

Exhibit C

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Tree Assessment/
Construction Impact Analysis
31 Potrero Trail

Prepared for:

Mr. William Dillinger

Prepared by:

Ono Consulting
International Society of Arboriculture
Board Certified Master Arborist #WE-9388B
ASCA Registered Consulting Arborist #744
Society of American Foresters Professional Member
311 Forest Ave, Box 14
Pacific Grove CA, 93950

January 26, 2022

Owner:

Mr. William Dillinger
147 Yarnick Rd
Great Falls, VA 22066

Architect:

Holdren Lietzke Architecture
225 Cannery Row
Monterey, CA 93940

Forester and Arborist

Ono Consulting
ISA Board Certified Master Arborist WE-9388B
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SUMMARY

Future development is proposed for this site located at 31 Potrero Trail, Carmel, CA 93923. Because protected trees forest this site, a tree assessment/ construction impact analysis has been prepared that identifies and addresses the effects that the project will have on the existing tree resources on-site as well as a list of recommendations for the project.

The project currently has a rough design and is in the preliminary planning stages. Eventual development will consist of building a new single-family home, Accessory Dwelling Unit (ADU), and driveway near protected trees which will require the pruning and removal of trees located on site and protection of others identified for retention. Remaining trees are considered to range anywhere from poor to good condition both structurally and in health and are to be protected and retained. The preliminary design would require the removal of one (1) native non-landmark Coast live oak (*Quercus agrifolia*) tree.

ASSIGNMENT/SCOPE OF PROJECT

To ensure the protection of the tree resources on-site, the property owner, Mr. William Dillinger has requested an assessment of the trees in proximity to proposed development areas and an arborist report for trees that are adjacent to these areas on this property. To accomplish this assignment, the following tasks have been completed;

- Evaluate health, structure, and preservation suitability for each tree within or adjacent (15 feet or less) to the proposed development of trees greater than or equal to six diameter inches at 24 inches above grade.
- Review proposed building site plans as provided by Holdren Lietzke Architecture.

- Make recommendations for alternative methods and preconstruction treatments to facilitate tree retention.
- Create preservation specifications, as it relates to numbered trees keyed to an annotated Tree Location Map.
- Determine the number of trees affected by construction that meet “Landmark” criteria as defined by the County of Monterey, Title 21 Monterey County Zoning Ordinance; as well as mitigation requirements for those to be affected.
- Document findings in the form of a report as required by the County of Monterey Planning Department.

LIMITATIONS

This assignment is limited to the review of plans submitted to me by Mr. William Dillinger dated December 7, 2021 to assess the effects of potential construction to trees within or adjacent to construction activities. The assessment has been made of these plans specifically and no other plans were reviewed, Ono Consulting are neither designers nor engineers and this report is explicitly based on the plans given to us. Only minor grading and erosion details are discussed in this report as it relates to tree health. It is not the intent of this report to be a monetary valuation of the trees or provide a risk assessment for any tree on this parcel, as any tree can fail at any time. No clinical diagnosis was performed on any pest or pathogen that may or may not be present. In addition to an inspection of the property, Ono Consulting relied on information provided in the preparation of this report (such as surveys, property boundaries, and property ownership) and must reasonably rely on the accuracy of the information provided. Ono Consulting shall not be responsible for another's means, methods, techniques, schedules, sequence, or procedures, or for contractor safety or any other related programs; or another's failure to complete the work per the plans and specifications.

PURPOSE

This tree Assessment/Forest management report is prepared for this parcel due to proposed construction activities that are intent on improving the existing structure located at 31 Potrero Trail, Carmel, CA 93923. The purpose of the site visit was to give an independent assessment of the existing trees that are on-site and to determine if any of the trees will be affected by the proposed project. Oak trees are considered protected trees as defined by the County of Monterey, Title 21 Monterey County Coastal Zoning Ordinance.

GOAL

The goal of this plan is to protect and maintain the Carmel Valley Area and the Santa Lucia Preserve’s forested resources through the adherence to development standards, which allow the protection, and maintenance of its forested areas. Furthermore, it is the intended goal of this Arborist report to aid in planning to offset any potential effects of the proposed development on the property while encouraging forest stability and sustainability, perpetuating the forested character of the property and the immediate vicinity.

INTRODUCTION

This forest management plan is prepared for Mr. William Dillinger, owner of the lot located at 31 Potrero Trail, Carmel, CA 93923 by Ono Consulting, Urban Foresters, and Certified Arborists due to construction. Monterey County's Zoning Ordinance Sec. 21.64.260D requires a forest management plan when tree removal is necessary of native trees six inches in diameter or greater to preserve and maintain the forest and its beneficial uses. The County identifies Coast live oak and Redwoods as native tree species that require special consideration for management.

SITE DESCRIPTION

- 1) Assessor's Parcel Number: 239-111-011-000.
- 2) Location: 31 Potrero Trail, Carmel, CA 93923.
- 3) Parcel size: 28.24 Acres
- 4) Existing Land Use: The parcel is vacant and is zoned RC/40-D-S for residential use in a Resource Conservation district.
- 5) Slope: The parcel is on a ridge, with terraced flats. Slopes range from 5% to over 25%. No development is proposed on slopes over 25%.
- 6) Soils: The parcel is located on soils classified as "Junipero sandy loam" about 30 inches deep. Paralithic bedrock is found generally at a depth of 30 to 34 inches. Runoff is medium and erosion hazard is low.
- 7) Vegetation: The vegetation is of the transitional Coast live oak forest type. It is a mixture of some Coast live oak and Coast redwood (*Sequoia sempervirens*) overstory trees with an understory comprised of Toyon (*Heteromeles arbutifolia*), Coyote bush (*Baccharis pilularis*), Poison oak (*Toxicodendron diversilobum*), Currant (*Ribes spp.*), and French broom (*Genista monspessulana*).
- 8) Forest Condition and Health: The forest condition and health are evaluated with the use of the residual trees and those of the surrounding Forest as a stand. The overall condition of the forest is healthy with most of the trees in fair to good condition with some small amount of dieback observed. A grove of dead redwood trees is to the east of the building envelope, possibly the result of a previous fire regime.

BACKGROUND/PROJECT DESCRIPTION

In December 2021, we (Ono Consulting) were contacted by Mr. William Dillinger who requested that we visit this site for an assessment of trees adjacent to or within the proposed construction areas. Mr. Dillinger requested the findings from the review and assessment of trees that occupy the land at 31 Potrero Trail, Carmel, CA 93923 be prepared and documented in a report that would work in conjunction with other conditions for approval of the building permit application.

A site visit was taken to the property where trees were assessed for health and condition at that time. The assessment focused on incorporating the preliminary location of site improvements coupled with consideration for the general goals of site improvement desired by the landowner. During this site visit, the proposed improvements assessed included preserving trees to the greatest extent feasible, maintaining the viewshed, and general aesthetic quality of the area while complying with county codes. A study of the individual trees was made to determine the treatments necessary to complete the project and meet the goals of the landowner. As a result trees within and immediately adjacent to the proposed development area were located, measured, inspected, and recorded. The assessment of each tree concluded with an opinion of whether the tree should be removed, or preserved, based on the extent and effect of construction activity on the short and long-term health of the tree. All meetings and field reviews were focused on the area immediately surrounding the proposed development.

OBSERVATIONS/DISCUSSION

The following list includes observations made while on-site and summarizes details discussed during this stage of the planning process.

- The site is forested mainly with a mixture of Coast live oak and Coast redwood trees.
- One (1) tree is proposed for removal with the current design. This tree (#465) is a dual 14-inch diameter stemmed tree in poor condition. The tree has fungus in its stem and one of the trunks is dead.
- Six (6) trees will need encroachment into root zones for the proposed driveway and fire turnaround. The proposed driveway will be slightly elevated for proper grade and should not impact the trees if significant excavation is not required, and soil is not accumulated at the base of the trees.
- Eight (8) trees will require pruning for fire truck and building clearance. Pruning should be minor and should not affect the health of the forest canopy.
- No alternate building sites were considered for this assessment as the site has a natural opening in the forest canopy and the tree removed is in poor condition.

PROJECT ASSESSMENT/CONCLUSION

Due to the high number of total trees on the site and surrounding sites and the low number of protected trees in the home area, future development should minimally impact the landscape. Home construction and driveway development will be near a number of trees, but adverse effects can be mitigated through the use of alternative building techniques. Tree removal and pruning will be necessary; however, the large population of trees on this parcel and relative high vigor of the trees on site will allow the forest to continue to exist and regenerate over time. Most of the property contains tree cover, which will remain undisturbed. No watercourses are near the planned construction. Whenever construction activities take place near trees, there is the potential for those trees to experience decline in the long-term as well. The greatest attempt has been made to identify and remove those trees likely to experience such a decline. The tree removal proposed is the minimum required to complete the project as proposed.

RECOMMENDATIONS

Pre-Construction Meeting

It is recommended that a project arborist/forester be retained and before the start of construction a meeting and training session shall be conducted to communicate and instruct personnel about tree removal, retention, and protection. The pre-construction meeting will include instruction on required tree protection and exclusionary fencing installed before grading, excavation, and construction procedures. Meeting attendees should include all involved parties such as site clearance personnel, construction managers, heavy equipment operators, and tree service operators. A certified professional such as a Monterey County qualified forester or County qualified arborist will conduct training. A list of pre-construction attendees and the materials discussed may be maintained to be provided to the county. Meeting attendees must agree to abide by tree protection and instructions as indicated during the meeting and agree to ensure tree protection will remain in place during the entire construction period.

Tree Removal

There is one (1) tree to be removed with the design. The tree removal contractor shall verify the absence of active animal or bird nesting sites before any tree removal. If any active animal or bird nesting sites are found before tree removal, work shall be stopped until a qualified biologist is consulted for further recommendations.

Tree Planting

Because it is recommended that replacement of removed trees be undertaken replacement planting is necessary. Per the Santa Lucia Preserve Development Guidelines replacement shall be at a ratio of 3:1 for a total of three (3) five-gallon Coast live oaks. Trees should be planted in the areas with the greatest opening in the stand to allow for a minimum of competition and maximum sunlight. Spacing between trees should be at least 8 feet. Occasional deep watering (more than two weeks apart) during the late spring, summer, and fall is recommended during the first two years after establishment.

Tree Protection

The health of the trees remaining should not be affected if the following practices are adhered to:

- A) Do not deposit any fill around trees, which may compact soils and alter water and air relationships. Avoid depositing fill, parking equipment, or staging construction materials near existing trees. Covering and compacting soil around trees can alter water and air relationships with the roots. Fill placed within the drip-line may encourage the development of oak root fungus (*Armillaria mellea*). As necessary, trees may be protected by boards, fencing, or other materials to delineate protection zones.
- B) Pruning shall be conducted so as not to unnecessarily injure the tree. General principles of pruning include placing cuts immediately beyond the branch collar, making clean cuts by scoring the underside of the branch first, and for live oak, avoiding the period from February through May.

- C) Native live oaks are not adapted to summer watering and may develop crown or root rot as a result. Do not regularly irrigate within the drip line of oaks. Native, locally adapted, drought-resistant species are the most compatible with this goal.
- D) Root cutting should occur outside of the springtime. Late June and July would likely be the best. Pruning of the live crown should not occur from February through May.
- E) Oak material greater than 3 inches in diameter remaining on-site for more than one month that is not cut and split into firewood should be covered with black plastic that is dug in securely around the pile. This will discourage infestation and dispersion of bark beetles.
- F) A mulch layer up to approximately 4 inches deep should be applied to the ground under selected oaks following construction. Only 1 to 2 inches of mulch should be applied within 1 to 2 feet of the trunk, and under no circumstances should any soil or mulch be placed against the root crown (base) of trees. The best source of mulch would be from chipped material generated on-site.
- G) If trees along near the development are visibly declining in vigor, a Professional Forester or Certified Arborist should be contacted to inspect the site to recommend a course of action.

Tree Protection Standards

Before the commencement of any construction activity the following tree protection measures shall be implemented and approved by a qualified arborist or forester:

- Trees located adjacent to the construction area shall be protected from damage by construction equipment by the use of temporary fencing and through the wrapping of trunks with protective materials. No stripping of topsoil or grubbing of understory shall occur in tree preservation zones.
- Fenced areas and trunk protection materials shall remain in place during the entire construction period. Should access to the area be necessary a Professional Forester or Certified Arborist must be contacted to inspect the site for a recommended course of action.
- Fencing shall consist of chain link, snowdrift, plastic mesh, hay bales, or field fence. Existing fencing may also be used.
- Fencing is not to be attached to the tree but free-standing or self-supporting so as not to damage trees. Fencing shall be rigidly supported and shall stand a minimum of height of four feet above grade and should be placed to the farthest extent possible from the base of the trees to protect the area within the trees drip line (typically 10-12 feet away from the base of a tree).
- In cases where access or space is limited for tree protection, it is permissible to protect the tree within the 10-12 foot distance after determination and approval by a qualified forester or arborist.
- Soil compaction, parking of vehicles or heavy equipment, stockpiling of construction materials, cleaning of concrete or plaster, and/or dumping of spoils or materials shall not be allowed adjacent to trees on the property especially within or near fenced areas.

During grading and excavation activities:

- All trenching, grading or any other digging or soil removal that is expected to encounter tree roots should be monitored by a qualified arborist or forester to ensure against drilling or cutting into or through major roots. Again, no stripping of topsoil or grubbing of understory shall occur in tree preservation zones.
- The project architect and qualified arborist should be on-site during excavation activities to direct any minor field adjustments that may be needed.
- Trenching for retaining walls or footings located adjacent to any tree shall be done by hand where practical and any roots greater than 3-inches diameter shall be bridged or pruned appropriately.
- Any roots that must be cut shall be cut by manually digging a trench and cutting exposed roots with a saw, vibrating knife, rock saw, narrow trencher with sharp blades, or other approved root pruning equipment.
- Any roots damaged during grading or excavation shall be exposed to sound tissue and cut cleanly with a saw.

If at any time potentially significant roots are discovered:

- The arborist/forester will be authorized to halt excavation until appropriate mitigation measures are formulated and implemented.
- If significant roots are identified that must be removed that will destabilize or negatively affects the target trees, the property owner will be notified immediately and a determination for removal will be assessed and made as required by law for treatment of the area that will not risk death decline or instability of the tree consistent with the implementation of appropriate construction design approaches to minimize effects, such as hand digging, bridging or tunneling under roots, etc...

Tree Pruning

It is to be understood that the pruning of retained trees is be expected for this site.

Pruning shall conform to the following standards:

- Clear the crown of diseased, crossing, weak, and dead wood to a minimum size of 1-1/2 inch in diameter;
- Remove stubs, cutting outside the wound wood tissue that has formed around the branch;
- Interior branches shall not be stripped out.
- Reduce end weight on heavy, horizontal branches by selectively removing small-diameter branches, no greater than 3 inches, near the ends of the scaffolds. In some cases, larger diameters may be removed depending on the situation (where critical for safety).
- Pruning cuts larger than 4 inches in diameter, except for deadwood, shall be avoided, unless deemed crucial for safety (broken, cracked, crossing, rubbing, etc.).

- Pruning cuts that expose heartwood shall be avoided whenever possible.
- Pruning shall not be performed during periods of flight of adult boring insects because fresh wounds attract pests (generally spring). Pruning shall be performed only when the danger of infestation has passed.
- All pruning shall be performed by a qualified arborist or under the supervision of an ISA Certified Arborist or Tree Worker. Arborists are required to have a State of California Contractors License for Tree Service (C-61/D49) and provide proof of worker's compensation and general liability insurance.
- All pruning shall be per the Tree Pruning Guidelines (International Society of Arboriculture) and/or the ANSI A300 Pruning Standard (American National Standard for Tree Care Operations) and adhere to the most recent edition of ANSI Z133.1.
- No more than 20 percent of live foliage shall be removed from the trees.
- Brush shall be chipped, and chips shall be spread underneath trees within the tree protection zone to a maximum depth of 6 inches, leaving the trunk clear of mulch.

Following construction, a qualified arborist should monitor trees adjacent to the area of the improvements and if any decline in health that is attributable to the construction is noted, additional trees should be planted on the site.

Amendments

The Monterey County Director of Planning may approve amendments to this plan, provided that such amendments are consistent with the provisions of the discretionary permit or building submittal. Amendments to this Forest Management Plan will be required for proposed tree removal not shown as part of this Plan when the proposed removal falls within the description of a Forest Management Plan or Amendment to an existing Forest Management Plan.

Amended Forest Management Plan

A) An amended forest Management Plan shall be required when:

1. The Monterey County Director of Planning has previously approved a Forest Management Plan for the parcel.
2. The proposed tree removal as reviewed as part of a development has not been shown in the previously approved Forest management plan

B) At a minimum, the Amended Forest Management Plan shall consist of:

1. A plot showing the location, type, and size of each tree proposed for removal, as well as the location and type of trees to be replanted,
2. A narrative describing reasons for the proposed removal, alternatives to minimize the amount and impacts of the proposed tree removal, tree replanting information, and justification for the removal of trees outside of the developed area if proposed.

Compliance

It is further understood that failure to comply with this Plan will be considered as a failure to comply with the conditions of the Use Permit.

Transfer of Responsibility

This plan is intended to create a permanent forest management program for the site. It is understood, therefore, that in the event of a change of ownership, this plan shall be as binding on the new owner as it is on the present owner. As a permanent management program, this Plan will be conveyed to the future owner upon the sale of the property.

Report Prepared by:



Justin Ono, ISA Board Certified Master Arborist #WE-9388B
ASCA Registered Consulting Arborist #744

January 26, 2022
Date

Recommendations Agreed to by landowner:

Landowner

Date

Forest Management Plan approved by:

Director of Planning

Date

TREE CHART

Tree #	Species	DBH	Health	Structure	Remove	Impacted	Height	Crown	CRZ	Comments
463	Coast live oak	12,22,36	Fair	Fair		x	55	60	30	Adjacent driveway
464	Coast live oak	27	Fair	Fair		x	35	45	20	Adjacent driveway
465	Coast live oak	10,14	Poor	Poor	x		35	25	10	14-inch stem dead, In building
466	Coast live oak	14	Fair	Fair			35	20	10	
467	Coast live oak	40	Fair	Poor			50	75	40	Decay in trunk
468	Coast live oak	19	Fair	Fair			50	45	20	
469	Coast live oak	12	Fair	Fair			30	20	10	
470	Redwood	30	Fair	Fair			65	25	25	
471	Redwood	24	Fair	Fair			60	25	25	
472	Coast live oak	24	Fair	Fair			50	50	30	
473	Coast live oak	12	Fair	Fair			20	10	10	
474	Coast live oak	8,15	Fair	Fair			40	40	20	
475	Coast live oak	12	Fair	Fair		x	50	20	15	Pruning
476	Coast live oak	12	Fair	Fair		x	20	15	10	Pruning
477	Redwood	10	Fair	Fair			45	15	10	
478	Toyon	8	Fair	Fair			30	10	10	
479	Coast live oak	15	Fair	Fair			50	25	15	
480	Coast live oak	12	Fair	Fair			35	20	10	
481	Coast live oak	24	Fair	Fair			50	45	25	
484	Coast live oak	19	Fair	Fair			45	40	20	Adjacent driveway
485	Coast live oak	15	Fair	Fair			45	40	20	
486	Coast live oak	16	Fair	Poor		x	40	40	20	Overextended, leaning into driveway
487	Coast live oak	18	Fair	Fair		x	55	45	25	Adjacent driveway, overextended
488	Coast live oak	28	Fair	Poor		x	55	45	25	Adjacent firetruck turnaround, included bark
489	Coast live oak	18	Fair	Fair			45	20	15	
490	Coast live oak	20	Fair	Fair		x	55	30	15	Adjacent firetruck turnaround
491	Coast live oak	16,18	Fair	Fair			55	60	30	

PHOTOGRAPHS



Tree #465 is proposed for removal.



A view down the proposed driveway.



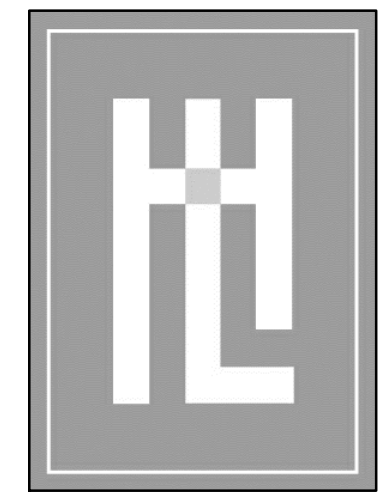
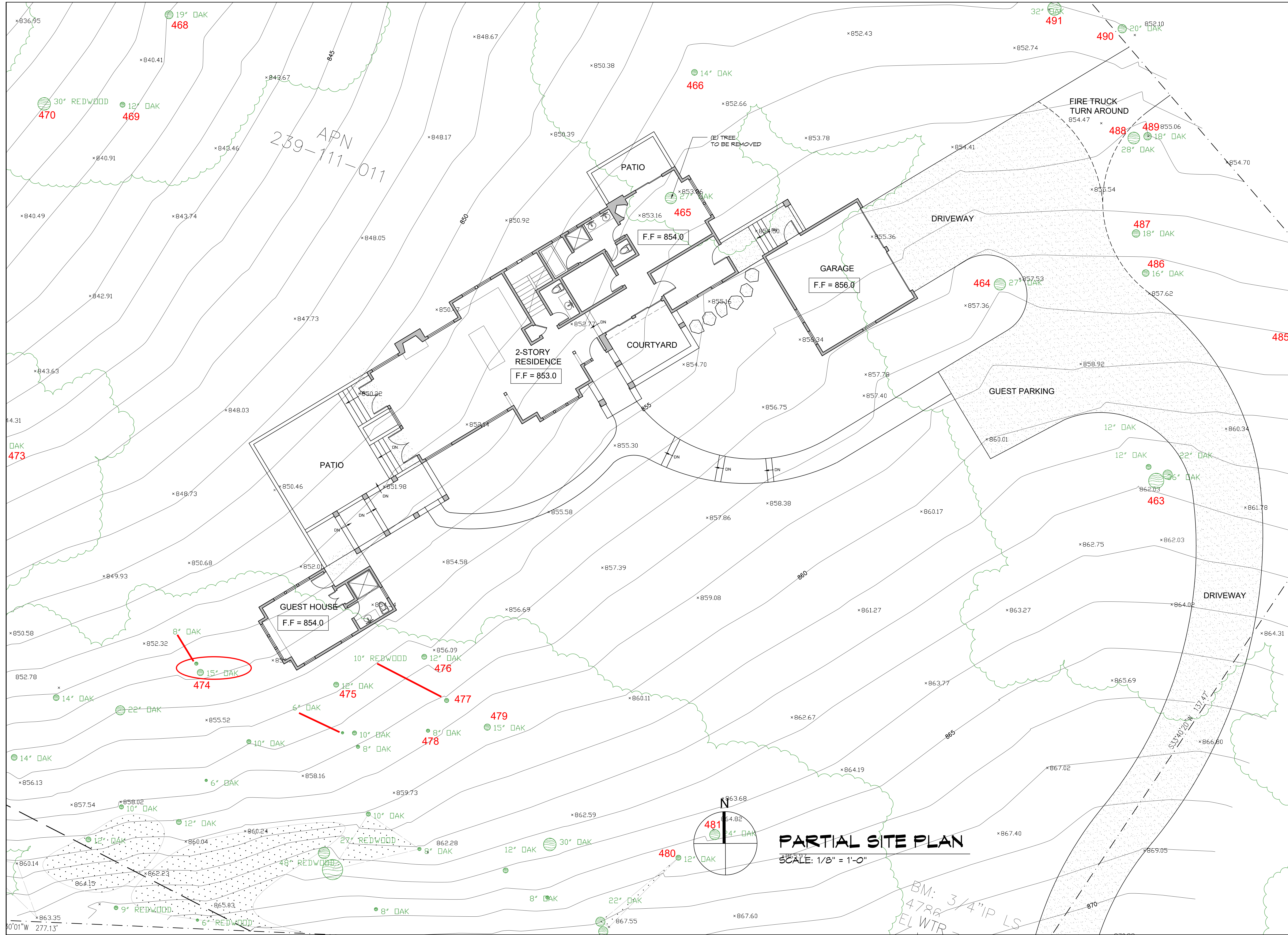
A view of the proposed fire turnaround.



A view of the proposed building site.



A view of the proposed ADU site.



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DATE: 07-DEC-2021
SCALE:
DRAWN:
JOB NUMBER: 21.17
REVISION

PARTIAL SITE PLAN
DILLINGER RESIDENCE
LOT 197
SANTA LUCIA PRESERVE, CA
A.P.N. 239-111-011

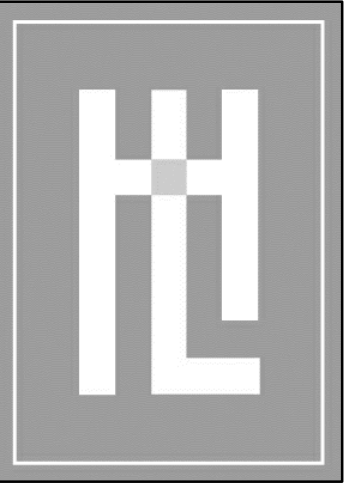
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PARTIAL SITE PLAN
SCALE: 1/8" = 1'-0"



239-APN
111-011

BM: 3/4" IP LS
478
EL WTR



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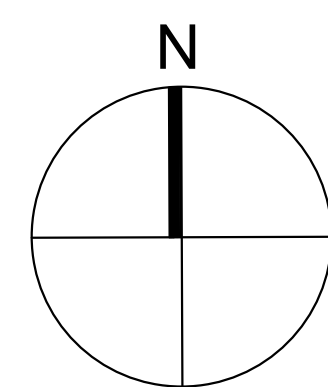
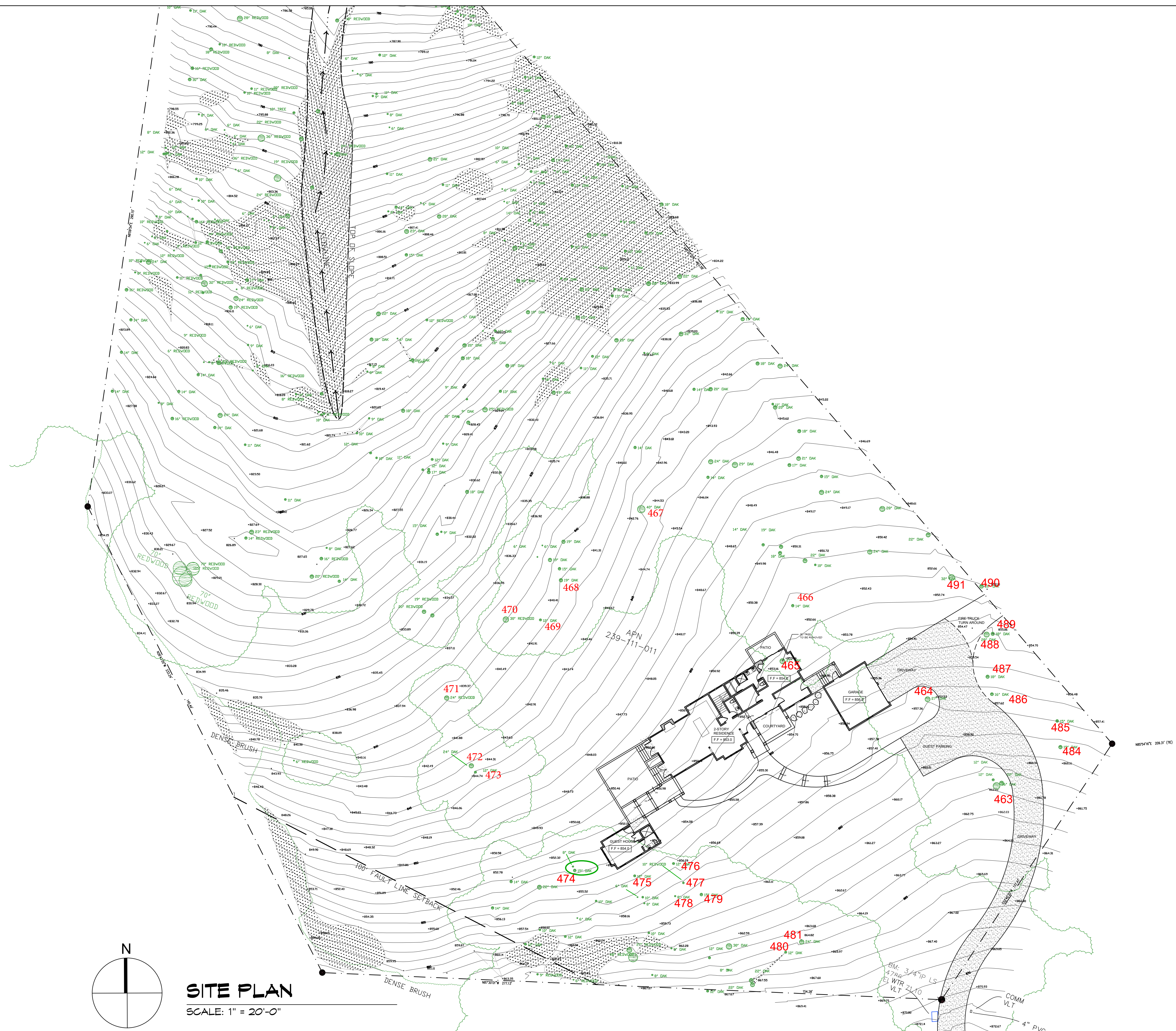
DATE: 07-DEC-2021

SCALE:

DRAWN:

JOB NUMBER: 21.17

REVISION



SITE PLAN
SCALE: 1" = 20'-0"

SITE PLAN
DILLINGER RESIDENCE
LOT 197
SANTA LUCIA PRESERVE, CA
A.P.N. 239-111-011

A1.0

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