



**CITY OF NEWPORT BEACH
COMMUNITY DEVELOPMENT DEPARTMENT
PLANNING DIVISION ACTION REPORT**

TO: CITY COUNCIL, CITY MANAGER, AND PLANNING COMMISSION
FROM: Seimone Jurjis, Assistant City Manager/Community Development Director
SUBJECT: Report of actions taken by the Community Development Director for the week ending November 22, 2024.

**COMMUNITY DEVELOPMENT DIRECTOR
OR ZONING ADMINISTRATOR ACTIONS**
(Non-Hearing Items)

Item 1: Gray Residence Staff Approval for Substantial Conformance (PA2024-0194)
Site Address: 415 North Star Lane

Action: Approved

Council District 3

APPEAL PERIOD: An appeal or call for review may be filed with the Director of Community Development or City Clerk, as applicable, within fourteen (14) days following the date the action or decision was rendered unless a different period is specified by the Municipal Code (e.g., Title 19 allows ten (10) day appeal period for tentative parcel and tract maps, lot line adjustments, or lot mergers). For additional information on filing an appeal, contact the Planning Division at 949 644-3200.



COMMUNITY DEVELOPMENT DEPARTMENT

PLANNING DIVISION

100 Civic Center Drive, P.O. Box 1768, Newport Beach, CA 92658-8915

(949) 644-3200 Fax: (949) 644-3229

www.newportbeachca.gov

COMMUNITY DEVELOPMENT DIRECTOR ACTION LETTER

APPLICATION: Gray Residence (PA2024-0194)
▪ Staff Approval for Substantial Conformance

APPLICANT: Srour & Associates

LOCATION: 415 North Star Lane

LEGAL DESCRIPTION: Lot 113 of Tract No. 4224

On **November 21, 2024**, the Community Development Director approved Staff Approval (PA2024-0194) to allow changes to an approved project and found said changes to be minor and in substantial conformance with the approved Coastal Development Permit (PA2022-020) and prior Staff Approval (PA2023-0038). The Applicant proposes to increase the addition to the single-unit residence by 120 square feet on the first floor and raise the height of the roof approximately 5-feet to a height of approximately 28 feet. This approval is based on the findings and subject to the following conditions.

ZONING DISTRICT/GENERAL PLAN

- **General Plan Land Use Plan Category:** RS-D (Single Unit Residential Detached)
- **Zoning District:** R-1-6000 (Single-Unit Residential)
- **Coastal Land Use Plan Category:** RSD-B (Single Unit Residential Detached) – (6.0 – 9.9 DU/AC)
- **Coastal Zoning District:** R-1-6000 (Single-Unit Residential)

I. BACKGROUND AND PROPOSED CHANGES

On May 26, 2022, the Zoning Administrator approved a Coastal Development Permit (CDP) (PA2022-020) to allow the construction of a 990 square-foot second story addition, including an elevator, and the conversion of 290 square-feet of the garage to a living area within an existing single-unit dwelling with an attached two-car garage and a detached two-car garage (Attachment No. CD 2). A CDP was required for the project as the proposed additions exceeded 10% of the existing floor area. The project complied with all applicable development standards and no deviations from development standards were requested.

On July 20, 2023, the Community Development Director approved a Staff Approval (PA2023-0038) allowing minor changes to the approved CDP. The proposed changes included increasing the area of the addition by 305 square-feet above the detached

garage and connecting the new living area to the existing single-unit dwelling (Attachment No. CD 3). The changes were found to be in substantial conformance to the approved CDP.

On August 28, 2024, Building Permit No. XR2022-2463 was issued for construction of the project. On October 22, 2024, the applicant requested additional changes to the project that include an addition of 120 square-feet to the living area and raising the height of the dwelling approximately 4.89 feet to a height of 27-feet, 11.25-inches (approximately 28 feet).

II. FINDINGS

Pursuant to Section 20.54.070 (Changes to an Approved Project), the Community Development Director may authorize minor changes to an approved site plan, architecture, or the nature of the approved use, without a public hearing, and waive the requirement for a new coastal development permit application. This staff approval is based on the following findings and facts in support of the findings.

Finding:

A. *The changes are consistent with all applicable provisions of this Zoning Code.*

Facts in Support of Finding:

1. The proposed change complies with applicable residential development standards of Title 21 (Local Coastal Program Implementation Plan) of the Newport Beach Municipal Code (NBMC) including, but not limited to, floor area limitation, setbacks, height, and parking.
 - a. The property is in the R-1-6000 Zoning District that allows a maximum lot coverage of 60% pursuant to Section 21.18.030 (Residential Coastal Zoning Districts General Development Standards). The 120 square-foot addition will reduce a covered deck area and there are no changes to the proposed lot coverage. The proposed lot coverage for the property is 55%.
 - b. The project (including the proposed addition) provides the minimum required setbacks, which are 10-feet along the front property line along the bayside, 6-feet along each side property line, and 6-feet along the rear property line abutting North Star Lane.
 - c. The highest ridge for the sloped roof is approximately 28 feet from established grade, which is less than the maximum allowed 29-feet for a sloped roof.
 - d. The project includes garage parking for a total of three vehicles, complying with the minimum three-car garage parking requirement for single-unit dwellings with more than 4,000 square feet of habitable floor area. The

proposed habitable floor area, including the proposed change, is 4,390 square-feet and the existing single-unit dwelling provides a two-car garage that meets the required interior clear dimensions of 20-feet by 20-feet and another one-car garage that meets the required interior clear dimension of 10-feet by 20-feet.

Finding:

- B. *The changes do not involve a feature of the project that was a basis for or subject of findings or exemptions in a negative declaration or Environmental Impact Report for the project.*

Facts in Support of Finding:

1. The project was categorically exempt from the requirements of CEQA under Class 3 (New Construction or Conversion of Small Structures), which exempts the demolition of up to three single-unit dwellings and construction of up to three single-unit dwellings in urbanized areas.
2. The proposed request is to construct an additional 120 square-feet of livable area for the single-unit dwelling and to raise the height of the dwelling. No new dwelling units are proposed, and the proposed change will not compromise the original Class 3 (New Construction or Conversion of Small Structures) exemption under the CEQA Guidelines.

Finding:

- C. *The changes do not involve a feature of the project that was specifically addressed or was the subject of a condition(s) of approval for the project or that was a specific consideration by the applicable review authority in the project approval.*

Facts in Support of Finding:

1. The proposed change does not involve a feature that was specifically addressed or was the subject of a condition of approval for the coastal development permit. The proposed changes are consistent with the residential development standards of the NBMC and do not include any features that would impact public access or views. Therefore, the project would not impact the prior findings related to public access or views in the area.
2. The proposed change was not part of a specific consideration by the Zoning Administrator for approval.

Finding:

- D. *The changes do not result in an expansion or change in operational characteristics of the use.*

Fact in Support of Finding:

1. The prior coastal development permit approved the remodel and addition of an existing single-unit dwelling and the proposed change will allow a minor addition to the overall scope of work. No new dwelling units are proposed, and the additional proposed changes will not alter the existing use of the property as a single-unit dwelling.

III. CONDITIONS OF APPROVAL

1. All previous conditions of approval for Coastal Development Permit (PA2022-020) and Staff Approval (PA2023-0038) shall remain in full force and effect.
2. The development authorized by this staff approval shall be in substantial conformance with the approved project plans (Attachment No. CD 3).
3. The Community Development Director may add to or modify conditions to this staff approval or revoke this staff approval upon determination that the addition, which is the subject of this staff approval, causes injury, or is detrimental to the public health, safety, peace, or general welfare of the community if the property is operated or maintained so as to constitute a public nuisance.
4. This approval does not relieve the applicant of compliance with other City or State requirements. The Applicant is required to obtain all applicable permits from the City Building Division and Fire Department. Prior to the issuance of any building, mechanical, and/or electrical permits, architectural drawings and structural design plans shall be submitted to the City of Newport Beach for review and approval by the applicable departments. A copy of these conditions of approval shall be incorporated into the drawings approved for the issuance of permits.
5. *To the fullest extent permitted by law, applicant shall indemnify, defend and hold harmless the City, its City Council, its boards and commissions, officials, officers, employees, and agents from and against any and all claims, demands, obligations, damages, actions, causes of action, suits, losses, judgments, fines, penalties, liabilities, costs and expenses (including without limitation, attorney's fees, disbursements and court costs) of every kind and nature whatsoever which may arise from or in any manner relate (directly or indirectly) to City's approval of the **Gray Residence including, but not limited to, Staff Approval (PA2024-0194)**. This indemnification shall include, but not be limited to, damages awarded against the City, if any, costs of suit, attorneys' fees, and other expenses incurred in connection with such claim, action, causes of action, suit or proceeding whether incurred by applicant, City, and/or the parties initiating or bringing such proceeding. The applicant shall indemnify the City for all of City's costs, attorneys' fees, and damages which City incurs in enforcing the indemnification provisions set forth in this condition. The applicant shall pay to the City upon demand any amount owed*

to the City pursuant to the indemnification requirements prescribed in this condition.

APPEAL PERIOD: An appeal or call for review may be filed with the Director of Community Development or City Clerk, as applicable, within fourteen (14) days following the date the action or decision was rendered. For additional information on filing an appeal, contact the Planning Division at 949 644-3200.

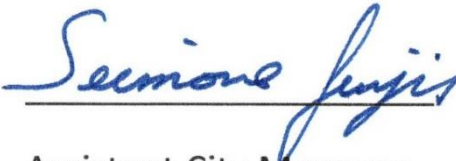
Prepared by:



Jenny Tran, Associate Planner

LAW/jt

Approved by:



Assistant City Manager

- Attachments:
- CD 1 Vicinity Map
 - CD 2 Resolution No. ZA2022-037
 - CD 3 Community Development Director Action Letter (PA2023-0038)
 - CD 4 Project Plans

Attachment No. CD 1

Vicinity Map

VICINITY MAP



Staff Approval
(PA2024-0194)

415 North Star Lane

Attachment No. CD 2

Resolution No. ZA2022-037

RESOLUTION NO. ZA2022-037

A RESOLUTION OF THE ZONING ADMINISTRATOR OF THE CITY OF NEWPORT BEACH, CALIFORNIA, APPROVING COASTAL DEVELOPMENT PERMIT NO. CD2022-008 FOR ADDITIONS TO AN EXISTING SINGLE-FAMILY RESIDENCE LOCATED AT 415 NORTH STAR LANE (PA2022-020)

THE ZONING ADMINISTRATOR OF THE CITY OF NEWPORT BEACH HEREBY FINDS AS FOLLOWS:

SECTION 1. STATEMENT OF FACTS.

1. An application was filed by Gordon and Kristen Gray (“Applicants”), with respect to property located at 415 North Star Lane, requesting approval of a coastal development permit (“CDP”).
2. The property is legally described as Lot 113 of Tract 4224, in the City of Newport Beach, County of Orange, State of California.
3. The Applicant proposes to construct a 990-square-foot second story addition, add an elevator, and convert 190 square-feet of garage to living area within an existing single-family residence with an attached 2-car garage and a detached 2-car garage. A CDP is required for the project since the proposed addition exceeds 10 percent of the existing floor area. No site improvements or bulkhead repair are proposed as part of the scope of work. The project complies with all applicable development standards, including height, setbacks and parking, and no deviations are requested.
4. The subject property is designated RS-D (Single Unit Residential Detached) by the General Plan Land Use Element and is located within the R-1-6,000 (Single-Unit Residential) Zoning District.
5. The subject property is located within the coastal zone. The Coastal Land Use Plan category is RSD-B (Single Unit Residential Detached [6.0 – 9.9 DU/AC]) and the property is located within the R-1-6,000 (Single-Unit Residential) Coastal Zone District.
6. A public hearing was held on May 26, 2022, via Zoom. A notice of time, place, and purpose of the hearing was given in accordance with the Newport Beach Municipal Code (NBMC). Evidence, both written and oral, was presented to, and considered by, the Zoning Administrator at this hearing.

SECTION 2. CALIFORNIA ENVIRONMENTAL QUALITY ACT DETERMINATION.

1. This project is categorically exempt pursuant to Title 14 of the California Code of Regulations Section 15301, Division 6, Chapter 3, Guidelines for Implementation of the California Environmental Quality Act (“CEQA”) under Class 1 (Existing Facilities), because it has no potential to have a significant effect on the environment.

2. Class 1 exemption includes additions of less than 50 percent to existing structures. The proposed project consists of a 990-square-foot second story addition and the conversion of 190 square-feet of garage to living area. Net additions to the existing structure are approximately 35 percent. Therefore, the project complies with the scope identified under the Class 1 exemption.

SECTION 3. REQUIRED FINDINGS.

In accordance with Newport Beach Municipal Code (“NBMC”) Section 21.52.015 (Coastal Development Permits, Findings and Decision), the following findings and facts in support of such findings are set forth:

Finding:

- A. *Conforms to all applicable sections of the certified Local Coastal Program.*

Facts in Support of Finding:

1. The proposed development complies with applicable residential development standards including, but not limited to, setbacks, height, and on-site parking.
 - A. The proposed development will provide the minimum required setbacks, which are ten (10) feet along the front property line abutting Newport Bay, six (6) feet along the rear property line, and six (6) feet along each side property lines.
 - B. The highest guardrail is no more than 24 feet high, and the highest roof ridge is no more than 29 feet in height, measured from the established grade level of 10.8 feet based on the North American Vertical Datum of 1988 (“NAVD88”), which complies with the maximum height limitation.
 - C. The project includes enclosed garage parking for four (4) vehicles, which exceeds the minimum parking requirement for single-family residences with less than 4,000 square feet of habitable floor area.
2. The neighborhood is predominantly developed with one (1)- and two (2)-story, single-family residences. The proposed design, bulk, and scale of the development will be consistent with the existing neighborhood pattern of development and expected future development.
3. A Coastal Hazards Report and Sea Level Rise Analysis was prepared Geo Soils, Inc. dated November 5, 2021, for the project. The current maximum bay water elevation is 7.7 North American Vertical Datum of 1988 (NAVD88) and is not expected to exceed the existing 10.9 feet (NAVD88) top of bulkhead elevation during high tide or storm events. The report analyzes future sea level rise scenarios assuming a 3-foot increase in the maximum water level over the next 75 years (i.e., the life of the structure). Therefore, the sea level is estimated to reach approximately 10.7 feet (NAVD88) - (the likely range

for sea level rise over 75-year design life of the structure based on low risk aversion estimates for sea level rise provided by the State of California, Sea Level Rise Guidance: 2018 Update).

4. On March 23, 2021, the City Council approved updated Waterfront Project Design Guidelines and Standards, Harbor Design Criteria Commercial & Residential Facilities. The guidelines require that any bulkhead structure permitted within the years 2021 through 2025 must have a minimum bulkhead elevation of 10.9 feet (NAVD88) with a design for adaptability elevation of 14.4 feet (NAVD88). The project has been conditioned to raise the bulkhead to an elevation of 10.9 feet (NAVD88). Geo Soils, Inc. has confirmed the bulkhead design can be raised up to 14.4 feet (NAVD88) if needed and in compliance with the updated guidelines.
5. The existing seawall/bulkhead does not need to be repaired/replaced per the report's recommendations, flooding, wave runup, and erosion will not significantly impact this property over the proposed 75-year economic life of the development. The report concludes that the proposed project will be safe from flooding hazards for the next 75 years with the existing bulkhead.
6. The finished floor elevation of the first floor of the existing living area is 11.56 feet (NAVD88), which exceeds the minimum 9.0-foot (NAVD88) elevation standard for new structures and exceeds the minimum requirements for sea level rise (10.9 feet NAVD 88) for the anticipated 75-year life of the structure.
7. Pursuant to NBMC Section 21.30.030(C)(3)(d)(i)(iv) – (Development Standards - Protective Structures), the property owner will be required to enter into an agreement with the City waiving any potential right to protection to address situations in the future in which the development is threatened with damage or destruction by coastal hazards (e.g., waves, erosion, and sea level rise). This requirement is included as a condition of approval that will need to be satisfied prior to final building permit inspection, respectively
8. The property owner will also be required to acknowledge any hazards present at the site and unconditionally waive any claim to damage or liability against the decision authority, consistent with NBMC Section 21.30.015(D)(3)(c) – (Waterfront Development - Development Standards). This requirement is included as a condition of approval that will need to be satisfied prior to the issuance of building permits, respectively.
9. The property is located in an area known for the potential of seismic activity and liquefaction. All projects are required to comply with the California Building Code (CBC) and Building Division standards and policies. Geotechnical investigations specifically addressing liquefaction are required to be reviewed and approved prior to the issuance of building permits. Permit issuance is also contingent on the inclusion of design mitigation identified in the investigations. Construction plans are reviewed for compliance with approved investigations and CBC prior to building permit issuance.
10. The property is located adjacent to coastal waters. A Construction Erosion Control Plan was provided to implement temporary Best Management Practices (BMPs) during

construction to minimize erosion and sedimentation and to minimize pollution of runoff and coastal waters derived by construction chemicals and materials. The project design also addresses water quality through the inclusion of a post-construction drainage system that includes drainage and percolation features designed to retain dry weather and minor rain event runoff on-site. Any water not retained on-site is directed to the City's storm drain system.

11. The project design addresses water quality with a construction erosion control plan that outlines temporary Best Management Practices (BMPs) to be implemented during construction to minimize erosion and sedimentation, and to minimize pollution of runoff derived by construction chemicals and materials. No water quality impacts to coastal waters are anticipated based upon the location and elevation of the property.
12. Proposed landscaping complies with Implementation Plan Section 21.30.075 (Landscaping). A condition of approval is included that requires drought-tolerant species. Prior to issuance of building permits, the final landscape plans will be reviewed to verify invasive species are not planted.
13. The property is not located near designated public viewpoints or coastal view roads and will not impact public coastal views. The project site is not located adjacent to a coastal view road, public viewpoint, public park or beach, or public accessway, as identified in the Coastal Land Use Plan. Furthermore, an investigation of the project site and surrounding area did not identify any other public view opportunities. The project site may be located within the viewshed of distant public viewing areas, however the project is located on a coastal lot and will replace an existing single-family home with a new single-family home that complies with all applicable Local Coastal Program development standards and maintains a building envelope consistent with the existing neighborhood pattern of development. Therefore, the project does not have the potential to degrade the visual quality of the Coastal Zone or result in significant adverse impacts to public views.

Finding:

- B. Conforms with the public access and public recreation policies of Chapter 3 of the Coastal Act if the project is located between the nearest public road and the sea or shoreline of any body of water located within the coastal zone.*

Facts in Support of Finding:

1. The project site is located between the nearest public road and the sea or shoreline; however, the project will not affect the public's ability to gain access to use and/or view the coast and nearby recreational facilities. The existing residential development neither provides nor inhibits public coastal access. Implementation Plan Section 21.30A.040 (Determination of Public Access/Recreation Impacts) requires that the provision of public access bear a reasonable relationship between the requirement and the project's impact and be proportional to the impact. In this case, the project involves additions to an existing single-family residence. Therefore, the project does not involve a change in land use, density or intensity that will result in increased demand on public access and recreation opportunities.

2. The project is designed and sited so as not block or impede existing public access opportunities and occurs within the confines of private property. Existing coastal access conditions will not be affected by the project. Vertical and lateral coastal access is currently provided and will continue to be provided by North Star Beach, immediately across the street to the north of the subject property.

SECTION 4. DECISION.

NOW, THEREFORE, BE IT RESOLVED:

1. The Zoning Administrator of the City of Newport Beach hereby approves Coastal Development Permit No. CD2022-008, subject to the conditions set forth in Exhibit "A," which is attached hereto and incorporated by reference.
2. This action shall become final and effective 14 days following the date this Resolution was adopted unless within such time an appeal or call for review is filed with the Community Development Director in accordance with the provisions of Title 21 Local Coastal Implementation Plan, of the Newport Beach Municipal Code. Final action taken by the City may be appealed to the Coastal Commission in compliance with Section 21.64.035 of the City's certified LCP and Title 14 California Code of Regulations, Sections 13111 through 13120, and Section 30603 of the Coastal Act.

PASSED, APPROVED, AND ADOPTED THIS 26TH DAY OF MAY, 2022.



Jaime Murillo
Zoning Administrator

EXHIBIT "A"

CONDITIONS OF APPROVAL

Planning Division

1. The development shall be in substantial conformance with the approved site plan, floor plans and building elevations stamped and dated with the date of this approval (except as modified by applicable conditions of approval).
2. Revisions to the approved plans may require an amendment to this Coastal Development Permit or the processing of a new coastal development permit.
3. Coastal Development Permit No. CD2022-008 shall expire unless exercised within 24 months from the date of approval as specified in NBMC Section 21.54.060 (Time Limits and Extensions), unless an extension is otherwise granted.
4. The project is subject to all applicable City ordinances, policies, and standards, unless specifically waived or modified by the conditions of approval.
5. The Applicant shall comply with all federal, state, and local laws. Material violation of any of those laws in connection with the use may be cause for revocation of this Coastal Development Permit.
6. This Coastal Development Permit may be modified or revoked by the Zoning Administrator if determined that the proposed uses or conditions under which it is being operated or maintained is detrimental to the public health, welfare or materially injurious to property or improvements in the vicinity or if the property is operated or maintained so as to constitute a public nuisance.
7. Prior to issuance of a building permit, a copy of the Resolution, including conditions of approval Exhibit "A", shall be incorporated into the Building Division and field sets of plans.
8. Prior to the issuance of a building permit, the Applicant shall pay any unpaid administrative costs associated with the processing of this application to the Planning Division.
9. *The existing seawall shall be maintained with a minimum top of wall elevation of 10.9 feet with adaptability up to 14.4 feet (NAVD88 datum) in accordance with the recommendations provided in the Coastal Hazards Report and Sea Level Rise Analysis prepared by Geo Soils, Inc. dated November 5, 2021.*
10. Prior to final building permit inspection, an agreement in a form approved by the City Attorney between the property owner and the City shall be executed and recorded waiving rights to the construction of future shoreline protection devices including the repair and maintenance, enhancement, reinforcement, or any other activity affecting the bulkhead, that results in any encroachment seaward of the authorized footprint of the

bulkhead or other shoreline protective device. The agreement shall be binding against the property owners and successors and assigns.

11. *Prior to the issuance of a building permit, the property owner shall submit a notarized signed letter acknowledging all hazards present at the site, assuming the risk of injury or damage from such hazards, unconditionally waiving any claims of damage against the City from such hazards, and to indemnify and hold harmless City, its City Council, its boards and commissions, officials, officers, employees, and agents from and against any and all claims, demands, obligations, damages, actions, causes of action, suits, losses, judgments, fines, penalties, liabilities, costs and expenses (including without limitation, attorney's fees, disbursements and court costs) of every kind and nature whatsoever which may arise from or in any manner relate (directly or indirectly) to City's approval of development. This letter shall be scanned into the plan set prior to building permit issuance.*
12. This approval does not authorize any new or existing improvements (including landscaping) on California Coastal Permit Jurisdiction, State tidelands, public beaches, or the public right-of-way. Any improvements located on tidelands, submerged lands, and/or lands that may be subject to the public trust shall require a coastal development permit (CDP) approved by the California Coastal Commission (Coastal Commission). Prior to the issuance of building permits, the applicant shall provide a copy of said coastal development permit or CDP waiver or documentation from the Coastal Commission that subject improvements are not subject to the permit requirements of the Coastal Act and/or not located within the permit jurisdiction of the Coastal Commission.
13. No demolition or construction materials, equipment debris, or waste, shall be placed or stored in a location that would enter sensitive habitat, receiving waters, or a storm drain or result in impacts to environmentally sensitive habitat areas, streams, wetland or their buffers.
14. The discharge of any hazardous materials into storm sewer systems or receiving waters shall be prohibited. Machinery and equipment shall be maintained and washed in confined areas specifically designed to control runoff. A designated fueling and vehicle maintenance area with appropriate berms and protection to prevent spillage shall be provided as far away from storm drain systems or receiving waters as possible.
15. Debris from demolition shall be removed from work areas each day and removed from the project site within 24 hours of the completion of the project. Stockpiles and construction materials shall be covered, enclosed on all sites, not stored in contact with the soil, and located as far away as possible from drain inlets and any waterway.
16. Trash and debris shall be disposed in proper trash and recycling receptacles at the end of each construction day. Solid waste, including excess concrete, shall be disposed in adequate disposal facilities at a legal disposal site or recycled at a recycling facility.
17. Should the property be sold or otherwise come under different ownership, any future owners or assignees shall be notified of the conditions of this approval by the current property owner or agent.

18. To the fullest extent permitted by law, Applicant shall indemnify, defend and hold harmless City, its City Council, its boards and commissions, officials, officers, employees, and agents from and against any and all claims, demands, obligations, damages, actions, causes of action, suits, losses, judgments, fines, penalties, liabilities, costs and expenses (including without limitation, attorney's fees, disbursements and court costs) of every kind and nature whatsoever which may arise from or in any manner relate (directly or indirectly) to City's approval of **Gray Residence including, but not limited to, Coastal Development Permit No. CD2022-008 (PA2022-020)**. This indemnification shall include, but not be limited to, damages awarded against the City, if any, costs of suit, attorneys' fees, and other expenses incurred in connection with such claim, action, causes of action, suit or proceeding whether incurred by Applicant, City, and/or the parties initiating or bringing such proceeding. The Applicant shall indemnify the City for all of City's costs, attorneys' fees, and damages, which City incurs in enforcing the indemnification provisions set forth in this condition. The Applicant shall pay to the City upon demand any amount owed to the City pursuant to the indemnification requirements prescribed in this condition.

Public Works Department

19. All improvements shall be constructed as required by Ordinance and the Public Works Department.
20. An encroachment permit is required for all work activities within the public right-of-way.
21. The damaged driveway approach shall be reconstructed per City Standard STD#162.
22. A new 36-inch box street tree shall be installed along the North Star Lane frontage.
23. All non-standard hardscape including pavers and rock within the North Star Lane frontage shall be removed and turf or drought tolerant landscaping installed.
24. The existing driveway shall be plugged per City Standard STD# 165.
25. A new sewer clean out shall be installed on the existing sewer lateral per City Standard STD# 406.
26. All improvements shall comply with the City's sight distance requirement. See City Standard STD# 110.

Building Division

27. Prior to issuance of a building permit, the approved Construction Pollution Prevention Plan (CPPP) shall be submitted with the Building Permit plans. Implementation shall be in compliance with the approved CPPP, and any changes could require separate review and approval by the Building Division.
28. A drainage plan will be required due to new roof structure over second floor addition. Any other new or replaced impervious surface areas must be included in determining

the required means of collecting site water runoff for percolation into site soils before discharging to city storm drain system.

Attachment No. CD 3

Community Development Director Action
Letter (PA2023-0038)



COMMUNITY DEVELOPMENT DEPARTMENT
PLANNING DIVISION
100 Civic Center Drive, P.O. Box 1768, Newport Beach, CA 92658-8915
949-644-3200
www.newportbeachca.gov

COMMUNITY DEVELOPMENT DIRECTOR
ACTION LETTER

Subject: Gray Residence Substantial Conformance (PA2023-0038)
▪ Staff Approval

Site Location 415 North Star Lane

Applicant Gordon and Kristen Gray

Legal Description Lot 113 of Tract 4224

On **July 20, 2023**, the Community Development Director found the proposed project in substantial conformance and approved Staff Approval (PA2023-0038) allowing minor revisions to a previously approved residential remodel and addition approved by Coastal Development Permit (CDP) No. CD2022-008 (PA2022-020), which was approved by the Zoning Administrator on May 26, 2022. The applicant proposes to add 305 square feet of living area above a detached garage and connect the new living area to the existing house. The proposed changes do not intensify the existing use and are in substantial conformance with CD2022-008. This approval is based on the following analysis.

LAND USE AND ZONING

- **General Plan Land Use Plan Category:** RS-D (Single Unit Residential Detached)
- **Zoning District:** R-1-6000 (Single-Unit Residential)
- **Coastal Land Use Category:** RSD-B (Single Unit Residential Detached – 6.0 - 9.9 DU/AC)
- **Coastal Zoning District:** R-1-6000 (Single-Unit Residential)

I. PREVIOUS APPROVAL

On May 26, 2022, the Zoning Administrator approved CD2022-008 (PA2022-020) allowing a 990-square-foot second story addition, including an elevator, and the conversion of 290 square feet of garage area to living area within an existing single-unit residence that provides an attached 2-car garage and a detached 2-car garage. A CDP was required for the project as the proposed additions exceeded 10 percent of the existing floor area. The project complied with all applicable development standards and no deviations from development standards were requested or approved. The resolution for approval is included as Attachment No. CD 2.

II. PROPOSED CHANGES

The applicant requests a staff approval to allow an additional 305 square feet of living area above the existing detached garage and connect the added living area to the existing house, and a finding of substantial conformance with the previously approved CDP.

The proposed project conforms to all applicable development standards, including setbacks, lot coverage, height and off-street parking as evidenced by the project plans (Attachment No. CD 3) and illustrated in Table 1 below:

Table 1 – Development Standards			
	Existing	Approved	Proposed
Setbacks (min.)			
Front (bay)	10 feet	10 feet	10 feet
Sides	6 feet	6 feet	6 feet
Rear (street)	6 feet	6 feet	6 feet
Parking	2-car garage	4-car garage	4-car garage
Lot Coverage	60% of lot area	53% of lot area	55% of lot area
Floor Area (max.)	No maximum prescribed		
Height	24 feet flat roof 29 feet sloped roof	24 feet flat roof 29 feet sloped roof	24 feet flat roof 29 feet sloped roof

III. FINDINGS

Pursuant to Section 20.54.070 (Changes to an Approved Project) of the NBMC, the Community Development Director may authorize minor changes to an approved site plan, architecture, or the nature of an approved use without a public hearing where the Director first finds as follows:

Finding:

A. *The changes are consistent with all applicable provisions of this Zoning Code.*

Facts in Support of Finding:

1. The project site is located within the R-1-6,000 (Single-Unit Residential) Zoning District. The proposed project revisions comply with all applicable residential development standards and no deviations are requested.
2. The proposed minor plan revisions comport with the findings of approval for the previously approved CDP and the conditions of approval set forth by Resolution ZA2022-037 (Attachment No. CD 2).

Finding:

- B. *The changes do not involve a feature of the project that was a basis for or subject of finding or exemptions in a negative declaration or Environmental Impact Report for the project.*

Fact in Support of Finding:

1. The approved project was found to be categorically exempt from the requirements of CEQA under Section 15301, Class 1 (Existing Facilities). Class 1 includes additions of less than 50 percent to existing structures. Including the proposed minor plan revisions, the project consists of net additions of approximately 46 percent. Therefore, the proposed modified project complies with the scope identified under the Class 1 exemption.

Finding:

- C. *The changes do not involve a feature of the project that was specifically addressed or was the subject of a condition(s) of approval for the project or that was a specific consideration by the applicable review authority in the project approval.*

Facts in Support of Finding:

1. The property is within a developed neighborhood and the existing use of the structure as a single-unit residence will remain.
2. The proposed project was reviewed by relevant City departments including the Building Division, Public Works Department, and Fire/Life Safety Services. It was determined that adequate public and emergency vehicle access, public services, and utilities are provided to the subject property.

Finding:

- D. *The changes do not result in an expansion or change in operational characteristics of the use.*

Facts in Support of Finding:

1. The project site is located within the R-1-6,000 (Single-Unit Residential) Zoning District. The proposed project revisions comply with all applicable residential development standards and no deviations are requested. The small expansion of floor area does not change or intensify the single unit structure.
2. All Facts in Support of Finding C incorporated by reference.

IV. CONDITIONS

1. All conditions of approval for Coastal Development Permit No. CD2022-008 (PA2022-020) shall remain in force and effect, as stated in Attachment No. CD 2.
2. Prior to the Issuance of a Building Permit, a copy of the Staff Approval shall be incorporated into the Building Division and field sets of plans.
3. To the fullest extent permitted by law, the applicant shall indemnify, defend and hold harmless City, its City Council, its boards and commissions, officials, officers, employees, and agents from and against any claims, demands, obligations, damages, actions, causes of action, suits, losses, judgments, fines, penalties, liabilities, costs, and expenses (including without limitation, attorney's fees, disbursements, and court costs) of every kind and nature whatsoever which may arise from or in any manner relate (directly or indirectly) to City's approval of **Gray Residence including, but not limited to, Staff Approval (PA2023-0038)**. This indemnification shall include, but not be limited to, damages awarded against the City, if any, costs of suit, attorney's fees, and other expenses incurred in connection with such claim, action, causes of action, suit, or proceeding whether incurred by the applicant, City, and/or the parties initiating or bringing such proceeding. The applicant shall indemnify the City for all the City's costs, attorneys' fees, and damages that which City incurs in enforcing the indemnification provisions outlined in this condition. The applicant shall pay to the City upon demand any amount owed to the City pursuant to the indemnification requirements prescribed in this condition.

APPEAL PERIOD: An appeal or call for review may be filed with the Director of Community Development or City Clerk, as applicable, within fourteen (14) days following the date the action or decision was rendered unless a different period is specified by the NBMC. For additional information on filing an appeal, contact the Planning Division at 949-644-3200.

Prepared by:


Liane Schuller
Planning Consultant

Approved by:


Jim Campbell, Acting Community
Development Director

DL/ls

Attachments: ~~CD 1 Vicinity Map~~
~~CD 2 ZA Resolution ZA2022-037~~
~~CD 3 Project Plans~~

Attachment No. CD 4

Project Plans

Project Summary:

Job Address: 415 North Star Lane
Newport Beach, CA 92660

Zone: R-1-6000

Land Use: RSD-B

Building Type: Single Family + Detached Garage

Occupancy Group: R3/U

Construction Type: Type V-B

Number of Stories: 2 Stories

Fire Sprinklered: Yes; NFPA 13D

Lot Size: 60.00' x 100.00' = 6,000 S.F.

Height Limit: 29'-0" (25'-0" per CC&R)

Community Assoc: Dover Shores

Legal Description: LOT 113
TRACT 4224
APN 117-711-13

Project Data:

Existing: 2,815 S.F.
Garage Conversion: 210 S.F.
Addition: 1,400 S.F.
Elevator Shaft: -35 S.F.
Proposed: 4,390 S.F.

Existing Garage: 880 S.F.

Lot Coverage
Allowable: 60%
Proposed: 55%

Living Area:	Existing	Proposed	New
First Floor	1,510 S.F.	2,030 S.F.	520 S.F.
Second Floor	1,305 S.F.	2,360 S.F.	1,055 S.F.
Total Living Area	2,815 S.F.	4,390 S.F.	1,575 S.F.

Height Calculation:
(1) 10.64 + (2) 10.74 + (3) 11.15 + (4) 10.67 = (5) 43.20 / 4 = Avg. Grade Elevation: (6) 10.80 + Height Limit (7) = 29 Max. Allowable Height Elevation (8) 39.80

(1)	(2)	(3)	(4)	(7)	(8)
10.64	10.74	11.15	10.67	29	39.80

Contacts:

Structural Engineer	Architect
McCullum Engineering Services 727 2nd St. # 104 Hermosa Beach, CA 90254 (310) 944-0898	Michael Lee Architects 2200 Highland Ave. Manhattan Beach, CA 90266 (310) 545-5771
Structural Consultant	Land Surveyor
David Skelly Engineering 1771 Tattenham Rd Encinitas, CA 92024 (619) 995-8378	Toal Engineering, Inc. 139 Avenida Navarro San Clemente, CA 92672 (949) 492-8586
Energy Consultant	Civil Engineer
Rick Maurer 7544 E. Saddlehill Trail Orange, CA 92869 (714) 771-1507	B.A. Sims Engineering, Inc. 1341 Orizaba Ave Long Beach, CA 90804 (562) 735-4955
Geotechnical Engineer	General Contractor
EGA Consultants, Inc. 375-C Monte Vista Ave. Costa Mesa, CA 92627 (949) 642-9309	

415 NORTH STAR LANE RESIDENCE

REMODEL + ADDITION

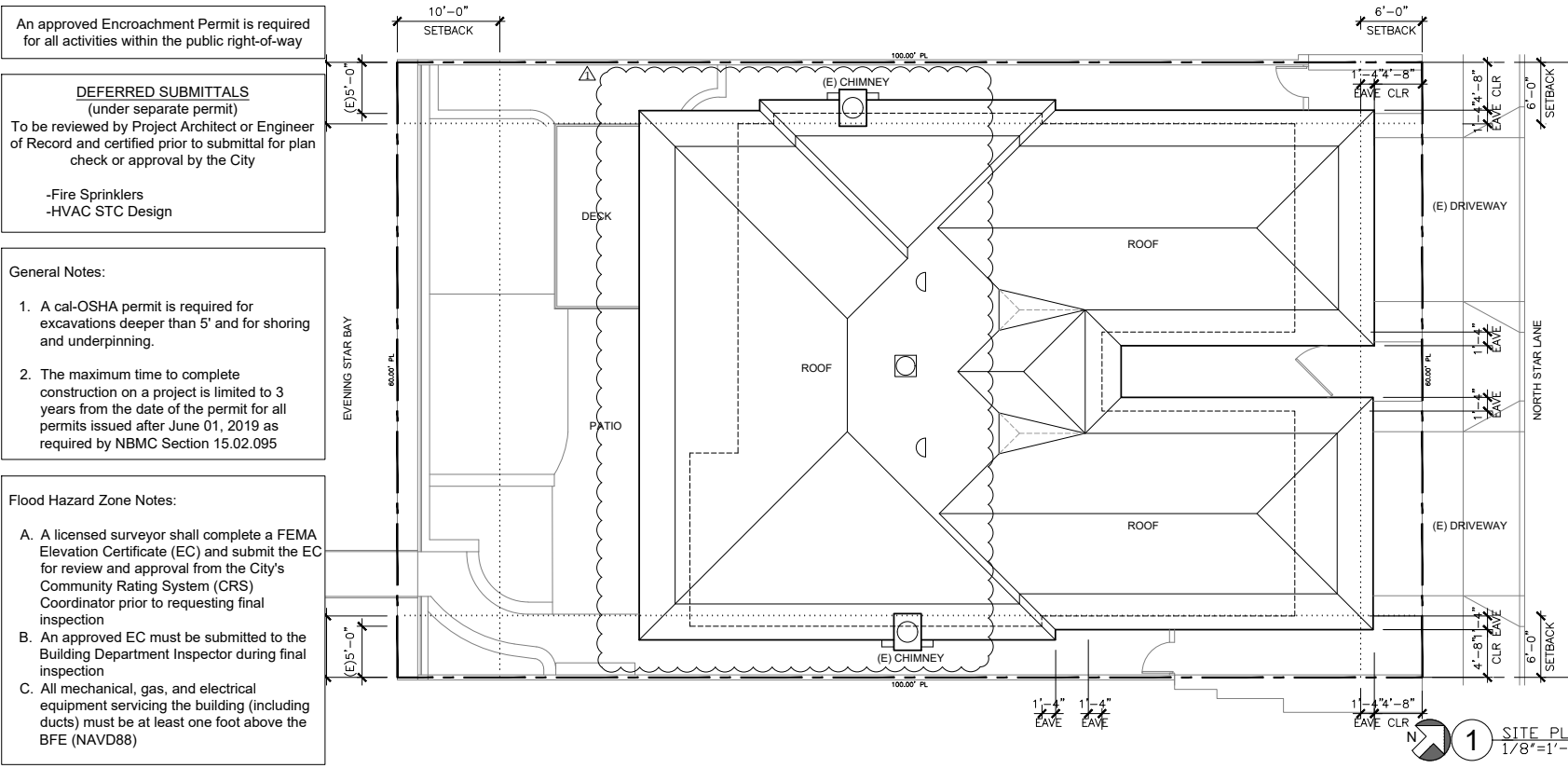


Scope of Work:

- Convert 160 sf of existing attached 2-Car Garage and 50 sf of detached Garage into interior floor area
- 1 Bath, 1 Laundry room, Living Room extension
- 190 sf 1st floor addition
- Living Room and Entry extension
- 500 sf 2nd floor addition to second floor (above attached garage)
- 1 Bedroom, 1 Bath, 130 sf covered deck
- 470 sf 2nd floor addition above detached Garage with hallway
- 1 Bedroom, 1 Bath, 125 sf covered deck
- 120 sf 2nd floor addition along West side
- Incorporate 2-stop elevator into existing floor plan (-35 sf)
- 120 sf 1st floor addition along West side
- Revised roof framing at West side
- Raise the plate and top of roof heights
- New columns at 2nd floor deck (West)

Sheet Index:

Architectural	Notes
A-1.0 Cover Sheet	N-1.0 Door Schedule / Details
A-1.1 General Requirements	N-1.1 Window Schedule / Details
A-1.1a N.B. Residential Const.	N-3.0 General Specifications
A-1.1b N.B. Cal Green	N-3.1 General Specifications
A-1.1c CDP Approval	T-24.1 Title 24
A-1.1d CDP Approval	T-24.2 Title 24
A-1.1e Standard Drainage Plan	T-24.3 Title 24
A-1.1f FEMA Elevation Cert	CG-1 Cal Green Building
A-1.2 Survey	CG-2 Cal Green Building
A-1.3 Site Plan	
A-1.4 First Floor Demo Plan	
A-1.5 Second Floor Demo Plan	
A-1.6 Roof Demo Plan	
A-2.0 First Floor Plan	
A-2.1 Second Floor Plan	
A-2.2 Roof Plan	
A-2.3 Lighting Plans	
A-2.4 Lighting Plans	
A-2.5 Power & Signal Plans	
A-2.6 Power & Signal Plans	
A-2.7 Finish Plans	
A-2.8 Finish Plans	
A-3.0 Exterior Elevations	
A-3.1 Exterior Elevations	
A-3.2 Exterior Elevations	
A-3.3 Exterior Elevations	
A-3.4 Exterior Elevations	
A-4.0 Building Sections	
A-4.1 Building Sections	
A-4.2 Building Sections	
A-6.0 Elevator Details	
A-7.0 Architectural Details	



An approved Encroachment Permit is required for all activities within the public right-of-way

DEFERRED SUBMITTALS
(under separate permit)
To be reviewed by Project Architect or Engineer of Record and certified prior to submittal for plan check or approval by the City

- Fire Sprinklers
- HVAC STC Design

General Notes:

- A cal-OSHA permit is required for excavations deeper than 5' and for shoring and underpinning.
- The maximum time to complete construction on a project is limited to 3 years from the date of the permit for all permits issued after June 01, 2019 as required by NBMC Section 15.02.095

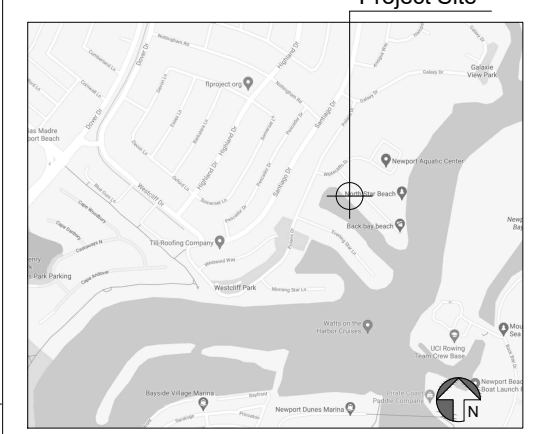
Flood Hazard Zone Notes:

- A licensed surveyor shall complete a FEMA Elevation Certificate (EC) and submit the EC for review and approval from the City's Community Rating System (CRS) Coordinator prior to requesting final inspection
- An approved EC must be submitted to the Building Department Inspector during final inspection
- All mechanical, gas, and electrical equipment servicing the building (including ducts) must be at least one foot above the BFE (NAVD88)

ALL WORK SHALL COMPLY WITH THE FOLLOWING CODES INCLUDING LOCAL AMENDMENTS:

- 2019 California Building Code (CBC)
- 2019 California Mechanical Code (CMC)
- 2019 California Plumbing Code (CPC)
- 2019 California Electrical Code (CEC)
- 2019 California Residential Code (CRC)
- 2019 California Fire Code (CFC)
- 2019 California Green Building Standards (CGBSC)
- 2019 California Energy Standards
- 2019 Newport Beach Municipal Code

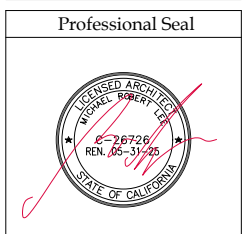
Vicinity Map:



2200 Highland Avenue
Manhattan Beach, CA 90266
t. 310.545.5771
f. 310.545.4330
www.mleearchitects.com

The drawings and descriptions set forth on this sheet and all copyrights therein are, and shall remain the property of Michael Lee Architects. Use of this drawing is limited to a one-time use on the specific project and for the specific person(s) named herein. Any other use or reuse of said drawings is strictly prohibited without the express written permission of Michael Lee Architects. Copyright © 2014 by Michael Lee Architects. ALL RIGHTS RESERVED.

Gray
Residence
415 North Star Lane
Newport Beach, CA 92660



Date: 08/20/2024

Revisions	By
P.C.C. 02.07.2023	JPT
1 Const. Revs 08.20.2024	JPT

Submittals

Scale: SEE DWG

Drawn by: JPT

Cover Sheet

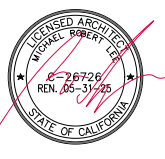
A 1.0

Gray

Residence

415 North Star Lane
 Newport Beach, CA
 92660

Professional Seal



Date: 08/20/2024

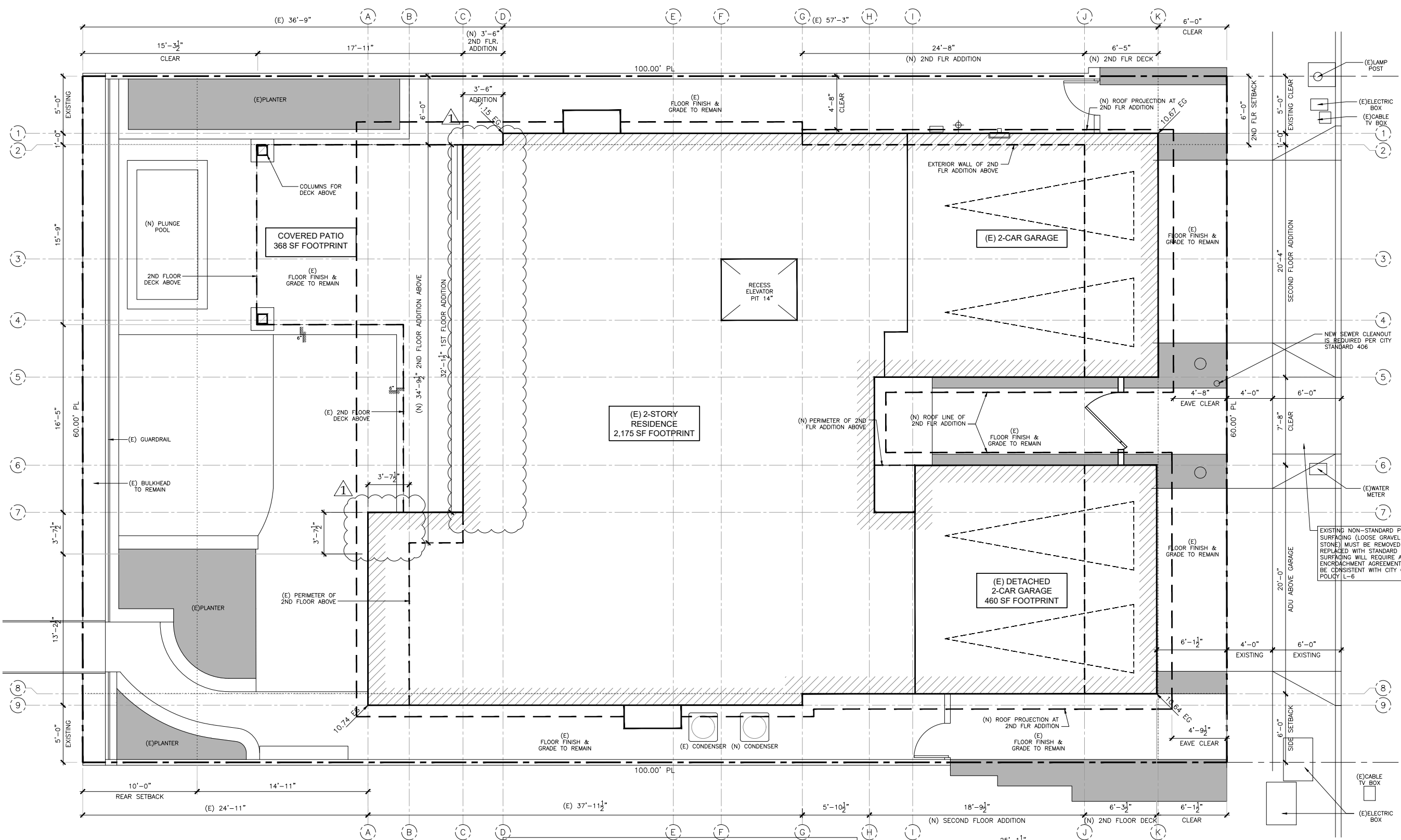
Revisions	By
P.C.C. 02.07.2023	JPT
1 Const. Revs 08.20.2024	JPT

Submittals

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

Drawn by: JPT

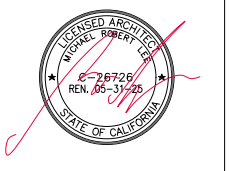
Site Plan



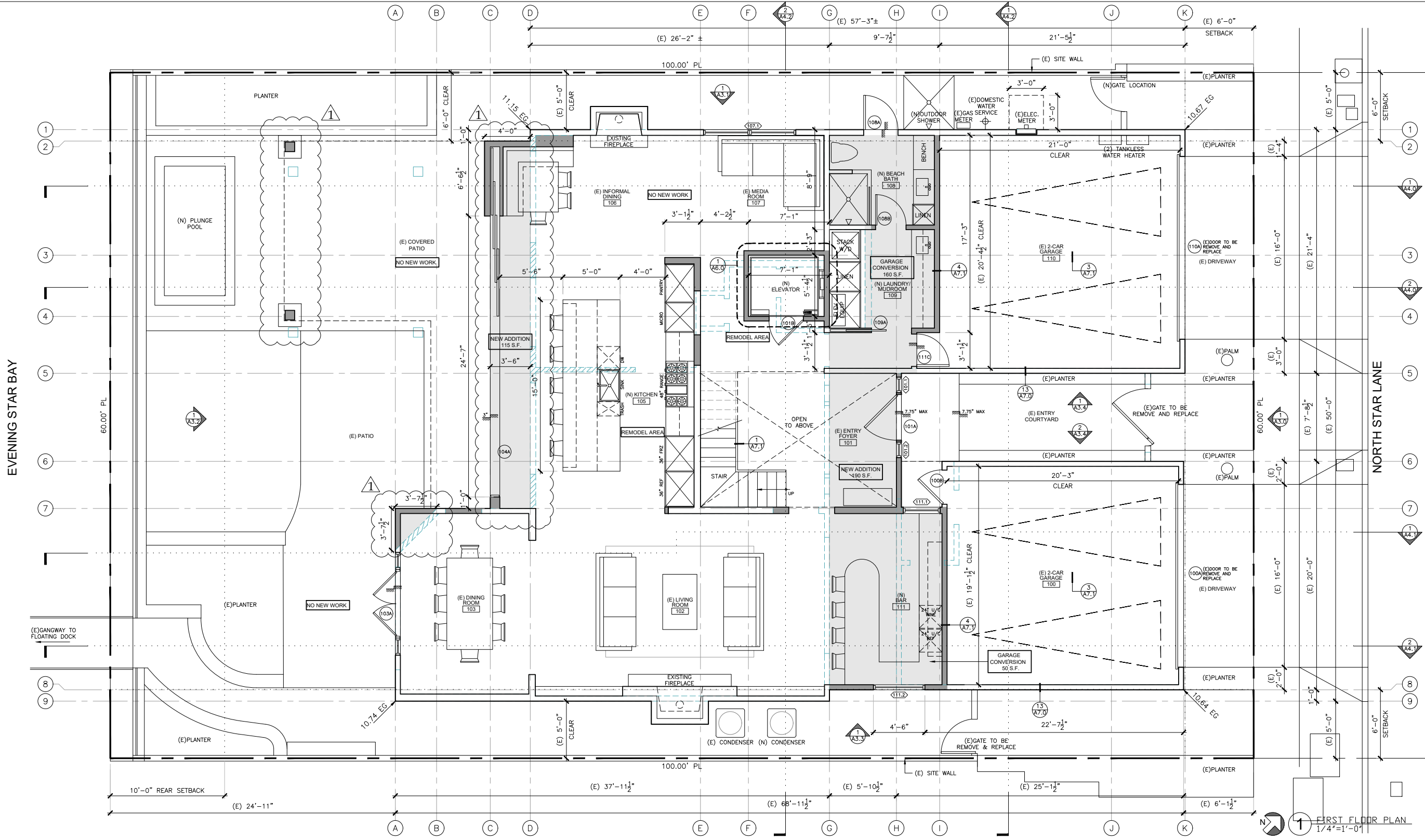
Public Works Notes:

1. An approved encroachment permit is required for all work activities within the public right-of-way.
2. A Public Works Department encroachment permit inspection is required before the Building Department Permit Final can be issued. At the time of Public Works Department inspection, if any of the existing public improvements surrounding the site is damaged, new concrete sidewalk, curb and gutter, and alley/street pavement will be required. Additionally, if existing utilities infrastructure are deemed substandard, a new 1-inch water service, water meter box, sewer lateral and/or cleanout with box and lid will be required. 100% of the cost shall be borne by the property owner (Municipal Codes 14.24.020 and 14.08.030). Said determination and the extent of the reconstruction work shall be made at the discretion of the Public Works Inspector. Contractor is responsible to maintain the public right of way at all times during the construction project. A stop work notice may be issued for any damage or unmaintained portion of the public right of way.
3. An encroachment agreement is required for all non-standard improvements within the public right of way. All non-standard improvements shall comply with City Council Policy L-6.
4. All private irrigation sprinkler heads shall be installed and positioned in a manner that will not cause irrigation overspray onto the public right-of-way.
5. All work related to water in the public right-of-way shall be performed by a C-34 licensed Pipeline Contractor or an A Licensed General Engineering Contractor.
6. All work related to wastewater in the public right-of-way shall be performed by a C-42 licensed Sanitation Sewer Contractor or an A Licensed General Engineering Contractor.

LOT AREA	6,000 SF
BUILDING FOOTPRINT	2,935 SF
COVERED PATIO	375 SF
LOT COVERAGE	3,310 SF (55%)



Revisions	By
P.C.C. 02.07.2023	JPT
Const. Revs 08.20.2024	JPT



- GENERAL NOTES:**
- A CAL-OSHA PERMIT IS REQUIRED FOR EXCAVATIONS DEEPER THAN 5' AND FOR SHORING AND UNDERPINNING.
 - THE MAXIMUM TIME TO COMPLETE CONSTRUCTION ON A PROJECT IS LIMITED TO 3 YEARS FROM THE DATE OF THE PERMIT FOR ALL PERMITS ISSUED AFTER JUNE 01, 2019 AS REQUIRED BY NEMC SECTION 15.02.095.
 - DOMESTIC CLOTHES DRYER DUCT SHALL BE METAL WITH MIN. 4 INCHES IN DIAMETER. THE EXHAUST DUCTS SHALL NOT EXCEED A TOTAL COMBINED HORIZONTAL AND VERTICAL LENGTH OF 14 FEET, INCLUDING TWO 90 DEGREE ELBOWS. A LENGTH OF 2 FEET SHALL BE DEDUCTED FOR EACH 90 DEGREE ELBOW IN EXCESS OF TWO. (CMC 504.4.2.1).
 - EFFICIENCY RATINGS OF HEATING AND COOLING UNITS:
 (N) AC UNIT AT EER 13, SEER 16
 (N) FAU AT 95 AFUE
 - GUARDRAILS SHALL MEET THE FOLLOWING:
 a. PROVIDE GUARDS WHERE THE OPEN SIDE IS MORE THAN 30" MEASURED VERTICALLY TO THE FLOOR OR GRADE BELOW AT ANY POINT 36" HORIZONTALLY TO THE EDGE OF THE OPEN SIDE
 b. GUARD HEIGHTS SHALL BE A MINIMUM 42"
 c. OPENINGS BETWEEN INTERMEDIATE BALUSTERS SHALL PRECLUDE THE PASSAGE OF 4" DIAMETER SPHERE
 d. THE TRIANGULAR OPENINGS FORMED BY THE RISER, TREAD, AND BOTTOM RAIL SHALL PRECLUDE THE PASSAGE OF A 6" SPHERE
 e. OPENINGS BETWEEN INTERMEDIATE BALUSTERS ON THE OPEN SIDE OF THE STAIRS SHALL PRECLUDE THE PASSAGE OF A 4-3/8" DIAMETER SPHERE

KEYNOTES:

- 1 EXISTING TO REMAIN
- 2 REMOVE & REPLACE ALL (E) BATHROOM FIXTURES, SINKS & FINISHES, TYP.
- 3 REPLACE (E) TUB WITH (N) SHOWER
- 4 NOT USED.
- 5 TEMPERED SHOWER DOOR GLAZING
- 6

WALL LEGEND:

- EXISTING WALL
- NEW STUD WALL
- TO BE DEMOLISHED

2200 Highland Avenue
 Manhattan Beach, CA 90266
 t. 310.545.5771
 f. 310.545.4330
 www.mleearchitects.com

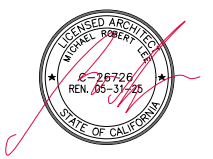
The drawings and descriptions set forth on this sheet and all copyright therein are, and shall remain the property of Michael Lee Architects. Use of this drawing is limited to a one-time use on the specific project and for the specific person(s) named herein. Any other use or reuse of said drawings is strictly prohibited without the express written permission of Michael Lee Architects. Copyright © 2014 by Michael Lee Architects. ALL RIGHTS RESERVED.

Gray

Residence

415 North Star Lane
 Newport Beach, CA
 92660

Professional Seal



Date: 08/20/2024

Revisions	By
P.C.C. 02.07.2023	JPT
1 Const. Revs 08.20.2024	JPT

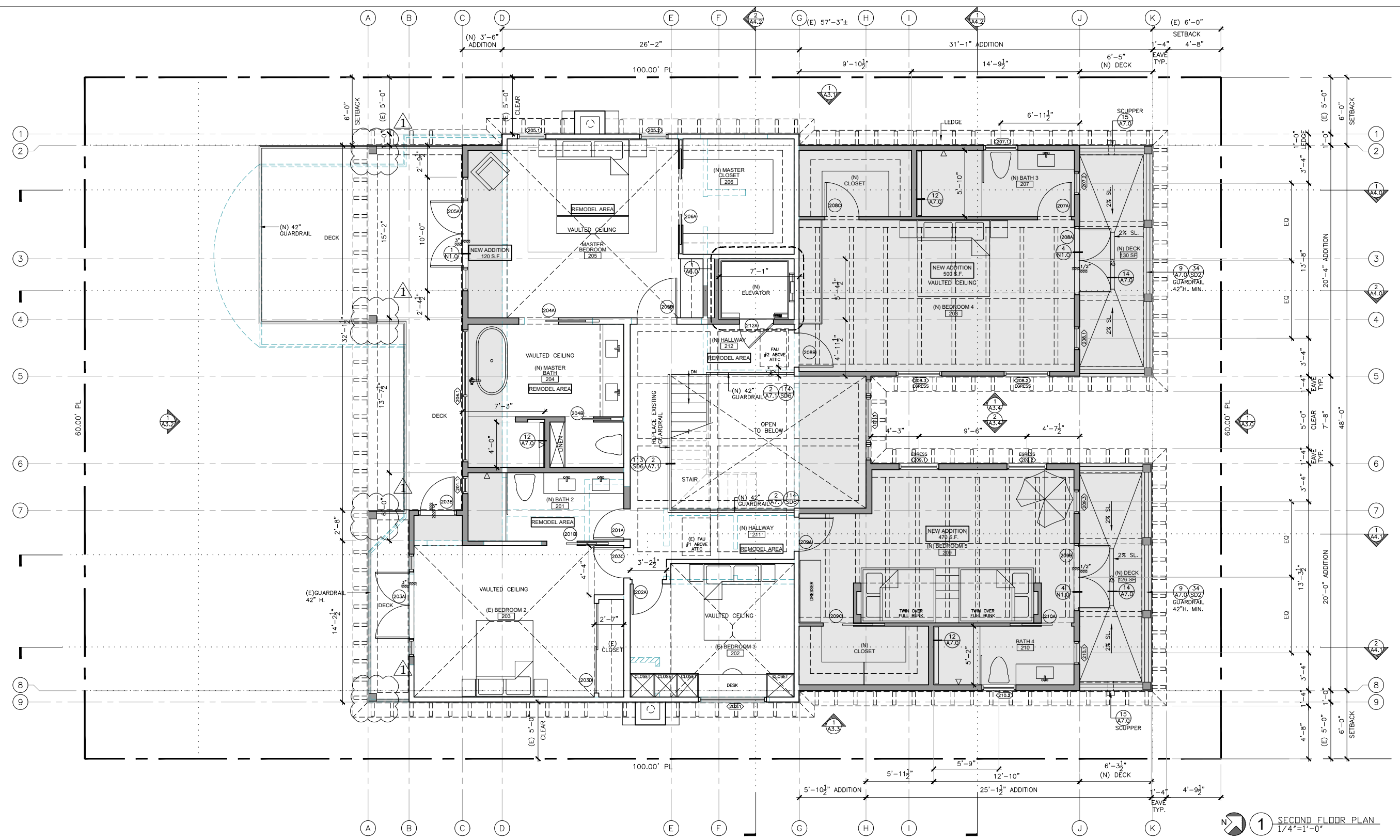
Submittals

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

Drawn by: JPT

Second Floor Plan

A 2.1



- GENERAL NOTES:**
- A CAL-OSHA PERMIT IS REQUIRED FOR EXCAVATIONS DEEPER THAN 5' AND FOR SHORING AND UNDERPINNING.
 - THE MAXIMUM TIME TO COMPLETE CONSTRUCTION ON A PROJECT IS LIMITED TO 3 YEARS FROM THE DATE OF THE PERMIT FOR ALL PERMITS ISSUED AFTER JUNE 01, 2019 AS REQUIRED BY NBMC SECTION 15.02.095.
 - DOMESTIC CLOTHES DRYER DUCT SHALL BE METAL WITH MIN. 4 INCHES IN DIAMETER. THE EXHAUST DUCTS SHALL NOT EXCEED A TOTAL COMBINED HORIZONTAL AND VERTICAL LENGTH OF 14 FEET, INCLUDING TWO 90 DEGREE ELBOWS. A LENGTH OF 2 FEET SHALL BE DEDUCTED FOR EACH 90 DEGREE ELBOW IN EXCESS OF TWO. (CMC 504.4.2.1).
 - EFFICIENCY RATINGS OF HEATING AND COOLING UNITS:
 (N) AC UNIT AT EER 13, SEER 16
 (N) FAU AT 95 AFUE
 - GUARDRAILS SHALL MEET THE FOLLOWING:
 a. PROVIDE GUARDS WHERE THE OPEN SIDE IS MORE THAN 30" MEASURED VERTICALLY TO THE FLOOR OR GRADE BELOW AT ANY POINT 36" HORIZONTALLY TO THE EDGE OF THE OPEN SIDE
 b. GUARD HEIGHTS SHALL BE A MINIMUM 42"
 c. OPENINGS BETWEEN INTERMEDIATE BALUSTERS SHALL PRECLUDE THE PASSAGE OF 4" DIAMETER SPHERE
 d. THE TRIANGULAR OPENINGS FORMED BY THE RISER, TREAD, AND BOTTOM RAIL SHALL PRECLUDE THE PASSAGE OF A 6" SPHERE
 e. OPENINGS BETWEEN INTERMEDIATE BALUSTERS ON THE OPEN SIDE OF THE STAIRS SHALL PRECLUDE THE PASSAGE OF A 4-3/8" DIAMETER SPHERE

KEYNOTES:

- 1 EXISTING TO REMAIN
- 2 REMOVE & REPLACE ALL (E) BATHROOM FIXTURES, SINKS & FINISHES, TYP.
- 3 REPLACE (E) TUB WITH (N) SHOWER
- 4 NOT USED.
- 5 TEMPERED SHOWER DOOR GLAZING
- 6

WALL LEGEND:

- EXISTING WALL
- NEW STUD WALL
- TO BE DEMOLISHED

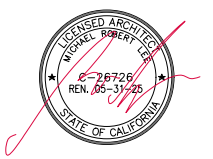
1 SECOND FLOOR PLAN
 1/4" = 1'-0"

Gray

Residence

415 North Star Lane
Newport Beach, CA
92660

Professional Seal



Date: 08/20/2024

Revisions	By
P.C.C. 02.07.2023	JPT
1 Const. Revs 08.20.2024	JPT

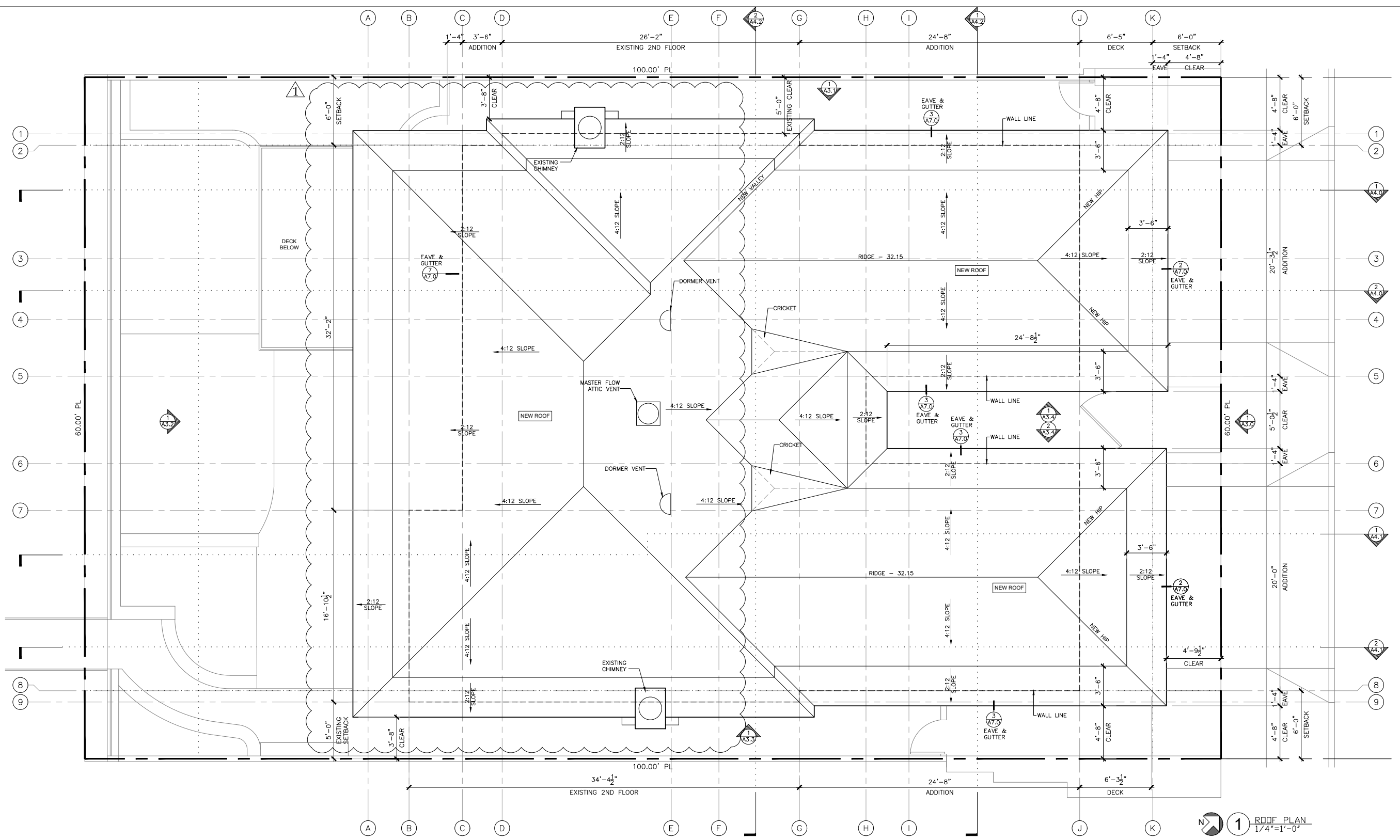
Submittals

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

Drawn by: JPT

Roof Plan

A 2.2



GENERAL NOTES:

- A CAL-OSHA PERMIT IS REQUIRED FOR EXCAVATIONS DEEPER THAN 5' AND FOR SHORING AND UNDERPINNING.
- THE MAXIMUM TIME TO COMPLETE CONSTRUCTION ON A PROJECT IS LIMITED TO 3 YEARS FROM THE DATE OF THE PERMIT FOR ALL PERMITS ISSUED AFTER JUNE 01, 2019 AS REQUIRED BY NBMC SECTION 15.02.095.
- DOMESTIC CLOTHES DRYER DUCT SHALL BE METAL WITH MIN. 4 INCHES IN DIAMETER. THE EXHAUST DUCTS SHALL NOT EXCEED A TOTAL COMBINED HORIZONTAL AND VERTICAL LENGTH OF 14 FEET, INCLUDING TWO 90 DEGREE ELBOWS. A LENGTH OF 2 FEET SHALL BE DEDUCTED FOR EACH 90 DEGREE ELBOW IN EXCESS OF TWO. (CMC 504.4.2.1).
- EFFICIENCY RATINGS OF HEATING AND COOLING UNITS:
(N) AC UNIT AT EER 13, SEER 16
(N) FAU AT 95 AFUE
- GUARDRAILS SHALL MEET THE FOLLOWING:
a. PROVIDE GUARDS WHERE THE OPEN SIDE IS MORE THAN 30" MEASURED VERTICALLY TO THE FLOOR OR GRADE BELOW AT ANY POINT 36" HORIZONTALLY TO THE EDGE OF THE OPEN SIDE
b. GUARD HEIGHTS SHALL BE A MINIMUM 42"
c. OPENINGS BETWEEN INTERMEDIATE BALUSTERS SHALL PRECLUDE THE PASSAGE OF 4" DIAMETER SPHERE
d. THE TRIANGULAR OPENINGS FORMED BY THE RISER, TREAD, AND BOTTOM RAIL SHALL PRECLUDE THE PASSAGE OF A 6" SPHERE
e. OPENINGS BETWEEN INTERMEDIATE BALUSTERS ON THE OPEN SIDE OF THE STAIRS SHALL PRECLUDE THE PASSAGE OF A 4-3/8" DIAMETER SPHERE

ATTIC VENT CALCULATIONS
CONTRACTOR TO VERIFY IN FIELD

VENTILATION REQUIREMENTS:
1 S.F. NET OPENING PER EACH 150 S.F. OF ATTIC/CONCEALED SPACE

ATTIC/CONCEALED SPACE AREA: 1,523 S.F.
REQUIRED: 10.15 S.F. (=1,523 S.F./150 S.F.)

GAF "MASTER FLOW" ERV4 LOW PROFILE POWERED ROOF MOUNT EXHAUST FAN USE MIN. (1) AS REQUIRED

MAX. ATTIC SIZE SERVICED: 1,600 S.F.
UL 507 TESTED/APPROVED, CSA RATED

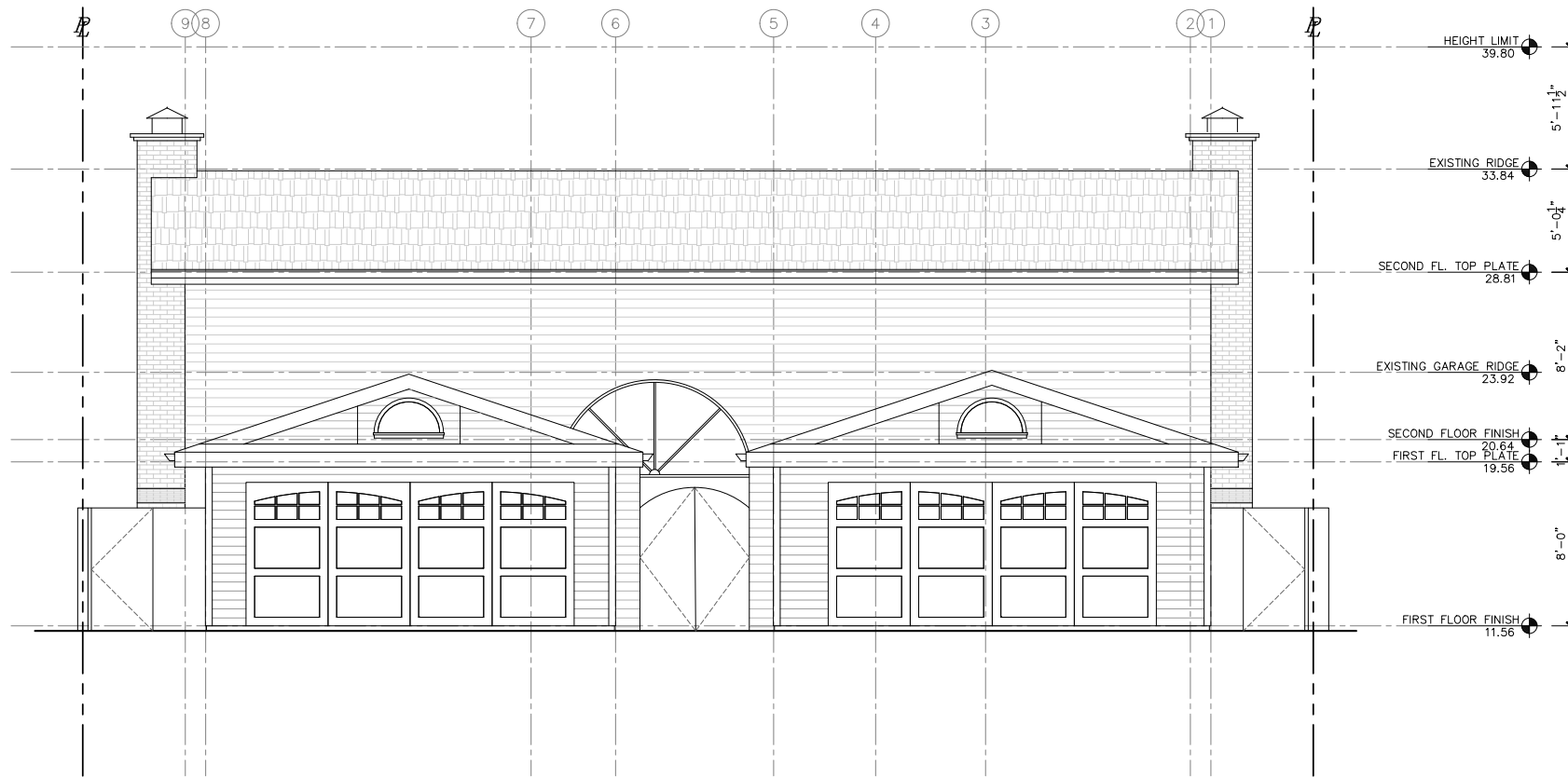
193 LINEAR FEET PROVIDED OF 2" SOFFIT VENT AT EAVE (386 SQ. IN. = 2.68 SF)

ATTIC VENTILATION NOTES:

- OPENINGS SHALL BE PLACED SO AS TO PROVIDE GROSS VENTILATION OF THE ATTIC SPACE
- THE NET FREE VENTILATION AREA SHALL NOT BE LESS THAN 1/150 OF THE ATTIC AREA
- OPENINGS SHALL HAVE CORROSION-RESISTANT WIRE MESH OR OTHER APPROVED MATERIAL WITH 1/16" MINIMUM AND 1/4" MAXIMUM OPENING
- 50% OF THE REQUIRED VENTILATION AREA MUST BE LOCATED AT LEAST 3' ABOVE THE EAVE OR CORNICE VENTS WITH THE BALANCE PROVIDED BY EAVE OR CORNICE VENTS
- WHERE THE RATIO OF 1/300 IS USED TO VENT ATTICS, NOT LESS THAN 40% BUT NOT MORE THAN 50% OF THE VENTS SHALL BE LOCATED NOT MORE THAN 3' BELOW THE RIDGE

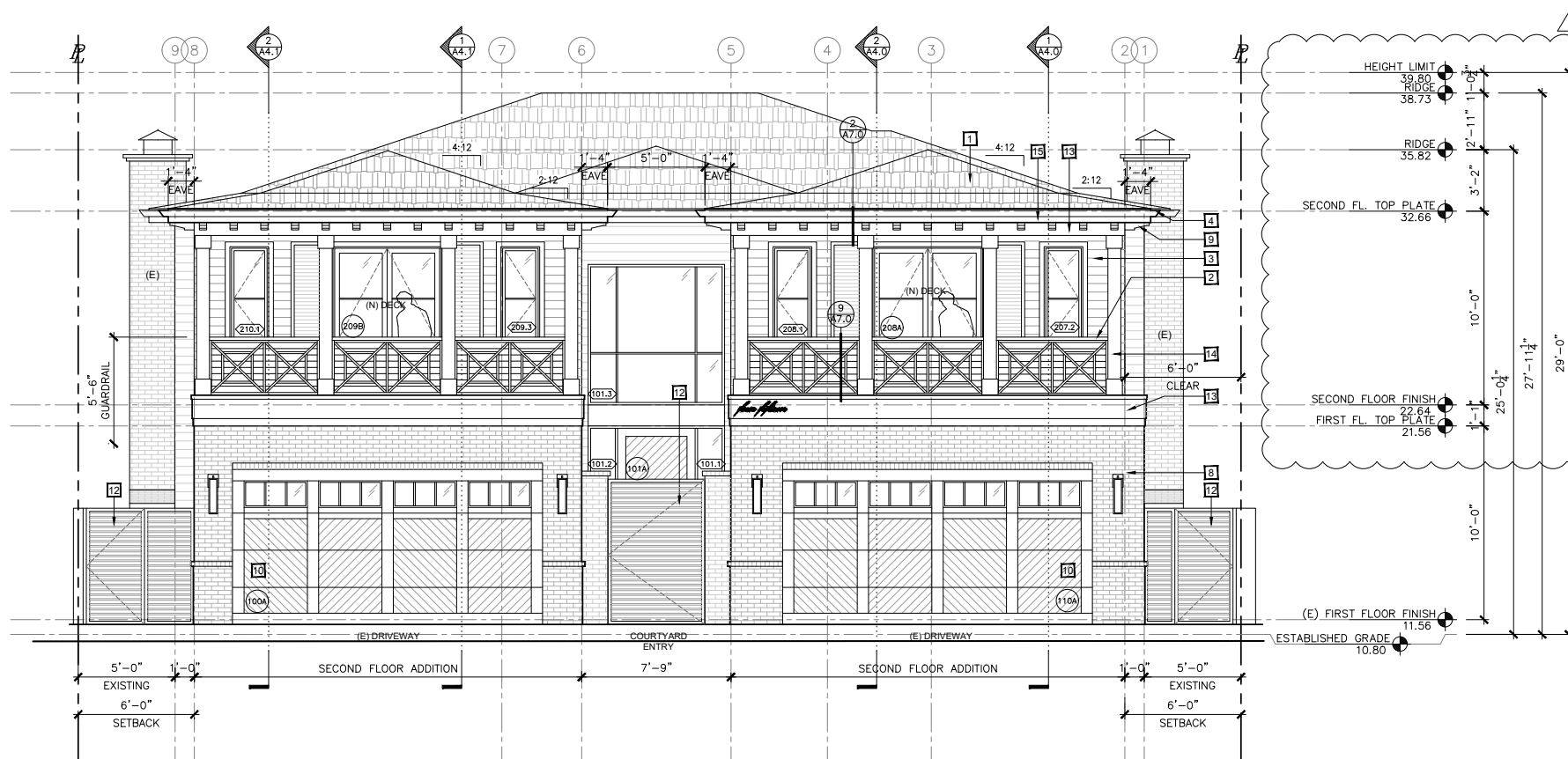
ROOFING MATERIAL:
TIMBERLINE - COOL ROOF SERIES SHINGLES (CLASS 'A'), CHARCOAL/GRAY COLOR. FIBER TECH COMPONENT-INCORPORATES FIBERS THAT ARE NON-COMBUSTIBLE, PROVIDING A UL CLASS 'A' RATING - FIBERGLASS ASPHALT CONSTRUCTION (ENERGY STAR). LISTED CLASS A FIRE RATING -UL 790, ICC ESR-1475, ESR-3267.

1 ROOF PLAN
1/4" = 1'-0"



2 EAST ELEVATION EXISTING
1/4" = 1'-0"

KEY NOTES LEGEND:	
1	(N) PITCH BREAK ROOF W/ ASPHALT SHINGLES
2	(N) 42" GUARDRAIL
3	(N) PAINTED COMPOSITE SIDING
4	(N) SURFACE MOUNTED GUTTER
5	(N) DOORS & WINDOWS
6	NOT USED
7	NOT USED
8	(N) PAINTED BRICK VENEER (TO MATCH EXISTING)
9	(N) PAINTED RAFTER TAILS
10	(N) GARAGE DOOR (REMOVE AND REPLACE)
11	(E) PAINTED BRICK
12	(N) WOOD GATE (REMOVE AND REPLACE)
13	(N) PAINTED PTD. COMPOSITE TRIM
14	(N) PAINTED PTD. COMPOSITE POST WRAP
15	(N) PAINTED PTD. FASCIA
16	(N) PAINT GRADE COMPOSITE PANELING
17	(N) OVERFLOW SCUPPER
18	
19	
20	



1 EAST ELEVATION PROPOSED
1/4" = 1'-0"

LEE
MICHAEL LEE ARCHITECTS, INC.

2200 Highland Avenue
Manhattan Beach, CA 90266
t. 310.545.5771
f. 310.545.4330
www.mleearchitects.com

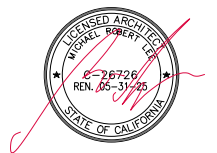
The drawings and descriptions set forth on this sheet and all copyrights therein are, and shall remain the property of Michael Lee Architects. Use of this drawing is limited to a one-time use on the specific project and for the specific person(s) named herein. Any other use or reuse of said drawings is strictly prohibited without the express written permission of Michael Lee Architects. Copyright © 2014 by Michael Lee Architects. ALL RIGHTS RESERVED.

Gray

Residence

415 North Star Lane
Newport Beach, CA
92660

Professional Seal



Date: 08/20/2024

Revisions	By
P.C.C. 02.07.2023	JPT
1 Const. Revs 08.20.2024	JPT

Submittals

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

Drawn by: JPT

Exterior
Elevations

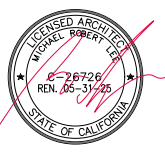
A 3.0

Gray

Residence

415 North Star Lane
 Newport Beach, CA
 92660

Professional Seal



Date: 08/20/2024

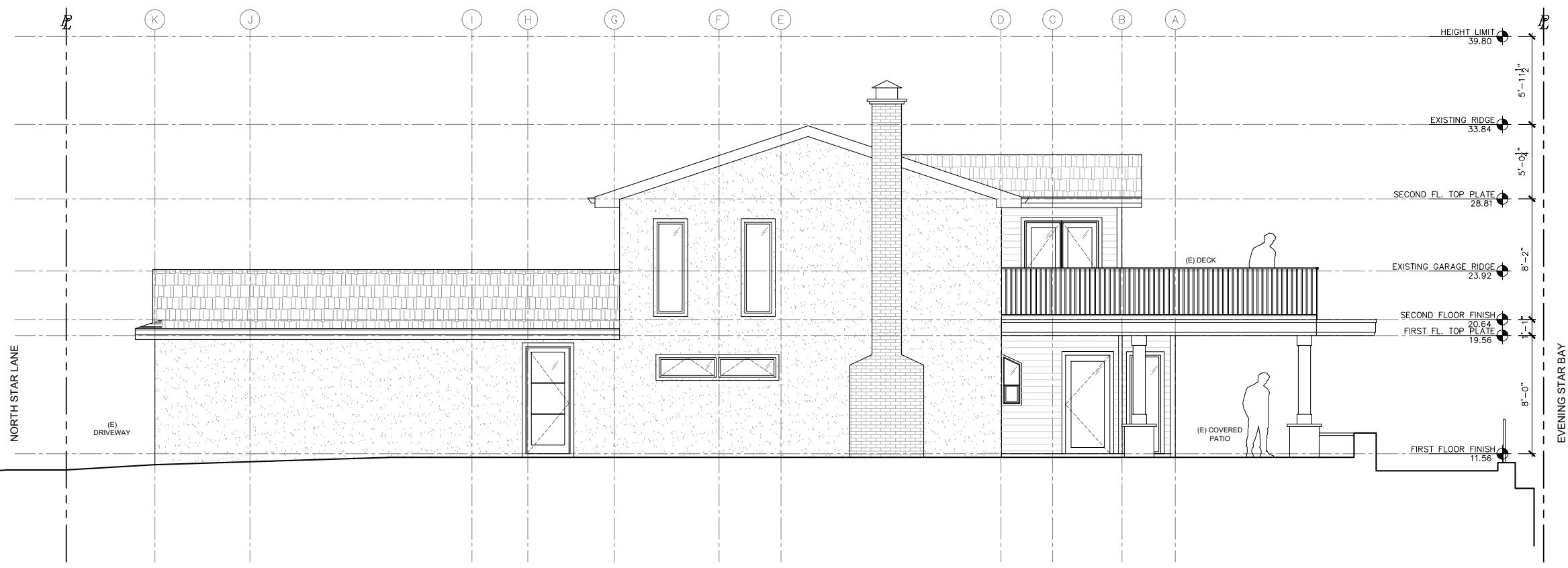
Revisions	By
P.C.C. 02.07.2023	JPT
1 Const. Revs 08.20.2024	JPT

Submittals

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

Drawn by: JPT

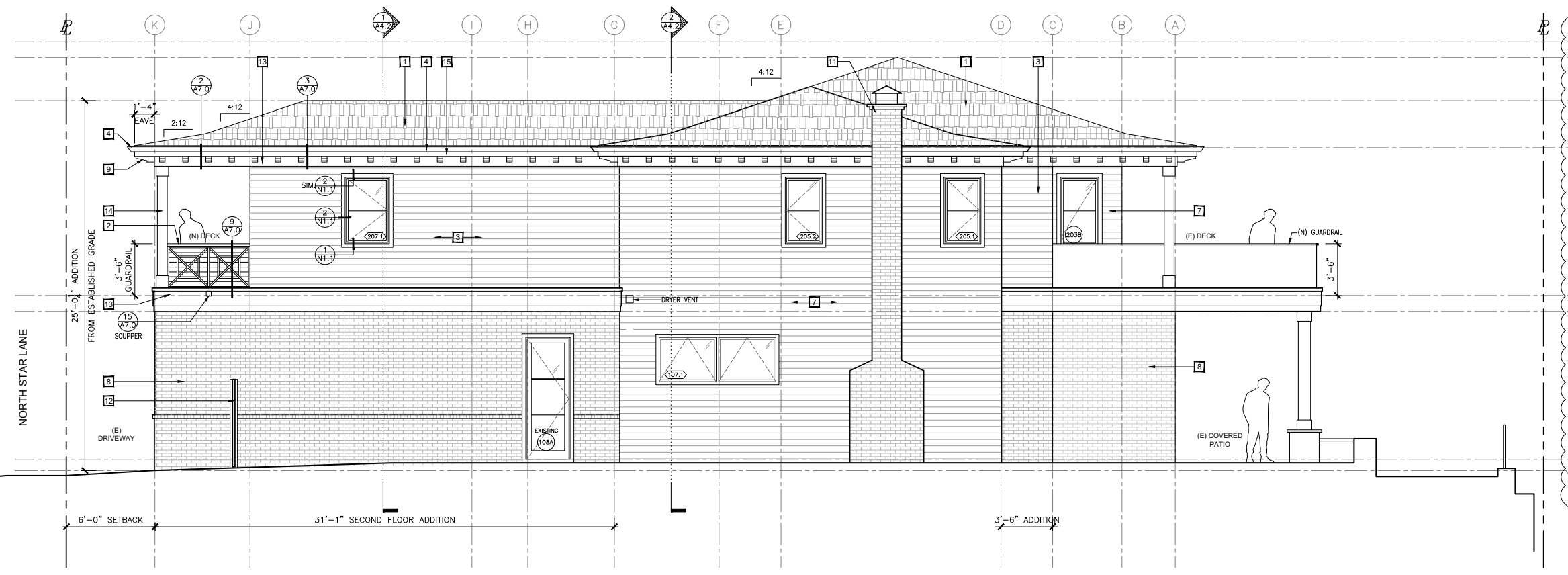
Exterior Elevations



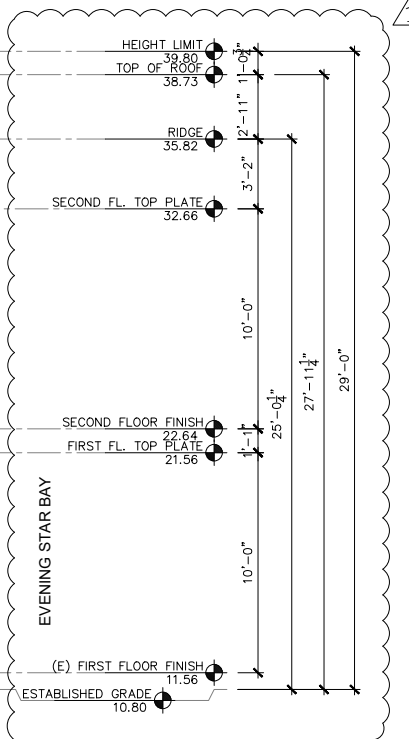
2 NORTH ELEVATION EXISTING
 1/4" = 1'-0"

KEY NOTES LEGEND:

- 1 (N) PITCH BREAK ROOF W/ ASPHALT SHINGLES
- 2 (N) 42" GUARDRAIL
- 3 (N) PAINTED COMPOSITE SIDING
- 4 (N) SURFACE MOUNTED GUTTER
- 5 (N) DOORS & WINDOWS
- 6 NOT USED
- 7 NOT USED
- 8 (N) PAINTED BRICK VENEER (TO MATCH EXISTING)
- 9 (N) PAINTED RAFTER TAILS
- 10 (N) GARAGE DOOR (REMOVE AND REPLACE)
- 11 (E) PAINTED BRICK
- 12 (N) WOOD GATE (REMOVE AND REPLACE)
- 13 (N) PAINTED PTD. COMPOSITE TRIM
- 14 (N) PAINTED PTD. COMPOSITE POST WRAP
- 15 (N) PAINTED PTD. FASCIA
- 16 (N) PAINT GRADE COMPOSITE PANELING
- 17 (N) OVERFLOW SCUPPER
- 18
- 19
- 20



1 NORTH ELEVATION PROPOSED
 1/4" = 1'-0"



Gray

Residence

415 North Star Lane
 Newport Beach, CA
 92660

Professional Seal



Date: 08/20/2024

Revisions	By
P.C.C. 02.07.2023	JPT
1 Const. Revs 08.20.2024	JPT

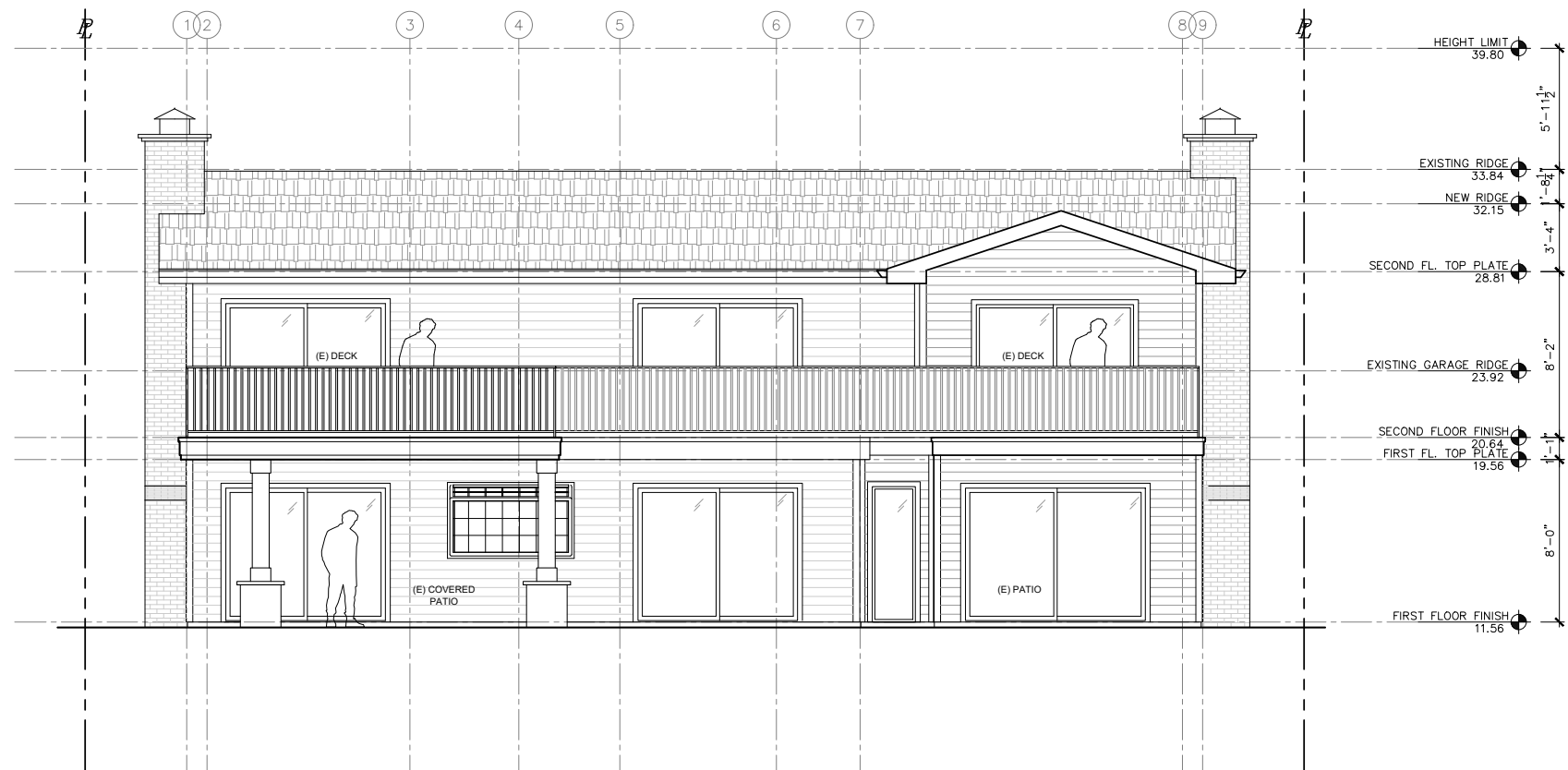
Submittals

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

Drawn by: JPT

Exterior Elevations

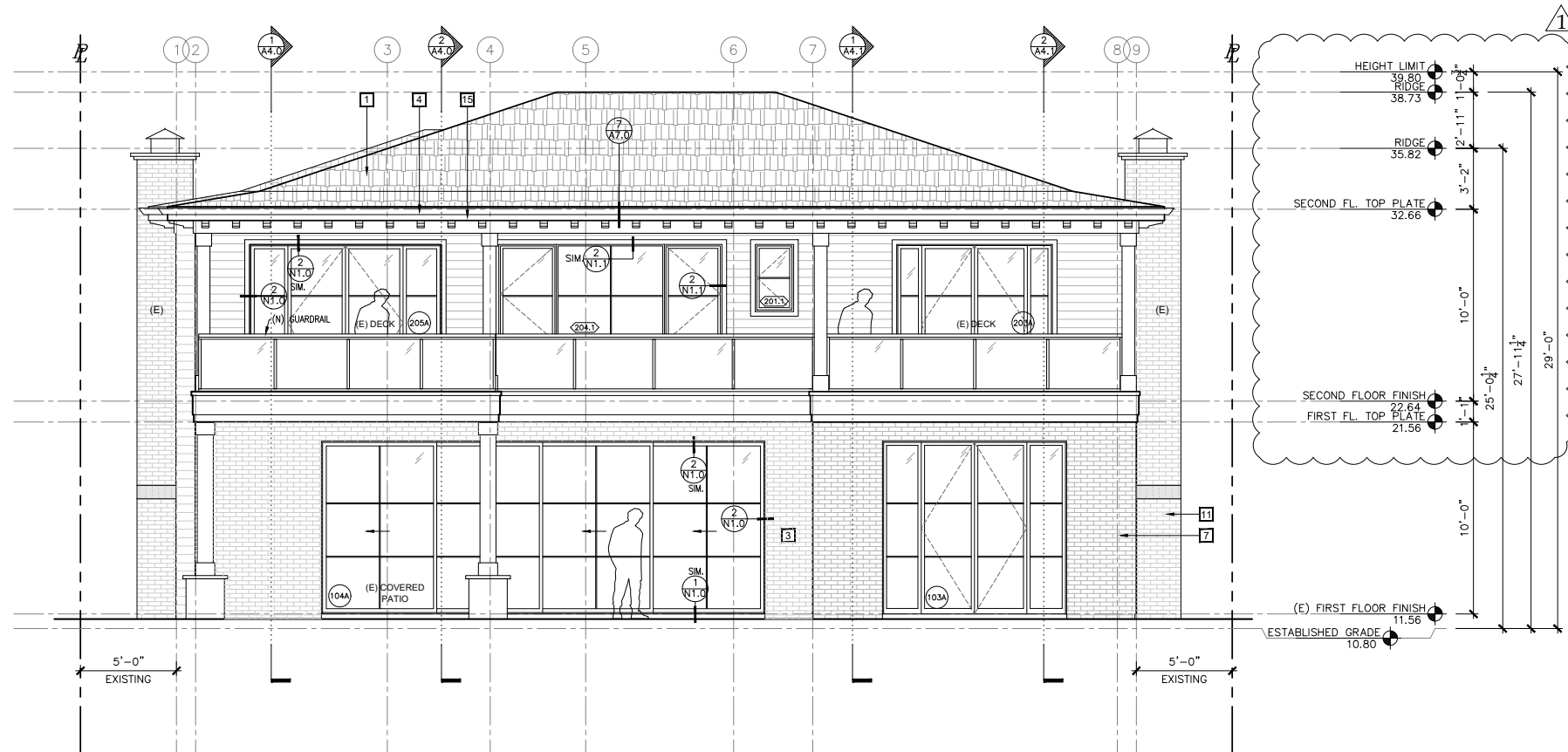
A 3.2



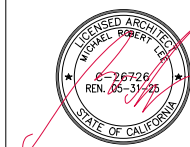
2 WEST ELEVATION EXISTING
 1/4" = 1'-0"

KEY NOTES LEGEND:

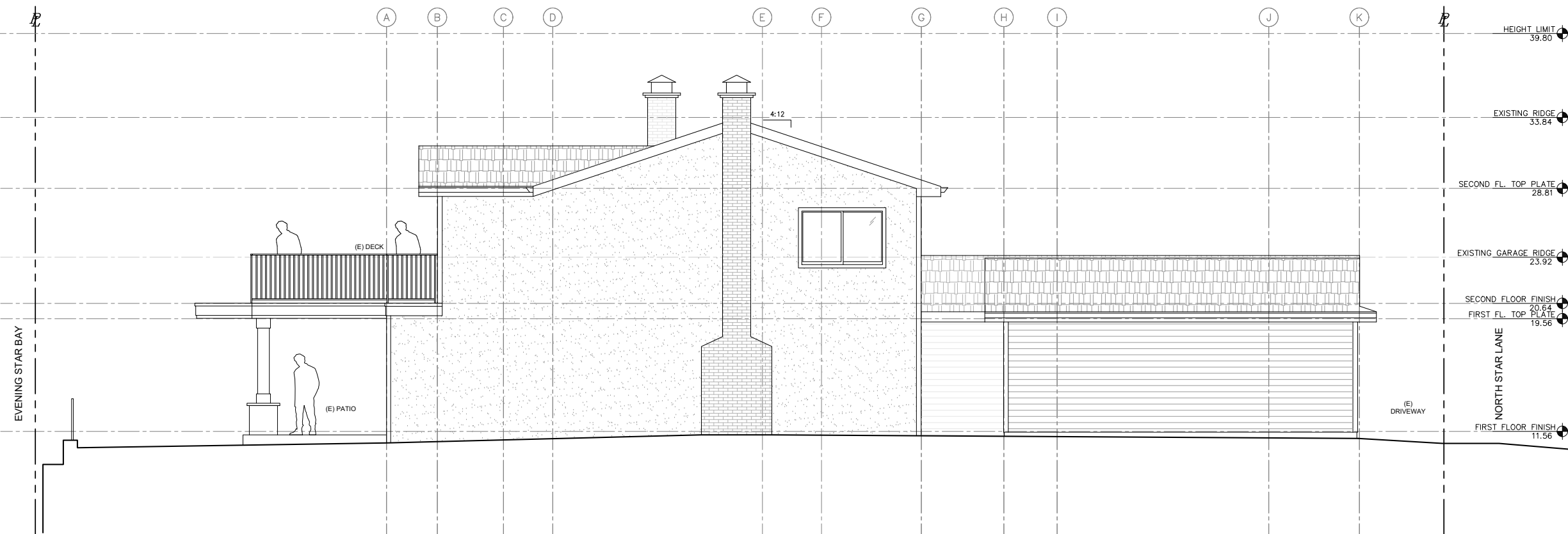
1	(N) PITCH BREAK ROOF W/ ASPHALT SHINGLES
2	(N) 42" GUARDRAIL
3	(N) PAINTED COMPOSITE SIDING
4	(N) SURFACE MOUNTED GUTTER
5	(N) DOORS & WINDOWS
6	NOT USED
7	NOT USED
8	(N) PAINTED BRICK VENEER (TO MATCH EXISTING)
9	(N) PAINTED RAFTER TAILS
10	(N) GARAGE DOOR (REMOVE AND REPLACE)
11	(E) PAINTED BRICK
12	(N) WOOD GATE (REMOVE AND REPLACE)
13	(N) PAINTED PTD. COMPOSITE TRIM
14	(N) PAINTED PTD. COMPOSITE POST WRAP
15	(N) PAINTED PTD. FASCIA
16	(N) PAINT GRADE COMPOSITE PANELING
17	(N) OVERFLOW SCUPPER
18	
19	
20	



1 WEST ELEVATION PROPOSED
 1/4" = 1'-0"



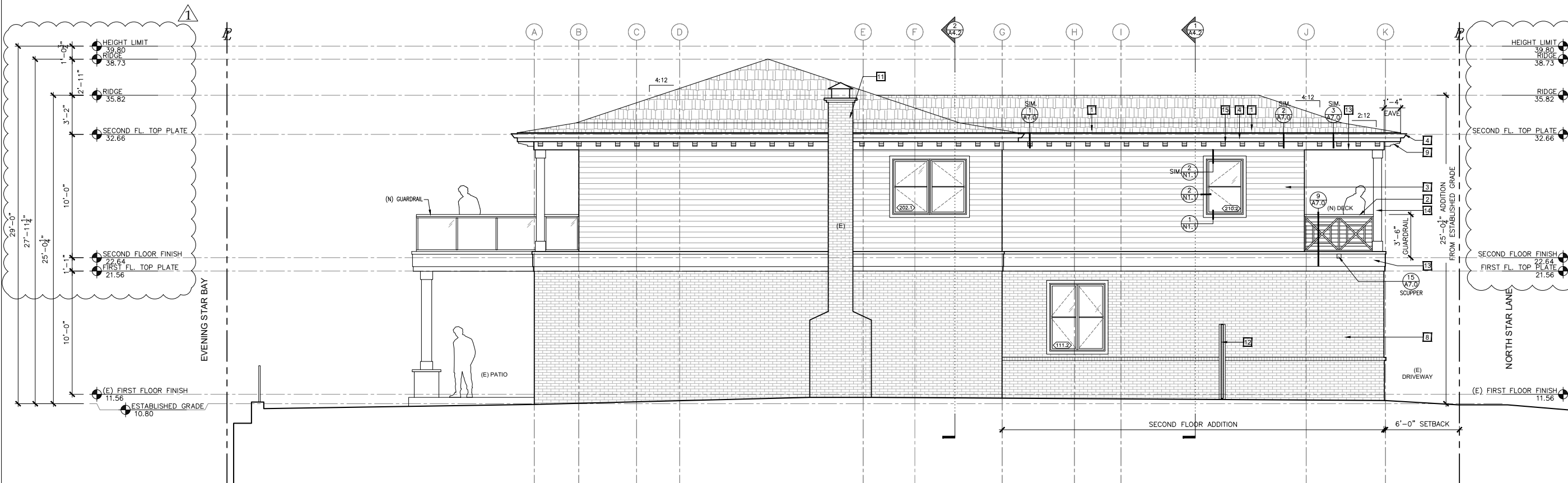
Revisions	By
P.C.C. 02.07.2023	JPT
1 08.20.2024	JPT



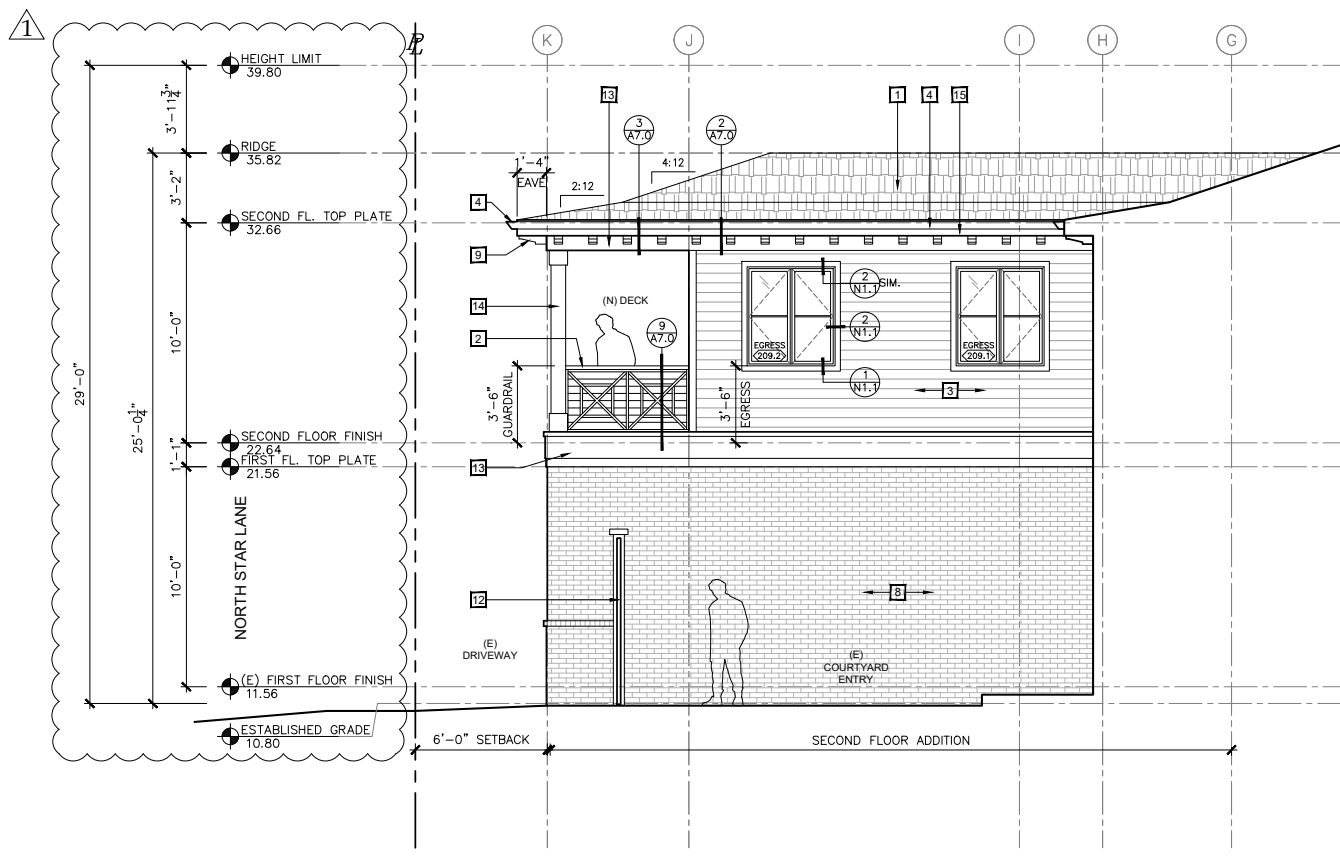
2 SOUTH ELEVATION EXISTING
1/4" = 1'-0"

KEY NOTES LEGEND:

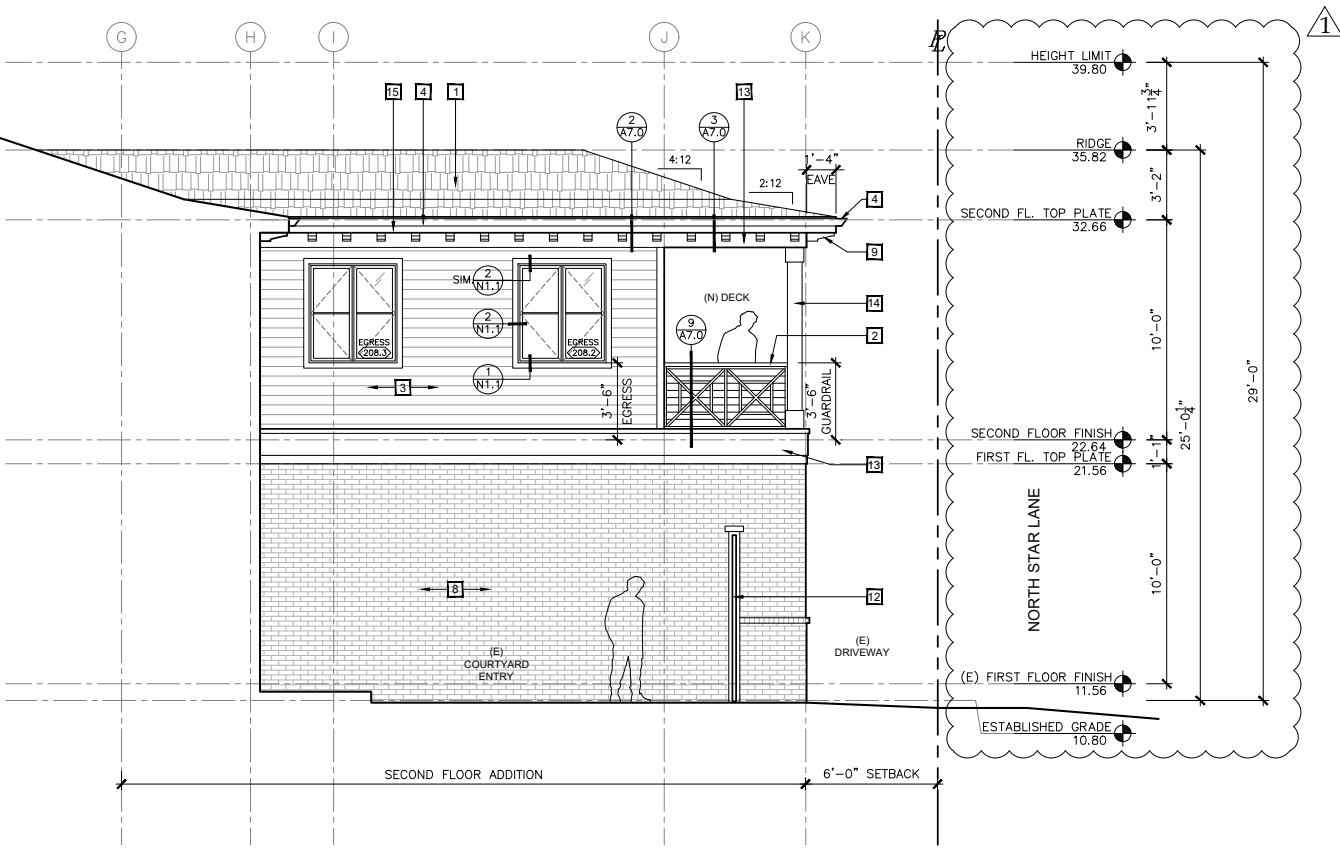
1	(N) PITCH BREAK ROOF W/ ASPHALT SHINGLES
2	(N) 42" GUARDRAIL
3	(N) PAINTED COMPOSITE SIDING
4	(N) SURFACE MOUNTED GUTTER
5	(N) DOORS & WINDOWS
6	NOT USED
7	NOT USED
8	(N) PAINTED BRICK VENEER (TO MATCH EXISTING)
9	(N) PAINTED RAFTER TAILS
10	(N) GARAGE DOOR (REMOVE AND REPLACE)
11	(E) PAINTED BRICK
12	(N) WOOD GATE (REMOVE AND REPLACE)
13	(N) PAINTED PTD. COMPOSITE TRIM
14	(N) PAINTED PTD. COMPOSITE POST WRAP
15	(N) PAINTED PTD. FASCIA
16	(N) PAINT GRADE COMPOSITE PANELING
17	(N) OVERFLOW SCUPPER
18	
19	
20	



1 SOUTH ELEVATION PROPOSED
1/4" = 1'-0"



2 SOUTH ELEVATION PROPOSED
1/4" = 1'-0"



1 NORTH ELEVATION PROPOSED
1/4" = 1'-0"

KEY NOTES LEGEND:

1	(N) PITCH BREAK ROOF W/ ASPHALT SHINGLES
2	(N) 42" GUARDRAIL
3	(N) PAINTED COMPOSITE SIDING
4	(N) SURFACE MOUNTED GUTTER
5	(N) DOORS & WINDOWS
6	NOT USED
7	NOT USED
8	(N) PAINTED BRICK VENEER (TO MATCH EXISTING)
9	(N) PAINTED RAFTER TAILS
10	(N) GARAGE DOOR (REMOVE AND REPLACE)
11	(E) PAINTED BRICK
12	(N) WOOD GATE (REMOVE AND REPLACE)
13	(N) PAINTED PTD. COMPOSITE TRIM
14	(N) PAINTED PTD. COMPOSITE POST WRAP
15	(N) PAINTED PTD. FASCIA
16	(N) PAINT GRADE COMPOSITE PANELING
17	(N) OVERFLOW SCUPPER
18	
19	
20	

LEE
MICHAEL LEE ARCHITECTS, INC.

2200 Highland Avenue
Manhattan Beach, CA 90266
t. 310.545.5771
f. 310.545.4330
www.mleearchitects.com

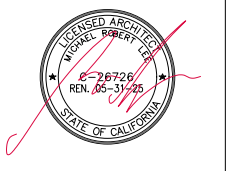
The drawings and descriptions set forth on this sheet and all copyrights therein are, and shall remain the property of Michael Lee Architects. Use of this drawing is limited to a one-time use on the specific project and for the specific person(s) named herein. Any other use or reuse of said drawings is strictly prohibited without the express written permission of Michael Lee Architects. Copyright © 2014 by Michael Lee Architects. ALL RIGHTS RESERVED.

Gray

Residence

415 North Star Lane
Newport Beach, CA
92660

Professional Seal



Date: 08/20/2024

Revisions	By
P.C.C. 02.07.2023	JPT
1 Const. Revs 08.20.2024	JPT

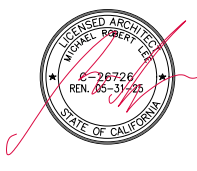
Submittals

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

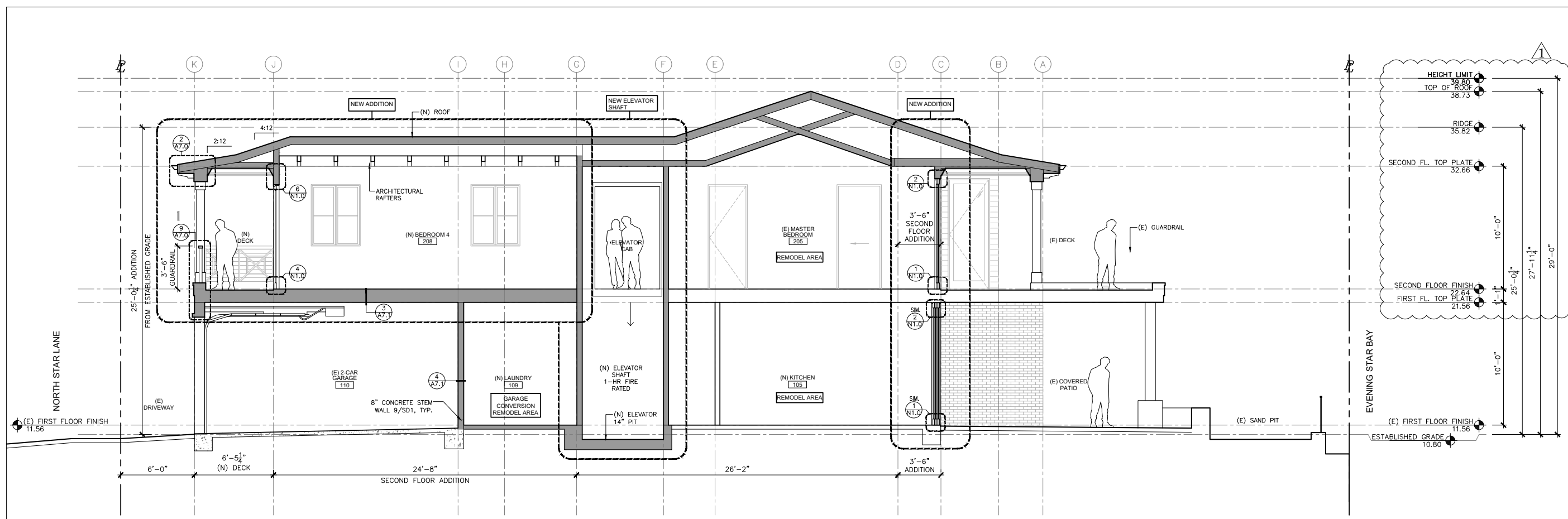
Drawn by: JPT

Exterior Elevations

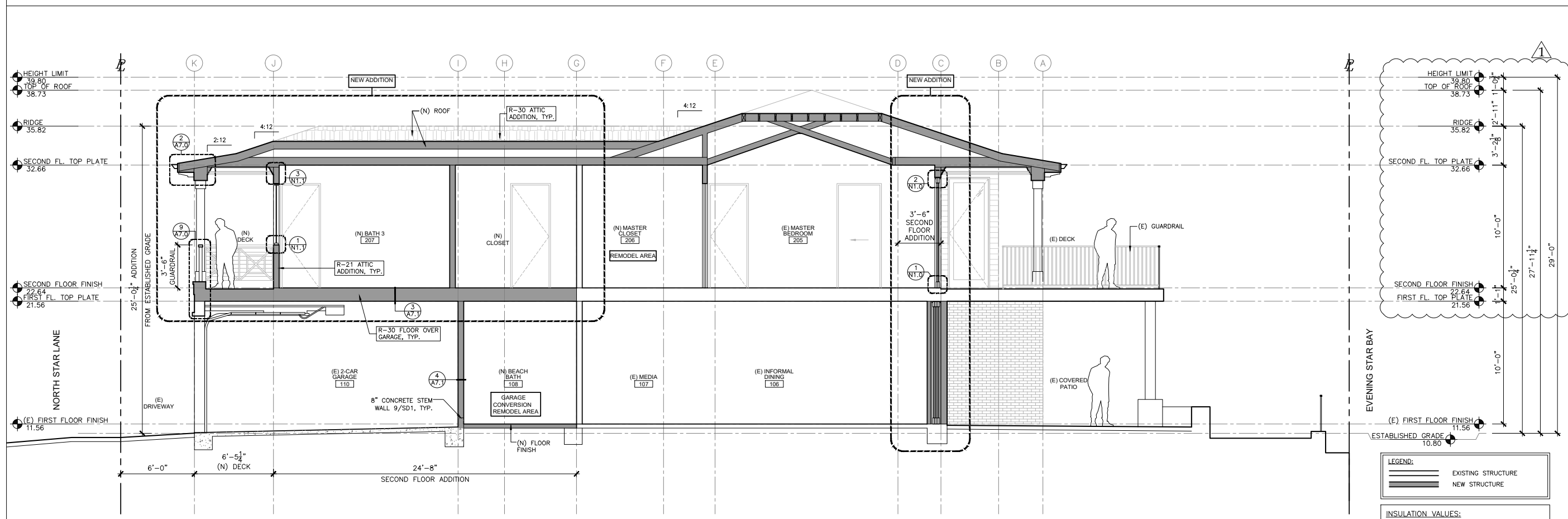
A 3.4



Revisions	By
P.C.C. 02.07.2023	JPT
1 08.20.2024	JPT



2 BUILDING SECTION
 1/4" = 1'-0"



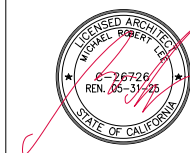
1 BUILDING SECTION
 1/4" = 1'-0"

LEGEND:

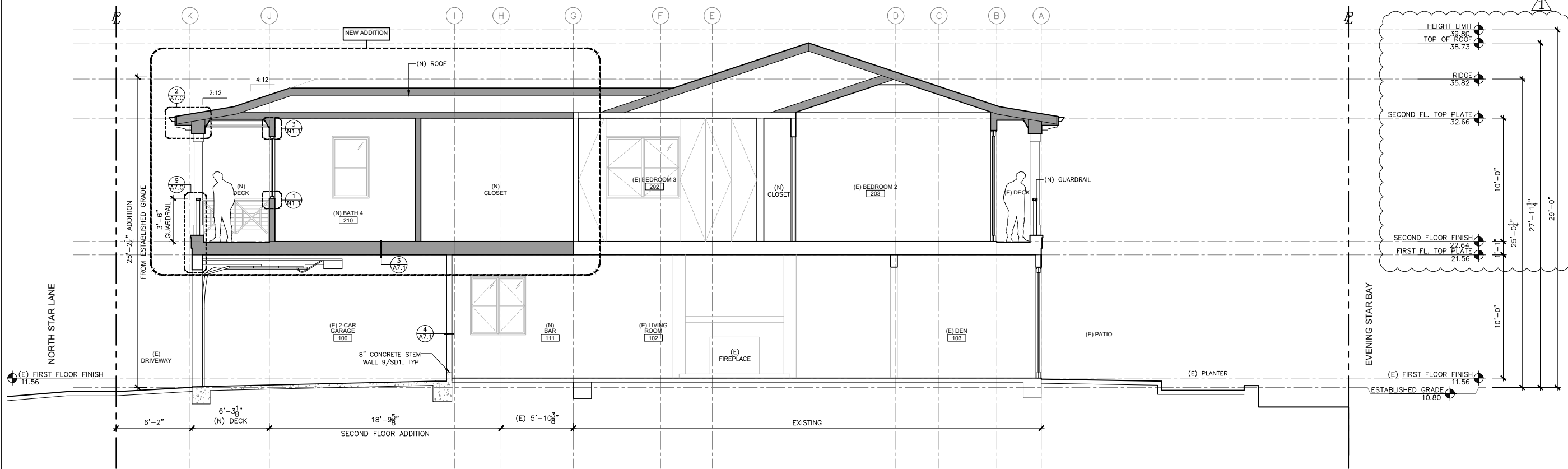
	EXISTING STRUCTURE
	NEW STRUCTURE

INSULATION VALUES:

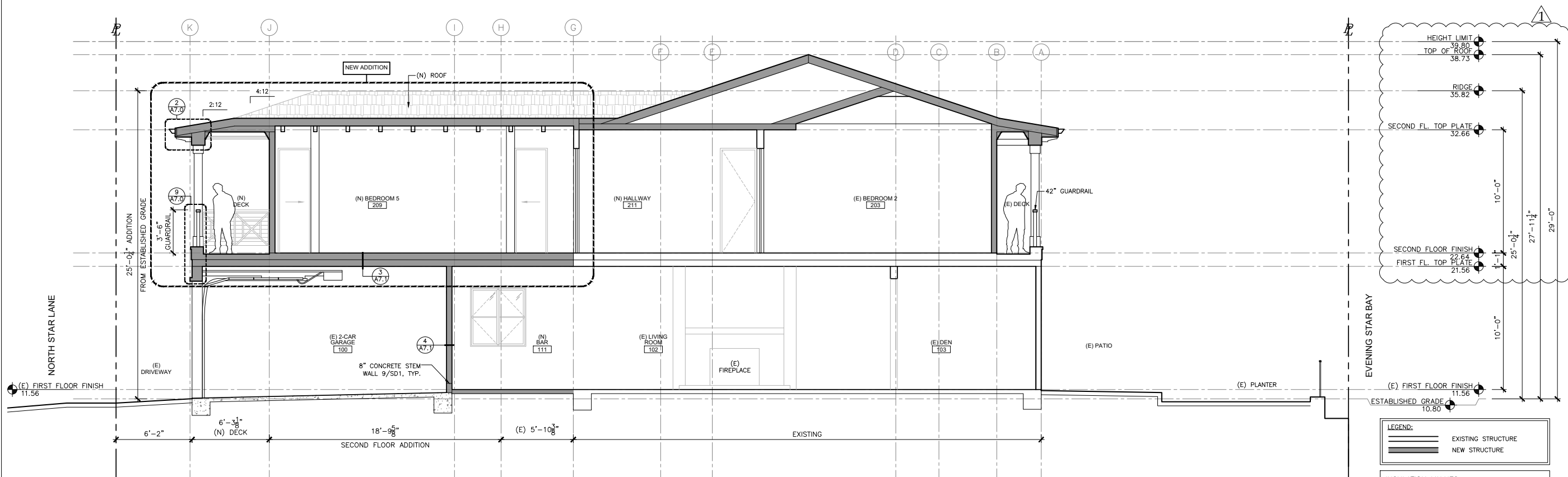
R-30	AT ATTIC ADDITION
R-21	AT EXTERIOR WALLS
R-30	AT FLOOR AT GARAGE SEPARATION



Revisions	By
P.C.C. 02.07.2023	JPT
1 08.20.2024	JPT



2 BUILDING SECTION
1/4" = 1'-0"



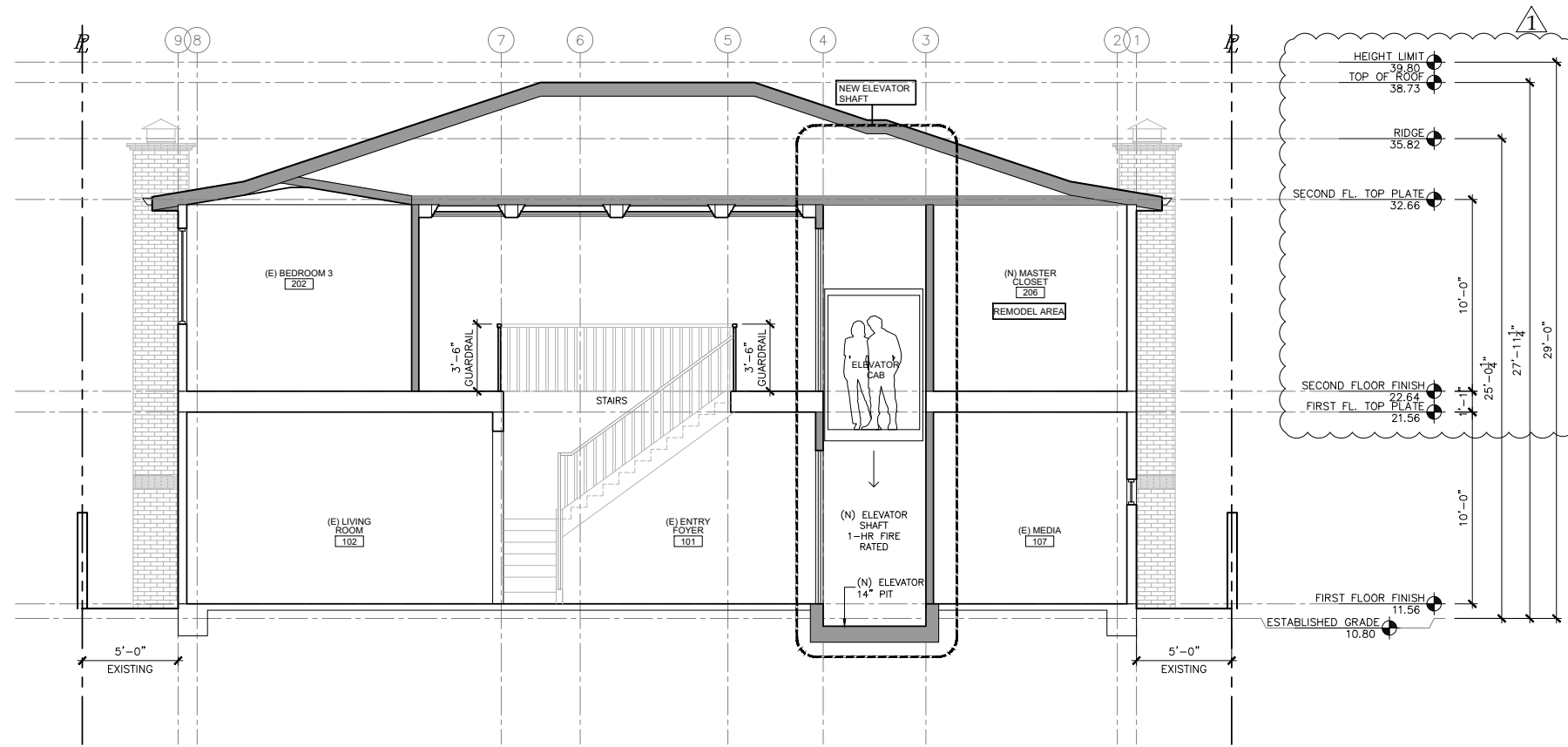
1 BUILDING SECTION
1/4" = 1'-0"

LEGEND:

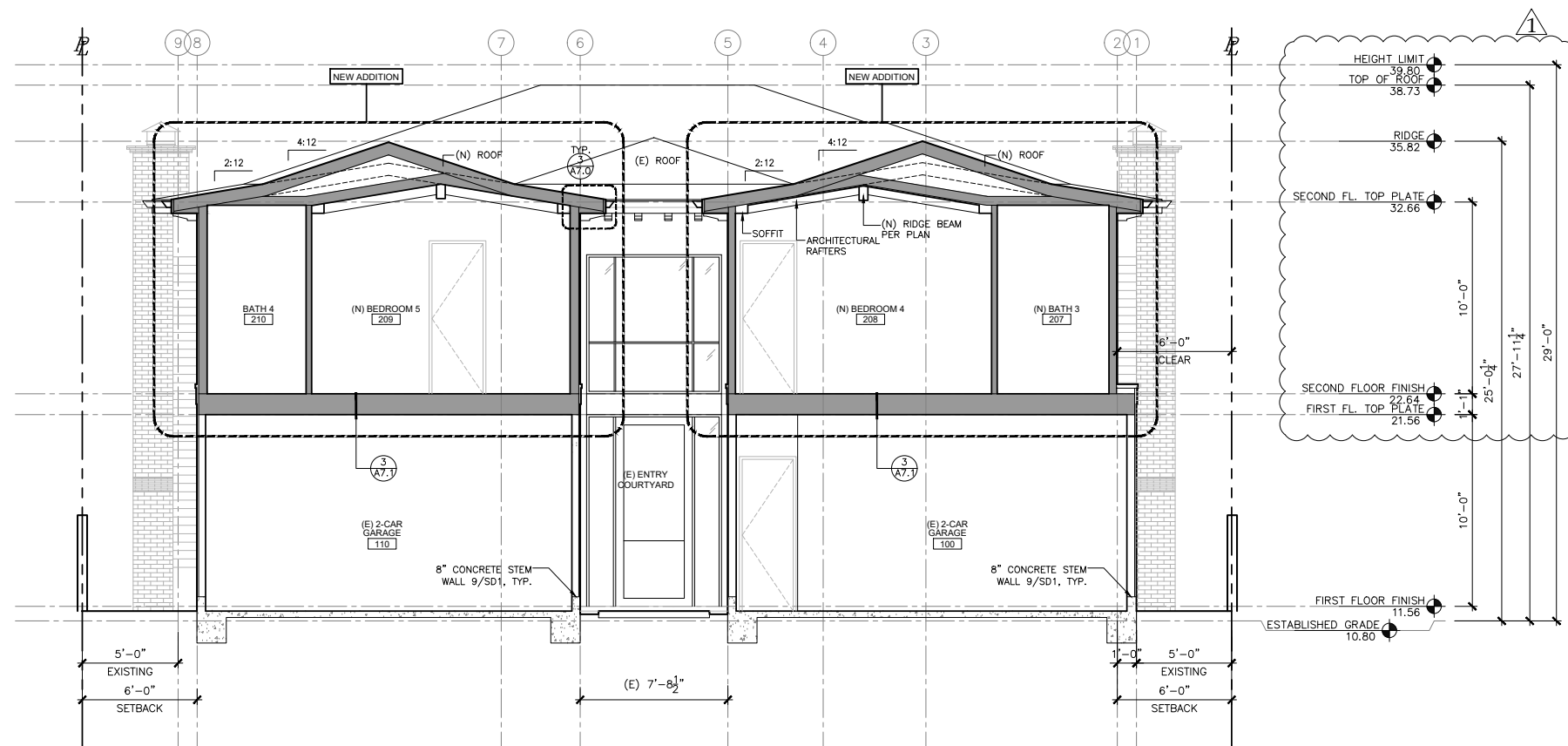
	EXISTING STRUCTURE
	NEW STRUCTURE

INSULATION VALUES:

R-30	AT ATTIC ADDITION
R-21	AT EXTERIOR WALLS
R-30	AT FLOOR AT GARAGE SEPARATION



2 BUILDING SECTION
1/4" = 1'-0"



1 BUILDING SECTION
1/4" = 1'-0"

LEGEND:

	EXISTING STRUCTURE
	NEW STRUCTURE

INSULATION VALUES:

R-30	AT ATTIC ADDITION
R-21	AT EXTERIOR WALLS
R-30	AT FLOOR AT GARAGE SEPARATION

LEE

MICHAEL LEE ARCHITECTS, INC.

2200 Highland Avenue
Manhattan Beach, CA 90266
t. 310.545.5771
f. 310.545.4330
www.mleearchitects.com

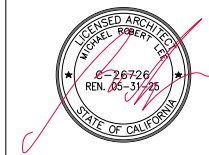
The drawings and descriptions set forth on this sheet and all copyrights therein are, and shall remain the property of Michael Lee Architects. Use of this drawing is limited to a one-time use on the specific project and for the specific person(s) named herein. Any other use or reuse of said drawings is strictly prohibited without the express written permission of Michael Lee Architects. Copyright © 2014 by Michael Lee Architects. ALL RIGHTS RESERVED.

Gray

Residence

415 North Star Lane
Newport Beach, CA
92660

Professional Seal



Date: 08/20/2024

Revisions	By
P.C.C. 02.07.2023	JPT
1 Const. Revs 08.20.2024	JPT

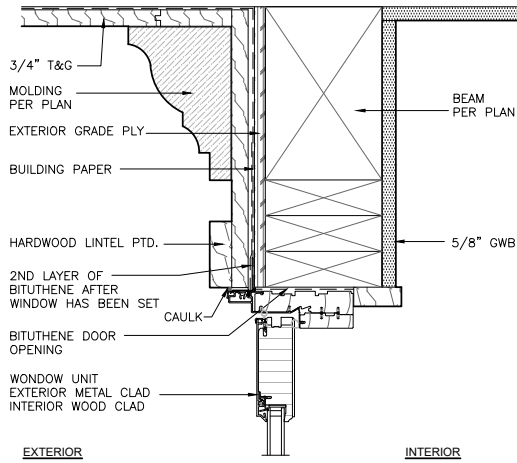
Submittals

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

Drawn by: JPT

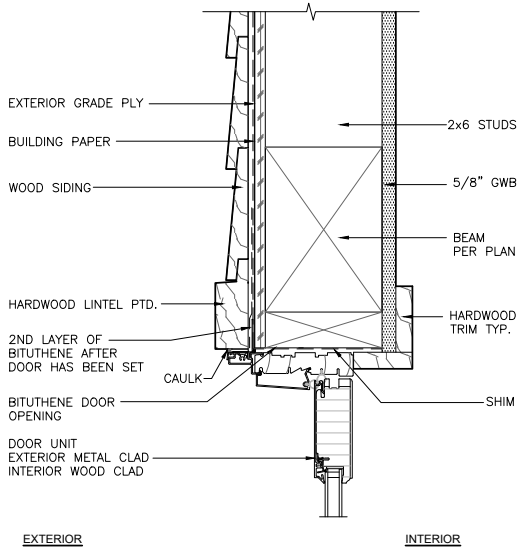
Building Sections

A 4.2



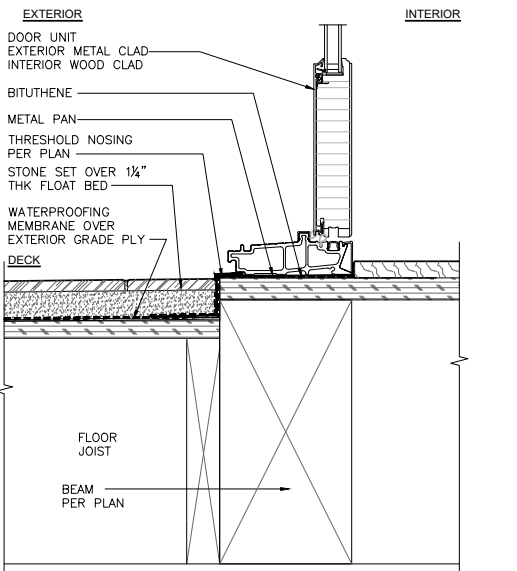
EXTERIOR DOOR HEAD
3" = 1'-0" INSWING

6



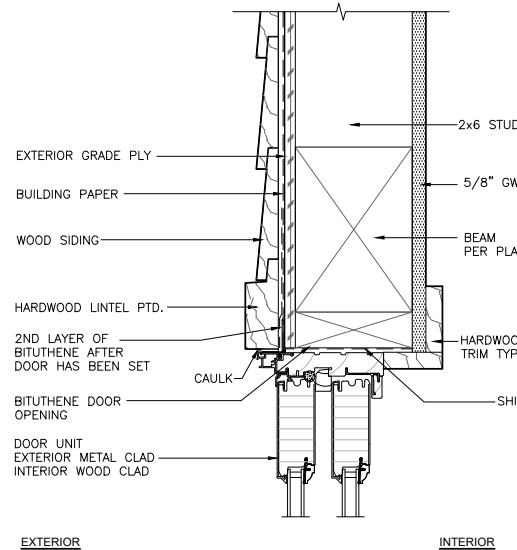
EXTERIOR DOOR JAMB / HEAD
3" = 1'-0" INSWING

5



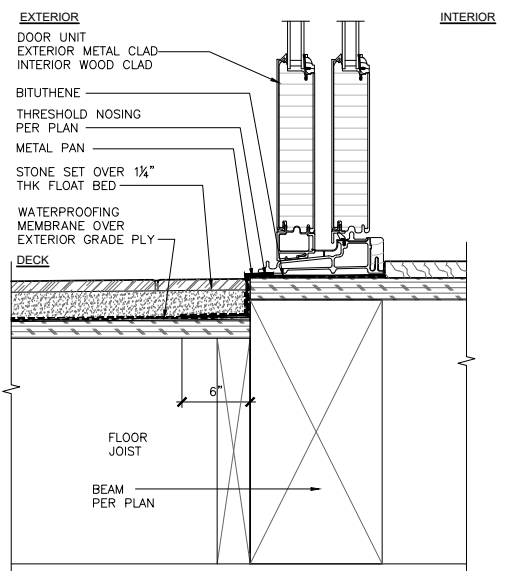
EXTERIOR DOOR @ SILL
3" = 1'-0" INSWING

4



EXTERIOR DOOR JAMB / HEAD SIM.
3" = 1'-0"

2



EXTERIOR DOOR SILL
3" = 1'-0"

1

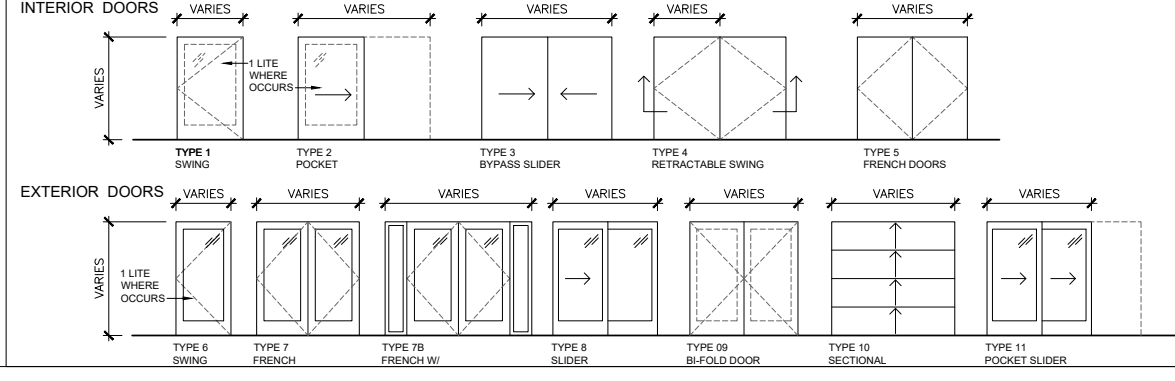
DOOR SCHEDULE

CONTRACTOR TO VERIFY U-FACTOR AND SHGC TO MATCH SHEET T.24-2

	SYMBOL	SIZE (WxH)	TYPE	THICKNS.	CORE	MATERIAL	FINISH	HARDWARE	HEAD	JAMB	SILL	U-FACTOR	SHGC	MANUFACTURER	NOTES AND GLAZING	
EXTERIOR DOORS	1ST FLR.	100A	16'-0" x 8'-0"	TYPE 10	1-3/4"	INSUL. STEEL	WOOD CLAD	STAIN GRADE							REMOVE AND REPLACE	
		100B	3'-0" x 8'-6"	TYPE 1											REMOVE AND REPLACE	
		101A	4'-0" x 8'-6"	TYPE 6											CUSTOM ENTRY DOOR, REMOVE AND REPLACE	
		103A	9'-0" x 9'-0"	TYPE 7B			ALUMINUM CLAD WOOD						0.35	0.25	SIERRA PACIFIC	TEMPERED
		104A	24'-10" x 9'-0"	TYPE 11			ALUMINUM CLAD WOOD						0.35	0.25	SIERRA PACIFIC	TEMPERED
	2ND FLR.	108A	3'-0" x 8'-6"	TYPE 6			ALUMINUM CLAD WOOD						0.35	0.25	SIERRA PACIFIC	REMOVE AND REPLACE
		110A	16'-0" x 8'-6"	TYPE 10		INSUL. STEEL	WOOD CLAD	STAIN GRADE								REMOVE AND REPLACE
		203A	8'-0" x 8'-6"	TYPE 7B		GLASS	ALUMINUM CLAD WOOD	PAINTED					0.35	0.25	SIERRA PACIFIC	REMOVE AND REPLACE
		203B	3'-0" x 8'-6"	TYPE 1												TEMPERED
		205A	10'-0" x 8'-6"	TYPE 7B												TEMPERED
208A		6'-0" x 8'-6"	TYPE 7												TEMPERED	
209B		6'-0" x 8'-6"	TYPE 7												TEMPERED	
EXTERIOR DOORS		1ST FLR.	101B	3'-0" x 8'-6"	TYPE 1		SOLID	WOOD	PAINT GRADE							20 MIN. FIRE-RATED DOOR SELF CLOSING, SELF LATCHING
			108B	2'-8" x 8'-6"	TYPE 1											PROVIDE 100 SQ. IN. MIN. (TOP & BOTTOM) OPEN'G MAKEUP AIR CMC SECT. 504.3.1
			109A	3'-6" x 8'-6"	TYPE 2											20 MIN. FIRE-RATED DOOR SELF CLOSING, SELF LATCHING
	111C		2'-10" x 8'-6"	TYPE 1												
	2ND FLR.	201A	2'-8" x 8'-6"	TYPE 1												
		201B	2'-8" x 8'-6"	TYPE 2												
		202A	2'-8" x 8'-6"	TYPE 1												
		203C	2'-8" x 8'-6"	TYPE 1												
		203D	7'-10" x 8'-6"	TYPE 3												
		204A	3'-6" x 8'-6"	TYPE 2												
204B		2'-6" x 8'-6"	TYPE 2													
205B		3'-6" x 8'-6"	TYPE 5													
206A		5'-0" x 8'-6"	TYPE 2													
207A		3'-0" x 8'-6"	TYPE 1													
208B		3'-0" x 8'-6"	TYPE 1													
208C		3'-0" x 8'-6"	TYPE 1													
209A		3'-0" x 8'-6"	TYPE 1													
209C		2'-8" x 8'-6"	TYPE 2													
210A		2'-8" x 8'-6"	TYPE 2													
			3'-0" x 8'-6"	TYPE 1												20 MIN. FIRE-RATED DOOR SELF CLOSING, SELF LATCHING

ALL DOORS TO BE SINGLE-LITE U.N.O.

DOOR TYPES



- EGRESS NOTES:**
1. NET CLEAR OPENING AREA OF NOT LESS THAN 5.7 SF
 2. MINIMUM CLEAR OPENING HEIGHT OF 24"
 3. MINIMUM CLEAR OPENING WIDTH OF 20"
 4. THE BOTTOM OF WINDOW OPENING SHALL NOT BE MORE THAN 44" FROM THE FLOOR
 5. SHALL OPEN DIRECTLY INTO A PUBLIC WAY, OR, TO A YARD OR COURT THAT OPENS TO A PUBLIC WAY. YARD OR COURT MUST COMPLY WITH THE DEFINITION: "AN OPEN SPACE, UNOBSTRUCTED FROM THE GROUND TO THE SKY." THEREFORE, INGRESS/EGRESS OPENINGS WHICH OPEN UNDER OR ONTO DECKS, ROOFS, OR COVERED PATIOS ARE NOT ACCEPTABLE.
 6. WINDOW CONTROL OPENING DEVICE SHALL NOT REDUCE THE REQUIRED NET CLEAR OPENING AREA OF THE WINDOW

LANDINGS OR FINISHED FLOORS AT THE REQUIRED EGRESS DOOR SHALL NOT BE MORE THAN 1-1/2" LOWER THAN THE TOP OF THE THRESHOLD. THE EXTERIOR LANDING OR FINISHED FLOOR SHALL NOT BE MORE THAN 7-3/4" BELOW THE TOP OF THE THRESHOLD PROVIDED THE DOOR DOES NOT SWING OVER THE LOWER LANDING OR FLOOR.

LEE
MICHAEL LEE ARCHITECTS, INC.

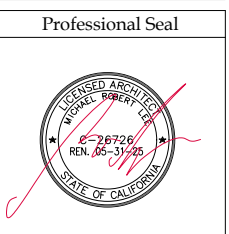
2200 Highland Avenue
Manhattan Beach, CA 90266
t. 310.545.5771
f. 310.545.4330
www.mleearchitects.com

The drawings and descriptions set forth on this sheet and all copyrights therein are, and shall remain the property of Michael Lee Architects. Use of this drawing is limited to a one-time use on the specific project and for the specific person(s) named herein. Any other use or reuse of said drawings is strictly prohibited without the express written permission of Michael Lee Architects. Copyright © 2014 by Michael Lee Architects. ALL RIGHTS RESERVED.

Gray

Residence

415 North Star Lane
Newport Beach, CA
92660



Date: 08/20/2024

Revisions	By
P.C.C. 02.07.2023	JPT
Const. Revs 08.20.2024	JPT

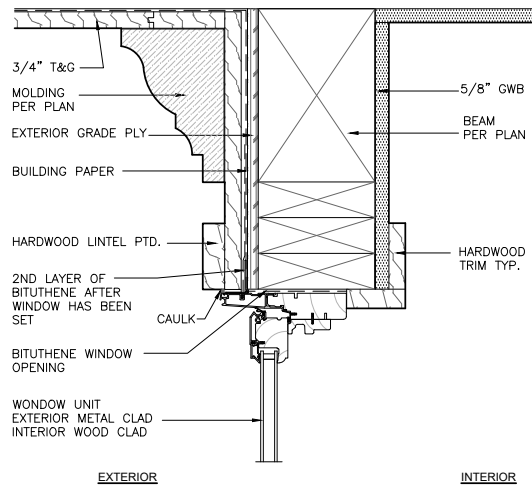
Submittals

Scale: N.T.S.

Drawn by: JPT

Door Schedule & Details

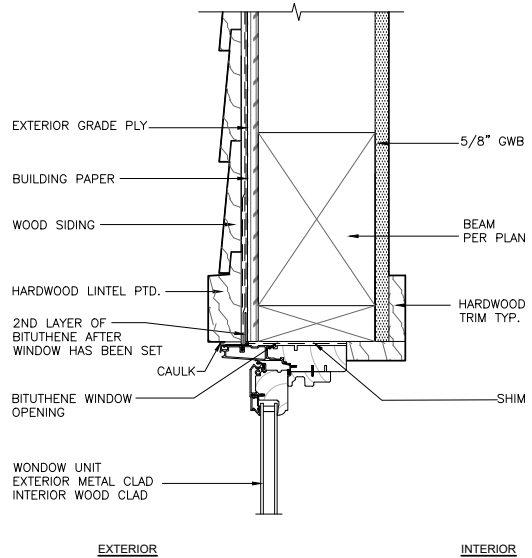
N 1.0



6

WINDOW HEAD
3" = 1'-0"

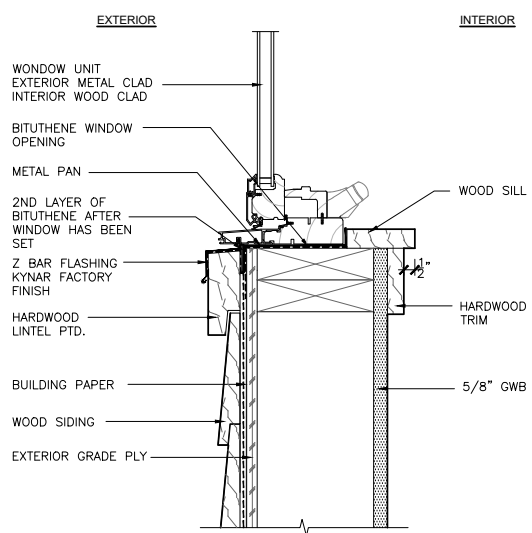
3



5

WINDOW HEAD & JAMB SIM.
3" = 1'-0"

2



4

WINDOW SILL
3" = 1'-0"

1

WINDOW SCHEDULE

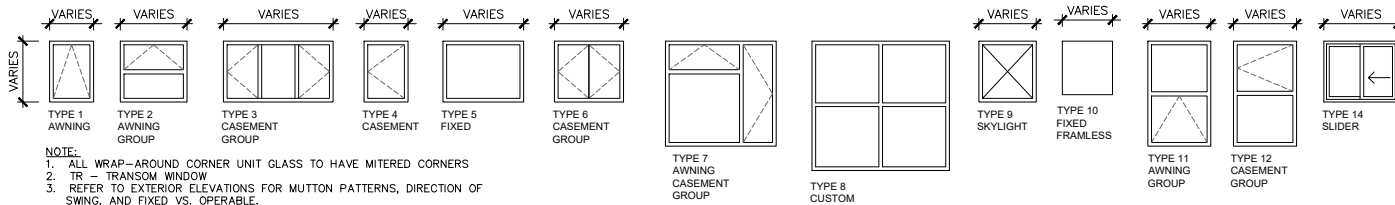
CONTRACTOR TO VERIFY U-FACTOR AND SHGC TO MATCH SHEET T.24-2

*ALL WINDOWS TO BE MEASURED BY SUB CONTRACTOR DURING CONSTRUCTION

SYMBOL	WINDOW SIZE (WxH)	TYPE	HEAD HEIGHT ABV. F.F.	FRAME MAT'L	FRAME FINISH	GLAZING	U-FACTOR	SHGC	MANUFACTURER	WINDOW COVERING	NOTES AND GLAZING
101.1	1'-6" x 10'-0"	TYPE 5	10'-0"	ALUMINUM CLAD WOOD	PAINTED	LOW 'E'	0.35	0.25	SIERRA PACIFIC		
101.2	1'-6" x 10'-0"	TYPE 5	10'-0"								
101.3	7'-0" x 7'-6"	TYPE 5	18'-0"								
1ST FLOOR											
107.1	8'-0" x 3'-0"	EXISTING OPERATION	8'-6"								REMOVE AND REPLACE
111.1	3'-0" x 5'-0"	TYPE 4	8'-6"								TEMPERED
111.2	4'-6" x 5'-0"	TYPE 6	8'-6"								TEMPERED
201.1	2'-0" x 3'-0"	TYPE 4	8'-0"								TEMPERED
202.1	6'-0" x 4'-0"	TYPE 6	8'-0"								REMOVE AND REPLACE
204.1	11'-6" x 5'-0"	TYPE 4	8'-0"								TEMPERED
205.1	2'-6" x 4'-6"	TYPE 4	8'-0"								TEMPERED
205.2	2'-6" x 4'-6"	TYPE 4	8'-0"								TEMPERED
207.1	3'-0" x 4'-6"	TYPE 4	8'-0"								TEMPERED
207.2	2'-0" x 4'-6"	TYPE 4	8'-0"								TEMPERED
208.1	2'-0" x 4'-6"	TYPE 4	8'-0"								TEMPERED
208.2	4'-0" x 4'-6"	TYPE 6	8'-0"								EGRESS, TEMPERED
208.3	4'-0" x 4'-6"	TYPE 6	8'-0"								EGRESS, TEMPERED
209.1	3'-6" x 4'-6"	TYPE 6	8'-0"								EGRESS, TEMPERED
209.2	3'-6" x 4'-6"	TYPE 6	8'-0"								EGRESS, TEMPERED
209.3	2'-0" x 4'-6"	TYPE 4	8'-0"								TEMPERED
210.1	2'-0" x 4'-6"	TYPE 4	8'-0"								TEMPERED
210.2	3'-0" x 4'-6"	TYPE 4	8'-0"								TEMPERED
2ND FLOOR											

ALL WINDOWS TO BE DUAL GLAZED U.N.O.

WINDOW TYPES



- NOTE:
- ALL WRAP-AROUND CORNER UNIT GLASS TO HAVE MITERED CORNERS
 - TR - TRANSOM WINDOW
 - REFER TO EXTERIOR ELEVATIONS FOR MUTTON PATTERNS, DIRECTION OF SWING, AND FIXED VS. OPERABLE.

- EGRESS NOTES:
- NET CLEAR OPENING AREA OF NOT LESS THAN 5.7 SF
 - MINIMUM CLEAR OPENING HEIGHT OF 24"
 - MINIMUM CLEAR OPENING WIDTH OF 20"
 - THE BOTTOM OF WINDOW OPENING SHALL NOT BE MORE THAN 44" FROM THE FLOOR
 - SHALL OPEN DIRECTLY INTO A PUBLIC WAY, OR, TO A YARD OR COURT THAT OPENS TO A PUBLIC WAY. YARD OR COURT MUST COMPLY WITH THE DEFINITION: "AN OPEN SPACE, UNOBSTRUCTED FROM THE GROUND TO THE SKY." THEREFORE, INGRESS/EGRESS OPENINGS WHICH OPEN UNDER OR ONTO DECKS, ROOFS, OR COVERED PATIOS ARE NOT ACCEPTABLE.
 - WINDOW CONTROL OPENING DEVICE SHALL NOT REDUCE THE REQUIRED NET CLEAR OPENING AREA OF THE WINDOW

LEE

MICHAEL LEE ARCHITECTS, INC.

2200 Highland Avenue
Manhattan Beach, CA 90266
t. 310.545.5771
f. 310.545.4330
www.mleearchitects.com

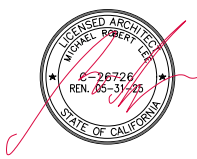
The drawings and descriptions set forth on this sheet and all copyrights therein are, and shall remain the property of Michael Lee Architects. Use of this drawing is limited to a one-time use on the specific project and for the specific person(s) named herein. Any other use or reuse of said drawings is strictly prohibited without the express written permission of Michael Lee Architects. Copyright © 2014 by Michael Lee Architects. ALL RIGHTS RESERVED.

Gray

Residence

415 North Star Lane
Newport Beach, CA 92660

Professional Seal



Date: 08/20/2024

Revisions	By
P.C.C. 02.07.2023	JPT
1 Const. Revs 08.20.2024	JPT

Submittals

Scale: N.T.S.

Drawn by: JPT

Window Schedule & Details

N 1.1

2019 CALIFORNIA BUILDING CODE SHEARWALL SCHEDULE (w/ 2019 LARUP Amendments)				1-1-2019			
SHEAR-WALL NOTATION	STRUCTURAL I APA-RATED WOOD STRUCTURAL PANEL THICKNESS	COMMON NAIL SPACING @ BOUNDARIES & EDGES (B.N. & E.N.) FIELD NAILING @ 12" O.C.	ALLOWABLE SHEAR / FT (WOOD STUDS @ 16" O.C., U.N.O.) (REDUCED BY 25%)	SLIDING ANCHOR SYSTEM			
				5/8" A.B. 2 / 1/4" FRAMING CLIP SPACING	3/5 OR 1/2" TYP. COMMON NAIL SPACING	16d COMMON NAIL SPACING	1/4" LAG 6" SCREW SPACING
Δ	15/32"	8d @ 6" o.c.	210#/FT.	48"	24"	6"	12"
Δ 1	15/32"	8d @ 4" o.c.	320#/FT.	48"	16"	4"	9"
Δ 1	15/32"	8d @ 3" o.c.	410#/FT.	44"	12"	3"	6"
Δ 1	15/32"	8d @ 2" o.c.	540#/FT.	32"	9"	SEE LAG SPACING	→ 5"
Δ 1	15/32"	10d @ 2" o.c.	650#/FT.	26"	8"	SEE LAG SPACING	→ 4"
Δ 1	15/32"	8d @ 3" o.c. EACH SIDE	820#/FT.	22"	12"	SEE LAG SPACING	→ 3"
Δ 1	15/32"	8d @ 2" o.c. EACH SIDE	1080#/FT.	16"	9"	SEE LAG SPACING	→ 3"
Δ 1	15/32"	10d @ 2" o.c. EACH SIDE	1300#/FT.	13"	8"	SEE LAG SPACING	→ 3"

1. FRAMING AT FOUNDATION SILL PLATES AND ADJOINING PANEL EDGE STUDS SHALL BE A SINGLE 3x NOMINAL MEMBER, AND ALL NAILS SHALL BE STAGGERED WITH 1/2" EDGE DISTANCE. 2x NOMINAL SOLE PLATE MAY BE USED AT RAISED FLOOR AND UPPER LEVELS.

2. SIMPSON BPS/8 BEARING PLATES (LARR 25293), OR OTHER LISTED MAKE, APPROVED BY BUILDING OFFICIAL SHALL BE USED WITH ALL 5/8" ANCHORS. 5/8" SIMPSON TITAN HD ANCHORS (ICC ESR-1056) (LARR 25566) WITH 4-1/8" MIN. EMBEDMENT, MAY BE USED IN LIEU OF 5/8" ANCHOR BOLTS AT EXISTING FOOTINGS WITH SAME SPACING PER TABLE ABOVE. SPECIAL INSPECTION REQUIRED FOR ALL EPOXY ANCHOR INSTALLATIONS.

3. ALL SILL NAILING SHALL BE STAGGERED 1/2" MINIMUM (TYPICAL).

4. FRAMING AT FOUNDATION SILL PLATE, SOLE PLATES AND STUDS SHALL BE A SINGLE 3x NOMINAL MEMBER, AND ALL NAILS SHALL BE STAGGERED W/ 1/2" EDGE DISTANCE. 2x NOMINAL DOUBLE TOP PLATE MAY BE USED.

5. LTP4 TO BE @ SPECIFIED SPACING AT BOTH FACES W/ 4x BLOCKING.

6. FOR 1/4" LAGS, USE SIMPSON "SDS" SCREWS (3/8"x6", "SDS25600, U.N.O.).

SYMBOLS/ABBREVIATIONS:

F.J. = FLOOR JOISTS (N) = NEW
R.R. = ROOF RAFTERS (E) = EXISTING
C.J. = CEILING JOISTS RB = ROOF BEAM/JOIST
K.P. = KING POST FB = FLOOR BEAM/JOIST
TYP. = TYPICAL HNGR = HANGER
O.C. = ON CENTER SIMP. = SIMPSON
B.N. = BOUNDARY NAILING PSL = PARALLAM, TRUSJOIST
E.N. = EDGE NAILING M.B. = MACHINE BOLT
SIM. = SIMILAR R.B. = RIDGE BEAM/BOARD
V.I.F. = VERIFY IN FIELD HDR = HEADER
BLK'G = BLOCKING UNO = UNLESS NOTE OTHERWISE

∇ INDICATES SHEAR WALL \square INDICATES KING POST (4x4, UNO)

\boxtimes INDICATES POST (4x4, UNO) \boxtimes INDICATES 6x6 POST (U.N.O.)

\boxtimes INDICATES 4x6 POST (U.N.O.) \square INDICATES SIMPSON HANGER "HUCQ" FOR SOLID SAWN "HHUS" FOR PSL BEAMS

\boxtimes HARDY FRAME PANELS (w/ STANDARD STRENGTH 1/8" HOLDOWN BOLTS, U.N.O.)

\boxtimes SIMPSON STRONG WALL WOOD SHEARWALL PER PLANS - HOLDOWN BOLTS PER MANUFACTURER

GENERAL WOOD NOTES

- A. FOUNDATION SILLS SHALL BE NATURALLY DURABLE OR PRESERVATIVE-TREATED WOOD. (PER 2019 CBC)
- B. GLULAM BEAMS MUST BE FABRICATED IN AN APPROVED SHOP. IDENTIFY GRADE SYMBOL AND LAMINATION SPECIES PER 2015 NDS (NDS-15).
- C. PROVIDE LEAD HOLE 40% TO 70% OF THREADED SHANK DIAMETER AND FULL DIAMETER FOR SMOOTH SHANK PORTION PER 2015 NDS (NDS-15).
- D. ALL BOLT HOLES SHALL BE DRILLED 1/32" TO 1/16" OVERSIZED, PER 2015 NDS (NDS-15)
- E. HOLD-DOWN CONNECTOR BOLTS INTO WOOD FRAMING REQUIRE APPROVED PLATE WASHERS; AND HOLD-DOWNS SHALL BE TIGHTENED JUST PRIOR TO COVERING THE WALL FRAMING. (PER 2019 CBC)
- F. HOLD-DOWN HARDWARE MUST BE SECURED IN PLACE PRIOR TO FOUNDATION INSPECTION.
- G. ROOF DIAPHRAGM NAILING TO BE INSPECTED BEFORE COVERING. STRENGTH AXIS OF WOOD STRUCTURAL PANEL SHALL BE PERPENDICULAR TO SUPPORTS. FLOOR DIAPHRAGMS SHALL BE TONGUE AND GROOVE OR HAVE BLOCKED PANEL EDGES. WOOD STRUCTURAL PANEL SPANS SHALL CONFORM TO (PER 2019 CBC).
- H. ALL DIAPHRAGM AND SHEAR WALL NAILING SHALL UTILIZE COMMON NAILS WITH FULL HEADS UNLESS OTHERWISE APPROVED. (PER 2019 CBC)
- I. FASTENERS IN PRESERVATIVE TREATED WOOD OR FIRE-RETARDANT TREATED WOOD SHALL BE HOT DIPPED, GALVANIZED STEEL OR STAINLESS STEEL. (PER 2019 CBC)
- J. MECHANICALLY DRIVEN NAILS USED IN WOOD STRUCTURAL PANEL SHEAR WALLS SHALL MEET THE SAME DIMENSIONS AS THAT REQUIRED FOR HAND-DRIVEN NAILS, INCLUDING DIAMETER, MIN. LENGTH AND MIN. HEAD DIAMETER. CLIPPED HEAD OR BOX NAILS ARE NOT ACCEPTABLE. (PER 2019 CBC)
- K. ENGINEERED WOOD PRODUCTS SUCH AS PREFABRICATED WOOD I-JOISTS, STRUCTURAL GLUED-LAMINATED TIMBER, STRUCTURAL COMPOSITE LUMBER AND DESIGN TRUSSES SHALL NOT BE NOTCHED OR DRILLED EXCEPT WHERE PERMITTED BY THE MANUFACTURERS' RECOMMENDATIONS OR WHERE THE EFFECTS OF SUCH ALTERATIONS ARE SPECIFICALLY CONSIDERED IN THE DESIGN OF THE MEMBER BY A REGISTERED DESIGN
- L. THE QUALITY MARK SHALL BE ON THE STAMP OR LABEL AFFIXED TO PRESERVATIVE-TREATED WOOD AND SHALL INCLUDE THE FOLLOWING INFORMATION: IDENTIFICATION OF TREATING MANUFACTURER, TYPE OF PRESERVATIVE USED, MIN. PRESERVATIVE RETENTION (PCF), END USE FOR WHICH THE PRODUCT IS TREATED, AWWA STANDARD TO WHICH THE PRODUCT WAS TREATED AND IDENTITY OF THE ACCREDITED INSPECTION AGENCY. (PER 2019 CBC)
- M. MOISTURE CONTENT OF PRESERVATIVE-TREATED WOOD SHALL BE 19% OR LESS BEFORE BEING COVERED WITH INSULATION, INTERIOR WALL FINISH, AND FLOOR COVERING OF OTHER MATERIALS.
- N. MOISTURE CONTENT OF FIRE-RETARDANT-TREATED WOOD SHALL BE 19% OR LESS FOR LUMBER AND 15% OR LESS FOR WOOD STRUCTURAL PANELS BEFORE USE. (PER 2019 CBC)
- O. SHEATHING NAILS OR OTHER APPROVED SHEATHING CONNECTORS SHALL BE DRIVEN SO THAT THEIR HEAD OR CROWN IS FLUSH WITH THE SURFACE OF THE SHEATHING. (PER 2019 CBC)
- P. WEATHER-EXPOSED BEAMS OR POSTS SUPPORTING BALCONIES, PORCHES SHALL BE NATURALLY DURABLE OR PRESERVATIVE-TREATED WOOD (PER 2019 CBC)
- Q. THE HOLE IN THE PLATE WASHER IS PERMITTED TO BE DIAGONALLY SLOTTED WITH A WIDTH OF UP TO 3/16" LARGER THAN THE BOLT DIAMETER AND A SLOT LENGTH NOT TO EXCEED 1-3/4", PROVIDED A STANDARD CUT WASHER IS PLACED BETWEEN THE PLATE WASHER AND THE NUT. (PER 2019 CBC)
- R. FIRE-RETARDANT-TREATED LUMBER AND WOOD STRUCTURAL PANELS SHALL BE LABELED. THE LABEL SHALL CONTAIN THE FOLLOWING ITEMS: THE IDENTIFICATION MARK OF AN APPROVED AGENCY IN ACCORDANCE WITH CBC 1703.5, IDENTIFICATION OF THE TREATING MANUFACTURER, THE NAME OF THE FIRE-RETARDANT TREATMENT, THE SPECIES OF WOOD TREATED, FLAME SPREAD AND SMOKE-DEVELOPED INDEX, METHOD OF DRYING AFTER TREATMENT, CONFORMANCE WITH APPROPRIATE STANDARDS IN ACCORDANCE WITH 2019 CBC.
- S. LABELING FOR FIRE-TREATED WOOD EXPOSED TO WEATHER, DAMP OR WET LOCATIONS, MUST INCLUDE THE WORDS "NO INCREASE IN THE LISTED CLASSIFICATION WHEN SUBJECTED TO THE STANDARD RAIN TEST." (ASTM D 2898).

NOTES

- CONCRETE SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS FOR POURED-IN-PLACE CONTINUOUS AND SPREAD FOOTINGS.
- PROVIDE A CORROSION RESISTANT WEEP SCREED AT FOUNDATION PLATE WHICH ALLOWS TRAPPED WATER TO DRAIN TO THE EXTERIOR OF THE BUILDING. MINIMUM HEIGHT ABOVE GRADE 4".
- FOR ALL SHEARWALLS Δ , Δ 1, Δ 1, & Δ 1 - SILL PLATES AND PANEL EDGE STUDS SHALL BE 3x MEMBERS
- FOUNDATION SILLS SHALL BE NATURALLY DURABLE OR PRESERVATIVE TREATED WOOD
- ALL HOLD DOWNS MUST BE IN PLACE PRIOR TO FOUNDATION INSPECTION
- ALL BOLT HOLES SHALL BE DRILLED 1/32 TO 1/16 INCHES OVERSIZED
- MINIMUM 3"x3"x0.229" SQUARE PLATE WASHERS SHALL BE USED WITH ALL ANCHOR BOLTS IN SHEAR WALL SILL PLATES
- IF ADVERSE SOIL CONDITIONS ARE ENCOUNTERED, A SOILS INVESTIGATION REPORT MAY BE REQUIRED
- PROVIDE LEAD HOLE 40%-70% TO THREADED SHANK DIAMETER AND FULL DIAMETER FOR SMOOTH SHANK PORTION.
- ROOF DIAPHRAGM NAILING TO BE INSPECTED BEFORE COVERING. FACE GRAIN OF PLYWOOD SHALL BE PERPENDICULAR TO SUPPORTS. FLOOR SHALL HAVE TONGUE AND GROOVE OR BLOCKED PANEL EDGES. PLYWOOD SPANS SHALL CONFORM WITH TABLE 2306.2
- ALL DIAPHRAGM AND SHEAR WALL NAILING SHALL UTILIZE COMMON NAILS
- U.N.O., ALL 2x ROOF RAFTER AND FLOOR JOIST FRAMING MEMBERS SHALL BE MINIMUM GRADE DOUGLAS FIR-LARCH NO. 2 OR BETTER. ALL BEAMS, HEADERS, AND POSTS SHALL BE MINIMUM DOUGLAS FIR-LARCH NO. 1 OR BETTER. ALL VERTICAL WALL FRAMING MEMBERS SHALL BE DOUGLAS FIR -LARCH NO. 2 OR BETTER.
- ROOF SHEATHING SHALL BE 15/32" CDX APA-RATED SHEATHING, EXPOSURE 1, MIN. SPAN RATING 24/0, NAILED WITH 8d COMMON @ 6" o.c. EDGES & BOUNDARIES AND 12" o.c AT INTERMEDIATE FRAMING MEMBERS.
- FLOOR SHEATHING SHALL BE 23/32" CDX APA-RATED STURD-I-FLOOR, T&G, EXPOSURE 1, MIN. SPAN RATING 20" o.c., NAILED WITH 10d COMMON @ 6" o.c. EDGES & BOUNDARIES AND 12" o.c AT INTERMEDIATE FRAMING MEMBERS, U.N.O.
- A LICENSED FABRICATOR IS REQUIRED FOR ALL STRUCTURAL STEEL, GLULAM BEAMS AND PARALLAMS
- GLULAM AND PARALLAM BEAMS MUST BE FABRICATED BY A LICENSED SHOP
- 3x4 OR 2x6 MINIMUM STUD SIZE @ 16" o.c. REQUIRED FOR BEARING WALLS OVER 10 FEET IN HT.
- ROOFING MATERIAL NOT TO EXCEED 6 PSF
- CONTRACTORS RESPONSIBLE FOR THE CONSTRUCTION OF A WIND OR SEISMIC FORCE RESISTING SYSTEM/COMPONENT LISTED IN THE "STATEMENT OF SPECIAL INSPECTION" SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE LADBS INSPECTORS AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON SUCH SYSTEM OR COMPONENT PER 2016 CBC.
- HOLDOWN CONNECTOR BOLTS INTO WOOD FRAMING REQUIRE APPROVED PLATE WASHERS; AND HOLDOWNS SHALL BE RETIGHTENED JUST PRIOR TO COVERING THE WALL FRAMING. CONNECTOR BOLTS INTO WOOD FRAMING REQUIRE STEEL PLATE WASHERS.
- FIELD WELDING TO BE DONE BY WELDERS CERTIFIED FOR STRUCTURAL STEEL REINFORCING STEEL. CONTINUOUS INSPECTION BY A DEPUTY INSPECTOR IS REQUIRED.
- SHOP WELDS MUST BE PERFORMED IN A CITY BLDG. DEPT. LICENSED FABRICATOR'S SHOP.
- DRAG LINE \square DL
- DRAG LINE: SIMPSON ST6236 @ ALL BREAKS AND DIAPHRAGM EDGE NAILING.

PERIODIC SPECIAL INSPECTION IS REQUIRED FOR WOOD SHEAR WALLS, SHEAR PANELS, AND DIAPHRAGMS, INCLUDING NAILING, BOLTING, ANCHORING, AND OTHER FASTENING TO COMPONENTS OF THE SEISMIC FORCE RESISTING SYSTEM. SPECIAL INSPECTION BY A DEPUTY INSPECTOR IS REQUIRED WHERE THE FASTENER SPACING OF THE SHEATHING IS 4 INCHES ON CENTER OR LESS

DESIGN DEAD LOADS

ROOF - 14 psf.
FLOOR - 14 psf.
CEILING - 7 psf.
EXT. WALL - 16 psf.
INT. WALL - 8 psf.

DESIGN LIVE LOADS

ROOF - 20 psf.
CEILING - 10 psf.
FLOOR - 40 psf.
DECK - 60 psf.

SEISMIC COEFFICIENTS

F_v = 1.2 R = 6.5 Ω = 3.0
S_w = 1.361 F = 1.1 F_a = 1.5
S_s = 1.089 I = 1.0 Site Class D
 ρ = 1.3 C_s = 3.0

-SEISMIC DESIGN CATEGORY D
-SIMPLIFIED DESIGN PROCEDURE
-FORCE RESISTING SYSTEM: BEARING WALL-SHEAR WALL SYSTEM

WIND PRESSURE COEFFICIENTS

110 mph, 30 Second Gust Force
I=1.0 Exposure C
P₃₃₀₀ = 21.54 psf P₅₃₀₀ = 14.40 psf
P₃₃₀₀ = -5.69 psf P₅₃₀₀ = -3.15 psf

SOIL DESCRIPTION

STIFF SOIL (SITE CLASS D) W/
1500 psf. BEARING VALUE

CONTINUOUS INSPECTION BY A DEPUTY INSPECTOR IS REQUIRED FOR FIELD WELDING, CONCRETE DESIGNED WITH f'c GREATER THAN 2500 PSI., HIGH STRENGTH BOLTING, SPRAYED ON FIREPROOFING, ENGINEERED MASONRY, HIGH-LIFT GROUTING, PRE-STRESSED CONCRETE, HIGH LOAD DIAPHRAGMS, AND SPECIAL MOMENT RESISTING CONCRETE FRAMES.

THE FOLLOWING APPLIES TO ALL SHEAR WALLS DESIGNATIONS OF B, C, D, & E:

- a. 3x SILL PLATE
- b. 3x STUDS AND BLOCKS BETWEEN ADJACENT PANELS
- c. 1/2" EDGE DISTANCES FOR PLYWOOD BOUNDARY NAILING
- d. ALL PANEL JOINT AND SILL PLATE NAILING SHALL BE STAGGERED
- e. FOR THE ANCHOR BOLTS IN SHEAR WALL SILL PLATES, PROVIDE 0.229"x3"x3" PLATE WASHERS WITH SLOTTED CUT HOLE

Structural Observation/Significant Construction Stages (Only Checked Items are required)		
Firm or individual to be responsible for the Structural Observation: Name: McCullum Engineering, Inc. Registered Architect Registered Engineer Phone: (310) 944-0898 California Registration Number: C68850		
CONSTRUCTION STAGE	Construction Type	Elements/Connections to be observed
Foundation	<input type="checkbox"/> Footing, Stem Walls, Piers <input type="checkbox"/> Mat Foundation <input type="checkbox"/> Caisson, Pile, Grade Beams <input type="checkbox"/> Stepping/Retaining Foundation, Hillside Special Anchors <input type="checkbox"/> Others:	Shear Wall Anchor Bolts and Holdowns, Foundation Reinforcement, WSW Panel Anchor Bolts
Wall	<input type="checkbox"/> Concrete <input type="checkbox"/> Masonry <input type="checkbox"/> Wood <input type="checkbox"/> Others:	Shear Wall Nailing, Shear Transfer Connections, Drag Straps/Struts
Frame	<input type="checkbox"/> Steel Moment Frame <input type="checkbox"/> Steel Braced Frame <input type="checkbox"/> Concrete Moment Frame <input type="checkbox"/> Masonry Moment Frame <input type="checkbox"/> Others:	
Diaphragm	<input type="checkbox"/> Concrete <input type="checkbox"/> Steel Deck <input type="checkbox"/> Wood <input type="checkbox"/> Others:	Plywood/Diaphragm Nailing, Drag Line Nailing
Others		

DECLARATION BY OWNER OR OWNER'S REPRESENTATIVE

I, the owner of the project, the owner's representative, declare that the above listed firm or individual is hired by me to be the Structural Observer.

Signature _____ Date _____

GENERAL NOTES FOR STRUCTURAL OBSERVATION

- (1) Structural Observation is required for the structural system in accordance with the information Bulletin No. P/BC 2002-024 Structural Observation is the visual observation at the construction site of the elements and connections of the structural system at significant construction stages and the complete structure for general conformance to the approved plans and specifications. Structural Observation does not waive the responsibility for the inspections required of the building inspector or the deputy inspector.
- (2) The owner shall employ a State of California registered civil or structural engineer or licensed architect to perform the structural observation. The Department of Building and Safety (LADBS) recommends the use of the engineer or architect responsible for the structural design who are independent of the contractor.
- (3) The structural observer shall provide evidence of employment by the owner or the owner's representative. A letter from the owner, the owner's representative, or a copy of the service agreement for services shall be sent to the building inspector before the first site visit.
- (4) The owner or owner's representative shall coordinate and call for a meeting between the engineer or architect responsible for the structural design, structural observer, contractor, affected subcontractors and deputy inspectors. The purpose of the meeting shall be to identify the major structural elements and connections that affect the vertical and lateral load systems of the structure and to review scheduling of the required observations. A record of the meeting shall be included in the first observation report submitted to the building department.
- (5) The Structural Observer shall perform site visits at those steps in the progress of the work that allow for correction of deficiencies without substantial effort or uncovering of the work involved. At a minimum, the listed significant construction stages on the following Structural Observation/Significant Construction Stages table require a site visit and an observation report from the structural observer.
- (6) The structural observer shall prepare a report of the Structural Observation Report from N/Form 08 (part 1) for each significant stage of construction observed. The original of the Structural Observation report shall be sent to the building inspector's office and shall be signed and sealed (wet stamp) by the responsible structural observer. One copy of the observation report shall be attached to the approved plans. The attached copy to the plans shall be signed and sealed (wet stamp) by the responsible structural observer or their designee. Copies of the report shall also be given to the owner, contractor, and deputy inspector. Any deficiency noted on the observation report will become the responsibility of the structural engineer or record to verify its compliance by him (her), or by a registered deputy inspector at the discretion of the Structural Observer.
- (7) A final structural observation report and that of the registered deputy inspector must be submitted which shows that all observed deficiencies were resolved and structural system generally conforms with the approved plans and specifications. The Department of Building and Safety (LADBS) will not accept the structural work without this final observation report and that of the registered deputy inspector (when provided) and the correction of specific deficiencies noted during normal building inspection.
- (8) The Structural Observer shall provide the original stamped and signed Structural Observation report to the City of Los Angeles Building Department of Building and Safety Building Inspector.
- (9) When the owner elects to change the structural observer of record, the owner shall:
 - a) notify the building inspector in writing before the next inspection by submitting completed "Structural Observation Program" and Designation of the Structural Observer" from N/Form 08 (part 2)
 - b) call an additional preconstruction meeting, and
 - c) furnish the replacement structural observer with a copy of all previous observation reports.
The replacement structural observer shall approve the correction of the original observed deficiencies unless otherwise approved by plan check supervision. The policy of the Department shall be to correct any properly noted deficiencies without consideration of their source.
- (10) The engineer or architect of record shall develop all changes relating to the structural system. The building department shall review and approve all changes to the approved plans and specifications.

SPECIAL INSPECTION (BY A CERTIFIED INSPECTOR) IS REQUIRED FOR THE FOLLOWING:

ELEMENT(S)	TYPE OF INSPECTION
-FIELD WELDS.....	CONTINUOUS INSPECTION
-SHEAR PANELS WHERE THE FASTENER SPACING OF THE SHEATHING IS 4 INCHES ON CENTER OR LESS.....	PERIODIC INSPECTION
-SIMPSON SET-XP EPOXY.....	CONTINUOUS INSPECTION
-CONCRETE WITH f _c OVER 2500 PSI.....	CONTINUOUS INSPECTION

727 2nd St., Suite 104
Hermosa Beach, CA 90254
(310) 944-0898
email: EMEngineering@verizon.net

McCullum Engineering Inc.

These drawings are not valid for construction unless stamped and signed by McCullum Engineering, Inc..

STAMP

REGISTERED PROFESSIONAL ENGINEER
ERIC W. MCCULLUM
No. C68850
Exp. 09/025
CIVIL
STATE OF CALIFORNIA

PROJECT
Gray Residence
415 North Star Lane
Newport Beach, CA 92660

DRAWING
General Notes & Schedules

REVISIONS	BY
Δ 6/15/23	EWM
Δ	
Δ	

JOB# 21-052

ENGINEER EWM

DRAWN

CHECKED

FILE Gray.dwg

DATE 7/18/22

SCALE 1/4" = 1'-0"

SHEET

SO

1 OF 14 SHEETS

NOTES

CONCRETE SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS FOR POURED-IN-PLACE CONTINUOUS AND SPREAD FOOTINGS.

PROVIDE A CORROSION RESISTANT WEEP SCREED AT FOUNDATION PLATE WHICH ALLOWS TRAPPED WATER TO DRAIN TO THE EXTERIOR OF THE BUILDING. MINIMUM HEIGHT ABOVE GRADE 4".

FOR ALL SHEARWALLS **B**, **C**, **D** & **E** - SILL PLATES AND PANEL EDGE STUDS SHALL BE 3x MEMBERS

FOUNDATION SILLS SHALL BE NATURALLY DURABLE OR PRESERVATIVE TREATED WOOD

ALL HOLD DOWNS MUST BE IN PLACE PRIOR TO FOUNDATION INSPECTION

ALL BOLT HOLES SHALL BE DRILLED 1/32 TO 1/16 INCHES OVERSIZED

MINIMUM 3"x3"x0.229" SQUARE PLATE WASHERS SHALL BE USED WITH ALL ANCHOR BOLTS IN SHEAR WALL SILL PLATES

CONTRACTORS RESPONSIBLE FOR THE CONSTRUCTION OF A WIND OR SEISMIC FORCE RESISTING SYSTEM/COMPONENT LISTED IN THE "STATEMENT OF SPECIAL INSPECTION" SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE LADERS INSPECTORS AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON SUCH SYSTEM OR COMPONENT PER 2016 CBC

HOLDOWN CONNECTOR BOLTS INTO WOOD FRAMING REQUIRE APPROVED PLATE WASHERS; AND HOLDOWNS SHALL BE TIGHTENED JUST PRIOR TO COVERING THE WALL FRAMING. CONNECTOR BOLTS INTO WOOD FRAMING REQUIRE STEEL PLATE WASHERS

PROVIDE LEAD HOLE 40%-70% TO THREADED SHANK DIAMETER AND FULL DIAMETER FOR SMOOTH SHANK PORTION.

IF ADVERSE SOIL CONDITIONS ARE ENCOUNTERED, A SOILS INVESTIGATION REPORT MAY BE REQUIRED

SPECIAL INSPECTION (BY A CERTIFIED INSPECTOR) IS REQUIRED FOR THE FOLLOWING:

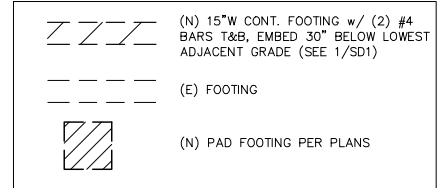
ELEMENT(S)	TYPE OF INSPECTION
-FIELD WELDS.....	CONTINUOUS INSPECTION
-SHEAR PANELS WHERE THE FASTENER SPACING OF THE SHEATHING IS 4 INCHES ON CENTER OR LESS.....	PERIODIC INSPECTION
-SIMPSON SET-XP EPOXY.....	CONTINUOUS INSPECTION
-CONCRETE WITH f_c OVER 2500 PSI.....	CONTINUOUS INSPECTION

NOTE: ALL FOUNDATIONS TO COMPLY WITH THE RECOMMENDATIONS OF SOILS REPORT BY EGA CONSULTANTS DATED 5/10/2023, PROJECT NO. ML431.1

***ALL PLUMBING AND HVAC PLAN TO BE COORDINATED DIRECTLY WITH A.O.R. TO INSURE COMPATIBILITY WITH STRUCTURAL PLANS. A.O.R. RESPONSIBLE FOR COORDINATION OF ELECTRICAL, PLUMBING AND HVAC RUNS.

NOTE: ALL CONTINUOUS FOOTINGS AND PAD FOOTINGS TO BE EMBEDDED A MIN OF 30" BELOW LOWEST ADJACENT GRADE

FOUNDATION KEY



PAD SCHEDULE

P1	24"x24"x12" THK. CONC. PAD W/(3) #4 EA. WAY
P2	30"x30"x12" THK. CONC. PAD W/(4) #4 EA. WAY
P3	36"x36"x16" THK. CONC. PAD W/(5) #4 EA. WAY
P4	42"x42"x16" THK. CONC. PAD W/(6) #4 EA. WAY

NOTE: ALL CONCRETE TO HAVE A MINIMUM STRENGTH OF f_c OF 3,000 PSI (INCLUDING SLABS & PAD FOOTINGS)

DESIGN DEAD LOADS

ROOF	- 14 psf.
FLOOR	- 14 psf.
CEILING	- 7 psf.
EXT. WALL	- 16 psf.
INT. WALL	- 8 psf.

DESIGN LIVE LOADS

ROOF	- 20 psf.
CEILING	- 10 psf.
FLOOR	- 40 psf.
DECK	- 60 psf.

SEISMIC COEFFICIENTS

$F_a = 1.2$	$R = 6.5$	$\Omega = 3.0$
$S_s = 1.361$	$F = 1.1$	$F_v = 1.5$
$S_{ap} = 1.089$	$I = 1.0$	Site Class D
$\rho = 1.3$		$C_u = 3.0$

-SEISMIC DESIGN CATEGORY D
-SIMPLIFIED DESIGN PROCEDURE
-FORCE RESISTING SYSTEM: BEARING WALL-SHEAR WALL SYSTEM

WIND PRESSURE COEFFICIENTS

110 mph, 30 Second Gust Force	$I = 1.0$	Exposure C
$P_{zone} = 21.54$ psf	$P_{zone} = 14.40$ psf	
$P_{zone} = -5.69$ psf	$P_{zone} = -3.15$ psf	

SOIL DESCRIPTION

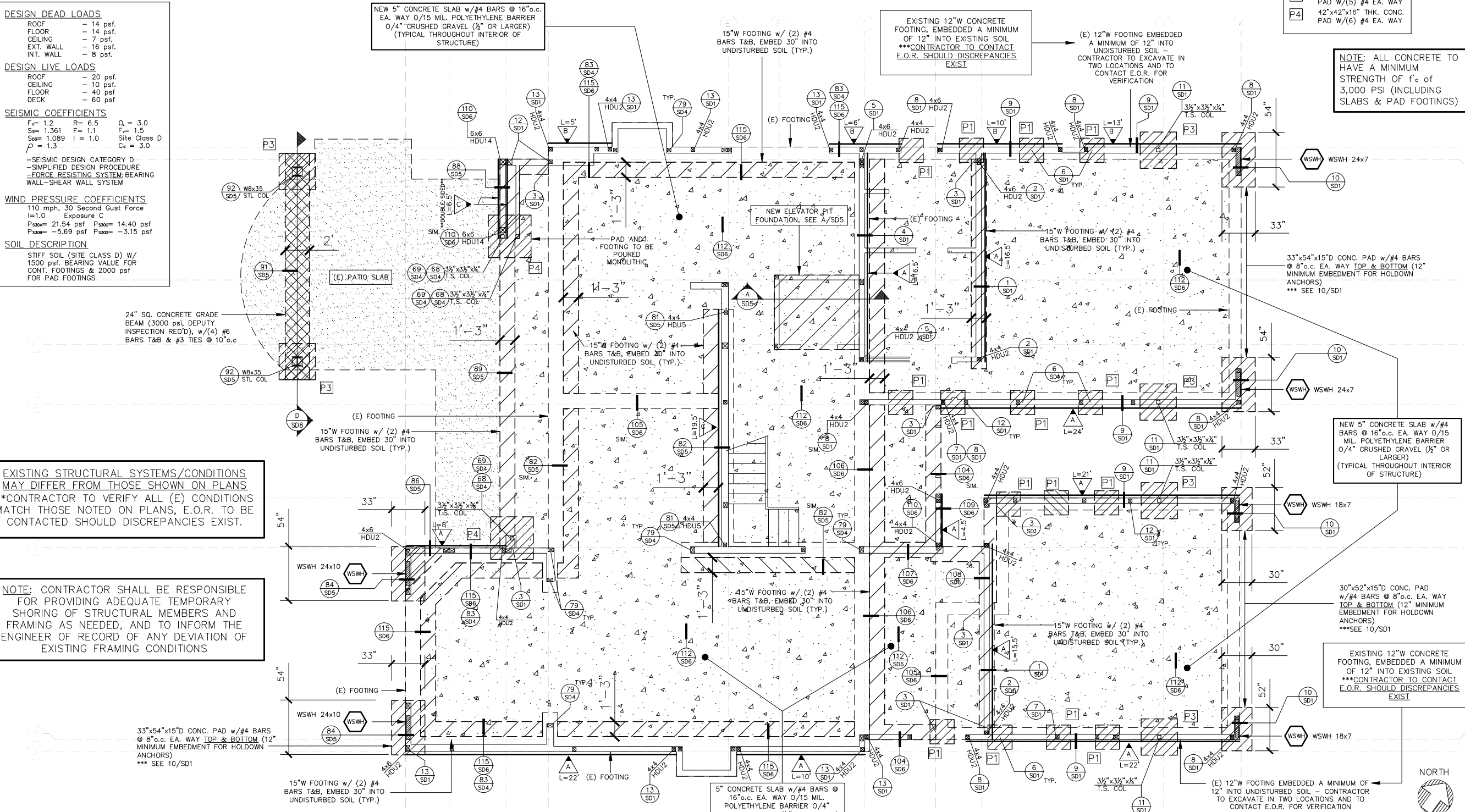
STIFF SOIL (SITE CLASS D) W/ 1500 psf. BEARING VALUE FOR CONT. FOOTINGS & 2000 psf FOR PAD FOOTINGS

NEW 5" CONCRETE SLAB w/#4 BARS @ 16" o.c. EA. WAY 0/15 MIL. POLYETHYLENE BARRIER 0/4" CRUSHED GRAVEL (1/2" OR LARGER) (TYPICAL THROUGHOUT INTERIOR OF STRUCTURE)

EXISTING 12"W CONCRETE FOOTING, EMBEDDED A MINIMUM OF 12" INTO EXISTING SOIL
***CONTRACTOR TO CONTACT E.O.R. SHOULD DISCREPANCIES EXIST

(E) 12"W FOOTING EMBEDDED A MINIMUM OF 12" INTO UNDISTURBED SOIL - CONTRACTOR TO EXCAVATE IN TWO LOCATIONS AND TO CONTACT E.O.R. FOR VERIFICATION

NOTE: ALL CONCRETE TO HAVE A MINIMUM STRENGTH OF f_c OF 3,000 PSI (INCLUDING SLABS & PAD FOOTINGS)



EXISTING STRUCTURAL SYSTEMS/CONDITIONS MAY DIFFER FROM THOSE SHOWN ON PLANS
**CONTRACTOR TO VERIFY ALL (E) CONDITIONS MATCH THOSE NOTED ON PLANS, E.O.R. TO BE CONTACTED SHOULD DISCREPANCIES EXIST.

NOTE: CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE TEMPORARY SHORING OF STRUCTURAL MEMBERS AND FRAMING AS NEEDED, AND TO INFORM THE ENGINEER OF RECORD OF ANY DEVIATION OF EXISTING FRAMING CONDITIONS

33"x54"x15"D CONC. PAD w/#4 BARS @ 8" o.c. EA. WAY TOP & BOTTOM (12" MINIMUM EMBEDMENT FOR HOLDOWN ANCHORS)
*** SEE 10/SD1

5" CONCRETE SLAB w/#4 BARS @ 16" o.c. EA. WAY 0/15 MIL. POLYETHYLENE BARRIER 0/4" CRUSHED GRAVEL (1/2" OR LARGER)

EXISTING 12"W CONCRETE FOOTING, EMBEDDED A MINIMUM OF 12" INTO EXISTING SOIL
***CONTRACTOR TO CONTACT E.O.R. SHOULD DISCREPANCIES EXIST

30"x52"x15"D CONC. PAD w/#4 BARS @ 8" o.c. EA. WAY TOP & BOTTOM (12" MINIMUM EMBEDMENT FOR HOLDOWN ANCHORS)
***SEE 10/SD1



FOUNDATION PLAN

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

727 2nd St., Suite 104
Hemosa Beach, CA 92654
(910) 944-0988
email: EEngineering@verizon.net

McCullum Engineering Inc.

These drawings are not valid for construction unless stamped and signed by McCullum Engineering, Inc.

STAMP



PROJECT
Gray Residence
415 North Star Lane
Newport Beach, CA 92660

DRAWING
Foundation Plan

REVISIONS	BY
10/23/23	EWM
1/18/24	EWM
8/19/24	EWM

JOB# 21-052

ENGINEER EWM

DRAWN

CHECKED

FILE Gray.dwg

DATE 7/18/22

SCALE 1/4" = 1'-0"

SHEET

S1

14 SHEETS

Copyright 2005. All rights reserved. The use of these plans, calculations and specifications shall be restricted to the original site for which they were prepared, and publication thereof is expressly limited to such use. Reproduction, publication or resale by any method, in whole or in part, is prohibited without the permission and consent of Eric McCullum Engineering Services (McCullum Engineering, Inc.). Title to the Plans, calculations and specifications shall constitute prima facie evidence of the acceptance of these restrictions. In the event of unauthorized reuse of the plans by a third party, the third party shall hold McCullum Engineering harmless. Note: Plans are not valid for construction unless approved by the corresponding city department.

NOTES

ROOF DIAPHRAGM NAILING TO BE INSPECTED BEFORE COVERING. FACE GRAIN OF PLYWOOD SHALL BE PERPENDICULAR TO SUPPORTS. FLOOR SHALL HAVE TONGUE AND GROOVE OR BLOCKED PANEL EDGES. PLYWOOD SPANS SHALL CONFORM WITH TABLE 2306.2

ALL DIAPHRAGM AND SHEAR WALL NAILING SHALL UTILIZE COMMON NAILS

U.N.O., ALL 2x ROOF RAFTER AND FLOOR JOIST FRAMING MEMBERS SHALL BE MINIMUM GRADE DOUGLAS FIR-LARCH NO. 2 OR BETTER. ALL BEAMS, HEADERS, AND POSTS SHALL BE MINIMUM DOUGLAS FIR-LARCH NO. 1 OR BETTER. ALL VERTICAL WALL FRAMING MEMBERS SHALL BE DOUGLAS FIR-LARCH NO. 2 OR BETTER.

FIELD WELDING TO BE DONE BY WELDERS CERTIFIED BY THE LABS FOR STRUCTURAL STEEL REINFORCING STEEL. CONTINUOUS INSPECTION BY A DEPUTY INSPECTOR IS REQUIRED.

SHOP WELDS MUST BE PERFORMED IN A CITY BLDG. DEPT. LICENSED FABRICATOR'S SHOP.

ROOFING MATERIAL NOT TO EXCEED 6 PSF

ROOF SHEATHING SHALL BE 1/2" CDX APA-RATED SHEATHING, EXPOSURE 1, MIN. SPAN RATING 24/0, NAILED WITH 8d COMMON @ 6" o.c. EDGES & BOUNDARIES AND 12" o.c. AT INTERMEDIATE FRAMING MEMBERS.

FLOOR SHEATHING SHALL BE 23/32" CDX APA-RATED STURD-I-FLOOR, T&G, EXPOSURE 1, MIN. SPAN RATING 20" o.c., NAILED WITH 10d COMMON @ 6" o.c. EDGES & BOUNDARIES AND 12" o.c. AT INTERMEDIATE FRAMING MEMBERS, U.N.O.

A LICENSED FABRICATOR IS REQUIRED FOR ALL STRUCTURAL STEEL, GLULAM BEAMS AND PARALLAMS

GLULAM AND PARALLAM BEAMS MUST BE FABRICATED BY A LICENSED SHOP

3x4 OR 2x6 MINIMUM STUD SIZE @ 16" o.c. REQUIRED FOR BEARING WALLS OVER 10 FEET IN HT.

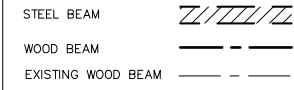
DRAG LINE 

DRAG LINE: SIMPSON ST6236 @ ALL BREAKS AND DIAPHRAGM EDGE NAILING.

EXISTING STRUCTURAL SYSTEMS/CONDITIONS MAY DIFFER FROM THOSE SHOWN ON PLANS
 **CONTRACTOR TO VERIFY ALL (E) CONDITIONS MATCH THOSE NOTED ON PLANS, E.O.R. TO BE CONTACTED SHOULD DISCREPANCIES EXIST.

ALL DECK SHEATHING TO BE BLOCKED AT ALL PANEL EDGES & ALL DECKS TO HAVE SLOPED PLYWOOD

FRAMING KEY

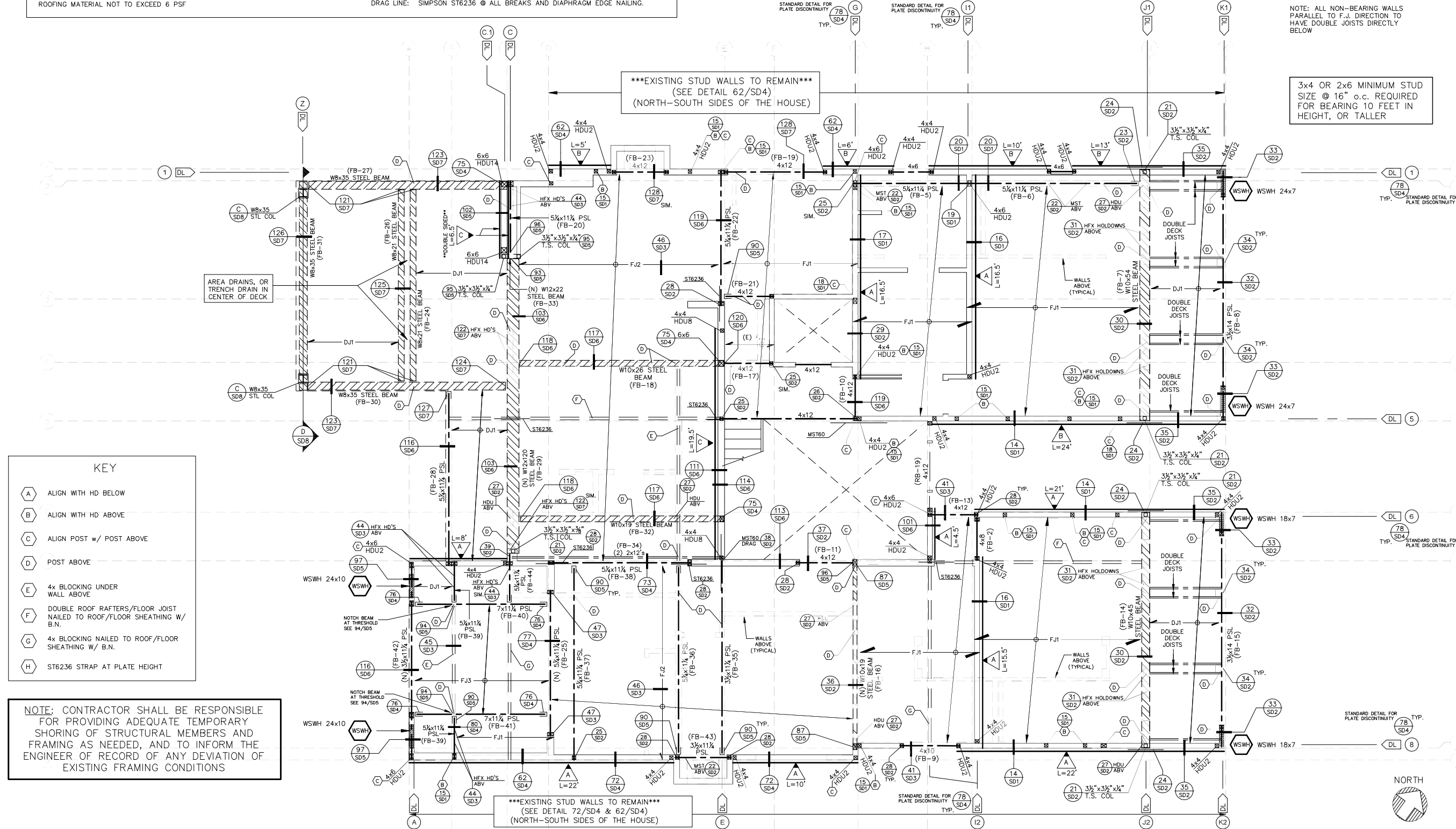


***NO TOP HUNG DOORS (ALL DOORS TO BE SUPPORTED BY TRACK AT BOTTOM)

- FJ1 2x12 F.J. @ 16" o.c. (FB-1) MAX SPAN = 15 FT.
- FJ2 (2) 2x12 F.J. @ 16" o.c. (FB-4) MAX SPAN = 18 FT.
- FJ3 1 3/4"x11 1/4" MICROLAM LVL (1.9E) F.J. @ 16" o.c. (FB-45)
- DJ1 2x10 D.J. @ 16" o.c. (FB-3) MAX SPAN = 8 FT. MINIMUM DEPTH = 7.25"

NOTE: ALL NON-BEARING WALLS PARALLEL TO F.J. DIRECTION TO HAVE DOUBLE JOISTS DIRECTLY BELOW

3x4 OR 2x6 MINIMUM STUD SIZE @ 16" o.c. REQUIRED FOR BEARING 10 FEET IN HEIGHT, OR TALLER



KEY

- A ALIGN WITH HD BELOW
- B ALIGN WITH HD ABOVE
- C ALIGN POST w/ POST ABOVE
- D POST ABOVE
- E 4x BLOCKING UNDER WALL ABOVE
- F DOUBLE ROOF RAFTERS/FLOOR JOIST NAILED TO ROOF/FLOOR SHEATHING W/ B.N.
- G 4x BLOCKING NAILED TO ROOF/FLOOR SHEATHING W/ B.N.
- H ST6236 STRAP AT PLATE HEIGHT

NOTE: CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE TEMPORARY SHORING OF STRUCTURAL MEMBERS AND FRAMING AS NEEDED, AND TO INFORM THE ENGINEER OF RECORD OF ANY DEVIATION OF EXISTING FRAMING CONDITIONS

EXISTING STUD WALLS TO REMAIN
 (SEE DETAIL 72/SD4 & 62/SD4)
 (NORTH-SOUTH SIDES OF THE HOUSE)

McCullum Engineering Inc.
 727 2nd St., Suite 104
 Hemet, CA 9684
 (916) 944-0988
 email: EMcEngineering@verizon.net

These drawings are not valid for construction unless stamped and signed by McCullum Engineering, Inc.



PROJECT
 Gray Residence
 415 North Star Lane
 Newport Beach, CA 92660

DRAWING
 Floor Framing Plan

REVISIONS	BY
6/15/23	EWM
8/19/24	EWM

JOB# 21-052
 ENGINEER EWM
 DRAWN
 CHECKED
 FILE Gray.dwg
 DATE 7/18/22
 SCALE 1/4" = 1'-0"

SHEET
S2
 14 SHEETS

FLOOR FRAMING PLAN

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

Copyright 2005. All rights reserved. The use of these plans, calculations and specifications shall be restricted to the original site for which they were prepared, and publication thereof is expressly limited to such use. Reproduction, publication or resale by any method, in whole or part, is prohibited without the permission and consent of McCullum Engineering Services (McCullum Engineering, Inc.). Title to the Plans, calculations and specifications shall constitute prima facie evidence of the acceptance of these restrictions. In the event of unauthorized reuse of the plans by a third party, the third party shall hold McCullum Engineering harmless. Note: Plans are not valid for construction unless approved by the corresponding city building department.

SYMBOLS/ABBREVIATIONS:

- F.J. = FLOOR JOISTS (N) = NEW
- R.R. = ROOF RAFTERS (E) = EXISTING
- C.J. = CEILING JOISTS RB = ROOF BEAM/JOIST
- K.P. = KING POST FB = FLOOR BEAM/JOIST
- TYP. = TYPICAL HNGR = HANGER
- O.C. = ON CENTER SIMP. = SIMPSON
- B.N. = BOUNDARY NAILING PSL = PARALLAM, TRUSJOIST
- E.N. = EDGE NAILING M.B. = MACHINE BOLT
- SIM. = SIMILAR R.B. = RIDGE BEAM/BOARD
- V.I.F. = VERIFY IN FIELD HDR = HEADER
- BLKN'G = BLOCKING UNO = UNLESS NOTE OTHERWISE

- ▷ INDICATES SHEAR WALL □ INDICATES KING POST (4x4, UNO)
- ⊠ INDICATES POST (4x4, UNO) ⊠ INDICATES 6x6 POST (U.N.O.)
- ⊠ INDICATES 4x6 POST □ INDICATES SIMPSON HANGER "HUCC" FOR SOLID SAWN "HHUS" FOR PSL BEAMS

HFV HARDY FRAME PANELS (w/ STANDARD STRENGTH 1 1/2" HOLDOWN BOLTS, U.N.O.)

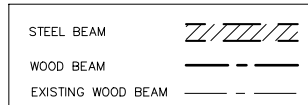
WSWH SIMPSON STRONG WALL WOOD SHEARWALL PER PLANS - HOLDOWN BOLTS PER MANUFACTURER

***NO TOP HUNG DOORS (ALL DOORS TO BE SUPPORTED BY TRACK AT BOTTOM)

PERIODIC SPECIAL INSPECTION IS REQUIRED FOR WOOD SHEAR WALLS, SHEAR PANELS, AND DIAPHRAGMS, INCLUDING NAILING, BOLTING, ANCHORING, AND OTHER FASTENING TO COMPONENTS OF THE SEISMIC FORCE RESISTING SYSTEM. SPECIAL INSPECTION BY A DEPUTY INSPECTOR IS REQUIRED WHERE THE FASTENER SPACING OF THE SHEATHING IS 4 INCHES ON CENTER OR LESS

EXISTING STRUCTURAL SYSTEMS/CONDITIONS MAY DIFFER FROM THOSE SHOWN ON PLANS. **CONTRACTOR TO VERIFY ALL (E) CONDITIONS MATCH THOSE NOTED ON PLANS, E.O.R. TO BE CONTACTED SHOULD DISCREPANCIES EXIST.

FRAMING KEY



- RR1 2x8 R.R. @ 16" o.c. (RB-1) MAX SPAN = 14 FT.
- RR2 (2) 2x8 R.R. @ 16" o.c. (RB-2) MAX SPAN = 17 FT. **DOUBLE RAFTERS** NOTE: FOR SPANS UP TO 20 FEET, USE (3) 2x8's)
- RR3 4x4 R.R. @ 16" o.c. (RB-3)
- RR4 2x6 R.R. @ 16" o.c. ***FOR SPANS LONGER THAN 10 FEET, BRACE EVERY 10 FEET w/ BLOCKING/2x CRIPPLE WALL ON RAFTERS BELOW
- CJ1 2x6 C.J. @ 16" o.c. (RB-4)
- CJ2 2x8 C.J. @ 16" o.c.

ROOF SHEATHING SHALL BE 5/8" CDX APA-RATED SHEATHING, U.N.O.

NOTES

ROOF DIAPHRAGM NAILING TO BE INSPECTED BEFORE COVERING. FACE GRAIN OF PLYWOOD SHALL BE PERPENDICULAR TO SUPPORTS. FLOOR SHALL HAVE TONGUE AND GROOVE OR BLOCKED PANEL EDGES. PLYWOOD SPANS SHALL CONFORM WITH TABLE 2306.2

ALL DIAPHRAGM AND SHEAR WALL NAILING SHALL UTILIZE COMMON NAILS

U.N.O., ALL 2x ROOF RAFTER AND FLOOR JOIST FRAMING MEMBERS SHALL BE MINIMUM GRADE DOUGLAS FIR-LARCH NO. 2 OR BETTER. ALL BEAMS, HEADERS, AND POSTS SHALL BE MINIMUM DOUGLAS FIR-LARCH NO. 1 OR BETTER. ALL VERTICAL WALL FRAMING MEMBERS SHALL BE DOUGLAS FIR-LARCH NO. 2 OR BETTER.

FIELD WELDING TO BE DONE BY WELDERS CERTIFIED FOR STRUCTURAL STEEL. REINFORCING STEEL. CONTINUOUS INSPECTION BY A DEPUTY INSPECTOR IS REQUIRED.

SHOP WELDS MUST BE PERFORMED IN A CITY BLDG. DEPT. LICENSED FABRICATOR'S SHOP.

ROOFING MATERIAL NOT TO EXCEED 6 PSF

ROOF SHEATHING SHALL BE 15/32" CDX APA-RATED SHEATHING, EXPOSURE 1, MIN. SPAN RATING 24/0, NAILED WITH 8d COMMON @ 6" o.c. EDGES & BOUNDARIES AND 12" o.c. AT INTERMEDIATE FRAMING MEMBERS.

FLOOR SHEATHING SHALL BE 23/32" CDX APA-RATED STURD-I-FLOOR, T&G, EXPOSURE 1, MIN. SPAN RATING 20" o.c., NAILED WITH 10d COMMON @ 6" o.c. EDGES & BOUNDARIES AND 12" o.c. AT INTERMEDIATE FRAMING MEMBERS, U.N.O.

LADBS LICENSED FABRICATOR IS REQUIRED FOR ALL STRUCTURAL STEEL, GLULAM BEAMS AND PARALLAMS

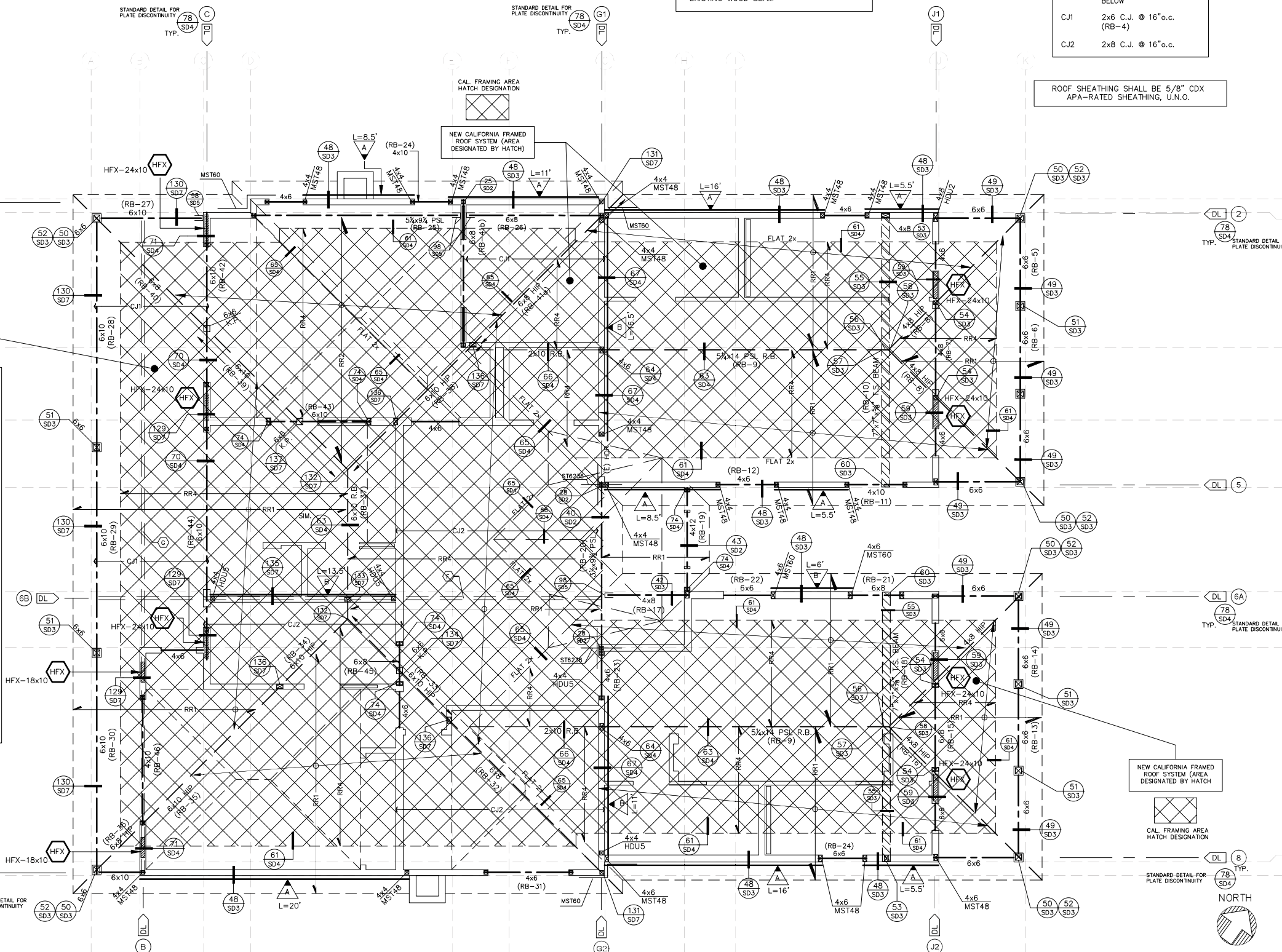
GLULAM AND PARALLAM BEAMS MUST BE FABRICATED BY A LICENSED SHOP

3x4 OR 2x6 MINIMUM STUD SIZE @ 16" o.c. REQUIRED FOR BEARING WALLS OVER 10 FEET IN HT.

DRAG LINE DL

DRAG LINE: SIMPSON ST6236 @ ALL BREAKS AND DIAPHRAGM EDGE NAILING.

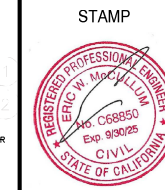
NOTE: CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE TEMPORARY SHORING OF STRUCTURAL MEMBERS AND FRAMING AS NEEDED, AND TO INFORM THE ENGINEER OF RECORD OF ANY DEVIATION OF EXISTING FRAMING CONDITIONS



727 2nd St., Suite 104
Hemlock Beach, CA 92654
(916) 944-0988
email: EEngineering@verizon.net

McCullum Engineering Inc.

These drawings are not valid for construction unless stamped and signed by McCullum Engineering, Inc.



PROJECT
Gray Residence
415 North Star Lane
Newport Beach, CA 92660

DRAWING
Roof Framing Plan

REVISIONS	BY
△ 6/15/23	EWM
△ 8/19/24	EWM

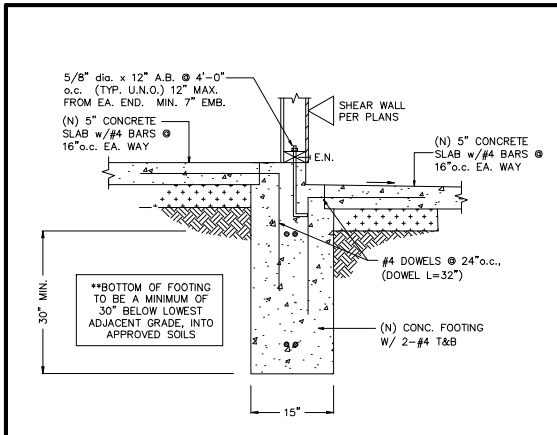
JOB# 21-052
ENGINEER EWM
DRAWN
CHECKED
FILE Gray.dwg
DATE 7/18/22
SCALE 1/4" = 1'-0"

SHEET
S3
of 14 SHEETS

ROOF FRAMING PLAN

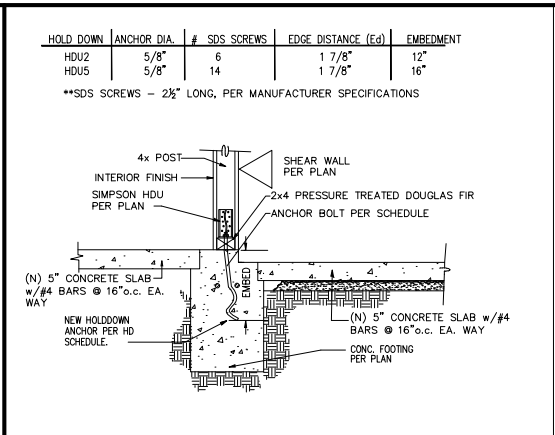
SCALE 1/4" = 1'-0" **1**

Copyright 2005. All rights reserved. The use of these plans, calculations and specifications shall be restricted to the original site for which they were prepared, and publication thereof is expressly limited to such use. Reproduction, publication or reuse by any method, in whole or part, is prohibited without the permission and consent of Eric McCullum Engineering Services (McCullum Engineering, Inc.). Title to the Plans, calculations and specifications shall constitute prima facie evidence of the acceptance of these restrictions. In the event of unauthorized reuse of the plans by a third party, the third party shall hold McCullum Engineering harmless. Note: Plans are not valid for construction unless approved by the corresponding city building department.



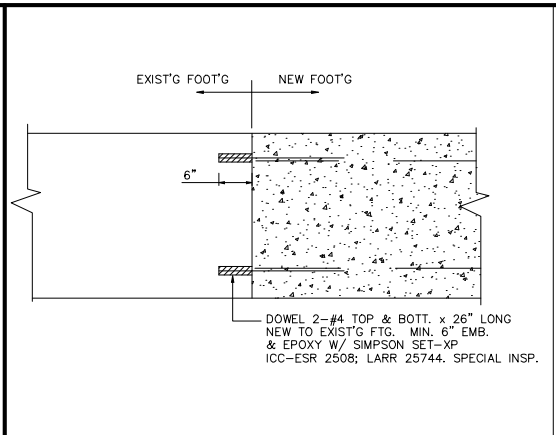
FOOTING DETAIL

1



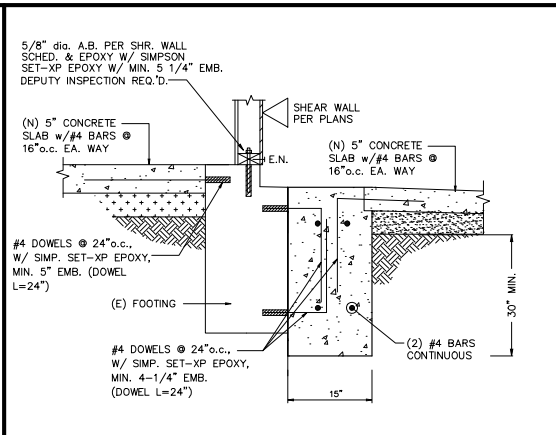
HOLDOWN DETAIL

2



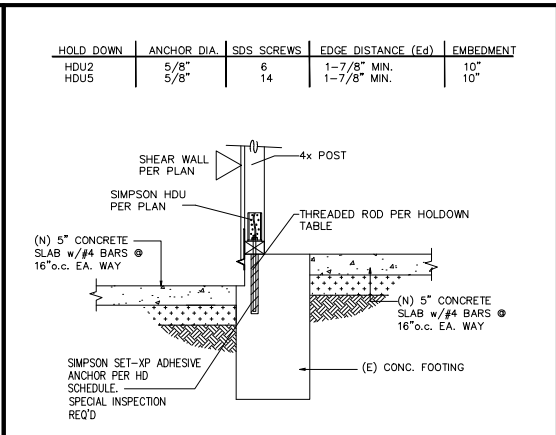
FOOTING-FOOTING DETAIL

3



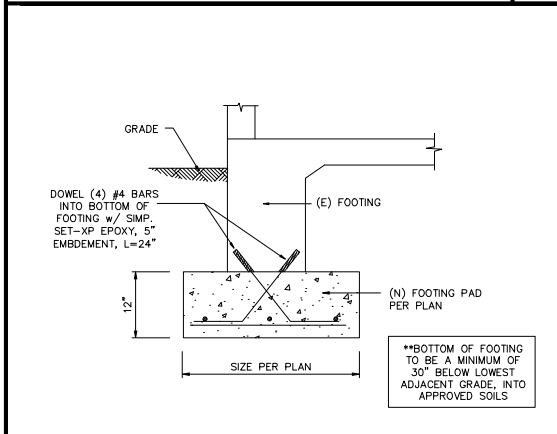
FOOTING DETAIL

4



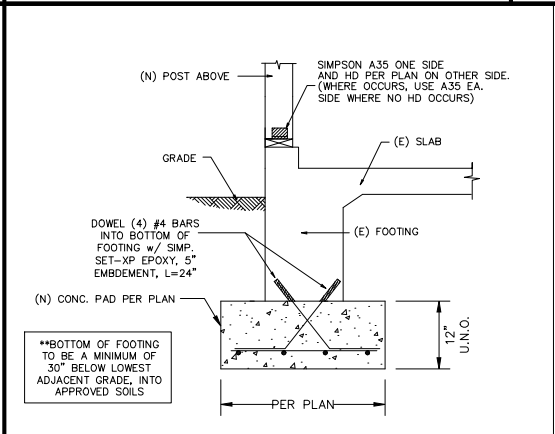
HOLDOWN DETAIL

5



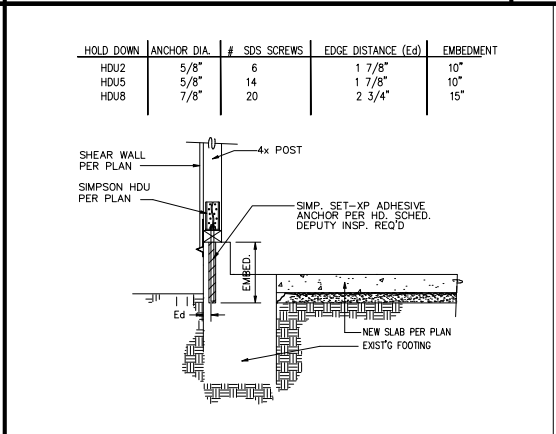
PAD FOOTING DETAIL

6



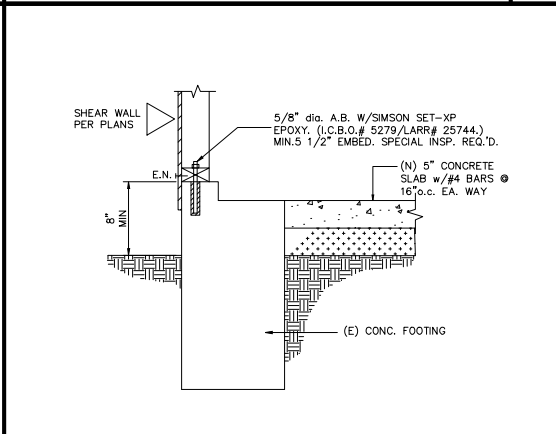
PAD FOOTING DETAIL

7



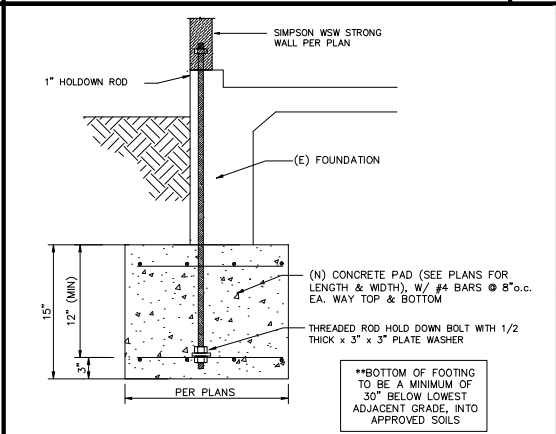
HOLDOWN DETAIL

8



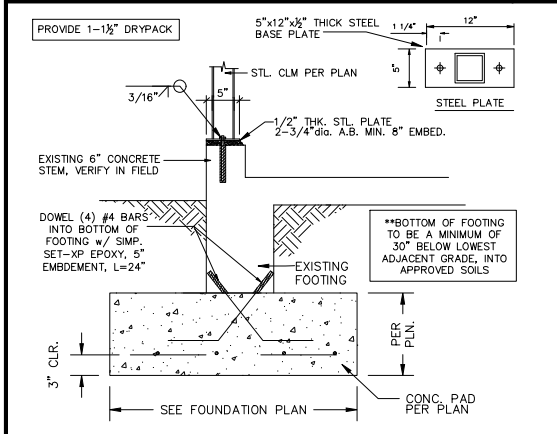
FOOTING DETAIL

9



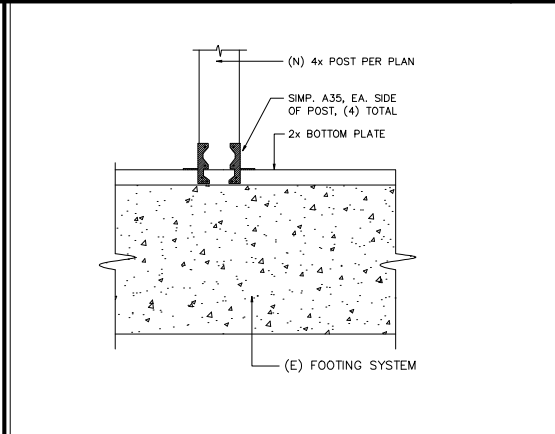
WSWH PAD FOOTING DETAIL

10



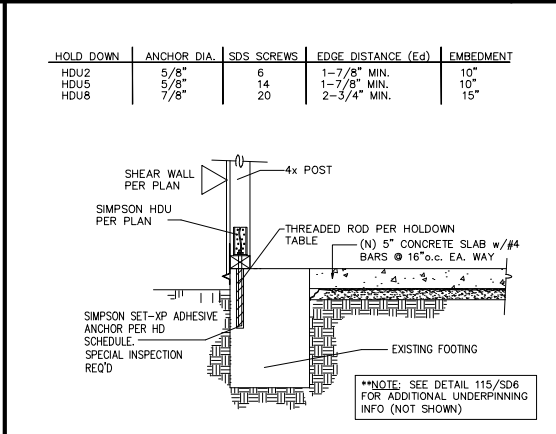
PAD FOOTING DETAIL

11



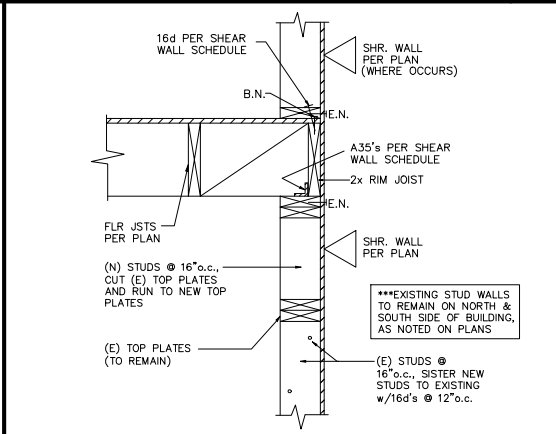
POST-BASE DETAIL

12



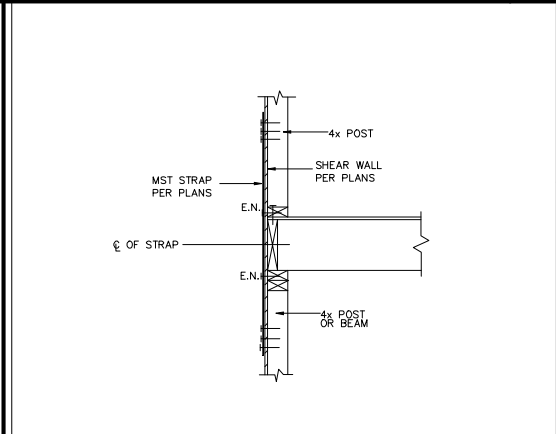
FOOTING DETAIL

13



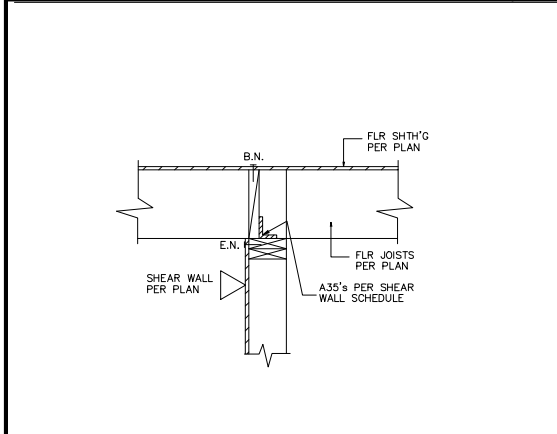
SHEAR TRANSFER DETAIL

14



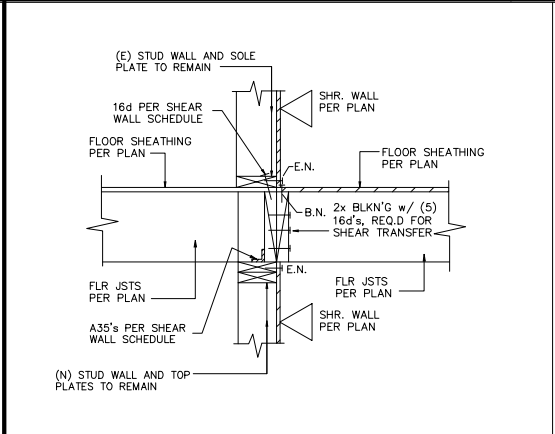
HOLDOWN STRAP DETAIL

15



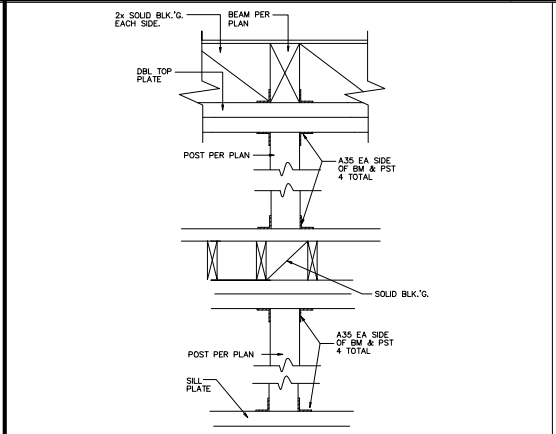
SHEAR TRANSFER DETAIL

16



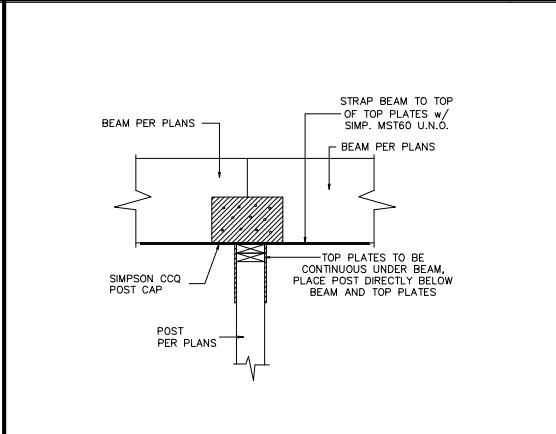
SHEAR TRANSFER DETAIL

17



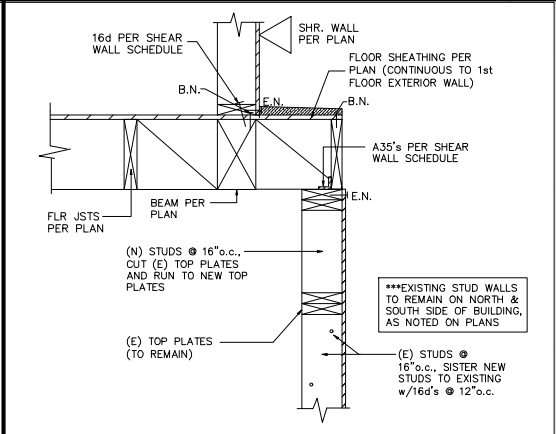
STACKING POSTS DETAIL

18



POST-BEAM DETAIL

19



SHEAR TRANSFER DETAIL

20

727 2nd St., Suite 104
Hemlock Beach, CA 90654
(910) 944-0988
email: EEngineering@verizon.net

McCullum Engineering Inc.

These drawings are not valid for construction unless stamped and signed by McCullum Engineering, Inc.

STAMP

PROJECT

Gray Residence
415 North Star Lane
Newport Beach, CA 92660

DRAWING

Structural Details

REVISIONS	BY
10/23/23	EWM
1/18/24	EWM
8/19/24	EWM

JOB# 21-052

ENGINEER EWM

DRAWN

CHECKED

FILE Gray.dwg

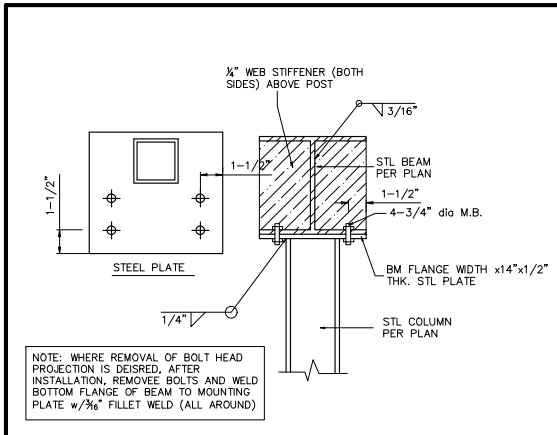
DATE 7/18/22

SCALE NTS

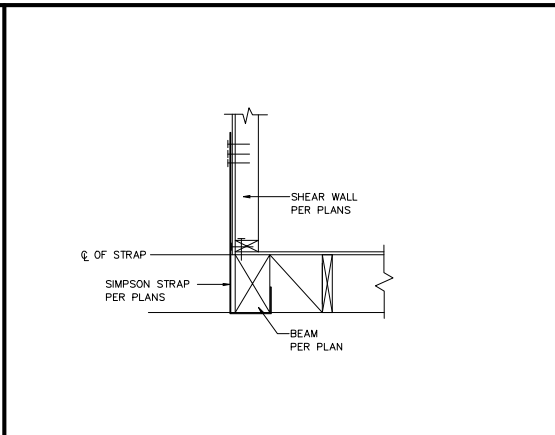
SHEET

SD1

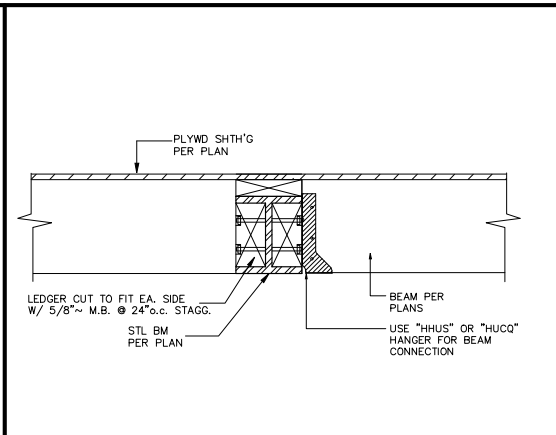
Copyright 2005. All rights reserved. The use of these plans, calculations and specifications shall be restricted to the original site for which they were prepared, and publication thereof is expressly limited to such use. Reproduction, publication or reuse by any method, in whole or part, is prohibited without the permission and consent of McCullum Engineering Services (McCullum Engineering, Inc.). Title to the Plans, calculations and specifications shall constitute prima facie evidence of the acceptance of these restrictions. In the event of unauthorized reuse of the plans by a third party, the third party shall hold McCullum Engineering harmless. Note: Plans are not valid for construction unless approved by the corresponding city building department.



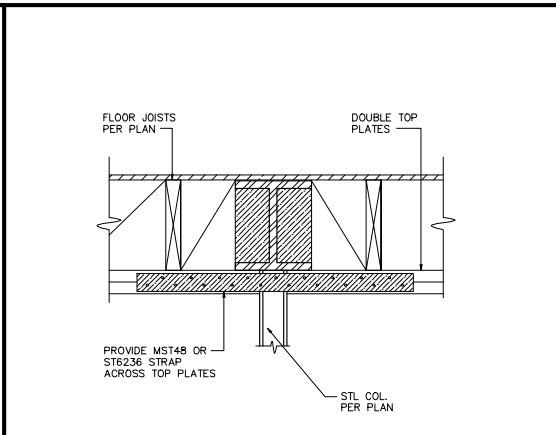
POST-BEAM DETAIL 21



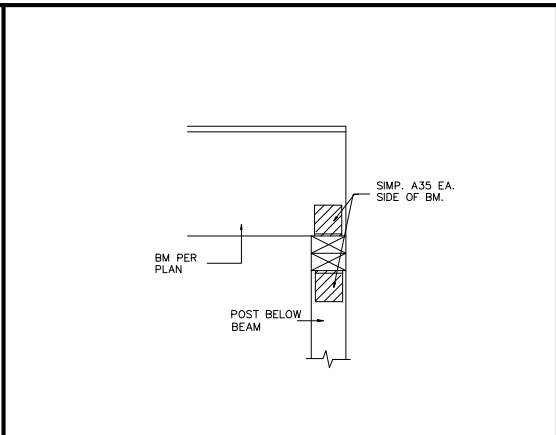
HOLDOWN STRAP DETAIL 22



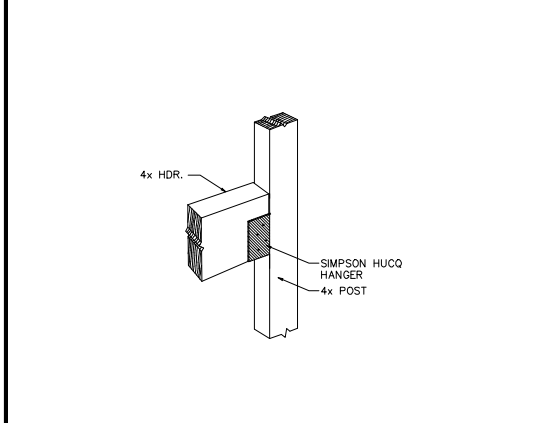
BEAM-BEAM DETAIL 23



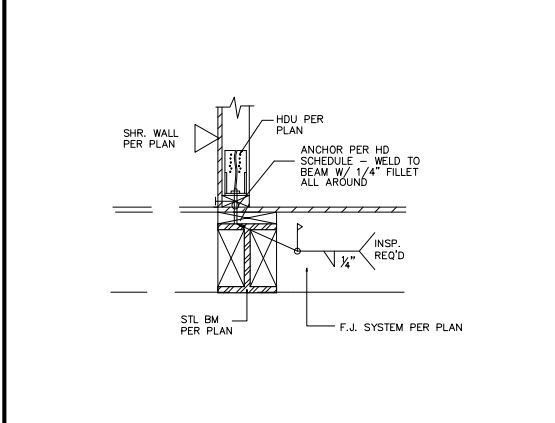
DRAG STRAP DETAIL 24



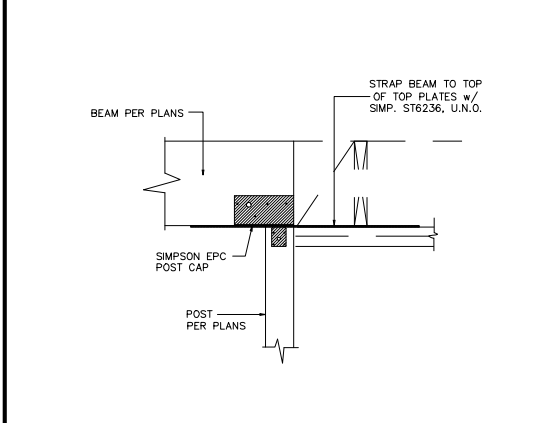
POST-BEAM DETAIL 25



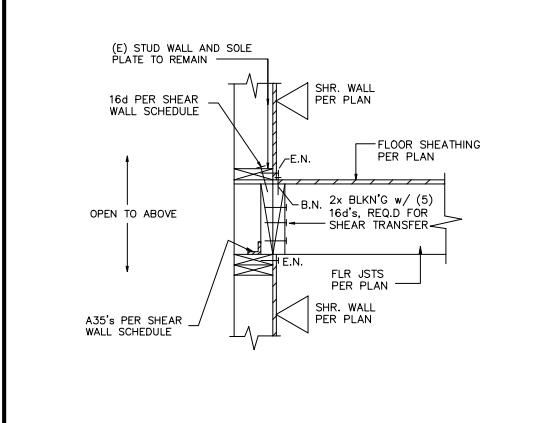
POST-BEAM DETAIL 26



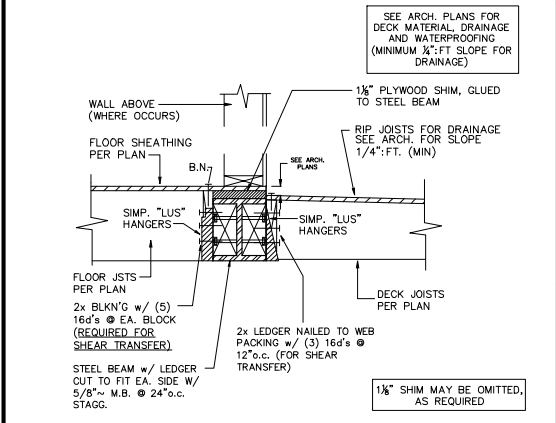
HOLDOWN BEAM DETAIL 27



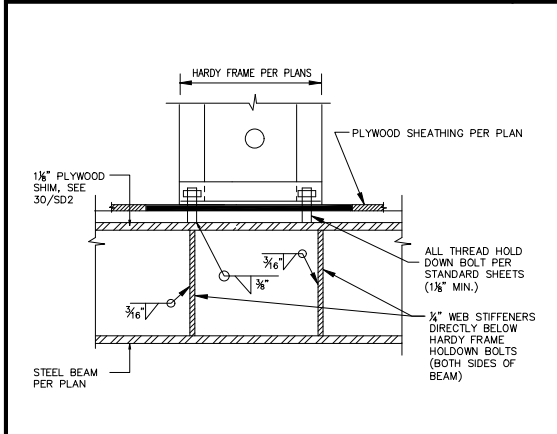
POST-BEAM DETAIL 28



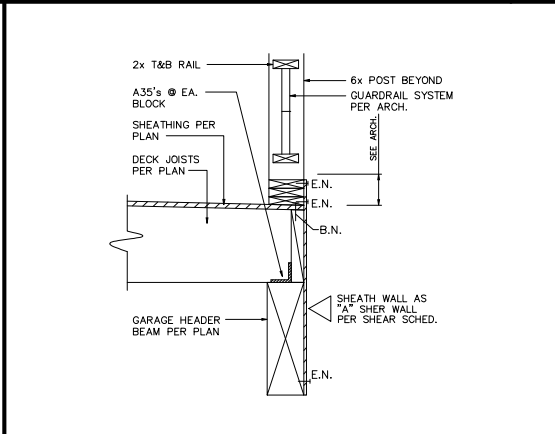
SHEAR TRANSFER DETAIL 29



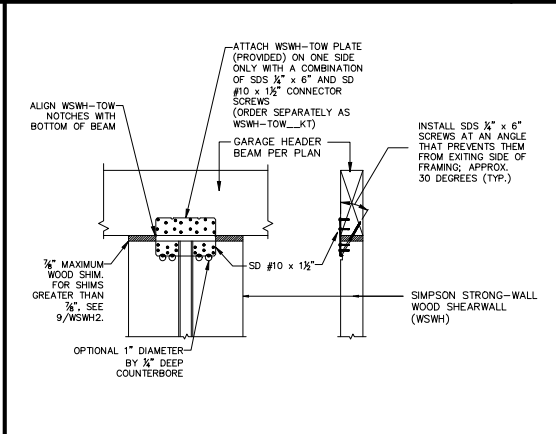
STEEL BEAM DETAIL 30



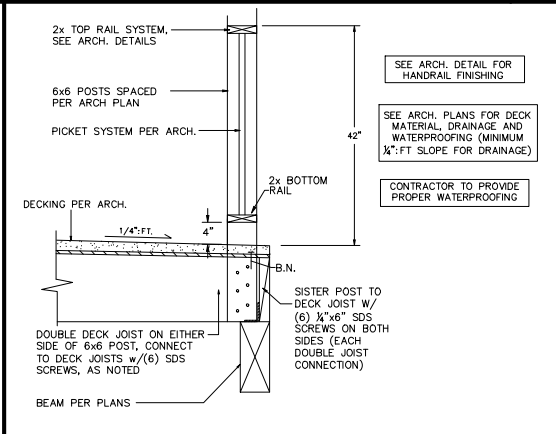
HARDY PANEL DETAIL 31



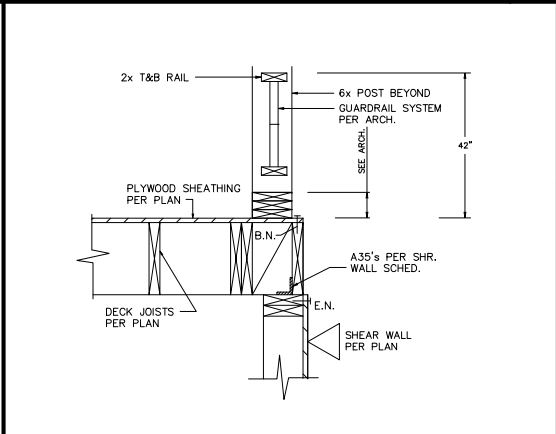
GARAGE HEADER DETAIL 32



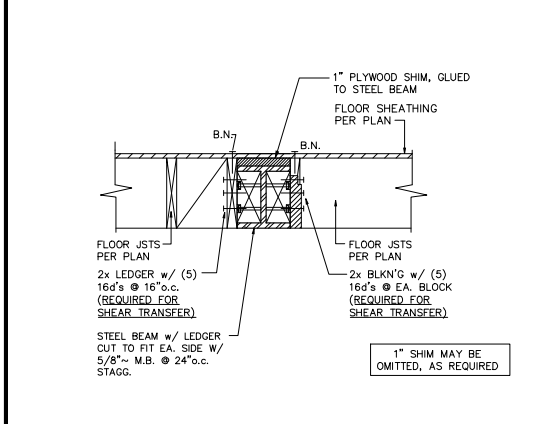
WSWH PANEL DETAIL 33



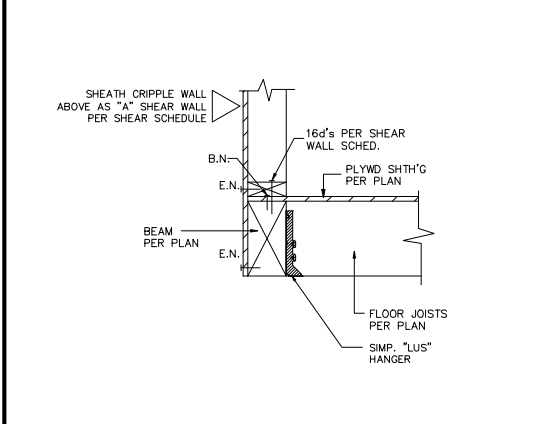
GUARDRAIL DETAIL 34



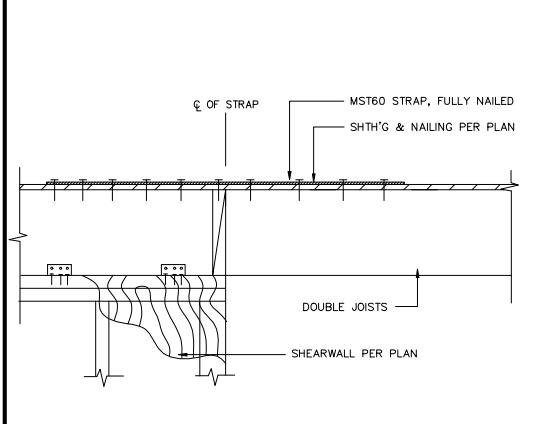
SHEAR TRANSFER DETAIL 35



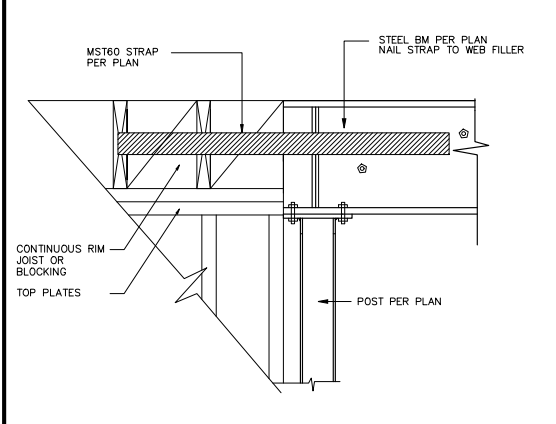
STEEL BEAM DETAIL 36



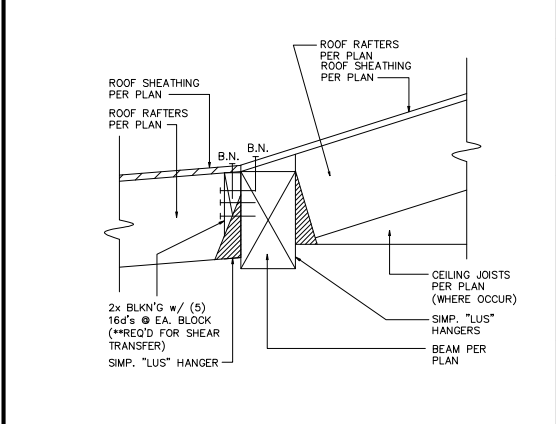
SHEAR TRANSFER DETAIL 37



DRAG STRAP DETAIL 38



DRAG STRAP DETAIL 39



ROOF BEAM DETAIL 40

McCullum Engineering Inc.
 727 2nd St., Suite 104
 Hermosa Beach, CA 90254
 (310) 944-0988
 email: EMEngineering@verizon.net

These drawings are not valid for construction unless stamped and signed by McCullum Engineering, Inc.
 STAMP
 REGISTERED PROFESSIONAL ENGINEER
 ERIC W. MCCULLUM
 No. C68850
 Exp. 9/30/25
 CIVIL
 STATE OF CALIFORNIA

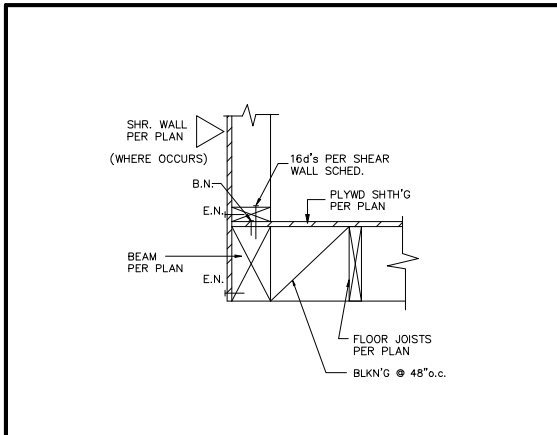
PROJECT
Gray Residence
 415 North Star Lane
 Newport Beach, CA 92660

DRAWING
Structural Details

REVISIONS	BY
△ 6/15/23	EWM
△ 8/19/24	EWM

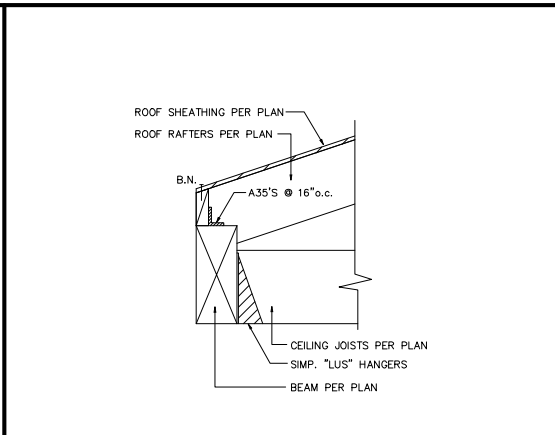
JOB# 21-052
 ENGINEER EWM
 DRAWN
 CHECKED
 FILE Gray.dwg
 DATE 7/18/22
 SCALE NTS
 SHEET
SD2
 of 14 SHEETS

Copyright 2005. All rights reserved. The use of these plans, calculations and specifications shall be restricted to the original site for which they were prepared, and publication thereof is expressly limited to such use. Reproduction, publication or reuse by any method, in whole or part, is prohibited without the permission and consent of Eric McCullum Engineering Services (McCullum Engineering, Inc.). Title to the Plans, calculations and specifications shall constitute prima facie evidence of the acceptance of these restrictions. In the event of unauthorized reuse of the plans by a third party, the third party shall hold McCullum Engineering harmless. Note: Plans are not valid for construction unless approved by the corresponding city building department.



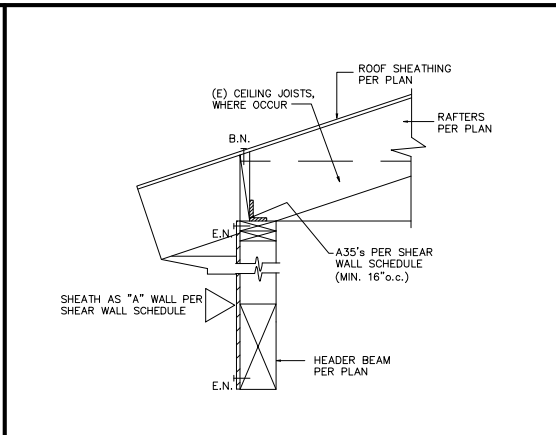
SHEAR TRANSFER DETAIL

41



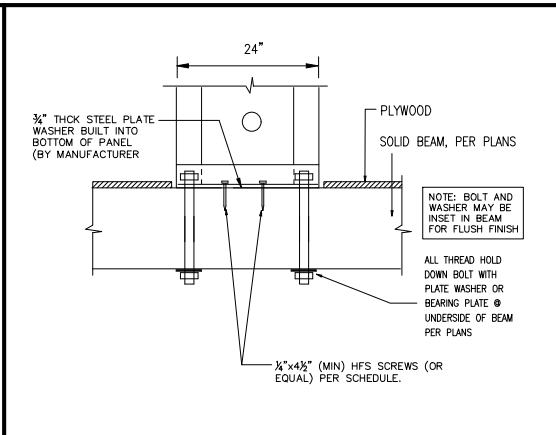
ROOF BEAM DETAIL

42



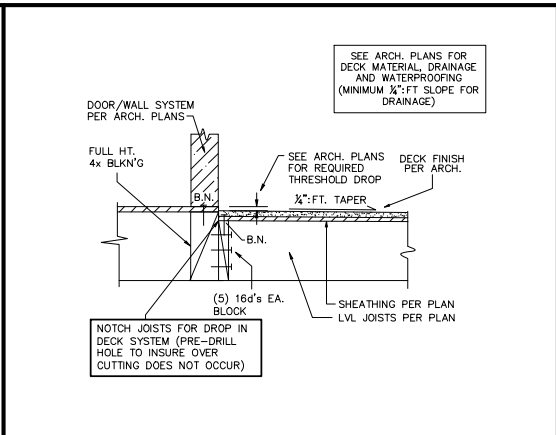
ROOF BEAM DETAIL

43



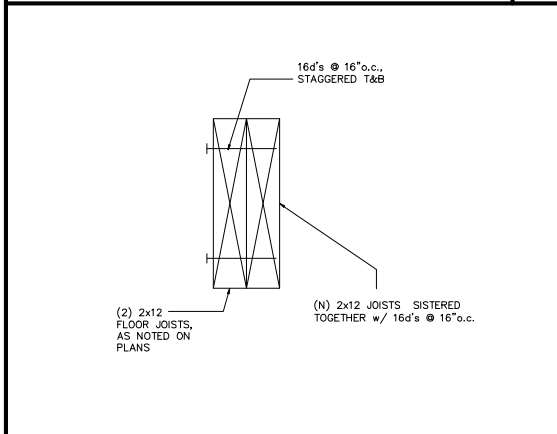
HARDY PANEL DETAIL

44



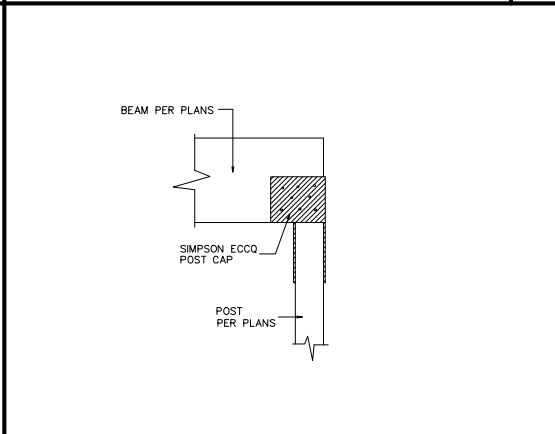
DECK JOIST DETAIL

45



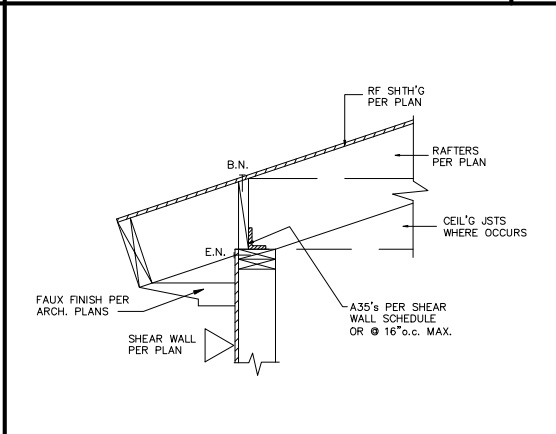
BUILT-UP JOIST DETAIL

46



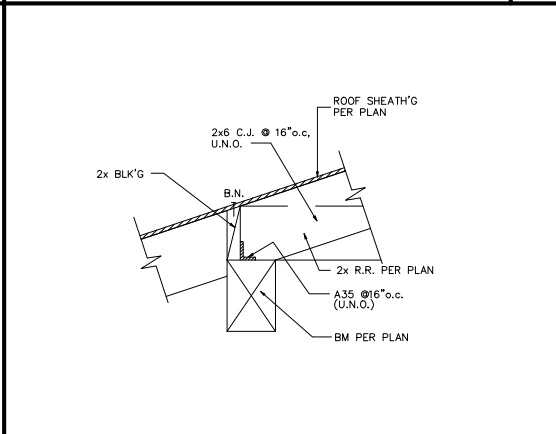
POST-BEAM DETAIL

47



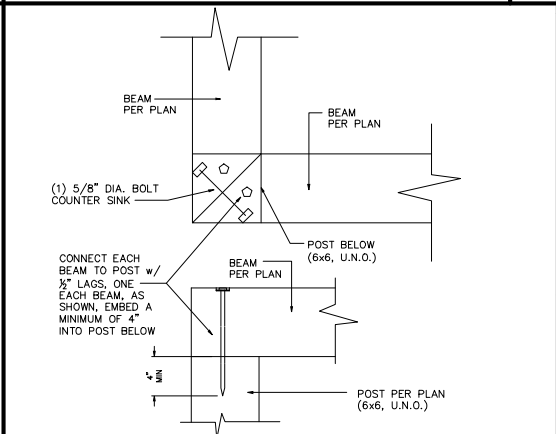
SHEAR TRANSFER DETAIL

48



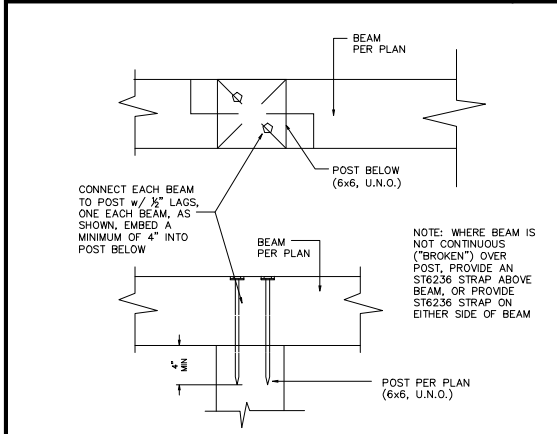
HEADER BEAM DETAIL

49



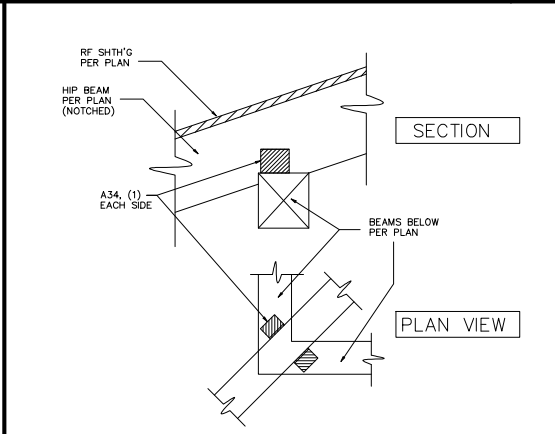
POST-BEAM DETAIL

50



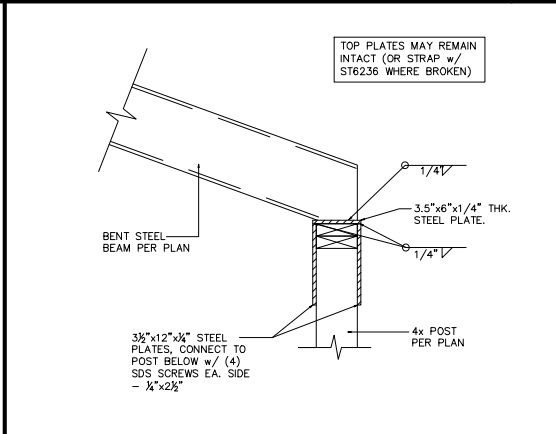
POST-BEAM DETAIL

51



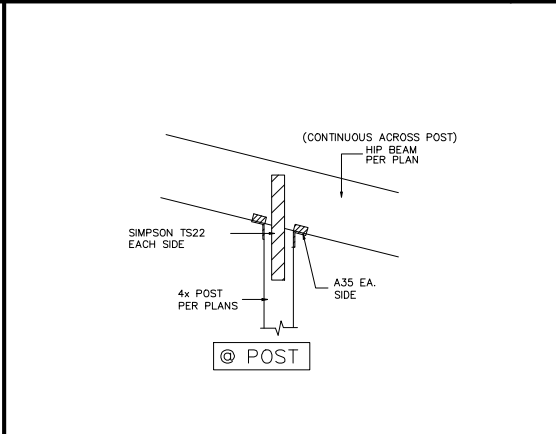
HIP-BEAM DETAIL

52



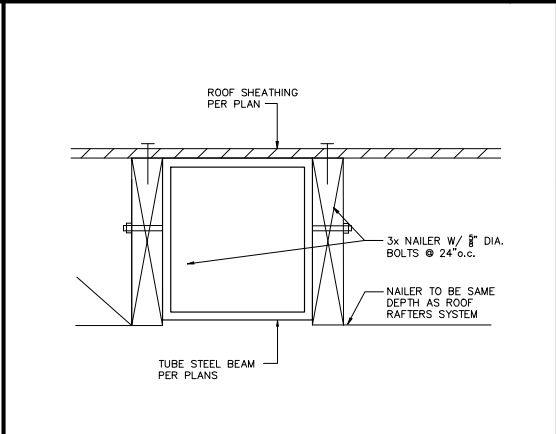
BENT STEEL BEAM DETAIL

53



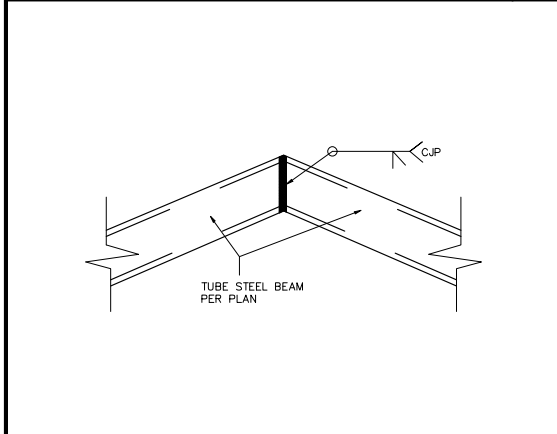
POST-HIP DETAIL

54



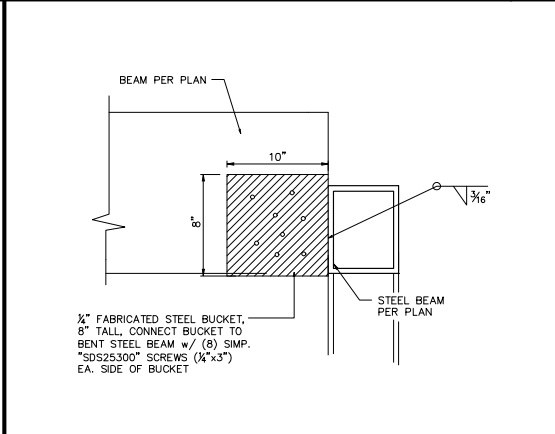
STEEL BEAM DETAIL

55



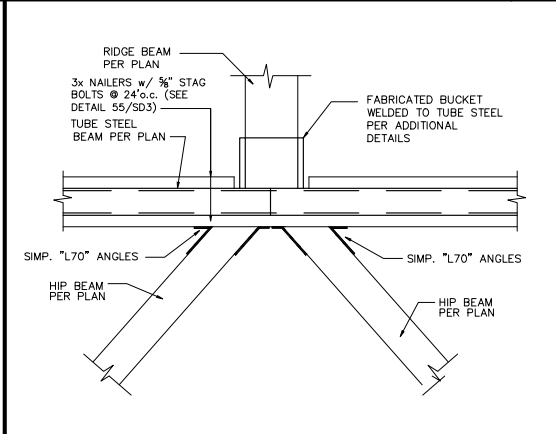
BENT STEEL BEAM DETAIL

56



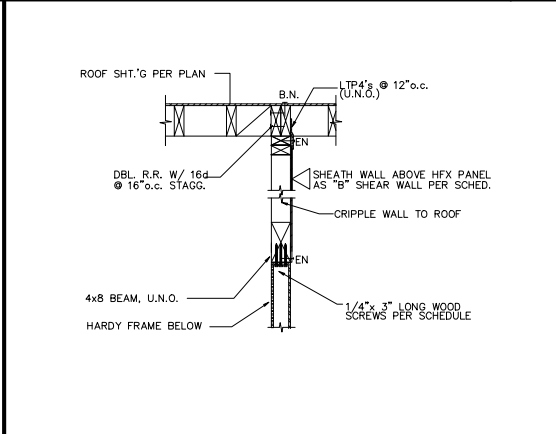
BEAM-BEAM DETAIL

57



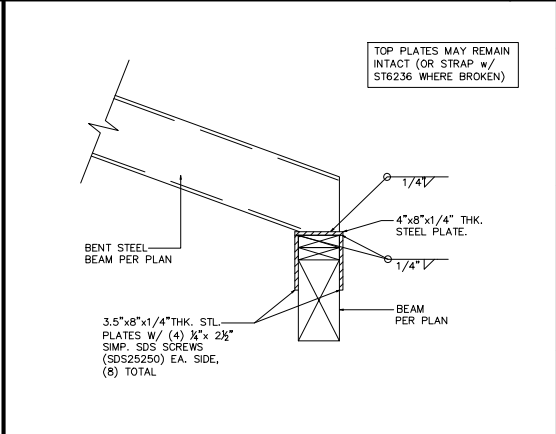
BENT STEEL BEAM DETAIL

58



HARDY PANEL DETAIL

59



BENT STEEL BEAM DETAIL

60

McCullum Engineering Inc.
 727 2nd St., Suite 104
 Hermosa Beach, CA 90254
 (310) 944-0988
 email: EMEngineering@verizon.net

These drawings are not valid for construction unless stamped and signed by McCullum Engineer, Inc.
 STAMP

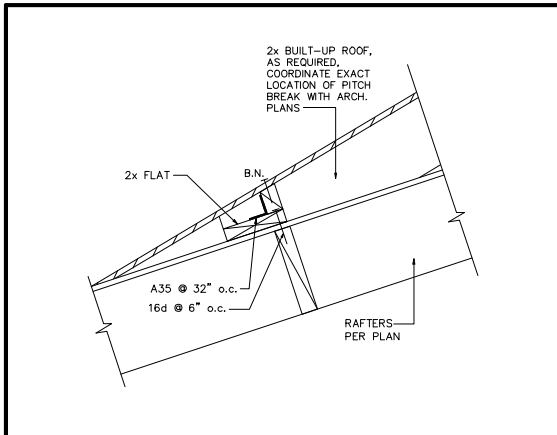
PROJECT
Gray Residence
 415 North Star Lane
 Newport Beach, CA 92660

DRAWING
Structural Details

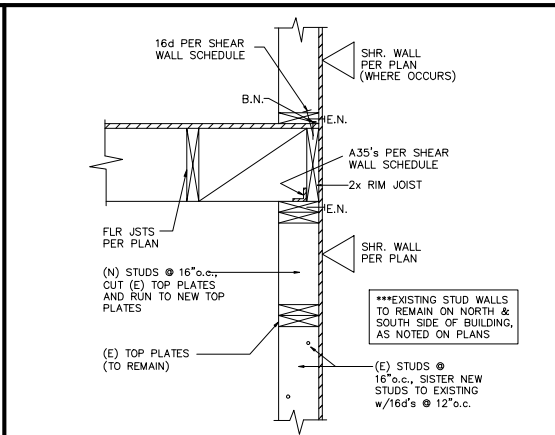
REVISIONS	BY
△ 6/15/23	EWM
△ 8/19/24	EWM

JOB# 21-052
 ENGINEER EWM
 DRAWN
 CHECKED
 FILE Gray.dwg
 DATE 7/18/22
 SCALE NTS
 SHEET
SD3
 of 14 SHEETS

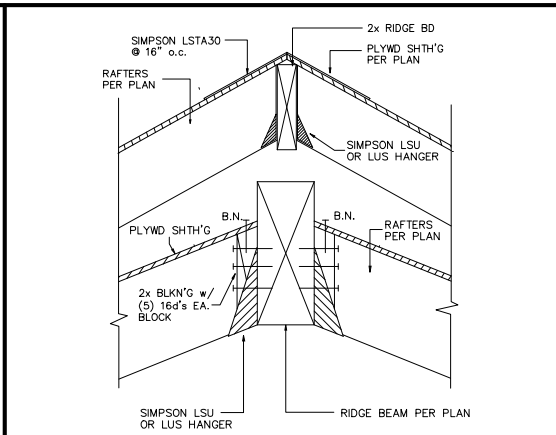
Copyright 2005. All rights reserved. The use of these plans, calculations and specifications shall be restricted to the original site for which they were prepared, and publication thereof is expressly limited to such use. Reproduction, publication or reuse by any method, in whole or part, is prohibited without the permission and consent of Eric McCullum Engineering Services (McCullum Engineering, Inc.). Title to the Plans, calculations and specifications shall constitute prima facie evidence of the acceptance of these restrictions. In the event of unauthorized reuse of the plans by a third party, the third party shall hold McCullum Engineering harmless. Note: Plans are not valid for construction unless approved by the corresponding city building department.



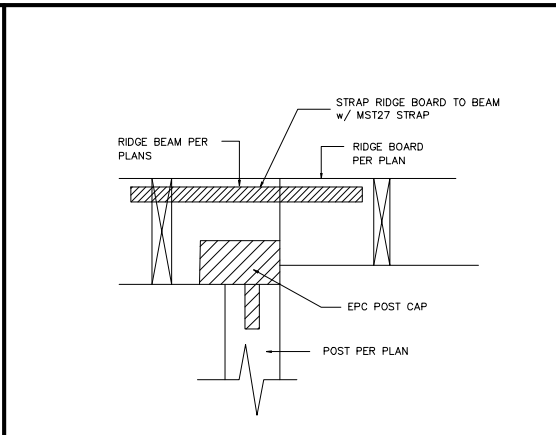
CALIFORNIA FRAM. DETAIL 61



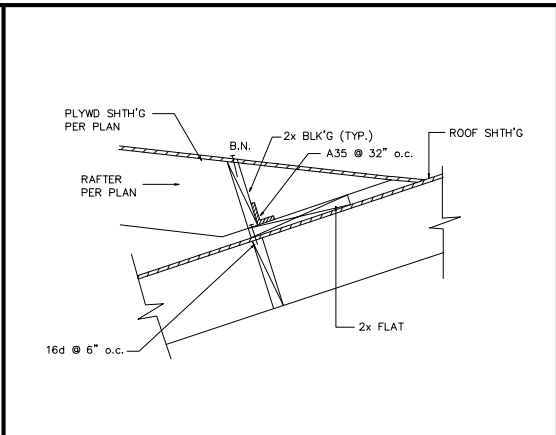
SHEAR TRANSFER DETAIL 62



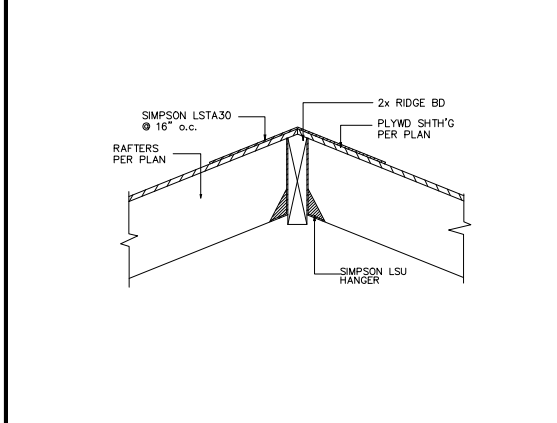
RIDGE BEAM DETAIL 63



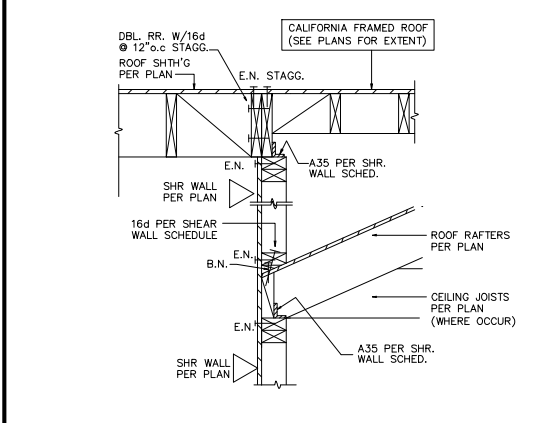
POST-BEAM DETAIL 64



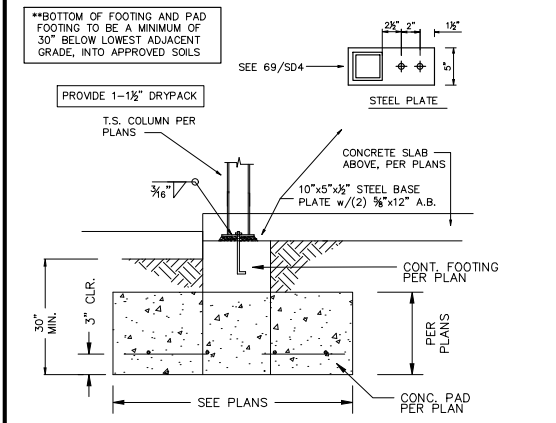
CALIFORNIA FRAM DETAIL 65



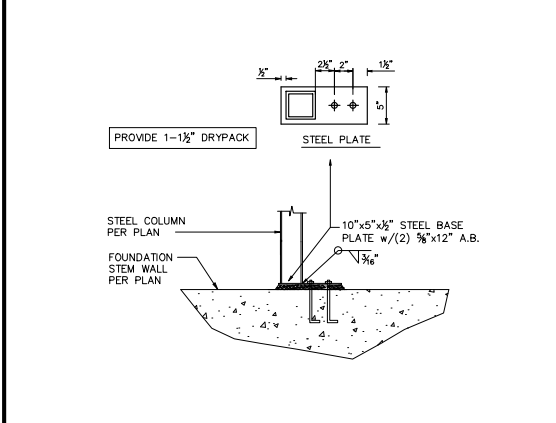
RIDGE BOARD DETAIL 66



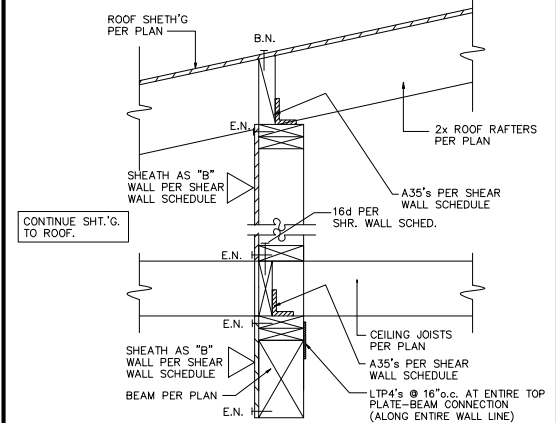
SHEAR TRANSFER DETAIL 67



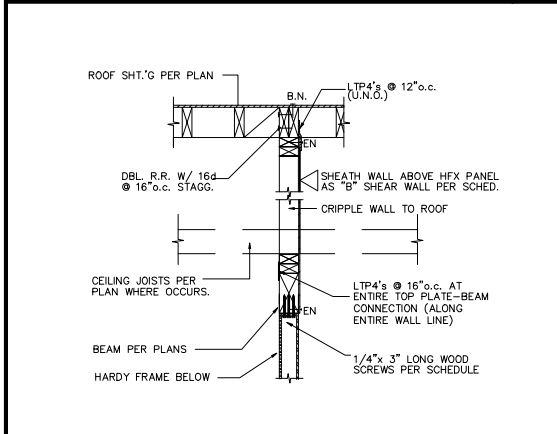
PAD FOOTING DETAIL 68



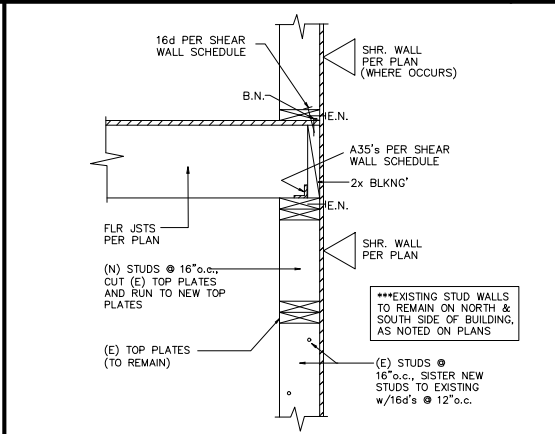
COLUMN BASE DETAIL 69



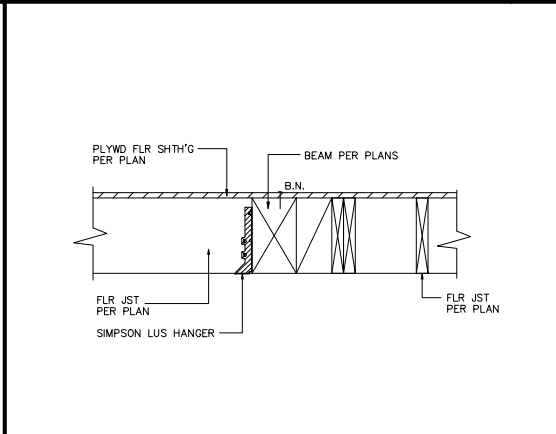
HEADER BEAM DETAIL 70



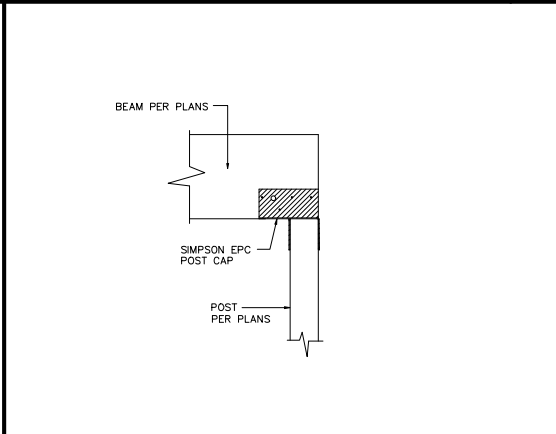
HARDY PANEL DETAIL 71



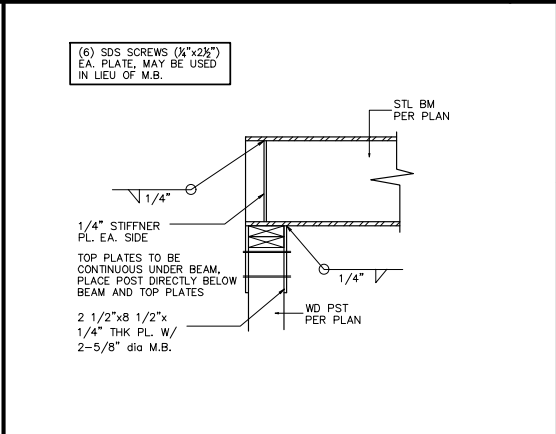
SHEAR TRANSFER DETAIL 72



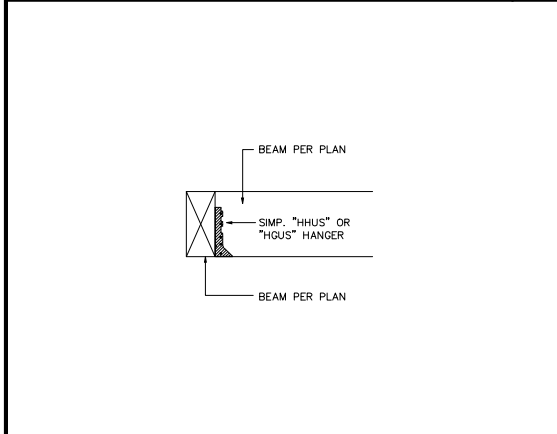
FLOOR BEAM DETAIL 73



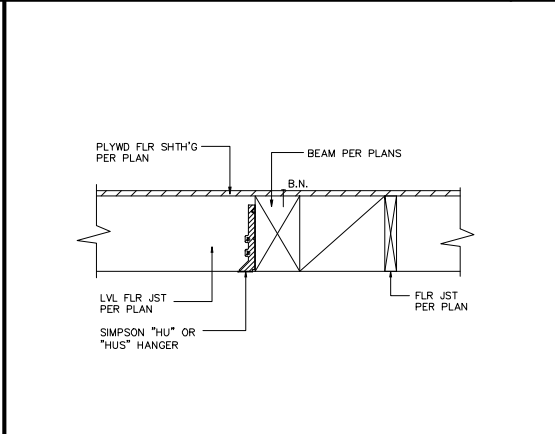
POST-BEAM DETAIL 74



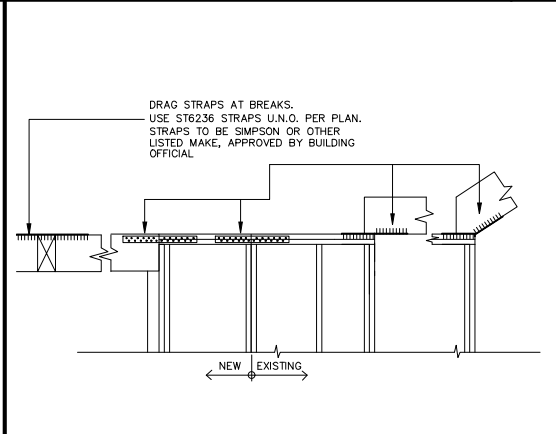
POST-BEAM DETAIL 75



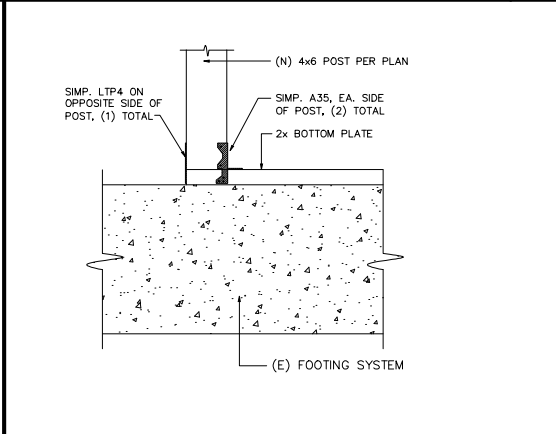
BEAM-BEAM DETAIL 76



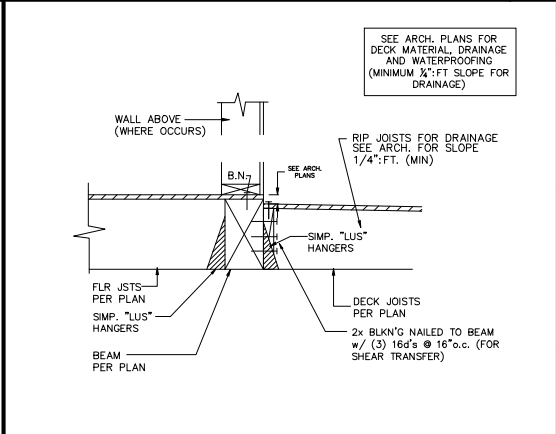
FLOOR BEAM DETAIL 77



DRAG STRAP DETAIL 78



POST BASE DETAIL 79



FLOOR BEAM DETAIL 80

McCullum Engineering Inc.
 727 2nd St., Suite 104
 Hermosa Beach, CA 90654
 (310) 944-0988
 email: EMEngineering@verizon.net

These drawings are not valid for construction unless stamped and signed by McCullum Engineering, Inc.
 STAMP

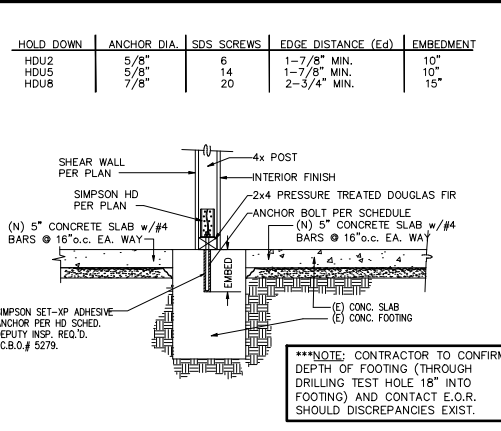
Gray Residence
 415 North Star Lane
 Newport Beach, CA 92660

DRAWING
Structural Details

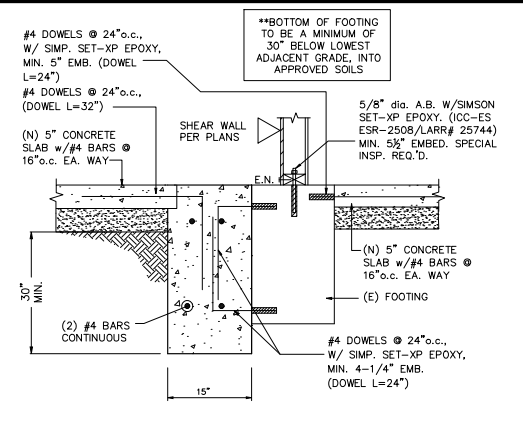
REVISIONS	BY
△ 6/15/23	EWM
△ 8/19/24	EWM

JOB# 21-052
 ENGINEER EWM
 DRAWN
 CHECKED
 FILE Gray.dwg
 DATE 7/18/22
 SCALE NTS
 SHEET
SD4
 OF 14 SHEETS

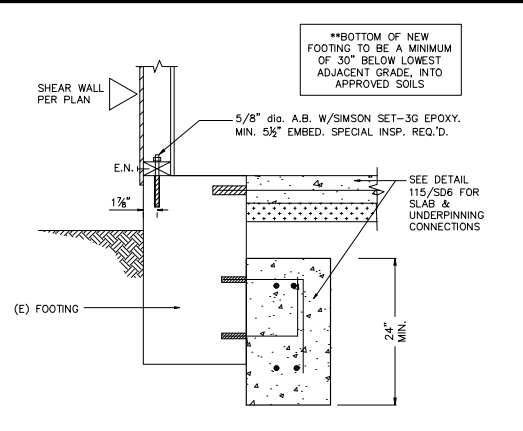
Copyright 2005. All rights reserved. The use of these plans, calculations and specifications shall be restricted to the original site for which they were prepared, and publication thereof is expressly limited to such use. Reproduction, publication or reuse by any method, in whole or part, is prohibited without the permission and consent of Eric McCullum Engineering Services (McCullum Engineering, Inc.). Title to the Plans, calculations and specifications shall constitute prima facie evidence of the acceptance of these restrictions. In the event of unauthorized reuse of the plans by a third party, the third party shall hold McCullum Engineering harmless. Note: Plans are not valid for construction unless approved by the corresponding city department.



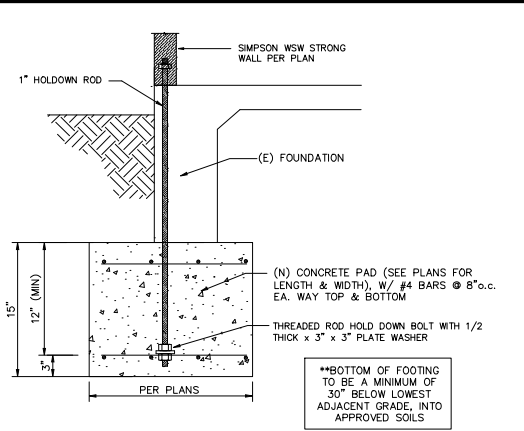
HOLD DOWN DETAIL **81**



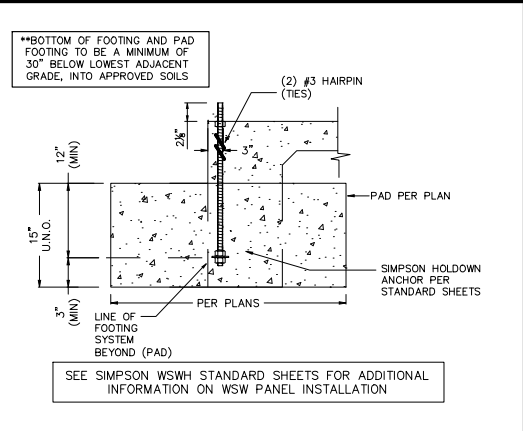
FOOTING DETAIL **82**



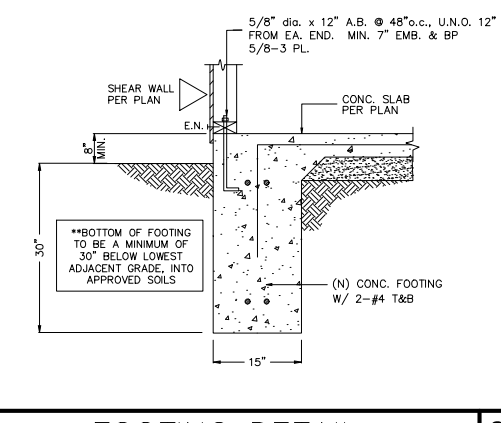
FOOTING DETAIL **83**



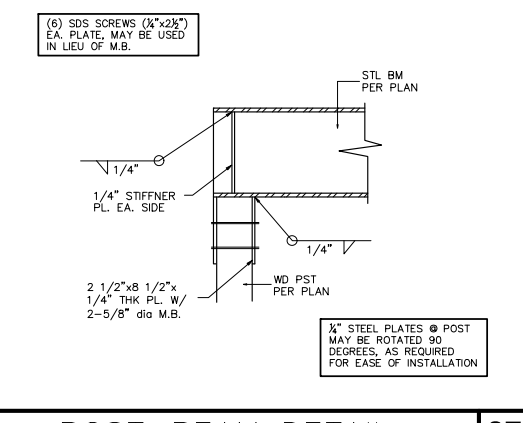
WSWH PANEL DETAIL **84**



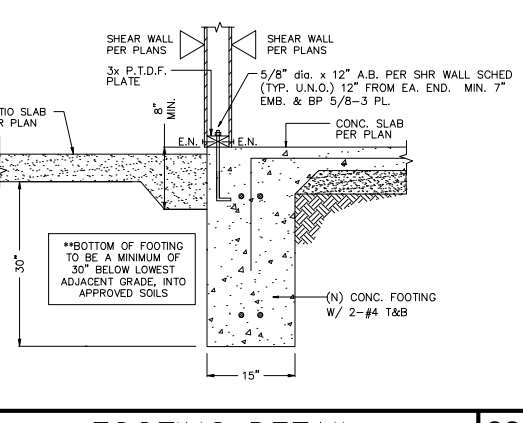
WSWH PANEL DETAIL **85**



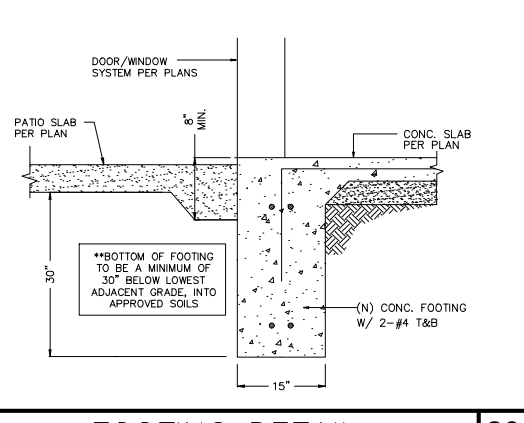
FOOTING DETAIL **86**



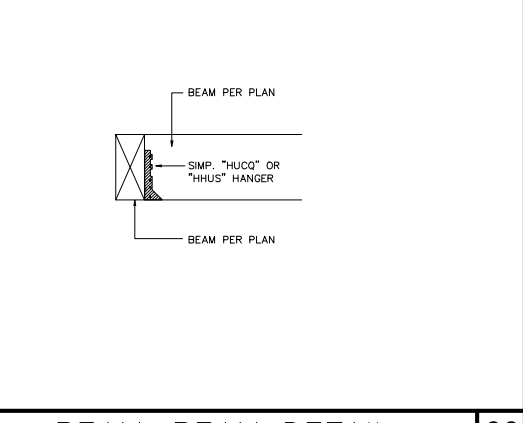
POST-BEAM DETAIL **87**



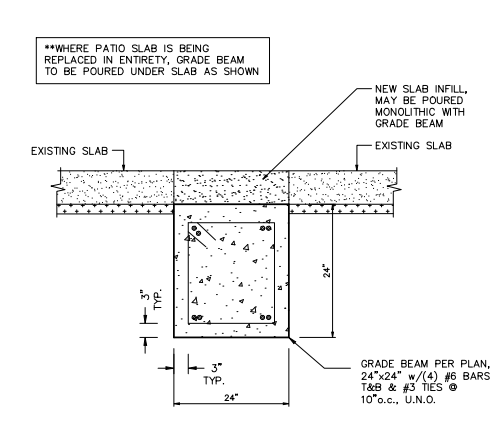
FOOTING DETAIL **88**



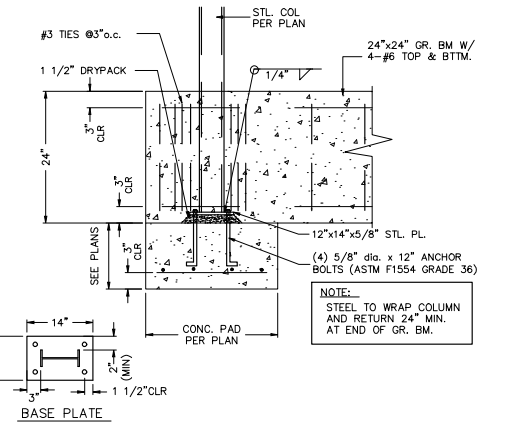
FOOTING DETAIL **89**



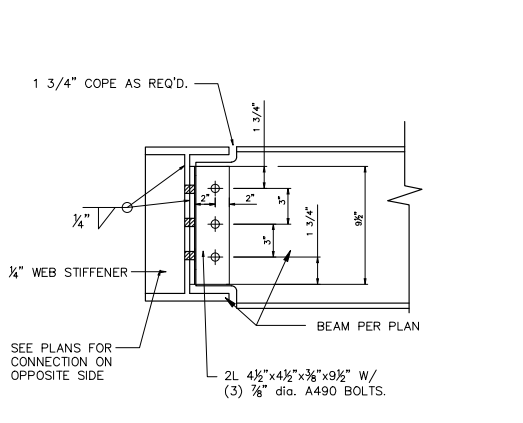
BEAM-BEAM DETAIL **90**



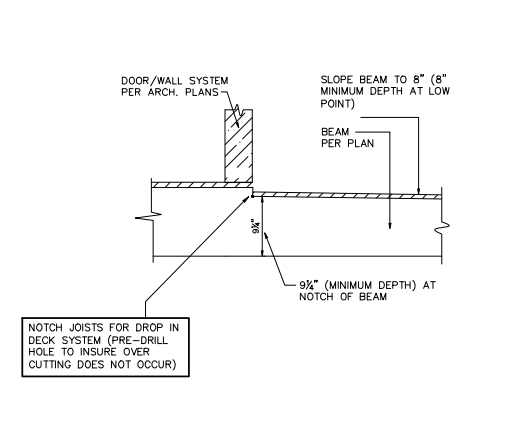
GRADE BEAM DETAIL **91**



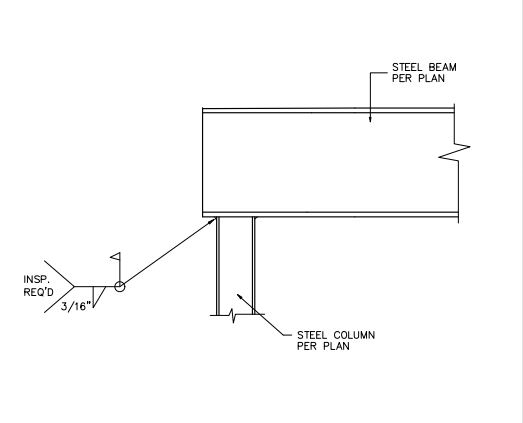
STEEL COLUMN DETAIL **92**



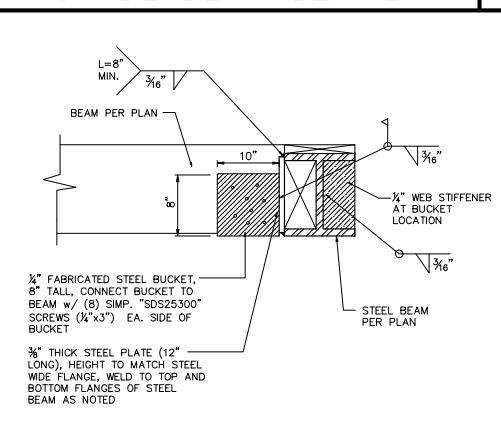
BEAM-BEAM DETAIL **93**



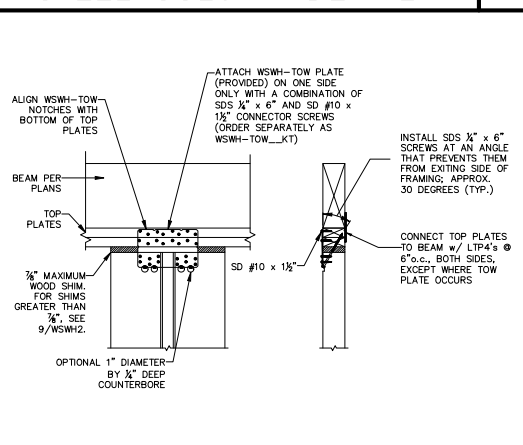
NOTCHED BEAM DETAIL **94**



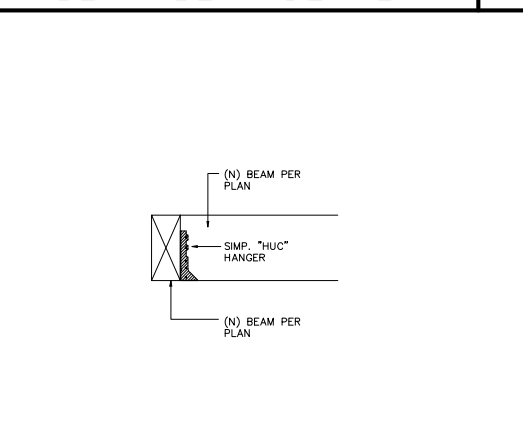
POST-BEAM DETAIL **95**



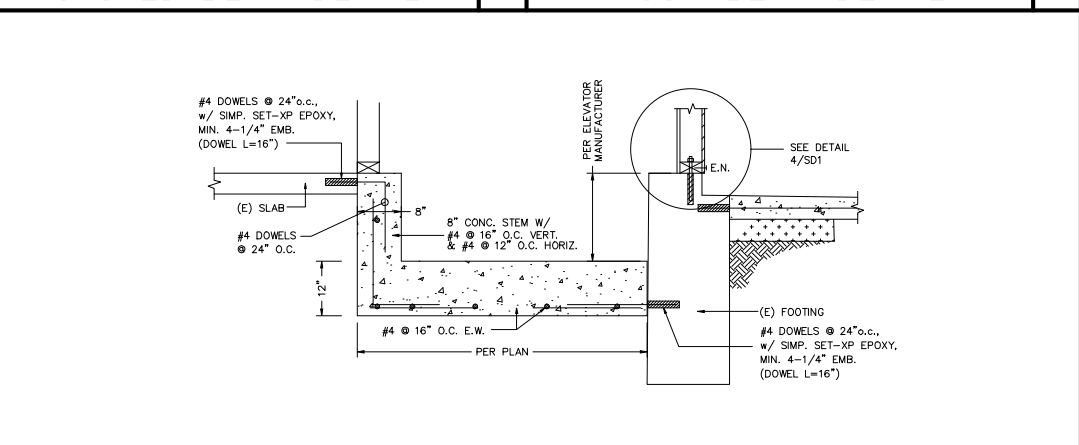
BEAM-BEAM DETAIL **96**



WSWH PANEL DETAIL **97**



BEAM-BEAM DETAIL **98**



ELEVATOR PIT DETAIL **A**

McCullum Engineering Inc.
 727 2nd St., Suite 104
 Hermosa Beach, CA 90654
 (310) 944-0898
 email: EEngineering@veizon.net

These drawings are not valid for construction unless stamped and signed by McCullum Engineer, Inc.

STAMP

Gray Residence
 415 North Star Lane
 Newport Beach, CA 92660

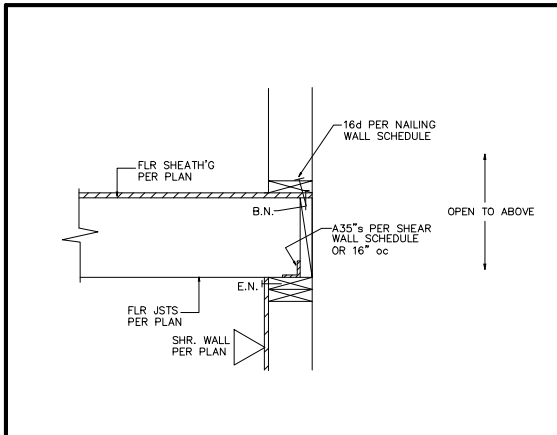
Structural Details

REVISIONS	BY
10/23/23	EWM
1/18/24	EWM
8/19/24	EWM

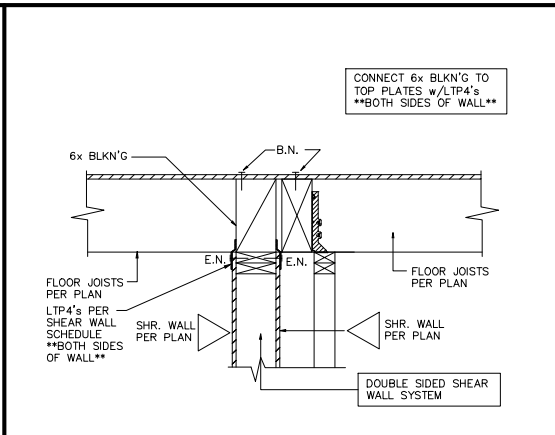
JOB# 21-052
 ENGINEER EWM
 DRAWN
 CHECKED
 FILE Gray.dwg
 DATE 7/18/22
 SCALE NTS

SHEET
SD5
 of 14 SHEETS

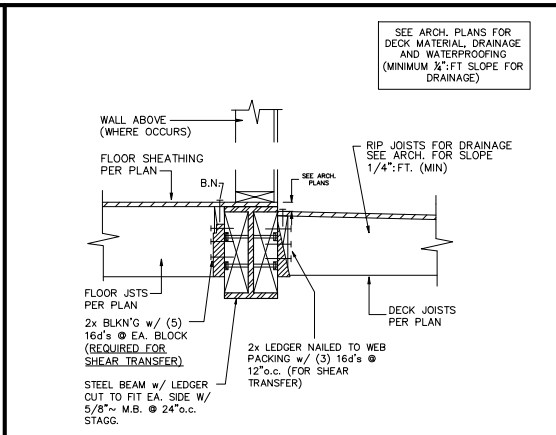
Copyright 2005. All rights reserved. The use of these plans, calculations and specifications shall be restricted to the original site for which they were prepared, and publication thereof is expressly limited to such use. Reproduction, publication or resale by any method, in whole or in part, is prohibited without the permission and consent of Eric McCullum Engineering Services (McCullum Engineering, Inc.). Title to the Plans, calculations and specifications shall constitute prima facie evidence of the acceptance of these restrictions. In the event of unauthorized reuse of the plans by a third party, the third party shall hold McCullum Engineering harmless. Note: Plans are not valid for construction unless approved by the corresponding city building department.



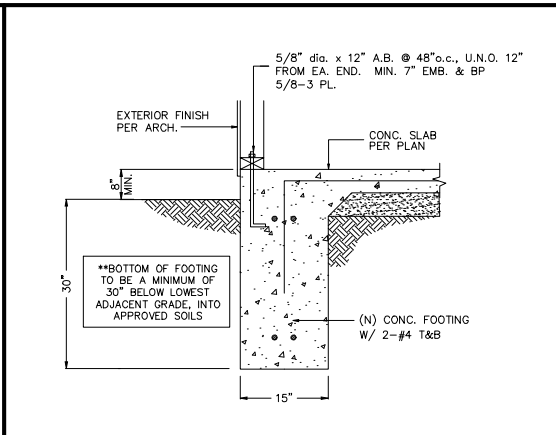
SHEAR TRANSFER DETAIL 101



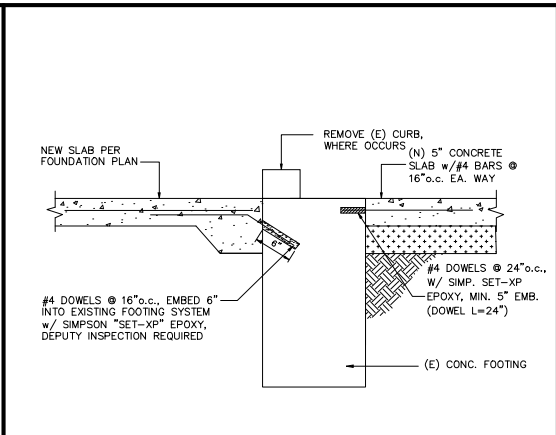
SHEAR TRANSFER DETAIL 102



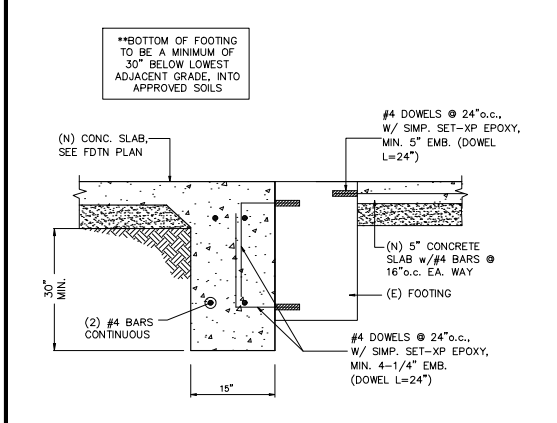
FLOOR BEAM DETAIL 103



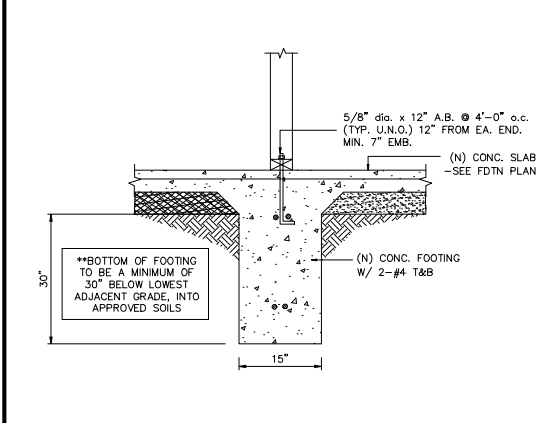
FOOTING DETAIL 104



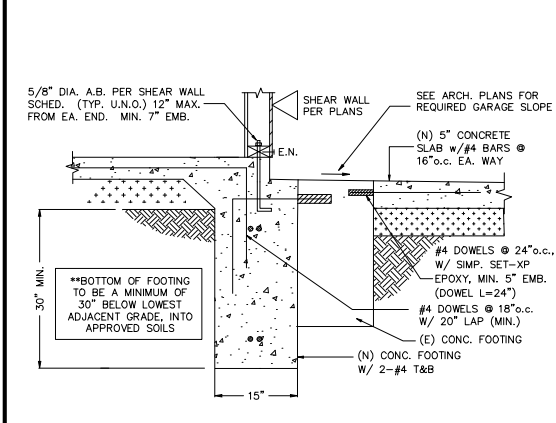
FOOTING DETAIL 105



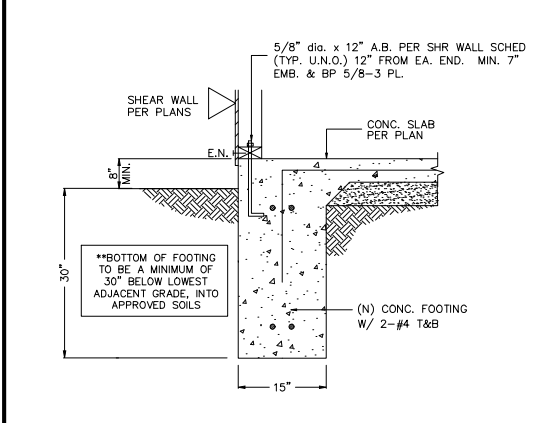
FOOTING DETAIL 106



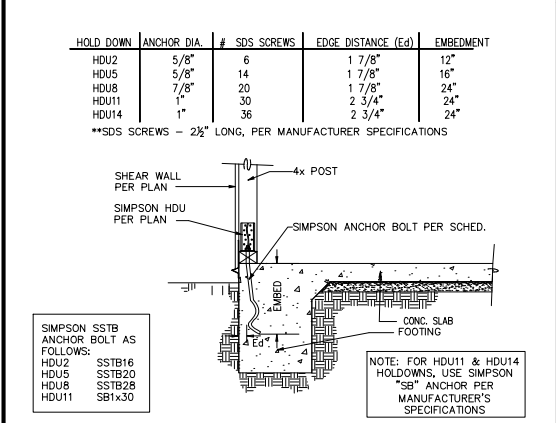
FOOTING DETAIL 107



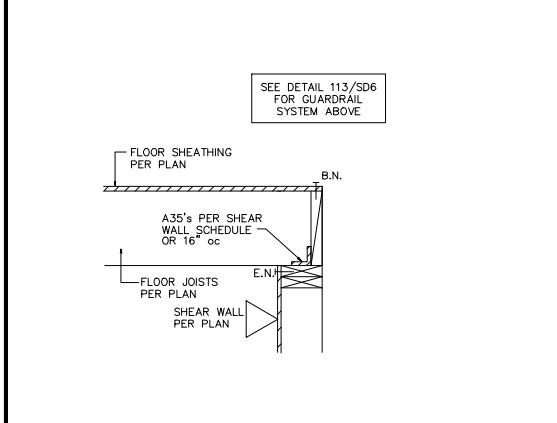
FOOTING DETAIL 108



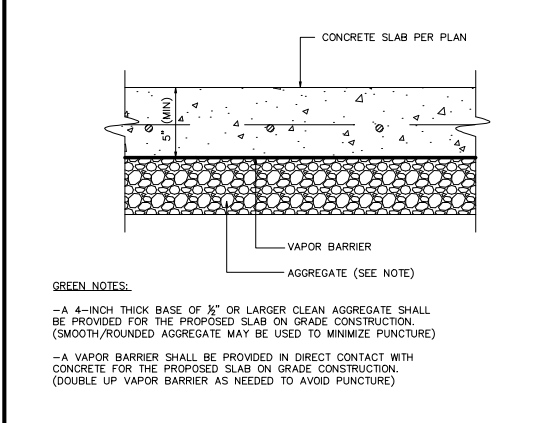
FOOTING DETAIL 109



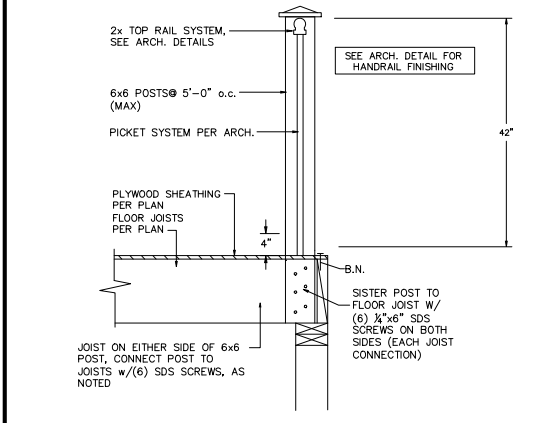
HOLDOWN DETAIL 110



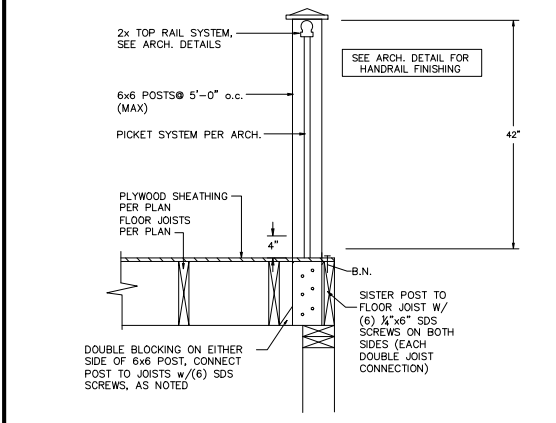
SHEAR TRANSFER DETAIL 111



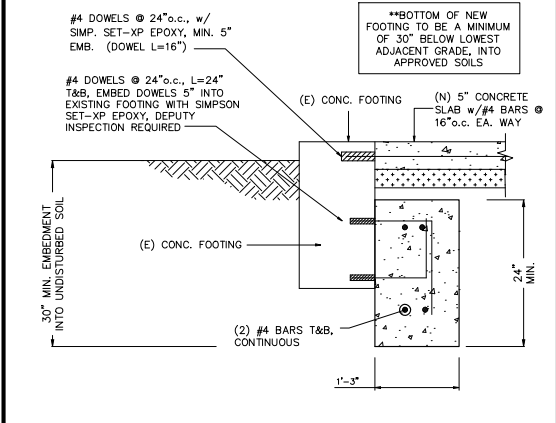
SLAB DETAIL 112



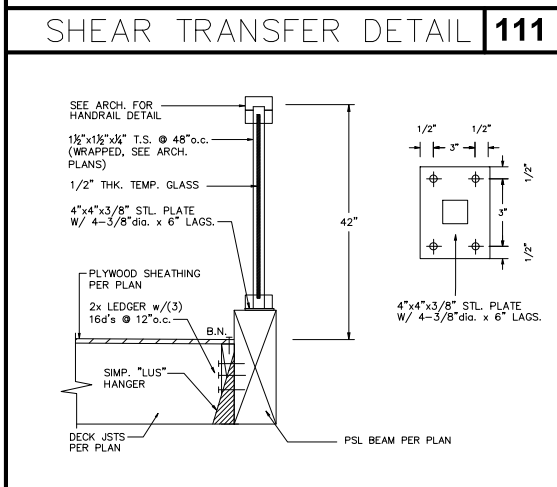
GUARDRAIL DETAIL 113



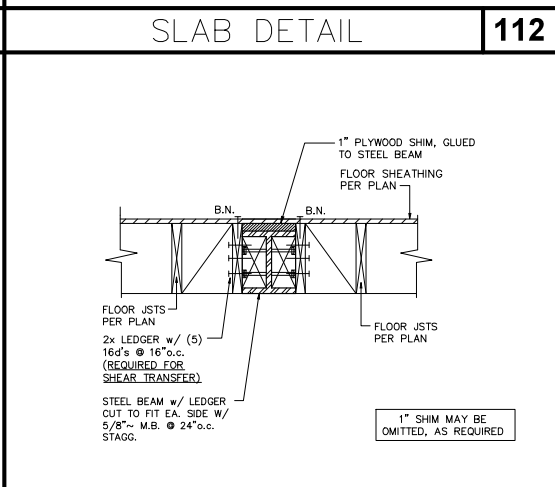
GUARDRAIL DETAIL 114



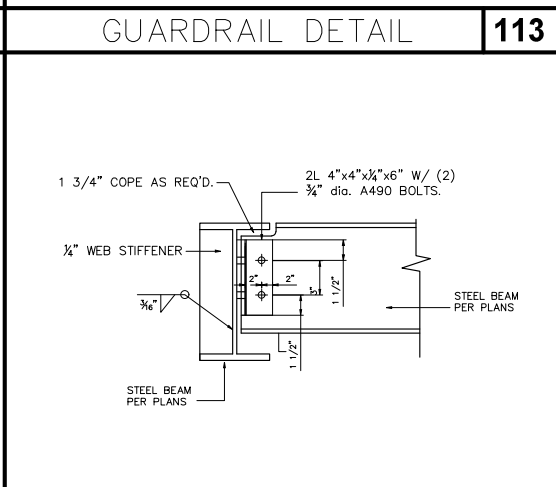
FOOTING DETAIL 115



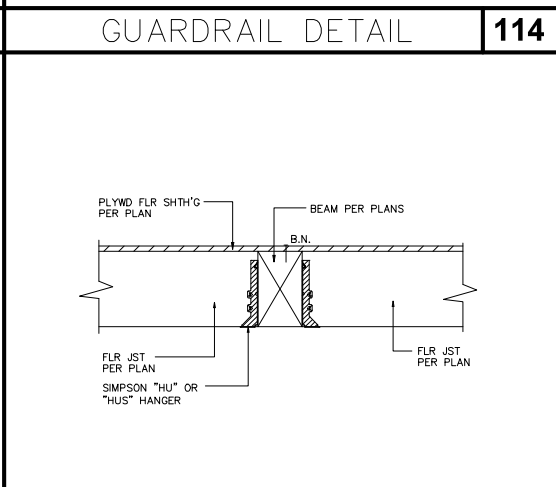
GUARDRAIL DETAIL 116



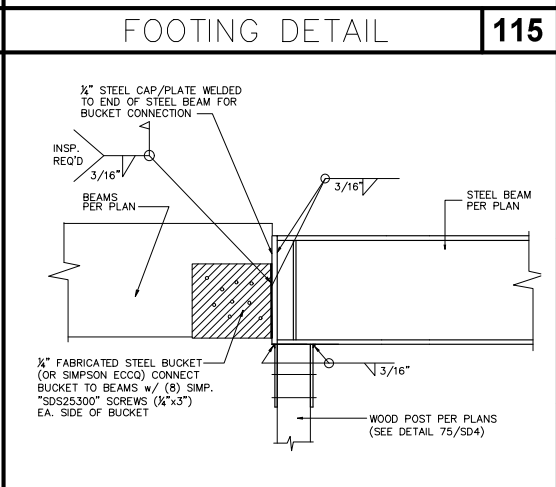
STEEL BEAM DETAIL 117



BEAM-BEAM DETAIL 118



JOSIT-BEAM DETAIL 119



BEAM-BEAM DETAIL 120

727 2nd St., Suite 104
Hemlock Beach, CA 90954
(916) 944-0988
email: EEngineering@verizon.net

McCullum Engineering Inc.

These drawings are not valid for construction unless stamped and signed by McCullum Engineering, Inc.

STAMP

PROJECT

Gray Residence
415 North Star Lane
Newport Beach, CA 92660

DRAWING

Structural Details

REVISIONS	BY
10/23/23	EWM
1/18/24	EWM
8/19/24	EWM

JOB# 21-052

ENGINEER EWM

DRAWN

CHECKED

FILE Gray.dwg

DATE 7/18/22

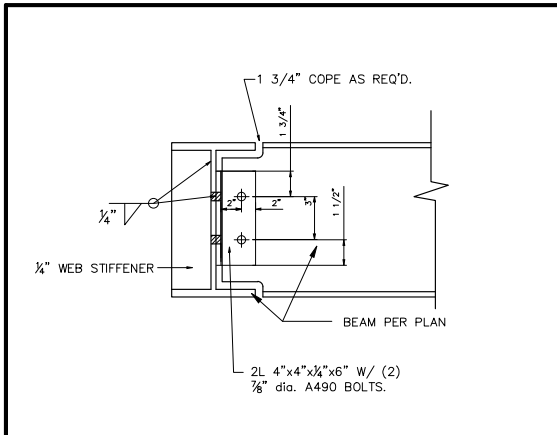
SCALE NTS

SHEET

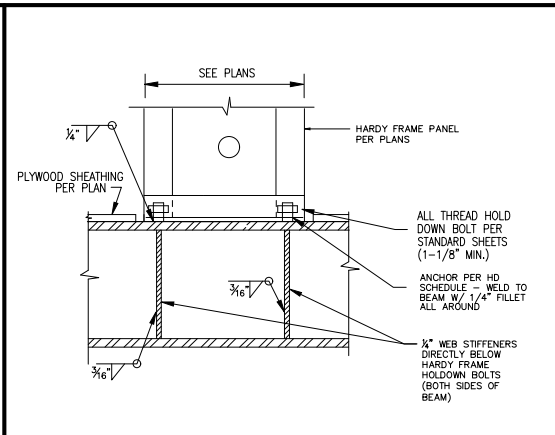
SD6

OF 14 SHEETS

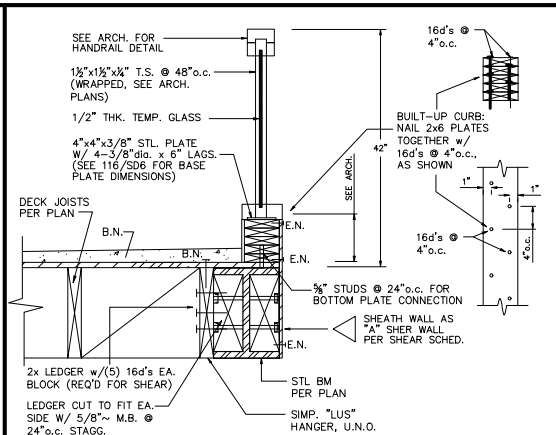
Copyright 2005. All rights reserved. The use of these plans, calculations and specifications shall be restricted to the original site for which they were prepared, and publication thereof is expressly limited to such use. Reproduction, publication or reuse by any method, in whole or in part, is prohibited without the permission and consent of McCullum Engineering Services (McCullum Engineering, Inc.). Title to the Plans, calculations and specifications shall constitute prima facie evidence of the acceptance of these restrictions. In the event of unauthorized reuse of the plans by a third party, the third party shall hold McCullum Engineering harmless. Note: Plans are not valid for construction unless approved by the corresponding city department.



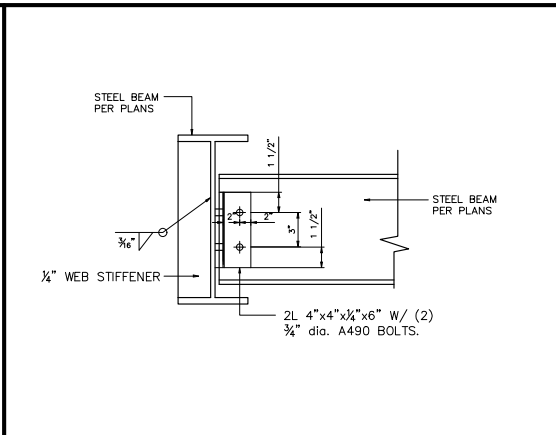
BEAM-BEAM DETAIL 121



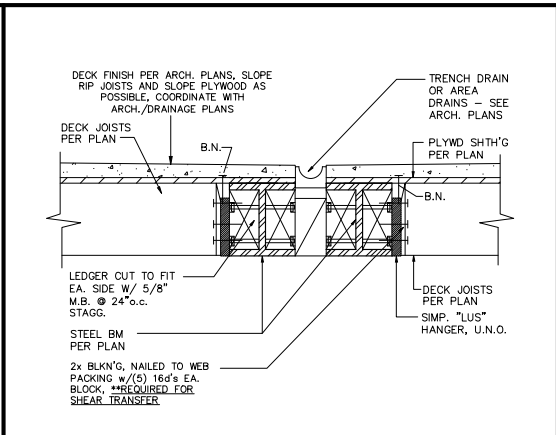
HARDY PANEL-BM DETAIL 122



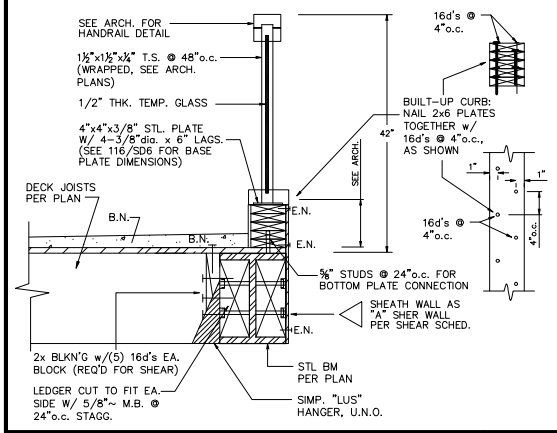
GUARDRAIL DETAIL 123



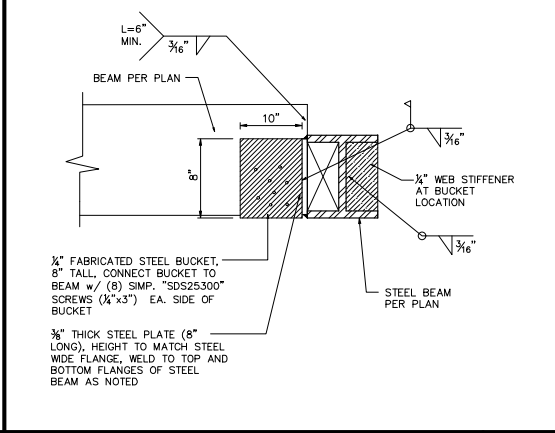
BEAM-BEAM DETAIL 124



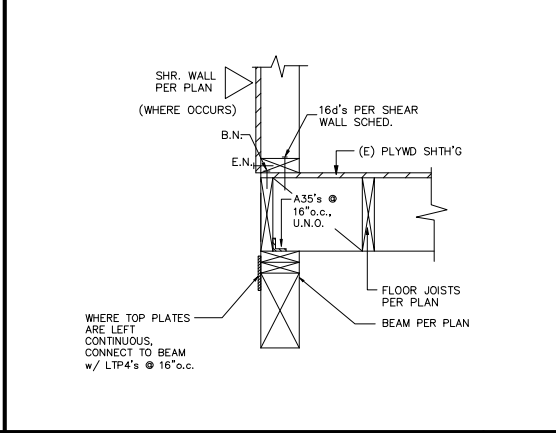
DECK BEAM DETAIL 125



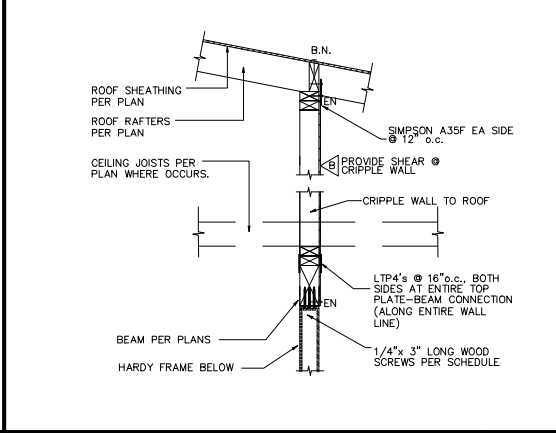
GUARDRAIL DETAIL 126



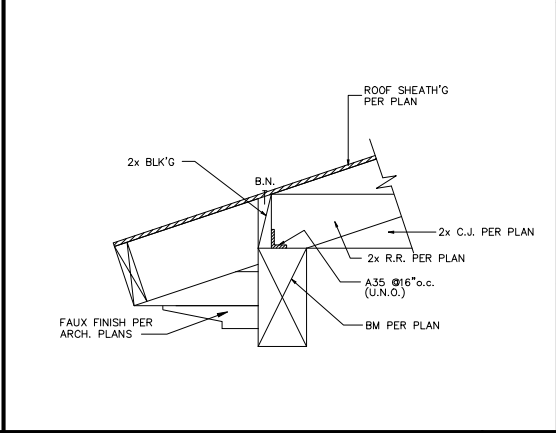
BEAM-BEAM DETAIL 127



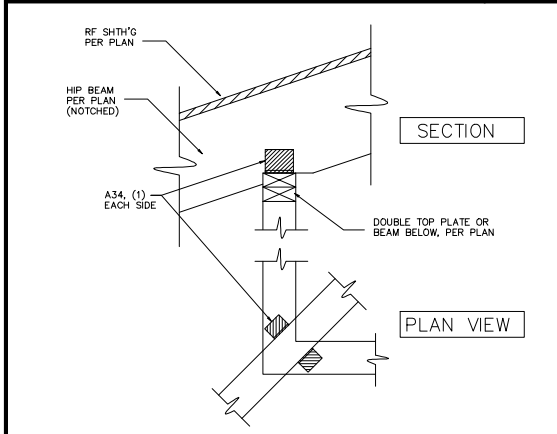
FLOOR BEAM DETAIL 128



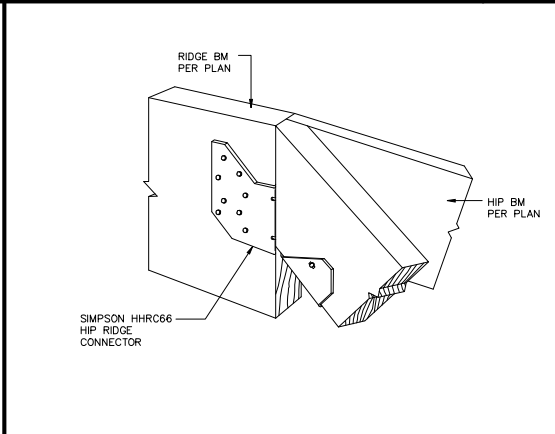
HARDY PANEL DETAIL 129



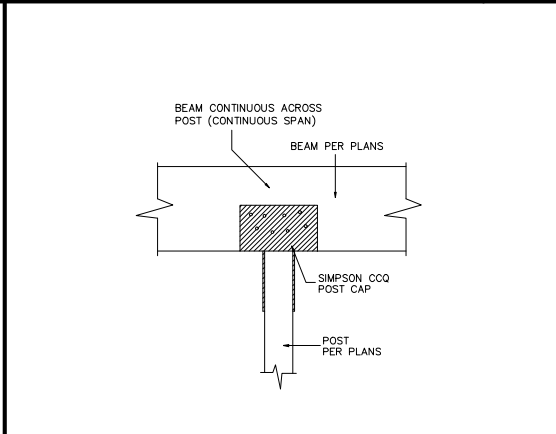
ROOF BEAM DETAIL 130



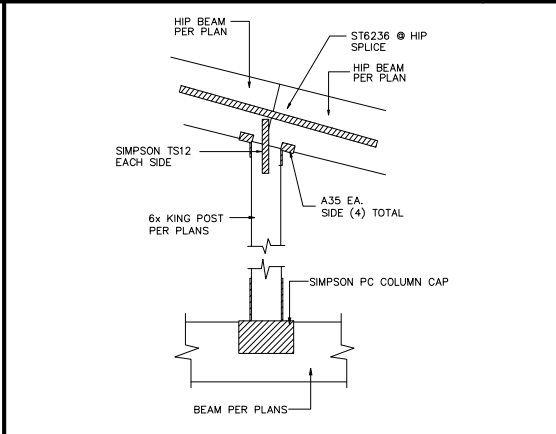
HIP BEAM DETAIL 131



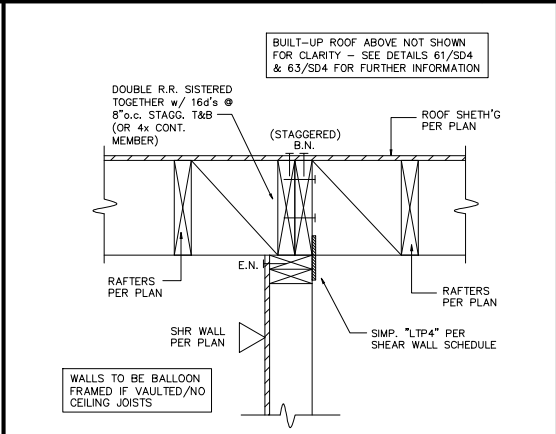
HIP-RIDGE DETAIL 132



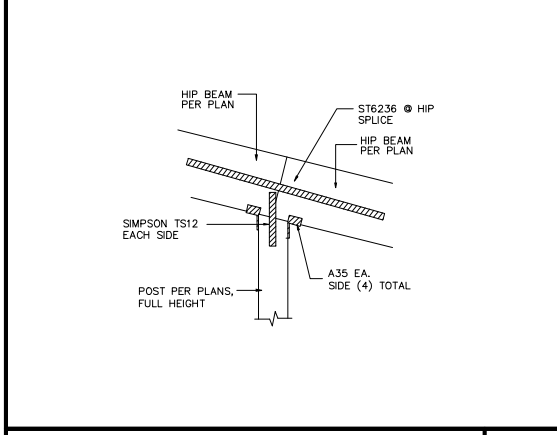
POST-BEAM DETAIL 133



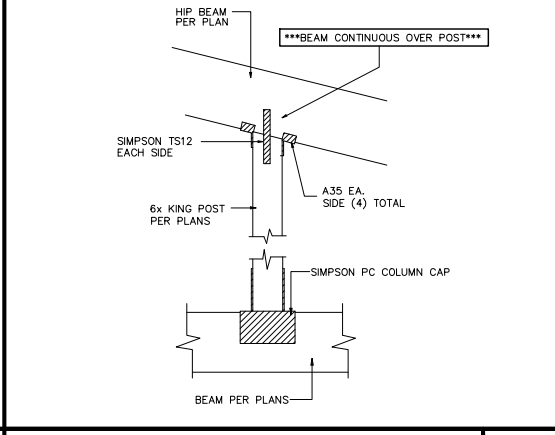
HIP BEAM DETAIL 134



SHEAR TRANSFER DETAIL 135



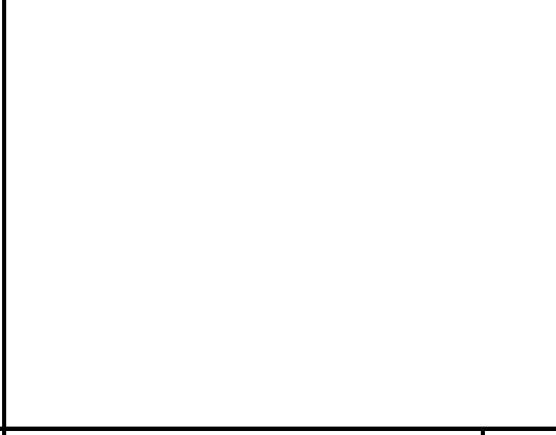
HIP BEAM DETAIL 136



HIP BEAM DETAIL 137



138



139



140

727 2nd St., Suite 104
Hemlock Beach, CA 90954
(919) 944-0989
email: EEngineering@verizon.net

McCullum Engineering Inc.

These drawings are not valid for construction unless stamped and signed by McCullum Engineer, Inc.

STAMP

REGISTERED PROFESSIONAL ENGINEER
ERIC W. MCCULLUM
No. C68850
Exp. 9/30/25
CIVIL
STATE OF CALIFORNIA

PROJECT

Gray Residence
415 North Star Lane
Newport Beach, CA 92660

DRAWING

Structural Details

REVISIONS	BY
Δ 8/19/24	EWM
Δ	
Δ	

JOB# 21-052

ENGINEER EWM

DRAWN

CHECKED

FILE Gray.dwg

DATE 7/18/22

SCALE NTS

SHEET

SD7

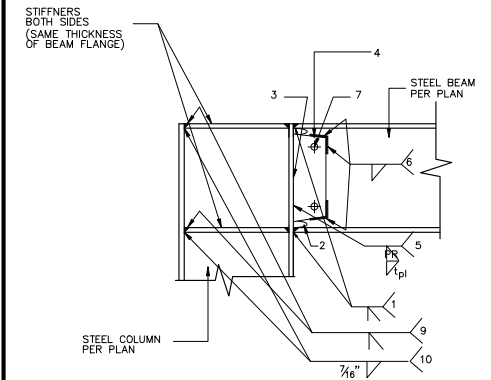
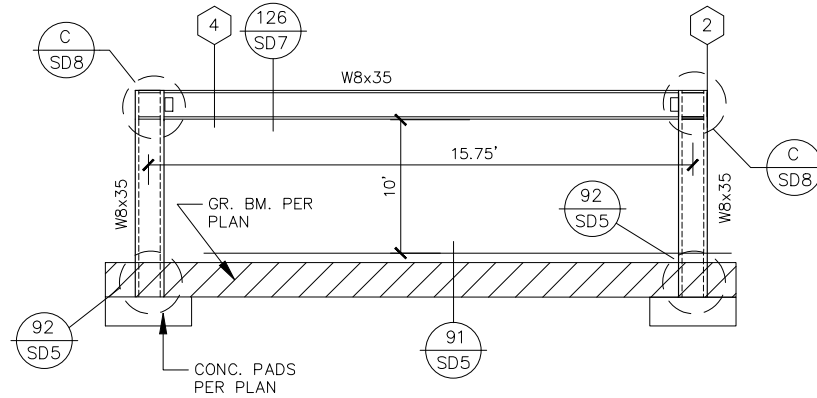
of 14 SHEETS

Copyright 2005. All rights reserved. The use of these plans, calculations and specifications shall be restricted to the original site for which they were prepared, and publication thereof is expressly limited to such use. Reproduction, publication or reuse by any method, in whole or part, is prohibited without the permission and consent of Eric McCullum Engineering Services (McCullum Engineering, Inc.). Title to the Plans, calculations and specifications shall constitute prima facie evidence of the acceptance of these restrictions. In the event of unauthorized reuse of the plans by a third party, the third party shall hold McCullum Engineering harmless. Note: Plans are not valid for construction unless approved by the corresponding city building department.

NOTE:
NTS, DIMENSIONS ARE APPROXIMATE, CONDITIONS TO BE VERIFIED IN FIELD PRIOR TO FABRICATION AND ASSEMBLY

A490 BOLTS SHALL BE IN WELDED CONNECTIONS BETWEEN MEMBERS OF ORDINARY MOMENT FRAMES OR SPECIAL MOMENT-RESISTANT FRAMES SHALL BE TESTED BY NONDESTRUCTIVE METHODS

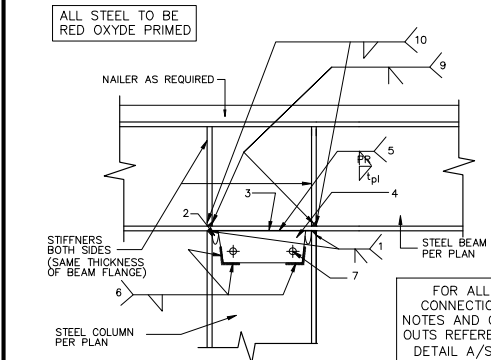
SPECIAL INSPECTION OF HIGH STRENGTH A325 AND A490 BOLTS SHALL BE IN ACCORDANCE WITH APPROVED NATIONALLY RECOGNIZED STANDARDS AND REQUIREMENTS



- Notes
- CJP groove weld at top and bottom flanges. At top flange, either (1) remove weld backing, backgouge, and add 5/16" minimum fillet weld, or (2) leave backing in place and add 5/16" fillet under backing. At bottom flange, remove weld backing, backgouge, and add 5/16" minimum fillet weld. Weld: QC/QA Category AHT.
 - Weld access hole, see Figure 3-5 FEMA 350.
 - CJP groove weld full length of web between weld access holes. Provide non-fusible weld tabs. Remove weld tabs after welding and grind end of weld smooth at weld access hole. Weld: QC/QA Category BHT.
 - Shear tab of thickness equal to that of beam web. Shear tab length shall be so as to allow 1/8" overlap with the weld access hole at top and bottom, and the width shall extend 2" minimum back along the beam, beyond the end of the weld access hole.
 - Full-depth partial penetration from far side. Weld: QC/QA Category BM/T.
 - Fillet weld shear tab to beam web. Weld size shall be equal to the thickness of the shear tab minus 1/16". Weld shall extend over the top and bottom one-third of the shear tab height and across the top and bottom. Weld: QC/QA Category BHT.
 - Erection bolts: 2-3/4" dia. A325 BOLTS.
 - AISC minimum continuous fillet weld under backing (U.N.O.).
 - CJP typical, QC/QA Category BM/T. For exterior beam-column connections (beam one side only), weld of continuity plate to column flange at free side may be fillet welds at top and bottom face of plate.
 - AISC minimum continuous fillet weld under backing.

MOMENT FRAME CONNECTION
PER FEMA 350 WUF-W

F MOMENT FRAME ELEVATION - DRAG LINE Z D MOMENT FRAME CONN. A



WELDED CONNECTIONS BETWEEN MEMBERS OF ORDINARY MOMENT FRAMES OR SPECIAL MOMENT-RESISTANT FRAMES SHALL BE TESTED BY NONDESTRUCTIVE METHODS PER SECTION 1703.

G MOMENT FRAME CONN. C

727 2nd St., Suite 104
Hermosa Beach, CA 90254
(910) 944-0988
email: EEngineering@verizon.net

McCullum Engineering Inc.

These drawings are not valid for construction unless stamped and signed by McCullum Engineer, Inc.

STAMP

PROJECT
Gray Residence
415 North Star Lane
Newport Beach, CA 92660

DRAWING
Structural Details

REVISIONS	BY
Δ 8/19/24	EWM
Δ	
Δ	

JOB# 21-052
ENGINEER EWM
DRAWN
CHECKED
FILE Gray.dwg
DATE 7/18/22
SCALE NTS

SHEET
SD8
OF 14 SHEETS

Copyright 2005. All rights reserved. The use of these plans, calculations and specifications shall be restricted to the original site for which they were prepared, and publication thereof is expressly limited to such use. Reproduction, publication or reuse by any method, in whole or part, is prohibited without the permission and consent of Eric McCullum Engineering Services (McCullum Engineering, Inc.). Title to the Plans, calculations and specifications shall constitute prima facie evidence of the acceptance of these restrictions. In the event of unauthorized reuse of the plans by a third party, the third party shall hold McCullum Engineering harmless. Note: Plans are not valid for construction unless approved by the corresponding city building department.

GENERAL

1) ALL DESIGN, CONSTRUCTION, AND WORKMANSHIP SHALL CONFORM TO THE 2019 EDITION OF THE CALIFORNIA BUILDING CODE (CBC), AND ALL LOCAL ORDINANCES AND REQUIREMENTS. 2019 L.A. COUNTY BUILDING CODE AMENDMENTS AS REQUIRED.

2) THE APPROVED CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION.

3) IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT ARE NOT LIMITED TO, BRACING AND SHORING FOR LOADS DUE TO CONSTRUCTION EQUIPMENT, ETC. THE METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, SUPERVISION, AND INSTALLATION OF ALL TEMPORARY BRACING AND SHORING SHOULD ENSURE THE SAFETY OF THE WORK. BRACING AND SHORING IS TO BE INSTALLED PER THE LATEST OSHA STANDARDS. ALL BRACING AND/OR SHORING SHALL STAY IN PLACE UNTIL ALL WORK HAS BEEN SUITABLY COMPLETED.

4) THE GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO STARTING CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES OR INCONSISTENCIES.

5) DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALES ON DRAWINGS. NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS.

6) IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO ENSURE THAT ALL APPLICABLE SAFETY LAWS ARE STRICTLY ENFORCED AND TO MAINTAIN A SAFE CONSTRUCTION PROJECT.

7) IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO PROVIDE SUPERVISION OF THE CONSTRUCTION WORK TO ENSURE THAT IT IS BUILT IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS. THE ENGINEER WILL PROVIDE ONLY OBSERVATION OF THE WORK DURING CONSTRUCTION.

8) THE APPROVED SET OF CONSTRUCTION DOCUMENTS, INCLUDING ALL APPROVED REVISIONS, SHALL BE PRESENT AT THE JOB SITE AT ALL TIMES.

9) CONSTRUCTION MATERIALS SHALL BE SPREAD OUT IF PLACED ON FRAMED FLOORS OR ROOFS. LOADS SHALL NOT EXCEED THE DESIGN LOADING FOR THE SUPPORTING MEMBERS.

10) NO CHANGES IN THE PLANS WILL BE MADE AND NO EXTRA WORK PERFORMED UNLESS SO APPROVED BY THE OWNER, CIVIL/STRUCTURAL ENGINEER, SOILS ENGINEER/GEOLOGISTS, COUNTY/CITY INSPECTOR AND BUILDING OFFICIALS.

11) A CLAIM FOR EXTRAS WILL BE CONSIDERED IF A CONDITION ARISES WHICH WAS CHANGED BY DESIGN BY OTHERS, UNFORESEEN OR HAS NOT BEEN SHOWN ON THE PLANS. SUCH CLAIMS FOR EXTRAS WILL NOT BE ALLOWED UNLESS THE CONTRACTOR HAS NOTIFIED THE OWNER AND SUPERVISING ENGINEER IN WRITING, INCLUDING AN AGREED-TO REIMBURSEMENT SCHEDULE, PRIOR TO PERFORMING THE EXTRA WORK.

INTENT OF THE DOCUMENTS

IT IS THE INTENT OF THE DRAWINGS AND THE SPECIFICATIONS TO REQUIRE THE COMPLETION OF THE WORK IN A THOROUGH AND WORKMANLIKE MANNER IN EVERY RESPECT.

DESCRIPTION OF WORK

THE CONTRACTOR SHALL FURNISH PERMITS, LICENSES, FEES, MATERIAL, LABOR, TOOLS, PLANT, SUPPLIES, EQUIPMENT, TRANSPORTATION, SUPERINTENDENCE, TEMPORARY CONSTRUCTION OF EVERY NATURE, INSURANCE, TAXES, CONTRIBUTIONS, AND ALL OTHER SERVICES AND FACILITIES, UNLESS SPECIFICALLY EXCEPTED NECESSARY TO COMPLETE THIS PROJECT.

LIABILITY AND COMPENSATION INSURANCE

THE CONTRACTOR SHALL MAINTAIN AT ALL TIMES, FULL AND UNLIMITED WORKMEN'S COMPENSATION INSURANCE IN ACCORDANCE WITH THE LABOR CODE OF THE STATE OF CALIFORNIA, AND SHALL CARRY PUBLIC CONTINGENT LIABILITY OF INSURANCE, IN AMOUNTS SATISFACTORY TO AND IN COMPANIES SELECTED WITH THE CONSENT OF THE OWNER.

PERMITS

THE CONTRACTOR SHALL OBTAIN THE BUILDING PERMIT, AND ALL OTHER CERTIFICATIONS, INSPECTION REPORTS, RELEASES, JURISDICTIONAL SETTLEMENTS, NOTICES, RECEIPTS FOR FEE PAYMENTS, JUDGMENTS, AND SIMILAR DOCUMENTS, CORRESPONDENCE AND RECORDS IN COLLECTION.

SUBCONTRACTOR'S STATUS

EVERY ITEM MENTIONED IN THE SPECIFICATIONS IS INTENDED TO REPRESENT THE QUALITY OF MATERIALS THAT WILL BE DEMANDED. SHOULD THE SUBCONTRACTOR WISH TO SUGGEST ANY SUBSTITUTES THAT HE CONSIDERS EQUAL IN VALUE AND EFFICIENCY WITH THE ONE SPECIFIED, HE SHALL STATE WHAT THE ITEM SUGGESTED IS, AND THE DIFFERENCE IN COST, IF ANY.

IF SUBSTITUTES OF MATERIALS (EQUALLY GOOD) ARE OFFERED AT THE TIME BIDS ARE SUBMITTED, THEY WILL BE CONSIDERED. IN THE EVENT THE OWNER WISHES TO ACCEPT THE SUBSTITUTE, ARRANGEMENTS WILL BE MADE FOR THE CHANGE BEFORE ENTERING INTO A CONTRACT.

IF NO ITEMS ARE SUGGESTED AS A SUBSTITUTE AT THE TIME THE BIDS ARE SUBMITTED, THEN NO DEVIATION WILL BE ALLOWED FROM THE MATERIALS SPECIFIED WITHOUT FIRST SECURING THE APPROVAL OF THE OWNER.

TRASH REMOVAL

THE CONTRACTOR SHALL PROMPTLY REMOVE FROM THE BUILDING, LOT, SIDEWALKS, AND STREETS – ALL RUBBISH AND DIRT, AS IT ACCUMULATES, DUE TO THE WORK DONE UNDER THIS CONTRACT.

ALL COMBUSTIBLE DEBRIS SHALL BE REMOVED FROM THE BUILDING ON A DAILY BASIS.

FOUNDATION

1) CONCRETE SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS FOR POURED-IN-PLACE CONTINUOUS AND SPREAD FOOTINGS, AND 3000 PSI (SPECIAL INSP. REQ.'D) AT 28 DAYS FOR GRADE BEAMS.

2) PORTLAND CEMENT SHALL BE TYPE 1 PER ASTM C 150. AGGREGATES SHALL BE PER ASTM C33 WITH MAXIMUM SIZE OF 1 1/2" FOR FOOTINGS AND 1" FOR ALL OTHER WORK.

3) REINFORCING STEEL SHALL BE ASTM A615, GRADE 60, CLEAN AND RUST FREE. LAPS AT SPLICES AND POUR LINES TO BE 40 BAR DIAMETERS (2'-0" MINIMUM) UNLESS NOTED OTHERWISE ON PLANS.

4) U.N.O., SLABS ON GRADE SHALL BE 4" THICK WITH #4 BARS @ 16" o.c. EACH WAY WITH 2 INCH COVER AT BOTTOM. 4" CLEAN SAND SHALL BE PLACED BELOW THE SLAB WITH A 6 MIL PLASTIC VAPOR BARRIER PLACED AT MID-HEIGHT. BARS SHALL BE LAPPED 20". SEE SOILS REPORT (IF AVAILABLE) FOR OTHER REQUIREMENTS.

5) ALL NEW SILL PLATE ANCHOR BOLTS TO BE INSTALLED IN FRESH CONCRETE SHALL BE 5/8" DIAMETER A307 "L" BOLTS SPACED PER PLAN AND SHEARWALL SCHEDULE WITH MINIMUM 7" EMBEDMENT. MAXIMUM ANCHOR BOLT SPACING SHALL BE 4'-0" o.c. ANCHOR BOLTS AT ENDS OF WALL PANELS SHALL BE LOCATED WITHIN 12" AND GREATER THAN 7 BOLT DIAMETERS FROM THE END OF SILL PLATE. THERE SHALL BE A MINIMUM OF TWO ANCHOR BOLTS PER WALL PANEL. (ANCHOR BOLTS TO EXISTING FOOTINGS PER NOTE #13 BELOW). PLATE WASHERS A MINIMUM 3"x3"x3/16" THICK SHALL BE USED ON EACH BOLT.

6) IF NO SOILS REPORT IS PROVIDED, ASSUMED ALLOWABLE SOIL BEARING PRESSURE (ASBP) SHALL BE 1500 PSF (PER SOIL TYPE SD) & EMBED FOOTINGS A MINIMUM OF 12" INTO COMPETENT SOIL.

7) REINFORCEMENT CLEARANCES FOR FOOTINGS AND GRADE BEAMS, (U.N.O.):
A) POURED AGAINST EARTH – 3"
B) FORMED SURFACE – 2"

8) REMOVAL OF FORMS:
A) SUPPORTING VERTICAL SURFACES – 2 DAYS MINIMUM
B) SUPPORTING BEAMS & GIRDERS – 15 DAYS MINIMUM

9) REINFORCING SHALL BE CONTINUOUS AROUND CORNERS AND THROUGH INTERSECTIONS.

10) DOWEL ANY NEW FOOTINGS TO EXISTING FOOTINGS WITH (2) #4 x 2'-0" BARS TOP AND BOTTOM WITH 6" EMBEDMENT IN 1 1/2" DIAMETER CORED HOLES IN APPROVED NON-SHRINK GROUT MATERIAL (e.g. EMBECO 636, POR-ROK, etc.).

11) ALL HOLD DOWNS INTO EXISTING FOOTINGS TO BE INSTALLED WITH SIMPSON SET-XP ADHESIVE EPOXY, ICC ESR-2508 (LARR# 25744). CONTRACTOR TO INSTALL PER MANUFACTURER'S SPECIFICATIONS AND OBTAIN DEPUTY INSPECTOR.

12) UNLESS NOTED OTHERWISE, DOWEL ANY NEW SLABS TO EXISTING FOOTINGS WITH (1)-#4 x 2'-0" BARS SPACED @ 36" O.C. WITH 6" EMBEDMENT IN 1" DIAMETER CORED HOLES IN APPROVED NON-SHRINK GROUT MATERIAL.

13) ALL NEW SILL PLATE ANCHOR BOLTS TO BE INSTALLED INTO EXISTING FOOTINGS SHALL BE SIMPSON TITAN HD ANCHORS (ICC ESR – 1056), 5/8" DIAMETER WITH MIN. 4-1/8" EMBEDMENT WITH MINIMUM EDGE DISTANCE REQUIRED TO BE 1 7/8"; SPACING PER SHEARWALL SCHEDULE.

14) CONSTRUCTION JOINTS SHALL BE PREPARED BY WIRE BRUSHING, CLEANING AND BRUSHING IN A PASTE OF NEAT CEMENT MORTAR IMMEDIATELY PRIOR TO POURING. LOCATION OF CONSTRUCTION JOINT SHALL BE APPROVED BY THE PROJECT STRUCTURAL ENGINEER.

15) ALL CONNECTORS AND METAL HARDWARE IN CONTACT WITH PRESSURE TREATED TIMBER SHALL HAVE CORROSION RESISTANT COATINGS OR PROTECTION, SUCH AS "ZMAX", HOT DIPPED GALVANIZED, OR BE STAINLESS STEEL.

16) PRIOR TO POURING INTERIOR CONCRETE FLOOR SLABS, ALL SOIL BELOW FLOOR SHALL BE COMPACTED TO REQUIRED DENSITY AND MOISTENED TO A DEPTH NOT LESS THAN 18" OR PER SOILS REPORT.

17) DEEPEN NEW FOOTINGS AS NECESSARY TO OBTAIN REQUIRED EMBEDMENT FOR ALL NEW HOLD DOWN BOLTS. ALL HOLD DOWN BOLTS TO HAVE A MINIMUM OF 3" OF CONCRETE COVER TO SOIL @ BOTTOM.

WORKMAN SAFETY-EXCAVATIONS

ALL REGULATIONS OF THE STATE OR FEDERAL OSHA SHOULD BE FOLLOWED BEFORE ALLOWING WORKMEN IN A TRENCH OR OTHER EXCAVATION.

IF EXCAVATIONS ARE TO BE MADE DURING THE RAINY SEASON PARTICULAR CARE SHOULD BE GIVEN TO INSURE THAT BERMS OR OTHER DEVICES PREVENT SURFACE WATER FROM FLOWING OVER THE TOP OF THE EXCAVATION OR PONDING AT THE TOP OF THE EXCAVATIONS.

NO TRENCHES OR EXCAVATIONS SHALL BE 5' OR MORE IN DEPTH INTO WHICH A PERSON IS REQUIRED TO DESCEND, OR OBTAIN NECESSARY PERMIT FROM THE STATE OF CALIFORNIA DIVISION OF INDUSTRIAL SAFETY PRIOR TO ISSUANCE OF A BUILDING OR GRADING PERMIT.

WRAP AND PROTECT ALL UTILITY LINES IN WAY OF CONSTRUCTION PER STANDARD CONSTRUCTION PRACTICES

REINFORCING STEEL

ALL PRIMARY REINFORCEMENT SHALL CONFORM TO A.S.T.M. A- 615, GRADE 60 K.S.I. STEEL.

ALL TIES AND STIRRUPS SHALL CONFORM TO A.S.T.M. A-615, GRADE 60 K.S.I. STEEL.

WIRE MESH SHALL BE A MINIMUM OF 6" x 6" – #10 / #10 MESH CONFORMING TO A.S.T.M. A-185. SEE DRAWINGS FOR ANY OTHER MESH SIZES.

SPLICES OF REINFORCING SHALL BE LAPPED A MINIMUM OF 40 BAR DIAMETERS AND SECURELY WIRED TOGETHER, USING A MINIMUM OF 16 GA. WIRE. SPLICES OF ADJACENT REINFORCING BARS SHALL BE STAGGERED WHEREVER POSSIBLE.

STRUCTURAL STEEL

1) ALL STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING STANDARDS:
W-WIDE FLANGE SHAPES ASTM A992, Fy = 50-65 KSI
PLATES, ANGLES, CHANNELS: ASTM A36, Fy = 36 KSI
HOLLOW TUBE SHAPES: ASTM A500, GRADE B, Fy = 46 KSI
ROUND PIPE SHAPES: ASTM A53, GRADE B, Fy = 35 KSI

2) ALL STRUCTURAL STEEL SHALL BE FABRICATED IN A SHOP APPROVED BY THE LOCAL MUNICIPAL BUILDING DEPARTMENT.

3) STRUCTURAL SHOP DRAWINGS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION.

4) ALL STRUCTURAL STEEL SHALL BE IDENTIFIED PER 2016 CBC, SECTION 2203. DESIGN OF STEEL MEMBERS SHALL BE PER PER AISC 360, PER SECTION 2205 OF THE 2016 CBC.

5) STRUCTURAL STEEL SHALL HAVE A SHOP COAT OF RED-OXIDE PRIMER.

6) AFTER ERECTION, ALL FIELD CONNECTIONS, BOLTS, WELDS, AND ALL ABRADED PLACES ON THE SHOP PAINT SHALL BE TOUCHED UP WITH THE SAME TYPE OF PAINT AS THE SHOP COAT.

7) FIELD AND SHOP WELDING SHALL BE DONE BY A DULY CERTIFIED WELDER USING LOW-HYDROGEN E70-16 ELECTRODE RODS, UNLESS NOTED OTHERWISE. CONTINUOUS INSPECTION BY A REGISTERED INSPECTOR IS REQUIRED FOR FIELD WELDING. ALL WELDING SHALL BE PER AWS D1.1, LATEST EDITION, AND AISC SPECIFICATIONS.

8) BOLTS SHALL BE OF A307 QUALITY WITH WASHERS, UNLESS OTHERWISE SPECIFIED ON PLANS. ANY HIGH STRENGTH A325 OR A490 BOLTS SHALL HAVE SPECIAL INSPECTION, UNLESS NOTED OTHERWISE.

9) STEEL ERECTOR SHALL PROVIDE ALL ERECTION BRACING REQUIRED TO MAINTAIN STRUCTURE PLUMB AND PROPERLY BRACED DURING CONSTRUCTION.

TIMBER

1) ALL TIMBER DESIGN AND CONSTRUCTION SHALL BE PER 2019 CBC CHAPTER 23 AND 2015 NATIONAL DESIGN SPECIFICATION (NDS, REVISED 2015 EDITION) WITH AMENDMENTS PER 2019 CBC. ALL SAWN LUMBER SHALL BE GRADED BY EITHER WMPA OR WCLIB.

2) U.N.O., ALL WOOD SILL PLATES AND LEDGERS BEARING ON CONCRETE OR MASONRY SHALL BE PRESSURE TREATED DOUGLAS FIR-LARCH. ANCHOR BOLTS SHALL BE 5/8" DIAMETER SPACED A MAXIMUM 4'-0" o.c. AND WITHIN 12" AND GREATER THAN SEVEN BOLT DIAMETERS FROM: EACH END OF A SILL, FROM A HOLE, OR FROM A NOTCH GREATER THAN 1/3 THE WIDTH OF THE SILL. SEE SHEARWALL SCHEDULE FOR OTHER REQUIREMENTS.

3) ALL WALL BRACING AND MATCHING OF STUDS SHALL CONFORM TO THE 2019 CALIFORNIA BUILDING CODE.

4) UNLESS NOTED OTHERWISE ON FRAMING PLANS:

ROOF SHEATHING SHALL BE 15/32" CDX APA-RATED SHEATHING, EXPOSURE 1, MIN. SPAN RATING 24/0, NAILED WITH 8d COMMON @ 6" o.c. EDGES & BOUNDARIES AND 12" o.c. AT INTERMEDIATE FRAMING MEMBERS.

FLOOR SHEATHING SHALL BE 23/32" CDX APA-RATED STURD-I-FLOOR, T&G, EXPOSURE 1, MIN. SPAN RATING 20" o.c., NAILED WITH 10d COMMON @ 6" o.c. AT EDGES & BOUNDARIES AND 12" o.c. AT INTERMEDIATE FRAMING MEMBERS

SHEARWALL SHEATHING SHALL BE APA "STRUCTURAL I" RATED, EXPOSURE 1, GROUP 1. NAILING PER SHEARWALL SCHEDULE.

ALL WOOD STRUCTURAL PANEL SHEATHING SHALL BE GRADE MARKED BY APA, T.E.C.O., OR P.T.L.

TIMBER (CONTINUED)

5) HORIZONTAL WOOD STRUCTURAL PANELS SHALL BE LAID WITH THE LONG DIMENSION AND FACE GRAIN PERPENDICULAR TO THE RAFTERS OR JOISTS, AND THE SHEETS SHALL BE STAGGERED AS SHOWN IN 2016 CBC TABLE 2306.2 (CASES 1). EACH SHEET SHALL CONTAIN A MINIMUM OF 8 SQUARE FEET AND EXTEND TO 3 SUPPORTS. 1/8" SPACING BETWEEN PANEL ENDS AND EDGES IS REQUIRED. ALL WOOD STRUCTURAL PANEL DIAPHRAGMS SHALL BE REVIEWED BY CONTRACTOR FOR COMPLIANCE WITH NAILING AND PANEL REQUIREMENTS BEFORE FINISH IS APPLIED.

6) U.N.O., ALL 2x ROOF RAFTER AND FLOOR JOIST FRAMING MEMBERS SHALL BE MINIMUM GRADE DOUGLAS FIR-LARCH NO. 2 OR BETTER. ALL BEAMS, HEADERS, AND POSTS SHALL BE MINIMUM DOUGLAS FIR-LARCH NO. 1 OR BETTER. ALL VERTICAL WALL FRAMING MEMBERS SHALL BE DOUGLAS FIR-LARCH NO. 2 OR BETTER.

7) ALL PSL AND LVL ENGINEERED FRAMING MEMBERS SHOWN ON PLANS TO BE 2.0E PARALLAM (E=2000 ksi) AND 1.9E MICROLAM BEAMS (E=1900 ksi), RESPECTIVELY, AS DESCRIBED IN ER-4979. ALL WOOD I-JOIST MEMBERS SHOWN ON PLANS TO BE AS DESCRIBED IN ESR-1153.

8) MOISTURE CONTENT OF SAWN LUMBER AT TIME OF INSTALLATION SHALL NOT EXCEED 19%.

9) ALL BOLT HEADS AND NUTS BEARING ON WOOD SHALL HAVE WASHERS. HOLES IN WOOD FOR BOLTS SHALL BE DRILLED MAX. 1/16" LARGER THAN NOMINAL BOLT SIZE.

10) NOTCHING OR DRILLING HOLES IN BEAMS OR JOISTS SHALL BE ONLY AS DETAILED PER ENGINEER AND SHALL COMPLY WITH 2019 CBC.

11) ALL SAWN LUMBER (2x, 4x, 6x) RAFTERS, FLOOR JOISTS, AND BEAMS SHALL HAVE SOLID WOOD BLOCKING AT ALL POINTS OF SUPPORT. MEMBERS WITH NOMINAL DEPTH 10" OR GREATER SHALL HAVE 2x FULL DEPTH SOLID BLOCKING OR CROSS BRIDGING SPACED AT 8'-0" FOR MAXIMUM.

12) U.N.O., ALL FRAMING CONNECTION HARDWARE SHALL BE AS MANUFACTURED BY THE SIMPSON STRONG-TIE COMPANY AND SHALL BE REFERENCED AS SHOWN IN THEIR LATEST CATALOG. ALL CONNECTOR NAILS AND BOLTS SHALL BE AS DESIGNATED PER MANUFACTURER. ALTERNATE MANUFACTURER CONNECTOR HARDWARE MAY BE USED PROVIDED ENGINEER'S WRITTEN APPROVAL IS OBTAINED BY CONTRACTOR AND ICBO APPROVAL IS PROVIDED.

13) TOP PLATES SHALL LAP LOWER PLATES AT CORNERS, AND BREAKS AT PLATE SHALL BE LAPPED A MINIMUM OF 4'-0", WITH 20-16d NAILS ON EACH SIDE.

14) ALL BEAMS SHALL BE SUPPORTED BY POSTS OR GIRDERS. FOR 4x8 AND SMALLER BEAMS A MINIMUM (2)-2X4 D.F. #2 POST SHALL BE USED, U.N.O. FOR 4x10 AND LARGER BEAMS A MINIMUM 4x4 D.F. #1 POST SHALL BE USED, U.N.O. ALL POSTS SHALL PROVIDE FULL BEARING WIDTH FOR THE BEAM, U.N.O.

15) ALL POSTS SHALL BE CONTINUED BETWEEN FLOORS WITH SOLID FULL WIDTH BLOCKING AND A POST OF EQUAL OR GREATER SIZE BELOW, UNTIL A BEAM OR FOUNDATION IS ENCOUNTERED. ALL POSTS INSIDE WALLS MAY BEAR ON THE SOLE OR SILL PLATE, U.N.O. ISOLATED POSTS SHALL BE SEATED IN POST OR COLUMN BASES PER PLAN.

16) ALL WALLS HIGHER THAN 10'-0" SHALL BE 2x6 OR 3x6 STUDS @ 16" o.c., UNLESS SPECIFICALLY DESIGNED OTHERWISE BY ENGINEER. ALL WALLS CONTAINING MECHANICAL PIPING 2" IN DIAMETER OR LARGER SHALL BE FRAMED WITH 2x6 STUDS @ 16" o.c.

17) CUTTING, NOTCHING, OR BORING HOLES IN STUDS SHALL COMPLY WITH 2016 CBC.

18) FRAMING AND NAILING NOT SPECIFICALLY DETAILED ON THE PLANS ARE TO CONFORM TO 2016 CBC TABLE 2304.10.1. COMMON NAILS ARE REQUIRED FOR ALL SHEARWALL, FLOOR AND ROOF DIAPHRAGMS. USE DOUBLE JOISTS UNDER PARALLEL PARTITIONS, U.N.O. DOUBLED HORIZONTAL MEMBERS SHALL BE STITCH-NAILED TOGETHER WITH TWO ROWS OF 16d NAILS @ 12" o.c. STAGGERED, UNLESS OTHERWISE DETAILED. TRIPLED HORIZONTAL MEMBERS SHALL HAVE MIN. 1/2" DIAMETER BOLTS AT 18" O.C. T&B, STAGGERED.

19) ANCHOR BOLTS TO SILL AND SOLE PLATES SHALL HAVE NUTS DRIVEN FLUSH WITH SQUARE PLATE WASHERS IN ACCORDANCE WITH THE FOLLOWING SCHEDULE:

BOLT DIAMETER	PLATE SIZE
5/8"	1/4" x 3" x 3"
3/4"	5/16" x 3" x 3"
7/8"	5/16" x 3" x 3"
1"	3/8" x 3 1/2" x 3 1/2"

THE ABOVE SCHEDULE ALSO APPLIES TO LAG SCREWS DRIVEN INTO SOLE PLATES FOR RAISED FLOOR AND UPPER STORY CONDITIONS.

20) LAG SCREWS SHALL BE INSTALLED IN PRE-DRILLED HOLES. THE CLEARANCE HOLE FOR THE SHANK PORTION SHALL HAVE THE SAME DIAMETER AND DEPTH AS THE SHANK. THE LEAD HOLE FOR THE THREADED PORTION SHALL HAVE A DIAMETER EQUAL TO 40%-70% OF THE SHANK DIAMETER (FOR ALL DOUG-FIR LARCH MEMBERS). LAG SCREWS ARE TO BE INSTALLED WITH THE TURN OF A WRENCH. DRIVING, AS WITH A HAMMER, IS NOT PERMITTED.

21) MINIMUM NAILING SHALL BE PER TABLE 2304.10.1 OF THE 2019 C.B.C.

22) ALL CONNECTORS AND METAL HARDWARE IN CONTACT WITH PRESSURE TREATED TIMBER SHALL HAVE CORROSION RESISTANT COATINGS OR PROTECTION, SUCH AS "ZMAX", HOT DIPPED GALVANIZED, OR BE STAINLESS STEEL.

727 2nd St., Suite 104
Hemosa Beach, CA 92654
(919) 944-0989
email: EEngineering@veizon.net

**McCullum
Engineering
Inc.**

These drawings are not valid for construction unless stamped and signed by McCullum Engineering, Inc..

STAMP



PROJECT
Gray Residence
415 North Star Lane
Newport Beach, CA 92660

DRAWING
**Notes and
Specifications**

REVISIONS	BY
△ 6/15/23	EWM
△	
△	
JOB# 21-052	
ENGINEER EWM	
DRAWN	
CHECKED	
FILE	Gray.dwg
DATE	7/18/22
SCALE NTS	

SHEET
SN1
OF 14 SHEETS

TABLE 2304.10.1 FASTENING SCHEDULE

CONNECTION	FASTENING**	LOCATION
1. Joist to sill or girder	3 - 8d common (2 1/2" x 0.131") 3 - 3" x 0.131" nails 3 - 3" 14 gage staples	toenail
2. Bridging to joist	2 - 8d common (2 1/2" x 0.131") 2 - 3" x 0.131" nails 2 - 3" 14 gage staples	toenail each end
3. 1" x 6" subfloor or less to each joist	2 - 8d common (2 1/2" x 0.131")	face nail
4. Wider than 1" x 6" subfloor to each joist	3 - 8d common (2 1/2" x 0.131")	face nail
5. 2" subfloor to joist or girder	2 - 16d common (3 1/2" x 0.162")	blind and face nail
6. Sole plate to joist or blocking Sole plate to joist or blocking at braced wall panel	16d (3 1/2"x0.135") at 16" o.c. 3" x 0.131" nails at 8" o.c. 3" 14 gage staples at 12" o.c. 3-16d (3 1/2"x0.135") at 16" 4 - 3" x 0.131" nails at 16" 4 - 3" 14 gage staples per 16"	typical face nail braced wall panels
7. Top plate to stud	2 - 16d common (3 1/2" x 0.162") 3 - 3" x 0.131" nails 3 - 3" 14 gage staples	end nail
8. Stud to sole plate	4 - 8d common (2 1/2" x 0.131") 4 - 3" x 0.131" nails 3 - 3" 14 gage staples 2 - 16d common (3 1/2" x 0.162") 3 - 3" x 0.131" nails 3 - 3" 14 gage staples	toenail end nail
9. Double studs	16d (3 1/2"x0.135") at 16" o.c. 3" x 0.131" nail at 8" o.c. 3" 14 gage staple at 8" o.c.	face nail
10. Double top plates Double top plates	16d (3 1/2"x0.135") at 16" o.c. 3" x 0.131" nail at 12" o.c. 3" 14 gage staple at 12" o.c. 8-16d common (3 1/2" x 0.162") 12-3" x 0.131" nails 12-3" 14 gage staples	typical face nail lap splice
11. Blocking between joists or rafters to top plate	3 - 8d common (2 1/2" x 0.131") 3 - 3" x 0.131" nails 3 - 3" 14 gage staples	toenail
12. Rim joist to top plate	8d (2 1/2"x0.131") at 6" o.c. 3" x 0.131" nail at 6" o.c. 3" 14 gage staple at 6" o.c.	toenail
13. Top plates, laps and intersections	2 - 16d common (3 1/2" x 0.162") 3 - 3" x 0.131" nails 3 - 3" 14 gage staples	face nail
14. Continuous header, two pieces	16d common (3 1/2" x 0.162")	16" o.c. along edge
15. Ceiling joists to plate	3 - 8d common (2 1/2" x 0.131") 5 - 3" x 0.131" nails 5 - 3" 14 gage staples	toenail
16. Continuous header to stud	4 - 8d common (2 1/2" x 0.131")	toenail
17. Ceiling joists, laps over partitions (see Section 2308.10.4.1, Table 2308.10.4.1)	3 - 16d common (3 1/2" x 0.162") minimum, Table 2308.10.4.1 4 - 3" x 0.131" nails 4 - 3" 14 gage staples	face nail
18. Ceiling joists to parallel rafters (see Section 2308.10.4.1, Table 2308.10.4.1)	3 - 16d common (3 1/2" x 0.162") minimum, Table 2308.10.4.1 4 - 3" x 0.131" nails 4 - 3" 14 gage staples	face nail
19. Rafter to plate (see Section 2308.10.1, Table 2308.10.1)	3 - 8d common (2 1/2" x 0.131") 3 - 3" x 0.131" nails 3 - 3" 14 gage staples	toenail
20. 1" diagonal brace to each stud and plate	2 - 8d common (2 1/2" x 0.131") 2 - 3" x 0.131" nails 2 - 3" 14 gage staples	face nail
21. 1" x 8" sheathing to each bearing	3 - 8d common (2 1/2" x 0.131")	face nail
22. Wider than 1" x 8" sheathing to each bearing	3 - 8d common (2 1/2" x 0.131")	face nail
23. Built-up corner studs	3 - 8d common (2 1/2" x 0.131") 16d common (3 1/2" x 0.162") 3" x 0.131" nails 3" 14 gage staples	face nail 24" o.c. 16" o.c. 16" o.c.
24. Built-up girder and beams	20d common (4" x 0.192") 32" o.c. 3" x 0.131" nail at 24" o.c. 3" 14 gage staple at 24" o.c. 2 - 20d common (4" x 0.192") 3 - 3" x 0.131" nails 3 - 3" 14 gage staples	face nail at top and bottom staggered on opposite sides face nail at ends and at each splice
25. 2" planks	16d common (3 1/2" x 0.162")	at each bearing
26. Collar tie to rafter	3 - 10d common (3" x 0.148") 4 - 3" x 0.131" nails 4 - 3" 14 gage staples	face nail
27. Jack rafter to hip	3 - 10d common (3" x 0.148") 4 - 3" x 0.131" nails 4 - 3" 14 gage staples 2 - 16d common (3 1/2" x 0.162") 3 - 3" x 0.131" nails 3 - 3" 14 gage staples	toenail face nail
28. Roof rafter to 2-by ridge beam	2 - 16d common (3 1/2" x 0.162") 3 - 3" x 0.131" nails 3 - 3" 14 gage staples 2 - 16d common (3 1/2" x 0.162") 3 - 3" x 0.131" nails 3 - 3" 14 gage staples	toenail face nail
29. Joist to band joist	3 - 16d common (3 1/2" x 0.162") 4 - 3" x 0.131" nails 4 - 3" 14 gage staples	face nail
30. Ledger strip	3 - 16d common (3 1/2" x 0.162") 4 - 3" x 0.131" nails 4 - 3" 14 gage staples	face nail

31. Wood structural panels and particleboard ¹ Subfloor, roof and wall sheathing (to framing)	1/2" and less 19/32" to 3/4" 7/8" to 1" 1 1/8" to 1 1/4" 3/4" and less 7/8" to 1" 1 1/8" to 1 1/4"	6d c,1 2 3/8" x 0.113" nail n 1 3/4" 16 gage o 8d" or 6d e 2 3/8" x 0.113" nail p 2" 16 gage p 8d c 10d d or 8d d 6d e 8d e 10d d or 8d e
32. Panel siding (to framing)	3/4" or less 3/8"	6d f 8d f
33. Fiberboard sheathing g	3/4"	No. 11 gage roofing nail h 6d common nail (2" x 0.113") No. 16 gage staple i No. 11 gage roofing nail h 8d common nail (2 1/2" x 0.131") No. 16 gage staple i
34. Interior paneling	3/8" 3/8"	4d j 6d k

- For St: 1 inch = 25.4 mm.
- Common or box nails are permitted to be used except where otherwise stated.
 - Nails spaced at 6 inches on center at edges, 12 inches at intermediate supports except 6 inches at supports where spans are 48 inches or more. For nailing of wood structural panel and particleboard diaphragms and shear walls, refer to Section 2304. Nails for wall sheathing are permitted to be common, box or casing.
 - Common or deformed shank (6d - 2" x 0.113"; 8d - 2 1/2" x 0.131"; 10d - 3" x 0.148").
 - Common (6d - 2" x 0.113"; 8d - 2 1/2" x 0.131"; 10d - 3" x 0.148").
 - Deformed shank (6d - 2" x 0.113"; 8d - 2 1/2" x 0.131"; 10d - 3" x 0.148").
 - Corrosion-resistant siding (6d - 1 7/8" x 0.106"; 8d - 2 3/8" x 0.128") or casing (6d - 2" x 0.099"; 8d - 2 1/2" x 0.113") nail.
 - Fasteners spaced 3 inches on center at exterior edges and 6 inches on center at intermediate supports, when used as structural sheathing. Spacing shall be 6 inches on center on the edges and 12 inches on center at intermediate supports for nonstructural applications.
 - Corrosion-resistant roofing nails with 7/16-inch-diameter head and 1 1/2-inch length for 1/2-inch sheathing and 1 3/4-inch length for 25/32-inch sheathing.
 - Corrosion-resistant staples with nominal 7/16-inch crown and 1 1/8-inch length for 1/2-inch sheathing and 1 1/2-inch length for 25/32-inch sheathing. Panel supports at 16 inches (20 inches if strength axis in the long direction of the panel, unless otherwise marked).
 - Casing (1 1/2" x 0.080") or finish (1 1/2" x 0.072") nails spaced 6 inches on panel edges, 12 inches at intermediate supports.
 - Panel supports at 24 inches. Casing or finish nails spaced 6 inches on panel edges, 12 inches at intermediate supports.
 - For roof sheathing applications, 8d nails (2 1/2" x 0.113") are the minimum required for wood structural panels.
 - Staples shall have a minimum crown width of 7/16 inch.
 - For roof sheathing applications, fasteners spaced 4 inches on center at edges, 8 inches at intermediate supports.
 - Fasteners spaced 4 inches on center at edges, 8 inches at intermediate supports for subfloor and wall sheathing and 3 inches on center at edges, 6 inches at intermediate supports for roof sheathing.
 - Fasteners spaced 4 inches on center at edges, 8 inches at intermediate supports.

FRAMING

- ROOF DIAPHRAGM
- 15/32" APA RATED SHEATHING (MIN.), EXPOSURE 1, 24/0 MAX. SPAN RATING, w/ 8d COMMON NAILS @ 6" o.c. AT BOUNDARY & PANEL EDGE NAILING (E.N.), AND 12" o.c. AT INTERMEDIATE FRAMING MEMBERS
- FLOOR DIAPHRAGM
- 23/32" APA STURD-I-FLOOR, EXPOSURE 1, TONGUE AND GROOVE, w/ 10d COMMON NAILS @ 6" o.c. AT BOUNDARY & PANEL EDGE NAILING (E.N.), AND 12" o.c. AT INTERMEDIATE FRAMING MEMBERS

- FRAMING
- * BUILT-UP WOOD FRAMING MEMBERS MAY NOT BE SUBSTITUTED FOR 4x AND WIDER BEAMS UNLESS NOTED BY ENGINEER
 - * ALL (2) 2x ROOF & FLOOR FRAMING TO HAVE MIN. 16d AT 12" O.C. T&B, STAGGERED
 - * ALL (3) 2x FRAMING TO HAVE MIN. 1/2" DIAMETER BOLTS AT 18" O.C. T&B, STAGGERED
 - * 2x SOLID BLOCKING REQUIRED AT POINTS OF SUPPORT FOR ALL HORIZONTAL FRAMING MEMBERS. IN ADDITION, ALL 2x10 AND LARGER MEMBERS SHALL HAVE SOLID FULL DEPTH BLOCKING OR BRIDGING AT MAX. 8'-0" o.c.
 - * ALL WOOD POSTS AT UPPER FLOORS TO CONTINUE TO BEAM OR FOUNDATION
 - * UNLESS DETAILED OTHERWISE, ALL RIDGE / HIP / VALLEY CONNECTIONS TO HAVE A SIMPSON A35 CONNECTOR AT EACH CORNER WITH A 2x KICKER TO BEARING WALL
 - * ALL NEW TO EXISTING TOP PLATES TO HAVE SIMPSON ST6236 STRAP
 - * AT ROOF-TO-WALL FRAMING, PROVIDE A35 FRAMING ANCHORS PER SHEARWALL SCHEDULE OR AT MAX. 48" O.C. FROM PLATES TO RAFTERS AND RAFTER BLOCKING AROUND PERIMETER OF BUILDING AND AT DRAG LINES AS INDICATED ON PLANS (SEE PLANS WHERE OTHER REQUIREMENTS MAY OCCUR)
 - * AT FIRST FLOOR AND SUBTERRANEAN LEVEL PROVIDE A35'S PER SHEARWALL SCHEDULE OR AT 32" O.C. MAX. FROM PLATES TO FLOOR JOISTS AND BLOCKING AROUND PERIMETER OF BUILDING AND AT DRAG LINES AS INDICATED ON PLANS (SEE PLANS WHERE OTHER REQUIREMENTS MAY OCCUR)
 - * PROVIDE DOUBLE JOISTS UNDER ALL PARALLEL WALLS, U.N.O.
 - * WHEN SHEAR WALLS ARE SUPPORTED BY WOOD JOISTS THAT ARE PERPENDICULAR TO THE SHEAR WALL, ATTACH SOLID 4x BLOCKING UNDER SHEAR WALLS BETWEEN JOISTS. PROVIDE 2x SOLID BLOCKING UNDER NON-SHEAR WALLS PERPENDICULAR TO FLOOR JOISTS. SEE PLANS AND DETAILS FOR ANY ADDITIONAL REQUIREMENTS.
 - * ATTACH MIN. 2x SOLID BLOCKING AND EDGE NAIL THE PERIMETER OF ALL OPENINGS OVER 10" IN WIDTH OR LENGTH IN ALL SHEAR PANELS AND DIAPHRAGMS. SEE DETAILS WHERE OTHER REQUIREMENTS MAY OCCUR.
 - * PROVIDE A MINIMUM 3x4 OR 2x6 @ 16" FOR ALL STUD WALLS SUPPORTING TWO FLOORS OR MORE.
 - * ALL CONNECTORS AND METAL HARDWARE IN CONTACT WITH PRESSURE TREATED TIMBER SHALL HAVE CORROSION RESISTANT COATINGS OR PROTECTION, SUCH AS "ZMAX", HOT DIPPED GALVANIZED, OR BE STAINLESS STEEL.

CONCRETE

- ALL PHASES OF WORK PERTAINING TO CONCRETE CONSTRUCTION SHALL CONFORM TO 2019 CBC CHAPTER 19 (BASED ON ACI-318, LATEST ADOPTED EDITION) FOR REINFORCED CONCRETE.
- MINIMUM ULTIMATE COMPRESSIVE CONCRETE STRENGTHS (f'c) SHALL BE:

SLAB ON GRADE	3000	PSI @ 28 DAYS
STRUCTURAL DECK	3500	PSI @ 28 DAYS
COLUMNS	3500	PSI @ 28 DAYS
FOOTINGS	3000	PSI @ 28 DAYS
CONCRETE/GRADE BEAMS	3000	PSI @ 28 DAYS
CAISSONS	3000	PSI @ 28 DAYS
POST TENSION SLABS	3000	PSI @ 28 DAYS
- CONTINUOUS INSPECTION BY AN APPROVED DEPUTY INSPECTOR IS REQUIRED FOR CAISSONS, GRADE BEAMS, STRUCTURAL SLABS, AND OTHER CONCRETE MEMBERS WHERE DESIGN COMPRESSIVE STRENGTH VALUE EXCEEDS 2500 PSI.
- CEMENT SHALL BE TYPE I, LOW ALKALI, CONFORMING TO A.S.T.M. C-150.
- ALL PRIMARY REINFORCEMENT SHALL BE PER ASTM A-615, GRADE 60 KSI STEEL. ALL TIES AND STIRRUPS SHALL CONFORM TO A.S.T.M. A-615, GRADE 60 KSI STEEL.
- UNLESS NOTED OTHERWISE, SPLICES OF REINFORCING SHALL BE LAPPED A MINIMUM OF 40 BAR DIAMETERS AND SECURELY WIRED TOGETHER, USING A MINIMUM OF 16 GA. WIRE. SPLICES OF ADJACENT REINFORCING BARS SHALL BE STAGGERED WHEREVER POSSIBLE. WHERE SPECIFICALLY CALLED OUT, WELDING OF REINFORCING BARS SHALL BE PERFORMED BY A CERTIFIED WELDER USING E90 SERIES ELECTRODES PER AWS D1.4, LATEST EDITION.
- INTERIOR CONCRETE SLABS ON GRADE SHALL HAVE A STEEL TROWEL FINISH. DRIVEWAYS, WALKS, AND GARAGE SLABS SHALL HAVE A BROOM FINISH AND SHALL BE PITCHED TO SHED WATER.
- PRIOR TO POURING INTERIOR CONCRETE FLOOR SLABS, ALL SOIL BELOW FLOOR SHALL BE COMPACTED TO REQUIRED DENSITY AND MOISTENED TO A DEPTH NOT LESS THAN 18" OR PER SOILS REPORT.
- CLEAR COVERAGE OF CONCRETE OVER REINFORCING BARS, ANCHOR BOLTS, AND ALL OTHER CONCRETE INSERTS, UNLESS OTHERWISE SPECIFIED, SHALL BE AS FOLLOWS:

POURED AGAINST EARTH	3" CLEAR
FORMED CONCRETE	2" CLEAR
- FORMS FOR CONCRETE SHALL BE LAID OUT AND CONSTRUCTED TO PROVIDE THE SPECIFIED CAMBERS SHOWN ON THE DRAWINGS. DECK CAMBERING SHOWN ON PLANS IS INTENDED TO PROVIDE A LEVEL DECK. ANY SLOPING FOR DRAINAGE SHALL BE ADDED OR SUBTRACTED FROM CAMBERING AS APPROPRIATE. THE DECK THICKNESS SHALL NOT BE REDUCED IN ORDER TO ACHIEVE DECK SLOPES.
- DRYPACK UNDER BASEPLATES, SILL PLATES, AND WHERE OTHERWISE NOTED ON DRAWINGS SHALL CONSIST OF APPROVED NON-SHRINK HIGH STRENGTH GROUT. WHEN SPACE BETWEEN TWO SURFACES REQUIRES DRYPACK, IT SHALL BE PACKED BY TAMPING OR RAMMING WITH A BAR OR ROD UNTIL THE VOIDS ARE COMPLETELY FILLED.
- PLACEMENT OF CONCRETE SHALL CONFORM TO A.C.I. STANDARD 614 AND PROJECT SPECIFICATIONS. WIRE BRUSH OR SANDBLAST ALL CONCRETE SURFACES AGAINST WHICH CONCRETE IS TO BE PLACED.
- IF COLUMNS AND WALLS ARE PLACED WITH FLOORS, MINIMUM TIME OF TWO HOURS MUST ELAPSE BETWEEN END OF COLUMN OR WALL POUR AND BEGINNING OF FLOOR POUR.
- PROVIDE SLEEVES FOR PLUMBING AND ELECTRICAL OPENINGS IN CONCRETE BEFORE PLACING. DO NOT CUT ANY REINFORCING WHICH MAY CONFLICT. COPING IN CONCRETE IS NOT PERMITTED, EXCEPT AS SHOWN. NOTIFY THE PROJECT STRUCTURAL ENGINEER IN ADVANCE OF CONDITIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS.
- COVER TO BEAM REINFORCEMENT TO BE 2" MINIMUM, UNLESS NOTED OTHERWISE.
- ARCHITECTURAL DRAWINGS TO BE REFERRED TO FOR DECK SLOPES, DRAINAGE, PLUMBING, FRAMING AND ELECTRICAL HARDWARE.
- REINFORCEMENT CALLED OUT IN DETAILS SHALL BE IN ADDITION TO THAT SHOWN ON PLANS (U.N.O.). REINFORCING METHODS SHOWN IN DETAILS SHALL BE USED AS APPLICABLE.
- WHEN A MONOLITHIC POUR IS NOT POSSIBLE, CONSTRUCTION JOINTS SHALL BE APPROVED BY THE PROJECT STRUCTURAL ENGINEER.
- SHORING SHALL NOT BE REMOVED UNTIL CONCRETE HAS ACHIEVED MINIMUM 28 DAY COMPRESSIVE STRENGTH. FIFTEEN DAYS AFTER CONCRETE POUR IS COMPLETED THE PROJECT STRUCTURAL ENGINEER MAY DETERMINE, BASED ON COMPRESSION TESTS, IF SHORING MAY BE REMOVED.
- ALL DECK SURFACES EXPOSED TO WEATHER SHALL BE WATERPROOFED. SEE ARCHITECTURAL DOCUMENTS FOR SPECIFICATIONS.
- PER 2019 CBC SECTION 1704.4, SPECIAL DEPUTY INSPECTION IS REQUIRED FOR ALL EPOXY-ADHESIVE INSTALLATION OF ANCHOR BOLTS OR REINFORCING BARS INTO EXISTING CONCRETE. NON-SHRINK GROUT INSTALLATION OF REINFORCING BAR DOWELS (e.g. NEW SLAB TO EXISTING FOOTING) DOES NOT REQUIRE SPECIAL INSPECTION.
- GROUT: GROUT BENEATH COLUMN BASES OR BEARING PLATES SHALL BE 5000 psi MINIMUM NON-SHRINK DRY PACK MATERIAL. FLOWABLE GROUT MAY BE USED WITH EOR APPROVAL. AT BEAMS, INSTALL GROUT UNDER BEARING PLATES BEFORE MEMBER IS INSTALLED. AT COLUMNS, INSTALL GROUT UNDER BASE PLATES AFTER COLUMN HAS BEEN PLUMBED BUT PRIOR TO FLOOR OR ROOF INSTALLATION. GROUT DEPTH SHALL BE SUFFICIENT TO ALLOW GROUT OR DRY PACK TO BE PLACED BENEATH PLATE WITHOUT VOIDS.

CONCRETE (continued)

- CONCRETE SHALL BE THOROUGHLY CONSOLIDATED IN A MANNER THAT WILL ENCASE THE REINFORCEMENT AND INSERTS, FILL THE FORMS, AND PRODUCE A SURFACE OF UNIFORM TEXTURE FREE OF ROCK POCKETS AND EXCESSIVE VOIDS. CONCRETE SHALL BE CONSOLIDATED BY MEANS OF HIGH FREQUENCY INTERNAL VIBRATORS WITHOUT CAUSING WATER OR CEMENT PASTE TO FLUSH TO THE SURFACE. INTERNAL VIBRATORS TYPE, SIZE, AND NUMBER SHALL BE APPROVED BY THE ENGINEER.
- ALL CONNECTORS AND METAL HARDWARE IN CONTACT WITH PRESSURE TREATED TIMBER SHALL HAVE CORROSION RESISTANT COATINGS OR PROTECTION, SUCH AS "ZMAX", HOT DIPPED GALVANIZED, OR BE STAINLESS STEEL.

2019 CALIFORNIA BUILDING CODE SHEARWALL SCHEDULE (w/ 2019 LARUCP Amendments)						1-1-2019	
SHEAR-WALL NOTATION	STRUCTURAL I APA-RATED WOOD STRUCTURAL PANEL THICKNESS	COMMON NAIL SPACING @ BOUNDARIES & EDGES (B.N. & E.N.)	ALLOWABLE SHEAR / FT (WOOD STUDS @16" o.c., U.N.O.) (REDUCED BY 25%)	SLIDING ANCHOR SYSTEM			
				5/8" A.B. SPACING 2	A35 OR LTP4 FRAMING CLIP SPACING	16d COMMON NAIL SPACING 3	1/4" LAG 6
△	15/32"	8d @ 6" o.c.	210#/FT.	48"	24"	6"	12"
△1	15/32"	8d @ 4" o.c.	320#/FT.	48"	16"	4"	9"
△1	15/32"	8d @ 3" o.c.	410#/FT.	44"	12"	3"	6"
△1	15/32"	8d @ 2" o.c.	540#/FT.	32"	9"	SEE LAG SPACING →	5"
DBL SIDED △4	15/32" EACH SIDE	8d @ 3" o.c.	820#/FT.	22"	12" 5	SEE LAG SPACING →	3"
DBL SIDED △4	15/32" EACH SIDE	8d @ 2" o.c.	1080#/FT.	16"	9" 5	SEE LAG SPACING →	3"
DBL SIDED △4	15/32" EACH SIDE	10d @ 2" o.c.	1300#/FT.	13"	8" 5	SEE LAG SPACING →	3"

- FRAMING AT FOUNDATION SILL PLATES AND ADJOINING PANEL EDGE STUDS SHALL BE A SINGLE 3x NOMINAL MEMBER, AND ALL NAILS SHALL BE STAGGERED WITH 1/2" EDGE DISTANCE. 2x NOMINAL SOLE PLATE MAY BE USED AT RAISED FLOOR AND UPPER LEVELS.
- SIMPSON BP5/8 BEARING PLATES (LARR 25293), OR OTHER LISTED MAKE, APPROVED BY BUILDING OFFICIAL, SHALL BE USED WITH ALL 5/8" ANCHORS. 5/8" SIMPSON TITAN HD ANCHORS (ICC ESR-1056) (LARR 25560) WITH 4-1/8" MIN. EMBEDMENT, MAY BE USED IN LIEU OF 5/8" ANCHOR BOLTS AT EXISTING FOOTINGS WITH SAME SPACING PER TABLE ABOVE. SPECIAL INSPECTION REQUIRED FOR ALL EPOXY ANCHOR INSTALLATIONS.
- ALL SILL NAILING SHALL BE STAGGERED 1/2" MINIMUM. (TYPICAL)
- FRAMING AT FOUNDATION SILL PLATE, SOLE PLATES AND STUDS SHALL BE A SINGLE 3x NOMINAL MEMBER, AND ALL NAILS SHALL BE STAGGERED W/ 1/2" EDGE DISTANCE. 2x NOMINAL DOUBLE TOP PLATE MAY BE USED.
- LTP4 TO BE @ SPECIFIED SPACING AT BOTH FACES W/ 4x BLOCKING.
- FOR 1/4" LAGS, USE SIMPSON "SDS" SCREWS (1/4"x6", "SDS25600, U.N.O.).

SHEAR WALL

- ONLY COMMON NAILS SHALL BE PERMITTED FOR REQUIRED NAILING AT VERTICAL SHEAR PANELS AND HORIZONTAL DIAPHRAGMS (ROOF AND FLOOR).
 - ALL SHEARWALLS WITH AN ALLOWABLE SHEAR CAPACITY GREATER THAN 300 pif REQUIRE 3x MEMBERS AT THE FOUNDATION SILL PLATE AND AT ADJACENT PANEL EDGES. A MINIMUM OF 1/2" EDGE DISTANCE FROM THE PANEL EDGE TO THE CENTER OF THE NAIL IS REQUIRED FOR THESE 3x MEMBERS.
 - ALL HOLD DOWN CONNECTORS SHALL BE TIGHTENED JUST PRIOR TO COVERING THE WALL FRAMING. BOLT HOLES FOR HOLD DOWN CONNECTION TO POST SHALL BE 1/16" (MAX.) OVERSIZED. INSPECTOR TO VERIFY HOLD DOWN CONNECTIONS.
 - PROVIDE MINIMUM 4x4 POSTS FOR ALL HOLD DOWNS ENDS OF SHEARWALL.
 - APPROVED PLATE WASHERS SHALL BE PROVIDED FOR ALL WOOD STRUCTURAL PANEL SHEAR WALL ANCHOR BOLTS AND FOR ALL HOLD DOWN CONNECTOR BOLTS TO POSTS.
- | BOLT DIAMETER | PLATE SIZE |
|---------------|------------------------|
| 5/8" | 1/4" x 3" x 3" |
| 3/4" | 5/16" x 3" x 3" |
| 7/8" | 5/16" x 3" x 3" |
| 1" | 3/8" x 3 1/2" x 3 1/2" |
- DRAG LINE DRAG LINE: SIMPSON ST6236 @ ALL BREAKS AND DIAPHRAGM EDGE NAILING.
- ◎ ROOF: SHEAR WALL TO CONTINUE UP TO ROOF FRAMING, EDGE NAIL, AND INSTALL A35 PER SHEAR WALL SCHEDULE.
 - ◎ FLOOR: SHEAR WALL TO CONTINUE UP TO DBL TOP PL. MINIMUM, EDGE NAIL, AND INSTALL A35 PER SHEAR WALL SCHEDULE.

727 2nd St., Suite 104
Hemosa Beach, CA 90654
(910) 944-0898
email: EMEngineering@verizon.net

McCullum Engineering Inc.

These drawings are not valid for construction unless stamped and signed by McCullum Engineering, Inc.

STAMP



PROJECT
Gray Residence
415 North Star Lane
Newport Beach, CA 92660

DRAWING
Notes and Specifications

REVISIONS	BY
△ 6/15/23	EWM
△	
△	

JOB # 21-052

ENGINEER EWM

DRAWN

CHECKED

FILE Gray.dwg

DATE 7/18/22

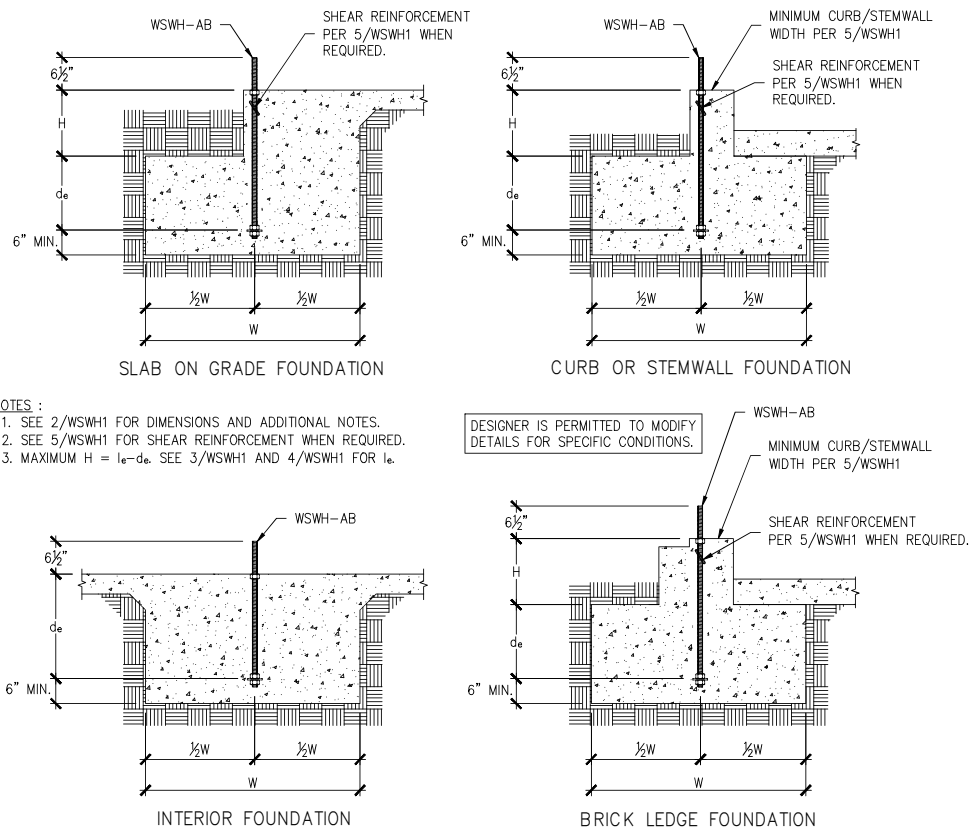
SCALE NTS

SHEET

SN2

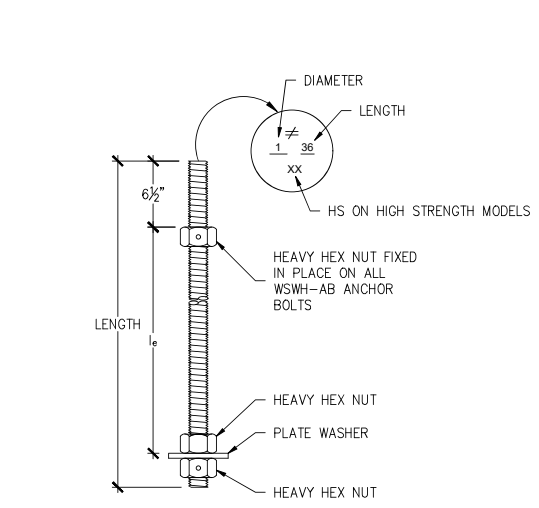
1 of 14 SHEETS

1

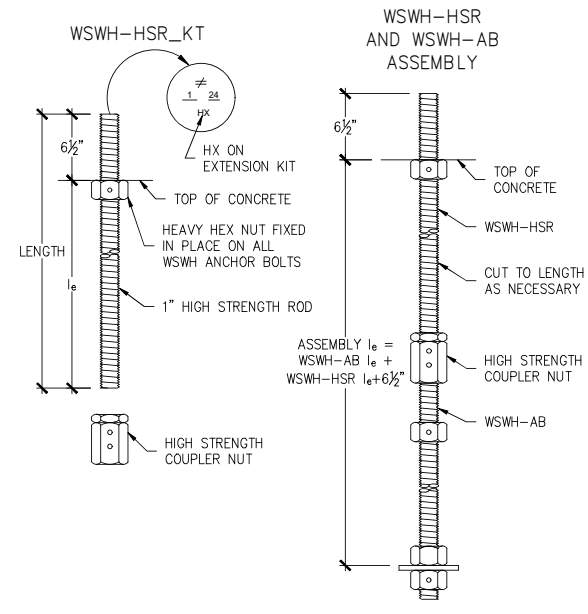


NOTES:
 1. SEE 2/WSWH1 FOR DIMENSIONS AND ADDITIONAL NOTES.
 2. SEE 5/WSWH1 FOR SHEAR REINFORCEMENT WHEN REQUIRED.
 3. MAXIMUM H = $l_e - d_e$. SEE 3/WSWH1 AND 4/WSWH1 FOR l_e .

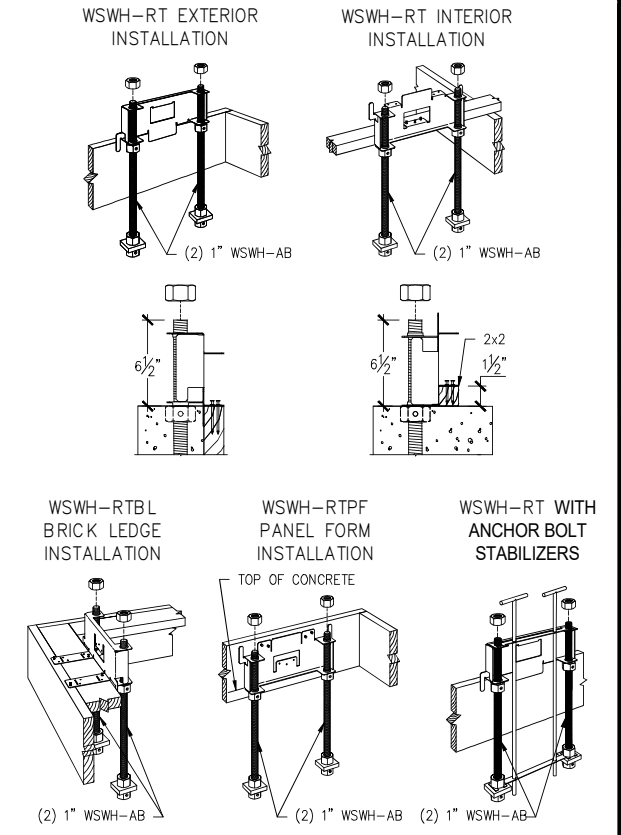
DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.



WSWH PANEL MODEL	MODEL NO.	DIAMETER	LENGTH	l_e
WSWH12, WSWH18 AND WSWH24	WSWH-AB1x24	1"	24"	15 1/2"
	WSWH-AB1x24HS	1"	24"	15 1/2"
	WSWH-AB1x30	1"	30"	21 1/2"
	WSWH-AB1x30HS	1"	30"	21 1/2"
	WSWH-AB1x36	1"	36"	27 1/2"
	WSWH-AB1x36HS	1"	36"	27 1/2"
	WSWH-AB1x42	1"	42"	33 1/2"
	WSWH-AB1x42HS	1"	42"	33 1/2"
	WSWH-AB1x48	1"	48"	39 1/2"
	WSWH-AB1x48HS	1"	48"	39 1/2"



WSWH PANEL MODEL	MODEL NO.	DIAMETER	LENGTH	l_e
WSWH12, WSWH18 AND WSWH24	WSWH-HSR1x24KT	1"	24"	17 1/2"
	WSWH-HSR1x36KT	1"	36"	29 1/2"

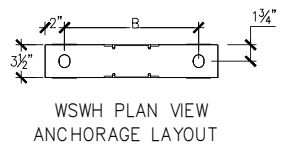
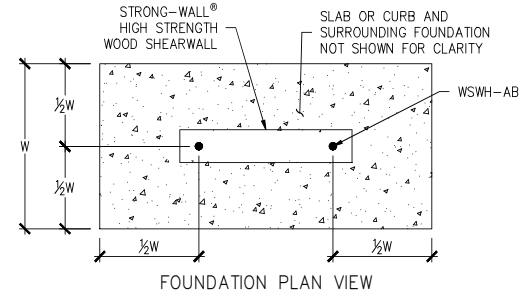


STRONG-WALL® WSWH ANCHORAGE – TYPICAL SECTIONS

WSWH ANCHOR BOLTS

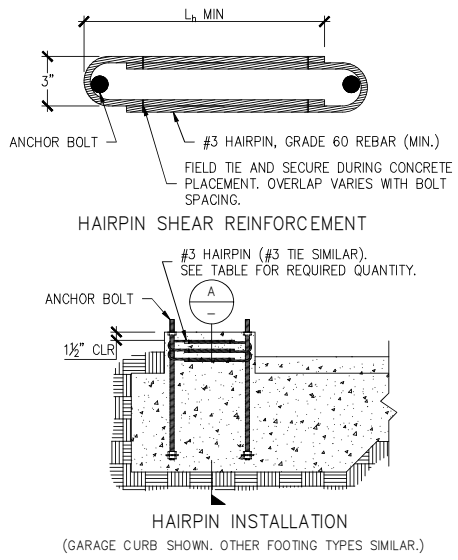
WSWH ANCHOR BOLT EXTENSION

WSWH ANCHOR BOLT TEMPLATES



ANCHOR BOLT LAYOUT	
STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL MODEL NO.	DISTANCE FROM CENTER-TO-CENTER OF WSWH-AB, B (in)
WSWH12	8 1/2
WSWH18	14
WSWH24	20

NOTES:
 1. ANCHORAGE DESIGNS CONFORM TO ACI 318-11 APPENDIX D, ACI 318-14 CHAPTER 17 AND ACI 318-19 CHAPTER 17 WITH NO SUPPLEMENTARY REINFORCEMENT FOR CRACKED OR UNCRACKED CONCRETE AS NOTED.
 2. ANCHOR STRENGTH INDICATES REQUIRED GRADE OF WSWH-AB ANCHOR BOLT. STANDARD (ASTM F1554 GRADE 36) OR HIGH STRENGTH (HS) (ASTM A193 GRADE B7).
 3. SEISMIC INDICATES SEISMIC DESIGN CATEGORY C-F. DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C MAY USE WIND ANCHORAGE SOLUTIONS. SEISMIC ANCHORAGE DESIGNS CONFORM TO ACI 318-11 SECTION D.3.3.4.3, ACI 318-14 SECTION 17.2.3.4.3 AND ACI 318-19 SECTION 17.10.5.3.
 4. WIND INCLUDES SEISMIC DESIGN CATEGORY A AND B AND DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C.
 5. FOUNDATION DIMENSIONS ARE FOR ANCHORAGE ONLY. FOUNDATION DESIGN (SIZE AND REINFORCEMENT) BY OTHERS. THE DESIGNER MAY SPECIFY ALTERNATE EMBEDMENT, FOOTING SIZE OR ANCHOR BOLT.
 6. REFER TO 1/WSWH1 FOR d_e .



DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

WSWH ANCHORAGE SOLUTIONS FOR 2500 PSI CONCRETE					
DESIGN CRITERIA	CONCRETE CONDITION	ANCHOR STRENGTH	WSWH-AB1 ANCHOR BOLT		
			ASD ALLOWABLE UPLIFT (lbs)	W (in)	d_e (in)
SEISMIC	CRACKED	STANDARD	16,000	33	11
		HIGH STRENGTH	17,100	35	12
		HIGH STRENGTH	34,100	52	18
	UNCRAKED	STANDARD	36,800	55	19
		HIGH STRENGTH	15,700	28	10
		HIGH STRENGTH	17,100	30	10
WIND	CRACKED	STANDARD	33,500	45	15
		HIGH STRENGTH	36,800	48	16
		HIGH STRENGTH	6,200	16	6
		HIGH STRENGTH	11,400	24	8
		HIGH STRENGTH	17,100	32	11
		HIGH STRENGTH	21,100	36	12
	UNCRAKED	STANDARD	27,300	42	14
		HIGH STRENGTH	34,100	48	16
		HIGH STRENGTH	36,800	51	17
		HIGH STRENGTH	6,400	14	6
		HIGH STRENGTH	12,500	22	8
		HIGH STRENGTH	17,100	28	10

WSWH ANCHORAGE SOLUTIONS FOR 3000 PSI CONCRETE					
DESIGN CRITERIA	CONCRETE CONDITION	ANCHOR STRENGTH	WSWH-AB1 ANCHOR BOLT		
			ASD ALLOWABLE UPLIFT (lbs)	W (in)	d_e (in)
SEISMIC	CRACKED	STANDARD	16,000	31	11
		HIGH STRENGTH	17,100	33	11
		HIGH STRENGTH	33,900	49	17
	UNCRAKED	STANDARD	36,800	52	18
		HIGH STRENGTH	16,300	27	9
		HIGH STRENGTH	17,100	28	10
WIND	CRACKED	STANDARD	34,000	43	15
		HIGH STRENGTH	36,800	46	16
		HIGH STRENGTH	5,600	14	6
		HIGH STRENGTH	10,200	21	7
		HIGH STRENGTH	17,100	30	10
		HIGH STRENGTH	20,000	33	11
	UNCRAKED	STANDARD	26,500	39	13
		HIGH STRENGTH	33,600	45	15
		HIGH STRENGTH	36,800	48	16
		HIGH STRENGTH	6,200	13	6
		HIGH STRENGTH	12,800	21	7
		HIGH STRENGTH	17,100	26	9

WSWH ANCHORAGE SOLUTIONS FOR 4500 PSI CONCRETE					
DESIGN CRITERIA	CONCRETE CONDITION	ANCHOR STRENGTH	WSWH-AB1 ANCHOR BOLT		
			ASD ALLOWABLE UPLIFT (lbs)	W (in)	d_e (in)
SEISMIC	CRACKED	STANDARD	16,000	27	9
		HIGH STRENGTH	17,100	29	10
		HIGH STRENGTH	34,700	44	15
	UNCRAKED	STANDARD	36,800	46	16
		HIGH STRENGTH	15,700	23	8
		HIGH STRENGTH	17,100	25	9
WIND	CRACKED	STANDARD	33,900	38	13
		HIGH STRENGTH	36,800	40	14
		HIGH STRENGTH	6,800	14	6
		HIGH STRENGTH	11,600	20	7
		HIGH STRENGTH	17,100	26	9
		HIGH STRENGTH	21,400	30	10
	UNCRAKED	STANDARD	28,400	36	12
		HIGH STRENGTH	32,400	39	13
		HIGH STRENGTH	36,800	43	15
		HIGH STRENGTH	6,800	12	6
		HIGH STRENGTH	12,400	18	6
		HIGH STRENGTH	17,100	23	8

STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL SHEAR ANCHORAGE							
MODEL	l_e OR l_b (in.)	SHEAR REINFORCEMENT	MIN. CURB/STEMWALL WIDTH (in.)	SHEAR REINFORCEMENT	ASD ALLOWABLE SHEAR LOAD, V (lb.)		
					MIN. CURB/STEMWALL WIDTH (in.)	ASD ALLOWABLE SHEAR LOAD, V (lb.)	
						UNCRAKED	CRACKED
WSWH12	10 1/2	(1) #3 TIE	6	SEE NOTE 7	6	1,080	
WSWH18	15	(2) #3 HAIRPINS ^{5,6}	6	(1) #3 HAIRPIN	6	770	
WSWH24	19	(2) #3 HAIRPINS ⁵	6	(2) #3 HAIRPINS ⁵	6	770	

NOTES:
 1. SHEAR ANCHORAGE DESIGNS CONFORM TO ACI 318-19, ACI 318-11 AND ACI 318-14 AND ASSUME MINIMUM 2,500 PSI CONCRETE.
 2. SHEAR REINFORCEMENT IS NOT REQUIRED FOR INTERIOR FOUNDATION APPLICATIONS (PANEL INSTALLED AWAY FROM EDGE OF CONCRETE), OR BRACED WALL PANEL APPLICATIONS.
 3. SEISMIC INDICATES SEISMIC DESIGN CATEGORY C THROUGH F. DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C MAY USE WIND ANCHORAGE SOLUTIONS. SEISMIC SHEAR REINFORCEMENT DESIGNS CONFORM TO ACI 318-19, SECTION 17.10.6.3, ACI 318-14, SECTION 17.2.3.5.3.
 4. WIND INCLUDES SEISMIC DESIGN CATEGORY A AND B.
 5. ADDITIONAL TIES MAY BE REQUIRED AT GARAGE CURB OR STEMWALL INSTALLATIONS BELOW ANCHOR REINFORCEMENT PER DESIGNER.
 6. USE (1) #3 HAIRPIN FOR WSWH18 WHEN STANDARD STRENGTH ANCHOR IS USED.
 7. USE (1) #3 TIE FOR WSWH12 WHEN PANEL DESIGN SHEAR FORCE EXCEEDS TABULATED ANCHORAGE ALLOWABLE SHEAR LOAD.
 8. #4 GRADE 40 SHEAR REINFORCEMENT MAY BE SUBSTITUTED FOR WSWH SHEAR ANCHORAGE SOLUTIONS.
 9. CONCRETE EDGE DISTANCE FOR ANCHORS MUST COMPLY WITH ACI 318-19 SECTION 17.9.2, ACI 318-14 SECTION 17.7.2 AND ACI 318-11 SECTION D.8.2.
 10. THE DESIGNER MAY SPECIFY ALTERNATE SHEAR ANCHORAGE.

STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL TENSION ANCHORAGE SCHEDULE 2,500, 3,000 AND 4,500 PSI

STRONG-WALL® WSWH SHEAR ANCHORAGE SCHEDULE AND DETAILS

NO.	DATE	REVISIONS
0	02-26-2021	FIRST RELEASE - 2018 IBC
1	03-16-2021	2021 IBC REVISIONS
2	04-29-2022	ADDED WSWH-AB MODELS



SIMPSON Strong-Tie Co. Inc.
 5956 W. Las Posas Blvd.
 Fremont, CA 94536
 Tel: (800) 999-5099
 Website: www.strongtie.com

THIS IS NO EQUAL

STRONG-WALL® WSWH ANCHORAGE DETAILS ENGINEERED DESIGNS

THIS IS NO EQUAL

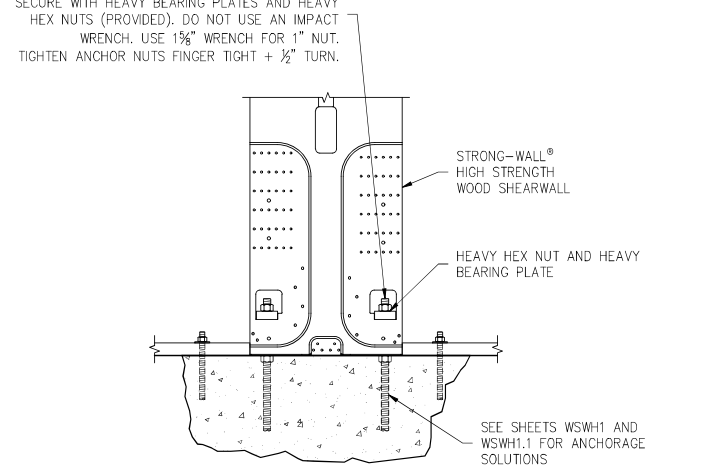
NAME _____
 DATE 04-29-2022
 SCALE N.T.S.
 CHECKED _____
 SHEET WSWH1
 OF SHEETS _____
 JOB NO. _____

STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL MODELS

MODEL NO.	W (in.)	H (in.)	ANCHOR BOLTS		TOTAL WALL WEIGHT (lb.)
			QUANTITY	DIA. (in.)	
WSWH12x7	12	84	2	1	105
WSWH18x7	18	84	2	1	155
WSWH12x8	12	96	2	1	120
WSWH18x8	18	96	2	1	175
WSWH24x8	24	96	2	1	225
WSWH12x9	12	108	2	1	130
WSWH18x9	18	108	2	1	195
WSWH24x9	24	108	2	1	250
WSWH12x10	12	120	2	1	145
WSWH18x10	18	120	2	1	210
WSWH24x10	24	120	2	1	275
WSWH12x12	12	144	2	1	165
WSWH18x12	18	144	2	1	245
WSWH24x12	24	144	2	1	325
WSWH18x14	18	168	2	1	285
WSWH24x14	24	168	2	1	370
WSWH18x16	24	192	2	1	420
WSWH18x20	18	240	2	1	390
WSWH24x20	24	240	2	1	520

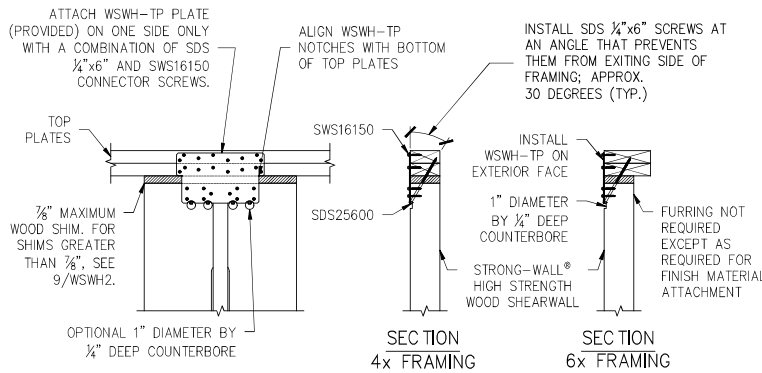
- NOTES :**
- FOR HEIGHTS NOT LISTED, ORDER THE NEXT TALLEST PANEL AND TRIM TO FIT. MINIMUM TRIMMED HEIGHT FOR ALL PANELS IS 74 1/2".
 - ALL PANELS COME WITH PRE-ATTACHED HOLD-DOWNS, TWO HEAVY HEX NUTS, TWO HEAVY BEARING PLATES, ONE WSWH-TP TOP CONNECTION PLATE WITH REQUIRED FASTENERS AND INSTALLATION INSTRUCTIONS.
 - ALL PANELS ARE 3/8" THICK.

PLACE STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL OVER THE ANCHOR BOLTS AND SECURE WITH HEAVY BEARING PLATES AND HEAVY HEX NUTS (PROVIDED). DO NOT USE AN IMPACT WRENCH. USE 1 1/8" WRENCH FOR 1" NUT. TIGHTEN ANCHOR NUTS FINGER TIGHT + 1/2" TURN.

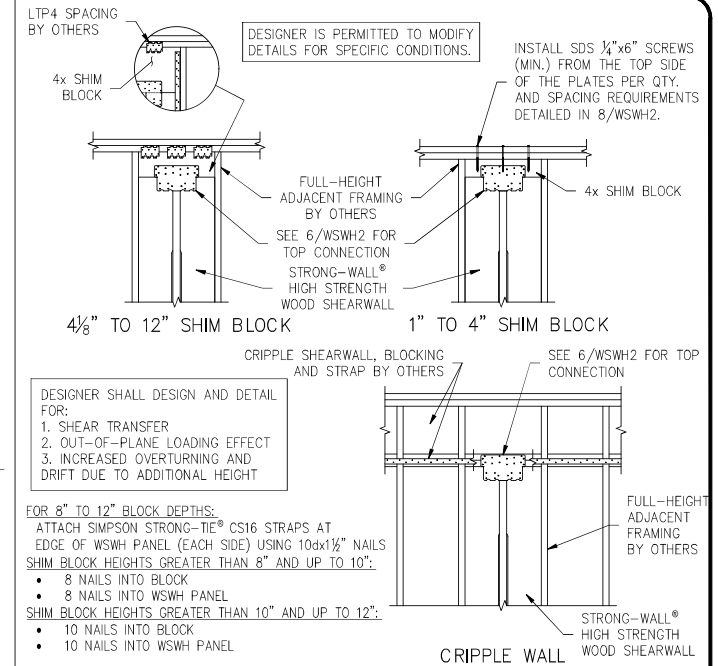


DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

MODEL NO.	FASTENER QUANTITY	
	SWS16150	SDS25600
WSWH-TP12	14	2
WSWH-TP18	26	4
WSWH-TP24	46	8

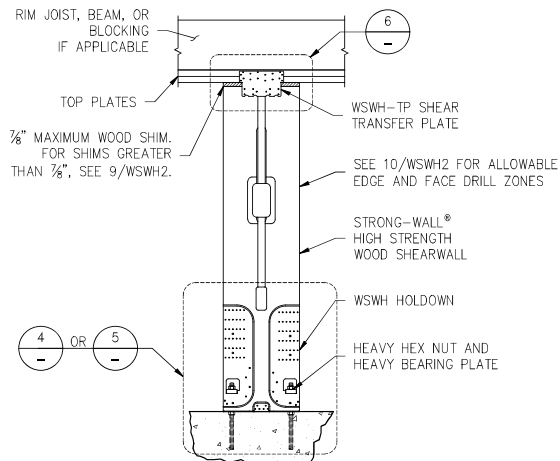


DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.



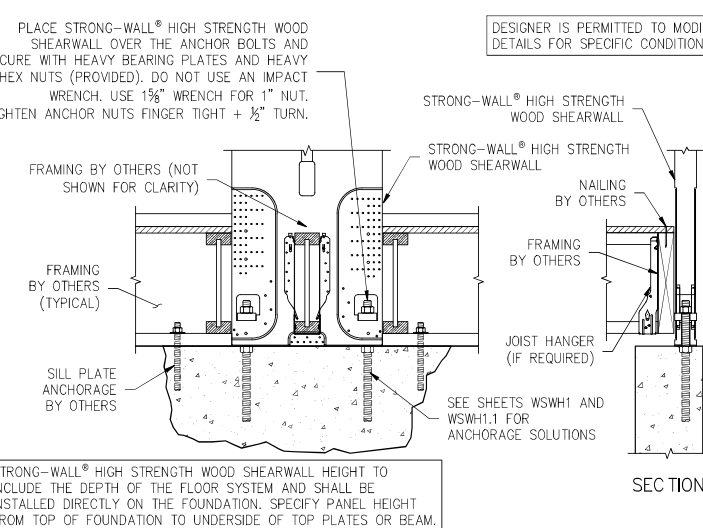
- FOR 8" TO 12" BLOCK DEPTHS:
 ATTACH SIMPSON STRONG-TIE® CS16 STRAPS AT EDGE OF WSWH PANEL (EACH SIDE) USING 10dX1 1/2" NAILS
 SHIM BLOCK HEIGHTS GREATER THAN 8" AND UP TO 10":
 • 8 NAILS INTO BLOCK
 • 8 NAILS INTO WSWH PANEL
 SHIM BLOCK HEIGHTS GREATER THAN 10" AND UP TO 12":
 • 10 NAILS INTO BLOCK
 • 10 NAILS INTO WSWH PANEL

STRONG-WALL® WSWH MODELS



DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS. ENSURE CONCRETE IS LEVEL AND SMOOTH BENEATH PANEL. GRIND OR FILL AS NECESSARY.

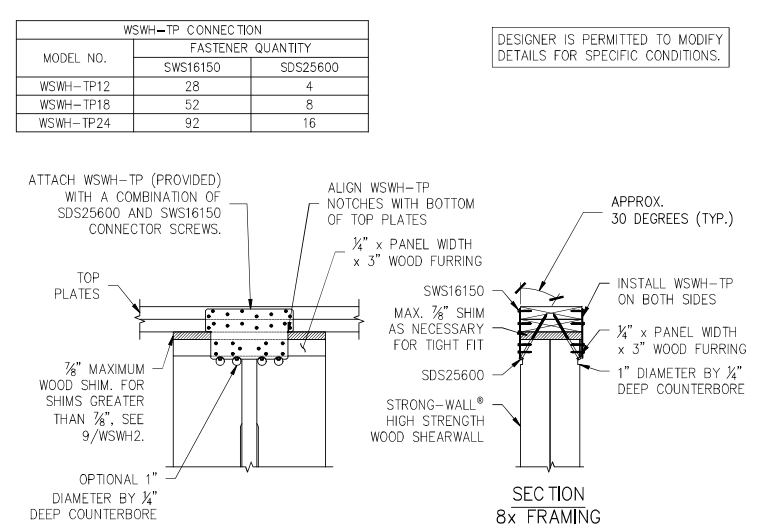
STANDARD INSTALLATION BASE CONNECTION



DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

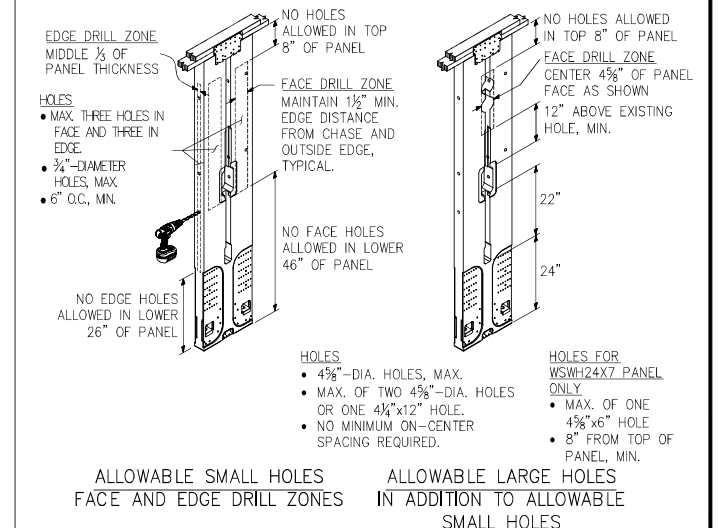
STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL HEIGHT TO INCLUDE THE DEPTH OF THE FLOOR SYSTEM AND SHALL BE INSTALLED DIRECTLY ON THE FOUNDATION. SPECIFY PANEL HEIGHT FROM TOP OF FOUNDATION TO UNDERSIDE OF TOP PLATES OR BEAM.

TOP CONNECTION

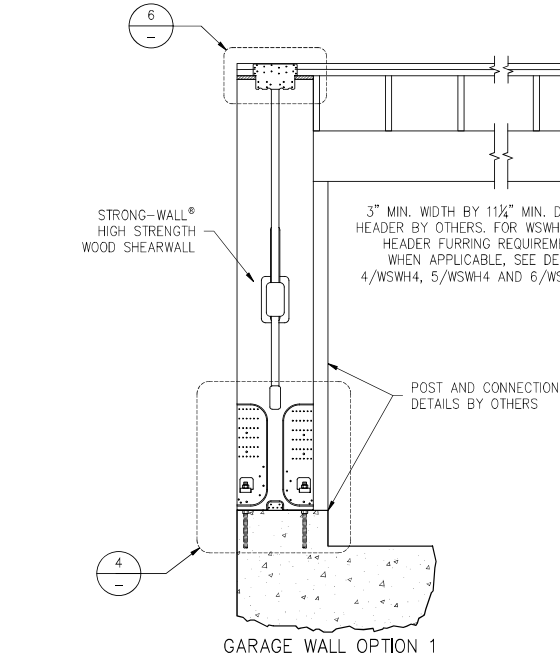


DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

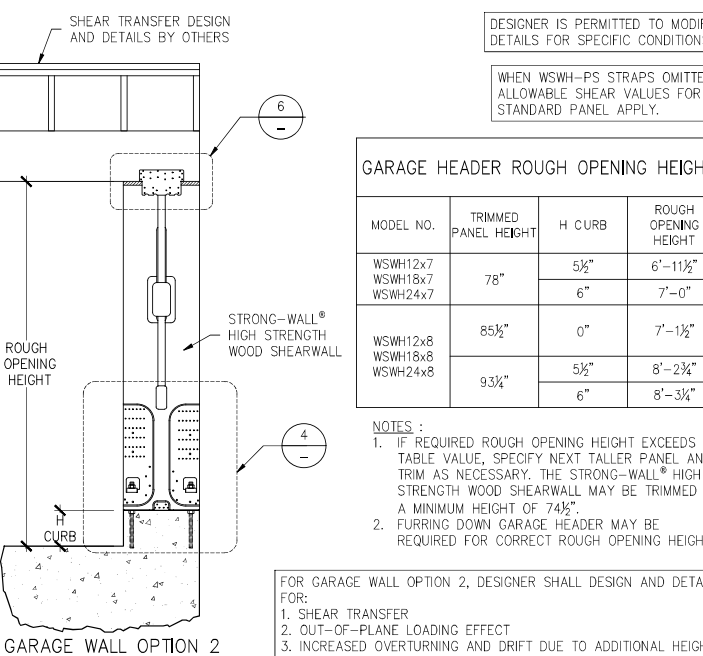
TOP OF WALL HEIGHT ADJUSTMENTS



SINGLE STORY WSWH ON CONCRETE



WOOD FLOOR SYSTEM BASE CONNECTION



DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

WHEN WSWH-PS STRAPS OMITTED, ALLOWABLE SHEAR VALUES FOR STANDARD PANEL APPLY.

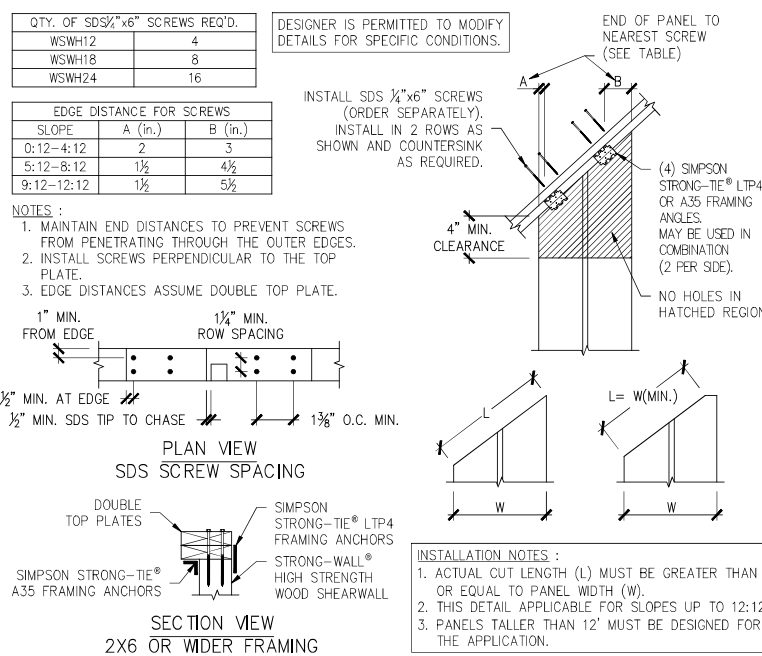
GARAGE HEADER ROUGH OPENING HEIGHT			
MODEL NO.	TRIMMED PANEL HEIGHT	H CURB	ROUGH OPENING HEIGHT
WSWH12x7	78"	5 1/2"	6'-11 1/2"
WSWH18x7		6"	7'-0"
WSWH24x7			
WSWH12x8	85 1/2"	0"	7'-1 1/2"
WSWH18x8		5 1/2"	8'-2 3/4"
WSWH24x8	93 3/4"	6"	8'-3 3/4"

- NOTES :**
- IF REQUIRED ROUGH OPENING HEIGHT EXCEEDS TABLE VALUE, SPECIFY NEXT TALLER PANEL AND TRIM AS NECESSARY. THE STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL MAY BE TRIMMED TO A MINIMUM HEIGHT OF 74 1/2".
 - FURRING DOWN GARAGE HEADER MAY BE REQUIRED FOR CORRECT ROUGH OPENING HEIGHT.

FOR GARAGE WALL OPTION 2, DESIGNER SHALL DESIGN AND DETAIL FOR:
 1. SHEAR TRANSFER
 2. OUT-OF-PLANE LOADING EFFECT
 3. INCREASED OVERTURNING AND DRIFT DUE TO ADDITIONAL HEIGHT

ALTERNATE WSWH GARAGE FRONT OPTIONS

BACK-TO-BACK TOP CONNECTION

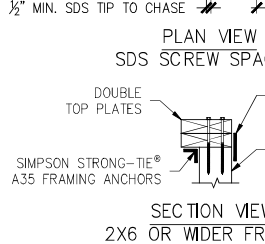
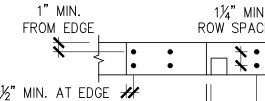


DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

QTY. OF SDS 1/2"x6" SCREWS REQ'D.	
WSWH12	4
WSWH18	8
WSWH24	16

SLOPE	EDGE DISTANCE FOR SCREWS	
	A (in.)	B (in.)
0:12-4:12	2	3
5:12-8:12	1 1/2	4 1/2
9:12-12:12	1 1/2	5 1/2

- NOTES :**
- MAINTAIN END DISTANCES TO PREVENT SCREWS FROM PENETRATING THROUGH THE OUTER EDGES OF THE TOP PLATE.
 - INSTALL SCREWS PERPENDICULAR TO THE TOP PLATE.
 - EDGE DISTANCES ASSUME DOUBLE TOP PLATE.



TRIM ZONE AND ALLOWABLE HOLES

- STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL IS MANUFACTURED AND TRADEMARKED BY "SIMPSON STRONG-TIE COMPANY INC." HOME OFFICE: 5956 W. LAS POSITAS BLVD., PLEASANTON, CA 94588 TEL: (800) 999-5099, FAX: (925) 847-1597. "SIMPSON STRONG-TIE COMPANY INC." IS AN ISO 9001-2008 REGISTERED COMPANY.
- USE OF THIS PRODUCT IS SUBJECT TO THE APPROVAL OF THE LOCAL BUILDING DEPARTMENT.
- THIS PRODUCT IS PART OF THE OVERALL LATERAL FORCE RESISTING SYSTEM OF THE STRUCTURE. DESIGN OF THE BUILDING'S LATERAL FORCE RESISTING SYSTEM, INCLUDING THE LOAD PATH TO TRANSFER LATERAL FORCES FROM THE STRUCTURE TO THE GROUND, IS THE RESPONSIBILITY OF THE DESIGNER.
- ENGINEER OF RECORD IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, CONDITIONS, ELEVATIONS, ETC. PRIOR TO INSTALLATION OF ANY COMPONENTS FOR THE STRONG-WALL SB SYSTEM. IF ANY DISCREPANCIES ARE FOUND, THEY SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGNER FOR CLARIFICATION PRIOR TO CONSTRUCTION.
- INSTALLATION OF PRODUCT SHALL BE DONE IN CONFORMANCE TO THESE DRAWINGS. THE PERFORMANCE OF MODIFIED PRODUCTS OR ALTERED INSTALLATION PROCEDURES ARE THE SOLE RESPONSIBILITY OF THE DESIGNER.
- SIMPSON STRONG-TIE COMPANY INC. RESERVES THE RIGHT TO CHANGE SPECIFICATIONS, DESIGNS, AND MODELS WITHOUT NOTICE OR LIABILITY FOR SUCH CHANGES.
- ALL HARDWARE CALLED OUT IS SIMPSON STRONG-TIE.
- SEE ICC-ES ESR-2652 OR CITY OF LOS ANGELES RR25730 AS APPLICABLE FOR ADDITIONAL INFORMATION.

RAKE WALL

NOTES

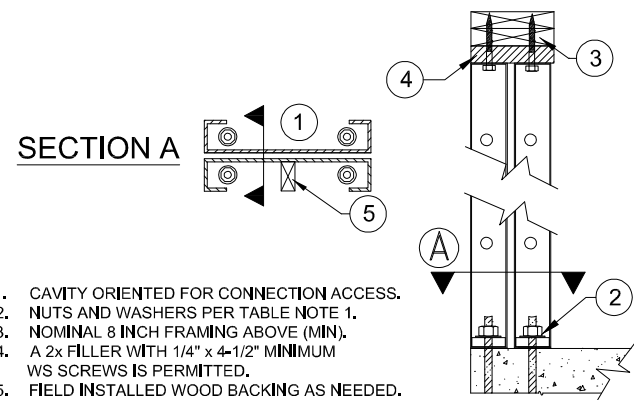
NO.	DATE	REVISIONS
0	11-20-2020	FIRST RELEASE-2018 IBC
1	03-16-2021	2021 IBC REVISIONS



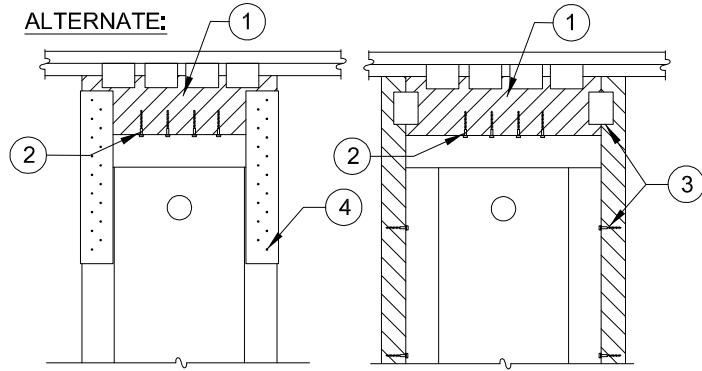
SIMPSON Strong-Tie, Co. Inc.
 5956 W. Las Positas Blvd.
 Pleasanton, CA 94588
 Tel: (800) 999-5099
 Website: www.strongtie.com

STRONG-WALL® WSWH
 FRAMING DETAILS
 ENGINEERED DESIGNS

NAME	
DATE	03-16-2021
SCALE	N.T.S.
CHECKED	
SHEET	WSWH2
OF SHEETS	
JOB NO.	

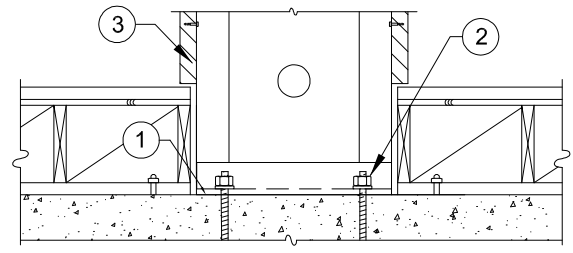


BACK TO BACK INSTALLATION ③

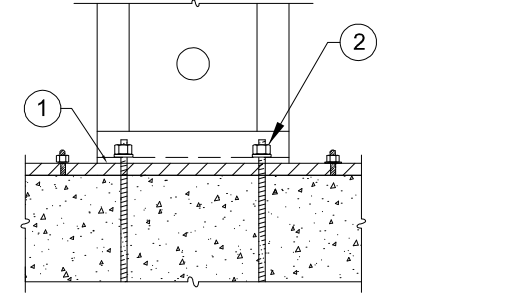


- WOOD FILLER (1 3/8" MAX DEPTH) WITH USP MP4F CONNECTORS BOTH SIDES, QUANTITY BY BUILDING DESIGN PROFESSIONAL.
- 1/4" x 3" (MINIMUM) WS SCREWS, QUANTITY PER TABLES
- ADJACENT FRAMING WITH 1/4" DIAMETER SCREWS INSTALLED THROUGH PRE-PUNCHED HOLES IN PANEL EDGES REQ'D WHEN INSTALLING A FILLER GREATER THAN 1-1/2" ABOVE TO BRACE OUT-OF-PLANE HINGE OR WHEN SPECIFIED BY THE DESIGN PROFESSIONAL.
- 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

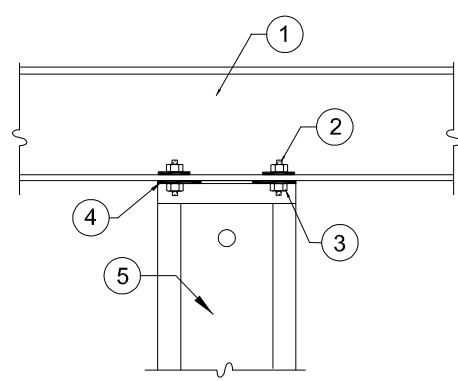


RAISED FLOOR HEAD-OUT ⑧



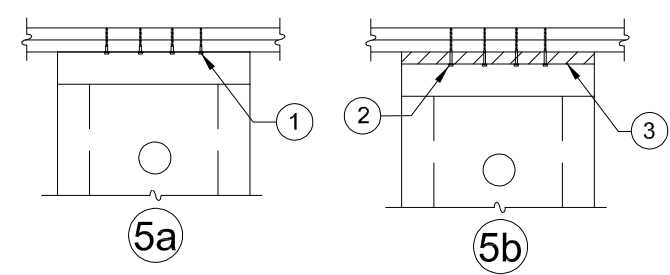
- ALLOWABLE VALUES ON 2x PLATE ARE LESS THAN INSTALLATION ON CONCRETE
- 15# FELT OR EQUIVALENT MOISTURE BARRIER RECOMMENDED BETWEEN PANEL BASE AND TREATED PLATE.
 - NUTS AND WASHERS PER TABLE NOTE 1.

INSTALLATION ON 2x PLATE ⑪



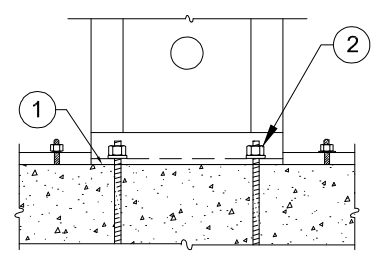
- STEEL BEAM PER PLANS
- ALL THREAD RODS THRU-BOLTED TO STEEL BEAM BY BUILDING DESIGN PROFESSIONAL.
- NUTS AND WASHERS PER TABLE NOTE 1.
- HARDY FRAME™ STACKING WASHERS (HFSW) REQUIRED TO BE WELDED INSIDE TOP CHANNEL OF LOWER PANEL.
- HARDY FRAME™ STK™ PANEL WITH STACKING WASHERS WELDED INSIDE THE TOP CHANNEL BY MANUFACTURER.

STEEL BEAM ABOVE THRU-BOLT ②



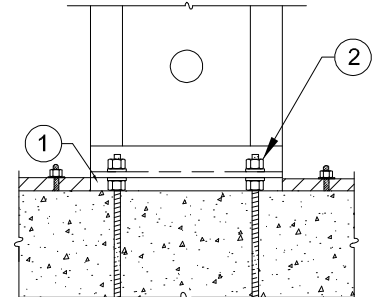
- 1/4" x 3" (MINIMUM) WS SCREWS, QUANTITY PER TABLES
- 1/4" x 4-1/2" (MINIMUM) WS SCREWS, QUANTITY PER TABLES
- 2x WOOD FILLER.

TOP PLATE CONNECTIONS ⑤



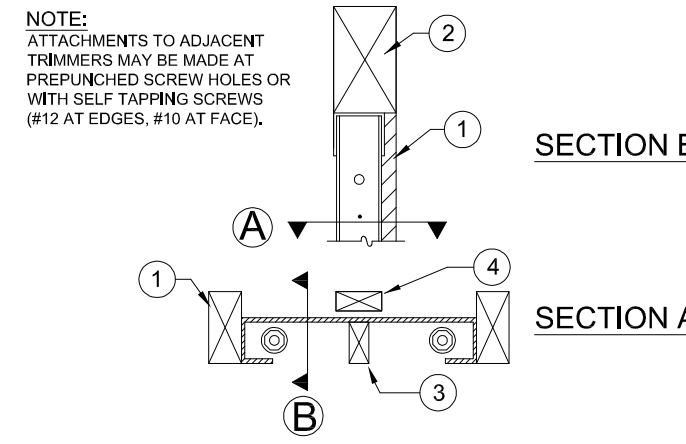
- 15# FELT OR EQUIVALENT MOISTURE BARRIER RECOMMENDED BETWEEN PANEL BASE AND CONCRETE.
- NUTS AND WASHERS PER TABLE NOTE 1.

INSTALLATION ON CONCRETE ⑦



- ALLOWABLE VALUES ON N&W ARE LESS THAN INSTALLATION ON CONCRETE
- PLUS OR MINUS 1-1/2" GAP TO BE FILLED WITH 5,000 PSI NON-SHRINK GROUT (MINIMUM).
 - NUT AND WASHER GRADES PER TABLE NOTE 1.

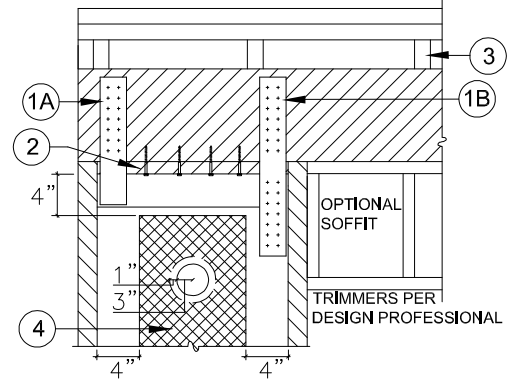
INSTALLATION ON NUTS & WASHERS ⑩



- TRIMMERS PROVIDE FULL BEARING FOR HEADER ABOVE, DESIGN AND CONNECTIONS BY BUILDING DESIGN PROFESSIONAL.
- WOOD MEMBERS FOR BACKING MAY BE INSERTED VERTICALLY OR HORIZONTALLY IN THE PANEL CAVITY AS NEEDED.
- WOOD MEMBER FLUSH TO FACE OF WALL FOR BACKING AS NEEDED.

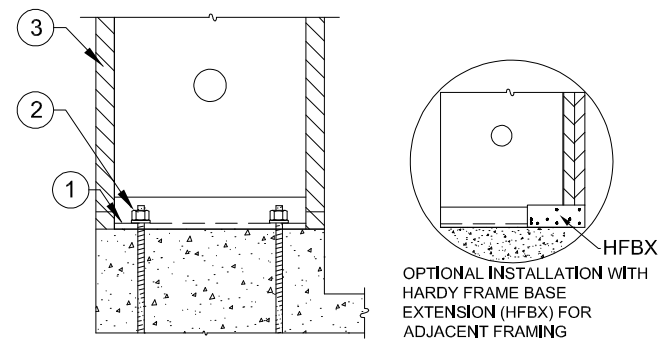
6x HEADER ABOVE-SECTIONS ①

NOTE: TO PREVENT DRILLING ADDITIONAL HOLES ORIENT THE PANEL CAVITY TOWARD THE FIXTURE BEING INSTALLED.



- (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.
- A 2x WOOD FILLER WITH 1/4"x4-1/2" (MIN.) WS SCREWS IS PERMITTED, WHEN CRIPPLE STUDS OCCUR. SHEAR TRANSFER DESIGN TO BE PER THE BUILDING DESIGN PROFESSIONAL.
- 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



- 15# FELT OR EQUIVALENT MOISTURE BARRIER RECOMMENDED BETWEEN PANEL BASE AND CONCRETE.
- NUTS AND WASHERS PER TABLE NOTE 1.
- ADJACENT FRAMING OPTIONAL U.N.O. BY BUILDING DESIGN PROFESSIONAL.

INSTALLATION ON CURB ⑨

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	4
HFX-9x79.5	79-1/2			12" Width = 6	
HFX-12,15,18,21 & 24x8	92-1/4	3-1/2	1-1/8	15" Width = 8	5
HFX-9x8	93-3/4			18" Width = 10	
HFX-12,15,18,21 & 24x9	104-1/4	3-1/2	1-1/8	21" Width = 12	6
HFX-12,15,18,21 & 24x10	116-1/4			24" Width = 14	
HFX-15,18,21 & 24x11	128-1/4	3-1/2	1-1/8	15" Width = 8	6
HFX-15,18,21 & 24x12	140-1/4			18" Width = 10	
HFX-15,18,21 & 24x13	152-1/4	3-1/2	1-1/8	21" Width = 12	7
HFX-15,18,21 & 24x14	164-1/4			24" Width = 14	
HFX-15,18,21 & 24x15	176-1/4	3-1/2	1-1/8	15" Width = 8	8
HFX-15,18,21 & 24x16	188-1/4			18" Width = 10	
HFX-15,18,21 & 24x17	200-1/4	3-1/2	1-1/8	21" Width = 12	8
HFX-15,18,21 & 24x18	212-1/4			24" Width = 14	
HFX-15,18,21 & 24x19	224-1/4	3-1/2	1-1/8	15" Width = 8	6
HFX-15,18,21 & 24x20	236-1/4			18" Width = 10	

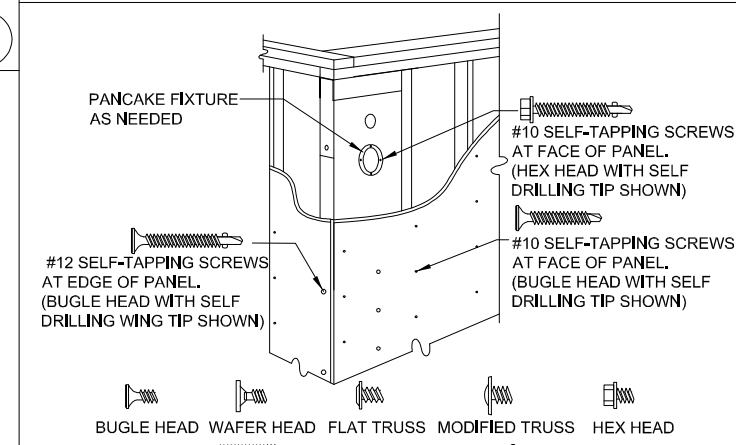
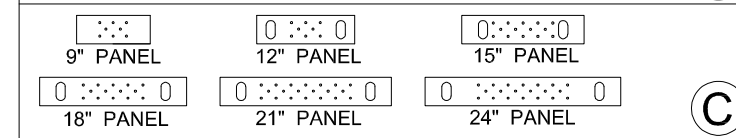
BALLOON PANELS 14 FEET THROUGH 20 FEET

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	6
HFX-15,18,21 & 24x15	176-1/4			18" Width = 10	
HFX-15,18,21 & 24x16	188-1/4	3-1/2	1-1/8	21" Width = 12	7
HFX-15,18,21 & 24x17	200-1/4			24" Width = 14	
HFX-15,18,21 & 24x18	212-1/4	3-1/2	1-1/8	15" Width = 8	8
HFX-15,18,21 & 24x19	224-1/4			18" Width = 10	
HFX-15,18,21 & 24x20	236-1/4	3-1/2	1-1/8	21" Width = 12	8
HFX-15,18,21 & 24x21	248-1/4			24" Width = 14	

- TABLE NOTES**
- 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.
 - 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.
 - ADJACENT FRAMING WITH 1/4" DIAMETER SCREWS IS REQUIRED AT THE PANEL EDGES WHEN INSTALLING A FILLER GREATER THAN 1-1/2" OR WHEN SPECIFIED BY THE DESIGN PROFESSIONAL.

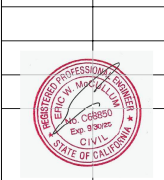
INSTALLATION INSTRUCTIONS

- 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.
- INSTALLATION ON CONCRETE PROVIDES THE HIGHEST ALLOWABLE VALUES. CONFIRM WITH THE DESIGN PROFESSIONAL BEFORE INSTALLING ON OTHER SUPPORTING SURFACES.
- 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.) USE 1/4 x 3" (MIN) SCREWS THROUGH PRE-PUNCHED HOLES AT THE PANEL EDGES.



- NOTES:**
- SURFACE FINISHES, CONNECTORS AND FIXTURES ARE ATTACHED TO THE PANEL FACE WITH # 10 SELF-TAPPING SCREWS SPACED NO LESS THAN 2-1/4" OC.
 - ATTACHMENTS TO THE PANEL EDGES ARE MADE WITH # 12 SELF-TAPPING SCREWS.
 - STRUCTURAL CONNECTIONS ARE TO BE DESIGNED BY THE DESIGN PROFESSIONAL.
 - STRUCTURAL HARDWARE USED TO TRANSFER LOADS SHOULD NOT EXCEED 12 GAUGE.

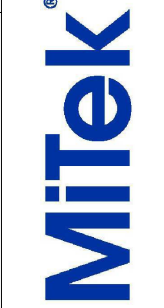
REVISIONS DATE



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) 325-6075
WWW.HARDYFRAME.COM

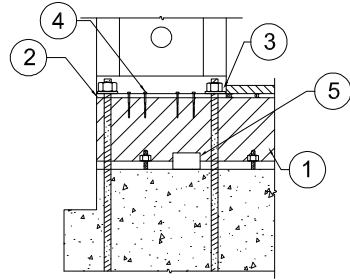


DATE:
1-1-2023

HFX2

NOTES:

- A. INSTALLATION WITHOUT **HARDY FRAME**® BEARING PLATE (HFXPB) 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.

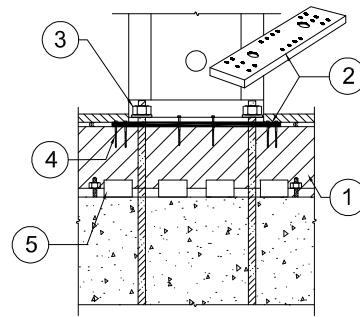


- 4x (MIN) RIM, ALLOWABLE VALUE TABLES ASSUME ENGINEERED WOOD PRODUCT.
- NOTCH FLOOR SHEATHING THEN INSTALL **HARDY FRAME**® PANEL DIRECTLY ON RIM.
- NUTS AND WASHERS PER TABLE NOTE 1.
- 1/4" x 4-1/2" (MINIMUM) WS SCREWS THROUGH BOTTOM OF PANEL MINIMUM QUANTITY PER TABLE.
- USP MP4F CONNECTORS, QUANTITY BY BUILDING DESIGN PROFESSIONAL.

RAISED-OS CORNER ④

NOTE:

COUPLERS MAY BE USED WHEN THREADED ROD IS SUBJECT TO TENSION LOADS ONLY.

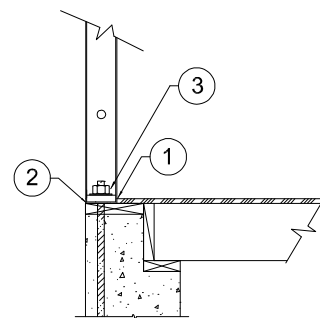


- 4x (MIN) RIM, ALLOWABLE VALUE TABLES ASSUME ENGINEERED WOOD PRODUCT.
- NOTCH FLOOR SHEATHING THEN INSTALL **HARDY FRAME**® BEARING PLATE (HFXPB) AND PANEL PER INSTALLATION NOTES 3-6, DETAIL B/HFX3.
- NUTS AND WASHERS PER TABLE NOTE 1.
- 1/4" x 4-1/2" (MIN) WS SCREWS, QUANTITY PER TABLE.
- USP MP4F CONNECTORS, QUANTITY BY BUILDING DESIGN PROFESSIONAL.

RAISED BEARING PLATE ③

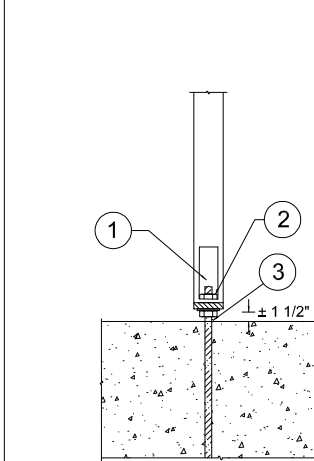
NOTES:

- 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



- FLOOR SHEATHING NOTCHED, INSTALL PANEL ON WOOD PLATE.
- 15# FELT OR EQUIVALENT RECOMMENDED BETWEEN PANEL BASE AND TREATED MUDSILL.
- NUTS AND WASHERS PER TABLE NOTE 1.

RAISED STEM WALL ②



- ACCESS HOLE LOCATED AT EDGE OF POST.
- NUTS AND WASHERS PER TABLE NOTE 1.
- PLUS OR MINUS 1-1/2" GAP TO BE FILLED WITH 5,000 PSI STRENGTH NON-SHRINK GROUT (MIN).

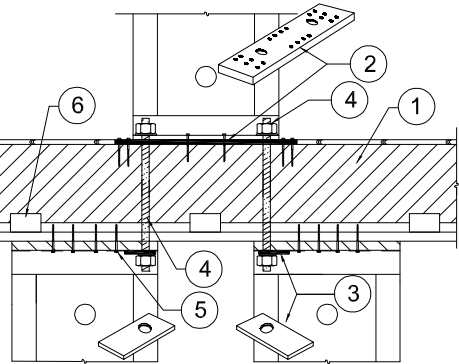
POST ON N&W ①

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)	Bot 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.

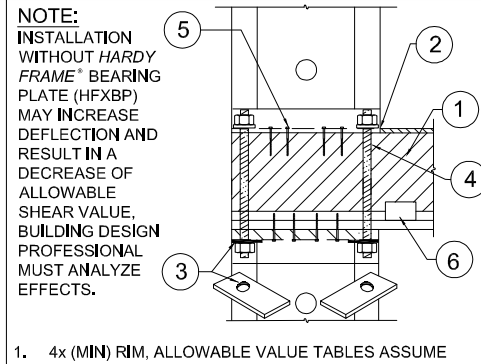
- HOLD DOWN TENSION ANCHORS SPECIFIED AS STANDARD GRADE (STD) MUST COMPLY WITH ASTM F1554 GRADE 36 (OR EQUAL). HOLD DOWN TENSION ANCHORS SPECIFIED AS HIGH STRENGTH (HS) MUST COMPLY WITH ASTM A 193 GRADE B7 (OR EQUAL). TENSION ANCHORS (BOTH GRADES) CONNECT TO THE UPPER AND LOWER PANELS WITH HARDENED ROUND 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.
- 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.
- 1/4" DIAMETER MITEK® PRO SERIES™ WS SCREWS, LENGTH IS 4-1/2" (MINIMUM) AT CONNECTIONS TO FLOOR SYSTEMS AND BEAMS BELOW.
- 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



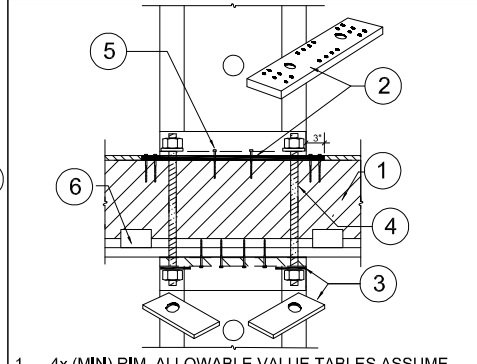
- 4x (MIN) RIM, ALLOWABLE VALUE TABLES ASSUME ENGINEERED WOOD PRODUCT.
- NOTCH FLOOR SHEATHING THEN INSTALL **HARDY FRAME**® BEARING PLATE (HFXPB) AND PANEL PER INSTALLATION NOTES 3-6, DETAIL B/HFX3.
- HARDY FRAME**® STACKING WASHER (HFSW) AT TOP OF PANEL REQUIRED WHEN CONNECTING TO TENSION ANCHOR FROM ABOVE.
- 1-1/8" DIA. HOLD DOWN, HFSW AND N&W PER TABLE NOTE 1 ARE PROVIDED IN **HARDY FRAME**® HFTC KIT.
- 1/4" x 4-1/2" (MIN) WS SCREWS, QUANTITY PER TABLE.
- USP MP4F CONNECTORS, QUANTITY BY BUILDING DESIGN PROFESSIONAL.

PYRAMID STACK ⑧



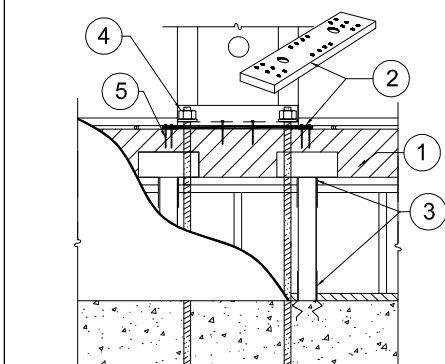
- NOTE:** INSTALLATION WITHOUT **HARDY FRAME**® BEARING PLATE (HFXPB) MAY INCREASE DEFLECTION AND RESULT IN A DECREASE OF ALLOWABLE SHEAR VALUE. BUILDING DESIGN PROFESSIONAL MUST ANALYZE EFFECTS.
- 4x (MIN) RIM, ALLOWABLE VALUE TABLES ASSUME ENGINEERED WOOD PRODUCT.
 - NOTCH FLOOR SHEATHING THEN INSTALL **HARDY FRAME**® PANEL DIRECTLY ON RIM.
 - HARDY FRAME**® STACKING WASHER (HFSW) AT TOP OF PANEL REQUIRED WHEN CONNECTING TO TENSION ANCHOR FROM ABOVE.
 - 1-1/8" DIA. HOLD DOWN, HFSW AND N&W PER TABLE NOTE 1 ARE PROVIDED IN **HARDY FRAME**® HFTC KIT.
 - 1/4" x 4-1/2" (MIN) WS SCREWS, QUANTITY PER TABLE.
 - USP MP4F CONNECTORS, QUANTITY BY BUILDING DESIGN PROFESSIONAL.

STACK @ OS CORNER ⑦



- 4x (MIN) RIM, ALLOWABLE VALUE TABLES ASSUME ENGINEERED WOOD PRODUCT.
- NOTCH FLOOR SHEATHING THEN INSTALL **HARDY FRAME**® BEARING PLATE (HFXPB) AND PANEL PER INSTALLATION NOTES 3-6, DETAIL B/HFX3.
- HARDY FRAME**® STACKING WASHER (HFSW) AT TOP OF PANEL REQUIRED WHEN CONNECTING TO TENSION ANCHOR FROM ABOVE.
- 1-1/8" DIA. HOLD DOWN, HFSW AND N&W PER TABLE NOTE 1 ARE PROVIDED IN **HARDY FRAME**® HFTC KIT.
- 1/4" x 4-1/2" (MIN) WS SCREWS, QUANTITY PER TABLE.
- USP MP4F CONNECTORS, QUANTITY BY BUILDING DESIGN PROFESSIONAL.

STRAIGHT STACK ⑥



- 4x (MIN) RIM, ALLOWABLE VALUE TABLES ASSUME ENGINEERED WOOD PRODUCT.
- NOTCH FLOOR SHEATHING THEN INSTALL **HARDY FRAME**® BEARING PLATE (HFXPB) AND PANEL PER INSTALLATION NOTES 3-6, DETAIL B/HFX3.
- USP POST CAP AND POST BASE BY THE BUILDING DESIGN PROFESSIONAL.
- NUTS AND WASHERS PER TABLE NOTE 1.
- 1/4" x 4-1/2" (MIN) WS SCREWS, QUANTITY PER TABLE.

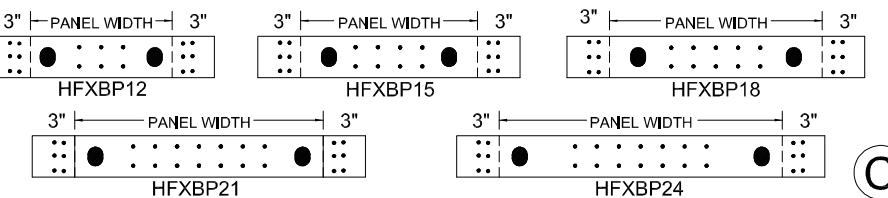
CRIPPLE WALL ⑤

INSTALLATION ON FLOOR SYSTEMS WITH **HARDY FRAME**® BEARING PLATE (HFXPB)

- 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).
- NOTCH FLOOR SHEATHING THEN INSTALL HFXPB ON RIM WITH 6 EACH 1/4"x4-1/2" (MIN) "WS" SCREWS AT EACH END.
- PLACE PANEL ON HFXPB.
- WHEN STACKING PANELS, INSTALL "HFSW" STACKING WASHERS IN THE TOP CHANNEL OF THE LOWER PANEL. CONNECT LOWER TO UPPER PANELS WITH TENSION ANCHORS (GRADE 8NUTS) 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.
- 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 HFXPB.
- 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.

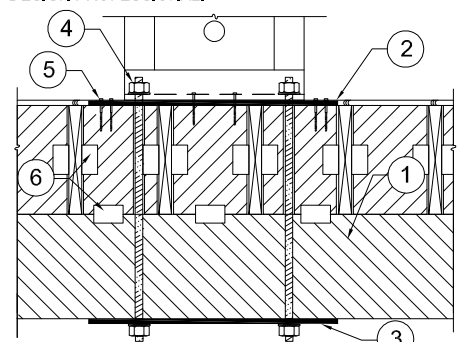
NOTE: INSTALLATIONS MAY VARY WITH JOB SPECIFIC CONDITIONS AND/OR SPECIFICATIONS BY THE BUILDING DESIGN PROFESSIONAL.

B



C

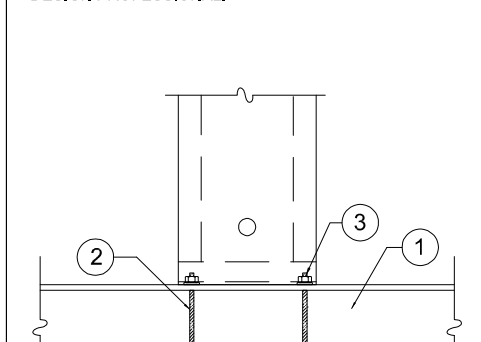
LOAD PATH FROM BEAM TO FOUNDATION AND CHECK THAT PANEL DRIFT IS WITHIN CODE LIMIT BY BUILDING DESIGN PROFESSIONAL.



- DROP BEAM WITH FLOOR JOIST ABOVE PER PLAN.
- NOTCH FLOOR SHEATHING THEN INSTALL **HARDY FRAME**® BEARING PLATE (HFXPB) AND PANEL PER INSTALLATION NOTES 3-6, DETAIL B/HFX3.
- HARDY FRAME**® BEARING PLATE (HFXPB) OR BEARING PLATE WASHER AT UNDERSIDE OF BEAM SIZED PER BUILDING DESIGN PROFESSIONAL TO LIMIT CRUSHING FROM TENSION ANCHOR FORCES.
- NUTS AND WASHERS PER TABLE NOTE 1.
- 1/4" x 4-1/2" (MIN) WS SCREWS, QUANTITY PER TABLE.
- USP CONNECTORS BY DESIGN PROFESSIONAL

DROP BM - FL SYSTEM ⑭

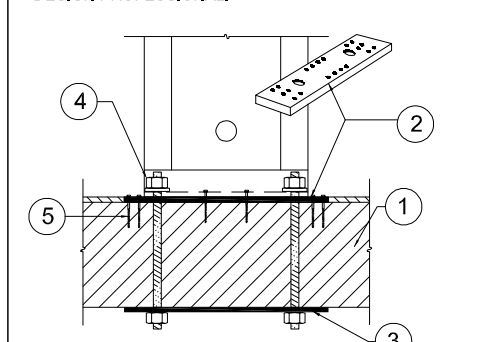
LOAD PATH FROM BEAM TO FOUNDATION AND CHECK THAT PANEL DRIFT IS WITHIN CODE LIMIT BY BUILDING DESIGN PROFESSIONAL.



- STEEL BEAM PER PLANS
- HOLD DOWN ALL THREAD RODS THRU-BOLTED TO BOTTOM FLANGE OF STEEL BEAM BY BUILDING DESIGN PROFESSIONAL.
- NUTS AND WASHERS AT PANEL BASE PER TABLE NOTE 1

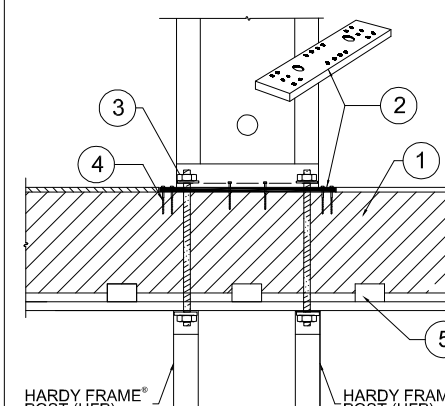
STEEL BM THRU-BOLT ⑬

LOAD PATH FROM BEAM TO FOUNDATION AND CHECK THAT PANEL DRIFT IS WITHIN CODE LIMIT BY BUILDING DESIGN PROFESSIONAL.



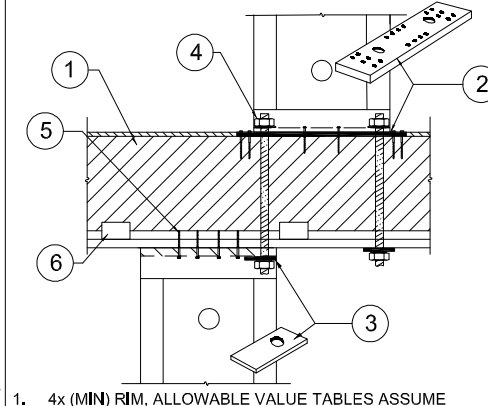
- WOOD BEAM PER PLAN.
- NOTCH FLOOR SHEATHING THEN INSTALL **HARDY FRAME**® BEARING PLATE (HFXPB) AND PANEL PER INSTALLATION NOTES 3-6, DETAIL B/HFX3.
- HARDY FRAME**® BEARING PLATE (HFXPB) OR BEARING PLATE WASHER AT UNDERSIDE OF BEAM SIZED PER BUILDING DESIGN PROFESSIONAL TO LIMIT CRUSHING FROM TENSION ANCHOR FORCES.
- 1-1/8" DIA. HOLD DOWN, HFSW AND N&W PER TABLE NOTE 1 ARE PROVIDED IN **HARDY FRAME**® HFTC KIT.
- 1/4" x 4-1/2" (MIN) WS SCREWS, QUANTITY PER TABLE.

WOOD BM THRU-BOLT ⑫



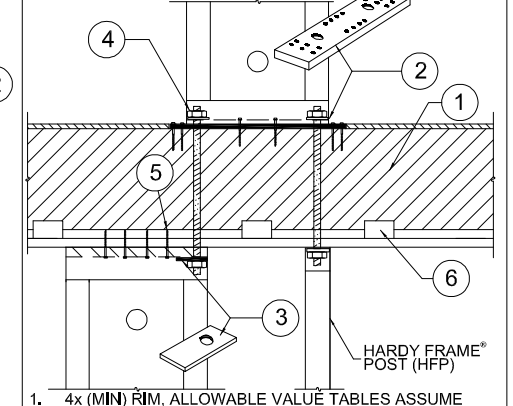
- 4x (MIN) RIM, ALLOWABLE VALUE TABLES ASSUME ENGINEERED WOOD PRODUCT.
- NOTCH FLOOR SHEATHING THEN INSTALL **HARDY FRAME**® BEARING PLATE (HFXPB) AND PANEL PER INSTALLATION NOTES 3-6, DETAIL B/HFX3.
- 1-1/8" DIA. HOLD DOWN, HFSW AND N&W PER TABLE NOTE 1 ARE PROVIDED IN **HARDY FRAME**® HFTC KIT.
- 1/4" x 4-1/2" (MIN) WS SCREWS, QUANTITY PER TABLE.
- USP MP4F CONNECTORS, QUANTITY BY BUILDING DESIGN PROFESSIONAL.

HFP POSTS BELOW ⑪



- 4x (MIN) RIM, ALLOWABLE VALUE TABLES ASSUME ENGINEERED WOOD PRODUCT.
- NOTCH FLOOR SHEATHING THEN INSTALL **HARDY FRAME**® BEARING PLATE (HFXPB) AND PANEL PER INSTALLATION NOTES 3-6, DETAIL B/HFX3.
- HARDY FRAME**® STACKING WASHER (HFSW) AT TOP OF PANEL REQUIRED WHEN CONNECTING TO TENSION ANCHOR FROM ABOVE.
- 1-1/8" DIA. HOLD DOWN, HFSW AND N&W PER TABLE NOTE 1 ARE PROVIDED IN **HARDY FRAME**® HFTC KIT.
- 1/4" x 4-1/2" (MIN) WS SCREWS, QUANTITY PER TABLE.
- USP MP4F CONNECTORS, QUANTITY BY BUILDING DESIGN PROFESSIONAL.

STAGGERED THRU-BOLT ⑩



- 4x (MIN) RIM, ALLOWABLE VALUE TABLES ASSUME ENGINEERED WOOD PRODUCT.
- NOTCH FLOOR SHEATHING THEN INSTALL **HARDY FRAME**® BEARING PLATE (HFXPB) AND PANEL PER INSTALLATION NOTES 3-6, DETAIL B/HFX3.
- HARDY FRAME**® STACKING WASHER (HFSW) AT TOP OF PANEL REQUIRED WHEN CONNECTING TO TENSION ANCHOR FROM ABOVE.
- 1-1/8" DIA. HOLD DOWN, HFSW AND N&W PER TABLE NOTE 1 ARE PROVIDED IN **HARDY FRAME**® HFTC KIT.
- 1/4" x 4-1/2" (MIN) WS SCREWS, QUANTITY PER TABLE.
- 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



DATE:
1-1-2023

HFX3