County of Monterey

County of Monterey Government Center
1441 Schilling Place, Salinas, CA 93901
Via Teleconference/Zoom

Meeting Agenda - Final

Thursday, January 5, 2023
11:30 AM

Historic Resources Review Board

IMPORTANT NOTICE REGARDING COVID-19 AND PARTICIPATION IN THE HISTORIC RESOURCES REVIEW BOARD MEETING

County of Monterey Historic Resources Review Board will be held by teleconference in order to minimize the spread of the COVID-19 virus, in accordance with the State of Emergency proclaimed by Governor Newsom on March 4, 2020, Executive Order N-29-20 issued by Governor Newsom on March 17, 2020, and the Shelter in Place Order issued by the County of Monterey Health Officer on March 17, 2020, as may be periodically amended.

To participate in this County of Monterey Historic Resources Review Board meeting, the public are invited to observe and address the Board telephonically or electronically. Instructions for public participation are below:

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https://montereycty.zoom.us/j/93415405671?pwd=YnZpQXNndDU5TmdJSVJ0ZmcraWljUT09&from=addon

Participate via Phone: 1-669-900-6833

Meeting ID Access Code: 934 1540 5671

Password (if required): 594890

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Member of the public wishes to comment on a particular agenda item, the public is strongly encouraged to submit their comments in writing via email to the County Housing and Community Development at mailto:hrrbhearingcomments@co.monterey.ca.us by 2:00 p.m. on the Wednesday prior to the Board meeting. To assist County staff in identifying the agenda item to which the comment relates, the public is requested to indicate the Historic Resources Review Board date and agenda number in the subject line. Comments received by the 2:00 p.m. Wednesday deadline will be distributed to the Board and will be placed in the record.

Applicants and members of the public wishing to comment on a specific agenda item while the matter is being heard during the meeting may participate by any of the following means:
a. When the Chair calls for public comment on an agenda item, the Secretary of the Board or his or her designee will first ascertain who wants to testify (among those who are in the meeting electronically or telephonically) and will then call on speakers and unmute their device one at a time. Public speakers including the applicant may be broadcast in audio form only.

Members of the public who wish to make a general public comment for items not on the day's agenda may submit their comment via email, preferably limited to 250 words or less, to the Secretary of the Commission at hrrbhearingcomments@co.monterey.ca.us. The Historic Resources Review Board date and "general comment" should be indicated in the subject line. The comment will be placed in the record for the meeting, and every effort will be made to read the comment into the record at the appropriate time on the agenda.

Individuals with disabilities who desire to request a reasonable accommodation or modification to observe or participate in the meeting may make such request by sending an email to support staff at hrrbhearingcomments@co.monterey.ca.us . The request should be made no later than 2:00 p.m. on the Wednesday prior to the meeting date in order to provide time for the County to address the request.

INTERPRETATION SERVICE POLICY: The County of Monterey Historic Resources Review Board invites and encourages the participation of County of Monterey residents at its meetings. If you require the assistance of an interpreter, please contact the County of Monterey Housing and Community Development Department located in the County of Monterey Government Center, 1441 Schilling Place, 2nd Floor South, Salinas - or by phone at (831) 755-5025. The Clerk will make every effort to accommodate requests for interpreter assistance. Requests should be made as soon as possible, and at a minimum 24 hours in advance of any meeting of the Historic Resources Review Board.

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If requested, the agenda shall be made available in appropriate alternative formats to persons with a disability, as required by Section 202 of the Americans with Disabilities Act of 1990 (42 USC Sec. 12132) and the federal rules and regulations adopted in implementation thereof. For information regarding how, to whom and when a person with a disability who requires a modification or accommodation in order to participate in the public meeting may make a request for disability-related modification or accommodation including auxiliary aids or services or if you have any questions about any of the items listed on this agenda please call the County of Monterey Housing and Community Development at (831) 755-5025.

AVISO IMPORTANTE SOBRE COVID-19 Y PARTICIPACIÓN EN LA REUNIÓN DE LA JUNTA DE REVISIÓN DE RECURSOS HISTÓRICOS

La junta de revisión de recursos históricos (The Historic Resources Review Board) del Condado de Monterey se llevará a cabo por teleconferencia para minimizar la propagación del virus COVID-19, de acuerdo con el Estado de Emergencia proclamado por el Gobernador Newsom el 4 de marzo del 2020, Orden Ejecutiva N-29-20 emitida por el Gobernador Newsom el 17 de marzo del 2020, y la Orden de Refugio en el Lugar (aka "Quedate en Casa") emitida por el Oficial de Salud del Condado de Monterey el 17 de marzo del 2020, según se pueda enmendar periódicamente.

Para participar en esta junta de revisión de recursos históricos del Condado de Monterey, él público está invitado a observar y estar frente a la junta de revisión de recursos históricos telefónicamente o vía

electrónicamente. Las instrucciones para la participación pública están a continuación:

Instrucciones de participación pública:
La reunión se llevará a cabo por teleconferencia utilizando el programa Zoom, y los miembros de la junta de revisión de recursos históricos asistirán por vía electrónica o telefónica. La reunión no tendrá un lugar físico para asistir físicamente. El público puede observar la reunión Zoom a través de computadora haciendo clic en el siguiente enlace:

https://montereycty.zoom.us/j/93415405671?
pwd=YnZpQXNndDU5TmdJSVJ0ZmcraWljUT09&from=addon
Contraseña 594890, o el público puede escuchar a través del teléfono llamando al 1-669-900-6833 y cuando se le solicite el código de acceso para entrar a la reunión, presione los siguientes números: 934 1540 5671. Se le pedirá una "identificación de participante". No necesita una identificación de participante para unirse a la reunión, presione la tecla numeral (#) nuevamente y se conectará automáticamente.

1. Si un miembro del público desea comentar sobre un tema de la agenda en particular, se le recomenda que envie sus comentarios por escrito en correo electrónico a la Vivienda y Desarollo Comunitario del Condado (Housing and Community Development) a hrrbhearingcomments@co.monterey.ca.us antes de las 2:00 P.M. el miércoles antes de la junta de revisión de recursos históricos. Para ayudar al personal del Condado, favor de indetificar el numero del proyecto de la agenda con el cual se relaciona el comentario, se solicita al público que indique la fecha de la junta de revisión de recursos históricos y el número de la agenda en la línea de asunto cuando envie su correo electrónico. Comentarios recibidos despues de la fecha limite del miércoles a las 2 P.M. serán distribuidos a los miembros de la junta de revisión de recursos históricos y serán colocados en el registro.

2. Los aplicantes del proyecto y miembros del público que desean comentar en un proyecto específico, mientras que el proyecto se este presentando durante la reunión, pueden participar por cualquiera de los siguientes medios:

a. Cuando la junta de revisión de recursos históricos acepte comentarios públicos sobre un tema de la agenda, el miembro de la junta o su designado, primero determinará quién quiere commentar (entre los que están en la reunión por vía electrónica o telefónica) y luego llamará a los participantes y activará el microfono, uno a la vez. Todos los participantes, incluyendo el aplicante del projecto, serán transmitidos por audio en altavoz solamente.

b. Si los participantes u otros miembros del público tienen documentos que desean distribuir a los miembros de la junta de revisión de recursos históricos (Historic Resource Review Board) para un tema o proyecto de la agenda, se les recomienda enviar dichos documentos antes de las 2:00 P.M. el miércoles antes de la reunión a: hrrbhearingcomments@co.monterey.ca.us. Para ayudar al personal del Condado, favor de indetificar el numero del proyecto de la agenda con el cual se relaciona el comentario, se solicita al público que indique la fecha de la Junta de Revisión de Recursos Históricos y el número de la agenda en la línea de asunto cuando envie su correo electrónico.

c. Si los aplicantes o miembros del público desean presentar documentos o presentaciones de PowerPoint mientras hablan, deben enviar el documento electrónicamente antes de las 2:00 P.M. del miércoles antes de la

reunión a hrrbhearingcomments@co.monterey.ca.us.Si es recibido después de ese plazo, el personal hará los mejores esfuerzos, pero no puede garantizar que esté disponible su PowerPoint para presentar durante la reunión de la Junta de Revisión de Recursos Históricos.

d. Mientras se escucha el proyecto, un miembro del público puede enviar un comentario por correo electrónico, preferiblemente limitado a 250 palabras o menos, a la Secretaria de la junta de revisión de recursos históricos a hrrbhearingcomments@co.monterey.ca.us. Para ayudar al personal a identificar el proyecto de la agenda con el cual se relaciona el comentario, se solicita al público que indique la fecha de la junta de revisión de recursos históricos y el número del proyecto en la agenda en la línea de asunto. Si el comentario se recibe antes del cierre del comentario público, se hará todo lo posible para leer el comentario en el registro, pero algunos comentarios pueden no leerse en voz alta debido a limitaciones de tiempo o duración del comentario (si el comentario supera las 250 palabras). Los comentarios recibidos antes del cierre del período de comentarios públicos sobre un proyecto de la agenda serán parte del registro de ese proyecto.

3. Los miembros del público que deseen hacer un comentario público general para los temas que no están en la agenda del día pueden enviar su comentario por correo electrónico, preferiblemente limitado a 250 palabras o menos, a los miembros de la junta de revisión de recursos históricos en hrrbhearingcomments@co.monterey.ca.us. La fecha de la junta de revisión de recursos históricos y el "comentario general" debe ser indicado en la línea de asunto. El comentario se colocará en el registro de la reunión, y se hará un gran esfuerzo para leer el comentario en voz alta para su registro verbalmente en el momento apropiado de la agenda.

4. Las personas con discapacidades que deseen solicitar una modificación o modificación razonable para observar o participar en la reunión pueden realizar dicha solicitud enviando un correo electrónico a hrrbhearingcomments@co.monterey.ca.us. La solicitud debe hacerse a más tardar el mediodía del Martes antes de a la Junta de Revisión de Recursos Históricos para dar tiempo al Condado para que atienda la solicitud.

5. El president de la junta puede establecer reglas razonables según sea necesario para llevar a cabo la reunión de manera ordenada.

Los miembros de la Junta de Revisión de Recursos Históricos del Condado de Monterey invita y apoya la participación de los residentes del Condado de Monterey en sus reuniones. Si usted requiere la asistencia de un interprete, por favor comuníquese con el Departamento de Vivienda y Desarrollo Comunitario localizado en el Centro de Gobierno del Condado de Monterey, (County of Monterey Government Center), 1441 Schilling Place, Segundo Piso Sur, Salinas – o por teléfono al (831) 755-5025. La Asistente hará el esfuerzo para acomodar los pedidos de asistencia de un interprete. Los pedidos se deberán hacer lo mas pronto posible, y a lo mínimo 24 horas de anticipo para cualquier reunión de la Junta de Revisión de Recursos Históricos.

The Recommended Action indicates the staff recommendation at the time the agenda was prepared. That recommendation does not limit the Historic Resources Review Board's alternative actions on any matter before it.

NOTE: All agenda titles related to numbered items are live web links. Click on the title to be directed to corresponding Staff Report

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11:30 A.M. - CALL TO ORDER

ROLL CALL

John Scourkes (Chair)
Kellie Morgantini (Vice Chair)
Michael Bilich
Judy MacClelland
Sheila Lee Prader
Salvador Munoz
Belinda Taluban

PUBLIC COMMENT

The Historic Resources Review Board (HRRB) will receive public comment on non-agenda items within the purview of the HRRB. The Chair may limit the length of individual presentations.

AGENDA ADDITIONS, DELETIONS AND CORRECTIONS

The Board Clerk will announce agenda corrections, deletions and proposed additions, which may be acted on by the Historic Resources Review Board as provided in Sections 54954.2 of the California Government Code.

APPROVAL OF MINUTES

A. Approval of the December 1, 2022 HRRB draft meeting minutes.

Attachments: HRRB_Draft Meeting Minutes_120122

B. Approval of the December 15, 2022 HRRB draft meeting minutes.

Attachments: HRRB_Draft Meeting Minutes_121522

SCHEDULED MATTERS

1. **PLN100338 - SIGNAL HILL LLC**
   a. Provide a recommendation to the Planning Commission on the Signal Hill LLC project. **Project Location:** 1170 Signal Hill Road, Pebble Beach, CA 93953 Assessor's Parcel Number 008-261-007-000, Del Monte Forest Land Use Plan, Coastal Zone.

   Attachments: Staff Report
   Exhibit A - Draft HRRB Resolution recommending approval to the Planning Commission
   Exhibit B - Final EIR for the Signal hill LLC project

2. **PLN220090 - CALIFORNIA DEPARTMENT OF TRANSPORTATION (GARRAPATA CREEK BRIDGE)**
   Public hearing to consider a recommendation to the Monterey County Planning Commission on a Combined Development Permit to allow replacement of the bridge rails on the Garrapata Creek Bridge.
   Project Location: Garrapata Creek Bridge near post mile 63.0 on HWY 1, 35681 HWY 1, Carmel, CA 93923 (Assessor's Parcel Number 000-000-000-000 and 243-301-029-000), Big Sur Coast Land Use Plan.

   Attachments: Staff Report
   Exhibit A - Discussion
   Exhibit B - Project Plans
   Exhibit C - Draft Resolution of Approval
   Exhibit D - Draft Resolution of Denial
   Exhibit E - Caltrans Letter dated December 6 with Previous Staff Report
   Exhibit F - Historic Property Survey Report with Finding of Adverse Effect (LIB220303)
   Exhibit G - Tier I & II EIR
   Exhibit H - DRAFT Big Sur Land Use Advisory Committee (LUAC) Meeting Minutes
   Exhibit I - Supplemental Package with Attached Speed Study

OTHER MATTERS

None.

BOARD COMMENTS, REQUEST AND REFERRALS

This is a time set aside for members of the HRRB to comment, request, or refer a matter that is on or not on the agenda. At this time, members may also request that an item be added to a future HRRB agenda.

DEPARTMENT UPDATE

This is a time set aside for staff to give updates or comments on on-going projects, potential future projects, or HRRB meeting procedures.

ADJOURNMENT

For additional information, or if you are unable to attend the meeting, please contact Phil Angelo at (831) 784-5731. Should you have any questions regarding a specific project please contact the staff person or planner assigned to the project at (831) 755-5025.

NEXT REGULAR HRRB MEETING

February 2, 2023

County of Monterey

Board Report

Legistar File Number: MIN 22-128

Item No.A

Board of Supervisors
Chambers
168 W. Alisal St., 1st Floor
Salinas, CA 93901

January 05, 2023

Introduced: 12/19/2022
Version: 2

Current Status: Agenda Ready
Matter Type: Minutes

Approval of the December 1, 2022 HRRB draft meeting minutes.

County of Monterey

County of Monterey Government Center
1441 Schilling Place, Salinas, CA 93901
Via Teleconference/Zoom

Meeting Minutes - Draft

Thursday, December 1, 2022

11:30 AM

Historic Resources Review Board

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Kellie Morgantini (Vice Chair)
Michael Bilich
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2. Los aplicantes del proyecto y miembros del público que desean comentar en un proyecto específico, mientras que el proyecto se este presentando durante la reunión, pueden participar por cualquiera de los siguientes medios:

a. Cuando la junta de revisión de recursos históricos acepte comentarios públicos sobre un tema de la agenda, el miembro de la junta o su designado, primero determinará quién quiere commentar (entre los que están en la reunión por vía electrónica o telefónica) y luego llamará a los participantes y activará el microfono, uno a la vez. Todos los participantes, incluyendo el aplicante del projecto, serán transmitidos por audio en altavoz solamente.

b. Si los participantes u otros miembros del público tienen documentos que desean distribuir a los miembros de la junta de revisión de recursos históricos (Historic Resource Review Board) para un tema o proyecto de la agenda, se les recomienda enviar dichos documentos antes de las 2:00 P.M. el miércoles antes de la reunión a: hrrbhearingcomments@co.monterey.ca.us. Para ayudar al personal del Condado, favor de indetificar el numero del proyecto de la agenda con el cual se relaciona el comentario, se solicita al público que indique la fecha de la junta de revisión de recursos históricos y el número de la agenda en la línea de asunto cuando envie su correo electrónico.

c. Si los aplicantes o miembros del público desean presentar documentos o presentaciones de PowerPoint mientras hablan, deben enviar el documento electrónicamente antes de las 2:00 P.M. del miércoles antes de la

reunión a hrrbhearingcomments@co.monterey.ca.us. Si es recibido después de ese plazo, el personal hará los mejores esfuerzos, pero no puede garantizar que esté disponible su PowerPoint para presentar durante la reunión de la junta de revisión de recursos históricos.

d. Mientras se escucha el proyecto, un miembro del público puede enviar un comentario por correo electrónico, preferiblemente limitado a 250 palabras o menos, a la Secretaria de la junta de revisión de recursos históricos a hrrbhearingcomments@co.monterey.ca.us. Para ayudar al personal a identificar el proyecto de la agenda con el cual se relaciona el comentario, se solicita al público que indique la fecha de la junta de revisión de recursos históricos y el número del proyecto en la agenda en la línea de asunto. Si el comentario se recibe antes del cierre del comentario público, se hará todo lo posible para leer el comentario en el registro, pero algunos comentarios pueden no leerse en voz alta debido a limitaciones de tiempo o duración del comentario (si el comentario supera las 250 palabras). Los comentarios recibidos antes del cierre del período de comentarios públicos sobre un proyecto de la agenda serán parte del registro de ese proyecto.

3. Los miembros del público que deseen hacer un comentario público general para los temas que no están en la agenda del día pueden enviar su comentario por correo electrónico, preferiblemente limitado a 250 palabras o menos, a los miembros de la junta de revisión de recursos históricos en hrrbhearingcomments@co.monterey.ca.us. La fecha de la junta de revisión de recursos históricos y el "comentario general" debe ser indicado en la línea de asunto. El comentario se colocará en el registro de la reunión, y se hará un gran esfuerzo para leer el comentario en voz alta para su registro verbalmente en el momento apropiado de la agenda.

4. Las personas con discapacidades que deseen solicitar una modificación o modificación razonable para observar o participar en la reunión pueden realizar dicha solicitud enviando un correo electrónico a hrrbhearingcomments@co.monterey.ca.us. La solicitud debe hacerse a más tardar el mediodía del martes antes de a la junta de revisión de recursos históricos para dar tiempo al Condado para que atienda la solicitud.

5. El president de la junta puede establecer reglas razonables según sea necesario para llevar a cabo la reunión de manera ordenada.

Los miembros de la junta de revisión de recursos históricos del Condado de Monterey invita y apoya la participación de los residentes del Condado de Monterey en sus reuniones. Si usted requiere la asistencia de un interprete, por favor comuníquese con el Departamento de Vivienda y Desarrollo Comunitario localizado en el Centro de Gobierno del Condado de Monterey, (County of Monterey Government Center), 1441 Schilling Place, Segundo Piso Sur, Salinas – o por teléfono al (831) 755-5025. La asistente hará el esfuerzo para acomodar los pedidos de asistencia de un interprete. Los pedidos se deberán hacer lo mas pronto posible, y a lo mínimo 24 horas de anticipo para cualquier reunión de la junta de revisión de recursos históricos.

The Recommended Action indicates the staff recommendation at the time the agenda was prepared. That recommendation does not limit the Historic Resources Review Board's alternative actions on any matter before it.

NOTE: All agenda titles related to numbered items are live web links. Click on the title to be directed to corresponding Staff Report

Participate via Zoom Meeting Link:
https://montereycty.zoom.us/j/93415405671?pwd=YnZpQXNndDU5TmdJSVJ0ZmcraWljUT09&from=addon

Participate via Phone: 1-669-900-6833

Meeting ID Access Code: 934 1540 5671

Password (if required): 594890

11:30 A.M. - CALL TO ORDER

Chair John Scourkes called the meeting to order at 11:31 a.m.

ROLL CALL

Present: John Scourkes, Judy MacClelland (connected at 11:33 a.m.), Michael Bilich, Salvador Munoz, Belinda Taluban, Kellie Morgantini, Sheila Lee Prader (connected at 11:36 a.m.)

Absent: None

Staff: Phil Angelo (Secretary), Elizabeth Vasquez (Clerk)

Secretary, Phil Angelo, reviewed the Zoom meeting protocols.

Judy MacClelland joined the meeting at 11:33 a.m.

PUBLIC COMMENT

Cody Phillips inquired to the HRRB members if they had received the e-mail correspondence sent on behalf of Dale Ellis for staff to distribute and if the HRRB members would request to have the Signal Hill LLC/Mehdipour application placed on a future HRRB agenda. He informed the HRRB the item is scheduled for Planning Commission on December 7, 2022 and being continued to January 25, 2023 Planning Commission agenda.

Sheila Lee Prader joined the meeting at 11:36 a.m.

Chief of Planning for HCD, Craig Spencer, updated HRRB members that the Mehdipour application is not on today's HRRB agenda. Request for a continuance will be made to the Planning Commission on December 7, 2022, the request will be to continue it to January 25, 2023. Craig Spencer advised the HRRB there should not be a discussion about the project at this meeting, but can be mentioned during the 'Board Comments, Requests, and Referrals' section of the HRRB agenda.

AGENDA ADDITIONS, DELETIONS AND CORRECTIONS

Clerk Elizabeth Vasquez informed the members e-mail correspondence was received and distributed to HRRB members and the public for agenda item No. 1, PLN220090 – California Department of Transportation (Garrapata Creek Bridge)

APPROVAL OF MINUTES

A. Approval of the October 6, 2022 HRRB Draft Meeting Minutes.

Judy MacClelland mentioned a correction is needed to page 9 under 'Board Comments Requests and Referrals' first paragraph at the end of the second line there's a mention of an architect's name, whose last name was written incorrectly, should be written as Gretchen Flesher.

Salvador Munoz added he was present in the October 6, 2022 meeting and the Minutes show him as absent. Staff reviewed the Zoom video recording and at the time of rollcall Salvador had not yet joined the meeting and for that reason was marked absent. Zoom recording shows he joined the Zoom meeting at 11:42 a.m. The October 6, 2022 Meeting Minutes will be updated to reflect him joining the Zoom meeting at that time.

It was moved by Judy MacClelland and seconded by Salvador Munoz to approve the October 6, 2022 Meeting Minutes with the corrections indicated by Judy MacClelland and Salvador Munoz.

RESULT: Passed
MOVER: Judy MacClelland
SECONDER: Salvador Munoz
AYES: Judy MacClelland, John Scourkes, Salvador Munoz, Sheila Lee Prader, Michael Bilich, Kellie Morgantini
ABSTAIN: Belinda Taluban

B. Approval of the November 3, 2022 HRRB Draft Meeting Minutes.

Judy MacClelland mentioned a correction is needed to page 9 under 'Other Matters' 4th paragraph regarding the remodeled District Attorney building, in the sentence that states "Belinda Taluban believes there was coordination during the process because of the work done to the exterior was not allowed" needs to be more specific. Phil Angelo gave clarification that Belinda indicated there were some issue with work being done that was not allowed and it came back to the HRRB so it did have coordination and go through the process this clarification will be updated in the Minutes.

Judy MacClelland also added that on Page 10, under the section 'Board Comments, Requests, and Referrals' the second item, Chair Scourkes' comment regarding the trees on Boronda Road and Carmel Valley Road, the word 'road' needs to be added. As well as a grammar correction in the last paragraph of the same section regarding older buildings in the Moss Landing

area, the following sentence should be revised to say "There have not been many projects that have come before the HRRB" not 'came'.

It was moved by Judy MacClelland and seconded by Salvador Munoz that the HRRB approve the November 3, 2022 Meeting Minutes with the corrections indicated by Judy MacClelland.

RESULT: Passed
MOVER: Judy MacClelland
SECONDER: Salvador Munoz
AYES: Judy MacClelland, John Scourkes, Salvador Munoz, Sheila Lee Prader, Michael Bilich, Belinda Taluban, Kellie Morgantini

C. Approval of the November 17, 2022 HRRB Draft Meeting Minutes.

Sheila Lee Prader commented regarding the 'Scheduled Matters' section where it says Chair Scourkes opened public comment and only lists Mark Norris' name, not specifying as to what Mr. Norris' comment was. Judy MacClelland clarified that the Meeting Minutes do not typically summarize the comment made by the public speaker.

It was moved by Kellie Morgantini and seconded by Michael Bilich that the HRRB approve the November 17, 2022 Meeting Minutes. Update will be added to 'Public Comment' section on non-agenda items during the beginning of the meeting where it will show Mark Norris' name and reference that he will be making his comment during the scheduled item for that meeting. The summary of his comment will not be included, since the HRRB Meeting Minutes do not typically summarize what is said by each public speaker. Recording of each HRRB meeting is available.

RESULT: Passed
MOVER: Kellie Morgantini
SECONDER: Michael Bilich
AYES: Judy MacClelland, John Scourkes, Salvador Munoz, Sheila Lee Prader, Michael Bilich, Kellie Morgantini
ABSTAIN: Belinda Taluban

SCHEDULED MATTERS

1. PLN220090 - CALIFORNIA DEPARTMENT OF TRANSPORTATION (GARRAPATA CREEK BRIDGE)

Public hearing to consider a recommendation to the Monterey County Planning Commission on a Combined Development Permit to allow replacement of the bridge rails on the Garrapata Creek Bridge.

Project Location: Garrapata Creek Bridge near post mile 63.0 on HWY 1, 35681 HWY 1, Carmel, CA 93923 (Assessor's Parcel Number 000-000-000-000 and 243-301-029-000), Big Sur Coast Land Use Plan.

Phil Angelo, HCD Associate Planner, presented the item with a recommendation to the HRRB to continue the item to a date certain of January 5, 2023 with direction that the additional information requested in the staff report be provided.

Applicant: Mitch Dallas (California Department of Transportation), spoke to the HRRB members about the project and asked any questions be directed to County staff to be included in the January 5, 2023 presentation.

Chief of Planning, Craig Spencer, provided background information as to how the item was originally brought to the County of Monterey Housing and Community Development. Today's discussion is intended to identify any additional information that HRRB and staff may bring forward for the January 5, 2023 meeting.

Belinda Taluban would like clarification regarding the bike rail that goes across the top of the guardrail which some documents state will not be included in the project. She's wondering if that bike rail is going to be removed from all the bridges or would like to know why it's added if it will not be installed.

Kellie Morgantini wants to know if this item requires its own hearing in front of the Coastal Commission or only if it gets appealed to the Board of Supervisors and Coastal Commission? Phil confirmed it would only go before the Coastal Commission if it gets appealed.

John Scourkes asked if the bridge rails were not deteriorating would Caltrans still recommend replacing them?

Sheila Lee Prader commented that the openings are being reduced and it's the bottom beam that has been raised. Is there any way to reduce the height of the

bottom beam that would allow the openings to mimic the original design? Is the height of the bottom beam to redirect the cars onto the road instead of going over the edge? Will a re-design reduce the bottom beam so the openings are larger?

Kellie Morgantini commented there is not one single element, but the concern is on the complete view and design. Would like to know why it can't adhere more to the historic vision. Also, since the next regular scheduled HRRB meeting is on January 5, 2023, will staff propose or request a deadline for when Caltrans gives back the information? The HRRB members will need time to review. Phil mentioned that the information will be incorporated into the staff report.

Salvador Munoz mentioned that as a benchmark the HRRB approved the Moss Landing Bridge and approved because of the visual impact. He asked, can this be similar, so it maintains the historical look of the bridge? Chair Scourkes, commented that this goes back to the speed limit issue. Caltrans is referencing 55 mph speed limit. There is an approved rail, but it's based on a lesser speed limit.

Michael Bilich would like clarification from Caltrans as to why it's not possible to slow the speed limit down to 45 mph at the bridges?

Belinda Taluban commented that Caltrans only documented one bridge on one day. Pointed out that driving across the Bixby Bridge at 45 mph would become a potential accident. She pointed out that you'd have to make almost a 90 degree turn when heading Southbound. If headed Northbound, you'd have to hug the hillside before you enter the Bixby Bridge.

Chair Scourkes opened public comment: Ken Ekelund (Big Sur resident), Christina McGinnis (Keep Bixby Wild non profit), David Smiley, Marcus Foster (Big Sur resident), Martha Diehl (Big Sur resident and Chair of Big Sur Byways Organization), Tim (Big Sur resident, no last name provided)

Chair Scourkes closed public comment.

Kellie Morgantini would like to have a serious review as to why the speed can not be reduced in these areas to result in less of an engineering redesign. Also, would like to know where in the legislation that it says it has to have this certain number of elements and why they can not be addressed in a more historical fashion and showing why you cannot make the same kind of design that exists now and still make it a safe bridge. She added, it can be safe and

historical looking; it can be safe and also require people to slow down.

Kellie Morgantini would like to know if Caltrans' deadline for the grant is passed and can not meet the deadline for the approval that they need and funding goes away then will nothing be done? Will there be some other kind of action taken?

Chair Scourkes called on Craig Spencer for help answering Kellie's question.

Craig Spencer said Caltrans would probably have to find other ways of managing traffic along the bridges to preserve their safety.

Carla Yu, spoke on behalf of the funding, saying there is a leeway after the June 21st deadline. A few months after that leeway, by December, Caltrans needs to ask for a time extension from the CTC to hold the funding to be able to send it at a later year.

It was moved by Kellie Morgantini and seconded by Salvador Munoz that the HRRB continue the hearing on the project to a date certain of January 5, 2023, with the request that the questions and discussions on the issue be taken into consideration by Caltrans and the information be summitted to Caltrans by County staff.

RESULT: Passed
MOVER: Kellie Morgantini
SECONDER: Salvador Munoz
AYES: Judy MacClelland, John Scourkes, Salvador Munoz, Sheila Lee Prader, Michael Bilich, Belinda Taluban, Kellie Morgantini

Belinda Taluban announced to the Chair she will be leaving this meeting early at 12:50 p.m.

2. **Consider finding, pursuant to AB 361 and in order for the Historic Resources Review Board to continue meeting remotely, that the COVID-19 pandemic state of emergency declared by Governor Newsom is still in effect until February 27, 2023; the Historic Resources Review Board has reconsidered the circumstances; and the Monterey County Health Officer continues to recommend social distancing measures for meetings of the legislative bodies.**

If accepted, it is recommended the HRRB consider scheduling a Special Meeting prior to December 30, 2022 to adhere to the 30-day timeframe of AB 361 to continue meeting remotely on the next regular HRRB meeting scheduled for January 5, 2023.

It was moved by Salvador Munoz and seconded by Michael Bilich to approve the continuation to hold the HRRB meetings electronically, valid for the next

30 days, due to the health and safety given the status of COVID-19.

HRRB members agreed to meet on December 15, 2022 at 11:30 a.m. for a special meeting to adopt AB 361 to continue to hold a remote meeting on January 5, 2023.

RESULT: Passed
MOVER: Salvador Munoz
SECONDER: Michael Bilich
AYES: Judy MacClelland, John Scourkes, Salvador Munoz, Sheila Lee Prader, Michael Bilich, Kellie Morgantini
ABSENT: Belinda Taluban

Craig Spencer notified the HRRB that the Governor's Emergency Declaration is set to expire in February of 2023 which will affect the ability to meet remotely. This means committee and board members will need to attend meetings in-person beginning March 2023. HCD is waiting for clarification from County Counsel on the matter.

3. **Review and approval of 2023 HRRB meeting dates.**
The Historic Resources Review Board is recommended to review the proposed meeting dates for the year 2023.

It was moved by Judy MacClelland and seconded by Salvador Munoz to approve the 2023 HRRB meeting dates as listed.

RESULT: Passed
MOVER: Judy MacClelland
SECONDER: Salvador Munoz
AYES: Judy MacClelland, John Scourkes, Salvador Munoz, Sheila Lee Prader, Michael Bilich, Kellie Morgantini
ABSENT: Belinda Taluban

4. **Nomination & appointment of HRRB officers for 2023.**
The Historic Resources Review Board shall elect from its members a chair and vice-chair to serve in such capacities for a term of one year.

Chair Scourkes nominated a sub-committee to include Judy MacClelland and Salvador Munoz. Judy MacClelland nominated John Scourkes as Chair and Kellie Morgantini as Vice-Chair

RESULT: Passed
MOVER: Judy MacClelland
SECONDER: Salvador Munoz
AYES: Judy MacClelland, John Scourkes, Salvador Munoz, Sheila Lee

Prader, Michael Bilich, Kellie Morgantini
ABSENT: Belinda Taluban

OTHER MATTERS

None.

BOARD COMMENTS, REQUEST AND REFERRALS

Chair Scourkes, requests that the Signal Hill LLC/Mehdipour item be agendized and brought back to the HRRB for review and recommendation to the Planning Commission during the next regular HRRB meeting on January 5, 2023.

Mary Israel, project planner, spoke to the HRRB on how the project was agendized at the previous HRRB meeting. Confirmed that staff does have a continuance memo for the December 7, 2022 Planning Commission hearing.

Dale Ellis, spoke on the topic of Signal Hill, but the Chair asked he does not comment on the project itself. It was expressed that he felt appropriate to bring it to the HRRB's attention that this project was starting its hearing process and he'd like to hear what the HRRBs would like the outcome of this application to be.

Kellie Morgantini would like a recommendation or at least an acknowledgement of the process of the statement of destruction by neglect.

Salvador Munoz would like clarification in the next meeting regarding the future plans for the open space property in Salinas located on Church and Gabilan Street. Phil Angelo suggested Public Works would be able to give Mr. Munoz information.

Chair Scourkes would like update of code violation on the Boronda trees. Phil will reach out to code enforcement officer to provide update at the next regular meeting.

Chair Scourkes would like update on the Old hospital property that came before the HRRB years ago, the demo began and stalled out. Chair Scourkes will send the property address to Phil for investigation.

Mary Israel, would like clarification on what the Signal Hill LLC resolution should be about so she can prepare for the next meeting. Craig and Phil suggested the resolution reflect what staff's recommendation is so that the HRRB can adopt a formal resolution regarding the project.

DEPARTMENT UPDATE

3 Mills Act applications that the HRRB considered will be going before the Board of Supervisors for final Board action on, December 5, 2022.

ADJOURNMENT

Meeting was adjourned by Chair Scourkes at 1:16 p.m.

NEXT REGULAR HRRB MEETING

January 5, 2023

County of Monterey

Board Report

Legistar File Number: MIN 22-129

Item No.B

Board of Supervisors
Chambers
168 W. Alisal St., 1st Floor
Salinas, CA 93901

January 05, 2023

Introduced: 12/19/2022
Version: 1

Current Status: Agenda Ready
Matter Type: Minutes

Approval of the December 15, 2022 HRRB draft meeting minutes.

County of Monterey

County of Monterey Government Center
1441 Schilling Place, Salinas, CA 93901
Via Teleconference/Zoom

Meeting Minutes - Draft

SPECIAL MEETING

Thursday, December 15, 2022

11:30 AM

Historic Resources Review Board

John Scourkes (Chair)
Kellie Morgantini (Vice Chair)
Michael Bilich
Judy MacClelland
Sheila Lee Prader
Salvador Munoz
Belinda Taluban

IMPORTANT NOTICE REGARDING COVID-19 AND PARTICIPATION IN THE HISTORIC RESOURCES REVIEW BOARD MEETING

County of Monterey Historic Resources Review Board will be held by teleconference in order to minimize the spread of the COVID-19 virus, in accordance with the State of Emergency proclaimed by Governor Newsom on March 4, 2020, Executive Order N-29-20 issued by Governor Newsom on March 17, 2020, and the Shelter in Place Order issued by the County of Monterey Health Officer on March 17, 2020, as may be periodically amended.

To participate in this County of Monterey Historic Resources Review Board meeting, the public are invited to observe and address the Board telephonically or electronically. Instructions for public participation are below:

Participate via Zoom Meeting Link: https://montereycty.zoom.us/j/93415405671?pwd=YnZpQXNndDU5TmdJSVJ0ZmcraWljUT09&from=addon

Participate via Phone: 1-669-900-6833

Meeting ID Access Code: 934 1540 5671

Password (if required): 594890

Public Participation Instructions:

The meeting will be conducted via teleconference using the Zoom program, and Board Members will attend electronically or telephonically. The meeting will have no physical location to physically attend. The public may observe the Zoom meeting via computer by clicking on the meeting link listed above, or the public may listen via phone by dialing the phone number listed above and then when prompted, entering the Meeting ID Access Code listed above as well. You will be asked for a “Participant ID”. You do not need a Participant ID to join the meeting, press the pound key (#) again and you will be automatically connected.

Member of the public wishes to comment on a particular agenda item, the public is strongly encouraged to submit their comments in writing via email to the County Housing and Community Development at mailto:hrrbhearingcomments@co.monterey.ca.us by 2:00 p.m. on the Wednesday prior to the Board meeting. To assist County staff in identifying the agenda item to which the comment relates, the public is requested to indicate the Historic Resources Review Board date and agenda number in the subject line. Comments received by the 2:00 p.m. Wednesday deadline will be distributed to the Board and will be placed in the record.

Applicants and members of the public wishing to comment on a specific agenda item while the matter is being heard during the meeting may participate by any of the following means:
a. When the Chair calls for public comment on an agenda item, the Secretary of the Board or his or her designee will first ascertain who wants to testify (among those who are in the meeting electronically or telephonically) and will then call on speakers and unmute their device one at a time. Public speakers including the applicant may be broadcast in audio form only.

Members of the public who wish to make a general public comment for items not on the day's agenda may submit their comment via email, preferably limited to 250 words or less, to the Secretary of the Commission at hrrbhearingcomments@co.monterey.ca.us. The Historic Resources Review Board date and "general comment" should be indicated in the subject line. The comment will be placed in the record for the meeting, and every effort will be made to read the comment into the record at the appropriate time on the agenda.

Individuals with disabilities who desire to request a reasonable accommodation or modification to observe or participate in the meeting may make such request by sending an email to support staff at hrrbhearingcomments@co.monterey.ca.us . The request should be made no later than 2:00 p.m. on the Wednesday prior to the meeting date in order to provide time for the County to address the request.

INTERPRETATION SERVICE POLICY: The County of Monterey Historic Resources Review Board invites and encourages the participation of County of Monterey residents at its meetings. If you require the assistance of an interpreter, please contact the County of Monterey Housing and Community Development Department located in the County of Monterey Government Center, 1441 Schilling Place, 2nd Floor South, Salinas - or by phone at (831) 755-5025. The Clerk will make every effort to accommodate requests for interpreter assistance. Requests should be made as soon as possible, and at a minimum 24 hours in advance of any meeting of the Historic Resources Review Board.

DOCUMENT DISTRIBUTION: Documents relating to agenda items that are distributed to the Board less than 72 hours prior to the meeting are available by request by sending an email to hrrbhearingcomments@co.monterey.ca.us

If requested, the agenda shall be made available in appropriate alternative formats to persons with a disability, as required by Section 202 of the Americans with Disabilities Act of 1990 (42 USC Sec. 12132) and the federal rules and regulations adopted in implementation thereof. For information regarding how, to whom and when a person with a disability who requires a modification or accommodation in order to participate in the public meeting may make a request for disability-related modification or accommodation including auxiliary aids or services or if you have any questions about any of the items listed on this agenda please call the County of Monterey Housing and Community Development at (831) 755-5025.

AVISO IMPORTANTE SOBRE COVID-19 Y PARTICIPACIÓN EN LA REUNIÓN DE LA JUNTA DE REVISIÓN DE RECURSOS HISTÓRICOS

La junta de revisión de recursos históricos (The Historic Resources Review Board) del Condado de Monterey se llevará a cabo por teleconferencia para minimizar la propagación del virus COVID-19, de acuerdo con el Estado de Emergencia proclamado por el Gobernador Newsom el 4 de Marzo del 2020, Orden Ejecutiva N-29-20 emitida por el Gobernador Newsom el 17 de Marzo del 2020, y la Orden de Refugio en el Lugar (aka "Quedate en Casa") emitida por el Oficial de Salud del Condado de Monterey el 17 de Marzo del 2020, según se pueda enmendar periódicamente.

Para participar en esta junta de revisión de recursos históricos del Condado de Monterey, él público está invitado a observar y estar frente a la junta de revisión de recursos históricos telefónicamente o vía electrónicamente. Las instrucciones para la participación pública están a continuación:

Instrucciones de participación pública:
La reunión se llevará a cabo por teleconferencia utilizando el programa Zoom, y los miembros de la junta de revisión de recursos históricos asistirán por vía electrónica o telefónica. La reunión no tendrá un lugar físico para asistir físicamente. El público puede observar la reunión Zoom a través de computadora haciendo clic en el siguiente enlace:

https://montereycty.zoom.us/j/93415405671?
pwd=YnZpQXNndDU5TmdJSVJ0ZmcraWljUT09&from=addon
Contraseña 594890, o el público puede escuchar a través del teléfono llamando al 1-669-900-6833 y cuando se le solicite el código de acceso para entrar a la reunión, presione los siguientes números: 934 1540 5671. Se le pedirá una "identificación de participante". No necesita una identificación de participante para unirse a la reunión, presione la tecla numeral (#) nuevamente y se conectará automáticamente.

1. Si un miembro del público desea comentar sobre un tema de la agenda en particular, se le recomienda que envie sus comentarios por escrito en correo electrónico a la Vivienda y Desarollo Comunitario del Condado (Housing and Community Development) a hrrbhearingcomments@co.monterey.ca.us antes de las 2:00 P.M. el Miércoles antes de la junta de revisión de recursos históricos. Para ayudar al personal del Condado, favor de indetificar el numero del proyecto de la agenda con el cual se relaciona el comentario, se solicita al público que indique la fecha de la junta de revisión de recursos históricos y el número de la agenda en la línea de asunto cuando envie su correo electrónico. Comentarios recibidos despues de la fecha limite del Miercoles a las 2 P.M. serán distribuidos a los miembros de la junta de revisión de recursos históricos y serán colocados en el registro.

2. Los aplicantes del proyecto y miembros del público que desean comentar en un proyecto específico, mientras que el proyecto se este presentando durante la reunión, pueden participar por cualquiera de los siguientes medios:

a. Cuando la junta de revisión de recursos históricos acepte comentarios públicos sobre un tema de la agenda, el miembro de la junta o su designado, primero determinará quién quiere commentar (entre los que están en la reunión por vía electrónica o telefónica) y luego llamará a los participantes y activará el microfono, uno a la vez. Todos los participantes, incluyendo el aplicante del projecto, serán transmitidos por audio en altavoz solamente.

b. Si los participantes u otros miembros del público tienen documentos que desean distribuir a los miembros de la junta de revisión de recursos históricos (Historic Resource Review Board) para un tema o proyecto de la agenda, se les recomienda enviar dichos documentos antes de las 2:00 P.M. el Miercoles antes de la reunión a: hrrbhearingcomments@co.monterey.ca.us. Para ayudar al personal del Condado, favor de indetificar el numero del proyecto de la agenda con el cual se relaciona el comentario, se solicita al público que indique la fecha de la junta de revisión de recursos históricos y el número de la agenda en la línea de asunto cuando envie su correo electrónico.

c. Si los aplicantes o miembros del público desean presentar documentos o presentaciones de PowerPoint mientras hablan, deben enviar el documento electrónicamente antes de las 2:00 P.M. del Miercoles antes de la reunión a hrrbhearingcomments@co.monterey.ca.us.Si es recibido después de ese plazo, el personal hará los

mejores esfuerzos, pero no puede garantizar que esté disponible su PowerPoint para presentar durante la reunión de la junta de revisión de recursos históricos.

d. Mientras se escucha el proyecto, un miembro del público puede enviar un comentario por correo electrónico, preferiblemente limitado a 250 palabras o menos, a la Secretaria de la junta de revisión de recursos históricos a hrrbhearingcomments@co.monterey.ca.us. Para ayudar al personal a identificar el proyecto de la agenda con el cual se relaciona el comentario, se solicita al público que indique la fecha de la junta de revisión de recursos históricos y el número del proyecto en la agenda en la línea de asunto. Si el comentario se recibe antes del cierre del comentario público, se hará todo lo posible para leer el comentario en el registro, pero algunos comentarios pueden no leerse en voz alta debido a limitaciones de tiempo o duración del comentario (si el comentario supera las 250 palabras). Los comentarios recibidos antes del cierre del período de comentarios públicos sobre un proyecto de la agenda serán parte del registro de ese proyecto.

3. Los miembros del público que deseen hacer un comentario público general para los temas que no están en la agenda del día pueden enviar su comentario por correo electrónico, preferiblemente limitado a 250 palabras o menos, a los miembros de la junta de revisión de recursos históricos en hrrbhearingcomments@co.monterey.ca.us. La fecha de la junta de revisión de recursos históricos y el "comentario general" debe ser indicado en la línea de asunto. El comentario se colocará en el registro de la reunión, y se hará un gran esfuerzo para leer el comentario en voz alta para su registro verbalmente en el momento apropiado de la agenda.

4. Las personas con discapacidades que deseen solicitar una modificación o modificación razonable para observar o participar en la reunión pueden realizar dicha solicitud enviando un correo electrónico a hrrbhearingcomments@co.monterey.ca.us. La solicitud debe hacerse a más tardar el mediodía del Martes antes de a la junta de revisión de recursos históricos para dar tiempo al Condado para que atienda la solicitud .

5. El president de la junta puede establecer reglas razonables según sea necesario para llevar a cabo la reunión de manera ordenada.

Los miembros de la junta de revisión de recursos históricos del Condado de Monterey invita y apoya la participación de los residentes del Condado de Monterey en sus reuniones. Si usted requiere la asistencia de un interprete, por favor comuníquese con el Departamento de Vivienda y Desarrollo Comunitario localizado en el Centro de Gobierno del Condado de Monterey, (County of Monterey Government Center), 1441 Schilling Place, Segundo Piso Sur, Salinas – o por teléfono al (831) 755-5025. La Asistente hará el esfuerzo para acomodar los pedidos de asistencia de un interprete. Los pedidos se deberán hacer lo mas pronto posible, y a lo mínimo 24 horas de anticipo para cualquier reunión de la junta de revisión de recursos históricos.

The Recommended Action indicates the staff recommendation at the time the agenda was prepared. That recommendation does not limit the Historic Resources Review Board's alternative actions on any matter before it.

NOTE: All agenda titles related to numbered items are live web links. Click on the title to be directed to corresponding Staff Report

Participate via Zoom Meeting Link:
https://montereycty.zoom.us/j/93415405671?pwd=YnZpQXNndDU5TmdJSVJ0ZmcraWljUT09&from=addon

Participate via Phone: 1-669-900-6833

Meeting ID Access Code: 934 1540 5671

Password (if required): 594890

11:30 A.M. - CALL TO ORDER

Vice Chair Kellie Morgantini called the meeting to order at 11:31 a.m.

ROLL CALL

Present: Michael Bilich, Salvador Munoz, Belinda Taluban, Kellie Morgantini, Sheila Lee Prader, Judy MacClelland

Absent: John Scourkes

Staff: Phil Angelo (Secretary), Elizabeth Vasquez (Clerk)

Secretary, Phil Angelo, reviewed the Zoom meeting protocols.

PUBLIC COMMENT

None.

Vice Chair Morgantini checked in with Dale Ellis to ask if he had a comment on a non-agenda item. Mr. Ellis did not have a comment at this time he just wanted to listen in on today's meeting.

AGENDA ADDITIONS, DELETIONS AND CORRECTIONS

None.

APPROVAL OF MINUTES

None.

SCHEDULED MATTERS

1. Consider finding, pursuant to AB361 and in order for the Historic Resources Review Board to continue meeting remotely, that the COVID-19 pandemic state of emergency declared by Governor Newsom is still in effect; the Historic Resources Review Board has reconsidered the circumstances of the state of emergency; and the Monterey County Health Officer continues to recommend social distancing measures for meetings of the legislative bodies.

Acceptance of finding will adhere to the 30-day timeframe of AB361 to continue remote meetings.

It was moved by Judy MacClelland and seconded by Salvador Munoz to approve the continuation to hold the HRRB meetings electronically, valid for the next 30 days, due to the health and safety given the status of COVID-19.

RESULT: Passed
MOVER: Judy MacClelland
SECONDER: Salvador Munoz
AYES: Judy MacClelland, Salvador Munoz, Sheila Lee Prader, Michael Bilich, Kellie Morgantini, Belinda Taluban

ABSENT: John Scourkes

OTHER MATTERS

None.

BOARD COMMENTS, REQUEST AND REFERRALS

Belinda Taluban asked if Mehdipour was going to be coming before the HRRB in January. Sheila Lee Prader asked the same question. Secretary Angelo confirmed the item will be on the January 5, 2023 agenda.

Vice Chair Morgantini re-opened public comment.

Dale Ellis, inquired about the date the staff report for Mehdipour would be available. Secretary Angelo confirmed the distribution date as December 22, 2022.

DEPARTMENT UPDATE

Secretary, Phil Angelo gave the HRRB members a brief update on the ending of AB 361. Beginning in March 2023, HRRB members will be required to assist the meetings in person. Clarification regarding the requirements will come from County Counsel and staff will provide this information to the Board once received.

ADJOURNMENT

Meeting was adjourned by Vice Chair Morgantini at 11:43 a.m.

NEXT REGULAR MEETING

January 5, 2023

Introduced: 12/22/2022
Version: 1

Current Status: Agenda Ready
Matter Type: General Agenda Item

PLN100338 - SIGNAL HILL LLC

a. Provide a recommendation to the Planning Commission on the Signal Hill LLC project. **Project Location:** 1170 Signal Hill Road, Pebble Beach, CA 93953 Assessor's Parcel Number 008-261-007-000, Del Monte Forest Land Use Plan, Coastal Zone.

RECOMMENDATION:

Staff recommends that the Monterey County Historic Resources Review Board provide a recommendation to the Planning Commission on the Signal Hill LLC project.

BACKGROUND/DISCUSSION:

Background: The Signal Hill LLC includes a proposal to demolish an existing dwelling and construct a new dwelling at 1770 Signal Hill Road in Pebble Bach. On August 4, 2011, the Historic Resources Review Board (HRRB) was informed of the request and asked to make a recommendation on the qualification of the existing house (the one proposed for demolition) as an historic resource. After review, the HRRB recommended that the residence, designed by Richard Neutra for Arthur and Kathleen Connell, appeared to be significant under Criterion 3 of the California Register of Historical Resources. The structure was later nominated for eligibility on the National Register of Historic Places and found eligible for listing.

The Signal Hill LLC application was deemed complete by the County in August of 2013. After determining the permit application complete, staff determined that an Environmental Impact Report (EIR) was required pursuant to the California Environmental Quality Act (CEQA) and a Notice of Preparation (NOP) of an EIR was released in February of 2015. A Draft EIR was prepared for the project and circulated for public review in 2018. Many comments were received on the Draft EIR during the comment period. Staff reviewed all the comments and responded to those comments in a Final EIR. The Final EIR was circulated in November, 2022, including via email to all HRRB members.

The HRRB also reviewed the project in August and September of 2015, after vandalism resulted in significant damage to the existing house. In mid-September of 2015, the HRRB approved Resolution No. 15CP01861 (Signal Hill, LLC) recommending that the Monterey County Building official approve a Mothball Protection Plan for a single-family dwelling. The Mothball plan addressed temporary structure stabilization and weatherization with the goal of retarding deteriorating conditions while the permit application is under consideration. Measures in the "Mothball" Protective Plan were carried out although the County required some corrective actions and maintenance of the Mothball measures since their installation. Despite the Mothball plan, the structure remains unhabitable and substandard, as

determined by the Chief of Building.

Updates on the Signal Hill LLC project status and Mothball Plan were considered by the HRRB in May and July of 2022. Most recently, on December 1, 2022, the HRRB requested that the project be added to the January 5, 2023 regular meeting agenda of the HRRB for a review and recommendation on this project. This Memorandum has been prepared for the January 5, 2023 meeting of the HRRB.

Discussion:
The Signal Hill LLC project proposes demolition of a 4,124 square foot single family residence and the construction of a new three level 11,933 square foot single family. A number of entitlements and resource impacts associated with the proposed development that have been identified and evaluated during review, but for the purposes of HRRB review, this memo focuses on impacts to the historic resource.

The Signal Hill LLC application was submitted in 2010, and at the time, it was not known to the property owner that the existing residence would be considered historic. The historic determination was made in 2011. After learning of the historic determination, the property owner did not desire to change their proposal and staff required the preparation of an EIR for the project which includes the demolition of a historic resource (the Connell house). An EIR was required for the project and the EIR determined that the demolition of the Connell house constitutes a significant impact on the environment. After the determination to prepare an EIR but before the preparation of the Final EIR, the existing house has been the subject of controversy surrounding an incident of vandalism and a general lack of maintenance. Without passing judgement for past incidences, today the Connell house is in a condition that is difficult to repair and unsafe for occupancy.

Given the history of this application and the current condition of the property, staff suggests that the Connell house has lost historic integrity and believes it is unlikely to regain that integrity. The Connell House has been significantly damaged and is in an advanced state of decay. The damage to supporting walls, the decay to nearly all aspects of the home (e.g. mold, broken windows and non-functioning HVAC system) are not easily fixed or repaired. Restoration or rehabilitation of the structure would likely include demolition of significant portions of the home and some replication of historic elements of the home in reconstruction. Conversely, granting the demolition permit will actually address hazardous and unsafe conditions with the existing structure while also aligning with the desires and objectives of the property owner.

As the demolition of the Connell house represents a significant and unavoidable impact on the environment, the proposed project, including demolition of the Connell House, can only be approved with a “Statement of Overriding Considerations” and the implementation of mitigation measures that minimize the historic impacts to the extent feasible. The EIR included two mitigation measures for Historic Resources which would mitigate for the demolition of the dwelling, albeit such mitigation would not lessen impacts to a *less-than-significant* level. The two suggested mitigation measures are:

1. Documentation and recordation of the historic structure following the Historic American Buildings Survey guidelines; and
2. Development of web-based information documenting the history and features of the Connell

House

These two mitigation measures were also presented to the HRRB in May 2022.

Alternatives to Demolition:
There are several project alternatives considered in the EIR prepared for the project. Some of the alternatives were eliminated from further consideration in the EIR because: they were found to be infeasible, did not reduce impacts, or they had other conflicts with adopted regulations (Alternatives 2, 3, 5, 7, and 8). Feasible alternatives (1, 4, 6, 9, and 10) include:

"Preservation" (Alternative 1)
"Project Integration" (Alternative 4)
"Reduced Project" (Alternative 6)
"Reduced Height" (Alternative 9) and
"No project" (Alternative 10)

The three Alternatives that avoid complete demolition of the Connell House are "Preservation," "Project Integration," and "No Project." The "No Project alternative would leave the Connell House in its current condition with no work performed. Due to the condition of the existing structure, the No Project alternative is not desirable. The following discussion describes the other two Alternatives ("Preservation" and "Project Integration") followed by staff's analysis of to those alternatives.

Alternative 1 - Preservation:
The project's Draft EIR presented the environmentally superior alternative to be onsite "Preservation" (Alternative 1). The "Preservation" alternative is described in the Chapter 9 of the FEIR, starting on page 9.1-4. Preservation would actually involve treatment for the Connell House with a combination of the four standards described in the Secretary of the Interior's Standards for the Treatment of Historic Properties (Preservation, Restoration, Reconstruction, and Rehabilitation), with restoration being the most closely followed. Restoration would involve retaining extant design elements, accommodating reconstruction of important missing elements, bringing the building up to code, and allowing it, when restored, to convey its significance as a Neutra-designed residence.

The Secretary of the Interior's Standards state that when the property's design, architectural, or historical significance during a particular period of time outweighs the potential loss of extant materials, features, spaces, and finishes that characterize other historical periods, when there is substantial physical and documentary evidence for the work; and when contemporary alterations and additions are not planned, restoration may be considered as treatment. The Preservation alternative proposes retaining some original elements and replacing others in accordance with the Secretary of the Interior's standards. Specifically, some of the original materials can be incorporated into the reconstruction, including most portions of the foundation system, the lower-level floor slab, most of the exterior stucco walls at the lower level and some at the upper level, structural roof framing, remining original window frames, masonry fireplace, and first floor framing in the north wing. Reconstruction would require either removal or shoring of those elements in place, and other identified elements would be replaced with new materials.

Alternative 4 - Project Integration:
This alternative would include integration of the Connell House into the proposed project. The structure (or portions of the structure) would be retained and integrated into the design of the new construction in accordance with the Secretary of the Interior's Standards for the Treatment of Historic Properties. This alternative would necessitate the following:

- Documentation of primary and secondary character-defining elevations, spaces, and features in order to identify opportunities and constraints for additions and expanded living space, and
- Participation at conceptual, schematic, and design development phases of a qualified architectural historian and/or historic architect.

This alternative could include full or partial project integration. Full integration could include, for example, adding on to the existing structure, adding additional full or partial floors or levels, supplementing additional living space by enclosing the courtyard or outside patio areas, or developing a separate addition to the structure connected by a breezeway or stairs.

Partial integration could include, for example, preserving/reconstructing components in the western, most visible elevation, including the prominent bands of fenestration on the first and second stories, the ground-level terrace, second-level balcony, characteristic roofline, and juxtaposition of transparent and opaque surfaces while all or a portion of the remaining components would be demolished to facilitate construction of the new residence. Other character-defining features of the residence could be preserved, such as the north entry or the exterior façade, while interior portions of the structure would be renovated and remodeled. No specific plans for this alternative are currently available.

Staff's Analysis of Alternatives:
The house is currently uninhabitable and has been deemed hazardous by the Building Official. The current condition of the home makes it difficult to restore or preserve its historic significance because substantial repairs and partial reconstruction would be required that would entail an effort comparable to reconstruction. This situation, combined with the applicants' desires and objectives for the property, make for complicated legal, social, economic, and technical considerations in deciding how to carry out this project. Staff suggests that while the "Preservation" alternative in the EIR appears on to be the least environmentally damaging option, the property owner has clearly expressed that they will not actually implement this alternative. They have also indicated that they will not pursue the "Project Integration" alternative. This means that should a project be approved that does not involve demolition of the existing structure; it is possible that the near-term outcome would be similar to the "No Project" alternative which would include continuation of a hazardous structure in a state of disrepair. Potential long-term impacts are difficult to predict.

From a legal perspective, denial of the proposed rebuild, and approval of a project alternative that does not include demolition of the existing structure, will also likely lead to lawsuits from the property owner (See letters form Pacific Legal and the Applicant in Chapter 9 of Exhibit D).

The current proposal includes restoration of 1.62 acres of native sand dune habitat on the site in addition to a financial contribution to a mitigation program that is applied to offsite sand dune habitat mitigation. Sand Dune habitat restoration is desirable for biological conditions and is not likely to occur

should the applicant's proposal be denied in favor of a preservation or restoration alternative.

Based on the above considerations, potential social, economic, technical, and legal considerations surrounding this particular development include:

- The current condition of the property
- Objectives and investment backed expectations of the property owner
- Native sand dune habitat restoration
- Consistency with the treatment of similarly situated properties in the vicinity
- Threat of litigation
- Cost of Preservation or Project Integration alternatives
- Property tax revenue for government services

CEQA
An Environmental Impact Report (EIR) has been prepared for the project. As a recommending body, the HRRB must consider the EIR before forwarding and recommendation on the project to the Planning Commission.

Prepared by: Mary Israel, Supervising Planner
Approved by: Craig Spencer, Chief of Planning

The following attachments are on file with Housing and Community Development:

- Exhibit A - Draft HRRB Resolution recommending approval to the Planning Commission (Alternative 9, Reduced Height of the EIR)
- Exhibit B - Final EIR for the Signal Hill LLC project (*provided electronically via link below*)

  The Final EIR can be found on the Monterey County HCD website at: www.co.monterey.ca.us/home/showpublisheddocument/117619/638036931819800000

Introduced: 12/22/2022
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- Property tax revenue for government services

CEQA
An Environmental Impact Report (EIR) has been prepared for the project. As a recommending body, the HRRB must consider the EIR before forwarding and recommendation on the project to the Planning Commission.

Prepared by: Mary Israel, Supervising Planner
Approved by: Craig Spencer, Chief of Planning

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Exhibit A

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Draft Resolution
Before the Historic Resources Review Board in and for the
County of Monterey, State of California

Resolution No. 23-
PLN100338 - SIGNAL HILL LLC
Resolution by the Monterey County Historic Resources Review Board (HRRB):

1. Certifying that the Environmental Impact Report (EIR) prepared for the Signal Hill LLC project has been considered prior to forwarding this recommendation;
2. Recommending that the Planning Commission approve a Combined Development Permit, consisting of: demolition of a 4,124 square foot single family residence designed by Richard Neutra; construction of a new three level 11,933 square foot single family residence including an attached three-car garage, a 986 square foot entry court, 106 square feet of uncovered terraces, approximately 2,600 square feet of covered terraces, new driveway, and approximately 1,700 cubic yards of grading (1,200 cubic yards cut/500 cubic yards fill) and restoration of approximately 1.67 acre of native dune habitat; Coastal Development Permits to allow development within 100 feet of environmentally sensitive habitat, development on slopes exceeding 30 percent, development within 750 feet of a known archeological resources, Ridgeline Development and removal of three Monterey Cypress trees; and
3. Recommending that the Planning Commission adopt a Mitigation Monitoring and Report Program for the project.

WHEREAS, On November 8, 2010, Massy Mehdipour (applicant) filed with the County of Monterey, an application for a Combined Development Permit consisting of: 1) Coastal Administrative Permit and Design Approval for the demolition of an existing 4,124 square foot single family residence and the construction of a new three level 11,933 square foot single family residence including an attached three-car garage, a 986 square foot entry court, 106 square feet of uncovered terraces, approximately 2,600 square feet of covered terraces, new driveway, and

approximately 2,040 cubic yards of grading (1,210 cubic yards cut/830 cubic yards fill); 2) Coastal Development Permit for development within 100 feet of environmentally sensitive habitat; development includes restoration of native dune habitat in dunes outside the building area; 3) Coastal Development Permit for development on slopes exceeding 30%; 4) Coastal Development Permit for ridgeline development; 5) Coastal Development Permit for development within 750 feet of a known archeological resource; and 6) Coastal Development Permit for the removal of three Monterey Cypress trees;

WHEREAS, the project is located 1170 Signal Hill Road, Pebble Beach (Assessor's Parcel Number 008-261-007-000), Del Monte Forest Land Use Plan.

WHEREAS, on August 4, 2011, the Historic Resources Review Board (HRRB) for Monterey County voted 7-0 to recommend that the existing house at 1170 Signal Hill Road, which was designed by Richard Neutra for Arthur and Kathleen Connell (the Connell House) appears to be a significant historic resource under Criterion 3 of the California Register of Historical Resources for its architecture.

WHEREAS, on June 13, 2014, the State Historic Resources Commission determined that the Connell house is eligible for the National Register of Historic Places (National Register) and as a result of the eligibility for the National Register, the property was listed in the California Register of Historical Resources pursuant to Section 4851(a)(2) of the California Code of Regulations.

WHEREAS, in or around June 2015, the Connell house was damaged by an act of vandalism. The vandalism damaged the structural integrity of supporting walls. Temporary shoring and weatherization measures, referred to the Mothball Protection Plan, were required to be implemented to stabilize the house while the application for the Combined Development Permit is under consideration. Those measures have been installed and inspected; however, the house has been deemed unsafe by the Building Official and remains unsafe as of January 5, 2023.

WHEREAS, the application for the Combined Development Permit includes demolition of the Connell house which would address the unsafe condition of the existing structure.

WHEREAS, demolition of a historic resource (the Connell house) would constitute an adverse change in the significance of the resource and as such, an Environmental Impact Report has been prepared for the project pursuant to the California Environmental Quality Act (CEQA).

WHEREAS, a Draft Environmental Impact Report (DEIR) was circulated for public review and comment from February 18 to March 20, 2015 (SCH No. 2015021054).

WHEREAS, comments received on the DEIR have been considered and the County responded to those comments in a Final Environmental Impact Report (FEIR) for the project (FEIR).

WHEREAS, the FEIR was prepared by the County and circulated for decision maker and commenting agency review on November 21, 2022.

WHEREAS, this matter was heard by the Historic Resources Review Board (HRRB) of the County of Monterey on January 5**,** 2023, pursuant to Chapter 18.25 of the Monterey County Code.

WHEREAS, the HRRB has considered the FEIR prior to forwarding their recommendation to the Planning Commission.

WHEREAS, the HRRB has considered alternatives to demolition of the Connell house as outlined in the FEIR for the project. Alternative to demolition include "No Project" (Alternative 10), "Preservation" (Alternative 1), and "Project Integration" (Alternative 4).

WHEREAS, in forwarding this recommendation, the HRRB has balanced economic, legal, social, technological, and other factors applicable to this project including:
WHEREAS, feasible measures are proposed that reduce impacts to historic resources to the extent feasible. These measures are made conditions of approval and include:

- Documentation of the Connell House using the most recent guidelines of the Historic American Buildings Survey (HABS)
- Development of web-based information documenting the history and features of the Connell House

These mitigation measures do not reduce the impacts to a level of insignificance.

WHEREAS, at the conclusion of the hearing, the matter was submitted to the HRRB for a recommendation. Having considered all the written and documentary information submitted, oral testimony, and other evidence presented before the HRRB, the HRRB rendered its decision to adopt findings and evidence to recommend approval of the Combined Development Permit subject to the following findings:

Finding: There are economic, legal, social, technological, and other factors applicable to this project that outweigh the significant impacts to historic resources in this case.

Finding: Mitigation Measures were reviewed by the HRRB and found to mitigate for the impact to the extent feasible while still allowing demolition.

Evidence:

1. Final Environmental Impact Report (State Clearinghouse No. 2015021054) including the Appendix D, Historical Resources background Information, as posted on the HCD website.
2. The current condition of the property makes it economically and physically difficult to repair and preserve the historic significance of the structure.
3. Objectives and investment backed expectations of the property owner which include a desire and plan to demolish the existing structure and build a new structure designed by Ricardo Legoretta.
4. Ecological benefits of approving the project including restoration of native sand dune habitat.
5. Consistency with the treatment of similarly situated properties in the vicinity by allowing redevelopment of the property with a larger custom dwelling.

6. Property tax revenue for government services that will be generated by allowing construction of the proposed dwelling at the site.

7. The application, plans, and supporting materials submitted by the project applicant to Monterey County HCD-Planning for the proposed development found in project file PLN100338.
8. Information contained in the Mothball Protection Plan applicable to the property.
9. Oral testimony and HRRB discussion during the public hearing and the administrative record.

THERFORE, it is the decision of the Monterey County HRRB to:

1. Certify that the Environmental Impact Report (EIR) prepared for the Signal Hill LLC project has been considered prior to forwarding this recommendation;
2. Recommend that the Planning Commission approve a Combined Development Permit, consisting of: demolition of a 4,124 square foot single family residence designed by Richard Neutra; construction of a new three level 11,933 square foot single family residence including an attached three-car garage, a 986 square foot entry court, 106 square feet of uncovered terraces, approximately 2,600 square feet of covered terraces, new driveway, and approximately 1,700 cubic yards of grading (1,200 cubic yards cut/500 cubic yards fill) and restoration of approximately 1.67 acre of native dune habitat; Coastal Development Permits to allow development within 100 feet of environmentally sensitive habitat, development on slopes exceeding 30 percent, development within 750 feet of a known archeological resources, Ridgeline Development and removal of three Monterey Cypress trees; and
3. Recommend that the Planning Commission adopt a Mitigation Monitoring and Report Program for the project.

In forwarding this recommendation, the HRRB expresses regret for the conditions and circumstances that have made impractical alternatives to the demolition of the Connell house.

Passed and adopted on this **5th day of January, 2023**, upon motion of _____, seconded by _____, by the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

_____
Attest
Philip Angelo**,** HRRB Secretary
January 5, 2023

Exhibit B

The Final EIR can be found on the Monterey County HCD website at: www.co.monterey.ca.us/home/showpublisheddocument/117619/638036931819800000

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Introduced: 12/22/2022
Version: 1

Current Status: Agenda Ready
Matter Type: General Agenda Item

PLN220090 - CALIFORNIA DEPARTMENT OF TRANSPORTATION (GARRAPATA CREEK BRIDGE)

Public hearing to consider a recommendation to the Monterey County Planning Commission on a Combined Development Permit to allow replacement of the bridge rails on the Garrapata Creek Bridge.

Project Location: Garrapata Creek Bridge near post mile 63.0 on HWY 1, 35681 HWY 1, Carmel, CA 93923 (Assessor's Parcel Number 000-000-000-000 and 243-301-029-000), Big Sur Coast Land Use Plan.

RECOMMENDATION:

Staff recommends that the Monterey County Historic Resources Review Board (HRRB) adopt a resolution recommending approval of the project to the Planning Commission, with 2 recommended conditions. Should the Board not concur with staff's recommendation, an alternative resolution recommending denial of the project to the Planning Commission has been attached for consideration.

SUMMARY:

The California Department of Transportation (Caltrans) proposes to replace the bridge rails on the Garrapata Creek Bridge. This item was previously considered at the HRRB's December 1, 2022 meeting and the hearing was continued to a date certain of January 5, 2023 with the direction that staff and the applicant return with answers to questions outlined in staffs report and brought up during the hearing. Caltrans responses, which include the original staff report for that meeting, are attached as **Exhibit E**.

The bridge is individually eligible for listing on the National Register of Historic Places (NRHP), the California Register of Historic Resources (CRHR), and is a contributing resource to the Carmel San Simeon Historic District (CSSHD). The bridge is one of the seven concrete arch bridges in the CSSHD. Cal Trans intends to replace the bridge rails on six of these bridges. The historical report prepared for the project (LIB220303, Exhibit F) is a "Tier 2" report, focusing on the Garrapta Bridge rail replacement. A "Tier 1" programmatic analysis evaluating the replacement of the rails on all six bridges is included as an attachment to that report, as well as the Department of Parks and Recreation (DPR) 523 forms for the CSSHD, and "Finding of Adverse Effect" (FAE). The EIR prepared for the project **(Exhibit G)** also utilizes this Tier 1 / 2 approach, with the Tier 1 EIR being a programmatic analysis of replacing the bridge rails on all six bridges, and the Tier 2 analysis being specifically focused on the Garrapata Creek bridge rail replacement.

The rails are in a state of physical deterioration, with concrete spawling and visible damage, and Cal Trans is proposing to replace them with new rails compliant with current safety standards to address this. Comments on the EIR, the County's previous Section 106 Consolation comments, and feedback from the LUAC (**Exhibit H**) focus on the project justification and whether other alternatives to address public safety would be more appropriate given the historic context of the bridge, such as: repair of the existing rails, replacement of the rails with those of the same design, a reduction of the speed limit near the bridge, or a combination of these alternatives.

The information requested at the previous hearing and responses received are summarized below:

1. **Historic Impact Assessment -** Clarify the impact assessment of the historic structure.

   Caltrans responded by providing an updated version of the historical report (**Exhibit F**) which included the "Finding of Adverse Effect" (FAE) on December 1. The FAE included more detailed analysis of the historical impact of the project. The project will have an effect on the historic resource but, as designed, the project will not significantly impact the historic integrity of the bridge and the bridge will continue to qualify as an historic resource.

2. **Justification -** Provide more robust information on project justification, particularly regarding whether the speed could be reduced and a replacement rail which more closely aligns with the historic character of the existing rails be used.

   Caltrans responded in writing on December 6. Caltrans staff maintain that there is no feasible option for installation of a non-compliant bridge rail. County staff has interpreted the information and put most simply, County staff believes that Caltrans is not willing to sacrifice safety and liability to preserve visual access and avoid historic effects by installing a bridge rail that does not meet minimum safety standards. Caltrans is willing to design a bridge rail that minimizes impacts on the historic bridge and preserves visual access while also meeting minimum safety standards.

3. **Cumulative effects -** Assessment of cumulative effects to the Carmel San Simeon Historic District (CSSHD) resulting from approval of this project, particularly whether approval of this project would influence future decisions on historic bridges in Big Sur.

   The "Finding of Adverse Effect" (FAE) in the updated historical report submitted on December 1 also includes analysis of cumulative effects of the Garrapata Bridge rail replacement on the CSSHD. While a "programmatic" or "Tier 1" EIR was prepared regarding the bridge rail replacements on six of the historic Big Sur bridges, the individual impact analysis is deferred to the specific environmental documents associated with each individual bridge. Caltrans has indicated that speed limits and other relevant factors will be considered at the time each bridge rail is evaluated. This could result in slight variations on bridge rail designs.

4. **Other Questions -** Provide responses to the other questions raised by board members and members of the public, including whether the bike rail is proposed and what other legislative options could be considered to save the rails.

Caltrans has clarified that the bike rails are not proposed, and provided updated plans, and indicated they are not pursuing other legislative alternatives to consider saving the rails. Staff have included discussion of some options in our discussion Exhibit A.

Having reviewed the materials staff are recommending that the HRRB recommend approval of the project subject to the following recommended conditions:

1. The color and finish of the new rails shall match the existing rails as much as possible. Prior to commencement of construction, the owner/applicant shall submit a color and material mockup of the final color selections, intended to match both the hue and texture of the existing rail to HCD-Planning for review and approval.

2. A full traffic assessment, including a speed study and evaluation of the potential of ways of minimizing speed, shall be prepared for each of the other five historical Big Sur bridges which are discussed as being considered for rail replacement in the "Tier 1" EIR as a submittal requirement for the Coastal Development Permits for any of those projects.

A more detailed analysis is in Discussion **Exhibit A**.

Prepared by: Phil Angelo, Associate Planner
Reviewed by: Craig Spencer, Chief of Planning

The following attachments are on file with Housing and Community Development:

- Exhibit A - Discussion
- Exhibit B - Project Plans
- Exhibit C - Draft Resolution of Approval
- Exhibit D - Draft Resolution of Denial
- Exhibit E - Caltrans Letter dated December 6 with Previous Staff Report
- Exhibit F - Historic Property Survey Report with Finding of Adverse Effect (LIB220303)
- Exhibit G - Tier I & II EIR
- Exhibit H - DRAFT Big Sur Land Use Advisory Committee (LUAC) Meeting Minutes
- Exhibit I - Supplemental Package with Attached Speed Study

cc: Mitch Dallas (Applicant); Michelle Wilson (Applicant); Craig Spencer, HCD Chief of Planning; Project File PLN220090

Introduced: 12/22/2022 **Current Status:** Agenda Ready

Version: 1 **Matter Type:** General Agenda Item

PLN220090 - CALIFORNIA DEPARTMENT OF TRANSPORTATION (GARRAPATA CREEK BRIDGE)

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The rails are in a state of physical deterioration, with concrete spawling and visible damage, and Cal Trans is proposing to replace them with new rails compliant with current safety standards to address this. Comments on the EIR, the County's previous Section 106 Consolation comments, and feedback from the LUAC (**Exhibit H**) focus on the project justification and whether other alternatives to address public safety would be more appropriate given the historic context of the bridge, such as: repair of the existing rails, replacement of the rails with those of the same design, a reduction of the speed limit near the bridge, or a combination of these alternatives.

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1. The color and finish of the new rails shall match the existing rails as much as possible. Prior to commencement of construction, the owner/applicant shall submit a color and material mockup of the final color selections, intended to match both the hue and texture of the existing rail to HCD-Planning for review and approval.

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cc: Mitch Dallas (Applicant); Michelle Wilson (Applicant); Craig Spencer, HCD Chief of Planning; Project File PLN220090

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Exhibit A

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DISCUSSION

INTRODUCTION

The California Department of Transportation (Caltrans) proposes to remove and replace the bridge rails on the Garrapata Creek bridge. This bridge is one of seven historic bridges in Big Sur, six of which have open spandrel designs. All seven bridges are part of the Carmel San Simeon Historic District (CSSHD), a non-contiguous district named after the rural state highway constructed between 1922 and 1938, which stretches approximately 75 miles from the San Carpoforo Creek in San Luis Obispo County to the Carmel River in Monterey CountyThe Garrapata Creek Bridge is also individually eligible for listing on the National Register of Historic Places (NRHP) and the California Register of Historic Resources (CRHR).

HISTORIC ASSESSMENT – INDIVIDUAL BRIDGE

On December 1, 2022 Caltrans submitted an updated version of the historical report which included the "Finding of Adverse Effect" (FAE). This finding is a term of art specific to historical projects which require "Section 106" consultation under the National Historic Preservation Act, and includes the historic analysis requested at the previous hearing and in accordance with Monterey County Coastal Implementation Plan (CIP) section 20.145.110.B.



Figure 1: Garrapata Creek Bridge, February 1932

Garrapata Creek Bridge is one of seven iconic concrete arch bridges known as the "Big Sur Arches" on Highway 1. The bridge was constructed in 1931 by the Hanran Construction Company for the California Division of Highways Bridge Department and is the first concrete arch bridge constructed on the scenic Carmel-San Simeon Highway. The bridge was seismically retrofitted in 1987 and 1998.

The bridge is eligible for listing in the National Register of Historic Placed (NRHP) and the California Register of Historic Places (CRHR), both under Criteria A/1, "*Associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States"* for its association with the Highway

Beautification Movement and construction of the Carmel-San Simeon Highway, and under Criteria C/3, "*Embodies the distinctive characteristics of a type, period, region or method of construction or represents the work of a master or possesses high artistic values"* as an example of reinforced concrete bridge design and engineering from the 1920s-30s.

The bridges character defining features are:

- It's use of re-enforced concrete materials;
- Its open spandrel;
- Fixed parabolic arch;
- Its six concrete T-beam approach spans;
- Its decorative cantileavered walkway; and
- Its decorative reinforced concrete railings with arched window design and smooth textured finish.

National Register Bulletin 15, How to Apply the National Register Criteria for Evaluation is used evaluating the integrity of historical resources. Integrity is the ability of a property to convey it's historical significance, and it contains seven aspects, which are defined and discussed in relation to the project in the table below:

Aspect		**Definition**	**Relation to Project**
1.	Location	The place where the historic property was constructed or the place where the historic event occurred. The original location of a property, complemented by its setting, is required to express the property's integrity of location.	The bridge will retain its original location.
2.	Design	The combination of elements that create the form, plans, space, structure and style of the property. Features which must be in place to express a property's integrity of design are its form, massing, construction method, architectural style, and architectural details (including fenestration pattern).	The replacement of the rails will diminish the design integrity as the new bridge railings will have smaller openings and a larger base and baluster. The bridges substructure and spans will not be impacted.
3.	Setting	Addresses the physical environment of the historic property inclusive of the landscape and spatial relationships of the building(s). Features which must be in place to express a property's integrity of setting are its location, relationship to the street, and intact surroundings (e.g., neighborhood or rural).	The surrounding landscape and spatial relationships are not being modified, so there will be no impact to the setting.
4.	Materials	Refer to the physical elements that were combined or deposited during a particular period of time and in a	The original material of the rails will be removed, but the bridge will still utilize concrete.

		particular pattern of configuration to form the historic property. Features that must be in place to express a property's integrity of materials are its construction method and architectural details.	
5.	Workmanship	Is the physical evidence of the crafts of a particular culture or people during any given period in history. Features that must be in place to express a property's integrity of workmanship are its construction method and architectural details.	The integrity of workmanship will be diminished as the original rails and end treatments to be removed will be replaced with modern precast elements.
6.	Feeling	Is the property's expression of the aesthetic or historic sense of a particular period of time. Features that must be in place to express a property's integrity of feeling are its overall design quality, which may include form, massing, architectural style, architectural details, and surroundings.	The feeling will be somewhat diminished as the original more minimal rail evokes a sense of time for drivers, pedestrians, and passengers.
7.	Association	Is the direct link between an important historic event or person and a historic property. Features that must be in place to express a property's integrity of association are its use and its overall design quality.	The bridge will retain integrity its association with the construction of the highway and remain a contributing element to the Carmel San Simeon Historic

Table 1: Summary of Integrity Impact Assessment

Despite impacts to individual elements of integrity and one of its character defining features, after the project the bridge would still retain its overall integrity, remaining individually eligible for listing on the NRHP and CRHR.

In order to minimize adverse effects associated with the bridge, the architectural historian recommended developing a railing type that is visually compatible with the original bridge railing as possible. The result of this design effort has been the 86-H, which attempts to preserve as many of the features of the original railing as possible while still complying with the dimensional requirements of the MASH "TR-4" standard (See further discussion of this standard in the "Justification" section below). The design has been iterated several times to advance this goal and: it retains an arched opening type, which has been chamfered to maximize visibility while maintaining the maximum 6" width requirement of the standard; uses a rounded top pilaster consistent with the original rail with a similar vertical seam; locates major pilasters above the support structure, maintaining the same symmetry and visual relationships of the bridge; and maintains the same low 42" height of the original rails.

This is consistent with the development standard in CIP section 20.145.110.C.1., that development be modified to be compatible with a historical site through appropriate design,

structural and architectural features, and other techniques recommended by the historian. The color in the conceptual renderings has been similarly iterated, with the original color being a darker grey, and more recent renderings using a warmer "sandier" beige tone. In accordance with this standard and CIP section 20.145.110.C.2., staff are recommending a condition of approval requiring a final color selection mockup be done, which shall match the existing rail color as closely as possible.



Figure 2: Proposed 86-H Rail



Figure 3: Existing Rail

JUSTIFICATION

Manual for Assessing Safety Hardware (MASH)

The Manual for Assessing Safety Hardware, also known as "MASH" is a set of design and testing parameters for bridge rails and other highway safety devices. Throughout this process, Caltrans have maintained that compliance with MASH is mandatory without exception,

submitting the 2019 MASH Implementation Memo and references to the Caltrans Highway Design Manual (HDM), Supplemental Design Information Bulletin No. 79-04, and Traffic Safety Systems Guidance. Staff's analysis is that this is Caltrans internal policy and they are unwilling to consider an exception for Garrapata Creek Bridge as it would jeopardize the health and safety of drivers and passengers utilizing the highway.

Traffic Speeds

This discussion relies on two different definitions of traffic speeds:

- The posted speed (or regulatory speed) is the speed limit at a particular location.
- The operating speed is the speed which drivers are driving at a location. The 85th percentile operating speed is the speed at which 85 percent of drivers are driving at or below.

One of the alternatives discussed in the last hearing and in the EIR was reducing the speed limit to 45 miles an hour and using a replacement rail which more closely aligns with the historic appearance of the existing rails, such as the "C411", a standard rail which is rated for a lower crash test level.

There are both statutory and safety reasons why the speed limit cannot be reduced in this location. The California Vehicle Code Section 22349(b) sets the speed limit on a two-lane undivided highway at 55 miles per hour. Section 22354 does allow Caltrans to reduce speed limits on the State Highway System, but they must make the finding that the reduction in speed limit is *"most appropriate to facilitate the orderly movement of traffic and is reasonable and safe".*

Caltrans conducted a speed survey in 2019 which determined the 85th percentile operating speed of drivers at Garrapata Greek Bridge was 58 miles an hour. The California Manual for Setting Speed Limits indicates that this 85th percentile operating speed is the speed that should be used to establish the speed limit. The studies cited in this manual indicate that reducing the speed limit below the 85th percentile generally results in increased collision rates. Therefore, it would not be possible to make the necessary findings to allow reducing the speed limit.

Additionally, the operating speed of a roadway is influenced by several factors, including but not limited to lane width, curve, line of site, obstructions, pedestrians, advisory speeds, and the posted speed (speed limit). The approach at Garrapata is straight and there doesn't appear to be any ability to alter the road geometry to induce lower speeds. The relationship between the posted speed and operating speed is also complex. Whether and how much posting a speed limit influences drivers' behavior is based on enforcement and other social and psychological factors. Even if the speed limit is reduced, which it can't be in this case, it would not necessarily reduce the operating speed of the highway. If the operating speed remains at around 58 miles an hour, designing a rail for 45 miles an hour would not be safe.

Replacement With a Different Rail Type

Looking at the possibility of using an alternative rail than the currently proposed 86-H more closely, MASH establishes different standards for different rail types based on the site-specific constraints, including speed. While not the only factor in selecting a rail at a particular location,

the proposed 86-H is a rail designed for high speeds (greater than 45 miles an hour) to meet the MASH "TR-4" standard, while an alternative rail the Historic Resources Review Board previously noted as the most consistent option to the existing rail, the Texas C411, was designed for low speeds (less than 45 miles an hour) to meet the MASH "TR-2" standard.

The reduced opening size was a concern of both the Land Use Advisory Committee (LUAC) and HRRB, and although it would still not match the dimensions of the existing rail, using the C411 rail would allow for taller (although it does not appear wider) openings. However, the C411 rail would not be appropriate at Garrapata Creek Bridge because of the design requirements for a rail rated to withstand impact at a higher speed.

The TR-4 standard used for the 86-H requires a higher base, thicker top rail, and the narrower arched openings. This is based on the fact that if a vehicle were to collide with the rail, the opening window can act as a "catch point" which hooks a cars bumper, causing it to rotate or flip and increasing the severity of accidents. The taller base height of the new rail increases the likelihood that a modern vehicle traveling at high speed would be redirected back into the lane after hitting a rail, and the reduced opening sizes mitigate the potential for catch points.

Repair

County staff asked if the bridge rails could be rehabilitated, generally, and notwithstanding Caltrans standards. In the Caltrans response December 6, 2022, District Chief of Maintenance and Caltrans' Structures Maintenance & Investigations (SM&I) states "Because the bridge rail is a safety feature, it must be brought up to MASH standards. Therefore, replacement is the only repair strategy."

Nevertheless, the evidence indicating that repair would likely be infeasible at Garrapata Creek Bridge is:

- The railings are in a significantly deteriorated state as evidenced form the 2021 report and photos Caltrans have submitted;
- Caltrans Structures and Maintenance Division reports from as early as 2009 recommended replacement due to the on-going deterioration of the rail, and their current analysis is that it the rail is unsafe at any speed; and
- County staff conducted a site visit on December 13, 2022. The observed deterioration was extreme, particularly on the south side, and, despite discussion that repair was not an option, it appeared that spawl and section repairs had been attempted at different locations in previous years and were not successful in stopping the on-going corrosion.



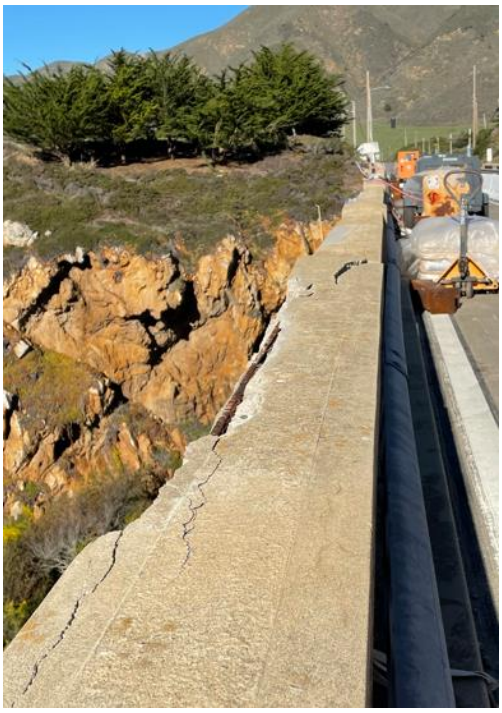




Figure 4: Photos of Bridge Rails dated December 13, 2022

HISTORIC ASSESSMENT – DISTRICT & CUMULATIVE IMPACTS

Carmel San Simeon Highway Historic District

As stated in the introduction, this bridge is one of seven historic bridges in Big Sur, six of which

have open spandrel designs. All seven bridges are part of the Carmel San Simeon Highway Historic District (CSSHHD), a non-contiguous district named after the rural state highway constructed between 1922 and 1938, which stretches approximately 75 miles from the San Carpoforo Creek in San Luis Obispo County to the Carmel River in Monterey County. The district includes 241 contributing elements, primarily engineering features which are a part of or adjacent to the highway, including culverts, fountains, stone wall features, and the seven Big Sur bridges.

The Carmel-San Simeon Highway Historic District is significant under National Register of Historic Places (NRHP) criteria A *"… associated with events that have made a significant contribution to the broad patterns of our history"* for its association with the highway beautification movement during the 1920's and 30's, and under criteria C *"… embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction"*, as representative of the extensive use of handcrafted masonry, generally executed by skilled by skilled masons.



Figure 5: An arcade-style masonry parapet and battlement parapet

The historical report prepared for the project describes the seven bridges as *"The most iconic and visually prominent historic engineering features located within the CSSHHD"*. Essential to understanding of the CSSHHD is its fundamental discontinuity. The highway itself is not a contributing feature due to its numerous alterations over time, and its boundary is defined around each of its 241 individual contributing elements. The 7 bridges and railings themselves already have discrete designs. Examples include Malpaso Creek Bridge, which has gabled railing openings, and Wildcat Creek Bridge, with closed spandrels and no rail openings whatsoever.

Therefore, while the project will adversely impact a contributing structure, the bridge will still be able to convey its historical significance and be a contributing structure to the CSSHHD; and Garrapata Creek Bridge having a distinct railing design will not affect the overall integrity of the district.



Figure 6: Wildcat Creek and Malpaso Creek Bridge

Future Bridge Rail Projects

Slightly distinct form the district itself, and while this permit is only for the Garrapata Creek Bridge, inclusion of the not yet proposed replacements on the other 5 other historic Big Sur Arches in the Tier I EIR and historical reports has brought into sharp focus how the decision on this project could influence the decision-making processes on the other bridges. Staff's analysis is that it should not, and that all of the same questions that have been asked in this review process will still be relevant in consideration of each bridge rail.

Despite a large quantity of public input and several design iterations; something that staff believes has caused considerable frustration in the review of this project has been the insistence on the use of a standard as a shorthand for project specific evaluation. Health and safety on the highway is paramount, but application of a standard for its own sake is a more nebulous justification. Standards are, however, often adopted for a reason. So bridging analytical gap between health and safety and the use of a standard in each case needs to done in a clear, comprehensible, and succinct way.

We believe we have, though the EIR, supplemental package submitted in August, and additional letters and materials submitted in December, received this information for the Garrapata Creek Bridge. We have not for the other bridges, which will receive their own environmental and Coastal Development Permit review.

Consideration of the operating speed and speed limit at the other locations will be particularly important at all the other locations in this effort, as it will allow consideration of a MASH compliant rail rated for lower speeds that more closely maintains the historic character of the existing rails, such as the "TR-2" rated C411 rail. This would be in line with the stated purpose of the EIR, using a current safety standard compliant rail to ensure the reliability of the highway. To ensure the decision on this project does not preclude this kind of analysis, staff are recommending a condition to require a traffic report with a speed study and evaluation of possible ways of reducing speeds at a particular location as a requirement for the submittal of Coastal Development Permits for each rail project.

While not recommended as required because the timing of each proposal is unknown, a programmatic speed study of all the other bridges could be beneficial. If there are several bridges in a row which have significantly reduced speeds, lowering the speed along a contiguous stretch is something staff believes is worth exploring, as it could allow the use of a "TR-2" rail, be in line with the general traffic engineering principle that a uniform speed is preferrable along a singular stretch of roadway, and prevent proliferation of additional signage along Highway 1, an aesthetic concern noted by a commenter at the last HRRB meeting.

ADDITIONAL QUESTIONS FROM THE HEARING

There were additional questions from the board members and the public. The first was whether the bike rail was proposed at this location, it is not. There was also question regarding any and all possible solutions to saving bride rails, not only at Garrapata Creek Bridge. Staff's recommendation is that based on the information presented, the HRRB recommend approval of the project. However, some supplemental discussion on that topic is below.

Petition AASHTO / Caltrans for alternative testing parameters

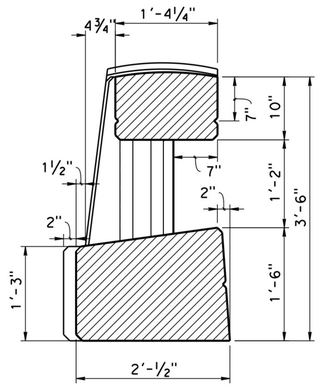
One possible solution for saving portions of existing rails (in general, not specific to Garrapata) would be to petition the AASHTO or Caltrans for alternative but equivalent testing parameters for existing bridge rails. One of the requirements for the Manual for Assessing Safety Hardware (MASH) is the that the rail designs be physically crash tested by running vehicles of different sizes into the rail. This ensures that the design development accounts for all factors and ultimately results in a safe rail but cannot be feasibly done with an in place structure.

Petition the California State Legislature for changes to the California Vehicle Code (CVC) to allow reduced speed limits

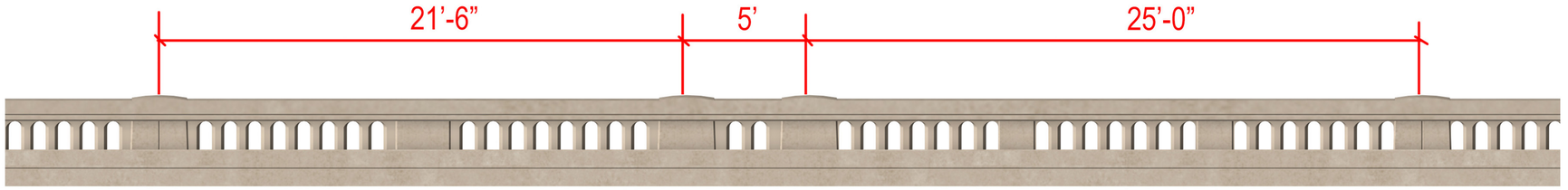
Exploring using a MASH compliant rail rated for a lower speed in order to be closer to the physical characteristics of the existing rails was something that was explored but determined not possible at Garrapata Creek. If greater flexibility existed in the CVC to reduce speed limits; it may allow this option to continue to be pursued for future projects.

Exhibit B

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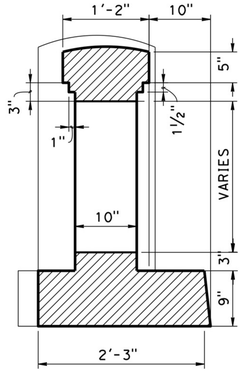
TYPE 86H SECTION



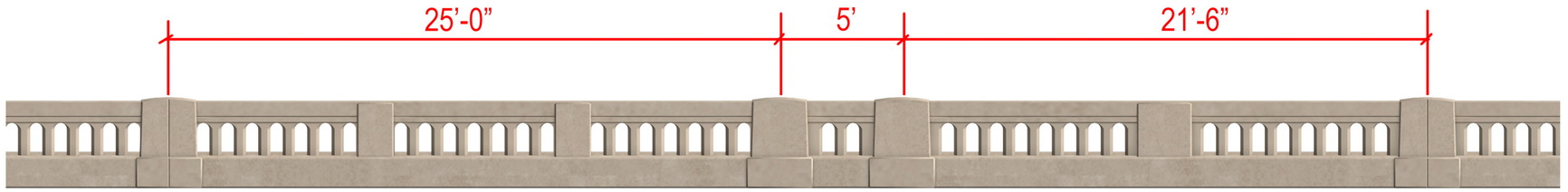
86H WITH TOP BEAM GROOVE LINE FRONT ELEVATION



EXISTING FRONT ELEVATION



EXISTING SECTION



86H WITH TOP BEAM GROOVE LINE BACK ELEVATION

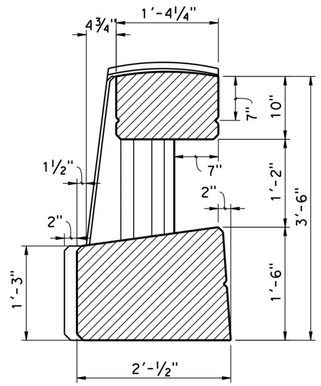


EXISTING BACK ELEVATION

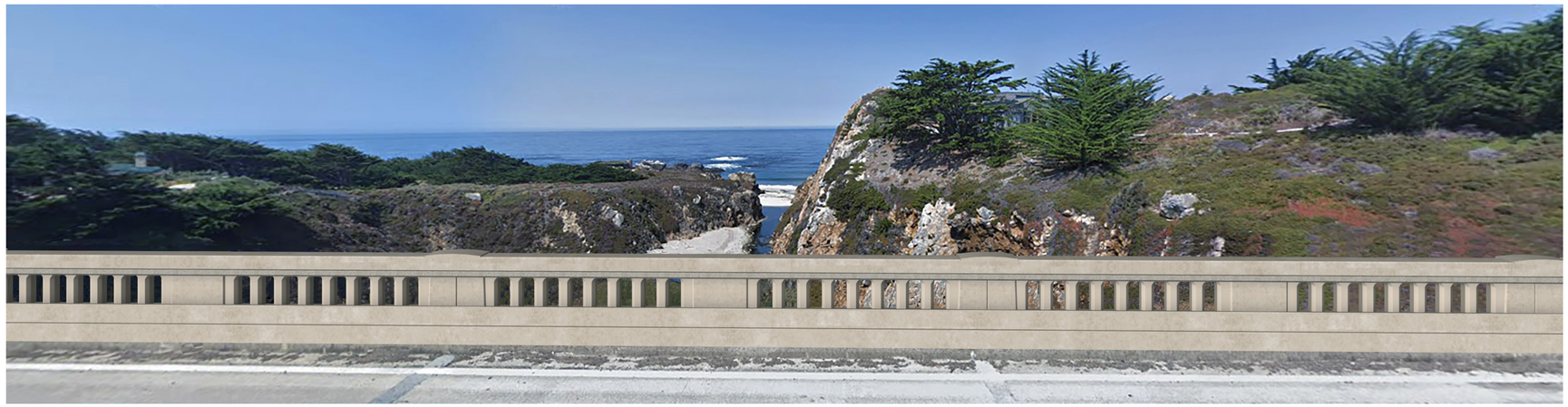
GARRAPATA CREEK BRIDGE BARRIER STUDY

02/18/22

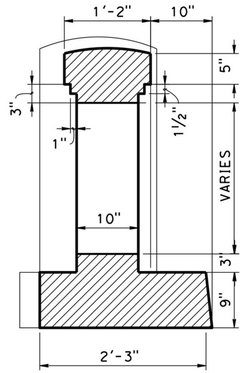
Prepared by: DES, Bridge Architecture and Aesthetics



TYPE 86H SECTION



TYPE 86H ON DECK VIEW



EXISTING SECTION

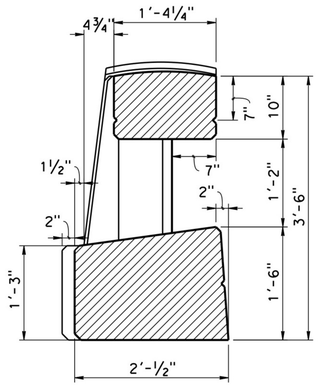


EXISTING ON DECK VIEW

GARRAPATA CREEK BRIDGE BARRIER STUDY

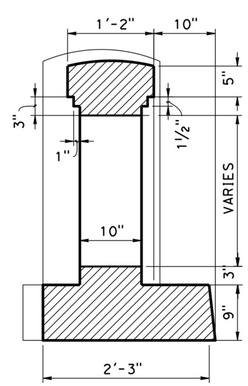
01/05/22

Prepared by: DES, Bridge Architecture and Aesthetics



TYPE 86H SECTION





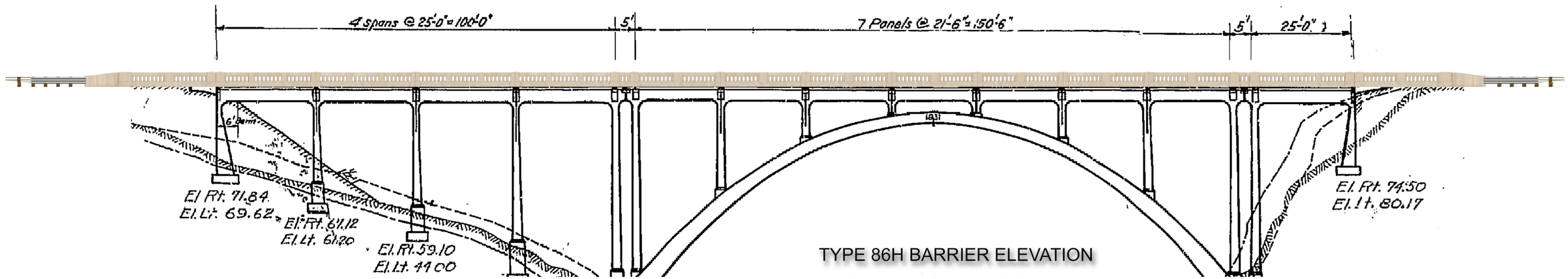
EXISTING SECTION



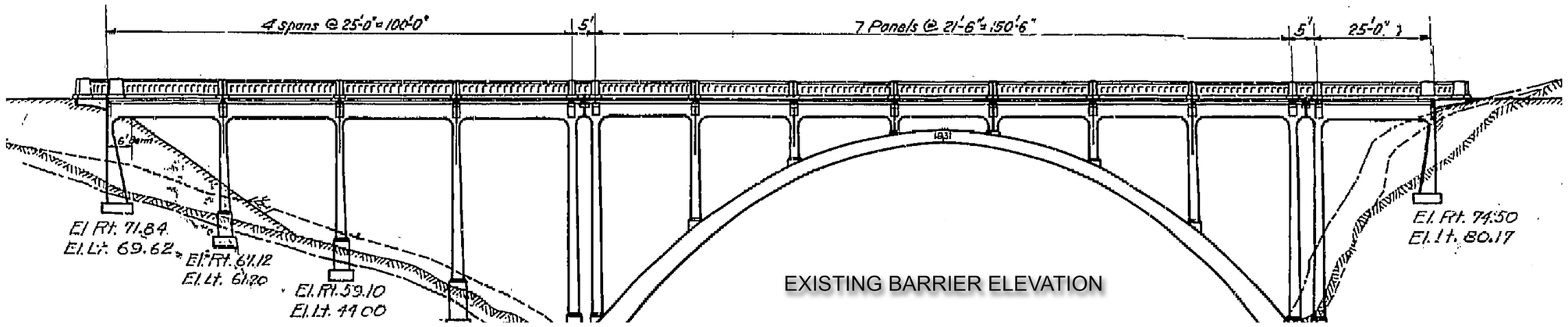
GARRAPATA CREEK BRIDGE BARRIER STUDY

02/22/22

Prepared by: DES, Bridge Architecture and Aesthetics



TYPE 86H BARRIER ELEVATION

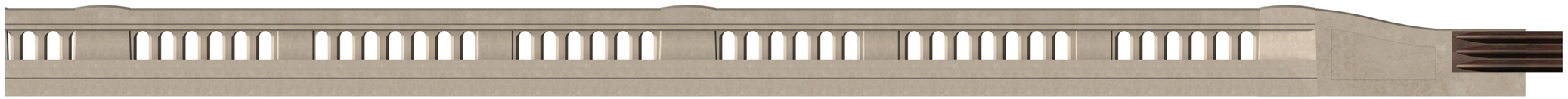


EXISTING BARRIER ELEVATION

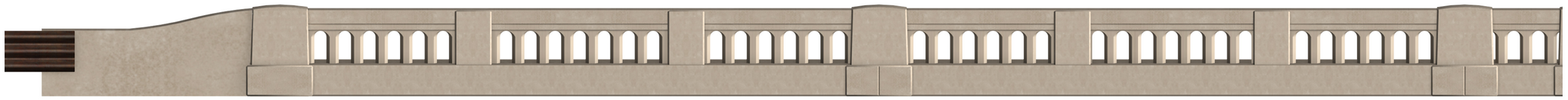
GARRAPATA CREEK BRIDGE BARRIER STUDY

01/05/22

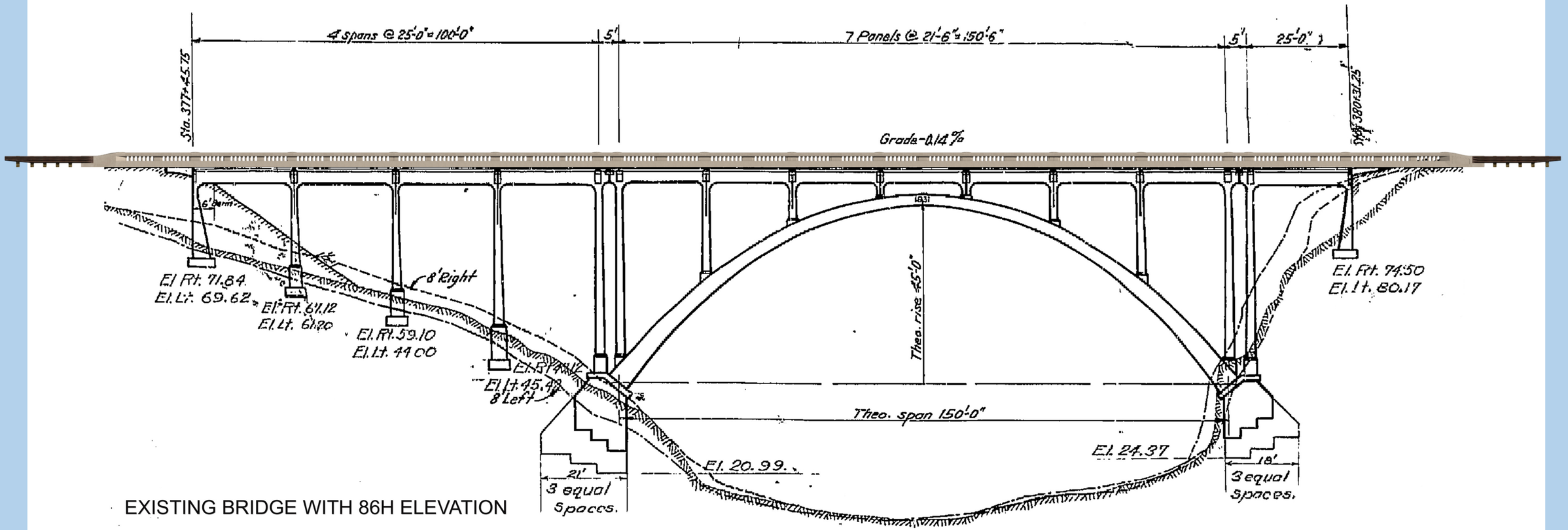
Prepared by: DES, Bridge Architecture and Aesthetics



86H END BLOCK FRONT ELEVATION



86H END BLOCK BACK ELEVATION



EXISTING BRIDGE WITH 86H ELEVATION

GARRAPATA CREEK BRIDGE BARRIER TYPE 86H

09/06/22

Prepared by: DES, Bridge Architecture and Aesthetics



86H FRONT ELEVATION PHOTO SIM.

GARRAPATA CREEK BRIDGE BARRIER TYPE 86H

09/06/22

Prepared by: DES, Bridge Architecture and Aesthetics



86H NORTH END BLOCK PHOTO SIM.

GARRAPATA CREEK BRIDGE BARRIER TYPE 86H

09/06/22

Prepared by: DES, Bridge Architecture and Aesthetics



86H SOUTH END BLOCK PHOTO SIM.

GARRAPATA CREEK BRIDGE BARRIER TYPE 86H

09/06/22

Prepared by: DES, Bridge Architecture and Aesthetics

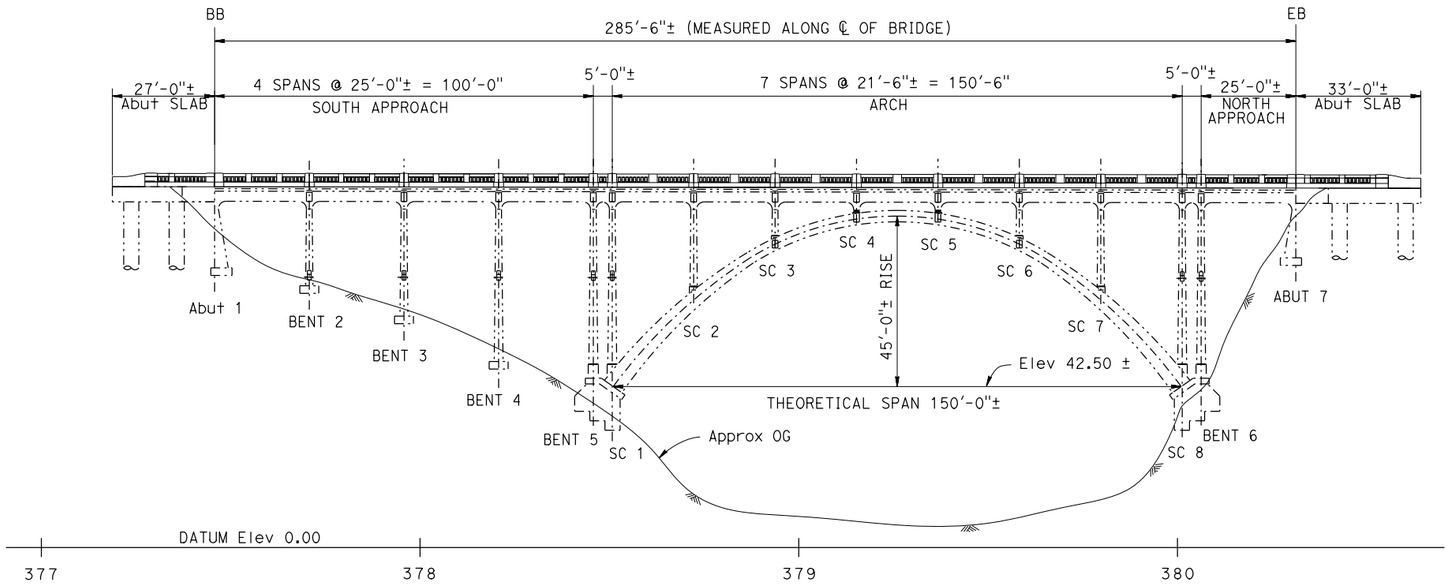
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
					83

REGISTERED CIVIL ENGINEER — DATE X

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — No. X — Exp. X — CIVIL — STATE OF CALIFORNIA

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ELEVATION
1" = 30'

NOTES:

1. Remove existing Overhang, Curb and Barrier, replace with new Overhang and Barrier Type 86H(Mod) extended to end of Abutment slab. Existing bridge rail not shown in "ELEVATION VIEW" for clarity.
2. Barrier Type 86H(Mod) shown.
3. Stage construction with one-way traffic control will be necessary.
4. Paint: "GARRAPATA CREEK BRIDGE 1931"
5. Paint: "Br. No. 44-0018"

LEGEND:

——— INDICATES NEW CONSTRUCTION

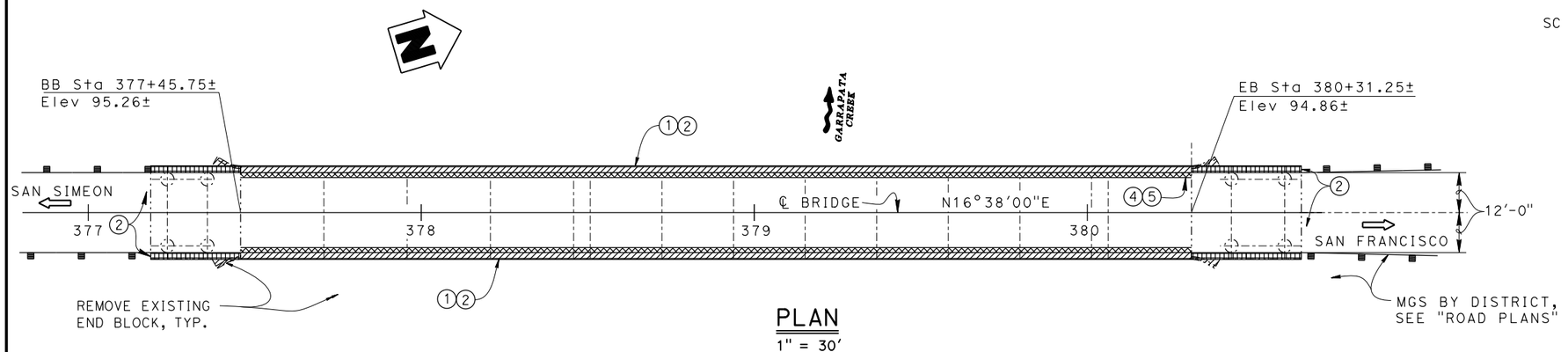
·-·-·-·- INDICATES EXISTING STRUCTURE

▨ INDICATES REMOVAL OF EXISTING CONCRETE BARRIER, END BLOCKS, CURB, 1" POLYESTER OVERLAY AND OVERHANG

▨ PREPARE CONCRETE DECK, FINISH AND PLACE 1" POLYESTER CONCRETE OVERLAY. MATCH EXISTING GRADE

▨ INDICATES REMOVAL OF EXISTING POLYESTER CONCRETE OVERLAY AT LOCATIONS OF NEW CONCRETE BARRIER TYPE 86H(MOD)

SC SPANDREL COLUMN



PLAN
1" = 30'

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

		BY	CHECKED		BY	CHECKED
Matt Schott	DESIGN	Rene Coria	Jim Gutierrez	SEISMIC ANALYSIS	X	X
BRANCH CHIEF	DETAILS	Mohammad Sharif	Rene Coria	LAYOUT	Rene Coria	Mohammad Sharif
	QUANTITIES	Rene Coria	Mohammad Sharif	SPECIFICATIONS	X	PLANS AND SPECS COMPARED

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
BRIDGE DESIGN
BRANCH 18

BRIDGE No. 44-0018
POST MILE 63.0

GARRAPATA CREEK BRIDGE
GENERAL PLAN

STRUCTURES DESIGN GENERAL PLAN SHEET (ENGLISH) (REVISION 2/8/2022)

DATE PLOTTED => 15-NOV-2022 TIME PLOTTED => 14:08
FILE => 44-0018-a-gp01.dgn USERNAME => s110279
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3603
PROJECT NUMBER & PHASE: 0516000163
COUNTY/ROUTE: Mon/001
CONTRACT No.: 05-1H800

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
~~9/22/22~~		10/13/22	~~10/06/22~~	1	15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TO SH

84

REGISTERED CIVIL ENGINEER — DATE X

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — No. X — Exp. X — CIVIL — STATE OF CALIFORNIA

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STANDARD PLANS DATED 2022

DETAIL	DESCRIPTION
A3A	ABBREVIATIONS (SHEET 1 OF 3)
A3B	ABBREVIATIONS (SHEET 2 OF 3)
A3C	ABBREVIATIONS (SHEET 3 OF 3)
A10A	LEGEND LINES AND SYMBOLS (SHEET 1 OF 5)
A10B	LEGEND LINES AND SYMBOLS (SHEET 2 OF 5)
A10C	LEGEND LINES AND SYMBOLS (SHEET 3 OF 5)
A10D	LEGEND LINES AND SYMBOLS (SHEET 4 OF 5)
A10E	LEGEND LINES AND SYMBOLS (SHEET 5 OF 5)
B7-8	DECK DRAINAGE DETAIL

GENERAL NOTES:

DESIGN: AASHTO LRFD Bridge Design Specifications, 8th Edition with California Amendments

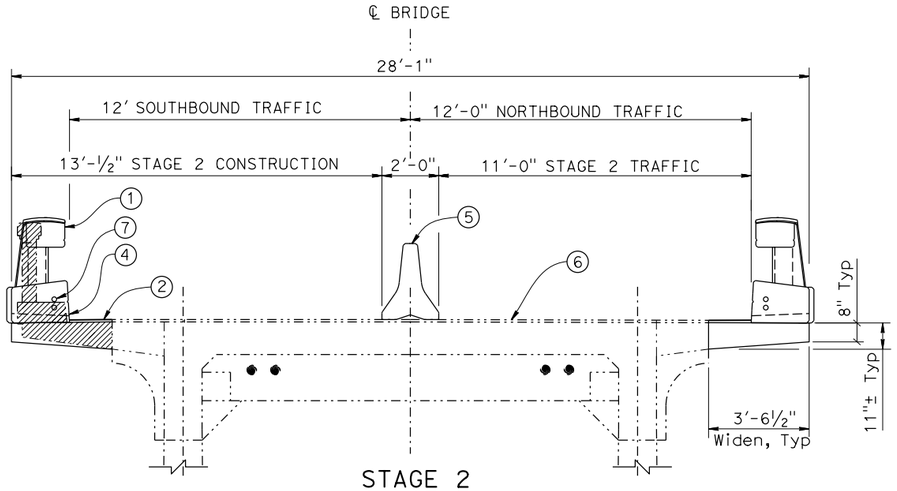
BARRIER LOADING: Test Level 4

DEAD LOAD: Includes 35 psf for future wearing surface

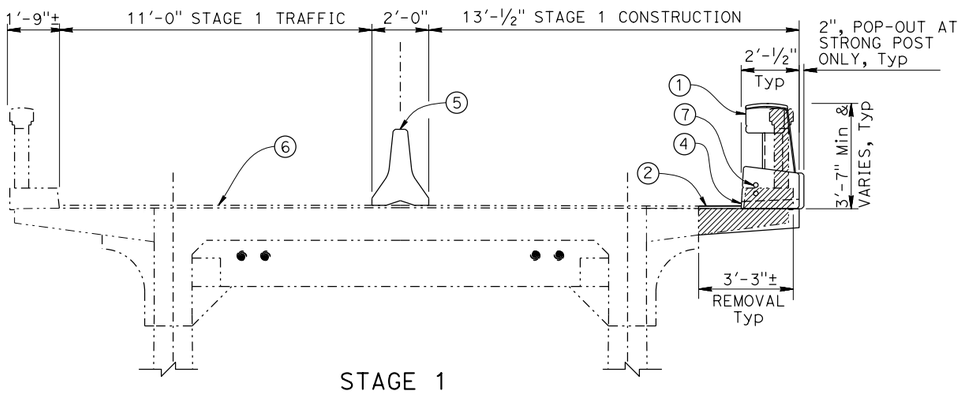
REINFORCED CONCRETE:

Structural Concrete (Polymer Fiber):
fy = 80 ksi
fy = 33 ksi (Existing Reinf)
f'c = 4.0 ksi, Polymer Fiber
n = 8

Concrete Barrier, Type 86(MOD):
fy = 60 ksi, Epoxy Coated
f'c = 3.6 ksi
n = 8



STAGE 2



STAGE 1

TYPICAL SECTION

⅜" = 1'-0"

INDEX TO PLANS

SHEET NO.	TITLE
1	GENERAL PLAN
2	INDEX TO PLANS
3	OVERHANG DETAILS NO. 1
4	OVERHANG DETAILS NO. 2
5	CONCRETE BARRIER TYPE 86H(Mod) DETAILS NO. 1
6	CONCRETE BARRIER TYPE 86H(Mod) DETAILS NO. 2
7	CONCRETE BARRIER TYPE 86H(Mod) DETAILS NO. 3
8	CONCRETE BARRIER TYPE 86H(Mod) DETAILS NO. 4
9	CONCRETE BARRIER TYPE 86H(Mod) DETAILS NO. 5
10	CONCRETE BARRIER TYPE 86H(Mod) DETAILS NO. 6
11	CONCRETE BARRIER TYPE 86H(Mod) DETAILS NO. 7
12	CONCRETE BARRIER TYPE 86H(Mod) DETAILS NO. 8
13	CONCRETE BARRIER TYPE 86H(Mod) DETAILS NO. 9
14	CONCRETE BARRIER TYPE 86H(Mod) DETAILS NO. 10
15	CONCRETE BARRIER TYPE 86H(Mod) DETAILS NO. 11

NOTES:

1. Remove existing Overhang, Curb and Barrier, replace with new Overhang and Barrier Type 86H(Mod) extended to end of Abutment slab. Barrier to have integral color to match existing deck color.
2. New 1" polyester overlay to match existing slope and grade.
3. Stage construction with one-way traffic control will be necessary.
4. Scupper or drop-thru Deck Drains to be installed in or near new Barriers. See STANDARD PLANS B7-8 "SCUPPER DETAIL"
5. Temporary K-Rail, see "ROADWAY PLANS".
6. Existing 1" polyester overlay to remain.
7. 2 ea 1-1½ ø Conduit at each Barrier for future utilities.

LEGEND:

——— INDICATES NEW CONSTRUCTION

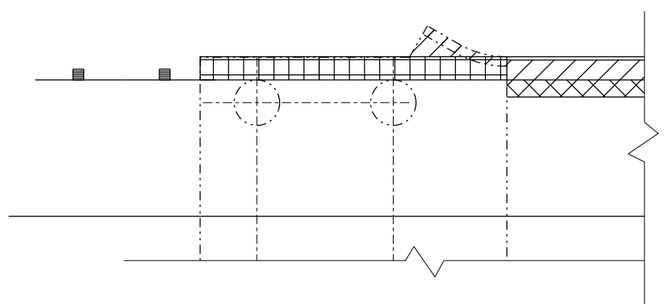
·—·—·— INDICATES EXISTING STRUCTURE

INDICATES REMOVAL OF EXISTING CONCRETE BARRIER, END BLOCKS, CURB, 1" POLYESTER OVERLAY AND OVERHANG

PREPARE CONCRETE DECK, FINISH AND PLACE 1" POLYESTER CONCRETE OVERLAY. MATCH EXISTING GRADE

INDICATES REMOVAL OF EXISTING POLYESTER CONCRETE OVERLAY AT LOCATIONS OF NEW CONCRETE BARRIER TYPE 86H(MOD)

SC SPANDREL COLUMN



	BY	CHECKED
DESIGN	Rene Coria	X
DETAILS	Mohammad Sharif	X
QUANTITIES	X	X

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
BRIDGE DESIGN
BRANCH 18

BRIDGE No. 44-0018
POST MILE 63.0

GARRAPATA CREEK BRIDGE
INDEX TO PLAN

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REVISION 3/10/2021)

DATE PLOTTED => 29-NOV-2022 TIME PLOTTED => 15:42
FILE => 44-0018-a-itp.dgn USERNAME => s110279
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3603
PROJECT NUMBER & PHASE: 0516000163
COUNTY/ROUTE: Mon/001
CONTRACT No.: 05-1H800

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
9/22/22		11/29/22	11/18/22	2	15

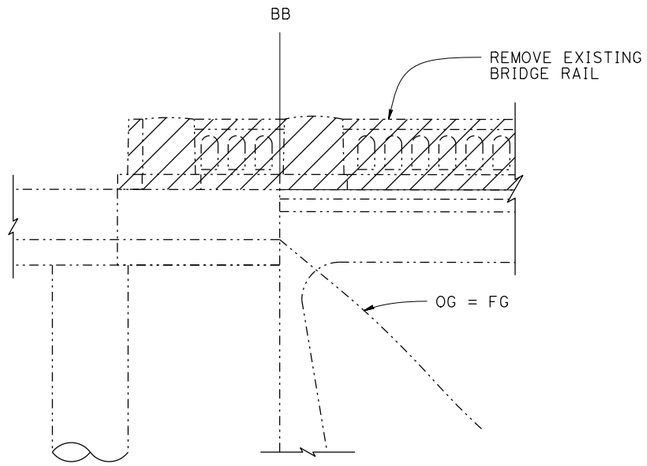
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TO SH

REGISTERED CIVIL ENGINEER — X — DATE

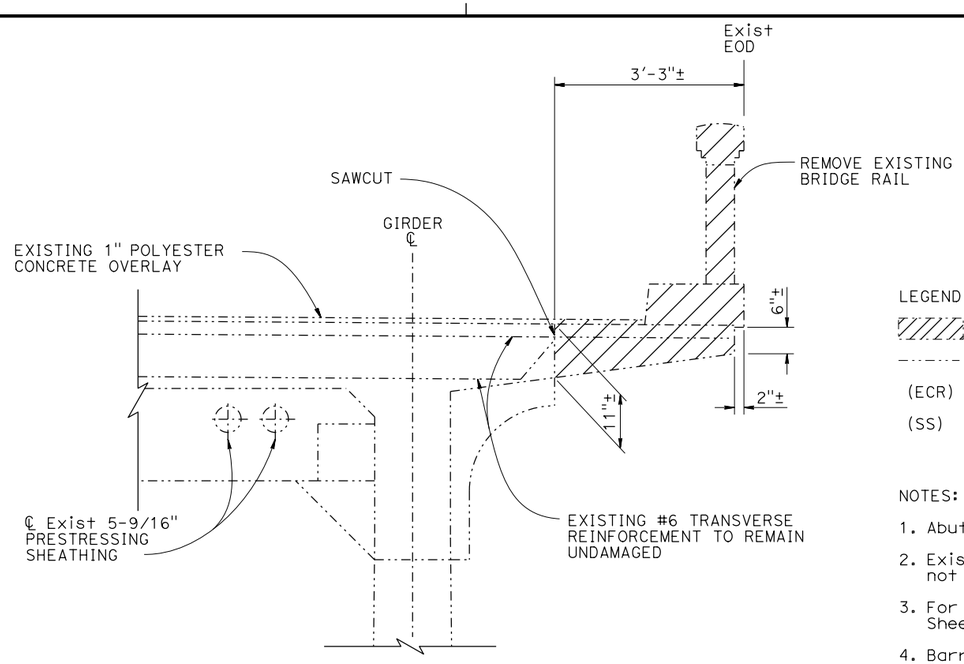
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — X — No. X — Exp. X — CIVIL — STATE OF CALIFORNIA

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ABUTMENT ELEVATION
1/4" = 1'-0"



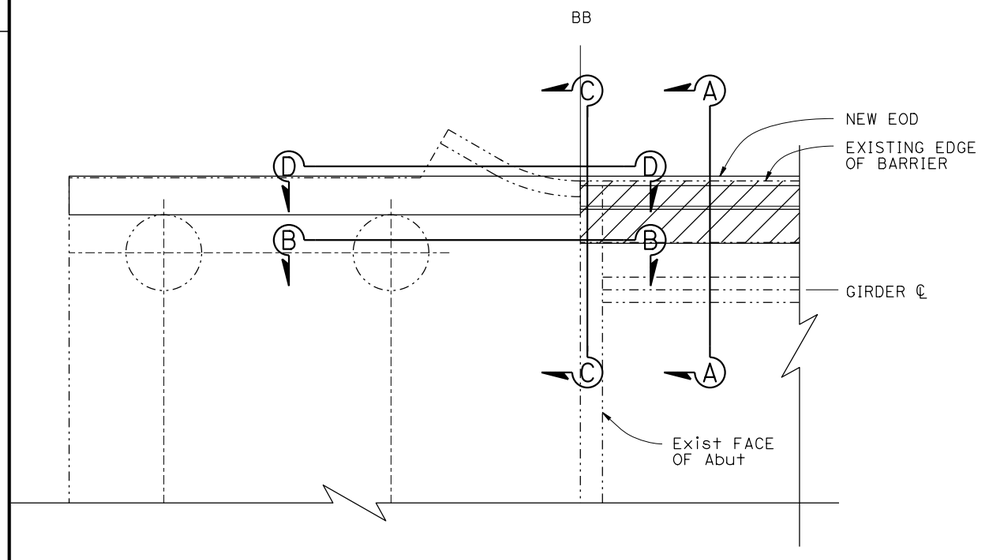
REMOVAL SECTION A-A
3/4" = 1'-0"

LEGEND:

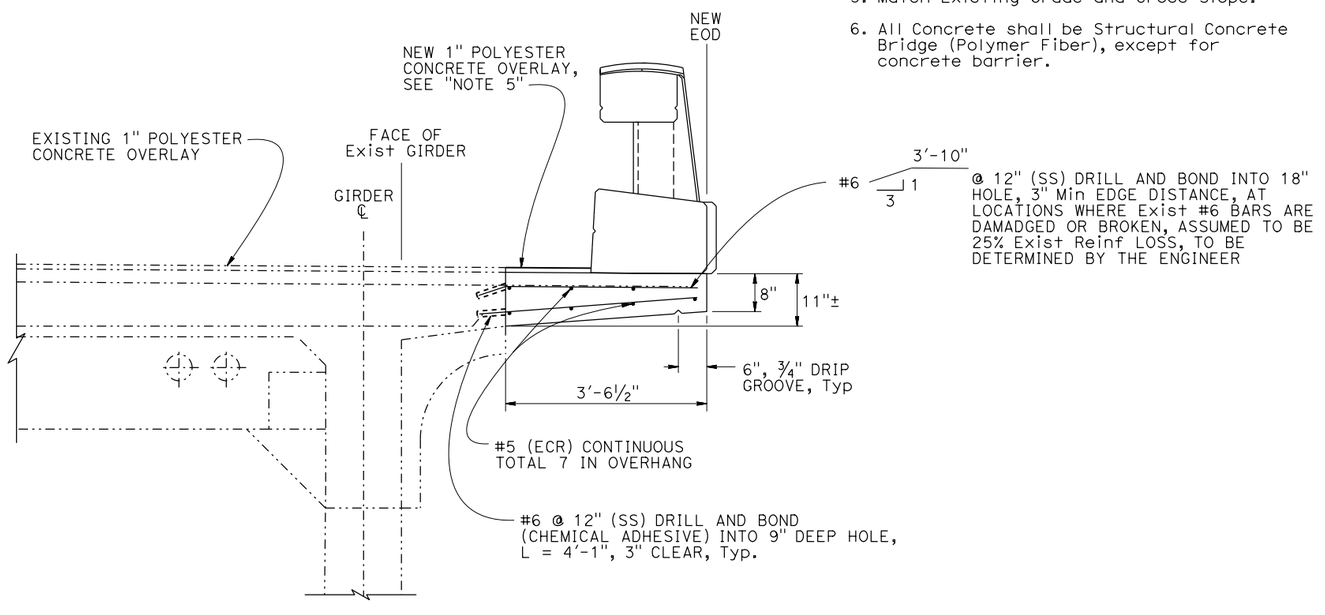
- Bridge Removal (Portion)
- Existing Structure
- (ECR) Epoxy coated reinforcement bar
- (SS) Stainless steel reinforcement bar

NOTES:

1. Abutment 1 shown, Abutment 7 similar.
2. Exist Concrete Barrier Rail not shown in Plan View for Clarity.
3. For Section B-B, C-C and D-D, see Sheet "OVERHANG DETAILS NO. 2".
4. Barrier Reinforcement not shown for Clarity, see "CONCRETE BARRIER TYPE 86H(MOD) DETAILS No. 7, 8, 9, AND 10" sheets for details.
5. Match Existing Grade and Cross Slope.
6. All Concrete shall be Structural Concrete Bridge (Polymer Fiber), except for concrete barrier.



ABUTMENT PART PLAN
1/4" = 1'-0"



RECONSTRUCTION SECTION A-A
3/4" = 1'-0"

DESIGN	BY Rene Coria	CHECKED X	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES BRIDGE DESIGN BRANCH 18	BRIDGE No. 44-0018
DETAILS	BY Mohammad Sharif	CHECKED X			POST MILE 63.0
QUANTITIES	BY X	CHECKED X			

GARRAPATA CREEK BRIDGE
OVERHANG DETAILS NO. 1

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REVISION 3/10/2021)	DATE PLOTTED => 15-NOV-2022 TIME PLOTTED => 14:09 FILE => 44-0018-t-brdt01.dgn USERNAME => s110279	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	UNIT: 3603 PROJECT NUMBER & PHASE: 0516000163	COUNTY/ROUTE: Mon/001 CONTRACT No.: 05-1H800	DISREGARD PRINTS BEARING EARLIER REVISION DATES →	REVISION DATES 9/12/22 9/20/22 10/05/22 — SHEET 3 OF 15

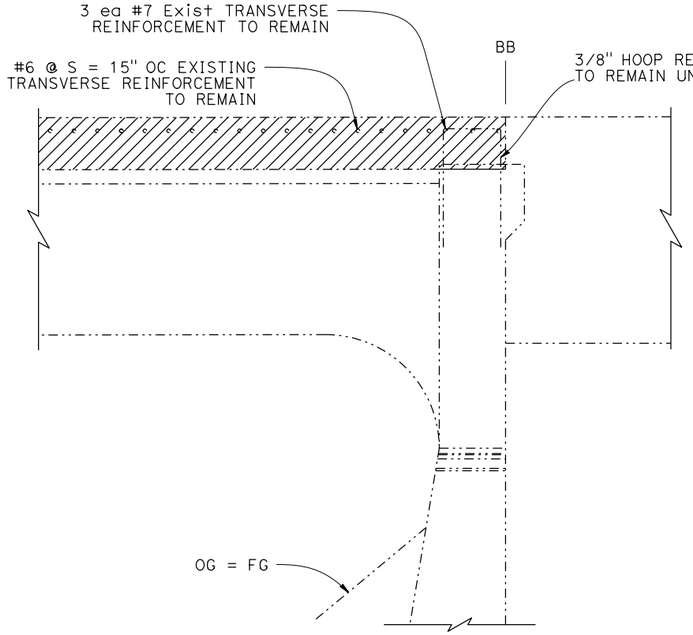
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TC SH

REGISTERED CIVIL ENGINEER _____ X DATE

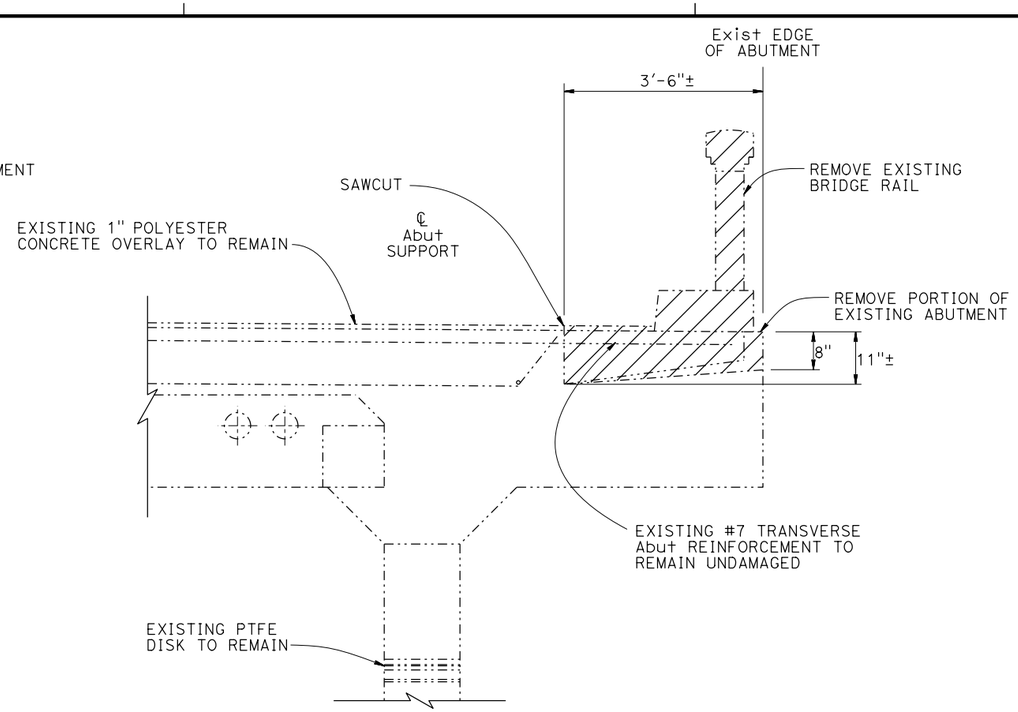
PLANS APPROVAL DATE _____

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REMOVAL SECTION B-B
3/4" = 1'-0"



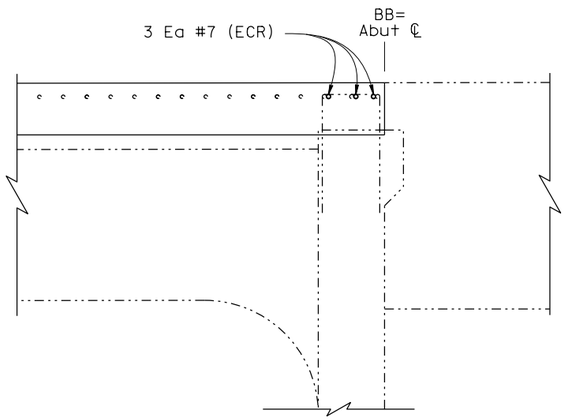
REMOVAL SECTION C-C
3/4" = 1'-0"

NOTES:

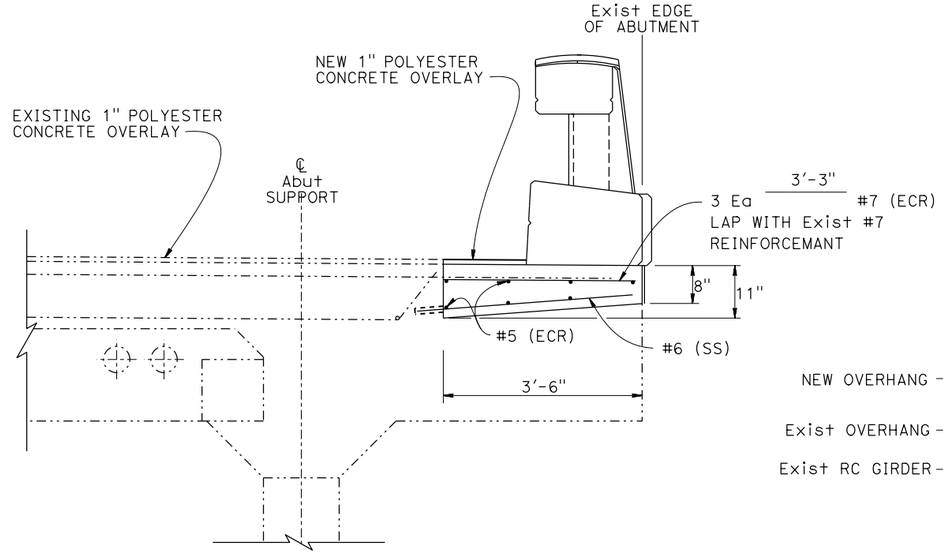
1. For Location of Section B-B and C-C, see Sheet "OVERHANG DETAILS NO. 1".
2. Abut 1 shown, Abut 7 similar.
3. Barrier Reinforcement not shown for Clarity, see "CONCRETE BARRIER TYPE 86H(MOD) DETAILS No. 7, 8, 9, AND 10" sheets for details.
4. Match Existing Grade and Cross Slope.
5. New Deck Reinforcement, see "OVERHANG DETAILS NO. 1" and "BARRIER TYPE 86H(Mod)" Sheets.
6. Overhang Concrete shall be Structural Concrete, Bridge (Polymer Fiber).

LEGEND:

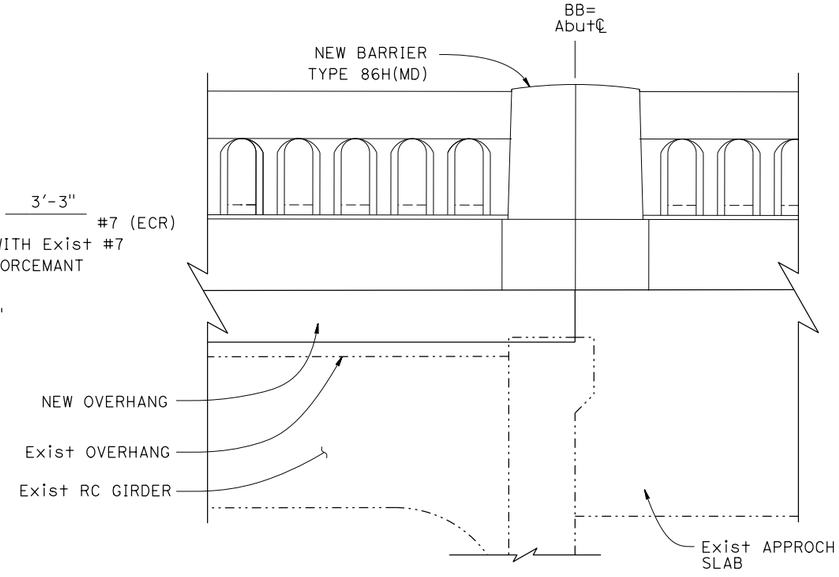
- Bridge Removal (Portion)
- Existing Structure
- (ECR) Epoxy coated reinforcement bar
- (SS) Stainless steel reinforcement bar



RECONSTRUCTION SECTION B-B
3/4" = 1'-0"



RECONSTRUCTION SECTION C-C
3/4" = 1'-0"



SECTION D-D
3/4" = 1'-0"

DESIGN	BY Rene Coria	CHECKED X	
DETAILS	BY Mohammad Sharif	CHECKED X	
QUANTITIES	BY X	CHECKED X	

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
BRIDGE DESIGN
BRANCH 18

BRIDGE No. 44-0018
POST MILE 63.0

GARRAPATA CREEK BRIDGE
OVERHANG DETAILS NO. 2

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REVISION 3/10/2021)

DATE PLOTTED => 15-NOV-2022 TIME PLOTTED => 14:09
FILE => 44-0018-t-brdt02.dgn USERNAME => s110279
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3603
PROJECT NUMBER & PHASE: 0516000163
COUNTY/ROUTE: Mon/001
CONTRACT No.: 05-1H880

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
9/12/22	9/20/22	10/05/22		4	15

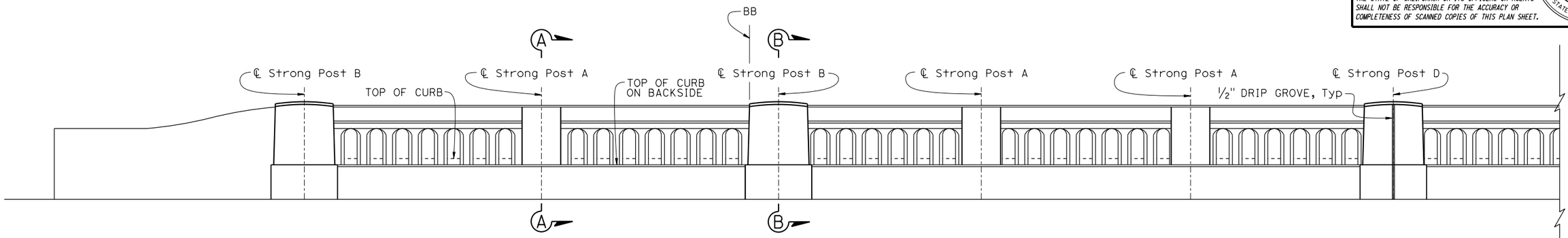
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER — DATE X

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — No. X — Exp. X — CIVIL — STATE OF CALIFORNIA

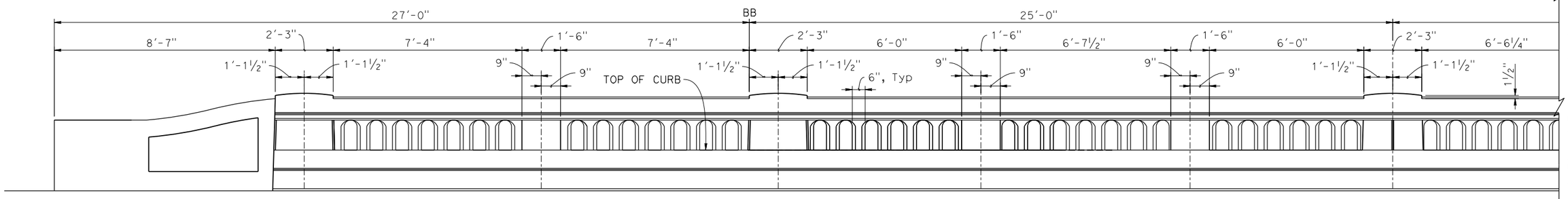
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



BACKSIDE ELEVATION

½" = 1'-0"

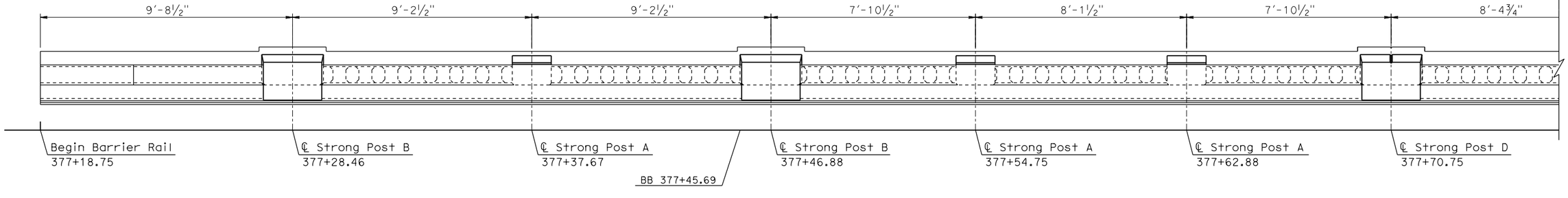
NOTE: Backside View (from ocean side) 6" Balusters



TRAFFIC SIDE ELEVATION

½" = 1'-0"

NOTE: Front View (from traffic side) 6" Balusters



PLAN

½" = 1'-0"

DESIGN	BY Kimberly Mori	CHECKED X	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES OFFICE OF DESIGN AND TECHNICAL SERVICES SPECIAL DESIGN BRANCH B	BRIDGE No. 44-0018
DETAILS	BY David Elliott	CHECKED X			POST MILE 63.0
QUANTITIES	BY X	CHECKED X			

GARRAPATA CREEK BRIDGE

CONCRETE BARRIER TYPE 86H DETAILS No. 1

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REVISION 3/10/2021)

DATE PLOTTED => 7-SEP-2022 TIME PLOTTED => 08:31
FILE => 44-0018-c-sp01.dgn USERNAME => s123982

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3619
PROJECT NUMBER & PHASE: 05160001631

COUNTY/ROUTE: Mon/1
CONTRACT No.: 05-1H8004

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
8-1-22	9-1-22			X	X

87

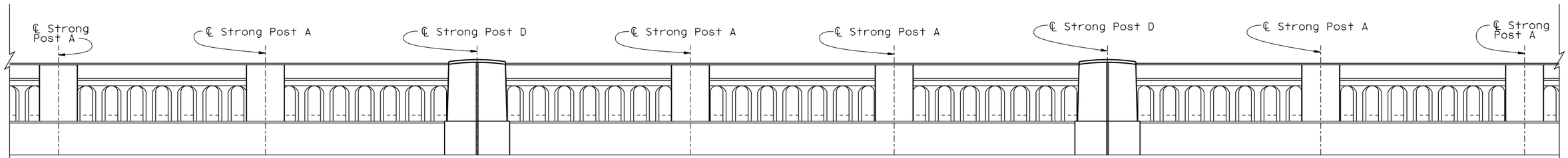
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
					88

REGISTERED CIVIL ENGINEER — DATE X

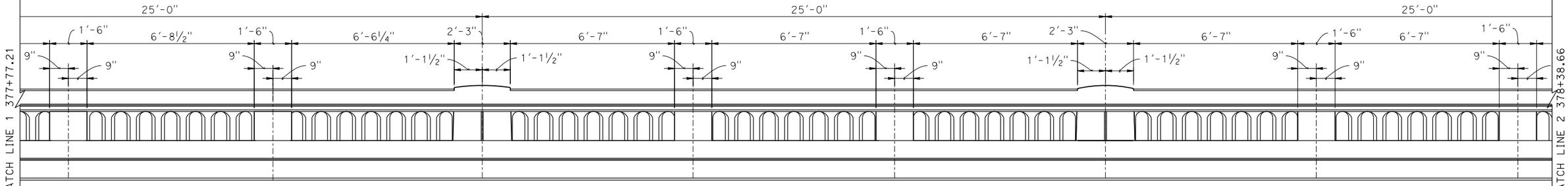
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — No. X — Exp. X — CIVIL — STATE OF CALIFORNIA

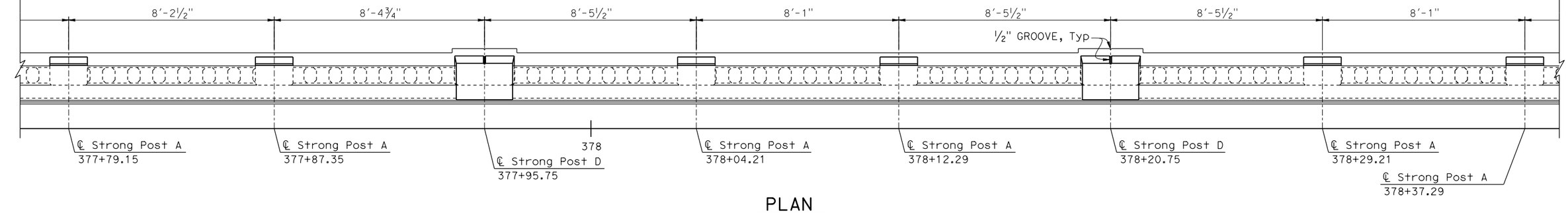
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



BACKSIDE ELEVATION
½" = 1'-0"



TRAFFIC SIDE ELEVATION
½" = 1'-0"



PLAN
½" = 1'-0"

	BY	CHECKED
DESIGN	Kimberly Mori	X
DETAILS	David Elliott	X
QUANTITIES	X	X

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
OFFICE OF DESIGN AND TECHNICAL SERVICES
SPECIAL DESIGN BRANCH B

BRIDGE No. 44-0018
POST MILE 63.0

GARRAPATA CREEK BRIDGE

CONCRETE BARRIER TYPE 86H DETAILS No. 2

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REVISION 3/10/2021)

DATE PLOTTED => 7-SEP-2022 TIME PLOTTED => 08:31
FILE => 44-0018-c-sp02.dgn USERNAME => s123982

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3619
PROJECT NUMBER & PHASE: 05160001631

COUNTY/ROUTE: Mon/1
CONTRACT No.: 05-1H8004

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
8-1-22	9-1-22			X	X

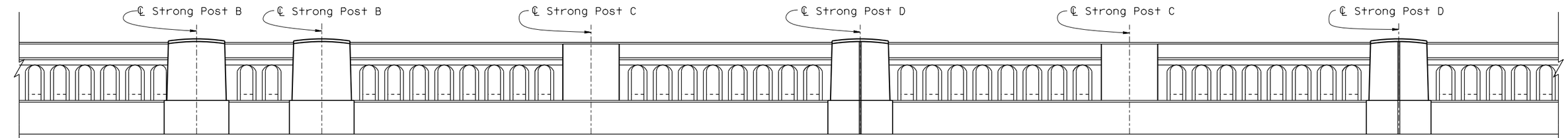
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER _____ DATE X

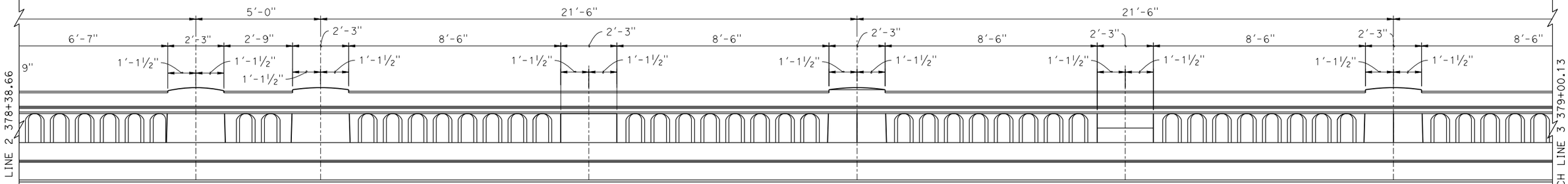
PLANS APPROVAL DATE _____

REGISTERED PROFESSIONAL ENGINEER — No. X — Exp. X — CIVIL — STATE OF CALIFORNIA

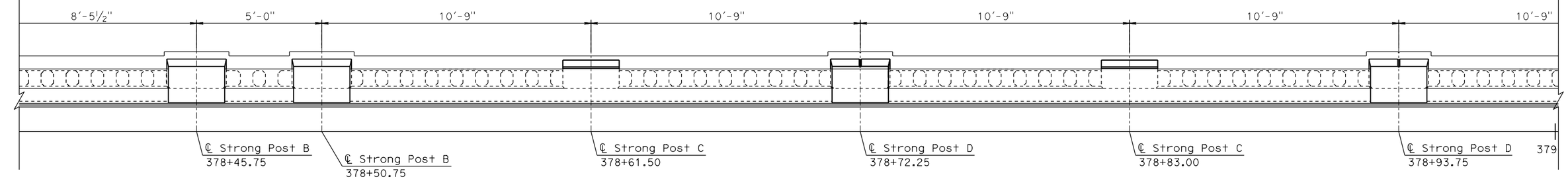
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



BACKSIDE ELEVATION
½" = 1'-0"



TRAFFIC SIDE ELEVATION
½" = 1'-0"



PLAN
½" = 1'-0"

	BY	CHECKED
DESIGN	X	X
DETAILS	X	X
QUANTITIES	X	X

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
OFFICE OF DESIGN AND TECHNICAL SERVICES
SPECIAL DESIGN BRANCH **B**

BRIDGE No. 44-0018
POST MILE 63.0

GARRAPATA CREEK BRIDGE
CONCRETE BARRIER TYPE 86H DETAILS No. 3

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REVISION 3/10/2021)

DATE PLOTTED => 7-SEP-2022 TIME PLOTTED => 08:31
FILE => 44-0018-c-sp03.dgn USERNAME => s123982

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3619
PROJECT NUMBER & PHASE: 05160001631

COUNTY/ROUTE: Mon/1
CONTRACT No.: 05-1H8004

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
8-5-22	9-1-22			X	X

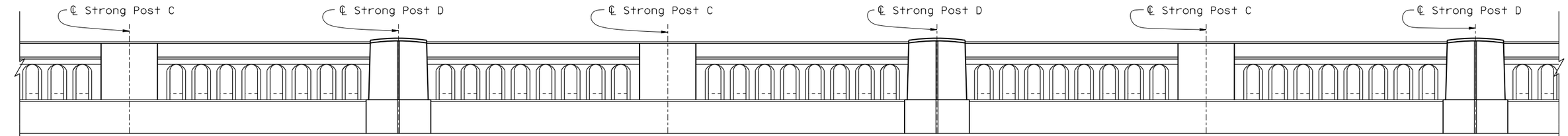
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TO SH

REGISTERED CIVIL ENGINEER X DATE

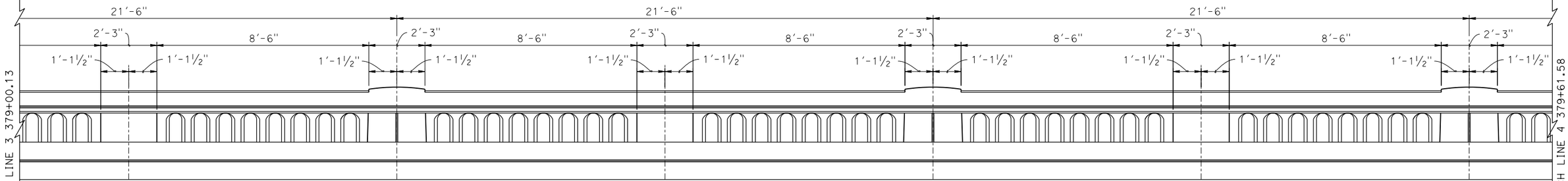
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — X — No. X — Exp. X — CIVIL — STATE OF CALIFORNIA

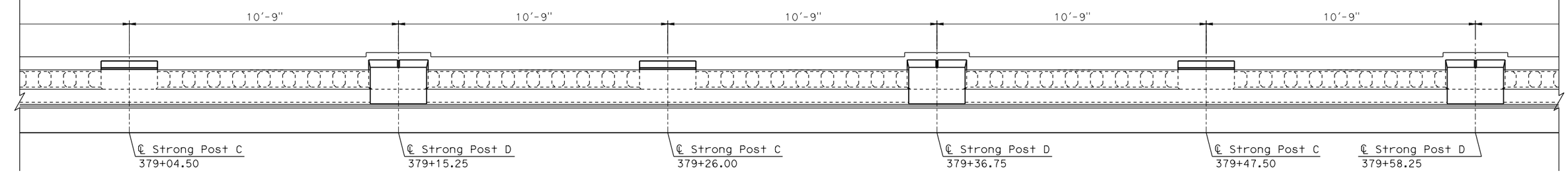
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



BACKSIDE ELEVATION
½" = 1'-0"



TRAFFIC SIDE ELEVATION
½" = 1'-0"



PLAN
½" = 1'-0"

DESIGN	BY Kimberly Mori	CHECKED X	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES OFFICE OF DESIGN AND TECHNICAL SERVICES SPECIAL DESIGN BRANCH B	BRIDGE No. 44-0018
DETAILS	BY David Elliott	CHECKED X			POST MILE 63.0
QUANTITIES	BY X	CHECKED X			

GARRAPATA CREEK BRIDGE

CONCRETE BARRIER TYPE 86H DETAILS No. 4

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REVISION 3/10/2021)

DATE PLOTTED => 7-SEP-2022 TIME PLOTTED => 08:31
FILE => 44-0018-c-sp04.dgn USERNAME => s123982
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3619
PROJECT NUMBER & PHASE: 05160001631

COUNTY/ROUTE: Mon/1
CONTRACT No.: 05-1H8004

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
8-5-22	9-1-22			X	X

60

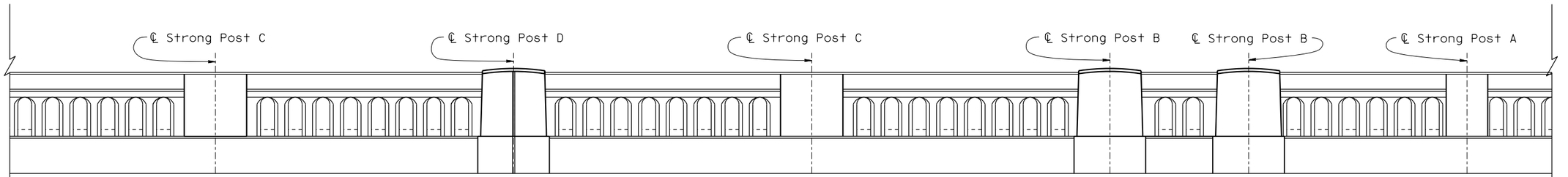
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TO SH

REGISTERED CIVIL ENGINEER _____ DATE X

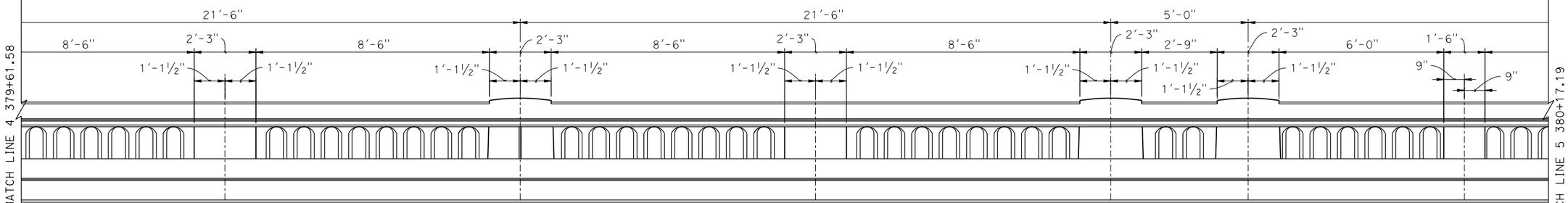
PLANS APPROVAL DATE _____

REGISTERED PROFESSIONAL ENGINEER — No. X — Exp. X — CIVIL — STATE OF CALIFORNIA

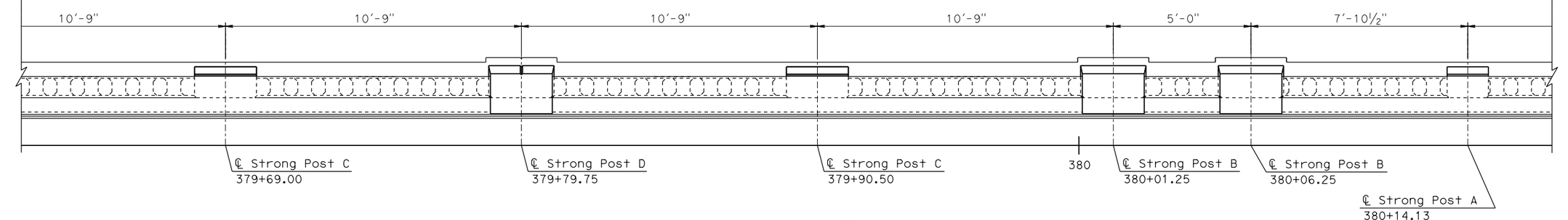
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



BACKSIDE ELEVATION
½" = 1'-0"



TRAFFIC SIDE ELEVATION
½" = 1'-0"



PLAN
½" = 1'-0"

DESIGN	BY Kimberly Mori	CHECKED X	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION
DETAILS	BY David Elliott	CHECKED X	
QUANTITIES	BY X	CHECKED X	

DIVISION OF ENGINEERING SERVICES
OFFICE OF DESIGN AND TECHNICAL SERVICES
SPECIAL DESIGN BRANCH **B**

BRIDGE No. 44-0018
POST MILE 63.0

GARRAPATA CREEK BRIDGE
CONCRETE BARRIER TYPE 86H DETAILS No. 5

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REVISION 3/10/2021)

DATE PLOTTED => 7-SEP-2022 TIME PLOTTED => 08:31
FILE => 44-0018-c-sp05.dgn USERNAME => s123982
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3619
PROJECT NUMBER & PHASE: 05160001631

COUNTY/ROUTE: Mon/1
CONTRACT No.: 05-1H8004

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
~~8-5-22~~	9-1-22			X	X

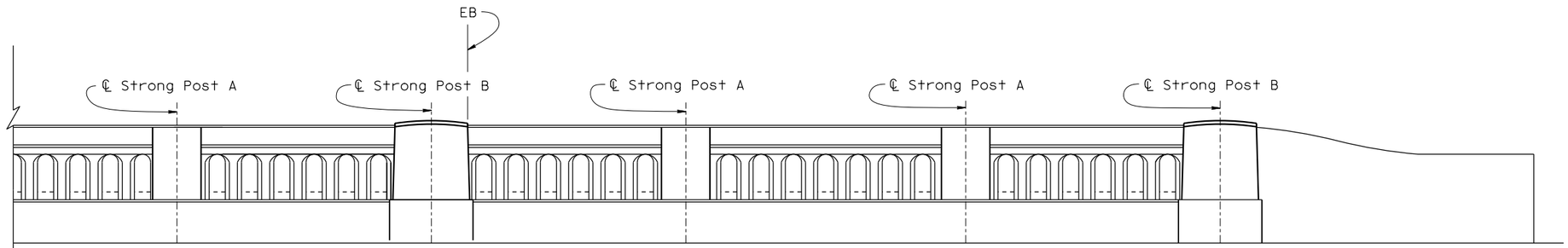
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER — DATE X

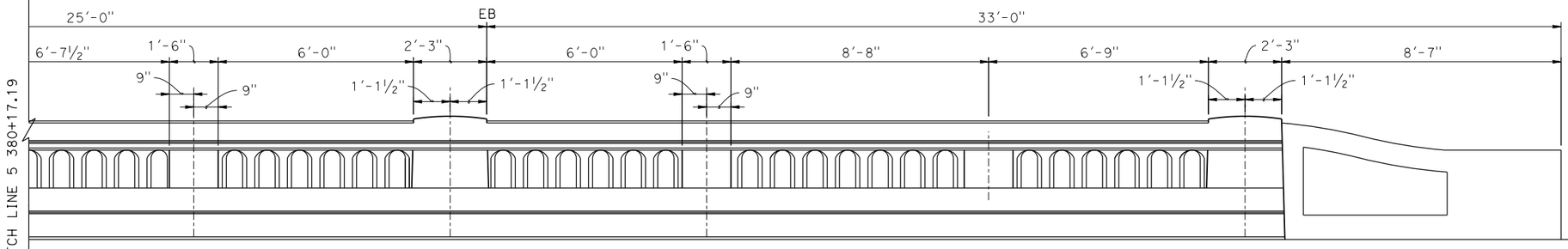
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — No. X — Exp. X — CIVIL — STATE OF CALIFORNIA

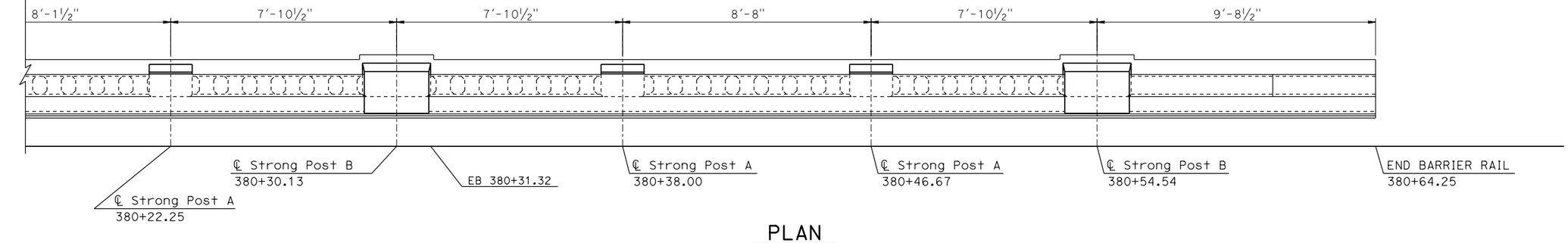
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



BACKSIDE ELEVATION
½" = 1'-0"



TRAFFIC SIDE ELEVATION
½" = 1'-0"



PLAN
½" = 1'-0"

DESIGN	BY Kimberly Mori	CHECKED X	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION
DETAILS	BY David Elliott	CHECKED X	DIVISION OF ENGINEERING SERVICES OFFICE OF DESIGN AND TECHNICAL SERVICES SPECIAL DESIGN BRANCH B
QUANTITIES	BY X	CHECKED X	BRIDGE No. 44-0018 POST MILE 63.0

GARRAPATA CREEK BRIDGE

CONCRETE BARRIER TYPE 86H DETAILS No. 6

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REVISION 3/10/2021)

DATE PLOTTED => 7-SEP-2022 TIME PLOTTED => 08:32
FILE => 44-0018-c-sp06.dgn USERNAME => s123982

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3619
PROJECT NUMBER & PHASE: 05160001631

COUNTY/ROUTE: Mon/1
CONTRACT No.: 05-1H8004

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
8-5-22	9-1-22			X	X

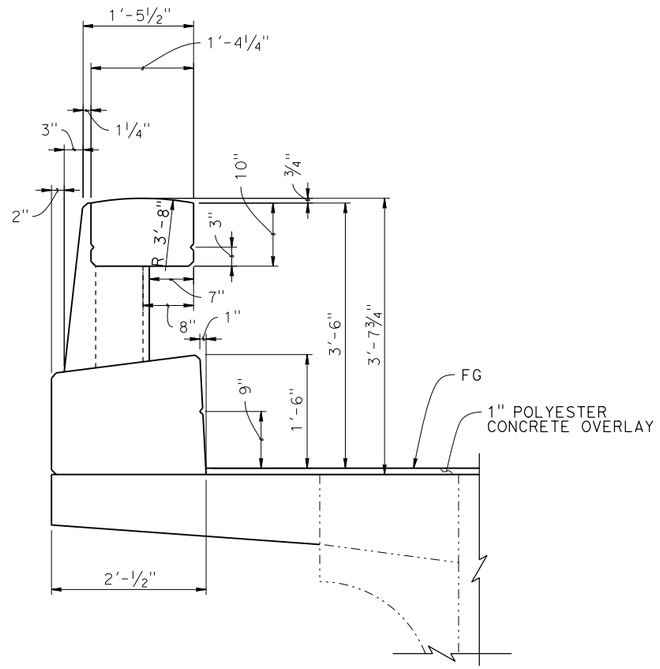
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TC SH

REGISTERED CIVIL ENGINEER X DATE

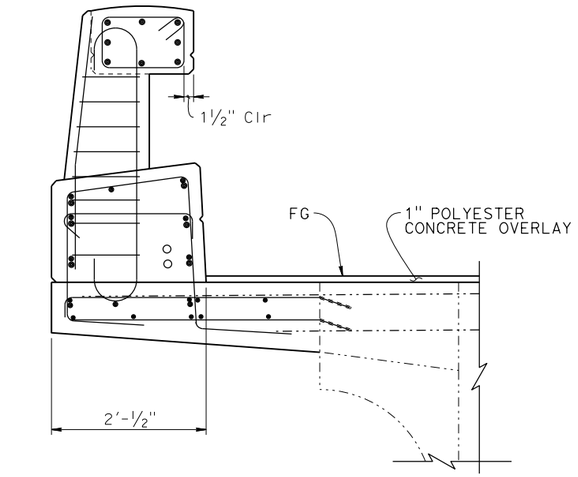
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — X — No. X — Exp. X — CIVIL — STATE OF CALIFORNIA

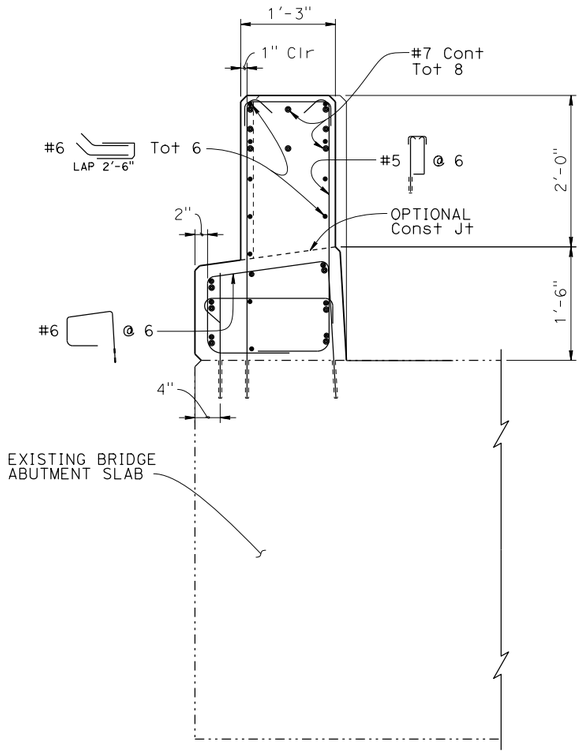
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



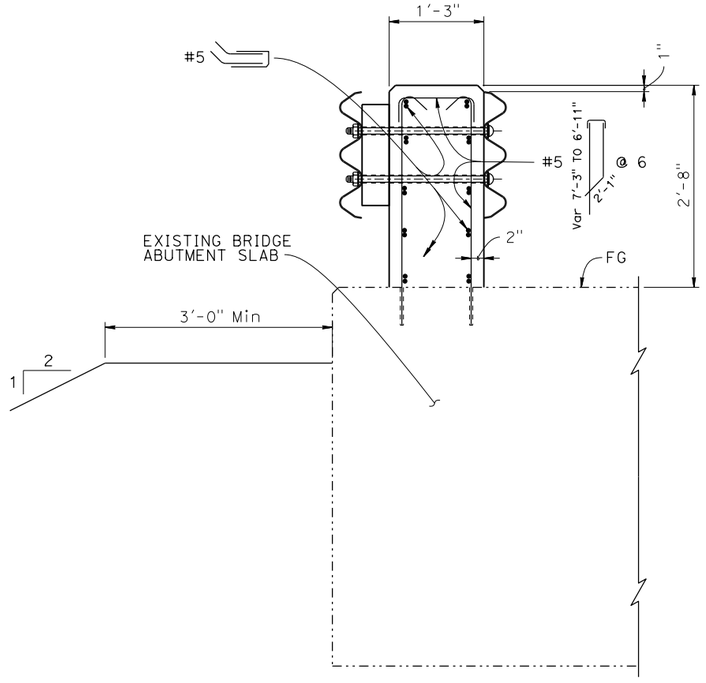
TYPICAL SECTION
1" = 1'-0"



TYPICAL SECTION - TYPE 86H
1" = 1'-0"



SECTION D-D
1" = 1'-0"



SECTION E-E
1" = 1'-0"

DESIGN	BY Kimberly Mori	CHECKED X	
DETAILS	BY David Elliott	CHECKED X	
QUANTITIES	BY X	CHECKED X	

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
OFFICE OF DESIGN AND TECHNICAL SERVICES
SPECIAL DESIGN BRANCH B

BRIDGE No. 44-0018
POST MILE 63.0

GARRAPATA CREEK BRIDGE
CONCRETE BARRIER TYPE 86H DETAILS No. 7

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REVISION 3/10/2021)

DATE PLOTTED => 7-SEP-2022 TIME PLOTTED => 08:32
FILE => 44-0018-c-sp07.dgn USERNAME => s123982

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3619
PROJECT NUMBER & PHASE: 05160001631

COUNTY/ROUTE: Mon/1
CONTRACT No.: 05-1H8004

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
8-1-22	8-9-22	9-2-22		X	X

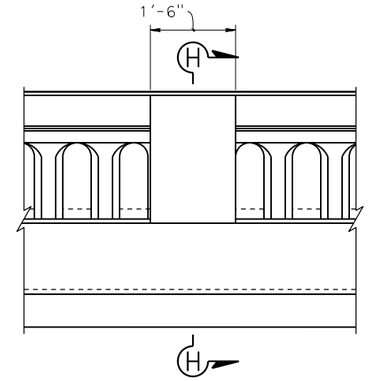
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
					94

REGISTERED CIVIL ENGINEER — DATE X

PLANS APPROVAL DATE

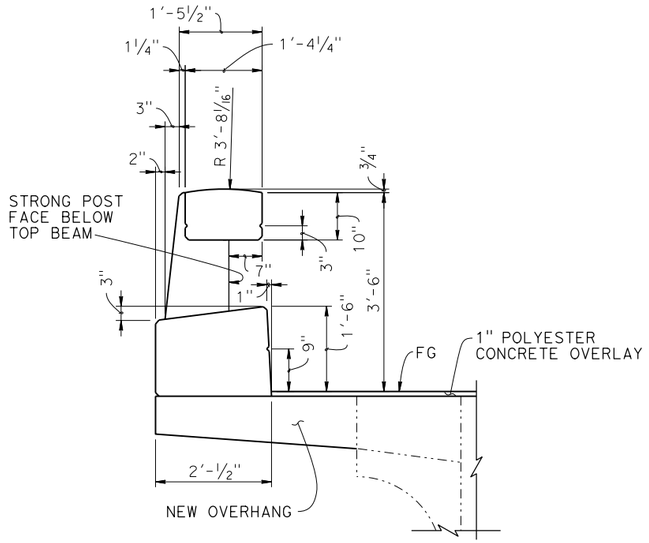
REGISTERED PROFESSIONAL ENGINEER — No. X — Exp. X — CIVIL — STATE OF CALIFORNIA

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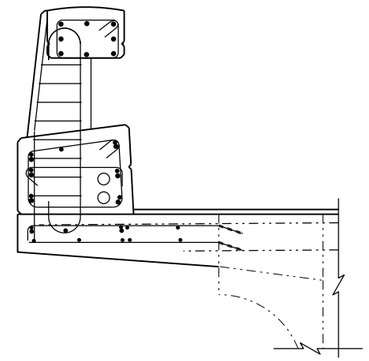
STRONG POST A TYPICAL

3/4" = 1'-0"



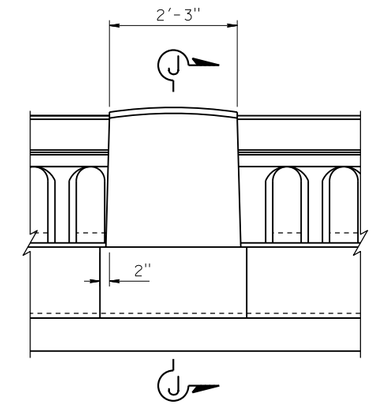
SECTION H-H

NOTE: Strong Post A cross section dimensions shown, Strong Post C similar.



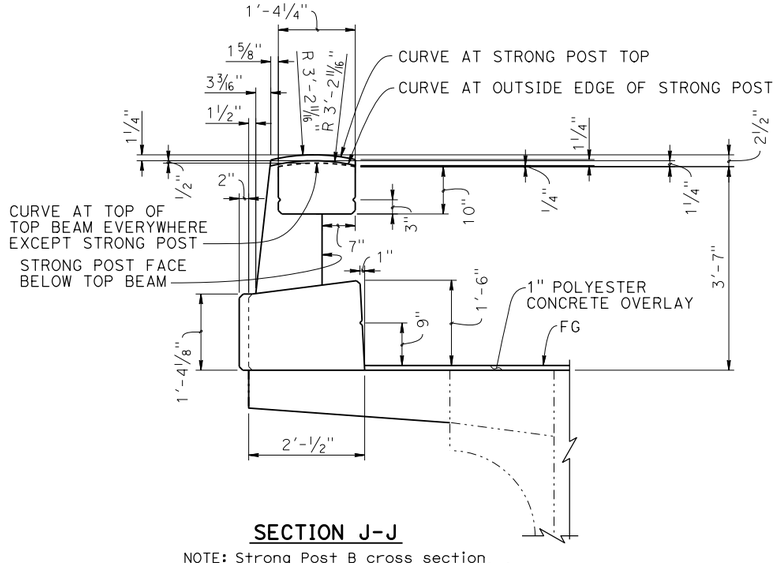
SECTION H-H

NOTE: Strong Post A rebar shown, Strong Post C similar.



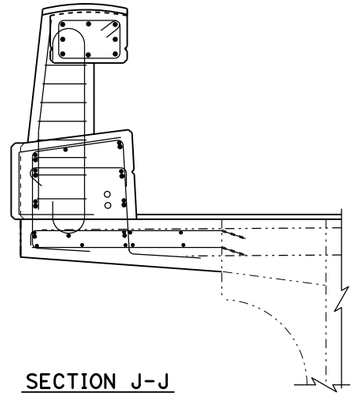
STRONG POST B TYPICAL

3/4" = 1'-0"



SECTION J-J

NOTE: Strong Post B cross section dimensions shown, Strong Post D similar.



SECTION J-J

NOTE: Strong Post B rebar shown, Strong Post D similar.

DESIGN	BY Kimberly Mori	CHECKED X	
DETAILS	BY David Elliott	CHECKED X	
QUANTITIES	BY X	CHECKED X	

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
OFFICE OF DESIGN AND TECHNICAL SERVICES
SPECIAL DESIGN BRANCH B

BRIDGE No. 44-0018
POST MILE 63.0

GARRAPATA CREEK BRIDGE

CONCRETE BARRIER TYPE 86H DETAILS No. 8

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REVISION 3/10/2021)

DATE PLOTTED => 7-SEP-2022 TIME PLOTTED => 08:32
FILE => 44-0018-c-sp08.dgn USERNAME => s123982
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3619
PROJECT NUMBER & PHASE: 05160001631

COUNTY/ROUTE: Mon/1
CONTRACT No.: 05-1H8004

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
8-1-22	8-8-22	9-2-22		X	X

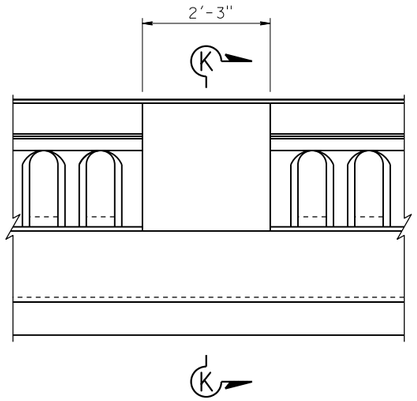
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER _____ DATE X

PLANS APPROVAL DATE _____

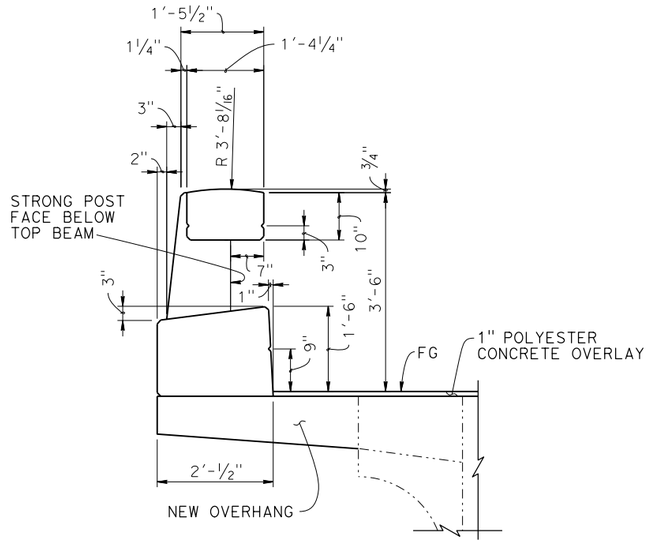
REGISTERED PROFESSIONAL ENGINEER — No. X — Exp. X — CIVIL — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



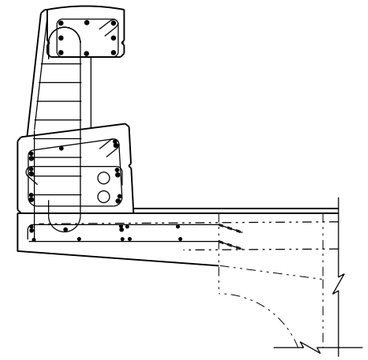
STRONG POST C TYPICAL

3/4" = 1'-0"



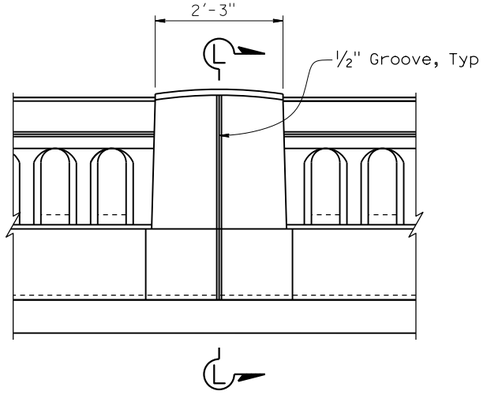
SECTION K-K

NOTE: Strong Post C cross section dimensions shown, Strong Post A similar.



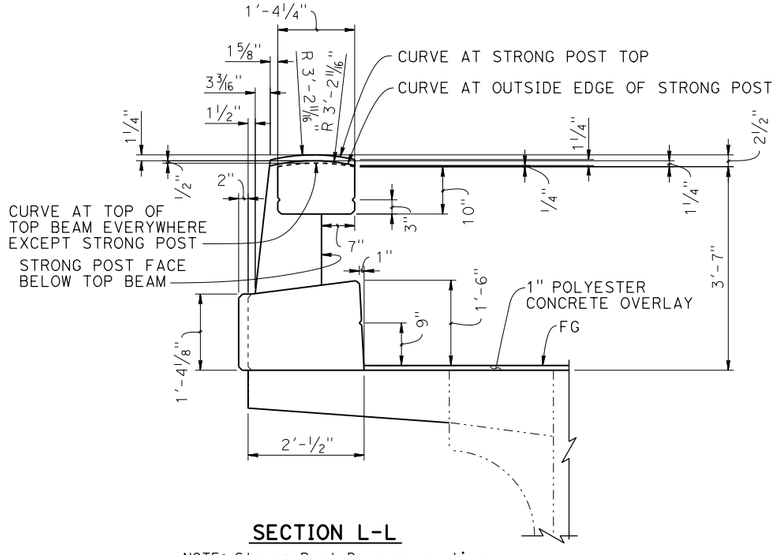
SECTION K-K

NOTE: Strong Post C rebar shown, Strong Post A similar.



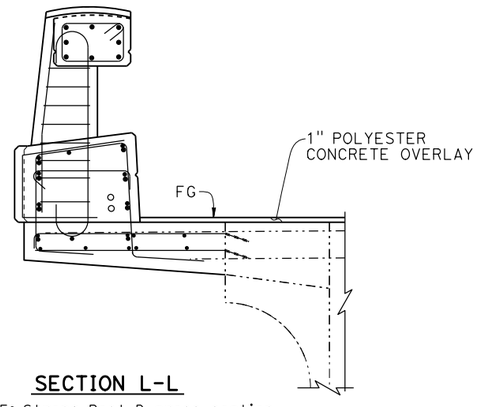
STRONG POST D TYPICAL

3/4" = 1'-0"



SECTION L-L

NOTE: Strong Post D cross section dimensions shown, Strong Post B similar.



SECTION L-L

NOTE: Strong Post D cross section reinforcement shown, Strong Post B similar.

DESIGN	BY Kimberly Mori	CHECKED X	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES OFFICE OF DESIGN AND TECHNICAL SERVICES SPECIAL DESIGN BRANCH B	BRIDGE No. 44-0018
DETAILS	BY David Elliott	CHECKED X			POST MILE 63.0
QUANTITIES	BY X	CHECKED X			

GARRAPATA CREEK BRIDGE

CONCRETE BARRIER TYPE 86H DETAILS No. 9

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REVISION 3/10/2021)

DATE PLOTTED => 7-SEP-2022 TIME PLOTTED => 08:32
FILE => 44-0018-c-sp09.dgn USERNAME => s123982

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3619
PROJECT NUMBER & PHASE: 05160001631

COUNTY/ROUTE: Mon/1
CONTRACT No.: 05-1H8004

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
9-7-22	----	----		X	X

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER — DATE X

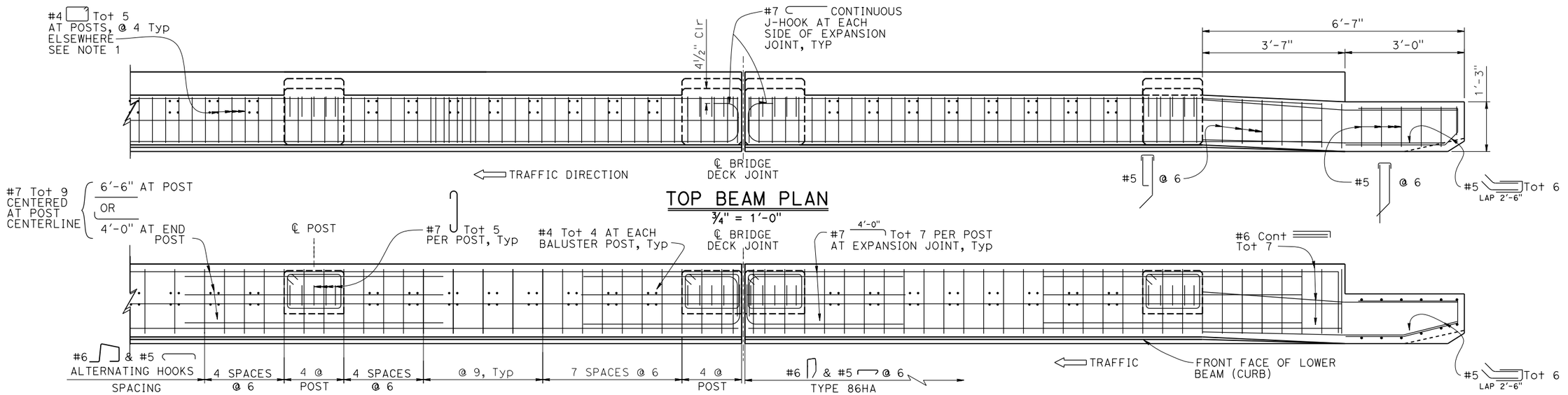
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — No. X — Exp. X — CIVIL — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTE:

1. Adjust spacing of #4 hoops at post location as necessary to avoid locations of the drill and bond threaded rods attaching the tubular bicycle railing to the top of the top concrete beam. See the "TUBULAR BICYCLE RAILING DETAIL" on the "CONCRETE BARRIER TYPE 86H DETAILS No. 5" sheet.

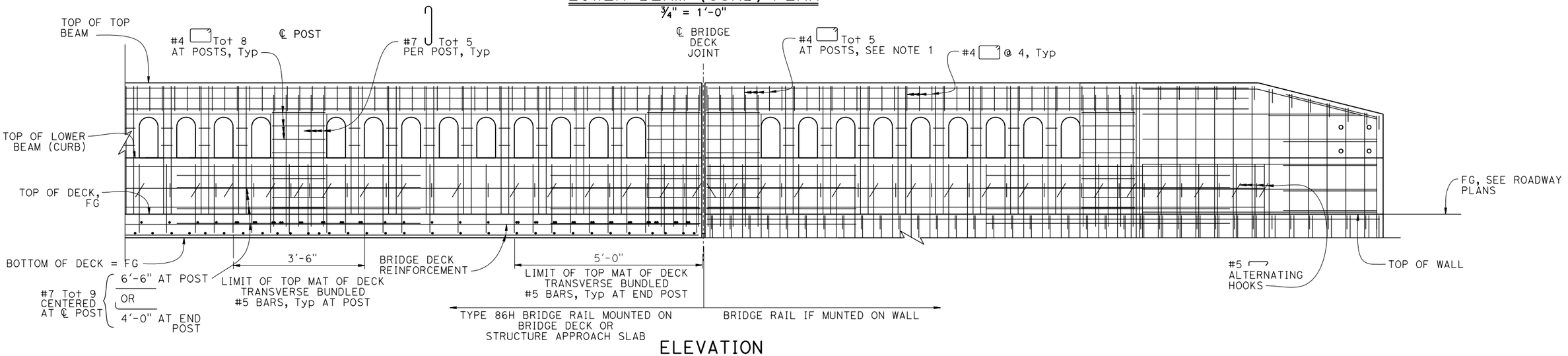


TOP BEAM PLAN

¾" = 1'-0"

LOWER BEAM (CURB) PLAN

¾" = 1'-0"



ELEVATION

¾" = 1'-0"

DESIGN	BY Kimberly Mori	CHECKED X	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES OFFICE OF DESIGN AND TECHNICAL SERVICES SPECIAL DESIGN BRANCH B	BRIDGE No. 44-0018
DETAILS	BY David Elliott	CHECKED X			POST MILE 63.0
QUANTITIES	BY X	CHECKED X			

GARRAPATA CREEK BRIDGE

CONCRETE BARRIER TYPE 86H DETAILS No. 10

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REVISION 3/10/2021)

DATE PLOTTED => 7-SEP-2022 TIME PLOTTED => 08:32
FILE => 44-0018-c-sp10.dgn USERNAME => s123982
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3619
PROJECT NUMBER & PHASE: 05160001631

COUNTY/ROUTE: Mon/1
CONTRACT No.: 05-1H8004

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
8-5-22				X	X

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TO SH

REGISTERED CIVIL ENGINEER — DATE X

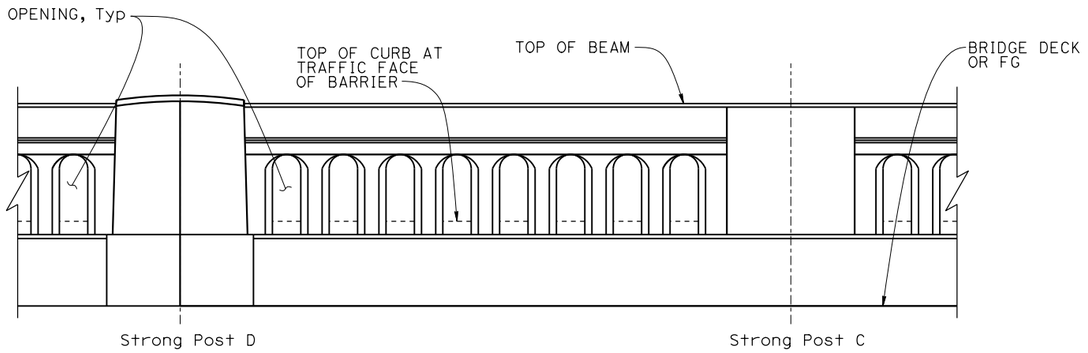
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — X — No. X — Exp. X — CIVIL — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

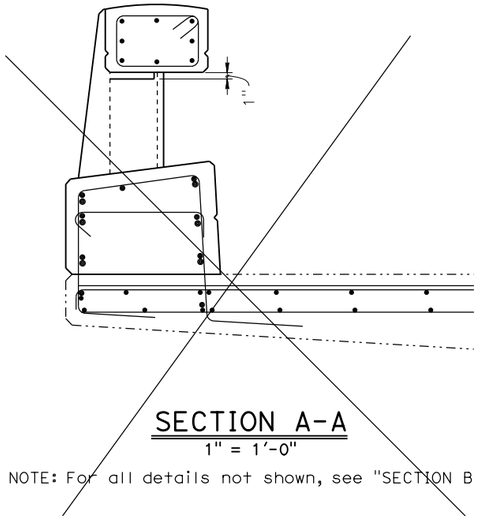
1. For "SECTION A-A" and " SECTION B-B" location see "CONCRETE BARRIER TYPE 86H No. 1" sheet.
2. For details not shown, see other sheets.



ELEVATION WITH CHAMFERED BALUSTERS

CLEAR OPENINGS & BALUSTERS

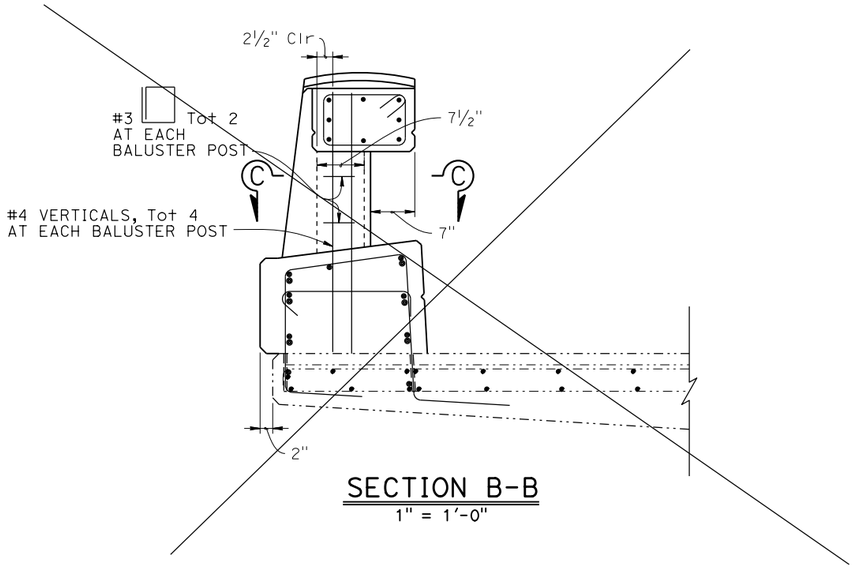
¾"= 1'-0"



SECTION A-A

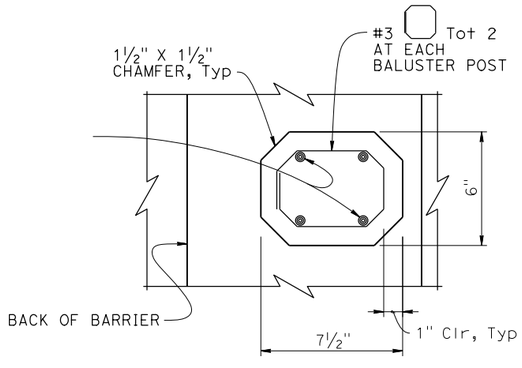
1" = 1'-0"

NOTE: For all details not shown, see "SECTION B



SECTION B-B

1" = 1'-0"



SECTION C-C

3" = 1'-0"

DESIGN	BY Kimberly Mori	CHECKED X	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES OFFICE OF DESIGN AND TECHNICAL SERVICES SPECIAL DESIGN BRANCH B	BRIDGE No. 44-0018
DETAILS	BY David Elliott	CHECKED X			POST MILE 63.0
QUANTITIES	BY X	CHECKED X			

GARRAPATA CREEK BRIDGE

CONCRETE BARRIER TYPE 86H DETAILS No. 11

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REVISION 3/10/2021)

DATE PLOTTED => 7-SEP-2022 TIME PLOTTED => 08:32 ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

FILE => 44-0018-c-sp11.dgn USERNAME => s123982

UNIT: 3619 COUNTY/ROUTE: Mon/1

PROJECT NUMBER & PHASE: 05160001631 CONTRACT No.: 05-1H8004

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
8-1-22	8-8-22			X	X

INDEX OF PLANS

SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
2	LAYOUT
3	UTILITY PLAN
4	CONSTRUCTION AREA SIGNS
5-6	STAGE CONSTRUCTION
7-12	TRAFFIC HANDLING PLAN
13	TRAFFIC HANDLING QUANTITIES
14	PAVEMENT DELINEATION AND SIGN PLAN
15	PAVEMENT DELINEATION QUANTITIES
16	SIGN DETAILS
17	SIGN QUANTITIES
18	SUMMARY OF QUANTITIES
19	EROSION CONTROL LEGEND
20-24	TEMPORARY SIGNAL SYSTEMS
25-26	ELECTRICAL DETAILS
27	ELECTRICAL SYSTEMS QUANTITIES

STRUCTURE PLANS

28	GENERAL PLAN

THE STANDARD PLANS LIST APPLICABLE TO THIS CONTRACT IS INCLUDED IN THE NOTICE TO BIDDERS AND SPECIAL PROVISIONS BOOK.

STATE OF CALIFORNIA

DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON

STATE HIGHWAY

IN MONTEREY COUNTY
ABOUT 11.3 MILES SOUTH OF CARMEL
AT GARRAPATA CREEK BRIDGE

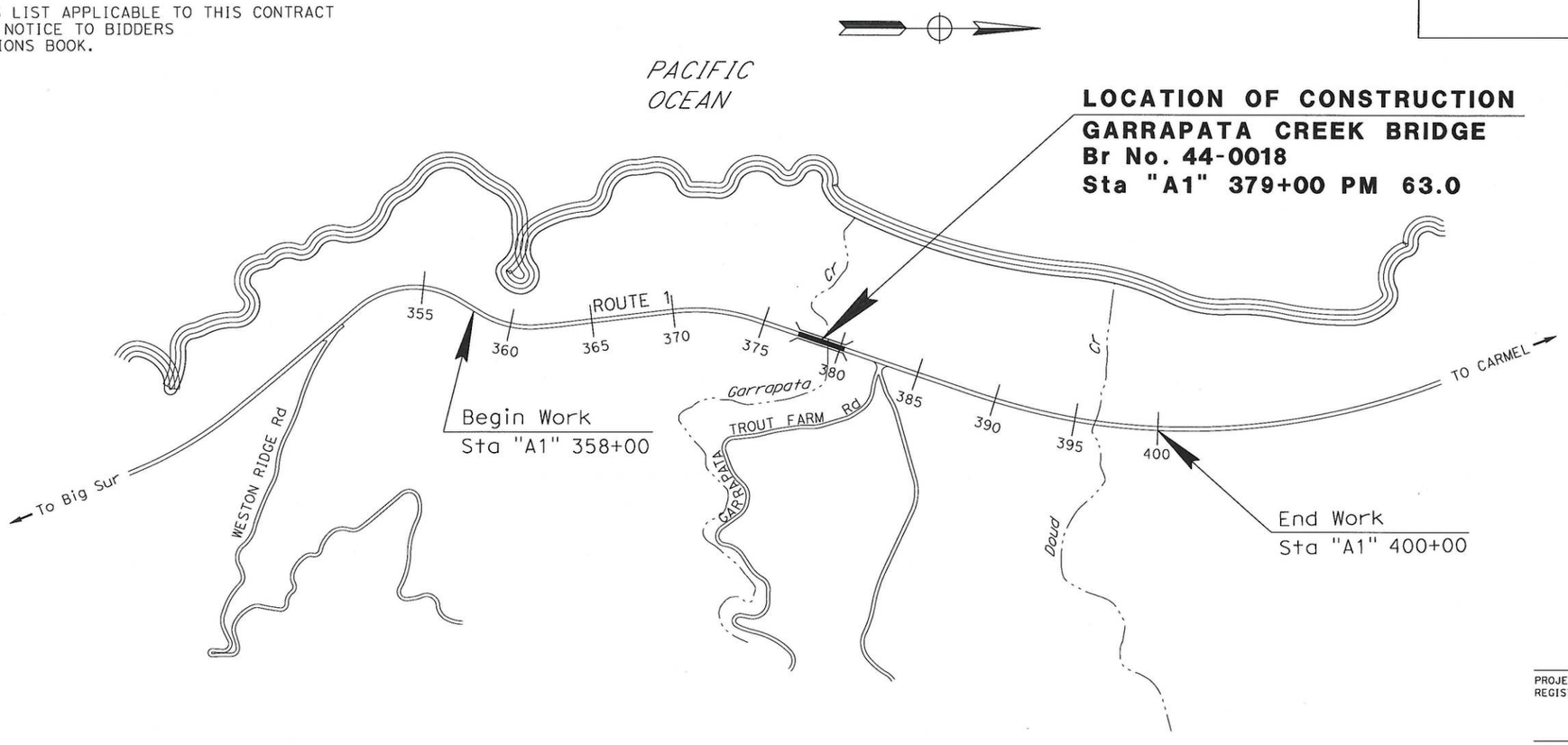
TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2018

60% PLANS- NOT FOR CONSTRUCTION

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	Mon	1	63.0	1	



LOCATION MAP



NO SCALE

PROJECT ENGINEER DATE
REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER — No. Exp. CIVIL — STATE OF CALIFORNIA

CONTRACT No.	05-1H8004
PROJECT ID	0516000163

LAST REVISION 00-00-00
DATE PLOTTED => $DATE
TIME PLOTTED => $TIME

PROJECT MANAGER: CARLA YU
DESIGN MANAGER: JOSE HUERTA

THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF LICENSE AS SPECIFIED IN THE "NOTICE TO BIDDERS."

BORDER LAST REVISED 8/1/2016 | CALTRANS WEB SITE IS: HTTP//WWW.DOT.CA.GOV/ | RELATIVE BORDER SCALE 0 1 2 3 | USERNAME => $USER | UNIT 1457 | PROJECT NUMBER & PHASE 0516000163

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	Mon	1	63.0	2	

REGISTERED CIVIL ENGINEER DATE

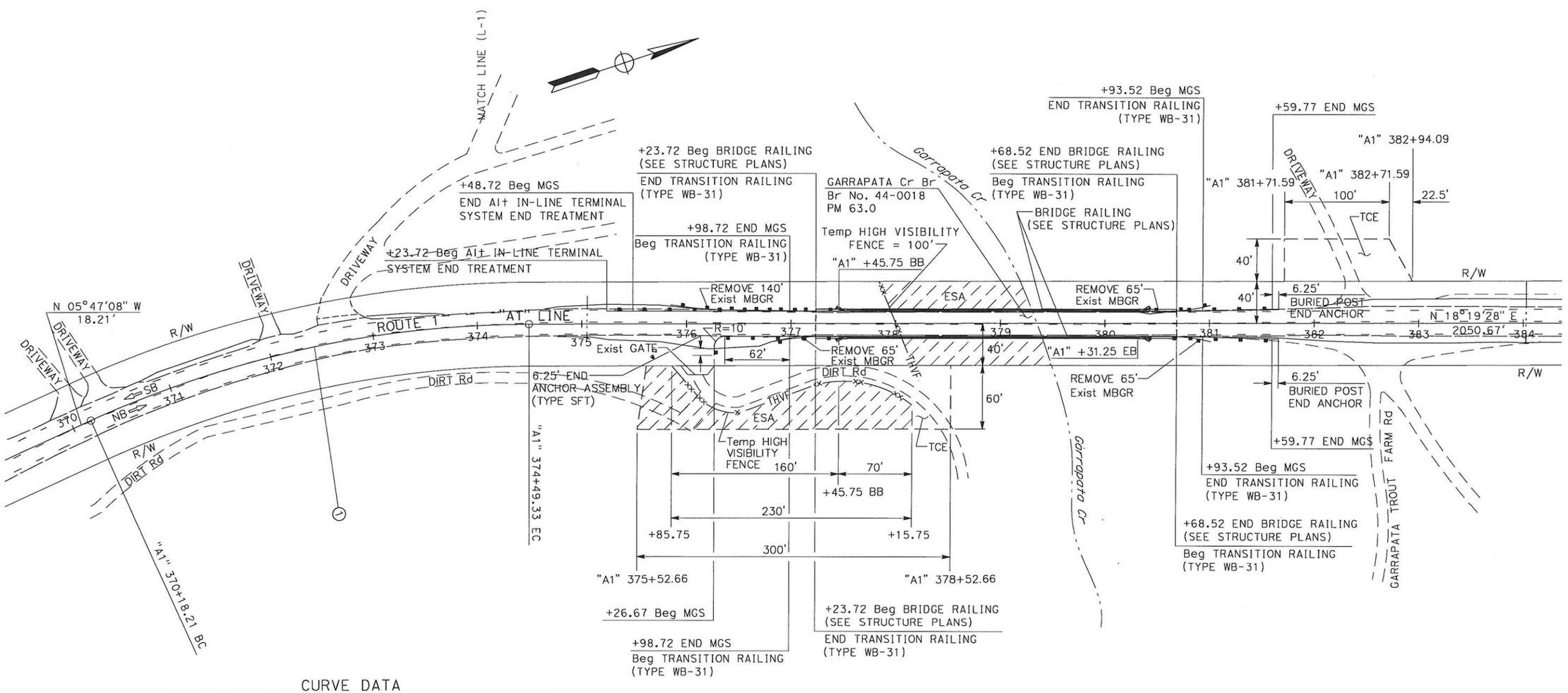
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — No. — Exp. — CIVIL — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTE:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



CURVE DATA

No. ⊕	R	Δ	T	L
1	1024.54	24°06'36"	218.80	431.12

LAYOUT

SCALE 1" = 50' **L-1**

CALCULATED-DESIGNED BY	HUY HA		
CHECKED BY	JOSE HUERTA		
REVISED BY	HUY HA	LAST REVISION	00-00-00
DATE REVISED	00-00-00	DATE PLOTTED => $DATE	
FUNCTIONAL SUPERVISOR	JOSE HUERTA	TIME PLOTTED => $TIME	

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION **DESIGN**

Caltrans

BORDER LAST REVISED 7/2/2010 | USERNAME => $USER | RELATIVE BORDER SCALE 0 1 2 3 | UNIT 1457 | PROJECT NUMBER & PHASE 05160001631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	Mon	1	63.0	3	

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

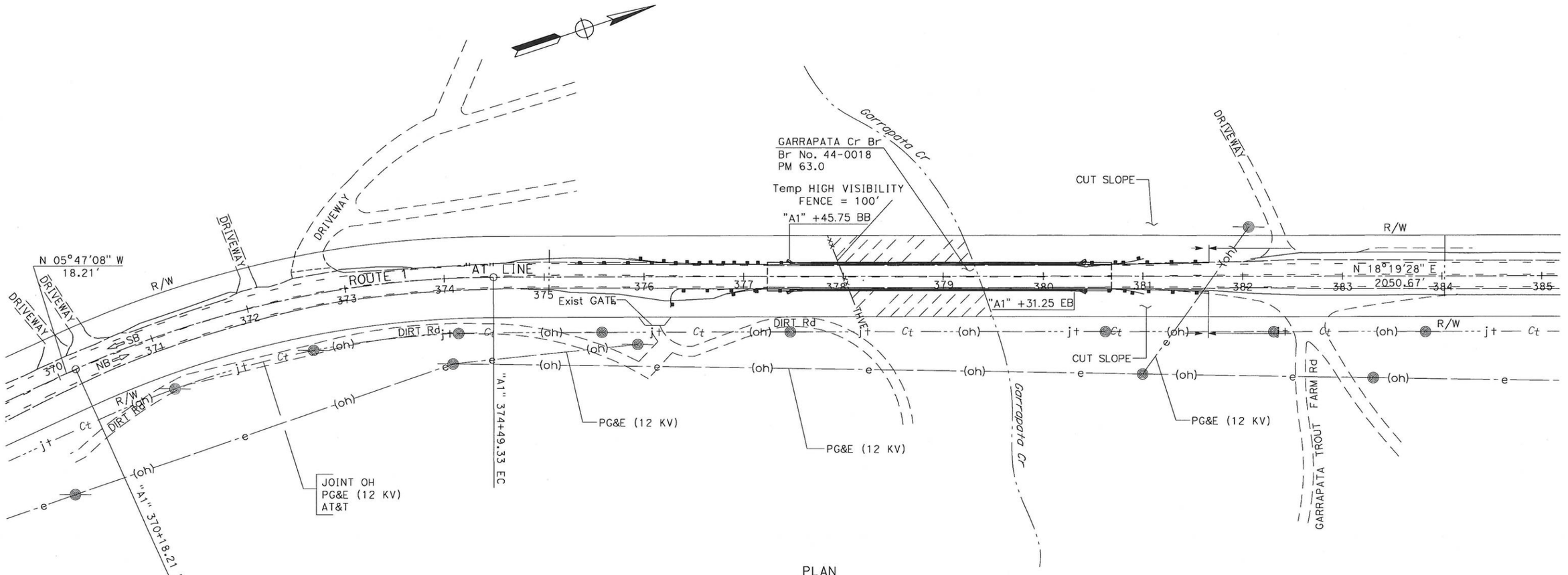
REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

100

NOTES:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
2. UTILITIES SHOWN ON THIS PLAN ARE EXISTING AND ARE FOR INFORMATION PURPOSES ONLY.
3. UTILITIES OWNERSHIP ON THIS PROJECT AS SHOWN:
   ELECTRICAL - PACIFIC GAS & ELECTRIC PG&E
   TELEPHONE - AMERICAN TELEPHONE & TELEGRAPH AT&T



PLAN

GARRAPATA CREEK BRIDGE AT PM 63.0

THIS PLAN TO BE USED FOR UTILITY INFORMATION ONLY

UTILITY PLAN

SCALE 1" = 50' **U-1**

CALCULATED-DESIGNED BY	CHECKED BY	REVISED BY	DATE REVISED
HUY HA	JOSE HUERTA	HUY HA	00-00-00

FUNCTIONAL SUPERVISOR: JOSE HUERTA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans® **DESIGN**

LAST REVISION 00-00-00 | DATE PLOTTED => $DATE | TIME PLOTTED => $TIME

BORDER LAST REVISED 7/2/2010 | USERNAME => $USER | RELATIVE BORDER SCALE 0 1 2 3 | UNIT 1457 | PROJECT NUMBER & PHASE 05160001631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	Mon	1	63.00	4	

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

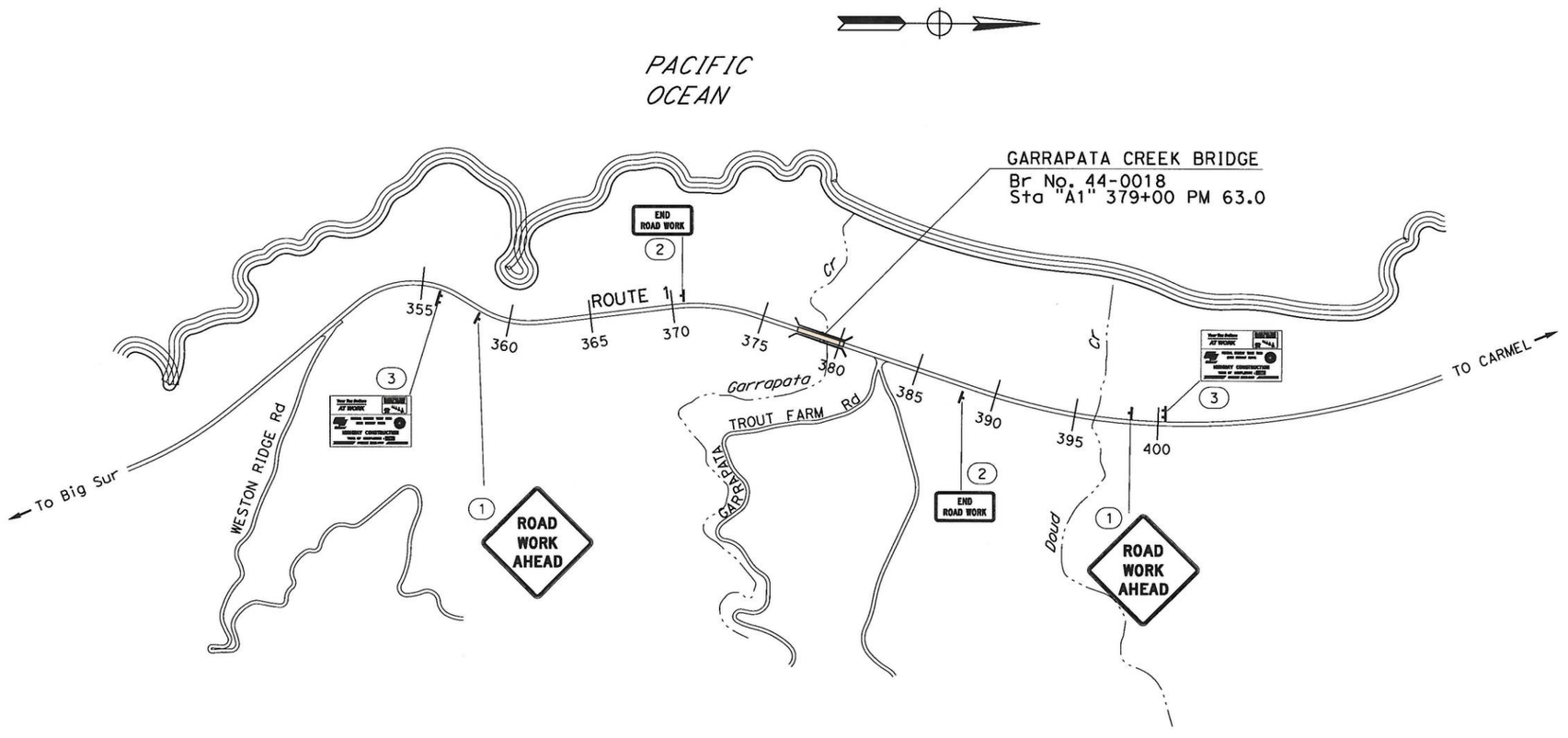
REGISTERED PROFESSIONAL ENGINEER — QUAY F. CHESTER — No. 92096 — Exp. 03/31/23 — CIVIL — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN No. (X)	SIGN DESIGNATION	SIGN MESSAGE	PANEL SIZE	No. OF POSTS AND POST SIZE	No. OF SIGNS
1	W20-1	ROAD WORK AHEAD	48"x48"	1-6"x6"	2
2	G20-2	END ROAD WORK	36"x18"	1-4"x4"	2
3	C47B (CA)	CONSTRUCTION PROJECT FUNDING IDENTIFICATION SIGN	48"x30"	1-4"x6"	2

NOTE: SIGN LOCATIONS ARE APPROXIMATE. EXACT LOCATIONS TO BE DETERMINED BY THE ENGINEER.



APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

CONSTRUCTION AREA SIGNS

NO SCALE

CS-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® TRAFFIC DESIGN
FUNCTIONAL SUPERVISOR: MOHAMMED OATAMI
CALCULATED-DESIGNED BY: OUAY CHESTER
CHECKED BY: FAWZI YAGHMOUR
REVISED BY
DATE REVISED

LAST REVISION 00-00-00
DATE PLOTTED => 1/24/2022
TIME PLOTTED => 9:56:20 AM

BORDER LAST REVISED 7/2/2010
USERNAME =>
DGN FILE => ...\0516000163la001.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 4651
PROJECT NUMBER & PHASE 0516000163

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	Mon	1	63.0	5	

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

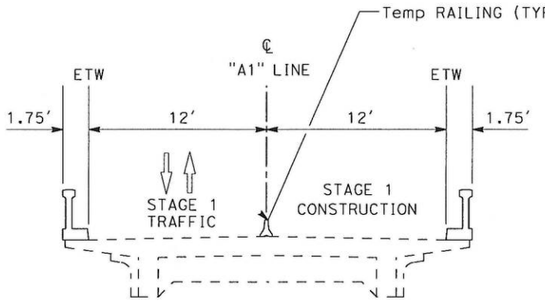
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
2. SEE TRAFFIC HANDLING PLAN FOR THE LENGTH OF K-RAIL.
3. SEE TRAFFIC LAYOUT PLAN FOR THE LENGTH OF TEMPORARY HIGH VISIBILITY FENCE AND AREA OF TEMPORARY CONSTRUCTION EASEMENT.

LEGEND:

CONSTRUCT THIS STAGE



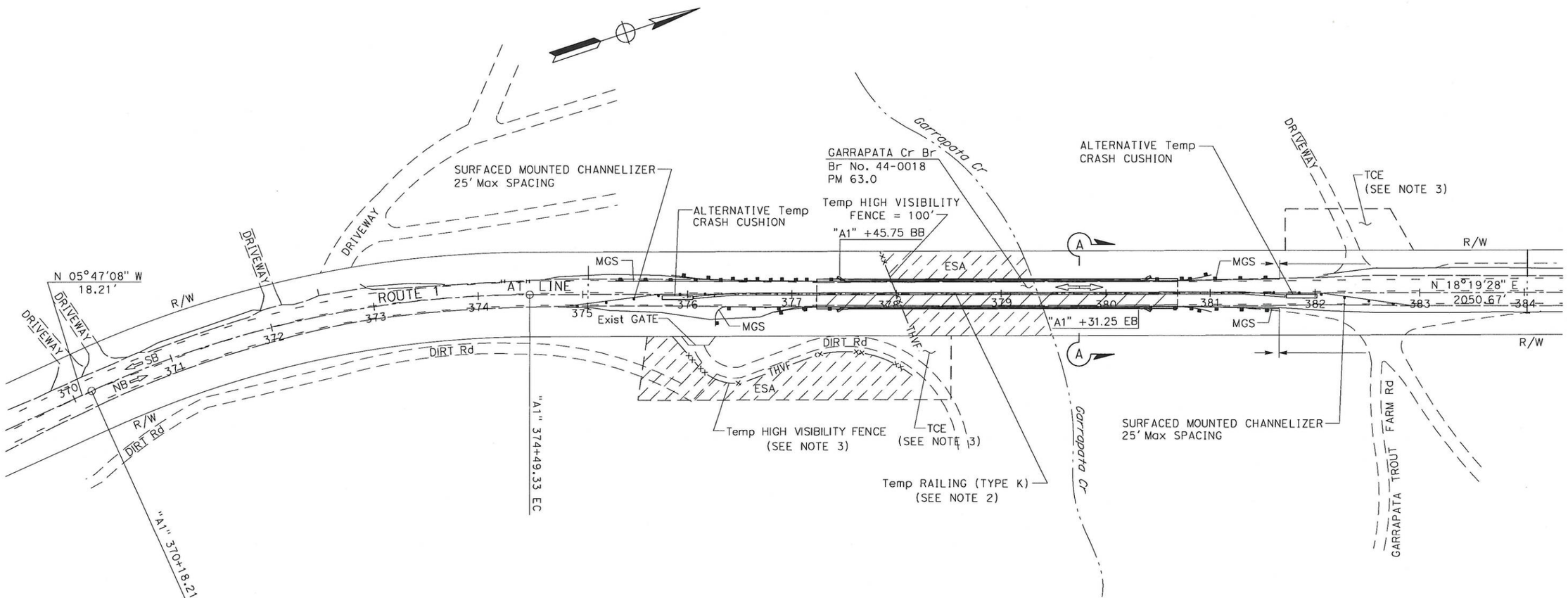
SECTION A-A

DESIGN DESIGNATION (ROUTE 1)

ADT (2022)	5,572	D	90%
ADT (2042)	7,144	T	14%
DHV	820	V	65 mph

PAVEMENT CLIMATE REGION

CENTRAL COAST



PLAN

GARRAPATA CREEK BRIDGE AT PM 63.0

(STAGE 1)

APPROVED FOR STAGE CONSTRUCTION WORK ONLY

STAGE CONSTRUCTION PLAN

(STAGE 1)

SCALE 1" = 50'

SC-1

CALCULATED-DESIGNED BY	HUY HA
CHECKED BY	JOSE HUERTA
REVISED BY	HUY HA
DATE REVISED	00-00-00
FUNCTIONAL SUPERVISOR	JOSE HUERTA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans® DESIGN

LAST REVISION 00-00-00 | DATE PLOTTED => $DATE | TIME PLOTTED => $TIME

BORDER LAST REVISED 7/2/2010 | USERNAME => $USER | RELATIVE BORDER SCALE 0 1 2 3 | UNIT 1457 | PROJECT NUMBER & PHASE 05160001631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	Mon	1	63.0	6	

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

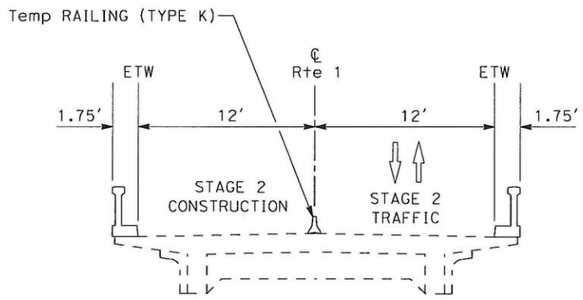
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

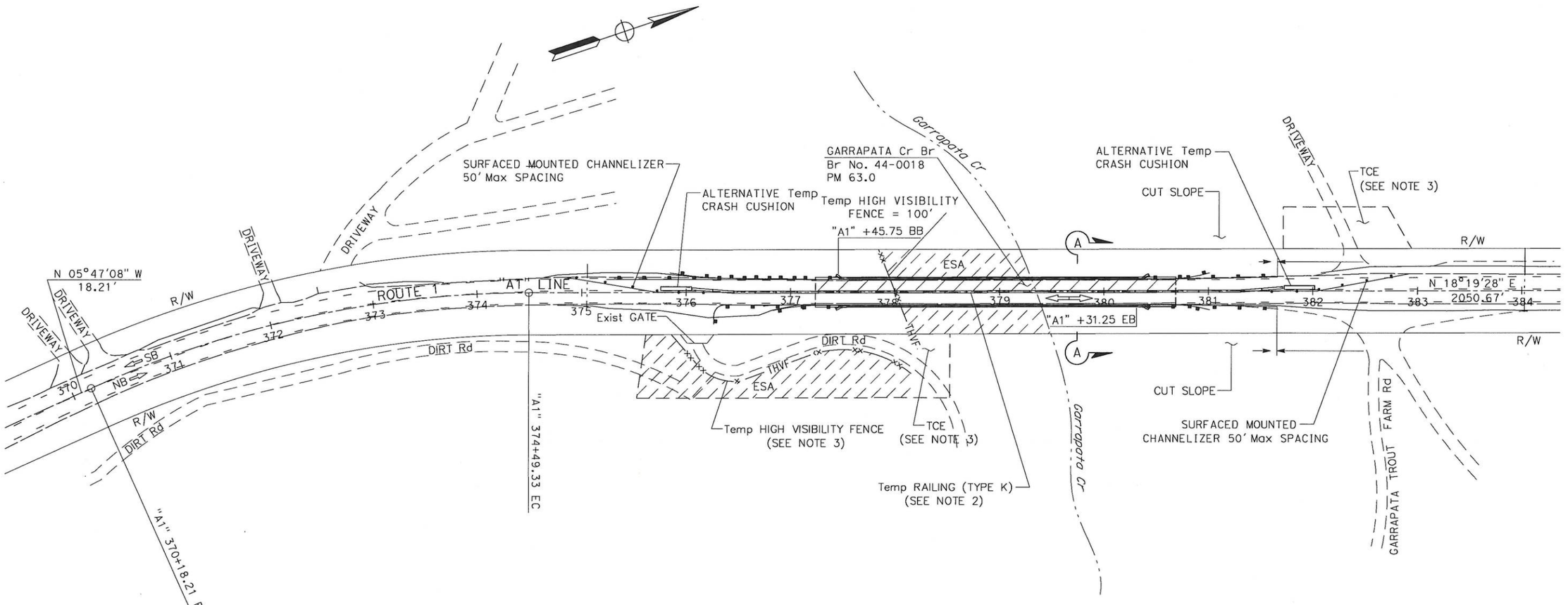
1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
2. SEE TRAFFIC HANDLING PLAN FOR THE LENGTH OF K-RAIL.
3. SEE TRAFFIC LAYOUT PLAN FOR THE LENGTH OF TEMPORARY HIGH VISIBILITY FENCE AND AREA OF TEMPORARY CONSTRUCTION EASEMENT.

LEGEND:

CONSTRUCT THIS STAGE



SECTION A-A



PLAN

GARRAPATA CREEK BRIDGE AT PM 63.0

(STAGE 2)

APPROVED FOR STAGE CONSTRUCTION WORK ONLY

STAGE CONSTRUCTION PLAN

(STAGE 2)

SCALE 1" = 50'

SC-2

CALCULATED-DESIGNED BY	HUY HA	REVISED BY	HUY HA
CHECKED BY	JOSE HUERTA	DATE REVISED	00-00-00

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans®
FUNCTIONAL SUPERVISOR: JOSE HUERTA
DESIGN

LAST REVISION 00-00-00 DATE PLOTTED => $DATE TIME PLOTTED => $TIME

BORDER LAST REVISED 7/2/2010 | USERNAME => $USER DGN FILE => $REQUEST | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 1457 | PROJECT NUMBER & PHASE 05160001631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	Mon	1	63.00	7	

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — QUAY F. CHESTER — No. 92096 — Exp. 03/31/23 — CIVIL — STATE OF CALIFORNIA

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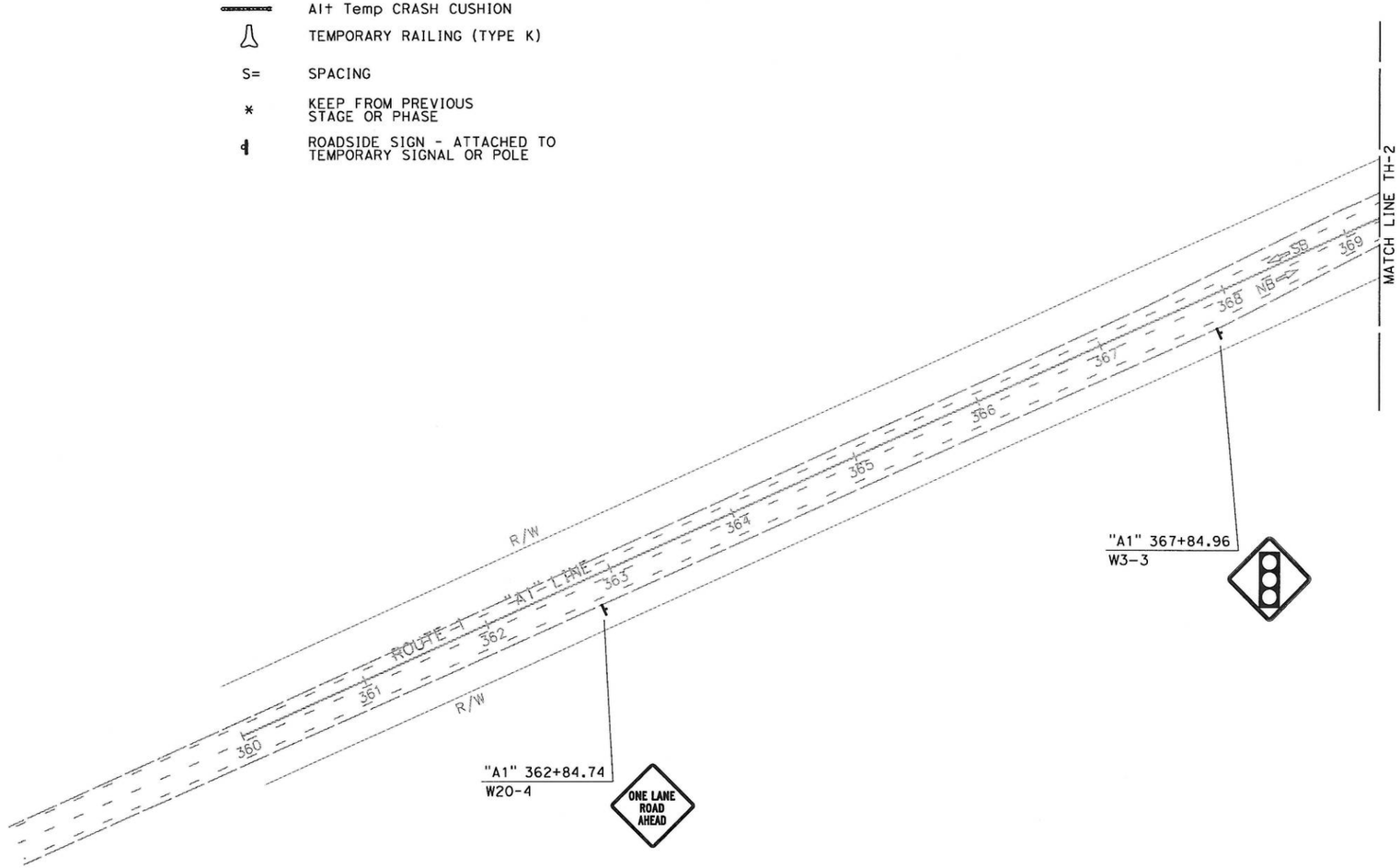
1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
2. EXACT SIGN LOCATIONS TO BE DETERMINED BY THE ENGINEER.
3. ADDITIONAL SIGNS MAY BE INSTALLED ON THE MAINLINE, AND OTHER LOCATIONS, AS DETERMINED BY THE ENGINEER.
4. FOR ADDITIONAL CONSTRUCTION AREA SIGNS, REFER TO CONSTRUCTION AREA SIGN PLAN.

ABBREVIATIONS:

Rem - REMOVE

LEGEND:

- CONSTRUCT THIS STAGE
- CHANNELIZER (SURFACE MOUNTED)
- Alt Temp CRASH CUSHION
- TEMPORARY RAILING (TYPE K)
- S= SPACING
- * KEEP FROM PREVIOUS STAGE OR PHASE
- ROADSIDE SIGN - ATTACHED TO TEMPORARY SIGNAL OR POLE



APPROVED FOR TRAFFIC HANDLING WORK ONLY

TRAFFIC HANDLING PLAN

STAGE 1

SCALE: 1" = 50'

TH-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	REVISED BY	QUAY CHESTER
Caltrans® TRAFFIC DESIGN	MOHAMMED QATAMI	CHECKED BY	DATE REVISED	FAWZI YAGHMOUR

LAST REVISION 00-00-00 DATE PLOTTED => 1/24/2022 TIME PLOTTED => 9:56:21 AM

BORDER LAST REVISED 7/2/2010 | USERNAME => | DGN FILE => ...\0516000163md001.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 4651 | PROJECT NUMBER & PHASE 0516000163

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	Mon	1	63.00	8	

REGISTERED CIVIL ENGINEER DATE

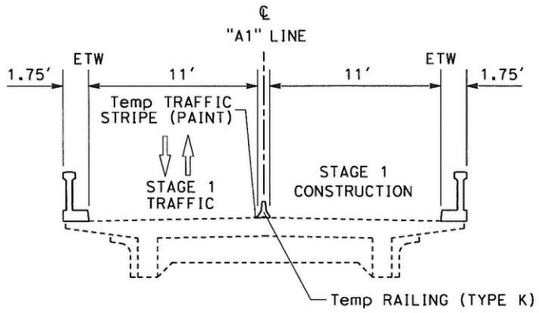
PLANS APPROVAL DATE

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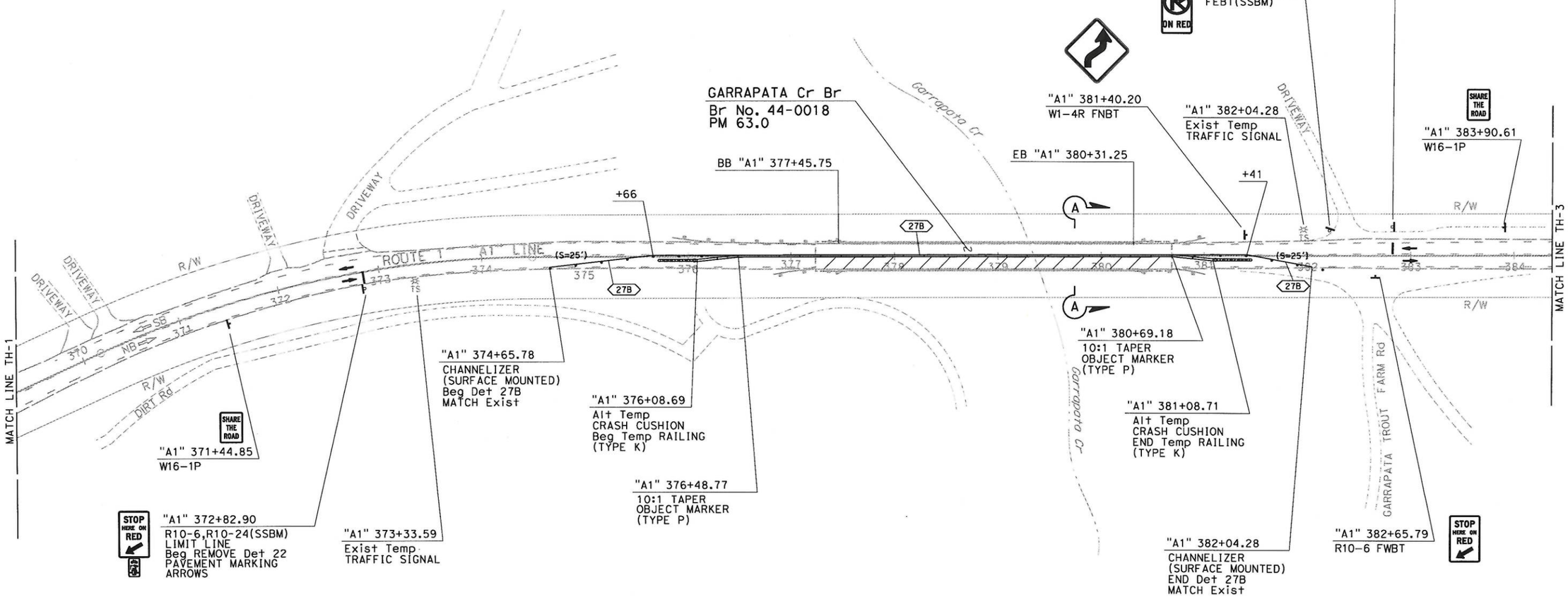
REGISTERED PROFESSIONAL ENGINEER — QUAY F. CHESTER No. 92096 Exp. 03/31/23 CIVIL — STATE OF CALIFORNIA

NOTES:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



SECTION A-A



TRAFFIC HANDLING PLAN

STAGE 1

SCALE: 1" = 50'

TH-2

APPROVED FOR TRAFFIC HANDLING WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	REVISED BY	QUAY CHESTER	
Caltrans	MOHAMMED OATAMI	CHECKED BY	DATE REVISED	FAWZI YAGHMOUR	
TRAFFIC DESIGN					

LAST REVISION 00-00-00 | DATE PLOTTED => 1/24/2022 | TIME PLOTTED => 9:56:21 AM

BORDER LAST REVISED 7/2/2010 | USERNAME => | DGN FILE => ...\0516000163md002.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 4651 | PROJECT NUMBER & PHASE 0516000163

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	Mon	1	63.00	9	

REGISTERED CIVIL ENGINEER DATE

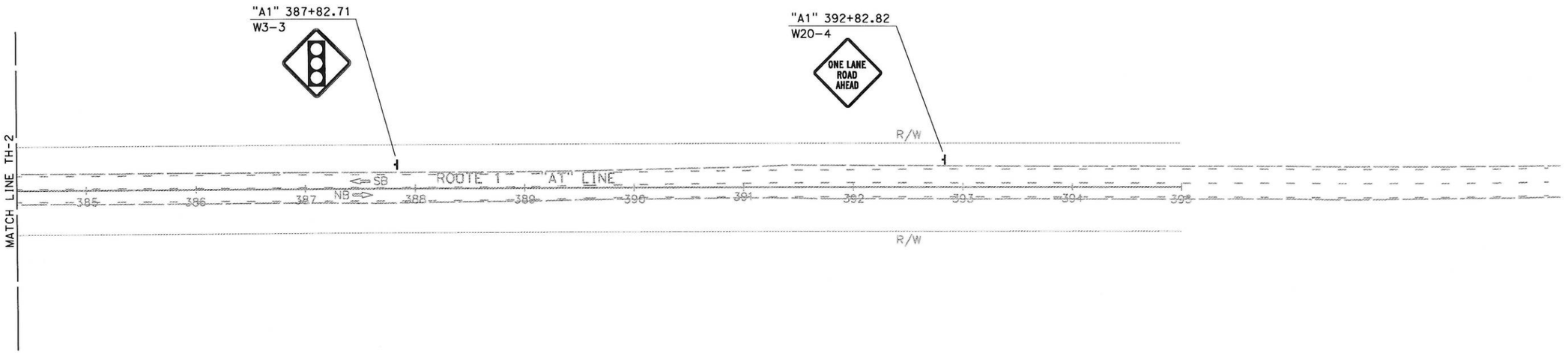
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — QUAY F. CHESTER — No. 92096 — Exp. 03/31/23 — CIVIL — STATE OF CALIFORNIA

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NOTES:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



APPROVED FOR TRAFFIC HANDLING WORK ONLY

TRAFFIC HANDLING PLAN

STAGE 1

SCALE: 1" = 50'

TH-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	REVISED BY
Caltrans	MOHAMMED OATAMI	CHECKED BY	DATE REVISED
TRAFFIC DESIGN	QUAY CHESTER		
	FAWZI YAGHMOUR		

LAST REVISION 00-00-00 DATE PLOTTED => 1/24/2022 TIME PLOTTED => 9:56:22 AM

BORDER LAST REVISED 7/2/2010 | USERNAME => DGN FILE => ...\0516000163md003.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 4651 | PROJECT NUMBER & PHASE 0516000163

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	Mon	1	63.00	10	

REGISTERED CIVIL ENGINEER DATE

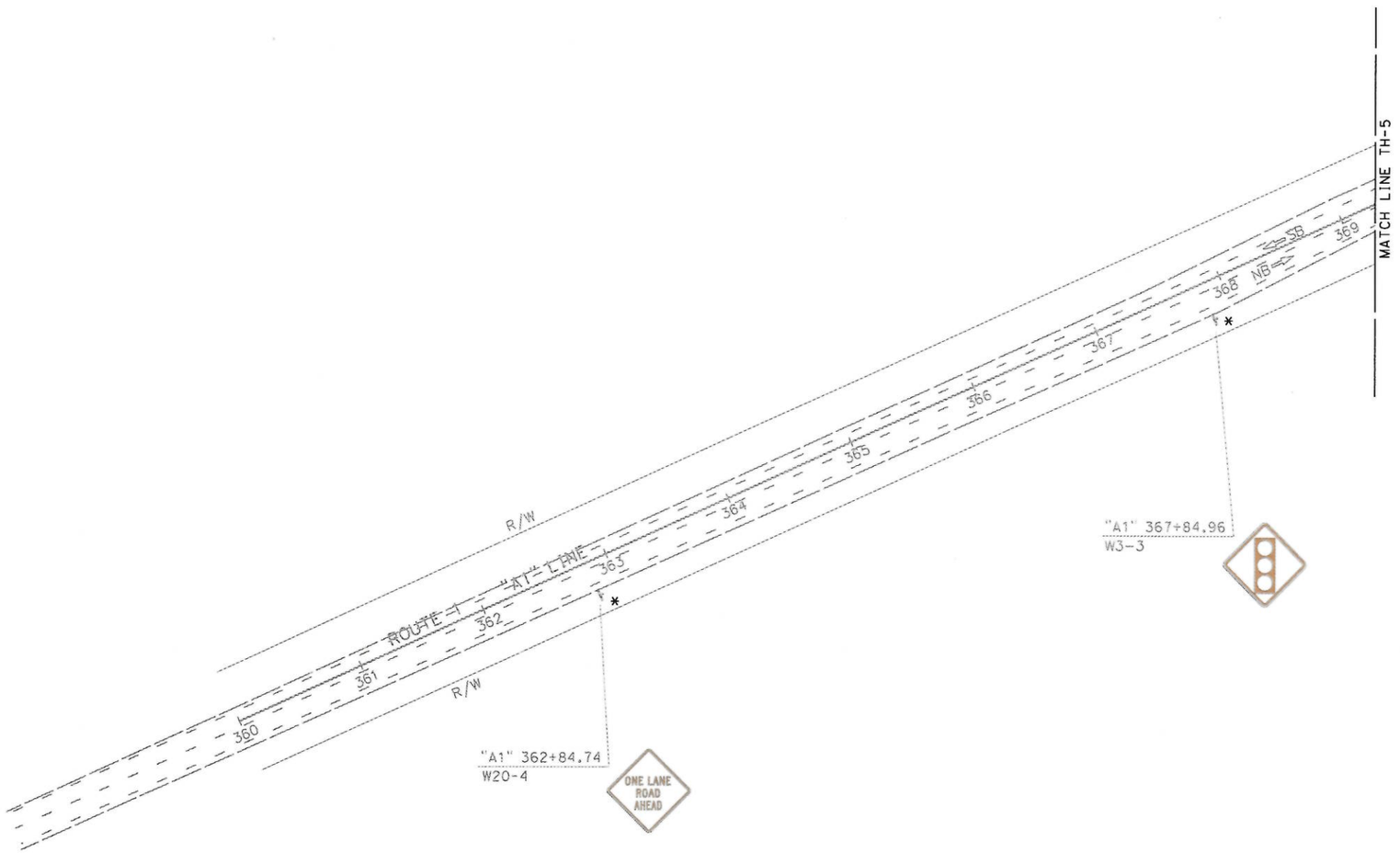
PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER
QUAY F. CHESTER
No. 92096
Exp 03/31/23
CIVIL
STATE OF CALIFORNIA

NOTES:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



APPROVED FOR TRAFFIC HANDLING WORK ONLY

TRAFFIC HANDLING PLAN
STAGE 2
SCALE: 1" = 50'

TH-4

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC DESIGN

FUNCTIONAL SUPERVISOR: MOHAMMED QATAMI
CALCULATED-DESIGNED BY:
CHECKED BY: FAWZI YAGHMOUR QUAY CHESTER
REVISED BY
DATE REVISED

LAST REVISION 00-00-00
DATE PLOTTED => 1/24/2022
TIME PLOTTED => 9:56:22 AM

BORDER LAST REVISED 7/2/2010
USERNAME =>
DGN FILE => ...\0516000163md004.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 4651
PROJECT NUMBER & PHASE 0516000163

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	Mon	1	63.00	11	

REGISTERED CIVIL ENGINEER DATE

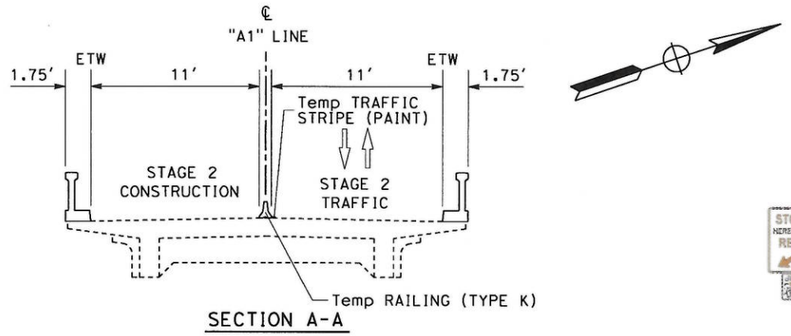
PLANS APPROVAL DATE

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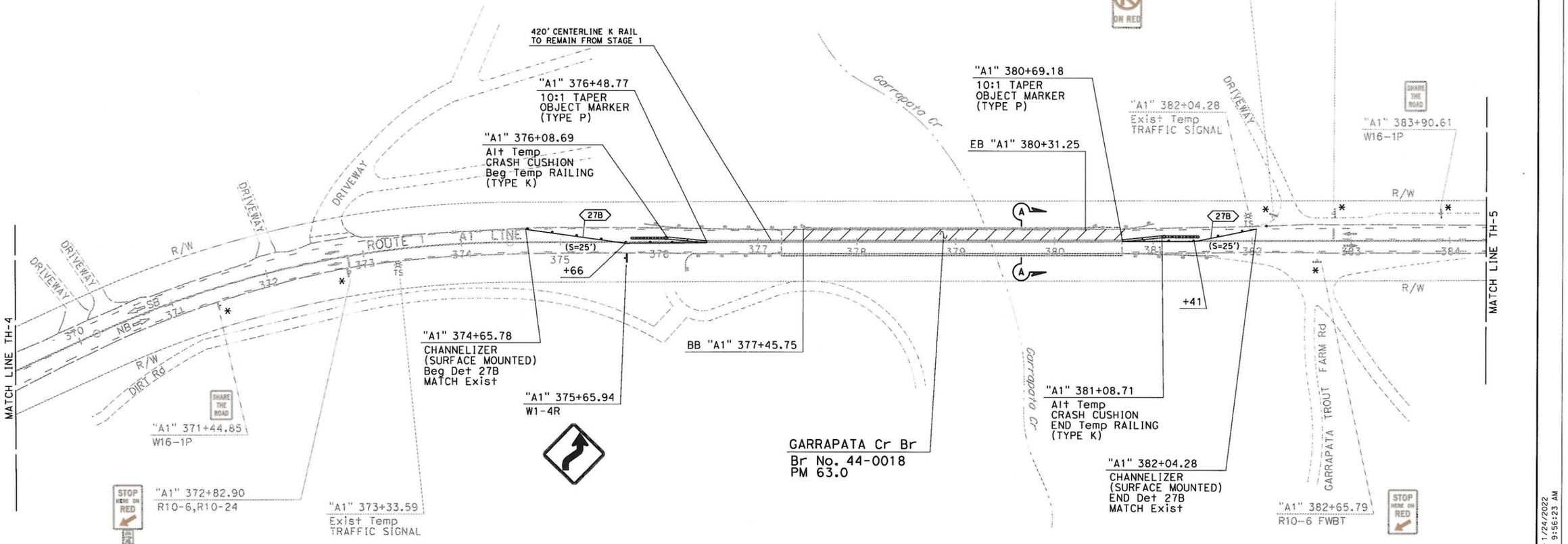
REGISTERED PROFESSIONAL ENGINEER — QUAY F. CHESTER No. 92096 Exp 03/31/23 CIVIL — STATE OF CALIFORNIA

NOTES:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



SECTION A-A



APPROVED FOR TRAFFIC HANDLING WORK ONLY

TRAFFIC HANDLING PLAN

STAGE 2

SCALE: 1" = 50'

TH-5

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	Caltrans
TRAFFIC DESIGN	
FUNCTIONAL SUPERVISOR	MOHAMMED OATAMI
CALCULATED-DESIGNED BY	OUAY CHESTER
CHECKED BY	FAWZI YAGHMOUR
REVISED BY	
DATE REVISED	

LAST REVISION 00-00-00 | DATE PLOTTED => 1/24/2022 | TIME PLOTTED => 9:56:23 AM

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	Mon	1	63.00	12	

REGISTERED CIVIL ENGINEER DATE

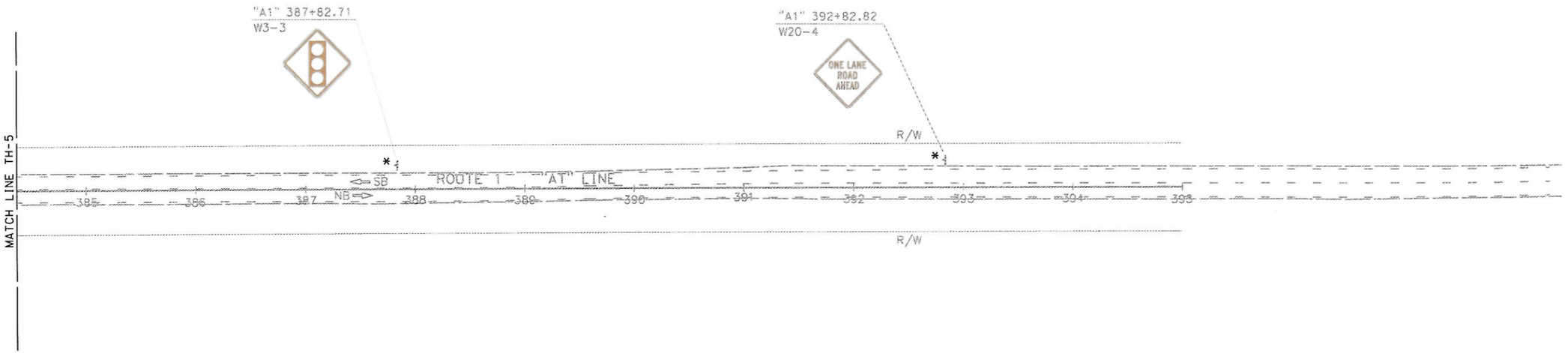
PLANS APPROVAL DATE

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APPROVED FOR TRAFFIC HANDLING WORK ONLY

TRAFFIC HANDLING PLAN

STAGE 2

SCALE: 1" = 50'

TH-6

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	Caltrans
TRAFFIC DESIGN	
FUNCTIONAL SUPERVISOR	MOHAMMED QATAMI
CALCULATED-DESIGNED BY	QUAY CHESTER
CHECKED BY	FAWZI YAGHMOUR
REVISED BY	
DATE REVISED	
LAST REVISION	00-00-00
DATE PLOTTED =>	1/24/2022
TIME PLOTTED =>	9:56:24 AM

BORDER LAST REVISED 7/2/2010 | USERNAME => | DGN FILE => ...\0516000163md006.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 4651 | PROJECT NUMBER & PHASE 0516000163

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	Mon	1	63.00	13	

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — QUAY F. CHESTER — No. 92096 — Exp. 03/31/23 — CIVIL — STATE OF CALIFORNIA

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TEMPORARY PAVEMENT DELINEATION QUANTITIES

SHEET No.	STAGE	ROUTE	LOCATION STA FROM	LOCATION STA TO	DIRECTION	DETAIL No.	TEMPORARY TRAFFIC STRIPE (TAPE) LF	REMOVE PAVEMENT MARKER* EA	REMOVE THERMOPLASTIC TRAFFIC STRIPE* LF	TEMPORARY PAVEMENT MARKING (TAPE) SQFT	DESCRIPTION
TH-2	1	1	372+83	372+83	NB					12	LIMIT LINE
			372+83	372+84	NB/SB					28	TYPE 1 ARROWS
			372+83	382+83	NB/SB	22		86	2,000		
			374+66	382+04	NB	27B	739				
			382+83	382+83	SB					12	LIMIT LINE
			382+83	382+83	NB/SB					28	TYPE 1 ARROWS
TH-5	2	1	374+66	382+04	SB	27B	738				
TOTAL							1,477	86	2,000	80	

* QUANTITY ADDED TO SHEET PDQ-1

TEMPORARY CRASH CUSHION AND CHANNELIZER

SHEET No.	STAGE	ALTERNATIVE TEMPORARY CRASH CUSHION EA	CHANNELIZER (SURFACE MOUNTED) EA
TH-2	1	2	14
TH-5	2	2	14
TOTAL		4	28

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS (TRAFFIC HANDLING)

SHEET No.	STAGE	SIGN No.	SIGN DESIGNATION	SIGN MESSAGE	PANEL SIZE	No. OF POSTS AND SIZE	No. OF SIGNS
TH-1	1	1	W20-4	ONE LANE ROAD AHEAD	36"x36"	1-4"x6"	1
		2	W3-3	SIGNAL AHEAD SYMBOL	36"x36"	1-4"x6"	1
TH-2		3	R10-24	BIKE PUSH BUTTON FOR GREEN LIGHT	9"x15"	1-4"x6"	1
			R10-6	STOP HERE ON RED WITH ARROW	24"x36"		
		3	R10-6	STOP HERE ON RED WITH ARROW	24"x36"	1-4"x6"	1
			R10-24	BIKE PUSH BUTTON FOR GREEN LIGHT	9"x15"		
		4	W16-1P	SHARE THE ROAD PLAQUE	18"x24"	1-4"x4"	1
		4	W16-1P	SHARE THE ROAD PLAQUE	18"x24"	1-4"x4"	1
		5	W1-4R	REVERSE RIGHT CURVE	36"x36"	1-4"x6"	1
		6	R13A (CA)	NO RIGHT TURN ON RED	24"x36"	1-4"x6"	1
			R10-6	STOP HERE ON RED WITH ARROW	24"x36"		
		7	R10-6	STOP HERE ON RED WITH ARROW	24"x36"	1-4"x6"	1
TH-3		1	W20-4	ONE LANE ROAD AHEAD	36"x36"	1-4"x6"	1
		2	W3-3	SIGNAL AHEAD SYMBOL	36"x36"	1-4"x6"	1
TH-5	2	1	W1-4R	REVERSE RIGHT CURVE	36"x36"	1-4"x6"	1
TOTAL							12

TEMPORARY RAILING

SHEET No.	STAGE	STATION FROM	STATION TO	TEMPORARY RAILING (TYPE K) LF	OBJECT MARKER (TYPE P) * EA
TH-2	1	"A1" 376+09	381+09	500	2
TH-5	2	"A1" 376+09	376+49	40	2
		380+69	381+09	40	
TOTAL				580	4

* QUANTITY ADDED TO SHEET SQ-1

TRAFFIC HANDLING QUANTITIES

THQ-1

LAST REVISION 00-00-00 | DATE PLOTTED => 1/24/2022 | TIME PLOTTED => 9:56:24 AM

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION | Caltrans | TRAFFIC DESIGN | FUNCTIONAL SUPERVISOR: MOHAMMED OATAMI | CALCULATED-DESIGNED BY: QUAY CHESTER | CHECKED BY: FAWZI YAGHMOUR | REVISED BY | DATE REVISED

BORDER LAST REVISED 7/2/2010 | USERNAME => | DGN FILE => ...\0516000163mf001.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 4651 | PROJECT NUMBER & PHASE 0516000163

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	Mon	1	63.00	14	

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — QUAY F. CHESTER — No. 92096 — Exp 03/31/23 — CIVIL — STATE OF CALIFORNIA

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NOTES:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

ABBREVIATIONS:

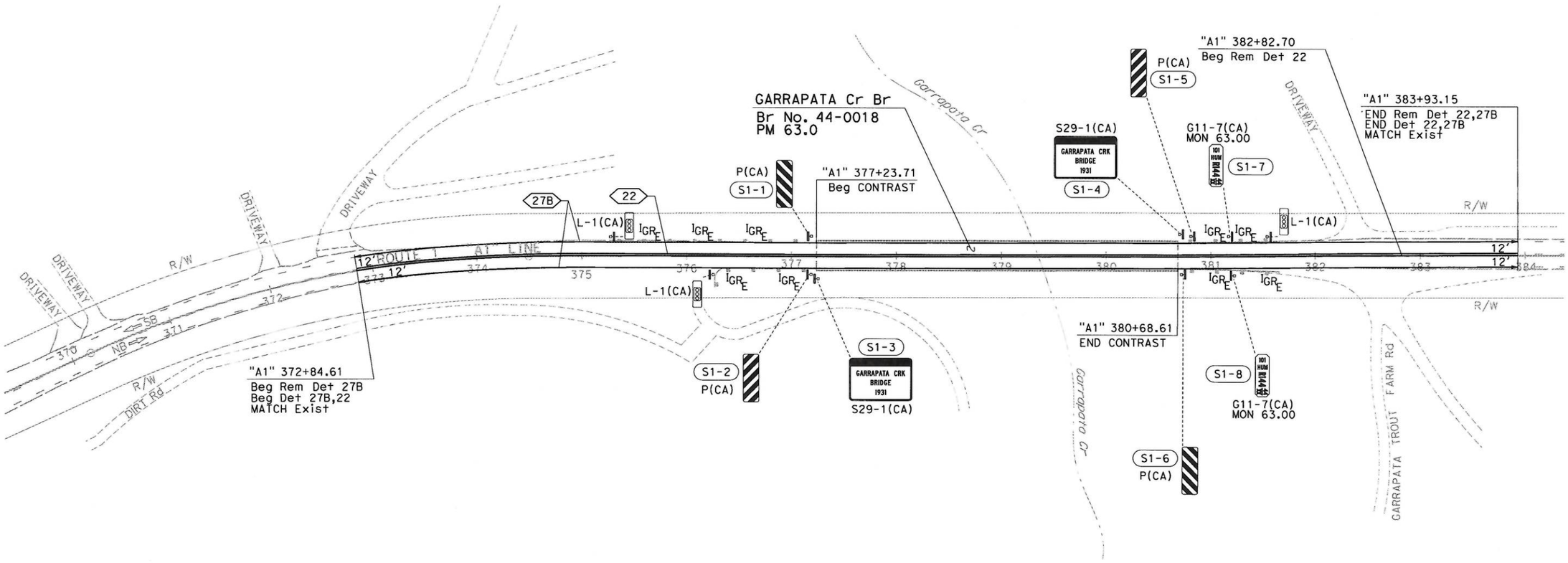
Rem - REMOVE

LEGEND:

IGR$_E$ GUARD RAIL DELINEATOR TYPE E (CLASS 1)

------- REPLACE ROADSIDE SIGN

ROADSIDE SIGN - ONE POST (STEEL)



APPROVED FOR PAVEMENT DELINEATION AND SIGN WORK ONLY

PAVEMENT DELINEATION AND SIGN PLAN

SCALE: 1" = 50'

PD-1

CALCULATED-DESIGNED BY	QUAY CHESTER
CHECKED BY	FAWZI YAGHMOUR
FUNCTIONAL SUPERVISOR	MOHAMMED OATAMI
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	TRAFFIC DESIGN
REVISED BY	
DATE REVISED	

LAST REVISION 00-00-00 | DATE PLOTTED => 1/24/2022 | TIME PLOTTED => 9:56:25 AM

BORDER LAST REVISED 7/2/2010 | USERNAME => | DGN FILE => ...\0516000163na001.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 4651 | PROJECT NUMBER & PHASE 0516000163

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	Mon	1	63.00	15	

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — QUAY F. CHESTER — No. 92096 — Exp 03/31/23 — CIVIL — STATE OF CALIFORNIA

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PAVEMENT DELINEATION QUANTITIES

SHEET No.	ROUTE	LOCATION			DIRECTION	DETAIL No.	PAVEMENT MARKER (RETRO-REFLECTIVE)	6" THERMOPLASTIC TRAFFIC STRIPE (ENHANCED WET NIGHT VISIBILITY)		6" TRAFFIC STRIPE TAPE WITH CONTRAST	REMOVE PAVEMENT MARKER	REMOVE THERMOPLASTIC TRAFFIC STRIPE	GUARD RAILING DELINEATOR
		STA					TYPE D	SOLID					TYPE E
		FROM	TO					WHITE	YELLOW				
							EA	LF	LF	LF	EA	LF	EA
PD-1	1	"A1"	372+85	377+24	NB/SB	27B		878				878	
			377+24	380+69	NB/SB	27B				690			
			380+69	383+93	NB/SB	27B		649				649	9
			382+83	383+93	NB/SB	22					12	221	
			372+85	383+93	NB/SB	22	96		2,217				
SUBTOTAL							96	1,527	2,217	690	12	1,748	9
FROM SHEET THQ-1											86	2,000	
TOTAL							96	3,744		690	98	3,744	9

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans® TRAFFIC DESIGN

CALCULATED-DESIGNED BY: QUAY CHESTER

CHECKED BY: FAWZI YAGHMOUR

FUNCTIONAL SUPERVISOR: MOHAMMED OATAMI

REVISED BY | DATE REVISED

PAVEMENT DELINEATION QUANTITIES

PDQ-1

LAST REVISION 00-00-00 | DATE PLOTTED => 1/24/2022 | TIME PLOTTED => 9:56:25 AM

BORDER LAST REVISED 7/2/2010 | USERNAME => | DGN FILE => ...\0516000163nc001.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 4651 | PROJECT NUMBER & PHASE 0516000163

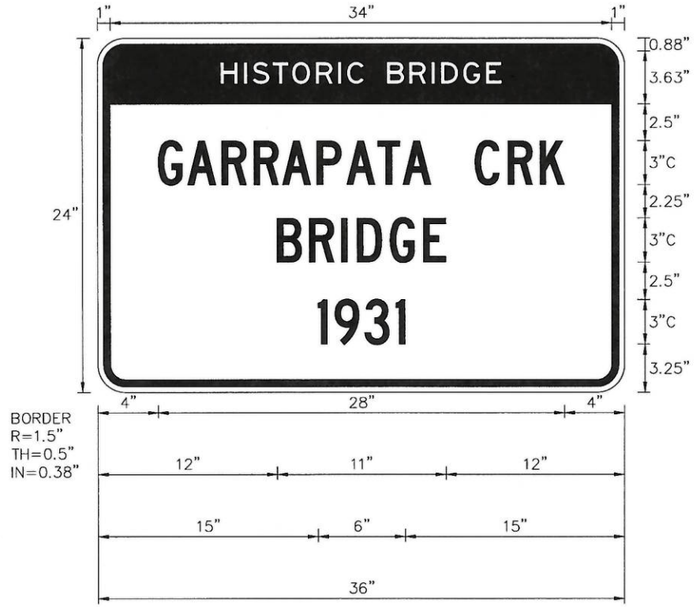
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	Mon	1	63.00	16	

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — QUAY F. CHESTER — No. 92096 — Exp 03/31/23 — CIVIL — STATE OF CALIFORNIA

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S29-1 (CA)

SIGN DETAILS

NO SCALE

SD-1

REVISED BY	DATE REVISED

CALCULATED-DESIGNED BY: QUAY CHESTER
CHECKED BY: FAWZI YAGHMOUR
FUNCTIONAL SUPERVISOR: MOHAMMED OATAMI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC DESIGN

LAST REVISION: 00-00-00
DATE PLOTTED => 1/24/2022
TIME PLOTTED => 9:56:26 AM

BORDER LAST REVISED 7/2/2010

USERNAME =>
DGN FILE => ...\0516000163ob001.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 4651

PROJECT NUMBER & PHASE 0516000163

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	Mon	1	63.00	17	

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — QUAY F. CHESTER — No. 92096 — Exp 03/31/23 — CIVIL — STATE OF CALIFORNIA

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ROADSIDE SIGN QUANTITIES

SHEET No.	SIGN No.	SIGN DESIGNATION	SIGN MESSAGE	PANEL SIZE	No. OF POSTS AND POST SIZE	BACKGROUND		LEGEND		FURNISH SINGLE SHEET ALUMINUM SIGN (0.063"-UNFRAMED)	ROADSIDE SIGN - ONE POST	REMOVE ROADSIDE SIGN	OBJECT MARKER (TYPE L-1)	OBJECT MARKER (TYPE P)
						SHEETING COLOR	RETROREFLECTIVITY ASTM TYPE	SHEETING COLOR	RETROREFLECTIVITY ASTM TYPE	SQFT	EA	EA	EA	EA
PD-1		L-1 (CA)	TYPE L OBJECT MARKER	8"x24"	1-TS2.5"x2.5"	FY	XI	BLACK		0.50		1	1	
		L-1 (CA)	TYPE L OBJECT MARKER	8"x24"	1-TS2.5"x2.5"	FY	XI	BLACK		0.50		1	1	
		L-1 (CA)	TYPE L OBJECT MARKER	8"x24"	1-TS2.5"x2.5"	FY	XI	BLACK		0.50		1	1	
	S1-1	P (CA)	TYPE P OBJECT MARKER	12"x36"	1-TS2.5"x2.5"	FY	XI	BLACK		3.00		1		1
	S1-2	P (CA)	TYPE P OBJECT MARKER	12"x36"	1-TS2.5"x2.5"	FY	XI	BLACK		3.00		1		1
	S1-3	S29-1 (CA)	HISTORIC BRIDGE	36"x24"	1-TS2.5"x2.5"	CREAM	XI	BROWN	XI	6.00	1	1		
	S1-4	S29-1 (CA)	HISTORIC BRIDGE	36"x24"	1-TS2.5"x2.5"	CREAM	XI	BROWN	XI	6.00	1	1		
	S1-5	P (CA)	TYPE P OBJECT MARKER	12"x36"	1-TS2.5"x2.5"	FY	XI	BLACK		3.00		1		1
	S1-6	P (CA)	TYPE P OBJECT MARKER	12"x36"	1-TS2.5"x2.5"	FY	XI	BLACK		3.00		1		1
	S1-7	G11-7 (CA)	1 MON 63.00	8"x24"	1-TS2.5"x2.5"	WHITE	IX	BLACK		1.33	1	1		
	S1-8	G11-7 (CA)	1 MON 63.00	8"x24"	1-TS2.5"x2.5"	WHITE	IX	BLACK		1.33	1	1		
FROM SHEET TH0-1														4
TOTAL										28.16	4	11	3	8

SIGN QUANTITIES

SQ-1

CALCULATED-DESIGNED BY	QUAY CHESTER	REVISED BY	
CHECKED BY	FAWZI YAGHMOUR	DATE REVISED	

FUNCTIONAL SUPERVISOR: MOHAMMED QATAMI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans TRAFFIC DESIGN

LAST REVISION 00-00-00

DATE PLOTTED => 1/24/2022
TIME PLOTTED => 9:56:27 AM

BORDER LAST REVISED 7/2/2010

USERNAME =>
DGN FILE => ...\0516000163oc001.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 4651

PROJECT NUMBER & PHASE 0516000163

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	Mon	1	63.0	18	

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

MIDWEST GUARDRAIL SYSTEM QUANTITIES

SHEET No.	STATION	LAYOUT TYPE (N)	DIRECTION	REMOVE GUARDRAIL	MIDWEST GUARDRAIL SYSTEM (STEEL POST)	ALTERNATIVE IN-LINE TERMINAL SYSTEM	TRANSITION RAILING (TYPE WB-31)	END ANCHOR ASSEMBLY (TYPE SFT)	END CAP (TYPE TC)	BURRIED POST END ANCHOR	TREATED WOOD WASTE
			NB/SB	LF	LF	EA	EA	EA	EA	EA	LB
L-1	"A1" 375+48.72 TO 376+98.72	12AA	SB	140	150	1	1		1		700
	"A1" 376+26.67 TO 376+98.72	12A	NB	65	82		1	1	1		340
	"A1" 380+93.52 TO 381+59.77	12C	SB	65	68		1		1	1	340
	"A1" 380+93.52 TO 381+59.77	12CC	NB	65	68		1		1	1	340
	TOTAL			335	368	1	4	1	4	2	1720

(N) NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY.

TEMPORARY HIGH VISIBILITY FENCE

SHEET No.	STATION	LF
L-1	"A1" 375+85.75 TO 378+15.75	260
	"A1" 378+00.00 (ALONG OF TOP OF SLOPE UNDER THE BRIDGE)	100
TOTAL		360

CALCULATED-DESIGNED BY HUY HA
CHECKED BY JOSE HUERTA
REVISED BY HUY HA
DATE REVISED 00-00-00
FUNCTIONAL SUPERVISOR JOSE HUERTA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN

LAST REVISION 00-00-00 DATE PLOTTED => $DATE TIME PLOTTED => $TIME

SUMMARY OF QUANTITIES
Q-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	MON	1	63	19	

PRELIMINARY

LICENSED LANDSCAPE ARCHITECT

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

LICENSED LANDSCAPE ARCHITECT — Jessica Bailey No. 6072 — Signature — 07-31-23 Renewal 10/16 Date — STATE OF CALIFORNIA

NOTE:

FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

LEGEND:

EROSION CONTROL (TYPE 1)

EROSION CONTROL (TYPE 2)

FIBER ROLLS

SEQUENCE	ITEM	MATERIAL		REMARKS
		DESCRIPTION	TYPE	
INSTALL BEFORE HYDRAULIC APPLICATIONS	FIBER ROLLS	FIBER ROLL	8" TO 10" Dia	TYPE 1 INSTALLATION

EROSION CONTROL (TYPE 1)

SEQUENCE	ITEM	MATERIAL		APPLICATION RATE	REMARKS
		DESCRIPTION	TYPE		
STEP 1	COMPOST	COMPOST	MEDIUM	135 CY/AC	COMPOST RATE EQUALS APPROXIMATELY 1" DEPTH
STEP 2	INCORPORATE	COMPOST			12" DEPTH
STEP 3	HYDROSEED	SEED	MIX	24.2 LB/AC	
		FIBER	WOOD	200 LB/AC	
STEP 4	HYDROMULCH	FIBER	WOOD	2,000 LB/AC	
		TACKIFIER	PSYLLIUM	200 LB/AC	

EROSION CONTROL (TYPE 2)

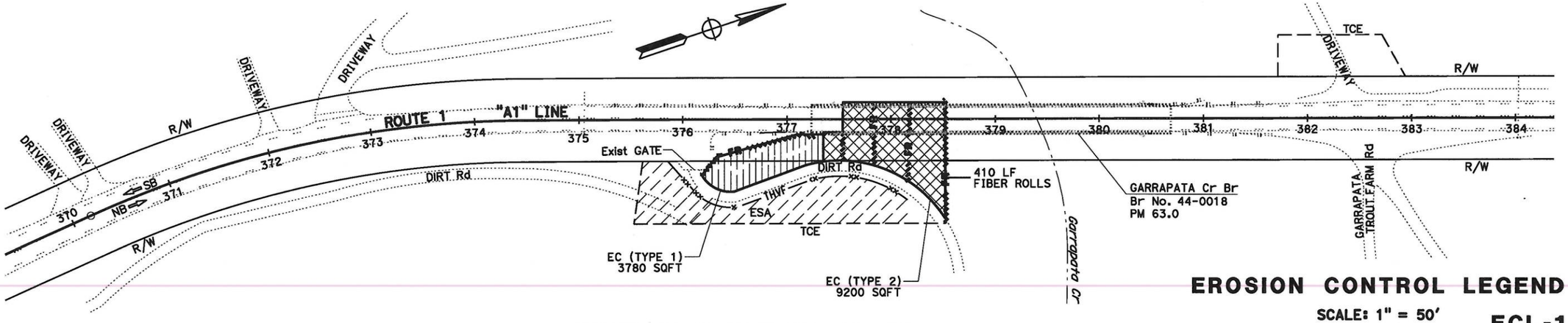
SEQUENCE	ITEM	MATERIAL			APPLICATION RATE	REMARKS
		DESCRIPTION	TYPE	FASTENER		
STEP 1	COMPOST	COMPOST	FINE		135 CY/AC	COMPOST RATE EQUALS APPROXIMATELY 1" DEPTH
STEP 2	RECP (NETTING)	COIR NETTING	A	8-GAUGE, 8-INCH STEEL STAPLE		
STEP 3	HYDROSEED	SEED	MIX		24.2 LB/AC	
		FIBER	WOOD		200 LB/AC	
STEP 4	HYDROMULCH	FIBER	WOOD		2,000 LB/AC	
		TACKIFIER	PSYLLIUM		200 LB/AC	

SEED MIX

BOTANICAL NAME (COMMON NAME)	PERCENT GERMINATION (MINIMUM)	POUNDS PURE LIVE SEED PER ACRE (SLOPE MEASUREMENT)
ACMISPON GLABER (DEER WEED)	80	3
ARTEMISIA CALIFORNICA (CALIFORNIA SAGEBRUSH)	60	0.5
BROMUS CARINATUS (CALIFRONIA BROME)	90	7
ERIOGONUM PARVIFOLIUM (SEACLIFF BUCKWHEAT)	45	2
ERIOPHYLLUM STAECHADIFOLIUM (LIZARDTAIL)		
FESTUCA MICROSTACHYS (SMALL FESCUE)	90	3
LUPINUS BICOLOR (BICOLOR LUPINE)	85	5
MELICA IMPERFECTA (COAST MELIC)	70	5
SALVIA MELLIFERA (BLACK SAGE)	60	1

EROSION CONTROL QUANTITIES

SHEET	DESCRIPTION	INCORPORATE MATERIALS	HYDROSEED	HYDROMULCH	COMPOST	ROLLED EROSION CONTROL PRODUCT (NETTING)	FIBER ROLLS
		SQFT	SQFT	SQFT	CY	SQFT	LF
ECL-1	EC (TYPE 1)	3780	3780	3780	12		
	EC (TYPE 2)		9200	9200	27	9200	
	FIBER ROLLS						410
	TOTAL	3780	12,980	12,980	39	9200	410



EROSION CONTROL LEGEND

SCALE: 1" = 50'

ECL-1

APPROVED FOR EROSION CONTROL WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — LANDSCAPE ARCHITECTURE

SENIOR LANDSCAPE ARCHITECT: CORBY KILMER

CALCULATED-DESIGNED BY: JESSICA BAILEY

CHECKED BY: PKB

REVISED BY | DATE REVISED

LAST REVISION: 00-00-00

DATE PLOTTED => 29-JAN-2022

TIME PLOTTED => 11:26

BORDER LAST REVISED 7/2/2010 | USERNAME => s125555 | DGN FILE => 0516000163te001.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 1502 | PROJECT NUMBER & PHASE 05160001631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	MON	1	62.97	20	

REGISTERED ELECTRICAL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. ELECTRICAL STATE OF CALIFORNIA

THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

LEGEND:

[1] 120/240 V, SINGLE PHASE, 3-WIRE, TYPE A SERVICE ON TEMPORARY WOOD POLE WITH THE FOLLOWING CIRCUIT BREAKERS:

AMPERES	VOLTS	POLES	NAMEPLATE	METER	PHOTOELECTRIC CONTROL TYPE
60	240	2	MAIN DISCONNECT	YES	-
20	120	1	LIGHTING	YES	IV
15	120	1	FLASHING BEACON	YES	-
30	120	1	SIGNAL	YES	-

[2] SEE DETAIL F ON SHEET ED-2 FOR TEMPORARY WOOD POLE.

[3] DEPARTMENT-FURNISHED MODEL 2070E CONTROLLER ASSEMBLY, ADD UPS AND WIRELESS MODEM. FOR CABINET PLATFORM, SEE DETAIL D ON SHEET ED-1.

[4] SEE DETAIL A ON SHEET ED-1 FOR TEMPORARY WOOD POLE FB.

[5] SPLICE THREE TYPE A LOOP DETECTORS TO ONE TYPE D LOOP DETECTOR IN SERIES. PLACE LOOP DETECTORS AS SHOWN IN DETAIL H ON SHEET ED-2.

[6] GENERATOR SYSTEM WITH CHAIN LINK FENCE AND GATE AS SHOWN IN DETAIL E ON SHEET ED-2.

[7] SEE DETAIL C ON SHEET ED-1 FOR TEMPORARY WOOD POLES Sig AND Ltg.

[8] SEE DETAIL B ON SHEET ED-1 FOR TEMPORARY WOOD POLE Sig.

[9] FOR R10-26 SIGN DETAILS REFER TO TRAFFIC HANDLING PLANS.

[10] LOOP DETECTORS MUST HAVE 5 TURNS.

[11] SEE DETAIL G SHEET ED-2.

ABBREVIATIONS:

PG&E PACIFIC GAS AND ELECTRIC COMPANY

SYMBOLS:

Y Y — TEMPORARY WOOD POLE FB

TEMPORARY WOOD POLE Sig AND Ltg

OH — OH — Sig HEAD ON OVERHEAD BUNDLE

OH — OH — OVERHEAD BUNDLE CONDUCTORS AS NOTED

TEMPORARY WOOD POLE Sig

TEMPORARY WOOD POLE

(G) GENERATOR SYSTEM

TEMPORARY WOOD POLE Ltg

CHAIN LINK FENCE AND GATE

TEMPORARY SIGNAL SYSTEMS

SCALE: 1"=20'

E-1

APPROVED FOR ELECTRICAL WORK ONLY

REVISED BY	DATE REVISED
BS	5-28-21

CALCULATED-DESIGNED BY: BRYAN SABAGOUIT

CHECKED BY: PAUL MATOS

FUNCTIONAL SUPERVISOR: ALI BAKHDOUD

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans ELECTRICAL DESIGN

LAST REVISION 00-00-00

DATE PLOTTED => 8-MAR-2022

TIME PLOTTED => 13:20

BORDER LAST REVISED 7/2/2010

USERNAME => s147829

DGN FILE => 0516000163ua001.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0000

PROJECT NUMBER & PHASE 0516000163

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	MON	1	62.97	21	

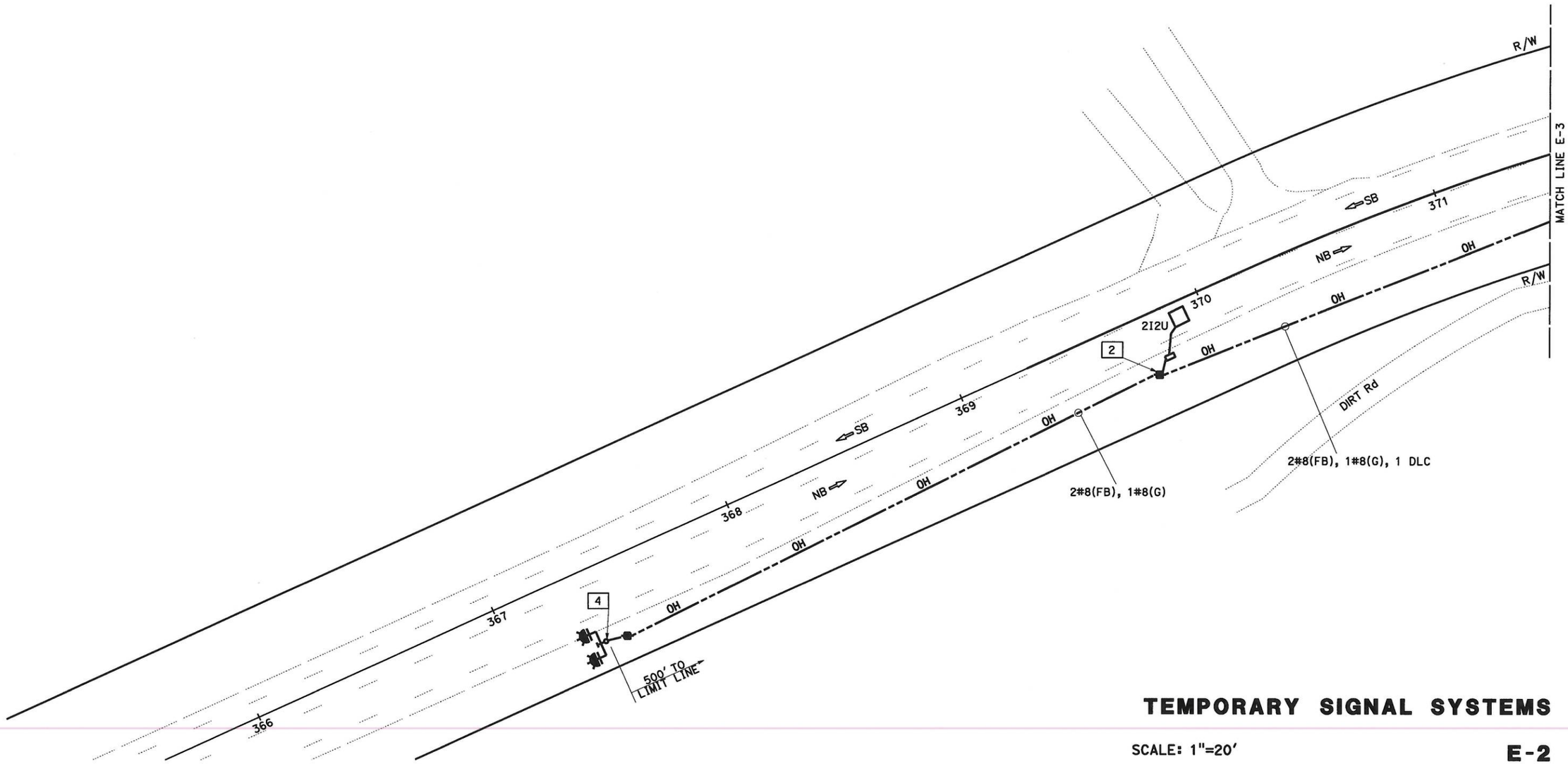
REGISTERED ELECTRICAL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — No. — Exp. — ELECTRICAL — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTE:
FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT DISTRICT OFFICE.



TEMPORARY SIGNAL SYSTEMS

SCALE: 1"=20'

E-2

APPROVED FOR ELECTRICAL WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	BRYAN SABAGQUIT
ELECTRICAL DESIGN	ALI BAKHDOUD	CHECKED BY	PAUL MATOS
		DATE REVISED	5-28-21
		REVISED BY	BS

LAST REVISION 00-00-00 — DATE PLOTTED => 8-MAR-2022 — TIME PLOTTED => 13:20

BORDER LAST REVISED 7/2/2010 | USERNAME => s147829 | DGN FILE => 0516000163ua002.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 0516000163

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	MON	1	62.97	22	

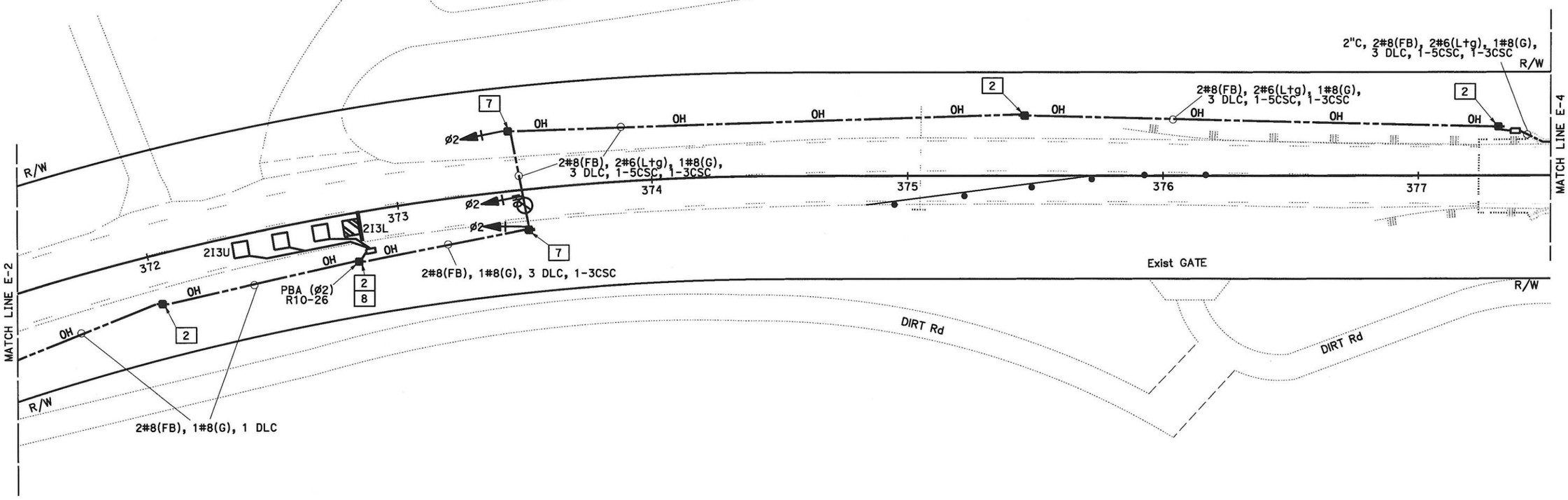
REGISTERED ELECTRICAL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. ELECTRICAL STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTE:
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TEMPORARY SIGNAL SYSTEMS

SCALE: 1"=20'

E-3

APPROVED FOR ELECTRICAL WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® ELECTRICAL DESIGN

FUNCTIONAL SUPERVISOR: ALI BAKHDOUD
CALCULATED-DESIGNED BY: BRYAN SABAGOUIT
CHECKED BY: PAUL MATOS
REVISED BY: BS
DATE REVISED: 5-28-21

LAST REVISION 00-00-00 | DATE PLOTTED => 8-MAR-2022 | TIME PLOTTED => 13:20

BORDER LAST REVISED 7/2/2010

USERNAME => s147829
DGN FILE => 0516000163uo003.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0000

PROJECT NUMBER & PHASE 0516000163

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	MON	1	62.97	23	

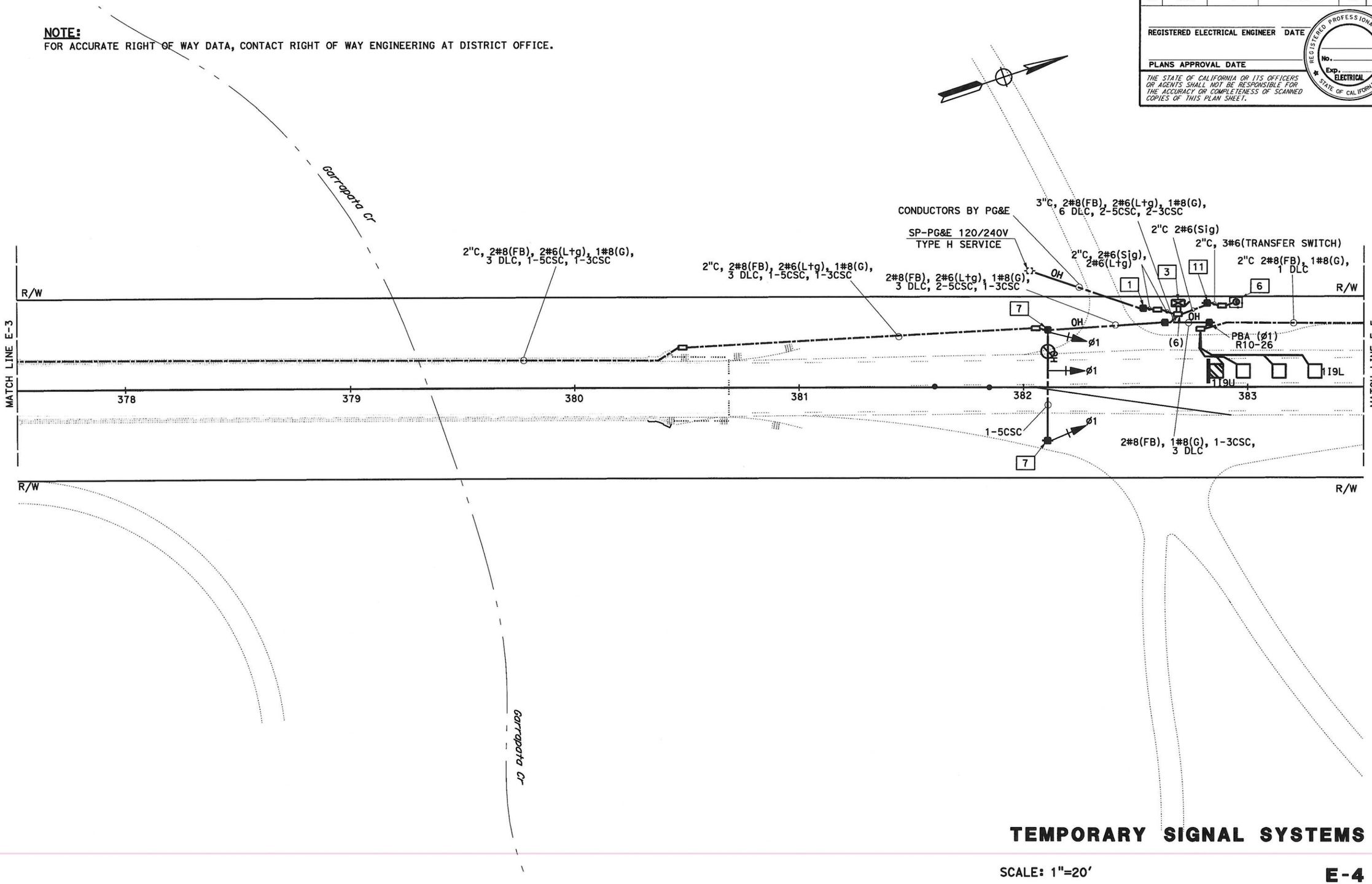
REGISTERED ELECTRICAL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. ELECTRICAL STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTE:
FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT DISTRICT OFFICE.



TEMPORARY SIGNAL SYSTEMS

SCALE: 1"=20'

E-4

APPROVED FOR ELECTRICAL WORK ONLY

REVISED BY	BS		
DATE REVISED	5-28-21		
CALCULATED-DESIGNED BY	BRYAN SABAGOUIT		
CHECKED BY	PAUL MATOS		
FUNCTIONAL SUPERVISOR	ALI BAKHDOUD		

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® ELECTRICAL DESIGN

LAST REVISION 00-00-00
DATE PLOTTED => 8-MAR-2022
TIME PLOTTED => 13:20

BORDER LAST REVISED 7/2/2010

USERNAME => s147829
DGN FILE => 0516000163ua004.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0000

PROJECT NUMBER & PHASE 0516000163

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	MON	1	62.97	24	

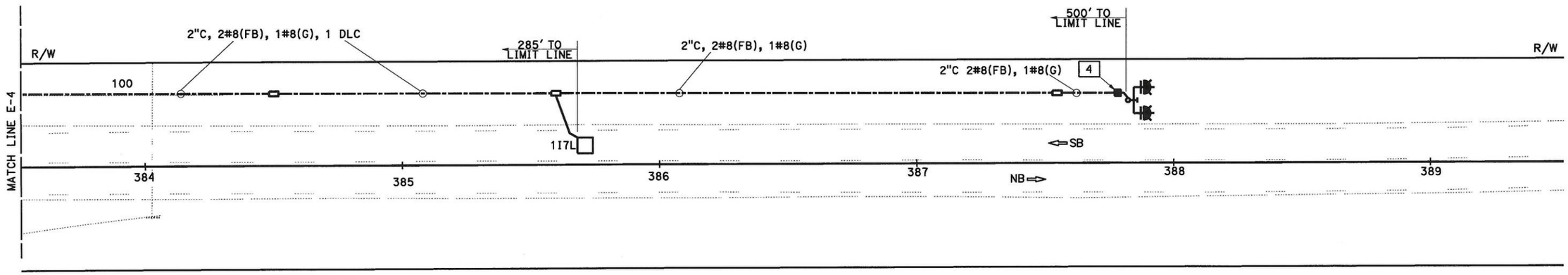
REGISTERED ELECTRICAL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — No. — Exp. ELECTRICAL — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTE:
FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT DISTRICT OFFICE.



TEMPORARY SIGNAL SYSTEMS

SCALE: 1"=20'

E-5

APPROVED FOR ELECTRICAL WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
ELECTRICAL DESIGN

FUNCTIONAL SUPERVISOR: ALI BAKHDOUD

CALCULATED-DESIGNED BY: BRYAN SABAGQUIT
CHECKED BY: PAUL MATOS

REVISED BY: BS
DATE REVISED: 5-28-21

LAST REVISION 00-00-00
DATE PLOTTED => 8-MAR-2022
TIME PLOTTED => 13:20

BORDER LAST REVISED 7/2/2010

USERNAME => s147829
DGN FILE => 0516000163ua005.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0000

PROJECT NUMBER & PHASE 0516000163

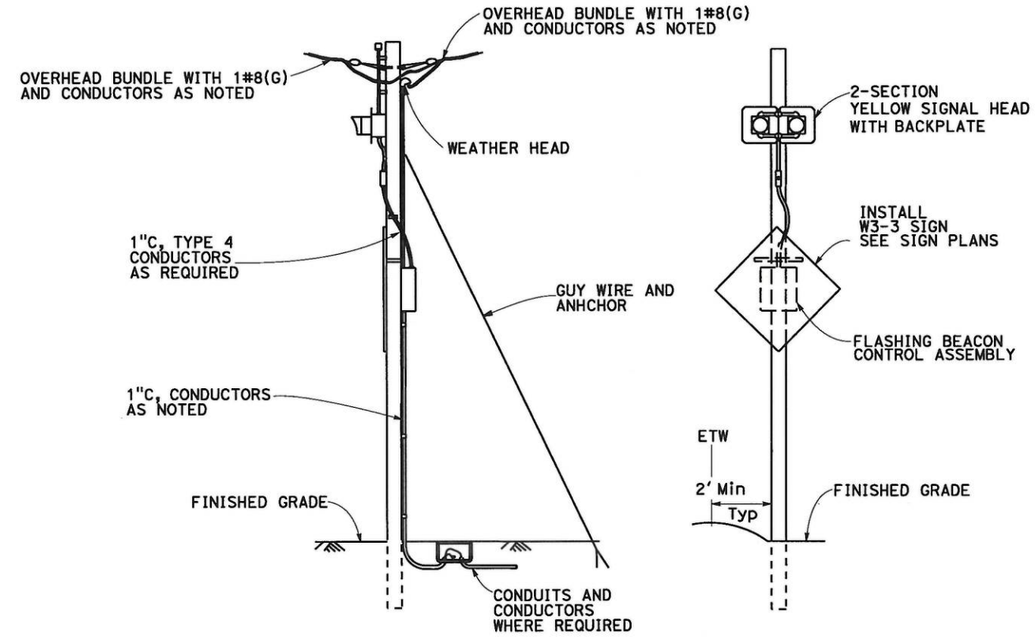
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	MON	1	62.97	25	

REGISTERED ELECTRICAL ENGINEER DATE

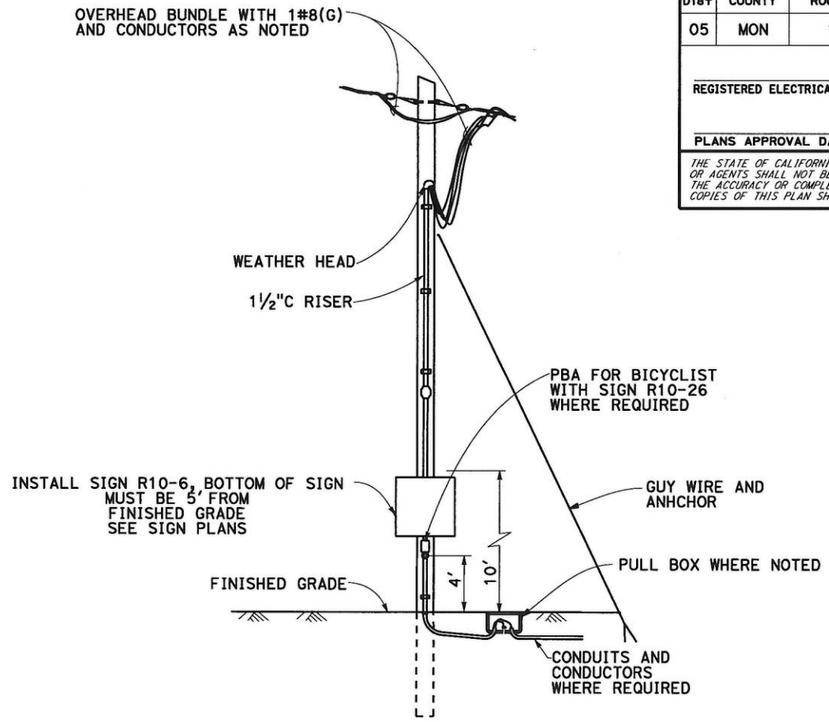
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — No. — Exp. ELECTRICAL — STATE OF CALIFORNIA

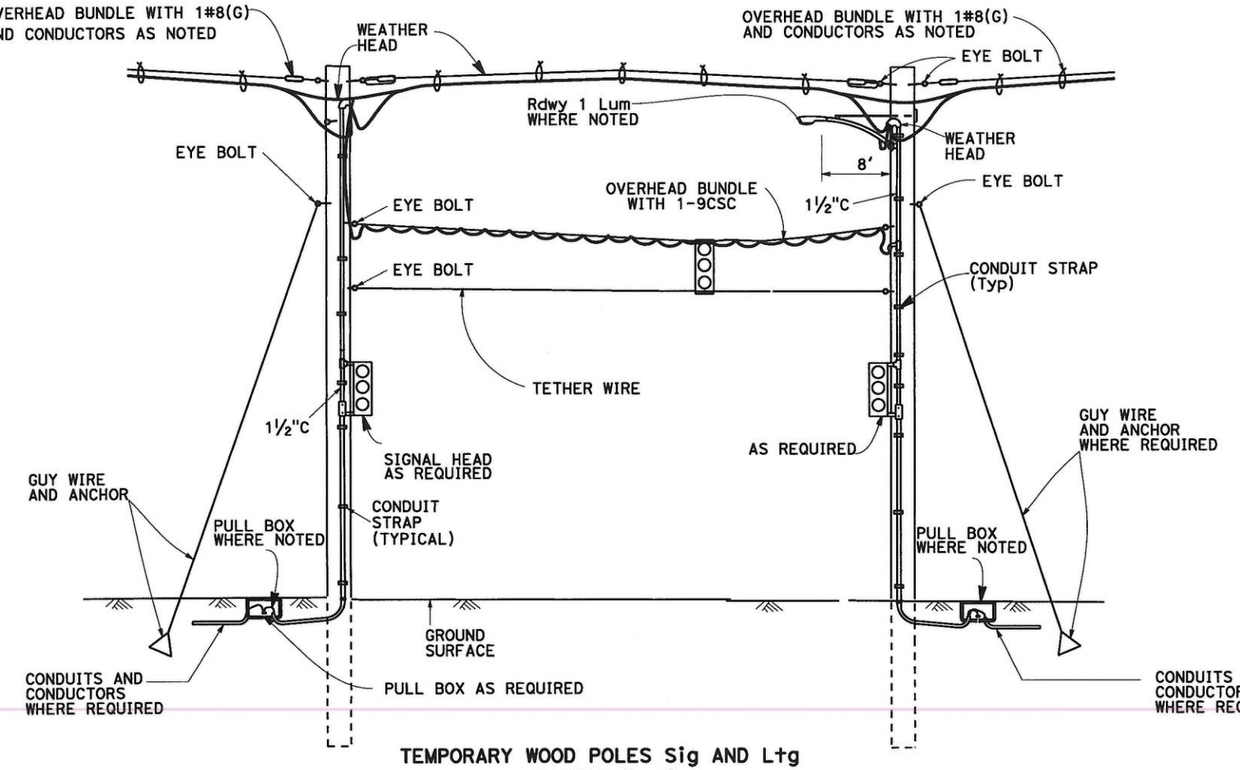
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



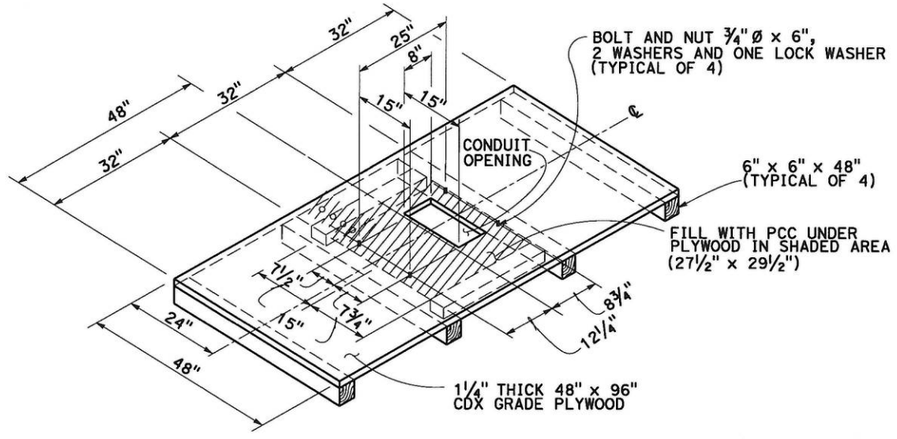
TEMPORARY WOOD POLES FB
DETAIL A



TEMPORARY WOOD POLE Sig
DETAIL B



TEMPORARY WOOD POLES Sig AND Ltg
DETAIL C



CABINET PLATFORM
DETAIL D

ELECTRICAL DETAILS

NO SCALE

ED-1

LAST REVISION 00-00-00 | DATE PLOTTED => 8-MAR-2022 | TIME PLOTTED => 13:20

CALCULATED-DESIGNED BY	BRYAN SABAGQUIT	REVISED BY	BS
CHECKED BY	PAUL MATOS	DATE REVISED	5-28-21
FUNCTIONAL SUPERVISOR	ALI BAKHDOUD		

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® ELECTRICAL DESIGN

BORDER LAST REVISED 7/2/2010 | USERNAME => s147829 | DGN FILE => 0516000163ub001.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 0516000163

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	MON	1	62.97	26	

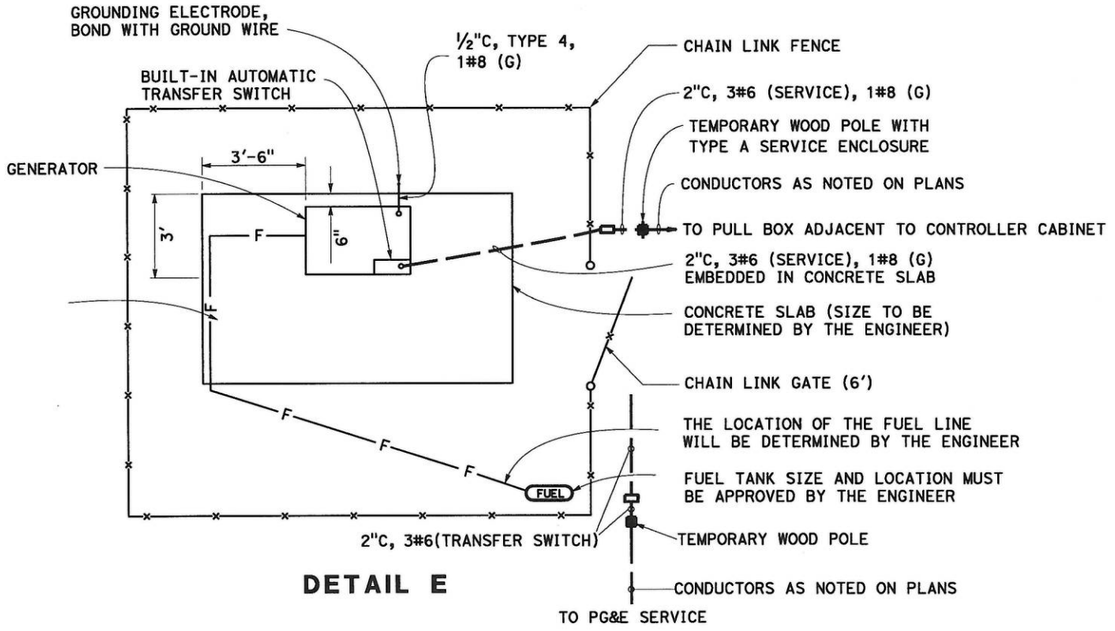
REGISTERED ELECTRICAL ENGINEER DATE

PLANS APPROVAL DATE

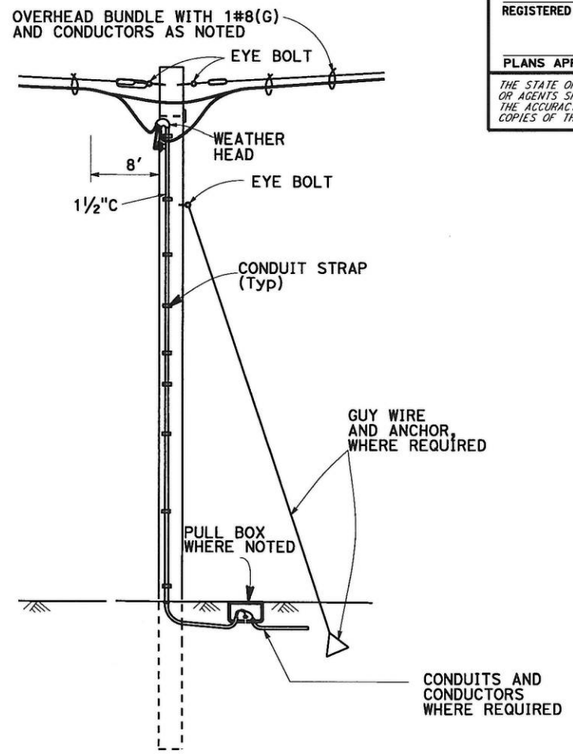
REGISTERED PROFESSIONAL ENGINEER — No. — Exp. — ELECTRICAL — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

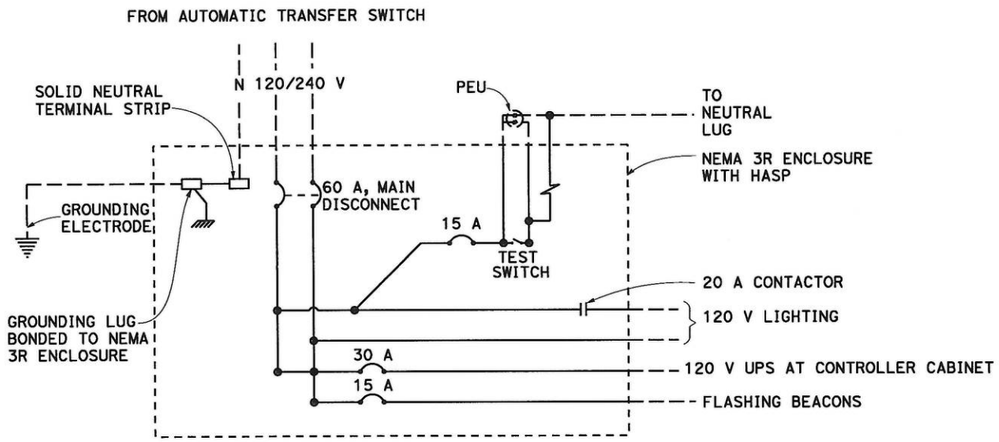
NOTE:
TEMPORARY TRAFFIC SIGNAL SYSTEM WILL BE INITIALLY POWERED BY PRIMARY AND SECONDARY GENERATORS. SWAP TO UTILITY POWER AND BACK UP GENERATOR CONFIGURATION ONCE PG&E SERVICE BECOMES AVAILABLE.



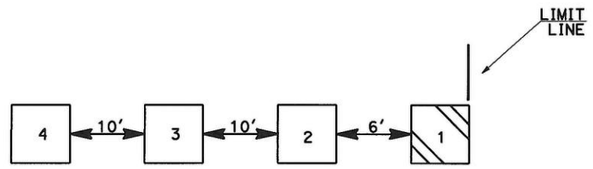
DETAIL E



TEMPORARY WOOD POLE
DETAIL F



SERVICE ENCLOSURE WIRING DIAGRAM
DETAIL G



LOOP DETECTORS PLACEMENT
DETAIL H

ELECTRICAL DETAILS
NO SCALE **ED-2**

LAST REVISION DATE PLOTTED => 8-MAR-2022
00-00-00 TIME PLOTTED => 13:20

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
ELECTRICAL DESIGN

	CALCULATED-DESIGNED BY	CHECKED BY	REVISED BY	DATE REVISED
FUNCTIONAL SUPERVISOR: ALI BAKHDOUD	BRYAN SABAGQUIT	PAUL MATOS	BS	5-28-21

BORDER LAST REVISED 7/2/2010 | USERNAME => s147829 | DGN FILE => 0516000163ub002.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 0516000163

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	MON	1	62.97	27	

REGISTERED ELECTRICAL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — No. — Exp. — ELECTRICAL — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTE:
ELECTRICAL SYSTEM QUANTITY TABLES SUMMARIZE SIGNIFICANT COMPONENTS.
SEE ELECTRICAL SYSTEMS PLANS AND SPECIFICATIONS TO DETERMINE ALL MATERIALS NEEDED FOR EACH SYSTEM.

TEMPORARY SIGNAL SYSTEMS

NOT A SEPARATE BID ITEM

SHEET No.	No. 5 PB	No. 6 PB	DETECTOR LOOP, TYPE A	DETECTOR LOOP, TYPE D	DETECTOR- STUB SHOULDER	LUMINAIRE - 165W LED	SIGNAL 3-12" (HOUSING, BACKPLATE, LED'S)	APS PPB ASSEMBLY	FB CONTROLLER (FBCA)	FB TYPE 15-FBS POLE	TYPE PGE SERVICE RISER	FUSED SPLICE CONNECTOR- 2 POLE	WOOD POLE- 45FT	WOOD POLE MASTARM- 12FT	CONTROLLER 332/334 FOUNDATION WITH ANCHOR BOLTS	CONTROLLER CABINET	WIRELESS MODEM	2"C, TYPE 3	3"C, TYPE 3	No. 8 CONDUCTOR (CU)	No. 6 CONDUCTOR (CU)	No. 8 CONDUCTOR (G) (CU)	5CSC	3CSC	DLC	SPAN WIRE- 8MM (7 STRAND)
	EA																	LF								
E-2	1		1		1				1	1			2					12		800		400			180	400
E-3	2		3	1	1	1	3	1				1	6	1				15		1200	840	600	450	520	1600	650
E-4	4	1	3	1	1	1	3	1			1	1	7	1	1	1	1	350	15	1100	1100	650	610	550	1800	350
E-5	1		1						1	1			4					5		850		425			220	415

ELECTRICAL SYSTEMS QUANTITIES

EQ-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
ELECTRICAL DESIGN
FUNCTIONAL SUPERVISOR: ALI BAKHDOUD
CALCULATED-DESIGNED BY: BRYAN SABAGQUIT
CHECKED BY: PAUL MATOS
REVISED BY: BS — DATE REVISED: 5-28-21

LAST REVISION 00-00-00 | DATE PLOTTED => 8-MAR-2022 | TIME PLOTTED => 13:20

BORDER LAST REVISED 7/2/2010 | USERNAME => s147829 | DGN FILE => 0516000163uc001.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 0516000163

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	Mon	RRRR	1	28	#####

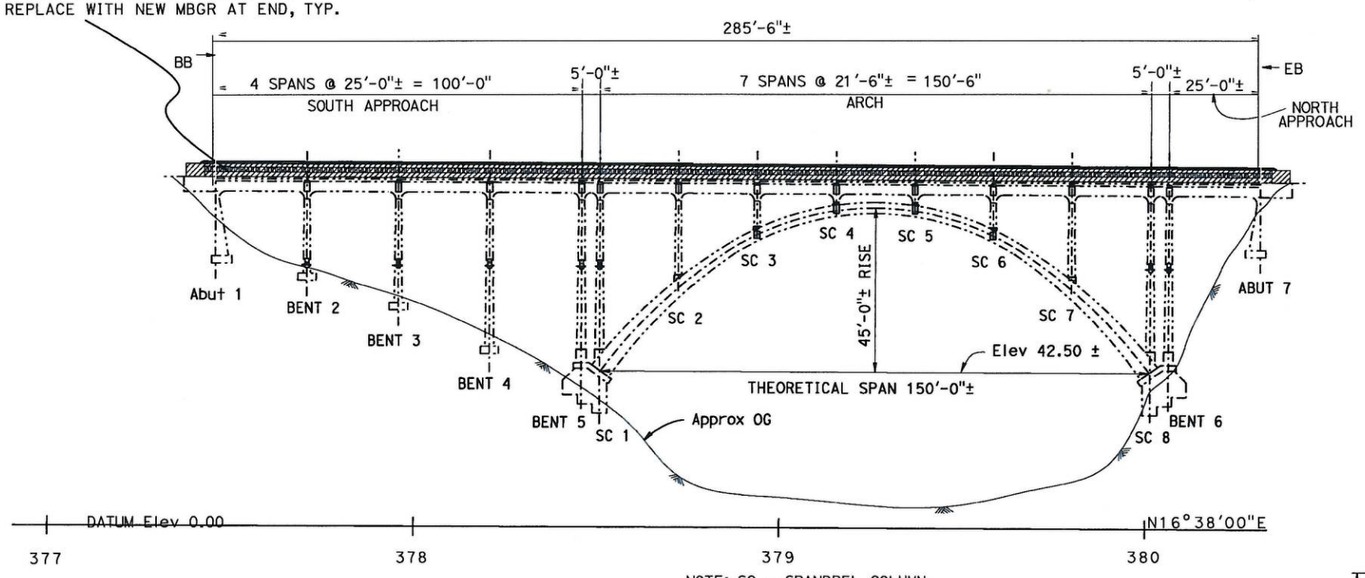
REGISTERED CIVIL ENGINEER X DATE

MM/DD/YYYY
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — No. X — Exp. X — CIVIL — STATE OF CALIFORNIA

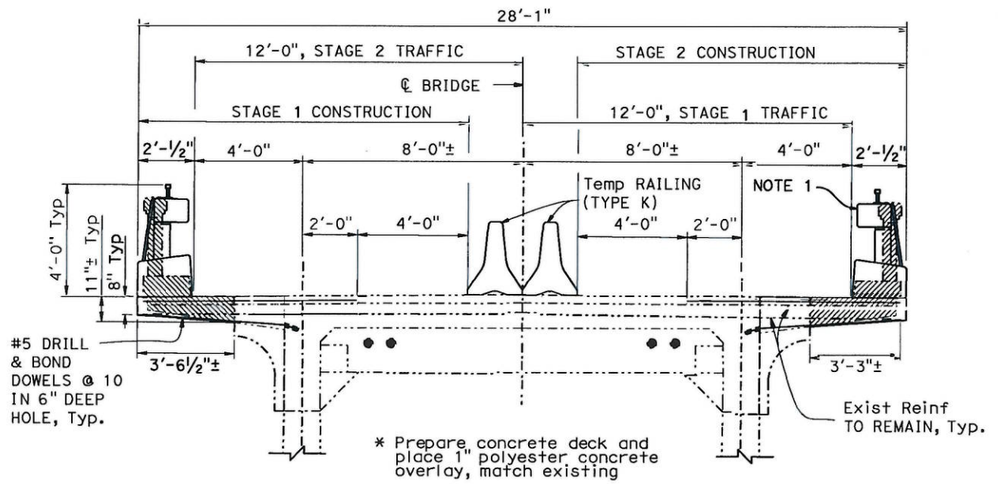
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REMOVE EXISTING END BLOCK AND
REPLACE WITH NEW MBGR AT END, TYP.

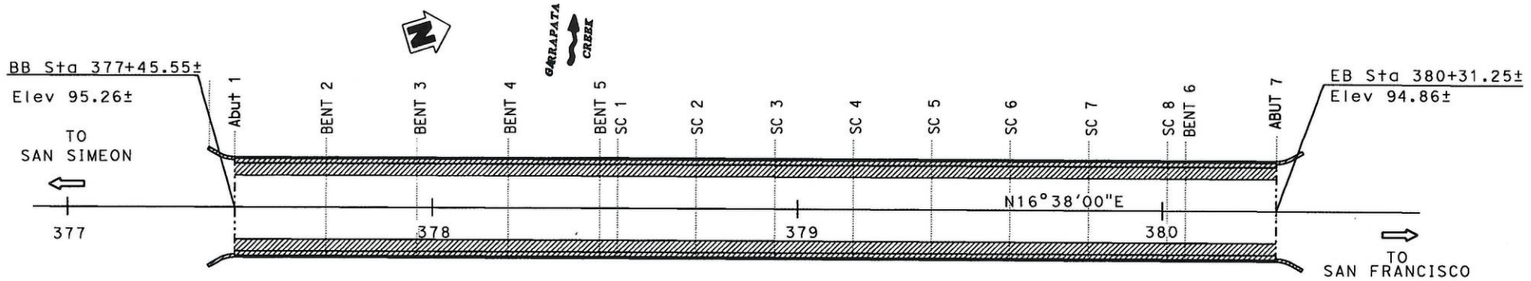


NOTE: SC = SPANDREL COLUMN

ELEVATION
1" =20'-0"



TYPICAL SECTION - NEW
⅜" = 1'-0"



PLAN
1" = 20'-0"

NOTES :
1. REMOVE EXISTING OVERHANG, CURB AND BARRIER, REPLACE WITH NEW OVERHANG AND BARRIER TYPE 86H OR TEXAS DOT TYPE C412 EXTENDED TO END OF SEISMIC SLABS.
2. BARRIER TYPE 86H SHOWN, TEXAS DOT TYPE C412 SIMILAR, NOT SHOWN, BOTH ARE PENDING APPROVAL.
3. STAGE CONSTRUCTION WITH ONE WAY TRAFFIC CONTROL WILL BE NECESSARY.
4. PREPARE CONCRETE DECK AND PLACE 1" POLYESTER CONCRETE OVERLAY, AND MATCH EXISTING GRADE, TYP.
5. SCUPPER OR DROP-THRU DECK DRAINS TO BE INSTALLED IN OR NEAR NEW BARRIERS.

LEGEND:
- ——— INDICATES NEW CONSTRUCTION
- ·—·—·— INDICATES EXISTING STRUCTURE
- ▨ INDICATES REMOVAL EXISTING CONCRETE BARRIER AND OVERHANG

X BRANCH CHIEF	DESIGN	BY	CHECKED X	LOAD & RESISTANCE FACTOR DESIGN	LIVE LOADING X
	DETAILS	BY	CHECKED X	LAYOUT BY X	CHECKED X
	QUANTITIES	BY Y	CHECKED X	SPECIFICATIONS BY X	PLANS AND SPECS COMPARED X

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 18

BRIDGE No. 44-0018
POST MILE X.X

GENERAL PLAN
GARRAPATA Cr BRIDGE

STRUCTURES DESIGN GENERAL PLAN SHEET (ENGLISH) (REVISION 12/13/2019)

DATE PLOTTED => 14-FEB-2022 TIME PLOTTED => 12:12
FILE => 44_0018_garrapata crk bridge\GENERAL\gen_s151020

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3603
PROJECT NUMBER & PHASE: 0516000163 CONTRACT No.: 44-0018

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
				X	X

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Exhibit C

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Draft Resolution
Before the Historic Resources Review Board in and for the
County of Monterey, State of California

Resolution No. 23-
PLN220090 - CALIFORNIA DEPARTMENT OF TRANSPORTATION
Resolution by the Monterey County Historic Resources Review Board (HRRB) to:

1. Certify that the Environmental Impact Report (EIR) prepared by the California Department of Transportation (CalTrans) for Big Sur Bridge Rail Replacement Program (SCH Number: 2020049027) has been considered; and
2. Recommend that the Planning Commission approve a Combined Development Permit (PLN220090) consisting of a: 1) Coastal Development Permit to allow replacement of bridge rails on the Garrapata Creek Bridge; 2) Coastal Development Permit to allow development within 100 feet of Environmentally Sensitive Habitat Area; 3) Coastal Development Permit for development within the Big Sur Critical Viewshed; 4) Coastal Development Permit to allow Development within 750 feet of Archaeological Resources and 5) Coastal Development Permit to allow Development on a historical site.

WHEREAS, this matter was heard by the Historic Resources Review Board (HRRB) of the County of Monterey on December 1, 2022 and January 5, 2023, pursuant to the historic preservation regulations of the Monterey County Coastal Implementation Plan and the regulations for the Preservation of Historic Resources contained in Monterey County Code Chapter 18.25.

WHEREAS, the project is located at Post Mile 63.0 along the Garrapata Creek Bridge, Highway 1, Big Sur, Big Sur Coast Land Use Plan, Coastal Zone.

WHEREAS, the California Department of Transportation (applicant) filed with the County of Monterey, an application to allow replacement of bridge rails on the Garrapata Creek Bridge.

WHEREAS, the project was referred to the Big Sur Land Use Advisory Committee (LUAC) on November 8, 2022 prior to being referred to the HRRB. The LUAC recommended that the project be revised to include repair of the existing bridge rails or replacement of the rail in kind.

WHEREAS, the project planner conducted a site visit on December 13, 2022 to review the project site and proposed development for consistency with the applicable policies and regulations.

WHEREAS, CalTrans, as lead agency pursuant to the California Environmental Quality Act (CEQA) prepared a Tier 1 (programmatic) EIR for the Big Sur Bridge Rail Replacement Program and prepared a Tier 2 (project specific assessment) assessment of the Garrapata Bridge Rail replacement project. Monterey County as a responsible agency must consider the impacts identified in the EIR and reach our own conclusions on the Coastal Development Permit for the project.

WHEREAS, the current bride rail on Garrapata Bridge is deteriorating and does not meet current crash test standards for a Bridge rail which posses a health and safety risk for users of Highway 1.

WHEREAS, at the conclusion of the hearing, the matter was submitted to the HRRB for a recommendation.

THEREFORE, BE IT RESOLVED, that having considered all the written and documentary information submitted, oral testimony, and other evidence presented before the HRRB, the HRRB recommends approval of the Combined Development Permit, subject to the following findings and conditions:

Finding: The action is necessary to correct an unsafe or dangerous condition.

Finding: The project is consistent with Monterey County Coastal Implementation Plan Part 3, Regulations for Development in the Big Sur Coast Land Use Plan.

Finding: The proposed project will not significantly adversely impact the historic integrity of the structure.

Evidence:

1. The Monterey County Local Coastal Program, including the Big Sur Coast Land Use Plan and Monterey County Coastal Implementation Plan Part 3, Regulations for Development in the Big Sur Coast Land Use Plan
2. Regulations for the Preservation of Historic Resources as contained in Monterey County Code Chapter 18.25
3. National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation
4. The application, plans, and supporting materials submitted by the project applicant to Monterey County HCD-Planning for the proposed development found in project file PLN220090, including the supplemental packages submitted August 15, 2022 and December 6, 2022
5. The Historic Reports (LIB220303) prepared by Daniel Leckie, including the Finding of Adverse Effect (FAE)

6. The Tier I and II EIR
7. Oral testimony and HRRB discussion during the public hearing and the administrative record.

Condition: The color and finish of the new rails shall match the existing rails as much as possible. Prior to commencement of construction, the owner/applicant shall submit a color and material mockup of the final color selections, intended to match both the hue and texture of the existing rail to HCD-Planning for review and approval.

Condition: A full traffic assessment, including a speed study and evaluation of the potential of ways of minimizing speed, shall be prepared for each of the other five historical Big Sur bridges which are discussed as being considered for rail replacement in the "Tier 1" EIR as a submittal requirement for the Coastal Development Permits for any of those projects.

Passed and adopted on this **5th day of January, 2023**, upon motion of _____, seconded by _____, by the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

_____
Attest
Philip Angelo**,** HRRB Secretary
January 5, 2023

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Exhibit D

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Draft Resolution
Before the Historic Resources Review Board in and for the
County of Monterey, State of California

Resolution No. 23-
PLN220090 - CALIFORNIA DEPARTMENT OF TRANSPORTATION
Resolution by the Monterey County Historic Resources Review Board (HRRB) to recommend that the Planning Commission deny a Combined Development Permit (PLN220090) consisting of a: 1) Coastal Development Permit to allow replacement of bridge rails on the Garrapata Creek Bridge; 2) Coastal Development Permit to allow development within 100 feet of Environmentally Sensitive Habitat Area; 3) Coastal Development Permit for development within the Big Sur Critical Viewshed; 4) Coastal Development Permit to allow Development within 750 feet of Archaeological Resources and 5) Coastal Development Permit to allow Development on a historical site.

WHEREAS, this matter was heard by the Historic Resources Review Board (HRRB) of the County of Monterey on December 1, 2022 and January 5, 2023, pursuant to the historic preservation regulations of the Monterey County Coastal implementation Plan and the regulations for the Preservation of Historic Resources contained in Monterey County Code Chapter 18.25.

WHEREAS, the project is located at Post Mile 63.0 along the Garrapata Creek Bridge, Highway 1, Big Sur, Big Sur Coast Land Use Plan, Coastal Zone.

WHEREAS, the California Department of Transportation (applicant) filed with the County of Monterey, an application to allow replacement of bridge rails on the Garrapata Creek Bridge.

WHEREAS, the project was referred to the Big Sur Land Use Advisory Committee (LUAC) on November 8, 2022 prior to being referred to the HRRB. The LUAC recommended that the project be modified to include repair of the existing bridge rails or replacement in kind.

WHEREAS, the project planner conducted a site visit on December 13, 2022 to review the project site.

WHEREAS, denial of the project can be statutorily exempt from the California Environmental Quality Act (CEQA) pursuant to Section 15270 of the CEQA Guidelines.

WHEREAS, at the conclusion of the hearing, the matter was submitted to the HRRB for a recommendation.

THEREFORE, BE IT RESOLVED, that having considered all the written and documentary information submitted, oral testimony, and other evidence presented before the HRRB, the HRRB recommends denial of the Combined Development Permit, subject to the following findings:

Finding: The proposed work is not consistent with the purposes of Monterey County Code Chapter 18.25, and alternatives to the project exist that would substantially reduce or avoid adverse impacts on the historic resource.

Finding: The project is not consistent with Monterey County Coastal Implementation Plan Part 3, Regulations for Development in the Big Sur Coast Land Use Plan

Evidence:

1. The Monterey County Local Coastal Program, including the Big Sur Coast Land Use Plan and Monterey County Coastal Implementation Plan Part 3, Regulations for Development in the Big Sur Coast Land Use Plan
2. Regulations for the Preservation of Historic Resources as contained in Monterey County Code Chapter 18.25
3. National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation
4. The application, plans, and supporting materials submitted by the project applicant to Monterey County HCD-Planning for the proposed development found in project file PLN220090, including the supplemental packages submitted August 15, 2022 and December 6, 2022
5. The Historic Reports (LIB220303) prepared by Daniel Leckie, including the Finding of Adverse Effect (FAE)
6. The Tier I and II EIR
7. Coast Highway Management Plan.
8. Oral testimony and HRRB discussion during the public hearing and the administrative record.

Passed and adopted on this **5th day of January, 2023**, upon motion of _____, seconded by _____, by the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

_____
Attest
Philip Angelo**,** HRRB Secretary
January 5, 2023

Exhibit E

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California Department of Transportation

CALTRANS DISTRICT 5
50 HIGUERA STREET | SAN LUIS OBISPO, CA 93401-5415
(805) 549-3101 | FAX (805) 549-3329 TTY 711
www.dot.ca.gov

December 6, 2022

Mr. Phil Angelo, Associate Planner
Monterey County Housing and Community Development Department (HCD)
1441 Schilling Place, South 2nd Floor
Salinas, CA 93901
Submitted via email to angelop@co.monterey.ca.us

Subject: Response to County Questions Raised in Historic Resources Review Board Staff Report, dated December 1, 2022
Reference: Garrapata Creek Bridge Railing Replacement Project (PLN220090)

Dear Mr. Angelo:

We appreciate County staff's time and effort in reviewing Caltrans' application material for the above referenced project. We understand that there is a large volume of information that Caltrans has prepared for the project in addition to the State law governing the development and programming of the project and Caltrans' authority to repair and maintain the State Highway System to ensure public safety. We would urge County staff, decision-makers and interested members of the public to review all of the submitted information to ensure that evaluation of the project is based upon accurate and complete information.

As stated in our application material, the proposed project is funded through Caltrans' State Highway Operation and Protection Program (SHOPP), not "grant funding." The SHOPP is for the expenditure of transportation funds for major capital improvements that are necessary to preserve and protect the State Highway System. Projects included in the program are for improvements relative to the maintenance, safety, operation, and rehabilitation of state highways and bridges.

Prior to the item being heard by the Historic Resources Review Board (HRRB) on January 5, 2022, we would like to clarify and answer the questions raised in the staff report as well as additional questions raised by members of the HRRB on December 1, 2022, to avoid any confusion during the HRRB's consideration of the project. Below are responses to staff's questions on the project contained in Exhibit A (Discussion) of the HRRB staff report and the main body of the staff report (in bold)(also contained in Enclosure 1) and additional questions raised by the HRRB on December 1, 2022.

Staff Report Main Body Comment 1. Clarification of the historic structure impact assessment.

It is inferred from the EIR and historic reports, but not clearly stated in these documents, that the bridge rails are character defining features and that their replacement is consistent with the Secretary of the Interior Standards for Rehabilitation.

and

Staff Report Exhibit A Comment 1. Big Sur Coast Land Use Plan

CIP section 20.145.110.B. indicates that a historical site survey shall be required for all development on known or suspected historical sites. A survey report was prepared October 2020 by Cal Trans District 5 Principal Architectural Historian, Daniel Leckie. The report is divided into two sections, a "Tier 2" report specific to the Garrapata bridge rail replacement project, and a "Tier 1" historical report discussing the potential replacement of bridge rails on the five other historic open spandrel concrete bridges in Big Sur. Attached to the Tier 1 report is also the Department of Parks and Recreation (DPR) forms which provide a historical evaluation and context for the Carmel-San Simeon Highway Historic District.

While the report does outline several inter-related procedural requirements for federal and state historical review, it does not contain certain details necessary to make a finding of consistency with the development standards in the CIP. Specifically:

- **Significance. The report does not specify what the sites primary (historically defining) features are, pursuant to CIP section 20.145.110.B.4.b. This is important as it will allow us to evaluate whether the proposed rail is keeping with the historically defining features of the existing bridge. Per CIP section 20.145.110.C.1, "Where development is proposed on parcels with an identified historical site, such development shall be compatible with the site through incorporation of appropriate design, structural and architectural features, siting, location, and other techniques as recommended in the historical survey prepared for the project.".**
- **Impact. While the supplemental letter, EIR, and historic assessment indicate that there are impacts to cultural (historical) resources, with Cal Trans certified EIR indicating that those impacts will be mitigated to a less than significant level, the report does not assess what the specific impacts to the historical site will be, as required by CIP section 20.145.110.B.4.c. This is not possible without first establishing the bridges historically defining characteristics, however, this would also be essential to the project analysis. Once the project is complete, would the resulting bridge still be eligible for**

listing on CRHR or NRHR? Would the different historic criteria be affected differently? How would the CSSHD be effected?

- **Recommendations. In accordance with CIP section 20.145.110.B.4.d, the historic assessment should contemplate the relative impact of alternatives (discussed in the CEQA section below) to historical resources, and include recommendations to mitigate any impacts (additional to those included in the MOU with the State Historic Preservation Officer). Consider including recommendations for the concrete texture and color that would minimize impact to the historic bridge.**

Response: The Finding of Adverse Effect (FAE) that was prepared for Section 106 Consultation with the SHPO for the project is incorporated herein by reference as Enclosure 2 and contains the requested information. This FAE as well as the Memorandum of Agreement from the SHPO are contained in appendices to the Final Historic Property Survey Report (HPSR) for the project dated December 2020 and included in the Final Tier 1 and Tier 2 EIR for the project. The December 2020 HPSR was transmitted to the County on our FTP site on December 2, 2022.

Concrete color and texture were discussed during the ADAC meetings held for the project; Caltrans intends to match the existing bridge rail as closely as possible per the ADAC's recommendations.

Staff Report Exhibit A Comment 2. California Environmental Quality Act

Comment on Objectives.

Pg 1 of the supplemental application information packet submitted August 15, 2022 describes the project purpose as "This project proposes to upgrade the existing nonstandard bridge railing to current standards in order to ensure the safety and reliability of Highway 1." This purpose is similar to that detailed in section 1.2.1 of the EIR. Please list the objectives of the project in more detail, per CEQA Guidelines section 15124(b). Defining the sole purpose of the project to be the preferred alternative, replacement of an existing rail with a new compliant rail, forecloses evaluation of a reasonable range of project alternatives as required by CEQA.

Response: The "purpose" in Caltrans' environmental documentation comprises the "project objectives" required in CEQA. The purpose and need in the Tier 1 and Tier 2 EIR for the project (Staff Report Exhibit E) are as follows:

> "*<u>Purpose</u>*
>
> *The purpose of the Tier 1 Big Sur Bridge Rail Replacement Program and Tier 2 Garrapata Creek Bridge Rail Replacement project is to replace the*

existing nonstandard concrete baluster bridge rails and approach rails with rails that meet current state and federal traffic safety standards to ensure the reliability of State Route 1.

Need

The Tier 1 Big Sur Bridge Rail Replacement Program is needed because the existing rails do not meet current traffic safety standards.

The Tier 2 Garrapata Creek Bridge Rail Replacement project is needed because the existing rails do not meet current traffic safety standards, and as stated in the 2015 Bridge Inspection Report, portions of the existing Garrapata Creek Bridge rails have developed severe cracking caused by deterioration of concrete and reinforcing steel.

The upcoming projects are necessary due to various levels of deterioration of the existing railing on all six bridges, and the railing no longer meets current traffic safety standards. Caltrans Structure Maintenance and Investigations crews inspected all six bridges in 2019, and the bridge rails on all six bridges were given a poor rating in the Bridge Inventory Status Report.

The Manual for Assessing Safety Hardware, which was implemented as an agreement between the Federal Highway Administration and the American Association of State Highway Transportation Officials in 2009 (updated in 2016), sets the standards for highway safety equipment. Newly adopted Manual for Assessing Safety Hardware standards have mandated that all new installations of roadside safety devices on high-speed roadways, including bridge railing, must meet a new higher standard for crash testing for all projects advertised as of December 31, 2019, without exception.

Manual for Assessing Safety Hardware standards dictate both the structural performance as well as the height and width dimensions of new railing. The existing railings are insufficient by current Manual for Assessing Safety Hardware standards for the posted speed limits on this stretch of State Route 1, so it is not possible to accomplish the purpose of the project and replace the existing railing in-kind moving forward. Portions of the existing Garrapata Creek Bridge rail are in an accelerated state of deterioration, including the concrete spalling and exposed steel reinforcing bar. This deterioration may pose a hazard to public health and safety moving forward if allowed to continue unaddressed."

As specified in CEQA Guidelines Section 15124(b), the lead agency has the discretion to develop its own project description as well as the project objectives. Aside from the preferred alternative, the environmental document analyzed three additional alternatives. However, they did not meet the purpose and need of the project and therefore were eliminated from consideration.

The Tier 1 and Tier 2 EIR has already been circulated for public comment and has been certified. Public comment was not received from Monterey County HCD. Caltrans is not electing to revise the objectives of the project. Furthermore, the EIR prepared for the project contains an evaluation of a reasonable range of alternatives as discussed under the following question and response.

Comments on Alternatives

Comment on Repair. As assessed by a qualified architectural historian and structural engineer, and notwithstanding compliance with Cal Trans standards, is repair of the existing rails possible? The 2021 Division of Maintenance report attached to the supplemental letter dated August 15, 2022 indicates that conditions had not significantly changed since a previous report in 2015, and indicates that the 2009 work recommendation to rehabilitate the rails is still valid, "Remove any unsound concrete from the delaminated and spalled areas throughout both bridge rails. Clean and paint any exposed steel and patch or recast the resulting spalled areas."

Response: Below is a description provided by Kelly McClain the District Chief of Maintenance and Caltrans' Structures Maintenance & Investigations (SM&I) of how projects are identified and developed from inspection reports:

- With respect to bridge inspection reports, the Area Bridge Maintenance Engineer provides a condition assessment based on field observations only. It is intended to highlight that action is needed. The work recommendation does not speak to the feasibility of any one course of action. Generally, work recommendations remain in the system until addressed.
- The Garrapata Creek Bridge rail is rated as Poor in the Bridge Rail Replacement and Upgrade asset category of the SHOPP. The Good-Fair-Poor assessment is mandated by FHWA as part of Moving Ahead for Progress in the 21st Century Act (MAP-21) legislation. MAP-21 requires States to adopt national asset management performance measures to establish nationwide consistency for pavement and bridge condition reporting (2021 State Highway System Management Plan [SHSMP], page 1-3)
- Poor Bridge Rail is based on rail type and rail deemed to not be crash-worthy **regardless of speed**.

- Once a project is initiated, the design effort begins which includes studies, models and in-depth analysis. This engineering analysis for the Garrapata Creek Bridge railing has led to the development of the Type 86H.
- Because the bridge rail is a safety feature, it must be brought up to current MASH standards. **Therefore, replacement is the only repair strategy.**
- Ongoing deterioration has been documented in the historical bridge inspection reports.

The 2009 Bridge Inspection Report is attached in Enclosure 3. Page 2 of the 2009 Bridge Inspection Report states "However, the railing needs replacement. An e-mail was sent to Roger Hunter 2/24/11 requesting the rail replacement be expedited."

Comment on Replacement with a Non-Standard Alternative. The conclusion of section 4 of the supplemental letter submitted August 15, 2022 indicates that "The Caltrans District 5 Traffic Safety Engineer has made the determination that he will not be recommending an exception to the MASH standard for the new bridge railing for the Garrapata Creek Bridge." (Pg. 7) Other areas of the document indicate that exceptions to MASH are simply not possible, "As of December 31st, 2019, Caltrans requires that bridge rails comply with MASH standards without exception." (Pg. 6) The Cal Trans Highway design manual referenced in the letter appears to contemplate non-standard designs for certain highway elements. Is replacement with a non-standard rail precluded from consideration by a specific statutory requirement? If not precluded by statute, would an exception to the standards require a specific approval within Cal Trans, and the appropriate authority to make that determination in Cal Trans would not be able to support such an exception?

Response: The statement that "The Caltrans District 5 Traffic Safety Engineer has made the determination that he will not be recommending an exception to the MASH standard for the new bridge railing for the Garrapata Creek Bridge." is meant to reiterate that the Caltrans District 5 Traffic Safety Engineer is responsible for ensuring that the bridge rail selection follows the Traffic Safety Systems Guidance (TSSG) and other Caltrans MASH implementation policy. Design exceptions for the non-MASH compliant bridge rail designs are not allowed by Caltrans per the "2019 MASH Implementation Memo" discussed in the supplemental application information submitted on August 15, 2022 (see "4. Applicable Design Standards, starting on page 7 of the pdf file for Exhibit D of the staff report) and re-attached herein as Enclosure 4. The applicable and relevant sections of the memorandum below are underlined.

> *"On December 23, 2016, the California Department of Transportation (Caltrans) established a timeline for implementation of roadside safety*

hardware and evaluation of new products under the Manual for Assessing Safety Hardware (MASH). The plan set specific dates when ***Caltrans will no longer allow the installation of non-MASH compliant safety devices.***

If one or more Caltrans approved MASH compliant safety devices are available for a specific need, Caltrans must use the safety device(s)*…*

…

These requirements apply to all projects and work done on the State highway system."

Section 82.1(2) of the Highway Design Manual regarding *Application of Standards* define "absolute requirements" of the design standards as follows: "Design guidance related to requirements of law, policy, or statute that do not allow exception are phrased by the use of 'must,' 'is required,', 'without exception,' 'are to be,' 'is to be,' 'in no event,' or a combination of these terms." (page 87)

Staff Report Main Body Comment No. 2: Project Justification

The County and the public have questions the need for replacement of the bridge rails. Questions have been raised about:

a. The ability to reduce the speed limit, which affects the replacement rail design requirements. - Staff analysis is that this issue has been addressed by CalTrans and the speed cannot/should not be reduced.

Response: Lowering the speed limit was evaluated as an alternative in the EIR and was rejected as further discussed in the supplemental application information submitted on August 15, 2022 (on page 10 of the pdf file for Exhibit D of the staff report). Furthermore, Assembly Bill (AB)1938 prohibits reductions of the speed limit by more than 7.4 mph below the 85th percentile speed on the State Highway System. The 85th percentile speed near the Garrapata Creek Bridge was spot surveyed at 58 mph.

b. Is it possible to apply exceptions to current safety standards for preservation of Historic Resources? - Staffs analysis is that this question has not been adequately addressed and there may still be opportunity to repair the existing rails or to replace the rails in kind.

Response: The supplemental application information submitted on August 15, 2022 includes a response to this question (under "4. Applicable Design Standards, starting on page 7 of the pdf file for Exhibit D of the staff report). Also,

please see the above response to Staff Report Exhibit A Comment No. 2 on Alternatives. Design exceptions are not allowed for this project.

Staff Report Main Body Comment No. 3: Cumulative Effects

Will the decision on the Garrapata bridge rails have a cumulative effect on all seven historic concrete arch bridges? - Staffs analysis is that this issue is not clearly explained by CalTrans. It is staff's opinion that the decision on the Garrapta bridge rails can and will influence future decisions on bridge rails on the six other historic concrete bridges.

and

Exhibit A Comment on Cumulative Impacts

As this project is a pilot for the replacement of the rails on the other five historic bridges in Big Sur, an analysis of potential cumulative impacts to historical resources. Examples to address include:

- **If these rails are replaced, will it affect the continuity of the Carmel-San Simeon Highway Historic District?**
- **For future projects, would other rails need to be designed to match to maintain historic district integrity?**
- **If each rail goes through a "Tier 2" EIR review and design process, could the resulting bridge rail replacements be incongruous?**
- **Would not being able to consider non-standard alternatives also affect the other engineering features within the CSSHD, such as the retaining or parapet walls?**

Response: Caltrans prepared a Tier 1 Programmatic EIR for the Big Sur Bridge Rail Replacement Program which would upgrade the existing nonstandard bridge railings on the following six historic bridges along the Big Sur Coast to bring facilities up to current MASH standards to ensure the safety and reliability of Highway 1:

- Garrapata Creek Bridge (1931)—post mile 63.0, Bridge Number 44-0018
- Rocky Creek Bridge (1932)—post mile 60.0, Bridge Number 44-0036
- Granite Canyon Bridge (1932)—post mile 64.3, Bridge Number 44-0012
- Bixby Creek Bridge (1932)—post mile 59.4, Bridge Number 44-0019
- Malpaso Creek Bridge (1935)—post mile 67.9, Bridge Number 44-0017
- Big Creek Bridge (1938)—post mile 28.1, Bridge Number 44-0056

Tier 1 of the analysis in the EIR evaluates cumulative impacts associated with implementation of the entire Program. However, the analysis of the Tier 1

program cumulative impacts presents a "snapshot" of information currently available at the corridor level. Because the Tier 1 program improvements would be constructed over a multi-year time frame, potential cumulative impacts, as well as other resource impacts, could change over time. As projects for the other five bridges are programmed as Tier 2 construction-level projects, they will be subject to separate environmental review, including the consideration of cumulative impacts.

In the Tier 2 analysis of the Garrapata Creek Bridge Railing Replacement Project in the EIR, direct and indirect impacts to cultural resources were determined to contribute to cumulative impacts but were determined to be mitigated below the level of significance with implementation of measures required in the Memorandum of Agreement with the State Historic Preservation Officer (SHPO) for the Garrapata Creek Bridge Railing Replacement Project.

Cumulative effects to the Carmel San Simeon Highway Historic District (CSSHHD) are discussed in the Finding of Adverse Effect (FAE) prepared for the Garrapata Creek Bridge Railing Replacement Project as well. The FAE concludes that:

> "Though the project will adversely affect one individually eligible contributing resource, the Garrapata Creek Bridge, the project does not impact the CSSHHD in its entirety in such a way that would impede its ability to convey its significance. Many of the features of this district have been modified over time but remain as contributors to the district, continuing to convey its significant historical themes. Therefore, after the project, the CSSHHD will remain a discontinuous historic district comprising 241 discrete elements (five (5) water fountains, ten (10) retaining walls, 61 parapets, 158 culvert head walls, and seven (7) individually eligible concrete arch bridges). Its ability to convey its significance under Criteria A and C, as a distinctive example of a rural coastal highway built with rustic handcrafted masonry features that harmonize with their dramatic natural environments, will not be diminished by this project. None of the other criteria of adverse effects apply to this project, and the project does not constitute any other examples of adverse potential effects not included in the seven (7) examples found in 36 CFR 800.5.2.
>
> Cumulatively, the rail replacement of the six bridges will not affect the characteristics of the CSSHHD in a manner that would diminish the district's overall integrity of design, materials, workmanship, location, setting, feeling, or association. The bridges will retain their status as individually eligible properties and as contributing resources in the district, and the effect to the historic district as a whole will be minimal and would not hinder the CSSHHD's ability to convey its historical significance.

> Cumulatively, the six bridge rail replacement projects (five of which have not yet been proposed) will not have an adverse effect on the CSSHHD. Potential effects of each project will be assessed individually in separate Findings of Effect for each project as they are proposed in the future." (page 18 of the Finding of Adverse Effect dated December 2020).

HRRB Comment

Would Caltrans consider seeking legislation to allow a design exception from MASH standards to allow for replacement in kind of the railing on the Garrapata Creek Bridge and the other 5 historic bridges under the Big Sur Bridge Rail Replacement Program?

Response: The proposed dimensions of each design feature of the bridge railing for the Garrapata Creek Bridge have a very distinct and important role to ensure the safety of the traveling public and the movement of goods and essential services coupled with the reliability of the highway. Caltrans would not seek legislation to reduce the safety or reliability of the railing.

The proposed dimensions of the bridge railing for the Garrapata Creek Bridge meet the requirements of the MASH Standard while replicating the existing railing design aesthetic to the maximum extent possible allowing for consistency with the existing aesthetics.

The design of the railing for the remaining 5 bridges will be completed individually for each bridge as the work is programmed. Stand-alone environmental analysis and public outreach, including Aesthetics Design Advisory Committee meetings, will be completed for each individual bridge.

HRRB Comment

Are bike rails proposed on top of the bridge railing?

Response: No, bike rails are not proposed at this time. The Structural Details in the Plan Set have been corrected and attached herein in Enclosure 5 to remove the note and detail for the bike rail.

HRRB Comment

Can the speed study be expanded to include other historic bridge locations or be conducted on another day?

Individual speed studies will be performed for each future bridge rail replacement project. The EIR for the project, the supplemental application

information submitted by Caltrans on August 15, 2022 (under "5. Alternatives Analysis, starting on page 9 of the pdf file for Exhibit D of the staff report), and the *Frequently Asked Questions (FAQs) on Setting Speed Limits* in Attachment 9 of the supplemental application information submitted by Caltrans on August 15, 2022, describe the requirements and restrictions for lowering the speed limit.

In order to ensure that complete and accurate information is relayed to the public and to the Historic Resources Review Board in the staff report prior to the meeting, we are also able to meet in person as well, to ensure that our answers are clear and to ensure that there are no further questions or information required from staff prior to the meeting. Please let me or Michelle Wilson know if you have further questions. I can be reached at mitch.dallas@dot.ca.gov or at (805) 748-7004 and Michelle can be reached at michelle.wilson@dot.ca.gov or (805) 305-3635.

Sincerely,

Michelle Wil for

Mitch Dallas
Senior Coastal Resources Specialist

cc: Craig Spencer, Chief of Planning, Monterey County HCD
Erik Lundquist, Director, Monterey County HCD

Enclosures:

1. December 1, 2022 HRRB Staff Report with Exhibit A, Discussion
2. Finding of Adverse Effect for the Garrapata Creek Bridge Railing Replacement Project (submitted with December 2020 Historic Properties Survey Report on FTP site on 12/1/22)
3. 2009 Bridge Inspection Report
4. 2019 MASH Implementation Memo
5. Revised Structural Details with Bike Rail Removed

Finding of Adverse Effect Separately transmitted and not in this PDF.

Introduced: 11/9/2022 **Current Status:** Agenda Ready

Version: 1 **Matter Type:** General Agenda Item

PLN220090 - CALIFORNIA DEPARTMENT OF TRANSPORTATION (GARRAPATA CREEK BRIDGE)

Public hearing to consider a recommendation to the Monterey County Planning Commission on a Combined Development Permit to allow replacement of the bridge rails on the Garrapata Creek Bridge.

Project Location: Garrapata Creek Bridge near post mile 63.0 on HWY 1, 35681 HWY 1, Carmel, CA 93923 (Assessor's Parcel Number 000-000-000-000 and 243-301-029-000), Big Sur Coast Land Use Plan.

RECOMMENDATION:

Staff recommends that the Monterey County Historic Resources Review Board (HRRB) continue the hearing on the project to a date certain of January 5, 2023, with direction that the additional information requested in the staff report be provided.

SUMMARY:

The California Department of Transportation (Cal Trans) proposes to replace the bridge rails on the Garrapata Creek Bridge. The bridge is individually eligible for listing on the National Register of Historic Places (NRHP), the California Register of Historic Resources (CRHR), and is a contributing resource to the Carmel San Simeon Historic District (CSSHD). Named after the rural state highway constructed between 1922 and 1938, CSSHD stretches along Highway 1 for approximately 75 miles from the San Carpoforo Creek in San Luis Obispo County to the Carmel River in Monterey County. The district includes 241 contributing elements, primarily engineering features which are a part of or adjacent to the Highway: rubble masonry road side water fountains (5), retaining walls (10), parapet walls (61), culvert headwalls (158), and concrete arch bridges (7).

The bridge is one of the seven concrete arch bridges in the CSSHD. Cal Trans intends to replace the bridge rails on six of these bridges. The historical report prepared for the project (LIB220303, Exhibit D) is a “Tier 2” report, focusing on the Garrapta Bridge rail replacement. A “Tier 1” programmatic analysis evaluating the replacement of the rails on all six bridges is included as an attachment to that report, as well as the Department of Parks and Recreation (DPR) 523 forms for the CSSHD. The EIR prepared for the project (Exhibit F) also utilizes this Tier 1 / 2 approach, with the Tier 1 EIR being a programmatic analysis of replacing the bridge rails on all six bridges, and the Tier II analysis being specifically focused on the Garrapata Creek bridge rail replacement. Cal Trans also submitted a supplemental letter addressing frequently asked questions and providing additional analysis of the project, Exhibit E.

The rails are in a state of physical deterioration, with concrete spawling and visible damage, and Cal Trans is proposing to replace them with new rails compliant with current safety standards to address this. Comments on the EIR, the County's previous Section 106 Consolation comments (Exhibit H), and feedback from the LUAC (Exhibit G) focus on the project justification and whether other alternatives to address public safety would be more appropriate given the historic context of the bridge, such as: repair of the existing rails, replacement of the rails with those of the same design, a reduction of the speed limit near the bridge, or a combination of these alternatives.

Cal Trans has addressed these contentions in various forms and in varying levels of detail in the above referenced documents. Staff have reviewed these materials, and don't believe they provide all the necessary detail for staff to draft findings to recommend approval of the project. The main issues that need additional explanation or justification include:

1. Clarification of the historic structure impact assessment.
   It is inferred from the EIR and historic reports, but not clearly stated in these documents, that the bridge rails are character defining features and that their replacement is consistent with the Secretary of the Interior Standards for Rehabilitation.
2. Project Justification.
   The County and the public have questions the need for replacement of the bridge rails. Questions have been raised about:
   a. The ability to reduce the speed limit, which affects the replacement rail design requirements. - Staff analysis is that this issue has been addressed by CalTrans and the speed cannot/should not be reduced.
   b. Is it possible to apply exceptions to current safety standards for preservation of Historic Resources? - Staffs analysis is that this question has not been adequately addressed and there may still be opportunity to repair the existing rails or to replace the rails in kind.
3. Cumulative Effects.
   Will the decision on the Garrapata bridge rails have a cumulative effect on all seven historic concrete arch bridges? - Staffs analysis is that this issue is not clearly explained by CalTrans. It is staff's opinion that the decision on the Garrapta bridge rails can and will influence future decisions on bridge rails on the six other historic concrete bridges.

Therefore, staff are recommending the HRRB continue the project to the next regular meeting with direction to provide the additional requested information. These points are detailed further in the discussion **Exhibit A**.

Prepared by: Phil Angelo, Associate Planner
Reviewed by: Craig Spencer, Chief of Planning

The following attachments are on file with Housing and Community Development:

- Exhibit A - Discussion
- Exhibit B - Project Plans
- Exhibit C - Historic Property Survey Report (LIB220303)
- Exhibit D - Supplemental Letter prepared by Cal Trans
- Exhibit E - Tier I & II EIR

- Exhibit F - Draft Big Sur Land Use Advisory Committee (LUAC) Meeting Minutes
- Exhibit G - Previous HRRB Comments on the Project dated October 29, 2020

cc: Mitch Dallas (Applicant); Michelle Wilson (Applicant); Craig Spencer, HCD Chief of Planning; Project File PLN220090

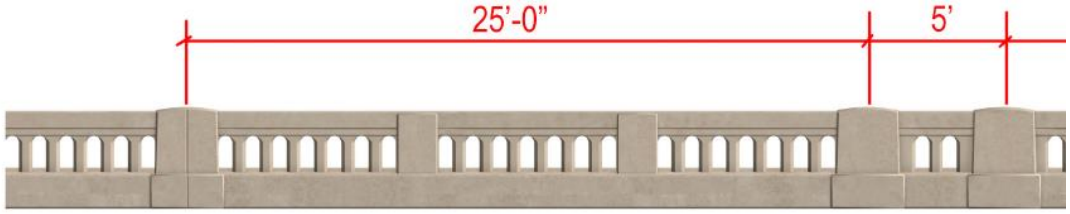
Exhibit A

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EXHIBIT A
DISCUSSION

INTRODUCTION

The California Department of Transportation (Cal Trans) proposes to remove and replace the bridge rails on the Garrapata Creek bridge. This bridge is one of seven historic bridges in Big Sur, six of which have open spandrel designs. All seven bridges are part of the Carmel San Simeon Historic District (CSSHD), a non-contiguous district named after the rural state highway constructed between 1922 and 1938, which stretches approximately 75 miles from the San Carpoforo Creek in San Luis Obispo County to the Carmel River in Monterey County. The district includes 241 contributing elements, primarily engineering features which are a part of or adjacent to the highway: rubble masonry roadside water fountains (5), retaining walls (10), parapet walls (61), culvert headwalls (158), and concrete arch bridges (7). The Garrapata Creek Bridge is also individually eligible for listing on the National Register of Historic Places (NRHP) and the California Register of Historic Resources (CRHR).



86H WITH TOP BEAM GROOVE LINE BACK ELEVATION



Exhibit 1: Proposed and Existing Rail Looking Toward Bridge



86H WITH TOP BEAM GROOVE LINE FRONT ELEVATION



Exhibit 2: Proposed and Existing Rail Away from Bridge

BIG SUR COAST LAND USE PLAN

The project would need to be found consistent with the Monterey County Local Coastal Program, which includes the Big Sur Coastal Land Use Plan, and implementing regulations in the Monterey County Coastal Implementation Plan (CIP). CIP, Part 3, Regulations for Development in the Big Sur Coast Land Use Plan contains regulations intended for the protection of historical resources within the Big Sur coastal planning area.

CIP section 20.145.110.B. indicates that a historical site survey shall be required for all development on known or suspected historical sites. A survey report was prepared October 2020 by Cal Trans District 5 Principal Architectural Historian, Daniel Leckie. The report is divided into two sections, a "Tier 2" report specific to the Garrapata bridge rail replacement project, and a "Tier 1" historical report discussing the potential replacement of bridge rails on the five other historic open spandrel concrete bridges in Big Sur. Attached to the Tier 1 report is also the Department of Parks and Recreation (DPR) forms which provide a historical evaluation and context for the Carmel-San Simeon Highway Historic District.

While the report does outline several inter-related procedural requirements for federal and state historical review, it does not contain certain details necessary to make a finding of consistency with the development standards in the CIP. Specifically:

- Significance. The report does not specify what the sites primary (historically defining) features are, pursuant to CIP section 20.145.110.B.4.b. This is important as it will allow us to evaluate whether the proposed rail is keeping with the historically defining features of the existing bridge. Per CIP section 20.145.110.C.1, "Where development is proposed on parcels with an identified historical site, such development shall be compatible with the site through incorporation of appropriate design, structural and architectural features, siting, location, and other techniques as recommended in the historical survey prepared for the project."

- Impact. While the supplemental letter, EIR, and historic assessment indicate that there are impacts to cultural (historical) resources, with Cal Trans certified EIR indicating that those impacts will be mitigated to a less than significant level, the report does not assess what the specific impacts to the historical site will be, as required by CIP section 20.145.110.B.4.c. This is not possible without first establishing the bridges historically defining characteristics, however, this would also be essential to the project analysis. Once the project is complete, would the resulting bridge still be eligible for listing on CRHR or NRHR? Would the different historic criteria be affected differently? How would the CSSHD be effected?

- Recommendations. In accordance with CIP section 20.145.110.B.4.d, the historic assessment should contemplate the relative impact of alternatives (discussed in the CEQA section below) to historical resources, and include recommendations to mitigate any impacts (additional to those included in the MOU with the State Historic Preservation Officer). Consider including recommendations for the concrete texture and color that would minimize impact to the historic bridge.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

Pursuant to State CEQA Guidelines section 15051(a), as Cal Trans is carrying out the bridge rail replacement project, they're the lead agency on the project, with the County acting as a "Responsible Agency" under CEQA. Responsible Agencies are those public agencies with discretionary approval power over a project other than the lead agency.

While the Responsible Agencies role in the project is more limited, in accordance with CEQA Guidelines section 15096(f) and (g), as a Responsible Agency the County must consider the EIR prior to acting on the project, and make required findings required by CEQA guidelines sections 15091 and 15093, if applicable. The following clarifying and amplifying information is requested in order to allow County staff to draft appropriate findings for recommending and decision making bodies to consider.

Objectives

Pg 1 of the supplemental application information packet submitted August 15, 2022 describes the project purpose as "*This project proposes to upgrade the existing nonstandard bridge railing to current standards in order to ensure the safety and reliability of Highway 1."* This purpose is similar to that detailed in section 1.2.1 of the EIR. Please list the objectives of the project in more detail, per CEQA Guidelines section 15124(b). Defining the sole purpose of the project to be the preferred alternative, replacement of an existing rail with a new compliant rail, forecloses evaluation of a reasonable range of project alternatives as required by CEQA.

Alternatives

In accordance with CEQA Guidelines section 15126.6, a range of reasonable alternatives to the project should be evaluated which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects relative to the other alternatives. Within the EIR, supplemental package, and supporting documentation: the no project alternative, proposed replacement (86-H), alternative replacement (C412), reducing the speed limit, installation of a façade in front of a compliant rail, repair, widening the bridge two feet, or constructing of a new bridge to re-route traffic are mentioned and discussed in different levels of detail. Staff had the following questions regarding repair of the existing rails or replacement of the rails with a non-standard alternative:

- Repair. As assessed by a qualified architectural historian and structural engineer, and notwithstanding compliance with Cal Trans standards, is repair of the existing rails possible? The 2021 Division of Maintenance report attached to the supplemental letter dated August 15, 2022 indicates that conditions had not significantly changed since a previous report in 2015, and indicates that the 2009 work recommendation to rehabilitate the rails is still valid, "Remove any unsound concrete from the delaminated and spalled areas throughout both bridge rails. Clean and paint any exposed steel and patch or recast the resulting spalled areas."

- Replacement with a Non-standard Alternative. The conclusion of section 4 of the supplemental letter submitted August 15, 2022 indicates that *"The Caltrans District 5 Traffic Safety Engineer has made the determination that he will not be recommending an*

exception to the MASH standard for the new bridge railing for the Garrapata Creek Bridge." (Pg. 7) Other areas of the document indicate that exceptions to MASH are simply not possible, *"As of December 31st, 2019, Caltrans requires that bridge rails comply with MASH standards without exception."* (Pg. 6) The Cal Trans Highway design manual referenced in the letter appears to contemplate non-standard designs for certain highway elements. Is replacement with a non-standard rail precluded from consideration by a specific statutory requirement? If not precluded by statute, would an exception to the standards require a specific approval within Cal Trans, and the appropriate authority to make that determination in Cal Trans would not be able to support such an exception?

Cumulative Impacts

As this project is a pilot for the replacement of the rails on the other five historic bridges in Big Sur, an analysis of potential cumulative impacts to historical resources. Examples to address include:

- If these rails are replaced, will it affect the continuity of the Carmel-San Simeon Highway Historic District?
- For future projects, would other rails need to be designed to match to maintain historic district integrity?
- If each rail goes through a "Tier 2" EIR review and design process, could the resulting bridge rail replacements be incongruous?
- Would not being able to consider non-standard alternatives for also affect the other engineering features within the CSSHD, such as the retaining or parapet walls?

DEPARTMENT OF TRANSPORTATION
Structure Maintenance & Investigations

Bridge Number : 44 0018
Facility Carried: STATE ROUTE 1
Location : 05-MON-001-62.97
City :
Inspection Date : 09/25/2009
Inspection Type

Bridge Inspection Report

Routine	FC	Underwater	Special	Other
X				

STRUCTURE NAME: GARRAPATA CREEK

CONSTRUCTION INFORMATION

Year Built : 1931
Year Widened: N/A
Length (m) : 87
Skew (degrees): 0
No. of Joints : 0
No. of Hinges : 0

Structure Description: RC open-spandrel arch and RC girder (2) approach spans on RC column (2) bents all founded on spread footings.

Span Configuration : 4 @ 25', 1 @ 5', 1 @ 150', 1 @ 5', 1 @ 25' (N).

LOAD CAPACITY AND RATINGS

Design Live Load: MS-13.5 OR HS-15
Inventory Rating: 36 metric tonnes Calculation Method: LOAD FACTOR
Operating Rating: 59.6 metric tonnes Calculation Method: LOAD FACTOR
Permit Rating : PPPPP
Posting Load : Type 3: Legal Type 3S2: Legal Type 3-3: Legal

DESCRIPTION ON STRUCTURE

Deck X-Section: 1' br, 0.7' cu, 24', 0.7' cu, 1' br.
Total Width: 8.3 m Net Width: 7.3 m No. of Lanes: 2
Rail Description: Concrete baluster. Rail Code : 0111
Min. Vertical Clearance: Unimpaired

DESCRIPTION UNDER STRUCTURE

Channel Description: Coastal mountain bedrock channel with steep gradient. Sand, gravel, and bedrock in the channel. Narrow section in active channel. Heavy vegetation on high flow sides of channel.

CONDITION TEXT

REVISIONS

The full quantity of Element 331 was down graded to condition state 4 due to the advanced deterioration of the railing.

CONDITION OF STRUCTURE

Access

Due to the height of the bridge, the approaches, railing, deck, joints, and abutments were inspected visually at close range. The soffit and the substructure were inspected with binoculars. The last close up access to the soffit appears to have been during the seismic retrofit in 1998. A UBIT assisted inspection will be scheduled when the 2012 UBIT schedule is released.

Deck & Rail

The rail end posts are covered with fine pattern cracking. See the attached photo. The barrier rail posts are highly deteriorated, with dozens of incipient spalls and five fully spalled posts. No work was recommended since there was an existing STRAIN

CONDITION TEXT

recommendation for a rail upgrade (Fiscal Year 2001). However, the railing needs replacement. An e-mail was sent to Roger Hunter 2/24/11 requesting the rail replacement be expedited.

The deck has a full width transverse crack between 1/64" and 1/16" on the main arch span, between sets of spandrel columns. See the attached photos. Minor deck cracking is common and does not reduce the ultimate capacity of the superstructure.

Superstructure

Efflorescence can be seen in the soffit at the joints. The joints were filled with mortar when the structure was made continuous during the retrofit.

Substructure

Arch:

There is an incipient spall at the top of the west rib at the bottom of SC-6 approximately 2' x 0.7'.

Columns:

The south face of the right column at Bent 3, has a vertical spall approximately 6" x 2" with exposed corroded reinforcing steel. Two smaller spalls are just below the upper spall. See the attached photos. This kind of spalling is common and is due to a combination of inadequate cover over the reinforcing steel and the high chloride content of the marine air. Many spalls were documented through the years and were patched.

Left and right spandrel columns 1 were patched. However, pattern cracking was noted in the patches; indicating the patches will eventually fail. See the attached photo. This was noted with the aid of binoculars.

It was noted through binoculars that in the main span, on the right right side, the first spandrel column appears to have map cracking in most of the column.

There is an incipient spall approximately 3" wide x 2' long at Bent 3, left column, mid height, SW corner. There is also map cracking less than 1/64" wide on the patches on both columns.

There is an incipient spall approximately 6" wide x 2.5' long at Bent 4, left column, base of NW corner.

Transverse Strut:

There is a crack in the SW face of the bottom strut near SC-4. The crack averages 1/8" wide x 1.5' long.

Spalling on the bridge railing and spandrel columns has been documented since the 1956 inspection report. Apparently, the condition will be ongoing unless new material for patching and sealing the concrete can be found.

SAFE LOAD CAPACITY

The spandrel spans and approach spans were rated in 1975 and the arches rated in 1978, the lower and more conservative ratings were for the spandrel spans are used. Rating factors were calculated with the Load Factor method using 0" AC. Based on an operating rating of 2.16, this bridge should sustain the State legal and permit loads.

CONDITION TEXT

HS20-44 design truck: Inventory Rating = 36 metric tons Rating Factor: 1.11
HS20-44 design truck: Operating Rating = 60 metric tons Rating Factor: 1.84

Permit: rating factor = 1.47 PPPPP

MISCELLANEOUS

A request was sent to Mike Lee of Maintenance Design on 2/24/2011 to produce a set of plan and elevation drawings that can be used as a template for noting element deficiencies.

This bridge is NBI labeled "Functionally Obsolete" due to the high ADT / bridge deck width ratio.

ELEMENT INSPECTION RATINGS

Elem No.	Element Description	Env	Total Qty	Units	Qty in each Condition State St. 1	St. 2	St. 3	St. 4	St. 5
12	Concrete Deck - Bare	3	730	sq.m.	730	0	0	0	0
44	Concrete Slab - Protected w/ Thin Overlay	2	750	sq.m.	750	0	0	0	0
110	Reinforced Conc Open Girder/Beam	3	174	m.	90	84	0	0	0
144	Reinforced Conc Arch	3	75	m.	74	1	0	0	
155	Reinforced Conc Floor Beam	2	55	m.	55	0	0	0	0
205	Reinforced Conc Column or Pile Extension	3	26	ea.	22	4	0	0	
215	Reinforced Conc Abutment	2	16	m.	16	0	0	0	0
320	P/S Concrete Approach Slab w/ or w-o/AC Ovly	2	4	ea.	4	0	0	0	0
331	Reinforced Conc Bridge Railing	3	186	m.	12	0	0	174	
358	Deck Cracking	2	1	ea.	0	1	0	0	

WORK RECOMMENDATIONS

RecDate: 09/25/2009
Action : Railing-Rehab
Work By: MAINT. CONTRACT
Status : PROPOSED
EstCost: $2,000
StrTarget: 2 YEARS
DistTarget:
EA:
Remove all unsound concrete and loose rust, then recast the affected areas.

RecDate: 02/10/1984
Action : Railing-Upgrade
Work By: STRAIN
Status : PROPOSED
EstCost: $324,720
StrTarget: 2 YEARS
DistTarget:
EA:
F1-03 / F2-0 / F3-0 / Rail Type-C.WIN

Inspected By : R. Fuentes / Y.Huang

Ricardo Fuentes

Ricardo L. Fuentes (Registered Civil Engineer)



STRUCTURE INVENTORY AND APPRAISAL REPORT

********** IDENTIFICATION **********

(1) STATE NAME- CALIFORNIA 069
(8) STRUCTURE NUMBER **44 0018**
(5) INVENTORY ROUTE(ON/UNDER)- ON 131000010
(2) HIGHWAY AGENCY DISTRICT 05
(3) COUNTY CODE 053 (4) PLACE CODE 00000
(6) FEATURE INTERSECTED- GARRAPATA CREEK
(7) FACILITY CARRIED- STATE ROUTE 1
(9) LOCATION- 05-MON-001-62.97
(11) MILEPOINT/KILOMETERPOINT 62.97
(12) BASE HIGHWAY NETWORK- PART OF NET 1
(13) LRS INVENTORY ROUTE & SUBROUTE 000000000101
(16) LATITUDE 36 DEG 25 MIN 06 SEC
(17) LONGITUDE 121 DEG 54 MIN 42 SEC
(98) BORDER BRIDGE STATE CODE % SHARE %
(99) BORDER BRIDGE STRUCTURE NUMBER

******** STRUCTURE TYPE AND MATERIAL *********

(43) STRUCTURE TYPE MAIN:MATERIAL- CONCRETE
TYPE- ARCH - DECK CODE 111
(44) STRUCTURE TYPE APPR:MATERIAL- CONCRETE CONT
TYPE- TEE BEAM CODE 204
(45) NUMBER OF SPANS IN MAIN UNIT 1
(46) NUMBER OF APPROACH SPANS 7
(107) DECK STRUCTURE TYPE- CIP CONCRETE CODE 1
(108) WEARING SURFACE / PROTECTIVE SYSTEM:
A) TYPE OF WEARING SURFACE- NONE CODE 0
B) TYPE OF MEMBRANE- NONE CODE 0
C) TYPE OF DECK PROTECTION- NONE CODE 0

********** AGE AND SERVICE **********

(27) YEAR BUILT 1931
(106) YEAR RECONSTRUCTED 0000
(42) TYPE OF SERVICE: ON- HIGHWAY 1
UNDER- WATERWAY 5
(28) LANES:ON STRUCTURE 02 UNDER STRUCTURE 00
(29) AVERAGE DAILY TRAFFIC 4500
(30) YEAR OF ADT 2000 (109) TRUCK ADT 3 %
(19) BYPASS, DETOUR LENGTH 199 KM

********** GEOMETRIC DATA **********

(48) LENGTH OF MAXIMUM SPAN 45.7 M
(49) STRUCTURE LENGTH 87.0 M
(50) CURB OR SIDEWALK: LEFT 0.2 M RIGHT 0.2 M
(51) BRIDGE ROADWAY WIDTH CURB TO CURB 7.3 M
(52) DECK WIDTH OUT TO OUT 8.3 M
(32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 7.3 M
(33) BRIDGE MEDIAN- NO MEDIAN 0
(34) SKEW 0 DEG (35) STRUCTURE FLARED NO
(10) INVENTORY ROUTE MIN VERT CLEAR 99.99 M
(47) INVENTORY ROUTE TOTAL HORIZ CLEAR 7.3 M
(53) MIN VERT CLEAR OVER BRIDGE RDWY 99.99 M
(54) MIN VERT UNDERCLEAR REF- NOT H/RR 0.00 M
(55) MIN LAT UNDERCLEAR RT REF- NOT H/RR 0.0 M
(56) MIN LAT UNDERCLEAR LT 0.0 M

********** NAVIGATION DATA **********

(38) NAVIGATION CONTROL- NO CONTROL CODE 0
(111) PIER PROTECTION- CODE
(39) NAVIGATION VERTICAL CLEARANCE 0.0 M
(116) VERT-LIFT BRIDGE NAV MIN VERT CLEAR M
(40) NAVIGATION HORIZONTAL CLEARANCE 0.0 M

****

SUFFICIENCY RATING = 61.0
STATUS FUNCTIONALLY OBSOLETE
HEALTH INDEX 93.0
PAINT CONDITION INDEX = N/A

********** CLASSIFICATION ********** CODE

(112) NBIS BRIDGE LENGTH- YES Y
(104) HIGHWAY SYSTEM- NOT ON NHS 0
(26) FUNCTIONAL CLASS- MINOR ARTERIAL RURAL 06
(100) DEFENSE HIGHWAY- NOT STRAHNET 0
(101) PARALLEL STRUCTURE- NONE EXISTS N
(102) DIRECTION OF TRAFFIC- 2 WAY 2
(103) TEMPORARY STRUCTURE-
(105) FED.LANDS HWY- NOT APPLICABLE 0
(110) DESIGNATED NATIONAL NETWORK - NOT ON NET 0
(20) TOLL- ON FREE ROAD 3
(21) MAINTAIN- STATE HIGHWAY AGENCY 01
(22) OWNER- STATE HIGHWAY AGENCY 01
(37) HISTORICAL SIGNIFICANCE- ELIGIBLE 2

********** CONDITION ********** CODE

(58) DECK 6
(59) SUPERSTRUCTURE 6
(60) SUBSTRUCTURE 6
(61) CHANNEL & CHANNEL PROTECTION 6
(62) CULVERTS N

********* LOAD RATING AND POSTING ********* CODE

(31) DESIGN LOAD- MS-13.5 OR HS-15 3
(63) OPERATING RATING METHOD- LOAD FACTOR 1
(64) OPERATING RATING- 59.6
(65) INVENTORY RATING METHOD- LOAD FACTOR 1
(66) INVENTORY RATING- 36
(70) BRIDGE POSTING- EQUAL TO OR ABOVE LEGAL LOADS 5
(41) STRUCTURE OPEN, POSTED OR CLOSED- A
DESCRIPTION- OPEN, NO RESTRICTION

********** APPRAISAL ********** CODE

(67) STRUCTURAL EVALUATION 6
(68) DECK GEOMETRY 2
(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL N
(71) WATER ADEQUACY 9
(72) APPROACH ROADWAY ALIGNMENT 8
(36) TRAFFIC SAFETY FEATURES 0111
(113) SCOUR CRITICAL BRIDGES 9

********** PROPOSED IMPROVEMENTS **********

(75) TYPE OF WORK- MISC STRUCTURAL WORK CODE 38
(76) LENGTH OF STRUCTURE IMPROVEMENT 87 M
(94) BRIDGE IMPROVEMENT COST $720,000
(95) ROADWAY IMPROVEMENT COST $144,000
(96) TOTAL PROJECT COST $1,209,600
(97) YEAR OF IMPROVEMENT COST ESTIMATE 2010
(114) FUTURE ADT 7334
(115) YEAR OF FUTURE ADT 2029

********** INSPECTIONS **********

(90) INSPECTION DATE 09/09 (91) FREQUENCY 24 MO
(92) CRITICAL FEATURE INSPECTION: (93) CFI DATE
A) FRACTURE CRIT DETAIL- NO MO A)
B) UNDERWATER INSP- NO MO B)
C) OTHER SPECIAL INSP- NO 96 MO C)

44 0018 GARRAPATA CREEK 05-MON-001-62.97

Sep 25, 2009 [AAAF]

102 - Deck-Damage/Deterioration



Photo #2

Typical deck crack size.

44 0018 GARRAPATA CREEK 05-MON-001-62.97

Sep 25, 2009 [AAAF]

119 - Rail-Damage/Deterioration



Photo #3

Pattern cracking on bridge rail end posts.

44 0018 GARRAPATA CREEK 05-MON-001-62.97

Sep 25, 2009 [AAAF]

119 - Rail-Damage/Deterioration



Photo #4

Gross deterioration of bridge railing.

44 0018 GARRAPATA CREEK 05-MON-001-62.97

Sep 25, 2009 [AAAF]

119 - Rail-Damage/Deterioration



Photo #5

Gross deterioration of bridge railing.

44 0018 GARRAPATA CREEK 05-MON-001-62.97

Sep 25, 2009 [AAAF]

119 - Rail-Damage/Deterioration



Photo #6

Gross deterioration of bridge railing.

44 0018 GARRAPATA CREEK 05-MON-001-62.97

Sep 25, 2009 [AAAF]

119 - Rail-Damage/Deterioration



Photo #7

Gross deterioration of bridge railing.

State of California
DEPARTMENT OF TRANSPORTATION

California State Transportation Agency

Memorandum

Making Conservation a California Way of Life

To: DISTRICT DIRECTORS

Date: November 12, 2019

From: STEVE TAKIGAWA
Deputy Director
Maintenance and Operations

CORY BINNS
Acting Deputy Director
Project Delivery

Subject: **MASH COMPLIANCE PLAN AND POLICY**

On December 23, 2016, the California Department of Transportation (Caltrans) established a timeline for implementation of roadside safety hardware and evaluation of new products under the Manual for Assessing Safety Hardware (MASH). The plan set specific dates when Caltrans will no longer allow the installation of non-MASH compliant safety devices.

If one or more Caltrans approved MASH compliant safety devices are available for a specific need, Caltrans must use the safety device(s) even if it may require a sole source contract. If a situation arises where a MASH compliant safety device is not available to address a specific need, Caltrans must use a National Cooperative Highway Research Program (NCHRP) Report 350 approved safety device. If a NCHRP Report 350 device is not available, Caltrans must use engineering judgement to address the specific need.

For cases when either a NCHRP Report 350 device or engineering judgement is used for traffic safety devices, the engineer must consult with the District Traffic Safety Devices Coordinator. The engineer must then document the decision in the project history file.

These requirements apply to all projects and work done on the State highway system.

The MASH compliant safety hardware approved by Caltrans can be found at: <https://dot.ca.gov/programs/traffic-operations/mash>

For further questions regarding this process for traffic safety devices, please contact Duper Tong, Chief, Office of Traffic Engineering at (916) 654-5176 or by e-mail at <Duper.Tong@dot.ca.gov>. For bridge rails, transitions, sign supports and other breakaway hardware, contact Joel Magana, Chief, Office of Design and Technical Services at (916) 227-8018 or by e-mail at <Joel.Magana@dot.ca.gov>.

c: Jasvinderjit S. Bhullar, Chief, Division of Traffic Operations
Dennis T. Agar, Chief, Division of Maintenance
Rachel Falsetti, Chief, Division of Construction
Janice Benton, Chief, Division of Design
Thomas A. Ostrom, Chief, Division of Engineering Services
Dara Wheeler, Chief, Division of Research, Innovation and System Information
Duper Tong, Chief, Office of Traffic Engineering
Joel Magana, Chief, Office of Design and Technical Services

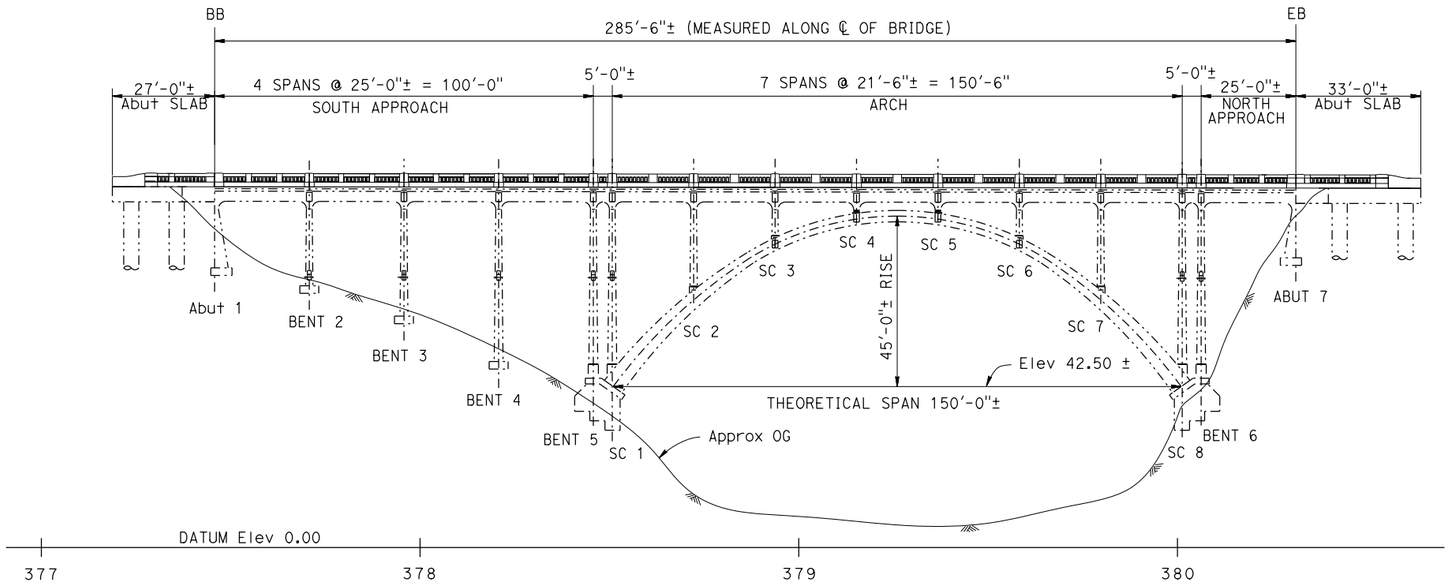
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TC SHI

REGISTERED CIVIL ENGINEER — DATE X

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — X — No. X — Exp. X — CIVIL — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



ELEVATION
1" = 30'

NOTES:

1. Remove existing Overhang, Curb and Barrier, replace with new Overhang and Barrier Type 86H(Mod) extended to end of Abutment slab. Existing bridge rail not shown in "ELEVATION VIEW" for clarity.
2. Barrier Type 86H(Mod) shown.
3. Stage construction with one-way traffic control will be necessary.
4. Paint: "GARRAPATA CREEK BRIDGE 1931"
5. Paint: "Br. No. 44-0018"

LEGEND:

——— INDICATES NEW CONSTRUCTION

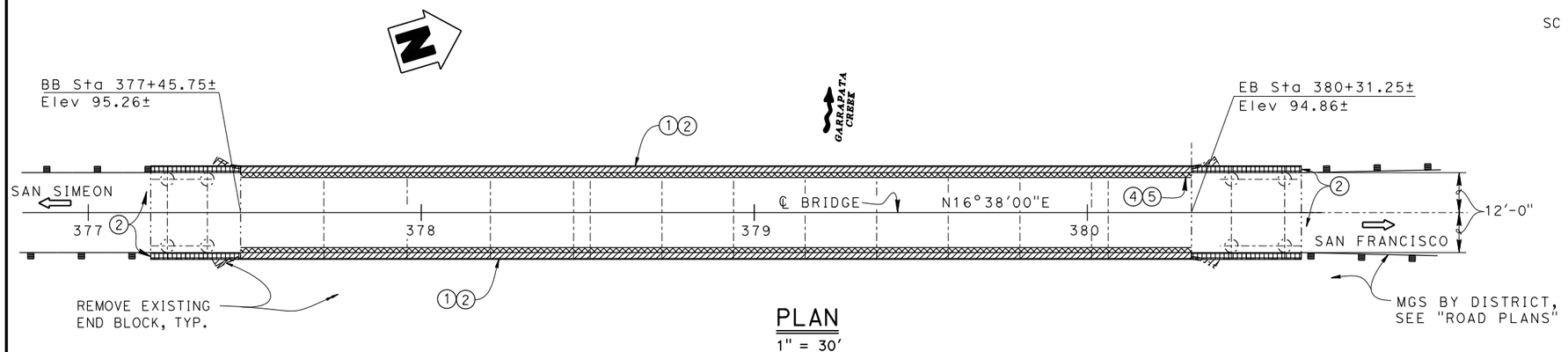
·-·-·-·- INDICATES EXISTING STRUCTURE

▨ INDICATES REMOVAL OF EXISTING CONCRETE BARRIER, END BLOCKS, CURB, 1" POLYESTER OVERLAY AND OVERHANG

▨ PREPARE CONCRETE DECK, FINISH AND PLACE 1" POLYESTER CONCRETE OVERLAY. MATCH EXISTING GRADE

▨ INDICATES REMOVAL OF EXISTING POLYESTER CONCRETE OVERLAY AT LOCATIONS OF NEW CONCRETE BARRIER TYPE 86H(MOD)

SC SPANDREL COLUMN



PLAN
1" = 30'

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

		BY	CHECKED		BY	CHECKED
Matt Schott	DESIGN	Rene Coria	Jim Gutierrez	SEISMIC ANALYSIS	X	X
BRANCH CHIEF	DETAILS	Mohammad Sharif	Rene Coria	LAYOUT	Rene Coria	Mohammad Sharif
	QUANTITIES	Rene Coria	Mohammad Sharif	SPECIFICATIONS	X	PLANS AND SPECS COMPARED

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
BRIDGE DESIGN
BRANCH 18

BRIDGE No. 44-0018
POST MILE 63.0

GARRAPATA CREEK BRIDGE
GENERAL PLAN

STRUCTURES DESIGN GENERAL PLAN SHEET (ENGLISH) (REVISION 2/8/2022)

DATE PLOTTED => 15-NOV-2022 TIME PLOTTED => 14:08
FILE => 44-0018-a-gp01.dgn USERNAME => s110279
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3603
PROJECT NUMBER & PHASE: 0516000163
COUNTY/ROUTE: Mon/001
CONTRACT No.: 05-1H800

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
~~9/22/22~~		10/13/22	~~10/06/22~~	1	15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

173

REGISTERED CIVIL ENGINEER — DATE X

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER — No. X — Exp. X — CIVIL — STATE OF CALIFORNIA

STANDARD PLANS DATED 2022

DETAIL	DESCRIPTION
A3A	ABBREVIATIONS (SHEET 1 OF 3)
A3B	ABBREVIATIONS (SHEET 2 OF 3)
A3C	ABBREVIATIONS (SHEET 3 OF 3)
A10A	LEGEND LINES AND SYMBOLS (SHEET 1 OF 5)
A10B	LEGEND LINES AND SYMBOLS (SHEET 2 OF 5)
A10C	LEGEND LINES AND SYMBOLS (SHEET 3 OF 5)
A10D	LEGEND LINES AND SYMBOLS (SHEET 4 OF 5)
A10E	LEGEND LINES AND SYMBOLS (SHEET 5 OF 5)
B7-8	DECK DRAINAGE DETAIL

GENERAL NOTES:

DESIGN: AASHTO LRFD Bridge Design Specifications, 8th Edition with California Amendments

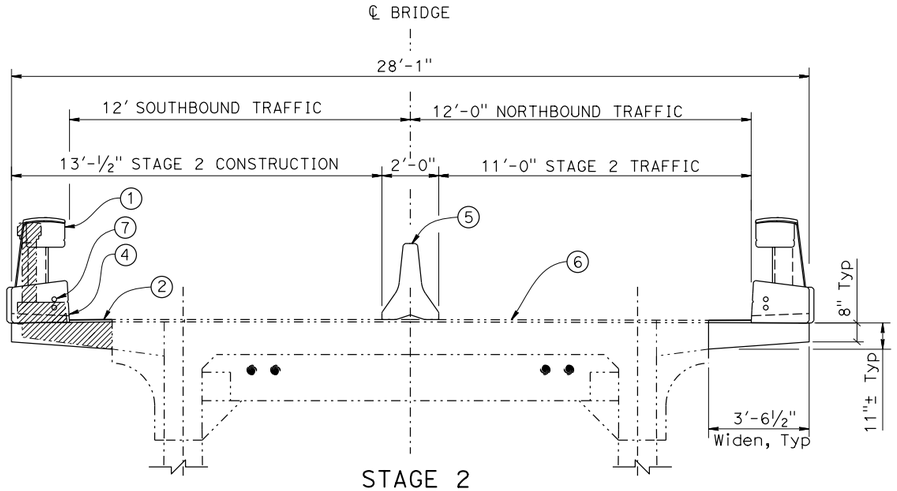
BARRIER LOADING: Test Level 4

DEAD LOAD: Includes 35 psf for future wearing surface

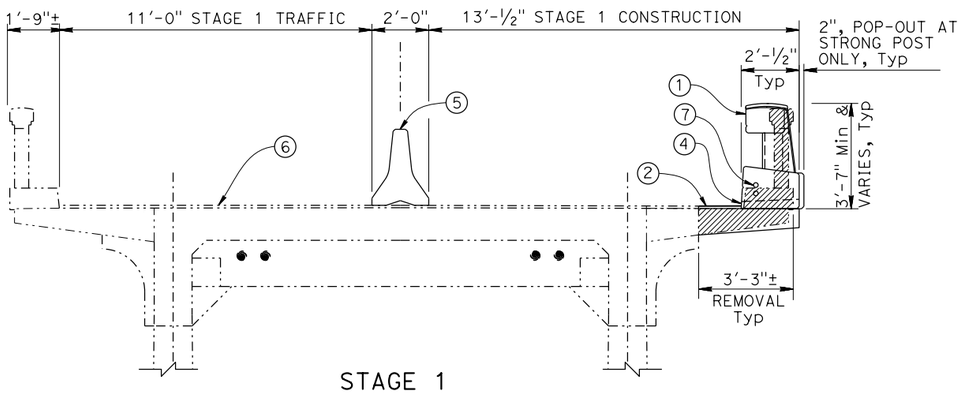
REINFORCED CONCRETE:

Structural Concrete (Polymer Fiber):
fy = 80 ksi
fy = 33 ksi (Existing Reinf)
f'c = 4.0 ksi, Polymer Fiber
n = 8

Concrete Barrier, Type 86(MOD):
fy = 60 ksi, Epoxy Coated
f'c = 3.6 ksi
n = 8



STAGE 2



STAGE 1

TYPICAL SECTION

⅜" = 1'-0"

INDEX TO PLANS

SHEET NO.	TITLE
1	GENERAL PLAN
2	INDEX TO PLANS
3	OVERHANG DETAILS NO. 1
4	OVERHANG DETAILS NO. 2
5	CONCRETE BARRIER TYPE 86H(Mod) DETAILS NO. 1
6	CONCRETE BARRIER TYPE 86H(Mod) DETAILS NO. 2
7	CONCRETE BARRIER TYPE 86H(Mod) DETAILS NO. 3
8	CONCRETE BARRIER TYPE 86H(Mod) DETAILS NO. 4
9	CONCRETE BARRIER TYPE 86H(Mod) DETAILS NO. 5
10	CONCRETE BARRIER TYPE 86H(Mod) DETAILS NO. 6
11	CONCRETE BARRIER TYPE 86H(Mod) DETAILS NO. 7
12	CONCRETE BARRIER TYPE 86H(Mod) DETAILS NO. 8
13	CONCRETE BARRIER TYPE 86H(Mod) DETAILS NO. 9
14	CONCRETE BARRIER TYPE 86H(Mod) DETAILS NO. 10
15	CONCRETE BARRIER TYPE 86H(Mod) DETAILS NO. 11

NOTES:

1. Remove existing Overhang, Curb and Barrier, replace with new Overhang and Barrier Type 86H(Mod) extended to end of Abutment slab. Barrier to have integral color to match existing deck color.
2. New 1" polyester overlay to match existing slope and grade.
3. Stage construction with one-way traffic control will be necessary.
4. Scupper or drop-thru Deck Drains to be installed in or near new Barriers. See STANDARD PLANS B7-8 "SCUPPER DETAIL"
5. Temporary K-Rail, see "ROADWAY PLANS".
6. Existing 1" polyester overlay to remain.
7. 2 ea 1-1½ ø Conduit at each Barrier for future utilities.

LEGEND:

——— INDICATES NEW CONSTRUCTION

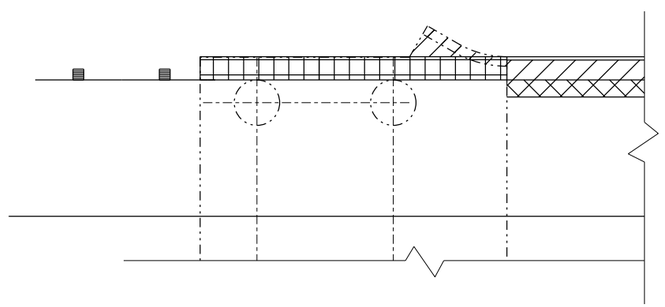
·—·—·— INDICATES EXISTING STRUCTURE

INDICATES REMOVAL OF EXISTING CONCRETE BARRIER, END BLOCKS, CURB, 1" POLYESTER OVERLAY AND OVERHANG

PREPARE CONCRETE DECK, FINISH AND PLACE 1" POLYESTER CONCRETE OVERLAY. MATCH EXISTING GRADE

INDICATES REMOVAL OF EXISTING POLYESTER CONCRETE OVERLAY AT LOCATIONS OF NEW CONCRETE BARRIER TYPE 86H(MOD)

SC SPANDREL COLUMN



DESIGN	BY Rene Coria	CHECKED X	
DETAILS	BY Mohammad Sharif	CHECKED X	
QUANTITIES	BY X	CHECKED X	

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
BRIDGE DESIGN
BRANCH 18

BRIDGE No. 44-0018
POST MILE 63.0

GARRAPATA CREEK BRIDGE
INDEX TO PLAN

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REVISION 3/10/2021)

DATE PLOTTED => 29-NOV-2022 TIME PLOTTED => 15:42
FILE => 44-0018-a-itp.dgn USERNAME => s110279
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3603
PROJECT NUMBER & PHASE: 0516000163
COUNTY/ROUTE: Mon/001
CONTRACT No.: 05-1H800

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
9/22/22		11/29/22	11/18/22	2	15

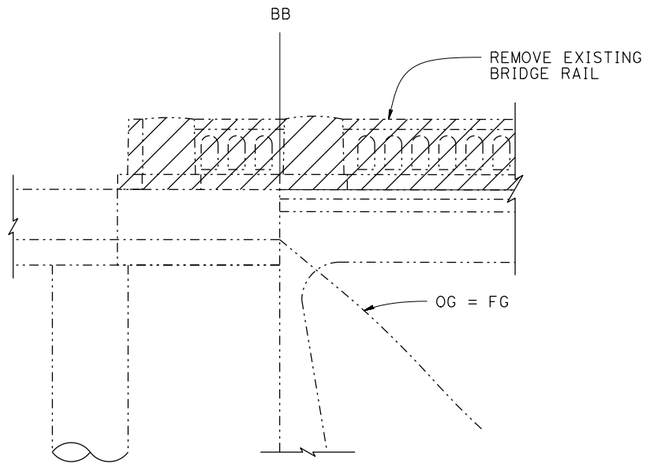
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TC SH

REGISTERED CIVIL ENGINEER _____ DATE X

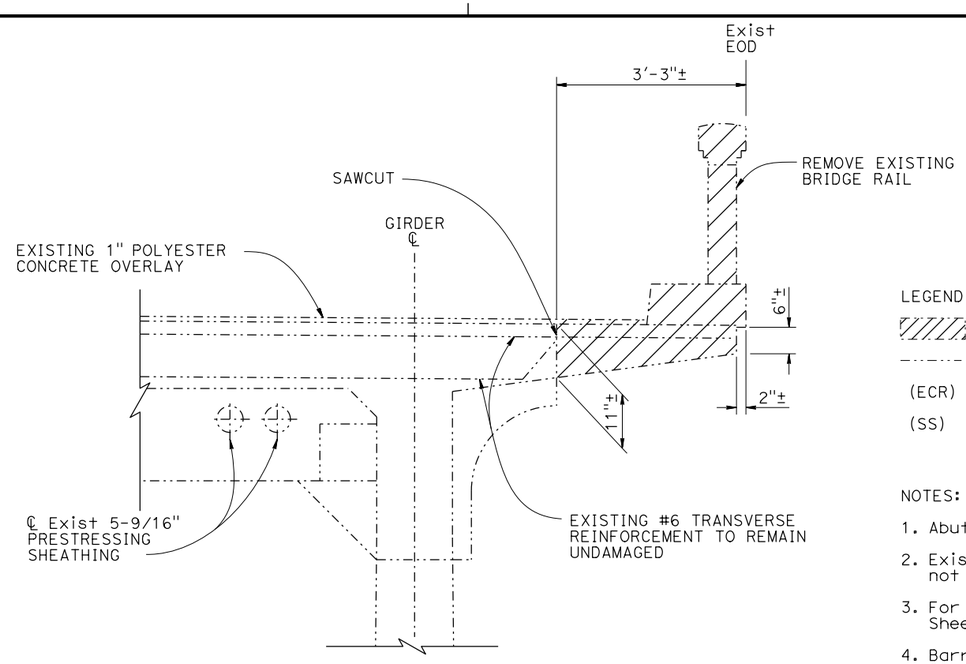
PLANS APPROVAL DATE _____

REGISTERED PROFESSIONAL ENGINEER — No. X — Exp. X — CIVIL — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



ABUTMENT ELEVATION
1/4" = 1'-0"



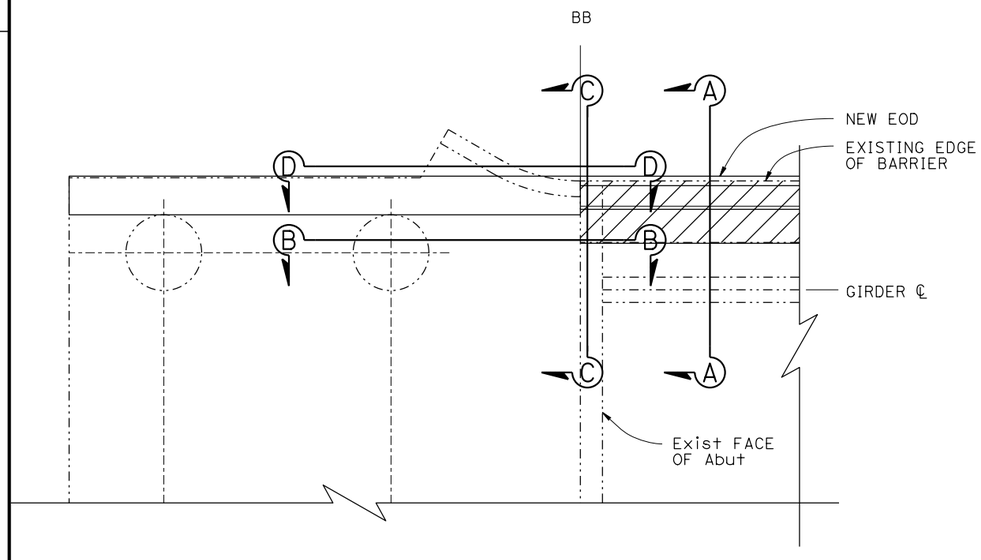
REMOVAL SECTION A-A
3/4" = 1'-0"

LEGEND:

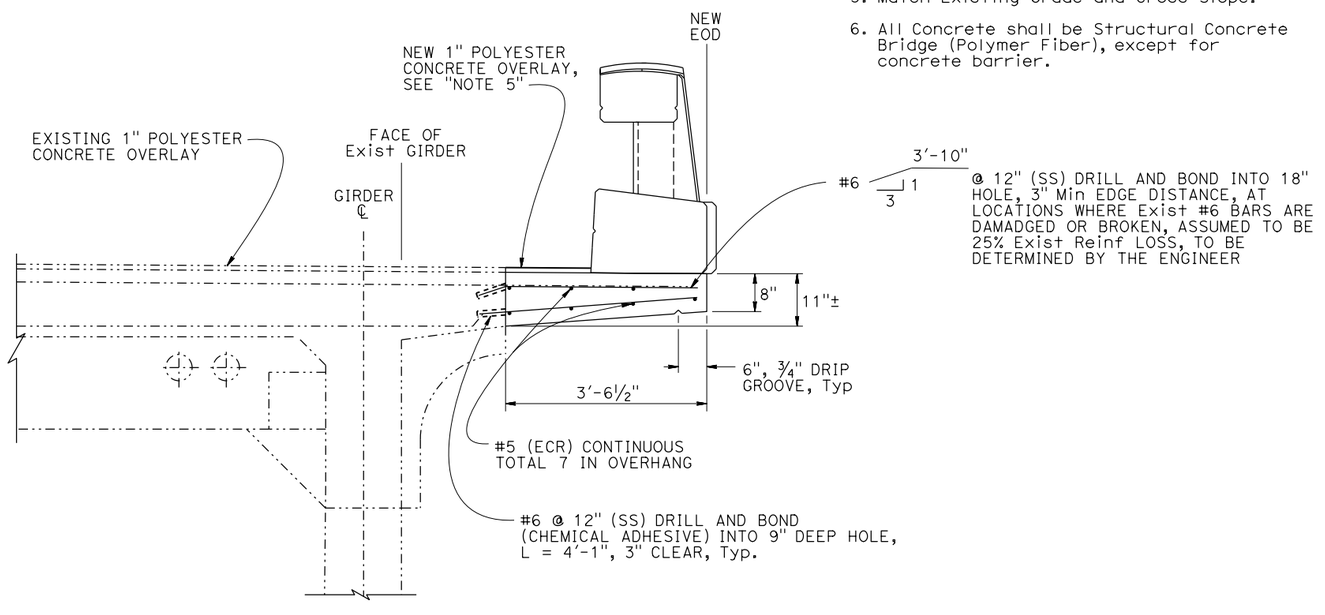
- Bridge Removal (Portion)
- Existing Structure
- (ECR) Epoxy coated reinforcement bar
- (SS) Stainless steel reinforcement bar

NOTES:

1. Abutment 1 shown, Abutment 7 similar.
2. Exist Concrete Barrier Rail not shown in Plan View for Clarity.
3. For Section B-B, C-C and D-D, see Sheet "OVERHANG DETAILS NO. 2".
4. Barrier Reinforcement not shown for Clarity, see "CONCRETE BARRIER TYPE 86H(MOD) DETAILS No. 7, 8, 9, AND 10" sheets for details.
5. Match Existing Grade and Cross Slope.
6. All Concrete shall be Structural Concrete Bridge (Polymer Fiber), except for concrete barrier.



ABUTMENT PART PLAN
1/4" = 1'-0"



RECONSTRUCTION SECTION A-A
3/4" = 1'-0"

DESIGN	BY Rene Coria	CHECKED X	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES BRIDGE DESIGN BRANCH 18	BRIDGE No. 44-0018
DETAILS	BY Mohammad Sharif	CHECKED X			POST MILE 63.0
QUANTITIES	BY X	CHECKED X			

GARRAPATA CREEK BRIDGE
OVERHANG DETAILS NO. 1

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REVISION 3/10/2021)

DATE PLOTTED => 15-NOV-2022 TIME PLOTTED => 14:09
FILE => 44-0018-t-brdt01.dgn USERNAME => s110279

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3603
PROJECT NUMBER & PHASE: 0516000163

COUNTY/ROUTE: Mon/001
CONTRACT No.: 05-1H800

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES: 9/12/22 9/20/22 10/05/22

SHEET 3 OF 15

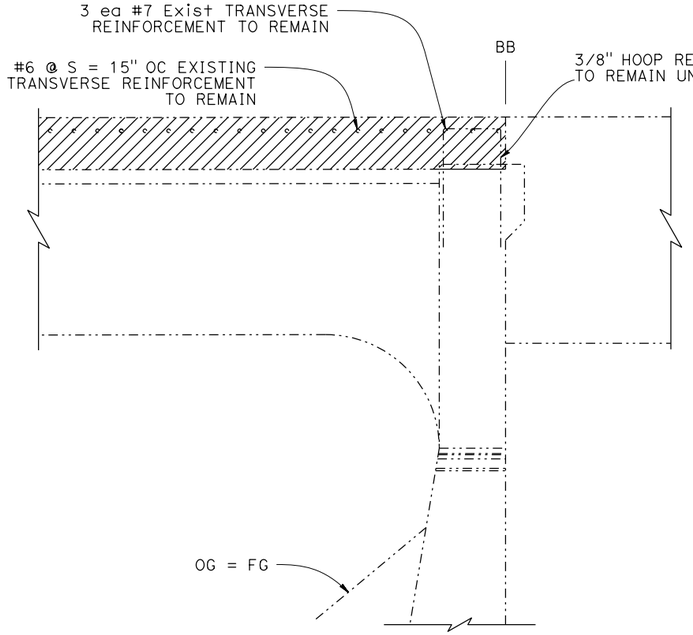
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TO SH

REGISTERED CIVIL ENGINEER — DATE X

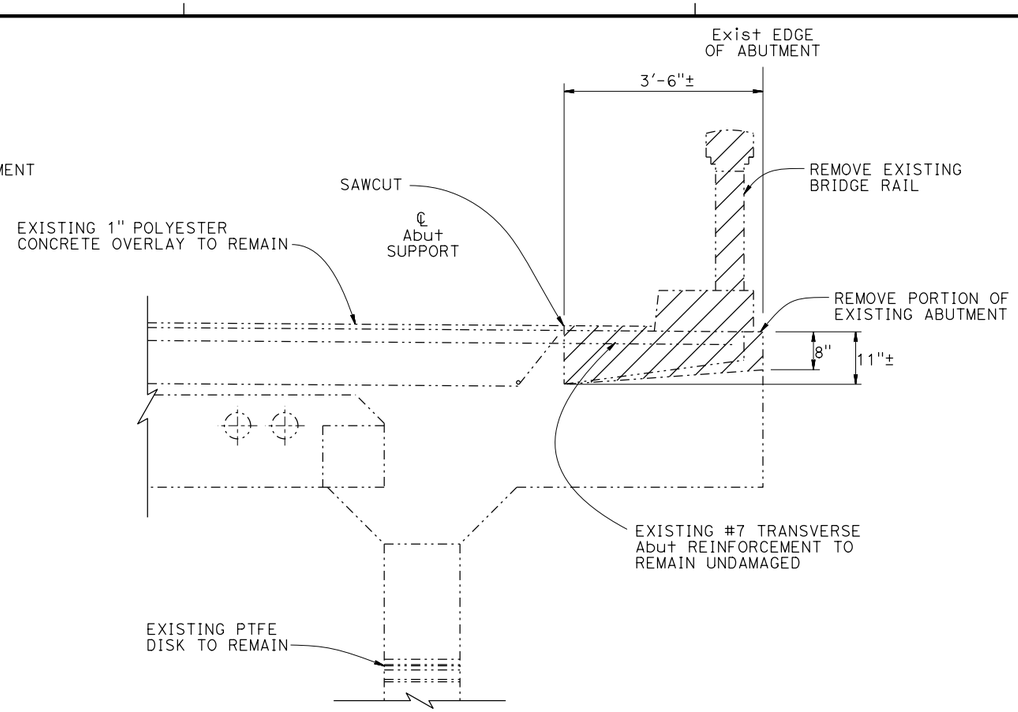
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — No. X — Exp. X — CIVIL — STATE OF CALIFORNIA

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REMOVAL SECTION B-B
3/4" = 1'-0"



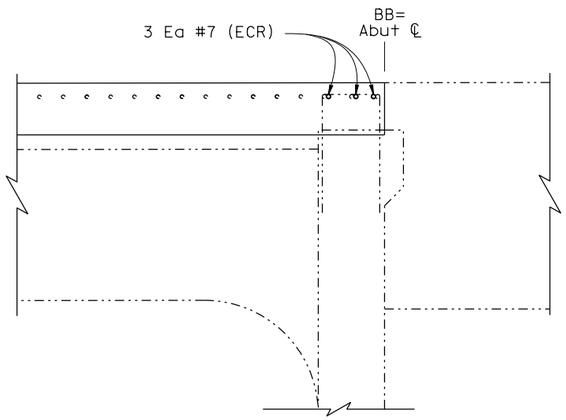
REMOVAL SECTION C-C
3/4" = 1'-0"

NOTES:

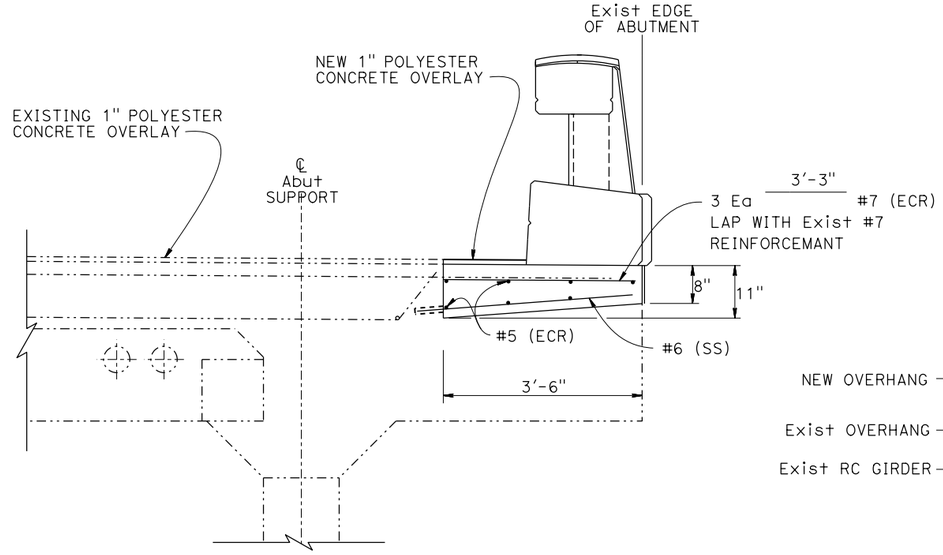
1. For Location of Section B-B and C-C, see Sheet "OVERHANG DETAILS NO. 1".
2. Abut 1 shown, Abut 7 similar.
3. Barrier Reinforcement not shown for Clarity, see "CONCRETE BARRIER TYPE 86H(MOD) DETAILS No. 7, 8, 9, AND 10" sheets for details.
4. Match Existing Grade and Cross Slope.
5. New Deck Reinforcement, see "OVERHANG DETAILS NO. 1" and "BARRIER TYPE 86H(Mod)" Sheets.
6. Overhang Concrete shall be Structural Concrete, Bridge (Polymer Fiber).

LEGEND:

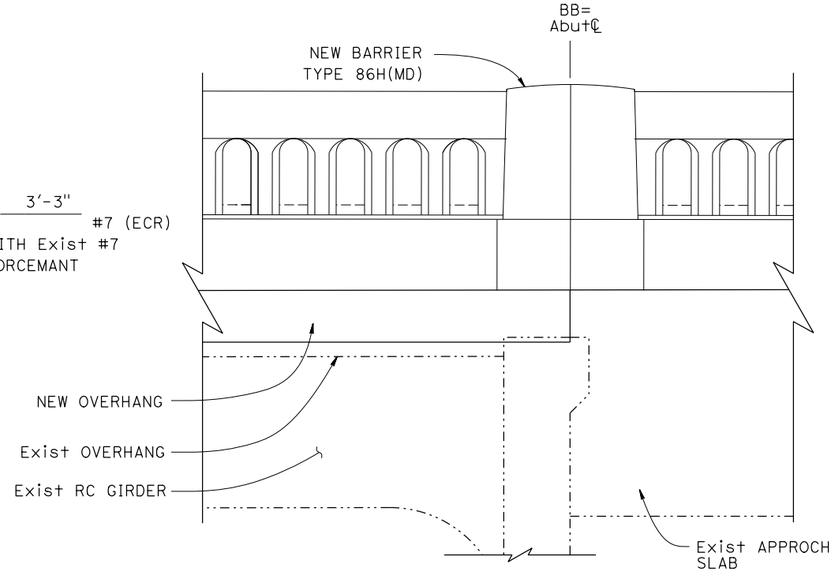
- Bridge Removal (Portion)
- Existing Structure
- (ECR) Epoxy coated reinforcement bar
- (SS) Stainless steel reinforcement bar



RECONSTRUCTION SECTION B-B
3/4" = 1'-0"



RECONSTRUCTION SECTION C-C
3/4" = 1'-0"



SECTION D-D
3/4" = 1'-0"

DESIGN	BY Rene Coria	CHECKED X	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES BRIDGE DESIGN BRANCH 18	BRIDGE No. 44-0018	GARRAPATA CREEK BRIDGE	
DETAILS	BY Mohammad Sharif	CHECKED X			POST MILE 63.0	OVERHANG DETAILS NO. 2	
QUANTITIES	BY X	CHECKED X					

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REVISION 3/10/2021)

DATE PLOTTED => 15-NOV-2022 TIME PLOTTED => 14:09 ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3
FILE => 44-0018-t-brdt02.dgn USERNAME => s110279

UNIT: 3603 PROJECT NUMBER & PHASE: 0516000163 COUNTY/ROUTE: Mon/001 CONTRACT No.: 05-1H880

DISREGARD PRINTS BEARING EARLIER REVISION DATES → REVISION DATES 9/12/22 9/28/22 10/05/22

SHEET 4 OF 15

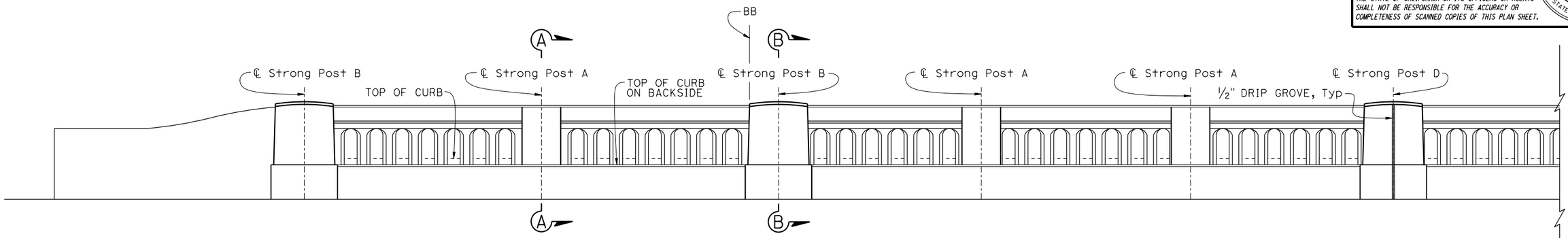
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TO SH

REGISTERED CIVIL ENGINEER — DATE X

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — No. X — Exp. X — CIVIL — STATE OF CALIFORNIA

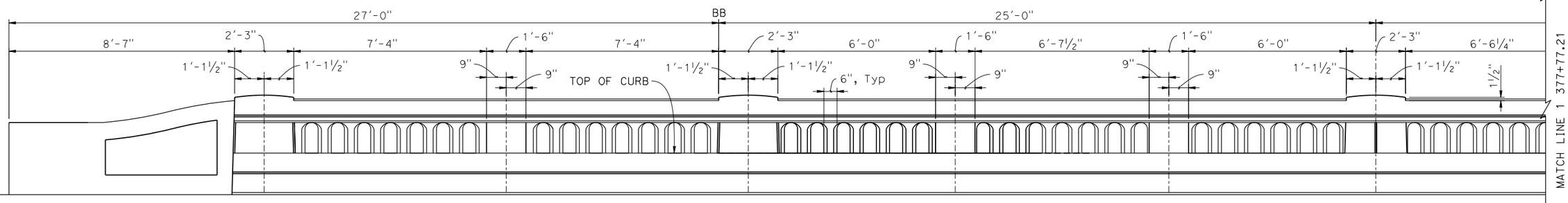
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



BACKSIDE ELEVATION

½" = 1'-0"

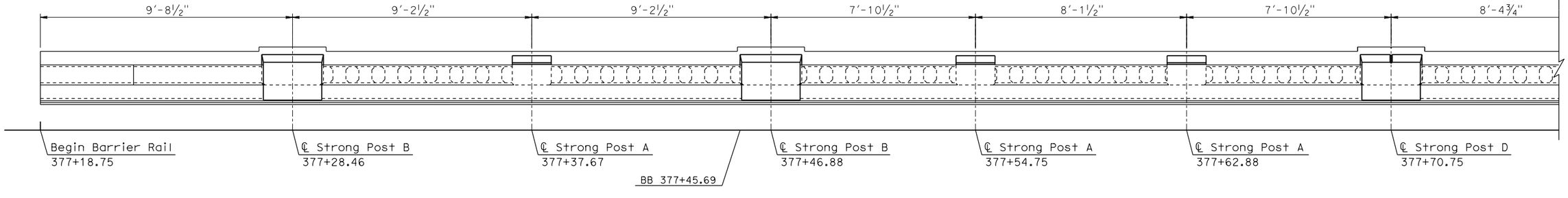
NOTE: Backside View (from ocean side) 6" Balusters



TRAFFIC SIDE ELEVATION

½" = 1'-0"

NOTE: Front View (from traffic side) 6" Balusters



PLAN

½" = 1'-0"

DESIGN	BY Kimberly Mori	CHECKED X	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES OFFICE OF DESIGN AND TECHNICAL SERVICES SPECIAL DESIGN BRANCH B	BRIDGE No. 44-0018
DETAILS	BY David Elliott	CHECKED X			POST MILE 63.0
QUANTITIES	BY X	CHECKED X			

GARRAPATA CREEK BRIDGE

CONCRETE BARRIER TYPE 86H DETAILS No. 1

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REVISION 3/10/2021)

DATE PLOTTED => 7-SEP-2022 TIME PLOTTED => 08:31
FILE => 44-0018-c-sp01.dgn USERNAME => s123982

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3619
PROJECT NUMBER & PHASE: 05160001631

COUNTY/ROUTE: Mon/1
CONTRACT No.: 05-1H8004

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
8-1-22	9-1-22			X	X

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TC SHE

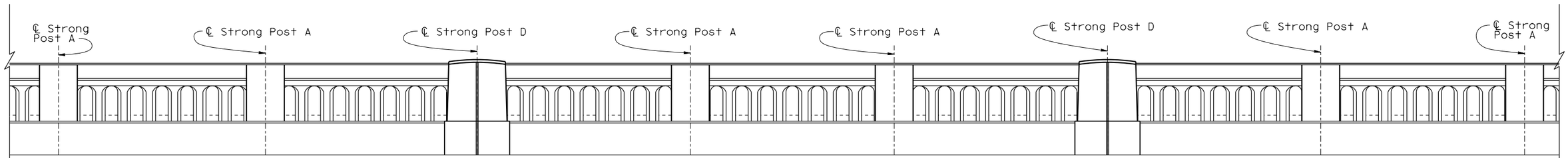
177

REGISTERED CIVIL ENGINEER _____ DATE X

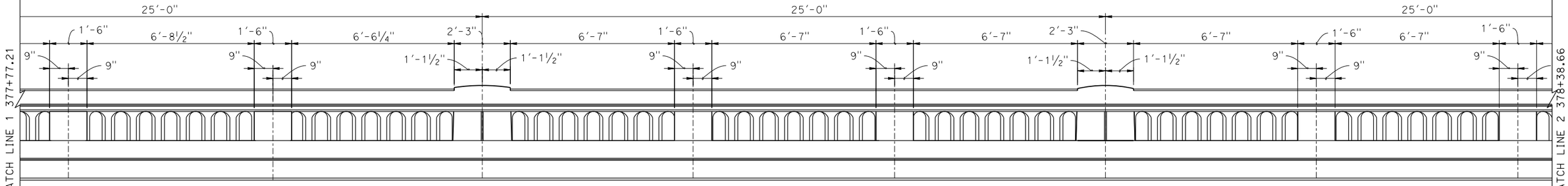
PLANS APPROVAL DATE _____

REGISTERED PROFESSIONAL ENGINEER — No. X — Exp. X — CIVIL — STATE OF CALIFORNIA

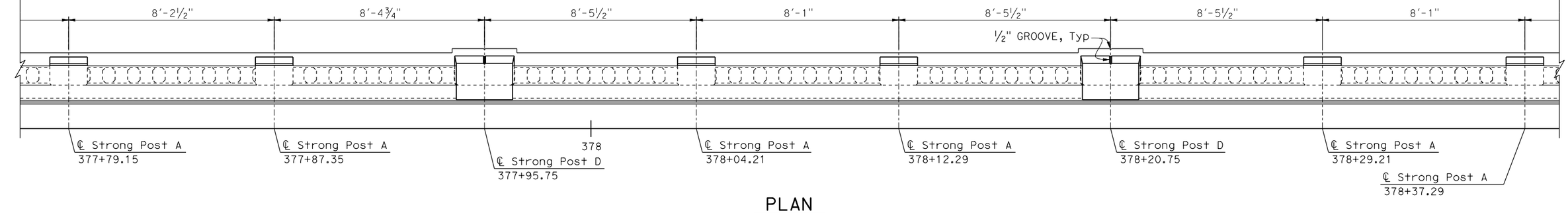
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



BACKSIDE ELEVATION
½" = 1'-0"



TRAFFIC SIDE ELEVATION
½" = 1'-0"



PLAN
½" = 1'-0"

DESIGN	BY Kimberly Mori	CHECKED X	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES OFFICE OF DESIGN AND TECHNICAL SERVICES SPECIAL DESIGN BRANCH B	BRIDGE No. 44-0018
DETAILS	BY David Elliott	CHECKED X			POST MILE 63.0
QUANTITIES	BY X	CHECKED X			

GARRAPATA CREEK BRIDGE

CONCRETE BARRIER TYPE 86H DETAILS No. 2

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REVISION 3/10/2021)

DATE PLOTTED => 7-SEP-2022 TIME PLOTTED => 08:31
FILE => 44-0018-c-sp02.dgn USERNAME => s123982

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3619
PROJECT NUMBER & PHASE: 05160001631

COUNTY/ROUTE: Mon/1
CONTRACT No.: 05-1H8004

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
8-1-22	9-1-22			X	X

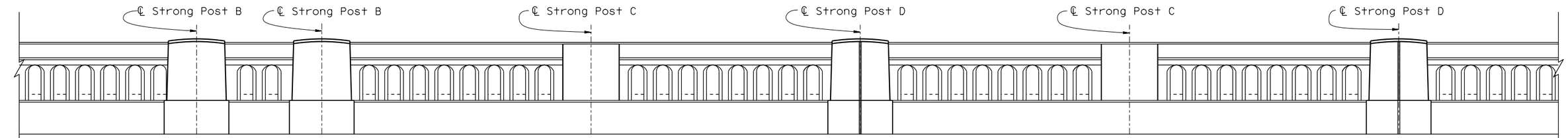
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TO SH

REGISTERED CIVIL ENGINEER _____ DATE X

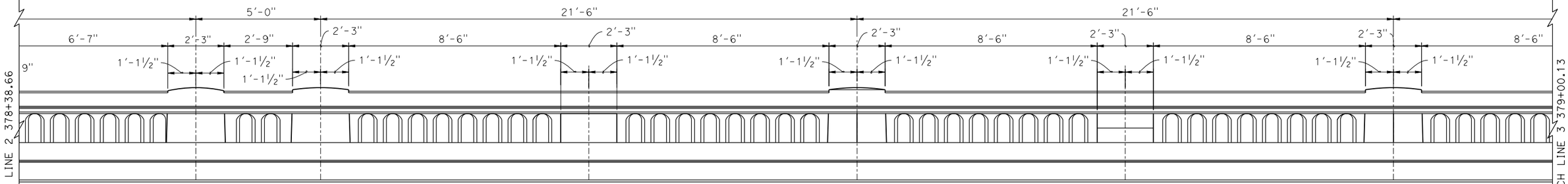
PLANS APPROVAL DATE _____

REGISTERED PROFESSIONAL ENGINEER — No. X — Exp. X — CIVIL — STATE OF CALIFORNIA

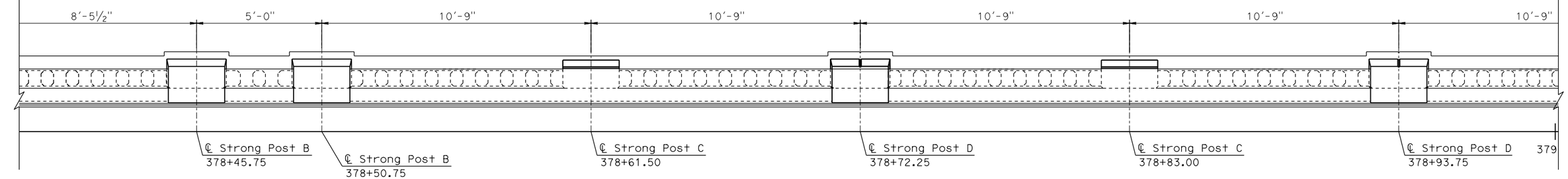
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



BACKSIDE ELEVATION
½" = 1'-0"



TRAFFIC SIDE ELEVATION
½" = 1'-0"



PLAN
½" = 1'-0"

	BY	CHECKED
DESIGN	X	X
DETAILS	X	X
QUANTITIES	X	X

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
OFFICE OF DESIGN AND TECHNICAL SERVICES
SPECIAL DESIGN BRANCH **B**

BRIDGE No. 44-0018
POST MILE 63.0

GARRAPATA CREEK BRIDGE
CONCRETE BARRIER TYPE 86H DETAILS No. 3

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REVISION 3/10/2021)

DATE PLOTTED => 7-SEP-2022 TIME PLOTTED => 08:31
FILE => 44-0018-c-sp03.dgn USERNAME => s123982
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3619
PROJECT NUMBER & PHASE: 05160001631

COUNTY/ROUTE: Mon/1
CONTRACT No.: 05-1H8004

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
8-5-22	9-1-22			X	X

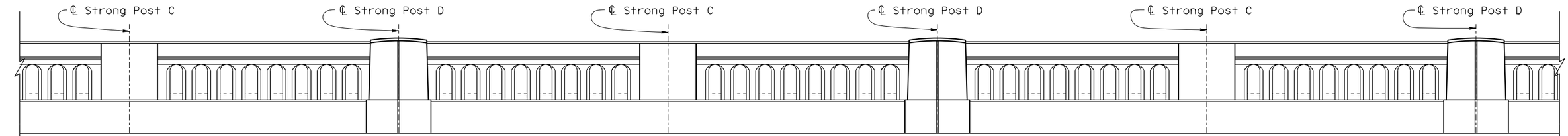
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TO SH

REGISTERED CIVIL ENGINEER X DATE

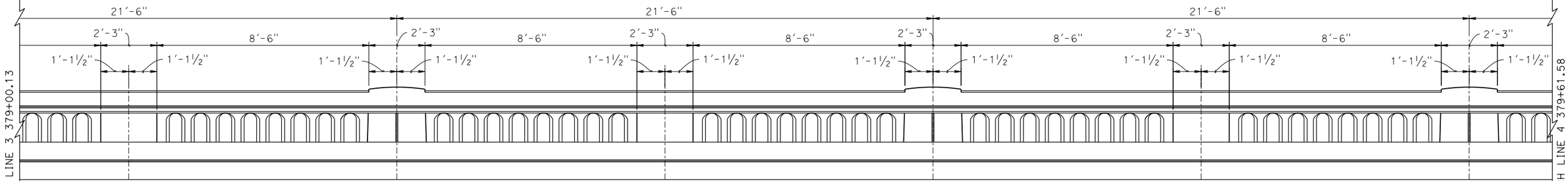
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — No. X — Exp. X — CIVIL — STATE OF CALIFORNIA

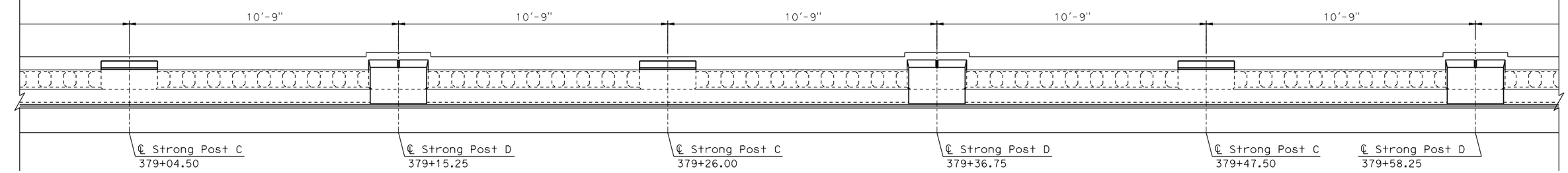
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



BACKSIDE ELEVATION
½" = 1'-0"



TRAFFIC SIDE ELEVATION
½" = 1'-0"



PLAN
½" = 1'-0"

DESIGN	BY Kimberly Mori	CHECKED X	
DETAILS	BY David Elliott	CHECKED X	
QUANTITIES	BY X	CHECKED X	

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
OFFICE OF DESIGN AND TECHNICAL SERVICES
SPECIAL DESIGN BRANCH B

BRIDGE No.	
44-0018	
POST MILE	
63.0	

GARRAPATA CREEK BRIDGE

CONCRETE BARRIER TYPE 86H DETAILS No. 4

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REVISION 3/10/2021)

DATE PLOTTED => 7-SEP-2022 TIME PLOTTED => 08:31
FILE => 44-0018-c-sp04.dgn USERNAME => s123982
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3619
PROJECT NUMBER & PHASE: 05160001631

COUNTY/ROUTE: Mon/1
CONTRACT No.: 05-1H8004

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
8-5-22	9-1-22			X	X

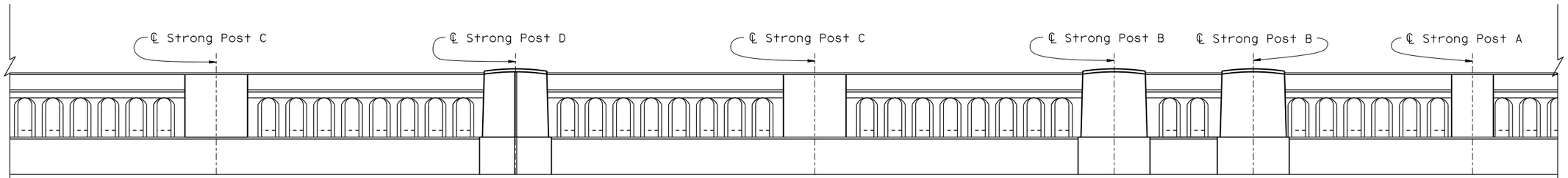
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TO SH

REGISTERED CIVIL ENGINEER _____ DATE X

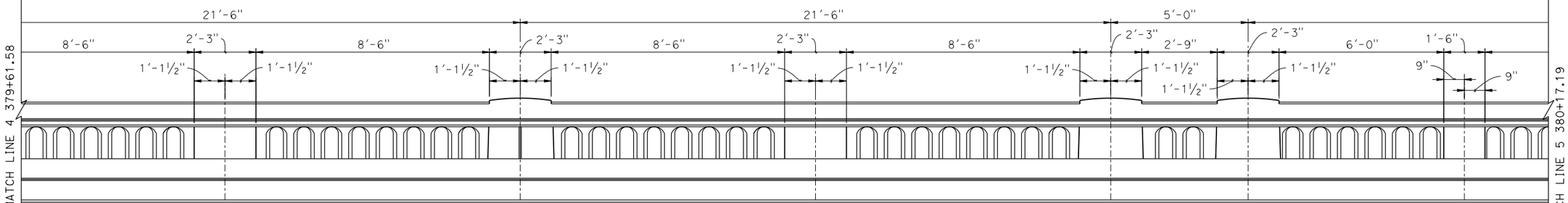
PLANS APPROVAL DATE _____

REGISTERED PROFESSIONAL ENGINEER — X — No. X — Exp. X — CIVIL — STATE OF CALIFORNIA

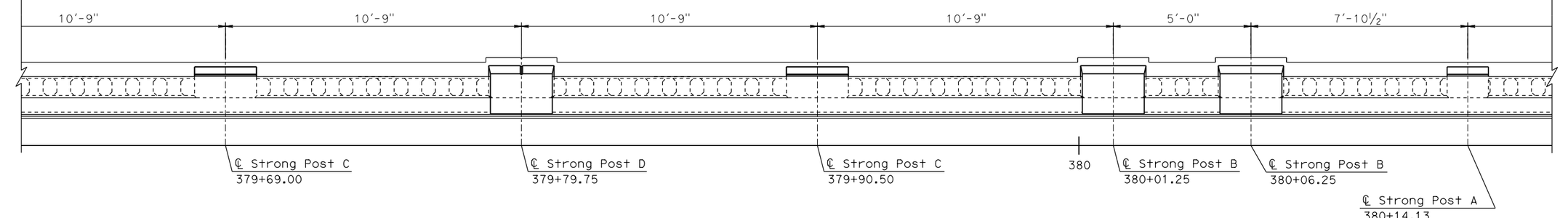
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BACKSIDE ELEVATION
½" = 1'-0"



TRAFFIC SIDE ELEVATION
½" = 1'-0"



PLAN
½" = 1'-0"

	BY	CHECKED
DESIGN	Kimberly Mori	X
DETAILS	David Elliott	X
QUANTITIES	X	X

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
OFFICE OF DESIGN AND TECHNICAL SERVICES
SPECIAL DESIGN BRANCH B

BRIDGE No. 44-0018
POST MILE 63.0

GARRAPATA CREEK BRIDGE
CONCRETE BARRIER TYPE 86H DETAILS No. 5

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REVISION 3/10/2021)

DATE PLOTTED => 7-SEP-2022 TIME PLOTTED => 08:31
FILE => 44-0018-c-sp05.dgn USERNAME => s123982
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3619
PROJECT NUMBER & PHASE: 05160001631

COUNTY/ROUTE: Mon/1
CONTRACT No.: 05-1H8004

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
~~8-5-22~~	9-1-22			X	X

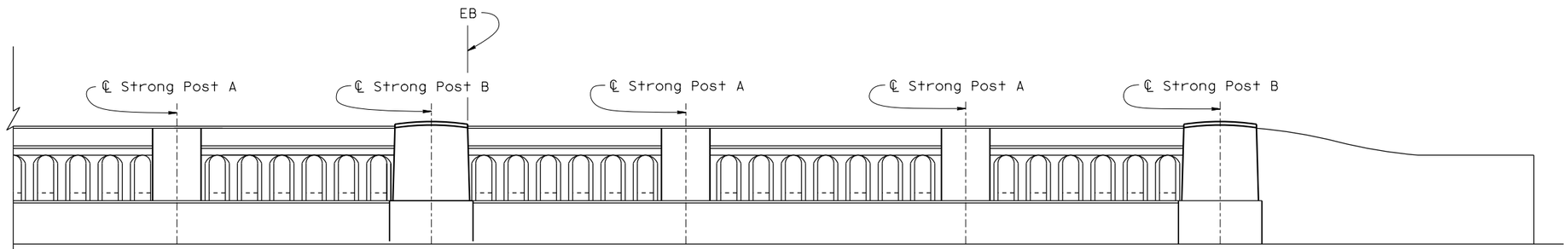
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TO SH

REGISTERED CIVIL ENGINEER _____ DATE X

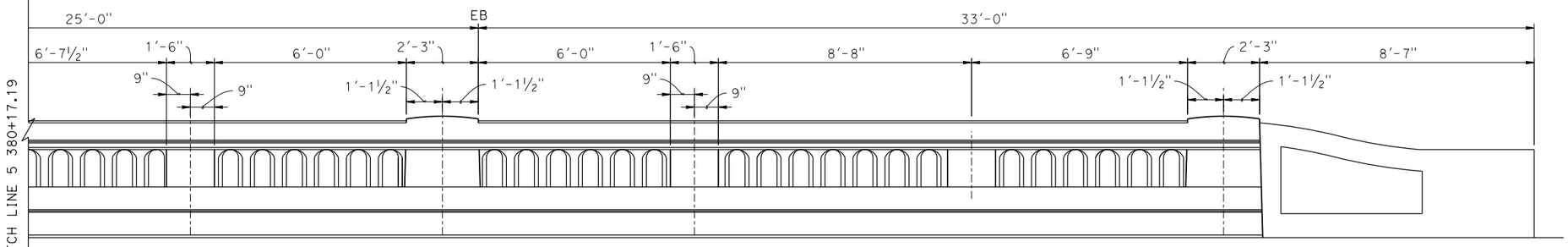
PLANS APPROVAL DATE _____

REGISTERED PROFESSIONAL ENGINEER — No. X — Exp. X — CIVIL — STATE OF CALIFORNIA

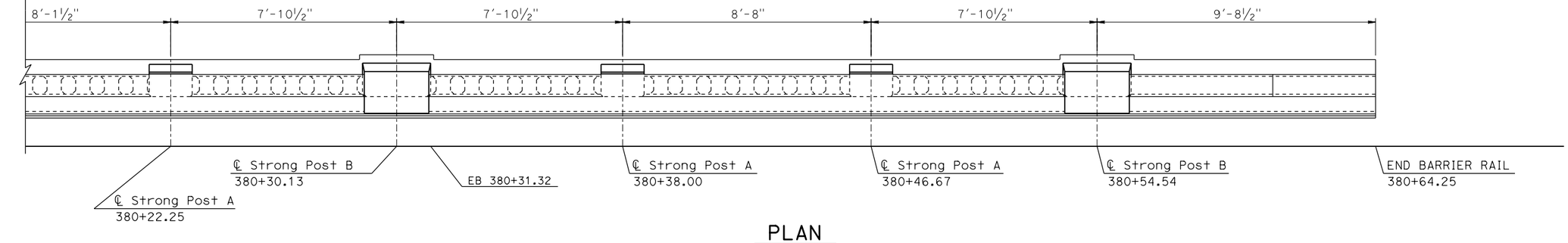
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



BACKSIDE ELEVATION
½" = 1'-0"



TRAFFIC SIDE ELEVATION
½" = 1'-0"



PLAN
½" = 1'-0"

DESIGN	BY Kimberly Mori	CHECKED X	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES OFFICE OF DESIGN AND TECHNICAL SERVICES SPECIAL DESIGN BRANCH B	BRIDGE No. 44-0018
DETAILS	BY David Elliott	CHECKED X			POST MILE 63.0
QUANTITIES	BY X	CHECKED X			

GARRAPATA CREEK BRIDGE

CONCRETE BARRIER TYPE 86H DETAILS No. 6

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REVISION 3/10/2021)

DATE PLOTTED => 7-SEP-2022 TIME PLOTTED => 08:32
FILE => 44-0018-c-sp06.dgn USERNAME => s123982

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3619
PROJECT NUMBER & PHASE: 05160001631

COUNTY/ROUTE: Mon/1
CONTRACT No.: 05-1H8004

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
8-5-22	9-1-22			X	X

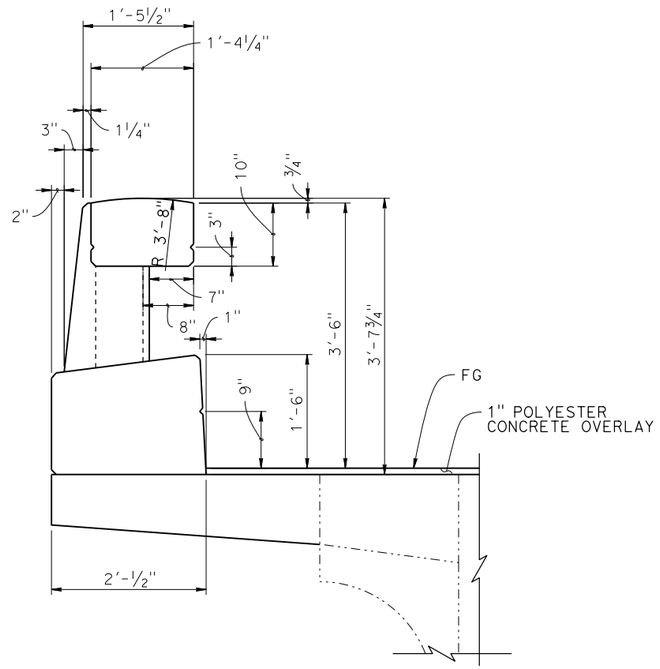
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TC SH

REGISTERED CIVIL ENGINEER X DATE

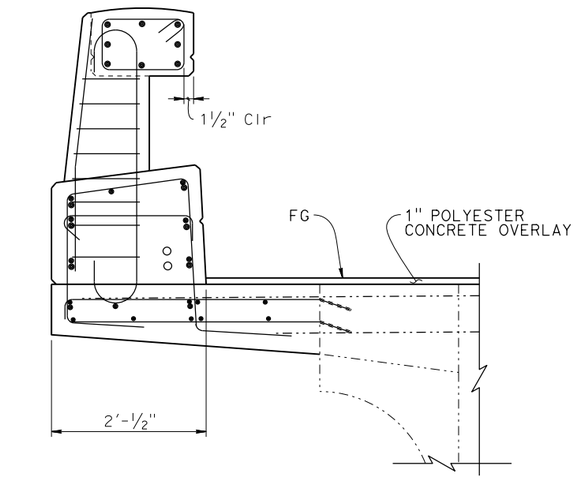
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — No. X — Exp. X — CIVIL — STATE OF CALIFORNIA

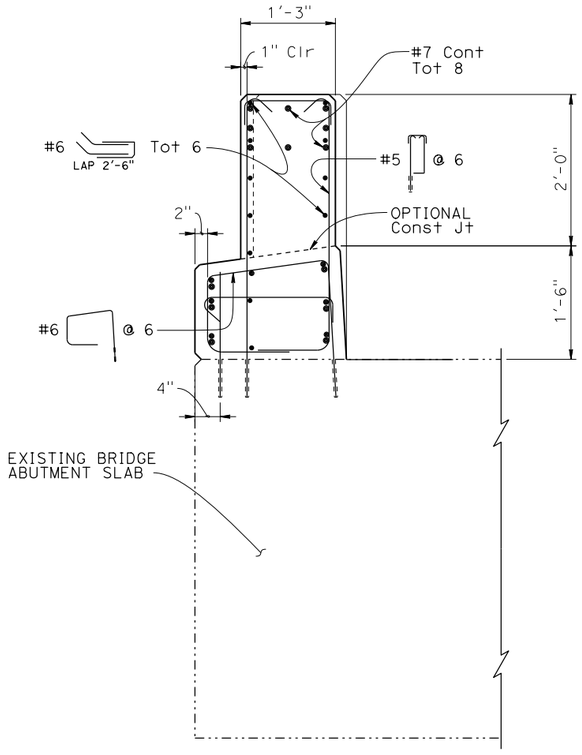
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



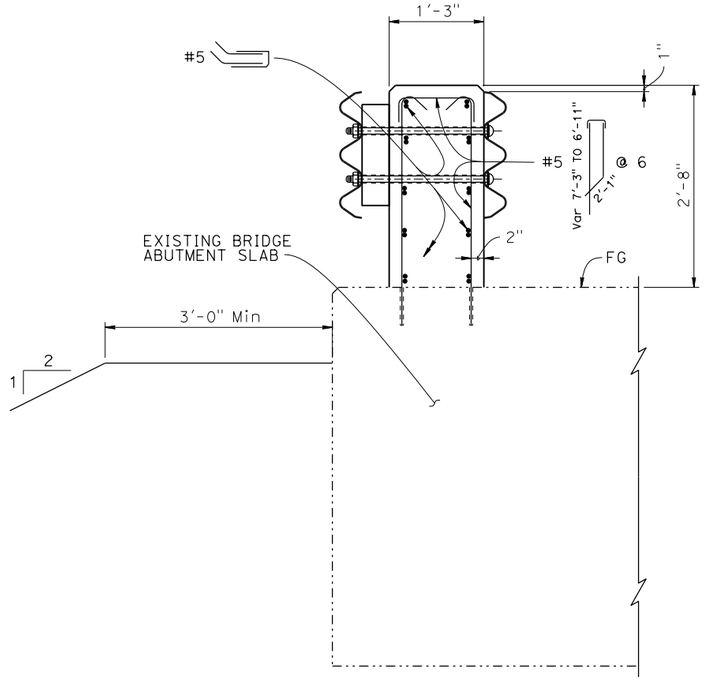
TYPICAL SECTION
1" = 1'-0"



TYPICAL SECTION - TYPE 86H
1" = 1'-0"



SECTION D-D
1" = 1'-0"



SECTION E-E
1" = 1'-0"

DESIGN	BY Kimberly Mori	CHECKED X	
DETAILS	BY David Elliott	CHECKED X	
QUANTITIES	BY X	CHECKED X	

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
OFFICE OF DESIGN AND TECHNICAL SERVICES
SPECIAL DESIGN BRANCH B

BRIDGE No. 44-0018
POST MILE 63.0

GARRAPATA CREEK BRIDGE
CONCRETE BARRIER TYPE 86H DETAILS No. 7

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REVISION 3/10/2021)

DATE PLOTTED => 7-SEP-2022 TIME PLOTTED => 08:32
FILE => 44-0018-c-sp07.dgn USERNAME => s123982

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3619
PROJECT NUMBER & PHASE: 05160001631

COUNTY/ROUTE: Mon/1
CONTRACT No.: 05-1H8004

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES				SHEET	OF
8-1-22	8-9-22	9-2-22		X	X

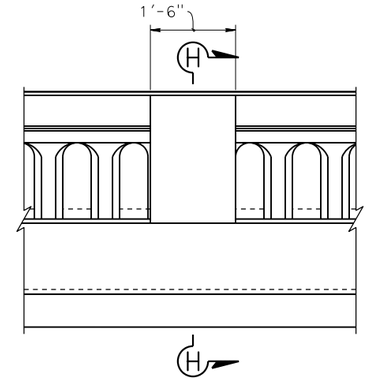
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TO SH

REGISTERED CIVIL ENGINEER X DATE

PLANS APPROVAL DATE

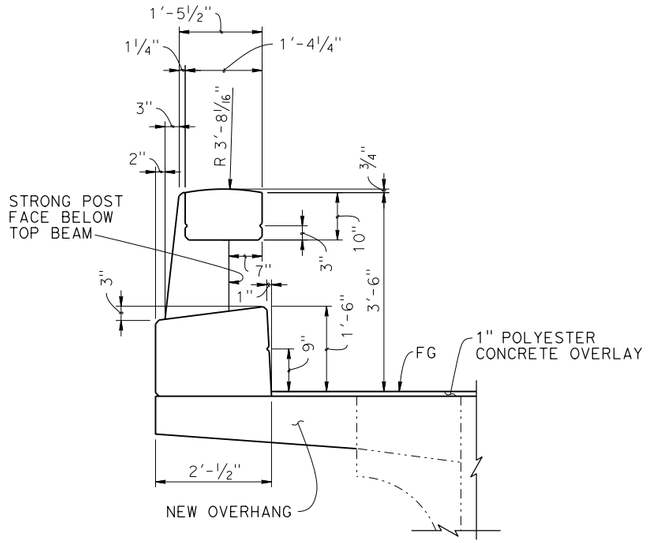
REGISTERED PROFESSIONAL ENGINEER — No. X — Exp. X — CIVIL — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



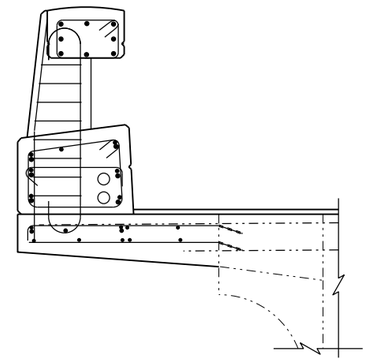
STRONG POST A TYPICAL

3/4" = 1'-0"



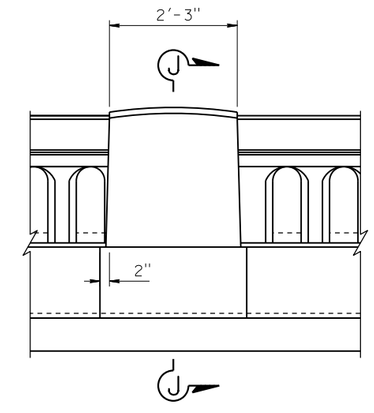
SECTION H-H

NOTE: Strong Post A cross section dimensions shown, Strong Post C similar.



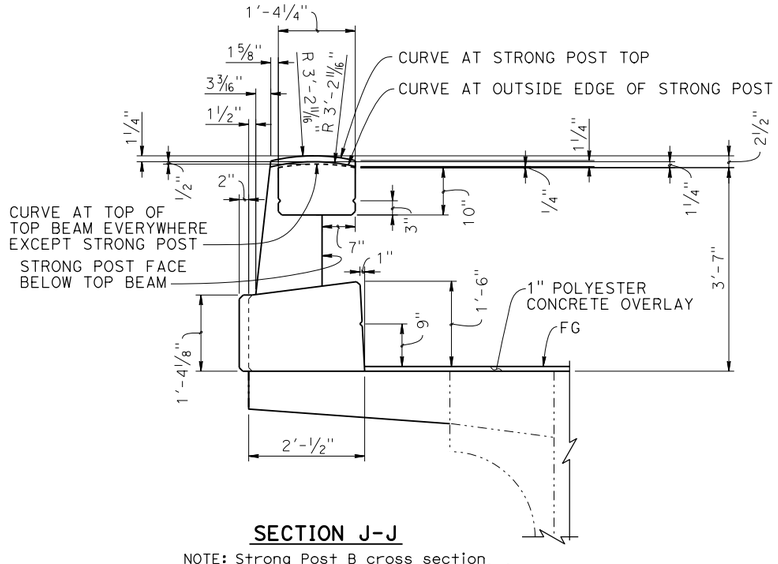
SECTION H-H

NOTE: Strong Post A rebar shown, Strong Post C similar.



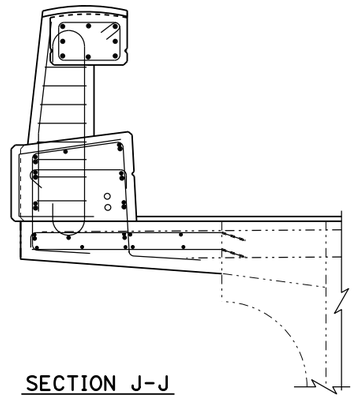
STRONG POST B TYPICAL

3/4" = 1'-0"



SECTION J-J

NOTE: Strong Post B cross section dimensions shown, Strong Post D similar.



SECTION J-J

NOTE: Strong Post B rebar shown, Strong Post D similar.

DESIGN	BY Kimberly Mori	CHECKED X	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES OFFICE OF DESIGN AND TECHNICAL SERVICES SPECIAL DESIGN BRANCH B	BRIDGE No. 44-0018
DETAILS	BY David Elliott	CHECKED X			POST MILE 63.0
QUANTITIES	BY X	CHECKED X			

GARRAPATA CREEK BRIDGE

CONCRETE BARRIER TYPE 86H DETAILS No. 8

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REVISION 3/10/2021)

DATE PLOTTED => 7-SEP-2022 TIME PLOTTED => 08:32
FILE => 44-0018-c-sp08.dgn USERNAME => s123982

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3619
PROJECT NUMBER & PHASE: 05160001631

COUNTY/ROUTE: Mon/1
CONTRACT No.: 05-1H8004

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
8-1-22	8-8-22	9-2-22		X	X

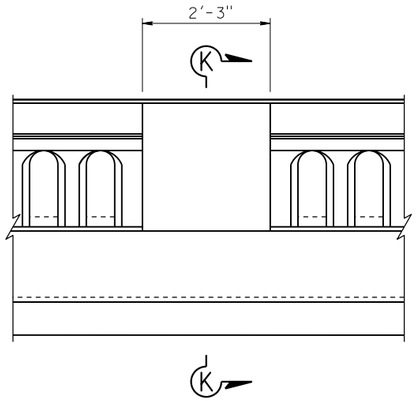
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER _____ DATE X

PLANS APPROVAL DATE _____

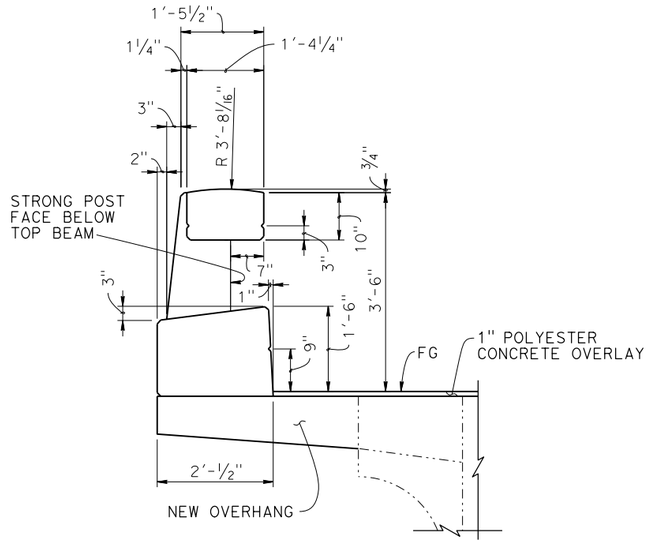
REGISTERED PROFESSIONAL ENGINEER — No. X — Exp. X — CIVIL — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



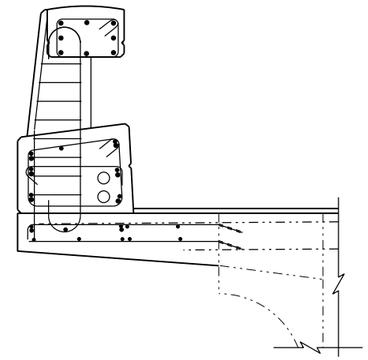
STRONG POST C TYPICAL

3/4" = 1'-0"



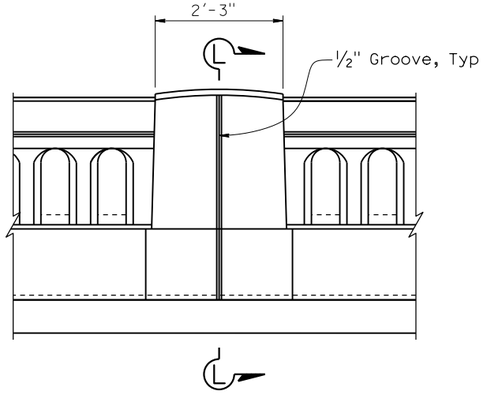
SECTION K-K

NOTE: Strong Post C cross section dimensions shown, Strong Post A similar.



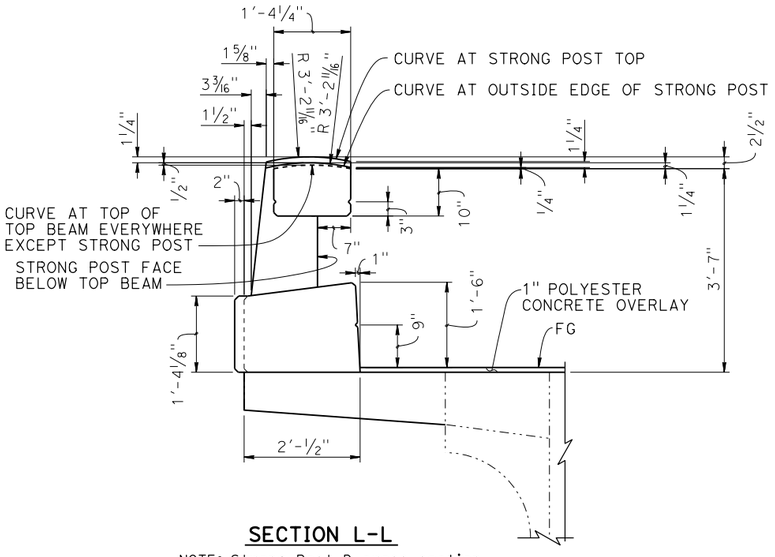
SECTION K-K

NOTE: Strong Post C rebar shown, Strong Post A similar.



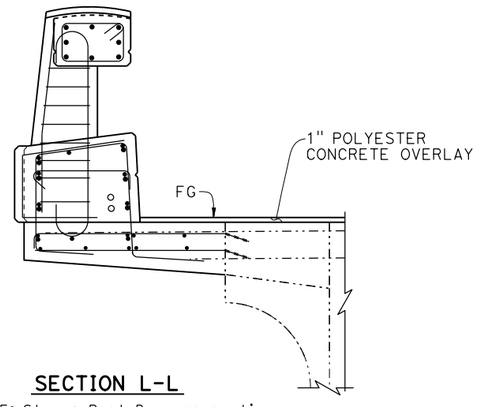
STRONG POST D TYPICAL

3/4" = 1'-0"



SECTION L-L

NOTE: Strong Post D cross section dimensions shown, Strong Post B similar.



SECTION L-L

NOTE: Strong Post D cross section reinforcement shown, Strong Post B similar.

DESIGN	BY Kimberly Mori	CHECKED X	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES OFFICE OF DESIGN AND TECHNICAL SERVICES SPECIAL DESIGN BRANCH B	BRIDGE No. 44-0018
DETAILS	BY David Elliott	CHECKED X			POST MILE 63.0
QUANTITIES	BY X	CHECKED X			

GARRAPATA CREEK BRIDGE

CONCRETE BARRIER TYPE 86H DETAILS No. 9

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REVISION 3/10/2021)

DATE PLOTTED => 7-SEP-2022 TIME PLOTTED => 08:32
FILE => 44-0018-c-sp09.dgn USERNAME => s123982

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3619
PROJECT NUMBER & PHASE: 05160001631

COUNTY/ROUTE: Mon/1
CONTRACT No.: 05-1H8004

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
9-7-22	----	----		X	X

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER — DATE X

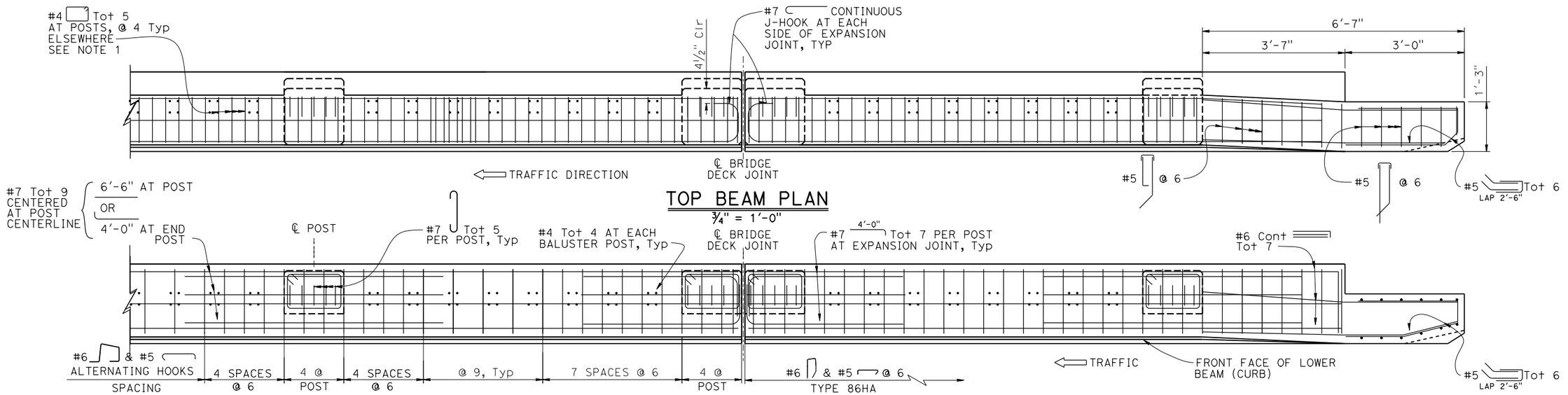
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — No. X — Exp. X — CIVIL — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTE:

1. Adjust spacing of #4 hoops at post location as necessary to avoid locations of the drill and bond threaded rods attaching the tubular bicycle railing to the top of the top concrete beam. See the "TUBULAR BICYCLE RAILING DETAIL" on the "CONCRETE BARRIER TYPE 86H DETAILS No. 5" sheet.

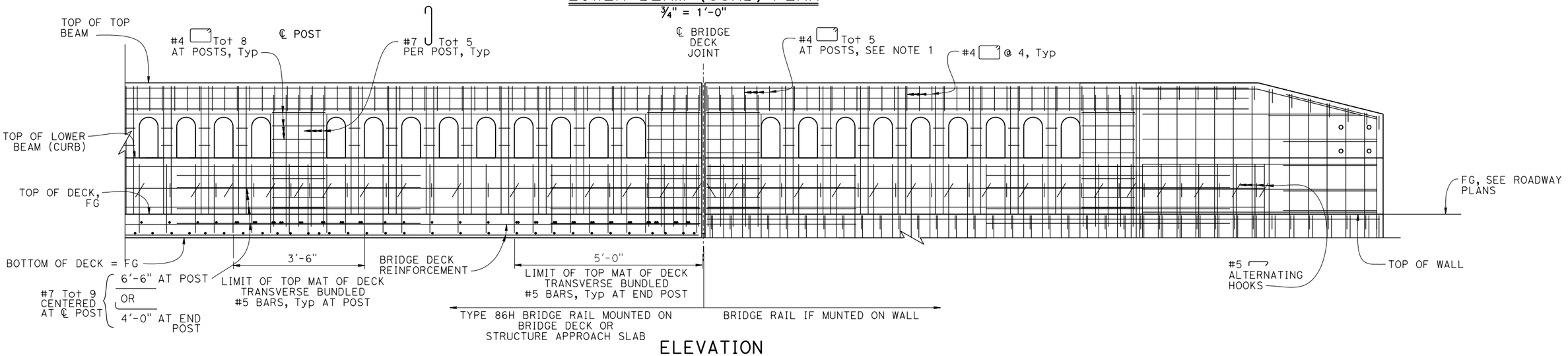


TOP BEAM PLAN

¾" = 1'-0"

LOWER BEAM (CURB) PLAN

¾" = 1'-0"



ELEVATION

¾" = 1'-0"

DESIGN	BY Kimberly Mori	CHECKED X	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES OFFICE OF DESIGN AND TECHNICAL SERVICES SPECIAL DESIGN BRANCH B	BRIDGE No. 44-0018
DETAILS	BY David Elliott	CHECKED X			POST MILE 63.0
QUANTITIES	BY X	CHECKED X			

GARRAPATA CREEK BRIDGE

CONCRETE BARRIER TYPE 86H DETAILS No. 10

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REVISION 3/10/2021)

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ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3619
PROJECT NUMBER & PHASE: 05160001631

COUNTY/ROUTE: Mon/1
CONTRACT No.: 05-1H8004

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
8-5-22				X	X

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TO SH

REGISTERED CIVIL ENGINEER — DATE X

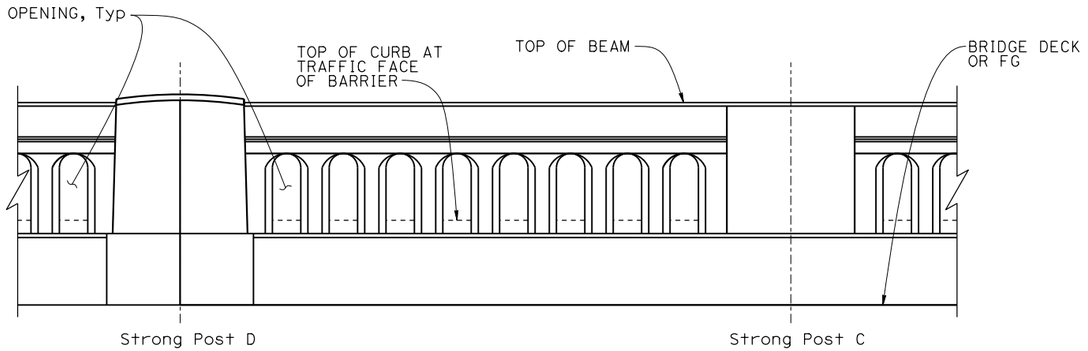
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — X — No. X — Exp. X — CIVIL — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

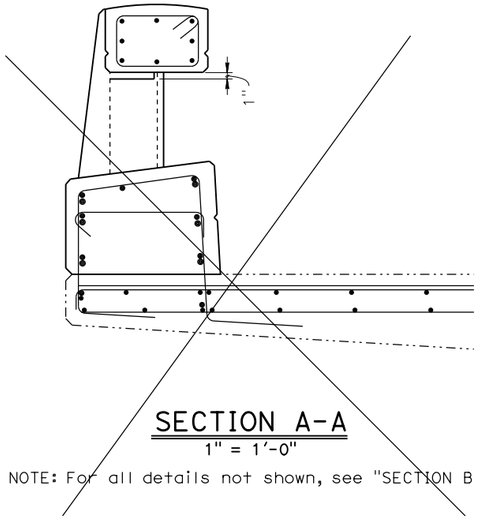
1. For "SECTION A-A" and " SECTION B-B" location see "CONCRETE BARRIER TYPE 86H No. 1" sheet.
2. For details not shown, see other sheets.



ELEVATION WITH CHAMFERED BALUSTERS

CLEAR OPENINGS & BALUSTERS

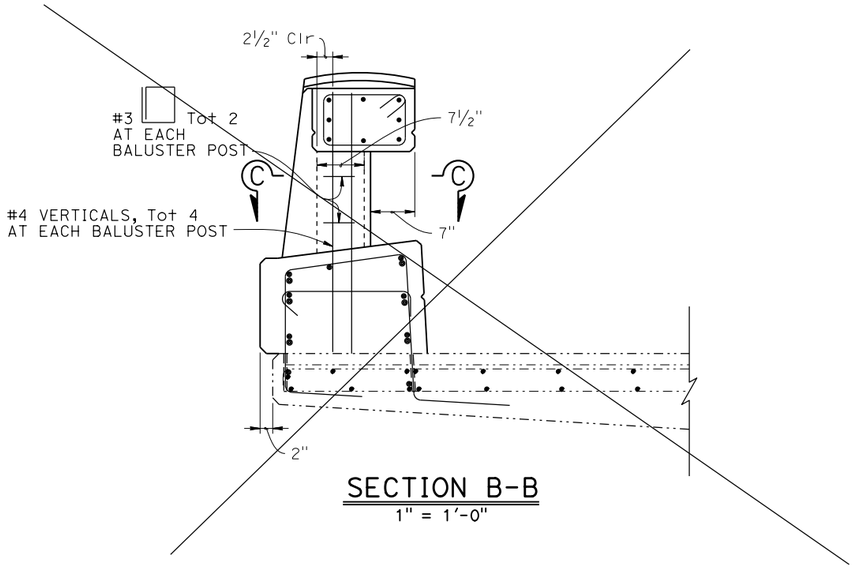
¾"= 1'-0"



SECTION A-A

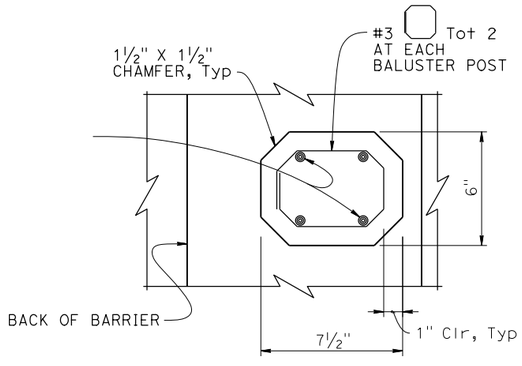
1" = 1'-0"

NOTE: For all details not shown, see "SECTION B



SECTION B-B

1" = 1'-0"



SECTION C-C

3" = 1'-0"

DESIGN	BY Kimberly Mori	CHECKED X	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES OFFICE OF DESIGN AND TECHNICAL SERVICES SPECIAL DESIGN BRANCH B	BRIDGE No. 44-0018
DETAILS	BY David Elliott	CHECKED X			POST MILE 63.0
QUANTITIES	BY X	CHECKED X			

GARRAPATA CREEK BRIDGE

CONCRETE BARRIER TYPE 86H DETAILS No. 11

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REVISION 3/10/2021)

DATE PLOTTED => 7-SEP-2022 TIME PLOTTED => 08:32
FILE => 44-0018-c-sp11.dgn USERNAME => s123982
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT: 3619
PROJECT NUMBER & PHASE: 05160001631
COUNTY/ROUTE: Mon/1
CONTRACT No.: 05-1H8004

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES				SHEET	OF
8-1-22	8-8-22			X	X

Exhibit F

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HISTORIC PROPERTY SURVEY REPORT

Garrapata Creek Bridge Rail Replacement Project
Monterey County, California
05-MON-1 PM 63.00
EA: 05-1H800
Project ID: 05-1600-0163



Prepared by:
Daniel Leckie
PQS Principal Architectural Historian
Caltrans District 5

and

Christina MacDonald
PQS Principal Investigator – Prehistoric and Historical Archaeology
Caltrans District 5

Prepared for:
Krista Kiaha
Heritage Resources Coordinator
Central Coast Specialist Branch Chief
Caltrans District 5

Peer Reviewed by:
Lindsay Kozub
PQS Principal Architectural Historian
Caltrans District 5

Decmeber 2020

HISTORIC PROPERTY SURVEY REPORT

1. UNDERTAKING DESCRIPTION AND LOCATION

District	County	Route	Post Mile(s)	EA	E-FIS Project Number
05	MON	1	63.00	05-1H8000	05-1600-0163-0

The studies for this undertaking were carried out in a manner consistent with Caltrans' regulatory responsibilities under Section 106 of the National Historic Preservation Act (36 CFR Part 800) and pursuant to the January 2014 *First Amended Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act* (Section 106 PA), as well as under Public Resources Code 5024 and pursuant to the January 2015 *Memorandum of Understanding Between the California Department of Transportation and the California State Historic Preservation Office Regarding Compliance with Public Resources Code Section 5024 and Governor's Executive Order W-26-92, addended 2019* (5024 MOU) as applicable.

Project Description:

Caltrans District 5 proposes the Garrapata Creek Bridge Rail Replacement Project (05-1H8000) on State Route 1 (SR-1) at Post Mile 62.97 in Monterey County (Figures 1-2 in Attachment 1). The project proposes to replace the railings on the Garrapata Creek Bridge (Bridge No.44-0018), which is individually eligible to the National Register of Historic Places (NRHP) and is also a contributing resource in the Carmel-San Simeon Highway Historic District (CSSHHD). The Garrapata Creek Bridge is an open-spandrel concrete arch bridge that was constructed in 1931 and seismically retrofitted in 1987 and 1998. The California Department of Transportation (Caltrans) proposes to replace the deteriorated nonstandard concrete baluster bridge rail and approach railing on the Garrapata Creek Bridge with a rail that meets the American Association of State Highway and Transportation Officials (AASHTO) safety and crash test requirements, which are found in the Manual for Assessing Safety Hardware (MASH), as well as the Caltrans design specifications. The bridge is 285 feet long and consists of 12-foot lanes and 0 to 1-foot shoulders. The Garrapata Creek Bridge is located at post mile 62.97 just south of Carmel, in Monterey County along State Route 1 on the Big Sur Coast. The Garrapata Creek Bridge is one (1) of seven (7) historic reinforced concrete arch bridges within the CSSHHD, including six (6) similar open spandrel examples for which rail replacement projects are also anticipated in the future (see section 1.1 "Tiered Environmental Review" below for more info on the programmatic scale review of these projects). State Route 1 through the project area is a two-lane Designated National Scenic Byway and All-American Road that winds through rural and sparse residential development along the steep slopes of the Big Sur coast. This project is the first in a series of six (6) upcoming projects to eventually replace all of the original bridge railings on all six (6) open spandrel concrete arch bridges in the CSSHHD along SR-1. This Tier II analysis represents the pilot project for a series of upcoming undertakings.

Construction will consist of removing the existing rail along with the existing 1-foot of overhang on each side of the bridge deck and widening the deck three inches on each side to place the new rails. No work will be conducted within Garrapata Creek. Debris from removal of the existing rail and overhang will be prevented from entering Garrapata Creek by either affixing a debris containment system to falsework hung from the top of the bridge or using an excavator with a bucket designed to catch the debris. All work will be conducted within the existing state right-of-way and access below the bridge will be restricted to foot traffic only, therefore, equipment access roads are not necessary. There are no utility conflicts.

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The project is needed because the existing rail does not meet current traffic safety standards and portions of the existing rail have developed cracking caused by deterioration of concrete and reinforcing steel. The purpose of the project is to replace the existing nonstandard concrete baluster bridge rail and approach rail with a rail that meets current traffic safety standards. The bridge is historic as well as visually significant to the traveling public, so project design must address context sensitive solutions.

The Manual for Assessing Safety Hardware (MASH) is a nationwide standard that was implemented by the Federal Highway Administration (FHWA) and AASHTO in 2009 and updated in 2016. MASH sets the standards for highway safety equipment, including bridge rails, guardrails, and other safety features. Newly adopted MASH standards have mandated that all new installations of roadside safety devices on high-speed roadways, including bridge railing, must meet a new higher standard for crash testing for all projects implemented as of December 31st, 2019, without exception.

Portions of the existing rail are in an accelerated state of deterioration and are experiencing concrete spalling, exposed steel reinforcing bar, and corrosion caused by exposure to salts in the air due to the bridge's location near the ocean. The rail end posts exhibit fine pattern cracking, and the barrier rail posts are severely deteriorated with multiple incipient spalls in addition to previous impact damage. This deterioration may pose a hazard to public health and safety in the future if allowed to continue unaddressed. However, though the project purpose is to replace the existing concrete baluster bridge rails and approach rails with new railing that meets current traffic safety standards, Caltrans is committed to choosing a new MASH-compliant railing that is context-sensitive and will be compatible with the historic character of the Garrapata Creek Bridge and the CSSHHD. Caltrans structures design engineers are currently developing a new bridge rail that is designed specifically to replicate the design of the historic rails as closely as possible while also meeting the new MASH crashworthiness standards. The new Caltrans rail design (Type 86H) is currently undergoing crash testing. A second new rail design developed by the Texas Department of Transportation to replicate historic bridge rail designs (Type C412) is also under consideration.

1.1. Tiered Environmental Review

In keeping with the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA), which provide for tiered or programmatic environmental review, Caltrans is performing a tiered evaluation of this project in conjunction with five (5) other future anticipated bridge rail replacement projects (6 total) for the other Big Sur Bridges (including Big Creek, Bixby Creek, Rocky Creek, Granite Canyon, and Malpaso Creek). The tiered evaluation is intended to streamline the environmental review and evaluate to the greatest extent feasible cumulative impacts, growth-inducing impacts, and irreversible significant effects on the environment of this project in conjunction with subsequent projects. Tiering addresses broad programs and issues related to the entire corridor in the Tier I (General) analysis. As specific bridge rail replacement projects within the corridor program are ready for implementation, impacts of those specific actions will be evaluated in subsequent Tier II (or project specific) studies. Please refer to **Attachment D** for the Tier I (general) analysis of the Big Sur Bridge Rail Replacement Projects.

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This Tier II study, for the Garrapata Creek Bridge Rail Replacement Project (05-1H800) **ONLY**, is being carried out in compliance with Section 106 (36 Code of Federal Regulations 800) of the National Historic Preservation Act of 1966 and is subject to the conditions of the *First Amended Programmatic Agreement (PA) among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act as it Pertains to the Administration of the Federal-Aid Highway Program in California* (Section 106 PA). As such, compliance with Section 106 shall meet or exceed the requirements of the California Environmental Quality Act (CEQA) Sections 21083.2 and 21084.1, as written in the California Public Resources Code, Sections 21000, et seq., and the CEQA Guidelines for implementing the statute, as codified in the California Code of Regulations, Title 14, Chapter 3, Section 15000, et seq. In addition, Tier II studies will comply with Public Resources Code 5024 and pursuant to the January 2015 *Memorandum of Understanding Between the California Department of Transportation and the California State Historic Preservation Office Regarding Compliance with Public Resources Code Section 5024 and Governor's Executive Order W-26-92, addended 2019* (5024 MOU) as applicable.

2. AREA OF POTENTIAL EFFECTS

In accordance with Section 106 PA Stipulation VIII.A, the Area of Potential Effects (APE) for the project was established in consultation with Krista Kiaha, Heritage Resources Coordinator, and Carla Yu, Project Manager, on October 1, 2020. The APE maps are located in **Attachment A**, Figures 3a and 3b of this Historic Property Survey Report.

The APE was established as all the area needed to construct the project, including easements and staging areas, and accounts for the horizontal and vertical extent of proposed work. All work will take place within the Caltrans right of way between Post Mile 62.95 and 63.05. All work will be conducted from the bridge deck and roadway, eliminating the need for activities to take place under the bridge. All project activities will take place in previously disturbed areas, almost entirely within the Caltrans right of way.

3. CONSULTING PARTIES / PUBLIC PARTICIPATION

☒ Local Government: The Monterey County Historic Resources Review Board

- Caltrans contacted The Monterey County Historic Resources Review Board (the Board) for comment on this project on August 31st, 2020. The organization added the Garrapata Creek Bridge Rail Replacement Project (05-1H800) to their agenda for their October 1st, 2020 meeting. PQS Principal Architectural Historians Lindsay Kozub and Daniel Leckie both attended the meeting, presenting the project to the board and answering questions from the public. Daniel Leckie also attended a follow up meeting which occurred on October 20th as the board discussed final comments to be included in their formal

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response letter. The Board issued a formal letter detailing concerns with the project, including project justification, evaluation and documentation, environmental review and the replacement rail design on November 7th, 2020. All correspondence logs and the formal response letter can be found within the Attached Finding of Effect Document **Attachment D**.

☒ Native American Heritage Commission – Native American Heritage Commission (**See Attachment G**)

Consultation with the NAHC was carried out for the Tier I project, informing the NAHC of the upcoming bridge projects along the Big Sur Coast. Caltrans also consulted with the NAHC for the Tier II project, requesting a search of the Sacred Lands Files and a list of Native American individuals and groups familiar with the project area. The NAHC responded to the Tier II request with negative results for the Sacred Lands Files search and provided a list of knowledgeable Native Americans.

- May 23, 2019 – Caltrans sent a request to the NAHC for a search of the Sacred Lands Files and a list of knowledgeable Native Americans with interest in the project area for the Garrapata Creek Bridge Rail Replacement Project (Tier II).
- May 28 2019 – Gayle Totton of the NAHC responded that the Sacred Lands Search for the Garrapata Creek Bridge Rail Replacement Project was negative and provided Caltrans with a list of Native Americans familiar with the project area.
- August 19, 2020 – Caltrans sent a letter to Commissioner Laura Miranda of the NAHC initiating consultation under Section 106 for the Tier I level project.

☒ Native American Tribes, Groups and Individuals – **See Attachment G**

Consultation with Native Americans identified by the NAHC, as well as other individuals whom Caltrans knows to be interested in the project area, were contacted regarding this Tier II project.

- On May 28, 2019 – Caltrans sent letters to the Tribal Consultation Group, provided by the NAHC, initiating consultation under Section 106 and AB52 for the Garrapata Creek Bridge Rail Replacement Project (Tier II). No responses have been received to date.

☒ Local Historical Society / Historic Preservation Groups: Caltrans PQS Principal Architectural Historian Daniel Leckie reached out to the following organizations by email and postal mail on August 31st, 2020 requesting comment by October 5th 2020, and followed up with an Email reminder about the approaching comment period deadline on September 21st , 2020.

- The Historic Bridge Foundation: Executive Director Kitty Henderson responded to Caltrans request on September 21st, 2020 commenting that the organization did not have enough information about the project or resources within the APE to provide a comment. PQS Principal Architectural Historian Daniel Leckie spoke with Ms. Henderson on the

phone and committed to providing more information about the project, forwarding the organization additional images, renderings, DPR 523 forms, and the Programmatic Agreement. However, on October 9th, Ms. Henderson declined to formally respond to the project for personal family reasons. Correspondence logs with this organization can be found on attached Finding of Effect Document **(Attachment D)**.

- The Monterey County Historical Society: Executive Director James Perry responded to Caltrans Follow up request on September 22nd, 2020 expressing that the Historical Society did not have concerns with the project. Correspondence logs with this organization can be found on Attached Finding of Effect Document **(Attachment D)**.
- The Carmel Heritage Society: Caltrans has not received any comments from this organization to date. Correspondence logs can be found on Attached Finding of Effect Document **(Attachment D)**.
- The Big Sur Historical Society: Mary Trotter of the Big Sur Historical responded to the follow up request on September 28th, 2020 expressing concerns with the project. Correspondence logs with this organization can be found on Attached Finding of Effect Document **(Attachment D)**.

4. SUMMARY OF IDENTIFICATION EFFORTS

- ☒ National Register of Historic Places (NRHP)
- ☒ California Register of Historical Resources (CRHR)
- ☒ National Historic Landmark (NHL)
- ☒ California Historical Landmarks (CHL)
- ☒ California Points of Historical Interest
- ☒ California Historical Resources Information System (CHRIS)
- ☒ Caltrans Historic Bridge Inventory
- ☒ Caltrans Cultural Resources Database (CCRD)

☒ Results:

Archaeology – The highway corridor has been studied multiple times over the past decades, including the TEA Rural Routes Inventory (Mikkelsen et al. 2001). Archaeological resources and their relation to the highway are well known. In addition, an archaeological survey was conducted of the project ADI in 2018 as part of the Garrapata Creek ECE Project (05-1H460), a repair project that sought to address corrosion of the Garrapata Bridge through the use of the Electrochemical Chloride Extraction (ECE) process (See Attachment C - Haydu 2018). The ADI for this past ECE project is the same as the ADI for the current bridge rail replacement project. A thorough survey of the ADI was conducted in 2018 with negative results for archaeological resources within the ADI. There is one archaeological resource, known as CT-2, which is a bedrock mortar, located in the vicinity of the ADI, but due to the topography and

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distance from proposed work areas it is not within the ADI and will not be impacted or affected by the project.

Architectural History – Information found in the Caltrans Historic Bridge Inventory and the Caltrans Cultural Resources Database (CCRD) shows that the Garrapata Creek Bridge has been previously determined eligible for the National Register of Historic Places (NRHP) and California Register of Historical Resources (CRHR), and it is also a contributing resource in the Carmel San-Simeon Highway Historic District (CSSHHD), a 75-mile long historic district that includes resources related to the initial construction of State Route 1 along the Big Sur Coast of Monterey and Northern San Luis Obispo Counties. These determinations all remain valid.

5. PROPERTIES IDENTIFIED

☒ Caltrans, in accordance with Section 106 PA Stipulation VIII.C.5 has determined there are properties within the APE that were **previously determined eligible** for inclusion in the NRHP and those determinations remain valid. Copy of SHPO/Keeper correspondence is attached.

- The Garrapata Creek Bridge (#44-0018) was previously determined eligible for listing in the National Register of Historic Places (NRHP) and in the California Register of Historical Resources (CRHR) in 1986 (updated 1996, 2006). The bridge is also a contributing resource in the Carmel-San Simeon Highway Historic District (P-27-002775), which was determined eligible for listing in the NRHP and CRHR in 1996 (updated 2006). State-owned, on Master List.
- Carmel-San Simeon Highway Historic District (P-27-002775), determined eligible in 1996 (updated 2006), State-owned, on Master List.

6. FINDING FOR THE UNDERTAKING

☒ Caltrans, pursuant to Section 106 PA Stipulation X.C, has determined a **Finding of Adverse Effect** is appropriate for this undertaking, and is requesting SHPO's concurrence in this determination within this finding.

7. CEQA CONSIDERATIONS

☒ Caltrans PQS has determined that there are resources in the project area that are historical resources for the purposes of CEQA; see Section 5 for the list of eligible NRHP/CRHR properties which is identical to the list of CEQA properties.

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8. LIST OF ATTACHED DOCUMENTATION

- ☒ Project Vicinity, Location, and APE Maps – **Attachment A**
- ☒ Caltrans Historic Bridge Inventory Sheet – **Attachment B**
- ☒ Archaeological Survey Report (ASR) – **Attachment C** (Haydu 2018)
- ☒ Finding of Adverse Effect (FOE) – **Attachment D** (Kozub & Leckie 2020)
- ☒ Memorandum of Agreement (MOA) – **Attachment D (Appendix E)**
- ☒ Other
  - **Attachment E:** The Big Sur Bridge Rail Replacement Projects (Tier I) Historic Property Survey Report (Including relevant pages of the Caltrans Historic Bridge Inventory Sheet and other relevant Previous documentation (Carmel San Simeon Highway Historic District DPR 528 Forms).
  - **Attachment F:** Native American Heritage Commission Correspondence
  - **Attachment G:** Native American Consultation

9. HPSR PREPARATION AND CALTRANS APPROVAL

Prepared by: Daniel T Leckie 12/30/2020
Daniel Leckie Date
District 5 Caltrans PQS Principal Architectural Historian

Prepared by: Christina MacDonald 12/30/2020
Christina MacDonald Date
District 5 Caltrans PQS Principal Investigator - Prehistoric and Historical Archaeology

Reviewed for Approval by: Lindsay Kozub 12/30/2020
Lindsay Kozub Date
District 5 Caltrans PQS Principal Architectural Historian

Approved by: Krista Kiaha 1/4/2021
Krista Kiaha Date
District 5 Chief, Central Coast Cultural Resources Branch

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Attachment A

Project Vicinity, Location, and APE Maps

Figure 1: Project Vicinity

Garrapata Creek Bridge Rail Replacement Project
05-MON-1,-PM 63.00
EA 05-1H800 / EFIS 05-1600-0163

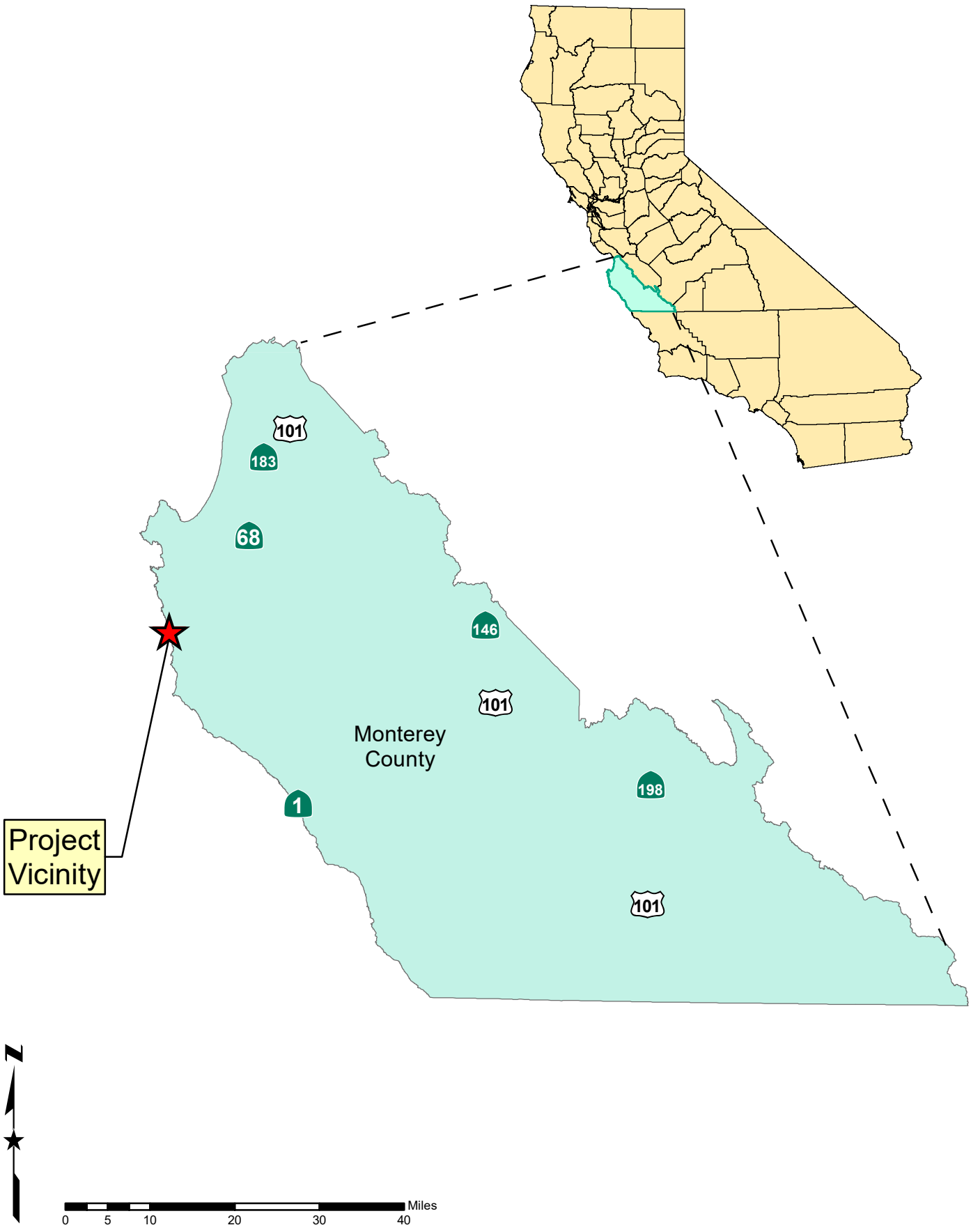



Figure 2: Project Location
Garrapata Creek Bridge Rail Replacement Project
05-MON-1, PM 63.00, Bridge #44-0018
EA 05-1H800 / EFIS 05-1600-0163
Project Location
Garrapata Creek Bridge #44-0018
Soberanes Point
Kasler Point
Rocky Point
Pacific Ocean
Puerta del Diablo
Granite Canyon
Portuguese Creek
Doud
Joshua
Garrapata
Trout Farm
Palo Colorado
Notleys Landing
Palo Colorado School
BM 129
BM 162
BM 173
BM 161
THE CALIFORNIA SEA OTTER GAME REFUGE
MERIDIAN
MT DIABLO
JEEP TRAIL
66
65
64
63
62
61
0 0.2 0.4 0.8 1.2 1.6 Miles

Figure 3a: Area of Potential Effects (APE) Map

Garrapata Creek Bridge Rail Replacement Project
05-MON-1, PM 63.00, Bridge #44-0018
EA 05-1H800 / EFIS 05-1600-0163

Recommended for Approval by:	Krista Kiaha District 5 Heritage Resources Coordinator	10/1/2020 Date
Approved by:	Project Manager	10/1/2020 Date

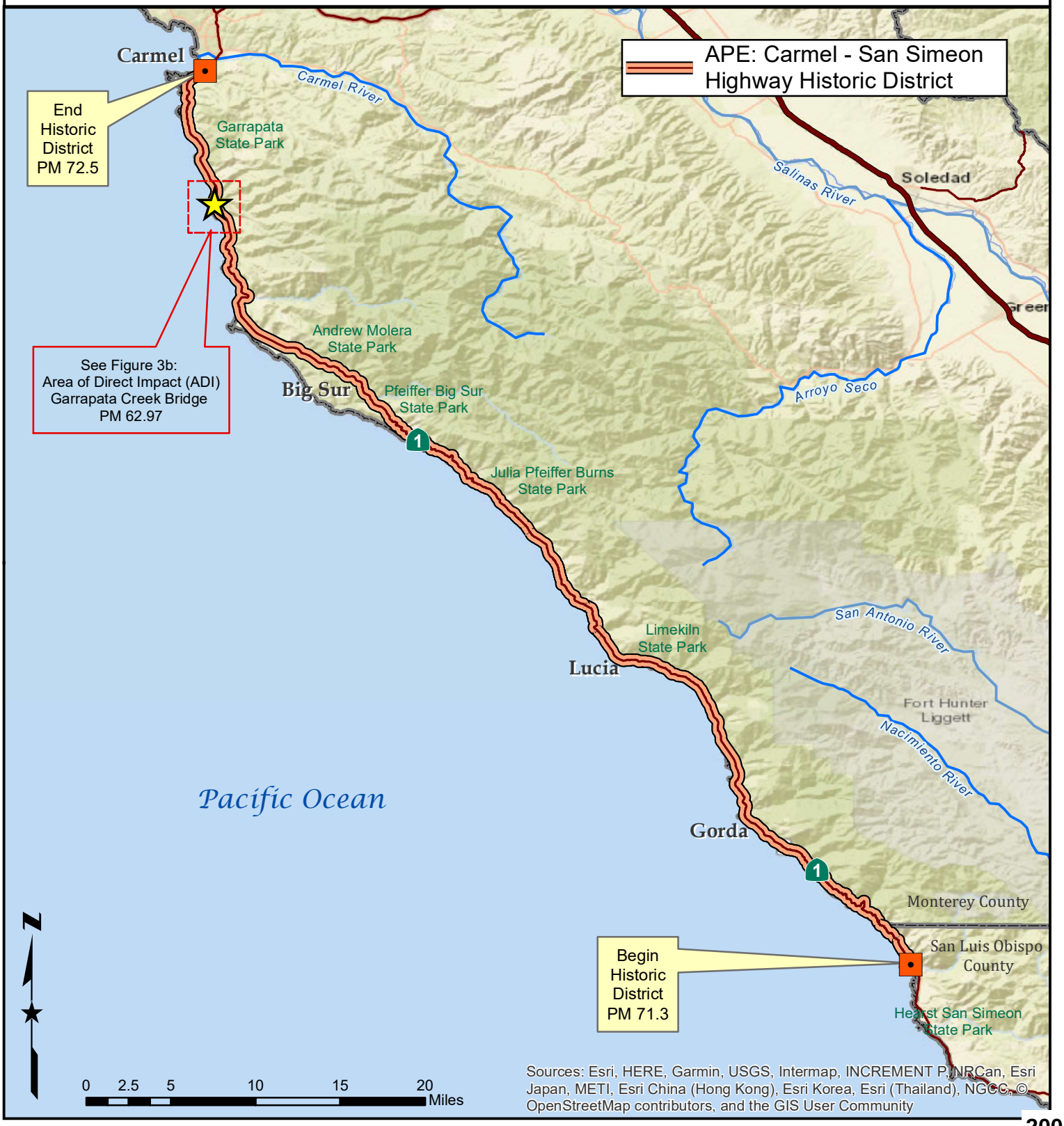



Figure 3b: Area of Direct Impact (ADI)
Garrapata Creek Bridge Rail Replacement Project
05-MON-1, PM 63.00, Bridge #44-0018
EA 05-1H800 / EFIS 05-1600-0163
ADI
63.1
1
Garrapata Creek
63
62.9
N
0 55 110 220 330 440
Feet
0 20 40 80 120 160
Meters
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Attachment B

Caltrans Historic Bridge Inventory Sheet

Historical Significance - State Agency Bridges

District 05

Monterey County

Bridge Number	Bridge Name	Location	Historical Significance	Year Built	Year Wid/Ext
44 0002L	SALINAS RIVER	05-MON-101-60.75	5. Bridge not eligible for NRHP	1999	
44 0002R	SALINAS RIVER	05-MON-101-60.75	5. Bridge not eligible for NRHP	1999	
44 0009L	JOLON ROAD UC	05-MON-101-R9.67	5. Bridge not eligible for NRHP	1936	
44 0009R	JOLON ROAD UC	05-MON-101-R9.67	5. Bridge not eligible for NRHP	1964	
44 0012	GRANITE CANYON	05-MON-001-64.33	2. Bridge is eligible for NRHP	1932	1998
44 0014	SAN JOSE CREEK	05-MON-001-71.18	5. Bridge not eligible for NRHP	1965	
44 0016	WILDCAT CREEK	05-MON-001-69.02	2. Bridge is eligible for NRHP	1933	
44 0017	MALPASO CREEK	05-MON-001-67.85	2. Bridge is eligible for NRHP	1935	1998
44 0018	GARRAPATA CREEK	05-MON-001-62.97	2. Bridge is eligible for NRHP	1931	1998
44 0019	BIXBY CREEK	05-MON-001-59.37	2. Bridge is eligible for NRHP	1932	2000
44 0020	LITTLE SUR RIVER	05-MON-001-56.10	5. Bridge not eligible for NRHP	1953	
44 0021	BIG SUR RIVER	05-MON-001-46.60	5. Bridge not eligible for NRHP	1940	
44 0023	ESPINOSA SLOUGH	05-MON-183-R7.30	5. Bridge not eligible for NRHP	1978	
44 0024	TEMBLADERO SLOUGH	05-MON-183-R8.11	5. Bridge not eligible for NRHP	1978	
44 0027	ALDER CREEK	05-MON-001-7.94	5. Bridge not eligible for NRHP	1955	
44 0028	VILLA CREEK	05-MON-001-7.07	5. Bridge not eligible for NRHP	1961	
44 0029	SALMON CREEK	05-MON-001-2.23	5. Bridge not eligible for NRHP	1949	
44 0030	SAN LORENZO CREEK	05-MON-198-R13.77	4. Historical Significance not determined	1994	
44 0032L	SALINAS RIVER	05-MON-101-R41.36L	5. Bridge not eligible for NRHP	1968	
44 0032R	SALINAS RIVER	05-MON-101-R41.36R	5. Bridge not eligible for NRHP	1956	1968
44 0033L	CASTROVILLE OH	05-MON-156-R1.59	5. Bridge not eligible for NRHP	1942	
44 0033R	CASTROVILLE OH	05-MON-156-R1.59	5. Bridge not eligible for NRHP	1966	
44 0035	CASTRO CANYON	05-MON-001-43.12	5. Bridge not eligible for NRHP	1937	
44 0036	ROCKY CREEK	05-MON-001-60.05	2. Bridge is eligible for NRHP	1932	2000
44 0039	SCENIC DRIVE OC	05-MON-068-3.07	5. Bridge not eligible for NRHP	1930	
44 0040L	SALINAS RIVER	05-MON-068-R17.69	5. Bridge not eligible for NRHP	1966	1985
44 0040R	SALINAS RIVER	05-MON-068-R17.69	5. Bridge not eligible for NRHP	1966	1985
44 0041	SCENIC DRIVE OC	05-MON-068-L4.02	5. Bridge not eligible for NRHP	1930	
44 0046	TORRE CANYON	05-MON-001-39.72	5. Bridge not eligible for NRHP	1955	
44 0047	SYCAMORE DRAW	05-MON-001-39.28	5. Bridge not eligible for NRHP	1981	
44 0049	ANDERSON CANYON	05-MON-001-35.35	5. Bridge not eligible for NRHP	1961	
44 0051	BUCK CREEK	05-MON-001-R33.67	5. Bridge not eligible for NRHP	1965	
44 0052	HOT SPRINGS CREEK	05-MON-001-32.81	5. Bridge not eligible for NRHP	1963	
44 0053	LIME CREEK	05-MON-001-32.25	5. Bridge not eligible for NRHP	1975	
44 0054	DOLAN CREEK	05-MON-001-31.17	5. Bridge not eligible for NRHP	1961	
44 0055	SALINAS UP	05-MON-183-0.57-SAL	4. Historical Significance not determined	1936	
44 0056	BIG CREEK	05-MON-001-28.09	2. Bridge is eligible for NRHP	1938	1998
44 0057	VICENTE CREEK	05-MON-001-R25.89	5. Bridge not eligible for NRHP	1964	
44 0058	LIMEKILN CREEK	05-MON-001-20.95	5. Bridge not eligible for NRHP	1957	
44 0061	KIRK CREEK	05-MON-001-18.91	5. Bridge not eligible for NRHP	1975	
44 0062	MILL CREEK	05-MON-001-18.46	5. Bridge not eligible for NRHP	1934	1956
44 0063	WILD CATTLE CREEK	05-MON-001-17.32	5. Bridge not eligible for NRHP	1975	
44 0064	PREWITT CREEK	05-MON-001-14.93	5. Bridge not eligible for NRHP	1948	1985

Attachment C

Archaeological Survey Report (ASR) – (Haydu 2018)

Attachment C has been removed from this document to protect the confidentiality of Archaeological Resources -HCD-Planning

Attachment D

Finding of Adverse Effect (FAE)

FINDING OF ADVERSE EFFECT

for

The Garrapata Creek Bridge Rail Replacement Project

Monterey County, California

05-MON-1, PM 62.97

EA: 05-1H800, EFIS: 05-1600-0163



Garrapata Creek Bridge, November 1931

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December 2020

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Appendix A

Figure 1 Project Vicinity Map
Figure 2 Project Location Map
Figure 3 Area of Potential Effects (APE) Map

Appendix B

Public Outreach Communications

Appendix C

Carmel San Simeon Highway Historic District DPR 523 Form, 2004

Appendix D

Photos and Renderings of proposed alternatives for Bridge Rail Replacement

APPENDIX E

Memorandum of Agreement (MOA)

1 Introduction

Caltrans District 5 proposes the Garrapata Creek Bridge Rail Replacement Project (05-1H8000) on State Route 1 (SR-1) at Post Mile 62.97 in Monterey County (Figures 1-2 in Attachment 1). The project proposes to replace the railings on the Garrapata Creek Bridge (Bridge No.44 0018), which is individually eligible for listing in the National Register of Historic Places (NRHP) and is also a contributing resource in the Carmel-San Simeon Highway Historic District (CSSHHD). The Garrapata Creek Bridge is an open-spandrel concrete arch bridge that was constructed in 1931 and seismically retrofitted in 1987 and 1998. The California Department of Transportation (Caltrans) proposes to replace the deteriorated nonstandard concrete baluster bridge rail and approach railing on the Garrapata Creek Bridge with a rail that meets the American Association of State Highway and Transportation Officials (AASHTO) safety and crash test requirements, which are found in the Manual for Assessing Safety Hardware (MASH), as well as the Caltrans design specifications. The Garrapata Creek Bridge is located at post mile 62.97 just south of Carmel, in Monterey County along State Route 1 on the Big Sur Coast. The Garrapata Creek Bridge is one (1) of seven (7) historic reinforced concrete arch bridges which are all both individually eligible for the NRHP as well as contributing elements to the CSSHHD. The purpose of this Finding of Adverse Effect (FAE) is to ensure project compliance under Section 106 of the National Historic Preservation Act (NHPA) by applying the Criteria of Adverse Effect to historic properties in the APE, as set forth in Title 36 Code of Federal Regulations (CFR) Part 800.5.

This FAE has been prepared under the January 2014 *First Amended Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act as it Pertains to the Administration of the Federal-Aid Highway Program in California* (Section 106 PA), as well as under Public Resources Code 5024 and pursuant to the January 2015 *Memorandum of Understanding Between the California Department of Transportation and the California State Historic Preservation Office Regarding Compliance with Public Resources Code Section 5024 and Governor's Executive Order W-26-92*, as addended 2019 (5024 MOU), as applicable.

This FAE concludes that the Garrapata Creek Bridge Rail Replacement Project will have an adverse effect on the Garrapata Creek Bridge and will not adversely affect the CSSHHD. Thus, for the undertaking as a whole, Caltrans, in applying the Criteria of Adverse Effect, proposes that an FAE is appropriate and is seeking SHPO concurrence on the finding, pursuant to 36 CFR 800.5(d)(2) and Section 106 PA Stipulation X.C and 5024 MOA Stipulation X.C.2.b.

2 Description of Undertaking

The Garrapata Creek Bridge (No. 44-0018) is an open-spandrel, concrete-arch bridge that was constructed in 1931 and seismically retrofitted in 1987 and 1998. The bridge is located at post mile 62.97 just south of Carmel, in Monterey County and is one of seven historic arch bridges along State Route 1 on the Big Sur Coast. The bridge is 285 feet long and consists of 12-foot lanes and 0 to 1-foot shoulders.

The proposed project is necessary due to deterioration of the existing railing and because the railing no longer meets current traffic safety standards. The Manual for Assessing Safety Hardware (MASH) is a nationwide standard that was implemented by the Federal Highway Administration (FHWA) and the American Association of State Highway Transportation Officials (AASHTO) in 2009 and updated in 2016. MASH sets the standards for highway safety equipment, including bridge rails, guardrails, and other safety features. Newly adopted MASH standards have mandated that all new installations of roadside safety devices on high-speed roadways, including bridge railing, must meet a new higher standard for crash testing for all projects implemented as of December 31st, 2019, without exception.

Portions of the existing rail are in an accelerated state of deterioration and are experiencing concrete spalling, exposed steel reinforcing bar, and corrosion caused by exposure to salts in the air due to the bridge's location near the ocean. The rail end posts exhibit fine pattern cracking, and the barrier rail posts are severely deteriorated with multiple incipient spalls in addition to previous impact damage. This deterioration may pose a hazard to public health and safety in the future if allowed to continue unaddressed. However, though the project purpose is to replace the existing nonstandard concrete baluster bridge rails and approach rails with new railing that meets current traffic safety standards, Caltrans is committed to choosing a new MASH-compliant railing that is context sensitive and will be compatible with the historic character of the Garrapata Creek Bridge and within the Carmel-San Simeon Highway Historic District. Caltrans structures design engineers are currently developing a new bridge rail that is designed specifically to replicate the design of the historic rails as closely as possible while also meeting the new MASH crashworthiness standards. The new Caltrans rail design (Type 86H) is currently undergoing crash testing. A second new rail design developed by the Texas Department of Transportation to replicate historic bridge rail designs (Type C412) is also under consideration. (See **Appendix D)** for renderings of the new bridge rail designs).

Construction will consist of removing the existing rail along with the existing 1-foot of overhang on each side of the bridge deck and widening the deck three inches on each side to place the new rails. No work will be conducted within Garrapata Creek. Debris from removal of the existing rail and overhang will be prevented from entering Garrapata Creek by either affixing a debris containment system to falsework hung from the top of the bridge or using an excavator with a bucket designed to catch the debris. All work will be conducted within the existing state right-of-way and access below the bridge will be restricted to foot traffic only, therefore, equipment access roads are not necessary. There are no utility conflicts.

3 Public Participation

As part of the Historic Property Survey Report (HPSR) prepared for this project in September 2020, Caltrans sent notification letters to local interested parties asking for comments on the proposed project on August 31st, 2020. Recipients of the letter were the Monterey County Historical Society, Big Sur Historical Society, Carmel Heritage Society, The Historic Bridge Foundation, and the Monterey County Historic Resources Review Board. This notification was sent via Email and US Postal Service mail on August 31st, 2020 and follow-up email reminders were sent to all consulting parties on September 21st, 2020. Caltrans reengaged parties with a stated participatory interest in the project, including the Big Sur Historical Society and The Monterrey County Historic Resources Review Board, on December 10th, 2020 with a notice of the determination of adverse effect and mitigation proposal.

3.1 Monterey County Historic Resources Review Board (MCHRRB)

On September 21st, 2020 Caltrans PQS Architectural Historian Daniel Leckie spoke with Monterey County Planner Craig Spencer on behalf of the Monterey County Historic Resources Review Board (MCHRRB) over the phone and explained the upcoming bridge rail replacement project, as well as additional future bridge rail replacement projects anticipated along SR-1 in Monterey County. The MCHRRB added the Garrapata Creek Bridge Rail Replacement Project to their monthly board meeting agenda on October 1st, 2020. Calrans PQS Architectural Historians Daniel Leckie and Lindsay Kozub attended the meeting and presented the project to the board. A follow-up meeting was held on October 20th, 2020 to finalize board comments, and a formal letter detailing concerns with the project, including project justification, evaluation and documentation, environmental review and the replacement rail design was issued on November 7th, 2020. Representatives from Monterey County and the MCHRRB, including Mr. Spencer, were also present for the December 8th 2020 public meeting which, due to the current COVID-19 pandemic provisions, took place via WebEx video conferencing software. To date, the MCHRRB has brought forth specific concerns as follows:

- **Project justification:** The MCHRRB expressed desire for a greater understanding of the need for the bridge rail replacement. Including:
  - An in-depth review and discussion with FHWA on consideration of historic architecture as a means to compliance with MASH and ASHTO standards;
  - Details on the condition of the existing bridge rails, including photographic evidence;
    - ***Note:*** *Additional Photos have been added to the most recent draft of the environmental document which is publicly available online. The MCHRRB was alerted to the presence and location of the Draft Environmental Impact Report (DEIR) and the additional photos there within during the public meeting held via WebEx on December 8th, 2020.*
  - Review of Highway speeds and potential reduction of speed for each bridge as a means of providing flexibility in design solutions for reinforcement, replacement in kind, or design of the replacement rails (if needed); and
    - ***Note:*** *speed studies for the Garrapata Creek Bridge were performed in December 2019 and are detailed on page 8 of the associated Draft Environmental Impact*

Report (DEIR), which is publicly available and has been forwarded to Monterey County for review and comment. The speed studies are also detailed on page 19 of this Finding of Adverse Effect (FAE) which will be submitted to the county upon finalization concurrently with SHPO submission. Speed studies for the other Tier II bridges will be implemented as those projects are initiated in the future.

- A detailed discussion of why typical historic preservation building standards are not possible in this situation with documentation of efforts on coordination with FHWA and highway speeds.
  - ***Note:*** *detailed analysis and discussion can be found within this Finding of Adverse Effect (FAE) Document which will be provided to the MCHRRB upon finalization concurrent with SHPO submission. Additionally, this level of discussion is found within the Draft Environmental Impact Report (DEIR) which is publicly available and has been forwarded to the county as well.*

- **Evaluation and documentation**: The MCHRRB feels review of the project would benefit from more detailed plans and documentation including but not limited to:
  - Elevations and photographs that show the interior and exterior views of the existing bridge rails including features of the rail that reflect the vertical structural elements of the bridge;
  - Original drawings for the bridge and railing if available;
    - ***Note:*** *original 1931 drawings of both bridge and railing were provided to the MCHRRB as an attachment along with the original letter submission on August 31st , 2020. They are also found on page 9 and in appendix D of this report which will be forwarded to all engaged consulting parties upon finalization, concurrent with SHPO submission.*
  - Detail the full cross section of the rail and bridge deck; and
    - ***Note:*** *Current drawings of the proposed rail designs have been provided to the MCHRRB. As per the Caltrans project development process, detailed plans will be developed later in project development, during the design phase, and will be presented to consulting parties and the public at such time.*
  - Detailed historic analysis and report for each bridge prepared by a qualified historian.
    - ***Note:*** *A copy of this Finding of Adverse Effect (FAE) document, which includes historical analysis and assessment of the project's effects on the bridge, will be provided to the MCHRRB upon finalization. Additional detailed historical documentation has been proposed as part of the mitigation for this project, to be completed before any construction activities will begin.*

- **Environmental Review:** The MCHRRB supports CalTrans decision to prepare an Environmental Impact Report. The MCHRRB feels the EIR should consider at a minimum:
  - Cumulative considerations of rail replacement for ***all six*** historic bridges;
  - Alternatives analysis including a no project alternative;
  - Highway speed reductions given circumstances occurring at each bridge; Historic Preservation design and engineering standard exceptions; and options to repair and reinforce the existing rails or replace in kind; and
  - Effects on historic resources (defining features of the bridges); effects on the critical viewshed in Big Sur; and compatibility with the Coastal Act, Big Sur Land Use Plan and Coast Highway Management Plan.
    - ***Note:*** *All of the above concerns, listed under "Environmental Review" specific to the Garrapata Creek Bridge have either been addressed in the current draft of the*

Environmental Impact Report (DEIR), or will be addressed before that document is finalized in the Spring of 2021. Many of these items are also discussed in this Finding of Adverse Effect which will be provided to all concerned parties concurrent with the SHPO submission. Elements specific to projects impacting the other structures will be address in subsequent Tier II environmental documents as those individual projects are proposed in the future.

- **Replacement Rail Design**: If replacement of the bridge rails is determined to be necessary, the MCHRRB reserves the ability to review and comment upon each bridge's rail designs, prior to selection of a final design. These are the MCHRRB's *preliminary* comments on potential new bridge rail designs:
  - The MCHRRB suggests CalTrans work with the local community as well as Monterey County to design bridge rails to fit the character of the structures and the surroundings. The county suggests the community members should include Big Sur Coast Multi-Agency Committee (BSMAC), and the local Big Sur Land Use Advisory Committee (LUAC). Monterey County is willing to set these discussions on those agencies' agendas.
  - The MCHRRB prefers the "C411" rail design for replacement. Although the C411 design is engineered for speeds of up to 45 miles per hour, the MCHRRB believes some bridges warrant reduced speeds where there are curves or heavily used turnouts which slow traffic near the bridges.
  - The MCHRRB believes travelers along the Highway would rather slow down to enjoy the beautiful views rather than seeing the visual shock of foreign elements which impact bridges' character;
  - The MCHRRB asks that CalTrans coordinate with the county on the final bridge rail design.
  - The MCHRRB requests final design options be presented to Monterey County with sufficient flexibility to amend the design before a final designed is selected;

As stated above, Caltrans sent a subsequent letter to the MCHRRB on December 10th, 2020 notifying them of the determination of adverse effect for this project as well as the current proposed section 106 mitigation measures. Any suggestions or concerns of the board will be considered in the final Memorandum of Agreement (MOA). All correspondence including the formal comments can be found in **Appendix B**. Caltrans has responded to the MCHRRB's concerns and provided all requested information that is currently available. Caltrans will continue to consult with all interested parties throughout the project process and provide additional information, including mitigation documents and updated plans as they come available.

3.2 Big Sur Historical Society

On September 28th, 2020 Caltrans received a response from Mary Trotter of the Big Sur Historical Society expressing concern with the project including compatibility of the new railing design with the historic bridges, concrete coloring, and impacts to the historic structure overall. Caltrans responded clarifying some aspects of the overall process and reasoning for the project as well as an explanation of the efforts made to develop a compatible bridge railing. Ms. Trotter also attended the December 8th, 2020 public meeting. The Big Sur Historical Society has raised the following concerns, which have been summarized by Caltrans staff, about the upcoming project:

- The Big Sur Historical Society acknowledges that the rails have begun to deteriorate but is unhappy with the repairs made to date including poor color matching making repairs stand out from the original railing.
  - Incompatible design for the new rails to the original structure:
  - The Big Sur Historical Society Feels that the new designs appear like "Romanesque elements on a Gothic cathedral".
  - The archways are heavy, bulky and overwhelmingly solid
  - Archways in some of the renderings appear as rectangular spaces.
  - Archways emphasize the structure rather than the openings between.
    - ***Note:*** *the design details in the initial renderings have been updated since the initial letter was sent to consulting parties, demonstrating additional options for arched openings. The final design details of the final railing will not be determined until Caltrans is farther along in the design process.*
- Questions on what safety hazard the original railings pose to the traveling public.
  - Unaware of the accident history along this stretch
- Given Caltrans history of community involvement in the decision-making process, the Big Sur Historical Society feels it should be possible for state and federal to reach a compromise about changes to historic structures.
- Expressing hope that the railings could be replaced with the exact same design, perhaps beefed up on the interior with more or larger diameter rebar.
- Taking issue with the color match, which is said to have originally come from use of local sand in the concrete mixture, which was incompatible in the initial renderings.
    - ***Note:*** *the color in the initial renderings has been updated since the initial letter was sent to consulting parties, demonstrating a more appropriate color match. The original renderings appeared with a darker gray concrete coloring, but they now appear more in keeping with the original sandy beige bridge color. The final coloring, along with other design details of the final railing will not be determined until Caltrans is farther along in the design process. Caltrans is committed to designing the new railing with as close of a color match as possible in the final design for the replacement railings.*
- Concern that the NRHP/CRHR eligibility designation should have more "meaning and strength" to oppose these changes.

As stated above, Caltrans has reengaged this group with a notice of determination of adverse effect for this project as well as the current proposed section 106 mitigation measures, and any suggestions will be considered in the final Memorandum of Agreement (MOA). All correspondence including the formal comments can be found in **Appendix B**.

3.3 All Other Consulting Parties

On September 21st, 2020 Caltrans PQS Architectural Historian Daniel Leckie spoke with Kitty Henderson, the Executive Director of the Historic Bridge Foundation over the phone and provided more information on the project. However, on October 9th, Ms. Henderson declined to formally respond to the project for personal family reasons. On September 22nd, 2020 Caltrans received a response from James Perry, Executive Director of the Monterey County Historical Society expressing no concerns with the project. The Carmel Heritage Society has not replied to the initial

letter or reminder email to date. All correspondence including the formal comments can be found in **Appendix B**.

4 Description of Historic Properties

The project area is located on SR 1 along the Big Sur coast of Central California, an area characterized by the rugged terrain of the Santa Lucia Mountains, which descend steeply down on the west to the Pacific Ocean. The western slope is cut by numerous rivers, creeks, and canyons of varying widths and depths, such as Garrapata Creek. The shoreline is generally rocky with a few sandy beaches; coastal terraces are few. The Big Sur region does not have any census designated places, but at a few locations, such as Big Sur Village, Gorda, and Lucia, are small settlements that usually include tourist service businesses such as restaurants, gas stations, and lodging. There are two historic properties located within the APE for the Garrapata Creek Bridge Rail Replacement Project: the Garrapata Creek Bridge (Bridge No. 44-0018), which was determined eligible for the NRHP in 1986, and the CSSHHD, which was determined eligible for the NRHP in 1996 with SHPO concurrence in 2003 and updates in 2006. The Garrapata Creek Bridge is also a contributing resource in the CSSHHD.

4.1 The Garrapata Creek Bridge (Bridge No. 44-0018)

The Garrapata Creek Bridge (#44 0018), located at post mile 62.97 on Highway 1 in Monterey County, is a reinforced concrete, open spandrel, fixed parabolic arch bridge with a single arch span comprised of parallel concrete arch ribs measuring 150 feet long. It was determined eligible for listing NRHP and in the CRHR in 1986 under Criterion A/1 (in the area of transportation) for its association with the Highway Beautification Movement and construction of the Carmel-San Simeon Highway as well as Criterion C/3 as an example of reinforced concrete bridge design and engineering from the 1920s-30s. The bridge's character-defining features include its use of reinforced concrete materials; its open spandrel, fixed parabolic arch; its six concrete T-beam approach spans; its decorative cantilevered walkway; and the decorative reinforced concrete railings with arched window design and smooth textured finish. The historic resource boundary for the bridge is the structure itself.



Garrapata Creek Bridge, February 1932

The total bridge length is 285 feet and includes seven approach spans (five 25-foot spans and two 5-foot spans) in addition to the 150-foot arch span. The height of the bridge is approximately 85 feet above the creek bed. The reinforced concrete arch ribs measure five feet in thickness at the springing line, narrowing to three feet in thickness at the crown. The bridge deck is 28 feet wide, including a 24-foot, two-lane roadway with curbs. The bridge railings are smooth reinforced concrete in an arched window design. The bridge was seismically retrofitted in 1987 and 1998.

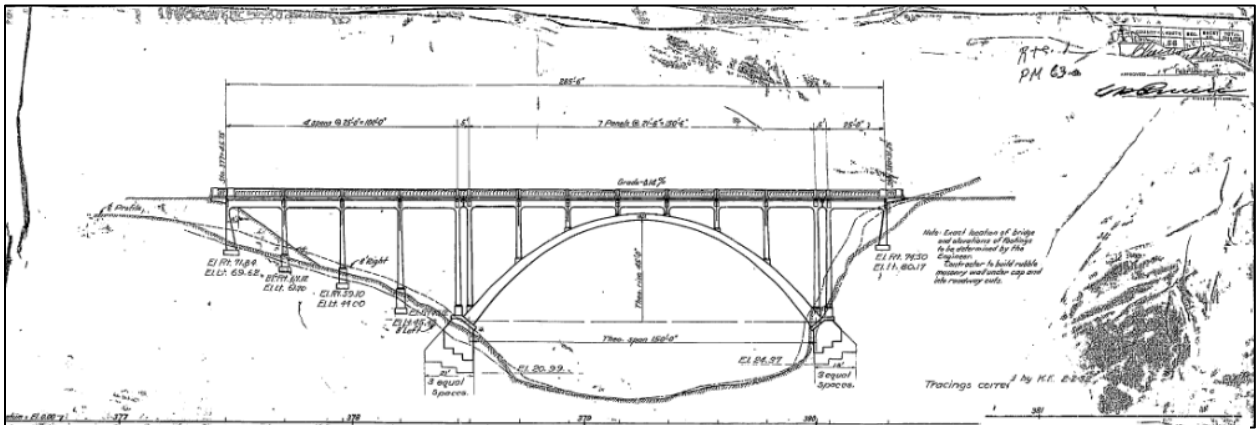


Garrapata Creek Bridge Rails, 2018

The Garrapata Creek Bridge was constructed in 1931 by the Hanrahan Construction Company of San Francisco for the California Division of Highways Bridge Department under the leadership of Charles Andrew. The resident engineer was O.R. Bosso. The Garrapata Creek Bridge was the first concrete arch bridge constructed on the scenic Carmel-San Simeon Highway, which was constructed between 1922 and 1938 along one of the most rugged and previously inaccessible areas of the California coastline. A November 1931 article in California Highways and Public Works announced the opening of the Garrapata Creek Bridge, and also noted that the Granite Creek Bridge was under construction, and plans for the Bixby Creek Bridge were underway:

> Beautiful bridges, an imposing series of them, will mark the new State highway now in course of construction along the rugged coast between Carmel and San Simeon. One of the most scenic portions of the Pacific shoreline, this section is indented by arms of the sea and furrowed by deep gorges through which mountain streams reach the ocean making bridges necessary for a direct highway route... This new concrete bridge [Garrapata] replaces an old narrow steel bridge which had become so badly rusted, due to its proximity to the ocean, that it was no longer safe for use and during the past year traffic has been detoured over a small temporary timber bridge at the head of the gorge. [1]

The Garrapata Creek Bridge is one of seven iconic concrete arch bridges known as the "Big Sur Arches" located on Highway 1 along the coast of the Pacific Ocean in Monterey County. The other six bridges include the Bixby Creek, Rocky Creek, Big Creek, Granite Canyon, Malpaso Creek, and Wildcat Creek Bridges. All seven concrete arch bridges were determined individually eligible for listing in the NRHP and in the CRHR in 1986 by Caltrans historian Stephen Mikesell. In addition, the bridges are included as contributing resources in the Carmel-San Simeon Highway Historic District, which was determined eligible for listing in the NRHP and the CRHR in 1996 Caltrans architectural historian Robert Pavlik and updated by JRP Historical Consultants in 2006.



Garrapata Creek Bridge Original Plan Drawing, 1931

[1] Gallagher, James, "Longest Concrete Arch in State Among Carmel Coast Link Bridges", *California Highways and Public Works* (November 1931): 34.

4.2 Carmel – San Simeon Highway Historic District

The Carmel-San Simeon Highway Historic District, as documented in the 2006 updated Historical Resources Evaluation Report (HRER) by JRP Historical Consulting and Paula Juelke Carr, is comprised of 241 contributing resources. These include 234 Rustic-style rubble masonry features (158 culvert headwalls, 61 parapet walls, 10 retaining walls, and 5 fountains), as well as the seven concrete arch bridges that are also individually eligible for listing in the NRHP and the CRHR.



Arcade-style masonry parapet



Contributing L-Shaped Masonry Culvert Headwall

The historic district is located entirely within the Caltrans right-of-way along Highway 1, extending approximately 75 miles between post mile 71.34 in San Luis Obispo County (San Carpoforo Creek) at the southern end, to post mile 72.28 in Monterey County (Carmel River) at the northern end. The district is a noncontiguous district that consists only of these masonry and concrete structures associated with the construction of the highway from 1922-1938; the highway itself is not a contributing resource due to alterations that occurred after the period of significance. The Carmel-

San Simeon Highway Historic District was determined to be eligible under Criterion A for its association with the Highway Beautification Movement, and under Criterion C as an example of Rustic-style handcrafted rubble masonry and concrete bridge design from the 1920s-30s. The period of significance for the Carmel-San Simeon Highway Historic District is 1922-1938, spanning from the date that highway construction began near San Simeon in 1922 until the highway was completed with the construction of the concrete arch bridge over Big Creek in 1938. The historic district, as originally defined by Pavlik in 1996, contained 96 contributing resources including the seven iconic concrete arch bridges. In 2006, the determination of eligibility for the Carmel-San Simeon Highway Historic District was updated by Paula Juelke Carr and JRP Historical Consulting Services to include 145 additional resources in addition to the 96 resources originally surveyed by Pavlik, increasing the total number of contributing resources to 241.[2] Although subsequent studies addressed potential effects to individual contributing resources and to the historic district as projects occurred, the district has not been comprehensively re-surveyed since 2006. Plans are currently underway to begin a comprehensive survey update for the entire historic district in 2021-2022.

Constructed over a sixteen-year period between 1922 and 1938, the Carmel-San Simeon Highway was a feat of engineering that traversed the edge of the steep and rugged coastline between the Santa Lucia Mountains and the Pacific Ocean. Although smaller, primitive dirt roads and horse trails had been constructed along some stretches of the coast and through the mountains to access local homesteads in the late 1800s, the area from San Simeon north along the Big Sur Coast was still largely inaccessible in the early twentieth century due to the mountainous terrain. In 1915, Dr. John L.D. Roberts of Monterey joined with Senator Elmer S. Rigdon of Cambria to address the state legislature to request that the state construct a highway along the Central Coast. Delayed by World War I, the bond finally passed in 1919, partly due to advocates asserting that the road would be useful for military defense purposes. The road was built in eight different sections (Sections A through H), with the first phase of construction occurring from 1922-24 and the second phase of construction from 1928-38 (a four-year delay from 1924-28 was due to the underestimation of amount of funds necessary to build the road). The highway was constructed by the Division of Highways, who utilized private contractors, convict laborers, and work relief program laborers to construct the road and associated engineering structures.[3]

Concrete Arch Bridges in the CSSHHD

The most iconic and visually prominent historic engineering features located within the CSSHHD are the seven concrete arch bridges located hundreds of feet above the Big Sur coastline. The Big Sur Arches were constructed between 1931 and 1938, concurrent with the original highway construction, and were a product of the tradition of concrete arch bridge construction in California

[2] Wee and Larson, 2006; Carr, Paula Juelke, Christopher Ryan, and Kelda Wilson, *Historic Property Survey Report: Pfeiffer-Big Sur Left Turn Channelization Project and Updated Description of the Carmel-San Simeon Highway Historic District (P-27-002775)*, San Luis Obispo: Caltrans, 2006.
[3] Wee and Larson, p. 12-19.

in the early twentieth century, the durability and availability of concrete in the state, and the unique problem of the steep, mountainous terrain of the Big Sur Coast, which necessitated massive spans of both distance and height.

Table 1: Concrete Arch Bridges of the Carmel-San Simeon Highway Historic District

Bridge Name	Bridge #	District Identifier	Post Mile	Year Built
Big Creek Bridge	44 0056	DM-322	28.09	1938
Bixby Creek Bridge	44 0019	DM-032	59.37	1932
Rocky Creek Bridge	44 0036	DM-030	60.05	1932
Garrapata Creek Bridge	44 0018	DM-028	62.97	1931
Granite Canyon Bridge	44 0012	DM-027	64.33	1932
Malpaso Creek Bridge	44 0017	DM-025	67.85	1935
Wildcat Creek Bridge	44 0016	DM-022	69.02	1933

Of 31 bridges originally constructed within the length of the Carmel-San Simeon Highway, 21 were of timber construction, six were steel, and the remaining seven were the concrete arches. All of the original timber bridges have been replaced (between 1940–1985), and nearly all of the steel bridges have also been replaced; however, all seven of the original concrete arch bridges are still in place.[4] Most of the concrete arch bridges span several hundred feet, including the Bixby Creek Bridge, which contains the largest single concrete arch span in the state (360 feet), with a complete bridge span of 714 feet.[5] Six of the seven bridges are located within a 10-mile span between post miles 59 to 69; the Big Creek Bridge is located more than 30 miles south of the others at post mile 28.09.

The construction of these distinctive arch bridges along with handcrafted stone masonry features along the highway corresponded with the "Highway Beautification" movement, which began in the 1910s and gained momentum in California in the 1920s. Part of the emphasis of this movement was to provide infrastructure that would integrate and harmonize with the surrounding natural environment, particularly in rural and scenic areas.[6]

5 Application of the Criteria of Adverse Effect

The following section considers potential effects the Garrapata Creek Bridge Rail Replacement Project may have on the two historic properties in the APE, the Garrapata Creek Bridge and the CSSHHD. The NHPA Section 106 regulations state that if there are historic properties in the APE

[4] Pavlik, Robert C., *Historical Resource Evaluation Report: The Rock Retaining Walls, Parapets, Culvert Headwalls, and Drinking Fountains Along the Carmel to San Simeon Highway*, San Luis Obispo: Caltrans, 1996, p. 3.
[5] McMorris, Christopher, *Caltrans Historic Bridge Inventory Update: Concrete Arch Bridges*, JRP Consulting for Caltrans, 2004, p. 20-21.
[6] Mikesell, Stephen D., *Historic Resource Evaluation Report, The Carmel-San Simeon Highway*, Caltrans 1986; Pavlik, 1996; [6] Wee, Stephen, and Bryan Larson, *Historical Resources Evaluation Report: Pfeiffer-Big Sur Left Turn Channelization Project and Updated Description of the Carmel-San Simeon Highway Historic District*, San Luis Obispo: JRP Historical Consulting/Caltrans, 2006, p. 20-28.

which may be affected by a federal undertaking, the agency official shall assess adverse effects, if any, in accordance with the Criteria of Adverse Effect defined in 36 CFR 800.5.

The following are examples of adverse effects as per 36 CFR 800.5(a)(2):

i. Physical destruction of or damage to all or part of the property;
ii. Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access, that is not consistent with the Secretary's standards for the treatment of historic properties (36 CFR part 68) and applicable guidelines;
iii. Removal of the property from its historic location;
iv. Change of the character of the property's use or of physical features within the property's setting that contributes to its historic significance;
v. Introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features;
vi. Neglect of a property which causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization; and
vii. Transfer, lease, or sale of property out of Federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance.

- ***Note:*** *though these are the most common examples of adverse effects which are found explicitly in 36 CFR part 800.5.2, adverse effects are not limited to the above seven (7) examples. Caltrans has considered all potential adverse effects resulting from the Garrapata Creek Replacement Project and determined that no others apply to the Undertaking as proposed.*

5.1 The Garrapata Creek Bridge (Bridge No. 44 0018)

In order to meet the crash-testing requirements of the MASH safety standards, the new replacement rails on the Garrapata Creek Bridge are required to have a greater thickness and slightly modified arch window shape; therefore the original rails cannot be replaced in kind to meet the Secretary of the Interior's Standards for the Treatment of Historic Properties. Because the Garrapata Creek Bridge (Bridge No. 44 0018) is a National Register-eligible property, and the project proposes to remove and replace the original railing of the bridge with a railing that is not an in-kind replacement, the project will have an adverse effect on the Garrapata Creek bridge. This adverse effect corresponds to 36 CFR 800.5.2(i) "Physical destruction of or damage to all or part of the property"; and 36 CFR 800.5.2(ii): "Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access, that is not consistent with the Secretary's standards for the treatment of historic properties (36 CFR part 68) and applicable guidelines." None of the other criteria of adverse effects apply to this project, and the project does not constitute any other examples of potential adverse effects not included in the seven (7) examples found in 36 CRF 800.5.2.

Table 2: Comparison of Bridge Rail Dimensions

	Original Rails	Type 86H	Type C412
Rail height	42”	42”	42”
Arch window height	19”	14”	13”
Arch window width	10”	6”	5.75”
Baluster width	6”	8”	7.25”
Baluster thickness (depth)	5”	7”	10”
Base height	9”	18”	18”
Base thickness (depth)	10” (base of balusters); 27” (including inside curb)	24”	19”
Height at base of arch windows	12”	18”	20”
Top rail height	9”	10”	6”
Top rail thickness (depth)	12”	15”	17.5”

The new proposed rail designs that meet current MASH crashworthiness standards have several similarities with the original bridge rails: the overall height of the rails is 42 inches, the rails contain arched window openings, and the rails are composed of reinforced concrete. The differences in the rail design are in the dimensions of the balusters, window openings, base, and top rail. Since the open windows in baluster-style rails can be “catch points,” where vehicles’ bumpers can potentially catch on the rails, which could cause or worsen accidents, current safety standards require a higher base height, thickness, and top rail thickness to accommodate modern vehicle designs and speeds. The increased height of the base of the rails and at the base of the window openings provides the rail with the ability to withstand and deflect vehicle impacts. While the lines and shapes are similar in the proposed new rails, the arched window openings are shorter in height and narrower in width, while the balusters are wider and have greater thickness (depth).

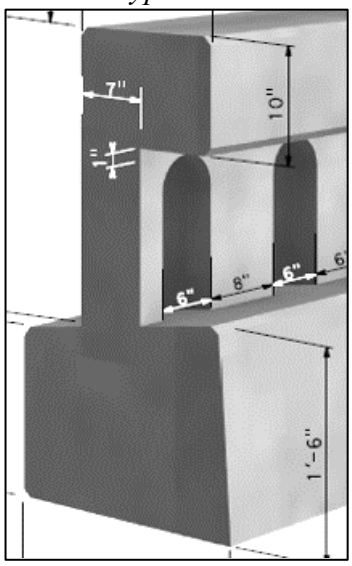
Photos/Renderings of Bridge Rail Designs

(See Appendix D for Complete Drawings and additional Photos)

Original Rails



Type 86H



Type C412



Minimization of Adverse Effect

Although the proposed rail replacement project constitutes an adverse effect because the original rails cannot be replaced in kind, Caltrans has made extensive efforts to minimize the adverse effect to the greatest extent feasible. Caltrans structures design engineers designed a new rail type (Type 86H) specifically to replicate the design of the historic concrete bridge rails as closely as possible while still meeting MASH standards (See Attachment D). In addition, Caltrans also considered concrete rail designs from other states, including the Type C412 rail design from the Texas Department of Transportation, which was also designed to replace historic baluster rails. Although the concrete railings, an original character-defining feature of the bridge, will be replaced, the overall adverse effect on the bridge will be minimal, and the bridge will retain its eligibility for NRHP and CRHR listing. The project will diminish some aspects of the bridge's integrity including its design, workmanship, and feeling; however, the structure's integrity of location, setting, materials, and association will not be diminished. The following discussion addresses each of the seven aspects of integrity individually:

- **In terms of design**, integrity will be diminished as the original dimensions of the bridge railing will be altered by the project. As a result of developing a railing that is compliant with the current MASH standards as defined by AASHTO, the replacement railings will have smaller openings and a larger base and baluster. This change in the physical dimensions of the railing will diminish integrity of design. However, the overall design of the bridge's massive substructure, including the 150-foot arches and 285-foot span over the canyon, will not be affected.
- **In terms of workmanship**, integrity will be diminished as the original concrete rails and end treatments to be removed by the project will be replaced with modern precast elements.
- **In terms of feeling**, integrity will be somewhat diminished as the original more minimal concrete railing evokes a sense of time for drivers, pedestrians, or bicyclists who experience the bridge. The appearance of these original railings is in keeping with other concrete arch bridges constructed in the 1920s and 30s; therefore, the bridge's integrity of feeling will diminish as the rails are replaced with modern ones.
- **In terms of location**, the bridge will retain its integrity as it will remain in its original location;
- **In terms of materials,** the bridge will retain integrity as the replacement concrete rails will employ compatible concrete materials to the original bridge;
- **In terms of setting,** the bridge will retain integrity as the project does not propose to alter the iconic coastal setting, and this project will only result in the direct impact of replacing the original bridge railing;
- **In terms of association**, the bridge will retain integrity as it will continue to function as a highway bridge in this location on Highway 1 along the Big Sur Coast. Additionally, the bridge will retain its historical association with the construction of the highway and will remain a contributing element to the CSSHHD.

Although the railings will be altered, the Garrapata Creek Bridge will remain both individually eligible for the NRHP and a contributing feature of the CSSHHD after completion of the project.

In addition, replacing the original rails with ones that meet current safety standards ensures that the bridge itself remains in use in its original function as a bridge along Highway 1 on the Big Sur Coast. Ensuring that the bridge remains functional for its original historical purpose helps to ensure continuing preservation of the structure and longevity of its use in the future.

5.2 Carmel – San Simeon Highway Historic District

The CSSHHD is a noncontiguous historic district comprised of 241 individual, discrete contributing resources. Because the Garrapata Creek Bridge is both individually eligible for listing in the NRHP and CRHR and is also a contributor to the CSSHHD, the Garrapata Creek Bridge Rail Replacement Project similarly has potential to adversely affect the CSSHHD because it directly alters a contributing element of the historic district. However, as the proposed project will leave the bridge largely as is, and it will still remain both an individually eligible resource and a contributing element of the CSSHHD after the project is completed, Caltrans has determined the overall effect to the CSSHHD is No Adverse Effect. This determination of effect considers that the replacement bridge rail alternatives provide a similar visual appearance to the existing rails, with a comparable shape albeit slightly different dimensions, and also considers that the Garrapata Creek Bridge is one seven (7) concrete arch bridges, which are the most substantial of 241 contributing elements of the 75-mile long CSSHHD. Therefore, the Garrapata Creek Bridge Rail Replacement project will not affect the characteristics of the CSSHHD in a way that would diminish the district's integrity of design, materials, workmanship, location, setting, feeling, or association.

- **In terms of location**, the CSSHHD will retain its integrity as all features will remain in their original location(s);
- **In terms of design**, the CSSHHD will retain its integrity as the design change of the bridge rails for the Garrapata Creek Bridge will have a minimal impact on the significant design features of the 75-mile historic district overall. Namely, it will remain a discontinuous historic district comprised of 234 original handcrafted rubble stone masonry highway features and seven (7) concrete arch bridges which harmonize with their dramatic coastal environment. The significant design features of those elements will not change in a way that would diminish the district's ability to convey the history of the significant engineering and design achievements relating to the highway beautification programs of the 1920s and 30s;
- **In terms of setting,** the CSSHHD will retain integrity as the project does not propose to alter the iconic coastal setting, and this project will only result in the direct impact of replacing the original bridge railing for one (1) of seven (7) bridges and 241 total features;

- **In terms of materials,** the CSSHHD will retain integrity as the replacement concrete rails will employ compatible concrete materials to the original bridge. Additionally, this project will have no material impact on the other 240 features of the CSSHHD;
- **In terms of workmanship**, the CSSHHD will retain its integrity of workmanship as the new work will only impact one (1) feature, the Garrapata Creek Bridge. This new work will have a minimal impact on the ability of the public to understand the 75-mile historic district. The district will remain comprised of 234 original rubble stone features and seven (7) concrete arch bridges, which will overwhelmingly still convey the demonstratable qualities of the original stone masonry craftsmanship and significant early reinforced concrete work of the 1920s & 1930s despite this alteration to one (1) contributing resource;
- **In terms of feeling**, the CSSHHD will retain integrity of feeling as a 75-mile-long rural highway historic district comprised of rustic rubble masonry features and seven (7) iconic concrete arch bridges. As this project impacts only one (1) of seven (7) contributing bridges and 241 total features, it will not impact the ability of the district to convey the feeling of that significant period over its 75-mile stretch. Though the feeling of the individual bridge will be moderately diminished by this project, the replacement railing will be compatible in terms of materials, composition, colors, etc. and therefore will not detract from the historic feeling of the CSSHHD overall.
- **In terms of association**, the CSSHHD will retain integrity as it will retain its historical association with the construction of the original highway and as an example of the Highway Beautification Movement. The Garrapata Creek Bridge will remain a contributing element to the CSSHHD, and both the bridge and the historic district will remain eligible for the NRHP and CRHR after implementation of the project.

Though the project will adversely affect one individually eligible contributing resource, the Garrapata Creek Bridge, the project does not impact the CSSHHD in its entirety in such a way that would impede its ability to convey its significance. Many of the features of this district have been modified over time but remain as contributors to the district, continuing to convey its significant historical themes. Therefore, after the project, the CSSHHD will remain a discontinuous historic district comprising 241 discrete elements (five (5) water fountains, ten (10) retaining walls, 61 parapets, 158 culvert head walls, and seven (7) individually eligible concrete arch bridges). Its ability to convey its significance under Criteria A and C, as a distinctive example of a rural coastal highway built with rustic handcrafted masonry features that harmonize with their dramatic natural environments, will not be diminished by this project. None of the other criteria of adverse effects apply to this project, and the project does not constitute any other examples of adverse potential effects not included in the seven (7) examples found in 36 CRF 800.5.2.

While this FAE addresses potential effects resulting from the Garrapata Creek Bridge Rail Replacement Project, Caltrans is also considering potential cumulative effects that may result from the upcoming rail replacement projects for six of the seven historic concrete arch bridges in the historic district. Previously, on September 1st 2020, Caltrans contacted the SHPO with a Tier I

analysis and notification of upcoming Section 106 documentation and consultation regarding these anticipated projects. Cumulatively, the rail replacement of the six bridges will not affect the characteristics of the CSSHHD in a manner that would diminish the district's overall integrity of design, materials, workmanship, location, setting, feeling, or association. The bridges will retain their status as individually eligible properties and as contributing resources in the district, and the effect to the historic district as a whole will be minimal and would not hinder the CSSHHD's ability to convey its historical significance. Cumulatively, the six bridge rail replacement projects (five of which have not yet been proposed) will not have an adverse effect on the CSSHHD. Potential effects of each project will be assessed individually in separate Findings of Effect for each project as they are proposed in the future.

6 Alternatives Considered But Rejected

Caltrans considered multiple alternatives in an effort to seek out all potential options to avoid or minimize adverse effects to the bridge. To be considered viable, project alternatives must address the project purpose and need: The purpose of the project is to replace the existing concrete baluster bridge rail and approach rail with a rail that meets current traffic safety standards. The bridge is historic as well as visually significant to the traveling public, so project design must address context-sensitive solutions. The following alternatives were considered but rejected because they either could not meet the purpose and need of the project or were determined not to be feasible:

6.1 No Build Alternative

The no build alternative was considered but rejected because it does not meet the purpose and need of the project to replace the existing nonstandard concrete baluster bridge rail and approach rail with a rail that meets current MASH crashworthiness safety standards. The existing rails do not meet MASH standards, and portions of the rails are currently deteriorated and in need of replacement. The rails are experiencing concrete spalling, exposed steel reinforcing bar, and corrosion caused by exposure to salts in the air due to the bridge's location near the ocean. This deterioration may pose a hazard to public health and safety in the future if allowed to continue unaddressed. Therefore, replacement of the existing rails is necessary for safety purposes as well as to preserve the continued function of the Garrapata Creek Bridge, extending its service life.

6.2 Replacement of Rails In Kind Alternative

Caltrans investigated all possible alternatives that would avoid adversely affecting the bridge, including replacing the rails in kind in a manner that would meet the Secretary of the Interior's Standards for the Treatment of Historic Properties. However, the replacement of the rails in kind was rejected because it does not meet the purpose and need of the project to replace the existing bridge rail and approach rail with a rail that meets current traffic safety standards. The dimensions of the existing railings do not meet MASH crashworthiness standards; therefore, replacing them with new rails of the same dimensions would not meet MASH standards.

6.3 Replacement of Rails with Type C411 / Reduction of Speed Limit to 45 mph

Caltrans also considered the possibility of lowering the speed limit in order to replace the rails with the Type C411, a design that is more aesthetically similar to the bridge's original rail design. The Type C411 rail is rated only for speeds up to 45 mph (TL-2 rating). The replacement of the rails with the Type C411 railing was considered but rejected after a speed survey on the Garrapata Creek Bridge was completed and determined that a reduction of the speed limit was not a feasible option. The results from a vehicle speed survey completed in December 2019 demonstrated that the speeds were higher than anticipated; at the 85th percentile speeds were 58 mph. This data informs the Caltrans project development team that the replacement railing must be designed for crashworthiness at the TL-4 rating, which is designed for vehicles travelling greater than 45 mph. As the Type C411 railing would not meet that standard, it does not meet the purpose and need of the project.

6.4 Widening

Additional widening of the bridge, two feet on either side to add additional shoulder width for alternative transportation uses such as biking, was also discussed but after consideration was dismissed as not feasible as part of the scope of this project.

7 Conclusions

This FAE assesses the effect the Garrapata Creek Bridge Rail Replacement Project will have on the two historic properties in the APE: The Garrapata Creek Bridge and the Carmel–San Simeon Highway Historic District (CSSHHD). The Garrapata Creek Bridge Rail Replacement Project proposes to replace the bridge railing and approach railing with new rails that meet current MASH safety standards. After analysis of the potential effects of this undertaking on the Garrapata Creek Bridge and the CSSHHD, Caltrans finds that the project causes an adverse effect on the Garrapata Creek Bridge and does not adversely affect the CSSHHD.

The following summary table presents the conclusions of this FAE:

Historic Property	Effect Finding	Avoidance / Minimize Impact
Garrapata Creek Bridge	**Adverse –** direct effect; the project will alter the original railings of the bridge and introduce new visual elements that will diminish some aspects of the historic integrity of the property.	Develop / adopt a railing type that is as visually compatible with the original bridge railing as possible.
Carmel – San Simeon Highway Historic District	**Not Adverse –** the effect of changing the railing on one of the seven bridges, one of 241 contributing elements to the historic district, is a minimal effect on the district. This project will not diminish the integrity of its overall character as a 75-mile long discontinuous district with hundreds of discrete elements, and does	N/A

	not impede the CSSHHD's ability to convey its historic significance.	

8. Mitigation Measures

In order to take into account the effects of this undertaking on historic properties, the adverse effect to the Garrapata Creek Bridge will be resolved through implementation of mitigation measures, which are outlined in a Memorandum of Agreement (MOA) which Caltrans is submitting concurrently with this Finding of Effect document. Caltrans has engaged with interested parties on appropriate mitigation measures for this project, sending notification letters on the adverse effect determination and proposed mitigation to the Big Sur Historical Society and Monterey County Historic Resources Review Board on December 10th, 2020. Caltrans has considered all consulting party comments in developing the MOA, and proposes the following mitigation measures for the Garrapata Creek Bridge Rail Replacement Project:

- Recordation of the bridge's current condition via the Historic American Engineering Record (HAER) to include written historical and professional photographic documentation;
- Detailed historical analysis documented in individual DPR 523 forms for all seven (7) concrete arch bridges within the Carmel-San Simeon Highway Historic District (CSSHHD) including:
    - Big Creek Bridge (1938) - PM 28.1, Bridge Number 44-0056
    - Bixby Creek Bridge (1932) - PM 59.4, Bridge Number 44-0019
    - Rocky Creek Bridge (1932) - PM 60.0, Bridge Number 44-0036
    - Garrapata Creek Bridge (1931) - PM 63.0, Bridge Number 44-0018
    - Granite Canyon Bridge (1932) - PM 64.3, Bridge Number 44-0012
    - Malpaso Creek Bridge (1935) - PM 67.9, Bridge Number 44-0017
    - Wildcat Creek Bridge (1933) – PM 69.0, Bridge Number 44-0016
- The production of an interpretive website to highlight the history of the seven Big Sur Arches. The website will include historic and modern photographs, historic contexts developed in the individual historic analysis reports, and additional information on the engineering and transportation history of the bridges.
    - The website will be updated along with all other mitigations as future bridge rail replacement projects are proposed for the Big Sur Arches in the future.
    - Additionally, the website will also contain outreach information in the form of lesson plans for elementary school aged students that focuses on historic and/or other Scientific, Technological, Engineering, or Mathematical (STEM) activities based on the Big Sur arch bridges within a historic context.

The MOA is prepared in consultation with the SHPO and interested parties. Mitigation will commence after the MOA is executed and prior to the start of any work on the project.

APPENDIX A

Mapping: Location, Vicinity and APE Maps

Figure 1. Project Vicinity
Figure 2. Project Location Map
Figure 3. APE Map

Figure 1: Project Vicinity

Garrapata Creek Bridge Rail Replacement Project
05-MON-1,-PM 63.00
EA 05-1H800 / EFIS 05-1600-0163

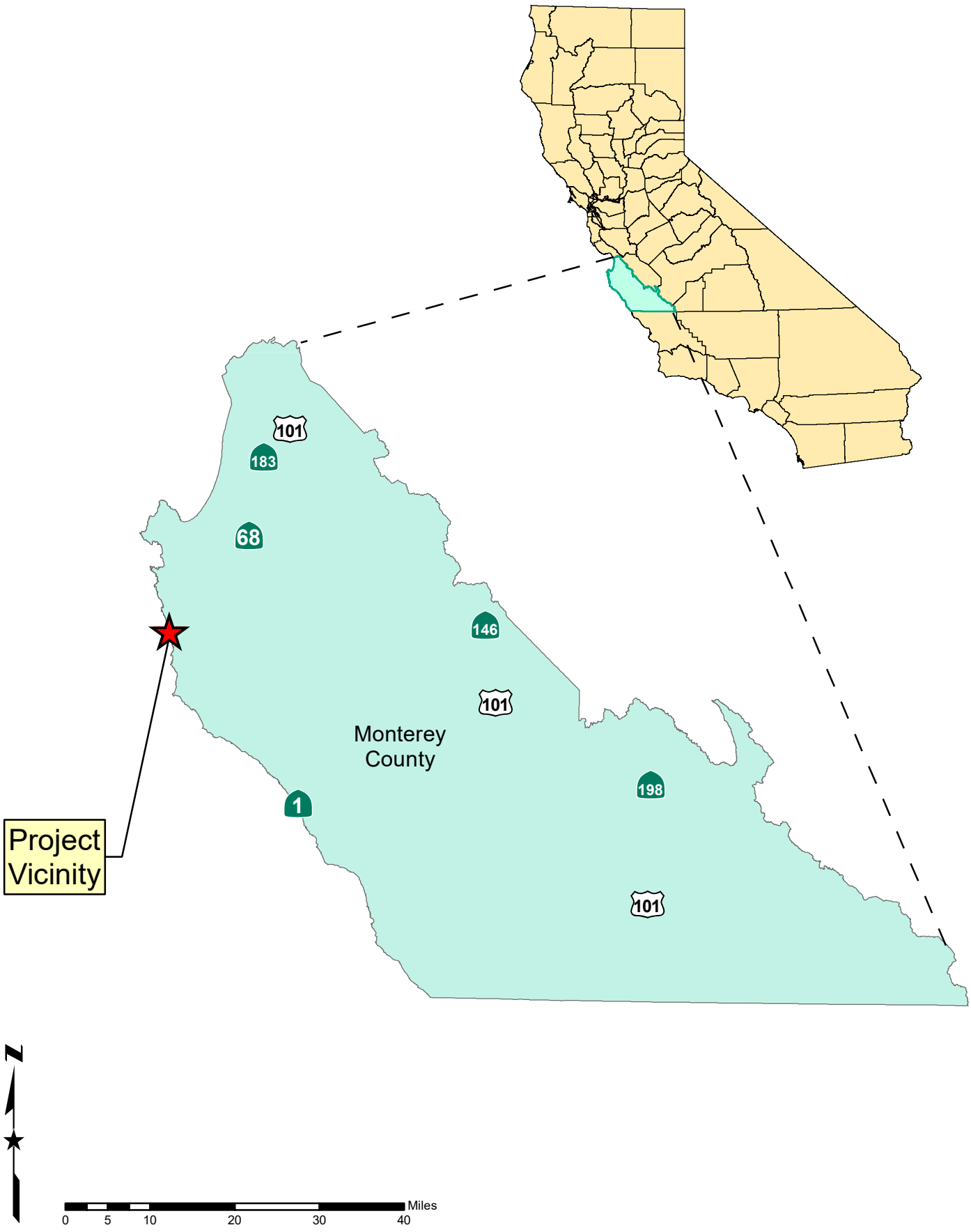



Figure 2: Project Location
Garrapata Creek Bridge Rail Replacement Project
05-MON-1, PM 63.00, Bridge #44-0018
EA 05-1H800 / EFIS 05-1600-0163
Project Location
Garrapata Creek Bridge #44-0018
Soberanes Point
Kasler Point
Rocky Point
Pacific Ocean
Puerta del Diablo
Granite Canyon
Portuguese Creek
Doud
Joshua
Garrapata
Trout Farm
Notleys Landing
Palo Colorado School
BM 129
BM 162
BM 173
BM 161
THE CALIFORNIA SEA OTTER GAME REFUGE
MERIDIAN
MT DIABLO
JEEP TRAIL
Palo Colorado
66
65
64
63
62
61
1
0 0.2 0.4 0.8 1.2 1.6 Miles

Figure 3a: Area of Potential Effects (APE) Map

Garrapata Creek Bridge Rail Replacement Project
05-MON-1, PM 63.00, Bridge #44-0018
EA 05-1H800 / EFIS 05-1600-0163

Recommended for Approval by: _____ _____
District 5 Heritage Resources Coordinator — Date

Approved by: _____ _____
Project Manager — Date

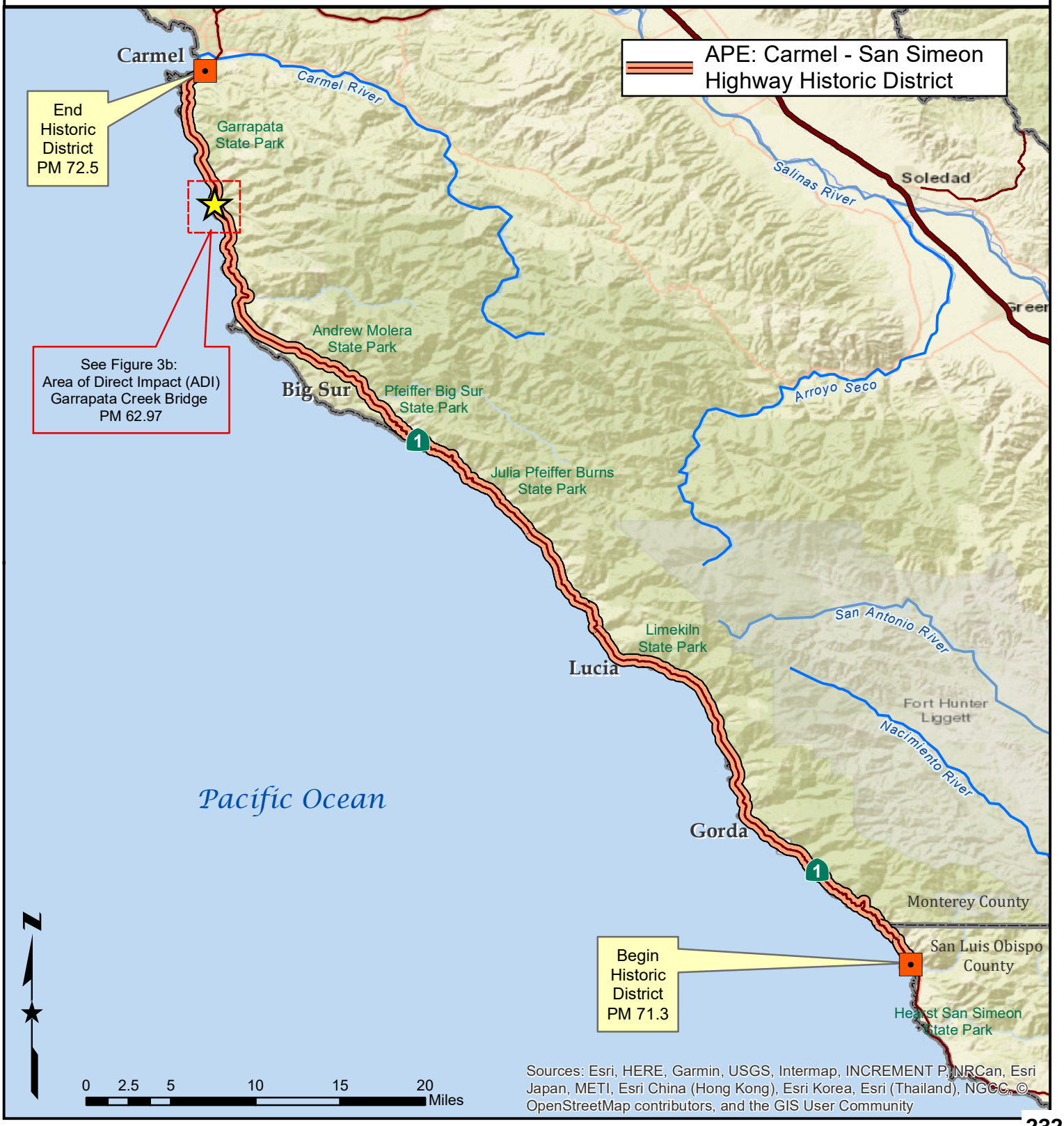



Figure 3b: Area of Direct Impact (ADI)
Garrapata Creek Bridge Rail Replacement Project
05-MON-1, PM 63.00, Bridge #44-0018
EA 05-1H800 / EFIS 05-1600-0163
ADI
63.1
1
Garrapata Creek
63
62.9
N
0 55 110 220 330 440
Feet
0 20 40 80 120 160
Meters
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

APPENDIX B

Correspondence / Public Participation

DEPARTMENT OF TRANSPORTATION
CALTRANS DISTRICT 5
50 HIGUERA STREET
SAN LUIS OBISPO, CA 93401-5415
PHONE (805) 549-3101
FAX (805) 549-3329
TTY 711
http://www.dot.ca.gov/dist05/

Making Conservation a California Way of Life.

August 31st, 2020

Mary Trotter
Big Sur Historical Society
PO Box 176
Big Sur, CA 93920

General Analysis (Tier I) for the
Big Sur Bridge Rail Replacement Project(s)
Monterey County, California
MON-001-PM-28.1-67.9
&
Specific Analysis (Tier II) for the
Garrapata Creek Bridge Rail Replacement Project
Monterey County, California
EA: 05-1H800 / EFIS: 05-1600-0163
MON-001-PM-63.0

Dear Ms. Trotter:

The California Department of Transportation (Caltrans) is currently proposing the pilot project in a series of six (6) separate upcoming undertakings. The Garrapata Creek Bridge (Bridge Number 44-0018) Rail Replacement will be the first project intended to gradually replace all of the concrete baluster bridge rails for six (6) historic open spandrel reinforced concrete arch bridges along State Route 1 (SR-1) in Monterey County. The six historic bridges are located between post miles (PM) 28.1 and 67.9 and include the following structures:

- Garrapata Creek Bridge at PM 63.0 (Bridge Number 44-0018); (the pilot project & currently proposed)
- Big Creek Bridge at PM 28.1 (Bridge Number 44-0056);
- Bixby Creek Bridge at PM 59.4 (Bridge Number 44-0019);
- Rocky Creek Bridge at PM 60.0 (Bridge Number 44-0036);
- Granite Canyon Bridge at PM 64.3 (Bridge Number 44-0012);
- Malpaso Creek Bridge at PM 67.9 (Bridge Number 44-0017);

The original concrete railing on the six historic bridges does not meet the current modern safety standards set by the Manual for Assessing Safety Hardware (MASH) and will be replaced with a new railing designed to meet these standards. The Manual for Assessing Safety Hardware (MASH) is a nationwide standard that was implemented by the Federal Highway Administration (FHWA) and the American Association of State Highway Transportation Officials (AASHTO) in 2009 (updated in 2016). MASH sets the standards for highway safety equipment, including bridge rails, guardrails, and other safety features. Newly adopted MASH standards have mandated that all new installations of roadside safety devices on high-speed roadways, including bridge railing, must meet a new higher standard for crash testing for all projects conducted after December 31st, 2019, without exception.

The purpose of the project(s) will be to replace the existing nonstandard concrete baluster bridge rails and approach rails with new railing that meets current traffic safety standards while also retaining a design that is as close as possible to the original railing design. Caltrans is committed to choosing a new MASH compliant railing style that is context sensitive and will be compatible with the character of the Big Sur region, the historic bridges themselves, and within the Carmel-San Simeon Highway Historic District (CSSHHD). Caltrans structures design engineers are currently developing a new bridge rail that is designed specifically to replicate the design of the historic rails as closely as possible while also meeting the new MASH crashworthiness standards. The new Caltrans rail design

(Type 86H) is currently undergoing crash testing. A second new rail design developed by the Texas Department of Transportation to replicate historic bridge rail designs (Type C412) is also under consideration. (See Attachment 2 for renderings of the new bridge rail designs).

At this early stage Caltrans is performing a tiered evaluation of these projects, with the intention of streamlining the environmental review and evaluating any potential cumulative impacts, growth-inducing impacts, and irreversible significant effects on the environment of subsequent projects. At this time Caltrans is providing a general notification of these six (6) upcoming projects and will provide additional information about each specific project as details are developed for each individual undertaking in Tier II. Caltrans is also providing specific (Tier II) notification for the Garrapata Creek Bridge (No. 44-0018) which is currently proposed to receive replacement bridge rails. Detailed studies for the Garrapata Creek Bridge Rail Replacement Project (EA: 05-1H800) are currently underway. At this time, additional railing replacement projects have not yet been proposed for the other five bridges and may be occurring several years in the future.

Caltrans is interested in learning whether your organization has special interest in, or special knowledge of these or any other resource within the project study area that should be considered during our architectural studies. If you have questions or concerns, please do not hesitate to contact me at Daniel.leckie@dot.ca.gov or at (805) 542-4754. In keeping with project scheduling deadlines, Caltrans is kindly requesting your response regarding the Garrapata Creek Bridge rail replacement project (05-1H800) specifically by October 5th, 2020. This letter also serves as a notification for the five other upcoming bridge rail replacement projects, however Caltrans will provide additional notification during bridge specific (tier II) studies for all other individual bridge rail replacement projects as those undertakings are developed in the future.

Thank you for your participation.

Sincerely,

Daniel T. Leckie
Associate Environmental Planner (Architectural History)

Enc: Map of project study area
Photos/drawings of original and new bridge rail designs

cc:

Carmel Heritage Society
PO BOX 701
Carmel, CA 93921

Kitty Henderson
Executive Director
Historic Bridge Foundation
P.O. Box 66245
Austin, Texas 78766

James Perry
Curator & Archivist
Monterey County Historical Society
P.O. Box 3576
Salinas, CA 93912

Craig Spencer
Monterey County
Historic Resources Review Board
1441 Schilling Place
Salinas, CA 93901

Dear Mr. Leckie, September 27, 2020

Thank you for the opportunity to comment on the Bridge Rail Replacement for Garrapata Creek Bridge, and once again thank you for the reminder of the deadline. I think this is particularly important as I imagine decisions made on this bridge will carry over to the other four bridges. I acknowledge that the rails have begun to deteriorate and I have been unhappy with the repairs made to date. There has been no effort to match the color of the concrete with the original and these repairs stand out like a sore thumb.

These bridges have been declared eligible for historic designation not principally for their age but also for their grace and beauty and the continuity of design along the highway corridor. The design elements carry over to the other features of the highway such as culvert headings and the parapet walls. The remaining fountains also fit into this same style.

I regret that the safety standards keep changing as I know that each new design goes through extensive and expensive testing, making it difficult to go with anything other than a standard design developed to be generic and fit anywhere. Highway 1 through the Big Sur corridor deserves better, both for its eligibility for historic designation and the Byway status it was awarded. More than fifty years ago Lady Bird Johnson stood beside Bixby Bridge to dedicate Highway 1 the first national scenic highway. The drive from Carmel to San Luis Obispo is a destination in itself, and although I make this drive many times a month to the north and several times a year to the south it never tires.

The design for the new rails feels to me like placing Romanesque elements on a Gothic cathedral. The archways are heavy, bulky and overwhelmingly solid and actually not archways but rectangular spaces. They emphasize the structure rather than the openings between. There is nothing light and graceful about them. The proposed openings are 5 ¾ inches, just over half the original openings of 10 inches. According to the drawings the solid posts are 7 ¼ inches opposed to the 6 inch originals, but they look much larger in the photo simulations. And although it notes above one of the drawings that the rectangular openings can be made arches, as they have drawn them the openings are made not more graceful but more solid leaving even less of an opening. I would still prefer the arch. The drawings make it appear that the openings are not plain but have some kind of framing. This element was not clear to me

I am unaware that the historic railings have posed any actual safety hazard to the traveling public. I don't believe that any automobile has actually crashed through the rails although they may have been sideswiped. And the bridges are already out of federal compliance due to their width.

The Coast Highway Management Plan was a years long endeavor intended to bring together the many state and federal agencies having some sort of regulatory oversight of Highway 1. Cal

Trans was the first of these agencies to come to the table and involve the community in the decision-making process. It should be possible for state and federal to reach a compromise about changes to historic structures. Has a Section 106 review been done?

My best hope would be that the railings could be replaced with the exact same design, perhaps beefed up on the interior with more or larger diameter rebar. Another important design element is the color. It is believed that the unique color of the bridge structures comes from the fact that local sand was used to mix the concrete for each bridge. I don't know how accurate this story is, but nonetheless the color is a very pleasing element of the design. I am not suggesting that you use local sand, but I do know that concrete can be colored and it should be possible to match the original.

I believe the historic eligibility designation should have some real meaning and strength to oppose these changes. I can foresee that as future repairs or replacements are needed, and new regulations are adopted, little by little we end up protecting something that has no relationship to the original.

Sincerely,

Mary Trotter
Big Sur Historical Society
PO Box 132, Big Sur, CA 93920
quailmeadows@gmail.com

Leckie, Daniel@DOT

From: Leckie, Daniel@DOT
Sent: Monday, September 21, 2020 10:40 AM
To: Mary Trotter
Cc: Jaci Pappas; info@bigsurhistory.org
Subject: FW: Big Sur Bridge Rail Replacement (Garrapata Creek Bridge Pilot Project - EA: 05-1H800)
Attachments: 1H800_toBigSurHS_Signed.pdf; Attachment 1 - Mapping.pdf; Attachment 3 - Images.pdf

Ms. Trotter,

I just wanted to briefly reach out with a reminder about the Garrapata Creek Bridge (Bridge Number 44-0018) Rail Replacement project (EA: 05-1H800) for which we reached out to you and several other historical organizations via Email and Postal Mail on August 31st, 2020. Caltrans has requested comments from your organization on this upcoming project (which is described in the email below as well as the attached documentation) and is hoping to gather all comments from potentially interested parties and organizations with special knowledge of the area, including the Big Sur Historical Society, by Monday October 5th, 2020.

Thank you for your time and we look forward to hearing your valued feedback.

Sincerely,

Daniel T. Leckie
Associate Environmental Planner &
PQS Principal Architectural Historian
California Department of Transportation | District 5
50 Higuera Street | San Luis Obispo| California |93405
Office Phone : (805) 542-4754

From: Leckie, Daniel@DOT
Sent: Monday, August 31, 2020 4:06 PM
To: Mary Trotter <quailmeadows@gmail.com>
Cc: Jaci Pappas <jaci@redshift.com>; info@bigsurhistory.org
Subject: Big Sur Bridge Rail Replacement (Garrapata Creek Bridge Pilot Project - EA: 05-1H800)

Dear Ms. Trotter,

The California Department of Transportation (Caltrans) is currently proposing the pilot project in a series of six (6) separate upcoming undertakings. The Garrapata Creek Bridge (Bridge Number 44-0018) Rail Replacement will be the first project intended to gradually replace all the concrete baluster bridge rails for six (6) historic open spandrel reinforced concrete arch bridges along State Route 1 (SR-1) in Monterey County. The purpose of the project(s) will be to replace the existing nonstandard concrete baluster bridge rails and approach rails with new railing that meets current traffic safety standards while also retaining a design that is as close as possible to the original railing design. Please see the letter and documents attached to this email for more info. These documents have also been forwarded to the following postal address:

Mary Trotter
Big Sur Historical Society
PO Box 176
Big Sur, CA 93920

At this early stage Caltrans is performing a tiered evaluation of these projects, with the intention of streamlining the environmental review and evaluating any potential cumulative impacts, growth-inducing impacts, and irreversible significant effects on the environment of subsequent projects. At this time Caltrans is providing a general notification of these six (6) upcoming projects and will provide additional information about each specific project as details are developed for each individual undertaking in Tier II. Caltrans is also providing specific (Tier II) notification for the Garrapata Creek Bridge (No. 44-0018) which is currently proposed to receive replacement bridge rails and detailed studies for the Garrapata Bridge Rail Replacement Project (EA: 1H800) are currently underway.

In keeping with project scheduling deadlines, Caltrans is kindly requesting your response regarding the Garrapata Creek Bridge rail replacement project (05-1H800) specifically by **October 5th, 2020.** Caltrans will provide additional notification during bridge specific (tier II) studies for all other individual bridge rail replacement projects as those undertakings are developed in the future.

Please feel free to reach by the email address or phone number in my signature line below with any questions or comments about this upcoming project. Thank you for your valued participation.

Sincerely,

Daniel T. Leckie
Associate Environmental Planner
Principal Architectural Historian
Caltrans District 5
50 Higuera Street
San Luis Obispo CA 93401
P: (805) 542-4754.
E: Daniel.Leckie@dot.ca.gov

Leckie, Daniel@DOT

From: Leckie, Daniel@DOT
Sent: Monday, September 28, 2020 12:26 PM
To: Mary Trotter
Cc: Spencer, Craig x5233; info@bigsurhistory.org; Jaci Pappas; James Perry
Subject: RE: Big Sur Bridge Rail Replacement (Garrapata Creek Bridge Pilot Project - EA: 05-1H800)
Attachments: comment bridge railings.docx; c412 sim.jpg; c412 with arch front.jpg; c412 with arch sim.jpg; c412 front.jpg; Type 86 front.jpg; Type 86 sim.jpg

Ms. Trotter,

Thank you for your thoughtful response to our request for comment on the Garrapata Creek Bridge Rail Replacement Project (05-1h800) as well as the other bridge rail replacement projects along the SR-1 in Monterey County to come at a later date. The participation of local organizations such as your own is critical to both choosing our final alternative for this project as well as informing the a design that will meet the projects purpose and need of upgrading these railings to modern standards while choosing a design that is amenable to the local community and takes in the context sensitivity of this historic location into account. I wanted to address a few of your concerns directly as well as attach some newer renderings that our structures design team have put together based on some of the comments from my team (The District 5 Cultural Resources Branch) which actually essentially mirrored yours. Since or initial message to you in late August the renderings have been upgraded to remove the bicycle railings, get a clearer view of the arched opening design on the c412 rails, and they no attempt to more closely match the distinctive sandy-beige color of the original bridges.

Moving forward I will attempt to address a few comments from the attached document you provide below. However please feel free to reach out via email or call me directly at **(805) 542-4754** if you'd like to speak on any of this further.

1) ***Comment:*** *"I regret that the safety standards keep changing as I know that each new design goes through extensive and expensive testing, making it difficult to go with anything other than a standard design developed to be generic and fit anywhere."*
    - **Response:** The initial comment is true, as the standards change it certainly does make Caltrans options more limited for replacement options. That said, one area I think we could improve in is telling the story of the amount of work we have done to develop a context sensitive design that also meets current MASH crashworthiness standards. Due to the sensitive and historic nature of the highway, there has been extensive work in both approving the c412 type railing developed by the Texas DOT as well as Type 86 rail which is currently being designed by Caltrans specifically for use on this important project. Additionally, Caltrans looked into other options including lowering the speed limits to approve a railing more similar to that which currently exists. However, after speed surveys were done it was determined because of the high rate of speed at this location lowering speed limits would be infeasible. Though the new standards limit our ability to develop an in kind example as it requires specific dimesons and limits the size of openings, I would like to impart that Caltrans has gone through an extensive process to choose an option that is compatible with historic highway 1 and hopefully is not just a standard / generic design.
2) ***Comment:*** *"It should be possible for state and federal to reach a compromise about changes to historic structures."*
    - **Response:** As a private citizen with a demonstrated interest in Historic Preservation my personal opinion would tend to agree with you: The State and the Federal government *should*

be able to reach individual compromises about changes to historic structures. Unfortunately that is not the situation we find ourselves in as an agency, and this is not just a situation Caltrans finds itself in but it is true for the other 49 State DOTs throughout the country as well. According to feedback from the Federal Highway Administration (FHWA) with buyoff from the Advisory Council for Historic Preservation (ACHP) all federally funded projects must meet these new standards and there are no exceptions to this rule. Sadly, in some cases there is no way to avoid an adverse effect to a historic structure, and all that can be done is to make efforts to minimize such an adverse effect. It is now our job to develop a design that as closely mimics the original while meeting these rigorous crash testing standards set by the federal government.

3) ***Comment:*** *"Has a Section 106 review been done?"*
   - **Response:** We are currently in Section 106 review for this project. The SHPO has been notified of the upcoming projects to replace the railings on the six bridges (this happened concurrently with our initial letter to your organization) and the next steps will be to initiate project specific consultation as each project is proposed. We are currently drafting a Finding of Effect Document (FOE) for the Garrapata Creek Project specifically as the pilot project, but that is the only project actively proposed at this time. We are looking to submit the consultation, including a finding of Adverse Effect to the SHPO sometime later this year. Your comments on the project (in addition to the comments of the 4 other identified consulting parties (The Carmel Heritage Soceity, The Monterey County Historical Soceity, The Monterey County Historic Resources Review Board, and the Historic Bridge Foundation) will be included with our submission to the SHPO and taken into account through that process.

4) ***Comment****: My best hope would be that the railings could be replaced with the exact same design, perhaps beefed up on the interior with more or larger diameter rebar.*
   - **Response:** unfortunately as outlined in the response to #2 above this is not a feasible option due to the universality of these newly implemented FHWA standards which require specific dimensions, and limit the dimensions of openings. Additionally, because the width of the historic bridge is already quite narrow by modern standards, there is simply no room on the roadway to add elements to the interior of the bridges.

5) ***Comment:*** *"It is believed that the unique color of the bridge structures comes from the fact that local sand was used to mix the concrete for each bridge. I don't know how accurate this story is, but nonetheless the color is a very pleasing element of the design. I am not suggesting that you use local sand, but I do know that concrete can be colored and it should be possible to match the original."*
   - **Response:** I noticed this myself on the prior renderings, that the color was a just a dark gray and did not make an attempt to replicate the distinct color of the existing Garrapata Creek Bridge. Certainly an oversight in the early drafts for these images, but our design team has updated those renderings for us based on a suggested color palate I gave them and they I have attached these new renderings to this email. That said, these digital renderings still don't match the color perfectly and are by no means the final designed feature. This will continue to be worked out as time goes on and we are still quite early on in this process. These images are really just intended to evoke an idea of how the replacement railings might appear, but are limited in terms of detail / texturing etc. Though those preliminary images did not address this, I am confident given the amount of time and attention our design teams have put into this project to try and develop a unique new railing for this unique setting, that they will similarly make sure the color matches the existing structure as closely as possible.

That is all I have for now but as I said please feel free to reply to this email or call me with any additional questions or concerns about the project. I thank you for your time and attention to this matter, and the great work you and your organization do to preserve the heritage of the beautiful Big Sur Coast.

Best regards,

Daniel T. Leckie
Associate Environmental Planner &
PQS Principal Architectural Historian
California Department of Transportation | District 5
50 Higuera Street | San Luis Obispo| California |93405
Office Phone : (805) 542-4754

From: Mary Trotter <quailmeadows@gmail.com>
Sent: Monday, September 28, 2020 10:43 AM
To: Leckie, Daniel@DOT <Daniel.Leckie@dot.ca.gov>
Cc: Spencer, Craig x5233 <SpencerC@co.monterey.ca.us>; info@bigsurhistory.org; Jaci Pappas <jacipappas@gmail.com>; James Perry <mchs@redshift.com>
Subject: Big Sur Bridge Rail Replacement (Garrapata Creek Bridge Pilot Project - EA: 05-1H800)

EXTERNAL EMAIL. Links/attachments may not be safe.

Mary Trotter
831 667 2521
quailmeadows@gmail.com

DEPARTMENT OF TRANSPORTATION
CALTRANS DISTRICT 5
50 HIGUERA STREET
SAN LUIS OBISPO, CA 93401-5415
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FAX (805) 549-3329
TTY 711
http://www.dot.ca.gov/dist05/

Making Conservation a California Way of Life.

December 10th, 2020

Mary Trotter
Big Sur Historical Society
PO Box 176
Big Sur, CA 93920

Notice of Adverse Effect and Mitigation Proposal
Garrapata Creek Bridge Rail Replacement Project
Monterey County, California
EA: 05-1H800 / EFIS: 05-1600-0163
MON-001-PM-63.0

Dear Ms. Trotter:

As per the previous letter from our office dated August 31st 2020, The California Department of Transportation (Caltrans) is currently proposing to replace the original railing on the Garrapata Creek Bridge (Bridge Number 44-0018) in Monterey County, on State Route 1 (SR-1) north of Big Sur. The Garrapata Creek Bridge Rail Replacement Project (EA: 05-1H800) will be the first project intended to gradually replace all of the concrete baluster bridge rails for six (6) historic open-spandrel reinforced-concrete arch bridges along SR-1 in Monterey County. As the dimensions of the original bridge rails are not compliant with modern standards in the Manuel for Assessing Safety Hardware (MASH) set by the American Association of State Highway and Transportation Officials (AASHTO), it has been determined the bridge railing cannot be replaced in kind, and will require a new railing with different dimensions. Specifically, the new railing will include a larger base and baluster and smaller arched openigs, in order to meet the current safety standards. Despite the required changes, Caltrans is committed to choosing a railing type that is as compatible with the historic bridge design and scenic corridor as possible.

The Garrapata Creek Bridge is a historic property that is eligible for the National Register of Historic Places (NRHP) and the California Register of Historical Resources (CRHR) under NRHP/CRHR significance criterion A/1 in the area of transportation and criterion C/3 as a distinctive example of an open spandrel reinforced concrete arch bridge in California. Furthermore, the bridge is also a contributing element to the Carmel San-Simeon Highway Historic District (CSSHHD), a historic property consisting of over 200 individual elements, such as rubble stone masonry headwalls, retaining walls, parapet walls, drinking fountains as well as seven (7) reinforced concrete arch bridges known collectively as the "Big Sur Arches". The reinforced concrete railings, with their arched window design and smooth texture finish, are a noted character defining feature of the historic Garrapata Creek Bridge. Because the original bridge rails cannot be repaired or replaced in kind, Caltrans has determined this project will have an Adverse Effect to the Garrapata Creek Bridge.

In order to consider, the effects of this undertaking on historic properties, the adverse effect to the Garrapata Creek Bridge will be resolved through implementation of mitigation measures. These mitigation measures are to be outlined in a Memorandum of Agreement (MOA) which will be executed with the State Historic Preservation Office (SHPO) sometime in early 2021. Caltrans is currently considering proposing the mitigation measures for the Garrapata Creek Bridge Rail Replacement Project to include:

(1) Recordation of the bridge's current condition via the Historic American Engineering Record (HAER) to include written and photographic documentation;

(2) Production of Individual DPR 523 inventory forms for all seven (7) concrete arch bridges within the Carmel Simeon Highway Historic District (CSSHHD). All seven (7) Big Sur Arches were determined to be eligible

for the NRHP/CRHR as part of the Caltrans Statewide Historic Bridge Inventory without a detailed Historic Resources Evaluation Report for the individual resources. The current best information on the bridges is recorded on the CSSHHD district wide DPR 523 Inventory Form, for which the bridges are contributing elements. In order to better understand the unique history of each of the seven (7) Big Sur Arches, Caltrans is proposing to do individual analysis of all seven (7) structures. This measure is specifically in response to a request by the Monterey County Historic Resources Review Board in their October 29th, 2020 letter for a "detailed historic analysis and report for each bridge prepared by a qualified historian". The bridges to be individually researched, analyzed, and reported on will specifically include:

- Big Creek Bridge (1938) - PM 28.1, Bridge Number 44-0056
- Bixby Creek Bridge (1932) - PM 59.4, Bridge Number 44-0019
- Rocky Creek Bridge (1932) - PM 60.0, Bridge Number 44-0036
- Garrapata Creek Bridge (1931) - PM 63.0, Bridge Number 44-0018
- Granite Canyon Bridge (1932) - PM 64.3, Bridge Number 44-0012
- Malpaso Creek Bridge (1935) - PM 67.9, Bridge Number 44-0017
- Wildcat Creek Bridge (1933) – PM 69.0, Bridge Number 44-0016
  - *Note: The Wildcat Bridge, a closed spandrel concrete arch bridge, is not part of the Bridge Rail Replacement program at this time. Though it will not be impacted by an upcoming bridge rail replacement project, it is included because it is also a contributor to the CSSHHD and thematically similar to the other Big Sur Arches, with a slightly different design.*

(3) The production of an interpretive website to highlight the history of the Seven Big Sur Arches. The website will include historic and modern photographs, historic contexts developed in the individual historic analysis reports, and additional information on the engineering and transportation history of the bridges.

a. The website will be continually updated along with all other mitigations as future bridge rail replacement projects are proposed overtime.
b. Additionally, the website will also contain at least a page with outreach information in the form of lesson plans for elementary school aged students that focuses on historic and/or other Scientific, Technological, Engineering, or Mathematical (STEM) activities within a historic context.

At this stage, Caltrans is interested in receiving feedback from all consulting parties regarding the proposed mitigation measures. Caltrans kindly asks all comments on proposed mitigation are submitted by Wednesday December 30th, 2020 for consideration in the final draft Memorandum of Agreement (MOA) with the SHPO.

Thank you for your participation.

Sincerely,

Daniel T. Leckie
Associate Environmental Planner (Architectural History)

cc: Craig Spencer
Monterey County
Historic Resources Review Board
1441 Schilling Place
Salinas, CA 93901

DEPARTMENT OF TRANSPORTATION
CALTRANS DISTRICT 5
50 HIGUERA STREET
SAN LUIS OBISPO, CA 93401-5415
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TTY 711
http://www.dot.ca.gov/dist05/

Making Conservation a California Way of Life.

August 31st, 2020

Carmel Heritage Society
PO BOX 701
Carmel, CA 93921

General Analysis (Tier I) for the
Big Sur Bridge Rail Replacement Project(s)
Monterey County, California
MON-001-PM-28.1-67.9
&
Specific Analysis (Tier II) for the
Garrapata Creek Bridge Rail Replacement Project
Monterey County, California
EA: 05-1H800 / EFIS: 05-1600-0163
MON-001-PM-63.0

Dear Carmel Heritage Society:

The California Department of Transportation (Caltrans) is currently proposing the pilot project in a series of six (6) separate upcoming undertakings. The Garrapata Creek Bridge (Bridge Number 44-0018) Rail Replacement will be the first project intended to gradually replace all of the concrete baluster bridge rails for six (6) historic open spandrel reinforced concrete arch bridges along State Route 1 (SR-1) in Monterey County. The six historic bridges are located between post miles (PM) 28.1 and 67.9 and include the following structures:

- Garrapata Creek Bridge at PM 63.0 (Bridge Number 44-0018); (the pilot project & currently proposed)
- Big Creek Bridge at PM 28.1 (Bridge Number 44-0056);
- Bixby Creek Bridge at PM 59.4 (Bridge Number 44-0019);
- Rocky Creek Bridge at PM 60.0 (Bridge Number 44-0036);
- Granite Canyon Bridge at PM 64.3 (Bridge Number 44-0012);
- Malpaso Creek Bridge at PM 67.9 (Bridge Number 44-0017);

The original concrete railing on the six historic bridges does not meet the current modern safety standards set by the Manual for Assessing Safety Hardware (MASH) and will be replaced with a new railing designed to meet these standards. The Manual for Assessing Safety Hardware (MASH) is a nationwide standard that was implemented by the Federal Highway Administration (FHWA) and the American Association of State Highway Transportation Officials (AASHTO) in 2009 (updated in 2016). MASH sets the standards for highway safety equipment, including bridge rails, guardrails, and other safety features. Newly adopted MASH standards have mandated that all new installations of roadside safety devices on high-speed roadways, including bridge railing, must meet a new higher standard for crash testing for all projects conducted after December 31st, 2019, without exception.

The purpose of the project(s) will be to replace the existing nonstandard concrete baluster bridge rails and approach rails with new railing that meets current traffic safety standards while also retaining a design that is as close as possible to the original railing design. Caltrans is committed to choosing a new MASH compliant railing style that is context sensitive and will be compatible with the character of the Big Sur region, the historic bridges themselves, and within the Carmel-San Simeon Highway Historic District (CSSHHD). Caltrans structures design engineers are currently developing a new bridge rail that is designed specifically to replicate the design of the historic rails as closely as possible while also meeting the new MASH crashworthiness standards. The new Caltrans rail design

(Type 86H) is currently undergoing crash testing. A second new rail design developed by the Texas Department of Transportation to replicate historic bridge rail designs (Type C412) is also under consideration. (See Attachment 2 for renderings of the new bridge rail designs).

At this early stage Caltrans is performing a tiered evaluation of these projects, with the intention of streamlining the environmental review and evaluating any potential cumulative impacts, growth-inducing impacts, and irreversible significant effects on the environment of subsequent projects. At this time Caltrans is providing a general notification of these six (6) upcoming projects and will provide additional information about each specific project as details are developed for each individual undertaking in Tier II. Caltrans is also providing specific (Tier II) notification for the Garrapata Creek Bridge (No. 44-0018) which is currently proposed to receive replacement bridge rails. Detailed studies for the Garrapata Creek Bridge Rail Replacement Project (EA: 05-1H800) are currently underway. At this time, additional railing replacement projects have not yet been proposed for the other five bridges and may be occurring several years in the future.

Caltrans is interested in learning whether your organization has special interest in, or special knowledge of these or any other resource within the project study area that should be considered during our architectural studies. If you have questions or concerns, please do not hesitate to contact me at Daniel.leckie@dot.ca.gov or at (805) 542-4754. In keeping with project scheduling deadlines, Caltrans is kindly requesting your response regarding the Garrapata Creek Bridge rail replacement project (05-1H800) specifically by October 5th, 2020. This letter also serves as a notification for the five other upcoming bridge rail replacement projects, however Caltrans will provide additional notification during bridge specific (tier II) studies for all other individual bridge rail replacement projects as those undertakings are developed in the future.

Thank you for your participation.

Sincerely,

Daniel T. Leckie
Associate Environmental Planner (Architectural History)

Enc: Map of project study area
Photos/drawings of original and new bridge rail designs

cc:

Mary Trotter
Big Sur Historical Society
PO Box 176
Big Sur, CA 93920

Kitty Henderson
Executive Director
Historic Bridge Foundation
P.O. Box 66245
Austin, Texas 78766

James Perry
Curator & Archivist
Monterey County Historical Society
P.O. Box 3576
Salinas, CA 93912

Craig Spencer
Monterey County
Historic Resources Review Board
1441 Schilling Place
Salinas, CA 93901

***<u>NOTE: PAGE LEFT INTENTIONALLY BLANK</u>**

NO COMMENT WAS RECEIVED BY
THE CARMEL HERITAGE SOCIETY

DEPARTMENT OF TRANSPORTATION
CALTRANS DISTRICT 5
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http://www.dot.ca.gov/dist05/

Making Conservation a California Way of Life.

August 31st, 2020

Kitty Henderson
Executive Director
Historic Bridge Foundation
P.O. Box 66245
Austin, Texas 78766

General Analysis (Tier I) for the
Big Sur Bridge Rail Replacement Project(s)
Monterey County, California
MON-001-PM-28.1-67.9
&
Specific Analysis (Tier II) for the
Garrapata Creek Bridge Rail Replacement Project
Monterey County, California
EA: 05-1H800 / EFIS: 05-1600-0163
MON-001-PM-63.0

Dear Ms. Henderson:

The California Department of Transportation (Caltrans) is currently proposing the pilot project in a series of six (6) separate upcoming undertakings. The Garrapata Creek Bridge (Bridge Number 44-0018) Rail Replacement will be the first project intended to gradually replace all of the concrete baluster bridge rails for six (6) historic open spandrel reinforced concrete arch bridges along State Route 1 (SR-1) in Monterey County. The six historic bridges are located between post miles (PM) 28.1 and 67.9 and include the following structures:

- Garrapata Creek Bridge at PM 63.0 (Bridge Number 44-0018); (the pilot project & currently proposed)
- Big Creek Bridge at PM 28.1 (Bridge Number 44-0056);
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- Granite Canyon Bridge at PM 64.3 (Bridge Number 44-0012);
- Malpaso Creek Bridge at PM 67.9 (Bridge Number 44-0017);

The original concrete railing on the six historic bridges does not meet the current modern safety standards set by the Manual for Assessing Safety Hardware (MASH) and will be replaced with a new railing designed to meet these standards. The Manual for Assessing Safety Hardware (MASH) is a nationwide standard that was implemented by the Federal Highway Administration (FHWA) and the American Association of State Highway Transportation Officials (AASHTO) in 2009 (updated in 2016). MASH sets the standards for highway safety equipment, including bridge rails, guardrails, and other safety features. Newly adopted MASH standards have mandated that all new installations of roadside safety devices on high-speed roadways, including bridge railing, must meet a new higher standard for crash testing for all projects conducted after December 31st, 2019, without exception.

The purpose of the project(s) will be to replace the existing nonstandard concrete baluster bridge rails and approach rails with new railing that meets current traffic safety standards while also retaining a design that is as close as possible to the original railing design. Caltrans is committed to choosing a new MASH compliant railing style that is context sensitive and will be compatible with the character of the Big Sur region, the historic bridges themselves, and within the Carmel-San Simeon Highway Historic District (CSSHHD). Caltrans structures design engineers are currently developing a new bridge rail that is designed specifically to replicate the design of the historic rails as closely as possible while also meeting the new MASH crashworthiness standards. The new Caltrans rail design

(Type 86H) is currently undergoing crash testing. A second new rail design developed by the Texas Department of Transportation to replicate historic bridge rail designs (Type C412) is also under consideration. (See Attachment 2 for renderings of the new bridge rail designs).

At this early stage Caltrans is performing a tiered evaluation of these projects, with the intention of streamlining the environmental review and evaluating any potential cumulative impacts, growth-inducing impacts, and irreversible significant effects on the environment of subsequent projects. At this time Caltrans is providing a general notification of these six (6) upcoming projects and will provide additional information about each specific project as details are developed for each individual undertaking in Tier II. Caltrans is also providing specific (Tier II) notification for the Garrapata Creek Bridge (No. 44-0018) which is currently proposed to receive replacement bridge rails. Detailed studies for the Garrapata Creek Bridge Rail Replacement Project (EA: 05-1H800) are currently underway. At this time, additional railing replacement projects have not yet been proposed for the other five bridges and may be occurring several years in the future.

Caltrans is interested in learning whether your organization has special interest in, or special knowledge of these or any other resource within the project study area that should be considered during our architectural studies. If you have questions or concerns, please do not hesitate to contact me at Daniel.leckie@dot.ca.gov or at (805) 542-4754. In keeping with project scheduling deadlines, Caltrans is kindly requesting your response regarding the Garrapata Creek Bridge rail replacement project (05-1H800) specifically by October 5th, 2020. This letter also serves as a notification for the five other upcoming bridge rail replacement projects, however Caltrans will provide additional notification during bridge specific (tier II) studies for all other individual bridge rail replacement projects as those undertakings are developed in the future.

Thank you for your participation.

Sincerely,

Daniel T. Leckie
Associate Environmental Planner (Architectural History)

Enc: Map of project study area
Photos/drawings of original and new bridge rail designs

cc:

Mary Trotter
Big Sur Historical Society
PO Box 176
Big Sur, CA 93920

Carmel Heritage Society
PO BOX 701
Carmel, CA 93921

James Perry
Curator & Archivist
Monterey County Historical Society
P.O. Box 3576
Salinas, CA 93912

Craig Spencer
Monterey County
Historic Resources Review Board
1441 Schilling Place
Salinas, CA 93901

Leckie, Daniel@DOT

From: Kitty Henderson <kitty@historicbridgefoundation.com>
Sent: Friday, October 9, 2020 9:03 AM
To: Leckie, Daniel@DOT
Subject: Re: Big Sur Bridge Rail Replacement (Garrapata Creek Bridge Pilot Project - EA: 05-1H800)

EXTERNAL EMAIL. Links/attachments may not be safe.

Daniel [redacted] I am out of the office for the next few weeks. I will not be able to respond to the project(s) at this time.

Kitty Henderson
Executive Director
Historic Bridge Foundation
1500 Payne Ave
Austin, Texas 78757
512 407 8898

> On Sep 21, 2020, at 5:04 PM, Leckie, Daniel@DOT <Daniel.Leckie@dot.ca.gov> wrote:
>
> Kitty (1 of 3),
>
> It was a pleasure to speak to you on the phone earlier. Thank you for your comments and pointed questions regarding the Garrapata Creek Bridge Rail Replacement project. I hope we can get to a place moving forward where you and the foundation feel you are contributing valuably and meaningfully as consulting parties in the Section 106 process as well as part of our overall compliance planning process for this project.
>
> Attached is the first of three documents I will be sending your way this afternoon. These are the photos and renderings of the Garrapata Creek Bridge and Bridge railing which also includes some images of the other six Concrete Arch Bridges Caltrans has stewardship of along the Carmel San Simeon Highway Historic Distrct (CSSHHD) (aka Historic Highway 1). These are the images I initially intended to send your way with the prior two email messages, but it seems they dropped off. Hopefully these images will help better demonstrate the upcoming project. There are currently two railing types being considered, one Caltrans designed (Type 86) and the other from the Texas DOT (Type C412). Just a note a few of the renderings demonstrate a bicycle railing atop the concrete, but that feature is no longer under consideration. I also have a few updated renderings which better show the arched openings, I will send that next, and then I will send the DPR inventory form for the entire CSSHHD which includes information about the 6 bridges as they are contributing features to the historic district.
>
> Please let me know if you don't receive any of these three items as we want you to have all the information you would need to make an informed comment on this project.
>
> Thank you,
>
> Daniel T. Leckie

Leckie, Daniel@DOT

From: Leckie, Daniel@DOT
Sent: Monday, September 21, 2020 3:10 PM
To: Kitty Henderson
Subject: Garrapata Renderings
Attachments: Type 86 sim.jpg; c412 sim.jpg; c412 with arch sim.jpg; Type 86 front.jpg; c412 front.jpg; c412 with arch front.jpg

Kitty (2 of 3),

Attached there should be 6 images of renderings that have been updated since the initial letters were sent out to the consulting parties. Note the bicycle railing has been eliminated, these better demonstrate the arched openings on the c412 railings, and the color has been corrected to better match the color of bridges and current railing.

I will now follow up with the inventory for the district.

Thanks,

Daniel T. Leckie
Associate Environmental Planner &
PQS Principal Architectural Historian
Caltrans District 5 | San Luis Obispo
Office Phone: (805) 542-4754

Leckie, Daniel@DOT

From: Leckie, Daniel@DOT
Sent: Monday, September 21, 2020 3:29 PM
To: Kitty Henderson
Subject: RE: Big Sur Bridge Rail Replacement (Garrapata Creek Bridge Pilot Project - EA: 05-1H800)
Attachments: Attachment 4 - CSSHHD DPR Forms.pdf

Kitty (3 of 3),

Attached to this email is the DPR 523 Form (or simply inventory form) for the Carmel San Simeon Highway Historic District. The 6 bridges in question are both individually eligible and contributing to the district, however the best information we have on them is within this document as they were determined individually eligible as part of a statewide bridge survey in the 1980s that did not look in depth at the history of any one bridge. The CSSHHD is a complex district with many resources, so I would like to direct your attention to page 54 of the overall PDF which contains a description of the bridges and a short paragraph regarding each individually. The pages that follow contain additional information and images about the bridges as well.

The historic context section can be found toward the end of the document on page 65 and discusses the original construction of the highway from 1922 – 1938. I think that should help put the resource into context for you though please feel free to reach out if you feel you need any additional info.

I hope this helps you to accurately assess our request and respond to this project in a meaningful way. If you have any additional questions or concerns don't hesitate to email this address or call back at the number found below.

Best regards,

Daniel T. Leckie
Associate Environmental Planner &
PQS Principal Architectural Historian
California Department of Transportation | District 5
50 Higuera Street | San Luis Obispo| California |93405
Office Phone : (805) 542-4754

[redacted]

Associate Environmental Planner &
PQS Principal Architectural Historian
Caltrans District 5 | San Luis Obispo
Office Phone: (805) 542-4754
<image003.png>

From: Leckie, Daniel@DOT
Sent: Monday, September 21, 2020 11:52 AM
To: Kitty Henderson <kitty@historicbridgefoundation.com>
Subject: RE: Big Sur Bridge Rail Replacement (Garrapata Creek Bridge Pilot Project - EA: 05-1H800)

Ms. Henderson

Thank you for your response to this request. Due to the high profile nature of this project including impacts to the six historic open spandrel Concrete Arch Bridges in the Big Sur Region, our office felt it was appropriate to contact a national advocacy organization for the preservation of historic bridges as part of our due diligence in the information gathering phase of the Section 106 consultation process. Though your organization is not local to Central California, Caltrans felt the Historic Bridge Foundation might have some general interest in the preservation of these historic bridges and/or special knowledge of the engineering history of these particular bridge types.

We apricate your time and attention to this matter. Based on your comments below and with respect to the valuable work your organization does with limited time & resources, Caltrans will hold back on sending the Historic Bridge Foundation any future materials about the specifics of future projects unless you request us to do otherwise. If you wish to comment on future projects including those similarly impacting the Big Creek, Bixby Creek, Rocky Creek, Granite Creek or Malpaso Creek bridges please feel free to contact me directly.

Best regards,

Daniel T. Leckie
Associate Environmental Planner &
PQS Principal Architectural Historian
Caltrans District 5 | San Luis Obispo
Office Phone: (805) 542-4754
<image001.png>

From: Kitty Henderson <kitty@historicbridgefoundation.com>
Sent: Monday, September 21, 2020 11:19 AM
To: Leckie, Daniel@DOT <Daniel.Leckie@dot.ca.gov>
Subject: Re: Big Sur Bridge Rail Replacement (Garrapata Creek Bridge Pilot Project - EA: 05-1H800)

EXTERNAL EMAIL. Links/attachments may not be safe.

Based on the information provided to us, we do not have any "special knowledge" of the area or the bridges. Therefore, we do not feel we can comment on the project(s).

Kitty Henderson
Executive Director
Historic Bridge Foundation

1500 Payne Ave
Austin, Texas 78757
512 407 8898

On Sep 21, 2020, at 12:35 PM, Leckie, Daniel@DOT <Daniel.Leckie@dot.ca.gov> wrote:

Ms. Henderson,

I just wanted to briefly reach out with a reminder about the Garrapata Creek Bridge (Bridge Number 44-0018) Rail Replacement project (EA: 05-1H800) for which we reached out to you and several other historical organizations via Email and Postal Mail on August 31st, 2020. Caltrans has requested comments from your organization on this upcoming project (which is described in the email below as well as the attached documentation) and is hoping to gather all comments from potentially interested parties and organizations with special knowledge of the area, including the Historic Bridge Foundation, by Monday October 5th, 2020.

Thank you for your time and we look forward to hearing your valued feedback.

Sincerely,

Daniel T. Leckie
Associate Environmental Planner &
PQS Principal Architectural Historian
California Department of Transportation | District 5
50 Higuera Street | San Luis Obispo| California |93405
Office Phone : (805) 542-4754
<image002.png>

From: Leckie, Daniel@DOT
Sent: Monday, August 31, 2020 4:09 PM
To: kitty@historicbridgefoundation.com
Subject: Big Sur Bridge Rail Replacement (Garrapata Creek Bridge Pilot Project - EA: 05-1H800)

Dear Ms. Henderson,

The California Department of Transportation (Caltrans) is currently proposing the pilot project in a series of six (6) separate upcoming undertakings. The Garrapata Creek Bridge (Bridge Number 44-0018) Rail Replacement will be the first project intended to gradually replace all the concrete baluster bridge rails for six (6) historic open spandrel reinforced concrete arch bridges along State Route 1 (SR-1) in Monterey County. The purpose of the project(s) will be to replace the existing nonstandard concrete baluster bridge rails and approach rails with new railing that meets current traffic safety standards while also retaining a design that is as close as possible to the original railing design. Please see the letter and documents attached to this email for more info. These documents have also been forwarded to the following postal address:

Kitty Henderson
Executive Director

Historic Bridge Foundation
P.O. Box 66245
Austin, Texas 78766

At this early stage Caltrans is performing a tiered evaluation of these projects, with the intention of streamlining the environmental review and evaluating any potential cumulative impacts, growth-inducing impacts, and irreversible significant effects on the environment of subsequent projects. At this time Caltrans is providing a general notification of these six (6) upcoming projects and will provide additional information about each specific project as details are developed for each individual undertaking in Tier II. Caltrans is also providing specific (Tier II) notification for the Garrapata Creek Bridge (No. 44-0018) which is currently proposed to receive replacement bridge rails and detailed studies for the Garrapata Bridge Rail Replacement Project (EA: 1H800) are currently underway.

In keeping with project scheduling deadlines, Caltrans is kindly requesting your response regarding the Garrapata Creek Bridge rail replacement project (05-1H800) specifically by **October 5th, 2020.** Caltrans will provide additional notification during bridge specific (tier II) studies for all other individual bridge rail replacement projects as those undertakings are developed in the future.

Please feel free to reach by the email address or phone number in my signature line below with any questions or comments about this upcoming project. Thank you for your valued participation.

Sincerely,

Daniel T. Leckie
Associate Environmental Planner
Principal Architectural Historian
Caltrans District 5
50 Higuera Street
San Luis Obispo CA 93401
P: (805) 542-4754.
E: Daniel.Leckie@dot.ca.gov

<Attachment 1 - Mapping.pdf><Attachment 3 - Images.pdf><1H800_toHistBridgeFound_Signed.pdf>

<Attachment 3 - Photos and Renderings.pdf>

DEPARTMENT OF TRANSPORTATION
CALTRANS DISTRICT 5
50 HIGUERA STREET
SAN LUIS OBISPO, CA 93401-5415
PHONE (805) 549-3101
FAX (805) 549-3329
TTY 711
http://www.dot.ca.gov/dist05/

Making Conservation a California Way of Life.

August 31st, 2020

James Perry
Curator & Archivist
Monterey County Historical Society
P.O. Box 3576
Salinas, CA 93912

General Analysis (Tier I) for the
Big Sur Bridge Rail Replacement Project(s)
Monterey County, California
MON-001-PM-28.1-67.9
&
Specific Analysis (Tier II) for the
Garrapata Creek Bridge Rail Replacement Project
Monterey County, California
EA: 05-1H800 / EFIS: 05-1600-0163
MON-001-PM-63.0

Dear Mr. Perry:

The California Department of Transportation (Caltrans) is currently proposing the pilot project in a series of six (6) separate upcoming undertakings. The Garrapata Creek Bridge (Bridge Number 44-0018) Rail Replacement will be the first project intended to gradually replace all of the concrete baluster bridge rails for six (6) historic open spandrel reinforced concrete arch bridges along State Route 1 (SR-1) in Monterey County. The six historic bridges are located between post miles (PM) 28.1 and 67.9 and include the following structures:

- Garrapata Creek Bridge at PM 63.0 (Bridge Number 44-0018); (the pilot project & currently proposed)
- Big Creek Bridge at PM 28.1 (Bridge Number 44-0056);
- Bixby Creek Bridge at PM 59.4 (Bridge Number 44-0019);
- Rocky Creek Bridge at PM 60.0 (Bridge Number 44-0036);
- Granite Canyon Bridge at PM 64.3 (Bridge Number 44-0012);
- Malpaso Creek Bridge at PM 67.9 (Bridge Number 44-0017);

The original concrete railing on the six historic bridges does not meet the current modern safety standards set by the Manual for Assessing Safety Hardware (MASH) and will be replaced with a new railing designed to meet these standards. The Manual for Assessing Safety Hardware (MASH) is a nationwide standard that was implemented by the Federal Highway Administration (FHWA) and the American Association of State Highway Transportation Officials (AASHTO) in 2009 (updated in 2016). MASH sets the standards for highway safety equipment, including bridge rails, guardrails, and other safety features. Newly adopted MASH standards have mandated that all new installations of roadside safety devices on high-speed roadways, including bridge railing, must meet a new higher standard for crash testing for all projects conducted after December 31st, 2019, without exception.

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Caltrans is interested in learning whether your organization has special interest in, or special knowledge of these or any other resource within the project study area that should be considered during our architectural studies. If you have questions or concerns, please do not hesitate to contact me at Daniel.leckie@dot.ca.gov or at (805) 542-4754. In keeping with project scheduling deadlines, Caltrans is kindly requesting your response regarding the Garrapata Creek Bridge rail replacement project (05-1H800) specifically by October 5th, 2020. This letter also serves as a notification for the five other upcoming bridge rail replacement projects, however Caltrans will provide additional notification during bridge specific (tier II) studies for all other individual bridge rail replacement projects as those undertakings are developed in the future.

Thank you for your participation.

Sincerely,

Daniel T. Leckie
Associate Environmental Planner (Architectural History)

Enc: Map of project study area
Photos/drawings of original and new bridge rail designs

cc:

Mary Trotter
Big Sur Historical Society
PO Box 176
Big Sur, CA 93920

Carmel Heritage Society
PO BOX 701
Carmel, CA 93921

Kitty Henderson
Executive Director
Historic Bridge Foundation
P.O. Box 66245
Austin, Texas 78766

Craig Spencer
Monterey County
Historic Resources Review Board
1441 Schilling Place
Salinas, CA 93901

Leckie, Daniel@DOT

From: Monterey County Historical Society <mchs@redshift.com>
Sent: Tuesday, September 22, 2020 9:00 AM
To: Leckie, Daniel@DOT
Subject: Re: Big Sur Bridge Rail Replacement (Garrapata Creek Bridge Pilot Project - EA: 05-1H800)

EXTERNAL EMAIL. Links/attachments may not be safe.

Daniel,

We reviewed the materials that you mailed to us and have no comments/concerns.

Kind Regards,
James Perry
Executive Director
Monterey County Historical Society
831-757-8085
P.O. Box 3576
Salinas, CA 93912
mchsmuseum.com/salinas

On Sep 21, 2020, at 10:33 AM, Leckie, Daniel@DOT <Daniel.Leckie@dot.ca.gov> wrote:

Mr. Perry,

I just wanted to briefly reach out with a reminder about the Garrapata Creek Bridge (Bridge Number 44-0018) Rail Replacement project (EA: 05-1H800) for which we reached out to you and several other historical organizations via Email and Postal Mail on August 31st, 2020. Caltrans has requested comments from your organization on this upcoming project (which is described in the email below as well as the attached documentation) and is hoping to gather all comments from potentially interested parties and organizations with special knowledge of the area, including the Monterey County Historical Society, by Monday October 5th, 2020.

Thank you for your time and we look forward to hearing your valued feedback.

Sincerely,

Daniel T. Leckie
Associate Environmental Planner &
PQS Principal Architectural Historian
California Department of Transportation | District 5
50 Higuera Street | San Luis Obispo| California |93405
Office Phone : (805) 542-4754
<image002.png>

From: Leckie, Daniel@DOT
Sent: Monday, August 31, 2020 4:11 PM
To: James Perry <mchs@redshift.com>
Subject: Big Sur Bridge Rail Replacement (Garrapata Creek Bridge Pilot Project - EA: 05-1H800)

Dear Mr. Perry,

The California Department of Transportation (Caltrans) is currently proposing the pilot project in a series of six (6) separate upcoming undertakings. The Garrapata Creek Bridge (Bridge Number 44-0018) Rail Replacement will be the first project intended to gradually replace all the concrete baluster bridge rails for six (6) historic open spandrel reinforced concrete arch bridges along State Route 1 (SR-1) in Monterey County. The purpose of the project(s) will be to replace the existing nonstandard concrete baluster bridge rails and approach rails with new railing that meets current traffic safety standards while also retaining a design that is as close as possible to the original railing design. Please see the letter and documents attached to this email for more info. These documents have also been forwarded to the following postal address:

James Perry
Curator & Archivist
Monterey County Historical Society
P.O. Box 3576
Salinas, CA 93912

At this early stage Caltrans is performing a tiered evaluation of these projects, with the intention of streamlining the environmental review and evaluating any potential cumulative impacts, growth-inducing impacts, and irreversible significant effects on the environment of subsequent projects. At this time Caltrans is providing a general notification of these six (6) upcoming projects and will provide additional information about each specific project as details are developed for each individual undertaking in Tier II. Caltrans is also providing specific (Tier II) notification for the Garrapata Creek Bridge (No. 44-0018) which is currently proposed to receive replacement bridge rails and detailed studies for the Garrapata Bridge Rail Replacement Project (EA: 1H800) are currently underway.

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Sincerely,

Daniel T. Leckie
Associate Environmental Planner
Principal Architectural Historian
Caltrans District 5
50 Higuera Street
San Luis Obispo CA 93401
P: (805) 542-4754.
E: Daniel.Leckie@dot.ca.gov

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY Gavin Newsom, Governor

DEPARTMENT OF TRANSPORTATION
CALTRANS DISTRICT 5
50 HIGUERA STREET
SAN LUIS OBISPO, CA 93401-5415
PHONE (805) 549-3101
FAX (805) 549-3329
TTY 711
http://www.dot.ca.gov/dist05/

Making Conservation a California Way of Life.

August 31st, 2020

Craig Spencer
Monterey County
Historic Resources Review Board
1441 Schilling Place
Salinas, CA 93901

General Analysis (Tier I) for the
Big Sur Bridge Rail Replacement Project(s)
Monterey County, California
MON-001-PM-28.1-67.9
&
Specific Analysis (Tier II) for the
Garrapata Creek Bridge Rail Replacement Project
Monterey County, California
EA: 05-1H800 / EFIS: 05-1600-0163
MON-001-PM-63.0

Dear Mr. Spencer:

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Caltrans is interested in learning whether your organization has special interest in, or special knowledge of these or any other resource within the project study area that should be considered during our architectural studies. If you have questions or concerns, please do not hesitate to contact me at Daniel.leckie@dot.ca.gov or at (805) 542-4754. In keeping with project scheduling deadlines, Caltrans is kindly requesting your response regarding the Garrapata Creek Bridge rail replacement project (05-1H800) specifically by October 5th, 2020. This letter also serves as a notification for the five other upcoming bridge rail replacement projects, however Caltrans will provide additional notification during bridge specific (tier II) studies for all other individual bridge rail replacement projects as those undertakings are developed in the future.

Thank you for your participation.

Sincerely,

Daniel T. Leckie
Associate Environmental Planner (Architectural History)

Enc: Map of project study area
Photos/drawings of original and new bridge rail designs

cc:

Mary Trotter
Big Sur Historical Society
PO Box 176
Big Sur, CA 93920

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PO BOX 701
Carmel, CA 93921

Kitty Henderson
Executive Director
Historic Bridge Foundation
P.O. Box 66245
Austin, Texas 78766

James Perry
Curator & Archivist
Monterey County Historical Society
P.O. Box 3576
Salinas, CA 93912

MONTEREY COUNTY
RESOURCE MANAGEMENT AGENCY
Carl P. Holm, AICP, Director

LAND USE & COMMUNITY DEVELOPMENT | PUBLIC WORKS & FACILITIES | PARKS
1441 Schilling Place, South 2nd Floor (831)755-4800
Salinas, California 93901-4527 www.co.monterey.ca.us/rma

October 29, 2020

Daniel Leckie
California Department of Transportation
50 Higuera Street
San Luis Obispo, California 93401

Subject: Section 106 Consultation on the Bridge Rail Replacement, Highway 1 in Big Sur

Dear Mr. Leckie,

Thank you for providing Monterey County the opportunity to review the proposed Highway 1 Big Sur bridge rail replacement project. We understand CalTrans is proposing replacement of bridge rails on six historic bridges in the Big Sur area:

1. Garrapata Creek Bridge
2. Big Creek Bridge
3. Bixby Bridge
4. Rocky Creek Bridge
5. Granite Canyon Bridge
6. Malpaso Creek Bridge

These bridges are an integral part of majesty of the Big Sur coastline; viewed and photographed by tens of thousands of visitors every year. Not only are they found eligible for listing on the National Register of Historic Resources; their timeless design represents a sense of place and time important to the scenic highway and tourist industry. Their beauty is unique to site and structure, creating a visual rhythm and proportion. Their "Arched window design" and "smooth texture finish" are iconic, key design features.

For these reasons, Monterey County is committed to working with CalTrans to preserve the historic integrity of the bridges, preserve views along Highway 1 and protect motorists to the maximum extent possible.

As part of the Section 106 consultation, the conceptual proposal for the Garrapata Bridge Rail replacement (first of the bridge rail replacement projects), was reviewed by the Monterey County Historic Resources Review Board (HRRB). Following are our comments on the Garrapata Bridge Rail and comments for the reasonably foreseeable future projects on the other five bridges being considered. We do expect to be notified when we can make further comments on the Garrapata project and the entire Bridge series replacement project.

Project justification - The County needs to fully understand the need for the bridge rail replacement. The analysis should include but not be limited to:

- An in-depth review and discussion with FHA on consideration of historic architecture as a means to compliance with MASH and ASHTO standards;
- Details on the condition of the existing bridge rails, including photographic evidence;
- Review of Highway speeds and potential reduction of speed for each bridge as a means of providing flexibility in design solutions for reinforcement, replacement in kind, or design of the replacement rails (if needed); and
- A detailed discussion of why typical historic preservation building standards are not possible in this situation with documentation of efforts on coordination with FHA and highway speeds.

Evaluation and documentation – Review of the project would benefit from more detailed plans and documentation including but not limited to:

- Elevations and photographs that show the interior and exterior views of the existing bridge rails. There are features of the rail that reflect the vertical structural elements of the bridge that need to be understood and documented;
- Original drawings for the bridge and railing if available;
- Detail the full cross section of the rail and bridge deck to see the complete impact of any designs proposed; and
- Detailed historic analysis and report for each bridge prepared by a qualified historian.

Environmental Review – The County supports CalTrans decision to prepare an Environmental Impact Report. Please include Monterey County on the list of responsible agencies and interested parties. The EIR should consider at a minimum:

- Cumulative considerations of rail replacement for ***all six*** historic bridges;
- Alternatives analysis including a no project alternative; Highway speed reductions given circumstances occurring at each bridge; Historic Preservation design and engineering standard exceptions; and options to repair and reinforce the existing rails or replace in kind; and
- Effects on historic resources (defining features of the bridges); effects on the critical viewshed in Big Sur; and compatibility with the Coastal Act, Big Sur Land Use Plan and Coast Highway Management Plan.

Replacement Rail Design – If, after consideration and analysis of the project's need and detailed alternatives, replacement of the bridge rails is determined to be necessary, the County reserves the ability to review and comment upon each bridge's rail designs, prior to selection of a final design. Building on the information and comments above here are our *preliminary* comments on potential new bridge rail designs:

- Rail scale and proportions are essential relationships in any new bridge design.
- Keep in mind railings are just not something attached to the top of the bridge deck;
- We suggest CalTrans work with the local community as well as Monterey County to design bridge rails to fit the character of the structures and the surroundings. These community members should include Big Sur Coast Multi-Agency Committee (BSMAC), and the local Big Sur Land Use Advisory Committee (LUAC). Monterey County is willing to set these discussions on those agencies' agendas.
- Of the current options presented to Monterey County, the "C411" rail design appears the most consistent option at this time. Although the C411 design is engineered for speeds of up to 45 miles per hour, the County believes some bridges warrant reduced speeds where there are curves or heavily used turnouts which slow traffic near the bridges. We strongly believe all travelers along Highway will much rather slow down to enjoy the beautiful

views – including the bridge design (including the rails) rather than seeing the visual shock of foreign elements which impact bridges' character;

- We ask that CalTrans coordinate with the County on the final bridge rail design. We've successfully worked with CalTrans in the past regarding the Moss Landing Island Bridge and the Bixby Bridge seismic retrofit project.
- Final design options should be presented to Monterey County with sufficient flexibility to amend the design before a final designed is selected;

We appreciate the opportunity to comment on this project, we look forward to working with CalTrans to find the most appropriate solution for safety, historic preservation, protection of our treasured Big Sur coast line and peoples' lives. Please contact me if you have any questions, we are happy to talk with you.

Sincerely,

Craig Spencer, Planning Services Manager
RMA – Planning
Email: spencerc@co.monterey.ca.us
Phone: (831) 755-5233

Cc: HRRB Members, Carl Holm, Randell Ishii, Shannon Lauchner

DEPARTMENT OF TRANSPORTATION
CALTRANS DISTRICT 5
50 HIGUERA STREET
SAN LUIS OBISPO, CA 93401-5415
PHONE (805) 549-3101
FAX (805) 549-3329
TTY 711
http://www.dot.ca.gov/dist05/

Making Conservation a California Way of Life.

December 10th, 2020

Craig Spencer
Monterey County
Historic Resources Review Board
1441 Schilling Place
Salinas, CA 93901

Notice of Adverse Effect and Mitigation Proposal
Garrapata Creek Bridge Rail Replacement Project
Monterey County, California
EA: 05-1H800 / EFIS: 05-1600-0163
MON-001-PM-63.0

Dear Mr. Spencer:

As per the previous letter from our office dated August 31st 2020, The California Department of Transportation (Caltrans) is currently proposing to replace the original railing on the Garrapata Creek Bridge (Bridge Number 44-0018) in Monterey County, on State Route 1 (SR-1) north of Big Sur. The Garrapata Creek Bridge Rail Replacement Project (EA: 05-1H800) will be the first project intended to gradually replace all of the concrete baluster bridge rails for six (6) historic open-spandrel reinforced-concrete arch bridges along SR-1 in Monterey County. As the dimensions of the original bridge rails are not compliant with modern standards in the Manuel for Assessing Safety Hardware (MASH) set by the American Association of State Highway and Transportation Officials (AASHTO), it has been determined the bridge railing cannot be replaced in kind, and will require a new railing with different dimensions. Specifically, the new railing will include a larger base and baluster and smaller arched openigs, in order to meet the current safety standards. Despite the required changes, Caltrans is committed to choosing a railing type that is as compatible with the historic bridge design and scenic corridor as possible.

The Garrapata Creek Bridge is a historic property that is eligible for the National Register of Historic Places (NRHP) and the California Register of Historical Resources (CRHR) under NRHP/CRHR significance criterion A/1 in the area of transportation and criterion C/3 as a distinctive example of an open spandrel reinforced concrete arch bridge in California. Furthermore, the bridge is also a contributing element to the Carmel San-Simeon Highway Historic District (CSSHHD), a historic property consisting of over 200 individual elements, such as rubble stone masonry headwalls, retaining walls, parapet walls, drinking fountains as well as seven (7) reinforced concrete arch bridges known collectively as the "Big Sur Arches". The reinforced concrete railings, with their arched window design and smooth texture finish, are a noted character defining feature of the historic Garrapata Creek Bridge. Because the original bridge rails cannot be repaired or replaced in kind, Caltrans has determined this project will have an Adverse Effect to the Garrapata Creek Bridge.

In order to consider, the effects of this undertaking on historic properties, the adverse effect to the Garrapata Creek Bridge will be resolved through implementation of mitigation measures. These mitigation measures are to be outlined in a Memorandum of Agreement (MOA) which will be executed with the State Historic Preservation Office (SHPO) sometime in early 2021. Caltrans is currently considering proposing the mitigation measures for the Garrapata Creek Bridge Rail Replacement Project to include:

(1) Recordation of the bridge's current condition via the Historic American Engineering Record (HAER) to include written and photographic documentation;

(2) Production of Individual DPR 523 inventory forms for all seven (7) concrete arch bridges within the Carmel Simeon Highway Historic District (CSSHHD). All seven (7) Big Sur Arches were determined to be eligible for the NRHP/CRHR as part of the Caltrans Statewide Historic Bridge Inventory without a detailed Historic Resources Evaluation Report for the individual resources. The current best information on the bridges is recorded on the CSSHHD district wide DPR 523 Inventory Form, for which the bridges are contributing elements. In order to better understand the unique history of each of the seven (7) Big Sur Arches, Caltrans is proposing to do individual analysis of all seven (7) structures. This measure is specifically in response to a request by the Monterey County Historic Resources Review Board in their October 29th, 2020 letter for a "detailed historic analysis and report for each bridge prepared by a qualified historian". The bridges to be individually researched, analyzed, and reported on will specifically include:
    - Big Creek Bridge (1938) - PM 28.1, Bridge Number 44-0056
    - Bixby Creek Bridge (1932) - PM 59.4, Bridge Number 44-0019
    - Rocky Creek Bridge (1932) - PM 60.0, Bridge Number 44-0036
    - Garrapata Creek Bridge (1931) - PM 63.0, Bridge Number 44-0018
    - Granite Canyon Bridge (1932) - PM 64.3, Bridge Number 44-0012
    - Malpaso Creek Bridge (1935) - PM 67.9, Bridge Number 44-0017
    - Wildcat Creek Bridge (1933) – PM 69.0, Bridge Number 44-0016
        - *Note: The Wildcat Bridge, a closed spandrel concrete arch bridge, is not part of the Bridge Rail Replacement program at this time. Though it will not be impacted by an upcoming bridge rail replacement project, it is included because it is also a contributor to the CSSHHD and thematically similar to the other Big Sur Arches, with a slightly different design.*

(3) The production of an interpretive website to highlight the history of the Seven Big Sur Arches. The website will include historic and modern photographs, historic contexts developed in the individual historic analysis reports, and additional information on the engineering and transportation history of the bridges.
    a. The website will be continually updated along with all other mitigations as future bridge rail replacement projects are proposed overtime.
    b. Additionally, the website will also contain at least a page with outreach information in the form of lesson plans for elementary school aged students that focuses on historic and/or other Scientific, Technological, Engineering, or Mathematical (STEM) activities within a historic context.

At this stage, Caltrans is interested in receiving feedback from all consulting parties regarding the proposed mitigation measures. Caltrans kindly asks all comments on proposed mitigation are submitted by Wednesday December 30th, 2020 for consideration in the final draft Memorandum of Agreement (MOA) with the SHPO.

Thank you for your participation.

Sincerely,

Daniel T. Leckie
Associate Environmental Planner (Architectural History)

cc: Mary Trotter
Big Sur Historical Society
PO Box 176
Big Sur, CA 93920

From: Spencer, Craig x5233
To: Leckie, Daniel@DOT
Subject: RE: Follow up to HRRB Meeting (Garrapata Creek Bridge Rail Replacement Project 1H800)
Date: Tuesday, October 6, 2020 12:19:50 PM
Attachments: image001.png
image002.png

EXTERNAL EMAIL. Links/attachments may not be safe.

Received. Thank you

Craig Spencer
Monterey County, RMA-Planning Division
Phone: (831) 755-5233
Email: spencerc@co.monterey.ca.us

From: Leckie, Daniel@DOT <Daniel.Leckie@dot.ca.gov>
Sent: Tuesday, October 6, 2020 12:16 PM
To: Spencer, Craig x5233 <SpencerC@co.monterey.ca.us>
Subject: RE: Follow up to HRRB Meeting (Garrapata Creek Bridge Rail Replacement Project 1H800)

[CAUTION: This email originated from outside of the County. Do not click links or open attachments unless you recognize the sender and know the content is safe.]

Mr. Spencer,

Here is the follow up with the CSSHHD Inventory form.

Thank you,

Daniel T. Leckie
Associate Environmental Planner &
PQS Principal Architectural Historian
Caltrans District 5 | San Luis Obispo
Office Phone: (805) 542-4754

From: Leckie, Daniel@DOT
Sent: Tuesday, October 6, 2020 12:14 PM
To: 'Spencer, Craig x5233' <SpencerC@co.monterey.ca.us>
Subject: FW: Follow up to HRRB Meeting (Garrapata Creek Bridge Rail Replacement Project 1H800)

Mr. Spencer,

I wanted to thank you again for setting up a productive and informative meeting between the Caltrans District 5 Cultural Resources Team and the Monterey County Historic Resources Review Board last Thursday (10/1). It is engagement such as this that allows us to truly take the valuable comments of all stake holders into account during the project development process, and I believe helps make our projects the best they can be for the communities we serve so we very much do apricate your valued engagement and participation.

I also wanted to follow up on a few items that were brought up at the meeting last week:

1. First I wanted to forward the Department of Parks and Recreation 523 Historic Inventory form for the Carmel San Simeon Highway Historic District (CSSHHD) of which the 7 concrete arch bridges are all contributing structures. The document is heavily focused on a 2006 inventory of original highway features, such as rock masonry culvert headwalls and parapet walls, however there is some enhanced discussion of the contributing bridges on pages 53 – 62. The historic context for the district as a whole can be found on page 64 and helps round out that discussion. Hopefully this document will help inform the boards official comments in your formal letter to come sometime in the next few months. ***** This was too large to attach with everything else so I will follow up with the DPR Inventory form *****
2. I also wanted to attach some updated renderings from our design team. The 6 attached images were produced to update some earlier images we sent to out with the initial request in response to comments from myself and my colleague Lindsay Kozub to include better demonstration of the option to add arched openings on the c412 type railings as well as better reflecting the unique color of the original Garrapata Creek Bridge & its railings based on a palate we provided. These are by no means a final or complete depiction of what the constructed railing will look like as the rendering software is limited in its ability to produce accurate textures / colors / etc, but is meant to give an better idea of how the product will appear. However, it should be noted these images and the designs for the bridge rails themselves are still being refined.
3. For the question about Big Sur Multi Agency Advisory Committee , yes, we have shared information with BSMAAC every quarter since the currnt project manager, Carla Yu, has been working on this project (so going back a few years). Attached are the latest updates for the BSMAAC reports, so you can update the Board that Caltrans has in fact been in contact with the agency and they should be aware of the upcoming project. I apologize for not being abreast to this info during the meeting, there are so many moving parts on this project its hard to keep up with everything.
4. Just FYI we are working on getting together info from the traffic safety folks on collision data in the area which was requested, so hopefully I can follow up with that info soon.

Please let me know if you have any additional questions or concerns regarding our meeting last week or if there are any other follow up items I am missing here as much was discussed during the meeting.

Thank you,

Daniel T. Leckie
Associate Environmental Planner &
PQS Principal Architectural Historian
California Department of Transportation | District 5
50 Higuera Street | San Luis Obispo| California |93405
Office Phone : (805) 542-4754

From: Spencer, Craig x5233 <SpencerC@co.monterey.ca.us>
Sent: Wednesday, August 26, 2020 5:14 PM
To: Leckie, Daniel@DOT <Daniel.Leckie@dot.ca.gov>; Swanson, Brandon xx5334 <SwansonB@co.monterey.ca.us>
Subject: RE: CalTrans Request to Present to HRRB

EXTERNAL EMAIL. Links/attachments may not be safe.

The mailing address here is:

1441 Shilling Place, 2nd Floor
Salinas CA, 93901

Please send to my attention.

Thank you

Craig Spencer
Monterey County, RMA-Planning Division
Phone: (831) 755-5233
Email: spencerc@co.monterey.ca.us

From: Leckie, Daniel@DOT <Daniel.Leckie@dot.ca.gov>
Sent: Wednesday, August 26, 2020 9:55 AM
To: Spencer, Craig x5233 <SpencerC@co.monterey.ca.us>; Swanson, Brandon xx5334 <SwansonB@co.monterey.ca.us>
Subject: RE: CalTrans Request to Present to HRRB

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Mr. Spencer,

Thank you for your reply. I will be following up with some information about an upcoming Caltrans project in the near future. In the meantime, could you possibly provide a postal address in addition to this email where mail can be forwarded?

Thank you and I look forward to our conversation.

Best,

Daniel T. Leckie

Associate Environmental Planner &
PQS Principal Architectural Historian
California Department of Transportation | District 5
50 Higuera Street | San Luis Obispo| California |93405
Office Phone : (805) 542-4754



From: Spencer, Craig x5233 <SpencerC@co.monterey.ca.us>
Sent: Wednesday, August 26, 2020 9:40 AM
To: Swanson, Brandon xx5334 <SwansonB@co.monterey.ca.us>; Leckie, Daniel@DOT <Daniel.Leckie@dot.ca.gov>
Subject: RE: CalTrans Request to Present to HRRB

EXTERNAL EMAIL. Links/attachments may not be safe.

Hello Daniel,

I would be happy to help assist with our Historic Board review.
Please feel free to call or email me for more information.

Craig Spencer
Monterey County, RMA-Planning Division
Phone: (831) 755-5233
Email: spencerc@co.monterey.ca.us

From: Swanson, Brandon xx5334 <SwansonB@co.monterey.ca.us>
Sent: Thursday, August 20, 2020 2:04 PM
To: daniel.leckie@dot.ca.gov; Spencer, Craig x5233 <SpencerC@co.monterey.ca.us>
Subject: CalTrans Request to Present to HRRB

Daniel,

It was good to speak with you just now. By way of this email, I am linking you up with Craig Spencer, who currently staffs the HRRB here at the County. Please work through him to get the project you mentioned in front of the HRRB for review.

Thanks,

Brandon Swanson
Monterey County Resource Management Agency
831-755-5334

Leckie, Daniel@DOT

From: Leckie, Daniel@DOT
Sent: Thursday, October 8, 2020 10:55 AM
To: Spencer, Craig x5233
Subject: 1H800 - Follow up Public Hearing for the Historic Resources Review Board (Crash Test Data)
Attachments: CPRA example.png

Mr. Spencer,

I wanted to follow up with the info on how to access the crash data for the Garrapata Creek Bridge. Though I am not authorized to provide this info directly to an outside agency there is a mechanism by which the Historic Resources Review Board can access this data.

For the board to obtain this data they will need to submit a California Public Records Act (CPRA) request through the following website: https://caltrans.mycusthelp.com/WEBAPP/_rs/(S(vpbdrb1y2ir0tga4i3o4px1a))/supporthome.aspx To access the info, follow the link above and once at the webpage click the button for "submit a request" on the left hand side of the screen. Once there you can choose to set up an account or simply submit a request anonymously (the system suggests to create an account incase Caltrans needs to contact you with any questions about your inquiry). This will bring you to the page where you submit your request.

Once on that page, the information needed for our safety officer to run the traffic collision reports will be **County: (Monterey) / State Route Number: (SR-1) / PM Limits: (62.9 – 63.1)** *Note: The bridge is listed at PM 63 which would be near the center of the bridge. Our project manager suggested including a .1 mile range on either side to get a better result with more representative data* **/ Date Range (whatever you want to see … I put 1/1/2000 – 10/1/2020 as an example here)** and **which report: (Table B v. TSAR which is explained below)**.

There are multiple reports that can be run so within the box that says "**Describe the Record(s) Requested"** please specify the report name you're looking for. You can say "table B" which would provide Actual crash data in this location vs a statewide average, or a TSAR which includes information summarized in various tables. The Project Manager for this project also suggested a TSAR report might be more helpful as that has more data about the specific types of accidents in this location, but I'll leave that decision up to the board. Please feel free to reach out if you have any questions about this I can try to find more info about these reports for you if that would be helpful.

Additionally, If the board would like the specific information provided by me specifically as a POC you can specify this in your request "traffic collision history at MON-001-PM62.9 – 63.1 (Garrapata Bridge) provided by Daniel Leckie – D5 Architectural Historian"

I have provided a screenshot of an example of how you might fill out this request form and attached it to this email. I hope that is helpful to you. I put asterisks around any info that might be optional or up to the boards discretion.

I think that's it for now. Please reach out if you have any questions or concerns on this process.

Best,

Daniel T. Leckie
Associate Environmental Planner &
PQS Principal Architectural Historian
Caltrans District 5 | San Luis Obispo

Office Phone: (805) 542-4754

Caltrans

From: Yu, Carla@DOT <carla.yu@dot.ca.gov>
Sent: Wednesday, October 7, 2020 4:47 PM
To: Xiong, Moua@DOT <Moua.Xiong@dot.ca.gov>; Leckie, Daniel@DOT <Daniel.Leckie@dot.ca.gov>
Cc: Senor, Dario A@DOT <dario.senor@dot.ca.gov>; Ostrau, Scott@DOT <Scott.Ostrau@dot.ca.gov>; Kiaha, Krista M@DOT <krista.kiaha@dot.ca.gov>; Wilkinson, Jason J@DOT <jason.wilkinson@dot.ca.gov>
Subject: RE: Notice of Public Hearing for the Historic Resources Review Board

Hello Moua,
Thank you for your prompt attention to this request and the information for how Monterey County Historic Resource Review Board can obtain the information that they are seeking.

I understand that this information has to be requested by the requestor through the California Public Records Act.

@Leckie, Daniel@DOT,
For the postmiles, I would suggest that the Resource board request about 0.1 miles before and after the PM 63.0 for the search, and the postmile GIS webpage may be very helpful with fine tuning the postmile limits as well in case the center of the bridge is not postmile 63.0: http://postmile-internal.dot.ca.gov/PMQT/PMQT_Internal.html?

Also, for the type of report, it depends on what the Resource board is looking for, I think TSAR may be helpful if they want to differentiate type of accidents as the Table B will just give the rates of this location vs the statewide average.

Thank you,

Carla Yu, P.E.
Project Manager
Caltrans District 5
(805) 549-3749

From: Xiong, Moua@DOT <Moua.Xiong@dot.ca.gov>
Sent: Wednesday, October 7, 2020 9:39 AM
To: Yu, Carla@DOT <carla.yu@dot.ca.gov>; Leckie, Daniel@DOT <Daniel.Leckie@dot.ca.gov>
Cc: Senor, Dario A@DOT <dario.senor@dot.ca.gov>; Ostrau, Scott@DOT <Scott.Ostrau@dot.ca.gov>
Subject: RE: Notice of Public Hearing for the Historic Resources Review Board

Hi Carla,

I am working under Dario and I am wanted to clarify the situation. Daniel has traffic collision history at MON-001-PM63.0 (Garrapata Bridge) and would like to share the information with Monterey County Historic Resourced Review Board? If this is an agency outside of Caltrans, they will need to submit a California Public Records Act. (CPRA) https://caltrans.mycusthelp.com/WEBAPP/_rs/(S(vpbdrb1y2ir0tga4i3o4px1a))/supporthome.aspx
CPRA will be a way to track which documents are being shared outside of Caltrans.

The information needed for me (TASAS Coordinator) to run traffic collision reports are **County-Route-PM Limits, Date Range** and **which report**. There are multiple reports that can be run. Please specify the report name – Table B (Actual vs Statewide rates), TSAR (Accident information summarized in various tables) or a brief description on the nature of the request.

If the agency would like the specific information provided by Daniel, please have the agency specify in their request "traffic collision history at MON-001-PM63.0 (Garrapata Bridge) by Daniel"

If you have anymore questions on traffic collision data, please let me know as I am the TASAS Coordinator for District 05.

Regards,

Moua Xiong
Transportation Engineer
District 5 | Traffic Safety
50 Higuera St, San Luis Obispo, CA 93401
Office: (805) 549-3641



APPENDIX C
Carmel San Simeon Highway Historic District (CSSHHD)
DPR 523 Form

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # P-27-002775
HRI #
Trinomial
NRHP Status Code 2S2
Other Listings
Review Code Reviewer Date

*Resource Name or #: Carmel-San Simeon Highway Historic District

P1. Other Identifier:

* P2. Location: ☐ Not for Publication ☑ Unrestricted *a. County: Monterey, San Luis Obispo

* b. USGS Quad: Multiple quads -- see P2e below

c. Address:

d. UTM:

e. Other Locational Data:

SLO-1-PM 71.34-74.32 and MON-1-PM 0.0-72.28

USGS Quads: Burro Mountain (1949; photoinspected 1972); Villa Creek (1949); Cape San Martin (1949); Lopez Point (1956; photorevised 1984); Partington Ridge (1956; photorevised 1984); Pfeiffer Point (1956; photorevised 1983); Big Sur (1956; photorevised 1983); Point Sur (1956; photorevised 1983); Soberanes Point (1956; photorevised 1983); and Monterey (1947; photorevised 1983).

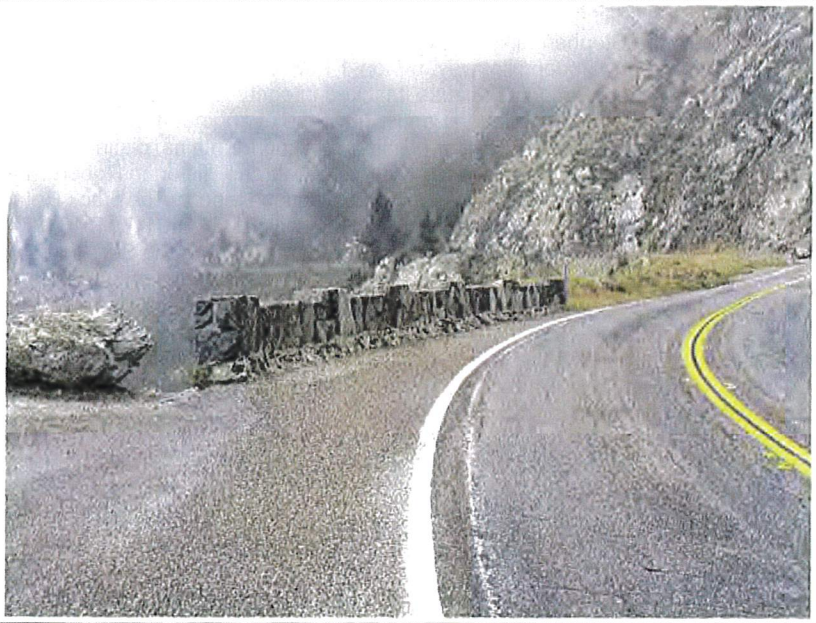
See Table 1 for location of individual contributing elements. See Table 2 for list of resources identified, evaluated, and rejected

* P3a. Description:

This form documents the Carmel-San Simeon Highway Historic District (Historic District), which is located along Highway 1 through the Big Sur region of Monterey and San Luis Obispo counties (see Appendix A, "Project Vicinity Map"). The Historic District has been previously determined eligible for listing in the National Register of Historic Places; this form is intended to update the findings of the original determination through an expanded historic context, evaluation, and the inclusion of recently discovered contributing elements. As updated, the district consists of 241 contributing elements whose property types include rubble masonry roadside water fountains (5), retaining walls (10), parapet walls (61), and culvert headwalls (158), and 7 concrete arch bridges. These features were built over a period of sixteen years, between 1922 and 1938. Table 1, located on pages 4 through 13 of this form, provides a list of all contributing features, organized from south to north. Table 2, located on pages 14 through 18 of this form, lists the resources that have been identified, evaluated and rejected as contributing elements of the historic district. These tables include the feature number, property type, and location. The locational data were derived from the most recent GPS files provided by Caltrans, and in many cases supersede data from previous Historic District studies.

* P3b. Resource Attributes: HP11 (Engineering feature); HP19 (Bridge); HP35 (CCC/WPA project); HP46 (Walls/gates/fences)

* P4. Resources Present: ☐ Building ☐ Structure ☐ Object ☐ Site ☑ District ☐ Element of District ☐ Other (Isolates, etc.)



*P5b. Description of Photo:
Photograph 1. General view, facing north along Highway 1. Typical battlement parapet wall at center.

*P6. Date Constructed/Age & Sources:
☑ Historic ☐ Prehistoric ☐ Both
1922-1938

*P7. Owner and Address:
Caltrans District 5, 50 Higuera Street, San Luis Obispo, California 93401

*P8. Recorded by:
L. Leach-Palm, Far Western Anthropological Research Group, B. Larson, JRP Historical Consulting

*P9. Date Recorded: 10/6/2004

*P10. Survey Type:
Intensive

* P11. Citation: S. Wee, B. Larson (JRP Historical Consulting), B. Pavlik, P. Carr (Caltrans District 5), "Historic Resources Evaluation Report, Pfeiffer Big Sur Left Turn Channelization Project, Monterey County, California," June 2006

Attachments: ☐ None ☑ Location Map ☐ Sketch Map ☑ Continuation Sheet ☑ Building, Structure, and Object Record
☐ Archaeological Record ☑ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other:

CONTINUATION SHEET FOR PRIMARY RECORD

P3a. Description (continued):

The contributing features are also plotted on the series of Location Maps attached to this form as Appendix B. (See Continuation Sheet for Primary Record, "P3a. Description")

The Historic District feature types vary in terms of size, design, and function, but are unified by several common characteristics. The most important is that all were built between 1922 and 1938 during the original construction of the Carmel-San Simeon Highway. Of the 241 contributing resources, 234 are rubble masonry engineering features (the other seven are concrete arch bridges). The design of the rubble masonry features reflects the rustic style, using locally gathered stone and primarily handcrafted methods in their construction. The features were intended to be aesthetically pleasing and harmonious with their rugged, natural surroundings. The vast majority of these features were constructed using cement mortar, although there are a few examples of dry laid masonry retaining walls and culvert headwalls, mostly isolated to the southern end of the district. There are four different property types of rubble masonry structures within the Carmel-San Simeon Historic District: water fountains, parapet walls, retaining walls, and culvert headwalls. The parapet walls are further categorized into three subtypes – arcade, battlement, and flat (unadorned) – which are based on design. The culvert headwalls also are divided into subtypes based on configuration: flat, L-shaped, U-shaped, and drop inlet (box-shaped). These four property types are described in greater detail on the attached District Record form. The highest concentrations of features are in Monterey County between post miles 5 and 8, 9 and 10, 20 and 21, 37 and 42, and 69 and 70, as shown on the attached Location Maps (Appendix B). The features are also evaluated for National Register eligibility as individual properties on the series of BSO Records attached at the end of this form.

Pavlik (1996) also identified seven concrete arch bridges as Historic District contributors: Big Creek (#44-0056), Bixby Creek (#44-0019), Rocky Creek (#44-0036), Garrapata Creek (#44-0018), Granite Canyon (#44-0012), Malpaso Creek (#44-0017), and Wildcat Creek (#44-0016). These bridges, all located along Highway 1 in Monterey County, were built between 1931 and 1938 on designs of the Division of Highways Bridge Department. The bridges were also determined individually eligible for the National Register as part of the Caltrans Bridge Inventory conducted during the 1980s under Criterion A (in the area of transportation) and Criterion C (as distinctive examples of type, period, and method of construction, and as a signficant work of a master).

This Historic District documentation is intended to synthesize the findings of several previous studies regarding the Carmel-San Simeon Highway and its associated structures. Caltrans Historian Stephen Mikesell first evaluated the highway in his December 1986 study, "Historic Resource Evaluation Report: The Carmel-San Simeon Highway, 5-Mon-1 P.M. 0.0 to 72.28." Mikesell concluded that the highway was not eligible for the National Register, primarily because it lacked integrity to its period of significance. Mikesell evaluated the highway as a total road system and included the entire universe of engineering features: bridges; the roadway surface; decorative railings, including stone masonry and timber railings; drinking fountains; distinctive subgrade shoring elements, such as masonry walls and timber cribs; and cattle passes. In 1996, Caltrans Historian Robert Pavlik revisited the features of the Carmel-San Simeon Highway with his study, "Historic Resource Evaluation Report: The Rock Retaining Walls, Parapets, Culvert Headwalls and Drinking Fountains along the Carmel to San Simeon Highway, 05-SLO-01 P.M. 46.0/74.3, 05-MON-01 P.M. 0.0/73.0" (hereafter "Pavlik 1996"). This study focused on the rubble masonry features along Big Sur Highway 1, and updated some of the findings of Mikesell's report. The report documented an historic district including a total of 89 rubble masonry features, including water fountains, parapet guardrails, retaining walls, and selected culverts. The district also included the seven concrete arch bridges as contributing elements. Notably, Pavlik's study identified a fifth water fountain (Mikesell had only identified four), and corrected Mikesell's assertion that "not extant today is the most extensive and important of all the drinking fountains – the Senator Elmer S. Rigdon Memorial Park." This feature still stands and has been documented herein as feature DM-353. Pavlik determined that the Carmel-San Simeon Highway Historic District was eligible for listing in the National Register under Criterion C, as a significant example of its type (rustic), period (1920s-1930s), and method of construction (handcrafted). The State Historic Preservation Officer (SHPO) concurred with this finding in March 2003. (Please refer to the letter from Federal Highways Administration to SHPO dated February 28, 2003, attached as Appendix C).

In 2001, Far Western Anthropological Research Group (Far Western) revisited the Historic District, completing an intensive pedestrian survey of the Caltrans right of way along Highway 1 through Big Sur (Mikkelsen et al. 2001). Volume III of that study is a compendium of all the known highway-related engineering features within the Caltrans right of way that date or appear to date to the period of significance of the Historic District, 1922-1938. The report documented the portion of Highway 1 between post miles 71.34 and 74.32 in San Luis Obispo County (San Carpoforo Creek north to the Monterey-San Luis Obispo county line), and in Monterey County between post miles 0.0 and 72.28 (Monterey-San Luis Obispo county line north to the Carmel River). These updated post miles supplant the earlier north and south boundaries of the Historic District defined in Pavlik (Monterey County P.M. 0.0 to 72.28). During the 2001 survey, Far Western identified and recorded 332 historic features within the right of way, including the 89 originally identified by Pavlik. The features recorded included a wide variety of property types such as bridges, water fountains, parapet walls, retaining walls, culverts, cattle passes, abandoned bridge abutments, and survey markers. In most cases, the feature was

constructed of either concrete or rubble masonry, though some incorporate other materials such as timber, asphalt, or steel. Of all the resources recorded, only the rubble masonry resources and concrete arch bridges are considered part of the Historic District, as it was defined in Pavlik 1996.

Additionally, in 2000, as part of a project to replace two culverts along Highway 1 in southern Monterey County, Caltrans cultural resources staff (T. Joslin and R. Pavlik) located and recorded a rubble masonry retaining wall that had not been previously identified. Joslin and Pavlik confirmed that the rock wall was associated with the Historic District and recorded it on a Primary Record as feature DM-545 (Joslin and Pavlik 2000). The Northwest Information Center subsequently assigned it a formal Primary Number (P-27-002422). In 2002, Caltrans prepared an Historic Property Survey Report in which they concluded the retaining wall appeared eligible for listing in the National Register as an Historic District contributing feature (Caltrans 2002). The DPR 523 form and HPSR for P-27-002422 are attached as Appendix D.

In 2003, Far Western and JRP Historical Consulting (JRP) identified and documented 16 additional rubble masonry culvert headwalls that appear to retain sufficient integrity to be considered contributors to the Historic District. These features were documented in a draft report (Wee et al. 2004) prepared for a highway project that was subsequently shelved.

In 2006, in connection with the proposed Pfeiffer Big Sur Left Turn Channelization project, a culvert with rubble masonry headwalls (previously identified but never evaluated) and a newly identified culvert with a rubble masonry headwall were documented. These resources, which also appear to be contributors to the Historic District, are documented in the present report (Wee et al., 2006). JRP, in conjunction with Caltrans District 5, has produced this updated Historic District documentation in an effort to comprehensively and definitively document the Historic District and all of its contributing elements. Table 1 on the following pages serves as a compendium of all known contributing features that comprise the Historic District. The various property types (water fountains, parapets, etc.) are discussed in further detail on the attached District Record and BSO Records.

his study makes the following determinations:

1. The Carmel-San Simeon Highway Historic District, on State Route 1, is a discontiguous historic district comprising 241 discrete contributing elements (Table 1). The district extends a distance of approximately 75 miles, from San Luis Obispo County post mile 71.34 to post mile 74.32 (the Monterey County line) and from Monterey County post mile 0.0 to post mile 72.28. These updated post miles supplant the earlier north and south boundaries of the Historic District (Monterey County P.M. 0.0 to defined in Pavlik (Monterey County P.M. 0.0 to 72.28). Between these two points, the district consists of the highway roadbed (not a contributing element) and the 241 contributing resources listed in Table 1. The district is defined to include only those resources; intervening land, buildings, structures, or any other built features not specifically listed in Table 1 are not part of the historic district, either as contributors or non-contributors. The width of the district is determined by the footprints of the individual contributing elements; only those elements that are located within the State right-of-way are considered contributing elements.

2. This study agrees with Pavlik's conclusion that the Historic District is eligible under Criterion C, but also finds that it is significant under Criterion A for its associations with the "highway beautification" movement that reached its peak in California during the late 1920s and 1930s. This study further determines that eligibility under Criterion C is modified to include construction by both skilled and unskilled masons. The key aspect of the method of construction is that the work employed extensive use of handcrafted masonry, which was generally -- but not exclusively -- executed by skilled masons.

3. The period of significance for the Historic District is 1922-1938, which represents the construction period for all of the constituent resources (the rubble masonry resources were constructed between 1922 and 1937, and the bridges were constructed between 1931 and 1938). This updated period of significance replaces the period (1920s-30s) defined in Pavlik.

Finally, the Carmel-San Simeon Highway Historic District has been evaluated in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines, using the criteria outlined in Section 5024.1 of the California Public Resources Code. The district appears to be a historical resource for the purposes of CEQA under Criterion 1 because it is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage, and under Criterion 3 as it embodies the distinctive characteristics of a type, period, region, and method of construction.

CONTINUATION SHEET FOR PRIMARY RECORD

P3a. Description (continued):

Table 1. Contributing Features of the Carmel-San Simeon Highway Historic District

Identifier	Property Type	County	Post Mile	Quadrangle	UTM Zone	UTM Easting	UTM Northing	Side of Highway
DL-601	Retaining Wall	SLO	71.81	Burro Mountain	10	651803	3959510	Left
DL-627	Retaining Wall	SLO	73.04	Burro Mountain	10	650932	3961004	Left
DL-628	Retaining Wall	SLO	73.05	Burro Mountain	10	650912	3961021	Left
DL-629	Retaining Wall	SLO	73.08	Burro Mountain	10	650900	3961028	Left
DL-546	Retaining Wall	SLO	74.06	Burro Mountain	10	649934	3962138	Left
DM-545 (P-27-002422)	Retaining Wall	MON	00.30	Burro Mountain	10	649430	3962921	Left
DM-540	Culvert Headwall	MON	01.54	Burro Mountain	10	648440	3963649	Right
DM-536	Culvert Headwall	MON	02.41	Burro Mountain	10	648178	3964371	Right
DM-526	Water Fountain - Soda	MON	03.82	Burro Mountain	10	646968	3965170	Right
DM-525	Retaining Wall	MON	05.05	Villa Creek	10	645577	3966122	Left
DM-524	Culvert Headwall	MON	05.35	Villa Creek	10	645348	3966488	Right
DM-522	Parapet Wall - Arcade Style	MON	05.50	Villa Creek	10	645258	3966657	Left
DM-521	Water Fountain - Big Redwood	MON	05.59	Villa Creek	10	645398	3966780	Right
DM-519	Parapet Wall - Arcade Style	MON	05.73	Villa Creek	10	645129	3966729	Left
DM-518	Culvert Headwall	MON	05.78	Villa Creek	10	645042	3966744	Right
DM-517	Culvert Headwall	MON	05.95	Villa Creek	10	644898	3966857	Right
DM-515	Parapet Wall - Battlement Style	MON	06.09	Villa Creek	10	644687	3967047	Left
DM-514	Culvert Headwall	MON	06.40	Villa Creek	10	644470	3967436	Right
DM-511	Parapet Wall - Arcade Style	MON	06.64	Villa Creek	10	644147	3967638	Left
DM-510	Culvert Headwall	MON	06.91	Villa Creek	10	643950	3967954	Right
DM-509	Parapet Wall - Battlement Style	MON	06.94	Villa Creek	10	643937	3967999	Left
DM-508	Parapet Wall - Battlement Style	MON	07.00	Villa Creek	10	643934	3968112	Left
DM-507	Parapet Wall - Battlement Style	MON	07.10	Villa Creek	10	643841	3698288	Right

CONTINUATION SHEET FOR PRIMARY RECORD

P3a. Description (continued):

Identifier	Property Type	County	Post Mile	Quadrangle	UTM Zone	UTM Easting	UTM Northing	Side of Highway
DM-505	Culvert Headwall	MON	08.98	Villa Creek	10	641643	3969938	Right
DM-504	Parapet Wall - Battlement Style	MON	09.06	Villa Creek	10	641513	3970003	Left
DM-503	Parapet Wall - Battlement Style	MON	09.14	Villa Creek	10	641405	3970060	Left
DM-502	Parapet Wall - Battlement Style	MON	09.17	Villa Creek	10	641355	3970078	Left
DM-501	Culvert Headwall	MON	09.25	Villa Creek	10	641294	3970212	Right
DM-500	Culvert Headwall	MON	09.55	Villa Creek	10	641025	3970537	Right
DM-414	Culvert Headwall	MON	10.73	Cape San Martin	10	639687	3971816	Right
DM-416	Culvert Headwall	MON	10.94	Cape San Martin	10	639406	3971971	Right
DM-418	Culvert Headwall	MON	11.25	Cape San Martin	10	639069	3972325	Right
DM-419	Culvert Headwall	MON	11.32	Cape San Martin	10	639049	3972444	Left
DM-420	Water Fountain - Willow Creek	MON	12.01	Cape San Martin	10	639110	3973498	Right
DM-605	Culvert Headwall	MON	12.91	Cape San Martin	10	638683	3974739	Right
DM-426	Culvert Headwall	MON	13.34	Cape San Martin	10	638277	3975316	Right
DM-427	Culvert Headwall	MON	13.45	Cape San Martin	10	638216	3975499	Right
DM-606	Culvert Headwall	MON	13.94	Cape San Martin	10	638494	3976187	Right
DM-428	Culvert Headwall	MON	14.46	Cape San Martin	10	638309	3977016	Right
DM-430	Culvert Headwall	MON	15.07	Cape San Martin	10	638023	3977951	Right
DM-431	Culvert Headwall	MON	15.42	Cape San Martin	10	637746	3978427	Right
DM-432	Culvert Headwall	MON	15.48	Cape San Martin	10	637685	3978531	Right
DM-433	Culvert Headwall	MON	15.88	Cape San Martin	10	637352	3979099	Right
DM-435	Culvert Headwall	MON	15.95	Cape San Martin	10	637300	3979187	Right
DM-412	Culvert Headwall	MON	16.90	Cape San Martin	10	636825	3980500	Right
DM-410	Culvert Headwall	MON	17.10	Cape San Martin	10	636791	3980924	Right
DM-408	Culvert Headwall	MON	17.54	Cape San Martin	10	636688	3981656	Right

CONTINUATION SHEET FOR PRIMARY RECORD

P3a. Description (continued):

Identifier	Property Type	County	Post Mile	Quadrangle	UTM Zone	UTM Easting	UTM Northing	Side of Highway
DM-405	Parapet Wall - Battlement Style	MON	18.00	Cape San Martin	10	636355	3982305	Left
DM-404	Culvert Headwall	MON	18.08	Cape San Martin	10	636286	3982515	Right
DM-609	Culvert Headwall	MON	19.70	Cape San Martin	10	635287	3984687	Right
DM-352	Parapet Wall - Battlement Style	MON	19.98	Lopez Point	10	634932	3984994	Left
DM-351	Parapet Wall - Battlement Style	MON	20.07	Lopez Point	10	634828	3985095	Left
DM-350	Parapet Wall - Battlement Style	MON	20.09	Lopez Point	10	634805	3985113	Left
DM-349	Parapet Wall - Battlement Style	MON	20.10	Lopez Point	10	634786	3985124	Left
DM-348	Culvert Headwall	MON	20.23	Lopez Point	10	634634	3985247	Right
DM-347	Parapet Wall - Battlement Style	MON	20.24	Lopez Point	10	634607	3985265	Left
DM-610	Culvert Headwall	MON	20.29	Lopez Point	10	634591	3985306	Right
DM-346	Parapet Wall - Battlement Style	MON	20.40	Lopez Point	10	634454	3985408	Left
DM-354	Water Fountain - Lucia	MON	20.40	Lopez Point	10	634461	3985429	Right
DM-345	Culvert Headwall	MON	20.48	Lopez Point	10	634338	3985501	Right
DM-344	Parapet Wall - Battlement Style	MON	20.57	Lopez Point	10	634195	3985591	Left
DM-343	Parapet Wall - Battlement Style	MON	21.18	Lopez Point	10	633265	3985841	Left
DM-341	Culvert Headwall	MON	22.40	Lopez Point	10	631735	3986900	Right
DM-340	Culvert Headwall	MON	22.86	Lopez Point	10	631019	3987038	Right
DM-338	Culvert Headwall	MON	23.29	Lopez Point	10	630385	3987167	Right
DM-611	Culvert Headwall	MON	24.07	Lopez Point	10	629205	3987183	Right
DM-334	Culvert Headwall	MON	25.35	Lopez Point	10	628045	3988855	Right
DM-333	Culvert Headwall	MON	25.45	Lopez Point	10	627991	3989003	Right
DM-332	Culvert Headwall	MON	25.50	Lopez Point	10	627974	3989075	Right
DM-331	Culvert Headwall	MON	25.61	Lopez Point	10	627895	3989244	Right
DM-330	Culvert Headwall	MON	25.68	Lopez Point	10	627826	3989324	Right

CONTINUATION SHEET FOR PRIMARY RECORD

P3a. Description (continued):

Identifier	Property Type	County	Post Mile	Quadrangle	UTM Zone	UTM Easting	UTM Northing	Side of Highway
DM-329	Culvert Headwall	MON	26.35	Lopez Point	10	627128	3990138	Right
DM-328	Parapet Wall - Battlement Style	MON	26.43	Lopez Point	10	627120	3990206	Left
DM-327	Culvert Headwall	MON	26.50	Lopez Point	10	627266	3990313	Right
DM-326	Culvert Headwall	MON	26.55	Lopez Point	10	627325	3990530	Right
DM-325	Parapet Wall - Battlement Style	MON	26.71	Lopez Point	10	627306	3990623	Left
DM-353	Water Fountain - Senator E. Rigdon	MON	26.92	Lopez Point	10	627127	3990887	Right
DM-324	Culvert Headwall	MON	26.99	Lopez Point	10	627077	3990988	Right
DM-323	Culvert Headwall	MON	27.75	Lopez Point	10	626704	3992079	Right
DM-322	Bridge - Big Creek	MON	28.15	Lopez Point	10	626161	3992429	Both
DM-339	Parapet Wall - Unadorned (flat)	MON	28.21	Lopez Point	10	626075	3992451	Left
DM-612	Culvert Headwall	MON	28.48	Lopez Point	10	625585	3992819	Right
DM-313	Culvert Headwall	MON	29.92	Lopez Point	10	624543	3994509	Right
DM-312	Culvert Headwall	MON	30.02	Lopez Point	10	624550	3994665	Right
DM-306	Culvert Headwall	MON	30.33	Lopez Point	10	624391	3995138	Right
DM-301	Culvert Headwall	MON	31.73	Lopez Point	10	623536	3997106	Right
DM-257	Culvert Headwall	MON	35.11	Partington Ridge	10	620342	4001292	Right
DM-256	Culvert Headwall	MON	35.58	Partington Ridge	10	619755	4001888	Right
DM-255	Culvert Headwall	MON	35.92	Partington Ridge	10	619583	4002267	Right
DM-254	Parapet Wall - Battlement Style	MON	35.93	Partington Ridge	10	619560	4002267	Left
DM-252	Parapet Wall - Battlement Style	MON	36.16	Partington Ridge	10	619397	4002589	Left
DM-251	Parapet Wall - Battlement Style	MON	36.47	Partington Ridge	10	619105	4002972	Left
DM-250	Parapet Wall - Battlement Style	MON	36.49	Partington Ridge	10	619083	4003001	Left
DM-246	Culvert Headwall	MON	36.69	Partington Ridge	10	618870	4003227	Right
DM-243	Culvert Headwall	MON	37.13	Partington Ridge	10	618269	4003512	Right

CONTINUATION SHEET FOR PRIMARY RECORD

P3a. Description (continued):

Identifier	Property Type	County	Post Mile	Quadrangle	UTM Zone	UTM Easting	UTM Northing	Side of Highway
DM-242	Culvert Headwall	MON	37.20	Partington Ridge	10	618187	4003587	Right
DM-239	Culvert Headwall	MON	37.44	Partington Ridge	10	617836	4003754	Right
DM-238	Parapet Wall - Battlement Style	MON	37.73	Partington Ridge	10	617534	4004021	Left
DM-237	Culvert Headwall	MON	37.74	Partington Ridge	10	617563	4004042	Both
DM-236	Culvert Headwall	MON	37.85	Partington Ridge	10	617563	4004181	Right
DM-234	Parapet Wall - Battlement Style	MON	37.92	Partington Ridge	10	617456	4004171	Left
DM-235	Culvert Headwall	MON	37.92	Partington Ridge	10	617467	4004183	Right
DM-233	Culvert Headwall	MON	37.99	Partington Ridge	10	617365	4004193	Right
DM-231	Parapet Wall - Battlement Style	MON	38.00	Partington Ridge	10	617342	4004189	Left
DM-230	Culvert Headwall	MON	38.05	Partington Ridge	10	617262	4004191	Right
DM-232	Retaining Wall	MON	38.08	Partington Ridge	10	617221	4004158	Left
DM-229	Culvert Headwall	MON	38.09	Partington Ridge	10	617211	4004163	Right
DM-228	Culvert Headwall	MON	38.18	Partington Ridge	10	617128	4004224	Right
DM-226	Parapet Wall - Battlement Style	MON	38.23	Partington Ridge	10	617114	4004304	Left
DM-224	Parapet Wall - Battlement Style	MON	38.26	Partington Ridge	10	617094	4004354	Left
DM-225	Culvert Headwall	MON	38.26	Partington Ridge	10	617098	4004364	Right
DM-223	Parapet Wall - Battlement Style	MON	38.32	Partington Ridge	10	617060	4004428	Left
DM-222	Culvert Headwall	MON	38.35	Partington Ridge	10	617036	4004486	Right
DM-221	Culvert Headwall	MON	38.41	Partington Ridge	10	617010	4004563	Right
DM-220	Parapet Wall - Battlement Style	MON	38.42	Partington Ridge	10	617005	4004592	Left
DM-219	Parapet Wall - Battlement Style	MON	38.44	Partington Ridge	10	617007	4004629	Left
DM-218	Culvert Headwall	MON	38.45	Partington Ridge	10	616998	4004647	Right
DM-217	Parapet Wall - Unadorned (flat)	MON	38.46	Partington Ridge	10	617005	4004658	Left
DM-216	Culvert Headwall	MON	38.52	Partington Ridge	10	617004	4004742	Right

CONTINUATION SHEET FOR PRIMARY RECORD

P3a. Description (continued):

Identifier	Property Type	County	Post Mile	Quadrangle	UTM Zone	UTM Easting	UTM Northing	Side of Highway
DM-215	Culvert Headwall	MON	38.58	Partington Ridge	10	616951	4004840	Right
DM-214	Culvert Headwall	MON	38.72	Partington Ridge	10	616837	4005026	Right
DM-212	Culvert Headwall	MON	38.79	Partington Ridge	10	616755	4005099	Right
DM-208	Parapet Wall - Unadorned (flat)	MON	38.99	Partington Ridge	10	616490	4005278	Left
DM-207	Parapet Wall - Battlement Style	MON	39.05	Partington Ridge	10	616453	4005354	Left
DM-206	Parapet Wall - Battlement Style	MON	39.06	Partington Ridge	10	616451	4005386	Left
DM-205	Culvert Headwall	MON	39.18	Partington Ridge	10	616382	4005560	Right
DM-203	Parapet Wall - Battlement Style	MON	39.58	Partington Ridge	10	615996	4006024	Left
DM-202	Parapet Wall - Battlement Style	MON	39.65	Partington Ridge	10	616012	4006136	Left
DM-200	Parapet Wall - Unadorned (flat)	MON	39.81	Partington Ridge	10	615923	4006341	Left
DM-199	Culvert Headwall	MON	39.83	Partington Ridge	10	615891	4006333	Right
DM-198	Parapet Wall - Battlement Style	MON	39.94	Partington Ridge	10	615838	4006226	Left
DM-196	Parapet Wall - Battlement Style	MON	40.01	Partington Ridge	10	615697	4006196	Left
DM-195	Parapet Wall - Battlement Style	MON	40.05	Partington Ridge	10	615663	4006244	Left
DM-194	Culvert Headwall	MON	40.34	Partington Ridge	10	615349	4006533	Both
DM-193	Culvert Headwall	MON	40.56	Partington Ridge	10	615051	4006709	Right
DM-191	Culvert Headwall	MON	40.76	Partington Ridge	10	614768	4006767	Right
DM-190	Culvert Headwall	MON	40.98	Partington Ridge	10	614484	4006888	Right
DM-189	Culvert Headwall	MON	41.04	Partington Ridge	10	614406	4006877	Right
DM-188	Parapet Wall - Battlement Style	MON	41.05	Partington Ridge	10	614378	4006885	Left
DM-187	Parapet Wall - Battlement Style	MON	41.07	Partington Ridge	10	614351	4006919	Left
DM-186	Culvert Headwall	MON	41.09	Partington Ridge	10	614337	4006942	Right
DM-185	Culvert Headwall	MON	41.16	Partington Ridge	10	614329	4007054	Right
DM-184	Parapet Wall - Battlement Style	MON	41.17	Partington Ridge	10	614314	4007069	Left

CONTINUATION SHEET FOR PRIMARY RECORD

P3a. Description (continued):

Identifier	Property Type	County	Post Mile	Quadrangle	UTM Zone	UTM Easting	UTM Northing	Side of Highway
DM-183	Parapet Wall - Battlement Style	MON	41.23	Partington Ridge	10	614257	4007139	Left
DM-182	Parapet Wall - Unadorned (flat)	MON	41.29	Partington Ridge	10	614190	4007191	Left
DM-181	Culvert Headwall	MON	41.32	Partington Ridge	10	614166	4007235	Right
DM-180	Parapet Wall - Battlement Style	MON	41.40	Partington Ridge	10	614062	4007225	Left
DM-178	Parapet Wall - Battlement Style	MON	41.44	Partington Ridge	10	614001	4007192	Left
DM-177	Parapet Wall - Battlement Style	MON	41.47	Partington Ridge	10	613939	4007199	Left
DM-176	Culvert Headwall	MON	41.50	Partington Ridge	10	613902	4007214	Right
DM-175	Retaining Wall	MON	41.52	Partington Ridge	10	613866	4007221	Left
DM-174	Parapet Wall - Battlement Style	MON	41.55	Partington Ridge	10	613820	4007248	Left
DM-173	Culvert Headwall	MON	41.61	Partington Ridge	10	613769	4007312	Right
DM-172	Parapet Wall - Unadorned (flat)	MON	41.64	Partington Ridge	10	613797	4007365	Right
DM-171	Culvert Headwall	MON	41.69	Partington Ridge	10	613821	4007431	Right
DM-168	Parapet Wall - Unadorned (flat)	MON	41.94	Partington Ridge	10	613732	4007620	Left
DM-165	Culvert Headwall	MON	42.16	Partington Ridge	10	613460	4007722	Right
DM-164	Culvert Headwall	MON	42.40	Partington Ridge	10	613160	4007938	Right
DM-163	Culvert Headwall	MON	42.49	Partington Ridge	10	613106	4008063	Right
DM-162	Culvert Headwall	MON	42.54	Partington Ridge	10	613027	4008038	Right
DM-161	Culvert Headwall	MON	42.73	Partington Ridge	10	612763	4008148	Right
DM-159	Culvert Headwall	MON	42.90	Partington Ridge	10	612546	4008283	Right
DM-156	Culvert Headwall	MON	43.78	Pfeiffer Point	10	611778	4009124	Right
DM-155	Culvert Headwall	MON	43.84	Pfeiffer Point	10	611680	4009131	Right
DM-153	Culvert Headwall	MON	44.08	Pfeiffer Point	10	611630	4009419	Right
DM-152	Culvert Headwall	MON	44.62	Pfeiffer Point	10	611102	4009959	Right
DM-150	Culvert Headwall	MON	44.74	Pfeiffer Point	10	611013	4010133	Right

CONTINUATION SHEET FOR PRIMARY RECORD

P3a. Description (continued):

Identifier	Property Type	County	Post Mile	Quadrangle	UTM Zone	UTM Easting	UTM Northing	Side of Highway
DM-149	Culvert Headwall	MON	45.03	Pfeiffer Point	10	610796	4010537	Left
DM-615	Culvert Headwall	MON	45.28	Pfeiffer Point	10	610570	4010755	Right
DM-148	Culvert Headwall	MON	45.32	Pfeiffer Point	10	610461	4010889	Left
DM-146	Culvert Headwall	MON	45.68	Pfeiffer Point	10	610039	4011056	Left
DM-144	Culvert Headwall	MON	45.83	Pfeiffer Point	10	609817	4011318	Right
DM-143	Culvert Headwall	MON	45.88	Pfeiffer Point	10	609776	4011395	Right
DM-142	Culvert Headwall	MON	45.94	Pfeiffer Point	10	609716	4011475	Right
DM-141	Culvert Headwall	MON	45.97	Pfeiffer Point	10	609679	4011518	Left
DM-140	Culvert Headwall	MON	46.01	Pfeiffer Point	10	609655	4011560	Right
DM-138	Culvert Headwall	MON	46.07	Pfeiffer Point	10	609617	4011657	Right
DM-139	Culvert Headwall	MON	46.10	Pfeiffer Point	10	609635	4011606	Right
DM-137	Culvert Headwall	MON	46.11	Pfeiffer Point	10	609611	4011724	Right
DM-135	Culvert Headwall	MON	46.58	Big Sur	10	609197	4012211	Right
DM-133	Culvert Headwall	MON	46.69	Big Sur	10	609047	4012407	Both
DM-132	Culvert Headwall	MON	46.93	Big Sur	10	608959	4012762	Right
DM-131	Culvert Headwall	MON	47.12	Big Sur	10	608948	4013068	Right
DM-129	Culvert Headwall	MON	47.34	Big Sur	10	608704	4013289	Right
DM-616	Culvert Headwall	MON	48.28	Big Sur	10	607564	4013989	Right
DM-120	Culvert Headwall	MON	48.30	Big Sur	10	607525	4014011	Right
DM-117	Culvert Headwall	MON	49.15	Big Sur	10	606625	4014647	Right
DM-116	Culvert Headwall	MON	49.23	Big Sur	10	606409	4014640	Right
DM-115	Culvert Headwall	MON	49.32	Big Sur	10	606232	4014777	Right
DM-114	Culvert Headwall	MON	49.48	Big Sur	10	606064	4014950	Right
DM-113	Culvert Headwall	MON	49.90	Big Sur	10	605441	4015148	Right

CONTINUATION SHEET FOR PRIMARY RECORD

P3a. Description (continued):

Identifier	Property Type	County	Post Mile	Quadrangle	UTM Zone	UTM Easting	UTM Northing	Side of Highway
DM-112	Culvert Headwall	MON	50.14	Big Sur	10	605182	4015406	Right
DM-111	Culvert Headwall	MON	50.17	Big Sur	10	605146	4015440	Right
DM-110	Culvert Headwall	MON	50.28	Big Sur	10	604999	4015572	Right
DM-109	Culvert Headwall	MON	50.33	Big Sur	10	604960	4015607	Right
DM-107	Culvert Headwall	MON	50.41	Big Sur	10	604854	4015696	Right
DM-106	Culvert Headwall	MON	50.55	Big Sur	10	604653	4015773	Right
DM-105	Culvert Headwall	MON	50.59	Big Sur	10	604573	4015802	Right
DM-104	Culvert Headwall	MON	50.67	Big Sur	10	604450	4015838	Right
DM-103	Culvert Headwall	MON	50.77	Big Sur	10	604307	4015897	Right
DM-102	Culvert Headwall	MON	51.08	Big Sur	10	604022	4016292	Right
DM-101	Culvert Headwall	MON	52.71	Big Sur	10	601667	4017238	Right
DM-034	Retaining Wall	MON	58.27	Big Sur	10	598583	4023913	Left
DM-032	Bridge - Bixby Creek	MON	59.44	Point Sur	10	598612	4025500	Both
DM-031	Parapet Wall - Battlement Style	MON	60.03	Soberanes Point	10	598459	4026298	Left
DM-030B	Bridge - Rocky Creek	MON	60.11	Soberanes Point	10	598529	4026380	Both
DM-028	Bridge - Garrapata Creek	MON	63.00	Soberanes Point	10	597472	4030581	Both
DM-027	Bridge - Granite Canyon	MON	64.39	Soberanes Point	10	596969	4032666	Both
DM-025	Bridge - Malpaso Creek	MON	67.90	Soberanes Point	10	595302	4037709	Both
DM-024	Culvert Headwall	MON	68.82	Soberanes Point	10	595207	4038876	Right
DM-617	Culvert Headwall	MON	68.82	Soberanes Point	10	595272	4039146	Right
DM-023	Culvert Headwall	MON	68.89	Soberanes Point	10	595303	4039285	Right
DM-022	Bridge - Wildcat Creek	MON	69.02	Soberanes Point	10	595391	4039492	Both
DM-021	Parapet Wall - Battlement Style	MON	69.10	Soberanes Point	10	595395	4039604	Left
DM-019	Parapet Wall - Battlement Style	MON	69.15	Soberanes Point	10	595345	4039661	Left

CONTINUATION SHEET FOR PRIMARY RECORD

P3a. Description (continued):

Identifier	Property Type	County	Post Mile	Quadrangle	UTM Zone	UTM Easting	UTM Northing	Side of Highway
DM-020	Parapet Wall - Battlement Style	MON	69.20	Soberanes Point	10	595284	4039719	Left
DM-018	Parapet Wall - Battlement Style	MON	69.26	Monterey	10	595235	4039802	Left
DM-618	Culvert Headwall	MON	69.33	Monterey	10	595210	4039884	Right
DM-017	Parapet Wall - Battlement Style	MON	69.34	Monterey	10	595185	4039906	Left
DM-015	Culvert Headwall	MON	69.46	Monterey	10	595226	4040108	Right
DM-014	Culvert Headwall	MON	69.66	Monterey	10	595377	4040379	Right
DM-013	Culvert Headwall	MON	70.02	Monterey	10	595189	4040893	Right
DM-012	Culvert Headwall	MON	70.10	Monterey	10	595189	4041005	Right
DM-011	Culvert Headwall	MON	70.15	Monterey	10	595194	4041105	Right
DM-010	Culvert Headwall	MON	70.32	Monterey	10	595245	4041371	Right
DM-009	Culvert Headwall	MON	70.46	Monterey	10	595342	4041579	Right
DM-008	Culvert Headwall	MON	70.55	Monterey	10	595424	4041693	Right
DM-007	Culvert Headwall	MON	70.58	Monterey	10	595465	4041738	Right
DM-619	Culvert Headwall	MON	70.88	Monterey	10	595815	4041982	Right
DM-620	Culvert Headwall	MON	70.88	Monterey	10	595806	4042003	Left
DM-621	Culvert Headwall	MON	71.05	Monterey	10	596036	4042132	Right
DM-622	Culvert Headwall	MON	71.28	Monterey	10	596316	4042390	Right
DM-006	Culvert Headwall	MON	71.34	Monterey	10	596394	4042482	Right
DM-005	Culvert Headwall	MON	71.35	Monterey	10	596418	4042504	Right
DM-004	Culvert Headwall	MON	71.44	Monterey	10	596525	4042616	Right
DM-623	Culvert Headwall	MON	71.90	Monterey	10	597020	4043153	Right
DM-624	Culvert Headwall	MON	71.90	Monterey	10	597020	4043153	Left
DM-002	Culvert Headwall	MON	72.05	Monterey	10	597168	4043403	Right

CONTINUATION SHEET FOR PRIMARY RECORD

P3a. Description (continued):

Table 2. Comprehensive List of the Non-Contributing Resources Identified within the Boundaries of the Carmel-San Simeon Highway Historic District (sorted by post mile, from south to north)

Identifier	Property Type	County	Post Mile	Quadrangle	UTM Zone	UTM Easting	UTM Northing	Side of Hwy	Comments	Reason for Ineligibility
DL-626	Retaining Wall	SLO	73.02	Burro Mountain	10	650969	3960975	Right	Mostly destroyed	Loss of integrity
DL-545	Culvert	SLO	74.26	Burro Mountain	10	649700	3962269	Right	poor condition; concrete cap	loss of integrity
DM-535	Culvert	MON	02.45	Burro Mountain	10	648141	3964311	Right	sac-crete bags across top	loss of integrity
-529	Culvert	MON	03.55	Burro Mountain	10	647011	3964775	Right	high amount of damage	loss of integrity
DM-523	Culvert	MON	05.42	Villa Creek	10	645257	3966542	Right	top layer missing	loss of integrity
DM-520	Culvert	MON	05.71	Villa Creek	10	645160	3966752	Right	collapsed	loss of integrity
DM-516	Culvert	MON	06.02	Villa Creek	10	644757	3966961	Right	collapsed	loss of integrity
DM-513	Culvert	MON	06.48	Villa Creek	10	644368	3967503	Right	disturbed-little mortar remaining	loss of integrity
DM-512	Culvert	MON	06.63	Villa Creek	10	644170	3967637	Right	mostly destroyed	loss of integrity
DM-506	Culvert	MON	08.74	Villa Creek	10	641930	3969715	Right	very disturbed	loss of integrity
DM-415	Culvert	MON	10.84	Cape San Martin	10	639525	3971861	Right	damaged	loss of integrity
DM-417	Culvert	MON	11.17	Cape San Martin	10	639151	3972231	Right	damage from heavy equipment	loss of integrity
DM-421	Culvert	MON	12.39	Cape San Martin	10	638900	3974020	Right	partially destroyed	loss of integrity
DM-422	Culvert	MON	12.54	Cape San Martin	10	638970	3974235	Right	partially destroyed	loss of integrity
DM-423	Culvert	MON	12.62	Cape San Martin	10	638895	3974351	Right	partially destroyed	loss of integrity
DM-424	Culvert	MON	13.12	Cape San Martin	10	638467	3975039	Right	partially destroyed	loss of integrity
DM-425	Culvert	MON	13.25	Cape San Martin	10	638353	3975202	Right	partially destroyed	loss of integrity

CONTINUATION SHEET FOR PRIMARY RECORD

P3a. Description (continued):

DM-607	Culvert	MON	14.38	Cape San Martin	10	638360	3976894	Right	south portion deteriorating	loss of integrity
DM-434	Culvert	MON	15.92	Cape San Martin	10	637331	3979135	Right	top layer missing	loss of integrity
DM-411	Culvert	MON	16.97	Cape San Martin	10	636809	3980707	Right	modern rock culvert	outside period of significance
DM-407	Culvert	MON	17.57	Cape San Martin	10	636638	3981708	Right	eroding	loss of integrity
DM-406	Culvert	MON	17.68	Cape San Martin	10	636576	3981782	Right	modern stacked stone, no mortar	outside period of significance
DM-608	Culvert	MON	18.88	Cape San Martin	10	635870	3983491	Right	heavy damage	loss of integrity
DM-401	Culvert	MON	19.35	Cape San Martin	10	635634	3983992	Right	missing many stones	loss of integrity
DM-400	Culvert	MON	19.57	Cape San Martin	10	638206	3977526	Right	modern stacked stone	outside period of significance
-342	Culvert	MON	22.27	Lopez Point	10	631907	3986828	Right	headwall destroyed	loss of integrity
DM-337	Culvert	MON	23.36	Lopez Point	10	630282	3987164	Right	modern dry stacked	outside period of significance
DM-336	Culvert	MON	23.61	Lopez Point	10	629855	3987141	Right	totally destroyed	loss of integrity
DM-335	Culvert	MON	25.21	Lopez Point	10	628153	3988664	Right	major damage	loss of integrity
DM-321	Culvert	MON	28.78	Lopez Point	10	625592	3993100	Right	deteriorated	loss of integrity
DM-320	Culvert	MON	28.96	Lopez Point	10	625341	3993268	Right	modern concrete box and metal grate	outside period of significance
DM-319	Culvert	MON	29.06	Lopez Point	10	625222	3993359	Right	almost totally destroyed	loss of integrity
DM-318	Culvert	MON	29.13	Lopez Point	10	625155	3993470	Right	rebuilt with coarse sand mortar	loss of integrity
DM-317	Culvert	MON	29.33	Lopez Point	10	624994	3993734	Right	partially intact with new concrete header	loss of integrity
DM-315	Culvert	MON	29.59	Lopez Point	10	624805	3994111	Right	damage to north end	loss of integrity
DM-314	Culvert	MON	29.63	Lopez Point	10	624770	3994156	Right	missing substantial stone and mortar	loss of integrity
-311	Culvert	MON	30.09	Lopez Point	10	624485	3994761	Right	many missing stones	loss of integrity
DM-307	Culvert	MON	30.22	Lopez Point	10	624449	3994976	Right	low integrity	loss of integrity

CONTINUATION SHEET FOR PRIMARY RECORD

P3a. Description (continued):

DM-305	Culvert	MON	30.37	Lopez Point	10	624380	3995186	Right	missing stones and mortar	loss of integrity
DM-304	Culvert	MON	30.45	Lopez Point	10	624367	3995305	Right	heavy damage	loss of integrity
DM-613	Culvert	MON	30.52	Lopez Point	10	624366	3995424	Right	north end missing	loss of integrity
DM-303	Culvert	MON	31.04	Lopez Point	10	624161	3996137	Right	damage at center	loss of integrity
DM-300	Culvert	MON	31.89	Lopez Point	10	623465	3997349	Right	top of wall missing	loss of integrity
DM-264	Culvert	MON	33.25	Partington Ridge	10	622153	3998997	Right	severely damaged	loss of integrity
DM-263	Culvert	MON	33.34	Partington Ridge	10	622083	3999121	Right	partially intact but damaged	loss of integrity
DM-262	Culvert	MON	33.87	Partington Ridge	10	621650	3999860	Right	substantially damaged	loss of integrity
I-261	Culvert	MON	34.47	Partington Ridge	10	621021	4000590	Right	totally destroyed	loss of integrity
DM-260	Culvert	MON	34.53	Partington Ridge	10	620968	4000656	Right	some stones removed	loss of integrity
DM-259	Culvert	MON	34.60	Partington Ridge	10	620899	4000741	Right	damage to north and south ends	loss of integrity
DM-258	Culvert	MON	34.63	Partington Ridge	10	620875	4000797	Right	fragment of culvert; severely damaged	loss of integrity
DM-253	Culvert	MON	36.05	Partington Ridge	10	619483	4002436	Right	ends are substantially damaged	loss of integrity
DM-248	Culvert	MON	36.52	Partington Ridge	10	619057	4003044	Right	fragment with cement cap	loss of integrity
DM-249	Culvert	MON	36.52	Partington Ridge	10	619070	4003033	Right	center portion missing	loss of integrity
DM-247	Culvert	MON	36.59	Partington Ridge	10	618993	4003139	Right	half collapsed	loss of integrity
DM-245	Culvert	MON	36.92	Partington Ridge	10	618536	4003377	Right	modern	outside period of significance
DM-244	Vista Point	MON	37.00	Partington Ridge	10	618375	4003353	Left	Piers not historic; modified over time	outside period of significance
DM-241	Culvert	MON	37.29	Partington Ridge	10	618023	4003627	Right	missing top layers	loss of integrity
M-240	Culvert	MON	37.36	Partington Ridge	10	617941	4003676	Right	heavily damaged	loss of integrity
DM-227	Culvert	MON	38.22	Partington Ridge	10	617127	4004291	Right	substantial damage to north end	loss of integrity

CONTINUATION SHEET FOR PRIMARY RECORD

P3a. Description (continued):

DM-213	Culvert	MON	38.75	Partington Ridge	10	616794	4005067	Right	large piece missing from north end	loss of integrity
DM-211	Culvert	MON	38.84	Partington Ridge	10	616682	4005159	Right	Half of headwall deteriorated/ missing	loss of integrity
DM-210	Culvert	MON	38.91	Partington Ridge	10	616585	4005213	Right	some damage to south end	loss of integrity
DM-209	Culvert	MON	38.99	Partington Ridge	10	616494	4005284	Right	substantial damage both ends	loss of integrity
DM-197	Culvert	MON	39.94	Partington Ridge	10	615821	4006211	Right	heavy damage	loss of integrity
DM-192	Culvert	MON	40.71	Partington Ridge	10	614845	4006770	Right	heavy damage both ends	loss of integrity
DM-179	Culvert	MON	41.42	Partington Ridge	10	614045	4007196	Right	large crack at center; deterioration at both ends	loss of integrity
DM-170	Culvert	MON	41.73	Partington Ridge	10	613873	4007483	Right	damage to north wall	loss of integrity
DM-169	Culvert	MON	41.91	Partington Ridge	10	613785	4007628	Right	damage to south end	loss of integrity
DM-167	Culvert	MON	41.95	Partington Ridge	10	613713	4007633	Right	patched with modern concrete on north end	loss of integrity
DM-166	Culvert	MON	42.08	Partington Ridge	10	613528	4007633	Right	heavy damage	loss of integrity
DM-160	Culvert	MON	42.86	Partington Ridge	10	612622	4008268	Left	modern concrete box and metal grate	outside period of significance
DM-614	Culvert	MON	43.07	Partington Ridge	10	612406	4008421	Left	deteriorated	loss of integrity
DM-157	Culvert	MON	43.49	Pfeiffer Point	10	612028	4008835	Right	modern concrete	outside period of significance
DM-154	Culvert	MON	43.93	Pfeiffer Point	10	611625	4009246	Right	stone missing on top	loss of integrity
DM-151	Culvert	MON	44.67	Pfeiffer Point	10	611076	4010048	Right	modern; rebuilt with quick-crete	outside period of significance
DM-615	Culvert	MON	45.28	Pfeiffer Point	10	610570	4010755	Right	loss of integrity	loss of integrity
DM-145	Culvert	MON	45.78	Pfeiffer Point	10	609838	4011244	Left	substantial damage	loss of integrity
DM-136	Culvert	MON	46.38	Pfeiffer Point	10	609349	4012040	Right	heavy damage	loss of integrity
DM-130	Culvert	MON	47.23	Big Sur	10	608876	4013219	Right	damage to center	loss of integrity
DM-128	Culvert	MON	47.45	Big Sur	10	608535	4013345	Right	modern concrete	outside period of significance
DM-127	Culvert	MON	47.62	Big Sur	10	608415	4013579	Right	damaged	loss of integrity
DM-126	Culvert	MON	47.66	Big Sur	10	608389	4013637	Right	north half destroyed	loss of integrity

CONTINUATION SHEET FOR PRIMARY RECORD

P3a. Description (continued):

DM-125	Culvert	MON	47.83	Big Sur	10	608156	4013749	Right	concrete slab and grate	loss of integrity
DM-124	Culvert	MON	47.92	Big Sur	10	608019	4013734	Right	collapsing	loss of integrity
DM-122	Culvert	MON	48.25	Big Sur	10	608015	4013978	Right	concrete slabs on upper half	loss of integrity
DM-121	Culvert	MON	48.28	Big Sur	10	607565	4013977	Right	modern, rock and concrete	outside period of significance
DM-119	Culvert	MON	48.34	Big Sur	10	607511	4014071	Right	major damage	loss of integrity
DM-118	Culvert	MON	48.95	Big Sur	10	606786	4014672	Right	iron grate in concrete slab	outside period of significance
DM-108	Culvert	MON	50.34	Big Sur	10	604943	4015619	Right	quick-crete and asphalt overlay	loss of integrity
DM-016	Culvert	MON	69.44	Monterey	10	595226	4040063	Left	iron grate in concrete slab	outside period of significance
DM-003	Culvert	MON	71.77	Monterey	10	596885	4042999	Right	replaced with modern	outside period of significance

***NRHP Status Code:** 2S2
***Resource Name or #:** Carmel-San Simeon Highway Historic District

D1. Historic Name: Carmel-San Simeon Highway **D2. Common Name:** State Highway 1

*** D3. Detailed Description:**

The Carmel-San Simeon Highway Historic District is a discontiguous historic district comprising 241 discrete contributing elements (see Table 1). The district derives its name from the rural state highway constructed between 1922 and 1938 to link the communities of Carmel and San Simeon by way of the Big Sur Coast. Beginning on the south at San Carpoforo Creek in San Luis Obispo County and continuing northward to the Carmel River in Monterey County, a distance of approximately 75 miles, the district consists of the 234 rubble masonry engineering features and seven concrete arch bridges that date to the original construction of the highway. The rubble masonry features – five roadside water fountains, 61 parapet walls, ten retaining walls, and 158 culvert headwalls – were designed in the rustic style and constructed of local stone, primarily through labor-intesive, handcrafted methods. The oldest features, rubble masonry retaining walls, were built in 1922 during the first phase of construction phase of the highway at the southern end of the district. The bridges were designed by the Division of Highways Bridge Department and built between 1931 and 1938.

Geographically, the features that comprise the historic district are linked by Highway 1, a predominantly rural route that closely parallels the ridgeline of the Santa Lucia Range. The range's steep western slopes are cut by numerous deep, narrow canyons with streams flowing to the Pacific Ocean, and its shoreline is rocky with few sandy beaches; coastal terraces are also rare. Within this coastal setting, the highway passes through a number of different natural and built environments. The majority of the historic district features are situated in rural settings variously characterized by coastal scrub, grasslands, chaparral, redwood forest, or riparian woodland. The district does pass through a few lightly developed areas, the densest of which are the Big Sur Village (situated along the banks of the Big Sur River) and Carmel Highlands, a predominantly residential enclave at the north end of the district. (See Continuation Sheet for District Record, "D3. Detailed Description")

*** D4. Boundary Description**

The Carmel-San Simeon Highway Historic District, on State Route 1, is a discontiguous historic district comprising 241 discrete contributing elements (Table 1). The district extends a distance of approximately 75 miles, from San Luis Obispo County post mile 71.34 to post mile 74.32 (the Monterey County line), and from Monterey County post mile 0.0 to post mile 72.28). Between these two points, the district consists of the highway roadbed (a non-contributing element) and the 241 individual elements listed in Table 1. The district is defined to include only these resources; intervening land, buildings, structures, or any other built features not specifically listed in Table 1 are not part of the historic district, either as contributors or non-contributors. The width of the district is determined by the placement of the footprints of the individual contributing elements. Table 2 presents a list of resources identified, evaluated and rejected as contributing resources (due to loss of integrity or construction dates outside the period of significance).

*** D5. Boundary Justification:**

See Continuation Sheet for District Record, "D5. Boundary Justification."

*** D6. Signficance: Theme:** Rural Highway Construction **Area:** Big Sur Coast, Monterey and San Luis Obispo Co.
Period of Significance 1922-1938 **Applicable Criteria:** A, C

The Carmel-San Simeon Highway Historic District (Historic District) has been previously determined eligible for listing in the National Register of Historic Places. In 1996, Caltrans Historian Robert Pavlik determined that the district appeared eligible for listing in the National Register under Criterion C as a significant example of type, period, and method of construction; the State Historic Preservation Officer (SHPO) concurred with this determination in March 2003 (see Appendix C). As originally defined, the district consisted of seven concrete arch bridges and 89 rubble masonry engineering features (water fountains, parapet guardrails, retaining walls, and culverts) built as part of the original Carmel-San Simeon Highway (Highway 1 through Big Sur). The period of significance was defined originally as the 1920s-30s.

The purpose of this evaluation is to update the original documentation, incorporating findings from several recent studies. The current study generally agrees with Pavlik's findings and conclusions, but also concludes that the Historic District appears eligible under Criterion A for its associations with the "highway beautification" movement that reached its peak in California during the late 1920s and 1930s. Criterion C eligibility is expanded to include rubble masonry resources by both skilled and unskilled labor. The district as a whole appears to retain a high enough degree of integrity to convey its historic significance. The district does not appear to be eligible under Criteria B or D. This evaluation also serves as a synthesis of the findings from studies of the Historic District subsequent to Pavlik (1996), most notably Mikkelsen et al. (2001) and Wee et al. (2004). As a result of these studies, the period of significance for the Historic District has been redefined as 1922-1938, which encompasses the construction dates for all of the contributing elements. The Historic District has also been expanded and redefined as a discontiguous district comprising 241 individual contributing elements along State Route 1 located between post mile 71.34 and post mile 74.32 in San Luis Obispo County and between post mile 0.0 and post mile 72.18 in Monterey County. None of the contributing rubble masonry features appear to be individually eligible for the National Register. However, each of the seven concrete arch bridges has been previously determined individually eligible, and has been automatically listed on the California Register of Historical Resources. Please refer to the attached BSO Records for discussions of individual eligibility.

Finally, the Carmel-San Simeon Highway Historic District has been evaluated in accordance with CEQA Guidelines, using the

criteria outlined in Section 5024.1 of the California Public Resources Code. The district appears to be a historical resource for the purposes of CEQA under Criterion 1 because it is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage, and under Criterion 3 as it embodies the distinctive characteristics of a type, period, region, and method of construction. (See Continuation Sheet for District Record, "D6. Significance")

*** D7. References:**

Mikkelsen, Patricia, et al., "Cultural Resources Inventory of Caltrans District 5 Rural Highways Monterey and San Luis Obispo Counties, California: Coast Highway 1: Post Mile 0.0 to 72.28 Monterey/San Luis Obispo County line to Carmel River and Post Mile 74.32 to 71.34 San Carpoforo River to the Monterey/San Luis Obispo County Line," three volumes. Prepared for Caltrans District 5, June 2001.

Pavlik, Robert C., "Historic Resource Evaluation Report: The Rock Retaining Walls, Parapets, Culvert Headwalls and Drinking Fountains along the Carmel to San Simeon Highway, 05-SLO-01 P.M. 46.0/74.3, 05-MON-01 P.M. 0.0/73.0." Prepared for Caltrans District 5, November 1996.

Wee, Stephen, and Bryan Larson, "Historical Resources Evaluation Report" (Draft report), Big Sur Culvert Replacement Project, Highway 1, Monterey and San Luis Obispo Counties, California, SLO-1-PM 72.04/74.32, MON-1-PM 0.0/72.18." Prepared for Caltrans District 5, October 2004.

(See Continuation Sheet for District Record,"D7. References" for full list of references)

*** D8. Evaluator:** Stephen Wee, Bryan Larson **Date:** 10/6/2004

Affiliation and Address: JRP Historical Consulting, 1490 Drew Avenue, Suite 110, Davis, CA 95616

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):

DESCRIPTION OF RUBBLE MASONRY WATER FOUNTAINS

Five roadside water fountains are contributing elements of the historic district: Soda Springs (or Soda Creek), Big Redwood (Redwood Gulch), Willow Creek (originally El Senador Creek), Lucia, and Senator Elmer S. Rigdon Memorial. The Division of Highways constructed the fountains in response to the public need for water along remote or arid stretches of state highways, where commercial or other facilities were not available. There were originally six fountains along a particularly isolated stretch of Highway 1, between post miles 3.82 and 26.92 in Monterey County, but the one located at Spruce Creek (approximate post mile 9.50) was demolished in 1967.

The six fountains were constructed between 1928 and 1935 under three separate contracts. Three fountains, Soda Springs, Big Redwood, and Spruce Creek, were built between 1928 and 1931 as part of the Salmon Creek to Spruce Creek contract. These fountains were listed in the "Final Report for the Construction of a Secondary Highway from Salmon Creek to Spruce Creek, Contract No. D-679, 25DN1," under the category of "Extra Work," and were built at a total cost of $690.98. The Willow Creek Fountain was built during the Spruce Creek to Kirk Creek construction phase, between 1930 and 1933, and the remaining two, Lucia and Rigdon Memorial, were built during the Kirk Creek to Big Creek construction phase (1931 to 1935). None of the plans or contract completion reports contain design or construction plans for any of the fountains, suggesting that the resident engineer or head stonemason may have improvised or exercised a degree of artistic autonomy in its design. Some of the fountains, such as Soda Springs and Big Redwood, are simple stone affairs, while the more impressive examples at Willow Creek and the Senator Elmer S. Rigdon Memorial Fountain are more appropriately described as roadside rest areas, complete with elaborate stone walls and benches. All of the fountains are constructed of mortared local stone.

The five extant fountains individually appear to retain a relatively high degree of integrity, even though all have suffered some deterioration and/or non-sympathetic repairs over the years. Most of the fountains are missing some stones and all show evidence of patching with mortar that does not appear original because of differences in thickness, color, and texture. In 1967, four of the six water fountains were improved (the fountain at Spruce Creek was demolished at this time). The improvement work included the construction of new collector dams; the installation of tanks for settling, filtering, and storage of water; and installation of piping from the tanks to the drinking fountains. At the Rigdon Memorial Fountain, a section of six-foot high chain link fence with a locked gate was installed to fence off the water supply facilities from the public. The fountains no longer function in their original capacity. Unable to ensure that the drinking water would remain free from contamination, in 1985 Caltrans disconnected the water supply from all of the fountains. In spite of these alterations, all five extant water fountains still retain the vast majority of their original fabric, massing, and design characteristics. They exhibit fair to high integrity when considered individually, and moderate integrity when considered as a group, owing to the loss of the fountain at Spruce Creek.

Soda Springs Fountain (Feature DM-526; P.M. 3.82)

The Soda Springs Fountain, also known as Soda Creek Fountain, was built between 1930 and 1931 (it appears partially completed in a photograph dated 1930 and completed in a photograph dated 1931). It is shown in Photographs 2 and 3. This drinking fountain is located at the rear of a shallow grass-covered turnout at the base of Soda Springs (Soda Creek). The fountain consists of a shallow catch basin surrounded by two curved sections of wing wall. The curved walls stand about two feet tall and are topped with a layer of poured concrete to form bench seating. A corrugated metal pipe culvert drains the catch basin and carries the water under the roadway. There is a poured concrete pad located in front of the basin.

Big Redwood Fountain (Feature DM-521; P.M. 5.59)

The Big Redwood Fountain, also known as the Redwood Creek or Redwood Gulch Fountain, was built between 1928 and 1930 (it appears in a photograph dated July 19, 1930). The fountain, shown in Photographs 4 and 5, was originally located immediately adjacent to the highway. Following a rockslide and subsequent realignment of Highway 1, the fountain has since been dissociated from the current alignment by approximately 100 yards, located in a deep draw that is accessible by way of a dirt hiking trail. The structure consists of a small, pedestal drinking fountain backed by an L-shaped masonry retaining wall with benches. The pedestal is square in plan, stands three feet high, and is capped with a flat, overhanging top layer. It sits on a four-foot five-inch square rubble masonry foundation. The retaining wall forms a right angle behind the fountain, with each wall including a smooth seat facing the fountain. The northeast wall section measures about eight feet long and the southeast wall section

measures about nine feet long. An additional, smaller wing retaining wall extends from the south end of the southeast wall. Historic photographs show that a row of five standing stones once guarded the west side of the fountain; these have since been removed. A nearby wooden National Forest sign, not original to the site, names this fountain the "Nathaniel Owings Memorial Grove Fountain."

Willow Creek Fountain (Feature DM-420; P.M. 12.01)

Willow Creek Fountain was built during the late spring and summer of 1933 (it appears as a proposed fountain site in a photograph dated May 8, 1933, and in its completed form in a photograph dated July 1933). Shown in Photographs 6 and 7, it is located at the rear of a large, flat terrace that is elevated slightly above the level of the highway. Seven stone steps located near the center of a two-foot high retaining wall provide access to the terrace. The top of the steps is guarded by two boulders which appear to be part of the original design of the site. The water fountain is incorporated into a second wall, 114 feet in total length and three feet tall, that wraps around the rear (east side) of the site, following the natural contour of the land. Immediately adjacent to the water fountain is a small settling pond enclosed by a small semi-circular section of the perimeter wall. A corrugated metal pipe culvert carries water collected in the catch basin under the highway. South of and adjacent to this feature is a section of bench seating built into the wall and overlooked by a large boulder -- a natural feature. A wood and metal picnic table is a recent addition to the site.

Lucia Fountain (Feature DM-354; P.M. 20.38)

Lucia Fountain was built between 1931 and 1933 (it appears in its completed state in a photograph dated August 29, 1933). Shown in Photographs 8 and 9, it is located at a narrow turnout that is presently overgrown with natural vegetation. The structure consists of a central catch basin enclosed by a semi-circular rock wall. Mounted on the top of this rock wall, near the center of the semi-circle, is a small, circular ring of mortared stones that originally housed the water fountain. Low walls with a built-in bench flank both sides of the central catch basin and fountain element. The structure exhibits areas of recent cement patchwork, and a row of standing stones that originally guarded the highway side of the site have since been removed.

Senator Elmer S. Rigdon Memorial Fountain (Feature DM-353; P.M. 26.92)

Built between 1931 and 1935, Rigdon Fountain is a drainage-fed drinking fountain located at a narrow turnout on the east side of Highway 1 (Photograph 10). This is among the more elaborate of the five remaining Big Sur fountains. The entrance to the site is guarded by a row of evenly spaced stones. These are flanked on each side by sets of two corner piers. Extending from the piers and enclosing the rear (east) side of the site is a low, roughly semi-circluar wall that follows the contour of the turnout. The drinking fountain structure is located near the rear of the site. It is roughly square in plan and stands slightly higher than the perimeter wall of which it is a part. Other features of the Rigdon Fountain include an oval settling pond that sits to the south of the fountain, a small stone slab table, and a wood picnic table. The original bronze plaque that once graced the Rigdon Fountain is missing, and has been replaced with a simple wooden plaque.

CONTINUATION SHEET FOR DISTRICT RECORD

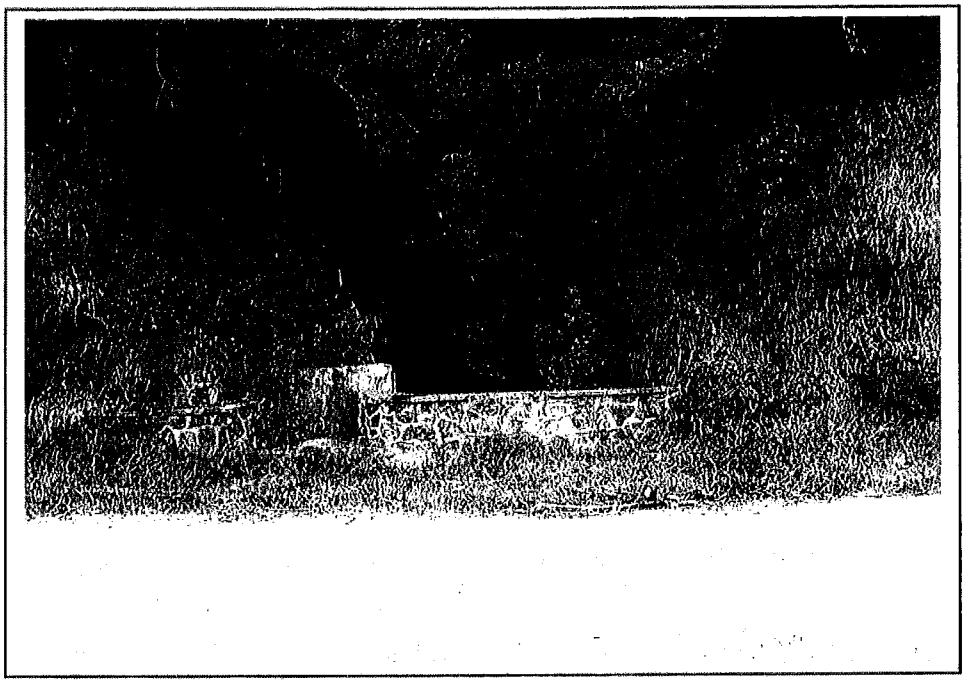
D3. Detailed Description (continued):

Table 2. Water Fountains of the Carmel-San Simeon Highway Historic District

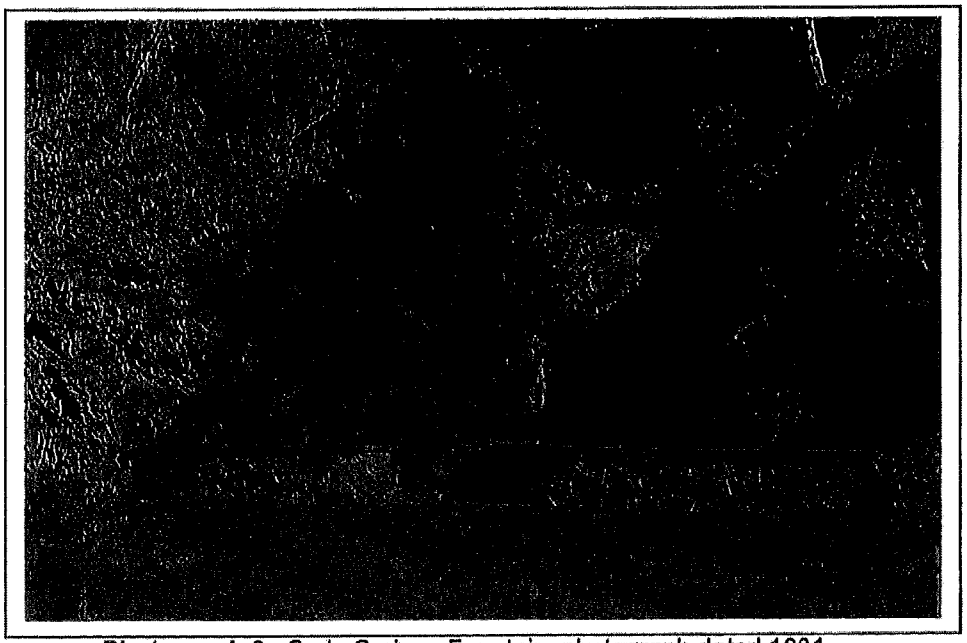
Identifier	Feature Name	County	Post Mile	Side of Highway
DM-526	Soda Springs Fountain	Monterey	03.82	Right
DM-521	Big Redwood Fountain	Monterey	05.59	Right
DM-420	Willow Creek Fountain	Monterey	12.01	Right
DM-354	Lucia Fountain	Monterey	20.38	Right
DM-353	Senator E. Rigdon Memorial Fountain	Monterey	26.92	Right

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):



Photograph 2. Soda Springs Fountain, also known as Soda Creek Fountain (DM-526).
(JRP photograph, October 23, 2002.)



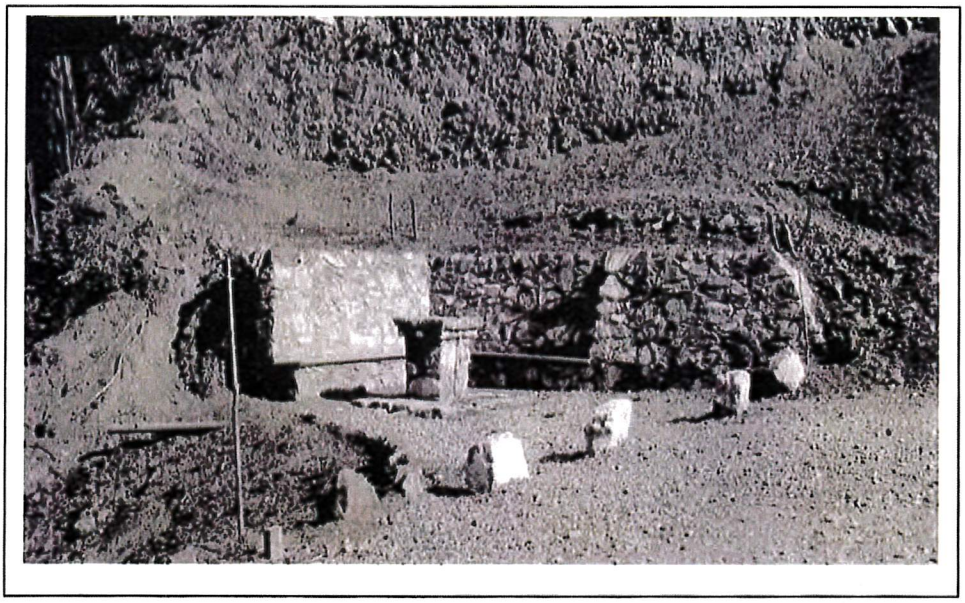
Photograph 3. Soda Springs Fountain, photograph dated 1931.
(Caltrans District 5 Records Resource Center, Historic Highway Photograph Collection, Binder V-Mon-56-A, Photograph Number 189.)

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):



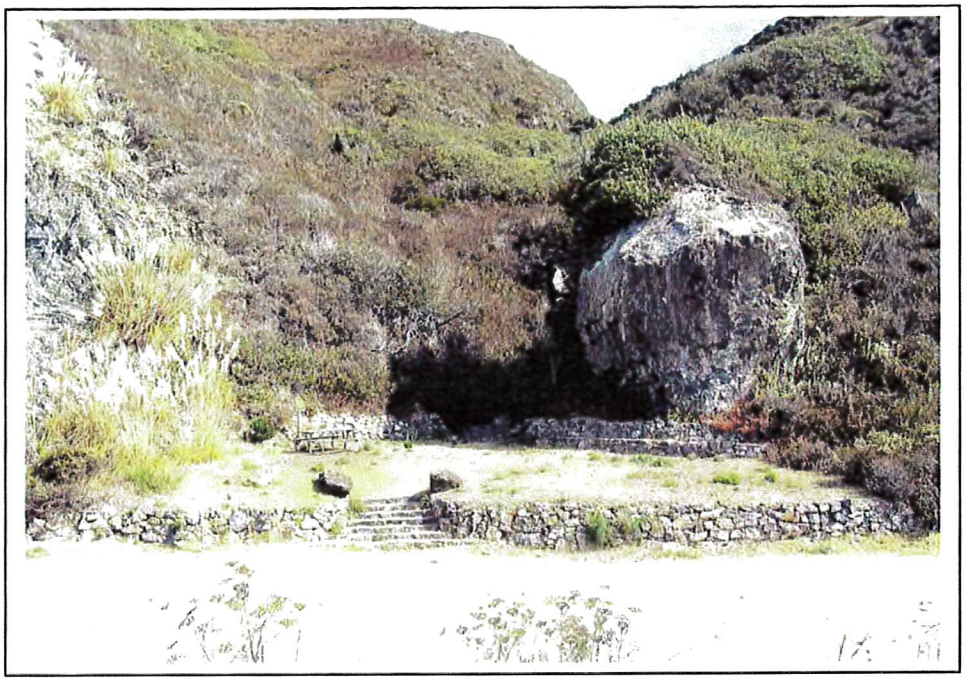
Photograph 4. Big Redwood Fountain, also known as Redwood Creek and Redwood Gulch Fountain (DM-521).
(JRP photograph, October 23, 2002.)



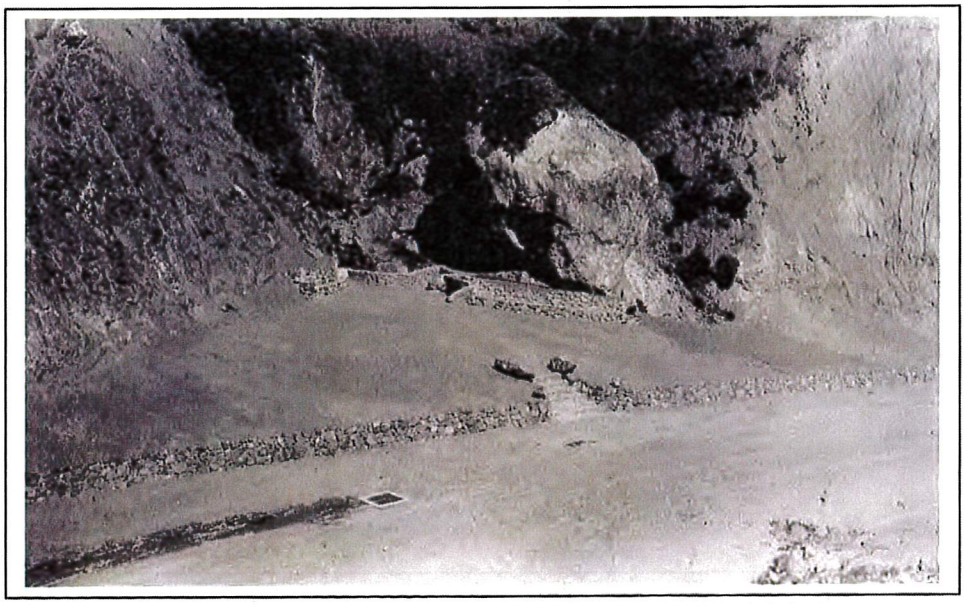
Photograph 5. Big Redwood Fountain, photograph dated 1930.
(Caltrans District 5 Records Resource Center, Historic Highway Photograph Collection. Binder V-Mon-56-A, Photograph 118.)

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):



Photograph 6. Willow Creek Fountain, also known as El Senador Creek Fountain (DM-354).
(JRP photograph, October 23, 2002.)



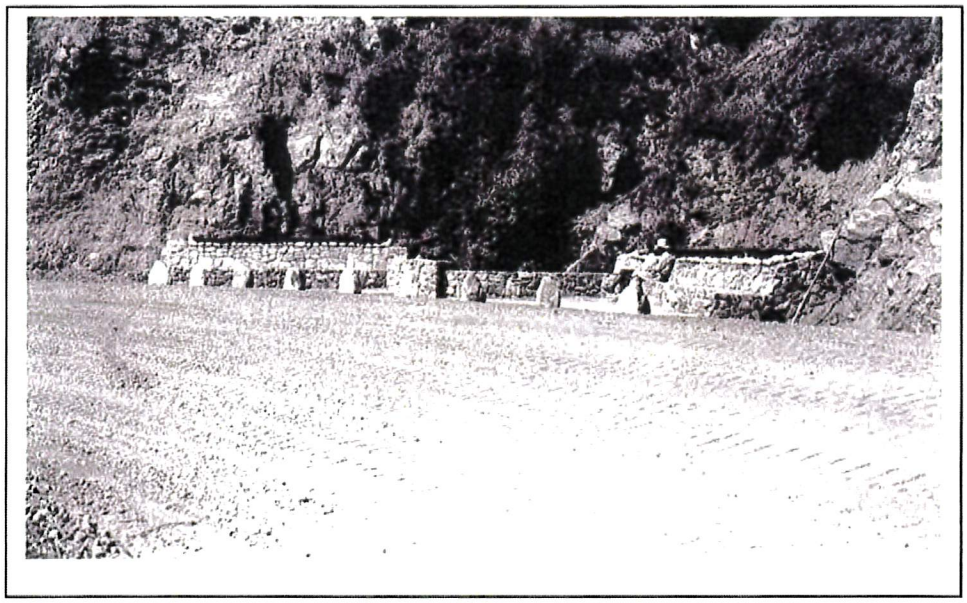
Photograph 7. Willow Creek Fountain, photograph dated July 1933.
(Caltrans District 5 Records Resource Center, Historic Highway Photograph Collection, Binder V-Mon-56-B, Photograph 132.)

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):



Photograph 8. Lucia Fountain (DM-354).
(JRP photograph, June 2, 2003.)



Photograph 9. Lucia Fountain, photograph dated August 29, 1933.
(California Department of Public Works, Division of Highways. "Final Report, Day Labor Contract No. 45DN6-45DN13-65W1-65W8-85W1, for the Construction of a Secondary Highway in the County of Monterey from Kirk Creek to Big Creek, Road V-MON-56-C," November 23, 1937.)

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):



Photograph 10. Senator Rigdon Memorial Fountain (DM-353).
(JRP photograph, June 2, 2003.)

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):

DESCRIPTION OF RUBBLE MASONRY PARAPETS

There are 61 rubble masonry parapets within the boundaries of the Historic District, with lengths ranging between 24 and 250 feet. The Historic District parapets include three different types: arcade or arched window style, comprising about four per cent of the total; a monolithic wall with a castellated, or battlement, top with raised piers (or merlons) and intervening notches (or crenels), comprising 85% of the total; and a simple monolithic wall with an unadorned, flat top, comprising about eleven percent of the total. It is important to note that the parapets are specialized forms of retaining walls. In the case of the arcade and battlement types, the decorative parapet element above the level of the roadway is actually a separate structure built atop a subgrade retaining wall. Photograph 18 on the following pages, for example, clearly shows the seam between the retaining wall and the parapet element. In contrast, the flat, unadorned parapets are monolithic retaining walls that extend slightly above the level of the roadway, forming a de facto railing. The parapets – as well as the retaining walls they rest upon – are generally uncoursed, meaning that the rocks are laid in random order rather than in layers. The stones were procured from along the construction route, and in all instances have been secured in place with portland cement mortar.

It does not appear that any parapets were built during the initial phase of construction of the Carmel-San Simeon Highway (1922-1924). The first parapets were built during the 1928-1931 construction of the Salmon Creek to Spruce Creek section.

Arcade Parapets

There are only three examples of the arcade style parapet, all of which occur at the southern end of the Historic District, between post miles 5.45 and 6.64. These were constructed between 1928 and 1930. The final construction report for this section of highway states that the arcade type of parapet was abandoned in favor of the battlement style during April 1930, but does not provide an explanation as to why.

In terms of both design and dimension, the three examples of arcade parapets seem to adhere to Division of Highways standard plans for the type developed as early as 1924 (see Figure 1). This style of parapet consists of sections of masonry railing with arched window openings set at regular intervals, usually about two feet apart. The arches measure four feet across at the base. Squared end posts, or piers, cap each end of the sections of railing, and this pattern is repeated as needed to form a continuous parapet of the desired total length. The three examples of arcade style parapet in the Historic District range from 100 to 250 feet in length. The 1½-foot thick parapets rest on a subgrade retaining wall and rise about two feet above the level of the roadway. The piers rise slightly above the top surface of the railing and are capped with flat stones. The upper surfaces of the parapet between piers are also capped with flat stones and finished with a layer of mortar. A thin layer of mortar also coats the underside of the arches; raised seams and wood grain imprints evident in the mortar suggest that masons laid the stones around a form or mold probably resembling a barrel cut lengthwise in half. Contemporary and historic views of the arcade walls are shown in Photographs 11 through 16.

The three arcade style parapets are generally high in integrity, although some isolated sections have suffered minor damage, probably from automobile hits or rock slides (as shown in Photograph 15).

Battlement Parapets

There are 51 examples of battlement style parapet in the Historic District, and all appear to generally follow standard plans for the type developed by Division of Highways in the mid to late 1920s (see Figure 2). The plans call for a solid stone railing, 1½ feet thick, that rises two feet above the level of the roadway. The railing is topped with five-foot wide, six-inch tall piers spaced at twelve-foot intervals. The examples of battlement style parapet in the Historic District range from 24 to 190 feet long and include a varying number of piers. See Photographs 17 through 21 for views of representative battlement parapets.

As a group, the battlement parapets retain a high degree of integrity. Most are entirely intact, though some have suffered minor damage from automobile hits or rock slides. In most cases, this has resulted in the loss of some stones, usually at the ends, or in the application of non-sympathetic patchwork. In rarer but more extreme examples (such as DM-343 and DM-508), the damage has resulted in the loss of piers or large sections of the parapet railing.

Unadorned (Flat) Parapets

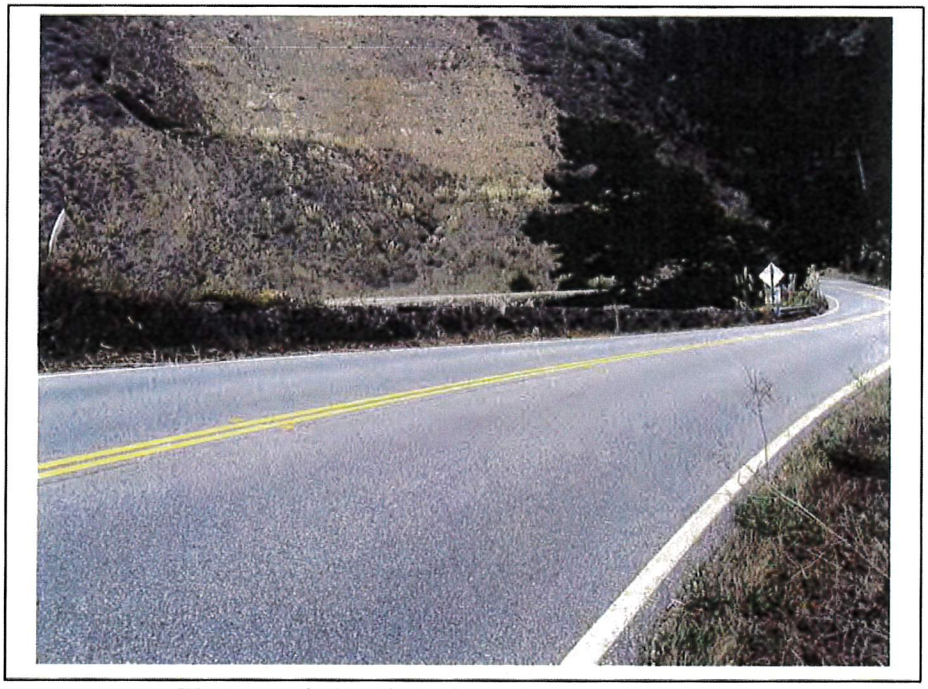
The seven examples of unadorned parapets consist of simple, monolithic stone railings with a flat top (see Photograph 22). These parapets lack the decorative elements that characterize the arcade and battlement parapet types with the exception of one feature, DM-339, that includes one small arched window opening (Photograph 23). The unadorned parapets are uniformly 1½ feet thick and range between 35 and 140 feet in length. In most cases, the parapet portion of the wall rises mere inches above the level of the roadway, although the subgrade portions may be ten feet tall or more.

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):

Table 3. Arcade Parapets of the Carmel-San Simeon Highway Historic District

Identifier	County	Post Mile	Side of Highway
DM-522	Monterey	05.50	Left
DM-519	Monterey	05.73	Left
DM-511	Monterey	06.64	Left



Photograph 11. Typical arcade parapet (DM-522).
(JRP photograph, October 23, 2002.)

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):



Photograph 12. Typical arcade parapet and rubble masonry wall (DM-519).
(JRP photograph, October 23, 2002.)



Photograph 13. Arcade parapet, showing railing and piers (DM-519).
(JRP photograph, October 23, 2002.)

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):



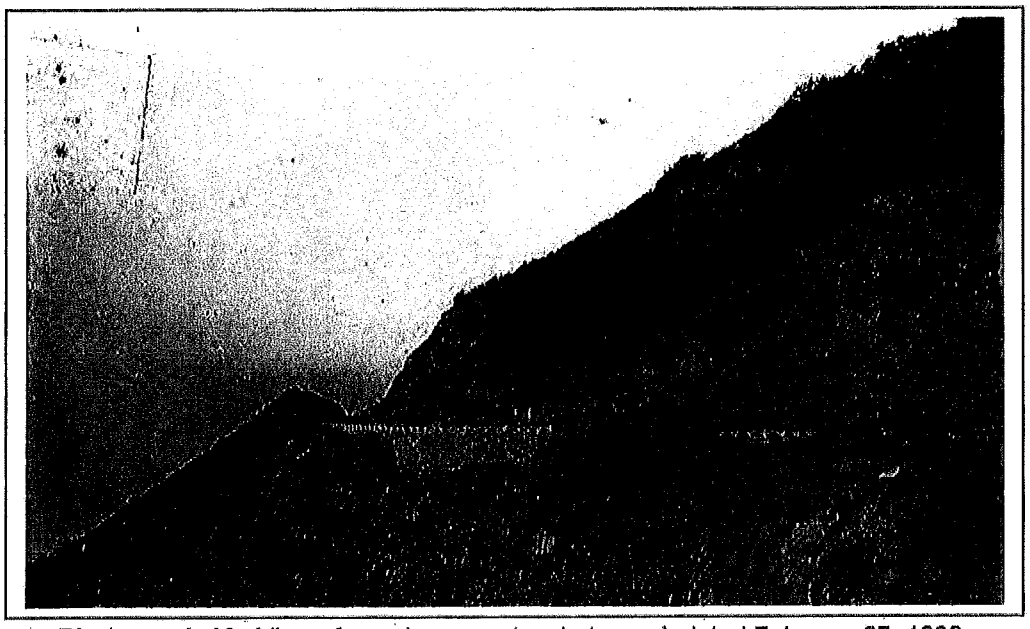
Photograph 14. Detail of mortared underside of window arch in arcade style parapet (DM-522). *(JRP photograph, October 23, 2002.)*



Photograph 15. Detail of damaged arcade parapet railing and window arch (DM-522). *(JRP photograph, October 23, 2002.)*

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):



Photograph 16. View of arcade parapets, photograph dated February 27, 1932.
(Caltrans District 5 Records Resource Center, Historic Highway Photograph Collection, Binder V-Mon-56-A, Photograph 219.)

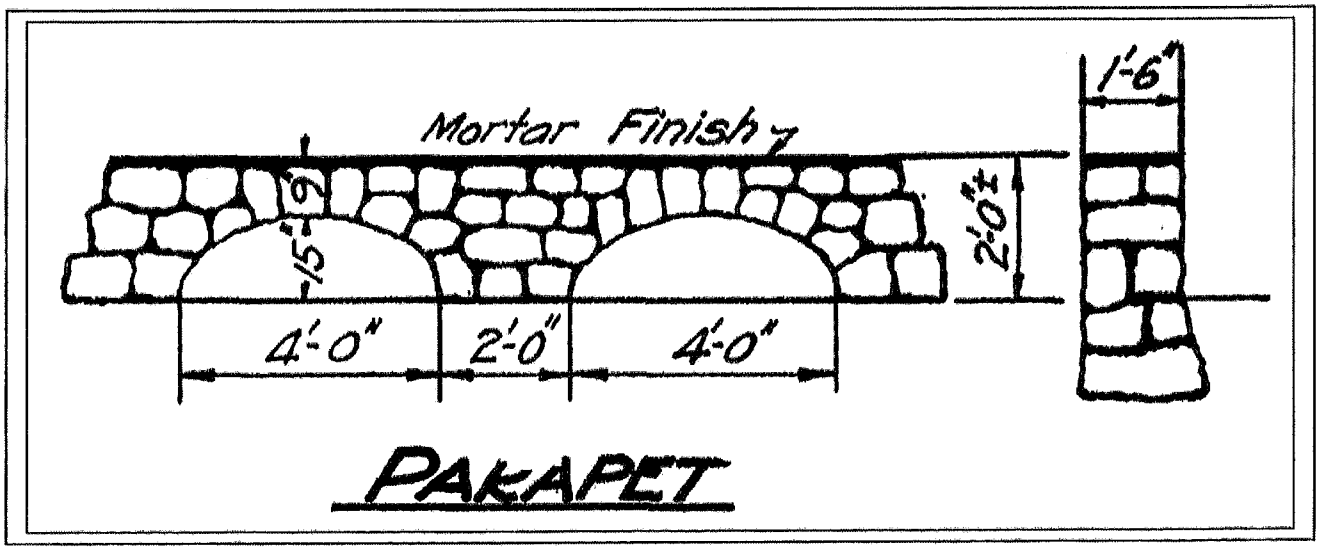


Figure 1. Division of Highways standard plan for arcade parapet.
(Reproduced from "Standard Structures: Headwalls, Drop Inlets, Guard Rail, Etc., Plan Number XS-0-28," March 27, 1924. On file at Caltrans Transportation Library, Sacramento, California.)

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):

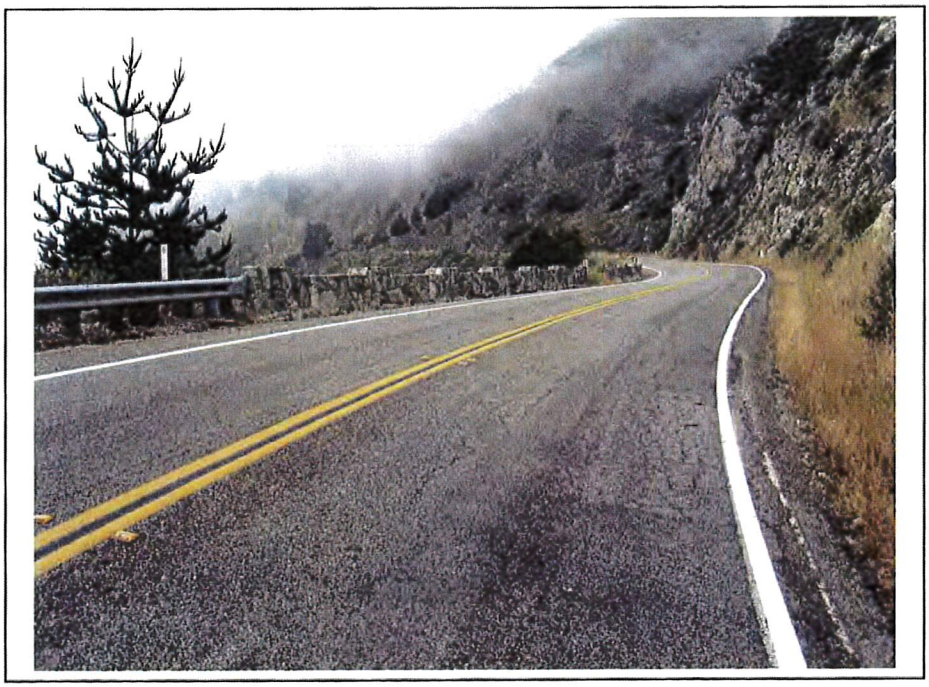
Table 4. Battlement Parapets of the Carmel-San Simeon Highway Historic District

Identifier	County	Post Mile	Side of Highway
DM-515	Monterey	06.09	Left
DM-509	Monterey	06.94	Left
DM-508	Monterey	07.00	Left
DM-507	Monterey	07.10	Right
DM-504	Monterey	09.06	Left
DM-503	Monterey	09.14	Left
DM-502	Monterey	09.17	Left
DM-405	Monterey	18.00	Left
DM-352	Monterey	19.98	Left
DM-351	Monterey	20.07	Left
DM-350	Monterey	20.09	Left
DM-349	Monterey	20.10	Left
DM-347	Monterey	20.24	Left
DM-346	Monterey	20.38	Left
DM-344	Monterey	20.57	Left
DM-343	Monterey	21.18	Left
DM-328	Monterey	26.43	Left
DM-325	Monterey	26.71	Left
DM-254	Monterey	35.93	Left
DM-252	Monterey	36.16	Left
DM-251	Monterey	36.47	Left
DM-250	Monterey	36.49	Left
DM-238	Monterey	37.73	Left
DM-234	Monterey	37.92	Left
DM-231	Monterey	38.00	Left
DM-226	Monterey	38.23	Left
DM-224	Monterey	38.26	Left
DM-223	Monterey	38.32	Left
DM-220	Monterey	38.42	Left
DM-219	Monterey	38.44	Left
DM-207	Monterey	39.05	Left
DM-206	Monterey	39.06	Left
DM-203	Monterey	39.58	Left
DM-202	Monterey	39.65	Left
DM-198	Monterey	39.91	Left
DM-196	Monterey	40.01	Left
DM-195	Monterey	40.05	Left
DM-188	Monterey	41.05	Left
DM-187	Monterey	41.07	Left
DM-184	Monterey	41.17	Left

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):

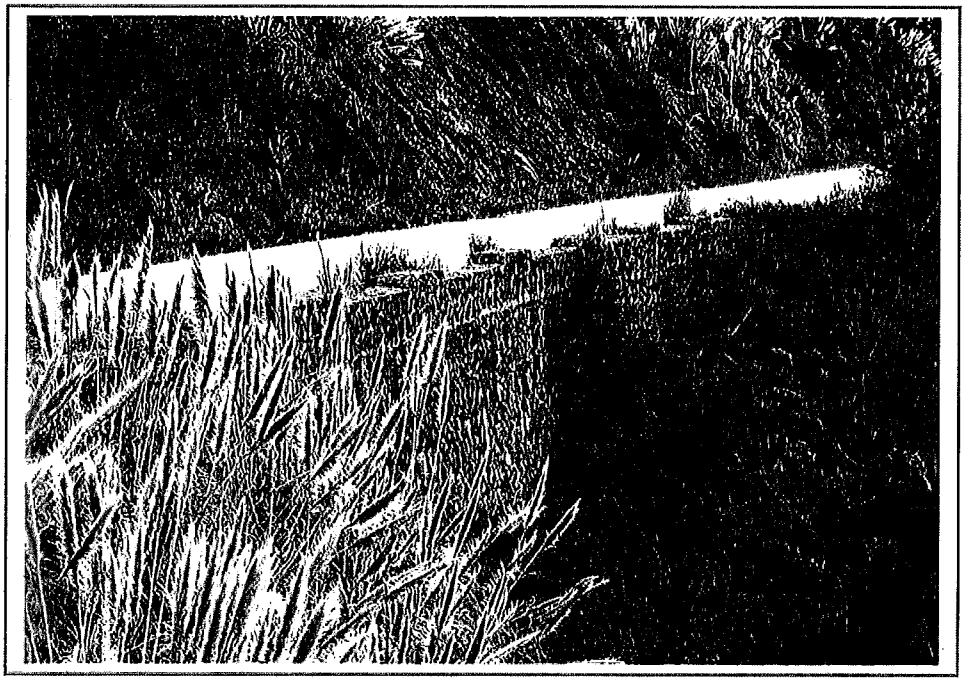
Identifier	County	Post Mile	Side of Highway
DM-183	Monterey	41.23	Left
DM-180	Monterey	41.40	Left
DM-178	Monterey	41.44	Left
DM-177	Monterey	41.47	Left
DM-174	Monterey	41.55	Left
DM-031	Monterey	60.03	Left
DM-021	Monterey	69.10	Left
DM-020	Monterey	69.20	Left
DM-019	Monterey	69.15	Left
DM-018	Monterey	69.26	Left
DM-017	Monterey	69.34	Left



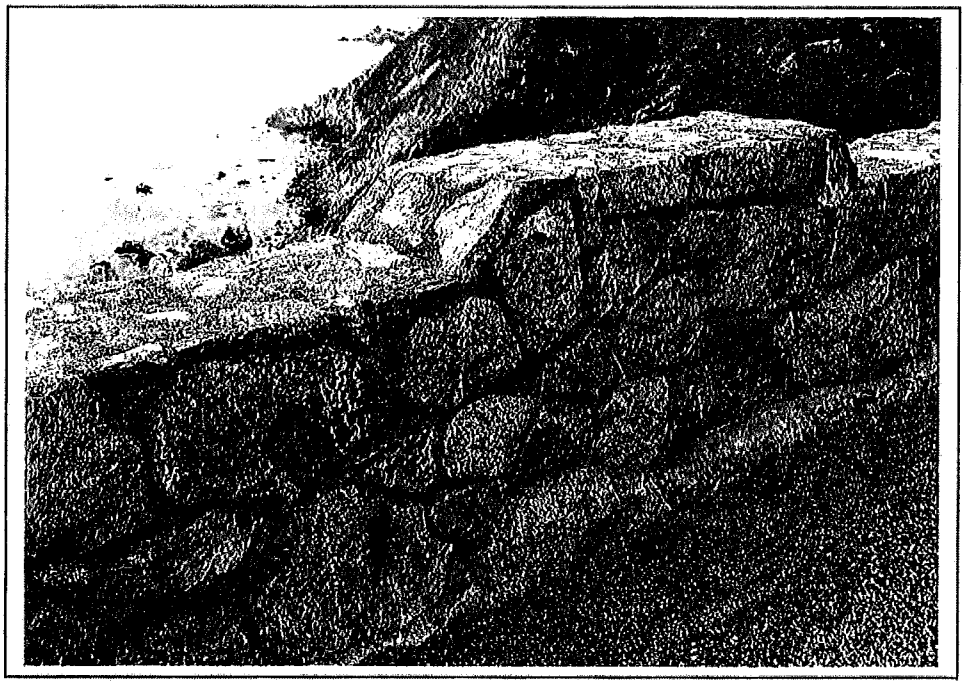
Photograph 17. Typical battlement parapet (DM-220).
(JRP photograph, June 2, 2003.)

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):



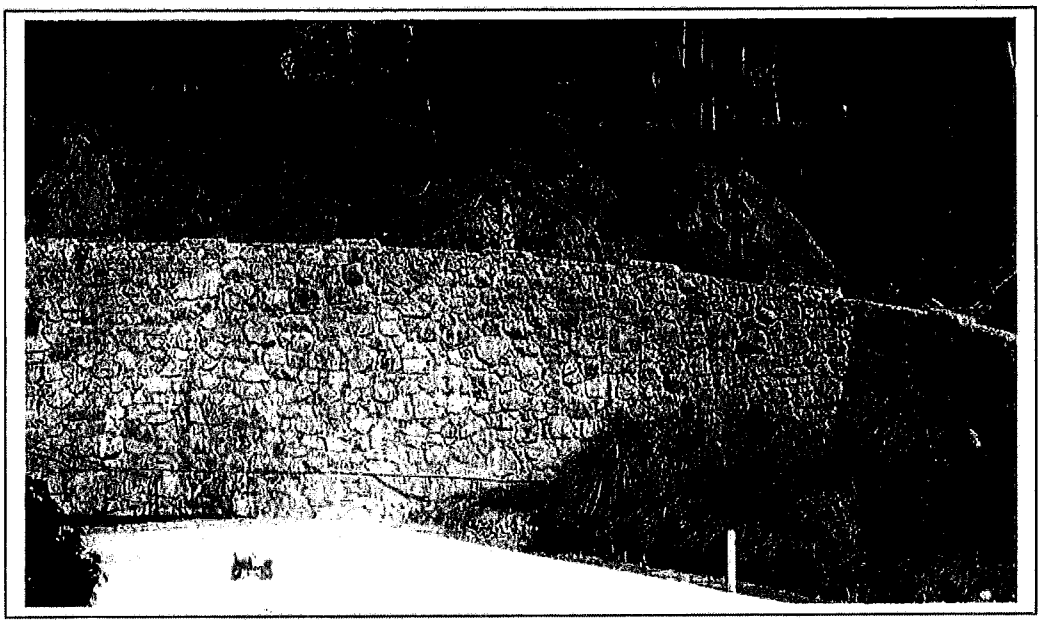
Photograph 18. Typical battlement parapet topping rubble masonry retaining wall (DM-515).
(JRP photograph, October 23, 2002.)



Photograph 19. Detail of battlement parapet pier (DM-220).
(JRP photograph, June 2, 2003.)

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):



Photograph 20. Battlement parapet on recently completed rubble masonry wall, Carmel Highlands, photograph dated March 30, 1933.
(Caltrans District 5 Records Resource Center, Historic Highway Photograph Collection, Binder V-Mon-56-H, Photograph 274.)



Photograph 21. Detail of battlement parapet in Carmel Highlands, photograph dated May 1933.
(Caltrans District 5 Records Resource Center, Historic Highway Photograph Collection, Binder V-Mon-56-H, Photograph 284.)

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):

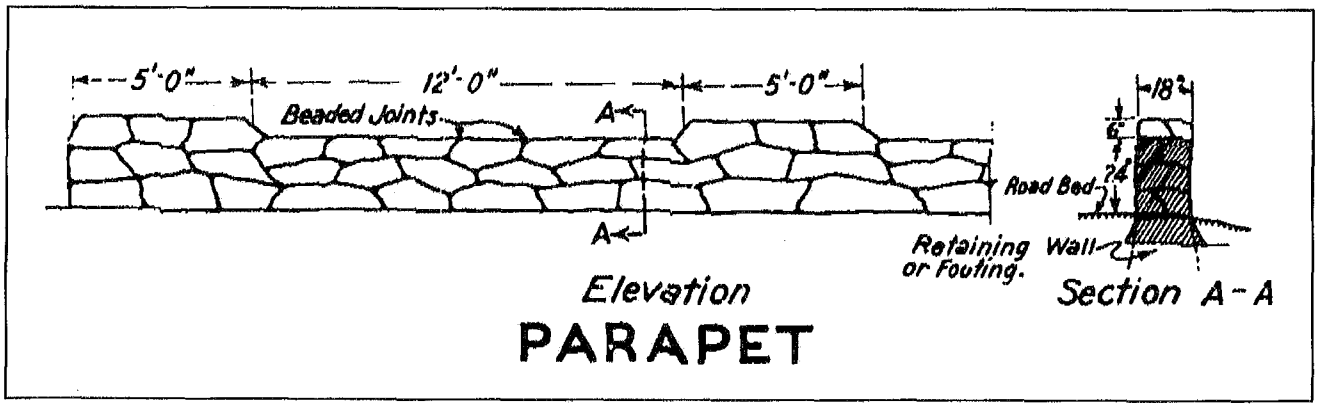


Figure 2. Division of Highways standard plan for battlement parapet.
(Reproduced from "Standard Structures: Pipe Headwalls - Etc., V-Mon-56-H-19-22, As Built Plan Number 50000298," approved May 23, 1932. On file at Caltrans District 5 Records Resource Center, San Luis Obispo, California)

Table 5. Unadorned (Flat) Parapets of the Carmel-San Simeon Highway Historic District

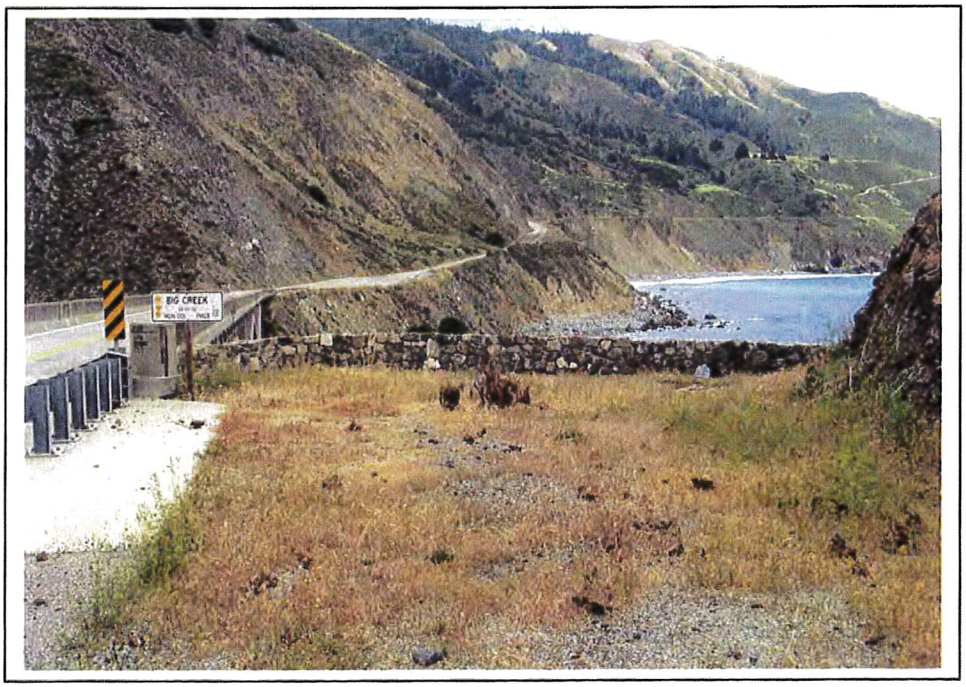
Identifier	County	Post Mile	Side of Highway
DM-339	Monterey	28.21	Left
DM-217	Monterey	38.46	Left
DM-208	Monterey	38.99	Left
DM-200	Monterey	39.81	Left
DM-182	Monterey	41.29	Left
DM-172	Monterey	41.64	Right
DM-168	Monterey	41.94	Left

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):



Photograph 22. Example of unadorned (flat) parapet guardrail (DM-217).
(JRP photograph, June 2, 2003.)



Photograph 23. Unadorned (flat) parapet at north end of Big Creek Bridge (DM-339).
(JRP photograph, June 2, 2003.)

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):

DESCRIPTION OF RUBBLE MASONRY RETAINING WALLS

There are ten rubble masonry subgrade retaining walls, lacking any above-grade component, that are contributing elements of the Historic District. Separate from the numerous retaining walls that are topped with parapet railings, these ten retaining walls function only as subgrade support structures for the highway roadbed (see Photographs 24 and 25). The precipitous nature of the topography required numerous areas of subgrade shoring to stabilize the roadbed.

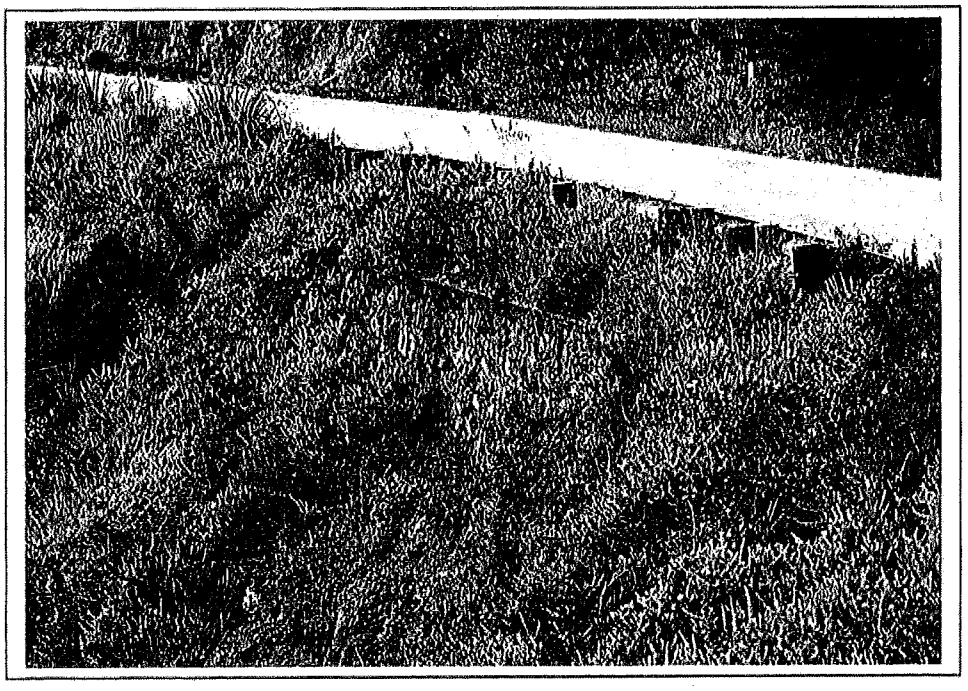
Rubble retaining walls were built both "wet," or mortared, where stones were bedded in a mortar of sand, cement, and water, and "dry," where the stones were stacked without mortar. Although the dimensions of the rubble retaining walls vary, each was built according to standard Division of Highways plans (see Figure 3). Both wet and dry walls required large and heavy rocks which were usually collected along the construction route. The walls were built with large footings. The mortared rubble walls were constructed with footings that had a width equaling 0.5 of the wall height and were battered or sloped at a ratio of 1:12. Dry rubble walls required a larger footing (0.6 of wall height) and were battered or sloped at a ratio of 2:12. It appears that the dry walls at the southern end of the district are the oldest rubble masonry features along the Carmel-San Simeon Highway, dating to the earliest period of construction (1922-1923). Generally, dry rubble construction was replaced with wet masonry construction beginning with the Salmon Creek to Spruce Creek section (1928-1931). Five of the ten extant rubble retaining walls, features DL-546, DL-601, DL-627, DL-628, and DL-629 were constructed as dry rubble walls; the remaining five walls were mortared. Feature DM-545 was originally recorded on a DPR 523 form in August 2000 and was designated P-27-002422 at that time (see Appendix D).

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):

Table 6. Retaining Walls of the Carmel-San Simeon Highway Historic District

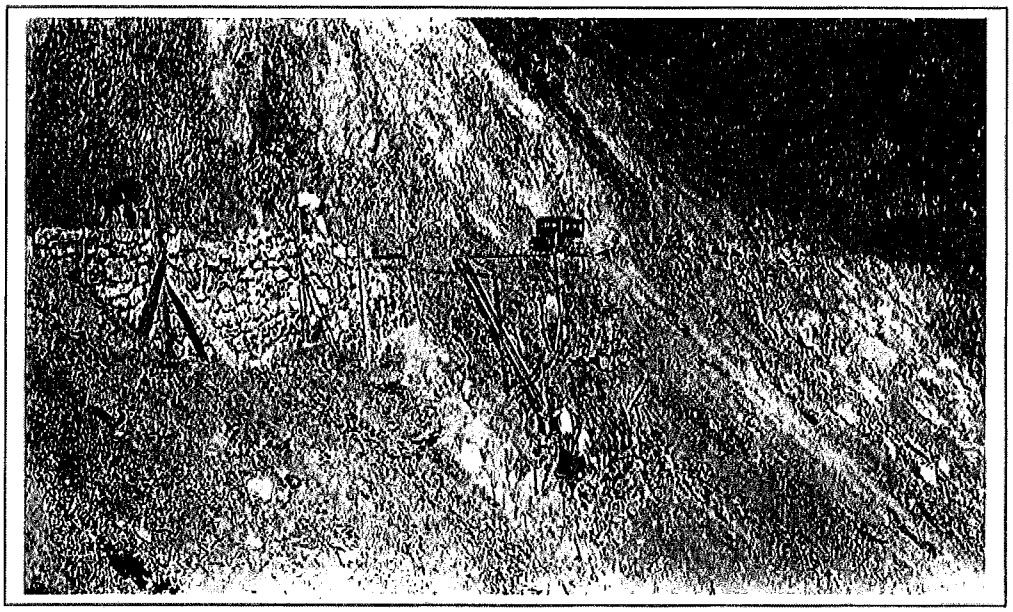
Identifier	County	Post Mile	Side of Highway
DL-601	San Luis Obispo	71.81	Left
DL-627	San Luis Obispo	73.04	Left
DL-628	San Luis Obispo	73.05	Left
DL-629	San Luis Obispo	73.08	Left
DL-546	San Luis Obispo	74.06	Left
DM-545 (P-27-002422)	Monterey	00.30	Left
DM-525	Monterey	05.05	Left
DM-232	Monterey	38.08	Left
DM-175	Monterey	41.52	Left
DM-034	Monterey	58.27	Left



Photograph 24. Typical rubble masonry retaining wall (DM-525).
(JRP photograph, June 2, 2003.)

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):



Photograph 25. Retaining wall under construction, photograph dated October 10, 1933.
(Caltrans District 5 Records Resource Center, Historic Highway Photograph Collection, Binder V-Mon-56-C, Photograph 168.)

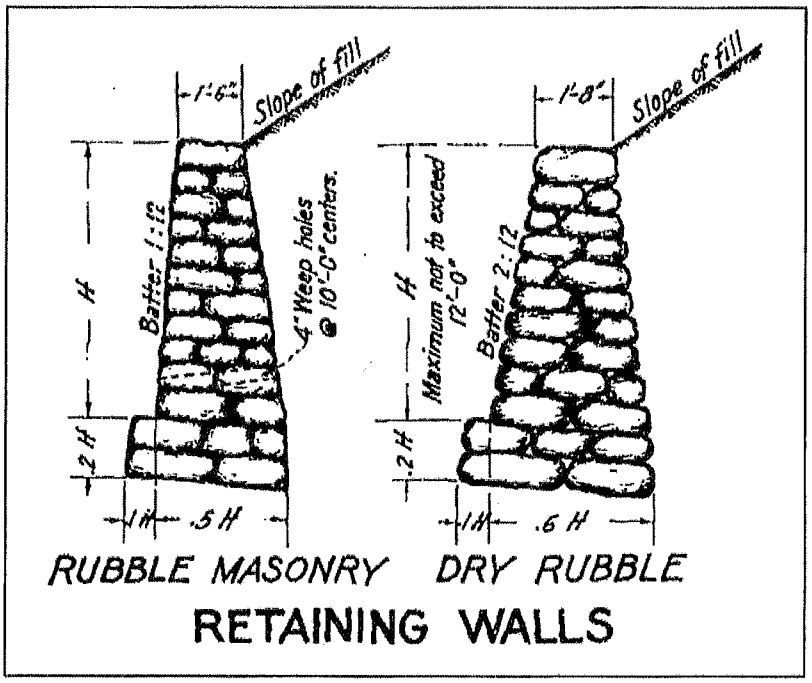


Figure 3. Division of Highways standard plan for retaining walls.
(Reproduced from "Standard Structures: Headwalls, Drop Inlets, Guard Rail, Etc., Plan Number XS-0-28," March 27, 1924. On file at the Caltrans Transportation Library, Sacramento, California.)

CONTINUATION SHEET FOR DISTRICT RECORD

D.3. Detailed Description (continued):

DESCRIPTION OF RUBBLE MASONRY CULVERT HEADWALLS

There are 158 rubble masonry culvert headwalls that are contributors to the Historic District. In total number, they are by far the most ubiquitous – if least impressive architecturally – features of the district. The headwalls are almost exclusively located on the inlet (upstream) side of the culvert, although there are a few examples in which there are rubble masonry headwalls at the outlet side. The most common headwall configurations are flat (consisting of a simple, single wall) or L-shaped (Photographs 26, 27, and 29). Other types that occur far less frequently are box-shaped (Photograph 28) and U-shaped (Photograph 29). The box-shaped culverts, also known as drop inlets, usually have four masonry side walls and a concrete bottom, and are open on top. Some of the drop inlets are covered with a metal grate; it is unclear whether of not the grates are original features. Unlike the other rubble masonry feature types, some of the headwalls are coursed, meaning their stones are laid in horizontal layers.

As a group, the culvert headwalls have suffered the most damage, as they have regularly been subject to automobile hits, landslides, and routine replacement or removal. Only about one quarter of the estimated 600 original rubble masonry culvert headwalls still exist.

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):

Table 7. Culvert Headwalls of the Carmel-San Simeon Highway Historic District

Identifier	County	Post Mile	Side of Highway
DM-540	Monterey	01.54	Right
DM-536	Monterey	02.41	Right
DM-524	Monterey	05.35	Right
DM-518	Monterey	05.78	Right
DM-517	Monterey	05.95	Right
DM-514	Monterey	06.40	Right
DM-510	Monterey	06.91	Right
DM-505	Monterey	08.98	Right
DM-501	Monterey	09.25	Right
DM-500	Monterey	09.55	Right
DM-414	Monterey	10.73	Right
DM-416	Monterey	10.94	Right
DM-418	Monterey	11.25	Right
DM-419	Monterey	11.32	Left
DM-605	Monterey	12.91	Right
DM-426	Monterey	13.34	Right
DM-427	Monterey	13.45	Right
DM-606	Monterey	13.94	Right
DM-428	Monterey	14.46	Right
DM-430	Monterey	15.07	Right
DM-431	Monterey	15.42	Right
DM-432	Monterey	15.48	Right
DM-433	Monterey	15.88	Right
DM-435	Monterey	15.95	Right
DM-412	Monterey	16.90	Right
DM-410	Monterey	17.10	Right
DM-408	Monterey	17.54	Right
DM-404	Monterey	18.08	Right
DM-609	Monterey	19.70	Right
DM-348	Monterey	20.23	Right
DM-610	Monterey	20.29	Right
DM-345	Monterey	20.48	Right
DM-341	Monterey	22.40	Right
DM-340	Monterey	22.86	Right
DM-338	Monterey	23.29	Right

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):

Identifier	County	Post Mile	Side of Highway
DM-611	Monterey	24.07	Right
DM-334	Monterey	25.35	Right
DM-333	Monterey	25.45	Right
DM-332	Monterey	25.50	Right
DM-331	Monterey	25.61	Right
DM-330	Monterey	25.68	Right
DM-329	Monterey	26.35	Right
DM-327	Monterey	26.50	Right
DM-326	Monterey	26.55	Right
DM-324	Monterey	26.99	Right
DM-323	Monterey	27.75	Right
DM-612	Monterey	28.48	Right
DM-313	Monterey	29.92	Right
DM-312	Monterey	30.02	Right
DM-306	Monterey	30.33	Right
DM-301	Monterey	31.73	Right
DM-257	Monterey	35.11	Right
DM-256	Monterey	35.58	Right
DM-255	Monterey	35.92	Right
DM-246	Monterey	36.69	Right
DM-243	Monterey	37.13	Right
DM-242	Monterey	37.20	Right
DM-239	Monterey	37.44	Right
DM-237	Monterey	37.74	Both
DM-236	Monterey	37.85	Right
DM-235	Monterey	37.92	Right
DM-233	Monterey	37.99	Right
DM-230	Monterey	38.05	Right
DM-229	Monterey	38.09	Right
DM-228	Monterey	38.18	Right
DM-225	Monterey	38.26	Right
DM-222	Monterey	38.35	Right
DM-221	Monterey	38.41	Right
DM-218	Monterey	38.45	Right
DM-216	Monterey	38.52	Right
DM-215	Monterey	38.58	Right
DM-214	Monterey	38.72	Right

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):

Identifier	County	Post Mile	Side of Highway
DM-212	Monterey	38.79	Right
DM-205	Monterey	39.18	Right
DM-199	Monterey	39.83	Right
DM-194	Monterey	40.34	Both
DM-193	Monterey	40.56	Right
DM-191	Monterey	40.76	Right
DM-190	Monterey	40.98	Right
DM-189	Monterey	41.04	Right
DM-186	Monterey	41.09	Right
DM-185	Monterey	41.16	Right
DM-181	Monterey	41.32	Right
DM-176	Monterey	41.50	Right
DM-173	Monterey	41.61	Right
DM-171	Monterey	41.69	Right
DM-165	Monterey	42.16	Right
DM-164	Monterey	42.40	Right
DM-163	Monterey	42.49	Right
DM-162	Monterey	42.54	Right
DM-161	Monterey	42.73	Right
DM-159	Monterey	42.90	Right
DM-156	Monterey	43.78	Right
DM-155	Monterey	43.84	Right
DM-153	Monterey	44.08	Right
DM-152	Monterey	44.62	Right
DM-150	Monterey	44.74	Right
DM-149	Monterey	45.03	Left
DM-148	Monterey	45.32	Left
DM-146	Monterey	45.68	Left
DM-144	Monterey	45.83	Right
DM-143	Monterey	45.88	Right
DM-142	Monterey	45.94	Right
DM-141	Monterey	45.97	Left
DM-140	Monterey	46.01	Right
DM-138	Monterey	46.07	Right
DM-139	Monterey	46.10	Right
DM-137	Monterey	46.11	Right
DM-135	Monterey	46.58	Right

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):

Identifier	County	Post Mile	Side of Highway
DM-133	Monterey	46.69	Both
DM-625	Monterey	46.87	Right
DM-132	Monterey	46.93	Right
DM-131	Monterey	47.12	Right
DM-129	Monterey	47.34	Right
DM-616	Monterey	48.28	Right
DM-120	Monterey	48.30	Right
DM-117	Monterey	49.15	Right
DM-116	Monterey	49.23	Right
DM-115	Monterey	49.32	Right
DM-114	Monterey	49.48	Right
DM-113	Monterey	49.90	Right
DM-112	Monterey	50.14	Right
DM-111	Monterey	50.17	Right
DM-110	Monterey	50.28	Right
DM-109	Monterey	50.33	Right
DM-107	Monterey	50.41	Right
DM-106	Monterey	50.55	Right
DM-105	Monterey	50.59	Right
DM-104	Monterey	50.67	Right
DM-103	Monterey	50.77	Right
DM-102	Monterey	51.08	Right
DM-101	Monterey	52.71	Right
DM-024	Monterey	68.82	Right
DM-617	Monterey	68.82	Right
DM-023	Monterey	68.89	Right
DM-618	Monterey	69.33	Right
DM-015	Monterey	69.46	Right
DM-014	Monterey	69.66	Right
DM-013	Monterey	70.02	Right
DM-012	Monterey	70.10	Right
DM-011	Monterey	70.15	Right
DM-010	Monterey	70.32	Right
DM-009	Monterey	70.46	Right
DM-008	Monterey	70.55	Right
DM-007	Monterey	70.58	Right
DM-619	Monterey	70.88	Right

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):

Identifier	County	Post Mile	Side of Highway
DM-620	Monterey	70.88	Left
DM-621	Monterey	71.05	Right
DM-622	Monterey	71.28	Right
DM-006	Monterey	71.34	Right
DM-005	Monterey	71.35	Right
DM-004	Monterey	71.44	Right
DM-623	Monterey	71.90	Right
DM-624	Monterey	71.90	Left
DM-002	Monterey	72.05	Right

Total: 158

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):



Photograph 26. Typical L-shaped culvert headwall (DM-218).
(JRP photograph, June 2, 2003.)



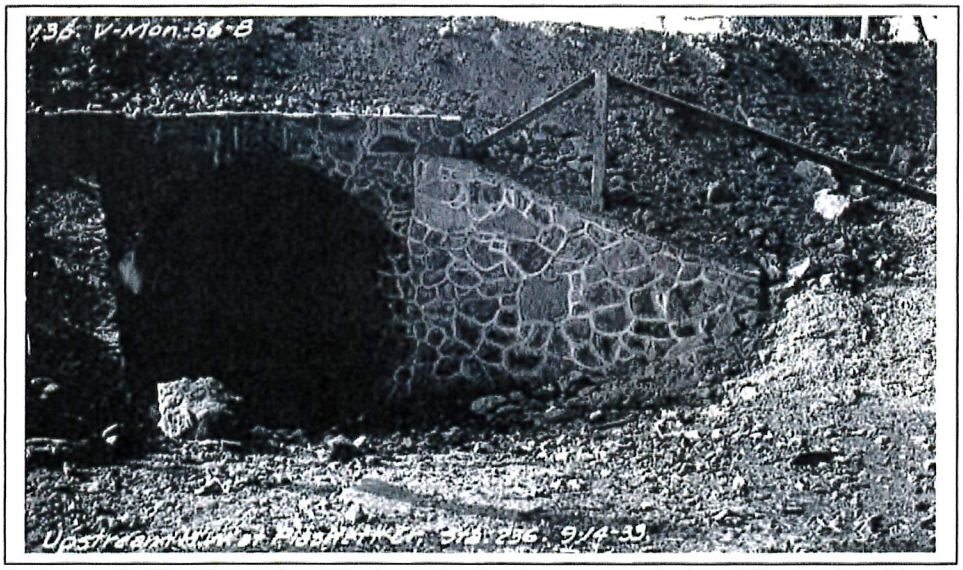
Photograph 27. Typical "flat" culvert headwall (DM-148).
(JRP photograph, June 2, 2003.)

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):



Photograph 28. Typical drop inlet (DM-237).
(JRP photograph, June 2, 2003.)



Photograph 29. Example of U-shaped culvert, photograph dated September 14, 1933.
(Caltrans District 5 Records Resource Center, Historic Highway Photograph Collection, Binder V-Mon-56-B, Photograph 136.)

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):

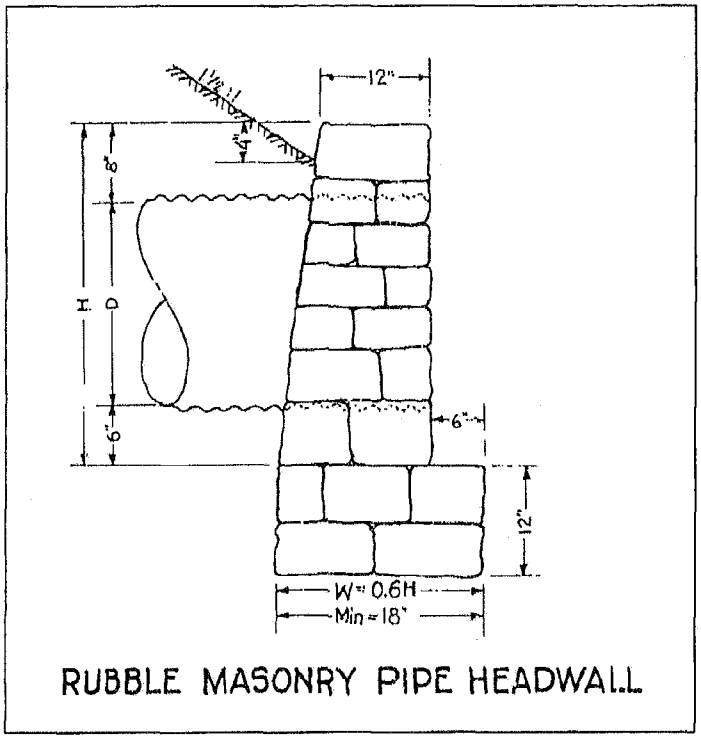


Figure 4. Division of Highways standard plan for rubble masonry pipe headwall.
(Reproduced from "Miscellaneous Structures, V-Mon-56-H-22-22, As Built Plan Number 50000298," approved May 23, 1932. On file at Caltrans District 5 Records Resource Center, San Luis Obispo, California.)

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):

DESCRIPTION OF CONCRETE ARCH BRIDGES

Seven concrete arch bridges are contributing elements of the Historic District: Big Creek (1938), Bixby Creek (1932), Rocky Creek (1932), Garrapata Creek (1931), Granite Canyon (1932), Malpaso Creek (1935), and Wildcat Creek (1933). All seven bridges were designed by the Division of Highways, Bridge Department, and are significant examples of the Division's work (each has been been determined individually eligible for the National Register and is listed on the California Register). Led by Charles Andrew, an advocate for beautiful bridges in wilderness areas, the Division had the imposing task of crossing deep wide ravines and canyons hundreds of feet above the coastline. Six of the bridges are of similar design with thick, heavily inflected piers and thin arch rings with spandrel columns. The Wildcat Creek Bridge was the only of the seven to be situated in an urban setting which dictated a different design.

Big Creek Bridge (Feature DM-322; P.M. 28.09)

Big Creek Bridge is a reinforced concrete, open spandrel, fixed, parabolic arch bridge with two, two-ribbed arch spans both 178 feet long. The bridge length is 589 feet and includes four concrete T-beam approach spans. The two-lane bridge is 28 feet wide with a cantilevered walkway. Reinforced concrete arch ribs are five feet thick at the crown and nine feet thick at the springing line. Spandrel columns are reinforced concrete with a smooth finish, as are railings in an arched window design. Some changes from a seismic retrofit in 2000 include shear walls built into the piers and a deeper spandrel girder. It is shown in Photographs 30 and 31.

Bixby Creek Bridge (Feature DM-032; P.M. 59.37)

Bixby Creek Bridge is a reinforced concrete, open spandrel, fixed, parabolic arch bridge with a single, two-ribbed arch span measuring 330 feet long. The bridge is 714 feet long and includes eleven continuous concrete T-beam approach spans on either end of the central arch span. Reinforced concrete columns matching the spandel column design support the approach spans that total 384 feet long. The two-lane bridge is 28 feet wide with a cantilevered walkway. Reinforced concrete railings have an arched window design and a smooth texture finish. Bixby Creek Bridge is shown in Photographs 32 and 33.

Rocky Creek Bridge (Feature DM-030B; P.M. 60.05)

Rocky Creek Bridge is a reinforced concrete, open spandrel, fixed, parabolic arch with a single, two ribbed arch span measuring 239 feet. It is shown in Photographs 34 and 35. The total bridge length is 497 feet and includes six concrete T-beam approach spans. The two-lane bridge is 27 feet wide and has a decorative cantilevered walkway. Reinforced concrete railings are of an arched window design and have a smooth texture finish.

Garrapata Creek Bridge (Feature DM-028; P.M. 62.97)

Garrapata Creek Bridge is a reinforced concrete, open spandrel, fixed, parabolic arch with a single, two ribbed arch span measuring 151 feet. The total bridge length is 286 feet and includes seven approach spans. It is a 27-foot wide, two-lane bridge with a decorative cantilevered walkway. Reinforced concrete railings have an arched window design and a smooth texture finish. The bridge is shown in Photographs 36 and 37.

Granite Canyon Bridge (Feature DM-027; P.M. 64.33)

Granite Canyon Bridge is a reinforced concrete, open spandrel, fixed, parabolic arch with a single, two ribbed arch span measuring 237 feet long. It is shown in Photographs 38 and 39. The total bridge length is 288 feet and includes four concrete T-beam approach spans. The two-lane bridge is 27 feet wide and has a decorative cantilevered walkway. Reinforced concrete railings have an arched window design and a smooth texture finish.

Malpaso Creek Bridge (Feature DM-025; P.M. 67.85)

Malpaso Creek Bridge is a reinforced concrete, open spandrel, fixed, parabolic arch with a single arch span measuring 125 feet long. The bridge is a total of 210 feet in length and includes six approach spans. The two-lane bridge is 30 feet wide and has a decorative cantilevered walkway. Reinforced concrete railings are of an arched window design and have a smooth texture finish. The bridge is shown in Photographs 40 and 41.

Wildcat Creek Bridge (Feature DM-022; P.M. 69.02)

Wildcat Creek Bridge is a reinforced concrete, closed spandrel, pointed arch bridge with three arch spans. The mainspan is 57 feet long. The total bridge length is 165 feet and includes two additional arch spans measuring 41 and 42 feet long. The bridge is 44 feet wide and has a flush roadway. The solid reinforced concrete railings have a smooth cap. Photographs 42 and 43 show views of the Wildcat Creek Bridge.

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):

Table 8. Concrete Arch Bridges of the Carmel-San Simeon Highway Historic District

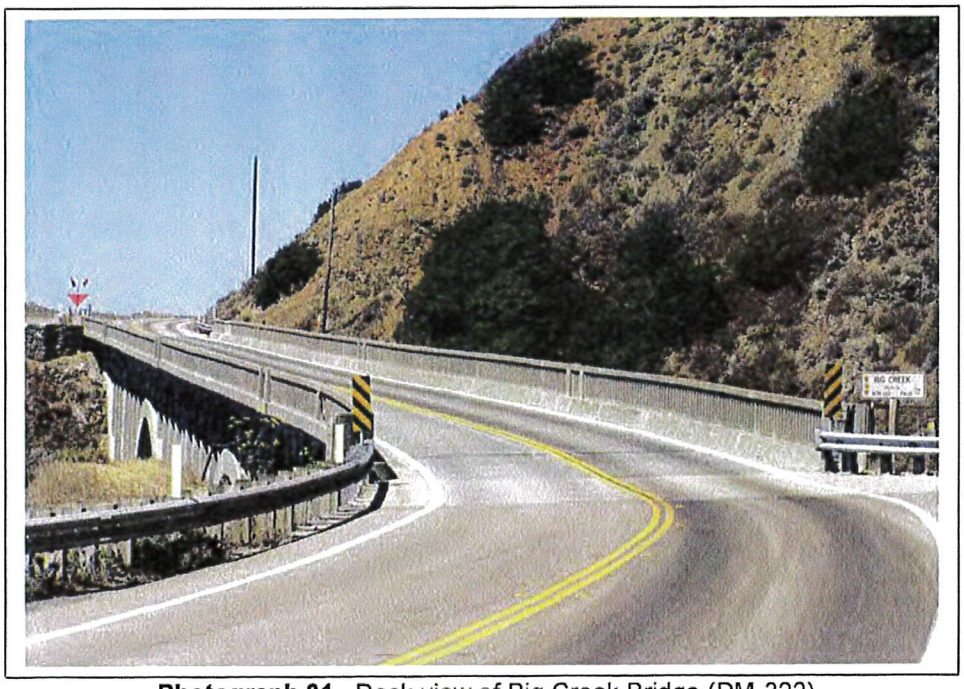
Identifier	Feature Name	County	Post Mile	Side of Highway
DM-322	Big Creek Bridge (#44-0056)	MON	28.15	Both
DM-032	Bixby Creek Bridge (#44-0019)	MON	59.44	Both
DM-030B	Rocky Creek Bridge (#44-0036)	MON	60.11	Both
DM-028	Garrapata Creek Bridge (#44-0018)	MON	63.00	Both
DM-027	Granite Canyon Bridge (#44-0012)	MON	64.39	Both
DM-025	Malpaso Creek Bridge (#44-0017)	MON	67.90	Both
DM-022	Wildcat Creek Bridge (#44-0016)	MON	69.02	Both

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):



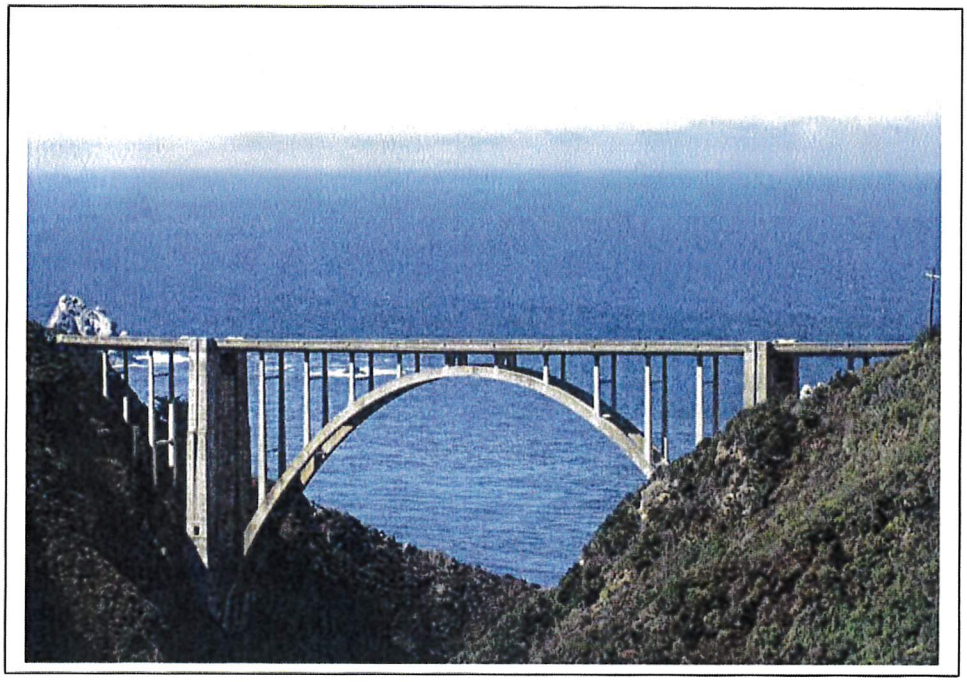
Photograph 30. Side view of Big Creek Bridge (DM-322).
(JRP photograph, September 10, 2003.)



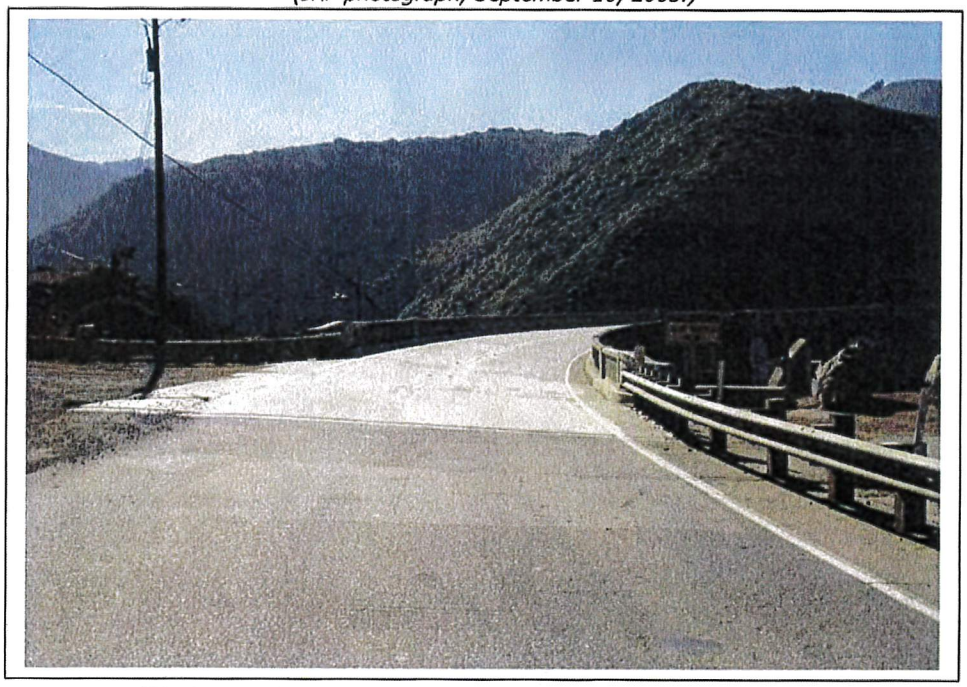
Photograph 31. Deck view of Big Creek Bridge (DM-322).
(JRP photograph, September 10, 2003.)

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):



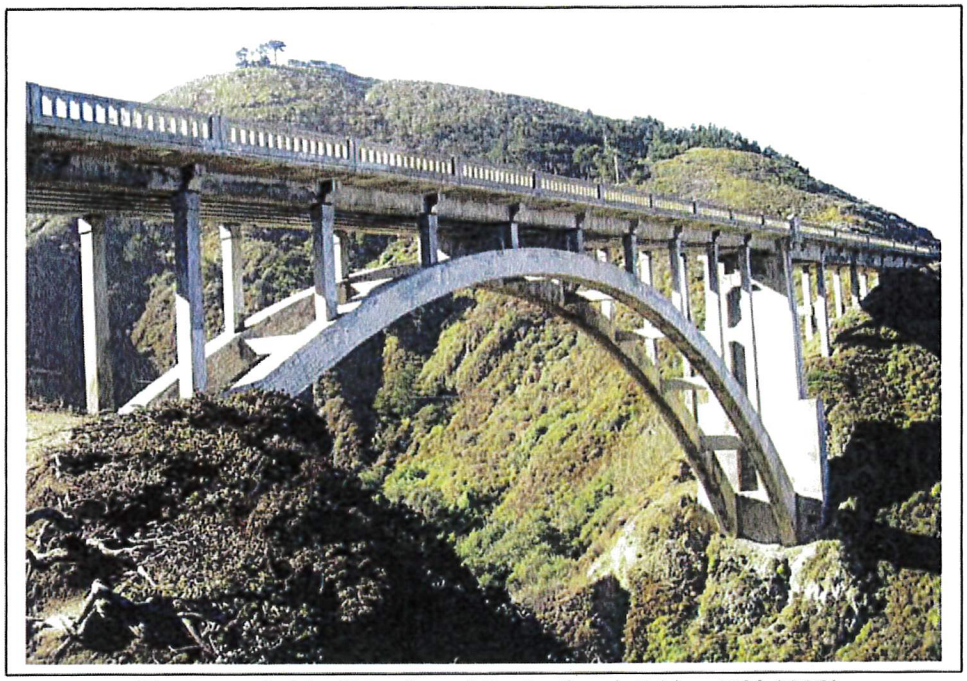
Photograph 32. Side view of Bixby Creek Bridge (DM-032).
(JRP photograph, September 10, 2003.)



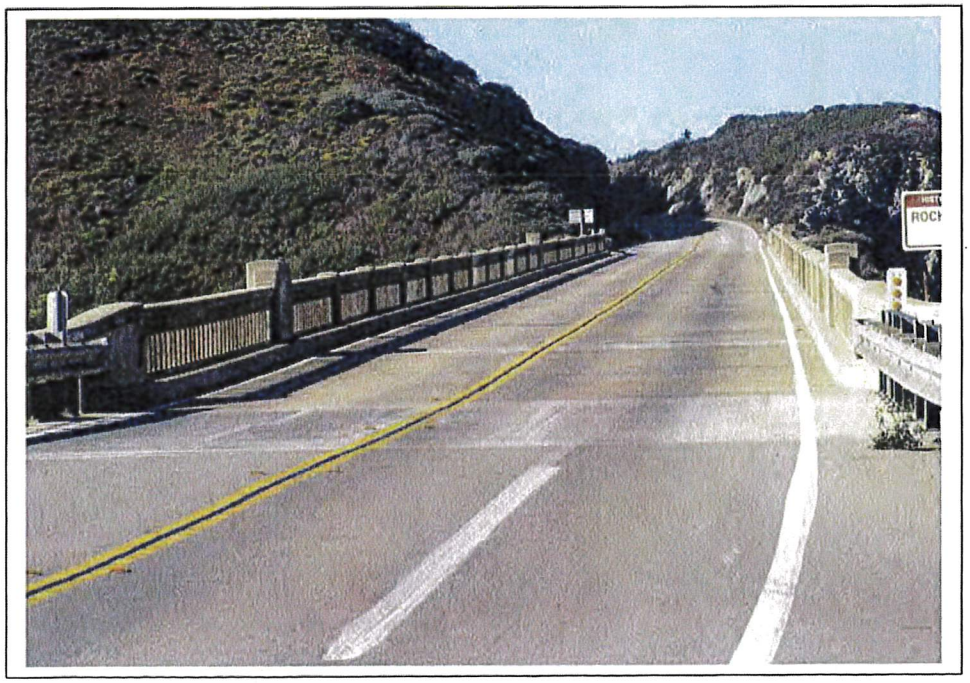
Photograph 33. Deck view of Bixby Creek Bridge (DM-032).
(JRP photograph, September 10, 2003.)

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):



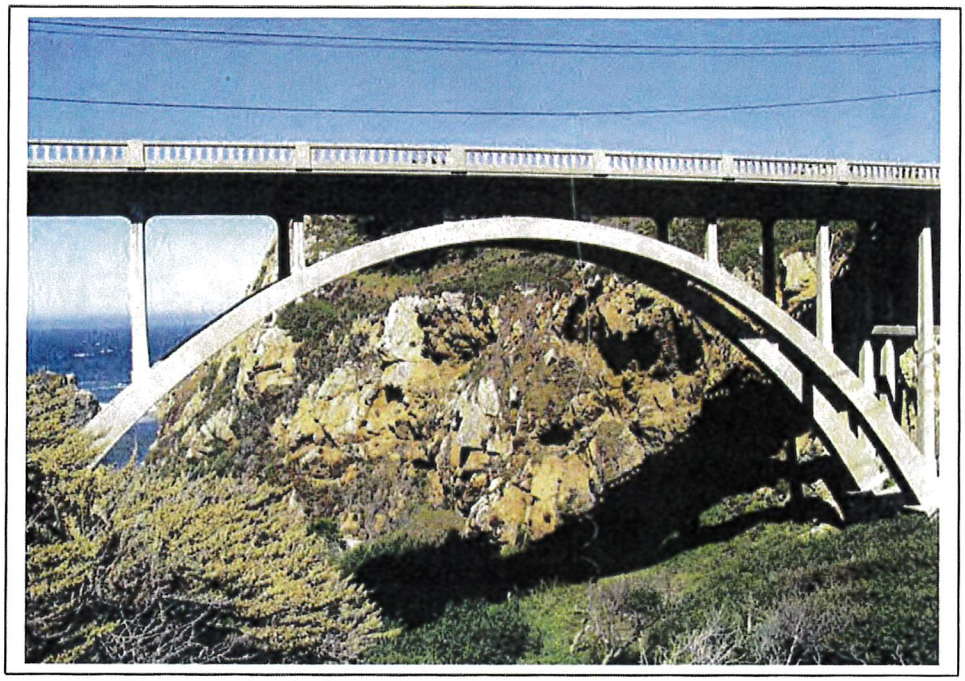
Photograph 34. Side view of Rocky Creek Bridge (DM-030B).
(JRP photograph, September 10, 2003.)



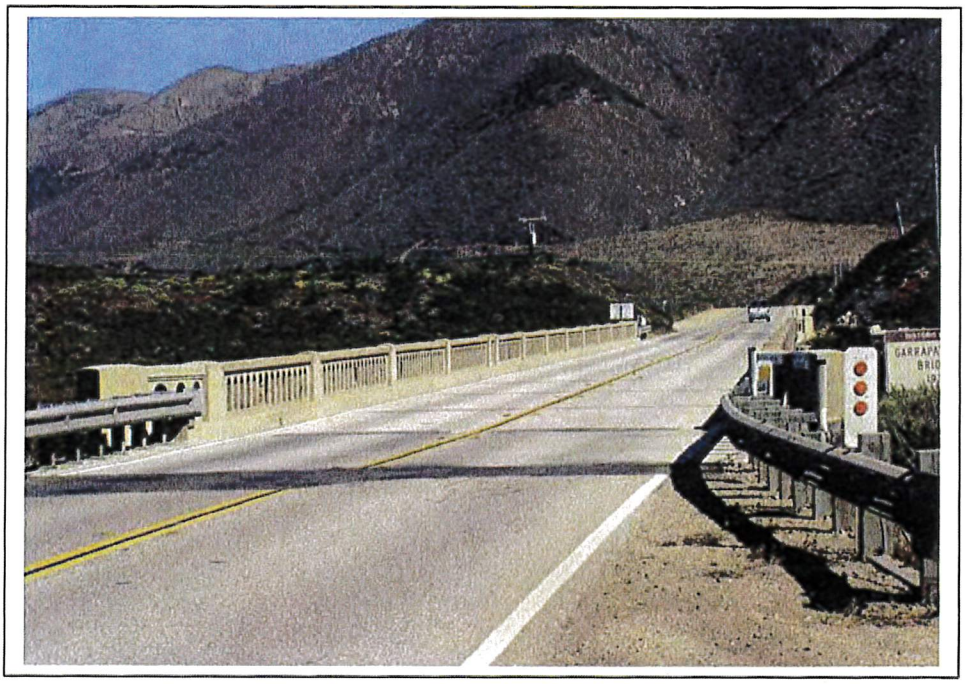
Photograph 35. Deck view of Rocky Creek (DM-030B).
(JRP photograph, September 10, 2003.)

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):



Photograph 36. Side view of Garrapata Creek Bridge (DM-028).
(JRP photograph, September 10, 2003.)



Photograph 37. Deck view of Garrapata Creek Bridge (DM-028).
(JRP photograph, September 10, 2003.)

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):



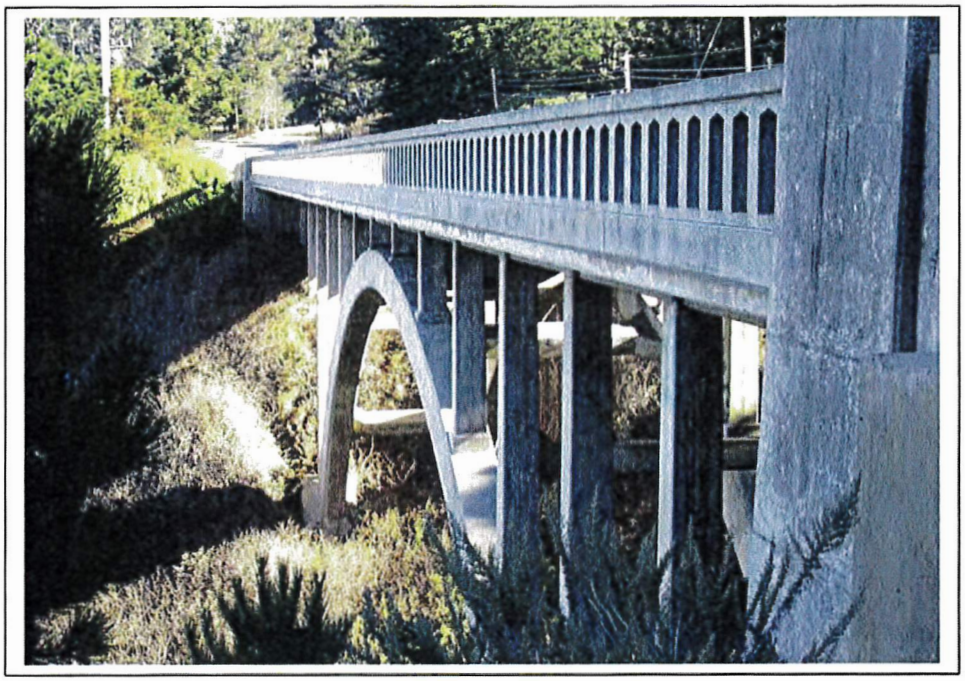
Photograph 38. Side view of Granite Canyon Bridge (DM-027).
(JRP photograph, September 10, 2003.)



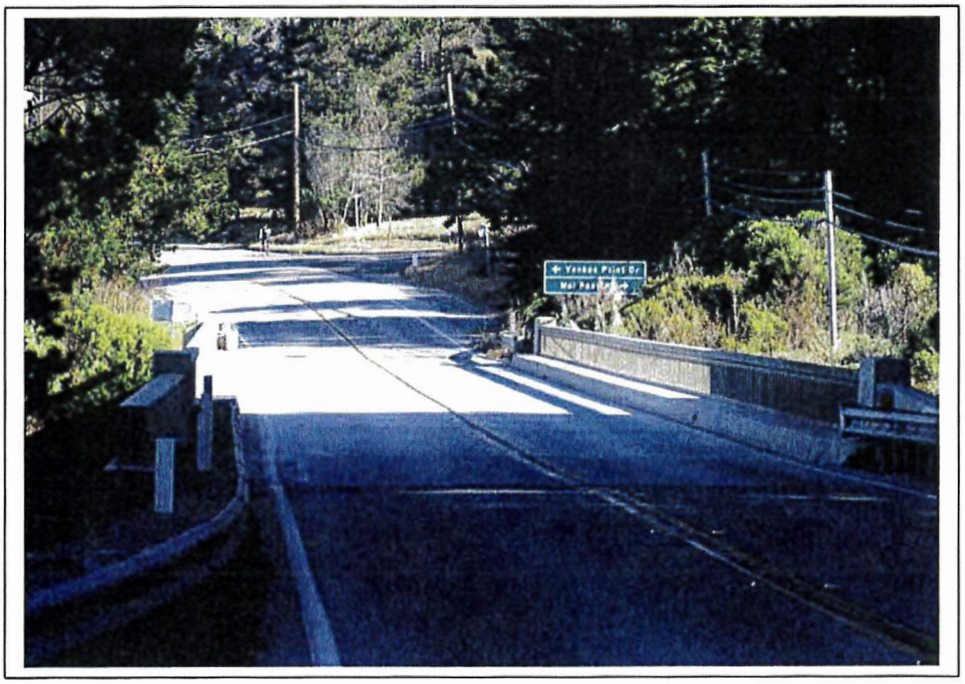
Photograph 39. Deck view of Granite Canyon Bridge (DM-027).
(JRP photograph, September 10, 2003.)

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):



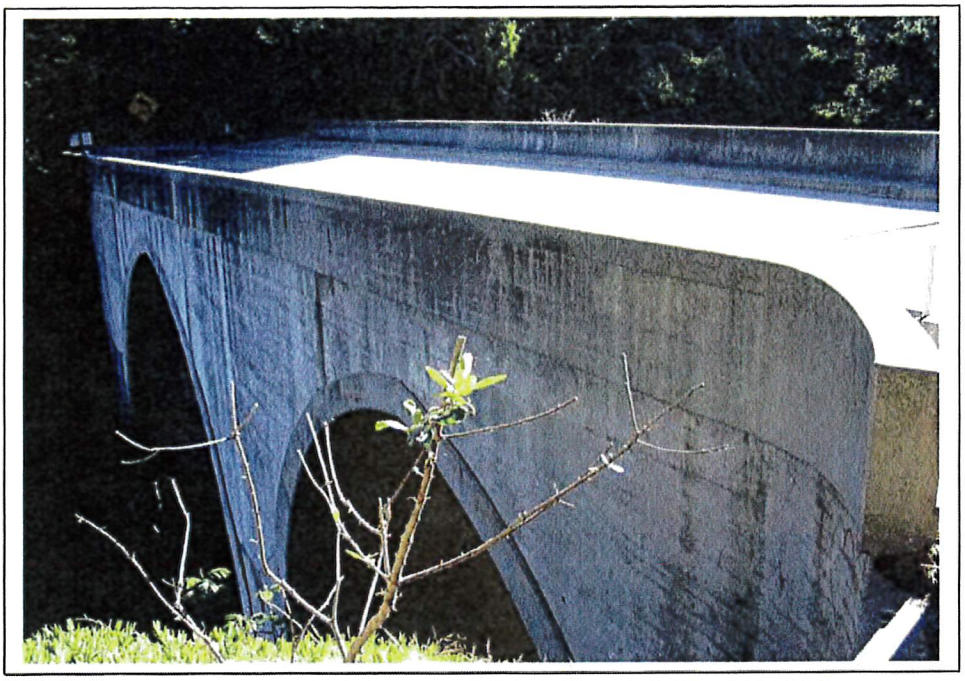
Photograph 40. Side view of Malpaso Creek Bridge (DM-025).
(JRP photograph, September 10, 2003.)



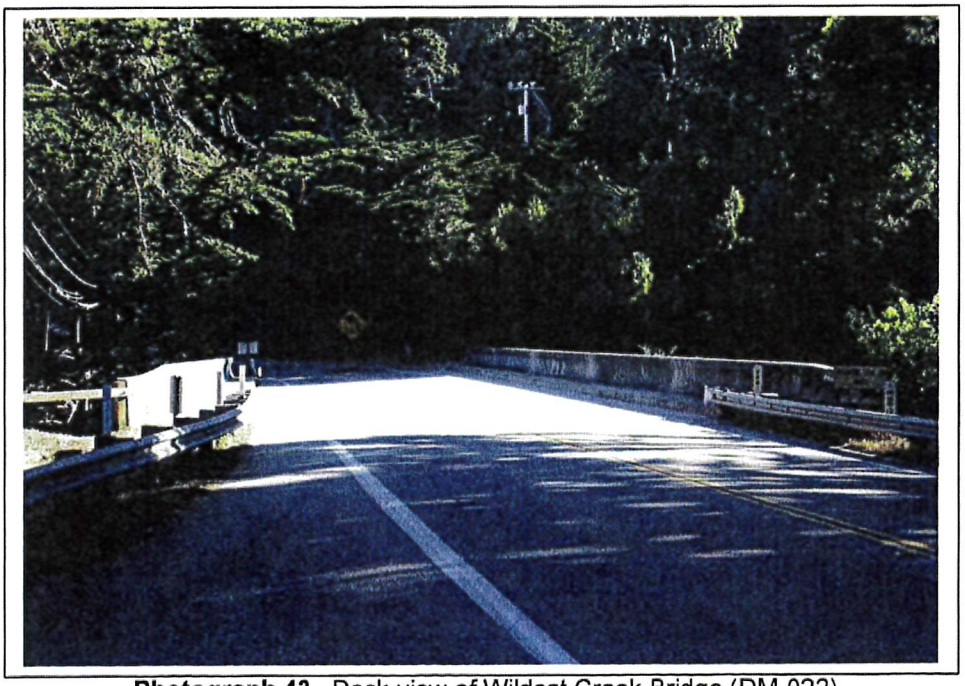
Photograph 41. Deck view of Malpaso Creek Bridge (DM-025).
(JRP photograph, September 10, 2003.)

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):



Photograph 42. Side view of Wildcat Creek Bridge (DM-022).
(JRP photograph, September 10, 2003.)



Photograph 43. Deck view of Wildcat Creek Bridge (DM-022).
(JRP photograph, September 10, 2003.)

CONTINUATION SHEET FOR DISTRICT RECORD

D5. Boundary Justification (continued):

As discussed in "Boundary Description" above, the Carmel-San Simeon Highway Historic District is a discontiguous district. Usually, a historic district is a single geographic area of contiguous historic properties; however, a district can also be composed of two or more elements that are related historically but are separated by nonsignificant areas. National Register guidelines allow for the use of discontiguous districts under several circumstances, as detailed in National Register Bulletin 15, "How to Apply the National Register Criteria for Evaluation." It is most appropriately used where:

- Elements are spatially discrete;
- Space between the elements is not related to the significance of the district; and
- Visual continuity is not a factor in the significance.

The Carmel-San Simeon Highway Historic District meets these three requirements. The first condition is satisfied because the district's discontiguous elements – the rubble masonry features listed in Table 1 – are spatially discrete. The district is a collection of engineering features, each of which was placed at a specific location for a specific purpose. Many are clustered close together, but others are separated from one another by distances best measured in miles.

The second condition is met because the space between the elements is not related to the significance of the district. Although the space between the individual resources may contain historically significant resources (archaeological sites, individually eligible buildings or structures), these resources do not contribute to the significance of this historic district, which is defined as consisting solely of rubble masonry engineering structures and concrete arch bridges built in conjunction with the Carmel-San Simeon Highway during the 1920s and 1930s.

ıally, visual continuity is not an important factor of the district's historic significance. The argument could be made that visual ɔntinuity is an important factor if the individual rubble masonry structures had been placed in such a way as to maximize their visual impact, such as if they had been integral components of a master plan designed to emphasize aesthetics. As discussed further below, highway beautification was instrumental in the decision to use rubble masonry structures -- particularly water fountains -- along state highways during this period. However, the single most important factor in determining the placement of the various engineering structures was safety or engineering necessity. The retaining walls were placed to secure the roadway above an unstable hillside, parapet walls were placed as automobile guardrails on dangerous curves, and culverts were installed to ensure proper drainage across the highway. The selection of local rock as a building material was partially rooted in the desire to make the engineering features as aesthetically pleasing as possible; the placement of the individual features was not. Although it is clear that the rubble masonry structures were intended to be visually and aesthetically pleasing, their very reason for being was based on engineering expediency, not ornamental value. In the absence of a unified master plan where aesthetics was the driving value, visual continuity of the individual features is not important to the district's historic significance.

The boundaries of the Carmel-San Simeon Highway Historic District are defined with the intent to encompass but not exceed the extent of the district's contributing features. The north and south boundaries of the Historic District are based on the construction history of the Carmel-San Simeon Highway, but is refined on the south to eliminate a large area in which rubble masonry structures were never built. The Historic District's southern boundary line, San Carpoforo Creek, is appropriate because it is an easily discernible natural feature that roughly marks the beginning of construction of rubble masonry structures at this end of the highway. The creek, located at post mile 71.34, is approximately seven miles north of the south end of the Carmel-San Simeon Highway, which began at a point six miles north of the town of San Simeon, near the Piedras Blancas Lighthouse (approximate post mile 64.0 in San Luis Obispo County). It is clear from highway construction documentation that no rubble masonry features were built along this seven-mile stretch during the original construction of the section, so it is not appropriate to include it in the Historic District. The southernmost rubble masonry structure associated with the Carmel-San Simeon Highway is a dry laid masonry retaining wall located at post mile 71.81 in San Luis Obispo County (Map Reference DL-601), just north of San Carpoforo Creek. The Carmel River in Monterey County (post mile 72.28) marked the northern end of historic development of the Carmel-San Simeon Highway and, like San Carpoforo Creek on the south, is appropriate because of it provides a clear dividing line between areas with and without rubble masonry structures. The northernmost masonry structure is a culvert located at post mile 72.05 in Monterey County (Map Reference DM-002).

The width of the district is somewhat arbitrary because it cannot be determined by natural, geographic, or legal boundaries. A ,ical boundary line may have been the Caltrans right-of-way; however, this does not fit because several of the district's features are located on private property, outside of the right-of-way. Therefore, the width of the district is defined by the location of the footprints of the individual rubble masonry features. Again, the intent is to include the range of structures that comprise the historic district, but not to include intervening land that lacks historic significance.

D6. Significance (continued):

HISTORIC CONTEXT

The opening of the Carmel-San Simeon Highway was among the most important events in the history of the development of the Big Sur region, opening up the rugged coastline to tourists as well as facilitating easier travel for local residents. The actual construction of the highway, however, proved to be a laborious and expensive project that required a span of fifteen years to complete, encompassing two separate stages work. During the first stage, 1922-1924, contracts covering two sections were let to private construction companies. The first contract covered an approximately twelve-mile stretch between San Simeon in San Luis Obispo County to a point approximately two miles north of the Monterey county line, called Section A (the Carmel-San Simeon Highway was divided into eight sections, A through H). The second contract covered construction of Section E, a thirteen-mile stretch between Anderson Canyon and the Big Sur River. During construction of these initial sections, it soon became clear that the project would be arduous and expensive. The two most significant factors, the isolation of the site which resulted in high labor costs and the rugged, unstable topography, impeded construction over the duration of the project. The excessive expenses quickly exhausted funding, causing the project to be halted in 1924. The Division of Highways activated the project's second stage in 1928 using convict labor crews and later with the use of laborers under various Depression-era work relief programs (for a more detailed discussion of the construction history of the highway see: Mikesell December 1986).

The use of convict labor for state highway construction projects was authorized by the passage of a bill authored by State Assemblyman B.B. Meek and enacted into law on August 8, 1915. Convict labor was seen as a solution to the pressing problems of overcrowding in the state's two prisons, and as a method of rehabilitation for first time offenders. This ready pool of unskilled labor also filled a need on the part of the Division of Highways and private contractors, who had a difficult time in attracting workers to remote regions of the state. One provision of the utilization of convict labor on highway construction was that the prisoners were limited to tasks requiring unskilled labor. Free men performed all of the skilled labor, served as convicts' supervisors, and operated of the motorized equipment. Along the Big Sur Coast, convict labor camps were established at Salmon Creek and the mouth of the Little Sur River. Later, construction camps were established at Point Gorda, Kirk Creek, and Anderson Canyon as the work progressed (Pavlik 1996; Tilton 1949: 4-6, 55-57).

The Division of Highways continued to use convict labor throughout the duration of the highway's construction. Beginning in 1931 and continuing through 1936, however, the division resumed using private contractors to complete most of the work north of Big Sur State Park (where the Big Sur River crosses Highway 1). The use of contract labor was the result, in part, of Depression era relief work programs. In the Eighth Biennial Report of the Division of Highways (1932), it was reported that "with the increase of unemployment in the fall of 1930, the Division of Highways was called upon to furnish as much relief employment as possible, in addition to speeding up its construction program....Hand methods were used in all cases to furnish employment to the greatest feasible number of men and the work performed became a part of the final construction of the highway" (Division of Highways, Eighth Biennial Report, November 1932). This was indeed the case for the section of highway between Big Sur River and Moleras Ranch. In 1934, the Force Construction Company built the southern half of this section under the provisions of the National Industrial Recovery Act of 1933. The Special Provisions section of the contract required that the company use labor provided through a US Employment Service Agency in Monterey County, and that hiring preference be given to ex-servicemen, citizens of the United States and resident aliens with intentions of becoming citizens, and residents of California. The northern half of this section of highway, built between 1935 and 1936, was a Works Program Highway Project under the Emergency Relief Appropriation Act of 1935. The contractors, Granfield, Farrar and Carlin, used a labor force provided by the National Reemployment Service in Salinas (Division of Highways, Contract 65WC2, 1934).

The construction of the Carmel-San Simeon Highway ended in 1938 with the completion of the Big Creek Bridge, which had been bypassed as work continued on the bridge. By this time, the highway itself was finished and open for through traffic. The final contract, for the section between Anderson Canyon and Big Sur, was completed in 1937. The quality of the roadway constructed under the original contract for this segment by George Pollock & Company proved unsatisfactory and was almost completely rebuilt on a new alignment, this time using convict labor. On June 27, 1937, a gala celebration was held at Pfeiffer Redwoods State Park to commemorate the opening of the highway. Governor Frank Merriam, Dr. John Roberts, Department of Public Works officials, and others were in attendance. With the help of a stick of dynamite and a bulldozer, Governor Merriam and Public Works Director Earl Lee Kelly symbolically pushed a large boulder out of the highway's path, thereby opening the road to the traveling public (Gibson 1937: 2). Previously, the governor dedicated the new section of highway in San Luis Obispo County and presided at a ceremony honoring the late Elmer S. Rigdon at a roadside park and water fountain that bears his name. (The water fountain still stands and is a contributing element of the Carmel-San Simeon Highway Historic District.)

The Big Creek Bridge, mentioned above, was the last of seven concrete arch bridges built along the Carmel-San Simeon Highway in Monterey County. Collectively known as the Big Sur Arches, these structures were designed by the Bridge Department of the

Division of Highways, under the leadership of Charles Andrew, an advocate for beautiful bridges in wilderness areas. Each of the bridges provided important crossings of deep, wide ravines and canyons hundreds of feet above the coastline. Of these, the Bixby Arch required the most ambitious design, requiring a clear span of 360 feet for its crossing of the creek 260 feet below. The engineers were also challenged with fitting such an imposing structure into the natural and beautiful setting of the Big Sur coastline. Their solution was to integrate thin arch rings, columns, and railings, so that it minimized obstructing views of the ocean, while at the same time utilizing oversized piers that offered some continuity with the hillside. As a result, the Bixby Bridge is widely regarded as one of the most attractive and well-designed rural bridges in the nation (Mikesell 1990: 96). Five of the other six arches generally mimic the basic design of the Bixby Creek Bridge; the sixth bridge, the Wildcat Creek Bridge, was built in the populated area of Carmel Highlands and therefore required a slightly different design (it is a closed spandrel arch). These concrete arch bridges are the last of the original 39 bridges built during the original construction of the Carmel-San Simeon Highway, the others being a variety of timber and steel structures (Mikesell December 1986: Appendix B).

During the construction of the Carmel-San Simeon Highway, the Division of Highways elected to build a substantial number of the highway's roadside engineering features – namely retaining walls, parapets (serving as guard rails), culvert headwalls, and water fountains – in the rustic style using rubble stone masonry. Rubble masonry construction involves the use of locally procured stones, irregular in shape and size, which are either wet laid (with mortar) or dry laid (without mortar). Beginning in the early 1920s and continuing into the 1950s, rubble masonry engineering features on state highways were built in large numbers, especially in rural and scenic areas. During this period, the Division of Highways utilized this construction method along segments of the "All Weather Highway" (modern Highway 140) in Mariposa County en route to Yosemite National Park, "Redwood Highway" (Highway 199) in Del Norte County, "Feather River Highway" (Highway 70) in Butte and Plumas counties, "Kings River Canyon Highway" (Highway 180) in Fresno County, and "Emerald Bay Highway" (Highway 89) in El Dorado County, to name a few. Although no comprehensive statewide study of this feature type has been developed, it is clear from available documentation that Division of Highways constructed literally thousands of rubble masonry features during the early to mid twentieth century, and that a large quantity of these still exist along state highways throughout California (Snyder 1983; Speer 1983; Mikesell September 1986; Fisher 1994; Clement 1997; Leach-Palm et al. 2004).

There are several reasons why the Division of Highways chose to use this construction method on the Carmel-San Simeon Highway and throughout the state. First was the ready availability of raw material created by the massive amount of dynamiting necessary to carve a new roadway out of especially rocky areas. In an extreme example, blasting for the Feather River Highway resulted in the removal of nearly 8,000,000 cubic yards of material, almost all of it from solid rock (Gallagher 1945: 6). These types of activities created a huge natural source of material for use by the resident engineers and stone masons that was both inexpensive and convenient.

Additionally, the construction of rubble masonry structures was a labor-intensive activity, one that provided part of the "make work" necessary to employ a large workforce. This applied to both prison labor crews and Depression-era relief projects for the unemployed. The contract of one section of the Carmel-San Simeon Highway, for example, specified that hand labor methods were to be used "to the maximum extent possible." This included transporting supplies by wheelbarrow, using hand excavation techniques, and building hand-laid masonry structures (Division of Highways, Contract 85WC-85PWC1, 1936: 18).

The decision to build rubble masonry features – parapets and drinking fountains in particular – was also an outgrowth of the "highway beautification" movement that began about 1912 and reached its peak of activity in the mid 1930s (Mikesell, September 1986). During the early twentieth century, public officials, civic leaders, and politicians sought ways to retain and improve the beauty of America's highways through the conservation of natural surroundings, control of roadside advertising, cleanup efforts, and landscape improvement programs. As early as 1912, civic groups such as the California Federation of Women's Clubs were agitating for roadside cleanup campaigns and control of signboard advertising along state highways. In 1918, the California State Highway Commission began a program of maintaining all trees planted on the right of way at private expense in an early attempt to answer the growing public interest for state highway beautification. Shortly thereafter the State Nursery near Davis was established, which, in 1921, released 7,600 trees to civic groups for roadside plantings. By 1927 there were nearly 700 miles of planted trees along the state highway rights-of-way (Division of Highways 1961).

During the mid to late 1920s the push to beautify California's public highways intensified. Several articles appearing in the Division of Highways journal, California Highways and Public Works, all published in 1929, capture the mood of the time. In an article summarizing the state of the highway system, Governor C.C. Young called attention to the importance of highway beautification: "A definite campaign which is winning widespread support has been launched to save the scenic values of highways, by preventing their injury through unsightly roadside structures and by billboards which, while properly situated in commercial areas along highways, yet have no place along our scenic roads" (Young 1929: 11). Frank McKee, Director of Highways for the California State Chamber of Commerce, cautioned that the "greatest value of a scenic spot is its natural beauty; to mar it in any way would be an economic mistake" (McKee 1929: 12) The title of U.S. Secretary of Interior Ray Lyman Wilbur's article, "A Plea for Beautiful Highways," perhaps most clearly illustrates the point. In this article, Wilbur reminds the American public that all have a

responsibility to preserve and conserve the natural beauty of American's highways, fast becoming national eyesores. Wilbur continued, "if we can all get interested in a beautiful America we will become a different people and we can will enjoy again those natural charms that quietly but effectively influence our character and thinking." Those natural charms could be best enjoyed in "attractive wayside stands, harmonious with their natural surroundings" (Wilber 1929: 24).

At a statewide level this interest in highway beautification culminated with the adoption of Assembly Concurrent Resolution No. 34 in 1931. The resolution mandated that the Division of Highways, in concert with the Division of Beaches and Parks, formulate a coordinated and cooperative roadside beautification plan for California state highways. The resolution called specifically for the development of small roadside parking and recreational areas along state and county routes. The Division of Highways responded by undertaking a statewide survey and producing the resultant California Highway Roadside Beautification Survey report, released in 1932. The plan placed an emphasis on tree planting campaigns, but also included other beautification proposals for recreational roadways such as the development of roadside picnic facilities, public campgrounds, lookout points, and drinking fountains (Division of Highways, Beautification Survey, 1932).

The design of the Carmel-San Simeon Highway, which was built to serve one of the most scenic regions in the state, incorporated many of these beautification features, but most notable among them was its collection of six roadside water fountains. Water fountains were built throughout the state for the purpose of providing drinking and radiator water to the traveling public, particularly along remote sections of state highway where commercial or other public facilities were not available. The other main criterion for site selection was the availability of a natural water source (Division of Highways, Beautification Survey, 1932: 33; Division of Highways, Eighth Biennial Report, November 1932: 111). By 1932, the Division of Highways had installed fountains at 18 locations scattered throughout California, mostly along established and heavily traveled routes, such as the Redwood Highway (US 101), but also along new and especially scenic routes, such as the Feather River Highway (Highway 170). The beautification study also proposed the construction of 47 more fountains on 28 different state highways, most of which were rural coastal, mountainous, and desert routes. By 1953 the division had constructed 89 fountains along its roadways (Division of Highways, Beautification Survey, 1932: 33,40-53; Division of Highways, California Roadsides, 1953: 42).

The Big Sur fountains, like many other roadside fountains constructed throughout the 1920s and 1930s, were embodiments of the Division of Highway's roadside beautification ethos during that period (Division of Highways, Memorandum, 1933-1934). The fountains were conscientiously designed to harmonize with the natural environment in which they were placed and, according to one Caltrans historian, "tend to be among the most ingenious, even playful, structures built by the agency" (Mikesell September 1986). Although no comprehensive survey of the type has yet been undertaken, available evidence suggests that none of the fountains were built according to a standard plan, and that each is a unique feature individually designed to fit into its particular setting. Some were modest in size and design, consisting of little more than a simple stone or concrete pedestal, while others were much more elaborate, incorporating benches, walls, terraces, or natural features such as boulders into their design. Many, including those on the Carmel-San Simeon Highway, were rubble masonry structures designed in the rustic style (Division of Highways, Eighth Biennial Report, November 1932: 110; Switzer 1937: 16). The rustic style of architecture, popularized by the National Parks Service during the 1910s and 1920s, was particularly suited for highway beautification projects as it promoted the use of natural, locally procured building materials, handcrafted building methods, and the subversion of the built feature to the surroundings (Tweed et al. 1977: i-ii).

During the first phase of highway construction of the Carmel-San Simeon Highway (1922-1924), the use of rock as a building material was relatively limited and its application was more pragmatic. The retaining walls built during the earliest phase of construction, between San Simeon and Salmon Creek, were exclusively dry laid. Furthermore, there were no parapet walls or fountains constructed. It appears that dry laid retaining walls were the standard design for the period, with mortared or "wet" walls being introduced as the more common choice after 1928. The final report for the San Simeon to Salmon Creek contract notes that the walls "were exceptionally good, as good stone masons were easily obtained from the Greek excavating gangs." This is the only reference in any of the available Division of Highways documentation to the ethnicity of the stone masons. These masons earned $6.00 per day, the same as truck drivers and watchmen. Comparatively, unskilled laborers made $4.00 to $5.00 per day, while carpenters earned up to $7.25 per day and mechanics made $8.00 (Division of Highways, Contract 331,1923: 6, 11).

After four years of inactivity, work on the Carmel-San Simeon Highway finally resumed in 1928, beginning with the Salmon Creek to Spruce Creek section (P.M. 2.23-9.36). During this nearly three-year contract, project engineers introduced several new practices concerning rubble wall construction that set a precedent for masonry construction on later highway sections. As mentioned above, the Salmon Creek to Spruce Creek contract was the first contract that employed convict laborers, a practice that continued through the duration of project. Also under this contract, the standard retaining wall construction transitioned from dry laid rock to mortared masonry construction. In April 1930, the battlement style parapet replaced the arcade as the preferred style of masonry parapets (all three of the Historic District's arcade style parapets were constructed during this contract). The resident engineer for this section also elected to abandon concrete culvert headwalls in favor of rubble masonry ones because the latter were considered "cheaper and more in keeping with the natural surroundings" (Division of Highways, Contract 25DN1, D679, 1931).

Stonemasons (free labor), with the assistance of unskilled convict or free laborers, built the rubble masonry features (Speer 1983; Fisher 1994). Stonemasons were considered skilled workers, and contracts during the 1930s list the prevailing wages for masons at $8.00 per day, on par with carpenters and foreman. This wage is in contrast to laborers who still earned $4.00-$5.00 per day, or truck drivers who earned $6.00 (Division of Highways, Contract 45WC1,October 1933: 80). According to Don Harlan, a longtime Big Sur resident and retired Division of Highways maintenance foreman, along the Big Sur Coast the truck drivers (all free men) each had a crew of six or eight convicts. They would search for a suitable supply of rock, load up the truck, and haul it to the site where the wall was to be built. The convict laborers unloaded the rock, handing each stone to the mason, who placed the rocks. The stones were usually locally procured and readily available, but on the occasion when local rock was in short supply or of poor quality, it had to be imported from other sections of the highway or purchased from private companies, usually at substantial extra cost. Unless the wall was intended to be dry laid, the last step was to mortar the stones into place and allow the cement to cure (Harlan 1995).

The stone walls were generally crafted by hand, but in some instances, such as when the retaining wall was located well below the roadway or when the stones were too large, crews employed rigs to hoist or lower the stones into place. Between Spruce Creek and Kirk Creek, for example, a tractor lowered the larger stones into place with cables and skids. For a particularly large wall in Carmel Highlands, contractors employed a 1½ yard power shovel, borrowed from its usual road excavation duties, to place boulder-sized stones at the base of the wall (Division of Highways, Contract No. 25DN3, 45DN4, March 1934: 16; Division of Highways, Contract 45WC1: 8).

The quantity and placement of rock masonry structures within a given highway section was a function of several factors, among them the abundant availability of quality rock and the ruggedness of the terrain. The 1934-1937 construction of the Anderson Canyon to Big Sur section yielded a very high number and concentration of rubble masonry features, especially between Partington Ridge and Grimes Canyon. Approximately 2,700 linear feet of parapet walls and 140 rubble masonry culvert headwalls were built along this section; the majority of the parapets still exist (Division of Highways, Contract 65W4-85W3, December 1937: 53).

Comparatively, on the south end of the highway where quality rock was already in scarce supply, the shortage was sometimes further exacerbated by human interference. The author of the final report for the San Simeon to Salmon Creek contract laments that "...no large amount of suitable rock could be found...[and] where good rock was encountered it was cast over the bank. The result was that there was a continuous hunt for suitable rock and it frequently had to be hauled from where it had been cast below the road, at considerable expense" (Division of Highways, Contract 331, 1924: 6) As a result, relatively few rubble masonry structures were built along this stretch of highway, with engineers instead relying on materials that were cheaper or easier to procure such as concrete and timber.

While the majority of the rubble masonry resources along the Carmel-San Simeon Highway were built according to standard plans developed by the Division of Highways during the 1920s (Division of Highways, Plan Number XS-0-28, 1924), the roadside water fountains each appear to be a unique feature. The Division of Highways installed six rubble masonry water fountains along the southern portion of the route, roughly between post miles 3.8 and 27.0. The fountains, built between 1928 and 1935, were placed at Soda Creek, Redwood Gulch, Spruce Creek, Willow Creek (then called El Senador Creek), Lucia, and approximately one mile south of Big Creek (the Rigdon Memorial Fountain). All still exist except the fountain at Spruce Creek, which the Division of Highways demolished in 1967 (Division of Highways, Contract 05-071504, 1967).

DISCUSSION OF SIGNIFICANCE

The historic significance of the rubble masonry structures along the Carmel-San Simeon Highway is best understood when the resource is considered as a historic district, rather than individually. National Register guidelines define a historic district as "...a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development." (Bulletin 15: 5) The district designation for this property is appropriate because its contributing features are significantly concentrated within a definable area, because they are historically related through the construction of the Carmel-San Simeon Highway, and because they are united by their common style and method of construction. Furthermore, guidelines allow for National Register eligibility even if the historic district's individual components lack distinction, as appears to be the case with this property (with the exception of the bridges, which have been determined individually eligible). Considered individually, none of the rubble masonry structures appear to meet the criteria for listing in the National Register because they are not significant examples of their type (please refer to the attached BSO forms for discussions of individual eligibility).

e Carmel-San Simeon Highway Historic District appears eligible for the National Register of Historic Places under Criterion A for associations with the "highway beautification" movement, a national movement which began in the 1910s and reached its peak in California during the early to mid 1930s. The movement reflected the public's desire to retain and improve the natural beauty of America's scenic highways by controlling roadway signboards and integrating natural construction materials into the landscape to

better harmonize with the surroundings. As discussed in the Historic Context above, the water fountains in particular were among the physical manifestations of the Division of Highway's highway beautification program in California during the 1920s and 1930s, the values and goals of which were articulated in the 1932 study "California Highway Roadside Beautification Survey." The rubble masonry retaining walls, parapets, culvert headwalls, and the water fountains that comprise the Historic District are a collective embodiment of the beautification ethos, constructed to serve vital utilitarian purposes while incorporating materials and designs that best harmonized with their scenic settings.

The current study agrees with Pavlik's conclusions that the Carmel-San Simeon Highway Historic District is eligible for the National Register under Criterion C, as a significant example of a type, period, and method of construction. The rubble masonry features along the highway are products of their time and place, built primarily by skilled masons in a structurally sound and context sensitive manner. As elements of the built environment associated with the highway, these features are examples of rustic style architecture utilized in rural construction projects for their harmonizing effect with the landscape. They are good examples of a method of construction, being hand crafted in a labor intensive fashion. The larger structures especially (such as the parapets) incorporate thick ribbons of mortar joints and perfectly sized and placed stones. Far from simple utilitarian structures, the designers and masons incorporated arcade windows in some of them, and battlements or piers in others, so that they were architecturally interesting and aesthetically pleasing.

For both Criteria A and C, the significance of the district is best understood when the rubble masonry features are considered as a group. Although a statewide thematic study of rustic-style, rubble masonry highway structures does not exist, several studies of masonry walls have been conducted in conjunction with highway construction projects along rural routes in Northern California (see Fisher, Speers, Mikesell, Clement). From these studies and others, it is clear that rubble masonry engineering features -- parapet walls, retaining walls, culvert headwalls, and even water fountains -- were built in large numbers along state highways, especially during the late 1920s and 1930s. It appears that no single rubble masonry feature from this period has been determined individually eligible for the National Register. And, at the present time only three groups of rubble masonry features have been determined eligible for listing: a collection of three parapets walls, a water fountain, and a masonry arch bridge at Emerald Bay ikesell September 1986); masonry walls and a water fountain along the Feather River Highway (Snyder 1983); and masonry walls and a viaduct at Echo Summit (Clement 1997). Several other studies have found collections of masonry highway features not eligible for listing (Speer 1983; Fisher 1994). The primary differentiating factors between those found eligible and those found not eligible comes down to the integrity of the resource and the concentration and character of "high quality" features.

The significance of the Carmel-San Simeon Highway Historic District, then, is best considered in comparison to similar resources. From available documentation, it appears that the foremost example of National Register-eligible rubble masonry engineering features along state highways are those located at Emerald Bay (the Feather River Highway rubble masonry features are included as part of the entire road system, including non-masonry bridges and tunnels). The "high quality" features of the Emerald Bay property consist of Eagle Creek Bridge, a true masonry arch bridge designed specifically for this location, and a water fountain that incorporates rustic stone railings and a natural boulder outcropping into its design. The other features, flat-topped and battlement style parapets similar to those found on the Carmel-San Simeon Highway, were also noted for their quality craftsmanship, aesthetic design, and high integrity. At the other end of the spectrum are the retaining walls on Route 199 in Del Norte County. These features, located along a roughly 29-mile long corridor of the highway, were rightly determined ineligible because they "do not represent a significant historic resource...as highway structural elements" (Speer 1883). This property, unlike the one at Emerald Bay, consists only of the more commonplace and less aesthetically pleasing subgrade masonry retaining walls, and lacks any of the unique or more elaborate features such as water fountains, masonry bridges, or, to a lesser degree, decorative parapet railings.

Within this context, it is clear that the collection of rustic rubble masonry engineering features along the Carmel-San Simeon Highway comprises a "high end" example of its type. The centerpiece of this collection is the group of five water fountains concentrated just north of the San Luis Obispo-Monterey county line. Each of these features appears to be unique: certainly, no two of the five found on the Carmel-San Simeon Highway are alike and, in all probability, each is unique in a statewide context as well. Their importance as a group is amplified given their total number and concentration. The aforementioned "Roadside Beautification Study" provides the best evidence of the location and number of such fountains built throughout the state up to the time of its publication (it also gives proposed future locations). As shown in the series of thirteen maps appended to the report, the Big Sur fountains are rivaled in number and concentration only by those on the Sonora Pass Route in Tuolumne County (five proposed); Big Oak Flat Route, also in Tuolumne County (one built, three proposed); Crest Line Route en route to Big Bear Lake in San Bernardino County (two built, one proposed); and Walker Pass Route in Kern County (one built, two proposed). It is important to note that it is not known at this time which (if any) of the proposed fountains were actually constructed, or how many of those that ere built still stand. However, the information provided in these maps provides suitable evidence that, in all likelihood, the ntains on the Carmel-San Simeon Highway today represent one of the largest -- if not the largest -- single extant groupings of its type in the state.

The Historic District parapets arguably represent a less important property type than the water fountains, primarily because they are

based on a standard design and were built in greater numbers throughout the state. Again, however, when considered as a group these features appear to comprise one of the larger collections in the state highway system. All told, there are 61 parapets comprising a total of approximately 5,400 linear feet in the Historic District. As far as may be determined at this time, this is the largest known collection of parapets along state highways, measured in number of features or total length. The parapets reflect three different styles -- battlement, arcade, and flat -- and blend harmoniously with the rugged, rural environment of the Big Sur coastline. The retaining walls and culvert headwalls, although contributors to the district, are less important because of their utilitarian nature and because they have less visual impact from the roadway. Considered as a whole, the Carmel-San Simeon Highway Historic District appears eligible under Criteria A and C as a significant example of its type.

The Historic District does not appear to meet the Criterion A requirements for its association with either convict labor programs or Depression-era work relief programs. Although highway construction documentation clearly establishes that these workers played a role in building the rubble masonry walls, they were not directly responsible for the masonry work (with the possible exception of rubble masonry culverts). As unskilled workers, their role was subordinate to the skilled masons and resident engineers who were ultimately responsible for the placement, design, and construction of the masonry structures. Furthermore, the district does not appear to share associations with important persons in our history that would make it eligible under Criterion B. In rare instances, buildings and structures themselves can serve as sources of important information about historic construction materials. The structures that comprise the historic district are otherwise well documented; therefore, they do not appear to be significant under Criterion D.

In addition to possessing historical significance, the district as a whole appears to retain a satisfactory degree of integrity. As Caltrans Historian Stephen Mikesell spelled out in his 1986 evaluation of the Carmel-San Simeon Highway, it is difficult to assess the overall integrity of the Historic District for a number of reasons. (Mikesell evaluated the highway as a total road system and included the entire universe of engineering features: bridges; the roadway surface; decorative railings, including stone masonry and timber railings; drinking fountains; distinctive subgrade shoring elements, such as masonry walls and timber cribs; and cattle passes. The current study addresses only the rubble masonry features). The first problem is that the feature types are weighted differently, making unequal contributions to the significance of the resource. The water fountains and parapet guardrails, which represent the most visible and artfully executed classes of features, contribute far more importantly to the significance of the district than the more utilitarian and less visible subgrade retaining walls and culvert headwalls. The second problem is that, for the retaining walls in particular, construction records do not always provide a definitive list or total number of linear feet of these features constructed for a given contract.

Nonetheless, a comparison of the existing number of features against the known (or estimated) number of features constructed during the period of significance (1922-1938) indicates that the Historic District retains a high enough degree of integrity to convey its significance. As discussed previously in "P3a. Description" on the Primary Record, the documentation of the Historic District features is the culmination of several inventory efforts, in particular Far Western's comprehensive survey of the entire highway right of way in 2001 (Mikkelsen 2001). These studies have provided highly accurate and detailed data regarding the physical description, dimensions, and location of every rubble masonry feature that still stands and contributes to the Historic District (summarized in Table 1 of this form). As part of the current study, JRP has intensively studied the final reports and as-built plans for every major construction contract of the Carmel-San Simeon Highway from 1922 through 1937 in an effort to assess as accurately as possible the total number of rubble masonry features originally constructed. A comparison of these two sets of data provides the basis of the integrity discussion below.

The water fountains, which collectively comprise the most valuable class of rubble masonry resources on the highway, retain a fairly high degree of integrity. Individually, each has suffered a small loss of integrity, owing to missing stones, non-sympathetic patchwork, and the fact that they no longer function as water fountains. However, each retains the vast majority of its original massing, materials, and elements of design. When considered as a group, the fountains have lost some of their integrity following the loss of the Spruce Creek fountain. Still, five of the six original fountains – more than 80% – still stand.

Analysis of the integrity of the parapets follows a similar method of comparison. Like the fountains, many of the individual components have lost some of their original materials or have been patched in a historically non-sympathetic manner, and a far fewer number have lost large sections. Most, though, retain a very high degree of integrity. The parapets also retain a fair to high degree of integrity when considered as a group. A close study of the as-built plans and final reports for the Carmel-San Simeon Highway reveals the following statistics regarding the linear footage of parapet walls constructed for each contract:

- San Simeon – San Luis Obispo County Line: No parapets constructed
- San Luis Obispo County Line – Salmon Creek: 350 linear feet (approximate)
- Salmon Creek – Spruce Creek: 1,322 linear feet
- Spruce Creek – Kirk Creek: 164 linear feet
- Kirk Creek – Big Creek: 894 linear feet

- Big Creek – Anderson Canyon: No parapets constructed
- Anderson Canyon – Big Sur River: 2,679 linear feet
- Big Sur River – South of Moleras Ranch: No parapets constructed
- South of Moleras Ranch – Moleras Ranch: No parapets constructed
- Moleras Ranch – Rocky Creek: 400 linear feet
- Rocky Creek – San Remo Divide: 119 linear feet
- San Remo Divide – Carmel River: 1,170 linear feet

The total linear feet of parapet walls originally constructed is approximately 7,100 feet. The total linear feet of parapet walls still standing measures just short of 5,400 linear feet (Mikkelsen 2001). Considered in terms of total length, approximately 75% of the parapet walls still stand.

The subgrade retaining walls are the most difficult feature to quantify for several reasons. First, as mentioned above, the contract reports and plans do not always provide reliable totals for the amount of retaining walls constructed. In some cases where totals are provided, the amount is given in terms of cubic yards of materials used; these values are virtually impossible to compare to known values of the walls that still stand, which are measured in total number and linear feet. Second, the retaining walls were often constructed with parapet railings and, in the accompanying reports, were counted not as retaining walls but as parapets. Both of the previous studies of the Carmel-San Simeon Highway acknowledge that exact quantification of this feature type is difficult or impossible, but agree that the retaining walls were remarkably well built and were not subject to routine replacement. The subgrade masonry retaining walls still retain a marginal degree of integrity, a conclusion that this report agrees with (Mikesell December 1986; Pavlik 1996).

Lastly, the rubble masonry culvert headwalls have suffered the greatest loss of physical integrity, due to their damage from car hits, rockfalls and slides, and maintenance activities. In total, 158 of the approximately 600 masonry culverts originally constructed – or about one-fourth – still remain. These features also represent the least impressive of the rubble masonry features in terms of their sign, engineering, and visual impact. As a group, they contribute the least amount of significance to the Historic District.

On balance, then, the rubble masonry features that comprise the Carmel-San Simeon Highway Historic District appear to retain a high enough degree of integrity to adequately convey the district's significance under Criteria A and C. The district has lost large numbers of its more utilitarian structures, namely the culverts and to a lesser degree the subgrade retaining walls, but has retained the vast majority of both the parapet guardrails and water fountains, the features that best convey the district's significance because of their high-quality craftsmanship and context-sensitive design.

Following the same rationale applied to the National Register evaluation of the Carmel-San Simeon Highway Historic District, the district also appears to be a historical resource for the purposes of CEQA. It appears to qualify under Criterion 1 because it is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage, and under Criterion 3 as it embodies the distinctive characteristics of a type, period, region, and method of construction.

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*NRHP Status Code: 2D2
*Resource Name or #: Carmel-San Simeon Highway Historic District

B1. Historic Name: Parapet guardrails
B2. Common Name:
B3. Original Use: Highway guardrails **B4. Present Use:** Highway guardrails
* **B5. Architectural Style:** Rustic rubble masonry
* **B6. Construction History:**
Built between 1928 and 1937.

* **B7. Moved?** ☑ No ☐ Yes ☐ Unknown **Date:** **Original Location:**
* **B8. Related Features:**
Rubble masonry water fountains, retaining walls, and culvert headwalls; seven concrete arch bridges.

B9a. Architect: Division of Highways **B9b. Builder:** Division of Highways, WPA/convict labor
* **B10. Signficance: Theme:** n/a **Area:** n/a
Period of Significance: n/a **Property Type:** n/a **Applicable Criteria:** n/a
None of the rubble masonry parapets of the Carmel-San Simeon Highway Historic District, listed in Tables 3-5 of this form, individually appears to meet the criteria for listing in the National Register of Historic Places. Neither do they appear to be historical resources for the purposes of CEQA. Their potential for listing lies under Criterion A (California Register Criterion 1), for their association with the "highway beautification" movement, and under Criterion C (3), as examples of a technology that is no longer employed in highway construction projects. (See Continuation Sheet on the following page.)

B11. Additional Resource Attributes:
* **B12. References:**
See District Record, "D7, References."

(Sketch map with north arrow required.)

B13. Remarks:
See Appendix B for Sketch Map.

* **B14. Evaluator:** Stephen Wee, Bryan Larson, JRP Historical Consulting, Davis, CA 95616
* **Date of Evaluation:** 10/6/2004

(This space reserved for official comments.)

CONTINUATION FOR BSO RECORD -- PARAPETS

B10. Significance (continued):

The potential for National Register of Historic Places and California Register of Historical Resources eligibility for the parapet walls lies under Criterion A (1), for their associations with the "highway beautification" movement, a national movement which began in the 1910s and reached its peak in California during the early to mid 1930s. The movement reflected the public's desire to retain and improve the natural beauty of America's scenic highways by controlling roadway signboards and integrating to use of natural construction materials to better harmonize with the surroundings. As discussed in the Historic Context section of the attached District Record form, rubble masonry features were constructed first and foremost as safety features of the highway, but were also sensitively designed to be physical manifestations of the Division of Highway's highway beautification program in California during the 1920s and 1930s, the values and goals of which were articulated in the 1932 study "California Highway Roadside Beautification Survey."

The parapets are also potentially eligible under Criterion C (3) as examples of a type (rustic style rubble masonry), period (1920s-1930s), and method of construction (handcrafted). The rubble masonry features along the highway are products of their time and place, built by skilled masons in a structurally sound and context sensitive manner. As elements of the built environment associated with the highway, these features are examples of rustic style architecture utilized in rural construction projects for their harmonizing effect with the landscape. They are good examples of a method of construction, being skillfully hand crafted in a labor intensive fashion, incorporating thick ribbons of mortar joints and perfectly sized and placed stones. In the parapets, the designers and masons incorporated arcade windows in some of them, and battlements, or piers, in others, so that they were architecturally interesting and aesthetically pleasing.

In spite of these associations, none of the individual parapet walls appear to meet the eligibility requirements because they do not constitute a significant or exceptional example of its type. The parapet walls along the Carmel-San Simeon Highway are based on a standard Division of Highway design dating to the 1920s. Furthermore, it is clear from available documentation that dozens, possibly hundreds, of rubble masonry parapets were built throughout the state during and immediately preceding the Depression era, and that a large quantity of these still exist on state highways (see: Speer 1983; Mikesell 1986; Fisher 1994; Clement 1997; Leach-Palm, et al 2004). Furthermore, none of these studies determined any rubble masonry structures individually eligible. Those that were determined eligible were all contributors to historic districts, such as the district of masonry structures on Highway 89 at Emerald Bay, in El Dorado County. Evaluated within this context, none of the individual parapets appear eligible for listing in the National Register or California Register under Criteria A or C (1 or 3) because they are not important examples of their type.

In addition, the parapets do not appear to share associations with important persons in our history that would make them eligible under Criterion B (2). In rare instances, buildings and structures themselves can serve as sources of important information about historic construction materials. These structures are otherwise well documented, and therefore do not appear to be significant under Criterion D (4).

*NRHP Status Code: 2D2
*Resource Name or #: Carmel-San Simeon Highway Historic District

B1. Historic Name: Big Sur Water Fountains
B2. Common Name: Soda Springs, Big Redwood, Willow Creek, Lucia, and Rigdon Memorial fountains
B3. Original Use: Roadside water fountains **B4. Present Use:** Abandoned
* **B5. Architectural Style:** Rustic rubble masonry
* **B6. Construction History:**
The five roadside water fountains were built between 1928 and 1935 (see District Record, "D.3, Detailed Description," for discussion of individual construction dates). There were originally six fountains with the district, but one located at Spruce Creek was demolished in 1967.

* **B7. Moved?** ☑ No ☐ Yes ☐ Unknown **Date:** **Original Location:**
* **B8. Related Features:**
Rubble masonry parapets, retaining walls, and culvert headwalls; seven concrete arch bridges.

B9a. Architect: Division of Highways **B9b. Builder:** Division of Highways, convict labor
* **B10. Signficance: Theme:** n/a **Area:** n/a
Period of Significance: n/a **Property Type:** n/a **Applicable Criteria:** n/a
None of the rubble masonry water fountains of the Carmel-San Simeon Highway Historic District, listed in Table 2 of this form, individually appears to meet the criteria for listing in the National Register of Historic Places. Neither do they appear to be historical resources for the purposes of CEQA. Their potential for listing lies under Criterion A (California Register Criterion 1), for their association with the "highway beautification" movement, and under Criterion C (3), as examples of a technology that is no longer employed in highway construction projects. (See Continuation Sheet on the following page.)

B11. Additional Resource Attributes:
* **B12. References:**
See District Record, "D.7, References."

(Sketch map with north arrow required.)

B13. Remarks:
See Appendix B for Sketch Map.

* **B14. Evaluator:** Stephen Wee, Bryan Larson, JRP Historical Consulting, 1490 Drew Avenue, Suite 110, Davis, CA
* **Date of Evaluation:** 10/6/2004

(This space reserved for official comments.)

CONTINUATION SHEET FOR BSO FORM -- WATER FOUNTAINS

B10. Significance (continued):

The potential for National Register of Historic Places and California Register of Historical Resources eligibility for the water fountains lies under Criterion A (1), for their associations with the "highway beautification" movement, a national movement which began in the 1910s and reached its peak in California during the early to mid 1930s. The movement reflected the public's desire to retain and improve the natural beauty of America's scenic highways by controlling roadway signboards and integrating to use of natural construction materials to better harmonize with the surroundings. As discussed in the Historic Context section of the attached District Record form, rubble masonry features were constructed first and foremost as safety features of the highway, but were also sensitively designed to be physical manifestations of the Division of Highway's highway beautification program in California during the 1920s and 1930s, the values and goals of which were articulated in the 1932 study "California Highway Roadside Beautification Survey."

The fountains are also potentially eligible under Criterion C (3) as examples of a type (rustic style rubble masonry), period (1920s-1930s), and method of construction (handcrafted). The rubble masonry features along the highway are products of their time and place, built by skilled masons in a structurally sound and context sensitive manner. As elements of the built environment associated with the highway, these features are examples of rustic style architecture utilized in rural construction projects for their harmonizing effect with the landscape. They are good examples of a method of construction, being skillfully hand crafted in a labor intensive fashion, incorporating thick ribbons of mortar joints and perfectly sized and placed stones.

In spite of these associations, none of the water fountains appear to meet the eligibility requirements as individual resources. During the 1920s and 1930s, water fountains were built throughout the state for the purpose of providing drinking and radiator water to the traveling public, particularly along remote sections of state highway where commercial or other public facilities were not available. By 1932, the Division of Highways had installed fountains at 18 locations scattered throughout California, mostly along established and heavily traveled routes, such as the Redwood Highway (US 101), but also along new and especially scenic routes, such as the Feather River Highway (Highway 170). The beautification study also proposed the construction of 47 more fountains on 28 different state highways, most of which were rural coastal, mountainous, and desert routes. By 1953 the division had constructed 89 fountains along its roadways. Most appear to have been designed specifically for their site, built of rubble masonry, and designed to reflect the rustic style.

Evaluated within this context, none of the fountains appear to meet the requirements that would warrant inclusion in the National Register or California Register as individual resources. Under Criterion A (1), the individual fountains do not adequately convey the principals of the "highway beautification" movement of the 1920s and 1930s. The beautification ethos was expressed physically on highways throughout the state in a variety of ways: through tree planting campaigns, the establishment of roadside parks, as well as the development of aesthetically pleasing engineering features. Treated individually, none of the fountains strongly convey the values of the movement. Under Criterion C (3), the individual fountains do not appear to be the work of a master, nor do they appear to be significant examples of their type, period, or method of construction. Although they appear to be unique in terms of their design, they were among dozens of similar resources constructed along state highways during the same period and do not appear to be outstanding examples of their type. For both Criteria A and C (1 and 3), the fountains are best considered as contributors to a historic district. In the case of the Carmel-San Simeon Historic District, the fountains are key components of a collection of features that includes more than 60 parapet walls as well as several dozen retaining walls and culvert headwalls. It is the collective value of the features that most strongly and effectively conveys the district's historic significance, in terms of both highway beautification and type, period, and method of construction.

In addition, available documentation does not suggest that any of the fountains share associations with important persons in our history that would make them eligible under Criterion B (2). In rare instances, buildings and structures themselves can serve as sources of important information about historic construction materials. These structures are otherwise documented, and therefore do not appear to be significant under Criterion D (4).

BUILDING, STRUCTURE, AND OBJECT RECORD

*NRHP Status Code: 2D2
*Resource Name or #: Carmel-San Simeon Highway Historic District

B1. Historic Name: Retaining Walls
B2. Common Name:
B3. Original Use: Highway retaining walls
B4. Present Use: Highway retaining walls
* B5. Architectural Style: Rustic rubble masonry
* B6. Construction History:
Built between 1922 and 1937.

* B7. Moved? ☑ No ☐ Yes ☐ Unknown Date: Original Location:
* B8. Related Features:
Rubble masonry water fountains, parapets, and culvert headwalls; seven concrete arch bridges.

B9a. Architect: Division of Highways
B9b. Builder: Division of Highways, WPA/convict labor
* B10. Signficance: Theme: n/a
Area: n/a
Period of Significance: n/a
Property Type: n/a
Applicable Criteria: n/a
None of the rubble masonry retaining walls of the Carmel-San Simeon Highway Historic District, listed in Table 6 of this form, individually appears to meet the criteria for listing in the National Register of Historic Places. Neither do they appear to be historical resources for the purposes of CEQA. Their potential for listing lies under Criterion A (California Register Criterion 1), for their association with the "highway beautification" movement, and under Criterion C (3), as examples of a technology that is no longer employed in highway construction projects. (See Continuation Sheet)

B11. Additional Resource Attributes:
* B12. References:
See District Record, "D7, References."

B13. Remarks:
See Appendix B for Sketch Map.

* B14. Evaluator: Stephen Wee, Bryan Larson, JRP Historical Consulting, Davis, CA 95616
* Date of Evaluation: 10/6/2004

(This space reserved for official comments.)

(Sketch map with north arrow required.)

CONTINUATION SHEET FOR BSO RECORD -- RETAINING WALLS

B10. Significance (continued):

The potential for National Register of Historic Places and California Register of Historical Resources eligibility for the rubble masonry retaining walls lies under Criterion A (1), for their associations with the "highway beautification" movement, a national movement which began in the 1910s and reached its peak in California during the early to mid 1930s. The movement reflected the public's desire to retain and improve the natural beauty of America's scenic highways by controlling roadway signboards and integrating to use of natural construction materials to better harmonize with the surroundings. As discussed in the Historic Context section of the attached District Record form, rubble masonry features were constructed first and foremost as safety features of the highway, but were also sensitively designed to be physical manifestations of the Division of Highway's highway beautification program in California during the 1920s and 1930s, the values and goals of which were articulated in the 1932 study "California Highway Roadside Beautification Survey."

The retaining walls are also potentially eligible under Criterion C (3) as examples of a type (rustic style rubble masonry), period (1920s-1930s), and method of construction (handcrafted). The rubble masonry features along the highway are products of their time and place, built by skilled masons in a structurally sound and context sensitive manner. As elements of the built environment associated with the highway, these features are examples of rustic style architecture utilized in rural construction projects for their harmonizing effect with the landscape. They are good examples of a method of construction, being skillfully hand crafted in a labor intensive fashion, most incorporating thick ribbons of mortar joints and perfectly sized and placed stones.

In spite of these associations, none of the individual retaining walls appear to meet the eligibility requirements because they do not constitute a significant or exceptional example of its type. The retaining walls along the Carmel-San Simeon Highway are based on a standard Division of Highway design dating to the 1920s. Furthermore, it is clear from available documentation that dozens, ssibly hundreds, of rubble masonry retaining walls were built throughout the state during and immediately preceding the Depression era, and that a large quantity of these still exist on state highways (see: Speer 1983; Mikesell 1986; Fisher 1994; Clement 1997; Leach-Palm, et al 2004). Furthermore, none of these studies determined any rubble masonry structures individually eligible. Those that were determined eligible were all contributors to historic districts, such as the district of masonry structures on Highway 89 at Emerald Bay, in El Dorado County. Evaluated within this context, none of the individual retaining walls appear eligible for listing in the National Register or California Register under Criteria A or C (1 or 3) because they are not important examples of their type.

In addition, the walls do not appear to share associations with important persons in our history that would make them eligible under Criterion B (2). In rare instances, buildings and structures themselves can serve as sources of important information about historic construction materials. These structures are otherwise well documented, and therefore do not appear to be significant under Criterion D (4).

*NRHP Status Code: 2D2
*Resource Name or #: Carmel-San Simeon Highway Historic District

B1. Historic Name: Culvert Headwalls
B2. Common Name:
B3. Original Use: Culvert headwalls
B4. Present Use: Culvert headwalls
* **B5. Architectural Style:** Rustic rubble masonry
* **B6. Construction History:**
Built between 1922 and 1937.

* **B7. Moved?** ☑ No ☐ Yes ☐ Unknown **Date:** **Original Location:**
* **B8. Related Features:**
Rubble masonry water fountains, parapets, and retaining walls; seven concrete arch bridges.

B9a. Architect: Division of Highways
B9b. Builder: Division of Highways, WPA/convict labor
* **B10. Signficance: Theme:** n/a
Area: n/a
Period of Significance: n/a **Property Type:** n/a **Applicable Criteria:** n/a
None of the rubble masonry culvert headwalls of the Carmel-San Simeon Highway Historic District, listed in Table 7 of this form, individually appears to meet the criteria for listing in the National Register of Historic Places. Neither do they appear to be historical resources for the purposes of CEQA. Their potential for listing lies under Criterion A (California Register Criterion 1), for their association with the "highway beautification" movement, and under Criterion C (3), as examples of a technology that is no longer employed in highway construction projects. (See Continuation Sheet on the following page.)

B11. Additional Resource Attributes:
* **B12. References:**
See District Record, "D7, References."

(Sketch map with north arrow required.)

B13. Remarks:
See Appendix B for Sketch Map.

* **B14. Evaluator:** Stephen Wee, Bryan Larson, JRP Historical Consulting, Davis, CA 95616
* **Date of Evaluation:** 10/6/2004

(This space reserved for official comments.)

CONTINUATION SHEET FOR BSO RECORD -- CULVERT HEADWALLS

B10. Significance (continued):

The rubble masonry headwalls along the Carmel-San Simeon Highway are utilitarian highway engineering features that are based on a standard Division of Highways design. It is clear from available documentation that hundreds, possibly thousands, of similar headwalls were built throughout the state during and immediately preceding the Depression era, and that a large quantity of these still exist on state highways (see: Speer 1983; Mikesell 1986; Fisher 1994; Clement 1997; Leach-Palm, et al 2004). Furthermore, none of these studies determined any rubble masonry structures individually eligible. Those that were determined eligible were all contributors to historic districts, such as the district of masonry structures on Highway 89 at Emerald Bay, in El Dorado County; none of these were culverts. Evaluated within this context, none of the individual culvert headwalls appear eligible for listing in the National Register or California Register under Criterion C (3) because they are not important architecturally or in terms of their engineering. Neither do the headwalls appear to be significantly associated with events or trends important to our past (Criterion A or 1), nor with important persons (Criterion B or 2). In rare instances, buildings and structures themselves can serve as sources of important information about historic construction materials. These structures are otherwise well documented, and therefore do not appear to be significant under Criterion D (4).

BUILDING, STRUCTURE, AND OBJECT RECORD

*NRHP Status Code: 2B
*Resource Name or #: Carmel-San Simeon Highway Historic District

B1. Historic Name: Big Creek Bridge
B2. Common Name: Bridge #44-0056
B3. Original Use: Highway automobile bridge
B4. Present Use: Highway automobile bridge
* B5. Architectural Style: Utilitarian
* B6. Construction History:
Built in 1938.

* B7. Moved? ☑ No ☐ Yes ☐ Unknown Date: Original Location:
* B8. Related Features:
Rubble masonry water fountains, parapet walls, retaining walls, and culvert headwalls.

B9a. Architect: Division of Highways
B9b. Builder: C.O. Sparks
* B10. Signficance: Theme: Rural Highway/Bridge Construction
Area: Big Sur Coast, Monterey County
Period of Significance: 1938
Property Type: Concrete arch brid
Applicable Criteria: A, C
Big Creek Bridge is one of the seven concrete arch bridges on Highway 1 in Monterey County collectively known as the Big Sur Arches (44-0012, 44-0016, 44-0017, 44-0018, 44-0019, 44-0036, and 44-0056). All have been determined individually eligible for listing in the National Register of Historic Places as part of the Bridge Inventory conducted by Caltrans between 1984 and 1986. The bridges were found to be significant under Criterion C as distinctive examples of period, method of construction, and the work of a master, as well as Criterion A in the area of transportation. The State Historic Preservation Officer (SHPO) concurred that Big Creek Bridge retained its eligibility status following a seismic retrofit in 2000. Additionally, in 2004, Caltrans completed an update to its original 1980s survey of concrete arch bridges throughout the state. That study concluded that Big Creek Bridge, as well as the other six Big Sur Arches, retains historic integrity and therefore appears to continue to meet the criteria for listing in the National Register (JRP April 2004).

B11. Additional Resource Attributes:
* B12. References:
JRP Historical Consulting, "Caltrans Historic Bridge Inventory Update: Concrete Arch Bridges," April 2004; Stephen D. Mikesell, "Historic Resource Evaluation Report: The Carmel-San Simeon Highway," December 1986.

B13. Remarks:
See Appendix B for Sketch Map.

* B14. Evaluator: Stephen Wee, Bryan Larson, JRP Historical Consulting, Davis, CA 95616
* Date of Evaluation: 10/6/2004

(This space reserved for official comments.)

(Sketch map with north arrow required.)

BUILDING, STRUCTURE, AND OBJECT RECORD

*NRHP Status Code: 2B
*Resource Name or #: Carmel-San Simeon Highway Historic District

B1. Historic Name: Bixby Creek Bridge
B2. Common Name: Bridge #44-0019
B3. Original Use: Highway automobile bridge
B4. Present Use: Highway automobile bridge
* B5. Architectural Style: Utilitarian
* B6. Construction History:
Built in 1932

* B7. Moved? ☑ No ☐ Yes ☐ Unknown Date: Original Location:
* B8. Related Features:
Rubble masonry water fountains, parapet walls, retaining walls, and culvert headwalls.

B9a. Architect: Division of Highways
B9b. Builder: Ward Engineering
* B10. Signficance: Theme: Rural Highway/Bridge Construction
Area: Big Sur Coast, Monterey County
Period of Significance: 1932 Property Type: Concrete arch brid Applicable Criteria: A, C
Bixby Creek Bridge is one of the seven concrete arch bridges on Highway 1 in Monterey County collectively known as the Big Sur Arches (44-0012, 44-0016, 44-0017, 44-0018, 44-0019, 44-0036, and 44-0056). All have been determined individually eligible for listing in the National Register of Historic Places as part of the Bridge Inventory conducted by Caltrans between 1984 and 1986. The bridges were found to be significant under Criterion C as distinctive examples of period, method of construction, and the work of a master, as well as Criterion A in the area of transportation. Seismic retrofit work undertaken on the Bixby Creek Bridge in 1997 was determined to have had No Adverse Effect. Additionally, in 2004, Caltrans completed an update to its original 1980s survey of concrete arch bridges throughout the state. That study concluded that Bixby Creek Bridge, as well as the other six Big Sur Arches, retains historic integrity and therefore appears to continue to meet the criteria for listing in the National Register (JRP April 2004).

B11. Additional Resource Attributes:
* B12. References:
JRP Historical Consulting, "Caltrans Historic Bridge Inventory Update: Concrete Arch Bridges," April 2004; Stephen D. Mikesell, "Historic Resource Evaluation Report: The Carmel-San Simeon Highway," December 1986.

B13. Remarks:
See Appendix B for Sketch Map.

* B14. Evaluator: Stephen Wee, Bryan Larson, JRP Historical Consulting, Davis, CA 95616
* Date of Evaluation: 10/6/2004

(This space reserved for official comments.)

(Sketch map with north arrow required.)

*NRHP Status Code: 2B
*Resource Name or #: Carmel-San Simeon Highway Historic District

B1. Historic Name: Rocky Creek Bridge
B2. Common Name: Bridge #44-0036
B3. Original Use: Highway automobile bridge
B4. Present Use: Highway automobile bridge
* B5. Architectural Style: Utilitarian
* B6. Construction History:
Built in 1932

* B7. Moved? ☑ No ☐ Yes ☐ Unknown Date: Original Location:
* B8. Related Features:
Rubble masonry water fountains, parapet walls, retaining walls, and culvert headwalls.

B9a. Architect: Division of Highways
B9b. Builder: Ward Engineering
* B10. Signficance: Theme: Rural Highway/Bridge Construction
Area: Big Sur Coast, Monterey County
Period of Significance: 1932 Property Type: Concrete arch brid Applicable Criteria: A, C
Rocky Creek Bridge is one of the seven concrete arch bridges on Highway 1 in Monterey County collectively known as the Big Sur Arches (44-0012, 44-0016, 44-0017, 44-0018, 44-0019, 44-0036, and 44-0056). All have been determined individually eligible for listing in the National Register of Historic Places as part of the Bridge Inventory conducted by Caltrans between 1984 and 1986. The bridges were found to be significant under Criterion C as distinctive examples of period, method of construction, and the work of a master, as well as Criterion A in the area of transportation. Seismic retrofit work in 1997 adversely affected the Rocky Creek Bridge, but with standard mitigation the State Historic Preservation Officer (SHPO) concurred that bridge was still eligible in 2001. Additionally, in 2004, Caltrans completed an update to its original 1980s survey of concrete arch bridges throughout the state. That study concluded that Rocky Creek Bridge, as well as the other six Big Sur Arches, retains historic integrity and therefore appears to continue to meet the criteria for listing in the National Register (JRP April 2004).

B11. Additional Resource Attributes:
* B12. References:
JRP Historical Consulting, "Caltrans Historic Bridge Inventory Update: Concrete Arch Bridges," April 2004; Stephen D. Mikesell, "Historic Resource Evaluation Report: The Carmel-San Simeon Highway," December 1986.

B13. Remarks:
See Appendix B for Sketch Map.

* B14. Evaluator: Stephen Wee, Bryan Larson, JRP Historical Consulting, Davis, CA 95616
* Date of Evaluation: 10/6/2004

(This space reserved for official comments.)

(Sketch map with north arrow required.)

BUILDING, STRUCTURE, AND OBJECT RECORD

*NRHP Status Code: 2B
*Resource Name or #: Carmel-San Simeon Highway Historic District

B1. Historic Name: Garrapata Creek Bridge
B2. Common Name: Bridge #44-0018
B3. Original Use: Highway automobile bridge
B4. Present Use: Highway automobile bridge
* **B5. Architectural Style:** Utilitarian
* **B6. Construction History:**
Built in 1931.

* **B7. Moved?** ☑ No ☐ Yes ☐ Unknown **Date:** **Original Location:**
* **B8. Related Features:**
Rubble masonry water fountains, parapet walls, retaining walls, and culvert headwalls.

B9a. Architect: Division of Highways
B9b. Builder: Hanrahan Co.
* **B10. Signficance: Theme:** Rural Highway/Bridge Construction **Area:** Big Sur Coast, Monterey County
Period of Significance: 1931 **Property Type:** Concrete arch brid **Applicable Criteria:** A, C
Garrapata Creek Bridge is one of the seven concrete arch bridges on Highway 1 in Monterey County collectively known as the Big Sur Arches (44-0012, 44-0016, 44-0017, 44-0018, 44-0019, 44-0036, and 44-0056). All have been determined individually eligible for listing in the National Register of Historic Places as part of the Bridge Inventory conducted by Caltrans between 1984 and 1986. The bridges were found to be significant under Criterion C as distinctive examples of period, method of construction, and the work of a master, as well as Criterion A in the area of transportation. Seismic retrofit work undertaken on the Garrapata Creek Bridge in 1997 was determined to have had No Adverse Effect. Additionally, in 2004, Caltrans completed an update to its original 1980s survey of concrete arch bridges throughout the state. That study concluded that Garrapata Creek Bridge, as well as the other six Big Sur Arches, retains historic integrity and therefore appears to continue to meet the criteria for listing in the National Register (JRP April 2004).

B11. Additional Resource Attributes:
* **B12. References:**
JRP Historical Consulting, "Caltrans Historic Bridge Inventory Update: Concrete Arch Bridges," April 2004; Stephen D. Mikesell, "Historic Resource Evaluation Report: The Carmel-San Simeon Highway," December 1986.

B13. Remarks:
See Appendix B for Sketch Map.

* **B14. Evaluator:** Stephen Wee, Bryan Larson, JRP Historical Consulting, Davis, CA 95616
* **Date of Evaluation:** 10/6/2004

(This space reserved for official comments.)

(Sketch map with north arrow required.)

*NRHP Status Code: 2B
*Resource Name or #: Carmel-San Simeon Highway Historic District

B1. Historic Name: Granite Canyon Bridge
B2. Common Name: Bridge #44-0012
B3. Original Use: Highway automobile bridge
B4. Present Use: Highway automobile bridge
* **B5. Architectural Style:** Utilitarian
* **B6. Construction History:**
Built in 1932

* **B7. Moved?** ☑ No ☐ Yes ☐ Unknown **Date:** **Original Location:**
* **B8. Related Features:**
Rubble masonry water fountains, parapet walls, retaining walls, and culvert headwalls.

B9a. Architect: Division of Highways
B9b. Builder: George J. Ulrich
* **B10. Signficance: Theme:** Rural Highway/Bridge Construction **Area:** Big Sur Coast, Monterey County
Period of Significance: 1932 **Property Type:** Concrete arch brid **Applicable Criteria:** A, C
Granite Canyon Bridge is one of the seven concrete arch bridges on Highway 1 in Monterey County collectively known as the Big Sur Arches (44-0012, 44-0016, 44-0017, 44-0018, 44-0019, 44-0036, and 44-0056). All have been determined individually eligible for listing in the National Register of Historic Places as part of the Bridge Inventory conducted by Caltrans between 1984 and 1986. The bridges were found to be significant under Criterion C as distinctive examples of period, method of construction, and the work of a master, as well as Criterion A in the area of transportation. Seismic retrofit work in undertaken on the Granite Canyon Bridge in 1997 was determined to have had No Adverse Effect. Additionally, in 2004, Caltrans completed an update to its original 1980s survey of concrete arch bridges throughout the state. That study concluded that Granite Canyon Bridge, as well as the other six Big Sur Arches, retains historic integrity and therefore appears to continue to meet the criteria for listing in the National Register (JRP April 2004).

B11. Additional Resource Attributes:
* **B12. References:**
JRP Historical Consulting, "Caltrans Historic Bridge Inventory Update: Concrete Arch Bridges," April 2004; Stephen D. Mikesell, "Historic Resource Evaluation Report: The Carmel-San Simeon Highway," December 1986.

B13. Remarks:
See Appendix B for Sketch Map.

* **B14. Evaluator:** Stephen Wee, Bryan Larson, JRP Historical Consulting, Davis, CA 95616
* **Date of Evaluation:** 10/6/2004

(This space reserved for official comments.)

(Sketch map with north arrow required.)

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary # P-27-002775
HRI #

BUILDING, STRUCTURE, AND OBJECT RECORD

*NRHP Status Code: 2B
*Resource Name or #: Carmel-San Simeon Highway Historic District

B1. Historic Name: Malpaso Creek Bridge
B2. Common Name: Bridge #44-0017
B3. Original Use: Highway automobile bridge
B4. Present Use: Highway automobile bridge
* B5. Architectural Style: Utilitarian
* B6. Construction History:
Built in 1935.

* B7. Moved? ☑ No ☐ Yes ☐ Unknown Date: Original Location:
* B8. Related Features:
Rubble masonry water fountains, parapet walls, retaining walls, and culvert headwalls.

B9a. Architect: Division of Highways
B9b. Builder: Unknown
* B10. Signficance: Theme: Rural Highway/Bridge Construction
Area: Big Sur Coast, Monterey County
Period of Significance: 1935 Property Type: Concrete arch brid Applicable Criteria: A, C
Malpaso Creek Bridge is one of the seven concrete arch bridges on Highway 1 in Monterey County collectively known as the Big Sur Arches (44-0012, 44-0016, 44-0017, 44-0018, 44-0019, 44-0036, and 44-0056). All have been determined individually eligible for listing in the National Register of Historic Places as part of the Bridge Inventory conducted by Caltrans between 1984 and 1986. The bridges were found to be significant under Criterion C as distinctive examples of period, method of construction, and the work of a master, as well as Criterion A in the area of transportation. Seismic retrofit work undertaken on Malpaso Creek Bridge in 1997 was determined to have had No Adverse Effect. Additionally, in 2004, Caltrans completed an update to its original 1980s survey of concrete arch bridges throughout the state. That study concluded that Malpaso Creek Bridge, as well as the other six Big Sur Arches, retains historic integrity and therefore appears to continue to meet the criteria for listing in the National Register (JRP April 2004).

B11. Additional Resource Attributes:
* B12. References:
JRP Historical Consulting, "Caltrans Historic Bridge Inventory Update: Concrete Arch Bridges," April 2004; Stephen D. Mikesell, "Historic Resource Evaluation Report: The Carmel-San Simeon Highway," December 1986.

B13. Remarks:
See Appendix B for Sketch Map.

* B14. Evaluator: Stephen Wee, Bryan Larson, JRP Historical Consulting, Davis, CA 95616
* Date of Evaluation: 10/6/2004

(This space reserved for official comments.)

(Sketch map with north arrow required.)

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
Primary # P-27-002775
HRI #

BUILDING, STRUCTURE, AND OBJECT RECORD

*NRHP Status Code: 2B
*Resource Name or #: Carmel-San Simeon Highway Historic District

B1. Historic Name: Wildcat Creek Bridge
B2. Common Name: Bridge #44-0016
B3. Original Use: Highway automobile bridge
B4. Present Use: Highway automobile bridge
* **B5. Architectural Style:** Utilitarian
* **B6. Construction History:**
Built in 1933.

* **B7. Moved?** ☑ No ☐ Yes ☐ Unknown **Date:** **Original Location:**
* **B8. Related Features:**
Rubble masonry water fountains, parapet walls, retaining walls, and culvert headwalls.

B9a. Architect: Division of Highways
B9b. Builder: L.C. Seidel
* **B10. Signficance: Theme:** Rural Highway/Bridge Construction
Area: Big Sur Coast, Monterey County
Period of Significance: 1933 **Property Type:** Concrete arch brid **Applicable Criteria:** A, C
Wildcat Creek Bridge is one of the seven concrete arch bridges on Highway 1 in Monterey County collectively known as the Big Sur Arches (44-0012, 44-0016, 44-0017, 44-0018, 44-0019, 44-0036, and 44-0056). All have been determined individually eligible for listing in the National Register of Historic Places as part of the Bridge Inventory conducted by Caltrans between 1984 and 1986. The bridges were found to be significant under Criterion C as distinctive examples of period, method of construction, and the work of a master, as well as Criterion A in the area of transportation. In 2004, Caltrans completed an update to its original 1980s survey of concrete arch bridges throughout the state. That study concluded that Wildcat Creek Bridge, as well as the other six Big Sur Arches, retains historic integrity and therefore appears to continue to meet the criteria for listing in the National Register (JRP April 2004).

B11. Additional Resource Attributes:
* **B12. References:**
JRP Historical Consulting, "Caltrans Historic Bridge Inventory Update: Concrete Arch Bridges," April 2004; Stephen D. Mikesell, "Historic Resource Evaluation Report: The Carmel-San Simeon Highway," December 1986.

B13. Remarks:
See Appendix B for Sketch Map.

* **B14. Evaluator:** Stephen Wee, Bryan Larson, JRP Historical Consulting, Davis, CA 95616
* **Date of Evaluation:** 10/6/2004

(This space reserved for official comments.)

(Sketch map with north arrow required.)

APPENDIX D
Photos and renderings of proposed bridge rail replacements



GARRAPATA BRIDGE EXISTING BARRIER

02/06/20
Prepared by: DES, Bridge Architecture and Aesthetics



GARRAPATA BRIDGE EXISTING BARRIER

12/6/19

Prepared by: DES, Bridge Architecture and Aesthetics



GARRAPATA BRIDGE BARRIER TYPE 86 PHOTO SIM.

02/06/20

Prepared by: DES, Bridge Architecture and Aesthetics

***Note: Image(s) updated Sept 2020 to better match original colors, removing bicycle railing, and show arched openings on C412 type railing.**



GARRAPATA BRIDGE BARRIER TYPE 86 PHOTO SIM.

12/6/19

Prepared by: DES, Bridge Architecture and Aesthetics

***Note: Image(s) updated Sept 2020 to better match original colors, removing bicycle railing, and show arched openings on C412 type railing.**



GARRAPATA BRIDGE BARRIER TYPE C412 PHOTO SIM.

02/06/20

Prepared by: DES, Bridge Architecture and Aesthetics

***Note: Image(s) updated Sept 2020 to better match original colors, removing bicycle railing, and show arched openings on C412 type railing.**



GARRAPATA BRIDGE BARRIER TYPE C412 PHOTO SIM.

12/6/19

Prepared by: DES, Bridge Architecture and Aesthetics

***Note: Image(s) updated Sept 2020 to better match original colors, removing bicycle railing, and show arched openings on C412 type railing.**



Type C142 with Arched Openings, Front View

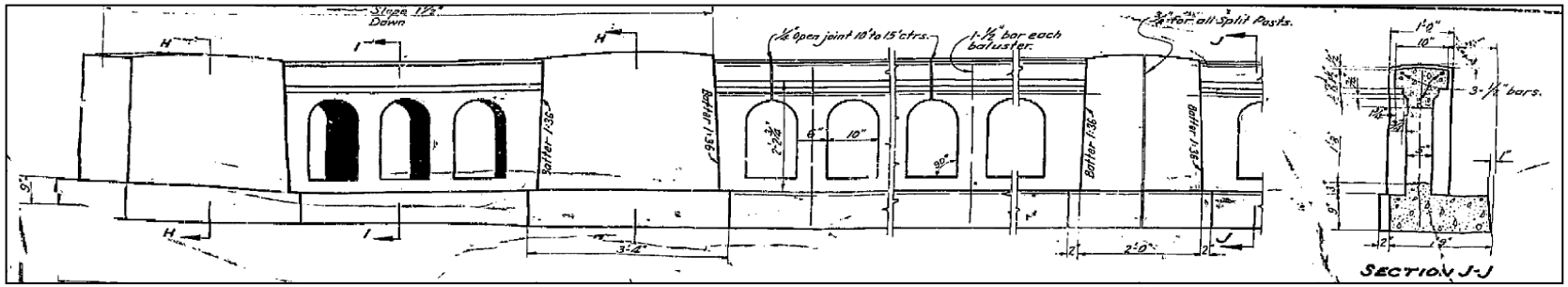
***Note: Image(s) updated Sept 2020 to better match original colors, removing bicycle railing, and show arched openings on C412 type railing.**



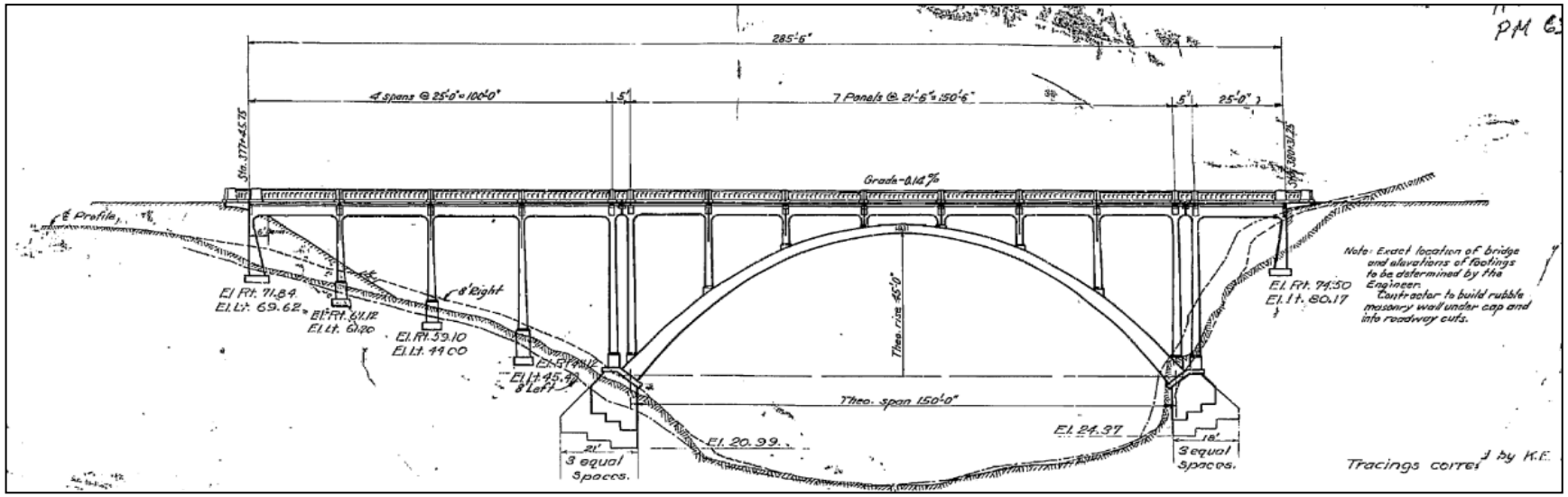
Type C142 with Arched Openings, Profile View

***Note: Image(s) updated Sept 2020 to better reflect colors, removing bicycle railing, and show arched openings on C412 type railing.**

Additional Bridge Rail Plans/Drawings/Photographs

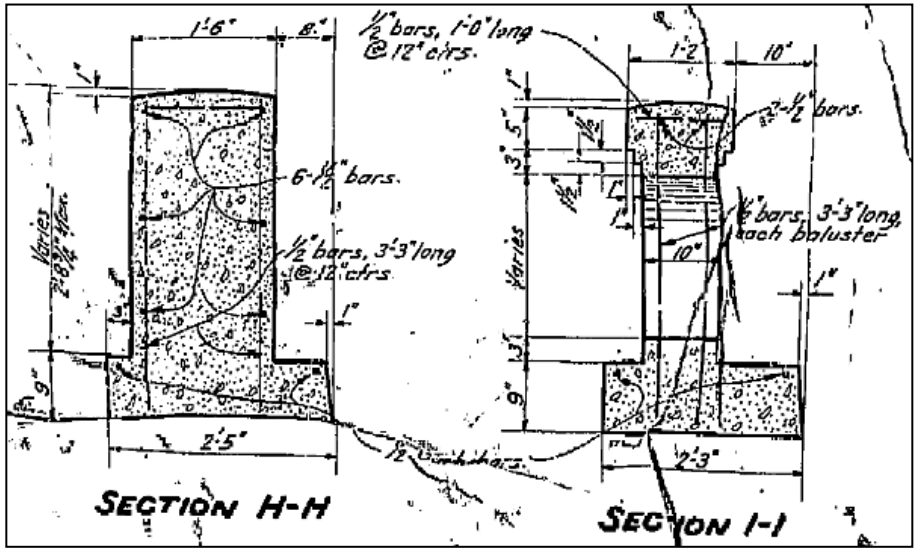


Original Bridge Design Plans, Garrapata Creek Bridge, 1931



Bridge Rail Detail Drawings, Garrapata Creek Bridge, 1931

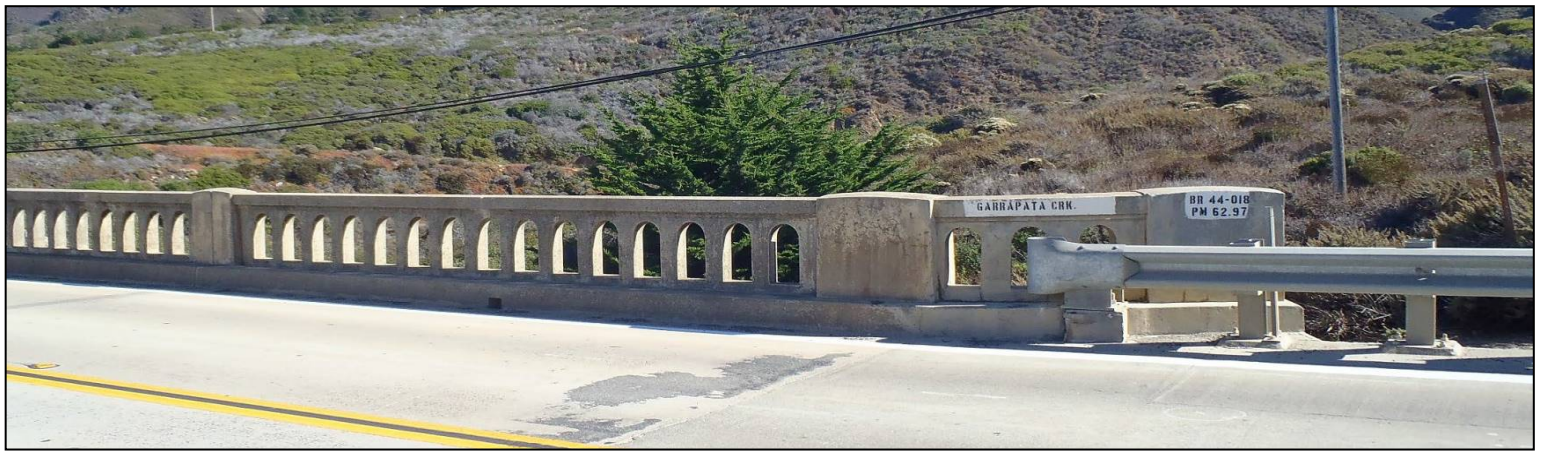
Bridge Rail Detail Drawings, Garrapata Creek Bridge, 1931



Garrapata Creek Bridge Current Condition, as of 2018

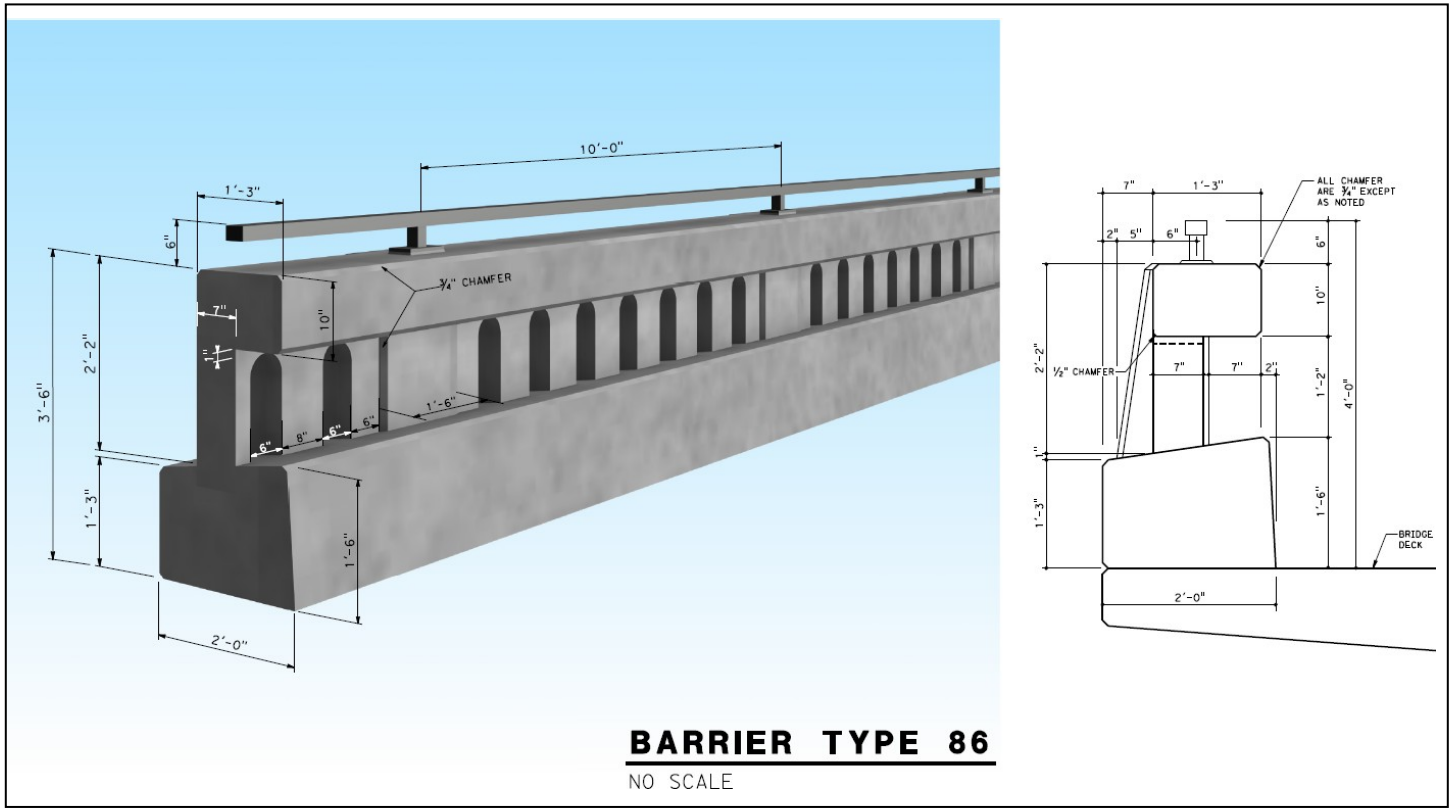


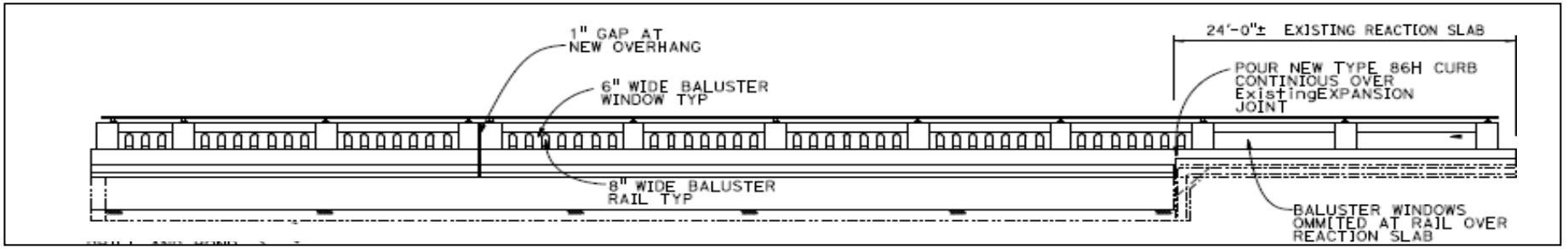
Garrapata Creek Bridge Rails Current Condition, as of 2018



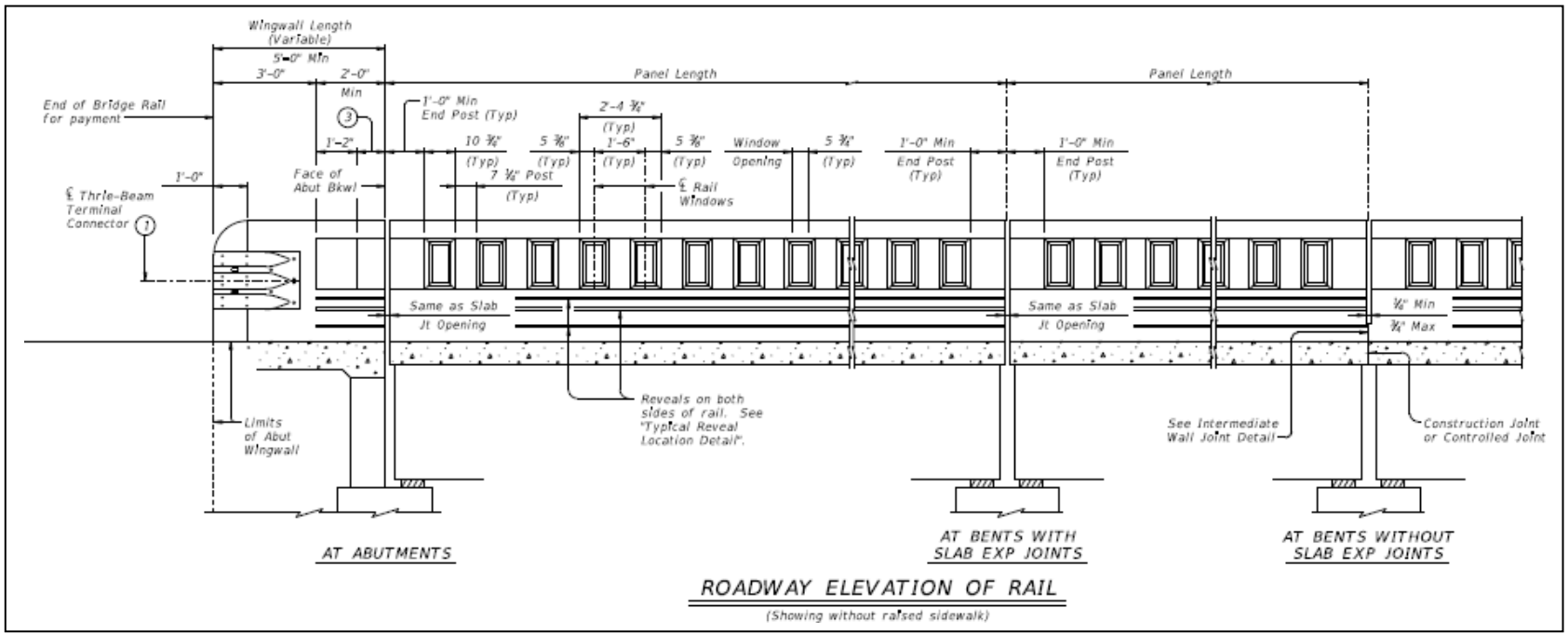
Preliminary Replacement Bridge Rail Designs, as of 2019

Type 86H Bridge Rail Design Drawings (Design and Development currently underway by Caltrans Structures Design, Sacramento)





Type C412 Bridge Rail Design Drawings (Design and Development by Texas DOT; approval process currently underway by Caltrans Structures Design, Sacramento) **Railing designs can be modified with arch windows*



Concrete Arch Bridges of the Carmel-San Simeon Highway Historic District

Big Creek Bridge (44-0056), Post Mile 28.09, Constructed 1938



Bixby Creek Bridge (44-0019), Post Mile 59.37, Constructed 1932



Rocky Creek Bridge (44-0036), Post Mile 60.05, Constructed 1932



Garrapata Creek Bridge (44-0018), Post Mile 62.97, Constructed 1931



Granite Canyon Bridge (44-0012), Post Mile 64.33, Constructed 1932



Malpaso Creek Bridge (44-0017), Post Mile 67.85, Constructed 1935



Wildcat Creek Bridge (44-0016), Post Mile 69.02, Constructed 1933 *(*Rail replacement is not proposed at this time)*



APPENDIX E
Memorandum of Agreement (MOA)

MEMORANDUM OF AGREEMENT

BETWEEN THE CALIFORNIA DEPARTMENT OF TRANSPORTATION AND THE CALIFORNIA STATE HISTORIC PRESERVATION OFFICER REGARDING THE GARRAPATA CREEK BRIDGE RAIL REPLACEMENT PROJECT, MONTEREY COUNTY, CALIFORNIA

WHEREAS, pursuant to §23 U.S.C. the Federal Highway Administration (FHWA), has assigned and California Department of Transportation (Caltrans, including all subordinate divisions defined below) has assumed FHWA responsibility for environmental review, consultation, and coordination under the provisions of the *Memorandum of Understanding (MOU) between the Federal Highway Administration and the California Department of Transportation Concerning the State of California's Participation in the Project Delivery Program Pursuant to 23 U.S.C. 327*, which became effective on December 23, 2016, and applies to this undertaking; and,

WHEREAS, pursuant to the January 2014 *First Amended Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act as it Pertains to the Administration of the Federal-Aid Highway Program in California* (Section 106 PA), Caltrans is deemed to be a federal agency for all highway-aid projects it has assumed, and in that capacity Caltrans has assigned the role of "agency official" to the Caltrans Division of Environmental Analysis (DEA) Chief for the purpose of compliance with 36 CFR 800 and is responsible for oversight of District environmental responsibilities. To provide for effective compliance, day-to-day responsibilities and coordination of the Section 106 process are further delegated to the DEA Cultural Studies Office (CSO) Chief; and

WHEREAS, Caltrans proposes to implement the federally funded Garrapata Creek Bridge Rail Replacement Project (Undertaking), which will remove and replace the rails on the Garrapata Creek Bridge (Bridge No. 44 0018), a State-owned bridge located at post mile 62.97 on State Route 1 near Big Sur, an unincorporated community along the Big Sur Coast in Monterey County, as described in Attachment A to this Memorandum of Agreement (MOA); and

WHEREAS, the Undertaking's Area of Potential Effects (APE), included in Attachment B, includes all areas where work is proposed and the known or reasonably anticipated boundaries of any built environment or archaeological resources, which may experience direct or indirect effects as a result of the Undertaking; and

WHEREAS, Caltrans has determined that the Undertaking will have an adverse effect on the Garrapata Creek Bridge (No. 44 0018), a property determined to be eligible for inclusion in the National Register of Historic Places (National Register); and

WHEREAS, Caltrans is consulting with the California State Historic Preservation Officer (SHPO) pursuant to stipulation X.C and XI of the Section 106 PA, and where the Section 106 PA so directs, in accordance with 36 CFR Part 800, the regulation that implements Section 106 of the National

Historic preservation Act of 1966 (16 U.S.C. 470f), as amended, regarding the Undertaking's effect on historic properties; and

WHEREAS, Caltrans, in consultation with the SHPO, has thoroughly considered alternatives to this Undertaking and has determined that the Undertaking's adverse effects cannot be avoided, and that implementation of the treatments set forth in Stipulation II of this MOA will satisfactorily take into account the Undertaking's adverse effects on the historic property; and

WHEREAS, Caltrans District 5 has a responsibility to fulfill the terms of this MOA and is participating as an invited signatory; and

NOW, THEREFORE, Caltrans and the SHPO agree that if the Undertaking proceeds, the Undertaking shall be implemented in accordance with the following stipulations in order to take into account the effects of the Undertaking on historic properties, and further agree that these stipulations shall govern the Undertaking and all of its parts until this MOA expires or is terminated.

STIPULATIONS

Caltrans shall ensure that the following stipulations are carried out:

I. AREA OF POTENTIAL EFFECT

A. The Area of Potential Effect (APE) was designated in accordance with Stipulation VIII.A of the Section 106 PA and is depicted in Attachment B of this MOA. The APE includes the entire area where the project may have potential to directly or indirectly affect cultural resources. This includes the footprint and area immediately surrounding the bridge, any areas where ground disturbance or work in the creek may occur, and associated construction access and staging areas. The Garrapata Creek Bridge (No. 44 0018) and the Carmel San Simeon Highway Historic District (CSSHHD), of which the bridge is a contributing element, are the only two (2) historic properties located within the APE.

B. If Caltrans determines that additional APE revisions are necessary subsequent to the execution of this MOA, Caltrans shall inform the parties to the MOA of the revisions and consult for no more than 15 days to reach agreement on the proposed revisions. If Caltrans, the SHPO, and other appropriate signatories cannot reach such agreement, then the parties to this MOA shall resolve the dispute in accordance with Stipulation VI.C below. If all parties reach mutual agreement on the proposed revisions, Caltrans will submit a new APE map reflecting the revisions, consistent with Stipulation VIII.A and Attachment 3 of the Section 106 PA, no later than 30 days following such agreement. Any further investigation or document necessitated by the revised APE will follow the procedures for the identification and evaluation of potential Historic Properties as specified in Stipulation VIII of the Section 106 PA and in accordance with 36 CFR §800.4(a)(2-4) and 88.4(b). Amendment of the APE will not require an amendment to the MOA. The revised APE and supporting documentation shall be incorporated into Attachment B to this MOA.

II. TREATMENT OF HISTORIC PROPERTIES

A. Historic American Engineering Record (HAER)

1. Prior to the start of construction, Caltrans shall contact the regional Historic American Building Survey/Historic American Engineering Record/Historic American Landscape Survey (HABS/HAER/HALS) coordinator at the National Park Service Interior Regions 8, 9, 10, and 12 Regional Office (NPS) to request that NPS stipulate the level of and procedures for completing the documentation. Within ten (10) days of receiving the NPS stipulation letter, Caltrans shall send a copy of the letter to all consulting parties for their information.

2. Caltrans will ensure that all recordation documentation activities are performed or directly supervised by architects, historians, photographers, and/or other professionals meeting the qualification standards in the Secretary of Interior's Professional Qualification Standards (36 CFR 61, Appendix A).

3. Upon receipt of the NPS written acceptance letter, Caltrans will make archival, digital and bound library-quality copies of the documentation and provide them to the Monterey County Historic Resources Review Board, the Monterey County Historical Society, the Big Sur Historical Society, the Carmel Heritage Society, and the California State Library.

4. Caltrans shall notify SHPO that the documentation is complete and all copies distributed, as outlined in C, and include the completion of the documentation in the annual report. All field surveys shall be completed prior to the start of construction.

B. Completion of DPR 523 Inventory Forms for all seven (7) Big Sur Arches

1. Caltrans District 5 will hire qualified historical consultants to produce DPR 523 forms, including Primary Record Forms and Building Structure, Object Record Forms for all seven (7) of the historic concrete arch bridges within the Carmel San Simeon Highway Historic District (CSSHHD).

2. The seven DPR 523 records will include the six open spandrel concrete arch bridges specifically mentioned in the Tier I document (Big Creek, Bixby Creek, Rocky Creek, Garrapata Creek, Granite Canyon, & Malpaso Creek) as well as closed spandrel Wildcat Bridge, which is also a contributor in the CSSHHD and a thematically similar resource.

3. The information in the individual DPR 523 forms for each bridge will focus solely on the individual bridges, their specific historic design context and will highlight each resource’s specific history within the broader contextual landscape of social, economic, and cultural trends leading to the opening of State Route 1 (SR-1) in Monterey County. This measure responds directly to comments received from consulting parties, and particularly by The Monterey County Historic Resources Review Board (MCHRRB) in their November 2020 letter to Caltrans regarding the Garrapata Creek Bridge Rail

Replacement Project. This information will supplement and enhance the existing knowledge of the seven (7) Big Sur Arches, but requires a more detailed and focused historical analysis of these significant resources. As the current best historical information Caltrans has developed about each of the "Big Sur Arches" is limited to the broad focus of the Caltrans Statewide Historic Bridge Inventory and as contributing features within the context of the district wide DPR 523 form for the entire CSSHHD, the value in updating the historical information on the these important bridges is recognized.

4. The information in the DPR Forms, including Primary Records and BSO Records, will be based on original research that expands on what is already known about these bridges which is contained the broader context of the Caltrans Statewide Historic Bridge Inventory and Carmel San Simeon Highway Historic District inventory forms.

5. The individual DPR 523 forms will include information such as high-quality color and/or black-and-white photographs, historic photographs and/or drawings as appropriate, and text describing the each bridge's history and character-defining features.

6. Caltrans District 5 will distribute paper and digital copies of the DPR 523 inventory forms to the Office of Historic Preservation; the California Room of the California State Library; Caltrans District 5; and Caltrans Headquarters Library and History Center as well as with all relevant consulting parties, including the Monterey County Historic Resources Review Board, the Monterey County Historical Society, the Big Sur Historical Society, the Carmel Heritage Society and the Historic Bridge Foundation on request.

C. Interpretive Website

1. Caltrans District 5 will produce a website highlighting the history of the seven (7) Big Sur Arches in a manner that is accessible to the general public and provides public benefit.

2. The website will initially contain a main page focusing on the history of the seven bridges generally as well as, at least one (1) page focusing on the Garrapata Creek Bridge individually. The website will be structured so that it may be updated and expanded with additional pages focusing on the other Big Sur Arches as future Bridge Rail Replacement projects outlined in the Tier 1 analysis, or any other projects impacting the Big Sur Arches, are proposed and implemented in the future. The pages will each include historic and modern photographs developed in part II.A, historic context as developed in part II.B, and additional information on the engineering and transportation history of the bridges as is deemed appropriate.

3. Additionally, the website will also contain a page with outreach information in the form of lesson plans for elementary school aged students that focuses on historic and/or other Scientific, Technological, Engineering, or Mathematical (STEM) activities within a

historic context. Visual aids to show the technical significance of the open spandrel concrete arch design will be included in the exhibit. This website will be able to be further updated as bridge rail replacement projects with similar impacts are proposed for the Big Sur Arches in the future. The website will be maintained for at least ten (10) years, and it is recognized that this time frame may be continually extended as additional projects mentioned in the Tier 1 analysis are proposed and implemented over time.

III. TREATMENT OF HUMAN REMAINS OF NATIVE AMERICAN ORIGIN

As legally mandated, human remains and related items discovered during the implementation of the terms of this Agreement and the Undertaking will be treated in accordance with the requirements of Health and Safety Code Section 7050.5(b). If pursuant to of Health and Safety Code Section 7050.5(c) the coroner determines that the human remains are or may be those of a Native American, then the discovery shall be treated in accordance with the provisions of Public Resources Code Sections 5097.98 (a)(d). Caltrans, as the landowner, shall ensure, to the extent possible, that the views of the Most Likely Descendent(s), as determined by the California Native American Heritage Commission, is taken into consideration when decisions are made about the disposition of Native American human remains and associated objects.

IV. DISCOVERIES AND UNANTICIPATED EFFECTS

If Caltrans determines after construction of the Undertaking has commenced, that either the Undertaking will affect a previously unidentified property that may be eligible for the National Register, or affect a known historic property in an unanticipated manner, Caltrans will address the discovery or unanticipated effect in accordance with 36 CFR §800.13(b)(3). Caltrans at its discretion may hereunder and pursuant to 36 CFR §800.13(c) assumes any discovered property to be eligible for inclusion in the National Register.

V. ADMINISTRATIVE PROVISIONS

A. Standards

1. **Definitions.** The definitions provided in 36 CFR § 800.16 are applicable throughout this MOA.
2. **Professional Qualifications**. Caltrans will ensure that only individuals meeting the *Secretary of the Interior's Professional Qualification Standards* (48 FR 44738-39) (PQS) in the relevant field of study carry out or review appropriateness and quality of the actions and products required by Stipulations I through IV in this MOA. However, nothing in this stipulation may be interpreted to preclude Caltrans or any agent or contractor thereof from using the properly supervised services of persons who do not meet the PQS.
3. **Documentation Standards**. Written documentation of activities prescribed by Stipulations I through IV of this MOA shall conform to *Secretary of the Interior's*

Standards and Guidelines for Archaeology and Historic Preservation (48 FR 44716-44740) as well as to applicable standards and guidelines established by the SHPO.

4. **Curation and Curation Standards.** Caltrans shall ensure that, to the extent permitted under § 5097.98 and § 5097.991 of the California Public Resources Code, the materials and records resulting from the activities prescribed by this MOA are curated in accordance with 36 CFR §79.

B. Confidentiality

The MOA parties acknowledge that the historic properties covered by this MOA may be subject to the provisions of § 304 of the NHPA and § 6254.10 of the California Government Code (Public Records Act), relating to the disclosure of archaeological site information and, having so acknowledged, will ensure that all actions and documentation prescribed by this MOA are consistent with said sections.

C. Resolving Objections

1. Should any party to this MOA object at any time in writing to the manner in which the terms of this MOA are implemented, to any action carried out or proposed with respect to implementation of the MOA (other than the Undertaking itself), or to any documentation prepared in accordance with and subject to the terms of this MOA, Caltrans shall immediately notify the other MOA parties of the objection, request their comments on the objection within 15 days following receipt of Caltrans' notification, and proceed to consult with the objecting party for no more than 30 days to resolve the objection. Caltrans will honor the request of the other parties to participate in the consultation and will take any comments provided by those parties into account.
2. If the objection is resolved during the 30-day consultation period, Caltrans may proceed with the disputed action in accordance with the terms of such resolution.
3. If at the end of the 30-day consultation period, Caltrans determines that the objection cannot be resolved through such consultation, then Caltrans shall forward all documentation relevant to the objection to the ACHP, including Caltrans' proposed response to the objection, with the expectation that the ACHP will, within thirty (30) days after receipt of such documentation:
    a. Advise Caltrans that the ACHP concurs in Caltrans' proposed response to the objection, whereupon Caltrans will respond to the objection accordingly. The objection shall thereby be resolved; or
    b. Provide Caltrans with recommendations, which Caltrans will take into account in reaching a final decision regarding its response to the objection. The objection shall thereby be resolved; or
    c. Notify Caltrans that the objection will be referred for comment pursuant to 36 CFR § 800.7(c) and proceed to refer the objection and comment. Caltrans shall take the resulting comments into account in accordance with 36 CFR § 800.7(c)(4) and Section 110(1) of the NHPA. The objection shall thereby be resolved.

4. Should the ACHP not exercise one of the above options within 30 days after receipt of all pertinent documentation, Caltrans may proceed to implement its proposed response. The objection shall thereby be resolved.
5. Caltrans shall take into account any of the ACHP's recommendations or comments provided in accordance with this stipulation with reference only to the subject of the objection. Caltrans' responsibility to carry out all actions under this MOA that are not the subjects of the objection shall remain unchanged.
6. At any time during implementation of the measures stipulated in this MOA, should a member of the public raise an objection in writing pertaining to such implementation to any signatory party to this MOA, that signatory party shall immediately notify Caltrans. Caltrans shall immediately notify the other signatory parties in writing of the objection. Any signatory party may choose to comment in writing on the objection to Caltrans. Caltrans shall establish a reasonable time frame for this comment period. Caltrans shall consider the objection, and in reaching its decision, Caltrans will take all comments from the other signatory parties into account. Within 15 days following closure of the comment period, Caltrans will render a decision regarding the objection and respond to the objecting party. Caltrans will promptly notify the other signatory parties of its decision in writing, including a copy of the response to the objecting party. Caltrans' decision regarding resolution of the objection will be final. Following issuance of its final decision, Caltrans may authorize the action subject to dispute hereunder to proceed in accordance with the terms of that decision.
7. Caltrans shall provide all parties to this MOA, and the ACHP, if the ACHP has commented, and any parties that have objected pursuant to section C of this stipulation, with a copy of its final written decision regarding any objection addressed pursuant to this stipulation.
8. Caltrans may authorize any action subject to objection under this stipulation to proceed after the objection has been resolved in accordance with the terms of this stipulation.

D. Amendments

1. Any signatory party to this MOA may propose that this MOA be amended, whereupon all signatory parties shall consult for no more than 30 days to consider such amendment. The amendment will be effective on the date a copy signed by all of the original signatories is filed with the ACHP. If the signatories cannot agree to appropriate terms to amend the MOA, any signatory may terminate the agreement in accordance with Stipulation E, below.
2. Attachments to this MOA may be amended through consultation as prescribed in Section B of Stipulation I or Section D of Stipulation V, as appropriate, without amending the MOA proper.

E. Termination

1. If this MOA is not amended as provided for in section D of this stipulation, or if either signatory proposes termination of this MOA for other reasons, the signatory party

proposing termination shall, in writing, notify the other MOA parties, explain the reasons for proposing termination, and consult with the other parties for at least 30 days to seek alternatives to termination. Such consultation shall not be required if Caltrans proposes termination because the Undertaking no longer meets the definition set forth in 36 CFR § 800.16(y).

2. Should such consultation result in an agreement on an alternative to termination, the signatory parties shall proceed in accordance with the terms of that agreement.
3. Should such consultation fail, the signatory party proposing termination may terminate this MOA by promptly notifying the other MOA parties in writing. Termination hereunder shall render this MOA without further force or effect.
4. If this MOA is terminated hereunder, and if Caltrans determines that the Undertaking will nonetheless proceed, then Caltrans shall comply with the requirements of 36 CFR 800.3-800.6, or request the comments of the ACHP pursuant to 36 CFR Part 800.

F. Duration of the MOA

1. Unless terminated pursuant to section E of this stipulation, or unless it is superseded by an amended MOA, this MOA will be in effect following execution by the signatory parties until Caltrans, in consultation with the other signatory parties, determines that all of its stipulations have been satisfactorily fulfilled. This MOA will terminate and have no further force or effect on the day that Caltrans notifies the other MOA signatories in writing of its determination that all stipulations of this MOA have been satisfactorily fulfilled.
2. The terms of this MOA shall be satisfactorily fulfilled within seven (7) years following the date of execution by the signatory parties. If Caltrans determines that this requirement cannot be met, the MOA parties will consult to reconsider its terms. Reconsideration may include continuation of the MOA as originally executed, amendment of the MOA, or termination. In the event of termination, Caltrans will comply with Section E of this Stipulation if it determines that the Undertaking will proceed notwithstanding termination of this MOA.
3. If the Undertaking has not been implemented within seven (7) years following execution of this MOA, this MOA shall automatically terminate and have no further force or effect. In such event, Caltrans shall notify the other signatory parties in writing and, if it chooses to continue with the Undertaking, shall reinitiate review of the Undertaking in accordance with 36 CFR Part 800.

G. Reporting Requirements and Related Reviews

1. Caltrans shall prepare an Annual Report documenting actions carried out pursuant to this MOA. The reporting period shall commence one year from the date of execution. The Annual Report shall be distributed to all consulting parties to this MOA.

2. The Annual Report shall address the following: any scheduling changes proposed, historic property surveys and results, status of treatment and mitigation activities,

ongoing and completed public education activities, any uses that are affecting or may affect the ability of the federal agency to continue to meet the terms of this MOA, any disputes and objections received, and how they were resolved, and any additional parties who have become signatory or concurring parties to this MOA in the past year.

3. Caltrans shall coordinate a meeting of the Signatories and Consulting Parties to be scheduled within ninety (90) business days of distribution of the Annual Report, or another mutually agreed upon date, to discuss activities carried out pursuant to this MOA during the preceding year and activities scheduled for the upcoming year. This meeting, should it be deemed unnecessary, may be cancelled by mutual consent of the Signatory Parties.

H. Effective Date

This MOA will take effect on the date that it has been executed by Caltrans and the SHPO.

EXECUTION of this MOA by Caltrans and the SHPO, its filing with the ACHP in accordance with 36 CFR §800.6(b)(1)(iv), and subsequent implementation of its terms, shall evidence, pursuant to 36CFR§800.6(c), that this MOA is an agreement with the ACHP for purposes of Section 110(l) of the NHPA, and shall further evidence that Caltrans has afforded the ACHP an opportunity to comment on the Undertaking and its effects on historic properties, and that Caltrans has taken into account the effects of the Undertaking on historic properties.

MEMORANDUM OF AGREEMENT

BETWEEN THE CALIFORNIA DEPARTMENT OF TRANSPORTATION AND THE CALIFORNIA STATE HISTORIC PRESERVATION OFFICER REGARDING THE GARRAPATA CREEK BRIDGE REMOVAL/REPLACEMENT PROJECT, MONTEREY COUNTY, CALIFORNIA

SIGNATORY PARTY:

CALIFORNIA DEPARTMENT OF TRANSPORTATION

By _____ **Date** _____

Phillip J. Stolarski
Chief, Division of Environmental Analysis

MEMORANDUM OF AGREEMENT

BETWEEN THE CALIFORNIA DEPARTMENT OF TRANSPORTATION AND THE CALIFORNIA STATE HISTORIC PRESERVATION OFFICER REGARDING THE GARRAPATA CREEK BRIDGE REMOVAL/REPLACEMENT PROJECT, MONTEREY COUNTY, CALIFORNIA

SIGNATORY PARTY:

CALIFORNIA OFFICE OF HISTORIC PRESERVATION

By _____ **Date** _____

Julianne Polanco
State Historic Preservation Officer

MEMORANDUM OF AGREEMENT

BETWEEN THE CALIFORNIA DEPARTMENT OF TRANSPORTATION AND THE CALIFORNIA STATE HISTORIC PRESERVATION OFFICER REGARDING THE GARRAPATA CREEK BRIDGE REMOVAL/REPLACEMENT PROJECT, MONTEREY COUNTY, CALIFORNIA

INVITED SIGNATORY:

CALIFORNIA DEPARTMENT OF TRANSPORTATION, DISTRICT 5

By _____ **Date** _____

Timothy M. Gubbins
Director

Attachment E

The Big Sur Bridge Replacement Projects (Tier I) Historic Property Survey Report (Including relevant pages of the Caltrans Historic Bridge Inventory Sheet and other relevant Previous documentation (Carmel San Simeon Highway Historic District DPR 528 Forms).

Tier I Historic Property Survey Report for The Big Sur Bridge Rail Replacement Projects Monterey County, State Route 1, Various Locations

***Pilot Project (Garrapata Creek Bridge Rail Replacement)**

EA: 05-1H800 / EFIS: 051600163

Prepared by Daniel T. Leckie — August 31st, 2020

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Reviewed for approval by: Christina MacDonald — August 31, 2020

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Approved by Krista Kiaha — August 31, 2020

Krista Kiaha
District 5 Cultural Resources Branch Chief
50 Higuera Street, San Luis Obispo, CA
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The environmental review, consultation, and any other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 U.S.C. 327 and the Memorandum of Understanding dated December 23, 2016, and executed by FHWA and Caltrans.

HISTORIC PROPERTY SURVEY REPORT

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The studies for this undertaking were carried out in a manner consistent with Caltrans' regulatory responsibilities under Section 106 of the National Historic Preservation Act (36 CFR Part 800) and pursuant to the January 2014 *First Amended Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act* (Section 106 PA) as well as under Public Resources Code 5024 and pursuant to the January 2015 *Memorandum of Understanding Between the California Department of Transportation and the California State Historic Preservation Office Regarding Compliance with Public Resources Code Section 5024 and Governor's Executive Order W-26-92, addended 2019* (5024 MOU) as applicable.

The Big Sur Bridge Replacement Projects (Tier I) Historic Property Survey Report

1. Undertaking Description and Location

The Big Sur Bridge Rail Replacement Projects are a series of six (6) separate projects in which the California Department of Transportation (Caltrans) proposes to replace deteriorated nonstandard concrete baluster bridge rails for six (6) out of the seven (7) historic reinforced concrete arch bridges along State Route 1 (SR-1) in Monterey County. The original concrete railing does not meet current modern safety standards set by the Manual for Assessing Safety Hardware (MASH) and will be replaced with a new railing constructed to meet these standards. Called "the Big Sur Bridges", these structures all date to the initial construction of SR-1 in Monterey County in the early 1930s; The Big Sur Bridges to be impacted by this program include:

- Big Creek Bridge (1938) - PM 28.1, Bridge Number 44-0056
- Bixby Creek Bridge (1932) - PM 59.4, Bridge Number 44-0019
- Rocky Creek Bridge (1932) - PM 60.0, Bridge Number 44-0036
- Garrapata Creek Bridge (1931) - PM 63.0, Bridge Number 44-0018
- Granite Canyon Bridge (1932) - PM 64.3, Bridge Number 44-0012
- Malpaso Creek Bridge (1935) - PM 67.9, Bridge Number 44-0017

In addition to being individually eligible for the National Register of Historic Places (NRHP) and the California Register of Historic Resources (CRHR), The Big Sur Bridges are all contributing resources within the Carmel - San Simeon Highway Historic District (CSSHHD), an 80-mile-long discontinuous historic district comprised of 241 original rubble stone masonry highway features as well as seven (7) concrete arch bridges (these include the six listed above in addition to the Wildcat Creek Bridge (Bridge No. 44 0016). Note: *The Wildcat Creek Bridge is the only example of a reinforced concrete, closed spandrel arch bridge within the district and as it includes solid railing with a smooth cap, it is not included in the bridge rail replacement program at this time.*

1.1 Background Information

These upcoming projects are necessary due to various levels of deterioration of the existing railing on all six (6) bridges and because the railing no longer meets current traffic safety standards. The Manual for Assessing Safety Hardware (MASH) is a nationwide standard that was implemented by the Federal Highway Administration (FHWA) and the American Association of State Highway Transportation Officials (AASHTO) in 2009 (updated in 2016). MASH sets the standards for highway safety equipment, including bridge rails, guardrails, and other safety features. Newly adopted

MASH standards have mandated that all new installations of roadside safety devices on high-speed roadways, including bridge railing, must meet a new higher standard for crash testing for all projects advertised as of December 31st, 2019, without exception.

MASH standards dictate both the structural performance as well as the height and width dimensions of new railing. The existing railing does not meet current MASH crashworthiness standards for the posted speed limits on this stretch of SR-1; therefore, the new replacement railings will require slightly different dimensions than the current railings, meaning that the existing railing cannot be replaced in kind moving forward. Portions of the existing rail are in an accelerated state of deterioration and are experiencing concrete spalling, exposed steel reinforcing bar, and corrosion caused by exposure to salts in the air due to the bridges' locations near the ocean. This deterioration may pose a hazard to public health and safety moving forward if allowed to continue unaddressed. However, though the project purpose is to replace the existing nonstandard concrete baluster bridge rails and approach rails with new railing that meets current traffic safety standards, Caltrans is committed to choosing a new MASH-compliant railing that is context sensitive and will be compatible with the historic character of the Big Sur Bridges and within the Carmel- San Simeon Highway Historic District. Caltrans structures design engineers are currently developing a new bridge rail that is designed specifically to replicate the design of the historic rails as closely as possible while also meeting the new MASH crashworthiness standards. The new Caltrans rail design (Type 86H) is currently undergoing crash testing. A second new rail design developed by the Texas Department of Transportation to replicate historic bridge rail designs (Type C412) is also under consideration. (See **Attachment 3** for renderings of the new bridge rail designs).

1.2. Tiered Environmental Review

In keeping with the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA) which provide for tiered and/or phased Environmental review, Caltrans is performing a tiered evaluation of these projects. The tiered evaluation is intended to streamline the environmental review and evaluate to the greatest extent feasible cumulative impacts, growth-inducing impacts, and irreversible significant effects on the environment of subsequent projects. Tiering addresses broad programs and issues related to the entire corridor in the Tier I analysis. As specific bridge rail replacement projects within the corridor program are ready for implementation, impacts of those specific actions will be evaluated in subsequent Tier II (or project specific) studies. At this time, the Garrapata Creek Bridge (No. 44-0018) is the only bridge proposed to receive replacement bridge rails in an upcoming project in which Tier II studies will be submitted in late 2020/early 2021; railing replacement projects have not yet been proposed for the other five (5) bridges and may be occurring several years in the future.

Tier II studies will be carried out in compliance with Section 106 (36 Code of Federal Regulations Part 800) of the National Historic Preservation Act of 1966 and is subject

to the conditions of the *First Amended Programmatic Agreement (PA) among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act as it Pertains to the Administration of the Federal-Aid Highway Program in California* (Section 106 PA). As such, compliance with Section 106 shall meet or exceed the requirements of the California Environmental Quality Act (CEQA) Sections 21083.2 and 21084.1, as written in the California Public Resources Code, Sections 21000, et seq., and the CEQA Guidelines for implementing the statute, as codified in the California Code of Regulations, Title 14, Chapter 3, Section 15000, et seq. In addition, Tier II studies will comply with Public Resources Code 5024 and pursuant to the January 2015 *Memorandum of Understanding Between the California Department of Transportation and the California State Historic Preservation Office Regarding Compliance with Public Resources Code Section 5024 and Governor's Executive Order W-26-92, addended 2019* (5024 MOU) as applicable.

2. Area of Potential Effects

In accordance with Section 106 PA Stipulation VIII.A, the Area of Potential Effects (APE) for each specific bridge rail replacement project will be established in consultation with District 5 Caltrans Professionally Qualified Staff (PQS) and the Caltrans project manager assigned to each specific project. The APE maps will be located in the specific technical study attached directly to the Tier II (project specific) document.

The APE for each project will include all areas where the project may directly or indirectly affect cultural resources, including, at minimum, the entirety of the CSSHHD, the entirety of each specific bridge structure to be impacted, and any staging or additional work areas proposed. The project-specific APE maps will be developed along with the Tier II documents as those projects are developed and more specific information is available. General location & vicinity mapping showing the entirety of the CSSHHD and the specific locations of each of the six (6) Big Sur Bridges to be impacted by the upcoming projects can be found in **Attachment 1** of this report.

3. Consulting Parties / Public Participation

Concurrent with this notification to the California State Historic Preservation Office (SHPO), Caltrans is also notifying the Native American Heritage Commission (NAHC), the Monterey County Historic Resources Review Board, the Historic Bridge Foundation, the Monterey County Historical Society, the Carmel Heritage Society, and the Big Sur Historical Society. Caltrans will continue to consult with these organizations, and any other knowledgeable groups or individuals identified during this process, for all of the Tier II (project specific) analyses moving forward.

4. Summary of Identification Efforts

4.1 Record Searches and Sources Consulted

In an effort to identify known historic properties for this project Caltrans consulted the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), California Points of Historical Interest, the Caltrans Historic Bridge Inventory, and the Caltrans Cultural Resources Database (CCRD).

4.1.1 Results

The Caltrans Historic Bridge Inventory demonstrates that all six bridges to be impacted by the Big Sur Bridge Rail Replacement Program have been previously determined eligible for the NRHP and CRHR. These resources are all individually eligible and are contributing resources to the CSSHHD. This information can be found in the DPR 523 inventory form for the CSSHHD can be found in **Attachment 4.**

5. Properties Identified

Caltrans, in accordance with Section 106 PA Stipulation VIII.C.5, has determined there are properties within the APE that were **previously determined eligible** for inclusion in the NRHP and those determinations remain valid. All bridges listed below were determined individually eligible in 1986. The CSSHHD was determined eligible in 1996 (updated 2006), and all six bridges are also considered contributing resources to the district as well. They are all state owned and on the master list **(SO/ML)**. Copy of SHPO/Keeper correspondence can be found in **Attachment 4**.

- Big Creek Bridge (1938) - PM 28.1, Bridge Number 44-0056 (SO/ML)
- Bixby Creek Bridge (1932) - PM 59.4, Bridge Number 44-0019 (SO/ML)
- Rocky Creek Bridge (1932) - PM 60.0, Bridge Number 44-0036 (SO/ML)
- Garrapata Creek Bridge (1931) - PM 63.0, Bridge Number 44-0018 (SO/ML)
- Granite Canyon Bridge (1932) - PM 64.3, Bridge Number 44-0012 (SO/ML)
- Malpaso Creek Bridge (1935) - PM 67.9, Bridge Number 44-0017 (SO/ML)
- The Carmel-San Simeon Highway Historic District (P-27-0027775), determined eligible in 1996 (updated in 2006), state-owned, on the master list.

6. Finding for the Undertaking(s)

Caltrans, pursuant to Section 106 PA Stipulation IX.B, has determined that there will be historic properties within the project specific APE(s) that may be affected by these separate future undertakings. Project specific **Effects are still undetermined**, so in accordance with Section 106 PA Stipulation X, Caltrans will continue consultation with

Caltrans Cultural Studies Office (CSO) and/or SHPO in the future on the assessment of effects.

6.1 Anticipated Effect Findings (to be confirmed in Tier II)

Caltrans, pursuant to Section 106 PA Stipulation X.C, **anticipate(s) future Findings of Adverse Effect** to be found in the Tier II (project-specific) analysis. In keeping with the tiered analysis of the projects, Caltrans is notifying SHPO of these upcoming projects at this time. The effects of each undertaking will be dealt with on a case-by-case basis in the Tier II (project-specific) analysis documents as each project is proposed and technical studies are conducted.

6.2 CEQA Considerations

Caltrans PQS has determined that there are resources in the project area that **are historical resources** for the purposes of CEQA; see Section 5 for the list of eligible NRHP/CRHR properties which is identical to the list of CEQA properties.

7. ATTACHED DOCUMENTATION

- **Attachment 1:** Project Vicinity & Location maps (showing known historic properties to be affected under the umbrella of this Tier I Analysis)
- **Attachment 2:** California Historic Bridge Inventory sheets
- **Attachment 3:** Photographs and preliminary renderings & drawings of original bridge rails and proposed replacement rail designs
- **Attachment 4:** Previous documentation (Carmel-San Simeon Highway Historic District DPR 523 Forms)
- **Attachment 5:** Sample of Letters to Consulting Parties

Attachment 1:

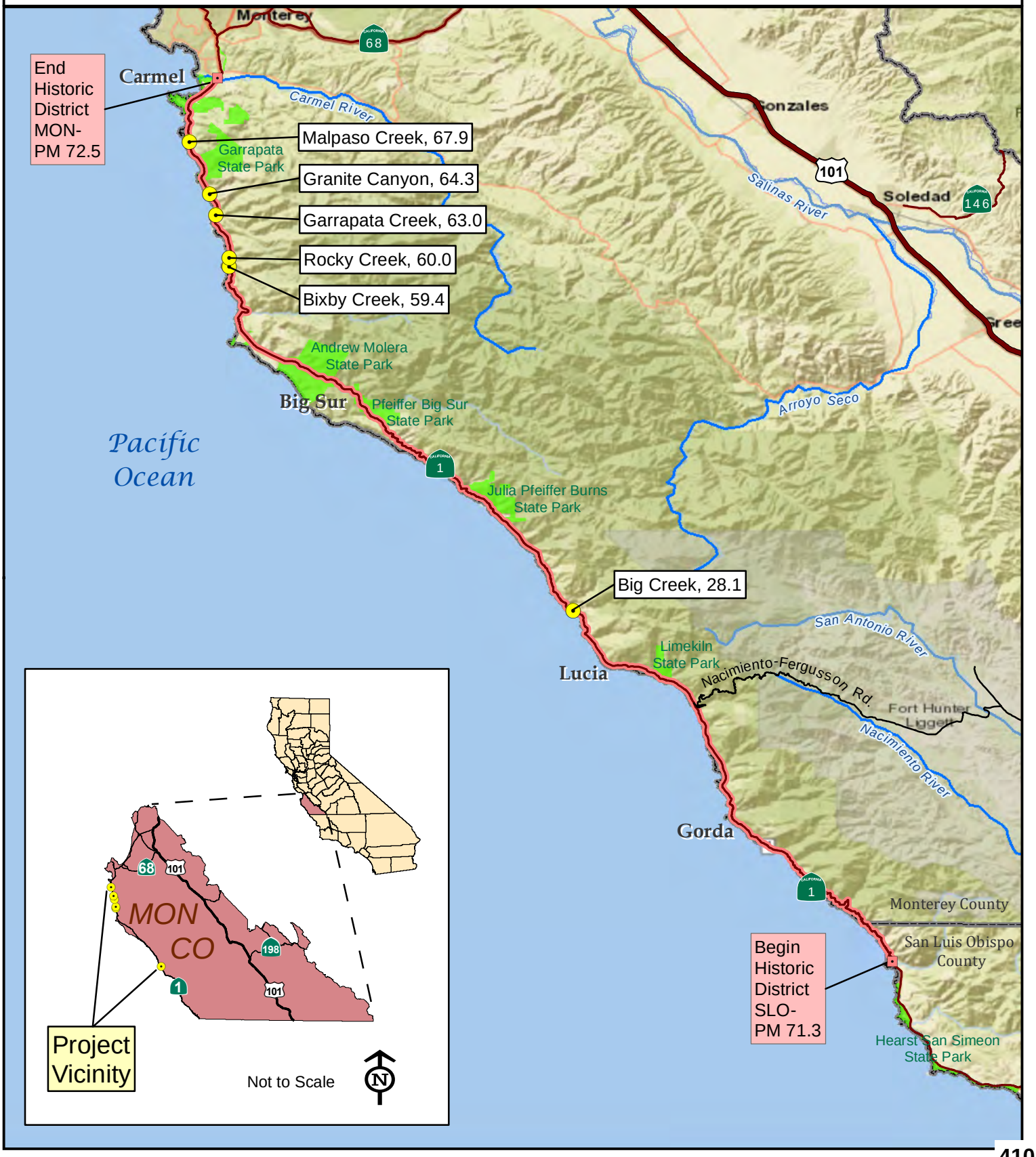
Project Vicinity & Location maps

Big Sur Bridge Rail Replacement
Tier I – Cultural Resources Analysis
05-MON-PM 28.1/67.9

0 5 10 20 Miles

Legend

- Subject Bridges
- Carmel - San Simeon Highway Historic District



Attachment 2:

California Historic Bridge Inventory sheets

Historical Significance - State Agency Bridges

District 05

Monterey County

Bridge Number	Bridge Name	Location	Historical Significance	Year Built	Year Wid/Ext
44 0002L	SALINAS RIVER	05-MON-101-60.75	5. Bridge not eligible for NRHP	1999	
44 0002R	SALINAS RIVER	05-MON-101-60.75	5. Bridge not eligible for NRHP	1999	
44 0009L	JOLON ROAD UC	05-MON-101-R9.67	5. Bridge not eligible for NRHP	1936	
44 0009R	JOLON ROAD UC	05-MON-101-R9.67	5. Bridge not eligible for NRHP	1964	
44 0012	GRANITE CANYON	05-MON-001-64.33	2. Bridge is eligible for NRHP	1932	1998
44 0014	SAN JOSE CREEK	05-MON-001-71.18	5. Bridge not eligible for NRHP	1965	
44 0016	WILDCAT CREEK	05-MON-001-69.02	2. Bridge is eligible for NRHP	1933	
44 0017	MALPASO CREEK	05-MON-001-67.85	2. Bridge is eligible for NRHP	1935	1998
44 0018	GARRAPATA CREEK	05-MON-001-62.97	2. Bridge is eligible for NRHP	1931	1998
44 0019	BIXBY CREEK	05-MON-001-59.37	2. Bridge is eligible for NRHP	1932	2000
44 0020	LITTLE SUR RIVER	05-MON-001-56.10	5. Bridge not eligible for NRHP	1953	
44 0021	BIG SUR RIVER	05-MON-001-46.60	5. Bridge not eligible for NRHP	1940	
44 0023	ESPINOSA SLOUGH	05-MON-183-R7.30	5. Bridge not eligible for NRHP	1978	
44 0024	TEMBLADERO SLOUGH	05-MON-183-R8.11	5. Bridge not eligible for NRHP	1978	
44 0027	ALDER CREEK	05-MON-001-7.94	5. Bridge not eligible for NRHP	1955	
44 0028	VILLA CREEK	05-MON-001-7.07	5. Bridge not eligible for NRHP	1961	
44 0029	SALMON CREEK	05-MON-001-2.23	5. Bridge not eligible for NRHP	1949	
44 0030	SAN LORENZO CREEK	05-MON-198-R13.77	4. Historical Significance not determined	1994	
44 0032L	SALINAS RIVER	05-MON-101-R41.36L	5. Bridge not eligible for NRHP	1968	
44 0032R	SALINAS RIVER	05-MON-101-R41.36R	5. Bridge not eligible for NRHP	1956	1968
44 0033L	CASTROVILLE OH	05-MON-156-R1.59	5. Bridge not eligible for NRHP	1942	
44 0033R	CASTROVILLE OH	05-MON-156-R1.59	5. Bridge not eligible for NRHP	1966	
44 0035	CASTRO CANYON	05-MON-001-43.12	5. Bridge not eligible for NRHP	1937	
44 0036	ROCKY CREEK	05-MON-001-60.05	2. Bridge is eligible for NRHP	1932	2000
44 0039	SCENIC DRIVE OC	05-MON-068-3.07	5. Bridge not eligible for NRHP	1930	
44 0040L	SALINAS RIVER	05-MON-068-R17.69	5. Bridge not eligible for NRHP	1966	1985
44 0040R	SALINAS RIVER	05-MON-068-R17.69	5. Bridge not eligible for NRHP	1966	1985
44 0041	SCENIC DRIVE OC	05-MON-068-L4.02	5. Bridge not eligible for NRHP	1930	
44 0046	TORRE CANYON	05-MON-001-39.72	5. Bridge not eligible for NRHP	1955	
44 0047	SYCAMORE DRAW	05-MON-001-39.28	5. Bridge not eligible for NRHP	1981	
44 0049	ANDERSON CANYON	05-MON-001-35.35	5. Bridge not eligible for NRHP	1961	
44 0051	BUCK CREEK	05-MON-001-R33.67	5. Bridge not eligible for NRHP	1965	
44 0052	HOT SPRINGS CREEK	05-MON-001-32.81	5. Bridge not eligible for NRHP	1963	
44 0053	LIME CREEK	05-MON-001-32.25	5. Bridge not eligible for NRHP	1975	
44 0054	DOLAN CREEK	05-MON-001-31.17	5. Bridge not eligible for NRHP	1961	
44 0055	SALINAS UP	05-MON-183-0.57-SAL	4. Historical Significance not determined	1936	
44 0056	BIG CREEK	05-MON-001-28.09	2. Bridge is eligible for NRHP	1938	1998
44 0057	VICENTE CREEK	05-MON-001-R25.89	5. Bridge not eligible for NRHP	1964	
44 0058	LIMEKILN CREEK	05-MON-001-20.95	5. Bridge not eligible for NRHP	1957	
44 0061	KIRK CREEK	05-MON-001-18.91	5. Bridge not eligible for NRHP	1975	
44 0062	MILL CREEK	05-MON-001-18.46	5. Bridge not eligible for NRHP	1934	1956
44 0063	WILD CATTLE CREEK	05-MON-001-17.32	5. Bridge not eligible for NRHP	1975	
44 0064	PREWITT CREEK	05-MON-001-14.93	5. Bridge not eligible for NRHP	1948	1985

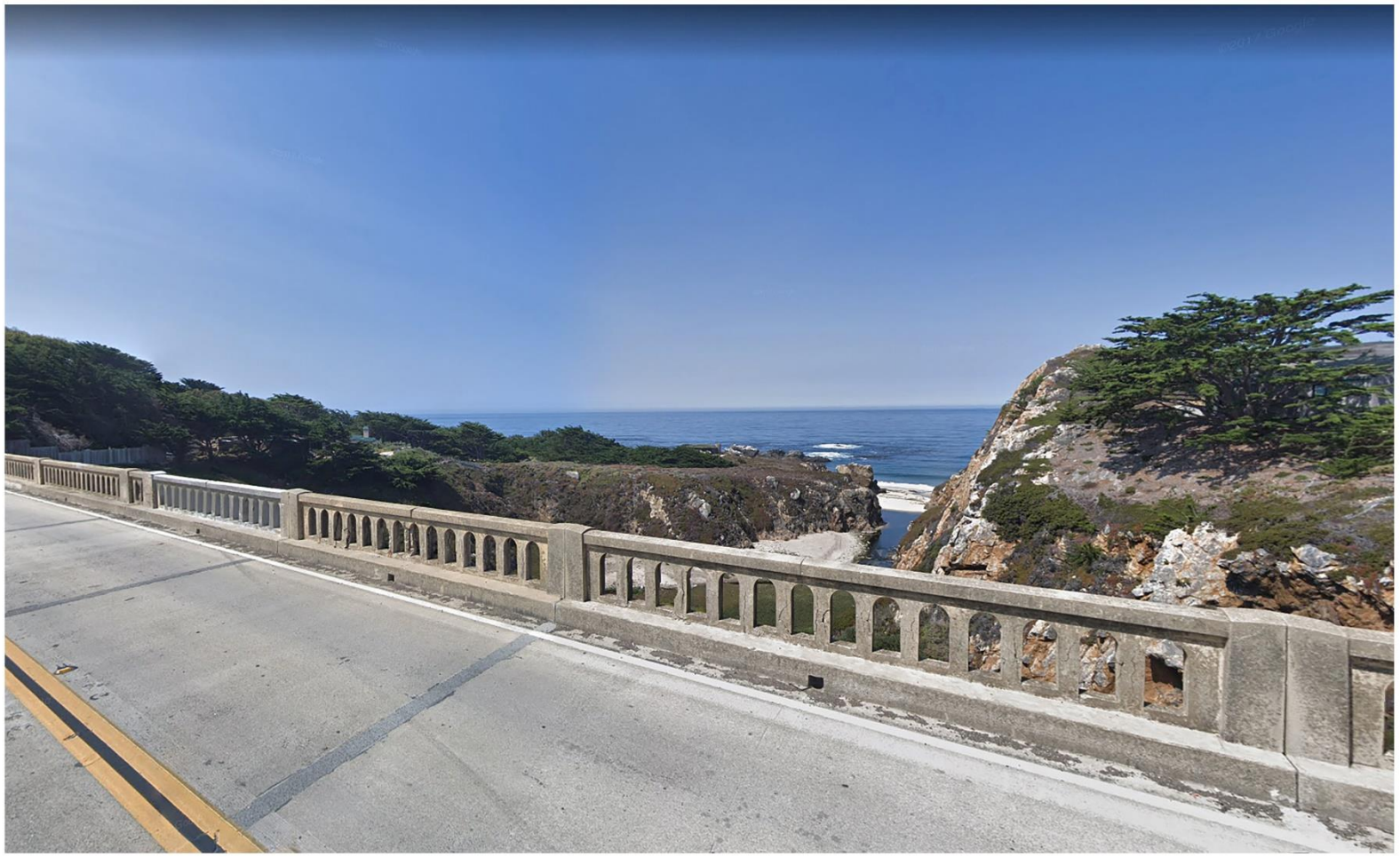
Attachment 3: Photographs and preliminary renderings & drawings of original bridge rails and proposed replacement rail designs



GARRAPATA BRIDGE EXISTING BARRIER

02/06/20

Prepared by: DES, Bridge Architecture and Aesthetics



GARRAPATA BRIDGE EXISTING BARRIER

12/6/19

Prepared by: DES, Bridge Architecture and Aesthetics

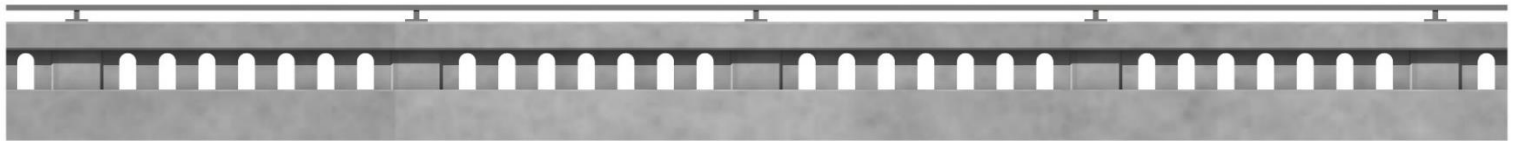


GARRAPATA BRIDGE BARRIER TYPE 86 PHOTO SIM.

02/06/20

Prepared by: DES, Bridge Architecture and Aesthetics

Note: Bicycle railing seen atop the barrier in this rendering is not expected to be included in the final design



ELEVATION



GARRAPATA BRIDGE BARRIER TYPE 86 PHOTO SIM.

12/6/19
Prepared by: DES, Bridge Architecture and Aesthetics

Note: Bicycle railing seen atop the barrier in this rendering is not expected to be included in the final design

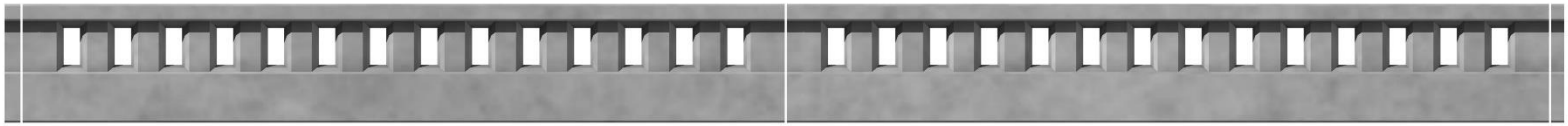


GARRAPATA BRIDGE BARRIER TYPE C412 PHOTO SIM.

02/06/20

Prepared by: DES, Bridge Architecture and Aesthetics

Note: Bicycle railing seen atop the barrier in this rendering is not expected to be included in the final design



ELEVATION



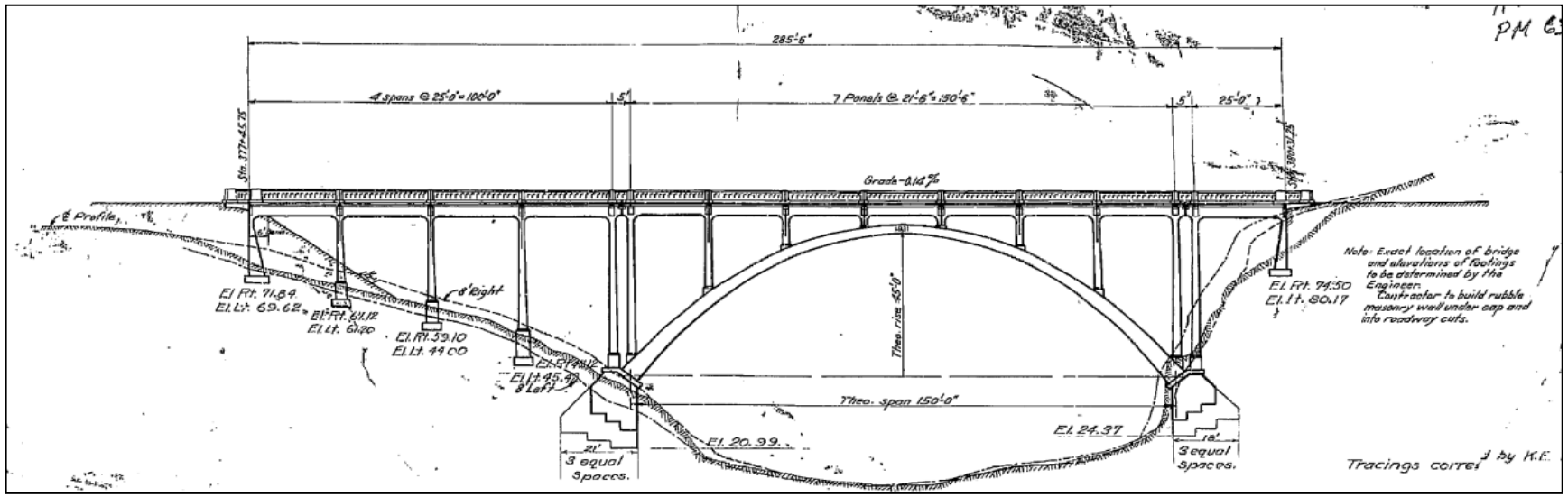
GARRAPATA BRIDGE BARRIER TYPE C412 PHOTO SIM.

12/6/19

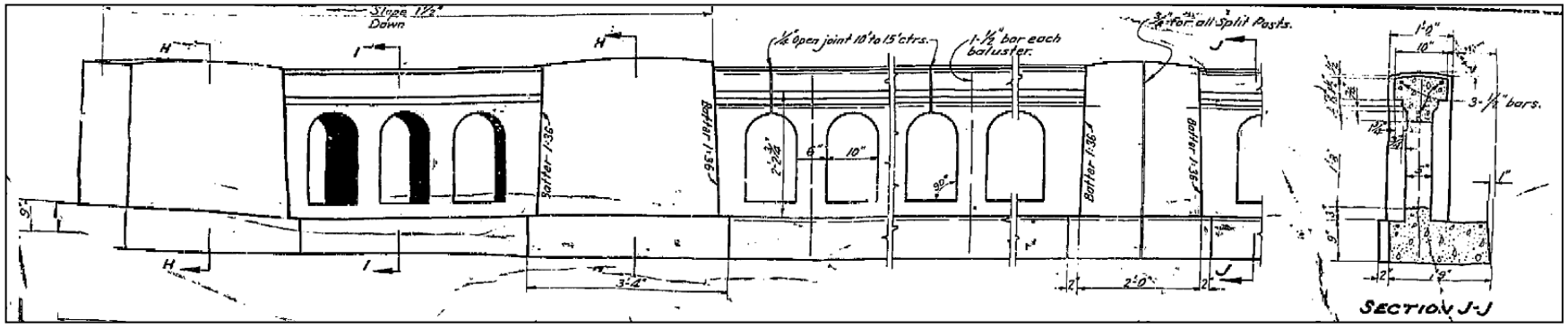
Prepared by: DES, Bridge Architecture and Aesthetics

Additional Bridge Rail Plans/Drawings/Photographs

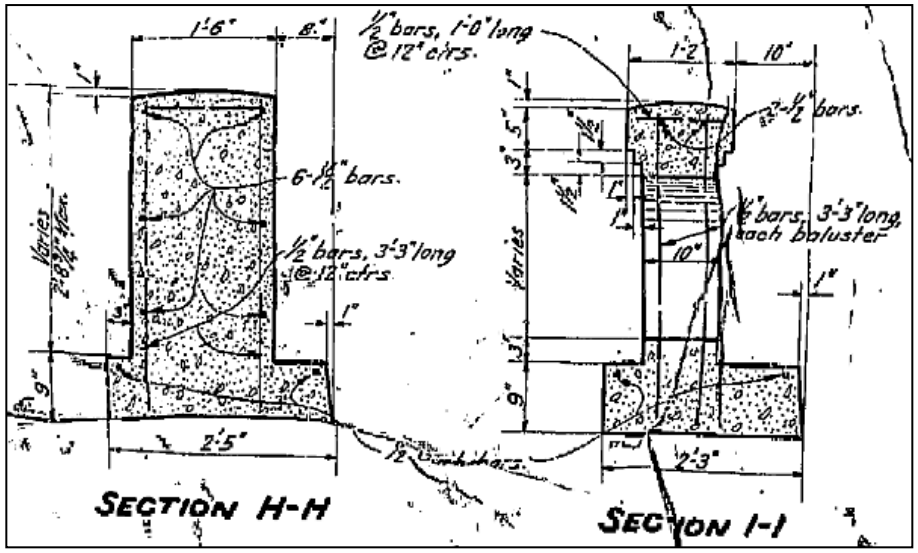
Original Bridge Design Plans, Garrapata Creek Bridge, 1931



Bridge Rail Detail Drawings, Garrapata Creek Bridge, 1931



Bridge Rail Detail Drawings, Garrapata Creek Bridge, 1931



Garrapata Creek Bridge Current Condition, as of 2018

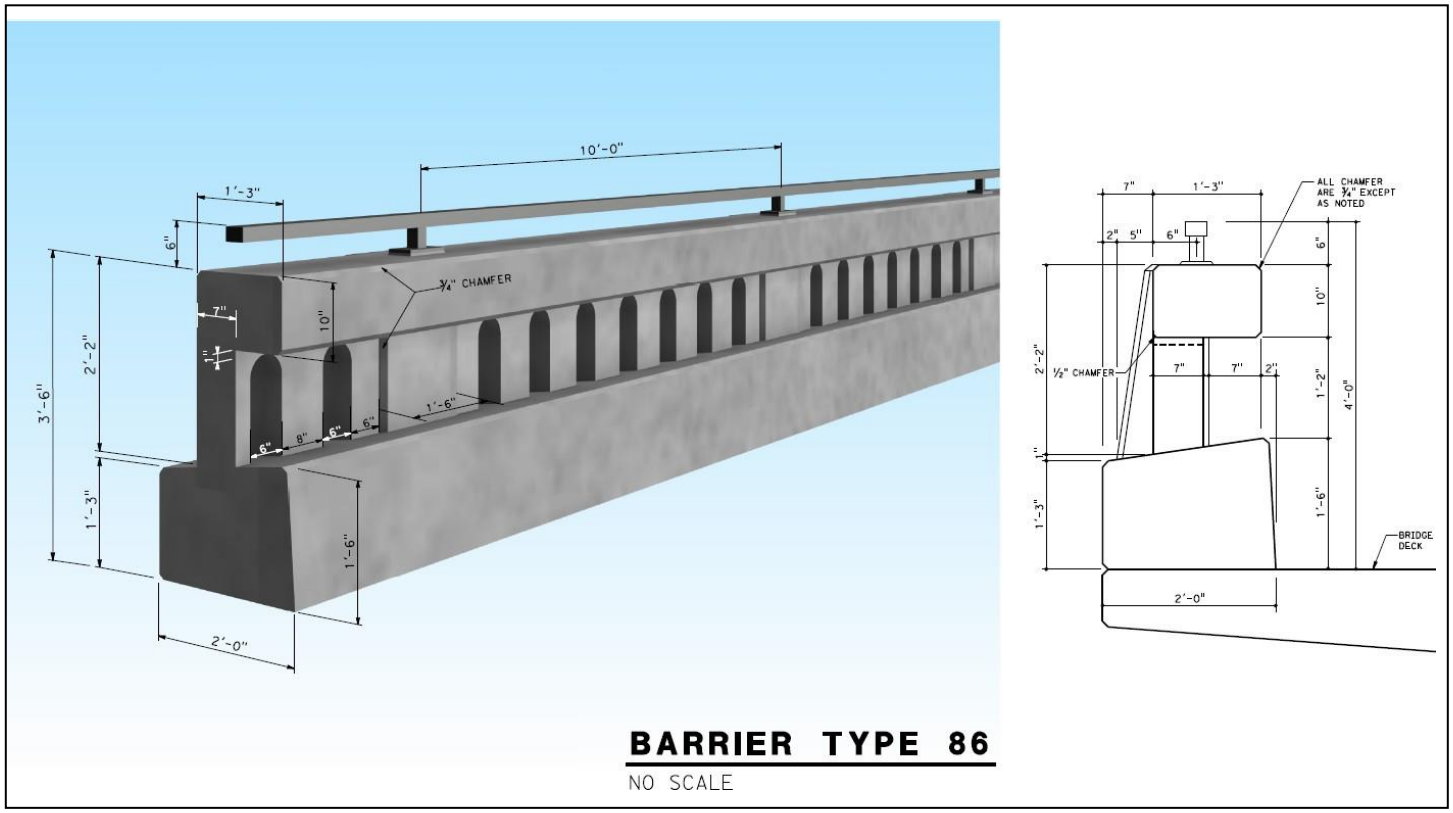


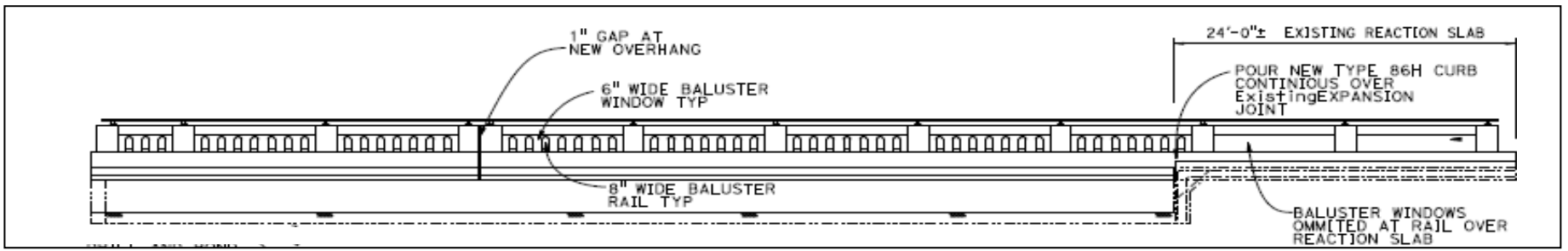
Garrapata Creek Bridge Rails Current Condition, as of 2018



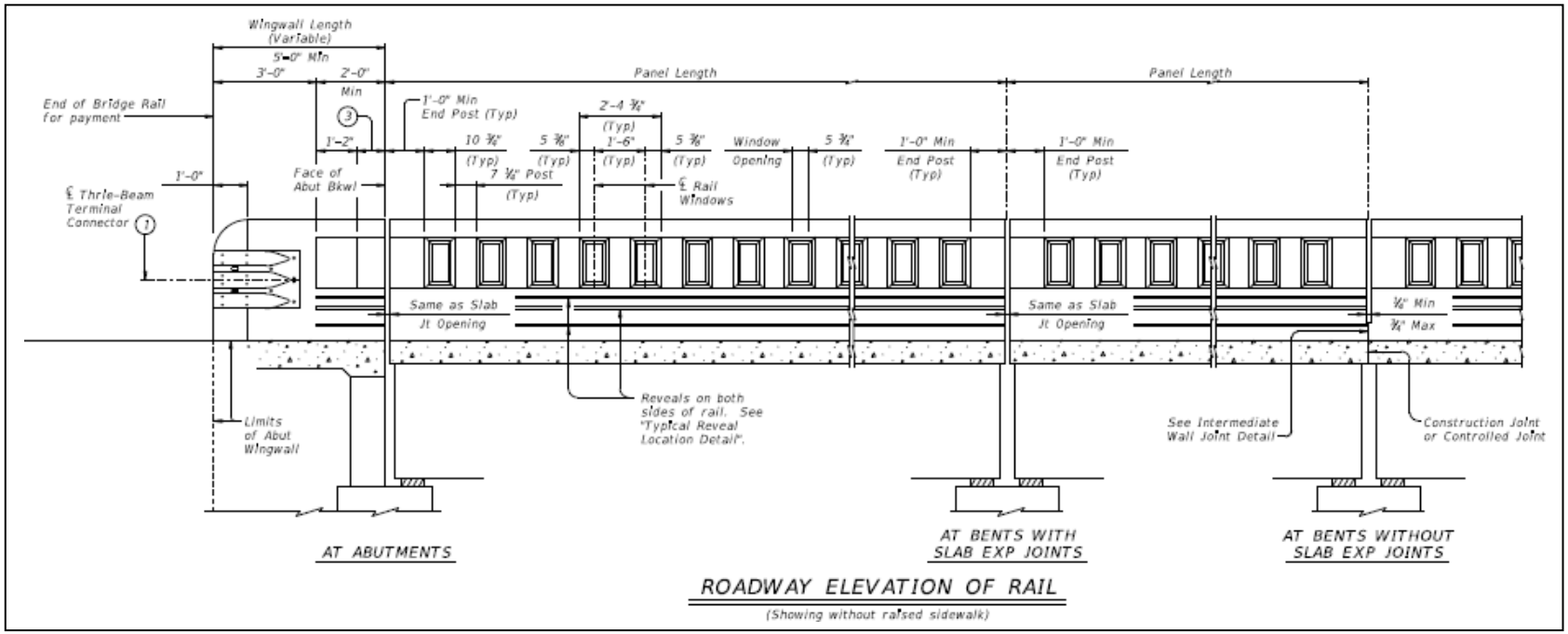
Proposed Replacement Bridge Rail Designs, 2019

Type 86H Bridge Rail Design Drawings (Design and Development currently underway by Caltrans Structures Design, Sacramento)





Type C412 Bridge Rail Design Drawings (Design and Development by Texas DOT; approval process currently underway by Caltrans Structures Design, Sacramento) **Railing designs can be modified with arch windows*

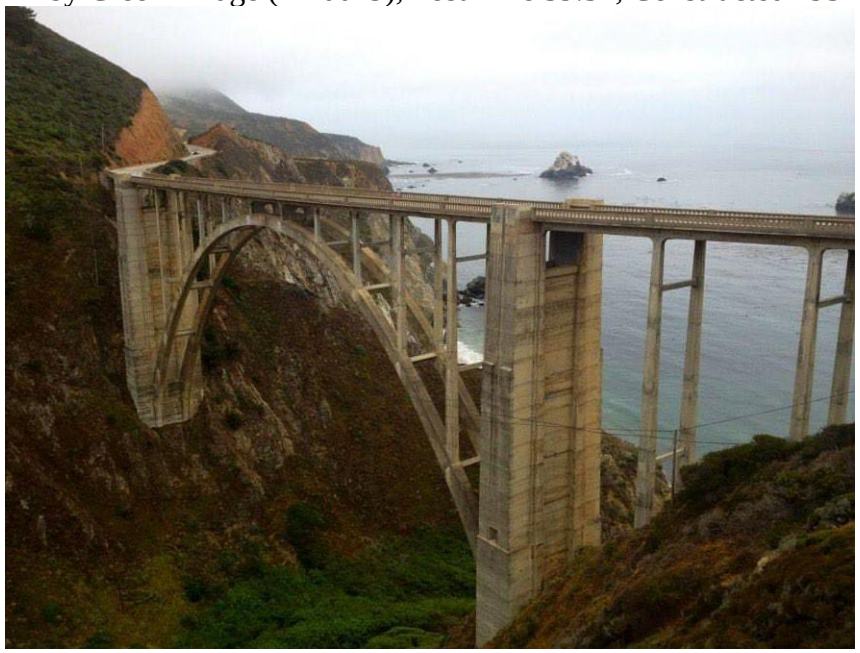


Concrete Arch Bridges of the Carmel-San Simeon Highway Historic District

Big Creek Bridge (44-0056), Post Mile 28.09, Constructed 1938



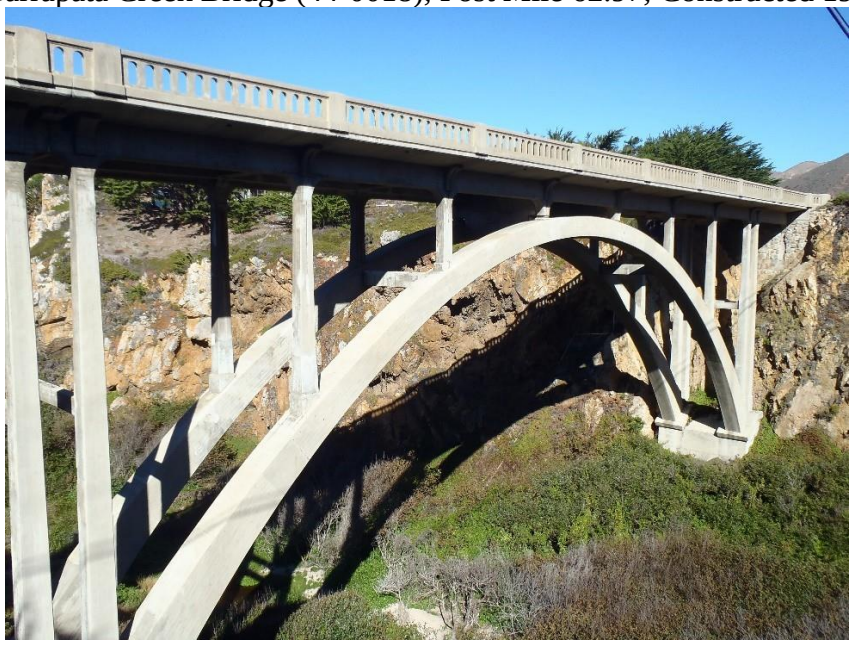
Bixby Creek Bridge (44-0019), Post Mile 59.37, Constructed 1932



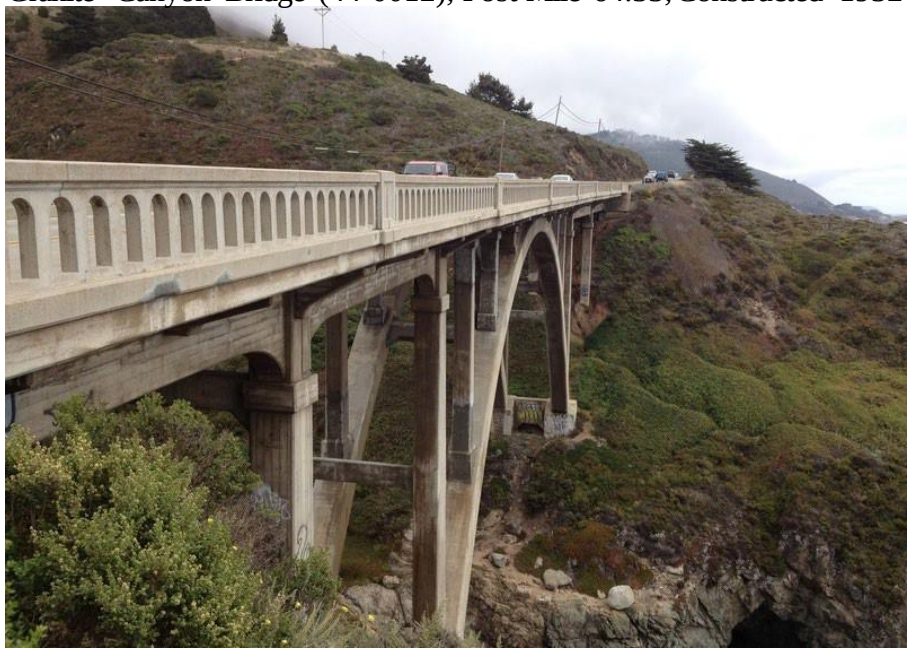
Rocky Creek Bridge (44-0036), Post Mile 60.05, Constructed 1932



Garrapata Creek Bridge (44-0018), Post Mile 62.97, Constructed 1931



Granite Canyon Bridge (44-0012), Post Mile 64.33, Constructed 1932



Malpaso Creek Bridge (44-0017), Post Mile 67.85, Constructed 1935



Wildcat Creek Bridge (44-0016), Post Mile 69.02, Constructed 1933 *(*Rail replacement is not proposed at this bridge*



Attachment 4:

Previous documentation (Carmel-San Simeon Highway Historic District DPR 523 Forms)

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # P-27-002775
HRI #
Trinomial
NRHP Status Code 2S2
Other Listings
Review Code Reviewer Date

*Resource Name or #: Carmel-San Simeon Highway Historic District

P1. Other Identifier:

* P2. Location: ☐ Not for Publication ☑ Unrestricted *a. County: Monterey, San Luis Obispo

* b. USGS Quad: Multiple quads -- see P2e below

c. Address:

d. UTM:

e. Other Locational Data:

SLO-1-PM 71.34-74.32 and MON-1-PM 0.0-72.28

USGS Quads: Burro Mountain (1949; photoinspected 1972); Villa Creek (1949); Cape San Martin (1949); Lopez Point (1956; photorevised 1984); Partington Ridge (1956; photorevised 1984); Pfeiffer Point (1956; photorevised 1983); Big Sur (1956; photorevised 1983); Point Sur (1956; photorevised 1983); Soberanes Point (1956; photorevised 1983); and Monterey (1947; photorevised 1983).

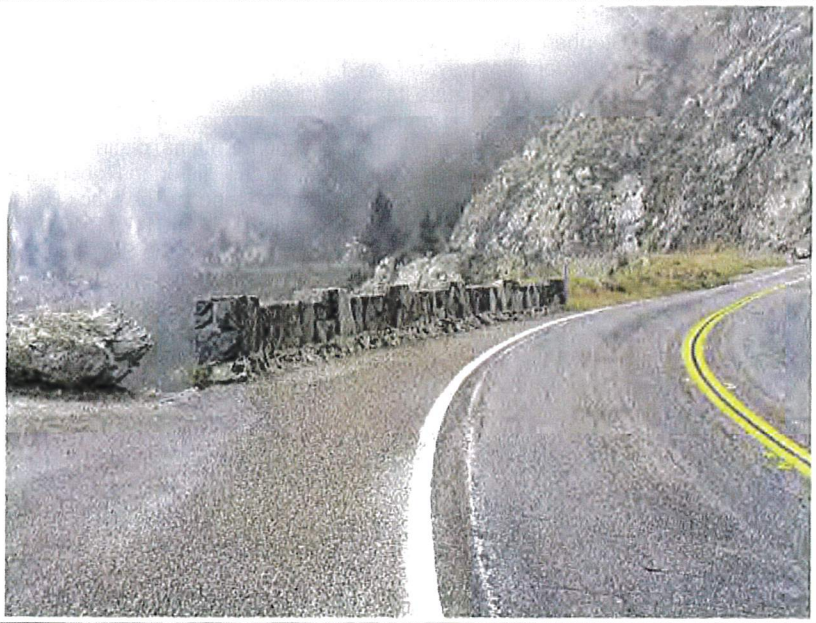
See Table 1 for location of individual contributing elements. See Table 2 for list of resources identified, evaluated, and rejected

* P3a. Description:

This form documents the Carmel-San Simeon Highway Historic District (Historic District), which is located along Highway 1 through the Big Sur region of Monterey and San Luis Obispo counties (see Appendix A, "Project Vicinity Map"). The Historic District has been previously determined eligible for listing in the National Register of Historic Places; this form is intended to update the findings of the original determination through an expanded historic context, evaluation, and the inclusion of recently discovered contributing elements. As updated, the district consists of 241 contributing elements whose property types include rubble masonry roadside water fountains (5), retaining walls (10), parapet walls (61), and culvert headwalls (158), and 7 concrete arch bridges. These features were built over a period of sixteen years, between 1922 and 1938. Table 1, located on pages 4 through 13 of this form, provides a list of all contributing features, organized from south to north. Table 2, located on pages 14 through 18 of this form, lists the resources that have been identified, evaluated and rejected as contributing elements of the historic district. These tables include the feature number, property type, and location. The locational data were derived from the most recent GPS files provided by Caltrans, and in many cases supersede data from previous Historic District studies.

* P3b. Resource Attributes: HP11 (Engineering feature); HP19 (Bridge); HP35 (CCC/WPA project); HP46 (Walls/gates/fences)

* P4. Resources Present: ☐ Building ☐ Structure ☐ Object ☐ Site ☑ District ☐ Element of District ☐ Other (Isolates, etc.)



*P5b. Description of Photo:
Photograph 1. General view, facing north along Highway 1. Typical battlement parapet wall at center.

*P6. Date Constructed/Age & Sources:
☑ Historic ☐ Prehistoric ☐ Both
1922-1938

*P7. Owner and Address:
Caltrans District 5, 50 Higuera Street, San Luis Obispo, California 93401

*P8. Recorded by:
L. Leach-Palm, Far Western Anthropological Research Group, B. Larson, JRP Historical Consulting

*P9. Date Recorded: 10/6/2004

*P10. Survey Type:
Intensive

* P11. Citation: S. Wee, B. Larson (JRP Historical Consulting), B. Pavlik, P. Carr (Caltrans District 5), "Historic Resources Evaluation Report, Pfeiffer Big Sur Left Turn Channelization Project, Monterey County, California," June 2006

Attachments: ☐ None ☑ Location Map ☐ Sketch Map ☑ Continuation Sheet ☑ Building, Structure, and Object Record
☐ Archaeological Record ☑ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other:

CONTINUATION SHEET FOR PRIMARY RECORD

P3a. Description (continued):

The contributing features are also plotted on the series of Location Maps attached to this form as Appendix B. (See Continuation Sheet for Primary Record, "P3a. Description")

The Historic District feature types vary in terms of size, design, and function, but are unified by several common characteristics. The most important is that all were built between 1922 and 1938 during the original construction of the Carmel-San Simeon Highway. Of the 241 contributing resources, 234 are rubble masonry engineering features (the other seven are concrete arch bridges). The design of the rubble masonry features reflects the rustic style, using locally gathered stone and primarily handcrafted methods in their construction. The features were intended to be aesthetically pleasing and harmonious with their rugged, natural surroundings. The vast majority of these features were constructed using cement mortar, although there are a few examples of dry laid masonry retaining walls and culvert headwalls, mostly isolated to the southern end of the district. There are four different property types of rubble masonry structures within the Carmel-San Simeon Historic District: water fountains, parapet walls, retaining walls, and culvert headwalls. The parapet walls are further categorized into three subtypes – arcade, battlement, and flat (unadorned) – which are based on design. The culvert headwalls also are divided into subtypes based on configuration: flat, L-shaped, U-shaped, and drop inlet (box-shaped). These four property types are described in greater detail on the attached District Record form. The highest concentrations of features are in Monterey County between post miles 5 and 8, 9 and 10, 20 and 21, 37 and 42, and 69 and 70, as shown on the attached Location Maps (Appendix B). The features are also evaluated for National Register eligibility as individual properties on the series of BSO Records attached at the end of this form.

Pavlik (1996) also identified seven concrete arch bridges as Historic District contributors: Big Creek (#44-0056), Bixby Creek (#44-0019), Rocky Creek (#44-0036), Garrapata Creek (#44-0018), Granite Canyon (#44-0012), Malpaso Creek (#44-0017), and Wildcat Creek (#44-0016). These bridges, all located along Highway 1 in Monterey County, were built between 1931 and 1938 on designs of the Division of Highways Bridge Department. The bridges were also determined individually eligible for the National Register as part of the Caltrans Bridge Inventory conducted during the 1980s under Criterion A (in the area of transportation) and Criterion C (as distinctive examples of type, period, and method of construction, and as a signficant work of a master).

This Historic District documentation is intended to synthesize the findings of several previous studies regarding the Carmel-San Simeon Highway and its associated structures. Caltrans Historian Stephen Mikesell first evaluated the highway in his December 1986 study, "Historic Resource Evaluation Report: The Carmel-San Simeon Highway, 5-Mon-1 P.M. 0.0 to 72.28." Mikesell concluded that the highway was not eligible for the National Register, primarily because it lacked integrity to its period of significance. Mikesell evaluated the highway as a total road system and included the entire universe of engineering features: bridges; the roadway surface; decorative railings, including stone masonry and timber railings; drinking fountains; distinctive subgrade shoring elements, such as masonry walls and timber cribs; and cattle passes. In 1996, Caltrans Historian Robert Pavlik revisited the features of the Carmel-San Simeon Highway with his study, "Historic Resource Evaluation Report: The Rock Retaining Walls, Parapets, Culvert Headwalls and Drinking Fountains along the Carmel to San Simeon Highway, 05-SLO-01 P.M. 46.0/74.3, 05-MON-01 P.M. 0.0/73.0" (hereafter "Pavlik 1996"). This study focused on the rubble masonry features along Big Sur Highway 1, and updated some of the findings of Mikesell's report. The report documented an historic district including a total of 89 rubble masonry features, including water fountains, parapet guardrails, retaining walls, and selected culverts. The district also included the seven concrete arch bridges as contributing elements. Notably, Pavlik's study identified a fifth water fountain (Mikesell had only identified four), and corrected Mikesell's assertion that "not extant today is the most extensive and important of all the drinking fountains – the Senator Elmer S. Rigdon Memorial Park." This feature still stands and has been documented herein as feature DM-353. Pavlik determined that the Carmel-San Simeon Highway Historic District was eligible for listing in the National Register under Criterion C, as a significant example of its type (rustic), period (1920s-1930s), and method of construction (handcrafted). The State Historic Preservation Officer (SHPO) concurred with this finding in March 2003. (Please refer to the letter from Federal Highways Administration to SHPO dated February 28, 2003, attached as Appendix C).

In 2001, Far Western Anthropological Research Group (Far Western) revisited the Historic District, completing an intensive pedestrian survey of the Caltrans right of way along Highway 1 through Big Sur (Mikkelsen et al. 2001). Volume III of that study is a compendium of all the known highway-related engineering features within the Caltrans right of way that date or appear to date to the period of significance of the Historic District, 1922-1938. The report documented the portion of Highway 1 between post miles 71.34 and 74.32 in San Luis Obispo County (San Carpoforo Creek north to the Monterey-San Luis Obispo county line), and in Monterey County between post miles 0.0 and 72.28 (Monterey-San Luis Obispo county line north to the Carmel River). These updated post miles supplant the earlier north and south boundaries of the Historic District defined in Pavlik (Monterey County P.M. 0.0 to 72.28). During the 2001 survey, Far Western identified and recorded 332 historic features within the right of way, including the 89 originally identified by Pavlik. The features recorded included a wide variety of property types such as bridges, water fountains, parapet walls, retaining walls, culverts, cattle passes, abandoned bridge abutments, and survey markers. In most cases, the feature was

constructed of either concrete or rubble masonry, though some incorporate other materials such as timber, asphalt, or steel. Of all the resources recorded, only the rubble masonry resources and concrete arch bridges are considered part of the Historic District, as it was defined in Pavlik 1996.

Additionally, in 2000, as part of a project to replace two culverts along Highway 1 in southern Monterey County, Caltrans cultural resources staff (T. Joslin and R. Pavlik) located and recorded a rubble masonry retaining wall that had not been previously identified. Joslin and Pavlik confirmed that the rock wall was associated with the Historic District and recorded it on a Primary Record as feature DM-545 (Joslin and Pavlik 2000). The Northwest Information Center subsequently assigned it a formal Primary Number (P-27-002422). In 2002, Caltrans prepared an Historic Property Survey Report in which they concluded the retaining wall appeared eligible for listing in the National Register as an Historic District contributing feature (Caltrans 2002). The DPR 523 form and HPSR for P-27-002422 are attached as Appendix D.

In 2003, Far Western and JRP Historical Consulting (JRP) identified and documented 16 additional rubble masonry culvert headwalls that appear to retain sufficient integrity to be considered contributors to the Historic District. These features were documented in a draft report (Wee et al. 2004) prepared for a highway project that was subsequently shelved.

In 2006, in connection with the proposed Pfeiffer Big Sur Left Turn Channelization project, a culvert with rubble masonry headwalls (previously identified but never evaluated) and a newly identified culvert with a rubble masonry headwall were documented. These resources, which also appear to be contributors to the Historic District, are documented in the present report (Wee et al., 2006). JRP, in conjunction with Caltrans District 5, has produced this updated Historic District documentation in an effort to comprehensively and definitively document the Historic District and all of its contributing elements. Table 1 on the following pages serves as a compendium of all known contributing features that comprise the Historic District. The various property types (water fountains, parapets, etc.) are discussed in further detail on the attached District Record and BSO Records.

his study makes the following determinations:

1. The Carmel-San Simeon Highway Historic District, on State Route 1, is a discontiguous historic district comprising 241 discrete contributing elements (Table 1). The district extends a distance of approximately 75 miles, from San Luis Obispo County post mile 71.34 to post mile 74.32 (the Monterey County line) and from Monterey County post mile 0.0 to post mile 72.28. These updated post miles supplant the earlier north and south boundaries of the Historic District (Monterey County P.M. 0.0 to defined in Pavlik (Monterey County P.M. 0.0 to 72.28). Between these two points, the district consists of the highway roadbed (not a contributing element) and the 241 contributing resources listed in Table 1. The district is defined to include only those resources; intervening land, buildings, structures, or any other built features not specifically listed in Table 1 are not part of the historic district, either as contributors or non-contributors. The width of the district is determined by the footprints of the individual contributing elements; only those elements that are located within the State right-of-way are considered contributing elements.

2. This study agrees with Pavlik's conclusion that the Historic District is eligible under Criterion C, but also finds that it is significant under Criterion A for its associations with the "highway beautification" movement that reached its peak in California during the late 1920s and 1930s. This study further determines that eligibility under Criterion C is modified to include construction by both skilled and unskilled masons. The key aspect of the method of construction is that the work employed extensive use of handcrafted masonry, which was generally -- but not exclusively -- executed by skilled masons.

3. The period of significance for the Historic District is 1922-1938, which represents the construction period for all of the constituent resources (the rubble masonry resources were constructed between 1922 and 1937, and the bridges were constructed between 1931 and 1938). This updated period of significance replaces the period (1920s-30s) defined in Pavlik.

Finally, the Carmel-San Simeon Highway Historic District has been evaluated in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines, using the criteria outlined in Section 5024.1 of the California Public Resources Code. The district appears to be a historical resource for the purposes of CEQA under Criterion 1 because it is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage, and under Criterion 3 as it embodies the distinctive characteristics of a type, period, region, and method of construction.

CONTINUATION SHEET FOR PRIMARY RECORD

P3a. Description (continued):

Table 1. Contributing Features of the Carmel-San Simeon Highway Historic District

Identifier	Property Type	County	Post Mile	Quadrangle	UTM Zone	UTM Easting	UTM Northing	Side of Highway
DL-601	Retaining Wall	SLO	71.81	Burro Mountain	10	651803	3959510	Left
DL-627	Retaining Wall	SLO	73.04	Burro Mountain	10	650932	3961004	Left
DL-628	Retaining Wall	SLO	73.05	Burro Mountain	10	650912	3961021	Left
DL-629	Retaining Wall	SLO	73.08	Burro Mountain	10	650900	3961028	Left
DL-546	Retaining Wall	SLO	74.06	Burro Mountain	10	649934	3962138	Left
DM-545 (P-27-002422)	Retaining Wall	MON	00.30	Burro Mountain	10	649430	3962921	Left
DM-540	Culvert Headwall	MON	01.54	Burro Mountain	10	648440	3963649	Right
DM-536	Culvert Headwall	MON	02.41	Burro Mountain	10	648178	3964371	Right
DM-526	Water Fountain - Soda	MON	03.82	Burro Mountain	10	646968	3965170	Right
DM-525	Retaining Wall	MON	05.05	Villa Creek	10	645577	3966122	Left
DM-524	Culvert Headwall	MON	05.35	Villa Creek	10	645348	3966488	Right
DM-522	Parapet Wall - Arcade Style	MON	05.50	Villa Creek	10	645258	3966657	Left
DM-521	Water Fountain - Big Redwood	MON	05.59	Villa Creek	10	645398	3966780	Right
DM-519	Parapet Wall - Arcade Style	MON	05.73	Villa Creek	10	645129	3966729	Left
DM-518	Culvert Headwall	MON	05.78	Villa Creek	10	645042	3966744	Right
DM-517	Culvert Headwall	MON	05.95	Villa Creek	10	644898	3966857	Right
DM-515	Parapet Wall - Battlement Style	MON	06.09	Villa Creek	10	644687	3967047	Left
DM-514	Culvert Headwall	MON	06.40	Villa Creek	10	644470	3967436	Right
DM-511	Parapet Wall - Arcade Style	MON	06.64	Villa Creek	10	644147	3967638	Left
DM-510	Culvert Headwall	MON	06.91	Villa Creek	10	643950	3967954	Right
DM-509	Parapet Wall - Battlement Style	MON	06.94	Villa Creek	10	643937	3967999	Left
DM-508	Parapet Wall - Battlement Style	MON	07.00	Villa Creek	10	643934	3968112	Left
DM-507	Parapet Wall - Battlement Style	MON	07.10	Villa Creek	10	643841	3698288	Right

CONTINUATION SHEET FOR PRIMARY RECORD

P3a. Description (continued):

Identifier	Property Type	County	Post Mile	Quadrangle	UTM Zone	UTM Easting	UTM Northing	Side of Highway
DM-505	Culvert Headwall	MON	08.98	Villa Creek	10	641643	3969938	Right
DM-504	Parapet Wall - Battlement Style	MON	09.06	Villa Creek	10	641513	3970003	Left
DM-503	Parapet Wall - Battlement Style	MON	09.14	Villa Creek	10	641405	3970060	Left
DM-502	Parapet Wall - Battlement Style	MON	09.17	Villa Creek	10	641355	3970078	Left
DM-501	Culvert Headwall	MON	09.25	Villa Creek	10	641294	3970212	Right
DM-500	Culvert Headwall	MON	09.55	Villa Creek	10	641025	3970537	Right
DM-414	Culvert Headwall	MON	10.73	Cape San Martin	10	639687	3971816	Right
DM-416	Culvert Headwall	MON	10.94	Cape San Martin	10	639406	3971971	Right
DM-418	Culvert Headwall	MON	11.25	Cape San Martin	10	639069	3972325	Right
DM-419	Culvert Headwall	MON	11.32	Cape San Martin	10	639049	3972444	Left
DM-420	Water Fountain - Willow Creek	MON	12.01	Cape San Martin	10	639110	3973498	Right
DM-605	Culvert Headwall	MON	12.91	Cape San Martin	10	638683	3974739	Right
DM-426	Culvert Headwall	MON	13.34	Cape San Martin	10	638277	3975316	Right
DM-427	Culvert Headwall	MON	13.45	Cape San Martin	10	638216	3975499	Right
DM-606	Culvert Headwall	MON	13.94	Cape San Martin	10	638494	3976187	Right
DM-428	Culvert Headwall	MON	14.46	Cape San Martin	10	638309	3977016	Right
DM-430	Culvert Headwall	MON	15.07	Cape San Martin	10	638023	3977951	Right
DM-431	Culvert Headwall	MON	15.42	Cape San Martin	10	637746	3978427	Right
DM-432	Culvert Headwall	MON	15.48	Cape San Martin	10	637685	3978531	Right
DM-433	Culvert Headwall	MON	15.88	Cape San Martin	10	637352	3979099	Right
DM-435	Culvert Headwall	MON	15.95	Cape San Martin	10	637300	3979187	Right
DM-412	Culvert Headwall	MON	16.90	Cape San Martin	10	636825	3980500	Right
DM-410	Culvert Headwall	MON	17.10	Cape San Martin	10	636791	3980924	Right
DM-408	Culvert Headwall	MON	17.54	Cape San Martin	10	636688	3981656	Right

CONTINUATION SHEET FOR PRIMARY RECORD

P3a. Description (continued):

Identifier	Property Type	County	Post Mile	Quadrangle	UTM Zone	UTM Easting	UTM Northing	Side of Highway
DM-405	Parapet Wall - Battlement Style	MON	18.00	Cape San Martin	10	636355	3982305	Left
DM-404	Culvert Headwall	MON	18.08	Cape San Martin	10	636286	3982515	Right
DM-609	Culvert Headwall	MON	19.70	Cape San Martin	10	635287	3984687	Right
DM-352	Parapet Wall - Battlement Style	MON	19.98	Lopez Point	10	634932	3984994	Left
DM-351	Parapet Wall - Battlement Style	MON	20.07	Lopez Point	10	634828	3985095	Left
DM-350	Parapet Wall - Battlement Style	MON	20.09	Lopez Point	10	634805	3985113	Left
DM-349	Parapet Wall - Battlement Style	MON	20.10	Lopez Point	10	634786	3985124	Left
DM-348	Culvert Headwall	MON	20.23	Lopez Point	10	634634	3985247	Right
DM-347	Parapet Wall - Battlement Style	MON	20.24	Lopez Point	10	634607	3985265	Left
DM-610	Culvert Headwall	MON	20.29	Lopez Point	10	634591	3985306	Right
DM-346	Parapet Wall - Battlement Style	MON	20.40	Lopez Point	10	634454	3985408	Left
DM-354	Water Fountain - Lucia	MON	20.40	Lopez Point	10	634461	3985429	Right
DM-345	Culvert Headwall	MON	20.48	Lopez Point	10	634338	3985501	Right
DM-344	Parapet Wall - Battlement Style	MON	20.57	Lopez Point	10	634195	3985591	Left
DM-343	Parapet Wall - Battlement Style	MON	21.18	Lopez Point	10	633265	3985841	Left
DM-341	Culvert Headwall	MON	22.40	Lopez Point	10	631735	3986900	Right
DM-340	Culvert Headwall	MON	22.86	Lopez Point	10	631019	3987038	Right
DM-338	Culvert Headwall	MON	23.29	Lopez Point	10	630385	3987167	Right
DM-611	Culvert Headwall	MON	24.07	Lopez Point	10	629205	3987183	Right
DM-334	Culvert Headwall	MON	25.35	Lopez Point	10	628045	3988855	Right
DM-333	Culvert Headwall	MON	25.45	Lopez Point	10	627991	3989003	Right
DM-332	Culvert Headwall	MON	25.50	Lopez Point	10	627974	3989075	Right
DM-331	Culvert Headwall	MON	25.61	Lopez Point	10	627895	3989244	Right
DM-330	Culvert Headwall	MON	25.68	Lopez Point	10	627826	3989324	Right

CONTINUATION SHEET FOR PRIMARY RECORD

P3a. Description (continued):

Identifier	Property Type	County	Post Mile	Quadrangle	UTM Zone	UTM Easting	UTM Northing	Side of Highway
DM-329	Culvert Headwall	MON	26.35	Lopez Point	10	627128	3990138	Right
DM-328	Parapet Wall - Battlement Style	MON	26.43	Lopez Point	10	627120	3990206	Left
DM-327	Culvert Headwall	MON	26.50	Lopez Point	10	627266	3990313	Right
DM-326	Culvert Headwall	MON	26.55	Lopez Point	10	627325	3990530	Right
DM-325	Parapet Wall - Battlement Style	MON	26.71	Lopez Point	10	627306	3990623	Left
DM-353	Water Fountain - Senator E. Rigdon	MON	26.92	Lopez Point	10	627127	3990887	Right
DM-324	Culvert Headwall	MON	26.99	Lopez Point	10	627077	3990988	Right
DM-323	Culvert Headwall	MON	27.75	Lopez Point	10	626704	3992079	Right
DM-322	Bridge - Big Creek	MON	28.15	Lopez Point	10	626161	3992429	Both
DM-339	Parapet Wall - Unadorned (flat)	MON	28.21	Lopez Point	10	626075	3992451	Left
DM-612	Culvert Headwall	MON	28.48	Lopez Point	10	625585	3992819	Right
DM-313	Culvert Headwall	MON	29.92	Lopez Point	10	624543	3994509	Right
DM-312	Culvert Headwall	MON	30.02	Lopez Point	10	624550	3994665	Right
DM-306	Culvert Headwall	MON	30.33	Lopez Point	10	624391	3995138	Right
DM-301	Culvert Headwall	MON	31.73	Lopez Point	10	623536	3997106	Right
DM-257	Culvert Headwall	MON	35.11	Partington Ridge	10	620342	4001292	Right
DM-256	Culvert Headwall	MON	35.58	Partington Ridge	10	619755	4001888	Right
DM-255	Culvert Headwall	MON	35.92	Partington Ridge	10	619583	4002267	Right
DM-254	Parapet Wall - Battlement Style	MON	35.93	Partington Ridge	10	619560	4002267	Left
DM-252	Parapet Wall - Battlement Style	MON	36.16	Partington Ridge	10	619397	4002589	Left
DM-251	Parapet Wall - Battlement Style	MON	36.47	Partington Ridge	10	619105	4002972	Left
DM-250	Parapet Wall - Battlement Style	MON	36.49	Partington Ridge	10	619083	4003001	Left
DM-246	Culvert Headwall	MON	36.69	Partington Ridge	10	618870	4003227	Right
DM-243	Culvert Headwall	MON	37.13	Partington Ridge	10	618269	4003512	Right

CONTINUATION SHEET FOR PRIMARY RECORD

P3a. Description (continued):

Identifier	Property Type	County	Post Mile	Quadrangle	UTM Zone	UTM Easting	UTM Northing	Side of Highway
DM-242	Culvert Headwall	MON	37.20	Partington Ridge	10	618187	4003587	Right
DM-239	Culvert Headwall	MON	37.44	Partington Ridge	10	617836	4003754	Right
DM-238	Parapet Wall - Battlement Style	MON	37.73	Partington Ridge	10	617534	4004021	Left
DM-237	Culvert Headwall	MON	37.74	Partington Ridge	10	617563	4004042	Both
DM-236	Culvert Headwall	MON	37.85	Partington Ridge	10	617563	4004181	Right
DM-234	Parapet Wall - Battlement Style	MON	37.92	Partington Ridge	10	617456	4004171	Left
DM-235	Culvert Headwall	MON	37.92	Partington Ridge	10	617467	4004183	Right
DM-233	Culvert Headwall	MON	37.99	Partington Ridge	10	617365	4004193	Right
DM-231	Parapet Wall - Battlement Style	MON	38.00	Partington Ridge	10	617342	4004189	Left
DM-230	Culvert Headwall	MON	38.05	Partington Ridge	10	617262	4004191	Right
DM-232	Retaining Wall	MON	38.08	Partington Ridge	10	617221	4004158	Left
DM-229	Culvert Headwall	MON	38.09	Partington Ridge	10	617211	4004163	Right
DM-228	Culvert Headwall	MON	38.18	Partington Ridge	10	617128	4004224	Right
DM-226	Parapet Wall - Battlement Style	MON	38.23	Partington Ridge	10	617114	4004304	Left
DM-224	Parapet Wall - Battlement Style	MON	38.26	Partington Ridge	10	617094	4004354	Left
DM-225	Culvert Headwall	MON	38.26	Partington Ridge	10	617098	4004364	Right
DM-223	Parapet Wall - Battlement Style	MON	38.32	Partington Ridge	10	617060	4004428	Left
DM-222	Culvert Headwall	MON	38.35	Partington Ridge	10	617036	4004486	Right
DM-221	Culvert Headwall	MON	38.41	Partington Ridge	10	617010	4004563	Right
DM-220	Parapet Wall - Battlement Style	MON	38.42	Partington Ridge	10	617005	4004592	Left
DM-219	Parapet Wall - Battlement Style	MON	38.44	Partington Ridge	10	617007	4004629	Left
DM-218	Culvert Headwall	MON	38.45	Partington Ridge	10	616998	4004647	Right
DM-217	Parapet Wall - Unadorned (flat)	MON	38.46	Partington Ridge	10	617005	4004658	Left
DM-216	Culvert Headwall	MON	38.52	Partington Ridge	10	617004	4004742	Right

CONTINUATION SHEET FOR PRIMARY RECORD

P3a. Description (continued):

Identifier	Property Type	County	Post Mile	Quadrangle	UTM Zone	UTM Easting	UTM Northing	Side of Highway
DM-215	Culvert Headwall	MON	38.58	Partington Ridge	10	616951	4004840	Right
DM-214	Culvert Headwall	MON	38.72	Partington Ridge	10	616837	4005026	Right
DM-212	Culvert Headwall	MON	38.79	Partington Ridge	10	616755	4005099	Right
DM-208	Parapet Wall - Unadorned (flat)	MON	38.99	Partington Ridge	10	616490	4005278	Left
DM-207	Parapet Wall - Battlement Style	MON	39.05	Partington Ridge	10	616453	4005354	Left
DM-206	Parapet Wall - Battlement Style	MON	39.06	Partington Ridge	10	616451	4005386	Left
DM-205	Culvert Headwall	MON	39.18	Partington Ridge	10	616382	4005560	Right
DM-203	Parapet Wall - Battlement Style	MON	39.58	Partington Ridge	10	615996	4006024	Left
DM-202	Parapet Wall - Battlement Style	MON	39.65	Partington Ridge	10	616012	4006136	Left
DM-200	Parapet Wall - Unadorned (flat)	MON	39.81	Partington Ridge	10	615923	4006341	Left
DM-199	Culvert Headwall	MON	39.83	Partington Ridge	10	615891	4006333	Right
DM-198	Parapet Wall - Battlement Style	MON	39.94	Partington Ridge	10	615838	4006226	Left
DM-196	Parapet Wall - Battlement Style	MON	40.01	Partington Ridge	10	615697	4006196	Left
DM-195	Parapet Wall - Battlement Style	MON	40.05	Partington Ridge	10	615663	4006244	Left
DM-194	Culvert Headwall	MON	40.34	Partington Ridge	10	615349	4006533	Both
DM-193	Culvert Headwall	MON	40.56	Partington Ridge	10	615051	4006709	Right
DM-191	Culvert Headwall	MON	40.76	Partington Ridge	10	614768	4006767	Right
DM-190	Culvert Headwall	MON	40.98	Partington Ridge	10	614484	4006888	Right
DM-189	Culvert Headwall	MON	41.04	Partington Ridge	10	614406	4006877	Right
DM-188	Parapet Wall - Battlement Style	MON	41.05	Partington Ridge	10	614378	4006885	Left
DM-187	Parapet Wall - Battlement Style	MON	41.07	Partington Ridge	10	614351	4006919	Left
DM-186	Culvert Headwall	MON	41.09	Partington Ridge	10	614337	4006942	Right
DM-185	Culvert Headwall	MON	41.16	Partington Ridge	10	614329	4007054	Right
DM-184	Parapet Wall - Battlement Style	MON	41.17	Partington Ridge	10	614314	4007069	Left

*Recorded by: L. Leach-Palm, B. Larson
*Resource Name or #: Carmel-San Simeon Highway Historic District
*Date: 10/6/2004 ☒ Continuation ☐ Update

CONTINUATION SHEET FOR PRIMARY RECORD

P3a. Description (continued):

Identifier	Property Type	County	Post Mile	Quadrangle	UTM Zone	UTM Easting	UTM Northing	Side of Highway
DM-183	Parapet Wall - Battlement Style	MON	41.23	Partington Ridge	10	614257	4007139	Left
DM-182	Parapet Wall - Unadorned (flat)	MON	41.29	Partington Ridge	10	614190	4007191	Left
DM-181	Culvert Headwall	MON	41.32	Partington Ridge	10	614166	4007235	Right
DM-180	Parapet Wall - Battlement Style	MON	41.40	Partington Ridge	10	614062	4007225	Left
DM-178	Parapet Wall - Battlement Style	MON	41.44	Partington Ridge	10	614001	4007192	Left
DM-177	Parapet Wall - Battlement Style	MON	41.47	Partington Ridge	10	613939	4007199	Left
DM-176	Culvert Headwall	MON	41.50	Partington Ridge	10	613902	4007214	Right
DM-175	Retaining Wall	MON	41.52	Partington Ridge	10	613866	4007221	Left
DM-174	Parapet Wall - Battlement Style	MON	41.55	Partington Ridge	10	613820	4007248	Left
DM-173	Culvert Headwall	MON	41.61	Partington Ridge	10	613769	4007312	Right
DM-172	Parapet Wall - Unadorned (flat)	MON	41.64	Partington Ridge	10	613797	4007365	Right
DM-171	Culvert Headwall	MON	41.69	Partington Ridge	10	613821	4007431	Right
DM-168	Parapet Wall - Unadorned (flat)	MON	41.94	Partington Ridge	10	613732	4007620	Left
DM-165	Culvert Headwall	MON	42.16	Partington Ridge	10	613460	4007722	Right
DM-164	Culvert Headwall	MON	42.40	Partington Ridge	10	613160	4007938	Right
DM-163	Culvert Headwall	MON	42.49	Partington Ridge	10	613106	4008063	Right
DM-162	Culvert Headwall	MON	42.54	Partington Ridge	10	613027	4008038	Right
DM-161	Culvert Headwall	MON	42.73	Partington Ridge	10	612763	4008148	Right
DM-159	Culvert Headwall	MON	42.90	Partington Ridge	10	612546	4008283	Right
DM-156	Culvert Headwall	MON	43.78	Pfeiffer Point	10	611778	4009124	Right
DM-155	Culvert Headwall	MON	43.84	Pfeiffer Point	10	611680	4009131	Right
DM-153	Culvert Headwall	MON	44.08	Pfeiffer Point	10	611630	4009419	Right
DM-152	Culvert Headwall	MON	44.62	Pfeiffer Point	10	611102	4009959	Right
DM-150	Culvert Headwall	MON	44.74	Pfeiffer Point	10	611013	4010133	Right

CONTINUATION SHEET FOR PRIMARY RECORD

P3a. Description (continued):

Identifier	Property Type	County	Post Mile	Quadrangle	UTM Zone	UTM Easting	UTM Northing	Side of Highway
DM-149	Culvert Headwall	MON	45.03	Pfeiffer Point	10	610796	4010537	Left
DM-615	Culvert Headwall	MON	45.28	Pfeiffer Point	10	610570	4010755	Right
DM-148	Culvert Headwall	MON	45.32	Pfeiffer Point	10	610461	4010889	Left
DM-146	Culvert Headwall	MON	45.68	Pfeiffer Point	10	610039	4011056	Left
DM-144	Culvert Headwall	MON	45.83	Pfeiffer Point	10	609817	4011318	Right
DM-143	Culvert Headwall	MON	45.88	Pfeiffer Point	10	609776	4011395	Right
DM-142	Culvert Headwall	MON	45.94	Pfeiffer Point	10	609716	4011475	Right
DM-141	Culvert Headwall	MON	45.97	Pfeiffer Point	10	609679	4011518	Left
DM-140	Culvert Headwall	MON	46.01	Pfeiffer Point	10	609655	4011560	Right
DM-138	Culvert Headwall	MON	46.07	Pfeiffer Point	10	609617	4011657	Right
DM-139	Culvert Headwall	MON	46.10	Pfeiffer Point	10	609635	4011606	Right
DM-137	Culvert Headwall	MON	46.11	Pfeiffer Point	10	609611	4011724	Right
DM-135	Culvert Headwall	MON	46.58	Big Sur	10	609197	4012211	Right
DM-133	Culvert Headwall	MON	46.69	Big Sur	10	609047	4012407	Both
DM-132	Culvert Headwall	MON	46.93	Big Sur	10	608959	4012762	Right
DM-131	Culvert Headwall	MON	47.12	Big Sur	10	608948	4013068	Right
DM-129	Culvert Headwall	MON	47.34	Big Sur	10	608704	4013289	Right
DM-616	Culvert Headwall	MON	48.28	Big Sur	10	607564	4013989	Right
DM-120	Culvert Headwall	MON	48.30	Big Sur	10	607525	4014011	Right
DM-117	Culvert Headwall	MON	49.15	Big Sur	10	606625	4014647	Right
DM-116	Culvert Headwall	MON	49.23	Big Sur	10	606409	4014640	Right
DM-115	Culvert Headwall	MON	49.32	Big Sur	10	606232	4014777	Right
DM-114	Culvert Headwall	MON	49.48	Big Sur	10	606064	4014950	Right
DM-113	Culvert Headwall	MON	49.90	Big Sur	10	605441	4015148	Right

CONTINUATION SHEET FOR PRIMARY RECORD

P3a. Description (continued):

Identifier	Property Type	County	Post Mile	Quadrangle	UTM Zone	UTM Easting	UTM Northing	Side of Highway
DM-112	Culvert Headwall	MON	50.14	Big Sur	10	605182	4015406	Right
DM-111	Culvert Headwall	MON	50.17	Big Sur	10	605146	4015440	Right
DM-110	Culvert Headwall	MON	50.28	Big Sur	10	604999	4015572	Right
DM-109	Culvert Headwall	MON	50.33	Big Sur	10	604960	4015607	Right
DM-107	Culvert Headwall	MON	50.41	Big Sur	10	604854	4015696	Right
DM-106	Culvert Headwall	MON	50.55	Big Sur	10	604653	4015773	Right
DM-105	Culvert Headwall	MON	50.59	Big Sur	10	604573	4015802	Right
DM-104	Culvert Headwall	MON	50.67	Big Sur	10	604450	4015838	Right
DM-103	Culvert Headwall	MON	50.77	Big Sur	10	604307	4015897	Right
DM-102	Culvert Headwall	MON	51.08	Big Sur	10	604022	4016292	Right
DM-101	Culvert Headwall	MON	52.71	Big Sur	10	601667	4017238	Right
DM-034	Retaining Wall	MON	58.27	Big Sur	10	598583	4023913	Left
DM-032	Bridge - Bixby Creek	MON	59.44	Point Sur	10	598612	4025500	Both
DM-031	Parapet Wall - Battlement Style	MON	60.03	Soberanes Point	10	598459	4026298	Left
DM-030B	Bridge - Rocky Creek	MON	60.11	Soberanes Point	10	598529	4026380	Both
DM-028	Bridge - Garrapata Creek	MON	63.00	Soberanes Point	10	597472	4030581	Both
DM-027	Bridge - Granite Canyon	MON	64.39	Soberanes Point	10	596969	4032666	Both
DM-025	Bridge - Malpaso Creek	MON	67.90	Soberanes Point	10	595302	4037709	Both
DM-024	Culvert Headwall	MON	68.82	Soberanes Point	10	595207	4038876	Right
DM-617	Culvert Headwall	MON	68.82	Soberanes Point	10	595272	4039146	Right
DM-023	Culvert Headwall	MON	68.89	Soberanes Point	10	595303	4039285	Right
DM-022	Bridge - Wildcat Creek	MON	69.02	Soberanes Point	10	595391	4039492	Both
DM-021	Parapet Wall - Battlement Style	MON	69.10	Soberanes Point	10	595395	4039604	Left
DM-019	Parapet Wall - Battlement Style	MON	69.15	Soberanes Point	10	595345	4039661	Left

CONTINUATION SHEET FOR PRIMARY RECORD

P3a. Description (continued):

Identifier	Property Type	County	Post Mile	Quadrangle	UTM Zone	UTM Easting	UTM Northing	Side of Highway
DM-020	Parapet Wall - Battlement Style	MON	69.20	Soberanes Point	10	595284	4039719	Left
DM-018	Parapet Wall - Battlement Style	MON	69.26	Monterey	10	595235	4039802	Left
DM-618	Culvert Headwall	MON	69.33	Monterey	10	595210	4039884	Right
DM-017	Parapet Wall - Battlement Style	MON	69.34	Monterey	10	595185	4039906	Left
DM-015	Culvert Headwall	MON	69.46	Monterey	10	595226	4040108	Right
DM-014	Culvert Headwall	MON	69.66	Monterey	10	595377	4040379	Right
DM-013	Culvert Headwall	MON	70.02	Monterey	10	595189	4040893	Right
DM-012	Culvert Headwall	MON	70.10	Monterey	10	595189	4041005	Right
DM-011	Culvert Headwall	MON	70.15	Monterey	10	595194	4041105	Right
DM-010	Culvert Headwall	MON	70.32	Monterey	10	595245	4041371	Right
DM-009	Culvert Headwall	MON	70.46	Monterey	10	595342	4041579	Right
DM-008	Culvert Headwall	MON	70.55	Monterey	10	595424	4041693	Right
DM-007	Culvert Headwall	MON	70.58	Monterey	10	595465	4041738	Right
DM-619	Culvert Headwall	MON	70.88	Monterey	10	595815	4041982	Right
DM-620	Culvert Headwall	MON	70.88	Monterey	10	595806	4042003	Left
DM-621	Culvert Headwall	MON	71.05	Monterey	10	596036	4042132	Right
DM-622	Culvert Headwall	MON	71.28	Monterey	10	596316	4042390	Right
DM-006	Culvert Headwall	MON	71.34	Monterey	10	596394	4042482	Right
DM-005	Culvert Headwall	MON	71.35	Monterey	10	596418	4042504	Right
DM-004	Culvert Headwall	MON	71.44	Monterey	10	596525	4042616	Right
DM-623	Culvert Headwall	MON	71.90	Monterey	10	597020	4043153	Right
DM-624	Culvert Headwall	MON	71.90	Monterey	10	597020	4043153	Left
DM-002	Culvert Headwall	MON	72.05	Monterey	10	597168	4043403	Right

CONTINUATION SHEET FOR PRIMARY RECORD

P3a. Description (continued):

Table 2. Comprehensive List of the Non-Contributing Resources Identified within the Boundaries of the Carmel-San Simeon Highway Historic District (sorted by post mile, from south to north)

Identifier	Property Type	County	Post Mile	Quadrangle	UTM Zone	UTM Easting	UTM Northing	Side of Hwy	Comments	Reason for Ineligibility
DL-626	Retaining Wall	SLO	73.02	Burro Mountain	10	650969	3960975	Right	Mostly destroyed	Loss of integrity
DL-545	Culvert	SLO	74.26	Burro Mountain	10	649700	3962269	Right	poor condition; concrete cap	loss of integrity
DM-535	Culvert	MON	02.45	Burro Mountain	10	648141	3964311	Right	sac-crete bags across top	loss of integrity
-529	Culvert	MON	03.55	Burro Mountain	10	647011	3964775	Right	high amount of damage	loss of integrity
DM-523	Culvert	MON	05.42	Villa Creek	10	645257	3966542	Right	top layer missing	loss of integrity
DM-520	Culvert	MON	05.71	Villa Creek	10	645160	3966752	Right	collapsed	loss of integrity
DM-516	Culvert	MON	06.02	Villa Creek	10	644757	3966961	Right	collapsed	loss of integrity
DM-513	Culvert	MON	06.48	Villa Creek	10	644368	3967503	Right	disturbed-little mortar remaining	loss of integrity
DM-512	Culvert	MON	06.63	Villa Creek	10	644170	3967637	Right	mostly destroyed	loss of integrity
DM-506	Culvert	MON	08.74	Villa Creek	10	641930	3969715	Right	very disturbed	loss of integrity
DM-415	Culvert	MON	10.84	Cape San Martin	10	639525	3971861	Right	damaged	loss of integrity
DM-417	Culvert	MON	11.17	Cape San Martin	10	639151	3972231	Right	damage from heavy equipment	loss of integrity
DM-421	Culvert	MON	12.39	Cape San Martin	10	638900	3974020	Right	partially destroyed	loss of integrity
DM-422	Culvert	MON	12.54	Cape San Martin	10	638970	3974235	Right	partially destroyed	loss of integrity
DM-423	Culvert	MON	12.62	Cape San Martin	10	638895	3974351	Right	partially destroyed	loss of integrity
DM-424	Culvert	MON	13.12	Cape San Martin	10	638467	3975039	Right	partially destroyed	loss of integrity
DM-425	Culvert	MON	13.25	Cape San Martin	10	638353	3975202	Right	partially destroyed	loss of integrity

CONTINUATION SHEET FOR PRIMARY RECORD

P3a. Description (continued):

DM-607	Culvert	MON	14.38	Cape San Martin	10	638360	3976894	Right	south portion deteriorating	loss of integrity
DM-434	Culvert	MON	15.92	Cape San Martin	10	637331	3979135	Right	top layer missing	loss of integrity
DM-411	Culvert	MON	16.97	Cape San Martin	10	636809	3980707	Right	modern rock culvert	outside period of significance
DM-407	Culvert	MON	17.57	Cape San Martin	10	636638	3981708	Right	eroding	loss of integrity
DM-406	Culvert	MON	17.68	Cape San Martin	10	636576	3981782	Right	modern stacked stone, no mortar	outside period of significance
DM-608	Culvert	MON	18.88	Cape San Martin	10	635870	3983491	Right	heavy damage	loss of integrity
DM-401	Culvert	MON	19.35	Cape San Martin	10	635634	3983992	Right	missing many stones	loss of integrity
DM-400	Culvert	MON	19.57	Cape San Martin	10	638206	3977526	Right	modern stacked stone	outside period of significance
-342	Culvert	MON	22.27	Lopez Point	10	631907	3986828	Right	headwall destroyed	loss of integrity
DM-337	Culvert	MON	23.36	Lopez Point	10	630282	3987164	Right	modern dry stacked	outside period of significance
DM-336	Culvert	MON	23.61	Lopez Point	10	629855	3987141	Right	totally destroyed	loss of integrity
DM-335	Culvert	MON	25.21	Lopez Point	10	628153	3988664	Right	major damage	loss of integrity
DM-321	Culvert	MON	28.78	Lopez Point	10	625592	3993100	Right	deteriorated	loss of integrity
DM-320	Culvert	MON	28.96	Lopez Point	10	625341	3993268	Right	modern concrete box and metal grate	outside period of significance
DM-319	Culvert	MON	29.06	Lopez Point	10	625222	3993359	Right	almost totally destroyed	loss of integrity
DM-318	Culvert	MON	29.13	Lopez Point	10	625155	3993470	Right	rebuilt with coarse sand mortar	loss of integrity
DM-317	Culvert	MON	29.33	Lopez Point	10	624994	3993734	Right	partially intact with new concrete header	loss of integrity
DM-315	Culvert	MON	29.59	Lopez Point	10	624805	3994111	Right	damage to north end	loss of integrity
DM-314	Culvert	MON	29.63	Lopez Point	10	624770	3994156	Right	missing substantial stone and mortar	loss of integrity
M-311	Culvert	MON	30.09	Lopez Point	10	624485	3994761	Right	many missing stones	loss of integrity
DM-307	Culvert	MON	30.22	Lopez Point	10	624449	3994976	Right	low integrity	loss of integrity

CONTINUATION SHEET FOR PRIMARY RECORD

P3a. Description (continued):

DM-305	Culvert	MON	30.37	Lopez Point	10	624380	3995186	Right	missing stones and mortar	loss of integrity
DM-304	Culvert	MON	30.45	Lopez Point	10	624367	3995305	Right	heavy damage	loss of integrity
DM-613	Culvert	MON	30.52	Lopez Point	10	624366	3995424	Right	north end missing	loss of integrity
DM-303	Culvert	MON	31.04	Lopez Point	10	624161	3996137	Right	damage at center	loss of integrity
DM-300	Culvert	MON	31.89	Lopez Point	10	623465	3997349	Right	top of wall missing	loss of integrity
DM-264	Culvert	MON	33.25	Partington Ridge	10	622153	3998997	Right	severely damaged	loss of integrity
DM-263	Culvert	MON	33.34	Partington Ridge	10	622083	3999121	Right	partially intact but damaged	loss of integrity
DM-262	Culvert	MON	33.87	Partington Ridge	10	621650	3999860	Right	substantially damaged	loss of integrity
I-261	Culvert	MON	34.47	Partington Ridge	10	621021	4000590	Right	totally destroyed	loss of integrity
DM-260	Culvert	MON	34.53	Partington Ridge	10	620968	4000656	Right	some stones removed	loss of integrity
DM-259	Culvert	MON	34.60	Partington Ridge	10	620899	4000741	Right	damage to north and south ends	loss of integrity
DM-258	Culvert	MON	34.63	Partington Ridge	10	620875	4000797	Right	fragment of culvert; severely damaged	loss of integrity
DM-253	Culvert	MON	36.05	Partington Ridge	10	619483	4002436	Right	ends are substantially damaged	loss of integrity
DM-248	Culvert	MON	36.52	Partington Ridge	10	619057	4003044	Right	fragment with cement cap	loss of integrity
DM-249	Culvert	MON	36.52	Partington Ridge	10	619070	4003033	Right	center portion missing	loss of integrity
DM-247	Culvert	MON	36.59	Partington Ridge	10	618993	4003139	Right	half collapsed	loss of integrity
DM-245	Culvert	MON	36.92	Partington Ridge	10	618536	4003377	Right	modern	outside period of significance
DM-244	Vista Point	MON	37.00	Partington Ridge	10	618375	4003353	Left	Piers not historic; modified over time	outside period of significance
DM-241	Culvert	MON	37.29	Partington Ridge	10	618023	4003627	Right	missing top layers	loss of integrity
M-240	Culvert	MON	37.36	Partington Ridge	10	617941	4003676	Right	heavily damaged	loss of integrity
DM-227	Culvert	MON	38.22	Partington Ridge	10	617127	4004291	Right	substantial damage to north end	loss of integrity

CONTINUATION SHEET FOR PRIMARY RECORD

P3a. Description (continued):

DM-213	Culvert	MON	38.75	Partington Ridge	10	616794	4005067	Right	large piece missing from north end	loss of integrity
DM-211	Culvert	MON	38.84	Partington Ridge	10	616682	4005159	Right	Half of headwall deteriorated/ missing	loss of integrity
DM-210	Culvert	MON	38.91	Partington Ridge	10	616585	4005213	Right	some damage to south end	loss of integrity
DM-209	Culvert	MON	38.99	Partington Ridge	10	616494	4005284	Right	substantial damage both ends	loss of integrity
DM-197	Culvert	MON	39.94	Partington Ridge	10	615821	4006211	Right	heavy damage	loss of integrity
DM-192	Culvert	MON	40.71	Partington Ridge	10	614845	4006770	Right	heavy damage both ends	loss of integrity
DM-179	Culvert	MON	41.42	Partington Ridge	10	614045	4007196	Right	large crack at center; deterioration at both ends	loss of integrity
DM-170	Culvert	MON	41.73	Partington Ridge	10	613873	4007483	Right	damage to north wall	loss of integrity
DM-169	Culvert	MON	41.91	Partington Ridge	10	613785	4007628	Right	damage to south end	loss of integrity
DM-167	Culvert	MON	41.95	Partington Ridge	10	613713	4007633	Right	patched with modern concrete on north end	loss of integrity
DM-166	Culvert	MON	42.08	Partington Ridge	10	613528	4007633	Right	heavy damage	loss of integrity
DM-160	Culvert	MON	42.86	Partington Ridge	10	612622	4008268	Left	modern concrete box and metal grate	outside period of significance
DM-614	Culvert	MON	43.07	Partington Ridge	10	612406	4008421	Left	deteriorated	loss of integrity
DM-157	Culvert	MON	43.49	Pfeiffer Point	10	612028	4008835	Right	modern concrete	outside period of significance
DM-154	Culvert	MON	43.93	Pfeiffer Point	10	611625	4009246	Right	stone missing on top	loss of integrity
DM-151	Culvert	MON	44.67	Pfeiffer Point	10	611076	4010048	Right	modern; rebuilt with quick-crete	outside period of significance
DM-615	Culvert	MON	45.28	Pfeiffer Point	10	610570	4010755	Right	loss of integrity	loss of integrity
DM-145	Culvert	MON	45.78	Pfeiffer Point	10	609838	4011244	Left	substantial damage	loss of integrity
DM-136	Culvert	MON	46.38	Pfeiffer Point	10	609349	4012040	Right	heavy damage	loss of integrity
DM-130	Culvert	MON	47.23	Big Sur	10	608876	4013219	Right	damage to center	loss of integrity
DM-128	Culvert	MON	47.45	Big Sur	10	608535	4013345	Right	modern concrete	outside period of significance
DM-127	Culvert	MON	47.62	Big Sur	10	608415	4013579	Right	damaged	loss of integrity
DM-126	Culvert	MON	47.66	Big Sur	10	608389	4013637	Right	north half destroyed	loss of integrity

CONTINUATION SHEET FOR PRIMARY RECORD

P3a. Description (continued):

DM-125	Culvert	MON	47.83	Big Sur	10	608156	4013749	Right	concrete slab and grate	loss of integrity
DM-124	Culvert	MON	47.92	Big Sur	10	608019	4013734	Right	collapsing	loss of integrity
DM-122	Culvert	MON	48.25	Big Sur	10	608015	4013978	Right	concrete slabs on upper half	loss of integrity
DM-121	Culvert	MON	48.28	Big Sur	10	607565	4013977	Right	modern, rock and concrete	outside period of significance
DM-119	Culvert	MON	48.34	Big Sur	10	607511	4014071	Right	major damage	loss of integrity
DM-118	Culvert	MON	48.95	Big Sur	10	606786	4014672	Right	iron grate in concrete slab	outside period of significance
DM-108	Culvert	MON	50.34	Big Sur	10	604943	4015619	Right	quick-crete and asphalt overlay	loss of integrity
DM-016	Culvert	MON	69.44	Monterey	10	595226	4040063	Left	iron grate in concrete slab	outside period of significance
DM-003	Culvert	MON	71.77	Monterey	10	596885	4042999	Right	replaced with modern	outside period of significance

*NRHP Status Code: 2S2
*Resource Name or #: Carmel-San Simeon Highway Historic District

D1. Historic Name: Carmel-San Simeon Highway D2. Common Name: State Highway 1

* D3. Detailed Description:

The Carmel-San Simeon Highway Historic District is a discontiguous historic district comprising 241 discrete contributing elements (see Table 1). The district derives its name from the rural state highway constructed between 1922 and 1938 to link the communities of Carmel and San Simeon by way of the Big Sur Coast. Beginning on the south at San Carpoforo Creek in San Luis Obispo County and continuing northward to the Carmel River in Monterey County, a distance of approximately 75 miles, the district consists of the 234 rubble masonry engineering features and seven concrete arch bridges that date to the original construction of the highway. The rubble masonry features – five roadside water fountains, 61 parapet walls, ten retaining walls, and 158 culvert headwalls – were designed in the rustic style and constructed of local stone, primarily through labor-intesive, handcrafted methods. The oldest features, rubble masonry retaining walls, were built in 1922 during the first phase of construction phase of the highway at the southern end of the district. The bridges were designed by the Division of Highways Bridge Department and built between 1931 and 1938.

Geographically, the features that comprise the historic district are linked by Highway 1, a predominantly rural route that closely parallels the ridgeline of the Santa Lucia Range. The range's steep western slopes are cut by numerous deep, narrow canyons with streams flowing to the Pacific Ocean, and its shoreline is rocky with few sandy beaches; coastal terraces are also rare. Within this coastal setting, the highway passes through a number of different natural and built environments. The majority of the historic district features are situated in rural settings variously characterized by coastal scrub, grasslands, chaparral, redwood forest, or riparian woodland. The district does pass through a few lightly developed areas, the densest of which are the Big Sur Village (situated along the banks of the Big Sur River) and Carmel Highlands, a predominantly residential enclave at the north end of the district. (See Continuation Sheet for District Record, "D3. Detailed Description")

* D4. Boundary Description

The Carmel-San Simeon Highway Historic District, on State Route 1, is a discontiguous historic district comprising 241 discrete contributing elements (Table 1). The district extends a distance of approximately 75 miles, from San Luis Obispo County post mile 71.34 to post mile 74.32 (the Monterey County line), and from Monterey County post mile 0.0 to post mile 72.28). Between these two points, the district consists of the highway roadbed (a non-contributing element) and the 241 individual elements listed in Table 1. The district is defined to include only these resources; intervening land, buildings, structures, or any other built features not specifically listed in Table 1 are not part of the historic district, either as contributors or non-contributors. The width of the district is determined by the placement of the footprints of the individual contributing elements. Table 2 presents a list of resources identified, evaluated and rejected as contributing resources (due to loss of integrity or construction dates outside the period of significance).

* D5. Boundary Justification:

See Continuation Sheet for District Record, "D5. Boundary Justification."

* D6. Signficance: Theme: Rural Highway Construction Area: Big Sur Coast, Monterey and San Luis Obispo Co.
Period of Significance 1922-1938 Applicable Criteria: A, C

The Carmel-San Simeon Highway Historic District (Historic District) has been previously determined eligible for listing in the National Register of Historic Places. In 1996, Caltrans Historian Robert Pavlik determined that the district appeared eligible for listing in the National Register under Criterion C as a significant example of type, period, and method of construction; the State Historic Preservation Officer (SHPO) concurred with this determination in March 2003 (see Appendix C). As originally defined, the district consisted of seven concrete arch bridges and 89 rubble masonry engineering features (water fountains, parapet guardrails, retaining walls, and culverts) built as part of the original Carmel-San Simeon Highway (Highway 1 through Big Sur). The period of significance was defined originally as the 1920s-30s.

The purpose of this evaluation is to update the original documentation, incorporating findings from several recent studies. The current study generally agrees with Pavlik's findings and conclusions, but also concludes that the Historic District appears eligible under Criterion A for its associations with the "highway beautification" movement that reached its peak in California during the late 1920s and 1930s. Criterion C eligibility is expanded to include rubble masonry resources by both skilled and unskilled labor. The district as a whole appears to retain a high enough degree of integrity to convey its historic significance. The district does not appear to be eligible under Criteria B or D. This evaluation also serves as a synthesis of the findings from studies of the Historic District subsequent to Pavlik (1996), most notably Mikkelsen et al. (2001) and Wee et al. (2004). As a result of these studies, the period of significance for the Historic District has been redefined as 1922-1938, which encompasses the construction dates for all of the contributing elements. The Historic District has also been expanded and redefined as a discontiguous district comprising 241 individual contributing elements along State Route 1 located between post mile 71.34 and post mile 74.32 in San Luis Obispo County and between post mile 0.0 and post mile 72.18 in Monterey County. None of the contributing rubble masonry features appear to be individually eligible for the National Register. However, each of the seven concrete arch bridges has been previously determined individually eligible, and has been automatically listed on the California Register of Historical Resources. Please refer to the attached BSO Records for discussions of individual eligibility.

Finally, the Carmel-San Simeon Highway Historic District has been evaluated in accordance with CEQA Guidelines, using the

criteria outlined in Section 5024.1 of the California Public Resources Code. The district appears to be a historical resource for the purposes of CEQA under Criterion 1 because it is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage, and under Criterion 3 as it embodies the distinctive characteristics of a type, period, region, and method of construction. (See Continuation Sheet for District Record, "D6. Significance")

*** D7. References:**

Mikkelsen, Patricia, et al., "Cultural Resources Inventory of Caltrans District 5 Rural Highways Monterey and San Luis Obispo Counties, California: Coast Highway 1: Post Mile 0.0 to 72.28 Monterey/San Luis Obispo County line to Carmel River and Post Mile 74.32 to 71.34 San Carpoforo River to the Monterey/San Luis Obispo County Line," three volumes. Prepared for Caltrans District 5, June 2001.

Pavlik, Robert C., "Historic Resource Evaluation Report: The Rock Retaining Walls, Parapets, Culvert Headwalls and Drinking Fountains along the Carmel to San Simeon Highway, 05-SLO-01 P.M. 46.0/74.3, 05-MON-01 P.M. 0.0/73.0." Prepared for Caltrans District 5, November 1996.

Wee, Stephen, and Bryan Larson, "Historical Resources Evaluation Report" (Draft report), Big Sur Culvert Replacement Project, Highway 1, Monterey and San Luis Obispo Counties, California, SLO-1-PM 72.04/74.32, MON-1-PM 0.0/72.18." Prepared for Caltrans District 5, October 2004.

(See Continuation Sheet for District Record,"D7. References" for full list of references)

*** D8. Evaluator:** Stephen Wee, Bryan Larson **Date:** 10/6/2004

Affiliation and Address: JRP Historical Consulting, 1490 Drew Avenue, Suite 110, Davis, CA 95616

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):

DESCRIPTION OF RUBBLE MASONRY WATER FOUNTAINS

Five roadside water fountains are contributing elements of the historic district: Soda Springs (or Soda Creek), Big Redwood (Redwood Gulch), Willow Creek (originally El Senador Creek), Lucia, and Senator Elmer S. Rigdon Memorial. The Division of Highways constructed the fountains in response to the public need for water along remote or arid stretches of state highways, where commercial or other facilities were not available. There were originally six fountains along a particularly isolated stretch of Highway 1, between post miles 3.82 and 26.92 in Monterey County, but the one located at Spruce Creek (approximate post mile 9.50) was demolished in 1967.

The six fountains were constructed between 1928 and 1935 under three separate contracts. Three fountains, Soda Springs, Big Redwood, and Spruce Creek, were built between 1928 and 1931 as part of the Salmon Creek to Spruce Creek contract. These fountains were listed in the "Final Report for the Construction of a Secondary Highway from Salmon Creek to Spruce Creek, Contract No. D-679, 25DN1," under the category of "Extra Work," and were built at a total cost of $690.98. The Willow Creek Fountain was built during the Spruce Creek to Kirk Creek construction phase, between 1930 and 1933, and the remaining two, Lucia and Rigdon Memorial, were built during the Kirk Creek to Big Creek construction phase (1931 to 1935). None of the plans or contract completion reports contain design or construction plans for any of the fountains, suggesting that the resident engineer or head stonemason may have improvised or exercised a degree of artistic autonomy in its design. Some of the fountains, such as Soda Springs and Big Redwood, are simple stone affairs, while the more impressive examples at Willow Creek and the Senator Elmer S. Rigdon Memorial Fountain are more appropriately described as roadside rest areas, complete with elaborate stone walls and benches. All of the fountains are constructed of mortared local stone.

The five extant fountains individually appear to retain a relatively high degree of integrity, even though all have suffered some deterioration and/or non-sympathetic repairs over the years. Most of the fountains are missing some stones and all show evidence of patching with mortar that does not appear original because of differences in thickness, color, and texture. In 1967, four of the six water fountains were improved (the fountain at Spruce Creek was demolished at this time). The improvement work included the construction of new collector dams; the installation of tanks for settling, filtering, and storage of water; and installation of piping from the tanks to the drinking fountains. At the Rigdon Memorial Fountain, a section of six-foot high chain link fence with a locked gate was installed to fence off the water supply facilities from the public. The fountains no longer function in their original capacity. Unable to ensure that the drinking water would remain free from contamination, in 1985 Caltrans disconnected the water supply from all of the fountains. In spite of these alterations, all five extant water fountains still retain the vast majority of their original fabric, massing, and design characteristics. They exhibit fair to high integrity when considered individually, and moderate integrity when considered as a group, owing to the loss of the fountain at Spruce Creek.

Soda Springs Fountain (Feature DM-526; P.M. 3.82)

The Soda Springs Fountain, also known as Soda Creek Fountain, was built between 1930 and 1931 (it appears partially completed in a photograph dated 1930 and completed in a photograph dated 1931). It is shown in Photographs 2 and 3. This drinking fountain is located at the rear of a shallow grass-covered turnout at the base of Soda Springs (Soda Creek). The fountain consists of a shallow catch basin surrounded by two curved sections of wing wall. The curved walls stand about two feet tall and are topped with a layer of poured concrete to form bench seating. A corrugated metal pipe culvert drains the catch basin and carries the water under the roadway. There is a poured concrete pad located in front of the basin.

Big Redwood Fountain (Feature DM-521; P.M. 5.59)

The Big Redwood Fountain, also known as the Redwood Creek or Redwood Gulch Fountain, was built between 1928 and 1930 (it appears in a photograph dated July 19, 1930). The fountain, shown in Photographs 4 and 5, was originally located immediately adjacent to the highway. Following a rockslide and subsequent realignment of Highway 1, the fountain has since been dissociated from the current alignment by approximately 100 yards, located in a deep draw that is accessible by way of a dirt hiking trail. The structure consists of a small, pedestal drinking fountain backed by an L-shaped masonry retaining wall with benches. The pedestal is square in plan, stands three feet high, and is capped with a flat, overhanging top layer. It sits on a four-foot five-inch square rubble masonry foundation. The retaining wall forms a right angle behind the fountain, with each wall including a smooth seat facing the fountain. The northeast wall section measures about eight feet long and the southeast wall section

measures about nine feet long. An additional, smaller wing retaining wall extends from the south end of the southeast wall. Historic photographs show that a row of five standing stones once guarded the west side of the fountain; these have since been removed. A nearby wooden National Forest sign, not original to the site, names this fountain the "Nathaniel Owings Memorial Grove Fountain."

Willow Creek Fountain (Feature DM-420; P.M. 12.01)

Willow Creek Fountain was built during the late spring and summer of 1933 (it appears as a proposed fountain site in a photograph dated May 8, 1933, and in its completed form in a photograph dated July 1933). Shown in Photographs 6 and 7, it is located at the rear of a large, flat terrace that is elevated slightly above the level of the highway. Seven stone steps located near the center of a two-foot high retaining wall provide access to the terrace. The top of the steps is guarded by two boulders which appear to be part of the original design of the site. The water fountain is incorporated into a second wall, 114 feet in total length and three feet tall, that wraps around the rear (east side) of the site, following the natural contour of the land. Immediately adjacent to the water fountain is a small settling pond enclosed by a small semi-circular section of the perimeter wall. A corrugated metal pipe culvert carries water collected in the catch basin under the highway. South of and adjacent to this feature is a section of bench seating built into the wall and overlooked by a large boulder -- a natural feature. A wood and metal picnic table is a recent addition to the site.

Lucia Fountain (Feature DM-354; P.M. 20.38)

Lucia Fountain was built between 1931 and 1933 (it appears in its completed state in a photograph dated August 29, 1933). Shown in Photographs 8 and 9, it is located at a narrow turnout that is presently overgrown with natural vegetation. The structure consists of a central catch basin enclosed by a semi-circular rock wall. Mounted on the top of this rock wall, near the center of the semi-circle, is a small, circular ring of mortared stones that originally housed the water fountain. Low walls with a built-in bench flank both sides of the central catch basin and fountain element. The structure exhibits areas of recent cement patchwork, and a row of standing stones that originally guarded the highway side of the site have since been removed.

Senator Elmer S. Rigdon Memorial Fountain (Feature DM-353; P.M. 26.92)

Built between 1931 and 1935, Rigdon Fountain is a drainage-fed drinking fountain located at a narrow turnout on the east side of Highway 1 (Photograph 10). This is among the more elaborate of the five remaining Big Sur fountains. The entrance to the site is guarded by a row of evenly spaced stones. These are flanked on each side by sets of two corner piers. Extending from the piers and enclosing the rear (east) side of the site is a low, roughly semi-circluar wall that follows the contour of the turnout. The drinking fountain structure is located near the rear of the site. It is roughly square in plan and stands slightly higher than the perimeter wall of which it is a part. Other features of the Rigdon Fountain include an oval settling pond that sits to the south of the fountain, a small stone slab table, and a wood picnic table. The original bronze plaque that once graced the Rigdon Fountain is missing, and has been replaced with a simple wooden plaque.

CONTINUATION SHEET FOR DISTRICT RECORD

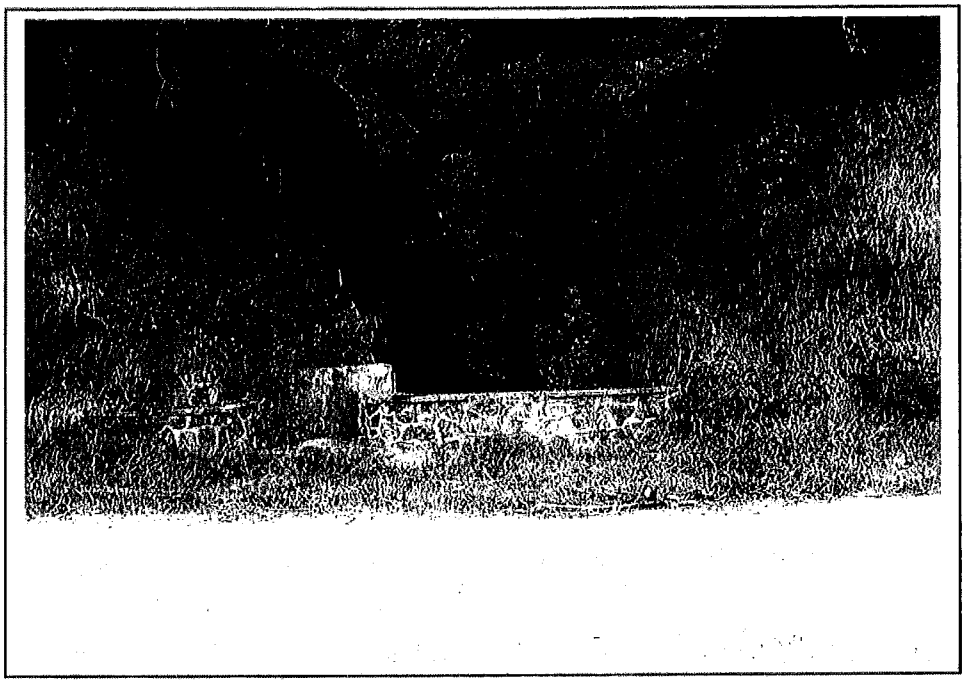
D3. Detailed Description (continued):

Table 2. Water Fountains of the Carmel-San Simeon Highway Historic District

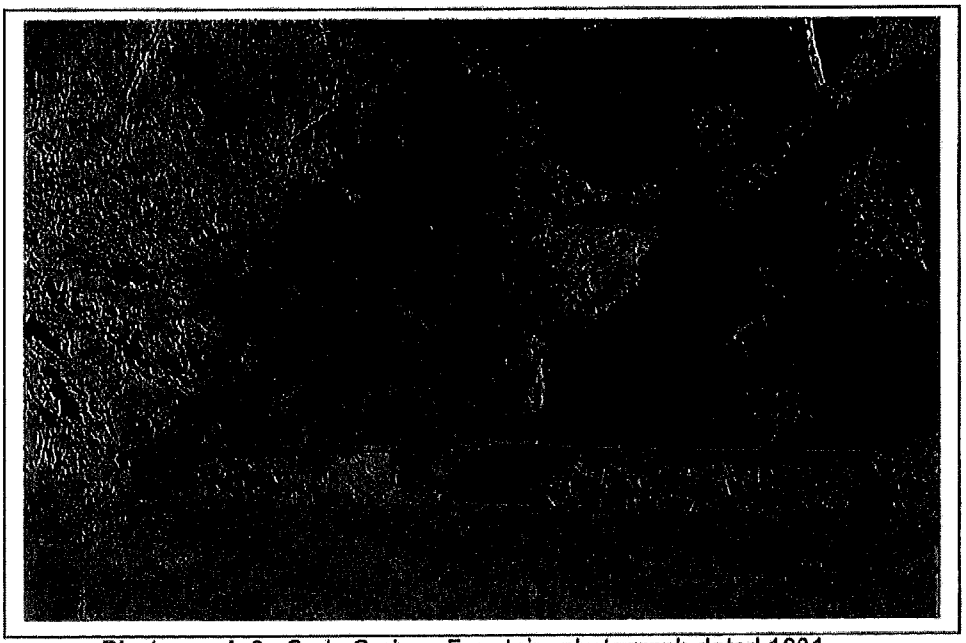
Identifier	Feature Name	County	Post Mile	Side of Highway
DM-526	Soda Springs Fountain	Monterey	03.82	Right
DM-521	Big Redwood Fountain	Monterey	05.59	Right
DM-420	Willow Creek Fountain	Monterey	12.01	Right
DM-354	Lucia Fountain	Monterey	20.38	Right
DM-353	Senator E. Rigdon Memorial Fountain	Monterey	26.92	Right

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):



Photograph 2. Soda Springs Fountain, also known as Soda Creek Fountain (DM-526).
(JRP photograph, October 23, 2002.)



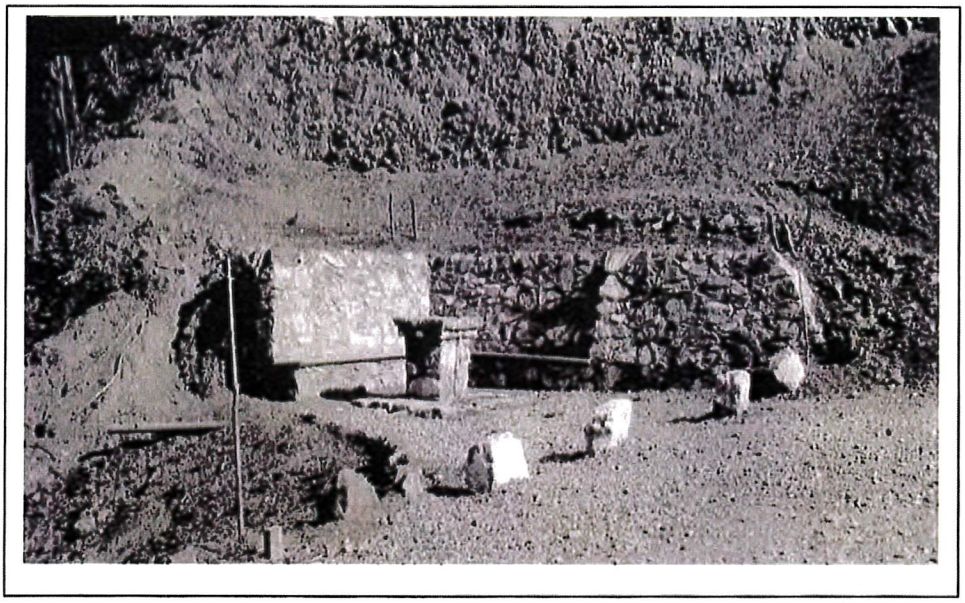
Photograph 3. Soda Springs Fountain, photograph dated 1931.
(Caltrans District 5 Records Resource Center, Historic Highway Photograph Collection, Binder V-Mon-56-A, Photograph Number 189.)

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):



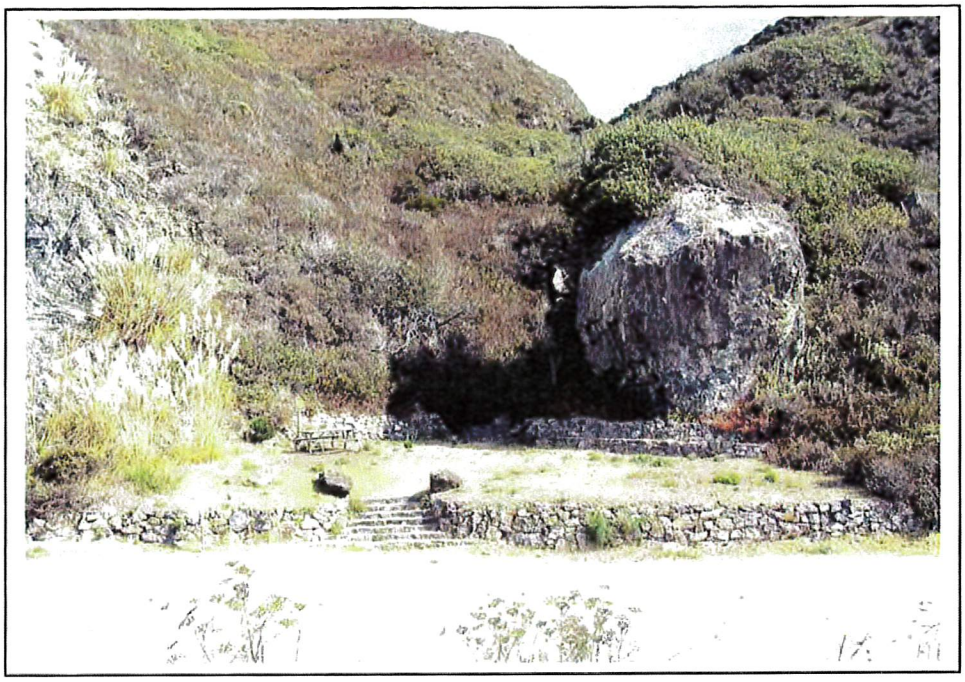
Photograph 4. Big Redwood Fountain, also known as Redwood Creek and Redwood Gulch Fountain (DM-521).
(JRP photograph, October 23, 2002.)



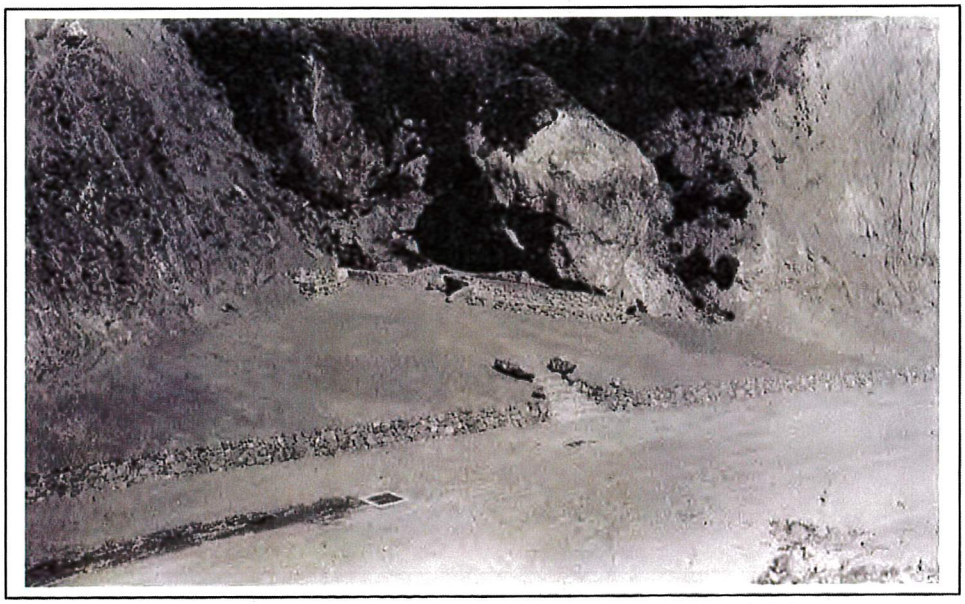
Photograph 5. Big Redwood Fountain, photograph dated 1930.
(Caltrans District 5 Records Resource Center, Historic Highway Photograph Collection. Binder V-Mon-56-A, Photograph 118.)

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):



Photograph 6. Willow Creek Fountain, also known as El Senador Creek Fountain (DM-354).
(JRP photograph, October 23, 2002.)



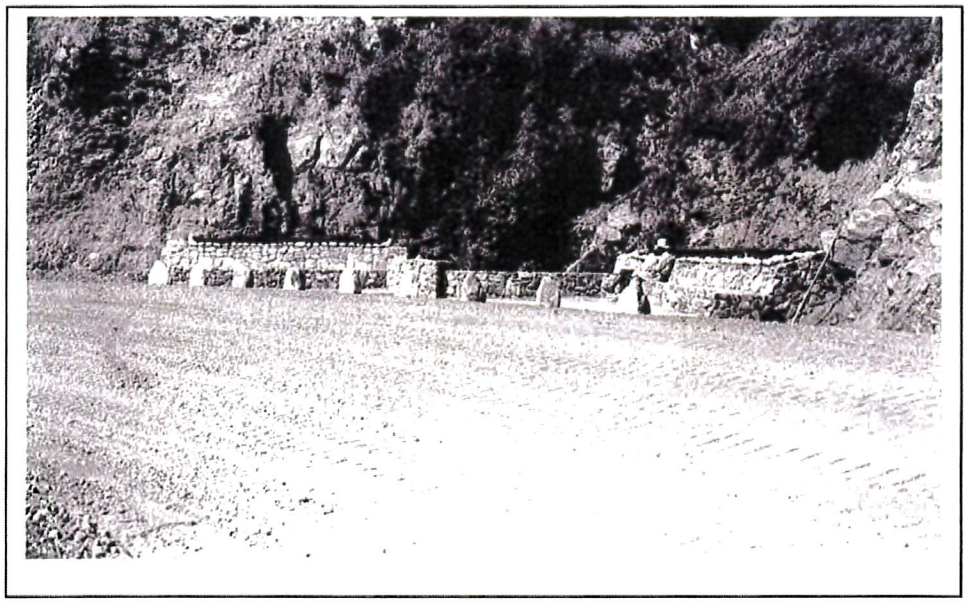
Photograph 7. Willow Creek Fountain, photograph dated July 1933.
(Caltrans District 5 Records Resource Center, Historic Highway Photograph Collection, Binder V-Mon-56-B, Photograph 132.)

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):



Photograph 8. Lucia Fountain (DM-354).
(JRP photograph, June 2, 2003.)



Photograph 9. Lucia Fountain, photograph dated August 29, 1933.
(California Department of Public Works, Division of Highways. "Final Report, Day Labor Contract No. 45DN6-45DN13-65W1-65W8-85W1, for the Construction of a Secondary Highway in the County of Monterey from Kirk Creek to Big Creek, Road V-MON-56-C," November 23, 1937.)

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):



Photograph 10. Senator Rigdon Memorial Fountain (DM-353).
(JRP photograph, June 2, 2003.)

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):

DESCRIPTION OF RUBBLE MASONRY PARAPETS

There are 61 rubble masonry parapets within the boundaries of the Historic District, with lengths ranging between 24 and 250 feet. The Historic District parapets include three different types: arcade or arched window style, comprising about four per cent of the total; a monolithic wall with a castellated, or battlement, top with raised piers (or merlons) and intervening notches (or crenels), comprising 85% of the total; and a simple monolithic wall with an unadorned, flat top, comprising about eleven percent of the total. It is important to note that the parapets are specialized forms of retaining walls. In the case of the arcade and battlement types, the decorative parapet element above the level of the roadway is actually a separate structure built atop a subgrade retaining wall. Photograph 18 on the following pages, for example, clearly shows the seam between the retaining wall and the parapet element. In contrast, the flat, unadorned parapets are monolithic retaining walls that extend slightly above the level of the roadway, forming a de facto railing. The parapets – as well as the retaining walls they rest upon – are generally uncoursed, meaning that the rocks are laid in random order rather than in layers. The stones were procured from along the construction route, and in all instances have been secured in place with portland cement mortar.

It does not appear that any parapets were built during the initial phase of construction of the Carmel-San Simeon Highway (1922-1924). The first parapets were built during the 1928-1931 construction of the Salmon Creek to Spruce Creek section.

Arcade Parapets

There are only three examples of the arcade style parapet, all of which occur at the southern end of the Historic District, between post miles 5.45 and 6.64. These were constructed between 1928 and 1930. The final construction report for this section of highway states that the arcade type of parapet was abandoned in favor of the battlement style during April 1930, but does not provide an explanation as to why.

In terms of both design and dimension, the three examples of arcade parapets seem to adhere to Division of Highways standard plans for the type developed as early as 1924 (see Figure 1). This style of parapet consists of sections of masonry railing with arched window openings set at regular intervals, usually about two feet apart. The arches measure four feet across at the base. Squared end posts, or piers, cap each end of the sections of railing, and this pattern is repeated as needed to form a continuous parapet of the desired total length. The three examples of arcade style parapet in the Historic District range from 100 to 250 feet in length. The 1½-foot thick parapets rest on a subgrade retaining wall and rise about two feet above the level of the roadway. The piers rise slightly above the top surface of the railing and are capped with flat stones. The upper surfaces of the parapet between piers are also capped with flat stones and finished with a layer of mortar. A thin layer of mortar also coats the underside of the arches; raised seams and wood grain imprints evident in the mortar suggest that masons laid the stones around a form or mold probably resembling a barrel cut lengthwise in half. Contemporary and historic views of the arcade walls are shown in Photographs 11 through 16.

The three arcade style parapets are generally high in integrity, although some isolated sections have suffered minor damage, probably from automobile hits or rock slides (as shown in Photograph 15).

Battlement Parapets

There are 51 examples of battlement style parapet in the Historic District, and all appear to generally follow standard plans for the type developed by Division of Highways in the mid to late 1920s (see Figure 2). The plans call for a solid stone railing, 1½ feet thick, that rises two feet above the level of the roadway. The railing is topped with five-foot wide, six-inch tall piers spaced at twelve-foot intervals. The examples of battlement style parapet in the Historic District range from 24 to 190 feet long and include a varying number of piers. See Photographs 17 through 21 for views of representative battlement parapets.

As a group, the battlement parapets retain a high degree of integrity. Most are entirely intact, though some have suffered minor damage from automobile hits or rock slides. In most cases, this has resulted in the loss of some stones, usually at the ends, or in the application of non-sympathetic patchwork. In rarer but more extreme examples (such as DM-343 and DM-508), the damage has resulted in the loss of piers or large sections of the parapet railing.

Unadorned (Flat) Parapets

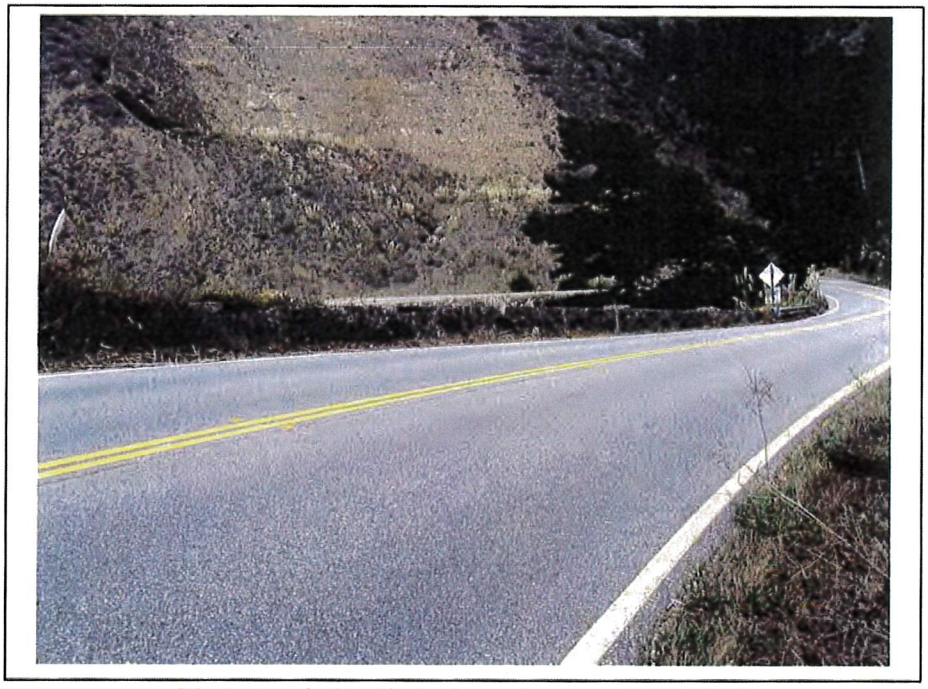
The seven examples of unadorned parapets consist of simple, monolithic stone railings with a flat top (see Photograph 22). These parapets lack the decorative elements that characterize the arcade and battlement parapet types with the exception of one feature, DM-339, that includes one small arched window opening (Photograph 23). The unadorned parapets are uniformly 1½ feet thick and range between 35 and 140 feet in length. In most cases, the parapet portion of the wall rises mere inches above the level of the roadway, although the subgrade portions may be ten feet tall or more.

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):

Table 3. Arcade Parapets of the Carmel-San Simeon Highway Historic District

Identifier	County	Post Mile	Side of Highway
DM-522	Monterey	05.50	Left
DM-519	Monterey	05.73	Left
DM-511	Monterey	06.64	Left



Photograph 11. Typical arcade parapet (DM-522).
(JRP photograph, October 23, 2002.)

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):



Photograph 12. Typical arcade parapet and rubble masonry wall (DM-519).
(JRP photograph, October 23, 2002.)



Photograph 13. Arcade parapet, showing railing and piers (DM-519).
(JRP photograph, October 23, 2002.)

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):



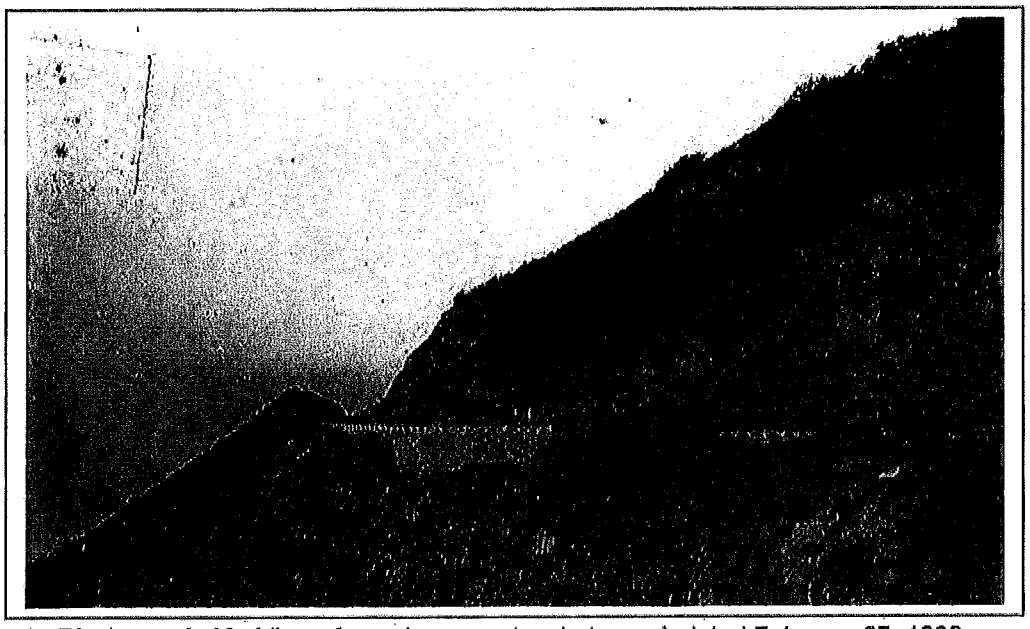
Photograph 14. Detail of mortared underside of window arch in arcade style parapet (DM-522). *(JRP photograph, October 23, 2002.)*



Photograph 15. Detail of damaged arcade parapet railing and window arch (DM-522). *(JRP photograph, October 23, 2002.)*

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):



Photograph 16. View of arcade parapets, photograph dated February 27, 1932.
(Caltrans District 5 Records Resource Center, Historic Highway Photograph Collection, Binder V-Mon-56-A, Photograph 219.)

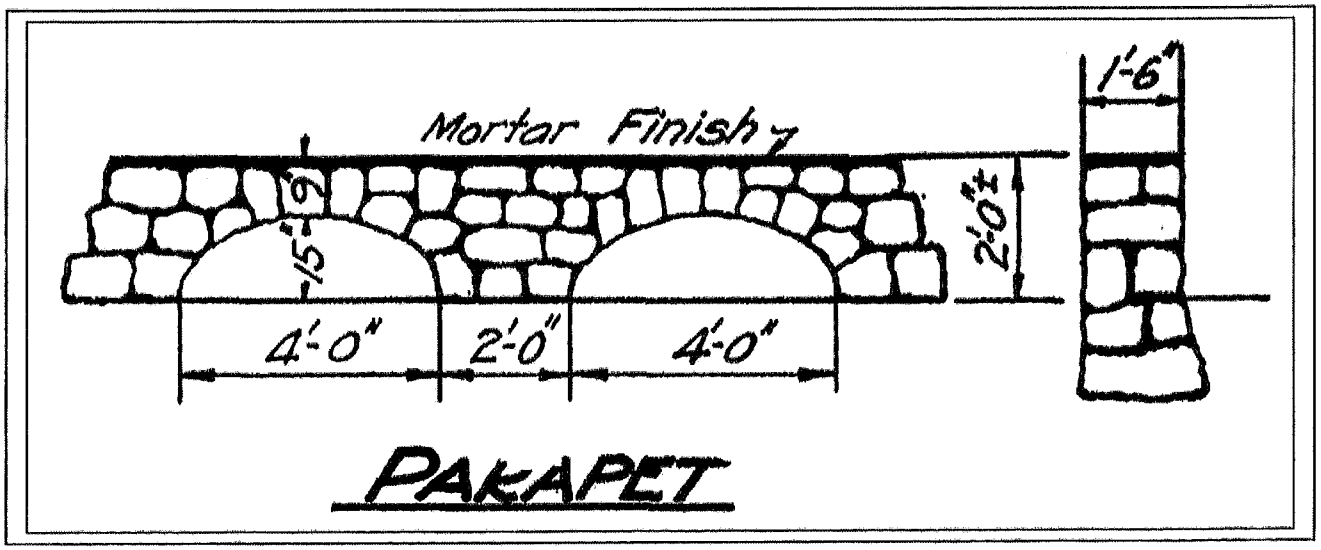


Figure 1. Division of Highways standard plan for arcade parapet.
(Reproduced from "Standard Structures: Headwalls, Drop Inlets, Guard Rail, Etc., Plan Number XS-0-28," March 27, 1924. On file at Caltrans Transportation Library, Sacramento, California.)

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):

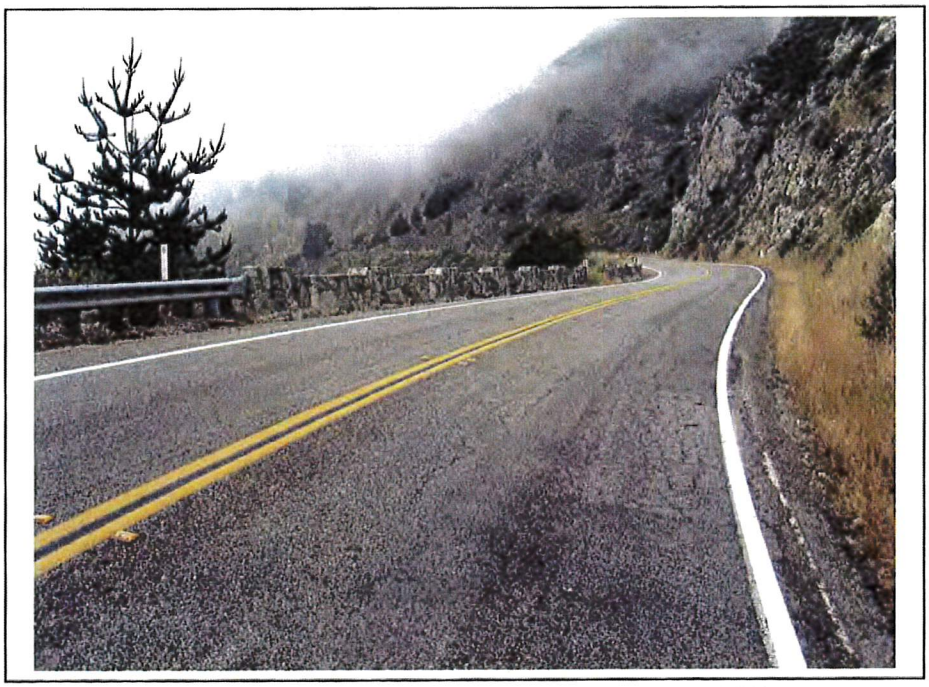
Table 4. Battlement Parapets of the Carmel-San Simeon Highway Historic District

Identifier	County	Post Mile	Side of Highway
DM-515	Monterey	06.09	Left
DM-509	Monterey	06.94	Left
DM-508	Monterey	07.00	Left
DM-507	Monterey	07.10	Right
DM-504	Monterey	09.06	Left
DM-503	Monterey	09.14	Left
DM-502	Monterey	09.17	Left
DM-405	Monterey	18.00	Left
DM-352	Monterey	19.98	Left
DM-351	Monterey	20.07	Left
DM-350	Monterey	20.09	Left
DM-349	Monterey	20.10	Left
DM-347	Monterey	20.24	Left
DM-346	Monterey	20.38	Left
DM-344	Monterey	20.57	Left
DM-343	Monterey	21.18	Left
DM-328	Monterey	26.43	Left
DM-325	Monterey	26.71	Left
DM-254	Monterey	35.93	Left
DM-252	Monterey	36.16	Left
DM-251	Monterey	36.47	Left
DM-250	Monterey	36.49	Left
DM-238	Monterey	37.73	Left
DM-234	Monterey	37.92	Left
DM-231	Monterey	38.00	Left
DM-226	Monterey	38.23	Left
DM-224	Monterey	38.26	Left
DM-223	Monterey	38.32	Left
DM-220	Monterey	38.42	Left
DM-219	Monterey	38.44	Left
DM-207	Monterey	39.05	Left
DM-206	Monterey	39.06	Left
DM-203	Monterey	39.58	Left
DM-202	Monterey	39.65	Left
DM-198	Monterey	39.91	Left
DM-196	Monterey	40.01	Left
DM-195	Monterey	40.05	Left
DM-188	Monterey	41.05	Left
DM-187	Monterey	41.07	Left
DM-184	Monterey	41.17	Left

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):

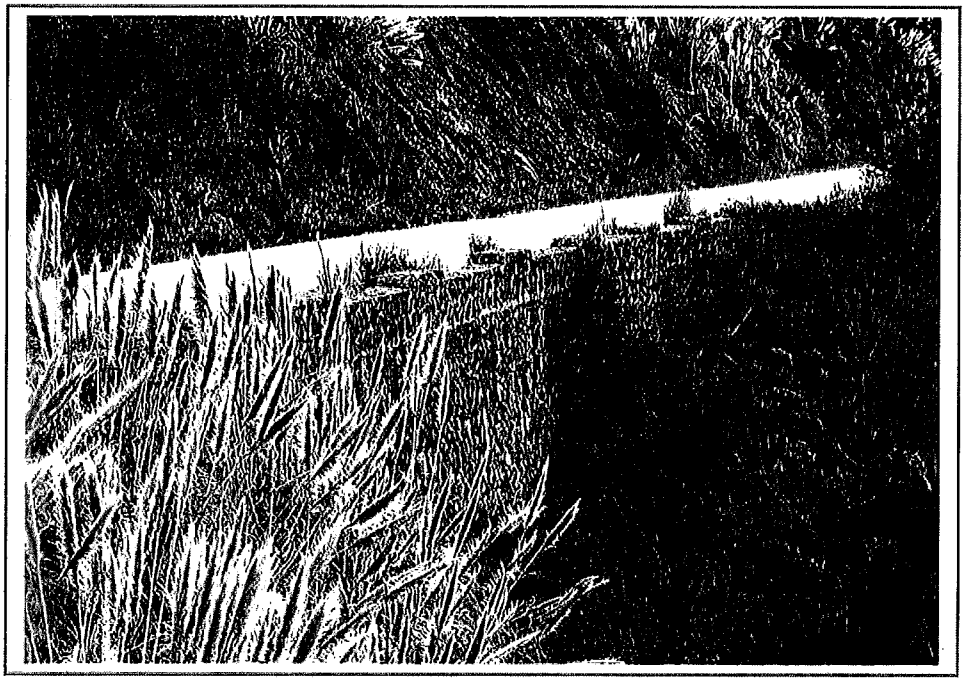
Identifier	County	Post Mile	Side of Highway
DM-183	Monterey	41.23	Left
DM-180	Monterey	41.40	Left
DM-178	Monterey	41.44	Left
DM-177	Monterey	41.47	Left
DM-174	Monterey	41.55	Left
DM-031	Monterey	60.03	Left
DM-021	Monterey	69.10	Left
DM-020	Monterey	69.20	Left
DM-019	Monterey	69.15	Left
DM-018	Monterey	69.26	Left
DM-017	Monterey	69.34	Left



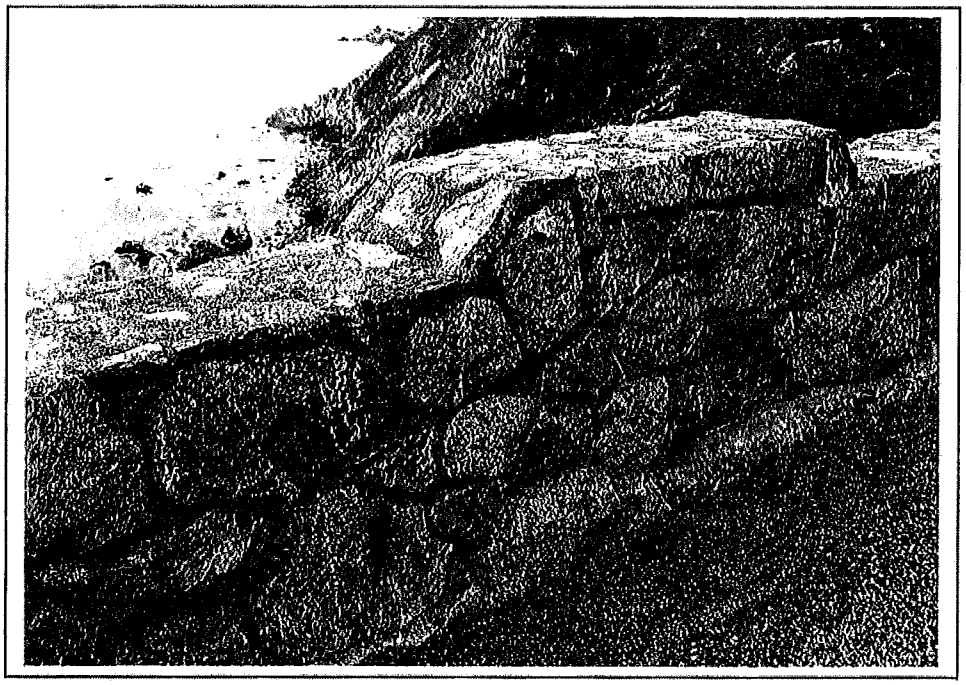
Photograph 17. Typical battlement parapet (DM-220).
(JRP photograph, June 2, 2003.)

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):



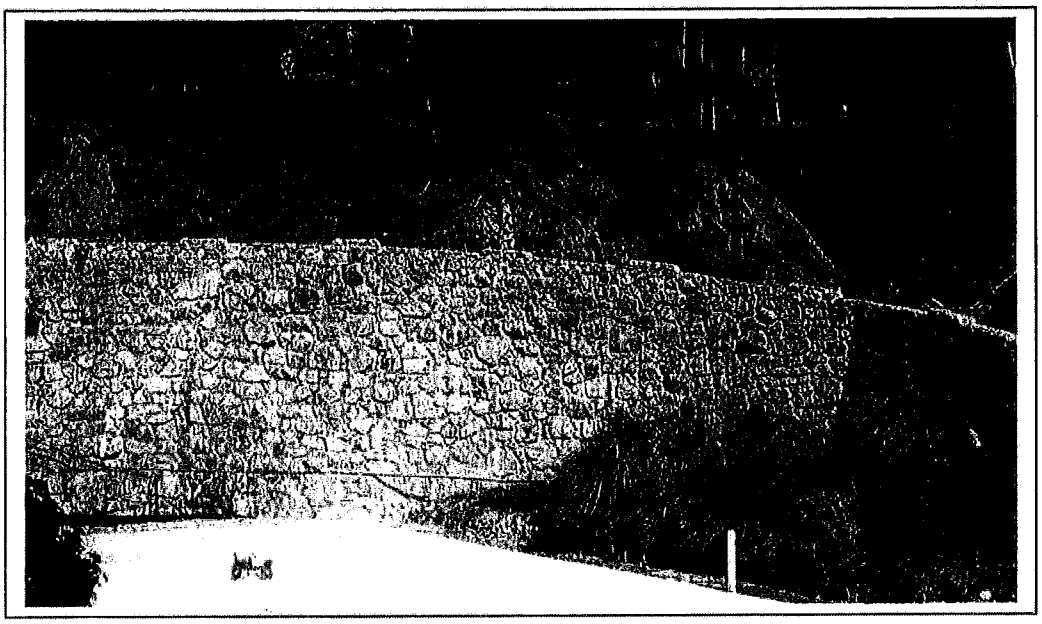
Photograph 18. Typical battlement parapet topping rubble masonry retaining wall (DM-515).
(JRP photograph, October 23, 2002.)



Photograph 19. Detail of battlement parapet pier (DM-220).
(JRP photograph, June 2, 2003.)

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):



Photograph 20. Battlement parapet on recently completed rubble masonry wall, Carmel Highlands, photograph dated March 30, 1933.
(Caltrans District 5 Records Resource Center, Historic Highway Photograph Collection, Binder V-Mon-56-H, Photograph 274.)



Photograph 21. Detail of battlement parapet in Carmel Highlands, photograph dated May 1933.
(Caltrans District 5 Records Resource Center, Historic Highway Photograph Collection, Binder V-Mon-56-H, Photograph 284.)

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):

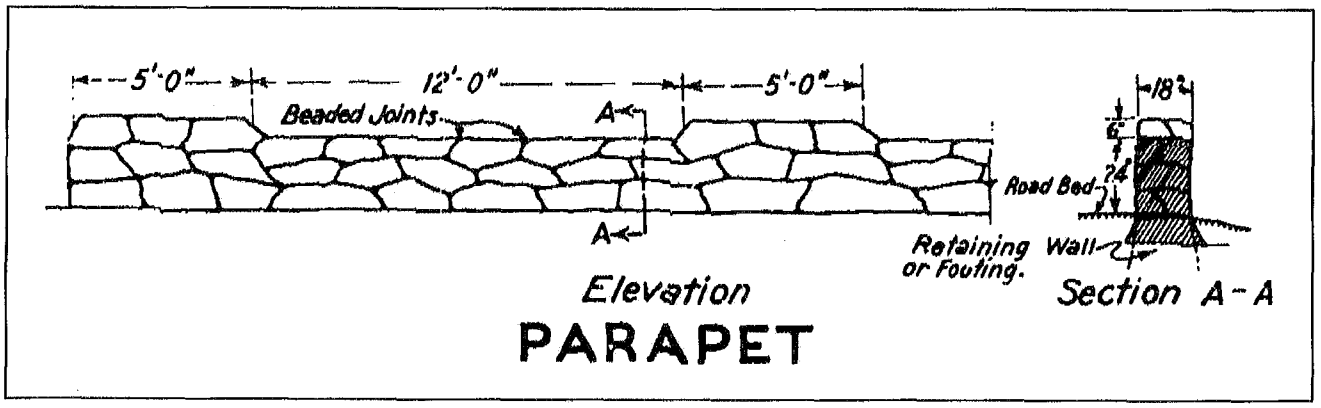


Figure 2. Division of Highways standard plan for battlement parapet.
(Reproduced from "Standard Structures: Pipe Headwalls - Etc., V-Mon-56-H-19-22, As Built Plan Number 50000298," approved May 23, 1932. On file at Caltrans District 5 Records Resource Center, San Luis Obispo, California)

Table 5. Unadorned (Flat) Parapets of the Carmel-San Simeon Highway Historic District

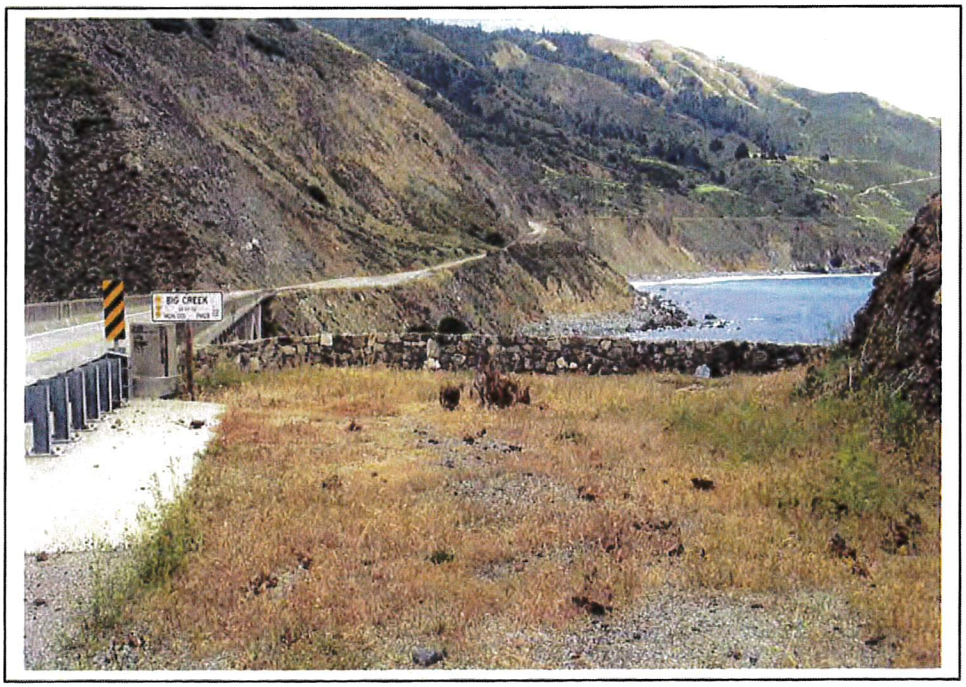
Identifier	County	Post Mile	Side of Highway
DM-339	Monterey	28.21	Left
DM-217	Monterey	38.46	Left
DM-208	Monterey	38.99	Left
DM-200	Monterey	39.81	Left
DM-182	Monterey	41.29	Left
DM-172	Monterey	41.64	Right
DM-168	Monterey	41.94	Left

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):



Photograph 22. Example of unadorned (flat) parapet guardrail (DM-217).
(JRP photograph, June 2, 2003.)



Photograph 23. Unadorned (flat) parapet at north end of Big Creek Bridge (DM-339).
(JRP photograph, June 2, 2003.)

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):

DESCRIPTION OF RUBBLE MASONRY RETAINING WALLS

There are ten rubble masonry subgrade retaining walls, lacking any above-grade component, that are contributing elements of the Historic District. Separate from the numerous retaining walls that are topped with parapet railings, these ten retaining walls function only as subgrade support structures for the highway roadbed (see Photographs 24 and 25). The precipitous nature of the topography required numerous areas of subgrade shoring to stabilize the roadbed.

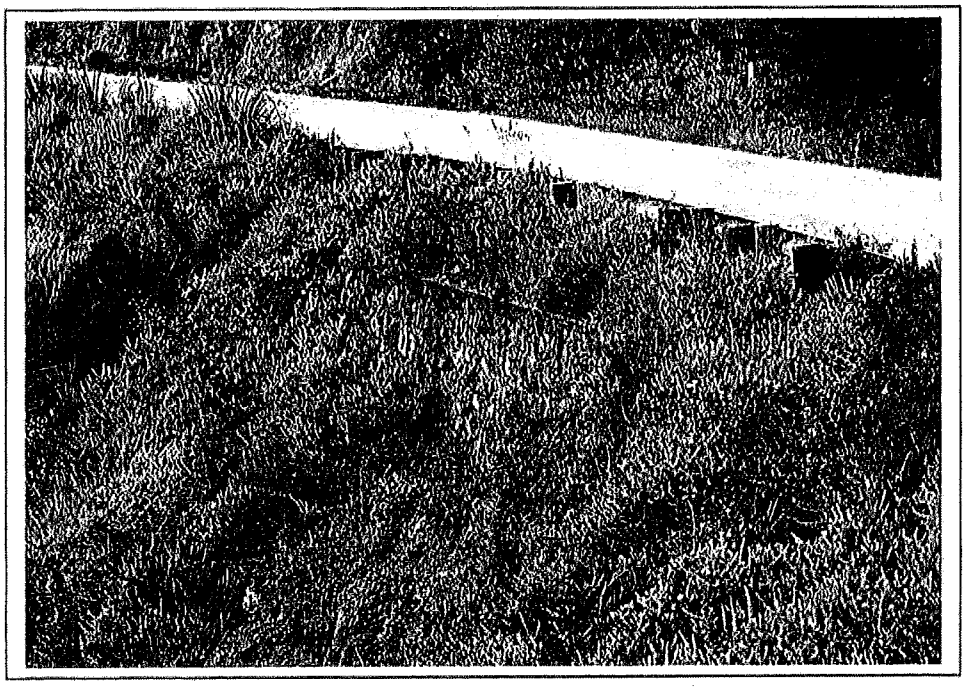
Rubble retaining walls were built both "wet," or mortared, where stones were bedded in a mortar of sand, cement, and water, and "dry," where the stones were stacked without mortar. Although the dimensions of the rubble retaining walls vary, each was built according to standard Division of Highways plans (see Figure 3). Both wet and dry walls required large and heavy rocks which were usually collected along the construction route. The walls were built with large footings. The mortared rubble walls were constructed with footings that had a width equaling 0.5 of the wall height and were battered or sloped at a ratio of 1:12. Dry rubble walls required a larger footing (0.6 of wall height) and were battered or sloped at a ratio of 2:12. It appears that the dry walls at the southern end of the district are the oldest rubble masonry features along the Carmel-San Simeon Highway, dating to the earliest period of construction (1922-1923). Generally, dry rubble construction was replaced with wet masonry construction beginning with the Salmon Creek to Spruce Creek section (1928-1931). Five of the ten extant rubble retaining walls, features DL-546, DL-601, DL-627, DL-628, and DL-629 were constructed as dry rubble walls; the remaining five walls were mortared. Feature DM-545 was originally recorded on a DPR 523 form in August 2000 and was designated P-27-002422 at that time (see Appendix D).

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):

Table 6. Retaining Walls of the Carmel-San Simeon Highway Historic District

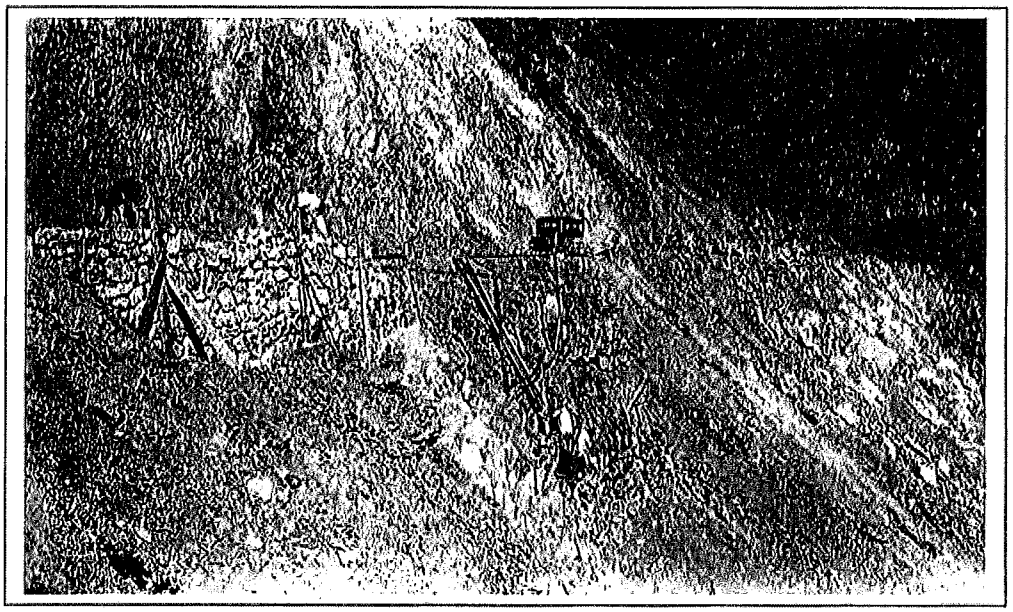
Identifier	County	Post Mile	Side of Highway
DL-601	San Luis Obispo	71.81	Left
DL-627	San Luis Obispo	73.04	Left
DL-628	San Luis Obispo	73.05	Left
DL-629	San Luis Obispo	73.08	Left
DL-546	San Luis Obispo	74.06	Left
DM-545 (P-27-002422)	Monterey	00.30	Left
DM-525	Monterey	05.05	Left
DM-232	Monterey	38.08	Left
DM-175	Monterey	41.52	Left
DM-034	Monterey	58.27	Left



Photograph 24. Typical rubble masonry retaining wall (DM-525).
(JRP photograph, June 2, 2003.)

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):



Photograph 25. Retaining wall under construction, photograph dated October 10, 1933.
(Caltrans District 5 Records Resource Center, Historic Highway Photograph Collection, Binder V-Mon-56-C, Photograph 168.)

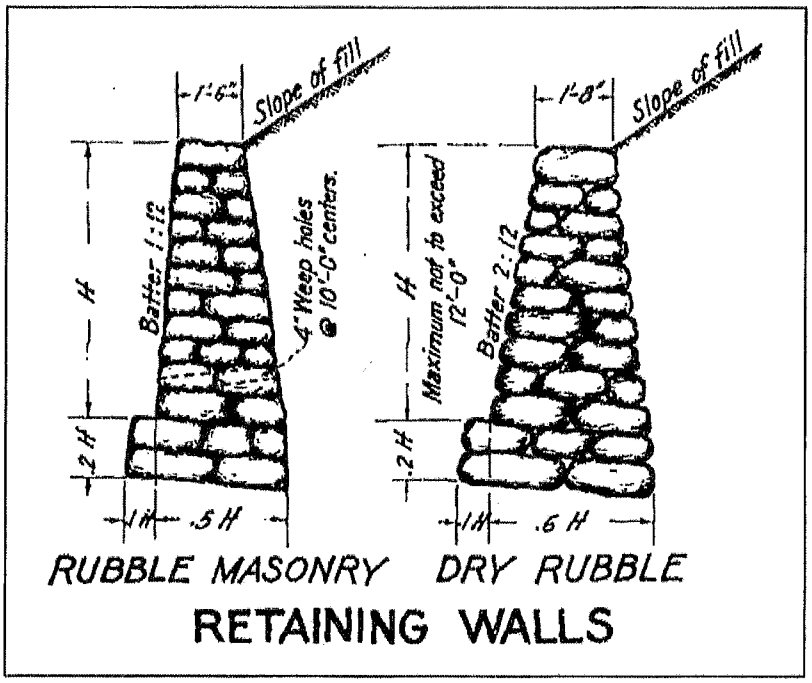


Figure 3. Division of Highways standard plan for retaining walls.
(Reproduced from "Standard Structures: Headwalls, Drop Inlets, Guard Rail, Etc., Plan Number XS-0-28," March 27, 1924. On file at the Caltrans Transportation Library, Sacramento, California.)

CONTINUATION SHEET FOR DISTRICT RECORD

D.3. Detailed Description (continued):

DESCRIPTION OF RUBBLE MASONRY CULVERT HEADWALLS

There are 158 rubble masonry culvert headwalls that are contributors to the Historic District. In total number, they are by far the most ubiquitous – if least impressive architecturally – features of the district. The headwalls are almost exclusively located on the inlet (upstream) side of the culvert, although there are a few examples in which there are rubble masonry headwalls at the outlet side. The most common headwall configurations are flat (consisting of a simple, single wall) or L-shaped (Photographs 26, 27, and 29). Other types that occur far less frequently are box-shaped (Photograph 28) and U-shaped (Photograph 29). The box-shaped culverts, also known as drop inlets, usually have four masonry side walls and a concrete bottom, and are open on top. Some of the drop inlets are covered with a metal grate; it is unclear whether of not the grates are original features. Unlike the other rubble masonry feature types, some of the headwalls are coursed, meaning their stones are laid in horizontal layers.

As a group, the culvert headwalls have suffered the most damage, as they have regularly been subject to automobile hits, landslides, and routine replacement or removal. Only about one quarter of the estimated 600 original rubble masonry culvert headwalls still exist.

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):

Table 7. Culvert Headwalls of the Carmel-San Simeon Highway Historic District

Identifier	County	Post Mile	Side of Highway
DM-540	Monterey	01.54	Right
DM-536	Monterey	02.41	Right
DM-524	Monterey	05.35	Right
DM-518	Monterey	05.78	Right
DM-517	Monterey	05.95	Right
DM-514	Monterey	06.40	Right
DM-510	Monterey	06.91	Right
DM-505	Monterey	08.98	Right
DM-501	Monterey	09.25	Right
DM-500	Monterey	09.55	Right
DM-414	Monterey	10.73	Right
DM-416	Monterey	10.94	Right
DM-418	Monterey	11.25	Right
DM-419	Monterey	11.32	Left
DM-605	Monterey	12.91	Right
DM-426	Monterey	13.34	Right
DM-427	Monterey	13.45	Right
DM-606	Monterey	13.94	Right
DM-428	Monterey	14.46	Right
DM-430	Monterey	15.07	Right
DM-431	Monterey	15.42	Right
DM-432	Monterey	15.48	Right
DM-433	Monterey	15.88	Right
DM-435	Monterey	15.95	Right
DM-412	Monterey	16.90	Right
DM-410	Monterey	17.10	Right
DM-408	Monterey	17.54	Right
DM-404	Monterey	18.08	Right
DM-609	Monterey	19.70	Right
DM-348	Monterey	20.23	Right
DM-610	Monterey	20.29	Right
DM-345	Monterey	20.48	Right
DM-341	Monterey	22.40	Right
DM-340	Monterey	22.86	Right
DM-338	Monterey	23.29	Right

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):

Identifier	County	Post Mile	Side of Highway
DM-611	Monterey	24.07	Right
DM-334	Monterey	25.35	Right
DM-333	Monterey	25.45	Right
DM-332	Monterey	25.50	Right
DM-331	Monterey	25.61	Right
DM-330	Monterey	25.68	Right
DM-329	Monterey	26.35	Right
DM-327	Monterey	26.50	Right
DM-326	Monterey	26.55	Right
DM-324	Monterey	26.99	Right
DM-323	Monterey	27.75	Right
DM-612	Monterey	28.48	Right
DM-313	Monterey	29.92	Right
DM-312	Monterey	30.02	Right
DM-306	Monterey	30.33	Right
DM-301	Monterey	31.73	Right
DM-257	Monterey	35.11	Right
DM-256	Monterey	35.58	Right
DM-255	Monterey	35.92	Right
DM-246	Monterey	36.69	Right
DM-243	Monterey	37.13	Right
DM-242	Monterey	37.20	Right
DM-239	Monterey	37.44	Right
DM-237	Monterey	37.74	Both
DM-236	Monterey	37.85	Right
DM-235	Monterey	37.92	Right
DM-233	Monterey	37.99	Right
DM-230	Monterey	38.05	Right
DM-229	Monterey	38.09	Right
DM-228	Monterey	38.18	Right
DM-225	Monterey	38.26	Right
DM-222	Monterey	38.35	Right
DM-221	Monterey	38.41	Right
DM-218	Monterey	38.45	Right
DM-216	Monterey	38.52	Right
DM-215	Monterey	38.58	Right
DM-214	Monterey	38.72	Right

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):

Identifier	County	Post Mile	Side of Highway
DM-212	Monterey	38.79	Right
DM-205	Monterey	39.18	Right
DM-199	Monterey	39.83	Right
DM-194	Monterey	40.34	Both
DM-193	Monterey	40.56	Right
DM-191	Monterey	40.76	Right
DM-190	Monterey	40.98	Right
DM-189	Monterey	41.04	Right
DM-186	Monterey	41.09	Right
DM-185	Monterey	41.16	Right
DM-181	Monterey	41.32	Right
DM-176	Monterey	41.50	Right
DM-173	Monterey	41.61	Right
DM-171	Monterey	41.69	Right
DM-165	Monterey	42.16	Right
DM-164	Monterey	42.40	Right
DM-163	Monterey	42.49	Right
DM-162	Monterey	42.54	Right
DM-161	Monterey	42.73	Right
DM-159	Monterey	42.90	Right
DM-156	Monterey	43.78	Right
DM-155	Monterey	43.84	Right
DM-153	Monterey	44.08	Right
DM-152	Monterey	44.62	Right
DM-150	Monterey	44.74	Right
DM-149	Monterey	45.03	Left
DM-148	Monterey	45.32	Left
DM-146	Monterey	45.68	Left
DM-144	Monterey	45.83	Right
DM-143	Monterey	45.88	Right
DM-142	Monterey	45.94	Right
DM-141	Monterey	45.97	Left
DM-140	Monterey	46.01	Right
DM-138	Monterey	46.07	Right
DM-139	Monterey	46.10	Right
DM-137	Monterey	46.11	Right
DM-135	Monterey	46.58	Right

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):

Identifier	County	Post Mile	Side of Highway
DM-133	Monterey	46.69	Both
DM-625	Monterey	46.87	Right
DM-132	Monterey	46.93	Right
DM-131	Monterey	47.12	Right
DM-129	Monterey	47.34	Right
DM-616	Monterey	48.28	Right
DM-120	Monterey	48.30	Right
DM-117	Monterey	49.15	Right
DM-116	Monterey	49.23	Right
DM-115	Monterey	49.32	Right
DM-114	Monterey	49.48	Right
DM-113	Monterey	49.90	Right
DM-112	Monterey	50.14	Right
DM-111	Monterey	50.17	Right
DM-110	Monterey	50.28	Right
DM-109	Monterey	50.33	Right
DM-107	Monterey	50.41	Right
DM-106	Monterey	50.55	Right
DM-105	Monterey	50.59	Right
DM-104	Monterey	50.67	Right
DM-103	Monterey	50.77	Right
DM-102	Monterey	51.08	Right
DM-101	Monterey	52.71	Right
DM-024	Monterey	68.82	Right
DM-617	Monterey	68.82	Right
DM-023	Monterey	68.89	Right
DM-618	Monterey	69.33	Right
DM-015	Monterey	69.46	Right
DM-014	Monterey	69.66	Right
DM-013	Monterey	70.02	Right
DM-012	Monterey	70.10	Right
DM-011	Monterey	70.15	Right
DM-010	Monterey	70.32	Right
DM-009	Monterey	70.46	Right
DM-008	Monterey	70.55	Right
DM-007	Monterey	70.58	Right
DM-619	Monterey	70.88	Right

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):

Identifier	County	Post Mile	Side of Highway
DM-620	Monterey	70.88	Left
DM-621	Monterey	71.05	Right
DM-622	Monterey	71.28	Right
DM-006	Monterey	71.34	Right
DM-005	Monterey	71.35	Right
DM-004	Monterey	71.44	Right
DM-623	Monterey	71.90	Right
DM-624	Monterey	71.90	Left
DM-002	Monterey	72.05	Right

Total: 158

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):



Photograph 26. Typical L-shaped culvert headwall (DM-218).
(JRP photograph, June 2, 2003.)



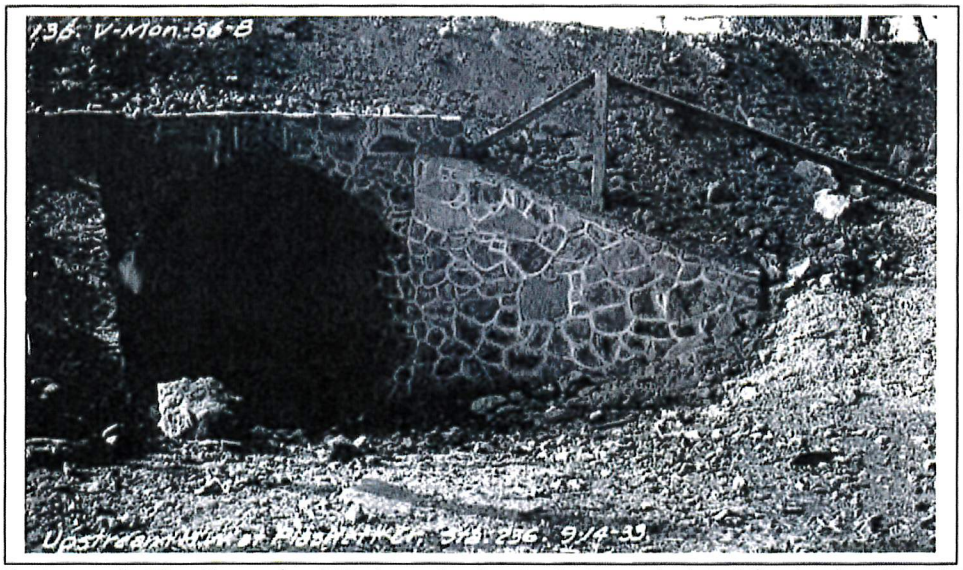
Photograph 27. Typical "flat" culvert headwall (DM-148).
(JRP photograph, June 2, 2003.)

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):



Photograph 28. Typical drop inlet (DM-237).
(JRP photograph, June 2, 2003.)



Photograph 29. Example of U-shaped culvert, photograph dated September 14, 1933.
(Caltrans District 5 Records Resource Center, Historic Highway Photograph Collection, Binder V-Mon-56-B, Photograph 136.)

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):

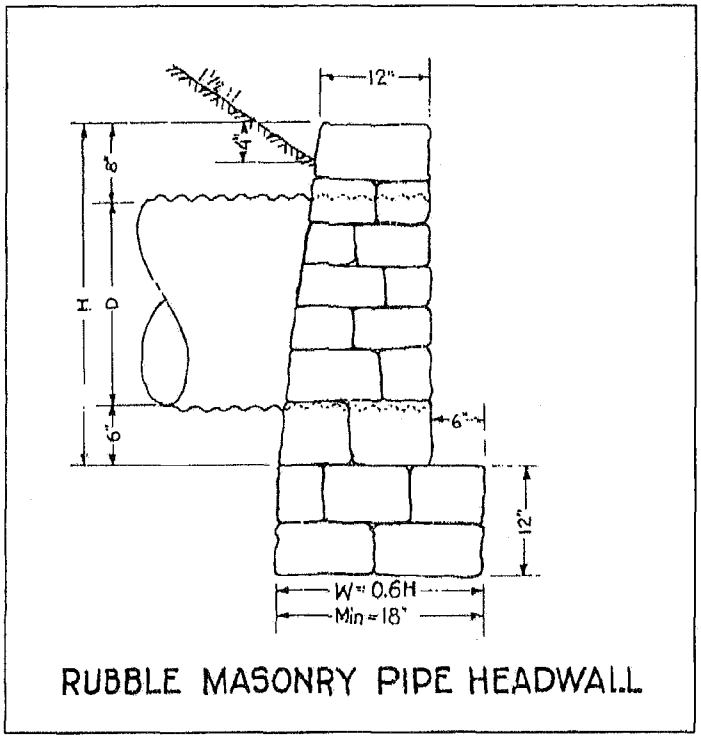


Figure 4. Division of Highways standard plan for rubble masonry pipe headwall.
(Reproduced from "Miscellaneous Structures, V-Mon-56-H-22-22, As Built Plan Number 50000298," approved May 23, 1932. On file at Caltrans District 5 Records Resource Center, San Luis Obispo, California.)

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):

DESCRIPTION OF CONCRETE ARCH BRIDGES

Seven concrete arch bridges are contributing elements of the Historic District: Big Creek (1938), Bixby Creek (1932), Rocky Creek (1932), Garrapata Creek (1931), Granite Canyon (1932), Malpaso Creek (1935), and Wildcat Creek (1933). All seven bridges were designed by the Division of Highways, Bridge Department, and are significant examples of the Division's work (each has been been determined individually eligible for the National Register and is listed on the California Register). Led by Charles Andrew, an advocate for beautiful bridges in wilderness areas, the Division had the imposing task of crossing deep wide ravines and canyons hundreds of feet above the coastline. Six of the bridges are of similar design with thick, heavily inflected piers and thin arch rings with spandrel columns. The Wildcat Creek Bridge was the only of the seven to be situated in an urban setting which dictated a different design.

Big Creek Bridge (Feature DM-322; P.M. 28.09)

Big Creek Bridge is a reinforced concrete, open spandrel, fixed, parabolic arch bridge with two, two-ribbed arch spans both 178 feet long. The bridge length is 589 feet and includes four concrete T-beam approach spans. The two-lane bridge is 28 feet wide with a cantilevered walkway. Reinforced concrete arch ribs are five feet thick at the crown and nine feet thick at the springing line. Spandrel columns are reinforced concrete with a smooth finish, as are railings in an arched window design. Some changes from a seismic retrofit in 2000 include shear walls built into the piers and a deeper spandrel girder. It is shown in Photographs 30 and 31.

Bixby Creek Bridge (Feature DM-032; P.M. 59.37)

Bixby Creek Bridge is a reinforced concrete, open spandrel, fixed, parabolic arch bridge with a single, two-ribbed arch span measuring 330 feet long. The bridge is 714 feet long and includes eleven continuous concrete T-beam approach spans on either end of the central arch span. Reinforced concrete columns matching the spandel column design support the approach spans that total 384 feet long. The two-lane bridge is 28 feet wide with a cantilevered walkway. Reinforced concrete railings have an arched window design and a smooth texture finish. Bixby Creek Bridge is shown in Photographs 32 and 33.

Rocky Creek Bridge (Feature DM-030B; P.M. 60.05)

Rocky Creek Bridge is a reinforced concrete, open spandrel, fixed, parabolic arch with a single, two ribbed arch span measuring 239 feet. It is shown in Photographs 34 and 35. The total bridge length is 497 feet and includes six concrete T-beam approach spans. The two-lane bridge is 27 feet wide and has a decorative cantilevered walkway. Reinforced concrete railings are of an arched window design and have a smooth texture finish.

Garrapata Creek Bridge (Feature DM-028; P.M. 62.97)

Garrapata Creek Bridge is a reinforced concrete, open spandrel, fixed, parabolic arch with a single, two ribbed arch span measuring 151 feet. The total bridge length is 286 feet and includes seven approach spans. It is a 27-foot wide, two-lane bridge with a decorative cantilevered walkway. Reinforced concrete railings have an arched window design and a smooth texture finish. The bridge is shown in Photographs 36 and 37.

Granite Canyon Bridge (Feature DM-027; P.M. 64.33)

Granite Canyon Bridge is a reinforced concrete, open spandrel, fixed, parabolic arch with a single, two ribbed arch span measuring 237 feet long. It is shown in Photographs 38 and 39. The total bridge length is 288 feet and includes four concrete T-beam approach spans. The two-lane bridge is 27 feet wide and has a decorative cantilevered walkway. Reinforced concrete railings have an arched window design and a smooth texture finish.

Malpaso Creek Bridge (Feature DM-025; P.M. 67.85)

Malpaso Creek Bridge is a reinforced concrete, open spandrel, fixed, parabolic arch with a single arch span measuring 125 feet long. The bridge is a total of 210 feet in length and includes six approach spans. The two-lane bridge is 30 feet wide and has a decorative cantilevered walkway. Reinforced concrete railings are of an arched window design and have a smooth texture finish. The bridge is shown in Photographs 40 and 41.

Wildcat Creek Bridge (Feature DM-022; P.M. 69.02)

Wildcat Creek Bridge is a reinforced concrete, closed spandrel, pointed arch bridge with three arch spans. The mainspan is 57 feet long. The total bridge length is 165 feet and includes two additional arch spans measuring 41 and 42 feet long. The bridge is 44 feet wide and has a flush roadway. The solid reinforced concrete railings have a smooth cap. Photographs 42 and 43 show views of the Wildcat Creek Bridge.

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):

Table 8. Concrete Arch Bridges of the Carmel-San Simeon Highway Historic District

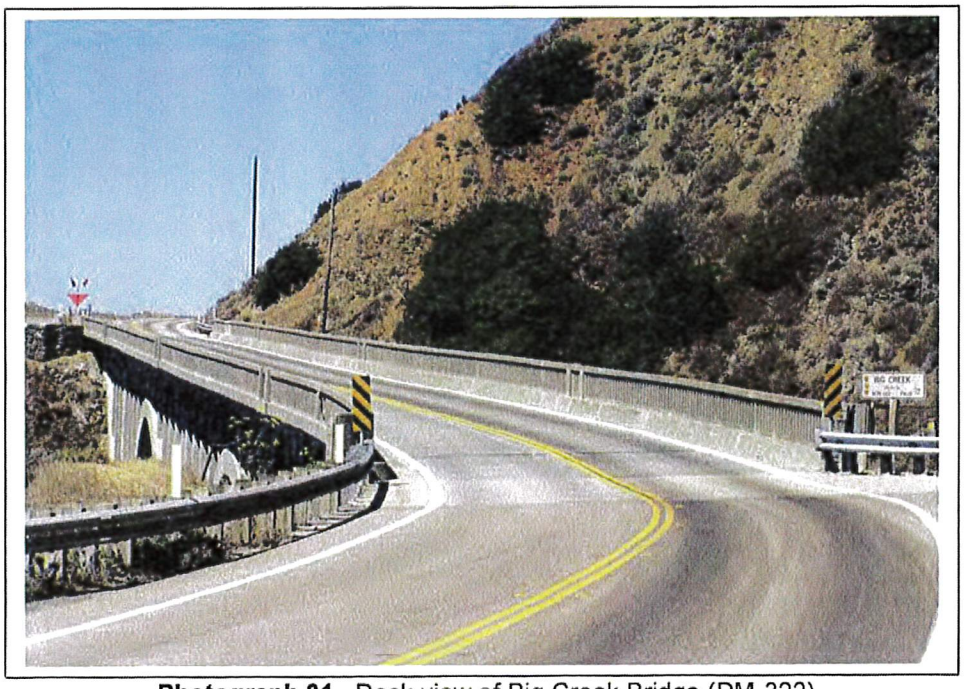
Identifier	Feature Name	County	Post Mile	Side of Highway
DM-322	Big Creek Bridge (#44-0056)	MON	28.15	Both
DM-032	Bixby Creek Bridge (#44-0019)	MON	59.44	Both
DM-030B	Rocky Creek Bridge (#44-0036)	MON	60.11	Both
DM-028	Garrapata Creek Bridge (#44-0018)	MON	63.00	Both
DM-027	Granite Canyon Bridge (#44-0012)	MON	64.39	Both
DM-025	Malpaso Creek Bridge (#44-0017)	MON	67.90	Both
DM-022	Wildcat Creek Bridge (#44-0016)	MON	69.02	Both

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):



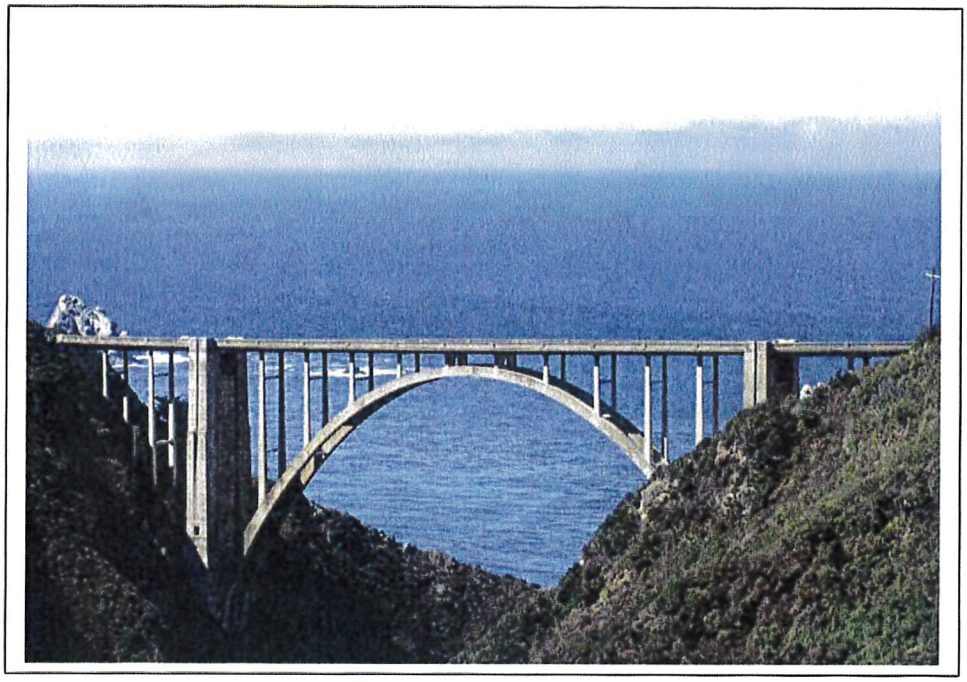
Photograph 30. Side view of Big Creek Bridge (DM-322).
(JRP photograph, September 10, 2003.)



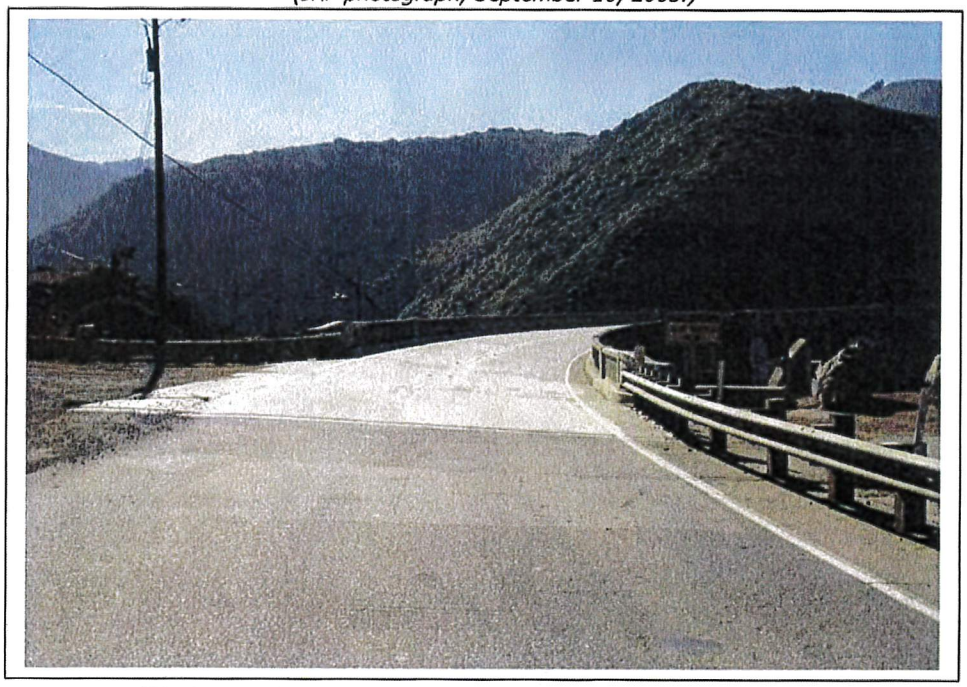
Photograph 31. Deck view of Big Creek Bridge (DM-322).
(JRP photograph, September 10, 2003.)

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):



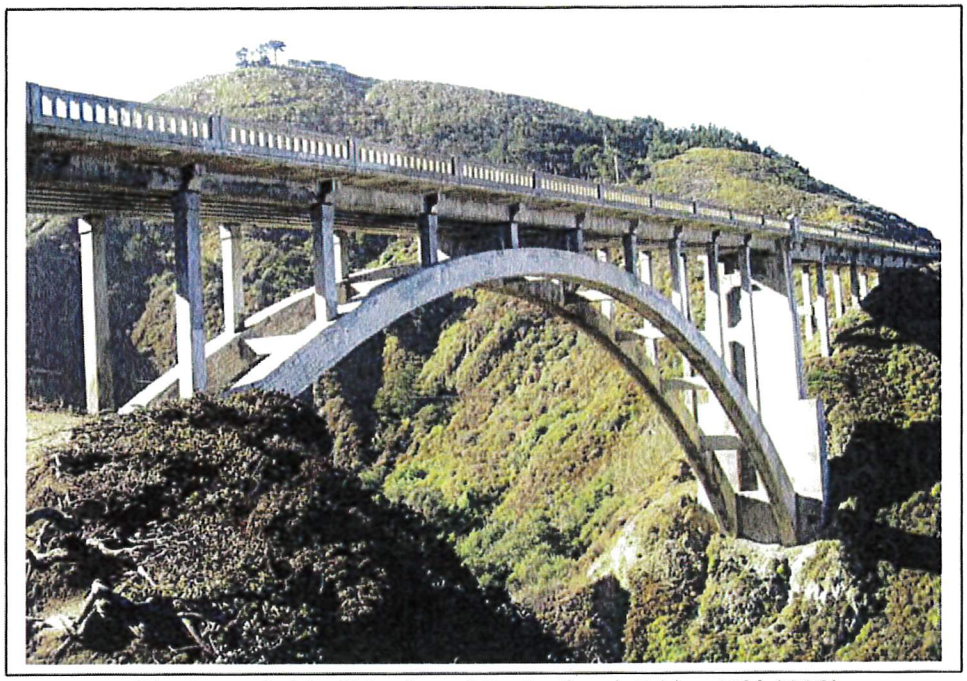
Photograph 32. Side view of Bixby Creek Bridge (DM-032).
(JRP photograph, September 10, 2003.)



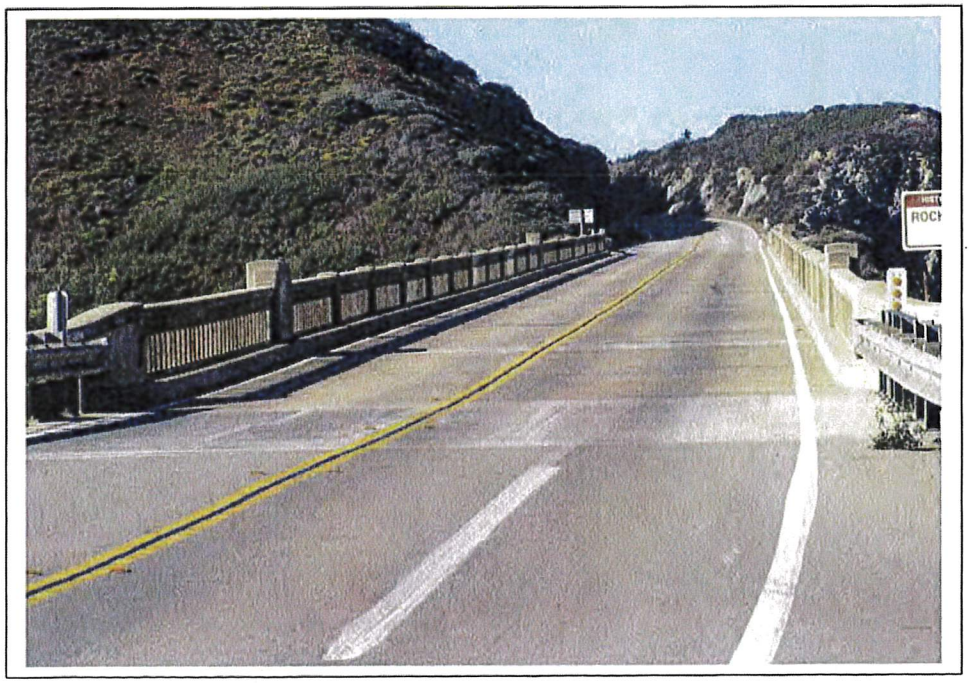
Photograph 33. Deck view of Bixby Creek Bridge (DM-032).
(JRP photograph, September 10, 2003.)

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):



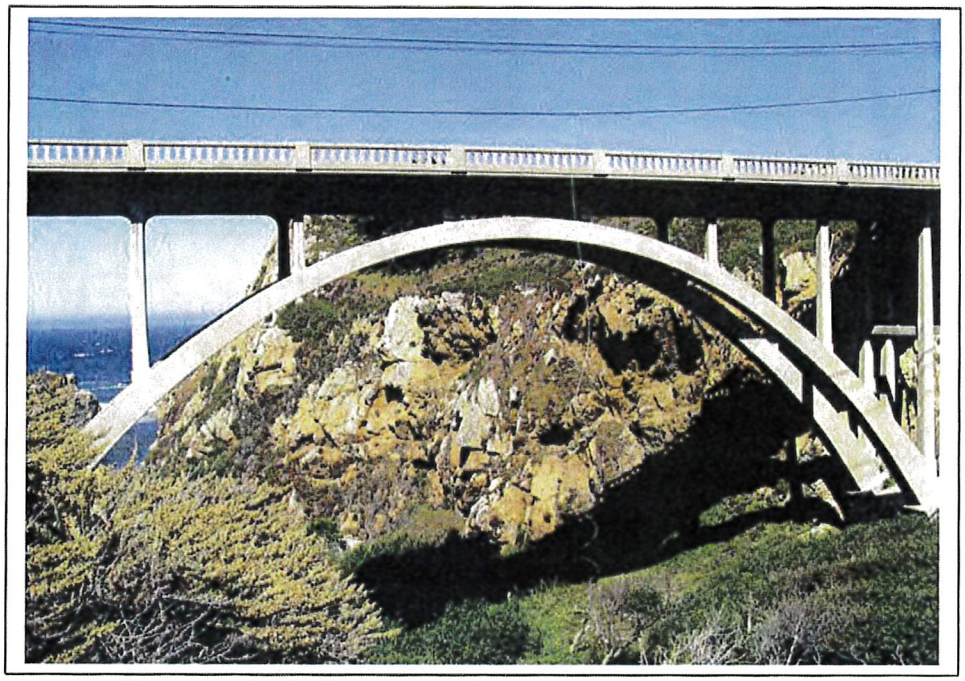
Photograph 34. Side view of Rocky Creek Bridge (DM-030B).
(JRP photograph, September 10, 2003.)



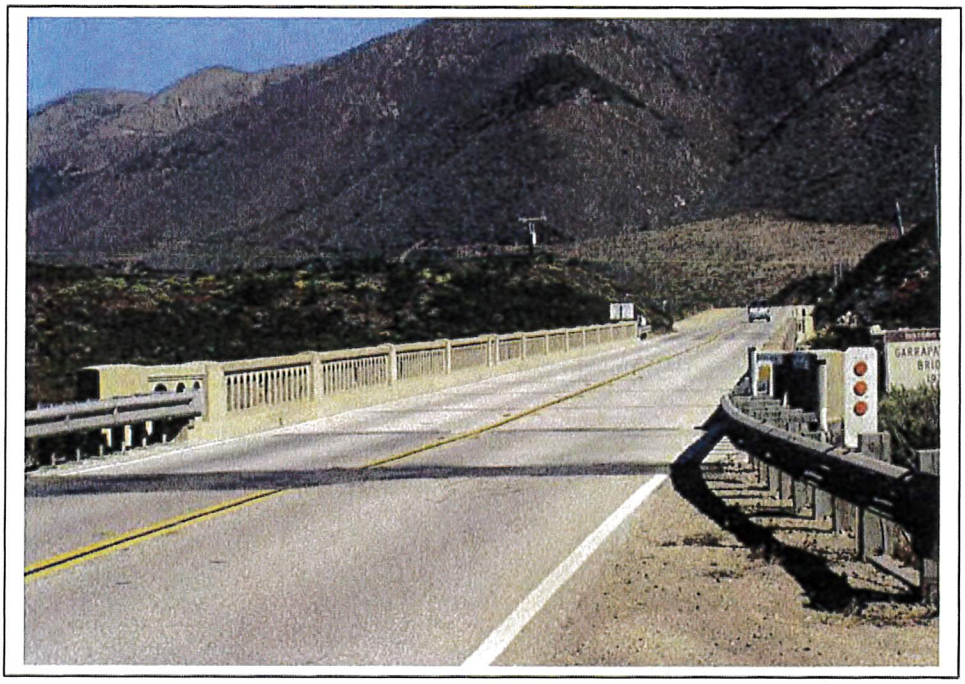
Photograph 35. Deck view of Rocky Creek (DM-030B).
(JRP photograph, September 10, 2003.)

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):



Photograph 36. Side view of Garrapata Creek Bridge (DM-028).
(JRP photograph, September 10, 2003.)



Photograph 37. Deck view of Garrapata Creek Bridge (DM-028).
(JRP photograph, September 10, 2003.)

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):



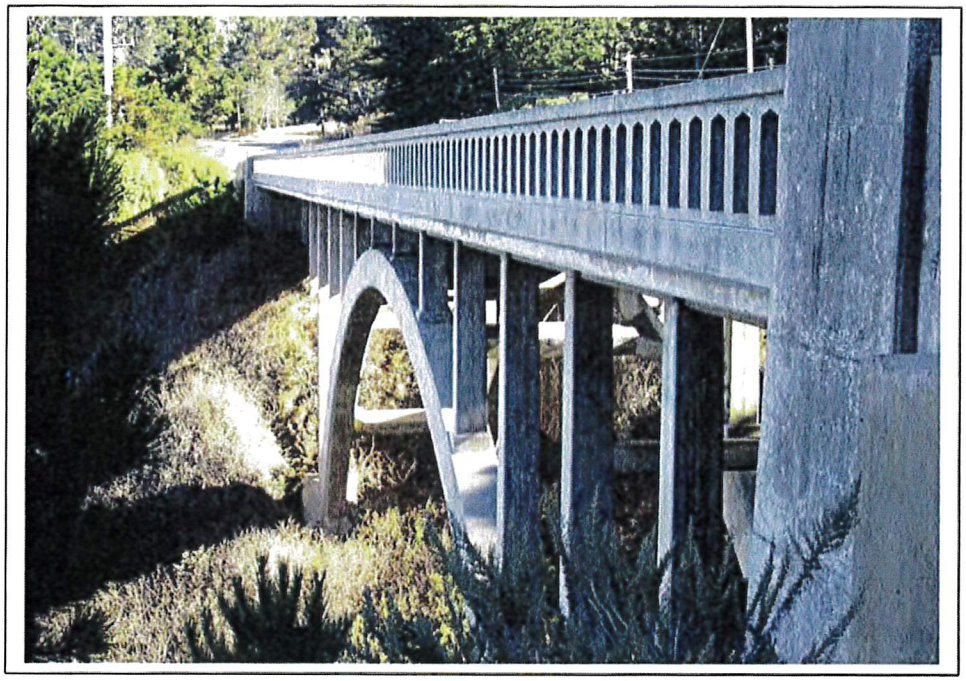
Photograph 38. Side view of Granite Canyon Bridge (DM-027).
(JRP photograph, September 10, 2003.)



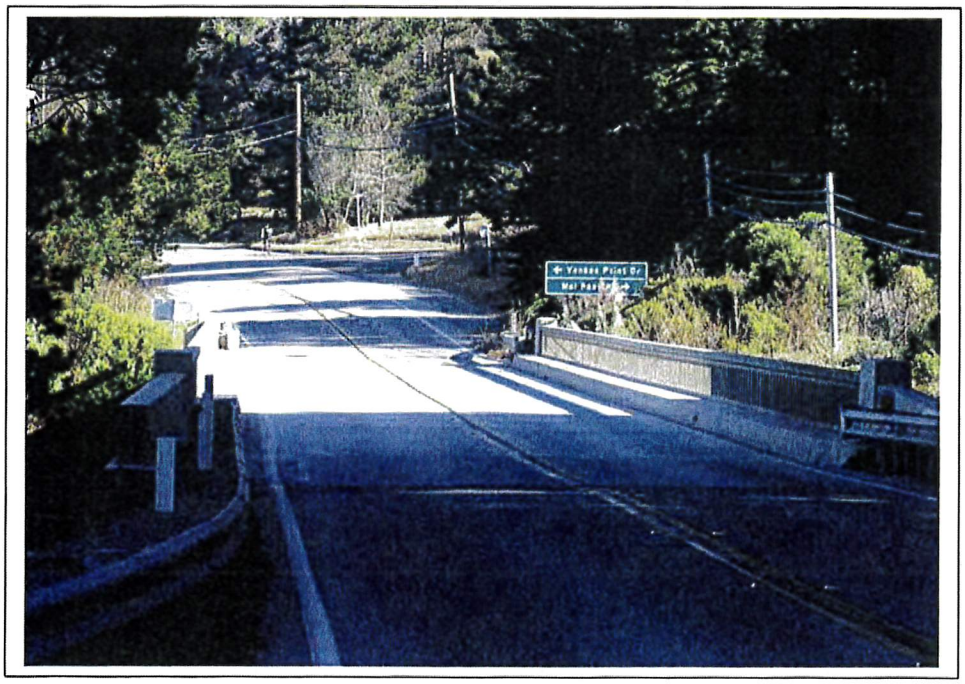
Photograph 39. Deck view of Granite Canyon Bridge (DM-027).
(JRP photograph, September 10, 2003.)

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):



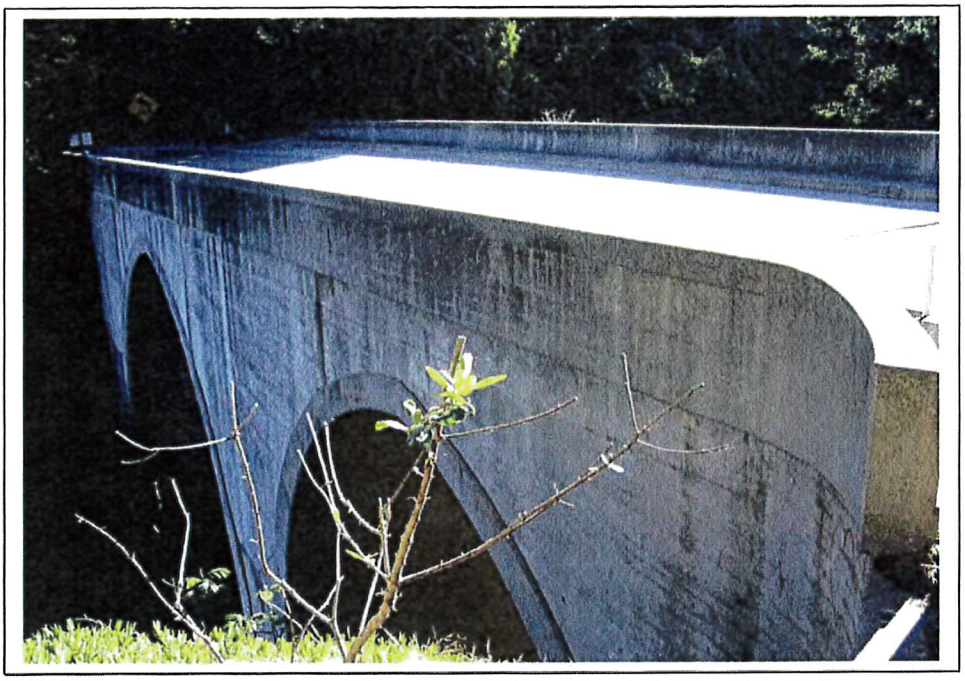
Photograph 40. Side view of Malpaso Creek Bridge (DM-025).
(JRP photograph, September 10, 2003.)



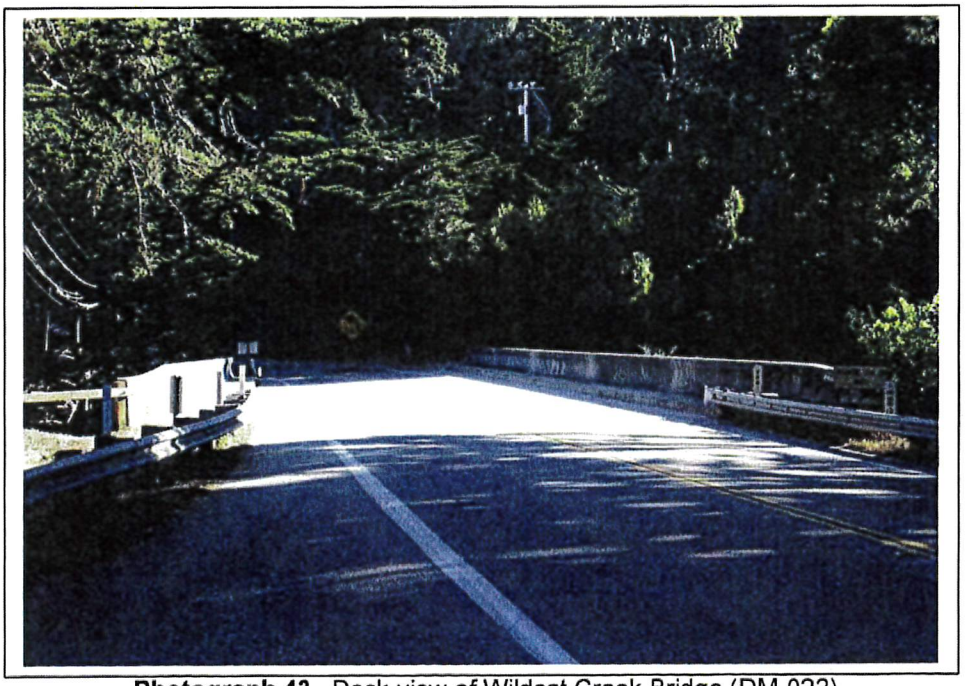
Photograph 41. Deck view of Malpaso Creek Bridge (DM-025).
(JRP photograph, September 10, 2003.)

CONTINUATION SHEET FOR DISTRICT RECORD

D3. Detailed Description (continued):



Photograph 42. Side view of Wildcat Creek Bridge (DM-022).
(JRP photograph, September 10, 2003.)



Photograph 43. Deck view of Wildcat Creek Bridge (DM-022).
(JRP photograph, September 10, 2003.)

CONTINUATION SHEET FOR DISTRICT RECORD

D5. Boundary Justification (continued):

As discussed in "Boundary Description" above, the Carmel-San Simeon Highway Historic District is a discontiguous district. Usually, a historic district is a single geographic area of contiguous historic properties; however, a district can also be composed of two or more elements that are related historically but are separated by nonsignificant areas. National Register guidelines allow for the use of discontiguous districts under several circumstances, as detailed in National Register Bulletin 15, "How to Apply the National Register Criteria for Evaluation." It is most appropriately used where:

- Elements are spatially discrete;
- Space between the elements is not related to the significance of the district; and
- Visual continuity is not a factor in the significance.

The Carmel-San Simeon Highway Historic District meets these three requirements. The first condition is satisfied because the district's discontiguous elements – the rubble masonry features listed in Table 1 – are spatially discrete. The district is a collection of engineering features, each of which was placed at a specific location for a specific purpose. Many are clustered close together, but others are separated from one another by distances best measured in miles.

The second condition is met because the space between the elements is not related to the significance of the district. Although the space between the individual resources may contain historically significant resources (archaeological sites, individually eligible buildings or structures), these resources do not contribute to the significance of this historic district, which is defined as consisting solely of rubble masonry engineering structures and concrete arch bridges built in conjunction with the Carmel-San Simeon Highway during the 1920s and 1930s.

ıally, visual continuity is not an important factor of the district's historic significance. The argument could be made that visual ɔntinuity is an important factor if the individual rubble masonry structures had been placed in such a way as to maximize their visual impact, such as if they had been integral components of a master plan designed to emphasize aesthetics. As discussed further below, highway beautification was instrumental in the decision to use rubble masonry structures -- particularly water fountains -- along state highways during this period. However, the single most important factor in determining the placement of the various engineering structures was safety or engineering necessity. The retaining walls were placed to secure the roadway above an unstable hillside, parapet walls were placed as automobile guardrails on dangerous curves, and culverts were installed to ensure proper drainage across the highway. The selection of local rock as a building material was partially rooted in the desire to make the engineering features as aesthetically pleasing as possible; the placement of the individual features was not. Although it is clear that the rubble masonry structures were intended to be visually and aesthetically pleasing, their very reason for being was based on engineering expediency, not ornamental value. In the absence of a unified master plan where aesthetics was the driving value, visual continuity of the individual features is not important to the district's historic significance.

The boundaries of the Carmel-San Simeon Highway Historic District are defined with the intent to encompass but not exceed the extent of the district's contributing features. The north and south boundaries of the Historic District are based on the construction history of the Carmel-San Simeon Highway, but is refined on the south to eliminate a large area in which rubble masonry structures were never built. The Historic District's southern boundary line, San Carpoforo Creek, is appropriate because it is an easily discernible natural feature that roughly marks the beginning of construction of rubble masonry structures at this end of the highway. The creek, located at post mile 71.34, is approximately seven miles north of the south end of the Carmel-San Simeon Highway, which began at a point six miles north of the town of San Simeon, near the Piedras Blancas Lighthouse (approximate post mile 64.0 in San Luis Obispo County). It is clear from highway construction documentation that no rubble masonry features were built along this seven-mile stretch during the original construction of the section, so it is not appropriate to include it in the Historic District. The southernmost rubble masonry structure associated with the Carmel-San Simeon Highway is a dry laid masonry retaining wall located at post mile 71.81 in San Luis Obispo County (Map Reference DL-601), just north of San Carpoforo Creek. The Carmel River in Monterey County (post mile 72.28) marked the northern end of historic development of the Carmel-San Simeon Highway and, like San Carpoforo Creek on the south, is appropriate because of it provides a clear dividing line between areas with and without rubble masonry structures. The northernmost masonry structure is a culvert located at post mile 72.05 in Monterey County (Map Reference DM-002).

The width of the district is somewhat arbitrary because it cannot be determined by natural, geographic, or legal boundaries. A ,ical boundary line may have been the Caltrans right-of-way; however, this does not fit because several of the district's features are located on private property, outside of the right-of-way. Therefore, the width of the district is defined by the location of the footprints of the individual rubble masonry features. Again, the intent is to include the range of structures that comprise the historic district, but not to include intervening land that lacks historic significance.

D6. Significance (continued):

HISTORIC CONTEXT

The opening of the Carmel-San Simeon Highway was among the most important events in the history of the development of the Big Sur region, opening up the rugged coastline to tourists as well as facilitating easier travel for local residents. The actual construction of the highway, however, proved to be a laborious and expensive project that required a span of fifteen years to complete, encompassing two separate stages work. During the first stage, 1922-1924, contracts covering two sections were let to private construction companies. The first contract covered an approximately twelve-mile stretch between San Simeon in San Luis Obispo County to a point approximately two miles north of the Monterey county line, called Section A (the Carmel-San Simeon Highway was divided into eight sections, A through H). The second contract covered construction of Section E, a thirteen-mile stretch between Anderson Canyon and the Big Sur River. During construction of these initial sections, it soon became clear that the project would be arduous and expensive. The two most significant factors, the isolation of the site which resulted in high labor costs and the rugged, unstable topography, impeded construction over the duration of the project. The excessive expenses quickly exhausted funding, causing the project to be halted in 1924. The Division of Highways activated the project's second stage in 1928 using convict labor crews and later with the use of laborers under various Depression-era work relief programs (for a more detailed discussion of the construction history of the highway see: Mikesell December 1986).

The use of convict labor for state highway construction projects was authorized by the passage of a bill authored by State Assemblyman B.B. Meek and enacted into law on August 8, 1915. Convict labor was seen as a solution to the pressing problems of overcrowding in the state's two prisons, and as a method of rehabilitation for first time offenders. This ready pool of unskilled labor also filled a need on the part of the Division of Highways and private contractors, who had a difficult time in attracting workers to remote regions of the state. One provision of the utilization of convict labor on highway construction was that the prisoners were limited to tasks requiring unskilled labor. Free men performed all of the skilled labor, served as convicts' supervisors, and operated of the motorized equipment. Along the Big Sur Coast, convict labor camps were established at Salmon Creek and the mouth of the Little Sur River. Later, construction camps were established at Point Gorda, Kirk Creek, and Anderson Canyon as the work progressed (Pavlik 1996; Tilton 1949: 4-6, 55-57).

The Division of Highways continued to use convict labor throughout the duration of the highway's construction. Beginning in 1931 and continuing through 1936, however, the division resumed using private contractors to complete most of the work north of Big Sur State Park (where the Big Sur River crosses Highway 1). The use of contract labor was the result, in part, of Depression era relief work programs. In the Eighth Biennial Report of the Division of Highways (1932), it was reported that "with the increase of unemployment in the fall of 1930, the Division of Highways was called upon to furnish as much relief employment as possible, in addition to speeding up its construction program....Hand methods were used in all cases to furnish employment to the greatest feasible number of men and the work performed became a part of the final construction of the highway" (Division of Highways, Eighth Biennial Report, November 1932). This was indeed the case for the section of highway between Big Sur River and Moleras Ranch. In 1934, the Force Construction Company built the southern half of this section under the provisions of the National Industrial Recovery Act of 1933. The Special Provisions section of the contract required that the company use labor provided through a US Employment Service Agency in Monterey County, and that hiring preference be given to ex-servicemen, citizens of the United States and resident aliens with intentions of becoming citizens, and residents of California. The northern half of this section of highway, built between 1935 and 1936, was a Works Program Highway Project under the Emergency Relief Appropriation Act of 1935. The contractors, Granfield, Farrar and Carlin, used a labor force provided by the National Reemployment Service in Salinas (Division of Highways, Contract 65WC2, 1934).

The construction of the Carmel-San Simeon Highway ended in 1938 with the completion of the Big Creek Bridge, which had been bypassed as work continued on the bridge. By this time, the highway itself was finished and open for through traffic. The final contract, for the section between Anderson Canyon and Big Sur, was completed in 1937. The quality of the roadway constructed under the original contract for this segment by George Pollock & Company proved unsatisfactory and was almost completely rebuilt on a new alignment, this time using convict labor. On June 27, 1937, a gala celebration was held at Pfeiffer Redwoods State Park to commemorate the opening of the highway. Governor Frank Merriam, Dr. John Roberts, Department of Public Works officials, and others were in attendance. With the help of a stick of dynamite and a bulldozer, Governor Merriam and Public Works Director Earl Lee Kelly symbolically pushed a large boulder out of the highway's path, thereby opening the road to the traveling public (Gibson 1937: 2). Previously, the governor dedicated the new section of highway in San Luis Obispo County and presided at a ceremony honoring the late Elmer S. Rigdon at a roadside park and water fountain that bears his name. (The water fountain still stands and is a contributing element of the Carmel-San Simeon Highway Historic District.)

The Big Creek Bridge, mentioned above, was the last of seven concrete arch bridges built along the Carmel-San Simeon Highway in Monterey County. Collectively known as the Big Sur Arches, these structures were designed by the Bridge Department of the

Division of Highways, under the leadership of Charles Andrew, an advocate for beautiful bridges in wilderness areas. Each of the bridges provided important crossings of deep, wide ravines and canyons hundreds of feet above the coastline. Of these, the Bixby Arch required the most ambitious design, requiring a clear span of 360 feet for its crossing of the creek 260 feet below. The engineers were also challenged with fitting such an imposing structure into the natural and beautiful setting of the Big Sur coastline. Their solution was to integrate thin arch rings, columns, and railings, so that it minimized obstructing views of the ocean, while at the same time utilizing oversized piers that offered some continuity with the hillside. As a result, the Bixby Bridge is widely regarded as one of the most attractive and well-designed rural bridges in the nation (Mikesell 1990: 96). Five of the other six arches generally mimic the basic design of the Bixby Creek Bridge; the sixth bridge, the Wildcat Creek Bridge, was built in the populated area of Carmel Highlands and therefore required a slightly different design (it is a closed spandrel arch). These concrete arch bridges are the last of the original 39 bridges built during the original construction of the Carmel-San Simeon Highway, the others being a variety of timber and steel structures (Mikesell December 1986: Appendix B).

During the construction of the Carmel-San Simeon Highway, the Division of Highways elected to build a substantial number of the highway's roadside engineering features – namely retaining walls, parapets (serving as guard rails), culvert headwalls, and water fountains – in the rustic style using rubble stone masonry. Rubble masonry construction involves the use of locally procured stones, irregular in shape and size, which are either wet laid (with mortar) or dry laid (without mortar). Beginning in the early 1920s and continuing into the 1950s, rubble masonry engineering features on state highways were built in large numbers, especially in rural and scenic areas. During this period, the Division of Highways utilized this construction method along segments of the "All Weather Highway" (modern Highway 140) in Mariposa County en route to Yosemite National Park, "Redwood Highway" (Highway 199) in Del Norte County, "Feather River Highway" (Highway 70) in Butte and Plumas counties, "Kings River Canyon Highway" (Highway 180) in Fresno County, and "Emerald Bay Highway" (Highway 89) in El Dorado County, to name a few. Although no comprehensive statewide study of this feature type has been developed, it is clear from available documentation that Division of Highways constructed literally thousands of rubble masonry features during the early to mid twentieth century, and that a large quantity of these still exist along state highways throughout California (Snyder 1983; Speer 1983; Mikesell September 1986; Fisher 1994; Clement 1997; Leach-Palm et al. 2004).

There are several reasons why the Division of Highways chose to use this construction method on the Carmel-San Simeon Highway and throughout the state. First was the ready availability of raw material created by the massive amount of dynamiting necessary to carve a new roadway out of especially rocky areas. In an extreme example, blasting for the Feather River Highway resulted in the removal of nearly 8,000,000 cubic yards of material, almost all of it from solid rock (Gallagher 1945: 6). These types of activities created a huge natural source of material for use by the resident engineers and stone masons that was both inexpensive and convenient.

Additionally, the construction of rubble masonry structures was a labor-intensive activity, one that provided part of the "make work" necessary to employ a large workforce. This applied to both prison labor crews and Depression-era relief projects for the unemployed. The contract of one section of the Carmel-San Simeon Highway, for example, specified that hand labor methods were to be used "to the maximum extent possible." This included transporting supplies by wheelbarrow, using hand excavation techniques, and building hand-laid masonry structures (Division of Highways, Contract 85WC-85PWC1, 1936: 18).

The decision to build rubble masonry features – parapets and drinking fountains in particular – was also an outgrowth of the "highway beautification" movement that began about 1912 and reached its peak of activity in the mid 1930s (Mikesell, September 1986). During the early twentieth century, public officials, civic leaders, and politicians sought ways to retain and improve the beauty of America's highways through the conservation of natural surroundings, control of roadside advertising, cleanup efforts, and landscape improvement programs. As early as 1912, civic groups such as the California Federation of Women's Clubs were agitating for roadside cleanup campaigns and control of signboard advertising along state highways. In 1918, the California State Highway Commission began a program of maintaining all trees planted on the right of way at private expense in an early attempt to answer the growing public interest for state highway beautification. Shortly thereafter the State Nursery near Davis was established, which, in 1921, released 7,600 trees to civic groups for roadside plantings. By 1927 there were nearly 700 miles of planted trees along the state highway rights-of-way (Division of Highways 1961).

During the mid to late 1920s the push to beautify California's public highways intensified. Several articles appearing in the Division of Highways journal, California Highways and Public Works, all published in 1929, capture the mood of the time. In an article summarizing the state of the highway system, Governor C.C. Young called attention to the importance of highway beautification: "A definite campaign which is winning widespread support has been launched to save the scenic values of highways, by preventing their injury through unsightly roadside structures and by billboards which, while properly situated in commercial areas along highways, yet have no place along our scenic roads" (Young 1929: 11). Frank McKee, Director of Highways for the California State Chamber of Commerce, cautioned that the "greatest value of a scenic spot is its natural beauty; to mar it in any way would be an economic mistake" (McKee 1929: 12) The title of U.S. Secretary of Interior Ray Lyman Wilbur's article, "A Plea for Beautiful Highways," perhaps most clearly illustrates the point. In this article, Wilbur reminds the American public that all have a

responsibility to preserve and conserve the natural beauty of American's highways, fast becoming national eyesores. Wilbur continued, "if we can all get interested in a beautiful America we will become a different people and we can will enjoy again those natural charms that quietly but effectively influence our character and thinking." Those natural charms could be best enjoyed in "attractive wayside stands, harmonious with their natural surroundings" (Wilber 1929: 24).

At a statewide level this interest in highway beautification culminated with the adoption of Assembly Concurrent Resolution No. 34 in 1931. The resolution mandated that the Division of Highways, in concert with the Division of Beaches and Parks, formulate a coordinated and cooperative roadside beautification plan for California state highways. The resolution called specifically for the development of small roadside parking and recreational areas along state and county routes. The Division of Highways responded by undertaking a statewide survey and producing the resultant California Highway Roadside Beautification Survey report, released in 1932. The plan placed an emphasis on tree planting campaigns, but also included other beautification proposals for recreational roadways such as the development of roadside picnic facilities, public campgrounds, lookout points, and drinking fountains (Division of Highways, Beautification Survey, 1932).

The design of the Carmel-San Simeon Highway, which was built to serve one of the most scenic regions in the state, incorporated many of these beautification features, but most notable among them was its collection of six roadside water fountains. Water fountains were built throughout the state for the purpose of providing drinking and radiator water to the traveling public, particularly along remote sections of state highway where commercial or other public facilities were not available. The other main criterion for site selection was the availability of a natural water source (Division of Highways, Beautification Survey, 1932: 33; Division of Highways, Eighth Biennial Report, November 1932: 111). By 1932, the Division of Highways had installed fountains at 18 locations scattered throughout California, mostly along established and heavily traveled routes, such as the Redwood Highway (US 101), but also along new and especially scenic routes, such as the Feather River Highway (Highway 170). The beautification study also proposed the construction of 47 more fountains on 28 different state highways, most of which were rural coastal, mountainous, and desert routes. By 1953 the division had constructed 89 fountains along its roadways (Division of Highways, Beautification Survey, 1932: 33,40-53; Division of Highways, California Roadsides, 1953: 42).

The Big Sur fountains, like many other roadside fountains constructed throughout the 1920s and 1930s, were embodiments of the Division of Highway's roadside beautification ethos during that period (Division of Highways, Memorandum, 1933-1934). The fountains were conscientiously designed to harmonize with the natural environment in which they were placed and, according to one Caltrans historian, "tend to be among the most ingenious, even playful, structures built by the agency" (Mikesell September 1986). Although no comprehensive survey of the type has yet been undertaken, available evidence suggests that none of the fountains were built according to a standard plan, and that each is a unique feature individually designed to fit into its particular setting. Some were modest in size and design, consisting of little more than a simple stone or concrete pedestal, while others were much more elaborate, incorporating benches, walls, terraces, or natural features such as boulders into their design. Many, including those on the Carmel-San Simeon Highway, were rubble masonry structures designed in the rustic style (Division of Highways, Eighth Biennial Report, November 1932: 110; Switzer 1937: 16). The rustic style of architecture, popularized by the National Parks Service during the 1910s and 1920s, was particularly suited for highway beautification projects as it promoted the use of natural, locally procured building materials, handcrafted building methods, and the subversion of the built feature to the surroundings (Tweed et al. 1977: i-ii).

During the first phase of highway construction of the Carmel-San Simeon Highway (1922-1924), the use of rock as a building material was relatively limited and its application was more pragmatic. The retaining walls built during the earliest phase of construction, between San Simeon and Salmon Creek, were exclusively dry laid. Furthermore, there were no parapet walls or fountains constructed. It appears that dry laid retaining walls were the standard design for the period, with mortared or "wet" walls being introduced as the more common choice after 1928. The final report for the San Simeon to Salmon Creek contract notes that the walls "were exceptionally good, as good stone masons were easily obtained from the Greek excavating gangs." This is the only reference in any of the available Division of Highways documentation to the ethnicity of the stone masons. These masons earned $6.00 per day, the same as truck drivers and watchmen. Comparatively, unskilled laborers made $4.00 to $5.00 per day, while carpenters earned up to $7.25 per day and mechanics made $8.00 (Division of Highways, Contract 331,1923: 6, 11).

After four years of inactivity, work on the Carmel-San Simeon Highway finally resumed in 1928, beginning with the Salmon Creek to Spruce Creek section (P.M. 2.23-9.36). During this nearly three-year contract, project engineers introduced several new practices concerning rubble wall construction that set a precedent for masonry construction on later highway sections. As mentioned above, the Salmon Creek to Spruce Creek contract was the first contract that employed convict laborers, a practice that continued through the duration of project. Also under this contract, the standard retaining wall construction transitioned from dry laid rock to mortared masonry construction. In April 1930, the battlement style parapet replaced the arcade as the preferred style of masonry parapets (all three of the Historic District's arcade style parapets were constructed during this contract). The resident engineer for this section also elected to abandon concrete culvert headwalls in favor of rubble masonry ones because the latter were considered "cheaper and more in keeping with the natural surroundings" (Division of Highways, Contract 25DN1, D679, 1931).

Stonemasons (free labor), with the assistance of unskilled convict or free laborers, built the rubble masonry features (Speer 1983; Fisher 1994). Stonemasons were considered skilled workers, and contracts during the 1930s list the prevailing wages for masons at $8.00 per day, on par with carpenters and foreman. This wage is in contrast to laborers who still earned $4.00-$5.00 per day, or truck drivers who earned $6.00 (Division of Highways, Contract 45WC1,October 1933: 80). According to Don Harlan, a longtime Big Sur resident and retired Division of Highways maintenance foreman, along the Big Sur Coast the truck drivers (all free men) each had a crew of six or eight convicts. They would search for a suitable supply of rock, load up the truck, and haul it to the site where the wall was to be built. The convict laborers unloaded the rock, handing each stone to the mason, who placed the rocks. The stones were usually locally procured and readily available, but on the occasion when local rock was in short supply or of poor quality, it had to be imported from other sections of the highway or purchased from private companies, usually at substantial extra cost. Unless the wall was intended to be dry laid, the last step was to mortar the stones into place and allow the cement to cure (Harlan 1995).

The stone walls were generally crafted by hand, but in some instances, such as when the retaining wall was located well below the roadway or when the stones were too large, crews employed rigs to hoist or lower the stones into place. Between Spruce Creek and Kirk Creek, for example, a tractor lowered the larger stones into place with cables and skids. For a particularly large wall in Carmel Highlands, contractors employed a 1½ yard power shovel, borrowed from its usual road excavation duties, to place boulder-sized stones at the base of the wall (Division of Highways, Contract No. 25DN3, 45DN4, March 1934: 16; Division of Highways, Contract 45WC1: 8).

The quantity and placement of rock masonry structures within a given highway section was a function of several factors, among them the abundant availability of quality rock and the ruggedness of the terrain. The 1934-1937 construction of the Anderson Canyon to Big Sur section yielded a very high number and concentration of rubble masonry features, especially between Partington Ridge and Grimes Canyon. Approximately 2,700 linear feet of parapet walls and 140 rubble masonry culvert headwalls were built along this section; the majority of the parapets still exist (Division of Highways, Contract 65W4-85W3, December 1937: 53).

Comparatively, on the south end of the highway where quality rock was already in scarce supply, the shortage was sometimes further exacerbated by human interference. The author of the final report for the San Simeon to Salmon Creek contract laments that "...no large amount of suitable rock could be found...[and] where good rock was encountered it was cast over the bank. The result was that there was a continuous hunt for suitable rock and it frequently had to be hauled from where it had been cast below the road, at considerable expense" (Division of Highways, Contract 331, 1924: 6) As a result, relatively few rubble masonry structures were built along this stretch of highway, with engineers instead relying on materials that were cheaper or easier to procure such as concrete and timber.

While the majority of the rubble masonry resources along the Carmel-San Simeon Highway were built according to standard plans developed by the Division of Highways during the 1920s (Division of Highways, Plan Number XS-0-28, 1924), the roadside water fountains each appear to be a unique feature. The Division of Highways installed six rubble masonry water fountains along the southern portion of the route, roughly between post miles 3.8 and 27.0. The fountains, built between 1928 and 1935, were placed at Soda Creek, Redwood Gulch, Spruce Creek, Willow Creek (then called El Senador Creek), Lucia, and approximately one mile south of Big Creek (the Rigdon Memorial Fountain). All still exist except the fountain at Spruce Creek, which the Division of Highways demolished in 1967 (Division of Highways, Contract 05-071504, 1967).

DISCUSSION OF SIGNIFICANCE

The historic significance of the rubble masonry structures along the Carmel-San Simeon Highway is best understood when the resource is considered as a historic district, rather than individually. National Register guidelines define a historic district as "...a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development." (Bulletin 15: 5) The district designation for this property is appropriate because its contributing features are significantly concentrated within a definable area, because they are historically related through the construction of the Carmel-San Simeon Highway, and because they are united by their common style and method of construction. Furthermore, guidelines allow for National Register eligibility even if the historic district's individual components lack distinction, as appears to be the case with this property (with the exception of the bridges, which have been determined individually eligible). Considered individually, none of the rubble masonry structures appear to meet the criteria for listing in the National Register because they are not significant examples of their type (please refer to the attached BSO forms for discussions of individual eligibility).

e Carmel-San Simeon Highway Historic District appears eligible for the National Register of Historic Places under Criterion A for associations with the "highway beautification" movement, a national movement which began in the 1910s and reached its peak in California during the early to mid 1930s. The movement reflected the public's desire to retain and improve the natural beauty of America's scenic highways by controlling roadway signboards and integrating natural construction materials into the landscape to

better harmonize with the surroundings. As discussed in the Historic Context above, the water fountains in particular were among the physical manifestations of the Division of Highway's highway beautification program in California during the 1920s and 1930s, the values and goals of which were articulated in the 1932 study "California Highway Roadside Beautification Survey." The rubble masonry retaining walls, parapets, culvert headwalls, and the water fountains that comprise the Historic District are a collective embodiment of the beautification ethos, constructed to serve vital utilitarian purposes while incorporating materials and designs that best harmonized with their scenic settings.

The current study agrees with Pavlik's conclusions that the Carmel-San Simeon Highway Historic District is eligible for the National Register under Criterion C, as a significant example of a type, period, and method of construction. The rubble masonry features along the highway are products of their time and place, built primarily by skilled masons in a structurally sound and context sensitive manner. As elements of the built environment associated with the highway, these features are examples of rustic style architecture utilized in rural construction projects for their harmonizing effect with the landscape. They are good examples of a method of construction, being hand crafted in a labor intensive fashion. The larger structures especially (such as the parapets) incorporate thick ribbons of mortar joints and perfectly sized and placed stones. Far from simple utilitarian structures, the designers and masons incorporated arcade windows in some of them, and battlements or piers in others, so that they were architecturally interesting and aesthetically pleasing.

For both Criteria A and C, the significance of the district is best understood when the rubble masonry features are considered as a group. Although a statewide thematic study of rustic-style, rubble masonry highway structures does not exist, several studies of masonry walls have been conducted in conjunction with highway construction projects along rural routes in Northern California (see Fisher, Speers, Mikesell, Clement). From these studies and others, it is clear that rubble masonry engineering features -- parapet walls, retaining walls, culvert headwalls, and even water fountains -- were built in large numbers along state highways, especially during the late 1920s and 1930s. It appears that no single rubble masonry feature from this period has been determined individually eligible for the National Register. And, at the present time only three groups of rubble masonry features have been determined eligible for listing: a collection of three parapets walls, a water fountain, and a masonry arch bridge at Emerald Bay ikesell September 1986); masonry walls and a water fountain along the Feather River Highway (Snyder 1983); and masonry walls and a viaduct at Echo Summit (Clement 1997). Several other studies have found collections of masonry highway features not eligible for listing (Speer 1983; Fisher 1994). The primary differentiating factors between those found eligible and those found not eligible comes down to the integrity of the resource and the concentration and character of "high quality" features.

The significance of the Carmel-San Simeon Highway Historic District, then, is best considered in comparison to similar resources. From available documentation, it appears that the foremost example of National Register-eligible rubble masonry engineering features along state highways are those located at Emerald Bay (the Feather River Highway rubble masonry features are included as part of the entire road system, including non-masonry bridges and tunnels). The "high quality" features of the Emerald Bay property consist of Eagle Creek Bridge, a true masonry arch bridge designed specifically for this location, and a water fountain that incorporates rustic stone railings and a natural boulder outcropping into its design. The other features, flat-topped and battlement style parapets similar to those found on the Carmel-San Simeon Highway, were also noted for their quality craftsmanship, aesthetic design, and high integrity. At the other end of the spectrum are the retaining walls on Route 199 in Del Norte County. These features, located along a roughly 29-mile long corridor of the highway, were rightly determined ineligible because they "do not represent a significant historic resource...as highway structural elements" (Speer 1883). This property, unlike the one at Emerald Bay, consists only of the more commonplace and less aesthetically pleasing subgrade masonry retaining walls, and lacks any of the unique or more elaborate features such as water fountains, masonry bridges, or, to a lesser degree, decorative parapet railings.

Within this context, it is clear that the collection of rustic rubble masonry engineering features along the Carmel-San Simeon Highway comprises a "high end" example of its type. The centerpiece of this collection is the group of five water fountains concentrated just north of the San Luis Obispo-Monterey county line. Each of these features appears to be unique: certainly, no two of the five found on the Carmel-San Simeon Highway are alike and, in all probability, each is unique in a statewide context as well. Their importance as a group is amplified given their total number and concentration. The aforementioned "Roadside Beautification Study" provides the best evidence of the location and number of such fountains built throughout the state up to the time of its publication (it also gives proposed future locations). As shown in the series of thirteen maps appended to the report, the Big Sur fountains are rivaled in number and concentration only by those on the Sonora Pass Route in Tuolumne County (five proposed); Big Oak Flat Route, also in Tuolumne County (one built, three proposed); Crest Line Route en route to Big Bear Lake in San Bernardino County (two built, one proposed); and Walker Pass Route in Kern County (one built, two proposed). It is important to note that it is not known at this time which (if any) of the proposed fountains were actually constructed, or how many of those that ere built still stand. However, the information provided in these maps provides suitable evidence that, in all likelihood, the ntains on the Carmel-San Simeon Highway today represent one of the largest -- if not the largest -- single extant groupings of its type in the state.

The Historic District parapets arguably represent a less important property type than the water fountains, primarily because they are

based on a standard design and were built in greater numbers throughout the state. Again, however, when considered as a group these features appear to comprise one of the larger collections in the state highway system. All told, there are 61 parapets comprising a total of approximately 5,400 linear feet in the Historic District. As far as may be determined at this time, this is the largest known collection of parapets along state highways, measured in number of features or total length. The parapets reflect three different styles -- battlement, arcade, and flat -- and blend harmoniously with the rugged, rural environment of the Big Sur coastline. The retaining walls and culvert headwalls, although contributors to the district, are less important because of their utilitarian nature and because they have less visual impact from the roadway. Considered as a whole, the Carmel-San Simeon Highway Historic District appears eligible under Criteria A and C as a significant example of its type.

The Historic District does not appear to meet the Criterion A requirements for its association with either convict labor programs or Depression-era work relief programs. Although highway construction documentation clearly establishes that these workers played a role in building the rubble masonry walls, they were not directly responsible for the masonry work (with the possible exception of rubble masonry culverts). As unskilled workers, their role was subordinate to the skilled masons and resident engineers who were ultimately responsible for the placement, design, and construction of the masonry structures. Furthermore, the district does not appear to share associations with important persons in our history that would make it eligible under Criterion B. In rare instances, buildings and structures themselves can serve as sources of important information about historic construction materials. The structures that comprise the historic district are otherwise well documented; therefore, they do not appear to be significant under Criterion D.

In addition to possessing historical significance, the district as a whole appears to retain a satisfactory degree of integrity. As Caltrans Historian Stephen Mikesell spelled out in his 1986 evaluation of the Carmel-San Simeon Highway, it is difficult to assess the overall integrity of the Historic District for a number of reasons. (Mikesell evaluated the highway as a total road system and included the entire universe of engineering features: bridges; the roadway surface; decorative railings, including stone masonry and timber railings; drinking fountains; distinctive subgrade shoring elements, such as masonry walls and timber cribs; and cattle passes. The current study addresses only the rubble masonry features). The first problem is that the feature types are weighted differently, making unequal contributions to the significance of the resource. The water fountains and parapet guardrails, which represent the most visible and artfully executed classes of features, contribute far more importantly to the significance of the district than the more utilitarian and less visible subgrade retaining walls and culvert headwalls. The second problem is that, for the retaining walls in particular, construction records do not always provide a definitive list or total number of linear feet of these features constructed for a given contract.

Nonetheless, a comparison of the existing number of features against the known (or estimated) number of features constructed during the period of significance (1922-1938) indicates that the Historic District retains a high enough degree of integrity to convey its significance. As discussed previously in "P3a. Description" on the Primary Record, the documentation of the Historic District features is the culmination of several inventory efforts, in particular Far Western's comprehensive survey of the entire highway right of way in 2001 (Mikkelsen 2001). These studies have provided highly accurate and detailed data regarding the physical description, dimensions, and location of every rubble masonry feature that still stands and contributes to the Historic District (summarized in Table 1 of this form). As part of the current study, JRP has intensively studied the final reports and as-built plans for every major construction contract of the Carmel-San Simeon Highway from 1922 through 1937 in an effort to assess as accurately as possible the total number of rubble masonry features originally constructed. A comparison of these two sets of data provides the basis of the integrity discussion below.

The water fountains, which collectively comprise the most valuable class of rubble masonry resources on the highway, retain a fairly high degree of integrity. Individually, each has suffered a small loss of integrity, owing to missing stones, non-sympathetic patchwork, and the fact that they no longer function as water fountains. However, each retains the vast majority of its original massing, materials, and elements of design. When considered as a group, the fountains have lost some of their integrity following the loss of the Spruce Creek fountain. Still, five of the six original fountains – more than 80% – still stand.

Analysis of the integrity of the parapets follows a similar method of comparison. Like the fountains, many of the individual components have lost some of their original materials or have been patched in a historically non-sympathetic manner, and a far fewer number have lost large sections. Most, though, retain a very high degree of integrity. The parapets also retain a fair to high degree of integrity when considered as a group. A close study of the as-built plans and final reports for the Carmel-San Simeon Highway reveals the following statistics regarding the linear footage of parapet walls constructed for each contract:

- San Simeon – San Luis Obispo County Line: No parapets constructed
- San Luis Obispo County Line – Salmon Creek: 350 linear feet (approximate)
- Salmon Creek – Spruce Creek: 1,322 linear feet
- Spruce Creek – Kirk Creek: 164 linear feet
- Kirk Creek – Big Creek: 894 linear feet

- Big Creek – Anderson Canyon: No parapets constructed
- Anderson Canyon – Big Sur River: 2,679 linear feet
- Big Sur River – South of Moleras Ranch: No parapets constructed
- South of Moleras Ranch – Moleras Ranch: No parapets constructed
- Moleras Ranch – Rocky Creek: 400 linear feet
- Rocky Creek – San Remo Divide: 119 linear feet
- San Remo Divide – Carmel River: 1,170 linear feet

The total linear feet of parapet walls originally constructed is approximately 7,100 feet. The total linear feet of parapet walls still standing measures just short of 5,400 linear feet (Mikkelsen 2001). Considered in terms of total length, approximately 75% of the parapet walls still stand.

The subgrade retaining walls are the most difficult feature to quantify for several reasons. First, as mentioned above, the contract reports and plans do not always provide reliable totals for the amount of retaining walls constructed. In some cases where totals are provided, the amount is given in terms of cubic yards of materials used; these values are virtually impossible to compare to known values of the walls that still stand, which are measured in total number and linear feet. Second, the retaining walls were often constructed with parapet railings and, in the accompanying reports, were counted not as retaining walls but as parapets. Both of the previous studies of the Carmel-San Simeon Highway acknowledge that exact quantification of this feature type is difficult or impossible, but agree that the retaining walls were remarkably well built and were not subject to routine replacement. The subgrade masonry retaining walls still retain a marginal degree of integrity, a conclusion that this report agrees with (Mikesell December 1986; Pavlik 1996).

Lastly, the rubble masonry culvert headwalls have suffered the greatest loss of physical integrity, due to their damage from car hits, rockfalls and slides, and maintenance activities. In total, 158 of the approximately 600 masonry culverts originally constructed – or about one-fourth – still remain. These features also represent the least impressive of the rubble masonry features in terms of their sign, engineering, and visual impact. As a group, they contribute the least amount of significance to the Historic District.

On balance, then, the rubble masonry features that comprise the Carmel-San Simeon Highway Historic District appear to retain a high enough degree of integrity to adequately convey the district's significance under Criteria A and C. The district has lost large numbers of its more utilitarian structures, namely the culverts and to a lesser degree the subgrade retaining walls, but has retained the vast majority of both the parapet guardrails and water fountains, the features that best convey the district's significance because of their high-quality craftsmanship and context-sensitive design.

Following the same rationale applied to the National Register evaluation of the Carmel-San Simeon Highway Historic District, the district also appears to be a historical resource for the purposes of CEQA. It appears to qualify under Criterion 1 because it is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage, and under Criterion 3 as it embodies the distinctive characteristics of a type, period, region, and method of construction.

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_____. "Final Report, Contract 65WC2, for the Construction of a Secondary Highway in Monterey County Between Big Sur and 1.6 miles South of Molera Ranch, Road V-MON-56-F," September 8, 1934.

_____. "Final Report, Contract No. 85WC1-85PWC1, for the Construction of a Secondary State Highway in Monterey County Between 1.6 miles South of Molera's Ranch to Molera's Ranch, Road V-MON-56-F," December 11, 1936.

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Road 05-MON-01-3.8/27.0," November 3, 1967. (Note: this contract was for the improvement of four existing drinking fountains and the demolition of the Spruce Creek fountain.)

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_____. Phone interview with Robert Pavlik, March 3, 1995.

*NRHP Status Code: 2D2
*Resource Name or #: Carmel-San Simeon Highway Historic District

B1. Historic Name: Parapet guardrails
B2. Common Name:
B3. Original Use: Highway guardrails **B4. Present Use:** Highway guardrails
* **B5. Architectural Style:** Rustic rubble masonry
* **B6. Construction History:**
Built between 1928 and 1937.

* **B7. Moved?** ☑ No ☐ Yes ☐ Unknown **Date:** **Original Location:**
* **B8. Related Features:**
Rubble masonry water fountains, retaining walls, and culvert headwalls; seven concrete arch bridges.

B9a. Architect: Division of Highways **B9b. Builder:** Division of Highways, WPA/convict labor
* **B10. Signficance: Theme:** n/a **Area:** n/a
Period of Significance: n/a **Property Type:** n/a **Applicable Criteria:** n/a
None of the rubble masonry parapets of the Carmel-San Simeon Highway Historic District, listed in Tables 3-5 of this form, individually appears to meet the criteria for listing in the National Register of Historic Places. Neither do they appear to be historical resources for the purposes of CEQA. Their potential for listing lies under Criterion A (California Register Criterion 1), for their association with the "highway beautification" movement, and under Criterion C (3), as examples of a technology that is no longer employed in highway construction projects. (See Continuation Sheet on the following page.)

B11. Additional Resource Attributes:
* **B12. References:**
See District Record, "D7, References."

(Sketch map with north arrow required.)

B13. Remarks:
See Appendix B for Sketch Map.

* **B14. Evaluator:** Stephen Wee, Bryan Larson, JRP Historical Consulting, Davis, CA 95616
* **Date of Evaluation:** 10/6/2004

(This space reserved for official comments.)

CONTINUATION FOR BSO RECORD -- PARAPETS

B10. Significance (continued):

The potential for National Register of Historic Places and California Register of Historical Resources eligibility for the parapet walls lies under Criterion A (1), for their associations with the "highway beautification" movement, a national movement which began in the 1910s and reached its peak in California during the early to mid 1930s. The movement reflected the public's desire to retain and improve the natural beauty of America's scenic highways by controlling roadway signboards and integrating to use of natural construction materials to better harmonize with the surroundings. As discussed in the Historic Context section of the attached District Record form, rubble masonry features were constructed first and foremost as safety features of the highway, but were also sensitively designed to be physical manifestations of the Division of Highway's highway beautification program in California during the 1920s and 1930s, the values and goals of which were articulated in the 1932 study "California Highway Roadside Beautification Survey."

The parapets are also potentially eligible under Criterion C (3) as examples of a type (rustic style rubble masonry), period (1920s-1930s), and method of construction (handcrafted). The rubble masonry features along the highway are products of their time and place, built by skilled masons in a structurally sound and context sensitive manner. As elements of the built environment associated with the highway, these features are examples of rustic style architecture utilized in rural construction projects for their harmonizing effect with the landscape. They are good examples of a method of construction, being skillfully hand crafted in a labor intensive fashion, incorporating thick ribbons of mortar joints and perfectly sized and placed stones. In the parapets, the designers and masons incorporated arcade windows in some of them, and battlements, or piers, in others, so that they were architecturally interesting and aesthetically pleasing.

In spite of these associations, none of the individual parapet walls appear to meet the eligibility requirements because they do not constitute a significant or exceptional example of its type. The parapet walls along the Carmel-San Simeon Highway are based on a standard Division of Highway design dating to the 1920s. Furthermore, it is clear from available documentation that dozens, possibly hundreds, of rubble masonry parapets were built throughout the state during and immediately preceding the Depression era, and that a large quantity of these still exist on state highways (see: Speer 1983; Mikesell 1986; Fisher 1994; Clement 1997; Leach-Palm, et al 2004). Furthermore, none of these studies determined any rubble masonry structures individually eligible. Those that were determined eligible were all contributors to historic districts, such as the district of masonry structures on Highway 89 at Emerald Bay, in El Dorado County. Evaluated within this context, none of the individual parapets appear eligible for listing in the National Register or California Register under Criteria A or C (1 or 3) because they are not important examples of their type.

In addition, the parapets do not appear to share associations with important persons in our history that would make them eligible under Criterion B (2). In rare instances, buildings and structures themselves can serve as sources of important information about historic construction materials. These structures are otherwise well documented, and therefore do not appear to be significant under Criterion D (4).

BUILDING, STRUCTURE, AND OBJECT RECORD

*NRHP Status Code: 2D2
*Resource Name or #: Carmel-San Simeon Highway Historic District

B1. Historic Name: Big Sur Water Fountains
B2. Common Name: Soda Springs, Big Redwood, Willow Creek, Lucia, and Rigdon Memorial fountains
B3. Original Use: Roadside water fountains **B4. Present Use:** Abandoned
* **B5. Architectural Style:** Rustic rubble masonry
* **B6. Construction History:**
The five roadside water fountains were built between 1928 and 1935 (see District Record, "D.3, Detailed Description," for discussion of individual construction dates). There were originally six fountains with the district, but one located at Spruce Creek was demolished in 1967.

* **B7. Moved?** ☑ No ☐ Yes ☐ Unknown **Date:** **Original Location:**
* **B8. Related Features:**
Rubble masonry parapets, retaining walls, and culvert headwalls; seven concrete arch bridges.

B9a. Architect: Division of Highways **B9b. Builder:** Division of Highways, convict labor
* **B10. Signficance: Theme:** n/a **Area:** n/a
Period of Significance: n/a **Property Type:** n/a **Applicable Criteria:** n/a
None of the rubble masonry water fountains of the Carmel-San Simeon Highway Historic District, listed in Table 2 of this form, individually appears to meet the criteria for listing in the National Register of Historic Places. Neither do they appear to be historical resources for the purposes of CEQA. Their potential for listing lies under Criterion A (California Register Criterion 1), for their association with the "highway beautification" movement, and under Criterion C (3), as examples of a technology that is no longer employed in highway construction projects. (See Continuation Sheet on the following page.)

B11. Additional Resource Attributes:
* **B12. References:**
See District Record, "D.7, References."

(Sketch map with north arrow required.)

B13. Remarks:
See Appendix B for Sketch Map.

* **B14. Evaluator:** Stephen Wee, Bryan Larson, JRP Historical Consulting, 1490 Drew Avenue, Suite 110, Davis, CA
* **Date of Evaluation:** 10/6/2004

(This space reserved for official comments.)

CONTINUATION SHEET FOR BSO FORM -- WATER FOUNTAINS

B10. Significance (continued):

The potential for National Register of Historic Places and California Register of Historical Resources eligibility for the water fountains lies under Criterion A (1), for their associations with the "highway beautification" movement, a national movement which began in the 1910s and reached its peak in California during the early to mid 1930s. The movement reflected the public's desire to retain and improve the natural beauty of America's scenic highways by controlling roadway signboards and integrating to use of natural construction materials to better harmonize with the surroundings. As discussed in the Historic Context section of the attached District Record form, rubble masonry features were constructed first and foremost as safety features of the highway, but were also sensitively designed to be physical manifestations of the Division of Highway's highway beautification program in California during the 1920s and 1930s, the values and goals of which were articulated in the 1932 study "California Highway Roadside Beautification Survey."

The fountains are also potentially eligible under Criterion C (3) as examples of a type (rustic style rubble masonry), period (1920s-1930s), and method of construction (handcrafted). The rubble masonry features along the highway are products of their time and place, built by skilled masons in a structurally sound and context sensitive manner. As elements of the built environment associated with the highway, these features are examples of rustic style architecture utilized in rural construction projects for their harmonizing effect with the landscape. They are good examples of a method of construction, being skillfully hand crafted in a labor intensive fashion, incorporating thick ribbons of mortar joints and perfectly sized and placed stones.

In spite of these associations, none of the water fountains appear to meet the eligibility requirements as individual resources. During the 1920s and 1930s, water fountains were built throughout the state for the purpose of providing drinking and radiator water to the traveling public, particularly along remote sections of state highway where commercial or other public facilities were not available. By 1932, the Division of Highways had installed fountains at 18 locations scattered throughout California, mostly along established and heavily traveled routes, such as the Redwood Highway (US 101), but also along new and especially scenic routes, such as the Feather River Highway (Highway 170). The beautification study also proposed the construction of 47 more fountains on 28 different state highways, most of which were rural coastal, mountainous, and desert routes. By 1953 the division had constructed 89 fountains along its roadways. Most appear to have been designed specifically for their site, built of rubble masonry, and designed to reflect the rustic style.

Evaluated within this context, none of the fountains appear to meet the requirements that would warrant inclusion in the National Register or California Register as individual resources. Under Criterion A (1), the individual fountains do not adequately convey the principals of the "highway beautification" movement of the 1920s and 1930s. The beautification ethos was expressed physically on highways throughout the state in a variety of ways: through tree planting campaigns, the establishment of roadside parks, as well as the development of aesthetically pleasing engineering features. Treated individually, none of the fountains strongly convey the values of the movement. Under Criterion C (3), the individual fountains do not appear to be the work of a master, nor do they appear to be significant examples of their type, period, or method of construction. Although they appear to be unique in terms of their design, they were among dozens of similar resources constructed along state highways during the same period and do not appear to be outstanding examples of their type. For both Criteria A and C (1 and 3), the fountains are best considered as contributors to a historic district. In the case of the Carmel-San Simeon Historic District, the fountains are key components of a collection of features that includes more than 60 parapet walls as well as several dozen retaining walls and culvert headwalls. It is the collective value of the features that most strongly and effectively conveys the district's historic significance, in terms of both highway beautification and type, period, and method of construction.

In addition, available documentation does not suggest that any of the fountains share associations with important persons in our history that would make them eligible under Criterion B (2). In rare instances, buildings and structures themselves can serve as sources of important information about historic construction materials. These structures are otherwise documented, and therefore do not appear to be significant under Criterion D (4).

BUILDING, STRUCTURE, AND OBJECT RECORD

*NRHP Status Code: 2D2
*Resource Name or #: Carmel-San Simeon Highway Historic District

B1. Historic Name: Retaining Walls
B2. Common Name:
B3. Original Use: Highway retaining walls
B4. Present Use: Highway retaining walls
* B5. Architectural Style: Rustic rubble masonry
* B6. Construction History:
Built between 1922 and 1937.

* B7. Moved? ☑ No ☐ Yes ☐ Unknown Date: Original Location:
* B8. Related Features:
Rubble masonry water fountains, parapets, and culvert headwalls; seven concrete arch bridges.

B9a. Architect: Division of Highways
B9b. Builder: Division of Highways, WPA/convict labor
* B10. Signficance: Theme: n/a
Area: n/a
Period of Significance: n/a
Property Type: n/a
Applicable Criteria: n/a
None of the rubble masonry retaining walls of the Carmel-San Simeon Highway Historic District, listed in Table 6 of this form, individually appears to meet the criteria for listing in the National Register of Historic Places. Neither do they appear to be historical resources for the purposes of CEQA. Their potential for listing lies under Criterion A (California Register Criterion 1), for their association with the "highway beautification" movement, and under Criterion C (3), as examples of a technology that is no longer employed in highway construction projects. (See Continuation Sheet)

B11. Additional Resource Attributes:
* B12. References:
See District Record, "D7, References."

B13. Remarks:
See Appendix B for Sketch Map.

* B14. Evaluator: Stephen Wee, Bryan Larson, JRP Historical Consulting, Davis, CA 95616
* Date of Evaluation: 10/6/2004

(This space reserved for official comments.)

(Sketch map with north arrow required.)

CONTINUATION SHEET FOR BSO RECORD -- RETAINING WALLS

B10. Significance (continued):

The potential for National Register of Historic Places and California Register of Historical Resources eligibility for the rubble masonry retaining walls lies under Criterion A (1), for their associations with the "highway beautification" movement, a national movement which began in the 1910s and reached its peak in California during the early to mid 1930s. The movement reflected the public's desire to retain and improve the natural beauty of America's scenic highways by controlling roadway signboards and integrating to use of natural construction materials to better harmonize with the surroundings. As discussed in the Historic Context section of the attached District Record form, rubble masonry features were constructed first and foremost as safety features of the highway, but were also sensitively designed to be physical manifestations of the Division of Highway's highway beautification program in California during the 1920s and 1930s, the values and goals of which were articulated in the 1932 study "California Highway Roadside Beautification Survey."

The retaining walls are also potentially eligible under Criterion C (3) as examples of a type (rustic style rubble masonry), period (1920s-1930s), and method of construction (handcrafted). The rubble masonry features along the highway are products of their time and place, built by skilled masons in a structurally sound and context sensitive manner. As elements of the built environment associated with the highway, these features are examples of rustic style architecture utilized in rural construction projects for their harmonizing effect with the landscape. They are good examples of a method of construction, being skillfully hand crafted in a labor intensive fashion, most incorporating thick ribbons of mortar joints and perfectly sized and placed stones.

In spite of these associations, none of the individual retaining walls appear to meet the eligibility requirements because they do not constitute a significant or exceptional example of its type. The retaining walls along the Carmel-San Simeon Highway are based on a standard Division of Highway design dating to the 1920s. Furthermore, it is clear from available documentation that dozens, ssibly hundreds, of rubble masonry retaining walls were built throughout the state during and immediately preceding the Depression era, and that a large quantity of these still exist on state highways (see: Speer 1983; Mikesell 1986; Fisher 1994; Clement 1997; Leach-Palm, et al 2004). Furthermore, none of these studies determined any rubble masonry structures individually eligible. Those that were determined eligible were all contributors to historic districts, such as the district of masonry structures on Highway 89 at Emerald Bay, in El Dorado County. Evaluated within this context, none of the individual retaining walls appear eligible for listing in the National Register or California Register under Criteria A or C (1 or 3) because they are not important examples of their type.

In addition, the walls do not appear to share associations with important persons in our history that would make them eligible under Criterion B (2). In rare instances, buildings and structures themselves can serve as sources of important information about historic construction materials. These structures are otherwise well documented, and therefore do not appear to be significant under Criterion D (4).

BUILDING, STRUCTURE, AND OBJECT RECORD

*NRHP Status Code: 2D2
*Resource Name or #: Carmel-San Simeon Highway Historic District

B1. Historic Name: Culvert Headwalls
B2. Common Name:
B3. Original Use: Culvert headwalls
B4. Present Use: Culvert headwalls
* **B5. Architectural Style:** Rustic rubble masonry
* **B6. Construction History:**
Built between 1922 and 1937.

* **B7. Moved?** ☑ No ☐ Yes ☐ Unknown **Date:** **Original Location:**
* **B8. Related Features:**
Rubble masonry water fountains, parapets, and retaining walls; seven concrete arch bridges.

B9a. Architect: Division of Highways
B9b. Builder: Division of Highways, WPA/convict labor
* **B10. Signficance: Theme:** n/a **Area:** n/a
Period of Significance: n/a **Property Type:** n/a **Applicable Criteria:** n/a
None of the rubble masonry culvert headwalls of the Carmel-San Simeon Highway Historic District, listed in Table 7 of this form, individually appears to meet the criteria for listing in the National Register of Historic Places. Neither do they appear to be historical resources for the purposes of CEQA. Their potential for listing lies under Criterion A (California Register Criterion 1), for their association with the "highway beautification" movement, and under Criterion C (3), as examples of a technology that is no longer employed in highway construction projects. (See Continuation Sheet on the following page.)

B11. Additional Resource Attributes:
* **B12. References:**
See District Record, "D7, References."

(Sketch map with north arrow required.)

B13. Remarks:
See Appendix B for Sketch Map.

* **B14. Evaluator:** Stephen Wee, Bryan Larson, JRP Historical Consulting, Davis, CA 95616
* **Date of Evaluation:** 10/6/2004

(This space reserved for official comments.)

CONTINUATION SHEET FOR BSO RECORD -- CULVERT HEADWALLS

B10. Significance (continued):

The rubble masonry headwalls along the Carmel-San Simeon Highway are utilitarian highway engineering features that are based on a standard Division of Highways design. It is clear from available documentation that hundreds, possibly thousands, of similar headwalls were built throughout the state during and immediately preceding the Depression era, and that a large quantity of these still exist on state highways (see: Speer 1983; Mikesell 1986; Fisher 1994; Clement 1997; Leach-Palm, et al 2004). Furthermore, none of these studies determined any rubble masonry structures individually eligible. Those that were determined eligible were all contributors to historic districts, such as the district of masonry structures on Highway 89 at Emerald Bay, in El Dorado County; none of these were culverts. Evaluated within this context, none of the individual culvert headwalls appear eligible for listing in the National Register or California Register under Criterion C (3) because they are not important architecturally or in terms of their engineering. Neither do the headwalls appear to be significantly associated with events or trends important to our past (Criterion A or 1), nor with important persons (Criterion B or 2). In rare instances, buildings and structures themselves can serve as sources of important information about historic construction materials. These structures are otherwise well documented, and therefore do not appear to be significant under Criterion D (4).

BUILDING, STRUCTURE, AND OBJECT RECORD

*NRHP Status Code: 2B
*Resource Name or #: Carmel-San Simeon Highway Historic District

B1. Historic Name: Big Creek Bridge
B2. Common Name: Bridge #44-0056
B3. Original Use: Highway automobile bridge
B4. Present Use: Highway automobile bridge
* B5. Architectural Style: Utilitarian
* B6. Construction History:
Built in 1938.

* B7. Moved? ☑ No ☐ Yes ☐ Unknown Date: Original Location:
* B8. Related Features:
Rubble masonry water fountains, parapet walls, retaining walls, and culvert headwalls.

B9a. Architect: Division of Highways
B9b. Builder: C.O. Sparks
* B10. Signficance: Theme: Rural Highway/Bridge Construction Area: Big Sur Coast, Monterey County
Period of Significance: 1938 Property Type: Concrete arch brid Applicable Criteria: A, C
Big Creek Bridge is one of the seven concrete arch bridges on Highway 1 in Monterey County collectively known as the Big Sur Arches (44-0012, 44-0016, 44-0017, 44-0018, 44-0019, 44-0036, and 44-0056). All have been determined individually eligible for listing in the National Register of Historic Places as part of the Bridge Inventory conducted by Caltrans between 1984 and 1986. The bridges were found to be significant under Criterion C as distinctive examples of period, method of construction, and the work of a master, as well as Criterion A in the area of transportation. The State Historic Preservation Officer (SHPO) concurred that Big Creek Bridge retained its eligibility status following a seismic retrofit in 2000. Additionally, in 2004, Caltrans completed an update to its original 1980s survey of concrete arch bridges throughout the state. That study concluded that Big Creek Bridge, as well as the other six Big Sur Arches, retains historic integrity and therefore appears to continue to meet the criteria for listing in the National Register (JRP April 2004).

B11. Additional Resource Attributes:
* B12. References:
JRP Historical Consulting, "Caltrans Historic Bridge Inventory Update: Concrete Arch Bridges," April 2004; Stephen D. Mikesell, "Historic Resource Evaluation Report: The Carmel-San Simeon Highway," December 1986.

B13. Remarks:
See Appendix B for Sketch Map.

* B14. Evaluator: Stephen Wee, Bryan Larson, JRP Historical Consulting, Davis, CA 95616
* Date of Evaluation: 10/6/2004

(This space reserved for official comments.)

(Sketch map with north arrow required.)

BUILDING, STRUCTURE, AND OBJECT RECORD

*NRHP Status Code: 2B
*Resource Name or #: Carmel-San Simeon Highway Historic District

B1. Historic Name: Bixby Creek Bridge
B2. Common Name: Bridge #44-0019
B3. Original Use: Highway automobile bridge
B4. Present Use: Highway automobile bridge
* **B5. Architectural Style:** Utilitarian
* **B6. Construction History:**
Built in 1932

* **B7. Moved?** ☑ No ☐ Yes ☐ Unknown **Date:** **Original Location:**
* **B8. Related Features:**
Rubble masonry water fountains, parapet walls, retaining walls, and culvert headwalls.

B9a. Architect: Division of Highways
B9b. Builder: Ward Engineering
* **B10. Signficance: Theme:** Rural Highway/Bridge Construction **Area:** Big Sur Coast, Monterey County
Period of Significance: 1932 **Property Type:** Concrete arch brid **Applicable Criteria:** A, C
Bixby Creek Bridge is one of the seven concrete arch bridges on Highway 1 in Monterey County collectively known as the Big Sur Arches (44-0012, 44-0016, 44-0017, 44-0018, 44-0019, 44-0036, and 44-0056). All have been determined individually eligible for listing in the National Register of Historic Places as part of the Bridge Inventory conducted by Caltrans between 1984 and 1986. The bridges were found to be significant under Criterion C as distinctive examples of period, method of construction, and the work of a master, as well as Criterion A in the area of transportation. Seismic retrofit work undertaken on the Bixby Creek Bridge in 1997 was determined to have had No Adverse Effect. Additionally, in 2004, Caltrans completed an update to its original 1980s survey of concrete arch bridges throughout the state. That study concluded that Bixby Creek Bridge, as well as the other six Big Sur Arches, retains historic integrity and therefore appears to continue to meet the criteria for listing in the National Register (JRP April 2004).

B11. Additional Resource Attributes:
* **B12. References:**
JRP Historical Consulting, "Caltrans Historic Bridge Inventory Update: Concrete Arch Bridges," April 2004; Stephen D. Mikesell, "Historic Resource Evaluation Report: The Carmel-San Simeon Highway," December 1986.

B13. Remarks:
See Appendix B for Sketch Map.

* **B14. Evaluator:** Stephen Wee, Bryan Larson, JRP Historical Consulting, Davis, CA 95616
* **Date of Evaluation:** 10/6/2004

(This space reserved for official comments.)

(Sketch map with north arrow required.)

*NRHP Status Code: 2B
*Resource Name or #: Carmel-San Simeon Highway Historic District

B1. Historic Name: Rocky Creek Bridge
B2. Common Name: Bridge #44-0036
B3. Original Use: Highway automobile bridge
B4. Present Use: Highway automobile bridge
* **B5. Architectural Style:** Utilitarian
* **B6. Construction History:**
Built in 1932

* **B7. Moved?** ☑ No ☐ Yes ☐ Unknown **Date:** **Original Location:**
* **B8. Related Features:**
Rubble masonry water fountains, parapet walls, retaining walls, and culvert headwalls.

B9a. Architect: Division of Highways
B9b. Builder: Ward Engineering
* **B10. Signficance: Theme:** Rural Highway/Bridge Construction **Area:** Big Sur Coast, Monterey County
Period of Significance: 1932 **Property Type:** Concrete arch brid **Applicable Criteria:** A, C
Rocky Creek Bridge is one of the seven concrete arch bridges on Highway 1 in Monterey County collectively known as the Big Sur Arches (44-0012, 44-0016, 44-0017, 44-0018, 44-0019, 44-0036, and 44-0056). All have been determined individually eligible for listing in the National Register of Historic Places as part of the Bridge Inventory conducted by Caltrans between 1984 and 1986. The bridges were found to be significant under Criterion C as distinctive examples of period, method of construction, and the work of a master, as well as Criterion A in the area of transportation. Seismic retrofit work in 1997 adversely affected the Rocky Creek Bridge, but with standard mitigation the State Historic Preservation Officer (SHPO) concurred that bridge was still eligible in 2001. Additionally, in 2004, Caltrans completed an update to its original 1980s survey of concrete arch bridges throughout the state. That study concluded that Rocky Creek Bridge, as well as the other six Big Sur Arches, retains historic integrity and therefore appears to continue to meet the criteria for listing in the National Register (JRP April 2004).

B11. Additional Resource Attributes:
* **B12. References:**
JRP Historical Consulting, "Caltrans Historic Bridge Inventory Update: Concrete Arch Bridges," April 2004; Stephen D. Mikesell, "Historic Resource Evaluation Report: The Carmel-San Simeon Highway," December 1986.

B13. Remarks:
See Appendix B for Sketch Map.

* **B14. Evaluator:** Stephen Wee, Bryan Larson, JRP Historical Consulting, Davis, CA 95616
* **Date of Evaluation:** 10/6/2004

(This space reserved for official comments.)

(Sketch map with north arrow required.)

BUILDING, STRUCTURE, AND OBJECT RECORD

*NRHP Status Code: 2B
*Resource Name or #: Carmel-San Simeon Highway Historic District

B1. Historic Name: Garrapata Creek Bridge
B2. Common Name: Bridge #44-0018
B3. Original Use: Highway automobile bridge
B4. Present Use: Highway automobile bridge
* **B5. Architectural Style:** Utilitarian
* **B6. Construction History:**
Built in 1931.

* **B7. Moved?** ☑ No ☐ Yes ☐ Unknown **Date:** **Original Location:**
* **B8. Related Features:**
Rubble masonry water fountains, parapet walls, retaining walls, and culvert headwalls.

B9a. Architect: Division of Highways
B9b. Builder: Hanrahan Co.
* **B10. Signficance: Theme:** Rural Highway/Bridge Construction
Area: Big Sur Coast, Monterey County
Period of Significance: 1931 **Property Type:** Concrete arch brid **Applicable Criteria:** A, C

Garrapata Creek Bridge is one of the seven concrete arch bridges on Highway 1 in Monterey County collectively known as the Big Sur Arches (44-0012, 44-0016, 44-0017, 44-0018, 44-0019, 44-0036, and 44-0056). All have been determined individually eligible for listing in the National Register of Historic Places as part of the Bridge Inventory conducted by Caltrans between 1984 and 1986. The bridges were found to be significant under Criterion C as distinctive examples of period, method of construction, and the work of a master, as well as Criterion A in the area of transportation. Seismic retrofit work undertaken on the Garrapata Creek Bridge in 1997 was determined to have had No Adverse Effect. Additionally, in 2004, Caltrans completed an update to its original 1980s survey of concrete arch bridges throughout the state. That study concluded that Garrapata Creek Bridge, as well as the other six Big Sur Arches, retains historic integrity and therefore appears to continue to meet the criteria for listing in the National Register (JRP April 2004).

B11. Additional Resource Attributes:
* **B12. References:**
JRP Historical Consulting, "Caltrans Historic Bridge Inventory Update: Concrete Arch Bridges," April 2004; Stephen D. Mikesell, "Historic Resource Evaluation Report: The Carmel-San Simeon Highway," December 1986.

B13. Remarks:
See Appendix B for Sketch Map.

* **B14. Evaluator:** Stephen Wee, Bryan Larson, JRP Historical Consulting, Davis, CA 95616
* **Date of Evaluation:** 10/6/2004

(This space reserved for official comments.)

(Sketch map with north arrow required.)

*NRHP Status Code: 2B
*Resource Name or #: Carmel-San Simeon Highway Historic District

B1. Historic Name: Granite Canyon Bridge
B2. Common Name: Bridge #44-0012
B3. Original Use: Highway automobile bridge
B4. Present Use: Highway automobile bridge
* **B5. Architectural Style:** Utilitarian
* **B6. Construction History:**
Built in 1932

* **B7. Moved?** ☑ No ☐ Yes ☐ Unknown **Date:** **Original Location:**
* **B8. Related Features:**
Rubble masonry water fountains, parapet walls, retaining walls, and culvert headwalls.

B9a. Architect: Division of Highways
B9b. Builder: George J. Ulrich
* **B10. Signficance: Theme:** Rural Highway/Bridge Construction **Area:** Big Sur Coast, Monterey County
Period of Significance: 1932 **Property Type:** Concrete arch brid **Applicable Criteria:** A, C
Granite Canyon Bridge is one of the seven concrete arch bridges on Highway 1 in Monterey County collectively known as the Big Sur Arches (44-0012, 44-0016, 44-0017, 44-0018, 44-0019, 44-0036, and 44-0056). All have been determined individually eligible for listing in the National Register of Historic Places as part of the Bridge Inventory conducted by Caltrans between 1984 and 1986. The bridges were found to be significant under Criterion C as distinctive examples of period, method of construction, and the work of a master, as well as Criterion A in the area of transportation. Seismic retrofit work in undertaken on the Granite Canyon Bridge in 1997 was determined to have had No Adverse Effect. Additionally, in 2004, Caltrans completed an update to its original 1980s survey of concrete arch bridges throughout the state. That study concluded that Granite Canyon Bridge, as well as the other six Big Sur Arches, retains historic integrity and therefore appears to continue to meet the criteria for listing in the National Register (JRP April 2004).

B11. Additional Resource Attributes:
* **B12. References:**
JRP Historical Consulting, "Caltrans Historic Bridge Inventory Update: Concrete Arch Bridges," April 2004; Stephen D. Mikesell, "Historic Resource Evaluation Report: The Carmel-San Simeon Highway," December 1986.

B13. Remarks:
See Appendix B for Sketch Map.

* **B14. Evaluator:** Stephen Wee, Bryan Larson, JRP Historical Consulting, Davis, CA 95616
* **Date of Evaluation:** 10/6/2004

(This space reserved for official comments.)

(Sketch map with north arrow required.)

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary # P-27-002775
HRI #

BUILDING, STRUCTURE, AND OBJECT RECORD

*NRHP Status Code: 2B
*Resource Name or #: Carmel-San Simeon Highway Historic District

B1. Historic Name: Malpaso Creek Bridge
B2. Common Name: Bridge #44-0017
B3. Original Use: Highway automobile bridge
B4. Present Use: Highway automobile bridge
* B5. Architectural Style: Utilitarian
* B6. Construction History:
Built in 1935.

* B7. Moved? ☑ No ☐ Yes ☐ Unknown Date: Original Location:
* B8. Related Features:
Rubble masonry water fountains, parapet walls, retaining walls, and culvert headwalls.

B9a. Architect: Division of Highways
B9b. Builder: Unknown
* B10. Signficance: Theme: Rural Highway/Bridge Construction
Area: Big Sur Coast, Monterey County
Period of Significance: 1935 Property Type: Concrete arch brid Applicable Criteria: A, C

Malpaso Creek Bridge is one of the seven concrete arch bridges on Highway 1 in Monterey County collectively known as the Big Sur Arches (44-0012, 44-0016, 44-0017, 44-0018, 44-0019, 44-0036, and 44-0056). All have been determined individually eligible for listing in the National Register of Historic Places as part of the Bridge Inventory conducted by Caltrans between 1984 and 1986. The bridges were found to be significant under Criterion C as distinctive examples of period, method of construction, and the work of a master, as well as Criterion A in the area of transportation. Seismic retrofit work undertaken on Malpaso Creek Bridge in 1997 was determined to have had No Adverse Effect. Additionally, in 2004, Caltrans completed an update to its original 1980s survey of concrete arch bridges throughout the state. That study concluded that Malpaso Creek Bridge, as well as the other six Big Sur Arches, retains historic integrity and therefore appears to continue to meet the criteria for listing in the National Register (JRP April 2004).

B11. Additional Resource Attributes:
* B12. References:
JRP Historical Consulting, "Caltrans Historic Bridge Inventory Update: Concrete Arch Bridges," April 2004; Stephen D. Mikesell, "Historic Resource Evaluation Report: The Carmel-San Simeon Highway," December 1986.

B13. Remarks:
See Appendix B for Sketch Map.

* B14. Evaluator: Stephen Wee, Bryan Larson, JRP Historical Consulting, Davis, CA 95616
* Date of Evaluation: 10/6/2004

(This space reserved for official comments.)

(Sketch map with north arrow required.)

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
Primary # P-27-002775
HRI #

BUILDING, STRUCTURE, AND OBJECT RECORD

*NRHP Status Code: 2B
*Resource Name or #: Carmel-San Simeon Highway Historic District

B1. Historic Name: Wildcat Creek Bridge
B2. Common Name: Bridge #44-0016
B3. Original Use: Highway automobile bridge
B4. Present Use: Highway automobile bridge
* **B5. Architectural Style:** Utilitarian
* **B6. Construction History:**
Built in 1933.

* **B7. Moved?** ☑ No ☐ Yes ☐ Unknown **Date:** **Original Location:**
* **B8. Related Features:**
Rubble masonry water fountains, parapet walls, retaining walls, and culvert headwalls.

B9a. Architect: Division of Highways
B9b. Builder: L.C. Seidel
* **B10. Signficance: Theme:** Rural Highway/Bridge Construction
Area: Big Sur Coast, Monterey County
Period of Significance: 1933 **Property Type:** Concrete arch brid **Applicable Criteria:** A, C
Wildcat Creek Bridge is one of the seven concrete arch bridges on Highway 1 in Monterey County collectively known as the Big Sur Arches (44-0012, 44-0016, 44-0017, 44-0018, 44-0019, 44-0036, and 44-0056). All have been determined individually eligible for listing in the National Register of Historic Places as part of the Bridge Inventory conducted by Caltrans between 1984 and 1986. The bridges were found to be significant under Criterion C as distinctive examples of period, method of construction, and the work of a master, as well as Criterion A in the area of transportation. In 2004, Caltrans completed an update to its original 1980s survey of concrete arch bridges throughout the state. That study concluded that Wildcat Creek Bridge, as well as the other six Big Sur Arches, retains historic integrity and therefore appears to continue to meet the criteria for listing in the National Register (JRP April 2004).

B11. Additional Resource Attributes:
* **B12. References:**
JRP Historical Consulting, "Caltrans Historic Bridge Inventory Update: Concrete Arch Bridges," April 2004; Stephen D. Mikesell, "Historic Resource Evaluation Report: The Carmel-San Simeon Highway," December 1986.

B13. Remarks:
See Appendix B for Sketch Map.

* **B14. Evaluator:** Stephen Wee, Bryan Larson, JRP Historical Consulting, Davis, CA 95616
* **Date of Evaluation:** 10/6/2004

(This space reserved for official comments.)

(Sketch map with north arrow required.)

Attachment 5:

Sample of Letters to Consulting Parties

DEPARTMENT OF TRANSPORTATION
CALTRANS DISTRICT 5
50 HIGUERA STREET
SAN LUIS OBISPO, CA 93401-5415
PHONE (805) 549-3101
FAX (805) 549-3329
TTY 711
http://www.dot.ca.gov/dist05/

Making Conservation a California Way of Life.

August 31st, 2020

Mary Trotter
Big Sur Historical Society
PO Box 176
Big Sur, CA 93920

General Analysis (Tier I) for the
Big Sur Bridge Rail Replacement Project(s)
Monterey County, California
MON-001-PM-28.1-67.9
&
Specific Analysis (Tier II) for the
Garrapata Creek Bridge Rail Replacement Project
Monterey County, California
EA: 05-1H800 / EFIS: 05-1600-0163
MON-001-PM-63.0

Dear Ms. Trotter:

The California Department of Transportation (Caltrans) is currently proposing the pilot project in a series of six (6) separate upcoming undertakings. The Garrapata Creek Bridge (Bridge Number 44-0018) Rail Replacement will be the first project intended to gradually replace all of the concrete baluster bridge rails for six (6) historic open spandrel reinforced concrete arch bridges along State Route 1 (SR-1) in Monterey County. The six historic bridges are located between post miles (PM) 28.1 and 67.9 and include the following structures:

- Garrapata Creek Bridge at PM 63.0 (Bridge Number 44-0018); (the pilot project & currently proposed)
- Big Creek Bridge at PM 28.1 (Bridge Number 44-0056);
- Bixby Creek Bridge at PM 59.4 (Bridge Number 44-0019);
- Rocky Creek Bridge at PM 60.0 (Bridge Number 44-0036);
- Granite Canyon Bridge at PM 64.3 (Bridge Number 44-0012);
- Malpaso Creek Bridge at PM 67.9 (Bridge Number 44-0017);

The original concrete railing on the six historic bridges does not meet the current modern safety standards set by the Manual for Assessing Safety Hardware (MASH) and will be replaced with a new railing designed to meet these standards. The Manual for Assessing Safety Hardware (MASH) is a nationwide standard that was implemented by the Federal Highway Administration (FHWA) and the American Association of State Highway Transportation Officials (AASHTO) in 2009 (updated in 2016). MASH sets the standards for highway safety equipment, including bridge rails, guardrails, and other safety features. Newly adopted MASH standards have mandated that all new installations of roadside safety devices on high-speed roadways, including bridge railing, must meet a new higher standard for crash testing for all projects conducted after December 31st, 2019, without exception.

The purpose of the project(s) will be to replace the existing nonstandard concrete baluster bridge rails and approach rails with new railing that meets current traffic safety standards while also retaining a design that is as close as possible to the original railing design. Caltrans is committed to choosing a new MASH compliant railing style that is context sensitive and will be compatible with the character of the Big Sur region, the historic bridges themselves, and within the Carmel-San Simeon Highway Historic District (CSSHHD). Caltrans structures design engineers are currently developing a new bridge rail that is designed specifically to replicate the design of the historic rails as closely as possible while also meeting the new MASH crashworthiness standards. The new Caltrans rail design

(Type 86H) is currently undergoing crash testing. A second new rail design developed by the Texas Department of Transportation to replicate historic bridge rail designs (Type C412) is also under consideration. (See Attachment 2 for renderings of the new bridge rail designs).

At this early stage Caltrans is performing a tiered evaluation of these projects, with the intention of streamlining the environmental review and evaluating any potential cumulative impacts, growth-inducing impacts, and irreversible significant effects on the environment of subsequent projects. At this time Caltrans is providing a general notification of these six (6) upcoming projects and will provide additional information about each specific project as details are developed for each individual undertaking in Tier II. Caltrans is also providing specific (Tier II) notification for the Garrapata Creek Bridge (No. 44-0018) which is currently proposed to receive replacement bridge rails. Detailed studies for the Garrapata Creek Bridge Rail Replacement Project (EA: 05-1H800) are currently underway. At this time, additional railing replacement projects have not yet been proposed for the other five bridges and may be occurring several years in the future.

Caltrans is interested in learning whether your organization has special interest in, or special knowledge of these or any other resource within the project study area that should be considered during our architectural studies. If you have questions or concerns, please do not hesitate to contact me at Daniel.leckie@dot.ca.gov or at (805) 542-4754. In keeping with project scheduling deadlines, Caltrans is kindly requesting your response regarding the Garrapata Creek Bridge rail replacement project (05-1H800) specifically by October 5th, 2020. This letter also serves as a notification for the five other upcoming bridge rail replacement projects, however Caltrans will provide additional notification during bridge specific (tier II) studies for all other individual bridge rail replacement projects as those undertakings are developed in the future.

Thank you for your participation.

Sincerely,

Daniel T. Leckie
Associate Environmental Planner (Architectural History)

Enc: Map of project study area
Photos/drawings of original and new bridge rail designs

cc:

Carmel Heritage Society
PO BOX 701
Carmel, CA 93921

Kitty Henderson
Executive Director
Historic Bridge Foundation
P.O. Box 66245
Austin, Texas 78766

James Perry
Curator & Archivist
Monterey County Historical Society
P.O. Box 3576
Salinas, CA 93912

Craig Spencer
Monterey County
Historic Resources Review Board
1441 Schilling Place
Salinas, CA 93901

Attachment F

Native American Heritage Commission Correspondence

Sacred Lands File & Native American Contacts List Request

Native American Heritage Commission
1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691
916-373-3710
916-373-5471 – Fax
nahc@nahc.ca.gov

Information Below is Required for a Sacred Lands File Search

Project: Garrapata Creek Bridge Rail Replacement Project

County: Monterey County

USGS Quadrangle Name: Soberanes Point

Located in unsectioned lands of "San Jose y sur chiquito" land grant

Township: _____ **Range:** _____ **Section(s):** _____

Company/Firm/Agency: Caltrans, District 5

Street Address: 50 Higuera Street

City: San Luis Obispo, CA **Zip:** 93401

Phone: 805 / 549-3493

Fax: 805 / 549-3233

Email: christina.macdonald@dot.ca.gov

Project Description:

Located on Big Sur Coast at Garrapata Creek



Location Map for the Garrapata Creek Bridge Rail Replacement Project, State Route 1, Big Sur, Monterey County, California
USGS 7.5' Topographic Quadrangle Soberanes Point
05-MON-1-PM 63.00 ; 05-1H800 ; 05-1600-0163

NATIVE AMERICAN HERITAGE COMMISSION
Cultural and Environmental Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone: (916) 373-3710
Email: nahc@nahc.ca.gov
Website: http://www.nahc.ca.gov

May 28, 2019

Christina MacDonald
California Department of Transportation, District 5

VIA Email to: christina.macdonald@dot.ca.gov

RE: **Garrapata Creek Bridge Rail Replacement Project**, Community of Kasler Point; Soberanes Point USGS Quadrangle, Monterey County, California.

Dear Ms. MacDonald:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. The absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our lists contain current information. If you have any questions or need additional information, please contact me at my email address: gayle.totton@nahc.ca.gov.

Sincerely,

Gayle Totton

Gayle Totton, B.S., M.A., Ph.D.
Associate Governmental Program Analyst

Attachment

Native American Heritage Commission
Native American Contact List
Monterey County
5/28/2019

Amah MutsunTribal Band
Valentin Lopez, Chairperson
P.O. Box 5272
Galt, CA, 95632
Phone: (916) 743 - 5833
vlopez@amahmutsun.org
Costanoan
Northern Valley Yokut

Amah MutsunTribal Band of Mission San Juan Bautista
Irenne Zwierlein, Chairperson
789 Canada Road
Woodside, CA, 94062
Phone: (650) 851 - 7489
Fax: (650) 332-1526
amahmutsuntribal@gmail.com
Costanoan

Costanoan Ohlone Rumsen-Mutsun Tribe
Patrick Orozco, Chairman
644 Peartree Drive
Watsonville, CA, 95076
Phone: (831) 728 - 8471
yanapvoic97@gmail.com
Costanoan

Costanoan Rumsen Carmel Tribe
Tony Cerda, Chairperson
244 E. 1st Street
Pomona, CA, 91766
Phone: (909) 629 - 6081
Fax: (909) 524-8041
rumsen@aol.com
Costanoan

Esselen Tribe of Monterey County
Tom Little Bear Nason, Chairman
P. O. Box 95
Carmel Valley, CA, 93924
Phone: (831) 659 - 2153
Fax: (831) 659-0111
TribalChair@EsselenTribe.com
Costanoan
Esselen

Esselen Tribe of Monterey County
Sue Morley, Cultural Resources
PO Box 95
Carmel Valley, 93924,
Phone: (831) 659 - 2153
Fax: (831) 659-0111
Cultural-Resources@EsselenTribe.com
Costanoan
Esselen

Indian Canyon Mutsun Band of Costanoan
Ann Marie Sayers, Chairperson
P.O. Box 28
Hollister, CA, 95024
Phone: (831) 637 - 4238
ams@indiancanyon.org
Costanoan

Ohlone/Costanoan-Esselen Nation
Louise Miranda-Ramirez, Chairperson
P.O. Box 1301
Monterey, CA, 93942
Phone: (408) 629 - 5189
ramirez.louise@yahoo.com
Costanoan
Esselen

Ohlone/Costanoan-Esselen Nation
Christanne Arias, Vice Chairperson
519 Viejo Gabriel
Soledad, CA, 93960
Phone: (831) 235 - 4590
Costanoan
Esselen

Salinan Tribe of Monterey, San Luis Obispo Counties
Fredrick Segobia, Tribal Representative
7070 Morro Road, Suite A
Atascadero, CA, 93422
Phone: (831) 385 - 1490
info@salinantribe.com
Salinan

Xolon-Salinan Tribe
Karen White, Chairperson
P. O. Box 7045
Spreckels, CA, 93962
Phone: (831) 238 - 1488
xolon.salinan.heritage@gmail.com
Salinan

Xolon-Salinan Tribe
Donna Haro, Tribal Headwoman
P. O. Box 7045
Spreckels, CA, 93962
Phone: (925) 470 - 5019
dhxolonaakletse@gmail.com
Salinan

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Garrapata Creek Bridge Rail Replacement Project, Monterey County.

DEPARTMENT OF TRANSPORTATION
CALTRANS DISTRICT 5
50 HIGUERA STREET
SAN LUIS OBISPO, CA 93401-5415
PHONE (805) 549-3101
FAX (805) 549-3329
TTY 711
http://www.dot.ca.gov/dist05/

Making Conservation a California Way of Life.

August 12, 2020

Commissioner Laura Miranda
Native American Heritage Commission
1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691

05-MON-1-PM 28/68
Big Sur Bridge Rail
Replacement Project(s)
05-1H8000

Re: Initiation of Section 106 Cultural Resource Studies (Tier 1 Review) for the Big Sur Bridge Rail Replacement Project(s), Monterey County

Dear Commissioner Miranda:

The California Department of Transportation (Caltrans), as assigned by the Federal Highway Administration (FHWA), is notifying the Native American Heritage Commission (NAHC) of upcoming consultation for the above referenced project(s) which will be carried out in accordance with the January 2014 *First Amended Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act as it pertains to the Administration of the Federal-Aid Highway Program in California* (Section 106 PA).

Environmental Document

For the proposed Big Sur Bridge Rail Replacement Project(s), cultural resource studies are a required component of the Program Environmental Impact Report/Environmental Impact Statement (PEIR/EIS). The initial document, or Tier I analysis, establishes a general project description and preliminary Area of Potential Effects (APE) for these upcoming projects, as well as outlines the historic context of the six (6) bridges to be impacted by the upcoming project. Project Specific, or Tier II, environmental documents will be prepared at a future date for each specific bridge rail replacement project as funding becomes available. These future documents will identify, evaluate, and assess effects on specific resources within the project specific APE. Consultation with the NAHC and the State Historic Preservation Officer (SHPO) will take place individually for each project per 36 CFR 800.

Therefore, in keeping with the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA), which provide for tiered or programmatic environmental review, Caltrans is performing a tiered evaluation of these projects. The tiered evaluation is intended to

streamline the environmental review and evaluate to the greatest extent feasible cumulative impacts, growth-inducing impacts, and irreversible significant effects on the environment of subsequent projects. At this time Caltrans is notifying your office of these six (6) upcoming projects. This notification is also in accordance with Caltrans' regulatory responsibilities under the California Environmental Quality Act (CEQA) and Public Resources Code 5024 and pursuant to Stipulations VIII.C.6 and X.B.2 of the January 2015 *Memorandum of Understanding Between the California Department of Transportation and the California State Historic Preservation Office Regarding Compliance with Public Resources Code Section 5024 and Governor's Executive Order W-26-92* (5024 MOU). Caltrans is also notifying identified consulting parties of this general (Tier 1) review concurrently with the NAHC and will continue to consult with those parties as appropriate, however, consultation with tribes affiliated with each bridge location will take place at a later date under Tier 2 or project specific studies.

Project Description

Under EA 05-1H800, the California Department of Transportation (Caltrans) proposes a series of six (6) separate upcoming undertakings in which the California Department of Transportation (Caltrans) intends to replace deteriorated nonstandard concrete baluster bridge rails for six (6) out of the seven (7) historic reinforced concrete arch bridges along State Route 1 (SR-1) in Monterey County. The original concrete railing on six historic bridges will be replaced with a new railing constructed to meet modern safety standards set by the Manual for Assessing Safety Hardware or MASH. The purpose of the project(s) will be to replace the existing nonstandard concrete baluster bridge rails and approach rails with new railing that meets current traffic safety standards, however, Caltrans is committed to choosing a new MASH compliant railing style that is context sensitive and will be compatible with the historic character of the Big Sur Bridges and within the Carmel- San Simeon Highway Historic District.

Project Studies

Enclosed you will find the Tier I (programmatic) Historic Property Survey Report (HPSR), which summarizes the six upcoming projects and lists known historic properties to be impacted by the upcoming undertakings.

Resources Identified

Archaeology and Tribal Cultural Resources: specific archaeological resources have not been identified at this stage in project development. Archaeological and Tribal Cultural Resources will be addressed completely within the subsequent Tier 2 (project specific) studies as appropriate moving forward once more details are known about the design and construction methods associated with these undertakings. Once each specific project area has been developed, Caltrans will request a search of the Sacred Lands Files as well as a list of knowledgeable tribal contacts who are affiliated with each area. Project specific consultation will take place with tribal members at that time to discuss each project area and tribal concerns.

Architectural History: Caltrans identified seven historic built environment resource(s) within the general Area of Potential Effect (APE) as it is understood at this time. Those properties include the six (6) historic bridges as well as the Carmel San Simeon Highway Historic District (CSSHHD) to which all six structures are also contributing resources.

In Summation:

- Caltrans is **notifying** your office of these upcoming undertakings and providing general review documents at this time in keeping with the tiered or programmatic environmental review of these projects.
- Caltrans is concurrently **notifying** identified consulting parties and knowledgeable individuals pursuant to 36 CFR Part 800.
- Caltrans will **continue to consult** with NAHC and all identified consulting parties, as applicable, as more details about these specific projects becomes available during project specific review (Tier II analysis).

We look forward to continuing to consult with your office on these upcoming projects. Please contact Caltrans District 5 Archaeologist, Christina MacDonald by email at Christina.MacDonald@dot.ca.gov or by phone at (805) 709-2048 if you have any questions or comments regarding this notification.

Sincerely,

Krista Kiaha

Krista Kiaha
Caltrans District 5 Heritage Resources Coordinator

Enclosures: Tier I Historic Property Survey Report for The Big Sur Bridge Rail Replacement Projects Monterey County, State Route 1, Various Locations

Attachment G

Native American Consultation

Sacred Lands File & Native American Contacts List Request

Native American Heritage Commission
1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691
916-373-3710
916-373-5471 – Fax
nahc@nahc.ca.gov

Information Below is Required for a Sacred Lands File Search

Project: Garrapata Creek Bridge Rail Replacement Project

County: Monterey County

USGS Quadrangle Name: Soberanes Point

Located in unsectioned lands of "San Jose y sur chiquito" land grant

Township: _____ **Range:** _____ **Section(s):** _____

Company/Firm/Agency: Caltrans, District 5

Street Address: 50 Higuera Street

City: San Luis Obispo, CA **Zip:** 93401

Phone: 805 / 549-3493

Fax: 805 / 549-3233

Email: christina.macdonald@dot.ca.gov

Project Description:

Located on Big Sur Coast at Garrapata Creek



Location Map for the Garrapata Creek Bridge Rail Replacement Project, State Route 1, Big Sur, Monterey County, California
USGS 7.5' Topographic Quadrangle Soberanes Point
05-MON-1-PM 63.00 ; 05-1H800 ; 05-1600-0163

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NATIVE AMERICAN HERITAGE COMMISSION
Cultural and Environmental Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone: (916) 373-3710
Email: nahc@nahc.ca.gov
Website: http://www.nahc.ca.gov

May 28, 2019

Christina MacDonald
California Department of Transportation, District 5

VIA Email to: christina.macdonald@dot.ca.gov

RE: **Garrapata Creek Bridge Rail Replacement Project**, Community of Kasler Point; Soberanes Point USGS Quadrangle, Monterey County, California.

Dear Ms. MacDonald:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. The absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our lists contain current information. If you have any questions or need additional information, please contact me at my email address: gayle.totton@nahc.ca.gov.

Sincerely,

Gayle Totton

Gayle Totton, B.S., M.A., Ph.D.
Associate Governmental Program Analyst

Attachment

Native American Heritage Commission
Native American Contact List
Monterey County
5/28/2019

Amah MutsunTribal Band
Valentin Lopez, Chairperson
P.O. Box 5272
Galt, CA, 95632
Phone: (916) 743 - 5833
vlopez@amahmutsun.org
Costanoan
Northern Valley Yokut

Amah MutsunTribal Band of Mission San Juan Bautista
Irenne Zwierlein, Chairperson
789 Canada Road
Woodside, CA, 94062
Phone: (650) 851 - 7489
Fax: (650) 332-1526
amahmutsuntribal@gmail.com
Costanoan

Costanoan Ohlone Rumsen-Mutsun Tribe
Patrick Orozco, Chairman
644 Peartree Drive
Watsonville, CA, 95076
Phone: (831) 728 - 8471
yanapvoic97@gmail.com
Costanoan

Costanoan Rumsen Carmel Tribe
Tony Cerda, Chairperson
244 E. 1st Street
Pomona, CA, 91766
Phone: (909) 629 - 6081
Fax: (909) 524-8041
rumsen@aol.com
Costanoan

Esselen Tribe of Monterey County
Tom Little Bear Nason, Chairman
P. O. Box 95
Carmel Valley, CA, 93924
Phone: (831) 659 - 2153
Fax: (831) 659-0111
TribalChair@EsselenTribe.com
Costanoan
Esselen

Esselen Tribe of Monterey County
Sue Morley, Cultural Resources
PO Box 95
Carmel Valley, 93924,
Phone: (831) 659 - 2153
Fax: (831) 659-0111
Cultural-Resources@EsselenTribe.com
Costanoan
Esselen

Indian Canyon Mutsun Band of Costanoan
Ann Marie Sayers, Chairperson
P.O. Box 28
Hollister, CA, 95024
Phone: (831) 637 - 4238
ams@indiancanyon.org
Costanoan

Ohlone/Costanoan-Esselen Nation
Louise Miranda-Ramirez, Chairperson
P.O. Box 1301
Monterey, CA, 93942
Phone: (408) 629 - 5189
ramirez.louise@yahoo.com
Costanoan
Esselen

Ohlone/Costanoan-Esselen Nation
Christanne Arias, Vice Chairperson
519 Viejo Gabriel
Soledad, CA, 93960
Phone: (831) 235 - 4590
Costanoan
Esselen

Salinan Tribe of Monterey, San Luis Obispo Counties
Fredrick Segobia, Tribal Representative
7070 Morro Road, Suite A
Atascadero, CA, 93422
Phone: (831) 385 - 1490
info@salinantribe.com
Salinan

Xolon-Salinan Tribe
Karen White, Chairperson
P. O. Box 7045
Spreckels, CA, 93962
Phone: (831) 238 - 1488
xolon.salinan.heritage@gmail.com
Salinan

Xolon-Salinan Tribe
Donna Haro, Tribal Headwoman
P. O. Box 7045
Spreckels, CA, 93962
Phone: (925) 470 - 5019
dhxolonaakletse@gmail.com
Salinan

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Garrapata Creek Bridge Rail Replacement Project, Monterey County.

DEPARTMENT OF TRANSPORTATION
CALTRANS DISTRICT 5
50 HIGUERA STREET
SAN LUIS OBISPO, CA 93401-5415
PHONE (805) 549-3101
FAX (805) 549-3329
TTY 711
www.dot.ca.gov/dist05/

Making Conservation a California Way of Life.

May 28, 2019

Project: Garrapata Creek Bridge Rail Replacement Project
File: 05-MON-1-PM 63.0
Project: 051600-0163; 05-1H800

Donna Haro
Tribal Headwoman
Xolon-Salinan Tribe
P. O. Box 7045
Spreckels, CA, 93962

RE: Section 106 and AB 52 Consultation for the Garrapata Creek Bridge Rail Replacement Project, State Route 1, Monterey County

Dear Donna,

I would like to inform you about an upcoming project on Highway 1 north of Big Sur. Caltrans, in cooperation with the Federal Highway Administration, proposes to replace the bridge rails on the Garrapata Creek Bridge (No. 44-0018). Please find mapping enclosed with this letter that shows the location of the project.

Project Description:
Project Description and Purpose: This project is in Monterey County 11.3 miles south of Carmel-By-The-Sea, along Highway 1. The proposes to replace the deteriorated nonstandard concrete baluster bridge rail and approach railing on the Garrapata Creek Bridge (no. 044-0018) with a rail that meets the American Association of State Highway and Transportation Officials (AASHTO) safety and crash test requirements as well as the Caltrans design specifications. Garrapata Creek Bridge is located at post mile 62.97 just south of Carmel, in Monterey County and is one of 7 historic arch bridges along State Route 1 on the Big Sur Coast. State Route 1 through the project area is a two-lane Designated National Scenic Byway and All-American Road that winds through rural and sparse residential development along the steep slopes of the Big Sur coast. The bridge is 285-feet long and consists of 12-foot lanes and 0 to 1-foot shoulders.

Construction will consist of removing the existing rail along with the existing 1-foot of overhang on each side of the bridge deck and widening the deck a sufficient amount to place the new standard rail. No work will be conducted within Garrapata Creek. Debris from removal of the existing rail and overhang will be prevented from entering Garrapata Creek by either affixing a debris containment system to falsework hung from the top of the bridge or using an excavator with a bucket designed to catch the debris. All work will be conducted within the existing state right-of-way and access below the bridge will be restricted to foot traffic only, therefore, equipment access roads are not necessary. There are no above ground utility conflicts, however, potholing may be required in order to identify potential underground utilities.

Background:
Several prehistoric resources (CA-MNT-98, -98, -1396, -1143) have been recorded within the vicinity of the bridge however it has been determined they are well outside the Area of Potential Effects and

therefore will not be impacted by the current project which will conduct all work from the existing highway lanes and bridge.

Consultation:
A request was sent to the Native American Heritage Commission for a sacred lands search. The results of the search failed to indicate the presence of Native American cultural resources in the project area. However, we are aware that the area is sensitive for Native American cultural resources. We would like to ask you and other members of your community to consult with us on this bridge rail replacement project. Your ideas and knowledge are important, and we look forward to working with you on this project. Please pass this information along to members of your group and let me know if any other individuals would like to be contacted.

Please consider this letter as the initiation of Section 106 consultation pursuant to the National Historic Preservation Act and formal notification to you of a proposed project as required under the California Environmental Quality Act, specifically AB 52 (Public Resources Code 21080.3.1 and Chapter 532 Statutes of 2014). If you would like to consult with Caltrans on this project then *please respond within one month* and provide us with a designated contact person for this project (per PRC 21080.3.1(d)). Caltrans will continue consultation with you or whomever you designate.

If you have any questions or concerns about this project, please feel free to contact me at (805) 549-3493 or Christina.MacDonald@dot.ca.gov.

Sincerely,

Christina MacDonald
Caltrans District 5 Archaeologist
Christina.MacDonald@dot.ca.gov

Enclosure (1): Project Location Mapping

Submittal with Attachments:

- Ann Marie Sayers
- Tom Little Bear Nason
- Louise Miranda-Ramirez
- Christianne Arias
- Valentin Lopez
- Tony Cerda
- Irenne Zwierlein
- Patrick Orozco
- Sue Morley
- Fredrick Segobia
- Karen White
- Donna Haro



Location Map for the Garrapata Creek Bridge Rail Replacement Project, State Route 1, Big Sur, Monterey County, California
USGS 7.5' Topographic Quadrangle Soberanes Point
05-MON-1-PM 63.00 ; 05-1H800 ; 05-1600-0163

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DEPARTMENT OF TRANSPORTATION
CALTRANS DISTRICT 5
50 HIGUERA STREET
SAN LUIS OBISPO, CA 93401-5415
PHONE (805) 549-3101
FAX (805) 549-3329
TTY 711
http://www.dot.ca.gov/dist05/

Making Conservation a California Way of Life.

August 12, 2020

Commissioner Laura Miranda
Native American Heritage Commission
1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691

05-MON-1-PM 28/68
Big Sur Bridge Rail
Replacement Project(s)
05-1H8000

Re: Initiation of Section 106 Cultural Resource Studies (Tier 1 Review) for the Big Sur Bridge Rail Replacement Project(s), Monterey County

Dear Commissioner Miranda:

The California Department of Transportation (Caltrans), as assigned by the Federal Highway Administration (FHWA), is notifying the Native American Heritage Commission (NAHC) of upcoming consultation for the above referenced project(s) which will be carried out in accordance with the January 2014 *First Amended Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act as it pertains to the Administration of the Federal-Aid Highway Program in California* (Section 106 PA).

Environmental Document

For the proposed Big Sur Bridge Rail Replacement Project(s), cultural resource studies are a required component of the Program Environmental Impact Report/Environmental Impact Statement (PEIR/EIS). The initial document, or Tier I analysis, establishes a general project description and preliminary Area of Potential Effects (APE) for these upcoming projects, as well as outlines the historic context of the six (6) bridges to be impacted by the upcoming project. Project Specific, or Tier II, environmental documents will be prepared at a future date for each specific bridge rail replacement project as funding becomes available. These future documents will identify, evaluate, and assess effects on specific resources within the project specific APE. Consultation with the NAHC and the State Historic Preservation Officer (SHPO) will take place individually for each project per 36 CFR 800.

Therefore, in keeping with the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA), which provide for tiered or programmatic environmental review, Caltrans is performing a tiered evaluation of these projects. The tiered evaluation is intended to

streamline the environmental review and evaluate to the greatest extent feasible cumulative impacts, growth-inducing impacts, and irreversible significant effects on the environment of subsequent projects. At this time Caltrans is notifying your office of these six (6) upcoming projects. This notification is also in accordance with Caltrans' regulatory responsibilities under the California Environmental Quality Act (CEQA) and Public Resources Code 5024 and pursuant to Stipulations VIII.C.6 and X.B.2 of the January 2015 *Memorandum of Understanding Between the California Department of Transportation and the California State Historic Preservation Office Regarding Compliance with Public Resources Code Section 5024 and Governor's Executive Order W-26-92* (5024 MOU). Caltrans is also notifying identified consulting parties of this general (Tier 1) review concurrently with the NAHC and will continue to consult with those parties as appropriate, however, consultation with tribes affiliated with each bridge location will take place at a later date under Tier 2 or project specific studies.

Project Description

Under EA 05-1H800, the California Department of Transportation (Caltrans) proposes a series of six (6) separate upcoming undertakings in which the California Department of Transportation (Caltrans) intends to replace deteriorated nonstandard concrete baluster bridge rails for six (6) out of the seven (7) historic reinforced concrete arch bridges along State Route 1 (SR-1) in Monterey County. The original concrete railing on six historic bridges will be replaced with a new railing constructed to meet modern safety standards set by the Manual for Assessing Safety Hardware or MASH. The purpose of the project(s) will be to replace the existing nonstandard concrete baluster bridge rails and approach rails with new railing that meets current traffic safety standards, however, Caltrans is committed to choosing a new MASH compliant railing style that is context sensitive and will be compatible with the historic character of the Big Sur Bridges and within the Carmel- San Simeon Highway Historic District.

Project Studies

Enclosed you will find the Tier I (programmatic) Historic Property Survey Report (HPSR), which summarizes the six upcoming projects and lists known historic properties to be impacted by the upcoming undertakings.

Resources Identified

Archaeology and Tribal Cultural Resources: specific archaeological resources have not been identified at this stage in project development. Archaeological and Tribal Cultural Resources will be addressed completely within the subsequent Tier 2 (project specific) studies as appropriate moving forward once more details are known about the design and construction methods associated with these undertakings. Once each specific project area has been developed, Caltrans will request a search of the Sacred Lands Files as well as a list of knowledgeable tribal contacts who are affiliated with each area. Project specific consultation will take place with tribal members at that time to discuss each project area and tribal concerns.

Architectural History: Caltrans identified seven historic built environment resource(s) within the general Area of Potential Effect (APE) as it is understood at this time. Those properties include the six (6) historic bridges as well as the Carmel San Simeon Highway Historic District (CSSHHD) to which all six structures are also contributing resources.

In Summation:

- Caltrans is **notifying** your office of these upcoming undertakings and providing general review documents at this time in keeping with the tiered or programmatic environmental review of these projects.
- Caltrans is concurrently **notifying** identified consulting parties and knowledgeable individuals pursuant to 36 CFR Part 800.
- Caltrans will **continue to consult** with NAHC and all identified consulting parties, as applicable, as more details about these specific projects becomes available during project specific review (Tier II analysis).

We look forward to continuing to consult with your office on these upcoming projects. Please contact Caltrans District 5 Archaeologist, Christina MacDonald by email at Christina.MacDonald@dot.ca.gov or by phone at (805) 709-2048 if you have any questions or comments regarding this notification.

Sincerely,

Krista Kiaha

Krista Kiaha
Caltrans District 5 Heritage Resources Coordinator

Enclosures: Tier I Historic Property Survey Report for The Big Sur Bridge Rail Replacement Projects Monterey County, State Route 1, Various Locations

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Exhibit G

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Project Name: Tier 1 - Big Sur Bridge Rail Replacement Program and Tier 2 - Garrapata Creek Bridge Rail Replacement Project
DIST-CO-RTE-PM: 05-MON-1-28.1/67.9, 63.0
EA: 05-1H800
EFIS ID: 0516000163

EIR CERTIFICATION

Part I. This is to certify that, in accordance with Section 15090 of the State CEQA Guidelines, the Final Environmental Impact Report (Final EIR) has been completed in compliance with CEQA and the State CEQA Guidelines. The Final EIR reflects the Department's independent judgment and analysis.

Jason Wilkinson	Jason Wilkinson	4/28/2021
Environmental Branch Chief	Signature	Date

Part II. This certifies that I have reviewed and considered the information contained in the Final EIR prior to approving the project. Findings have been prepared for each of the significant environmental impact(s) identified in the Final EIR. These findings are attached along with a statement of overriding considerations (if applicable) supporting approval of the project.

Timothy M. Gubbins		05/07/2021
District 5 Director	Signature	Date

Revised May 2020

Project Name: Big Sur Bridge Rail Replacement Program
and Garrapata Creek Bridge Rail Replacement Project
District-County-Route-Post Mile: 05-MONTEREY-1-28.1/67.9, 63.0
Expenditure Authorization Number: 05-1H800
EFIS ID Number: 05-1600-0163

California Department of Transportation
Statement of Overriding Considerations

For

Tier 1 - Projects to rehabilitate historic bridge rails on State Route 1 from post miles 28.1 to 67.9 in Monterey County

And

Tier 2 - Bridge rail replacements on the Garrapata Creek Bridge at post mile 63.0 on State Route 1 in Monterey County.

The following information is presented to comply with State California Environmental Quality Act Guidelines (Title 14 California Code of Regulations, Division 6, Chapter 3, Section 15093), and the Department of Transportation and California Transportation Commission Environmental Regulations (Title 21 California Code of Regulations, Division 2, Chapter 11, Section 1501 et seq.). Reference is made to the Final Environmental Impact Report (FEIR) for the project, which is the basic source for the information.

The following impacts have been identified as significant and not fully mitigable:

- **Aesthetics/Visual impacts: individual impacts and cumulative impacts.** Both the Big Sur Bridge Rail Replacement Program (Tier 1) and the Garrapata Bridge Rail Replacement Project (Tier 2) would result in a loss of scenic vistas, substantial reduction of visual quality and character, and loss of visual access to coastal scenic resources.

Overriding considerations that support approval of this recommended project are as follows:

The Tier 1 Big Sur Bridge Rail Replacement Program would upgrade the existing nonstandard bridge railings on six historic bridges along the Big Sur Coast to bring facilities up to current standards to ensure the safety and reliability of Highway 1.

The Tier 2 Garrapata Creek Bridge Rail Replacement Project is needed because the existing rails do not meet current traffic safety standards, and as stated in the 2015 Bridge Inspection Report, portions of the existing Garrapata Creek Bridge rails have developed severe cracking caused by deterioration of concrete and reinforcing steel.

The upcoming projects are necessary due to various levels of deterioration of the existing railing on all six bridges, and the railing no longer meets current traffic safety standards. Caltrans Structure Maintenance and Investigations crews inspected all six bridges in 2019, and the bridge rails on all six bridges were given a poor rating in the Bridge Inventory Status Report.

Based on the above discussion and on the substantial evidence included in the administrative record as a whole, Caltrans finds that the benefits of the proposed project outweigh the project's project-specific and cumulatively considerable impacts to aesthetics/visual resources, which cannot be eliminated or reduced to a less-than-significant level.

Timothy M. Gubbins
District 5 Director

05/07/2021

Date

Project Name: Big Sur Bridge Rail Replacement Program
and Garrapata Creek Bridge Rail Replacement Project
District-County-Route-Post Mile: 05-MONTEREY-1-28.1/67.9, 63.0
Expenditure Authorization Number: 05-1H800
EFIS ID Number: 05-1600-0163

California Department of Transportation
Findings

For

Tier 1 - projects to rehabilitate historic bridge rails on State Route 1 from post miles 28.1 to 67.9 in Monterey County.

Tier 2 - bridge rail replacements on the Garrapata Creek Bridge at post mile 63.0 on State Route 1 in Monterey County.

The following information is presented to comply with State California Environmental Quality Act Guidelines (Title 14 California Code of Regulations, Division 6, Chapter 3, Section 15091) and the Department of Transportation and California Transportation Commission Environmental Regulations (Title 21, California Code of Regulations, Division 2, Chapter 11, Section 1501 et seq.). Reference is made to the Final Environmental Impact Report (FEIR) for the project, which is the basic source for the information.

The following effects have been identified in the Environmental Impact Report as resulting from the project. Effects found not to be significant have not been included.

Visual Resources

Adverse Environmental Effects:

Both the Big Sur Bridge Rail Replacement Program (Tier 1) and the Garrapata Bridge Rail Replacement Project (Tier 2) would result in a loss of scenic vistas, substantial reduction of visual quality and character, and loss of visual access to coastal scenic resources.

Findings:

Changes or alterations have been required in, or incorporated into, the project, which avoid or substantially lessen the significant environmental effect as identified in the Final Environmental Impact Report.

Statement of Facts:

The project could not be designed to minimize impacts to scenic resources. Caltrans will continue to coordinate with members of the California Coastal Commission, State Historic Preservation Office, and members of the local community to address bridge rail designs to minimize visual impacts. To maintain these visual quality elements and decrease potential negative visual impacts caused by the project, the following actions will be included as part of the project:

1. Involve the community in the design of all aesthetic project features.
2. Use an open-style bridge rail that minimizes view blockage.
3. Use the smallest bridge rail terminal end blocks possible that meet safety needs.
4. Use finish colors and textures that minimize reflectivity and glare.
5. Re-contour all disturbed areas and construction access roads to a natural appearance.
6. Vegetate all stabilized soil areas with native shrubs and grasses as appropriate.
7. Bury all over-side drains and inlet structures or hide them from view to the greatest extent possible. Where unavoidably exposed to view, color the pipes to reduce noticeability, and dull the gloss of the finish.
8. Where metal beam guardrail or metal end treatments are required, use measures to reduce reflectivity of the metal components.

Cultural Resources

Adverse Environmental Effects

Caltrans, pursuant to Section 106 Programmatic Agreement Stipulation X.C, anticipates future Findings of Adverse Effect to be found in the Tier 2 (project-specific) analysis. In keeping with the tiered analysis of the projects, Caltrans has notified the State Historic Preservation Officer of these upcoming projects. The effects of each undertaking will be dealt with on a case-by-case basis in the Tier 2 (project-specific) analysis documents moving forward as more specific information comes to light about each project.

The Garrapata Creek Bridge Rail Replacement Project is expected to significantly impact the historic Garrapata Creek Bridge. Caltrans, pursuant to Section 106 Programmatic Agreement Stipulation X.C, has determined a Finding of Adverse Effect is appropriate for this undertaking, and has received State Historic Preservation Officer's concurrence in this determination.

Findings

Changes or alterations have been required in, or incorporated into, the project, which avoid or substantially lessen the significant environmental effect as identified in the Final Environmental Impact Report.

Statement of Facts

A Memorandum of Agreement between Caltrans and the State Historic Preservation Officer was reached on March 24, 2021. The following mitigation measures are outlined in the Memorandum of Agreement between Caltrans and the State Historic Preservation Officer:

- Prior to the start of construction, Caltrans shall contact the regional Historic American Building Survey/Historic American Engineering Record/Historic American Landscape Survey coordinator at the National Park Service Interior Regions 8, 9, 10, and 12 Regional Office to request that the National Park Service stipulate the level of and procedures for completing the documentation. Within ten (10) days of receiving the NPS stipulation letter, Caltrans shall send a copy of the letter to all consulting parties for their information.
- Caltrans will ensure that all recordation documentation activities are performed or directly supervised by architects, historians, photographers, and/or other professionals meeting the qualification standards in the Secretary of Interior's Professional Qualification Standards (36 Code of Federal Regulations 61, Appendix A).
- Upon receipt of the National Park Service written acceptance letter, Caltrans will make archival, digital and bound library-quality copies of the documentation and provide them to the Monterey County Historic Resources Review Board, the Monterey County Historical Society, the Big Sur Historical Society, the Carmel Heritage Society, the California Office of Historic Preservation, the Central Coast Information Center, and the California State Library.
- Caltrans shall notify State Historic Preservation Officer that the documentation is complete, and all copies distributed and include the completion of the documentation in the annual report. All field surveys shall be completed prior to the start of construction.

Tier 1 Mitigation Measures:

- Caltrans District 5 will hire qualified historical consultants to produce Primary Record Forms and Building Structure, Object Record Forms for all seven of the historic concrete arch bridges within the Carmel San Simeon Highway Historic District.
- The seven records will include the six open spandrel concrete arch bridges specifically mentioned in the Tier 1 document (Big Creek, Bixby Creek, Rocky Creek, Garrapata Creek, Granite Canyon, and Malpaso Creek) as well as closed spandrel Wildcat Bridge, which is also a contributor in the Carmel San Simeon Highway Historic District and a thematically similar resource.
- The information for each bridge will focus solely on the individual bridges, their specific historic design context and will highlight each resource’s specific history within the broader contextual landscape of social, economic, and cultural trends leading to the opening of State Route 1 in Monterey County. This measure responds directly to comments received from consulting parties, and particularly by The Monterey County Historic Resources Review Board in their November 2020 letter to Caltrans regarding the Garrapata Creek Bridge Rail Replacement Project. This information will supplement and enhance the existing knowledge of the seven Big Sur Arches, but requires a more detailed and focused historical analysis of these significant resources.

- The information gathered for each bridge will be based on original research that expands on what is already known about these bridges which is contained the broader context of the Caltrans Statewide Historic Bridge Inventory and Carmel San Simeon Highway Historic District inventory forms.
- The documentation for each individual bridge will include information such as high-quality color and/or black-and-white photographs, historic photographs and/or drawings as appropriate, and text describing the bridge's history and character-defining features.
- Caltrans District 5 will documentation for each bridge to the Office of Historic Preservation; the California Room of the California State Library; Caltrans District 5; and Caltrans Headquarters Library and History Center as well as with all relevant consulting parties, including the Monterey County Historic Resources Review Board, the Monterey County Historical Society, the Big Sur Historical Society, the Carmel Heritage Society and the Historic Bridge Foundation on request.
- Caltrans District 5 will hire qualified consultants to develop and produce a lesson plan for elementary school aged students that focuses on historic significance of the bridge designs using Scientific, Technological, Engineering, or Mathematical activities. The materials will include visual aids and activities that demonstrate the technical significance of the open spandrel concrete arch design.
- All components of the lesson plan will meet the Next Generation Science Standards encourage an emphasis on engineering design for newly developed science curricula. They will also meet the History-Social Science Standards as defined by the California Department of Education to the extent they are applicable to the activities developed.
- The lesson plan will be hosted on the interpretive website, which can be further used as a resource to highlight the historic significance of the bridges as important engineering achievements.
- Caltrans will engage with the Monterey County Office of Education and the Monterey County Free Library System for distribution of the materials in order to ensure they are utilized and provide a benefit to the local community.

Interpretive Website:

- Caltrans District 5 will produce a website highlighting the history of the seven Big Sur Arches in a manner that is accessible to the general public and provides public benefit.
- The website will initially contain a main page focusing on the general history of the seven bridges included in the Tier 1 analysis, as well as at least one page focusing on the Garrapata Creek Bridge individually. The website will also include pages to host the historic and modern photographs, the historic context as developed, the lesson plans, and additional information on the engineering and transportation history of the bridges as is deemed appropriate through future studies. The website will be structured so that it may be updated and expanded with additional pages that focus on the Big Sur Arches impacted through the future bridge rail replacement projects outlined in the current Tier 1 analysis or any other projects impacting the Big Sur Arches.

The website will be maintained for at least 10 years, and it is recognized that this time frame may be continually extended as additional projects mentioned in the Tier 1 analysis are proposed and implemented over time.

Timothy M. Gubbins
District 5 Director

05/07/2021

Date

CEQA EXEMPTION / NEPA CATEGORICAL EXCLUSION DETERMINATION FORM (rev. 04/2021)

Project Information

Project Name (if applicable): Garrapata Creek Bridge Rail Replacement Project

DIST-CO-RTE:05-MON-1 **PM/PM:** 63.0

EA: 05-1H800 **Federal-Aid Project Number:** N/A

Project Description

This project proposes to replace the deteriorated nonstandard concrete baluster bridge rail and approach railing on the Garrapata Creek Bridge (Br. No. 44- 0018) located on State Route 1 (SR-1) in Monterey County, approximately 11.3 miles south of Carmel-By-The-Sea to ensure the safety and reliability of SR-1. The purpose of this project is to upgrade the existing nonstandard bridge railing to current standards in order to ensure the safety and reliability of Highway 1. The project is needed because the existing bridge rails do not meet current state and federal traffic safety standards, and severe cracking with unsound concrete and spalls with exposed rusted rebar have been documented in historic Bridge Inspection Reports. The Garrapata Creek Bridge structure is eligible for listing on the National Register of Historical Places and is located within the Carmel-San Simeon State Highway Historic District as well as within the Coastal Zone. All work will be completed in the existing state right-of-way.

Caltrans CEQA Determination (Check one)

☐ **Not Applicable** – Caltrans is not the CEQA Lead Agency
☒ **Not Applicable** – Caltrans has prepared an IS or EIR under CEQA

Based on an examination of this proposal and supporting information, the project is:
☐ **Exempt by Statute.** (PRC 21080[b]; 14 CCR 15260 et seq.)
☐ **Categorically Exempt. Class** (PRC 21084; 14 CCR 15300 et seq.)
  ☐ No exceptions apply that would bar the use of a categorical exemption (PRC 21084 and 14 CCR 15300.2). See the SER Chapter 34 for exceptions.
☐ **Covered by the Common Sense Exemption**. This project does not fall within an exempt class, but it can be seen with certainty that there is no possibility that the activity may have a significant effect on the environment (14 CCR 15061[b][3].)

Senior Environmental Planner or Environmental Branch Chief

Jason Wilkinson		
Print Name	Signature	Date

Project Manager

Carla Yu		
Print Name	Signature	Date

Caltrans NEPA Determination (Check one)

☐ **Not Applicable**

Caltrans has determined that this project has no significant impacts on the environment as defined by NEPA, and that there are no unusual circumstances as described in 23 CFR 771.117(b). See SER Chapter 30 for unusual circumstances. As such, the project is categorically excluded from the requirements to prepare an EA or EIS under NEPA and is included under the following:

☒ **23 USC 326:** Caltrans has been assigned, and hereby certifies that it has carried out the responsibility to make this determination pursuant to 23 USC 326 and the Memorandum of Understanding dated April 18, 2019, executed between FHWA and Caltrans. Caltrans has determined that the project is a Categorical Exclusion under:

- ☐ **23 CFR 771.117(c): activity (c)( )**
- ☒ **23 CFR 771.117(d): activity (d)(13)**
- ☐ **Activity listed in Appendix A of the MOU between FHWA and Caltrans**

☐ **23 USC 327:** Based on an examination of this proposal and supporting information, Caltrans has determined that the project is a Categorical Exclusion under 23 USC 327. The environmental review, consultation, and any other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 USC 327 and the Memorandum of Understanding dated December 23, 2016 and executed by FHWA and Caltrans.

Senior Environmental Planner or Environmental Branch Chief

Jason Wilkinson	Jason Wilkinson	4/28/21
Print Name	Signature	Date

Project Manager/ DLA Engineer

Carla Yu	Carla Yu	4/28/21
Print Name	Signature	Date

Date of Environmental Commitment Record or equivalent: 4/28/21

Briefly list environmental commitments on continuation sheet if needed (i.e., not necessary if included on an attached ECR). Reference additional information, as appropriate (e.g., additional studies and design conditions).

Continuation sheet:

To maintain visual quality elements and decrease potential negative visual impacts caused by the project, the following actions are recommended:

- Involve the community in the design of all aesthetic project features.
- Use an open-style bridge rail that minimizes view blockage.
- Use the smallest end blocks possible that meet safety needs.
- Use finish colors and textures that minimize reflectivity and glare.
- Re-contour all disturbed areas to a natural appearance.
- Vegetate all stabilized soil areas with native shrubs and grasses as appropriate.
- Where metal beam guardrail or metal end treatments are required, use measures to reduce reflectivity of the metal components.

Cultural resource environmental commitments will include:

- Context sensitive bridge railing design.
- A public interpretive document (pamphlet or booklet) on the history of transportation and historical context of the bridges that will be distributed in the local area.
- Historic American Engineering Record professional photographic and written documentation of the bridge to be prepared before the bridge railing is demolished.
- An interpretive exhibit may be installed in an area where it can provide a public benefit. The information in the exhibit will be on the history of transportation and historical context of the local area and can be installed in the project vicinity.
- Caltrans District 5 will hire qualified consultants to develop and produce a lesson plan for elementary school aged students that focuses on historic significance of the bridge designs using Scientific, Technological, Engineering, or Mathematical activities.
- Caltrans District 5 will produce a website highlighting the history of the Big Sur Arch Bridges in a manner that is accessible to the general public and provides public benefit.

Biological resource environmental commitments will include:

- Prior to construction, a nesting bird survey will be conducted by a Caltrans biologist to determine presence/absence of nesting birds within the project area, if construction activities are to take place during the typical nesting season (February 1 to September 30). If an active nest of a migratory bird is discovered, all work will cease until a Caltrans biologist determines an appropriate buffer and monitoring strategy based on the habits and needs of the species. The buffer area will be avoided until a qualified biologist has determined that juveniles have fledged. Active nests will not be disturbed, and eggs or young of birds covered by the Migratory Bird Treaty Act and California Fish and Game Code will not be killed, injured, or harassed at any time.

Tier 1—Big Sur Bridge Rail Replacement Program

Monterey County, California
District 5–Mon–1 (PM 28.1/67.9)

and

Tier 2—Garrapata Creek Bridge Rail Replacement Project

Monterey County, California
District 5–Mon–1 (PM 63.0)
EA 05-1H800/Project ID 05-1600-0163
State Clearinghouse Number 2020049027

Final Environmental Impact Report



Prepared by the
State of California Department of Transportation

May 2021

General Information About This Document

What's in this document:
The California Department of Transportation (Caltrans) has prepared this Final Environmental Impact Report, which examines the potential environmental impacts of the alternatives being considered for the proposed project in Monterey County, California. Caltrans is the lead agency under the National Environmental Policy Act (NEPA), and Caltrans is the lead agency under the California Environmental Quality Act (CEQA). The document explains why the project is being proposed, the alternatives being considered for the project, the existing environment that could be affected by the project, the potential impacts of each of the alternatives, and the proposed avoidance, minimization, and/or mitigation measures.

The Draft Environmental Impact Report circulated for public review and comment for 52 days between November 25, 2020 and January 15, 2021. Comments received during this period are included in Appendix D.

Additional copies of this document and the related technical studies are available for review at the Caltrans District 5 office located at 50 Higuera Street, San Luis Obispo, California 94301.

For individuals with sensory disabilities, this document can be made available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please write to or call Caltrans, Attention: Jason Wilkinson, Environmental Branch Chief, Environmental Management Division, California Department of Transportation, 50 Higuera Street, San Luis Obispo, California 94301; phone 805-540-9165 (Voice), or use the California Relay Service 1-800-735-2929 (TTY), 1-800-735-2929 (Voice), or 711.

State Clearinghouse Number 2020049027
05-Mon-1-PM 28.1/67.9
05-1H800/05-1600-0163

Tier 1 evaluation of projects to rehabilitate historic bridge rails on State Route 1 from post miles 28.1 to 67.9 in Monterey County.

Tier 2 evaluation of bridge rail replacements on the Garrapata Creek Bridge at post mile 63.0 on State Route 1 in Monterey County.

Tier 1 and Tier 2 FINAL ENVIRONMENTAL IMPACT REPORT

Submitted Pursuant to: (State) Division 13, California Public Resources Code

THE STATE OF CALIFORNIA
Department of Transportation

Timothy M. Gubbins
District 5 Director
California Department of Transportation
NEPA and CEQA Lead Agency

05/07/2021
Date

The following individual may be contacted for more information about this document:

Jason Wilkinson, Environmental Branch Chief, Caltrans District 5, 50 Higuera Street, San Luis Obispo, California 93401; phone 805-540-9165; email jason.wilkinson@dot.ca.gov

Summary

This project is divided into two components:

Tier 1 (Program-level analysis)—The California Department of Transportation (Caltrans) proposes bridge rail replacements on six historic bridges along the Big Sur Coast to bring the facilities up to current traffic safety standards. In addition, all six bridges rails were given a poor rating in the Bridge Inventory Status Report and show various levels of deterioration.

Tier 2 (Project-level analysis)—Caltrans proposes to replace the deteriorated nonstandard concrete baluster bridge rail and approach railing on the Garrapata Creek Bridge (Number 44-0018) on State Route 1 in Monterey County, approximately 11.3 miles south of Carmel-By-The-Sea to ensure the safety and reliability of State Route 1. The Garrapata Creek Bridge structure is eligible for listing on the National Register of Historic Places and is located within the Carmel-San Simeon State Highway Historic District as well as within the Coastal Zone.

National Environmental Policy Act (NEPA) Assignment

California participated in the "Surface Transportation Project Delivery Pilot Program" (Pilot Program) pursuant to 23 U.S. Code 327 for more than five years, beginning July 1, 2007 and ending September 30, 2012. MAP-21 (P.L. 112-141), signed by President Barack Obama on July 6, 2012, amended 23 U.S. Code 327 to establish a permanent Surface Transportation Project Delivery Program. As a result, Caltrans entered into a Memorandum of Understanding pursuant to 23 U.S. Code 327 (NEPA Assignment Memorandum of Understanding) with the Federal Highway Administration. The NEPA [National Environmental Policy Act] Assignment Memorandum of Understanding became effective October 1, 2012 and was renewed on December 23, 2016 for a term of five years. In summary, Caltrans continues to assume Federal Highway Administration responsibilities under NEPA and other federal environmental laws in the same manner as was assigned under the Pilot Program, with minor changes. With NEPA Assignment, the Federal Highway Administration assigned, and Caltrans assumed all the U.S. Department of Transportation (U.S. DOT) Secretary's responsibilities under NEPA. This assignment includes projects on the State Highway System and Local Assistance Projects off the State Highway System within the State of California, except for certain categorical exclusions that the Federal Highway Administration assigned to Caltrans under the 23 U.S. Code 326 Categorical Exclusion Assignment Memorandum of Understanding, projects excluded by definition, and specific project exclusions.

Overview of Project Area

Tier 1—The historic Big Sur arch bridges along State Route 1 in Monterey County contribute to the Carmel-San Simeon State Highway Historic District. The bridges

sit along the Big Sur Coast starting from the south with Big Creek Bridge at post mile 28.1 and ending at Malpaso Creek Bridge at post mile 67.9. The six bridges in the proposed bridge rail replacement program are listed below:

- Big Creek Bridge (1938)—post mile 28.1, Bridge Number 44-0056
- Bixby Creek Bridge (1932)—post mile 59.4, Bridge Number 44-0019
- Rocky Creek Bridge (1932)—post mile 60.0, Bridge Number 44-0036
- Garrapata Creek Bridge (1931)—post mile 63.0, Bridge Number 44-0018
- Granite Canyon Bridge (1932)—post mile 64.3, Bridge Number 44-0012
- Malpaso Creek Bridge (1935)—post mile 67.9, Bridge Number 44-0017

Tier 2—Garrapata Creek Bridge (Number 44-0018) is an open-spandrel arch bridge on State Route 1 in Monterey County, approximately 11.3 miles south of Carmel-By-The-Sea at post mile 63.0. State Route 1 through the project area is a two-lane Designated National Scenic Byway and All-American Road that winds through rural and sparse residential development along the steep slopes of the Big Sur Coast.

Garrapata Creek Bridge was constructed in 1931, widened in 1998 and seismically retrofitted in 1987 and 1998. It is one of seven historic arch bridges along State Route 1 on the Big Sur Coast. The bridge is 285 feet long and consists of 12-foot lanes with zero to 1-foot shoulders. The bridge structure is eligible for listing on the National Register of Historic Places and sits within the Carmel-San Simeon State Highway Historic District as well as within the Coastal Zone.

Garrapata Creek Bridge has nonstandard concrete baluster bridge rails on both sides of the structure. The rail end posts exhibit fine pattern cracking, and the barrier rail posts are severely deteriorated with many small cracks beginning to emerge as well as showing previous impact damage. The project on State Route 1 in Monterey County proposes to replace the existing nonstandard concrete baluster bridge rail and approach railing on Garrapata Creek Bridge. The irreversible damage from pervasive salt-laden fog has accelerated the overall deterioration of concrete and reinforcing steel of the bridge rail, warranting replacement. Caltrans is committed to choosing a new compliant railing that is context sensitive and will be compatible with the historic and visual character of the Big Sur Bridges and within the Carmel-San Simeon Highway Historic District.

Purpose

The purpose of the Tier 1 Big Sur Bridge Rail Replacement Program and Tier 2 Garrapata Creek Bridge Rail Replacement project is to replace the existing nonstandard concrete baluster bridge rails and approach rails with rails that meet current state and federal traffic safety standards to ensure the reliability of State Route 1.

Need

The Tier 1 Big Sur Bridge Rail Replacement Program is needed because the existing rails do not meet current traffic safety standards.

The Tier 2 Garrapata Creek Bridge Rail Replacement project is needed because the existing rails do not meet current traffic safety standards, and as stated in the 2015 Bridge Inspection Report, portions of the existing Garrapata Creek Bridge rails have developed severe cracking caused by deterioration of concrete and reinforcing steel.

The upcoming projects are necessary due to various levels of deterioration of the existing railing on all six bridges, and the railing no longer meets current traffic safety standards. Caltrans Structure Maintenance and Investigations crews inspected all six bridges in 2019, and the bridge rails on all six bridges were given a poor rating in the Bridge Inventory Status Report.

The Manual for Assessing Safety Hardware, which was implemented as an agreement between the Federal Highway Administration and the American Association of State Highway Transportation Officials in 2009 (updated in 2016), sets the standards for highway safety equipment. Newly adopted Manual for Assessing Safety Hardware standards have mandated that all new installations of roadside safety devices on high-speed roadways, including bridge railing, must meet a new higher standard for crash testing for all projects advertised as of December 31, 2019, without exception.

Manual for Assessing Safety Hardware standards dictate both the structural performance as well as the height and width dimensions of new railing. The existing railings are insufficient by current Manual for Assessing Safety Hardware standards for the posted speed limits on this stretch of State Route 1, so it is not possible to accomplish the purpose of the project and replace the existing railing in-kind moving forward. Portions of the existing Garrapata Creek Bridge rail are in an accelerated state of deterioration, including the concrete spalling and exposed steel reinforcing bar. This deterioration may pose a hazard to public health and safety moving forward if allowed to continue unaddressed.

Tiered CEQA Documents

The California Environmental Quality Act (known as CEQA) provides for tiered or program Environmental Impact Reports (California Environmental Quality Act Guideline Sections 15175–15179.5). As the CEQA lead agency for this project, Caltrans has prepared a Tier 1 and Tier 2 program Environmental Impact Report. The program Environmental Impact Report is intended to streamline later environmental review and evaluate to the greatest extent feasible cumulative impacts, growth-inducing impacts, and irreversible significant effects on the environment of subsequent projects. Tiering addresses broad programs and issues related to the entire corridor in the Tier 1 analysis. As specific bridge rail replacement projects within the corridor program are ready for implementation, impacts of those specific actions are evaluated in subsequent Tier 2 studies.

Project Impacts

Table S-1 summarizes potential impacts that would result from each alternative. Detailed discussion and an analysis of project impacts are provided in Chapter 2 of this document. Avoidance, minimization, and mitigation measures are included in Appendix D.

Table S-1 Summary of Potential Impacts from Alternatives

Potential Impact	Build Alternative Tier 1	Build Alternative Tier 2	No-Build Alternative Tier 1 and Tier 2
Land Use—Consistency with the Monterey County General Plan	No impact—Land use would not change along the corridor as a result of the project. The project is consistent with the Monterey County General Plan, the Big Sur Highway 1 Sustainable Transportation Management Plan, and the Big Sur Coast Land Use Plan.	Same as Tier 1.	No change in land use.
Coastal Zone	The project limits are entirely within the Coastal Zone and would require a Coastal Development Permit. The project limits are under the jurisdiction of the County of Monterey but also contain a portion in an area of original California Coastal Commission jurisdiction.	A Coastal Development permit will be required from the Monterey County Local Coastal Program.	No Coastal Development Permit required.
Wild and Scenic Rivers	No impact—There are no wild and scenic rivers near the project.	Same as Tier 1.	No impact.
Parks and Recreational Facilities	Daytime construction noise and construction dust may temporarily disturb Big Sur visitors. There may also be some minor traffic delays during construction.	Same as Tier 1.	No impact.
Farmland and Timberland	No impact—There are no prime agricultural lands or timberlands near the project.	Same as Tier 1.	No impact.
Growth	No impact—The project would not induce growth or increase development.	Same as Tier 1.	No impact.
Community Character and Cohesion	No impact—The project would not affect community housing or community character.	No Impact.	No impact.

Potential Impact	Build Alternative Tier 1	Build Alternative Tier 2	No-Build Alternative Tier 1 and Tier 2
Relocations and Real Property Acquisition—Housing and Business Displacements	No impact—The project would not displace any houses or businesses.	Same as Tier 1.	No impact.
Relocations and Real Property Acquisition—Utility Service Relocation	No impact—The project would not relocate any utilities.	Same as Tier 1.	No impact.
Environmental Justice	No impact—Residents would not be displaced, and there would not be a disproportionate impact on underserved communities.	Same as Tier 1.	No impact.
Utilities and Emergency Services	The Tier 1 projects may require relocation of utilities.	The Tier 2 Garrapata Creek Bridge project will not involve utility relocation. There will be no permanent impacts to utilities and emergency services. Minor temporary traffic delays might occur during construction.	Further degradation of the Big Sur bridge rails could disrupt travel on the State Route 1 corridor, which would negatively impact the movement of emergency services.
Traffic and Transportation/ Pedestrian and Bicycle Facilities	The replacement bridge rails will conform to bicycle height safety standards. The projects may involve temporary traffic impacts during construction.	Same as Tier 1.	No impact.
Visual/Aesthetics	The projects would result in a loss of scenic vistas, substantial reduction of visual quality and character, and loss of visual access to coastal scenic resources.	Same as Tier 1.	No impact.
Cultural Resources	The projects will adversely impact historic bridges as well as a historic district.	The Tier 2 Garrapata Creek Bridge project will result in an adverse effect to a historic resource.	No impact.
Hydrology and Floodplain	There will be no impacts to hydrology or floodplains.	Same as Tier 1.	No impact.
Water Quality and Storm Water Runoff	There will be no permanent impacts to water quality, and temporary impacts will be minimized through implementation of best management practices and measures.	Same as Tier 1.	No impact.
Geology, Soils, Seismicity and Topography	There are no impacts to geology, soils, seismicity, and topography anticipated.	Same as Tier 1.	No impact.

Potential Impact	Build Alternative Tier 1	Build Alternative Tier 2	No-Build Alternative Tier 1 and Tier 2
Paleontology	No impact—Proposed work would not disturb sediments of high paleontological potential.	Same as Tier 1.	No impact.
Hazardous Waste and Materials	Aerially deposited lead, asbestos-containing materials, and lead-containing paint may be encountered during project construction; they are standard hazardous waste issues encountered in roadway construction projects. Hazardous materials would be appropriately handled and disposed of through implementation of standard avoidance and minimization measures.	Same as Tier 1.	No impact.
Air Quality	No long-term air quality impacts are expected.	Same as Tier 1.	No impact.
Noise and Vibration	Construction noise would be short term and intermittent during the construction period. Implementation of minimization measures and Caltrans' Standard Specifications during construction would minimize impacts. No long-term noise impacts are expected.	Same as Tier 1.	No impact.
Energy	No impact—The project is not capacity-increasing and therefore would not increase long-term energy use. Construction-period energy use would be minimized through recycling of materials and implementation of greenhouse gas reduction strategies.	Same as Tier 1.	No impact.
Natural Communities	No impacts to natural communities are anticipated.	Same as Tier 1.	No impact.
Wetlands and Other Waters	No impacts to wetlands, other waters, or riparian areas are anticipated with the current scope of the project.	Same as Tier 1.	No impact.

Potential Impact	Build Alternative Tier 1	Build Alternative Tier 2	No-Build Alternative Tier 1 and Tier 2
Plant Species	No impacts—No special-status plant species were observed during appropriately timed floristic surveys.	Same as Tier 1.	No impact.
Animal Species	No impacts—It is anticipated that work can fully avoid areas with habitat for special-status species.	Same as Tier 1	No impact.
Threatened and Endangered Species	No impacts to threatened and endangered species are anticipated.	Same as Tier 1.	No impact.
Invasive Species	No impact—Areas of temporary disturbance to natural habitats will be stabilized and revegetated to limit the spread of invasive species.	Same as Tier 1.	No impact.
Cumulative Impacts	The project would contribute substantial direct and/or indirect cumulative impacts to the visual resources/ aesthetics in the Big Sur corridor and surrounding areas. Direct and indirect impacts to cultural resources will also contribute to cumulative impacts but will be mitigated below the level of significance.	Same as Tier 1.	No impact.
Wildfire	No impact—Replacement of the bridge rails would ensure the reliability of State Route 1 as an evacuation route in the event of a fire along the Big Sur Coast.	Same as Tier 1.	No impact.
Climate Change	Construction of the project is not expected to locally worsen the effects of climate change.	Same as Tier 1.	No impact.

Coordination with Other Agencies

The following permits are required for this project to move forward:

- The Tier 2 Garrapata Creek Bridge Rail project will require a Coastal Development permit from Monterey County.
- The Tier 1 and Tier 2 projects will both require extensive coordination with the State Historic Preservation Officer to agree upon a finding of adverse effect and a Memorandum of Agreement between the State Historic Preservation Officer and Caltrans.

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Chapter 1 Proposed Project

1.1 Introduction

The California Department of Transportation (Caltrans), as assigned by the Federal Highway Administration, is the lead agency under the National Environmental Policy Act (known by the acronym NEPA). Caltrans is the lead agency under the California Environmental Quality Act (known by the acronym CEQA).

The California Department of Transportation proposes bridge rail replacements on six historic bridges along the Big Sur Coast to bring the facilities up to current standards.

The Tier 2 Garrapata Creek Bridge Rail Replacement project is eligible for federal-aid funding and is currently programmed in the 2020 State Highway Operation and Protection Program funded by the Bridge Rehabilitation Program (20.XX.201.110). The project would begin construction in the 2023/2024 fiscal year and is expected to take about a year complete.

1.2 Purpose and Need

1.2.1 Purpose

The purpose of the Tier 1 Big Sur Bridge Rail Replacement Program and Tier 2 Garrapata Creek Bridge Rail Replacement project is to replace the existing nonstandard concrete baluster bridge rails and approach rails with rails that meets current state and federal traffic safety standards. Caltrans will choose a new Manual for Assessing Safety Hardware-compliant railing that is both context sensitive and compatible with the historic and visual character of the Big Sur Bridges and within the Carmel-San Simeon Highway Historic District.

1.2.2 Need

The Tier 1 Big Sur Bridge Rail Replacement Program is needed because the existing rails do not meet current traffic safety standards and are all showing signs of deterioration. The Manual for Assessing Safety Hardware, implemented as an agreement between the Federal Highway Administration and the American Association of State Highway Transportation Officials in 2009 (updated in 2016), sets the standards for highway safety equipment. Newly adopted standards in the Manual for Assessing Safety Hardware have mandated that all new installations of roadside safety devices on high-speed

roadways, including bridge railing, must meet a new higher standard for crash testing for all projects advertised as of December 31, 2019, without exception.

The standards in the Manual for Assessing Safety Hardware dictate both the structural performance as well as the height and width dimensions of new railing. The existing bridge railings are insufficient by current standards in the Manual for Assessing Safety Hardware for the posted speed limits on this stretch of State Route 1; the existing railing cannot be replaced in-kind moving forward.

Also, the upcoming projects are necessary because of the deterioration of the existing railing on all six bridges and the railing no longer meeting current traffic safety standards. Caltrans Structure Maintenance and Investigations crews inspected all six bridges in 2019, and the bridge rails on all six bridges were given a poor rating in the Bridge Inventory Status Report. See Figures 1-1 through 1-7 for photographs of the deterioration on the bridges.

The Tier 2 Garrapata Creek Bridge Rail Replacement project is needed because the existing rails do not meet current state and federal traffic safety standards, and portions of the existing Garrapata Creek Bridge rails have developed severe cracking caused by deterioration of concrete and reinforcing steel.

According to the 2015 Bridge Inspection Report for Garrapata Creek Bridge, portions of the existing rail are in an accelerated state of deterioration, with concrete spalling and exposed steel reinforcing bar (see Figures 1-4 and 1-5). This deterioration may pose a hazard to public health and safety moving forward if allowed to continue unaddressed. Caltrans would choose a new Manual for Assessing Safety Hardware-compliant railing that is both context sensitive and compatible with the historic and visual character of the Big Sur Bridges and within the Carmel-San Simeon Highway Historic District.

Figure 1-1 Photo of Big Creek Bridge Rail Deterioration



Figure 1-2 Photo of Bixby Creek Bridge Rail Deterioration



Figure 1-3 Photo of Rocky Creek Bridge Rail Deterioration



Figure 1-4 Photo of Garrapata Creek Bridge Rail Damage



Figure 1-5 Photo of Garrapata Creek Bridge Rail Deterioration



Figure 1-6 Photo of Granite Canyon Bridge Rail Deterioration



Figure 1-7 Photo of Malpaso Creek Bridge Rail Deterioration



1.3 Project Description

Tier 1

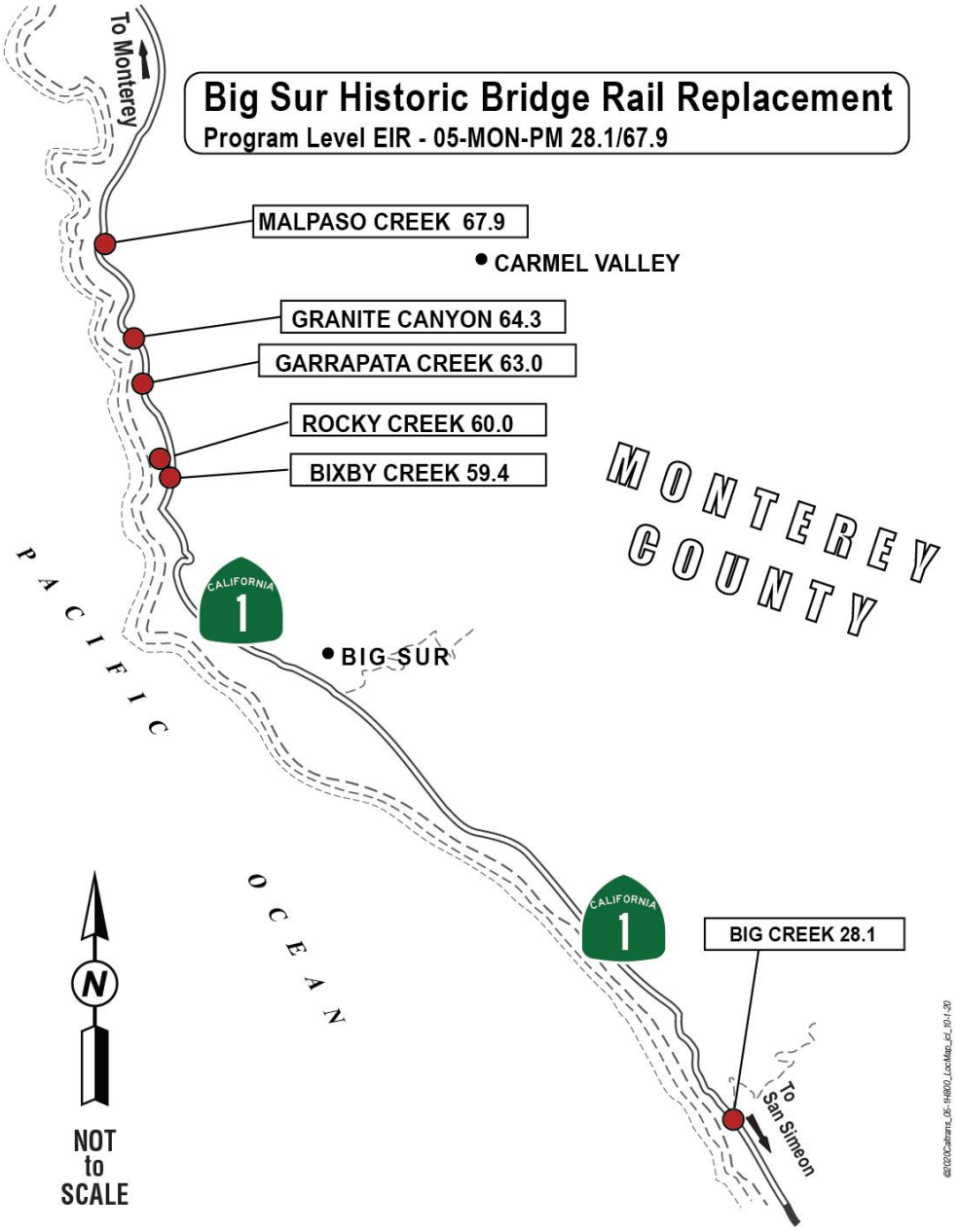
The Big Sur Bridge Rail Replacement Program is a series of six separate projects in which Caltrans would replace deteriorated nonstandard concrete baluster bridge railing for six out of the seven historic reinforced concrete arch bridges along State Route 1 in Monterey County. The original concrete railing would be replaced with a new railing constructed to meet modern safety standards set by the Manual for Assessing Safety Hardware.

Called “the Big Sur Bridges,” these structures all date to the initial construction of State Route 1 in Monterey County in the early 1930s. The Big Sur Bridges impacted by this program are the following:

- Big Creek Bridge (1938)—post mile 28.1, Bridge Number 44-0056
- Bixby Creek Bridge (1932)—post mile 59.4, Bridge Number 44-0019
- Rocky Creek Bridge (1932)—post mile 60.0, Bridge Number 44-0036
- Garrapata Creek Bridge (1931)—post mile 63.0, Bridge Number 44-0018
- Granite Canyon Bridge (1932)—post mile 64.3, Bridge Number 44-0012
- Malpaso Creek Bridge (1935)—post mile 67.9, Bridge Number 44-0017

See Figure 1-8 for the Project Location Map showing the locations of the bridges in Monterey County.

Figure 1-8 Project Location Map



Tier 2

Garrapata Creek Bridge (Number 44-0018) is an open-spandrel arch bridge that was constructed in 1931, widened in 1998 and seismically retrofitted in 1987 and 1998. The bridge sits at post mile 63.0 just south of Carmel in Monterey County and is one of seven historic arch bridges along State Route 1 on the Big Sur Coast. See Figures 1-8 and 1-9 for the Project Location Map and Project Vicinity Map, respectively, showing the location of the Garrapata Bridge in Monterey County. The bridge is 285 feet long and consists of 12-

foot lanes with zero to 1-foot shoulders. See Figure 1-10 for a photograph of its current location and condition.

Figure 1-9 Project Vicinity Map

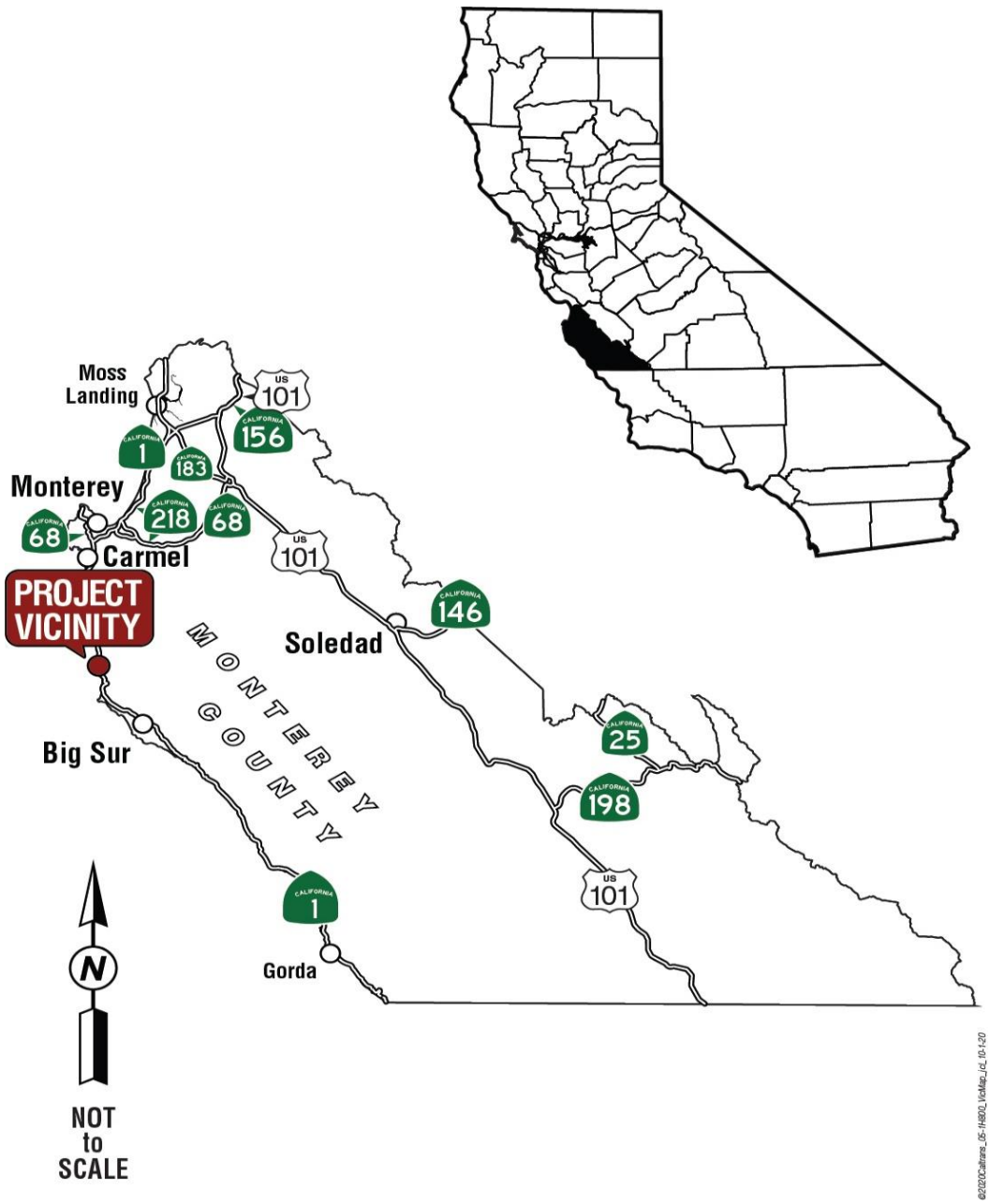


Figure 1-10 Photo of Garrapata Creek Bridge



The structure has nonstandard concrete baluster bridge rails on both sides of the structure. The rail end posts exhibit fine pattern cracking, and the barrier rail posts are severely deteriorated with dozens of spalls (flaking areas) and spalled posts, in addition to previous impact damage.

Construction would remove the existing rail along with the existing 1-foot overhang on each side of the bridge deck and widen the deck 3 inches on each side to place the new standard rails. No work would occur in Garrapata Creek. Debris from removal of the existing rail and overhang would be kept from entering Garrapata Creek by either affixing a debris containment system to falsework hung from the top of the bridge or using an excavator with a bucket designed to catch the debris.

All work would be conducted within the existing state right-of-way, and access below the bridge would be restricted to foot traffic only, so no equipment access roads would be necessary. There are no utility conflicts.

1.4 Project Alternatives

One Build Alternative and a No-Build Alternative are being evaluated for this project. The alternatives under consideration for the project were developed by an interdisciplinary project development team with the goal of adequately addressing the project purpose and need while avoiding and minimizing environmental impacts and reducing project costs.

1.4.1 Build Alternative

This project contains a number of standardized project measures that are used on most, if not all, Caltrans projects and were not developed in response to any specific environmental impact resulting from the proposed project. These measures are addressed in more detail in the Environmental Consequences sections found in Chapter 2.

The current Build Alternative would involve replacing the existing nonstandard bridge rail and approach railing with a new railing that meets current traffic safety standards. The Build Alternative would involve evaluation of multiple rail types and design variations to implement context sensitive design solutions. A context sensitive design approach uses a collaborative, interdisciplinary decision-making process that involves all stakeholders to develop a transportation facility that fits its physical setting.

1.4.2 No-Build (No-Action) Alternative Tier 1 and Tier 2

Under the No-Build Alternative, the historic Big Sur Bridge rails would not be replaced and would continue to deteriorate. Under the No-Build Alternative, the bridge rails would remain nonstandard.

1.5 Comparison of Alternatives for Tier 1 and Tier 2

The sections below describe how the alternatives would meet the project purpose and need and affect environmental resources in the study area. Chapter 2 of this document provides further discussion regarding the project's potential environmental impacts for the build alternative.

After the public circulation period, all comments were considered, Caltrans selected a preferred alternative and prepared a final determination of the project's effect on the environment. Under the California Environmental

Quality Act, Caltrans will certify that the project complies with the California Environmental Quality Act, prepare findings for all significant impacts identified, prepare a Statement of Overriding Considerations for impacts that will not be mitigated below a level of significance, and certify that the findings and Statement of Overriding Considerations have been considered prior to project approval. Caltrans will then file a Notice of Determination with the State Clearinghouse that will identify whether the project will have significant impacts, if mitigation measures were included as conditions of project approval, that findings were made, and that a Statement of Overriding Considerations was adopted**.**

Table 1-1 Comparison of Bridge Rail Dimensions

Element	Original Rails in inches	Type 86H in inches	Type C412 in inches
Rail height	42”	42”	42”
Arch window height	19”	14”	13”
Arch window width	10”	6”	5.75”
Baluster width	6”	8”	7.25”
Baluster thickness (depth)	5”	7”	10”
Base height	9”	18”	18”
Base thickness (depth)	10” (base of balusters); 27” (including inside curb)	24”	19”
Height at base of arch windows	12”	18”	20”
Top rail height	9”	10”	6”
Top rail thickness (depth)	12”	15”	17.5”

The new proposed rail designs that meet current Manual for Assessing Safety Hardware crashworthiness standards have several similarities with the original bridge rails: the overall height of the rails is 42 inches, the rails contain arched window openings, and the rails are composed of reinforced concrete. The differences in the rail design are in the dimensions of the balusters, window openings, base, and top rail. Since the open windows in baluster-style rails can be “catch points,” where vehicles’ bumpers can potentially catch on the rails, which could cause or worsen accidents, current safety standards require a higher base height, thickness, and top rail thickness to accommodate modern vehicle designs and speeds. The increased height of the base of the rails and at the base of the window openings provides the rail with the ability to withstand and deflect vehicle impacts. While the lines and shapes are similar in the proposed new rails, the

arched window openings are shorter in height and narrower in width, and the balusters are wider and have greater thickness (depth).

1.6 Identification of a Preferred Alternative

The Project Development Team identified the Build Alternative as the preferred alternative for the Garrapata Creek Tier 2 project. The Build Alternative will replace the existing nonstandard bridge rail and approach railing with a new railing that meets current traffic safety standards. The Build Alternative will evaluate the two considered rail types and design variations to implement context sensitive design solutions. The preferred Build Alternative will appropriately address the purpose and need of the project.

1.7 Alternatives Considered but Eliminated from Further Discussion for the Garrapata Creek Tier 2 project

1.7.1 Two-Foot Widening Alternative

A proposal to widen the shoulders on the Garrapata Creek Bridge by 2 feet on both sides was rejected. Widening to that depth is not feasible at the project location due to engineering constraints, so widening beyond the 6 inches to accommodate the new rail will no longer be considered for the project. The bridge rail replacement would require widening only 3 inches on each side of the Garrapata Creek Bridge structure for the new rail. Widening of the other Tier 1 project locations will be determined during Tier 2 analysis for each location.

1.7.2 Lowering the Speed Limit

The speed limit posted for State Route 1 through the Garrapata Creek Bridge project area is 55 miles per hour. Traffic studies investigated the option of lowering the speed limit through the project area to 45 miles per hour to accommodate an in-kind bridge rail replacement. A speed zone survey for Garrapta Bridge was completed in December 2019. The survey resulted in 85 percent of the surveyed vehicle speeds being above the posted 55 miles per hour speed limit. The analysis determined reducing the speed limit could not be justified and replacing the railing in-kind would not meet current traffic safety standards for the posted speed limit of 55 miles per hour.

1.7.3 New Bridge Alignment

Building a new bridge on a new alignment and leaving the historic structure in place was considered infeasible because of engineering and geographic constraints at the Garrapata Creek Bridge location.

1.8 Permits and Approvals Needed

The following permits, licenses, agreements, and certifications are required for project construction:

- Coastal Development Permit from the County of Monterey
- Coastal Development Permit from the Coastal Commission for Big Creek Bridge Project (Tier 2)
- Memorandum of Agreement from the State Historic Preservation Office

Chapter 2 Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures

As part of the scoping and environmental analysis done for the project, the following environmental issues were considered, but no adverse impacts were identified. So, there is no further discussion of these issues in this document.

Existing and Future Land Use: The project is consistent with the existing land use of the Big Sur corridor and does not interfere with any future land use plans.

Consistency with State, Regional and Local Plans and Programs: The project is consistent with the Monterey County Big Sur Coast Land Use Plan as well as the Big Sur Coast Highway Management Plan (2006).

Wild and Scenic Rivers: No wild and scenic rivers occur in the project area.

Parks and Recreational Facilities: The project proposes improvements to highway bridges that provide access to various parks and recreational areas along the Big Sur coast. Impacts to parks or recreational facilities are not expected.

Farmland: The County of Monterey zoning map indicates that grazing lands and farmland are adjacent to some of the project locations but are not within the project limits. Impacts to agricultural lands and are not expected.

Timberland: The County of Monterey zoning map indicates that timberland and forest resources are adjacent to some of the project locations but are not within the project limits. Impacts to forest resources are not expected.

Environmental Justice: No minority or low-income populations that would be adversely affected by the project have been identified within or next to the project limits. Therefore, this project is not subject to the provisions of Executive Order 12898 (U.S. Environmental Protection Agency).

Utilities and Emergency Services: The project will have no impact on emergency services. An existing utility pole may be used temporarily during construction of the Tier 2 Garrapata Creek Bridge project for traffic management. There will be no permanent impacts to utilities.

Traffic and Transportation/Pedestrian and Bicycle Facilities: The project may result in minor traffic delays during construction. One-way traffic control

with traffic control signals will be required throughout the construction period. Bicycles will be allowed to share the road with vehicles during all stages of construction. There will be no permanent traffic or transportation impacts.

Growth: The project would not change accessibility or influence growth; therefore, no direct or indirect impacts related to growth would occur.

Community Character and Cohesion: The project will be designed to complement the community character of the Big Sur Coast. The project will improve transportation facilities along State Route 1, ensuring access and cohesion for the community of Big Sur.

Relocations and Real Property Acquisition: There will be no relocations or real property acquisitions as a result of the project.

Hydrology and Floodplain: There will be no effects to the 100-year floodplain because the project is not located within a 100-year base floodplain. The Floodplain Evaluation Report and the Location Hydraulic Study indicate there will be no impacts to hydrology or floodplains.

Air Quality: The project would not add capacity to the highway, so no long-term operational impacts to local air quality would occur as a result of the project. An air quality technical report was prepared for this project. Based on a review of the federal guidelines, the project would qualify for an exemption because it consists of bridge rail reconstruction (with no additional travel lanes); such work is considered exempt from federal conformity analysis. In addition, projects that do not further degrade air quality in the basin are consistent with the Monterey Bay Unified Air Pollution Control District's state air quality attainment goals as stated in its State Implementation Plan (2012-15 Air Quality Management Plan).

Noise: Since no capacity will be added to the highway and the vertical profile of the new bridge will be the same after construction, this would be considered a Type 3 project. There was a technical noise study prepared for this project. It is assumed that local noise levels will be the same after completion of the project as they were before. Long-term noise abatement measures are not anticipated with this project.

Threatened and Endangered Species: The project will have a Section 7 No Effect Finding on all listed threatened and endangered species and critical habitat within the project areas. U.S. Fish and Wildlife Service and National Oceanic and Atmospheric Administration species lists were obtained for the project vicinity.

Plant Species: The biological study area includes two plant communities: coastal scrub and ruderal/disturbed. No rare plant species and no special-status plant species were found during appropriately timed floristic surveys.

The project is expected to have No Effect on listed plant species and their designated critical habitat.

Invasive Species: Certain invasive/weedy plants occur within the biological study area, and measures will be implemented to avoid/minimize the spread of these species.

Paleontology: The paleontology technical report indicates there is a low probability of encountering or impacting paleontological resources during project construction because project-related earthwork would take place in areas that have been previously disturbed.

Geology and Soils: There would be no impacts to geology or soils as a result of the project. All work is planned on previously disturbed areas within the roadway prism.

Energy: Caltrans incorporates energy efficiency, conservation, and climate change measures into transportation planning, project development, design, operations, and maintenance of transportation facilities, fleets, buildings, and equipment to minimize use of fuel supplies and energy sources and reduce greenhouse gas emissions. The project is not capacity-increasing and therefore the operation would not increase energy use. Energy use would be required during construction but would be minimized whenever possible through recycling of materials and implementation of greenhouse gas reduction strategies. It is expected that the reduction in maintenance activities required to repair the failing bridge concrete would help offset energy use during construction, and therefore the project would not have substantial energy impacts.

Wild and Scenic Rivers: No wild and scenic rivers occur in the project area.

Wetlands and Other Waters: The project will not impact any jurisdictional wetland areas or other waters. All work will occur from above the bridge decks and will not impact any creeks riparian areas below the bridges.

Water Quality and Storm Water Runoff: The water quality technical report prepared for this project indicates the project is not expected to result in long-term impacts to water quality. Temporary impacts to water quality and stormwater runoff during construction are anticipated but will be minimized by incorporating appropriate Best Management Practices. These practices include a Debris Containment Collection Program and a Temporary Concrete Washout Facility that must be located no less than 100 feet from any water body, including Garrapata Creek and the Pacific Ocean.

Hazardous Waste and Materials: The results of the Initial Site Investigation (November 2016) indicate there are no materials containing hazardous waste located within the project limits. No additional hazardous waste studies are required.

2.1 Human Environment

2.1.1 Coastal Zone

Regulatory Setting—Tier 1 and Tier 2

The project has the potential to affect resources protected by the Coastal Zone Management Act of 1972, which is the main federal law enacted to preserve and protect coastal resources. The Coastal Zone Management Act sets up a program under which coastal states are encouraged to develop coastal management programs. States with an approved coastal management plan can review federal permits and activities to determine if they are consistent with the state's management plan.

California has developed a Coastal Zone management plan and has enacted its own law, the California Coastal Act of 1976, to protect the coastline. The policies established by the California Coastal Act are like those for the Coastal Zone Management Act. They include the protection and expansion of public access and recreation; the protection, enhancement, and restoration of environmentally sensitive areas; the protection of agricultural lands; the protection of scenic beauty; and the protection of property and life from coastal hazards. The California Coastal Commission is responsible for implementation and oversight under the California Coastal Act.

Just as the federal Coastal Zone Management Act delegates power to coastal states to develop their own coastal management plans, the California Coastal Act delegates power to local governments to enact their own local coastal programs. This project is subject to Monterey County's local coastal program. Local coastal programs contain the ground rules for development and protection of coastal resources in their jurisdiction consistent with the California Coastal Act goals. A Federal Consistency Certification will be needed as well. The Federal Consistency Certification process will start before the final environmental document and be completed to the maximum extent possible during the National Environmental Policy Act process.

Local Coastal Program

The California Coastal Act requires each community in the Coastal Zone to prepare a local coastal program, including a coastal land use plan to protect, maintain and, where feasible, enhance and restore the overall quality of the Coastal Zone environment and its natural resources. A local coastal program consists of land use plans, zoning ordinances, and zoning district maps. Local coastal programs must contain a specific public access component to ensure maximum public access to the coast and ensure that public recreation areas are provided.

Affected Environment

The Tier 1 project area is within both original jurisdiction by the California Coastal Commission as well as the jurisdiction of the Monterey County local coastal program.

The Tier 2 Garrapata Creek Bridge project is in the Monterey County local coastal program jurisdiction. The Monterey County local coastal program's Big Sur Coast Land Use Plan was adopted by the Monterey County Board of Supervisors in 1986 and is currently being updated. The Land Use Plan was created to implement the California Coastal Act of 1976, so that all development harmonizes with and is subordinate to the wild and natural character of the land. The plan covers approximately 70 miles from Carmel in the north to the Monterey/San Luis Obispo County line in the south. The Big Sur Coast is renowned for its scenic beauty, history, ecology, recreational opportunities, and the roadway and bridges. Skirting the Pacific Ocean, the highway affords dramatic views of the rugged coast and redwood forest. The corridor is designated an All-American Road.

As the state department responsible for the transportation infrastructure in California, Caltrans is often involved in projects in the Coastal Zone. Consequently, such projects must satisfy the requirements of Caltrans' mission and regulations as well as the policies of the Coastal Act. In designing projects, Caltrans is guided by a rigorous and comprehensive body of specifications set forth in the Highway Design Manual, which is supplemented by an array of documents published by the American Association of State Highway and Transportation Officials and the Federal Highway Administration.

Bridge railings and barriers in the Coastal Zone have presented a distinct set of challenges, largely because the visual protections established by the Coastal Act reach beyond the structural considerations that have traditionally driven Caltrans design practices. These challenges led to the development of Caltrans' and the California Coastal Commission's *Bridge Rails and Barriers: A Reference Guide for Transportation Projects in the Coastal Zone*. This guide was prepared as a tool to help stakeholders and participants in bridge and railing design to better understand options available for potentially successful application in future projects within the Coastal Zone.

The Big Sur Coast Land Use Plan and the Monterey County Local Coastal Program aim to achieve the following larger goals of the Coastal Act:

- Protect, maintain and, where feasible, enhance and restore the overall quality of the Coastal Zone environment and its natural and human-made resources.

- Ensure orderly, balanced use and conservation of Coastal Zone resources, considering the social and economic needs of the people of the state.
- Maximize public access to and along the coast and public recreational opportunities in the Coastal Zone, consistent with sound resources conservation principles and constitutionally protected rights of private property owners.
- Ensure priority for coastal-dependent development over other development on the coast.
- Encourage state and local initiatives and cooperation in preparing procedures to implement coordinated planning and development for mutually beneficial uses, including educational uses, in the Coastal Zone.

Environmental Consequences

Build Alternative—Tiers 1 and 2

Table 2-1 summarizes an analysis of the consistency of the project with policies of Chapter 3 of the California Coastal Act and the Big Sur Coast Land Use Plan.

Overall, the goals of the project are consistent with the goals of the Coastal Act, as achieved through the policies of the Big Sur Coast Land Use Plan and the Monterey County Local Coastal Program. Unavoidable impacts to historic and visual resources are expected, but these impacts would be minimized to the greatest extent possible using context sensitive solutions and collaborative planning and design efforts involving Monterey County, the California Coastal Commission, the State Historic Preservation Officer, and Caltrans.

No-Build Alternative

Under the No-Build Alternative, existing conditions would remain and no impacts to the Coastal Zone would occur.

Table 2-1 California Coastal Act and Big Sur Coast Land Use Plan Policy Consistency Summary Table (Tier 1 Impacts)

California Coastal Act Chapter 3 and Big Sur Coast Land Use Plan Policy Area	Policy Consistency Analysis
Agricultural Resources ***Coastal Act Section 30241 (in relevant part):*** The maximum amount of prime agricultural land shall be maintained in agricultural production to assure the protection of the areas' agricultural economy, and	No prime agricultural lands or timberlands are located within the project locations. Agricultural grazing lands are next to some of the project locations. There would be no long-term changes to land use, and the project would not affect any agricultural activities. Therefore, no conflicts with California Coastal

California Coastal Act Chapter 3 and Big Sur Coast Land Use Plan Policy Area	Policy Consistency Analysis
conflicts shall be minimized between agricultural and urban land uses. ***Coastal Act Section 30242 (in relevant part):*** All other lands suitable for agricultural use shall not be converted to nonagricultural uses. ***Coastal Act Section 30243:*** The long-term productivity of soils and timberlands shall be protected, and conversions of coastal commercial timberlands in units of commercial size to other uses or their division into units of noncommercial size shall be limited to providing for necessary timber processing and related facilities. ***Big Sur Coast Land Use Plan 3.6:*** Agriculture, especially grazing, is a preferred use of coastal lands. In locations where grazing has been a traditional use, it should be retained and encouraged both under private and public ownership.	Act or Big Sur Coast Land Use Plan policies related to agricultural resources would result.
Visual Resources and Community Character ***Coastal Act Section 30251:*** The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting. ***Big Sur Coast Land Use Plan 3.2:*** New development should be subordinate and blend with its environment, using materials or colors that will achieve that effect. Where necessary, appropriate modifications will be required for siting, structural design, size, shape, color, textures, building materials, access, and screening. ***Big Sur Coast Land Use Plan 4.1.2:*** A principal objective of management, maintenance, and construction activities within the Highway 1 right-of-	The design of the replacement bridge rails would be consistent with the character of the existing bridges and complement the visual character of the rural coastal setting. The replacement bridge rails would be the same height, but the rail openings would have slightly different dimensions than the existing rail openings. The new rails would be designed to match the existing visual character of the bridges and the corridor, but they would not be an exact in-kind replacement. The community would be involved with the design of all aesthetic project features to minimize the visual impact of the replacement bridge rails. An open-style bridge rail that minimizes view blockage would be used, and it would use the smallest end blocks possible that meet safety needs. The 2 proposed replacement bridge rail design options are tailored to replicate the existing bridge rails as closely as possible. The replacement rails will include aesthetic treatments to make the visual changes to the bridge as minimal and unnoticeable as possible while still adhering to safety standards and environmental constraints. With the inclusion of mitigation and minimization measures, the project would not

California Coastal Act Chapter 3 and Big Sur Coast Land Use Plan Policy Area	Policy Consistency Analysis
way shall be to maintain the highest possible standard of visual beauty and interest. ***Big Sur Coast Land Use Plan 4.1.3:*** The County requests that an overall design theme for the construction and appearance of improvements within the Highway 1 right-of-way be developed by Caltrans in cooperation with the State Department of Parks and Recreation, the U.S. Forest Service and local citizens. Design criteria shall apply to roadway signs, fences and railings, access area improvements, bridges, restrooms, trash receptacles, etc. The objective of such criteria shall be to ensure that all improvements are inconspicuous and are in harmony with the rustic natural setting of the Big Sur Coast. The special report by local citizens entitled *Design Standards for the Big Sur Highway* on file at the County Planning Department, should serve as a guide and point of departure for Caltrans and other public agencies in developing a design theme for Highway 1 and in making improvements within the State right-of-way. ***Big Sur Coast Highway Management Plan, Guidelines for Corridor Aesthetics:*** Historic Bridges: Should any structural modification be identified as a critical need, the visual design of historic bridges should be changed as little as possible. Necessary modifications should be designed visually as if these features had been incorporated in the bridges as originally constructed. Bridge rails on historic bridges should be repaired or reconstructed to replicate the original rails as closely as possible. Application of alternative design options for bridge rail on new structures, such as bridges and side-hill viaducts should be thoroughly explored. Attributes for alternative design should consider: an aesthetically complete design that meets safety requirements for all users (i.e., motorists, cyclists, and pedestrians); a design that allows views through the rail (a feature of the historic open balustrade rail); an overall appearance that shares a family resemblance with the historic open balustrade rail, thus creating a sense of continuity among the historic bridges and new bridges. End treatments for guardrail and bridge rails are also important visual elements. Where possible, barriers should be terminated with buried end sections, such as an adjacent slope or an earthen berm. The height of berms used for buried end	conflict with visual resources and community character policies in the Coastal Act, Big Sur Coast Land Use Plan or Big Sur Coast Highway Management Plan.

California Coastal Act Chapter 3 and Big Sur Coast Land Use Plan Policy Area	Policy Consistency Analysis
sections must not exceed the height of the rail. Alternative end treatments such as barrels or crash cushions should be avoided unless site-specific conditions require them.	
Public Access and Recreation ***Coastal Act Section 30210***: In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse. ***Coastal Act Section 30211:*** Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation. ***Coastal Act Section 30213:*** Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred. ***Big Sur Coast Land Use Plan 6.1.3:*** The rights of access to the shoreline, public lands, and along the coast, and opportunities for recreational hiking access, shall be protected, encouraged and enhanced.	The project would not conflict with the Coastal Act or Big Sur Coast Land Use Plan policies relating to public access and recreation. The project would improve coastal access by increasing roadway reliability, efficiency, and safety.
Cultural Resources ***Coastal Act Section 30244:*** Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required. ***Big Sur Coast Land Use Plan 3.10:*** Designated historical sites shall be protected through zoning and other suitable regulatory means to ensure that new development shall be compatible with existing historical resources to maintain the special values and unique character of the historic properties.	The replacement bridge rails would constitute an adverse effect to the historic structures. Mitigation and minimization measures for the Tier 1 bridges will include context sensitive bridge rail design. Detailed mitigation measures for the project are included in the Memorandum of Agreement between Caltrans and the State Historic Preservation Officer.

California Coastal Act Chapter 3 and Big Sur Coast Land Use Plan Policy Area	Policy Consistency Analysis
Biological Resources ***Coastal Act Section 30107.5:*** "Environmentally sensitive area" means any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments. ***Coastal Act Section 30240:*** (a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas. (b) Development in areas next to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas and shall be compatible with the continuance of those habitat and recreation areas. ***Big Sur Coast Land Use Plan 3.3.2:*** Development, including vegetation removal, excavation, grading, filing, and the construction of roads and structures, shall not be permitted in the environmentally sensitive habitat areas if it results in any potential disruption of habitat value. Where private or public development is proposed, in documented or expected locations of environmentally sensitive habitats, field surveys by qualified individuals or agencies shall be made in order to determine precise locations of the habitat and to recommend mitigating measures to ensure its protection.	Following construction, it is anticipated that all areas of temporary disturbance to natural habitats would be stabilized and revegetated. The Federal Endangered Species Act Section 7 effects determination is that, with implementation of the included avoidance and minimization measures, the project would have no effect on federally listed species or designated critical habitat. Avoidance and minimization of ground disturbance due to project-related actions would be achieved with the establishment of Environmentally Sensitive Habitat Areas. The Environmentally Sensitive Habitat Areas would ensure that unnecessary disturbance does not occur outside of the project limits. Environmentally Sensitive Habitat Area limits would be shown on the final layout plans. Biological surveys were conducted at all six Tier 1 bridge locations on July 12, July 19, July 27, August 3, and August 10 in 2018 and on July 18, July 30, August 7, and August 21 in 2019.

Avoidance, Minimization, and/or Mitigation Measures

Though the goals of the Tier 1 Big Sur Historic Bridge Rail Replacement Program and the Tier 2 Garrapata Creek Bridge Rail Replacement project are consistent with Coastal Act policies, project construction would create temporary and permanent impacts to protected resources in the Coastal Zone. Implementation of avoidance, minimization, and mitigation measures would reduce impacts to coastal resources to the maximum extent feasible to ensure that the project would remain consistent with coastal resource protection goals.

2.1.2 Visual/Aesthetics

Regulatory Setting—Tier 1 and Tier 2

The California Environmental Quality Act establishes that it is the policy of the state to take all action necessary to provide the people of the state "with…enjoyment of *aesthetic*, natural, scenic and historic environmental qualities" (California Public Resources Code Section 21001[b]).

The Monterey County Land Use Plan—Local Coastal Plan provides for the preservation of the incomparable beauty of the Big Sur area. It specifies that all development must harmonize with and be subordinate to the wild and natural character of the land, and should remain within the small-scale, rural values of the area, rather than introduce new or conflicting uses. It is the County's objective to preserve the Big Sur Coast scenic resources in perpetuity and to promote the restoration of the natural beauty of visually degraded areas wherever possible. The County's Viewshed Policy essentially prohibits all new construction if visible from State Route 1, except for road capacity, safety, and aesthetic improvements, provided such projects enhance the highway's aesthetic beauty and protect its primary function as a two-lane recreation route, include walking and bicycle trails wherever feasible, and maintain the highest possible standard of visual beauty and interest.

The Big Sur Coast Highway Management Plan (2004) is a collaborative document that outlines a Corridor Management Plan for the Big Sur Highway and a series of Management Guidelines that address corridor aesthetics, landside management and storm damage response, and vegetation management. The aim of the Coast Highway Management Plan is to foster a corridor-wide understanding of the aesthetic values along the Big Sur coast and to provide guidance in managing scenic resources while continuing to operate the highway in a safe and efficient manner. The plan identifies the main areas of local concern regarding the corridor's visual setting. In developing the Coast Highway Management Plan, the Scenic and Habitat Working Group, composed of local citizens and agency representatives, summarized the following stakeholder interests:

- The essential character of State Route 1 is that of a functional highway that passes through a unique and spectacular landscape.
- The true historic character of the corridor is worthy of preservation. Leaving the corridor essentially as it is would better honor this character than converting it to a sanitized scenic highway experience or theme park.
- The highway is not homogeneous in character; it passes through a series of different environments, each with distinct characteristics and individual themes.
- Uniformity of roadside features should be avoided, as it would conflict with recognizing the varied and distinct characteristics along the corridor.

- The needs of one stakeholder group should not be disproportionate to others. Accommodating needs of visitors should not outweigh the desires and needs of the local community for whom the highway is a central feature of daily life, and vice versa.
- For decades, the local community has accepted and encouraged a measure of eclecticism and expressions of individuality and craft in features such as mailboxes, private signs, and small structures.
- Although diversity in roadside features is valued, increasing clutter is a serious concern. This is most evidenced in commentary regarding unnecessary, redundant, or poorly designed signs and visually intrusive overhead utilities.

The *Guidelines for Corridor Aesthetics* element of the Coast Highway Management Plan specifically addresses the construction of new bridges (and major new structures such as rock sheds) as follows:

- Any new bridges along this coast must complement the architecturally significant historic bridges in the corridor. These bridges are internationally recognized for their architectural style and engineering excellence and for the continuity established by the use of a common design theme: the concrete arch spandrel. The character of these bridges is a major contributor to the historic character of the highway corridor. The intent of these guidelines is to ensure that new bridges complement this character by balancing respect for historic design themes with the best of contemporary structural expression.
- Any new bridges should be authentic in design, rather than emulate something they are not, i.e., historic bridges. At the same time, structural designers should recognize historic bridges for the quality of aesthetic and engineering excellence they represent and strive to match or exceed this quality in contemporary terms.
- In the interests of overall continuity, designers should first consider bridge types that are in the same visual family as the historic bridges: arched or arch-like main span structures below deck level and made of concrete.
- In designing the alignment of a new bridge, designers should allow the roadway's geometry (plan and profile) to flow smoothly over the bridge, not necessarily limiting the alignment to a tangent (or straight) geometry.
- To maintain the visual continuity of the existing roadway, the width of new bridges should match the width of the approaching roadways, including shoulders, as closely as possible. As with roadway shoulder widths, the desired aesthetic for structures would support the concept for a 32-foot roadbed, subject to site-specific considerations and with consideration for appropriate exceptions from the 40-foot standard.

- New bridges must include an appropriate rail for safety of motorists, cyclists, and pedestrians; the rail type should be visually compatible with the open concrete balustrade rail seen on historic bridges.

The *Guidelines for Corridor Aesthetics* element of the Coast Highway Management Plan also outlines rehabilitation of Historic Bridges:

> The concrete arch bridges along Highway 1 are important features of the Carmel-San Simeon Highway Historic District and have been found eligible for listing in the National Register of Historic Places. These bridges, individually and as a cohesive group, are recognized internationally for their aesthetic qualities and engineering design excellence. However, the structures, now over 60 years old, require ongoing maintenance, repairs, and occasional major upgrades.
>
> - Should any structural modification be identified as a critical need (such as the seismic retrofit program in the 1990s), the visual design of historic bridges should be changed as little as possible. Necessary modifications should be designed visually as if these features had been incorporated in the bridges as originally constructed.
>
> - Bridge rails on historic bridges should be repaired or reconstructed to replicate the original rails as closely as possible.

The *Roadway Protection Systems* section of the Guidelines for Corridor Aesthetics states that “Preference for type and material selection on protective systems (e.g., rockfall protection) would be given to those that are visually subordinate to the landscape, to the extent possible. Field installation details and the industrial design of system components would also emphasize visual compatibility. For larger protective structures such as rock sheds, recommendations on aesthetic design for bridges should feature aesthetic and engineering design excellence.”

Affected Environment—Tier 1 and Tier 2

State Route 1 throughout much of the Big Sur region is a two-lane highway with 12-foot lanes. Shoulder widths vary from zero to 8 feet, with most of them 4 feet or less. The existing highway is mostly asphalt lanes and shoulders and is a two-lane conventional highway until reaching Carmel.

State Route 1 in Monterey County serves local and interregional traffic that includes mostly recreational motorists, local commuters, and limited commercial users. In Monterey County, State Route 1 is designated as an Official State Scenic Highway, a National Scenic Byway, and an All-American Road.

State Route 1 passes through several landscape types through Big Sur. The landform of the region is generally characterized by steep slopes and ravines

forming a series of ridgelines and valleys as the mountains rise from the Pacific Ocean. The topography of the region is generally steeper in the southern section and allows more opportunity for long-range vistas toward the west. The topography supports a mostly curvilinear roadway that produces views for the highway traveler ranging from close-in views of the inland slopes to mid-range coastline views and wide-open panoramas.

Surface water is an important visual element throughout the region. The Pacific Ocean is visible throughout much of the route and can be seen from many of the project locations. Numerous seasonal streams run throughout the area, though many are blocked from view and not noticeable from a moving vehicle.

Throughout the region, vegetation is another component of visual character. State Route 1 passes through a variety of plant communities and vegetative types within the project limits. In general, creeks and drainages hold stands of sycamore, redwood, cottonwood and willows. Oak and other native trees are found mostly at the upper elevations along with coastal chaparral. Although native plant communities are the most visually prevalent, exotic plants such as pampas grass have established themselves along the highway corridor. Landscape planting is generally associated with the scattered residential and commercial development along the highway and is most visible along the northern end of the project limits, in the Big Sur village area, and in Carmel.

Along the highway, the main developments are the roadway itself and related features, occasional roadside home sites and tourist-oriented businesses. Along the southern end of Big Sur, built-developments have a low to moderate visual presence in the landscape. In general, the scale and frequency of structures and other built amenities throughout this area, though visible, do not dominate the views when seen in the context of the overall landscape. The northern section of Big Sur is the most developed. Residential uses are the main development, though some tourist-oriented businesses are part of the view. Overhead utilities and roadside signs are visible elements along the route. Due to the topography throughout much of the region, cut slopes are associated with the highway and can be seen often from the road.

State Route 1 has long been recognized for its scenic qualities, and the state and national scenic designations indicate the importance of the aesthetic character of this highway. Monterey County planning policies emphasize the protection of visual resources along State Route 1 and underscore the concern and sensitivity regarding aesthetic issues along the route. The project locations are all within the Coastal Zone, which places an emphasis on visual quality preservation. In addition, the *Coast Highway Management Plan* (Caltrans 2004), a comprehensive planning document being developed with extensive community input, includes a section on identifying and preserving the scenic qualities of the route. The local community has a history

of active participation in projects involving potential changes to the visual environment.

The visual experience of traveling the Big Sur coast is influenced by a variety of historic features. Seven historic bridges, built in the 1930s and important examples of the engineering technology and aesthetic preference of the era, are found along a 41-mile stretch of the coast highway. These bridges share a common design; each is an open-spandrel concrete arch structure with open bridge rail. Other historic elements seen by the highway traveler include parapet walls, culvert headwalls, and drinking fountains.

In addition to the historic structures, many other built elements contribute to the visual character of the highway experience. Bridge rails are noticeable components of both historic and non-historic structures. The railings of the coastal bridges are important in their ability to define the architectural style of structures, as well as their potential effect on ocean views. Open-style railing is associated with older structures and design, while the railing constructed since the 1970s has typically been solid.

There is no single design style evident in the highway features (such as bridges, rails, barriers, walls, drainage inlets and down drains, signage, and other elements) along the Big Sur corridor. Rather, the style and variety of features reflect current engineering standards and funding availability rather than a uniform aesthetic theme. There is a tendency toward natural material construction and finishes such as wood and stone. Metal finishes, where used, are often weathered in appearance.

The existing visual quality of State Route 1 in each of the project locations is high, due mainly to the historic bridges, the presence of natural vegetation, topographic relief, ocean views, and the minimal visibility of off-highway built elements.

The main affected viewers are those who travel the highway and are in the immediate vicinity of the project locations. Viewers through this area generally have high expectations regarding scenic quality and the state and federal scenic designations further heighten viewers' sensitivity along this route.

Environmental Consequences—Tier 1 and Tier 2

Both the Big Sur Bridge Rail Replacement Program (Tier 1) and the Garrapata Bridge Rail Replacement project (Tier 2) would result in a loss of scenic vistas, substantial reduction of visual quality and character, and loss of visual access to coastal scenic resources.

Scenic vistas are defined as panoramic views that have high quality compositional and picturesque value. Scenic vistas throughout the project area include expansive mid-to-distant views of the Pacific Ocean, the rocky shoreline, dramatic topography and hillsides, native vegetative patterns, and

undeveloped landscapes. The historic bridges are also important contributors to the scenic vistas throughout the area.

The most noticeable aspect of the projects would be new bridge rails. Although the specific design of each of the bridge rails has not been determined at this time, current safety standards require that the new railing would have smaller openings and less of a “see-through” appearance. Other potential visual changes associated with the projects may include an increase in paved surfaces, grading and earthwork, new taller and longer guardrail and concrete anchor blocks adjacent to the bridges, change from wooden posts to metal posts, and vegetation removal.

Many of these proposed elements would block or reduce visual access to coastal scenic vistas and scenic resources as seen from State Route 1, an Officially Designated State Scenic Highway and National Scenic byway.

The existing visual quality and character of the Big Sur Coast is based to a large degree on its rugged topography and coastline, sweeping ocean views, historic structure, undeveloped setting, and native vegetation patterns. The highway itself reinforces the overall rugged and rural character because of its curvilinear alignment and generally narrow appearance.

Local, state and federal planning documents base the high visual quality of this route mostly on the striking views of the ocean, the dramatic topography, the native vegetative patterns, and the relatively natural character of the roadside environment. Within the project limits, each of the bridges is historic and an iconic scenic feature of the California coast.

The projects would change the visual character at each of the locations. Loss of these important architectural elements would fundamentally alter the visual experience of traveling the Big Sur Coast along State Route 1. In addition, the overall effect of these changes would be a more engineered looking, slightly larger scale, more contemporary highway facility.

The following photos (Figures 1-11 through 1-15) show the existing railing on the Garrapata Creek Bridge and proposed railing types: Type C412 and Type 86.

Figure 1-11 Photo of Existing Garrapata Creek Bridge Rail

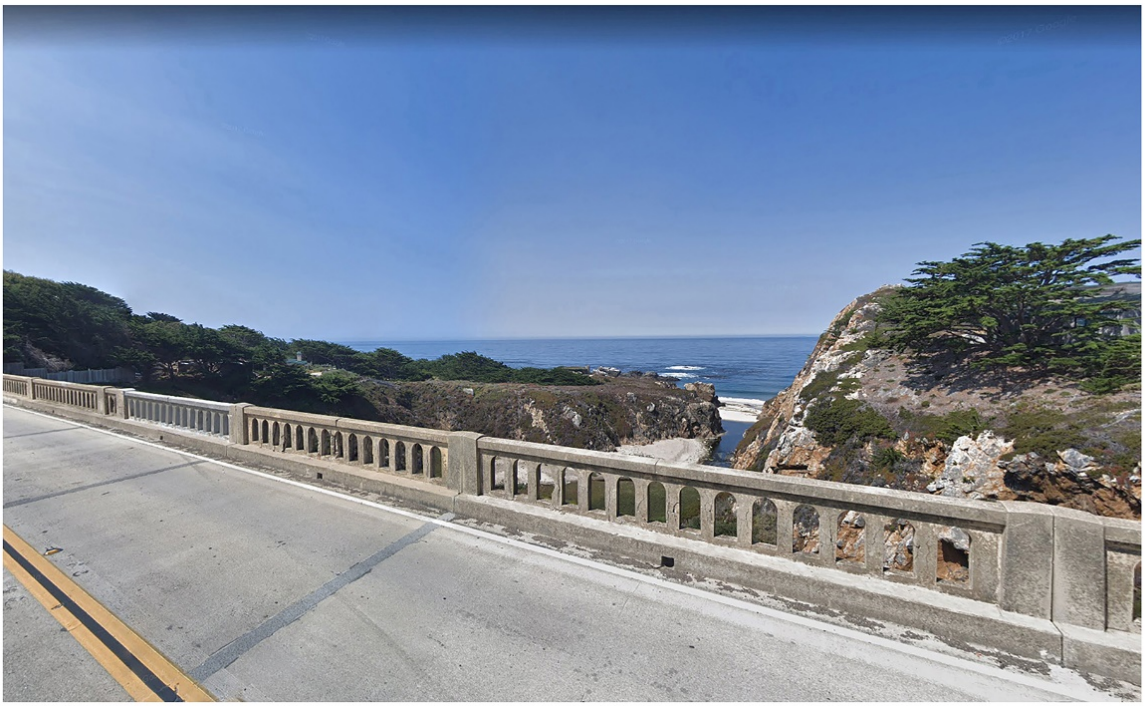


Figure 1-12 Photo Simulation of Barrier Type C412

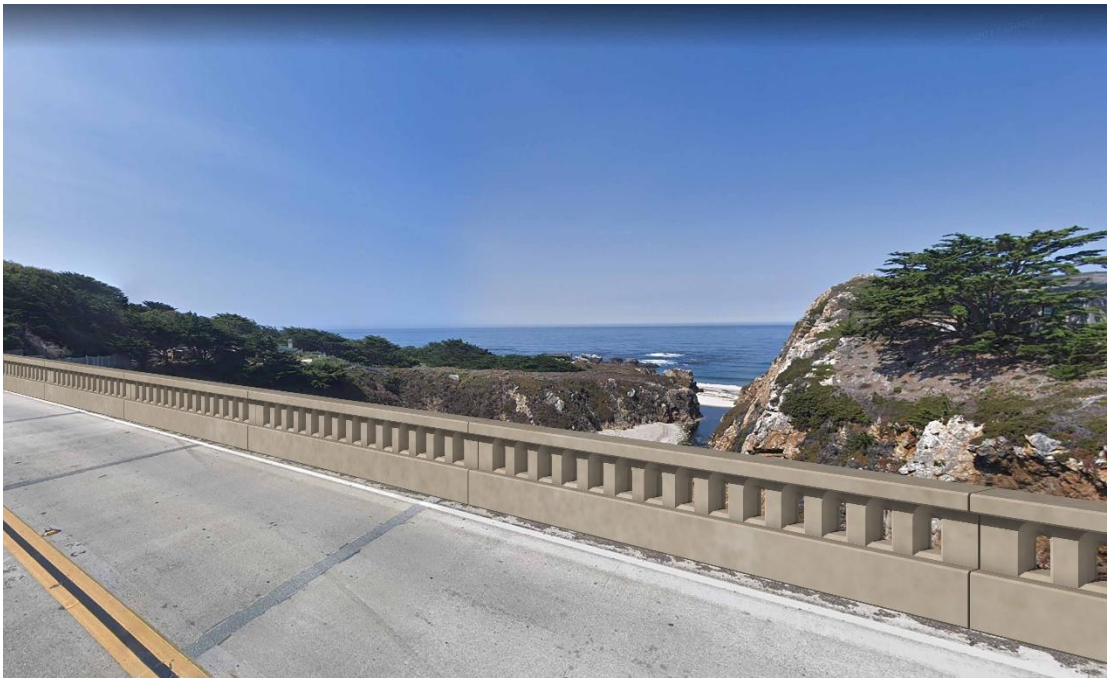


Figure 1-13 Photo Simulation of Barrier Type C412 (front view)



Figure 1-14 Photo Simulation of Barrier Type 86

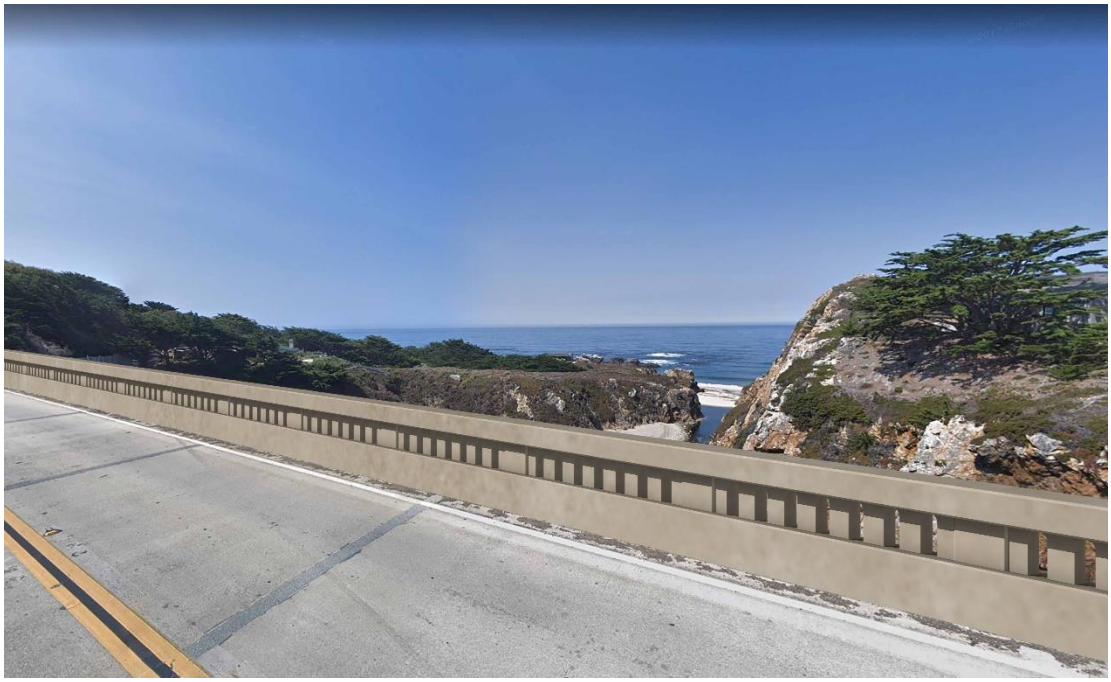


Figure 1-15 Photo Simulation of Barrier Type 86 (front view)



Avoidance, Minimization, and/or Mitigation Measures (Tier 1 and Tier 2)

Based on visual analysis and review of coastal planning policies, it was found that the existing high visual quality of the area is mostly due to the following:

- Visual access to historic structures and roadside elements.
- Exaggerated topographic relief.
- Dramatic vistas of the Pacific Ocean.
- Minimal visual encroachment of constructed elements.
- Harmonious visual pattern of the diverse native vegetation on the hills and ground plane.
- Combination of alternating distant vistas and narrowing view caused by undulating landform.

To maintain these visual quality elements and decrease potential negative visual impacts caused by the project, the following actions are recommended:

1. Involve the community in the design of all aesthetic project features.
2. Use an open-style bridge rail that minimizes view blockage.
3. Use the smallest end blocks possible that meet safety needs.
4. Use finish colors and textures that minimize reflectivity and glare.

5. Re-contour all disturbed areas and construction access roads to a natural appearance.
6. Vegetate all stabilized soil areas with native shrubs and grasses as appropriate.
7. Bury all over-side drains and inlet structures or hide them from view to the greatest extent possible. Where unavoidably exposed to view, color the pipes to reduce noticeability, and dull the gloss of the finish.
8. Where metal beam guardrail or metal end treatments are required, use measures to reduce reflectivity of the metal components.

2.1.3 Cultural Resources

Regulatory Setting

The term “cultural resources,” as used in this document, refers to the “built environment” (structures, bridges, railroads, water conveyance systems, etc.), places of traditional or cultural importance, and archaeological sites (both prehistoric and historic), regardless of significance. Under federal and state laws, cultural resources that meet certain criteria of significance are referred to by various terms including “historic properties,” “historic sites,” “historical resources,” and “tribal cultural resources.” Laws and regulations dealing with cultural resources include the following.

The National Historic Preservation Act of 1966, as amended, sets forth national policy and procedures for historic properties, defined as districts, sites, buildings, structures, and objects included in or eligible for listing in the National Register of Historic Places. Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic properties and to allow the Advisory Council on Historic Preservation the opportunity to comment on those undertakings, following regulations issued by the Advisory Council on Historic Preservation (36 Code of Federal Regulations 800). On January 1, 2014, the First Amended Section 106 Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and Caltrans went into effect for Caltrans projects, both state and local, with Federal Highway Administration involvement. The Programmatic Agreement implements the Advisory Council on Historic Preservation’s regulations, 36 Code of Federal Regulations 800, streamlining the Section 106 process and delegating certain responsibilities to Caltrans. The Federal Highway Administration’s responsibilities under the Programmatic Agreement have been assigned to Caltrans as part of the Surface Transportation Project Delivery Program (23 U.S. Code 327).

The California Environmental Quality Act (CEQA) requires the consideration of cultural resources that are historical resources and tribal cultural resources, as well as “unique” archaeological resources. California Public Resources

Code Section 5024.1 established the California Register of Historical Resources and outlined the necessary criteria for a cultural resource to be considered eligible for listing in the California Register of Historic Resources and, therefore, a historical resource. Historical resources are defined in Public Resources Code Section 5020.1(j). In 2014, Assembly Bill 52 added the term "tribal cultural resources" to the California Environmental Quality Act, and Assembly Bill 52 is commonly referenced instead of the California Environmental Quality Act when discussing the process to identify tribal cultural resources (as well as identifying measures to avoid, preserve, or mitigate effects to them). Defined in Public Resources Code Section 21074(a), a tribal cultural resource is a California Register of Historical Resources or local register eligible site, feature, place, cultural landscape, or object which has a cultural value to a California Native American tribe. Tribal cultural resources must also meet the definition of a historical resource. Unique archaeological resources are referenced in Public Resources Code Section 21083.2.

Public Resources Code Section 5024 requires state agencies to identify and protect state-owned historical resources that meet the National Register of Historic Places listing criteria. It further requires Caltrans to inventory state-owned structures in its rights-of-way. Sections 5024(f) and 5024.5 require state agencies to provide notice to and consult with the State Historic Preservation Officer before altering, transferring, relocating, or demolishing state-owned historical resources that are listed on or are eligible for inclusion in the National Register of Historic Places or are registered or eligible for registration as California Historical Landmarks. Procedures for compliance with Public Resources Code Section 5024 are outlined in a Memorandum of Understanding between Caltrans and the State Historic Preservation Officer, effective January 1, 2015. [The Memorandum of Understanding is located on the Caltrans Standard Environmental Reference at https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/5024mou-15-a11y.pdf.] For most federal-aid projects on the State Highway System, compliance with the Section 106 Programmatic Agreement will satisfy the requirements of Public Resources Code Section 5024.

Affected Environment

A Historic Property Survey Report was completed for both Tier 1 and Tier 2 project impacts on October 1, 2020.

Tier 1 Analysis

The Big Sur Bridge Rail Replacement Program projects are a series of six separate projects in which Caltrans proposes to replace deteriorated nonstandard concrete baluster bridge rails for six out of the seven historic reinforced concrete arch bridges along State Route 1 in Monterey County. The original concrete railing will be replaced with a new railing constructed to meet modern safety standards set by the Manual for Assessing Safety

Hardware. Called “the Big Sur Bridges,” these structures all date to the initial construction of State Route 1 in Monterey County in the early 1930s. The Big Sur Bridges impacted by this program include the following:

- Big Creek Bridge (1938)—post mile 28.1, Bridge Number 44-0056
- Bixby Creek Bridge (1932)—post mile 59.4, Bridge Number 44-0019
- Rocky Creek Bridge (1932)—post mile 60.0, Bridge Number 44-0036
- Garrapata Creek Bridge (1931)—post mile 63.0, Bridge Number 44-0018
- Granite Canyon Bridge (1932)—post mile 64.3, Bridge Number 44-0012
- Malpaso Creek Bridge (1935)—post mile 67.9, Bridge Number 44-0017

In addition to being individually eligible for the National Register of Historic Places and the California Register of Historic Resources, the Big Sur Bridges are all contributing resources within the Carmel-San Simeon Highway Historic District, an 80-mile-long discontinuous historic district composed of 241 original rubble stone masonry highway features as well as seven concrete arch bridges (these include the six listed above in addition to the Wildcat Creek Bridge (Bridge Number 44 0016). (Note: Because the Wildcat Creek Bridge is the only example of a reinforced concrete close-spandrel arch bridge within the district and it includes solid railing with a smooth cap, it is not included in the bridge rail replacement program at this time.)

To identify known historic properties for this project, Caltrans consulted the National Register of Historic Places, the California Register of Historical Resources, the California Points of Historical Interest, the Caltrans Historic Bridge Inventory, and the Caltrans Cultural Resources Database. The Caltrans Historic Bridge Inventory shows that all six bridges to be impacted by the Big Sur Bridge Rail Replacement Program have been previously determined eligible for the National Register of Historic Places and California Register of Historical Resources. These resources are all individually eligible and are contributing resources to the Carmel-San Simeon Highway Historic District.

In accordance with the Section 106 Programmatic Agreement Stipulation VIII.A, the Area of Potential Effects for the specific projects will be established in consultation with appropriately qualified District 5 Caltrans Professionally Qualified Staff and the Caltrans Project Manager assigned to each specific project moving forward. The Area of Potential Effects maps will be provided in the most appropriate specific technical study, figure or attached directly to the Tier 2 (project-specific) document.

The Area of Potential Effects generally for each project will include, at minimum, the entirety of the Carmel-San Simeon Highway Historic District, the entirety of each specific bridge structure to be impacted, and any staging or additional work areas proposed. The project-specific Area of Potential

Effects maps will be developed along with the Tier 2 documents as those projects are developed and more specific information is available.

Tier 2 Analysis

Archaeology—An archaeological survey was done in the project Area of Potential Effects in 2018 as part of another project (05-1H460), a repair project to address corrosion of the Garrapata Creek Bridge through the use of the Electrochemical Chloride Extraction process. The Area of Potential Effects for this past Electrochemical Chloride Extraction project is the same as the Area of Potential Effects for the current bridge rail replacement project. A thorough survey of the Area of Potential Effects was done in 2018 with negative results for archaeological resources within the Area of Potential Effects. One archaeological resource, known as CT-2 (a bedrock mortar), lies outside the Area of Potential Effects, but due to the topography and distance from proposed work areas, it will not be impacted or affected by the project.

Architectural History—Information found in the Caltrans Historic Bridge Inventory and the Caltrans Cultural Resources Database shows that the Garrapata Creek Bridge has been previously determined eligible on the National Register of Historic Places and California Register of Historical Resources, and it is also part of the Carmel-San Simeon Highway Historic District, an 80-mile-long historic district relating to the initial construction of State Route 1 along the Big Sur Coast of Monterey and Northern San Luis Obispo counties. These determinations all remain valid.

Environmental Consequences

If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.

If human remains are discovered, California Health and Safety Code Section 7050.5 states that further disturbances and activities will stop in any area or nearby area suspected to overlie remains, and the County Coroner contacted. If the remains are thought by the coroner to be Native American, the coroner will notify the Native American Heritage Commission, who, pursuant to Public Resources Code Section 5097.98, will then notify the Most Likely Descendent. At this time, the person who discovered the remains will contact Caltrans District 5 Environmental Branch staff so that they may work with the Most Likely Descendent on the respectful treatment and disposition of the remains. Further provisions of Public Resources Code 5097.98 are to be followed as applicable.

Tier 1

Caltrans, in accordance with Section 106 Programmatic Agreement Stipulation VIII.C.5, has determined there are properties within the Area of Potential Effects that were previously determined eligible for inclusion in the

National Register of Historic Places and those determinations remain valid. All bridges listed below were determined eligible in 1986 with updates in 1996 and 2006.

- Big Creek Bridge (1938)—post mile 28.1, Bridge Number 44-0056
- Bixby Creek Bridge (1932)—post mile 59.4, Bridge Number 44-0019
- Rocky Creek Bridge (1932)—post mile 60.0, Bridge Number 44-0036
- Garrapata Creek Bridge (1931)—post mile 63.0, Bridge Number 44-0018
- Granite Canyon Bridge (1932)—post mile 64.3, Bridge Number 44-0012
- Malpaso Creek Bridge (1935)—post mile 67.9, Bridge Number 44-0017

In addition, the Carmel-San Simeon Historic District (P-27-0027775), determined eligible in 1996 (updated in 2006), is state-owned and on the master list.

Caltrans, pursuant to Section 106 Programmatic Agreement Stipulation X.C, anticipates future Findings of Adverse Effect to be found in the Tier 2 (project-specific) analysis. In keeping with the tiered analysis of the projects, Caltrans has notified the State Historic Preservation Officer of these upcoming projects. The effects of each undertaking will be dealt with on a case-by-case basis in the Tier 2 (project-specific) analysis documents moving forward as more specific information comes to light about each project.

Tier 2

The Garrapata Creek Bridge Rail Replacement project is expected to significantly impact the historic Garrapata Creek Bridge. Caltrans, pursuant to Section 106 Programmatic Agreement Stipulation X.C, has determined a Finding of Adverse Effect is appropriate for this undertaking, and requests the State Historic Preservation Officer's concurrence in this determination.

Avoidance, Minimization, and/or Mitigation Measures

Mitigation will be required for each Tier 2 project.

Mitigation and minimization measures for the Tier 1 bridges will include the development of a context sensitive bridge railing design that is as compatible with the original railing in terms of design and materials as can be allowed under Manual for Assessing Safety Hardware standards. Project-specific mitigation for the individual adverse effects for each of the Tier 2 projects may also include a public interpretive document (pamphlet or booklet) on the history of transportation and historical context of the bridges that will be distributed in the local area, and Historic American Engineering Record professional photographic and written documentation of the bridge to be prepared before the bridge railing is demolished. An interpretive exhibit may also be installed in an area, or areas, where it can provide a public benefit. The information in the exhibit will cover the history of transportation and

historical context of the local area and can be installed in the project vicinity. Detailed mitigation measures will be finalized in the Memorandum of Agreement between Caltrans and the State Historic Preservation Officer and may be streamlined by developing agreements with the State Historic Preservation Officer that address the six projects as a whole.

2.2 Biological Environment

2.2.1 Natural Communities

This section of the document discusses natural communities of concern. The focus of this section is on biological communities, not individual plant or animal species. This section also includes information on wildlife corridors and habitat fragmentation. Wildlife corridors are areas of habitat used by wildlife for seasonal or daily migration. Habitat fragmentation involves the potential for dividing sensitive habitat and thereby lessening its biological value.

Affected Environment

Tier 1 and Tier 2

The Big Sur Coast supports a diverse array of environmentally sensitive habitat areas, including marine habitats (intertidal and submerged rock areas, kelp beds, important spawning areas), plant habitats (sensitive plants, dunes, serpentine rock associations, riparian corridors, coastal prairies, and grasslands), and wildlife habitats (rare endangered, sensitive wildlife). Marine Environmentally Sensitive Habitat Areas occur along this section of Big Sur coastline, but do not occur within the project area, and would not be impacted by the project. Also, the project does not occur within a stream buffer, wetland setback, or any other setbacks.

The biological study area occurs on a coastal terrace along the Big Sur Coast on State Route 1 between the Santa Lucia Mountains and the Pacific Ocean. Elevations vary from 83 and 106 feet above mean sea level. Winter temperatures in the region average 51 degrees Fahrenheit, and summer temperatures average 60 degrees Fahrenheit, with annual average precipitation of 19.85 inches.

The following have headwaters in the Santa Lucia Mountains that outlet into the Pacific Ocean downstream of the project areas: Location 1, Big Creek, a perennial creek; Location 2, Bixby Creek, a perennial creek; Location 3, Rocky Creek, a perennial creek; Location 4, Garrapata Creek, an intermittent creek; and Location 6, Malpaso Creek, a perennial creek.

Characterizations of natural vegetation communities follow *Preliminary Descriptions of the Terrestrial Natural Communities of California* (1986) and *A*

Manual of California Vegetation (2009), where applicable. According to the Soil Survey Geographic (SSURGO 2018) Database, soils in the biological study area consist of arroyo seco (gravelly sandy loam), junipero (coarse-loamy), and fluvents stony (sandy loam), which are typical of the Coast Range in the region.

A Tier 1 and Tier 2 Natural Environment Study was prepared September 2020.

The natural habitat in the project biological study areas consists mostly of ice plant mats (*Carpobrotus* sp.), ruderal and disturbed areas, and coastal scrub growing along steep slopes. Ice plant mat vegetation dominates slopes adjacent to the bridges and the areas below the bridges. At some locations, some native plants are mixed with the ice plant mats, along with a combination of exotic and native species resulting from invasive species introduction associated with highway construction, operation, and maintenance.

Coastal Scrub

Coastal scrub within the biological study area is best described as Central Lucian coastal scrub. Dominant species include black sage (*Salvia mellifera*), California sagebrush (*Artemisia californica*), coyote bush (*Baccharis pilularis*) and sticky monkeyflower (*Mimulus aurantiacus*) with scattered annual grasses and forbs in between the shrub layer. Seacliff buckwheat (*Erigonium parvifolium*) can also be found within this community. This habitat is common on the ocean side of the Santa Lucia Mountain Range, between Monterey and Point Conception, and usually below 2,000 feet above sea level. This community consists of dense shrubs 3 to 6 feet high and lacks grassy or herbaceous openings. Coastal scrub may support habitat for certain special-status plant species, reptile species, various nesting bird species, as well as invertebrates such as Smith's blue butterfly.

Ruderal/Disturbed

Ruderal/disturbed areas contain mainly non-native weedy and/or invasive species tolerant of disturbed conditions (compacted soils, roadsides subjected to vehicle disturbances, etc.). Ruderal/disturbed areas are found throughout the biological study area and in the project area where vehicle impacts and maintenance activities have routinely affected and compacted the unpaved shoulders along State Route 1.

Environmental Consequences

Tier 1

The biological study area does not occur within a known wildlife corridor, and no wildlife connectivity impacts are anticipated. Certain invasive, weedy plants occur within the Area of Potential Impacts, and measures will be implemented to avoid or minimize the spread of these species throughout the

Area of Potential Impacts. The project is expected to have no effect on listed plant species and their designated critical habitat. The biological study area includes two plant communities: coastal scrub and ruderal/disturbed. Native and non-native species occur within both of these communities, to varying degrees. No trees are proposed for removal for the project, but vegetation clearing and/or trimming may be required for construction.

No impacts to other waters, riparian areas and/or Environmentally Sensitive Habitat Areas under jurisdiction of the U.S. Army Corps of Engineers, Regional Water Quality Control Board, California Department of Fish and Wildlife, and the California Coastal Commission are anticipated with the current scope of the project.

The Federal Endangered Species Act Section 7 effects determination is that, with implementation of the included avoidance and minimization measures, the project would have no effect on federally listed species or designated critical habitat.

Tier 2

Garrapata Creek is federally designated critical habitat for the south-central California coast steelhead, but this habitat would not be affected by the project. All work would be conducted well outside of the jurisdictional areas of the creek. Permanent impacts are not anticipated with the project.

Avoidance, Minimization, and/or Mitigation Measures

Tier 1 and Tier 2

1. Avoidance and minimization of ground disturbance due to project-related actions will be achieved with the establishment of Environmentally Sensitive Areas. The Environmentally Sensitive Areas will ensure that unnecessary disturbance does not occur outside of the project limits. Environmentally Sensitive Areas limits will be shown on the final layout plans.
2. Five days prior to the beginning of work, the Resident Engineer will meet with the Project Biologist in the field at the project site for the identification of select locations where Environmentally Sensitive Area fence and flagging will be incorporated.
3. All equipment staging and material storage, stockpile, disposal, and borrow sites must be inspected for potentially sensitive biological resources prior to use or equipment mobilization. If sites are selected other than those already designated on the approved project plans, the Resident Engineer will contact the Environmental Construction Liaison or Project Biologist no less than two weeks prior to use of equipment staging and material storage, stockpile, disposal, and borrow sites. If sensitive biological resources are found at such sites, then new locations will be selected.

4. Following construction, areas of temporary disturbance to natural habitats would be stabilized and revegetated; these include areas supporting coastal scrub. Permanent erosion control, planting, or a combination of both would be used to vegetate all temporarily impacted areas. The Caltrans Landscape Architecture Division would prepare erosion control and planting plans in coordination with the project biologist. Permanent erosion control seed would consist of a mix of species native to the area. Areas of temporarily disturbed coastal scrub would be replaced in-kind.

2.2.2 Animal Species

Regulatory Setting

Many state and federal laws regulate impacts to wildlife. The U.S. Fish and Wildlife Service, the National Oceanic and Atmospheric Administration's National Marine Fisheries Service, and the California Department of Fish and Wildlife are responsible for implementing these laws. This section discusses potential impacts and permit requirements associated with animals not listed or proposed for listing under the federal or state Endangered Species Act. All other special-status animal species are discussed here, including California Department of Fish and Wildlife fully protected species and Species of Special Concern, and U.S. Fish and Wildlife Service or National Oceanic and Atmospheric Administration's National Marine Fisheries Service candidate species.

Federal laws and regulations relevant to wildlife include the following:

- National Environmental Policy Act
- Migratory Bird Treaty Act
- Fish and Wildlife Coordination Act
- Marine Mammal Protection Act

State laws and regulations relevant to wildlife include the following:

- California Environmental Quality Act
- Sections 1600 to 1603 of the California Fish and Game Code
- Sections 4150 and 4152 of the California Fish and Game Code

Affected Environment

Tier 1

The projects are within the known range of the Smith's blue butterfly (*Euphilotes enoptes smithi*; federally endangered). This butterfly inhabits coastal sand dunes and cliff/chaparral areas along the Central California coast in Monterey, Santa Cruz, and San Mateo counties. Individuals spend their entire lives in association with one of two species of buckwheat: seacliff

buckwheat (*Eriogonum parvifolium*) and seaside buckwheat (*Eriogonum latifolium*). These plants are host plants for the larvae and the principle nectar sources for adults. Smith's blue butterflies emerge in late summer and early autumn, and the adults mate and lay eggs on the flowers of the host plants. Individuals typically spend their lifetime within 200 feet of the host plant on which they emerged. The major threat to this species is loss of habitat, especially in the coastal sand dune habitat.

The project areas support seacliff buckwheat and seaside buckwheat, which can serve as host plants for the Smith's blue butterfly along this portion of the California coast. Protocol-level surveys were conducted for the Smith's blue butterfly in 2018 and 2019.

The stretch of beach below Big Creek Bridge is used as a haul-out (rest) area by two species of pinnipeds: harbor seals (*Phoca vitulina*) and California sea lions (*Zalophus californianus*). Both species are common along the California coastline and protected under the Marine Mammal Protection Act. Harbor seals rest on rocks, reefs, and beaches at night and during the day. This is done to regulate their body temperature, molt, interact with other seals, give birth, and raise their pups. They also rest in groups to avoid predators. California sea lions prefer sandy beaches or rocky coves for resting and breeding sites. The beach below Big Creek Bridge (Location 1) is a known haul-out location for these two species.

Tier 2

At the Garrapata Creek Bridge, a deceased Monterey big-eared woodrat (*Neotoma macrotis luciana*) was seen under the southern bridge abutment. A single monarch butterfly (*Danaus plexippus*) was seen flying through the biological study area. No other special-status animal species were found in or next to the project limits.

Environmental Consequences

Tier 1

Creeks at Locations 1-4 and Location 6 (Big Creek, Bixby Creek, Rocky Creek, Garrapata Creek, and Malpaso Creek) support federally designated critical habitat for the south-central California coast steelhead; however, this habitat would not be affected by the proposed projects.

Protocol surveys for the federally endangered Smith's blue butterfly (*Euphilotes enoptes smithi*) were done in 2018 and 2019. Smith's blue butterflies were seen at Location 1 (Big Creek Bridge) on August 21, 2019, but it is anticipated that work can fully avoid areas with habitat for the species, so no impacts to the Smith's blue butterfly are anticipated. Protocol surveys would be repeated as each of the Tier 2 projects is programed.

Tier 2

One California species of special concern, a deceased Monterey big-eared woodrat (*Neotoma macrotis* luciana), was discovered under a bridge abutment at Location 4 (Garrapata Creek Bridge). Measures would be incorporated in the Garrapata Creek project to avoid impacts to woodrats.

Avoidance, Minimization, and/or Mitigation Measures

Tier 1

The following avoidance and minimization measures would be implemented for all nesting birds:

- Prior to construction, a nesting bird survey will be conducted by a Caltrans biologist to determine presence/absence of nesting birds within the project area, if construction activities are to take place during the typical nesting season (February 1 to September 30). If an active nest of a migratory bird is discovered, all work will cease until a Caltrans biologist determines an appropriate buffer and monitoring strategy based on the habits and needs of the species. The buffer area will be avoided until a qualified biologist has determined that juveniles have fledged. Active nests will not be disturbed, and eggs or young of birds covered by the Migratory Bird Treaty Act and California Fish and Game Code will not be killed, injured, or harassed at any time.

The following avoidance and minimization measures will be implemented for pinnipeds at the Big Creek Bridge location:

- If California sea lions or harbor seals are observed hauling-out on the stretch of beach below the construction area, all work must cease until a Caltrans biologist has monitored and determined construction activities are not causing harm to or altering the behavior of the pinnipeds.

Tier 2

The following avoidance and minimization measures are recommended for the Monterey big-eared woodrat and are applicable to project activities occurring within the Area of Potential Impacts:

1. Prior to implementation of proposed project activities, a pre-construction visual survey will be conducted by a Caltrans biologist within suitable woodrat habitat in the Area of Potential Impacts to determine the presence or absence of woodrat nests.
2. If woodrat nests are located during this survey, the biologist will flag the area to establish a 25-foot buffer around active nests where work would not occur.
3. If nests are present in a location that cannot be avoided by work activities, a Caltrans biologist will dismantle the woodrat nest by hand immediately prior to work, allowing individuals to move out of the area.

2.2.3 Cumulative Impacts

Regulatory Setting

Cumulative impacts are those that result from past, present, and reasonably foreseeable future actions, combined with the potential impacts of the proposed project. A cumulative effect assessment looks at the collective impacts posed by individual land use plans and projects. Cumulative impacts can result from individually minor but collectively substantial impacts taking place over time.

Cumulative impacts to resources in the project area may result from residential, commercial, industrial, and highway development, as well as from agricultural development and the conversion to more intensive agricultural cultivation. These land use activities can degrade habitat and species diversity through consequences such as displacement and fragmentation of habitats and populations, alteration of hydrology, contamination, erosion, sedimentation, disruption of migration corridors, changes in water quality, and introduction or promotion of predators. They can also contribute to potential community impacts identified for the project, such as changes in community character, traffic patterns, housing availability, and employment.

California Environmental Quality Act Guidelines Section 15130 describes when a cumulative impact analysis is necessary and what elements are necessary for an adequate discussion of cumulative impacts. The definition of cumulative impacts under the California Environmental Quality Act can be found in Section 15355 of the California Environmental Quality Act Guidelines. A definition of cumulative impacts under the National Environmental Policy Act can be found in 40 Code of Federal Regulations Section 1508.7.

Approach and Methodology

The Tier 1 program analysis presented in Chapter 2 identifies the range of environmental impacts that would result from implementation of the Tier 1 Big Sur Bridge Rail Replacement Program for the six historic bridges at the program level. The analysis of the Tier 1 program cumulative impacts presents a “snapshot” of information currently available at the corridor level. Because the Tier 1 program improvements would be constructed over a multi-year time frame, potential cumulative impacts, as well as other resource impacts, could change over time. As projects are programmed as Tier 2 construction-level projects, they will be subject to separate environmental review, including the consideration of cumulative impacts.

Discussion of the Tier 2 Garrapata Creek Bridge Replacement is provided at the project level because implementation is expected in the near future.

Resources Considered in the Cumulative Impact Analysis

This cumulative impact analysis includes an analysis of resources that may be undergoing a change due to cumulative impacts of development or are in poor health near the project. For each identified resource, a brief description of the resource, Resource Study Area, and the historic and current health of the resource are provided. For the Big Sur Bridge Rail Replacement Program, the resources considered include Cultural Resources and Visual Resources.

Definition of Resource Study Area

Caltrans guidance for cumulative impacts sections under the California Environmental Quality Act and National Environmental Policy Act indicates that a Resource Study Area must be defined for each resource. A Resource Study Area is the geographic area within which impacts on a resource are analyzed. The boundaries of a Resource Study Area are often broader than the boundaries used for project-specific analysis, such as a biological study area. The Resource Study Area for each resource is described below.

Visual Resources

The Resource Study Area used for analysis of cumulative visual impacts of the Tier 2 Garrapata Creek Bridge Rail Replacement project encompasses an approximately 41-mile stretch of coast highway along the Big Sur Coast. State Route 1 in Monterey County throughout the Big Sur corridor is designated as an Official State Scenic Highway, a National Scenic Byway, and an All-American Road.

Included within the Resource Study Area are seven historic bridges built in the 1930s that are important examples of the engineering technology and aesthetic preference of the era. The bridges share a common design; each is an open-spandrel concrete arch structure with open bridge rail. Other historic elements seen by the highway traveler include parapet walls, culvert headwalls, and drinking fountains.

In addition to the historic structures, many other built elements contribute to the visual character of the highway experience. Bridge rails are noticeable components of both historic and non-historic structures. The railings of the coastal bridges are important in their ability to define the architectural style of structures as well as their potential effect on ocean views. Open-style railing is associated with older structures and design, while the railing constructed since the 1970s is typically solid.

Cultural Resources

The Resource Study Area for cumulative impact analysis of cultural resources associated with the project is defined as the Carmel-San Simeon Highway Historic District, an approximately 80-mile-long historic district relating to the initial construction of State Route 1 along the Big Sur Coast of Monterey and northern San Luis Obispo counties. The Historic District is composed of 241

original rubble stone masonry highway features as well as seven concrete arch bridges (these include the six mentioned above in addition to the Wildcat Creek Bridge [Bridge Number 44-0016]). The Wildcat Creek Bridge is the only example of a reinforced concrete closed-spandrel arch bridge within the district; because it includes solid railing with a smooth cap, it is not included in the bridge rail replacement program at this time.

The period of significance for the Historic District is 1922 to 1938, which represents the construction period for all of the constituent resources.

Projects Analyzed for Cumulative Impacts

Monterey County Capital Improvement Projects

Past, present, and reasonably foreseeable projects considered for this cumulative impact analysis are listed in Table 2-2. These include infrastructure projects in or adjacent to the project corridor, as well as private developments within the Tier 1 program vicinity. Many are Caltrans-proposed projects, and some are projects authorized by or proposed by local agencies including Monterey County.

The following sources were consulted to identify all projects to be considered in cumulative impact analysis:

- Governor's Office of Planning and Research Office database of environmental documents, available at http://www.ceqanet.ca.gov/
- Monterey County Regional Transportation Plan
- Caltrans District 5, Project Information page, available at http://www.dot.ca.gov/dist05/projects
- Big Sur Coast Land Use Plan

Table 2-2 Past, Present, and Reasonably Foreseeable Projects Considered for Cumulative Impact Analysis

Project Name or Applicant	State Route 1 Project Location (Post Mile)	Project Description	Impacts
Big Sur Capital Preventative Maintenance project	PM 39.8/74.6	Caltrans proposes to extend the service life and improve the existing pavement on approximately 35 miles of State Route 1. At certain locations, the work would also include upgrading existing guardrails, modifying existing pedestrian curb ramps, and replacing existing signage. The project was Ready to List on June 19, 2019.	Mitigation reduced potential visual impacts to a less than significant level. Cultural resources will be avoided. The project will result in a finding of no adverse effect with standard conditions.

Project Name or Applicant	State Route 1 Project Location (Post Mile)	Project Description	Impacts
Castro Canyon Bridge Rail Upgrade	PM 43.1	Caltrans is proposing to upgrade the existing bridge rails on the Castro Canyon Bridge. The project is expected to be Ready to List on May 13, 2022.	Bridge rail design will minimize visual impacts and will match the surrounding visual character. No impacts to cultural resources are anticipated.
Electrochemical Chloride Extraction Projects on Big Creek Bridge	PM 28.1	Rehabilitate the Big Creek Bridge super structure by an Electrochemical Chloride Extraction process. Currently in construction.	Wrapping of the bridge during construction creates temporary visual impacts. No long-term visual or cultural impacts are anticipated.
Electrochemical Chloride Extraction Projects on Garrapata Creek Bridge	PM 63.0	Rehabilitate the Garrapata Creek Bridge super structure by an Electrochemical Chloride Extraction process. Scheduled for construction in 2021.	Wrapping of the bridge during construction creates temporary visual impacts. No long-term visual or cultural impacts are anticipated.
Orient Express Tieback Wall	PM 27.5	Caltrans proposes to construct a tieback wall, restore roadway and facilities, place water pollution control Best Management Practices, and erosion control.	Impacts unknown; project in preliminary studies.
Limekiln Creek Bridge Replacement	PM 20.9	Caltrans proposes to replace Limekiln Creek Bridge. The draft environmental document is expected to be released in October 2021.	Impacts unknown; project in preliminary studies.
Monterey County Capital Improvement Project 1158: Nacimiento-Fergusson Road Overlay	Nacimiento Fergusson Road off State Route 1	Project will include grinding existing surface and placing a hot mix asphalt patch. Construction will begin in fiscal year 2023/2024.	No impacts to visual or cultural resources.
Mud Creek Permanent Restoration	PM 8.7/9.1	Caltrans emergency project to restore the highway following the Mud Creek landslide in 2017. Massive earthwork cuts and engineered embankments are included in the project. Construction is in progress.	Visual impacts include: Vegetation planting for slope stabilization. Addition of new urbanizing elements such as roadside paving, signage, guardrails, concrete barriers. Drainage components would be installed.

Environmental Consequences

Visual Resources

The Big Sur Bridge Rail Replacement Program (Tier 1) and the Garrapata Bridge Rail Replacement (Tier 2) project would result in a cumulative loss of scenic vistas, a substantial reduction of visual quality and character, and loss of visual access to coastal scenic resources. Scenic vistas throughout the project area include expansive mid-to-distant views of the Pacific Ocean, the rocky shoreline, dramatic topography and hillsides, native vegetative patterns, and undeveloped landscapes.

The historic bridges are primary contributors to the scenic vistas throughout the area.

Cultural Resources

In addition to being individually eligible for the National Register of Historic Places and the California Register of Historic Resources, the Big Sur Bridges are all contributing resources within the Carmel-San Simeon Highway Historic District. The Garrapata Creek Bridge Rail Replacement project is expected to significantly impact the historic Garrapata Creek Bridge. Caltrans has determined a Finding of Adverse Effect is appropriate for this undertaking and requests the State Historic Preservation Officer's concurrence in this determination.

Cumulative impacts to the entire historic district will be minimized through various mitigation measures.

Avoidance, Minimization, and/or Mitigation Measures

Visual Resources

To minimize potential cumulative visual impacts caused by the project, the following actions are recommended:

- Involve the community in the design of all aesthetic project features.
- Use an open-style bridge rail that minimizes view blockage.
- Use the smallest end blocks possible that meet safety needs.
- Use finish colors and textures that minimize reflectivity and glare.
- Re-contour all disturbed areas and construction access roads to a natural appearance.
- Vegetate all stabilized soil areas with native shrubs and grasses as appropriate.

- Bury all over side drains and inlet structures or hide them from view to the greatest extent possible. Where unavoidably exposed to view, color the pipes to reduce noticeability, and dull the gloss of the finish.

- Where metal beam guardrail or metal end treatments are required, utilize measures to reduce reflectivity of the metal components.

Cultural Resources

To reduce cumulative impacts, mitigation would be required for each Tier 2 project. Mitigation and minimization measures for all proposed Tier 1 bridge rail replacement projects would include context sensitive bridge railing design.

The Tier 2 projects may also include a public interpretive document (pamphlet or booklet) on the history of transportation and historical context of the bridges that would be distributed in the local area, and Historic American Engineering Record professional photographic and written documentation of the bridge to be prepared before the bridge railing is demolished.

An interpretive exhibit may be installed in an area where it can provide a public benefit. The information in the exhibit would be on the history of transportation and historical context of the local area and can be installed in the project vicinity.

Detailed mitigation measures would be finalized in the Memorandum of Agreement between Caltrans and the State Historic Preservation Officer.

Chapter 3 California Environmental Quality Act Evaluation

3.1 Determining Significance Under CEQA

One of the main differences between the National Environmental Policy Act and the California Environmental Quality Act is the way significance is determined. Under the National Environmental Policy Act, significance is used to determine whether an Environmental Impact Statement, or a lower level of documentation, will be required. The National Environmental Policy Act requires that an Environmental Impact Statement be prepared when the proposed federal action (project) *as a whole* has the potential to "significantly affect the quality of the human environment." The determination of significance is based on context and intensity. Some impacts determined to be significant under the California Environmental Quality Act may not be of sufficient magnitude to be determined significant under the National Environmental Policy Act. Under the National Environmental Policy Act, once a decision is made regarding the need for an Environmental Impact Statement, it is the magnitude of the impact that is evaluated, and no judgment of its individual significance is deemed important for the text. The National Environmental Policy Act does not require that a determination of significant impacts be stated in the environmental documents.

The California Environmental Quality Act, on the other hand, does require Caltrans to identify each "significant effect on the environment" resulting from the project and ways to mitigate each significant effect. If the project may have a significant effect on any environmental resource, then an Environmental Impact Report must be prepared. Every significant effect on the environment must be disclosed in the Environmental Impact Report and mitigated if feasible. In addition, the California Environmental Quality Act Guidelines list a number of "mandatory findings of significance," which also require the preparation of an Environmental Impact Report. There are no types of actions under the National Environmental Policy Act that parallel the findings of mandatory significance of the California Environmental Quality Act. This chapter discusses the effects of this project and California Environmental Quality Act significance.

3.2 CEQA Environmental Checklist

This checklist identifies physical, biological, social, and economic factors that might be affected by the project. Potential impact determinations include Significant and Unavoidable Impact, Less Than Significant with Mitigation Incorporated, Less Than Significant Impact, and No Impact. In many cases,

background studies performed in connection with a project will indicate that there are no impacts to a particular resource. A No Impact answer reflects this determination. The words “significant” and “significance” used throughout the following checklist are related to California Environmental Quality Act, not National Environmental Policy Act, impacts. The questions in this checklist are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

Project features, which can include both design elements of the project and standardized measures that are applied to all or most Caltrans projects such as Best Management Practices and measures included in the Standard Plans and Specifications or as Standard Special Provisions, are considered to be an integral part of the project and have been considered prior to any significance determinations documented below; see Chapters 1 and 2 for a detailed discussion of these features. The annotations to this checklist are summaries of information contained in Chapter 2 to provide you with the rationale for significance determinations; for a more detailed discussion of the nature and extent of impacts, please see Chapter 2. This checklist incorporates by reference the information contained in Chapters 1 and 2.

Aesthetics

CEQA Significance Determinations for Aesthetics

Except as provided in Public Resources Code Section 21099, would the project:

a) Have a substantial adverse effect on a scenic vista?

Significant and Unavoidable Impact—Given the high scenic value and visual character of the Big Sur coastline, the ongoing cumulative effect of this project and other highway projects continues to reduce the area’s visual character. Mitigation would not be effective in reducing visual impacts to a level of insignificance.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Significant and Unavoidable Impact—The inclusion of the avoidance, minimization, and mitigation measures listed in Section 2.1.2 would reduce the visual impacts but, even with inclusion of these measures, the impacts would not be able to be fully mitigated.

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Significant and Unavoidable Impact—The inclusion of the avoidance, minimization, and mitigation measures listed in Section 2.1.2 would reduce the visual impacts, but even with inclusion of these measures the project impacts would not be able to be fully mitigated. The project will substantially degrade the existing visual character or quality of public views of the site and its surroundings.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

No Impact—The project would not add any new sources of substantial light or glare.

Agriculture and Forest Resources

CEQA Significance Determinations for Agriculture and Forest Resources

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

Would the project:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Impact—The County of Monterey zoning map indicates that grazing lands are next to some of the project locations, but not within the project limits. Impacts to agricultural lands are not expected.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact—No land that falls under the Williamson Act would be affected by the project. Existing agricultural zoning would not be impacted.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

No Impact—The County of Monterey zoning map indicates that forest resources are next to some of the project locations, but not within the project limits. Impacts to forest resources are not expected.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact—Forest lands would not be impacted by the project.

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of farmland, to non-agricultural use or conversion of forest land to non-forest use?

No Impact—No project work would encroach on forest lands, and no conversion of land use would occur as a result of the project.

Air Quality

CEQA Significance Determinations for Air Quality

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations.

Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?

No Impact—No differences in long-term air quality would result from the project. See Chapter 2.

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

No Impact—No difference in long-term air emissions would result from the project because no additional lanes or capacity would be added to State Route 1.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact—Temporary construction activities could generate fugitive dust and airborne pollutants. A debris containment and

collection plan would be implemented during construction to minimize impacts.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

No Impact—Other emissions are not expected.

Biological Resources

CEQA Significance Determinations for Biological Resources

Would the project:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Less Than Significant Impact—No special-status plant species were found during appropriately timed floristic surveys. No impacts to the Smith's blue butterfly are anticipated. Measures would be incorporated in the Garrapata Creek Tier 2 project to avoid impacts to woodrats.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Less Than Significant Impact—Marine environmentally sensitive habitat areas occur along this section of the Big Sur coastline, but do not occur within the project area and will not be impacted by the project. The project does not occur within a stream buffer, wetland setback, or any other setbacks. Impacts to marine mammals that are known to haul-out in the Big Creek project vicinity will be avoided.

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact—The project would not involve work within any protected wetland areas.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

No Impact—The biological study area does not occur within a known wildlife corridor, and no wildlife connectivity impacts are anticipated. The project will not involve any work within any creeks and will not interfere with the movement of migratory fish.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact—The project complies with local policies and ordinances protecting biological resources.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact—No habitat conservation plans were identified near the project.

Cultural Resources

CEQA Significance Determinations for Cultural Resources

Would the project:

a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

Less Than Significant With Mitigation Incorporated—As detailed in the Cultural Resources section in Chapter 2, the six Historic Big Sur Bridges are all individually listed in the National Register of Historic Places and are components of a historic district considered a significant historical resource under the California Environmental Quality Act. The project would have an adverse effect on cultural resources. Therefore, under the California Environmental Quality Act, the project would have a significant impact. To mitigate the significant impact, the replacement bridge railings would incorporate a context sensitive design. Detailed mitigation measures would be outlined in the Memorandum of Agreement between Caltrans and the State Historic Preservation Officer. (See Chapter 2, Cultural Resources section, for detailed discussion of measures.) Impacts to historical resources are less than significant with mitigation incorporated.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

No Impact—There are no archaeological resources within the project limits for the Tier 1 bridge rail replacement projects or the Tier 2 Garrapata Creek Bridge Rail Replacement project.

c) Disturb any human remains, including those interred outside of dedicated cemeteries?

No Impact—The project will not disturb any human remains.

Energy

CEQA Significance Determinations for Energy

Would the project:

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

No Impact—Caltrans incorporates energy efficiency into the design, construction, and maintenance of all transportation projects. Construction of the project would incorporate energy efficiency measures and product recycling wherever feasible. The project is not capacity-increasing, so operation would not increase energy use.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No Impact—The project would replace bridge rails on State Route 1 and therefore would not substantially change energy use. The project would comply with relevant policies.

Geology and Soils

CEQA Significance Determinations for Geology and Soils

Would the project:

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?

No Impact—No fault lines cross the project site, but California is subject to earthquakes. The project would be designed to meet Caltrans seismic standards.

ii) Strong seismic ground shaking?

No Impact—The project would be designed and constructed to withstand ground shaking from the maximum credible earthquake event predicted for the site, following Caltrans seismic standards.

iii) Seismic-related ground failure, including liquefaction?

No Impact—The project would replace bridge rails and would not involve work at the base of bridge supports.

iv) Landslides?

No Impact—State Route 1 through Big Sur is susceptible to landslides; however, the project would not create unstable slopes susceptible to landslide activity.

b) Result in substantial soil erosion or the loss of topsoil?

No Impact—Work on the bridges would not involve disruption of large amounts of soil. Standard erosion control Best Management Practices would be used.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

No Impact—Bridge rail replacement work would be conducted from the bridge decks and would not impact bridge foundations.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

No Impact—U.S. Geological Service Data suggests the soils are not expansive. Bridge rail replacement work would not impact foundations.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water?

No Impact—No septic tanks or wastewater disposal systems are proposed for this transportation project.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

No Impact—Earthwork is expected to occur in areas that have been previously disturbed or are too young to contain scientifically important fossils.

Inadvertent fossil discoveries would be assessed by a qualified paleontologist.

Greenhouse Gas Emissions

CEQA Significance Determinations for Greenhouse Gas Emissions

Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

No Impact—Temporary increases in greenhouse gas emissions during project construction would be minimized through implementation of Best Management Practices. Climate Change Guidance developed by the Caltrans Division of Environmental Analysis indicates that certain types of projects would have minimal or no increase in operational greenhouse gas emissions. Roadway improvement projects, such as this one, are included on that list.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

No Impact—The project would not conflict with any known plan, policy, or regulation relative to reducing greenhouse gas emissions.

Hazards and Hazardous Materials

CEQA Significance Determinations for Hazards and Hazardous Materials

Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

No Impact—Implementation of standard measures to handle, reuse, and dispose of hazardous materials encountered during project construction would avoid and minimize impacts from hazardous waste.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

No Impact—Standard measures would be implemented to handle and dispose of hazardous waste.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No Impact—No schools are near the project locations.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact—The project locations are not on a known hazardous materials site.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

No Impact—The project is not near an airport.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No Impact—The Traffic Management Plan would account for emergency evacuation.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

No Impact—Certain project-related construction activities have the potential to ignite a wildfire. Avoidance and minimization measures would be incorporated to reduce wildfire risk.

Hydrology and Water Quality

CEQA Significance Determinations for Hydrology and Water Quality

Would the project:

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

No Impact—Short-term construction-related water quality impacts would be minimized with implementation of appropriate Best Management Practices.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

No Impact—The project would not involve excavation work extensive enough to impact groundwater resources.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i) Result in substantial erosion or siltation on- or off-site;

No Impact—Standard Best Management Practices would reduce construction-period erosion and siltation. Long-term changes in erosion or siltation are not expected. No work will occur in the creeks.

ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;

No Impact—The project would not affect the amount of impervious surface area.

iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

No Impact—Standard stormwater Best Management Practices would address any concerns related to runoff.

iv) Impede or redirect flood flows?

No Impact—The project would be designed to accommodate 100-year flood events and would not create flood barriers. Existing drainage patterns would be maintained, and flood flows would not be redirected.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

No Impact—The project does not contain pollutants that would damage the environment if inundated.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

No Impact—The project would not substantially alter the flow of surface water or groundwater. Short-term construction-related water quality impacts would be minimized with implementation of appropriate Best Management Practices.

Land Use and Planning

CEQA Significance Determinations for Land Use and Planning

Would the project:

a) Physically divide an established community?

No Impact—The project is improving an existing structure in a rural area.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact—The project is improving an existing structure, so there would be no conflicts with land use.

Mineral Resources

CEQA Significance Determinations for Mineral Resources

Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No Impact—No known mineral resources occur near the project.

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

No Impact—No known locally important mineral resources occur near the project.

Noise

CEQA Significance Determinations for Noise

Would the project result in:

a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

No Impact—Adverse noise impacts from construction are not anticipated because construction would be temporary and intermittent, conducted in accordance with Caltrans Standard Specifications, and because local noise levels are significantly influenced by local traffic noise. To minimize impacts on resident's normal nighttime sleep activities, it is recommended that whenever possible construction work be done during the day, especially when work is near sensitive receptors. If nighttime construction is necessary, the noisiest construction activities should be done nearest the residences as early

in the evening as possible. Caltrans Standard Specifications (Section 14-8.02) requires the contractor to control and monitor noise resulting from work activities and not to exceed 86 dBA (decibels) Lmax at 50 feet from the job site from 9:00 p.m. to 6:00 a.m.

b) Generation of excessive ground borne vibration or ground borne noise levels?

No Impact—Noise levels are not expected to exceed Caltrans specifications or be considered excessive.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact—The project is not within 2 miles of a public airport or private airstrip.

Population and Housing

CEQA Significance Determinations for Population and Housing

Would the project:

a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

No Impact—The project is not capacity-increasing and therefore would not induce growth.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact—The project would not require relocation of residences.

Public Services

CEQA Significance Determinations for Public Services

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

Fire protection?

Less Than Significant Impact—No long-term changes in emergency access would result from the project. Temporary impacts to emergency response times would be accounted for in a Traffic Management Plan.

Police protection?

Less Than Significant Impact—No long-term changes in emergency access would result from the project. Temporary impacts to emergency response times would be accounted for in a Traffic Management Plan.

Schools?

No Impact—No schools are near the project.

Parks?

Less Than Significant Impact—Access to Garrapata State Beach and other parks could be temporarily affected during project construction.

Other public facilities?

Less Than Significant Impact—Access to public facilities could be temporarily affected during project construction.

Recreation

CEQA Significance Determinations for Recreation

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

No Impact—The project would not increase the capacity or change the configuration of State Route 1 and therefore would not increase the use of Big Sur beaches, including Garrapata State Park.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

No Impact—Bridge rail replacement work would have no effect on recreational facilities.

Transportation

CEQA Significance Determinations for Transportation

Would the project:

a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

No Impact—The project would improve existing bridges.

b) Conflict with or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

No Impact—The project would not increase the number of vehicle miles traveled.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact—The project would improve existing bridges.

d) Result in inadequate emergency access?

Less Than Significant Impact—No long-term changes in emergency access would result from the project. Minor temporary traffic delays may occur during construction, but these potential delays will be minimized through implementation of a Traffic Management Plan. The Traffic Management Plan will include the use of advance message signs leading up to the project site, one-way traffic controls, public noticing, and posting on the Caltrans Quick Map website. Extra efforts will be made to accommodate traffic flow during times when there are special events occurring within the project vicinity such as the Big Sur Marathon.

Tribal Cultural Resources

CEQA Significance Determinations for Tribal Cultural Resources

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or

No Impact—There are no Tribal Cultural Resources within the project limits.

b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Codes Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

No Impact—There are no Tribal Cultural Resources within the project limits.

Utilities and Service Systems

CEQA Significance Determinations for Utilities and Service Systems

Would the project:

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Less Than Significant Impact—The Tier 1 projects may require relocation of utilities. The Tier 2 Garrapata Creek Bridge project will not involve utility relocation.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

No Impact—No additional water services would be needed because the project is not capacity-increasing.

c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

No Impact—The project would generate minimal wastewater that would primarily be sanitary waste generated by construction workers, which would be transported and treated off-site.

d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

No Impact—Generated solid waste would be recycled when possible and would not exceed standards or local landfill capacities.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

No Impact—The project will fully comply with all statutes and regulations related to solid waste.

Wildfire

CEQA Significance Determinations for Wildfire

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact—Emergency response and evacuation would be factored into the construction-period Traffic Management Plan.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

No Impact—The project involves improvements of existing bridges on State Route 1 and therefore does not have any project occupants.

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Less Than Significant Impact—Coordinating with the utility owners and implementing wildfire avoidance and minimization measures would avoid worsening wildfire risk.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

No Impact—The project would not increase runoff, post-fire slope instability, or drainage changes.

Mandatory Findings of Significance

CEQA Significance Determinations for Mandatory Findings of Significance

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species,

cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less Than Significant With Mitigation Incorporated—The project would adversely affect historical resources. These impacts would be mitigated to below the level of significance through the use of context sensitive design and mitigation.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

Significant and Unavoidable Impact—Significant impacts to visual resources are considered both individual impacts as well as cumulative impacts. Although mitigation measures would be applied, further damage would occur to scenic resources. Other projects considered within the visual resources study area would also result in further degradation of scenic resources.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less Than Significant Impact—The project is replacing existing bridge rails. No adverse impacts to human beings, including hazards or environmental justice issues, have been identified.

3.3 Wildfire

3.3.1 Regulatory Setting

Senate Bill 1241 required the Office of Planning and Research, the Natural Resources Agency, and the California Department of Forestry and Fire Protection to develop amendments to the "CEQA Checklist" for the inclusion of questions related to fire hazard impacts for projects located on lands classified as very high fire hazard severity zones. The 2018 updates to the CEQA Guidelines expanded this to include projects "near" these very high fire hazard severity zones.

Affected Environment

The Tier 1 and Tier 2 projects are located on coastal bluffs of the Pacific Ocean. The project is in a very high fire hazard severity zone as mapped by

the California Department of Forestry and Fire Protection. The project would not permanently worsen wildfire risk because it involves replacing existing structures. Instead, the project is expected to benefit the greater Big Sur Coast region because it would ensure the safety and reliability of the Big Sur corridor, which would be a critical evacuation route should a wildfire event occur locally.

Environmental Consequences

Certain types of construction work have the potential to ignite a wildfire, such as grinding which creates sparks, or work involving electrical utilities. Precautions would be taken to reduce fire risk from construction work as much as possible, and an emergency water supply would be kept on-site throughout the duration of the project. Prior to construction, vegetation would be cleared in a manner that would minimize fire risk while avoiding harm to the biological environment.

Avoidance, Minimization, and/or Mitigation Measures

The following avoidance and minimization measures would be implemented during project construction to reduce the risk of igniting a wildfire.

A Traffic Management Plan (measure TRA-1) would address emergency access and emergency evacuation in the event of a wildfire near the project.

WF-1: An emergency water supply for use if a fire is ignited will be maintained on the project site for the duration of project construction.

3.4 Climate Change

3.4.1 Regulatory Setting

This section outlines federal and state efforts to comprehensively reduce greenhouse gas emissions from transportation sources.

Federal

To date, no national standards have been established for nationwide mobile-source greenhouse gas reduction targets, nor have any regulations or legislation been enacted specifically to address climate change and greenhouse gas emissions reduction at the project level.

The National Environmental Policy Act (42 U.S. Code Part 4332) requires federal agencies to assess the environmental effects of their proposed actions prior to making a decision on the action or project.

The Federal Highway Administration recognizes the threats that extreme weather, sea-level change, and other changes in environmental conditions pose to valuable transportation infrastructure and those who depend on it. The Federal Highway Administration therefore supports a sustainability approach that assesses vulnerability to climate risks and incorporates resilience into planning, asset management, project development and design, and operations and maintenance practices (Federal Highway Administration 2019). This approach encourages planning for sustainable highways by addressing climate risks while balancing environmental, economic, and social values—"the triple bottom line of sustainability" (Federal Highway Administration n.d.). Program and project elements that foster sustainability and resilience also support economic vitality and global efficiency, increase safety and mobility, enhance the environment, promote energy conservation, and improve the quality of life.

Various efforts have been made at the federal level to improve fuel economy and energy efficiency to address climate change and its associated effects. The most important of these was the Energy Policy and Conservation Act of 1975 (42 U.S. Code Section 6201) and Corporate Average Fuel Economy Standards. This act establishes fuel economy standards for on-road motor vehicles sold in the United States. Compliance with federal fuel economy standards is determined through the Corporate Average Fuel Economy program based on each manufacturer's average fuel economy for the portion of its vehicles produced for sale in the United States.

Energy Policy Act of 2005, 109th Congress H.R.6 (2005–2006): This act sets forth an energy research and development program covering: (1) energy efficiency; (2) renewable energy; (3) oil and gas; (4) coal; (5) the establishment of the Office of Indian Energy Policy and Programs within the Department of Energy; (6) nuclear matters and security; (7) vehicles and motor fuels, including ethanol; (8) hydrogen; (9) electricity; (10) energy tax incentives; (11) hydropower and geothermal energy; and (12) climate change technology.

The U.S. Environmental Protection Agency in conjunction with the National Highway Traffic Safety Administration is responsible for setting greenhouse gas emission standards for new cars and light-duty vehicles to significantly increase the fuel economy of all new passenger cars and light trucks sold in the United States. Fuel efficiency standards directly influence greenhouse gas emissions.

State

California has been innovative and proactive in addressing greenhouse gas emissions and climate change by passing multiple Senate and Assembly bills and executive orders that can be found listed in the Climate Change Technical Study.

Affected Environment

The project sits along State Route 1 in Monterey County along the Big Sur Coast. State Route 1 in Monterey County serves local and interregional traffic which includes mostly recreational, local commuters, and limited commercial users. The route in Monterey County is designated as an Official State Scenic Highway, a National Scenic Byway, and an All-American Road. Along the highway, the primary developments are the roadway itself and related features, occasional roadside home sites and tourist-oriented businesses.

The Association of Monterey Bay Area Governments in coordination with the Transportation Agency for Monterey County guides transportation development in the project area through the Association of Monterey Bay Area Governments' Metropolitan Transportation Plan/Sustainable Communities Strategy and the Transportation Agency for Monterey County's Regional Transportation Plan.

The California Air Resources Board sets regional targets for California's 18 Metropolitan Planning Organizations to use in their Metropolitan Transportation Plan/Sustainable Communities Strategy to plan future projects that will cumulatively achieve greenhouse gas reduction goals. Targets are set at a percent reduction of passenger vehicle greenhouse gas emissions per person from 2005 levels. The Association of Monterey Bay Area Governments is the Metropolitan Planning Organization for the project area. The Air Resources Board's regional reduction target for the Association of Monterey Bay Area Governments is 6 percent by 2035 (Air Resources Board 2019c).

The project is within the jurisdiction of the Transportation Agency for Monterey County, which publishes its own regional transportation plan in association with the Association of Monterey Bay Area Governments. The Metropolitan Transportation Plan describes projects and policies that will contribute to meeting the regional greenhouse gas reduction goals consistent with the Association of Monterey Bay Area Governments Metropolitan Transportation Plan/Sustainable Communities Strategy. The 2018 Monterey County Regional Transportation Plan identifies complete streets projects, including bicycle, pedestrian, and public transit projects as important components of the strategy to develop sustainable communities in Monterey County and to achieve greenhouse gas targets.

See Table 3-1 for a listing of the regional and local greenhouse gas reduction goals.

Table 3-1 Regional and Local Greenhouse Gas Reduction Goals

Title	Greenhouse Gas Reduction Policies or Strategies
Association of Monterey Bay Area Governments 2040 Metropolitan Transportation Plan/Sustainable Communities Strategy and Regional Transportation Plans for Monterey, San Benito and Santa Cruz Counties (adopted June 2018)	• Integrated multi-modal network • Expand the public transit network • Strategic capacity and technology enhancements to existing highways • Identify a list of projects that will add and enhance walking and biking facilities • Transportation Systems Management measures • Transportation Demand Management
Transportation Agency for Monterey County Final 2018 Regional Transportation Plan	Environmental Stewardship Element: Protect and enhance the County's built and natural environment. Act to reduce the transportation system's emission of greenhouse gases.

Project Analysis

Greenhouse gas emissions from transportation projects can be divided into those produced during operation of the state highway system and those produced during construction. The main greenhouse gases produced by the transportation sector are carbon dioxide, methane, nitrous oxide, and hydrofluorocarbons. Carbon dioxide emissions are a product of the combustion of petroleum-based products, like gasoline, in internal combustion engines. Relatively small amounts of methane and nitrous oxide are emitted during fuel combustion. In addition, a small amount of hydrofluorocarbon emissions is included in the transportation sector.

Operational Emissions

The purpose of the proposed project (Tier 1 and Tier 2) is to upgrade bridge railings to meet current safety standards while retaining the historic visual character of the bridges. The project would not add vehicle capacity to the roadway and would not increase vehicle miles traveled. While some greenhouse gas emissions during the construction period would be unavoidable, the project once completed would not lead to an increase in operational greenhouse gas emissions.

Construction Emissions

Construction greenhouse gas emissions would result from material processing, on-site construction equipment, and traffic delays due to construction. These emissions will be produced at different levels throughout the construction phase; their frequency and occurrence can be reduced

through innovations in plans and specifications and by implementing better traffic management during construction phases.

In addition, with innovations such as longer pavement lives, improved traffic management plans, and changes in materials, the greenhouse gas emissions produced during construction can be offset to some degree by longer intervals between maintenance and rehabilitation activities.

Construction greenhouse gas emissions were estimated using the Caltrans Construction Emissions Tool. Construction emissions for replacing bridge railings on the Garrapata Creek Bridge are estimated to be 122 tons of carbon dioxide over the 5-month construction period.

Construction greenhouse gas emissions for planned bridge rail replacements on other bridges will be reported in their individual Tier 2 environmental documents.

All construction contracts include Caltrans Standard Specifications Section 7-1.02A and 7-1.02C, Emissions Reduction, which require contractors to comply with all laws applicable to the project and to certify they are aware of and will comply with all the California Air Resources Board emission reduction regulations; contracts also include Section 14-9.02, Air Pollution Control, which requires contractors to comply with all air pollution control rules, regulations, ordinances, and statutes.

The project will also implement Caltrans standardized measures (such as construction Best Management Practices) that apply to most or all Caltrans projects. Certain common regulations, such as equipment idling restrictions and development and implementation of a traffic control plan that reduce construction vehicle emissions also help reduce greenhouse gas emissions.

CEQA Conclusion

While the project will result in greenhouse gas emissions during construction, it is expected that the project will not result in any increase in operational greenhouse gas emissions. The project does not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. With implementation of construction greenhouse gas reduction measures, the impact would be less than significant.

Caltrans is firmly committed to implementing measures to help reduce greenhouse gas emissions. These measures are outlined in the following section.

Avoidance, Minimization, and/or Mitigation Measures

The following measures will be implemented in the project to reduce greenhouse emissions and potential climate change impacts from the project:

- Caltrans Standard Specifications Section 7-1.02A and 7 1.02C, Emissions Reduction. Requires contractors to comply with all laws applicable to the project and to certify they are aware of and will comply with all Air Resources Board emission reduction regulations.

- Section 14-9.02, Air Pollution Control. Requires contractors to comply with all air pollution control rules, regulation, ordinances, and statutes.

Project Adaptation Analysis

As noted above, it is expected that California may be vulnerable to climate change effects that relate to temperature, wildfire, precipitation, storm surge, and sea level rise. Though the analysis of climate change risk involves a degree of uncertainty relating to the timing and intensity of potential risks, it is not expected that the Big Sur Historic Bridges (including the Garrapata Creek Bridge) would be particularly vulnerable to the effects of climate change, and construction of the Tier 2 project itself is not expected to locally worsen the effects of climate change.

3.4.2 Sea Level Rise

At the Garrapata Creek Bridge project site, State Route 1 is at an elevation of about 95 feet above mean sea level. The State of California 2018 Sea Level Rise Guidance Document provides projections for the height of sea level rise along the California Coast using the most current data from the Ocean Protection Council. The guidance document outlines a five-step approach for evaluating the risks associated with sea level rise at a given location.

The first step is identifying the nearest tide gauge, which is Monterey for the Big Sur Historic Bridges. The second and third steps involve estimating the projection year that should be used in the analysis, which is year 2100 for the project given an estimated 75-year life span of the replacement Big Sur Bridge rails. The fourth and fifth steps involve assigning the risk and tolerance for the site. Caltrans' adopted policies are to use the high emissions scenario and a 1-in-200 chance (0.5 percent probability).

At the Monterey tide gauge under a high-emissions scenario, there is 0.5 percent probability that sea level rise will meet or exceed 6.9 feet by the year 2100. Also considered is the H++ climate scenario, which has no associated probability, but is an extreme climate change scenario. Under the H++ scenario, sea level rise is predicted to rise 10.1 feet at the Monterey tide gauge by 2100. Sea level rise projections for the Monterey tide gauge are shown in Table 3-2.

Table 3-2 Projected Levels of Sea Level Rise at Project Site for Year 2100 Under a High Emission Scenario

Probability	Risk Level	Year 2100 High Emission Scenario at the Monterey Tidal Gauge
Upper limit of "likely range" (66 percent probability)	Low	3.3 feet
1-in-200 chance (0.5 percent probability)	Medium-High	6.9 feet
H++ Scenario (no associated probability)	Extreme	10.1 feet

Source: State of California Sea Level Rise Interim Guidance Document, 2018.

Floodplains

Regional climate forecasts project California to receive less precipitation overall in the future, with the potential for heavier individual events and more falling as rain than snow. The District 5 Caltrans Climate Change Vulnerability Assessment (2019) analyzed potential changes in the 100-year storm event over time. The 100-year storm event is a metric commonly considered in the design of highway infrastructure.

Average observed 100-year storm precipitation from 1961 to 1990 was about 3.4 inches and ranged from 2.6 to 5.6 inches (CalAdapt 2020). Mapping using the Caltrans District 5 Vulnerability Assessment Mapping Tool shows that 100-year storm precipitation depth in the project area is likely to increase by less than 5 percent through 2055, and up to 9.9 percent by 2085 (compared to data from 1950 to 2005). The project would be designed to accommodate 100-year flood events and would not create flood barriers. Existing drainage patterns would be maintained. It is expected that the project would be resilient to an up to 9.9 percent change in the 100-year storm event.

Wildfire

The Garrapata Bridge project area on State Route 1 crosses moderate and high fire hazard severity zones in a State Responsibility Area (https://egis.fire.ca.gov/FHSZ/). The District 5 Climate Change Vulnerability Assessment Mapping Tool shows the project area to be of moderate concern for wildfire exposure. The project would not introduce new structures vulnerable to fire into the project area. Fire-resistant materials will be selected for the bridge rails. Accordingly, this bridge rail project is expected to be resilient to wildfire.

Vulnerability to fire hazard for the future planned bridge rail projects will be evaluated in each individual Tier 2 environmental document.

For all projects, Caltrans 2018 revised Standard Specification 7-1.02M(2) mandates fire prevention procedures during construction, including a fire prevention plan. The Tier 1 and Tier 2 projects are not anticipated to exacerbate the impacts of wildfire intensified by climate change.

Climate Change References

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Chapter 4 Comments and Coordination

Early and continuing coordination with the public and public agencies is an essential part of the environmental process. It helps planners determine the necessary scope of environmental documentation and the level of analysis required, and to identify potential impacts and avoidance, minimization, and/or mitigation measures and related environmental requirements.

Agency and tribal consultation and public participation for this project have been accomplished through a variety of formal and informal methods, including interagency coordination meetings and project development team meetings. This chapter summarizes the results of Caltrans' efforts to identify, address, and resolve project-related issues through early and continuing coordination.

4.1 Notice of Preparation

A Notice of Preparation for the project was circulated from April 13, 2020 to June 15, 2020 and mailed directly to the State Clearinghouse and responsible agencies. See Chapter 6 for a distribution list and Appendix C for the Notice of Preparation. Preparing and circulating a Notice of Preparation is typically the first step in the process of preparing an Environmental Impact Report. This process is completed to receive initial comments and feedback on the project and its potential environmental impacts from appropriate public agencies and the public.

4.2 Cultural Resources Coordination

Concurrent to notifying the California State Historic Preservation Office, Caltrans also notified the following about the project:

- Native American Heritage Commission
- Monterey County Historic Resources Review Board (https://www.co.monterey.ca.us/government/departments-a-h/clerk-of-the-board/boards-committees-and-commissions/historic-resources-review-board)
- Historic Bridge Foundation (https://historicbridgefoundation.com/)
- Monterey County Historical Society
- Carmel Heritage Society (https://www.carmelheritage.org/)
- Big Sur Historical Society

Caltrans will continue to consult with these organizations, and any other knowledgeable groups or individuals identified during this process, for all the Tier 2 (project-specific) analyses moving forward.

In addition, an Assembly Bill 52 consultation letter was distributed on August 21, 2018.

A consultation letter was sent to the State Historic Preservation Officer on August 31, 2020.

A Memorandum of Agreement between Caltrans and the State Historic Preservation Officer was reached on March 24, 2021.

Chapter 5 List of Preparers

This document was prepared by the following Caltrans Central Region staff:

Robert Carr, Associate Landscape Architect. B.S., Landscape Architecture, California Polytechnic State University, San Luis Obispo; 29 years of experience preparing Visual Impact Assessments. Contribution: Prepared the Visual Impact Assessment.

Andrew Domingos, Associate Environmental Planner (Natural Sciences). B.S., Environmental Science Resource Management, California State University, Channel Islands; 10 years of experience in California biology. Contribution: Prepared the Natural Environment Study Minimal Impacts.

Raymond Gomez, Transportation Engineer (Civil). B.S., Environmental Engineering, Carroll College; 1 year of environmental engineering experience. Contribution: Prepared the Water Quality Assessment Report.

Krista Kiaha, Senior Environmental Planner. M.S., Anthropology, Idaho State University; B.A., Anthropology, University of California, Santa Cruz; more than 20 years of cultural resources experience. Contribution: Review of the Historic Properties Survey Report.

Joel Kloth, Engineering Geologist. B.S., Geology, California Lutheran University; more than 30 years of experience in petroleum geology, geotechnical geology, and environmental engineering/geology-hazardous waste. Contribution: Prepared the Hazardous Waste Studies.

Rajvi Koradia, Environmental Engineer. B.S., Environmental Engineering, L.D. College of Engineering, Ahmedabad, India; M.S., Civil and Environmental Engineering, San Jose State University; 2 years of environmental engineering experience. Contribution: Prepared the Air Quality Report.

Lindsay Kozub, Associate Environmental Planner (Architectural Historian). M.A., History/Cultural Resource Management, Colorado State University; B.A., History, University of Montana; B.S., Business, Montana State University; 10 years of experience in historical and architectural documentation, historic preservation, and cultural resource management. Contribution: Prepared the Architectural Survey Report.

Daniel Leckie, Associate Environmental Planner (Architectural History). M.S., Historic Preservation, The University of Vermont (2014); B.A., American History and Sociology, State University of New York (SUNY) at Stony Brook (2010); over 6 years of experience in the fields of Architectural History and Historic Preservation Planning. Contribution: Principal Architectural Historian. Prepared the Architectural Survey Report.

Isaac Leyva, Engineering Geologist. B.S., Geology; 29 years of experience in petroleum geology, environmental, and geotechnical engineering. Contribution: Prepared the Paleontology Report and Water Quality Assessment.

Christina MacDonald, Associate Environmental Planner (Arch). M.A., Cultural Resources Management, Sonoma State University; B.A., Anthropology, University of California, Los Angeles; 16 years of experience in California prehistoric and historical archaeology. Contribution: Oversaw and prepared the Historic Property Survey Report.

Karl Mikel, Transportation Engineer. B.S., Environmental Engineering; California Polytechnic University, San Luis Obispo; M.S., Civil and Environmental Engineering, California Polytechnic University, San Luis Obispo; 11 years of experience in environmental engineering. Contribution: Prepared the Air Quality, Noise, Greenhouse Gas, and Water Quality Assessments.

Scott Ostrau, Associate Environmental Planner. B.S., Environmental Policy Analysis and Planning, University of California, Davis; 3 years of environmental planning experience. Contribution: Prepared the Environmental Impact Report.

Michael Schmidt, National Pollutant Discharge Elimination System/ Stormwater Coordinator, Transportation Engineer. B.S., California Polytechnic State University, San Luis Obispo; 6 years of stormwater experience. Contribution: Prepared the Stormwater Report.

Jason Wilkinson, Senior Environmental Planner. B.S., Natural Resource Management, Minor in Geographical Information System (GIS), California Polytechnic State University, San Luis Obispo; 12 years of environmental planning experience. Contribution: Reviewed the Environmental Impact Report.

Chapter 6 Distribution List

The Environmental Impact Report was distributed to the following:

- Monterey County Planning Office, 1441 Schilling Place, Salinas, CA 93901
- Monterey County Free Libraries:
  - Buena Vista Branch, 18250 Tara Drive, Salinas, CA 93908
  - Big Sur Branch, Highway-1 at Ripplewood Resort, Big Sur, CA 93920
  - Carmel Valley Branch, 65 West Carmel Valley Road, Carmel Valley, CA 93924
- Transportation Agency of Monterey County, 55-B Plaza Circle, Salinas, CA 93901
- Velo Club Monterey, P.O. Box 1404, Monterey, CA 93942
- California Department of Parks and Recreation – Monterey District, 2211 Garden Road, Monterey, CA 93940
- California Department of Fish and Wildlife – Central Region, 1234 East Shaw Avenue, Fresno, CA 93710
- California Coastal Commission – Central Coast District, 725 Front Street, Suite 200, Santa Cruz, CA 95060
- Tami Grove, Transportation Program Manager, California Coastal Commission
- Sean Drake, Transportation Program Analyst, California Coastal Commission
- Joe Sidor - Monterey County - ceqacomments@co.monterey.ca.us
- Big Sur Land Use Advisory Committee
- Big Sur Kate (Local Blogger)
- State Clearinghouse
- State Historic Preservation Officer
- California Department of Fish and Wildlife – Steve Hulbert
- U.S. Fish and Wildlife Service
- U.S. Forest Service
- State Parks
- Landels-Hill Big Creek Reserve
- University of California Natural Reserve System/University of California Santa Cruz

- City of Carmel
- City of Monterey
- California Highway Patrol
- Central Coast Regional Water Quality Control Board, Region 3
- U.S. Army Corps of Engineers
- California Department of Parks and Recreation
- Monterey County Historic Resource Review Board

Appendix A Title VI Policy Statement

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY — Gavin Newsom, Governor

DEPARTMENT OF TRANSPORTATION
OFFICE OF THE DIRECTOR
P.O. BOX 942873, MS-49
SACRAMENTO, CA 94273-0001
PHONE (916) 654-6130
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TTY 711
www.dot.ca.gov

Making Conservation a California Way of Life.

November 2019

NON-DISCRIMINATION POLICY STATEMENT

The California Department of Transportation, under Title VI of the Civil Rights Act of 1964, ensures *"No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance."*

Related federal statutes, remedies, and state law further those protections to include sex, disability, religion, sexual orientation, and age.

For information or guidance on how to file a complaint, or obtain more information regarding Title VI, please contact the Title VI Branch Manager at (916) 324-8379 or visit the following web page: https://dot.ca.gov/programs/business-and-economic-opportunity/title-vi.

To obtain this information in an alternate format such as Braille or in a language other than English, please contact the California Department of Transportation, Office of Business and Economic Opportunity, at 1823 14th Street, MS-79, Sacramento, CA 95811; (916) 324-8379 (TTY 711); or at Title.VI@dot.ca.gov.

Toks Omishakin
Director

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"

Appendix B Avoidance, Minimization and/or Mitigation Summary

To be sure that all environmental measures identified in this document are executed at the appropriate times, the following mitigation program (as articulated in the proposed Environmental Commitments Record that follows) would be implemented. During project design, the avoidance, minimization, and/or mitigation measures would be incorporated into the project's final plans, specifications, and cost estimates, as appropriate. All permits would be obtained prior to implementation of the project. During construction, environmental and construction and engineering personnel would ensure that the commitments contained in the Environmental Commitments Record are fulfilled. Following construction and appropriate phases of project delivery, long-term mitigation maintenance and monitoring would take place, as applicable.

Because the following Environmental Commitments Record is a draft, some fields have not been completed but would be filled out as each of the measures is implemented. Measures that address an impact considered significant under the California Environmental Quality Act are identified as mitigation measures (e.g., Mitigation Measure CUL-1). All other measures are avoidance or minimization measures.

To maintain these visual quality elements and decrease potential negative visual impacts caused by the project, the following actions are recommended:

1. Involve the community in the design of all aesthetic project features.
2. Use an open-style bridge rail that minimizes view blockage.
3. Use the smallest end blocks possible that meet safety needs.
4. Use finish colors and textures that minimize reflectivity and glare.
5. Re-contour all disturbed areas and construction access roads to a natural appearance.
6. Vegetate all stabilized soil areas with native shrubs and grasses as appropriate.
7. Bury all over-side drains and inlet structures or hide them from view to the greatest extent possible. Where unavoidably exposed to view, color the pipes to reduce noticeability, and dull the gloss of the finish.
8. Where metal beam guardrail or metal end treatments are required, use measures to reduce reflectivity of the metal components.

Cultural resource mitigation and minimization measures for the Tier 1 bridges will include context sensitive bridge railing design. The Tier 2 projects may

also include a public interpretive document (pamphlet or booklet) on the history of transportation and historical context of the bridges that will be distributed in the local area, and Historic American Engineering Record professional photographic and written documentation of the bridge to be prepared before the bridge railing is demolished. An interpretive exhibit may be installed in an area where it can provide a public benefit. The information in the exhibit will be on the history of transportation and historical context of the local area and can be installed in the project vicinity. The following mitigation measures are outlined in the Memorandum of Agreement between Caltrans and the State Historic Preservation Officer:

- Prior to the start of construction, Caltrans shall contact the regional Historic American Building Survey/Historic American Engineering Record/Historic American Landscape Survey coordinator at the National Park Service Interior Regions 8, 9, 10, and 12 Regional Office to request that the National Park Service stipulate the level of and procedures for completing the documentation. Within 10 days of receiving the National Park Service stipulation letter, Caltrans shall send a copy of the letter to all consulting parties for their information.
- Caltrans will ensure that all recordation documentation activities are performed or directly supervised by architects, historians, photographers, and/or other professionals meeting the qualification standards in the Secretary of Interior's Professional Qualification Standards (36 Code of Federal Regulations 61, Appendix A).
- Upon receipt of the National Park Service written acceptance letter, Caltrans will make archival, digital and bound library-quality copies of the documentation and provide them to the Monterey County Historic Resources Review Board, the Monterey County Historical Society, the Big Sur Historical Society, the Carmel Heritage Society, the California Office of Historic Preservation, the Central Coast Information Center, and the California State Library.
- Caltrans shall notify the State Historic Preservation Officer that the documentation is complete, and all copies distributed and include the completion of the documentation in the annual report. All field surveys shall be completed prior to the start of construction.

Tier 1 Mitigation Measures:

- Caltrans District 5 will hire qualified historical consultants to produce Primary Record Forms and Building Structure, Object Record Forms for all seven of the historic concrete arch bridges within the Carmel San Simeon Highway Historic District.
- The seven records will include the six open spandrel concrete arch bridges specifically mentioned in the Tier 1 document (Big Creek, Bixby Creek, Rocky Creek, Garrapata Creek, Granite Canyon, and Malpaso

Creek) as well as closed spandrel Wildcat Bridge, which is also a contributor in the Carmel San Simeon Highway Historic District and a thematically similar resource.

- The information for each bridge will focus solely on the individual bridges, their specific historic design context and will highlight each resource's specific history within the broader contextual landscape of social, economic, and cultural trends leading to the opening of State Route 1 in Monterey County. This measure responds directly to comments received from consulting parties, and particularly by the Monterey County Historic Resources Review Board in its November 2020 letter to Caltrans regarding the Garrapata Creek Bridge Rail Replacement project. This information will supplement and enhance the existing knowledge of the seven Big Sur Arched Bridges, but requires a more detailed and focused historical analysis of these significant resources.
- The information gathered for each bridge will be based on original research that expands on what is already known about these bridges which is contained the broader context of the Caltrans Statewide Historic Bridge Inventory and Carmel San Simeon Highway Historic District inventory forms.
- The documentation for each individual bridge will include information such as high-quality color and/or black-and-white photographs, historic photographs and/or drawings as appropriate, and text describing the bridge's history and character-defining features.
- Caltrans District 5 will documentation for each bridge to the Office of Historic Preservation; the California Room of the California State Library; Caltrans District 5; and Caltrans Headquarters Library and History Center as well as with all relevant consulting parties, including the Monterey County Historic Resources Review Board, the Monterey County Historical Society, the Big Sur Historical Society, the Carmel Heritage Society and the Historic Bridge Foundation on request.
- Caltrans District 5 will hire qualified consultants to develop and produce a lesson plan for elementary school-aged students that focuses on historic significance of the bridge designs using Scientific, Technological, Engineering, or Mathematical activities. The materials will include visual aids and activities that demonstrate the technical significance of the open spandrel concrete arch design.
- All components of the lesson plan will meet the Next Generation Science Standards that encourage an emphasis on engineering design for newly developed science curricula. They will also meet the History-Social Science Standards as defined by the California Department of Education to the extent they are applicable to the activities developed.

- The lesson plan will be hosted on the interpretive website, which can be further used as a resource to highlight the historic significance of the bridges as important engineering achievements.
- Caltrans will engage with the Monterey County Office of Education and the Monterey County Free Library System for distribution of the materials to ensure they are used and provide a benefit to the local community.

Interpretive Website:

- Caltrans District 5 will produce a website highlighting the history of the seven Big Sur Arched Bridges in a manner that is accessible to the general public and provides public benefit.
- The website will initially contain a main page focusing on the general history of the seven bridges included in the Tier 1 analysis, as well as at least one page focusing on the Garrapata Creek Bridge individually. The website will also include pages to host the historic and modern photographs, the historic context as developed, the lesson plans, and additional information on the engineering and transportation history of the bridges as is deemed appropriate through future studies. The website will be structured so that it may be updated and expanded with additional pages that focus on the Big Sur Arched Bridges impacted through the future bridge rail replacement projects outlined in the current Tier 1 analysis or any other projects impacting the Big Sur Arched Bridges.
- The website will be maintained for at least 10 years, and it is recognized that this time frame may be continually extended as additional projects mentioned in the Tier 1 analysis are proposed and implemented over time.

Appendix C Notice of Preparation

SCH NO. _____

NOTICE OF PREPARATION

To: State Clearinghouse
1400 Tenth Street
Sacramento, CA 95814

From: California Dept. of Transportation
50 Higuera Street
San Luis Obispo, CA 93401

Subject: **Notice of Preparation of a Draft Environmental Impact Report**

Program Title (Tier I): Big Sur Bridge Rail Replacements

Program Location: State Highway 1 in Monterey County on the Big Sur Coast:

Bridge Name	Bridge Number	Post Mile	Year Constructed
Big Creek Bridge	44-0056	28.1	1938
Bixby Creek Bridge	44-0019	59.4	1932
Rocky Creek Bridge	44-0036	60.0	1932
Garrapata Creek Bridge	44-0018	63.0	1931
Granite Canyon Bridge	44-0012	64.3	1932
Malpaso Creek Bridge	44-0017	67.9	1935

Program Description: Caltrans proposes bridge rail replacements on six historic bridges along the Big Sur Coast to bring the facilities up to current standards.

Project Title (Tier II): Garrapata Creek Bridge Rail Replacement

Project Location: State Route 1 (Post Miles 63.0)

Project Description: Caltrans proposes a bridge rail replacement on the Garrapata Creek Bridge (No. 44-0018) to bring the facility up to current standards.

This is to inform you that the California Department of Transportation will be the lead agency and will prepare a (Tier I) Program Environmental Impact Report (EIR) and a project level (Tier II) EIR for the project described below. Your participation as a responsible agency is requested in the preparation and review of this document.

We invite your agency's input as to the scope and content of the environmental information that is relevant to your agency's statutory responsibilities in connection with the proposed project. Your agency will need to use the EIR prepared by our agency when considering your permit or other approval for the project.

A more detailed project description, location map, and the potential environmental effects are included on the following pages of this NOP. A copy of the Initial Study is not attached.

Due to the time limits mandated by State law, your response must be sent **no later than 45 days** after receipt of this notice.

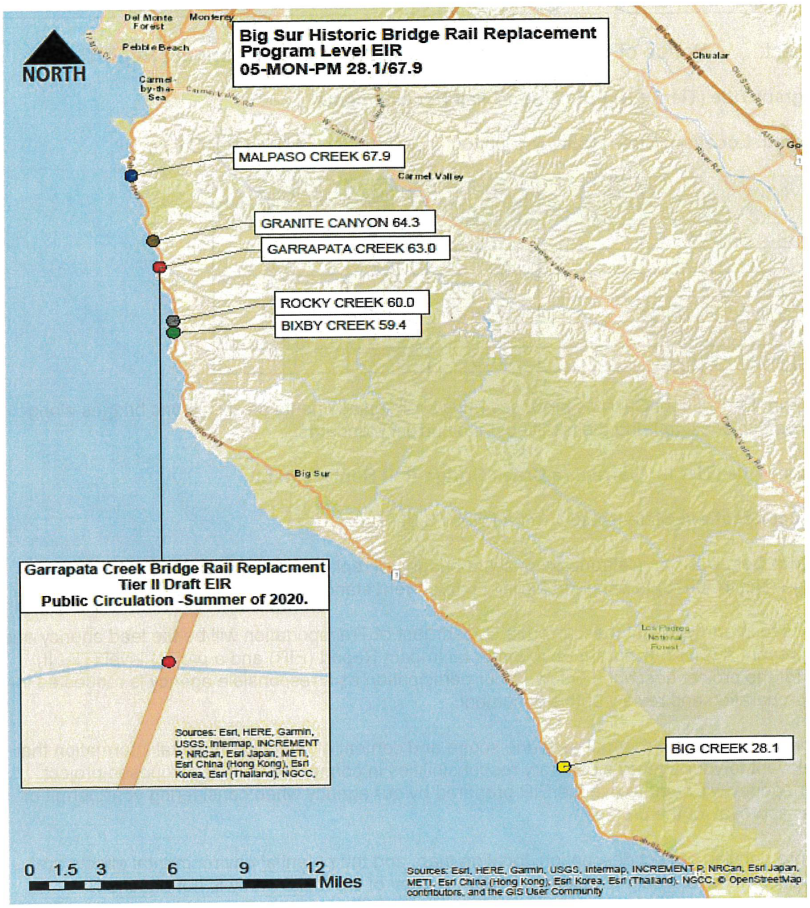
Please direct your response to Jason Wilkinson at the address shown above. Please supply us with the name for a contact person in your agency.

Date 4/10/20

Signature _____

Title Associate Environmental Planner

Location Map:



Project Description

Garrapata Creek Bridge (No. 44-0018) is an open-spandrel arch bridge that was constructed in 1931, widened in 1998 and seismically retrofitted in 1987 and 1998. Garrapata Creek Bridge is located at post mile 63.0 just south of Carmel, in Monterey County and is one of 7 historic arch bridges along State Route 1 on the Big Sur Coast. The bridge is 285-feet long and consists of 12-foot lanes and 0 to 1-foot shoulders.

This structure has nonstandard concrete baluster bridge rails on both sides of the structure. The rail end posts exhibit fine pattern cracking, and the barrier rail posts are severely deteriorated with dozens of incipient spalls and spalled posts in addition to previous impact damage.

The project on State Route 1 near Carmel-By-The-Sea in Monterey County proposes to replace the existing nonstandard concrete baluster bridge rail and approach railing on Garrapata Creek Bridge (No. 44-0018) at PM 63.0. The irreversible damage from pervasive salt laden fog has accelerated the overall deterioration of concrete and reinforcing steel of the bridge rail, warranting replacement.

Caltrans proposes to address these concerns with the 2 possible alternatives identified below:

Build Alternative: Proposes replacing the existing non-standard bridge rail and approach railing with new railing that meets current traffic safety standards.

No Build Alternative: The non-standard bridge rails would continue to deteriorate and would not be replaced.

Potential Environmental Impacts

The Draft Program EIR (Tier I) will address potential environmental effects of the proposed project for each of the environmental topics outlined in the CEQA guidelines, Appendix G. The proposed project may impact environmental resources, or may have the following effects, including:

- Visual/Aesthetic
  Due to the high degree of viewer sensitivity along State Route 1 and the adjacent public campground and beach, the project will be assessed for potential impacts to scenic vistas, alterations to visual character, and for consistency with the California Coastal Act, state Scenic Highway, National Scenic Byway, and Coast Highway Management Plan principles. Impacts to visual/aesthetic resources will be reduced through measures such as bridge rail design and treatment, planting, and other elements.

- Cultural Resources
  The project is located within the Carmel-San Simeon Highway Historic District, which is eligible for listing in the National Register of Historic Places. The Garrapata Creek Bridge is a contributor to the historic district and is also individually eligible for listing in the National Register. The existing bridge rail is a contributing element to the bridge's historic nature. Currently it is assumed that the bridge rail cannot be replaced in-kind and that the project will potentially result in an adverse effect to a historic resource. Section 106 Consultation will be required.

- Coastal Resources

- Cumulative Impacts

- Section 4(f)
- Biological resources

There would be no effects on paleontological resources, noise, hazardous waste, utilities, water quality, or air quality. The project would not affect planned land use. The project would not require the relocation of residences or businesses.

AGENCY COMMENTS

Agency input regarding the Scope of the EIR, environmental factors potentially affected, and project alternatives must be submitted to Caltrans no later than 5:00pm on May 29, 2020.

Written comments can be mailed to:
California Department of Transportation, District 5
50 Higuera Street
San Luis Obispo, CA 93401
Attention: Jason Wilkinson

Or emailed to:
Jason.wilkinson@dot.ca.gov

Appendix D Response to Comments

This appendix contains the comments received during the public circulation and comment period from November 25, 2020 to January 15, 2021, retyped for readability. We received more than 70 comment letters during the public circulation period. A Caltrans response follows each comment presented. Generally, the comments expressed complete opposition to the project, objection to the proposed replacement bridge rail designs, or simply stressed the importance that Caltrans implement a context sensitive bridge rail replacement in this historic and scenic project location. For the sake of efficiency, redundant comments were not included in this section. Copies of all the original comment letters and documents can be found in Volume 2 of this document.

(Note: The comments are shown below as received, so they may contain acronyms, abbreviations or grammatical errors as made by the authors.)

Comments from Coastal Commission

Comment 1:

As a preliminary matter, we strongly suggest expanding the “Purpose and Need” section of the DEIR to provide a more thorough justification for the project based on site-specific safety needs. We appreciate that the existing railings are deteriorating and do not comply with modern height, width, and performance standards for bridge railings, and that in this sense they are theoretically unsafe for a roadway with a 55 mile-per-hour (mph) speed limit. However, we observe that actual traffic speeds through Big Sur are generally well below 55 mph, especially in those areas around the historic bridges where motorists drive slowly to take in views of and from the bridge. As such, in order to establish that the need for the project is actual and not merely theoretical, the environmental document for each bridge should establish at the outset whether the existing railings have proven to be unsafe in practice. This analysis should cite to recent accident and traveling speed data and other similar objective measures to evaluate whether the existing railings present a demonstrable safety hazard. Caltrans should use this information to make the preliminary determinations of whether each bridge’s railings truly need to be replaced, and if so, whether they cannot be replaced in kind. Only upon reaching affirmative conclusions to both of those questions should Caltrans then consider replacement railing alternatives.

For example, regarding Garrapata Creek Bridge, DEIR Section 1.6.2 raises the possibility of lowering the speed limit through the bridge area from 55 to 45 mph in order to potentially allow for replacement of the bridge railings in-kind, but summarily concludes that this alternative “could not be justified.” However, it is not clear why this cannot be justified, nor does the DEIR cite to

any accident or traveling speed data for the site. In our view, the objective should be to ensure that any replacement matches the existing style as much as possible, including identically if that is possible, and that every effort needs to be made toward this end. As is, the DEIR does not appear to recognize this objective, and it should be modified to do so.

Response to Comment 1:

A speed zone survey for Garrapata Creek Bridge was completed in December 2019. The survey resulted in 85 percent of the surveyed vehicle speeds being above the posted 55 miles per hour speed limit. The 85th percentile speed at Garrapata Creek Bridge does not allow for Caltrans to reduce the speed limit without creating a speed trap. The traffic analysis determined reducing the speed limit could not be justified and replacing the railing in-kind would not meet current traffic safety standards for the posted speed limit of 55 miles per hour. Also, while walking across both Granite Canyon and Malpaso Creek Bridges, Caltrans workers observed cars traveling at speeds well above the posted speed limit.

A 3-year collision history was performed from January 1, 2012 to December 31, 2014, which yielded 5 total collisions from post miles 62.6 to 63.1. All 5 collisions occurred in the daytime and in dry roadway conditions. Of the 5 collisions, there were 3 injury collisions and 3 multi-vehicle collisions. The types of collisions were (2) Rear End, (1) Hit Object, (1) Broadside, and (1) Auto-Pedestrian. Primary Collision Factors were: (1) DUI, (1) Speeding, (1) Failure to Yield, (1) Other, and (1) Unknown. From the data collected, neither metal beam guardrail nor bridge rails were hit within the listed time frame and post miles.

Federal traffic safety systems guidance dictates when major work is done in a project that is receiving federal funds, as this project is, traffic safety systems must be upgraded to current standards. Due to these standards and the mandate that any change to a compliant safety device must be crash tested before implementation, in-kind replacement of the bridge rails is not feasible on Garrapata Creek Bridge.

Caltrans is currently designing and crash testing a bridge rail that is compliant with current traffic safety standards and is context sensitive for the Big Sur Coast. Coastal Commission staff is also in coordination with this effort with Caltrans Headquarters staff. The design option and aesthetic treatments to the proposed bridge rails will be finalized during the Design phase of the project. Caltrans will seek input from resource agencies, interested stakeholders, and members of the Big Sur community. Prior to the bridge rail replacement project, Caltrans will also be doing a separate maintenance project in early summer to prolong the life of the Garrapata Creek Bridge structure by performing an electro-chemical chloride extraction.

Comment 2:

In the event that replacing the railings out-of-kind on any bridge is deemed necessary based on the analysis described above, we emphasize the importance of developing a design alternative for each bridge that matches the style and historic character of each bridge's existing railings as closely as possible, including as required by Section 3.3 of the BSCHMP Aesthetic Guidelines. Again, the existing style of the railings themselves is important for the iconic viewsheds, and any changes need to be minimized as much as possible. As part of this process, we urge that all possible alternatives be considered, including careful attention to whether reducing traffic speed limits at the bridges might open up a more desirable palette of potential railing replacements.

Response to Comment 2:

Caltrans is working with Coastal Commission at the headquarters level to develop a replacement bridge rail design option that is consistent with the Big Sur Coast Highway Management Plan's Aesthetic Guidelines and also meet the Manual for Accessing Safety Hardware standards. Both proposed replacement rail design options are the same height as the existing Garrapata Creek Bridge rails. Please see Table 1-1 for a comparison of the proposed replacement rails and the existing bridge rails.

As future projects are programmed on each Tier 2 project, all federally compliant bridge rail replacement options will be considered at each location. Caltrans' current analysis at Garrapata Creek Bridge does not preclude the potential of conducting traffic studies at other locations to determine the feasibility of speed limit reductions.

Comment 3:

In addition, we hope that Caltrans will continue to reach out to other states that are similarly working on ways to meet the new federal safety standards to learn if any of their designs might inform options for these bridges. Any changes to the existing railing styles, if ultimately proven to be warranted, not only need to speak to the historic nature of the bridges and their aesthetics, but also to the need to retain equivalent or better ocean views from the highway (e.g., by incorporating sufficient openings in the railing design for the traveling public to see through). As a side note, please be aware that, in parallel with this project, Coastal Commission staff is working with Caltrans designers at headquarters on the topic of identifying new options for replacing or emulating historic bridge railings, and we appreciate that projects such as this provide an opportunity to further develop approaches for marrying historic aesthetics with public safety.

Response to Comment 3:

On December 23, 2016, Caltrans adopted an implementation schedule whereby bridge railings on projects on the State Highway System advertised on or after October 31, 2019 must comply with the Manual for Assessing Safety Hardware criteria for all new permanent installations and full replacements. Also, after December 31, 2016, Caltrans no longer evaluates highway safety hardware that has not been successfully crash tested to the Manual for Assessing Safety Hardware standards.

Caltrans did not formally work with other states on ways to meet current federal safety standards. Research was conducted into how other states are complying with the mandated safety standards, and no examples of exceptions being implemented for historic resources were found. California is leading the way in the nationwide effort toward compliance with the Manual for Assessing Safety Hardware standards.

Please see Visual Resources section 2.1.2 for updated photo simulations of proposed bridge rail replacements on Garrapata Creek Bridge. The photo simulations have been modified to show larger and more rounded openings on the proposed rails. Bridge rail design options and aesthetic treatments will be finalized during the project design phase with input from the public and interested parties.

Comment 4:

Equally important will be designing the railings to match and reflect the underlying bridge structures so that their overall historic characters are maintained. As the rail replacement project for Garrapata Creek Bridge and for the other five historic bridges move forward, the inclusion of accurate and well-detailed visual simulations of possible alternatives in all project-related documents will be critical to assist reviewers' understanding and analysis. Any visual alterations associated with reinforcing and widening any of the existing bridge decks, as well as any alteration to roadside guardrails, crash cushions, or other features at either end of each bridge should also be described and rendered in the FEIR for Garrapata Creek Bridge and environmental documents for the other bridges. Again, we strongly believe that a co-equal and explicitly stated objective for the project (and for project EIRs and related documentation) needs to be retaining the style of all existing bridge railings and related elements as much as possible, and all efforts should be made toward this end.

Response to Comment 4:

A major project objective is to provide context sensitive bridge rail replacements on all of the historic structures. This will be achieved through the implementation of mitigation and minimization measures for visual and

historic resource impacts, outlined in Appendix B. Caltrans will seek input from the Big Sur Land Use Advisory Committee and work closely with Monterey County and the Coastal Commission during the Coastal Development Permitting process.

Comment 5:

Bracketing the fact that we do not believe that retention of the existing style can be ruled out yet based on the evidence provided to date, we appreciate that the DEIR includes images of the existing railings on Garrapata Creek Bridge as well as a photo-simulation of two of the replacement railing designs being considered (Type c412 and Type 86), though more simulations from various other angles both on the bridge and of the bridge would be helpful. To share some general observations on those two designs based on the simulation provided, Type c412 seems to be more similar to existing railings, and to provide slightly better see-through visibility, than Type 86. The simulation of Type c412 also appears to retain a few of the design details of the existing railings that the Type 86 does not, including the general proportion and distribution of the balusters, the length of each section of railing and the visible seams between sections, and greater similarity in the overall profile of the railing. However, it also presents as significantly more modern than existing railings and would appear to detract from the overall historic aesthetic. Again, we emphasize that Caltrans must continue to consider a broad suite of design alternatives beyond these two options in line with our comments above, and that Caltrans must engage Commission staff, Monterey County staff, and Monterey County's community review bodies, such as the architectural review committees and the Land Use Advisory Committees, in the process of narrowing down the pool of potential design options, rather than merely asking for feedback on Caltrans' selected final options, as appears to be the case with the DEIRs comparison of these two options for the Garrapata Bridge.

Response to Comment 5:

Please see Visual Resources section 2.1.2 for updated photo simulations of proposed bridge rail replacements on Garrapata Creek Bridge. The photo simulations have been modified to show front and angled views as well as larger and more rounded openings for the proposed rails. Bridge rail design options and aesthetic treatments will be finalized during the project design phase with input from the public and interested parties.

During the design phase of each proposed bridge rail replacement project, Caltrans will engage with Coastal Commission staff, Monterey County staff, and Monterey County's community review bodies, such as the architectural review committees and the Land Use Advisory Committees, in the process of selecting a potential design option and aesthetic treatments.

Comment 6:

Additionally, given that the bridges serve both as viewpoints for enjoying coastal views and as significant visual resources in and of themselves, construction activities during bridge railing replacements may present short-term or long-term visual resource impacts that may require compensatory mitigation. We strongly suggest that the FEIR and future documents for the other bridges describe the length of time that construction on each bridge's railings will take and evaluate potential visual resource mitigation options. Incorporating this evaluation into the environmental review process will save significant time during the CDP process by resolving any visual mitigation requirements in advance. We encourage Caltrans to work proactively with Coastal Commission and Monterey County staff to explore options for any appropriate visual mitigation that may be needed.

Response to Comment 6:

Construction on the Garrapata Creek Bridge Rail Replacement project is estimated to start in October 2023 and be completed by October 2024 with an estimated 220 working days. Caltrans will incorporate measures to reduce temporary visual impacts during construction.

Comment 7:

It is critical that Caltrans develop a design alternative for each bridge that limits temporary public recreational access impacts as much as possible, and that avoids any permanent public recreational access impacts. This includes maintaining existing shoulder widths along the bridges, or potentially increasing them on other bridges where appropriate. Future environmental review documents for the other five bridges should describe the amount by which Caltrans proposes to widen the existing bridge decks to accommodate the new railings, and should note any resulting changes to highway shoulder widths and their attendant potential impacts to the overall scenic quality of the structures. Moreover, any existing public access features currently built into a bridge (e.g., the public bench alcoves on Bixby Bridge,8 and the wide curbs on Malpaso Creek Bridge that serve as *de facto* pedestrian walkways) must be maintained as part of the railing replacement.

Caltrans should also incorporate certain provisions into the project to ensure that temporary recreational public access impacts due to construction are avoided as much as possible, and where avoidance is not possible, that they are minimized and mitigated. This includes maintaining pedestrian and bicycle access along the highway throughout construction and post-construction activities, as well as ensuring that construction activities (including staging and storage) are planned to avoid blocking access to established trailheads, coastal accessways, and parking areas. Given the limited space between the bridge railings and the roadway, we also presume

that the project will have unavoidable short-term traffic impacts associated with closing highway lanes and redirecting traffic during construction. The extent and duration of these impacts, as well as the estimated traffic delays, should be described in the EIR and the CDP application for each bridge in order for the relevant permitting agency to evaluate potential public recreational access impacts associated with construction, and Caltrans also needs to propose mitigation for such impacts as part of these processes as well. In addition, we ask that Caltrans creatively approach this project to determine if any reconfiguring of right-of-way, shoulders, parking areas, etc., associated with the planned activities might also open up opportunities to better address some of the many issues associated with traffic, parking, safety, resource deterioration, etc., at the various bridge locations, including as discussed in detail in District 5's recent Big Sur Sustainable TDM Plan.

Response to Comment 7:

Public recreation access, including bicycle and pedestrian traffic through the project area, will be maintained during construction activities. The project will implement a Traffic Management Plan to minimize and manage traffic delays during construction operations of the project. A staging area will likely take place at the pullout just south of the Garrapata Creek Bridge. Contractor use of the pullout to the north of the Garrapata Creek bridge will be restricted since it is used by the public for beach access.

Comment 8:

The Coastal Act and the Big Sur LUP require that new development assure continued biological productivity and that ESHA (and areas adjacent to ESHA) be protected against any significant disruption of habitat values (e.g., Coastal Act Sections 30230, 30231, and 30240, and LUP Policies 3.3.1 and 3.3.2). Given that the proposed project is limited to replacing existing bridge railings, we do not anticipate the project having significant biological resource impacts. However, given the unique and sensitive biological resources of the Big Sur coast, and the stringent resource protection policies of the Coastal Act and the Big Sur LUP, we emphasize that Caltrans must ensure that construction areas avoid ESHA and potential biological habitat impacts overall as much as possible. This includes areas designated for construction staging and storage. Any anticipated biological impacts and associated mitigation measures should be described in detail in the FEIR and future environmental documents for the other bridges.

Response to Comment 8:

The proposed Garrapata Creek Bridge Rail Replacement project is limited to replacing existing bridge railings and Caltrans does not anticipate the project having significant biological resource impacts. All potential staging areas have been surveyed, and measures will be implemented to ensure that there are

not impacts to Environmentally Sensitive Habitat Areas. The proposed project will have a Section 7 No Effect Finding on all listed threatened and endangered species and critical habitat within the project areas. U.S. Fish and Wildlife Service and National Oceanic and Atmospheric Administration species lists were obtained for the project vicinity.

Marine habitat Environmentally Sensitive Habitat Areas occur along this section of the Big Sur coastline, but do not occur within the project area, and will not be impacted by the project. Also, the proposed project does not occur within a stream buffer, wetland setback, or any other setback areas.

The biological study area includes two plant communities: coastal scrub and ruderal/disturbed. No rare plant species and no special-status plant species were found during appropriately timed floristic surveys. The proposed project is expected to have No Effect on listed plant species and their designated critical habitat. Certain invasive/weedy plants occur within the biological study area, and measures will be implemented to avoid/minimize the spread of these species.

Potential impacts to biological resources for each Tier 2 bridge rail replacement project will be evaluated during the Project Approval and Environmental Document phase of each individual project.

Comment from Susan Perry

Cal Trans bridge repair planning needs to comply with the BSLUP. The proposed bridge repair plans under review do not meet the BSLUP in regard to preservation of visitor and residents' experience of and continuing access to the existing viewshed.

Response to Comment:

The design of the proposed replacement bridge rails will be consistent with the character of the existing bridges and complement the visual character of the rural coastal setting. The replacement bridge rails will have slightly different dimensions than the existing rails. The new rails will be designed to match the existing visual character of the bridges and the corridor, but they will not be an exact in-kind replacement. The community will be involved with the design of all aesthetic project features to minimize the visual impact of the replacement bridge rails. An open-style bridge rail that minimizes view blockage will be used, and it will use the smallest end blocks possible that meet safety needs. With the inclusion of mitigation and minimization measures, the project would not conflict with visual resources and community character policies in the Coastal Act or Big Sur Coast Land Use Plan. The project will not conflict with the Coastal Act or Big Sur Coast Land Use Plan policies relating to public access and recreation. The project would improve coastal access by increasing roadway reliability, efficiency, and safety.

Access to the existing viewshed will be retained through the implementation of context sensitive bridge rails that include sufficient openings.

Comment from Stephanie Reich:

I am opposed to the Caltrans plan to replace the historic railings on the historic Big Sur bridges with new, “less see through” railings. I understand full well that this particular highway needs consistent care and attention, with safety being paramount. However, the bridges are historic, and as such their historic character must be protected. The railings should be repaired or rebuilt, and the aesthetics of the bridges preserved. These bridges are a valuable cultural resource for all of California. Repair of existing railings will not compromise public safety and will continue to enhance the important experience of that amazing drive.

Response to Comment:

Please see Visual Resources section 2.1.2 for updated photo simulations of proposed bridge rail replacements on Garrapata Creek Bridge. The photo simulations have been modified to show front and angled views as well as larger and more rounded openings for the proposed rails. Bridge rail design options and aesthetic treatments will be finalized during the project design phase with input from the public and interested parties.

It is not feasible for Caltrans to repair the existing bridge rails or to replace them in-kind while still meeting current traffic safety standards for bridge rails. Replacing the rails in-kind would not meet current Manual for Assessing Safety Hardware standards (2016), or the previous 2009 Manual for Assessing Safety Hardware standards, and would not even meet the older 1993 standards that are outlined in the National Cooperative Highway Research Program Report 350.

Comment from Dan Reznick:

I have reviewed the proposed bridge rail changes and, like many of my fellow Big Sur residents, find them too lacking in character to become such a prominent part of the visual character of this precious place. I understand that Caltrans is working within strict parameters regarding their structure, however, more needs to be done regarding their aesthetic.

Certainly, replicating the existing rails would be best, even if one bridge's design had to be used for all, and they adhered to the current space-between-rails regulations. Or a few simple changes with the current design could help. Round off the edges and add grooves and such, in keeping with the original rails and other WPA era constructions.

Caltrans has done some amazing work replacing bridges in the area in recent years and has managed to maintain the character of this landmark region that

is visited by millions of people from around the world annually. Show off your stuff! Do Caltrans proud. Don't do mediocre work at one of the world's great landmarks.

Response to Comment:

Caltrans is confident working with the public and local agencies that we can provide a bridge rail that will be context sensitive for both the setting and community. Please see Visual Resources section 2.1.2 for updated photo simulations of proposed bridge rail replacements on Garrapata Creek Bridge. The photo simulations have been modified to show front and angled views as well as larger and more rounded openings for the proposed rails. Bridge rail design options and aesthetic treatments will be finalized during the project design phase with input from the public and interested parties.

Comment from Kenneth Wright:

The proposal to repair the Garrapata Bridge is understandable.

What is bothersome is if it is Historic then how can you alter the design and have it remain Historic. If Cal Trans replaces what is there then it is no longer the same. Of course there are safety issues, this entire highway is a safety issue always has been and it will continue to into the future.

It is also a All American Highway and a component of that criteria was the Historic Bridges. So perhaps the removal of that designation should be considered at this time. Just as the adding of more signs by Cal Trans after the most recent major construction project has added to the visual pollution to the detriment of an All American Highway.

The Coast Highway Management Plan which Cal Trans spent a considerable amount time and energy on discusses the importance of this Highway. One can only hope it is not sitting on a shelf collecting dust, as is the Big Sur Land Use Plan which discusses the Highway as important to the Big Sur Coast.

These undertakings by the agency are important to the safety of the traveling public I understand that aspect. There is also the need to find a way to maintain this corridor as it was created. It was not a transportation corridor it was scenic corridor in late June of 1937. If one reads the newspapers of that era proclaiming the opening one sees the expectations were of the scenic qualities that existed.

I would urge Caltrans to not be so eager to solve this engineering problem by abandoning their past. For it was the engineers of this agency that worked so hard to create this incredible corridor. Their legacy should be recalled and be held high.

I am a 50 year resident to the Big Sur Coast, I was on the Committee for the Coast Highway Management Plan, I was on the Committee that for the Big Sur Land Use Plan.

Response to Comment:

The proposed project will not affect the designation of All-American Highway for this corridor. While replacement of the historic bridge rails will result in a finding of adverse effect to the historic structure, it will not affect the bridge's eligibility for inclusion in the National Register of Historic Places.

Comment from Dana Carnazzo:

When we check the statistics, the present railings have not contributed to accidents or deaths by their design. When I contacted Caltrans about putting a fence below the viewing area at the north end of Bixby Bridge, Caltrans let me know that the data of falls and deaths does not support the need; it's basically safe. Please keep the existing designs. They help define this iconic drive and view.

Response to Comment:

The Garrapata Creek Bridge has nonstandard concrete baluster bridge rails on both sides of the structure. The rail end posts exhibit fine pattern cracking, and the barrier rail posts are severely deteriorated with dozens of spalls (flaking areas) and spalled posts, in addition to previous impact damage.

A 3-year collision history was run from January 1, 2012 to December 31, 2014, which yielded 5 total collisions, from post miles 62.6 to 63.10. All 5 collisions occurred in the daytime and in dry roadway conditions. Of the 5 collisions, there were 3 injury collisions and 3 multi-vehicle collisions. The types of collisions were (2) Rear End, (1) Hit Object, (1) Broadside, and (1) Auto-Pedestrian. Primary collision factors were: (1) DUI, (1) Speeding, (1) Failure to Yield, (1) Other, and (1) Unknown. From the data collected, neither metal beam guardrail nor bridge rails were hit within the listed time frame and post miles.

Comment from Steve Beck:

I've looked over the proposed changes to the rails on Big Sur's historic bridges. Safety of course is important but so are the aesthetic qualities of the coast. While millions of people cross the bridges annually, how many die or are seriously injured annually because of the railings. The new designs are awful. Please don't do this project or replace the rails with exactly the same design and finish as the original. Safety counts, aesthetics count more.

Response to Comment:

As the public agency in charge of ensuring the safety and reliability of the State Highway System, Caltrans must adhere to mandated safety requirements.

On December 23, 2016, Caltrans adopted an implementation schedule whereby bridge railings on projects on the State Highway System advertised on or after October 31, 2019 must comply with the Manual for Assessing Safety Hardware criteria for all new permanent installations and full replacements. Also, after December 31, 2016, Caltrans no longer evaluates highway safety hardware that has not been successfully crash tested to the Manual for Assessing Safety Hardware standards.

Caltrans is currently designing and crash testing a bridge rail that is compliant with current traffic safety standards and is context sensitive for the Big Sur Coast. Coastal Commission staff is also in coordination with this effort with Caltrans Headquarters staff. The design option and aesthetic treatments to the proposed bridge rails will be finalized during the design phase of the project. Caltrans will seek input from resource agencies, members of the Big Sur community, and the Big Sur Land Use Advisory Committee.

Comments from the American Institute of Architects Monterey Bay Chapter

Comment 1:

We find that the proposed design of the Garrapata Creek bridge rails, what appears to be a stock prefabricated design, is not in keeping with the historic nature of the bridge. The proposed rails are bulky with smaller portals than what are currently there. The concrete finish appears to be dark and smooth, rather than the current lighter, textured concrete. The rail options should work with the elegant parabolic arch structure remaining light and transparent, mitigating any visual obstruction to the seascape. We feel this can be achieved even with the necessary structural upgrades. We also do not feel a taller rail is necessary as this would also block views to the surroundings. A stock design is not what these bridges deserve, but rather a design that enhances these highly traveled and photographed structures.

Response to Comment 1:

The proposed replacement bridge rails are not stock, prefabricated designs. The Type 86H rail is custom built for the Garrapata Bridge and the historic bridge structure rails on State Route 1 in Big Sur. The new rail design accommodates the increase in structural steel for today's safety standards. The historic replacement rails of today are being designed for the larger and heavier vehicles that travel along the corridor, compared to what was designed nearly a century ago with vehicles of that time.

Our Visual Assessment specialists from the Landscape Architecture group are selecting concrete color and texture finishes based on the existing structures and under varying natural daylight conditions. The seascape will remain visible through the new rail type from State Route 1.

Rail height of the new custom rail accommodates required bicycle safety standards. These have been in place several years, and we will not seek an exception to the current safety standard for bicycle height as we anticipate bicyclists continuing to enjoy this scenic roadway.

Please see the Comparison of Alternatives for Tier 1 and Tier 2 Section 1.5 and Table 1-1 for detailed dimensions of the proposed replacement bridge rails.

Comment 2:

Have the proposed designs been evaluated and given positive remarks by an architectural historian?

Has the design been reviewed and approved by the current Highway 1 Management Advisory Committee?

Has it been determined that the design is in keeping with the Big Sur Coast Management Plan?

Response to Comment 2:

Architectural historians are key members of our environmental studies team from the Cultural Studies group.

Caltrans is currently designing and crash testing a bridge rail that is compliant with current traffic safety standards and is context sensitive for the Big Sur Coast. Coastal Commission staff is also in coordination with this effort with Caltrans Headquarters staff. The design option and aesthetic treatments to the proposed bridge rails will be finalized during the design phase of the project. Caltrans will seek input from resource agencies, interested stakeholders, and members of the Big Sur community. Prior to the bridge rail replacement project, Caltrans will also be doing a separate maintenance project in early summer to prolong the life of the Garrapata Creek Bridge structure by performing an electro-chemical chloride extraction.

The Big Sur Highway Management Plan was approved in March 2004. It applies to a 75-mile stretch of Highway 1 from the Carmel River to San Carpoforo Creek. The plan’s five key issue areas included storm damage response and repair, maintenance practices, scenic habitat conservation, public access and recreations, and plan implementation. The proposed project does not conflict, and is consistent, with the goals of the Big Sur Highway Management Plan.

Comment from Sean Fleming:

I was curious if there are other ways to retrofit the original railing to make it safer?

Response to Comment:

Caltrans must comply with the Manual for Assessing Safety Hardware criteria for all new permanent installations and full replacements. Due to this mandate, Caltrans must bring the bridge rail up to current safety standards, which could not be achieved through retrofitting the bridge rails.

Comment from Shawn Boyle, Air Quality Inspector, Monterey Bay Air Resources District:

I just want to assure that prior to the removal or disturbance of concrete railings, and other related building materials on the bridges, that the materials are thoroughly inspected for asbestos before construction activities. This is to prevent not only worker exposure to hazardous materials, but prevention of contaminating the surrounding environment and to assure materials to be crushed or disposed are free of asbestos. If the required asbestos survey, finds asbestos, then it can be properly handled and disposed accordingly with the proper trained and licensed workers. If any load-bearing removal is to occur as part of the projects, this action would require notification as a “demolition” activity. Information can be found on the MBARD website.

Response to Comment:

An asbestos and lead-containing paint survey report for the Garrapata Creek Bridge Rail Replacement project was prepared in November 2018.

Chrysotile asbestos at concentrations of less than 1 percent) was detected in samples representing concrete and sandbag mortar on the bridge. These samples were point-counted and determined to be less than 0.1 percent chrysotile asbestos. Asbestos was not detected in samples of other suspect materials collected during the survey.

Contractors performing disturbance to materials containing 0.1% or less asbestos (i.e., concrete) will not be subject to California Occupational Safety and Health Administration registration, certification, or notification requirements. However, compliance with certain elements (wet methods, prompt cleanup, air monitoring, etc.) of the California Occupational Safety and Health Administration asbestos standard (Title 8, California Code of Regulations Section 1529) will still be necessary. Notification to the Monterey Bay Unified Air Pollution Control District is not required for renovation work involving materials containing 0.1 percent or less asbestos.

Contractors who will be conducting demolition, renovation, or related activities will be notified of the presence of asbestos in their work areas. Personnel not trained for asbestos work will be instructed not to disturb asbestos. Written notification to the Monterey Bay Unified Air Pollution Control District will be required 10 working days before the start of any demolition activity (whether asbestos is present or not).

Comments from Butch Kronlund

Comment 1:

As the 6 historic Bridges are an intrinsic part of the reason this section of Highway 1 between Mal Paso Creek and San Carpoforo has been designated an "All American Road", has the DEIR considered allowable deviations from the current standards for guardrails? If not, why not?

As it is highly likely that masonry artisans employed by William Randolf Hearst played a role in building the molds and casting the original balustrades on the 6 Bridges, and as the Office of the State Architect may have a functioning mold shop operating at Hearst Castle, has there been an effort to explore recreating the castings with modern reinforcement?

Response to Comment 1:

Replacing the bridge rails in-kind would be a non-standard design option that would theoretically be more consistent with preserving visual character of the historic corridor. However, due to federal safety standards and the mandate that any change to a compliant safety device must be crash tested before implementation, in-kind replacement of the bridge rails is not feasible on Garrapata Creek Bridge.

Caltrans is currently designing and crash testing a bridge rail that is compliant with current traffic safety standards and is context sensitive for the Big Sur Coast. The project design option and aesthetic treatments to the proposed bridge rails will be finalized during the design phase of the project. Caltrans will seek input from resource agencies, interested stakeholders, and members of the Big Sur community. Prior to the bridge rail replacement project, Caltrans will also be doing a maintenance project to prolong the life of the Garrapata Creek Bridge Structure by performing an electro-chemical chloride extraction.

Comment 2:

Please provide Bridge crash data associated with negative outcomes, that the proposed new guardrail design would solve.

Response to Comment 2:

A 3-year collision history was run from January 1, 2012 to December 31, 2014, which yielded 5 total collisions from post miles 62.6 to 63.10. All 5 collisions occurred in the daytime and in dry roadway conditions. Of the 5 collisions, there were 3 injury collisions and 3 multi-vehicle collisions. The types of collisions were (2) Rear End, (1) Hit Object, (1) Broadside, and (1) Auto-Pedestrian. Primary collision factors were: (1) DUI, (1) Speeding, (1) Failure to Yield, (1) Other, and (1) Unknown. From the data collected, neither metal beam guardrail nor bridge rails were hit within the listed time frame and post miles.

The new rail design accommodates the increase in structural steel for today's safety standards. The historic replacement rails of today are being designed for the larger and heavier vehicles that travel along the corridor, compared to those that were designed nearly a century ago for vehicles of that time.

Comments from Libby Barnes and Daniela De Sola

Comment 1:

Our firm finds that the proposed design of the bridge rails deserves a better solution, one that is in keeping with the historic nature of the bridges and which allows for visual access to the ocean and canyons they cross, yet still meets today's structural standards. Both the Type C412 and Type 86H simulations on page 42 and 43 of the Draft EIR appear bulky, with narrow portals which make it difficult to see through. The proposed rails concrete finish also appears to be a different finish than the current light, textured, look of the Bridge. The rail options should work with the elegant parabolic-arch structure and remain light and transparent, mitigating any visual obstruction to the seascape. A stock prefabricated design is not what these bridges deserve, but rather a custom design in keeping with the current rail, one that befits these highly traveled and photographed structures. We think this is possible.

Response to Comment 1:

The proposed replacement bridge rails are not stock, prefabricated designs. The Type 86H rail is custom built for the Garrapata Bridge and the historic bridge structure rails on State Route 1 in Big Sur. The Type C412 design variations are customized to be context sensitive for use on the Big Sur coast. Both new rail designs accommodate the increase in structural steel for today's safety standards. The historic replacement rails of today are being designed for the larger and heavier vehicles that travel along the corridor, compared to those designed nearly a century ago for vehicles of that time. Our Visual Assessment specialists from the Landscape Architecture group are selecting concrete color and texture finishes based on the existing

structures and under varying natural daylight conditions. The seascape will remain visible through the new rail type from State Route 1.

Comment 2:

What specific alternative railing designs were considered?

Response to Comment 2:

Caltrans worked to develop the Manual for Assessing Safety Hardware-compliant TL-4 rated concrete post-and-beam style Concrete Barrier Type 86H (“H” for Historic) specifically for use in Big Sur.

Caltrans has also considered use of the Texas Department of Transportation-approved Manual for Assessing Safety Hardware-compliant TL-4 rated TXDOT C412 concrete baluster bridge rail and the Manual for Assessing Safety Hardware-compliant TL-2 rated TxDOT C411 concrete baluster bridge rail (the C411 can be used only next to vehicular traffic that is signed for a regulatory [enforceable] speed limit of 45 miles per hour or less.

Comment 3:

Were non-standard design options more consistent with preserving the unique visual character included, as is allowed in the CHMP?

Was an exact replica of the current railings (or an exact replica with added height sufficient to address stated safety concerns) made with updated structural materials evaluated among the alternatives? If so, please provide these analyses. If not please reconsider an alternative solution that addresses our concerns.

Response to Comment 3:

Replacing the bridge rails in-kind would be a non-standard design option that would theoretically, if feasible, be more consistent with preserving visual character of the historic corridor. However, due to federal safety standards and the mandate that any change to a compliant safety device must be crash tested before implementation, in-kind replacement of the bridge rails is not feasible on Garrapata Creek Bridge.

Comment 4:

What specific criteria were used to select the current proposed design?

Response to Comment 4:

Caltrans is currently designing and crash testing a bridge rail that is compliant with current traffic safety standards and is context sensitive for the Big Sur

Coast. Coastal Commission staff is also in coordination with this effort with Caltrans Headquarters staff. The design option and aesthetic treatments to the proposed bridge rails will be finalized during the design phase of the project. Caltrans will seek input from resource agencies, interested stakeholders, and members of the Big Sur community. Prior to the bridge rail replacement project, Caltrans will also be doing a separate maintenance project in early summer to prolong the life of the Garrapata Creek Bridge structure by performing an electro-chemical chloride extraction.

Comment 5:

Also, please reconsider decision in Section 1.6 on page 24 “Alternatives Considered but Eliminated…”, Item 1.6.2 Lowering the Speed Limit. Given that we enter and exit our driveway just north of the Bridge every day and have witnessed not only the increased attendance of visitors, many whom cross the highway to reach Garrapata Beach, but also a number of accidents. Lowering the speed limit along this corridor would greatly benefit the safety of everyone. Please reconsider an alternative solution that addresses these concerns. Our firm would be more than willing to work with Caltrans in finding a new solution.

Response to Comment 5:

Section 1.6 Alternatives Considered but Eliminated has been updated with traffic data to support Caltrans’ findings.

Comment from John Duval:

Caltrans should use fiberglass rebar instead of steel rebar which corrodes and breaks-out concrete.

Response to Comment:

The new rail design options accommodate the increase in structural steel for today’s safety standards. The historic replacement rails of today are being designed for the larger and heavier vehicles that travel along the corridor, compared to what was designed nearly a century ago with vehicles of that time. Prior to the bridge rail replacement project, Caltrans will also be doing a maintenance project to prolong the life of the Garrapata Creek Bridge structure by performing an electro-chemical chloride extraction.

Comments from the Malpaso Creek Property Association

Comment 1:

In reviewing the pictures of the proposed rail design, we feel the rails are too modern and bulky to blend with the elegant architecture of the bridges. It appears the new traffic safety requirements for concrete rails do not allow the

concrete bridge rails to be as transparent as they originally were, thus leading to some cumbersome design solutions. The proposed bridge rails appear to be prefabricated TxDOT concrete rails which, although have been used on other historic bridges across the nation, still have a contemporary manufactured look to them. The Task Force 13 TX411 would be the closest to what would be keeping with the bridges style but would need to be modified to complement the architecture of the bridges. We also have some concerns about the finish of the proposed concrete rails. If the finish is to be exposed concrete, would they match the existing exposed concrete finish of the bridges? Perhaps sandblasting them would give them a more rustic and distressed look. Painted or coated concrete rails would not be in keeping with the look of the bridges.

Response to Comment 1:

The proposed replacement bridge rails are not stock, prefabricated designs. The Type 86H rail is custom built for the Garrapata Bridge and the historic bridge structure rails on State Route in Big Sur. The new rail design accommodates the increase in structural steel for today's safety standards. The historic replacement rails of today are being designed for the larger and heavier vehicles that travel along the corridor, compared to what was designed nearly a century ago with vehicles of that time. Our Visual Assessment specialists from the Landscape Architecture group are selecting concrete color and texture finishes based on the existing structures and under varying natural daylight conditions. Please see the Visual Resources Section 2.1.2 for updated photo simulations of the proposed bridge rail replacement options.

Comment 2:

Another solution could be to use "stealth" railings where the original concrete rails are replicated with additional reinforcing steel cables to meet the current traffic safety standards. This was done in Oregon on the Rogue River, Rocky Creek and the Gold Beach Bridges.

Another thing to consider is that when one is traveling across one of our Big Sur bridges, it is difficult to see through the rail - especially if one is seated in a standard car. The best views afforded are above the rail which are often seen from a large truck or SUV. Perhaps creating a guard rail like that on the Wildcat Bridge in Carmel Highlands might be a more appropriate design solution within the historical context of our coastal bridges.

Response to Comment 2:

Caltrans is currently designing and crash testing a bridge rail that is compliant with current traffic safety standards and is context sensitive for the Big Sur Coast. Coastal Commission staff is also in coordination with this effort with

Caltrans Headquarters staff. The design option and aesthetic treatments to the proposed bridge rails will be finalized during the design phase of the project. Caltrans will seek input from resource agencies, interested stakeholders, and members of the Big Sur community. Prior to the bridge rail replacement project, Caltrans will also be doing a separate maintenance project in early summer to prolong the life of the Garrapata Creek Bridge structure by performing an electro-chemical chloride extraction.

Comment 3:

We also would like to know the schedule of the work to be performed on each bridge. Several years ago, an electrochemical chloride extraction procedure was done on the Mal Paso Bridge that took longer than anticipated, resulting in the bridge being covered with scaffolding and deteriorating plastic wrap for over a year.

Response to Comment 3:

Construction on the Garrapata Creek Bridge Rail Replacement project is estimated to start in October 2023 and be completed by October 2024 with an estimated 220 working days. Caltrans will incorporate measures to reduce temporary visual impacts during construction. Construction timelines for work on the other bridges will be determined during the Project Approval and Environmental Document phase of each subsequent project.

In response to feedback regarding the Malpaso Creek Bridge electrochemical chloride extraction project, Caltrans is working to be more efficient in subsequent electrochemical chloride extraction projects in Big Sur. The electrochemical chloride extraction project that is currently in construction on Big Creek Bridge is on track to be completed ahead of schedule. The decrease in the amount of time that bridge needs to be covered relates to a decrease in temporary visual impacts during construction.

The Garrapata Creek Bridge Rail Replacement project will require the use of a debris containment system installed on the underside of the bridge to ensure that no debris can enter Garrapata Creek.

Comments from Martha Diehl

Comment 1:

How many people annually view, photograph, paint, visit or otherwise experience the Garrapata Bridge and the other historic bridges listed? How many vehicles crossed Garrapata Bridge during 2020? How many vehicles of what varieties are anticipated to cross the bridge annually in future years? Absent this information, how can the identified significant visual/aesthetic impacts of the proposed project be appropriately analytically weighted when comparing alternatives?

Response to Comment 1:

It is hard for Caltrans to determine how many people experience the Historic Bridges in Big Sur, but we understand the importance of these cherished resources. Traffic rates and future traffic demand do not preclude the need for Caltrans to adhere to federally mandated traffic safety standards for the structures within the State Highway System.

Comment 2:

Is the design proposed for the Garrapata Bridge intended for use on all listed bridge rail replacements? Is there a stated commitment to ensuring that the bridges continue to be visually consistent?

Response to Comment 2:

The proposed bridge rail design options were developed with the intention of being suitable for all of the listed bridge rail replacements. However, each bridge will be evaluated separately for specific rail options and aesthetic treatments. All replacement bridge railings will be visually consistent and appropriate for the Big Sur corridor. Caltrans will seek input regarding design options and aesthetic treatments on the replacement bridge rails from the Land Use Advisory Committee, local agencies, and the Big Sur community.

Comment 3:

How will construction of the proposed project impact public access to heavily used Garrapata Beach, including parking and ongoing traffic management? Traffic conditions in the immediate vicinity of the Garrapata Bridge are intermittently and increasingly impassable and unsafe. This is also the case for others of the historic bridges included in the overall project level analysis. Specifically, what analysis supports the determination that the identified potential temporary construction related traffic impacts will not be significant (see DEIR table p vii traffic & transportation)?

Response to Comment 3:

Public recreation access, including bicycle and pedestrian traffic, through the project area during construction will not be restricted. The project will implement a Traffic Management Plan to minimize and manage traffic delays during construction operations of the project. A staging area will likely take place at the pullout just south of the Garrapata Creek Bridge. Use of the pullout to the north of the bridge will be restricted since it is used by the public for beach access.

Comment 4:

How exactly were the proposed projects determined to be consistent with the Big Sur Land Use Plan and the Coast Highway Management Plan? How were the goals and priorities that caused this road section to be designated as a Scenic Byway and one of our country's first federally recognized All-American Roads considered? Please provide complete analysis methods, process and results.

What specific alternative railing designs were considered? Were non-standard design options more consistent with preserving the unique visual character included, as is allowed in the CHMP? What specific criteria were used to select the current proposed design? Was an exact replica of the current railings (or an exact replica with added height sufficient to address stated safety concerns) made with updated structural materials evaluated among the alternatives? If so, please provide these analyses. If not please perform them.

Response to Comment 4:

Replacing the bridge rails in-kind would be a non-standard design option that would theoretically be more consistent with preserving visual character of the historic corridor. However, due to federal safety standards and the mandate that any change to a compliant safety device must be crash tested before implementation, in-kind replacement of the bridge rails is not feasible on Garrapata Creek Bridge. Please see section 2.1.2 for more details regarding the proposed project's consistency with aesthetic guidelines developed in the Big Sur Coast Highway Management Plan.

Caltrans worked to develop the Manual for Assessing Safety Hardware-compliant TL-4 rated concrete post-and-beam style Concrete Barrier Type 86H ("H" for Historic) specifically for use in Big Sur. Caltrans has also considered use of the Texas Department of Transportation-approved Manual for Assessing Safety Hardware-compliant TL-4 rated TXDOT C412 concrete baluster bridge rail and the Manual for Assessing Safety Hardware-compliant TL-2 rated TxDOT C411 concrete baluster bridge rail (the C411 can be used only next to vehicular traffic that is signed for a regulatory [enforceable] speed limit of 45 miles per hour or less).

Comment 5:

How many injury accidents related to the existing railing structure or design have occurred in the history of these bridges? This information will assist in determining the relative importance of proposed upgraded safety requirements to the almost inestimable value of the current bridge aesthetics.

Response to Comment 5:

A 3-year collision history was run from January 1, 2012 to December 31, 2014, which yielded 5 total collisions, from post miles 62.6 to 63.10. All 5 collisions occurred in the daytime and in dry roadway conditions. Of the 5 collisions, there were 3 injury collisions and 3 multi-vehicle collisions. The types of collisions were (2) Rear End, (1) Hit Object, (1) Broadside, and (1) Auto-Pedestrian. Primary collision factors were: (1) DUI, (1) Speeding, (1) Failure to Yield, (1) Other, and (1) Unknown. From the data collected, neither metal beam guardrail nor bridge rails were hit within the listed time frame and post miles.

Comment 6:

What efforts have been made to engage immediate neighbors or easement holders in the project vicinity with impacts during construction? How will nearby residents' access be affected by proposed construction?

Response to Comment 6:

All adjacent landowners were notified during the public circulation period of the draft environmental impact report. Notification was also provided to Monterey County, the California Coastal Commission, relevant Big Sur advisory groups, local blogs, and NGOs. Also, a newspaper ad was published in the *Monterey Herald* and *Carmel Pinecone* requesting comments on the Draft Environmental Impact Report. Please see Chapter 6 of this document for a full distribution list.

Public recreation access, including bicycle and pedestrian traffic through the project area during construction, will be maintained during construction. The project will implement a Traffic Management Plan to minimize and manage traffic delays during construction operations of the project. A staging area will likely take place at the pullout just south of the Garrapata Creek Bridge. Contractor use of the pullout to the north of the bridge will be restricted since it is used by the public for beach access. All work will be within the state right-of-way.

Comment 7:

Have other projects such as bridge-related maintenance or utility upgrade needs been considered with proposed project timing? Given the current ongoing severe traffic congestion in this area, can schedules for all reasonably foreseeable infrastructure projects in this vicinity be coordinated so as to avoid multiple sequential project traffic flow impacts?

Response to Comment 7:

Caltrans has planned out multiple projects within the corridor to allow for ease of construction and to minimize traffic impacts. The timing of Caltrans projects throughout Big Sur is planned efficiently to conserve resources and reduce congestion.

Comments from Aengus L. Jeffers on behalf of Bixby Rock LLC

Comment 1:

CEQA requires that all aspects of a proposed project be analyzed early in the planning process and prohibits project proponents from using tiered EIR's to delay the assessment of reasonably understood and foreseeable project impacts. The DEIR fails these obligations in that it proposes statements of overriding concern regarding the historical and visual impacts of the proposed replacement bridge rails without fully assessing the need for upgraded bridge rails based upon the reality of traffic speeds and accidents on these bridges and without providing an assessment of all of the available bridge rail design options which might preserve blue water ocean views through these rails to mitigate the historical impact of any bridge rail replacements. These assessments are clearly available now while discrete bridge rail designs are being proposed for Garrapata Bridge and thus should not be delayed for a future project level assessment for the remaining bridges.

Response to Comment 1:

The project is needed due to severe deterioration of bridge rails as well as a need to adhere to current traffic safety standards. Traffic speeds and accident data are factors that strengthen the need for the project, but the bridge rail replacement projects are justified regardless of traffic or accident data. Structural failure and federal safety standards are the main drivers behind the proposed bridge rail replacement projects.

Tiering the Environmental Impact Report allows for more in-depth analysis of each bridge location as each project gets programmed. Tiering refers to the coverage of general matters in broader Environmental Impact Reports (Tier 1) with subsequent narrower Environmental Impact Reports (Tier 2) or ultimately site-specific Environmental Impact Reports incorporating by reference the general discussions and concentrating solely on issues specific to the Environmental Impact Report subsequently prepared. The California Environmental Quality Act encourages the use of Program Environmental Impact Reports in projects with a series of actions or activities that can be characterized as one large project and are related either: geographically, as logical parts of a chain of activities, in connection with plans or other general criteria governing a continuing program, as individual activities carried out under common authority and having similar environmental effects which can

be mitigated in similar ways. The Program Environmental Impact Report containing Tier 1 and Tier 2 analysis prepared for the proposed project is consistent with California Environmental Quality Act guidance regarding the use of tiering of environmental documents.

Please see the Summary section of this document as well as Section 2.1.2 for more information regarding tiering and the strategies to reduce Tier 1 visual impacts.

Comment 2:

Bixby Rock LLC and I, strongly recommend that Caltrans delay preparation of a Final EIR for this Project to provide a meaningful opportunity for Caltrans to work with the Big Sur Community, the County of Monterey, and the California Coastal Commission to assess the replacement bridge rails that best mitigate historical and visual impacts if the upgraded bridge rails are determined to be necessary based upon the reality of traffic speeds and accident history over these bridges. To do otherwise would, in violation of CEQA, use a 'programmatic EIR' for no other purpose than to delay analysis of the most critical impacts associated with this Project.

Response to Comment 2:

Caltrans has been working with the State Historic Preservation Officer, the Coastal Commission, and the Big Sur community throughout the project development process. This process includes the Notice of Preparation and circulation of the draft environmental document, and it will continue through collaboration with the public and stakeholders during the coastal development permit process. The use of a programmatic Environmental Impact Report is warranted in this situation due to the common impacts associated with solely replacing the bridge rails on each historic bridge. The scope of each future project might differ slightly, leading to potentially different impacts that can be analyzed through the Tier 2 analysis.

Comment 3:

The overriding land use policy in the Big Sur Local Coastal Program ("LCP") is the preservation of open space and blue water views for the general public. The significance of this policy is best understood within the context of the Critical Viewshed Prohibition which (except for specifically enumerated exceptions) prohibits development which is either visible from Highway One (regardless of scope) or which blocks public views. The proposed replacement bridge rails for Garrapata Bridge (and hence the likely bridge rail design for the other 5 bridges) would, if adopted, clearly impact the public's blue water views while traveling across these bridges while also impacting the historical integrity of these bridges.

Response to Comment 3:

Please see the Visual Resources Section 2.1.2 for updated renderings that show improved openings compared with the existing bridge rails for enhancing existing blue water views. Please note, the proposed bridge rails are the same height as the existing bridge rail.

A major project objective is to provide context sensitive bridge rail replacements on all of the historic structures. This will be achieved through the implementation of mitigation and minimization measures for visual and historic resource impacts, outlined in Appendix B. Caltrans will seek input from the Big Sur Land Use Advisory Committee and work closely with Monterey County and the Coastal Commission during the Coastal Development Permitting process.

Comment 4:

Mitigation and minimization measures for the Tier 1 bridges are proposed to include community involvement in the design of all aesthetic project features and are proposed to include “context sensitive bridge rail design.” However, this outreach effort needs to happen now and not later to avoid impacts to Garrapata Bridge and architectural consistency for the remaining bridges. Figures 1-12 and 1-13 in the DEIR depict photo simulations of two types of barriers proposed for the Garrapata Bridge. Won’t these two types of bridge rails also be used on the other six bridges?

Response to Comment 4:

Caltrans is currently designing and crash testing a bridge rail that is compliant with current traffic safety standards and is context sensitive for the Big Sur Coast. The project design option and aesthetic treatments to the proposed bridge rails will be finalized with input from resource agencies, interested stakeholders, and members of the Big Sur community.

The proposed bridge rail design options were developed with the intention of being suitable for all of the listed bridge rail replacements. However, each bridge will be analyzed separately for use of specific rail designs and aesthetic treatment. All replacement bridge railings will be visually consistent and appropriate for the Big Sur corridor.

Comment 5:

The DEIR states that current safety standards require that the new railing be slightly taller than the existing historic rails based upon the posted speed limits for this stretch of Highway One. How much is “slightly taller” as this will impact more blue water views?

Response to Comment 5:

The Draft Environmental Impact Report incorrectly stated that the proposed replacement bridge rails would be “slightly taller” than the existing height of the bridge rails on Garrapata Creek Bridge. The existing bridge rails are 42 inches tall, and the proposed bridge rail replacements will also be 42 inches tall in adherence to current traffic safety standards.

Please see the Comparison of Alternatives for Tier 1 and Tier 2 Section 1.5 and Table 1-1 for detailed dimensions of the proposed replacement bridge rails.

Comment 6:

What consideration was given to lowering the speed on Highway One at the bridge locations? While it may be impractical to lower the speed limit on some of the other bridges, Bixby Bridge rarely has fast traffic on it, due to the crowds, the traffic, the curved approach, and the views. The DEIR should analyze current speeds and accident history at all the bridge locations to justify upgrading these rails and consider posting lowered speed limits as a project alternative to preserve public views and these historical resources.

Response to Comment 6:

Please see Section 1.7 Alternatives Considered but Eliminated from Further Discussion.

Comment 7:

CEQA requires that an EIR identify mitigation measures which are both effective and enforceable. The Avoidance, Minimization and/or Mitigation Measures for Visual / Aesthetic and Cultural Resources impacts fail to identify how they will be effective in minimizing the impacts of the Project and how they will be enforceable.

Response to Comment 7:

Please see Appendix B Avoidance, Mitigation and Minimization Summary for measures that are included to minimize impacts to Cultural and Visual resources. Furthermore, Caltrans will prepare a Statement of Overriding Considerations for impacts that will not be mitigated below a level of significance and certify that the findings and Statement of Overriding Considerations have been considered prior to project approval.

Appendix E Memorandum of Agreement

This appendix contains the Memorandum of Agreement between the California Department of Transportation and the California State Historic Preservation Officer regarding the Garrapata Creek Bridge Replacement Project, Monterey County, California.

MEMORANDUM OF AGREEMENT
BETWEEN THE CALIFORNIA DEPARTMENT OF TRANSPORTATION AND THE CALIFORNIA STATE HISTORIC PRESERVATION OFFICER REGARDING THE GARRAPATA CREEK BRIDGE RAIL REPLACEMENT PROJECT, MONTEREY COUNTY, CALIFORNIA

WHEREAS, pursuant to §23 U.S.C. the Federal Highway Administration (FHWA), has assigned and California Department of Transportation (Caltrans, including all subordinate divisions defined below) has assumed FHWA responsibility for environmental review, consultation, and coordination under the provisions of the *Memorandum of Understanding (MOU) between the Federal Highway Administration and the California Department of Transportation Concerning the State of California's Participation in the Project Delivery Program Pursuant to 23 U.S.C. 327*, which became effective on December 23, 2016, and applies to this undertaking; and,

WHEREAS, pursuant to the January 2014 *First Amended Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act as it Pertains to the Administration of the Federal-Aid Highway Program in California* (Section 106 PA), Caltrans is deemed to be a federal agency for all highway-aid projects it has assumed, and in that capacity Caltrans has assigned the role of "agency official" to the Caltrans Division of Environmental Analysis (DEA) Chief for the purpose of compliance with 36 CFR 800 and is responsible for oversight of District environmental responsibilities. To provide for effective compliance, day-to-day responsibilities and coordination of the Section 106 process are further delegated to the DEA Cultural Studies Office (CSO) Chief; and

WHEREAS, Caltrans proposes to implement the federally funded Garrapata Creek Bridge Rail Replacement Project (Undertaking), which will remove and replace the rails on the Garrapata Creek Bridge (Bridge No. 44 0018), a State-owned bridge located at post mile 62.97 on State Route 1 near Big Sur, an unincorporated community along the Big Sur Coast in Monterey County, as described in Attachment A to this Memorandum of Agreement (MOA); and

WHEREAS, the Undertaking's Area of Potential Effects (APE), included in Attachment B, includes all areas where work is proposed and the known or reasonably anticipated boundaries of any built environment or archaeological resources, which may experience direct or indirect effects as a result of the Undertaking; and

WHEREAS, Caltrans has determined that the Undertaking will have an adverse effect on the Garrapata Creek Bridge (No. 44 0018), a property determined to be eligible for inclusion in the National Register of Historic Places (National Register); and

WHEREAS, Caltrans has consulted with the California State Historic Preservation Officer (SHPO) pursuant to stipulation X.C and XI of the Section 106 PA, and where the Section 106 PA so directs, in accordance with 36 CFR Part 800, the regulation that implements Section 106 of the National Historic preservation Act of 1966 (16 U.S.C. 470f), as amended, regarding the Undertaking's effect on historic properties; and

WHEREAS, Caltrans, in consultation with the SHPO, has thoroughly considered alternatives to this Undertaking and has determined that the Undertaking's adverse effects cannot be avoided, and that implementation of the treatments set forth in Stipulation II of this MOA will satisfactorily take into account the Undertaking's adverse effects on the historic property; and

WHEREAS, Caltrans District 5 has a responsibility to fulfill the terms of this MOA and is participating as an invited signatory; and

NOW, THEREFORE, Caltrans and the SHPO agree that if the Undertaking proceeds, the Undertaking shall be implemented in accordance with the following stipulations in order to take into account the effects of the Undertaking on historic properties, and further agree that these stipulations shall govern the Undertaking and all of its parts until this MOA expires or is terminated.

STIPULATIONS

Caltrans shall ensure that the following stipulations are carried out:

I. AREA OF POTENTIAL EFFECT

A. The Area of Potential Effect (APE) was designated in accordance with Stipulation VIII.A of the Section 106 PA and is depicted in Attachment B of this MOA. The APE includes the entire area where the project may have potential to directly or indirectly affect cultural resources. This includes the footprint and area immediately surrounding the bridge, any areas where ground disturbance or work in the creek may occur, and associated construction access and staging areas. The Garrapata Creek Bridge (No. 44 0018) and the Carmel San Simeon Highway Historic District (CSSHHD), of which the bridge is a contributing element, are the only two (2) historic properties located within the APE.

B. If Caltrans determines that additional APE revisions are necessary subsequent to the execution of this MOA, Caltrans shall inform the parties to the MOA of the revisions and consult for no more than 15 days to reach agreement on the proposed revisions. If Caltrans, the SHPO, and other appropriate signatories cannot reach such agreement, then the parties to this MOA shall resolve the dispute in accordance with Stipulation VI.C below. If all parties reach mutual agreement on the proposed revisions, Caltrans will submit a new APE map reflecting the revisions, consistent with Stipulation VIII.A and Attachment 3 of the Section 106 PA, no later than 30 days following such agreement. Any further investigation or document necessitated by the revised APE will follow the procedures for the identification and evaluation of potential Historic Properties as specified in Stipulation VIII of the Section 106 PA and in accordance with 36 CFR §800.4(a)(2-4) and 88.4(b). Amendment of the APE will not require an amendment to the MOA. The revised APE and supporting documentation shall be incorporated into Attachment B to this MOA.

II. TREATMENT OF HISTORIC PROPERTIES

A. Historic American Engineering Record (HAER)

1. Prior to the start of construction, Caltrans shall contact the regional Historic American Building Survey/Historic American Engineering Record/Historic American Landscape Survey (HABS/HAER/HALS) coordinator at the National Park Service Interior Regions 8, 9, 10, and 12 Regional Office (NPS) to request that NPS stipulate the level of and procedures for completing the documentation. Within ten (10) days of receiving the NPS stipulation letter, Caltrans shall send a copy of the letter to all consulting parties for their information.
2. Caltrans will ensure that all recordation documentation activities are performed or directly supervised by architects, historians, photographers, and/or other professionals meeting the qualification standards in the Secretary of Interior's Professional Qualification Standards (36 CFR 61, Appendix A).
3. Upon receipt of the NPS written acceptance letter, Caltrans will make archival, digital and bound library-quality copies of the documentation and provide them to the Monterey County Historic Resources Review Board, the Monterey County Historical Society, the Big Sur Historical Society, the Carmel Heritage Society, the California Office of Historic Preservation, the Central Coast Information Center, and the California State Library.
4. Caltrans shall notify SHPO that the documentation is complete and all copies distributed, as outlined in Stipulation II.3, and include the completion of the documentation in the annual report. All field surveys shall be completed prior to the start of construction.

B. Completion of DPR 523 Inventory Forms for all seven (7) Big Sur Arches

1. Caltrans District 5 will hire qualified historical consultants to produce DPR 523 forms, including Primary Record Forms and Building Structure, Object Record Forms for all seven (7) of the historic concrete arch bridges within the Carmel San Simeon Highway Historic District (CSSHHD).
2. The seven DPR 523 records will include the six open spandrel concrete arch bridges specifically mentioned in the Tier I document (Big Creek, Bixby Creek, Rocky Creek, Garrapata Creek, Granite Canyon, & Malpaso Creek) as well as closed spandrel Wildcat Bridge, which is also a contributor in the CSSHHD and a thematically similar resource.
3. The information in the individual DPR 523 forms for each bridge will focus solely on the individual bridges, their specific historic design context and will highlight each resource's specific history within the broader contextual landscape of social, economic, and cultural trends leading to the opening of State Route 1 (SR-1) in Monterey County. This measure responds directly to comments received from consulting parties, and particularly by The Monterey County Historic Resources Review Board (MCHRRB) in their November 2020 letter to Caltrans regarding the Garrapata Creek Bridge Rail Replacement Project. This information will supplement and enhance the existing knowledge of the seven (7) Big Sur Arches, but requires a more detailed and focused historical analysis of these significant resources. As the current best historical information Caltrans has developed about each of the "Big Sur Arches" is limited to the broad focus of the Caltrans Statewide Historic Bridge Inventory and as contributing

features within the context of the district wide DPR 523 form for the entire CSSHHD, the value in updating the historical information on the these important bridges is recognized.

4. The information in the DPR Forms, including Primary Records and BSO Records, will be based on original research that expands on what is already known about these bridges which is contained the broader context of the Caltrans Statewide Historic Bridge Inventory and Carmel San Simeon Highway Historic District inventory forms.
5. The individual DPR 523 forms will include information such as high-quality color and/or black-and-white photographs, historic photographs and/or drawings as appropriate, and text describing the bridge's history and character-defining features.
6. Caltrans District 5 will distribute paper and digital copies of the DPR 523 inventory forms to the Office of Historic Preservation; the California Room of the California State Library; Caltrans District 5; and Caltrans Headquarters Library and History Center as well as with all relevant consulting parties, including the Monterey County Historic Resources Review Board, the Monterey County Historical Society, the Big Sur Historical Society, the Carmel Heritage Society and the Historic Bridge Foundation on request.

C. Lesson Plans

1. Caltrans District 5 will hire qualified consultants to develop and produce a lesson plan for elementary school aged students that focuses on historic significance of the bridge designs using Scientific, Technological, Engineering, or Mathematical (STEM) activities. The materials will include visual aids and activities that demonstrate the technical significance of the open spandrel concrete arch design.
2. All components of the lesson plan will meet the *Next Generation Science Standards* (NGSS) which (in *APPENDIX I – Engineering Design in the NGSS)* encourage an emphasis on engineering design for newly developed science curricula. They will also meet the *History-Social Science Standards* as defined by the California Department of Education (CDE) to the extent they are applicable to the activities developed.
3. The lesson plan will be hosted on the interpretive website specified in stipulation II.D, which can be further used as a resource to highlight the historic significance of the bridges as important engineering achievements.
4. Caltrans will engage with the Monterey County Office of Education and the Monterey County Free Library System for distribution of the materials in order to ensure they are utilized and provide a benefit to the local community.

D. Interpretive Website

1. Caltrans District 5 will produce a website highlighting the history of the seven (7) Big Sur Arches in a manner that is accessible to the general public and provides public benefit.
2. The website will initially contain a main page focusing on the general history of the seven bridges included in the Tier 1 analysis, as well as at least one (1) page focusing on the Garrapata Creek Bridge individually. The website will also include pages to host the historic and modern photographs developed in part II.A, the historic context as

developed in part II.B, the lesson plans developed in part II.C, and additional information on the engineering and transportation history of the bridges as is deemed appropriate through future studies. The website will be structured so that it may be updated and expanded with additional pages that focus on the Big Sur Arches impacted through the future bridge rail replacement projects outlined in the current Tier 1 analysis or any other projects impacting the Big Sur Arches.

3. The website will be maintained for at least ten (10) years, and it is recognized that this time frame may be continually extended as additional projects mentioned in the Tier 1 analysis are proposed and implemented over time.

III. TREATMENT OF HUMAN REMAINS OF NATIVE AMERICAN ORIGIN

As legally mandated, human remains and related items discovered during the implementation of the terms of this Agreement and the Undertaking will be treated in accordance with the requirements of Health and Safety Code Section 7050.5(b). If pursuant to of Health and Safety Code Section 7050.5(c) the coroner determines that the human remains are or may be those of a Native American, then the discovery shall be treated in accordance with the provisions of Public Resources Code Sections 5097.98 (a)(d). Caltrans, as the landowner, shall ensure, to the extent possible, that the views of the Most Likely Descendent(s), as determined by the California Native American Heritage Commission, is taken into consideration when decisions are made about the disposition of Native American human remains and associated objects.

IV. DISCOVERIES AND UNANTICIPATED EFFECTS

If Caltrans determines after construction of the Undertaking has commenced, that either the Undertaking will affect a previously unidentified property that may be eligible for the National Register, or affect a known historic property in an unanticipated manner, Caltrans will address the discovery or unanticipated effect in accordance with 36 CFR §800.13(b)(3). Caltrans at its discretion may hereunder and pursuant to 36 CFR §800.13(c) assumes any discovered property to be eligible for inclusion in the National Register.

V. ADMINISTRATIVE PROVISIONS

A. Standards

1. **Definitions.** The definitions provided in 36 CFR § 800.16 are applicable throughout this MOA.
2. **Professional Qualifications**. Caltrans will ensure that only individuals meeting the *Secretary of the Interior's Professional Qualification Standards* (48 FR 44738-39) (PQS) in the relevant field of study carry out or review appropriateness and quality of the actions and products required by Stipulations I through IV in this MOA. However, nothing in this stipulation may be interpreted to preclude Caltrans or any agent or contractor thereof from using the properly supervised services of persons who do not meet the PQS.
3. **Documentation Standards**. Written documentation of activities prescribed by Stipulations I through IV of this MOA shall conform to *Secretary of the Interior's*

Standards and Guidelines for Archaeology and Historic Preservation (48 FR 44716-44740) as well as to applicable standards and guidelines established by the SHPO.

4. **Curation and Curation Standards.** Caltrans shall ensure that, to the extent permitted under § 5097.98 and § 5097.991 of the California Public Resources Code, the materials and records resulting from the activities prescribed by this MOA are curated in accordance with 36 CFR §79.

B. Confidentiality

The MOA parties acknowledge that the historic properties covered by this MOA may be subject to the provisions of § 304 of the NHPA and § 6254.10 of the California Government Code (Public Records Act), relating to the disclosure of archaeological site information and, having so acknowledged, will ensure that all actions and documentation prescribed by this MOA are consistent with said sections.

C. Resolving Objections

1. Should any party to this MOA object at any time in writing to the manner in which the terms of this MOA are implemented, to any action carried out or proposed with respect to implementation of the MOA (other than the Undertaking itself), or to any documentation prepared in accordance with and subject to the terms of this MOA, Caltrans shall immediately notify the other MOA parties of the objection, request their comments on the objection within 15 days following receipt of Caltrans' notification, and proceed to consult with the objecting party for no more than 30 days to resolve the objection. Caltrans will honor the request of the other parties to participate in the consultation and will take any comments provided by those parties into account.
2. If the objection is resolved during the 30-day consultation period, Caltrans may proceed with the disputed action in accordance with the terms of such resolution.
3. If at the end of the 30-day consultation period, Caltrans determines that the objection cannot be resolved through such consultation, then Caltrans shall forward all documentation relevant to the objection to the ACHP, including Caltrans' proposed response to the objection, with the expectation that the ACHP will, within thirty (30) days after receipt of such documentation:
    a. Advise Caltrans that the ACHP concurs in Caltrans' proposed response to the objection, whereupon Caltrans will respond to the objection accordingly. The objection shall thereby be resolved; or
    b. Provide Caltrans with recommendations, which Caltrans will take into account in reaching a final decision regarding its response to the objection. The objection shall thereby be resolved; or
    c. Notify Caltrans that the objection will be referred for comment pursuant to 36 CFR § 800.7(c) and proceed to refer the objection and comment. Caltrans shall take the resulting comments into account in accordance with 36 CFR § 800.7(c)(4) and Section 110(1) of the NHPA. The objection shall thereby be resolved.

4. Should the ACHP not exercise one of the above options within 30 days after receipt of all pertinent documentation, Caltrans may proceed to implement its proposed response. The objection shall thereby be resolved.
5. Caltrans shall take into account any of the ACHP's recommendations or comments provided in accordance with this stipulation with reference only to the subject of the objection. Caltrans' responsibility to carry out all actions under this MOA that are not the subjects of the objection shall remain unchanged.
6. At any time during implementation of the measures stipulated in this MOA, should a member of the public raise an objection in writing pertaining to such implementation to any signatory party to this MOA, that signatory party shall immediately notify Caltrans. Caltrans shall immediately notify the other signatory parties in writing of the objection. Any signatory party may choose to comment in writing on the objection to Caltrans. Caltrans shall establish a reasonable time frame for this comment period. Caltrans shall consider the objection, and in reaching its decision, Caltrans will take all comments from the other signatory parties into account. Within 15 days following closure of the comment period, Caltrans will render a decision regarding the objection and respond to the objecting party. Caltrans will promptly notify the other signatory parties of its decision in writing, including a copy of the response to the objecting party. Caltrans' decision regarding resolution of the objection will be final. Following issuance of its final decision, Caltrans may authorize the action subject to dispute hereunder to proceed in accordance with the terms of that decision.
7. Caltrans shall provide all parties to this MOA, and the ACHP, if the ACHP has commented, and any parties that have objected pursuant to section C of this stipulation, with a copy of its final written decision regarding any objection addressed pursuant to this stipulation.
8. Caltrans may authorize any action subject to objection under this stipulation to proceed after the objection has been resolved in accordance with the terms of this stipulation.

D. Amendments

1. Any signatory party to this MOA may propose that this MOA be amended, whereupon all signatory parties shall consult for no more than 30 days to consider such amendment. The amendment will be effective on the date a copy signed by all of the original signatories is filed with the ACHP. If the signatories cannot agree to appropriate terms to amend the MOA, any signatory may terminate the agreement in accordance with Stipulation E, below.
2. Attachments to this MOA may be amended through consultation as prescribed in Section B of Stipulation I or Section D of Stipulation V, as appropriate, without amending the MOA proper.

E. Termination

1. If this MOA is not amended as provided for in section D of this stipulation, or if either signatory proposes termination of this MOA for other reasons, the signatory party proposing termination shall, in writing, notify the other MOA parties, explain the

reasons for proposing termination, and consult with the other parties for at least 30 days to seek alternatives to termination. Such consultation shall not be required if Caltrans proposes termination because the Undertaking no longer meets the definition set forth in 36 CFR § 800.16(y).

2. Should such consultation result in an agreement on an alternative to termination, the signatory parties shall proceed in accordance with the terms of that agreement.
3. Should such consultation fail, the signatory party proposing termination may terminate this MOA by promptly notifying the other MOA parties in writing. Termination hereunder shall render this MOA without further force or effect.
4. If this MOA is terminated hereunder, and if Caltrans determines that the Undertaking will nonetheless proceed, then Caltrans shall comply with the requirements of 36 CFR 800.3-800.6, or request the comments of the ACHP pursuant to 36 CFR Part 800.

F. Duration of the MOA

The duration of the MOA will be five (5) years following the date of execution by the signatory parties. If Caltrans determines that this requirement cannot be met, the MOA parties will consult to reconsider its terms. Reconsideration may include continuation of the MOA as originally executed, amendment of the MOA, or termination. In the event of termination, Caltrans will comply with Section E of this Stipulation if it determines that the Undertaking will proceed notwithstanding termination of this MOA.

G. Reporting Requirements and Related Reviews

1. Caltrans shall prepare an Annual Report documenting actions carried out pursuant to this MOA. The reporting period shall commence one year from the date of execution. The Annual Report shall be distributed to all consulting parties to this MOA.
2. The Annual Report shall address the following: any scheduling changes proposed, historic property surveys and results, status of treatment and mitigation activities, ongoing and completed public education activities, any uses that are affecting or may affect the ability of the federal agency to continue to meet the terms of this MOA, any disputes and objections received, and how they were resolved, and any additional parties who have become signatory or concurring parties to this MOA in the past year.
3. Caltrans shall coordinate a meeting of the Signatories and Consulting Parties to be scheduled within ninety (90) business days of distribution of the Annual Report, or another mutually agreed upon date, to discuss activities carried out pursuant to this MOA during the preceding year and activities scheduled for the upcoming year. This meeting, should it be deemed unnecessary, may be cancelled by mutual consent of the Signatory Parties.

H. Effective Date

This MOA will take effect on the date that it has been executed by Caltrans and the SHPO.

EXECUTION of this MOA by Caltrans and the SHPO, its filing with the ACHP in accordance with 36 CFR §800.6(b)(1)(iv), and subsequent implementation of its terms, shall evidence, pursuant to 36CFR§800.6(c), that this MOA is an agreement with the ACHP for purposes of Section 110(l) of the NHPA, and shall further evidence that Caltrans has afforded the ACHP an opportunity to comment on the Undertaking and its effects on historic properties, and that Caltrans has taken into account the effects of the Undertaking on historic properties.

MEMORANDUM OF AGREEMENT
BETWEEN THE CALIFORNIA DEPARTMENT OF TRANSPORTATION AND THE CALIFORNIA STATE HISTORIC PRESERVATION OFFICER REGARDING THE GARRAPATA CREEK BRIDGE RAIL REPLACEMENT PROJECT, MONTEREY COUNTY, CALIFORNIA

SIGNATORY PARTY:

CALIFORNIA DEPARTMENT OF TRANSPORTATION

By Philip J. Stolarski **Date** 3/23/2021

Philip J. Stolarski
Chief, Division of Environmental Analysis

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**MEMORANDUM OF AGREEMENT
BETWEEN THE CALIFORNIA DEPARTMENT OF TRANSPORTATION AND THE CALIFORNIA STATE HISTORIC PRESERVATION OFFICER REGARDING THE GARRAPATA CREEK BRIDGE RAIL REPLACEMENT PROJECT, MONTEREY COUNTY, CALIFORNIA**

SIGNATORY PARTY:

CALIFORNIA OFFICE OF HISTORIC PRESERVATION



By _____ **Date 3/23/2021**_____
Julianne Polanco
State Historic Preservation Officer

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**MEMORANDUM OF AGREEMENT
BETWEEN THE CALIFORNIA DEPARTMENT OF TRANSPORTATION AND THE CALIFORNIA STATE HISTORIC PRESERVATION OFFICER REGARDING THE GARRAPATA CREEK BRIDGE RAIL REPLACEMENT PROJECT, MONTEREY COUNTY, CALIFORNIA**

INVITED SIGNATORY:

CALIFORNIA DEPARTMENT OF TRANSPORTATION, DISTRICT 5

By _____ **Date** 03/24/2021

Timothy M. Gubbins
Director

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List of Technical Studies

Air Quality, Noise, and Greenhouse Gas Memorandum

Water Quality Assessment

Natural Environment Study Minimal Impacts Tier 1 and Tier 2

Historic Property Survey Report Tier 1 and Tier 2

- Archaeological Survey Report

Hazardous Waste Reports

- Initial Site Assessment
- Asbestos and Lead-Containing Paint Survey Report

Visual Impact Assessment

Paleontology Review Memorandum

Stormwater Data Report

Climate Change Technical Study

To obtain a copy of one or more of these technical studies/reports or the Draft Environmental Impact Report, please send your request to the following email address: info-d5@dot.ca.gov

Please indicate the project name and project identifying code (under the project name on the cover of this document) and specify the technical report or document you would like a copy of. Provide your name and email address or U.S. postal service mailing address (street address, city, state and zip code).

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Exhibit H

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MINUTES

Big Sur Land Use Advisory Committee
Tuesday, November 8, 2022

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MONTEREY COUNTY
RESOURCE MANAGEMENT AGENCY
LAND USE DIVISION

1. **Meeting called to order by** Mary Trotter **at** 9:00 **am**

2. **Roll Call**

Members Present:
Mary Trotter, Steve Beck, Dave Smiley, Marcus Foster, Dick Ravich (5)

Members Absent:
None

3. **Approval of Minutes:**

A. **June 14, 2022** minutes

Motion: Dick Ravich (LUAC Member's Name)

Second: Mary Trotter (LUAC Member's Name)

Ayes: Mary Trotter, Steve Beck, Dave Smiley, Marcus Foster, Dick Ravich (5)

Noes: 0

Absent: 0

Abstain: 0

4. **Public Comments:** The Committee will receive public comment on non-agenda items that are within the purview of the Committee at this time. The length of individual presentations may be limited by the Chair.

None

5. **Scheduled Item(s)**

6. **Other Items:**

A) Preliminary Courtesy Presentations by Applicants Regarding Potential Projects

None

B) Announcements

None

7. **Meeting Adjourned:** 11:23 am

Minutes taken by: Dick Ravich

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RESOURCE MANAGEMENT AGENCY
LAND USE DIVISION

Action by Land Use Advisory Committee
Project Referral Sheet

Monterey County Housing & Community Development
1441 Schilling Place 2nd Floor
Salinas CA 93901
(831) 755-5025

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MONTEREY COUNTY
RESOURCE MANAGEMENT AGENCY
LAND USE DIVISION

Advisory Committee: Big Sur

1.

Item Title: AB 361 FINDING

Description: On September 16, 2021, Governor Newsom signed AB 361. This legislation amends the Brown Act to allow meeting bodies subject to the Brown Act to meet via teleconference during a proclaimed state of emergency in accordance with teleconference procedures established by AB 361. For the December 13th remote meeting, the LUAC must make the findings.

Staff recommends, pursuant to AB 361 and in order for the LUAC to continue to meet remotely via teleconference, the LUAC find: 1) that the COVID-19 pandemic state of emergency declared by Governor Newsom is still in effect; 2) that the Planning Commission has reconsidered the circumstances of the state of emergency; and 3) that the Monterey County Health Officer continues to recommend social distancing measures for meetings of legislative bodies of local agencies.

RECOMMENDATION:

Motion by: Dick Ravich (LUAC Member's Name)

Second by: Steve Beck (LUAC Member's Name)

X Acceptance of the Finding

___ Rejection of the Finding

Ayes: Mary Trotter, Steve Beck, Dave Smiley, Marcus Foster, Dick Ravich (5)

Noes: 0

Absent: 0

Abstain: 0

Action by Land Use Advisory Committee
Project Referral Sheet

Monterey County Housing & Community Development
1441 Schilling Place 2nd Floor
Salinas CA 93901
(831) 755-5025

RECEIVED
NOV 08 2022
MONTEREY COUNTY
RESOURCE MANAGEMENT AGENCY
LAND USE DIVISION

Advisory Committee: Big Sur

1.

Project Name: CALIFORNIA DEPARTMENT OF TRANSPORTATION (GARRAPATA CREEK BRIDGE)
File Number: PLN220090
Project Location: LOCATED AT POST MILE 63.0 ALONG THE GARRAPATA CREEK BRDIGE, HWY 1 BIG SUR
Assessor's Parcel Number(s): 000-000-000-000
Project Planner: PHIL ANGELO
Area Plan: BIG SUR COAST LAND USE PLAN
Project Description: Combined Development Permit consisting of a: 1) Coastal Development Permit to allow demolition and replacement of bridge rails on the Garrapata Creek Bridge; 2) Coastal Development Permit to allow development within 100 feet of Environmentally Sensitive Habitat Area; 3) Coastal Development Permit for development within the Big Sur Critical Viewshed; and 4) Coastal Development Permit to allow Development on a historical site.

Was the Owner/Applicant/Representative present at meeting? YES X NO ____

(Please include the names of the those present)

Mitch Dallas, Austin Kittrell, Pete Hendrix, Jose Huerta, Kirsten Langager, Michelle Wilson, Scott, Daniel Leckie, Greg (s110927), Kelly McClain

Was a County Staff/Representative present at meeting? Mary Israel & Phil Angelo **(Name)**

PUBLIC COMMENT: None

Name	Site Neighbor?		Issues / Concerns (suggested changes)
	YES	NO	

LUAC AREAS OF CONCERN

Concerns / Issues (e.g. site layout, neighborhood compatibility; visual impact, etc)	Policy/Ordinance Reference (If Known)	Suggested Changes - to address concerns (e.g. relocate; reduce height; move road access, etc)
New railing is effectively a wall as a result of the smaller openings resulting in obscuring the viewshed.		Widen the openings to the original width and height.
Safety versus historic design.		Maintain historic design while providing current safety standards.
Rebuild rather than replace.		Rebuild original design and find a method to meet current safety standards

ADDITIONAL LUAC COMMENTS

- County should re-evaluate project to meet historic design
- LUAC would like the County to consider returning to in-person meetings especially for site visits

RECOMMENDATION:

Motion by: Marcus Foster (LUAC Member's Name)

Second by: Dave Smiley (LUAC Member's Name)

X Support Project as proposed

___ Support Project with changes

___ Continue the Item

Reason for Continuance: _____

Continue to what date: _____

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RESOURCE MANAGEMENT AGENCY
LAND USE DIVISION

Ayes: Mary Trotter, Dave Smiley, Marcus Foster, Dick Ravich (4)

Noes: Steve Beck (1)

Absent: 0

Abstain: 0

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Exhibit I

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Supplemental Application Information
Garrapata Creek Bridge Rail Replacement Project (05-1H800)
Combined Coastal Development Permit Application (PLN2200090)
Submitted by Caltrans on August 15, 2022

1. Introduction

A link to the Garrapata Creek Bridge Rail replacement project website is contained below including answers to frequently asked questions:

https://dot.ca.gov/caltrans-near-me/district-5/district-5-current-projects/05-1h800

The list of Frequently Asked Questions (FAQs) and responses are included as Attachment 1.

2. Background and Project Purpose and Need

The project's purpose and need are provided below.

> *Project Purpose*
>
> *This project proposes to upgrade the existing nonstandard bridge railing to current standards in order to ensure the safety and reliability of Highway 1.*
>
> *Project Need*
>
> *The reinforced concrete barrier rail posts have deteriorated along 75% of the left and right barrier rail lengths. Severe cracking with unsound concrete and spalls with exposed rusted rebar have been documented in historic Bridge Inspection Reports.*

In the above purpose and need, "nonstandard" means that the existing bridge railing does not meet current required Caltrans' design standards (see below for details on the applicable design standards).

Specifically, the Garrapata Creek Bridge (No. 44-0018) located on State Route 1 (SR-1) in Monterey County is an open-spandrel arch-type bridge constructed in 1931, and seismically retrofitted in 1998. Currently, portions of the Superstructure and Substructure are undergoing Electrochemical Chloride Extraction, which will help restore the deteriorated concrete in these locations, concrete spall repair, painting of steel elements, and then undergo silane waterproofing treatment. In April 2021, The Caltrans' Headquarters Division of Maintenance-Office of Structure Maintenance and Investigations (SM&I) installed metal beam guardrail to the existing concrete baluster bridge rails as part of an emergency repair (see description of rail damage below).

This project proposes to replace the deteriorated nonstandard concrete baluster bridge rail and approach railing on this structure on both sides of the structure. The rail end posts and barrier rail exhibit fine pattern cracking and are severely deteriorated with concrete spalls resulting in exposed steel reinforcing bars due corrosion caused by exposure to salts in the air, in addition to impact damage.

SM&I is responsible for managing the department's transportation structures. This includes performing bridge inspections on over 26,000 State Highway bridges and bridges owned by local government agencies, making structure work repair recommendations, determining the safe load capacity of all bridges. According to the results of the 2021 Bridge Inspection Report (Attachment 2), the Garrapata Creek Bridge railing is in a "Condition State CS 3" or in a poor condition. The CS can rank range is between 1 – 4: 1=good; 2=fair; 3=poor and 4=severe. When the condition reaches CS4, Severe: "The condition warrants a structural review to determine the effect on strength or serviceability of the element or bridge." As a result of the conclusions of the inspection report(s), and the nature and extent of damage

to the railing, the railing has been deemed "damaged beyond repair" by Caltrans SM&I. Therefore, Caltrans has determined that full replacement of the railing is required.

As stated previously, metal beam guardrail was installed to the existing concrete baluster bridge rails as an emergency repair and they do not follow MASH-compliant Midwest Guardrail System standards which have been rigorously tested and approved.

3. Roles, Responsibilities, and Authority

Caltrans is a department of the California State Transportation Agency and has full possession and control of all state highways and all property and rights acquired for state highway purposes (Section 90, California Streets and Highways Code). Caltrans is authorized and directed to lay out and construct all state highways (Section 90, California Streets and Highways Code) and shall improve and maintain the state highways as provided in the California Streets and Highways Code (Section 91, California Streets and Highways Code). "Caltrans may do any act necessary, convenient or proper for the construction, improvement, maintenance or use of all highways which are under its jurisdiction, possession or control" (Section 92, California Streets and Highways Code). "Caltrans may restrict the use of, or close, any State highway whenever the department considers such closing or restriction of use necessary (Section 124, Streets and Highways Code):

(a) For the protection of the public.
(b) For the protection of such highway from damage during storms or during construction, improvement or maintenance operations thereon."

The Federal Highway Administration (FHWA) is an agency within the U.S. Department of Transportation that supports State and local governments in the design, construction, and maintenance of the Nation's highway system. Through financial and technical assistance, FHWA provides stewardship over the construction, maintenance, and preservation of the Nation's highways, bridges, and tunnels.

A. All-American Road and State Scenic Highway Designations

State Route 1 is designated as an All-American Road and designated as a State Scenic Highway. An All-American Road shall be maintained and operated by Caltrans consistent with the recommendations for context-sensitive design standards relative to aesthetics and safety that are contained in the corridor management plan submitted to the Federal Highway Administration (Section 121, Streets and Highways Code). In addition, for State Scenic Highways, Caltrans shall take into consideration the concept of the 'complete highway,' which is a highway which incorporates not only safety, utility, and economy but also beauty….and shall give special attention both to the impact of the highway on the landscape and to the highway's visual appearance (Section 261, Street and Highways Code).

The Big Sur Coast Highway Management Plan (BSCHMP) was developed in 2004 to serve as the corridor management plan for the All-American Road. The BSCHMP states: "The goal of the CHMP is fully consistent with the Department's priorities as stated in Section 167 of the Streets and Highways Code:

1. Operations, maintenance and rehabilitation of facilities
2. Safety improvements
3. Congestion relief
4. Environmental enhancement and mitigation

Caltrans "is acknowledged to have primary expertise, authority and commitment to pursue the first three priorities on behalf of the state's transportation system. While the Department is also fully committed to environmental enhancement and mitigation in fulfilling its mission and has considerable in-house expertise in this area, it recognizes that environmental resource protection is the primary mission other agencies. Therefore, the primary responsibility and authority for resource protection reside with other state and federal agencies. The Department can most effectively fulfill its responsibility for environmental resource protection through a well-established environmental review program for compliance with all applicable laws and regulations."[1]

Caltrans' design guidelines for historic bridges are contained within the *Guidelines for Corridor Aesthetics* in the *Big Sur Coast Highway Management Plan* as follows:

> *Historic Bridges*
>
> *The concrete arch bridges along Highway 1 are important features of the Carmel-San Simeon Highway Historic District and have been found eligible for listing in the National Register of Historic Places. These bridges, individually and as a cohesive group, are recognized internationally for their aesthetic qualities and engineering design excellence. However, the structures, now over 60* [92] *years old, require ongoing maintenance, repairs, and occasional major upgrades.*
>
> 1. *Should any structural modification be identified as a critical need (such as the seismic retrofit program in the 1990s), the visual design of historic bridges should be changed as little as possible. Necessary modifications should be designed visually as if these features had been incorporated in the bridges as originally constructed.*
>   *Note: The seismic retrofit of Bixby Creek bridge completed in the year 2000 exemplifies the value of this guideline and stands as a model for future modifications to Highway 1's historic bridges. The upgrade, which involved retrofitting the bridge deck as a continuous horizontal diaphragm, seamlessly blends the new and the old to leave the aesthetic integrity of the bridge intact.*
>
> 2. *Bridge rails on historic bridges should be repaired or reconstructed to replicate the original rails as closely as possible.*

B. Section 4(f)

Section 4(f) of the Department of Transportation Act of 1966, codified in federal law at 49 United States Code (USC) 303, declares that "it is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites." Section 4(f) specifies that the [United States] Secretary [of Transportation] may approve a transportation program or project . . . requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by the federal, state, or local officials having jurisdiction over the park, area, refuge, or site) only if:

- there is no prudent and feasible alternative to using that land; and

[1]California Department of Transportation. 2004. Big Sur Coast Highway Management Plan. March.

- the program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.

Section 4(f) properties include:

- Publicly-owned parks, recreational areas, or wildlife or waterfowl refuges; and
- Historic sites on or eligible for the National Register of Historic Places (NRHP) and archaeological sites on or eligible for the NRHP and which warrant preservation in place as determined by Caltrans and the official(s) with jurisdiction.

There are two historic properties located within the Area of Potential Effect (APE) for the Garrapata Creek Bridge Rail Replacement Project: the Garrapata Creek Bridge (Bridge No. 44-0018), which was determined eligible for the NRHP in 1986, and the Carmel-San Simeon Highway Historic District (CSSHHD), which was determined eligible for the NRHP in 1996 with State Historic Preservation Officer (SHPO) concurrence in 2003 and updates in 2006. The Garrapata Creek Bridge is also a contributing resource in the CSSHHD.

FHWA developed five nationwide programmatic evaluations for Section 4(f) properties that may be used for projects designed to improve operational characteristics, safety and/or the physical condition of an existing highway on essentially the same alignment:

- Minor Involvements with Parklands, Recreation Lands, and Wildlife and Waterfowl Refuges;
- Minor Involvements with Historic Sites;
- Historic Bridges;
- Bikeways and Walkways; and
- Net Benefit.

Each of the five programmatic evaluations has its own applicability criteria, alternatives, findings and coordination requirements. According to the Memorandum of Understanding (MOU) dated May 27, 2022 and executed between FHWA and Caltrans (Attachment 3), and 23 U.S.C. 327(a)(2)(B)(i), Caltrans is to assume the responsibility for an action under Section 4(f), 23 U.S.C. 138 and 49 U.S.C. 303 and FHWA's Section 4(f) Regulations at 23 CFR 774.

On April 29, 2021, Caltrans completed and approved a Programmatic Section 4(f) Evaluation for the project pursuant to FHWA's *Programmatic Section 4(f) Evaluation and Approval for FHWA Projects that Necessitate the Use of Historic Bridges* and Section 4(f) (Attachment 4). Caltrans has determined that there is no feasible and prudent avoidance alternative to the preferred alternative for the project, and made findings as such in the Programmatic Section 4(f) Evaluation. The Programmatic Section 4(f) Evaluation for the project is retained in the project file as a matter of public record and is contained in Attachment 5.

C. Summary

Under the FHWA Programmatic Section 4(f) for Historic Bridges (Attachment 4), coordination with the "official with jurisdiction over the Section 4(f) property" is required; no other agency coordination is required. In the case of historic properties, the "official with jurisdiction" is the SHPO for the state wherein the property is located. Caltrans completed compliance with Section 106 and Section 4(f)

through consultation with SHPO and through issuance of a Memorandum of Agreement with SHPO for the project.[2] Therefore, Caltrans has completed the Section 4(f) and Section 106 processes for the project.

In addition, in compliance with Sections 121 and 261 of the California Streets and Highways Code for All-American Roads and State Scenic Highways, through the design process, consultation with the SHPO, and continued public outreach and involvement, Caltrans continues to be committed to using context-sensitive design standards, and to follow the design guidelines for historic bridges identified in the *Guidelines for Corridor Aesthetics* in the *Big Sur Coast Highway Management Plan* to the maximum extent, while balancing the number one goal and mandate of Caltrans, to ensure public safety.

4. Applicable Design Standards

FHWA establishes design standards for the National Highway System. The FHWA has designated the following ten controlling criteria for projects on the National Highway System as comprehensive design standards which cover a multitude of design characteristics, allowing flexibility in application:

- Design Speed
- Lane Width
- Shoulder Width
- Horizontal Curve Radius
- Superelevation Rate
- Stopping Sight Distance
- Maximum Grade
- Cross Slope
- Vertical Clearance
- Design Loading Structural Capacity (non-geometric)"[3]

Caltrans establishes design standards for the State Highway System. Caltrans established design criteria and policies in the *Highway Design Manual* to provide a guide for the engineer to exercise sound judgement in applying standards. Caltrans' design standards revolve around FHWA's controlling criteria, however, they have evolved over time to more fully consider adjacent community values, local decisions making, and area context."[4] Caltrans does not have a "historical exemption" in its design standards nor does Caltrans have "historic preservation building standards."[5]

The American Association of State Highway and Transportation Officials (AASHTO) is a nonprofit, nonpartisan association representing highway and transportation departments in the 50 states, the District of Columbia, and Puerto Rico. AASHTO serves as a liaison between state departments of transportation and the Federal government. AASHTO is an international leader in setting technical standards for all phases of highway system development. Standards are issued for design, construction of highways and bridges, materials, and many other technical areas. AASHTO policies and standards, are established as nationwide standards, but do not always satisfy California conditions. When standards differ, the

[2] The Section 106 Programmatic Agreement among FHWA, SHPO, and Caltrans streamlines the required consultation processes for both Section 106 and Section 4(f).

[3] California Department of Transportation. 2020. *Highway Design Manual*. Section 82.1(3), Highway Design Manual Standards. Page 80-7. July 1.

[4] California Department of Transportation. 2020. *Highway Design Manual*. Section 81.6, Design Standards and Highway Context. Page 80-6. July 1.

[5] The California Building Code, including the California Historical Building Code (California Code of Regulations, Title 24), only applies to occupancies (i.e., occupied buildings or properties) in the State of California and does not govern the design standards of bridges on State Highway Systems.

instructions in the *Highway Design Manual* govern, except when necessary for FHWA project approval.[6] However, the proposed project is not among the types of projects requiring FHWA approval.

Section 208.10 of the *Highway Design Manual* addresses the design standards for bridge railing and stipulates that "The barrier separation type and the bridge rail selection requires approval by the District Traffic Engineer or designee."[7] In addition to the design standards in the Highway Design Manual, Design Information Bulletins establish policies and procedures for the various design specialties of the Department that are in the Division of Design. In 2019, Design Information Bulletin 79-04 states the following regarding bridge railing[8]:

> *3.2.8.3 Bridge Rail and Other Structure Improvements*
>
> *Departmental Policy (Structures Maintenance and Investigations Policy and Procedures Memo Number 2003.1) states that the upgrade of bridge rail classified as not meeting currently acceptable standards will be made on a Department-wide programmatic basis for all bridges on the State highway system. On 3R projects, bridge rail within the project limits that does not meet MASH 2016 criteria (or the latest crashworthiness criteria adopted by Caltrans) are to be identified during the project's Safety Screening and considered for upgrading or replacing by the project depending on district target levels and funding availability. This need should be identified early on during the project development process when scoping the 3R project. The Office of Structure Design Technical Liaison Engineer should be contacted to discuss the need, if any, to upgrade the bridge rails within the project limits and any other structure improvements identified in the Structures Replacement And Improvement Needs (STRAIN) Report.*

Caltrans' District Traffic Safety Engineers utilize the *Traffic Safety Systems Guidance* which states "At the time of publication, which is October 31, 2019, is when all bridge rails will be to MASH standard."[9]

The Manual for Assessing Safety Hardware (MASH) is a nationwide standard that was implemented by FHWA and AASHTO in 2009 and updated in 2016. MASH sets the standards for highway safety equipment, including bridge rails, guardrails, and other safety features. Newly adopted MASH standards have mandated that all new installations of roadside safety devices on high-speed roadways, including bridge railing, must meet a new higher standard for crash testing for all projects implemented. As of December 31st, 2019, Caltrans requires that bridge rails comply with MASH standards without exception. A copy of the 2019 MASH implementation memo is included as Attachment 6 and the following link provides more details on Caltrans' compliance with MASH standards: https://dot.ca.gov/programs/safety-programs/mash. The Caltrans' *Traffic Safety Systems Guidance* further states "In accordance with the MASH Implementation memo, once a large enough section of the existing system is damaged and requires a project to replace the system, only Caltrans approved MASH safety systems will be allowed on California State Highways."[10] Because State Route 1 is a two-lane highway with a posted speed limit of 55 miles per hour, the new bridge railing for the Garrapata Creek Bridge must meet the MASH crash test

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[6]California Department of Transportation. 2020. *Highway Design Manual*. Index 108.7, Coordination with the FHWA. Page 100-23. July 1.

[7] California Department of Transportation. 2020. *Highway Design Manual*. Section 208.10(2), Bridge Barriers and Railings. Page 200-50. July 1.

[8] California Department of Transportation. 2019. *Design Guidance and Standards for Major Pavement Roadway Rehabilitation Projects*. Design Bulletin 79-04. October 2.

[9] California Department of Transportation 2019. *Traffic Safety Systems Guidance*. Page 15. March.

[10] California Department of Transportation 2019. *Traffic Safety Systems Guidance*. Page 8. March.

level 4 (TL-4) design specifications as explained in more detail below under section 6, Design Constraints, below.

In a memo dated March 17, 2017 on *Clarification of Roles and Responsibilities in Implementing the American Association of State Highway and Transportation Officials (AASHTO)/Federal Highway Administration (FHWA) Joint Implementation Agreement on the AASHTO Manual for Assessing Safety Hardware (MASH)* (see Attachment 7), the memo states that the AASHTO Technical Committee for Roadside Safety (TCRS) will continue to be responsible for developing and maintaining the evaluation criteria adopted by AASHTO, FHWA will continue its role in issuing letters of eligibility of roadside safety hardware for federal-aid reimbursement, and the memo then states, "It is the States' responsibility to determine whether or not to use a particular hardware device and how to use it for their particular situation."

The Caltrans District 5 Traffic Safety Engineer has made the determination that he will not be recommending an exception to the MASH standard for the new bridge railing for the Garrapata Creek Bridge.

5. Alternatives Analysis

Though the project purpose is to replace the existing concrete baluster bridge rails and approach rails with new railing that meets current MASH standards, Caltrans is committed to choosing a new MASH-compliant railing that is context-sensitive and will be compatible with the historic character of the Garrapata Creek Bridge and the CSSHHD. Caltrans' Structures Design Engineers developed a new bridge rail that is designed specifically to replicate the design of the historic rails as closely as possible while also meeting the new MASH crashworthiness standards (the new Caltrans rail design Type 86H). Caltrans' design engineers, landscape architects, and architectural historians utilized a number of Caltrans and AASHTO guidance documents on historic preservation when considering and developing the proposed design for the Garrapata Creek Bridge railing. The ultimate design was also developed from extensive public comment, including from the Aesthetic Design Advisory Committee (ADAC) who selected the Type 86H design option (see more details under public outreach below). Great attention to detail has been given to the design to match the existing railing to the maximum extent possible. For example, in response to public input, 2-inch chamfers were added to the balusters to enhance public views through the openings between the balusters.

The proposed MASH-compliant TL-4 concrete baluster style bridge rail Type 86H has been crashed tested and has passed all required crash tests.

A. Development of Project Alternatives

On October 29, 2020, the following excerpted comments were received from Monterey County Historic Resources Review Board (HRRB) requesting the following information:

- *"An in-depth review and discussion with FHWA on consideration of historic architecture as a means to compliance with MASH and AASHTO standards;*
- *Details on the condition of the existing bridge rails, including photographic evidence;*
- *Review of Highway speeds and potential reduction of speed for each bridge as a means of providing flexibility in design solutions for reinforcement, replacement in kind, or design of the replacement rails (if needed); and*
- *A detailed discussion of why typical historic preservation building standards are not possible in this situation with documentation of efforts*

on coordination with FHWA and highway speeds."

As a result of these comments as well as other public comments received on the project, and in compliance with Section 4(f) requirements, Caltrans considered the following alternatives below. A summary of the public outreach completed on the project is also contained below.

B. Alternatives Considered but Eliminated from Further Discussion

Repair of the railing rather than replacement was not identified as a feasible alternative, because the railing was determined to be "damaged beyond repair" in Inspection Reports (as described above). In addition, any repairs would need to comply with MASH standards and would be required to be crash tested.

Installation of a façade or treatment that replicates the existing railing in front of a MASH-compliant railing was also not identified as a feasible alternative because there is not enough room on the bridge and would require widening of the bridge by at least two feet (see below).

Lowering the Speed Limit

At the request of the public as well as the Monterey County Historic Resources Review Board (HRRB), one alternative was evaluated to determine if State Route 1 could be reduced to a speed limit of 45 miles per hour rather than the existing speed limit of 55 miles per hour. If the roadway speed limit could be reduced to 45 miles per hour, a bridge railing following the Test Level 2 (TL-2) MASH standard could be installed versus a TL-4 MASH standard required for roadways posted at greater than 45 miles per hour. Specifically, a TL-2 MASH standard allows for construction of the Caltrans' standard C411 rail design. In an October 29, 2020 letter, the HRRB commented that the Caltrans' standard C411 rail design "appears to be the most consistent option at this time."

The California Vehicle Code establishes speed limits for roadways. California Vehicle Code Section 22349(b) sets the speed limit on a two-lane undivided highway at 55 miles per hour. However, California Vehicle Code Section 22358 establishes that Caltrans is responsible for setting speed limits on the State Highway System. California Vehicle Code Section 22354 allows Caltrans to reduce speed limits on the State Highway System by completing an "engineering and traffic survey" and based upon the results of this survey, making findings that the reduction in speed limit is "most appropriate to facilitate the orderly movement of traffic and is reasonable and safe" following the *California Manual for Setting Speed Limits*[11]. The *California Manual for Setting Speed Limits* states that the speed at which the 85th percentile of drivers is traveling should be used to establish the speed limit. Caltrans performed a speed survey for the Garrapata Creek Bridge and found that the 85th percentile of drivers are traveling at 58 miles per hour. The results of the speed survey are contained in Attachment 8 and frequently asked questions on how speed limits are set are contained in Attachment 9. Therefore, Caltrans cannot make findings to reduce the speed limit to 45 miles per hour at the Garrapata Creek Bridge. Furthermore, the 2020 *California Manual for Setting Speed Limits* cites studies (such as FHWA-RD-92-084 and FHWA-RD-98-154) that show that establishing a speed limit at less than the 85th percentile generally results in an increase in collision rates.

Two-Foot Widening of the Bridge and New Bridge Alignment

Widening of the shoulders on the Garrapata Creek Bridge by 2 feet on both sides was rejected by Caltrans due to engineering constraints. Construction of a new bridge on a new alignment in order to leave the historic structure in place was also rejected due to engineering constraints.

C. Alternatives Evaluated in the Project Environmental Impact Report

[11] California Department of Transportation. 2020. *California Manual for Setting Speed Limits.* Division of Traffic Operations. February.

Design Variation Using the Type C412 Railing

A second new rail design variation developed by the Texas Department of Transportation to replicate historic bridge rail designs (Type C412) was presented in the EIR for the project as a design option. However, since certification of the EIR, this design option has been rejected due to public comment at six Aesthetic Design Advisory Committee (ADAC) meetings held (see below for a summary of public outreach efforts).

6. Design Constraints

Bridge railings are designed to redirect a vehicle.[12] Per the MASH manual,[13] MASH TL-4 bridge rails must meet the following design specifications:

- The minimum bicycle railing height must be 42"; the minimum vehicular height must be 36"; and
- Clear openings in the bridge rail cannot let a 6" sphere pass through in the lower 27" of height, and cannot let an 8" sphere pass through above the 27" height.

FHWA's publication "Flexibility in Highway Design"[14] states that "When designing a bridge, designers can either choose to use a bridge railing that has already been designed and crash tested, or they can design a new one and have it crashed tested."[15] Based upon the required specifications above, Caltrans' Design Engineers and Caltrans Traffic Safety Engineers developed the Type 86H bridge railing to best approximate the appearance of the existing bridge railing while meeting the above requirements. The proposed rail design has several similarities with the original bridge rails: the overall height of the rails is 42 inches, the rails contain arched window openings, and the rails are composed of reinforced concrete. The differences in the rail design are in the dimensions of the balusters, window openings, base, and top rail. Since the open windows in baluster-style rails can be "catch points," where vehicles' bumpers can potentially catch on the rails, which could cause or worsen accidents, current safety standards require a higher base height, thickness, and top rail thickness to accommodate modern vehicle designs and speeds. The increased height of the base of the rails and at the base of the window openings provides the rail with the ability to withstand and deflect vehicle impacts. While the lines and shapes are similar in the proposed new rails, the arched window openings are shorter in height and narrower in width, and the balusters are wider and have greater thickness (depth).

The Type 86H rail would be constructed with reinforced concrete and steel reinforcement. An exact comparison of the dimensions of the proposed railing to the existing railing are presented in the table below (these details are also provided in Table 1-1 of the Final Environmental Impact Report for the project).

Element	Original Rail (in inches)	Type 86H (in inches)	Change in Appearance
Rail height	42"	42"	None
Arch window height (to top of arch)	20"	15.125" at traffic face of baluster; 16.125" at back side of baluster	Reduction in arch window height by 4.875" at traffic face & 3.875" at back side

[12] California Department of Transportation. 2019. *Traffic Systems Safety Guidance*. Page 13. March

[13] American Association of State Highway and Transportation Officials (AASHTO). 2016. *Manual for Assessing Safety Hardware*. Second Edition.

[14] California Department of Transportation. 2020. *Highway Design Manual*. Section 81.6, Design Standards and Highway Context. Page 80-6. July 1.

[15] Federal Highway Administration. No date. *Flexibility in Highway Design*. Chapter 7, Bridges and Other Major Structures. Page 101.

Arch window width	10” (squared edges)	6” (1.5” chamfered edges to increase view through window)	Reduction in arch window width by 4”
Baluster length (parallel to traffic)	6”	6”	No change
Baluster width (depth) transverse to traffic	5”	7.5”	Increase in baluster width by 2.5”
Base height of curb at traffic face	9”	18”	Increase in base height by 9”
Base width (depth) of baluster rail on bridge	21”	24.5”	Increase in base width by 3.5”
Height at base of arch windows (above bridge deck/Finish Grade [FG])	12”	18”	Increase in height of base at arch windows by 6”
Top rail height	9”	10”	Increase in top rail height by 1”
Top rail width (depth) transverse to traffic	10”	16.25”	Increase in top rail thickness by 6.25”

In order to meet MASH TL-4 criteria, Caltrans has determined that the proposed dimensions of the Type 86H railing are constrained by the required MASH specifications.

7. Design Opportunities

While the proposed dimensions of the Type 86H railing are required in order to meet MASH standards, the color of the railing can be flexible (i.e., the dye is used to generate the concrete color). It is the hope and intent of Caltrans to work with Monterey County staff and decision-making bodies, as well as the public, to determine the color that best preserves the visual character and historic significance of the railing. Initial visual simulations have been prepared to provide a starting point for discussions regarding color as shown in Attachment 10 along with a side-by-side cross section comparison of the existing and proposed railing detail contained in Attachment 11. Additional visual simulations can be generated based upon input and discussion in the upcoming public forums.

8. Summary of Public Outreach Efforts

Over the past two and a half years, Caltrans has conducted extensive public outreach to notify the public of the purpose and need for the project, and to solicit input on the design of the railing. This included formation of an Aesthetic Design Advisory Committee (ADAC) to solicit additional detailed comments from professionals in historic preservation. A summary of the efforts completed to date are provided below. In addition, Caltrans’ public outreach documentation is contained in Attachment 12 and the list of attendees at the ADAC meetings, the ADAC attendance record, and meeting notes are contained in Attachments 13, 14, and 15 respectively.

- Caltrans contacted The Monterey County Historic Resources Review Board (HRRB) for comment on the project on August 31st, 2020. The organization added the Garrapata Creek Bridge Rail Replacement Project (05-1H800) to their agenda for their October 1st, 2020 meeting. PQS Principal Architectural Historians Lindsay Kozub and Daniel Leckie both attended the meeting, presenting the project to the board and answering questions from the public. The board responded with concerns in regard to the project and will be drafting formal comments to be included in the public record in the near future.

- Caltrans PQS Principal Architectural Historian Daniel Leckie reached out to the following organizations by email and postal mail on August 31st , 2020 requesting comment by October 5th, 2020 and followed up with an email reminder about the approaching comment period deadline on September 21st, 2020.
    - The Historic Bridge Foundation: Executive Director Kitty Henderson responded to Caltrans request on September 21st, 2020 commenting that the organization did not have enough information about the project or resources within the APE to provide a comment. PQS Principal Architectural Historian Daniel Leckie spoke with Ms. Henderson on the phone and committed to providing more information about the project, forwarding the organization additional images, renderings, DPR 523 forms, and the Programmatic Agreement. To date Caltrans has not received any additional comment from this organization.
    - The Monterey County Historical Society: Executive Director James Perry responded to Caltrans' follow up request on September 22nd, 2020 expressing that the Historical Society did not have concerns with the project.
    - The Carmel Heritage Society: Caltrans has not received any comments from this organization to date.
    - The Big Sur Historical Society: Mary Trotter of the Big Sur Historical responded to the follow up request on September 28th, 2020 expressing concerns with the project.
- A Youtube video released in November 2020;
- The Draft EIR circulated for public comment and posted on the Caltrans' project website in November 2020;
- A Public Hearing was held on Draft EIR in December 2020;
- Over 70 comment letters were received on the Draft EIR for the project in January 2021;
- A Final EIR was certified and published on the Caltrans' website in May 2021 which included responses to public comments; and
- Aesthetic Design Advisory Committee (ADAC) was created comprising selected community and agency representatives who have an interest in the project's appearance; six design charrettes meetings were held from October 2021 to February 2022 (October 5, 2021; October 26, 2021, November 16, 2021, December 7, 2021, January 11, 2022, and February 22, 2022). A list of participants is contained in Attachment 13 and the attendance record is contained in Attachment 14).

List of Attachments

Attachment 1 Frequently Asked Questions (FAQs) for the Project
Attachment 2 2021 Bridge Inspection Report
Attachment 3 Section 4(f) MOU between Caltrans' and FHWA
Attachment 4 FHWA Programmatic Section 4(f) for Historic Bridges
Attachment 5 Programmatic Section 4(f) Evaluation for the Project
Attachment 6 2019 MASH Implementation Memo
Attachment 7 MASH Roles and Responsibilities Memo
Attachment 8 Speed Study Results
Attachment 9 FAQS on Setting Speed Limits
Attachment 10 Visual Simulations
Attachment 11 Visual Cross Section Comparison
Attachment 12 Caltrans' Public Outreach Documentation
Attachment 13 List of Participants in Aesthetic Design Advisory Committee (ADAC) Meetings
Attachment 14 ADAC Attendance Record
Attachment 15 ADAC Meeting Notes

Attachment 1
Frequently Asked Questions (FAQs) for the Project

Big Sur and Garrapata Creek Bridge Rail Replacement Project

Frequently Asked Questions

Why are there only two rail types available to choose from?

The design of the replacement bridge rails would be consistent with the character of the existing bridges and complement the aesthetics of the rural coastal setting. The replacement bridge rails would have slightly different dimensions than the existing rails. The new rails would be designed to match the existing visual character of the bridges and the corridor, but they would not be an exact in-kind replacement. Caltrans has developed a context sensitive MASH-compliant rail for the Garrapata bridge rail replacement and the historic Big Sur bridges.

An open-style bridge rail that maximizes openness to the greatest extent possible would be used and would include the smallest end blocks possible that meet safety needs. The intent is to balance respect for historic design themes with safety and the best of contemporary structural expression.

The Texas Department of Transportation has developed a MASH-compliant rail that Caltrans is evaluating for use within the state of California. The rail has successfully passed crash testing criteria and looks similar to the original Big Sur historic bridge rails.

Why can't the rail be replaced in kind or a Design Exception be granted?

The current MASH standards require more structural steel to withstand vehicular impacts, and require fewer snagging hazards for errant vehicles than the original rail that was designed in the 1930's. Also, current bicyclist standards require each clear opening between balusters to be narrower than those on the original rail. Further, the Guidelines for the Corridor Aesthetics element of the Coast Highway Management Plan state: "new... should be authentic in design, rather than emulate something they are not, i.e., historic bridges. At the same time, structural designers should recognize historic bridges for the quality of aesthetic and engineering excellence they represent and strive to match or exceed this quality in contemporary terms."

A Design Exception cannot be granted for this project as new safety hardware/equipment for projects cannot be approved regardless of context of the historic or aesthetic environment.

What other rail types were considered?

Caltrans will choose a new MASH-compliant railing that is both context sensitive and compatible with the historic and visual resources of the Big Sur bridges and the Carmel-San Simeon Highway Historic District. Bridge railings and barriers in the Coastal Zone present a distinct set of challenges, largely because of visual protections established by the Coastal Act as well as federal highway structural design standards. These challenges led to the development of Caltrans' and the California Coastal Commission's Bridge Rails and Barriers: A Reference Guide for Transportation Projects in the Coastal Zone. This guide was prepared as a tool to help stakeholders and participants in bridge and railing design better understand the options available

for potentially successful application in future projects within the Coastal Zone. While bridge rails that meet MASH compliance exist, Caltrans opted to develop one specific to the Big Sur historic bridge corridor that maximizes openness and the historic appeal.

What future opportunities will there be for the public to provide input on the two rail types?

In addition to the public outreach and subsequent comments received during the draft environmental document circulation and comment period, Caltrans is committing to present the two bridge rail options to the Big Sur community in the beginning of 2022. This will allow time for full testing and analysis of the bridge rails prior to their debut. From now until that time, Caltrans will investigate the best forum for the outreach event. This might be at an existing Big Sur Byway Organization meeting, a Big Sur Multi-Agency Advisory Council meeting, a Land Use Advisory meeting, or a one-time special event separate from these meetings. Furthermore, Caltrans will be soliciting input from the public on which rail type is preferred as well as input on bridge aesthetics related to rail color, rail opening dimensions and design. The public could also provide input during the coastal development permit process.

Why are the rails being replaced?

The existing railing on all six bridges no longer meet current state and federal safety standards. Furthermore, the existing bridge rails are displaying significant deterioration. The Manual for Assessing Safety Hardware (MASH), implemented as an agreement between the Federal Highway Administration and the American Association of State Highway Transportation Officials in 2009 (updated in 2016), sets the standards for highway safety equipment. MASH was subsequently implemented by the California Department of Transportation (Caltrans).

Can the speed limit be reduced?

No. Caltrans looked at the option of lowering the speed limit through the project area to 45 miles per hour to accommodate an in-kind bridge rail replacement. A speed zone survey of Highway 1 in the Garrapata Bridge area was completed in December 2019. The results of the survey showed 85 percent of vehicles were travelling at speeds above the posted 55 miles per hour speed limit. The analysis of the survey determined reducing the speed limit could not be justified.

For more information, please refer to Section 1.7.2 of the Big Sur Bridge Rail Replacement/Garrapata Creek Bridge Rail Replacement final environmental document.



Attachment 2
2021 Bridge Inspection Report

California Department of Transportation
Division of Maintenance

Structure Maintenance and Investigations

BRIDGE

INSPECTION

RECORDS

INFORMATION

SYSTEM

The requested documents have been generated by BIRIS.

These documents are the property of the California Department of Transportation and should be handled in accordance with Deputy Directive 55 and the State Administrative Manual.

Records for “Confidential” bridges may only be released outside the Department of Transportation upon execution of a confidentiality agreement.

BRIDGE INSPECTION REPORT
Routine Inspection

BRIDGE NO.:	STRUCTURE NAME:	INSPECTION DATE:
44 0018	**GARRAPATA CREEK**	**July 22, 2021**

BRIDGE LOCATION INFORMATION

(9) LOCATION	05-MON-001-62.97	(7) FACILITY CARRIED			STATE ROUTE 1
(11) POSTMILE	62.97	(6) FEATURE INTERSECTED			GARRAPATA CREEK
(16) LATITUDE	36°25'00.59"	(5) INVENTORY RTE(ON/UNDER)	ON		131000010
(17) LONGITUDE	121°54'50.18"	(104) ON NATIONAL HIGHWAY SYSTEM			NOT ON NHS

STRUCTURAL HEALTH CONDITION SUMMARY INFORMATION

(58) DECK	7 GOOD	DECK AREA (M)^2			731
(59) SUPERSTRUCTURE	5 FAIR	SUFFICIENCY RATING			48.3
(60) SUBSTRUCTURE	5 FAIR	PAINT CONDITION SUPER	N/A	SUBSTR	N/A
(62) CULVERT	N N/A (NBI)	STRUCTURALLY DEFICIENT (SD) STATUS			NOT SD
(67) STRUCTURE EVALUATION	5 ABOVE MIN TOLERABLE	(113) SCOUR			9 ON DRY LAND

PHOTOGRAPH IDENTIFICATION


Routine-Roadway View (07/24/2017)


Routine-Elevation View (07/24/2017)


Routine-Underside View (07/24/2017)



Routine-Map View (09/21/2021)

TEAM LEADER Chris V. Udarbe

REPORT AUTHOR Chris V. Udarbe

INSPECTED BY CV.Udarbe/AW.Corker

C. V. Udarbe — 10/19/2021

Chris V. Udarbe (Registered Civil Engineer) — Date

REGISTERED PROFESSIONAL ENGINEER
Chris V. Udarbe
No. 62985
Exp. 06/30/2022
CIVIL
STATE OF CALIFORNIA

STRUCTURE OVERVIEW

AGENCY INFORMATION

(1) STATE NAME	CALIFORNIA 069
(2) HIGHWAY DISTRICT	05
(3) COUNTY CODE	(44)MONTEREY
(4) PLACE CODE	(00000) _____
(21) MAINTAIN	01 STATE HIGHWAY AGENCY
(22) OWNER	01 STATE HIGHWAY AGENCY
(98) BORDER BRIDGE STATE CODE	N/A % SHARE N/A
(99) BORDER BRIDGE STRUCTURE NUMBER	N/A

INSPECTION INFORMATION

(90) INSPECTION DATE	07/21	(91) FREQUENCY	24 MO
(92) CRITICAL FEATURE INSPECTION		(93) CFI DATE	
A) FRACTURE CRITICAL INSP	N-NO	MO A)	N/A
B) UNDERWATER INSP	N-NO	MO B)	N/A
C) OTHER SPECIAL INSP	N-NO	MO C)	N/A

CONSTRUCTION INFORMATION

(27) YEAR BUILT	1931	(45) MAIN SPANS	1	(43a) STRUCTURE TYPE MAIN	2: CONCRETE CONT
(106) YEAR MODIFIED	N/A	(46) APPR SPANS	5	(43b) DESIGN TYPE MAIN	11: ARCH - DECK
(34) SKEW	0	(48) MAX SPAN (M)	45.9	(44a) STRUCTURE TYPE APPR	2: CONCRETE CONT
(49) LENGTH (M)	87	(35) STR FLARE	0-NO	(44b) DESIGN TYPE APPR	04: TEE BEAM
(112) NBIS BR LENGTH	Y	JOINTS	0	NO. OF HINGES	0

STRUCTURE DESCRIPTION

Original Structure (1931):
Approach Spans (Spans 1-4 and 6) - Simple RC T-beams (2) with RC deck on RC cap and RC column (2) bents with RC cap and RC column (2) abutments with a rubble masonry bulkhead at Abutment 7. Founded on spread footings.

Main Span (Span 5) - RC open-spandrel arch (2 ribs) supporting an RC T-girder (2) and RC deck with RC integral floor beams (8).

Repair (1980): Spall repair was conducted on various elements throughout the length of the structure. Additionally, all concrete surfaces below the deck soffit were cleaned and sealed.

Seismic Retrofit (1987): Longitudinal restrainer cables were installed between Bent 5 and Spandrel Column 1 as well as between Spandrel Column 8 and Bent 6.

Repair (1993): All concrete surfaces were cleaned and sealed (except the top surface of the deck and both bridge rails). Additionally, cracks were epoxy injected.

Seismic Retrofit (1998): The superstructure was post tensioned which included a partial removal of the original abutments (top section) and the addition of a new abutment support (RC anchor block) with CIDH piles at both abutment locations. A PTFE bearing was installed at the top of both columns at each abutment. The deck expansion joints throughout the length of the structure were fully grouted. The existing transverse restrainer cables at Bent 5 and 6 were removed. A transverse RC shear key wall was placed at Spandrel Columns 4 and 5 in Span 5 which included the placement of a PTFE bearing at the bottom of both columns at both location. A partial height RC column casing was placed on the top and bottom of both columns at Spandrel Columns 2. The arch rib strut at Spandrel Columns 3 and 6 was removed and replaced.

SPAN CONFIGURATION

4 @ 25.0 ft, 1 @ 150.5 ft, 1 @ 25.0 ft

OPERATIONAL INFORMATION

LOAD CAPACITY

(31) DESIGN LOAD	0 UNKNOWN	(65) CALC METHOD	8 LRFR RATING FACTOR
(66) INVENTORY RATING	RF= 0.77	(63) CALC METHOD	8 LRFR RATING FACTOR
(64) OPERATING RATING	RF= 1.00	(70) BRIDGE POSTING	5 AT/ABOVE LEGAL LOADS
(41) STRUCTURE STATUS	A-OPEN, NO RESTRICTION	PERMIT RATING	PPPPP
OVERLAY THICKNESS	1 inches		

POSTING LOADS

	Safe Loads	Existing Ordinance/Order	Posting Signs	
Type 3	Legal	N/A	N/A	U.S. Tons
Type 3S2	Legal	N/A	N/A	U.S. Tons
Type 3-3	Legal	N/A	N/A	U.S. Tons
Speed	55	N/A	N/A	MPH

Additional Ordinance/Order Requirements

NONE

Additional Signs

NONE

Posting Date N/A
Load Rating Summary Date 09/11/17
Load Rating Type Calculated
Load Rating Tool - Date BrR 6.8.2 AASHTO, Hand Calcs - 08/30/17

MINIMUM VERTICAL CLEARANCE

(53) MIN VERT CLEAR OVER BRIDGE RDWY		Unimpaired
(54) MIN VERT UNDERCLEAR REF	N-NOT H/RR	0.00 M

MINIMUM LATERAL UNDERCLEARANCE

(55) MIN LAT UNDERCLEAR RT REF	N-NOT H/RR	0.0 M
(56) MIN LAT UNDERCLEAR LT		0.0 M

CONDITION INFORMATION

INSPECTION COMMENTARY

SCOPE AND ACCESS
Water up to 6 inches deep was flowing under Span 5 during this inspection. No elements were in contact with water and a complete inspection was performed from the deck and ground. The superstructure and substructure elements were viewed with the assistance of binoculars while standing in the ravine beneath all spans of the structure as well as looking over either edge along the length of the bridge. A UBIT is required to conduct a close up inspection of the superstructure and substructure elements due to the height of the structure, the severity of the slope beneath the structure, as well as the presence of numerous spalls and delaminations throughout the structure.

A supplemental UBIT inspection was conducted on 09/01/2021 to more closely inspect the underside superstructure and substructure elements of the bridge as an extension of the routine inspection dated 07/22/2021. Access was provided by the UBIT (Aspen A-75), and in some locations binoculars were used as a visual aid. A complete inspection of these elements was performed. The UBIT was operated by Mr. Eric Trejo and deployed off the right side of the structure. See attached Photo 1. Lane closures and traffic control were provided by the District 5 Roadway Maintenance Crew. Additional findings from the previous 2018 UBIT inspection are documented in the 09/18/2018 Other - Partial Inspection Report and summarized in the report's attached Element Table.

MISCELLANEOUS
A routine map view of the bridge site is included with this report. See attached Photo 2.

SPECIAL INSPECTION INFORMATION

STEEL INVESTIGATION DETAILS - NOT APPLICABLE FOR THIS BRIDGE.

UNDERWATER INVESTIGATION DETAILS - NOT APPLICABLE FOR THIS BRIDGE.

DECK AND ROADWAY

DECK CROSS SECTION

1.00 ft br, 0.75 ft cu, 24.00 ft, 0.75 ft cu, 1.00 ft br

DECK GEOMETRY

(49)	LENGTH	87.0 M
(51)	NET WIDTH	7.3 M
(52)	TOTAL WIDTH	8.4 M
(50)	CURB OR SIDEWALK	LEFT 0.2 M RIGHT 0.2 M
(32)	APPROACH RDWY WIDTH	7.3 M
(33)	BRIDGE MEDIAN	0 NO MEDIAN

DECK STRUCTURE INFORMATION

(107)	DECK STRUCTURE TYPE	1-CIP CONCRETE
(108)	WEARING SURFACE / PROTECTIVE SYSTEM	
A)	TYPE OF WEARING SURFACE	2-INTEGRAL CONC.
B)	TYPE OF MEMBRANE	0-NONE
C)	TYPE OF DECK PROTECTION	0-NONE
	OVERLAY THICKNESS (inches)	1 inches
(29)	AVERAGE DAILY TRAFFIC	4300
(30)	YEAR OF ADT 2009	(109) TRUCK ADT % 0 %
(19)	BYPASS, DETOUR LENGTH	199 KM
(114)	FUTURE ADT	3124
(115)	YEAR OF FUTURE ADT	2041
(37)	HISTORICAL SIGNIFICANCE	2: ELIGIBLE FOR NRHP

DECK ROADWAY/OPERATIONAL INFORMATION

(42a)	TYPE OF SERVICE	1-HIGHWAY
(12)	BASE HIGHWAY NETWORK	1-PART OF NET
(13)	LRS INVENTORY RTE & SUBRTE	000000000101
(104)	NATIONAL HIGHWAY SYSTEM	0-NOT ON NHS
(26)	FUNCTIONAL CLASS	06-MINOR ARTERIAL RURAL
(100)	DEFENSE HIGHWAY	0-NOT STRAHNET
(101)	PARALLEL STRUCTURE	N-NONE EXISTS
(102)	DIRECTION OF TRAFFIC	2-2 WAY
(10)	INVENTORY ROUTE MIN VERT CLEAR	99.99 M
(47)	INVENTORY ROUTE TOTAL HORIZ CLEAR	7.3 M
(68)	DECK GEOMETRY	2 INTOLERABLE - REPLACE
(72)	APPR ROADWAY ALIGN	8 EQUAL DESIRABLE CRIT
(105)	FEDERAL LANDS HWY	0-NOT APPLICABLE
(110)	DESIGNATED NATIONAL NETWORK	0-NOT ON NET
(20)	TOLL	3-ON FREE ROAD
(28a)	LANES	2
	SPEED	55
(103)	TEMPORARY STRUCTURE	N/A

DECK ELEMENT INSPECTION RATINGS AND NOTES

(58) DECK RATING = 7

Elem No.	Defect/ Prot	Defect	Element Description	Env	Total Qty	Units	Qty in each Condition State CS 1	CS 2	CS 3	CS 4
16			**Top Flange-RC**	2	731	sq.m	723	8	0	0
	1080		**Delamination/Spall/Patched Area**	2	4		0	4	0	0
	1130		**Cracking (RC and Other)**	2	4		0	4	0	0
	511		**Deck Wearing Surface-Concrete**	2	663	sq.m	663	0	0	0
	521		**Concrete Coat.(Meth/Paint/Seal)**	2	663	sq.m	0	0	0	663
		3540	**Effectiveness-(Concrete PC)**	2	663		0	0	0	663

(16) Top Flange-RC

There are numerous repaired spalls and spalls with exposed rebar throughout the top flange. The general locations of these conditions are documented on the Deterioration Table attached to the 06/08/2011 Partial Bridge Inspection Report, which provides detailed information as to the exact location and size of each individual condition.

(16-1080) Delamination/Spall/Patched Area

There are patched corner spalls up to 8 inches in diameter x 1 inch deep at the left overhangs of Spans 5 and 6. See Photo 2 from the 09/18/2018 Other Inspection Report. (Quantity = 1 SM x 3 locations = 3 SM)

There is a corner spall (24 inches x 6 inches x up to 6 inches deep) with exposed rebar at the left overhangs of Span 4 approximately 10 feet from Bent 5. See Photo 3 from the 09/18/2018 Other Inspection Report. (Quantity = 1 SM, CS3)

(16-1130) Cracking (RC and Other)

There are 4 transverse soffit cracks which extend from Girder 1 to Girder 2. Two of the cracks are located in Span 1, a crack is located in Span 5 (main span) between Spandrel Columns 2 and 3, and a crack is located in Span 6. The cracks appear to have been epoxy injected. Refer to General Plan Sheets 1 and 2 as well as the Deterioration Table attached to the 06/08/2011 Other - Partial Inspection Report for additional information on these cracks. These conditions have not significantly changed when compared to Photos 1, 33 and 52, from the 06/08/2011 Other Report. (Quantity = 1 SM x 4 locations = 4 SM)

DECK ELEMENT INSPECTION RATINGS AND NOTES

(58) DECK RATING = 7

Elem No.	Defect/ Prot	Defect	Element Description	Env	Total Qty	Units	Qty in each Condition State CS 1	CS 2	CS 3	CS 4

(16-511) Deck Wearing Surface-Concrete

A polyester concrete overlay was placed on the deck in 2019 under Project EA 05-1H6604.

There were no significant defects noted.

(16-521-3540) Effectiveness-(Concrete PC)

The concrete sealant applied to the soffit (project EA 05-34440, 1993) is assumed to no longer be effective. It is believed that concrete sealant products are typically effective for approximately 15 years from the date of application. No corrective action required at this time. (Quantity = 100% of total)

JOINT - APPROACH - RAIL

RAIL INFORMATION

(36a) Rail Code 0 (36b) Transition 0 (36c) Appr Guardrail 0 (36d) Appr Guardrail End 0 Roadway Speed 55 MPH

JOINT/APPROACH/RAIL ELEMENT INSPECTION RATINGS AND NOTES

Elem No.	Defect/ Prot	Defect	Element Description	Env	Total Qty	Units	Qty in each Condition State CS 1	CS 2	CS 3	CS 4
331			**Railing-RC**	3	174	m	43	0	131	0
	1080		**Delamination/Spall/Patched Area**	3	131		0	0	131	0

(331) Railing-RC

There is thrie beam railing installed at the interior face of both bridge rails. This rail is intended as a temporary measure until the extensive rail deterioration is mitigated or the rail is replaced. See attached Photo 3.

(331-1080) Delamination/Spall/Patched Area

There are incipient spalls and shallow spalls (less than 1 inch deep) with exposed rebar throughout both bridge rails (interior/exterior faces) which typically measure 3-6 inches wide x 6-18 inches long. This condition has not significantly changed when compared to Photos 7 and 8 from the 07/22/15 BIR. This condition is predominantly located at the balusters. The 2009 Work Recommendation to rehabilitate the rails is still valid. (Quantity = 75% of the total)

JOINT/RAIL PHOTOGRAPHS



Photo 3
Thrie beam installation at the interior of both bridge rails (shown from Abut. 1, right).

SUPERSTRUCTURE

SUPERSTRUCTURE ELEMENT INSPECTION RATINGS AND NOTES

(59) SUPERSTRUCTURE RATING = 5

Elem No.	Defect/ Prot	Defect	Element Description	Env	Total Qty	Units	Qty in each Condition State CS 1	CS 2	CS 3	CS 4
110			**Girder/Beam-RC**	3	174	m	163	5	6	0
	1080		**Delamination/Spall/Patched Area**	3	6		0	0	6	0

SUPERSTRUCTURE

SUPERSTRUCTURE ELEMENT INSPECTION RATINGS AND NOTES

(59) SUPERSTRUCTURE RATING = 5

Elem No.	Defect/ Prot	Defect	Element Description	Env	Total Qty	Units	Qty in each Condition State CS 1	CS 2	CS 3	CS 4
	1130		**Cracking (RC and Other)**	3	5		0	5	0	0
	521		**Concrete Coat.(Meth/Paint/Seal)**	3	281	sq.m	0	0	0	281
		3540	**Effectiveness-(Concrete PC)**	3	281		0	0	0	281

(110-1080) Delamination/Spall/Patched Area

There is delamination, sound patches, and failed patches located in Girder 1 (Span 5) and Girder 2 (Spans 2, 4, and 5). See Photos 4-8 from the 09/18/2018 Other - Partial Inspection Report.

The 2013 Work Recommendation to rehabilitate the superstructure elements is still valid. (Quantity = 6 SM)

(110-1130) Cracking (RC and Other)

There are vertical to diagonal cracks up to 0.03 inch wide in Girder 2 (Span 2) in the right face at the base of the corbel at Bent 3.

There are vertical to diagonal cracks up to 0.03 inch wide in Girder 2 (Bent 5) in the right face near the top of the corbel at Bent 5.

There are vertical to diagonal cracks up to 0.01 inch wide in Girder 2 (Span 5) in the right face near the base of the corbel at Spandrel Column 5.

There are vertical to diagonal cracks up to 0.01 inch wide in Girder 2 (Span 5) in the right face near the top of the corbel at Spandrel Column 7.

There are vertical to diagonal cracks up to 0.01 inch wide in Girder 2 (Span 5) at Spandrel Column 7.

Additionally, refer to Items 90, 91, and 94-96 of the Deterioration Table (Page 5) of the 09/18/2018 Other - Partial Inspection Report, for the general locations and detailed information of these conditions. No corrective action required at this time. (Quantity = 1 LM x 5 locations = 5 LM)

(110-521-3540) Effectiveness-(Concrete PC)

The concrete sealant applied to both girders (project EA 05-34440, 1993) is assumed to no longer be effective. It is believed that concrete sealant products are typically effective for approximately 15 years from the date of application. No corrective action required at this time. (Quantity = 100% of total)

Elem No.	Defect/ Prot	Defect	Element Description	Env	Total Qty	Units	Qty in each Condition State CS 1	CS 2	CS 3	CS 4
144			**Arch-RC**	3	92	m	76	2	14	0
	1080		**Delamination/Spall/Patched Area**	3	14		0	0	14	0
	1130		**Cracking (RC and Other)**	3	2		0	2	0	0
	521		**Concrete Coat.(Meth/Paint/Seal)**	3	847	sq.m	0	0	0	847
		3540	**Effectiveness-(Concrete PC)**	3	847		0	0	0	847

(144) Arch-RC

There are numerous delaminations, sound patches and failed patches throughout the arch elements (spandrel columns, ribs, diaphragms). The general locations of these conditions are documented on the Deterioration Tables (Pages 1-8) of the 09/18/2018 Other - Partial Inspection Report, which provide detailed information as to the exact location and size of each individual condition. The appropriate ELI defects have been updated accordingly.

Concrete core samples were taken from the deck and arch ribs in April of 2012 and analyzed for chloride content. The tests revealed chlorides have reached a level of 18.9 LB/CY in the deck and 10.63 LB/CY in the arch ribs; which indicate active corrosion between the depths of 0-2 inches. Additionally, the tests revealed chlorides have reached a level of 2.5 LB/CY in the deck and 3.23 LB/CY in the arch ribs; which indicate corrosion has initiated between the depths of 2-3 inches. For additional information regarding the core sample test results and locations the samples were taken, refer to the 07/29/2013 BIR.

SUPERSTRUCTURE

SUPERSTRUCTURE ELEMENT INSPECTION RATINGS AND NOTES

(59) SUPERSTRUCTURE RATING = 5

Elem No.	Defect/ Prot	Defect	Element Description	Env	Total Qty	Units	Qty in each Condition State CS 1	CS 2	CS 3	CS 4

(144-1080) Delamination/Spall/Patched Area

There is a corner spall (2 feet long x 3 inches x 3 inches) with exposed rebar at the upstation and right faces of Column 1 of Spandrel Bent 1. See attached Photo 4.

There is a delamination (3.5 feet long x 18 inches) at the left face of the right arch rib adjacent to Spandrel Column 4. See attached Photo 5.

There is a delamination (3.5 feet long x 18 inches) at the right face of the left arch rib adjacent to Spandrel Column 4. See attached Photo 6.

The following previously identified defects represent the typical (worst case) conditions recorded in the Deterioration Tables from the 09/18/2018 Other - Partial Inspection Report.

There is a delamination (10 inch diameter) within a sound patched area (36 inches x 12 inches) at the top of the left rib between Column 1 of Spandrel Bent 5 and Column 1 of Spandrel Bent 6. See Photo 9 from the 09/18/2018 Other - Partial Inspection Report.

There is a spall (72 inches x 12 inches x 3 inches) with exposed rebar at the left upstation corner of Column 1 of Spandrel Bent 2. See Photo 10 from the 09/18/2018 Other - Partial Inspection Report.

There is a failed patch (48 inches x 10 inches) with exposed rebar at the left upstation corner of Column 7 of Spandrel Bent 2. See Photo 11 from the 09/18/2018 Other - Partial Inspection Report.

There is a delamination (48 inches x 3 inches x 18 inches) with exposed rebar at the top of the arch 3 feet from Column 4 of Spandrel Bent 2. See Photo 12 from the 09/18/2018 Other - Partial Inspection Report.

There is a delamination (48 inches x 6 inches x 3 inches) with exposed rebar at the top of the arch midway between Column 2 of Spandrel Bent 2 and Column 3 of Spandrel Bent 2. See Photo 13 from the 09/18/2018 Other - Partial Inspection Report.

Generally, the extent of these conditions have not significantly changed when compared with Photos 1-52 from the 06/08/2011 BIR. The 2013 Work Recommendation to repair and patch these defects is still valid. (Quantity = 15% of the total)

(144-1130) Cracking (RC and Other)

There is pattern cracking up to 0.02 inch wide, spaced 3-6 inches apart, throughout the bottom 4 feet of both columns at Spandrel Bent 2. This condition has not significantly changed when compared to Photo 31 from the 06/082011 BIR. No corrective action warranted at this time.

Refer to General Plan Sheets 1 and 2 as well as the Deterioration Table attached to the 6/8/2011 Other - Partial Inspection Report. (Quantity = 1 LM * 2 Locations = 2 LM)

(144-521-3540) Effectiveness-(Concrete PC)

The concrete sealant applied to the arch elements (arch ribs, struts, and spandrel columns) under project EA 05-34440 in 1993, is assumed to no longer be effective. It is believed that concrete sealant products are typically effective for approximately 15 years from the date of application. No corrective action required at this time. (Quantity = 100% of total)

155		**Floor Beam-RC**	2	41	m	40	1	0	0
	1080	**Delamination/Spall/Patched Area**	2	1		0	1	0	0
	521	**Concrete Coat.(Meth/Paint/Seal)**	2	54	sq.m	0	0	0	54
		3540 Effectiveness-(Concrete PC)	2	54		0	0	0	54

(155) Floor Beam-RC

This element is for the floor beams throughout Span 5.

(155-1080) Delamination/Spall/Patched Area

There is a corner delamination (36 inches x 3 inches x 3 inches) at the bottom of the downstation face of the floor beam at Bent 4. See Photo 14 from the 09/18/2018 Other - Partial Inspection Report.

The 2013 Work Recommendation to rehabilitate the superstructure elements is still valid. (Quantity = 1 SM)

(155-521-3540) Effectiveness-(Concrete PC)

The concrete sealant applied to the floor beams throughout Span 5, under project EA 05-34440 in 1993, is assumed to no longer be effective. It is believed that concrete sealant products are typically effective for approximately 15 years from the date of application. No corrective action required at this time. (Quantity = 100% of total)

SUPERSTRUCTURE

SUPERSTRUCTURE ELEMENT INSPECTION RATINGS AND NOTES

(59) SUPERSTRUCTURE RATING = 5

Elem No.	Defect/ Prot	Defect	Element Description	Env	Total Qty	Units	Qty in each Condition State CS 1	CS 2	CS 3	CS 4
310			**Bearing-Elastomeric**	2	8	each	8	0	0	0

(310) Bearing-Elastomeric

This element is for the elastomeric bearings at Spandrel Bents 4 and 5 and Abutments 1 and 7. (Quantity = 2 at each location x 4 locations = 8 total)

The left elastomeric pad at Abutment 1 has minor cracking and both elastomeric pads at Abutment 1 have a slight bulge. This condition has not significantly changed when compared to Photo 4 from the 07/24/2017 BIR. No corrective action required at this time.

There were no other significant defects noted.

315			**Bearing-Disk**	2	8	each	0	8	0	0
	1000		**Corrosion**	2	8		0	8	0	0

(315) Bearing-Disk

This element is for the PTFE bearings at Spandrel Bents 4 and 5 and Abutments 1 and 7. (Quantity = 2 at each location x 4 locations = 8 total)

(315-1000) Corrosion

The PTFE bearings which are located at Spandrel Bents 4 and 5 as well as Abutments 1 and 7 (2 at each location) have blanket rust along the edges of the steel plates. This condition has not significantly changed when compared to Photos 53 and 54 from the 06/08/2011 BIR.

No corrective action warranted at this time. (Quantity = 8 Bearings)

SUPERSTRUCTURE PHOTOGRAPHS



Photo 4
Corner spall at the upstation and right faces of Column 1 of Spandrel Bent 1.



Photo 5
Delamination at the left face of the right arch rib adjacent to Spandrel Column 4.



Photo 6
Delamination at the right face of the left arch rib adjacent to Spandrel Column 4.



Photo 7
Spall with exposed rebar on the left face of Column 2 at Bent 5.

SUBSTRUCTURE

DESCRIPTION UNDER STRUCTURE

(42b) TYPE OF SERVICE UNDER	5-WATERWAY	(38) NAVIGATION CONTROL	0: NO CONTROL
(69) UNDERCLEARANCES V - H	N NOT APPLICABLE (NBI)	(111) PIER PROTECTION	**N/A**
(71) WATER ADEQUACY	9 ABOVE DESIRABLE	(39) NAVIGATION VERTICAL CLEARANCE	0.0 M
(61) CHANNEL PROTECTION	6 BANK SLUMPING	(116) VERT-LIFT BRIDGE NAV MIN VERTICAL CLEAR	M
(113) SCOUR	9 ON DRY LAND	(40) NAVIGATION HORIZONTAL CLEARANCE	0.0 M
SCOUR POA DATE	N/A		

CHANNEL DESCRIPTION

Deep and narrow bedrock channel with steep gradient and non-cohesive (sand, gravel, and bedrock) soils with heavily vegetated embankments.

SUBSTRUCTURE ELEMENT INSPECTION RATINGS AND NOTES

(60) SUBSTRUCTURE RATING = 5

Elem No.	Defect/ Prot	Defect	Element Description	Env	Total Qty	Units	Qty in each Condition State CS 1	CS 2	CS 3	CS 4
205			**Column-RC**	3	14	each	5	0	9	0
	1080		**Delamination/Spall/Patched Area**	3	9		0	0	9	0
	521		**Concrete Coat.(Meth/Paint/Seal)**	3	176	sq.m	0	0	0	176

SUBSTRUCTURE

SUBSTRUCTURE ELEMENT INSPECTION RATINGS AND NOTES

(60) SUBSTRUCTURE RATING = 5

Elem No.	Defect/ Prot	Element Description	Env	Total Qty	Units	Qty in each Condition State CS 1	CS 2	CS 3	CS 4
	3540	**Effectiveness-(Concrete PC)**	3	176		0	0	0	176

(205) Column-RC

There are numerous spalls and incipient spalls throughout the substructure (column) elements. The general locations of these conditions are documented on the Deterioration Tables (Pages 1-8) of the 09/18/2018 Other - Partial Inspection Report, which provides detailed information as to the exact location and size of each individual condition.

There is pattern cracking up to 0.010 inch wide, spaced 3-6 inches apart, throughout the recast section (bottom 4 feet) of both columns at Spandrel Bent 2. The cracked areas were tapped with a hammer and found to be sound. No corrective action is required at this time. (Non-recordable defect)

(205-1080) Delamination/Spall/Patched Area

There are delaminations, spalls, and failed patched areas throughout several of the columns at each bent. The locations and extent of these defects are documented on General Plan Sheets 1 and 2 and the Deterioration Table attached to the 06/08/2011 Other - Partial Inspection Report.

Items 3, 4, 5, 6, 10, 12, 19, and 21 (incipient spall defects), previously identified in the Deterioration Table attached to the 06/08/2011 Other - Partial Inspection Report, have now progressed (within the same general limits) to be spalls with exposed rebar. See Photos 15-19 from the 09/18/2018 Other - Partial Inspection Report.

Generally, the extent of the remaining conditions have not significantly changed when compared with Photos 1-52 from the 06/08/2011 Other - Partial Inspection Report and Photos 15 and 19 from the 09/18/2018 Other - Partial Inspection Report. The 2013 Work Recommendation to repair and patch these defects is still valid. (Quantity = 9 Columns)

Additionally, a spall (15 inches x 12 inches x 1 inch deep) with exposed rebar on the left face of Column 2 at Bent 5, approximately 12 feet below the horizontal column bracing, was observed. See attached Photo 7. (Co-located defect)

(205-521-3540) Effectiveness-(Concrete PC)

The concrete sealant applied to the bent and abutment columns (project EA 05-34440, 1993) is assumed to no longer be effective. It is believed that concrete sealant products are typically effective for approximately 15 years from the date of application. No corrective action required at this time. (Quantity = 100% of total)

217		**Abutment-Masonry**	2	8	m	8	0	0	0

(217) Abutment-Masonry

This element is for the rubble masonry bulkhead at Abutment 7.

There were no significant defects noted.

220		**Pile Cap/Footing-RC**	2	17	m	16	1	0	0
	1130	**Cracking (RC and Other)**	2	1		0	1	0	0

(220) Pile Cap/Footing-RC

This element is for the exposed RC pile cap/anchor block at both abutments. These elements act as the support/abutment at each location and measures 28 feet wide per the As-built plans.

(220-1130) Cracking (RC and Other)

There are longitudinal and transverse cracks up to 0.03 inch wide, spaced 1-2 feet apart. These cracks typically extend 2-6 feet in length and are in the top surface of the anchor block/pile cap at Abutment 1 throughout the right wheel line of the northbound lane. This condition has not significantly changed when compared with Photo 5 from the 07/22/15 BIR. No corrective action required at this time. (Quantity = 1 LM)

234		**Pier Cap-RC**	2	36	m	36	0	0	0
	521	**Concrete Coat.(Meth/Paint/Seal)**	2	40	sq.m	0	0	0	40
	3540	**Effectiveness-(Concrete PC)**	2	40		0	0	0	40

(234) Pier Cap-RC

This element is for the pier cap at each bent and both abutments.

There were no significant defects noted.

(234-521-3540) Effectiveness-(Concrete PC)

The concrete sealant applied to the pier cap at each bent and at both abutments (project EA 05-34440, 1993) is assumed to no longer be effective. It is believed that concrete sealant products are typically effective for approximately 15 years from the date of application. (Quantity = 100% of total)

SUBSTRUCTURE

SUBSTRUCTURE ELEMENT INSPECTION RATINGS AND NOTES

(60) SUBSTRUCTURE RATING = 5

Elem No.	Defect/ Prot	Defect	Element Description	Env	Total Qty	Units	Qty in each Condition State CS 1	CS 2	CS 3	CS 4
252			**Pile-CIDH**	2	1	ea.	1	0	0	0

(252) Pile-CIDH

The pile element is included to indicate the presence of piles on this structure. The piles were not exposed for visual inspection. No indication of pile distress was noted in any substructure element.

Elem No.	Defect/ Prot	Defect	Element Description	Env	Total Qty	Units	Qty in each Condition State CS 1	CS 2	CS 3	CS 4
256			**Slope Protection**	2	1	ea.	1	0	0	0

(256) Slope Protection

This element is for the concrete sack slope protection at Abutment 1.

There were no significant defects noted.

OTHER PHOTOGRAPHS



Photo 1
UBIT deployment off of the right side of structure (NB lane).



Photo 2

WORK RECOMMENDATIONS

DECK WORK RECOMMENDATIONS - NONE

JOINT/APPR/RAIL WORK RECOMMENDATIONS

Rec Date	09/25/2009	Work By	BRIDGE CREW	Est Cost	$15,600	Dist Target	
Status	LONG LEAD	Action	Railing-Rehab	Str Target	2 YEARS	EA	1H800

Remove any unsound concrete from the delaminated and spalled areas throughout both bridge rails. Clean and paint any exposed steel and patch or recast the resulting spalled areas.

Rec Date	02/10/1984	Work By	SHOPP	Est Cost	$324,720	Dist Target	
Status	LONG LEAD	Action	Railing-Upgrade	Str Target	2 YEARS	EA	1H800

F1-03 / F2-0 / F3-0 / Rail Type-C.WIN

SUPERSTRUCTURE WORK RECOMMENDATIONS

Rec Date	07/29/2013	Work By	SHOPP	Est Cost	$4,190,000	Dist Target	
Status	AWARDED	Action	Super-Rehab	Str Target	4 YEARS	EA	1H460

Remove any unsound concrete from the superstructure and substructure elements. Patch the resulting spalled areas including galvanic anodes.

Conduct corrosion mitigation on all superstructure and substructure elements. The results of EA 05-1A890 will aid in determining what mitigation process will be utilized. Following the corrosion mitigation these elements are to have a sealant (silane) applied to them.

Scaffolding - 150 [$/SF of deck area] * 6,852 = 1,027,800
Spall repair - 180 [$/SF] * (72+ 650) [UBIT inspection + 0.5 of bottom of arch ribs] * 1.25 [factor of safety] = 162,450
Galvanic Anodes - 60 [$/SF spalled area] * (72 + 650) * 1.25 = 54,150
Corrosion Mitigation - 108 [$/SF] * 25,164 = 2,717,715
Silane - 9 [$/SF] * 25,164 = 226,475
Total = 4,188,600 ~ 4,190,000

SUBSTRUCTURE WORK RECOMMENDATIONS - NONE

OTHER WORK RECOMMENDATIONS - NONE



Photo No. 1
UBIT deployment off of the right side of structure (NB lane).



Photo No. 3
Thrie beam installation at the interior of both bridge rails (shown from Abut. 1, right).



Photo No. 4
Corner spall at the upstation and right faces of Column 1 of Spandrel Bent 1.



Photo No. 5
Delamination at the left face of the right arch rib adjacent to Spandrel Column 4.



Photo No. 6
Delamination at the right face of the left arch rib adjacent to Spandrel Column 4.



Photo No. 7
Spall with exposed rebar on the left face of Column 2 at Bent 5.

Attachment 3
Section 4(f) MOU between Caltrans' and FHWA

MEMORANDUM OF UNDERSTANDING BETWEEN THE FEDERAL HIGHWAY ADMINISTRATION AND THE CALIFORNIA DEPARTMENT OF TRANSPORTATION CONCERNING THE STATE OF CALIFORNIA'S PARTICIPATION IN THE SURFACE TRANSPORTATION PROJECT DELIVERY PROGRAM PURSUANT TO 23 U.S.C. 327

THIS MEMORANDUM OF UNDERSTANDING (hereinafter "MOU"), made and entered into by and between the FEDERAL HIGHWAY ADMINISTRATION (hereinafter "FHWA"), an administration in the UNITED STATES DEPARTMENT OF TRANSPORTATION (hereinafter "USDOT"), and the CALIFORNIA DEPARTMENT OF TRANSPORTATION (hereinafter "Caltrans"), a department of the State of California, hereby provides as follows:

WITNESSETH:

Whereas, Section 327 of Title 23 of the U.S. Code (U.S.C.) establishes the Surface Transportation Project Delivery Program (hereafter "Program") that allows the Secretary of the United States Department of Transportation (hereafter "USDOT Secretary") to assign and States to assume the USDOT Secretary's responsibilities under the National Environmental Policy Act of 1969 (42 U.S.C. 4321, et seq.) (hereafter "NEPA"), and all or part of the USDOT Secretary's responsibilities for environmental review, consultation, or other actions required under any Federal environmental law with respect to highway public transportation, railroad, and multimodal projects within the State; and

Whereas, the Program was initially established as a pilot called the Surface Transportation Project Delivery Pilot Program (hereafter "Pilot Program") by the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (Pub. L. 109-59 [Aug. 10, 2005]) (hereinafter "SAFETEA-LU") with a termination date that was six years after the date of enactment of SAFETEA-LU; and

Whereas, the Pilot Program was codified at 23 U.S.C. 327; and

Whereas, Section 1313 of the Moving Ahead for Progress in the 21st Century Act (Pub. L. 112-141) (2012) amended Section 327, making the Pilot Program permanent and changing the name to the Program; and

Whereas, Sections 1308 and 1446 of the Fixing America's Surface Transportation (FAST) Act (Pub. 114-94) (2015), amended Section 327; and

Whereas, 23 U.S.C. 327(b)(2) requires a State to submit an application in order to participate in the Program; and

Whereas, on May 18, 2007, Caltrans submitted its application to the FHWA for participation in the Pilot Program; and

Whereas, the FHWA solicited the views of other appropriate Federal agencies concerning Caltrans' application as required by 23 U.S.C. 327(b)(5); and

Whereas, the USDOT Secretary, acting by and through the FHWA pursuant to 49 CFR 1.85(a)(3), approved Caltrans' Pilot Program application, finding that Caltrans met all of the requirements of 23 U.S.C. 327 and 23 CFR 773; and

Whereas, following the FHWA's approval of Caltrans' Pilot Program application, on July 1, 2007, the FHWA and Caltrans entered into an MOU under which Caltrans assumed and carried out the assigned duties and responsibilities of the USDOT Secretary under NEPA and other Federal environmental laws under the auspices of the Pilot Program; and

Whereas, Caltrans has continually participated in the Pilot Program and the permanent Program since July 1, 2007; and

Whereas, the history of Caltrans' participation in the two programs is set forth in detail in the FHWA-Caltrans MOU dated December 23, 2016 (2016 MOU), hereby incorporated by reference; and

Whereas, the FHWA conducted audits as required by SAFETEA-LU semiannually during the first two-year period (2007-2008) and annually during the next two-year period (2009-2010) of the State's participation in the Program; and

Whereas, the FHWA has made the audit reports available to the public for comment through publication of notices in the *Federal Register*; and

Whereas, after 2010 the FHWA has monitored Caltrans' participation in the program in accordance with 23 U.S.C. 327(h); and

Whereas, Caltrans has also conducted self-assessments and quarterly reports on its performance in the Program; and

Whereas, the FHWA's audit reports and Caltrans's self-assessments are publicly available for inspection at http://www.dot.ca.gov/hq/env/nepa/html/documents_reports.htm; and

Whereas, on December 18, 2019, Caltrans notified the FHWA of its intent to renew participation in the Program with respect to highway projects; and

Whereas, pursuant to 23 CFR 773.115(b), Caltrans coordinated with the FHWA to determine if significant changes have occurred or new assignment responsibilities would be sought that would warrant a statewide notice and comment opportunity prior to the State's submission of the renewal package; and

Whereas, on June 4, 2020, after coordination between the agencies, the FHWA

determined that a statewide notice and comment opportunity was unnecessary prior to the State's submission of the renewal package; and

Whereas, pursuant to 23 U.S.C. 773.115(d), Caltrans submitted a renewal package to the FHWA on August 25, 2020, for approval to continue the assigned duties and responsibilities for highway projects pursuant to the Program; and

Whereas, on December 8, 2021, and April 14, 2022, FHWA sent letters to Caltrans authorizing an extension of Caltrans' assigned and assumed responsibilities under the 2016 MOU in accordance with 23 CFR 773.115(h) to allow the parties to complete the renewal process for this renewal MOU. The letter sent on April 14, 2022, extended the term of the 2016 MOU to either May 31, 2022, or the effective date of this renewal MOU, whichever is earlier; and

Whereas, on April 19, 2022, the FHWA published a *Federal Register* Notice and provided an opportunity for comment on Caltrans's renewal request and solicited the views of the public and other Federal agencies concerning Caltrans' renewal request as required by 23 CFR 773.115(f); and

Whereas, the USDOT Secretary, acting by and through the FHWA, has considered the renewal package, comments received as a result of the *Federal Register* Notice, monitoring reports, and the State's overall performance in the Program as required by 23 CFR 773.115(g) and has determined that Caltrans' renewal package meets all the requirements of 23 CFR 773 and 23 U.S.C. 327; and

Whereas, on June 6, 2010, June 7, 2013, May 31, 2016 (as amended on December 30, 2016), and April 18, 2019, the FHWA and Caltrans executed Memoranda of Understanding assigning Caltrans the USDOT Secretary's responsibilities for environmental reviews determining whether certain designated activities qualify for categorical exclusions (CE) pursuant to 23 U.S.C. 326 (hereinafter 326 CE MOU); and

Whereas, on April 18, 2022, the FHWA and Caltrans renewed the 326 CE MOU.

Now, therefore, the FHWA and Caltrans agree as follows:

PART 1. PURPOSE OF MEMORANDUM OF UNDERSTANDING

1.1 Purpose

1.1.1 This MOU officially approves Caltrans' request to renew participation in the Program and is the written agreement required pursuant to 23 U.S.C. 327(a)(2)(A) and (c) under which the USDOT Secretary may assign, and Caltrans may assume, the responsibilities of the USDOT Secretary for Federal environmental laws with respect to one or more highway projects within the State of California.

1.1.2 The FHWA's decision to execute this MOU is based upon the information,

representations, and commitments contained in Caltrans' August 25, 2020, renewal package, the auditing and monitoring reports, consideration of comments received during the comment period, and the State's overall performance in the Program since July 1, 2007. This MOU incorporates by reference the August 25, 2020, renewal package.

1.1.3 This MOU shall be effective upon the date of final execution by both parties (hereinafter the "Effective Date").

1.1.4 Pursuant to 23 U.S.C. 327(d), and subpart 4.3 of this MOU, third parties may challenge Caltrans' actions in carrying out environmental review responsibilities assigned under this MOU. Third parties also have the right to file a complaint against Caltrans with the FHWA under Title VI of the Civil Rights Act of 1964 and the FHWA has the authority and jurisdiction to accept, investigate, and make a determination regarding the allegations in the complaint. Otherwise, this MOU is not intended to, and does not, create any new right or benefit, substantive or procedural, enforceable at law or in equity by any third party against the State of California, its departments, agencies, or entities, its officers, employees, or agents. This MOU is not intended to, and does not, create any new right or benefit, substantive or procedural, enforceable at law or in equity by any third party against the United States, its departments, agencies, or entities, its officers, employees, or agents.

1.1.5 The assignment of responsibilities under this MOU is made pursuant to the authority granted to the Secretary under 23 U.S.C. 327. Any provision of this MOU, or any portion of any provision, that is deemed to be illegal, unenforceable, or beyond the scope of the Secretary's authority shall be severed from this MOU, without affecting the validity of the remainder of the MOU. In such event, all other provisions or parts of provisions of this MOU shall remain in full force and effect.

PART 2. [RESERVED]

PART 3. ASSIGNMENTS AND ASSUMPTIONS OF RESPONSIBILITY

3.1 Assignments and Assumptions of NEPA Responsibilities

3.1.1 Pursuant to 23 U.S.C. 327(a)(2)(A), on the Effective Date, the FHWA assigns, and Caltrans assumes, subject to the terms and conditions set forth in 23 U.S.C. 327 and this MOU, all of the USDOT Secretary's responsibilities for compliance with NEPA with respect to the highway projects specified under subpart 3.3. This includes statutory provisions, regulations, executive orders, policies, and guidance related to the implementation of NEPA for highway projects such as 23 U.S.C. 139, 40 CFR 1500–1508, DOT Order 5610.1C, and 23 CFR 771 as applicable.

3.1.2 On the cover page of each environmental assessment (EA), finding of no significant impact (FONSI), environmental impact statement (EIS), and record of

decision (ROD) prepared under the authority granted by this MOU, and for any 23 U.S.C. 327 CE determination it makes, Caltrans shall insert the following language in a way that is conspicuous to the reader or include it in a CE project record.

> "The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated _____, and executed by FHWA and Caltrans."

3.1.3 Caltrans shall disclose to the public and agencies, as part of agency outreach and public involvement procedures, including any notice of intent or scoping meeting notice, the disclosure in subpart 3.1.2 above.

3.1.4 The assignment under this part does not alter the scope and terms of the 326 CE MOU between the FHWA and Caltrans.

3.2 Assignments and Assumptions of Federal Environmental Laws Other Than NEPA

3.2.1 Pursuant to 23 U.S.C. 327(a)(2)(B), on the Effective Date, the FHWA assigns and Caltrans assumes, subject to the terms and conditions set forth in 23 U.S.C. 327 and this MOU, all of the USDOT Secretary's responsibilities for environmental review, reevaluation, consultation, or other action pertaining to the review or approval of highway projects specified under subpart 3.3 required under the following Federal environmental laws and executive orders related to highway projects:

Air Quality

- Clean Air Act, 42 U.S.C. 7401-7671q, with the exception of any conformity determinations

Noise

- Noise Control Act of 1972, 42 U.S.C. 4901-4918
- FHWA noise regulations at 23 CFR 772

Wildlife

- Endangered Species Act of 1973 (ESA), 16 U.S.C. 1531-1544
- Marine Mammal Protection Act, 16 U.S.C. 1361–1423h
- Anadromous Fish Conservation Act, 16 U.S.C. 757a-757f
- Fish and Wildlife Coordination Act, 16 U.S.C. 661-667d
- Migratory Bird Treaty Act, 16 U.S.C. 703-712
- Bald and Golden Eagle Protection Act, 16 U.S.C. 668-668d
- Magnuson-Stevens Fishery Conservation and Management Act of 1976, as amended, 16 U.S.C. 1801-1891d

Historic and Cultural Resources

- National Historic Preservation Act of 1966 (NHPA), as amended, 54 U.S.C.

300101 et seq.
- Archeological Resources Protection Act of 1979, 16 U.S.C. 470aa-470mm
- Archeological and Historic Preservation Act, 54 U.S.C. 312501-312508
- Native American Grave Protection and Repatriation Act, 25 U.S.C. 3001-3013; 18 U.S.C. 1170

Social and Economic Impacts
- American Indian Religious Freedom Act, 42 U.S.C. 1996
- Farmland Protection Policy Act, 7 U.S.C. 4201-4209

Water Resources and Wetlands
- Clean Water Act, 33 U.S.C. 1251-1387 (Sections 319, 401, and 404)
- Coastal Barrier Resources Act, 16 U.S.C. 3501-3510
- Coastal Zone Management Act, 16 U.S.C. 1451-1466
- Safe Drinking Water Act, 42 U.S.C. 300f—300j-26
- Rivers and Harbors Act of 1899, 33 U.S.C. 403
- Wild and Scenic Rivers Act, 16 U.S.C. 1271-1287
- Emergency Wetlands Resources Act, 16 U.S.C. 3901 and 3921
- Wetlands Mitigation, 23 U.S.C. 119(g), 23 U.S.C. 133(b)
- FHWA wetland and natural habitat mitigation regulations at 23 CFR 777
- Flood Disaster Protection Act, 42 U.S.C. 4001-4130

Parklands and Other Special Land Uses
- Section 4(f), 23 U.S.C. 138 and 49 U.S.C. 303
- FHWA/FTA Section 4(f) Regulations at 23 CFR 774
- Land and Water Conservation Fund, 54 U.S.C. 200302-200310

Hazardous Materials
- Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. 9601-9675
- Superfund Amendments and Reauthorization Act of 1986, 42 U.S.C. 9671-9675
- Resource Conservation and Recovery Act, 42 U.S.C. 6901-6992k

Executive Orders Relating to Highway Projects
- E.O. 11990 - Protection of Wetlands
- E.O. 11988 - Floodplain Management (except approving design standards and determinations that a significant encroachment is the only practicable alternative under 23 CFR 650.113 and 650.115)
- E.O. 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations
- E.O. 13112 - Invasive Species
- E.O. 13985 - Advancing Racial Equity and Support for Underserved Communities Through the Federal Government
- E.O. 13990 - Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis

- E.O. 14008 - Tackling the Climate Crisis at Home and Abroad
  Other Executive Orders not listed, but related to highway projects

FHWA-Specific

- Planning and Environmental Linkages, 23 U.S.C. 168, with the exception of those FHWA responsibilities associated with 23 U.S.C. 134 and 135.
- Programmatic Mitigation Plans, 23 U.S.C. 169 with the exception of those FHWA responsibilities associated with 23 U.S.C. 134 and 135

3.2.2 Any FHWA environmental review responsibility not explicitly listed above and assumed by Caltrans shall remain the responsibility of the FHWA unless the responsibility is added by written agreement of the parties through the amendment process established in Part 13 and pursuant to 23 CFR 773.113(b). This provision shall not be interpreted to abrogate Caltrans' responsibilities to comply with the requirements of any Federal environmental law that apply directly to Caltrans independent of the FHWA's involvement (through Federal assistance or approval).

3.2.3 The USDOT Secretary's responsibilities for government–to–government consultation with Indian tribes, as defined in 36 CFR 800.16(m), are not assigned to or assumed by Caltrans under this MOU. The FHWA remains responsible for all government–to–government consultation, including initiation of government–to–government consultation consistent with Executive Order 13175—Consultation and Coordination with Indian Tribal Governments, unless otherwise agreed as described in this Part. A notice from Caltrans to an Indian tribe advising the tribe of a proposed activity is not considered "government–to–government consultation" within the meaning of this MOU. If a project-related concern or issue is raised in a government–to–government consultation process with an Indian tribe, as defined in 36 CFR 800.16(m), and is related to NEPA or another Federal environmental law for which Caltrans has assumed responsibilities under this MOU, and either the Indian tribe or the FHWA determines that the issue or concern will not be satisfactorily resolved by Caltrans, then the FHWA may withdraw the assignment of all or part of the responsibilities for processing the project. In this case, the provisions of subpart 9.1 concerning the FHWA initiated withdrawal of assignment shall apply. This MOU is not intended to abrogate, or prevent future entry into, any agreement among Caltrans, the FHWA, and a tribe under which the tribe agrees to permit Caltrans to administer government–to–government consultation activities for the FHWA. However, such agreements are administrative in nature and do not relieve the FHWA of its legal responsibility for government–to–government consultation.

3.2.4 Nothing in this MOU shall be construed to permit Caltrans' assumption of the USDOT Secretary's responsibilities for conformity determinations required under Section 176 of the Clean Air Act (42 U.S.C. 7506) or any responsibility under 23 U.S.C. 134 and 135, or under 49 U.S.C. 5303 or 5304 (23 U.S.C. 327(a)(2)(B)(iv)(II)). In addition, FHWA remains responsible for implementing other laws, requirements and policies that are not assumed by Caltrans under this MOU, or other MOUs and agreements, with respect to highway projects. This includes, but is not limited to, laws,

requirements and policies related to Interstate access, right-of-way (including advance acquisition of right-of-way), value engineering, design, and other areas related to such projects.

3.2.5 The assignment under this part does not alter the scope and terms of the 326 CE MOU between the FHWA and Caltrans. Caltrans will engage in all environmental reviews authorized under the terms of that MOU if it elects to process the highway projects under the 326 CE MOU.

3.2.6 On the cover page of each biological assessment, historic properties or cultural resources report, Section 4(f) evaluation, or other analyses prepared under the authority granted by this MOU, Caltrans shall insert the following language in a way that is conspicuous to the reader:

> "The environmental review, consultation, and any other actions required by applicable Federal laws for this project are being, or have been, carried out by Caltrans pursuant to 23 U.S.C. 327 and the Memorandum of Understanding dated _____ and executed by FHWA and Caltrans."

3.2.7 Caltrans shall disclose to the public and agencies, as part of agency outreach and public involvement procedures, the disclosure in stipulation 3.2.6 above.

3.2.8 Caltrans will continue to adhere to the original terms of Biological Opinions (BOs) coordinated between the FHWA, Caltrans, and either the U.S. Fish and Wildlife Service (USFWS) or National Marine Fisheries Service (NMFS) or both USFWS and NMFS prior to the Pilot Program so long as the original BO terms are not amended or revised. Any revisions or amendments to a BO made under assumption of the FHWA's environmental responsibilities would be Caltrans' responsibility. Caltrans agrees to assume the FHWA's environmental review role and responsibilities as identified in existing interagency agreements among Caltrans, USFWS, NMFS, and the FHWA. Caltrans agrees to continue to assume the FHWA's ESA Section 7 responsibilities for consultations (formal and informal).

3.2.9 Caltrans will not make any determination that an action constitutes a constructive use of a publicly owned park, public recreation area, wildlife refuge, waterfowl refuge, or historic site under Section 4(f) without first consulting with the FHWA and obtaining the FHWA's approval of such determination.

3.3 Highway Projects

3.3.1 Except as provided by subpart 3.3.2 below or otherwise specified in this subpart, the assignments and assumptions of the USDOT Secretary's responsibilities under subparts 3.1 and 3.2 above shall apply with respect to the environmental review, consultation, or other action pertaining to the review or approval of the following classes of highway projects located within the State of California. The definition of "highway project" is found at 23 CFR 773.103, and for purposes of this MOU, "highway project" includes eligible preventative maintenance activities. Prior to approving any CE

determination under this MOU, FONSI, final EIS, or final EIS/ROD, the State of California shall ensure and document that for any proposed project the design concept, scope, and funding are consistent with the current Transportation Improvement Plan (TIP), Regional Transportation Plan (RTP), or Metropolitan Transportation Plan (MTP).

A. Projects requiring an EIS, both on the state highway system (SHS) and Local Assistance projects off the SHS that are funded by the FHWA or require FHWA approvals.

B. Projects qualifying for CEs, both on the SHS and Local Assistance projects off the SHS that are funded by the FHWA or require FHWA approvals, and that do not qualify for assignment of responsibilities pursuant to the 326 CE MOU.

C. Projects requiring EAs, both on the SHS and Local Assistance projects off the SHS that are funded by the FHWA or require FHWA approvals:

D. Projects funded by other Federal agencies [or projects without any Federal funding] that also require FHWA approvals and meet the definition of a highway project found at 23 CFR 773.103. For these projects, Caltrans would not assume the NEPA responsibilities of other Federal agencies. However, Caltrans may use or adopt other Federal agencies' NEPA analyses consistent with 40 CFR parts 1500–1508, and USDOT and FHWA regulations, policies, and guidance.

3.3.2 The following are specifically excluded from the list in subpart 3.3.1 of highway projects and classes of highway projects:

A. Any highway projects authorized under 23 U.S.C. 202, 203, and 204 unless such projects will be designed and constructed by Caltrans;

B. Any project that crosses State boundaries and any project that crosses or is adjacent to international boundaries. For purposes of this agreement a project is considered "adjacent to international boundaries" if it requires the issuance of a new or the modification of an existing Presidential Permit by the U.S. Department of State.

C. Any Federal-aid highway project that may be designed and constructed by the FHWA under a 23 U.S.C. 308 agreement between the FHWA Central Federal Lands Highway Division and Caltrans.

3.4 Limitations

3.4.1 As provided at 23 U.S.C. 327(e), Caltrans shall be solely responsible and solely liable for carrying out all of the responsibilities it has assumed under part 3 of this MOU.

3.4.2 As provided at 23 U.S.C. 327(a)(2)(D), any highway project or responsibility of the USDOT Secretary that is not explicitly assumed by Caltrans under subpart 3.3.1 in this MOU remains the responsibility of the USDOT Secretary.

PART 4. CERTIFICATIONS AND ACCEPTANCE OF JURISDICTION

4.1 Certifications

4.1.1 Caltrans hereby makes the following certifications:

A. Caltrans has the legal authority to accept all the assumptions of responsibility identified in part 3 of this MOU;

B. Caltrans has the legal authority to take all actions necessary to carry out all of the responsibilities it has assumed under this MOU;

C. Caltrans has the legal authority to execute this MOU;

D. The State of California currently has laws and regulations in effect that are comparable to 5 U.S.C. 552, which are located at California Government Code § 6250, et seq.; and

E. With respect to the public availability of any document under California Government Code § 6250, et seq., any decision regarding its release or public availability may be legally challenged or reviewed in the courts of the State of California.

4.2 State Commitment of Resources

4.2.1 As provided at 23 U.S.C. 327(c)(3)(D), Caltrans will maintain the financial resources necessary to carry out the responsibilities it is assuming. Caltrans believes, and the FHWA agrees, that the financial resources contained in the renewal package appear to be adequate for this purpose. Should the FHWA determine, after consultation with Caltrans, that Caltrans' financial resources are inadequate to carry out the USDOT Secretary's responsibilities, Caltrans will take appropriate action to obtain the additional financial resources needed to carry out these responsibilities. If Caltrans is unable to obtain the necessary additional financial resources, Caltrans shall inform the FHWA, and this MOU will be amended to assign only the responsibilities that are commensurate with Caltrans' financial resources.

4.2.2 Caltrans will maintain adequate organizational and staff capability, including competent and qualified consultants where necessary or desirable, to effectively carry out the responsibilities it has assumed under this MOU. This includes, without limitation:

A. Using appropriate environmental technical, legal, and managerial expertise;

B. Devoting adequate staff resources; and

C. Demonstrating, in a consistent manner, the capacity to perform Caltrans' assumed responsibilities under this MOU and applicable Federal laws.

Should the FHWA determine, after consultation with Caltrans, that Caltrans' organizational and staff capability is inadequate to carry out the USDOT Secretary's responsibilities, Caltrans will take appropriate action to obtain adequate organizational and staff capability to carry out these responsibilities. If Caltrans is unable to obtain adequate organizational and staff capability, Caltrans shall inform the FHWA and the MOU will be amended to assign only the responsibilities that are commensurate with Caltrans' available organizational and staff capability. Should Caltrans choose to meet these requirements, in whole or in part, with consultant services, including outside counsel, Caltrans shall maintain on its staff an adequate number of trained and qualified personnel, including counsel, to oversee the consulting work.

4.2.3 The Caltrans Chief Engineer will serve as the Senior Agency Official consistent with 40 CFR 1508.1(dd); this position must be the one that is equivalent to an Assistant Director of the State DOT or higher. Any changes to the title designation must be provided in writing to the FHWA with a justification.

4.2.4 When carrying out the requirements of Section 106 of the NHPA, as amended, Caltrans staff (including consultants) shall comply with 36 CFR 800.2(a)(1). All actions that involve the identification, evaluation, analysis, recording, treatment, monitoring, or disposition of historic properties, or that involve the reporting or documentation of such actions in the form of reports, forms, or other records, shall be carried out by or under the direct supervision of a person or persons who meet the Secretary of Interior's Professional Qualifications Standards (36 CFR Appendix A to Part 61). Caltrans shall ensure that all documentation required under 36 CFR 800.11 is reviewed and approved by a staff member or consultant who meets the Professional Qualifications Standards.

4.3 Federal Court Jurisdiction

4.3.1 As provided at 23 U.S.C. 327(c)(3)(B), the State of California hereby consents to, and accepts, the exclusive jurisdiction of the Federal courts for the compliance, discharge, and enforcement of any responsibilities of the USDOT Secretary assumed by Caltrans under this MOU. This consent to Federal court jurisdiction shall remain valid after termination of this MOU, or the FHWA's withdrawal of assignment of the USDOT Secretary's responsibilities, for any decision or approval made by Caltrans pursuant to an assumption of responsibility under this MOU. The State of California understands and agrees that this acceptance constitutes a waiver of the State's immunity under the Eleventh Amendment to the U.S. Constitution for the limited purposes of addressing matters arising out of this MOU and carrying out the USDOT Secretary's responsibilities that have been assumed under this MOU.

PART 5. APPLICABILITY OF FEDERAL LAW

5.1 Procedural and Substantive Requirements

5.1.1 As provided at 23 U.S.C. 327(a)(2)(C), in assuming the USDOT Secretary's responsibilities under this MOU, Caltrans shall be subject to the same procedural and substantive requirements that apply to the USDOT Secretary in carrying out these responsibilities, including, but not limited to, environmental justice. Such procedural and substantive requirements include, but are not limited to, Federal statutes and regulations, , Executive Orders issued by the President of the United States, USDOT Orders, Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (40 CFR 1500 -1508), FHWA Orders, official guidance and policy issued by the CEQ, Office of Management and Budget (OMB), USDOT, or the FHWA (e.g. Guidance Establishing Metrics for the Permitting and Environmental Review of Infrastructure Projects), and any applicable Federal court decisions, and, subject to subpart 5.1.3 below, interagency agreements such as programmatic agreements, memoranda of understanding, memoranda of agreement, and other similar documents that relate to the environmental review process [e.g., the 2015 Red Book – Synchronizing Environmental Reviews for Transportation and Other Infrastructure Projects]. Official USDOT and FHWA formal guidance and policies relating to environmental review matters are posted on the FHWA's website, contained in the FHWA *Environmental Guidebook*, published in the *Federal Register*, or sent to Caltrans electronically or in hard copy.

Caltrans has reviewed the following memoranda and understands that by accepting the FHWA's NEPA responsibilities, it also agrees to perform the FHWA's obligations set forth in these memoranda, consistent with the assigned authorities under this MOU:

- 2014 MOA between the U.S. Coast Guard (USCG) and the FHWA to Coordinate and Improve Bridge Planning and Permitting

- 2014 MOU between USCG, the FHWA, the Federal Transit Administration, and the Federal Railroad Administration to Coordinate and Improve Bridge Planning and Permitting

5.1.2 After the Effective Date of this MOU, the FHWA will use its best efforts to ensure that any new or revised Federal policies and guidance that are final and applicable to the FHWA's responsibilities under NEPA and other environmental laws and that are assumed by Caltrans under this MOU are communicated to Caltrans within ten (10) calendar days of issuance. Delivery may be accomplished by e-mail, Web posting (with email or mail to Caltrans notifying of Web posting), mail, or publication in the Federal Register (with email or mail notifying Caltrans of publication). If communicated to Caltrans by e-mail or mail, such material will be sent to the Chief of Caltrans' Division of Environmental Analysis. In the event that a new or revised FHWA policy or guidance is not made available to Caltrans as described in the preceding sentence, and if Caltrans had no actual knowledge of such policy or guidance, then a failure by Caltrans to comply

with such Federal policy or guidance will not be a basis for termination under this MOU.

5.1.3 Caltrans will work with all other appropriate Federal agencies concerning the laws, guidance, and policies that such other Federal agencies are responsible for administering.

5.1.4 Upon termination of this MOU, the FHWA and Caltrans shall contact the relevant third party to any interagency agreement and determine whether the interagency agreement should be amended or reinstated as in effect on the termination date of this MOU.

5.2 Rulemaking

5.2.1 As provided at 23 U.S.C. 327(f), nothing in this MOU permits Caltrans to assume any rulemaking authority of the USDOT Secretary. Additionally, Caltrans may not establish policy and guidance on behalf of the USDOT Secretary or the FHWA for highway projects covered in this MOU. Caltrans' authority to establish State regulations, policy, and guidance concerning the State environmental review of State highway projects shall not supersede applicable Federal environmental review regulations, formal policy, or guidance established by or applicable to the USDOT Secretary or the FHWA.

5.3 Effect of Assumption

5.3.1 For purposes of carrying out the responsibilities assumed under this MOU, and subject to the limitations contained in 23 U.S.C. 327 and this MOU, Caltrans shall be deemed to be acting as the FHWA with respect to the environmental review, consultation, and other actions required under those responsibilities.

5.4 Other Federal Agencies

5.4.1 As provided at 23 U.S.C. 327(a)(2)(E), nothing in this MOU preempts or interferes with any power, jurisdiction, responsibility, or authority of an agency, other than the USDOT (including the FHWA), under applicable law and regulations with respect to a highway project.

PART 6. LITIGATION

6.1 Responsibility and Liability

6.1.1 As provided in 23 U.S.C. 327(e), Caltrans shall be solely responsible and solely liable for carrying out all of the USDOT Secretary's responsibilities it has assumed under this MOU. The FHWA and USDOT shall have no responsibility or liability for the performance of the responsibilities assumed by Caltrans, including any decision or approval made by Caltrans while participating in the Program.

6.2 Litigation

6.2.1 Nothing in this MOU affects the United States Department of Justice's (hereinafter "DOJ") authority to litigate claims, including the authority to approve a settlement on behalf of the United States if either the FHWA or another agency of the United States is named in such litigation, or if the United States intervenes pursuant to 23 U.S.C. 327(d)(3). In the event the FHWA or any other Federal agency is named in litigation related to matters under this MOU, or the United States intervenes in the litigation, Caltrans agrees to coordinate with DOJ in the defense of that action.

6.2.2 Caltrans shall defend all claims brought in connection with the discharge of any responsibility assumed under this MOU. In the event of litigation, Caltrans shall provide qualified and competent legal counsel, including outside counsel if necessary. Caltrans shall provide the defense at its own expense, subject to 23 U.S.C. 327(a)(2)(G) concerning Federal-aid participation in attorney's fees for outside counsel hired by Caltrans. Caltrans shall be responsible for an opposing party's attorney's fees and court costs if a court awards those costs to an opposing party, or in the event those costs are part of a settlement agreement.

6.2.3 Caltrans will notify the FHWA's California Division Office and DOJ's Assistant Attorney General for the Environment and Natural Resources Division, within seven (7) calendar days of Caltrans Legal Division's receipt of service of process of any complaint, concerning its discharge of any responsibility assumed under part 3 of this MOU. Caltrans' notification to the FHWA and USDOJ shall be made prior to its response to the complaint. In addition, Caltrans shall notify the FHWA's California Division Office within seven (7) calendar days of receipt of any notice of intent to sue concerning its discharge of any responsibility assumed under part 3 of this MOU.

6.2.4 Caltrans will provide the FHWA's California Division Office and DOJ copies of any motions, pleadings, briefs, and other such documents filed in any case concerning its discharge of any responsibility assumed under part 3 of this MOU. Caltrans will provide such copies to the FHWA and DOJ within seven (7) calendar days of receipt of service of any document or, in the case of any documents filed by or on behalf of Caltrans, within seven (7) calendar days of the date of filing.

6.2.5 Caltrans will notify the FHWA's California Division Office and DOJ prior to settling any lawsuit, in whole or in part, and shall provide the FHWA and DOJ with a reasonable amount of time of at least ten (10) calendar days, to be extended, if feasible based on the context of the lawsuit, up to a maximum of thirty (30) total calendar days, to review and comment on the proposed settlement. Caltrans will not execute any settlement agreement until the FHWA and DOJ have provided comments on the proposed settlement, indicated that they will not provide comments on the proposed settlement, or the review period has expired, whichever occurs first.

6.2.6 Within seven (7) calendar days of receipt by Caltrans, Caltrans will provide notice to the FHWA's California Division Office and DOJ of any court decision on the merits, judgment, and notice of appeal arising out of or relating to the responsibilities Caltrans

has assumed under this MOU. Caltrans shall notify the FHWA's California Division Office and DOJ within five (5) calendar days of filing a notice of appeal of a court decision. Caltrans shall confer with the FHWA and DOJ regarding the appeal at least forty-five (45) calendar days before filing an appeal brief in the case.

6.2.7 Caltrans's notifications to the FHWA and DOJ in subparts 6.2.3, 6.2.5, and 6.2.6 shall be made by electronic mail to the FHWA_assignment_lit@dot.gov, and NRSDOT.enrd@usdoj.gov, unless otherwise specified by the FHWA and DOJ. For copies of motions, pleadings, briefs, and other documents filed in a case, as identified in subpart 6.2.4, Caltrans may opt to either send the materials to the email addresses identified above, send hardcopies to the mail address below, or add to the distribution list in the court's electronic filing system (e.g., PACER) the following two email addresses: FHWA_assignment_lit@dot.gov and efile_nrs.enrd@usdoj.gov. The FHWA and DOJ's comments under subpart 6.2.5 and 6.2.6 shall be made by electronic mail to Caltrans Chief Counsel, unless otherwise specified by Caltrans. In the event that regular mail is determined necessary, mail should be sent by overnight mail service to:

For DOJ: Assistant Attorney General for the Environment and Natural Resources Division at 950 Pennsylvania Avenue, NW, Room 2143, Washington, DC, 20530.

For FHWA: Division Administrator for the FHWA California Division, 650 Capitol Mall, Ste. 4-100, Sacramento, CA 95814-4708.

6.3 Conflict Resolution

6.3.1 In discharging any of the USDOT Secretary's responsibilities under this MOU, Caltrans agrees to comply with any applicable requirements of USDOT and the FHWA statute, regulation, guidance or policy regarding conflict resolution. This includes the USDOT Secretary's responsibilities for issue resolution under 23 U.S.C. 139(h), with the exception of the USDOT Secretary's responsibilities under 23 U.S.C. 139(h)(7) regarding financial penalties.

6.3.2 Caltrans agrees to follow 40 CFR 1504 in the event of pre-decision referrals to CEQ for Federal actions determined to be environmentally unsatisfactory. Caltrans also agrees to coordinate and work with CEQ on matters brought to CEQ with regards the environmental review responsibilities for highway projects Caltrans has assumed.

PART 7. INVOLVEMENT WITH OTHER AGENCIES

7.1 Coordination

7.1.1 Caltrans agrees to seek early coordination with all appropriate Federal, State, and local agencies in carrying out any of the responsibilities and highway projects assumed under this MOU.

7.2 Processes and Procedures

7.2.1 Caltrans will ensure that it has appropriate processes and procedures in place that provide for proactive and timely consultation, coordination, and communication with all appropriate Federal agencies in order to carry out any of the responsibilities assumed under this MOU, including the submission of all environmental impact statements together with comments and responses to the Environmental Protection Agency (EPA) as required at 40 CFR 1506.9 and for EPA's review as required by Section 309 of the Clean Air Act. These processes and procedures shall be formally documented. Such formal documentation may be in the form of a formal executed interagency agreement or in other such form as appropriate.

PART 8. INVOLVEMENT WITH THE FHWA

8.1 Generally

8.1.1 Except as specifically provided otherwise in this MOU, the FHWA will not provide any project-level assistance to Caltrans in carrying out any of the responsibilities Caltrans has assumed under this MOU. Project-level assistance shall include any advice, consultation, or document review with respect to the discharge of such responsibility for a particular highway project. However, project–level assistance does not include process or program level assistance as provided in subpart 8.1.4, discussions concerning issues addressed in prior projects, interpretations of any applicable law contained in Titles 23 or 49 of the United States Code, interpretations of any FHWA or USDOT regulation, or interpretations of FHWA or USDOT policies or guidance.

8.1.2 The FHWA will not intervene, broker, act as intermediary, or be otherwise involved in any issue involving Caltrans' consultation or coordination with another Federal agency with respect to Caltrans' discharge of any of the responsibilities it has assumed under this MOU for any particular highway project. However, the FHWA may attend meetings between Caltrans and other Federal agencies and submit comments to Caltrans and the other Federal agency in the following extraordinary circumstances:

A. The FHWA reasonably believes that Caltrans is not in compliance with this MOU;

B. The FHWA determines that an issue between Caltrans and the other Federal agency concerns emerging national policy issues under development by the USDOT; or

C. Upon request by either Caltrans or the other Federal agency and agreement by the FHWA.

The FHWA will notify both Caltrans and the relevant Federal agency prior to attending

any meetings between Caltrans and such other Federal agency.

8.1.3 Other Federal agencies may raise program- or policy-level concerns regarding the compliance by Caltrans with this MOU and may communicate these concerns to the FHWA. The FHWA will review the program- or policy-level concerns and any other information provided to the FHWA by such other Federal agency. If, after such review, the FHWA and such other Federal agency still have concerns regarding Caltrans' compliance, the FHWA will notify Caltrans in a timely manner of the potential compliance issue and will work with both Caltrans and the relevant Federal agency to resolve the issue and, if necessary, take appropriate action to ensure compliance with this MOU.

8.1.4 At Caltrans' request, the FHWA may assist Caltrans in evaluating its environmental program and developing or modifying any of its processes or procedures to carry out the responsibilities it has assumed under this MOU, including, but not limited to, emerging national policy issues, and those processes and procedures concerning Caltrans' consultation, coordination, and communication with other Federal agencies.
8.1.5 Caltrans' obligations and responsibilities under 23 CFR 1.5 are not altered in any way by executing this MOU.

8.2 MOU Monitoring and Oversight

8.2.1 Pursuant to 23 U.S.C. 327(h), the FHWA shall monitor Caltrans' performance in order to ensure Caltrans' compliance with the MOU and all applicable Federal laws and policies as they would apply if these responsibilities were carried out by the USDOT Secretary, and to evaluate whether Caltrans is meeting the performance measures listed in part 10 of the MOU. The FHWA's monitoring program will consist of monitoring reviews, which will be coordinated with Caltrans and take into account Caltrans' self-monitoring and the FHWA California Division's annual risk assessments. Caltrans agrees to comply with all requests from FHWA related to monitoring under this MOU that FHWA reasonably considers necessary to ensure that Caltrans is adequately carrying out the responsibilities assigned to Caltrans.

8.2.2 In order to minimize the impact of the monitoring reviews on Caltrans' day-to-day project delivery workload, the FHWA and Caltrans will coordinate when scheduling joint monitoring reviews. Normally, the FHWA expects to complete two monitoring reviews during the term of the MOU, although the FHWA may conduct additional reviews if deemed necessary. Caltrans and the FHWA California Division Office will each designate a point of contact, who will be responsible for coordinating monitoring review schedules, requests for information and organizing meetings.

8.2.3 In order to evaluate whether Caltrans is meeting the performance measures listed in part 10 of this MOU, Caltrans shall make available for inspection by the FHWA any project files, general administrative files, and letters or comments received from governmental agencies and the public which pertain to Caltrans' discharge of the responsibilities it has assumed under this MOU. Caltrans will work with the FHWA to

provide documents electronically to the extent it does not create an undue burden. Caltrans environmental staff will be available for interviews as part of the monitoring reviews.

8.2.4 Pursuant to 23 U.S.C. 327(c)(4), Caltrans is responsible for providing to the FHWA any information the FHWA reasonably considers necessary to ensure that Caltrans is adequately carrying out the responsibilities assigned. At the request of the FHWA, Caltrans will (within five business days or a mutually agreeable time frame), provide the FHWA with any information the FHWA considers necessary to ensure that Caltrans is adequately carrying out the responsibilities assigned to Caltrans.

8.2.5 Annually from the Effective Date of this MOU, Caltrans shall provide a report to the FHWA California Division Office listing any approvals and decisions Caltrans has made with respect to the responsibilities Caltrans has assumed under part 3 of this MOU. Further, in the report, Caltrans will provide project names, locations, decisions, and any commitments related to mitigation for all analyses, including environmental justice analysis. The information related to commitments will be summarized in the annual report, with more detailed information provided through a hyperlink to the environmental document, for each project that has environmental commitments.

8.2.6 In carrying out the responsibilities assumed under part 3 of this MOU, Caltrans agrees to carry out regular quality assurance and quality control (QA/QC) activities to ensure the assumed responsibilities are being conducted in accordance with applicable laws and this MOU. At a minimum, Caltrans' QA/QC activities will include the review and monitoring of its processes relating to project decisions, environmental analysis, including environmental justice, project file documentation, checking for errors and omissions, legal sufficiency reviews, and taking appropriate corrective action as needed.

8.2.7 Caltrans shall perform annual monitoring of its QA/QC process to determine whether the process is working as intended, to identify any areas needing improvements in the process, and to take any corrective actions necessary to address the areas needing improvement. Caltrans shall transmit a report on the results of this self-monitoring to the FHWA California Division office and make the report available for public inspection.

8.2.8 Monitoring review reports, be they prepared by the FHWA or Caltrans, shall include a description of the scope of the monitoring reviews, the compliance areas reviewed, a description of the monitoring process, a list of areas identified as needing improvement. The FHWA reports shall identify findings that require corrective actions and the Caltrans reports shall discuss corrective actions that have been or will be implemented.

8.2.9 Prior to making any monitoring review report available to the public, the FHWA will transmit to Caltrans a draft of the report and allow Caltrans at least 14 calendar days to respond in writing. The FHWA will grant any reasonable request by Caltrans to extend this response period up to a total of 30 calendar days. The FHWA will review the comments and revise the draft monitoring report, as appropriate.

8.2.10 Caltrans agrees to post all monitoring reports on the Caltrans Division of Environmental Analysis website in order to make them available to the public.

8.3 Record Retention

8.3.1 Caltrans will retain environmental project files and general administrative files pertaining to its discharge of the responsibilities it has assumed under this MOU in accordance with 2 CFR 200.333 and the provisions below.

8.3.2 Except as noted below, Caltrans will retain environmental project records until the end of the third year after the FHWA's final voucher payment for the project is verified. For projects on the State Highway System, final voucher payment is verified when the Certificate of Environmental Compliance (CEC) at Contract Acceptance is signed. For Local Assistance projects, it is verified when the Local Agency Final Inspection Form (FIF) is signed.

A. **Environmental Assessments and Environmental Impact Statements**

The following shall be retained:

- Signed draft environmental documents (except for DEISs, the retention period shall be a minimum of 8 years, or at least 3 years from when the CEC or FIF is signed, whichever is later)
- Signed final environmental documents, including the following (except for FEISs, the retention period shall be a minimum of 8 years, or at least 3 years from when the CEC or FIF is signed, whichever is later):
  - Section 7 Biological Opinion(s) and letter(s) of concurrence
  - Section 106 MOA
  - Air quality conformity determination
  - Section 4(f) de minimis finding(s) and/or evaluation
  - FONSI or ROD
- Final technical reports, as applicable, including:
  - Hydrology report
  - Location hydraulic analysis
  - Floodplain risk assessment
  - Initial site assessment
  - Preliminary site assessment
  - Air quality report
  - Air quality conformity analysis

- Noise study report (Shall be maintained for a minimum of 4 years and at least 3 years from the CEC or FIF approval as identified above, whichever length of time is longer)
- Noise abatement decision report (Shall be maintained for a minimum of 4 years and at least 3 years from the CEC or FIF approval as identified above, whichever length of time is longer)
- Environmental justice analysis
- Natural environment study
- Biological assessment(s)
- Wetland delineation
- Community impact assessment
- Relocation impact report
- Traffic study
- Visual resources study
- Historic properties survey report including required appendices (Archaeological Survey Report and Historic Resources Evaluation Report)

- Federal environmental permits including those related to:

  - Section 404 of the Clean Water Act
  - Section 10 of the Rivers and Harbors Act
  - Title 14, Division 5.5, Chapter 5, Sec. 13300 et seq (local or state coastal development permits)

- Environmental Commitment Record

- Signed Certificate of Environmental Compliance at Contract Acceptance

B. Categorical Exclusions

The following shall be retained:

- Signed CE/CE Determination form

- Final technical studies, as applicable, identified above

- Environmental permits, as applicable, identified above

- Environmental commitment record

- Signed Certificate of Environmental Compliance at Contract Acceptance

8.4 Federal Register

8.4.1 For any documents to be published in the Federal Register, such as the Notice of Intent under 23 CFR 771.123(a) and Notice of Final Agency Action under 23 U.S.C. 139(l), Caltrans shall transmit such document to the FHWA's California Division Office, and the FHWA will cause such document to be published in the Federal Register on behalf of Caltrans and will submit such document to the Federal Register within five calendar days of receipt of such document from Caltrans. To the extent that the operating procedures of the Government Printing Office and the Federal Register permit, Caltrans will take over the procedures described above from the FHWA California Division Office.

8.5 Data and Information Requests

8.5.1 Caltrans agrees to provide data and information requested by the FHWA and resource agencies for the preparation of national reports, the Federal Permitting Dashboard, and other purposes that the Secretary reasonably considers necessary to ensure that Caltrans is adequately carrying out the responsibilities assigned to Caltrans and to the extent that the information relates to determinations, findings, and proceedings associated with projects processed under this MOU. Such data and information requests may include but are not limited to:

A. Information on the completion and time for completion of NEPA environmental documentation of all types (EIS, EA, CE);

B. Archeology Reports requested by the National Park Service;

C. ESA Expenditure Reports requested by the U.S. Fish and Wildlife Service and the National Marine Fisheries Service;

D. NEPA Litigation Reports requested by the CEQ;

E. Environmental Conflict Resolution reports, requested by the OMB, and the CEQ;

F. Project status and information for EAs and EISs for use on the searchable website maintained under section 41003(b) of the FAST Act [Fixing America's Surface Transportation Act, 42 U.S.C. 4370m-2(b) and 23 U.S.C. 139(o)] (Federal Permitting Dashboard) to be submitted in accordance with current and any future reporting standard issued by USDOT pursuant to such provisions;

G. Environmental information for all EAs and EISs subject to this MOU. Such information shall include, but is not limited to all known environmental justice concerns identified during the environmental process;

H. Any such information that may be requested by the FHWA Administrator

8.6 Conformity Determinations

8.6.1 Pursuant to 23 U.S.C. 327(a)(2)(B)(iv)(II), for any project requiring a project–level conformity determination under the Federal Clean Air Act and its implementing regulations, the FHWA's California Division Office will document the project level conformity determination by transmitting a letter to Caltrans to be included in the Final EIS or EA. The FHWA's California Division Office will restrict its review to only that data, analyses, applicable comments and responses, and other relevant documentation that enable the FHWA to make the project level conformity determination. For CE projects that have not been assumed pursuant to the 326 CE MOU, Caltrans shall rely upon the FHWA for the project level conformity determinations. Caltrans shall rely upon a documented FHWA project-level conformity determination prior to approval of the CE by Caltrans.

8.7 Certification of NEPA Compliance

8.7.1 For projects funded by the FHWA, prior to the execution of any Federal–aid project agreement for a physical construction contract, a design-build contract, or a contract for final design services, the Director of Caltrans will submit a certification for each individual project to the FHWA California Division Office specifying that Caltrans has fully carried out all responsibilities assumed under this MOU in accordance with this MOU and applicable Federal laws, regulations, and policies. The Director of Caltrans may delegate the certification required under this subpart to other qualified and duly authorized Caltrans personnel.

8.8 Enforcement

8.8.1 Should the FHWA determine that Caltrans is not in compliance with this MOU, then the FHWA shall take appropriate action to ensure Caltrans' compliance, including appropriate remedies provided at 23 CFR 1.36 for violations of or failure to comply with Federal law or the regulations in 23 CFR 771 with respect to a project, withdrawing assignment of any responsibilities that have been assumed as provided in part 9 of this MOU, or terminating Caltrans' participation in the Program as provided in part 12 of this MOU.

PART 9. WITHDRAWAL OF RESPONSIBILITIES OF ASSIGNED PROJECTS

9.1 FHWA-Initiated Withdrawal of Assigned Projects

9.1.1 The FHWA may, at any time, withdraw the assignment of all or part of the

USDOT Secretary's responsibilities that have been assumed by Caltrans under this MOU for any highway project or highway projects upon the FHWA's determination that:

A. With respect to that particular highway project or those particular highway projects, Caltrans is not in compliance with a material item of this MOU or applicable Federal laws or policies; and, after receiving reasonable notice and an opportunity to take corrective action, Caltrans has not taken sufficient corrective action to the satisfaction of the FHWA;

B. The highway project or highway projects involve significant or unique national policy interests for which Caltrans' assumption of the Secretary's responsibilities would be inappropriate, including instances where the FHWA receives a complaint under Title VI of the Civil Rights Act of 1964 involving a project that is subject to this MOU and the FHWA accepts the complaint for investigation or determines that the project may have significant negative community impacts ; or

C. Caltrans cannot satisfactorily resolve an issue or concern raised in a government–to–government consultation process, as provided in subpart 3.2.3.

9.1.2 Upon the FHWA's determination to seek to withdraw assignment of the USDOT Secretary's responsibilities under subpart 9.1.1, the FHWA will notify Caltrans of the FHWA's determination. After notifying Caltrans of its determination, the FHWA will provide Caltrans written notice of its determination including the reasons for its determination. Upon receipt of this notice, Caltrans may submit any comments or objections to the FHWA within 30 calendar days, unless an extended period of time is agreed to by the FHWA. Upon receipt of Caltrans' comments or objections, the FHWA will make a final determination within 30 calendar days, unless extended by the FHWA for cause, and notify Caltrans of its decision. In making its determination, the FHWA will consider Caltrans' comments or objections, the effect the withdrawal of assignment will have on the Program, amount of disruption to the project concerned, the effect on other projects, confusion the withdrawal of assignment may cause to the public, the potential burden to other Federal agencies, and the overall public interest. Following its final determination, when FHWA withdraws assignment for any project or projects, FHWA will assume sole responsibility and liability for the decisions and approvals it has re-assumed for the project or projects based on such determination. However, Caltrans will remain responsible for other decisions and approvals for the project or projects, which FHWA has not reassumed responsibility or liability for, such as decisions and approvals beyond the scope of the USDOT Secretary's responsibilities under NEPA and related Federal environmental laws.

9.1.3 The FHWA shall withdraw assignment of the responsibilities Caltrans has assumed for any highway project when the preferred alternative that is identified in the environmental assessment or final environmental impact statement is a highway project that is specifically excluded in subpart 3.3.2. In such case, subpart 9.1.2 shall not apply.

9.2 Caltrans-Initiated Withdrawal of Assignment of Projects

9.2.1 Caltrans may, at any time, request the FHWA to withdraw all or part of the USDOT Secretary's responsibilities it has assumed under this MOU for any existing or future highway project or highway projects.

9.2.2 Upon Caltrans' decision to request the FHWA withdraw the assignment of the USDOT Secretary's responsibilities under subpart 9.2.1; Caltrans shall informally notify the FHWA of its desire for the FHWA to withdraw assignment of its responsibilities. After informally notifying the FHWA of its desire, Caltrans will provide the FHWA written notice of its desire, including the reasons for wanting the FHWA to withdraw assignment of the responsibilities. Upon receipt of this notice, the FHWA will have 30 calendar days, unless extended by the FHWA for cause, to determine whether it will withdraw assignment of the responsibilities requested. In making its determination, the FHWA will consider the reasons Caltrans desires the FHWA to withdraw assignment of the responsibilities, the effect the withdrawal of assignment will have on the Program, amount of disruption to the project concerned, the effect on other projects, confusion the withdrawal of assignment may cause to the public, the potential burden to other Federal agencies, and the overall public interest.

PART 10. PERFORMANCE MEASURES

10.1 General

10.1.1 Both the FHWA and Caltrans have determined that it is desirable to mutually establish a set of performance measures that the FHWA can take into account in its evaluation of Caltrans' administration of the responsibilities it has assumed under this MOU.

10.1.2 Caltrans' attainment of the performance measures indicated in this part 10 will be considered through FHWA monitoring, which is required for the FHWA to comply with 23 U.S.C. 327.

10.1.3 Caltrans shall collect and maintain all necessary and appropriate data related to the attainment of the performance measures. In collecting this data, Caltrans shall monitor its progress toward meeting the performance measures and include its progress in the monitoring report provided under subpart 8.2.5 of this MOU. Caltrans shall make the monitoring report available to the FHWA and the public as provided in subpart 8.2.7.

10.2 Performance Measures

10.2.1 The performance measures applicable to Caltrans in carrying the responsibilities it has assumed under part 3 of this MOU are as follows:

A. Compliance with NEPA and other Federal laws and regulations:

i. Maintain documented compliance with procedures and processes set forth in the MOU for the environmental responsibilities assumed under the Program.
ii. Maintain documented compliance with requirements of all Federal statutes and regulations being assumed as provided in section 3.2.1 of this MOU.

B. Quality Control and Assurance for NEPA decisions:

i. Maintain and apply internal quality control and assurance measures and processes, including a record of:
   a. Legal sufficiency determinations made by counsel;
   b. Compliance with FHWA and Caltrans environmental document content standards and procedures, including those related to QA/QC; and
   c. Completeness and adequacy of documentation of project records for projects done under the Program.

C. Relationships with agencies and the general public:

i. Assess change in communication among Caltrans, Federal and state resource agencies, and the public resulting from assumption of responsibilities under this MOU.
ii. Maintain effective responsiveness to substantive comments received from the public, agencies and interest groups on NEPA documents and environmental concerns.
iii. Maintain effective NEPA conflict resolution processes whenever appropriate.
iv. Ensure meaningful public engagement, including with environmental justice communities.

D. Increased efficiency and timeliness in completion of NEPA process:

i. Compare time of completion for NEPA approvals before and after assumption of responsibilities under this MOU.
ii. Compare time to completion for key interagency consultation formerly requiring FHWA participation (e.g., Section 7 biological opinions) before and after assumption of responsibilities under this MOU.

PART 11. TRAINING

11.1 Training

11.1.1 The FHWA will provide Caltrans available training, to the extent the FHWA and Caltrans deem necessary, with respect to the environmental responsibilities that Caltrans has assumed. Such training may be provided by either the FHWA or another Federal agency or other parties as may be appropriate. Caltrans agrees to have all appropriate employees (including consultants hired for the purpose of carrying out the USDOT Secretary's responsibilities) attend such training.

11.1.2 A training plan will be updated annually by Caltrans and the FHWA during the term of this MOU. While Caltrans and the FHWA may take other agencies' recommendations into account in determining training needs, Caltrans and the FHWA will jointly determine the training required under this MOU.

PART 12. TERM, TERMINATION AND RENEWAL

12.1 Term

12.1.1 This MOU has a term of ten years from the Effective Date.

12.2 Termination by the FHWA

12.2.1 As provided at 23 U.S.C. 327(j)(1), the FHWA may terminate Caltrans' participation in the Program, in whole or in part, at any time subject to the procedural requirements in 23 U.S.C. 327 and subpart 12.2.2 below. Failure to adequately carry out the responsibilities of the Program may include, but not be limited to:

A. Persistent neglect of, or noncompliance with, any Federal laws, regulations, and policies;

B. Failure to cooperate with the FHWA in conducting any oversight or monitoring activity;

C. Failure to secure or maintain adequate personnel and financial resources to carry out the responsibilities assumed;

D. Substantial noncompliance with this MOU; or

E. Persistent failure to adequately consult, coordinate, and/or take the concerns of other relevant Federal and state agencies into account in carrying out the responsibilities assumed.

12.2.2 If the FHWA determines that Caltrans is not adequately carrying out the responsibilities assigned to Caltrans, then:

A. The FHWA shall provide to Caltrans a written notification of its non-compliance determination detailing a description of each responsibility in need of corrective action regarding an inadequacy identified.

B. Caltrans shall have a period of not less than 120 days to take such corrective action as the FHWA determines to be necessary to comply with this MOU.

C. If, after the notification and the period to take corrective action Caltrans has failed to take satisfactory corrective action as determined by the FHWA, the FHWA shall provide Caltrans with a notice of termination. Any responsibilities identified to be terminated in the notice that have been assumed by Caltrans pursuant to this MOU shall transfer to the FHWA.

12.3 Termination by Caltrans

12.3.1 Caltrans may terminate its participation in the Program, in whole or in part, at any time by providing to the FHWA a notice at least 90 calendar days prior to the date that Caltrans seeks to terminate its participation in this Program, and subject to such terms and conditions as the FHWA may provide.

12.3.2 The California State Legislature may, at any time, terminate Caltrans participation in the Program by withdrawing the State's consent to Federal court jurisdiction and waiver of sovereign immunity or taking any other legislative action withdrawing authority to Caltrans to participate in the Program.

12.3.3 The FHWA and Caltrans shall have a plan to transition the responsibilities that Caltrans has assumed back to the FHWA in the event that Caltrans' participation in the program is terminated. This plan shall be developed to minimize disruption to projects, confusion to the public, and burdens on other affected Federal, State, and local agencies. The plan shall be approved by both the FHWA and Caltrans.

12.4 Validity of Caltrans' Actions

12.4.1 Any environmental approvals made by Caltrans pursuant to the responsibilities Caltrans has assumed under this MOU shall remain valid after termination of Caltrans' participation in the Program or withdrawal of assignment by the FHWA. As among the USDOT Secretary, the FHWA and Caltrans, and in accordance with subpart 4.3.1 and part 6, Caltrans shall remain solely responsible and solely liable for any environmental approvals it makes pursuant to any of the responsibilities it has assumed while participating in the Program.

12.5 Renewal

12.5.1 This MOU is renewable in accordance with 23 U.S.C. 327 and 23

CFR 773.115.

A. Caltrans shall notify the FHWA at least 12 months before the expiration of this MOU of its intent to renew its participation in the Program.

B. Prior to requesting renewal, Caltrans shall coordinate with the FHWA to determine if significant changes have occurred or if new assignment responsibilities are being sought that would warrant a statewide notice and opportunity for public comment prior to Caltrans' submittal of the renewal package.

C. Caltrans shall meet the requirements in 23 CFR 773.115(c); and

D. Caltrans shall submit the renewal package no later than 180 days prior to the expiration date of the MOU.

PART 13. AMENDMENTS

13.1 Generally

13.1.1 This MOU may be amended at any time upon mutual agreement by both the FHWA and Caltrans pursuant to 23 CFR 773.113(b).

13.2 Additional Projects, Classes of Projects and Environmental Review Responsibilities

13.2.1 Caltrans may assume responsibility for additional projects and additional environmental review responsibilities beyond those identified in part 3 of this MOU by executing an amendment to this MOU.

13.2.2 Should Caltrans decide to request this MOU be amended to add responsibility for additional projects or classes of projects, or additional environmental review responsibilities beyond those identified in part 3 of this MOU, then such request shall be treated as an amendment to Caltrans' renewal package that was submitted to the FHWA pursuant to 23 U.S.C. 327 and 23 CFR 773.115. In developing the amendment, Caltrans shall identify the additional responsibilities and projects it wishes to assume and make any appropriate adjustments to the information contained in Caltrans' renewal package, including the verification of personnel and financial resources. Upon receipt of Caltrans' amendment, the FHWA will consult with, and solicit the views of, other appropriate Federal agencies.

PART 14. IMPLEMENTATION OF NONENVIRONMENTAL LAWS

14.1 Generally

14.1.1 It is recognized and understood that the FHWA remains responsible for implementing other laws, requirements and policies that are not assumed by Caltrans under this MOU, or other MOUs and agreements, with respect to highway projects. This includes, but is not limited to, laws, requirements and policies related to Interstate access, right-of-way (including advance acquisition of right-of-way), value engineering, design, and other areas related to such projects. The FHWA's implementation of such laws, requirements and policies should be consistent with Caltrans' analyses and decisions, if any, that are made pursuant to the responsibilities assumed under this MOU.

14.1.2 Nothing in the MOU prevents or otherwise limits the FHWA's ability to ask Caltrans for information or clarification regarding any NEPA or other environmental decision or analysis made or conducted by Caltrans under this MOU for any highway project.

14.1.3 The FHWA's requests for such information or clarification do not change Caltrans' responsibility and liability for such decisions and analyses under this MOU.

14.1.4 Should FHWA determine that further action is necessary with respect to Caltrans compliance with the responsibilities it has assumed under this MOU, the FHWA may request that Caltrans take appropriate action and will give Caltrans a reasonable period of time to respond. The FHWA may also take action to reassume responsibilities for such project if the FHWA deems appropriate as provided for under Part 9 of this MOU.

14.2 Title VI of the Civil Rights Act of 1964

14.2.1 Although Title VI is not part of NEPA, the public has the right to file a Title VI complaint. The FHWA's responsibilities with respect to such complaints, as well as other issues related to Title VI compliance that have been identified by the FHWA, may require the FHWA to ask Caltrans for information or clarification regarding any NEPA or environmental decision or analysis made or conducted by Caltrans under this MOU for any highway project.

14.2.2 Caltrans agrees to comply with all requests from FHWA related to monitoring under this MOU. Title VI investigations involving highway projects subject to this MOU may result in additional monitoring in accordance with this MOU.

IN WITNESS THEREOF, the parties hereto have caused this MOU to be duly executed in duplicate as of the date of the last signature written below. This MOU is effective on the Effective Date as specified in subpart 1.1.3.

Date: 5-27-22

Stephanie Pollack
Deputy Administrator
Federal Highway Administration

Date: 5-26-22

Steven Keck
Acting Director
California Department of Transportation

Date: 5/24/22

Erin Holbrook
Chief Counsel

For California Department of Transportation only as to the certifications required under subpart 4.1.1 of this MOU and as to form.

Attachment 4
FHWA Programmatic Section 4(f) for Historic Bridges

Federal Transportation Authorizations

NEPA Implementation

Other Federal Legislation

Section 4(f)

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Section 4(f)

Programmatic Section 4(f) Evaluation and Approval for FHWA Projects that Necessitate the Use of Historic Bridges

This statement sets forth the basis for a programmatic Section 4(f) approval that there are no feasible and prudent alternatives to the use of certain historic bridge structures to be replaced or rehabilitated with Federal funds and that the projects include all possible planning to minimize harm resulting from such use. This approval is made Pursuant to Section 4(f) of the Department of Transportation Act of 1966, 49 U.S.C. 303, and Section 18(a) of the Federal-Aid Highway Act of 1968 23 U.S.C. 138.

Use

The historic bridges covered by this programmatic Section 4(f) evaluation are unique because they are historic, yet also part of either a Federal-aid highway system or a state or local highway system that has continued to evolve over the years. Even though these structures are on or eligible for inclusion on the National Register of Historic Places, they must perform as an integral part of a modern transportation system. When they do not or cannot, they must be rehabilitated or replaced in order to assure public safety while maintaining system continuity and integrity. For the purpose of this programmatic Section 4(f) evaluation, a proposed action will "use" a bridge that is on or eligible for inclusion on the National Register of Historic Places when the action will impair the historic integrity of the bridge either by rehabilitation or demolition. Rehabilitation that does not impair the historic integrity of the bridge as determined by procedures implementing the national Historic Preservation Act of 1966, as amended (FHWA), is not subject to Section 4(f).

Applicability

This programmatic Section 4(f) evaluation may be applied by the Federal Highway Administration (FHWA) to projects which meet the following criteria:

1. The bridge is to be replaced or rehabilitated with Federal funds.
2. The project will require the use of a historic bridge structure which is on or is eligible for listing on the National Register of Historic Places.
3. The bridge is not a National Historic Landmark.
4. The FHWA Division Administrator determines that the facts of the project match those set forth in the sections of this document labeled Alternatives, Findings, and Mitigation.
5. Agreement among the FHWA, the State Historic Preservation Officer (SHPO), and the Advisory Council on Historic Preservation (ACHP) has been reached through procedures pursuant to Section 106 of the NHPA.

Alternatives

The following alternatives avoid any use of the historic bridge:

1. Do nothing.
2. Build a new structure at a different location without affecting the historic integrity of the old bridge, as determined by procedures implementing the NHPA.
3. Rehabilitate the historic bridge without affecting the historic integrity of the structure, as determined by procedures implementing the NHPA.

This list is intended to be **all-inclusive**. The programmatic Section 4(f) evaluation does not apply if a reasonable alternative is identified that is not discussed in this document. The project record must clearly demonstrate that each of the above alternatives was fully evaluated and it must further demonstrate that all applicability criteria listed above were met before the FHWA Division Administrator concluded that the programmatic Section 4(f) evaluation applied to the project.

Findings

In order for this programmatic Section 4(f) evaluation to be applied to a project, each of the following findings must be supported by the circumstances, studies, and consultations on the project:

1. **Do Nothing**. The do nothing alternative has been studied. The do nothing alternative ignores the basic transportation need. For the following reasons this alternative is not feasible and prudent:

   a. Maintenance - The do nothing alternative does not correct the situation that causes the bridge to be considered structurally deficient or deteriorated. These deficiencies can lead to sudden collapse and potential injury or loss of life. Normal maintenance is not considered adequate to cope with the situation.

   b. Safety - The do nothing alternative does not correct the situation that causes the bridge to be considered deficient.

   Because of these deficiencies the bridge poses serious and unacceptable safety hazards to the traveling public or places intolerable restriction on transport and travel.

2. **Build on New Location Without Using the Old Bridge**. Investigations have been conducted to construct a bridge on a new location or parallel to the old bridge (allowing for a one- way couplet), but, for one or more of the following reasons, this alternative is not feasible and prudent:

   a. Terrain - The present bridge structure has already been located at the only feasible and prudent site, i.e., a gap in the land form, the narrowest point of the river canyon, etc. To build a new bridge at another site will result in extraordinary bridge and approach engineering and construction difficulty or costs or extraordinary disruption to established traffic patterns.

   b. Adverse Social , Economic, or Environmental Effects - Building a new bridge away from the present site would result in social, economic, or environmental impact of extraordinary magnitude. Such impacts as extensive severing of productive farmlands, displacement of a significant number of families or businesses, serious disruption of established travel patterns, and access and damage to wetlands may individually or cumulatively weigh heavily against relocation to a new site.

   c. Engineering and Economy - Where difficulty associated with the new location is less extreme than those encountered above, a new site would not be feasible and prudent where cost and engineering difficulties reach extraordinary magnitude. Factors supporting this conclusion

include significantly increased roadway and structure costs, serious foundation problems, or extreme difficulty in reaching the new site with construction equipment. Additional design and safety factors to be considered include an ability to achieve minimum design standards or to meet requirements of various permitting agencies such as those involved with navigation, pollution, and the environment.

d. Preservation of Old Bridge - It is not feasible and prudent to preserve the existing bridge, even if a new bridge were to be built at a new location. This could occur when the historic bridge is beyond rehabilitation for a transportation or an alternative use, when no responsible party can be located to maintain and preserve the bridge, or when a permitting authority, such as the Coast Guard requires removal or demolition of the old bridge.

3. **Rehabilitation Without Affecting the Historic Integrity of the Bridge**. Studies have been conducted of rehabilitation measures, but, for one or more of the following reasons, this alternative is not feasible and prudent:

   a. The bridge is so structurally deficient that it cannot be rehabilitated to meet minimum acceptable load requirements without affecting the historic integrity of the bridge.

   b. The bridge is seriously deficient geometrically and cannot be widened to meet the minimum required capacity of the highway system on which it is located without affecting the historic integrity of the bridge. Flexibility in the application of the American Association of State Highway and Transportation Officials geometric standards should be exercised as permitted in 23 CFR Part 625 during the analysis of this alternative.

Measures to Minimize Harm

This programmatic Section 4(f) evaluation and approval may be used only for projects where the FHWA Division Administrator, in accordance with this evaluation, ensures that the proposed action includes all possible planning to minimize harm. This has occurred when:

1. For bridges that are to be rehabilitated, the historic integrity of the bridge is preserved, to the greatest extent possible, consistent with unavoidable transportation needs, safety, and load requirements;
2. For bridges that are to be rehabilitated to the point that the historic integrity is affected or that are to be moved or demolished, the FHWA ensures that, in accordance with the Historic American Engineering Record (HAER) standards, or other suitable means developed through consultation, fully adequate records are made of the bridge;
3. For bridges that are to be replaced, the existing bridge is made available for an alternative use, provided a responsible party agrees to maintain and preserve the bridge; and
4. For bridges that are adversely affected, agreement among the SHPO, ACHP, and FHWA is reached through the Section 106 process of the NHPA on measures to minimize harm and those measures are incorporated into the project. This programmatic Section 4(f) evaluation does not apply to projects where such an agreement cannot be reached.

Procedures

This programmatic Section 4(f) evaluation applies only when the FHWA Division Administrator:

1. Determines that the project meets the applicability criteria set forth above;
2. Determines that all of the alternatives set forth in the Findings section have been fully evaluated;
3. Determines that use of the findings in this document that there are no feasible and prudent alternatives to the use of the historic bridge is clearly applicable;
4. Determines that the project complies with the Measures to Minimize Harm section of this document;
5. Assures that implementation of the measures to minimize harm is completed; and
6. Documents the project file that the programmatic Section 4(f) evaluation applies to the project on which it is to be used.

Coordination

Pursuant to Section 4(f), this statement has been coordinated with the Departments of the Interior, Agriculture, and Housing and Urban Development.

Issued on: July 5,1983 Approved: /Original Signed By/ Ali F. Sevin, Director Office of Environmental Policy Federal Highway Administration

Attachment 5
Programmatic Section 4(f) Evaluation for the Project

Garrapata Creek Bridge Rail Replacement Project

05-MON-1-PM 63.0

Garrapata Creek Bridge Rail Replacement, located along the Big Sur Coast in Monterey County

PROGRAMMATIC SECTION 4(F) EVALUATION

Submitted Pursuant to:

49 USC 303

THE STATE OF CALIFORNIA

Department of Transportation as assigned

4.29.21
Date of Approval

Jason Wilkinson
Jason Wilkinson
Senior Environmental Planner

The environmental review, consultation, and any other action required in accordance with applicable Federal laws for this project is being, or has been, carried-out by Caltrans under its assumption of responsibility pursuant to 23 USC 326.

Introduction

Section 4(f) of the Department of Transportation Act of 1966, codified in federal law at 49 USC 303, declares that "it is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites."

Section 4(f) specifies that the Secretary [of Transportation] may approve a transportation program or project . . . requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by the federal, state, or local officials having jurisdiction over the park, area, refuge, or site) only if:

- there is no prudent and feasible alternative to using that land; and

- the program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.

Description of Proposed Project and Alternatives

Project Description

Caltrans proposes to replace the deteriorated nonstandard concrete baluster bridge rail and approach railing on the Garrapata Creek Bridge (Number 44-0018) on State Route 1 in Monterey County, approximately 11.3 miles south of Carmel-By-The-Sea to ensure the safety and reliability of State Route 1. The Garrapata Creek Bridge structure is eligible for listing on the National Register of Historic Places (NRHP) and is located within the Carmel-San Simeon State Highway Historic District (CSSHHD) as well as within the Coastal Zone.

Garrapata Creek Bridge (Number 44-0018) is an open-spandrel arch bridge that was constructed in 1931, widened in 1998 and seismically retrofitted in 1987 and 1998. The bridge sits at post mile 63.0 just south of Carmel in Monterey County and is one of seven historic arch bridges along State Route 1 on the Big Sur Coast. The bridge is 285 feet long and consists of 12-foot lanes with zero to 1-foot shoulders.

The structure has nonstandard concrete baluster bridge rails on both sides of the structure. The rail end posts exhibit fine pattern cracking, and the barrier rail posts are severely deteriorated with dozens of spalls (flaking areas) and spalled posts, in addition to previous impact damage.

Construction would remove the existing rail along with the existing 1-foot overhang on each side of the bridge deck and widen the deck 3 inches on each

side to place the new standard rails. No work would occur in Garrapata Creek. Debris from removal of the existing rail and overhang would be kept from entering Garrapata Creek by either affixing a debris containment system to falsework hung from the top of the bridge or using an excavator with a bucket designed to catch the debris.

All work would be conducted within the existing state right-of-way, and access below the bridge would be restricted to foot traffic only, so no equipment access roads would be necessary. There are no utility conflicts.

Project Alternatives

One Build Alternative and a No-Build Alternative are being evaluated for this project. The alternatives under consideration for the project were developed by an interdisciplinary project development team with the goal of adequately addressing the project purpose and need while avoiding and minimizing environmental impacts and reducing project costs.

Build Alternatives

The current Build Alternative would involve replacing the existing nonstandard bridge rail and approach railing with a new railing that meets current traffic safety standards. The Build Alternative would involve evaluation of 2 bridge rail types and aesthetic treatments to implement context sensitive design solutions. A context sensitive design approach uses a collaborative, interdisciplinary decision-making process that involves all stakeholders to develop a transportation facility that fits its physical setting.

No Build Alternative

Under the No-Build Alternative, the historic Big Sur Bridge rails would not be replaced and would continue to deteriorate. Under the No-Build Alternative, the bridge rails would remain nonstandard.

Alternatives Considered but Eliminated from Further Discussion

Caltrans considered multiple alternatives to avoid or minimize adverse effects to the bridge. To be considered viable, project alternatives must address the project purpose and need: The purpose of the project is to replace the existing concrete baluster bridge rail and approach rail with a rail that meets current traffic safety standards. The bridge is historic as well as visually significant to the traveling public, so the project design must address context-sensitive solutions. The following alternatives were considered but rejected because they either could not meet the purpose and need of the project or were determined not to be feasible.

No Build Alternative

The no build alternative was considered but rejected because it does not meet the purpose and need of the project to replace the existing nonstandard concrete baluster bridge rail and approach rail with a rail that meets current MASH crashworthiness safety standards. The existing rails do not meet MASH standards, and portions of the rails are currently deteriorated and in need of replacement. The rails are experiencing concrete spalling, exposed steel reinforcing bar, and corrosion caused by exposure to salts in the air due to the bridge's location near the ocean. This deterioration may pose a hazard to public health and safety in the future if allowed to continue unaddressed. Therefore, replacement of the existing rails is necessary for safety purposes as well as to preserve the continued function of the Garrapata Creek Bridge, extending its service life.

Replacement of Rails In-Kind Alternative

Caltrans investigated all possible alternatives that would avoid adversely affecting the bridge, including replacing the rails in-kind in a manner that would meet the Secretary of the Interior's Standards for the Treatment of Historic Properties. However, the replacement of the rails in kind was rejected because it does not meet the purpose and need of the project to replace the existing bridge rail and approach rail with a rail that meets current traffic safety standards. The dimensions of the existing railings do not meet MASH crashworthiness standards; therefore, in kind replacements would not meet MASH standards.

Replacement of Rails with Type C411 / Reduction of Speed Limit to 45 mph

Caltrans also considered the possibility of lowering the speed limit in order to replace the rails with the Type C411, a design that is more aesthetically similar to the bridge's original rail design. The Type C411 rail is rated only for speeds up to 45 mph (TL-2 rating). The replacement of the rails with the Type C411 railing was considered but rejected after a speed survey on the Garrapata Creek Bridge was completed and determined that a reduction of the speed limit was not a feasible option. The results from a vehicle speed survey completed in December 2019 demonstrated that the speeds were higher than anticipated; at the 85th percentile speeds were 58 mph. This data informs the Caltrans project development team that the replacement railing must be designed for crashworthiness at the TL-4 rating, which is designed for vehicles travelling greater than 45 mph. As the Type C411 railing would not meet that standard, it does not meet the purpose and need of the project.

Purpose and Need

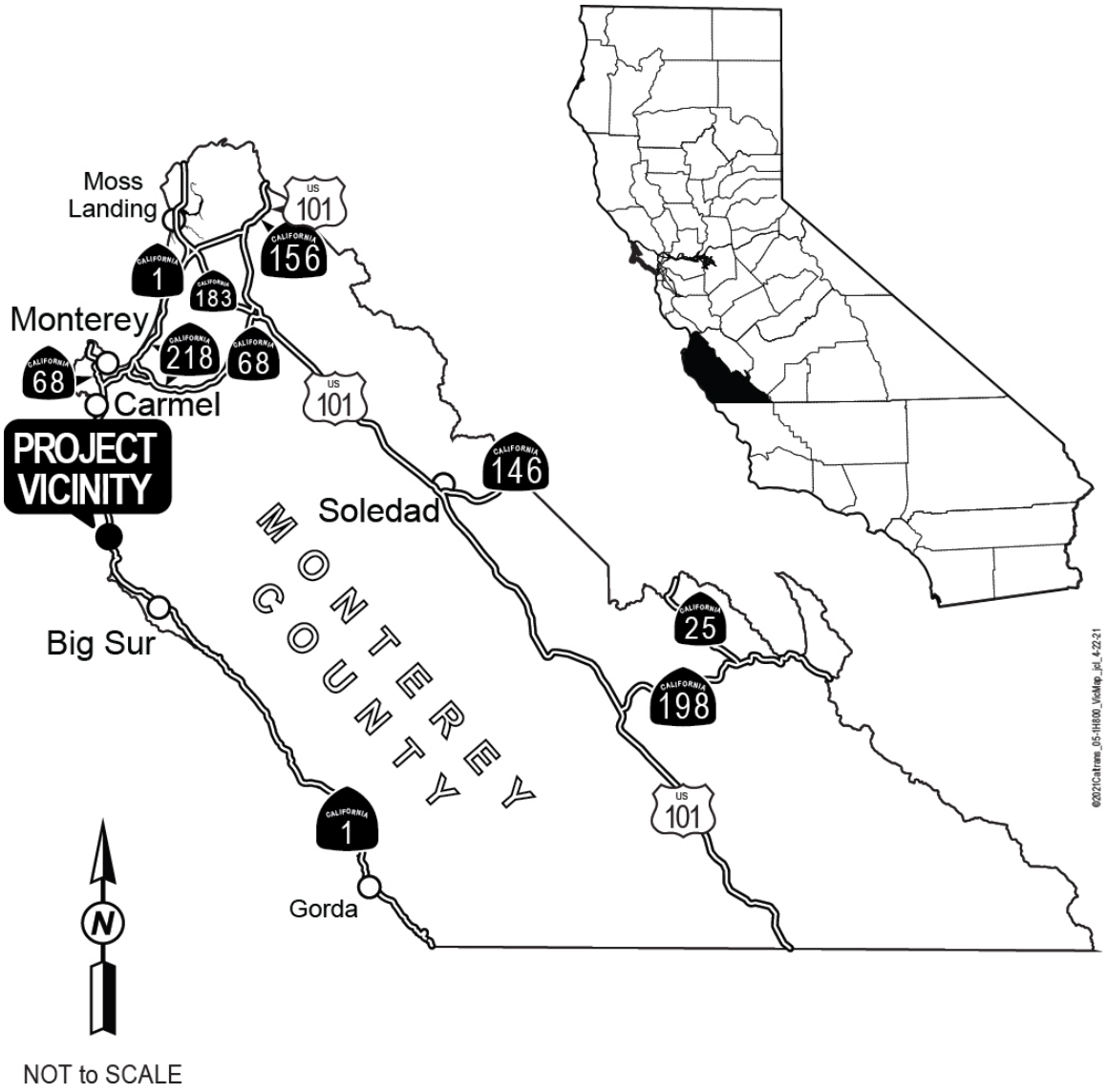
Purpose

The purpose of the Garrapata Creek Bridge Rail Replacement Project is to replace the existing nonstandard concrete baluster bridge rails and approach rails with rails that meets current state and federal traffic safety standards. Caltrans will choose a new Manual for Assessing Safety Hardware-compliant railing that is both context sensitive and compatible with the historic and visual character of the Big Sur Bridges and within the Carmel-San Simeon Highway Historic District (CSSHHD).

Need

Garrapata Creek Bridge Rail Replacement Project is needed because the existing rails do not meet current state and federal traffic safety standards, and portions of the existing Garrapata Creek Bridge rails have developed severe cracking caused by deterioration of concrete and reinforcing steel. According to the 2015 Bridge Inspection Report for Garrapata Creek Bridge, portions of the existing rail are in an accelerated state of deterioration, with concrete spalling and exposed steel reinforcing bar. This deterioration may pose a hazard to public health and safety moving forward if allowed to continue unaddressed.

Description of Section 4(f) Property



NOT to SCALE

The project area is located on SR 1 along the Big Sur coast of Central California, an area characterized by the rugged terrain of the Santa Lucia Mountains, which descend steeply down on the west to the Pacific Ocean. The western slope is cut by numerous rivers, creeks, and canyons of varying widths and depths, such as Garrapata Creek. The shoreline is generally rocky with a few sandy beaches; coastal terraces are few. The Big Sur region does not have any census designated places, but at a few locations, such as Big Sur Village, Gorda, and Lucia, are small settlements that usually include tourist service businesses such as restaurants, gas stations, and lodging. There are two historic properties located within the APE for the Garrapata Creek Bridge Rail Replacement Project: the Garrapata Creek Bridge (Bridge No. 44-0018), which was determined eligible for the NRHP in 1986, and the CSSHHD, which was determined eligible for the

NRHP in 1996 with SHPO concurrence in 2003 and updates in 2006. The Garrapata Creek Bridge is also a contributing resource in the CSSHHD.

The Garrapata Creek Bridge (#44 0018), located at post mile 63.0 on Highway 1 in Monterey County, is a reinforced concrete, open spandrel, fixed parabolic arch bridge with a single arch span comprised of parallel concrete arch ribs measuring 150 feet long. It was determined eligible for listing NRHP and in the CRHR in 1986 under Criterion A/1 (in the area of transportation) for its association with the Highway Beautification Movement and construction of the Carmel-San Simeon Highway as well as Criterion C/3 as an example of reinforced concrete bridge design and engineering from the 1920s-30s. The bridge's character-defining features include its use of reinforced concrete materials; its open spandrel, fixed parabolic arch; its six concrete T-beam approach spans; its decorative cantilevered walkway; and the decorative reinforced concrete railings with arched window design and smooth textured finish. The historic resource boundary for the bridge is the structure itself.

The total bridge length is 285 feet and includes seven approach spans (five 25-foot spans and two 5-foot spans) in addition to the 150-foot arch span. The height of the bridge is approximately 85 feet above the creek bed. The reinforced concrete arch ribs measure five feet in thickness at the springing line, narrowing to three feet in thickness at the crown. The bridge deck is 28 feet wide, including a 24-foot, two-lane roadway with curbs. The bridge railings are smooth reinforced concrete in an arched window design. The bridge was seismically retrofitted in 1987 and 1998.

The Garrapata Creek Bridge was constructed in 1931 by the Hanrahan Construction Company of San Francisco for the California Division of Highways Bridge Department under the leadership of Charles Andrew. The resident engineer was O.R. Bosso. The Garrapata Creek Bridge was the first concrete arch bridge constructed on the scenic Carmel-San Simeon Highway, which was constructed between 1922 and 1938 along one of the most rugged and previously inaccessible areas of the California coastline.

The Garrapata Creek Bridge is one of seven iconic concrete arch bridges known as the "Big Sur Arches" located on Highway 1 along the coast of the Pacific Ocean in Monterey County. The other six bridges include the Bixby Creek, Rocky Creek, Big Creek, Granite Canyon, Malpaso Creek, and Wildcat Creek Bridges. All seven concrete arch bridges were determined individually eligible for listing in the NRHP and in the CRHR in 1986 by Caltrans historian Stephen Mikesell. In addition, the bridges are included as contributing resources in the Carmel-San Simeon Highway Historic District, which was determined eligible for listing in the NRHP and the CRHR in 1996 Caltrans architectural historian Robert Pavlik and updated by JRP Historical Consultants in 2006.

Impacts on Section 4(f) Property

Impacts discussed in this section will be related to the preferred alternative.

The Garrapata Creek Bridge Rail Replacement Project proposes to replace the bridge railing and approach railing with new rails that meet current MASH safety standards. After analysis of the potential effects of this undertaking on the Garrapata Creek Bridge and the CSSHHD, Caltrans finds that the project causes an adverse effect on the Garrapata Creek Bridge and does not adversely affect the CSSHHD. the project will alter the original railings of the Garrapata Creek Bridge and introduce new visual elements that will diminish some aspects of the historic integrity of the property. The effect of changing the railing on one of the seven bridges, one of 241 contributing elements to the historic district, is a minimal effect on the district. This project will not diminish the integrity of its overall character as a 75-mile long discontinuous district with hundreds of discrete elements, and does not impede the CSSHHD's ability to convey its historic significance.

The proposed project will impact the following resources associated with the 4(f) property:

Visual- The new bridge rail would be the same height but would have smaller openings and less of a "see-through" appearance. Other potential visual changes associated with the project may include an increase in paved surfaces, grading and earthwork, new longer guardrail and concrete anchor blocks adjacent to the bridge, change from wooden posts to metal posts, and vegetation removal. Many of the proposed elements would block or reduce visual access to coastal scenic vistas and scenic resources as seen from State Route 1, an Officially Designated State Scenic Highway and National Scenic byway.

The existing visual quality and character of the Big Sur Coast is based to a large degree on its rugged topography and coastline, sweeping ocean views, historic structure, undeveloped setting, and native vegetation patterns. The highway itself reinforces the overall rugged and rural character because of its curvilinear alignment and generally narrow appearance.

Local, state and federal planning documents base the high visual quality of this route mostly on the striking views of the ocean, the dramatic topography, the native vegetative patterns, and the relatively natural character of the roadside environment. Within the project limits, each of the bridges is historic and iconic scenic features of the California coast. The proposed project would change the visual character at the project location. Loss of important architectural elements would fundamentally alter the visual experience of travelling the Big Sur Coast along State Route 1. In addition, the overall effect of these changes would be a more engineered looking, slightly larger scale, more contemporary highway facility.

Noise- Since no capacity will be added to the highway and the profile of the highway will be the same after construction, this would be considered a Type 3 project, it is assumed that local noise levels will be the same after completion of the project as they were before. Long-term noise abatement measures are not anticipated with this project.

Temporary (Construction) Impacts:
It is inevitable that local noise levels in the vicinity of any given location will experience a short-term increase due to construction activities. The amount of construction noise will vary with the particular activities associated with each location and the models and types of equipment used by the contractor. Caltrans policy states that normal construction equipment should not emit noise levels greater than 86-dBA at 50-feet from the source during nighttime operations.

Vegetation- Following construction, areas of temporary disturbance to natural habitats would be stabilized and revegetated; these include areas supporting coastal scrub. Permanent erosion control, planting, or a combination of both would be used to vegetate all temporarily impacted areas. The Caltrans Landscape Architecture Division would prepare erosion control and planting plans in coordination with the project biologist. Permanent erosion control seed would consist of a mix of species native to the area. Areas of temporarily disturbed coastal scrub would be replaced in-kind.

Wildlife- Garrapata Creek is federally designated critical habitat for the south-central California coast steelhead, but this habitat would not be affected by the project. All work would be conducted well outside of the jurisdictional areas of the creek. Permanent impacts are not anticipated with the project.

Applicability of Programmatic Section 4(f)

Historic Bridges Programmatic Section 4(f)

The proposed use of the Garrapata Creek Bridge satisfies the requirements for use of a Programmatic Section 4(f) Evaluation for FHWA projects that necessitate the use of historic bridges by meeting the following criteria:

- The bridge is to be rehabilitated with Federal funds.
- The project requires the use of a historic bridge, which is listed or eligible for listing in the NRHP.
- The bridge is not a National Historic Landmark
- Agreement between Caltrans and the SHPO about the historic bridge is reached through the NHPA Section 106 consultation process.

Implementation of the preferred alternative would result in the replacement of the Garrapata Creek Bridge Rails. The resource is a historic bridge that has been determined to be eligible for the National Register of Historic Places (NRHP). It is not a National Historic Landmark. Retrofitting the bridge rails or replacing the rails in-kind is not feasible.

A Programmatic Section 4(f) Evaluation cannot be used for projects that require an Environmental Impact Statement (EIS). The project does not cross a threshold that would require preparation of an EIS in 23 CFR 771.115. x The State Historic Preservation Office (SHPO) must concur in writing with the assessment of impacts and proposed mitigation. The SHPO has concurred with the Section 106 Finding of Adverse Effect in December 2020 and with the mitigation measures proposed in the Memorandum of Agreement in March 2021.

Avoidance Alternatives and Other Findings

1. **Do Nothing**. The do nothing alternative has been studied. The do nothing alternative ignores the basic transportation need. For the following reasons this alternative is not feasible and prudent:

    a. Maintenance - The do nothing alternative does not correct the situation that causes the bridge rail to be considered structurally deficient or deteriorated. These deficiencies can lead to sudden collapse and potential injury or loss of life. Normal maintenance is not considered adequate to cope with the situation.

    b. Safety - The do nothing alternative does not correct the situation that causes the bridge rail to be considered deficient.

Because of these deficiencies the bridge rails pose serious and unacceptable safety hazards to the traveling public.

2. **Build on New Location Without Using the Old Bridge**. Investigations have been conducted to construct a bridge on a new location or parallel to the old bridge (allowing for a one- way couplet), but, for one or more of the following reasons, this alternative is not feasible and prudent:
    - Terrain - The present bridge structure has already been located at the only feasible and prudent site. To build a new bridge at another site will result in extraordinary bridge and approach engineering and construction difficulty or costs or extraordinary disruption to established traffic patterns.
    - Preservation of Old Bridge - It is not feasible and prudent to preserve the existing bridge, even if a new bridge were to be built at a new location.

3. **Rehabilitation Without Affecting the Historic Integrity of the Bridge**. Studies have been conducted of rehabilitation measures, but, for one or more of the following reasons, this alternative is not feasible and prudent:

- The bridge rail is so structurally deficient that it cannot be rehabilitated to meet acceptable traffic safety requirements without affecting the historic integrity of the bridge.

Measures to Minimize Harm to the Section 4(f) Property

- For bridges that are to be rehabilitated to the point that the historic integrity is affected or that are to be moved or demolished, the FHWA ensures that, in accordance with the Historic American Engineering Record (HAER) standards, or other suitable means developed through consultation, fully adequate records are made of the bridge.

    - Caltrans has complied with this procedure through the Finding of Adverse Effect Determination and Memorandum of Agreement with the State Historic Preservation Office. HAER photographic and written documentation will be completed as part of the mitigation.

- For bridges that are adversely affected, agreement among the SHPO, ACHP, and FHWA is reached through the Section 106 process of the NHPA on measures to minimize harm and those measures are incorporated into the project. This programmatic Section 4(f) evaluation does not apply to projects where such an agreement cannot be reached.

    - Caltrans has reached agreement with the SHPO. The SHPO concurred with the Finding of Adverse Effect in December 2020 and approved the mitigation measures proposed in the Memorandum of Agreement in March 2021.

Caltrans has made extensive efforts to minimize the adverse effect to the greatest extent feasible. Caltrans structures design engineers designed a new rail type (Type 86H) specifically to replicate the design of the historic concrete bridge rails as closely as possible while still meeting MASH standards. In addition, Caltrans also considered concrete rail designs from other states, including the Type C412 rail design from the Texas Department of Transportation, which was also designed to replace historic baluster rails. Although the concrete railings, an original character-defining feature of the bridge, will be replaced, the overall adverse effect on the bridge will be minimal, and the bridge will retain its eligibility for NRHP and CRHR listing. The project will diminish some aspects of the bridge's integrity including its design, workmanship, and feeling; however, the structure's integrity of location, setting, materials, and association will not be diminished.

- **In terms of design**, integrity will be diminished as the original dimensions of the bridge railing will be altered by the project. As a result of developing

a railing that is compliant with the current MASH standards as defined by AASHTO, the replacement railings will have smaller openings and a larger base and baluster. This change in the physical dimensions of the railing will diminish integrity of design. However, the overall design of the bridge's massive substructure, including the 150-foot arches and 285-foot span over the canyon, will not be affected.

- **In terms of workmanship**, integrity will be diminished as the original concrete rails and end treatments to be removed by the project will be replaced with modern precast elements.
- **In terms of feeling**, integrity will be somewhat diminished as the original more minimal concrete railing evokes a sense of time for drivers, pedestrians, or bicyclists who experience the bridge. The appearance of these original railings is in keeping with other concrete arch bridges constructed in the 1920s and 30s; therefore, the bridge's integrity of feeling will diminish as the rails are replaced with modern ones.
- **In terms of location**, the bridge will retain its integrity as it will remain in its original location.
- **In terms of materials,** the bridge will retain integrity as the replacement concrete rails will employ compatible concrete materials to the original bridge.
- **In terms of setting,** the bridge will retain integrity as the project does not propose to alter the iconic coastal setting, and this project will only result in the direct impact of replacing the original bridge railing.
- **In terms of association**, the bridge will retain integrity as it will continue to function as a highway bridge in this location on Highway 1 along the Big Sur Coast. Additionally, the bridge will retain its historical association with the construction of the highway and will remain a contributing element to the CSSHHD.

Although the railings will be altered, the Garrapata Creek Bridge will remain both individually eligible for the NRHP and a contributing feature of the CSSHHD after completion of the project.

In addition, replacing the original rails with ones that meet current safety standards ensures that the bridge itself remains in use in its original function as a bridge along Highway 1 on the Big Sur Coast. Ensuring that the bridge remains functional for its original historical purpose helps to ensure continuing preservation of the structure and longevity of its use in the future.

Mitigation under NHPA Section 106

A. Historic American Engineering Record (HAER)

- Prior to the start of construction, Caltrans shall contact the regional Historic American Building Survey/Historic American Engineering Record/Historic American Landscape Survey (HABS/HAER/HALS) coordinator at the National Park Service Interior Regions 8, 9, 10, and

12 Regional Office (NPS) to request that NPS stipulate the level of and procedures for completing the documentation. Within ten (10) days of receiving the NPS stipulation letter, Caltrans shall send a copy of the letter to all consulting parties for their information.

- Caltrans will ensure that all recordation documentation activities are performed or directly supervised by architects, historians, photographers, and/or other professionals meeting the qualification standards in the Secretary of Interior's Professional Qualification Standards (36 CFR 61, Appendix A).

- Upon receipt of the NPS written acceptance letter, Caltrans will make archival, digital and bound library-quality copies of the documentation and provide them to the Monterey County Historic Resources Review Board, the Monterey County Historical Society, the Big Sur Historical Society, the Carmel Heritage Society, the California Office of Historic Preservation, the Central Coast Information Center, and the California State Library.

- Caltrans shall notify SHPO that the documentation is complete, and all copies distributed, as outlined in Stipulation II.3, and include the completion of the documentation in the annual report. All field surveys shall be completed prior to the start of construction.

B. Completion of DPR Inventory Form

- Caltrans District 5 will hire qualified historical consultants to produce a DPR 523 form, including Primary Record Forms and Building Structure, and Object Record Forms for the Garrapata Creek Bridge.

- The information in the individual DPR 523 form will focus solely on the individual bridge, its specific historic design context and will highlight each resource’s specific history within the broader contextual landscape of social, economic, and cultural trends leading to the opening of State Route 1 (SR-1) in Monterey County. This measure responds directly to comments received from consulting parties, and particularly by The Monterey County Historic Resources Review Board (MCHRRB) in their November 2020 letter to Caltrans regarding the Garrapata Creek Bridge Rail Replacement Project.
- The DPR 523 form will include information such as high-quality color and/or black-and-white photographs, historic photographs and/or drawings as appropriate, and text describing the bridge’s history and character-defining features.

- Caltrans District 5 will distribute paper and digital copies of the DPR 523 inventory form to the Office of Historic Preservation; the California Room of the California State Library; Caltrans District 5; and Caltrans Headquarters Library and History Center as well as with all relevant consulting parties, including the Monterey County Historic Resources Review Board, the Monterey County Historical Society, the Big Sur Historical Society, the Carmel Heritage Society and the Historic Bridge Foundation on request.

C. Lesson Plans

- Caltrans District 5 will hire qualified consultants to develop and produce a lesson plan for elementary school aged students that focuses on historic significance of the bridge designs using Scientific, Technological, Engineering, or Mathematical (STEM) activities. The materials will include visual aids and activities that demonstrate the technical significance of the open spandrel concrete arch design.

- All components of the lesson plan will meet the *Next Generation Science Standards* (NGSS) which (in *APPENDIX I – Engineering Design in the NGSS)* encourage an emphasis on engineering design for newly developed science curricula. They will also meet the *History-Social Science Standards* as defined by the California Department of Education (CDE) to the extent they are applicable to the activities developed.

- The lesson plan will be hosted on the interpretive website, which can be further used as a resource to highlight the historic significance of the bridge as an important engineering achievement.

- Caltrans will engage with the Monterey County Office of Education and the Monterey County Free Library System for distribution of the materials in order to ensure they are utilized and provide a benefit to the local community.

D. Interpretive Website

- Caltrans District 5 will produce a website highlighting the history of Garrapata Creek Bridge as well as the other six (6) Big Sur Arches in a manner that is accessible to the general public and provides public benefit.

- The website will initially contain a main page focusing on the general history of the seven bridges, as well as at least one (1) page focusing on the Garrapata Creek Bridge individually. The website will also include pages to host the historic and modern photographs, the historic context, the lesson plans, and additional information on the engineering and transportation history of the bridges as is deemed appropriate through future studies. The website will be structured so that it may be updated and expanded with additional pages that focus on the Big Sur Arches impacted through the future bridge rail replacement projects outlined in the current Tier 1 analysis or any other projects impacting the Big Sur Arches.

- The website will be maintained for at least ten (10) years, and it is recognized that this time frame may be continually extended as additional projects mentioned in the Tier 1 analysis are proposed and implemented over time.

Coordination

1. PUBLIC PARTICIPATION

As part of the Historic Property Survey Report (HPSR) prepared for this project in September 2020, Caltrans sent notification letters to local interested parties asking for comments on the proposed project on August 31st, 2020. Recipients of the letter were the Monterey County Historical Society, Big Sur Historical Society, Carmel Heritage Society, The Historic Bridge Foundation, and the Monterey County Historic Resources Review Board. This notification was sent via Email and US Postal Service mail on August 31st, 2020 and follow-up email reminders were sent to all consulting parties on September 21st, 2020. Caltrans reengaged parties with a stated participatory interest in the project, including the Big Sur Historical Society and The Monterrey County Historic Resources Review Board, on December 10th, 2020 with a notice of the determination of adverse effect and mitigation proposal.

1.1 Monterey County Historic Resources Review Board (MCHRRB)

On September 21st, 2020 Caltrans PQS Architectural Historian Daniel Leckie spoke with Monterey County Planner Craig Spencer on behalf of the Monterey County Historic Resources Review Board (MCHRRB) over the phone and explained the upcoming bridge rail replacement project, as well as additional future bridge rail replacement projects anticipated along SR-1 in Monterey County. The MCHRRB added the Garrapata Creek Bridge Rail Replacement Project to their monthly board meeting agenda on October 1st, 2020. Caltrans PQS Architectural Historians Daniel Leckie and Lindsay Kozub attended the meeting and presented the project to the board. A follow-up meeting was held on October 20th, 2020 to finalize board comments, and a formal letter detailing concerns with the project, including project justification, evaluation and documentation, environmental review and the replacement rail design was issued on November 7th, 2020. Representatives from Monterey County and the MCHRRB, including Mr. Spencer,

were also present for the December 8th 2020 public meeting which, due to the current COVID-19 pandemic provisions, took place via WebEx video conferencing software. To date, the MCHRRB has brought forth specific concerns as follows:

- **Project justification:** The MCHRRB expressed desire for a greater understanding of the need for the bridge rail replacement. Including:
  - An in-depth review and discussion with FHWA on consideration of historic architecture as a means to compliance with MASH and ASHTO standards;
  - Details on the condition of the existing bridge rails, including photographic evidence.
  - Review of Highway speeds and potential reduction of speed for each bridge as a means of providing flexibility in design solutions for reinforcement, replacement in kind, or design of the replacement rails (if needed).
  - A detailed discussion of why typical historic preservation building standards are not possible in this situation with documentation of efforts on coordination with FHWA and highway speeds.

- **Evaluation and documentation**: The MCHRRB believes review of the project would benefit from more detailed plans and documentation including but not limited to:
  - Elevations and photographs that show the interior and exterior views of the existing bridge rails including features of the rail that reflect the vertical structural elements of the bridge;
  - Original drawings for the bridge and railing if available.
  - Detail the full cross section of the rail and bridge deck; and
  - Detailed historic analysis and report for each bridge prepared by a qualified historian.

- **Environmental Review:** The MCHRRB supports Caltrans decision to prepare an Environmental Impact Report. The MCHRRB believes the EIR should consider at a minimum:
  - Cumulative considerations of rail replacement for ***all six*** historic bridges.
  - Alternatives analysis including a no project alternative.
  - Highway speed reductions given circumstances occurring at each bridge; Historic Preservation design and engineering standard exceptions; and options to repair and reinforce the existing rails or replace in kind; and
  - Effects on historic resources (defining features of the bridges); effects on the critical viewshed in Big Sur; and compatibility with the Coastal Act, Big Sur Land Use Plan and Coast Highway Management Plan.

- **Replacement Rail Design**: If replacement of the bridge rails is determined to be necessary, the MCHRRB reserves the ability to review and comment upon each bridge's rail designs, prior to selection of a final design. These are the MCHRRB's *preliminary* comments on potential new bridge rail designs:

- The MCHRRB suggests Caltrans work with the local community as well as Monterey County to design bridge rails to fit the character of the structures and the surroundings. The County suggests the community members should include Big Sur Coast Multi-Agency Advisory Council (BSMAAC), and the local Big Sur Land Use Advisory Committee (LUAC). Monterey County is willing to set these discussions on those agencies' agendas.
- The MCHRRB prefers the "C411" rail design for replacement. Although the C411 design is engineered for speeds of up to 45 miles per hour, the MCHRRB believes some bridges warrant reduced speeds where there are curves or heavily used turnouts which slow traffic near the bridges.
- The MCHRRB believes travelers along the Highway would rather slow down to enjoy the beautiful views rather than seeing the visual shock of foreign elements which impact bridges' character
- The MCHRRB asks that Caltrans coordinate with the county on the final bridge rail design.
- The MCHRRB requests final design options be presented to Monterey County with sufficient flexibility to amend the design before a final designed is selected.

As stated above, Caltrans sent a subsequent letter to the MCHRRB on December 10th, 2020 notifying them of the determination of adverse effect for this project as well as the current proposed section 106 mitigation measures. Any suggestions or concerns of the board have been considered in the final Memorandum of Agreement (MOA). Caltrans has responded to the MCHRRB's concerns and provided all requested information that is currently available. Caltrans will continue to consult with all interested parties throughout the project process and provide additional information, including mitigation documents and updated plans as they come available.

1.2 Big Sur Historical Society

On September 28th, 2020 Caltrans received a response from Mary Trotter of the Big Sur Historical Society expressing concern with the project including compatibility of the new railing design with the historic bridges, concrete coloring, and impacts to the historic structure overall. Caltrans responded clarifying some aspects of the overall process and reasoning for the project as well as an explanation of the efforts made to develop a compatible bridge railing. Ms. Trotter also attended the December 8th, 2020 public meeting. The Big Sur Historical Society has raised the following concerns, which have been summarized by Caltrans staff, about the upcoming project:

- Sur Historical Society acknowledges that the rails have begun to deteriorate but is unhappy with the repairs made to date including poor color matching making repairs stand out from the original railing.
  - Incompatible design for the new rails to the original structure:
  - The Big Sur Historical Society Feels that the new designs appear like "Romanesque elements on a Gothic cathedral".
  - The archways are heavy, bulky and overwhelmingly solid

    - Archways in some of the renderings appear as rectangular spaces.
    - Archways emphasize the structure rather than the openings between.
        - ***Note:*** *the design details in the initial renderings have been updated since the initial letter was sent to consulting parties, demonstrating additional options for arched openings. The final design details of the final railing will not be determined until Caltrans is farther along in the design process.*
- Questions on what safety hazard the original railings pose to the traveling public.
    - Unaware of the accident history along this stretch
- Given Caltrans history of community involvement in the decision-making process, the Big Sur Historical Society feels it should be possible for state and federal to reach a compromise about changes to historic structures.
- Expressing hope that the railings could be replaced with the exact same design, perhaps beefed up on the interior with more or larger diameter rebar.
- Taking issue with the color match, which is said to have originally come from use of local sand in the concrete mixture, which was incompatible in the initial renderings.
    - ***Note:*** *the color in the initial renderings has been updated since the initial letter was sent to consulting parties, demonstrating a more appropriate color match. The original renderings appeared with a darker gray concrete coloring, but they now appear more in keeping with the original sandy beige bridge color. The final coloring, along with other design details of the final railing will not be determined until Caltrans is farther along in the design process. Caltrans is committed to designing the new railing with as close of a color match as possible in the final design for the replacement railings.*
- Concern that the NRHP/CRHR eligibility designation should have more "meaning and strength" to oppose these changes.

As stated above, Caltrans has reengaged this group with a notice of determination of adverse effect for this project as well as the current proposed section 106 mitigation measures, and any suggestions have been considered in the final Memorandum of Agreement (MOA).

1.3 All Other Consulting Parties

On September 21st, 2020 Caltrans PQS Architectural Historian Daniel Leckie spoke with Kitty Henderson, the Executive Director of the Historic Bridge Foundation over the phone and provided more information on the project. However, on October 9th, Ms. Henderson declined to formally respond to the project for personal family reasons. On September 22nd, 2020 Caltrans received a response from James Perry, Executive Director of the Monterey County Historical Society expressing no concerns with the project. The Carmel Heritage Society has not replied to the initial letter or reminder email to date.

- ***Caltrans District 5 Website***

  Caltrans provides information on the project on the District 5 website at https://dot.ca.gov/caltrans-near-me/district-5/district-5-current-projects/05-1h800.

Letters and Other Correspondence

See attachments for the FAE and MOA with SHPO.

Attachment 6
2019 MASH Implementation Memo

State of California
DEPARTMENT OF TRANSPORTATION

California State Transportation Agency

Memorandum

Making Conservation a California Way of Life

To: DISTRICT DIRECTORS

Date: November 12, 2019

From: STEVE TAKIGAWA
Deputy Director
Maintenance and Operations

CORY BINNS
Acting Deputy Director
Project Delivery

Subject: **MASH COMPLIANCE PLAN AND POLICY**

On December 23, 2016, the California Department of Transportation (Caltrans) established a timeline for implementation of roadside safety hardware and evaluation of new products under the Manual for Assessing Safety Hardware (MASH). The plan set specific dates when Caltrans will no longer allow the installation of non-MASH compliant safety devices.

If one or more Caltrans approved MASH compliant safety devices are available for a specific need, Caltrans must use the safety device(s) even if it may require a sole source contract. If a situation arises where a MASH compliant safety device is not available to address a specific need, Caltrans must use a National Cooperative Highway Research Program (NCHRP) Report 350 approved safety device. If a NCHRP Report 350 device is not available, Caltrans must use engineering judgement to address the specific need.

For cases when either a NCHRP Report 350 device or engineering judgement is used for traffic safety devices, the engineer must consult with the District Traffic Safety Devices Coordinator. The engineer must then document the decision in the project history file.

These requirements apply to all projects and work done on the State highway system.

The MASH compliant safety hardware approved by Caltrans can be found at: <https://dot.ca.gov/programs/traffic-operations/mash>

For further questions regarding this process for traffic safety devices, please contact Duper Tong, Chief, Office of Traffic Engineering at (916) 654-5176 or by e-mail at <Duper.Tong@dot.ca.gov>. For bridge rails, transitions, sign supports and other breakaway hardware, contact Joel Magana, Chief, Office of Design and Technical Services at (916) 227-8018 or by e-mail at <Joel.Magana@dot.ca.gov>.

c: Jasvinderjit S. Bhullar, Chief, Division of Traffic Operations
Dennis T. Agar, Chief, Division of Maintenance
Rachel Falsetti, Chief, Division of Construction
Janice Benton, Chief, Division of Design
Thomas A. Ostrom, Chief, Division of Engineering Services
Dara Wheeler, Chief, Division of Research, Innovation and System Information
Duper Tong, Chief, Office of Traffic Engineering
Joel Magana, Chief, Office of Design and Technical Services

Attachment 7
MASH Roles and Responsibilities Memo

U.S. Department of Transportation
Federal Highway Administration

Memorandum

Subject: **INFORMATION:** Clarification of Roles and Responsibilities in Implementing the American Association of State Highway and Transportation Officials (AASHTO) / Federal Highway Administration (FHWA) Joint Implementation Agreement on the AASHTO *Manual for Assessing Safety Hardware* (MASH)

Date: MAR 17 2017

From: Elizabeth Alicandri
Associate Administrator for Safety

In Reply Refer To:
HSA-1

To: Division Administrators
Directors of Field Services
Federal Lands Highway Division Engineers

Purpose

Since the distribution of the AASHTO/FHWA joint implementation agreement for AASHTO MASH, we have received many questions on how FHWA and AASHTO are moving forward with the joint implementation agreement. This memo describes the different roles and responsibilities of FHWA and AASHTO since the transition from the National Cooperative Highway Research Program (NCHRP) Report 350 testing criteria to AASHTO's MASH criteria.

Background

In 2015, roadway departure fatalities accounted for 18,695 highway fatalities. The implementation of the AASHTO MASH will help make roads safer and lessen the severity of roadway departure crashes. The AASHTO MASH, updated in 2016, provides AASHTO's first officially adopted crash-testing procedures for use in assessing roadside hardware. Until AASHTO MASH, NCHRP 350 - *Recommended Procedures for the Safety Performance Evaluation of Highway Features*, was the primary reference. FHWA accepted the responsibility for clarifying and providing guidance for the NCHRP 350 report. The NCHRP 350 report is now superseded by the AASHTO MASH.

Responsibilities

In December 2015, the AASHTO/FHWA joint implementation agreement for AASHTO MASH was successfully balloted by AASHTO's Standing Committee on Highways and approved by FHWA. The agreement will help encourage the application of the newest and safest generation of roadside hardware. Per the agreement:

- *"AASHTO Technical Committee for Roadside Safety (TCRS) will continue to be responsible for developing and maintaining the evaluation criteria adopted by AASHTO."*
- *"FHWA will continue its role in issuing letters of eligibility of roadside safety hardware for federal-aid reimbursement."*

As noted above from the agreement, the AASHTO TCRS is responsible for developing and maintaining the evaluation criteria in AASHTO MASH. The FHWA will continue to provide technical assistance on roadside hardware to the AASHTO TCRS. Ultimately, the decision to make changes to the AASHTO MASH resides with AASHTO.

The FHWA will continue its role issuing letters of eligibility for roadside safety hardware that have been evaluated using AASHTO's MASH testing guidelines and criteria. Questions pertaining to the FHWA Federal-aid Eligibility Reimbursement Process or issuance of eligibility letters should be addressed to the FHWA Office of Safety.

Please note FHWA no longer issues new eligibility letters for roadside safety hardware tested under NCHRP 350. FHWA's Federal-aid eligibility letters are provided *as a service* to the States and are not a requirement for roadside safety hardware to be eligible for Federal-aid reimbursement. As stated in our eligibility letter, "eligibility for reimbursement under the Federal-aid highway program does not establish approval, certification or endorsement of the device for any particular purpose or use." It is the States' responsibility to determine whether or not to use a particular hardware device and how to use it for their particular situation.

AASHTO TCRS and FHWA will evaluate and monitor the availability of MASH-compliant devices and will revisit the implementation agreement as needed. Since the original implementation agreement was balloted by AASHTO, changes to the agreement will also be balloted by AASHTO and approved by FHWA.

Summary

Please share this memorandum with your State DOT. For more information about the AASHTO/FHWA Joint MASH Implementation Agreement, please visit https://safety.fhwa.dot.gov/roadway_dept/countermeasures/reduce_crash_severity/policy_memo_guidance.cfm. If you have any questions, please contact Will Longstreet at (202)366-0087 or Menna Yassin at (202)366-2833.

Attachment 8
Speed Study Results

LIDAR MOTOR VEHICLE SPEED SURVEY
FIELD TALLY SHEET

County: Monterey Route: 1 Postmile: 62.97

From: 05-MON-01-PM 62.97 Direction: Northbound

To: 05-MON-01-PM 62.97 Observer: Juan Lezo

ADT: XXXX Weather: Overcast

Posted Speed: 55 MPH Date: 11/19/2019 Day: Tuesday Time: 12:20 PM

Speed (MPH)	NUMBER OF VEHICLES	Total
75		
74		
73		
72		
71		
70		
69		
68		
67		
66		
65	X	1
64	X	1
63		
62		
61		
60	X	1
59	X X	2
58	X X X	3
57		
56	X X X	3
55	X X X X X	5
54	X X X	3
53	X X X X X	5
52	X X X	3
51	X X X X	4
50	X X X X	4
49	X X X X X	5
48	X X X X X X	6
47	X X X X	4
46	X X X	3
45	X X	2
44		
43	X X X	3
42	X	1
41		
40	X	1
39		
38		
37		
36		
35		
	Total Number of Vehicles	60

LIDAR MOTOR VEHICLE SPEED SURVEY
FIELD TALLY SHEET

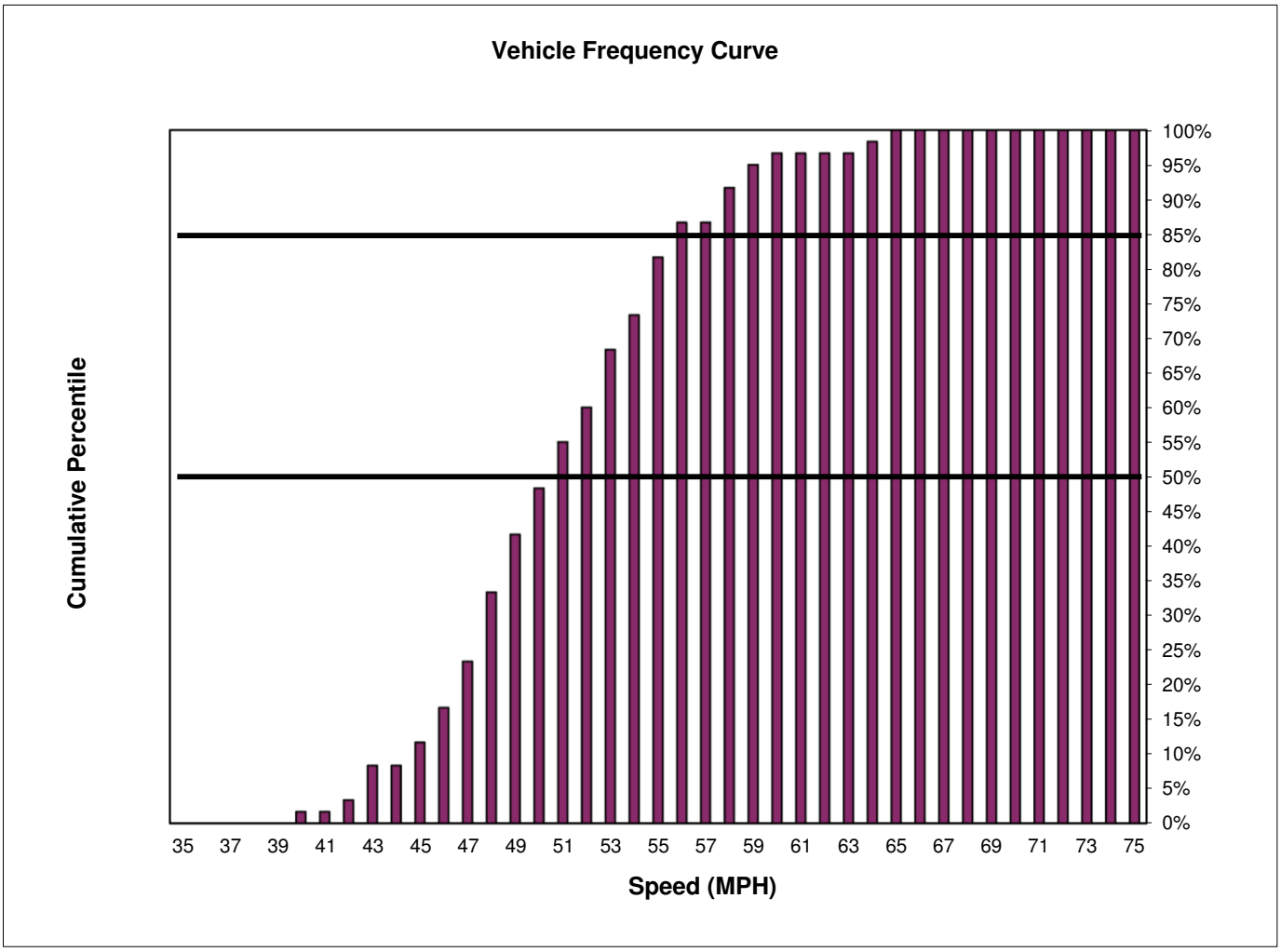
County: Monterey | Route: 1 | Postmile: 62.970

From: 05-MON-01-PM 62.97 | Direction: Northbound

To: 05-MON-01-PM 62.97 | Observer: Juan Lezo

ADT: XXXX | Weather: Overcast

Posted Speed: 55 MPH | Date: 11/19/2019 | Day: Tuesday | Time: 12:20 PM



S_{50th} = 51 MPH | S_{85th} = 56 MPH | S_{Ave} = 51 MPH

S_{Min} = 40 MPH | S_{Max} = 65 MPH | S_{Pace} = 46 to 55 MPH

% Obey Posted Speed = 82% | % In Pace = 70%

Actual Collision Rate = XX per MVM | Average Collision Rate = XX per MVM

Note: Collision Rate = Number of Collisions per Million Vehicle Miles Traveled

Caltrans
CALIFORNIA DEPARTMENT OF TRANSPORTATION

LIDAR MOTOR VEHICLE SPEED SURVEY
FIELD TALLY SHEET

County: Monterey Route: 1 Postmile: 62.97

From: 05-MON-01-PM 62.97 Direction: Southbound

To: 05-MON-01-PM 62.97 Observer: Juan Lezo

ADT: XXXX Weather: Overcast

Posted Speed: 55 MPH Date: 11/19/2019 Day: Tuesday Time: 12:20 PM

Speed (MPH)	NUMBER OF VEHICLES	Total
75		
74	X	1
73		
72		
71		
70	X	1
69		
68		
67		
66		
65	X X	2
64		
63		
62	X	1
61	X	1
60	X	1
59	X	1
58	X X X	3
57	X	1
56		
55	X X X X X X X	7
54	X X	2
53	X X X X X X	6
52	X X X X X	5
51	X X	2
50	X X X X X X	6
49	X X X X X	5
48	X X X	3
47	X X X X X	5
46	X	1
45	X X	2
44	X	1
43		
42	X X	2
41	X	1
40		
39		
38		
37		
36		
35		
	Total Number of Vehicles	60

LIDAR MOTOR VEHICLE SPEED SURVEY
FIELD TALLY SHEET

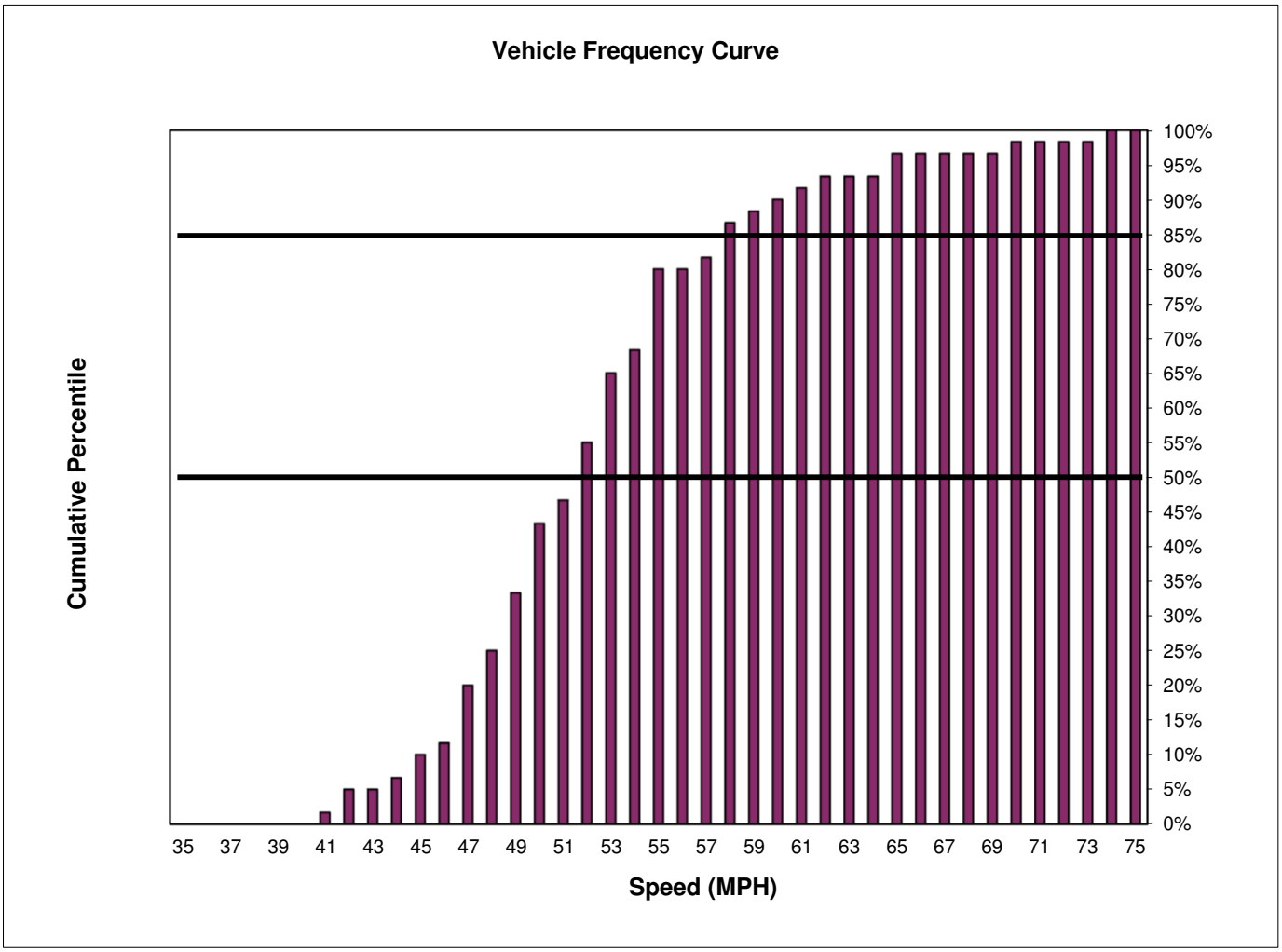
County: Monterey | Route: 1 | Postmile: 62.970

From: 05-MON-01-PM 62.97 | Direction: Southbound

To: 05-MON-01-PM 62.97 | Observer: Juan Lezo

ADT: XXXX | Weather: Overcast

Posted Speed: 55 MPH | Date: 11/19/2019 | Day: Tuesday | Time: 12:20 PM



S_{50th} = 52 MPH | S_{85th} = 58 MPH | S_{Ave} = 52 MPH

S_{Min} = 41 MPH | S_{Max} = 74 MPH | S_{Pace} = 46 to 55 MPH

% Obey Posted Speed = 80% | % In Pace = 70%

Actual Collision Rate = XX per MVM | Average Collision Rate = XX per MVM

Note: Collision Rate = Number of Collisions per Million Vehicle Miles Traveled

Caltrans
CALIFORNIA DEPARTMENT OF TRANSPORTATION

LIDAR MOTOR VEHICLE SPEED SURVEY
FIELD TALLY SHEET

County: Monterey Route: 1 Postmile: 62.97

From: 05-MON-01-PM 62.97 Direction: Bi-Directional

To: 05-MON-01-PM 62.97 Observer: Juan Lezo

ADT: XXXX Weather: Overcast

Posted Speed: 55 MPH Date: 11/19/2019 Day: Tuesday Time: 12:20 PM

Speed (MPH)	NUMBER OF VEHICLES	Total
75		
74	X	1
73		
72		
71		
70	X	1
69		
68		
67		
66		
65	X X X	3
64	X	1
63		
62	X	1
61	X	1
60	X X	2
59	X X X	3
58	X X X X X X	6
57	X	1
56	X X X	3
55	X X X X X X X X X X X	12
54	X X X X X	5
53	X X X X X X X X X X X	11
52	X X X X X X X X	8
51	X X X X X X	6
50	X X X X X X X X X X	10
49	X X X X X X X X X X	10
48	X X X X X X X X X	9
47	X X X X X X X X X	9
46	X X X X	4
45	X X X X	4
44	X	1
43	X X X	3
42	X X X	3
41	X	1
40	X	1
39		
38		
37		
36		
35		
	Total Number of Vehicles	120

LIDAR MOTOR VEHICLE SPEED SURVEY
FIELD TALLY SHEET

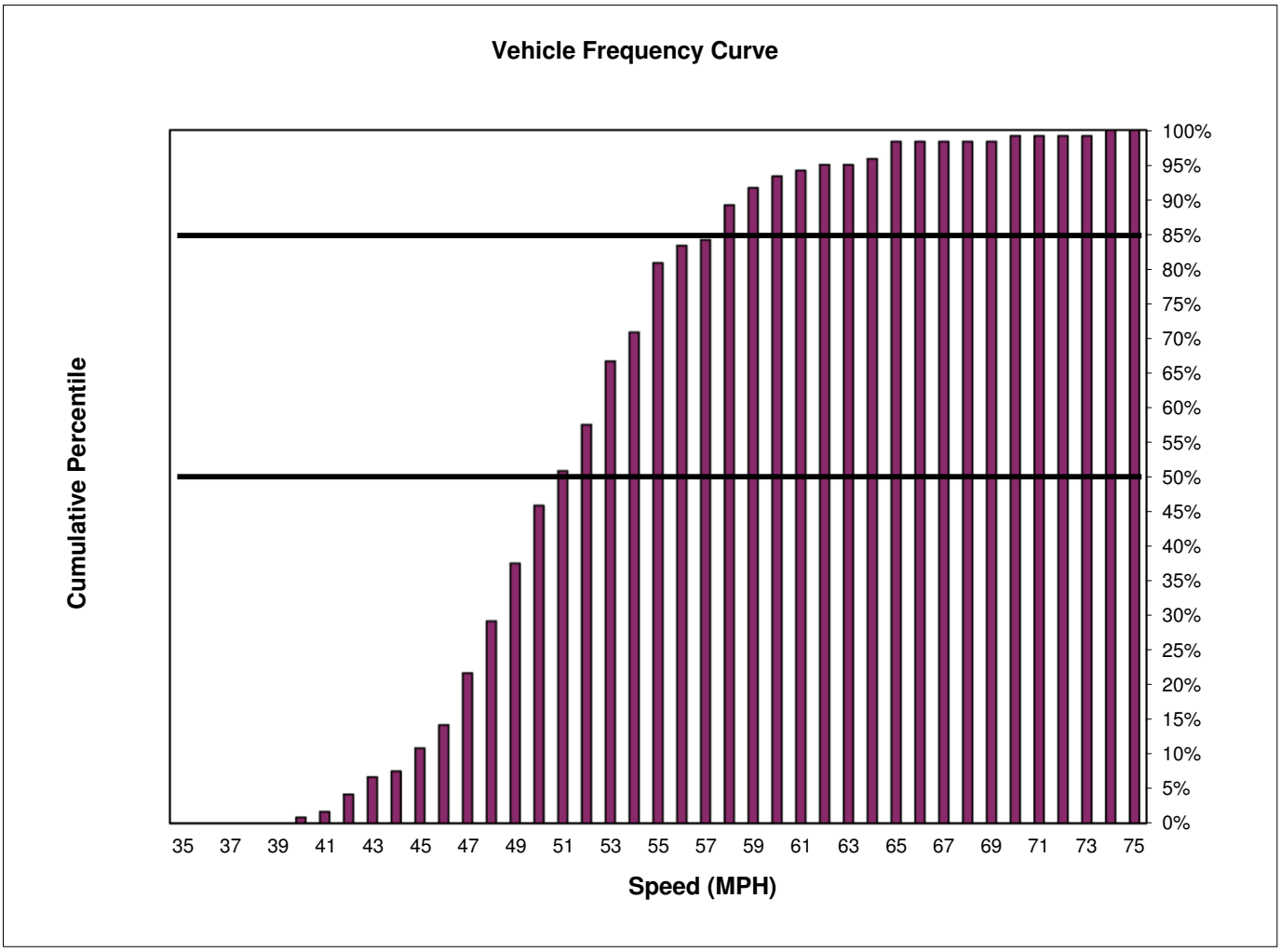
County: Monterey | Route: 1 | Postmile: 62.970

From: 05-MON-01-PM 62.97 | Direction: Bi-Directional

To: 05-MON-01-PM 62.97 | Observer: Juan Lezo

ADT: XXXX | Weather: Overcast

Posted Speed: 55 MPH | Date: 11/19/2019 | Day: Tuesday | Time: 12:20 PM



S_{50th} = 51 MPH | S_{85th} = 58 MPH | S_{Ave} = 52 MPH

S_{Min} = 40 MPH | S_{Max} = 74 MPH | S_{Pace} = 46 to 55 MPH

% Obey Posted Speed = 81% | % In Pace = 70%

Actual Collision Rate = XX per MVM | Average Collision Rate = XX per MVM

Note: Collision Rate = Number of Collisions per Million Vehicle Miles Traveled

Caltrans
CALIFORNIA DEPARTMENT OF TRANSPORTATION

Attachment 9
FAQS on Setting Speed Limits

FAQs on the California Manual for Setting Speed Limits

The following is a list of frequently asked questions (FAQs) on the California Manual on Setting Speed Limits. If after reviewing this document you have further questions, please email the CA MUTCD Editor at CAMUTCD@dot.ca.gov with the Subject heading "California Manual on Setting Speed Limits".

General Questions

1. Q: Who is responsible for setting speed limits?

   A: The California Vehicle Code (CVC) 22349, Maximum Speed Limit, prescribes the speed limits in California. When speeds are to be lowered based on an Engineering and Traffic Survey (E&TS) on the State Highways, the District Traffic Engineer is charged with determining speed limits. On local roads, the local agency has this function.

2. Q: What justifies lowering the speed by 5 mph from the 85th percentile speed?

   A: An engineer using engineering judgment makes this determination and should be based on roadway collision history, geometrics, user type, and other factors as deemed appropriate by the engineer.

3. Q: How often are speed zones updated?

   A: Speed Zone Surveys are valid for 5 years and may be extended to 7 years if specific criteria on radar operator certification, equipment calibration, and training have been met. A survey may be extended to 10 years if the engineer determines all above criteria have been met and no significant changes in roadway or traffic conditions have occurred.

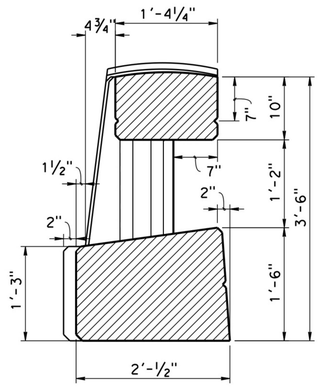
4. Q: What happens when an agency sets a speed limit to an arbitrarily low speed in order to appease a local neighborhood?

   A: When speed limits are lowered without an E&TS, with some exceptions, speeding violations issued to drivers may be thrown out in court. Exceptions include speed limits that are near schools, senior centers, or in business districts.

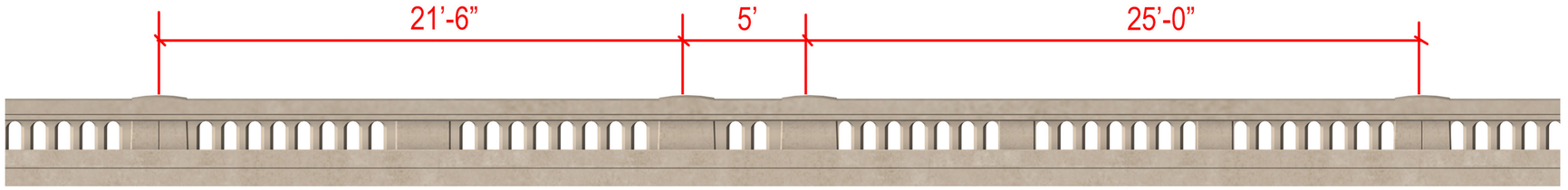
5. Q: What traffic conditions are necessary in order to conduct an E&TS?

   A: Dry road conditions, off-peak hour traffic under free-flow conditions on an average weekday is necessary in order to capture data for a valid E&TS. If vehicles are in a platoon, the first vehicle's speed is measured.

Attachment 10
Visual Simulations



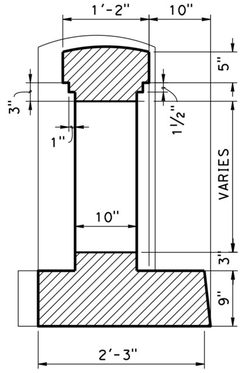
TYPE 86H SECTION



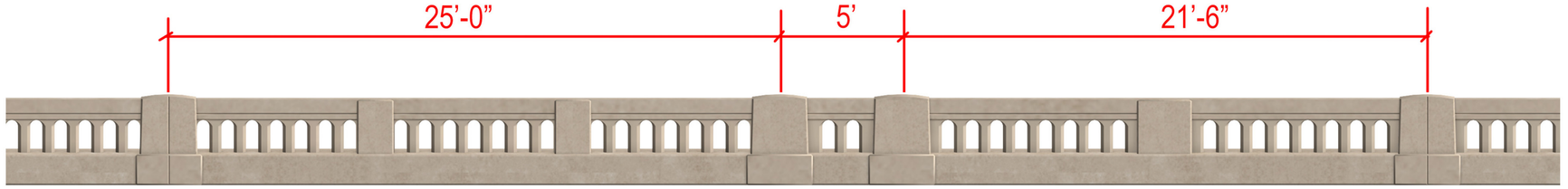
86H WITH TOP BEAM GROOVE LINE FRONT ELEVATION



EXISTING FRONT ELEVATION



EXISTING SECTION



86H WITH TOP BEAM GROOVE LINE BACK ELEVATION

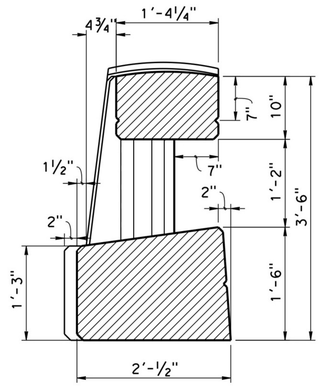


EXISTING BACK ELEVATION

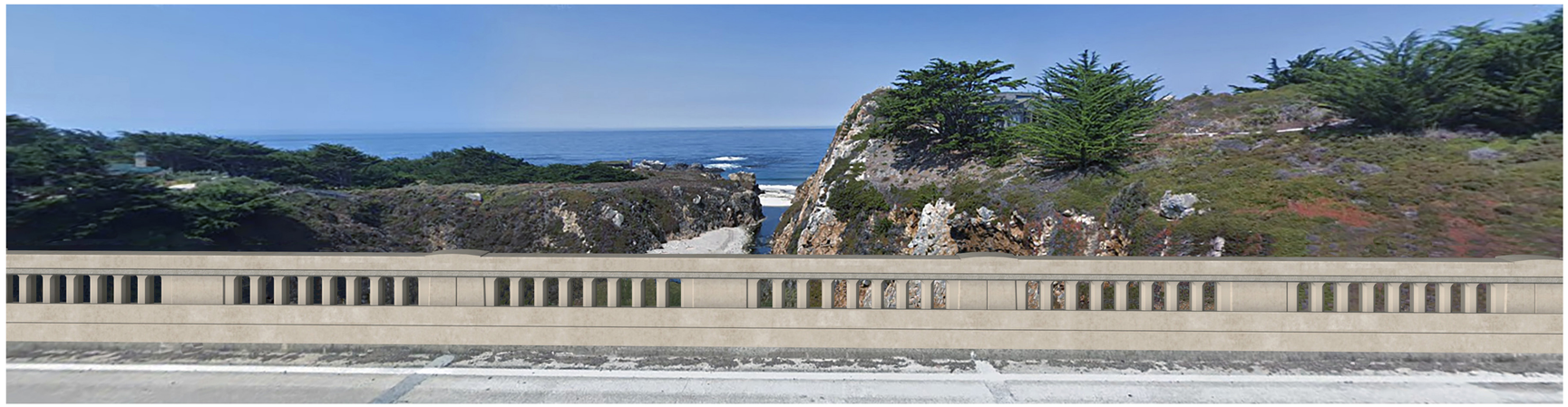
GARRAPATA CREEK BRIDGE BARRIER STUDY

02/18/22

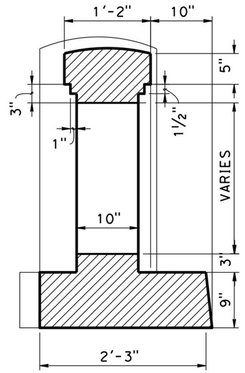
Prepared by: DES, Bridge Architecture and Aesthetics



TYPE 86H SECTION



TYPE 86H ON DECK VIEW



EXISTING SECTION

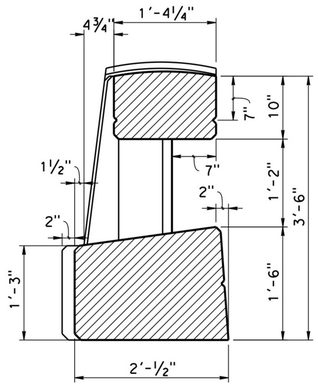


EXISTING ON DECK VIEW

GARRAPATA CREEK BRIDGE BARRIER STUDY

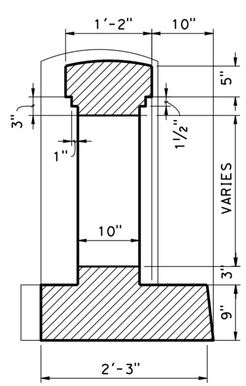
01/05/22

Prepared by: DES, Bridge Architecture and Aesthetics



TYPE 86H SECTION





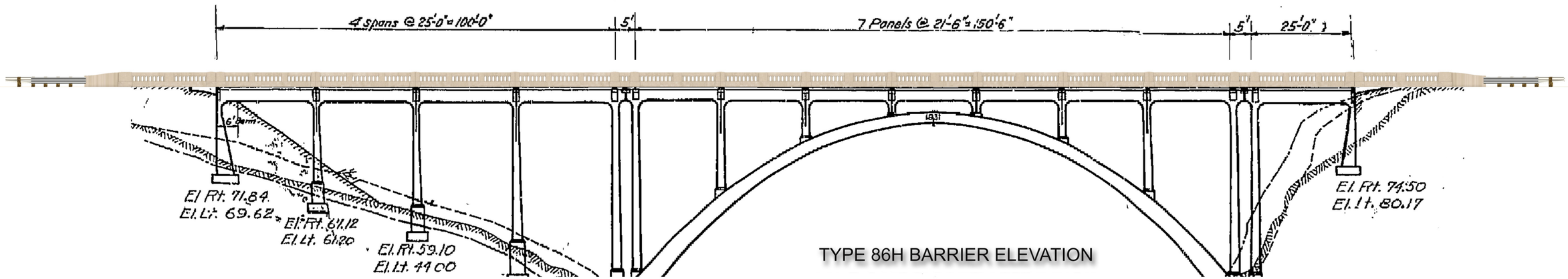
EXISTING SECTION



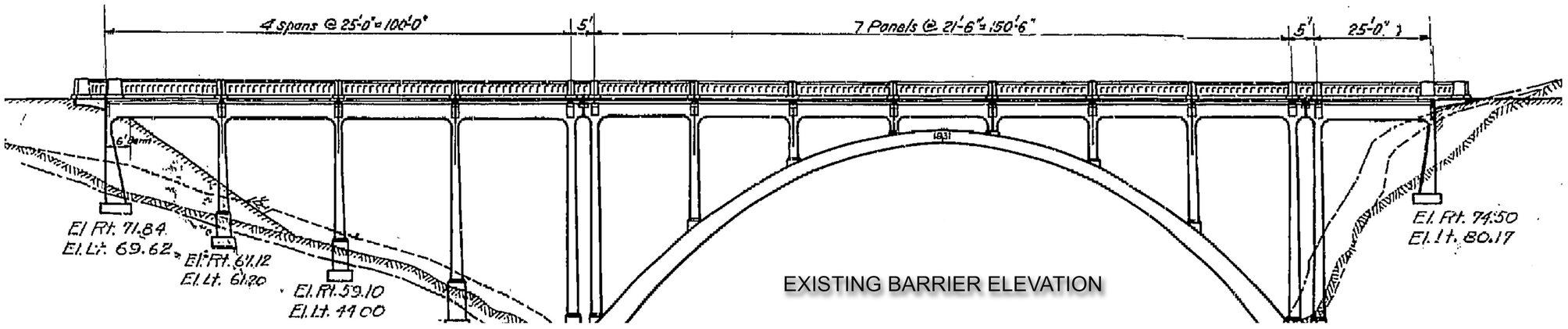
GARRAPATA CREEK BRIDGE BARRIER STUDY

02/22/22

Prepared by: DES, Bridge Architecture and Aesthetics



TYPE 86H BARRIER ELEVATION



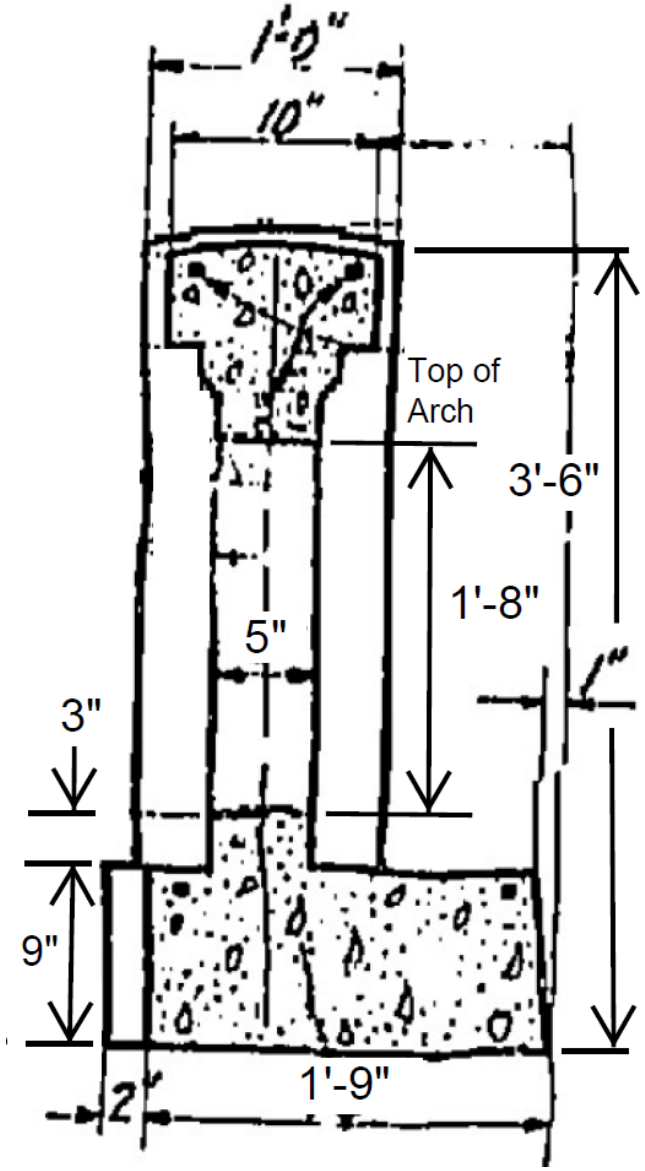
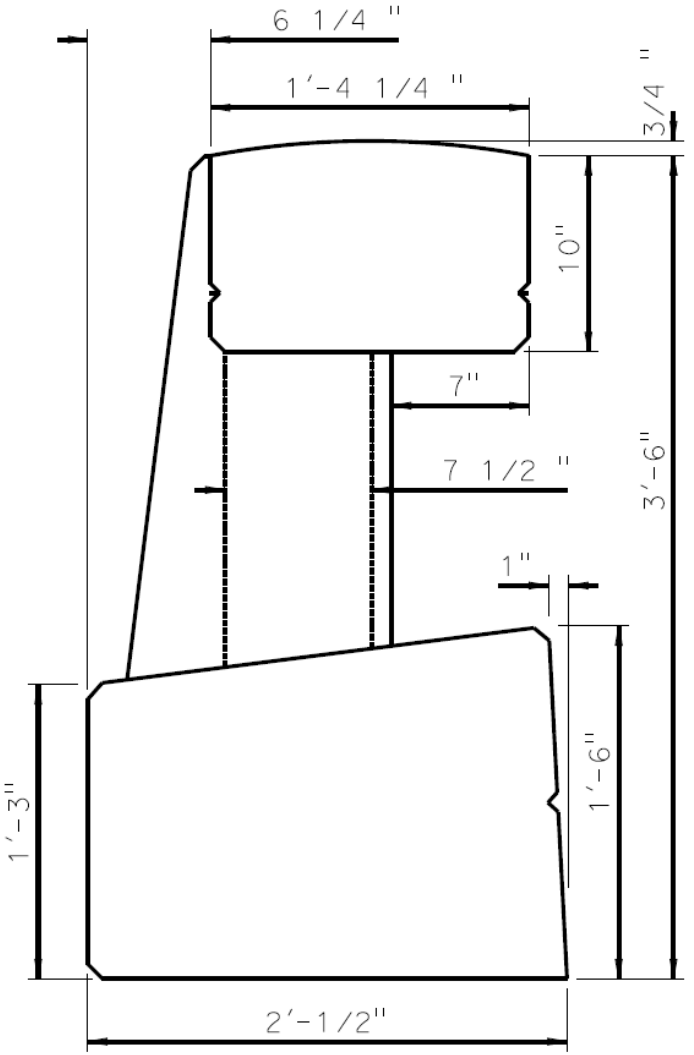
EXISTING BARRIER ELEVATION

GARRAPATA CREEK BRIDGE BARRIER STUDY

01/05/22

Prepared by: DES, Bridge Architecture and Aesthetics

Attachment 11
Visual Cross Section Comparison

Existing Concrete Baluster Bridge Rail at Garrapata Creek Bridge	Proposed Type 86H Concrete Barrier
	

Attachment 12
Caltrans' Public Outreach Documentation

DEPARTMENT OF TRANSPORTATION
CALTRANS DISTRICT 5
50 HIGUERA STREET
SAN LUIS OBISPO, CA 93401-5415
PHONE (805) 549-3101
FAX (805) 549-3329
TTY 711
http://www.dot.ca.gov/dist05/

Making Conservation a California Way of Life.

August 31st, 2020

Mary Trotter
Big Sur Historical Society
PO Box 176
Big Sur, CA 93920

General Analysis (Tier I) for the
Big Sur Bridge Rail Replacement Project(s)
Monterey County, California
MON-001-PM-28.1-67.9
&
Specific Analysis (Tier II) for the
Garrapata Creek Bridge Rail Replacement Project
Monterey County, California
EA: 05-1H800 / EFIS: 05-1600-0163
MON-001-PM-63.0

Dear Ms. Trotter:

The California Department of Transportation (Caltrans) is currently proposing the pilot project in a series of six (6) separate upcoming undertakings. The Garrapata Creek Bridge (Bridge Number 44-0018) Rail Replacement will be the first project intended to gradually replace all of the concrete baluster bridge rails for six (6) historic open spandrel reinforced concrete arch bridges along State Route 1 (SR-1) in Monterey County. The six historic bridges are located between post miles (PM) 28.1 and 67.9 and include the following structures:

- Garrapata Creek Bridge at PM 63.0 (Bridge Number 44-0018); (the pilot project & currently proposed)
- Big Creek Bridge at PM 28.1 (Bridge Number 44-0056);
- Bixby Creek Bridge at PM 59.4 (Bridge Number 44-0019);
- Rocky Creek Bridge at PM 60.0 (Bridge Number 44-0036);
- Granite Canyon Bridge at PM 64.3 (Bridge Number 44-0012);
- Malpaso Creek Bridge at PM 67.9 (Bridge Number 44-0017);

The original concrete railing on the six historic bridges does not meet the current modern safety standards set by the Manual for Assessing Safety Hardware (MASH) and will be replaced with a new railing designed to meet these standards. The Manual for Assessing Safety Hardware (MASH) is a nationwide standard that was implemented by the Federal Highway Administration (FHWA) and the American Association of State Highway Transportation Officials (AASHTO) in 2009 (updated in 2016). MASH sets the standards for highway safety equipment, including bridge rails, guardrails, and other safety features. Newly adopted MASH standards have mandated that all new installations of roadside safety devices on high-speed roadways, including bridge railing, must meet a new higher standard for crash testing for all projects conducted after December 31st, 2019, without exception.

The purpose of the project(s) will be to replace the existing nonstandard concrete baluster bridge rails and approach rails with new railing that meets current traffic safety standards while also retaining a design that is as close as possible to the original railing design. Caltrans is committed to choosing a new MASH compliant railing style that is context sensitive and will be compatible with the character of the Big Sur region, the historic bridges themselves, and within the Carmel-San Simeon Highway Historic District (CSSHHD). Caltrans structures design engineers are currently developing a new bridge rail that is designed specifically to replicate the design of the historic rails as closely as possible while also meeting the new MASH crashworthiness standards. The new Caltrans rail design

(Type 86H) is currently undergoing crash testing. A second new rail design developed by the Texas Department of Transportation to replicate historic bridge rail designs (Type C412) is also under consideration. (See Attachment 2 for renderings of the new bridge rail designs).

At this early stage Caltrans is performing a tiered evaluation of these projects, with the intention of streamlining the environmental review and evaluating any potential cumulative impacts, growth-inducing impacts, and irreversible significant effects on the environment of subsequent projects. At this time Caltrans is providing a general notification of these six (6) upcoming projects and will provide additional information about each specific project as details are developed for each individual undertaking in Tier II. Caltrans is also providing specific (Tier II) notification for the Garrapata Creek Bridge (No. 44-0018) which is currently proposed to receive replacement bridge rails. Detailed studies for the Garrapata Creek Bridge Rail Replacement Project (EA: 05-1H800) are currently underway. At this time, additional railing replacement projects have not yet been proposed for the other five bridges and may be occurring several years in the future.

Caltrans is interested in learning whether your organization has special interest in, or special knowledge of these or any other resource within the project study area that should be considered during our architectural studies. If you have questions or concerns, please do not hesitate to contact me at Daniel.leckie@dot.ca.gov or at (805) 542-4754. In keeping with project scheduling deadlines, Caltrans is kindly requesting your response regarding the Garrapata Creek Bridge rail replacement project (05-1H800) specifically by October 5th, 2020. This letter also serves as a notification for the five other upcoming bridge rail replacement projects, however Caltrans will provide additional notification during bridge specific (tier II) studies for all other individual bridge rail replacement projects as those undertakings are developed in the future.

Thank you for your participation.

Sincerely,

Daniel T. Leckie
Associate Environmental Planner (Architectural History)

Enc: Map of project study area
Photos/drawings of original and new bridge rail designs

cc:

Carmel Heritage Society
PO BOX 701
Carmel, CA 93921

Kitty Henderson
Executive Director
Historic Bridge Foundation
P.O. Box 66245
Austin, Texas 78766

James Perry
Curator & Archivist
Monterey County Historical Society
P.O. Box 3576
Salinas, CA 93912

Craig Spencer
Monterey County
Historic Resources Review Board
1441 Schilling Place
Salinas, CA 93901

Dear Mr. Leckie, September 27, 2020

Thank you for the opportunity to comment on the Bridge Rail Replacement for Garrapata Creek Bridge, and once again thank you for the reminder of the deadline. I think this is particularly important as I imagine decisions made on this bridge will carry over to the other four bridges. I acknowledge that the rails have begun to deteriorate and I have been unhappy with the repairs made to date. There has been no effort to match the color of the concrete with the original and these repairs stand out like a sore thumb.

These bridges have been declared eligible for historic designation not principally for their age but also for their grace and beauty and the continuity of design along the highway corridor. The design elements carry over to the other features of the highway such as culvert headings and the parapet walls. The remaining fountains also fit into this same style.

I regret that the safety standards keep changing as I know that each new design goes through extensive and expensive testing, making it difficult to go with anything other than a standard design developed to be generic and fit anywhere. Highway 1 through the Big Sur corridor deserves better, both for its eligibility for historic designation and the Byway status it was awarded. More than fifty years ago Lady Bird Johnson stood beside Bixby Bridge to dedicate Highway 1 the first national scenic highway. The drive from Carmel to San Luis Obispo is a destination in itself, and although I make this drive many times a month to the north and several times a year to the south it never tires.

The design for the new rails feels to me like placing Romanesque elements on a Gothic cathedral. The archways are heavy, bulky and overwhelmingly solid and actually not archways but rectangular spaces. They emphasize the structure rather than the openings between. There is nothing light and graceful about them. The proposed openings are 5 ¾ inches, just over half the original openings of 10 inches. According to the drawings the solid posts are 7 ¼ inches opposed to the 6 inch originals, but they look much larger in the photo simulations. And although it notes above one of the drawings that the rectangular openings can be made arches, as they have drawn them the openings are made not more graceful but more solid leaving even less of an opening. I would still prefer the arch. The drawings make it appear that the openings are not plain but have some kind of framing. This element was not clear to me

I am unaware that the historic railings have posed any actual safety hazard to the traveling public. I don't believe that any automobile has actually crashed through the rails although they may have been sideswiped. And the bridges are already out of federal compliance due to their width.

The Coast Highway Management Plan was a years long endeavor intended to bring together the many state and federal agencies having some sort of regulatory oversight of Highway 1. Cal

Trans was the first of these agencies to come to the table and involve the community in the decision-making process. It should be possible for state and federal to reach a compromise about changes to historic structures. Has a Section 106 review been done?

My best hope would be that the railings could be replaced with the exact same design, perhaps beefed up on the interior with more or larger diameter rebar. Another important design element is the color. It is believed that the unique color of the bridge structures comes from the fact that local sand was used to mix the concrete for each bridge. I don't know how accurate this story is, but nonetheless the color is a very pleasing element of the design. I am not suggesting that you use local sand, but I do know that concrete can be colored and it should be possible to match the original.

I believe the historic eligibility designation should have some real meaning and strength to oppose these changes. I can foresee that as future repairs or replacements are needed, and new regulations are adopted, little by little we end up protecting something that has no relationship to the original.

Sincerely,

Mary Trotter
Big Sur Historical Society
PO Box 132, Big Sur, CA 93920
quailmeadows@gmail.com

Leckie, Daniel@DOT

From: Leckie, Daniel@DOT
Sent: Monday, September 21, 2020 10:40 AM
To: Mary Trotter
Cc: Jaci Pappas; info@bigsurhistory.org
Subject: FW: Big Sur Bridge Rail Replacement (Garrapata Creek Bridge Pilot Project - EA: 05-1H800)
Attachments: 1H800_toBigSurHS_Signed.pdf; Attachment 1 - Mapping.pdf; Attachment 3 - Images.pdf

Ms. Trotter,

I just wanted to briefly reach out with a reminder about the Garrapata Creek Bridge (Bridge Number 44-0018) Rail Replacement project (EA: 05-1H800) for which we reached out to you and several other historical organizations via Email and Postal Mail on August 31st, 2020. Caltrans has requested comments from your organization on this upcoming project (which is described in the email below as well as the attached documentation) and is hoping to gather all comments from potentially interested parties and organizations with special knowledge of the area, including the Big Sur Historical Society, by Monday October 5th, 2020.

Thank you for your time and we look forward to hearing your valued feedback.

Sincerely,

Daniel T. Leckie
Associate Environmental Planner &
PQS Principal Architectural Historian
California Department of Transportation | District 5
50 Higuera Street | San Luis Obispo| California |93405
Office Phone : (805) 542-4754

From: Leckie, Daniel@DOT
Sent: Monday, August 31, 2020 4:06 PM
To: Mary Trotter <quailmeadows@gmail.com>
Cc: Jaci Pappas <jaci@redshift.com>; info@bigsurhistory.org
Subject: Big Sur Bridge Rail Replacement (Garrapata Creek Bridge Pilot Project - EA: 05-1H800)

Dear Ms. Trotter,

The California Department of Transportation (Caltrans) is currently proposing the pilot project in a series of six (6) separate upcoming undertakings. The Garrapata Creek Bridge (Bridge Number 44-0018) Rail Replacement will be the first project intended to gradually replace all the concrete baluster bridge rails for six (6) historic open spandrel reinforced concrete arch bridges along State Route 1 (SR-1) in Monterey County. The purpose of the project(s) will be to replace the existing nonstandard concrete baluster bridge rails and approach rails with new railing that meets current traffic safety standards while also retaining a design that is as close as possible to the original railing design. Please see the letter and documents attached to this email for more info. These documents have also been forwarded to the following postal address:

Mary Trotter
Big Sur Historical Society
PO Box 176
Big Sur, CA 93920

At this early stage Caltrans is performing a tiered evaluation of these projects, with the intention of streamlining the environmental review and evaluating any potential cumulative impacts, growth-inducing impacts, and irreversible significant effects on the environment of subsequent projects. At this time Caltrans is providing a general notification of these six (6) upcoming projects and will provide additional information about each specific project as details are developed for each individual undertaking in Tier II. Caltrans is also providing specific (Tier II) notification for the Garrapata Creek Bridge (No. 44-0018) which is currently proposed to receive replacement bridge rails and detailed studies for the Garrapata Bridge Rail Replacement Project (EA: 1H800) are currently underway.

In keeping with project scheduling deadlines, Caltrans is kindly requesting your response regarding the Garrapata Creek Bridge rail replacement project (05-1H800) specifically by **October 5th, 2020.** Caltrans will provide additional notification during bridge specific (tier II) studies for all other individual bridge rail replacement projects as those undertakings are developed in the future.

Please feel free to reach by the email address or phone number in my signature line below with any questions or comments about this upcoming project. Thank you for your valued participation.

Sincerely,

Daniel T. Leckie
Associate Environmental Planner
Principal Architectural Historian
Caltrans District 5
50 Higuera Street
San Luis Obispo CA 93401
P: (805) 542-4754.
E: Daniel.Leckie@dot.ca.gov

Leckie, Daniel@DOT

From: Leckie, Daniel@DOT
Sent: Monday, September 28, 2020 12:26 PM
To: Mary Trotter
Cc: Spencer, Craig x5233; info@bigsurhistory.org; Jaci Pappas; James Perry
Subject: RE: Big Sur Bridge Rail Replacement (Garrapata Creek Bridge Pilot Project - EA: 05-1H800)
Attachments: comment bridge railings.docx; c412 sim.jpg; c412 with arch front.jpg; c412 with arch sim.jpg; c412 front.jpg; Type 86 front.jpg; Type 86 sim.jpg

Ms. Trotter,

Thank you for your thoughtful response to our request for comment on the Garrapata Creek Bridge Rail Replacement Project (05-1h800) as well as the other bridge rail replacement projects along the SR-1 in Monterey County to come at a later date. The participation of local organizations such as your own is critical to both choosing our final alternative for this project as well as informing the a design that will meet the projects purpose and need of upgrading these railings to modern standards while choosing a design that is amenable to the local community and takes in the context sensitivity of this historic location into account. I wanted to address a few of your concerns directly as well as attach some newer renderings that our structures design team have put together based on some of the comments from my team (The District 5 Cultural Resources Branch) which actually essentially mirrored yours. Since or initial message to you in late August the renderings have been upgraded to remove the bicycle railings, get a clearer view of the arched opening design on the c412 rails, and they no attempt to more closely match the distinctive sandy-beige color of the original bridges.

Moving forward I will attempt to address a few comments from the attached document you provide below. However please feel free to reach out via email or call me directly at **(805) 542-4754** if you'd like to speak on any of this further.

1) ***Comment:*** *"I regret that the safety standards keep changing as I know that each new design goes through extensive and expensive testing, making it difficult to go with anything other than a standard design developed to be generic and fit anywhere."*
    - **Response:** The initial comment is true, as the standards change it certainly does make Caltrans options more limited for replacement options. That said, one area I think we could improve in is telling the story of the amount of work we have done to develop a context sensitive design that also meets current MASH crashworthiness standards. Due to the sensitive and historic nature of the highway, there has been extensive work in both approving the c412 type railing developed by the Texas DOT as well as Type 86 rail which is currently being designed by Caltrans specifically for use on this important project. Additionally, Caltrans looked into other options including lowering the speed limits to approve a railing more similar to that which currently exists. However, after speed surveys were done it was determined because of the high rate of speed at this location lowering speed limits would be infeasible. Though the new standards limit our ability to develop an in kind example as it requires specific dimesons and limits the size of openings, I would like to impart that Caltrans has gone through an extensive process to choose an option that is compatible with historic highway 1 and hopefully is not just a standard / generic design.
2) ***Comment:*** *"It should be possible for state and federal to reach a compromise about changes to historic structures."*
    - **Response:** As a private citizen with a demonstrated interest in Historic Preservation my personal opinion would tend to agree with you: The State and the Federal government *should*

be able to reach individual compromises about changes to historic structures. Unfortunately that is not the situation we find ourselves in as an agency, and this is not just a situation Caltrans finds itself in but it is true for the other 49 State DOTs throughout the country as well. According to feedback from the Federal Highway Administration (FHWA) with buyoff from the Advisory Council for Historic Preservation (ACHP) all federally funded projects must meet these new standards and there are no exceptions to this rule. Sadly, in some cases there is no way to avoid an adverse effect to a historic structure, and all that can be done is to make efforts to minimize such an adverse effect. It is now our job to develop a design that as closely mimics the original while meeting these rigorous crash testing standards set by the federal government.

3) ***Comment:*** *"Has a Section 106 review been done?"*
   - **Response:** We are currently in Section 106 review for this project. The SHPO has been notified of the upcoming projects to replace the railings on the six bridges (this happened concurrently with our initial letter to your organization) and the next steps will be to initiate project specific consultation as each project is proposed. We are currently drafting a Finding of Effect Document (FOE) for the Garrapata Creek Project specifically as the pilot project, but that is the only project actively proposed at this time. We are looking to submit the consultation, including a finding of Adverse Effect to the SHPO sometime later this year. Your comments on the project (in addition to the comments of the 4 other identified consulting parties (The Carmel Heritage Soceity, The Monterey County Historical Soceity, The Monterey County Historic Resources Review Board, and the Historic Bridge Foundation) will be included with our submission to the SHPO and taken into account through that process.

4) ***Comment****: My best hope would be that the railings could be replaced with the exact same design, perhaps beefed up on the interior with more or larger diameter rebar.*
   - **Response:** unfortunately as outlined in the response to #2 above this is not a feasible option due to the universality of these newly implemented FHWA standards which require specific dimensions, and limit the dimensions of openings. Additionally, because the width of the historic bridge is already quite narrow by modern standards, there is simply no room on the roadway to add elements to the interior of the bridges.

5) ***Comment:*** *"It is believed that the unique color of the bridge structures comes from the fact that local sand was used to mix the concrete for each bridge. I don't know how accurate this story is, but nonetheless the color is a very pleasing element of the design. I am not suggesting that you use local sand, but I do know that concrete can be colored and it should be possible to match the original."*
   - **Response:** I noticed this myself on the prior renderings, that the color was a just a dark gray and did not make an attempt to replicate the distinct color of the existing Garrapata Creek Bridge. Certainly an oversight in the early drafts for these images, but our design team has updated those renderings for us based on a suggested color palate I gave them and they I have attached these new renderings to this email. That said, these digital renderings still don't match the color perfectly and are by no means the final designed feature. This will continue to be worked out as time goes on and we are still quite early on in this process. These images are really just intended to evoke an idea of how the replacement railings might appear, but are limited in terms of detail / texturing etc. Though those preliminary images did not address this, I am confident given the amount of time and attention our design teams have put into this project to try and develop a unique new railing for this unique setting, that they will similarly make sure the color matches the existing structure as closely as possible.

That is all I have for now but as I said please feel free to reply to this email or call me with any additional questions or concerns about the project. I thank you for your time and attention to this matter, and the great work you and your organization do to preserve the heritage of the beautiful Big Sur Coast.

Best regards,

Daniel T. Leckie
Associate Environmental Planner &
PQS Principal Architectural Historian
California Department of Transportation | District 5
50 Higuera Street | San Luis Obispo| California |93405
Office Phone : (805) 542-4754

From: Mary Trotter <quailmeadows@gmail.com>
Sent: Monday, September 28, 2020 10:43 AM
To: Leckie, Daniel@DOT <Daniel.Leckie@dot.ca.gov>
Cc: Spencer, Craig x5233 <SpencerC@co.monterey.ca.us>; info@bigsurhistory.org; Jaci Pappas <jacipappas@gmail.com>; James Perry <mchs@redshift.com>
Subject: Big Sur Bridge Rail Replacement (Garrapata Creek Bridge Pilot Project - EA: 05-1H800)

EXTERNAL EMAIL. Links/attachments may not be safe.

Mary Trotter
831 667 2521
quailmeadows@gmail.com

DEPARTMENT OF TRANSPORTATION
CALTRANS DISTRICT 5
50 HIGUERA STREET
SAN LUIS OBISPO, CA 93401-5415
PHONE (805) 549-3101
FAX (805) 549-3329
TTY 711
http://www.dot.ca.gov/dist05/

Making Conservation a California Way of Life.

December 10th, 2020

Mary Trotter
Big Sur Historical Society
PO Box 176
Big Sur, CA 93920

Notice of Adverse Effect and Mitigation Proposal
Garrapata Creek Bridge Rail Replacement Project
Monterey County, California
EA: 05-1H800 / EFIS: 05-1600-0163
MON-001-PM-63.0

Dear Ms. Trotter:

As per the previous letter from our office dated August 31st 2020, The California Department of Transportation (Caltrans) is currently proposing to replace the original railing on the Garrapata Creek Bridge (Bridge Number 44-0018) in Monterey County, on State Route 1 (SR-1) north of Big Sur. The Garrapata Creek Bridge Rail Replacement Project (EA: 05-1H800) will be the first project intended to gradually replace all of the concrete baluster bridge rails for six (6) historic open-spandrel reinforced-concrete arch bridges along SR-1 in Monterey County. As the dimensions of the original bridge rails are not compliant with modern standards in the Manuel for Assessing Safety Hardware (MASH) set by the American Association of State Highway and Transportation Officials (AASHTO), it has been determined the bridge railing cannot be replaced in kind, and will require a new railing with different dimensions. Specifically, the new railing will include a larger base and baluster and smaller arched openigs, in order to meet the current safety standards. Despite the required changes, Caltrans is committed to choosing a railing type that is as compatible with the historic bridge design and scenic corridor as possible.

The Garrapata Creek Bridge is a historic property that is eligible for the National Register of Historic Places (NRHP) and the California Register of Historical Resources (CRHR) under NRHP/CRHR significance criterion A/1 in the area of transportation and criterion C/3 as a distinctive example of an open spandrel reinforced concrete arch bridge in California. Furthermore, the bridge is also a contributing element to the Carmel San-Simeon Highway Historic District (CSSHHD), a historic property consisting of over 200 individual elements, such as rubble stone masonry headwalls, retaining walls, parapet walls, drinking fountains as well as seven (7) reinforced concrete arch bridges known collectively as the "Big Sur Arches". The reinforced concrete railings, with their arched window design and smooth texture finish, are a noted character defining feature of the historic Garrapata Creek Bridge. Because the original bridge rails cannot be repaired or replaced in kind, Caltrans has determined this project will have an Adverse Effect to the Garrapata Creek Bridge.

In order to consider, the effects of this undertaking on historic properties, the adverse effect to the Garrapata Creek Bridge will be resolved through implementation of mitigation measures. These mitigation measures are to be outlined in a Memorandum of Agreement (MOA) which will be executed with the State Historic Preservation Office (SHPO) sometime in early 2021. Caltrans is currently considering proposing the mitigation measures for the Garrapata Creek Bridge Rail Replacement Project to include:

(1) Recordation of the bridge's current condition via the Historic American Engineering Record (HAER) to include written and photographic documentation;

(2) Production of Individual DPR 523 inventory forms for all seven (7) concrete arch bridges within the Carmel Simeon Highway Historic District (CSSHHD). All seven (7) Big Sur Arches were determined to be eligible

for the NRHP/CRHR as part of the Caltrans Statewide Historic Bridge Inventory without a detailed Historic Resources Evaluation Report for the individual resources. The current best information on the bridges is recorded on the CSSHHD district wide DPR 523 Inventory Form, for which the bridges are contributing elements. In order to better understand the unique history of each of the seven (7) Big Sur Arches, Caltrans is proposing to do individual analysis of all seven (7) structures. This measure is specifically in response to a request by the Monterey County Historic Resources Review Board in their October 29th, 2020 letter for a "detailed historic analysis and report for each bridge prepared by a qualified historian". The bridges to be individually researched, analyzed, and reported on will specifically include:

- Big Creek Bridge (1938) - PM 28.1, Bridge Number 44-0056
- Bixby Creek Bridge (1932) - PM 59.4, Bridge Number 44-0019
- Rocky Creek Bridge (1932) - PM 60.0, Bridge Number 44-0036
- Garrapata Creek Bridge (1931) - PM 63.0, Bridge Number 44-0018
- Granite Canyon Bridge (1932) - PM 64.3, Bridge Number 44-0012
- Malpaso Creek Bridge (1935) - PM 67.9, Bridge Number 44-0017
- Wildcat Creek Bridge (1933) – PM 69.0, Bridge Number 44-0016
  - *Note: The Wildcat Bridge, a closed spandrel concrete arch bridge, is not part of the Bridge Rail Replacement program at this time. Though it will not be impacted by an upcoming bridge rail replacement project, it is included because it is also a contributor to the CSSHHD and thematically similar to the other Big Sur Arches, with a slightly different design.*

(3) The production of an interpretive website to highlight the history of the Seven Big Sur Arches. The website will include historic and modern photographs, historic contexts developed in the individual historic analysis reports, and additional information on the engineering and transportation history of the bridges.

a. The website will be continually updated along with all other mitigations as future bridge rail replacement projects are proposed overtime.
b. Additionally, the website will also contain at least a page with outreach information in the form of lesson plans for elementary school aged students that focuses on historic and/or other Scientific, Technological, Engineering, or Mathematical (STEM) activities within a historic context.

At this stage, Caltrans is interested in receiving feedback from all consulting parties regarding the proposed mitigation measures. Caltrans kindly asks all comments on proposed mitigation are submitted by Wednesday December 30th, 2020 for consideration in the final draft Memorandum of Agreement (MOA) with the SHPO.

Thank you for your participation.

Sincerely,

Daniel T. Leckie
Associate Environmental Planner (Architectural History)

cc: Craig Spencer
Monterey County
Historic Resources Review Board
1441 Schilling Place
Salinas, CA 93901

DEPARTMENT OF TRANSPORTATION
CALTRANS DISTRICT 5
50 HIGUERA STREET
SAN LUIS OBISPO, CA 93401-5415
PHONE (805) 549-3101
FAX (805) 549-3329
TTY 711
http://www.dot.ca.gov/dist05/

Making Conservation a California Way of Life.

August 31st, 2020

Carmel Heritage Society
PO BOX 701
Carmel, CA 93921

General Analysis (Tier I) for the
Big Sur Bridge Rail Replacement Project(s)
Monterey County, California
MON-001-PM-28.1-67.9
&
Specific Analysis (Tier II) for the
Garrapata Creek Bridge Rail Replacement Project
Monterey County, California
EA: 05-1H800 / EFIS: 05-1600-0163
MON-001-PM-63.0

Dear Carmel Heritage Society:

The California Department of Transportation (Caltrans) is currently proposing the pilot project in a series of six (6) separate upcoming undertakings. The Garrapata Creek Bridge (Bridge Number 44-0018) Rail Replacement will be the first project intended to gradually replace all of the concrete baluster bridge rails for six (6) historic open spandrel reinforced concrete arch bridges along State Route 1 (SR-1) in Monterey County. The six historic bridges are located between post miles (PM) 28.1 and 67.9 and include the following structures:

- Garrapata Creek Bridge at PM 63.0 (Bridge Number 44-0018); (the pilot project & currently proposed)
- Big Creek Bridge at PM 28.1 (Bridge Number 44-0056);
- Bixby Creek Bridge at PM 59.4 (Bridge Number 44-0019);
- Rocky Creek Bridge at PM 60.0 (Bridge Number 44-0036);
- Granite Canyon Bridge at PM 64.3 (Bridge Number 44-0012);
- Malpaso Creek Bridge at PM 67.9 (Bridge Number 44-0017);

The original concrete railing on the six historic bridges does not meet the current modern safety standards set by the Manual for Assessing Safety Hardware (MASH) and will be replaced with a new railing designed to meet these standards. The Manual for Assessing Safety Hardware (MASH) is a nationwide standard that was implemented by the Federal Highway Administration (FHWA) and the American Association of State Highway Transportation Officials (AASHTO) in 2009 (updated in 2016). MASH sets the standards for highway safety equipment, including bridge rails, guardrails, and other safety features. Newly adopted MASH standards have mandated that all new installations of roadside safety devices on high-speed roadways, including bridge railing, must meet a new higher standard for crash testing for all projects conducted after December 31st, 2019, without exception.

The purpose of the project(s) will be to replace the existing nonstandard concrete baluster bridge rails and approach rails with new railing that meets current traffic safety standards while also retaining a design that is as close as possible to the original railing design. Caltrans is committed to choosing a new MASH compliant railing style that is context sensitive and will be compatible with the character of the Big Sur region, the historic bridges themselves, and within the Carmel-San Simeon Highway Historic District (CSSHHD). Caltrans structures design engineers are currently developing a new bridge rail that is designed specifically to replicate the design of the historic rails as closely as possible while also meeting the new MASH crashworthiness standards. The new Caltrans rail design

(Type 86H) is currently undergoing crash testing. A second new rail design developed by the Texas Department of Transportation to replicate historic bridge rail designs (Type C412) is also under consideration. (See Attachment 2 for renderings of the new bridge rail designs).

At this early stage Caltrans is performing a tiered evaluation of these projects, with the intention of streamlining the environmental review and evaluating any potential cumulative impacts, growth-inducing impacts, and irreversible significant effects on the environment of subsequent projects. At this time Caltrans is providing a general notification of these six (6) upcoming projects and will provide additional information about each specific project as details are developed for each individual undertaking in Tier II. Caltrans is also providing specific (Tier II) notification for the Garrapata Creek Bridge (No. 44-0018) which is currently proposed to receive replacement bridge rails. Detailed studies for the Garrapata Creek Bridge Rail Replacement Project (EA: 05-1H800) are currently underway. At this time, additional railing replacement projects have not yet been proposed for the other five bridges and may be occurring several years in the future.

Caltrans is interested in learning whether your organization has special interest in, or special knowledge of these or any other resource within the project study area that should be considered during our architectural studies. If you have questions or concerns, please do not hesitate to contact me at Daniel.leckie@dot.ca.gov or at (805) 542-4754. In keeping with project scheduling deadlines, Caltrans is kindly requesting your response regarding the Garrapata Creek Bridge rail replacement project (05-1H800) specifically by October 5th, 2020. This letter also serves as a notification for the five other upcoming bridge rail replacement projects, however Caltrans will provide additional notification during bridge specific (tier II) studies for all other individual bridge rail replacement projects as those undertakings are developed in the future.

Thank you for your participation.

Sincerely,

Daniel T. Leckie
Associate Environmental Planner (Architectural History)

Enc: Map of project study area
Photos/drawings of original and new bridge rail designs

cc:

Mary Trotter
Big Sur Historical Society
PO Box 176
Big Sur, CA 93920

Kitty Henderson
Executive Director
Historic Bridge Foundation
P.O. Box 66245
Austin, Texas 78766

James Perry
Curator & Archivist
Monterey County Historical Society
P.O. Box 3576
Salinas, CA 93912

Craig Spencer
Monterey County
Historic Resources Review Board
1441 Schilling Place
Salinas, CA 93901

***<u>NOTE: PAGE LEFT INTENTIONALLY BLANK</u>**

NO COMMENT WAS RECEIVED BY
THE CARMEL HERITAGE SOCIETY

DEPARTMENT OF TRANSPORTATION
CALTRANS DISTRICT 5
50 HIGUERA STREET
SAN LUIS OBISPO, CA 93401-5415
PHONE (805) 549-3101
FAX (805) 549-3329
TTY 711
http://www.dot.ca.gov/dist05/

Making Conservation a California Way of Life.

August 31st, 2020

Kitty Henderson
Executive Director
Historic Bridge Foundation
P.O. Box 66245
Austin, Texas 78766

General Analysis (Tier I) for the
Big Sur Bridge Rail Replacement Project(s)
Monterey County, California
MON-001-PM-28.1-67.9
&
Specific Analysis (Tier II) for the
Garrapata Creek Bridge Rail Replacement Project
Monterey County, California
EA: 05-1H800 / EFIS: 05-1600-0163
MON-001-PM-63.0

Dear Ms. Henderson:

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- Malpaso Creek Bridge at PM 67.9 (Bridge Number 44-0017);

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(Type 86H) is currently undergoing crash testing. A second new rail design developed by the Texas Department of Transportation to replicate historic bridge rail designs (Type C412) is also under consideration. (See Attachment 2 for renderings of the new bridge rail designs).

At this early stage Caltrans is performing a tiered evaluation of these projects, with the intention of streamlining the environmental review and evaluating any potential cumulative impacts, growth-inducing impacts, and irreversible significant effects on the environment of subsequent projects. At this time Caltrans is providing a general notification of these six (6) upcoming projects and will provide additional information about each specific project as details are developed for each individual undertaking in Tier II. Caltrans is also providing specific (Tier II) notification for the Garrapata Creek Bridge (No. 44-0018) which is currently proposed to receive replacement bridge rails. Detailed studies for the Garrapata Creek Bridge Rail Replacement Project (EA: 05-1H800) are currently underway. At this time, additional railing replacement projects have not yet been proposed for the other five bridges and may be occurring several years in the future.

Caltrans is interested in learning whether your organization has special interest in, or special knowledge of these or any other resource within the project study area that should be considered during our architectural studies. If you have questions or concerns, please do not hesitate to contact me at Daniel.leckie@dot.ca.gov or at (805) 542-4754. In keeping with project scheduling deadlines, Caltrans is kindly requesting your response regarding the Garrapata Creek Bridge rail replacement project (05-1H800) specifically by October 5th, 2020. This letter also serves as a notification for the five other upcoming bridge rail replacement projects, however Caltrans will provide additional notification during bridge specific (tier II) studies for all other individual bridge rail replacement projects as those undertakings are developed in the future.

Thank you for your participation.

Sincerely,

Daniel T. Leckie
Associate Environmental Planner (Architectural History)

Enc: Map of project study area
Photos/drawings of original and new bridge rail designs

cc:

Mary Trotter
Big Sur Historical Society
PO Box 176
Big Sur, CA 93920

Carmel Heritage Society
PO BOX 701
Carmel, CA 93921

James Perry
Curator & Archivist
Monterey County Historical Society
P.O. Box 3576
Salinas, CA 93912

Craig Spencer
Monterey County
Historic Resources Review Board
1441 Schilling Place
Salinas, CA 93901

Leckie, Daniel@DOT

From: Kitty Henderson <kitty@historicbridgefoundation.com>
Sent: Friday, October 9, 2020 9:03 AM
To: Leckie, Daniel@DOT
Subject: Re: Big Sur Bridge Rail Replacement (Garrapata Creek Bridge Pilot Project - EA: 05-1H800)

EXTERNAL EMAIL. Links/attachments may not be safe.

Daniel [redacted] I am out of the office for the next few weeks. I will not be able to respond to the project(s) at this time.

Kitty Henderson
Executive Director
Historic Bridge Foundation
1500 Payne Ave
Austin, Texas 78757
512 407 8898

> On Sep 21, 2020, at 5:04 PM, Leckie, Daniel@DOT <Daniel.Leckie@dot.ca.gov> wrote:
>
> Kitty (1 of 3),
>
> It was a pleasure to speak to you on the phone earlier. Thank you for your comments and pointed questions regarding the Garrapata Creek Bridge Rail Replacement project. I hope we can get to a place moving forward where you and the foundation feel you are contributing valuably and meaningfully as consulting parties in the Section 106 process as well as part of our overall compliance planning process for this project.
>
> Attached is the first of three documents I will be sending your way this afternoon. These are the photos and renderings of the Garrapata Creek Bridge and Bridge railing which also includes some images of the other six Concrete Arch Bridges Caltrans has stewardship of along the Carmel San Simeon Highway Historic Distrct (CSSHHD) (aka Historic Highway 1). These are the images I initially intended to send your way with the prior two email messages, but it seems they dropped off. Hopefully these images will help better demonstrate the upcoming project. There are currently two railing types being considered, one Caltrans designed (Type 86) and the other from the Texas DOT (Type C412). Just a note a few of the renderings demonstrate a bicycle railing atop the concrete, but that feature is no longer under consideration. I also have a few updated renderings which better show the arched openings, I will send that next, and then I will send the DPR inventory form for the entire CSSHHD which includes information about the 6 bridges as they are contributing features to the historic district.
>
> Please let me know if you don't receive any of these three items as we want you to have all the information you would need to make an informed comment on this project.
>
> Thank you,
>
> Daniel T. Leckie

Leckie, Daniel@DOT

From: Leckie, Daniel@DOT
Sent: Monday, September 21, 2020 3:10 PM
To: Kitty Henderson
Subject: Garrapata Renderings
Attachments: Type 86 sim.jpg; c412 sim.jpg; c412 with arch sim.jpg; Type 86 front.jpg; c412 front.jpg; c412 with arch front.jpg

Kitty (2 of 3),

Attached there should be 6 images of renderings that have been updated since the initial letters were sent out to the consulting parties. Note the bicycle railing has been eliminated, these better demonstrate the arched openings on the c412 railings, and the color has been corrected to better match the color of bridges and current railing.

I will now follow up with the inventory for the district.

Thanks,

Daniel T. Leckie
Associate Environmental Planner &
PQS Principal Architectural Historian
Caltrans District 5 | San Luis Obispo
Office Phone: (805) 542-4754

Leckie, Daniel@DOT

From: Leckie, Daniel@DOT
Sent: Monday, September 21, 2020 3:29 PM
To: Kitty Henderson
Subject: RE: Big Sur Bridge Rail Replacement (Garrapata Creek Bridge Pilot Project - EA: 05-1H800)
Attachments: Attachment 4 - CSSHHD DPR Forms.pdf

Kitty (3 of 3),

Attached to this email is the DPR 523 Form (or simply inventory form) for the Carmel San Simeon Highway Historic District. The 6 bridges in question are both individually eligible and contributing to the district, however the best information we have on them is within this document as they were determined individually eligible as part of a statewide bridge survey in the 1980s that did not look in depth at the history of any one bridge. The CSSHHD is a complex district with many resources, so I would like to direct your attention to page 54 of the overall PDF which contains a description of the bridges and a short paragraph regarding each individually. The pages that follow contain additional information and images about the bridges as well.

The historic context section can be found toward the end of the document on page 65 and discusses the original construction of the highway from 1922 – 1938. I think that should help put the resource into context for you though please feel free to reach out if you feel you need any additional info.

I hope this helps you to accurately assess our request and respond to this project in a meaningful way. If you have any additional questions or concerns don't hesitate to email this address or call back at the number found below.

Best regards,

Daniel T. Leckie
Associate Environmental Planner &
PQS Principal Architectural Historian
California Department of Transportation | District 5
50 Higuera Street | San Luis Obispo| California |93405
Office Phone : (805) 542-4754

[redacted]

Associate Environmental Planner &
PQS Principal Architectural Historian
Caltrans District 5 | San Luis Obispo
Office Phone: (805) 542-4754
<image003.png>

From: Leckie, Daniel@DOT
Sent: Monday, September 21, 2020 11:52 AM
To: Kitty Henderson <kitty@historicbridgefoundation.com>
Subject: RE: Big Sur Bridge Rail Replacement (Garrapata Creek Bridge Pilot Project - EA: 05-1H800)

Ms. Henderson

Thank you for your response to this request. Due to the high profile nature of this project including impacts to the six historic open spandrel Concrete Arch Bridges in the Big Sur Region, our office felt it was appropriate to contact a national advocacy organization for the preservation of historic bridges as part of our due diligence in the information gathering phase of the Section 106 consultation process. Though your organization is not local to Central California, Caltrans felt the Historic Bridge Foundation might have some general interest in the preservation of these historic bridges and/or special knowledge of the engineering history of these particular bridge types.

We apricate your time and attention to this matter. Based on your comments below and with respect to the valuable work your organization does with limited time & resources, Caltrans will hold back on sending the Historic Bridge Foundation any future materials about the specifics of future projects unless you request us to do otherwise. If you wish to comment on future projects including those similarly impacting the Big Creek, Bixby Creek, Rocky Creek, Granite Creek or Malpaso Creek bridges please feel free to contact me directly.

Best regards,

Daniel T. Leckie
Associate Environmental Planner &
PQS Principal Architectural Historian
Caltrans District 5 | San Luis Obispo
Office Phone: (805) 542-4754
<image001.png>

From: Kitty Henderson <kitty@historicbridgefoundation.com>
Sent: Monday, September 21, 2020 11:19 AM
To: Leckie, Daniel@DOT <Daniel.Leckie@dot.ca.gov>
Subject: Re: Big Sur Bridge Rail Replacement (Garrapata Creek Bridge Pilot Project - EA: 05-1H800)

EXTERNAL EMAIL. Links/attachments may not be safe.

Based on the information provided to us, we do not have any "special knowledge" of the area or the bridges. Therefore, we do not feel we can comment on the project(s).

Kitty Henderson
Executive Director
Historic Bridge Foundation

1500 Payne Ave
Austin, Texas 78757
512 407 8898

On Sep 21, 2020, at 12:35 PM, Leckie, Daniel@DOT <Daniel.Leckie@dot.ca.gov> wrote:

Ms. Henderson,

I just wanted to briefly reach out with a reminder about the Garrapata Creek Bridge (Bridge Number 44-0018) Rail Replacement project (EA: 05-1H800) for which we reached out to you and several other historical organizations via Email and Postal Mail on August 31st, 2020. Caltrans has requested comments from your organization on this upcoming project (which is described in the email below as well as the attached documentation) and is hoping to gather all comments from potentially interested parties and organizations with special knowledge of the area, including the Historic Bridge Foundation, by Monday October 5th, 2020.

Thank you for your time and we look forward to hearing your valued feedback.

Sincerely,

Daniel T. Leckie
Associate Environmental Planner &
PQS Principal Architectural Historian
California Department of Transportation | District 5
50 Higuera Street | San Luis Obispo| California |93405
Office Phone : (805) 542-4754
<image002.png>

From: Leckie, Daniel@DOT
Sent: Monday, August 31, 2020 4:09 PM
To: kitty@historicbridgefoundation.com
Subject: Big Sur Bridge Rail Replacement (Garrapata Creek Bridge Pilot Project - EA: 05-1H800)

Dear Ms. Henderson,

The California Department of Transportation (Caltrans) is currently proposing the pilot project in a series of six (6) separate upcoming undertakings. The Garrapata Creek Bridge (Bridge Number 44-0018) Rail Replacement will be the first project intended to gradually replace all the concrete baluster bridge rails for six (6) historic open spandrel reinforced concrete arch bridges along State Route 1 (SR-1) in Monterey County. The purpose of the project(s) will be to replace the existing nonstandard concrete baluster bridge rails and approach rails with new railing that meets current traffic safety standards while also retaining a design that is as close as possible to the original railing design. Please see the letter and documents attached to this email for more info. These documents have also been forwarded to the following postal address:

Kitty Henderson
Executive Director

Historic Bridge Foundation
P.O. Box 66245
Austin, Texas 78766

At this early stage Caltrans is performing a tiered evaluation of these projects, with the intention of streamlining the environmental review and evaluating any potential cumulative impacts, growth-inducing impacts, and irreversible significant effects on the environment of subsequent projects. At this time Caltrans is providing a general notification of these six (6) upcoming projects and will provide additional information about each specific project as details are developed for each individual undertaking in Tier II. Caltrans is also providing specific (Tier II) notification for the Garrapata Creek Bridge (No. 44-0018) which is currently proposed to receive replacement bridge rails and detailed studies for the Garrapata Bridge Rail Replacement Project (EA: 1H800) are currently underway.

In keeping with project scheduling deadlines, Caltrans is kindly requesting your response regarding the Garrapata Creek Bridge rail replacement project (05-1H800) specifically by **October 5th, 2020.** Caltrans will provide additional notification during bridge specific (tier II) studies for all other individual bridge rail replacement projects as those undertakings are developed in the future.

Please feel free to reach by the email address or phone number in my signature line below with any questions or comments about this upcoming project. Thank you for your valued participation.

Sincerely,

Daniel T. Leckie
Associate Environmental Planner
Principal Architectural Historian
Caltrans District 5
50 Higuera Street
San Luis Obispo CA 93401
P: (805) 542-4754.
E: Daniel.Leckie@dot.ca.gov

<Attachment 1 - Mapping.pdf><Attachment 3 - Images.pdf><1H800_toHistBridgeFound_Signed.pdf>

<Attachment 3 - Photos and Renderings.pdf>

DEPARTMENT OF TRANSPORTATION
CALTRANS DISTRICT 5
50 HIGUERA STREET
SAN LUIS OBISPO, CA 93401-5415
PHONE (805) 549-3101
FAX (805) 549-3329
TTY 711
http://www.dot.ca.gov/dist05/

Making Conservation a California Way of Life.

August 31st, 2020

James Perry
Curator & Archivist
Monterey County Historical Society
P.O. Box 3576
Salinas, CA 93912

General Analysis (Tier I) for the
Big Sur Bridge Rail Replacement Project(s)
Monterey County, California
MON-001-PM-28.1-67.9
&
Specific Analysis (Tier II) for the
Garrapata Creek Bridge Rail Replacement Project
Monterey County, California
EA: 05-1H800 / EFIS: 05-1600-0163
MON-001-PM-63.0

Dear Mr. Perry:

The California Department of Transportation (Caltrans) is currently proposing the pilot project in a series of six (6) separate upcoming undertakings. The Garrapata Creek Bridge (Bridge Number 44-0018) Rail Replacement will be the first project intended to gradually replace all of the concrete baluster bridge rails for six (6) historic open spandrel reinforced concrete arch bridges along State Route 1 (SR-1) in Monterey County. The six historic bridges are located between post miles (PM) 28.1 and 67.9 and include the following structures:

- Garrapata Creek Bridge at PM 63.0 (Bridge Number 44-0018); (the pilot project & currently proposed)
- Big Creek Bridge at PM 28.1 (Bridge Number 44-0056);
- Bixby Creek Bridge at PM 59.4 (Bridge Number 44-0019);
- Rocky Creek Bridge at PM 60.0 (Bridge Number 44-0036);
- Granite Canyon Bridge at PM 64.3 (Bridge Number 44-0012);
- Malpaso Creek Bridge at PM 67.9 (Bridge Number 44-0017);

The original concrete railing on the six historic bridges does not meet the current modern safety standards set by the Manual for Assessing Safety Hardware (MASH) and will be replaced with a new railing designed to meet these standards. The Manual for Assessing Safety Hardware (MASH) is a nationwide standard that was implemented by the Federal Highway Administration (FHWA) and the American Association of State Highway Transportation Officials (AASHTO) in 2009 (updated in 2016). MASH sets the standards for highway safety equipment, including bridge rails, guardrails, and other safety features. Newly adopted MASH standards have mandated that all new installations of roadside safety devices on high-speed roadways, including bridge railing, must meet a new higher standard for crash testing for all projects conducted after December 31st, 2019, without exception.

The purpose of the project(s) will be to replace the existing nonstandard concrete baluster bridge rails and approach rails with new railing that meets current traffic safety standards while also retaining a design that is as close as possible to the original railing design. Caltrans is committed to choosing a new MASH compliant railing style that is context sensitive and will be compatible with the character of the Big Sur region, the historic bridges themselves, and within the Carmel-San Simeon Highway Historic District (CSSHHD). Caltrans structures design engineers are currently developing a new bridge rail that is designed specifically to replicate the design of the historic rails as closely as possible while also meeting the new MASH crashworthiness standards. The new Caltrans rail design

(Type 86H) is currently undergoing crash testing. A second new rail design developed by the Texas Department of Transportation to replicate historic bridge rail designs (Type C412) is also under consideration. (See Attachment 2 for renderings of the new bridge rail designs).

At this early stage Caltrans is performing a tiered evaluation of these projects, with the intention of streamlining the environmental review and evaluating any potential cumulative impacts, growth-inducing impacts, and irreversible significant effects on the environment of subsequent projects. At this time Caltrans is providing a general notification of these six (6) upcoming projects and will provide additional information about each specific project as details are developed for each individual undertaking in Tier II. Caltrans is also providing specific (Tier II) notification for the Garrapata Creek Bridge (No. 44-0018) which is currently proposed to receive replacement bridge rails. Detailed studies for the Garrapata Creek Bridge Rail Replacement Project (EA: 05-1H800) are currently underway. At this time, additional railing replacement projects have not yet been proposed for the other five bridges and may be occurring several years in the future.

Caltrans is interested in learning whether your organization has special interest in, or special knowledge of these or any other resource within the project study area that should be considered during our architectural studies. If you have questions or concerns, please do not hesitate to contact me at Daniel.leckie@dot.ca.gov or at (805) 542-4754. In keeping with project scheduling deadlines, Caltrans is kindly requesting your response regarding the Garrapata Creek Bridge rail replacement project (05-1H800) specifically by October 5th, 2020. This letter also serves as a notification for the five other upcoming bridge rail replacement projects, however Caltrans will provide additional notification during bridge specific (tier II) studies for all other individual bridge rail replacement projects as those undertakings are developed in the future.

Thank you for your participation.

Sincerely,

Daniel T. Leckie
Associate Environmental Planner (Architectural History)

Enc: Map of project study area
Photos/drawings of original and new bridge rail designs

cc:

Mary Trotter
Big Sur Historical Society
PO Box 176
Big Sur, CA 93920

Carmel Heritage Society
PO BOX 701
Carmel, CA 93921

Kitty Henderson
Executive Director
Historic Bridge Foundation
P.O. Box 66245
Austin, Texas 78766

Craig Spencer
Monterey County
Historic Resources Review Board
1441 Schilling Place
Salinas, CA 93901

Leckie, Daniel@DOT

From: Monterey County Historical Society <mchs@redshift.com>
Sent: Tuesday, September 22, 2020 9:00 AM
To: Leckie, Daniel@DOT
Subject: Re: Big Sur Bridge Rail Replacement (Garrapata Creek Bridge Pilot Project - EA: 05-1H800)

EXTERNAL EMAIL. Links/attachments may not be safe.

Daniel,

We reviewed the materials that you mailed to us and have no comments/concerns.

Kind Regards,
James Perry
Executive Director
Monterey County Historical Society
831-757-8085
P.O. Box 3576
Salinas, CA 93912
mchsmuseum.com/salinas

On Sep 21, 2020, at 10:33 AM, Leckie, Daniel@DOT <Daniel.Leckie@dot.ca.gov> wrote:

Mr. Perry,

I just wanted to briefly reach out with a reminder about the Garrapata Creek Bridge (Bridge Number 44-0018) Rail Replacement project (EA: 05-1H800) for which we reached out to you and several other historical organizations via Email and Postal Mail on August 31st, 2020. Caltrans has requested comments from your organization on this upcoming project (which is described in the email below as well as the attached documentation) and is hoping to gather all comments from potentially interested parties and organizations with special knowledge of the area, including the Monterey County Historical Society, by Monday October 5th, 2020.

Thank you for your time and we look forward to hearing your valued feedback.

Sincerely,

Daniel T. Leckie
Associate Environmental Planner &
PQS Principal Architectural Historian
California Department of Transportation | District 5
50 Higuera Street | San Luis Obispo| California |93405
Office Phone : (805) 542-4754
<image002.png>

From: Leckie, Daniel@DOT
Sent: Monday, August 31, 2020 4:11 PM
To: James Perry <mchs@redshift.com>
Subject: Big Sur Bridge Rail Replacement (Garrapata Creek Bridge Pilot Project - EA: 05-1H800)

Dear Mr. Perry,

The California Department of Transportation (Caltrans) is currently proposing the pilot project in a series of six (6) separate upcoming undertakings. The Garrapata Creek Bridge (Bridge Number 44-0018) Rail Replacement will be the first project intended to gradually replace all the concrete baluster bridge rails for six (6) historic open spandrel reinforced concrete arch bridges along State Route 1 (SR-1) in Monterey County. The purpose of the project(s) will be to replace the existing nonstandard concrete baluster bridge rails and approach rails with new railing that meets current traffic safety standards while also retaining a design that is as close as possible to the original railing design. Please see the letter and documents attached to this email for more info. These documents have also been forwarded to the following postal address:

James Perry
Curator & Archivist
Monterey County Historical Society
P.O. Box 3576
Salinas, CA 93912

At this early stage Caltrans is performing a tiered evaluation of these projects, with the intention of streamlining the environmental review and evaluating any potential cumulative impacts, growth-inducing impacts, and irreversible significant effects on the environment of subsequent projects. At this time Caltrans is providing a general notification of these six (6) upcoming projects and will provide additional information about each specific project as details are developed for each individual undertaking in Tier II. Caltrans is also providing specific (Tier II) notification for the Garrapata Creek Bridge (No. 44-0018) which is currently proposed to receive replacement bridge rails and detailed studies for the Garrapata Bridge Rail Replacement Project (EA: 1H800) are currently underway.

In keeping with project scheduling deadlines, Caltrans is kindly requesting your response regarding the Garrapata Creek Bridge rail replacement project (05-1H800) specifically by **October 5th, 2020.** Caltrans will provide additional notification during bridge specific (tier II) studies for all other individual bridge rail replacement projects as those undertakings are developed in the future.

Please feel free to reach by the email address or phone number in my signature line below with any questions or comments about this upcoming project. Thank you for your valued participation.

Sincerely,

Daniel T. Leckie
Associate Environmental Planner
Principal Architectural Historian
Caltrans District 5
50 Higuera Street
San Luis Obispo CA 93401
P: (805) 542-4754.
E: Daniel.Leckie@dot.ca.gov

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY Gavin Newsom, Governor

DEPARTMENT OF TRANSPORTATION
CALTRANS DISTRICT 5
50 HIGUERA STREET
SAN LUIS OBISPO, CA 93401-5415
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TTY 711
http://www.dot.ca.gov/dist05/

Making Conservation a California Way of Life.

August 31st, 2020

Craig Spencer
Monterey County
Historic Resources Review Board
1441 Schilling Place
Salinas, CA 93901

General Analysis (Tier I) for the
Big Sur Bridge Rail Replacement Project(s)
Monterey County, California
MON-001-PM-28.1-67.9
&
Specific Analysis (Tier II) for the
Garrapata Creek Bridge Rail Replacement Project
Monterey County, California
EA: 05-1H800 / EFIS: 05-1600-0163
MON-001-PM-63.0

Dear Mr. Spencer:

The California Department of Transportation (Caltrans) is currently proposing the pilot project in a series of six (6) separate upcoming undertakings. The Garrapata Creek Bridge (Bridge Number 44-0018) Rail Replacement will be the first project intended to gradually replace all of the concrete baluster bridge rails for six (6) historic open spandrel reinforced concrete arch bridges along State Route 1 (SR-1) in Monterey County. The six historic bridges are located between post miles (PM) 28.1 and 67.9 and include the following structures:

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- Rocky Creek Bridge at PM 60.0 (Bridge Number 44-0036);
- Granite Canyon Bridge at PM 64.3 (Bridge Number 44-0012);
- Malpaso Creek Bridge at PM 67.9 (Bridge Number 44-0017);

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The purpose of the project(s) will be to replace the existing nonstandard concrete baluster bridge rails and approach rails with new railing that meets current traffic safety standards while also retaining a design that is as close as possible to the original railing design. Caltrans is committed to choosing a new MASH compliant railing style that is context sensitive and will be compatible with the character of the Big Sur region, the historic bridges themselves, and within the Carmel-San Simeon Highway Historic District (CSSHHD). Caltrans structures design engineers are currently developing a new bridge rail that is designed specifically to replicate the design of the historic rails as closely as possible while also meeting the new MASH crashworthiness standards. The new Caltrans rail design

(Type 86H) is currently undergoing crash testing. A second new rail design developed by the Texas Department of Transportation to replicate historic bridge rail designs (Type C412) is also under consideration. (See Attachment 2 for renderings of the new bridge rail designs).

At this early stage Caltrans is performing a tiered evaluation of these projects, with the intention of streamlining the environmental review and evaluating any potential cumulative impacts, growth-inducing impacts, and irreversible significant effects on the environment of subsequent projects. At this time Caltrans is providing a general notification of these six (6) upcoming projects and will provide additional information about each specific project as details are developed for each individual undertaking in Tier II. Caltrans is also providing specific (Tier II) notification for the Garrapata Creek Bridge (No. 44-0018) which is currently proposed to receive replacement bridge rails. Detailed studies for the Garrapata Creek Bridge Rail Replacement Project (EA: 05-1H800) are currently underway. At this time, additional railing replacement projects have not yet been proposed for the other five bridges and may be occurring several years in the future.

Caltrans is interested in learning whether your organization has special interest in, or special knowledge of these or any other resource within the project study area that should be considered during our architectural studies. If you have questions or concerns, please do not hesitate to contact me at Daniel.leckie@dot.ca.gov or at (805) 542-4754. In keeping with project scheduling deadlines, Caltrans is kindly requesting your response regarding the Garrapata Creek Bridge rail replacement project (05-1H800) specifically by October 5th, 2020. This letter also serves as a notification for the five other upcoming bridge rail replacement projects, however Caltrans will provide additional notification during bridge specific (tier II) studies for all other individual bridge rail replacement projects as those undertakings are developed in the future.

Thank you for your participation.

Sincerely,

Daniel T. Leckie
Associate Environmental Planner (Architectural History)

Enc: Map of project study area
Photos/drawings of original and new bridge rail designs

cc:

Mary Trotter
Big Sur Historical Society
PO Box 176
Big Sur, CA 93920

Carmel Heritage Society
PO BOX 701
Carmel, CA 93921

Kitty Henderson
Executive Director
Historic Bridge Foundation
P.O. Box 66245
Austin, Texas 78766

James Perry
Curator & Archivist
Monterey County Historical Society
P.O. Box 3576
Salinas, CA 93912

MONTEREY COUNTY
RESOURCE MANAGEMENT AGENCY
Carl P. Holm, AICP, Director

LAND USE & COMMUNITY DEVELOPMENT | PUBLIC WORKS & FACILITIES | PARKS
1441 Schilling Place, South 2nd Floor (831)755-4800
Salinas, California 93901-4527 www.co.monterey.ca.us/rma

October 29, 2020

Daniel Leckie
California Department of Transportation
50 Higuera Street
San Luis Obispo, California 93401

Subject: Section 106 Consultation on the Bridge Rail Replacement, Highway 1 in Big Sur

Dear Mr. Leckie,

Thank you for providing Monterey County the opportunity to review the proposed Highway 1 Big Sur bridge rail replacement project. We understand CalTrans is proposing replacement of bridge rails on six historic bridges in the Big Sur area:

1. Garrapata Creek Bridge
2. Big Creek Bridge
3. Bixby Bridge
4. Rocky Creek Bridge
5. Granite Canyon Bridge
6. Malpaso Creek Bridge

These bridges are an integral part of majesty of the Big Sur coastline; viewed and photographed by tens of thousands of visitors every year. Not only are they found eligible for listing on the National Register of Historic Resources; their timeless design represents a sense of place and time important to the scenic highway and tourist industry. Their beauty is unique to site and structure, creating a visual rhythm and proportion. Their "Arched window design" and "smooth texture finish" are iconic, key design features.

For these reasons, Monterey County is committed to working with CalTrans to preserve the historic integrity of the bridges, preserve views along Highway 1 and protect motorists to the maximum extent possible.

As part of the Section 106 consultation, the conceptual proposal for the Garrapata Bridge Rail replacement (first of the bridge rail replacement projects), was reviewed by the Monterey County Historic Resources Review Board (HRRB). Following are our comments on the Garrapata Bridge Rail and comments for the reasonably foreseeable future projects on the other five bridges being considered. We do expect to be notified when we can make further comments on the Garrapata project and the entire Bridge series replacement project.

Project justification - The County needs to fully understand the need for the bridge rail replacement. The analysis should include but not be limited to:

- An in-depth review and discussion with FHA on consideration of historic architecture as a means to compliance with MASH and ASHTO standards;
- Details on the condition of the existing bridge rails, including photographic evidence;
- Review of Highway speeds and potential reduction of speed for each bridge as a means of providing flexibility in design solutions for reinforcement, replacement in kind, or design of the replacement rails (if needed); and
- A detailed discussion of why typical historic preservation building standards are not possible in this situation with documentation of efforts on coordination with FHA and highway speeds.

Evaluation and documentation – Review of the project would benefit from more detailed plans and documentation including but not limited to:

- Elevations and photographs that show the interior and exterior views of the existing bridge rails. There are features of the rail that reflect the vertical structural elements of the bridge that need to be understood and documented;
- Original drawings for the bridge and railing if available;
- Detail the full cross section of the rail and bridge deck to see the complete impact of any designs proposed; and
- Detailed historic analysis and report for each bridge prepared by a qualified historian.

Environmental Review – The County supports CalTrans decision to prepare an Environmental Impact Report. Please include Monterey County on the list of responsible agencies and interested parties. The EIR should consider at a minimum:

- Cumulative considerations of rail replacement for ***all six*** historic bridges;
- Alternatives analysis including a no project alternative; Highway speed reductions given circumstances occurring at each bridge; Historic Preservation design and engineering standard exceptions; and options to repair and reinforce the existing rails or replace in kind; and
- Effects on historic resources (defining features of the bridges); effects on the critical viewshed in Big Sur; and compatibility with the Coastal Act, Big Sur Land Use Plan and Coast Highway Management Plan.

Replacement Rail Design – If, after consideration and analysis of the project's need and detailed alternatives, replacement of the bridge rails is determined to be necessary, the County reserves the ability to review and comment upon each bridge's rail designs, prior to selection of a final design. Building on the information and comments above here are our *preliminary* comments on potential new bridge rail designs:

- Rail scale and proportions are essential relationships in any new bridge design.
- Keep in mind railings are just not something attached to the top of the bridge deck;
- We suggest CalTrans work with the local community as well as Monterey County to design bridge rails to fit the character of the structures and the surroundings. These community members should include Big Sur Coast Multi-Agency Committee (BSMAC), and the local Big Sur Land Use Advisory Committee (LUAC). Monterey County is willing to set these discussions on those agencies' agendas.
- Of the current options presented to Monterey County, the "C411" rail design appears the most consistent option at this time. Although the C411 design is engineered for speeds of up to 45 miles per hour, the County believes some bridges warrant reduced speeds where there are curves or heavily used turnouts which slow traffic near the bridges. We strongly believe all travelers along Highway will much rather slow down to enjoy the beautiful

views – including the bridge design (including the rails) rather than seeing the visual shock of foreign elements which impact bridges' character;

- We ask that CalTrans coordinate with the County on the final bridge rail design. We've successfully worked with CalTrans in the past regarding the Moss Landing Island Bridge and the Bixby Bridge seismic retrofit project.
- Final design options should be presented to Monterey County with sufficient flexibility to amend the design before a final designed is selected;

We appreciate the opportunity to comment on this project, we look forward to working with CalTrans to find the most appropriate solution for safety, historic preservation, protection of our treasured Big Sur coast line and peoples' lives. Please contact me if you have any questions, we are happy to talk with you.

Sincerely,

Craig Spencer, Planning Services Manager
RMA – Planning
Email: spencerc@co.monterey.ca.us
Phone: (831) 755-5233

Cc: HRRB Members, Carl Holm, Randell Ishii, Shannon Lauchner

DEPARTMENT OF TRANSPORTATION
CALTRANS DISTRICT 5
50 HIGUERA STREET
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TTY 711
http://www.dot.ca.gov/dist05/

Making Conservation a California Way of Life.

December 10th, 2020

Craig Spencer
Monterey County
Historic Resources Review Board
1441 Schilling Place
Salinas, CA 93901

Notice of Adverse Effect and Mitigation Proposal
Garrapata Creek Bridge Rail Replacement Project
Monterey County, California
EA: 05-1H800 / EFIS: 05-1600-0163
MON-001-PM-63.0

Dear Mr. Spencer:

As per the previous letter from our office dated August 31st 2020, The California Department of Transportation (Caltrans) is currently proposing to replace the original railing on the Garrapata Creek Bridge (Bridge Number 44-0018) in Monterey County, on State Route 1 (SR-1) north of Big Sur. The Garrapata Creek Bridge Rail Replacement Project (EA: 05-1H800) will be the first project intended to gradually replace all of the concrete baluster bridge rails for six (6) historic open-spandrel reinforced-concrete arch bridges along SR-1 in Monterey County. As the dimensions of the original bridge rails are not compliant with modern standards in the Manuel for Assessing Safety Hardware (MASH) set by the American Association of State Highway and Transportation Officials (AASHTO), it has been determined the bridge railing cannot be replaced in kind, and will require a new railing with different dimensions. Specifically, the new railing will include a larger base and baluster and smaller arched openigs, in order to meet the current safety standards. Despite the required changes, Caltrans is committed to choosing a railing type that is as compatible with the historic bridge design and scenic corridor as possible.

The Garrapata Creek Bridge is a historic property that is eligible for the National Register of Historic Places (NRHP) and the California Register of Historical Resources (CRHR) under NRHP/CRHR significance criterion A/1 in the area of transportation and criterion C/3 as a distinctive example of an open spandrel reinforced concrete arch bridge in California. Furthermore, the bridge is also a contributing element to the Carmel San-Simeon Highway Historic District (CSSHHD), a historic property consisting of over 200 individual elements, such as rubble stone masonry headwalls, retaining walls, parapet walls, drinking fountains as well as seven (7) reinforced concrete arch bridges known collectively as the "Big Sur Arches". The reinforced concrete railings, with their arched window design and smooth texture finish, are a noted character defining feature of the historic Garrapata Creek Bridge. Because the original bridge rails cannot be repaired or replaced in kind, Caltrans has determined this project will have an Adverse Effect to the Garrapata Creek Bridge.

In order to consider, the effects of this undertaking on historic properties, the adverse effect to the Garrapata Creek Bridge will be resolved through implementation of mitigation measures. These mitigation measures are to be outlined in a Memorandum of Agreement (MOA) which will be executed with the State Historic Preservation Office (SHPO) sometime in early 2021. Caltrans is currently considering proposing the mitigation measures for the Garrapata Creek Bridge Rail Replacement Project to include:

(1) Recordation of the bridge's current condition via the Historic American Engineering Record (HAER) to include written and photographic documentation;

(2) Production of Individual DPR 523 inventory forms for all seven (7) concrete arch bridges within the Carmel Simeon Highway Historic District (CSSHHD). All seven (7) Big Sur Arches were determined to be eligible for the NRHP/CRHR as part of the Caltrans Statewide Historic Bridge Inventory without a detailed Historic Resources Evaluation Report for the individual resources. The current best information on the bridges is recorded on the CSSHHD district wide DPR 523 Inventory Form, for which the bridges are contributing elements. In order to better understand the unique history of each of the seven (7) Big Sur Arches, Caltrans is proposing to do individual analysis of all seven (7) structures. This measure is specifically in response to a request by the Monterey County Historic Resources Review Board in their October 29th, 2020 letter for a "detailed historic analysis and report for each bridge prepared by a qualified historian". The bridges to be individually researched, analyzed, and reported on will specifically include:
    - Big Creek Bridge (1938) - PM 28.1, Bridge Number 44-0056
    - Bixby Creek Bridge (1932) - PM 59.4, Bridge Number 44-0019
    - Rocky Creek Bridge (1932) - PM 60.0, Bridge Number 44-0036
    - Garrapata Creek Bridge (1931) - PM 63.0, Bridge Number 44-0018
    - Granite Canyon Bridge (1932) - PM 64.3, Bridge Number 44-0012
    - Malpaso Creek Bridge (1935) - PM 67.9, Bridge Number 44-0017
    - Wildcat Creek Bridge (1933) – PM 69.0, Bridge Number 44-0016
        - *Note: The Wildcat Bridge, a closed spandrel concrete arch bridge, is not part of the Bridge Rail Replacement program at this time. Though it will not be impacted by an upcoming bridge rail replacement project, it is included because it is also a contributor to the CSSHHD and thematically similar to the other Big Sur Arches, with a slightly different design.*

(3) The production of an interpretive website to highlight the history of the Seven Big Sur Arches. The website will include historic and modern photographs, historic contexts developed in the individual historic analysis reports, and additional information on the engineering and transportation history of the bridges.
    a. The website will be continually updated along with all other mitigations as future bridge rail replacement projects are proposed overtime.
    b. Additionally, the website will also contain at least a page with outreach information in the form of lesson plans for elementary school aged students that focuses on historic and/or other Scientific, Technological, Engineering, or Mathematical (STEM) activities within a historic context.

At this stage, Caltrans is interested in receiving feedback from all consulting parties regarding the proposed mitigation measures. Caltrans kindly asks all comments on proposed mitigation are submitted by Wednesday December 30th, 2020 for consideration in the final draft Memorandum of Agreement (MOA) with the SHPO.

Thank you for your participation.

Sincerely,

Daniel T. Leckie
Associate Environmental Planner (Architectural History)

cc: Mary Trotter
Big Sur Historical Society
PO Box 176
Big Sur, CA 93920

From: Spencer, Craig x5233
To: Leckie, Daniel@DOT
Subject: RE: Follow up to HRRB Meeting (Garrapata Creek Bridge Rail Replacement Project 1H800)
Date: Tuesday, October 6, 2020 12:19:50 PM
Attachments: image001.png
image002.png

EXTERNAL EMAIL. Links/attachments may not be safe.

Received. Thank you

Craig Spencer
Monterey County, RMA-Planning Division
Phone: (831) 755-5233
Email: spencerc@co.monterey.ca.us

From: Leckie, Daniel@DOT <Daniel.Leckie@dot.ca.gov>
Sent: Tuesday, October 6, 2020 12:16 PM
To: Spencer, Craig x5233 <SpencerC@co.monterey.ca.us>
Subject: RE: Follow up to HRRB Meeting (Garrapata Creek Bridge Rail Replacement Project 1H800)

[CAUTION: This email originated from outside of the County. Do not click links or open attachments unless you recognize the sender and know the content is safe.]

Mr. Spencer,

Here is the follow up with the CSSHHD Inventory form.

Thank you,

Daniel T. Leckie
Associate Environmental Planner &
PQS Principal Architectural Historian
Caltrans District 5 | San Luis Obispo
Office Phone: (805) 542-4754

From: Leckie, Daniel@DOT
Sent: Tuesday, October 6, 2020 12:14 PM
To: 'Spencer, Craig x5233' <SpencerC@co.monterey.ca.us>
Subject: FW: Follow up to HRRB Meeting (Garrapata Creek Bridge Rail Replacement Project 1H800)

Mr. Spencer,

I wanted to thank you again for setting up a productive and informative meeting between the Caltrans District 5 Cultural Resources Team and the Monterey County Historic Resources Review Board last Thursday (10/1). It is engagement such as this that allows us to truly take the valuable comments of all stake holders into account during the project development process, and I believe helps make our projects the best they can be for the communities we serve so we very much do apricate your valued engagement and participation.

I also wanted to follow up on a few items that were brought up at the meeting last week:

1. First I wanted to forward the Department of Parks and Recreation 523 Historic Inventory form for the Carmel San Simeon Highway Historic District (CSSHHD) of which the 7 concrete arch bridges are all contributing structures. The document is heavily focused on a 2006 inventory of original highway features, such as rock masonry culvert headwalls and parapet walls, however there is some enhanced discussion of the contributing bridges on pages 53 – 62. The historic context for the district as a whole can be found on page 64 and helps round out that discussion. Hopefully this document will help inform the boards official comments in your formal letter to come sometime in the next few months. ***** This was too large to attach with everything else so I will follow up with the DPR Inventory form *****
2. I also wanted to attach some updated renderings from our design team. The 6 attached images were produced to update some earlier images we sent to out with the initial request in response to comments from myself and my colleague Lindsay Kozub to include better demonstration of the option to add arched openings on the c412 type railings as well as better reflecting the unique color of the original Garrapata Creek Bridge & its railings based on a palate we provided. These are by no means a final or complete depiction of what the constructed railing will look like as the rendering software is limited in its ability to produce accurate textures / colors / etc, but is meant to give an better idea of how the product will appear. However, it should be noted these images and the designs for the bridge rails themselves are still being refined.
3. For the question about Big Sur Multi Agency Advisory Committee , yes, we have shared information with BSMAAC every quarter since the currnt project manager, Carla Yu, has been working on this project (so going back a few years). Attached are the latest updates for the BSMAAC reports, so you can update the Board that Caltrans has in fact been in contact with the agency and they should be aware of the upcoming project. I apologize for not being abreast to this info during the meeting, there are so many moving parts on this project its hard to keep up with everything.
4. Just FYI we are working on getting together info from the traffic safety folks on collision data in the area which was requested, so hopefully I can follow up with that info soon.

Please let me know if you have any additional questions or concerns regarding our meeting last week or if there are any other follow up items I am missing here as much was discussed during the meeting.

Thank you,

Daniel T. Leckie
Associate Environmental Planner &
PQS Principal Architectural Historian
California Department of Transportation | District 5
50 Higuera Street | San Luis Obispo| California |93405
Office Phone : (805) 542-4754

From: Spencer, Craig x5233 <SpencerC@co.monterey.ca.us>
Sent: Wednesday, August 26, 2020 5:14 PM
To: Leckie, Daniel@DOT <Daniel.Leckie@dot.ca.gov>; Swanson, Brandon xx5334 <SwansonB@co.monterey.ca.us>
Subject: RE: CalTrans Request to Present to HRRB

EXTERNAL EMAIL. Links/attachments may not be safe.

The mailing address here is:

1441 Shilling Place, 2nd Floor
Salinas CA, 93901

Please send to my attention.

Thank you

Craig Spencer
Monterey County, RMA-Planning Division
Phone: (831) 755-5233
Email: spencerc@co.monterey.ca.us

From: Leckie, Daniel@DOT <Daniel.Leckie@dot.ca.gov>
Sent: Wednesday, August 26, 2020 9:55 AM
To: Spencer, Craig x5233 <SpencerC@co.monterey.ca.us>; Swanson, Brandon xx5334 <SwansonB@co.monterey.ca.us>
Subject: RE: CalTrans Request to Present to HRRB

[CAUTION: This email originated from outside of the County. Do not click links or open attachments unless you recognize the sender and know the content is safe.]

Mr. Spencer,

Thank you for your reply. I will be following up with some information about an upcoming Caltrans project in the near future. In the meantime, could you possibly provide a postal address in addition to this email where mail can be forwarded?

Thank you and I look forward to our conversation.

Best,

Daniel T. Leckie

Associate Environmental Planner &
PQS Principal Architectural Historian
California Department of Transportation | District 5
50 Higuera Street | San Luis Obispo| California |93405
Office Phone : (805) 542-4754



From: Spencer, Craig x5233 <SpencerC@co.monterey.ca.us>
Sent: Wednesday, August 26, 2020 9:40 AM
To: Swanson, Brandon xx5334 <SwansonB@co.monterey.ca.us>; Leckie, Daniel@DOT <Daniel.Leckie@dot.ca.gov>
Subject: RE: CalTrans Request to Present to HRRB

EXTERNAL EMAIL. Links/attachments may not be safe.

Hello Daniel,

I would be happy to help assist with our Historic Board review.
Please feel free to call or email me for more information.

Craig Spencer
Monterey County, RMA-Planning Division
Phone: (831) 755-5233
Email: spencerc@co.monterey.ca.us

From: Swanson, Brandon xx5334 <SwansonB@co.monterey.ca.us>
Sent: Thursday, August 20, 2020 2:04 PM
To: daniel.leckie@dot.ca.gov; Spencer, Craig x5233 <SpencerC@co.monterey.ca.us>
Subject: CalTrans Request to Present to HRRB

Daniel,

It was good to speak with you just now. By way of this email, I am linking you up with Craig Spencer, who currently staffs the HRRB here at the County. Please work through him to get the project you mentioned in front of the HRRB for review.

Thanks,

Brandon Swanson
Monterey County Resource Management Agency
831-755-5334

Leckie, Daniel@DOT

From: Leckie, Daniel@DOT
Sent: Thursday, October 8, 2020 10:55 AM
To: Spencer, Craig x5233
Subject: 1H800 - Follow up Public Hearing for the Historic Resources Review Board (Crash Test Data)
Attachments: CPRA example.png

Mr. Spencer,

I wanted to follow up with the info on how to access the crash data for the Garrapata Creek Bridge. Though I am not authorized to provide this info directly to an outside agency there is a mechanism by which the Historic Resources Review Board can access this data.

For the board to obtain this data they will need to submit a California Public Records Act (CPRA) request through the following website: https://caltrans.mycusthelp.com/WEBAPP/_rs/(S(vpbdrb1y2ir0tga4i3o4px1a))/supporthome.aspx To access the info, follow the link above and once at the webpage click the button for "submit a request" on the left hand side of the screen. Once there you can choose to set up an account or simply submit a request anonymously (the system suggests to create an account incase Caltrans needs to contact you with any questions about your inquiry). This will bring you to the page where you submit your request.

Once on that page, the information needed for our safety officer to run the traffic collision reports will be **County: (Monterey) / State Route Number: (SR-1) / PM Limits: (62.9 – 63.1)** *Note: The bridge is listed at PM 63 which would be near the center of the bridge. Our project manager suggested including a .1 mile range on either side to get a better result with more representative data* **/ Date Range (whatever you want to see … I put 1/1/2000 – 10/1/2020 as an example here)** and **which report: (Table B v. TSAR which is explained below)**.

There are multiple reports that can be run so within the box that says "**Describe the Record(s) Requested"** please specify the report name you're looking for. You can say "table B" which would provide Actual crash data in this location vs a statewide average, or a TSAR which includes information summarized in various tables. The Project Manager for this project also suggested a TSAR report might be more helpful as that has more data about the specific types of accidents in this location, but I'll leave that decision up to the board. Please feel free to reach out if you have any questions about this I can try to find more info about these reports for you if that would be helpful.

Additionally, If the board would like the specific information provided by me specifically as a POC you can specify this in your request "traffic collision history at MON-001-PM62.9 – 63.1 (Garrapata Bridge) provided by Daniel Leckie – D5 Architectural Historian"

I have provided a screenshot of an example of how you might fill out this request form and attached it to this email. I hope that is helpful to you. I put asterisks around any info that might be optional or up to the boards discretion.

I think that's it for now. Please reach out if you have any questions or concerns on this process.

Best,

Daniel T. Leckie
Associate Environmental Planner &
PQS Principal Architectural Historian
Caltrans District 5 | San Luis Obispo

Office Phone: (805) 542-4754

Caltrans

From: Yu, Carla@DOT <carla.yu@dot.ca.gov>
Sent: Wednesday, October 7, 2020 4:47 PM
To: Xiong, Moua@DOT <Moua.Xiong@dot.ca.gov>; Leckie, Daniel@DOT <Daniel.Leckie@dot.ca.gov>
Cc: Senor, Dario A@DOT <dario.senor@dot.ca.gov>; Ostrau, Scott@DOT <Scott.Ostrau@dot.ca.gov>; Kiaha, Krista M@DOT <krista.kiaha@dot.ca.gov>; Wilkinson, Jason J@DOT <jason.wilkinson@dot.ca.gov>
Subject: RE: Notice of Public Hearing for the Historic Resources Review Board

Hello Moua,
Thank you for your prompt attention to this request and the information for how Monterey County Historic Resource Review Board can obtain the information that they are seeking.

I understand that this information has to be requested by the requestor through the California Public Records Act.

@Leckie, Daniel@DOT,
For the postmiles, I would suggest that the Resource board request about 0.1 miles before and after the PM 63.0 for the search, and the postmile GIS webpage may be very helpful with fine tuning the postmile limits as well in case the center of the bridge is not postmile 63.0: http://postmile-internal.dot.ca.gov/PMQT/PMQT_Internal.html?

Also, for the type of report, it depends on what the Resource board is looking for, I think TSAR may be helpful if they want to differentiate type of accidents as the Table B will just give the rates of this location vs the statewide average.

Thank you,

Carla Yu, P.E.
Project Manager
Caltrans District 5
(805) 549-3749

From: Xiong, Moua@DOT <Moua.Xiong@dot.ca.gov>
Sent: Wednesday, October 7, 2020 9:39 AM
To: Yu, Carla@DOT <carla.yu@dot.ca.gov>; Leckie, Daniel@DOT <Daniel.Leckie@dot.ca.gov>
Cc: Senor, Dario A@DOT <dario.senor@dot.ca.gov>; Ostrau, Scott@DOT <Scott.Ostrau@dot.ca.gov>
Subject: RE: Notice of Public Hearing for the Historic Resources Review Board

Hi Carla,

I am working under Dario and I am wanted to clarify the situation. Daniel has traffic collision history at MON-001-PM63.0 (Garrapata Bridge) and would like to share the information with Monterey County Historic Resourced Review Board? If this is an agency outside of Caltrans, they will need to submit a California Public Records Act. (CPRA) https://caltrans.mycusthelp.com/WEBAPP/_rs/(S(vpbdrb1y2ir0tga4i3o4px1a))/supporthome.aspx
CPRA will be a way to track which documents are being shared outside of Caltrans.

The information needed for me (TASAS Coordinator) to run traffic collision reports are **County-Route-PM Limits, Date Range** and **which report**. There are multiple reports that can be run. Please specify the report name – Table B (Actual vs Statewide rates), TSAR (Accident information summarized in various tables) or a brief description on the nature of the request.

If the agency would like the specific information provided by Daniel, please have the agency specify in their request "traffic collision history at MON-001-PM63.0 (Garrapata Bridge) by Daniel"

If you have anymore questions on traffic collision data, please let me know as I am the TASAS Coordinator for District 05.

Regards,

Moua Xiong
Transportation Engineer
District 5 | Traffic Safety
50 Higuera St, San Luis Obispo, CA 93401
Office: (805) 549-3641



Attachment 13
List of Participants in Aesthetic Design Advisory Committee (ADAC) Meetings

List of Participants in Aesthetic Design Advisory Committee (ADAC) Meetings

Individual	Organization	Title
Angela Chesnut/Jonathan Engleman (alternate)	U.S. Senate	Senator Laird's Office
Sean Drake	California Coastal Commission	Coastal Program Analyst
Erik Lundquist	Monterey County Housing & Community Development Department	Director of Housing & Community Development
Craig Spencer	Monterey County Housing & Community Development Department	Secretary, Monterey County Planning Commission
Mary Trotter	Big Sur Land Use Advisory Committee	
John Scourkes, RA	Monterey County Historic Resources Review Board and Scourkes Architecture	Chairman Monterey County Historic Resources Review Board and member of American Institute of Architects (AIA)
Anneliese Angren	Big Sur Multi-Agency Advisory Council	
Butch Kronlund	Big Sur Byways Organization (BSBO)	Vice-Chair BSBO
Rick Aldinger	Big Sur River Inn	Member of Big Sur Chamber of Commerce
Libby Barnes, RA	De Sola Barnes	Partner of Architecture Firm, member of American Institute of Architects (AIA)
Kent Seavy	Kent L Seavey	Architectural Historian, and author of "Carmel: A History in Architecture"
David Smiley		
Belinda Taluban	Monterey County Historic Resources Review Board	
Abraham Almaw, RA	Caltrans-Bridge Architecture & Aesthetics Branch	Senior Architect
Nicole Bloom	Caltrans-Landscape Architecture	Landscape Architecture Associate
Bob Carr, LA	Caltrans-Landscape Architecture	Visual Specialist
Mitch Dallas	Caltrans- Coastal Resources	Senior Coastal Resource Specialist
Greg Kaderabek, PE	Caltrans-Bridge Railing & Sound Wall Specialist	Senior Bridge Engineer
Kristin Langager, LA	Caltrans-Landscape Architecture	Visual Specialist
Kunjian Li	Caltrans-Bridge Architecture & Aesthetics Branch	Bridge Architecture Associate
Daniel Leckie	Caltrans - Cultural Studies	Associate Architectural Historian
Kimberly Mori, PE	Caltrans-Bridge Railing & Sound Wall Specialist	Transportation Civil Engineer
John Olejnik	Caltrans-Planning-Monterey County	Senior Transportation Planner
Scott Ostrau	Caltrans - Environmental	Project Environmental Coordinator
Isaac Tasabia	Caltrans-Bridge Architecture & Aesthetics Branch	Bridge Architecture Associate
Jason Wilkinson	Caltrans - Environmental	Environmental Manager
Carla Yu, PE	Caltrans - Project Management	Project Manager

Note:
James (Jim) Walters, Tim Green, and Christina McGinnis from Keep Big Sur Wild attended the last meeting.

Attachment 14
ADAC Attendance Record

05-1H800 GARRAPATA BRIDGE RAIL ADAC (Aesthetic Design Advisory Committee) LIST OF INVITEES

Rich Aldinger (Big Sur Chamber of Commerce) *DID NOT REPLY TO INVITATION*
Anneliese Angren (BSMAAC member and South Coast Resident)
Libby Barnes (Architect and Resident)
Angela Chesnut (Senator Laird's Aide)
Martha Diehl (Big Sur Byway Organization) *DECLINED INVITATION*
Sean Drake (California Coast Commission, Coastal Program Analyst)
Butch Kronlund (Vice-Chair Big Sur Byway Organization)
Erik Lundquist (Monterey County Housing and Community Development Director)
John Scourkes (Monterey County Historic Resources Review Board)
Kent Seavey (Architectural Historian) *DID NOT REPLY TO INVITATION*
David Smiley (Big Sur Land Use Advisory Committee)
Craig Spencer (Monterey County Housing and Community Development Chief of Planning)
Belinda Taluban (Monterey County Historic Resources Review Board) *DID NOT REPLY TO INVITATION*
Mary Trotter (BSLUAC-north)

LIST OF PARTICIPANTS AT EACH ADAC MEETING*
***If a participant joined the meeting late their name may not be on the attendance list**

10/5/2021
Anneliese Angren
Libby Barnes
Angela Chestnut
Sean Drake
Craig Spencer
Mary Trotter

10/26/2021
Anneliese Angren
Libby Barnes
Angela Chestnut
Sean Drake
Butch Kronlund
Erik Lundquist
John Scourkes
David Smiley
Craig Spencer
Mary Trotter

11/16/2021
Libby Barnes
Angela Chestnut
Sean Drake
John Scourkes
David Smiley
Craig Spencer

12/7/2021
Libby Barnes
Angela Chestnut
Sean Drake
John Scourkes
David Smiley
Mary Trotter

1/11/2022
Libby Barnes
Sean Drake
John Scourkes
David Smiley
Mary Trotter
Erik Lundquist
Jonathan Engleman (Attended on behalf of Angela Chesnut, Senator Laird's office)

2/22/2022
Libby Barnes
Angela Chestnut
Sean Drake
Jonathan Engleman
Butch Kronlund
Erik Lundquist
John Scourkes
David Smiley
Mary Trotter
Not invited by Caltrans, but attended:
James Walters "Jim", Keep Big Sur Wild
Tim Green, Keep Big Sur Wild and resident
Christina McGinnis, Keep Big Sur Wild

Attachment 15
ADAC Meeting Notes

05-1H800 GARRAPATA BRIDGE RAIL ADAC (Aesthetic Design Advisory Committee) Meeting Notes 10/5/2021

LIST OF PARTICIPANTS*
***If a participant joined the meeting late their name may not be on the attendance list**

Anneliese Angren
Libby Barnes
Angela Chestnut
Sean Drake
Craig Spencer
Mary Trotter

Caltrans Attendees:
Carla Yu
Bob Carr
Nicole Bloom
John Olejnik
Kristen Langager
Daniel Leckie
Abraham Almaw
Kunjian Li
Isaac Tasabia
Kimberly Mori
Jason Wilkinson
Greg Kaderabek
Scott Ostrau
Mitch Dallas

Meeting Notes:
Introductions
ADAC purpose and need discussed. Format for meetings discussed.
Site context discussion about the temporary emergency metal beam guardrail.
Historic context discussion about what the EIR covers.
Regulatory setting discussion about design standard exceptions, safety standards, accident history, repairs.
Referred participants to the FAQ website and to email CT staff with questions prior to next ADAC meeting.
Participants asked for the next meeting to be 2 hours, as this meeting was not enough time.

05-1H800 GARRAPATA BRIDGE RAIL ADAC (Aesthetic Design Advisory Committee) Meeting Notes 10/26/2021

LIST OF PARTICIPANTS*
***If a participant joined the meeting late their name may not be on the attendance list**

Anneliese Angren
Libby Barnes
Angela Chestnut
Sean Drake
Butch Kronlund
Erik Lundquist
John Scourkes
David Smiley
Craig Spencer
Mary Trotter

Caltrans Attendees:
Carla Yu
Bob Carr
John Olejnik
Kristen Langager
Daniel Leckie
Abraham Almaw
Kunjian Li
Isaac Tasabia
Kimberly Mori
Jason Wilkinson
Greg Kaderabek
Scott Ostrau

Meeting Notes:
Introductions
Discussion about accident history and reinforcement options and current safety standards.
Discussion about historic exception and not an option.
Discussion about the size of bridge rail openings and desire for them to be as large as possible.
Discussion about the importance of considering the aesthetics of the bridge from the outside of the barrier, exterior views, and looking at the bridge in its entirety.
Discussion about the environmental document and each bridge looked at individually and as funding is available.
Discussion about precedence setting with this project.
Discussion about maintaining scenic quality.
Discussion about the current rail design appearing heavy and solid.
Discussion of concrete being an important building material during the era of this and other bridges.
Discussion of the WPA work.

Discussion of C412 bridge rail and 86 bridge rail and general aesthetic qualities. Members wanted to see visual heaviness reduced, larger openings. Requested to see simulations of views from outside of the bridge and from car driver perspective.

Discussion of aesthetic principles, concepts, and elements:
New design should:
--speak to the historic quality
--be subordinate to the surroundings
--allow views through
--considerations to the outside of the rail and entire structure
--materials and colors compatible and harmonious with the surroundings
--be a nod to the current historic bridge
--needs to look as close to the existing bridge as possible
--massing and proportion throughout the entire structure from bottom to top as well as color and texture are important
--Balusters give a rhythm to the bridge
--details are extremely important
--understated detail
--texture and feel of richness in quality
--light and airy
--have an open feeling
--maximum space allowed between balusters for openness and see-through quality
--beveling and angles used to get an open feel
--strong posts are larger than the rail and align with the columns below and those are an integral element to the entire bridge structure. The visual pattern aligns strong posts with structure posts
--graceful meeting of the ends of the bridge rails where guardrail attaches

05-1H800 GARRAPATA BRIDGE RAIL ADAC (Aesthetic Design Advisory Committee) Meeting Notes 11/16/2021

LIST OF PARTICIPANTS*
***If a participant joined the meeting late their name may not be on the attendance list**

Libby Barnes
Angela Chestnut
Sean Drake
John Scourkes
David Smiley
Craig Spencer

Caltrans Attendees:
Carla Yu
Nicki Bloom
Bob Carr
Kristen Langager
Daniel Leckie
Kunjian Li
Isaac Tasabia
Kimberly Mori
Greg Kaderabek
Scott Ostrau

Meeting Notes:
Reviewed aesthetic design principles and asked for any additional input.
Reviewed both types of bridge rails being considered.
Presented visual simulations of Type 86H and Type C412.
Discussion about the structural and aesthetic differences between the bridge rail types.
The group asked for side-by-side visual comparisons of the proposed with the existing rails.
Discussions about possibilities of bridge rail opening sizes, railing sizes, baluster sizes, strong post spacing and size and shape.
Discussion about the use of any metal components and issues with historic qualities and traffic safety issues and aesthetic concerns.
Discussion about applying a different safety standard for this bridge and safety constraints and safety standards.
Discussion of strong posts having a taper.
Discussion of bottom rail size.
Presentation of collision data and discussion.
Discussion about what type of concrete will be used and possibility of sandblasting or coloring.
Discussion about strong post and baluster spacing and sizes and standards.
Discussion about SHPO consultation process, CDP process, County review process.

Group asked for presentation at next meeting showing side by side profiles, elevations, sections comparing bridge rail options. Also asked to review these simulations prior to next meeting if possible.

05-1H800 GARRAPATA BRIDGE RAIL ADAC (Aesthetic Design Advisory Committee) Meeting Notes 12/7/2021

LIST OF PARTICIPANTS*
***If a participant joined the meeting late their name may not be on the attendance list**

Libby Barnes
Angela Chestnut
Sean Drake
John Scourkes
David Smiley
Mary Trotter

Caltrans Attendees:
Carla Yu
Nicki Bloom
Bob Carr
Kristen Langager
Daniel Leckie
Kunjian Li
Kimberly Mori
Greg Kaderabek
Scott Ostrau
John Olejnik
Abraham Almaw
Jason Wilkinson
Mitch Dallas

Meeting Notes:
Reviewed the agenda.
Presentation of the photo simulations of bridge rail types 86H and C412. All of the modifications made based on the ADAC's recommendations from the last meeting were discussed.
Discussion of opening sizes.
Discussion of shoulder width.
Discussion of crash testing status of bridge rail types.
Discussion of the view from the driver's perspective being at an angle making the openings appear smaller. Design detail modifications such as chamfers and safety standards discussed.
Discussion of spacing of strong posts.
Discussion of future maintenance and life span design.
Discussion of crash history at this bridge.
Discussion of current state of bridge and corrosive environment and safety testing.
Discussion of concrete color and texture possibilities.
Discussion of using an aesthetic groove and safety standards.
Discussion of sandblasting the finish and minimizing the bulkiness and heaviness.

Discussion of the terminations of the bridge/end blocks and safety standards and aesthetics.
Discussion of date stamp on the bridge and historic standards and avoiding confusion.
Group requested another meeting to look at designs after they are refined further based on the ADAC's recommendations today.

05-1H800 GARRAPATA BRIDGE RAIL ADAC (Aesthetic Design Advisory Committee) Meeting Notes 1/11/2022

LIST OF PARTICIPANTS*
***If a participant joined the meeting late their name may not be on the attendance list**

Libby Barnes
Sean Drake
John Scourkes
David Smiley
Mary Trotter
Erik Lundquist
Jonathan Engleman

Caltrans Attendees:
Carla Yu
Bob Carr
Kristen Langager
Daniel Leckie
Kimberly Mori
Greg Kaderabek
Scott Ostrau
John Olejnik
Abraham Almaw
Jason Wilkinson
Mitch Dallas

Meeting Notes:
Reviewed the agenda.
Presentation of the photo simulations of each type with suggested modifications from the last ADAC meeting. Also presented the end transition options.
Discussion about sandblasting the finish and color options.
Discussion about horizontal beam treatment and breaking it up visually.
Discussion about strong posts and opening size.
Question asked if a 3D model can be made and Caltrans will consider.
Discussion of the height of the rails and opening sizes and number of posts. Height of new rails is the same height as the existing rails.
Discussion of horizontal groove, shadow effects, color, sandblasting, and test panels.
Discussion about CDP process and public review and schedule.
Discussion of date on endblock possibilities, signs, plaque.
Discussion on CDP schedule and public comment and review.
Group requested another meeting to look at designs in a 3D model.

05-1H800 GARRAPATA BRIDGE RAIL ADAC (Aesthetic Design Advisory Committee) Meeting Notes 2/22/2022

LIST OF PARTICIPANTS*
***If a participant joined the meeting late their name may not be on the attendance list**

Libby Barnes
Angela Chestnut
Butch Krondlund
Sean Drake
John Scourkes
David Smiley
Mary Trotter
Erik Lundquist
Jonathan Engleman

Not invited, but attended:
James Walters "Jim" Keep Big Sur Wild
Tim Green resident, Keep Big Sur Wild and resident
Christina McGinnis Keep Big Sur Wild

Caltrans Attendees:
Carla Yu
Bob Carr
Kristen Langager
Nicole Bloom
Daniel Leckie
Kimberly Mori
Greg Kaderabek
Scott Ostrau
Abraham Almaw
Kunjian Li
Jason Wilkinson
Isaac Tasabia

Meeting Notes:
The ADAC process thus far was reviewed as was the request for a recommendation from the ADAC at the conclusion of today's meeting unless the group wanted to continue to an additional meeting.
3D models were presented and differences between the two barrier types were discussed.
Discussion about restoration versus replacement and safety standards.
Discussion about differences between two barrier types and preferences among the members.
ADAC members were happy to see their suggestions incorporated into the bridge rail designs.
ADAC members that belong to organizations that will be evaluating this project for permitting in the future did not contribute to comments or preferences.

ADAC members preferred restoration of the existing bridge as their first choice while recognizing this may not be an option due to safety constraints. With that, they then stated they preferred the 86H over the C412.
Caltrans will draft a memorandum documenting the ADAC's recommendation and will email it to all ADAC members for concurrence.

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