Exhibit A

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EXHIBIT A
DRAFT RESOLUTION

Before the Chief of Planning
in and for the County of Monterey, State of California

In the matter of the application of:
MESSIAH SAMIR (PLN250382)

RESOLUTION NO. 26-050

Resolution by the County of Monterey Chief of Planning:

1) Finding that the project qualifies for a Class 3 Categorical Exemption pursuant to Section 15303 of the CEQA Guidelines Section and there are no exceptions pursuant to Section 15300.2; and
2) Approving an Administrative Permit and Design Approval to allow the construction of a new 2,997 square foot single family dwelling with a 629 square foot two-car garage attached with a 925 square foot covered breezeway, 595 square feet of uncovered decks, and 65 linear foot retaining wall; and a 576 square foot detached barn, and new septic system; grading of approximately 289 cubic yards of cut & 263 cubic yards of fill. Colors and materials consist of stucco siding (Ashley grey) with wood fascia (charcoal grey), aluminum clad exterior doors and windows (clear cedar wood stained), metal roof (color to match charcoal grey).

[Santa Lucia Preserve Phase C, Lot 207, 23 San Clemente Trail, Carmel (Assessor's Parcel Number 239-131-007-000), Greater Monterey Peninsula Area Plan]

The Messiah Samir application (PLN250382) came on for an administrative decision hearing before the County of Monterey Chief of Planning on June 3, 2026. Having considered all the written and documentary evidence, the administrative record, the staff report, oral testimony, and other evidence presented, including the conditions of approval (Attachment 1) and project plans (Attachment 2), the County of Monterey Chief of Planning finds and decides as follows:

FINDINGS

1. FINDING: **CONSISTENCY** – The Project, as conditioned, is consistent with the applicable plans and policies which designate this area as appropriate for development.

EVIDENCE: a) During the course of the review of this application, the project has been reviewed for consistency with the text, policies, and regulations in:

- the 2010 Monterey County General Plan;
- Greater Monterey Peninsula; and
- Monterey County Zoning Ordinance (Title 21).

No conflicts were found to exist. No communications were received during the course of the review of the project indicating any inconsistencies with the text, policies, and regulations in these documents.

b) Project. The project proposes the construction of a new 2,997 square foot single family dwelling with a 629 square foot two-car garage attached with a 925 square foot covered breezeway, 595 square feet of uncovered decks, and 65 linear foot retaining wall; and a 576 square foot detached barn, and new septic system; grading of approximately 289 cubic yards of cut & 263 cubic yards of fill.

c) Allowed Use. The property is located at 23 San Clemente Trail, Carmel, Greater Monterey Peninsula. The parcel is zoned Resource Conservation, 40 Acres per Unit; Design Control District Overlay, Site Plan Review [RC/40-D-S]. Site Plan Review zoning allows residential development as a principal use, subject to granting an Administrative Permit. A site plan was included in the application showing the location and design of the proposed development and demonstrating that it is appropriate for the site. The project is consistent with the requirements for the Site Plan Review Zoning District. The proposed project is the only dwelling unit proposed on this parcel. No subdivision is proposed, and the new dwelling will be located on an existing legal lot of record in the Santa Lucia Preserve Subdivision Phase C. Therefore, the project is allowed land use for this site.

The site plans included in this project illustrate a 737 square foot Accessory Dwelling Unit (ADU). Pursuant to Title 21 section 21.64.030 and Government Code section 65852.2, construction of an ADU shall be processed ministerially. Although a planning entitlement is not required and approval for the construction of ADU is not a part of this application, the ADU is dependent and accessory to a single-family dwelling. Therefore, the ADU remains in the plans.

d) Lot Legality. The subject 35.137-acre parcel (1,530,567 square feet), Assessor's Parcel Number 239-131-007-000, is identified in its current configuration in (Volume 21 C&T Page 20 Lot 207). Additionally, within the Santa Lucia Preserve Subdivision – Phase C Tract 1353.

Therefore, the County recognizes the subject property as a legal lot of record.

e) Design/Neighborhood and Community Character. The zoning of the subject property includes a Design Control overlay ("D) which is intended to regulate the location, size, configuration, materials, and colors of structures to ensure the protection of public viewshed, neighborhood character, and the visual integrity of certain developments without imposing undue restrictions on private property. Colors and materials consist of stucco siding (Ashley grey) with wood fascia (charcoal grey), aluminum clad exterior doors and windows (clear cedar wood stained), metal roof (color to match charcoal grey). The project, as designed, assures the protection of the public viewshed, is consistent with the neighborhood character, and blends in with the surrounding areas. The project design, colors, and materials are consistent with those of other residences and structures in the Santa Lucia Preserve Subdivision – Phase C.

   Additionally, General Plan Policy LU-1.13 states that all exterior lighting is down-lit, unobtrusive, and harmonious with the areas. The project plans include an exterior lighting plan that illustrates compliance with this policy and will further reviewed as part of the Construction Permit.

f) Development Standards. As proposed, the project meets all required development standards. The development standards for the Resource Conservation Zoning District are identified in MCC Section 21.36.020. The minimum setbacks for main structures in the RC district are 30 feet (front), to a maximum required of 20 feet side and 20 feet rear setback. The maximum allowed height is 30 feet. The proposed project has a maximum height of 24 feet and is within the building envelope established for the proposed site. Therefore, setbacks are consistent with the minimum required and meet the height requirement for the zoning district in which it is located.
   The allowable maximum site coverage is 25 percent. The subject property is approximately 35 acres, but the building envelope is 108,558 square feet. The proposed project would result in structural site coverage of 8,007 square feet (7.4 % percent of the building envelope), therefore meeting the coverage standard.

g) Tree Removal permit (TRM260044) was approved to remove two protected trees for the development, which allows up to three trees in a one year period. A condition of approval under the tree removal permit requires replacement trees shall be located within the same general location as the trees being removed. If there are trees located close to construction site(s) they shall be protected from inadvertent damage from construction equipment by fencing off the canopy driplines and/or critical root zones (whichever is greater). Tree protection measures will be a standard condition of approval (Condition #3).

h) This project is a Combination of a planning and building permit. An Environmental Impact Report was prepared and adopted for this subdivision in Santa Lucia Preserve and addressed all affected resources, creating building envelopes for future development.

Therefore, the project is consistent with the General Plan and Greater Monterey Peninsula Area Plan.

i) This Administrative Permit is combined with a construction permit as a combo permit. A previously certified EIR for the subdivision analyzed resources and established building envelopes on each lot. There is no tree removal that is discretionary, no additional impacts to environmentally sensitive habitat or development on slopes in excess of 30% associated with this permit.

j) The project planner verified that the project on the subject parcel conforms to the plans listed above.

k) The application, project plans, and related support materials submitted by the project applicant to Monterey County HCD-Planning are found in Project File PLN250382.

2. FINDING: **SITE SUITABILITY –** The site is physically suitable for the proposed development and use.

EVIDENCE:

a) The project has been reviewed for site suitability by the following departments and agencies: HCD-Planning, HCD-Engineering Services, HCD-Environmental Services, Environmental Health Bureau, and Monterey County Regional Fire Protection District. County staff reviewed the application materials and plans to verify that the project on the subject site conforms to the applicable plans and regulations. There has been no indication from these departments/agencies that the site is not suitable for the development.

b) The project planner verified that the site is suitable for this use.

c) The application, project plans, and related support materials submitted by the project applicant to Monterey County HCD-Planning found in Project File PLN250382.

3. FINDING: **HEALTH AND SAFETY –** The establishment, maintenance, or operation of the project applied for will not under the circumstances of this particular case be detrimental to the health, safety, peace, morals, comfort, and general welfare of persons residing or working in the neighborhood of such proposed use or be detrimental or injurious to property and improvements in the neighborhood or to the general welfare of the County.

EVIDENCE:

a) The project was reviewed by HCD-Planning, HCD- Engineering Services, HCD-Environmental Services, Environmental Health Bureau, and Monterey County Regional Fire Protection District. There are no project conditions as the staff has ensured that the proposed project will not have an adverse effect on the health, safety, and welfare of people either residing or working in the neighborhood.

b) Necessary public facilities will be provided. Santa Lucia Community Service District/On-site wastewater treatment will serve the proposed project as the water connection and have a new 3,500-gallon on-site wastewater treatment system.

c) The application, project plans, and related support materials submitted by the project applicant to Monterey County HCD-Planning found in Project File PLN250382.

4. FINDING: **NO VIOLATIONS –** The subject property is in compliance with all rules and regulations pertaining to zoning uses, subdivision, and any other applicable provisions of the County's zoning ordinance. No violations exist on the property.

EVIDENCE:

a) Staff reviewed Monterey County HCD-Planning and HCD-Building Services records and is not aware of any violations existing on subject property.

b) Staff researched County records to assess if any violation exists on the subject property.

c) The application, project plans, and related support materials submitted by the project applicant to Monterey County HCD-Planning found in Project File PLN250382.

5. FINDING: **CEQA (Exempt) –** The project is categorically exempt from environmental review, and no unusual circumstances were identified to exist for the proposed project.

EVIDENCE:

a) California Environmental Quality Act (CEQA) Guidelines Section 15303 categorically exempts the development of the new single-family dwelling and accessory structures within residentially zoned areas.

b) The project consists of a new single-family dwelling. Therefore, the proposed development qualifies as a Class 3 Categorical Exemption pursuant to Section 15303 of the CEQA Guidelines.

As detailed in Finding 1, evidence "c", the applicants additionally propose an ADU. However, under Title 21 section 21.64.030 and Government Code section 65852.2, the ADU is being processed ministerially. CEQA Guidelines section 15268(d) declares that "[w]here a project involves an approval that contains elements of both a ministerial action and a discretionary action, the project will be deemed to be discretionary and will be subject to the requirements of CEQA." In such cases, while the whole project becomes subject to CEQA, it is only those discretionary components of the project – those parts which the reviewing agency (here, the County) has authority to shape, influence, approve, or deny (CEQA Guidelines section 15040; Public Resources Code section 21004). Accordingly, while the Planning Commission's discretionary authority is limited to consideration of the proposed residence, the proposed residence and the ADU are subject to CEQA. The project involves the construction of the first single-family dwelling, with an attached garage and a detached accessory dwelling unit on a residentially zoned property.

c) None of the exceptions under CEQA Guidelines Section 15303.2 apply to this project. The project does not involve a designated historical resource, a hazardous waste site, unusual circumstances that would result in a significant effect, or development that would result in a cumulatively significant impact.

d) No adverse environmental effects were identified during the staff review of the development application.

e) See supporting Findings Nos. 1 and 2. The application, project plans, and related support materials submitted by the project applicant to Monterey County HCD-Planning found in Project File PLN250382.

6. FINDING: **APPEALABILITY –** The decision on this project may be appealed to the Planning Commission.

EVIDENCE: a) Pursuant to Section 21.80.040 of the Monterey County Zoning Ordinance (Title 21).

DECISION

NOW, THEREFORE, based on the above findings and evidence, the HCD Chief of Planning does hereby:

1. Find the project qualifies for a Class 3 Categorical Exemption pursuant to CEQA Guidelines Section 15303; and
2. Approve the Administrative Permit and Design Approval to allow the construction of a new 2,997 square foot single family dwelling with a 629 square foot two-car garage attached with a 925 square foot covered breezeway, 595 square feet of uncovered decks, and 65 linear foot retaining wall; and a 576 square foot detached barn, and new septic system; grading of approximately 289 cubic yards of cut & 263 cubic yards of fill. Colors and materials consist of stucco siding (Ashley grey) with wood fascia (charcoal grey), aluminum clad exterior doors and windows (clear cedar wood stained), metal roof (color to match charcoal grey), all of these are in general conformance with the attached sketch (Attachment 2) and subject to the attached conditions (Attachment 1)**,** all being attached hereto and incorporated herein by reference.

PASSED AND ADOPTED this 3rd day of June 2026.

_____

Melanie Beretti, AICP
Chief of Planning

COPY OF THIS DECISION MAILED TO APPLICANT ON DATE

THIS APPLICATION IS APPEALABLE TO THE PLANNING COMMISSION.

IF ANYONE WISHES TO APPEAL THIS DECISION, AN APPEAL FORM MUST BE COMPLETED AND SUBMITTED TO THE SECRETARY OF THE PLANNING ALONG WITH THE APPROPRIATE FILING FEE ON OR BEFORE _____.

This decision, if this is the final administrative decision, is subject to judicial review pursuant to California Code of Civil Procedure Sections 1094.5 and 1094.6. Any Petition for Writ of Mandate must be filed with the Court no later than the 90th day following the date on which this decision becomes final.

NOTES

1. You will need a building permit and must comply with the Monterey County Building Ordinance in every respect.

   Additionally, the Zoning Ordinance provides that no building permit shall be issued, nor any use conducted, otherwise than in accordance with the conditions and terms of the permit granted or until ten days after the mailing of notice of the granting of the permit by the appropriate authority, or after granting of the permit by the Board of Supervisors in the event of appeal.

   Do not start any construction or occupy any building until you have obtained the necessary permits and use clearances from Monterey County HCD-Planning and HCD-Building Services Department office in Salinas.

2. This permit expires 3 years after the above date of granting thereof unless construction or use is started within this period.

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County of Monterey HCD Planning

DRAFT Conditions of Approval/Implementation Plan/Mitigation Monitoring and Reporting Plan

PLN250382

1. PD001 - SPECIFIC USES ONLY

Responsible Department: Planning

Condition/Mitigation Monitoring Measure: This Administrative Permit and Design Approval (PLN250382) to allow the construction of a new 2,997 square foot single family dwelling with 737 square foot accessory dwelling unit and 629 square foot two-car garage, both attached with a 925 square foot covered breezeway, 595 square feet of uncovered decks, and 65 linear foot retaining wall; and a 576 square foot detached barn, and new septic system; grading of approximately 289 cubic yards of cut & 263 cubic yards of fill. Colors and materials to consist of stucco siding (Ashley grey) with wood fascia (charcoal grey), aluminum clad exterior doors and windows (clear cedar wood stained), metal roof (color to match charcoal grey). The property is located at 23 San Clemente Trail, Carmel (Assessor's Parcel Number 239-131-007-000), Greater Monterey Peninsula Area Plan. This permit was approved in accordance with County ordinances and land use regulations subject to the terms and conditions described in the project file. Neither the uses nor the construction allowed by this permit shall commence unless and until all of the conditions of this permit are met to the satisfaction of the Director of HCD - Planning. Any use or construction not in substantial conformance with the terms and conditions of this permit is a violation of County regulations and may result in modification or revocation of this permit and subsequent legal action. No use or construction other than that specified by this permit is allowed unless additional permits are approved by the appropriate authorities. To the extent that the County has delegated any condition compliance or mitigation monitoring to the Monterey County Water Resources Agency, the Water Resources Agency shall provide all information requested by the County and the County shall bear ultimate responsibility to ensure that conditions and mitigation measures are properly fulfilled. (HCD - Planning)

Compliance or Monitoring Action to be Performed: The Owner/Applicant shall adhere to conditions and uses specified in the permit on an on-going basis unless otherwise stated.

2. PD002 - NOTICE PERMIT APPROVAL

Responsible Department: Planning

Condition/Mitigation Monitoring Measure: The applicant shall record a Permit Approval Notice. This notice shall state:
"An Administrative Permit and Design Approval (Resolution Number _____) was approved by Chief of Planning for Assessor's Parcel Number 239-131-007-000 on May 20, 2026. The permit was granted subject to 3 conditions of approval which run with the land. A copy of the permit is on file with Monterey County HCD - Planning."

Proof of recordation of this notice shall be furnished to the Director of HCD - Planning prior to issuance of grading and building permits, Certificates of Compliance, or commencement of use, whichever occurs first and as applicable. (HCD - Planning)

Compliance or Monitoring Action to be Performed: Prior to the issuance of grading and building permits, certificates of compliance, or commencement of use, whichever occurs first and as applicable, the Owner/Applicant shall provide proof of recordation of this notice to the HCD - Planning.

3. PD011 - TREE AND ROOT PROTECTION

Responsible Department: Planning

Condition/Mitigation Monitoring Measure: Trees which are located close to construction site(s) shall be protected from inadvertent damage from construction equipment by fencing off the canopy driplines and/or critical root zones (whichever is greater) with protective materials, wrapping trunks with protective materials, avoiding fill of any type against the base of the trunks and avoiding an increase in soil depth at the feeding zone or drip-line of the retained trees. Said protection, approved by certified arborist, shall be demonstrated prior to issuance of building permits subject to the approval of HCD - Director of Planning. If there is any potential for damage, all work must stop in the area and a report, with mitigation measures, shall be submitted by certified arborist. Should any additional trees not included in this permit be harmed, during grading or construction activities, in such a way where removal is required, the owner/applicant shall obtain required permits. (HCD - Planning)

Compliance or Monitoring Action to be Performed: Prior to issuance of grading and/or building permits, the Owner/Applicant shall submit evidence of tree protection to HCD - Planning for review and approval.

During construction, the Owner/Applicant/Arborist shall submit on-going evidence that tree protection measures are in place through out grading and construction phases. If damage is possible, submit an interim report prepared by a certified arborist.

Prior to final inspection, the Owner/Applicant shall submit photos of the trees on the property to HCD-Planning after construction to document that tree protection has been successful or if follow-up remediation or additional permits are required.

MESSIAH LOT 207 RESIDENCE

OWNERSHIP NOTES

OWNERSHIP AND USE OF THESE DRAWINGS AND SPECIFICATIONS:

1. TITLE AND ALL "COPYRIGHT" PRIVILEGES TO THESE DRAWINGS AND SPECIFICATIONS IS CLAIMED BY HOLDREN + LIETZKE ARCHITECTURE HEREINAFTER REFERRED TO AS 'ARCHITECT' WITHOUT PREJUDICE. VISUAL CONTACT WITH THESE SUBJECT DRAWINGS AND SPECIFICATIONS SHALL CONSTITUTE PRIMA FACIA EVIDENCE OF THE ACCEPTANCE OF THESE OWNERSHIP RIGHTS AND THE FOLLOWING RELATED RESTRICTIONS.

2. THE USE OF THESE DRAWINGS AND SPECIFICATIONS SHALL BE SOLELY RESTRICTED TO THE ORIGINAL SITE FOR WHICH THEY WERE PREPARED AND THE ARCHITECT HEREBY STATES THAT THEY ARE NOT INTENDED FOR, NOR SUITABLY ENGINEERED FOR ANY OTHER SITE. REPRODUCTION OF THESE DOCUMENTS IS THEREFORE EXPRESSLY LIMITED TO THIS INTENDED USE.

3. THE ARCHITECT DISCLAIMS ALL RESPONSIBILITY IF THESE DRAWINGS AND SPECIFICATIONS ARE USED, IN WHOLE OR IN PART, WITHOUT PRIOR WRITTEN PERMISSION, WHETHER OR NOT MODIFIED BY OTHERS FOR ANOTHER SITE.

4. IN THE EVENT OF UNAUTHORIZED USE BY ANY THIRD PARTY OF THESE DRAWINGS AND SPECIFICATIONS THE CLIENT FOR WHICH THIS WORK WAS ORIGINALLY PREPARED HEREBY AGREES TO HOLD HARMLESS, INDEMNIFY AND DEFEND THE ARCHITECT, FROM ANY CLAIMS ARISING FROM SUCH UNAUTHORIZED USE.

GENERAL NOTES

1. CONTRACTOR LICENSE: THE CONTRACTOR(S) PERFORMING THE WORK DESCRIBED BY THESE PLANS AND SPECIFICATIONS SHALL BE PROPERLY AND CURRENTLY LICENSED DURING THE EXECUTION OF THE PROJECT AND SHALL NOT PERFORM WORK OUTSIDE THE LEGAL SCOPE OF ANY LICENSE.

2. SCOPE: THE CONTRACTOR SHALL PROVIDE AND PAY FOR ALL LABOR, MATERIALS, TOOLS, EQUIPMENT AND MACHINERY, TRANSPORTATION, WATER, HEAT, ELECTRICAL, TELEPHONE, AND ANY OTHER RELATED ITEMS NECESSARY FOR THE PROPER EXECUTION AND TIMELY COMPLETION OF THE WORK.

3. QUALITY CONTROL: IT IS THE EXPRESS INTENTION OF THESE PLANS AND SPECIFICATIONS TO REQUIRE A HIGH STANDARD OF WORK. IF, IN THE OPINION OF THE CONTRACTOR, ANY PORTION OF THE DOCUMENTATION HEREIN IS INCONSISTENT WITH THIS, THE ARCHITECT SHALL BE NOTIFIED PRIOR TO EXECUTING THE WORK AND ALLOWED REVISION TIME IF FELT NECESSARY.

4. WARRANTY: THE CONTRACTOR WARRANTS TO THE OWNER THAT ALL MATERIALS AND EQUIPMENT FURNISHED UNDER THIS CONTRACT WILL BE NEW UNLESS OTHERWISE SPECIFIED, AND THAT ALL WORK WILL BE OF GOOD QUALITY, FREE FROM FAULTS AND DEFECTS, AND IN CONFORMANCE WITH THE CONTRACT DRAWINGS AND SPECIFICATIONS.

5. PERMITS: UNLESS OTHERWISE INSTRUCTED, THE OWNER SHALL PAY ALL PERMIT FEES INCLUDING UTILITIES. THE CONTRACTOR SHALL SECURE THE BUILDING PERMIT AND ANY OTHER PERMITS PRIOR TO STARTING THE WORK AND COMPLY WITH ALL INSPECTION REQUIREMENTS THROUGH FINAL SIGN-OFF.

6. LEGAL/NOTICES/CODE COMPLIANCE: THE CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, BUILDING CODES, RULES, REGULATIONS AND OTHER LAWFUL ORDERS OF ANY PUBLIC AUTHORITY BEARING ON THE PERFORMANCE OF THE WORK. THE CONTRACTOR SHALL PROMPT NOTIFY THE DESIGNERS IN WRITING IF THE DRAWINGS AND/OR SPECIFICATIONS ARE AT VARIANCE WITH ANY SUCH REQUIREMENTS. (2001 U.B.C.)

7. RESPONSIBILITY: THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES SELECTED TO EXECUTE THE WORK. THE CONTRACTOR SHALL COORDINATE ALL PORTIONS OF WORK WITHIN THE SCOPE OF THE CONTRACT.

8. SAFETY: THE CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING, MAINTAINING AND PROPERLY SUPERVISING ADEQUATE INDUSTRY STANDARD SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THIS WORK AND SHALL ADHERE TO ALL FEDERAL, LOCAL, STATE & O.S.H.A. SAFETY REGULATIONS.

9. INSURANCE: LIABILITY INSURANCE SHALL BE MAINTAINED BY THE CONTRACTOR TO PROTECT AGAINST ALL CLAIMS UNDER WORKMAN'S COMPENSATION ACTS, DAMAGES DUE TO BODILY INJURY INCLUDING DEATH, AND FOR ANY PROPERTY DAMAGES ARISING OUT OF OR RESULTING FROM THE CONTRACTOR'S OPERATIONS UNDER THE CONTRACT. THIS INSURANCE SHALL BE FOR LIABILITY LIMITS SATISFACTORY TO THE OWNER. THE OWNER HAS THE RIGHT TO REQUIRED CONTRACTUAL LIABILITY INSURANCE APPLICABLE TO THE CONTRACTOR'S OBLIGATIONS. CERTIFICATES OF SUCH INSURANCE SHALL BE FILED WITH THE OWNER PRIOR TO THE COMMENCEMENT OF WORK.

10. INDEMNIFICATION: THE CONTRACTOR WHO AGREES TO PERFORM THIS WORK ALSO AGREES TO INDEMNIFY AND HOLD HARMLESS THE OWNER AND THE ARCHITECT FROM AND AGAINST ALL CONSEQUENTIAL CLAIMS/DAMAGES/LOSSES/AND EXPENSES, INCLUDING ATTORNEY'S FEES AND LITIGATION COSTS, ARISING OUT OF OR RESULTING FROM THE PERFORMANCE OF THE WORK.

11. CLEANING UP: THE CONTRACTOR SHALL KEEP THE PREMISES AND SITE FREE FROM ACCUMULATION OF WASTE MATERIALS DURING CONSTRUCTION BY PERIODIC CLEAN UP AND OFF-SITE DEBRIS REMOVAL. FINAL CLEANUP AND DEBRIS DISPOSITION SHALL BE TO THE SATISFACTION OF THE OWNER.

12. CONTRACTOR SHALL VISIT THE SITE AND VERIFY ALL EXISTING CONDITIONS PRIOR TO ANY WORK AND NOTIFY THE DESIGNERS OF ANY DISCREPANCIES BETWEEN THESE DRAWINGS AND EXISTING CONDITIONS AFFECTING THE WORK OR NATURE OF SPECIFIED MATERIALS AND/OR SCOPE OF DESIGN.

13. ALL NOTES, DIMENSIONS, ETC. INDICATE NEW MATERIALS OR CONSTRUCTION UNLESS OTHERWISE NOTED.

14. BUILDING CODES: ALL CONSTRUCTION SHALL MEET THE REQUIREMENTS OF THE 2019 EDITION OF THE CALIFORNIA RESIDENTIAL CODE, CALIFORNIA GREEN BUILDING STANDARDS CODE, PLUMBING, MECHANICAL, ELECTRICAL, FIRE & ENERGY CODES, WUI & ANY AMENDMENTS OF PRESIDING CITY OR COUNTY.

15. GRADING: NO LAND CLEARING OR GRADING SHALL OCCUR ON THE PROPERTY BETWEEN OCTOBER 15 AND APRIL 15 UNLESS AUTHORIZED BY THE DIRECTOR OF PLANNING AND BUILDING INSPECTION. ALL CUT AND/OR FILL OF SLOPES EXPOSED DURING THE COURSE OF CONSTRUCTION SHALL BE COVERED, SEEDED WITH NATIVE GRASSES OR OTHERWISE TREATED TO CONTROL EROSION.

16. SHOP DRAWINGS: PRIOR TO FABRICATION, THE CONTRACTOR SHALL SUBMIT TO THE ARCHITECT FOR APPROVAL SHOP DRAWINGS FOR ALL STRUCTURAL STEEL, REINFORCING STEEL, GLUE LAMINATED BEAMS AND PREFABRICATED TRUSSES. SHOP DRAWINGS ARE NOT CHANGE ORDERS, BUT RATHER SERVE TO DEMONSTRATE TO THE ENGINEER THAT THE CONTRACTOR UNDERSTANDS THE REQUIREMENTS & DESIGN CONCEPTS OF THE PLAN, DETAILS & SPECIFICATIONS.

17. CHANGE ORDERS: NO VERBAL CHANGE ORDERS SHALL BECOME LEGAL AND BINDING.

18. CONSTRUCTION, BRACING & SHORING: THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL BRACING AND SHORING REQUIRED DURING CONSTRUCTION UNTIL ALL CONSTRUCTION IS COMPLETE.

19. SIMILAR CONDITIONS: CONDITIONS NOT SPECIFICALLY DETAILED SHALL BE BUILT TO CONFORM WITH SIMILAR CONSTRUCTION.

20. DISCREPANCIES: THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, MATERIALS AND CONDITIONS PRIOR TO STARTING CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO THE DESIGNERS PRIOR TO ORDERING MATERIALS AND STARTING CONSTRUCTION.

21. TECHNICAL SPECIFICATIONS: ALL TECHNICAL SPECIFICATIONS REFERRED TO IN THESE DRAWINGS ARE BY THIS REFERENCE PART OF THE CONSTRUCTION DOCUMENTS.

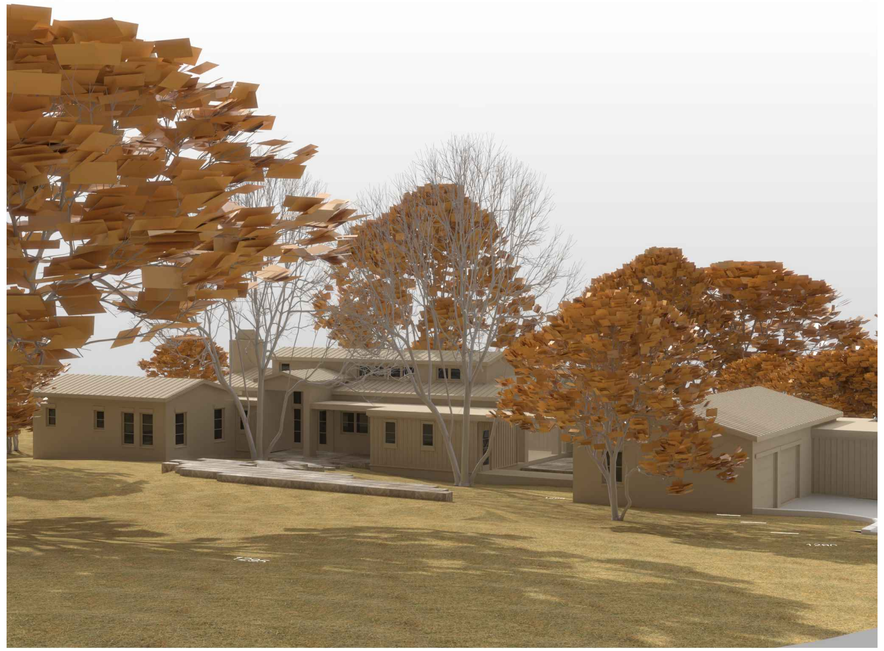
22. SUBSEQUENT CHANGES: ADDITIONAL CONSTRUCTION, LANDSCAPE IMPROVEMENTS, OR OTHER CHANGES IN THE IMPROVEMENTS THAT DIFFER FROM THE APPROVED FINAL DESIGN REVIEW DOCUMENTS, MUST BE SUBMITTED IN WRITING TO THE VIA QUINTANA ARCHITECTURAL REVIEW BOARD FOR REVIEW AND APPROVAL, PRIOR TO MAKING CHANGES. ANY CHANGES MADE WITHOUT SPECIFIC APPROVAL ARE CONSIDERED NOT APPROVED, AND SUBJECTED TO REMOVAL OR ALTERATION AS REQUIRED.

23. TITLE 24 ENERGY REQUIREMENTS: THE BUILDER/CONTRACTOR TO PROVIDE THE OWNER AND THE COUNTY BUILDING DIVISION WITH A COPY OF THE CF-6R INSTALLATION CERTIFICATE AT THE TIME OF FINAL INSPECTION.

24. TREE AND ROOT PROTECTION:
TREES ARE TO BE PROTECTED AND PRESERVED IN OR NEAR THE CONSTRUCTIION AREA.
A BOUNDARY OF ORANGE SNOW NETTING OR HIGH VISIBILITY PLASTIC FENCING SUPPORTED BY WOOD OR METAL STAKES AND/OR STRAW BALES SHOULD BE ERECTED ALONG THE APPROXIMATE DRIP LINES OF SUCH PROTECTED TREES TO DEFINE THE CONSTRUCTION PROJECT BOUNDARY.
EXCAVATION AND CONSTRUCTION ACTIVITIES AND MATERIALS SHOULD NOT INTRUDE INTO THIS DEFINED BOUNDARY AT ANY TIME AND KEPT AS MUCH AS POSSIBLE WITHIN PROPOSED STRUCTURE AND DRIVEWAY FOOTPRINTS OR OUTSIDE OF THE TREE DRIP LINES IN THE TREELESS AREA.

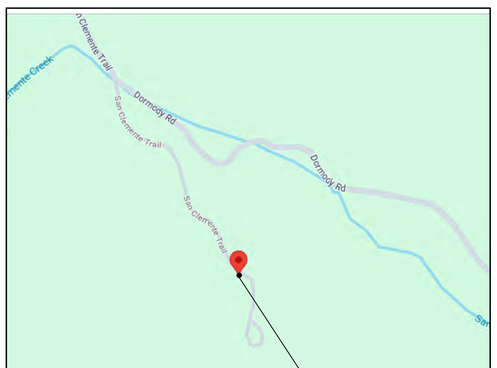
25. ALL MANUFACTURER'S INSTALLATION GUIDES SHALL BE PROVIDED TO INSPECTOR AT TIME OF INSPECTION.

CONCEPTUAL RENDERING



NOTE:
THIS IS A CONCEPTUAL RENDERING, AND SHOULD NOT BE USED AS A REFERENCE FOR CONSTRUCTION. SPECIFIC LOCATIONS AND QUALITIES OF ARCHITECTURAL ELEMENTS CAN BE FOUND ON THE PLANS, ELEVATIONS AND SUPPORTING DETAIL SHEETS THROUGHOUT THE REMAINDER OF THE DRAWING PACKAGE.

VICINITY MAP



SCALE: N.T.S.

SHEET INDEX

A0.0 COVER SHEET
A0.1 3D MODEL
A0.2 3D PERSPECTIVE
A0.3 CALGREEN CHECKLIST
A0.4 CALGREEN CHECKLIST
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CIVIL
C1 GRADING PLAN TITLE SHEET
C2 OVERALL GRADING PLAN
C3 SITE GRADING PLAN
C4 DRAINAGE PLAN
C5 SITE CROSS SECTIONS
C5A DRAIN PLAN & SECTIONS
C6 SANITARY SEWER PLAN
C6A SITE UTILITY PLAN
C7 CONSTRUCTION DETAILS
C7A SEPTIC SYSTEM DETAILS
C8 EROSION CONTROL PLAN
C9 CONSTRUCTION MANAGEMENT PLAN

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A1.1 SITE PLAN ROOF ELEVATIONS
A1.2 SITE SECTIONS
A2.0 3/16" FLOOR PLANS
A2.1 1/4" MAIN HOUSE FLOOR PLAN
A2.2 1/4" ADU & BARN FLOOR PLAN
A2.3 3/16" REFLECTED CEILING PLAN
A2.4 3/16" ROOF PLANS
A3.0 3/16" ELEVATIONS
A3.1 3/16" ELEVATIONS
A3.2 SECTIONS
A3.3 SECTIONS
A3.4 SECTIONS
A3.5 SECTIONS
A3.6 SECTIONS
A4.1 WINDOW SCHEDULE
A4.2 DOOR SCHEDULE
A4.3 DOOR & WINDOW DETAILS
A8.1 TYP. WATERPROOFING DETAILS
A8.2 DETAILS
A8.3 DETAILS

STRUCTURAL:
SN-1 GENERAL NOTES & REQUIREMENTS
SN-1B SPECIAL INSPECTIONS
SN-2 GENERAL DETAILS
S-1.0A FOUNDATION PLAN - MAIN HOUSE
S-1.0B FOUNDATION PLAN - MAIN HOUSE
S-1.0C FOUNDATION PLAN - ADU
S-2.0A ROOF FRAMING PLAN - MAIN HOUSE
S-2.0B ROOF FRAMING PLAN - MAIN HOUSE
S-2.0C ROOF FRAMING PLAN - ADU
SD-1 FOUNDATION DETAILS
SD-1.1 FOUNDATION DETAILS
SD-2 DETAILS
SD-3 DETAILS
HFX1 ANCHORAGE DETAILS - HFX PANELS
HFX2 FRAMING DETAILS - HFX PANELS
HFX3 FLOOR SYSTEM DETAILS - HFX PANELS

ELECTRICAL:
E-1.O GENERAL NOTES, SYMBOLS & SHEET INDEX
E-1.1 SIGNAL LINE DIAGRAM & LOAD CALCULATIONS
E-1.2 PANEL SCHEDULE
E-2.0 HOUSE LIGHTING PLAN
E-2.1 HOUSE LIGHTING PLAN
E-2.2 ADU & BARN LIGHTING PLAN
E-2.3 ADU & BARN POWER PLAN
E-3.0 SITE PLAN

SOLAR:
PV-1.O SITE LAYOUT
PV-2.O ATTACHMENTS & EQUIPMENT PLAN
PV-3.O ELECTRICAL DETAILS
PV-4.O SPECIFICATIONS SHEET

T-24
EN-O T-24 MANDATORY MEASURES SUMMERY & SHEET INDEX
EN-1 T-24 FORMS - CFIR
EN-1 T-24 FORMS - CFIR

MECHANICAL:
M-1.O HVAC NOTES, SYMBOLS & SHEET INDEX
M-1.1 HVAC EQUIPMENT SCHEDULE
M-1.2.O HVAC DETAILS
M-1.2.1 HVAC DETAILS
M-2.0 HVAC PLAN - MAIN RESIDENCE CRAWLSPACE
M-2.1 HVAC PLAN - MAIN RESIDENCE FIRST FLOOR
M-2.2 HVAC PLAN - ADU

PLUMBING:
P-1.O GENERAL NOTES, SYMBOLS & SHEET INDEX
P-1.1 SCHEDULE & CALCULATIONS
P-1.2 PLUMBING DETAILS
P-2.0 MAIN HOUSE - COLD / HOT WATER
P-2.1 ADU - COLD / HOT WATER
P-3.0 MAIN HOUSE - WASTE & VENT
P-3.0 ADU - WASTE & VENT

LANDSCAPE:
L0.00 COVER SHEET
L0.01 SITE ANALYSIS
L0.02 FUEL MANAGEMENT PLAN
L0.03 TREE PROTECTION PLAN
L1.00 LANDSCAPE SITE PLAN
L1.01 RENDERINGS
L1.02 GRADING AND LAYOUT PLAN
L2.00 PLANTING PLAN
L2.01 TREE MITIGATION PLAN
L2.02 PLANTING LEGEND AND NOTES
L3.00 IRRIGATION PLAN
L3.01 IRRIGATION LEGEND
L3.02 IRRIGATION DETAILS
L3.03 IRRIGATION DETAILS
L4.00 LANDSCAPE LIGHTING PLAN
L5.00 CONSTRUCTION DETAILS

PROJECT DATA

SCOPE OF WORK:
CONSTRUCTION OF NEW 2997.0 SQ. FT. SINGLE FAMILY RESIDENCE WITH 629.0 SQ. FT. 2-CAR GARAGE, ATTACHED 737.0 SQ. FT. ADU. AND A 576 SQ. FT. BARN PLUS 65 L.F RSITE RETAINING WALLS

APN:	239-131-007
LOT DESCRIPTION:	LOT 207
LOT SIZE:	108,558 SQ. FT. (2.5 ACRES)
ZONING:	RC/40-D-S
TREE INFORMATION:	3 TREES TO BE REMOVED
OCCUPANCY GROUP:	RESIDENCE: R-1 ADU: R-1 GARAGE AND BARN : U
TYPE OF CONSTRUCTION:	V-B
AVERAGE NATURAL GRADE:	0.0'
GRADE AT HIGHEST RIDGE:	0.0'
RIDGE HEIGHT ABOVE LOWEST GRADE:	(18'-0" MAX WITH 24'-0" MAX. <20%)
GRADING CUT/FILL:	289 C.Y. CUT/ 263 C.Y. FILL (26 C.Y. EXPORT)
PARKING PROVIDED:	2 COVERED, 3 UNCOVERED
WATER SUPPLIER:	SANTA LUCIA PRESERVE
SEWER:	ON-SITE SEPTIC SYSTEM
FIRE SPRINKLERS @ RESIDENCE:	YES (DIFFERED SUBMITTAL)

MAIN STRUCTURE SETBACKS:	ALLOWED:	PROPOSED
FRONT	30'-0"	78'-7" +/-
REAR	20'-0"	128'-1" +/-
SIDE (WEST)	20'-0"	236'-1" +/-
SIDE (EAST)	20'-0"	100'-1" +/-
MAX. BUILDING HEIGHT	18'-0" (20% AT 24'-0")	
TOTAL ROOF AREA		4,960 SQFT @ 18'-0"
TOTAL ROOF AREA > 18'-0"	992 SQFT (20%) @ 24'-0"	905 SQFT (18%) @ 24'-0"

ACCESORY STRUCTURE SETBACKS:	REQUIRED:	PROPOSED
FRONT	50'-0"	106'-5" +/-
REAR	6'-0"	157'-7" +/-
SIDE (WEST)	6'-0"	350'-9" +/-
SIDE (EAST)	6'-0"	36'-1" +/-
MAX. BUILDING HEIGHT	15'-0"	15'-0" +/-

BUILDING SITE COVERAGE:	ALLOWED:	PROPOSED
MAIN HOUSE	_____s.f.	2,997 s.f.
ADU	_____s.f.	737 s.f.
GARAGE	_____s.f.	629 s.f.
BARN	_____s.f.	576 s.f.
SUB-TOTAL (F.A.R.)	_____s.f.	4,939 s.f. /108,558 s.f. = 4.5%
COVERED WALKWAY & PATIOS	_____s.f.	925 s.f.
WALKWAY & PATIOS	_____s.f.	1548 s.f.
DECK	_____s.f.	595 s.f.
SUB-TOTAL	_____s.f.	3,068 s.f.
TOTAL LOT COVERAGE		8,007 s.f. /108,558 s.f. = 7.4%

DEFERRED ITEMS

1. A LICENSED C-16 CONTRACTOR SHALL SUBMIT FOUR (4) SETS OF PLANS, DETAILS AND CALCULATIONS FOR ALL FIRE SPRINKLER SYSTEM DESIGNS TO THE MONTEREY COUNTY BUILDING DIVISION AND PRESIDING FIRE AUTHORITY PRIOR TO INSTALLATION.

PROJECT TEAM

OWNER:
SAMIR MESSIAH

1067 MARKET STREET, SUITE 1028
SAN FRANCISCO, CA 94103
PH: (209) 988-9937

SITE ADDRESS:
LOT 207 SANTA LUCIA PRESERVE
23 SAN CLEMENTE TRL.
CARMEL, CA

ARCHITECT:
CONTACT: CRAIG HOLDREN
HOLDREN + LIETZKE ARCHITECTURE
225 CANNERY ROW, SUITE A
MONTEREY, CA 93940
PH: (831) 649-6001

LANDSCAPE ARCHITECT:
CONTACT: MARIE GOULET
WILD LAND WORKSHOP
CARMEL VALLEY, CA
PH: (508) 797-2237

CIVIL ENGINEER / SURVEYOR: CONTACT:
RICHARD WEBER WHITSON ENGINEERS |
CIVIL ENGINEERING + LAND SURVEYING
6 HARRIS COURT
MONTEREY, CA. 93940
PH: (831) 649-5225

CIVIL ENGINEER / SURVEYOR:
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CMPROS
CONSTRUCTION MANAGEMENT PROFESSIONALS
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SOLAR:
CONTACT: ABRAHAM AMMAR
MONTEREY ENERGY GROUP
26465 CARMEL RANCHO BLVD., SUITE 8
CARMEL, CA. 93923
PH: (831) 372-8328

STRUCTURAL, MECHANICAL & ELECTRICAL :
CONTACT: GMEP ENGINEERS
26439 RANCHO PKWY. S. , SUITE 120
LAKE FOREST, CA. 92630
PH: (949) 267-9095

HOLDREN+LIETZKE ARCHITECTURE

225 CANNERY ROW - SUITE A
MONTEREY, CA 93940

Ph: 831.649.6001
Fax: 831.649.6003

www.hl-arc.com

DATE:	11.07.2024
SCALE:	N.T.S.
DRAWN:	KK
JOB NUMBER:	23.14
REVISION	

COVER SHEET

MESSIAH LOT: 207 RESIDENCE
23 SAN CLEMENTE TRL.
CARMEL, CA
A.P.N. 239-131-007

A0.0

3D DIAGRAM 1

NOTE:
COLORS AND MATERIALS OF HOUSE ARE REPRESENTATIVE OF
CHIPBOARD AND NOT REPRESENTATIVE OF THE MATERIALS PROPOSED

HOLDREN+LIETZKE
ARCHITECTURE

225 CANNERY ROW - SUITE A
MONTEREY, CA 93940

Ph: 831.649.6001
Fax: 831.649.6003

www.hl-arc.com

DATE:	11.07.2024
SCALE:	N.T.S.
DRAWN:	---
JOB NUMBER:	23.14
REVISION	

LICENSED ARCHITECT
J. CRAIG HOLDREN
C-32768
SEP 30 2027
Renewal Date
STATE OF CALIFORNIA

3D MODEL

MESSIAH LOT: 207 RESIDENCE

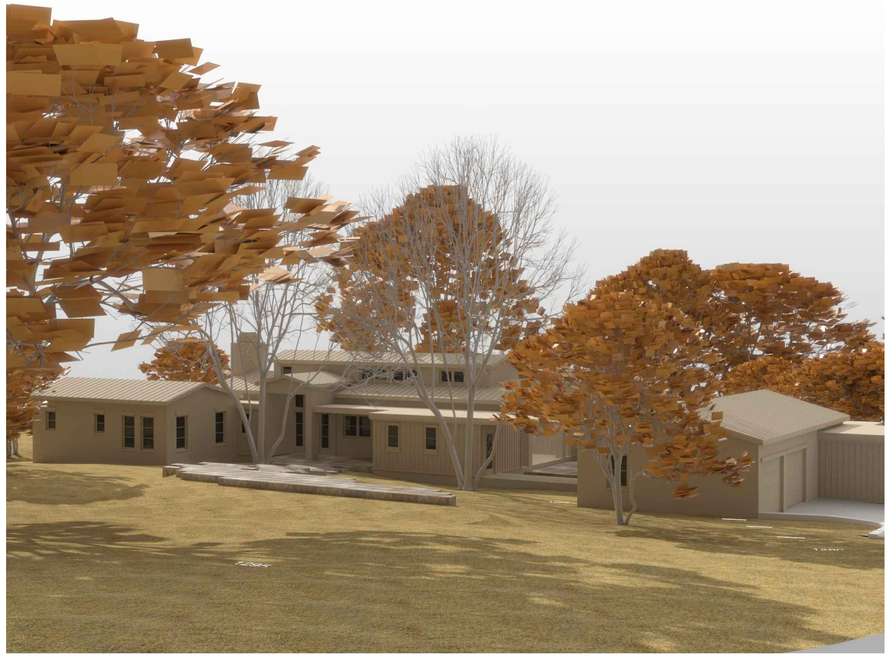
23 SAN CLEMENTE TRL.
CARMEL, CA
A.P.N. 239-131-007

A0.1

VIEW FROM WEST 4

VIEW FROM NORTH 2

VIEW FROM EAST 3



VIEW FROM SOUTH 1

NOTE:
COLORS AND MATERIALS OF HOUSE ARE REPRESENTATIVE OF CHIPBOARD AND NOT REPRESENTATIVE OF THE MATERIALS PROPOSED

HOLDREN+LIETZKE
ARCHITECTURE

225 CANNERY ROW - SUITE A
MONTEREY, CA 93940

Ph: 831.649.6001
Fax: 831.649.6003

www.hl-arc.com

DATE:	11.07.2024
SCALE:	N.T.S.
DRAWN:	---
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REVISION	

LICENSED ARCHITECT
J. CRAIG HOLDREN
C-32768
SEP 30 2027
Renewal Date
STATE OF CALIFORNIA

3D MODEL

MESSIAH LOT: 207 RESIDENCE

23 SAN CLEMENTE TRL.
CARMEL, CA
A.P.N. 239-131-007

A0.2

2022 CALIFORNIA GREEN BUILDING STANDARDS CODE
RESIDENTIAL MANDATORY MEASURES, SHEET 1 (January 2023)

Y = YES
N/A = NOT APPLICABLE
RESPON. PARTY = RESPONSIBLE PARTY (ie: ARCHITECT, ENGINEER, OWNER, CONTRACTOR, INSPECTOR ETC.)

Y	N/A	RESPON. PARTY

CHAPTER 3
GREEN BUILDING
SECTION 301 GENERAL

301.1 SCOPE. Buildings shall be designed to include the green building measures specified as mandatory in the application checklists contained in this code. Voluntary green building measures are also included in the application checklists and may be included in the design and construction of structures covered by this code, but are not required unless adopted by a city, county, or city and county as specified in Section 101.7.

301.1.1 Additions and alterations. [HCD] The mandatory provisions of Chapter 4 shall be applied to additions or alterations of existing residential buildings where the addition or alteration increases the building's conditioned area, volume, or size. The requirements shall apply only to and/or within the specific area of the addition or alteration.

The mandatory provision of Section 4.106.4.2 may apply to additions or alterations of existing parking facilities or the addition of new parking facilities serving existing multifamily buildings. See Section 4.106.4.3 for application.

Note: Repairs including, but not limited to, resurfacing, restriping and repairing or maintaining existing lighting fixtures are not considered alterations for the purpose of this section.

Note: On and after January 1, 2014, residential buildings undergoing permitted alterations, additions, or improvements shall replace noncompliant plumbing fixtures with water-conserving plumbing fixtures. Plumbing fixture replacement is required prior to issuance of a certificate of final completion, certificate of occupancy or final permit approval by the local building department. See Civil Code Section 1101.1, et seq., for the definition of a noncompliant plumbing fixture, types of residential buildings affected and other important enactment dates.

301.2 LOW-RISE AND HIGH-RISE RESIDENTIAL BUILDINGS. [HCD] The provisions of individual sections of CALGreen may apply to either low-rise residential buildings high-rise residential buildings, or both. Individual sections will be designated by banners to indicate where the section applies specifically to low-rise only (LR) or high-rise only (HR). When the section applies to both low-rise and high-rise buildings, no banner will be used.

SECTION 302 MIXED OCCUPANCY BUILDINGS

302.1 MIXED OCCUPANCY BUILDINGS. In mixed occupancy buildings, each portion of a building shall comply with the specific green building measures applicable to each specific occupancy.
Exceptions:
1. [HCD] Accessory structures and accessory occupancies serving residential buildings shall comply with Chapter 4 and Appendix A4, as applicable.
2. [HCD] For purposes of CALGreen, live/work units, complying with Section 419 of the *California Building Code*, shall not be considered mixed occupancies. Live/Work units shall comply with Chapter 4 and Appendix A4, as applicable.

DIVISION 4.1 PLANNING AND DESIGN

ABBREVIATION DEFINITIONS:

HCD	Department of Housing and Community Development
BSC	California Building Standards Commission
DSA-SS	Division of the State Architect, Structural Safety
OSHPD	Office of Statewide Health Planning and Development
LR	Low Rise
HR	High Rise
AA	Additions and Alterations
N	New

CHAPTER 4
RESIDENTIAL MANDATORY MEASURES

SECTION 4.102 DEFINITIONS
4.102.1 DEFINITIONS
The following terms are defined in Chapter 2 *(and are included here for reference)*

FRENCH DRAIN. A trench, hole or other depressed area loosely filled with rock, gravel, fragments of brick or similar pervious material used to collect or channel drainage or runoff water.

WATTLES. Wattles are used to reduce sediment in runoff. Wattles are often constructed of natural plant materials such as hay, straw or similar material shaped in the form of tubes and placed on a downflow slope. Wattles are also used for perimeter and inlet controls.

4.106 SITE DEVELOPMENT

☑ ☐ **4.106.1 GENERAL.** Preservation and use of available natural resources shall be accomplished through evaluation and careful planning to minimize negative effects on the site and adjacent areas. Preservation of slopes, management of storm water drainage and erosion controls shall comply with this section.

☑ ☐ **4.106.2 STORM WATER DRAINAGE AND RETENTION DURING CONSTRUCTION.** Projects which disturb less than one acre of soil and are not part of a larger common plan of development which in total disturbs one acre or more, shall manage storm water drainage during construction. In order to manage storm water drainage during construction, one or more of the following measures shall be implemented to prevent flooding of adjacent property, prevent erosion and retain soil runoff on the site.

1. Retention basins of sufficient size shall be utilized to retain storm water on the site.
2. Where storm water is conveyed to a public drainage system, collection point, gutter or similar disposal method, water shall be filtered by use of a barrier system, wattle or other method approved by the enforcing agency.
3. Compliance with a lawfully enacted storm water management ordinance.

Note: Refer to the State Water Resources Control Board for projects which disturb one acre or more of soil, or are part of a larger common plan of development which in total disturbs one acre or more of soil.

(Website: https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.html)

☑ ☐ **4.106.3 GRADING AND PAVING.** Construction plans shall indicate how the site grading or drainage system will manage all surface water flows to keep water from entering buildings. Examples of methods to manage surface water include, but are not limited to, the following:

1. Swales
2. Water collection and disposal systems
3. French drains
4. Water retention gardens
5. Other water measures which keep surface water away from buildings and aid in groundwater recharge.

Exception: Additions and alterations not altering the drainage path.

☑ ☐ **4.106.4 Electric vehicle (EV) charging for new construction.** New construction shall comply with Sections 4.106.4.1 or 4.106.4.2 to facilitate future installation and use of EV chargers. Electric vehicle supply equipment (EVSE) shall be installed in accordance with the *California Electrical Code,* Article 625.

Exceptions:
1. On a case-by-case basis, where the local enforcing agency has determined EV charging and infrastructure are not feasible based upon one or more of the following conditions:
1.1 Where there is no local utility power supply or the local utility is unable to supply adequate power.
1.2 Where there is evidence suitable to the local enforcing agency substantiating that additional local utility infrastructure design requirements, directly related to the implementation of Section 4.106.4, may adversely impact the construction cost of the project.
2. Accessory Dwelling Units (ADU) and Junior Accessory Dwelling Units (JADU) without additional parking facilities.

☑ ☐ **4.106.4.1 New one- and two-family dwellings and townhouses with attached private garages.** For each dwelling unit, install a listed raceway to accommodate a dedicated 208/240-volt branch circuit. The raceway shall not be less than trade size 1 (nominal 1-inch inside diameter). The raceway shall originate at the main service or subpanel and shall terminate into a listed cabinet, box or other enclosure in close proximity to the proposed location of an EV charger. Raceways are required to be continuous at enclosed, inaccessible or concealed areas and spaces. The service panel and/or subpanel shall provide capacity to install a 40-ampere 208/240-volt minimum dedicated branch circuit and space(s) reserved to permit installation of a branch circuit overcurrent protective device.

Exemption: A raceway is not required if a minimum 40-ampere 208/240-volt dedicated EV branch circuit is installed in close proximity to the proposed location of an EV charger at the time of original construction in accordance with the *California Electrical Code*.

4.106.4.1.1 Identification. The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging as "EV CAPABLE". The raceway termination location shall be permanently and visibly marked as "EV CAPABLE".

☐ ☑ **4.106.4.2 New multifamily dwellings, hotels and motels and now residential parking facilities.**
When parking is provided, parking spaces for new multifamily dwellings, hotels and motels shall meet the requirements of Sections 4.106.4.2.1 and 4.106.4.2.2. Calculations for spaces shall be rounded up to the nearest whole number. A parking space served by electric vehicle supply equipment or designed as a future EV charging space shall count as at least one standard automobile parking space only for the purpose of complying with any applicable minimum parking space requirements established by a local jurisdiction. See Vehicle Code Section 22511.2 for further details.

☐ ☑ **4.106.4.2.1Multifamily development projects with less than 20 dwelling units; and hotels and motels with less than 20 sleeping units or guest rooms.**
The number of dwelling units, sleeping units or guest rooms shall be based on all buildings on a project site subject to this section.

1.EV Capable. Ten (10) percent of the total number of parking spaces on a building site, provided for all types of parking facilities, shall be electric vehicle charging spaces (EV spaces) capable of supporting future Level 2 EVSE. Electrical load calculations shall demonstrate that the electrical panel service capacity and electrical system, including any on-site distribution transformer(s), have sufficient capacity to simultaneously charge all EVs at all required EV spaces at a minimum of 40 amperes.

The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging purposes as "EV CAPABLE" in accordance with the California Electrical Code.

Exceptions:

1.When EV chargers (Level 2 EVSE) are installed in a number equal to or greater than the required number of EV capable spaces.

2.When EV chargers (Level 2 EVSE) are installed in a number less than the required number of EV capable spaces, the number of EV capable spaces required may be reduced by a number equal to the number of EV chargers installed.

Notes:

a.Construction documents are intended to demonstrate the project's capability and capacity for facilitating future EV charging.

b.There is no requirement for EV spaces to be constructed or available until receptacles for EV charging or EV chargers are installed for use.

2.EV Ready. Twenty-five (25) percent of the total number of parking spaces shall be equipped with low power Level 2 EV charging receptacles. For multifamily parking facilities, no more than one receptacle is required per dwelling unit when more than one parking space is provided for use by a single dwelling unit.

Exception: Areas of parking facilities served by parking lifts.

☐ ☑ **4.106.4.2.2 Multifamily development projects with 20 or more dwelling units, hotels and motels with 20 or more sleeping units or guest rooms.**
The number of dwelling units, sleeping units or guest rooms shall be based on all buildings on a project site subject to this section.

1.EV Capable. Ten (10) percent of the total number of parking spaces on a building site, provided for all types of parking facilities, shall be electric vehicle charging spaces (EV spaces) capable of supporting future Level 2 EVSE. Electrical load calculations shall demonstrate that the electrical panel service capacity and electrical system, including any on-site distribution transformer(s), have sufficient capacity to simultaneously charge all EVs at all required EV spaces at a minimum of 40 amperes.

The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging purposes as "EV CAPABLE" in accordance with the California Electrical Code.

Exception: When EV chargers (Level 2 EVSE) are installed in a number greater than five (5) percent of parking spaces required by Section 4.106.4.2.2, Item 3, the number of EV capable spaces required may be reduced by a number equal to the number of EV chargers installed over the five (5) percent required.

Notes:

a.Construction documents shall show locations of future EV spaces.

b.There is no requirement for EV spaces to be constructed or available until receptacles for EV charging or EV chargers are installed for use.

2.EV Ready. Twenty-five (25) percent of the total number of parking spaces shall be equipped with low power Level 2 EV charging receptacles. For multifamily parking facilities, no more than one receptacle is required per dwelling unit when more than one parking space is provided for use by a single dwelling unit.

Exception: Areas of parking facilities served by parking lifts.

3.EV Chargers. Five (5) percent of the total number of parking spaces shall be equipped with Level 2 EVSE. Where common use parking is provided, at least one EV charger shall be located in the common use parking area and shall be available for use by all residents or guests.

When low power Level 2 EV charging receptacles or Level 2 EVSE are installed beyond the minimum required, an automatic load management system (ALMS) may be used to reduce the maximum required electrical capacity to each space served by the ALMS. The electrical system and any on-site distribution transformers shall have sufficient capacity to deliver at least 3.3 kW simultaneously to each EV charging station (EVCS) served by the ALMS. The branch circuit shall have a minimum capacity of 40 amperes, and installed EVSE shall have a capacity of not less than 30 amperes. ALMS shall not be used to reduce the minimum required electrical capacity to the required EV capable spaces.

4.106.4.2.2.1 Electric vehicle charging stations (EVCS).
Electric vehicle charging stations required by Section 4.106.4.2.2, Item 3, shall comply with Section 4.106.4.2.2.1.

Exception: Electric vehicle charging stations serving public accommodations, public housing, motels and hotels shall not be required to comply with this section. See California Building Code, Chapter 11B, for applicable requirements.

4.106.4.2.2.1.1 Location.
EVCS shall comply with at least one of the following options:

1.The charging space shall be located adjacent to an accessible parking space meeting the requirements of the California Building Code, Chapter 11A, to allow use of the EV charger from the accessible parking space.

2.The charging space shall be located on an accessible route, as defined in the California Building Code, Chapter 2, to the building.

Exception: Electric vehicle charging stations designed and constructed in compliance with the California Building Code, Chapter 11B, are not required to comply with Section 4.106.4.2.2.1.1 and Section 4.106.4.2.2.1.2, Item 3.

4.106.4.2.2.1.2 Electric vehicle charging stations (EVCS) dimensions.
The charging spaces shall be designed to comply with the following:

1.The minimum length of each EV space shall be 18 feet (5486 mm).

2.The minimum width of each EV space shall be 9 feet (2743 mm).

3.One in every 25 charging spaces, but not less than one, shall also have an 8-foot (2438 mm) wide minimum aisle. A 5-foot (1524 mm) wide minimum aisle shall be permitted provided the minimum width of the EV space is 12 feet (3658 mm).

a.Surface slope for this EV space and the aisle shall not exceed 1 unit vertical in 48 units horizontal (2.083 percent slope) in any direction.

4.106.4.2.2.1.3 Accessible EV spaces.
In addition to the requirements in Sections 4.106.4.2.2.1.1 and 4.106.4.2.2.1.2, all EVSE, when installed, shall comply with the accessibility provisions for EV chargers in the California Building Code, Chapter 11B. EV ready spaces and EVCS in multifamily developments shall comply with California Building Code, Chapter 11A, Section 1109A.

4.106.4.2.3 EV space requirements.
1.Single EV space required. Install a listed raceway capable of accommodating a 208/240-volt dedicated branch circuit. The raceway shall not be less than trade size 1 (nominal 1-inch inside diameter). The raceway shall originate at the main service or subpanel and shall terminate into a listed cabinet, box or enclosure in close proximity to the location or the proposed location of the EV space. Construction documents shall identify the raceway termination point, receptacle or charger location, as applicable. The service panel and/ or subpanel shall have a 40-ampere minimum dedicated branch circuit, including branch circuit overcurrent protective device installed, or space(s) reserved to permit installation of a branch circuit overcurrent protective device.

Exception: A raceway is not required if a minimum 40-ampere 208/240-volt dedicated EV branch circuit is installed in close proximity to the location or the proposed location of the EV space, at the time of original construction in accordance with the California Electrical Code.

2.Multiple EV spaces required. Construction documents shall indicate the raceway termination point and the location of installed or future EV spaces, receptacles or EV chargers. Construction documents shall also provide information on amperage of installed or future receptacles or EVSE, raceway method(s), wiring schematics and electrical load calculations. Plan design shall be based upon a 40-ampere minimum branch circuit. Required raceways and related components that are planned to be installed underground, enclosed, inaccessible or in concealed areas and spaces shall be installed at the time of original construction.

Exception: A raceway is not required if a minimum 40-ampere 208/240-volt dedicated EV branch circuit is installed in close proximity to the location or the proposed location of the EV space at the time of original construction in accordance with the California Electrical Code.

4.106.4.2.4 Identification.
The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging purposes as "EV CAPABLE" in accordance with the California Electrical Code.

4.106.4.2.5 Electric Vehicle Ready Space Signage.
Electric vehicle ready spaces shall be identified by signage or pavement markings, in compliance with Caltrans Traffic Operations Policy Directive 13-01 (Zero Emission Vehicle Signs and Pavement Markings) or its successor(s).

☑ ☐ **4.106.4.3 Electric vehicle charging for additions and alterations of parking facilities serving existing multifamily buildings.**
When new parking facilities are added, or electrical systems or lighting of existing parking facilities are added or altered and the work requires a building permit, ten (10) percent of the total number of parking spaces added or altered shall be electric vehicle charging spaces (EV spaces) capable of supporting future Level 2 EVSE.

Notes:

1.Construction documents are intended to demonstrate the project's capability and capacity for facilitating future EV charging.

2.There is no requirement for EV spaces to be constructed or available until EV chargers are installed for use.

DIVISION 4.2 ENERGY EFFICIENCY

4.201 GENERAL
4.201.1 SCOPE. For the purposes of mandatory energy efficiency standards in this code, the California Energy Commission will continue to adopt mandatory standards.

DIVISION 4.3 WATER EFFICIENCY AND CONSERVATION

4.303 INDOOR WATER USE
4.303.1 WATER CONSERVING PLUMBING FIXTURES AND FITTINGS. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the sections 4.303.1.1, 4.303.1.2, 4.303.1.3, and 4.303.4.4.

Note: All noncompliant plumbing fixtures in any residential real property shall be replaced with water-conserving plumbing fixtures. Plumbing fixture replacement is required prior to issuance of a certificate of final completion, certificate of occupancy, or final permit approval by the local building department. See Civil Code Section 1101.1, et seq., for the definition of a noncompliant plumbing fixture, types of residential buildings affected and other important enactment dates.

4.303.1.1 Water Closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush. Tank-type water closets shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Tank-type Toilets.

Note: The effective flush volume of dual flush toilets is defined as the composite, average flush volume of two reduced flushes and one full flush.

4.303.1.2 Urinals. The effective flush volume of wall mounted urinals shall not exceed 0.125 gallons per flush. The effective flush volume of all other urinals shall not exceed 0.5 gallons per flush.

4.303.1.3 Showerheads.

4.303.1.3.1 Single Showerhead. Showerheads shall have a maximum flow rate of not more than 1.8 gallons per minute at 80 psi. Showerheads shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Showerheads.

4.303.1.3.2 Multiple showerheads serving one shower. When a shower is served by more than one showerhead, the combined flow rate of all the showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi, or the shower shall be designed to only allow one shower outlet to be in operation at a time.

Note: A hand-held shower shall be considered a showerhead.

4.303.1.4 Faucets.

4.303.1.4.1 Residential Lavatory Faucets. The maximum flow rate of residential lavatory faucets shall not exceed 1.2 gallons per minute at 60 psi. The minimum flow rate of residential lavatory faucets shall not be less than 0.8 gallons per minute at 20 psi.

4.303.1.4.2 Lavatory Faucets in Common and Public Use Areas. The maximum flow rate of lavatory faucets installed in common and public use areas (outside of dwellings or sleeping units) in residential buildings shall not exceed 0.5 gallons per minute at 60 psi.

4.303.1.4.3 Metering Faucets. Metering faucets when installed in residential buildings shall not deliver more than 0.2 gallons per cycle.

4.303.1.4.4 Kitchen Faucets. The maximum flow rate of kitchen faucets shall not exceed 1.8 gallons per minute at 60 psi. Kitchen faucets may temporarily increase the flow above the maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flow rate of 1.8 gallons per minute at 60 psi.

Note: Where complying faucets are unavailable, aerators or other means may be used to achieve reduction.

4.303.1.4.5 Pre-rinse spray valves.
When installed, shall meet the requirements in the *California Code of Regulations*, Title 20 (Appliance Efficiency Regulations), Sections 1605.1 (h)(4) Table H-2, Section 1605.3 (h)(4)(A), and Section 1607 (d)(7) and shall be equipped with an integral automatic shutoff.

FOR REFERENCE ONLY: The following table and code section have been reprinted from the *California Code of Regulations*, Title 20 (Appliance Efficiency Regulations),Section 1605.1 (h)(4) and Section 1605.3 (h)(4)(A).

TABLE H-2

STANDARDS FOR COMMERCIAL PRE-RINSE SPRAY VALVES MANUFACTURED ON OR AFTER JANUARY 28, 2019

PRODUCT CLASS [spray force in ounce force (ozf)]	MAXIMUM FLOW RATE (gpm)
Product Class 1 (≤ 5.0 ozf)	1.00
Product Class 2 (> 5.0 ozf and ≤ 8.0 ozf)	1.20
Product Class 3 (> 8.0 ozf)	1.28

Title 20 Section 1605.3 (h)(4)(A): Commercial prerinse spray values manufactured on or after January 1, 2006, shall have a minimum spray force of not less than 4.0 ounces-force (ozf)[113 grams-force(gf)]

☐ ☑ **4.303.2 Submeters for multifamily buildings and dwelling units in mixed-used residential/commercial buildings.**
Submeters shall be installed to measure water usage of individual rental dwelling units in accordance with the *California Plumbing Code*.

☑ ☐ **4.303.3 Standards for plumbing fixtures and fittings.** Plumbing fixtures and fittings shall be installed in accordance with the *California Plumbing Code*, and shall meet the applicable standards referenced in Table 1701.1 of the *California Plumbing Code*.

NOTE:
THIS TABLE COMPILES THE DATA IN SECTION 4.303.1, AND IS INCLUDED AS A CONVENIENCE FOR THE USER.

TABLE - MAXIMUM FIXTURE WATER USE

FIXTURE TYPE	FLOW RATE
SHOWER HEADS (RESIDENTIAL)	1.8 GMP @ 80 PSI
LAVATORY FAUCETS (RESIDENTIAL)	MAX. 1.2 GPM @ 60 PSI MIN. 0.8 GPM @ 20 PSI
LAVATORY FAUCETS IN COMMON & PUBLIC USE AREAS	0.5 GPM @ 60 PSI
KITCHEN FAUCETS	1.8 GPM @ 60 PSI
METERING FAUCETS	0.2 GAL/CYCLE
WATER CLOSET	1.28 GAL/FLUSH
URINALS	0.125 GAL/FLUSH

4.304 OUTDOOR WATER USE
4.304.1 OUTDOOR POTABLE WATER USE IN LANDSCAPE AREAS. Residential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent.

NOTES:

1. The Model Water Efficient Landscape Ordinance (MWELO) is located in the *California Code Regulations,* Title 23, Chapter 2.7, Division 2. MWELO and supporting documents, including water budget calculator, are available at: https://www.water.ca.gov/

DIVISION 4.4 MATERIAL CONSERVATION AND RESOURCE EFFICIENCY

4.406 ENHANCED DURABILITY AND REDUCED MAINTENANCE
4.406.1 RODENT PROOFING. Annular spaces around pipes, electric cables, conduits or other openings in sole/bottom plates at exterior walls shall be protected against the passage of rodents by closing such openings with cement mortar, concrete masonry or a similar method acceptable to the enforcing agency.

4.408 CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING
4.408.1 CONSTRUCTION WASTE MANAGEMENT. Recycle and/or salvage for reuse a minimum of 65 percent of the non-hazardous construction and demolition waste in accordance with either Section 4.408.2, 4.408.3 or 4.408.4, or meet a more stringent local construction and demolition waste management ordinance.

Exceptions:

1. Excavated soil and land-clearing debris.
2. Alternate waste reduction methods developed by working with local agencies if diversion or recycle facilities capable of compliance with this item do not exist or are not located reasonably close to the jobsite.
3. The enforcing agency may make exceptions to the requirements of this section when isolated jobsites are located in areas beyond the haul boundaries of the diversion facility.

4.408.2 CONSTRUCTION WASTE MANAGEMENT PLAN. Submit a construction waste management plan in conformance with Items 1 through 5. The construction waste management plan shall be updated as necessary and shall be available during construction for examination by the enforcing agency.

1. Identify the construction and demolition waste materials to be diverted from disposal by recycling, reuse on the project or salvage for future use or sale.
2. Specify if construction and demolition waste materials will be sorted on-site (source separated) or bulk mixed (single stream).
3. Identify diversion facilities where the construction and demolition waste material collected will be taken.
4. Identify construction methods employed to reduce the amount of construction and demolition waste generated.
5. Specify that the amount of construction and demolition waste materials diverted shall be calculated by weight or volume, but not by both.

4.408.3 WASTE MANAGEMENT COMPANY. Utilize a waste management company, approved by the enforcing agency, which can provide verifiable documentation that the percentage of construction and demolition waste material diverted from the landfill complies with Section 4.408.1.

Note: The owner or contractor may make the determination if the construction and demolition waste materials will be diverted by a waste management company.

4.408.4 WASTE STREAM REDUCTION ALTERNATIVE [LR]. Projects that generate a total combined weight of construction and demolition waste disposed of in landfills, which do not exceed 3.4 lbs./sq.ft. of the building area shall meet the minimum 65% construction waste reduction requirement in Section 4.408.1

4.408.4.1 WASTE STREAM REDUCTION ALTERNATIVE. Projects that generate a total combined weight of construction and demolition waste disposed of in landfills, which do not exceed 2 pounds per square foot of the building area, shall meet the minimum 65% construction waste reduction requirement in Section 4.408.1

4.408.5 DOCUMENTATION. Documentation shall be provided to the enforcing agency which demonstrates compliance with Section 4.408.2, items 1 through 5, Section 4.408.3 or Section 4.408.4..

Notes:

1. Sample forms found in "A Guide to the California Green Building Standards Code (Residential)" located at www.hcd.ca.gov/CALGreen.html may be used to assist in documenting compliance with this section.
2. Mixed construction and demolition debris (C & D) processors can be located at the California Department of Resources Recycling and Recovery (CalRecycle).

4.410 BUILDING MAINTENANCE AND OPERATION
4.410.1 OPERATION AND MAINTENANCE MANUAL. At the time of final inspection, a manual, compact disc, web-based reference or other media acceptable to the enforcing agency which includes all of the following shall be placed in the building:

1. Directions to the owner or occupant that the manual shall remain with the building throughout the life cycle of the structure.
2. Operation and maintenance instructions for the following:
   a. Equipment and appliances, including water-saving devices and systems, HVAC systems, photovoltaic systems, electric vehicle chargers, water-heating systems and other major appliances and equipment.
   b. Roof and yard drainage, including gutters and downspouts.
   c. Space conditioning systems, including condensers and air filters.
   d. Landscape irrigation systems.
   e. Water reuse systems.
3. Information from local utility, water and waste recovery providers on methods to further reduce resource consumption, including recycle programs and locations.
4. Public transportation and/or carpool options available in the area.
5. Educational material on the positive impacts of an interior relative humidity between 30-60 percent and what methods an occupant may use to maintain the relative humidity level in that range.
6. Information about water-conserving landscape and irrigation design and controllers which conserve water.
7. Instructions for maintaining gutters and downspouts and the importance of diverting water at least 5 feet away from the foundation.
8. Information on required routine maintenance measures, including, but not limited to, caulking, painting, grading around the building, etc.
9. Information about state solar energy and incentive programs available.
10. A copy of all special inspections verifications required by the enforcing agency or this code.
11. Information from the Department of Forestry and Fire Protection on maintenance of defensible space around residential structures.
12. Information and/or drawings identifying the location of grab bar reinforcements.

☐ ☑ **4.410.2 RECYCLING BY OCCUPANTS.** Where 5 or more multifamily dwelling units are constructed on a building site, provide readily accessible area(s) that serves all buildings on the site and are identified for the depositing, storage and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waster, and metals, or meet a lawfully enacted local recycling ordinance, if more restrictive.

Exception: Rural jurisdictions that meet and apply for the exemption in Public Resources Code Section 42649.82 (a)(2)(A) et seq. are note required to comply with the organic waste portion of this section.

DIVISION 4.5 ENVIRONMENTAL QUALITY

SECTION 4.501 GENERAL
4.501.1 Scope
The provisions of this chapter shall outline means of reducing the quality of air contaminants that are odorous, irritating and/or harmful to the comfort and well being of a building's installers, occupants and neighbors.

SECTION 4.502 DEFINITIONS
5.102.1 DEFINITIONS
The following terms are defined in Chapter 2 *(and are included here for reference)*

AGRIFIBER PRODUCTS. Agrifiber products include wheatboard, strawboard, panel substrates and door cores, not including furniture, fixtures and equipment (FF&E) not considered base building elements.

COMPOSITE WOOD PRODUCTS. Composite wood products include hardwood plywood, particleboard and medium density fiberboard. "Composite wood products" does not include hardboard, structural plywood, structural panels, structural composite lumber, oriented strand board, glued laminated timber, prefabricated wood I-joists or finger-jointed lumber, all as specified in California Code of regulations (CCR), title 17, Section 93120.1.

DIRECT-VENT APPLIANCE. A fuel-burning appliance with a sealed combustion system that draws all air for combustion from the outside atmosphere and discharges all flue gases to the outside atmosphere.

HOLDREN+LIETZKE ARCHITECTURE
225 CANNERY ROW - SUITE A
MONTEREY, CA 93940
Ph: 831.649.6001
Fax: 831.649.6003
www.hl-arc.com

DATE: 11.07.2024
SCALE:
DRAWN:
JOB NUMBER: 23.14
REVISION

LICENSED ARCHITECT
J. CRAIG HOLDREN
C-32768
SEP 30 2027
Renewal Date
STATE OF CALIFORNIA

MESSIAH LOT: 207 RESIDENCE
23 SAN CLEMENTE TRL.
CARMEL, CA
A.P.N. 239-131-007

A0.3

2022 CALIFORNIA GREEN BUILDING STANDARDS CODE
RESIDENTIAL MANDATORY MEASURES, SHEET 2 (January 2023)

Y = YES
N/A = NOT APPLICABLE
RESPON. PARTY = RESPONSIBLE PARTY (ie: ARCHITECT, ENGINEER, OWNER, CONTRACTOR, INSPECTOR ETC.)

MAXIMUM INCREMENTAL REACTIVITY (MIR). The maximum change in weight of ozone formed by adding a compound to the "Base Reactive Organic Gas (ROG) Mixture" per weight of compound added, expressed to hundredths of a gram (g O^3/g ROC).
Note: MIR values for individual compounds and hydrocarbon solvents are specified in CCR, Title 17, Sections 94700 and 94701.

MOISTURE CONTENT. The weight of the water in wood expressed in percentage of the weight of the oven-dry wood.

PRODUCT-WEIGHTED MIR (PWMIR). The sum of all weighted-MIR for all ingredients in a product subject to this article. The PWMIR is the total product reactivity expressed to hundredths of a gram of ozone formed per gram of product (excluding container and packaging).
Note: PWMIR is calculated according to equations found in CCR, Title 17, Section 94521 (a).

REACTIVE ORGANIC COMPOUND (ROC). Any compound that has the potential, once emitted, to contribute to ozone formation in the troposphere.

VOC. A volatile organic compound (VOC) broadly defined as a chemical compound based on carbon chains or rings with vapor pressures greater than 0.1 millimeters of mercury at room temperature. These compounds typically contain hydrogen and may contain oxygen, nitrogen and other elements. See CCR Title 17, Section 94508(a).

4.503 FIREPLACES

☑ ☐ **4.503.1 GENERAL.** Any installed gas fireplace shall be a direct-vent sealed-combustion type. Any installed woodstove or pellet stove shall comply with U.S. EPA New Source Performance Standards (NSPS) emission limits as applicable, and shall have a permanent label indicating they are certified to meet the emission limits. Woodstoves, pellet stoves and fireplaces shall also comply with applicable local ordinances.

4.504 POLLUTANT CONTROL

☑ ☐ **4.504.1 COVERING OF DUCT OPENINGS & PROTECTION OF MECHANICAL EQUIPMENT DURING CONSTRUCTION.** At the time of rough installation, during storage on the construction site and until final startup of the heating, cooling and ventilating equipment, all duct and other related air distribution component openings shall be covered with tape, plastic, sheet metal or other methods acceptable to the enforcing agency to reduce the amount of water, dust or debris which may enter the system.

☑ ☐ **4.504.2 FINISH MATERIAL POLLUTANT CONTROL.** Finish materials shall comply with this section.

☑ ☐ **4.504.2.1 Adhesives, Sealants and Caulks.** Adhesives, sealant and caulks used on the project shall meet the requirements of the following standards unless more stringent local or regional air pollution or air quality management district rules apply:

1. Adhesives, adhesive bonding primers, adhesive primers, sealants, sealant primers and caulks shall comply with local or regional air pollution control or air quality management district rules where applicable or SCAQMD Rule 1168 VOC limits, as shown in Table 4.504.1 or 4.504.2, as applicable. Such products also shall comply with the Rule 1168 prohibition on the use of certain toxic compounds (chloroform, ethylene dichloride, methylene chloride, perchloroethylene and tricloroethylene), except for aerosol products, as specified in Subsection 2 below.

2. Aerosol adhesives, and smaller unit sizes of adhesives, and sealant or caulking compounds (in units of product, less packaging, which do not weigh more than 1 pound and do not consist of more than 16 fluid ounces) shall comply with statewide VOC standards and other requirements, including prohibitions on use of certain toxic compounds, of *California Code of Regulations*, Title 17, commencing with section 94507.

☑ ☐ **4.504.2.2 Paints and Coatings.** Architectural paints and coatings shall comply with VOC limits in Table 1 of the ARB Architectural Suggested Control Measure, as shown in Table 4.504.3, unless more stringent local limits apply. The VOC content limit for coatings that do not meet the definitions for the specialty coatings categories listed in Table 4.504.3 shall be determined by classifying the coating as a Flat, Nonflat or Nonflat-High Gloss coating, based on its gloss, as defined in subsections 4.21, 4.36, and 4.37 of the 2007 California Air Resources Board, Suggested Control Measure, and the corresponding Flat, Nonflat or Nonflat-High Gloss VOC limit in Table 4.504.3 shall apply.

☑ ☐ **4.504.2.3 Aerosol Paints and Coatings.** Aerosol paints and coatings shall meet the Product-weighted MIR Limits for ROC in Section 94522(a)(2) and other requirements, including prohibitions on use of certain toxic compounds and ozone depleting substances, in Sections 94522(e)(1) and (f)(1) of *California Code of Regulations*, Title 17, commencing with Section 94520; and in areas under the jurisdiction of the Bay Area Air Quality Management District additionally comply with the percent VOC by weight of product limits of Regulation 8, Rule 49.

☑ ☐ **4.504.2.4 Verification.** Verification of compliance with this section shall be provided at the request of the enforcing agency. Documentation may include, but is not limited to, the following:

1. Manufacturer's product specification.
2. Field verification of on-site product containers.

TABLE 4.504.1 - ADHESIVE VOC LIMIT[1,2]

(Less Water and Less Exempt Compounds in Grams per Liter)

ARCHITECTURAL APPLICATIONS	VOC LIMIT
INDOOR CARPET ADHESIVES	50
CARPET PAD ADHESIVES	50
OUTDOOR CARPET ADHESIVES	150
WOOD FLOORING ADHESIVES	100
RUBBER FLOOR ADHESIVES	60
SUBFLOOR ADHESIVES	50
CERAMIC TILE ADHESIVES	65
VCT & ASPHALT TILE ADHESIVES	50
DRYWALL & PANEL ADHESIVES	50
COVE BASE ADHESIVES	50
MULTIPURPOSE CONSTRUCTION ADHESIVE	70
STRUCTURAL GLAZING ADHESIVES	100
SINGLE-PLY ROOF MEMBRANE ADHESIVES	250
OTHER ADHESIVES NOT LISTED	50
SPECIALTY APPLICATIONS	
PVC WELDING	510
CPVC WELDING	490
ABS WELDING	325
PLASTIC CEMENT WELDING	250
ADHESIVE PRIMER FOR PLASTIC	550
CONTACT ADHESIVE	80
SPECIAL PURPOSE CONTACT ADHESIVE	250
STRUCTURAL WOOD MEMBER ADHESIVE	140
TOP & TRIM ADHESIVE	250
SUBSTRATE SPECIFIC APPLICATIONS	
METAL TO METAL	30
PLASTIC FOAMS	50
POROUS MATERIAL (EXCEPT WOOD)	50
WOOD	30
FIBERGLASS	80

1. IF AN ADHESIVE IS USED TO BOND DISSIMILAR SUBSTRATES TOGETHER, THE ADHESIVE WITH THE HIGHEST VOC CONTENT SHALL BE ALLOWED.

2. FOR ADDITIONAL INFORMATION REGARDING METHODS TO MEASURE THE VOC CONTENT SPECIFIED IN THIS TABLE, SEE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE 1168.

TABLE 4.504.2 - SEALANT VOC LIMIT

(Less Water and Less Exempt Compounds in Grams per Liter)

SEALANTS	VOC LIMIT
ARCHITECTURAL	250
MARINE DECK	760
NONMEMBRANE ROOF	300
ROADWAY	250
SINGLE-PLY ROOF MEMBRANE	450
OTHER	420
SEALANT PRIMERS	
ARCHITECTURAL	
NON-POROUS	250
POROUS	775
MODIFIED BITUMINOUS	500
MARINE DECK	760
OTHER	750

TABLE 4.504.3 - VOC CONTENT LIMITS FOR ARCHITECTURAL COATINGS[2,3]

GRAMS OF VOC PER LITER OF COATING, LESS WATER & LESS EXEMPT COMPOUNDS

COATING CATEGORY	VOC LIMIT
FLAT COATINGS	50
NON-FLAT COATINGS	100
NONFLAT-HIGH GLOSS COATINGS	150
SPECIALTY COATINGS	
ALUMINUM ROOF COATINGS	400
BASEMENT SPECIALTY COATINGS	400
BITUMINOUS ROOF COATINGS	50
BITUMINOUS ROOF PRIMERS	350
BOND BREAKERS	350
CONCRETE CURING COMPOUNDS	350
CONCRETE/MASONRY SEALERS	100
DRIVEWAY SEALERS	50
DRY FOG COATINGS	150
FAUX FINISHING COATINGS	350
FIRE RESISTIVE COATINGS	350
FLOOR COATINGS	100
FORM-RELEASE COMPOUNDS	250
GRAPHIC ARTS COATINGS (SIGN PAINTS)	500
HIGH TEMPERATURE COATINGS	420
INDUSTRIAL MAINTENANCE COATINGS	250
LOW SOLIDS COATINGS[1]	120
MAGNESITE CEMENT COATINGS	450
MASTIC TEXTURE COATINGS	100
METALLIC PIGMENTED COATINGS	500
MULTICOLOR COATINGS	250
PRETREATMENT WASH PRIMERS	420
PRIMERS, SEALERS, & UNDERCOATERS	100
REACTIVE PENETRATING SEALERS	350
RECYCLED COATINGS	250
ROOF COATINGS	50
RUST PREVENTATIVE COATINGS	250
SHELLACS	
CLEAR	730
OPAQUE	550
SPECIALTY PRIMERS, SEALERS & UNDERCOATERS	100
STAINS	250
STONE CONSOLIDANTS	450
SWIMMING POOL COATINGS	340
TRAFFIC MARKING COATINGS	100
TUB & TILE REFINISH COATINGS	420
WATERPROOFING MEMBRANES	250
WOOD COATINGS	275
WOOD PRESERVATIVES	350
ZINC-RICH PRIMERS	340

1. GRAMS OF VOC PER LITER OF COATING, INCLUDING WATER & EXEMPT COMPOUNDS

2. THE SPECIFIED LIMITS REMAIN IN EFFECT UNLESS REVISED LIMITS ARE LISTED IN SUBSEQUENT COLUMNS IN THE TABLE.

3. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIFORNIA AIR RESOURCES BOARD, ARCHITECTURAL COATINGS SUGGESTED CONTROL MEASURE, FEB. 1, 2008. MORE INFORMATION IS AVAILABLE FROM THE AIR RESOURCES BOARD.

TABLE 4.504.5 - FORMALDEHYDE LIMITS[1]

MAXIMUM FORMALDEHYDE EMISSIONS IN PARTS PER MILLION

PRODUCT	CURRENT LIMIT
HARDWOOD PLYWOOD VENEER CORE	0.05
HARDWOOD PLYWOOD COMPOSITE CORE	0.05
PARTICLE BOARD	0.09
MEDIUM DENSITY FIBERBOARD	0.11
THIN MEDIUM DENSITY FIBERBOARD[2]	0.13

1. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIF. AIR RESOURCES BOARD, AIR TOXICS CONTROL MEASURE FOR COMPOSITE WOOD AS TESTED IN ACCORDANCE WITH ASTM E 1333. FOR ADDITIONAL INFORMATION, SEE CALIF. CODE OF REGULATIONS, TITLE 17, SECTIONS 93120 THROUGH 93120.12.

2. THIN MEDIUM DENSITY FIBERBOARD HAS A MAXIMUM THICKNESS OF 5/16" (8 MM).

DIVISION 4.5 ENVIRONMENTAL QUALITY (continued)

☑ ☐ **4.504.3 CARPET SYSTEMS.** All carpet installed in the building interior shall meet the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017 (Emission testing method for California Specification 01350)

See California Department of Public Health's website for certification programs and testing labs.

https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx.

☑ ☐ **4.504.3.1 Carpet cushion.** All carpet cushion installed in the building interior shall meet the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017 (Emission testing method for California Specification 01350)

See California Department of Public Health's website for certification programs and testing labs.

https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx.

☑ ☐ **4.504.3.2 Carpet adhesive.** All carpet adhesive shall meet the requirements of Table 4.504.1.

☑ ☐ **4.504.4 RESILIENT FLOORING SYSTEMS.** Where resilient flooring is installed , at least 80% of floor area receiving resilient flooring shall meet the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017 (Emission testing method for California Specification 01350)

See California Department of Public Health's website for certification programs and testing labs.

https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx.

☑ ☐ **4.504.5 COMPOSITE WOOD PRODUCTS.** Hardwood plywood, particleboard and medium density fiberboard composite wood products used on the interior or exterior of the buildings shall meet the requirements for formaldehyde as specified in ARB's Air Toxics Control Measure for Composite Wood (17 CCR 93120 et seq.), by or before the dates specified in those sections, as shown in Table 4.504.5

☑ ☐ **4.504.5.1 Documentation.** Verification of compliance with this section shall be provided as requested by the enforcing agency. Documentation shall include at least one of the following:

1. Product certifications and specifications.
2. Chain of custody certifications.
3. Product labeled and invoiced as meeting the Composite Wood Products regulation (see CCR, Title 17, Section 93120, et seq.).
4. Exterior grade products marked as meeting the PS-1 or PS-2 standards of the Engineered Wood Association, the Australian AS/NZS 2269, European 636 3S standards, and Canadian CSA 0121, CSA 0151, CSA 0153 and CSA 0325 standards.
5. Other methods acceptable to the enforcing agency.

4.505 INTERIOR MOISTURE CONTROL

4.505.1 General. Buildings shall meet or exceed the provisions of the *California Building Standards Code*.

☑ ☐ **4.505.2 CONCRETE SLAB FOUNDATIONS.** Concrete slab foundations required to have a vapor retarder by California Building Code, Chapter 19, or concrete slab-on-ground floors required to have a vapor retarder by the California Residential Code, Chapter 5, shall also comply with this section.

☑ ☐ **4.505.2.1 Capillary break.** A capillary break shall be installed in compliance with at least one of the following:

1. A 4-inch (101.6 mm) thick base of 1/2 inch (12.7mm) or larger clean aggregate shall be provided with a vapor barrier in direct contact with concrete and a concrete mix design, which will address bleeding, shrinkage, and curling, shall be used. For additional information, see American Concrete Institute, ACI 302.2R-06.
2. Other equivalent methods approved by the enforcing agency.
3. A slab design specified by a licensed design professional.

☑ ☐ **4.505.3 MOISTURE CONTENT OF BUILDING MATERIALS.** Building materials with visible signs of water damage shall not be installed. Wall and floor framing shall not be enclosed when the framing members exceed 19 percent moisture content. Moisture content shall be verified in compliance with the following:

1. Moisture content shall be determined with either a probe-type or contact-type moisture meter.Equivalent moisture verification methods may be approved by the enforcing agency and shall satisfy requirements found in Section 101.8 of this code.
2. Moisture readings shall be taken at a point 2 feet (610 mm) to 4 feet (1219 mm) from the grade stamped end of each piece verified.
3. At least three random moisture readings shall be performed on wall and floor framing with documentation acceptable to the enforcing agency provided at the time of approval to enclose the wall and floor framing.

Insulation products which are visibly wet or have a high moisture content shall be replaced or allowed to dry prior to enclosure in wall or floor cavities. Wet-applied insulation products shall follow the manufacturers' drying recommendations prior to enclosure.

4.506 INDOOR AIR QUALITY AND EXHAUST

☑ ☐ **4.506.1 Bathroom exhaust fans.** Each bathroom shall be mechanically ventilated and shall comply with the following:

1. Fans shall be ENERGY STAR compliant and be ducted to terminate outside the building.
2. Unless functioning as a component of a whole house ventilation system, fans must be controlled by a humidity control.
   a. Humidity controls shall be capable of adjustment between a relative humidity range less than or equal to 50% to a maximum of 80%. A humidity control may utilize manual or automatic means of adjustment.
   b. A humidity control may be a separate component to the exhaust fan and is not required to be integral (i.e., built-in)

Notes:

1. For the purposes of this section, a bathroom is a room which contains a bathtub, shower or tub/shower combination.
2. Lighting integral to bathroom exhaust fans shall comply with the *California Energy Code*.

4.507 ENVIRONMENTAL COMFORT

☑ ☐ **4.507.2 HEATING AND AIR-CONDITIONING SYSTEM DESIGN.** Heating and air conditioning systems shall be sized, designed and have their equipment selected using the following methods:

1. The heat loss and heat gain is established according to ANSI/ACCA 2 Manual J - 2011 (Residential Load Calculation), ASHRAE handbooks or other equivalent design software or methods.
2. Duct systems are sized according to ANSI/ACCA 1 Manual D - 2014 (Residential Duct Systems), ASHRAE handbooks or other equivalent design software or methods.
3. Select heating and cooling equipment according to ANSI/ACCA 3 Manual S - 2014 (Residential Equipment Selection), or other equivalent design software or methods.

Exception: Use of alternate design temperatures necessary to ensure the system functions are acceptable.

CHAPTER 7
INSTALLER & SPECIAL INSPECTOR QUALIFICATIONS

702 QUALIFICATIONS

☑ ☐ **702.1 INSTALLER TRAINING.** HVAC system installers shall be trained and certified in the proper installation of HVAC systems including ducts and equipment by a nationally or regionally recognized training or certification program. Uncertified persons may perform HVAC installations when under the direct supervision and responsibility of a person trained and certified to install HVAC systems or contractor licensed to install HVAC systems. Examples of acceptable HVAC training and certification programs include but are not limited to the following:

1. State certified apprenticeship programs.
2. Public utility training programs.
3. Training programs sponsored by trade, labor or statewide energy consulting or verification organizations.
4. Programs sponsored by manufacturing organizations.
5. Other programs acceptable to the enforcing agency.

☑ ☐ **702.2 SPECIAL INSPECTION [HCD].** When required by the enforcing agency, the owner or the responsible entity acting as the owner's agent shall employ one or more special inspectors to provide inspection or other duties necessary to substantiate compliance with this code. Special inspectors shall demonstrate competence to the satisfaction of the enforcing agency for the particular type of inspection or task to be performed. In addition to other certifications or qualifications acceptable to the enforcing agency, the following certifications or education may be considered by the enforcing agency when evaluating the qualifications of a special inspector:

1. Certification by a national or regional green building program or standard publisher.
2. Certification by a statewide energy consulting or verification organization, such as HERS raters, building performance contractors, and home energy auditors.
3. Successful completion of a third party apprentice training program in the appropriate trade.
4. Other programs acceptable to the enforcing agency.

Notes:

1. Special inspectors shall be independent entities with no financial interest in the materials or the project they are inspecting for compliance with this code.
2. HERS raters are special inspectors certified by the California Energy Commission (CEC) to rate homes in California according to the Home Energy Rating System (HERS).

[BSC] When required by the enforcing agency, the owner or the responsible entity acting as the owner's agent shall employ one or more special inspectors to provide inspection or other duties necessary to substantiate compliance with this code. Special inspectors shall demonstrate competence to the satisfaction of the enforcing agency for the particular type of inspection or task to be performed. In addition, the special inspector shall have a certification from a recognized state, national or international association, as determined by the local agency. The area of certification shall be closely related to the primary job function, as determined by the local agency.

Note: Special inspectors shall be independent entities with no financial interest in the materials or the project they are inspecting for compliance with this code.

703 VERIFICATIONS

☑ ☐ **703.1 DOCUMENTATION.** Documentation used to show compliance with this code shall include but is not limited to, construction documents, plans, specifications, builder or installer certification, inspection reports, or other methods acceptable to the enforcing agency which demonstrate substantial conformance. When specific documentation or special inspection is necessary to verify compliance, that method of compliance will be specified in the appropriate section or identified applicable checklist.

HOLDREN+LIETZKE ARCHITECTURE

225 CANNERY ROW - SUITE A
MONTEREY, CA 93940

Ph: 831.649.6001
Fax: 831.649.6003

www.hl-arc.com

DATE: 11.07.2024
SCALE:
DRAWN:
JOB NUMBER: 23.14
REVISION

LICENSED ARCHITECT
J. CRAIG HOLDREN
C-32768
SEP 30 2027
Renewal Date
STATE OF CALIFORNIA

MESSIAH LOT: 207 RESIDENCE
23 SAN CLEMENTE TRL.
CARMEL, CA
A.P.N. 239-131-007

A0.4

APN
239-131-027

FD 3/4" IRON PIPE
LS 4876
ELEV:1269.79

FD 3/4" IRON PIPE
LS 4876
ELEV:1269.17

BARBWIRE FENCE

N44°11'28"W 223.85'

FLOW LINE CREEK

TOP OF BANK TO CREEK

N81°54'44"W 280.34'

N47°35'13"E 330.37'

S64°38'45"W 594.50'

S33°25'17"W 68.83'

S34°00'33"E 423.51'

FD 3/4" IRON PIPE
LS 4876
ELEV:1272.12

FD 3/4" IRON PIPE
OPEN/BENT

FD 3/4" IRON PIPE
LS 4876
ELEV:1300.60

SITE BENCHMARK
SET REBAR & CAP #200
EL:1283.63'(ASSUMED)

12" STEEL
INV IN:1282.43'
INV OUT:1282.22'

TELE VAULT

4" CONDUIT STUB

WATER VAULT

36" CPP
INV:1290.16'

'TIE' BOUNDARY

HOMELAND BOUNDARY

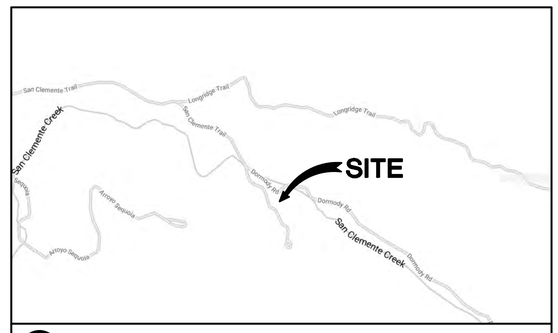
DIRT ROAD

AC DRIVEWAY

AC DIKE

VOL 21 C.T. PG. 20
LOT 207

APN
239-131-007



VICINITY MAP

SCALE: N.T.S.

TOPOGRAPHIC MAP NOTES:

1. THIS MAP REPRESENTS A TOPOGRAPHIC SURVEY PERFORMED BY WHITSON ENGINEERS ON AUGUST 13 AND DECEMBER 16 AND 17, 2021. BACKGROUND ORTHORECTIFIED AERIAL IMAGERY DISPLAYED HEREON IS BASED ON AERIAL PHOTOGRAPHY ACQUIRED WITH A SMALL UNMANNED AIRCRAFT ON DECEMBER 17, 2021.
2. THIS MAP PORTRAYS THE SITE AT THE TIME OF THE SURVEY AND DOES NOT SHOW SOILS OR GEOLOGIC INFORMATION, UNDERGROUND CONDITIONS, EASEMENTS, ZONING OR REGULATORY INFORMATION OR ANY OTHER ITEMS NOT SPECIFICALLY REQUESTED BY THE CLIENT.
3. BOUNDARY LOCATIONS SHOWN HEREON WERE DETERMINED WITH THE BENEFIT OF A FIELD SURVEY SUPPLEMENTED BY RECORD DATA. ALL BOUNDARY SHOWN IS FROM RECORD DATA. THIS TOPOGRAPHIC MAP DOES NOT CONSTITUTE A BOUNDARY SURVEY. THERE MAY BE EASEMENTS OR OTHER RIGHTS, RECORDED OR UNRECORDED, AFFECTING THE SUBJECT PROPERTY, WHICH ARE NOT SHOWN HEREON.
4. DISTANCES AND DIMENSIONS SHOWN ARE EXPRESSED IN FEET AND DECIMALS THEREOF, UNLESS OTHERWISE NOTED.
5. BENCHMARK: SET WHITSON ENGINEERS REBAR & CAP #200 ELEVATION:1283.63' (ASSUMED DATUM)
6. LOCATION OF UNDERGROUND UTILITIES WAS NOT WITHIN THE SCOPE OF THIS SURVEY. WITH THE EXCEPTION OF OBSERVED FACILITIES, UNDERGROUND UTILITIES ARE SHOWN WITH APPROXIMATE LOCATION BASED ON SURFACE FEATURES.
7. THE EXISTENCE, LOCATION AND DEPTH OF ALL UTILITIES MUST BE VERIFIED BY POSITIVE LOCATION (POTHOLING) BY THE CONSTRUCTION CONTRACTOR PRIOR TO EXCAVATION OR ANY CONSTRUCTION WHICH MAY BE AFFECTED BY THE LOCATION OR ELEVATION OF THE UTILITY.
8. DIAMETERS OF TREES ARE SHOWN IN INCHES MEASURED AT BREAST HEIGHT. TREES SMALLER THAN 6" WERE NOT NECESSARILY LOCATED AS PART OF THIS SURVEY.

LEGEND

- 100 — GROUND CONTOUR
- SUBJECT PROPERTY LINE
- HOMELAND BOUNDARY
- TIE BOUNDARY LINE
- ASPHALT CONCRETE
- GRADE BREAK
- FLOW LINE
- AC DIKE
- △100 — CONTROL POINT
- BM — SITE BENCHMARK
- FOUND 3/4" IRON PIPE, TAGGED L.S. 4876. UNLESS OTHERWISE NOTED
- ROCK
- 12" OAK — TREE; SIZE AND TYPE AS NOTED
- TREE DRIP LINE
- + 928.30 — SPOT GRADE
- 30% SLOPE OR GREATER

ABBREVIATIONS

AC	ASPHALT CONCRETE
BM	BENCHMARK
EL	ELEVATION
FD	FOUND
IP	IRON PIPE
PF	PIN FLAG
TELE	TELEPHONE
VLT	VAULT
WTR	WATER

20 0 20 40
SCALE: 1" = 20'

Know what's below. Call before you dig. 811

0 1 2 INCHES 3

F:\Monterey Projects\4486 - SLP - LOT 207\SURVEY\4486 - SLP Lot - 207.dwg dzuyth Jan 05, 2022 - 3:59pm

Civil Engineering
Land Surveying
4 Harris Court
Monterey, California
831.649.5225
whitsonengineers.com

Whitson ENGINEERS

LICENSED LAND SURVEYOR
RICHARD P. WERER
No. 8002
STATE OF CALIFORNIA

SUBMITTAL / REVISION

Santa Lucia Preserve - Lot 207
Monterey, California
APN: 239-131-007
Topographic Survey

SCALE:	1" = 20'
DRAWN:	IPB
JOB No.:	4486
SHEET	1 OF 2

GRADING, DRAINAGE,EROSION CONTROL,& CONSTRUCTION MANAGEMENT PLANS

GENERAL NOTES

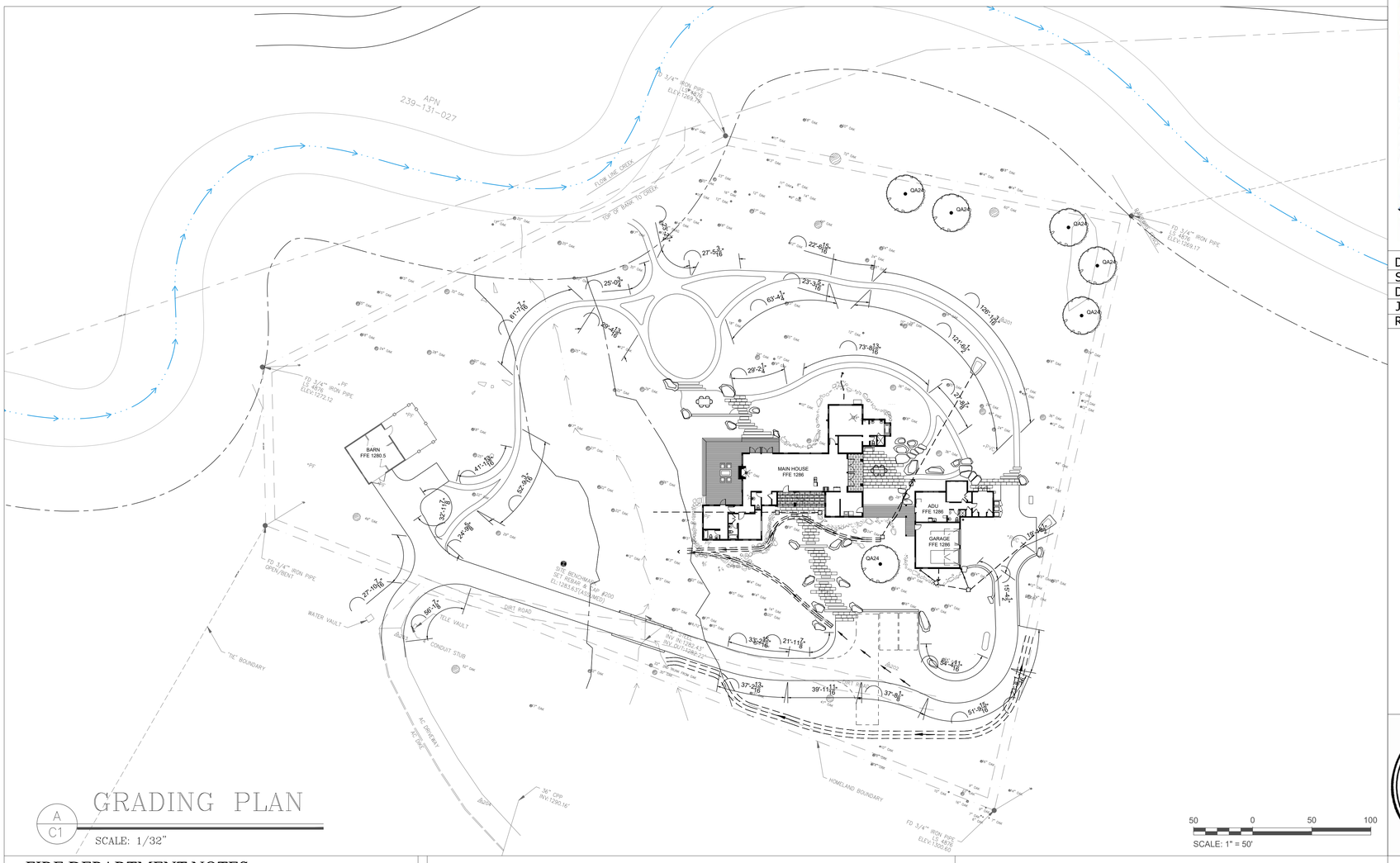
1. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS HERE ON. IN ADDITION ALL WORK SHALL ALSO COMPLY WITH TITLE 24 AND 2019 CALIFORNIA BUILDING CODE, CALIFORNIA MECHANICAL CODE, CALIFORNIA PLUMBING CODE, CALIFORNIA RESIDENTIAL CODE, CALIFORNIA ELECTRICAL CODE, AND THE CALIFORNIA ENERGY CODE AS THEY MAY APPLY.
2. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND THE MONTEREY COUNTY PLANNING AND BUILDING INSPECTION DEPARTMENT AT LEAST 24 HOURS PRIOR TO THE START OF CONSTRUCTION.
3. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE PLANS, DETAILS, SPECIFICATIONS AND SITE CONDITIONS PRIOR TO THE START OF CONSTRUCTION.
4. IN THE EVENT THAT THE CONTRACTOR FINDS A CONFLICT OR A DEFICIENCY IN THE PLANS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER THE OWNER AND OR THE OWNER'S REPRESENTATIVE(S) IMMEDIATELY.
5. ALL REVISIONS TO THESE PLANS MUST BE APPROVED BY THE ENGINEER PRIOR TO THEIR CONSTRUCTION, AND SHALL BE ACCURATELY SHOWN ON DRAWINGS PRIOR TO THE ACCEPTANCE OF THE WORK AS COMPLETE ANY CHANGES TO OR DEVIATIONS FROM THE PLANS MADE WITHOUT AUTHORIZATION SHALL BE AT THE CONTRACTOR'S SOLE RISK AND SHALL ABSOLVE THE ENGINEER OF ANY AND ALL RESPONSIBILITY ASSOCIATED WITH THE CHANGE OR DEVIATION.
6. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE EXISTING TOPOGRAPHY SHOWN, NOR THE ACCURACY OF THE DELINEATION OF SAID UNDERGROUND UTILITIES, NOR FOR THE EXISTENCE OF OTHER BURIED OBJECTS OR UTILITIES WHICH MAY BE ENCOUNTERED AND ARE NOT SHOWN ON THESE PLANS. THE CONTRACTOR IS HEREBY NOTIFIED THAT, PRIOR TO COMMENCING CONSTRUCTION HE IS RESPONSIBLE FOR CONTACTING THE UTILITY COMPANIES INVOLVED AND REUSE THING A VISUAL VERIFICATION OF THEIR UNDERGROUND UTILITIES AND OR FACILITIES. REPAIR OF DAMAGE TO ANY UNDERGROUND UTILITY OR FACILITY SHALL BE MADE AT THE CONTRACTORS EXPENSE.
7. THE CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT AT (800) 642-2444 AT LEAST 48 HOURS PRIOR TO THE START OF WORK TO VERIFY THE LOCATION OF EXISTING UNDERGROUND UTILITIES.
8. THE CONTRACTOR SHALL LEAVE A 24-HOUR EMERGENCY TELEPHONE NUMBER WITH THE SHERIFF, FIRE DEPARTMENT, AND PRIVATE SECURITY COMPANY (IF APPLICABLE), AND KEEP THEM INFORMED DAILY REGARDING ANY CONSTRUCTION RELATED ACTIVITY IN THE PUBLIC RIGHT-OF-WAY.
9. EXISTING CURB, GUTTER, SIDEWALK, SURVEY MONUMENTS, AND OTHER IMPROVEMENTS WITHIN PROJECT SITE THAT ARE DAMAGED OR DISPLACED SHALL BE REPLACED AS DIRECTED BY THE COUNTY AND OR THE ENGINEER AT THE CONTRACTOR'S EXPENSE WHETHER SHOWN ON THE PLANS OR NOT, EVEN IF DAMAGE OR DISPLACEMENT WAS NOT CAUSED BY ACTUAL WORK PERFORMED BY THE CONTRACTOR.
10. THE CONTRACTOR SHALL ADJUST TO FINAL GRADE ALL MANHOLES, VALVE AND MONUMENT COVERS WITHIN THE WORK AREA UNLESS NOTED OTHERWISE.
11. THE CONTRACTOR ASSUMES SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS AND SAFETY OF ALL PERSONS AND PROPERTY DURING THE COURSE OF CONSTRUCTION OF THE PROJECT AND SHALL HOLD HARMLESS, INDEMNIFY AND DEFEND THE OWNER AND THE ENGINEER FROM ANY AND ALL LIABILITY, CLAIMS, LOSSES OR DAMAGES ARISING FROM THE PERFORMANCE OF THE WORK DESCRIBED HEREIN EXCEPT THOSE ARISING FROM THE SOLE NEGLIGENCE OF ANY OF THE PREVIOUSLY MENTIONED PEOPLE OR ENTITIES. THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
12. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO PREVENT AIRBORNE DUST FROM BECOMING A NUISANCE TO NEIGHBORING PROPERTIES. THE CONTRACTOR SHALL CONFORM TO THE STANDARDS FOR DUST-CONTROL AS ESTABLISHED BY THE AIR QUALITY MAINTENANCE DISTRICT. DUST CONTROL MEASURES TO BE IMPLEMENTED INCLUDE BUT ARE NOT LIMITED TO THE PROVIDE EQUIPMENT AND MANPOWER REQUIRED FOR WATERING ALL EXPOSED OR DISTURBED EARTH.
    A) COVER STOCKPILES OF DEBRIS, SOIL, OR OTHER MATERIALS WHICH MAY CONTRIBUTE TO AIRBORNE DUST.
    B) KEEP CONSTRUCTION AREAS AND ADJACENT STREET FREE OF MUD AND DUST.
    C) LANDSCAPE, SEED, OR COVER PORTIONS OF THE SITE AS SOON AS CONSTRUCTION IS COMPLETE.
13. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO KEEP STREETS AND ROADS FREE FROM DIRT AND DEBRIS. SHOULD ANY DIRT OR DEBRIS BE DEPOSITED IN THE PUBLIC RIGHT-OF-WAY, THE CONTRACTOR SHALL REMOVE IT IMMEDIATELY.
14. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL, OFF-HAUL, AND PROPER DISPOSAL OF ALL ITEMS TO BE REMOVED INCLUDING BUT NOT LIMITED TO: DEBRIS FROM THE SITE, TREES, ROOT BALLS AND FENCING.
15. ALL CUT AND FILL SLOPES EXPOSED DURING CONSTRUCTION SHALL BE COVERED, SEEDED OR OTHERWISE TREATED TO CONTROL EROSION WITHIN 48 HOURS AFTER GRADING. CONTRACTOR SHALL RELEGATE SLOPES AND ALL DISTURBED AREAS THROUGH AN APPROVED PROCESS AS DETERMINED BY MONTEREY COUNTY PUBLIC WORKS DEPARTMENT. THIS MAY CONSIST OF EFFECTIVE PLANTING OF RYE GRASS, BARLEY OR SOME OTHER FAST GERMINATING SEED.
16. CONSTRUCTION ACTIVITY SHALL BE RESTRICTED TO THE HOURS OF 7:00 AM TO 5:00 PM.
17. CONSTRUCTION EQUIPMENT SHALL HAVE MUFFLERS IN GOOD CONDITION.
18. CONTRACTOR AND ALL SUBCONTRACTORS ARE RESPONSIBLE FOR COMPLIANCE WITH ANY CURRENTLY APPLICABLE SAFETY LAW OF ANY JURISDICTIONAL BODY, FOR INFORMATION REGARDING THIS PROVISION, THE CONTRACTOR IS DIRECTED TO CONTACT STATE OF CALIFORNIA DIVISION OF OCCUPATIONAL SAFETY AND HEALTH, SALINAS, CA. PHONE (831) 443-3050.
19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL BARRICADES, SAFETY DEVICES, AND TRAFFIC CONTROL WITHIN THE CONSTRUCTION AREA.
20. FOR ALL TRENCH EXCAVATIONS FIVE (5) FEET OR MORE IN DEPTH, THE CONTRACTOR SHALL OBTAIN A PERMIT FROM THE DIVISION OF OCCUPATIONAL SAFETY AND HEALTH, 21 WEST LAUREL DRIVE, SUITE 45, SALINAS CALIFORNIA 93906, PHONE (831) 443-3050, PRIOR TO ANY EXCAVATION. A COPY OF THIS PERMIT SHALL BE AVAILABLE AT THE CONSTRUCTION SITE AT ALL TIMES.
21. AT COMPLETION OF THE CONSTRUCTION, THE CONTRACTOR SHALL FURNISH REPRODUCIBLE AS-BUILT PLANS TO THE ENGINEER AND THE MONTEREY COUNTY PLANNING AND BUILDING DEPARTMENT. SAID PLANS SHALL SHOW ALL CHANGES AND ADDITIONS/DELETIONS IN RED ON THE REPRODUCIBLE PLANS.
22. PAVEMENT SECTION TO BE DETERMINED AS SHOWN ON THESE PLANS.
23. A SEPARATE PERMIT IS REQUIRED FOR THE CONSTRUCTION OF ALL RETAINING WALLS.
24. TREES WHICH ARE LOCATED CLOSE TO THE CONSTRUCTION SITE SHALL BE PROTECTED FROM INADVERTENT DAMAGE FROM CONSTRUCTION EQUIPMENT BY WRAPPING TRUNKS WITH PROTECTIVE MATERIALS, AVOIDING FILL OF ANY TYPE AGAINST THE BASE OF TRUNKS AND AVOIDING AN INCREASE IN SOIL DEPTH AT THE FEEDING ZONE OR DRIP LINE OF THE RETAINED TREES.

GRADING NOTES

1. REFER TO GENERAL NOTES AND DETAILS AS SHOWN ON THESE PLANS.
2. ALL GRADING SHALL CONFORM TO THE MONTEREY COUNTY GRADING ORDINANCE #2535, EROSION CONTROL ORDINANCE #2806, THE CALIFORNIA BUILDING CODE AND GEOTECHNICAL REPORT ENTITLED:
3. ALL GRADING AND COMPACTION SHALL BE DONE IN THE PRESENCE OF AND TESTED BY THE SOILS ENGINEER AND/OR SOILS TESTING CONSULTANT, WHO WILL PROVIDE THE ENGINEER WITH COPIES OF ALL TEST RESULTS. THE CONTRACTOR SHALL SUBMIT TESTS AND REPORT FROM SOILS ENGINEER TO THE MONTEREY COUNTY PLANNING AND BUILDING INSPECTION DEPARTMENT PRIOR TO SCHEDULING ANY INSPECTIONS.
4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SECURE THE REQUIRED PERMITS PRIOR TO THE COMMENCEMENT OF GRADING. RIGHT-OF-ENTRY, PERMISSION TO GRADE, AND ENCROACHMENT PERMIT(S) MAY BE REQUIRED PRIOR TO GRADING.
5. IT IS THE CONTRACTORS RESPONSIBILITY TO PREPARE THE GROUND SURFACE TO RECEIVE THE FILLS TO THE SATISFACTION OF THE SOIL ENGINEER AND TO PLACE, SPREAD, MIX, WATER, AND COMPACT THE FILL IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE SOILS ENGINEER. THE CONTRACTOR SHALL ALSO REMOVE ALL MATERIAL CONSIDERED UNSATISFACTORY BY THE SOILS ENGINEER.
6. WHERE UNSTABLE OR UNSUITABLE MATERIALS ARE ENCOUNTERED DURING SUBGRADE PREPARATION, THE AREA IN QUESTION SHALL BE OVER EXCAVATED AND REPLACED BY SELECT BACKFILL MATERIAL AS DIRECTED IN THE FIELD BY THE SOILS ENGINEER.
7. ALL CUT AND FILL SLOPE SHALL BE 2:1 OR FLATTER UNLESS OTHERWISE DIRECTED IN WRITING BY THE ENGINEER OR SOILS ENGINEER AND APPROVED BY THE MONTEREY COUNTY PLANNING AND BUILDING INSPECTION DEPARTMENT.
8. ALL CUT SLOPES SHALL BE ROUNDED TO MEET EXISTING GRADES AND BLEND WITH SURROUNDING TOPOGRAPHY. ALL GRADED SLOPES SHALL BE PLANTED WITH SUITABLE GROUND COVER AND LANDSCAPE MAINTENANCE WILL BE REQUIRED UNTIL GROUND COVER IS ESTABLISHED.
9. ELEVATION BENCHMARK: SEE SHEET C2.
10. CONTRACTOR SHALL USE CAUTION WHEN GRADING AROUND AND/OR OVER EXISTING UNDERGROUND UTILITIES.
11. CONTRACTOR SHALL CONDUCT ALL GRADING OPERATIONS IN SUCH A MANNER AS TO PRECLUDE WIND BLOWN DIRT, DUST AND RELATED DAMAGE TO NEIGHBORING PROPERTIES. SUFFICIENT WATERING TO CONTROL DUST IS REQUIRED AT ALL TIMES. CONTRACTOR SHALL ASSUME LIABILITY FOR CLAIMS RELATED TO WIND BLOWN MATERIAL. IF THE DUST CONTROL IS INADEQUATE AS DETERMINED BY THE MONTEREY COUNTY PLANNING AND BUILDING DEPARTMENT OR DESIGNATED REPRESENTATIVE, THE CONSTRUCTION WORK SHALL BE TERMINATED UNTIL CORRECTIVE MEASURES ARE TAKEN.
12. THE SOILS ENGINEER SHALL BE NOTIFIED AT LEAST TWO (2) DAYS IN ADVANCE OF COMMENCING WORK, INCLUDING SITE STRIPPING AND GRADING OPERATIONS. THIS WORK SHALL BE OBSERVED AND TESTED BY THE SOILS ENGINEER.
13. STRIPINGS TO BE USED AS TOPSOIL SHALL BE STOCKPILED IN APPROVED AREAS FOR FUTURE USE IN LANDSCAPED AREAS.
14. STOP WORK WITHIN 50 METERS (165 FT) OF UNCOVERED RESOURCE AND CONTACT MONTEREY COUNTY HCD-PLANNING AND A QUALIFIED ARCHAEOLOGIST IMMEDIATELY IF CULTURAL, ARCHAEOLOGICAL, HISTORICAL OR PALEONTOLOGICAL RESOURCES ARE UNCOVERED. WHEN CONTACTED, THE PROJECT PLANNER AND THE ARCHAEOLOGIST SHALL IMMEDIATELY VISIT THE SITE TO DETERMINE THE EXTENT OF THE RESOURCES AND TO DEVELOP PROPER MITIGATION MEASURES REQUIRED FOR THE DISCOVERY.
15. ALL HAUL ROADS SHALL BE RETURNED TO ORIGINAL CONDITION AND RESEEDED WHEN GRADING IS COMPLETE. NO HAUL ROADS SHALL BE ALLOWED IN AREAS WHICH ARE NOT SHOWN TO BE GRADED WITHOUT PRIOR APPROVAL OF THE ENGINEER. RESTORATION OF HAUL ROADS WILL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
16. EARTHWORK QUANTITIES ARE SHOWN ON SHEET C2.
17. ALL GRADES TO BE A MINIMUM OF 5% AWAY FROM FOUNDATIONS FOR 10 FEET UNLESS SPECIFIED OTHERWISE ON PLANS.
18. TREE REMOVAL SHALL INCLUDE REMOVAL OF TRUNKS, STUMPS, AND ROOTBALLS. THE REMAINING CAVITY SHALL BE CLEARED OF ALL ROOTS LARGER THAN " TO A DEPTH OF NOT LESS THAN 18" AND BACKFILLED WITH SUITABLE MATERIAL THEN COMPACTED TO CONFORM WITH THE EXISTING GROUND.
19. DURING WINTER OPERATIONS (BETWEEN OCTOBER 15 AND APRIL 15), THE FOLLOWING MEASURES MUST BE TAKEN:
    A) DISTURBED SURFACES NOT INVOLVED IN THE IMMEDIATE OPERATIONS MUST BE PROTECTED BY MULCHING AND/OR OTHER EFFECTIVE MEANS OF SOIL PROTECTION.
    B) ALL ROADS AND DRIVEWAYS SHALL HAVE DRAINAGE FACILITIES SUFFICIENT TO PREVENT EROSION ON OR ADJACENT TO THE ROADWAY OR THE DOWNHILL PROPERTIES.
    C) DRAINAGE CONTROL MEASURES SHALL BE MAINTAINED AND IN PLACE AT THE END OF EACH DAY AND CONTINUOUSLY CHECKED THROUGHOUT THE LIFE OF THE PROJECT DURING WINTER OPERATIONS. (MONTEREY COUNTY GRADING/EROSION ORD. 2806-16.12.090)
20. PAD ELEVATIONS SHALL BE CERTIFIED TO 0.1 FEET, PRIOR TO DIGGING ANY FOOTINGS OR SCHEDULING ANY INSPECTIONS.
21. GROUND SURFACE SHALL BE PREPARED TO RECEIVE FILL BY REMOVING VEGETATION, NON-COMPLYING FILL, TOPSOIL AND OTHER UNSUITABLE MATERIALS SCARIFYING TO PROVIDE A BOND WITH THE NEW FILL, AND WHERE SLOPES ARE STEEPER THAN 5 TO 1, AND THE HEIGHT IS GREATER THAN 5 FT, BY BENCHING INTO SOUND BEDROCK OR OTHER COMPETENT MATERIAL AS DETERMINED BY THE GEOTECHNICAL ENGINEER.
22. NO ORGANIC MATERIAL SHALL BE PERMITTED IN FILLS EXCEPT AS TOPSOIL USED FOR SURFACE PLANT GROWTH ONLY AND WHICH DOES NOT EXCEED 4" IN DEPTH. NO ROCK OVER 12" IN ITS MAXIMUM DIMENSION MAY BE USED IN A FILL.
23. PRIOR TO FINAL INSPECTION, THE GEOTECHNICAL CONSULTANT SHALL PROVIDE CERTIFICATION THAT ALL DEVELOPMENT HAS BEEN CONSTRUCTED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT.
24. ALL FILL SOILS SHALL BE COMPACTED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT.
25. OVER EXCAVATION SHOULD BE CONDUCTED BELOW THE FOUNDATIONS AND FLOOR SLABS IN ACCORDANCE WITH THE RECOMMENDATIONS IN THE GEOTECHNICAL REPORT.
26. A COPY OF ALL FIELD REPORTS/COMPACTION TESTS, AND FINAL GRADING REPORT SHALL BE SUBMITTED TO THE COUNTY AT SCHEDULED INSPECTIONS.

STATEMENT OF PURPOSE

THESE PLANS WERE PRODUCED TO PROVIDE FOR GRADING, DRAINAGE, AND EROSION CONTROL FOR AND DURING THE CONSTRUCTION OF A SINGLE FAMILY RESIDENCE AT 23 SAN CLEMENTE TRAIL. CARMEL, CA 93923



A / C1 GRADING PLAN

SCALE: 1/32"

FIRE DEPARTMENT NOTES

1. FIRE007-DRIVEWAYS SHALL NOT BE LESS THAN 12 FT WIDE UNOBSTRUCTED, WITH AN UNOBSTRUCTED VERTICAL CLEARANCE OF NOT LESS THAN 15 FT. THE GRADE FOR ALL DRIVEWAYS SHALL NOT EXCEED 15%, WHERE THE GRADE EXCEEDS 8 PERCENT, A MINIMUM STRUCTURAL ROADWAY SURFACE OF 0.17 FT OF AC ON 0.34 FT OF AB SHALL BE REQUIRED. THE DRIVEWAY SURFACE SHALL BE CAPABLE OF SUPPORTING THE IMPOSED LOAD OF FIRE APPARATUS (22 TONS), AND BE ACCESSIBLE BY CONVENTIONAL-DRIVE VEHICLES, INCLUDING SEDANS. FOR DRIVEWAYS WITH TURNS 90' AND LESS, THE MINIMUM HORIZONTAL INSIDE RADIUS CURVATURE SHALL BE 25 FT. FOR DRIVEWAYS WITH TURNS GREATER THAN 90', THE MINIMUM HORIZONTAL INSIDE RADIUS CURVATURE SHALL BE 28 FT. FOR ALL DRIVEWAY TURNS, AN ADDITIONAL SURFACE OF 4 FT SHALL BE ADDED. TURNAROUNDS SHALL BE REQUIRED ON DRIVEWAYS IN EXCESS OF 150 FT OF SURFACE LENGTH AND SHALL BE LOCATED WITHIN 50 FT OF THE PRIMARY BUILDING. THE MINIMUM TURNING RADIUS FOR A TURNAROUND SHALL BE 40 FT FROM THE CENTER LINE OF THE DRIVEWAY. IF A HAMMERHEAD T IS USED, THE TOP OF THE T SHALL BE A MINIMUM OF 60 FT IN LENGTH, OR AS APPROVED BY THE FIRE CHIEF.
2. FIRE008-ALL GATES PROVIDING ACCESS FROM A ROAD TO A DRIVEWAY SHALL BE LOCATED AT LEAST 30 FT FROM THE ROADWAY AND SHALL OPEN TO ALLOW A VEHICLE TO STOP WITHOUT OBSTRUCTING TRAFFIC ON THE ROAD. GATE ENTRANCES SHALL BE AT LEAST THE WIDTH OF THE TRAFFIC LANE BUT IN NO CASE LESS THAN 12 FT WIDE. WHERE A ONE WAY ROAD WITH A SINGLE TRAFFIC LANE PROVIDES ACCESS TO A GATED ENTRANCE, A 40 FT TURNING RADIUS SHALL BE USED. WHERE GATES ARE TO BE LOCKED, THE INSTALLATION OF A KEY BOX OR OTHER ACCEPTABLE MEANS FOR IMMEDIATE ACCESS BY EMERGENCY EQUIPMENT MAY BE REQUIRED.
3. FIRE011-ALL BUILDINGS SHALL BE ISSUED AN ADDRESS IN ACCORDANCE WITH MONTEREY COUNTY ORDINANCE NO1241. EACH OCCUPANCY, EXCEPT ACCESSORY BUILDINGS, SHALL HAVE ITS OWN PERMANENTLY POSTED ADDRESS. WHEN MULTIPLE OCCUPANCIES EXIST WITHIN A SINGLE BUILDING, EACH INDIVIDUAL OCCUPANCY SHALL BE SEPARATELY IDENTIFIED BY ITS OWN ADDRESS. LETTERS, NUMBERS, AND SYMBOLS FOR ADDRESSES SHALL BE A MINIMUM OF 4 IN HEIGHT, 1/2 IN STROKE, CONTRASTING WITH THE BACKGROUND COLOR OF THE SIGN, AND SHALL BE ARABIC. THE SIGN AND NUMBERS SHALL BE REFLECTIVE AND MADE OF A NONCOMBUSTIBLE MATERIAL. ADDRESS SIGNS SHALL BE PLACED AT EACH DRIVEWAY ENTRANCE AND AT EACH DRIVEWAY SPLIT. ADDRESS SIGNS SHALL BE VISIBLE AND LEGIBLE FROM BOTH DIRECTIONS OF TRAVEL ALONG THE ROAD. IN ALL CASES, THE ADDRESS SHALL BE POSTED AT THE BEGINNING OF CONSTRUCTION AND SHALL BE MAINTAINED THEREAFTER. ADDRESS SIGNS ALONG ONE-WAY ROADS SHALL BE VISIBLE FROM BOTH DIRECTIONS OF TRAVEL. WHERE MULTIPLE ADDRESSES ARE REQUIRED AT A SINGLE DRIVEWAY, THEY SHALL BE MOUNTED ON A SINGLE SIGN. WHERE A ROADWAY PROVIDES ACCESS SOLELY TO A SINGLE COMMERCIAL OCCUPANCY, THE ADDRESS SIGN SHALL BE PLACED AT THE NEAREST ROAD INTERSECTION PROVIDING ACCESS TO THAT SITE. PERMANENT ADDRESS NUMBERS SHALL BE POSTED PRIOR TO REQUESTING FINAL CLEARANCE.
4. FIRE020-REMOVE COMBUSTIBLE VEGETATION FROM WITHIN A MINIMUM OF 100 FT OF STRUCTURES. LIMB TREES 6 FT UP FROM GROUND. REMOVE LIMBS WITHIN 10 FT OF CHIMNEYS. ADDITIONAL FIRE PROTECTION OR FIREBREAKS APPROVED BY THE REVIEWING AUTHORITY MAYBE REQUIRED TO PROVIDE REASONABLE FIRE SAFETY. ENVIRONMENTALLY SENSITIVE AREAS MAYBE REQUIRED ALTERNATIVE FIRE PROTECTION, TO BE DETERMINED BY REVIEWING AUTHORITY AND THE DIRECTOR OF PLANNING AND BUILDING INSPECTION.
5. FIRE022-FIRE PROTECTION EQUIPMENT & SYSTEMS-FIRE SPRINKLER SYSTEM-(HAZARDOUS CONDITIONS). THE BUILDING(S) AND ATTACHED GARAGE(S) SHALL BE FULLY PROTECTED WITH AUTOMATIC FIRE SPRINKLER SYSTEM(S). INSTALLATION SHALL BE IN ACCORDANCE WITH THE APPLICABLE NFPA STANDARD. A MINIMUM OF FOUR (4) SETS OF PLANS FOR FIRE SPRINKLER SYSTEMS MUST BE SUBMITTED BY A CALIFORNIA LICENSED C-16 CONTRACTOR AND APPROVED PRIOR TO INSTALLATION. THIS REQUIREMENT IS NOT INTENDED TO DELAY ISSUANCE OF A BUILDING PERMIT. A ROUGH SPRINKLER INSPECTION MUST BE SCHEDULED BY THE INSTALLING CONTRACTOR AND COMPLETED PRIOR TO REQUESTING A FRAMING INSPECTION. DUE TO SUBSTANDARD ACCESS, OR OTHER MITIGATING FACTORS, SMALL BATHROOM(S) AND OPEN ATTACHED PORCHES, CARPORTS, AND SIMILAR STRUCTURES SHALL BE PROTECTED WITH FIRE SPRINKLERS.

GEOTECHNICAL INSPECTION WITH TIMING OF INSPECTION

DESCRIPTION OF THE REQUIRED INSPECTION:	WHEN INSPECTION IS TO BE COMPLETED:	WHO WILL CONDUCT THE INSPECTION:	INSPECTOR NAME:	COMPLETION DATE:
INSPECT AND TEST KEYWAY/SUBEXCAVATION/OVEREXCAVATION:	1) PRIOR TO BACKFILLING	GEOTECHNICAL ENGINEER		
INSPECT AND TEST KEYWAY/SUBEXCAVATION/OVEREXCAVATION:	2) DURING BACKFILL PLACEMENT - ONGOING	GEOTECHNICAL ENGINEER		
INSPECT AND TEST BUILDING PAD SUBGRADE:	1) PRIOR TO EXCAVATION FOOTINGS OR PLACEMENT OF SLAB-ON-GRADE MATERIALS	GEOTECHNICAL ENGINEER		
INSPECT SLAB-ON-GRADE INSTALLATION:	1) PRIOR TO CONCRETE PLACEMENT	GEOTECHNICAL ENGINEER		
INSPECT FOUNDATION AND/OR RETAINING WALL FOOTING EXCAVATIONS:	1) PRIOR TO REINFORCEMENT PLACEMENT	GEOTECHNICAL ENGINEER		
INSPECT AND TEST RETAINING WALL BACKFILL:	1) DURING BACKFILL PLACEMENT - ONGOING	GEOTECHNICAL ENGINEER		
INSPECT AND TEST DRIVEWAY FILL, SUBGRADE, AND BASEROCK PLACEMENT:	1) DURING FILL PLACEMENT	GEOTECHNICAL ENGINEER		
INSPECT AND TEST DRIVEWAY FILL, SUBGRADE, AND BASEROCK PLACEMENT:	2) SUBGRADE, PRIOR TO BASEROCK PLACEMENT	GEOTECHNICAL ENGINEER		
INSPECT AND TEST DRIVEWAY FILL, SUBGRADE, AND BASEROCK PLACEMENT:	3) BASEROCK PRIOR TO PAVEMENT APPLICATION	GEOTECHNICAL ENGINEER		
INSPECT AND TEST DRAINAGE INSTALLATION:	1) AFTER PIPE PLACEMENT, PRIOR TO BACKFILL PLACEMENT	GEOTECHNICAL ENGINEER		
INSPECT AND TEST DRAINAGE INSTALLATION:	2) DURING BACKFILL PLACEMENT - ONGOING	GEOTECHNICAL ENGINEER		

ABBREVIATIONS

AB	AGGREGATE BASE
AC	ASPHALT CONCRETE
AD	AREA DRAIN
BS	BOTTOM OF STEP
CB	CATCH BASIN
CL	CENTERLINE
DIA	DIAMETER
DWY	DRIVEWAY
E	ELECTRICAL SERVICE
(E)	EXISTING
EC	END CURVE
ELEV	ELEVATION
EP	EDGE OF PAVEMENT
FC	FACE OF CURB
FF	FINISHED FLOOR ELEVATION
FL	FLOW LINE
G	GAS SERVICE
HDPE	HIGH DENSITY POLYETHYLENE
JT	JOINT UTILITY TRENCH
K	CURVE COEFFICIENT
LF	LINEAR FEET
MIN	MINIMUM
N/A	NOT APPLICABLE
(N)	NEW
NTS	NOT TO SCALE
PG&E	PACIFIC GAS & ELECTRIC
PVC	POLYVINYL CHLORIDE
SD	STORM DRAIN
S	SLOPE
SS	SANITARY SEWER
SSCO	SEWER CLEAN-OUT
FM	FORCE MAIN
TC	TOP OF CURB
TD	TRENCH DRAIN
TS	TOP OF STEP
TW	TOP OF WALL
TYP	TYPICAL
W	WATER

LEGEND

	(E) CURB
	(E) EDGE OF PAVEMENT
	(E) EDGE OF DIRT ACCESS
400	(E) MAJOR CONTOUR
	(E) MINOR CONTOUR
	PROPERTY LINE
	HOMELAND BOUNDARY
	EASEMENT
JT	(E) JOINT UTILITY TRENCH
SD	(E) STORM DRAIN
SS	(E) SANITARY SEWER
W	(E) WATER LINE
	(N) EDGE OF PAVEMENT
JT	(N) JOINT UTILITY TRENCH
SD	(N) STORM DRAIN
SS	(N) SANITARY SEWER
FD	(N) FOUNDATION DRAIN
W	(N) WATER LINE
	(N) WALL
	(N) SAWCUT LINE
400	DESIGN MAJOR CONTOUR
	DESIGN MINOR CONTOUR
	(N) BUILDING FOOTPRINT

SHEET INDEX

C1	GRADING PLAN TITLE SHEET
C2	OVERALL GRADING PLAN
C3	SITE GRADING PLAN
C4	SITE CROSS SECTIONS
C5	STORM DRAIN & UTILITY PLAN
C5A	DRAIN PLAN AND SECTION
C6	SANITARY SEWER PLAN
C6A	SITE UTILITY PLAN
C7	CONSTRUCTION DETAILS
C7A	SANITARY SEWER DETAILS
C8	EROSION CONTROL PLAN
C9	CONSTRUCTION MANAGEMENT PLAN

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JOB NUMBER:
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GRADING PLAN
TITLE SHEET

REGISTERED PROFESSIONAL ENGINEER · SAMUEL MESSIAH · No. C 055887 Exp. · CIVIL · STATE OF CALIFORNIA

MESSIAH LOT: 207 RESIDENCE
23 SAN CLEMENTE TRL.
CARMEL, CA
A.P.N. 239-131-007

C1

CURVE TABLE					
CURVE #	CENTER X	CENTER Y	RADIUS	START ANGLE	END ANGLE
C1	432'-7 7/64"	376'-3 13/64"	80'-0"	84.3600	111.3500
C2	443'-7 3/32"	487'-8 45/64"	32'-0"	264.3600	357.1600
C3	423'-7 25/64"	488'-8 37/64"	52'-0"	357.1600	23.2500
C4	443'-7 3/32"	487'-8 45/64"	20'-0"	201.3500	357.1600
C5	423'-7 25/64"	488'-8 37/64"	40'-0"	357.1600	23.2500
C6	357'-5 41/64"	574'-11 3/4"	83'-0"	22.2000	109.2500
C7	298'-1 27/64"	744'-10 15/16"	97'-0"	275.9200	289.2500
C8	313'-10 21/32"	592'-8 23/32"	56'-0"	95.9200	109.0900
C9	287'-10 47/64"	558'-4"	80'-0"	109.0900	128.5700
C10	228'-7 59/64"	632'-7 17/64"	15'-0"	225.8600	308.5700
C11	217'-1 3/4"	639'-7 3/16"	12'-0"	173.8000	225.8600
C12	198'-4 25/64"	620'-2 25/64"	12'-0"	45.8600	109.0800
C13	202'-10 29/32"	611'-7 21/64"	15'-0"	304.4900	45.8600
C14	191'-6 63/64"	561'-5 39/64"	25'-0"	114.3400	183.9300
C15	220'-6 63/64"	547'-10 41/64"	50'-0"	183.9300	202.6100
C16	135'-8 49/64"	491'-6 15/64"	50'-0"	322.1400	22.6100
C17	206'-9 31/64"	436'-3 29/64"	40'-0"	142.1400	185.2900
C18	191'-6 63/64"	561'-5 39/64"	22'-0"	114.3400	183.9300
C19	204'-9 3/4"	563'-0 3/4"	26'-0"	46.5300	114.3400
C20	313'-10 21/32"	592'-8 23/32"	53'-0"	95.9200	164.5500
C21	189'-8 15/64"	393'-3 1/2"	40'-0"	93.2200	108.1900
C22	145'-0 1/64"	419'-10 41/64"	12'-0"	329.2400	55.0000
C23	189'-8 15/64"	393'-3 1/2"	40'-0"	149.2400	208.1400
C24	189'-8 15/64"	393'-3 1/2"	28'-0"	93.2200	208.1400
C25	173'-5 27/64"	442'-8 5/16"	12'-0"	235.0000	288.1900
C26	356'-7 3/32"	560'-8 23/64"	53'-0"	63.9200	143.6200
C27	475'-7 7/8"	537'-3 27/32"	14'-0"	128.5100	203.2500

NOTE:
ALL TREES TO BE PROTECTED IN PLACE UNLESS SHOWN OTHERWISE. SEE LANDSCAPE ARCHITECTURAL TREE PROTECTION PLAN AND ARBORIST REPORT FOR TREE PROTECTION AND ADDITIONAL INFORMATION

TREE TO BE REMOVED

EARTHWORK
CUT=289 CY, FILL=263 CY
NET=26 CY CUT

EARTHWORK QUANTITIES AS CALCULATED BY THE ENGINEER ARE TO SUB GRADE IN PAVED AREAS AND ARE ESTIMATES ONLY. AN 11" SECTION WAS ASSUMED FOR THE GARAGE SLAB, A 36" CRAWL SPACE W/ 3" RAT SLAB WAS ASSUMED FOR THE HOUSE, A 12" SECTION WAS ASSUMED FOR THE AUTO COURT, AN 8" SECTION WAS ASSUMED FOR THE PAVER FLAT WORK, AND A 6" SECTION WAS ASSUMED FOR GRAVEL FLAT WORK. A 15% COMPACTION RATIO WAS ASSUMED FOR FILL LOCATIONS SPOILS FROM UTILITY TRENCHING AND RETAINING WALL BACKFILL WERE NOT INCLUDED IN THESE CALCULATIONS IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THESE QUANTITIES BY PERFORMING HIS OWN CALCULATIONS.

20 0 20 40
SCALE: 1" = 20'

A
C2
OVERALL GRADING PLAN
SCALE: 1/16"

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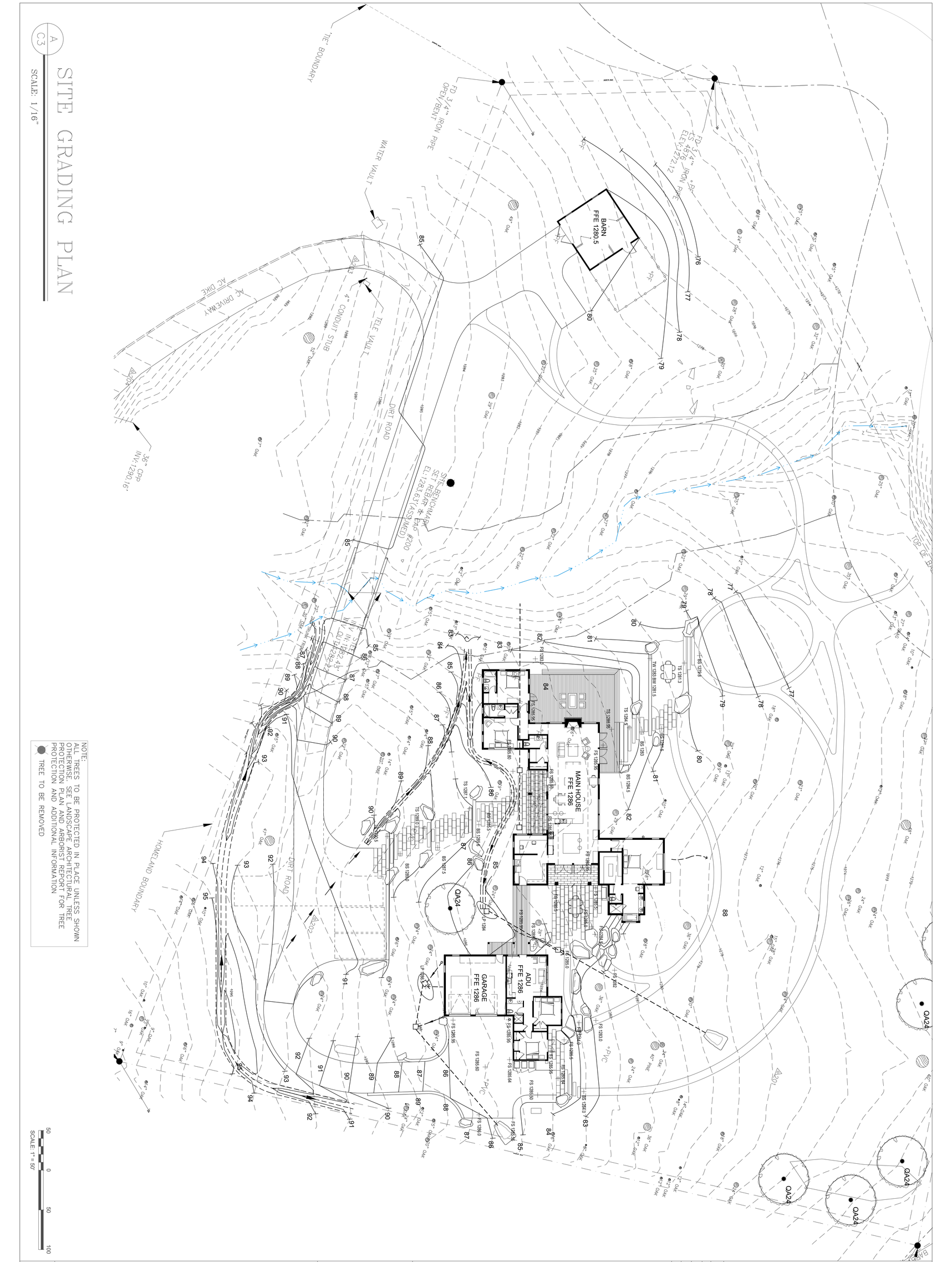
OVERALL GRADING PLAN

REGISTERED PROFESSIONAL ENGINEER * SAMUEL MESSIAH * No. C 055887 Exp. ____ CIVIL * STATE OF CALIFORNIA

MESSIAH LOT: 207 RESIDENCE
23 SAN CLEMENTE TRL.
CARMEL, CA
A.P.N. 239-131-007

C2



C3

MESSIAH LOT: 207 RESIDENCE
23 SAN CLEMENTE TRL.
CARMEL, CA
A.P.N. 239-131-007

REGISTERED PROFESSIONAL ENGINEER
SAMIR MESSIAH
No. C 055887
Exp. _____
CIVIL
STATE OF CALIFORNIA

SITE GRADING PLAN

DATE: 06.11.2024
SCALE:
DRAWN: 23.14
JOB NUMBER:
REVISION

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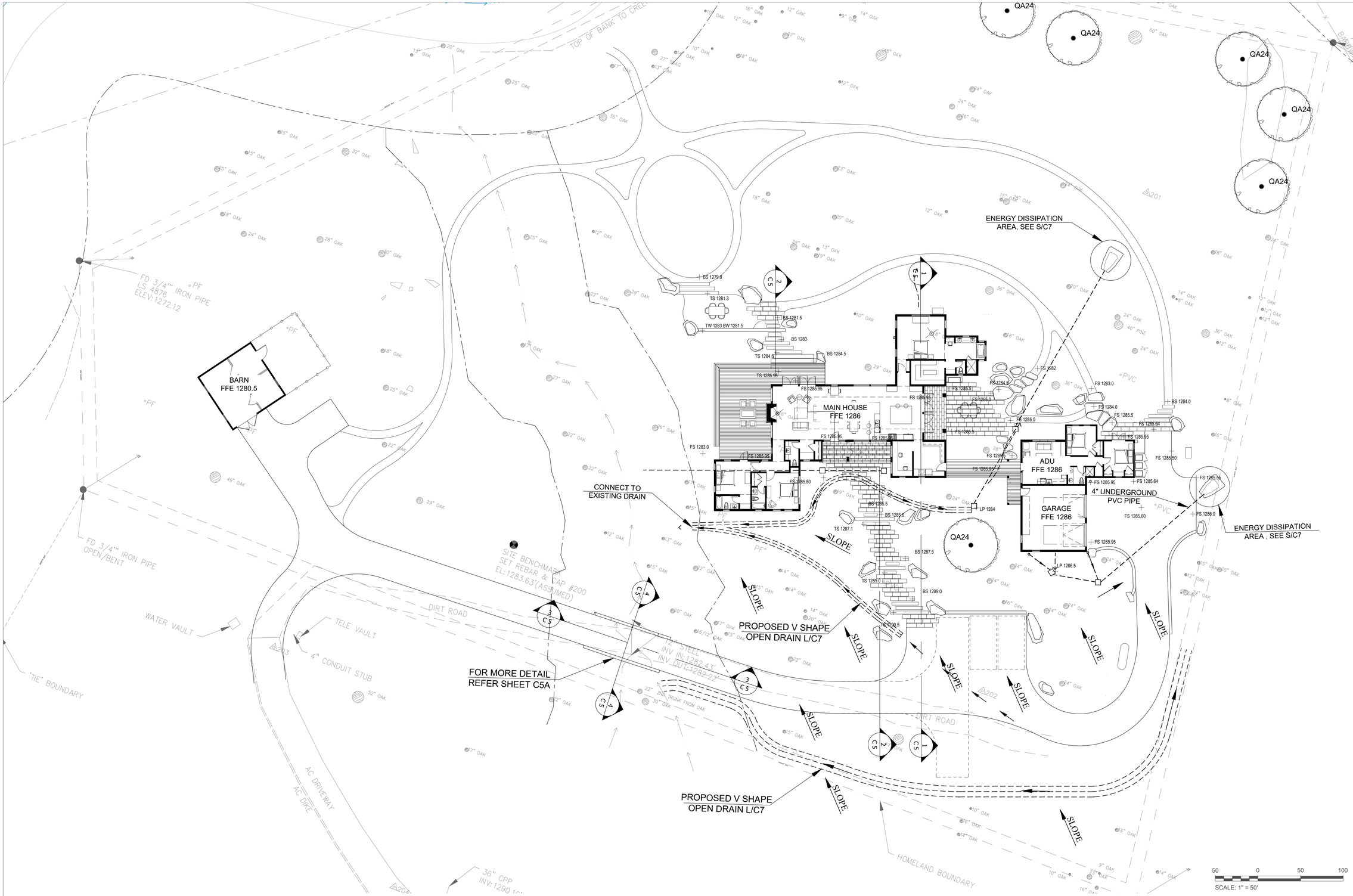

DRAINAGE PLAN

A / C4

SCALE: 1/16"

EARTHWORK QUANTITIES AS CALCULATED BY THE ENGINEER ARE TO SUB GRADE IN PAVED AREAS AND ARE ESTIMATES ONLY. AN 11" SECTION WAS ASSUMED FOR THE GARAGE SLAB, A 36" CRAWL SPACE W/ 3" RAT SLAB WAS ASSUMED FOR THE HOUSE, A 12" SECTION WAS ASSUMED FOR THE AUTO COURT, AN 8" SECTION WAS ASSUMED FOR THE PAVER FLAT WORK, AND A 6" SECTION WAS ASSUMED FOR GRAVEL FLAT WORK A 15% COMPACTION RATIO WAS ASSUMED FOR FILL LOCATIONS SPOILS FROM UTILITY TRENCHING AND RETAINING WALL BACKFILL WERE NOT INCLUDED IN THESE CALCULATIONS IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THESE QUANTITIES BY PERFORMING HIS OWN CALCULATIONS.

NOTE: ALL TREES TO BE PROTECTED IN PLACE UNLESS SHOWN OTHERWISE. SEE LANDSCAPE ARCHITECTURAL TREE PROTECTION PLAN AND ARBORIST REPORT FOR TREE PROTECTION AND ADDITIONAL INFORMATION

TREE TO BE REMOVED

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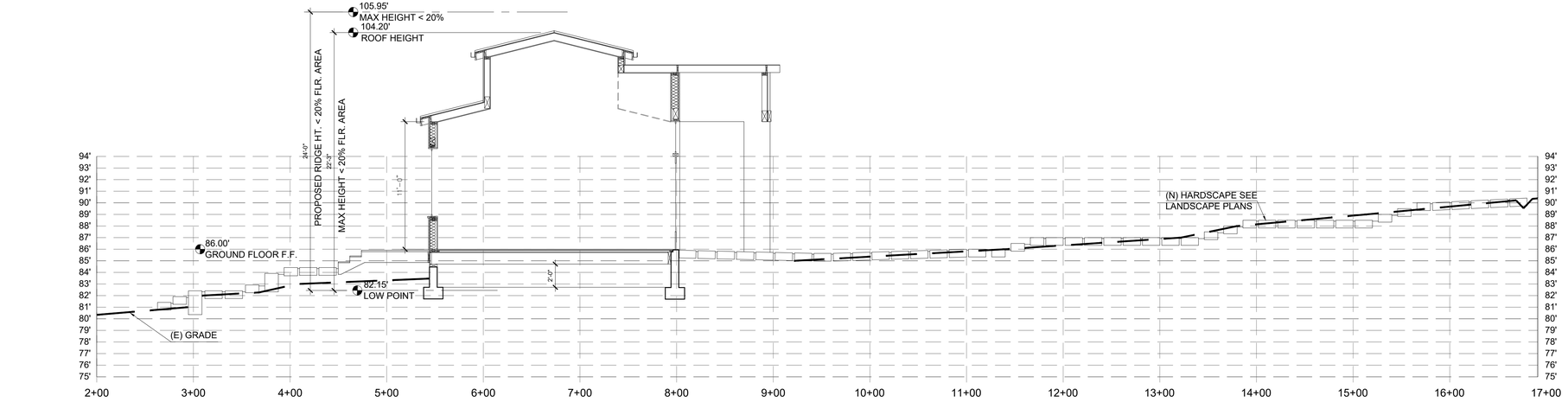
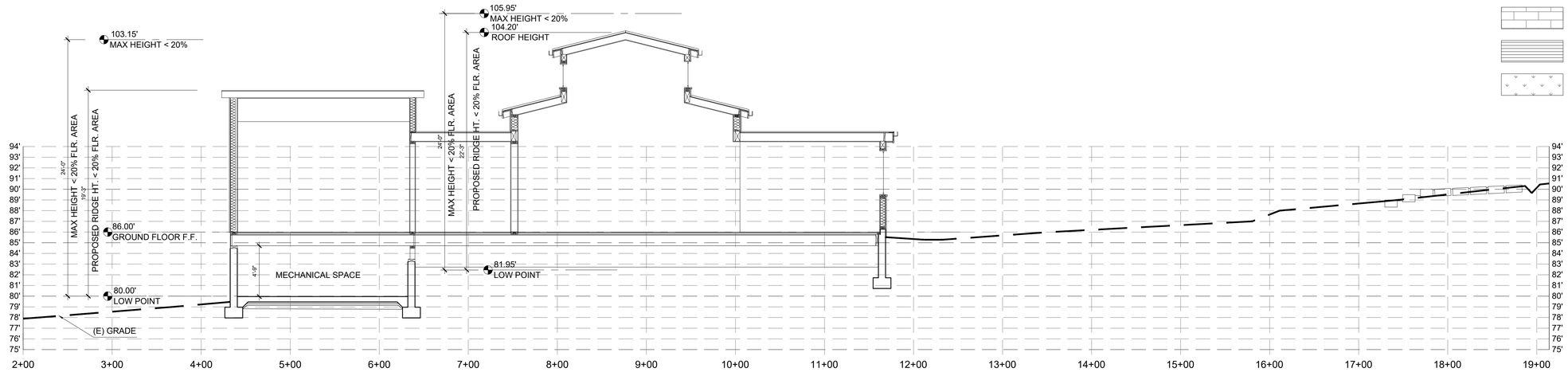
MESSIAH LOT: 207 RESIDENCE
23 SAN CLEMENTE TRL.
CARMEL, CA
A.P.N. 239-131-007

C4



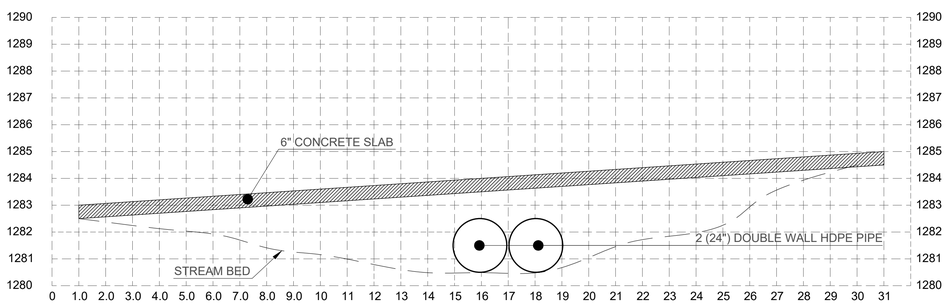
1 C5 SITE SECTION 1-1

SCALE: 3/16"



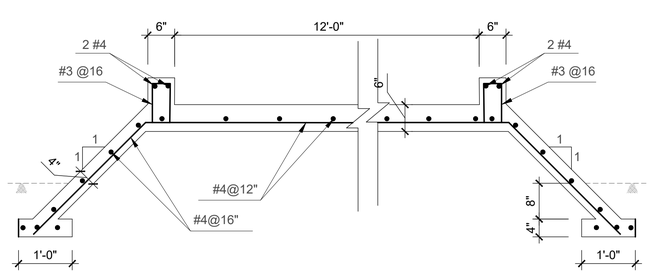
2 C5 SITE SECTION 2-2

SCALE: 3/16"



3 C5 ROAD AND DRAIN SECTION

SCALE: 3/8"



4 C5 CROSS SECTION

SCALE: 3/4"

ABBREVIATIONS

AD	AREA DRAIN
BS	BOTTOM OF STEP
CB	CATCH BASIN
E	EXISTING
EG	EXISTING GRADE
FF	FINISHED FLOOR
FG	FINISHED GRADE
FL	FLOW LINE
FP	FINISHED PAVEMENT
LPT	LOW POINT
ME	MATCH EXISTING
N	NEW
TC	TOP OF CURB
TS	TOP OF STEP
TW	TOP OF WALL

10 0 10 20

SCALE: 1" = 10'

LEGEND

- (N) BUILDING, SEE ARCHITECTURAL PLANS
- (N) AC PAVEMENT DRIVEWAY. SEE DETAIL A/C7
- (N) GRAVEL PAVEMENT AUTO COURT/SITE WORK SEE DETAIL B/C7 & D/C7
- (N) STONE OR CONCRETE PAVER ENTRIES. SEE DETAIL C/C7
- (N) DECK, SEE LANDSCAPE ARCHITECTURAL PLANS
- (N) MEADOW/LAWN, SEE LANDSCAPE ARCHITECTURAL PLANS

KEYNOTES:

1 BEGIN CONSTRUCTION AT EDGE OF (E) AC DRIVEWAY. CONTRACTOR TO CONFORM (N) PAVING TO (E) PAVEMENT GRADE.
2 (N) FLUSH CONCRETE CURB AT EDGE OF GRAVEL PAVEMENT. SEE DETAIL E/C7
3 (N) 4" HIGH CONCRETE CURB. SEE DETAIL F/C7
4 (N) SITE WALL. SEE LANDSCAPE ARCHITECTURAL PLANS FOR DETAILS
5 (N) SITE ENTRY WALL & GATE. SEE ARCHITECTURAL PLANS FOR DETAILS
6 (N) 17"X13" CORRUGATED STEEL CULVERT AT ENTRY WALK SEE SECTION DETAIL F/C4
7 (N) 17"X13" CORRUGATED STEEL CULVERT AT AC DRIVEWAY SEE SECTION DETAIL E/C4
8 (N) 48" WIDE X 12" DEEP ROCK LINED DRAINAGE DITCH SEE DETAIL L/C7
9 (N) 36" WIDE X 6" DEEP ROCK LINED DRAINAGE DITCH SEE DETAIL M/C7
10 (N) WOOD BRIDGE. SEE LANDSCAPE ARCHITECTURAL PLANS FOR DETAILS

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SITE CROSS SECTIONS

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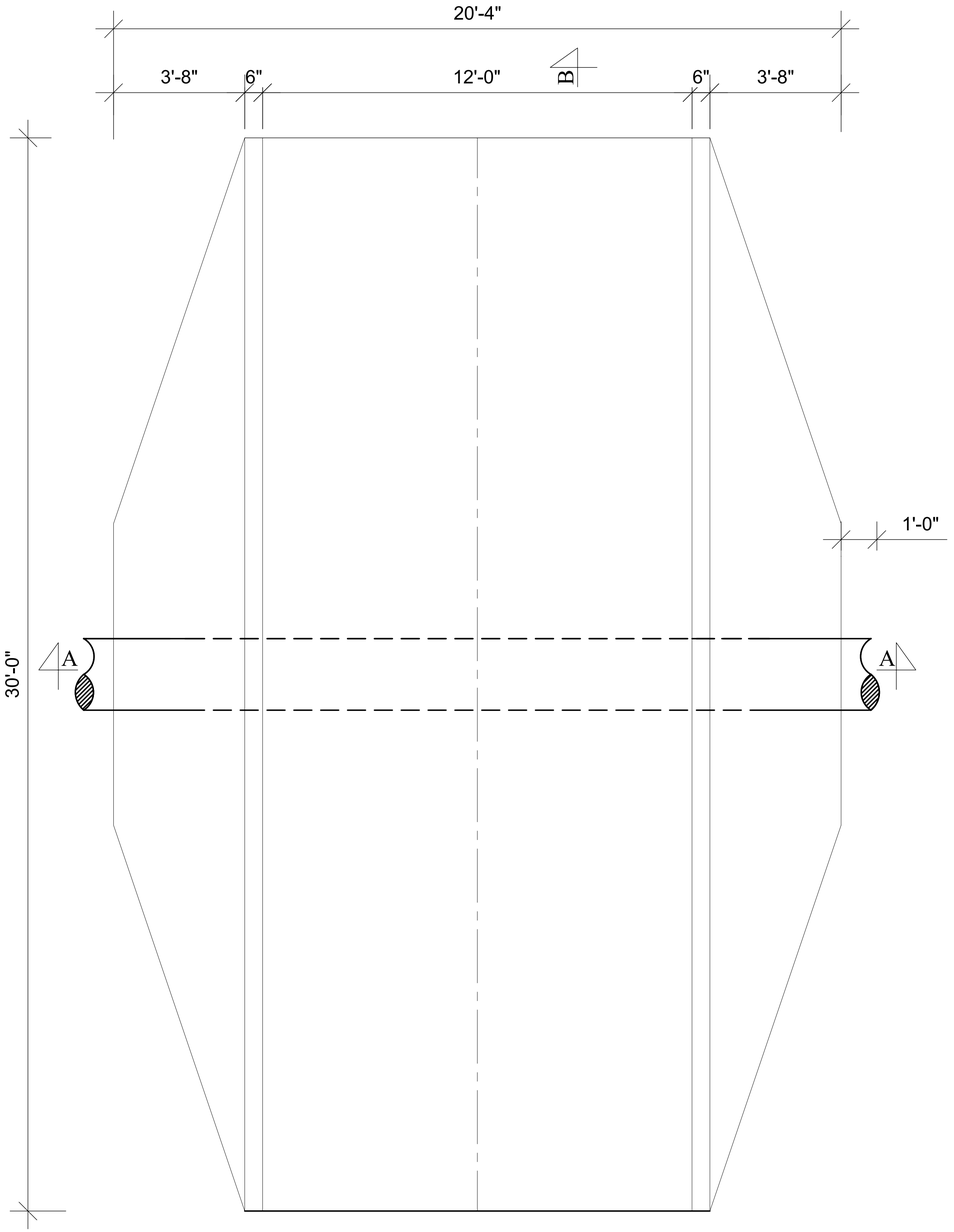
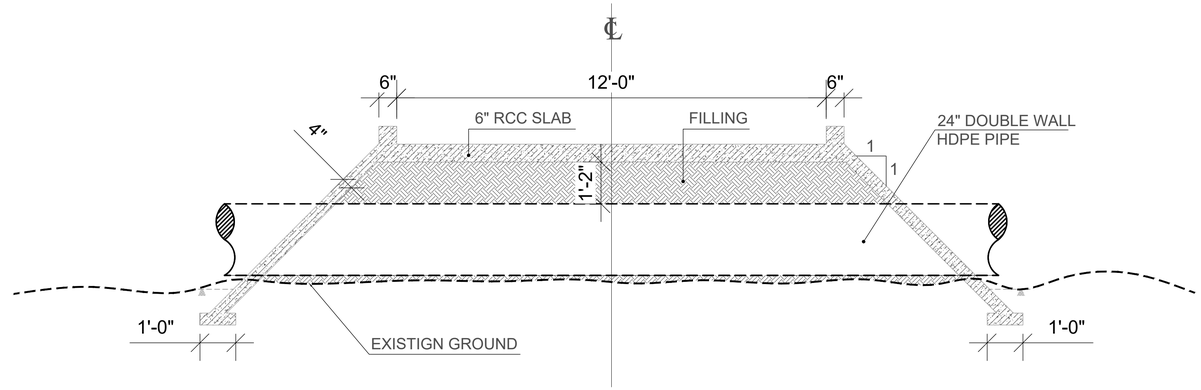
C5



1 C5A

CONCRETE SLAB AND DRAIN PLAN

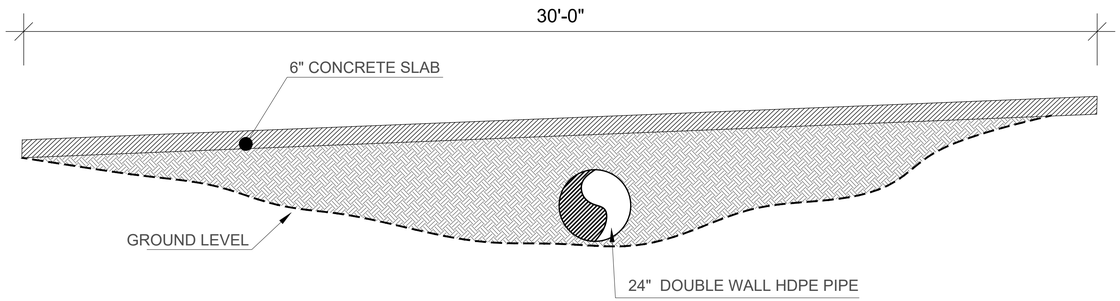
SCALE: 1/2"



A C5A

SECTION A-A PIPE UNDER DRIVEWAY

SCALE: 1/2"



B C5A

SECTION B-B PIPE UNDER DRIVEWAY

SCALE: 1/2"

ABBREVIATIONS

AD	AREA DRAIN
BS	BOTTOM OF STEP
CB	CATCH BASIN
E	EXISTING
EG	EXISTING GRADE
FF	FINISHED FLOOR
FG	FINISHED GRADE
FL	FLOW LINE
FP	FINISHED PAVEMENT
LPT	LOW POINT
ME	MATCH EXISTING
N	NEW
TC	TOP OF CURB
TS	TOP OF STEP
TW	TOP OF WALL

NOTE:
ALL TREES TO BE PROTECTED IN PLACE UNLESS SHOWN OTHERWISE. SEE LANDSCAPE ARCHITECTURAL TREE PROTECTION PLAN AND ARBORIST REPORT FOR TREE PROTECTION AND ADDITIONAL INFORMATION

TREE TO BE REMOVED

4 0 4 8

SCALE: 1/4" = 1'-0"

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DRAIN PLAN AND SECTION

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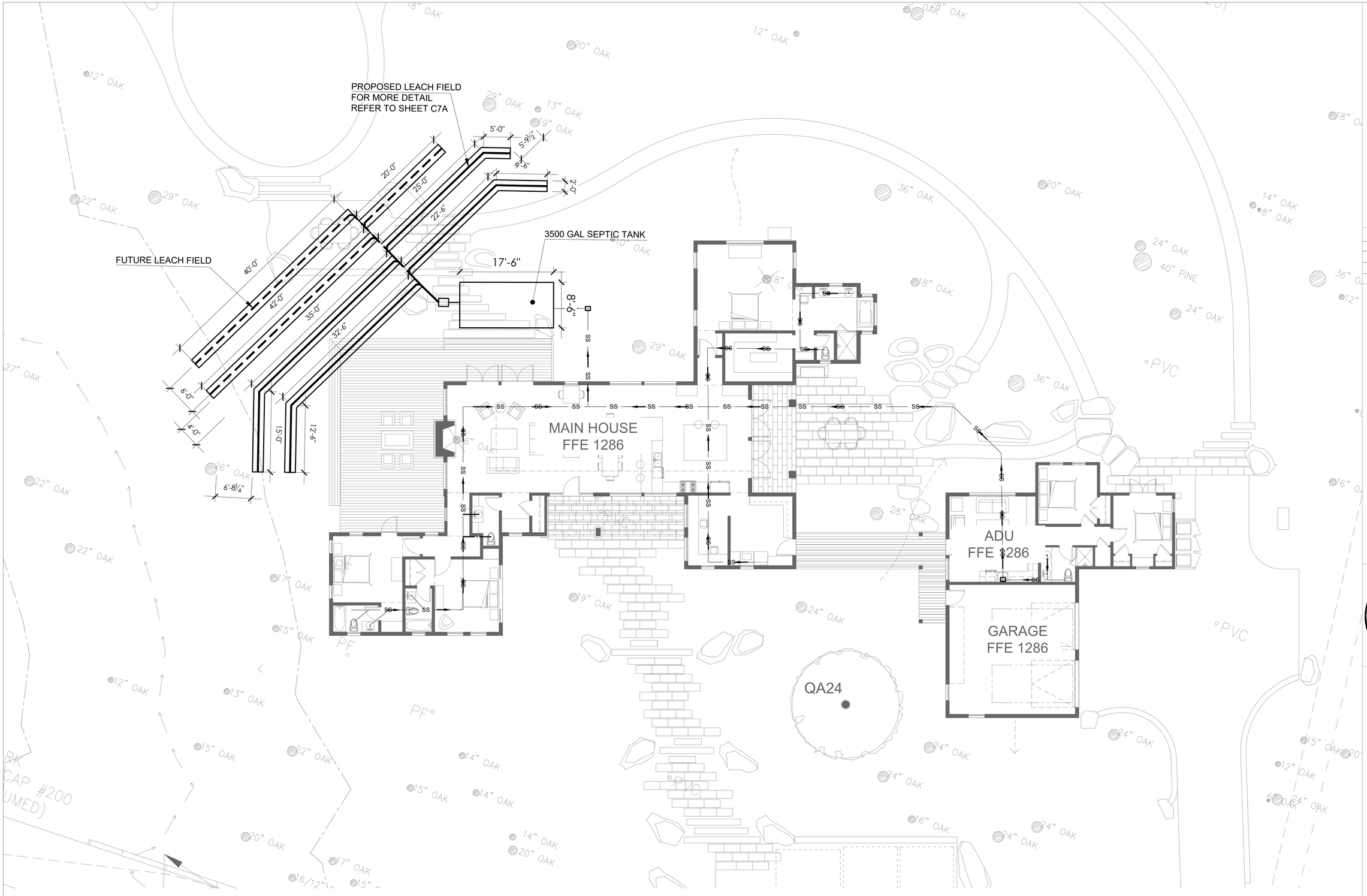
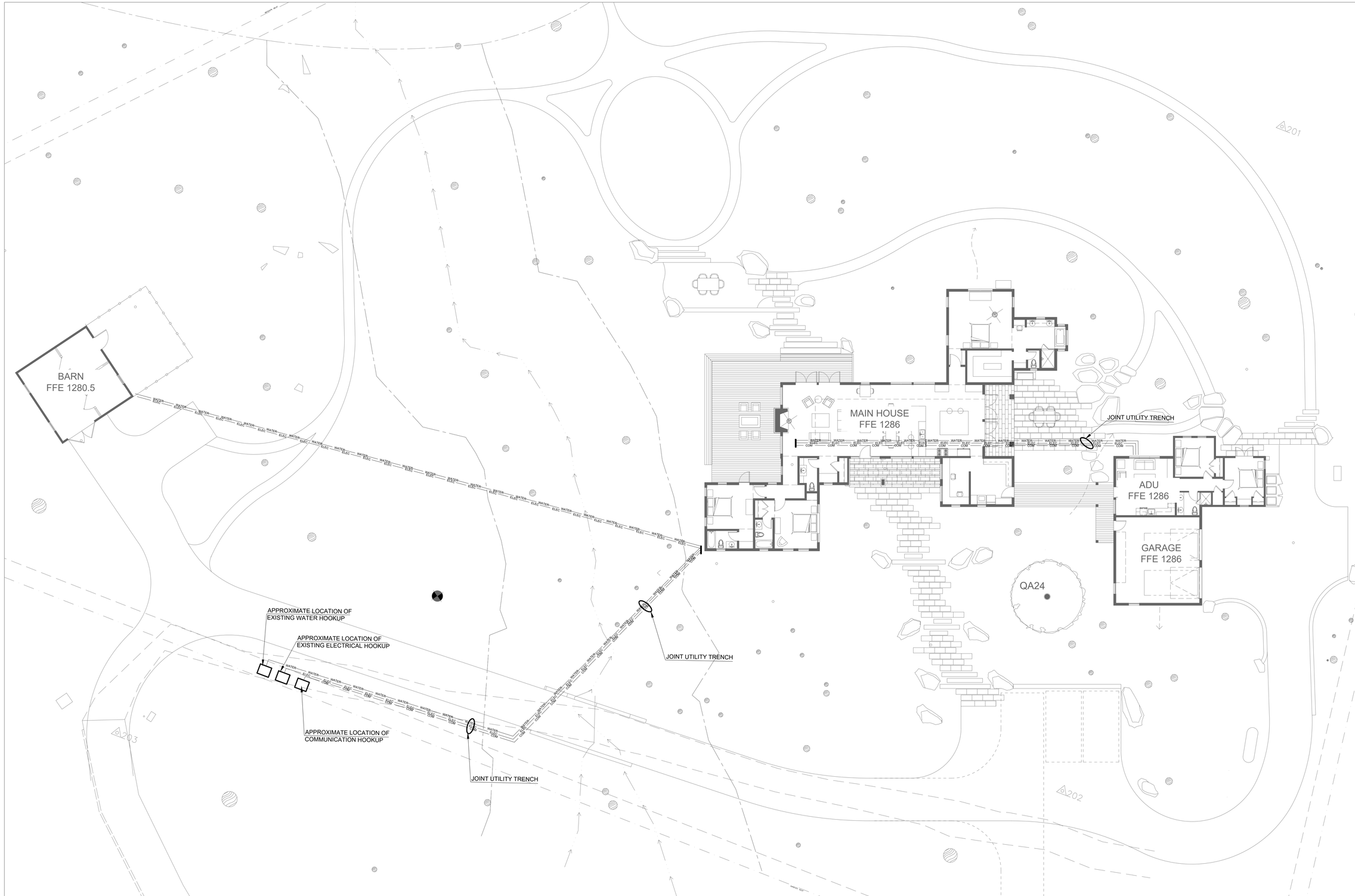
C5A


PROPOSED LEACH FIELD
FOR MORE DETAIL
REFER TO SHEET C7A
FUTURE LEACH FIELD
3500 GAL SEPTIC TANK
17'-6"
8'-6"
MAIN HOUSE
FFE 1286
ADU
FFE 1286
GARAGE
FFE 1286
QA24
SS
SS
SS



A
C6A

SITE UTILITY PLAN

SCALE: 3/36"

NOTE:
ALL TREES TO BE PROTECTED IN PLACE UNLESS SHOWN OTHERWISE. SEE LANDSCAPE ARCHITECTURAL TREE PROTECTION PLAN AND ARBORIST REPORT FOR TREE PROTECTION AND ADDITIONAL INFORMATION

TREE TO BE REMOVED

LEGEND

WATER LINE	WATER WATER
ELECTRICAL LINE	ELEC ELEC
COMMUNICATION LINE	COM COM

20 0 20 40
SCALE: 1" = 20'

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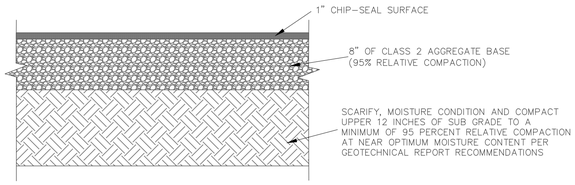
REGISTERED PROFESSIONAL ENGINEER
SAMUEL MESSIAH VINNOMOLA
No. C 055887
Exp. CIVIL
STATE OF CALIFORNIA

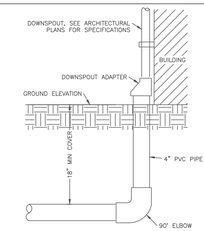
MESSIAH LOT: 207 RESIDENCE
23 SAN CLEMENTE TRL.
CARMEL, CA
A.P.N. 239-131-007

C6A



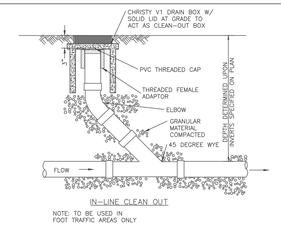
A C7 TYPICAL CHIP-SEAL SURFACE SECTION

1-1/2"



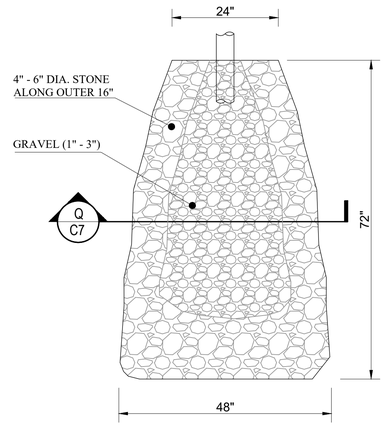
G C7 DOWNSPOUT CONNECTION

NTS



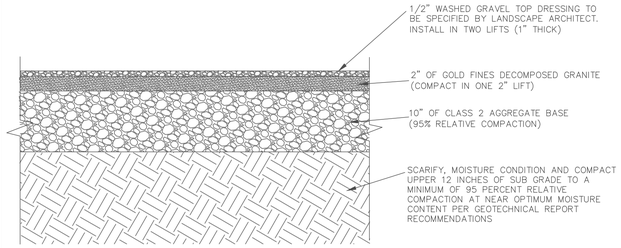
K C7 SANITARY SEWER CLEAN-OUT

NTS



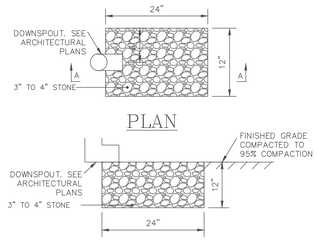
S C7 ENERGY DISSIPATION PLAN (4X6)FT

NTS



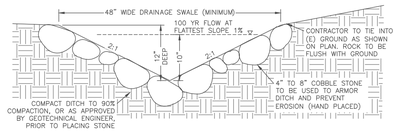
B C7 GRAVEL PAVEMENT AUTO COURT SECTION

1-1/2"



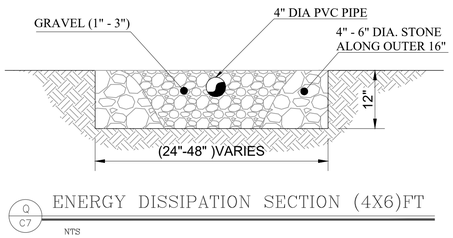
H C7 ROCK SPLASH PAD

NTS



L C7 48" WIDE ROCK LINED DITCH

NTS



Q C7 ENERGY DISSIPATION SECTION (4X6)FT

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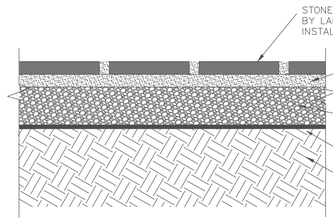
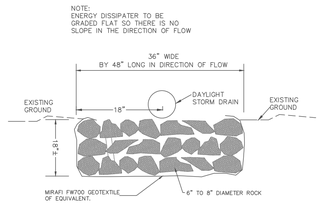


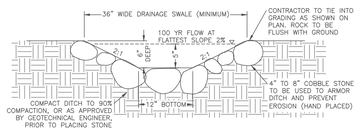
C C7 SAND SET PAVER SECTION

1-1/2"



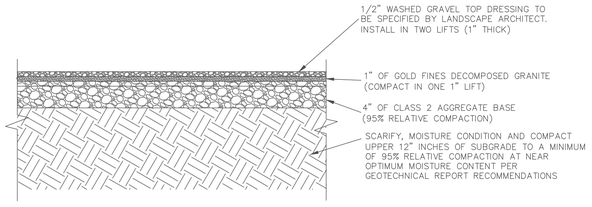
I C7 ROCK ENERGY DISSIPATER

NTS



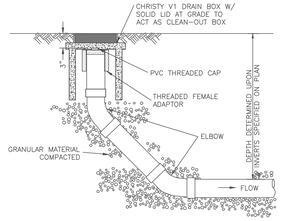
M C7 36" WIDE ROCK LINED DITCH

NTS



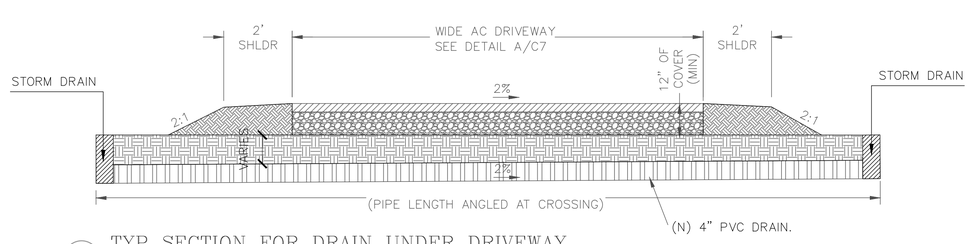
D C7 GRAVEL PAVEMENT SITE WORK SECTION

1-1/2"



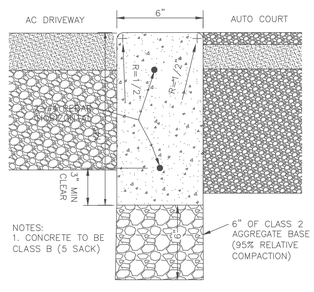
J C7 STORM DRAIN CLEAN-OUT

NTS



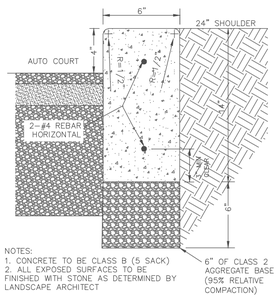
Z C7 TYP SECTION FOR DRAIN UNDER DRIVEWAY

SCALE: 1"=3'



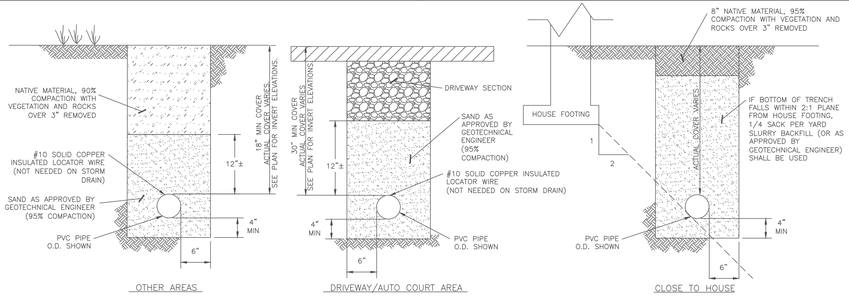
E C7 FLUSH CURB

NTS



F C7 CONCRETE CURB

NTS



N C7 UTILITY AND STORM DRAIN TRENCHING DETAIL

NTS

CMPROS
CONSTRUCTION MANAGEMENT PROFESSIONALS
1067 Market Street, Suite 1028 / San Francisco, CA 94103
Ph: 415.437.0701 Cell: 209.988.9937
www.cmprosinc.com

DATE:	06.11.2024
SCALE:	
DRAWN:	23.14
JOB NUMBER:	
REVISION	

CONSTRUCTION DETAIL

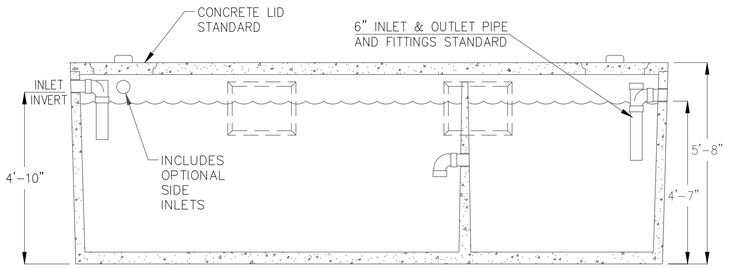
REGISTERED PROFESSIONAL ENGINEER SAMIR MESSIAH No. C 055887 Exp. CIVIL STATE OF CALIFORNIA

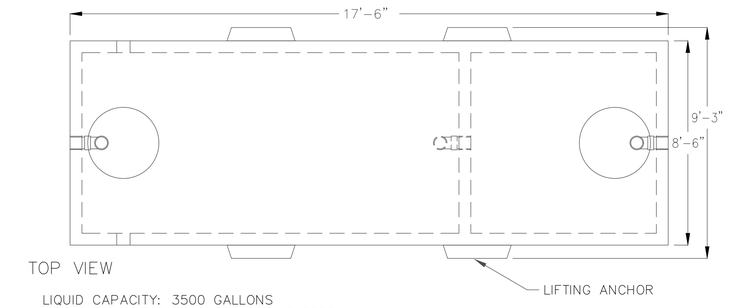
MESSIAH LOT: 207 RESIDENCE
23 SAN CLEMENTE TRL.
CARMEL, CA
A.P.N. 239-131-007

C7

3500 GALLON
RESIDENTAL SEPTIC TANK

SIDE VIEW
CUTAWAY





TOP VIEW

LIQUID CAPACITY: 3500 GALLONS
BOX DESIGN LOAD: NON-TRAFFIC, 3 FEET
OF SOIL COVER, MAXIMUM OF 500 PSF.

GENERAL NOTES:

1. THE INSTALLER IS REQUIRED TO FULLY READ AND UNDERSTAND THE MANUFACTURE'S INSTALLATION MANUALS PRIOR TO THE COMMENCEMENT OF WORK. THE SPECIFIED COMPONENTS SHALL BE INSTALLED BY A LICENSED CONTRACTOR EXPERIENCED IN THE INSTALLATION OF SEPTIC TANK.

2. A PRE-CONSTRUCTION SITE CONFERENCE WITH THE DESIGNER, MONTEREY COUNTY ENVIRONMENTAL HEALTH INSPECTOR AND THE CONTRACTOR SHALL BE ARRANGED PRIOR TO THE COMMENCEMENT OF WORK ON THE SYSTEM. REGULAR CONSTRUCTION INSPECTIONS, WATERTIGHT TANK TEST INSPECTION, SEPTIC TANK INSTALLATION INSPECTION, LEACH FIELD AND PERFORATED PIPE INSPECTIONS AND FINAL OPERATION OF SYSTEM SHALL BE SCHEDULED BY THE INSTALLER. THE INSTALLER SHALL GIVE AT LEAST 24 HOURS NOTICE FOR ALL INSPECTIONS REQUESTED.

3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR, INSTALLER AND ALL SUBCONTRACTORS TO CHECK AND VERIFY ALL CONDITIONS, DIMENSION, LINES AND ELEVATIONS INDICATED. PROPER FIT AND CONNECTION OF ALL PARTS IS REQUIRED TO ENSURE PROPER FUNCTION OF THE SYSTEM. SHOULD THERE BE ANY DISCREPANCIES, IMMEDIATELY NOTIFY THE ENGINEER FOR CORRECTION OR ADJUSTMENT.

4. ALL WORK SHALL COMPLY WITH THE APPLICABLE CODES AND TRADE STANDARDS WHICH GOVERN THE SPECIFIC TRADE. SPECIFICALLY, WORK SHALL COMPLY WITH THE 2019 CALIFORNIA PLUMBING CODE, 2019 CALIFORNIA MECHANICAL CODE, 2019 CALIFORNIA ELECTRICAL CODE, MONTEREY COUNTY LAMP AND ALL OTHER APPLICABLE STATE AND/OR LOCAL CODES AND ORDINANCES.

5. ALL NOTES AND REFERENCES IN THESE DOCUMENTS SHALL APPLY TYPICALLY THROUGHOUT. IF INCONSISTENCIES ARE FOUND IN THE VARIOUS NOTATIONS, NOTIFY THE ENGINEER IMMEDIATELY REQUESTING CLARIFICATION. PLAN CHANGES OR REVISIONS SHALL ONLY BE MADE AFTER CONSULTATION WITH AND APPROVAL BY THE ENGINEER.

6. ALL SPECIFIED EQUIPMENT AND COMPONENTS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURE'S INSTALLATION GUIDELINES AND SPECIFICATIONS. TANK INSTALLATION SHALL INCLUDE ANTI-BUOYANCY OR ANTI-FLOATATION MEASURES (DEADMEN, STRAPS, COLLARS , ETC) ACCORDING TO MANUFACTURE'S RECOMMENDATIONS.

7. ALL TANKS SHALL BE MADE WATERTIGHT TO THE GROUND SURFACE AND DEMONSTRATED TO BE WATERTIGHT PRIOR TO FINAL INSPECTION OR APPROVAL.

8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL ASSOCIATED AND INCIDENTAL MATERIALS AND COMPONENTS NECESSARY FOR A COMPLETE INSTALLATION AND FULLY FUNCTIONAL SYSTEM. ALL MATERIALS AND COMPONENTS SHALL BE U.L. LISTED AND LABELED FOR USE IN FOR THIS SYSTEM.

9. ALL ELECTRICAL WORK SHALL CONFORM TO THE CALIFORNIA ELECTRICAL CODE AND SHALL BE PERFORMED UNDER A PERMIT WITH INSPECTIONS FROM THE LOCAL JURISDICTION. INSTALLATION CONTRACTOR IS RESPONSIBLE FOR ASSURING THAT THE CONTROL PANEL INCLUDING THE PHONE/DATA LINE WITH CAT6 WIRING IS INSTALLED AND FULLY FUNCTIONAL. TELEMETRY CONNECTION SHALL BE DEMONSTRATED PRIOR TO FINAL APPROVAL AND OPERATION.

10. THE INSTALLATION OF ALL GRAVITY FLOW SANITARY SEWER LINES SHALL BE FULLY COORDINATED WITH THE BUILDING PLUMBING CONTRACTOR TO ENSURE PROPER CONNECTIONS AND SLOPE TO THE OWTS SYSTEM.

SYSTEM OPERATION:

1. THE SPECIFIED WASTEWATER TREATMENT AND DISPERSAL SYSTEM SHALL BE OPERATED AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURE'S OPERATION AND MAINTENANCE MANUAL. PERIODIC MAINTENANCE SERVICING OF THE WASTEWATER SYSTEM BY A QUALIFIED TECHNICIAN IS REQUIRED.

2. MANAGEMENT AND REMOVAL OF FATS, OILS AND GREASE (FOG) PRIOR TO ENTERING THE SYSTEM IS CRITICAL FOR THE PROPER FUNCTIONING AND LIMITING SERVICING OF THE FILTERING SYSTEMS.

3. THE TREATMENT SYSTEM IS ALIVE WITH MICROORGANISMS PERFORMING OXIDATION AND REDUCTION OF THE CONTENTS. DO NOT DISPOSE OF THE FOLLOWING TOXICS OR CHEMICALS INTO THE WASTEWATER SYSTEM AS THEY MAY DISRUPT THE REQUIRED BIOLOGICAL PROCESS:
   - PHARMACEUTICALS
   - EXCESSIVE AMOUNTS OF BATH OR BODY OILS
   - WATER SOFTENER BACKWASH
   - FLAMMABLE OR TOXIC PRODUCTS
   - HOUSEHOLD CLEANERS, ESPECIALLY FLOOR WAX AND RUG CLEANERS
   - CHLORINE BLEACH, CHLORIDES, AND POOL OR SPA PRODUCTS
   - PESTICIDES, HERBICIDES, AGRICULTURAL CHEMICALS, OR FERTILIZERS
   - RV TANK ODOR CONTROLLERS AND DISINFECTANTS
   - PAINT THINNER, PAINT
   - MOTOR OIL

4. WATER SOFTENERS BRINE DISCHARGE IS STRICTLY PROHIBITED FROM BEING DISCHARGED INTO THE TREATMENT SYSTEM. FAILURE TO ADHERE TO THIS POLICY WILL VOID THE WARRANTY FOR THE SYSTEM.

5. DO NOT FLUSH THE FOLLOWING DOWN THE DRAINS:
   - EGG SHELLS, CANTALOUPE SEEDS, OJ, COFFEE GROUNDS
   - TEA BAGS, CHEWING TOBACCO, CIGARETTE BUTTS
   - CONDOMS, DENTAL FLOSS, SANITARY NAPKINS, DIAPERS
   - PAPER TOWELS, NEWSPAPERS, CANDY WRAPPERS
   - RAGS, LARGE AMOUNTS OF HAIR
   - BABY WIPES, MEDICATED WIPES, CLEANING WIPES

6. DO NOT USE SPECIAL ADDITIVES THAT ARE TOUTED TO ENHANCE THE PERFORMANCE OF THE TANK OR SYSTEM. ADDITIVES CAN CAUSE MAJOR DAMAGE TO OTHER AREAS IN THE COLLECTION SYSTEM. THE NATURAL MICROORGANISMS THAT GROW IN THE SYSTEM GENERATE THEIR OWN ENZYMES THAT ARE SUFFICIENT FOR BREAKING DOWN AND DIGESTING NUTRIENTS IN THE WASTEWATER STREAM.

7. DO NOT ENTER YOUR TANK. KEEP THE TANK ACCESS LIDS SECURE TO THE RISER AT ALL TIMES. IF THE TANK LID BECOMES DETACHED FROM THE RISER OR IF THE LIDS OR RISER BECOMES DAMAGED, BLOCK ACCESS TO THE TANK OPENING IMMEDIATELY AND KEEP CHILDREN AWAY UNTIL ALL REPAIRS ARE COMPLETED.

8. DO NOT DRIVE OVER YOUR TANK OF ANY BURIED COMPONENTS IN YOUR SYSTEM UNLESS THEY ARE EQUIPPED WITH SPECIAL TRAFFIC RATED RISERS AND LIDS. IF SYSTEM MAY BE SUBJECT TO POSSIBLE TRAFFIC, IT IS THE OWNERS RESPONSIBILITY TO INSTALL BARRICADES TO LIMIT TRAFFIC ACCESS.

9. DO NOT DUMP RV WASTE INTO THE WASTEWATER SYSTEM.

10. DO NOT CONNECT RAIN GUTTERS OR STORM DRAINS IN THE SEWER OR ALLOW SURFACE WATER INTO THE WASTEWATER TREATMENT SYSTEM.

11. THE OWNER SHOULD FAMILIARIZE THEMSELVES WITH THE LOCATION OF THE WASTEWATER SYSTEM AND ELECTRICAL CONTROL PANEL. THE OWNER SHALL MAKE ARRANGEMENTS WITH A RELIABLE SERVICE PERSON OR COMPANY TO PROVIDE REGULAR MONITORING AND MAINTENANCE. THE SERVICE PROVIDER'S CONTACT INFORMATION ON THE CONTROL PANEL FOR EASY ACCESS.

12. NEVER TURN OFF THE MAIN CIRCUIT BREAKER TO THE WASTEWATER PUMPS WHEN GOING ON VACATION.

SEPTIC TANK SPECIFICATION:

1. SEWER LINE COLLECTION:

1.1 PROPERLY VENTED 4" SOLID SEWER LINES SHALL BE INSTALLED COLLECTING ALL WASTEWATER FIXTURES TO THE OWTS SEPTIC TANK. ALL GRAVITY FLOW LINES SHALL MAINTAIN A MINIMUM 2% CONTINUOUS GRADIENT. CLEAN-OUTS ALONG THE BUILDING SEWER LINE SHALL BE PROVIDED AS SPECIFIED IN THE CURRENT EDITION OF THE CALIFORNIA PLUMBING CODE.

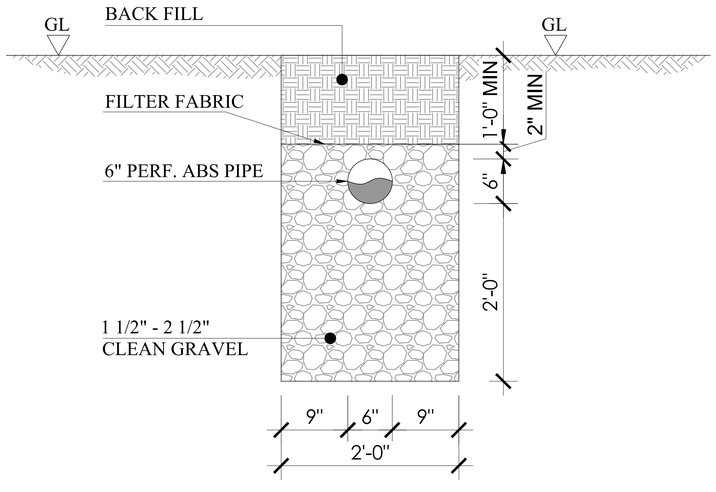
2. SEPTIC TANK

2.1 A NEW 2500 GALLON RE-CIRCULATION / TREATMENT TANK SHALL BEIN STALLED TO SERVE AS THE PROCESSING AND RE-CIRCULATION TANK WITH GRAVITY FEED TO THE DISPERSAL FIELDS

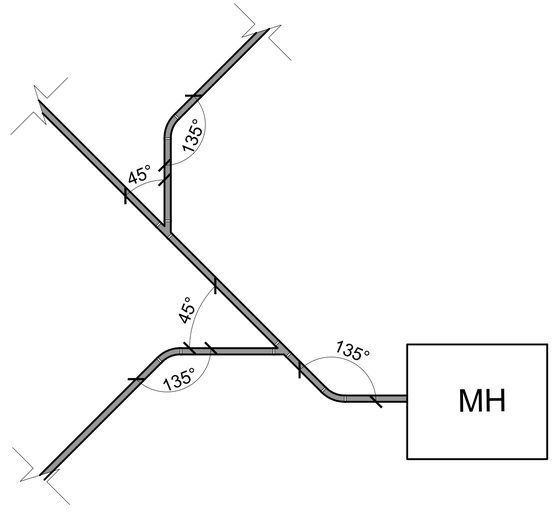
2.2 TANK ACCESS RISERS SHALL BE 20"-30" IN DIAMETER AND CONSTRUCTED WATERTIGHT. RISER INSTALLATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. THE RISERS SHALL BE ATTACHED TO THE TANKS SUCH THAT A WATERTIGHT SEAL IS PROVIDED.

2.3 IN ORDER TO DEMONSTRATE TANK AND RISER ARE WATERTIGHT, TANKS SHALL BE TESTED ON-SITE PRIOR TO ACCEPTANCE. AFTER INSTALLATION IS COMPLETED AND BEFORE BACK FILLING, COMPLETELY FILL THE TANK WITH WATER TO A LEVEL TWO INCHES INTO THE RISERS. WAIT A MINIMUM OF TWO HOURS (OR AS REQUIRED BY THE LOCAL JURISDICTION) AND INSPECT FOR LEAKS. THERE SHOULD BE NO DROP IN THE LIQUID LEVEL AND NO VISUAL LEAKAGE FROM SEAMS, PINHOLES, OR OTHER IMPERFECTIONS OR CONNECTIONS. OBTAIN A WATERTIGHT INSPECTION BY THE LOCAL JURISDICTION, DISTRIBUTOR OR ENGINEER. ONE THE TANK IS PROVEN TO BE WATERTIGHT, DROP THE WATER LEVEL IN THE TANK BELOW THE INVERT.

3. SEPTIC TANK MUST COMPLY WITH MONTEREY COUNTY ENVIRONMENTAL AND HEALTH REQUIREMENTS



LEACH FIELD DETAIL



LEACH FIELD PIPE CONNECTION ANGLES

CMPROS
CONSTRUCTION MANAGEMENT PROFESSIONALS
1067 Market Street, Suite 1028 / San Francisco, CA 94103
Ph: 415.437.0701 Cell: 209.988.9937
www.cmprosinc.com

DATE:	06.11.2024
SCALE:	
DRAWN:	23.14
JOB NUMBER:	
REVISION	

SEPTIC SYSTEM DETAILS

REGISTERED PROFESSIONAL ENGINEER
SAMUEL MESSIAH
No. C 055887
Exp. ____ CIVIL
STATE OF CALIFORNIA

MESSIAH LOT: 207 RESIDENCE
23 SAN CLEMENTE TRL.
CARMEL, CA
A.P.N. 239-131-007

C7A

EROSION / DUST CONTROL NOTES

1. VEGETATION REMOVAL BETWEEN OCTOBER 15th AND APRIL 15th SHALL NOT PRECEDE SUBSEQUENT GRADING OR CONSTRUCTION ACTIVITIES BY MORE THAN 15 DAYS. DURING THIS PERIOD, EROSION AND SEDIMENT CONTROL MEASURES MUST BE IN PLACE.
2. DURING WINTER OPERATIONS (BETWEEN OCTOBER 15 AND APRIL 15), THE FOLLOWING MEASURES MUST BE TAKEN:

A) DISTURBED SURFACES NOT INVOLVED IN THE IMMEDIATE OPERATIONS MUST BE PROTECTED BY MULCHING AND/OR OTHER EFFECTIVE MEANS OF SOIL PROTECTION.
B) ALL ROADS AND DRIVEWAYS SHALL HAVE DRAINAGE FACILITIES SUFFICIENT TO PREVENT EROSION ON OR ADJACENT TO THE ROADWAY OR THE DOWNHILL PROPERTIES.
C) DRAINAGE CONTROL MEASURES SHALL BE MAINTAINED AND IN PLACE AT THE END OF EACH DAY AND CONTINUOUSLY CHECKED THROUGHOUT THE LIFE OF THE PROJECT. (MONTEREY COUNTY GRADING/EROSION ORD. 2806-16.12.090)

3. RUN-OFF FROM THE SITE SHALL BE DETAINED OR FILTERED BY BERMS, VEGETATED FILTER STRIPS, AND OR CATCH BASINS TO PREVENT THE ESCAPE OF SEDIMENT FROM THE DISTURBED AREA OR SITE. THESE DRAINAGE CONTROL MEASURES MUST BE MAINTAINED BY THE CONTRACTOR AS NECESSARY TO ACHIEVE THEIR PURPOSE THROUGHOUT THE LIFE OF THE PROJECT
4. ALL CUT AND FILL SLOPES EXPOSED DURING THE COURSE OF CONSTRUCTION SHALL BE COVERED, SEEDED, OR OTHERWISE TREATED TO CONTROL EROSION WITHIN 48 HOURS AFTER GRADING SUBJECT TO THE APPROVAL OF THE DIRECTOR OF RMA-PLANNING AND RMA-BUILDING SERVICES CONTRACTOR SHALL REVEGETATE SLOPES AND ALL DISTURBED AREAS THROUGH AN APPROVED PROCESS AS DETERMINED BY MONTEREY COUNTY. THIS MAY CONSIST OF EFFECTIVE PLANTING OF RYE GRASS, BARLEY OR SOME OTHER FAST GERMINATING SEED.
5. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO KEEP STREETS AND ROADS FREE FROM DIRT AND DEBRIS. SHOULD ANY DIRT OR DEBRIS BE DEPOSITED IN THE PUBLIC RIGHT-OF-WAY, THE CONTRACTOR SHALL REMOVE IT IMMEDIATELY.
6. THE DIRECTOR OF THE BUILDING INSPECTION DEPARTMENT MAY STOP OPERATIONS DURING PERIODS OF INCLEMENT WEATHER IF HE DETERMINES THAT EROSION PROBLEMS ARE NOT BEING CONTROLLED ADEQUATELY.
7. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO PREVENT AIRBORNE DUST FROM BECOMING A NUISANCE TO NEIGHBORING PROPERTIES. THE CONTRACTOR SHALL CONFORM TO THE STANDARDS FOR DUST-CONTROL AS ESTABLISHED BY THE AIR QUALITY MAINTENANCE DISTRICT. DUST CONTROL MEASURES TO BE IMPLEMENTED INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING:

A) PROVIDE EQUIPMENT AND MANPOWER REQUIRED FOR WATERING ALL EXPOSED OR DISTURBED EARTH.
B) COVER STOCKPILES OF DEBRIS, SOIL, OR OTHER MATERIALS WHICH MAY CONTRIBUTE TO AIRBORNE DUST.
C) KEEP CONSTRUCTION AREAS AND ADJACENT STREET FREE OF MUD AND DUST.
D) LANDSCAPE, SEED, OR COVER PORTIONS OF THE SITE AS SOON AS CONSTRUCTION IS COMPLETE. 8 CONTRACTOR SHALL CONDUCT ALL GRADING OPERATIONS IN SUCH A MANNER AS TO PRECLUDE WIND BLOWN DIRT, DUST AND RELATED DAMAGE TO NEIGHBORING PROPERTIES. SUFFICIENT WATERING TO CONTROL DUST IS REQUIRED AT ALL TIMES. CONTRACTOR SHALL ASSUME LIABILITY FOR CLAIMS RELATED TO WIND BLOWN MATERIAL. IF THE DUST CONTROL IS INADEQUATE AS DETERMINED BY THE MONTEREY COUNTY PLANNING AND BUILDING DEPARTMENT OR DESIGNATED REPRESENTATIVE, THE CONSTRUCTION WORK SHALL BE TERMINATED UNTIL CORRECTIVE MEASURES ARE TAKEN.

9. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO MINIMIZE EROSION AND PREVENT SEDIMENT LADEN RUN-OFF FROM ENTERING THE STORM DRAINAGE SYSTEM. ACCEPTABLE MEASURES MAY INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING: INSTALLATION OF SILT FENCES, FIBER ROLLS, INSTALLATION OF STORM DRAIN INLET PROTECTION, AND INSTALLATION OF STABILIZED CONSTRUCTION ENTRANCES. AT THE CONTRACTOR'S DISCRETION, ANY ONE OR A COMBINATION OF THESE MEASURES MAY BE USED ABOVE AND BEYOND WHAT IS SHOWN ON THE PLANS. 10 PRIOR TO COMMENCEMENT OF ANY LAND DISTURBANCE, THE OWNER APPLICANT SHALL SCHEDULE AN INSPECTION WITH HCD SERVICES TO ENSURE ALL NECESSARY SEDIMENT CONTROLS ARE IN PLACE AND THE PROJECT IS COMPLIANT WITH MONTEREY COUNTY GRADING AND EROSION CONTROL REGULATIONS.
11. DURING CONSTRUCTION THE OWNER/APPLICANT SHALL SCHEDULE AN INSPECTION WITH HCD SERVICES TO UPDATE COMPACTION TEST RECORDS, INSPECT DRAINAGE DEVICE INSTALLATION, REVIEW THE MAINTENANCE AND EFFECTIVENESS OF BMP'S INSTALLED, AS WELL AS, TO VERIFY THAT POLLUTANTS OF CONCERN ARE NOT DISCHARGED FROM THE SITE. 12 PRIOR TO FINAL INSPECTION, THE OWNER/APPLICANT SHALL SCHEDULE AN INSPECTION WITH HCD SERVICES TO CONDUCT A FINAL GRADING INSPECTION, COLLECT FINAL GEOTECHNICAL LETTER OF CONFORMANCE, ENSURE THAT ALL DISTURBED AREAS HAVE BEEN STABILIZED AND THAT ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES THAT ARE NO LONGER NEEDED HAVE BEEN REMOVED. CONCRETE WASHOUT

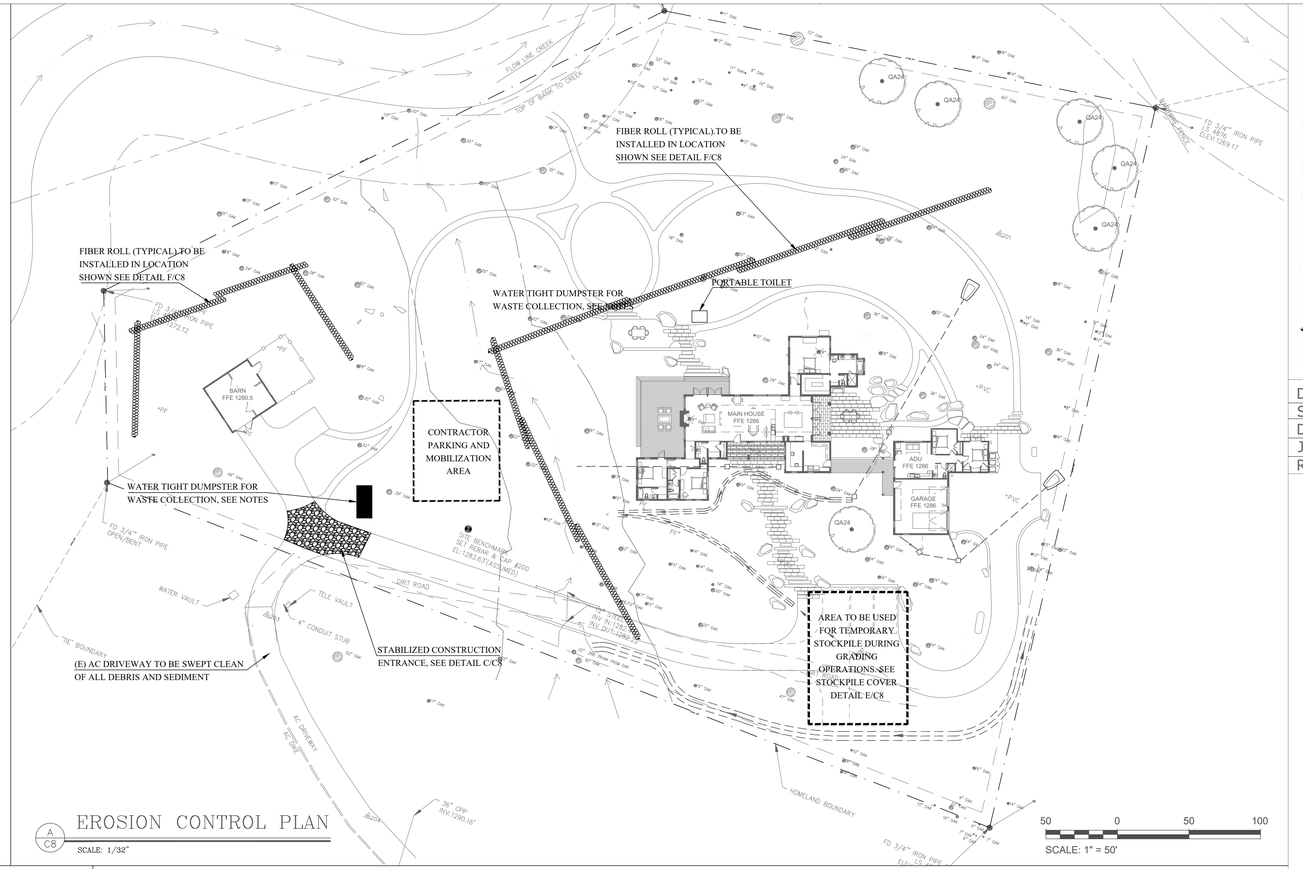
1. TEMPORARY CONCRETE WASHOUT FACILITIES SHOULD BE LOCATED A MINIMUM OF 50 FT FROM STORM DRAIN INLETS, OPEN DRAINAGE FACILITIES, AND WATERCOURSES. EACH FACILITY SHOULD BE LOCATED AWAY FROM CONSTRUCTION TRAFFIC OR ACCESS AREAS TO PREVENT DISTURBANCE OR TRACKING.
2. A SIGN SHOULD BE INSTALLED ADJACENT TO EACH WASHOUT FACILITY TO INFORM CONCRETE EQUIPMENT OPERATORS TO UTILIZE THE PROPER FACILITIES.
3. TEMPORARY CONCRETE WASHOUT FACILITIES SHOULD BE CONSTRUCTED ABOVE GRADE OR BELOW GRADE AT THE OPTION OF THE CONTRACTOR. TEMPORARY CONCRETE WASHOUT FACILITIES SHOULD BE CONSTRUCTED AND MAINTAINED IN SUFFICIENT QUANTITY AND SIZE TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS
4. TEMPORARY WASHOUT FACILITIES SHOULD HAVE A TEMPORARY PIT OR BEGRIMED AREAS OF SUFFICIENT VOLUME TO COMPLETELY CONTAIN ALL LIQUID AND WASTE CONCRETE MATERIALS GENERATED DURING WASHOUT PROCEDURES.
5. WASHOUT OF CONCRETE TRUCKS SHOULD BE PERFORMED IN DESIGNATED AREAS ONLY.
6. ONLY CONCRETE FROM MIXER TRUCK CHUTES SHOULD BE WASHED INTO CONCRETE WASHOUT.
7. CONCRETE WASHOUT FROM CONCRETE PUMPER BINS CAN BE WASHED INTO CONCRETE PUMPER TRUCKS AND DISCHARGED INTO DESIGNATED WASHOUT AREA OR PROPERLY DISPOSED OF OFFSITE.
8. ONCE CONCRETE WASTES ARE WASHED INTO THE DESIGNATED AREA AND ALLOWED TO HARDEN, THE CONCRETE SHOULD BE BROKEN UP, REMOVED, AND DISPOSED OF PER PROPER WASTE MANAGEMENT PROCEDURES. DISPOSE OF HARDENED CONCRETE ON A REGULAR BASIS. WASHIER COLLECTION AREA

1. WATER TIGHT DUMPSTERS OF SUFFICIENT SIZE AND NUMBER SHALL BE PROVIDED TO CONTAIN THE SOLID WASTE GENERATED BY THE PROJECT AND SHALL BE PROPERLY SERVICED.
2. LITTERING ON THE PROJECT SITE SHALL BE PROHIBITED.
3. TRASH RECEPTACLES SHALL BE PROVIDED IN FIELD TRAILER AREAS AND IN LOCATIONS WERE WORKERS CONGREGATE FOR LUNCH AND BREAK PERIODS.
4. CONSTRUCTION DEBRIS AND LITTER FROM WORK AREAS WITHIN THE CONSTRUCTION LIMITS OF THE PROJECT SITE SHALL BE COLLECTED AND PLACED IN WATER TIGHT DUMPSTERS AT LEAST WEEKLY.
5. FULL DUMPSTERS SHALL BE REMOVED FROM THE PROJECT SITE AND THE CONTENTS SHALL BE DISPOSED OF AT A LEGALLY APPROVED LAND FILL LOCATION.
6. ALL DUMPSTERS SHALL BE HANDLED AND DISPOSED OF BY TRASH HAULING CONTRACTOR.
7. CONSTRUCTION DEBRIS AND WASTE SHALL BE REMOVED FROM THE SITE EVERY TWO WEEKS OR SOONER IF NEEDED.
8. STORM WATER RUN ON SHALL BE PREVENTED FROM CONTACTING STOCKPILED SOLID WASTE THROUGH THE USE OF BERMS OR OTHER TEMPORARY DIVERSION STRUCTURES OR THROUGH THE USE OF MEASURES TO ELEVATE WASTE FROM SURFACE.
9. WASTE STORED IN STOCKPILES SHALL BE SECURELY COVERED FROM WIND AND RAIN BY COVERING WASTE WITH TARPS OR PLASTIC SHEETING WHILE WAITING FOR OFF HAUL OR TRANSFER TO DUMPSTER.
10. SEGREGATE HAZARDOUS WASTE FROM NON-HAZARDOUS WASTE. FOR DISPOSAL OF HAZARDOUS WASTE SEE BMP WM-6. HAVE HAZARDOUS WASTE HAULED TO AN APPROPRIATE DISPOSAL FACILITY IMMEDIATELY AFTER DEMOLITION OR USE.
11. MAKE SURE THAT TOXIC LIQUID WASTES AND CHEMICALS ARE NOT DISPOSED OF IN DUMPSTERS BUT ARE REMOVED OFF SITE APPROPRIATELY. MATERIAL DELIVERY AND STORAGE

1. LIQUIDS, PETROLEUM PRODUCTS, AND SUBSTANCES LISTED IN 40 CFR PARTS 110, 117, OR 302 SHOULD BE STORED IN APPROVED CONTAINERS AND DRUMS AND SHOULD NOT BE OVERFILLED. CONTAINERS AND DRUMS SHOULD BE PLACED IN TEMPORARY CONTAINMENT FACILITIES FOR STORAGE.
2. TEMPORARY CONTAINMENT FACILITY SHOULD PROVIDE FOR A SPILL CONTAINMENT VOLUME ABLE TO CONTAIN PRECIPITATION FROM A 25 YEAR STORM EVENT, PLUS THE AGGREGATE VOLUME OF ALL CONTAINERS OR 100% OF THE CAPACITY OF THE LARGEST CONTAINER WITHIN ITS BOUNDARY, WHICHEVER IS GREATER.
3. A TEMPORARY CONTAINMENT FACILITY SHOULD BE IMPERVIOUS TO THE MATERIALS STORED THEREIN FOR A MINIMUM CONTACT TIME OF 72 HOURS.
4. A TEMPORARY CONTAINMENT FACILITY SHOULD BE MAINTAINED FREE OF ACCUMULATED RAINWATER AND SPILLS. IN THE EVENT OF SPILLS OR LEAKS, ACCUMULATED RAINWATER SHOULD BE COLLECTED AND PLACED INTO DRUMS THESE LIQUIDS SHOULD BE HANDLED AS A HAZARDOUS WASTE UNLESS TESTING DETERMINES THEM TO BE NON-HAZARDOUS. ALL COLLECTED LIQUIDS OR NON-HAZARDOUS LIQUIDS SHOULD BE SENT TO AN APPROVED DISPOSAL SITE.
5. SUFFICIENT SEPARATION SHOULD BE PROVIDED BETWEEN STORED CONTAINERS TO ALLOW FOR SPILL CLEANUP AND EMERGENCY RESPONSE ACCESS
6. INCOMPATIBLE MATERIALS, SUCH AS CHLORINE AND AMMONIA, SHOULD NOT BE STORED IN THE SAME TEMPORARY CONTAINMENT FACILITY.
7. THROUGHOUT THE RAINY SEASON, EACH TEMPORARY CONTAINMENT FACILITY SHOULD BE COVERED DURING NON-WORKING DAYS, PRIOR TO, AND DURING RAIN EVENTS.
8. MATERIALS SHOULD BE STORED IN THEIR ORIGINAL CONTAINERS AND THE ORIGINAL PRODUCT LABELS SHOULD BE MAINTAINED IN PLACE IN A LEGIBLE CONDITION DAMAGED OR OTHERWISE ILLEGIBLE LABELS SHOULD BE REPLACED IMMEDIATELY
9. BAGGED AND BOXED MATERIALS SHOULD BE STORED ON PALLETS AND SHOULD NOT BE ALLOWED TO ACCUMULATE ON THE GROUND. TO PROVIDE PROTECTION FROM WIND AND RAIN THROUGHOUT THE RAINY SEASON, BAGGED AND BOXED MATERIALS SHOULD BE COVERED DURING NON-WORKING DAYS AND PRIOR TO AND DURING RAIN EVENTS 10 STOCKPILES SHOULD BE PROTECTED IN ACCORDANCE WITH CALIFORNIA STORM WATER QUALITY HANDBOOK CONSTRUCTION PRACTICES WM-3, STOCKPILE MANAGEMENT.
11. MATERIALS SHOULD BE STORED INDOORS WITHIN EXISTING STRUCTURES OR SHEDS WHEN AVAILABLE 12 PROPER STORAGE INSTRUCTIONS SHOULD BE POSTED AT ALL TIMES IN AN OPEN AND CONSPICUOUS LOCATIONS. 13 AN AMPLE SUPPLY OF APPROPRIATE SPILL CLEAN MATERIAL SHOULD BE KEPT NEAR STORAGE AREAS. 14 KEEP AN ACCURATE, UP-TO-DATE INVENTORY OF MATERIAL DELIVERED AND STORED ONSITE. 15 ARRANGE FOR EMPLOYEES TRAINED IN EMERGENCY SPILL CLEANUP PROCEDURES TO BE PRESENT WHEN DANGEROUS MATERIALS OR LIQUID CHEMICALS ARE UNLOADED

NOTE:

1. ALL OR PART OF THE CONSTRUCTION OF THIS PROJECT IS EXPECTED TO OCCUR DURING THE WINTER SEASON (OCTOBER 15 THROUGH APRIL 15)
2. MAINTAIN ALL EROSION CONTROL MEASURES UNTIL LANDSCAPING IS ESTABLISHED

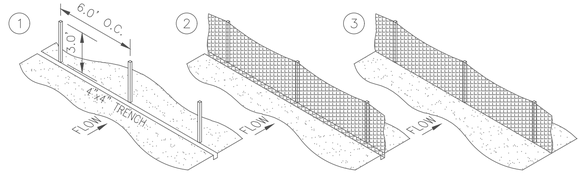


EROSION CONTROL PLAN

A / C8

SCALE: 1/32"

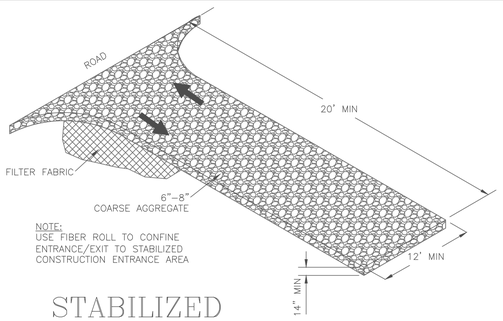
TO BE USED DOWN SLOPE OF EXPOSED SOIL AREAS AND AROUND TEMPORARY SOIL STOCKPILES.
INSTALLATION
1. SET 4' LONG 2"x2" WOOD (OR 1.33 PLF STEEL) POSTS AS SHOWN. EXCAVATE A 4"x4" TRENCH UP SLOPE ALONG THE LINE OF POSTS.
2. ATTACH SILT FENCE TO POSTS PER MANUFACTURER'S SPECIFICATIONS. EXTEND FABRIC INTO TRENCH.
3. BACKFILL TRENCH AND HAND COMPACT EXCAVATED SOIL.



SILT FENCE DETAIL

B / C8

NTS



STABILIZED CONSTRUCTION ENTRANCE

C / C8

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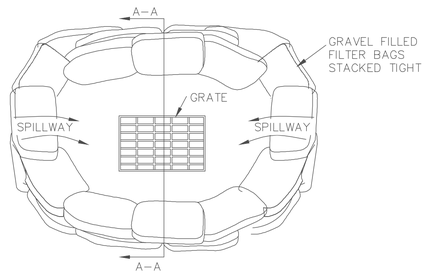
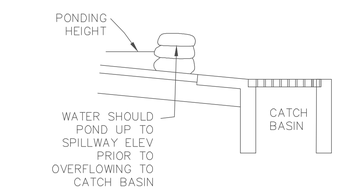


PLAN VIEW



SECTION A-A

INSTALLATION
1. PERVIOUS BURLAP BAGS OR SYNTHETIC NET BAGS 24" LONG BY 12" WIDE BY 6" HIGH TO BE USED FILTER BAGS SHALL CONTAIN 1" TO 2" DIAMETER ROCK BAGS SHOULD BE STACKED TIGHTLY AND SHOULD CREATE A SPILLWAY TO ALLOW WATER TO POND AND OVERFLOW TO CATCH BASIN
2. CONFIGURATION SHOWN MAY NEED TO BE ADJUSTED TO ACCOMMODATE EXISTING CATCH BASIN AND FLOW ORIENTATION CONTRACTOR TO ADJUST AS NEEDED TO ENSURE PROTECTION OF INLET AND MAINTAIN INTENT OF DETAIL SHOWN

INLET PROTECTION

D / C8

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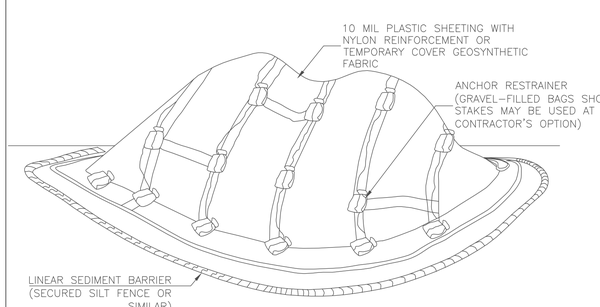
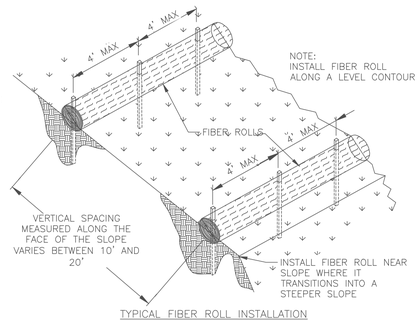


NOTES:
1. ALL STOCKPILES SHALL BE CONTAINED AND COVERED WHEN NOT ACTIVE, AND SECURED AT THE END OF EACH DAY.
2. STOCKPILES SHALL BE SECURELY COVERED OVERNIGHT, AND PRIOR TO, DURING, AND AFTER RAIN EVENTS.
3. NO MATERIAL SHALL LEAVE THE SITE OR MOVE INTO STREET.
4. PLASTIC SHEETING HAS LIMITATIONS DUE TO SUNLIGHT BREAKDOWN, HARD TO MANAGE IN WINDY CONDITIONS, AND CAN INCREASE RUNOFF ISSUE FOR PERIMETER CONTROLS. INSPECT FREQUENTLY OR USE GEOSYNTHETIC FABRIC AS APPLICABLE.
5. DO NOT LOCATE WITHIN 50 FEET OF A STORM DRAIN.

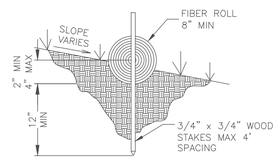
STOCKPILE COVER DETAIL

E / C8

NTS



TYPICAL FIBER ROLL INSTALLATION



ENTRENCHMENT DETAIL

FIBER ROLL DETAIL

F / C8

NTS

CMPROS
CONSTRUCTION MANAGEMENT PROFESSIONALS
1067 Market Street, Suite 1028 / San Francisco, CA 94103
Ph: 415.437.0701 Cell: 209.988.9937
www.cmprosinc.com

DATE:	06.11.2024
SCALE:	
DRAWN:	23.14
JOB NUMBER:	
REVISION	

EROSION CONTROL PLAN

REGISTERED PROFESSIONAL ENGINEER SAMUEL MESSIAH No. C 055887 Exp. CIVIL STATE OF CALIFORNIA

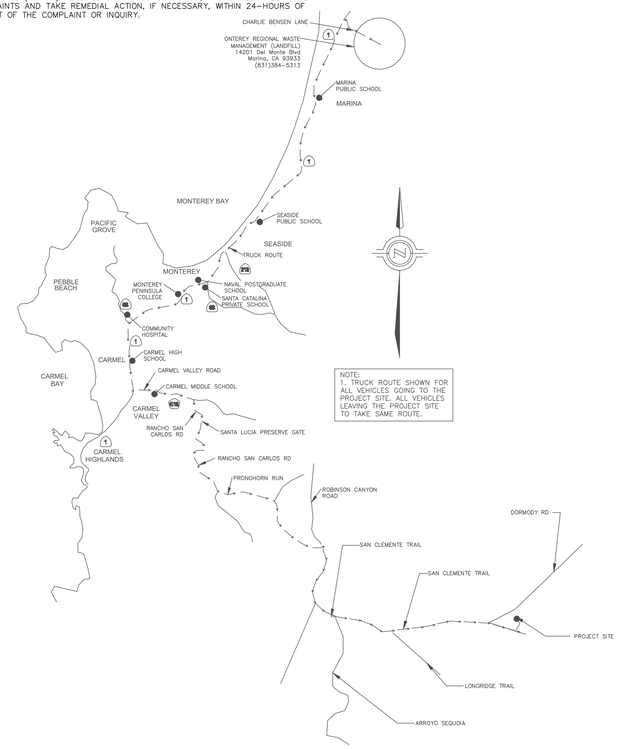
MESSIAH LOT: 207 RESIDENCE
23 SAN CLEMENTE TRL.
CARMEL, CA
A.P.N. 239-131-007

C8

CONSTRUCTION COORDINATOR

CONTRACTOR SHALL PROVIDE A CONSTRUCTION COORDINATOR THAT CAN BE CONTACTED DURING CONSTRUCTION, SHOULD QUESTIONS ARISE DURING CONSTRUCTION (IN CASE OF BOTH REGULAR INQUIRES AND IN EMERGENCIES) THEIR CONTACT INFORMATION (INCLUDING THEIR ADDRESS AND 24-HOUR PHONE NUMBER) SHALL BE CONSPICUOUSLY POSTED AT THE JOB SITE IN A MANNER THAT THE CONTACT INFORMATION IS READILY VISIBLE FROM PUBLIC VIEWING AREAS. A COPY OF THAT SAME CONTACT INFORMATION SHOULD ALSO BE GIVEN TO THE SANTA LUCIA PRESERVE PRIOR TO START OF CONSTRUCTION. THE POSTING SHALL INDICATE THAT THE CONSTRUCTION COORDINATOR SHOULD BE CONTACTED TO ANSWER ANY QUESTIONS THAT ARISE DURING CONSTRUCTION (IN CASE OF BOTH REGULAR INQUIRES AND IN EMERGENCIES). THE CONSTRUCTION COORDINATOR SHALL RECORD THE NAME, PHONE NUMBER AND NATURE OF ALL COMPLAINTS (IF ANY) RECEIVED DURING CONSTRUCTION, AND SHALL INVESTIGATE COMPLAINTS AND TAKE REMEDIAL ACTION, IF NECESSARY, WITHIN 24-HOURS OF RECEIPT OF THE COMPLAINT OR INQUIRY.

NOTE:
1. TRUCK ROUTE SHOWN FOR ALL VEHICLES GOING TO THE PROJECT SITE. ALL VEHICLES LEAVING THE PROJECT SITE TO TAKE SAME ROUTE.



NOTE:
1. TRUCK ROUTE SHOWN FOR ALL VEHICLES GOING TO THE PROJECT SITE. ALL VEHICLES LEAVING THE PROJECT SITE TO TAKE SAME ROUTE.

A C9 VICINITY MAP/OVERALL TRUCK ROUTING PLAN

1"=8000'

CONSTRUCTION NOTES

1. ALL WORK SHALL TAKE PLACE DURING DAYLIGHT HOURS, MONDAY – SATURDAY, 8AM TO 6PM (EXCLUDING NATIONAL HOLIDAYS)
2. THE SIGNED PERMITS AND THE APPROVED CONSTRUCTION PLANS SHALL BE MAINTAINED IN A CONSPICUOUS LOCATION AT THE CONSTRUCTION JOB SITE AT ALL TIMES, AND THAT SUCH COPIES ARE AVAILABLE FOR AGENCY REVIEW ON REQUEST ALL PERSONS INVOLVED WITH THE CONSTRUCTION SHALL BE BRIEFED ON THE CONTENT AND MEANING OF THE PERMITS AND THE APPROVED CONSTRUCTION PLANS, AND THE PUBLIC REVIEW REQUIREMENTS APPLICABLE TO THEM, PRIOR TO COMMENCEMENT OF CONSTRUCTION.
3. STOP WORK WITHIN 50 METERS (165 FT) OF UNCOVERED RESOURCE AND CONTACT MONTEREY COUNTY HCD-PLANNING AND A QUALIFIED ARCHAEOLOGIST IMMEDIATELY IF CULTURAL ARCHAEOLOGICAL, HISTORICAL OR PALEONTOLOGICAL RESOURCES ARE UNCOVERED. WHEN CONTACTED, THE PROJECT PLANNER AND THE ARCHAEOLOGIST SHALL IMMEDIATELY VISIT THE SITE TO DETERMINE THE EXTENT OF THE RESOURCES AND TO DEVELOP PROPER MITIGATION MEASURES REQUIRED FOR THE DISCOVERY
4. EQUIPMENT WASHING, REFUELING AND SERVICING SHALL TAKE PLACE ONLY ONSITE APPROPRIATE BEST MANAGEMENT PRACTICES SHALL BE USED TO ENSURE THAT NO SPILLS OF PETROLEUM PRODUCTS OR OTHER CHEMICALS TAKE PLACE DURING THESE ACTIVITIES SEE BMP HANDOUT ON THIS SHEET
5. THE CONSTRUCTION SITE SHALL MAINTAIN GOOD CONSTRUCTION SITE HOUSEKEEPING CONTROLS AND PROCEDURES (EG., CLEANUP ALL LEAKS, DRIPS, AND OTHER SPILLS IMMEDIATELY; KEEP MATERIALS COVERED AND OUT OF THE RAIN, INCLUDING COVERING EXPOSED PILES OF SOIL AND WASTES; DISPOSE OF ALL WASTES PROPERLY, PLACE TRASH RECEPTACLES ON SITE FOR THAT PURPOSE, AND COVER OPEN TRASH RECEPTACLES DURING WET WEATHER) SEE BMP HANDOUT ON THIS SHEET
6. ALL EROSION AND SEDIMENT CONTROLS SHALL BE IN PLACE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION AS WELL AS AT THE END OF EACH WORKDAY. AT A MINIMUM, SILT FENCES, OR EQUIVALENT APPARATUS, SHALL BE INSTALLED AT THE PERIMETER OF THE CONSTRUCTION SITE TO PREVENT CONSTRUCTION-RELATED RUNOFF AND/OR SEDIMENT FROM LEAVING THE SITE.
7. THE CONTRACTOR SHALL IMPLEMENT THE FOLLOWING MEASURES TO CONTROL FUGITIVE DUST EMISSIONS DURING CONSTRUCTION (MM AQ C1 – DUST CONTR.O.):
   1. WATER ALL ACTIVE CONSTRUCTION AREAS AT LEAST TWICE DAILY FREQUENCY SHOULD BE BASED ON THE TYPE OF OPERATION, SOIL, AND WIND EXPOSURE – NOT APPLICABLE TO SITE
   2. PROHIBIT ALL GRADING ACTIVITIES DURING PERIODS OF HIGH WIND MORE THAN 15 MILES PER HOUR.
   3. APPLY CHEMICAL SOIL STABILIZERS ON INACTIVE CONSTRUCTION AREAS SUCH AS DISTURBED LANDS WITHIN CONSTRUCTION PROJECTS THAT ARE UNUSED FOR AT LEAST FOUR CONSECUTIVE DAYS – NOT APPLICABLE TO SITE
   4. APPLY NON-TOXIC BINDERS LIKE LATEX ACRYLIC COPOLYMER TO EXPOSED AREAS AFTER CUT AND FILL OPERATIONS AND HYDROSEED AREA – NOT APPLICABLE TO SITE
   5. MAINTAIN AT LEAST 2 FEET OF FREEBOARD ON HAUL TRUCKS
   6. COVER ALL TRUCKS HAULING DIRT SAND OR LOOSE MATERIALS
   7. PLANT TREE WINDBREAKS ON THE WINDWARD PERIMETER OF CONSTRUCTION PROJECTS IF ADJACENT TO OPEN LAND, PRIOR TO CONSTRUCTION –NOT APPLICABLE TO SITE
   8. PLANT VEGETATIVE GROUND COVER IN DISTURBED AREAS AS SOON AS POSSIBLE
   9. COVER INACTIVE STORAGE PILES
   10. INSTALL WHEEL WASHERS AT THE ENTRANCE TO CONSTRUCTION SITES FOR ALL EXITING TRUCKS – NOT APPLICABLE TO SITE
   11. PAVE ALL ROADS ON CONSTRUCTION SITES PRIOR TO USE BY CONSTRUCTION EQUIPMENT – NOT APPLICABLE TO SITE
   12. SWEEP STREETS IF VISIBLE SOIL MATERIAL IS CARRIED OUT FROM THE CONSTRUCTION SITE
   13. POST A PUBLICLY VISIBLE SIGN THAT SPECIFIES THE TELEPHONE NUMBER AND PERSON TO CONTACT REGARDING DUST COMPLAINTS THIS PERSON WILL RESPOND TO COMPLAINTS AND TAKE CORRECTIVE ACTION WITHIN 48 HOURS THE PHONE NUMBER OF THE MBUAPCD WILL BE VISIBLE TO ENSURE COMPLIANCE WITH RULE 402 NUISANCE.
   14. LIMIT THE AREA UNDER CONSTRUCTION AT ANY ONE TIME

THE CONSTRUCTION CONTRACTOR WILL ENSURE THESE MEASURES ARE IMPLEMENTED DURING CONSTRUCTION AS VERIFIABLE UPON COUNTY INSPECTION
8. THE CONTRACTOR WILL ENSURE THAT ALL STATIONARY NOISE GENERATING EQUIPMENT, SUCH AS PUMPS AND GENERATORS ARE LOCATED AS FAR AS POSSIBLE FROM NEARBY NOISE SENSITIVE RECEPTORS AS PRACTICABLE WHERE POSSIBLE, NOISE GENERATING EQUIPMENT WILL BE SHIELDED FROM NEARBY NOISE SENSITIVE RECEPTORS BY NOISE ATTENUATING BUFFERS SUCH AS STRUCTURES OR HAUL TRUCK TRAILERS STATIONARY NOISE SOURCES LOCATED CLOSER THAN 500 FEET FROM NOISE SENSITIVE RECEPTORS WILL BE EQUIPPED WITH NOISE REDUCING ENGINE HOUSINGS PORTABLE ACOUSTIC BARRIERS WILL BE PLACED AROUND NOISE GENERATING EQUIPMENT LOCATED WITHIN 200 FEET OF RESIDENCES. WATER TANKS AND EQUIPMENT STORAGE, STAGING, AND WARM-UP AREAS WILL BE LOCATED AS FAR FROM NOISE SENSITIVE RECEPTORS AS POSSIBLE.
9. THE CONTRACTOR WILL ENSURE ALL CONSTRUCTION EQUIPMENT POWERED BY GASOLINE OR DIESEL ENGINES HAS SOUND CONTROL DEVICES AT LEAST AS EFFECTIVE AS THOSE ORIGINALLY PROVIDED BY THE MANUFACTURER NO EQUIPMENT WILL BE PERMITTED TO HAVE AN UNMUFFLED EXHAUST
10. THE APPLICANT WILL ENSURE THE CONSTRUCTION SPECIFICATIONS SPECIFY THAT ANY MOBILE NOISE-GENERATING EQUIPMENT OR MACHINERY IS SHUT OFF WHEN NOT IN USE. THESE REQUIREMENTS WILL BE INCLUDED IN ALL RELEVANT CONSTRUCTION CONTRACTS AND SHOWN ON CONSTRUCTION PLANS, AND WILL BE IMPLEMENTED DURING CONSTRUCTION.
11. THE CONTRACTOR TO ENSURE THAT CONSTRUCTION VEHICLES ACCESSING THE SITE USE THE SHORTEST POSSIBLE ROUTE TO AND FROM LOCAL FREEWAYS, PROVIDED THE ROUTES DO NOT EXPOSE ADDITIONAL RECEPTORS TO NOISE. SEE APPROVED TRUCK ROUTE ON THIS SHEET
12. THE APPLICANT AND THE CONTRACTOR WILL ENSURE THAT RESIDENTS WITHIN 500 FEET OF THE CONSTRUCTION AREA ARE NOTIFIED OF THE CONSTRUCTION SCHEDULE IN WRITING BEFORE CONSTRUCTION BEGINS.

CONSTRUCTION BEST MANAGEMENT PRACTICES (BMPs)

Construction Projects Are Required to Implement the Stormwater Best Management Practices (BMP) on this Page, as they Apply to Your Project, All Year Long

MATERIALS & WASTE MANAGEMENT

Non-Hazardous Materials
- ❑ Berm and cover stockpiles of sand, dirt or other construction material with tarps when rain is forecast or if not actively being used within 14 days.
- ❑ Use (but don't overuse) reclaimed water for dust control.

Hazardous Materials
- ❑ Label all hazardous materials and hazardous wastes (such as pesticides, paints, thinners, solvents, fuel, oil, and antifreeze) in accordance with city, county, state and federal regulations.
- ❑ Store hazardous materials and wastes in water tight containers, store in appropriate secondary containment, and cover them at the end of every work day or during wet weather or when rain is forecast.
- ❑ Follow manufacturer's application instructions for hazardous materials and be careful not to use more than necessary. Do not apply chemicals outdoors when rain is forecast within 24 hours.
- ❑ Arrange for appropriate disposal of all hazardous wastes.

Waste Management
- ❑ Cover waste disposal containers securely with tarps at the end of every work day and during wet weather.
- ❑ Check waste disposal containers frequently for leaks and to make sure they are not overfilled. Never hose down a dumpster on the construction site.
- ❑ Clean or replace portable toilets, and inspect them frequently for leaks and spills.
- ❑ Dispose of all wastes and debris properly. Recycle materials and wastes that can be recycled (such as asphalt, concrete, aggregate base materials, wood, gyp board, pipe, etc.)
- ❑ Dispose of liquid residues from paints, thinners, solvents, glues, and cleaning fluids as hazardous waste.

Construction Entrances and Perimeter
- ❑ Establish and maintain effective perimeter controls and stabilize all construction entrances and exits to sufficiently control erosion and sediment discharges from site and tracking off site.
- ❑ Sweep or vacuum any street tracking immediately and secure sediment source to prevent further tracking. Never hose down streets to clean up tracking.

EQUIPMENT MANAGEMENT & SPILL CONTROL

Maintenance and Parking
- ❑ Designate an area, fitted with appropriate BMPs, for vehicle and equipment parking and storage.
- ❑ Perform major maintenance, repair jobs, and vehicle and equipment washing off site.
- ❑ If refueling or vehicle maintenance must be done onsite, work in a bermed area away from storm drains and over a drip pan big enough to collect fluids. Recycle or dispose of fluids as hazardous waste.
- ❑ If vehicle or equipment cleaning must be done onsite, clean with water only in a bermed area that will not allow rinse water to run into gutters, streets, storm drains, or surface waters.
- ❑ Do not clean vehicle or equipment onsite using soaps, solvents, degreasers, steam cleaning equipment, etc.

Spill Prevention and Control
- ❑ Keep spill cleanup materials (rags, absorbents, etc.) available at the construction site at all times.
- ❑ Inspect vehicles and equipment frequently for and repair leaks promptly. Use drip pans to catch leaks until repairs are made.
- ❑ Clean up spills or leaks immediately and dispose of cleanup materials properly.
- ❑ Do not hose down surfaces where fluids have spilled. Use dry cleanup methods (absorbent materials, cat litter, and/or rags).
- ❑ Sweep up spilled dry materials immediately. Do not try to wash them away with water, or bury them.
- ❑ Clean up spills on dirt areas by digging up and properly disposing of contaminated soil.
- ❑ Report significant spills immediately. You are required by law to report all significant releases of hazardous materials, including oil. To report a spill: 1) Dial 911 or your local emergency response number, 2) Call the Governor's Office of Emergency Services Warning Center, (800) 852-7550 (24 hours).

EARTHWORK & CONTAMINATED SOILS

Erosion Control
- ❑ Schedule grading and excavation work for dry weather only.
- ❑ Stabilize all denuded areas, install and maintain temporary erosion controls (such as erosion control fabric or bonded fiber matrix) until vegetation is established.
- ❑ Seed or plant vegetation for erosion control on slopes or where construction is not immediately planned.

Sediment Control
- ❑ Protect storm drain inlets, gutters, ditches, and drainage courses with appropriate BMPs, such as gravel bags, fiber rolls, berms, etc.
- ❑ Prevent sediment from migrating offsite by installing and maintaining sediment controls, such as fiber rolls, silt fences, or sediment basins.
- ❑ Keep excavated soil on the site where it will not collect into the street.
- ❑ Transfer excavated materials to dump trucks on the site, not in the street.
- ❑ Contaminated Soils
- ❑ If any of the following conditions are observed, test for contamination and contact the Regional Water Quality Control Board:
  - Unusual soil conditions, discoloration, or odor.
  - Abandoned underground tanks
  - Abandoned wells
  - Buried barrels, debris, or trash.

PAVING/ASPHALT WORK

- ❑ Avoid paving and seal coating in wet weather, or when rain is forecast before fresh pavement will have time to cure.
- ❑ Cover storm drain inlets and manholes when applying seal coat, tack coat, slurry seal, fog seal, etc.
- ❑ Collect and recycle or appropriately dispose of excess abrasive gravel or sand. Do NOT sweep or wash it into gutters.
- ❑ Do not use water to wash down fresh asphalt concrete pavement.

Sawcutting & Asphalt/Concrete Removal
- ❑ Completely cover or barricade storm drain inlets when saw cutting. Use filter fabric, catch basin inlet filters, or gravel bags to keep slurry out of the storm drain system.
- ❑ Shovel, abosorb, or vacuum saw-cut slurry and dispose of all waste as soon as you are finished in one location or at the end of each work day (whichever is sooner!).
- ❑ If sawcut slurry enters a catch basin, clean it up immediately.

CONCRETE, GROUT & MORTAR APPLICATION

- ❑ Store concrete, grout and mortar under cover, on pallets and away from drainage areas. These materials must never reach a storm drain.
- ❑ Wash out concrete equipment/trucks offsite or in a contained area, so there is no discharge into the underlying soil or onto surrounding areas. Let concrete harden and dispose of as garbage.
- ❑ Collect the wash water from washing exposed aggregate concrete and remove it for appropriate disposal offsite.

LANDSCAPE MATERIALS

- ❑ Contain stockpiled landscaping materials by storing them under tarps when they are not actively being used.
- ❑ Stack erodible landscape material on pallets. Cover or store these materials when they are not actively being used or applied.
- ❑ Discontinue application of any erodible landscape material within 2 days before a forecast rain event or during wet weather.

PAINTING & PAINT REMOVAL

Painting cleanup
- ❑ Never clean brushes or rinse paint containers into a street, gutter, storm drain, or surface waters.
- ❑ For water-based paints, paint out brushes to the extent possible. Rinse to the sanitary sewer once you have gained permission from the local wastewater treatment authority. Never pour paint down a drain.
- ❑ For oil-based paints, paint out brushes to the extent possible and clean with thinner or solvent in a proper container. Filter and reuse thinners and solvents. Dispose of residue and unusable thinner/solvents as hazardous waste.

Paint Removal
- ❑ Chemical paint stripping residue and chips and dust from marine paints or paints containing lead or tributyltin must be disposed of as hazardous waste.
- ❑ Paint chips and dust from non-hazardous dry stripping and sand blasting may be swept up or collected in plastic drop cloths and disposed of as trash.

DEWATERING

- ❑ Effectively manage all run-on, all runoff within the site, and all runoff that discharges from the site. Divert run-on water from offsite away from all disturbed areas or otherwise ensure compliance.
- ❑ When dewatering, notify and obtain approval from the local municipality before discharging water to a street gutter or storm drain. Filtration or diversion through a basin, tank, or sediment trap may be required.
- ❑ In areas of known contamination, testing is required prior to reuse or discharge of groundwater. Consult with the Engineer to determine whether testing is required and how to interpret results. Contaminated groundwater must be treated or hauled off-site for proper disposal.

To Report a Spill: Call 911 or (831) 394-6811
If you see paint, cement. motor oil, antifreeze or other hazardous materials flowing into or being dumped into a storm drain, immediately call 911 to report it.

Additional Contact Numbers (Non-Emergency):

City of Carmel-by-the-Sea:	(831) 620-2000
City of Del Rey Oaks:	(831) 394-8511
City of Monterey:	(831) 646-3921
City of Pacific Grove:	(831) 648-5722
City of Sand City:	(831) 394-3054
City of Seaside:	(831) 899-6825
County of Monterey:	(831) 755-4800

STORM DRAIN POLLUTERS MAY BE LIABLE FOR FINES OF UP TO $10,000 PER DAY!

v.3 Oct 2015

LEGEND

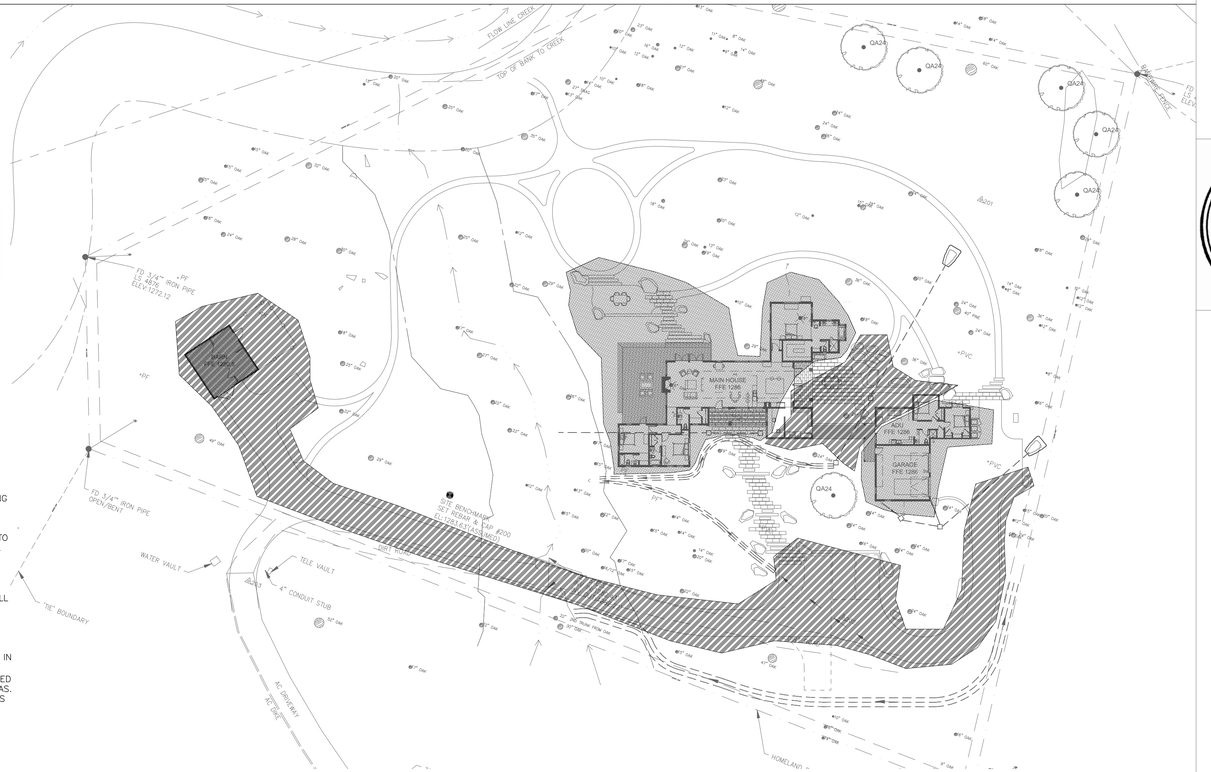
AREA OF FILL

AREA OF CUT

EARTHWORK QUANTITIES:
CUT=289 CY
FILL=263 CY
26 CY CUT NET

IMPERVIOUS SURFACE=9000 SF

ADDITIONAL NOTES:
1. THIS PROJECT SITE WILL EXPECT 2-10 WORKERS PER DAY.
2. THIS PROJECT SITE WILL EXPECT NO MORE THAN 5 TRUCK DELIVERIES PER DAY.
3. CONSTRUCTION PARKING WILL BE AT THE SITE WITHIN PROPOSED AREA



GRADING STAGING:
SEE GRADING PLANS FOR GRADING AND EROSION CONTROL DURING CONSTRUCTION.
STEP 1: REMOVE TREES DESIGNATED FOR REMOVAL AS SHOWN IN THIS PLAN SET AND CLEAR AND GRUB SITE PER GEOTECHNICAL REPORT SPECIFICATIONS. ALL DEBRIS TO BE REMOVED OFF SITE TO THE MONTEREY REGIONAL WASTE MANAGEMENT LANDFILL VIA HAUL ROUTE SHOWN IN A/C9. USE DESIGNATE AREA FOR TEMPORARY STOCKPILE AREA. IMPLEMENT EROSION CONTROL ONCE SITE HAS BEEN DISTURBED. SEE EROSION CONTROL PLAN FOR NECESSARY BMPS DURING GRADING OPERATIONS.
STEP 2: REMOVE CUT MATERIAL AND PREPARE SUBGRADE FOR FILL PLACEMENT PER GEOTECHNICAL REPORT SPECIFICATIONS. USE DESIGNATED AREAS FOR EQUIPMENT STAGING AND TEMPORARY STOCKPILE AREAS. SEE EROSION CONTROL PLAN FOR NECESSARY BMPS DURING GRADING OPERATIONS.
STEP 3: BRING FILL MATERIAL TO THE SITE FROM THE MONTEREY REGIONAL WASTE MANAGEMENT LANDFILL VIA HAUL ROUTE SHOWN IN A/C9. PLACE FILL MATERIAL WITHIN AREAS TO RECEIVE FILL PER GEOTECHICAL REPORT SPECIFICATIONS (ON GOING). USE DESIGNATED AREAS FOR EQUIPMENT STAGING AND TEMPORARY STOCKPILE AREAS.
STEP 4: PREPARE SUBGRADE FOR BUILDING AND PAVEMENT AREAS PER GEOTECHNICAL REPORT SPECIFICATIONS.
STEP 5: INSTALL ADDITIONAL BMPS AS SHOWN ON THE EROSION CONTROL PLAN AND MAINTAIN BMPS UNTIL CONSTRUCTION IS FINISHED AND LANDSCAPING IS ESTABLISHED.

B C9 GRADING STAGING PLAN

SCALE: 1/32"

50 0 50 100

SCALE: 1" = 50'

CMPROS
CONSTRUCTION MANAGEMENT PROFESSIONALS
1067 Market Street, Suite 1028 / San Francisco, CA 94103
Ph: 415.437.0701 Cell: 209.988.9937
www.cmprosinc.com

DATE: 06.11.2024
SCALE:
DRAWN: 23.14
JOB NUMBER:
REVISION

CONSTRUCTION MANAGEMENT PLAN

REGISTERED PROFESSIONAL ENGINEER SAMUEL MESSIAH No. C 055887 Exp. CIVIL STATE OF CALIFORNIA

MESSIAH LOT: 207 RESIDENCE
23 SAN CLEMENTE TRL.
CARMEL, CA
A.P.N. 239-131-007

C9

APN
239-131-027

FD 3/4"" IRON PIPE
LS 4876
ELEV: 1269.79

FLOW LINE CREEK

TOP OF BANK TO CREEK

PROPOSED
SINGLE FAMILY
RESIDENCE

PROPOSED
ADU FFE 1286

PROPOSED 2-CAR GARAGE FFE
1286

PROPOSED
BARN

FD 3/4"" IRON PIPE
LS 4876
ELEV: 1272.12

SITE BENCHMARK
SET REBAR & CAP #200
EL: 1283.63'(ASSUMED)

12" STEEL
INV IN: 1282.43'
INV OUT: 1282.22'

22" 2ND TRUNK FROM OAK

DIRT ROAD

FD 3/4"" IRON PIPE
OPEN/BENT

TELE VAULT

4" CONDUIT STUB

WATER VAULT

HOMELAND BOUNDARY

FD 3/4"" IRON PIPE
LS 4876
ELEV: 1300.60

VOL 21 C.T. PG. 20

SITE PLAN
SCALE: 1/16" = 1'-0"

HOLDREN+LIETZKE
ARCHITECTURE

225 CANNERY ROW - SUITE A
MONTEREY, CA 93940

Ph: 831.649.6001
Fax: 831.649.6003

www.hl-arc.com

DATE:	11.07.2024
SCALE:	1/16"=1'-0"
DRAWN:	KK
JOB NUMBER:	23.14
REVISION	

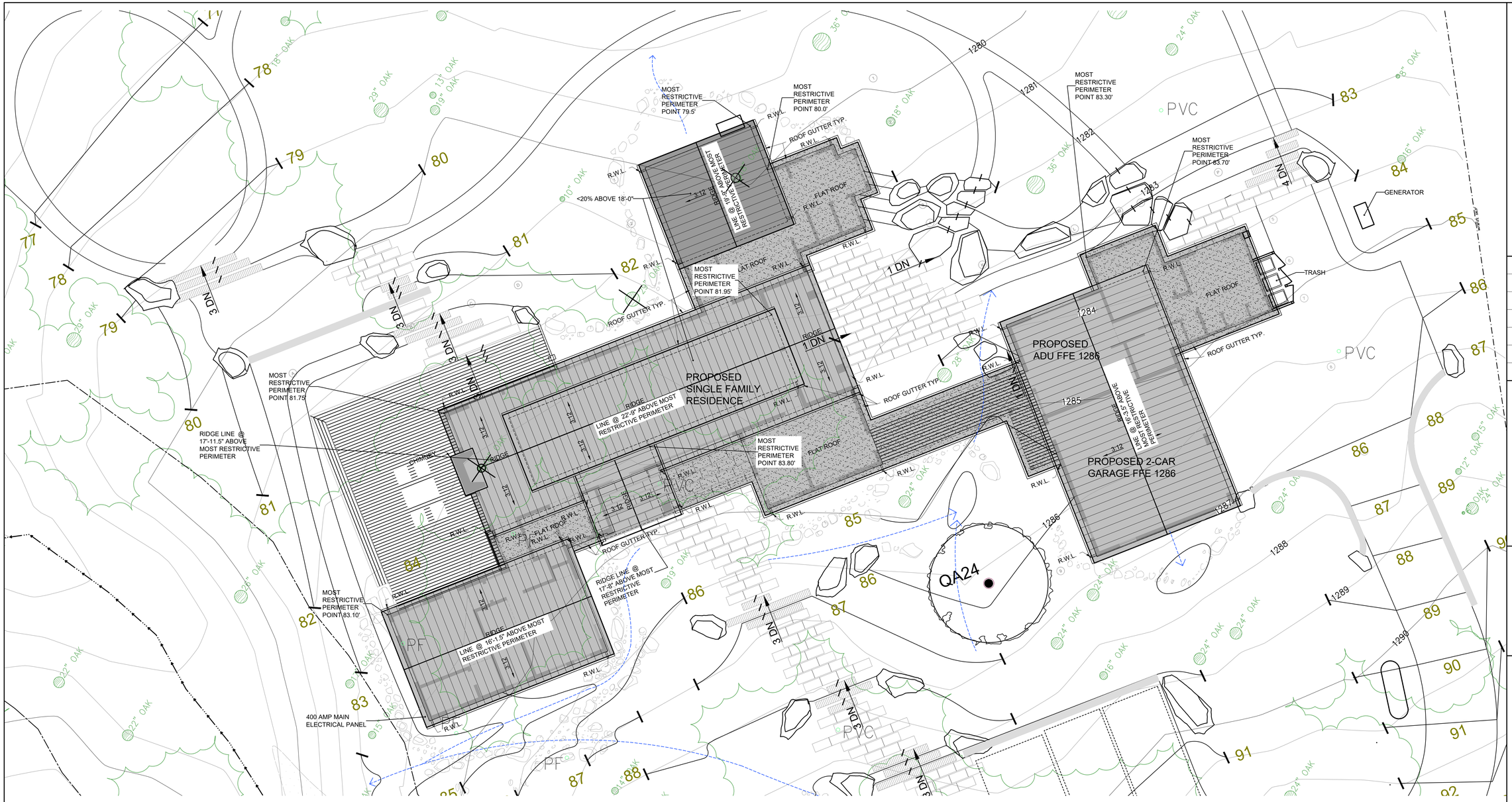
LICENSED ARCHITECT
J. CRAIG HOLDREN
C-32768
SEP 30 2027
Renewal Date
STATE OF CALIFORNIA

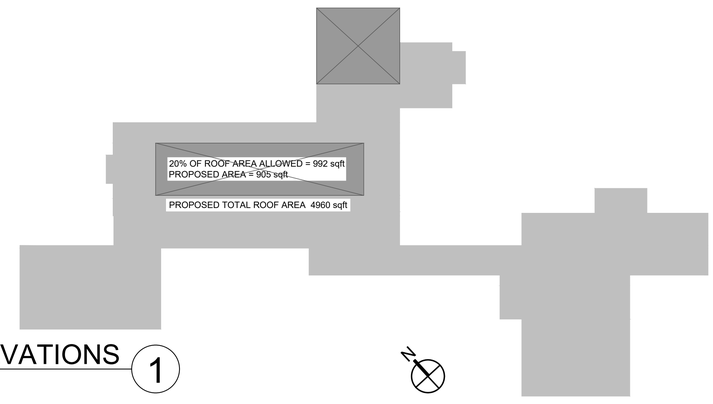
SITE PLAN

MESSIAH LOT: 207 RESIDENCE

23 SAN CLEMENTE TRL.
CARMEL, CA
A.P.N. 239-131-007

A1.0





SITE PLAN ROOF ELEVATIONS

SCALE: 1/8" = 1'-0"

1

HOLDREN+LIETZKE ARCHITECTURE

225 CANNERY ROW - SUITE A
MONTEREY, CA 93940

Ph: 831.649.6001
Fax: 831.649.6003

www.hl-arc.com

DATE:	11.07.2024
SCALE:	1/8"=1'-0"
DRAWN:	SGC
JOB NUMBER:	23.14
REVISION	

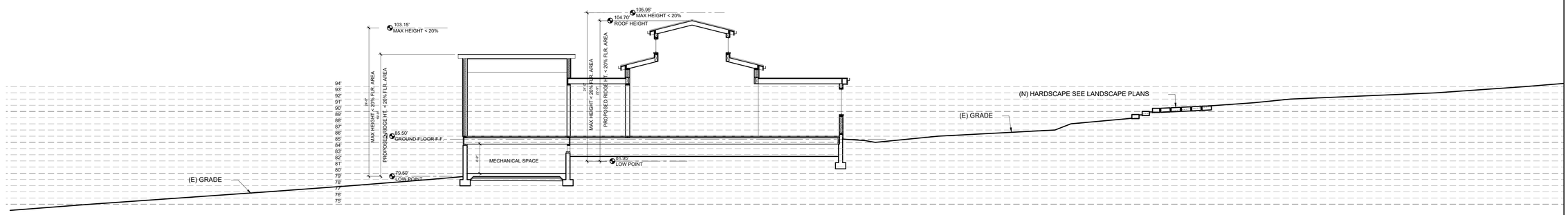
LICENSED ARCHITECT
J. CRAIG HOLDREN
C-32768
SEP 30 2027
Renewal Date
STATE OF CALIFORNIA

SITE PLAN ROOF ELEVATIONS

MESSIAH LOT: 207 RESIDENCE

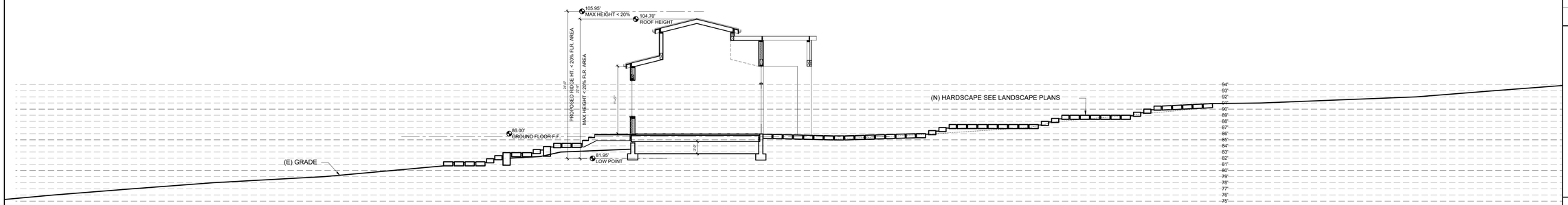
23 SAN CLEMENTE TRL.
CARMEL, CA
A.P.N. 239-131-007

A1.1



SITE SECTION 1

SCALE: 1/8" = 1'-0"



SITE SECTION 2

SCALE: 1/8" = 1'-0"

HOLDREN+LIETZKE
ARCHITECTURE

225 CANNERY ROW - SUITE A
MONTEREY, CA 93940

Ph: 831.649.6001
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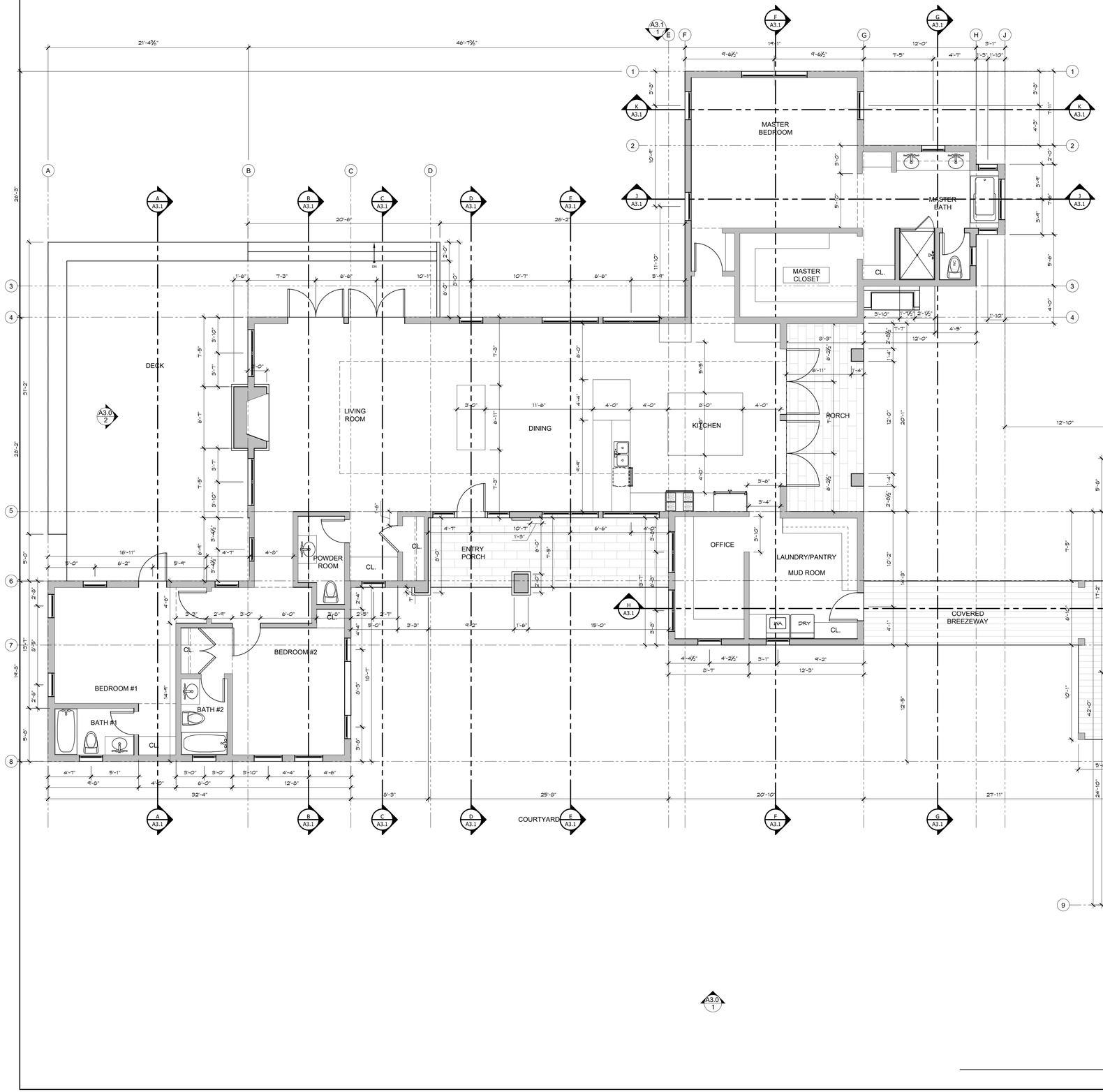
J. CRAIG HOLDREN
C-32768
SEP 30 2027
Renewal Date
STATE OF CALIFORNIA

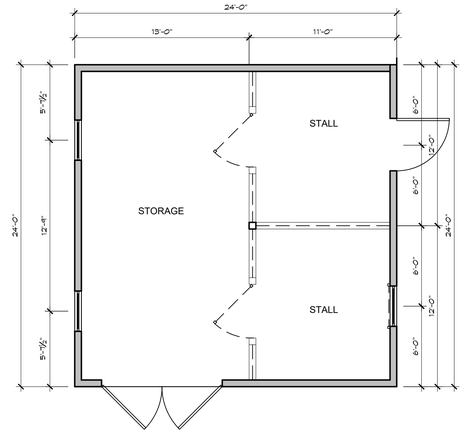
SITE SECTIONS

MESSIAH LOT: 207 RESIDENCE

23 SAN CLEMENTE TRL.
CARMEL, CA
A.P.N. 239-131-007

A1.2





BARN FLOOR PLAN 2
SCALE: 3/16" = 1'-0"

FLOOR PLAN 1
SCALE: 3/16" = 1'-0"

HOLDREN+LIETZKE ARCHITECTURE
225 CANNERY ROW - SUITE A
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FLOOR PLANS

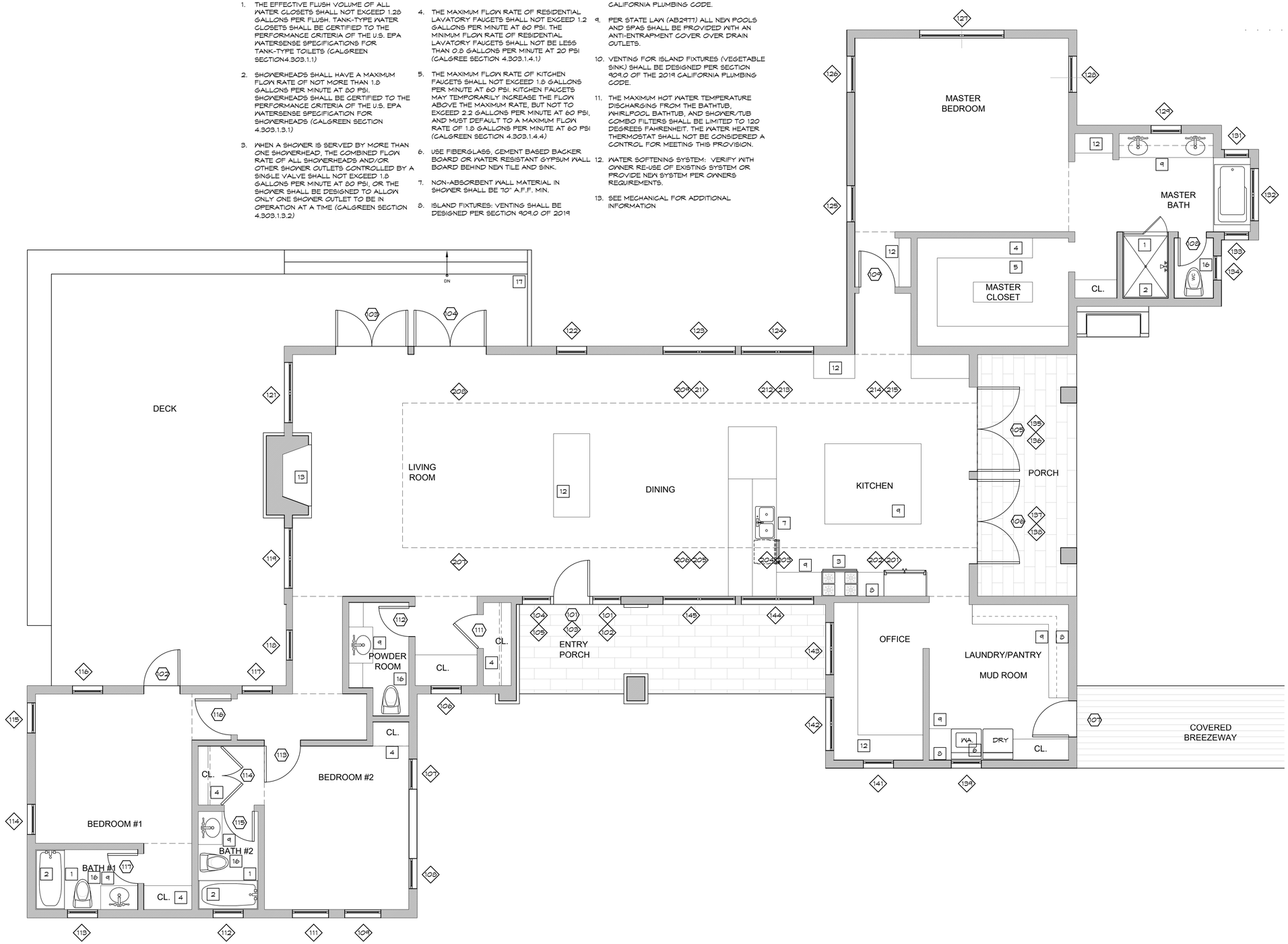
MESSIAH LOT: 207 RESIDENCE

23 SAN CLEMENTE TRL.
CARMEL, CA
A.P.N. 239-131-007

A2.0

PLUMBING NOTES:

1. THE EFFECTIVE FLUSH VOLUME OF ALL WATER CLOSETS SHALL NOT EXCEED 1.28 GALLONS PER FLUSH. TANK-TYPE WATER CLOSETS SHALL BE CERTIFIED TO THE PERFORMANCE CRITERIA OF THE U.S. EPA WATERSENSE SPECIFICATIONS FOR TANK-TYPE TOILETS (CALGREEN SECTION4.303.1.1)
2. SHOWERHEADS SHALL HAVE A MAXIMUM FLOW RATE OF NOT MORE THAN 1.8 GALLONS PER MINUTE AT 80 PSI. SHOWERHEADS SHALL BE CERTIFIED TO THE PERFORMANCE CRITERIA OF THE U.S. EPA WATERSENSE SPECIFICATION FOR SHOWERHEADS (CALGREEN SECTION 4.303.1.3.1)
3. WHEN A SHOWER IS SERVED BY MORE THAN ONE SHOWERHEAD, THE COMBINED FLOW RATE OF ALL SHOWERHEADS AND/OR OTHER SHOWER OUTLETS CONTROLLED BY A SINGLE VALVE SHALL NOT EXCEED 1.8 GALLONS PER MINUTE AT 80 PSI, OR THE SHOWER SHALL BE DESIGNED TO ALLOW ONLY ONE SHOWER OUTLET TO BE IN OPERATION AT A TIME (CALGREEN SECTION 4.303.1.3.2)
4. THE MAXIMUM FLOW RATE OF RESIDENTIAL LAVATORY FAUCETS SHALL NOT EXCEED 1.2 GALLONS PER MINUTE AT 60 PSI. THE MINIMUM FLOW RATE OF RESIDENTIAL LAVATORY FAUCETS SHALL NOT BE LESS THAN 0.8 GALLONS PER MINUTE AT 20 PSI (CALGREE SECTION 4.303.1.4.1)
5. THE MAXIMUM FLOW RATE OF KITCHEN FAUCETS SHALL NOT EXCEED 1.8 GALLONS PER MINUTE AT 60 PSI. KITCHEN FAUCETS MAY TEMPORARILY INCREASE THE FLOW ABOVE THE MAXIMUM RATE, BUT NOT TO EXCEED 2.2 GALLONS PER MINUTE AT 60 PSI, AND MUST DEFAULT TO A MAXIMUM FLOW RATE OF 1.8 GALLONS PER MINUTE AT 60 PSI (CALGREEN SECTION 4.303.1.4.4)
6. USE FIBERGLASS, CEMENT BASED BACKER BOARD OR WATER RESISTANT GYPSUM WALL BOARD BEHIND NEW TILE AND SINK.
7. NON-ABSORBENT WALL MATERIAL IN SHOWER SHALL BE 70" A.F.F. MIN.
8. ISLAND FIXTURES: VENTING SHALL BE DESIGNED PER SECTION 909.0 OF 2019 CALIFORNIA PLUMBING CODE.
9. PER STATE LAW (AB2977) ALL NEW POOLS AND SPAS SHALL BE PROVIDED WITH AN ANTI-ENTRAPMENT COVER OVER DRAIN OUTLETS.
10. VENTING FOR ISLAND FIXTURES (VEGETABLE SINK) SHALL BE DESIGNED PER SECTION 909.0 OF THE 2019 CALIFORNIA PLUMBING CODE.
11. THE MAXIMUM HOT WATER TEMPERATURE DISCHARGING FROM THE BATHTUB, WHIRLPOOL BATHTUB, AND SHOWER/TUB COMBO FILTERS SHALL BE LIMITED TO 120 DEGREES FAHRENHEIT. THE WATER HEATER THERMOSTAT SHALL NOT BE CONSIDERED A CONTROL FOR MEETING THIS PROVISION.
12. WATER SOFTENING SYSTEM: VERIFY WITH OWNER RE-USE OF EXISTING SYSTEM OR PROVIDE NEW SYSTEM PER OWNERS REQUIREMENTS.
13. SEE MECHANICAL FOR ADDITIONAL INFORMATION



KEY NOTES:

1. ½" TEMPERED GLASS SHOWER ENCLOSURE & 2 FOOT WIDE DOOR - PROVIDE CONTINUOUS RIGID ANCHORING AT TOP & BOTTOM, ⅜" OK IN SECONDARY BATHS
2. TILE TO MIN. 72" A.F.F. IN ALL SHOWERS - USE DENSSHIELD TILE BACKER BY: GEORGIA PACIFIC @ ALL TILE SURFACES, SEE INTERIOR ELEVATIONS
3. VENT HOOD THROUGH ROOF - SEE MECH. FOR ADDITIONAL INFORMATION
4. POLE W/SHELF ABOVE - PAINT TO MATCH WALLS
5. CLOSET SYSTEM BY OTHERS - SEE INTERIOR ELEVATIONS FOR ADDITIONAL INFORMATION
6. RECESS WALL FOR PLUMBING & VENT REQUIREMENTS SEE DETAIL - / A0.-
7. PROVIDE REVERSE OSMOSIS SYSTEM & FAUCET AT KITCHEN SINK
8. CABINET - UPPERS OR SHELVES ABOVE IN SOME LOCATIONS - PROVIDE BLOCKING AS REQ'D. FOR CABINET AND FINISH INSTALLATION - SEE INTERIOR ELEVATIONS - FINAL DESIGN TO BE APPROVED BY OWNER
9. CABINET W/ WATERPROOF COUNTERTOP - SEE INT. ELEVS. FOR ADD'L INFO. - PROVIDE BLOCKING AS REQ'D FOR CABINET AND FINISH INSTALLATION - FINAL DESIGN TO BE APPROVED BY OWNER
10. ⅝" TYPE 'X' GYP. BD. @ ALL WALL, CEILING & STRUCTURAL SURFACES
11. 20 MIN. RATED ASSEMBLY OF SELF CLOSING, TIGHT FITTING MIN. 1-⅜" THICK SOLID WOOD DOOR TO INTERIOR
12. BUILT IN CABINET I INTERIOR ELEVATIONS
13. ISOKERN GAS FIRE PLACE
14. 18" HIGH PLYWD. PLATFORM FOR MECHANICAL EQUIPMENT - SEE MECHANICAL FOR MORE INFORMATION
15. 4"Ø x 36" HIGH METAL TUB BALLARD CONCRETE FILLED.
16. PROVIDE A CLEAR WIDTH NOT LESS THAN 30"(W) x 24"(D) IN FRONT OF EACH WATER CLOSET
17. 36" HIGH 2"x1" SQUIRE TUB HAND RAIL - SEE SHEET A7.1 FOR ADDITIONAL INFORMATION
18. 22"x30" MINIMUM ATTIC ACCESS TO AREAS GRATER THAN 30 SQFT AND MINIMUM HEAD CLEARANCE OF 30"
19. INTERIOR HORSE STALL WINDOW METAL GRILL = DESIGN AND FINISH AS APPROVED BY OWNER
20. METAL AND WOOD HORSE STALL PARTITION - DESIGN AND FINISH AS APPROVED BY OWNER

NOTE:
a. SEE ADDITIONAL PLUMBING NOTES
b. SEE MECHANICAL FOR ADDITIONAL NOTES

N

MAIN HOUSE FLOOR PLAN
SCALE: 1/4" = 1'-0"
1

HOLDREN+LIETZKE ARCHITECTURE
225 CANNERY ROW - SUITE A
MONTEREY, CA 93940
Ph: 831.649.6001
Fax: 831.649.6003
www.hl-arc.com

DATE:	11.07.2024
SCALE:	1/4"=1'-0"
DRAWN:	KK
JOB NUMBER:	23.14
REVISION	

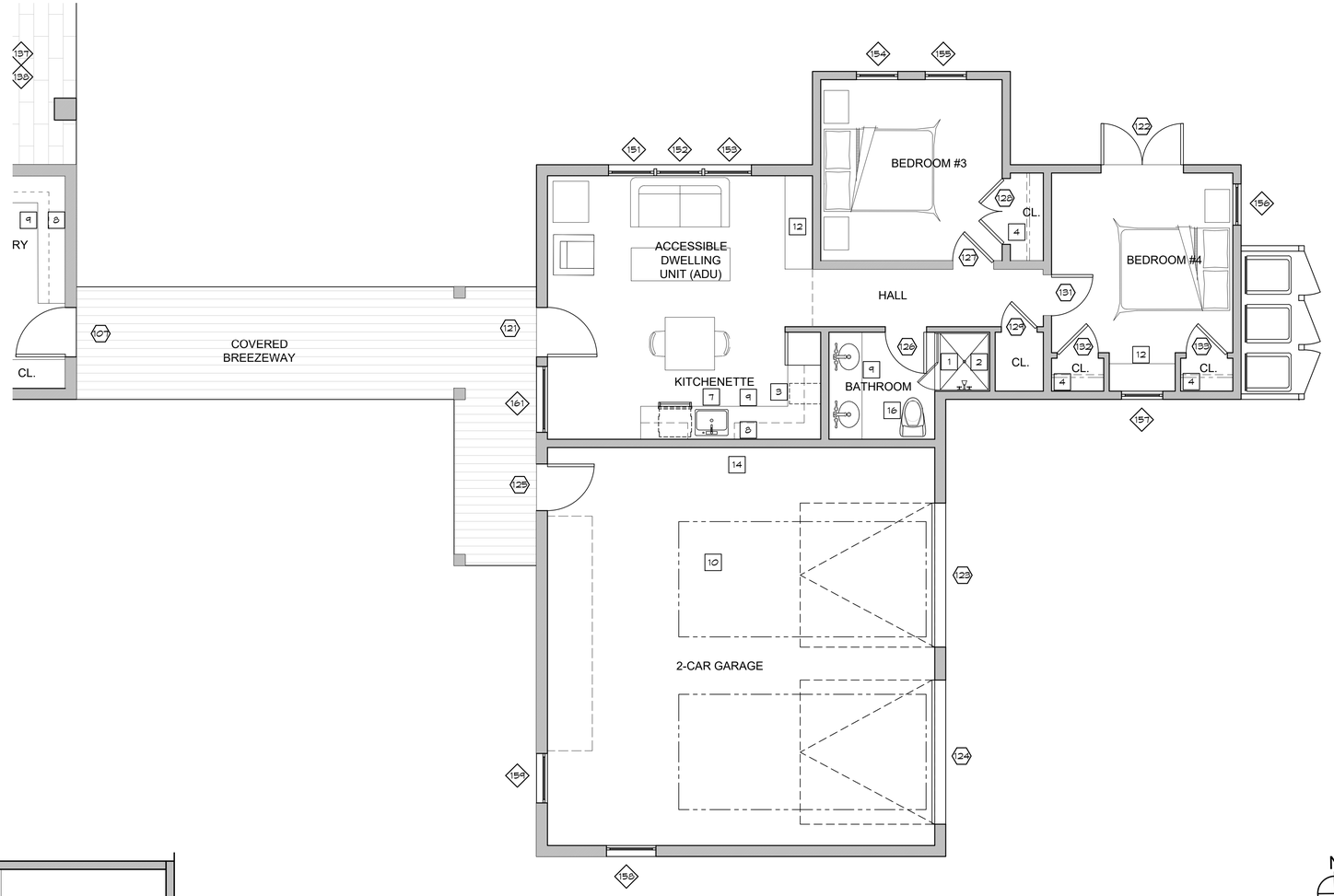
LICENSED ARCHITECT
J. CRAIG HOLDREN
C-32768
SEP 30 2027
Renewal Date
STATE OF CALIFORNIA

MAIN HOUSE FLOOR PLAN

MESSIAH LOT: 207 RESIDENCE

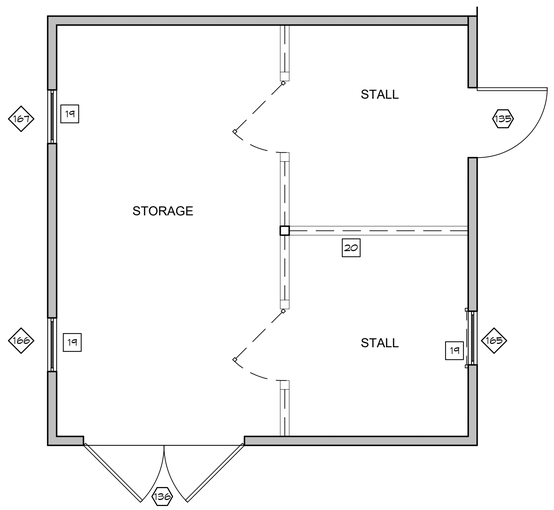
23 SAN CLEMENTE TRL.
CARMEL, CA
A.P.N. 239-131-007

A2.1



ADA FLOOR PLAN 1

SCALE: 1/4" = 1'-0"



BARN FLOOR PLAN 2

SCALE: 1/4" = 1'-0"

KEY NOTES:

1. ½" TEMPERED GLASS SHOWER ENCLOSURE & 2 FOOT WIDE DOOR - PROVIDE CONTINUOUS RIGID ANCHORING AT TOP & BOTTOM, ⅜" OK IN SECONDARY BATHS
2. TILE TO MIN. 72" A.F.F. IN ALL SHOWERS - USE DENSSHIELD TILE BACKER BY: GEORGIA PACIFIC @ ALL TILE SURFACES, SEE INTERIOR ELEVATIONS
3. VENT HOOD THROUGH ROOF - SEE MECH. FOR ADDITIONAL INFORMATION
4. POLE W/SHELF ABOVE - PAINT TO MATCH WALLS
5. CLOSET SYSTEM BY OTHERS - SEE INTERIOR ELEVATIONS FOR ADDITIONAL INFORMATION
6. RECESS WALL FOR PLUMBING & VENT REQUIREMENTS SEE DETAIL - / A0.-
7. PROVIDE REVERSE OSMOSIS SYSTEM & FAUCET AT KITCHEN SINK
8. CABINET - UPPERS OR SHELVES ABOVE IN SOME LOCATIONS - PROVIDE BLOCKING AS REQ'D. FOR CABINET AND FINISH INSTALLATION - SEE INTERIOR ELEVATIONS - FINAL DESIGN TO BE APPROVED BY OWNER
9. CABINET W/ WATERPROOF COUNTERTOP - SEE INT. ELEVS. FOR ADD'L INFO. - PROVIDE BLOCKING AS REQ'D FOR CABINET AND FINISH INSTALLATION - FINAL DESIGN TO BE APPROVED BY OWNER
10. ⅝" TYPE, 'X' GYP. BD. @ ALL WALL, CEILING & STRUCTURAL SURFACES
11. 20 MIN. RATED ASSEMBLY OF SELF CLOSING, TIGHT FITTING MIN. 1-⅜" THICK SOLID WOOD DOOR TO INTERIOR
12. BUILT IN CABINET I INTERIOR ELEVATIONS
13. ISOKERN GAS FIRE PLACE
14. 18" HIGH PLYWD. PLATFORM FOR MECHANICAL EQUIPMENT - SEE MECHANICAL FOR MORE INFORMATION
15. 4"Ø x 36" HIGH METAL TUB BALLARD CONCRETE FILLED.
16. PROVIDE A CLEAR WIDTH NOT LESS THAN 30"(W) x 24"(D) IN FRONT OF EACH WATER CLOSET
17. 36" HIGH 2"x1" SQUIRE TUB HAND RAIL - SEE SHEET A7.1 FOR ADDITIONAL INFORMATION
18. 22"x30" MINIMUM ATTIC ACCESS TO AREAS GRATER THAN 30 SQFT AND MINIMUM HEAD CLEARANCE OF 30"
19. INTERIOR HORSE STALL WINDOW METAL GRILL = DESIGN AND FINISH AS APPROVED BY OWNER
20. METAL AND WOOD HORSE STALL PARTITION - DESIGN AND FINISH AS APPROVED BY OWNER

NOTE:
a. SEE ADDITIONAL PLUMBING NOTES
b. SEE MECHANICAL FOR ADDITIONAL NOTES

PLUMBING NOTES:

1. THE EFFECTIVE FLUSH VOLUME OF ALL WATER CLOSETS SHALL NOT EXCEED 1.28 GALLONS PER FLUSH. TANK-TYPE WATER CLOSETS SHALL BE CERTIFIED TO THE PERFORMANCE CRITERIA OF THE U.S. EPA WATERSENSE SPECIFICATIONS FOR TANK-TYPE TOILETS (CALGREEN SECTION4.303.1.1)
2. SHOWERHEADS SHALL HAVE A MAXIMUM FLOW RATE OF NOT MORE THAN 1.8 GALLONS PER MINUTE AT 80 PSI. SHOWERHEADS SHALL BE CERTIFIED TO THE PERFORMANCE CRITERIA OF THE U.S. EPA WATERSENSE SPECIFICATION FOR SHOWERHEADS (CALGREEN SECTION 4.303.1.3.1)
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4. THE MAXIMUM FLOW RATE OF RESIDENTIAL LAVATORY FAUCETS SHALL NOT EXCEED 1.2 GALLONS PER MINUTE AT 60 PSI. THE MINIMUM FLOW RATE OF RESIDENTIAL LAVATORY FAUCETS SHALL NOT BE LESS THAN 0.8 GALLONS PER MINUTE AT 20 PSI (CALGREE SECTION 4.303.1.4.1)
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6. USE FIBERGLASS, CEMENT BASED BACKER BOARD OR WATER RESISTANT GYPSUM WALL BOARD BEHIND NEW TILE AND SINK.
7. NON-ABSORBENT WALL MATERIAL IN SHOWER SHALL BE 70" A.F.F. MIN.
8. ISLAND FIXTURES: VENTING SHALL BE DESIGNED PER SECTION 909.0 OF 2019 CALIFORNIA PLUMBING CODE.
9. PER STATE LAW (AB2977) ALL NEW POOLS AND SPAS SHALL BE PROVIDED WITH AN ANTI-ENTRAPMENT COVER OVER DRAIN OUTLETS.
10. VENTING FOR ISLAND FIXTURES (VEGETABLE SINK) SHALL BE DESIGNED PER SECTION 909.0 OF THE 2019 CALIFORNIA PLUMBING CODE.
11. THE MAXIMUM HOT WATER TEMPERATURE DISCHARGING FROM THE BATHTUB, WHIRLPOOL BATHTUB, AND SHOWER/TUB COMBO FILTERS SHALL BE LIMITED TO 120 DEGREES FAHRENHEIT. THE WATER HEATER THERMOSTAT SHALL NOT BE CONSIDERED A CONTROL FOR MEETING THIS PROVISION.
12. WATER SOFTENING SYSTEM: VERIFY WITH OWNER RE-USE OF EXISTING SYSTEM OR PROVIDE NEW SYSTEM PER OWNERS REQUIREMENTS.
13. SEE MECHANICAL FOR ADDITIONAL INFORMATION

HOLDREN+LIETZKE ARCHITECTURE

225 CANNERY ROW - SUITE A
MONTEREY, CA 93940

Ph: 831.649.6001
Fax: 831.649.6003

www.hl-arc.com

DATE:	11.07.2024
SCALE:	3/16"=1'-0"
DRAWN:	KK
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REVISION	

LICENSED ARCHITECT
J. CRAIG HOLDREN
C-32768
SEP 30 2027
Renewal Date
STATE OF CALIFORNIA

ADU & BARN HOUSE FLOOR PLANS

MESSIAH LOT: 207 RESIDENCE

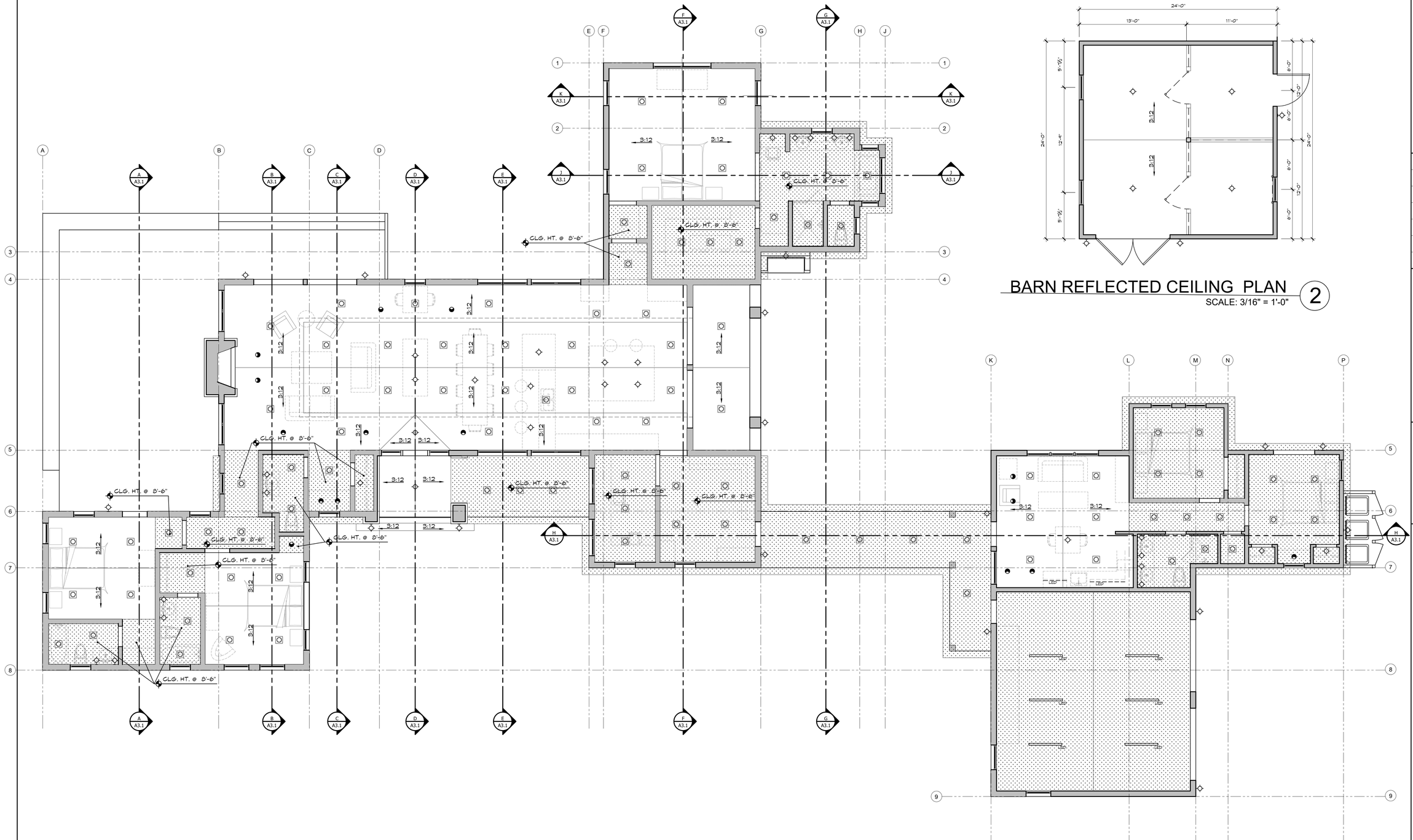
23 SAN CLEMENTE TRL.
CARMEL, CA
A.P.N. 239-131-007

A2.2

BARN REFLECTED CEILING PLAN

SCALE: 3/16" = 1'-0"

2



REFLECTED CEILING PLAN

SCALE: 3/16" = 1'-0"

1

N

HOLDREN+LIETZKE
ARCHITECTURE

225 CANNERY ROW - SUITE A
MONTEREY, CA 93940

Ph: 831.649.6001
Fax: 831.649.6003

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DATE:	11.07.2024
SCALE:	3/16"=1'-0"
DRAWN:	SGC
JOB NUMBER:	23.14
REVISION	

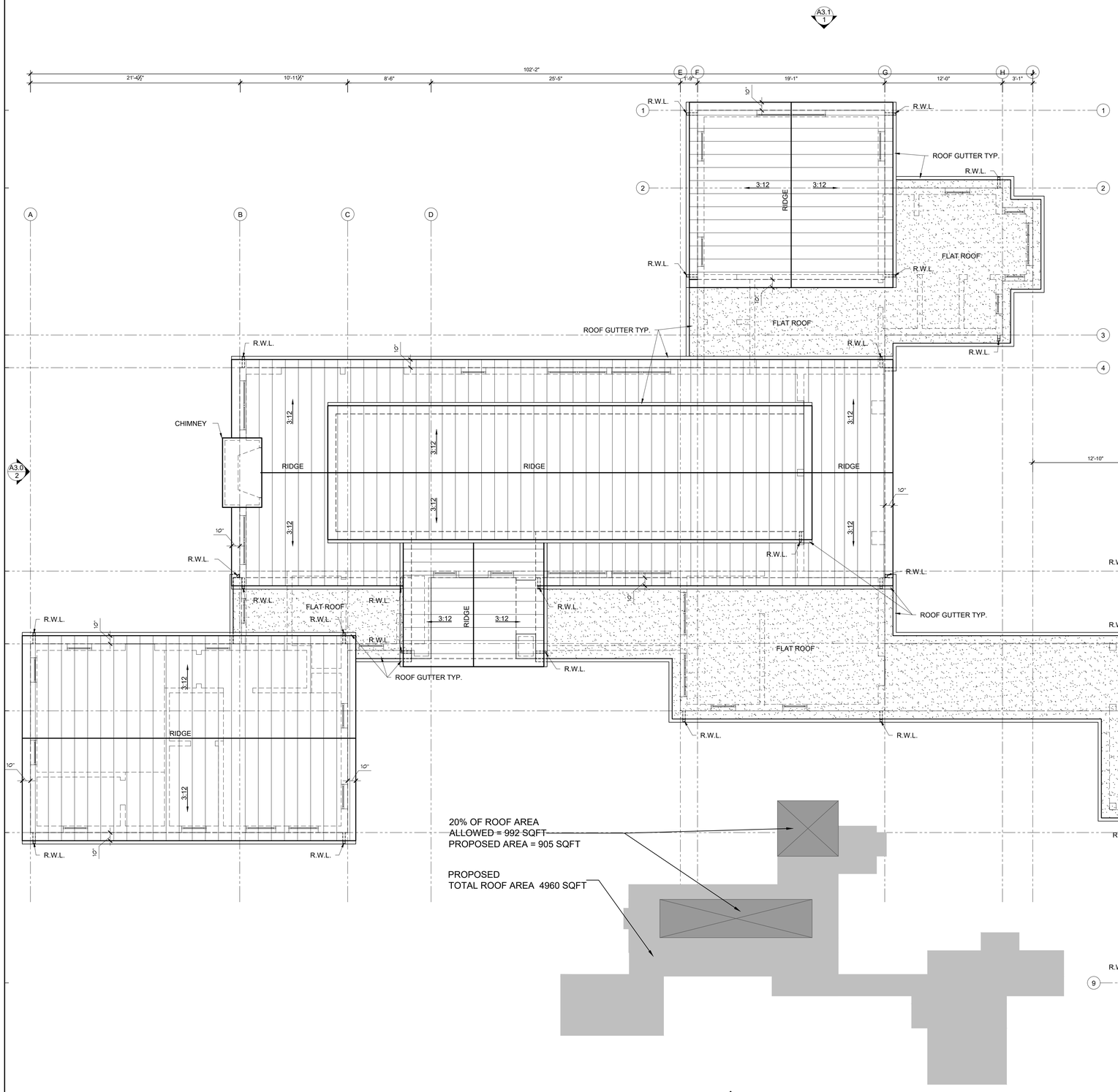
LICENSED ARCHITECT
J. CRAIG HOLDREN
C-32768
SEP 30 2027
Renewal Date
STATE OF CALIFORNIA

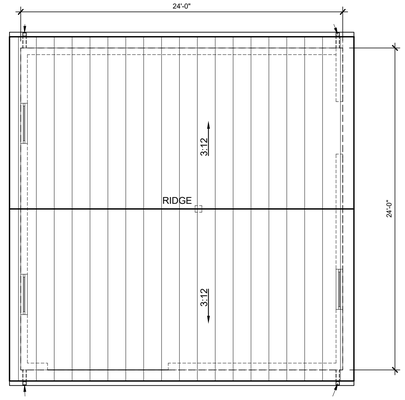
3/16" REFLECTED CEILING PLAN

MESSIAH LOT: 207 RESIDENCE

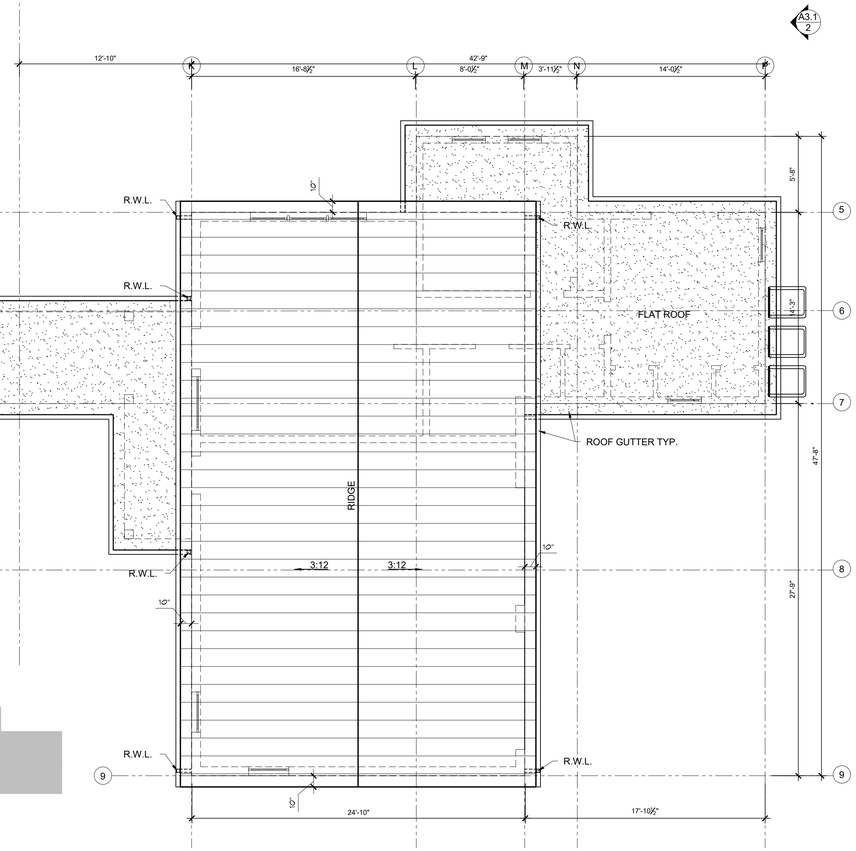
23 SAN CLEMENTE TRL.
CARMEL, CA
A.P.N. 239-131-007

A2.3





BARN ROOF PLAN
SCALE: 3/16" = 1'-0"
1



ROOF PLAN
SCALE: 3/16" = 1'-0"
1

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DATE:	11.07.2024
SCALE:	3/16"=1'-0"
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LICENSED ARCHITECT
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C-32768
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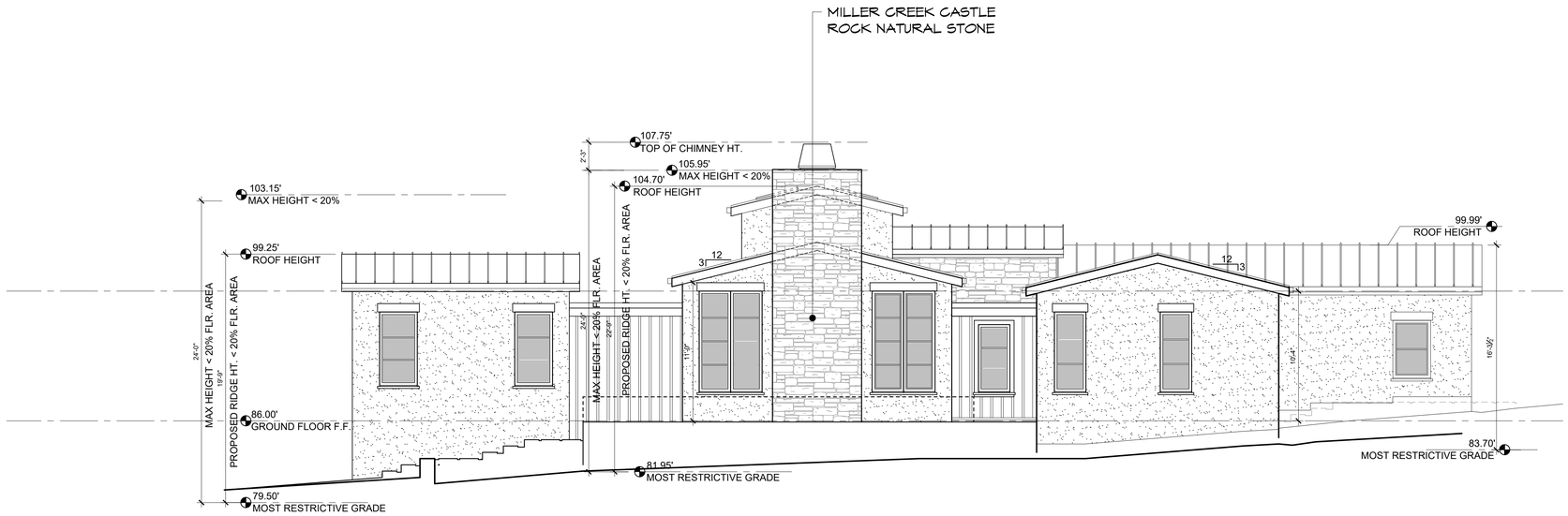
STATE OF CALIFORNIA

ROOF PLANS

MESSIAH LOT: 207 RESIDENCE

23 SAN CLEMENTE TRL.
CARMEL, CA
A.P.N. 239-131-007

A2.4



WEST ELEVATION

SCALE: 3/16" = 1'-0"

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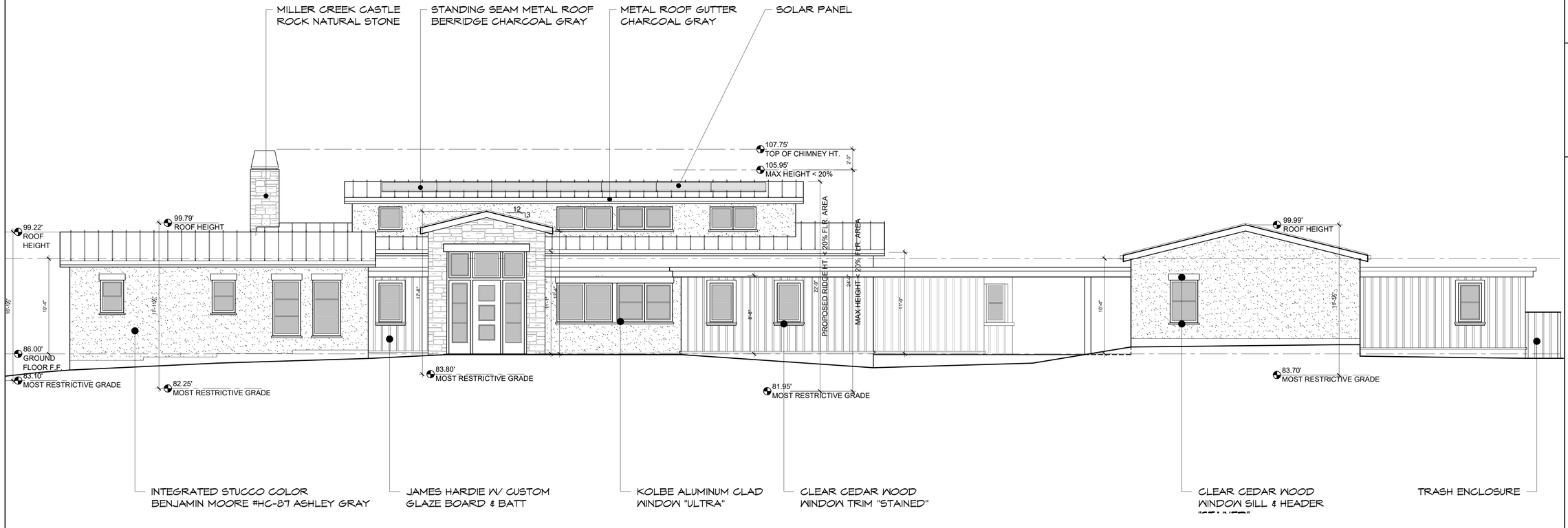

SOUTH ELEVATION

SCALE: 3/16" = 1'-0"

1

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DATE:	11.07.2024
SCALE:	3/16"=1'-0"
DRAWN:	KK
JOB NUMBER:	23.14
REVISION	

LICENSED ARCHITECT
J. CRAIG HOLDREN
C-32768
SEP 30 2027
Renewal Date
STATE OF CALIFORNIA

3/16" ELEVATIONS

MESSIAH LOT: 207 RESIDENCE

23 SAN CLEMENTE TRL.
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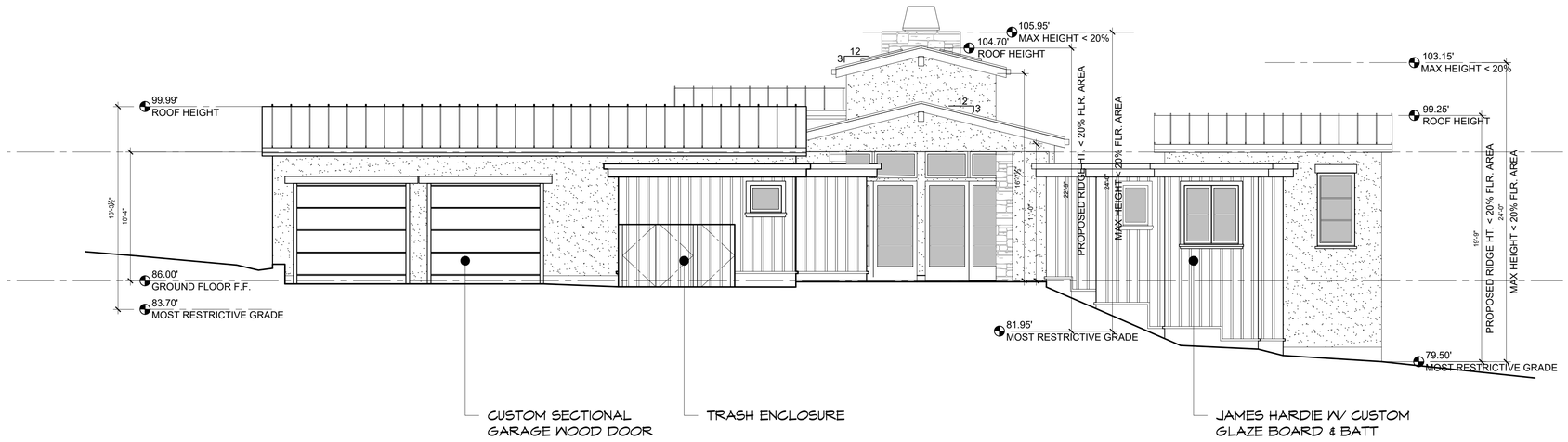
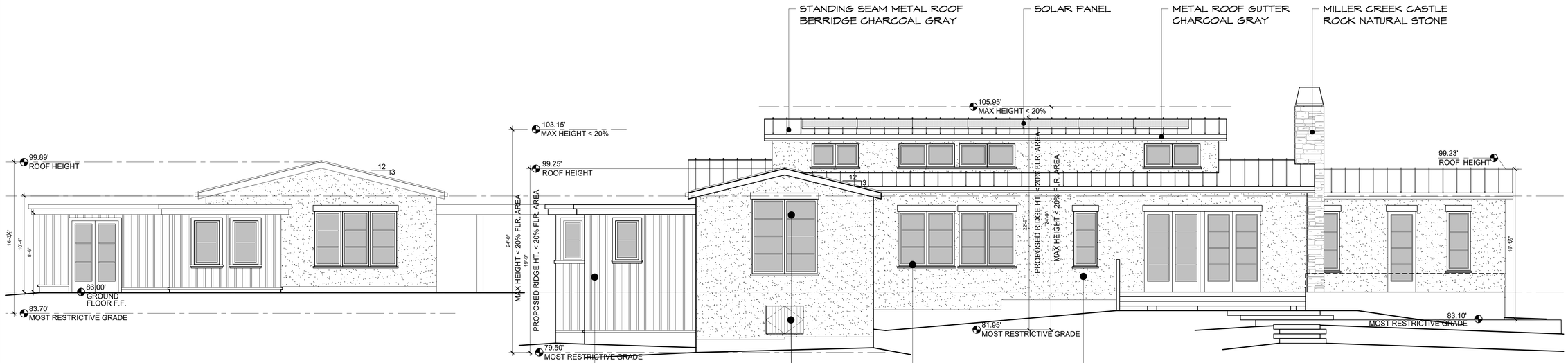
A.P.N. 239-131-007

A3.0



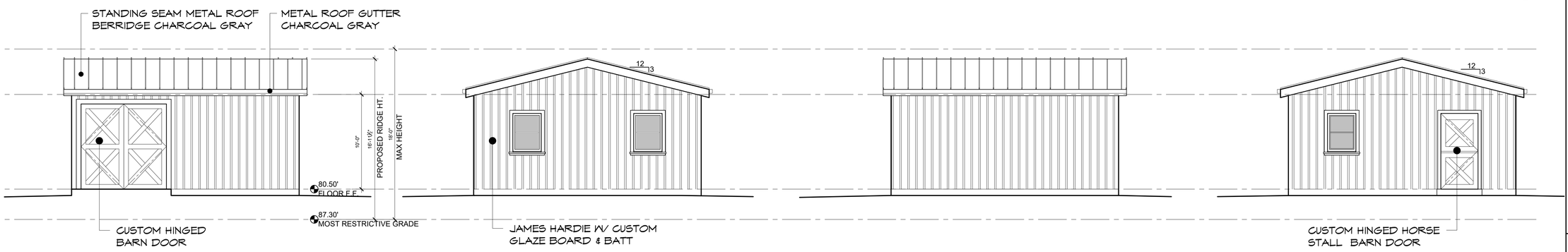
EAST ELEVATION 2

SCALE: 3/16" = 1'-0"



NORTH ELEVATION 1

SCALE: 3/16" = 1'-0"



BARN SOUTH ELEVATION 6

SCALE: 3/16" = 1'-0"

BARN EAST ELEVATION 5

SCALE: 3/16" = 1'-0"

BARN NORTH ELEVATION 4

SCALE: 3/16" = 1'-0"

BARN WEST ELEVATION 3

SCALE: 3/16" = 1'-0"

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DATE:	11.07.2024
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LICENSED ARCHITECT
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3/16" ELEVATIONS

MESSIAH LOT: 207 RESIDENCE

23 SAN CLEMENTE TRL.
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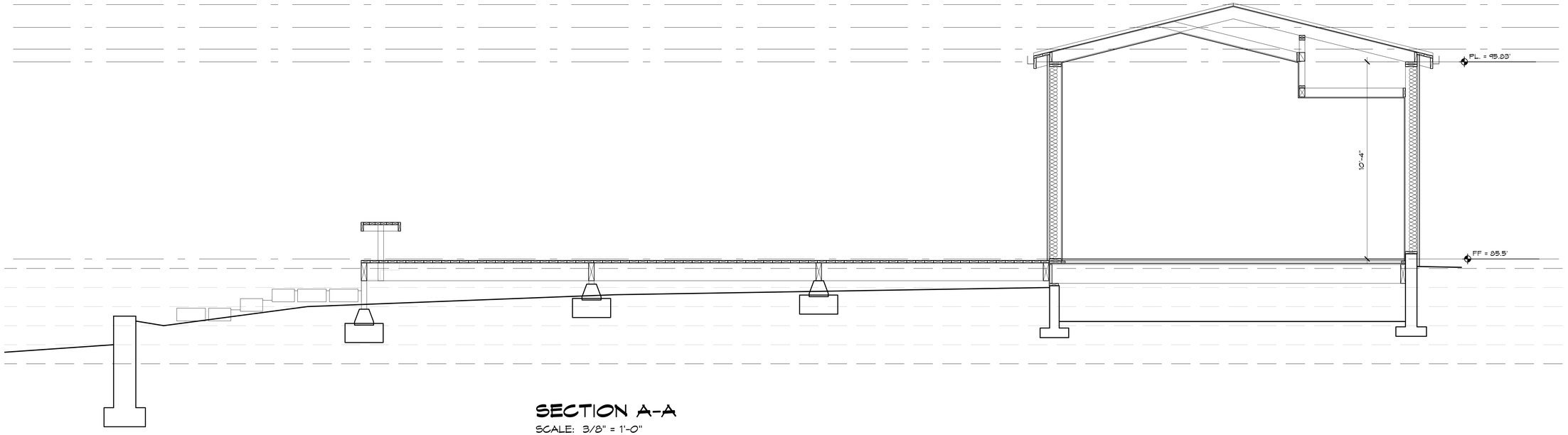
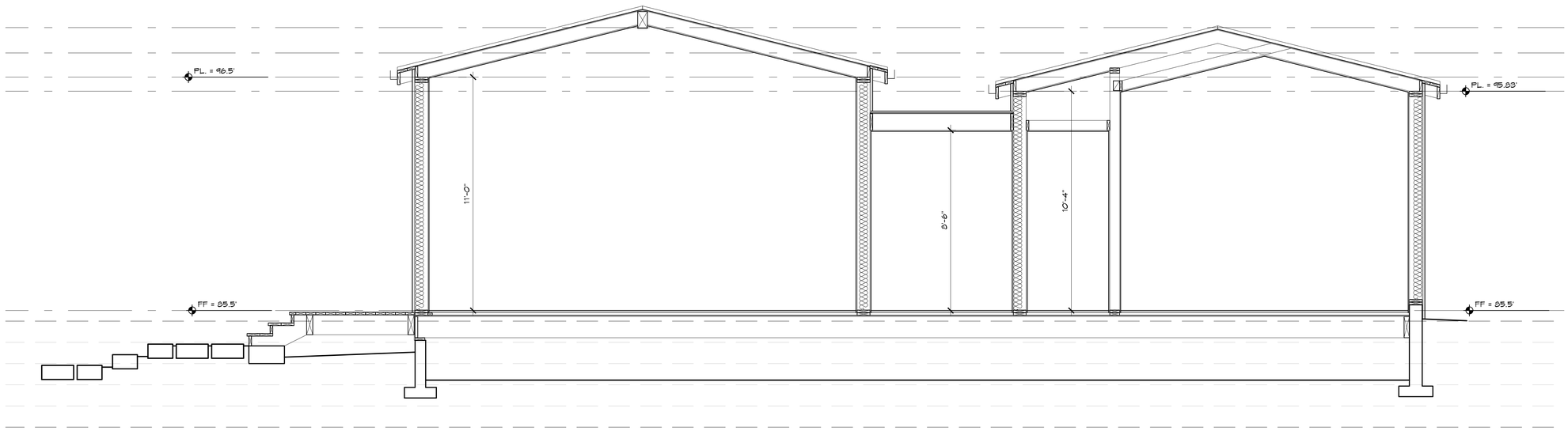
A3.1



SECTION A-A

SCALE: 3/8" = 1'-0"



SECTION B-B

SCALE: 3/8" = 1'-0"

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DATE:	11.07.2024
SCALE:	3/8"=1'-0"
DRAWN:	SGC
JOB NUMBER:	23.14
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LICENSED ARCHITECT
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C-32768
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STATE OF CALIFORNIA

SECTIONS

MESSIAH LOT: 207 RESIDENCE

23 SAN CLEMENTE TRL.
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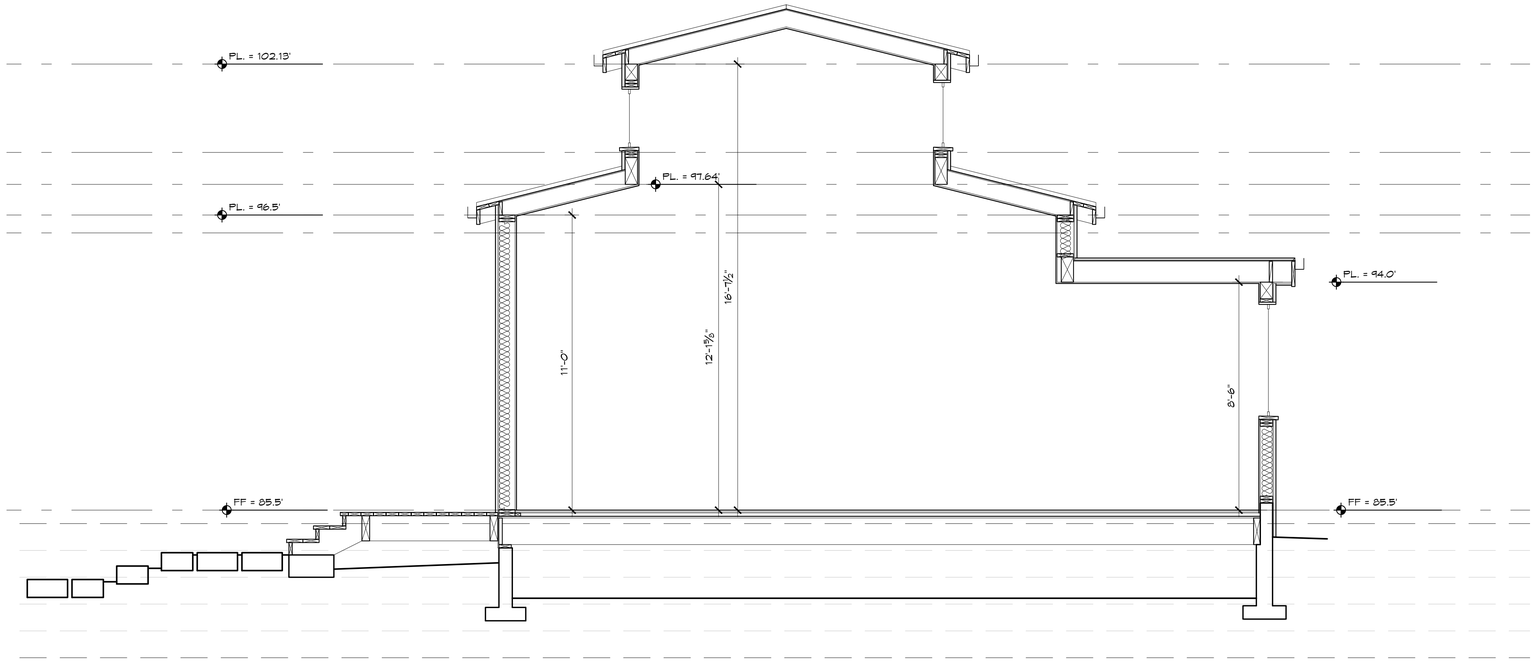
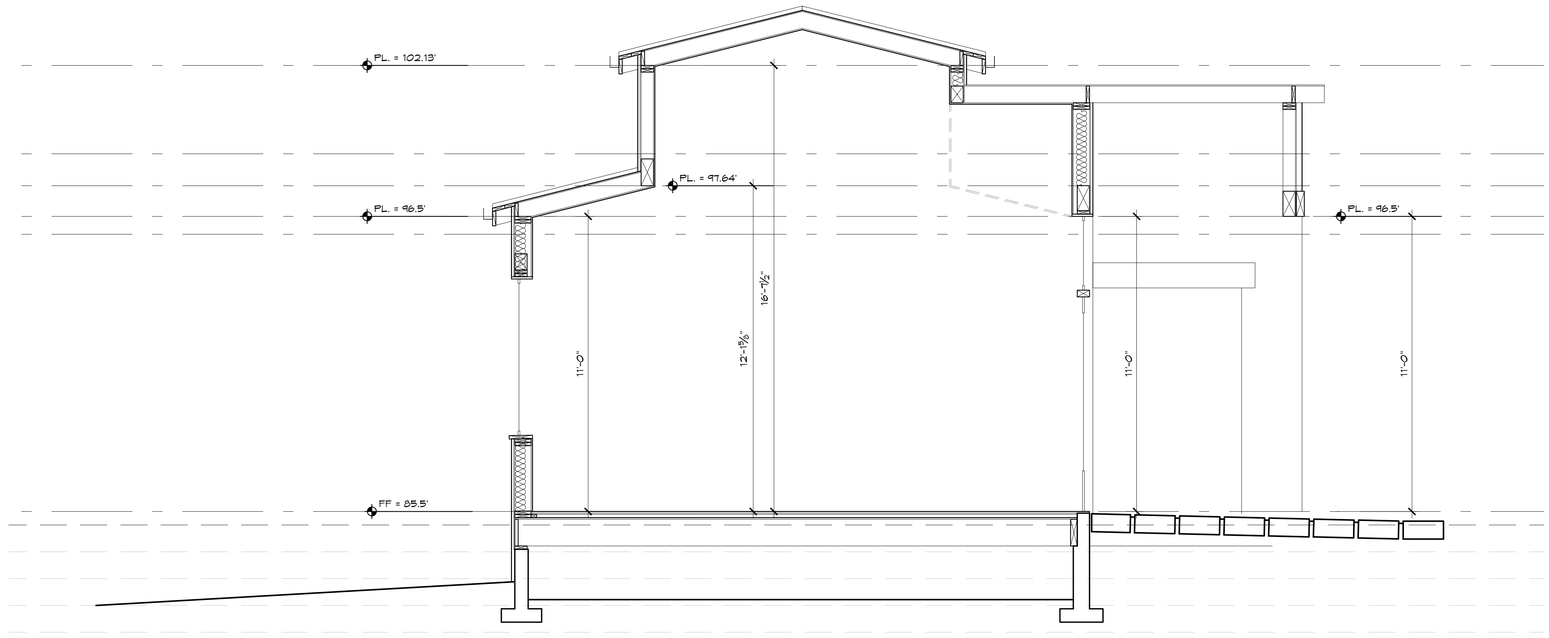
A3.2



SECTION C-C

SCALE: 3/8" = 1'-0"



SECTION D-D

SCALE: 3/8" = 1'-0"

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ARCHITECTURE

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DRAWN:	SGC
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LICENSED ARCHITECT
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C-32768
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SECTIONS

MESSIAH LOT: 207 RESIDENCE

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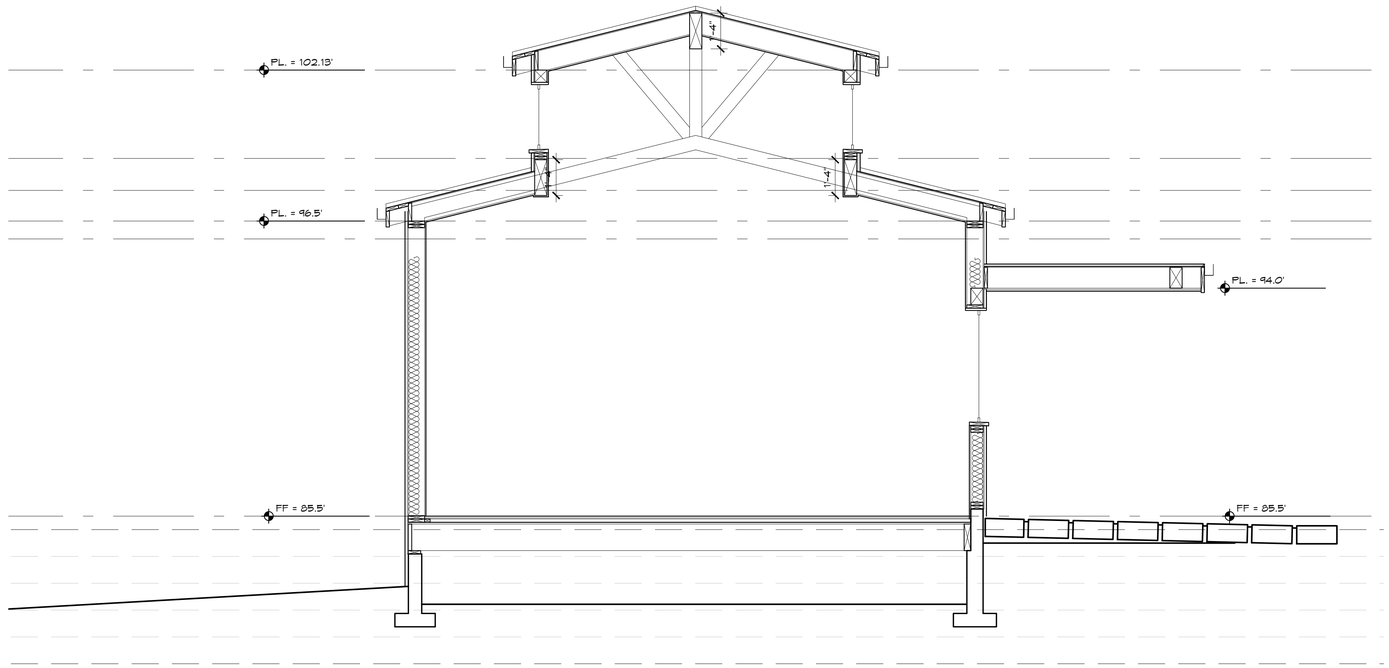
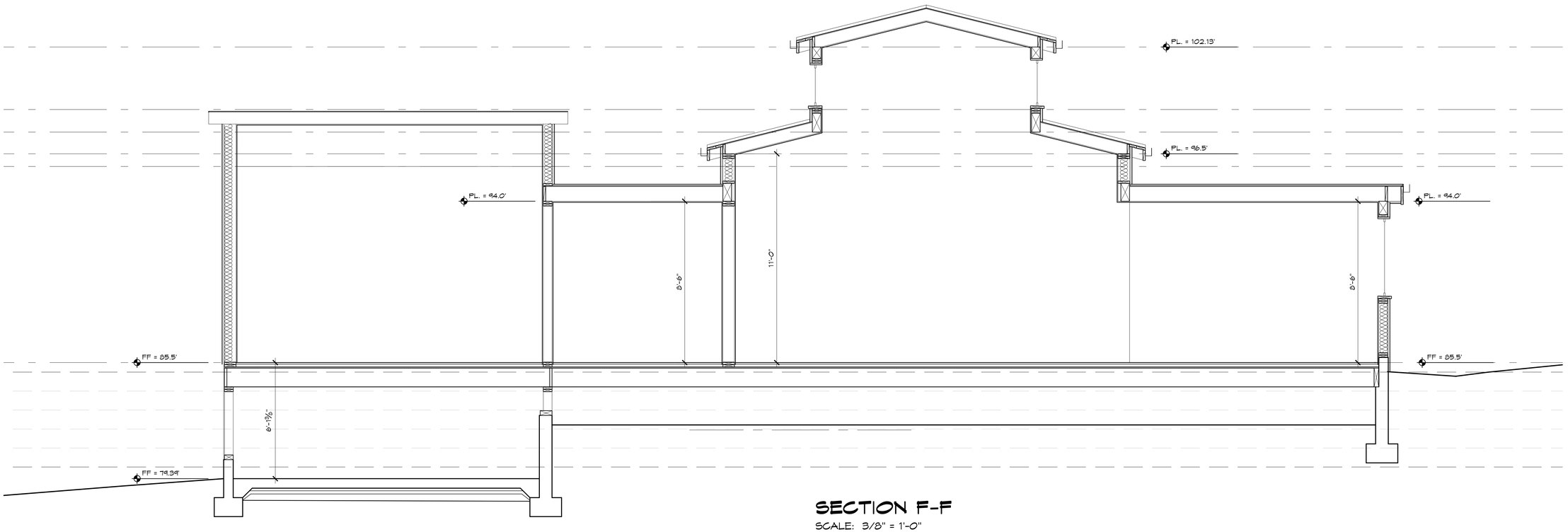
A3.3



SECTION E-E

SCALE: 3/8" = 1'-0"



SECTION F-F

SCALE: 3/8" = 1'-0"

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DATE:	11.07.2024
SCALE:	3/8"=1'-0"
DRAWN:	SGC
JOB NUMBER:	23.14
REVISION	

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C-32768
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STATE OF CALIFORNIA

SECTIONS

MESSIAH LOT: 207 RESIDENCE

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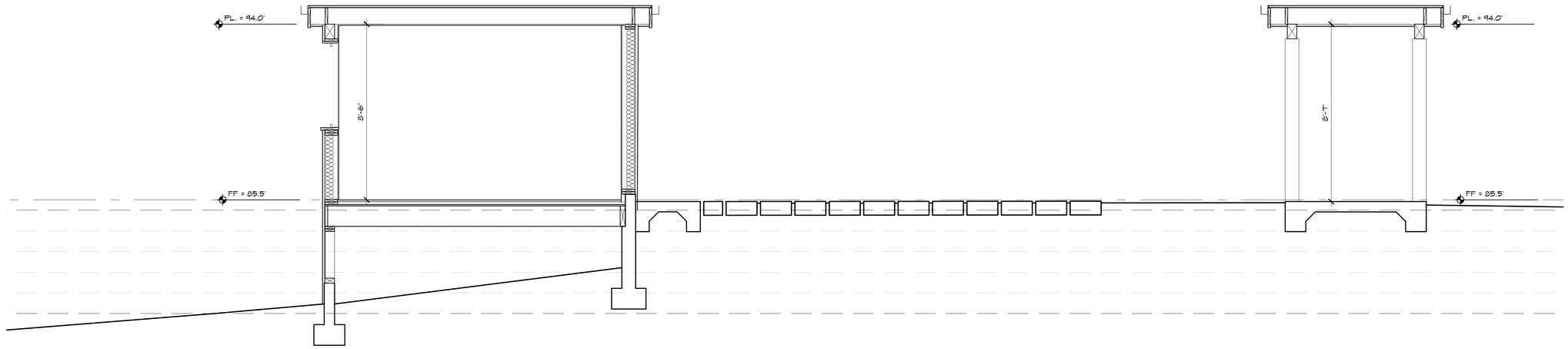
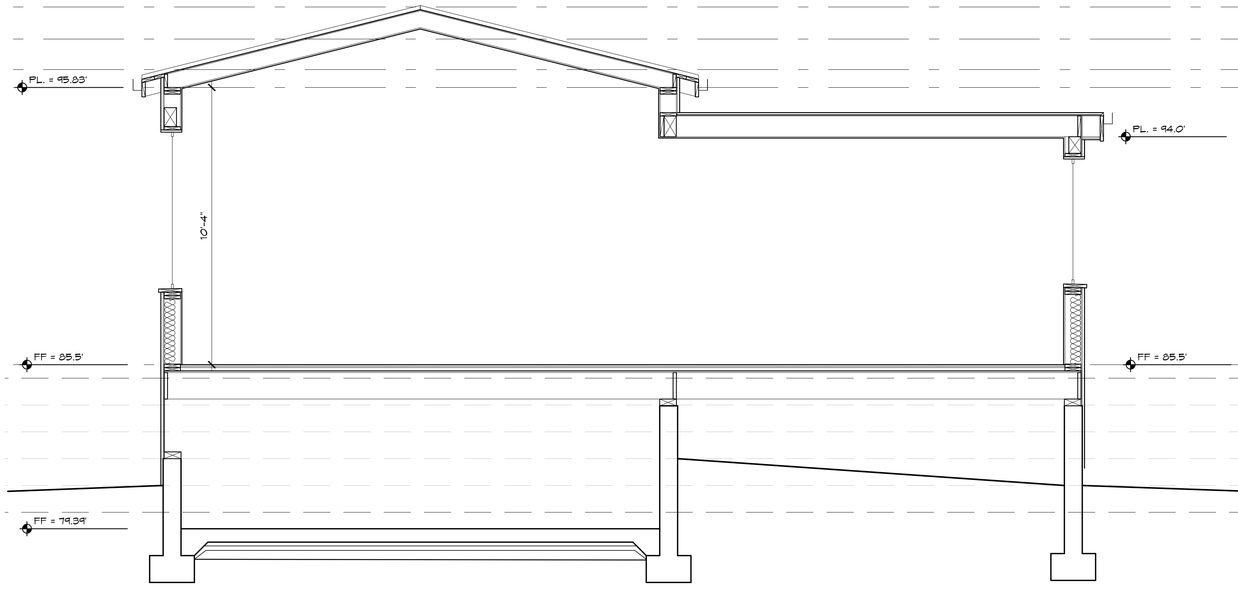
A3.4



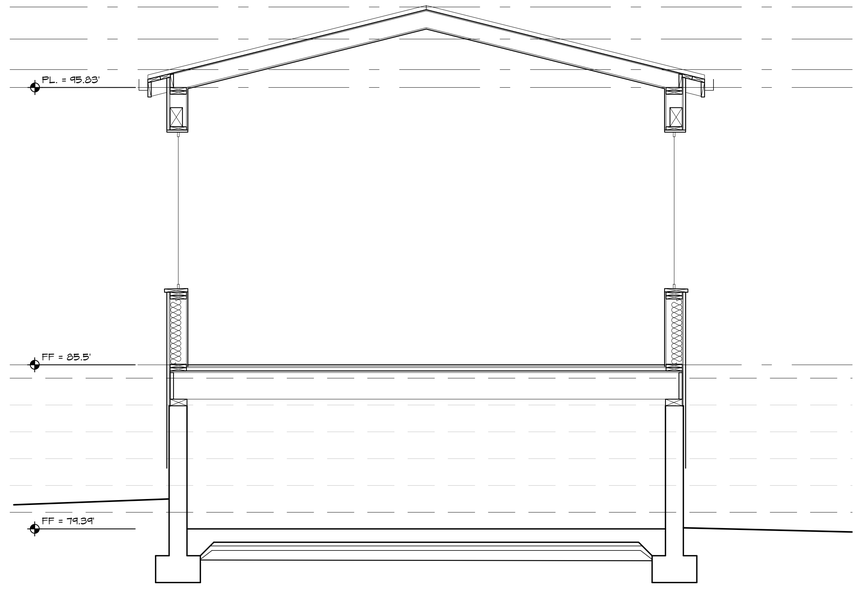
SECTION G-G

SCALE: 3/8" = 1'-0"



SECTION J-J

SCALE: 3/8" = 1'-0"



SECTION K-K

SCALE: 3/8" = 1'-0"

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ARCHITECTURE

225 CANNERY ROW - SUITE A
MONTEREY, CA 93940

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Fax: 831.649.6003

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DATE:	11.07.2024
SCALE:	3/8"=1'-0"
DRAWN:	SGC
JOB NUMBER:	23.14
REVISION	

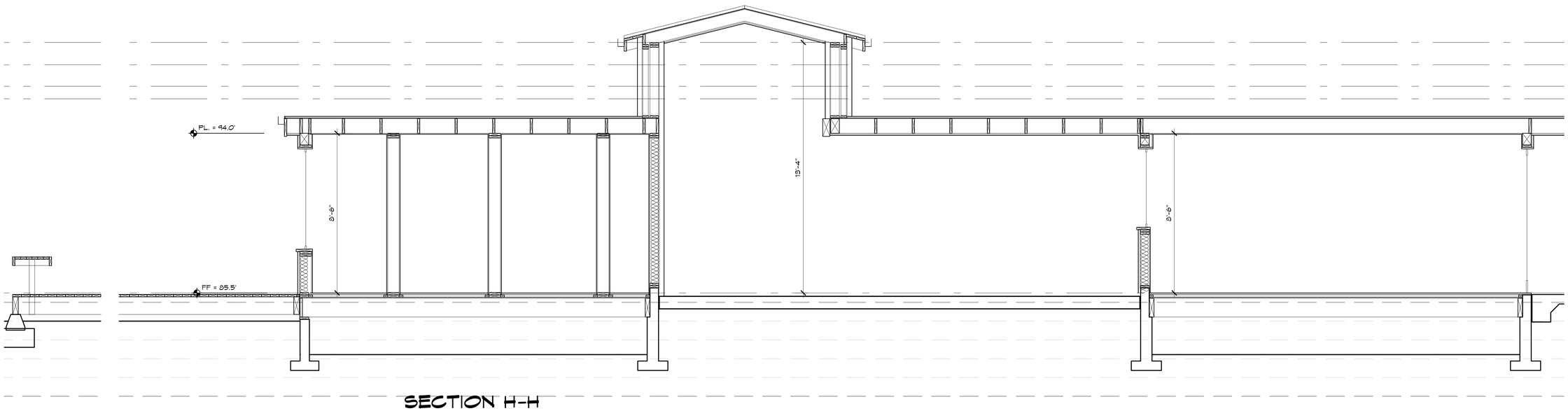
LICENSED ARCHITECT
J. CRAIG HOLDREN
C-32768
SEP 30 2027
Renewal Date
STATE OF CALIFORNIA

SECTIONS

MESSIAH LOT: 207 RESIDENCE

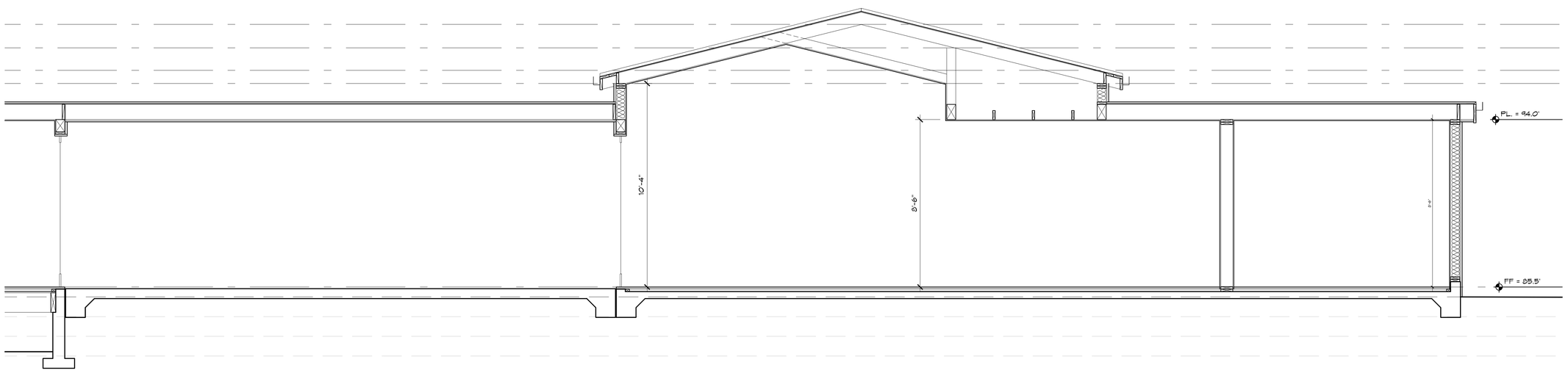
23 SAN CLEMENTE TRL.
CARMEL, CA
A.P.N. 239-131-007

A3.5



SECTION H-H

SCALE: 3/8" = 1'-0"



SECTION H-H

SCALE: 3/8" = 1'-0"

HOLDREN+LIETZKE
ARCHITECTURE

225 CANNERY ROW - SUITE A
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DATE:	11.07.2024
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C-32768
SEP 30 2027
Renewal Date
STATE OF CALIFORNIA

SECTIONS

MESSIAH LOT: 207 RESIDENCE

23 SAN CLEMENTE TRL.
CARMEL, CA
A.P.N. 239-131-007

A3.6

WINDOW SCHEDULE

NOTE: ALL WINDOWS TO BE ALUMINUM CLAD WOOD FRAMED DOUBLE GLAZED

MARK	TYPE	NOMINAL DIMENSIONS WIDTH	NOMINAL DIMENSIONS HEIGHT	HEAD HEIGHT (ABOVE FIN. FLR.)	FRAME (EXT/INT)	GLAZING	DETAILS HEAD	DETAILS JAMB	DETAILS SILL	REMARKS
101	FIXED	2'-4"	8'-0"	8'-0"	ALUM / WOOD	DOUBLE INSULATED				
102	FIXED	2'4"	2'-10"	11'-1"	ALUM / WOOD	DOUBLE INSULATED				
103	FIXED	3'-0"	2'-10"	11'-1"	ALUM / WOOD	DOUBLE INSULATED				
104	FIXED	2'-4"	8'-0"	8'-0"	ALUM / WOOD	DOUBLE INSULATED				
105	FIXED	2'4"	2'-10"	11'-1"	ALUM / WOOD	DOUBLE INSULATED				
106	CASEMENT	2'-6"	4'-2"	7'-8"	ALUM / WOOD	DOUBLE INSULATED				
107	CASEMENT	2'-6"	6'-0"	8'-0"	ALUM / WOOD	DOUBLE INSULATED				
108	CASEMENT	2'-6"	6'-0"	8'-0"	ALUM / WOOD	DOUBLE INSULATED				
109	CASEMENT	3'-0"	6'-0"	8'-0"	ALUM / WOOD	DOUBLE INSULATED				
110	NOT USED									
111	CASEMENT	3'-0"	6'-0"	8'-0"	ALUM / WOOD	DOUBLE INSULATED				
112	CASEMENT	2'-6"	3'-6"	8'-0"	ALUM / WOOD	DOUBLE INSULATED				
113	CASEMENT	2'-6"	3'-6"	8'-0"	ALUM / WOOD	DOUBLE INSULATED				
114	CASEMENT	2'-6"	6'-4"	8'-8"	ALUM / WOOD	DOUBLE INSULATED				
115	CASEMENT	2'-6"	6'-4"	8'-8"	ALUM / WOOD	DOUBLE INSULATED				
116	CASEMENT	2'-6"	6'-4"	8'-8"	ALUM / WOOD	DOUBLE INSULATED				
117	CASEMENT	2'-6"	6'-4"	8'-8"	ALUM / WOOD	DOUBLE INSULATED				
118	CASEMENT	2'-6"	5'-4"	7'-8"	ALUM / WOOD	DOUBLE INSULATED				
119	CASEMENT	5'-0"	8'-0"	10'-4"	ALUM / WOOD	DOUBLE INSULATED				
120	NOT USED									
121	CASEMENT	5'-0"	8'-0"	10'-4"	ALUM / WOOD	DOUBLE INSULATED				
122	FIXED	2'-6"	5'-10"	8'-8"	ALUM / WOOD	DOUBLE INSULATED				
123	CASEMENT	6'-0"	5'-10"	8'-8"	ALUM / WOOD	DOUBLE INSULATED				
124	CASEMENT	6'-0"	5'-10"	8'-8"	ALUM / WOOD	DOUBLE INSULATED				
125	CASEMENT	3'-0"	5'-10"	8'-8"	ALUM / WOOD	DOUBLE INSULATED				
126	CASEMENT	3'-0"	5'-10"	8'-8"	ALUM / WOOD	DOUBLE INSULATED				
127	CASEMENT	7-0"	8'-0"	10'-0"	ALUM / WOOD	DOUBLE INSULATED				
128	CASEMENT	3'-0"	5'-10"	8'-8"	ALUM / WOOD	DOUBLE INSULATED				
129	CASEMENT	2'-6"	4'-2"	7'-8"	ALUM / WOOD	DOUBLE INSULATED				
130	NOT USED									
131	FIXED	2'-0"	4'-8"	7'-8"	ALUM / WOOD	DOUBLE INSULATED				
132	CASEMENT	4'-4"	4'-8"	8'-0"	ALUM / WOOD	DOUBLE INSULATED				
133	FIXED	2'-0"	4'-8"	7'-8"	ALUM / WOOD	DOUBLE INSULATED				
134	CASEMENT	2'-0"	3'-2"	7'-8"	ALUM / WOOD	DOUBLE INSULATED				
135	FIXED	3'-5"	2'-1"	10'-5"	ALUM / WOOD	DOUBLE INSULATED				
136	FIXED	3'-5"	2'-1"	10'-5"	ALUM / WOOD	DOUBLE INSULATED				
137	FIXED	3'-5"	2'-1"	10'-5"	ALUM / WOOD	DOUBLE INSULATED				
138	FIXED	3'-5"	2'-1"	10'-5"	ALUM / WOOD	DOUBLE INSULATED				
139	CASEMENT	2'-6"	4'-2"	7'-8"	ALUM / WOOD	DOUBLE INSULATED				
140	NOT USED									
141	CASEMENT	2'-6"	4'-2"	7'-8"	ALUM / WOOD	DOUBLE INSULATED				
142	CASEMENT	4'-4"	4'-2"	7'-8"	ALUM / WOOD	DOUBLE INSULATED				
143	CASEMENT	4'-4"	4'-2"	7'-8"	ALUM / WOOD	DOUBLE INSULATED				
144	CASEMENT	6'-0"	4'-2"	7'-8"	ALUM / WOOD	DOUBLE INSULATED				
145	CASEMENT	6'-0"	4'-2"	7'-8"	ALUM / WOOD	DOUBLE INSULATED				
146	CASEMENT	6'-0"	4'-2"	7'-8"	ALUM / WOOD	DOUBLE INSULATED				
151	CASEMENT	2'-10"	5'-10"	8'-8"	ALUM / WOOD	DOUBLE INSULATED				
152	CASEMENT	2'-10"	5'-10"	8'-8"	ALUM / WOOD	DOUBLE INSULATED				
153	CASEMENT	2'-10"	5'-10"	8'-8"	ALUM / WOOD	DOUBLE INSULATED				
154	CASEMENT	2'-8"	4'-8"	7'-8"	ALUM / WOOD	DOUBLE INSULATED				
155	CASEMENT	2'-8"	4'-8"	7'-8"	ALUM / WOOD	DOUBLE INSULATED				
156	CASEMENT	2'-6"	2'-2"	7'-8"	ALUM / WOOD	DOUBLE INSULATED				
157	CASEMENT	2'-6"	4'-2"	7'-8"	ALUM / WOOD	DOUBLE INSULATED				
158	CASEMENT	3'-0"	4'-7"	8'-0"	ALUM / WOOD	DOUBLE INSULATED				
159	CASEMENT	3'-0"	4'-7"	8'-0"	ALUM / WOOD	DOUBLE INSULATED				

WINDOW SCHEDULE

NOTE: ALL WINDOWS TO BE ALUMINUM CLAD WOOD FRAMED DOUBLE GLAZED

MARK	TYPE	NOMINAL DIMENSIONS WIDTH	NOMINAL DIMENSIONS HEIGHT	HEAD HEIGHT (ABOVE FIN. FLR.)	FRAME (EXT/INT)	GLAZING	DETAILS HEAD	DETAILS JAMB	DETAILS SILL	REMARKS
201	FIXED	2'-6"	2'-6"		ALUM / WOOD	DOUBLE INSULATED				
202	FIXED	2'-6"	2'-6"		ALUM / WOOD	DOUBLE INSULATED				
203	FIXED	2'-6"	2'-6"		ALUM / WOOD	DOUBLE INSULATED				
204	FIXED	2'-6"	2'-6"		ALUM / WOOD	DOUBLE INSULATED				
205	FIXED	2'-6"	2'-6"		ALUM / WOOD	DOUBLE INSULATED				
206	FIXED	2'-6"	2'-6"		ALUM / WOOD	DOUBLE INSULATED				
207	FIXED	2'-6"	2'-6"		ALUM / WOOD	DOUBLE INSULATED				
208	FIXED	2'-6"	2'-6"		ALUM / WOOD	DOUBLE INSULATED				
209	FIXED	2'-6"	2'-6"		ALUM / WOOD	DOUBLE INSULATED				
210	NOT USED									
211	FIXED	2'-6"	2'-6"		ALUM / WOOD	DOUBLE INSULATED				
212	FIXED	2'-6"	2'-6"		ALUM / WOOD	DOUBLE INSULATED				
213	FIXED	2'-6"	2'-6"		ALUM / WOOD	DOUBLE INSULATED				
214	FIXED	2'-6"	2'-6"		ALUM / WOOD	DOUBLE INSULATED				
215	FIXED	2'-6"	2'-6"		ALUM / WOOD	DOUBLE INSULATED				

DOOR NOTES

1. SEE EXTERIOR ELEVATIONS FOR EXTERIOR DOOR OPERATION
2. ALL DOOR GLAZING TO BE TEMPERED
3. TEMPERED GL. - A PERMANENT LABEL PER CBC SECTION 2406.2 SHALL IDENTIFY EACH LITE OF SAFETY GLAZING
4. VERIFY ROUGH OPENINGS WITH DOOR MFR. PRIOR TO FRAMING DOOR OPENINGS.
5. PROVIDE JAMB EXTENSIONS TO MATCH WALL THICKNESS SHOWN.
6. WHEN INSTALLING ALUMINUM OR ALUMINUM CLAD DOORS, NO COPPER FLASHING SHALL BE USED; ONLY A MIN. 16 OZ. G.I. FLASHING SHALL BE USED.

GLAZING NOTES:

1. VERIFY ROUGH OPENINGS WITH WINDOW MFR. PRIOR TO FRAMING WINDOW OPENINGS.
2. EACH LIGHT SHALL BEAR THE MANUFACTURER'S LABEL DESIGNATING THE TYPE AND THICKNESS OF GLASS. LABELS MAY BE OMITTED FROM OTHER THAN SAFETY GLAZING MATERIALS UNLESS SPECIFICALLY REQUIRED BY THE BUILDING OFFICIAL. TO QUALIFY AS GLASS WITH SPECIAL PERFORMANCE CHARACTERISTICS, EACH UNIT OF LAMINATED, HEAT STRENGTHENED, TEMPERED GLASS SHALL BE PERMANENTLY IDENTIFIED BY THE MANUFACTURER. THE IDENTIFICATION OF TEMPERED GLASS SHALL BE ETCHED OR CERAMIC FIRED ON THE GLASS AND BE VISIBLE WHEN THE UNIT IS GLAZED.
3. ALL WINDOWS DOUBLE INSULATED CLEAR "LOW-E II", ARGON FILLED.
4. INDIVIDUAL GLAZED AREAS IN HAZARDOUS LOCATIONS SHALL PASS THE TEST REQUIREMENTS OF CONSUMER PRODUCTS SAFETY COMMISSION 16-CFR OR BY COMPARATIVE TEST SHALL BE PROVEN TO PRODUCE AT LEAST EQUIVALENT PERFORMANCES. THE FOLLOWING SHALL BE CONSIDERED SPECIFIC HAZARDOUS LOCATIONS FOR THE PURPOSE OF GLAZING:
   A. GLAZING IN INGRESS AND MEANS OF EGRESS DOORS.
   B. GLAZING IN FIXED AND SLIDING PANELS OF SLIDING DOOR ASSEMBLIES AND PANELS IN SWINGING DOORS.
   C. GLAZING IN ALL UNFRAMED SWINGING DOORS.
   D. GLAZING IN DOORS AND TUB ENCLOSURES. GLAZING IN ANY PART OF A BUILDING WALL ENCLOSING A SHOWER OR TUB COMPARTMENT WHERE THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 60" ABOVE THE DRAIN OUTLET.
   E. GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL ADJACENT TO A DOOR WHERE THE NEAREST VERTICAL EDGE IS WITHIN A 24" ARC OF THE DOOR IN A CLOSED POSITION AND THE BOTTOM EDGE IS LESS THAN 60" ABOVE THE FLOOR OR WALKING SURFACE.
   F. GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL THAT HAS AN EXPOSED AREA OF AN INDIVIDUAL PANE GREATER THAN 9 sq. ft., THE BOTTOM EDGE LESS THAN 18" ABOVE THE FLOOR, TOP EDGE GREATER THAN 36" ABOVE THE FLOOR, WALKING SURFACES WITHIN 36" HORIZONTALLY OF THE GLAZING.
5. AT DOUBLE PANE WINDOWS WITH OBSCURE GLASS INTERIOR GLAZING CAN BE CLEAR TEMPERED WITH THE EXTERIOR BEING UN-TEMPERED OBSCURE.
6. ALL CASEMENT WINDOWS SHALL PIVOT TO FACILITATE CLEANING THE EXTERIOR FROM THE INTERIOR.
7. CONTRACTOR IS RESPONSIBLE FOR REVIEWING FLOOR PLANS AND EXTERIOR ELEVATIONS FOR VERIFICATION OF NUMBER & LOCATION OF ALL SASH HERE IN SCHEDULED.
8. WINDOW SIZES INDICATED IN WINDOW SCHEDULE ARE APPROXIMATE & MAY BE ALTERED SLIGHTLY TO MEET MANUFACTURED STANDARD DIMENSIONS. UPON REVIEW AND APPROVAL BY ARCHITECT.
9. FOR WINDOW MUNTINS, MULLIONS, SWING HAND OF OPERABLE WINDOWS, ETC SEE BUILDING ELEVATIONS.
10. CONTRACTOR SHALL VERIFY DIVIDED LIGHT CONFIGURATION & MTR. AVAILABILITY FOR EACH WINDOW PRIOR TO ORDER. SEE BUILDING ELEVATIONS.
11. EVERY SLEEPING ROOM SHALL HAVE AT LEAST ONE OPENABLE WINDOW OR EXTERIOR DOOR APPROVED FOR EMERGENCY EGRESS OR RESCUE. THE UNITS MUST BE OPERABLE FROM THE INSIDE TO A FULL CLEAR OPENING WITHOUT THE USE OF A KEY OR TOOL. WHERE WINDOWS ARE PROVIDED AS A MEANS OF EGRESS OR RESCUE THEY SHALL HAVE A SILL HEIGHT OF NOT MORE THAN 44 INCHES ABOVE THE FLOOR.
12. ALL EGRESS OR RESCUE WINDOWS FROM SLEEPING ROOMS MUST HAVE A NET CLEAR OPENING OF 5.7 SQUARE FEET. THE MINIMUM NET CLEAR OPENING WIDTH SHALL BE 1'-8", NET CLEAR OPENING HEIGHT OF 2'-0" AND MAXIMUM SILL HEIGHT ABOVE FINISH FLOOR SHALL BE 3'-8".
13. WALL WIDTHS MAY VARY - VERIFY WALL DIMENSIONS PRIOR TO MANUFACTURING WINDOWS.
14. PROVIDE JAMBS EXTENSIONS TO MATCH WALL THICKNESS SHOWN.
15. SEE TYPICAL WINDOW FLASHING REQUIREMENTS 16/A8.1 FOR ADDITIONAL INFORMATION.
16. WHEN INSTALLING ALUMINUM OR ALUMINUM CLAD WINDOWS, NO COPPER FLASHING SHALL BE USED; ONLY A MIN. 16 OZ. G.I. FLASHING SHALL BE USED.

HOLDREN+LIETZKE ARCHITECTURE

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DATE: 11.07.2024
SCALE:
DRAWN:
JOB NUMBER: 23.14
REVISION

LICENSED ARCHITECT
J. CRAIG HOLDREN
C-32768
SEP 30 2027
Renewal Date
STATE OF CALIFORNIA

WINDOW AND DOOR SCHEDULES

MESSIAH LOT: 207 RESIDENCE

23 SAN CLEMENTE TRL.
CARMEL, CA
A.P.N. 239-131-007

A4.1

DOOR SCHEDULE

MARK		TYPE	WIDTH	HEIGHT	THK.	CORE	HARDWARE	DETAILS HEAD	DETAILS JAMB	DETAILS THRESH.	REMARKS
101		EXTERIOR	3'-0"	8'-0"							
102		EXTERIOR	3'-0"	8'-8"							
103		EXTERIOR	PR 3'-0"	8'-8"							
104		EXTERIOR	PR 3'-0"	8'-8"							
105		EXTERIOR	PR 3'-6"	8'-0"							
106		EXTERIOR	PR 3'-6"	8'-0"							
107		EXTERIOR	3'-0"	7'-8"							
108		INTERIOR	2'-4"	7'-8"							
109		INTERIOR	3'-0"	7'-8"							
110											
111		INTERIOR	2'-10"	7'-8"							
112		INTERIOR	2'-6"	7'-8"							
113		INTERIOR	3'-0"	7'-8"							
114		INTERIOR	PR 2'-4"	7'-8"							
115		INTERIOR	2'-6"	7'-8"							
116		INTERIOR	3'-0"	7'-8"							
117		INTERIOR	2'-6"	7'-8"							
121		EXTERIOR	3'-0"	7'-8"							
122		EXTERIOR	PR 2'-6"	7'-8"							
123		EXTERIOR	8'-9"	8'-0"							WOOD SECTIONAL GARAGE DOOR SELF-CLOSING FIRE RATED W/ WEATHER STRIPPING Note: Garage doors shall be labeled with a permanent label by the garage door manufacturer.
124		EXTERIOR	8'-9"	8'-0"							
125		EXTERIOR	3'-0"	7'-8"							
126		INTERIOR	2'-6"	7'-8"							
127		INTERIOR	2'-6"	7'-8"							
128		INTERIOR	PR 2'-0"	7'-8"							
129		INTERIOR	2'-2"	7'-8"							
130											
131		INTERIOR	2'-6"	7'-8"							
132		INTERIOR	2'-6"	7'-8"							
133		INTERIOR	2'-6"	7'-8"							
134											
135		EXTERIOR	4'-0"	8'-0"							DUTCH BARN DOOR W/ LIGHT AND PROTECTIVE GRILL
136		EXTERIOR	PR 4'-6"	9'-0"							WOOD BARN DOOR

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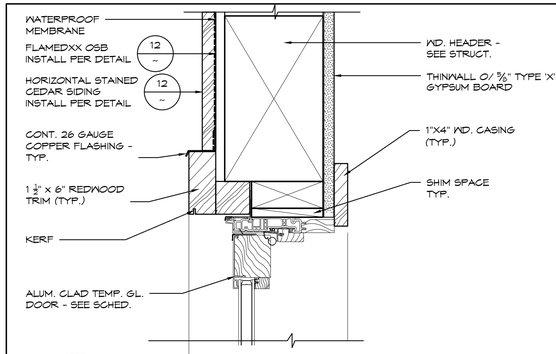
WINDOW AND DOOR SCHEDULES

MESSIAH LOT: 207 RESIDENCE

23 SAN CLEMENTE TRL.
CARMEL, CA

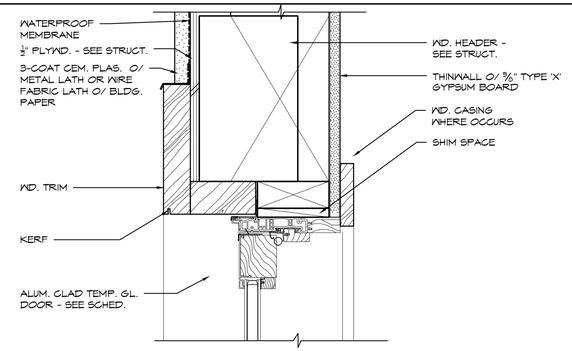
A.P.N. 239-131-007

A4.2



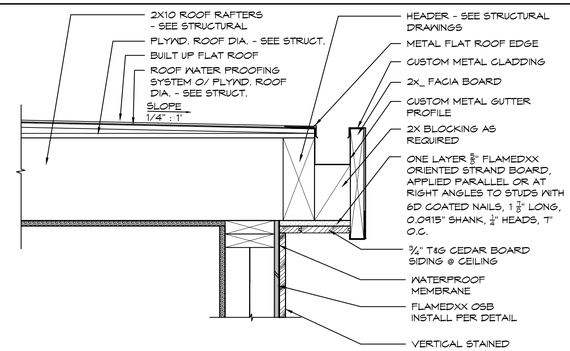
5 HDR. @ SGL. OUT-SWING

SCALE: 3"= 1'-0"



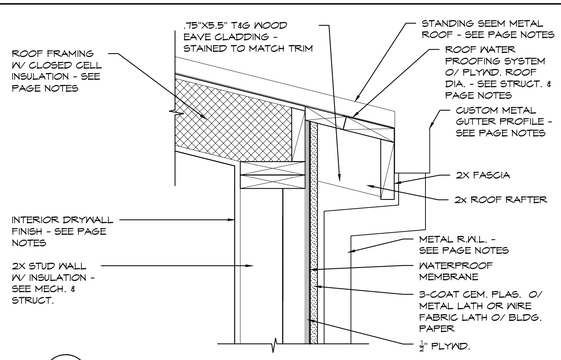
5 HEADER @ MEDIA RM.

SCALE: 3"= 1'-0"



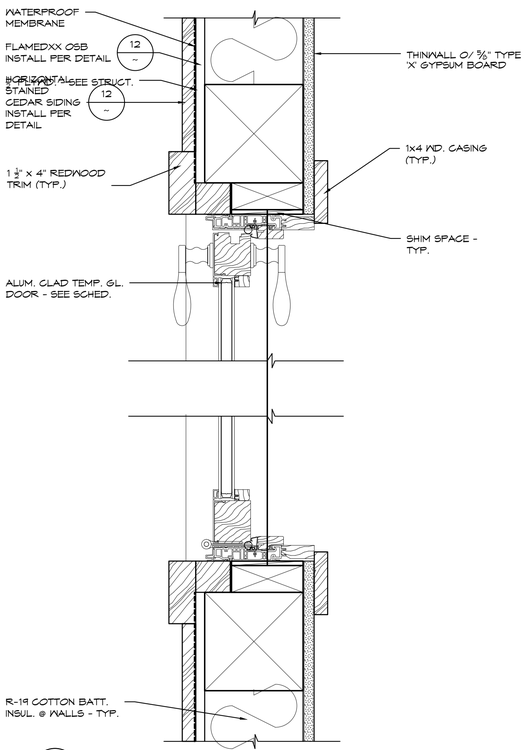
15 FLAT ROOF

SCALE: 1-1/2"= 1'-0"



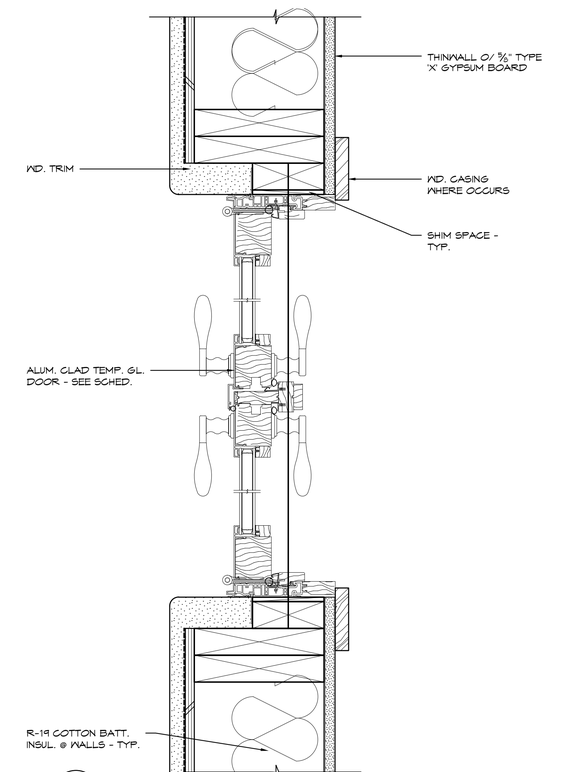
1 TYP. EAVE PROJECTION

SCALE: 1-1/2"= 1'-0"



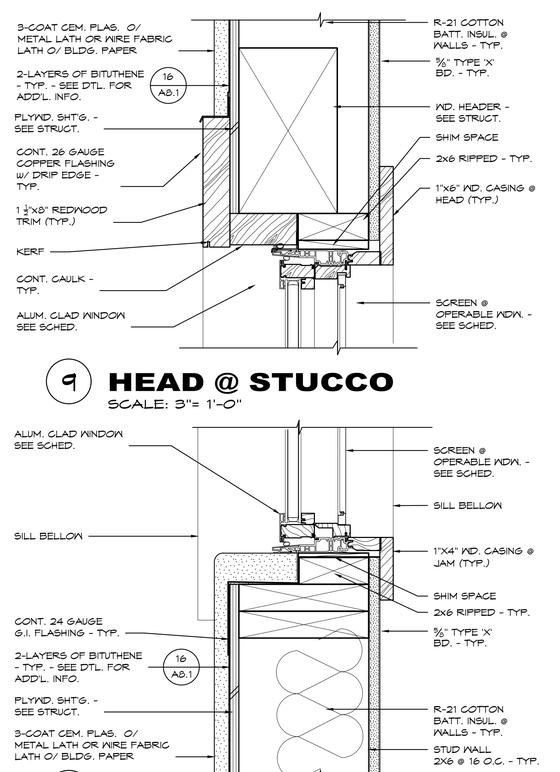
7 JAMB @ SGL. OUT-SWING

SCALE: 3"= 1'-0"



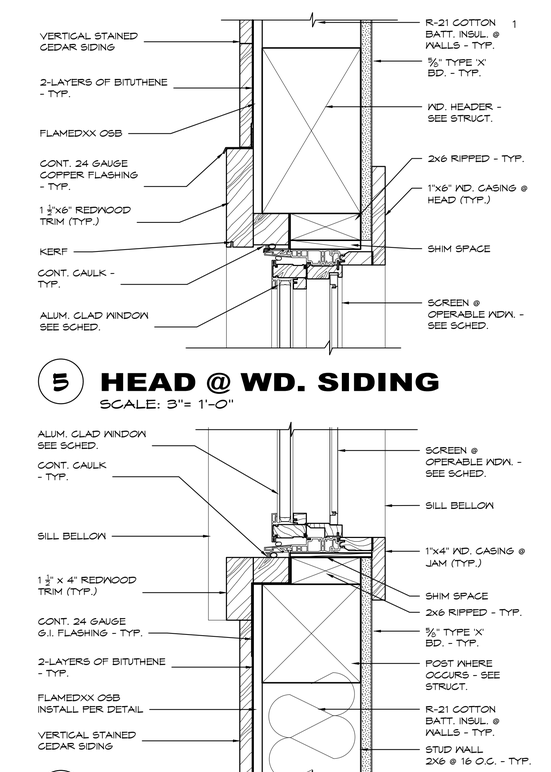
11 JAM @ MEDIA RM.

SCALE: 3"= 1'-0"



9 HEAD @ STUCCO

SCALE: 3"= 1'-0"



5 HEAD @ WD. SIDING

SCALE: 3"= 1'-0"

10 JAMB @ STUCCO

SCALE: 3"= 1'-0"

6 JAMB @ WD. SIDING

SCALE: 3"= 1'-0"

4 THOLD. @ OUT-SWING

SCALE: 3"= 1'-0"

4 THOLD. @ MEDIA RM.

SCALE: 3"= 1'-0"

11 SILL @ STUCCO

SCALE: 3"= 1'-0"

7 SILL @ WD. SIDING

SCALE: 3"= 1'-0"

HOLDREN+LIETZKE ARCHITECTURE

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DATE:	11.07.2024
SCALE:	VARIES
DRAWN:	SGC
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REVISION	

LICENSED ARCHITECT
J. CRAIG HOLDREN
C-32768
SEP 30 2027
Renewal Date
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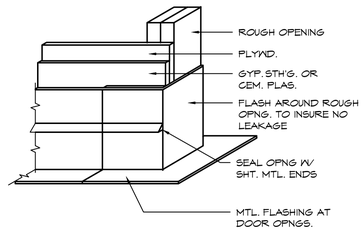
DETAILS

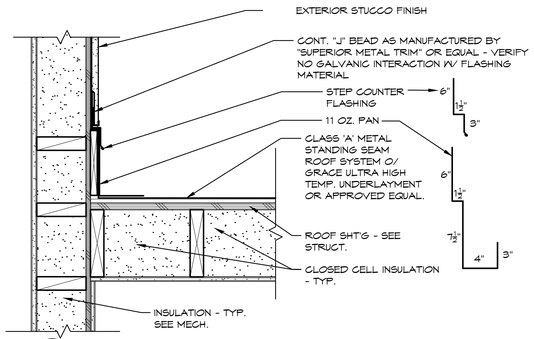
MESSIAH LOT: 207 RESIDENCE
23 SAN CLEMENTE TRL.
CARMEL, CA
A.P.N. 239-131-007

A4.3

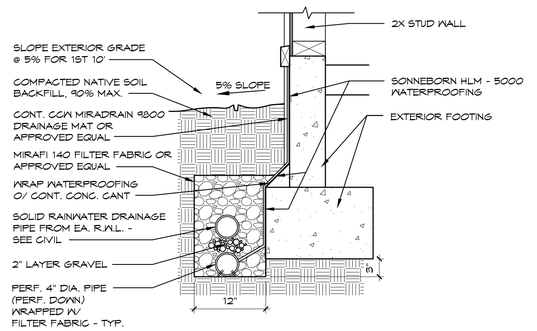
NOTE: THE DETAILS ON THIS SHEET ARE TO BE CONSIDERED AS CONSTRUCTION MINIMUMS. THEY ARE NOT INTENDED TO DICTATE FINAL FINISHES, COLORS, OR ESTABLISH ARCHITECTURAL FORMS. SHOULD A CONSTRUCTION CONFLICT BE PRESENTED DUE TO THESE DESIRED MINIMUMS, CONTACT THE ARCHITECT, AND CLARIFICATION WILL BE PRESENTED IN WRITING.



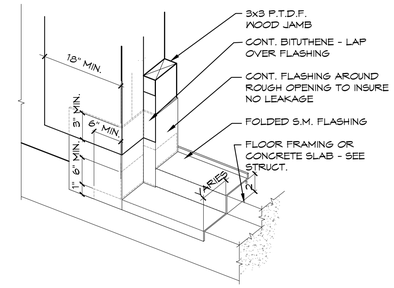
9 THRESHOLD FLASHING
SCALE: N.T.S.



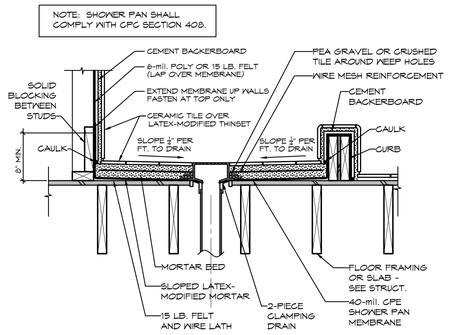
5 ROOF TO WALL FLASHING
SCALE: 1-1/2"= 1'-0"



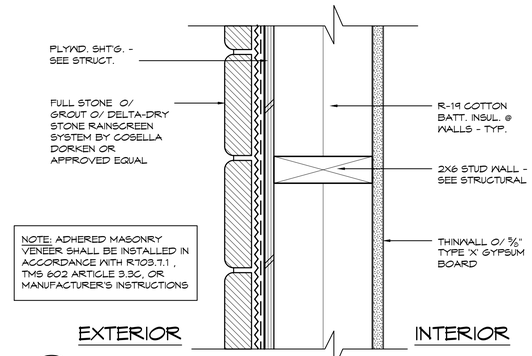
1 TYP. FOUND. DRAINAGE
SCALE: 1"= 1'-0"



10 THRESHOLD FLASHING
SCALE: N.T.S.



6 SHOWER DETAIL
SCALE: 1"= 1'-0"

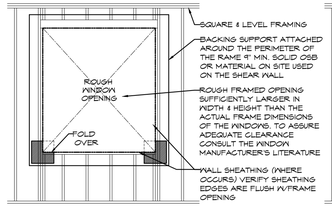


2 WALL @ STONE
SCALE: 3"= 1'-0"

14 NOTES
SCALE: N.T.S.

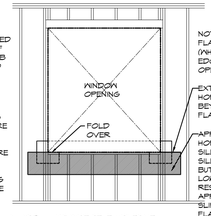
NOTES:
1. ENSURE ALL SURFACES TO RECEIVE MEMBRANE FLASHING ARE CLEAN AND DRY.
2. ENSURE MEMBRANE IS WELL SEATED AGAINST EXTERIOR VAPOR BARRIER (HOUSE WRAP) - EXERCISE CARE SO AS TO REDUCE WRINKLES IN APPLIED MEMBRANES.

FIG. 1 - R.O. & BACKING SUPPORT



1. INSTALL 12" sq. SELF-ADHESIVE MEMBRANE CORNER PATCHES.
2. FOLD ENDS IN AT JAMBS.
3. ENSURE MEMBRANE EXTENDS TO FULL WALL WIDTH ON EXTERIOR FACE.

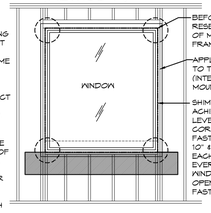
FIG. 2 - SILL FLASHING



NOTE: FOR SELF-ADHERING FLASHING: BACK SUPPORT (WHERE OCCURS) VERIFY EDGES ARE FLUSH W/FRAME OPENING
EXTEND SILL FLASHING HORIZONTALLY TO PROJECT BEYOND VERTICAL JAMB FLASHING APPLIED LATER
APPLY SILL FLASHING HORIZONTALLY BELOW THE SILL. FASTEN TOP EDGE OF SILL FLASHING TO FRAME BUT DO NOT FASTEN THE LOWER EDGE SO WEATHER RESISTANT BLDG. PAPER APPLIED LATER MAY BE SLIPPED UP & UNDERNEATH FLASHING IN A WEATHER BOARD FASHION

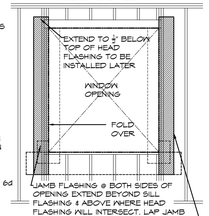
1. INSTALL 12" WIDE SELF-ADHESIVE MEMBRANE STRIP AT WINDOW SILL.
2. LAP SILL MEMBRANE OVER CORNER PATCHES.
3. ENSURE MEMBRANE EXTENDS MINIMUM OF 6" BEYOND CORNER PATCHES.
4. FOLD OVER SILL STRIP TO ENSURE THAT MEMBRANE EXTENDS TO FULL WALL WIDTH.

FIG. 3A - WINDOW INSTALLATION (METHOD A)



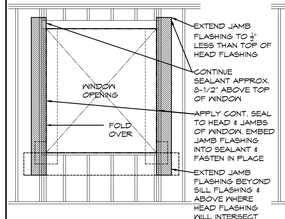
BEFORE INSTALLATION RESEAL ALL OUTSIDE JOINTS OF MECHANICALLY JOINED FRAMES
APPLY A CONTINUOUS SEAL TO THE BACK SIDE (INTERIOR) OF WINDOW MOUNTING FLANGES
SHIM & ADJUST WINDOW TO ACHIEVE SQUARE, PLUMB & LEVEL CONDITION. USE CORROSION RESISTANT FASTENERS. FASTEN WITHIN 10" & NO CLOSER THAN 3" IN EACH DIRECTION FROM EVERY CORNER. SECURE WINDOW AROUND FRAME OPENING W/EQUIVALENT OF 6d FASTENERS @ 16" O.C. MAX.

FIG. 3B - JAMB FLASHING (METHOD B)



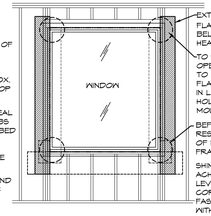
1. INSTALL 5" WIDE SELF-ADHESIVE MEMBRANE STRIP AT WINDOW JAMBS.
2. LAP JAMB MEMBRANE OVER SILL MEMBRANE.
3. FOLD OVER JAMB STRIPS TO ENSURE THAT MEMBRANE EXTENDS TO FULL WALL WIDTH.

FIG. 4A - JAMB FLASHING (METHOD A)



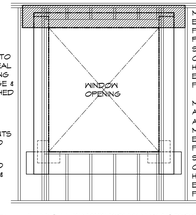
1. INSTALL 5" WIDE SELF-ADHESIVE MEMBRANE STRIP AT WINDOW JAMBS.
2. LAP JAMB MEMBRANE OVER SILL MEMBRANE.
3. FOLD OVER JAMB STRIPS TO ENSURE THAT MEMBRANE EXTENDS TO FULL WALL WIDTH.

FIG. 4B - WINDOW INSTALLATION (METHOD B)



EXTEND JAMB FLASHING TO ½" BELOW TOP OF HEAD FLASHING
TO SEAL WINDOW FRAME TO OPENING APPLY CONT. SEAL TO BACKSIDE OF MOUNTING FLANGE NEAR OUTER EDGE & IN LINE W/ANY PRE- PUNCHED HOLES OR SLOTS ON MOUNTING FLANGE
BEFORE INSTALLATION RESEAL ALL OUTSIDE JOINTS OF MECHANICALLY JOINED FRAMES
SHIM & ADJUST WINDOW TO ACHIEVE SQUARE, PLUMB & LEVEL CONDITION. USE CORROSION RESISTANT FASTENERS. FASTEN WITHIN 10" & NO CLOSER THAN 3" IN EACH DIRECTION FROM EVERY CORNER. SECURE WINDOW AROUND FRAME OPENING W/ EQUIVALENT OF 6d FASTENERS @ 16" O.C. MAX.

FIG. 5 - HEAD FLASHING

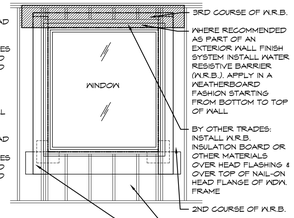


METHOD 'A': EMBED BOTTOM OF HEAD FLASHING AGAINST PREVIOUSLY APPLIED SEALANT (FLASHING GOES OVER SEALANT). EXTEND HEAD FLASHING BEYOND EACH JAMB FLASHING, FASTEN IN PLACE.

METHOD 'B': APPLY CONTINUOUS SEAL ALONG TOP (HEAD) MOUNTING FLANGE. EMBED BOTTOM OF HEAD FLASHING AGAINST SEALANT (FLASHING GOES OVER SEALANT). EXTEND HEAD FLASHING BEYOND EACH JAMB FLASHING, FASTEN IN PLACE.

1. INSTALL WINDOW PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
2. INSTALL FLASHING - EXTEND PAST WINDOW OPENING TO EDGE OF JAMB MEMBRANE.
3. INSTALL 12" wide SELF-ADHESIVE MEMBRANE OVER G.I. FLASHING, EXTEND 6" PAST JAMB MEMBRANE.

FIG. 6 - PRIMARY WEATHER BARRIER APPLICATION BY OTHERS



16 WINDOW FLASHING REQUIREMENTS
SCALE: N.T.S.

STUCCO NOTES:

PLASTERING WITH CEMENT PLASTER SHALL NOT BE LESS THAN 3-COATS WHEN APPLIED OVER METAL LATH OR WIRE FABRIC LATH (CBC SECTION 2508).

THE FIRST COAT SHALL BE APPLIED WITH SUFFICIENT MATERIAL AND PRESSURE TO FILL SOLIDLY ALL OPENINGS IN THE LATH.

THE SURFACE SHALL BE SCORED HORIZONTALLY SUFFICIENTLY ROUGH TO PROVIDE ADEQUATE BOND TO RECEIVE THE SECOND COAT.

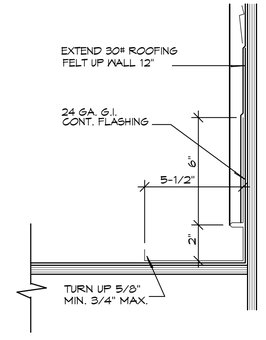
THE MINIMUM CURE TIME PRIOR TO PLACEMENT OF THE SECOND APPLICATION SHALL BE 48 HOURS.

THE SECOND COAT SHALL BE BROUGHT OUT TO PROPER THICKNESS, RODDED, AND FLOATED SUFFICIENTLY ROUGH TO PROVIDE ADEQUATE BOND FOR THE FINISH COAT.

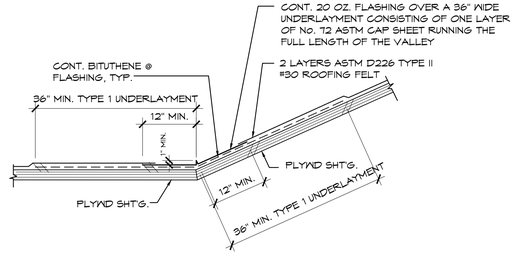
THE SECOND COAT SHALL HAVE NO VARIATION GREATER THAN 1/4" IN ANY DIRECTION UNDER A 5-FOOT STRAIGHT EDGE. (CBC TABLE 25-F)

THE MINIMUM CURE TIME PRIOR TO PLACEMENT OF THE CEMENT PLASTER FINISH COAT SHALL BE 7 DAYS. (CBC TABLE 25-F)

CEMENT PLASTER FINISH COAT SHALL BE APPLIED WITH SUFFICIENT MATERIAL THICKNESS AND PRESSURE TO BOND TO AND TO COVER/CONCEAL THE "BROWN COAT".



3 GENERIC WEEP SCREED
SCALE: 3"= 1'-0"



4 VALLEY FLASHING
SCALE: 1"= 1'-0"

HOLDREN+LIETZKE ARCHITECTURE

225 CANNERY ROW - SUITE A
MONTEREY, CA 93940

Ph: 831.649.6001
Fax: 831.649.6003

www.hl-arc.com

DATE:	11.07.2024
SCALE:	
DRAWN:	
JOB NUMBER:	23.14
REVISION	

LICENSED ARCHITECT
J. CRAIG HOLDREN
C-32768
SEP 30 2027
Renewal Date
STATE OF CALIFORNIA

TYP. WATERPROOFING DETAILS

MESSIAH LOT: 207 RESIDENCE
23 SAN CLEMENTE TRL.
CARMEL, CA
A.P.N. 239-131-007

A8.1

PAGE NOTES

1. ROOF:
   SLOPED ROOF: CLASS 'A' METAL STANDING SEAM ROOF SYSTEM O/ GRACE ULTRA HIGH TEMP. UNDERLAYMENT OR APPROVED EQUAL. INSTALL PER MFR. SPEC.
   FLAT ROOF: 2-PART DARK TINTED ELASTOMERIC CLASS 'A' SYSTEM O/ GRACE ULTRA HIGH TEMP. UNDERLAYMENT OR APPROVED EQUAL. INSTALL PER MFR. SPEC.

   AT ALL ROOF SURFACES INSTALL O/ 2 LAYERS ICE & WATER SHIELD (GRACE ULTRA HIGH TEMP. OR APPROVED EQ.) UNDERLAYMENT APPLICATION:
   1. AFFIX 19" STRIP STARTING AT EAVE,
   2. LAYER 36" SHEET`

   24 GA. METAL ROOF GUTTER & DOWNSPOUTS - CUSTOM PROFILE

2. EXTERIOR WALL FINISH:
   STUCCO: MIN. THREE COATS, PORTLAND CEMENT PLASTER O/ FIBER MESH O/ LATH (SEC 2512.1) O/ VERTICAL WATERPROOFING SYSTEM - WEATHER RESISTIVE BARRIERS SHALL BE INSTALLED AS REQUIRED IN SECTION 1404.2. SMOOTH TROWEL FINISH.

   STONE: VARIABLE THICKNESS, LIGHT AND BROWN TONES. TO BE APPROVED BY OWNER OR ARCHITECT - INSTALL PER MANUFACTURE WRITTEN REQUIREMENTS.

   WOOD: VERTICAL T&G SELECT CEDAR - VERIFY STAIN w/ OWNER O/ ONE LAYER 5/8" FLAMEDXX ORIENTED STRAND BOARD, APPLIED PARALLEL OR AT RIGHT ANGLES TO STUDS WITH 6D COATED NAILS, 1 7/8" LONG, 0.0915" SHANK, 1/4 " HEADS, 7" O.C.

3. EXTERIOR TRIM:
   WOOD: SELECT CEDAR - VERIFY STAIN w/ OWNER

4. EXTERIOR FLASHING/WATERPROOFING:
   VERTICAL AND HORIZONTAL WATERPROOFING SYSTEM: DELTA VENT. APPLIED TO ALL EXTERIOR WALL SURFACES. INSTALL PER MFR. SPEC.
   FLASHING: 24GA METAL OR APPROVED EQUAL.

5. INTERIOR FINISH:
   THINWALL PLASTER: 5/8" THICK TYPE-X GYPSUM WALL BOARD WITH INTEGRAL COLOR FINISH. VERIFY COLOR w/ OWNER

   STONE: VARIABLE THICKNESS LIMESTONE VENEER. INSTALL PER MANUFACTURE WRITTEN REQUIREMENTS.

6. FINISHED FLOOR:
   STONE: .75" STONE (OWNER APPROVED) O/ MIN. 1/4" GROUTING o/ RADIANT FLOOR.

   TILE: VARIES (OWNER APPROVED) o/ RADIANT FLOOR. T.B.D. PER INTERIORS

   WOOD: 7" ± WIDE PLANKS (OWNER APPROVED TYPE AND FINISH) OR APPROVED EQUAL o/ RADIANT FLOOR.

7. INTERIOR CEILING FINISH:
   DRYWALL: 5/8" THICK TYPE-X DRYWALL - TAPE TEXTURE AND PAINT, SIM. TO INT.

   WOOD: 3/4" T&G CEDAR VERIFY STAIN WITH OWNER

8. INTERIOR TRIM: CEDAR, STAINED.

9. CLOSED-CELL SPRAY FOAM INSULATION: MANUFACTURED INSULATION SHALL COMPLY WITH CRC SEC. 806 AND ICC-ESR 1826. WHERE ACCURSE

STUCCO NOTES:
PLASTERING WITH CEMENT PLASTER SHALL NOT BE LESS THAN 3-COATS WHEN APPLIED OVER METAL LATH OR WIRE FABRIC LATH..

THE FIRST COAT SHALL BE APPLIED WITH SUFFICIENT MATERIAL AND PRESSURE TO FILL SOLIDLY ALL OPENINGS IN THE LATH.

THE SURFACE SHALL BE SCORED HORIZONTALLY SUFFICIENTLY ROUGH TO PROVIDE ADEQUATE BOND TO RECEIVE THE SECOND COAT.

THE MINIMUM CURE TIME PRIOR TO PLACEMENT OF THE SECOND APPLICATION SHALL BE 48 HOURS.

THE SECOND COAT SHALL BE BROUGHT OUT TO PROPER THICKNESS, RODDED, AND FLOATED SUFFICIENTLY ROUGH TO PROVIDE ADEQUATE BOND FOR THE FINISH COAT.

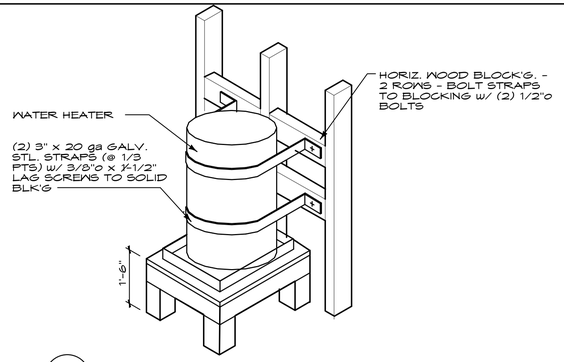
THE SECOND COAT SHALL HAVE NO VARIATION GREATER THAN 1/4" IN ANY DIRECTION UNDER A 5-FOOT STRAIGHT EDGE.

THE MINIMUM CURE TIME PRIOR TO PLACEMENT OF THE CEMENT PLASTER FINISH COAT SHALL BE 7 DAYS.

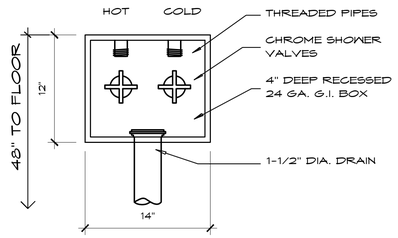
CEMENT PLASTER FINISH COAT SHALL BE APPLIED WITH SUFFICIENT MATERIAL THICKNESS AND PRESSURE TO BOND TO AND TO COVER/CONCEAL THE "BROWN COAT"

WUI NOTE:
PER CRC R337.7.9 THE UNDERSIDE OF OVERHANGING APENDAGES SHALL BE ENCLOSED TO GRADE OR SHALL CONSIST OF ONE OF THE FOLLOWING ITEMS:
1. NON-COBUSTIBLE MATERIAL.
2. IGNITION-RESISTENT MATERIAL.
3. ONE LAYER OF 5/8" THICK TYPE-X SHEATHING APPLIED BEHIND AN EXTERIOR COVERING ON THE UNDERSIDE OF THE FLOOR PROJECTION.
4. THE EXTERIOR PORTION OF A 1-HOUR FIRE RESISTIVE EXTERIOR WALL ASSEMBLY APPLIED TO THE UNDERSIDE OF THE FLOOR INCLUDING ASSEMBLIES USING THE GYPSUM PANEL AND SHEATHING PRODUCTS LISTED IN THE GYPSUM ASSOCIATION FIRE RESISTANCE DESIGN MANUAL.
5. THE UNDERSIDE OF A FLOOR ASSEMBLY THAT MEETS THE PERFORMANCE CRITERIA IN ACCORDANCE WITH THE TEST PROCEDURES SET FORTH IN EITHER OF THE FOLLOWING:
   5.1 SFM STANDARD 12-7A-3
   5.2 ASTM E2957

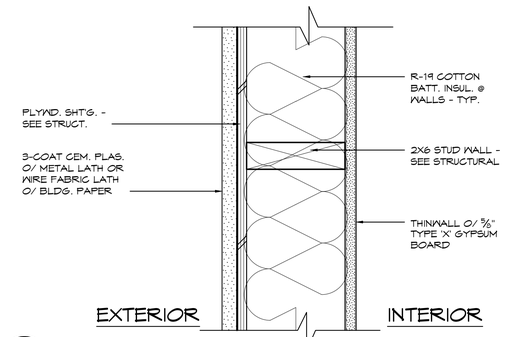
EXCEPTION: HEAVY TIMBER STRUCTURAL COLUMNS AND BEAMS DO NOT REQUIRE PROTECTION.



9 WATER HTR. STRAPPING
SCALE: 1/2"= 1'-0"

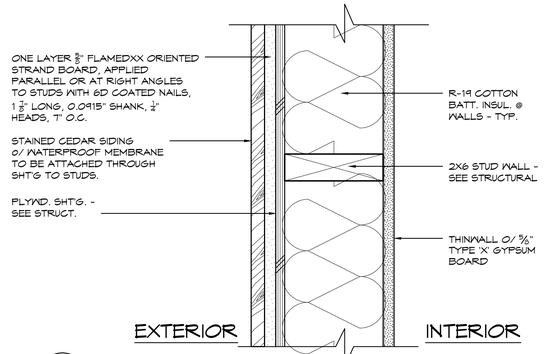


5 WASHER HOOK-UP
SCALE: 1-1/2"= 1'-0"



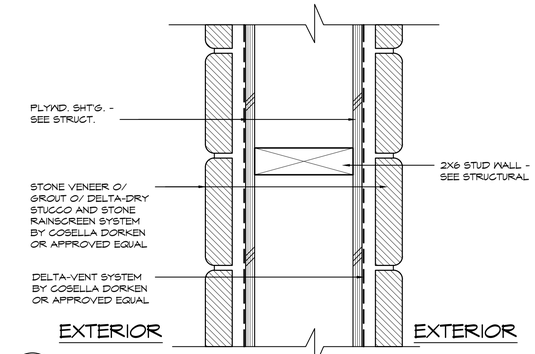
1 WALL @ STUCCO
SCALE: 3"= 1'-0"

NOTE: SEE PAGE NOTES FOR ADDITIONAL INFORMATION



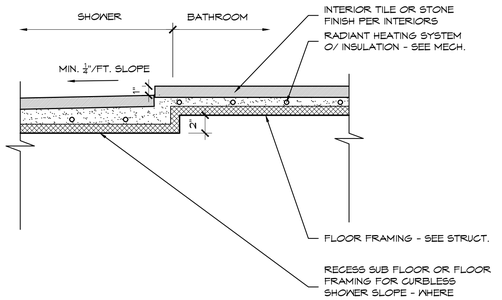
10 WALL @ WD. SIDING
SCALE: 3"= 1'-0"

NOTE: SEE PAGE NOTES FOR ADDITIONAL INFORMATION



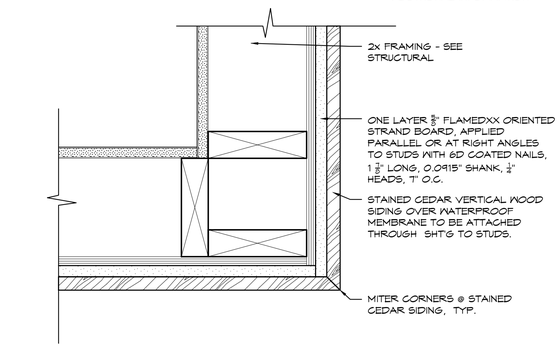
6 WALL @ STONE
SCALE: 3"= 1'-0"

NOTE: SEE PAGE NOTES FOR ADDITIONAL INFORMATION



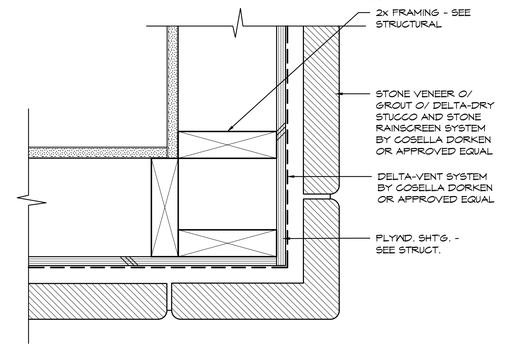
2 SHOWER FLOOR
SCALE: 1-1/2"= 1'-0"

NOTE: SEE PAGE NOTES SHEET A8.2 FOR ADDITIONAL INFORMATION



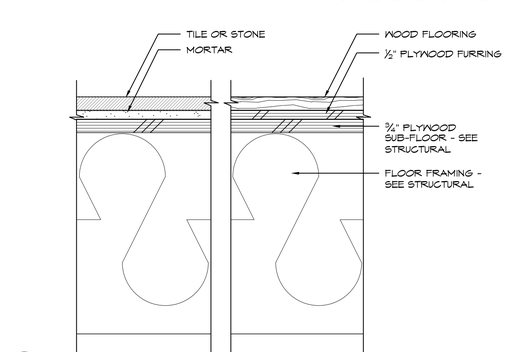
11 WD. SIDING CORNER
SCALE: 3"= 1'-0"

NOTE: SEE PAGE NOTES FOR ADDITIONAL INFORMATION



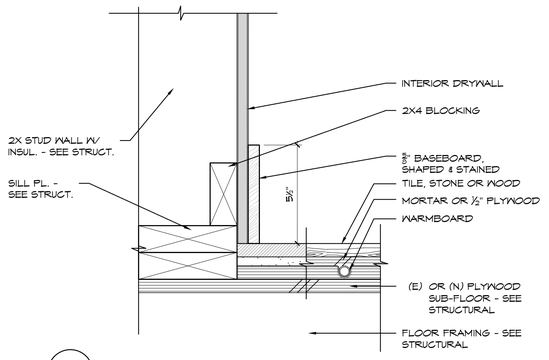
7 THINSET STONE CORNER
SCALE: 3"= 1'-0"

NOTE: SEE PAGE NOTES FOR ADDITIONAL INFORMATION



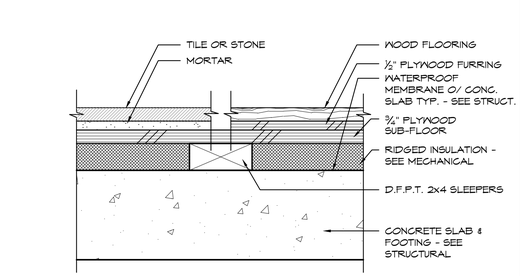
3 HARDWD. OR TILE
SCALE: 3"= 1'-0"

NOTE: SEE PAGE NOTES FOR ADDITIONAL INFORMATION



8 BASE BOARD
SCALE: 3"= 1'-0"

NOTE: SEE PAGE NOTES SHEET A8.2 FOR ADDITIONAL INFORMATION



4 FLOOOR @ SLAB ON GR.
SCALE: 3"= 1'-0"

NOTE: SEE PAGE NOTES FOR ADDITIONAL INFORMATION

HOLDREN+LIETZKE ARCHITECTURE

225 CANNERY ROW - SUITE A
MONTEREY, CA 93940

Ph: 831.649.6001
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DATE:	11.07.2024
SCALE:	VARIES
DRAWN:	SGC
JOB NUMBER:	23.14
REVISION	

LICENSED ARCHITECT
J. CRAIG HOLDREN
C-32768
SEP 30 2027
Renewal Date
STATE OF CALIFORNIA

DETAILS

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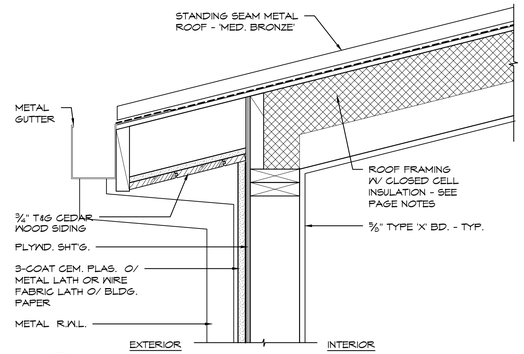
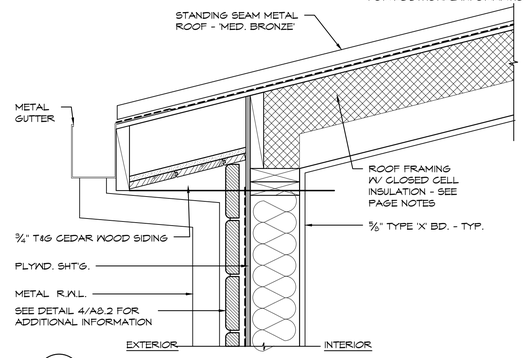
A8.2



1 **TYP. EAVE PROJECTION**

SCALE: 1-1/2"= 1'-0"

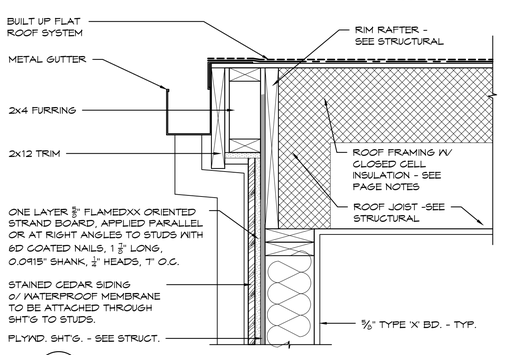
NOTE: SEE PAGE NOTES SHEET A8.2 FOR ADDITIONAL INFORMATION



1 **TYP. EAVE PROJECTION**

SCALE: 1-1/2"= 1'-0"

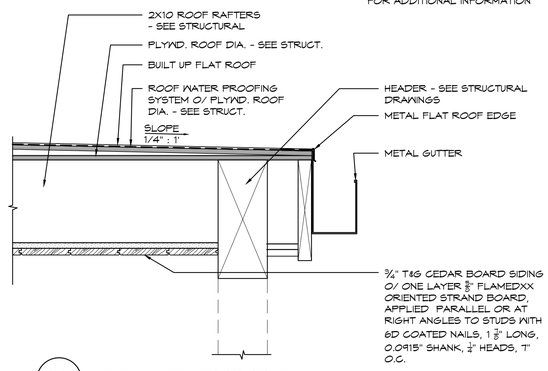
NOTE: SEE PAGE NOTES SHEET A8.2 FOR ADDITIONAL INFORMATION



3 **FLAT ROOF**

SCALE: 1-1/2"= 1'-0"

NOTE: SEE PAGE NOTES SHEET A8.2 FOR ADDITIONAL INFORMATION



3 **FLAT ROOF**

SCALE: 1-1/2"= 1'-0"

NOTE: SEE PAGE NOTES SHEET A8.2 FOR ADDITIONAL INFORMATION

FEB. 02, 2022

VARIES

SGC

DETAILS

A8.3

SECTION 1: GENERAL REQUIREMENTS

1. COVERING CODE:
ALL WORK TO COMPLY WITH;
(a) THE "2022 CALIFORNIA BUILDING CODE" (CBC)" WITH THE STATE AND LOCAL AMENDMENTS;
(b) REFER TO CH35 OF CBC. WHERE OTHER STANDARDS ARE NOTED IN THE DRAWINGS, USE THE LATEST EDITION OF THE STANDARD UNLESS A SPECIFIC DATE IS INDICATED.
(c) ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES, ORDINANCES, LAWS REGULATIONS AND PROTECTIVE COVENANTS GOVERNING THE SITE OF WORK;
(d) STANDARD SPECIFICATIONS OF ASTM AS NOTED HEREIN AND AS REQUIRED BY THE BUILDING CODE.
(e) IN CASE OF CONFLICT, THE MORE STRINGENT REQUIREMENT SHALL GOVERN.

2. SITE COORDINATION
THE CONTRACTOR SHOULD HAVE EXPERIENCE AND BE FAMILIAR WITH THE TYPE OF PROJECT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PERFORM ONSITE VERIFICATION OF ALL DIMENSIONS AND CONDITIONS. NOTED DIMENSIONS TAKE PRECEDENCE OVER THE DRAWING'S SCALE. ADDITIONALLY, IT IS THE CONTRACTOR'S RESPONSIBILITY TO THOROUGHLY READ THE COMPLETE DESIGN PACKAGE BEFORE SUBMITTING A BID.

3. STRUCTURAL DRAWINGS
THE BUILDER HAS CONTRACTED GMEP ENGINEERS FOR LIMITED STRUCTURAL ENGINEERING DRAWINGS, VITAL FOR OBTAINING A BUILDING PERMIT WHEN COMBINED WITH OTHER CONSULTANTS' DRAWINGS. THESE DRAWINGS WONT COVER ALL ASPECTS OR MATERIALS. THE BUILDER WILL OVERSEE MATERIAL SELECTION, QUALITY CONTROL, INSTALLERS, CONSTRUCTION METHODS, AND SUPPLY ADDITIONAL INFORMATION TO ENSURE COMPLIANCE WITH INDUSTRY STANDARDS AND REGULATIONS. THIS DOCUMENT IS NOT FOR BID OR CONSTRUCTION UNTIL THE PLAN HAS BEEN REVIEWED AND APPROVED BY ALL AUTHORITIES HAVING JURISDICTION AND THE PERMIT IS OBTAINED. NO COMPENSATION WILL BE MADE FOR ADDITIONAL WORK DUE TO THE VIOLATION OF THIS REQUIREMENT.

4. STRUCTURAL DETAILS
THE STRUCTURAL DETAILS ARE INTENDED TO DEPICT THE GENERAL CHARACTER AND EXTENT OF THE PROJECT AND ARE NOT MEANT TO ILLUSTRATE EVERY WORK DETAIL. DETAILS, SECTIONS, AND NOTES PRESENTED IN THESE DRAWINGS ARE TYPICAL AND APPLY TO SIMILAR CONDITIONS ELSEWHERE UNLESS OTHERWISE INDICATED. ANY DEVIATIONS FROM THE DESIGN DETAILS REQUIRE WRITTEN APPROVAL FROM GMEP ENGINEERS. APPROVAL BY THE INSPECTOR DOES NOT GRANT AUTHORITY TO DEVIATE FROM THE PLANS OR SPECIFICATIONS.

5. CONSTRUCTION
THE DESIGN, ADEQUACY, AND SAFETY OF ERECTION BRACING, TEMPORARY SUPPORT, SHORING, ETC., ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND HAVE NOT BEEN CONSIDERED BY THE ARCHITECT AND THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THE STABILITY OF THE STRUCTURE BEFORE APPLYING ALL SHEAR WALLS, ROOF AND FLOOR DIAPHRAGMS, AND FINISH MATERIALS. NECESSARY BRACING SHALL BE PROVIDED BY THE CONTRACTOR TO ENSURE STABILITY BEFORE APPLYING THE AFOREMENTIONED MATERIALS. OBSERVATION VISITS TO THE SITE BY THE ARCHITECT OR STRUCTURAL ENGINEER SHALL NOT IMPLY ANY ASSUMPTION OF RESPONSIBILITY IN THIS REGARD.

6. DISCREPANCIES
IF THERE ARE DISCREPANCIES BETWEEN THE GENERAL NOTES, SPECIFICATIONS, PLANS/DETAILS, OR REFERENCE STANDARDS, THE CONTRACTOR MUST PROMPTLY NOTIFY THE ENGINEER OR ARCHITECT OF RECORD REGARDING ANY QUESTIONS OR DISCREPANCIES RELATED TO THE WORKING DRAWINGS AND SPECIFICATIONS.

7. STRUCTURAL ANALYSIS AND LOADING
STRUCTURAL ANALYSIS FOR THIS PROJECT COMPLIED WITH BUILDING CODES AND STANDARD CARE, DEMANDING EVEN LOAD DISTRIBUTION DURING CONSTRUCTION, PREVENTING LOADS FROM EXCEEDING DESIGN CRITERIA, AND REQUIRING CONTRACTOR NOTIFICATION TO THE STRUCTURAL ENGINEER OF RECORD (SER) OF ADDITIONAL LOADS FROM ARCHITECTURAL, MECHANICAL, ELECTRICAL, OR PLUMBING ELEMENTS..

8. PRE-CONSTRUCTION COORDINATION
UPON COMPLETION OF ABOVE BY THE ENGINEER & PRIOR TO START OF CONSTRUCTION, CONTRACTOR IS RESPONSIBLE TO CHECK ALL DIMENSIONS, COORDINATE ALL WORK OF OTHER CONSULTANTS & OTHER TRADES TO ENSURE COMPLIANCE WITH HIS/HER REQUIREMENTS.

9. WATERPROOFING AND MOISTURE LIABILITY
GMEP ENGINEERS SHALL HAVE NO LIABILITY FOR WATERPROOFING TO MOISTURE TRANSMISSION ISSUES, WHETHER RELATED TO CONCRETE SLABS, FOOTINGS, FOUNDATIONS, OR OTHERWISE. OWNER AND CONTRACTOR SHALL BE ENTIRELY RESPONSIBLE FOR SUCH ISSUES, AND WILL DEFEND AND INDEMNIFY GMEP ENGINEERS AGAINST ALL SUCH CLAIMS

SECTION 2: STRUCTURAL WOOD

1. ALL STRUCTURAL WOOD SHALL BE DOUGLAS FIR LARCH SPECIES (19% MAXIMUM MOISTURE CONTENT AT THE TIME OF CONSTRUCTION U.N.O)

2. MACHINE BOLTS MUST ADHERE TO THE STANDARDS SET BY ASTM A307. DRILLING HOLES FOR BOLTS SHOULD BE 1/16" LARGER THAN BOLT DIAMETER.

3. USE SINKER NAILS FOR ALL NAILING, EXCEPT WHERE OTHERWISE INDICATED IN THE NAILING SCHEDULE.

4. FOR NON-SHEAR WALL APPLICATIONS, ALL BOLTS MUST USE ROUND WASHERS CONFORMING TO ANSI/ASME B 18.22.
USE MIN 1 3/8" DIAMETER X 7/64" THICK WASHER FOR 1/2" DIAMETER BOLT;
1 3/4" DIAMETER X 9/64" THICK WASHER FOR 5/8" DIAMETER BOLT;
2 1/2" DIAMETER X 11/64" THICK WASHER FOR 1" DIAMETER BOLT. U.N.O

5. FASTENERS SPECIFIED IN THE DRAWINGS MAY UTILIZE MANUFACTURER'S BRANDS. COMPLY WITH ALL CODES AND MANUFACTURER'S REQUIREMENTS/RECOMMENDATIONS FOR INSTALLATION

6. THE ADHESIVE USED TO ATTACH FLOOR SHEATHING TO FRAMING ELEMENTS MUST COMPLY WITH APA SPECIFICATION AFG-01.

7. ACCORDING BUILDING CODE 2308.5.1 STUD HEIGHTS;
• 2x4'S @ 16" o.c. MAXIMUM 14'-0" HEIGHT FOR NON-BEARING WALL.
• 2x6'S @ 16" o.c. MAXIMUM 20'-0" HEIGHT FOR NON-BEARING WALL.
• BEARING WALLS EXCEEDING 10'-0" MUST BE DESIGNED CASE BY CASE.

8. FOR STUD WALLS FRAMED PERPENDICULAR TO A CONCRETE OR MASONRY WALL, ENSURE SECURE ATTACHMENT BY USING 5/8" DIAMETER X 8" A307 BOLTS AT THE TOP, MIDDLE, AND BOTTOM.

9. THE SPECIFIED MANUFACTURED HARDWARE IN THE DRAWINGS SHOULD BE SIMPSON TIES (UNLESS EXPLICITLY APPROVED BY GMEP ENGINEERS). COMPLY WITH ALL INSTALLATION AND HANDLING REQUIREMENTS AND RECOMMENDATIONS PROVIDED BY THE MANUFACTURER.

10. TO ENSURE COMPLIANCE, THE FABRICATION AND HANDLING OF GLUE-LAMINATED BEAMS MUST ADHERE TO ANSI/AITC A 190.1 STANDARDS. STANDARD BEAMS SHOULD BEAR A LEGIBLE APA-EWS OR AITC GRADE STAMP. PRIOR TO INSTALLATION, PROVIDE THE FIELD INSPECTOR WITH A CERTIFICATE OF CONFORMANCE FOR GLUED-LAMINATED MEMBERS, EITHER APA-EWS OR AITC. GLUE-LAMINATED MEMBERS ARE TO BE 24F-V4, DF/DF WITH STANDARD CAMBER FOR ROOF BEAMS, EXCEPT FOR CANTILEVER BEAMS AND THOSE MARKED (U.N.O.). ALL CANTILEVER AND FLOOR BEAMS SHOULD HAVE ZERO CAMBER (U.N.O.). UTILIZE WATERPROOF GLUE FOR THE FABRICATION OF ALL BEAMS.

11. TIMBER FRAMING, BRACING, NAILING, NOTCHING, DRILLING, OR BORING MUST ADHERE TO THE 2022 CBC, UNLESS THE LOCAL JURISDICTION MANDATES STRICTER REQUIREMENTS OR PROVIDES SPECIFIC SPECIFICATIONS.

12. FASTENERS THAT MAKE CONTACT WITH LUMBER TREATED WITH PRESERVATIVES AND FIRE-RETARDANT WOOD MUST BE CONSTRUCTED FROM HOT-DIPPED ZINC-COATED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE, OR COPPER. HOWEVER, THERE IS AN EXCEPTION FOR PLAIN CARBON STEEL FASTENERS USED IN SBX/DOT AND ZINC BORATE PRESERVATIVE-TREATED WOOD WITHIN INTERIOR, DRY ENVIRONMENTS WHERE THEY ARE PERMITTED.

13. ADHERE TO THE NECESSARY REGULATIONS FROM CHAPTER 23 FOR CONVENTIONAL LIGHT FRAMED CONSTRUCTION

14. THE STRUCTURAL INFORMATION OUTLINED IN THE FRAMING PLANS PERTAINS TO THE CORE STRUCTURAL ELEMENTS. NON-STRUCTURAL COMPONENTS SHOULD BE CONSTRUCTED IN COMPLIANCE WITH THE APPROVED CODE REQUIREMENTS.

15. THE TOP PLATES FOR ALL WOOD STUD WALLS SHOULD CONSIST OF TWO 2X BOARDS MATCHING THE STUD WIDTH. THESE TOP PLATES NEED TO HAVE A MINIMUM 48-INCH OVERLAP AND BE SECURED WITH AT LEAST FIVE 16D NAILS, SPACED NO MORE THAN 12 INCHES APART.

16. ALL SHEAR PANELS MUST FEATURE UNINTERRUPTED SHEATHING MATERIAL RUNNING FROM END TO END AND BETWEEN PLATES, FOLLOWING THE SPECIFICATIONS OUTLINED IN THE DRAWINGS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT FRAMING IS COORDINATED TO MAINTAIN THE CONTINUITY OF SHEAR PANELS.

17. SHEAR TRANSFER NAILING MUST CONFORM TO THE GUIDELINES PRESENTED IN THE DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE INSPECTION TEAM APPROPRIATELY TO REVIEW THESE NAILING SPECIFICATIONS.

18. EVERY JOIST HANGER SHOULD BE OF THE SIMPSON U TYPE, AND ALL BEAM HANGERS MUST BE OF THE SIMPSON HU VARIETY, AS INDICATED ON THE PLAN OR DETAIL. ADHERE TO THE INSTALLATION INSTRUCTIONS PROVIDED BY THE MANUFACTURER.

19. ALL LEDGERS SHALL BE SPLICED WITH ST22 STRAP, UNLESS SPECIFIED DIFFERENTLY.

20. INSTALL POST OR MULTIPLE STUDS BENEATH POST OR MULTIPLE STUDS ON THE FLOOR BELOW. EACH POST OR STUD SHOULD BE SECURED USING GYPSUM WALLBOARD AND 8D COOLER NAILS, SPACED AT 7 INCHES ON CENTER, AS INDICATED ON THE PLAN. ENSURE THE PROVISION OF A COMPRESSION BLOCK WITH FULL WIDTH AND DEPTH BETWEEN FLOORS AT THESE SPECIFIED LOCATIONS.

21. WHEN UTILIZING A DOUBLE SILL PLATE FOR LIGHTWEIGHT CONCRETE FLOORING, THE FRAMING CONTRACTOR MUST ENSURE SILL PLATE NAILING ON BOTH SILL PLATES, MAINTAINING A MAXIMUM SPACING OF 16 INCHES ON CENTER OR AS SPECIFIED IN THE SCHEDULE.

22. BUILDING CODE 2308.5.1 BALLOON FRAMED WALLS (NON-BEARING) STUD HEIGHTS:
• 2x4'S @ 16" o.c. MAXIMUM 14'-0" HEIGHT
• 2x6'S @ 16" o.c. MAXIMUM 20'-0" HEIGHT
• NO MULTIPLIES OF 2x4'S ARE ALLOWED TO SPAN MORE THAN 14'-0". BEARING WALLS EXCEEDING 10'-0" MUST BE DESIGNED CASE BY CASE

23. FOR CEILING FRAMING WITH DEAD LOAD - 6 PSF MAX. & LIVE LOAD = 10 PSF MAX;
• USE DF#2 2x6 CEILING JOIST @ 16" O.C. WITH 12'-0" SPAN MAX.
• USE DF#2 2x8 CEILING JOISTS @ 16" O.C. WITH 16'-0" SPAN MAX.

24. FOR STRUCTURES UP TO TWO STORIES, IT'S PERMISSIBLE TO USE APPROVED FINGER-JOINTED LUMBER IN PLACE OF SOLID-SAWN MEMBERS OF THE SAME SPECIES AND GRADE. HOWEVER, WHEN FINGER-JOINTED LUMBER IS LABELED AS 'STUD USE ONLY' OR VERT USE ONLY;' IT MUST BE EXCLUSIVELY EMPLOYED FOR STUD APPLICATIONS. FURTHERMORE, ALL FINGER-JOINTED LUMBER MUST FEATURE A CERTIFIED GRADE STAMP DENOTING ITS SUITABILITY FOR USE.

25. THE MIN. GRADES SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE ON PLANS (ALL WOOD MUST BE GRADE MARKED:

• VERTICAL FRAMING MEMBERS (STUD AND POST)
6X 4BX POST / BEAMS / HEADERS: DF#1
4X POST: DF#2
STUDS : D.F.L. STUD GRADE (UP TO 9'-0"), DFL #2 (TALLER THAN 9'-0")

• HORIZONTAL FRAMING MEMBERS (STUD AND POST)
2X JOIST/ RAFTERS : DFL#2
4X POST / BEAMS / HEADERS : DFL#2
4X 14 OR LAGRGER : DFL#1
6X OR LARGER: DFL#1

• MISC
TOP PLATES & MUD SILLS : DFL CONSTRUCTION GRADE OR BETTER
SILL PLATE (GROUND FLOOR): P.T. DFL#2
SOLE PLATE (UPPER FLOOR): DFL#2
2X4 & 2X6 OR 4X4 & 4X6 TOP PLATE: DFL#2
SHEAR BLOCKING: DFL#2

26. THE FOLLOWING ENGINEERING WOOD BEAMS/HEADERS/RIMS CAN BE FROM ANY MANUFACTURER WITH CURRENT APPROVED ICC ES - EVALUATION REPORT WITH THE FOLLOWING MECHANICAL PROPERTIES:

FOR "PSL" BEAMS:
Fb = 2900 psi (MIN), Fv = 290 psi (MIN), E = 2.0 x 10^6 psi (MIN).
FOR "LSL" BEAMS/HEADERS:
Fb = 2325 psi (MIN), Fv = 400 psi (MIN), E = 1.55 x 10^6 psi (MIN).
FOR MANUFACTURED RIM BOARD WITH MIN 1 1/4" THICK, CONTINUOUSLY SUPPORTED BY WALL, AND MATCHES JOIST DEPTH:
Fc (PERPENDICULAR)..... = 680 psi (MIN)
Fc (PARALLEL)..... = 1400 psi (MIN)
Ft = 1075 psi (MIN), E = 1.3 x 10^6 psi (MIN)
GLU-LAM BEAM SHALL BE 24F-V4, DF/DF
Fb = 2400 psi @ BOTTOM, Fb = 1850 psi @ TOP
Fv = 265 psi (MIN), E = 1.8 x 10^6 psi (MIN).

27. SHEATHING
• TYPICAL ROOF SHEATHING
15/32" BLOCKED APA RATED EXP 1 WITH A MIN. PANEL INDEX OF 32/16. REFER TO NER 108 FOR INSTALLATION AND CONDITIONS OF USE.

B.N.: 8d COMMON NAILS AT 4"O.C.
E.N.: 8d COMMON NAILS AT 6"O.C.
F.N.: 8d COMMON NAILS AT 6"O.C.

*NOTE: A; A: ALL STRUCTURAL RATED PANELS MUST BE STAMPED BY ONE OF THE FOLLOWING APPROVED AGENCIES, APA, PFS/TECO OR PITTSBURG.

• TYPICAL FLOOR / ROOF DECK / DECK SHEATHING
23/32" APA RATED STURD-I-FLOOR T&G EXP 1 WITH MIN. SPAN RATING OF 24" O.C.. REFER TO NER 108 FOR INSTALLATION AND CONDITION OF USE.

B.N.: 10d COMMON NAILS AT 6" O.C.
E.N.: 10d COMMON NAILS AT 6" O.C.
F.N.: 10d COMMON NAILS AT 6" O.C.

USE RING OR SCREW SHANK NAILS AND GLUE SHEATHING TO FRAMING USING ADHESIVES MEETING APA SPECIFICATION AFG-01 OR ASTM D3498. APPLY GLUE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

STRUCTURAL NAILS

TYPE OF FASTENER	SIZE & DIAMETER	TYPE OF FASTENER	SIZE & DIAMETER
8d SINKER	2 ½ x .113	10d COMMON	3 x .148
8d COMMON	2 ½ x .131	12d COMMON (16d SINKER)	3 ¼ x .148
16d SHORT	3 ¼ x .131	16d COMMON	3 ½ x .162

SHEAR WALL SCHEDULE
*2022 CALIFORNIA BUILDING CODE (BY 2020 LA COUNTY ORDINANCE 0) (R)

SHEAR PANEL TYPE	SHEATHING (6)	EDGE NAILING (COMMON)	FIELD NAILING (COMMON)	ALLOWABLE SHEAR/PLF	SILL PLATE CONNECTION: 16mm SINKER	SILL PLATE CONNECTION: ULTRA-FAST BOLT SYSTEM (UFB) OR EQUAL RIM BOARD	SILL PLATE CONNECTION: ULTRA-FAST BOLT SYSTEM (UFB) OR EQUAL RIM BOARD	FRAMING CLIPS ABOVE, LSSD'S OR LTP4(3) (4)	NOTES
1	15/32" APA RATED	8d'S @ 6" O.C.	8d'S @ 12" O.C.	260	@6" O.C.	@16" O.C.	@14" O.C.	@16" O.C.	
2	15/32" APA RATED	8d'S @ 4" O.C.	8d'S @ 12" O.C.	380	@4" O.C.	@12" O.C.	@10" O.C.	@12" O.C.	(2) (6)
3	15/32" APA RATED	8d'S @ 3" O.C.	8d'S @ 12" O.C.	440	@3" O.C.	@8" O.C.	@7" O.C.	@8" O.C.	(2) (6)
4	15/32" APA RATED	8d'S @ 2" O.C.	8d'S @ 12" O.C.	640	@2" O.C.	@6" O.C.	@5" O.C.	@8" O.C.	(2) (6)
5	15/32" APA RATED (STRUC. I)	10d'S @ 3" O.C.	10d'S @ 12" O.C.	870	2 ROWS STAGG. @5" O.C.	@5" O.C.	@4" O.C.	@6" O.C.	(2)(6)

(1) SHEATHING PANEL JOINT AND SILL PLATE NAILING SHALL BE STAGGERED. NO EXCEPTION.
(2) PROVIDE 3" NOMINAL OR WIDER FRAMING AT ADJOINING PANEL EDGES WITH NAILS STAGGERED.
(3) STUDS ARE SPACED @16" O.C MAX UNLESS NOTED OTHERWISE ON PLAN.
(4) USE SPACING PER SCHEDULE IF NUMBER OF FRAMING CLIPS ARE NOT SPECIFIED ON FRAMING PLANS.
(5) SHEATHING CONFORMS TO EITHER DOC PS 1 OR PS 2 STANDARDS.
(6) USE 3" NOMINAL OR WIDER SILL OR SOLE PLATE

NAILING SCHEDULE
REFER TO TABLE 2304.10.2 OF THE LATEST CBC CODE

CONNECTION	NAILING
1. JOIST TO SILL OR GIRDER, TOENAIL	3-8d
2. BRIDGING THE JOIST, TOENAIL EACH END	2-8d
3. 1"X6" SUBFLOOR OR LESS TO EACH JOIST, FACE NAIL	2-8d
4. WIDER THAN 1"X6" SUBFLOOR TO EACH JOIST, FACE NAIL	3-8d
5. 2"SUBFLOOR TO JOIST OR GIRDER, BLIND AND FACE NAIL	2-16d
6.a SOLE PLATE TO JOIST OR BLOCKING, FACE NAIL	16d (BOX)@16"o.c
6.b SOLE PLATE TO JOIST AT BRACED WALL PANEL	(3)16d (BOX)PER 16"
7. TOP PLATE TO STUD, END NAIL	2-16d
8. STUD TO SOLE PLATE	4-8d, TOENAIL OR
	2X SOLE: 2-16d
	3X SOLE:2-20d(BOX)
9. DOUBLE STUDS, FACE NAIL	16d(BOX)@24"o.c
10.a DOUBLED TOP PLATES, FACE NAIL	16d(BOX)@16"o.c
10.b DOUBLED TOP PLATES, LAP SPLIC	8-16d
11. BLOCKING BETWEEN JOIST OR RAFTERS TO TOP PLATE, TOENAIL	3-8d
12. RIM JOIST TO TOP PLATE, TOENAIL	8d@6"o.c
13. TOP PLATES, LAPS AND INSPECTIONS, FACE NAIL	2-16d
14. CONTINUOUS HEADER, TWO PIECES	16d@16" o.c ALONG EACH EDGE
15. CEILING JOISTS TO PLATE, TOENAIL	3-8d
16. CONTINUOUS HEADER TO STUD, TOENAIL	4-8d
17. CEILING JOISTS, LAPS OVER PARTITIONS, FACE NAIL	3-16d
18. CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL	3-16d
19. RAFTER TO PLATE, TOENAIL	3-8d
20. 1"BRACE TO EACH STUD AND PLATE, FACE NAIL	2-8d
21. 1"X8" SHEATHING OR LESS TO EACH BEARING, FACE NAIL	3-8d
22. WIDER THAN 1"X8" SHEATHING TO EACH BEARING, FACE NAIL	3-8d
23. BUILT-UP CORNER STUDS	16d@24"o.c
24. BUILT-UP GIRDER AND BEAMS	20d@32"o.c AT TOP AND BOTTOM AND STAGGERED 2-20d AT ENDS AND AT EACH SPLICE
25. 2" PLANKS	2-16d@ EACH BEARING

*COMMON NAILS SHALL BE USED (U.N.O); ** JOIST CAN BE EITHER SAWN LUMBER OR I-JOIST PER PLAN

SECTION 3: FOUNDATION

1. THE FOUNDATION DRAWINGS, AS PREPARED BY GMEP ENGINEERS, INDICATE THE STRUCTURAL SPECIFICATIONS, FOR DIMENSIONS, DEPRESSIONS, SLOPE, SHELVES, PATIOS, STOOPS, AND PORCHES NOT DEPICTED IN THE FOUNDATION DRAWINGS, REFERENCE SHOULD BE MADE TO THE ARCHITECTURAL PLANS. THE ARCHITECT AND CONTRACTOR MUST REVIEW THE ACCURACY OF THE DIMENSIONS AND ENSURE THE FINAL ALIGNMENT OF THE BUILDING BEFORE COMMENCING CONSTRUCTION.

2. THE BASE OF THE FOOTING EXCAVATIONS SHOULD BE LEVEL, FREE FROM DEBRIS OR WATER DURING CONCRETE PLACEMENT. ANY AREAS WITH EXCESS EXCAVATION SHOULD BE FILLED WITH COMPACTED MATERIAL. THE BACKFILLING CAN ONLY OCCUR ONCE THE SUPPORTING FOUNDATIONS, WALLS, AND SLAB HAVE DEVELOPED THE REQUIRED STRENGTH TO RESIST LATERAL SOIL PRESSURE.

3. PLACEMENT SHALL BE IN ONE CONTINUOUS OPERATION UNLESS OTHERWISE SPECIFIED. THE SLAB SURFACE SHOULD BE CURED USING 'HUNT'S' COMPOUND OR AN EQUIVALENT PRODUCT. ALTERNATIVELY, OTHER CURING METHODS MAY BE EMPLOYED, AS DETERMINED BY THE CONTRACTOR, IN ACCORDANCE WITH ESTABLISHED CONSTRUCTION STANDARDS. .

4. THE CONCRETE PLACEMENT SHOULD BE EXECUTED AS A MONOLITHIC PROCESS IN A SINGLE, CONTINUOUS OPERATION, ENSURING UNIFORM DISTRIBUTION AND THOROUGH VIBRATION AND CONSOLIDATION, UNLESS THE PLANS SPECIFY AN ALTERNATIVE APPROACH. A 'DUAL POUR,' AS DEFINED BY ACI, OCCURS WHEN THE FIRST AND SECOND POURS CANNOT BE VIBRATED SIMULTANEOUSLY.

5. GRADE SURROUNDING THE FOUNDATION'S PERIMETER MUST BE DESIGNED TO ENSURE PROPER DRAINAGE OF RAIN AND IRRIGATION WATER AWAY FROM THE FOUNDATION.

6. THE MINIMUM CONCRETE WIDTH FOR RECEIVING PA, HPA, AND STHD'S SHOULD BE 8 INCHES. ENSURE THE PRECISE PLACEMENT OF HOLDDOWNS AND ANCHOR BOLTS THROUGH COORDINATION WITH ROUGH FRAMING TO GUARANTEE ACCURATE INSTALLATION.

7. FOR ALL CONCRETE STOOPS AND PORCHES, INSTALL #3 REBAR DOWEL @ 24 INCHES O.C AT INTERVALS OF 24 INCHES, WITH 12 INCHES FROM THE CORNER.

8. IT IS NOT PERMISSIBLE TO USE ADMIXTURES IN CONCRETE MIXES THAT INCLUDE CALCIUM CHLORIDES.

9. CONCRETE MUST MEET THE STRENGTH AND SLUMP REQUIREMENTS OUTLINED IN THE STRUCTURAL DESIGN. AGGREGATES SHOULD ADHERE TO ASTM C-33 STANDARDS. THE WATER TO BE CLEAN AND POTABLE.

10. PIPES OR CONDUITS SHOULD NOT BE POSITIONED BENEATH ISOLATED COLUMN FOOTINGS OR CONTINUOUS WALL FOOTINGS UNLESS EXPLICITLY OUTLINED IN THE PLANS OR APPROVED BY THE ARCHITECT, STRUCTURAL ENGINEER, AND THE BUILDING OFFICIAL.

11. PROVIDE MIN. (1) #4 REINFORCING FOR ELECTRICAL GROUND, AND ENSURE THAT THE EXACT PLACEMENT IS CONFIRMED IN CONSULTATION WITH THE ELECTRICAL CONTRACTOR.

12. ALL GRADE BEAMS SHALL BE POURED MONOLITHICALLY FOR THEIR ENTIRE LENGTH.

SECTION 4: REINFORCING STEEL

1. BAR REINFORCEMENT SHALL CONFORM TO THE REQUIREMENTS OF ASTM A615. THE FOLLOWING GRADES SHALL BE USED:

GRADE 40 - #3 AND SMALLER
GRADE 60 - #4 AND LARGER

2. DETAILS OF REINFORCEMENT SHALL CONFORM TO THE REQUIREMENTS OF ACI 318-14 CH. 7 AND OTHER SECTIONS ACCORDING TO APPLIC

3. LAPS AT BAR SPLICES IN CONC. CONSTRUCTION SHALL BE AS FOLLOWS:

TYPE OF FASTENER	TOP BARS (CLASS B)		OTHER THAN TOP BARS (CLASS B)	
	f'c=2500	f'c=3000	f'c=2500	f'c=3000
#5	30	27	24	21
#6	35	33	28	25
#7	40	38	32	29
#8	45	43	36	33

4. LAPS AT BAR SPLICES IN MASONRY CONSTRUCTION SHALL BE 48 BAR DIAMETERS BUT NOT LESS THAN 2'-0".

5. VERTICAL REINFORCEMENT SHALL BE TIED OR OTHERWISE FIXED IN POSITION AT THE TOP AND BOTTOM AT INTERMEDIATE LOCATIONS, SPACED NOT GREATER THAN 48" O.C..

6. WELDED STEEL WIRE FABRIC REINFORCEMENT SHALL CONFORM TO ASTM A185. 12" LAPS OF WELDED STEEL WIRE FABRIC AT SPLICES ARE REQ'D.

7. WALLS, PILASTERS, AND COLUMNS SHALL BE DOWELED TO THE SUPPORTING FOOTINGS WITH REINFORCEMENT OF THE SAME SIZE, GRADE AND AT THE SAME SPACING AS THE VERTICAL REINFORCEMENT IN THE WALLS, PILASTERS, OR COLUMNS (U.N.O).

8. BAR SUPPORTS SHALL BE PROVIDED IN ACCORDANCE WITH THE PROVISIONS OF "BAR SUPPORT SPECIFICATIONS" AS CONTAINED IN THE LATEST EDITION OF THE "MANUAL OF STANDARD PRACTICE" BY THE CONCRETE REINFORCING STEEL INSTITUTE (CRSI).

9. REINFORCING STEEL DETAILING, BENDING AND PLACING SHALL BE IN ACCORDANCE WITH THE CONCRETE REINFORCING STEEL INSTITUTE "MANUAL OF STANDARD PRACTICE", LATEST EDITION.

10. ALL REINFORCEMENT SHALL BE SECURELY TIED IN PLACE BEFORE PLACING CONCRETE OR GROUT

11. WELDING OF REINFORCING BARS SHALL CONFORM TO "STRUCTURAL WELDING CODE-REINFORCING STEEL," ANSI/AWS D1.4 OF THE A.W.S.

12. WELDING OF ALL REINFORCING STEEL TO STRUCTURAL STEEL SHALL BE LIMITED TO THOSE AREAS SPECIFICALLY SHOWN ON THE PLANS. ANY OTHER WELDING SHALL REQUIRE THE APPROVAL OF THE GOVERNING AGENCY, FIELD INSPECTOR, AND STRUCTURAL ENGINEER.

13. WELDING OF CROSSING BARS AND TACK WELDING OF REINFORCEMENT SHALL NOT BE PERMITTED

14. ALL WELDS SHALL, IN ADDITION, TO ALL THE SPECIFICATIONS LISTED ABOVE, COMPLY WITH THE REQUIREMENTS OF THE 14TH EDITION OF THE "STEEL CONSTRUCTION MANUAL" AS PUBLISHED BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION.

SECTION 5: CONCRETE

1. CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF ACI 318-14 CHAPTER 5. THE MINIMUM 28-DAY CYLINDER STRENGTH SHALL BE AS FOLLOWS:

CONVENTIONAL FOUNDATIONS:	STRENGTH:
SLAB ON GRADE	3000 PSI
SLAB ON GRADE-GARAGE	3000 PSI
FOOTINGS	3000 PSI
GRADE BEAM	3000 PSI

2. THE WATER TO CEMENT RATIO SHALL BE 0.45 MAXIMUM.

3. WHERE CONCRETE STRENGTH IS GREATER THAN 2500 PSI, CYLINDER TESTS ARE REQUIRED PER ACI 318-14 5.6.3.3.

4. PORTLAND CEMENT SHALL CONFORM TO THE REQUIREMENTS OF ASTM C150, TYPE V.

5. AGGREGATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM C33 FOR NORMAL WEIGHT CONCRETE AND ASTM C330 FOR LIGHTWEIGHT CONCRETE.

6. ADMIXTURES SHALL BE USED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND APPROVED BY THE ENGINEER OF RECORD.

7. READY-MIX CONCRETE SHALL BE MIXED AND DELIVERED IN ACCORDANCE WITH THE REQUIREMENTS OF "STANDARD SPECIFICATION FOR READY-MIXED CONCRETE" ASTM C94.

8. MINIMUM CONCRETE COVER (IN INCHES) FOR REINFORCING STEEL IN NON-PRESTRESSED CAST-IN-PLACE CONCRETE SHALL BE AS FOLLOWS, U.N.O:

LOCATION:	MIN. CVR. (INCHES)
A. CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3"
B. FORMED SURFACES EXPOSED TO EARTH OR WEATHER:	
#6 AND LARGER BAR	2"
#5 BARS, 5/8 INCH WIRE, AND SMALLER	1 ½"

9. ALL SLEEVES THROUGH BEAMS, GIRDERS AND FOUNDATION WALLS SHALL BE INSTALLED AND SECURED IN POSITION PRIOR TO PLACING CONCRETE. EXCEPT AS SHOWN ON STRUCTURAL DRAWINGS, SLEEVING SHALL NOT BE PERMITTED UNLESS APPROVED BY THE DESIGNER AND STRUCTURAL ENGINEER.

10. SLEEVES, PIPES, OR CONDUITS SHALL NOT BE PLACED THROUGH CONTINUOUS OR SPREAD FOOTINGS GRADE BEAMS, PILE CAPS, OR TIE BEAMS, UNLESS SPECIFICALLY DETAILED BY THE ENGINEER.

11. CONDUIT SHALL NOT BE PLACED IN ANY CONCRETE SLAB LESS THAN 3-1/2 INCHES THICK. IF CONDUIT IS PLACED IN CONCRETE SLAB, ITS OUTSIDE DIAMETER SHALL NOT BE GREATER THAN 1/3 OF THE SLAB THICKNESS. THE MINIMUM CLEAR DISTANCE BETWEEN CONDUITS SHALL BE 3 INCHES.

12. ALL EXPOSED CORNERS SHALL BE CHAMFERED 3/4 INCH, U.N.O.

13. REFER TO ARCHITECTURAL DRAWINGS FOR MOLDS, GROOVES, ORNAMENTS, CLIPS, OR GROUNDS REQUIRED TO BE CAST IN THE CONCRETE AND FOR EXTENT OF DEPRESSIONS, CURBS, AND RAMPS.

14. ALL VERTICAL SURFACES OF CONCRETE ABOVE FINISHED GRADE SHALL BE FORMED.

15. REFERENCE ARCH. DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS DUE TO ARCHITECTURAL C.I.P. CONCRETE.

SECTION 6: DESIGN CRITERIA

SOILS
FOUNDATION ENGINEERING HAS BEEN PREDICATED ON RECOMMENDATIONS IN SOILS REPORT BY CM PROS DBA CARMEL ENGINEERING; REPORT NUMBER: 2024-02. REPORT DATE: 07/29/2024.

THIS REPORT IS PART OF THE CALCULATIONS AND CONSTRUCTION DOCUMENTS, AND IS TO BE FOLLOWED WHERE APPLIES. VERIFY AND FOLLOW MINIMUM FOUNDATION REQUIREMENTS WITH SOILS REPORT IF THERE ARE ANY MORE RESTRICTIVE.

SOIL SITE CLASS: D
MAX

SPECIAL INSPECTION

1. IN ADDITION TO THE REGULAR INSPECTION THE FOLLOWING ITEMS WILL ALSO REQUIRE SPECIAL INSPECTION IN ACCORDANCE WITH SEC. 1704, UNLESS EXEMPTED BY THE EXCEPTIONS OF SEC. 1704.2, OF THE BUILDING CODE.
2. SOILS COMPLIANCE PRIOR TO THE FOUNDATION INSPECTION, POST-TENSIONED FOUNDATION, HIGH STRENGTH STEEL AND CONCRETE.
3. ALL INSPECTIONS AND TESTS SHALL BE PERFORMED BY A QUALIFIED TESTING AGENCY RETAINED BY THE OWNER.
4. THE SPECIAL INSPECTOR SHALL BE QUALIFIED AND APPROVED BY THE BUILDING DEPARTMENT AND ACCEPTABLE TO THE ARCHITECT.
5. THE SPECIAL INSPECTOR SHALL OBSERVE WORK ASSIGNED FOR CONFORMANCE TO THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS.
6. THE SPECIAL INSPECTOR SHALL FURNISH AN INSPECTION REPORT TO THE BUILDING DEPARTMENT, ENGINEER AND ARCHITECT OF RECORD. COPIES OF THE REPORT SHALL BE AVAILABLE AT THE JOB SITE AT ALL TIMES.
7. FINAL REPORTS FOR ALL INSPECTIONS AND TESTING MUST BE PROVIDED BY THE SPECIAL INSPECTOR. FINAL REPORTS SHALL DOCUMENT COMPLETION OF ALL INSPECTORS
8. THE DUTIES OF THE SPECIAL INSPECTOR SHALL BE IN CONFORMANCE WITH THE REQUIREMENTS OF SECTION 1704 OF THE LATEST EDITION OF THE CBC.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXPENSES DUE TO ANY PREMATURE NOTIFICATION OF INSPECTION WHICH RESULTS IN ADDITIONAL SITE VISITS.
10. FAILURE OF NOTIFICATION BY THE CONTRACTOR FOR INSPECTION ON AN TIMELY BASIS MAY RESULTS IN COMPLETE REMOVAL AND REPLACEMENT OF ALL WORK PERFORMED AT CONTRACTORS EXPENSE.
11. SITE VISITS BY THE STRUCTURAL ENGINEER DO NOT CONSTITUTE AN INSPECTION.

SPECIAL INSPECTION BY A SPECIAL INSPECTOR FOR EXISTING SITE SOIL CONDITIONS, FILL PLACEMENT & LOAD BEARING REQUIREMENTS SHALL BE PERFORMED PER THE FOLLOWING TABLE.

EXCEPTION: SPECIAL INSPECTION FOR EXISTING SITE SOIL CONDITIONS PER TABLE BELOW IS NOT REQUIRED IF ALLOCABLE SOIL BEAR PRESSURE USED FOR DESIGN IS ≤ 1500 PSF, SOILS REPORT IS NOT REQUIRED BY BUILDING OFFICIAL, AND THERE IS NO CONTROLLED FILL PLACEMENT ON EXISTING BUILDING SITE.

SPECIAL INSPECTION TABLE FOR EXISTING SITE SOIL CONDITIONS

TYPE	NOT APPLICABLE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION
VERIFY MATERIALS BELOW FOOTINGS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY PER SOILS REPORT			X
VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH & HAVE REACHED PROPER MATERIAL PER SOILS REPORT			X
PERFORM CLASSIFICATION & TESTING OF COMPACTED FILL MATERIALS PER SOILS REPORT			X
VERIFY USE OF PROPER MATERIALS DENSITIES & LIFT THICKNESS DURING PLACEMENT & COMPACTION OF COMPACTED FILL PER SOILS REPORT. EXCEPTION: DPECIAL INSPECTION IS NOT REQUIRED DURING PLACEMENT OF CONTROLLED FILL HAVING A TOTAL DEPTH OF 12 INCHES OR LESS		X	
PRIOR TO PLACEMENT OF COMPACTED FILL INSPECT SUBGRADE & VERIFY THAT SITE HAS BEEN PREPARED PROPERLY PER SOILS REPORT			X

SPECIAL INSPECTION BY A SPECIAL INSPECTOR FOR THE CONSTRUCTION OF HORIZONTAL WOOD DIAPHRAGMS, WOOD SHEAR WALLS & MANUFACTURED SHEAR WALLS ARE REQUIRED & SPECIFIED IN THE FOLLOWING TABLE.

SPECIAL INSPECTION TABLE FOR WOOD SITE DIAPHRAGM & SHEAR WALLS

	INSPECTION TASK	FREQUENCY OF INSPECTION		REFERENCE FOR CRITERIA
		CONTINUOUS	PERIODICALLY	CBC/IBC SECTION
HORIZONTAL WOOD DIAPHRAGM WITH EDGE NAIL SPACING EQUAL TO OR CLOSER THAN 4" o.c.	SHEATHING TYPES, GRADE THICKNESS, SPAN RATING, AND NAIL TYPES, NAIL SIZED & SPACING		X	SEC. 1705.12.2
WOOD SHEAR WALLS WITH EDGE NAIL SPACING EQUALS TO OR CLOSER THAN 4" o.c.	SHEATHING TYPES, GRADE THICKNESS, WALL NAIL TYPES, NAIL SIZES & SPACING		X X	SEC. 1705.12.2
	SILL NAIL TYPES, SIZE AND SPACING		X	
	ANCHOR BOLT SIZES & SPACING			
	HOLDOWN TYPES & THEIR CONNECTIONS TO SHEAR WALLS & FOUNDATION/FRAMING		X	
	WALL AND POST SIZES		X	
	SHEAR TRANSFER CONNECTOR TYPES & SPACING. DRAS STRUT CONNECTION TO SHEAR WALLS.		X	
MANUFACTURED SHEAR WALLS, HARDY PANELS, SIMPSON STEEL & WOOD STRONG WALLS.			X	SEC. 1704 SEC. 1705.12.2 SEC. 1705.12.3

SPECIAL INSPECTIONS AND VERIFICATIONS BY A SPECIAL INSPECTOR ARE REQUIRED FOR CONCRETE CONSTRUCTION AND SPECIFIED IN THE FOLLOWING TABLE

EXCEPTION: CONCRETE FOOTINGS SUPPORTING WALLS OF LIGHT-FRAME WOOD BUILDING OF 3-STORIES OR LESS AND THE STRUCTURAL DESIGN OF FOOTINGS IS BASED ON A SPECIFIED COMPRESSIVE STRENGTH f'c NO GREATER THAN 2500 psi.

SPECIAL INSPECTION TABLE FOR CONCRETE CONSTRUCTION

TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION	Reference Standard	CBC/IBC Reference
1. INSPECT REINFORCEMENT, INCLUDING PRESTRESSING TENDONS, AND VERIFY PLACEMENT	—	✓	ACI 318 Ch. 20.2.5.2,25.3, 26.6.1-26.6.3	1908.4
2. REINFORCING BAR WELDING:	—			
A. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A 706;		✓	AWS D1.4 ACI 318: 26.6.4	—
B. INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16"; AND		✓		
C. INSPECT ALL OTHER WELDS	✓			
3. INSPECT ANCHORS POST-INSTALLED IN CONCRETE.	—	✓	ACI 318: 17.8.2	—
4. INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS.			ACI 318: 17.8.2.4 ACI 318: 17.8.2	—
A. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS.	✓			
B. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4.A.		✓		
5. VERIFY USE OF REQUIRED DESIGN MIX.	—	✓	ACI 318: Ch 19, 26.4.3, 26.4.4	1904.1,1904.2, 1908.2, 1908.3
6. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	✓	—	ASTM C 172 ASTM C 31 ACI 318: 26.5, 26.12	1908.10
7. INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	✓	—	ACI 318: 26.5	1908.6, 1908.7, 1908.8
8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	—	✓	ACI 318: 26.5.3-26.5.5	1908.9
9. INSPECT PRESTRESSED CONCRETE FOR:				
A. APPLICATION OF PRESTRESSING FORCES; AND	✓	—	ACI 318: 26.10	—
B. GROUTING OF BONDED PRESTRESSING TENDONS.	✓	—		
10. INSPECT ERECTION OF PRECAST CONCRETE MEMBERS.	—	✓	ACI 318: 26.9	—
11. VERIFY IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS.	—	✓	ACI 318: 26.11.2	—
12. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	—	✓	ACI 318: 26.11.1.2(b)	—

FOR THE CONSTRUCTION OF STEEL ELEMENTS OF BUILDING & STRUCTURES, ITEMS OF SPECIAL INSPECTION & VERIFICATIONS BY A SPECIAL INSPECTOR ARE REQUIRED & SUMMARIZED IN THE FOLLOWING TABLE.

SPECIAL INSPECTION TABLE FOR STEEL STRUCTURES

VERIFICATION & INSPECTION	QUALITY ASSURANCE		REFERENCE STANDARD
	PERFORMED	OBSERVED	
TASKS PRIOR TO WELDING			
1. WELDER QUALIFICATION RECORDS AND CONTINUITY RECORDS.		✓	
2. WPS AVAILABLE.	✓		
3. MANUFACTURE CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE.	✓		
4. MATERIAL IDENTIFICATION (TYPE /GRADE).		✓	
5. WELDER IDENTIFICATION SYSTEM.		✓	
6. FIT-UP GROOVE WELDS (INCLUDING JOINT GEOMETRY). A. JOINT PREPARATIONS. B. DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL). C. CLEANLINESS (CONDITION OF STEEL SURFACES). D. TACKING (TACK WELD QUALITY AND LOCATION). E. BACKING TYPE AND FIT (IF APPLICABLE).		✓	AISC 360-16 TABLE N5.4-1
7. FIT-UP OF CJP GROOVE WELDS OF HSS T-, Y- AND K-JOINTS WITHOUT BACKING (INCLUDING JOINT GEOMETRY). A. JOINT PREPARATION. B. DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL). C. CLEANLINESS (CONDITION OF STEEL SURFACES). D. TACKING (TACK WELD QUALITY AND LOCATION).		✓	
8. CONFIGURATION AND FINISH OF ACCESS HOLES.		✓	
9. FIT-UP OF FILLET WELDS. A. DIMENSIONS (ALIGNMENT, GAPS AT ROOT). B. CLEANLINESS (CONDITION OF STEEL SURFACES). C. TACKING (TACK WELD QUALITY AND LOCATION).		✓	
10. CHECK WELDING EQUIPMENT.		—	
TASKS DURING WELDING			
1. CONTROL AND HANDLING OF WELDING CONSUMABLES. A. PACKAGING. B. EXPOSURE CONTROL.		✓	
2. NO WELDING OVER CRACKED TACK WELDS.		✓	
3. ENVIRONMENTAL CONDITIONS. A. WIND SPEED WITHIN LIMITS. B. PRECIPITATION AND TEMPERATURE.		✓	
4. WPS FOLLOWED: A. SETTINGS ON WELDING EQUIPMENT. B. TRAVEL SPEED. C. SELECTED WELDING MATERIALS. D. SHIELDING GAS TYPE/ FLOW RATE. E. PREHEAT APPLIED. F. INTERPASS TEMPERATURE MAINTAINED (MIN./ MAX.). G. PROPER POSITION (F, V, H, OH).		✓	AISC 360-16 TABLE N5.4-2
5. WELDING TECHNIQUES. A. INTERPASS AND FINAL CLEANING. B. EACH PASS WITHIN PROFILE LIMITATIONS. C. EACH PASS MEETS QUALITY REQUIREMENTS.		✓	
6. PLACEMENT AND INSTALLATION OF STEEL HEADED STUD ANCHORS.	✓		
TASKS AFTER WELDING			
1. WELDS CLEANED.		✓	AISC 360-16 TABLE N5.4-3
2. SIZE, LENGTH AND LOCATION OF WELDS.	✓		
3. WELDS MEET VISUAL ACCEPTANCE CRITERIA. A. CRACK PROHIBITION. B. WELD/ BASE-METAL FUSION. C. CRATER CROSS SECTION. D. WELD PROFILES. E. WELD SIZE. F. UNDERCUT. G. POROSITY.	✓		
4. ARC STRIKES.	✓		
5. K-AREA.	✓		
6. WELD ACCESS HOLES IN ROLLED SHAPES AND BUILT-UP HEAVY SHAPES.	✓		
7. BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED).	✓		
8. REPAIR ACTIVITIES.	✓		
9. DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR MEMBER.	✓		
10. NO PROHIBITED WELDS HAVE BEEN ADDED WITHOUT THE APPROVAL OF THE EOR.		✓	

REVISIONS

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SEAL:

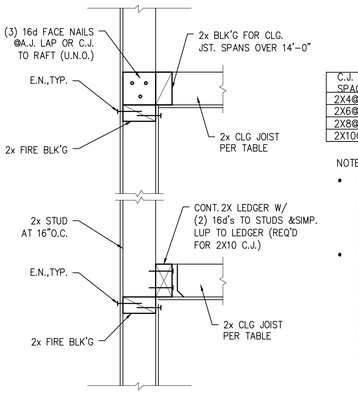
REGISTERED PROFESSIONAL ENGINEER
ALLEN CHUN-YING NU
No. C69385
Exp.06-30-2026
CIVIL
STATE OF CALIFORNIA

GMEP ENGINEERS
26439 Rancho Pkwy. S., Ste 120
Lake Forest, CA 92630
Tel: 949-267-9095

PROJECT NAME:
LOT 207 SANTA LUCIA PRESERVE
23 SAN CLEMENTE TRL.
CARMEL, CA 93923

SHEET TITLE
STRUCTURAL SPECIAL INSPECTION

DRAWN	GMEP
CHECKED	GMEP
DATE	01/31/25
SCALE	AS NOTED
JOB NO.	24-731
SHEET	SN-1B



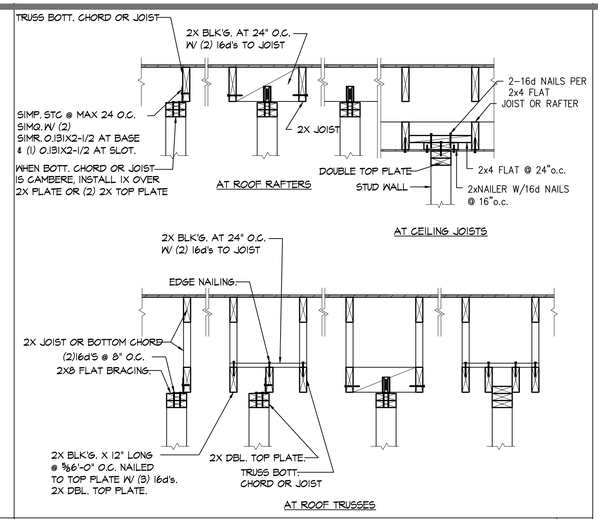
CEILING JOISTS AT 16" OR 24" O.C.

C.J. SIZE AND SPACING	MAX SPAN	REQ'D. 16d NAILS
2X4@16" O.C.	8'-0"	2
2X6@16" O.C.	12'-0"	2
2X8@16" O.C.	16'-0"	3
2X10@16" O.C.	20'-0"	4

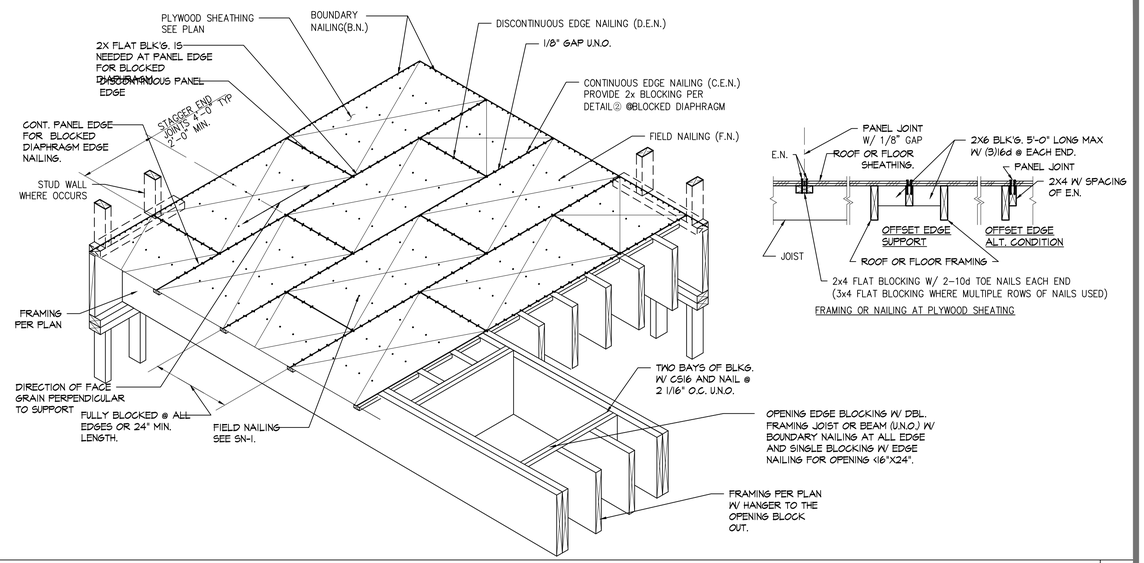
NOTES:

- CONT. LEDGERS SHALL BE APPLIED AT SHEAR WALLS OR OVER DRYWALL AT SPECIAL FIRE OR PARTY WALL CONSTRUCTION AS REQ'D BY ARCH DETAILS. USE 20d LEDGER NAILS FOR 2X6 WALL
- NON-BEARING HDR./BM. ARE SOLELY FOR C.J.'S OR NON BEARING PARTITIONS. HDR./BM. ALL HEADER OVER 8' SHALL BE SPECIFICALLY DESIGNED. (2)-2X MAY BE USED IN LIEU OF 4X MEMBERS. CONTACT GMEP IMMEDIATELY FOR NON BEARING HDR OVER 8'-0".

C.J. TO BALLOON FRAME WALL | 10

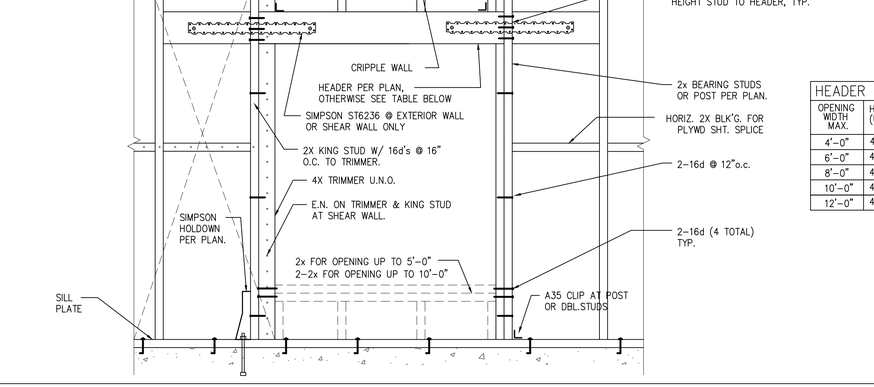


FRM'G. TO NON-BEARING WALLS | 7



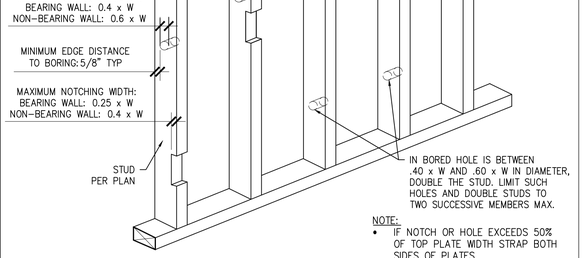
FRAMING OR NAILING AT PLYWOOD SHEATING

SHEATHING LAYOUT | 1



HEADER SCHEDULE	
OPENING WIDTH MAX.	HEADER SIZE (U.N.O.)
4'-0"	4X6 OR 6X6
6'-0"	4X8 OR 6X8
8'-0"	4X10 OR 6X10
10'-0"	4X12 OR 6X12
12'-0"	4X14 OR 6X14

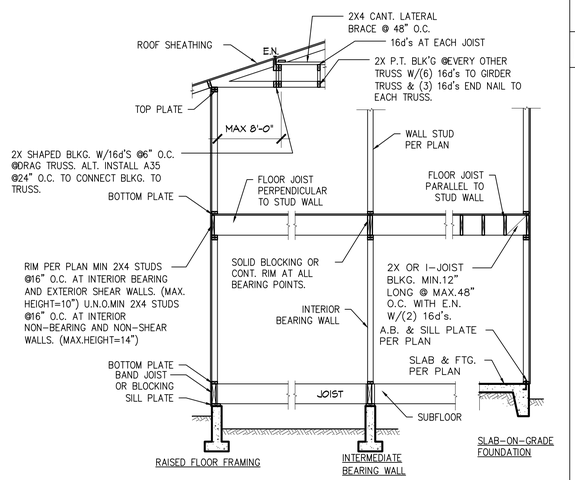
FRAMING DETAIL | 2



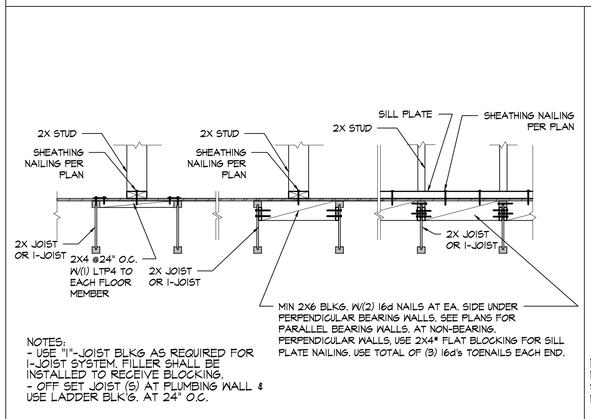
NOTE:

- IF NOTCH OR HOLE EXCEEDS 50% OF TOP PLATE WIDTH STRAP BOTH SIDES OF PLATES.

PIPING THRU PLATE FRAM'G | 8

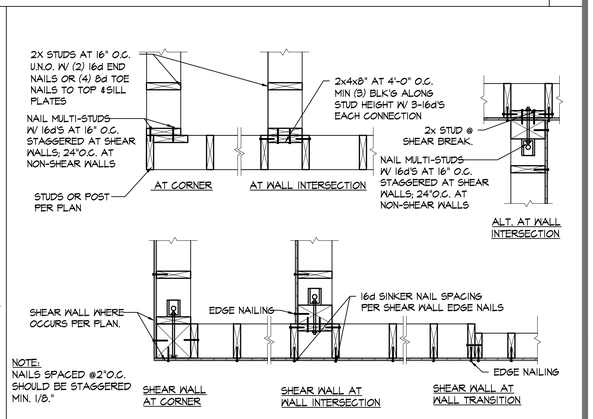


TYP.FRAMING CROSS SECTION | 9



NOTES:
- USE "I"-JOIST BLKG AS REQUIRED FOR I-JOIST SYSTEM. FILLER SHALL BE INSTALLED TO RECEIVE BLOCKING.
- OFF SET JOIST (S) AT PLUMBING WALL & USE LADDER BLK'G. AT 24" O.C.

BEARING & NON-BEARING WALL | 6



NOTE:
NAILS SPACED @2"O.C. SHOULD BE STAGGERED MIN. 1/8."

SHEAR WALL/WALL INTERSECTION | 3

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GMEP ENGINEERS
26439 Rancho Pkwy. S., Ste 120
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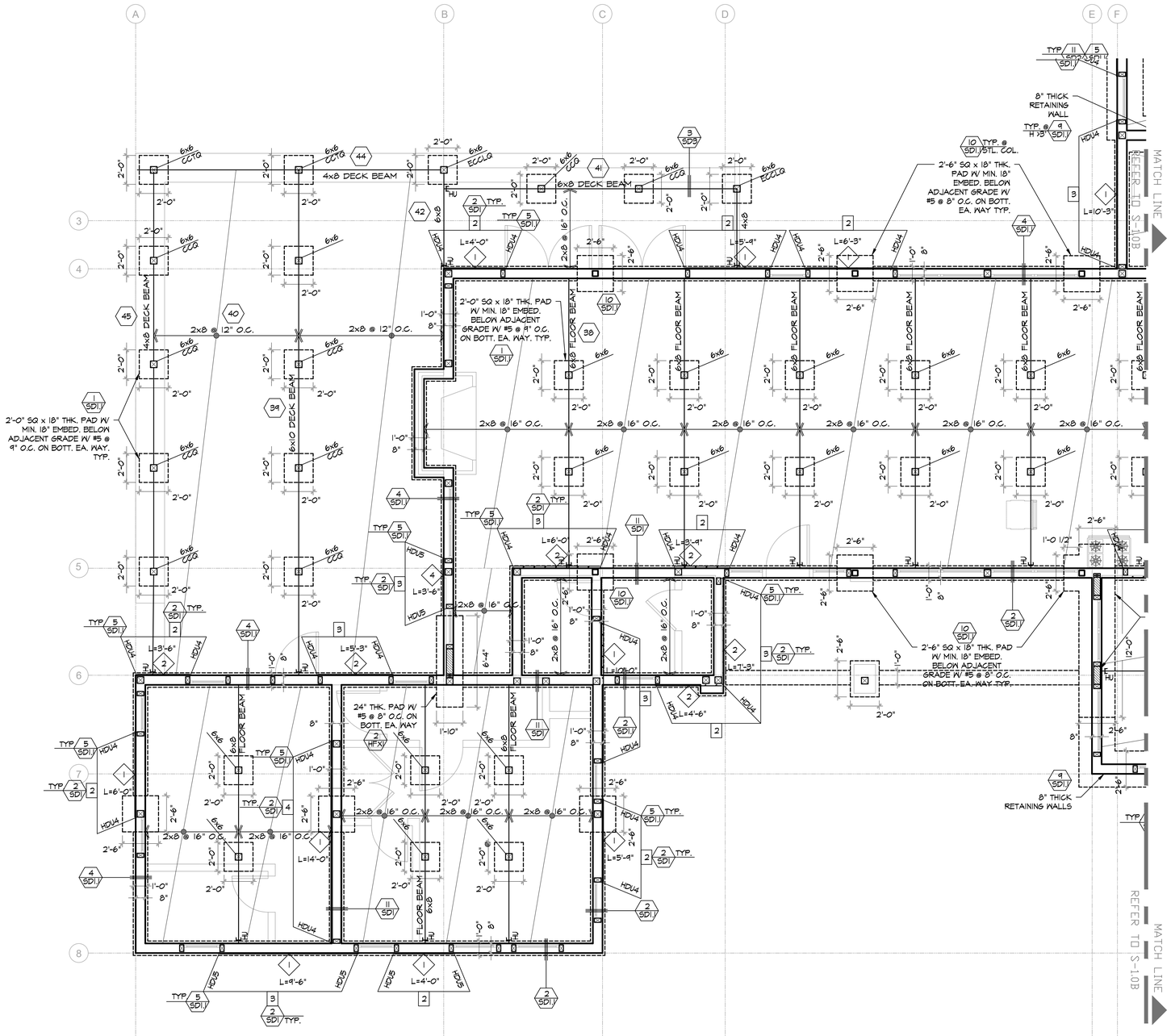
Tel: 949-267-9095

PROJECT NAME:
LOT 207 SANTA LUCIA PRESERVE
23 SAN CLEMENTE TRL.
CARMEL, CA 93923

SHEET TITLE
STRUCTURAL GENERAL DETAILS

DRAWN	GMEP
CHECKED	GMEP
DATE	01/31/25
SCALE	AS NOTED
JOB NO.	24-731
SHEET	SN-2



FOUNDATION PLAN - MAIN HOUSE

SCALE: 1/4"=1'-0"

STRUCTURAL FOUNDATION NOTES

1. REFER TO SHEET SN SHEETS FOR GENERAL NOTES.
2. INSTALL 5/8" DIAMETER ANCHOR BOLTS @ 48" O.C., WITH MINIMUM 7" EMBEDMENT U.N.O.
3. FOUNDATION SHALL BE POURED MONOLITHICALLY U.N.O.
4. FASTENERS INSTALLED INTO PRESSURE TREATED WOOD SHALL USE HOT DIPPED ZINC COATED GALVANIZED OR STAINLESS STEEL.
5. ALL DIMENSIONS SHALL BE FIELD VERIFIED WITH ARCHITECTURAL DRAWINGS. ANY DISCREPANCIES SHALL BE RESOLVED WITH ARCHITECT.
6. PRIOR TO CALL FOR FOUNDATION INSPECTION, FINAL GRADING AND COMPACTION REPORTS SHALL BE SUBMITTED TO AND APPROVED BY THE BUILDING DEPARTMENT; AND ALL HOLDOWNS, ANCHOR BOLTS OR OTHER CAST-IN-PLACE FASTENERS SHALL BE SECURED IN PLACE.
7. ALL HARDWARE ARE BY SIMPSON STRONG-TIE U.N.O.; INSTALLATION SHALL FOLLOW MANUFACTURERS REQUIREMENTS WITH MAXIMUM FASTENER AMOUNT, U.N.O., ALTERNATIVE IS ACCEPTABLE PROVIDED THAT CAPACITY IS PROVED TO BE NO LESS THAN SIMPSON STRONG-TIE PRODUCT BY CODE REPORTS.
8. USE CBSQ POST BASE AT ISOLATED POSTS OUTSIDE CONTINUOUS SILL PLATE U.N.O.
9. CONTINUOUS AND ISOLATED FOOTING SHALL BE EMBEDDED INTO COMPACTED GRADE MINIMUM 18".
10. ALL FILL MATERIAL IS TO BE COMPACTED TO 90% OF MAXIMUM DENSITY (OR MORE IF REQUIRED IN SOILS REPORT WHERE OCCURS).
11. SEE SN-1 FOR SHEAR WALL SCHEDULE.
12. SHEAR WALLS CANNOT BE USED AS PLUMBING WALLS UNLESS APPROVED BY STRUCTURAL ENGINEERS. PLYWOOD SHEAR WALL SHEATHING SHALL BE CONTINUOUSLY INSTALLED PRIOR TO FRAMING OF PERPENDICULAR WALLS.
13. USE SIMPSON " IUS/HU " HANGERS FOR I-JOISTS AND SOLID JOIST CONNECTION (U.N.O.).
14. SEE DETAIL 3/SD1.1 FOR THE TYPICAL CRAWLSPACE OPENINGS. OPENINGS CANNOT BE PLACED UNDER SHEAR WALLS.

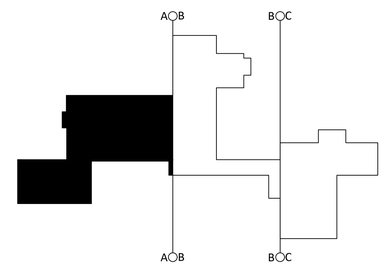
LEGENDS

- CONCRETE FOOTING; SOLID LINES REPRESENT SLAB LINE ABOVE GRADE, DASH LINES REPRESENT FOOTING LINE BELOW GRADE
- STEEL COLUMN OR POST
- POST OR TRIMMER
- L = X'-X" — SHEAR WALL SHEATHING PANEL, REFER TO PLAN FOR TYPE AND SN-1 FOR NAILING REQUIREMENTS
- 5/8" DIAMETER ANCHOR BOLTS EQUALLY DISTRIBUTED BETWEEN SHEAR WALL END POSTS, SEE 2/SD1 & 3/SD1
- STRUCTURAL DETAIL X ON DETAIL SHEET SD-X

FRAMING SCHEDULE

- FLOOR JOIST PER PLAN

KEY PLAN



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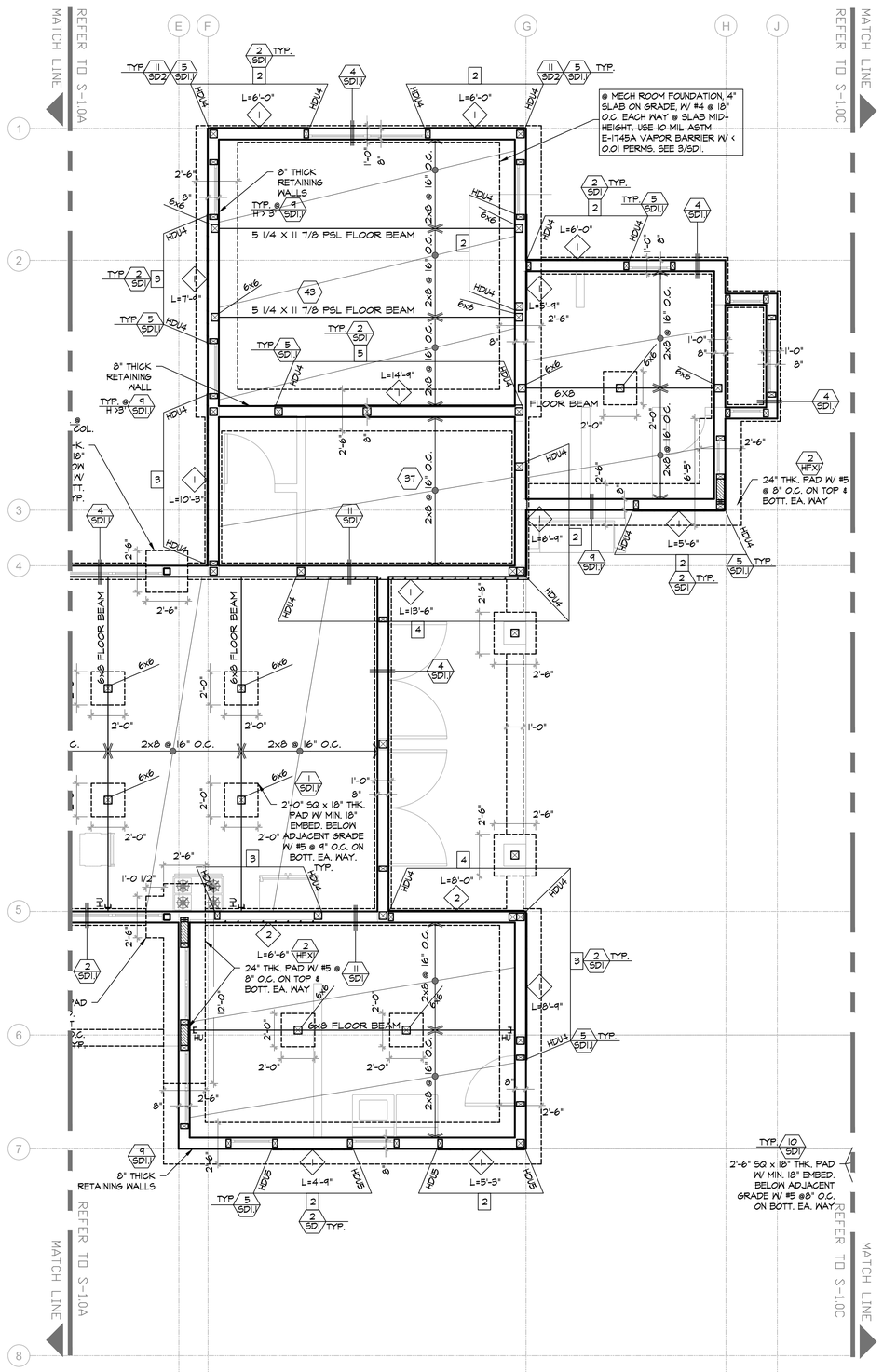
PROJECT NAME:
LOT 207 SANTA LUCIA PRESERVE
23 SAN CLEMENTE TRL.
CARMEL, CA 93923

SHEET TITLE
STRUCTURAL FOUNDATION PLAN - MAIN HOUSE

DRAWN	GMEP
CHECKED	GMEP
DATE	01/31/25
SCALE	AS NOTED
JOB NO.	24-731
SHEET	S-1.0A



FOUNDATION PLAN - MAIN HOUSE

SCALE: 1/4"=1'-0"

STRUCTURAL FOUNDATION NOTES

1. REFER TO SHEET SN SHEETS FOR GENERAL NOTES.
2. INSTALL 5/8" DIAMETER ANCHOR BOLTS @ 48" O.C., WITH MINIMUM 7" EMBEDMENT U.N.O.
3. FOUNDATION SHALL BE POURED MONOLITHICALLY U.N.O.
4. FASTENERS INSTALLED INTO PRESSURE TREATED WOOD SHALL USE HOT DIPPED ZINC COATED GALVANIZED OR STAINLESS STEEL.
5. ALL DIMENSIONS SHALL BE FIELD VERIFIED WITH ARCHITECTURAL DRAWINGS. ANY DISCREPANCIES SHALL BE RESOLVED WITH ARCHITECT.
6. PRIOR TO CALL FOR FOUNDATION INSPECTION, FINAL GRADING AND COMPACTION REPORTS SHALL BE SUBMITTED TO AND APPROVED BY THE BUILDING DEPARTMENT; AND ALL HOLDOWNS, ANCHOR BOLTS OR OTHER CAST-IN-PLACE FASTENERS SHALL BE SECURED IN PLACE.
7. ALL HARDWARE ARE BY SIMPSON STRONG-TIE U.N.O.; INSTALLATION SHALL FOLLOW MANUFACTURERS REQUIREMENTS WITH MAXIMUM FASTENER AMOUNT, U.N.O.; ALTERNATIVE IS ACCEPTABLE PROVIDED THAT CAPACITY IS PROVED TO BE NO LESS THAN SIMPSON STRONG-TIE PRODUCT BY CODE REPORTS.
8. USE CBSQ POST BASE AT ISOLATED POSTS OUTSIDE CONTINUOUS SILL PLATE U.N.O.
9. CONTINUOUS AND ISOLATED FOOTING SHALL BE EMBEDDED INTO COMPACTED GRADE MINIMUM 18".
10. ALL FILL MATERIAL IS TO BE COMPACTED TO 90% OF MAXIMUM DENSITY (OR MORE IF REQUIRED IN SOILS REPORT WHERE OCCURS).
11. SEE SN-1 FOR SHEAR WALL SCHEDULE.
12. SHEAR WALLS CANNOT BE USED AS PLUMBING WALLS UNLESS APPROVED BY STRUCTURAL ENGINEERS. PLYWOOD SHEAR WALL SHEATHING SHALL BE CONTINUOUSLY INSTALLED PRIOR TO FRAMING OF PERPENDICULAR WALLS.
13. USE SIMPSON " IUS/HU " HANGERS FOR I-JOISTS AND SOLID JOIST CONNECTION (U.N.O.).
14. SEE DETAIL 3/SD1.1 FOR THE TYPICAL CRAWLSPACE OPENINGS. OPENINGS CANNOT BE PLACED UNDER SHEAR WALLS.

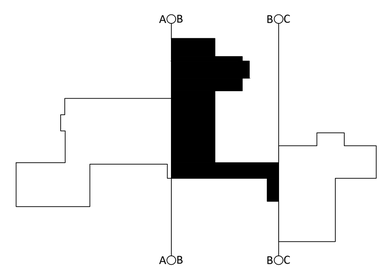
LEGENDS

- CONCRETE FOOTING, SOLID LINES REPRESENT SLAB LINE ABOVE GRADE, DASH LINES REPRESENT FOOTING LINE BELOW GRADE
- STEEL COLUMN OR POST
- POST OR TRIMMER
- L = X'-X" / X — SHEAR WALL SHEATHING PANEL, REFER TO PLAN FOR TYPE AND SN-1 FOR NAILING REQUIREMENTS
- X — 5/8" DIAMETER ANCHOR BOLTS EQUALLY DISTRIBUTED BETWEEN SHEAR WALL END POSTS, SEE 2/SD1 & 3/SD1
- X / SDX — STRUCTURAL DETAIL X ON DETAIL SHEET SD-X

FRAMING SCHEDULE

- FLOOR JOIST PER PLAN

KEY PLAN



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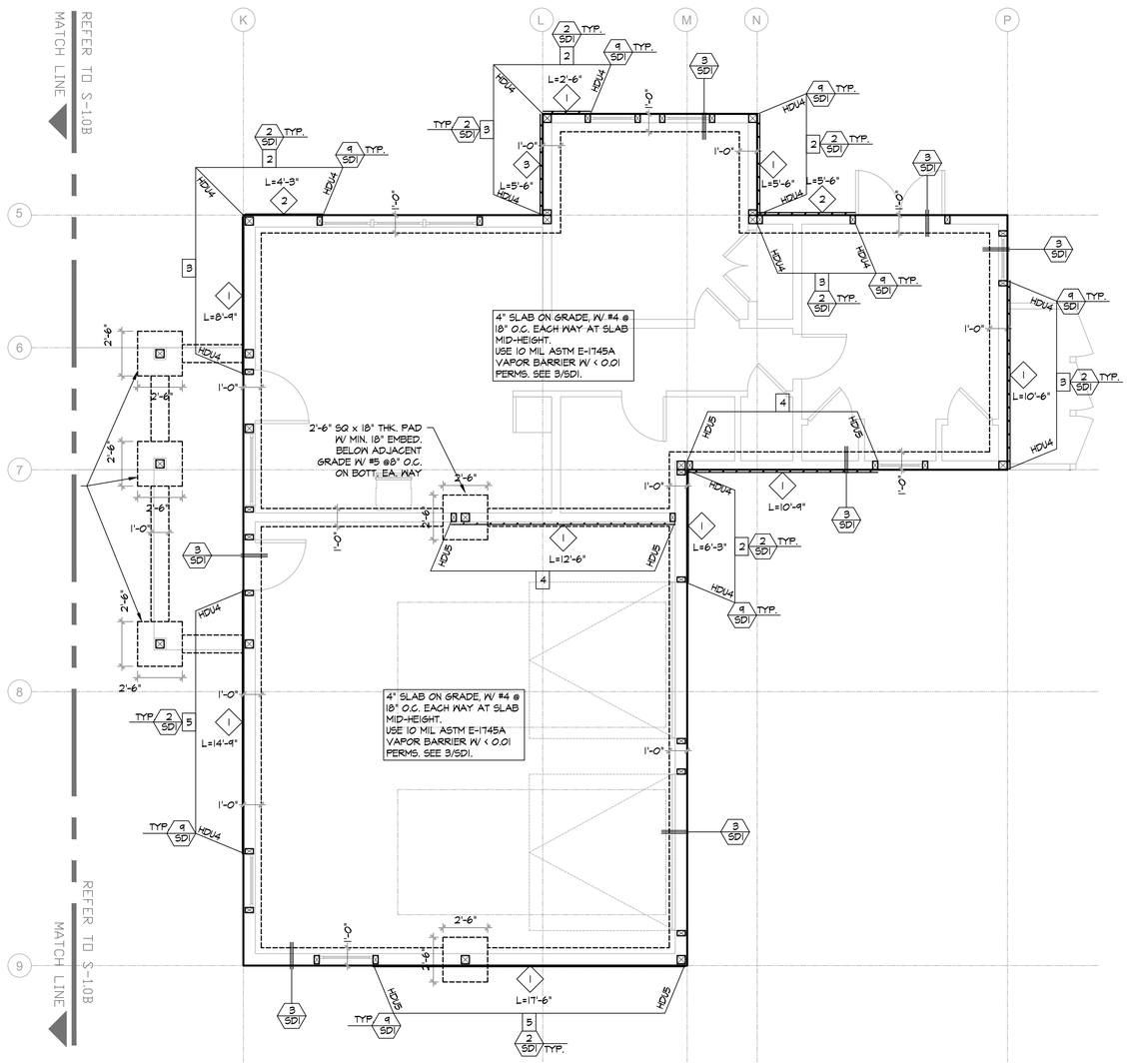
SHEET	S-1.0B



FOUNDATION PLAN - ADU

SCALE: 1/4"=1'-0"

STRUCTURAL FOUNDATION NOTES

1. REFER TO SHEET SN SHEETS FOR GENERAL NOTES.
2. INSTALL 5/8" DIAMETER ANCHOR BOLTS @ 48" O.C., WITH MINIMUM 7" EMBEDMENT U.N.O.
3. FOUNDATION SHALL BE POURED MONOLITHICALLY U.N.O.
4. FASTENERS INSTALLED INTO PRESSURE TREATED WOOD SHALL USE HOT DIPPED ZINC COATED GALVANIZED OR STAINLESS STEEL.
5. ALL DIMENSIONS SHALL BE FIELD VERIFIED WITH ARCHITECTURAL DRAWINGS. ANY DISCREPANCIES SHALL BE RESOLVED WITH ARCHITECT.
6. PRIOR TO CALL FOR FOUNDATION INSPECTION, FINAL GRADING AND COMPACTION REPORTS SHALL BE SUBMITTED TO AND APPROVED BY THE BUILDING DEPARTMENT; AND ALL HOLDOWNS, ANCHOR BOLTS OR OTHER CAST-IN-PLACE FASTENERS SHALL BE SECURED IN PLACE.
7. ALL HARDWARE ARE BY SIMPSON STRONG-TIE U.N.O.; INSTALLATION SHALL FOLLOW MANUFACTURERS REQUIREMENTS WITH MAXIMUM FASTENER AMOUNT, U.N.O.; ALTERNATIVE IS ACCEPTABLE PROVIDED THAT CAPACITY IS PROVED TO BE NO LESS THAN SIMPSON STRONG-TIE PRODUCT BY CODE REPORTS.
8. USE CBSQ POST BASE AT ISOLATED POSTS OUTSIDE CONTINUOUS SILL PLATE U.N.O.
9. CONTINUOUS AND ISOLATED FOOTING SHALL BE EMBEDDED INTO COMPACTED GRADE MINIMUM 18".
10. ALL FILL MATERIAL IS TO BE COMPACTED TO 90% OF MAXIMUM DENSITY (OR MORE IF REQUIRED IN SOILS REPORT WHERE OCCURS).
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12. SHEAR WALLS CANNOT BE USED AS PLUMBING WALLS UNLESS APPROVED BY STRUCTURAL ENGINEERS. PLYWOOD SHEAR WALL SHEATHING SHALL BE CONTINUOUSLY INSTALLED PRIOR TO FRAMING OF PERPENDICULAR WALLS.
13. USE SIMPSON " IUS/HU " HANGERS FOR I-JOISTS AND SOLID JOIST CONNECTION (U.N.O.).
14. SEE DETAIL 3/SD1.1 FOR THE TYPICAL CRAWLSPACE OPENINGS. OPENINGS CANNOT BE PLACED UNDER SHEAR WALLS.

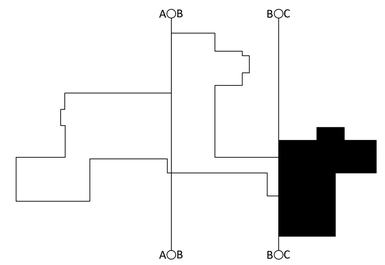
LEGENDS

- CONCRETE FOOTING; SOLID LINES REPRESENT SLAB LINE ABOVE GRADE, DASH LINES REPRESENT FOOTING LINE BELOW GRADE
- STEEL COLUMN OR POST
- POST OR TRIMMER
- L = X'-X" / X — SHEAR WALL SHEATHING PANEL, REFER TO PLAN FOR TYPE AND SN-1 FOR NAILING REQUIREMENTS
- X — 5/8" DIAMETER ANCHOR BOLTS EQUALLY DISTRIBUTED BETWEEN SHEAR WALL END POSTS, SEE 2/SD1 & 3/SD1
- X / SDX — STRUCTURAL DETAIL X ON DETAIL SHEET SD-X

FRAMING SCHEDULE

- FLOOR JOIST PER PLAN

KEY PLAN



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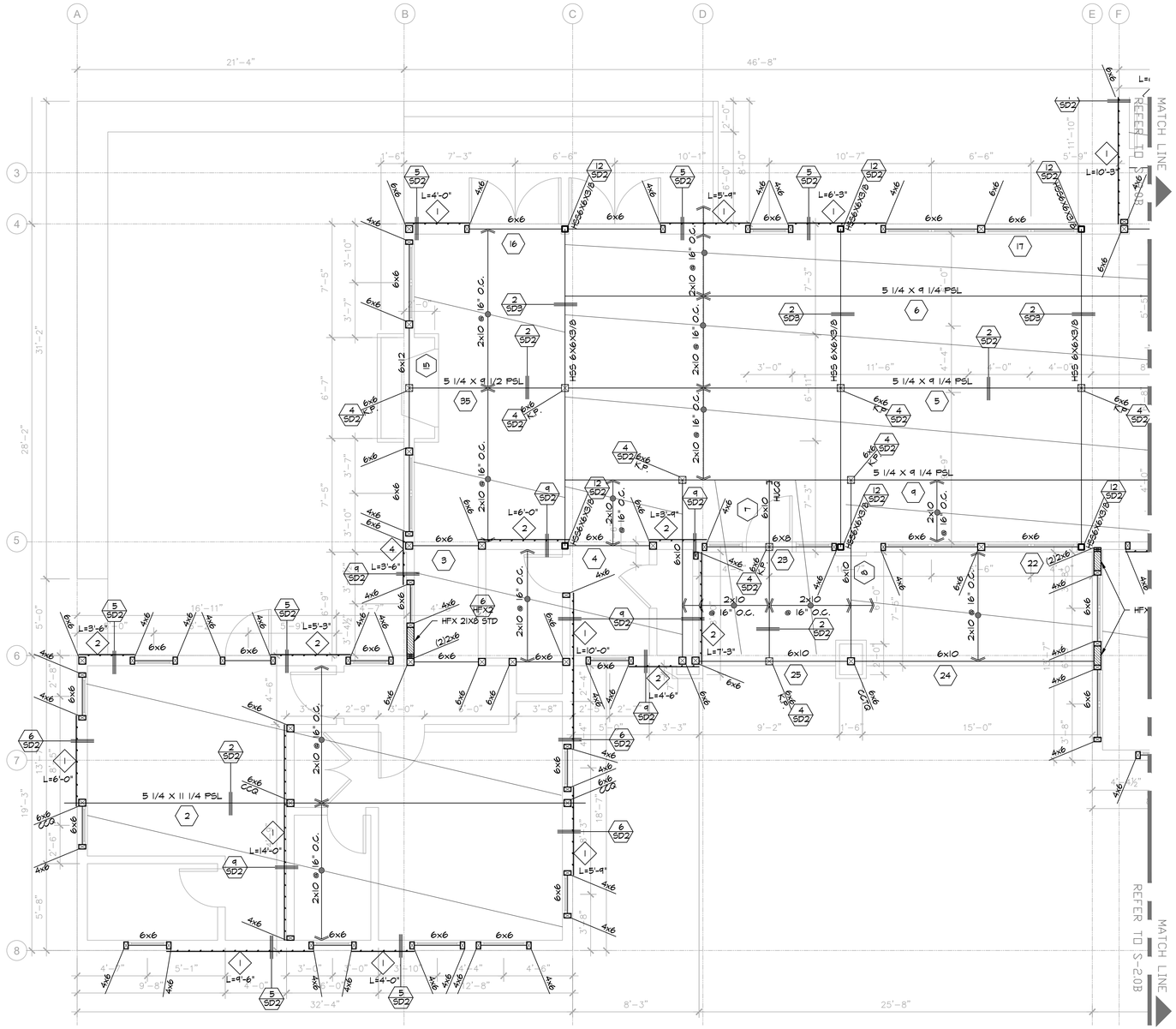
SHEET TITLE
STRUCTURAL FOUNDATION PLAN - ADU

DRAWN	GMEP
CHECKED	GMEP
DATE	01/31/25
SCALE	AS NOTED
JOB NO.	24-731
SHEET	S-1.0C



ROOF FRAMING PLAN - MAIN HOUSE

SCALE: 1/4"=1'-0"

STRUCTURAL FRAMING NOTES

1. SEE SN SHEETS FOR GENERAL NOTES.
2. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSION. CONTACT ARCHITECT FOR ANY DIMENSION DISCREPANCIES.
3. ALL HARDWARE ARE BY SIMPSON STRONG-TIE U.N.O.; INSTALLATION SHALL FOLLOW MANUFACTURERS REQUIREMENTS WITH MAXIMUM FASTENER AMOUNT, U.N.O.; ALTERNATIVE IS ACCEPTABLE PROVIDED THAT CAPACITY IS PROVED TO BE NO LESS THAN SIMPSON STRONG-TIE PRODUCT BY CODE REPORTS.
4. ALL BEAMS ARE DROP BEAMS U.N.O.
5. TIMBER GRADE MIM. REQUIREMENT WITH CURRENT APPROVED ICC ES - EVALUATION REPORT U.N.O:
   2x: DFL #2
   4x: DFL #2
   6X: DFL #1
   PARALLAM (PSL) 2900 PSI 2.2E
   TIMBERSTRAND (LSL) 2325 PSI 1.55E,
   MAY SUBSTITUTED WITH LVL OR EQUAL SIZE AND Fb.
   GLU-LAM (GLB) 24F-V4, DF/DF 2400PSI
6. SEE 1/SD2 FOR TOP PLACE SPLICE ALONG SHEAR WALL. USE CONDITION C FOR FLOOR LEVEL AND CONDITION B FOR ROOF LEVEL.
7. SEE SN-1 FOR SHEAR WALL SCHEDULE.
8. PLUMBING WALL SHALL NOT BE SHEAR WALL UNLESS APPROVED BY GMEP ENGINEERS. SHEAR WALL SHEATHING SHALL BE INSTALLED PRIOR TO PERPENDICULAR WALL CONSTRUCTIONS.
9. FASTENERS INSTALLED INTO PRESSURE TREATED WOOD SHALL USE HOT DIPPED ZINC COATED GALVANIZED OR STAINLESS STEEL.
10. USE SIMPSON " IUS/HU " HANGERS FOR I-JOISTS AND SOLID JOIST CONNECTION (U.N.O.).

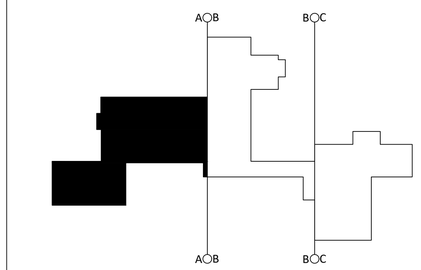
LEGENDS

- POST OR TRIMMER
- STEEL COLUMN OR POST
- L = X'-X" / X — SHEAR WALL SHEATHING PANEL, REFER TO PLAN FOR TYPE AND SN-1 FOR NAILING REQUIREMENTS
- X / SDX — STRUCTURAL DETAIL X ON DETAIL SHEET SD-X
- X — BEAM NUMBER, REFER TO CALCULATION BOOK

FRAMING SCHEDULE

- RAFTER/DECK PER PLAN

KEY PLAN



REVISIONS

NO.	DATE	DESCRIPTION

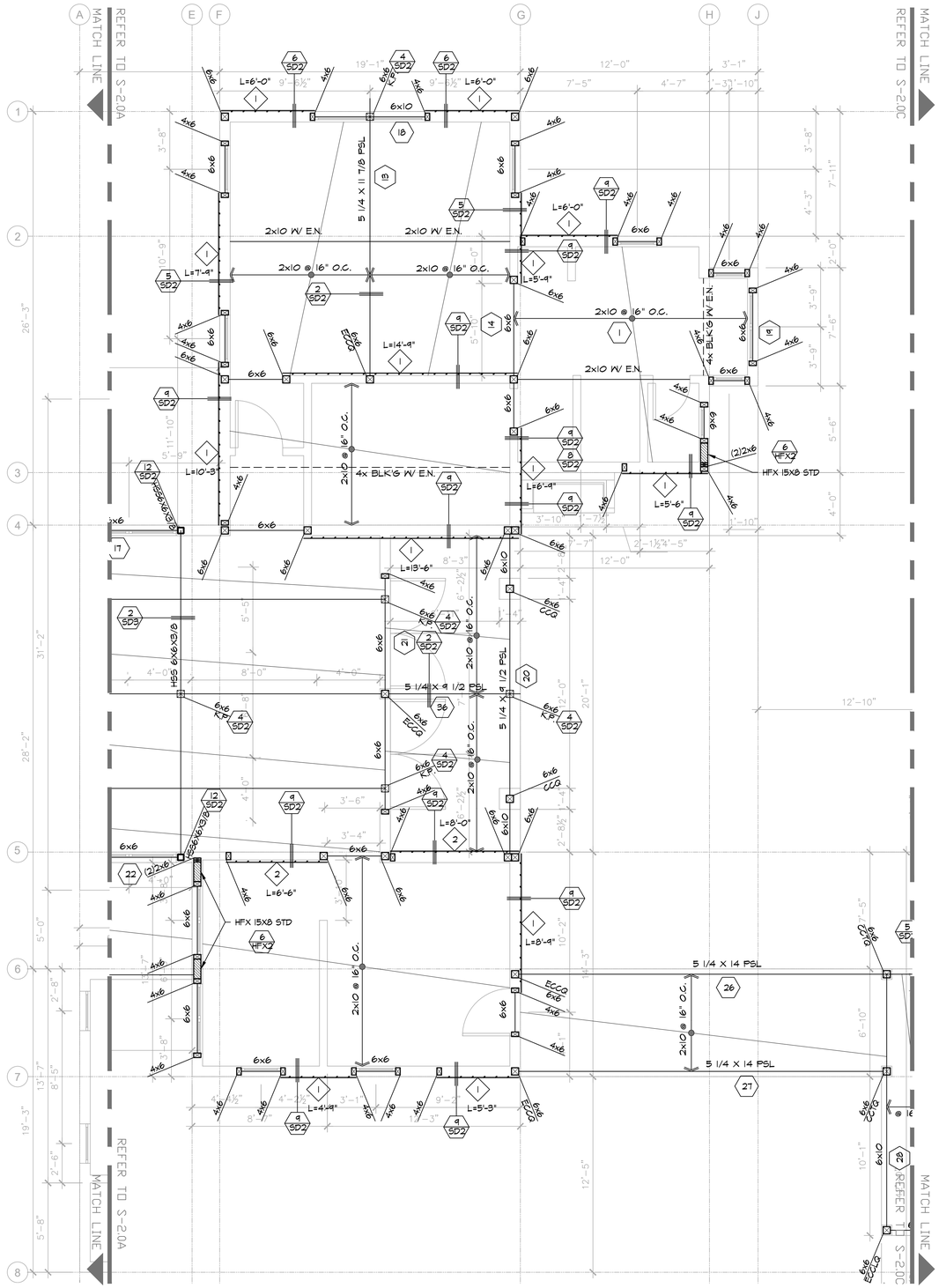
SEAL:

GMEP ENGINEERS
26439 Rancho Pkwy. S., Ste 120
Lake Forest, CA 92630
Tel: 949-267-9095

PROJECT NAME:
LOT 207 SANTA LUCIA PRESERVE
23 SAN CLEMENTE TRL.
CARMEL, CA 93923

SHEET TITLE
STRUCTURAL
ROOF FRAMING PLAN - MAIN HOUSE

DRAWN	GMEP
CHECKED	GMEP
DATE	01/31/25
SCALE	AS NOTED
JOB NO.	24-731
SHEET	S-2.0A



ROOF FRAMING PLAN - MAIN HOUSE

SCALE: 1/4"=1'-0"

STRUCTURAL FRAMING NOTES

1. SEE SN SHEETS FOR GENERAL NOTES.
2. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSION. CONTACT ARCHITECT FOR ANY DIMENSION DISCREPANCIES.
3. ALL HARDWARE ARE BY SIMPSON STRONG-TIE U.N.O.; INSTALLATION SHALL FOLLOW MANUFACTURERS REQUIREMENTS WITH MAXIMUM FASTENER AMOUNT, U.N.O.; ALTERNATIVE IS ACCEPTABLE PROVIDED THAT CAPACITY IS PROVED TO BE NO LESS THAN SIMPSON STRONG-TIE PRODUCT BY CODE REPORTS.
4. ALL BEAMS ARE DROP BEAMS U.N.O.
5. TIMBER GRADE MIM. REQUIREMENT WITH CURRENT APPROVED ICC ES - EVALUATION REPORT U.N.O:
   2x: DFL #2
   4x: DFL #2
   6x: DFL #1
   PARALLAM (PSL) 2900 PSI 2.2E
   TIMBERSTRAND (LSL) 2325 PSI 1.55E,
   MAY SUBSTITUTED WITH LVL OR EQUAL SIZE AND Fb.
   GLU-LAM (GLB) 24F-V4, DF/DF 2400PSI
6. SEE 1/SD2 FOR TOP PLACE SPLICE ALONG SHEAR WALL. USE CONDITION C FOR FLOOR LEVEL AND CONDITION B FOR ROOF LEVEL.
7. SEE SN-1 FOR SHEAR WALL SCHEDULE.
8. PLUMBING WALL SHALL NOT BE SHEAR WALL UNLESS APPROVED BY GMEP ENGINEERS. SHEAR WALL SHEATHING SHALL BE INSTALLED PRIOR TO PERPENDICULAR WALL CONSTRUCTIONS.
9. FASTENERS INSTALLED INTO PRESSURE TREATED WOOD SHALL USE HOT DIPPED ZINC COATED GALVANIZED OR STAINLESS STEEL.
10. USE SIMPSON " IUS/HU " HANGERS FOR I-JOISTS AND SOLID JOIST CONNECTION (U.N.O.).

LEGENDS

- POST OR TRIMMER
- STEEL COLUMN OR POST
- L = X'-X" / X — SHEAR WALL SHEATHING PANEL, REFER TO PLAN FOR TYPE AND SN-1 FOR NAILING REQUIREMENTS
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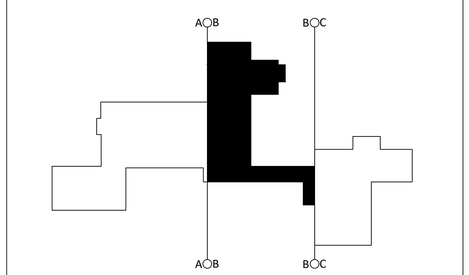
FRAMING SCHEDULE

- RAFTER/DECK PER PLAN

KEY PLAN



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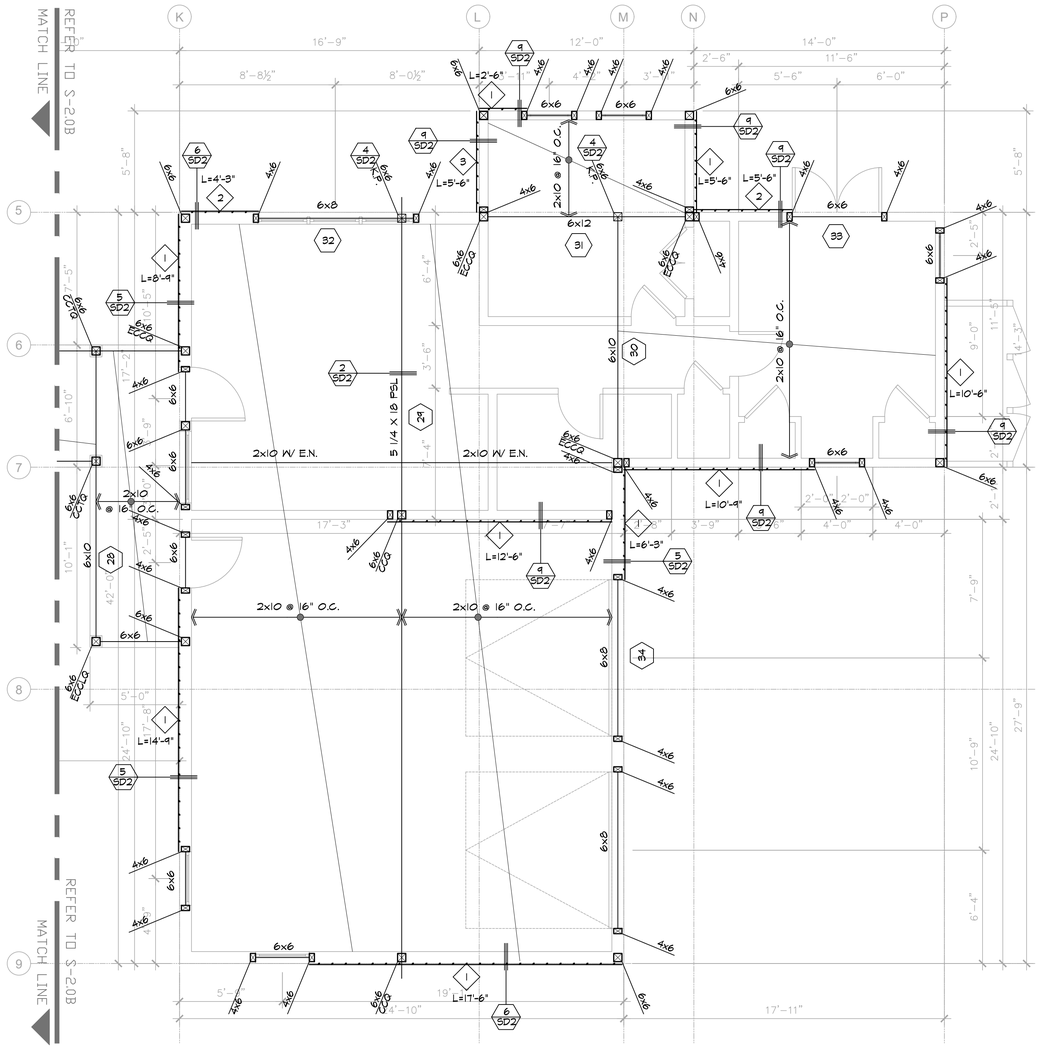
SHEET	S-2.0B



ROOF FRAMING PLAN - ADU

SCALE:1/4"=1'-0"

STRUCTURAL FRAMING NOTES

1. SEE SN SHEETS FOR GENERAL NOTES.
2. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSION. CONTACT ARCHITECT FOR ANY DIMENSION DISCREPANCIES.
3. ALL HARDWARE ARE BY SIMPSON STRONG-TIE U.N.O.; INSTALLATION SHALL FOLLOW MANUFACTURERS REQUIREMENTS WITH MAXIMUM FASTENER AMOUNT, U.N.O.; ALTERNATIVE IS ACCEPTABLE PROVIDED THAT CAPACITY IS PROVED TO BE NO LESS THAN SIMPSON STRONG-TIE PRODUCT BY CODE REPORTS.
4. ALL BEAMS ARE DROP BEAMS U.N.O.
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   2x: DFL #2
   4x: DFL #2
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   PARALLAM (PSI) 2900 PSI 2.2E
   TIMBERSTRAND (LSL) 2325 PSI 1.55E,
   MAY SUBSTITUTED WITH LVL OR EQUAL SIZE AND Fb.
   GLU-LAM (GLB) 24F-V4, DF/DF 2400PSI
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7. SEE SN-1 FOR SHEAR WALL SCHEDULE.
8. PLUMBING WALL SHALL NOT BE SHEAR WALL UNLESS APPROVED BY GMEP ENGINEERS. SHEAR WALL SHEATHING SHALL BE INSTALLED PRIOR TO PERPENDICULAR WALL CONSTRUCTIONS.
9. FASTENERS INSTALLED INTO PRESSURE TREATED WOOD SHALL USE HOT DIPPED ZINC COATED GALVANIZED OR STAINLESS STEEL.
10. USE SIMPSON " IUS/HU " HANGERS FOR I-JOISTS AND SOLID JOIST CONNECTION (U.N.O.).

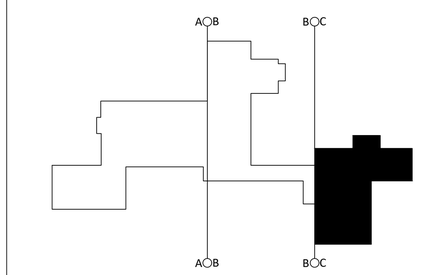
LEGENDS

0	POST OR TRIMMER
L = X'-X" / X	SHEAR WALL SHEATHING PANEL, REFER TO PLAN FOR TYPE AND SN-1 FOR NAILING REQUIREMENTS
X / SDX	STRUCTURAL DETAIL X ON DETAIL SHEET SD-X
X	BEAM NUMBER, REFER TO CALCULATION BOOK

FRAMING SCHEDULE

⟷	RAFTER/DECK PER PLAN

KEY PLAN



REVISIONS

NO.	DATE	DESCRIPTION

SEAL:

REGISTERED PROFESSIONAL ENGINEER
ALLEN CHUN-YING HU
No. C69385
Exp.06-30-2026
CIVIL
STATE OF CALIFORNIA

GMEP ENGINEERS
26439 Rancho Pkwy. S., Ste 120
Lake Forest, CA 92630
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ROOF FRAMING PLAN - ADU

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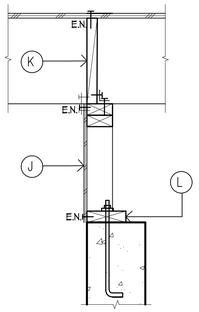
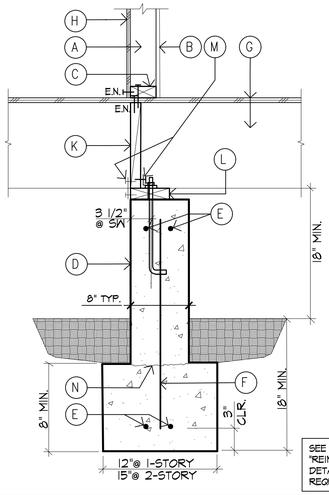


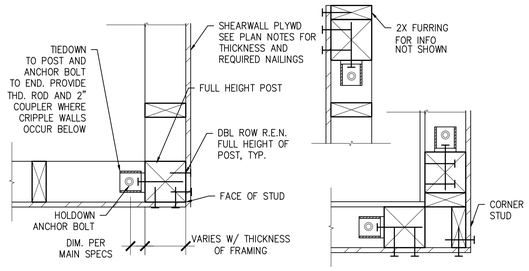
CRIPPLE WALL CONDITION



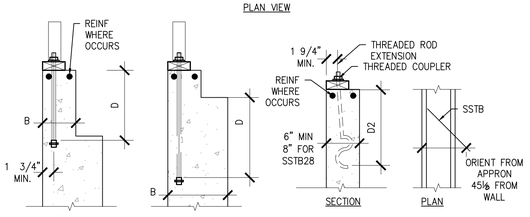
A. 2X STUD @ 16" O.C.
B. INTERIOR FINISH.
C. 2X SILL PLATE. IF SILL PLATE NAILING SPACING IS LESS THAN 6" O.C., STAGGER NAILING, AND PROVIDE 2X NAILER TO RECEIVE NAILS & CONNECT TO RIM W/ 16d SINKER W/ SAME SPACING AS SILL PLATE NAILING OF SHEAR WALL ABOVE. IF CONTINUOUS SILL PLATE IS USED, IT IS ACCEPTABLE TO INCREASE NAILING SPACING TO 6" WITH SAME AMOUNT OF NAILS REQUIRED.
D. CONC. STEM (U.N.O.).
E. CONT. (2) #4 REBAR TOP & BOTTOM (U.N.O.).
F. #3 VERT. REBAR CENTERED @ STEM @18"O.C. W/ STD HOOK @ (2) POUR COND. & WHEN STEM HT. EXCEEDS 24"(U.N.O.).
G. FLOOR SHT'G. & FLOOR SYSTEM PER PLAN.
H. SHEAR PANEL WHERE OCCURS.
J. TYPE 2 AT CRIPPLE WALL CONDITION (2X STUD AT 16" O.C.).
K. 2X BLOCKING OR FLOOR JOIST U.N.O.
L. 2X (USE 3X MIN. FOR C'SUNK A.B., C'SUNK DEPTH SHALL BE 1" MAX.) P.T.D.F. SILL PLATE W/ 5/8"ø X12" LONG A.B. SEE DETAIL 2/SD1 FOR MORE INFO; AT NON-SW USE 2X4 (3X4 MIN. FOR COUNTERSUNK ANCHOR BOLT.); USE FULL WIDTH SILL PLATE AT GIRDER HANGER LOCATIONS.
M. A35 OR LTP4 @ 48" O.C. (U.N.O.).
N. COLD JOINT WHERE OCCURS.
P. PARALLEL JOIST CONDITION WHERE OCCURS.

SEE GENERAL NOTES UNDER 'REINFORCED CONCRETE', DETAIL 1 FOR ADD'L. REQUIRMENTS

INTERIOR FOUNDATION DETAIL | 11



PLAN VIEW



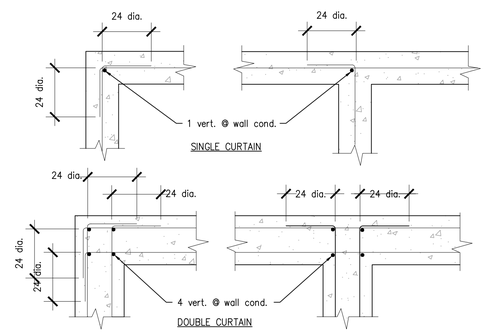
A TYPICAL THD. ROD INSTALLATION

B TYPICAL SSTB INSTALLATION

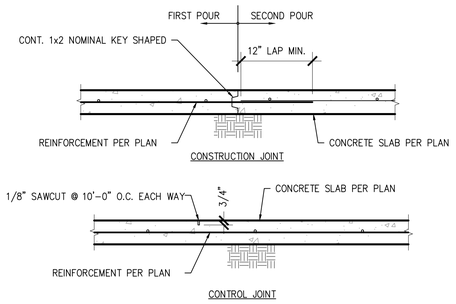
HOLDOWN SIZE	OPTION A. SIMPSON PAB ANCHOR ROD				OPTION B. SIMPSON SSTB ANCHOR BOLT		
	ANCHOR BOLT SIZE	MIN. B	MIN. D1	REMARKS	ANCHOR BOLT SIZE	MIN. D2	REMARKS
HDU4	PAB5	10"	6"	SEE (A) PROVIDE DBL AND STANDARD WASHER AT BOTTOM NUT	SSTB24	21"	SEE (B) FOR INSTALLATION REQUIREMENT REFER TO SIMPSON CATALOG FOR ADDL. REQUIREMENT
HDU5	PAB5	10"	6"		SSTB24	21"	
HDU8	PAB7	14"	9"		SSTB28	24"	
HDQ8	PAB7	14"	9"		SSTB28	24"	
HDU11	PAB8	32"	12"	SEE (A) PROVIDE DBL NUT AND PL (3"x4"x3"x3) WASHER AT BOTTOM			
HHDQ11	PAB8	32"	12"				
HDU14	PAB8	32"	12"				
HHDQ14	PAB8	32"	12"				
HD12	PAB9	38"	12 1/2"				
HD19	PAB10	44"	14 1/2"				

* USE MIN. (2) #4 TOP & (2) #4 BOT. FOR HDU4 TO HDU8. AND MIN. (3) #4 TOP & (3) #4 BOT. FOR HDU11 – HD19 U.N.O.. CONT. FOOTING REINFORCEMENT CAN BE COUNTED AS PART OF REBAR REQUIREMENT IF BAR SIZE ARE SAME AS THOSE REQUIRED.

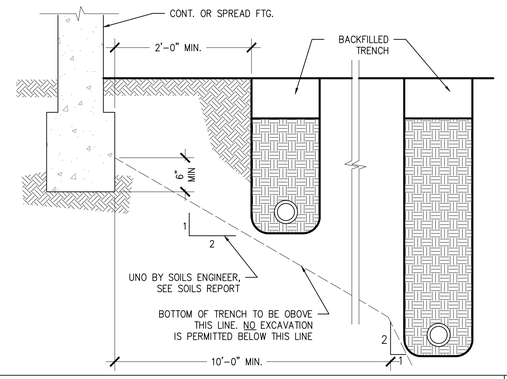
HOLDOWN ANCHOR BOLT SCHEDULE | 9



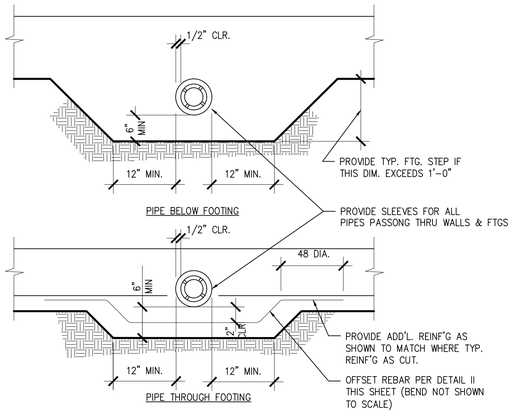
TYP. REINF'G. @ INTERSECTIONS OF FTGS & WALLS | 5



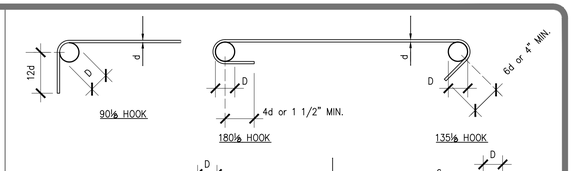
TYP. SLAB JOINT | 6



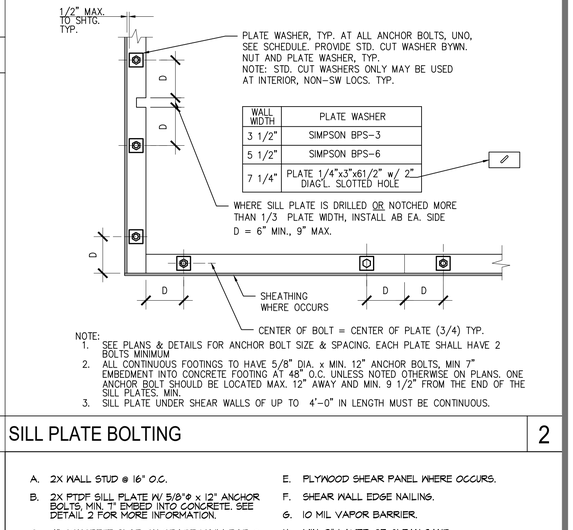
TYP. PIPE PARALLEL TO FOOTING | 7



TYP. PIPE PERPENDICULAR TO FOOTING | 8



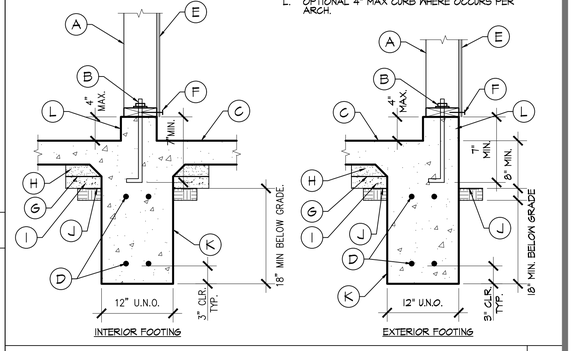
REINF'G. HOOKS, BEND & OFFSETS | 1



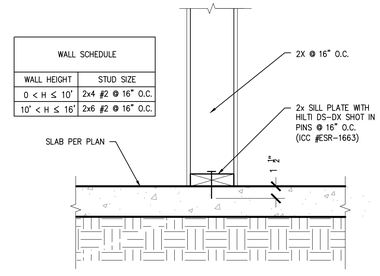
NOTE:
1. SEE PLANS & DETAILS FOR ANCHOR BOLT SIZE & SPACING. EACH PLATE SHALL HAVE 2 BOLTS MINIMUM
2. ALL CONTINUOUS FOOTINGS TO HAVE 5/8" DIA. x MIN. 12" ANCHOR BOLTS, MIN 7" EMBEDMENT INTO CONCRETE FOOTING AT 48" O.C. UNLESS NOTED OTHERWISE ON PLANS. ONE ANCHOR BOLT SHOULD BE LOCATED MAX. 12" AWAY AND MIN. 9 1/2" FROM THE END OF THE SILL PLATES. MIN.
3. SILL PLATE UNDER SHEAR WALLS OF UP TO 4'-0" IN LENGTH MUST BE CONTINUOUS.

SILL PLATE BOLTING | 2

A. 2X WALL STUD @ 16" O.C.
B. 2X PTDF SILL PLATE W/ 5/8"ø x 12" ANCHOR BOLTS, MIN. 7" EMBED INTO CONCRETE. SEE DETAIL 2 FOR MORE INFORMATION.
C. 4" CONCRETE SLAB ON GRADE W/ #4 BAR @ 18" O.C. EACH WAY AT MID-HEIGHT OF SLAB.
D. CONTINUOUS REBAR U.N.O., MIN. (2) #4 ON TOP & BOTTOM.
E. PLYWOOD SHEAR PANEL WHERE OCCURS.
F. SHEAR WALL EDGE NAILING.
G. 10 MIL VAPOR BARRIER.
H. MIN. 2" LAYER OF CLEAN SAND.
I. 4" OF CLEAN GRAVEL BELOW VAPOR BARRIER.
J. TOP OF NATURAL GRADE OR COMPACT FILL.
K. CONTINUOUS CONCRETE FOUNDATION POUR MONOLITHICALLY WITH SLAB ON GRADE.
L. OPTIONAL 4" MAX CURB WHERE OCCURS PER ARCH.



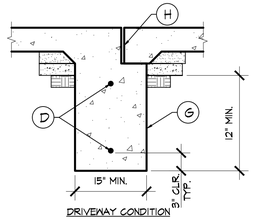
CONTINUOUS FOUNDATION DETAIL | 3

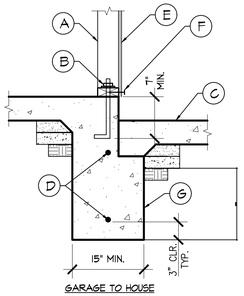


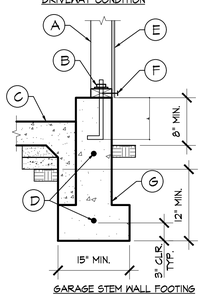
NON-BEARING WALL | 4

A. 2X STUD @ 16" O.C.
B. INTERIOR FINISH.
C. 2X PTDF SILL PLATE W/ 5/8"ø X 12" ANCHOR BOLTS, MIN. 7" EMBED INTO CONCRETE. SEE DETAIL 2 FOR MORE INFORMATION.
D. 4" CONCRETE SLAB ON GRADE W/ #3 BAR @ 18" O.C. EACH WAY AT MID-HEIGHT OF SLAB. SEPARATE FROM CONTINUOUS FOOTING OR STEM WALL W/ EXPANSIVE MATERIAL.
E. CONTINUOUS REBAR U.N.O., MIN. (1) #4 ON TOP & BOTTOM.
F. PLYWOOD SHEAR PANEL WHERE OCCURS.
G. EAR WALL EDGE NAILING.
H. CONTINUOUS GARAGE FOOTING, MINIMUM DIMENSION AS SHOWN.
I. EXPANSIVE MATERIAL TO SEPARATE DRIVEWAY SLAB.

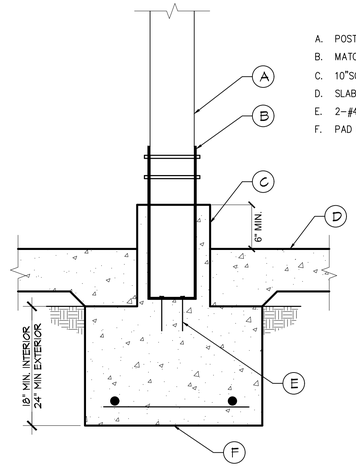
NOTE:
SEE 3/SD1 FOR MORE DETAIL.







GARAGE FOUNDATION DETAIL | 12



A. POST PER PLAN.
B. MATCHING CB BASE.
C. 10"SQ PIER.
D. SLAB PER PLAN.
E. 2–#4 PINS.
F. PAD PER PLAN.

PAD FOOTING | 10

REVISIONS		
NO.	DATE	DESCRIPTION

SEAL:

REGISTERED PROFESSIONAL ENGINEER
ALLEN CHUN-YING NU
No. C69385
Exp.06-30-2026
CIVIL
STATE OF CALIFORNIA

GMEP ENGINEERS
26439 Rancho Pkwy. S., Ste 120
Lake Forest, CA 92630
Tel 949-267-9095

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23 SAN CLEMENTE TRL.
CARMEL, CA 93923

SHEET TITLE
STRUCTURAL FOUNDATION DETAILS

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DATE	01/31/25
SCALE	AS NOTED
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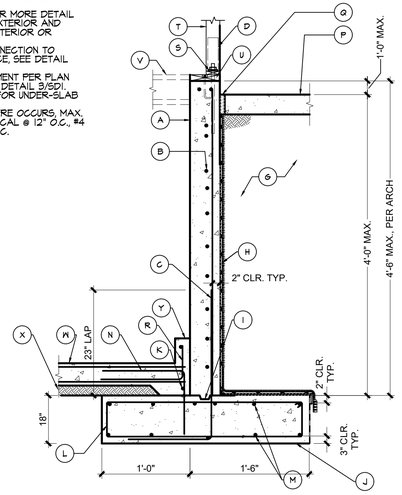
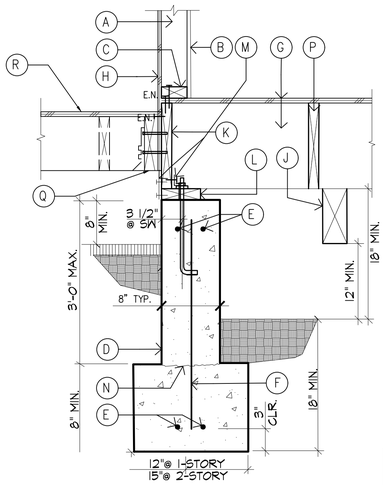
SHEET	SD-1

A. 8" CONC. WALL. f'c = 3000 PSI MIN.
B. #5 HORIZONTAL @ 21" O.C.
C. #5 VERTICAL @ 12" O.C. DOWEL "1" INTO FOOTING AS SHOWN W/ STD HOOK. DEVELOPMENT LENGTH 16".
D. HOLDOWN PER PLAN.
E. TOP OF NATURAL GRADE OR COMPACT FILL WHERE OCCURS
F.
G. BACKFILL W/ BEDROCK OR GRAVEL PER SOILS REPORT, MIN. 3' WIDE AND WITHIN 60° PLANE.
H. HYDRODUCT WATERPROOFING & DRAINAGE SYSTEM PER ARCH AND MANUFACTURER.
I. 2X6 CONT. SHEAR KEY.
J. CONC. FOOTING.
K. ADD #5.
L. #3 TIES @ 24" O.C.
M. #5 @ 9" O.C. @ TOP & BOTT.
N. DOWEL REBAR, MATCH SOG R/F SIZE & SPACING. MIN. 18" ENDS.
O.
P. CONC. FLATWORK PER PLAN WHERE OCCURS.
Q. EXPANSIVE MATERIAL WHERE REQ'D
R. #4 DOWELS @ 32" O.C.
S. SILL PLATE WHERE OCCURS.
T. 2X STUD @16" O.C. TYP. WHERE OCCURS.
U. REFER TO 4/SD1.1 FOR MORE DETAIL OF CONNECTION @ EXTERIOR AND DETAIL II/SD1 FOR INTERIOR OR CRIPPLE WALL.
V. FOR ANCHORED CONNECTION TO RETAINING WALL FACE, SEE DETAIL 2/SD1.1
W. S.O.G. & REINFORCEMENT PER PLAN WHERE OCCURS. SEE DETAIL 3/SD1. SEE SOILS REPORT FOR UNDER-SLAB CONFIGURATION.
X. CURB PER ARCH WHERE OCCURS, MAX. 12" HIGH. W/ #4 VERTICAL @ 12" O.C., #4 HORIZONTAL @ 12" O.C.

*NOTE:
- SPECIAL INSPECTION IS REQUIRED.
- WATERPROOFING, EXTENT OF BACKFILL, BACKFILL MATERIAL & DRAINAGE SYSTEM TO BE REVIEWED & APPROVED BY GEOTECHNICAL ENGINEER.
- EDGE DISTANCE TO REBAR INDICATED IS CLEAR DIMENSION.
- WOOD FRAMING SHALL BE ADDED AFTER BACKFILLING
- RETAINING WALL FOUNDATIONS SHALL BE EMBEDDED 24" MINIMUM INTO THE RECOMMENDED BEARING MATERIAL PER SOILS REPORT.



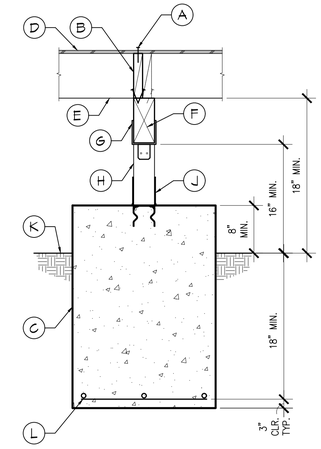
11 4'-6" RETAINING WALL DETAIL 9



A. 2X STUD @ 16" O.C.
B. INTERIOR FINISH.
C. 2X SILL PLATE. IF SILL PLATE NAILING SPACING IS LESS THAN 6" O.C., STAGGER NAILING, AND PROVIDE 2X NAILER TO RECEIVE NAILS & CONNECT TO RIM W/ 16d SINKER W/ SAME SPACING AS SILL PLATE NAILING OF SHEAR WALL ABOVE. IF CONTINUOUS SILL PLATE IS USED, IT IS ACCEPTABLE TO INCREASE NAILING SPACING TO 6" WITH SAME AMOUNT OF NAILS REQUIRED.
D. CONC. STEM (U.N.O.).
E. CONT. (2) #4 REBAR TOP & BOTTOM (U.N.O.).
F. #5 VERT. REBAR CENTERED @ STEM @18"O.C. W/ STD HOOK @ (2) POUR COND. & WHEN STEM HT. EXCEEDS 24"(U.N.O.).
G. FLOOR SHT'G. & FLOOR SYSTEM PER PLAN.
H. SHEAR PANEL WHERE OCCURS.
J. GIRDER BM. WHERE OCCURS.
K. 2X RIM JOIST U.N.O.
L. 2X (USE 3X MIN. FOR C'SUNK A.B., C'SUNK DEPTH SHALL BE 1" MAX.) P.T.D.F. SILL PLATE W/ 5/8"ØX12" LONG A.B. SEE DETAIL 2/SD1 FOR MORE INFO; AT NON-SHEAR USE 2X4 (3X4 MIN. FOR COUNTERSUNK ANCHOR BOLT.); USE FULL WIDTH SILL PLATE AT GIRDER HANGER LOCATIONS.
M. A35 OR LTP4 @ 48" O.C. (U.N.O.).
N. COLD JOINT WHERE OCCURS.
P. PARALLEL JOIST CONDITION WHERE OCCURS.
Q. WHERE DECK OCCURS, 2X PT LEDGER, SAME DEPTH AS DECK FRAMING, W/ (2) ROWS SDS 1/4" x 3 1/2" SCREWS @ 12" OC STAGGERED U.N.O. PROVIDE SHTG FILL BETWEEN LEDGER & RIM WHERE SHEAR WALL OCCURS. SEE NOTE 18 ON THE FOUNDATION NOTES FOR THE TYPICAL HANGER U.N.O.
R. DECK FRAMING PER PLAN WHERE OCCURS. SLOPE PER ARCHITECT.

SEE GENERAL NOTES UNDER "REINFORCED CONCRETE" FOR ADD'L. REQUIRMENTS

EXTERIOR FOUNDATION DETAIL 4

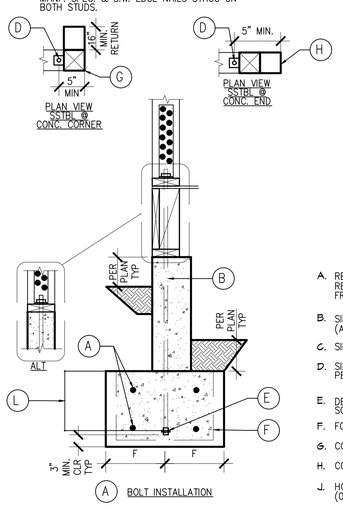


A. 10d @ 6" O.C.
B. 2X BLOCKING AT JOIST BEARING LOCATION; USE 2-2X BLOCKING AT POST ABOVE. USE MIN. (2)8d TOE-NAIL AT EACH CONNECTION.
C. PAD FOOTING, SEE PLAN FOR DIMENSION & REINFORCEMENT.
D. FLOOR SHEATHING.
E. FLOOR JOIST PER PLAN.
F. GIRDER PER PLAN.
G. SIMPSON POST CAP PER PLAN.
H. P.T.D.F POST PER PLAN.
J. SIMPSON PB PER PLAN.
K. FINISH GRADE.

NOTE:
-SEE DETAIL 1/SD-1 FOR LEGEND & INFORMATION NOT SHOWN.

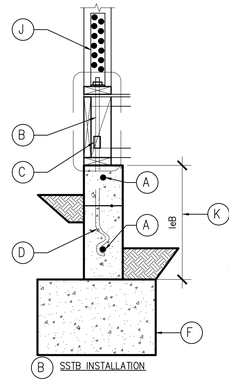
PAD FOOTING DETAIL 1

NOTES:
- 4x4 POSTS CAN BE REPLACED WITH 2-2x4 AS LONG AS NAILS ARE MAINTAINED WITH MIN. EDGE DISTANCE AS REQUIRED BY THE MANF. SPEC. & S.W. EDGE NAILS STAGG ON BOTH STUDS.



A. REBAR PER TABLE, CENTERED @ "HD" (BEND REBAR @ CORNER) LOCATE TOP BAR" TO 5" FROM TOP OF CONCRETE.
B. SIMPSON PAB BOLTS/ALL THREAD RODS (A307/A36) PER SCHED).
C. SIMPSON CNW COUPLER.
D. SIMPSON SSTBL PER SCHEDULE. INSTALLATION PER MANUFACTURER SPECIFICATION.
E. DBL. HEX NUTS W/PLATE WASHERS PER SCHEDULE.
F. FOOTING PER PLAN.
G. CONCRETE CORNER.
H. CONCRETE END.
J. HOLDOWN PER PLAN. USE 16d SINKER NAILS (0.148"X3 1/4") FOR HTT5.
K. 20 5/8" MIN. FOR SSTB24, 24 7/8" MIN. FOR SSTB28.
L. 7"-PAB5
11"-PAB7
12"-PAB8

A BOLT INSTALLATION



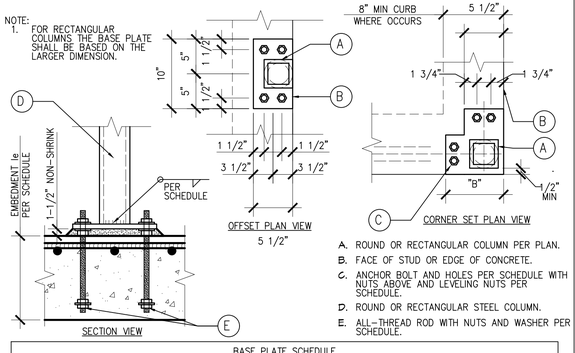
B SSTB INSTALLATION

NOTES:
- SEE PLANS FOR HOLDOWN TYPES.
- SEE DETAIL 1/SD-1 FOR LEGEND & INFO. NOT SHOWN.
- FOR COND. A-EXTEND FOOTING F AS SHOWN ALL SIDES.
- REFER TO MANUFACTURER SPECS. FOR INSTALLATION INFORMATION NOT SHOWN.
- WHEN 3-2X MEMBER IS USED FOR HDQ8 AND HDU 1/4"ØX4 1/2" SDS SCREWS SHOULD BE USED.
- HEAVY HEX ANCHOR NUT IS REQUIRED ON LOAD TRANSFER PLATE FOR HDU14 HOLDOWN.

SIMPSON HOLDOWN	COND. A SIZES	PLATE WASHER	F(MIN)	COND. B SSTBL BOLTS	#4 BAR x 8'-0" CENTERED @ HD*	IN LIEU OF #4 USE #5 BAR x 8'-0" CENTERED @ HD*
HDU4, 5	PAB5	3/8"x1 1/2" SQ.	10 1/2"	SSTBL24	(2) TOP & (2) BOT.	-
HDU8	PAB7	3/8"x2 1/4" SQ.	16 1/2"	SSTBL28	(2) TOP & (2) BOT.	(1) TOP & (1) BOT.
HDQ8	PAB7			SSTBL28	(3) TOP & (3) BOT.	
HDU11	PAB8	3/8"x2 1/2" SQ.	18"	SSTBL BOLTS NOT APPLICABLE	(4) TOP & (4) BOT.	(2) TOP & (2) BOT.
HDU14	PAB8				N.A.	

TYP. HOLDOWN INSTALLATION 5

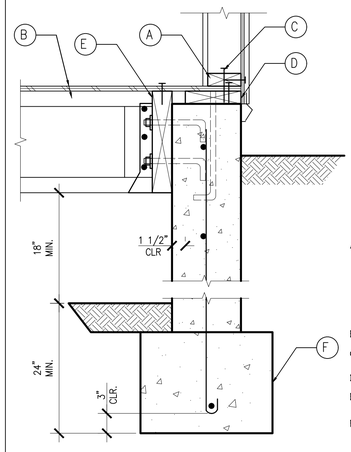
NOTE:
1. FOR RECTANGULAR COLUMNS THE BASE PLATE SHALL BE BASED ON THE LARGER DIMENSION.



A. ROUND OR RECTANGULAR COLUMN PER PLAN.
B. FACE OF STUD OR EDGE OF CONCRETE.
C. ANCHOR BOLT AND HOLES PER SCHEDULE WITH NUTS ABOVE AND LEVELING NUTS PER SCHEDULE.
D. ROUND OR RECTANGULAR STEEL COLUMN.
E. ALL-THREAD ROD WITH NUTS AND WASHER PER SCHEDULE.

BASE PLATE SCHEDULE								
ROUND COL SIZE DIAMETER	RECTANGULAR COL SIZE DIAMETER	MINIMUM DIMENSION "A"	MINIMUM DIMENSION "B"	PLATE THICKNESS	WELD	BOLT DIA	le Embed	BOLT HOLE DIAMETER	MINIMUM SQUARE PLATE WASHER
3"	3x	10"	8"	1/2"	1/4	3/4"	10"	15/16"	2" x 3/8"
3-1/2"	3-1/2x	10"	8"	1/2"	1/4	3/4"	10"	15/16"	2" x 3/8"
4"	4x	10"	8"	3/4"	1/4	3/4"	10"	15/16"	2" x 3/8"
5"	5x	12"	10"	1"	5/16	3/4"	10"	15/16"	2" x 3/8"
6"	6x	12"	10"	1"	5/16	3/4"	10"	15/16"	2" x 3/8"
7"	7x	14"	12"	1-1/4"	5/16	1"	10"	1-1/4"	2-1/2" x 3/8"
8"	8x	14"	12"	1-1/4"	5/16	1"	10"	1-1/4"	2-1/2" x 3/8"

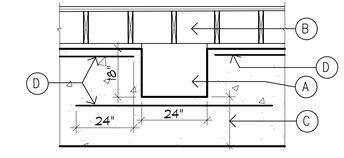
12 COLUMN IN 2x6 WALL 10



NOTE:
A1 SW USE 2X6 (3X6 MIN FOR C'SUNK A.B., C'SUNK DEPTH SHALL BE 1" MAX.) P.T.D.F. SILL PLATE WØ 5/8" X12" LONG A.B. OR MASA/MASAP.

A. 2X SILL PLATE. IF SILL PLATE NAILING SPACING IS LESS THAN 6" O.C. STAGGER NAILING, AND PROVIDE 2X NAILER TO RECIVEVE NAILS & CONNECT TO RIM W/ 16d SINKER W/ SAME SPACING AS SILL PLATE NAILING OF SHEAR WALL ABOVE. IF CONTINOUS SILL PLATE IS USED, IT IS ACCEPTABLE TO INCREASE NAILING SPACING TO 6" WITH SAME AMOUNT OF NAILS REQUIRED.
B. FLOOR SHT'G. & FLOOR SYSTEM PER PLAN.
C. SIMPSON 1/4Ø x4 1/2" SDS SCREW, SPAC'G. PER PLAN.
D. 3X P.T. SILL W/ 5/8"Ø A.B. COUNTERSINK.
E. 4x FULL HEIGHT P.T. LEDGER W/ (2) 5/8" X8" ANCHOR BOLTS W/ WASHERS @ 24" O.C.
F. SEE DETAIL 4/SD-1.1 FOR MORE INFO

FOUNDATION DETAIL 2



A. CRAWL SPACE OPENING.
B. 2x JOIST DEPTH FLUSH BM. TO BE SUPPORTED BY SILL PLATE.
C. 18" MIN. TO BOTTOM OF CONC.
D. #5 REBAR W. MIN. 24" LAP EACH SIDE OF OPENING.

TYPICAL OPENING AT CRAWL SPACE 3

REVISIONS		
NO.	DATE	DESCRIPTION

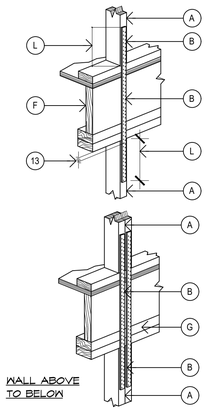
SEAL:
REGISTERED PROFESSIONAL ENGINEER
ALLEN CHUN-YING NU
No. C69385
Exp.06-30-2026
CIVIL
STATE OF CALIFORNIA

GMEP ENGINEERS
26439 Rancho Pkwy. S., Ste 120
Lake Forest, CA 92630
Tel: 949-267-9095

PROJECT NAME:
LOT 207 SANTA LUCIA PRESERVE
23 SAN CLEMENTE TRL.
CARMEL, CA 93923

SHEET TITLE
STRUCTURAL FOUNDATION DETAILS

DRAWN	GMEP
CHECKED	GMEP
DATE	01/31/25
SCALE	AS NOTED
JOB NO.	24-731
SHEET	SD-1.1



A. STUD, POST OR TRIMMER PER TABLE BELOW. DBL. STUDS & STRAPS @ CONDITION "B" & "C". PROVIDE EDGE NAILING OF SHEAR PANEL ALONG ALL STUDS.

B. REFER TO PLANS & TABLE BELOW FOR STRAP, # OF NAILS & END LENGTH AT EA. END. (2) ROWS OF NAILS EA. STRAP.

C. FLOOR SHTG. SEE PLAN.

D. MIN. 11 1/4" DEEP BM. OR HEADER. SEE PLAN.

E. LINE OF BLKG. UNDER SHEAR WALL.

F. SOLID RIM OR BLKG. SAME WIDTH AS POST ABV. & BLW. @ LOCATION OF STRAP. WHEN W/FLOOR TRUSS, PROVIDE WEB FILLERS AS NEEDED FOR NAILING FROM STRAP.

G. DOUBLE TOP PLATE.

H. 2x SILL PLATE.

I. SEE PLAN FOR SHEAR WALL.

J. CRIPPLE WALL ABOVE HDR.

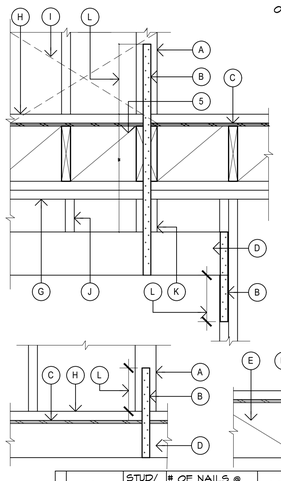
K. SOLID BLKG. UNDER POST OR STUDS ABOVE.

L. END LENGTH.

M. PROVIDE MIN. END DISTANCE OF 1 5/8" FOR 16d NAILS.

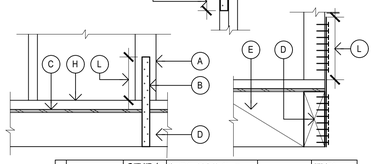
N. FLOOR JOIST PER PLAN.

O. RIM JOIST, MIN. 1 3/4" WIDE W/ (4) NAILS.



NOTES:

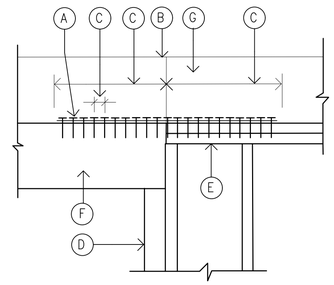
- ALL STRAPS ARE SIMPSON STRONG TIES.
- TOTAL LENGTH OF STRAP TO BE DETERMINED @ THE SITE BASED ON END LENGTH REQUIRED & CLEAR SPAN.
- ALL NAILS ARE SINKER OR BOX NAILS.
- SLIT CUT FLOOR SHEATHING TO RUN STRAP THROUGH @ INTERIOR CONDITION NO OVERCUT.
- LOCATE STRAP OVER PLWD. SHEAR PANEL & PROVIDE SHIM AS NEED TO AVOID STRAP BENDING



STRAP	STUD/ POST	# OF NAILS @ EA. END	LENGTH	CAPACITY	END LENGTH
A	(1)CS16	2X4	(11)16d	1700#	15"
B	(2)CS16 **	(2)2X4	(11)16d P/STRAP	3400#	15"
C	(2)CS14 **	(2)2X4	(15)16d P/STRAP	4980#	18"
C	(3)CS14	4X6	(15)16d P/STRAP	7470#	18"
D	CMST14	4X4	(40)16d	6490#	38"
E	CMST12	4X6	(52)16d	9200#	48"
F	(2)CMST14	4X8	(40)16d P/STRAP	12980#	38"
G	(2)CMST12	6X8	(52)16d P/STRAP	18400#	48"
H	(4)CS14	4X8	(15)16d P/STRAP	9960#	15"

* CMST14 & CMST12 ARE ONLY APPLICABLE AT POST TO POST CONNECTION.
** AS AN ALT. TO B & C, USE D FOR POST TO POST CONDITION ONLY.

HOLDOWN DETAIL 11



A. SIMPSON STRAP PER TABLE (2) ROWS OF NAILS FOR EA. STRAP.

B. SIMILAR CONDITION (FLUSH BEAM/ JOIST (S).

C. SPACING AND END LENGTH SEE TABLE.

D. POST OR MULTI STUD, SEE PLAN.

E. DBL. TOP PLATE.

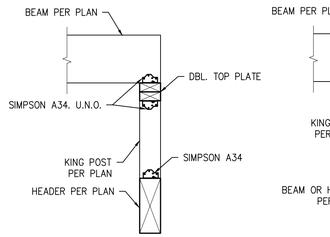
F. BEAM OR JOIST (S), W/ LINE OF EDGE NAILING SEE PLAN.

G. CONT. JOIST OR BLOCKING, SEE FRAMING PLAN.

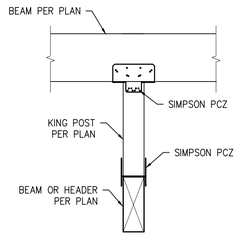
NOTES:
- MIN. 3 1/2" WIDE MEMBER FOR CONDITION C4D.
* MIN 1/2" SPACING BETWEEN ROWS OF NAILS.

	STRAP	END LENGTH	NAIL SIZE AND SPACING	CAPACITY
A	CS16	3'-0"	8d BOX/SINKER AT 4 1/8"	1700#
B*	(2) CS16	3'-0"	8d BOX/SINKER AT 4 1/8"	3400#
C	CMSTC16	6'-0"	10d BOX AT 4 1/2"	4585#
D	CMST14	6'-3"	10d BOX AT 3 1/2"	6490#

DRAG DETAIL 7

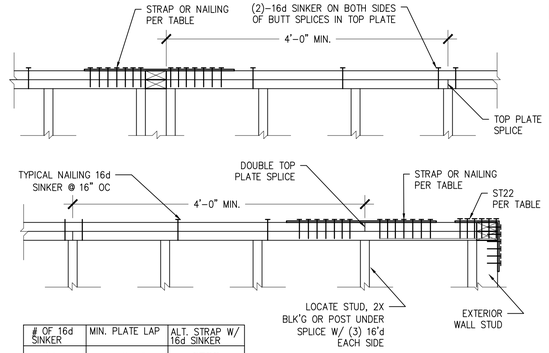


KING POST TO HEADER



KING POST TO HEADER

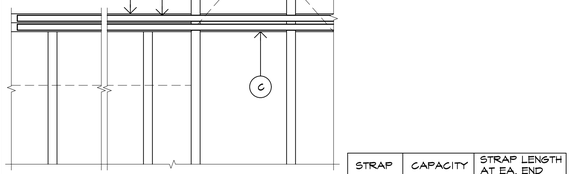
TYP. KING POST CONNECTION 4



# OF 16d SINKER	MIN. PLATE LAP	ALT. STRAP W/ 16d SINKER
10	4'-0"	ST22
16	4'-0"	ST6224
22	6'-0"	ST6236
24	6'-0"	MST37
32	8'-0"	MST52
36	8'-0"	MST60

NOTE:
- THE STRAPPING IS REQUIRED ALONG WALL ZONE AS SHOWN ON PLAN.
- FULLY NAIL STRAP W/ 16d SINKER OR 10d COMMON
- NAILS SHALL BE STAGGERED W/ MIN. 2 1/4" APART.

TOP PLATE SPLICE DETAIL 1



A. ROOF SHEATHING EXTENDED & EDGE NAILED TO BLOCKING.

B. FULL HEIGHT BLOCKING

C. A35, @ 48" O.C. AT NON-SHEAR WALL LOCATIONS, SPACING AT TOP OF SHEAR WALL PER SHEAR WALL SCHEDULE.

D. SHEAR PANEL PER PLAN.

E. ROOF RAFTERS PER PLAN

F. 2x T&G STARTER BOARD PER ARCH. WHERE OCCURS.

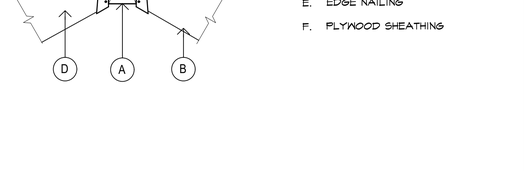
G. DOUBLE TOP PLATE

H. SIMPSON H1 RAFTER TO TOP PLATES @ 48" O.C. MAX.

I. TAIL AT NOTCHED RAFTER. SEE ARCH'T DWG FOR MORE INFO.

J. BEAM PER PLAN.

SHEAR TRANSFER TO BEAM 5



A. RIDGE PER PLAN

B. TYPICAL ROOF RAFTER PER PLAN

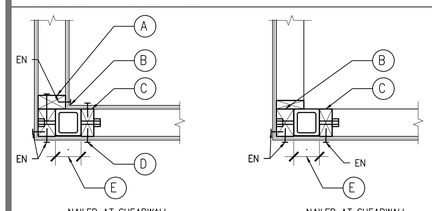
C. ST22 AT 48" O.C.

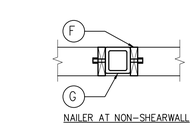
D. USE SLOPE HANGERS WHEN SPAN OF RAFTERS EXCEED 10'-0" OTHERWISE USE MIN. (5) 16d TOE NAILS @ EACH RAFTER TO RIDGE

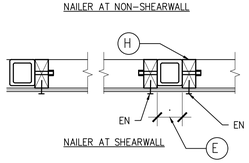
E. EDGE NAILING

F. PLYWOOD SHEATHING

CONNECTION DETAIL 2







A. 3x STUD W/ 1/4" x 5" SDS SCREW. SPACE: 8" OC FOR WALL MARCKS A-C 6" OC FOR WALL MARCKS D,E 3" OC FOR WALL MARCKS F,G

B. 4x W/ 5/8"ø THREADED STUD BOLTS AT 16" OC. 1" MAX COUNTERSINK.

C. 3x MIN W/ 5/8"ø THREADED STUD BOLTS AT 16" OC.

D. EN EACH SIDE.

E. SHEATHING PANEL JOINT NOT ALLOWED HERE.

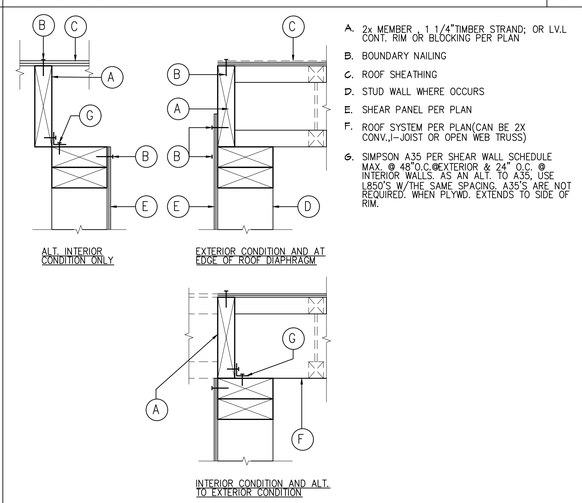
F. 2x ES W/ 5/8"ø THREADED STUD BOLTS AT 32" OC.

G. TUBE OR PIPE COL TYP, SEE PLAN.

H. 3x MIN ES W. 5/8"ø THREADED STUD BOLTS AT 16" OC.

NOTE: LOCATE STUD BOLTS 6" MIN 9" MAX FROM ENDS OF WOOD NAILERS.

NAILER ON STEEL COLUMN 12



STRAP	CAPACITY	STRAP LENGTH AT EA. END
A (1) CS16	1700#	3'-0"
B (2) CS16	3400#	6'-0"

A. 2x MEMBER , 1 1/4"TIMBER STRAND; OR LV.L CONT. RIM OR BLOCKING PER PLAN

B. BOUNDARY NAILING

C. ROOF SHEATHING

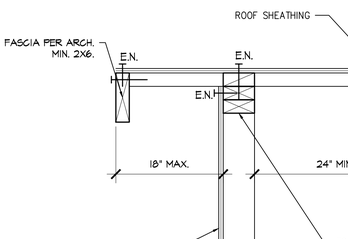
D. STUD WALL WHERE OCCURS

E. SHEAR PANEL PER PLAN

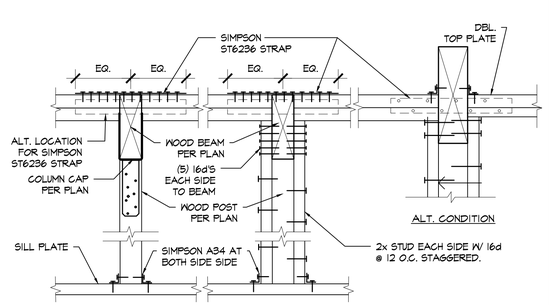
F. ROOF SYSTEM PER PLAN(CAN BE 2X CONV.,I-JOIST OR OPEN WEB TRUSS)

G. SIMPSON A35 PER SHEAR WALL SCHEDULE MAX. @ 48"O.C.@EXTERIOR & 24" O.C. @ INTERIOR WALLS. AS AN ALT. TO A35, USE L850'S W/THE SAME SPACING. A35'S ARE NOT REQUIRED. WHEN PLYWD. EXTENDS TO SIDE OF RIM.

DRAG DETAIL 8



SHEAR TRANSFER DETAIL 6



TYP. BEAM IN STUD WALL 3

REVISIONS

NO.	DATE	DESCRIPTION

SEAL:

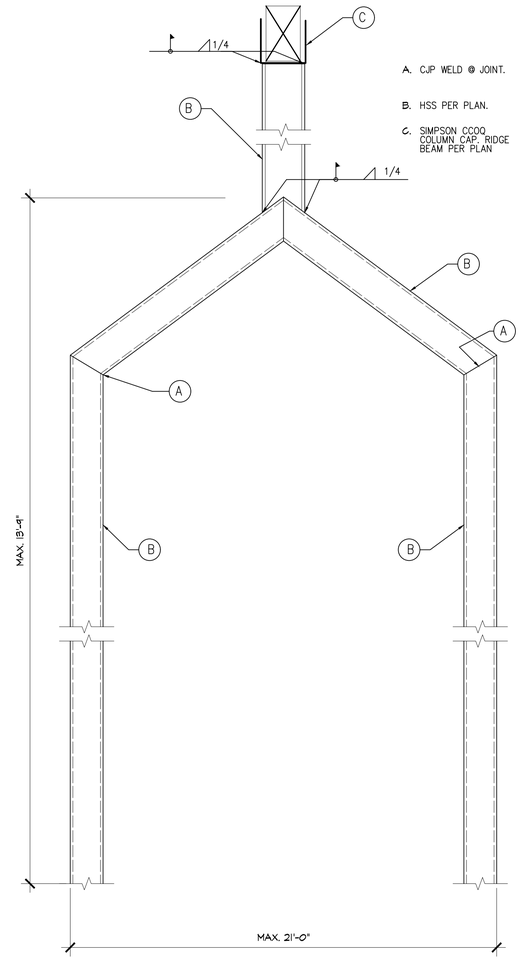
GMEP ENGINEERS
26439 Rancho Pkwy. S., Ste 120
Lake Forest, CA 92630
Tel: 949-267-9095

PROJECT NAME:
LOT 207 SANTA LUCIA PRESERVE
23 SAN CLEMENTE TRL.
CARMEL, CA 93923

SHEET TITLE
STRUCTURAL DETAILS

DRAWN	GMEP
CHECKED	GMEP
DATE	01/31/25
SCALE	AS NOTED
JOB NO.	24-731
SHEET	SD-2

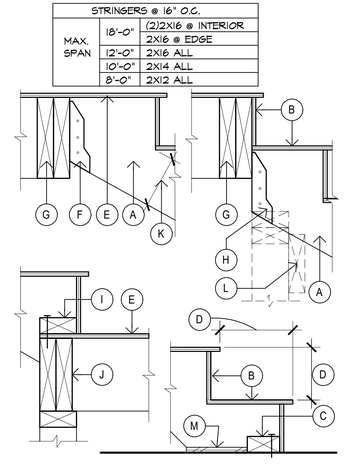
10	7	4	
11	8	5	HSS STEEL FRAME 2
12	9		STAIR DETAILS \ 1 & 2 FAMILY @ NON-COMMON AREA 3



A. CJP WELD @ JOINT.

B. HSS PER PLAN.

C. SIMPSON CCQQ COLUMN CAP, RIDGE BEAM PER PLAN



STRINGERS @ 16" O.C.		
MAX. SPAN	18'-0"	(2)2X16 @ INTERIOR 2X16 @ EDGE
	12'-0"	2X16 ALL
	10'-0"	2X14 ALL
	8'-0"	2X12 ALL

A. SEE TABLE. SPANS ARE HORIZONTAL PROJECTION LENGTH. (ALT. LSL STRINGERS OF THE SAME SIZES W/ Fb=1700psi (MIN), Fv=400psi (MIN), & E=1.3x10⁶ psi (MIN) CAN BE USED.
B. PLYWOOD TREADS & RISERS (MIN. 3/4").
C. 2X4 P.T. PLATE (SEE SN-1) ANCHORED WITH SIMP. PHNA-72 SHOT PINS 0.145ø W/ 3/4" MIN. EMBED INTO CONC @ 24" O.C. MAX. SECURE STRINGER TO 2X4 PLATE W/ (3) 16d TOE NAILS. PER ARCHITECTURAL.
D, E, F. PLYWOOD SUBFLOOR. APPROVED METAL HANGERS OR (1)A35 EACH SIDE.
G. DOUBLE JOIST OR HEADER.
H. SIMPSON THA218, ALT. (1) A35 EA. SIDE UP TO MAX. 12'-0" SPAN*. USE THA218/THA218-2 FOR 2x16/(2)2x16.
I. CONT. 2x PLATE W/ 16d'S @8"O.C.
J, K. DBL. JOIST OR BLOCKING 5 1/4" MIN. FOR 2x12, 7 1/4" MIN. FOR 2x14 & 9 1/4" FOR 2x16 @ NOTCH. NO OVERCUT.
L. 2x6 LEDGER W/ (4) 16d'S PER STUD @ WALL CONDITION.
M. PRESSURE TREATED PLYWOOD SHIM W/ MIN. (2)SIMP. PHNA-72 SHOT PINS 0.145ø W/ 3/4" MIN. EMBED INTO CONCRETE. 22GA SHEET METAL OR WATER PROOF MEMBRANT CAN BE USED AS AN ALTERNATE.

REVISIONS		
NO.	DATE	DESCRIPTION

SEAL:

GMEP ENGINEERS
26439 Rancho Pkwy. S., Ste 120
Lake Forest, CA 92630
Tel: 949-267-9095

PROJECT NAME:
LOT 207 SANTA LUCIA PRESERVE
23 SAN CLEMENTE TRL.
CARMEL, CA 93923

SHEET TITLE
STRUCTURAL DETAILS

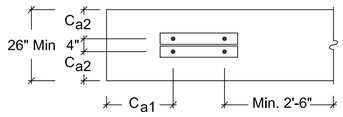
DRAWN	GMEP
CHECKED	GMEP
DATE	01/31/25
SCALE	AS NOTED
JOB NO.	24-731
SHEET	SD-3

BACK TO BACK REINFORCED ANCHORAGE (BB-RA)

Model	Panel Width (in)	Anchorage[1]	Rod Dia (in)	Rod Grade[2,3]	BB-RA le[4] (in)	BB-RA C_{a1}[5] (in)	BB-RA C_{a2}[6] (in)	Stirrups[9] (in)	Shear Ties[7]
HFX-9x	9	1-1/8-STD-BB-RA	1-1/8	STD	15	19-3/4	11	8 - # 4	# 3 (min) @ 3-3/4" OC
HFX-12x	12	1-1/8-STD-BB-RA		STD	23			13 - # 4	# 3 (min) @ 4" OC
		1-1/8-HS-BB-RA		HS		20-5/8			
HFX-15x	15	1-1/8-STD-BB-RA		STD				14 - # 4	# 4 (min) @ 4" OC
		1-1/8-HS-BB-RA		HS					
HFX-18x	18	1-1/8-STD-BB-RA		STD				15 - # 4	
		1-1/8-HS-BB-RA		HS					
HFX-21x	21	1-1/8-STD-BB-RA		STD				16 - # 4	
		1-1/8-HS-BB-RA		HS					
HFX-24x	24	1-1/8-STD-BB-RA		STD				18 - # 4	
		1-1/8-HS-BB-RA		HS					

BACK TO BACK REINFORCED ANCHORAGE NOMENCLATURE

1-1/8 - STD - BB - RA
- REINFORCED ANCHORAGE
- "BACK TO BACK" INSTALLATION
- ROD GRADE
- ROD DIAMETER



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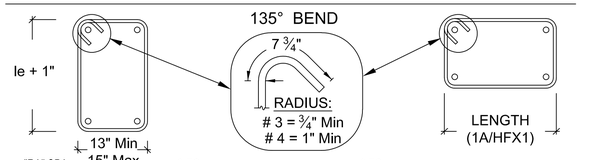
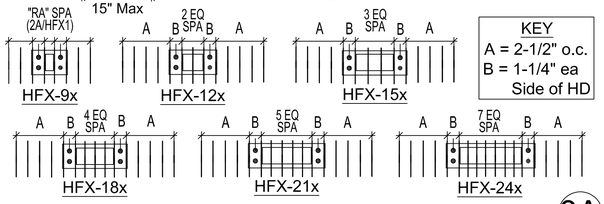
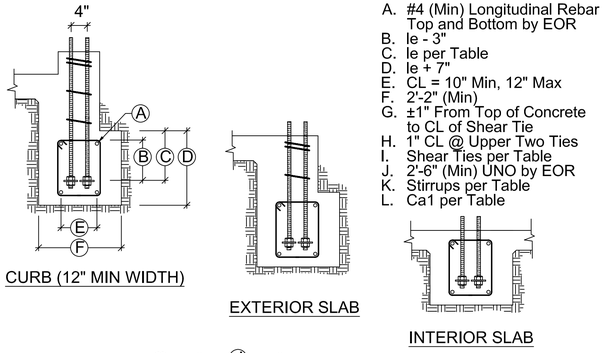




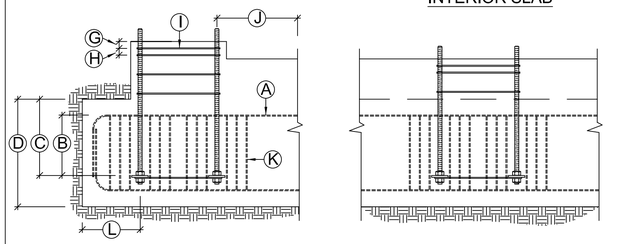
KEY
A = 2-1/2" o.c.
B = 1-1/4" ea Side of HD

BB-RA SHEAR TIES & STIRRUPS

3A



A. #4 (Min) Longitudinal Rebar Top and Bottom by EOR
B. le - 3"
C. le per Table
D. le + 7"
E. CL = 10" Min, 12" Max
F. 2'-2" (Min)
G. ±1" From Top of Concrete to CL of Shear Tie
H. 1" CL @ Upper Two Ties
I. Shear Ties per Table
J. 2'-6" (Min) UNO by EOR
K. Stirrups per Table
L. Ca1 per Table



BB-RA SECTIONS & ELEVATIONS

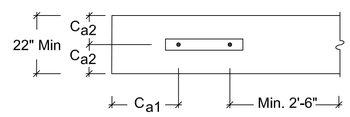
3B

REINFORCED ANCHORAGE (RA)

Model	Panel Width (in)	Anchorage[1]	Rod Dia (in)	Rod Grade[2,3]	RA le[4] (in)	RA C_{a1}[5] (in)	RA C_{a2}[6] (in)	Stirrups[9] (in)	Shear Ties[7]
HFX-9x	9	1-1/8-STD-RA	1-1/8	STD	15	19-3/4	11	8 - # 4	# 3 (min) @ 3-3/4" OC
HFX-12x	12	1-1/8-STD-RA		STD				9 - # 4	# 3 (min) @ 4" OC
		1-1/8-HS-RA		HS		20-5/8			
HFX-15x	15	1-1/8-STD-RA		STD				10 - # 4	
		1-1/8-HS-RA		HS					
HFX-18x	18	1-1/8-STD-RA		STD					
		1-1/8-HS-RA		HS					
HFX-21x	21	1-1/8-STD-RA		STD				11 - # 4	
		1-1/8-HS-RA		HS					
HFX-24x	24	1-1/8-STD-RA		STD				12 - # 4	# 4 (min) @ 4" OC
		1-1/8-HS-RA		HS					

REINFORCED ANCHORAGE NOMENCLATURE

1-1/8 - STD - RA
- REINFORCED ANCHORAGE
- ROD GRADE
- ROD DIAMETER



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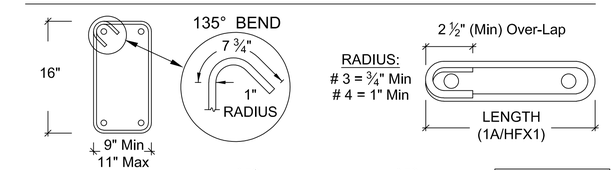
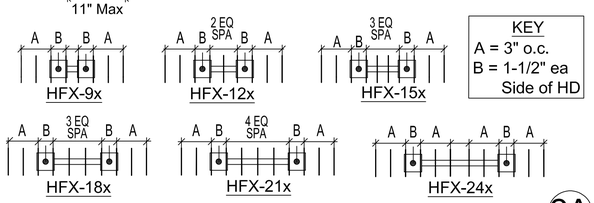
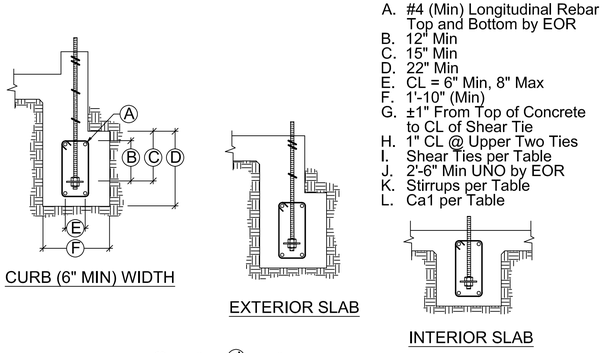




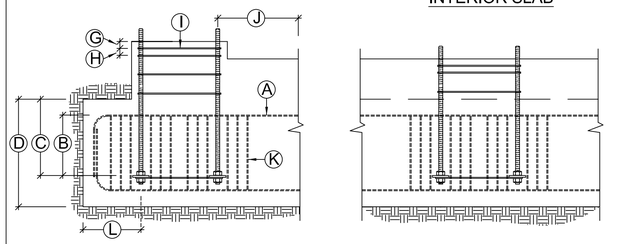
KEY
A = 3" o.c.
B = 1-1/2" ea Side of HD

RA SHEAR TIES & STIRRUPS

2A



A. #4 (Min) Longitudinal Rebar Top and Bottom by EOR
B. 12" Min
C. 15" Min
D. 22" Min
E. CL = 6" Min, 8" Max
F. 1'-10" (Min)
G. ±1" From Top of Concrete to CL of Shear Tie
H. 1" CL @ Upper Two Ties
I. Shear Ties per Table
J. 2'-6" Min UNO by EOR
K. Stirrups per Table
L. Ca1 per Table



RA SECTIONS & ELEVATIONS

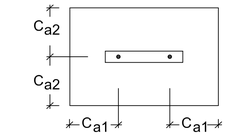
2B

UNREINFORCED ANCHORAGE (UA)

Model	Panel Height	Anchorage[1]	Rod Dia (in)	Rod Grade[2,3]	UA le[4] (in)	UA C_{a1}[5] & C_{a2}[6] (in)	Shear Ties[7,8]
HFX-9x	79.5" - 8'	1-1/8-STD-13-19	1-1/8	STD	13	19	1 - # 3
HFX-12x	78" - 10'	1-1/8-HS-20-30		HS	20	30	
HFX-15x, 18x	78" - 13'	1-1/8-STD-14-20		STD	14	20	
HFX-15x, 18x Balloon	14' - 20'	1-1/8-HS-20-30		HS	20	30	
HFX-21x, 24x	78" - 13'	1-1/8-STD-14-20		STD	14	20	
		1-1/8-HS-23-34			23	34	2 - # 3
HFX-21x, 24x Balloon	14' - 20'	1-1/8-HS-20-30		HS	20	30	

UNREINFORCED ANCHORAGE NOMENCLATURE

1-1/8 - STD - 14 - 20
- END & EDGE DISTANCE (C_{a1} & C_{a2})
- EMBEDMENT DEPTH (le)
- ROD GRADE
- ROD DIAMETER



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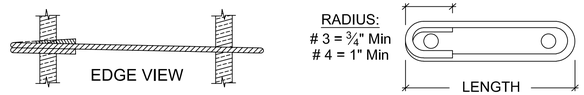
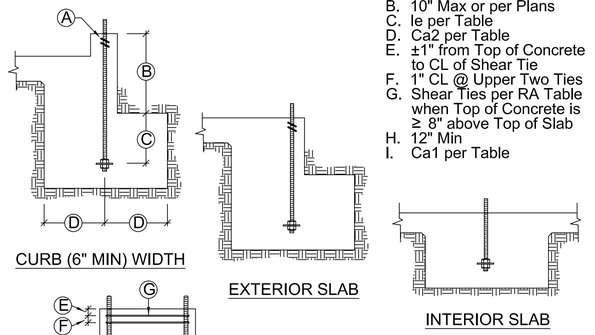


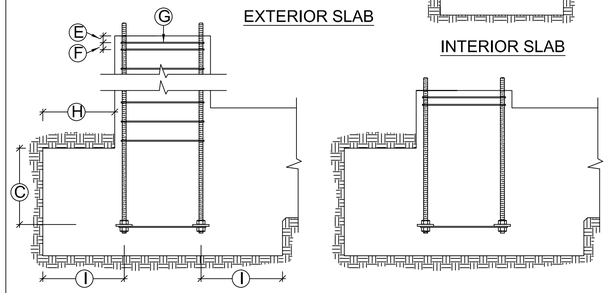
SHEAR TIES	NOT REQUIRED WHEN	
Model	Length	End Distance ≥	Edge Distance ≥
HFX-9x	7-1/2"	2-3/8"	2-3/8"
HFX-12x	10-1/2"	6-1/4"	3-1/2"
HFX-15x	12"	7-3/8"	4-1/4"
HFX-18x	15"	8-3/8"	5"
HFX-21x	18"	9-3/8"	5-1/2"
HFX-24x	21"	10-3/8"	6"

UA SHEAR TIES

1A



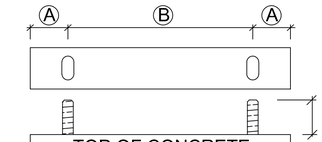
A. Shear Ties per UA Table
B. 10" Max or per Plans
C. le per Table
D. Ca2 per Table
E. ±1" from Top of Concrete to CL of Shear Tie
F. 1" CL @ Upper Two Ties
G. Shear Ties per RA Table when Top of Concrete is ≥ 8" above Top of Slab
H. 12" Min
I. Ca1 per Table



UA SECTIONS & ELEVATIONS

1B

1. DESIGNS ARE TO RESIST LOADING PER ACI 318-19, SEC 17.10.5.3.
2. STD INDICATES ANCHORS COMPLYING WITH ASTM F1554 GRADE 36 WITH A HARDY FRAME BOLT BRACE (HFXBB) INSTALLED WITH STD OR GRADE 8 DOUBLE NUTS ON THE EMBED END.
3. HS INDICATES ANCHORS COMPLYING WITH ASTM A193 GRADE B7 WITH A 1/2"x3"x3"(MIN) HFPW PLATE WASHER INSTALLED WITH DOUBLE NUTS ON THE EMBED END (HFXBB NOT REQUIRED).
4. LE = LENGTH OF EMBEDMENT FROM THE TOP OF FOOTING OR GRADE BEAM TO THE TOP OF THE HFXBB BOLT BRACE (TOP OF THE EMBEDDED HFPW PLATE WASHER @ HS ANCHORS)
5. CA1 = DISTANCE FROM HD CENTERLINE TO THE END OF THE FOOTING OR GRADE BEAM.
6. CA2 = DISTANCE FROM HD CENTERLINE TO BOTH THE FRONT AND THE BACK FACE OF THE FOOTING OR GRADE BEAM.
7. SHEAR TIES ARE GRADE 60 (MIN) REBAR AND REQUIRED FOR NEAR EDGE DISTANCE CONDITIONS PER ACI 318-19, F'C = 2,500 PSI. CURBS AND STEM WALLS MUST BE 6 INCH (MIN) WIDTH FOR UA AND RA, 12 INCH (MIN) WIDTH FOR BB-RA.
8. FOR UA APPLICATIONS, ADDITIONAL TIES MAY BE REQUIRED AT STEM WALLS. SHEAR TIES ARE NOT REQUIRED FOR INSTALLATION AWAY FROM EDGE (SEE DETAIL 1A), INSTALLATION ON WOOD FRAMING, OR FOR IRC BRACED WALL PANEL APPLICATIONS.
9. STIRRUPS ARE GRADE 60 (MIN) REBAR. SEE TABLE FOR SIZE AND SPACING. SEE "STIRRUP LAYOUT" DIAGRAMS AND "KEY" FOR LAYOUT PATTERNS.
10. CONCRETE EDGE DISTANCES MUST COMPLY WITH ACI 318-19, SECTION 17.9.2. COATED REINFORCEMENT MAY BE SPECIFIED BY THE EOR TO LIMIT EXPOSURE AND THEREFORE REDUCE MINIMUM CONCRETE COVER. COATED REINFORCEMENT MUST COMPLY WITH ACI 318-19, SECTION 20.5.2.



Model	Width	Ⓐ	Ⓑ
HFX-9x	9"	1-3/4"	5-1/2"
HFX-12x	12"		8-1/2"
HFX-15x	15"	2-5/8"	9-3/4"
HFX-18x	18"		12-3/4"
HFX-21x	21"		15-3/4"
HFX-24x	24"		18-3/4"

HFX ANCHOR CENTERLINES

A

IMPORTANT!

1. ANCHORAGE IS DESIGNED FOR TENSION AND SHEAR TRANSFER ONLY, FOUNDATION DESIGN PER EOR.
2. REINFORCEMENT SHOWN IS THE MINIMUM REQUIREMENT AND IS NOT INTENDED TO REPLACE REINFORCEMENT DESIGNED BY THE EOR.
3. FOR RA AND BB-RA INSTALLATIONS, THE HFXBB BOLT BRACE MAY BE PLACED ON TOP OF THE STIRRUPS WITH DOUBLE-NUTS INSTALLED AT EMBED END OF STANDARD GRADE ANCHOR RODS. (NOTE: ½" x 3" x 3" MIN. HFPW PLATE WASHERS ARE REQUIRED TO BE DOUBLE-NUTTED AT EMBED END OF HIGH STRENGTH ANCHOR RODS.)
4. HIGH STRENGTH ALL-THREAD RODS PROVIDED BY HARDY FRAMES ARE STAMPED ON BOTH ENDS. HF B7

IMPORTANT NOTES

B

REVISIONS	DATE

ANCHORAGE DETAILS - HFX PANELS

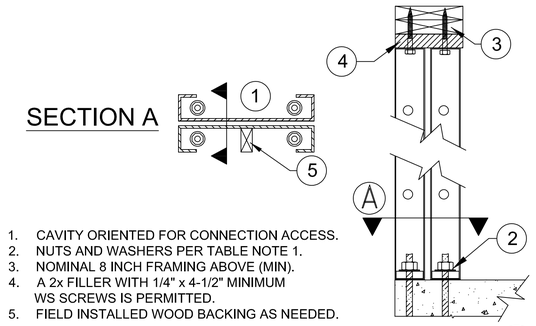
THIS DETAIL SHEET IS NOT PROPRIETARY AND IS NOT REQUIRED FOR PLAN SUBMITTAL WITH *HARDY FRAME* PRODUCTS

HARDY FRAME SHEAR WALL SYSTEMS
16023 SWINGLEY RIDGE RD
CHESTERFIELD, MO 63017
(800) 325-8075
WWW.HARDYFRAME.COM

MiTek®

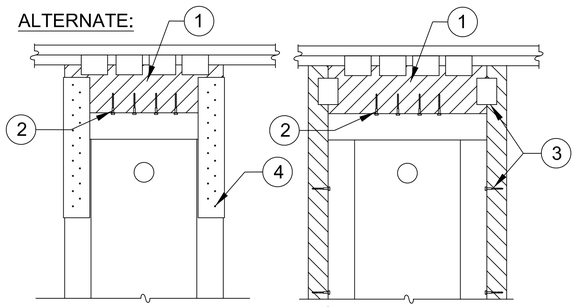
DATE:
1-1-2023

HFX1



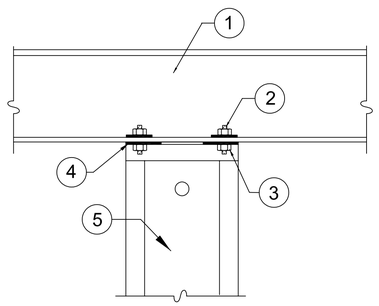
1. CAVITY ORIENTED FOR CONNECTION ACCESS.
2. NUTS AND WASHERS PER TABLE NOTE 1.
3. NOMINAL 8 INCH FRAMING ABOVE (MIN).
4. A 2x FILLER WITH 1/4" x 4-1/2" MINIMUM WS SCREWS IS PERMITTED.
5. FIELD INSTALLED WOOD BACKING AS NEEDED.

BACK TO BACK INSTALLATION 3



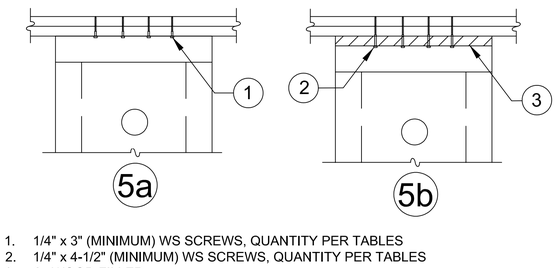
1. WOOD FILLER (13 1/2" MAX DEPTH) WITH USP MP4F CONNECTORS BOTH SIDES, QUANTITY BY BUILDING DESIGN PROFESSIONAL.
2. 1/4" x 3" (MINIMUM) WS SCREWS, QUANTITY PER TABLES
3. ADJACENT FRAMING WITH 1/4" DIAMETER SCREWS INSTALLED THROUGH PRE-PUNCHED HOLES IN PANEL EDGES REQ'D WHEN INSTALLING A FILLER GREATER THAN 1-1/2" ABOVE TO BRACE OUT-OF-PLANE HINGE OR WHEN SPECIFIED BY THE DESIGN PROFESSIONAL.
4. MiTek HFFB FILLER BRACE WITH 1/4" x 1-1/2" WS SCREWS TO FILLER (FILL ALL HOLES) AND 1/4" SELF-TAPPING SCREWS TO PANEL (5 MIN. EACH FACE) REQ'D WHEN INSTALLING A FILLER GREATER THAN 3-1/4" ABOVE TO BRACE OUT-OF-PLANE HINGE OR WHEN SPECIFIED BY THE BUILDING DESIGN PROFESSIONAL.

FILLER GREATER THAN 1-1/2 IN. 6



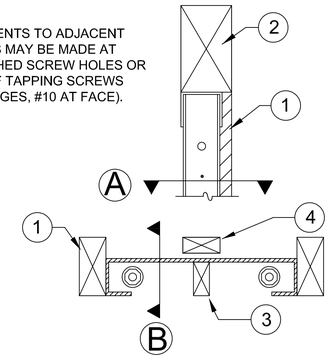
1. STEEL BEAM PER PLANS
2. ALL THREAD RODS THRU-BOLTED TO STEEL BEAM BY BUILDING DESIGN PROFESSIONAL.
3. NUTS AND WASHERS PER TABLE NOTE 1.
4. *HARDY FRAME*® STACKING WASHERS (HFSW) REQUIRED TO BE WELDED INSIDE TOP CHANNEL OF LOWER PANEL.
5. *HARDY FRAME*® "STK" PANEL WITH STACKING WASHERS WELDED INSIDE THE TOP CHANNEL BY MANUFACTURER.

STEEL BEAM ABOVE THRU-BOLT 2



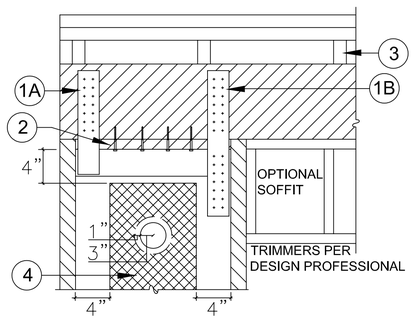
1. 1/4" x 3" (MINIMUM) WS SCREWS, QUANTITY PER TABLES
2. 1/4" x 4-1/2" (MINIMUM) WS SCREWS, QUANTITY PER TABLES
3. 2x WOOD FILLER.

TOP PLATE CONNECTIONS 5



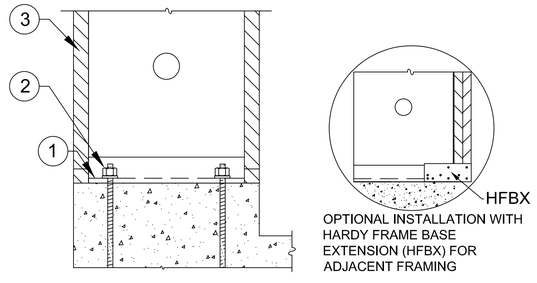
1. TRIMMERS PROVIDE FULL BEARING FOR HEADER ABOVE, DESIGN AND CONNECTIONS BY BUILDING DESIGN PROFESSIONAL.
2. 6x HEADER.
3. WOOD MEMBERS FOR BACKING MAY BE INSERTED VERTICALLY OR HORIZONTALLY IN THE PANEL CAVITY AS NEEDED.
4. WOOD MEMBER FLUSH TO FACE OF WALL FOR BACKING AS NEEDED.

6x HEADER ABOVE-SECTIONS 1



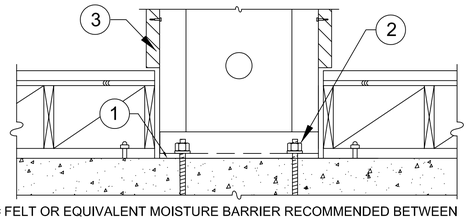
1. (A) PRE-WELDED STRAPS ARE PROVIDED ON 78" AND 79-1/2" PANEL HEIGHTS. THEY ARE AVAILABLE FOR OTHER HEIGHTS UPON REQUEST.
   (B) FIELD INSTALLED STRAPS WITH SELF TAPPING SCREWS ARE PERMITTED. THE DESIGN AND CONNECTION IS BY THE DESIGN PROFESSIONAL.
2. A 2x WOOD FILLER WITH 1/4"x4-1/2" (MIN.) WS SCREWS IS PERMITTED.
3. WHEN CRIPPLE STUDS OCCUR, SHEAR TRANSFER DESIGN TO BE PER THE BUILDING DESIGN PROFESSIONAL.
4. A 1" DIA. HOLE MAY BE ADDED IN THE PANEL FACE WHEN IT IS LOCATED IN THE UPPER HALF OF THE PANEL HEIGHT AND IS 4" MINIMUM FROM ANY EDGE. FOR PANELS MORE THAN 12" WIDE, ADDITIONAL HOLES MUST BE OFFSET 1" MINIMUM FROM THE 3" DIA. PREPUNCHED HOLE. FOR HOLES LARGER THAN 1" DIAMETER OR TO ADD MORE THAN ONE HOLE CONTACT MITEK HARDY FRAME TECHNICAL SUPPORT AT (800) 754-3030.

TOP CONNECTION TO HEADER 4



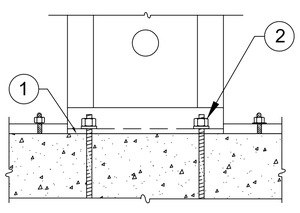
1. 15# FELT OR EQUIVALENT MOISTURE BARRIER RECOMMENDED BETWEEN PANEL BASE AND CONCRETE.
2. NUTS AND WASHERS PER TABLE NOTE 1.
3. ADJACENT FRAMING OPTIONAL U.N.O. BY BUILDING DESIGN PROFESSIONAL.

INSTALLATION ON CURB 9



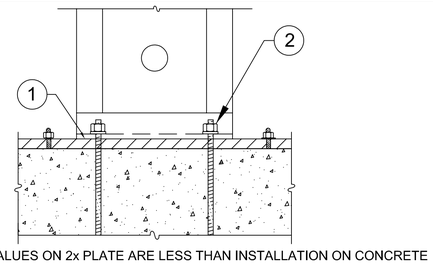
1. 15# FELT OR EQUIVALENT MOISTURE BARRIER RECOMMENDED BETWEEN PANEL BASE AND CONCRETE.
2. NUTS AND WASHERS PER TABLE NOTE 1.

RAISED FLOOR HEAD-OUT 8



1. 15# FELT OR EQUIVALENT MOISTURE BARRIER RECOMMENDED BETWEEN PANEL BASE AND CONCRETE.
2. NUTS AND WASHERS PER TABLE NOTE 1.

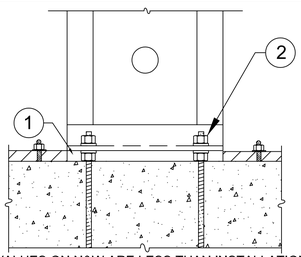
INSTALLATION ON CONCRETE 7



ALLOWABLE VALUES ON 2x PLATE ARE LESS THAN INSTALLATION ON CONCRETE

1. 15# FELT OR EQUIVALENT MOISTURE BARRIER RECOMMENDED BETWEEN PANEL BASE AND TREATED PLATE.
2. NUTS AND WASHERS PER TABLE NOTE 1.

INSTALLATION ON 2x PLATE 11



ALLOWABLE VALUES ON N&W ARE LESS THAN INSTALLATION ON CONCRETE

1. PLUS OR MINUS 1-1/2" GAP TO BE FILLED WITH 5,000 PSI NON-SHRINK GROUT (MINIMUM).
2. NUT AND WASHER GRADES PER TABLE NOTE 1.

INSTALLATION ON NUTS & WASHERS 10

HFX PANELS 78 IN. THROUGH NOMINAL 13 FEET

Model Number	Net Height (in)	Depth (in)	Hold Down Diameter[1] (in)	Top Screw Qty[2] (ea)	Screw Qty Available at Edges (ea)[3]
HFX-12,15,18,21 & 24x78	78	3-1/2	1-1/8	9" Width = 5 12" Width = 6 15" Width = 8	4
HFX-9x79.5	79-1/2				
HFX-12,15,18,21 & 24x8	92-1/4				
HFX-9x8	93-3/4				
HFX-12,15,18,21 & 24x9	104-1/4				
HFX-12,15,18,21 & 24x10	116-1/4			18" Width = 10 21" Width = 12	5
HFX-15,18,21 & 24x11	128-1/4				
HFX-15,18,21 & 24x12	140-1/4			24" Width = 14	6
HFX-15,18,21 & 24x13	152-1/4				

BALLOON PANELS 14 FEET THROUGH 20 FEET

Model Number	Net Height (in)	Depth (in)	Hold Down Diameter[1] (in)	Top Screw Qty[2] (ea)	Screw Qty Available at Edges (ea)[3]
HFX-15,18,21 & 24x14	164-1/4	3-1/2	1-1/8	15" Width = 8 18" Width = 10 21" Width = 12 24" Width = 14	6 7 8
HFX-15,18,21 & 24x15	176-1/4				
HFX-15,18,21 & 24x16	188-1/4				
HFX-15,18,21 & 24x17	200-1/4				
HFX-15,18,21 & 24x18	212-1/4				
HFX-15,18,21 & 24x19	224-1/4				
HFX-15,18,21 & 24x20	236-1/4				

TABLE NOTES

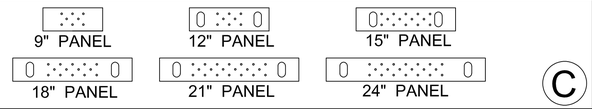
1. FOR STD OR HS GRADE HOLD DOWN ANCHOR BOLTS CONNECT TO THE PANEL BASE WITH HARDENED ROUND WASHERS BELOW GRADE 8 NUTS. ALTERNATE WASHERS ARE (2 EA) ROUND-FLAT OR (2 EA) SAE WASHERS ON EACH BOLT. ALTERNATE NUTS ARE 2H HEAVY HEX.
2. 1/4" DIAMETER MITEK® PRO SERIES™ WS SCREWS. LENGTH IS 3" (MINIMUM) WHEN ATTACHED DIRECTLY TO THE COLLECTOR AND 4-1/2" (MINIMUM) WHEN INSTALLING A 2x FILLER ABOVE THE PANEL.
3. ADJACENT FRAMING WITH 1/4" DIAMETER SCREWS IS REQUIRED AT THE PANEL EDGES WHEN INSTALLING A FILLER ABOVE THE TOP CHANNEL THAT IS GREATER THAN 1-1/2" OR WHEN SPECIFIED BY THE DESIGN PROFESSIONAL.

A

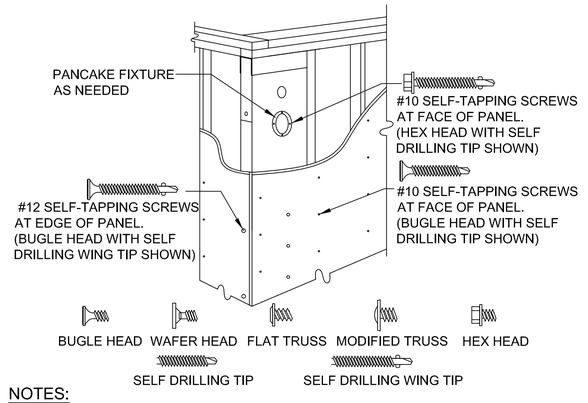
INSTALLATION INSTRUCTIONS

1. WHEN INSTALLING ON CONCRETE CONNECT WITH (1 EA) HARDENED ROUND WASHER BELOW (1 EA) GRADE 8 NUT, SECURE WITH A DEEP SOCKET (RECOMMENDED) UNTIL SNUG TIGHT. ALTERNATE WASHERS AND NUTS ARE PROVIDED IN TABLE NOTE 1.
2. INSTALLATION ON CONCRETE PROVIDES THE HIGHEST ALLOWABLE VALUES. CONFIRM WITH THE DESIGN PROFESSIONAL BEFORE INSTALLING ON OTHER SUPPORTING SURFACES.
3. USE 1/4"X4-1/2" MITEK® PRO SERIES™ WS SCREWS AT TOP CONNECTIONS WITH A 2x FILLER. IF THE TOP OF PANEL IS IN DIRECT CONTACT WITH THE COLLECTOR ABOVE (TOP PLATES, HEADER, BEAM, ETC.) USE1/4 x 3" (MIN)
4. FOR INSTALLATIONS WITH A FILLER GREATER THAN 1-1/2" ABOVE, OR WHEN SPECIFIED BY THE DESIGN PROFESSIONAL, ADJACENT KING POSTS TO BRACE THE OUT-OF-PLANE HINGE CAN BE CONNECTED WITH 1/4" DIA. SCREWS THROUGH PRE-PUNCHED HOLES AT THE PANEL EDGES.

B



C



NOTES:

A. SURFACE FINISHES, CONNECTORS AND FIXTURES ARE ATTACHED TO THE PANEL FACE WITH # 10 SELF-TAPPING SCREWS SPACED NO LESS THAN 2-1/4" OC.
B. ATTACHMENTS TO THE PANEL EDGES ARE MADE WITH # 12 SELF-TAPPING SCREWS.
C. STRUCTURAL CONNECTIONS ARE TO BE DESIGNED BY THE DESIGN PROFESSIONAL.
D. STRUCTURAL HARDWARE USED TO TRANSFER LOADS SHOULD NOT EXCEED 12 GAUGE.

D

REVISIONS	DATE

FRAMING DETAILS - HFX PANELS

THIS DETAIL SHEET IS NOT PROPRIETARY AND IS NOT REQUIRED FOR PLAN SUBMITTAL WITH MITEK® *HARDY FRAME*® PRODUCTS

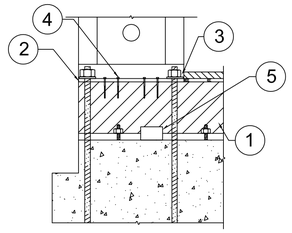
HARDY FRAME SHEAR WALL SYSTEMS
16023 SWINGLEY RIDGE RD
CHESTERFIELD, MO 63017
(800) 325-8075
WWW.HARDYFRAME.COM

MiTek®

DATE: 1-1-2023

HFX2

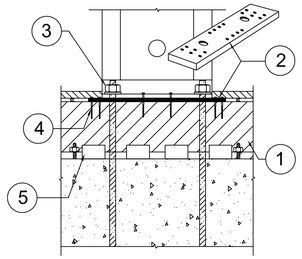
NOTES:
A. INSTALLATION WITHOUT *HARDY FRAME*® BEARING PLATE (HFXBP) MAY INCREASE DEFLECTION AND RESULT IN A DECREASE OF ALLOWABLE SHEAR VALUE, BUILDING DESIGN PROFESSIONAL MUST ANALYZE EFFECTS
B. COUPLERS MAY BE USED WHEN THREADED ROD IS SUBJECT TO TENSION LOADS ONLY.



1. 4x (MIN) RIM, ALLOWABLE VALUE TABLES ASSUME ENGINEERED WOOD PRODUCT.
2. NOTCH FLOOR SHEATHING THEN INSTALL *HARDY FRAME*® PANEL DIRECTLY ON RIM.
3. NUTS AND WASHERS PER TABLE NOTE 1.
4. 1/4" x 4-1/2" (MINIMUM) WS SCREWS THROUGH BOTTOM OF PANEL MINIMUM QUANTITY PER TABLE.
5. USP MP4F CONNECTORS, QUANTITY BY BUILDING DESIGN PROFESSIONAL.

RAISED-OS CORNER 4

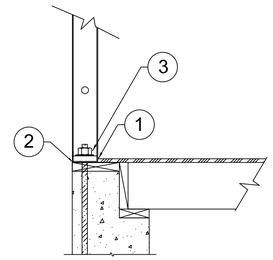
NOTE:
COUPLERS MAY BE USED WHEN THREADED ROD IS SUBJECT TO TENSION LOADS ONLY.



1. 4x (MIN) RIM, ALLOWABLE VALUE TABLES ASSUME ENGINEERED WOOD PRODUCT.
2. NOTCH FLOOR SHEATHING THEN INSTALL *HARDY FRAME*® BEARING PLATE (HFXBP) AND PANEL PER INSTALLATION NOTES 3-6, DETAIL B/HFX3.
3. NUTS AND WASHERS PER TABLE NOTE 1.
4. 1/4" x 4-1/2" (MIN) WS SCREWS, QUANTITY PER TABLE.
5. USP MP4F CONNECTORS, QUANTITY BY BUILDING DESIGN PROFESSIONAL.

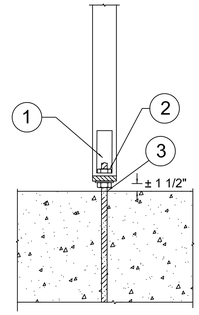
RAISED BEARING PLATE 3

NOTES:
A. CHECK WALL HEIGHT, *HARDY FRAME*® BEARING PLATES BELOW THE PANEL BASE OR CUSTOM HEIGHT PANELS ARE AVAILABLE TO AVOID FILLERS GREATER THAN 1-1/2".
B. FOR MAXIMUM ALLOWABLE VALUES INSTALL PANEL ON CONCRETE



1. FLOOR SHEATHING NOTCHED, INSTALL PANEL ON WOOD PLATE.
2. 15# FELT OR EQUIVALENT RECOMMENDED BETWEEN PANEL BASE AND TREATED MUDSILL.
3. NUTS AND WASHERS PER TABLE NOTE 1.

RAISED STEM WALL 2



1. ACCESS HOLE LOCATED AT EDGE OF POST.
2. NUTS AND WASHERS PER TABLE NOTE 1.
3. PLUS OR MINUS 1-1/2" GAP TO BE FILLED WITH 5,000 PSI STRENGTH NON-SHRINK GROUT (MIN).

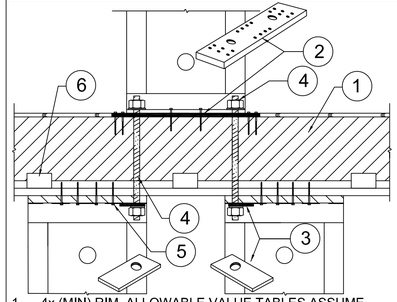
POST ON N&W 1

Model Number	Net Height (in)	Depth (in)	Hold Down Diameter[1] (in)	Screw Quantity			Screw Qty[4] Available at Edges (ea)
				Panel	Top[2] (ea)	Bott[3] (ea)	
HFX-12,15,18,21 & 24x8	92-1/4	3-1/2	1-1/8	12" Width	6	6	4
HFX-12,15,18,21 & 24x9	104-1/4			15" Width	8	8	
HFX-12,15,18,21 & 24x10	116-1/4			18" Width	10	10	5
HFX-15,18,21 & 24x11	128-1/4			21" Width	12	12	
HFX-15,18,21 & 24x12	140-1/4			24" Width	14	14	6
HFX-15,18,21 & 24x13	152-1/4						

NOTE: *HARDY FRAME*® STACKING WASHERS (HFSW) ARE REQUIRED IN THE TOP OF PANELS WHEN CONNECTING TO TENSION ANCHORS FROM ABOVE. *HARDY FRAME*® "STK PANELS" INCLUDE HFSW WASHERS PRE-WELDED IN THE TOP CHANNEL.

1. HOLD DOWN TENSION ANCHORS SPECIFIED AS STANDARD GRADE (STD) MUST COMPLY WITH ASTM F1554 GRADE 36 (OR EQUAL). HOLD DOWN TENSION ANCHORS SPECIFIED AS HIGH STRENGTH (HS) MUST COMPLY WITH ASTM A 193 GRADE B7 (OR EQUAL). TENSION ANCHORS (BOTH GRADES) CONNECT TO THE UPPER AND LOWER PANELS WITH HARDENED ROUND WASHERS AND GRADE 8 NUTS. A *HARDY FRAME*®'HFSW" STACKING WASHER IS REQUIRED IN THE TOP CHANNEL OF THE LOWER PANEL (AVAILABLE PRE-WELDED IN A *HARDY FRAME*®"STK" PANEL). ALTERNATE WASHERS ARE (2 EA) ROUND-FLAT OR (2 EA) SAE WASHERS AT EACH ANCHOR CONNECTION. ALTERNATE NUTS ARE 2H HEAVY HEX.
2. 1/4" DIAMETER MITEK® PRO SERIES™ WS SCREWS. LENGTH IS 3" (MINIMUM) WHEN ATTACHING DIRECTLY TO THE COLLECTOR AND 4-1/2" (MINIMUM) WHEN INSTALLING A 2x FILLER ABOVE THE PANEL.
3. 1/4" DIAMETER MITEK® PRO SERIES™ WS SCREWS. LENGTH IS 4-1/2" (MINIMUM) AT CONNECTIONS TO FLOOR SYSTEMS AND BEAMS BELOW.
4. 1/4" DIAMETER SCREWS ARE REQUIRED AT THE EDGES WHEN INSTALLING A FILLER GREATER THAN 1-1/2 INCH ABOVE OR WHEN SPECIFIED BY THE DESIGN PROFESSIONAL.

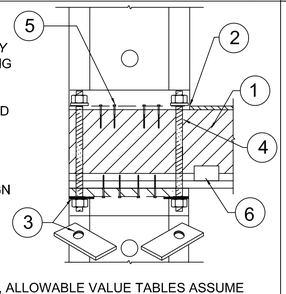
A



1. 4x (MIN) RIM, ALLOWABLE VALUE TABLES ASSUME ENGINEERED WOOD PRODUCT.
2. NOTCH FLOOR SHEATHING THEN INSTALL *HARDY FRAME*® BEARING PLATE (HFXBP) AND PANEL PER INSTALLATION NOTES 3-6, DETAIL B/HFX3.
3. *HARDY FRAME*® STACKING WASHER (HFSW) AT TOP OF PANEL REQUIRED WHEN CONNECTING TO TENSION ANCHOR FROM ABOVE.
4. 1-1/8 IN. DIA HOLD DOWN, HFSW AND N&W PER TABLE NOTE 1 ARE PROVIDED IN *HARDY FRAME*® HFTC KIT.
5. 1/4" x 4-1/2" (MIN) WS SCREWS, QUANTITY PER TABLE.
6. USP MP4F CONNECTORS, QUANTITY BY BUILDING DESIGN PROFESSIONAL.

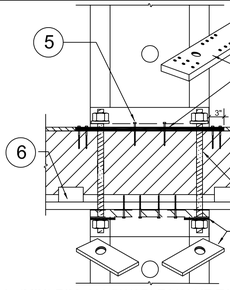
PYRAMID STACK 8

NOTE:
INSTALLATION WITHOUT *HARDY FRAME*® BEARING PLATE (HFXBP) MAY INCREASE DEFLECTION AND RESULT IN A DECREASE OF ALLOWABLE SHEAR VALUE, BUILDING DESIGN PROFESSIONAL MUST ANALYZE EFFECTS.



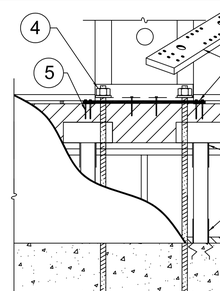
1. 4x (MIN) RIM, ALLOWABLE VALUE TABLES ASSUME ENGINEERED WOOD PRODUCT.
2. NOTCH FLOOR SHEATHING THEN INSTALL *HARDY FRAME*® PANEL DIRECTLY ON RIM.
3. *HARDY FRAME*® STACKING WASHER (HFSW) AT TOP OF PANEL REQUIRED WHEN CONNECTING TO TENSION ANCHOR FROM ABOVE.
4. 1-1/8" DIA. HOLD DOWN, HFSW AND N&W PER TABLE NOTE 1 ARE PROVIDED IN *HARDY FRAME*® HFTC KIT.
5. 1/4" x 4-1/2" (MIN) WS SCREWS, QUANTITY PER TABLE.
6. USP MP4F CONNECTORS, QUANTITY BY BUILDING DESIGN PROFESSIONAL.

STACK @ OS CORNER 7



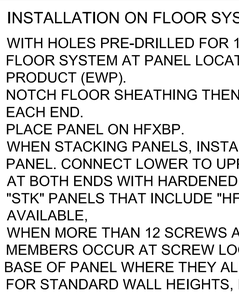
1. 4x (MIN) RIM, ALLOWABLE VALUE TABLES ASSUME ENGINEERED WOOD PRODUCT.
2. NOTCH FLOOR SHEATHING THEN INSTALL *HARDY FRAME*® BEARING PLATE (HFXBP) AND PANEL PER INSTALLATION NOTES 3-6, DETAIL B/HFX3.
3. *HARDY FRAME*® STACKING WASHER (HFSW) AT TOP OF PANEL REQUIRED WHEN CONNECTING TO TENSION ANCHOR FROM ABOVE.
4. 1-1/8" DIA. HOLD DOWN, HFSW AND N&W PER TABLE NOTE 1 ARE PROVIDED IN *HARDY FRAME*® HFTC KIT.
5. 1/4" x 4-1/2" (MIN) WS SCREWS, QUANTITY PER TABLE.
6. USP MP4F CONNECTORS, QUANTITY BY BUILDING DESIGN PROFESSIONAL.

STRAIGHT STACK 6



1. 4x (MIN) RIM, ALLOWABLE VALUE TABLES ASSUME ENGINEERED WOOD PRODUCT.
2. NOTCH FLOOR SHEATHING THEN INSTALL *HARDY FRAME*® BEARING PLATE (HFXBP) AND PANEL PER INSTALLATION NOTES 3-6, DETAIL B/HFX3.
3. USP POST CAP AND POST BASE BY THE BUILDING DESIGN PROFESSIONAL.
4. NUTS AND WASHERS PER TABLE NOTE 1.
5. 1/4" x 4-1/2" (MIN) WS SCREWS, QUANTITY PER TABLE.

CRIPPLE WALL 5

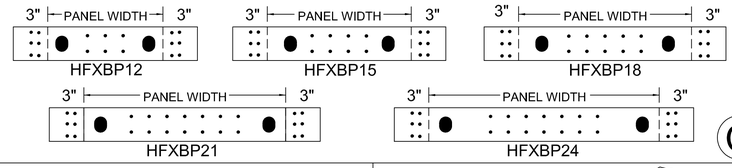


INSTALLATION ON FLOOR SYSTEMS WITH *HARDY FRAME*® BEARING PLATE (HFXBP)

1. WITH HOLES PRE-DRILLED FOR 1-1/8" DIA.TENSION ANCHORS, INSTALL A SOLID 4x (MINIMUM) RIM IN FLOOR SYSTEM AT PANEL LOCATION. ALLOWABLE VALUE TABLES ASSUME THE RIM IS ENGINEERED WOOD PRODUCT (EWP).
2. NOTCH FLOOR SHEATHING THEN INSTALL HFXBP ON RIM WITH 6 EACH 1/4"X4-1/2" (MIN) "WS" SCREWS AT EACH END.
3. PLACE PANEL ON HFXBP.
4. WHEN STACKING PANELS, INSTALL "HFSW" STACKING WASHERS IN THE TOP CHANNEL OF THE LOWER PANEL. CONNECT LOWER TO UPPER PANELS WITH TENSION ANCHORS (GRADE PER PLANS) AND SECURE AT BOTH ENDS WITH HARDENED ROUND WASHERS AND GRADE 8 NUTS TO BE SNUG TIGHT. *HARDY FRAME* "STK" PANELS THAT INCLUDE "HFSW" STACKING WASHERS PRE-WELDED IN THE TOP CHANNEL ARE AVAILABLE,
5. WHEN MORE THAN 12 SCREWS ARE REQUIRED FOR THE BOTTOM CONNECTION OR JOINTS IN FRAMING MEMBERS OCCUR AT SCREW LOCATIONS, INSTALL ADDITIONAL 1/4"x4-1/2" WS SCREWS THROUGH THE BASE OF PANEL WHERE THEY ALIGN WITH HOLES IN THE HFXBP.
6. FOR STANDARD WALL HEIGHTS, INSTALL A 2x FILLER ABOVE PANEL (DTL 5/HFX2). FOR FILLERS GREATER THAN 1-1/2 IN. SEE DETAIL 6/HFX2.

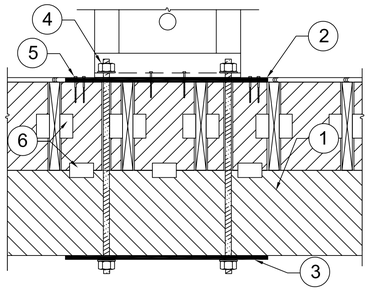
NOTE: INSTALLATIONS MAY VARY WITH JOB SPECIFIC CONDITIONS AND/OR SPECIFICATIONS BY THE BUILDING DESIGN PROFESSIONAL.

B



C

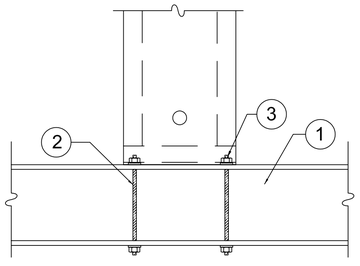
LOAD PATH FROM BEAM TO FOUNDATION AND CHECK THAT PANEL DRIFT IS WITHIN CODE LIMIT BY BUILDING DESIGN PROFESSIONAL.



1. DROP BEAM WITH FLOOR JOIST ABOVE PER PLAN.
2. NOTCH FLOOR SHEATHING THEN INSTALL *HARDY FRAME*® BEARING PLATE (HFXBP) AND PANEL PER INSTALLATION NOTES 3-6, DETAIL B/HFX3.
3. *HARDY FRAME*® BEARING PLATE (HFXBP) OR BEARING PLATE WASHER AT UNDERSIDE OF BEAM SIZED PER BUILDING DESIGN PROFESSIONAL TO LIMIT CRUSHING FROM TENSION ANCHOR FORCES.
4. NUTS AND WASHERS PER TABLE NOTE 1.
5. 1/4" x 4-1/2" (MIN) WS SCREWS, QUANTITY PER TABLE.
6. USP CONNECTORS BY DESIGN PROFESSIONAL

DROP BM - FL SYSTEM 14

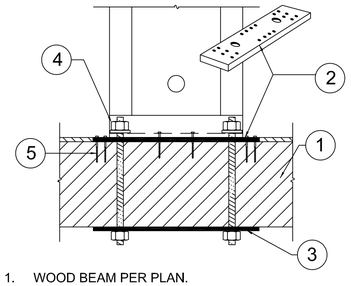
LOAD PATH FROM BEAM TO FOUNDATION AND CHECK THAT PANEL DRIFT IS WITHIN CODE LIMIT BY BUILDING DESIGN PROFESSIONAL.



1. STEEL BEAM PER PLANS
2. HOLD DOWN ALL THREAD RODS THRU-BOLTED TO BOTTOM FLANGE OF STEEL BEAM BY BUILDING DESIGN PROFESSIONAL.
3. NUTS AND WASHERS AT PANEL BASE PER TABLE NOTE 1

STEEL BM THRU-BOLT 13

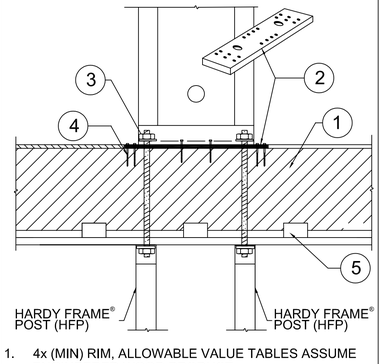
LOAD PATH FROM BEAM TO FOUNDATION AND CHECK THAT PANEL DRIFT IS WITHIN CODE LIMIT BY BUILDING DESIGN PROFESSIONAL.



1. WOOD BEAM PER PLAN.
2. NOTCH FLOOR SHEATHING THEN INSTALL *HARDY FRAME*® BEARING PLATE (HFXBP) AND PANEL PER INSTALLATION NOTES 3-6, DETAIL B/HFX3.
3. *HARDY FRAME*® BEARING PLATE (HFXBP) OR BEARING PLATE WASHER AT UNDERSIDE OF BEAM SIZED PER BUILDING DESIGN PROFESSIONAL TO LIMIT CRUSHING FROM TENSION ANCHOR FORCES.
4. 1-1/8" DIA. HOLD DOWN, HFSW AND N&W PER TABLE NOTE 1 ARE PROVIDED IN *HARDY FRAME*® HFTC KIT.
5. 1/4" x 4-1/2" (MIN) WS SCREWS, QUANTITY PER TABLE.

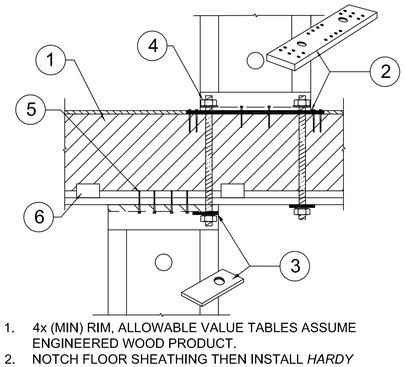
WOOD BM THRU-BOLT 12

LOAD PATH FROM BEAM TO FOUNDATION AND CHECK THAT PANEL DRIFT IS WITHIN CODE LIMIT BY BUILDING DESIGN PROFESSIONAL.



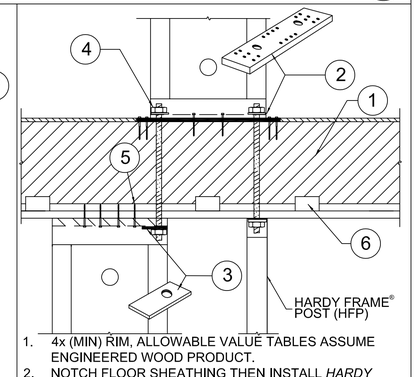
1. 4x (MIN) RIM, ALLOWABLE VALUE TABLES ASSUME ENGINEERED WOOD PRODUCT.
2. NOTCH FLOOR SHEATHING THEN INSTALL *HARDY FRAME*® BEARING PLATE (HFXBP) AND PANEL PER INSTALLATION NOTES 3-6, DETAIL B/HFX3.
3. 1-1/8" DIA. HOLD DOWN, HFSW AND N&W PER TABLE NOTE 1 ARE PROVIDED IN *HARDY FRAME*® HFTC KIT.
4. 1/4" x 4-1/2" (MIN) WS SCREWS, QUANTITY PER TABLE.
5. USP MP4F CONNECTORS, QUANTITY BY BUILDING DESIGN PROFESSIONAL.

HFP POSTS BELOW 11



1. 4x (MIN) RIM, ALLOWABLE VALUE TABLES ASSUME ENGINEERED WOOD PRODUCT.
2. NOTCH FLOOR SHEATHING THEN INSTALL *HARDY FRAME*® BEARING PLATE (HFXBP) AND PANEL PER INSTALLATION NOTES 3-6, DETAIL B/HFX3.
3. *HARDY FRAME*® STACKING WASHER (HFSW) AT TOP OF PANEL REQUIRED WHEN CONNECTING TO TENSION ANCHOR FROM ABOVE.
4. 1-1/8" DIA. HOLD DOWN, HFSW AND N&W PER TABLE NOTE 1 ARE PROVIDED IN *HARDY FRAME*® HFTC KIT.
5. 1/4" x 4-1/2" (MIN) WS SCREWS, QUANTITY PER TABLE.
6. USP MP4F CONNECTORS, QUANTITY BY BUILDING DESIGN PROFESSIONAL.

STAGGERED THRU-BOLT 10



1. 4x (MIN) RIM, ALLOWABLE VALUE TABLES ASSUME ENGINEERED WOOD PRODUCT.
2. NOTCH FLOOR SHEATHING THEN INSTALL *HARDY FRAME*® BEARING PLATE (HFXBP) AND PANEL PER INSTALLATION NOTES 3-6, DETAIL B/HFX3.
3. *HARDY FRAME*® STACKING WASHER (HFSW) AT TOP OF PANEL REQUIRED WHEN CONNECTING TO TENSION ANCHOR FROM ABOVE.
4. 1-1/8" DIA. HOLD DOWN, HFSW AND N&W PER TABLE NOTE 1 ARE PROVIDED IN *HARDY FRAME*® HFTC KIT.
5. 1/4" x 4-1/2" (MIN) WS SCREWS, QUANTITY PER TABLE.
6. USP MP4F CONNECTORS, QUANTITY BY BUILDING DESIGN PROFESSIONAL.

STAGGERED-HFP POST 9

REVISIONS	DATE

FLOOR SYSTEM DETAILS - HFX PANELS

THIS DETAIL SHEET IS NOT PROPRIETARY AND IS NOT REQUIRED FOR PLAN SUBMITTAL WITH MITEK® *HARDY FRAME*® PRODUCTS

HARDY FRAME SHEAR WALL SYSTEMS
16023 SWINGLEY RIDGE RD
CHESTERFIELD, MO 63017
(800) 325-8075
WWW.HARDYFRAME.COM

MiTek®

DATE:
1-1-2023

HFX3

ABBREVIATIONS

ADA	AMERICAN DISABILITIES ACT
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
AP	ACCESS PANEL
AFCI	ARC FAULT CIRCUIT INTERRUPTER
A/C (SYMMETRICAL)	AMPERES INTERRUPTING CAPACITY
AS/AF	AMP SWITCH, AMP FUSE
AMP, A	AMPERE
ARCH	ARCHITECTURAL
AWG	AMERICAN WIRE GAUGE
BLDG	BUILDING
BKR	BREAKER
CLG	CEILING
C	CONDUIT
CB	CIRCUIT BREAKER
CKT	CIRCUIT
Δ	DELTA CONNECTED
DIST	DISTRIBUTION
DEG	DEGREE
DWG	DRAWING
D/W	DISH WASHER
EF	EXHAUST FAN
EG	EQUIPMENT GROUND
ELEC	ELECTRICAL
ELEV	ELEVATOR
EQ	EQUIPMENT
EP	EXPLOSION PROOF
FACP	FIRE ALARM CONTROL PANEL
FDR	FEEDER
FLA	FULL LOAD AMPS
FLUOR	FLUORESCENT
G/GRD	GROUND
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
HP	HORSE POWER
HPS	HIGH PRESSURE SODIUM
HVAC	HEATING, VENTILATION, AND AIR CONDITIONING
INCAND	INCANDESCENT
JB/JBOX	JUNCTION BOX
KVA	KILOVOLT AMPERES
KW	KILOWATTS
KWH	KILOWATTS PER HOUR
KCMIL	THOUSAND CIRCULAR MILS
LCP	LIGHTING CONTROL PANEL
LPS	LOW PRESSURE SODIUM
LTG/LTS	LIGHTING
M	METER
MAX	MAXIMUM
MCB	MAIN CIRCUIT BREAKER
MECH	MECHANICAL
MH	METAL HALIDE
MLO	MAIN LUGS ONLY
MIN	MINIMUM
MW	MICROWAVE
(N)	NEW
N/A	NOT APPLICABLE
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NO	NORMALLY OPEN
P	POLE
PB	PULLBOX
PC	PHOTOCELL
PH OR ϕ	PHASE
PWR	POWER
RECPT, REC	RECEPTACLE
REF	REFRIGERATOR
REQD	REQUIRED
RPM	REVOLUTIONS PER MINUTE
ST	SHUNT TRIP
SP	SUMP PUMP
SPEC	SPECIFICATION
SYS	SYSTEMS
SYM	SYMMETRICAL
TELCOM	TELECOMMUNICATIONS
TV	TELEVISION
TYP	TYPICAL
U/G	UNDERGROUND
UTIL	UTILITY
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VOLTS
VA	VOLT AMPERE
VD	VOLTAGE DROP
V/ϕ/HZ	VOLTS/PHASE/HERTZ
W	WIRE
WP	WEATHERPROOF
XFMR	TRANSFORMER
XFR	TRANSFER
Y	WYE CONNECTED

ELECTRICAL SYMBOLS

NOTE: 'NL' DENOTES 90 MINUTE BATTERY BACKUP

SYMBOL	MEANING
$	SWITCH
$3	3-WAY SWITCH
HD	DIMMER SWITCH
	HIGH EFFICACY FIXTURE (CEILING)
	HIGH EFFICACY FIXTURE (WALL)
	HIGH EFFICACY FIXTURE (RECESS)
	PENDANT LIGHT FIXTURE (CEILING)
NL	1'X4' LED STRIP LIGHT
	2'X4' LED STRIP LIGHT
NL	
	EXHAUST FAN
CO	UL 2034/2075 CARBON MONOXIDE ALARM
S	UL 2034/2075 SMOKE DETECTOR

SYMBOL	MEANING
	ELECTRICAL PANEL
	DUPLEX RECEPTACLE
	240V RECEPTACLE
	FLOOR RECEPTACLE RECEPTACLE
	JUNCTION BOX
NL	RECESSED DOWNLIGHT
HPC-2,4,6	HOMERUN: HPC=PANEL DESTINATION, 2,4,6=CIRCUITS
	CIRCUIT BREAKER
	FUSE
	EXHAUST FAN/LED LIGHT COMBO (RECESSED)
	DOOR BELL
	MANUAL MOTOR RATED SWITCH
	VACANCY SENSOR
	3 POLE DISCONNECT SWITCH
	GROUND

ELECTRICAL GENERAL NOTES

1. The entire installation shall comply with 2020 NEC, 2022 California Energy Code, 2022 California Electrical Code, and all applicable local codes and regulation.

2. All electrical prefabricated equipment shall be designed and constructed in such a manner that all portions, elements, sub-assemblies and/or parts of said equipment, and the equipment as a whole including its attachments, will resist a load which exceeds the force level used to restraint and anchor the equipment to the supporting structure.

3. All electrical materials and equipment shall be new and shall be listed by Underwriter's Laboratories (UL) and bear their label or listed or certified by a nationally recognized testing authority where UL does not have a listing. Custom made equipment shall have complete test data submitted by the manufacturer attesting to its safety. In addition, the materials, equipment, and installation shall comply with the requirements of the following:

American Society of Testing Materials (ASTM)
Insulated Power Cable Engineers Association (IPCEA)
American Standard Association (ASA)
National Fire Protection Association (NFPA)
American National Standard Institute (ANSI)
NEC National Electrical Code (NEC)
Institute of Electrical and Electronic Enginners(IEEE)
All local codes having jurisdiction

Where the codes have different levels of requirements, the most stringent rule shall apply.

4. The contractor shall visit the site including all areas indicated on the drawings. He shall thoroughly familiarize himself with the existing conditions and by submitting a bid, accepts the conditions under which he shall be required to perform his work.

5. It shall be contractor's responsibility to obtain a complete set of contract documents, addenda, drawings and specifications. He shall check the drawings of the other trades and shall carefully read the entire specifications and determine his responsibilities. Failure to do so shall not release the contractor from doing the work in complete accordance with the drawings and specifications.

6. The contractor shall coordinate his work with other trades at the site. Any costs to install work to accomplish said coordination which differs from the work as shown on the drawings shall be incurred by the contractor. Any discrepancies, ambiguities or conflicts shall be brought to the attention of the engineer during bid time for clarification. Any such conflicts not clarified prior to bid shall be subject to the interpretation of the engineer at no additional cost to the owner.

7. The contractor shall provide and keep up-to-date a complete record set of drawings. These prints shall be corrected accordingly and show every change from the original drawings. This set of drawing shall be kept on the job site and shall be used only as a record set. This shall not be construed as authorization for the contractor to make changes in the layout without definite instruction in each case. Upon completion of the work, a set of reproducible contract drawings shall be obtained from the engineer, and all changes as noted on the record set of drawings shall be incorporated on reproducible bond with black ink in a neat, legible, understandable and professional manner per Client's request.

8. In some instance, it may be necessary to defer work in certain areas and locations until such time as existing facilities can be temporarily or permanently rearranged by the owner. Therefore, whenever it becomes necessary for the contractor to perform work under this contract in existing areas in which the owner's work is being performed, the contractor shall advise the owner relative to this requirement and shall follow closely the directive issued by the engineer insofar as time and procedure are concerned.

9. All interruption of electrical power shall be kept to a minimum. However, when an interruption is necessary, the shutdown must be coordinated with the owner 7 days prior to the outage. Any overtime pay and work required to be accomplished on weekends shall be included in the contractor's bid. Work in existing switchboards or panelboards shall be coordinated with the owner prior to removing access panels or doors.

10. It shall be responsibility of the contractor to review and to coordinate with the mechanical, fire protection and plumbing drawings for duct lines and equipment.

11. All equipment mounted on roof for connection of HVAC equipment shall be mounted on unistrut stands utilizing approved pitch pockets, flashing, etc..

12. After all requirements of the specifications and/or the drawings have been fully completed, representatives of the owner will inspect the work. The contractor shall provide competent personnel to demonstrate the operation of any item or system to the full satisfactory of each representative. Final acceptance of the work will be made by the owner after receipt of approval and recommendation of acceptance from each representative.

13. The contractor shall furnish a one year written guarantee of materials and workmanship from the date of substantial completion.

14. Coordinate with other trades as to the exact location and configuration of their respective equipment, supply power and make connection to motors and equipment requiring electrical connections as indicated on the single line diagram, electrical drawings and drawings of other trade. Review the drawings of other trades for control diagram, size and locations of equipment. Disconnect switches, starters, wiring, controls and conduit for mechanical and plumbing operations shall be provided. The contractor shall be responsible for obtaining manufacturer's shop drawings prior to roughing in all conduit to this equipment.

15. Exact method and location of conduit penetration and openings in concrete or masonry walls, gradebeams, floors or structural steel members shall be as directed by the structural engineer. Perform coring, sawcutting, patching, and refinished of walls and surfaces wherever it is necessary to penetrate openings shall be sealed in an approved method to meet the fire rating of the particular wall, floor or ceiling. Exact method and locations of conduit penetrations and openings in concrete walls or floors shall be for UL approved systems.

16. Connections to vibrating equipment, mechanical and plumbing equipment and seismic separations:

Liquid-tight conduit in all locations
Maximum length of flexible conduit runs shall be 6'-0" u.O.N.

17. Equipment outlets, lighting fixtures, conduit, wire and connection methods in HVAC air-plenums shall be approved for use in plenums and shall conform to 2022 CEC.

18. Conduit shall not be installed in any floor slab. Conduit shall be installed concealed in the ceiling space, concealed in walls, or below slab on grade. Unless otherwise noted.

19. Whenever a discrepancy in quantity or size of conduit, wire, equipment devices, circuit breakers, ground fault protection system, etc., (all materials), arises on the drawings or specifications, the contractor shall be responsible for providing and installing all materials and services required by the strictest conditions noted on the drawings or in the specifications to ensure complete and operable systems as required by the owner and engineer.

20. It shall be contractor's responsibility to verify type of ceiling systems and to furnish approved lighting fixtures of the type required for mounting in subject ceiling. Where fixtures are recessed in plaster or drywall ceilings, they shall be complete with necessary mounting hardware and plaster frames.

21. All recessed lighting fixtures, speakers, receptacles, switches, etc., mounted in the fire rated ceilings or walls shall be enclosed with an approved enclosure carrying the same fire rating as the ceiling or wall by this contractor.

22. Utility penetrations of any kind in fire and smoke partitions and ceiling assemblies, shall be firestopped and sealed with an approved material securely installed.

Utility and electrical outlets or boxes shall be securely fastened to the stud of framing of the wall, partition or ceiling assembly. The opening in the gypsum board facing shall be cut so that the clearance between the box and the gypsum board does not exceed 1/8 inch. In smoke walls or partitions, the 1/8 inch clearance shall be filled with an approved fire-rated sealant.

23. Architectural reflected ceiling plans indicating the location of lighting fixtures shall take precedence over the locations of same shown on the electrical drawings. Install the lighting fixtures in any given area to agree with the reflected ceiling plans. Discrepancies shall be brought to the attention of the architect.

24. The exact locations and mounting heights of lighting fixtures located in mechanical equipment spaces and storage shall be coordinated in the field before installation to avoid interferences with ducts, piping and other mechanical equipment and all mounting hardware shall be included in base bid. When locations and mounting heights are determined, obtain approval from the engineer prior to installation.

25. Maximum number of conductors in outlet or junction boxes shall conform to 2022 CEC.

26. The exact locations of all electrical devices and equipment shall be coordinated with the architectural elevations, details or sections prior to installation. All electrical devices and equipment shall be recessed in walls, unless otherwise noted. Outlets not indicated on architectural elevations shall be coordinated with the architect prior to rough-in, unless otherwise noted.

27. Review architectural elevations of casework. Outlets mounted above or below, or adjacent to casework shall be coordinated with the architectural drawings, prior to final rough-in. Electrical drawings shall govern number and type of outlets. However, locations shall be as indicated on architectural elevations. Provide conduit, wires and outlets for work required in casework installations. Reference architectural details for method of routing conduit within casework construction. Provide box extensions through all casework. Finish flush with face of splash, cabinets, etc. Mounting heights of all devices and equipment are from finished floor to center of devices and equipment, unless otherwise noted. Boxes installed in locations not approved by the architect shall be relocated as directed by the architect at no additional cost to the owner.

28. Drawings are diagrammatic only and do not show special conduit routing or lengths required for a complete installation. Routing of raceways shall be at the option of the contractor but shall be in strict compliance with structural requirements and specifications, unless otherwise noted and shall be coordinated with other trades. Do not scale the electrical drawings for locations of any electrical architectural, structural, civil, or mechanical items or features. Refer to architectural and structural dimensional drawings.

29. The equipment grounding conductor runs shall be installed and run continuous from panel to last outlets. This wire shall be pigtailed in each outlet for connection to box and device so that if device is removed, ground will not be interrupted. All equipment grounding conductors shall be insulated green or bare conductors. Alternate methods of identification shall be used.

30. For small ac motors not having built-in thermal overload protection, provide manual motor starters with overload heater elements sized to the nameplate current rating of the motor. Small ac motors with built-in thermal overload protection, provide a horse power rated toggle type disconnect switch.

31. Boxes shall be sized for the number and sizes of conductors and conduit entering the box and equipped with plaster extension rings where required.

32. Lamps: all fixtures shall be high efficacy per CEnC 2022 Table 150.0-A.

33. Where lighting fixtures require the use of acrylic plastic lenses, they shall be 100 percent virgin acrylic thermoplastic, not less than 0.125" thick with an unpenetrated depth of not less than 0.045" equal to ksh-k12, unless otherwise noted.

34. Provide sound insulation at all conduit penetrations at sound barrier rated walls. Typical unless otherwise noted.

35. Where outlets occur at tackable wall panels or other wall finishes, provide extension rings as required so that no space will exist between device plate and backbox, per NEC 370.20, typical. See architectural elevations for wall finishes and locations.

36. All conductors for branch circuits shall be THHN/THWN copper AWG or KCML per NEC table 310.16. Grounding shall be "Green wire" or bare copper wire sizes per NEC table 250.122.

37. Grounding System:
The grounding system shall be derived per NEC 250.50:
A) 10' of meter underground water pipe
B) Meter frame of building or structure where effectively grounded
C) An electrode encased by at least 2" of concrete located within or near the bottom of a concrete foundation that is in direct contact with the earth. 20' zinc galvanized or other electrically conductive steel reinforcing bar or rod of not less than 1/2" in diameter or bare copper conductor not smaller than #4AWG.

38. Listed or labeled equipment shall be installed and used in accordance with any instructions included in the listing or labeling. Section 110.3(b)

39. Contractor must verify locations of all equipment and points of connection and coordinate with construction manager, architect, civil engineer, landscape architect, and utility consultants prior to start of construction. No compensation will be made for relocation of equipment and associated cost.

40. This document is not for bid or construction until the plan has been reviewed and approved by all authorities having jurisdiction and the permit is obtained. No compensation will be made for additional work due to the violation of this requirement.

ELECTRICAL SHEET INDEX

NO.	SHEET	DESCRIPTION
1	E-1.0	ELECTRICAL GENERAL NOTES, SYMBOLS, & SHEET INDEX
2	E-1.1	ELECTRICAL SINGLE LINE DIAGRAM & LOAD CALCULATIONS
3	E-1.2	ELECTRICAL PANEL SCHEDULE
4	E-2.0	ELECTRICAL HOUSE LIGHTING PLAN
5	E-2.1	ELECTRICAL HOUSE POWER PLAN
6	E-2.2	ELECTRICAL ADU & BARN LIGHTING PLAN
7	E-2.3	ELECTRICAL ADU & BARN POWER PLAN
8	E-3.0	ELECTRICAL SITE PLAN

REVISIONS

NO.	DATE	DESCRIPTION

SEAL:

REGISTERED PROFESSIONAL ENGINEER
GANGYI ZHOU
No. 018959
Exp.12-31-2025
ELECTRICAL
STATE OF CALIFORNIA

GMEP ENGINEERS
26439 Rancho Pkwy. S., Ste 120
Lake Forest, CA 92630
Tel: 949-267-9095

PROJECT NAME:
LOT 207 SANTA LUCIA PRESERVE
23 SAN CLEMENTE TRL.
CARMEL, CA 93923

SHEET TITLE
ELECTRICAL GENERAL NOTES, SYMBOLS, & SHEET INDEX

DRAWN: GMEP
CHECKED: GMEP
DATE: 01/17/25
SCALE: AS NOTED
JOB NO.: 24-731
SHEET: E-1.0

SERVICE LOAD CALCULATION-COMBINED

Dwelling Information:	
Floor Area:	4804SFT
Heater Type:	Electricity
Dryer:	Electricity
Oven:	Electricity
Cooktop:	NA
General Load:	
General Lighting (Floor Area X 3VA/SFT):	14412VA
Small Appliance (2-20ACK By CEC 210.11):	6000VA
Laundry(1-20ACKT By CEC210.11):	1500VA
Bathroom(1-20ACKT By CEC210.11):	0VA
Dishwasher:	2400VA
Microwave Oven:	3000VA
Garbage Disposal:	2400VA
Bathroom Fans:	1200VA
Garage Door Opener:	2400VA
Dryer:	5000VA
Oven:	16000VA
Refrigerator:	2000VA
Cooktop:	0VA
Water Heater:	10000VA
Total General Load:	66312VA
First 10 KVA at 100%:	10000VA
Remainder at 40% (56312VA X 0.4):	22525VA
Subtotal General Load:	32525VA
Air Conditioning KVA Calculation:	
Outdoor Condensing Unit:	13892VA
Indoor Fan Coil Unit:	3912VA
Total AC Load:	15724VA
Car Charger:	7680VA

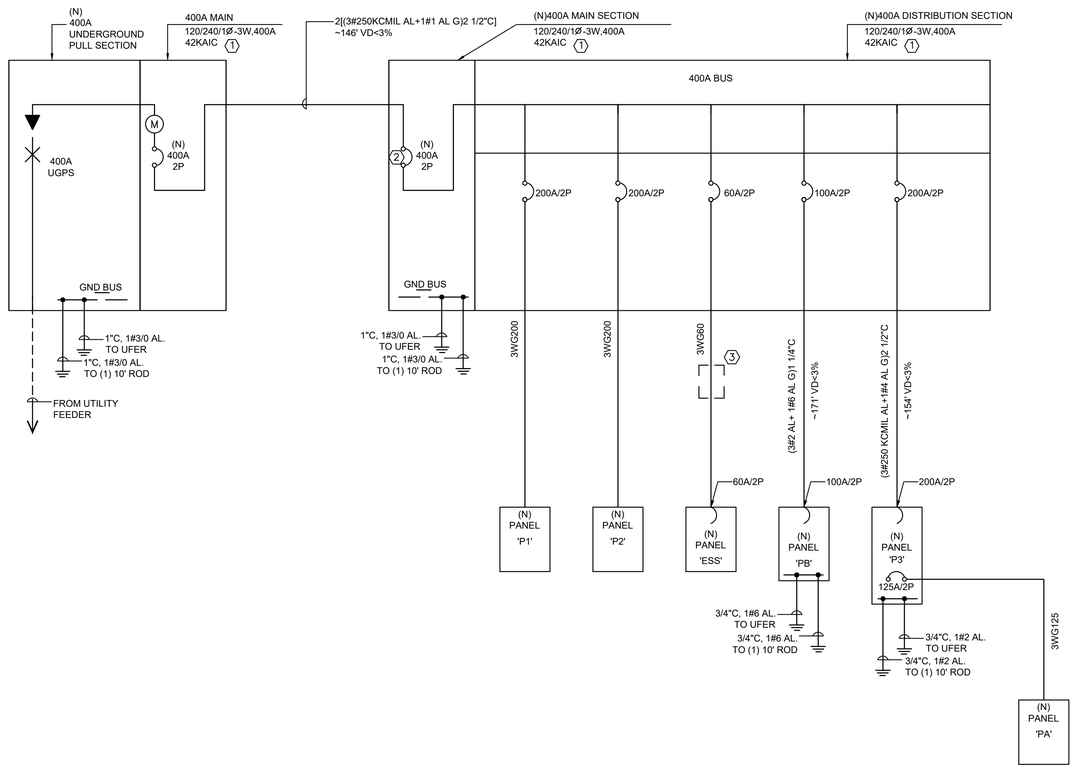
Calculated Load For Service:
(32525VA+17804VA+7680VA)/240V=242A(Service Rating)

Provided Service Rating: 400A

SERVICE LOAD CALCULATION-MAIN HOUSE

Dwelling Information:	
Floor Area:	4067SFT
Heater Type:	Electricity
Dryer:	Electricity
Oven:	Electricity
Cooktop:	NA
General Load:	
General Lighting (Floor Area X 3VA/SFT):	12201VA
Small Appliance (2-20ACK By CEC 210.11):	3000VA
Laundry(1-20ACKT By CEC210.11):	1500VA
Bathroom(1-20ACKT By CEC210.11):	0VA
Dishwasher:	1200VA
Microwave Oven:	1500VA
Garbage Disposal:	1200VA
Bathroom Fans:	1000VA
Garage Door Opener:	2400VA
Dryer:	5000VA
Oven:	8000VA
Refrigerator:	1000VA
Cooktop:	0VA
Water Heater:	5000VA
Total General Load:	43001VA
First 10 KVA at 100%:	10000VA
Remainder at 40% (33001VA X 0.4):	13201VA
Subtotal General Load:	23201VA
Air Conditioning KVA Calculation:	
Outdoor Condensing Unit:	7968VA
Indoor Fan Coil Unit:	1824VA
Total AC Load:	9792VA
Car Charger:	7680VA

Calculated Load For Service:
(23201VA+9792VA+7680VA)/240V=170A(Service Rating)



SINGLE LINE DIAGRAM -

SCALE: NONE

SERVICE LOAD CALCULATION-ADU

Dwelling Information:	
Floor Area:	737SFT
Heater Type:	Electricity
Dryer:	Electricity
Oven:	Electricity
Cooktop:	NA
General Load:	
General Lighting (Floor Area X 3VA/SFT):	2211VA
Small Appliance (2-20ACK By CEC 210.11):	3000VA
Laundry(1-20ACKT By CEC210.11):	0VA
Bathroom(1-20ACKT By CEC210.11):	0VA
Dishwasher:	1200VA
Microwave Oven:	1500VA
Garbage Disposal:	1200VA
Bathroom Fans:	200VA
Garage Door Opener:	0VA
Dryer:	0VA
Oven:	8000VA
Refrigerator:	1000VA
Cooktop:	0VA
Water Heater:	5000VA
Total General Load:	23311VA
First 10 KVA at 100%:	10000VA
Remainder at 40% (13311VA X 0.4):	5325VA
Subtotal General Load:	15325VA
Air Conditioning KVA Calculation:	
Outdoor Condensing Unit:	3216VA
Indoor Fan Coil Unit:	624VA
Total AC Load:	3840VA

Calculated Load For Service:
(15325VA+3840VA+0VA)/240V=80A(Service Rating)

Provided Service Rating: 100A

ELECTRICAL FEEDER SCHEDULE-AL

OVERCURRENT DEVICE SETTINGS	THREE WIRE + GROUND: FEEDER IDENTIFIER	THREE WIRE + GROUND: ALUMINUM INSULATION PER SPECIFICATIONS
20	3WG20	(3#10 + 1#10G) 3/4"C.
30	3WG30	(3#8 + 1#8G) 3/4"C.
40	3WG40	(3#6 + 1#8G) 3/4"C.
50	3WG50	(3#4 + 1#8G) 1"C.
60	3WG65	(3#3 + 1#8G) 1-1/4"C.
75	3WG75	(3#2 + 1#6G) 1-1/4"C.
90	3WG90	(3#2 + 1#6G) 1-1/4"C.
100	3WG100	(3#1/0 + 1#6G) 1-1/2"C.
120	3WG120	(3#1/0 + 1#4G) 1-1/2"C.
125	3WG125	(3#2/0 + 1#4G) 2"C.
150	3WG150	(3#3/0 + 1#4G) 2"C.
175	3WG175	(3#4/0 + 1#4G) 2"C.
200	3WG200	(3#250KCMIL + 1#2G) 2-1/2"C.
250	3WG250	(3#350KCMIL + 1#2G) 3"C.
300	3WG300	(3#500KCMIL + 1#1G) 3"C.
350	3WG350	2[(3#4/0 + 1#1G) 2"C.]
400	3WG400	2[(3#250KCMIL + 1#1/0G) 2-1/2"C.]

IMPORTANT SERVICE UTILITY NOTE

ELECTRICAL CONTRACTOR SHALL OBTAIN APPROVED CONSTRUCTION DRAWINGS FROM THE RESPECTIVE UTILITY COMPANY AND INCLUDE ALL MATERIALS AND WORK AS INDICATED THEREIN IN THE BID PRICE.

IF UTILITY DOCUMENTS ARE NOT READILY AVAILABLE DURING THE BIDDING PROCESS, THEN SO INDICATE TO BE AS NON-PART OF THE BID. OTHERWISE INCLUDE AN ESTIMATED AMOUNT WITH THE ALLOWANCE TO COVER CHANGES UPON AVAILABILITY OF ACTUAL UTILITY DOCUMENTS.

ENERGY STORAGE SYSTEM (ESS) READY NOTES

ALL SINGLE-FAMILY RESIDENCES THAT INCLUDE ONE OR TWO DWELLING UNITS SHALL MEET THE FOLLOWING. ALL ELECTRICAL COMPONENTS SHALL BE INSTALLED IN ACCORDANCE WITH THE CALIFORNIA ELECTRICAL CODE:

I. AT LEAST ONE OF THE FOLLOWING SHALL BE PROVIDED:

A. ESS READY INTERCONNECTION EQUIPMENT WITH A MINIMUM BACKED-UP CAPACITY OF 60 AMPS AND A MINIMUM OF FOUR ESS-SUPPLIED BRANCH CIRCUITS, OR

B. A DEDICATED RACEWAY FROM THE MAIN SERVICE TO A PANELBOARD (SUBPANEL) THAT SUPPLIES THE BRANCH CIRCUITS IN SECTION 150.0(S)(2). ALL BRANCH CIRCUITS ARE PERMITTED TO BE SUPPLIED BY THE MAIN SERVICE PANEL PRIOR TO THE INSTALLATION OF AN ESS. THE TRADE SIZE OF THE RACEWAY SHALL BE NOT LESS THAN 1 INCH. THE PANELBOARD THAT SUPPLIES THE BRANCH CIRCUITS (SUBPANEL) MUST BE LABELED "SUBPANEL SHALL INCLUDE ALL BACKEDUP LOAD CIRCUITS."

2. A MINIMUM OF FOUR BRANCH CIRCUITS SHALL BE IDENTIFIED AND HAVE THEIR SOURCE OF SUPPLY COLLOCATED AT A SINGLE PANELBOARD SUITABLE TO BE SUPPLIED BY THE ESS. AT LEAST ONE CIRCUIT SHALL SUPPLY THE REFRIGERATOR, ONE LIGHTING CIRCUIT SHALL BE LOCATED NEAR THE PRIMARY EGRESS AND AT LEAST ONE CIRCUIT SHALL SUPPLY A SLEEPING ROOM RECEPTACLE OUTLET. (CEC 150.0(S)(2))

3. THE MAIN PANELBOARD SHALL HAVE A MINIMUM BUSBAR RATING OF 225 AMPS.

4. SUFFICIENT SPACE SHALL BE RESERVED TO ALLOW FUTURE INSTALLATION OF A SYSTEM ISOLATION EQUIPMENT/TRANSFER SWITCH WITHIN 3 FEET OF THE MAIN PANELBOARD. RACEWAYS SHALL BE INSTALLED BETWEEN THE PANELBOARD AND THE SYSTEM ISOLATION EQUIPMENT/TRANSFER SWITCH LOCATION TO ALLOW THE CONNECTION OF BACKUP POWER SOURCE.

SINGLE-LINE DIAGRAM KEY NOTES

1. VERIFY WITH SERVICE PLANNER FOR AIC RATING AND ELECTRICAL INFORMATION BEFORE ISSUING ANY BID. NOTIFY ENGINEER IMMEDIATELY IF ANY MAJOR DISCREPANCIES OCCUR.
2. PROVIDE SURGE PROTECTIVE DEVICE.
3. THE FUTURE ESS SYSTEM IS COMPOSED OF AN 3KW INVERTER AND BATTERY, WHICH MUST SUPPORT 90 MINUTES AT MINIMUM.

SINGLE-LINE DIAGRAM GENERAL NOTES

a) NOT USED.

b) ALL NEW CIRCUIT BREAKERS, FUSIBLE SWITCHES IN MAINSWITCHBOARD OR PANEL BOARDS SHALL BE SERIES RATED TO MATCH EXISTING AIC RATING OR APPROVED EQUAL OR 65KAIC, UNLESS NOTED OTHERWISE.

c) MOTOR CIRCUIT PROTECTORS SHALL NOT BE A PART OF A SERIES COMBINATION INTERRUPTING RATING.

d) SERIES COMBINATION AIC RATING SHALL NOT BE USED WHEN THE SECONDARY EQUIPMENT IN THE SERIES IS SUBJECTED TO A TOTAL CONNECTED FULL LOAD MOTOR CURRENT OF MORE THAN 1% OF ITS AIC RATING.

e) EQUIPMENT ENCLOSURES SHALL BE CLEARLY MARKED "CAUTION-SERIES RATED SYSTEM - __KAMPS AVAILABLE, IDENTIFIED REPLACEMENT COMPONENTS REQUIRED", IN COMPLIANCE WITH 2022 CEC (2020 NEC) SECTION 110-22. END USE EQUIPMENT SHALL ALSO BE MARKED WITH THE HIGHER SERIES COMBINATION INTERRUPTING RATING AS PER 2022 CEC SECTION 240-83(C). NO EXCEPTION.

f) FUSES SHALL BE PROVIDED WITH REJECTION TYPE FUSE HOLDERS.

g) ELECTRICAL EQUIPMENT SHALL BE LISTED BY THE CITY, WHERE THE PROJECT IS LOCATED, RECOGNIZED ELECTRICAL TESTING LABORATORY OR APPROVED BY THE DEPARTMENT.

h) NO PIPING, DUCTS OR EQUIPMENT FOREIGN TO ELECTRICAL EQUIPMENT SHALL BE PERMITTED TO BE LOCATED WITHIN THE DEDICATED SPACE ABOVE THE ELECTRICAL EQUIPMENT.

REVISIONS

NO.	DATE	DESCRIPTION

SEAL:

REGISTERED PROFESSIONAL ENGINEER
GANGYI ZHOU
No. 018959
Exp.12-31-2025
ELECTRICAL
STATE OF CALIFORNIA

GMEP ENGINEERS
26439 Rancho Pkwy. S., Ste 120
Lake Forest, CA 92630
Tel: 949-267-9095

PROJECT NAME:
LOT 207 SANTA LUCIA PRESERVE
23 SAN CLEMENTE TRL.
CARMEL, CA 93923

SHEET TITLE
ELECTRICAL SINGLE LINE DIAGRAM & LOAD CALCULATIONS

DRAWN: GMEP
CHECKED: GMEP
DATE: 01/17/25
SCALE: AS NOTED
JOB NO.: 24-731
SHEET: E-1.1

PANEL 'PA'

LOCATION: ADU | MAIN (AMP): M.L.O. | BUS RATING: 125 AMPS | 120/240V 1 Ø 3 W | MOUNTING: REC

DESCRIPTION	VOLTAMPS ØA	VOLTAMPS ØB	LTG	REC	MIS	CKT NO	BKR	BUS ØA	BUS ØB	BKR	CKT NO	MIS	REC	LTG	VOLTAMPS ØA	VOLTAMPS ØB	DESCRIPTION
GENERAL LTG 1	1000					1	20-1			50	2				4000		OVEN 1
GENERAL LTG 2		1000				3	20-1				4					4000	----
GENERAL LTG 3	1000					5	20-1			30	6				2500		WATER HEATER 2
BATHROOM REC 1		0				7	20-1			2	8					2500	----
EXT LTG 1	100					9	15-1			15	10				312		FC-18
EXT REC 1		100				11	15-1			2	12					312	----
LIVING REC 1	535					13	20-1			30	14				1608		HP-18
LIVING REC 2		535				15	20-1			2	16					1608	----
IGNITERS	0					17	20-1				18						SPACE
SMALL APPS 1		1500				19	20-1				20						SPACE
SMALL APPS 2	1500					21	20-1			20-1	22				1200		D.W. 1
CO & SMOKE 1		100				23	15-1			20-1	24					1200	G.D. 1
SPACE						25				20-1	26				1500		MICROWAVE 1
SPACE						27				20-1	28					1000	REFRIGERATOR 1
SPACE						29					30						SPACE
SPACE						31					32						SPACE
SUB-TOTAL	ØA= 15255 VA									ØB= 13855 VA							

TOTAL CONNECTED VA	(2) = 20125
LCL @ 125 %	= 0
TOTAL OTHER LOAD	= 0
PANEL LOAD	(2) = 20.2KVA
FEEDER AMPS	(2) = 84A

NOTES:
(1) REFER TO MECHANICAL DRAWINGS FOR DETAILED EQUIPMENT INFORMATION BEFORE BID AND ROUGH IN.
(2) REFER TO SERVICE LOAD CALCULATION ADU ON THIS SHEET
(3) REFER TO SINGLE LINE FOR AIC RATING.
(4) 240V READY

PANEL 'PB'

LOCATION: EXTERIOR (NEMA-3R) | MAIN (AMP): 100A | BUS RATING: 100 AMPS | 120/240V 1 Ø 3 W | MOUNTING: SURFACE

DESCRIPTION	VOLTAMPS ØA	VOLTAMPS ØB	LTG	REC	MIS	CKT NO	BKR	BUS ØA	BUS ØB	BKR	CKT NO	MIS	REC	LTG	VOLTAMPS ØA	VOLTAMPS ØB	DESCRIPTION
GENERAL LTG 4	1000					1	20-1			15-1	2				100		EXT LTG
GENERAL LTG 5		1000				3	20-1			15-1	4					100	EXT REC
SPACE						5					6						SPACE
SPACE						7					8						SPACE
SPACE						9					10						SPACE
SPACE						11					12						SPACE
SUB-TOTAL	ØA= 1100 VA									ØB= 1100 VA							

TOTAL CONNECTED VA	= 2200
LCL @ 125 %	= 0
TOTAL OTHER LOAD	= 0
PANEL LOAD	= 2.2KVA
FEEDER AMPS	= 10A

NOTES:
(1) REFER TO SINGLE LINE FOR AIC RATING.

PANEL 'P1'

LOCATION: LAUNDRY | MAIN (AMP): M.L.O. | BUS RATING: 200 AMPS | 120/240V 1 Ø 3 W | MOUNTING: REC

DESCRIPTION	VOLTAMPS ØA	VOLTAMPS ØB	LTG	REC	MIS	CKT NO	BKR	BUS ØA	BUS ØB	BKR	CKT NO	MIS	REC	LTG	VOLTAMPS ØA	VOLTAMPS ØB	DESCRIPTION
GENERAL LTG 8	1000					1	20-1			50	2				4000		OVEN 2
GENERAL LTG 9		1000				3	20-1				4					4000	----
GENERAL LTG 10	1000					5	20-1				6						SPACE
GENERAL LTG 11		1000				7	20-1				8						SPACE
GENERAL LTG 12	1000					9	20-1				10						SPACE
GENERAL LTG 13		1000				11	20-1				12						SPACE
SPACE						13					14						SPACE
SPACE						15					16						SPACE
BATHROOM REC 2	0					17	20-1			50	18				3984		HP-60
EXT LTG 3		100				19	15-1			2	20					3984	----
EXT LTG 4	100					21	15-1			15	22				912		FC-60
EXT REC 3		100				23	15-1			2	24					912	----
EXT REC 4	100					25	15-1				26						SPACE
LIVING REC 3		535				27	20-1				28						SPACE
LIVING REC 4	535					29	20-1				30						SPACE
IGNITERS 2		0				31	20-1				32						SPACE

TOTAL CONNECTED VA	= 25262
LCL @ 125 %	= 0
TOTAL OTHER LOAD	= 0
PANEL LOAD	= 25.3KVA
FEEDER AMPS	= 106A

NOTES:
(1) REFER TO MECHANICAL DRAWINGS FOR DETAILED EQUIPMENT INFORMATION BEFORE BID AND ROUGH IN.
(2) REFER TO SINGLE LINE FOR AIC RATING.
(3) 240V READY

PANEL 'P2'

LOCATION: LAUNDRY | MAIN (AMP): M.L.O. | BUS RATING: 200 AMPS | 120/240V 1 Ø 3 W | MOUNTING: REC

DESCRIPTION	VOLTAMPS ØA	VOLTAMPS ØB	LTG	REC	MIS	CKT NO	BKR	BUS ØA	BUS ØB	BKR	CKT NO	MIS	REC	LTG	VOLTAMPS ØA	VOLTAMPS ØB	DESCRIPTION
DRYER 1	2500					1	30			20-1	2				1200		D.W. 2
----		2500				3	2			20-1	4					1200	G.D. 2
LAUNDRY 1	1500					5	20-1			20-1	6				1500		MICROWAVE 2
SPACE						7				15-1	8					100	CO & SMOKE 2
SMALL APPS 3	1500					9	20-1				10						SPACE
SMALL APPS 4		1500				11	20-1				12						SPACE
SPACE						13					14						SPACE
SPACE						15					16						SPACE
SPACE						17					18						SPACE
SPACE						19					20						SPACE
SPACE						21					22						SPACE
SPACE						23					24						SPACE
SUB-TOTAL	ØA=8200 VA									ØB=5300 VA							

TOTAL CONNECTED VA	= 13500
LCL @ 125 %	= 0
TOTAL OTHER LOAD	= 0
PANEL LOAD	= 13.5KVA
FEEDER AMPS	= 69A

NOTES:
(1) REFER TO SINGLE LINE FOR AIC RATING.
(2) 240V READY

PANEL 'P3'

LOCATION: EXTERIOR (NEMA-3R) | MAIN (AMP): 200A | BUS RATING: 200 AMPS | 120/240V 1 Ø 3 W | MOUNTING: SURFACE

DESCRIPTION	VOLTAMPS ØA	VOLTAMPS ØB	LTG	REC	MIS	CKT NO	BKR	BUS ØA	BUS ØB	BKR	CKT NO	MIS	REC	LTG	VOLTAMPS ØA	VOLTAMPS ØB	DESCRIPTION
CAR CHARGER 1	3840					1	40			30	2				2500		WATER HEATER 2
----		3840				3	2			2	4					2500	----
GARAGE REC & LTG	1000					5	20-1			125	6				15340		SUBPANEL 'PA'
GARAGE DOOR 1		1200				7	20-1			2	8					13292	----
GARAGE DOOR 2	1200					9	20-1				10						SPACE
IGNITER		0				11	20-1				12						SPACE
SPACE						13					14						SPACE
SPACE						15					16						SPACE
SPACE						17					18						SPACE
SPACE						19					20						SPACE
SPACE						21					22						SPACE
SPACE						23					24						SPACE
SUB-TOTAL	ØA=23880 VA									ØB=20832 VA							

TOTAL CONNECTED VA	= 44712
LCL @ 125 %	= 0
TOTAL OTHER LOAD	= 44.8
PANEL LOAD	= 0KVA
FEEDER AMPS	= 199A

NOTES:
(1) REFER TO SINGLE LINE FOR AIC RATING.
(2) 240V READY

PANEL 'ESS'

LOCATION: LAUNDRY | MAIN (AMP): 60A | BUS RATING: 100 AMPS | 120/240V 1 Ø 3 W | MOUNTING: REC

DESCRIPTION	VOLTAMPS ØA	VOLTAMPS ØB	LTG	REC	MIS	CKT NO	BKR	BUS ØA	BUS ØB	BKR	CKT NO	MIS	REC	LTG	VOLTAMPS ØA	VOLTAMPS ØB	DESCRIPTION
GENERAL LTG 6	1000					1	20-1			20-1	2				1000		REFRIGERATOR 2
GENERAL LTG 7		1000				3	20-1				4						SPACE
SPACE						5					6						SPACE
SPACE						7					8						SPACE
SPACE						9					10						SPACE
SPACE						11					12						SPACE
SUB-TOTAL	ØA= 2000 VA									ØB= 1000 VA							

TOTAL CONNECTED VA	= 3000
LCL @ 125 %	= 0
TOTAL OTHER LOAD	= 0
PANEL LOAD	= 3KVA
FEEDER AMPS	= 17A

NOTES:
(1) REFER TO SINGLE LINE FOR AIC RATING.

REVISIONS

NO.	DATE	DESCRIPTION

SEAL:

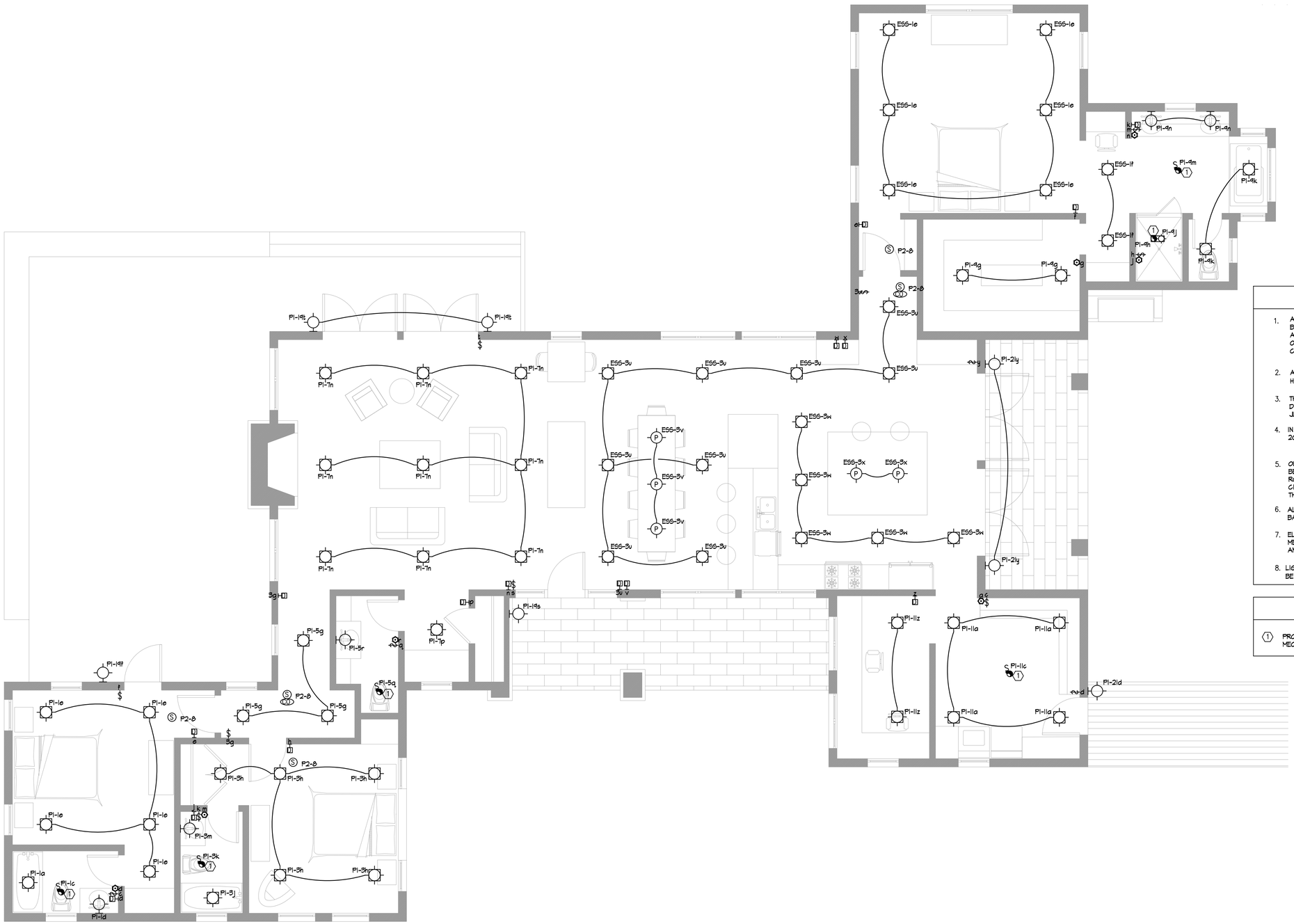
REGISTERED PROFESSIONAL ENGINEER
GANGYI ZHOU
No. 018959
Exp.12-31-2025
ELECTRICAL
STATE OF CALIFORNIA

GMEP ENGINEERS
26439 Rancho Pkwy. S., Ste 120
Lake Forest, CA 92630
Tel: 949-267-9095

PROJECT NAME:
LOT 207 SANTA LUCIA PRESERVE
23 SAN CLEMENTE TRL.
CARMEL, CA 93923

SHEET TITLE
ELECTRICAL PANEL SCHEDULE

DRAWN: GMEP
CHECKED: GMEP
DATE: 01/17/25
SCALE: AS NOTED
JOB NO.: 24-731
SHEET: E-1.2



ELECTRICAL GENERAL NOTES

1. ALL FIXTURES TO BE HIGH EFFICACY PER TABLE 150.0-A. ALL OUTDOOR FIXTURES TO BE CONTROLLED BY TIME CLOCK/PHOTOCELL, MOTION SENSOR/PHOTOCELL OR ASTRONOMICAL TIME CLOCK IN ADDITION TO MANUAL ON/OFF SWITCH. MANUAL ON/OFF SWITCH SHALL NOT OVERRIDE AUTOMATIC TIME CLOCK/PHOTOCELL, TIME CLOCK/MOTION SENSOR OR ASTRONOMICAL TIME CLOCK CONTROL.
2. ALL INDOOR LIGHT FIXTURES TO BE CONTROLLED BY DIMMER SWITCH. (EXCEPTIONS: HALLWAYS AND CLOSETS LESS THAN 70SF).
3. THIS DRAWING IS FOR REFERENCE ONLY. WIRE CKT 20 ON THE PLAN TO ALL DETECTORS FOR A COMPLETE AND OPERATIONAL SYSTEM. VERIFY W/LOCAL JURISDICTION FOR ALARM DETECTOR REQUIREMENT BEFORE ROUGH-IN.
4. IN DWELLING AREA SPECIFIED IN CEC 2022 SECTION 210.52, ALL 125-VOLT, 15- AND 20- AMPERE RECEPTACLES SHALL BE LISTED TAMPER-RESISTANT RECEPTACLES.
5. OUTLETS INSTALLED IN FAMILY ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, KITCHENS, LAUNDRY ROOMS OR SIMILAR ROOMS OR AREAS WILL BE PROTECTED BY A LISTED ARC-FAULT CIRCUIT INTERRUPTER, COMBINATION-TYPE, INSTALLED TO PROVIDE PROTECTION OF THE BRANCH CIRCUIT.
6. ALL NEW SMOKE ALARMS & CARBON MONOXIDE ALARM ARE 120V HARD-WIRED WITH BATTERY BACKUP AND ARE AUDIBLE IN ALL SLEEPING ROOMS.
7. ELECTRICAL CONTRACTOR MUST VERIFY MECHANICAL EQUIPMENT INFORMATION FOR MECHANICAL DRAWING BEFORE ISSUING ANY BID. NOTIFY ENGINEER IMMEDIATELY IF ANY DISCREPANCY OCCUR.
8. LIGHT FIXTURES ABOVE THE BATH TUB AND ON THE EXTERIOR OF THE BUILDING SHALL BE WET OR DAMP LOCATION RATED PER 410.10(A) AND (D) OF THE CEC.

ELECTRICAL KEY NOTES

(1) PROVIDE 15A/1P MOTOR RATED SWITCH FOR CONNECT TO THE EXHAUST FAN. REFER TO MECHANICAL PLAN FOR DETAIL.

ELECTRICAL - HOUSE LIGHTING PLAN

SCALE: 1/4"=1'-0"

REVISIONS

NO.	DATE	DESCRIPTION

SEAL:

REGISTERED PROFESSIONAL ENGINEER
GANGYI ZHOU
No. 018959
Exp.12-31-2025
ELECTRICAL
STATE OF CALIFORNIA

GMEP ENGINEERS
26439 Rancho Pkwy. S., Ste 120
Lake Forest, CA 92630
Tel: 949-267-9095

PROJECT NAME:

LOT 207 SANTA LUCIA PRESERVE
23 SAN CLEMENTE TRL.
CARMEL, CA 93923

SHEET TITLE

ELECTRICAL
HOUSE LIGHTING PLAN

DRAWN	GMEP
CHECKED	GMEP
DATE	01/17/25
SCALE	AS NOTED
JOB NO.	24-731
SHEET	E-2.0

ELECTRICAL KEY NOTES

1. PROVIDE 50A/2P FUSED DISCONNECT FOR CONNECTION TO THE HP. VERIFY EXACT LOCATION AND ADDITIONAL INFORMATION WITH MECHANICAL DRAWINGS.
2. PROVIDE 15A/1P MOTOR RATED SWITCH FOR CONNECTION TO THE FC. VERIFY EXACT LOCATION AND ADDITIONAL INFORMATION WITH MECHANICAL DRAWINGS.
3. PROVIDE OUTLET ()RG6(/)CAT5. RUN CABLE TO THE CATV BOX AND RUN CAT5 CABLE TO THE APPROPRIATE DESTINATION. VERIFY WITH TV SERVICE PROVIDER AND IT CONSULTANT BEFORE ROUGH-IN.

ELECTRICAL GENERAL NOTES

1. ALL FIXTURES TO BE HIGH EFFICACY PER TABLE 150.0-A. ALL OUTDOOR FIXTURES TO BE CONTROLLED BY TIME CLOCK/PHOTOCELL, MOTION SENSOR/PHOTOCELL OR ASTRONOMICAL TIME CLOCK IN ADDITION TO MANUAL ON/OFF SWITCH. MANUAL ON/OFF SWITCH SHALL NOT OVERRIDE AUTOMATIC TIME CLOCK/PHOTOCELL, TIME CLOCK/MOTION SENSOR OR ASTRONOMICAL TIME CLOCK CONTROL.
2. ALL INDOOR LIGHT FIXTURES TO BE CONTROLLED BY DIMMER SWITCH. (EXCEPTIONS: HALLWAYS AND CLOSETS LESS THAN 70SF).
3. THIS DRAWING IS FOR REFERENCE ONLY. WIRE CKT 20 ON THE PLAN TO ALL DETECTORS FOR A COMPLETE AND OPERATIONAL SYSTEM. VERIFY W/LOCAL JURISDICTION FOR ALARM DETECTOR REQUIREMENT BEFORE ROUGH-IN.
4. IN DWELLING AREA SPECIFIED IN CEC 2022 SECTION 210.52, ALL 125-VOLT, 15- AND 20- AMPERE RECEPTACLES SHALL BE LISTED TAMPER-RESISTANT RECEPTACLES.
5. OUTLETS INSTALLED IN FAMILY ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, KITCHENS, LAUNDRY ROOMS OR SIMILAR ROOMS OR AREAS WILL BE PROTECTED BY A LISTED ARC-FAULT CIRCUIT INTERRUPTER, COMBINATION-TYPE, INSTALLED TO PROVIDE PROTECTION OF THE BRANCH CIRCUIT.
6. ALL NEW SMOKE ALARMS & CARBON MONOXIDE ALARM ARE 120V HARD-WIRED WITH BATTERY BACKUP AND ARE AUDIBLE IN ALL SLEEPING ROOMS.
7. ELECTRICAL CONTRACTOR MUST VERIFY MECHANICAL EQUIPMENT INFORMATION FOR MECHANICAL DRAWING BEFORE ISSUING ANY BID. NOTIFY ENGINEER IMMEDIATELY IF ANY DISCREPANCY OCCUR.
8. LIGHT FIXTURES ABOVE THE BATH TUB AND ON THE EXTERIOR OF THE BUILDING SHALL BE WET OR DAMP LOCATION RATED PER 410.10(A) AND (D) OF THE CEC.

ELECTRICAL - HOUSE POWER PLAN

SCALE:1/4"=1'-0"

REVISIONS

NO.	DATE	DESCRIPTION

SEAL:

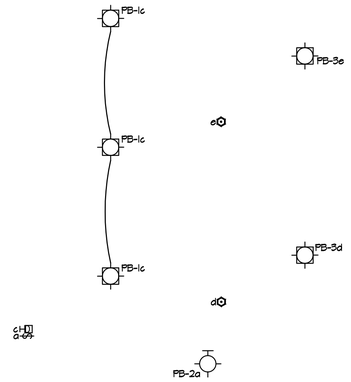
REGISTERED PROFESSIONAL ENGINEER
GANGYI ZHOU
No. 018959
Exp.12-31-2025
ELECTRICAL
STATE OF CALIFORNIA

GMEP ENGINEERS
26439 Rancho Pkwy. S., Ste 120
Lake Forest, CA 92630
Tel: 949-267-9095

PROJECT NAME:
LOT 207 SANTA LUCIA PRESERVE
23 SAN CLEMENTE TRL.
CARMEL, CA 93923

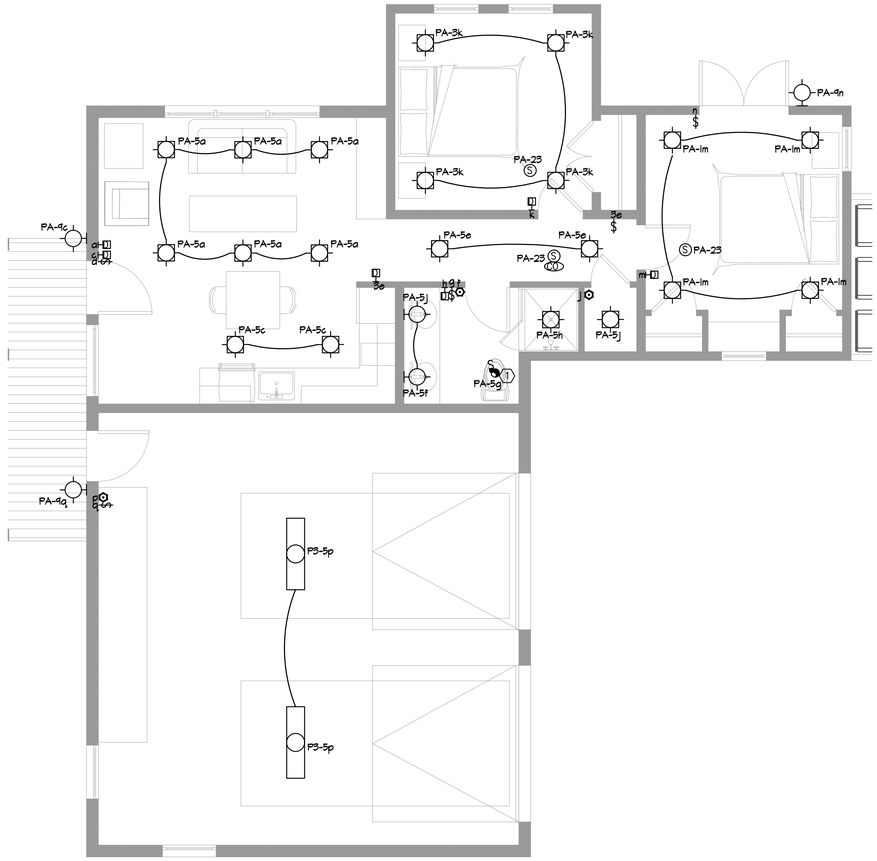
SHEET TITLE
ELECTRICAL HOUSE POWER PLAN

DRAWN	GMEP
CHECKED	GMEP
DATE	01/17/25
SCALE	AS NOTED
JOB NO.	24-731
SHEET	E-2.1



ELECTRICAL - BARN LIGHTING PLAN

SCALE: 1/4"=1'-0"



ELECTRICAL - ADU AND GARAGE LIGHTING PLAN

SCALE: 1/4"=1'-0"

ELECTRICAL GENERAL NOTES

1. ALL FIXTURES TO BE HIGH EFFICACY PER TABLE 150.0-A. ALL OUTDOOR FIXTURES TO BE CONTROLLED BY TIME CLOCK/PHOTOCELL, MOTION SENSOR/PHOTOCELL OR ASTRONOMICAL TIME CLOCK IN ADDITION TO MANUAL ON/OFF SWITCH. MANUAL ON/OFF SWITCH SHALL NOT OVERRIDE AUTOMATIC TIME CLOCK/PHOTOCELL, TIME CLOCK/MOTION SENSOR OR ASTRONOMICAL TIME CLOCK CONTROL.
2. ALL INDOOR LIGHT FIXTURES TO BE CONTROLLED BY DIMMER SWITCH. (EXCEPTIONS: HALLWAYS AND CLOSETS LESS THAN 70SF).
3. THIS DRAWING IS FOR REFERENCE ONLY. WIRE CKT 20 ON THE PLAN TO ALL DETECTORS FOR A COMPLETE AND OPERATIONAL SYSTEM. VERIFY W/LOCAL JURISDICTION FOR ALARM DETECTOR REQUIREMENT BEFORE ROUGH-IN.
4. IN DWELLING AREA SPECIFIED IN CEC 2022 SECTION 210.52, ALL 125-VOLT, 15- AND 20- AMPERE RECEPTACLES SHALL BE LISTED TAMPER-RESISTANT RECEPTACLES.
5. OUTLETS INSTALLED IN FAMILY ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, KITCHENS, LAUNDRY ROOMS OR SIMILAR ROOMS OR AREAS WILL BE PROTECTED BY A LISTED ARC-FAULT CIRCUIT INTERRUPTER, COMBINATION-TYPE, INSTALLED TO PROVIDE PROTECTION OF THE BRANCH CIRCUIT.
6. ALL NEW SMOKE ALARMS & CARBON MONOXIDE ALARM ARE 120V HARD-WIRED WITH BATTERY BACKUP AND ARE AUDIBLE IN ALL SLEEPING ROOMS.
7. ELECTRICAL CONTRACTOR MUST VERIFY MECHANICAL EQUIPMENT INFORMATION FOR MECHANICAL DRAWING BEFORE ISSUING ANY BID. NOTIFY ENGINEER IMMEDIATELY IF ANY DISCREPANCY OCCUR.
8. LIGHT FIXTURES ABOVE THE BATH TUB AND ON THE EXTERIOR OF THE BUILDING SHALL BE WET OR DAMP LOCATION RATED PER 410.10(A) AND (D) OF THE CEC.

ELECTRICAL KEY NOTES

(1) PROVIDE 15A/1P MOTOR RATED SWITCH FOR CONNECT TO THE EXHAUST FAN. REFER TO MECHANICAL PLAN FOR DETAIL.

REVISIONS

NO.	DATE	DESCRIPTION

SEAL:

REGISTERED PROFESSIONAL ENGINEER
GANGYI ZHOU
No. 018959
Exp.12-31-2025
ELECTRICAL
STATE OF CALIFORNIA

GMEP ENGINEERS
26439 Rancho Pkwy. S., Ste 120
Lake Forest, CA 92630
Tel: 949-267-9095

PROJECT NAME:

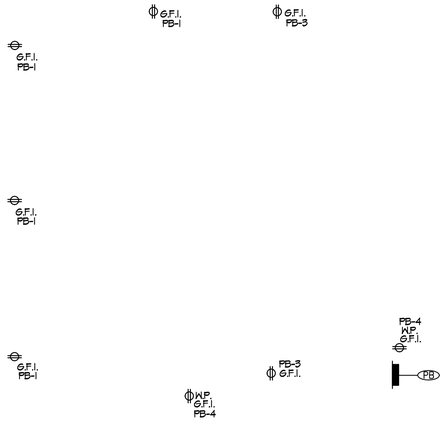
LOT 207 SANTA LUCIA PRESERVE

23 SAN CLEMENTE TRL.
CARMEL, CA 93923

SHEET TITLE

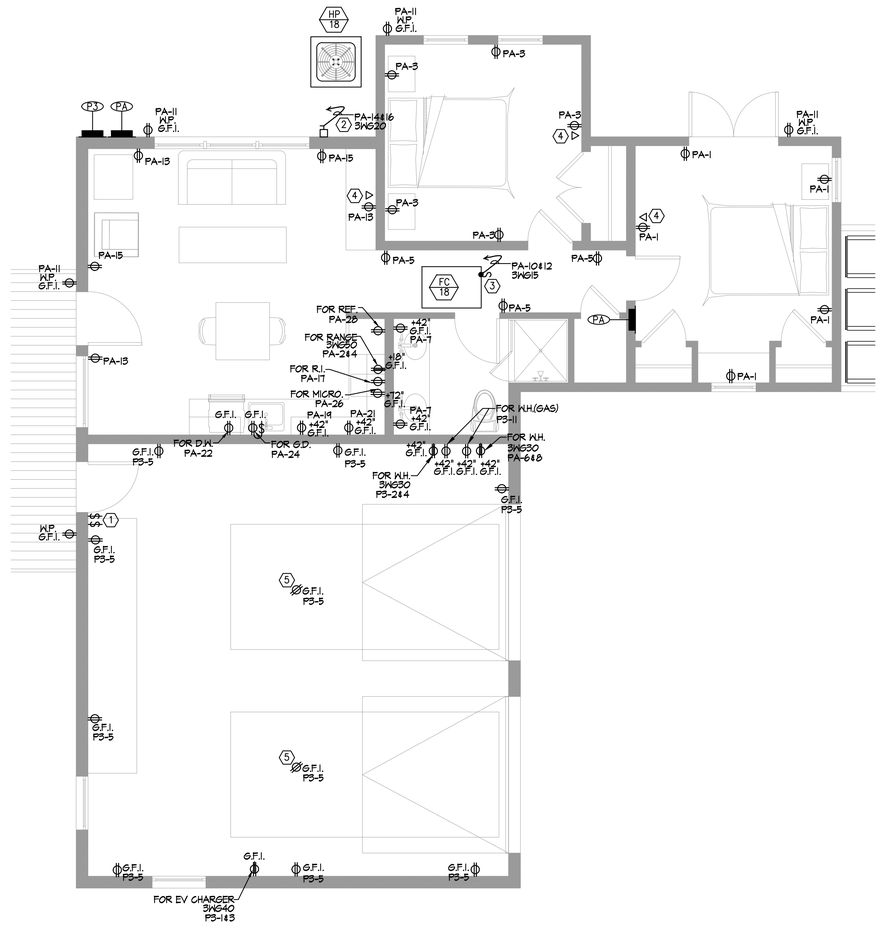
ELECTRICAL
ADU & BARN LIGHTING PLAN

DRAWN	GMEP
CHECKED	GMEP
DATE	01/17/25
SCALE	AS NOTED
JOB NO.	24-731
SHEET	E-2.2



ELECTRICAL - BARN POWER PLAN

SCALE:1/4"=1'-0"



ELECTRICAL - ADU AND GARAGE POWER PLAN

SCALE:1/4"=1'-0"

ELECTRICAL GENERAL NOTES

1. ALL FIXTURES TO BE HIGH EFFICACY PER TABLE 150.0-A. ALL OUTDOOR FIXTURES TO BE CONTROLLED BY TIME CLOCK/PHOTOCELL, MOTION SENSOR/PHOTOCELL OR ASTRONOMICAL TIME CLOCK IN ADDITION TO MANUAL ON/OFF SWITCH. MANUAL ON/OFF SWITCH SHALL NOT OVERRIDE AUTOMATIC TIME CLOCK/PHOTOCELL, TIME CLOCK/MOTION SENSOR OR ASTRONOMICAL TIME CLOCK CONTROL.
2. ALL INDOOR LIGHT FIXTURES TO BE CONTROLLED BY DIMMER SWITCH. (EXCEPTIONS: HALLWAYS AND CLOSETS LESS THAN 70SF).
3. THIS DRAWING IS FOR REFERENCE ONLY. WIRE CKT 20 ON THE PLAN TO ALL DETECTORS FOR A COMPLETE AND OPERATIONAL SYSTEM. VERIFY W/LOCAL JURISDICTION FOR ALARM DETECTOR REQUIREMENT BEFORE ROUGH-IN.
4. IN DWELLING AREA SPECIFIED IN CEC 2022 SECTION 210.52, ALL 125-VOLT, 15- AND 20- AMPERE RECEPTACLES SHALL BE LISTED TAMPER-RESISTANT RECEPTACLES.
5. OUTLETS INSTALLED IN FAMILY ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, KITCHENS, LAUNDRY ROOMS OR SIMILAR ROOMS OR AREAS WILL BE PROTECTED BY A LISTED ARC-FAULT CIRCUIT INTERRUPTER, COMBINATION-TYPE, INSTALLED TO PROVIDE PROTECTION OF THE BRANCH CIRCUIT.
6. ALL NEW SMOKE ALARMS & CARBON MONOXIDE ALARM ARE 120V HARD-WIRED WITH BATTERY BACKUP AND ARE AUDIBLE IN ALL SLEEPING ROOMS.
7. ELECTRICAL CONTRACTOR MUST VERIFY MECHANICAL EQUIPMENT INFORMATION FOR MECHANICAL DRAWING BEFORE ISSUING ANY BID. NOTIFY ENGINEER IMMEDIATELY IF ANY DISCREPANCY OCCUR.
8. LIGHT FIXTURES ABOVE THE BATH TUB AND ON THE EXTERIOR OF THE BUILDING SHALL BE WET OR DAMP LOCATION RATED PER 410.10(A) AND (D) OF THE CEC.

ELECTRICAL KEY NOTES

1. DENOTES GARAGE DOOR OPENER SWITCH.
2. PROVIDE 30A/2P FUSED DISCONNECT FOR CONNECTION TO THE HP. VERIFY EXACT LOCATION AND ADDITIONAL INFORMATION WITH MECHANICAL DRAWINGS.
3. PROVIDE 15A/1P MOTOR RATED SWITCH FOR CONNECTION TO THE FC. VERIFY EXACT LOCATION AND ADDITIONAL INFORMATION WITH MECHANICAL DRAWINGS.
4. PROVIDE OUTLET (1)R66(1)CAT5, RUN CABLE TO THE CATV BOX AND RUN CAT5 CABLE TO THE APPROPRIATE DESTINATION. VERIFY WITH TV SERVICE PROVIDER AND IT CONSULTANT BEFORE ROUGH-IN.
5. DENOTES CEILING MOUNTED RECEPTACLES FOR GARAGE DOOR OPENER ON THE SWITCH LEG AS SHOWN. BACKUP BATTERY IS REQUIRED ON NEW GARAGE DOOR OPENERS PER CALIFORNIA SENATE BILL 969. (MODEL INCLUDED CHAMBERLAIN C2212T OR EQUAL TO THE MODEL.)

REVISIONS

NO.	DATE	DESCRIPTION

SEAL:

REGISTERED PROFESSIONAL ENGINEER
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PROJECT NAME:

LOT 207 SANTA LUCIA PRESERVE
23 SAN CLEMENTE TRL.
CARMEL, CA 93923

SHEET TITLE

ELECTRICAL
ADU & BARN POWER PLAN

DRAWN	GMEP
CHECKED	GMEP
DATE	01/17/25
SCALE	AS NOTED
JOB NO.	24-731
SHEET	E-2.3

ELECTRICAL - SITE PLAN

SCALE: 1/16"=1'-0"

REVISIONS

NO.	DATE	DESCRIPTION

SEAL:

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PROJECT NAME:

LOT 207 SANTA LUCIA PRESERVE

23 SAN CLEMENTE TRL.
CARMEL, CA 93923

SHEET TITLE

ELECTRICAL SITE PLAN

DRAWN	GMEP
CHECKED	GMEP
DATE	01/17/25
SCALE	AS NOTED
JOB NO.	24-731
SHEET	E-3.0

NOTES:

ALL MATERIALS, EQUIPMENT, INSTALLATION AND WORK SHALL COMPLY WITH THE FOLLOWING APPLICABLE CODES:

- 2022 CBC
- 2022 CRC
- 2022 CEC
- 2022 CMC
- 2022 CPC
- 2022 CFC
- 2022 CENC
- 2022 CGC
- 2022 MCC

1. ALL WORK TO COMPLY WITH CEC ARTICLE 690.
2. UTILITY SHALL BE NOTIFIED BEFORE ACTIVATION OF PV SYSTEM.
3. REMOVAL OF A UTILITY-INTERACTIVE INVERTER OR OTHER EQUIPMENT SHALL NOT DISCONNECT THE BUILDING CONNECTION BETWEEN THE GROUNDING ELECTRODE CONDUCTOR AND THE PV SOURCE AND/OR OUTPUT CIRCUIT GROUNDED CONDUCTOR.
4. ALL PV SYSTEM COMPONENTS SHALL BE LISTED BY A RECOGNIZED TESTING AGENCY.
5. WIRING MATERIALS SHALL COMPLY WITH MAXIMUM CONTINUOUS CURRENT OUTPUT AT 25°C; WIRE SHALL BE WET RATED AT 90°C.
6. EXPOSED PHOTOVOLTAIC SYSTEM CONDUCTORS ON THE ROOF WILL BE USE-2 OR PV TYPE WIRE.
7. ALL EXTERIOR CONDUIT, FITTINGS, AND BOXES SHALL BE RAIN-TIGHT AND APPROVED FOR USE IN WET LOCATIONS (CEC 314.15).
8. ALL METALLIC RACEWAYS AND EQUIPMENT SHALL BE BONDED AND ELECTRICALLY CONTINUOUS (CEC 250.90, 250.96).
9. FOR UNGROUNDED SYSTEMS, THE PHOTOVOLTAIC SOURCE AND OUTPUT CIRCUITS SHALL BE PROVIDED WITH A GROUND-FAULT PROTECTION DEVICE OR SYSTEM THAT DETECTS A GROUND FAULT, INDICATES THAT FAULT HAS OCCURRED, AND AUTOMATICALLY DISCONNECTS ALL CONDUCTORS OR CAUSES THE INVERTER TO AUTOMATICALLY CEASE SUPPLYING POWER TO OUTPUT CIRCUITS.
10. ANY REQUIRED GROUNDING ELECTRODE CONDUCTOR WILL BE CONTINUOUS, EXCEPT FOR SPLICES OR JOINTS AT BUSBARS WITHIN LISTED EQUIPMENT (CEC 250.64C).
11. ALL PV MODULES AND ASSOCIATED EQUIPMENT SHALL BE PROTECTED FROM ANY PHYSICAL DAMAGE.
12. ALL FIELD-INSTALLED JUNCTION, PULL, AND OUTLET BOXES LOCATED BEHIND MODULES SHALL BE ACCESSIBLE DIRECTLY OR BY DISPLACEMENT OF A MODULE SECURED BY REMOVABLE FASTENERS.
13. FOR GROUNDED SYSTEMS, THE INVERTER IS EQUIPPED WITH GROUND FAULT PROTECTION AND A GFI FUSE PORT FOR GROUND FAULT INDICATION
14. WHEN BACKFED BREAKER IS THE METHOD OF UTILITY INTERCONNECTION, THE BREAKERS SHALL NOT READ "LINE AND LOAD"
15. THE INSTALLED SOLAR SYSTEM HAS A DISTRIBUTED WEIGHT OF LESS THAN 4 PSF
16. THE CONCENTRATED LOAD FOR EACH VERTICAL SUPPORT IS LESS THAN 45 LBS
17. AC DISCONNECT IS A "KNIFE BLADE" TYPE DISCONNECT.
18. THE WORKING CLEARANCES AROUND THE EXISTING ELECTRICAL EQUIPMENT AS WELL AS THE NEW ELECTRICAL EQUIPMENT WILL BE MAINTAINED IN ACCORDANCE WITH CEC 110.26
19. THE PHOTOVOLTAIC INVERTER WILL BE LISTED AS UL 1741 COMPLIANT
20. SMOKE ALARMS AND CARBON MONOXIDE ALARMS ARE REQUIRED TO BE RETROFITTED ONTO THE EXISTING DWELLING AS PER THE 2022 CRC. THESE SMOKE ALARMS ARE REQUIRED TO BE IN ALL BEDROOMS, OUTSIDE EACH BEDROOM, AND AT LEAST ONE ON EACH FLOOR OF THE HOUSE. CARBON MONOXIDE ALARMS ARE REQUIRED TO BE RETROFITTED OUTSIDE EACH BEDROOM AND AT LEAST ONE ON EACH FLOOR OF THE HOUSE. THESE ALARMS MAY BE SOLELY BATTERY OPERATED IF THE PHOTOVOLTAIC PROJECT DOES NOT INVOLVE THE REMOVAL OF INTERIOR WALL AND CEILING FINISHES INSIDE THE HOME; OTHERWISE, THE ALARMS MUST BE HARD WIRED AND INTERCONNECTED. (CRC R314, R315).
21. SMOKE AND CARBON MONOXIDE ALARMS ARE REQUIRED PER CRC SECTIONS R314 AND 315 TO BE VERIFIED AND INSPECTED BY THE INSPECTOR IN THE FIELD.
22. WHEN APPLYING THE 120% RULE OF CEC 705.12(B) , THE SOLAR BREAKER TO BE POSITIONED AT THE OPPOSITE END OF THE BUS FROM THE MAIN BREAKER PER 705.12(B)
23. PLUMBING AND MECHANICAL VENTS THROUGH THE ROOF SHALL NOT BE COVERED BY SOLAR MODULES - NO BUILDING, PLUMBING, OR MECHANICAL VENTS TO BE COVERED OR OBSTRUCTED.

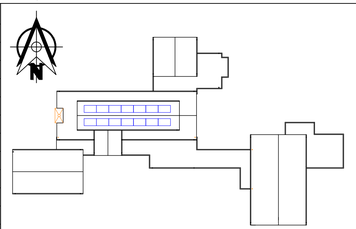
INDEX SEHEET

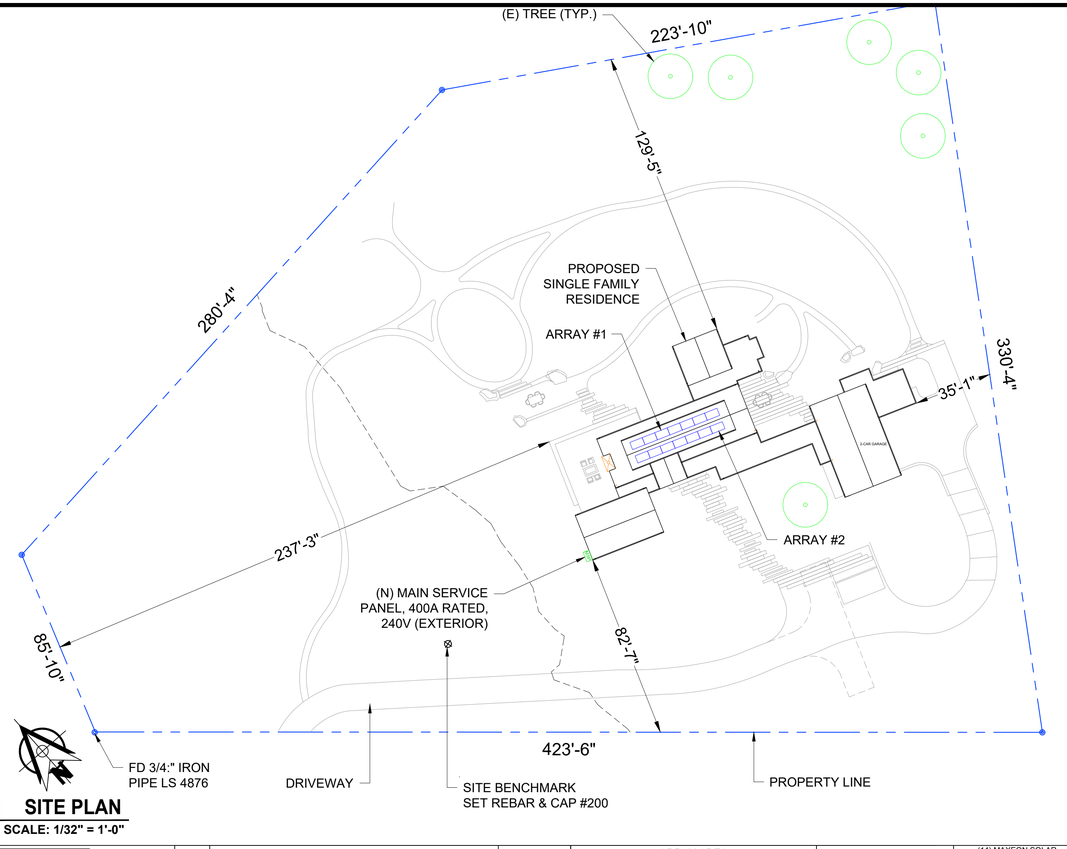
PV-1.0	SITE LAYOUT
PV-2.0	ATTACHMENT AND EQUIPMENT LAYOUT
PV-3.0	ELECTRICAL DETAILS
PV-4.0	SPECIFICATION SHEET

AHJ:- MONTEREY COUNTY

1 **ROOF OUTLINE**
SCALE: NTS

2 **VICINITY MAP**
SCALE: NTS





3 **SITE PLAN**
SCALE: 1/32" = 1'-0"

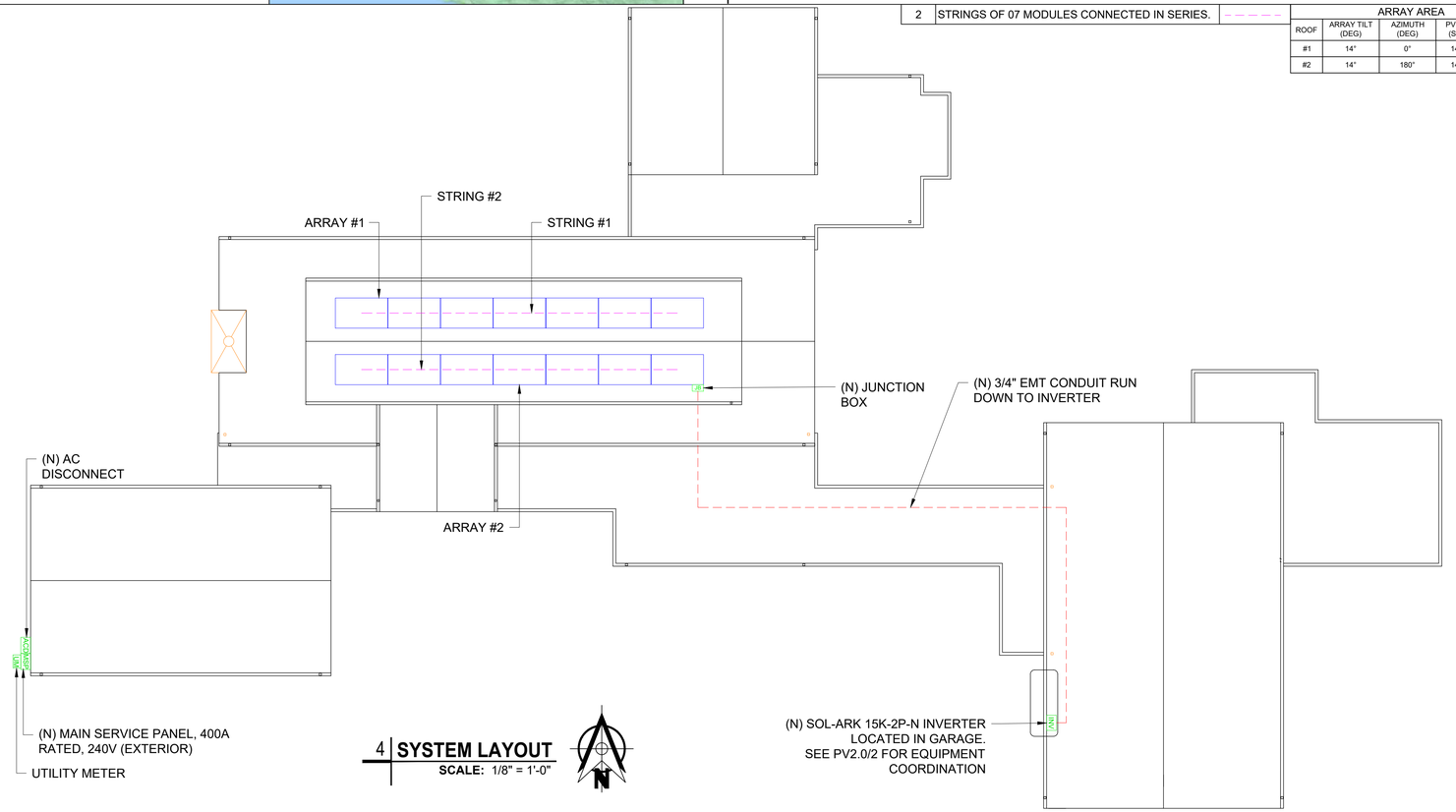
SCOPE OF WORK

INSTALLATION OF GRID-TIED SOLAR PHOTOVOLTAIC SYSTEM

14	MAXEON SOLAR SPR-MAX3-430-R 430W MODULES		
1	SOL-ARK 15K-2P-N INVERTER		
1	400A MAIN BREAKER WITH 400A BUS BAR		
4	STORZ BATTERY,5.12KWH. IN (2) BATTERY CABINET 20 KWH'S TOTAL		
	SYSTEM NAME PLATE POWER	6.02	KW DC
	SYSTEM AC POWER	15.00	KW AC
	PROJECTED OUTPUT	7,959	KWH'S PER YEAR
	OCCUPANCY TYPE	N/A	
	TYPE OF CONSTRUCTION	N/A	
	ZONING	R-1	
	BUILDING HEIGHT	1-STORY	
	LOT SIZE	34.2 ACRES	

NOTES:

1. CONDUCTORS NORMALLY USED TO CARRY CURRENT SHALL BE OF COPPER. FOR ALUMINUM AND COPPER-CLAD ALUMINUM #6 AWG AND LARGER, SEE SEC. 310.15 CEC. EXCEPTION: ALUMINUM CONDUCTORS SMALLER THAN #6 AWG MAY BE USED PROVIDED THE METHOD OF CONNECTION IS APPROVED IN ADVANCE BY THE BUILDING OFFICIAL AND THE INSTALLATION IS MADE UNDER CONTINUOUS SPECIAL INSPECTION.
2. 250.53(A)(2). SUPPLEMENTAL ELECTRODE REQUIRED. A SINGLE ROD, PIPE, OR PLATE ELECTRODE SHALL BE SUPPLEMENTED BY AN ADDITIONAL ELECTRODE OF A TYPE SPECIFIED IN 250.52(A)(2) THROUGH (A)(8). THE SUPPLEMENTAL ELECTRODE SHALL BE PERMITTED TO BE BONDED TO ONE OF THE FOLLOWING:
   A. ROD, PIPE, OR PLATE ELECTRODE
   B. GROUNDING ELECTRODE CONDUCTOR
   C. GROUNDED SERVICE-ENTRANCE CONDUCTOR
   D. NONFLEXIBLE GROUNDED SERVICE RACEWAY
   E. ANY GROUNDED SERVICE ENCLOSURE
   EXCEPTION: IF A SINGLE ROD, PIPE, OR PLATE GROUNDING ELECTRODE HAS A RESISTANCE TO EARTH OF 25 OHM OR LESS THE SUPPLEMENTAL ELECTRODE SHALL NOT BE REQUIRED.
   F. SUPPLEMENTAL ELECTRODE, IF MULTIPLE ROD, PIPE, OR PLATE ELECTRODES ARE INSTALLED TO MEET THE REQUIREMENTS OF THIS SECTION THEY SHALL NOT BE LESS THAN 1.8 M (6 FT) APART.
3. A SMOKE DETECTOR, APPROVED AND LISTED BY THE STATE FIRE MARSHAL, SHALL BE INSTALLED IN EACH DWELLING WHEN A PERMIT FOR ALTERATIONS, REPAIRS OR ADDITIONS EXCEEDS $1,000.00. A BATTERY POWERED SMOKE DETECTOR SATISFIES THE REQUIREMENTS FOR A SMOKE DETECTOR. (R314.6.2 CRC)
4. PROVIDE SMOKE ALARMS AT THE FOLLOWING LOCATIONS AND NOTE ON THE PLANS; (R314.3 CRC)
   A. OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF BEDROOMS.
   B. IN EACH ROOM USED FOR SLEEPING PURPOSES.
   C. IN EACH STORY, INCLUDING BASEMENTS. IN SPLIT LEVEL UNITS WITHOUT AN INTERVENING DOOR BETWEEN ADJACENT
   D. ALARMS SHALL BE INTERCONNECTED SUCH THAT THE ACTUATION OF ONE ALARM SHALL ACTIVATE ALL ALARMS.
   E. ALARMS SHALL RECEIVE THEIR PRIMARY POWER FROM THE BUILDING WIRING WITH BATTERY BACKUP.
   F. APPROVED COMBINED SMOKE ALARMS AND CARBON DIOXIDE ALARMS SHALL BE ACCEPTABLE. LEVELS, A SMOKE ALARM INSTALLED ON THE UPPER LEVEL SHALL SUFFICE PROVIDED THAT THE LOWER LEVEL IS LESS THAN ONE FULL STORY BELOW THE UPPER LEVEL
5. A CARBON MONOXIDE DETECTOR SHALL BE INSTALLED IN THE SPECIFIC EXISTING DWELLING UNIT THAT HAVE ATTACHED GARAGES OR FUEL-BURNING APPLIANCES FOR WHICH A PERMIT IS ISSUED FOR ALTERATIONS, REPAIRS OR ADDITIONS EXCEEDING $1,000.00. LISTED SINGLE- OR MULTI-STATION CARBON MONOXIDE ALARMS SHALL BE INSTALLED OUTSIDE OF EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS AND ON EVERY LEVEL OF A DWELLING UNIT INCLUDING BASEMENTS. COMBINED SMOKE/CARBON MONOXIDE ALARMS MAY BE USED. THE ALARM SHALL RECEIVE ITS PRIMARY POWER FROM THE BUILDING WIRING EXCEPT IT IS PERMITTED TO BE SOLELY BATTERY OPERATED WHERE REPAIRS OR ALTERATIONS DO NOT RESULT IN THE REMOVAL OF WALL AND CEILING FINISHES OR THERE IS NO ACCESS BY MEANS OF AN ATTIC. SHOW ON THE PLANS. (R315 CRC)
6. APPLICATIONS FOR WHICH NO PERMIT IS ISSUED WITHIN 180 DAYS FOLLOWING THE DATE OF APPLICATION SHALL AUTOMATICALLY EXPIRE.
7. EVERY PERMIT ISSUED SHALL BECOME INVALID UNLESS WORK AUTHORIZED IS COMMENCED WITHIN 180 DAYS, A SUCCESSFUL INSPECTION IS NOT OBTAINED WITHIN 180 DAYS, OR IF WORK IS SUSPENDED OR ABANDONED FOR A PERIOD OF 180 DAYS. PERMITS WHICH HAVE BECOME INVALID SHALL PAY A RENEWAL FEE OF 50% OF THE ORIGINAL PERMIT FEE AMOUNT WHEN THE PERMIT HAS BEEN EXPIRED FOR UP TO ONE (1) YEAR. WHEN A PERMIT HAS BEEN EXPIRED FOR A PERIOD IN EXCESS OF ONE (1) YEAR, THE RENEWAL FEE SHALL BE 100% OF THE ORIGINAL PERMIT FEE.
8. THE CONTRACTOR SHALL PROVIDE A WRITTEN LETTER TO THE BUILDING INSPECTOR STATING THAT ALL INACCESSIBLE STRUCTURAL CONNECTIONS HAVE BEEN INSTALLED IN CONFORMANCE WITH THE REQUIREMENTS OF THE APPROVED PLANS.



4 **SYSTEM LAYOUT**
SCALE: 1/8" = 1'-0"

2 STRINGS OF 07 MODULES CONNECTED IN SERIES.

ARRAY AREA				
ROOF	ARRAY TILT (DEG)	AZIMUTH (DEG)	PV AREA (Sq. Ft.)	# OF MODULES
#1	14°	0°	142.80	7
#2	14°	180°	142.80	7

MODULE	(14) MAXEON SOLAR SPR-MAX3-430-R 430W MODULES
MODULE DIMENSIONS	71.34"x 41.16"x1.57"
MODULE WEIGHT	46.7 LBS (21.2 KG)
TOTAL ARRAY AREA SQ.FT.	285.60
ROOF TYPE	STANDING SEAM METAL
NO. OF STORY	1

REVISIONS: | BY:

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MESSIAH LOT: 207 RESIDENCE
23 SAN CLEMENTE TRAIL,
CARMEL, CA 93923
APN:- 239-131-007

SOLAR PHOTOVOLTAIC
SITE LAYOUT

DATE:
11/5/2024

SHEET SIZE
ARCH_D
24" X 36"

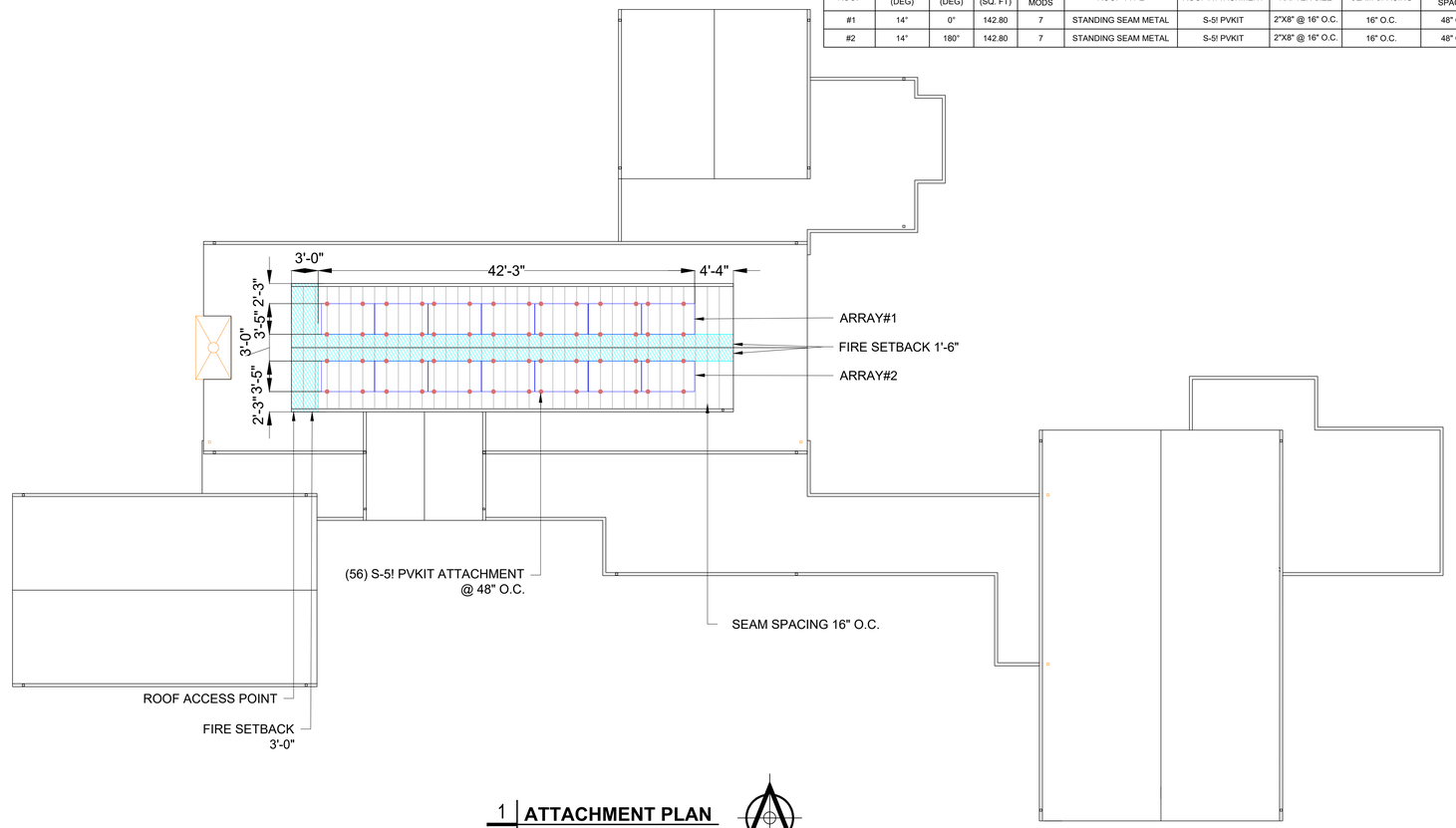
SHEET NUMBER
PV-1.0

ROOF	ARRAY TILT (DEG)	AZIMUTH (DEG)	PV AREA (SQ. FT)	NO. OF MODS	ROOF TYPE	ROOF ATTACHMENT	RAFTER SIZE	SEAM SPACING	ATTACHMENT SPACING
#1	14°	0°	142.80	7	STANDING SEAM METAL	S-5! PVKIT	2"X8" @ 16" O.C.	16" O.C.	48" O.C.
#2	14°	180°	142.80	7	STANDING SEAM METAL	S-5! PVKIT	2"X8" @ 16" O.C.	16" O.C.	48" O.C.

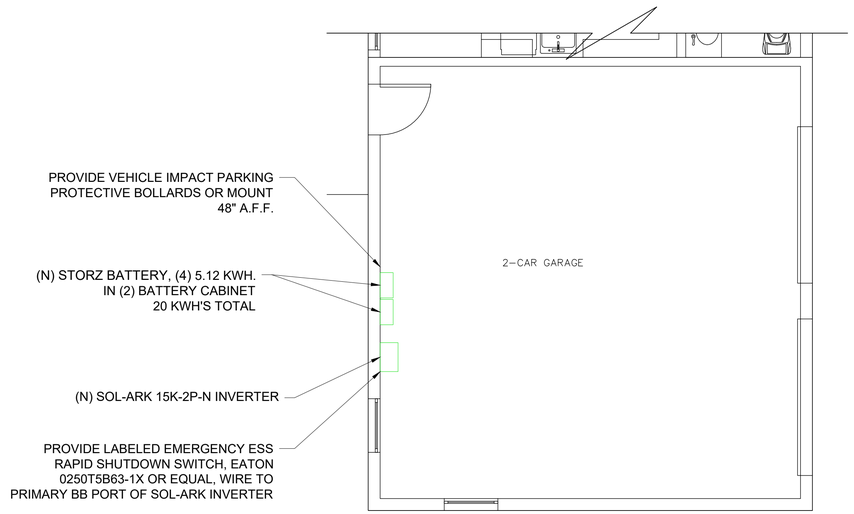
BILL OF MATERIALS

EQUIPMENT	QTY.	DESCRIPTION
SOLAR PV MODULE	14	MAXEON SOLAR SPR-MAX3-430-R 430W MODULES
INVERTER	1	SOL-ARK 15K-2P-N INVERTER
JUNCTION BOX	1	4"X4"X4" JUNCTION BOX PVC JCT BOX W/CVR
AC DISCONNECT	1	200A FUSED AC DISCONNECT WITH 200A FUSES NEMA 3R, 120/240V, 1Ø
BATTERY	4	STORZ 5.12 kWh BATTERIES IN (2) BATTERY CABINETS (19.375"x12.75"x37.75")
ATTACHMENT	56	S-5! PVKIT ATTACHMENTS
GROUNDING LUG	2	WEEB LUG

MODULE	MAXEON SOLAR SPR-MAX3-430-R 430W MODULES
MODULE DIMENSIONS	71.34"x 41.18"x1.57"
MODULE WEIGHT	46.7 LBS (21.2 KG)
TOTAL ARRAY AREA SQ.FT.	285.60
TOTAL ROOF AREA SQ.FT	5647.97
ROOF TYPE	STANDING SEAM METAL
MAX DISTRIBUTED LOAD	0 PSF
RISK CATEGORY	II
ROOF COVERAGE %	5.06
WIND SPEED (ASCE 7-16)	91 MPH, 3 SEC GUST
WIND EXPOSURE	C



1 **ATTACHMENT PLAN**
SCALE: 1/8" = 1'-0"



2 **EQUIPMENT PLAN**
SCALE: 1/4" = 1'-0"

REVISIONS:	BY:

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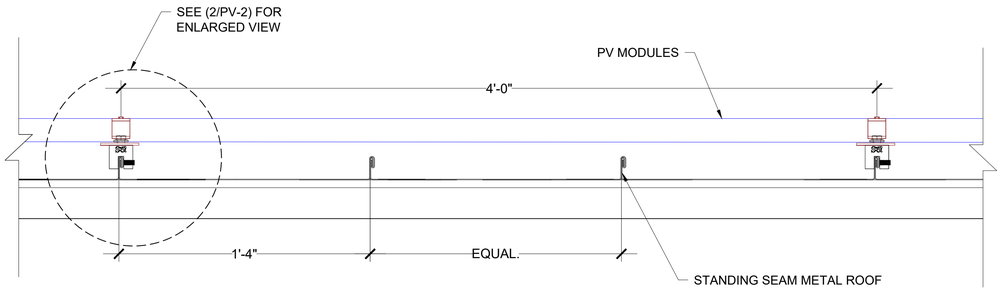
APN:- 239-131-007

SOLAR PHOTOVOLTAIC
ATTACHMENT AND
EQUIPMENT PLAN

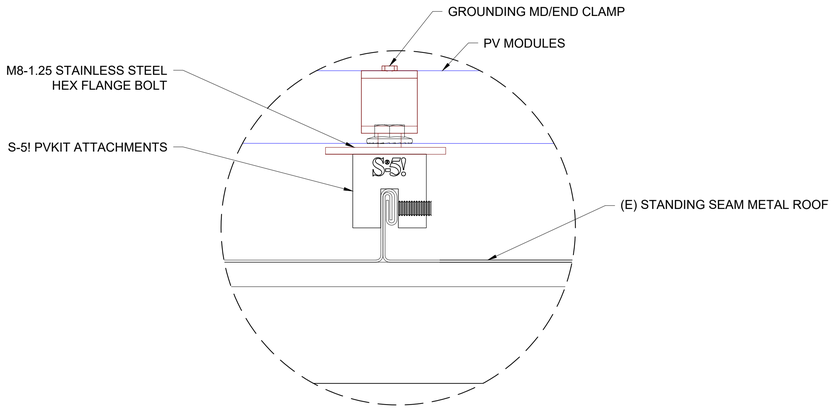
DATE:
11/5/2024

SHEET SIZE
ARCH_D
24" X 36"

SHEET NUMBER
PV-2.0

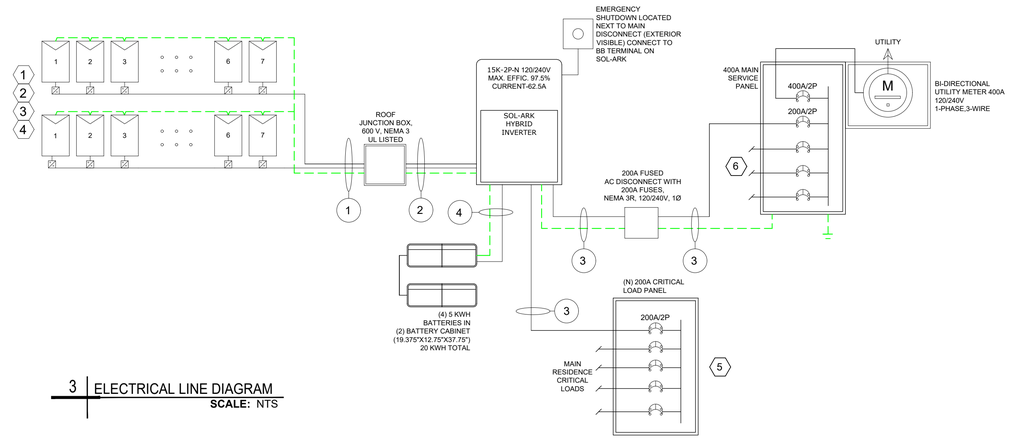


1 ATTACHMENT DETAIL
SCALE: NTS



2 ENLARGED VIEW
SCALE: NTS

SYSTEM SIZE:- 6.02 KW DC, 15.00 KW AC & 20.00kWh	
14	MAXEON SOLAR SPR-MAX3-430-R 430W MODULES
1	SOL-ARK 15K-2P-N INVERTER
4	STORZ BATTERIES, 5.12 KWH. IN (2) BATTERY CABINET 20.00KWH TOTAL
2	STRINGS OF 07 MODULES CONNECTED IN SERIES.



3 ELECTRICAL LINE DIAGRAM
SCALE: NTS

TAG	CONDUCTOR	CONDUCTOR SIZE	NUMBER OF CONDUCTORS	CONDUIT/CABLE TYPE	CONDUIT SIZE
1	USE-2	10 AWG	4	EMT	3/4"
	EGC/GEC: BARE COPPER	6 AWG	1		
2	LINE: THHN/THWN2	10 AWG	4	EMT	3/4"
	EGC/GEC: THHN/THWN-2	8 AWG	1		
3	LINE: THHN/THWN2	3/0 AWG	2	EMT	2"
	NEUTRAL: THHN/THWN-2	3/0 AWG	1		
	EGC/GEC: THHN/THWN-2	6 AWG	1		
4	LINE: THHN/THWN2	3 AWG	2	EMT	1-1/4"
	EGC/GEC: THHN/THWN-2	6 AWG	1		

TAG	NOTES
1	PV SYSTEM IS UNGROUNDED.
2	MODULES ARE BONDED TO RAIL USING EVEREST INTEGRATED GROUNDING.
3	RAILS ARE BONDED USING UL 2703 RATED LAY-IN LUGS.
4	BARE COPPER TO TRANSITION TO THHN/THWN-2 VIA IRREVERSIBLE CRIMP; GEC TO BE CONTINUOUS PER CEC 250.64(C).
5	OPTIONAL SPAN 200 AMP SMART PANEL FOR REMOTE LOAD MANAGEMENT & MONITORING. BREAKERS PER ELECTRICAL DIAGRAM.
6	NON-ESSENTIAL LOADS CIRCUITS. (MAIN PANEL BY OTHERS)

1 DC CONDUCTOR AMPACITY CALCULATIONS: ARRAY TO JUNCTION BOX

EXPECTED WIRE TEMP (In Celsius)	40°+22° = 62°
TEMP. CORRECTION PER TABLE (310.16)	0.65
NO. OF CURRENT CARRYING CONDUCTORS	2 PER BRANCH
CONDUIT FILL CORRECTION PER NEC 310.15(B)(2)(a)	1.00
CIRCUIT CONDUCTOR SIZE	10AWG
CIRCUIT CONDUCTOR AMPACITY PER NEC TABLE 310.15(B)(16)	40A
REQUIRED CIRCUIT CONDUCTOR AMPACITY PER NEC 690.8(A&B)	16.44A
1.25 X ISC OF MODULE	
DERATED AMPACITY OF CIRCUIT CONDUCTOR	26.00A
TEMP. CORRECTION PER TABLE 310.15 (B)(2)(a) X CONDUIT FILL CORRECTION PER NEC 310.15(B)(3)(a) X CIRCUIT CONDUCTOR AMPACITY 310.15 (B)(16)	
Result should be greater than (16.44A) otherwise less the entry for circuit conductor size and ampacity	

2 DC CONDUCTOR AMPACITY CALCULATIONS: JUNCTION TO INVERTER

EXPECTED WIRE TEMP (In Celsius)	40°+22° = 62°
TEMP. CORRECTION PER TABLE (310.16)	0.65
NO. OF CURRENT CARRYING CONDUCTORS	2 PER BRANCH
CONDUIT FILL CORRECTION PER NEC 310.15(B)(2)(a)	1.00
CIRCUIT CONDUCTOR SIZE	10AWG
CIRCUIT CONDUCTOR AMPACITY PER NEC TABLE 310.15(B)(16)	40A
REQUIRED CIRCUIT CONDUCTOR AMPACITY PER NEC 690.8(A&B)	16.44A
1.25 X ISC OF MODULE	
DERATED AMPACITY OF CIRCUIT CONDUCTOR	26.00A
TEMP. CORRECTION PER TABLE 310.15 (B)(2)(a) X CONDUIT FILL CORRECTION PER NEC 310.15(B)(3)(a) X CIRCUIT CONDUCTOR AMPACITY 310.15 (B)(16)	
Result should be greater than (16.44A) otherwise less the entry for circuit conductor size and ampacity	

3 AC CONDUCTOR AMPACITY CALCULATIONS INVERTER TO MSP

No. OF INVERTER	1
EXPECTED WIRE TEMP (In Celsius)	40°
TEMP. CORRECTION PER TABLE (310.16)	0.91
NO. OF CURRENT CARRYING CONDUCTORS	3
CONDUIT FILL CORRECTION PER NEC 310.15(B)(2)(a)	1.00
CIRCUIT CONDUCTOR SIZE	3/0 AWG
CIRCUIT CONDUCTOR AMPACITY	225
REQUIRED CIRCUIT CONDUCTOR AMPACITY PER NEC 690.8(B)	178.13A
1.25 X MAX INVERTER OUTPUT CURRENT (BACKUP POWER)	
DERATED AMPACITY OF CIRCUIT CONDUCTOR PER NEC TABLE 310.16	204.75A
TEMP. CORRECTION PER TABLE (310.16) X CONDUIT FILL CORRECTION PER NEC 310.15(B)(2)(a) X CIRCUIT CONDUCTOR AMPACITY	
Result should be greater than (178.13) otherwise less the entry for circuit conductor size and ampacity	

NOTE: 3/0 STANDARD SIZE FOR 200A PASS THROUGH CURRENT TO 200A SUBPANEL. COORDINATE WITH ELECTRICAL.

ELECTRICAL NOTES

1	ALL EQUIPMENT TO BE LISTED BY UL OR OTHER NRTL, AND LABELED FOR ITS APPLICATION.
2	ALL CONDUCTORS SHALL BE COPPER, RATED FOR 600 V AND 90 DEGREE C WET ENVIRONMENT.
3	WIRING, CONDUIT, AND RACEWAYS MOUNTED ON ROOFTOPS SHALL BE ROUTED DIRECTLY TO, AND LOCATED AS CLOSE AS POSSIBLE TO THE NEAREST RIDGE, HIP, OR VALLEY.
4	WORKING CLEARANCES AROUND ALL NEW AND EXISTING ELECTRICAL EQUIPMENT SHALL COMPLY WITH NEC 110.26.
5	DRAWINGS INDICATE THE GENERAL ARRANGEMENT OF SYSTEMS. CONTRACTOR SHALL FURNISH ALL NECESSARY OUTLETS, SUPPORTS, FITTINGS AND ACCESSORIES TO FULFILL APPLICABLE CODES AND STANDARDS.
6	WHERE SIZES OF JUNCTION BOX, RACEWAYS, AND CONDUITS ARE NOT SPECIFIED, THE CONTRACTOR SHALL SIZE THEM ACCORDINGLY.
7	ALL WIRE TERMINATIONS SHALL BE APPROPRIATELY LABELED AND READILY VISIBLE.
8	MODULE GROUNDING CLIPS TO BE INSTALLED BETWEEN MODULE FRAME AND MODULE SUPPORT RAIL, PER THE GROUNDING CLIP MANUFACTURER'S INSTRUCTION.
9	MODULE SUPPORT RAIL TO BE BONDED TO CONTINUOUS COPPER G.E.C.VIA WEEB LUG OR ILSCO GBL-4DBT LAY-IN LUG.
10	THE POLARITY OF THE GROUNDED CONDUCTORS IS NEGATIVE .

PERCENT OF VALUES	NUMBER OF CURRENT CARRYING CONDUCTORS IN EMT
0.80	4-6
0.70	7-9
0.50	10-20

INVERTER SPECIFICATIONS

MANUFACTURER	SOL-ARK
MODEL #	15K-2P-N
NOMINAL AC POWER	15.0KW
NOMINAL OUTPUT VOLTAGE	240V
NOMINAL OUTPUT CURRENT	62.5A

MODULE CHARACTERISTICS - MAXEON SOLAR SPR-MAX3-430-R 430W

MAX POWER (PMAX) @ STC	430	W
OPEN CIRCUIT VOLTAGE (VOC)	40.7	V
SHORT CIRCUIT VOLATAGE (ISC)	13.15	A
MAX POWER VOLTAGE (VMP)	35.1	V
MAX POWER CURRENT (IMP)	12.25	A
SERIES FUSE RATING	25	A

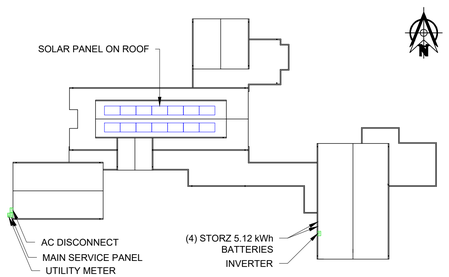
ADDITIONAL NOTE:

SIGNAGE REQUIREMENTS:
- RED BACKGROUND
- WHITE LETTERING
- MINIMUM 3/8" LETTER HEIGHT
- ALL CAPITAL LETTERS
- AERIAL OR SIMILAR FONT, NON-BOLD
- REFLECTIVE WEATHER RESISTANT MATERIAL SUITABLE FOR THE ENVIRONMENT (DURABLE ADHESIVE MATERIALS MUST MEET THIS REQUIREMENT)

ADHESIVE FASTENED SIGNS:
- THE LABEL SHALL BE SUITABLE FOR THE ENVIRONMENT WHERE IT IS INSTALLED.
- WHERE REQUIRED ELSEWHERE IN THIS CODE, ALL FIELD APPLIED LABELS, WARNINGS, AND MARKINGS SHOULD COMPLY WITH ANSI Z535.4 [CEC 110.21(B) FIELD MARKING].
- ADHESIVE FASTENED SIGNS MAY BE ACCEPTABLE IF PROPERLY ADHERED. VINYL SIGNS SHALL BE WEATHER RESISTANT

CAUTION !
MULTIPLE SOURCES OF POWER

POWER TO THIS BUILDING IS ALSO SUPPLIED FROM THE FOLLOWING SOURCES WITH DISCONNECTS AS SHOWN



23 SAN CLEMENTE TRAIL, CARMEL, CA 93923

LABEL LOCATION:
MAIN SERVICE PANEL

PHOTOVOLTAIC SYSTEM AC DISCONNECT
RATED AC OPERATING CURRENT 62.50 AMPS
AC NOMINAL OPERATING VOLTAGE 240 VOLTS

LABEL LOCATION:
AC DISCONNECT, POINT OF INTERCONNECTION
PER CODE: CEC 2022

WARNING: PHOTOVOLTAIC POWER SOURCE

LABEL LOCATION:
CONDUIT, COMBINER BOX
PER CODE: CEC 2022

PHOTOVOLTAIC SYSTEM EQUIPPED WITH RAPID SHUTDOWN

LABEL LOCATION:
WEATHER RESISTANT MATERIAL, DURABLE PLAQUE, UL969 AS STANDARD TO WEATHER RATING (UL LISTING OF MARKINGS NOT REQUIRED), MIN 3 8" LETTER HEIGHT ARIAL OR SIMILAR FONT NON-BOLD, PLACED WITHIN THE MAIN SERVICE DISCONNECT, PLACED ON THE OUTSIDE OF THE COVER WHEN DISCONNECT IS OPERABLE WITH SERVICE PANEL CLOSED. (PER CODE: CEC690.12, 690.56(C))

WARNING DUAL POWER SOURCE
SECOND SOURCE IS PHOTOVOLTAIC SYSTEM

LABEL LOCATION:
POINT OF INTERCONNECTION
PER CODE: CEC 2022

WARNING
ELECTRIC SHOCK HAZARD
DO NOT TOUCH TERMINALS TERMINALS ON BOTH LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION

LABEL LOCATION:
AC DISCONNECT, POINT OF INTERCONNECTION
PER CODE: CEC 2022

WARNING
INVERTER OUTPUT CONNECTION DO NOT RELOCATE THIS OVERCURRENT DEVICE

LABEL LOCATION:
POINT OF INTERCONNECTION
PER CODE: CEC 2022
[Not required if panelboard is rated not less than sum of ampere ratings of all overcurrent devices supplying it]

INVERTER #1

PHOTOVOLTAIC DC DISCONNECT

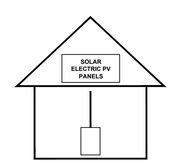
RATED MAXIMUM POWER-POINT CURRENT:	24.50	ADC
RATED MAXIMUM POWER-POINT VOLTAGE:	245.70	VDC
MAXIMUM SYSTEM VOLTAGE:	284.90	VDC
MAXIMUM SHORT CIRCUIT CURRENT:	26.30	ADC

LABEL LOCATION:
COMBINER BOX
PER CODE: CEC 2022

6"
3.5"

SOLAR PV SYSTEM EQUIPPED WITH RAPID SHUTDOWN

TURN RAPID SHUTDOWN SWITCH TO THE "OFF" POSITION TO SHUTDOWN PV SYSTEM AND REDUCE SHOCK HAZARD IN THE ARRAY



LABEL LOCATION:
SERVICE DISCONNECTING MEANS
PER CODE: CEC 2022

REVISIONS:	BY:

MONTEREY ENERGY GROUP
Consulting Mechanical Engineering
26465 Carmel Rancho Blvd. Suite 8, Carmel, CA 93923
831-372-8328 VOICE www.montereyenergygroup.com
831-359-4173 FAX cad@meg4.com

MESSIAH LOT: 207 RESIDENCE
23 SAN CLEMENTE TRAIL,
CARMEL, CA 93923
APN:- 239-131-007

SOLAR PHOTOVOLTAIC
ELECTRICAL DETAILS

DATE:
11/5/2024

SHEET SIZE
ARCH_D
24" X 36"

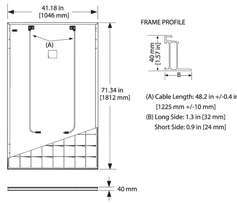
SHEET NUMBER
PV-3.0

MAXEON 3 POWER: 415–430 W | EFFICIENCY: Up to 22.7%

Electrical Data	SPR-MAX3-430-R	SPR-MAX3-425-R	SPR-MAX3-415-R
Nominal Power (Pnom)[2]	430 W	425 W	415 W
Power Tolerance	+5/0%	+5/0%	+5/0%
Panel Efficiency	22.7%	22.4%	21.9%
Rated Voltage (Vmpp)	35.1 V	34.9 V	34.5 V
Rated Current (Impp)	12.25 A	12.18 A	12.03 A
Open-Circuit Voltage (Voc)	40.7 V	40.7 V	40.6 V
Short-Circuit Current (Isc)	13.15 A	13.13 A	13.10 A
Max. System Voltage	1000 V UL & 1000 V IEC		
Maximum Series Fuse	25 A		
Power Temp Coef.	–0.27% / °C		
Voltage Temp Coef.	–0.236% / °C		
Current Temp Coef.	0.058% / °C		

Operating Condition And Mechanical Data	
Temperature	–40°F to +185°F (–40°C to +85°C)
Impact Resistance	1 inch (25 mm) diameter hail at 52 mph (23 m/s)
Solar Cells	112 Monocrystalline Maxeon Gen 3
Tempered Glass	High-transmission tempered anti-reflective
Junction Box	IP-68, Stäubli (MC4), 2 bypass diodes
Weight	46.7 lbs (21.2 kg)
Max. Load[6]	Wind: 50 psf, 2400 Pa back Snow: 112 psf, 5400 Pa front HVHZ:[7] 112 psf, 5400 Pa front and back
Frame	Class 1 black anodized (highest AAMA rating)

Certifications and Compliance	
Standard Tests[3]	UL 61730, IEC 61215, IEC 61730
Quality Management Certs	ISO 9001:2015, ISO 14001:2015
Ammonia Test	IEC 62716
Desert Test	IEC 60068-2-68, MIL-STD-810G
Salt Spray Test	IEC 61701 (maximum severity)
PID Test	1000 V: IEC 62804
Available Listings	UL, TUV
IFLI Declare Label	First solar panel labeled for ingredient transparency and LBC-compliance.[4]
Cradle to Cradle Certified™ Silver	First solar panel line certified for material health, water stewardship, material reutilization, renewable energy & carbon management, and social fairness.[5]
Green Building Certification Contribution	Panels can contribute additional points toward LEED and BREEAM certifications.
EHS Compliance	RoHS, ISO 45001:2018, Recycle Scheme, REACH SVHC-163



Please read the safety and installation instructions.
Visit www.maxeon.com/us/InstallGuideUL.
Paper version can be requested through
techsupport.ROW@maxeon.com.

1 40-year warranty is not available in all countries or all installations and requires registration, otherwise our 25-year warranty applies. Service availability varies by country and installation provider. When PV Modules are used in a system over 500 kW or on a ground-mount application, such as a tracker or carport, the Product and Power Warranty Terms shall each be limited to 25 years unless written approval is provided by Maxeon and the PV Modules are digitally registered.
2 Standard Test Conditions (1000 W/m² irradiance, AM 1.5, 25° C). NREL calibration Standard: SOMS current, LACCS FF and Voltage.
3 Type 2 fire rating per UL 61730, Class C fire rating per IEC 61730.
4 Maxeon DC panels first received the International Living Future Institute Declare Label in 2016.
5 Maxeon DC panels are Cradle to Cradle Certified™ Silver - www.c2ccertified.org/products/scorecard/maxeon_solar_panels_-_maxeon_corporation. Cradle to Cradle Certified™ is a certification mark licensed by the Cradle to Cradle Products Innovation Institute.
6 As per IEC 61215-2016 tested and certified.
7 Florida High Velocity Hurricane Zone (HVHZ) or equivalent US building codes. Please refer to the Safety and Installation guide for additional details.

Made in Philippines (Cells)
Assembled in Mexico (Module)
Specifications included in this datasheet are subject to change without notice.
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View warranty, patent and trademark information at maxeon.com/legal.

maxeon

545907 REV C / LTR_US
Publication Date: May 2023

STORZ POWER

STORZ POWER BATTERY SPECIFICATIONS

Model#: SP5.12-LFPv4

Sku#: 10247

- Lithium-Iron Phosphate (LFP)
- 5 kWh Battery
- 100% Depth of Discharge

Energy Capacity
5 kWh
100% depth of discharge
(at 1C Rate at 77°F)
98% round trip efficiency
100 Ah

Size & Weight:
17" x 17" x 8.75"
98 lbs.

Cycle Life
8,000 cycles
Storage temp <86°F
State of charge 20%-60%

Battery Chemistry
Lithium-Iron Phosphate (LFP)
Charge Temp Range: 32°F to 131°F
Discharge Temp Range: 14°F to 131°F
(best between 77°F to 87°F)
Included
BMU/BMS/Modbus/Terminals
Metal casing

Battery Installation
Wall mounted battery cabinet*
*4" ground clearance min. required

Stacking
Up to 14 units in parallel

Voltage
51.2 V nominal voltage
44-56 V voltage range

Current
Continuous charge 100 A
Continuous discharge 100 A
Peak 120 A, ≤ 0.3s

Communication Type
Double RS485

Terminal Lugs
Parallel connection required

Cooling
Natural convection - no fan

Protection Function
- Over-charge, over-discharge, over-current, short circuit, temperature
- 125 A main DC breaker 10kAIC

Compatibility
Most 48V PV inverter manufacturers & grid-tied PV systems

Certifications
UL 1642, UN 38.3, ANSI/CAN/UL-1973, UL 9540, UL 9540A, CA-SGIP, CEC, OGPe, ETL/Intertek tested & listed

Warranty:
25 year limited warranty
or 8,000 cycles

Battery Enclosure Rating:
IP65

Combined Weight:
2 Battery Modules & Cabinet: 300 lb.

www.storzpower.com | connect@storzpower.com | 833-786-7901

v5.1 | 2024.3.13

North America: 15K-2P-N

Sol-Ark

Datasheet	Limitless 15K-LV
Input Data (PV)	
Max. Allowed PV Power (STC)	19,500W
Nominal Voltage Range	175 - 425V
Startup Voltage	125V
Max. Input Voltage	500V
Max. Input Current per MPPT	26A (self-limiting)
No. of MPP Trackers	3
No. of PV Strings per MPPT	2
Max. AC Coupled Input	19,200 W
Output Data (AC)	
Nominal AC Voltage (L-L)	120/240V, 120/208V, 220V
Grid Frequency	50 / 60Hz
Real Power, max continuous	15,000W
Max. Output Current	62.5A
Real Power, max continuous (batteries only, no PV)	12,000W (50A @ 240V)
Peak Apparent Power (10s, off-grid)	24,000VA @ 240V
Peak Apparent Power (100ms, off-grid)	30,000VA @ 240V
Max Output Fault Current (5s)	94A with PV, 75A (batteries only, no PV)
Max Output Fault Current (100ms)	120A
Max. Grid Passthrough Current	200A
Power Factor Output Range	+/- 0.9 adjustable
Backup Transfer Time	5ms
CEC Efficiency	96.5%
Max Efficiency	97.5%
Design (DC to AC)	Transformerless DC
Stackable	Up to 12 in parallel
Battery Input Data (DC)	
Battery Technologies	Lithium / Lead Acid
Nominal DC Voltage	48V
Operating Voltage Range	43 - 63V
Capacity	50 – 9900Ah
Max. Battery Charge / Discharge Current	275A
Charging Controller	3-Stage with Equalization
Grid to Battery Charging Efficiency	96.0%
External Temperature Sensor	Included
Current Shunt for Accurate % SOC	Integrated
Automatic Generator Start	Integrated
Communication to Lithium	CANBus & RS485
General Data	
Dimensions (H x W x D)	807 x 494 x 306 mm / 31.8 x 19.4 x 12 in
Weight	61.2 Kg / 135 lb.
Enclosure	IP65 / NEMA 3R
Ambient Temperature	-25~55°C, > 45°C Derating
Noise	< 30 dB
Idle consumption - No Load	60W
Wi-Fi & LAN Communication	Included
Standard Warranty	10 Years
Protection and Certifications	
Electronics Certified Safety by SGS Labs to NEC & UL Specs - NEC 690.4B & NEC 705.4/6	Yes
Grid Sell Back – UL1741-2010/2018, IEEE1547a 2003/2014, FCC 15 Class B, UL17415B, CA Rule 21, HECO Rule 14H	Yes
PV DC Disconnect Switch – NEC 240.15	Integrated
Ground Fault Detection – NEC 690.5	Integrated
PV Rapid Shutdown Control – NEC 690.12	Integrated
PV Arc Fault Detection – NEC 690.11	Integrated
PV Input Lightning Protection	Integrated
PV String Input Reverse Polarity Protection	Integrated
AC Output Breaker - 200A	Integrated
200A x 2 Battery Breaker / Disconnect	Integrated
Surge Protection	DC Type II / AC Type II

Junction Boxes
Type 3R Screw Cover - Painted & Galvanized
Data and Illustration Sheet

Type 1, 3, & 3R Enclosures

Application
- Used as wiring boxes, junction and pull boxes
- Protects against falling rain, sleet and external ice formation

Standards
- UL 50 listed, Type 3R
- CSA C22.2 No. 40 certified, Type 3R
- Conforms to NEMA standard for Type 3R

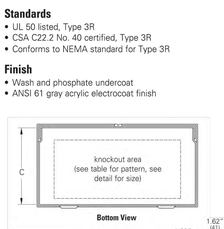
Finish
- Wash and phosphate undercoat
- ANSI 61 gray acrylic electrocoat finish

Accessories
- Touch-up paint
- See Accessories section

Construction
- Enclosure and cover are fabricated from code gauge galvaneal steel for painted or galvanized steel, (see table, page 57)
- Enclosure body has embossed mounting holes on the back
- Available with or without knockouts on the bottom end of enclosures less than 30 inches wide
- Cover is held secure by sliding it under the top end flange and fastening it with plated screws on the bottom end flange, (larger sizes use two studs and wing nuts)

Discount Schedule: A2

Subclass: AS0 & Z60



Notes: We can provide special sizes, finishes and other modifications. Consult the factory for your special requirements.
Dimensions are in inches. Millimeters shown are for reference only. Data subject to change without notice.

Junction Boxes - Type 3R Screw Cover - Painted & Galvanized
Catalog Number

Enclosure Catalog Number Painted KO	Painted No KO	Galvanized KO	Galvanized No KO	Enclosure Size Height x Width x Dept A x B x C in.	mm	D in.	D mm	E in.	E mm	Gauge	Knockout Pattern Bottom
444 RTSC	444 RTSC NK	444 RTSCGV	--	4.00 x 4.00 x 4.00	102 x 102 x 102	1.50	38	1.81	46	16	C D
644 RTSC	644 RTSC NK	--	--	6.00 x 4.00 x 4.00	152 x 102 x 102	3.50	89	1.81	46	16	C D
664 RTSC	664 RTSC NK	664 RTSCGV	664 RTSCGV NK	6.00 x 6.00 x 4.00	152 x 152 x 102	3.50	89	3.81	97	16	C D E
864 RTSC	864 RTSC NK	--	--	8.00 x 6.00 x 4.00	203 x 152 x 102	5.50	140	3.81	97	16	C D E
884 RTSC	884 RTSC NK	884 RTSCGV	884 RTSCGV NK	8.00 x 8.00 x 4.00	203 x 203 x 102	5.50	140	5.81	148	16	G H I J
1084 RTSC	1084 RTSC NK	--	--	10.00 x 8.00 x 4.00	254 x 203 x 102	7.50	191	5.81	148	16	G H I J
10104 RTSC	10104 RTSC NK	10104 RTSCGV	10104 RTSCGV NK	10.00 x 10.00 x 4.00	254 x 254 x 102	7.50	191	7.81	198	16	D E F G H
1284 RTSC	1284 RTSC NK	--	--	12.00 x 8.00 x 4.00	305 x 203 x 102	9.50	241	5.81	148	16	G H I J
12104 RTSC	12104 RTSC NK	--	--	12.00 x 10.00 x 4.00	305 x 254 x 102	9.50	241	7.81	198	16	D E F G H
12124 RTSC	12124 RTSC NK	12124 RTSCGV	12124 RTSCGV NK	12.00 x 12.00 x 4.00	305 x 305 x 102	9.50	241	9.81	249	16	D E F G H
15124 RTSC	--	--	--	15.00 x 12.00 x 4.00	381 x 305 x 102	12.50	318	9.81	249	16	D E F G H
16124 RTSC	16124 RTSC NK	--	--	16.00 x 12.00 x 4.00	406 x 305 x 102	13.50	343	9.81	249	16	D E F G H
16164 RTSC	16164 RTSC NK	--	--	16.00 x 16.00 x 4.00	406 x 406 x 102	13.50	343	13.81	351	16	C D E F G H I
18124 RTSC	--	--	--	18.00 x 12.00 x 4.00	457 x 305 x 102	15.50	394	9.81	249	16	D E F G H
18184 RTSC	18184 RTSC NK	--	--	18.00 x 18.00 x 4.00	457 x 457 x 102	15.50	394	15.81	402	16	B C D E F G H I J
24244 RTSC	24244 RTSC NK	--	--	24.00 x 24.00 x 4.00	610 x 610 x 102	21.50	546	21.56	548	14	B C D E F G H I J
666 RTSC	666 RTSC NK	666 RTSCGV	666 RTSCGV NK	6.00 x 6.00 x 6.00	152 x 152 x 152	3.50	89	3.81	97	16	C D E
866 RTSC	866 RTSC NK	--	--	8.00 x 6.00 x 6.00	203 x 152 x 152	5.50	140	3.81	97	16	C D E
886 RTSC	886 RTSC NK	886 RTSCGV	886 RTSCGV NK	8.00 x 8.00 x 6.00	203 x 203 x 152	5.50	140	5.81	148	16	G H I J
1086 RTSC	1086 RTSC NK	--	--	10.00 x 8.00 x 6.00	254 x 203 x 152	7.50	191	5.81	148	16	G H I J
10106 RTSC	10106 RTSC NK	10106 RTSCGV	10106 RTSCGV NK	10.00 x 10.00 x 6.00	254 x 254 x 152	7.50	191	7.81	198	16	D E F G H
1286 RTSC	--	--	--	12.00 x 8.00 x 6.00	305 x 203 x 152	9.50	241	5.81	148	16	G H I J
12106 RTSC	12106 RTSC NK	--	--	12.00 x 10.00 x 6.00	305 x 254 x 152	9.50	241	7.81	198	16	D E F G H
12126 RTSC	12126 RTSC NK	12126 RTSCGV	12126 RTSCGV NK	12.00 x 12.00 x 6.00	305 x 305 x 152	9.50	241	9.81	249	16	D E F G H
16126 RTSC	16126 RTSC NK	--	--	16.00 x 12.00 x 6.00	406 x 305 x 152	13.50	343	9.81	249	16	D E F G H
16166 RTSC	16166 RTSC NK	--	--	16.00 x 16.00 x 6.00	406 x 406 x 152	13.50	343	13.81	351	16	C D E F G H I
18126 RTSC	18126 RTSC NK	--	18126 RTSCGV NK	18.00 x 12.00 x 6.00	457 x 305 x 152	15.50	394	9.81	249	16	D E F G H
18186 RTSC	18186 RTSC NK	18186 RTSCGV	18186 RTSCGV NK	18.00 x 18.00 x 6.00	457 x 457 x 152	15.50	394	15.81	402	16	B C D E F G H I J
24126 RTSC	24126 RTSC NK	--	--	24.00 x 12.00 x 6.00	610 x 305 x 152	21.50	546	9.81	249	16	D E F G H
24186 RTSC	24186 RTSC NK	--	--	24.00 x 18.00 x 6.00	610 x 457 x 152	21.50	546	15.81	402	16	B C D E F G H I J
24246 RTSC	24246 RTSC NK	--	24246 RTSCGV NK	24.00 x 24.00 x 6.00	610 x 610 x 152	21.50	546	21.56	548	14	B C D E F G H I J
--	36366 RTSC NK	--	--	36.00 x 36.00 x 6.00	914 x 914 x 152	33.50	851	33.56	852	12	--
10108 RTSC	10108 RTSC NK	--	10108 RTSCGV NK	10.00 x 10.00 x 8.00	254 x 254 x 203	7.50	191	7.81	198	16	D E F G H
12128 RTSC	12128 RTSC NK	--	12128 RTSCGV NK	12.00 x 12.00 x 8.00	305 x 305 x 203	9.50	241	9.81	249	16	D E F G H
18128 RTSC	18128 RTSC NK	--	--	18.00 x 12.00 x 8.00	457 x 305 x 203	15.50	394	9.81	249	16	D E F G H
18188 RTSC	18188 RTSC NK	--	18188 RTSCGV NK	18.00 x 18.00 x 8.00	457 x 457 x 203	15.50	394	15.81	402	16	B C D E F G H I J
24168 RTSC	24168 RTSC NK	--	--	24.00 x 16.00 x 8.00	610 x 406 x 203	21.50	546	13.81	351	16	C D E F G H I
24188 RTSC	24188 RTSC NK	--	--	24.00 x 18.00 x 8.00	610 x 457 x 203	21.50	546	15.81	402	16	B C D E F G H I J
24248 RTSC	24248 RTSC NK	--	24248 RTSCGV NK	24.00 x 24.00 x 8.00	610 x 610 x 203	21.50	546	21.56	548	14	B C D E F G H I J
--	36368 RTSC NK	--	--	36.00 x 36.00 x 8.00	914 x 914 x 203	35.50	851	33.56	852	12	--
121210 RTSC	121210 RTSC NK	--	--	12.00 x 12.00 x 10.00	305 x 305 x 254	9.50	241	9.81	249	16	D E F G H
181210 RTSC	--	--	--	18.00 x 12.00 x 10.00	457 x 305 x 254	15.50	394	9.81	249	16	D E F G H
181810 RTSC	181810 RTSC NK	--	--	18.00 x 18.00 x 10.00	457 x 457 x 254	15.50	394	15.81	402	16	B C D E F G H I J
241810 RTSC	241810 RTSC NK	--	--	24.00 x 18.00 x 10.00	610 x 457 x 254	21.50	546	15.81	402	16	B C D E F G H I J
242410 RTSC	242410 RTSC NK	--	242410 RTSCGV NK	24.00 x 24.00 x 10.00	610 x 610 x 254	21.50	546	21.56	548	14	B C D E F G H I J
302410 RTSC	302410 RTSC NK	--	--	30.00 x 24.00 x 10.00	762 x 610 x 254	27.50	699	21.56	548	14	B C D E F G H I J
--	303010 RTSC NK	--	--	30.00 x 30.00 x 10.00	762 x 762 x 254	27.50	699	27.56	700	12	--
242412 RTSC	242412 RTSC NK	--	242412 RTSCGV NK	24.00 x 24.00 x 12.00	610 x 610 x 305	21.50	546	21.56	548	14	B C D E F G H I J
302412 RTSC	302412 RTSC NK	--	--	30.00 x 24.00 x 12.00	762 x 610 x 305	27.50	699	21.56	548	14	B C D E F G H I J
--	303012 RTSC NK	--	--	30.00x x 30.00 x 12.00	762 x 762 x 305	27.50	699	27.56	700	14	--
362412 RTSC	362412 RTSC NK	--	--	36.00 x 24.00 x 12.00	914 x 610 x 305	33.50	851	21.56	548	14	B C D E F G H I J
--	363012 RTSC NK	--	--	36.00 x 30.00 x 12.00	914 x 762 x 305	33.50	851	27.56	700	12	--
--	363612 RTSC NK	--	363612 RTSCGV NK	36.00 x 36.00 x 12.00	914 x 914 x 305	33.50	851	33.56	852	12	--

Notes: Dimensions are in inches. Millimeters shown are for reference only. Data subject to change without notice.

REVISIONS:	BY:

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MESSIAH LOT: 207 RESIDENCE
23 SAN CLEMENTE TRAIL,
CARMEL, CA 93923
APN:- 239-131-007

SOLAR PHOTOVOLTAIC
SPECIFICATION SHEET

DATE:
11/5/2024

SHEET SIZE
ARCH_D
24" X 36"

SHEET NUMBER
PV-4.0

ABBREVIATIONS

AC	AIR CONDITIONING UNIT
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
AP	ACCESS PANEL
ARCH	ARCHITECTURAL
BDD	BACK DRAFT DAMPER
BFF	BELOW FINISHED FLOOR
BLDG	BUILDING
BTUH	BRITISH THERMAL UNITS PER HOUR
CD	CONDENSATE DRAIN
CFH	CUBIC FEET PER HOUR
CFM	CUBIC FEET PER MINUTE
CP	CONDENSATE PUMP
CU	CONDENSING UNIT
DB	DRY BULB
DS	DUCT SILENCER
ELEC	ELECTRICAL
EF	EXHAUST FAN
(E)	EXISTING
ER	EXHAUST REGISTER
F	DEGREES FAHRENHEIT
FA	FREE AREA
FC	FAN COIL
FD	FIRE DAMPER
FLR	FLOOR
FP	FIRE PUMP
FPM	FEET PER MINUTE
FX	FLEXIBLE CONNECTION
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
HP	HEAT PUMP
HV	HEATING AND VENTILATING UNIT
HX	HEAT EXCHANGER
HZ	HERTZ
ID	INSIDE DIAMETER
LAT	LEAVING AIR TEMPERATURE
LWT	LEAVING WATER TEMPERATURE
LD	LINEAR DIFFUSER
LF	LINEAR FEET
MBH	BTU PER HOUR (X1000)
MC	MECHANICAL CONTRACTOR
MECH	MECHANICAL
MIN	MINIMUM
MUA	MAKE-UP AIR UNIT
(N)	NEW
N/A	NOT APPLICABLE
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NO.	NUMBER
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OAI	OUTSIDE AIR INTAKE
OD	OUTSIDE DIAMETER
PTAC	PACKAGED TERMINAL AIR CONDITIONER
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH GAUGE
RA	RETURN AIR
RAG	RETURN AIR GRILLE
RCP	REFLECTED CEILING PLAN
RHC	REHEAT COIL
RF	RETURN FAN
REQ'D	REQUIRED
RFRG	REFRIGERATOR
RPM	REVOLUTIONS PER MINUTE
RTU	ROOF TOP UNIT
SA	SUPPLY AIR
SCG	SMOKE CONTROL GRILLE
SCH	SCHEDULE
SD	SMOKE DAMPER
SEF	SMOKE EXHAUST FAN
SF	SUPPLY FAN
SP	STATIC PRESSURE
SQ FT	SQUARE FEET
TEMP	TEMPERATURE
TG	TRANSFER GRILLE
THK	THICK
TYP	TYPICAL
U/G	UNDERGROUND
UH	UNIT HEATER
UNO	UNLESS NOTED OTHERWISE
VAV	VARIABLE AIR VOLUME UNIT
V/ø/HZ	VOLTS/PHASE/HERTZ
VD	VOLUME DAMPER
VEL	VELOCITY
VFD	VARIABLE FREQUENCY DRIVE
W	WITH
W/O	WITHOUT
WB	WET BULB
WH	WATER HEATER

MECHANICAL SYMBOLS

SYMBOL	DESCRIPTION
	SUPPLY CEILING DIFFUSER
	SIDE WALL SUPPLY DIFFUSER
	RETURN CEILING DIFFUSER
	SIDEWALL RETURN DIFFUSER
	EXHAUST GRILL OR FAN
	EXHAUST FAN DUCT UP THRU ROOF W/ CAP
	ROUND EXHAUST DUCT UP
T	THERMOSTAT
	FLEXIBLE DUCTWORK
	POINT OF CONNECTION
	HATCH DENOTES DROPPED CEILING
FSD/FD	FIRE SMOKE DAMPER OR FIRE DAMPER (FSD OR FD)

SYMBOL	DESCRIPTION
REGISTER TYPE / AIR QUANTITY (CFM)	SUPPLY CEILING DIFFUSER
	ATTIC ACCESS PANEL
FAN	AIR HANDLER UNIT
CU HP	OUTDOOR AIR COMPRESSOR
SD	SMOKE DETECTOR
	SUPPLY DUCT UP
	RETURN DUCT UP
	SUPPLY AND RETURN DUCT DOWN
	EXHAUST WALL CAP
	OUTSIDE AIR WALL CAP
M	MOTORIZED ZONING DAMPER
	KEYED NOTES

GENERAL MECHANICAL NOTES

1. ALL MECHANICAL SYSTEMS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL CODES AND STANDARDS, INCLUDING 2022 CALIFORNIA MECHANICAL CODE, 2022 CALIFORNIA BUILDING CODE, 2022 CALIFORNIA RESIDENTIAL CODE, 2022 CALIFORNIA PLUMBING CODE, 2022 CALIFORNIA FIRE CODE, 2022 CALIFORNIA ELECTRICAL CODE, 2022 CALIFORNIA ENERGY CODE, 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE, TITLE 24 CALIFORNIA CODE OF REGULATIONS, AND VENTILATION REQUIREMENTS PER ASHRAE STD. 62.2-2022.
2. PRIOR TO SUBMITTING BID, CONTRACTOR SHALL SURVEY THE ENTIRE PROJECT SITE AND BECOME THOROUGHLY FAMILIAR WITH ACTUAL EXISTING CONDITIONS. THE INTENT OF WORK IS SHOWN ON THE DRAWINGS AND DESCRIBED HEREIN. BY THE ACT OF SUBMITTING A BID PROPOSAL FOR WORK, THE CONTRACTOR SHALL BE DEEMED TO HAVE MADE SUCH A STUDY AND EXAMINATION AND TO ACCEPT ALL CONDITIONS PRESENT AT SITE. NO REQUEST FOR ADDITIONAL PAYMENT SHALL BE CONSIDERED VALID, DUE TO CONTRACTOR FAILURE TO ALLOW IN COST ESTIMATE FOR CONDITIONS WHICH MAY EXIST.
3. CONTRACTOR BID SHALL NOT BE LIMITED TO THE WORK SHOWN ON THE PLANS AND SPECIFICATIONS. ALL PREMIUM OVERTIME COSTS, UTILITY CHARGES, COST FOR TEMPORARY UTILITY SERVICES, ALL ALTERATION, ALL DEMOLITION AND EXTENSION WORKS, PERMITS, INSPECTION FEES, MISCELLANEOUS CONTINGENCY COST, ETC., SHALL BE INCLUDED IN BID.
4. CONTRACTOR MUST VERIFY LOCATIONS OF ALL EQUIPMENT AND POINTS OF CONNECTIONS AND COORDINATE WITH CONSTRUCTION MANAGER, ARCHITECT, CIVIL ENGINEER, LANDSCAPE ARCHITECT AND UTILITY CONSULTANTS PRIOR TO START OF CONSTRUCTION. NO COMPENSATION WILL BE MADE FOR RELOCATION OF EQUIPMENT AND ASSOCIATED COST.
5. CONTRACT DRAWINGS ARE DIAGRAMMATIC. THE CONTRACTOR MUST FIELD VERIFY THE DRAWINGS PRIOR TO FABRICATION AND CONSTRUCTION. ALL DIMENSIONS SHOWN ON THESE PLANS ARE APPROXIMATE, AND MUST BE CONFIRMED ON SITE.
6. CONTRACTOR SHALL VERIFY ACTUAL EXISTING CONDITIONS AT SITE PRIOR TO SUBMITTING BID.
7. ANY WORK TO BE PERFORMED MUST BE PLANNED IN ADVANCE. SCHEDULING SHALL BE DONE IN COOPERATION WITH CONSTRUCTION MANAGER. INCLUDE ALL PREMIUM TIME CHARGES IN BID TO COVER AFTER-HOURS AND WEEKEND WORK.
8. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL TRADES. COORDINATE THE LOCATIONS OF ALL CEILING DIFFUSERS, REGISTERS AND GRILLES WITH THE ARCHITECTURAL CEILING PLAN, ELECTRICAL LIGHTING LAYOUT, STRUCTURAL FRAMING LAYOUT, AND ARCHITECTURAL ROOM ELEVATIONS. ALL WORK SHALL BE IN ACCORDANCE WITH BEST CONSTRUCTION PRACTICES.
9. THE CONTRACTOR SHALL FURNISH ALL MATERIAL, TOOLS, LABOR, ETC. TO INSTALL A COMPLETE AND FUNCTIONING SYSTEM AS INDICATED ON DRAWINGS.
10. THE CONTRACTOR SHALL REPORT TO THE CONSTRUCTION MANAGER IMMEDIATELY ANY INTERFERENCE BETWEEN TRADES OR WITH BUILDING OBSTRUCTIONS.
11. PROVIDE SHOP DRAWINGS FOR ALL EQUIPMENT, DUCTWORK, PIPING, DAMPERS, ETC. AND SUBMIT IT TO THE CONSTRUCTION MANAGER FOR APPROVAL.
12. ALL DUCTWORK SHALL BE CONSTRUCTED, ERECTED, AND SEALED IN ACCORDANCE WITH THE MOST RESTRICTIVE OF LOCAL REGULATIONS AND PROCEDURES DETAILED IN ASHRAE HANDBOOK OF FUNDAMENTALS OR THE APPLICABLE STANDARDS ADOPTED BY THE SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION AND THE UNIFORM MECHANICAL CODE.
13. FACTORY-MADE AIR DUCTS SHALL NOT BE USED FOR VERTICAL RISERS IN AIR-DUCT SYSTEMS SERVING MORE THAN TWO STORIES (UNLESS ALLOWED BY CHIEF BUILDING INSPECTOR AND THE FIELD INSPECTOR). SUCH DUCTS SHALL NOT PENETRATE CONSTRUCTION WHERE FIRE DAMPERS ARE REQUIRED (CMC SECTION 603.4.).
14. ALL DUCT SIZES ARE CLEAR INSIDE SIZES. OBTAIN APPROVAL FROM CONSTRUCTION MANAGER FOR SIZING OF ANY DUCTWORK, WHERE SIZES ARE NOT SHOWN ON DRAWINGS.
15. MANUAL VOLUME DAMPERS SHALL BE PROVIDED IN ALL DUCT BRANCHES TO INDIVIDUAL BOXES, DIFFUSERS, GRILLES AND REGISTERS AND SHALL BE LOCKED IN THE FINAL POSITION AFTER COMPLETION OF AIR BALANCE.
16. ALL DUCT SHALL BE INSTALLED WITH ACCORDANCE TO MANUFACTURERS GUIDELINES AND CHAPTER 6 OF CMC 2019.
17. TRANSVERSE AND LONGITUDINAL JOINTS FOR ALL SUPPLY AIR DUCTS SHALL BE SEALED WITH APPROVED MASTIC PER SMACNA.
18. COVER ALL WALLS, FLOOR, CEILING AND ROOF OPENINGS LEFT AS THE RESULT OF THE WORK. PROVISIONS SHALL BE MADE TO PROJECT PEOPLE FROM INJURY AND TO PROTECT EQUIPMENT FROM WEATHER.
19. CUTTING OR PENETRATION OF STRUCTURAL MEMBERS MUST BE APPROVED BY THE STRUCTURAL ENGINEER ON RECORD.
20. SEAL ALL PENETRATIONS THROUGH WALLS, CEILINGS, FLOOR, ETC. TO MAINTAIN THE FIRE RATING, AND BUILDING PRESSURIZATION.
21. PROVIDE ANCHORAGE FOR ALL PIPING, DUCTWORK AND EQUIPMENT IN ACCORDANCE WITH THE LATEST EDITION OF GUIDELINES FOR SEISMIC RESTRAINTS OF MECHANICAL SYSTEMS AND PLUMBING PIPING SYSTEMS PER SMACNA.
22. INSTALL ALL DUCT WORK AND PIPING HIGH AS POSSIBLE UNLESS NOTED ON THE PLANS.
23. ALL EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE EQUIPMENT MANUFACTURER'S RECOMMENDATIONS. PROVIDE ALL NECESSARY ACCESSORIES FOR COMPLETE INSTALLATION.
24. CURBS, PLATFORMS, AND FLASHING FOR MECHANICAL EQUIPMENT SHALL BE AS INDICATED ON THE ARCHITECTURAL PLANS AND STRUCTURAL PLANS. COORDINATE EXACT SIZES OF REQUIRED OPENINGS AND SUPPORTS FOR FURNISHED EQUIPMENT.
25. ALL DUCT WORK MUST BE INSULATED OR LINED PER SPECIFICATIONS OR NOTED IN THE DRAWINGS. THE FLEXIBLE DUCT MUST BE INSTALLED PER MANUFACTURER GUIDELINES AND SHALL ELIMINATE RESTRICTION TO AIR FLOW.
26. PRE-INSULATED FLEXIBLE DUCT WORK SHALL BE SUPPORTED AND JOINED TO SHEET METAL PER SMACNA DUCT CONSTRUCTION STANDARDS AND SHALL BE USED WITH A 2" SHEET METAL SADDLE AT EACH SUPPORT HANGER.
27. WHEN FLEXIBLE DUCTWORK IS INSTALLED AS A BRANCH DUCTWORK TO A POINT OF TERMINATION, THE CONTRACTOR MUST UTILIZE ADJUSTABLE SHEET METAL ELBOWS WITH AN ALUMINIZED INSULATION MATCHING THE PRE-INSULATED FLEXIBLE DUCTWORK INSULATING VALUE.
28. METAL DUCTS SHALL COMPLY WITH CMC SECTION 602.6. THE METALS DUCTS SHALL BE SUPPORTED PER THE REQUIREMENTS PER CMC 603.3.
29. ALL HVAC EQUIPMENT SHALL BE U.L. LISTED AND BEAR A U.L. LABELS.
30. MECHANICAL EQUIPMENT, AIR DISTRIBUTION DEVICES, AIR DIFFUSERS, FANS, AND OTHER EQUIPMENT THAT MAY PROJECT SOUND SHALL BE INSTALLED PER MINIMUM REQUIREMENT, CONFORM TO INSTALLATION DETAILS AND RECOMMENDATION IN CHAPTER 52 OF ASHRAE HANDBOOK, "HVAC SYSTEMS AND APPLICATIONS."
31. GUARDS SHALL BE PROVIDED WHERE APPLIANCES, EQUIPMENT, FANS ROOF HATCH OPENINGS OR OTHER COMPONENTS THAT REQUIRE SERVICE ARE LOCATED WITHIN 10 FEET OF A ROOF EDGE OR OPEN SIDE OF WALKING SURFACE AND SUCH EDGE OR OPEN SIDE IS LOCATED MORE THAN 30" ABOVE THE FLOOR, ROOF OR GRADE BELOW. THE GUARD SHALL BE CONSTRUCTED SO AS TO PREVENT THE PASSAGE OF A SPHERE 21" IN DIAMETER. THE GUARD SHALL EXTEND NOT LESS THAN 30" BEYOND EACH END OF SUCH APPLIANCE, EQUIPMENT, FAN OR COMPONENT.
32. COORDINATE THE THERMOSTATS/SENSORS LOCATIONS WITH THE ARCHITECT. ALL THE THERMOSTATS/SENSORS SHALL BE MOUNTED AT 48" ABOVE FINISHED FLOOR TO MEET ADA REQUIREMENTS.
33. THE CONTRACTOR SHALL VERIFY THE INPUT VOLTAGE AND AMPERAGE (HORSEPOWER) RATING OF ALL EQUIPMENT PRIOR TO INSTALLATION.
34. CONTRACTOR SHALL PROVIDE ALL SAFETY MATERIALS AND EQUIPMENT NOT LIMITED TO BARRIERS, SIGNS, LIGHTS, ETC.
35. CONTRACTOR SHALL PROVIDE BARRICADE, SAFETY SIGNS AND OTHER DEVICES TO ISOLATE WORK AREA DURING CONSTRUCTION, UPON CONSTRUCTION MANAGER APPROVAL.
36. CONTRACTOR SHALL REPAIR/PATCH AND WEATHER PROOF ANY OPENING CAUSED BY EQUIPMENT/PIPING INSTALLATION, AND SHALL PAINT WHERE NECESSARY.
37. THE CONTRACTOR SHALL THOROUGHLY CLEAN THE UNITS, REMOVE ALL PACKING LABELS, STICKERS AND ANY CRATING DEBRIS, AND LEAVE ALL INSTALLATION FINISHED AND READY FOR OPERATION.
38. AFTER COMPLETION, THE COMPLETE SYSTEM SHALL BE TESTED AND BALANCED. ANY ADDITIONAL BALANCING DEVICES REQUIRED FOR PROPER BALANCING SHALL BE INSTALLED, PRIOR TO BALANCING ALL FILTERS SHALL BE REPLACED WITH NEW CLEAN FILTERS PLACED IN THE RETURN GRILLES.
39. UPON COMPLETION OF PROJECT AND PRIOR TO ACCEPTANCE OF THE WORK BY THE CONSTRUCTION MANAGER, CONTRACTOR SHALL FURNISH TO HIM FOUR (4) COPIES OF OPERATION AND MAINTENANCE MANUAL OF EQUIPMENT BOUND IN BOOK FORM AND INDEXED. MANUAL SHALL CONTAIN PARTS LIST, RECOMMENDED PERIODS OF INSPECTION, ETC., AND NAME, ADDRESS AND PHONE NUMBER OF ALL SUPPLIERS.
40. THE CONTRACTOR SHALL PREPARE ONE (1) SET OF "RECORD DRAWINGS" PLANS AND KEEP AT JOB SITE FOR REVIEW BY THE CONSTRUCTION MANAGER. ANY CHANGES FROM THE DESIGN DRAWINGS SHALL BE NOTED WITH RED INK. UPON COMPLETION OF PROJECT THE CONTRACTOR SHALL SUBMIT THE PLANS TO THE CONSTRUCTION MANAGER.
41. COMPLETE INSTALLATION SHALL BE GUARANTEED, AND CONTRACTOR SHALL PROVIDE 1 YEAR SERVICE, INCLUDING PARTS AND LABOR.
42. THE CONTRACTOR SHALL FURNISH A TRAINED AND COMPETENT SERVICE ENGINEER TO INSTRUCT THE OPERATORS IN THE OPERATION AND MAINTENANCE OF THE SYSTEM.
43. EACH SINGLE SYSTEM HEATING OR COOLING AIR IN EXCESS OF 2,000 CUBIC FEET PER MINUTE SHALL BE EQUIPPED WITH AN AUTOMATIC SHUTOFF ACTIVATED BY SMOKE DETECTORS PER 2019 CMC SECTION 608.
44. ALL DUCT SMOKE DETECTORS SHALL BE FURNISHED AND WIRED BY DIV. 16, INSTALLED BY DIV. 15. DETECTOR SAMPLING TUBES TO HAVE AN ACCESS DOOR MAKING SAMPLING TUBES READILY ACCESSIBLE.
45. PROVIDE CEILING ACCESS PANELS IN ALL NON-ACCESSIBLE CEILINGS FOR VALVES, CLEANOUTS, AND DAMPERS. REFER TO ARCHITECTURAL PLANS FOR LOCATIONS.
46. HVAC SYSTEM INSTALLERS SHALL BE TRAINED AND CERTIFIED IN THE PROPER INSTALLATION OF HVAC SYSTEMS AND EQUIPMENT BY A RECOGNIZED TRAINING OR CERTIFICATION PROGRAM
47. FIRE PLACES MUST BE DIRECT-VENT SEALED-COMBUSTION CHAMBER TYPE PER GBSC 4.503. NO WOOD BURNING FIREPLACE IS PERMITTED PER AQMD REGULATIONS.
48. ALL NEW WINDOWS AND DOORS SHALL HAVE A LABEL INDICATING THE U-FACTOR AND SHGC.
49. AT THE TIME OF ROUGH INSTALLATION, DURING STORAGE ON THE CONSTRUCTION SITE AND UNTIL FINAL STARTUP OF HEATING, COOLING AND VENTILATING EQUIPMENT, ALL DUCT AND OTHER RELATED AIR INTAKE AND DISTRIBUTION COMPONENT OPENINGS SHALL BE COVERED.
50. EACH BATHROOM SHALL BE MECHANICALLY VENTILATED AND SHALL COMPLY WITH THE FOLLOWING:
    - 50.1. FANS SHALL BE ENERGY STAR COMPLIANT AND BE DUCTED TO TERMINATE OUTSIDE THE BUILDING.
    - 50.2. UNLESS FUNCTIONING AS A COMPONENT OF A WHOLE HOUSE VENTILATION SYSTEM, FANS MUST BE CONTROLLED BY A HUMIDITY CONTROL.
      - 50.2.1. HUMIDITY CONTROLS SHALL BE CAPABLE OF MANUAL OR AUTOMATIC ADJUSTMENT BETWEEN A RELATIVE HUMIDITY RANGE OF LESS THAN 50% TO A MAXIMUM OF 80%.
      - 50.2.2. A HUMIDITY CONTROL MAY BE A SEPARATE COMPONENT TO THE EXHAUST FAN AND IS NOT REQUIRED TO BE INTEGRAL OR BUILT-IN
51. BUILDING CONTAINS A WHOLE HOUSE EXHAUST FAN. ITS COVERS OR LOUVERS SHALL HAVE A MINIMUM OF R-4.2 INSULATION.
52. AIR CONDITIONING AND HEATING FILTER SHALL BE RATED AT MERV 13 MINIMUM. THE DUCT SYSTEM MUST BE DESIGN ACCOUNTING FOR THE PRESSURE DROP ACROSS THE FILTER.
53. THE INSTALLING CONTRACTOR MUST PROVIDE SEISMIC BRACING OF ALL MECHANICAL EQUIPMENT, PIPING AND DUCT WORK IN ACCORDANCE WITH REQUIREMENTS OF THE 2019 CBC FOR " SEISMIC DESIGN CATEGORY."
54. WHERE ANCHORAGE DETAILS ARE NOT SHOWN ON THE PLANS, THE FIELD CONTRACTOR MUST VERIFY AND GET APPROVAL FOR THE INSTALLATION FROM THE MECHANICAL ENGINEER AND THE STRUCTURAL ENGINEER.

AIR SYSTEM DESIGN CRITERIA

CITY	CARMEL
COUNTY	MONTEREY
CLIMATE ZONE	03
SUMMER OUTDOOR DESIGN TEMP. (DRY-BULB)	78 DEG F
SUMMER COINCIDENT WET-BULB TEMP.	62 DEG F
SUMMER DAILY RANGE	20 DEG F
WINTER OUTDOOR DESIGN TEMP. (DRY BULB)	30 DEG F
SUMMER INDOOR DESIGN TEMP. (DRY BULB)	75 DEG F
WINTER INDOOR DESIGN TEMP. (DRY BULB)	68 DEG F

MECHANICAL SHEET INDEX

NO.	SHEET	DESCRIPTION
1	M-1.0	HVAC NOTES, SYMBOLS & SHEET INDEX
2	M-1.1	HVAC EQUIPMENT SCHEDULES
3	M-1.2.0	HVAC DETAILS
4	M-1.2.1	HVAC DETAILS
5	M-2.0	HVAC PLAN - MAIN RESIDENCE - CRAWLSPACE
6	M-2.1	HVAC PLAN - MAIN RESIDENCE - FIRST FLOOR
7	M-2.2	HVAC PLAN - ADU

REVISIONS

NO.	DATE	DESCRIPTION

SEAL:

REGISTERED PROFESSIONAL ENGINEER
GANGYI ZHOU
No. M34279
Exp.12-31-2026
MECHANICAL
STATE OF CALIFORNIA

GMEP ENGINEERS
26439 Rancho Pkwy. S., Ste 120
Lake Forest, CA 92630
Tel: 949-267-9095

PROJECT NAME:
LOT 207
LUCIA PRESERVE
23 SAN CLEMENTE TRL.
CARMEL, CA 93923

SHEET TITLE
MECHANICAL
HVAC NOTES, SYMBOLS
& SHEET INDEX

DRAWN	GMEP
CHECKED	GMEP
DATE	01/17/25
SCALE	AS NOTED
JOB NO.	24-731
SHEET	M-1.0

RECTANGULAR DUCT SIZE ESTIMATE

DESIGN CFM	DUCT HEIGHT - NET INSIDE DIMENSION IN INCHES 4"	CFM	6"	CFM	8"	CFM	10"	CFM	12"
60	6X4	60	4X6	90	4X8	120	4X10	150	4X12
90	8X4	110	6X6	160	6X8	215	6X10	270	6X12
120	10X4	160	8X6	230	8X8	310	8X10	400	8X12
150	12X4	215	10X6	310	10X8	430	10X10	550	10X12
180	14X4	270	12X6	400	12X8	550	12X10	680	12X12
210	16X4	320	14X6	490	14X8	670	14X10	800	14X12
240	18X4	375	16X6	580	16X8	800	16X10	950	16X12
270	20X4	430	18X6	670	18X8	930	18X10	1100	18X12
300	22X4	490	20X6	750	20X8	1060	20X10	1250	20X12
330	24X4	540	22X6	840	22X8	1200	22X10	1400	22X12
		600	24X6	930	24X8	1320	24X10	1600	24X12
		650	26X6	1020	26X8	1430	26X10	1750	26X12
		710	28X6	1100	28X8	1550	28X10	1950	28X12
		775	30X6	1200	30X8	1670	30X10	2150	30X12
40	21/2X10			1300	32X8	1800	32X10	2300	32X12
70	21/2X14			1400	34X8	1930	34X10	2450	34X12
150	21/2X30			1500	36X8	2060	36X10	2600	36X12
		100	31/2X14			2200	38X10	2750	38X12
		220	31/2X30			2350	40X10	2900	40X12
								3050	42X12

RECTANGULAR SHEET METAL DUCT = .07" ON MOST METAL DUCT CALCULATORS

FLEXIBLE DUCT

DUCT SIZE	DESIGN SUPPLY AIRFLOW (CFM)	DESIGN RETURN AIRFLOW (CFM)
5"	60	54
6"	100	90
7"	150	135
8"	240	216
9"	300	270
10"	400	360
12"	650	585
14"	1000	900
16"	1400	1270
18"	2000	1800
20"	2500	2250

FLEX DUCT =.1" ON MOST METAL DUCT CALCULATOR

ROUND METAL PIPE

DUCT SIZE	DESIGN AIRFLOW (CFM)
5"	60
6"	100
7"	150
8"	240
9"	300
10"	400
12"	650
14"	1000
16"	1400
18"	2000
20"	2500

ROUND METAL PIPE =.1" ON METAL DUCT CALCULATORS

AIR DISTRIBUTION DEVICE SCHEDULE

TAG ON PLANS	MANUFACTURER & MODEL #	APPLICATION & TYPE	BLOWPATTERN	NECK SIZE	REMARKS
CS-2	SHOEMAKER 850 OR EQUAL	SEE DWGS	2-WAY	SEE PLANS	CEILING OR SIDE WALL STAMPED DIFFUSER W/ LEVER OPERATED OPPOSED BLADE DAMPER
CS-3	SHOWMAKER 845 OR EQUAL	SEE DWGS	3-WAY	SEE PLANS	CEILING OR SIDE WALL STAMPED DIFFUSER W/ LEVER OPERATED OPPOSED BLADE DAMPER
CS-4	SHOEMAKER 150 OR EQUAL	SEE DWGS	4-WAY	SEE PLANS	CEILING STAMPED DIFFUSER W/ LEVER OPERATED OPPOSED BLADE DAMPER
CRG	SHOEMAKER FG OR EQUAL	SEE DWGS	------	SEE PLANS	CEILING STAMPED FACE FILTER GRILL MINIMUM MERV 13 FILTER

NOTES:
1. CRG SHALL HAVE MAXIMUM FACE VELOCITY OF 450 FPM WITH A 1" FILTER NOT LESS THAN MERV 13 W/ MAX. PRESSURE DROP OF 0.2" W.C. FOR FILTER AND GRILL.
B. CONTRACTOR TO USE OR EQUAL REGISTERS. THE THROW PATTERNS SHALL BE MATCHED PER THE PLANS. BASE THE ALTERNATE SELECTION BASE ON MAXIMUM PRESSURE DROP OF 0.04" W.C. THE VELOCITY AT THE FACE SHALL NOT EXCEED 700 FPM.

FAN SCHEDULE

EQUIPMENT NO.	SERVICE	LOCATION	CFM	STATIC PRESS. (IN W.G.)	MOTOR WATTS	MOTOR HP	MOTOR RPM	MOTOR VOLT.-PH.-CY.	MANUFACTURER & MODEL	SONES	OPTIONS-ACCESSORIES
EF R	RESTROOM	CEILING	63	0.25	27.6	--	--	120-1-60	AIRKING AK80 OR EQUAL	1.5	BACK DRAFT DAMPER CONTROLLED BY SWITCH OPER. WT. = 10.0 LBS
EF B	BATHROOM	CEILING	84	0.25	37.0	--	--	120-1-60	AIRKING EI80SH W/ BOOST OR EQUAL	0.7	BACK DRAFT DAMPER CONTROLLED BY BUILT IN HUMIDITY SENSOR OPER. WT. = 17.0 LBS
EF MB	MASTER BATHROOM	CEILING	113	0.25	37.0	--	--	120-1-60	AIRKING EI80SH W/ BOOST OR EQUAL	0.7	BACK DRAFT DAMPER CONTROLLED BY BUILT IN HUMIDITY SENSOR OPER. WT. = 17.0 LBS
EF L	LAUNDRY/ WHOLEHOUSE	CEILING	183	0.25	57.0	--	--	120-1-60	AIRKING AK200LS OR EQUAL	1.0	BACK DRAFT DAMPER CONTROLLED BY SWITCH (CONTINUOUS OPERATION WHILE HOUSE IS OCCUPIED) OPER. WT. = 11.5 LBS
EF BW	LAUNDRY/ WHOLEHOUSE	CEILING	50/90	0.25	7.3	--	--	120-1-60	AIRKING D4DH OR EQUAL	0.5	BACK DRAFT DAMPER LOW SPEED CONTROLLED BY SWITCH (CONTINUOUS OPERATION WHILE HOUSE IS OCCUPIED) HIGH SPEED CONTROLLED BY BUILT IN HUMIDITY SENSOR OPER. WT. = 17.0 LBS

NOTES:
VERIFY WITH ARCHITECT/OWNER FOR EXACT MODEL NUMBER BEFORE ROUGH-IN.
ALL EXHAUST FANS TO BE ENERGY STAR CERTIFIED.

SPLIT SYSTEM AIR HANDLER FAN COIL UNITS SCHEDULE

EQUIPMENT NO.	MANUFACTURER & MODEL NO.	SERVICE	SUPPLY AIR (CFM)	OUTSIDE AIR (CFM)	E.S.P. (IN W.G.)	ELECTRICAL V.-PH.-CY.	ELECTRICAL MCA	OPERATING WEIGHTS (LBS)	REMARKS
FC 18	CARRIER FMC4218**AL* OR EQUAL	SEE PLAN	600	--	0.15	208/230-1-60	2.6	109.0	1. 2. 3. 4. 5.
FC 60	CARRIER FJ4DNXD60L00 OR EQUAL	SEE PLAN	2000	--	0.39	208/230-1-60	7.6	210.0	1. 2. 3. 4. 5.

NOTES:
1. PROVIDE REQUIRED ACCESS TO INDOOR UNIT PER CMC.
2. PROVIDE PROGRAMMABLE ROOM THERMOSTAT FOR EACH FAU/FC UNIT.
3. PROVIDE CONTROL WIRING, CONDUIT, ETC. FOR A COMPLETE AND OPERABLE SYSTEM.
4. PROVIDE SECONDARY CONDENSATE DRAIN PAN FOR ALL DX COILS.
5. PROVIDE MERV 13 FILTER AT RETURN AIR PLENUM CONNECTION TO UNIT.

SPLIT SYSTEM OUTDOOR HEAT PUMP CONDENSING UNIT

EQUIPMENT NO.	MANUFACTURER & MODEL NO.	SERVICE	HEATING CAPACITY (BTU/HR)	HSPF2 OR COP	COOLING CAPACITY (B.T.U/HR)	SEER2 /EER2	ELECTRICAL V.-PH.-CY.	ELECTRICAL MCA	ELECTRICAL MOCP	OPERATING WEIGHTS (LBS)	REFRIGERANT TUBE LIQUID	REFRIGERANT TUBE VAPOR	REMARKS
HP 18	CARRIER GH5SAN418000A OR EQUAL	SEE PLAN	17,100	7.5 HSPF2	17,100	15.2/12.0	208/230-1-60	13.4	20	135.0	3/8"	5/8"	1.
HP 60	CARRIER GH5SAN460000A OR EQUAL	SEE PLAN	57,000	7.5 HSPF2	57,000	14.3/12.0	208/230-1-60	33.2	50	253.0	3/8"	7/8"	1.

NOTES:
1. PROVIDE ALL REQUIRED MATERIALS & INSULATED REFRIGERANT LINES FOR COMPLETE INSTALLATION, SIZE RS/RL PIPING PER MANUFACTURERS GUIDELINES.

REVISIONS

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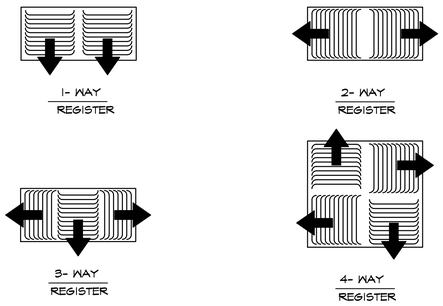
PROJECT NAME:
LOT 207 SANTA LUCIA PRESERVE
23 SAN CLEMENTE TRL.
CARMEL, CA 93923

SHEET TITLE
MECHANICAL
HVAC EQUIPMENT SCHEDULS

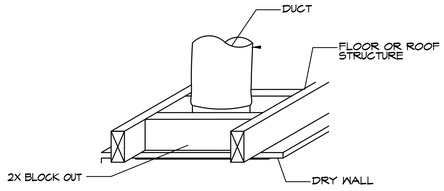
DRAWN: GMEP
CHECKED: GMEP
DATE: 01/17/25
SCALE: AS NOTED
JOB NO.: 24-731
SHEET: M-1.1



COMMOM TYPES OF DIRECTIONAL REGISTERS

SCALE: NONE

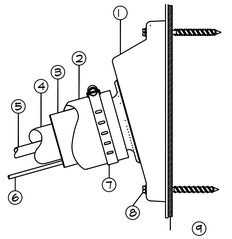
8



TYPICAL REGISTER BLOCK OUT

SCALE: NONE

7



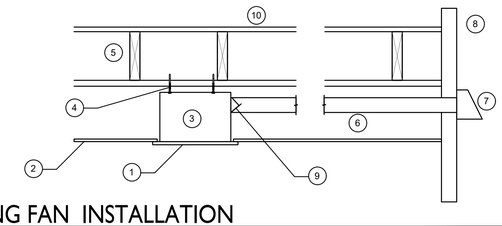
1. EXTERIOR WALL OR PARAPET WALL SEAL PENETRATION OUTLET WITH ELASTOMERIC LINE-SET COMPRESSION SLEEVE TYPE "TITANGS30" BY AIREX MANUFACTURING INC.
2. INSULATION PROTECTIVE PVC COVER TYPE "E-FLEX GUARD" BY AIREX MANUFACTURING INC.
3. ELASTOMERIC LINE-SET COMPRESSION & ANTI-VIBRATION SLEEVE (COMPONENT OF REFERENCE 1 "TITAN GS30")
4. #/#" INSULATION FOR REFRIGERATION SUCTION LINE TYPE "_____"
5. #/#" REFRIGERATION SUCTION LINE TYPE "_____" COPPER
6. #/#" REFRIGERATION LIQUID LINE TYPE "_____" COPPER
7. MECHANICAL CONNECTION SECURED WITH STAINLESS STEEL CLAMP (COMPONENT OF REFERENCE 1 "TITAN GS30")
8. WALL FASTENERS SELF-TAPPING 3/8" HEX HEAD 1/4" DIAMETER ALL MATERIAL ANCHORS SCREWS WITH ELASTOMERIC WASHERS (COMPONENT OF REFERENCE 1 "TITAN GS30")
9. WALL SURFACE SEAL ELASTOMERIC GASKET (COMPONENT OF REFERENCE 1 "TITAN GS30")

PIPE PENETRATION DETAIL

SCALE: NONE

6

1. GRILL FINISH AT THE DROP CEILING
2. NON-RATED DROP CEILING
3. EXHAUST FAN
4. LAG SCREW TO FASTEN TO STRUCTURE
5. FLOOR JOIST
6. 26 GAGE EXHAUST DUCT
7. WALL CAP
8. EXTERIOR WALL
9. BACK DRAFT DAMPER
10. FLOOR ABOVE



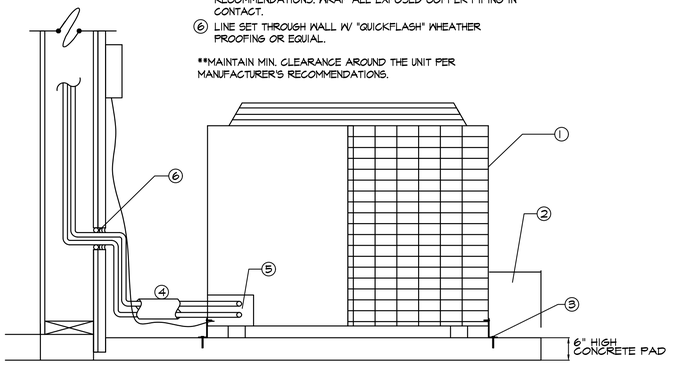
CEILING FAN INSTALLATION

SCALE: NONE

5

1. CONDENSING UNIT
2. EXTEND PAD A MIN. OF 4" FROM UNIT ON ALL SIDES. COORDINATE SIZE WITH CONDENSING UNIT USED.
3. STRAP A/C TO CONC SALB WITH ANCHOR BOLD/SCREW-PER A/C MANUFACTURER RECOMMENDATION AT ALL SIDES.
4. REFER TO "PIPE PENETRATION DETAIL"
5. LIQUID LINE AND INSULATED SUCTION LINE. SIZE PER RECOMMENDATIONS. WRAP ALL EXPOSED COPPER PIPING IN CONTACT.
6. LINE SET THROUGH WALL W/ "QUICKFLASH" WHEATHER PROOFING OR EQUAL.

**MAINTAIN MIN. CLEARANCE AROUND THE UNIT PER MANUFACTURER'S RECOMMENDATIONS.



CONDENSING UNIT INSTALLATION ON GRADE

SCALE: NONE

4

DRYER VENT SIZING

DRYER VENT SIZE	LT	REMARK
4"	14'-0"	1
5"	34'-0"	2

CLOTHES DRYER VENT SHALL NOT EXCEED A TOTAL COMBINED HORIZ. AND VERT. LENGTH OF 14' FOR 4" AND 34' FOR 5", INCLUDING TWO 90- DEGREE ELBOWS. TWO FEET SHALL BE DEDUCTED FOR EACH 90- DEGREE ELBOW IN EXCESS OF TWO. SECTION 504.4.2.1 OF THE CMC., FLEX DUCT PORTION CANNOT BE CONCEALED WITHIN BUILDING CONSTRUCTION AS PROPOSED

NOTES:

1. FOR A 4" GALVANIZED DRYER VENT DUCT
   IF: L1= 8'
   THEN: L2 = 14' - 8' = 6'
2. FOR AN EQUIVALENT 5" GALVANIZED DRYER VENT DUCT
   IF: L1= 8'
   THEN: L2 = 34' - 8' = 26'

CFM = VELOCITY X AREA
CFM 4" = CFM 5"

V4" X A4" = V5" X A5"
V4" X (3.14 X D4")/4 = V5" X (3.14 X D5")/4
V4" = 5"/4" X V5" = 1.5625 V5"

FRICTION 4" = FRICTION 5" =
= (f X L4" X V4")/2g = (f X L5" X V5")/2g =
= (f X L4" X (1.5625 V5")")/2G= (f X L5" X V5")/2g

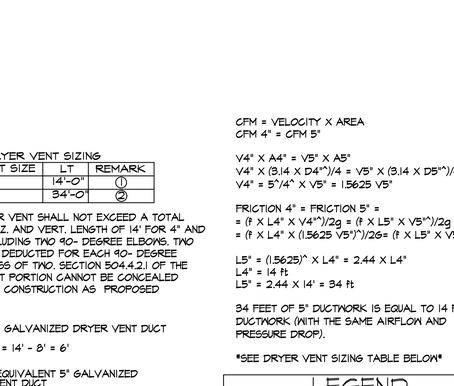
L5" = (1.5625)" X L4" = 2.44 X L4"
L4" = 14 ft
L5" = 2.44 X 14' = 34 ft

34 FEET OF 5" DUCTWORK IS EQUAL TO 14 FEET OF 4" DUCTWORK (WITH THE SAME AIRFLOW AND PRESSURE DROP).

SEE DRYER VENT SIZING TABLE BELOW

LEGEND

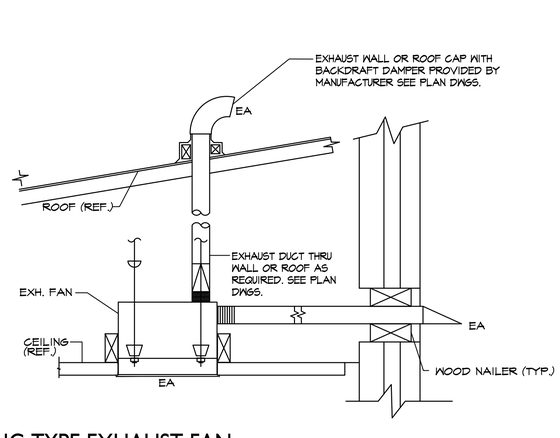
1	EYEBROW W / BACKDRAFT DAMPER MAINTAIN MIN. 3' AWAY FROM OPENINGS INTO BUILDINGS. (CMC CHAPTER 5)
2	DRYER VENT TO ROOF WHERE SHOWN OR NOTED ON MECH. DWGS.
3	JOIST, SEE STRUCT. DWGS. (TYPICAL)
4	FLOOR - CEILING ASSEMBLY
5	APPROVED FLEXIBLE DUCT CONNECTORS NOT MORE THAN 6FT. IN LENGTH MAY BE USED (FLEXIBLE DUCT CONNECTORS SHALL NOT BE CONCEALED WITHIN BUILDING CONSTRUCTION)
6	DRYER DUCT SHALL NOT BE CONNECTED W / SHEET METAL SCREWS PR OTHER FASTENERS WHICH WILL OBSTRUCT THE AIR FLOW. (TYPICAL)
7	DRYER DUCT SHALL BE OF MIN. 26 GAUGE SHEET METAL AND SHALL HAVE SMOOTH INTERIOR SURFACES (TYPICAL)
8	FIRE CAULK AT PLATE PENETRATION (TYPICAL)



DRYER VENT W/ MAX LENGTH CALC OPTION

SCALE: NONE

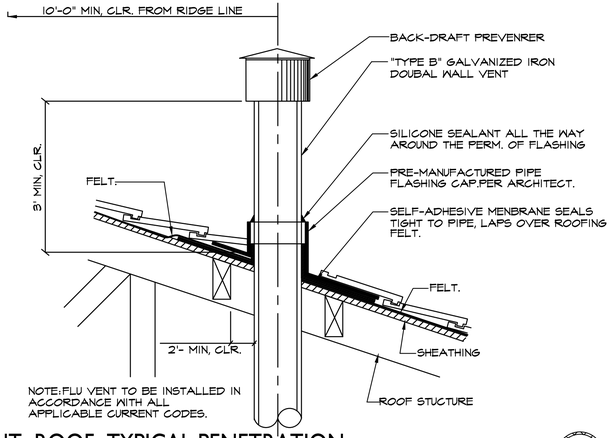
1



CEILING TYPE EXHAUST FAN

SCALE: NONE

3



FLUE VENT ROOF TYPICAL PENETRATION

SCALE: NONE

2

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CARMEL, CA 93923

SHEET TITLE
MECHANICAL
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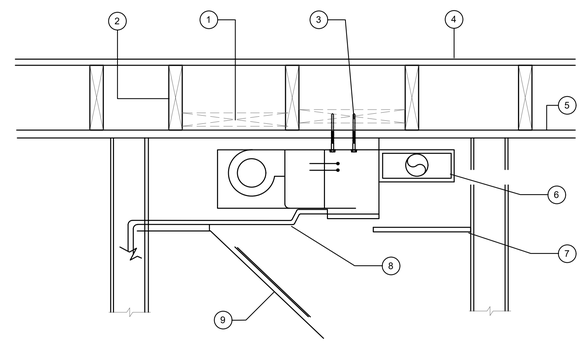
SCALE	AS NOTED
JOB NO.	24-731
SHEET	M-1.2.0

1. 2X6 BLOCKING
2. STRUCTURAL JOIST
3. 1/4" LAG SCREW W/ 2 1/2" PENETRATION
4. FLOOR ABOVE
5. FLOOR STRUCTURE WHERE OCCURS.
6. SEALED SUPPLY AIR PLENUM
7. NON- RATED SOFFIT
8. 3/4" CONDENSATE DRAIN W/ TRAP.
9. FACTORY SUPPLIED LOUVERED ACCESS PANEL (BUILT IN GRILL PER THE UNIT PLANS, PROVIDE MERV 13 FILTER AT THE GRILL



CEILING FAN COIL UNIT INSTALLATION

SCALE: NONE

9

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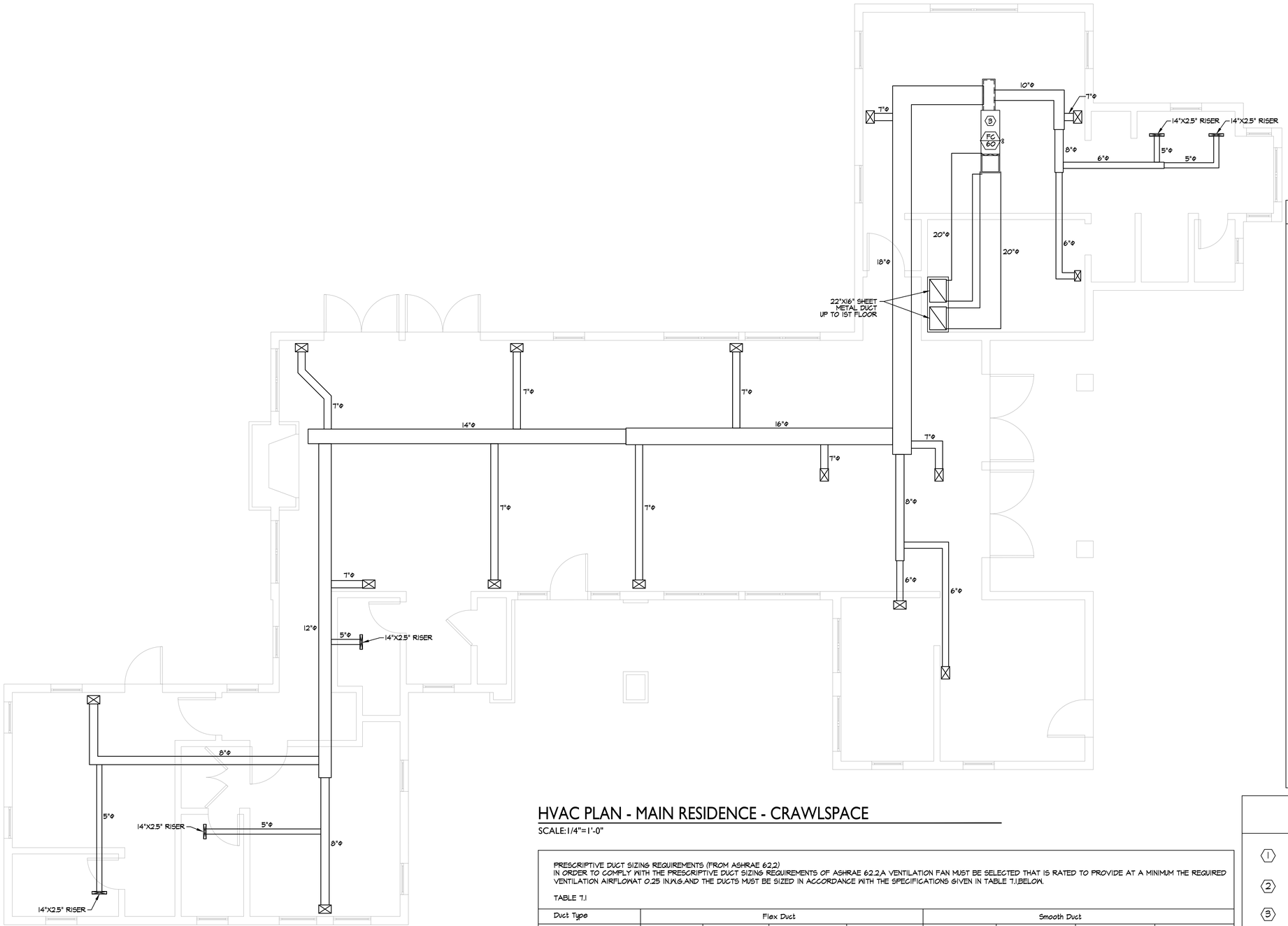

HVAC PLAN - MAIN RESIDENCE - CRAWLSPACE

SCALE: 1/4"=1'-0"

PRESCRIPTIVE DUCT SIZING REQUIREMENTS (FROM ASHRAE 62.2)
IN ORDER TO COMPLY WITH THE PRESCRIPTIVE DUCT SIZING REQUIREMENTS OF ASHRAE 62.2,A VENTILATION FAN MUST BE SELECTED THAT IS RATED TO PROVIDE AT A MINIMUM THE REQUIRED VENTILATION AIRFLOWAT 0.25 IN.W.G.AND THE DUCTS MUST BE SIZED IN ACCORDANCE WITH THE SPECIFICATIONS GIVEN IN TABLE 7.1,BELOW.

TABLE 7.1

Duct Type	Flex Duct				Smooth Duct			
Fan Rating (cfm @ 0.25"w.c.)	50	80	100	125	50	80	100	125
	Maximum Allowable Duct Length (ft)							
Diameter,(in)	Flex Duct				Smooth Duct			
3	X	X	X	X	5	X	X	X
4	70	3	X	X	105	35	5	X
5	NL	70	35	20	NL	135	85	55
6	NL	NL	125	95	NL	NL	NL	145
7 and above	NL	NL	NL	NL	NL	NL	NL	NL

This table assumes no elbow. Deduct 15 ft of allowable duct length for each turn, elbow, or fitting. Interpolation and extrapolation in Table 7.1 is not allowed. For fan ratings not listed, use the next higher value. This table is not applicable for fan ratings > 125cfm.
NL = no limit on duct length of this size.
X = not allowed, any length of duct of this size with assumed turns and fittings will exceed the rated pressured drop (0.25 in w.g.)
Note: water gauge(w.g). is the same as water column(w.c.)

HVAC GENERAL NOTES

1. REFER TO SHEET M-1.0 FOR LEGENDS AND GENERAL NOTES.
2. REFER TO SHEET M-1.1 FOR EQUIPMENT SCHEDULES.
3. REFER TO DRAWING M-1.2 FOR TYPICAL MECHANICAL DETAILS.
4. THE DUCT ROUTING SHOWN ON PLANS ARE SCHEMATIC ONLY. VERIFY WITH STRUCTURAL AND ALL OTHER PARTIES REGARDING ANY DISCREPANCY AND REPORT TO THE MECHANICAL ENGINEER FOR APPROVAL.
5. REFER TO THE ARCHITECTURAL DRAWINGS FOR FINALIZED CEILING HEIGHTS.
6. FIRE SEAL ALL THE PENETRATIONS AS REQUIRED PER CMC AND CBC CODE REQUIREMENTS.
7. PROVIDE A MINIMUM OF 100 SQ. IN FREE AREA OPENING(S) INTO LAUNDRY ROOM FOR MAKE-UP AIR AS REQUIRED BY CODE (CMC 504.4.1).
8. ALL TERMINATION OF ENVIRONMENTAL AIR DUCTS MUST BE LOCATED 3 FEET AWAY FROM ANY OPENINGS INTO THE BUILDING.
9. OUTSIDE FRESH AIR INTAKES MUST BE 10 FEET FROM ANY PLUMBING VENTS AND EXHAUST VENTS.
10. IF HUMIDISTAT IS REQUIRED, LOCATE IT ADJACENT TO THERMOSTAT.
11. CONDENSATE PIPING FOR ALL INDOOR AIR HANDLERS SHALL FALL UNDER THE CONTRACTOR WORK SCOPE. COORDINATE WITH THE HVAC SUB ACCORDINGLY.
12. THE DEDICATED WHOLE HOUSE VENTILATION FAN MUST BE OPERATING 24/7 WHILE THE HOUSE IS OCCUPIED. THE FAN MUST BE INSTALLED PER MANUFACTURER GUIDELINES WITH ON-OFF SWITCH. PROVIDE A LABEL NEXT TO THE SWITCH WITH CLEARLY WRITTEN TEXT NO SMALLER THAN 12 POINT ARIAL TYPE, "THE FAN MUST BE ON 24/7 WHILE THE HOUSE IS OCCUPIED, UNLESS THERE IS SEVERE OUTDOOR AIR CONTAMINATION."
13. KITCHEN HOOD SHALL BE PROVIDED WITH MINIMUM 100 CFM OF EXHAUST AIR RATING AT 0.25" W.C.
14. "REGISTERED' COPY OF THE CF-2R FORMS SHALL BE SUBMITTED PRIOR TO FINAL INSPECTION, SIGNED BY HERS RATER, FOR FIELD VERIFICATION AND DIAGNOSTIC TESTING.
15. INSTALLING CONTRACTOR SHALL FILL OUT CF-3R FORMS AND SHALL HAVE IT READILY AVAILABLE TO THE INSPECTOR.
16. ALL INSTALLED FIRE PLACES MUST BE SEALED COMBUSTION TYPE AND MUST BE VENTED TO THE EXTERIOR.

HVAC KEYED NOTES

1. CAP SHOULD BE LISTED FOR CLOTH DRYER VENTING (DRYER JACK). DRYER DUCT TO VENT TO EXTERIOR WITH BACKDRAFT DAMPER. CONTRACTOR TO INSTALL DRYER EXHAUST DUCT PER MANUFACTURER INSTALLATION GUIDELINES.
2. PROVIDE RS/RL PIPING SIZE PER MANUFACTURER'S GUIDELINES. ROUTE FROM REMOTE CONDENSATE UNIT TO THE INDOOR AIR HANDLER. VERIFY CONDENSER LOCATIONS WITH ALL RELEVANT DESIGN PARTIES BEFORE INSTALLATION.
3. THE 3/4" PRIMARY CONDENSATE LINE TO THE LAVATORY TAILPIECE. SECONDARY CONDENSATE TO DRAIN TO THE EXTERIOR ABOVE A WINDOW OR PROVIDE A SENSOR TO SHUT-OFF UNIT UPON DETECTION OF WATER. COORDINATE WITH THE PLUMBER.
4. FURNACE FLUE DUCT RUN UP THRU ROOF WITH CAP. FURNACE VENT TO BE INSTALLED PER MANUFACTURER GUIDELINES. ROUTING AND TERMINATION OF FLUE FOR HEATING UNIT SHALL COMPLY WITH CH. 8, CMC 2022.
5. THIS FAN DENOTES THE WHOLE HOUSE VENTILATION FAN. THE FAN TO RUN CONTINUOUSLY WHILE THE HOUSE IS OCCUPIED. CLEARLY LABEL NEXT TO THE SWITCH.
6. CONNECT KITCHEN HOOD (MIN. 100 CFM) TO 7"Φ KITCHEN HOOD EXHAUST AIR DUCT (MIN. 6"Φ). THE HOOD MUST VENT TO THE EXTERIOR W/ BACKDRAFT DAMPER. VERIFY W/ ARCH OR OWNER BEFORE ROUGH IN.
7. EXHAUST OUTLET TERMINATES 3' AWAY FROM OPENINGS INTO THE BUILDING AND 3' AWAY FROM THE PROPERTY LINE. SEE CIVIL DRAWINGS AND ARCHITECTURAL DRAWINGS FOR PROPERTY LINE DETAILS.
8. PROVIDE CONCENTRIC KIT. CONNECT THE TWO 4" PVC PIPE FROM WATER HEATER. REFER TO INSTALLATION MANUAL FOR DETAILS.
9. PROVIDE 10"X18" TOP GRILL AND 10"X18" LOUVER OPENING ON THE DOOR 12" A.F.F. FOR COMBUSTION AIR FOR THE LAUNDRY ROOM.
10. PROVIDE 1/2" DOOR UNDER CUT, TOP GRILL OR JUMPER DUCT

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HVAC PLAN - MAIN RESIDENCE
CRAWLSPACE

DRAWN: GMEP
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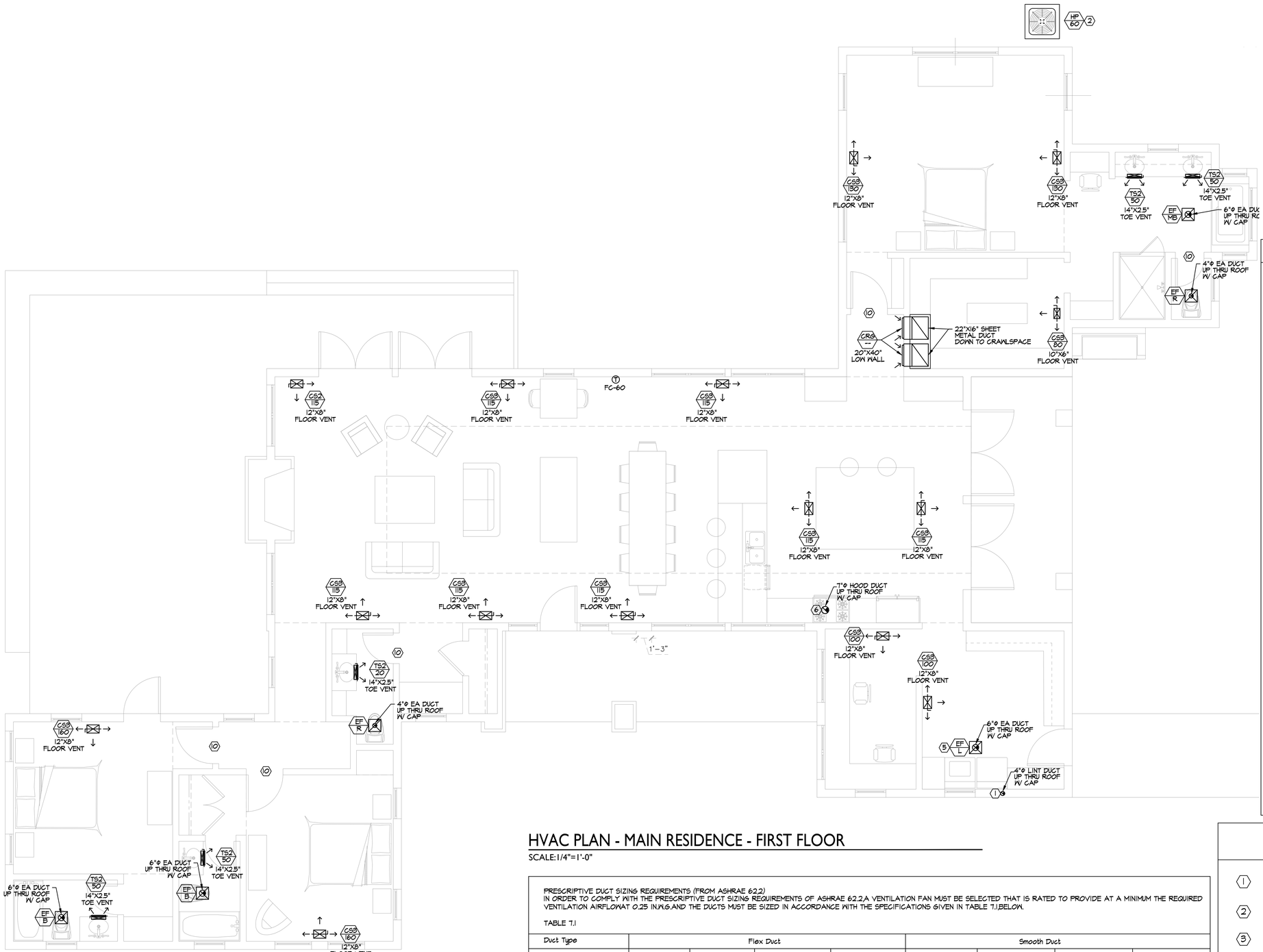
DATE: 01/17/25
SCALE: AS NOTED
JOB NO.: 24-731
SHEET: M-2.0



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5. REFER TO THE ARCHITECTURAL DRAWINGS FOR FINALIZED CEILING HEIGHTS.
6. FIRE SEAL ALL THE PENETRATIONS AS REQUIRED PER CMC AND CBC CODE REQUIREMENTS.
7. PROVIDE A MINIMUM OF 100 SQ. IN FREE AREA OPENING(S) INTO LAUNDRY ROOM FOR MAKE-UP AIR AS REQUIRED BY CODE (CMC 504.4.1).
8. ALL TERMINATION OF ENVIRONMENTAL AIR DUCTS MUST BE LOCATED 3 FEET AWAY FROM ANY OPENINGS INTO THE BUILDING.
9. OUTSIDE FRESH AIR INTAKES MUST BE 10 FEET FROM ANY PLUMBING VENTS AND EXHAUST VENTS.
10. IF HUMIDISTAT IS REQUIRED, LOCATE IT ADJACENT TO THERMOSTAT.
11. CONDENSATE PIPING FOR ALL INDOOR AIR HANDLERS SHALL FALL UNDER THE CONTRACTOR WORK SCOPE. COORDINATE WITH THE HVAC SUB ACCORDINGLY.
12. THE DEDICATED WHOLE HOUSE VENTILATION FAN MUST BE OPERATING 24/7 WHILE THE HOUSE IS OCCUPIED. THE FAN MUST BE INSTALLED PER MANUFACTURER GUIDELINES WITH ON-OFF SWITCH. PROVIDE A LABEL NEXT TO THE SWITCH WITH CLEARLY WRITTEN TEXT NO SMALLER THAN 12 POINT ARIAL TYPE, "THE FAN MUST BE ON 24/7 WHILE THE HOUSE IS OCCUPIED, UNLESS THERE IS SEVERE OUTDOOR AIR CONTAMINATION."
13. KITCHEN HOOD SHALL BE PROVIDED WITH MINIMUM 100 CFM OF EXHAUST AIR RATING AT 0.25" W.C.
14. "REGISTERED' COPY OF THE CF-2R FORMS SHALL BE SUBMITTED PRIOR TO FINAL INSPECTION, SIGNED BY HERS RATER, FOR FIELD VERIFICATION AND DIAGNOSTIC TESTING.
15. INSTALLING CONTRACTOR SHALL FILL OUT CF-3R FORMS AND SHALL HAVE IT READILY AVAILABLE TO THE INSPECTOR.
16. ALL INSTALLED FIRE PLACES MUST BE SEALED COMBUSTION TYPE AND MUST BE VENTED TO THE EXTERIOR.

HVAC PLAN - MAIN RESIDENCE - FIRST FLOOR

SCALE: 1/4"=1'-0"

WHOLE UNIT VENTILATION CALCULATION (ASHRAE 62.2) CONTINUOUSLY

LOCATION	MAIN RESIDENCE
FLOOR AREA (SQFT)	2997
NO. OF BEDROOMS	3
VENTILATION RATE (CFM) = 0.01(SQFT)+7.5(BEDROOMS+1)	119.9
DESIGNED VENTILATION (CFM)	183

PRESCRIPTIVE DUCT SIZING REQUIREMENTS (FROM ASHRAE 62.2)
IN ORDER TO COMPLY WITH THE PRESCRIPTIVE DUCT SIZING REQUIREMENTS OF ASHRAE 62.2,A VENTILATION FAN MUST BE SELECTED THAT IS RATED TO PROVIDE AT A MINIMUM THE REQUIRED VENTILATION AIRFLOWAT 0.25 IN.W.G.AND THE DUCTS MUST BE SIZED IN ACCORDANCE WITH THE SPECIFICATIONS GIVEN IN TABLE 7.1,BELOW.

TABLE 7.1

Duct Type	Flex Duct				Smooth Duct			
Fan Rating (cfm @ 0.25w.c.)	50	80	100	125	50	80	100	125
	Maximum Allowable Duct Length (ft)							
Diameter,(in)	Flex Duct				Smooth Duct			
3	X	X	X	X	5	X	X	X
4	70	3	X	X	105	35	5	X
5	NL	70	35	20	NL	135	85	55
6	NL	NL	125	95	NL	NL	NL	145
7 and above	NL	NL	NL	NL	NL	NL	NL	NL

This table assumes no elbow. Deduct 15 ft of allowable duct length for each turn, elbow, or fitting. Interpolation and extrapolation in Table 7.1 is not allowed. For fan ratings not listed, use the next higher value. This table is not applicable for fan ratings > 125cfm.
NL = no limit on duct length of this size.
X = not allowed, any length of duct of this size with assumed turns and fittings will exceed the rated pressured drop (0.25 in w.g.)
Note: water gauge(w.g). is the same as water column(w.c.)

HVAC KEYED NOTES

1. CAP SHOULD BE LISTED FOR CLOTH DRYER VENTING (DRYER JACK). DRYER DUCT TO VENT TO EXTERIOR WITH BACKDRAFT DAMPER. CONTRACTOR TO INSTALL DRYER EXHAUST DUCT PER MANUFACTURER INSTALLATION GUIDELINES.
2. PROVIDE RS/RL PIPING SIZE PER MANUFACTURER'S GUIDELINES. ROUTE FROM REMOTE CONDENSATE UNIT TO THE INDOOR AIR HANDLER. VERIFY CONDENSER LOCATIONS WITH ALL RELEVANT DESIGN PARTIES BEFORE INSTALLATION.
3. THE 3/4" PRIMARY CONDENSATE LINE TO THE LAVATORY TAILPIECE. SECONDARY CONDENSATE TO DRAIN TO THE EXTERIOR ABOVE A WINDOW OR PROVIDE A SENSOR TO SHUT-OFF UNIT UPON DETECTION OF WATER. COORDINATE WITH THE PLUMBER.
4. FURNACE FLUE DUCT RUN UP THRU ROOF WITH CAP. FURNACE VENT TO BE INSTALLED PER MANUFACTURER GUIDELINES. ROUTING AND TERMINATION OF FLUE FOR HEATING UNIT SHALL COMPLY WITH CH. 8, CMC 2022.
5. THIS FAN DENOTES THE WHOLE HOUSE VENTILATION FAN. THE FAN TO RUN CONTINUOUSLY WHILE THE HOUSE IS OCCUPIED. CLEARLY LABEL NEXT TO THE SWITCH.
6. CONNECT KITCHEN HOOD (MIN. 100 CFM) TO 7"ø KITCHEN HOOD EXHAUST AIR DUCT (MIN. 6"ø). THE HOOD MUST VENT TO THE EXTERIOR W/ BACKDRAFT DAMPER. VERIFY W/ ARCH OR OWNER BEFORE ROUGH IN.
7. EXHAUST OUTLET TERMINATES 3' AWAY FROM OPENINGS INTO THE BUILDING AND 3' AWAY FROM THE PROPERTY LINE. SEE CIVIL DRAWINGS AND ARCHITECTURAL DRAWINGS FOR PROPERTY LINE DETAILS.
8. PROVIDE CONCENTRIC KIT. CONNECT THE TWO 4" PVC PIPE FROM WATER HEATER. REFER TO INSTALLATION MANUAL FOR DETAILS.
9. PROVIDE 10"X18" TOP GRILL AND 10"X18" LOUVER OPENING ON THE DOOR 12" A.F.F. FOR COMBUSTION AIR FOR THE LAUNDRY ROOM.
10. PROVIDE 1/2" DOOR UNDER CUT, TOP GRILL OR JUMPER DUCT

REVISIONS

NO.	DATE	DESCRIPTION

SEAL:

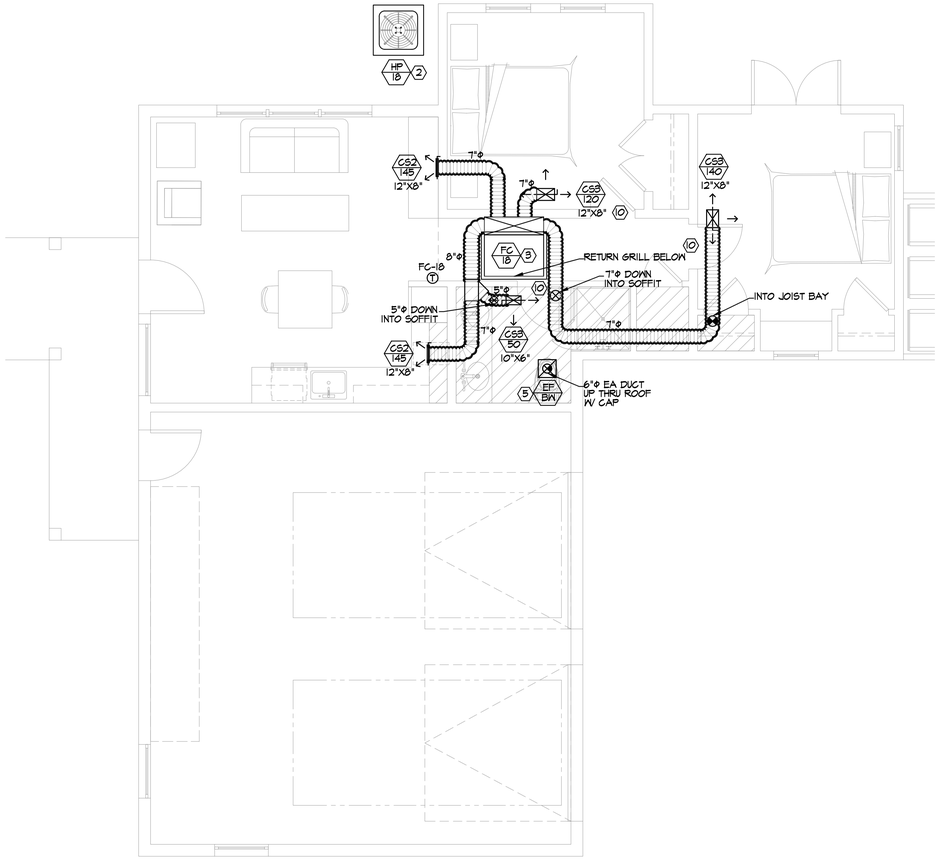
REGISTERED PROFESSIONAL ENGINEER
GANGYI ZHOU
No. M34279
Exp.12-31-2026
MECHANICAL
STATE OF CALIFORNIA

GMEP ENGINEERS
26439 Rancho Pkwy. S., Ste 120
Lake Forest, CA 92630
Tel: 949-267-9095

PROJECT NAME:
LOT 207 SANTA LUCIA PRESERVE
23 SAN CLEMENTE TRL.
CARMEL, CA 93923

SHEET TITLE
MECHANICAL
HVAC PLAN - MAIN RESIDENCE
FIRST FLOOR

DRAWN: GMEP
CHECKED: GMEP
DATE: 01/17/25
SCALE: AS NOTED
JOB NO.: 24-731
SHEET: M-2.1



HVAC PLAN - ADU

SCALE: 1/4"=1'-0"

PRESCRIPTIVE DUCT SIZING REQUIREMENTS (FROM ASHRAE 62.2)
IN ORDER TO COMPLY WITH THE PRESCRIPTIVE DUCT SIZING REQUIREMENTS OF ASHRAE 62.2,A VENTILATION FAN MUST BE SELECTED THAT IS RATED TO PROVIDE AT A MINIMUM THE REQUIRED VENTILATION AIRFLOWAT 0.25 IN.W.G.AND THE DUCTS MUST BE SIZED IN ACCORDANCE WITH THE SPECIFICATIONS GIVEN IN TABLE 7.1,BELOW.

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5	NL	70	35	20	NL	135	85	55
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This table assumes no elbow. Deduct 15 ft of allowable duct length for each turn, elbow, or fitting. Interpolation and extrapolation in Table 7.1 is not allowed. For fan ratings not listed, use the next higher value. This table is not applicable for fan ratings > 125cfm.
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Note: water gauge(w.g). is the same as water column(w.c.)

WHOLE UNIT VENTILATION CALCULATION (ASHRAE 62.2) CONTINUOUSLY

LOCATION	MAIN RESIDENCE
FLOOR AREA (SQFT)	731
NO. OF BEDROOMS	2
VENTILATION RATE (CFM) = 0.01(SQFT)+7.5(BEDROOMS+1)	44.6
DESIGNED VENTILATION (CFM)	50

HVAC GENERAL NOTES

1. REFER TO SHEET M-1.0 FOR LEGENDS AND GENERAL NOTES.
2. REFER TO SHEET M-1.1 FOR EQUIPMENT SCHEDULES.
3. REFER TO DRAWING M-1.2 FOR TYPICAL MECHANICAL DETAILS.
4. THE DUCT ROUTING SHOWN ON PLANS ARE SCHEMATIC ONLY. VERIFY WITH STRUCTURAL AND ALL OTHER PARTIES REGARDING ANY DISCREPANCY AND REPORT TO THE MECHANICAL ENGINEER FOR APPROVAL.
5. REFER TO THE ARCHITECTURAL DRAWINGS FOR FINALIZED CEILING HEIGHTS.
6. FIRE SEAL ALL THE PENETRATIONS AS REQUIRED PER CMC AND CBC CODE REQUIREMENTS.
7. PROVIDE A MINIMUM OF 100 SQ. IN FREE AREA OPENING(S) INTO LAUNDRY ROOM FOR MAKE-UP AIR AS REQUIRED BY CODE (CMC 504.4.1).
8. ALL TERMINATION OF ENVIRONMENTAL AIR DUCTS MUST BE LOCATED 3 FEET AWAY FROM ANY OPENINGS INTO THE BUILDING.
9. OUTSIDE FRESH AIR INTAKES MUST BE 10 FEET FROM ANY PLUMBING VENTS AND EXHAUST VENTS.
10. IF HUMIDISTAT IS REQUIRED, LOCATE IT ADJACENT TO THERMOSTAT.
11. CONDENSATE PIPING FOR ALL INDOOR AIR HANDLERS SHALL FALL UNDER THE CONTRACTOR WORK SCOPE. COORDINATE WITH THE HVAC SUB ACCORDINGLY.
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MECHANICAL
HVAC PLAN - ADU

DRAWN: GMEP
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DATE: 01/17/25
SCALE: AS NOTED
JOB NO.: 24-731
SHEET: M-2.2

ABBREVIATIONS

ABV	ABOVE
ADA	AMERICAN DISABILITIES ACT
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
AP	ACCESS PANEL
ARCH	ARCHITECTURAL
BG	BELOW GRADE
BFF	BELOW FINISHED FLOOR
BLDG	BUILDING
BTUH	BRITISH THERMAL UNITS PER HOUR
CD	CONDENSATE DRAIN
CFH	CUBIC FEET PER HOUR
CLG	CEILING
CO	CLEANOUT
CONT	CONTINUATION
COTG	CLEAN OUT TO GROUND
CW	DOMESTIC COLD WATER
DD	DECK DRAIN
DF	DRINKING FOUNTAIN
DFU	DRAINAGE FIXTURE UNIT
DN	DOWN
ELEC	ELECTRICAL
EQ	EQUIPMENT
EXIST, (E)	EXISTING
ET	EXPANSION TANK
F	DEGREES FAHRENHEIT
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FF	FINISHED FLOOR
FL	FLOOR
FM	FORCED MAIN
FS	FLOOR SINK
GCO	GROUND CLEAN OUT
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GW	GREASE WASTE
GRW	GREY WATER WASTE
HBB	HOSE BIBB
HD	HUB DRAIN
HW	DOMESTIC HOT WATER
IE	INVERT ELEVATION
IN	INCH
KS	KITCHEN SINK
KW	KILOWATTS
KWH	KILOWATTS PER HOUR
LAV	LAVATORY
LBS	POUNDS
LGTH	LENGTH
MAX	MAXIMUM
MBH	BTU PER HOUR (X1000)
MECH	MECHANICAL
MIN	MINIMUM
MPG	MEDIUM PRESSURE GAS
MS	MOP SINK
(N)	NEW
N/A	NOT APPLICABLE
NC	NORMALLY CLOSED
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NO.	NUMBER
NTS	NOT TO SCALE
OD	OUTSIDE DIAMETER / OVERFLOW DRAIN
OF	OVERFLOW
ORD	OVERFLOW ROOF DRAIN
OSD	OVERFLOW STORM DRAIN
PD	PLANTER DRAIN
POC	POINT OF CONNECTION
PRESS	PRESSURE
PRV	PRESSURE REDUCING VALVE
PS	PIPE SUPPORT
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH GAUGE
RD	ROOF DRAIN
REQD	REQUIRED
RFRG	REFRIGERATOR
RPBP	REDUCING PRESSURE BACKFLOW PREVENTER
RPM	REVOLUTIONS PER MINUTE
S	SINK
SCH	SCHEDULE
SD	STORM DRAIN
SECT	SECTION
SHWR	SHOWER
SOV	SHUT-OFF VALVE
SP	SUMP PUMP
SPEC	SPECIFICATION
SPRK	SPRINKLER
SQ FT	SQUARE FOOT / SQUARE FEET
SS	SERVICE SINK
SSD	SUB-SURFACE (FOUNDATION) DRAIN
STL	STEEL
STR	STRUCTURAL
TEMP	TEMPERATURE
THK	THICK
TP	TRAP PRIMER
TYP	TYPICAL
TWSCO	TWO WAY GROUND CLEAN OUT
U/G	UNDERGROUND
UD	UNDERDRAIN / SUBGRADE DRAIN
UNO	UNLESS NOTED OTHERWISE
UR	URINAL
UTIL	UTILITY
V	VENT
V/ø/HZ	VOLTS/PHASE/HERTZ
VA	VALVE
VAC	VACCUM
VEL	VELOCITY
VFD	VARIABLE FREQUENCY DRIVE
VTR	VENT THROUGH ROOF
W	SANITARY WASTE
W/	WITH
W/O	WITHOUT
WSH	WASHER
WC	WATER CLOSET
WCL.	WATER COLUMN
WCO	WALL CLEANOUT
WH	WATER HEATER / WALL HYDRANT
WHA	WATER HAMMER ARRESTOR
WSFU	WATER SERVICE FIXTURE UNITS
WTR	WATER

PIPING SYMBOLS

SYMBOL	MEANING
—— – —— – ——	DOMESTIC COLD WATER
———— – – ————	DOMESTIC HOT WATER
———— – – – ————	DOMESTIC H.W. CIRCULATING
——— – – – ———	RECYCLED WATER
— — — — — — —	SANITARY SEWER
– – – – – – – – – –	VENT PIPING
— — — — — — —	STORM DRAIN PIPING
—— ——— ——— ——	GREASE WASTE
G	GAS
CD	CONDENSATE DRAIN
— — — GRW — — —	GRAY WATER WASTE
WV / --	WASTE & VENT RISER
CH / --	COLD & HOT WATER RISER
G / --	GAS RISER
FAU 60	AC UNIT
	CHECK VALVE
	FLOOR SINK
	FLOOR CLEANOUT
	WALL CLEANOUT
	FLOOR DRAIN
	GAS COCK
TUB-1	PLUMBING FIXTURE
	CONNECT TO EXISTING
	SHUT-OFF VALVE
	RECIRCULATION PUMP
	PIPE CAP
	PIPE ELBOW DOWN
	PIPE ELBOW UP

GENERAL PLUMBING NOTES

1. THE ENTIRE PLUMBING SYSTEM SHALL BE IN ACCORDANCE WITH THE 2022 CALIFORNIA PLUMBING CODE AND ALL OTHER APPLICABLE LOCAL, STATE AND FEDERAL CODES.
2. PIPING INDICATED ON THESE PLANS ARE DIAGRAMMATIC, ALL WORK SHALL BE COORDINATED WITH ALL OTHER TRADES PRIOR TO INSTALLATION.
3. IT IS THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR TO REVIEW THESE PLANS AND SPECIFICATIONS, AS WELL AS THE RELATED HVAC, FIRE PROTECTION, ELECTRICAL, STRUCTURAL, ARCHITECTURAL, INTERIOR DECOR AND SITE ENGINEERING DRAWINGS TO BECOME FAMILIAR WITH THE FULL PROJECT SCOPE. IN ADDITION, THIS CONTRACTOR MUST COORDINATE WITH AN OWNER REPRESENTATIVE TO FULLY UNDERSTAND ALL REQUIREMENTS WHICH MAY NOT BE SPECIFIED HEREIN AND WHICH THE OWNER MAY CONSIDER PART OF THIS CONTRACT. DURING THE COURSE OF CONSTRUCTION COORDINATION AND ACTUAL CONSTRUCTION, IT IS THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR TO WORK CLOSELY WITH ALL ACCOMPANYING CONTRACTORS AND TRADESMEN IN ORDER TO ENSURE A SMOOTH RUNNING AND CAREFULLY COORDINATED INSTALLATION.
4. PIPING SHOWN ON DRAWINGS WITHOUT DIMENSIONAL LOCATION SHALL BE FIELD ROUTED BY CONTRACTOR. CONTRACTOR SHALL VERIFY PROPOSED PIPE ROUTINGS PRIOR TO INSTALLATION, INCLUDING INTERFERENCE WITH BUILDING STRUCTURES, EQUIPMENT AND WORK OF OTHER TRADES WHETHER NEW OR EXISTING. PROPOSED ROUTINGS SHALL BE REVIEWED WITH THE CONSTRUCTION MANAGER.
5. PIPE SLEEVES FOR PLUMBING LINES SHALL BE FURNISHED AND INSTALLED BY CONTRACTOR. COORDINATE WITH SLAB AND WALL CONTRACTORS FOR PROPER LOCATION AND SIZE.
6. CONTRACTOR SHALL SEAL PENETRATIONS THROUGH FIRE WALLS AND FLOORS WITH APPROVED FIRE SEALANT. REFER TO SPECIFICATION. INSTALL PER MANUFACTURERS INSTRUCTIONS FOR APPLICABLE PIPE MATERIAL AND SIZE.
7. SHOWERS AND TUB-SHOWER COMBINATIONS SHALL BE PROVIDED WITH INDIVIDUAL CONTROL VALVES OF THE PRESSURE BALANCE, THERMOSTATIC, OR COMBINATION PRESSURE BALANCE/THERMOSTATIC MIXING VALVE TYPE THAT PROVIDE SCALD AND THERMAL SHOCK PROTECTION FOR THE RATED FLOW RATE OF THE INSTALLED SHOWERHEAD. THESE VALVES SHALL BE INSTALLED AT THE POINT OF USE AND COMPLY WITH ASSE 1016/ASME A112.1016/CSA B125.16 OR ASME A112.18.1/CSA B125.1.
8. THE MAXIMUM WATER TEMPERATURE DISCHARGING FROM AN INDIVIDUAL SHOWERHEAD SHALL BE LIMITED TO 120ºF (49ºC) BY ONE OF THE FOLLOWING METHODS:
   - 8.1. A SHOWER OR TUB/SHOWER COMBINATION VALVE CONFORMING TO ASSE 1016/ASME A112.1016/CSA B125.16 WHERE EITHER:
     - THE VALVE IS FIELD-ADJUSTED TO THE REQUIRED MAXIMUM TEMPERATURE, OR THE HANDLE POSITION, STOP, OR TEMPERATURE LIMITING CONTROL IS SET IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS TO THE REQUIRED MAXIMUM TEMPERATURE
   - 8.2. A LIMITING DEVICE CONFORMING TO EITHER ASSE 1070/ASME A112.1070/CSA B125.70 OR CSA B125.3
9. REFER TO THE ARCHITECTURAL DRAWINGS FOR EXACT FIXTURE LOCATIONS AND MOUNTING HEIGHTS OF ALL PLUMBING FIXTURES.
10. WASTE AND VENT PIPING SHALL BE SLOPED AT 2% UNLESS NOTED OTHERWISE.
11. WATER PIPE AND FITTING WITH A LEAD CONTENT WHICH EXCEEDS 0.25% SHALL BE PROHIBITED IN SYSTEMS CONVEYING POTABLE WATER.
12. CONTRACTOR SHALL VERIFY WATER PRESSURE CONDITIONS AT THE PROJECT SITE. CONTRACTOR SHALL PROVIDE INSTALL A PRESSURE REGULATOR WHERE THE SUPPLY PRESSURE EXCEEDS 80 PSI.
13. ALL PIPING SHALL BE SUPPORTED AT INTERVAL NOT TO EXCEED THOSE SHOWN IN CPC TABLE 313.3
14. ALL POTABLE WATER OUTLETS WITH HOSE ATTACHMENTS, SUCH AS HOSE BIBS, AND MOP SINKS ARE TO BE PROVIDED WITH A BACKFLOW/ANTI-SIPHON DEVICE.
15. NEW OR REPAIRED POTABLE WATER SYSTEMS SHALL BE DISINFECTED PRIOR TO USE WHERE REQUIRED BY THE AUTHORITY HAVING JURISDICTION. THE METHOD TO BE FOLLOWED SHALL BE THAT PRESCRIBED BY THE HEALTH AUTHORITY OR, IN CASE NO METHOD IS PRESCRIBE BY IT, THE METHOD PRESCRIBED IN SEC. 609.9 (CPC 2022) SHALL BE USED.
16. PLUMBING VENT THROUGH ROOF SHALL TERMINATE VERTICALLY NOT LESS THAN ONE FOOT FROM ANY VERTICAL SURFACE. EACH VENT SHALL TERMINATE NOT LESS THAN 10 FEET HORIZONTALLY OR AT LEAST 3 FEET ABOVE ANY WINDOW, DOOR, OPENING, AIR INTAKE OR SHAFT. EACH VENT PIPE SHALL EXTEND THROUGH ITS FLASHING AND SHALL TERMINATE VERTICALLY NOT LESS THAN 6 INCHES ABOVE THE ROOF. VENTS WITHIN 10 FEET OF A PART OF THE ROOF THAT IS USED FOR SUCH OTHER PURPOSES SHALL EXTEND NOT LESS THAN 7 FEET ABOVE SUCH ROOF AND SHALL BE SECURELY STAYED.
17. FIXTURES INSTALLED ON A FLOOR LEVEL THAT IS LOWER THAN THE NEXT UPSTREAM MANHOLE COVER OF THE PUBLIC OR PRIVATE SEWER SHALL BE PROTECTED FROM BACKFLOW OF SEWAGE BY INSTALLING AN APPROVED TYPE OF BACKWATER VALVE. FIXTURES ON SUCH FLOOR LEVEL THAT ARE NOT BELOW THE NEXT UPSTREAM MANHOLE COVER SHALL NOT BE REQUIRED TO BE PROTECTED BY A BACKWATER VALVE. FIXTURES ON FLOOR LEVELS ABOVE SUCH ELEVATION SHALL NOT DISCHARGE THROUGH THE BACKWATER VALVE.
18. ALL REQUIRED CLEANOUTS SHALL BE INSTALLED AS PER SEC. 707.0 & 719.0 OF THE CALIFORNIA PLUMBING CODE.
19. FLOOR DRAINS OR SIMILAR TRAPS DIRECTLY CONNECTED TO THE DRAINAGE SYSTEM AND SUBJECT TO INFREQUENT USE SHALL BE PROVIDED WITH AN APPROVED AUTOMATIC MEANS OF MAINTAINING THEIR WATER SEALS.

PEX PIPING NOTES

1. ALL INSTALLATIONS OF PEX PIPE WHERE IT IS THE INITIAL PLUMBING PIPING INSTALLED IN NEW CONSTRUCTION SHALL BE FLUSHED TWICE OVER A PERIOD OF AT LEAST ONE WEEK. THE PIPE SYSTEM SHALL BE FIRST FLUSHED FOR AT LEAST 10 MINUTES AND THEN FILLED AND ALLOWED TO STAND FOR NO LESS THAN 1 WEEK, AFTER WHICH ALL THE BRANCHES OF THE PIPE SYSTEM MUST BE FLUSHED LONG ENOUGH TO FULLY EMPTY THE CONTAINED VOLUME. THIS PROVISION SHALL NOT APPLY TO THE INSTALLATION OF PEX PIPE WHERE IT REPLACES AN EXISTING PIPE SYSTEM OF ANY MATERIAL.
2. AT THE TIME OF FILL, EACH FIXTURE SHALL HAVE A REMOVABLE TAG APPLIED STATING:
   (A) "THIS NEW PLUMBING SYSTEM WAS FIRST FILLED AND FLUSHED ON _____ (DATE) BY _____ (NAME). THE STATE OF CALIFORNIA REQUIRES THAT THE SYSTEM BE FLUSHED AFTER STANDING AT LEAST ONE WEEK AFTER THE FILL DATE SPECIFIED ABOVE. IF THIS SYSTEM IS USED EARLIER THAN ONE WEEK AFTER THE FILL DATE, THE WATER MUST BE ALLOWED TO RUN FOR AT LEAST TWO MINUTES PRIOR TO USE FOR HUMAN CONSUMPTION. THIS TAG MAY NOT BE REMOVED PRIOR TO THE COMPLETION OF THE REQUIRED SECOND FLUSHING, EXCEPT BY THE BUILDING OWNER OR OCCUPANT.
3. WHEN PEX TUBING IS PLACED IN SOIL AND IS USED IN POTABLE WATER SYSTEMS INTENDED TO SUPPLY DRINKING WATER TO FIXTURES OR APPLIANCES, THE TUBING OR PIPING SHALL BE SLEEVED WITH A MATERIAL APPROVED FOR POTABLE WATER USE IN SOIL OR OTHER MATERIAL THAT IS IMPERMEABLE TO SOLVENTS OR PETROLEUM PRODUCTS.

PIPE INSULATION NOTES

1. THE FOLLOWING PIPES ARE INSULATED, TO THE THICKNESSES REQUIRED BY CEC 150.0(J) AND CPC 609.12.
   - THE FIRST 5 FEET OF HOT AND COLD WATER PIPES FROM THE STORAGE TANK.
   - ALL HOT WATER PIPING
   - ALL PIPING ASSOCIATED WITH A DOMESTIC HOT WATER RECIRCULATION SYSTEM REGARDLESS OF THE PIPE DIAMETER, EXCEPT WHEN COLD WATER RETURN IS USED IN A DEMAND SYSTEM.

THE FOLLOWING SECTIONS OF PIPE DO NOT HAVE TO BE INSULATED:

- PIPING THAT PENETRATES FRAMING MEMBERS SHALL NOT BE REQUIRED TO HAVE PIPE INSULATION FOR THE DISTANCE OF THE FRAMING PENETRATION. METAL PIPING THAT PENETRATES METAL FRAMING SHALL USE GROMMETS, PLUGS, WRAPPING OR OTHER INSULATING MATERIAL TO ASSURE THAT NO CONTACT IS MADE WITH THE METAL FRAMING. INSULATION SHALL BUTT SECURELY AGAINST ALL FRAMING MEMBERS.
- HOT WATER PIPING BETWEEN THE FIXTURE CONTROL VALVE OR SUPPLY STOP AND THE FIXTURE OR APPLIANCE.
- PIPING INSTALLED IN INTERIOR OR EXTERIOR WALL SHALL NOT BE REQUIRED TO HAVE PIPE INSULATION IF ALL THE REQUIREMENTS ARE MET FOR COMPLIANCE WITH QUALITY INSULATION INSTALLATION (QII) AS SPECIFIED IN REFERENCE RESIDENTIAL APPENDIX RA3.5.
- PIPING SURROUNDED WITH A MINIMUM OF 1" OF WALL INSULATION, 2" OF CRAWL SPACE INSULATION OR 4 INCHES OF ATTIC INSULATION SHALL NOT BE REQUIRED TO HAVE PIPE INSULATION.

NOMINAL PIPE DIAMETER	INSULATION THICKNESS
1/2" TO 3/4"	1"
1" TO 1-1/2"	1-1/2"
2" & GREATER	2"

TITLE 24 ENERGY NOTES

1. IF A CIRCULATING HOT WATER SYSTEM IS INSTALLED, IT SHALL HAVE A CONTROL CAPABLE OF AUTOMATICALLY TURNING OFF THE CIRCULATING PUMP(S) WHEN HOT WATER IS NOT BEING USED.
2. WATER HEATING SYSTEMS USING GAS OR PROPANE WATER HEATERS TO SERVE INDIVIDUAL DWELLING UNITS SHALL INCLUDE THE FOLLOWING COMPONENTS:
   - A. A 120V ELECTRICAL RECEPTACLE THAT IS WITHIN 3 FEET FROM THE WATER HEATER AND ACCESSIBLE TO THE WATER HEATER WITH NO OBSTRUCTIONS.
   - B. A CATEGORY III OR IV VENT, OR A TYPE B VENT WITH STRAIGHT PIPE BETWEEN THE OUTSIDE TERMINATION AND THE SPACE WHERE THE WATER HEATER IS INSTALLED
   - C. A CONDENSATE DRAIN THAT IS NO MORE THAN 2 INCHES HIGHER THAN THE BASE OF THE INSTALLED WATER HEATER, AND ALLOWS NATURAL DRAINING WITHOUT PUMP ASSISTANCE
   - D. A GAS SUPPLY LINE WITH A CAPACITY OF AT LEAST 200,000 BTU/HR.

CAL GREEN NOTES

1. PLUMBING FIXTURES AND FITTING SHALL COMPLY WITH ALL THE REQUIREMENTS IN SECTION 4.303 IN THE CALIFORNIA GREEN BUILDING CODE.
2. WHEN A SHOWER IS SERVED BY MORE THAN ONE SHOWERHEAD, THE COMBINED FLOW RATE OF ALL THE SHOWERHEADS AND/OR OTHER SHOWER OUTLETS CONTROLLED BY A SINGLE VALVE SHALL NOT EXCEED 1.8 GALLONS PER MINUTE AT 80 PSI. OR THE SHOWER SHALL BE DESIGNED TO ALLOW ONLY ONE SHOWER OUTLET TO BE IN OPERATION AT A TIME. A HAND-HELD SHOWER SHALL BE CONSIDERED A SHOWERHEAD.
3. THE MINIMUM FLOW RATE OF RESIDENTIAL LAVATORY FAUCETS SHALL NOT BE LESS THAN 0.8 GPM AT 20 PSI.
4. KITCHEN FAUCETS MAY TEMPORARILY INCREASE THE FLOW ABOVE THE MAXIMUM RATE, BUT NOT TO EXCEED 2.2 GPM AT 60 PSI, AND MUST DEFAULT TO A MAXIMUM FLOW RATE OF 1.8 GPM AT 60 PSI..
5. THE EFFECTIVE FLUSH VOLUME OF DUAL FLUSH TOILETS IS DEFINED AS THE COMPOSITE, AVERAGE FLUSH VOLUME OF TWO REDUCED FLUSHES AND ONE FULL FLUSH.
6. PLUMBING FIXTURES AND FITTINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE CALIFORNIA PLUMBING CODE AND SHALL MEET THE APPLICABLE STANDARDS REFERENCED IN TABLE 1701.1 OF THE CALIFORNIA PLUMBING CODE.

FIXTURE FLOW RATES

FIXTURE TYPE	MAX FLOW RATE
SHOWERHEADS	1.8 GPM @80 PSI
LAVATORY FAUCETS, RESIDENTIAL	1.2 GPM @60 PSI
LAVATORY FAUCETS IN COMMON AND PUBLIC AREAS	0.5 GPM @60 PSI
KITCHEN FAUCETS	1.8 GPM @60 PSI
WATER CLOSETS	1.28 GALLONS/FLUSH
URINALS (WALL MOUNTED)	0.125 GALLON/FLUSH
URINALS (FLOOR MOUNTED)	0.5 GALLON/FLUSH
METERING FAUCETS	.25 GALLON/CYCLE

FLOW RATES ARE BASED ON SEC 4.303 OF THE GREEN BUILDING CODE

PIPING MATERIAL SCHEDULE

DOMESTIC COLD/HOT WATER	UPONOR AQUA PEX TUBING WITH PROPEX FITTINGS. INSTALLED IN COMPLIANCE WITH MANUFACTURES INSTRUCTIONS
SEWER, WASTE AND VENT PIPING - INSIDE BUILDING - ABOVE GRADE	SCHEDULE 40 ABS (OR PVC)
SEWER, WASTE AND VENT PIPING - INSIDE BUILDING - BELOW GRADE	SCHEDULE 40 ABS (OR PVC)
INDIRECT WASTE AND CONDENSATE PIPING	PVC/CPVC

NOTES:
1. BUILDING DRAIN AND VENT PIPING MATERIALS SHALL COMPLY WITH SECTIONS 701.0 AND 903.0 OF THE CALIFORNIA PLUMBING CODE
2. ALL SANITARY SYSTEM MATERIALS SHALL BE LISTED BY AN APPROVED LISTING AGENCY.

PLUMBING SHEET INDEX

NO.	SHEET	DESCRIPTION
1	P-1.0	PLUMBING GENERAL NOTES, SYMBOLS & SHEET INDEX
2	P-1.1	PLUMBING SCHEDULES & CALCULATION
3	P-1.2	PLUMBING DETAILS
4	P-2.0	PLUMBING PLAN - MAIN HOUSE - COLD/HOT WATER
5	P-2.1	PLUMBING PLAN - ADU - COLD/HOT WATER
6	P-3.0	PLUMBING PLAN - MAIN HOUSE - WASTE & VENT
7	P-3.1	PLUMBING PLAN - ADU - WASTE & VENT

REVISIONS

NO.	DATE	DESCRIPTION

SEAL:

PROGRESS SET NOT FOR BID OR CONSTRUCTION

GMEP ENGINEERS
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Tel: 949-267-9095

PROJECT NAME:

LOT 207 SANTA LUCIA PRESERVE

23 SAN CLEMENTE TRL.
CARMEL, CA 93923

SHEET TITLE

PLUMBING GENERAL NOTES, SYMBOLS & SHEET INDEX

DRAWN: GMEP
CHECKED: GMEP
DATE: 11/08/24
SCALE: AS NOTED
JOB NO.: 24-731
SHEET:

P-1.0

FIXTURE UNIT CALCULATIONS FOR UNIT PLAN

FIXTURE TYPE	QTY	DOMESTIC WATER							DRAINAGE	
		COLD WATER FIXTURE UNITS (CWFU)	HOT WATER FIXTURE UNITS (HWFU)	75% COLD WATER FIXTURE DEMAND	75% HOT WATER FIXTURE DEMAND	TOTAL COLD WATER DEMAND (CWFU)	75% TOTAL COLD WATER DEMAND (CWFU)	75% TOTAL HOT WATER DEMAND (HWFU)	DRAINAGE FIXTURE UNITS (DFU)	TOTAL (DFU)
WATER CLOSET, TANK TYPE	5	2.5	0.0	-	0.0	12.5	12.5	0.0	3	15
BATHTUB	3	4.0	4.0	3.0	3.0	12.0	9.0	9.0	2	6
LAVATORY	7	1.0	1.0	0.75	0.75	7.0	5.3	5.3	1	7
SHOWER	2	2.0	2.0	1.50	1.50	4.0	3.0	3.0	2	4
DISHWASHER	2	1.5	1.5	0	1.5	3.0	2.25	3.0	0	0
CLOTHES WASHER	1	4.0	4.0	3.0	3.0	4.0	3.0	3.0	3	3
KITCHEN SINK	2	1.5	1.5	1.125	1.125	3.0	2.3	2.25	2	4
HOSE BIBB	1	2.5	0.0	-	0.0	2.5	2.500	0.00	0	0
TOTAL FIXTURE UNITS						48.0	39.75	25.5		39
EQUIVALENT WATER DEMAND IN GPM						28	24	18		
REQUIRED MINIMUM PIPE SIZE						1-1/2"	1-1/2"	1-1/4"		4"

TYPICAL WATER CALCULATIONS

STREET PRESSURE*: 65 MIN. / 75 MAX.

METER SIZE: 3/4" FOR 28 GPM

PRESSURE CALCULATION		UNIT	VALUE
1.	3/4" METER LOSS	PSI	8.0
2.	10 FT STATIC LOSS	PSI	4.3
3.	MIN. PRESSURE REQUIRED	PSI	20.0
4.	TOTAL LOSSES (ITEMS 1-3)	PSI	32.3
5.	MIN. STREET PRESSURE	PSI	65
6.	PRESSURE AVAILABLE FOR FRICTION	PSI	32.7
7.	ACTUAL LENGTH OF SYSTEM	FT	450
8.	DEVELOPED LENGTH (130% OF ITEM 7)	FT	585.0
9.	AVERAGE PRESSURE DROP	PSI/100FT	5.6

PEX PIPE SIZING CHART

FOR VELOCITY OF 10FPS (CW) AND 8FPS(HW); PRESSURE LOSS PER 100FT IN PSI=5.5

PIPE SIZE	COLD WATER		HOT WATER	
	TANK FU	GPM	FU	GPM
1/2"	1	1.7	1	1.9
3/4"	5	4.5	6	5.0
1"	11	8.9	12	9.8
1-1/4"	22	15.5	23	16.8
1-1/2"	34	24.2	44	26.5
2"	127	50.0	134	51.9

BASED ON UPONOR AQUAPEX PRESSURE LOSS TABLES IN CH 4 OF THE PLUMBING DESIGN ASSISTANCE MANUAL

PIPE SIZING CHART, CPVC SDR 11

FOR VELOCITY OF 8FPS (CW) AND 5FPS(HW); PRESSURE LOSS PER 100FT IN PSI=5.5

PIPE SIZE		COLD WATER		HOT WATER	
NOMINAL DIAMETER	INNER DIAMETER	TANK FU	GPM	FU	GPM
1/2"	0.496"	1	2.2	1	2.2
3/4"	0.695"	6	5.3	6	5.3
1"	0.901"	13	10.5	13	9.9
1-1/4"	1.105"	26	17.9	21	14.9
1-1/2"	1.309"	49	28.0	32	21.0
2"	1.716"	160	57.0	69	36.0

BASED ON THE HAZEN-WILLIAMS EAUATIONS

FIXTURE SCHEDULE

ITEM	DESCRIPTION	MAKE/MODEL	TRAP	WASTE	VENT	COLD WATER	HOT WATER	REMARKS
WC-1	WATER CLOSET, TANK TYPE	TBD	-	3"	2"	1/2"	-	1.28 GPF. VERIFY W/ OWNER OR ARCHITECT FOR EXACT FIXTURE SPECIFICATION BEFORE PURCHASING FIXTURE
L-1	LAVATORY	TBD	1-1/2"	2"	1-1/2"	1/2"	1/2"	1.2 GPM FAUCET. VERIFY SELECTION W/ ARCH & OWNER.
S-1	KITCHEN SINK	TBD	1-1/2"	2"	1-1/2"	1/2"	1/2"	1.8 GPM FAUCET. SELECTION TBD BY OWNER.
TUB-1	BATHTUB	TBD	1-1/2"	2"	1-1/2"	1/2"	1/2"	VERIFY W/ OWNER OR ARCHITECT FOR EXACT FIXTURE SPECIFICATION BEFORE PURCHASING FIXTURE
SH-1	SHOWER	TBD	2"	2"	1-1/2"	1/2"	1/2"	1.8 GPM SHOWER HEAD. PROVIDE A THERMOSTATIC OR PRESSURE BALANCE TYPE MIXING VALVE FOR THERMAL SHOCK AND SCALD PROTECTION.
CP-1	CIRCULATION PUMP	ARMSTRONG COMPASS OR EQUAL	-	-	-	3/4"	-	INSTALL PER MANUFACTURES RECOMMENDATIONS
W/D-1	WASHER/DRYER	TBD	2"	2"	1-1/2"	1/2"	1/2"	SELECTION TBD BY OWNER.
DW-1	DISHWASHER	TBD	-	-	-	-	1/2"	SELECTION TBD BY OWNER.
IMB-1	ICE MAKE BOX	TBD	-	-	-	1/2"	-	SELECTION TBD BY OWNER.
GD-1	GARBAGE DISPOSAL	TBD	-	-	-	-	-	SELECTION TBD BY OWNER.
HBB-1	HOSE BIBB	TBD	-	-	-	3/4"	-	SELECTION TBD BY OWNER. PROVIDE ANTI-SIPHON DEVICE.
HD-1	HUB DRAIN	TBD	2"	2"	1-1/2"	-	-	DRAIN FOR WATER HEATER CONDENSATE.

*PLUMBING FIXTURES MUST COMPLY WITH GREEN BUILDING STANDARDS

HYBRID WATER HEATER SCHEDULE

ITEM NO.	MANUFACTURER	MAKE/MODEL	CAPACITY	ENERGY FACTOR (EFFICIENCY)	ELEC DATA	UEF 1ST HOUR RATING (GPH)	SET POINT TEMPERATURE	DIMENSIONS	REMARKS
WH-1	RHEEM OR EQUAL	PRO H50 T2 RH50BM	45 GALLONS	3.5	208/240V 1PHASE 30AMP	67	120° F	61.75"H (78.6"H W/DUCT) X 22.25"Ø	REFER TO WATER HEATER DETAIL.

REVISIONS

NO.	DATE	DESCRIPTION

SEAL:

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OR
CONSTRUCTION

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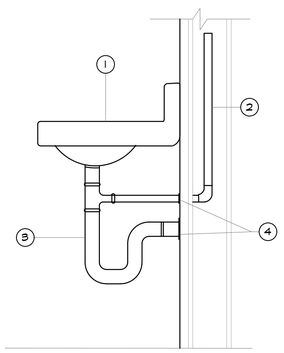
Tel: 949-267-9095

PROJECT NAME:
LOT 207 SANTA LUCIA PRESERVE
23 SAN CLEMENTE TRL.
CARMEL, CA 93923

SHEET TITLE
PLUMBING SCHEDULES & CALCULATIONS

DRAWN: GMEP
CHECKED: GMEP
DATE: 11/08/24
SCALE: AS NOTED
JOB NO.: 24-731
SHEET: P-1.1

PRIMARY CONDENSATE TERMINATION DETAIL



KEYED NOTES:

1. LAVATORY OR SINK
2. 3/4" CONDENSATE PIPE
3. P-TRAP
4. ESCUTCHEON PLATE

NOTE
SEE ARCHITECT'S DRAWING FOR HANDICAP REQUIREMENTS

SCALE:NONE

1

TYPICAL CONDENSATE PIPE DETAIL

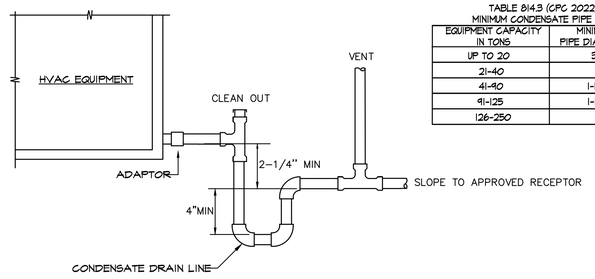


TABLE 814.3 (CPC 2022)
MINIMUM CONDENSATE PIPE SIZE

EQUIPMENT CAPACITY IN TONS	MINIMUM PIPE DIAMETER
UP TO 20	3/4"
21-40	1"
41-90	1-1/4"
91-125	1-1/2"
126-250	2"

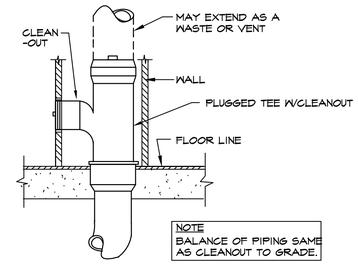
NOTES:

1. ALL INTERIOR CONDENSATE DRAIN PIPING SHALL BE INSULATED
2. SLOPE ALL CONDENSATE DRAIN LINES AT 1%.
3. ROUTE CONDENSATE DRAIN TO TAILPIECE OF NEAREST LAVATORY OR OTHER APPROVED LOCATION
4. ROUTE SECONDARY CONDENSATE DRAIN TO EXTERIOR OR PROVIDE A SHUT-OFF FLOAT SWITCH

SCALE:NONE

2

TYPICAL WALL CLEANOUT

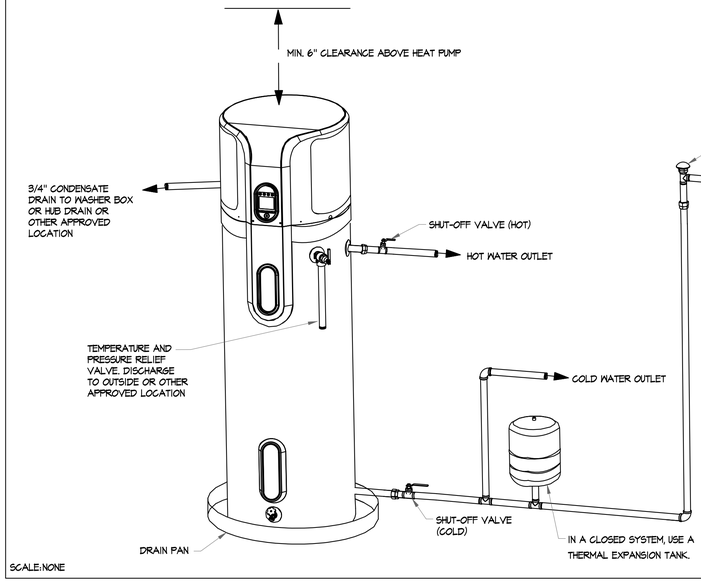


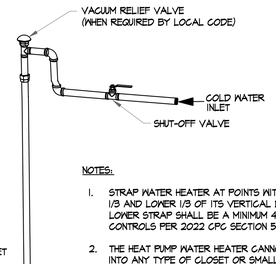
NOTE
BALANCE OF PIPING SAME AS CLEANOUT TO GRADE.

SCALE:NONE

3

HEAT PUMP WATER HEATER DETAIL





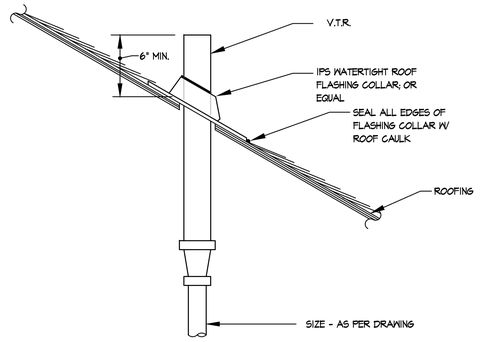
NOTES:

1. STRAP WATER HEATER AT POINTS WITHIN THE UPPER 1/3 AND LOWER 1/3 OF ITS VERTICAL DIMENSION. THE LOWER STRAP SHALL BE A MINIMUM 4" ABOVE CONTROLS PER 2022 CPC SECTION 507.2.
2. THE HEAT PUMP WATER HEATER CANNOT BE PLACED INTO ANY TYPE OF CLOSET OR SMALL ENCLOSURE, UNLESS ADEQUATE PROVISIONS ARE MADE FOR AIR EXCHANGE (VENTED OR LOUVERED DOORS, ETC.)

SCALE:NONE

5

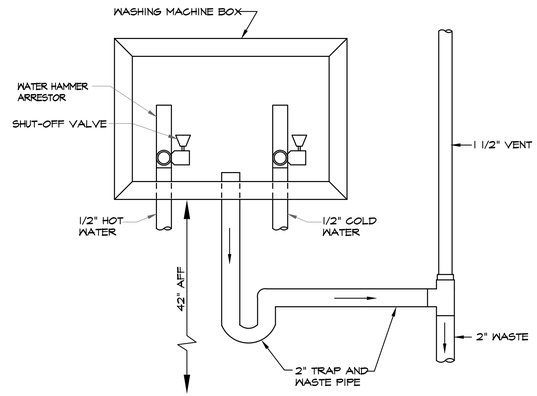
PLUMBING VENT THROUGH ROOF



SCALE:NONE

6

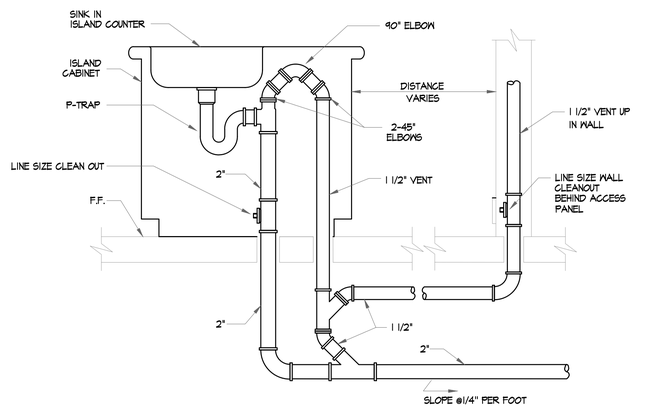
TYPICAL WASHING MACHINE BOX



SCALE:NONE

7

ISLAND SINK VENT DETAIL



SCALE:NONE

8

REVISIONS

NO.	DATE	DESCRIPTION

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CONSTRUCTION

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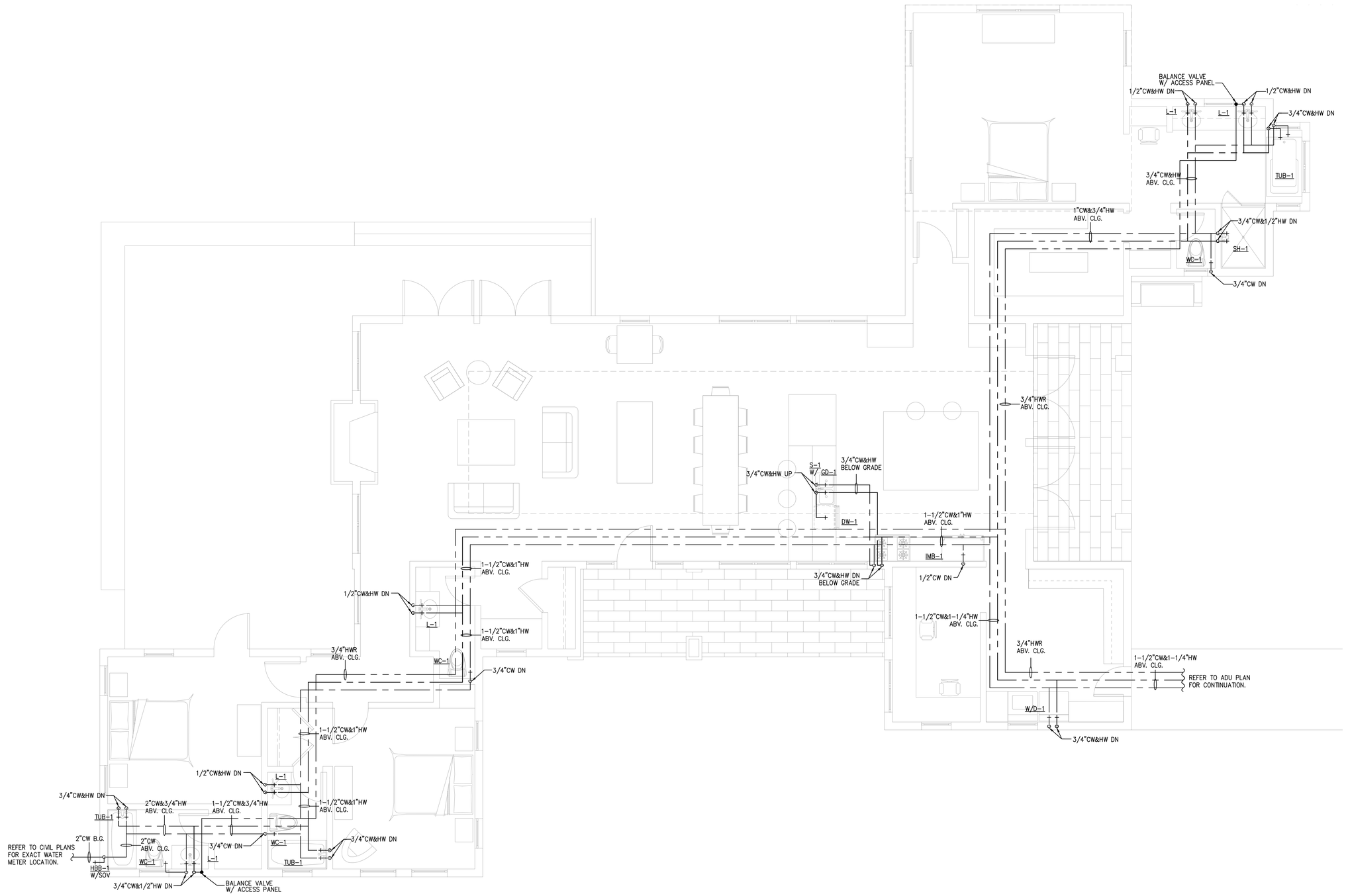
PROJECT NAME:
LOT 207 SANTA LUCIA PRESERVE
23 SAN CLEMENTE TRL.
CARMEL, CA 93923

SHEET TITLE
PLUMBING DETAILS

DRAWN	GMEP
CHECKED	GMEP
DATE	11/08/24
SCALE	AS NOTED
JOB NO.	24-731
SHEET	P-1.2



PLUMBING PLAN - MAIN HOUSE - COLD/HOT WATER

SCALE: 1/4"= 1'-0"

REVISIONS		
NO.	DATE	DESCRIPTION

SEAL:

PROGRESS SET
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OR
CONSTRUCTION

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PROJECT NAME:

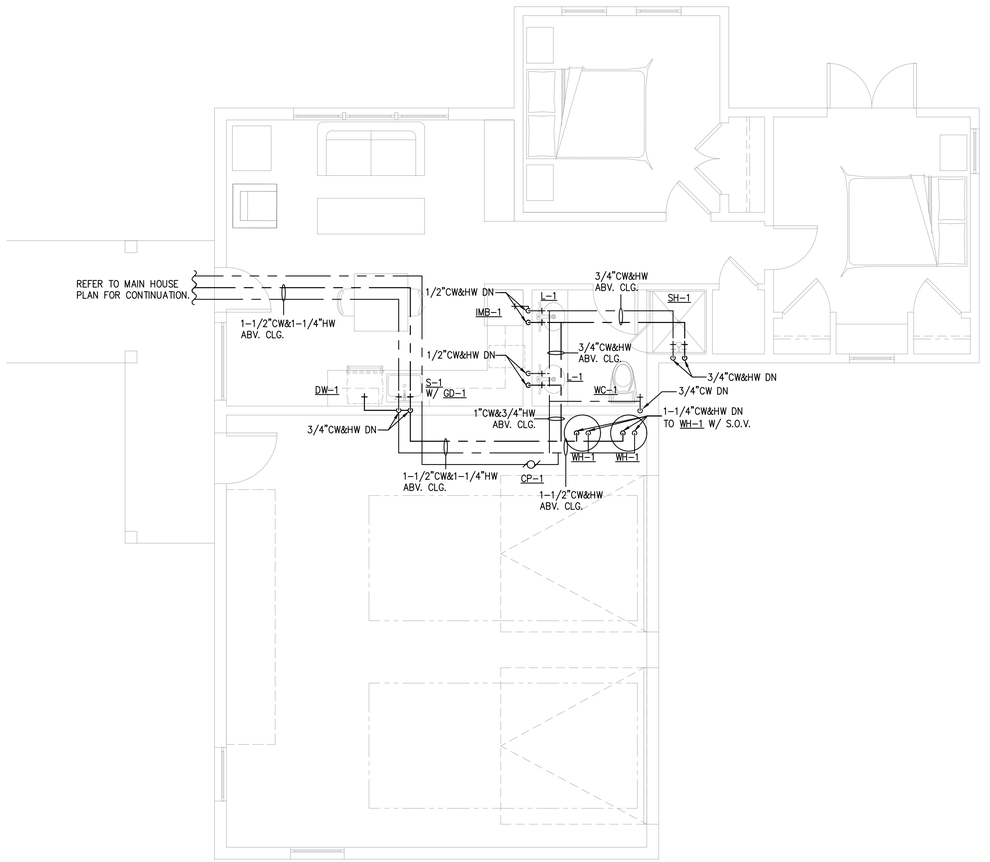
LOT 207 SANTA
LUCIA PRESERVE

23 SAN CLEMENTE TRL.
CARMEL, CA 93923

SHEET TITLE

PLUMBING PLAN
MAIN HOUSE
COLD/HOT WATER

DRAWN	GMEP
CHECKED	GMEP
DATE	11/08/24
SCALE	AS NOTED
JOB NO.	24-731
SHEET	P-2.0



PLUMBING PLAN - ADU - COLD/HOT WATER

SCALE: 1/4"= 1'-0"

REVISIONS

NO.	DATE	DESCRIPTION

SEAL:

PROGRESS SET
NOT FOR BID
OR
CONSTRUCTION

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Lake Forest, CA 92630
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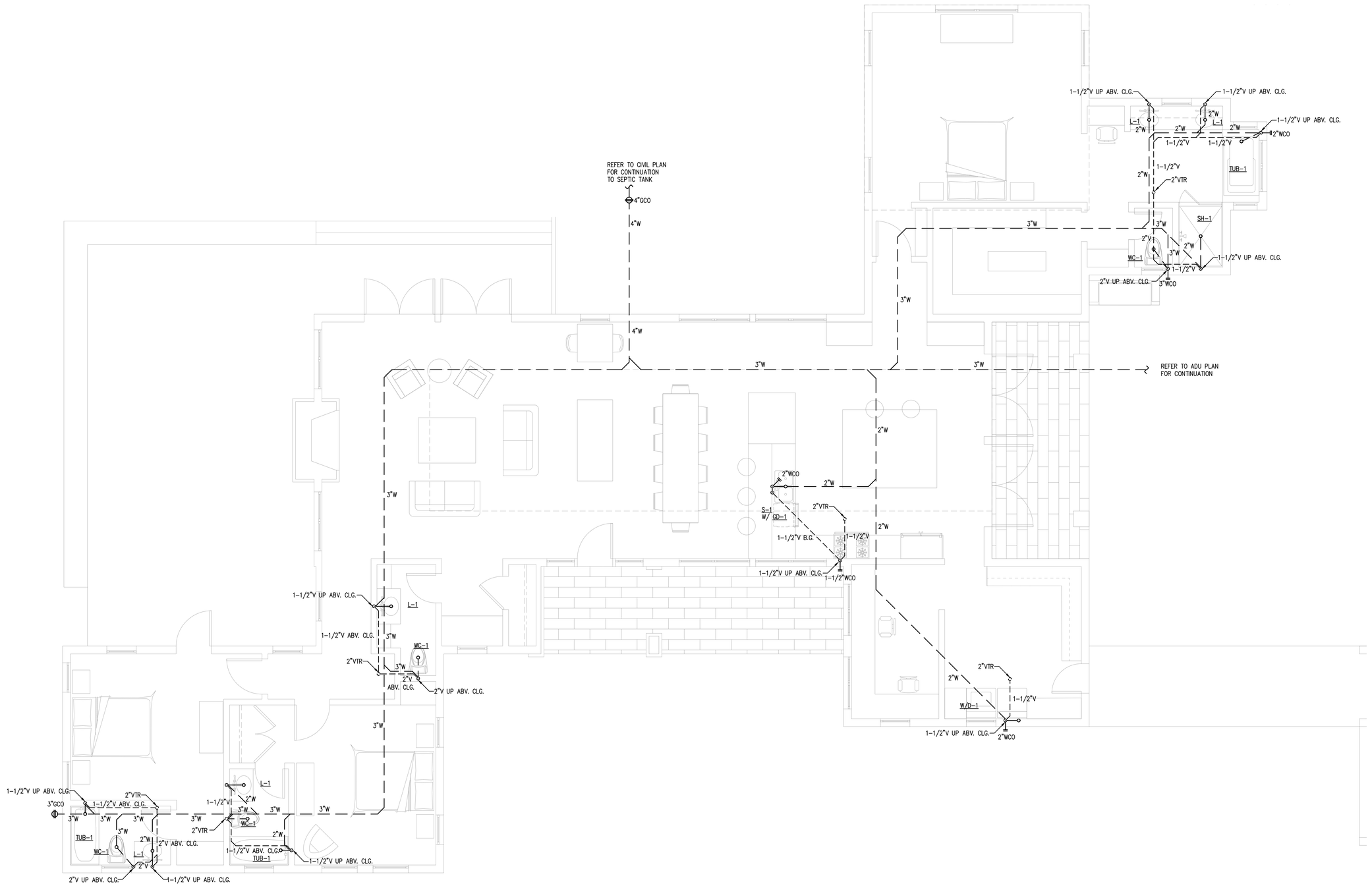
23 SAN CLEMENTE TRL.
CARMEL, CA 93923

SHEET TITLE

PLUMBING PLAN
ADU
COLD/HOT WATER

DRAWN GMEP
CHECKED GMEP
DATE 11/08/24
SCALE AS NOTED
JOB NO. 24-731
SHEET

P-2.1



PLUMBING PLAN - MAIN HOUSE - WASTE & VENT

SCALE: 1/4"=1'-0"

REVISIONS		
NO.	DATE	DESCRIPTION

SEAL:

PROGRESS SET
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PROJECT NAME:

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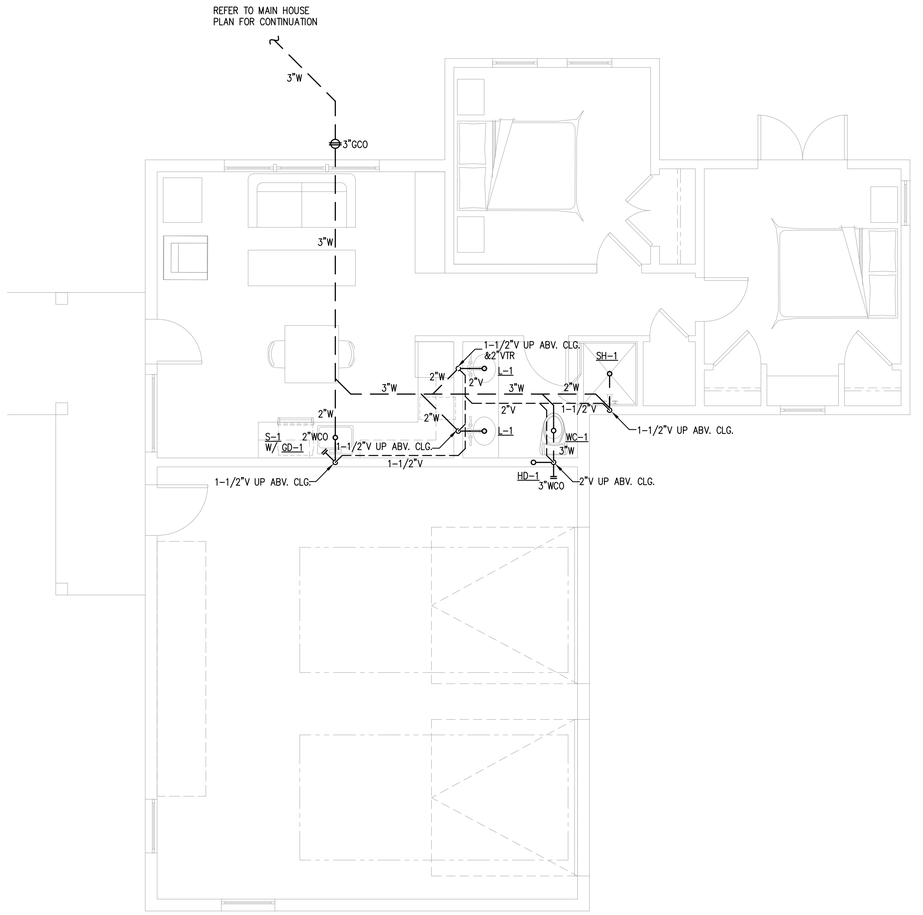
23 SAN CLEMENTE TRL.
CARMEL, CA 93923

SHEET TITLE

PLUMBING PLAN
MAIN HOUSE
WASTE & VENT

DRAWN	GMEP
CHECKED	GMEP
DATE	11/08/24
SCALE	AS NOTED
JOB NO.	24-731
SHEET	P-3.0



PLUMBING PLAN - ADU - WASTE & VENT

SCALE:1/4"=1'-0"

REVISIONS		
NO.	DATE	DESCRIPTION

SEAL:

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PLUMBING PLAN
ADU
WASTE & VENT

DRAWN	GMEP
CHECKED	GMEP
DATE	11/08/24
SCALE	AS NOTED
JOB NO.	24-731
SHEET	P-3.1

2022 Single-Family Residential Mandatory Requirements Summary

§ 150.0(k)1G:	**Screw based luminaires.** Screw based luminaires must contain lamps that comply with Reference Joint Appendix JA8. *
§ 150.(k)1H:	**Light Sources in Enclosed or Recessed Luminaires.** Lamps and other separable light sources that are not compliant with the JA8 elevated temperature requirements, including marking requirements, must not be installed in enclosed or recessed luminaires.
§ 150.(k)1i:	**Light Sources in Drawers, Cabinets, and Linen Closets.** Light sources internal to drawers, cabinetry or linen closets are not required to comply with Table 150.0-A or be controlled by vacancy sensors provided that they are rated to consume no more than 5 watts of power, emit no more than 150 lumens, and are equipped with controls that automatically turn the lighting off when the drawer, cabinet or linen closet is closed.
§ 150.0(k)2A:	**Interior Switches and Controls.** All forward phase cut dimmers used with LED light sources must comply with NEMA SSL 7A.
§ 150.(k)2B:	**Interior Switches and Controls.** Exhaust fans must be controlled separately from lighting systems.
§ 150.(k)2A:	**Accessible Controls.** Lighting must have readily accessible wall-mounted controls that allow the lighting to be manually turned on and off. *
§ 150.(k)2B:	**Multiple Controls.** Controls must not bypass a dimmer, occupant sensor, or vacancy sensor function if the dimmer or sensor is installed to comply with § 150.0(k).
§ 150.(k)2C:	**Mandatory Requirements.** Lighting controls must comply with the applicable requirements of § 110.9.
§ 150.(0)(k)2D:	**Energy Management Control Systems.** An energy management control system (EMCS) may be used to comply with dimming, occupancy, and control requirements if it provides the functionality of the specified control per § 110.9 and the physical controls specified in § 150.0(k)2A.
§ 150.(k)2E:	**Automatic Shutoff Controls.** In bathrooms; garages, laundry rooms, utility rooms and walk-in closets, at least one installed luminaire must be controlled by an occupancy or vacancy sensor providing automatic-off functionality. Lighting inside drawers and cabinets with opaque fronts or doors must have controls that turn the light off when the drawer or door is closed.
§ 150.(k)2F:	**Dimmers.** Lighting in habitable spaces (e.g., living rooms, dining rooms, kitchens, and bedrooms) must have readily accessible wall-mounted dimming controls that allow the lighting to be manually adjusted up and down. Forward phase cut dimmers controlling LED light sources in these spaces must comply with NEMA SSL 7A.
§ 150.(k)2K:	**Independent controls.** Integrated lighting of exhaust fans shall be controlled independently from the fans. Lighting under cabinets or shelves, lighting in display cabinets, and switched outlets must be controlled separately from ceiling-installed lighting.
§ 150.(0)k)3A:	**Residential Outdoor Lighting.** For single-family residential buildings, outdoor lighting permanently mounted to a residential building, or to other buildings on the same lot, must have a manual on/off switch and either a photocell and motion sensor or automatic time switch control) or an astronomical time clock. An energy management control system that provides the specified control functionality and meets all applicable requirements may be used to meet these requirements.
§ 150.0(k)4:	**Internally illuminated address signs.** Internally illuminated address signs must either comply with § 140.8 or consume no more than 5 watts of power.
§ 150.0(k)5:	**Residential Garages for Eight or More Vehicles.** Lighting for residential parking garages for eight or more vehicles must comply with the applicable requirements for nonresidential garages in §§ 110.9, 130.0, 130.1, 130.4, 140.6, and 141.0.

Solar Readiness:

§ 110.10(a)1:	**Single-family Residences.** Single-family residences located in subdivisions with 10 or more single-family residences and where the application for a tentative subdivision map for the residences has been deemed complete and approved by the enforcement agency, which do not have a photovoltaic system installed, must comply with the requirements of § 110.10(b)-(e).
§110.10(b)1A:	**Minimum Solar Zone Area.** The solar zone must have a minimum total area as described below. The solar zone must comply with access, pathway, smoke ventilation, and spacing requirements as specified in Title 24, Part 9 or other parts of Title 24 or in any requirements adopted by a local jurisdiction. The solar zone total area must be comprised of areas that have no dimension less than 5 feet and are no less than 80 square feet each for buildings with roof areas less than or equal to 10,000 square feet or no less than 160 square feet each for buildings with roof areas greater than 10,000 square feet. For single-family residences, the solar zone must be located on the roof or overhang of the building and have a total area no less than 250 square feet. *
§ 110.10(b)2:	**Azimuth.** All sections of the solar zone located on steep-sloped roofs must have an azimuth between 90-300° of true north.
§ 110.10(b)3A:	**Shading.** The solar zone must not contain any obstructions, including but not limited to: vents, chimneys, architectural features, and roof mounted equipment.
§ 110.10(b)3B:	**Shading.** Any obstruction located on the roof or any other part of the building that projects above a solar zone must be located at least twice the horizontal distance of the height difference between the highest point of the obstruction and the horizontal projection of the nearest point of the solar zone, measured in the vertical plane. *
§ 110.10(b)4:	**Structural Design Loads on Construction Documents.** For areas of the roof designated as a solar zone, the structural design loads for roof dead load and roof live load must be clearly indicated on the construction documents.
§ 110.10(c):	**Interconnection Pathways.** The construction documents must indicate, a location reserved for inverters and metering equipment and a pathway reserved for routing of conduit from the solar zone to the point of interconnection with the electrical service, and for single-family residences and central water-heating systems, a pathway reserved for routing plumbing from the solar zone to the water-heating system.
§ 110.10(d):	**Documentation.** A copy of the construction documents or a comparable document indicating the information from § 110.10(b)-(c) must be provided to the occupant.
§ 110.10(e)1:	**Main Electrical Service Panel.** The main electrical service panel must have a minimum busbar rating of 200 amps.
§ 110.10(e)2:	**Main Electrical Service Panel.** The main electrical service panel must have a reserved space to allow for the installation of a double pole circuit breaker for a future solar electric installation. The reserved space must be permanently marked as "For Future Solar Electric."

Electric and Energy Storage Ready:

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2022 Single-Family Residential Mandatory Requirements Summary

§ 150.0(m)13:	**Space Conditioning System Airflow Rate and Fan Efficacy.** Space conditioning systems that use ducts to supply cooling must have a hole for the placement of a static pressure probe, or a permanently installed static pressure probe in the supply plenum. Airflow must be ≥ 350 CFM per ton of nominal cooling capacity, and an air-handling unit fan efficacy ≤ 0.45 watts per CFM for gas furnace air handlers and ≤ 0.58 watts per CFM for all other airflows. Small duct high velocity systems must provide an airflow ≥ 250 CFM per ton of nominal cooling capacity, and an air-handling unit fan efficacy ≤ 0.62 watts per CFM. Field verification testing is required in accordance with Reference Residential Appendix RA3.3. *

Ventilation and Indoor Air Quality:

§ 150.0(o)1:	**Requirements for Ventilation and Indoor Air Quality.** All dwelling units must meet the requirements of ASHRAE Standard 62.2, Ventilation and Acceptable Indoor Air Quality in Residential Buildings subject to the amendments specified in § 150.0(o)1.*
§ 150.0(o)1B:	**Central Fan Integrated (CFI) Ventilation Systems.** Continuous operation of CFI air handlers is not allowed to provide the whole-dwelling unit ventilation airflow required per §150.0(o)1C. A motorized damper(s) must be installed on the ventilation duct(s) that prevents air airflow through the space conditioning duct system when the damper(s) is closed andcontrolled per §150.0(o)1Biii&iv. CFI ventilation systems must have controls that track outdoor air ventilation run time, and either open or close the motorized damper(s) for compliance with §150.0(o)1C.
§ 150.0(o)1C:	**Whole-Dwelling Unit Mechanical Ventilation for Single-Family Detached and townhouses .** Single-family detached dwelling units, and attached dwelling units not sharing ceilings or floors with other dwelling units, occupiable spaces, public garages, or commercial spaces must have mechanical ventilation airflow specified in § 150.0(o)1Ci-iii.
§ 150.0(o)1G:	**Local Mechanical Exhaust.** Kitchens and bathrooms must have local mechanical exhaust; nonenclosed kitchens must have demand-controlled exhaust system meeting requirements of §150.0(o)1Giii,enclosed kitchens and bathrooms can use demand-controlled or continuous exhaust meeting §150.0(o)1Giii-iv. Airflow must be measured by the installer per §150.(0)o1Gv, and rated for sound per §150.(o)1Gvi. *
§ 150.(0)1H&I:	**Airflow Measurement and Sound Ratings of Whole-Dwelling Unit Ventilation Systems.** The airflow required per § 150.0(o)1C must be measured by using a flow hood, flow grid, or other airflow measuring device at the fan's inlet or outlet terminals/grilles per Reference Residential Appendix RA3.7. Whole-Dwelling unit ventilation systems must be rated for sound per ASHRAE 62.2 §7.2 at no less than the minimum airflow rate required by §150.0(o)1C.
§ 150.0(o)2:	**Field Verification and Diagnostic Testing.** Whole-Dwelling Unit ventilation airflow, vented range hood airflow and sound rating, and HRV and ERV fan efficacy must be verified in accordance with Reference Residential Appendix RA3.7. Vented range hoods must be verified per Reference Residential Appendix RA3.7.4.3 to confirm if it is rated by HVI or AHAM to comply with the airflow rates and sound requirements per §150.(0)o1G

Pool and Spa Systems and Equipment:

§ 110.4(a):	**Certification by Manufacturers.** Any pool or spa heating system or equipment must be certified to have all of the following: compliance with the Appliance Efficiency Regulations and listing in MAEDbS; an on-off switch mounted outside of the heater that allows shutting off the heater without adjusting the thermostat setting; a permanent weatherproof plate or card with operating instructions; and must not use electric resistance heating. *
§ 110.4(b)1:	**Piping.** Any pool or spa heating system or equipment must be installed with at least 36 inches of pipe between the filter and the heater, or dedicated suction and return lines, or built-in or built-up connections to allow for future solar heating.
§ 110.4(b)2:	**Covers.** Outdoor pools or spas that have a heat pump or gas heater must have a cover.
§ 110.4(b)3:	**Directional Inlets and Time Switches for Pools.** Pools must have directional inlets that adequately mix the pool water, and a time switch that will allow all pumps to be set or programmed to run only during off-peak electric demand periods.
§ 110.5:	**Pilot Light.** Natural gas pool and spa heaters must not have a continuously burning pilot light.
§ 150.0(p):	**Pool Systems and Equipment Installation.** Residential pool systems or equipment must meet the specified requirements for pump sizing, flow rate, piping, filters, and valves.*

Lighting:

§ 110.9:	**Lighting Controls and Components.** All lighting control devices and systems, ballasts, and luminaires must meet the applicable requirements of § 110.9. *
§ 150.0(k)1A:	**Luminaire Efficacy.** All installed luminaires must meet the requirements in Table 150.0-A, except lighting integral to exhaust fans, kitchen range hoods, bath vanity mirrors, and garage door openers; navigation lighting less than 5 watts; and lighting internal to drawers, cabinets, and linen closets with an efficacy of at least 45 lumens per watt.
§ 150.0(k)1B:	**Screw based luminaires.** Screw based luminaires must contain lamps that comply with Reference Joint Appendix JA8. *
§ 150.0(k)1C:	**Recessed Downlight Luminaires in Ceilings.** Luminaires recessed into ceilings must not contain screw based sockets, must be airtight, and must be sealed with a gasket or caulk, California Electrical Code § 410.116 must also be met.
§ 150.0(k)1D:	**Light Sources in Enclosed or Recessed Luminaires.** Lamps and other separable light sources that are not compliant with the JA8 elevated temperatures requirements, including marking requirements, must not be installed in enclosed or recessed luminaires.
§ 150.0(k)1E:	**Blank Electrical Boxes.** The number of electrical boxes that are more than five feet above the finished floor and do not contain a luminaire or other device shall be no more than the number of bedrooms. These boxes must be served by a dimmer, vacancy sensor control, low voltage wiring, or fan speed control.
§ 150.0(k)1F:	**Lighting Integral to Exhaust Fans.** Lighting integral to exhaust fans (except when installed by the manufacturer in kitchen exhaust hoods) must meet the applicable requirements of § 150.0(k).

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2022 Single-Family Residential Mandatory Requirements Summary

§ 110.5:	**Pilot Lights.** Continuously burning pilot lights are prohibited for natural gas: fan-type central furnaces; household cooking appliances (except appliances without an electrical supply voltage connection with pilot lights that consume less than 150 Btu per hour); and pool and spa heaters. *
§ 150.0(h)1:	**Building Cooling and Heating Loads.** Heating and/or cooling loads are calculated in accordance with the ASHRAE Handbook, Equipment Volume, Applications Volume, and Fundamentals Volume; the SMACNA Residential Comfort System Installation Standards Manual; or the ACCA Manual J using design conditions specified in § 150.(h)i2.
§ 150.0(h)3A:	**Clearances.** Air conditioner and heat pump outdoor condensing units must have a clearance of at least five feet from the outlet of any dryer.
§ 150.0(h)3B:	**Liquid Line Drier.** Air conditioners and heat pump systems must be equipped with liquid line filter driers if required, as specified by the manufacturer's instructions.
§ 150.0(j)1:	**Water Piping, Solar Water-heating System Piping, and Space Conditioning System Line Insulation.** All domestic hot water piping must be insulated as specified in § 609.11 of the California Plumbing Code. *
§ 150.0(j)2:	**Insulation Protection.** Piping insulation must be protected from damage, including that due to sunlight, moisture, equipment maintenance, and wind as required by §120.3(b). Insulation exposed to weather must be water retardant and protected from UV light (no adhesive tapes). Insulation covering chilled water piping and refrigerant suction piping located outside the conditioned space must include, or be protected by, a Class I or Class II vapor retarder. Pipe insulation buried below grade must be installed in a waterproof and non-crushable casing or sleeve.
§ 150.0(n)1:	**Gas or Propane Water Heating Systems.** Systems using gas or propane water heaters to serve individual dwelling units must designate a space at least 2.5' x 2.5' x 7' suitable for the future installation of a heat pump water heater, and meet electrical and plumbing requirements, based on the distance between this designated space and the water heater location; and a condensate drain no more than 2" higher than the base of the water heater.
§ 150.0(n)3:	**Solar Water-heating Systems.** Solar water-heating systems and collectors must be certified and rated by the Solar Rating and Certification Corporation (SRCC), the International Association of Plumbing and Mechanical Officials: Research and Testing (IAPMO R&T), or by a listing agency that is approved by the executive director.

Ducts and Fans:

§ 110.8(d)3:	**Ducts.** Insulation installed on an uninsulated space-conditioning duct must comply with § 604.0 of the California Mechanical Code (CMC). If a contractor installs the insulation, the contractor must certify to the customer, in writing, that the insulation meets this requirement.
§ 150.0(m)1:	**CMC Compliance.** All air-distribution system ducts and plenums must meet CMC §§ 601.0-605.0 and ANSI/SMACNA-006-2006 HVAC Duct Construction Standards Metal and Flexible 3rd Edition. Portions of supply-air and return-air ducts and plenums must be insulated to R-6.0 or higher; ducts located entirely in conditioned space as confirmed through field verification and diagnostic testing (RA3.1.4.3.6) do not require insulation. Connections of metal ducts and inner core of flexible ducts must be mechanically fastened. Openings must be sealed with mastic, tape, or other duct-closure system that meets the applicable UL requirements, or aerosol sealant that meets UL 723. The combination of mastic and either mesh or tape must be used to seal openings greater than ¼". If mastic or tape is used. Building cavities, air handler support platforms, and plenums designed or constructed with materials other than sealed sheet metal, duct board or flexible duct must not be used to convey conditioned air. Building cavities and support platforms may contain ducts; ducts installed in these spaces must not be compressed. *
§ 150.0(m)2:	**Factory-Fabricated Duct Systems.** Factory-fabricated duct systems must comply with applicable requirements for duct construction, connections, and closures; joints and seams of duct systems and their components must not be sealed with cloth back rubber adhesive duct tapes unless such tape is used in combination with mastic and mesh or fabric bands.
§ 150.0(m)3:	**Field-Fabricated Duct Systems.** Field-fabricated duct systems must comply with applicable requirements for: pressure-sensitive tapes, mastics, sealants, and other requirements specified for duct construction.
§ 150.0(m)7:	**Backdraft Damper.** Fan systems that exchange air between the conditioned space and outdoors must have backdraft or automatic dampers.
§ 150.0(m)8:	**Gravity Ventilation Dampers.** Gravity ventilating systems serving conditioned space must have either automatic or readily accessible, manually operated dampers in all openings to the outside, except combustion inlet and outlet air openings and elevator shaft vents.
§ 150.0(m)9:	**Protection of Insulation.** Insulation must be protected from damage due tosunlight, moisture, equipment maintenance, and wind. Insulation exposed to weather must be suitable for outdoor service (e.g., protected by aluminum, sheet metal, painted canvas, or plastic cover). Cellular foam insulation must be protected as above or painted with a water retardant and solar radiation-resistant coating.
§ 150.0(m)10:	**Porous Inner Core Flex Duct.** Porous inner cores of flex ducts must have a non-porous layer or air barrier between the inner core and outer vapor barrier.
§ 150.0(m)11:	**Duct System Sealing and Leakage Test.** When space conditioning systems use forced air duct systems to supply conditioned air to an occupiable space, the ducts must be sealed and duct leakage tested, as confirmed through field verification and diagnostic testing, in accordance with Reference Residential Appendix RA3.1.
§ 150.0(m)12:	**Air Filtration.** Space conditioning systems with ducts exceeding 10 feet and the supply side of ventilation systems must have MERV 13 or equivalent filters. Filters for space conditioning systems must have a two inch depth or can be one inch if sized per Equation 150.0-A. Clean-filter pressure drop and labeling must meet the requirements in §150.(0)m12. Filters must be accessible for regular service. Filter racks or grilles must use gaskets, sealing, or other means to close gaps around the inserted filters to and prevents air from bypassing the filter. *

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2022 Single-Family Residential Mandatory Requirements Summary

NOTE: Single-family residential buildings subject to the Energy Codes must comply with all applicable mandatory measures, regardless of the compliance approach used. Review the respective section for more information.
(04/2022)

Building Envelope:

§ 110.6(a)1:	**Air Leakage.** Manufactured fenestration, exterior doors, and exterior pet doors must limit air leakage to 0.3 CFM per square foot or less when tested per NFRC-400, ASTM E283, or AAMA/WDMA/CSA 101/I.S.2/A440-2011. *
§ 110.6(a)5:	**Labeling.** Fenestration products and exterior doors must have a label meeting the requirements of § 10-111(a).
§ 110.6(b):	**Field fabricated exterior doors and fenestration** products must use U-factors and solar heat gain coefficient (SHGC) values from Tables 110.6-A, 110.6-B, or JA4.5 for exterior doors. They must be caulked and/or weather-stripped. *
§ 110.7:	**Air Leakage.** All joints, penetrations, and other openings in the building envelope that are potential sources of air leakage must be caulked, gasketed, or weather stripped. *
§ 110.8(a):	**Insulation Certification by Manufacturers.** Insulation must be certified by the Department of Consumer Affairs, Bureau of Household Goods and Services (BHGS).
§ 110.8(g):	**Insulation Requirements for Heated Slab Floors.** Heated slab floors must be insulated per the requirements of § 110.8(g).
§ 110.8(i):	**Roofing Products Solar Reflectance and Thermal Emittance.** The thermal emittance and aged solar reflectance values of the roofing material must meet the requirements of § 110.8(i) and be labeled per §10-113 when the installation of a cool roof is specified on the CF1R.
§ 110.8(j):	**Radiant Barrier.** When required, radiant barriers must have an emittance of 0.05 or less and be certified to the Department of Consumer Affairs.
§ 150.0(a):	**Roof Deck, Ceiling and Rafter Roof Insulation.** Roof decks in newly constructed attics in climate zones 4 and 8-16 area-weighted average U-factor not exceeding U-0.184. Ceiling and rafter roofs minimum R-22 insulation in wood-frame ceiling; or area-weighted average U-factor must not exceed 0.043. Rafter roof alterations minimum R-19 or area-weighted average U-factor of 0.054 or less. Attic access doors must have permanently attached insulation using adhesive or mechanical fasteners. The attic access must be gasketed to prevent air leakage. Insulation must be installed in direct contact with a roof or ceiling which is sealed to limit infiltration and exfiltration, as specified in § 110.7, including but not limited to placing insulation either above or below the roof deck or on top of a drywall ceiling. *
§ 150.0(b):	**Loose-fill Insulation.** Loose fill insulation must meet the manufacturer's required density for the labeled R-value.
§ 150.0(c):	**Wall Insulation.** Minimum R-13 insulation in 2x4 inch wood framing wall or have a U-factor of 0.102 or less, or R-20 in 2x6 inch wood framing or have a U-factor of 0.071 or less. Opaque non-framed assemblies must have an overall assembly U-factor not exceeding 0.102 Masonry walls must meet Tables 150.1-A or B. *
§ 150.0(d):	**Raised-floor Insulation.** Minimum R-19 insulation in raised wood framed floor or 0.037 maximum U-factor. *
§ 150.0(f):	**Slab Edge Insulation.** Slab edge insulation must meet all of the following: have a water absorption rate, for the insulation material alone without facings, no greater than 0.3 percent; have a water vapor permeance no greater than 2.0 perm per inch; be protected from physical damage and UV light deterioration; and, when installed as part of a heated slab floor; meet the requirements of § 110.8(g).
§ 150.0(g)1:	**Vapor Retarder.** In climate zones 1 through 16, the earth floor of unvented crawl space must be covered with a Class I or Class II vapor retarder, This requirement also applies to controlled ventilation crawl space for buildings complying with the exception to §150.0(d).
§ 150.0(g)2:	**Vapor Retarder.** In climate zones 14 and 16, a Class I or Class II vapor retarder must be installed on the conditioned space side of all insulation in all exterior walls, vented attics, and unvented attics with air-permeable insulation.
§ 150.0(q):	**Fenestration Products.** Fenestration, including skylights, separating conditioned space from unconditioned space or outdoors must have a maximum U-factor of 0.45; or area-weighted average U-factor of all fenestration must not exceed 0.45.

Fireplaces, Decorative Gas Appliances, and Gas Log:

§ 110.5(e)	**Pilot Light.** Continuously burning pilot lights are not allowed for indoor and outdoor fireplaces.
§ 150.0(e)1:	**Closable Doors.** Masonry or factory-built fireplaces must have a closable metal or glass door covering the entire opening of the firebox.
§ 150.0(e)2:	**Combustion Intake.** Masonry or factory-built fireplaces must have a combustion outside air intake, which is at least six square inches in area and is equipped with a readily accessible, operable, and tight-fitting damper or combustion-air control device.
§ 150.0(e)3:	**Flue Damper.** Masonry or factory-built fireplaces must have a flue damper with a readily accessible control. *

Space Conditioning, Water Heating, and Plumbing System:

§ 110.0-§ 110.3:	**Certification.** Heating, ventilation, and air conditioning (HVAC) equipment, water heaters, showerheads, faucets, and all other regulated appliances must be certified by the manufacturer to the California Energy Commission. *
§ 110.2(a):	**HVAC Efficiency.** Equipment must meet the applicable efficiency requirements in Table 110.2-A through Table 110.2-N. *
§ 110.2(b):	**Controls for Heat Pumps with Supplementary Electric Resistance Heaters.** Heat pumps with supplementary electric resistance heaters must have controls that prevent supplementary heater operation when the heating load can be met by the heat pump alone; and in which the cut-on temperature for compression heating is higher than the cut-on temperature for supplementary heating, and the cut-off temperature for compression heating is higher than the cut-off temperature for supplementary heating.
§ 110.2(c):	**Thermostats.** All heating or cooling systems not controlled by a central energy management control system (EMCS) must have a setback thermostat. *
§ 110.3(c)3:	**Insulation.** Unifired service water heater storage tanks and solar water-heating backup tanks must have adequate insulation, or tank surface heat loss rating.
§ 110.3(c)6:	**Isolation Valves.** Instantaneous water heaters with an input rating greater than 6.8 kBtu per hour (2 kW) must have isolation valves with hose bibbs or other fittings on both cold and hot water lines to allow for flushing the water heater when the valves are closed.

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2022 Single-Family Residential Mandatory Requirements Summary

§ 150.0(s)	**Energy Storage System (ESS) Ready.** All single-family residences must meet all of the following: Either ESS-ready interconnection equipment with backed up capacity of 60 amps or more and four or more ESS supplied branch circuits, or a dedicated raceway from the main service to a subpanel that supplies the branch circuits in § 150.0(s); at least four branch circuits must be identified and have their source collocated at a single panelboard suitable to be supplied by the ESS, with one circuit supplying the refrigerator, one lighting circuit near the primary exit, and one circuit supplying a sleeping room receptacle outlet; main panelboard must have a minimum busbar rating of 225 amps; sufficient space must be reserved to allow future installation of a system isolation equipment/transfer switch within 3' of the main panelboard, with raceways installed between the panelboard and the switch location to allow the connection of backup power source.
§ 150.0(t)	**Heat Pump Space Heater Ready.** Systems using gas or propane furnaces to serve individual dwelling units must include: A dedicated unobstructed 240V branch circuit wiring installed within 3' of the furnace with circuit conductors rated at least 30 amps with the blank cover identified as "240V ready;" and a reserved main electrical service panel space to allow for the installation of a double pole circuit breaker permanently marked as "For Future 240V use."
§ 150.0(u)	**Electric Cooktop Ready.** Systems using gas or propane cooktop to serve individual dwelling units must include: A dedicated unobstructed 240V branch circuit wiring installed within 3' of the cooktop with circuit conductors rated at least 50 amps with the blank cover identified as "240V ready;" and a reserved main electrical service panel space to allow for the installation of a double pole circuit breaker permanently marked as "For Future 240V use."
§ 150.0(v)	**Electric Clothes Dryer Ready.** Clothes dryer locations with gas or propane plumbing to serve individual dwelling units must include: A dedicated unobstructed 240V branch circuit wiring installed within 3' of the dryer location with circuit conductors rated at least 30 amps with the blank cover identified as "240V ready;" and a reserved main electrical service panel space to allow for the installation of a double pole circuit breaker permanently marked as "For Future 240V use."

*Exceptions may apply.

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TITLE 24 SHEET INDEX		
NO.	SHEET	DESCRIPTION
1	EN-0	TITLE 24 FORMS - MANDATORY MEASURES SUMMARY & SHEET INDEX
2	EN-1	TITLE 24 FORMS - CFIR
3	EN-2	TITLE 24 FORMS - CFIR

REVISIONS

NO.	DATE	DESCRIPTION

SEAL:

REGISTERED PROFESSIONAL ENGINEER GANGYI ZHOU No. M34279 Exp.12-31-2026 MECHANICAL STATE OF CALIFORNIA

GMEP ENGINEERS
26439 Rancho Pkwy. S., Ste 120
Lake Forest, CA 92630
Tel: 949-267-9095

PROJECT NAME:
LOT 207 SANTA LUCIA PRESERVE
23 SAN CLEMENTE TRL.
CARMEL, CA 93923

SHEET TITLE
TITLE 24 FORMS - MANDATORY MEASURES SUMMARY & SHEET INDEX

DRAWN	GMEP
CHECKED	GMEP
DATE	01/31/25
SCALE	AS NOTED
JOB NO.	24-731
SHEET	EN-0

ENERGY USE SUMMARY

Energy Use	Standard Design Source Energy (EDR1) (kBtu/ft² -yr)	Standard Design TDV Energy (EDR2) (kTDV/ft² -yr)	Proposed Design Source Energy (EDR1) (kBtu/ft² -yr)	Proposed Design TDV Energy (EDR2) (kTDV/ft² -yr)	Margin (EDR1)	Margin (EDR2)
Space Heating	6.9	46.54	3.37	24.85	3.53	21.69
Space Cooling	0.05	4.86	0.08	7.28	-0.03	-2.42
IAQ Ventilation	0.31	3.29	0.31	3.29	0	0
Water Heating	1.13	13.09	0.87	9.68	0.26	3.41
Self Utilization/Flexibility Credit			0	0	0	0
Efficiency Compliance Total	**8.39**	**67.78**	**4.63**	**45.1**	**3.76**	**22.68**
Photovoltaics	-0.85	-26.61	-0.85	-26.69		
Battery			0	0		
Flexibility			0			
Indoor Lighting	0.67	6.9	0.67	6.9		
Appl. & Cooking	2.11	17.14	2.11	17.14		
Plug Loads	1.95	20.77	1.95	20.77		
Outdoor Lighting	0.18	1.73	0.18	1.73		
TOTAL COMPLIANCE	**12.45**	**87.71**	**8.69**	**64.95**		

ENERGY DESIGN RATINGS

	Energy Design Ratings			Compliance Margins		
	Source Energy (EDR1)	Efficiency[1] EDR (EDR2efficiency)	Total[2] EDR (EDR2total)	Source Energy (EDR1)	Efficiency[1] EDR (EDR2efficiency)	Total[2] EDR (EDR2total)
Standard Design	39.8	42.8	35.7			
Proposed Design	27.8	28.5	26.5	12	14.3	9.2
RESULT[3]: PASS						

[1]Efficiency EDR includes improvements like a better building envelope and more efficient equipment
[2]Total EDR includes efficiency and demand response measures such as photovoltaic (PV) system and batteries
[3]Building complies when source energy, efficiency and total compliance margins are greater than or equal to zero and unmet load hour limits are not exceeded

- Standard Design PV Capacity: 3.71 kWdc
- PV System resized to 3.71 kWdc (a factor of 3.707) to achieve 'Standard Design PV' PV scaling

GENERAL INFORMATION

01	**Project Name**	24-731 Lot 207 Sant Lucia Preserve			
02	**Run Title**	Title 24 Analysis			
03	**Project Location**	23 San Clemente Trl.			
04	**City**	Carmel	05	**Standards Version**	2022
06	**Zip code**	93923	07	**Software Version**	EnergyPro 9.3
08	**Climate Zone**	3	09	**Front Orientation (deg/ Cardinal)**	180
10	**Building Type**	Single family	11	**Number of Dwelling Units**	1
12	**Project Scope**	Newly Constructed	13	**Number of Bedrooms**	5
14	**Addition Cond. Floor Area (ft²)**	0	15	**Number of Stories**	1
16	**Existing Cond. Floor Area (ft²)**	n/a	17	**Fenestration Average U-factor**	0.3
18	**Total Cond. Floor Area (ft²)**	3734	19	**Glazing Percentage (%)**	34.09%
20	**ADU Bedroom Count**	n/a	21	**ADU Conditioned Floor Area**	n/a
22	**Fuel Type**	Propane	23	**No Dwelling Units**	No

COMPLIANCE RESULTS

01	**Building Complies with Computer Performance**
02	**This building incorporates features that require field testing and/or verification by a certified HERS rater under the supervision of a CEC-approved HERS provider.**
03	**This building incorporates one or more Special Features shown below**

OPAQUE SURFACES

01 Name	02 Zone	03 Construction	04 Azimuth	05 Orientation	06 Gross Area (ft²)	07 Window and Door Area (ft2)	08 Tilt (deg)
Exterior Wall S	Main Residence Zone	R-21 Wall	180	Front	1103	280.9	90
Exterior Wall W	Main Residence Zone	R-21 Wall	270	Left	873	199.99	90
Exterior Wall N 2	ADU Zone	R-21 Wall	0	Back	428	114.74	90
Exterior Wall E 2	ADU Zone	R-21 Wall	90	Right	230	10.42	90
Exterior Wall S 2	ADU Zone	R-21 Wall	180	Front	180	10.42	90
Exterior Wall W 2	ADU Zone	R-21 Wall	270	Left	230	39	90
Interior Wall	ADU Zone>>__Garage__	R-21 Wall Interior	n/a	n/a	235	0	n/a
Roof 6	ADU Zone	R-30 Roof Attic.	n/a	n/a	400	n/a	n/a
Raised Floor	Main Residence Zone	R-19 Floor Crawlspace	n/a	n/a	2997	n/a	n/a
Exterior Wall E 3	__Garage__	R-21 Wall	90	Right	248	140	90
Exterior Wall S 3	__Garage__	R-21 Wall	180	Front	248	13.75	90
Exterior Wall W 3	__Garage__	R-21 Wall	270	Left	248	37.75	90

OPAQUE SURFACES - CATHEDRAL CEILINGS

01 Name	02 Zone	03 Construction	04 Azimuth	05 Orientation	06 Area (ft²)	07 Skylight Area (ft²)	08 Roof Rise (x in 12)	09 Roof Reflectance	10 Roof Emittance	11 Cool Roof
Roof	Main Residence Zone	R-30 Roof Cathedral.	180	Front	609	0	0	0.1	0.85	No
Roof 2	Main Residence Zone	R-30 Roof Cathedral	180	Front	2388	0	3	0.1	0.85	No
Roof 3	ADU Zone	R-30 Roof Cathedral.	180	Front	181	0	0	0.1	0.85	No
Roof 4	ADU Zone	R-30 Roof Cathedral	180	Front	100	0	0	0.1	0.85	No
Roof 5	__Garage__	R-0 Roof Cathedral	180	Front	629	0	0	0.1	0.85	No

HERS FEATURE SUMMARY

The following is a summary of the features that must be field-verified by a certified HERS Rater as a condition for meeting the modeled energy performance for this computer analysis. Additional detail is provided in the building tables below. Registered CF2Rs and CF3Rs are required to be completed in the HERS Registry

- Indoor air quality ventilation
- Kitchen range hood
- Minimum Airflow
- Verified EER/EER2
- Verified SEER/SEER2
- Verified Refrigerant Charge
- Fan Efficacy Watts/CFM
- Verified heat pump rated heating capacity
- Duct leakage testing
- Low-leakage Air Handling Unit

BUILDING - FEATURES INFORMATION

01 Project Name	02 Conditioned Floor Area (ft²)	03 Number of Dwelling Units	04 Number of Bedrooms	05 Number of Zones	06 Number of Ventilation Cooling Systems	07 Number of Water Heating Systems
24-731 Lot 207 Sant Lucia Preserve	3734	1	5	2	0	1

ZONE INFORMATION

01 Zone Name	02 Zone Type	03 HVAC System Name	04 Zone Floor Area (ft²)	05 Avg. Ceiling Height	06 Water Heating System 1	07 Status
Main Residence Zone	Conditioned	Split System1	2997	11.2	DHW Sys 1	New
ADU Zone	Conditioned	ADU Split System2	737	11.2	DHW Sys 1	New

OPAQUE SURFACES

01 Name	02 Zone	03 Construction	04 Azimuth	05 Orientation	06 Gross Area (ft²)	07 Window and Door Area (ft2)	08 Tilt (deg)
Exterior Wall N	Main Residence Zone	R-21 Wall	0	Back	1103	379.74	90
Exterior Wall E	Main Residence Zone	R-21 Wall	90	Right	871	237.72	90

ENERGY USE INTENSITY

	Standard Design (kBtu/ft² - yr)	Proposed Design (kBtu/ft² - yr)	Margin (kBtu/ft² - yr)	Margin Percentage
Gross EUI[1]	14.83	10.6	4.23	28.52
Net EUI[2]	9.6	5.37	4.23	44.06

Notes
1. Gross EUI is Energy Use Total (not including PV) / Total Building Area.
2. Net EUI is Energy Use Total (including PV) / Total Building Area.

REQUIRED PV SYSTEMS

01 DC System Size (kWdc)	02 Exception	03 Module Type	04 Array Type	05 Power Electronics	06 CFI	07 Azimuth (deg)	08 Tilt Input	09 Array Angle (deg)	10 Tilt: (x in 12)	11 Inverter Eff. (%)	12 Annual Solar Access (%)
3.71	NA	Standard (14-17%)	Fixed	none	true	150-270	n/a	n/a	<=7:12	96	98

REQUIRED SPECIAL FEATURES

The following are features that must be installed as condition for meeting the modeled energy performance for this computer analysis.

- Ducts in crawl space
- Northwest Energy Efficiency Alliance (NEEA) rated heat pump water heater; specific brand/model, or equivalent, must be installed

FENESTRATION / GLAZING

01 Name	02 Type	03 Surface	04 Orientation	05 Azimuth	06 Width (ft)	07 Height (ft)	08 Mult.	09 Area (ft²)	10 U-factor	11 U-factor Source	12 SHGC	13 SHGC Source	14 Exterior Shading
Window 26	Window	Exterior Wall S	Front	180			1	18.67	0.3	NFRC	0.35	NFRC	Bug Screen
Window 27	Window	Exterior Wall S	Front	180			1	6.61	0.3	NFRC	0.35	NFRC	Bug Screen
Window 28	Window	Exterior Wall S	Front	180			1	8.5	0.3	NFRC	0.35	NFRC	Bug Screen
Window 29	Window	Exterior Wall S	Front	180			1	6.61	0.3	NFRC	0.35	NFRC	Bug Screen
Window 30	Window	Exterior Wall S	Front	180			1	10.42	0.3	NFRC	0.35	NFRC	Bug Screen
Window 31	Window	Exterior Wall S	Front	180			1	18	0.3	NFRC	0.35	NFRC	Bug Screen
Window 32	Window	Exterior Wall S	Front	180			1	18	0.3	NFRC	0.35	NFRC	Bug Screen
Window 33	Window	Exterior Wall S	Front	180			1	8.75	0.3	NFRC	0.35	NFRC	Bug Screen
Window 34	Window	Exterior Wall S	Front	180			1	8.75	0.3	NFRC	0.35	NFRC	Bug Screen
Window 35	Window	Exterior Wall S	Front	180			1	6.25	0.3	NFRC	0.35	NFRC	Bug Screen
Window 36	Window	Exterior Wall S	Front	180			1	15	0.3	NFRC	0.35	NFRC	Bug Screen
Window 37	Window	Exterior Wall S	Front	180			1	15	0.3	NFRC	0.35	NFRC	Bug Screen
Window 38	Window	Exterior Wall S	Front	180			1	12.5	0.3	NFRC	0.35	NFRC	Bug Screen
Window 39	Window	Exterior Wall W	Left	270			1	15.83	0.3	NFRC	0.35	NFRC	Bug Screen
Window 40	Window	Exterior Wall W	Left	270			1	15.83	0.3	NFRC	0.35	NFRC	Bug Screen
Window 41	Window	Exterior Wall W	Left	270			1	13.33	0.3	NFRC	0.35	NFRC	Bug Screen
Window 42	Window	Exterior Wall W	Left	270			1	40	0.3	NFRC	0.35	NFRC	Bug Screen
Window 43	Window	Exterior Wall W	Left	270			1	40	0.3	NFRC	0.35	NFRC	Bug Screen

FENESTRATION / GLAZING

01 Name	02 Type	03 Surface	04 Orientation	05 Azimuth	06 Width (ft)	07 Height (ft)	08 Mult.	09 Area (ft²)	10 U-factor	11 U-factor Source	12 SHGC	13 SHGC Source	14 Exterior Shading
Window 12	Window	Exterior Wall N	Back	0			1	12.5	0.3	NFRC	0.35	NFRC	Bug Screen
Window 13	Window	Exterior Wall E	Right	90			1	17.5	0.3	NFRC	0.35	NFRC	Bug Screen
Window 14	Window	Exterior Wall E	Right	90			1	20.22	0.3	NFRC	0.35	NFRC	Bug Screen
Door 4	Window	Exterior Wall E	Right	90			1	56	0.3	NFRC	0.35	NFRC	Bug Screen
Window 15	Window	Exterior Wall E	Right	90			1	14	0.3	NFRC	0.35	NFRC	Bug Screen
Door 5	Window	Exterior Wall E	Right	90			1	56	0.3	NFRC	0.35	NFRC	Bug Screen
Window 16	Window	Exterior Wall E	Right	90			1	14	0.3	NFRC	0.35	NFRC	Bug Screen
Door 6	Window	Exterior Wall E	Right	90			1	20	0.3	NFRC	0.35	NFRC	Bug Screen
Window 17	Window	Exterior Wall E	Right	90			1	20	0.3	NFRC	0.35	NFRC	Bug Screen
Window 18	Window	Exterior Wall E	Right	90			1	20	0.3	NFRC	0.35	NFRC	Bug Screen
Window 19	Window	Exterior Wall S	Front	180			1	8	0.3	NFRC	0.35	NFRC	Bug Screen
Window 20	Window	Exterior Wall S	Front	180			1	6.33	0.3	NFRC	0.35	NFRC	Bug Screen
Window 21	Window	Exterior Wall S	Front	180			1	10.42	0.3	NFRC	0.35	NFRC	Bug Screen
Window 22	Window	Exterior Wall S	Front	180			1	10.42	0.3	NFRC	0.35	NFRC	Bug Screen
Window 23	Window	Exterior Wall S	Front	180			1	25	0.3	NFRC	0.35	NFRC	Bug Screen
Window 24	Window	Exterior Wall S	Front	180			1	25	0.3	NFRC	0.35	NFRC	Bug Screen
Window 25	Window	Exterior Wall S	Front	180			1	18.67	0.3	NFRC	0.35	NFRC	Bug Screen
Door 7	Window	Exterior Wall S	Front	180			1	24	0.3	NFRC	0.35	NFRC	Bug Screen

ATTIC

01 Name	02 Construction	03 Type	04 Roof Rise (x in 12)	05 Roof Reflectance	06 Roof Emittance	07 Radiant Barrier	08 Cool Roof
Attic ADU Zone	Attic RoofADU Zone	Ventilated	3	0.1	0.85	Yes	No

FENESTRATION / GLAZING

01 Name	02 Type	03 Surface	04 Orientation	05 Azimuth	06 Width (ft)	07 Height (ft)	08 Mult.	09 Area (ft²)	10 U-factor	11 U-factor Source	12 SHGC	13 SHGC Source	14 Exterior Shading
Window	Window	Exterior Wall N	Back	0			1	15.83	0.3	NFRC	0.35	NFRC	Bug Screen
Door	Window	Exterior Wall N	Back	0			1	26	0.3	NFRC	0.35	NFRC	Bug Screen
Window 2	Window	Exterior Wall N	Back	0			1	15.83	0.3	NFRC	0.35	NFRC	Bug Screen
Door 2	Window	Exterior Wall N	Back	0			1	52	0.3	NFRC	0.35	NFRC	Bug Screen
Door 3	Window	Exterior Wall N	Back	0			1	52	0.3	NFRC	0.35	NFRC	Bug Screen
Window 3	Window	Exterior Wall N	Back	0			1	14.58	0.3	NFRC	0.35	NFRC	Bug Screen
Window 4	Window	Exterior Wall N	Back	0			1	35	0.3	NFRC	0.35	NFRC	Bug Screen
Window 5	Window	Exterior Wall N	Back	0			1	35	0.3	NFRC	0.35	NFRC	Bug Screen
Window 6	Window	Exterior Wall N	Back	0			1	56	0.3	NFRC	0.35	NFRC	Bug Screen
Window 7	Window	Exterior Wall N	Back	0			1	11.67	0.3	NFRC	0.35	NFRC	Bug Screen
Window 8	Window	Exterior Wall N	Back	0			1	8.33	0.3	NFRC	0.35	NFRC	Bug Screen
Window 9	Window	Exterior Wall N	Back	0			1	15	0.3	NFRC	0.35	NFRC	Bug Screen
Window 10	Window	Exterior Wall N	Back	0			1	15	0.3	NFRC	0.35	NFRC	Bug Screen
Window 11	Window	Exterior Wall N	Back	0			1	15	0.3	NFRC	0.35	NFRC	Bug Screen

REVISIONS

NO.	DATE	DESCRIPTION

SEAL:

REGISTERED PROFESSIONAL ENGINEER
GANGYI ZHOU
No. M34279
Exp.12-31-2026
MECHANICAL
STATE OF CALIFORNIA

GMEP ENGINEERS
26439 Rancho Pkwy. S., Ste 120
Lake Forest, CA 92630
Tel: 949-267-9095

PROJECT NAME:
LOT 207 SANTA LUCIA PRESERVE
23 SAN CLEMENTE TRL.
CARMEL, CA 93923

SHEET TITLE
TITLE 24 FORMS - CF1R

DRAWN
GMEP
CHECKED
GMEP
DATE
01/31/25
SCALE
AS NOTED
JOB NO.
24-731
SHEET
EN-1

OPAQUE SURFACE CONSTRUCTIONS

01	02	03	04	05	06	07	08
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assembly Layers
R-0 Roof Cathedral	Cathedral Ceilings	Wood Framed Ceiling	2x12 @ 16 in. O. C.	R-38	None / None	0.029	Roofing: Light Roof (Metal Tile) Tile Gap: present Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: R-38 / 2x12 Inside Finish: Gypsum Board
R-30 Roof Cathedral.	Cathedral Ceilings	Wood Framed Ceiling	2x10 @ 16 in. O. C.	R-30	None / None	0.037	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: R-30 / 2x10 Inside Finish: Gypsum Board
R-30 Roof Cathedral	Cathedral Ceilings	Wood Framed Ceiling	2x10 @ 16 in. O. C.	R-30	None / None	0.036	Roofing: Light Roof (Metal Tile) Tile Gap: present Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: R-30 / 2x10 Inside Finish: Gypsum Board
R-21 Wall Interior	Interior Walls	Wood Framed Wall	2x6 @ 16 in. O. C.	R-21	None / None	0.064	Inside Finish: Gypsum Board Cavity / Frame: R-21 / 2x6 Other Side Finish: Gypsum Board
Attic RoofADU Zone	Attic Roofs	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-0	None / 0	0.644	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: no insul. / 2x4
R-19 Floor Crawlspace	Floors Over Crawlspace	Wood Framed Floor	2x6 @ 16 in. O. C.	R-19	None / None	0.05	Floor Surface: Carpeted Floor Deck: Wood Siding/sheathing/decking Cavity / Frame: R-19 in 5-1/2 in. (R-18) / 2x6

FENESTRATION / GLAZING

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Type	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft^2)	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading
Window 55	Window	Exterior Wall W 3	Left	270			1	13.75	0.3	NFRC	0.35	NFRC	Bug Screen

OPAQUE DOORS

01	02	03	04
Name	Side of Building	Area (ft^2)	U-factor
Garage Door	Exterior Wall E 3	70	1
Garage Door 2	Exterior Wall E 3	70	1
Door 10	Exterior Wall W 3	24	0.5

SLAB FLOORS

01	02	03	04	05	06	07	08
Name	Zone	Area (ft^2)	Perimeter (ft)	Edge Insul. R-value and Depth	Edge Insul. R-value and Depth	Carpeted Fraction	Heated
Slab-on-Grade	ADU Zone	737	106.8	none	0	80%	No
Slab-on-Grade 2	__Garage__	629	74.4	none	0	0%	No

OPAQUE SURFACE CONSTRUCTIONS

01	02	03	04	05	06	07	08
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assembly Layers
R-21 Wall	Exterior Walls	Wood Framed Wall	2x6 @ 16 in. O. C.	R-21	None / None	0.069	Inside Finish: Gypsum Board Cavity / Frame: R-21 / 2x6 Exterior Finish: 3 Coat Stucco

FENESTRATION / GLAZING

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Type	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft^2)	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading
Window 44	Window	Exterior Wall W	Left	270			1	18	0.3	NFRC	0.35	NFRC	Bug Screen
Window 45	Window	Exterior Wall W	Left	270			1	18	0.3	NFRC	0.35	NFRC	Bug Screen
Window 46	Window	Exterior Wall W	Left	270			1	19.5	0.3	NFRC	0.35	NFRC	Bug Screen
Window 47	Window	Exterior Wall W	Left	270			1	19.5	0.3	NFRC	0.35	NFRC	Bug Screen
Window 48	Window	Exterior Wall N 2	Back	0			1	51.53	0.3	NFRC	0.35	NFRC	Bug Screen
Window 49	Window	Exterior Wall N 2	Back	0			1	12.44	0.3	NFRC	0.35	NFRC	Bug Screen
Window 50	Window	Exterior Wall N 2	Back	0			1	12.44	0.3	NFRC	0.35	NFRC	Bug Screen
Door 8	Window	Exterior Wall N 2	Back	0			1	38.33	0.3	NFRC	0.35	NFRC	Bug Screen
Window 51	Window	Exterior Wall E 2	Right	90			1	10.42	0.3	NFRC	0.35	NFRC	Bug Screen
Window 52	Window	Exterior Wall S 2	Front	180			1	10.42	0.3	NFRC	0.35	NFRC	Bug Screen
Window 53	Window	Exterior Wall W 2	Left	270			1	19	0.3	NFRC	0.35	NFRC	Bug Screen
Door 9	Window	Exterior Wall W 2	Left	270			1	20	0.3	NFRC	0.35	NFRC	Bug Screen
Window 54	Window	Exterior Wall S 3	Front	180			1	13.75	0.3	NFRC	0.35	NFRC	Bug Screen

HVAC HEAT PUMPS - HERS VERIFICATION

01	02	03	04	05	06	07	08	09
Name	Verified Airflow	Airflow Target	Verified EER/EER2	Verified SEER/SEER2	Verified Refrigerant Charge	Verified HSPF/HSPF2	Verified Heating Cap 47	Verified Heating Cap 17
Heat Pump System 1-hers-htpump	Required	350	Required	Not Required	Yes	No	Yes	Yes
Heat Pump System 2-hers-htpump	Required	350	Required	Required	Yes	No	Yes	Yes

HVAC - DISTRIBUTION SYSTEMS

01	02	03	04	05	06	07	08	09	10	11	12
Name	Type	Design Type	Duct Ins. R-value		Duct Location		Surface Area		Bypass Duct	Duct Leakage	HERS Verification
			Supply	Return	Supply	Return	Supply	Return			
Air Distribution System 1	Unconditioned crawl space	Non-Verified	R-6	R-6	Crawl Space	Crawl Space	n/a	n/a	No Bypass Duct		Air Distribution System 1-hers-dist
Air Distribution System 2	Unconditioned attic	Non-Verified	R-6	R-6	Attic	Attic	n/a	n/a	No Bypass Duct		Air Distribution System 2-hers-dist

HVAC DISTRIBUTION - HERS VERIFICATION

01	02	03	04	05	06	07	08	09
Name	Duct Leakage Verification	Duct Leakage Target (%)	Verified Duct Location	Verified Duct Design	Buried Ducts	Deeply Buried Ducts	Low-leakage Air Handler	Low Leakage Ducts Entirely in Conditioned Space
Air Distribution System 1-hers-dist	Yes	5.0	Not Required	Not Required	Not Required	Credit not taken	Required	No
Air Distribution System 2-hers-dist	Yes	5.0	Not Required	Not Required	Not Required	Credit not taken	Required	No

WATER HEATING - HERS VERIFICATION

01	02	03	04	05	06	07
Name	Pipe Insulation	Parallel Piping	Compact Distribution	Compact Distribution Type	Recirculation Control	Shower Drain Water Heat Recovery
DHW Sys 1 - 1/2	Not Required	Not Required	Not Required	None	Not Required	Not Required

SPACE CONDITIONING SYSTEMS

01	02	03	04	05	06	07	08	09
Name	System Type	Heating Unit Name	Heating Equipment Count	Cooling Unit Name	Cooling Equipment Count	Fan Name	Distribution Name	Required Thermostat Type
Split System1	Heat pump heating cooling	Heat Pump System 1	1	Heat Pump System 1	1	HVAC Fan 1	Air Distribution System 1	Setback
ADU Split System2	Heat pump heating cooling	Heat Pump System 2	1	Heat Pump System 2	1	HVAC Fan 2	Air Distribution System 2	Setback

HVAC - HEAT PUMPS

01	02	03	04	05	06	07	08	09	10	11	12	13
Name	System Type	Number of Units	Heating				Cooling			Zonally Controlled	Compressor Type	HERS Verification
			Heating Efficiency	HSPF/HS PF2/COP	Cap 47	Cap 17	Cooling Efficiency	SEER/SEER2	EER/EER 2/CEER			
Heat Pump System 1	Central split HP	1	HSPF2	7.5	57000	34200	EER2SEER2	14.3	12	Not Zonal	Single Speed	Heat Pump System 1-hers-htpump
Heat Pump System 2	Central split HP	1	HSPF2	7.5	17100	10260	EER2SEER2	15.2	12	Not Zonal	Single Speed	Heat Pump System 2-hers-htpump

OPAQUE SURFACE CONSTRUCTIONS

01	02	03	04	05	06	07	08
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assembly Layers
R-30 Roof Attic.	Ceilings (below attic)	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-30	None / None	0.032	Over Ceiling Joists: R-20.9 insul. Cavity / Frame: R-9.1 / 2x4 Inside Finish: Gypsum Board

BUILDING ENVELOPE - HERS VERIFICATION

01	02	03	04	05
Quality Insulation Installation (QII)	High R-value Spray Foam Insulation	Building Envelope Air Leakage	CFM50	CFM50
Not Required	Not Required	N/A	n/a	n/a

WATER HEATING SYSTEMS

01	02	03	04	05	06	07	08	09
Name	System Type	Distribution Type	Water Heater Name	Number of Units	Solar Heating System	Compact Distribution	HERS Verification	Water Heater Name (#)
DHW Sys 1	Domestic Hot Water (DHW)	Standard	DHW Heater 1	2	n/a	None	n/a	DHW Heater 1 (2)

WATER HEATERS - NEEA HEAT PUMP

01	02	03	04	05	06	07	08
Name	# of Units	Tank Vol. (gal)	NEEA Heat Pump Brand	NEEA Heat Pump Model	Tank Location	Duct Inlet Air Source	Duct Outlet Air Source
DHW Heater 1	2	50	Rheem	PROH50 T2 RH310BM (50 gal, JA13)	Outside	__Garage__	__Garage__

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Gary Zhou	Documentation Author Signature: Gary Zhou
Company: GMEP Engineers	Signature Date: 02/05/2025
Address: 26439 Rancho Parkway S., Suite 120	CEA/ HERS Certification Identification (If applicable):
City/State/Zip: Lake Forest, CA 92630	Phone: (949) 267-9095

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design identified on this Certificate of Compliance.
2. I certify that the energy features and performance specifications identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
3. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.

Responsible Designer Name: Craig Holdren	Responsible Designer Signature: Craig Holdren
Company: holdren-lietzke architecture	Date Signed: 02/11/2025
Address: 225 cannery row	License:
City/State/Zip: monterey, CA 93940	Phone: 8316496001

Digitally signed by California Home Energy Efficiency Rating Services (CHEERS). This digital signature is provided in order to secure the content of this registered document, and in no way implies Registration Provider responsibility for the accuracy of the information.

HVAC - FAN SYSTEMS

01	02	03	04
Name	Type	Fan Power (Watts/CFM)	Name
HVAC Fan 1	HVAC Fan	0.5	HVAC Fan 1-hers-fan
HVAC Fan 2	HVAC Fan	0.5	HVAC Fan 2-hers-fan

HVAC FAN SYSTEMS - HERS VERIFICATION

01	02	03
Name	Verified Fan Watt Draw	Required Fan Efficacy (Watts/CFM)
HVAC Fan 1-hers-fan	Required	0.5
HVAC Fan 2-hers-fan	Required	0.5

INDOOR AIR QUALITY (IAQ) FANS

01	02	03	04	05	06	07	08	09
Dwelling Unit	Airflow (CFM)	Fan Efficacy (W/CFM)	IAQ Fan Type	Includes Heat/Energy Recovery?	IAQ Recovery Effectiveness - SRE/ASRE	Includes Fault Indicator Display?	HERS Verification	Status
SFam IAQVentRpt	148	0.35	Exhaust	No	n/a / n/a	No	Yes	

REVISIONS

NO.	DATE	DESCRIPTION

SEAL:

REGISTERED PROFESSIONAL ENGINEER GANGYI ZHOU No. M34279 Exp.12-31-2026 MECHANICAL STATE OF CALIFORNIA

GMEP ENGINEERS
26439 Rancho Pkwy. S., Ste 120
Lake Forest, CA 92630
Tel: 949-267-9095

PROJECT NAME:
LOT 207 SANTA LUCIA PRESERVE
23 SAN CLEMENTE TRL.
CARMEL, CA 93923

SHEET TITLE
TITLE 24 FORMS - CF1R

DRAWN: GMEP
CHECKED: GMEP
DATE: 01/31/25
SCALE: AS NOTED
JOB NO.: 24-731
SHEET: EN-2

"I, MARIE GOULET, CERTIFY THAT THIS LANDSCAPING AND IRRIGATION PLAN COMPLIES WITH ALL MONTEREY COUNTY LANDSCAPING REQUIREMENTS INCLUDING USE OF NATIVE DROUGHT TOLERANT, NON-INVASIVE SPECIES, LIMITED TURF AND LOW FLOW, WATER CONSERVING IRRIGATION FIXTURES."

SANTA LUCIA PRESERVE, LOT 207

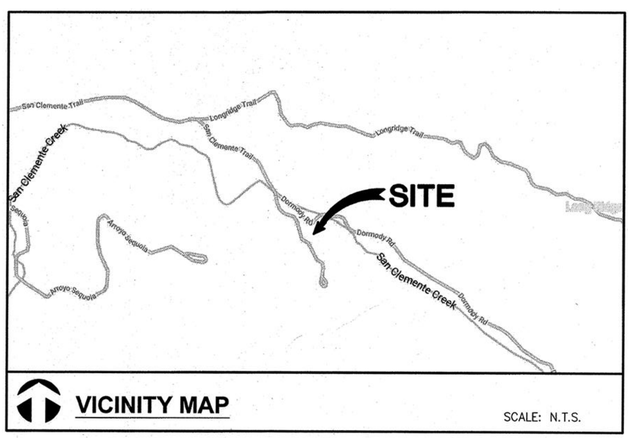
23 SAN CLEMENTE TRAIL
CARMEL, CA 93923
APN #239-131-007

PERSPECTIVE RENDERING

ABBREVIATIONS

@	AT
ADA	AMERICANS WITH DISABILITIES ACT
ADJ	ADJACENT
BS	BOTTOM OF SURFACE
BW	BOTTOM OF WALL
CBC	CALIFORNIA BUILDING CODE
CL	CENTER LINE
CLR	CLEAR
CONC	CONCRETE
DI	DRAIN INLET
(E)	EXISTING
EJ	EXPANSION JOINT
EQ	EQUAL
FFE	FINISH FLOOR ELEVATION
FG	FINISH GRADE
FS	FINISH SURFACE
HP	HIGH POINT
INV	INVERT
LOW	LIMIT OF WORK
LP	LOW POINT
MAX	MAXIMUM
MH	MANHOLE
ML	MAINLINE
OC	ON CENTER
POB	POINT OF BEGINNING
QCV	QUICK COUPLER VALVE
RC	RELATIVE COMPACTION
RIM	RIM ELEVATION
SD	STORM DRAIN
TS	TOP OF SURFACE
TPZ	TREE PROTECTION ZONE
TW	TOP OF WALL
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
VIF	VERIFY IN FIELD
W/	WITH

VICINITY MAP



PROJECT SITE

PROJECT DESCRIPTION

THE LANDSCAPE FOR THE PROPOSED NEW RESIDENCE WILL CELBRATE THE BEAUTFIUL OAK WOODLAND THAT IS ALREADY PRESENT ON THE SITE. BY ADDING LAYERS OF NATIVE OAK WOODLAND PLANTS IN THEIR NATURAL PATTERNS OF GROWTH, THE HOUSE WILL BE GROUNDED TO THE SITE. IT WILL PROVIDE BEAUTY TO BOTH THE NEW OWNERS AND THE NEIGHBORHOOD ALIKE. ALL PAVING AND HARDSCAPE MATERIALS HAVE BEEN SELECTED TO MAINTAIN THIS NATURAL AESTHETIC.

INDEX OF DRAWINGS

SHEET NUMBER	SHEET TITLE
L0.00	COVER SHEET
L0.01	SITE ANALYSIS
L0.02	FUEL MANAGEMENT PLAN
L0.03	TREE PROTECTION
L1.00	LANDSCAPE SITE PLAN
L1.01	RENDERINGS
L1.02	GRADING AND LAYOUT PLAN
L2.00	PLANTING PLAN
L2.01	TREE MITIGATION PLAN
L2.02	PLANTING LEGEND AND NOTES
L3.00	IRRIGATION PLAN
L3.01	IRRIGATION LEGEND
L3.02	IRRIGATION DETAILS
L3.03	IRRIGATION DETAILS
L4.00	LANDSCAPE LIGHTING PLAN
L5.00	CONSTRUCTION DETAILS

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WILD LAND WORKSHOP
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owner

SANTA LUCIA
PRESERVE
LOT 207
23 SAN CLEMENTE TRAIL
CARMEL, CA
93923

project

no.	description	
2	FINAL DESIGN REVIEW	11.07.2024
1	PRELIMINARY DESIGN REVIEW	08.15.2024

date: 11.07.2024

COVER SHEET

sheet title

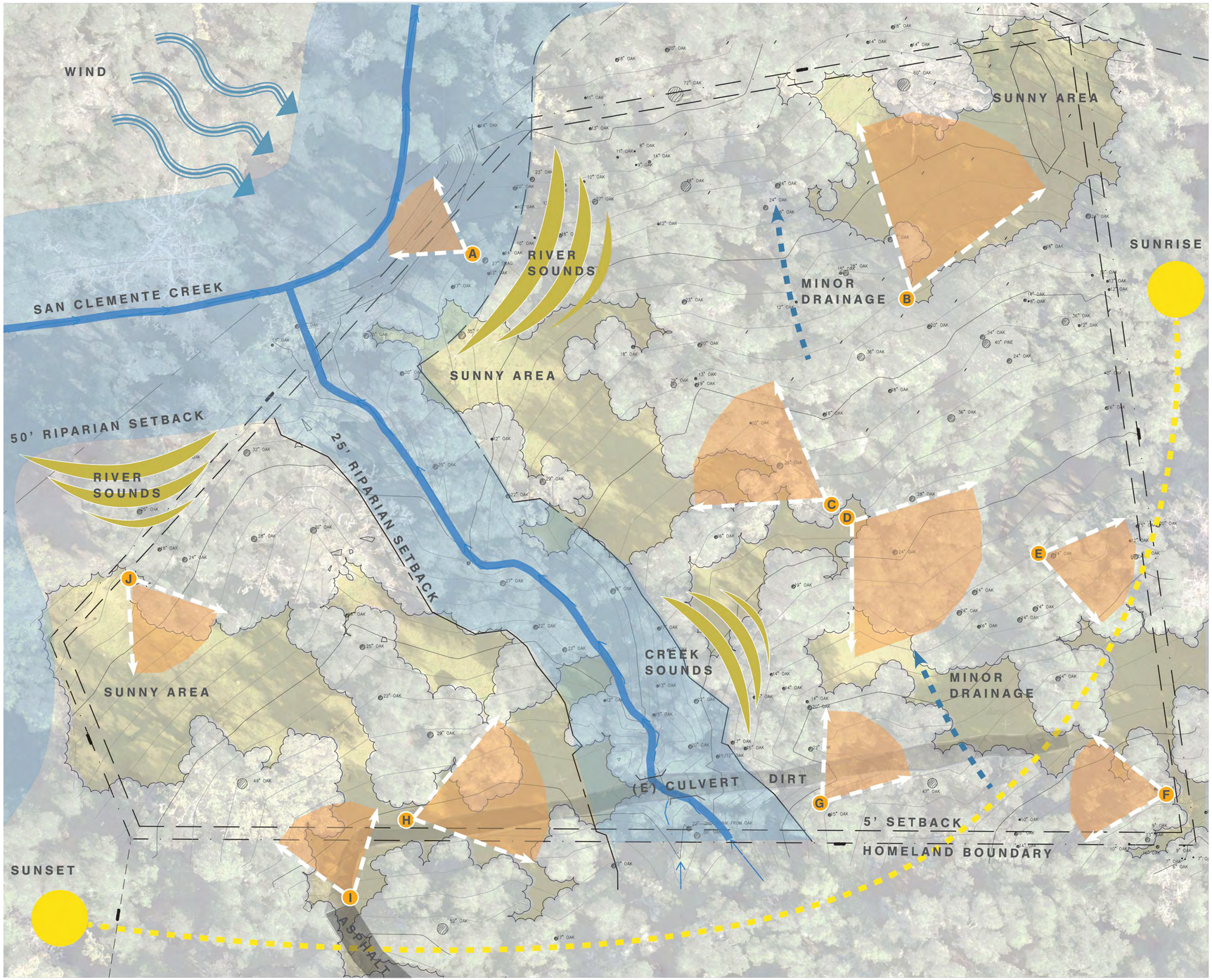
L0.00

sheet no.

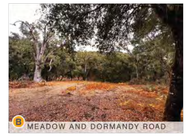
-- of

11/7/2024 2:50 PM

"I, MARIE GOULET, CERTIFY THAT THIS LANDSCAPING AND IRRIGATION PLAN COMPLIES WITH ALL MONTEREY COUNTY LANDSCAPING REQUIREMENTS INCLUDING USE OF NATIVE DROUGHT TOLERANT, NON-INVASIVE SPECIES, LIMITED TURF AND LOW FLOW, WATER CONSERVING IRRIGATION FIXTURES."



A RIVER VIEW


B MEADOW AND DORMANDY ROAD

C FILTERED VIEW OF HILLS ABOVE HOMESITE

D SPECIMEN OAK AND WOODLAND VIEWS

E BACKLIT VIEWS OF WOODLAND AND BRACKEN

E BACKLIT VIEWS OF WOODLAND AND BRACKEN

E BACKLIT VIEWS OF WOODLAND AND BRACKEN

H EXISTING DIRT ROAD AND CULVERT

I SPECIMEN VALLEY OAK AT ENTRY DRIVE

J LAYERED VIEWS FROM CREEK TO ENTRY DRIVE

20' 0 20 40'

1" = 20'

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WILD LAND WORKSHOP
LANDSCAPE ARCHITECTURE

LICENSED LANDSCAPE ARCHITECT
MARIE S. GOULET
6335
06/30/2026
08/01/2024
date
STATE OF CALIFORNIA

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project

no.	description	date
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SITE ANALYSIS

sheet title

L0.01

sheet no.

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11/7/2024 2:51 PM

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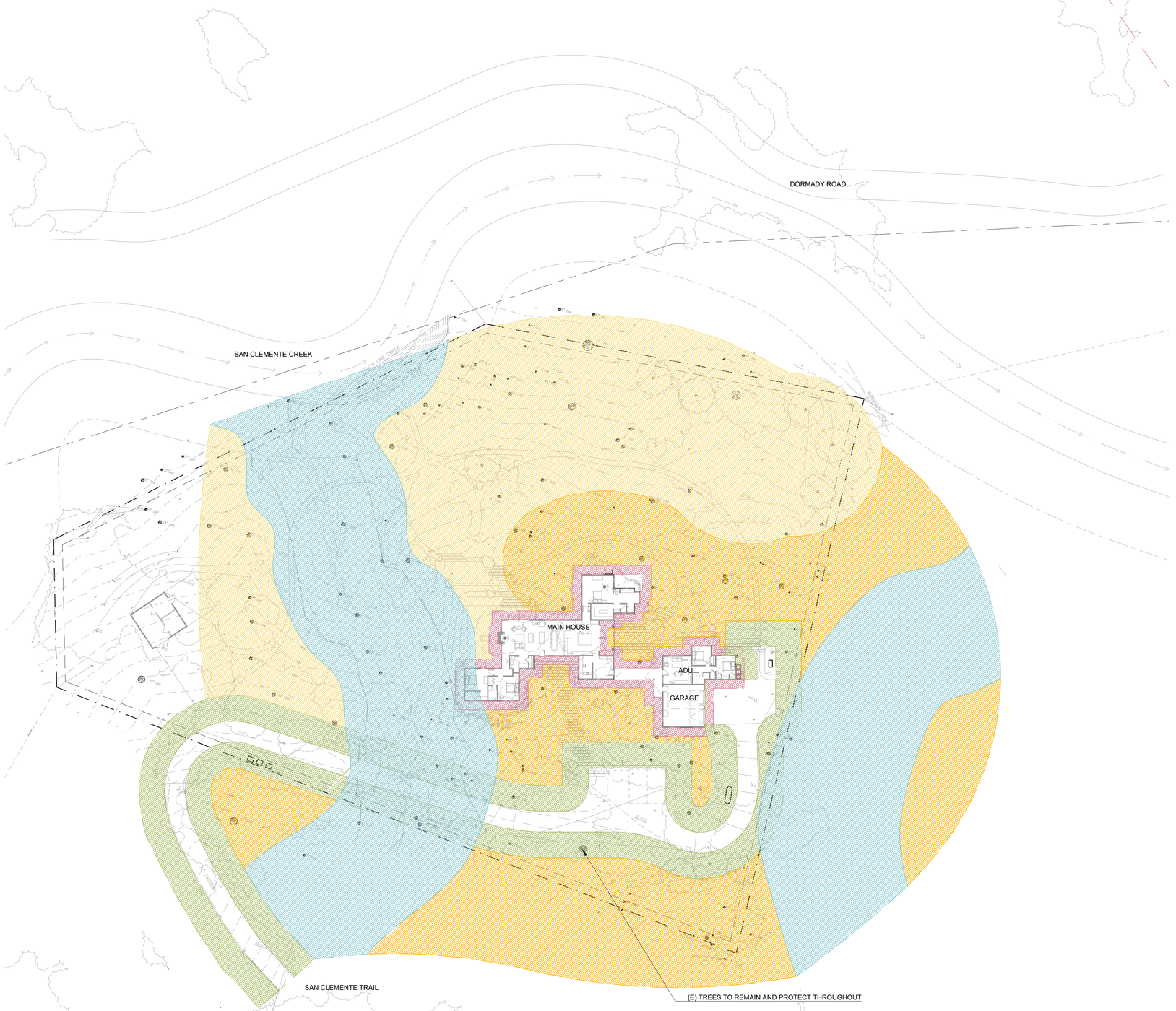

LEGEND

- NON-COMBUSTIBLE ZONE - WITHIN 5' OF STRUCTURES
- DRIVEWAY ZONE - WITHIN 15' OF PAVEMENT
- OAK WOODLAND ZONE - WITHIN 150' OF STRUCTURES
- OAK SAVANNA ZONE - WITHIN 150' OF STRUCTURES
- RIPARIAN ZONE - WITHIN 50' OF RIPARIAN AREAS

FUEL MANAGEMENT ZONE NOTES

1. NESTING SEASON - IF CLEARING IS TO BE DONE BETWEEN NOVEMBER 1ST AND AUGUST 1ST, A QUALIFIED ECOLOGIST/ORNITHOLOGIST SHALL CONDUCT A SITE WIDE SURVEY FOR NESTING BIRDS. IF ANY ARE FOUND A PROTECTION PLAN SHALL BE DEVELOPED AND FOLLOWED PRIOR TO PROCEEDING.
2. SEE ARBORIST REPORT BY THOMPSON WILDLAND MANAGEMENT DATED APRIL 2024.
3. SEE FUEL MANAGEMENT PLAN BY BENJAMIN R. EICHORN OF CENTRAL COAST LAND MANAGEMENT DATED APRIL 2024.
4. SEE BIOLOGICAL REPORT BY JEFFREY D. FROKE, PHD, DATED JUNE 2024.
5. THE FOLLOWING FUEL MANAGEMENT ZONES (FMZ) SHALL BE ESTABLISHED AS SHOWN ON PLAN AND AS VERIFIED IN THE FIELD WITH LANDSCAPE ARCHITECT.
6. **NON-COMBUSTIBLE ZONE** - TO A DISTANCE OF 5 FEET. A NON-COMBUSTIBLE BUFFER OF 5 FEET AROUND STRUCTURES INCLUDING WOOD DECKS, CONSISTING OF HARDSCAPE SURFACES (SUCH AS PATIOS AND GRAVEL) OR BARE SOIL. WOOD CHIP MULCH AND IRRIGATED LAWNS ARE NOT CONSIDERED NON-COMBUSTIBLE.
7. **LANDSCAPING ZONE** - PER LANDSCAPING PLANS. ALL LANDSCAPING OCCURS WITHIN THE HOMELAND AREA. THE PLANTING OF FLAMMABLE SHRUBS AND ORNAMENTAL GRASSES IS DISCOURAGED IN THIS AREA. THE SPACING BETWEEN LANDSCAPING PLANTS AND VOLUME OF LANDSCAPING BIOMASS SHOULD MIMIC THE OAK WOODLAND ZONE. AVOID AND REGULARLY REMOVE THICK LAYERS OF MULCH AND LEAF LITTER. PRUNE SHRUBS REGULARLY TO MAINTAIN SPACE BETWEEN PLANTINGS.
8. **DRIVEWAY ZONE** - FOR A WIDTH OF 15 FEET FROM THE EDGE OF PAVEMENT. THIS AREA SHOULD BE TREATED TO REDUCE THE INTENSITY OF FIRE NEAR PAVEMENT TO ALLOW SAFE PASSAGE. ALL TREE BRANCHES EXTENDING OVER DRIVEWAY SURFACES MUST BE PRUNED TO ENSURE 15 FEET OF VERTICAL CLEARANCE, WHILE LEAVING HEALTHY BRANCHES HIGHER THAN 15 FEET TO PROVIDE SHADE. ALL GRASSLAND WITHIN 15 FEET OF THE PAVEMENT SHOULD BE MOWED ACCORDING TO THE GRASSLAND ZONE RECOMMENDATIONS. A MINIMUM OF 3 FEET RADIUS SHALL BE MOWED AROUND EACH FIRE HYDRANT. REMOVE UNDERSTORY BRUSH THAT CAN BECOME LADDER FUELS AND REMOVE ACCUMULATIONS OF LEAF LITTER FROM THE ROAD.
9. **OAK SAVANNAH ZONE** - FOR A WIDTH OF 150 FEET FROM THE STRUCTURE. REMOVE LOW HANGING TREE BRANCHES SMALLER THAN 3 INCHES IN DIAMETER UP TO A MINIMUM OF 8 FEET. ALL GRASSLAND WITHIN 150 FEET OF STRUCTURES SHALL BE MOWED ANNUALLY AND TREATED ACCORDING TO RECOMMENDATIONS FOR THE GRASSLAND ZONE.
10. **OAK WOODLAND ZONE** - FOR A WIDTH OF 150 FEET FROM THE STRUCTURE. AN INITIAL TREATMENT SHALL REQUIRE PRUNING OF SMALLER BRANCHES LESS THAN 3 INCHES IN DIAMETER TO KEEP THE TREE CANOPY 8 FEET ABOVE THE GROUND, AND A DENSITY REDUCTION OF UNDERSTORY SHRUBS. TREATMENT OF UNDERSTORY SHRUBS IS TO BE MAINTAINED ANNUALLY TO A MAXIMUM HEIGHT OF 2.5 FEET. WHEN THINNING, DO NOT CLEAR CUT BUT SELECTIVELY REMOVE MORE FLAMMABLE SPECIES (SUCH AS COYOTE BUSH) AND PRUNE MORE DESIRABLE SPECIES (SUCH AS CURRANT AND WILD ROSE). LEAF LITTER SHOULD BE KEPT TO A MAXIMUM DEPTH OF NO MORE THAN FOUR INCHES. HERBACEOUS GROUND COVER LAYER AND GRASSLAND SHOULD BE MOWED AND MAINTAINED ANNUALLY IN EARLY SUMMER TO A MINIMUM OF FOUR INCHES WITHIN 150 FEET OF STRUCTURES.
11. **RIPARIAN ZONE** - WITHIN 50 FEET OF RIPARIAN AREAS. NO PRUNING, MOWING, OR FUEL MANAGEMENT TO BE CONDUCTED IN RIPARIAN AREAS EXCEPT FOR REMOVAL OF EXOTICS. REMOVE ENTIRELY ALL EXOTIC, NON-NATIVE VEGETATION BY HAND. DO NOT MODIFY OR PRUNE TREE CANOPIES OVER RIPARIAN AREAS, EXCEPT TO REMOVE SMALL LOW HANGING BRANCHES BY HAND IF NECESSARY, IN ORDER TO MAINTAIN SHADE ESSENTIAL FOR ECOLOGICAL HEALTH OF WATER SYSTEMS. REMOVE POISON OAK VINES AROUND TREE TRUNKS. ANY WORK IN RIPARIAN AREAS MUST BE DONE BY HAND.
12. **GRASSLAND ZONE** - APPLIES TO ALL GRASSLAND WITHIN 150 FEET FROM STRUCTURES, THROUGHOUT ALL FUEL MANAGEMENT ZONES. ANNUAL GRASSLAND AREAS MUST BE MOWED AT LEAST ONCE ANNUALLY IN LATE SPRING OR EARLY SUMMER TO A MINIMUM HEIGHT OF 4 INCHES, IDEALLY AFTER NATIVE SPECIES HAVE SET SEED, AND NOT MORE FREQUENTLY THAN EVERY 60 DAYS. WOODY WEED SPECIES SUCH AS FRENCH BROOM, POISON HEMLOCK, AND THISTLES SHOULD BE COMPLETELY REMOVED ANNUALLY. THROUGHOUT ALL FUEL MANAGEMENT ZONES, REMOVE ALL DEAD BRANCHES ON THE GROUND SMALLER THAN 6 INCHES OF DIAMETER. RETAIN WOODY MATERIAL LARGER THAN 8 INCHES OF DIAMATER FOR WILDFLIFE HABITAT IF NOT UNDER TREE CANOPY AND NOT WITHIN 100 FEET OF STRUCTURES.
13. **PRESCRIPTIONS FOR TREE PRUNING** - MAINTAIN VERTICAL CLEARANCE UNDER TREE CANOPY OF 8' FROM THE GROUND OR $\frac{1}{3}$ THE HEIGHT OF THE TREE. WITHIN THIS VERTICAL CLEARANCE, REMOVE ALL DEAD BRANCHES AND LIMBS AND REMOVE ALL BRANCHES DEAD OR LIVING UNDER 3 INCHES IN DIAMETER. IN LANDSCAPED AREAS REMOVE ALL SPLIT AND DISEASED BRANCHES LARGER THAN 8 INCHES IN DIAMETER. OAKS WITH LIVE LIMBS RESTING ON THE GROUND NEED NOT BE REMOVED, BUT ALL GROUND DEBRIS BENEATH AND AROUND THE LIMBS SHOULD BE REMOVED. DO NOT THIN OR PRUNE THE TREE CANOPY ABOVE THE VERTICAL CLEARANCE ZONE OF 8' FROM GROUND OR $\frac{1}{3}$ HEIGHT OF THE TREE, AS THIS WILL INCREASE UNDERSTORY GROWTH AND FIRE RISK. AFTER INITIAL PRUNING, TREE PRUNING SHOULD BE NEEDED INFREQUENTLY, EVERY 3-5 YEARS. IF NECESSARY TO REMOVE YOUNG TREES, THE REMOVAL OF ALL SEEDLINGS AND SAPLINGS OF BLACK OAK, VALLEY OAK, OR BLUE OAK IN THE OPENLANDS REQUIRES PRIOR APPROVAL FROM THE SANTA LUCIA CONSERVANCY.

30' 0 30' 60'

1" = 30'

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WILD LAND
WORKSHOP
LANDSCAPE ARCHITECTURE

LICENSED LANDSCAPE ARCHITECT
MARIE S. GOULET
6335
06/30/2026
08/01/2024
STATE OF CALIFORNIA

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SAMIR MESSIAH
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FUEL MANAGEMENT PLAN

sheet title

L0.02

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-- of

11/7/2024 2:51 PM

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LEGEND

- EXISTING TREES TO REMAIN
- TREE TO BE REMOVED
- TREE PROTECTION ZONE
- TREE PROTECTION ZONE FENCING
- SILT FENCING TO LIMIT CONSTRUCTION TRAFFIC IN SENSITIVE HABITAT
- MITIGATION TREES, SEE PLANTING PLAN

NOTES:

1. NESTING SEASON - IF CLEARING IS TO BE DONE BETWEEN NOVEMBER 1ST AND AUGUST 1ST, A QUALIFIED ECOLOGIST/ORNITHOLOGIST SHALL CONDUCT A SITE WIDE SURVEY FOR NESTING BIRDS. IF ANY ARE FOUND A PROTECTION PLAN SHALL BE DEVELOPED AND FOLLOWED PRIOR TO PROCEEDING.
2. REFER TO ARBORIST REPORT BY THOMPSON WILDLAND MANAGEMENT DATED APRIL 2024.
4. SEE BIOLOGICAL REPORT BY JEFFREY D. FROKE, PHD, DATED JUNE 2024.
5. A TREE PRESERVATION ZONE (TPZ) SHALL BE ESTABLISHED AS SHOWN ON PLAN AND AS VERIFIED IN THE FIELD WITH ARBORIST OR LANDSCAPE ARCHITECT.
6. PROTECTIVE FENCING - FENCE HEIGHT TO BE 6 FEET AND AS DESCRIBED IN ARBORIST REPORT WITH STRAW BALE BARRICADES. FENCE SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION ACTIVITIES ON SITE. ONCE IN PLACE, FENCING SHALL NOT BE REMOVED WITHOUT THE CONSENT OF THE ARBORIST OR LANDSCAPE ARCHITECT.
7. NO STORAGE OF CONSTRUCTION EQUIPMENT, MATERIALS, TOOLS, DEBRIS OR EXCESS SOIL WILL BE ALLOWED WITHIN THE TPZ. SOLVENTS, LIQUIDS, CONCRETE WASH-OFF, OR ANY TYPE OF DEBRIS SHOULD BE DISPOSED OF PROPERLY, NEVER WITHIN THIS PROTECTED AREA.
8. ALL TRENCHING NEAR EXISTING TREES TO REMAIN. TREES SHALL BE HAND DUG AS REVIEWED WITH THE ARBORIST. WHEN LIVE ROOTS, 1 1/2-INCH DIAMETER OR LARGER ARE FOUND, THE WORK SHALL STOP, ROOTS SHALL BE COVERED WITH BURLAP OR MULCH, AND THE ARBORIST CONTACTED TO PROVIDE RECOMMENDATIONS ON ROOT CUTTING AND TREATMENT OF IMPACTED ROOTS PRIOR TO CONTINUING WORK.
9. NO SOIL COMPACTION SHALL OCCUR WITHIN THE TPZ. SOIL SURFACE WITHIN THE TPZ SHALL BE MULCHED WITH A 6-INCH LAYER OF AGED WOOD CHIPS. WOOD CHIPS FROM SITE TREE REMOVAL ARE ACCEPTABLE IF PROPERLY COMPOSTED. IMPORTED WOOD CHIP MULCH SHALL BE APPROVED BY ARBORIST OR LANDSCAPE ARCHITECT PRIOR TO ORDERING. THEN SUBMIT MULCH SAMPLES FOR APPROVAL PRIOR TO INSTALLATION. EXISTING PLANTS TO REMAIN.
10. NATURAL GRADE AROUND TPZ SHALL BE MAINTAINED. NO ADDITIONAL FILL OR EXCAVATION WILL BE PERMITTED WITHIN AREAS OF TREE ROOT DEVELOPMENT.
11. UNAUTHORIZED PRUNING OF ANY TREE SHALL NOT BE ALLOWED. IF ANY TREE CANOPY ENCROACHES ON THE PROJECT AREA, THE REQUIRED PRUNING WILL BE DONE WITH AUTHORITY OF THE ARBORIST AND TO INTERNATIONAL SOCIETY OF ARBORICULTURE GUIDELINES (ISA) AND AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) A-300 PRUNING STANDARDS.
12. CONTRACTOR TO SUBMIT SCHEDULE OF TREE PROTECTION FENCE INSTALLATION AND REMOVAL FOR REVIEW AND APPROVAL BY ARBORIST OR LANDSCAPE ARCHITECT PRIOR TO FENCE INSTALLATION OR REMOVAL.
13. TREE PROTECTION FENCING TO BE REMOVED BY CONTRACTOR AFTER COMPLETION OF CONSTRUCTION AND AS DIRECTED BY THE ARBORIST OR LANDSCAPE ARCHITECT.

20' 0 20 40'

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IF THE CONTRACTOR ENCOUNTERS ERRORS OR DISCREPANCIES ON THE DRAWINGS, OR SITE CONDITIONS WHICH PREVENT OR DELAY THE COMPLETION OF WORK AS INDICATED, THE CONTRACTOR SHALL NOTIFY THE OWNER AND LANDSCAPE ARCHITECT BY THE TIME OF BID OF ALL SUCH DISCREPANCIES, CONFLICTS OR OMISSIONS. THE CONTRACTOR SHALL NOTIFY AND HOLD THE LANDSCAPE ARCHITECT AND WILD LAND WORKSHOP HARMLESS FROM ANY CLAIMS ARISING FROM THE CONTRACTOR'S FAILURE TO DISCOVER AND REPORT SUCH CONDITIONS.

WILD LAND WORKSHOP
LANDSCAPE ARCHITECTURE

LICENSED LANDSCAPE ARCHITECT
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TREE PROTECTION PLAN

sheet title

L0.03

sheet no.

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LANDSCAPE LEGEND

- PROPOSED TREES, SEE PLANTING PLAN
- LANDSCAPE BOULDERS FROM VINEYARD ROCK QUARRY. PLACE IN FIELD WITH LANDSCAPE ARCHITECT (1 L5.00)
- ROCK-LINED SWALE (7 L5.00)
- EXISTING CONTOURS
- PROPOSED CONTOURS, SEE GRADING AND LAYOUT PLAN AND CIVIL
- HOMELAND BOUNDARY
- HOMELAND SETBACK
- SWALE, SEE CIVIL (7 L5.00)
- RIPARIAN SETBACK: PRESERVE AND PROTECT RIPARIAN AREAS THROUGHOUT CONSTRUCTION
- PROPOSED WALL (3 L5.00)
- EXISTING TREES: PRESERVE AND PROTECT. SEE TREE PROTECTION PLAN AND ARBORIST REPORT
- EXISTING OAK TO BE REMOVED. SEE TREE PROTECTION PLAN AND PLANTING PLAN FOR MITIGATION TREE LOCATIONS AND SPECIES
- PERMEABLE PAVING: GRANITECRETE, NATURAL GOLD COLOR (5 L5.00)
- GRAVEL PAVING: ¾" CAL GOLD AVAILABLE FROM TRICOUNTY LANDSCAPE SUPPLY (2 L5.00)
- WOOD DECK: SEE ARCHITECTS DRAWINGS
- GRASSPAVE2: AVAILABLE FROM INVISIBLESTRUCTURES.COM OR APPROVED EQUAL (4 L5.00)
- STEPS: 14"X5' MONOLITHIC 'MULTIBLEND STONE' AVAILABLE FROM SBI (6 L5.00)
- STONE PAVERS: 18"X36" 'MULTIBLEND STONE' AVAILABLE FROM SBI (6 L5.00)
- NATIVE TURF GRASS, SEE PLANTING PLAN
- PLANTING AND SEEDING, SEE PLANTING PLAN

LANDSCAPE SCOPE

THE PROPOSED LANDSCAPE DESIGN IS INTENDED TO ENHANCE AND RESTORE THE WOODLAND HABITAT OF THE SITE. THE PROJECT INCLUDES REMOVING 2 EXISTING OAKS, WHILE PROTECTING THE MULTITUDE OF OTHER EXISTING TREES. LANDSCAPE FEATURES INCLUDE A NEW BRIDGE OVER THE EXISTING EPHEMERAL STREAM, DRIVEWAY, AUTOCOURT, DECK WITH FIRE PIT, OUTDOOR DINING AREA, SUNNY MEADOW, AND NATURAL STONE AND MULCH PATHWAYS.

NUMBERED NOTES

1. IMPROVED STORM DRAIN CROSSING OVER EPHEMERAL STREAM, SEE CIVIL DRAWINGS
2. FIRE TRUCK TURNAROUND
3. GUEST PARKING
4. ENTRY PATH
5. DRIVEWAY
6. DINING TERRACE
7. DECK WITH FIRE PIT
8. LOWER PATIO
9. MULCH PATH - REUSE CHIPS FROM FUEL CLEARING ON SITE
10. NATIVE LAWN SURROUNDED BY MEADOW
11. ROCK-LINED SWALE

20' 0 20 40'

1" = 20'

NOT FOR CONSTRUCTION

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WILD LAND WORKSHOP
LANDSCAPE ARCHITECTURE

LICENSED LANDSCAPE ARCHITECT
MARIE S. GOULET
6335
06/30/2026
RENEWAL DATE
08/01/2024
DATE
STATE OF CALIFORNIA

seal

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831.649.6001

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LANDSCAPE SITE PLAN

sheet title

L1.00

sheet no.

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11/7/2024 2:58 PM

"I, MARIE GOULET, CERTIFY THAT THIS LANDSCAPING AND IRRIGATION PLAN COMPLIES WITH ALL MONTEREY COUNTY LANDSCAPING REQUIREMENTS INCLUDING USE OF NATIVE DROUGHT TOLERANT, NON-INVASIVE SPECIES, LIMITED TURF AND LOW FLOW, WATER CONSERVING IRRIGATION FIXTURES."

ENTRY VIEW

KITCHEN VIEW

PATIO VIEW

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RENDERINGS

sheet title

L1.01

sheet no.

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11/7/2024 2:51 PM

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LEGEND

- TS 1290.0 + SPOT GRADE
- EXISTING CONTOUR LINES
- PROPOSED CONTOUR LINES
- 4.0% PROPOSED SLOPE
- PROPOSED SWALE

LAYOUT NOTES

1. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER OF ANY DISCREPANCIES PRIOR TO CONTINUANCE OF WORK
2. DO NOT SCALE OFF OF PLANS
3. FIELD VERIFY LOCATIONS OF UNDERGROUND UTILITIES, CALL USA ALTER (800) 642-2444 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION
4. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO ALL EXISTING FACILITIES SHOWN TO REMAIN, INCLUDING ROADS AND OTHER STREET IMPROVEMENTS
5. SEE DETAIL SHEETS AND SPECIFICATIONS FOR MORE INFORMATION
6. PLAN DIMENSIONS ARE ROUNDED TO THE NEAREST $\frac{1}{2}$"
7. SEE CIVIL DRAWINGS FOR ADDITIONAL INFORMATION
8. LANDSCAPE ARCHITECT WILL MAKE CAD FILES AVAILABLE FOR USE BY FIELD ENGINEER
9. LAYOUT OF FENCING TO BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO BUILDING.
10. CONCRETE FORMS TO BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO POURING.
11. TREE LOCATIONS TO BE FIELD ADJUSTED AND APPROVED BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.

GRADING NOTES

1. CONTRACTOR SHALL FINISH GRADE ALL PLANTING AREAS UNLESS OTHERWISE NOTED.
2. ALL EROSION DAMAGE DURING THE CONSTRUCTION PERIOD SHALL BE REPAIRED BY THE CONTRACTOR.
3. UNLESS OTHERWISE NOTED, ALL SOIL FINISH GRADES SHALL BE MIN 3" BELOW FINISH GRADES OF WALKS, PAVEMENTS AND CURBS.

20' 0 20 40'

1" = 20'

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GRADING AND LAYOUT PLAN

sheet title

L1.02

sheet no.

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11/7/2024 2:52 PM

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NOTE: SEE SHEET L2.01 FOR LEGEND AND NOTES

20' 0 20 40'

1" = 20'

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PLANTING PLAN

sheet title

L2.00

sheet no.

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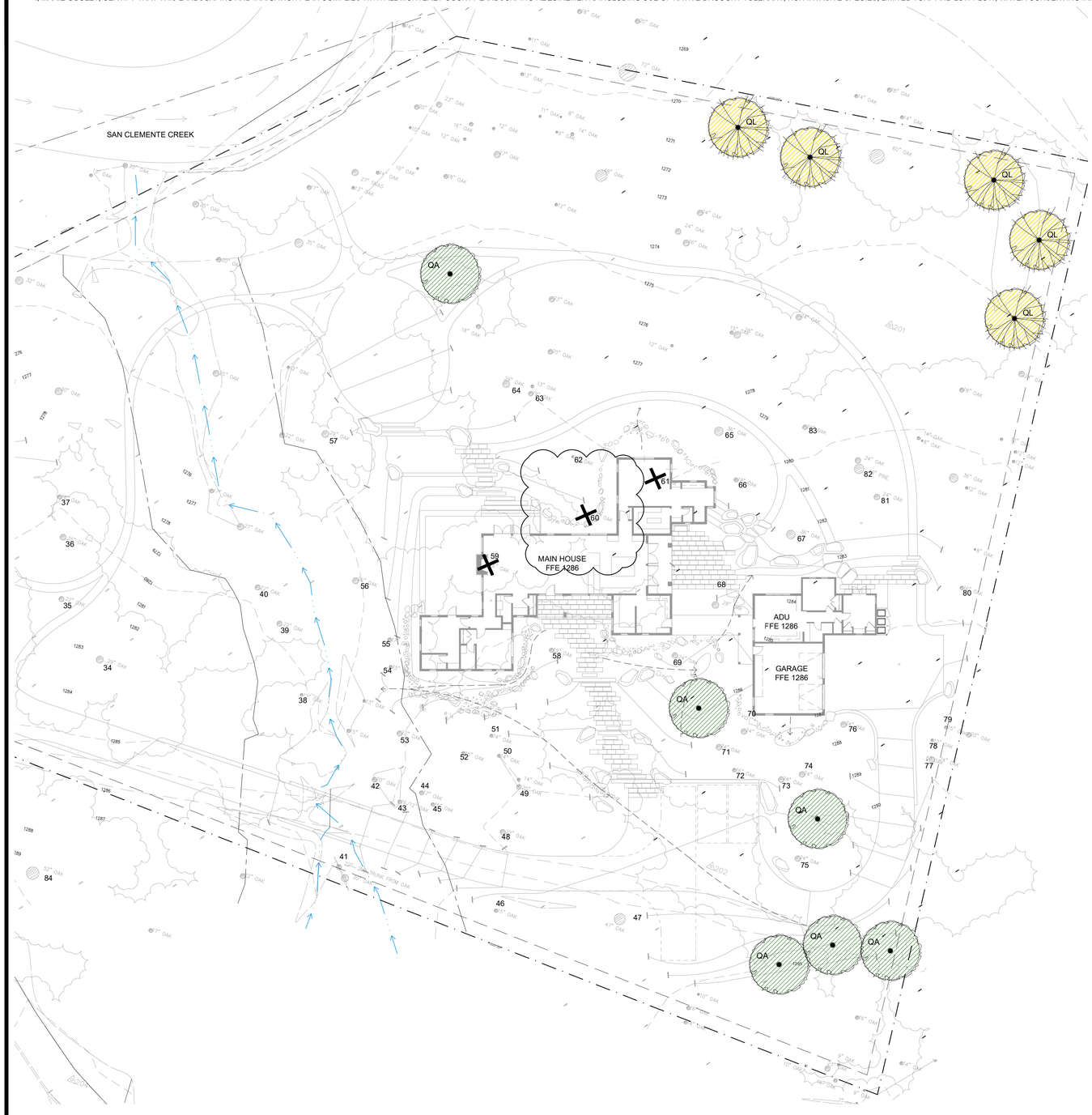

LEGEND

- ✕ TREE TO BE REMOVED
- QA — MITIGATION TREE: QUERCUS AGRIFOLIA (COAST LIVE OAK)
- QL — MITIGATION TREE: QUERCUS LOBATA (VALLEY OAK) *SEE NOTE 1 THIS SHEET

MITIGATION TREE NOTES:

1. TREE REPLACEMENT REQUIREMENTS ARE 3:1 FOR TREES UNDER 24" DBH AND 5:1 FOR TREES LARGER THAN 24" DBH. FOR FINAL TREE REPLACEMENT RECOMMENDATION, REFER TO ARBORIST REPORT BY ROB THOMPSON DATED APRIL 2024.
2. MITIGATION TREES TO BE INDEPENDENTLY MONITORED FOR HEALTH BY AN ARBORIST ANNUALLY FOR A 5-YEAR PERIOD. ARBORIST TO SUBMIT A REPORT TO THE SANTA LUCIA CONSERVACY EACH YEAR FOLLOWING MONITORING.
3. IRRIGATION: MITIGATION TREES TO BE ON THEIR OWN TEMPORARY AUTOMATIC IRRIGATION VALVE, SEE IRRIGATION PLAN.
4. DEER FENCING TO BE INSTALLED AROUND EACH TREE UNTIL IT IS DEEMED UNNECESSARY BY THE ARBORIST

TREES TO BE REMOVED AND REPLACED

TREE TO BE REMOVED TAG #	SPECIES REMOVED	DBH	SPECIES OF REPLACEMENT TREE	QUANTITY OF REPLACEMENT TREES	PROPOSED LOCATION
59	QUERCUS AGRIFOLIA	19	QUERCUS AGRIFOLIA	3	HOMELAND
61	QUERCUS AGRIFOLIA	19	QUERCUS AGRIFOLIA	3	HOMELAND
60	QUERCUS LOBATA	29	QUERCUS LOBATA	5	HOMELAND

20' 0 20 40'

1" = 20'

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TREE MITIGATION PLAN

sheet title

L2.01

sheet no.

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1/29/2026 1:32 PM

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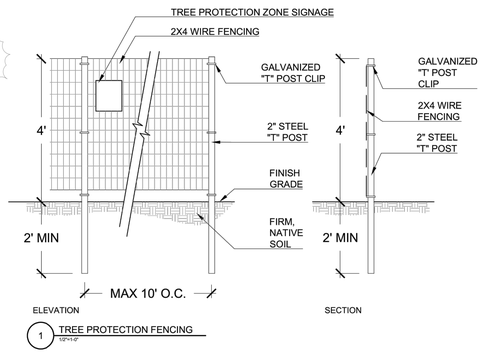
LEGEND

- EXISTING TREES TO REMAIN
- TREE TO BE REMOVED
- TREE PROTECTION ZONE
- TREE PROTECTION ZONE FENCING
- SILT FENCING TO LIMIT CONSTRUCTION TRAFFIC IN SENSITIVE HABITAT
- MITIGATION TREES, SEE TREE MITIGATION PLAN

NOTES:

1. THE GENERAL CONTRACTOR SHALL COORDINATE AND ATTEND A PRE-CONSTRUCTION MEETING WITH THE PROJECT ARBORIST AND LANDSCAPE ARCHITECT PRIOR TO FINALIZING TREE PROTECTION FENCING LOCATIONS TO ENSURE THAT TREE AND RESOURCE PROTECTION MEASURES ARE PROPERLY LOCATED, POSITIONED AND INSTALLED.
3. REFER TO ARBORIST REPORT BY THOMPSON WILDLAND MANAGEMENT DATED APRIL 2024.
4. NESTING SEASON - IF CLEARING IS TO BE DONE BETWEEN NOVEMBER 1ST AND AUGUST 1ST, A QUALIFIED ECOLOGIST/ORNITHOLOGIST SHALL CONDUCT A SITE WIDE SURVEY FOR NESTING BIRDS. IF ANY ARE FOUND A PROTECTION PLAN SHALL BE DEVELOPED AND FOLLOWED PRIOR TO PROCEEDING.
5. SEE BIOLOGICAL REPORT BY JEFFREY D. FROKE, PHD, DATED JUNE 2024.
6. A TREE PRESERVATION ZONE (TPZ) SHALL BE ESTABLISHED AS SHOWN ON PLAN AND AS VERIFIED IN THE FIELD WITH ARBORIST OR LANDSCAPE ARCHITECT.
7. PROTECTIVE FENCING - FENCE HEIGHT TO BE 6 FEET AND AS DESCRIBED IN ARBORIST REPORT WITH STRAW BALE BARRICADES. FENCE SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION ACTIVITIES ON SITE. ONCE IN PLACE, FENCING SHALL NOT BE REMOVED WITHOUT THE CONSENT OF THE ARBORIST OR LANDSCAPE ARCHITECT.
8. NO STORAGE OF CONSTRUCTION EQUIPMENT, MATERIALS, TOOLS, DEBRIS OR EXCESS SOIL WILL BE ALLOWED WITHIN THE TPZ. SOLVENTS, LIQUIDS, CONCRETE WASH-OFF, OR ANY TYPE OF DEBRIS SHOULD BE DISPOSED OF PROPERLY, NEVER WITHIN THIS PROTECTED AREA.
9. ALL TRENCHING NEAR EXISTING TREES TO REMAIN. TREES SHALL BE HAND DUG AS REVIEWED WITH THE ARBORIST. WHEN LIVE ROOTS, 1 1/2-INCH DIAMETER OR LARGER ARE FOUND, THE WORK SHALL STOP, ROOTS SHALL BE COVERED WITH BURLAP OR MULCH, AND THE ARBORIST CONTACTED TO PROVIDE RECOMMENDATIONS ON ROOT CUTTING AND TREATMENT OF IMPACTED ROOTS PRIOR TO CONTINUING WORK.
10. NO SOIL COMPACTION SHALL OCCUR WITHIN THE TPZ. SOIL SURFACE WITHIN THE TPZ SHALL BE MULCHED WITH A 6-INCH LAYER OF AGED WOOD CHIPS. WOOD CHIPS FROM SITE TREE REMOVAL ARE ACCEPTABLE IF PROPERLY COMPOSTED. IMPORTED WOOD CHIP MULCH SHALL BE APPROVED BY ARBORIST OR LANDSCAPE ARCHITECT PRIOR TO ORDERING. THEN SUBMIT MULCH SAMPLES FOR APPROVAL PRIOR TO INSTALLATION. EXISTING PLANTS TO REMAIN.
11. NATURAL GRADE AROUND TPZ SHALL BE MAINTAINED. NO ADDITIONAL FILL OR EXCAVATION WILL BE PERMITTED WITHIN AREAS OF TREE ROOT DEVELOPMENT.
12. UNAUTHORIZED PRUNING OF ANY TREE SHALL NOT BE ALLOWED. IF ANY TREE CANOPY ENCROACHES ON THE PROJECT AREA, THE REQUIRED PRUNING WILL BE DONE WITH AUTHORITY OF THE ARBORIST AND TO INTERNATIONAL SOCIETY OF ARBORICULTURE GUIDELINES (ISA) AND AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) A-300 PRUNING STANDARDS.
13. CONTRACTOR TO SUBMIT SCHEDULE OF TREE PROTECTION FENCE INSTALLATION AND REMOVAL FOR REVIEW AND APPROVAL BY ARBORIST OR LANDSCAPE ARCHITECT PRIOR TO FENCE INSTALLATION OR REMOVAL.
14. TREE PROTECTION FENCING TO BE REMOVED BY CONTRACTOR AFTER COMPLETION OF CONSTRUCTION AND AS DIRECTED BY THE ARBORIST OR LANDSCAPE ARCHITECT.



1 TREE PROTECTION FENCING
1/2"=1'-0"

20' 0 20 40'
1" = 20'

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1/29/2026 1:31 PM

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TREE PROTECTION PLAN

sheet title

L0.03

sheet no.

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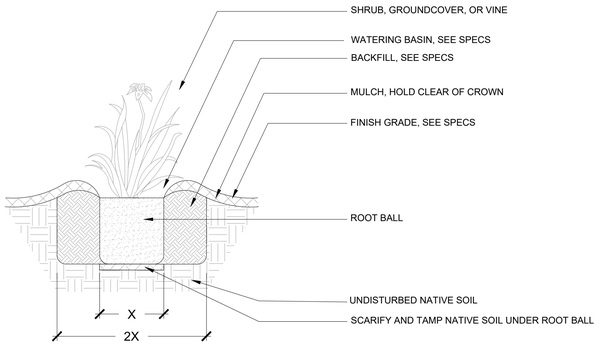
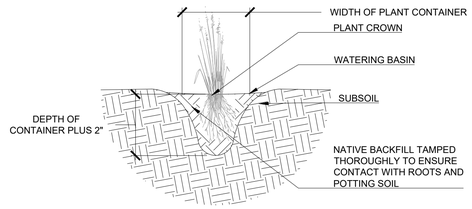
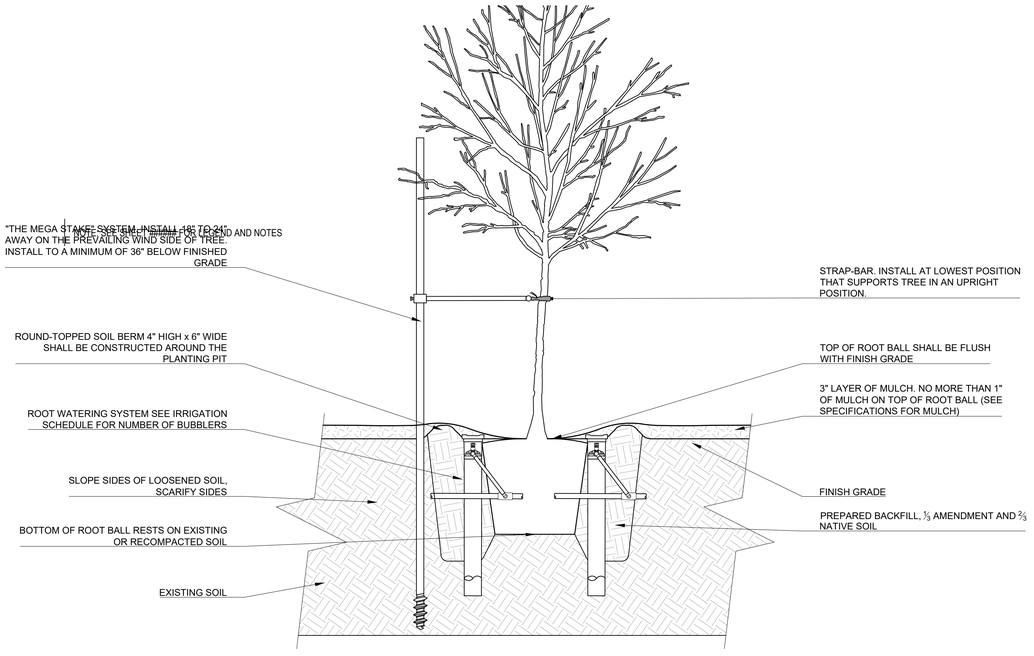


1 SHRUB AND PERENNIAL PLANTING
SCALE: 1/2" = 1'



2 PLUG PLANTING
SCALE: 1-1/2" = 1'



3 TREE PLANTING WITH BUBBLER
SCALE: 3/4" = 1'

PLANT LEGEND

KEY

TREES: (SEE TREE MITIGATION PLAN FOR MITIGATION TREES)

KEY	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	WATER_USE_(WUCOLS_1
PV	13	PRUNUS VIRGINIANA VAR. DEMISSA	WESTERN CHOKECHERRY	15 GAL	AS SHOWN	L
QA	6	QUERCUS AGRIFOLIA	COAST LIVE OAK	24" BOX	AS SHOWN	VL
QL	5	QUERCUS LOBATA	VALLEY OAK	24" BOX	AS SHOWN	L

PLANTS:

KEY	QUANTITY	BOTANICAL NAME	COMMON NAME	SPACING	SIZE	WUCOLS
AO	23	ACHILLEA MILLEFOLIUM 'SONOMA COAST'	SONOMA WHITE YARROW	2' OC	4" POT	L
AI	36	ACHILLEA MILLEFOLIUM 'ISLAND PINK'	COMMON YARROW 'ISLAND PINK'	2' OC	4" POT	L
AD	46	ARTEMISIA DOUGLASIANA	MUGWORT	4' OC	1 GAL	L
AZ	29	ASTER CHILENSIS 'PURPLE HAZE'	CALIFORNIA ASTER	2' OC	1 GAL	M
AF	64	ATHYRIUM FILIX-FEMINA	LADY FERN	2' OC	1 GAL	M
B	61	CAREX BARBARAE	SANTA BARBARA SEDGE	2' OC	LINER	L
C	148	CAREX PRAEGRACILIS	CLUSTERED FIELD SEDGE	2' OC	LINER	M
T	301	CAREX TUMULICOLA	FOOTHILL SEDGE	1'-6" OC	LINER	L
Y	91	CLINOPODIUM DOUGLASII	YERBA BUENA	1'-6"	4" POT	L
CS	8	CORNUS SERICEA	REDTWIG DOGWOOD	4' OC	1 GAL	H
FC	276	FESTUCA CALIFORNICA	CALIFORNIA FESCUE	2' OC	1 GAL	L
F	45	FRAGARIA VESCA	ALPINE STRAWBERRY	1'-6" OC	4" POT	M
FM	91	FRANGULA CALIFORNICA 'MOUND SAN BRUNO'	COFFEEBERRY	5' OC	1 GAL	L
H	57	HEUCHERA 'SANTA ANA CARDINAL'	CORAL BELLS	2' OC	1 GAL	M
I	309	IRIS DOUGLASIANA	DOUGLAS IRIS	1'-6" OC	1 GAL	L
EC	111	EPILOBIUM CANUM	CA FUSCHIA	2' OC	STUBBIES	L
MR	88	MUHLENBERGIA RIGENS	DEER GRASS	3' OC	1 GAL	L
PH	15	PENSTEMON HETEROPHYLLUS 'MARGARITA BOP'	FOOTHILL PENSTEMON	2' OC	1 GAL	M
PC	5	PHYSOCARPUS CAPITATUS	NINEBARK	6' OC	5 GAL	L
PM	30	POLYSTICHUM MUNITUM	SWORD FERN	3' OC	1 GAL	M
P	207	PRUNELLA VULGARIS	COMMON SELFHEAL	1' OC	1 GAL	L
RG	9	RIBES SANGUINEUM VAR. GLUTINOSUM	PINK WINTER CURRANT	6' OC	5 GAL	L
SS	46	SALVIA SPATHACEA	HUMMINGBIRD SAGE	2' OC	1 GAL	L
SV	18	SOLIDAGO VELUTINA SSP CALIFORNICA	CALIFORNIA GOLDENROD	1'-6" OC	1 GAL	L
WF	10	WOODWARDIA FIMBRIATA	GIANT CHAIN FERN	4' OC	5 GAL	M

TURF GRASS AND GRASSPAVE:
65% FESTUCA RUBRA
20% ACHILLEA MILLEFOLIUM
15% CAREX TUMULICOLA

WOODLAND MIX: *SHADE-LOVING HERBS AND SEDGES PROVIDE A TEXTURAL CARPET WITH SEASONAL HIGHLIGHTS TO THE OAK WOODLAND UNDERSTORY.*

BOTANICAL NAME	COMMON NAME	SPACING	SIZE	% OF MIX	QUANTITY
ACHILLEA MILLEFOLIUM	COMMON YARROW	2'-0"	LINER	10%	156
CAREX PRAEGRACILIS	CLUSTERED FIELD SEDGE	2'-0"	LINER	64%	996
CLINOPODIUM DOUGLASII	YERBA BUENA	2'-0"	LINER	10%	156
EPILOBIUM CANUM	CALIFORNIA FUSCHIA	2'-0"	1 GAL	5%	78
FESTUCA CALIFORNICA	CALIFORNIA FESCUE	2'-0"	LINER	10%	156
IRIS DOUGLASIANA	DOUGLAS IRIS	2'-0"	LINER	5%	78
LONICERA HISPIDULA	PINK HONEYSUCKLE	2'-0"	1 GAL	2%	31
PTERIDIUM AQUILINUM	BRACKEN FERN	2'-0"	1 GAL	2%	31
STACHYS BULLATA	HEDGE NETTLE	2'-0"	1 GAL	1%	16
SYMPHOROCARPUS MOLLIS	SNOW BERRY	2'-0"	1 GAL	1%	16

HYDROSEED MIX: 16,700 SF. APPLY AT 45 LBS/ACRE WHERE SITE DISTURBED. CONFIRM FINAL QUANTITY AFTER CONSTRUCTION.

BOTANICAL NAME	COMMON NAME
ACHILLEA MILLEFOLIUM	YARROW
AGROSTIS PALLENS	BENTGRASS
COLLINSIA HETEROPHYLLA	PURPLE CHINESE HOUSES
ELYMUS GLAUCUS	BLUE WILD RYE
FESTUCA CALIFORNICA	CALIFORNIA FESCUE
FESTUCA RUBRA	RED FESCUE
TRIFOLIUM WILLDENOVII	TOMCAT CLOVER

PLANTING NOTES:

PLANTING DESIGN AND FUEL MANAGEMENT DESCRIPTION:
THE INTENT OF THIS DESIGN IS TO BLEND THE ARCHITECTURE INTO THE NATIVE PLANT COMMUNITIES WITH SITE SPECIFIC OAK WOODLAND, RIPARIAN, AND GRASSLAND SPECIES APPROPRIATE FOR THE AREA. THE DESIGN IS INTENDED TO GIVE THE FEELING OF IMMERSION IN THE FOREST WHILE SOFTENING THE ARCHITECTURE. THE PLANTING AREAS ADJACENT TO THE BUILDINGS ARE INTENDED TO BE MOWED IN EARLY SUMMER FOR FUEL MANAGEMENT AND WEED MANAGEMENT. PLANTS WERE SELECTED FOR THEIR DROUGHT-TOLERANCE AND FLAME RESISTANCE, AS WELL AS FOR AESTHETICS.

SOIL AMENDMENT
1. ALL SHRUB PLANTING AREAS TO RECEIVE 2" DEEP MULCH, VERIFY SPEC WITH LANDSCAPE ARCHITECT.
2. AMEND SOIL BASED ON SITE SPECIFIC SOIL TESTING RECOMMENDATIONS, CONTRACTOR TO SEND SOIL SAMPLES OUT FOR TESTING AND PROVIDE RESULTS TO OWNER AND LANDSCAPE ARCHITECT.

IRRIGATION - SEE IRRIGATION PLAN
1. THE IRRIGATION SYSTEM SHALL BE DESIGNED FOR MAXIMUM WATER CONSERVATION, USING AN ET BASED AUTOMATIC CONTROLLER AND A MASTER VALVE/FLOW SENSOR THAT DETECTS LEAKS
2. THE IRRIGATION DESIGN SHALL COMPLY WITH CURRENT STATE AND LOCAL REGULATIONS

GENERAL
1. BRACKEN FERN (PTERIDIUM AQUILINUM) DISTURBED ON SITE TO BE SAVED FOR TRANSPLANTING
2. SEE ARBORIST REPORT, FUEL MANAGEMENT REPORT, AND BIOLOGICAL REPORT
3. SEE FUEL MANAGEMENT PLAN
4. SEE TREE PROTECTION PLAN

NOTE: SEE SHEET L2.00 FOR PLANTING PLAN

NOT FOR CONSTRUCTION

ONLY THE ORIGINAL, DATED HARD COPY OF THIS DRAWING CONSTITUTES WILD LAND WORKSHOP'S PROFESSIONAL WORK PRODUCT. ELECTRONIC COPIES DO NOT. WILD LAND WORKSHOP WILL NOT BE RESPONSIBLE FOR ANY MODIFICATIONS MADE TO THIS DRAWING, ELECTRONIC OR OTHERWISE, AND ANY WORK PERFORMED FROM SUCH MODIFICATIONS. ANY REUSE OF THIS DRAWING WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY WILD LAND WORKSHOP FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT USER'S SOLE RISK AND WITHOUT LIABILITY TO WILD LAND WORKSHOP. USER SHALL INDEMNIFY AND HOLD WILD LAND WORKSHOP HARMLESS FROM ALL CLAIMS, DAMAGES AND EXPENSES, INCLUDING ATTORNEY'S FEES, ARISING OUT OF SUCH REUSE OF THE DRAWING OR MODIFICATION.

IF THE CONTRACTOR ENCOUNTERS ERRORS OR DISCREPANCIES ON THE DRAWINGS, OR SITE CONDITIONS WHICH PREVENT OR STAY THE COMPLETION OF WORK AS INDICATED, THE CONTRACTOR SHALL NOTIFY THE OWNER AND LANDSCAPE ARCHITECT BY THE TIME OF BID OF ALL SUCH ERRORS, DISCREPANCIES, OR CONDITIONS. THE CONTRACTOR SHALL NOT PROCEED WITH WORK IN AREAS OF SUCH CONDITIONS OR AMBIGUITY UNTIL WRITTEN RESOLUTION IS RECEIVED.

WILD LAND WORKSHOP
LANDSCAPE ARCHITECTURE

LICENSED LANDSCAPE ARCHITECT
MARIE S. GOULET
6335
06/30/2026
RENEWAL DATE
08/01/2024
DATE
STATE OF CALIFORNIA

seal

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project

no.	description	date
2	FINAL DESIGN REVIEW	11.07.2024
1	PRELIMINARY DESIGN REVIEW	08.15.2024

date: 11.07.2024

PLANTING LEGEND AND NOTES

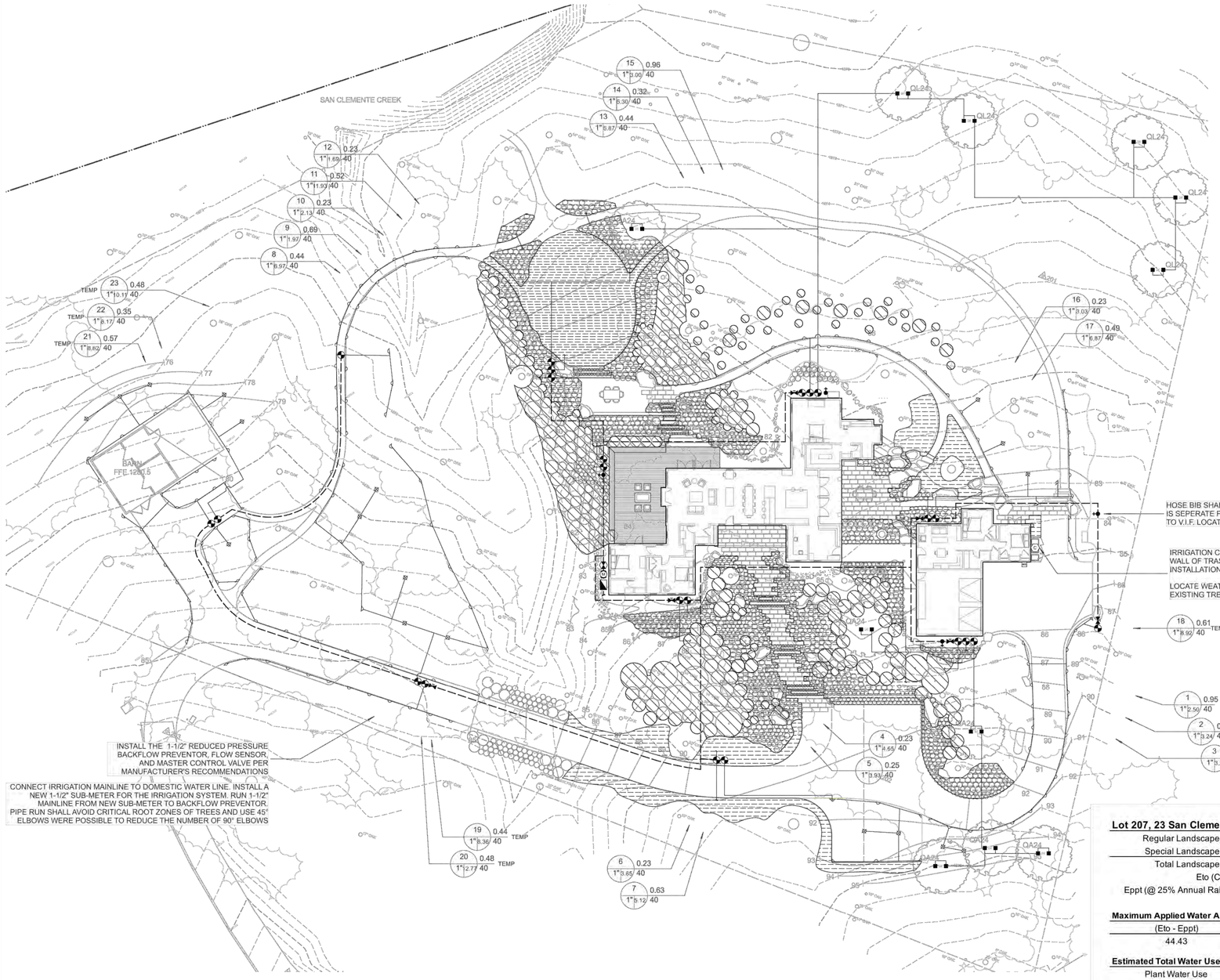
sheet title

L2.02

sheet no.
-- of

11/7/2024 3:01 PM

"I, MARIE GOULET, CERTIFY THAT THIS LANDSCAPING AND IRRIGATION PLAN COMPLIES WITH ALL MONTEREY COUNTY LANDSCAPING REQUIREMENTS INCLUDING USE OF NATIVE DROUGHT TOLERANT, NON-INVASIVE SPECIES, LIMITED TURF AND LOW FLOW, WATER CONSERVING IRRIGATION FIXTURES."



Lot 207, 23 San Clemente Trail, Carmel CA 93923

HYDROZONE TABLE COMPLETE FOR ALL VALVES

Valve Number	Irrigation Method	Plant type (High, Med, Low)	GPM	Precipitation Rate (in/hr)	Area (sq.ft.)	% of Landscape
1	Bubblers	Low	2.50	0.95	252	1.4%
2	Sub-surface Drip	Low	3.24	0.23	1102	6.0%
3	Emitters	Low	3.20	0.31	992	5.4%
4	Sub-surface Drip	Low	4.65	0.23	1589	8.6%
5	Emitters	Low	3.93	0.25	1486	8.1%
6	Sub-surface Drip	Low	3.85	0.23	1319	7.2%
7	MP Rotators	Low	5.12	0.63	787	4.3%
8	Emitters	Low	6.97	0.44	1521	8.3%
9	Sub-surface Drip	Low	1.97	0.69	656	3.6%
10	Sub-surface Drip	Low	2.13	0.23	736	4.0%
11	Sub-surface Drip	Low	11.93	0.52	1785	9.7%
12	Sub-surface Drip	Low	1.69	0.23	571	3.1%
13	Emitters	Low	5.87	0.44	1291	7.0%
14	MP Rotators	Low	5.30	0.32	1611	8.7%
15	Bubblers	Low	3.00	0.96	302	1.6%
16	Sub-surface Drip	Low	3.03	0.23	1082	5.9%
17	MP Rotators	Low	6.87	0.49	1340	7.3%
TEMP.						
18	MP Rotators	Low	8.92	0.61	1418	12.2%
19	MP Rotators	Low	8.36	0.44	1839	15.9%
20	MP Rotators	Low	12.77	0.48	2570	22.2%
21	MP Rotators	Low	8.62	0.57	1450	12.5%
22	MP Rotators	Low	8.17	0.35	2276	19.7%
23	MP Rotators	Low	10.11	0.48	2028	17.5%
				TOTAL SF (PERM)	**18422**	100%
				TOTAL SF (TEMP)	**11581**	100%

Lot 207, 23 San Clemente Trail, Carmel CA 93923

Regular Landscape Area	18,422	SF
Special Landscape Area	0	SF
Total Landscape Area	18422	SF
Eto (CIMIS)	49.7	
Eppt (@ 25% Annual Rainfall)	5.275	

Maximum Applied Water Allowance

(Eto - Eppt)	X	Gal./SF	X	[(0.55 x LA)	+	(0.45 x SLA)]	MAWA	ACRE-FT.
44.43		0.62		10,132		0	**279,073**	**0.86**

Estimated Total Water Use (Post Establishment)

Plant Water Use	(ETo)(0.62)	X	(PF x HA) / IE	ETWU	ACRE-FT.
Low	30.8		4,549	140,162	
Med.	30.8		0	0	
High	30.8		0	0	
				ETWU **140,162**	**0.43**

ETWU complies with MAWA

Estimated Total Water Use (Establishment Period @ 11,581 SF Grassland Restoration Areas)

Plant Water Use	(ETo)(0.62)	X	(PF x HA) / IE	ETWU	ACRE-FT.
Low	30.8		3,088	95,162	
Med.	30.8		0	0	
High	30.8		0	0	
				ETWU **95,162**	**0.29**
				Total Establishment ETWU **235,324**	**0.72**

PROJECT IRRIGATION NOTES:

1. LANDSCAPE CONTRACTOR WILL FOLLOW INDUSTRY STANDARDS FOR THE INSTALLATION OF THE IRRIGATION SYSTEM. ANY PROPOSED CHANGES TO THE IRRIGATION SYSTEM WILL BE SUBMITTED TO THE LANDSCAPE ARCHITECT FOR REVIEW PRIOR TO THE CHANGES BEING MADE. CONTRACTOR TO VERIFY IN FIELD THE CONDITIONS OF THE LANDSCAPE AREAS PRIOR TO INSTALLATION OF THE IRRIGATION SYSTEM .

2. MAINLINE PIPE SHALL BE NO LESS THAN CLASS 315 FOR PIPE SIZED 3" AND GREATER, AND SCHEDULE 40 FOR PIPE SIZED 2-1/2" AND SMALLER. MAINLINE PIPING SHALL BE INSTALLED AT A MINIMUM DEPTH TO ENSURE 18" OF COVER AND SHALL BE INSTALLED IN SUCH A MANNER AS TO NOT INTERFER WITH THE STORMWATER AND OTHER UTILITIES' SYSTEMS.

3. LATERAL PIPING SHALL BE CLASS 200 PIPE AND INSTALLED TO A MINIMUM DEPTH TO ENSURE 12" OF COVER.

4. THIS DESIGN IS DIAGRAMMATIC. ALL PIPING, VALVES, ETC. SHOWN WITHIN PAVED AREAS IS FOR DESIGN CLARIFICATION ONLY AND SHALL BE INSTALLED IN PLANTING AREAS WHERE POSSIBLE. AVOID ANY CONFLICTS BETWEEN THE SPRINKLER SYSTEM, PLANTING, TREE ROOT ZONES AND ARCHITECTURAL FEATURES.

5. SYSTEM SHALL RECEIVE AN INTERIOR MOUNTED IRRIGATION CONTROLLER. CONTRACTOR TO VERIFY IN FIELD LOCATION PRIOR TO INSTALLATION. ELECTRICAL CONNECTION BY OTHERS.

6. LANDSCAPE IRRIGATION SYSTEMS SHALL BE INSTALLED TO PREVENT OVER-SPRAY ON STRUCTURES.

7. IRRIGATION DEMAND: 20 GPM AT 80 PSI. FIELD VERIFY EXACT PRESSURE PRIOR TO START OF WORK. IF PRESSURE VARIES FROM REQUIRED PRESSURE, NOTIFY LANDSCAPE ARCHITECT FOR FURTHER INSTRUCTION.

8. ALL SPRAY VALVES AND SPRINKLER OUTLETS SHOWN ARE FOR THE ESTABLISHMENT PERIOD AND SHALL BE RARELY USED POST ESTABLISHMENT.

9. REFER TO PLANTING PLAN FOR FULL EXTENT OF SEEDED AREAS. CONTRACTOR TO ADD ALTERNATE ALLOWANCE FOR OVER-HEAD SPRAYS AT ALL DISTURBED AREAS THAT SHALL RECEIVE SEED MIX. SPRAYS SHALL BE MATCH PRECIPITATION ROTATOR NOZZLES AND THE PVC LATERAL LINES SHALL BE PLACED ON THE SURFACE WITH NO TRENCHING REQUIRED.

10. ALL IRRIGATION OUTLETS AND PIPING FOR TEMPORARY ZONES SHALL BE INSTALLED ABOVE GROUND AND REMOVED AFTER THE ESTABLISHMENT PERIOD OF NO MORE THAN THREE (3) YEARS FROM DATE OF PLANTING.

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NOT FOR CONSTRUCTION

THE CONTRACTOR SHALL NOTIFY THE OWNER AND LANDSCAPE ARCHITECT BY THE TIME OF BID OF ALL SITE CONDITIONS WHICH PREVENT OR DELAY THE COMPLETION OF WORK AS INDICATED.

"I, MARIE GOULET, CERTIFY THAT THIS LANDSCAPING AND IRRIGATION PLAN COMPLIES WITH ALL MONTEREY COUNTY LANDSCAPING REQUIREMENTS INCLUDING USE OF NATIVE DROUGHT TOLERANT, NON-INVASIVE SPECIES, LIMITED TURF AND LOW FLOW, WATER CONSERVING IRRIGATION FIXTURES."

GENERAL IRRIGATION NOTES

1. THE CONTRACTOR SHALL REVIEW RELATED DRAWINGS AND SHALL ENSURE COORDINATION WITH ALL APPLICABLE TRADES PRIOR TO SUBMITTING BID.

2. THE IRRIGATION SYSTEM SHALL BE INSTALLED IN CONFORMANCE WITH ALL APPLICABLE STATE AND LOCAL CODES AND ORDINANCES BY LICENSED CONTRACTORS AND EXPERIENCED WORKERS. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS AND FEES RELATING TO THEIR WORK.

3. THIS DESIGN IS DIAGRAMMATIC. ALL PIPING, VALVES, ETC. SHOWN WITHIN PAVED AREAS IS FOR DESIGN CLARIFICATION ONLY AND SHALL BE INSTALLED IN PLANTING AREAS WHERE POSSIBLE. AVOID ANY CONFLICTS BETWEEN THE SPRINKLER SYSTEM, PLANTING, TREE ROOT ZONES AND ARCHITECTURAL FEATURES.

4. PARALLEL PIPES MAY BE INSTALLED IN COMMON TRENCH. PIPES ARE NOT TO BE INSTALLED DIRECTLY ABOVE ONE ANOTHER. TRENCHES SHALL BE AMPLE SIZE TO PERMIT THE PIPES TO BE LAID AT THE ELEVATIONS INTENDED AND TO PERMIT SPACE FOR JOINING.

5. CONTRACTOR SHALL RESTORE SURFACES, EXISTING UNDERGROUND INSTALLATIONS, ETC., DAMAGED OR CUT AS A RESULT OF EXCAVATIONS, TO ORIGINAL CONDITIONS IN A MANNER APPROVED BY THE OWNER'S REPRESENTATIVE.

6. DO NOT WILLFULLY INSTALL THE SPRINKLER SYSTEM AS SHOWN ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT OBSTRUCTIONS, GRADE DIFFERENCES OR DIFFERENCES IN THE AREA DIMENSIONS EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE ENGINEERING. SUCH OBSTRUCTIONS OR DIFFERENCES SHOULD BE BROUGHT TO THE ATTENTION OF THE OWNER'S AUTHORIZED REPRESENTATIVE. IN THE EVENT THAT THIS NOTIFICATION IS NOT PERFORMED, THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS NECESSARY.

7. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BECOME FAMILIAR WITH ALL GRADE DIFFERENCES, LOCATION OF WALLS, RETAINING WALLS, ETC. COORDINATE WORK WITH THE GENERAL CONTRACTOR AND OTHER SUBCONTRACTORS FOR THE LOCATION AND THE INSTALLATION OF PIPE SLEEVES THROUGH WALLS, UNDER ROADWAYS, PAVING, STRUCTURES, ETC. CONTRACTOR TO VERIFY THE LOCATION OF EXISTING UNDERGROUND UTILITIES AND STRUCTURES PRIOR TO THE EXCAVATION OF TRENCHES. CONTRACTOR IS TO REPAIR ANY DAMAGE CAUSED BY THEIR WORK AT NO ADDITIONAL COST TO THE OWNER.

8. DUE TO THE SCALE OF THE DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS, SLEEVES, ETC., WHICH MAY BE REQUIRED. CAREFULLY INVESTIGATE THE STRUCTURAL AND FINISHED CONDITIONS AFFECTING ALL WORK AND PLAN WORK ACCORDINGLY, FURNISHING SUCH FITTINGS, ETC., AS MAY BE REQUIRED TO MEET SUCH CONDITIONS. DRAWINGS ARE GENERALLY DIAGRAMMATIC AND INDICATIVE OF THE WORK TO BE INSTALLED. THE WORK SHALL BE INSTALLED IN SUCH A MANNER AS TO AVOID CONFLICTS BETWEEN IRRIGATION SYSTEMS, PLANTING, AND ARCHITECTURAL FEATURES.

9. ELECTRICAL CONTRACTOR TO SUPPLY 120 VAC (2.5 AMP) SERVICE TO CONTROLLER LOCATION. IRRIGATION CONTRACTOR TO MAKE FINAL CONNECTION FROM ELECTRICAL STUB-OUT TO CONTROLLER. IRRIGATION CONTROL WIRE SHALL BE #14, U.L. APPROVED FOR DIRECT BURIAL. COMMON WIRE SHALL BE #12 U.L. APPROVED AND SHALL BE WHITE IN COLOR. WIRING TO INDIVIDUAL REMOTE CONTROL VALVES SHALL BE COLOR OTHER THAN WHITE.

10. EACH CONTROLLER SHALL HAVE ITS OWN INDEPENDENT GROUND WIRE.

11. REMOTE CONTROL VALVES SHALL BE WIRED TO CONTROLLER IN SEQUENCE AS SHOWN ON PLANS. RUN WIRE FROM EACH RCV TO THE CONTROLLER. SPLICING WIRES TOGETHER OUTSIDE OF VALVE BOXES WILL NOT BE PERMITTED. ATTACH A LABEL TO CONTROL WIRE AT THE CONTROLLER AND ATTACH AN ID TAG AT EACH REMOTE CONTROL VALVE INDICATING CONTROLLER AND STATION NUMBER.

12. SPLICING OF 24-VOLT WIRES WILL NOT BE PERMITTED EXCEPT IN VALVE BOXES. LEAVE A 36" COIL OF EXCESS WIRE AT EACH SPLICE AND 100 FEET ON CENTER ALONG WIRE RUN. TAPE WIRE IN BUNDLES 10 FEET ON CENTER. NO TAPING PERMITTED INSIDE SLEEVES.

13. WIRE CONNECTORS SHALL BE 3M-DBR/Y-6 DIRECT BURY UNLESS OTHERWISE NOTED.

14. INSTALL TWO (2) SPARE CONTROL WIRES ALONG THE ENTIRE MAIN LINE. SPARE WIRES SHALL BE THE SAME COLOR (ONE WITH A WHITE STRIPE) AND OF A DIFFERENT COLOR THAN OTHER CONTROL WIRES. LOOP 36" EXCESS WIRE INTO EACH SINGLE VALVE BOX AND INTO ONE VALVE BOX IN EACH GROUP OF VALVES.

15. VALVE LOCATIONS SHOWN ARE DIAGRAMMATIC. INSTALL IN GROUND COVER/SHRUB AREAS WHERE POSSIBLE.

16. INSTALL VALVE BOXES MINIMUM 12" FROM AND PERPENDICULAR TO WALK, CURB, BUILDING OR LANDSCAPE FEATURE. AT MULTIPLE VALVE BOX GROUPS, EACH BOX SHALL BE AN EQUAL DISTANCE FROM THE WALK, CURB, ETC. AND EACH BOX SHALL BE MINIMUM 12" APART. SHORT SIDE OF VALVE BOXES SHALL BE PARALLEL TO WALK, CURB, ETC.

17. THOROUGHLY FLUSH MAIN LINE BEFORE INSTALLING VALVES.

18. ALL MAIN LINES SHALL BE FLUSHED PRIOR TO THE INSTALLATION OF IRRIGATION HEADS, BUBBLERS AND DRIP TUBING. AT 30 DAYS AFTER INSTALLATION EACH SYSTEM SHALL BE FLUSHED TO ELIMINATE GLUE AND DIRT PARTICLES FROM THE LINES.

19. LOCATE BUBBLERS ON UPHILL SIDE OF TREES. TREE BUBBLERS ARE FOR ESTABLISHMENT AND DROUGHT CONDITIONS. THEY ARE TO BE TURNED OFF AFTER TREES ARE ESTABLISHED AND TURNED ON DURING DROUGHT CONDITIONS.

20. IN ADDITION TO THE SLEEVES AND CONDUITS SHOWN ON THE DRAWINGS, THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF SLEEVES AND CONDUITS OF SUFFICIENT SIZE UNDER ALL PAVED AREAS.

21. ALL EXCAVATIONS ARE TO BE FILLED WITH COMPACTED BACKFILL. BACKFILL MATERIAL SHALL BE THE EARTH EXCAVATED FROM THE TRENCH AND FREE OF ROCKS AND OTHER FOREIGN COURSE MATERIAL. COMPACT BACKFULL TO A MINIMUM OF 90 PERCENT OF ORIGINAL SOIL DENSITY. REPAIR ALL SETTLED TRENCHES PROMPTLY, FOR A PERIOD OF 1 YEAR AFTER COMPLETION OF WORK.

22. CONTRACTOR SHALL WARRANT THAT THE IRRIGATION SYSTEM WILL BE FREE FROM DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF 1 YEAR AFTER FINAL ACCEPTANCE OF WORK.

23. ALL CONSTANT PRESSURE PIPES SHALL BE TESTED AT A MINIMUM OF 125 PSI FOR TWO HOURS. CENTER LOAD PIPING WITH A SMALL AMOUNT OF BACKFILL TO PREVENT ARCHING OR SLIPPING UNDER PRESSURE. NO FITTINGS SHALL BE COVERED. REPAIR FAULTY JOINTS WITH NEW MATERIALS. DO NOT USE CEMENT OR CAULKING TO REPAIR LEAKS.

24. WHERE IT IS NECESSARY TO EXCAVATE ADJACENT TO EXISTING TREES, USE ALL POSSIBLE CARE TO AVOID INJURY TO TREES, AND TREE ROOTS. EXCAVATION IN AREAS WHERE 2 INCH AND LARGER ROOTS OCCUR SHALL BE DONE BY HAND. ROOTS 2 INCHES AND LARGER IN DIAMETER SHALL BE WRAPPED IN A PLASTIC BAG AND SECURED WITH A RUBBER BAND. TRENCHES ADJACENT TO TREE SHOULD BE CLOSED WITHIN 24 HOURS; WHERE THIS IS NOT POSSIBLE, THE SIDE OF THE TRENCH ADJACENT TO THE TREE SHALL BE KEPT SHADED WITH BURLAP OR CANVAS.

25. THE SPRINKLER SYSTEM DESIGN IS BASED ON THE MINIMUM OPERATING PRESSURE SHOWN ON THE IRRIGATION DRAWINGS. VERIFY WATER PRESSURE PRIOR TO CONSTRUCTION. REPORT ANY DIFFERENCE BETWEEN THE WATER PRESSURE INDICATED ON THE DRAWINGS AND THE ACTUAL PRESSURE READING AT THE IRRIGATION POINT OF CONNECTION TO THE OWNER'S AUTHORIZED REPRESENTATIVE.

26. NOTIFY UNDERGROUND SERVICE ALERT AT 811 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION.

27. AT LEAST 10 DAYS PRIOR TO COMPLETION OF CONSTRUCTION, PROVIDE THE OWNER WITH A MAINTENANCE MANUAL. DATA SHALL BE ON 8 1/2" X 11" SHEETS, IN A 3-RING BINDER AND SHALL INCLUDE:
- INDEX SHEET WITH CONTRACTOR'S CONTACT INFORMATION AND LIST OF EQUIPMENT WITH LOCAL MANUFACTURER'S REPRESENTATIVES.
- CATALOG AND PARTS SHEET OF ALL MATERIAL AND EQUIPMENT.
- COMPLETE OPERATING AND MAINTENANCE INSTRUCTIONS FOR ALL EQUIPMENT.
- COMPLETE AND DATED MANUFACTURER'S WARRANTIES.

DRIPLINE NOTES

1. PLANS ARE DIAGRAMMATIC. INSTALL DRIPLINE AND COMPONENTS PER MANUFACTURERS INSTRUCTIONS AND INSTALLATION DETAILS.

2. INSTALL DRIPLINE A MAXIMUM OF 24" APART WITH EMITTERS TRIANGULARLY SPACED. INSTALL 2" FROM PERIMETER OF PLANTED AREA. THERE SHOULD BE A MINIMUM OF TWO DRIPLINE LATERALS IN EACH PLANTED AREA. DRIPLINE SHALL BE INSTALLED AT A CONSISTANT DEPTH THROUGHOUT THE CIRCUIT.

3. PLACE AIR/VACUUM RELIEF VALVES AT THE HIGHEST POINTS OF EACH ZONE AND JUST BELOW CHECK VALVES ON SLOPES. INSTALL ONE AIR/VACUUM RELIEF VALVE FOR EVERY 1125' OF TOTAL DRIPLINE PER ZONE.

4. PLACE FLUSH VALVES AT THE HYDRAULIC CENTER OF THE EXHAUST HEADER OR AT LOW POINT ON SLOPES.

5. INSTALL IN-LINE CHECK VALVES ON SLOPES GREATER THAN 3% AND WHERE LOW-LINE DRAINAGE COULD CAUSE WET AREAS IN THE LOWEST AREAS OF AN IRRIGATION ZONE. CHECK VALVES SHALL BE PLACED EVERY 4-5 FEET BETWEEN DRIPLINE LATERALS AND BEFORE THE FLUSH VALVE.

6. ON ALL SLOPES AND MOUNDS, PLACE THE DRIPLINE LATERALS PARALLEL TO THE SLOPE CONTOUR WHERE POSSIBLE. INCREASE THE LATERAL SPACING BY 25% ON THE LOWER ONE-THIRD OF THE SLOPE TO AVOID EXCESS DRAINAGE.

7. PVC SUPPLY AND FLUSH LINE SIZING GUIDE (ALL SUPPLY AND FLUSH LINES SHALL BE THE SAME SIZE FOR THE ENTIRE ZONE):
- 0-6 GPM – 3/4"
- 6.1-15 GPM – 1"

8. FITTINGS SHALL BE OF THE SAME MANUFACTURER AS DRIPLINE.

9. STAPLE DRIPLINE TO GROUND EVERY 2 FEET. USE ADDITIONAL STAPLES OVER EACH TEE, ELBOW OR CROSS. USE U-SHAPED STAPLES TO AVOID PINCHING THE DRIPLINE.

10. THOROUGHLY FLUSH EACH INSTALLATION SEGMENT TO ENSURE NO DEBRIS CONTAMINATION OCCURS.

11. RUN THE DRIPLINE SYSTEM EVERY DAY OR EVERY OTHER DAY TO ESTABLISH PLANT MATERIAL. MAINTAIN A CONSISTENT MOISTURE BALANCE IN THE SOIL. IT IS IMPORTANT TO KEEP THE SOIL MOIST WITHOUT SATURATION.

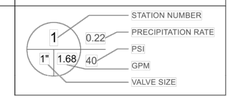
ADDITIONAL DRIPLINE NOTES

1. ALL SUBSURFACE DRIP AREAS ARE DESIGNED TO BE 18" ROW SPACING WITH 18" EMITTER SPACING EXCEPT AS FOLLOWS:

VALVE 11 - 12" X 12" SPACING, 0.40 GPH

IRRIGATION LEGEND

SYMBOL	DESCRIPTION	MANUFACTURER	PRODUCT	MODEL NUMBER	NOTES
M	POINT OF CONNECTION	ASSURED AUTOMATION	1-1/2" SUB-METER	WM150	PER MANUFACTURER'S RECOMMENDATIONS
C	CONTROLLER	HUNTER	8-STATION BASE HYDRAWISE COMPATIBLE CONTROLLER	HCC-800-M	ADD ICM-400 & ICM-800 MODULES AS NEEDED
WS	WEATHER SENSOR	HUNTER	SOLAR-SYNC ETO-RAIN-FREEZE SENSOR	WSS-SEN	WIRELESS SENSOR, LOCATE NO MORE THAN 800' FROM CONTROLLER
	BACKFLOW PREVENTOR	FEBCO	1-1/2" BACKFLOW PREVENTOR W/ PRESSURE REGULATOR, IN ENCLOSURE	825Y	PER MANUFACTURER'S RECOMMENDATIONS
M	MASTER VALVE	HUNTER	1-1/2" REMOTE CONTROL VALVE WITH FILTER SCREEN, NORMALLY OPEN	ICV-151G-FS	PER MANUFACTURER'S RECOMMENDATIONS
F	FLOW SENSOR	HUNTER	1-1/2" FLOW-SYNC SENSOR	HC-150-FLOW	PER MANUFACTURER'S RECOMMENDATIONS
	BRASS SHUT-OFF VALVE	NIBCO	LINE-SIZE BRASS GATE VALVE	TI-8	PER MANUFACTURER'S RECOMMENDATIONS
	HOSE SPIGOT	LASCO	3/4" INVERTED GARDEN VALVE	MODEL 06-1342	PER MANUFACTURER'S RECOMMENDATIONS
	MAIN LINE	-	PVC SCH 40 W/ SOLVENT WELD FITTINGS	-	SIZE: 1-1/2"
	LATERAL LINE	-	PVC CLASS 200 W/SOLVENT WELD FITTINGS	-	SIZE: 0 - 6 GPM = 3/4", 7 - 18 GPM = 1"
	REMOTE CONTROL VALVE	HUNTER	DRIP ZONE CONTROL KITS AND GLOBE VALVES	PCZ-101-LF-40 ICV-101G	USE DRIP ZONE KITS AT ALL SUBSURFACE DRIP, BUBBLERS, AND EMITTERS. ICV TO BE USED AT POP-UP SPRAYS
	SUBSURFACE DRIP ZONE	HUNTER	0.4 GPH DRIP LINE W/ CHECK VALVES	HDL-04-18-CV	12" ROW AND 12" EMITTER SPACING UNLESS OTHERWISE NOTED
	SHRUB EMITTERS ZONE	HUNTER	1/4" BARB, 2.0 GPH POINT SOURCE EMITTERS ON 1/2" DISTRIBUTION TUBING	HEB-20-CV	PLACE ONE (1) PER 1 & 2 GAL, TWO (2) PER 5 GAL, THREE (3) PER 15 GAL AND LARGER SHRUBS
	TREE BUBBLERS	HUNTER	18" ROOT ZONE WATERING SYSTEM	RZWS-18-25-CV	0.25 GPM BUBBLER
	FULL CIRCLE ROTATOR	HUNTER	MP ROTATOR NOZZLE ON 12" POP-UP	MP1000-360 OR MP2000-360	PER MANUFACTURER'S RECOMMENDATIONS
	ADJUSTABLE ROTATOR	HUNTER	MP ROTATOR NOZZLE ON 12" PO-UP	MP1000-90 OR MP2000-90	V.I.F., USE MP-800 SERIES WHERE NECESSARY



Lot 207, 23 San Clemente Trail, Carmel CA 93923

HYDROZONE TABLE COMPLETE FOR ALL VALVES

Valve Number	Irrigation Method	Plant type (High, Med, Low)	GPM	Precipitation Rate (in/hr)	Area (sq.ft.)	% of Landscape
1	Bubblers	Low	2.50	0.95	252	1.4%
2	Sub-surface Drip	Low	3.24	0.23	1102	6.0%
3	Emitters	Low	3.20	0.31	992	5.4%
4	Sub-surface Drip	Low	4.65	0.23	1589	8.6%
5	Emitters	Low	3.93	0.25	1486	8.1%
6	Sub-surface Drip	Low	3.85	0.23	1319	7.2%
7	MP Rotators	Low	5.12	0.63	787	4.3%
8	Emitters	Low	6.97	0.44	1521	8.3%
9	Sub-surface Drip	Low	1.97	0.69	656	3.6%
10	Sub-surface Drip	Low	2.13	0.23	736	4.0%
11	Sub-surface Drip	Low	11.93	0.52	1785	9.7%
12	Sub-surface Drip	Low	1.69	0.23	571	3.1%
13	Emitters	Low	5.87	0.44	1291	7.0%
14	MP Rotators	Low	5.30	0.32	1611	8.7%
15	Bubblers	Low	3.00	0.96	302	1.6%
16	Sub-surface Drip	Low	3.03	0.23	1082	5.9%
17	MP Rotators	Low	6.87	0.49	1340	7.3%
TEMP.						
18	MP Rotators	Low	8.92	0.61	1418	12.2%
19	MP Rotators	Low	8.36	0.44	1839	15.9%
20	MP Rotators	Low	12.77	0.48	2570	22.2%
21	MP Rotators	Low	8.62	0.57	1450	12.5%
22	MP Rotators	Low	8.17	0.35	2276	19.7%
23	MP Rotators	Low	10.11	0.48	2028	17.5%
				TOTAL SF (PERM)	**18422**	100%
				TOTAL SF (TEMP)	**11581**	100%

NOT FOR CONSTRUCTION

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LANDSCAPE ARCHITECTURE

LICENSED LANDSCAPE ARCHITECT
MARIE S. GOULET
6335
06/30/2026
RENEWAL DATE
08/01/2024
DATE
STATE OF CALIFORNIA

seal

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project

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2	FINAL DESIGN REVIEW	11.07.2024
1	PRELIMINARY DESIGN REVIEW	08.15.2024

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IRRIGATION LEGEND

sheet title

L3.01

sheet no.
of

11/7/2024 2:54 PM

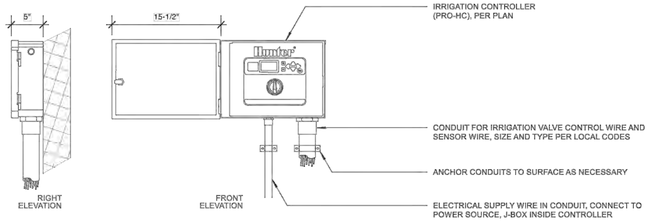
"I, MARIE GOULET, CERTIFY THAT THIS LANDSCAPING AND IRRIGATION PLAN COMPLIES WITH ALL MONTEREY COUNTY LANDSCAPING REQUIREMENTS INCLUDING USE OF NATIVE DROUGHT TOLERANT, NON-INVASIVE SPECIES, LIMITED TURF AND LOW FLOW, WATER CONSERVING IRRIGATION FIXTURES."

CONTROLLER AND SENSOR NOTES:

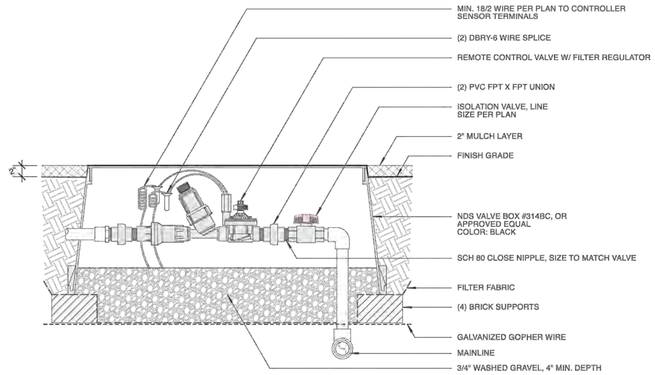
1. MOUNT CONTROLLER LCD SCREEN AT EYE LEVEL. CONTROLLER SHALL BE HARD-WIRED TO GROUNDED 110 VAC POWER SOURCE. PRIOR TO INSTALLATION, CONFIRM LOCATION OF CONTROLLER WITH OWNER

2. ALL SENSORS SHALL BE INSTALLED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS

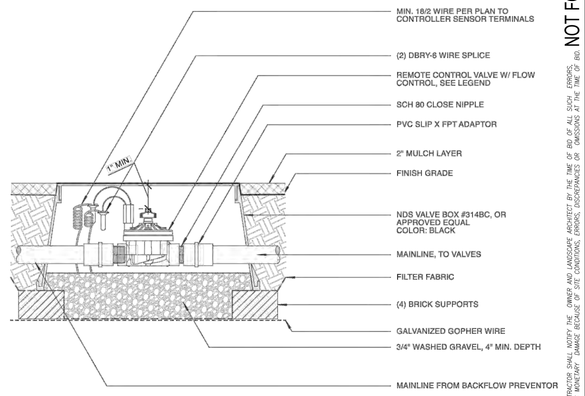
3. ALL ELECTRICAL WORK TO CONFORM WITH LOCAL CODES



9 CONTROLLER W/ FLOW & SOLAR SENSOR - INTERIOR
N.T.S.



6 DRIP CONTROL ZONE KIT W/ UNIONS AND SHUT-OFF
N.T.S.



3 MASTER VALVE: IN-LINE
N.T.S.

8 MAINLINE AND LATERAL PIPE TRENCHING AND COVER
N.T.S.

5 GATE VALVE IN 10" ROUND BOX
N.T.S.

NOTES:

1. DISTANCE 'A' TO BE 10 X DIA. OF STRAIGHT PIPE FREE OF FITTINGS OR ELBOWS (EXAMPLE: 1-1/2" PIPE DIA X 10 = 15")

2. DISTANCE 'B' TO BE 5 X DIA. OF STRAIGHT PIPE FREE OF FITTINGS OR ELBOWS (EXAMPLE: 1-1/2" PIPE DIA X 5 = 7-1/2")

2 FLOW SENSOR
N.T.S.

7 REMOTE CONTROL VALVE W/ UNIONS AND SHUT-OFF
N.T.S.

4 BRASS HOSE BIB MOUNTED ON POST
N.T.S.

BACKFLOW PREVENTOR NOTES:

1. CONTRACTOR TO VERIFY PRESSURE AT THE POINT OF CONNECTION PRIOR TO INSTALLATION OF THE BACKFLOW PREVENTER AND PRESSURE REGULATOR

2. GALV. FITTINGS AND PIPE THAT ARE IN CONTACT WITH CONC. OR SOIL SHALL BE WRAPPED IN 3M™ SCOTCHRAP™ ALL-WEATHER CORROSION PROTECTION TAPE (1/2" OVERLAP MIN.)

3. DIELECTRIC FITTINGS SHALL BE USED WHERE DISSIMILAR METALS COME INTO CONTACT.

4.. CONTRACTOR SHALL INSTALL ALL BACKFLOW, PREVENTOR, ENCLOSURE, AND ALL COMPONENTS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS.

1 BACK FLOW PREVENTOR W/ ENCLOSURE
N.T.S.

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WILD LAND WORKSHOP
LANDSCAPE ARCHITECTURE

CALIFORNIA LANDSCAPE ARCHITECT MARIE S. GOULET 6335 06/30/2026 renewal 08/01/2024 date STATE OF CALIFORNIA

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IRRIGATION DETAILS

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L3.02

sheet no.

of

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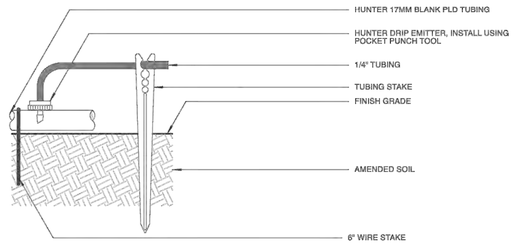
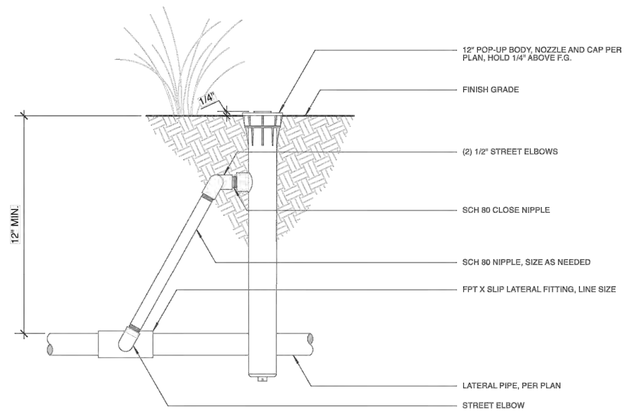
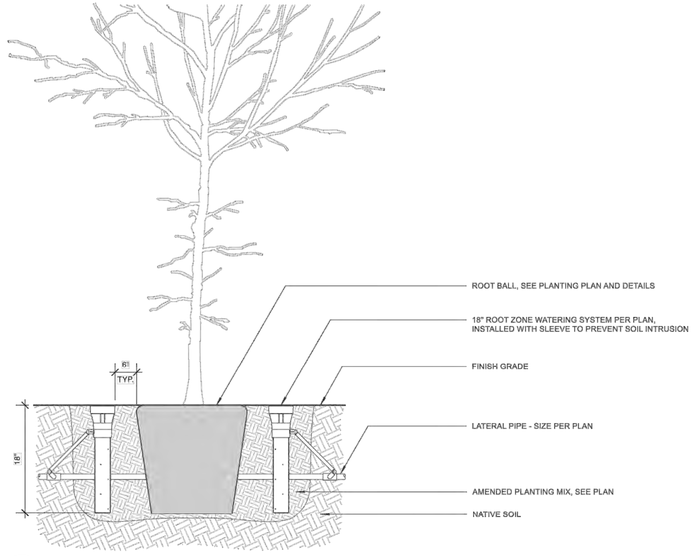


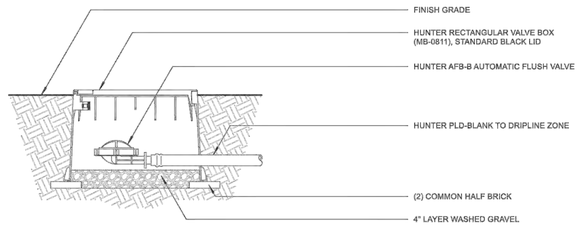
7 EMITTER W/ 1/4" TUBING AND STAKE
N.T.S.



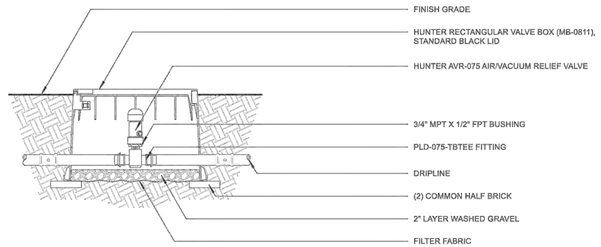
6 12" POP-UP BODY W/ FIELD BUILT SWING ARM
N.T.S.



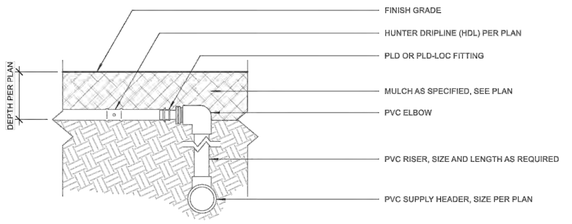
5 ROOT ZONE WATERING SYSTEM - 18"
N.T.S.



4 AUTOMATIC FLUSH VALVE
N.T.S.



3 AIR RELIEF VALVE - DRIPLINE
N.T.S.



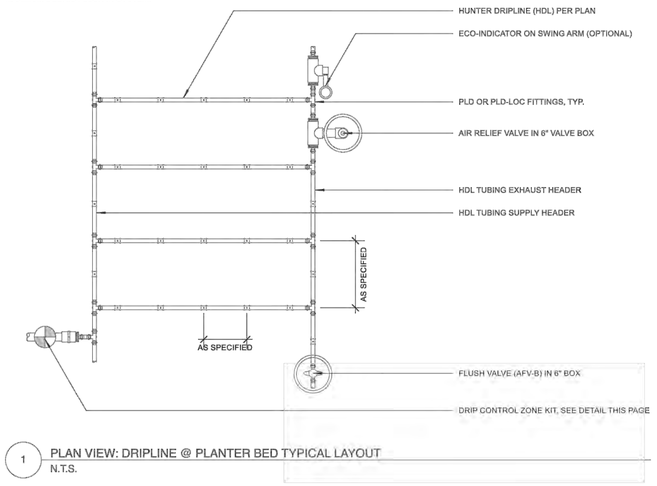
2 DRIPLINE CONNECTION W/ PVC RISER AND ELBOW
N.T.S.

DRIPLINE NOTES:

1. AIR RELIEF/VACUUM VALVE INSTALLED IN BOX AT OPTIMAL HIGHEST POINT FROM CONTROL ZONE KIT. MULTIPLE AIR RELIEF VALVES MAY BE NEEDED TO ACCOMODATE DIFFERENCES IN GRADE.

2. OPTIONAL ECO-INDICATOR TO BE INSTALLED AT OPTIMAL FURTHEST POINT FROM CONTROL ZONE KIT IN CLEAR VIEW WHEN ACTIVATED.

3. FLUSH VALVE TO BE INSTALLED AT OPTIMAL FURTHEST POINT FROM CONTROL ZONE KIT TO ALLOW FOR MAXIMUM DEBRIS FLUSH IN SYSTEM.



1 PLAN VIEW: DRIPLINE @ PLANTER BED TYPICAL LAYOUT
N.T.S.

NOT FOR CONSTRUCTION

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LICENSED LANDSCAPE ARCHITECT
MARIE S GOULET
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IRRIGATION DETAILS (2)

sheet title

L3.03

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of

11/7/2024 2:54 PM

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LIGHTING LEGEND

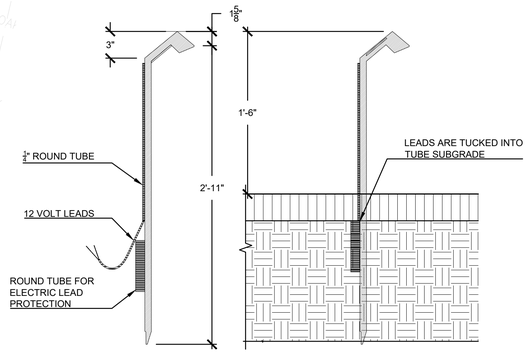
SYMBOL	APPLICATION	WATTAGE
L1	PATH LIGHT: CUSTOM STEEL LED PATH LIGHT, AVAILABLE FROM ALLEN BUBAR, ALLENKEYELECTRIC@ICLOUD.COM, (831) 484-5600	1.5W
L2	DECK AND WALL LIGHT: FX C-LL DIMMABLE LEDGE LIGHT	4 W
L3	BBQ LIGHT: FX-BQ	
	GFCI OUTLET	2 W
T	TRANSFORMER: LED DRIVER 12V 60W WATERPROOF IP67 AVAILABLE FROM LLTOP ON AMAZON. OR APPROVED EQUAL. CONFIRM LOCATIONS IN FIELD	
$	SWITCH	
$3	3 WAY SWITCH	
EXT X	EXTERIOR CIRQUIT LABEL	

LIGHTING GENERAL NOTES:

1) SEE ELECTRICAL DRAWINGS
2) CONTRACTOR TO PROVIDE ALL CONDUIT, WIRING, SWITCHES, AND TRANSFORMERS NECESSARY TO INSTALL LIGHTS IN A MANNER CONSISTENT WITH THE MANUFACTURERS SPECIFICATIONS AND ALL LOCAL AND STATE CODES AND ORDINANCES. CONTRACTOR IS RESPONSIBLE FOR ROUTING AND WIRING CIRCUITS AS NECESSARY FOR OPTIMUM SYSTEM PERFORMANCE, AND DETERMINING LOADS FOR TRANSFORMERS
3) ELECTRICAL CONTRACTOR TO INSTALL IRRIGATION CLOCK AND TO COORDINATE WIRING FOR IRRIGATION CONTRACTOR
4) ACCENT AND AREA LIGHTS TO BE INSTALLED WITH 3' OF EXTRA WIRE FOR ADJUSTMENT IN FIELD.
5) POSITION LIGHTS IN FIELD. ADJUST TO MINIMIZE LIGHT SPILLAGE AND GLARE AND TO ACHIEVE DESIGN INTENT. FINAL LAYOUT AND LOCATIONS OF LIGHTS AND TRANSFORMER

L2 DECK AND WALL LIGHT

L2 BBQ LIGHT



STEEL PATH LIGHT LOCALLY MADE BY ALLEN BUBAR

1 PATH LIGHT DETAIL
SCALE: 1 - 1/2" = 1' 0"

10' 0 10' 20'
1" = 10'

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LIGHTING PLAN

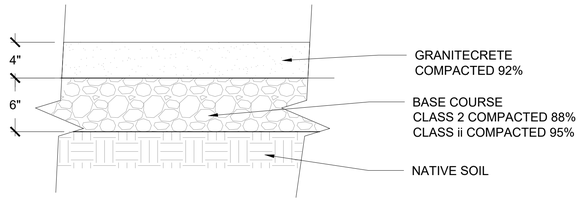
sheet title

L3.00

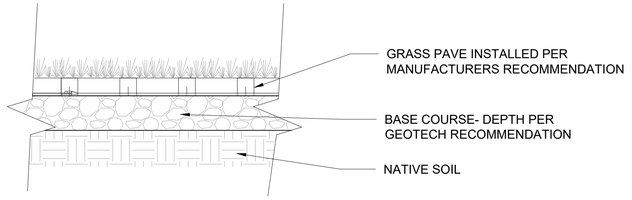
sheet no.

-- of

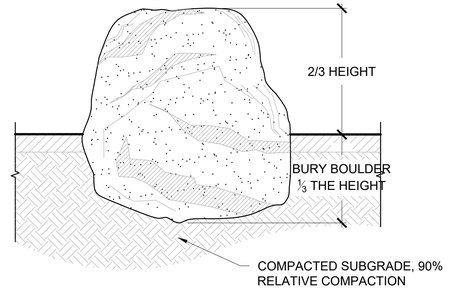
"I, MARIE GOULET, CERTIFY THAT THIS LANDSCAPING AND IRRIGATION PLAN COMPLIES WITH ALL MONTEREY COUNTY LANDSCAPING REQUIREMENTS INCLUDING USE OF NATIVE DROUGHT TOLERANT, NON-INVASIVE SPECIES, LIMITED TURF AND LOW FLOW, WATER CONSERVING IRRIGATION FIXTURES."



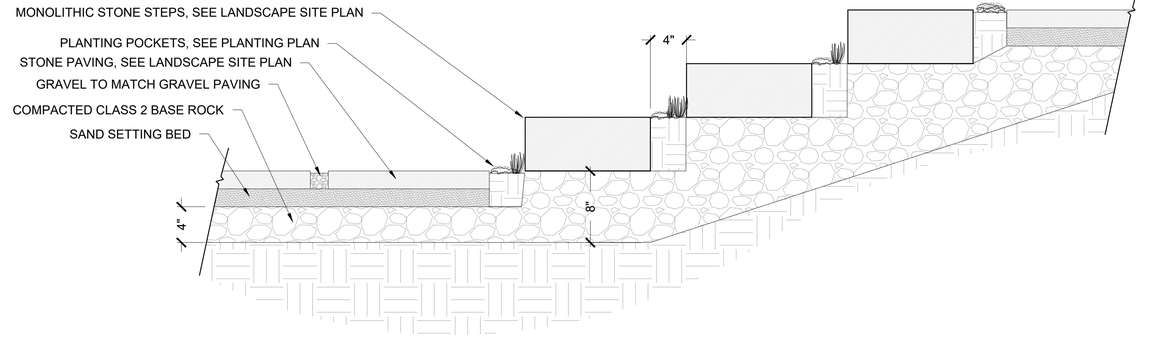
5 GRANITECRETE PAVING
SCALE: 1-1/2" = 1'-0"



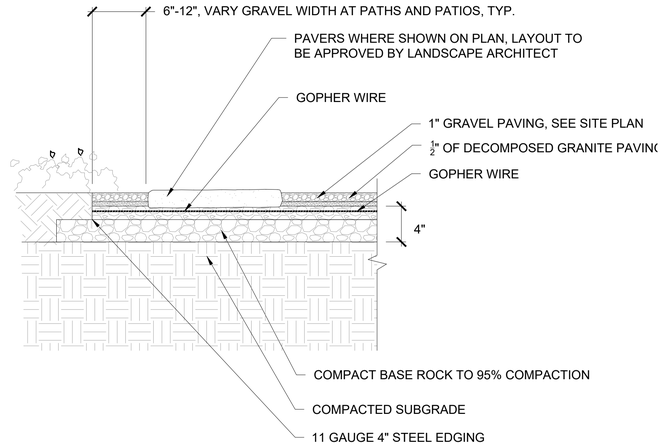
4 GRASSPAVE
SCALE: 1-1/2" = 1'-0"



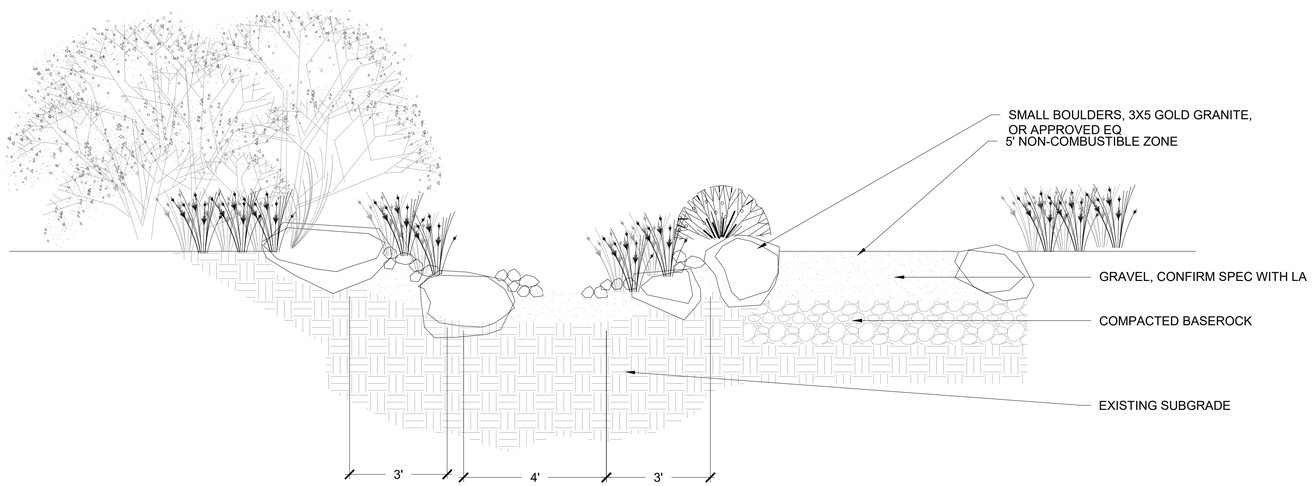
1 BOULDER
SCALE: 1" = 1'-0"



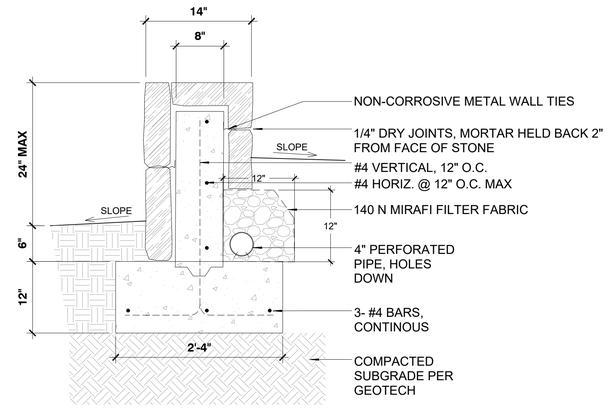
6 STEPS AND PAVER SECTION
SCALE: 1 1/2" = 1'-0"



2 GRAVEL PAVING
SCALE: 1 - 1/2" = 1'-0"



7 ROCK LINED SWALE
SCALE: 1/2" = 1'-0"



3 LOW WALL
SCALE: 1" = 1'-0"

20' 0 20 40'

1" = 20'

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WILD LAND WORKSHOP
LANDSCAPE ARCHITECTURE

LICENSED LANDSCAPE ARCHITECT
MARIE S. GOULET
6335
06/30/2026
RENEWAL DATE
08/01/2024
DATE
STATE OF CALIFORNIA

seal

ARCHITECT
HOLDREN + LIETZKE
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MONTEREY, CA 93940
831.649.6001

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SAN FRANCISCO, CA 94103

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831.649.5225

team

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26425 VIA PETRA
CARMEL, CA
93923

owner

SANTA LUCIA
PRESERVE
LOT 207
23 SAN CLEMENTE TRAIL
CARMEL, CA
93923

project

no.	description	date
2	~~PRIOR TO BFC~~ FINAL DESIGN REVIEW	~~09/19/2024~~ 11/07/2024
1	~~PRELIMINARY RESUBMITTAL~~ REVIEW	~~05/15/2024~~

date: 11.07.2024

CONSTRUCTION DETAILS

sheet title

L5.00

sheet no.
of

11/7/2024 2:54 PM

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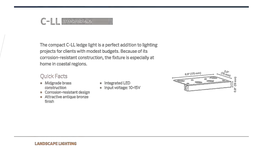
LIGHTING LEGEND

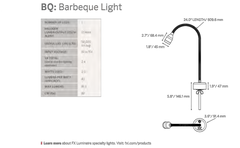
SYMBOL	APPLICATION	WATTAGE
L1	PATH LIGHT: CUSTOM STEEL LED PATH LIGHT, AVAILABLE FROM ALLEN BUBAR, ALLENKEYELECTRIC@ICLOUD.COM, (831) 484-5600	1.5W
L2	DECK AND WALL LIGHT: FX C-LL DIMMABLE LEDGE LIGHT	4 W
L3	BBQ LIGHT: FX-BQ	
	GFCI OUTLET	2 W
T	TRANSFORMER: LED DRIVER 12V 60W WATERPROOF IP67 AVAILABLE FROM LLTOP ON AMAZON. OR APPROVED EQUAL. CONFIRM LOCATIONS IN FIELD	
$	SWITCH	
$3	3 WAY SWITCH	
EXT X	EXTERIOR CIRQUIT LABEL	

LIGHTING GENERAL NOTES:

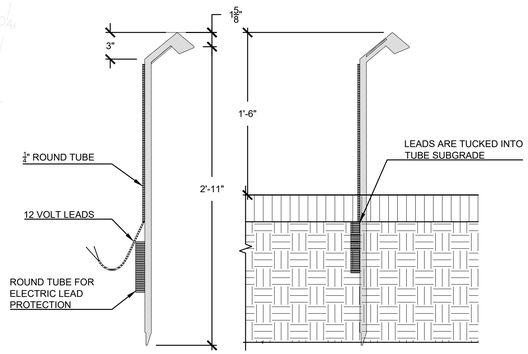
1) SEE ELECTRICAL DRAWINGS
2) CONTRACTOR TO PROVIDE ALL CONDUIT, WIRING, SWITCHES, AND TRANSFORMERS NECESSARY TO INSTALL LIGHTS IN A MANNER CONSISTENT WITH THE MANUFACTURERS SPECIFICATIONS AND ALL LOCAL AND STATE CODES AND ORDINANCES. CONTRACTOR IS RESPONSIBLE FOR ROUTING AND WIRING CIRCUITS AS NECESSARY FOR OPTIMUM SYSTEM PERFORMANCE, AND DETERMINING LOADS FOR TRANSFORMERS
3) ELECTRICAL CONTRACTOR TO INSTALL IRRIGATION CLOCK AND TO COORDINATE WIRING FOR IRRIGATION CONTRACTOR
4) ACCENT AND AREA LIGHTS TO BE INSTALLED WITH 3' OF EXTRA WIRE FOR ADJUSTMENT IN FIELD.
5) POSITION LIGHTS IN FIELD. ADJUST TO MINIMIZE LIGHT SPILLAGE AND GLARE AND TO ACHIEVE DESIGN INTENT. FINAL LAYOUT AND LOCATIONS OF LIGHTS AND TRANSFORMER



L2 DECK AND WALL LIGHT



L2 BBQ LIGHT



STEEL PATH LIGHT LOCALLY MADE BY ALLEN BUBAR

1 PATH LIGHT DETAIL
SCALE: 1 - 1/2" = 1' 0"

10' 0 10' 20'
1" = 10'

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no.	description	date:
2	FINAL DESIGN REVIEW	11.07.2024
1	PRELIMINARY DESIGN REVIEW	08.15.2024

date: 11.07.2024

LIGHTING PLAN

sheet title

L4.00

sheet no.

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11/7/2024 2:54 PM