DRC Item 3

ARCHITECTURAL, CIVIL AND STRUCTURAL PLANS FOR A NEW OPEN SHED AT 1541 N. RIVER ROAD

EROSION CONTROL

1. EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES MUST BE IN PLACE AND FUNCTIONAL PRIOR TO THE FIRST INSPECTION. NO INSPECTIONS CAN BE PERFORMED IF THEY ARE NOT IN PLACE OR HAVE FAILED TO PROVIDE EROSION CONTROL. FAILURE TO MAINTAIN EROSION CONTROL WILL CAUSE INSPECTIONS TO BE DELAYED UNTIL EROSION CONTROL MEASURES ARE FUNCTIONAL.
2. EROSION CONTROL MEASURES SHALL BE IMPLEMENTED AND MAINTAINED TO THE SATISFACTION OF THE BUILDING OFFICIAL AND PUBLIC WORKS DIRECTOR DURING ALL DEMOLITIONS, CONSTRUCTION AND GROUND DISTURBING ACTIVITIES
3. THE ADJOINING STREET SHALL BE CLEANED BY SWEEPING TO REMOVE DIRT, DUST, MUD AND CONSTRUCTION DEBRIS AT THE END OF EACH DAY.
4. TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED WHEN PERMANENT IMPROVEMENTS, PLANTINGS AND FACILITIES ARE IN PLACE. TEMPORARY MEASURES SHALL BE REMOVED PRIOR TO FINAL INSPECTION APPROVALS
5. THE FOLLOWING PERSON SHALL BE RESPONSIBLE FOR IMPLEMENTING & MONITORING THE APPROVED EROSION & SEDIMENTATION CONTROL PLAN:

PAUL VIBORG

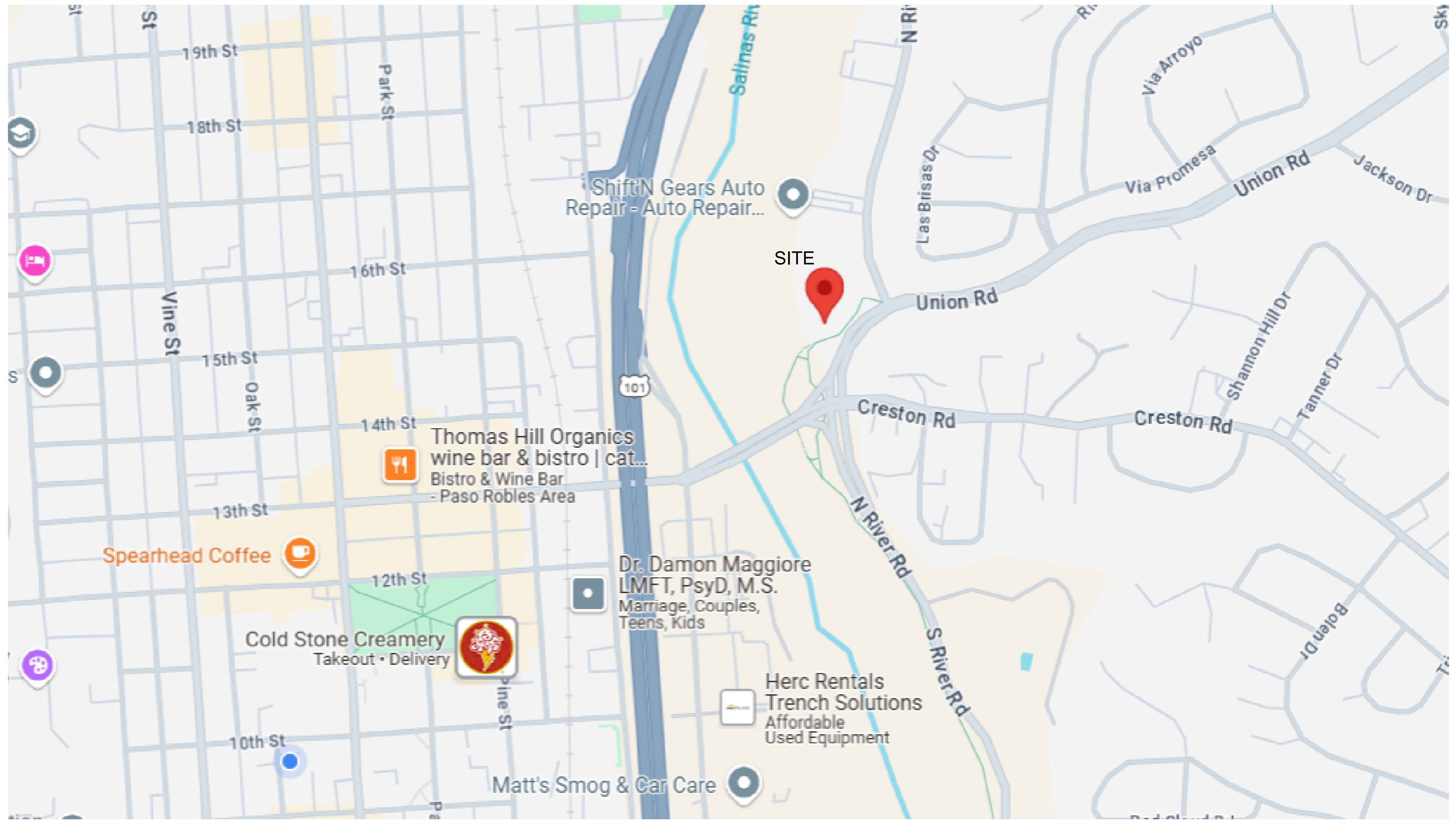
FIRE SAFETY PLAN

THE APPROVED PROJECT ALLOWED TO BE CONSTRUCTED BY THIS BUILDING PERMIT SHALL CONFORM TO THE FIRE SAFETY PLAN REQUIREMENTS AS DEEMED NECESSARY BY THE FIRE DEPARTMENT HAVING JURISDICTION FOR THIS PERMIT. PRIOR TO BEGINNING CONSTRUCTION THE PROPERTY OWNER SHALL READ THE FIRE SAFETY PLAN ISSUED BY THE FIRE DEPARTMENT AND BECOME FULLY AWARE OF ALL NECESSARY FIRE PROTECTION REQUIREMENTS.

1. WHEN FIRE SPRINKLERS ARE REQUIRED, A FIRE SPRINKLER PLAN AND PERMIT FOR RESIDENTIAL PROJECTS ARE REQUIRED. PROVIDE APPROVED PLANS TO BUILDING INSPECTOR PRIOR TO THE TIME OF FRAMING INSPECTION
2. PRIOR TO FINAL APPROVAL, THE PROPERTY SHALL BE IN COMPLIANCE WITH THE VEGETATION CLEARANCE. WHERE APPLICABLE, PROVIDE FIREBREAK WITHIN 30' AND 100' OF EACH BUILDING OR STRUCTURE. DOWNED LOGS, STUMPS, DEAD AND DYING WOODY SURFACE FUELS SHALL BE REMOVED. REMOVE SURFACE FUELS GREATER THAN 4 INCHES AND LOWER LIMBS OF TREES UP TO 6 FEET WITHIN AREAS OF CONTINUOUS TREE CANOPY

GENERAL GRADING NOTES

1. ANY AND ALL SITE WORK AND GRADING SHALL BE IN ACCORDANCE WITH CBC CHAPTER 18 AND CBC APPENDIX J AND ANY APPLICABLE LOCAL ORDINANCES.
2. A SOILS ENGINEER SHALL DETERMINE GRADING PERFORMED IS IN SUBSTANTIAL CONFORMANCE WITH THE APPROVED PLANS AND IS SUITABLE TO SUPPORT THE INTENDED STRUCTURE(S).
3. THE BOTTOM OF ALL EXCAVATIONS SHOULD BE OBSERVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PROCESSING OR PLACING FILL.
4. AN ENCROACHMENT PERMIT IS REQUIRED FOR ANY WORK DONE WITHIN A RIGHT OF WAY MAINTAINED BY THE PRESIDING JURISDICTION.
5. MAXIMUM CUT AND FILL SLOPE TO BE 2:1.
6. THE EXISTING GROUND SURFACE SHOULD BE PREPARED FOR GRADING BY REMOVING ALL VEGETATION, TREES, LARGE ROOTS, DEBRIS, NON-COMPLYING FILL, AND ALL OTHER ORGANIC MATERIAL. VOIDS CREATED BY REMOVAL OF SUCH MATERIALS SHOULD NOT BE BACKFILLED UNTIL THE UNDERLYING SOIL HAS BEEN OBSERVED BY A SOILS ENGINEER.
7. FILL AND BACKFILL SHOULD BE PLACED AT NEAR OPTIMUM MOISTURE IN LAYERS WITH LOOSE THICKNESS NOT GREATER THAN EIGHT (8) INCHES AND COMPACTED TO A MINIMUM OF 90% OF THE MAXIMUM DRY DENSITY OBTAINABLE BY TEST METHOD ASTM-D 1557, AND CERTIFIED BY A SOILS ENGINEER.
8. IMPORT SOILS USED TO RAISE SITE GRADE SHOULD BE EQUAL TO OR BETTER THAN ON-SITE SOILS IN STRENGTH, EXPANSION AND COMPRESSIBILITY CHARACTERISTICS. IMPORT SOIL CAN BE EVALUATED BUT WILL NOT BE PRE-QUALIFIED BY THE GEOTECHNICAL ENGINEER. FINAL COMMENTS ON THE CHARACTERISTICS OF THE IMPORT SOIL WILL BE PROVIDED AFTER THE MATERIAL IS STOCKPILED AT THE PROJECT SITE.
9. FINAL SITE GRADE SHOULD BE SUCH THAT ALL WATER IS DIVERTED AWAY FROM THE STRUCTURE(S) A MINIMUM OF 5% FOR 10 FEET. WATER SHALL NOT POND. ALL SURFACE WATER SHOULD BE DIRECTED INTO APPROVED DISCHARGE STRUCTURES.
10. ACCESS ROAD/DRIVEWAYS: ANY ROAD GRADE IN EXCESS OF 12% SHALL BE PAVED WITH A NON-SKID MATERIAL. GRADE FOR FIRE ACCESS SHALL NOT EXCEED 20%.
11. ALL NON-PERMITTED FILL SHALL BE REMOVED BY CONTRACTOR.
12. ELECTRICAL, TELECOMMUNICATIONS, AND OTHER UTILITIES SHALL BE INSTALLED UNDERGROUND IN AN APPROVED METHOD OF CONSTRUCTION. THIS REGULATION APPLIES TO UTILITIES ON SITES THAT ARE 5 ACRES OR LESS AND SERVING NEW STRUCTURES AND/OR NEW UTILITY DISTRIBUTIONS.
13. UTILITY TRENCH BACKFILL SHOULD BE GOVERNED BY THE PROVISIONS OF THIS REPORT RELATING TO MINIMUM COMPACTION STANDARDS. IN GENERAL, SERVICE LINES INSIDE THE PROPERTY LINES MAY BE BACKFILLED WITH NATIVE SOILS COMPACTED TO A MINIMUM OF 90% OF MAXIMUM DENSITY. BACKFILL OF OFF SITE SERVICE LINES WILL BE SUBJECT TO THE SPECIFICATIONS OF THE JURISDICTIONAL AGENCY OR THE GEOTECHNICAL REPORT, WHICHEVER IS GREATER.
14. LINED DRAINAGE SWALES AND DOWN DRAINS SHOULD BE PROVIDED AT THE TOPS OF CUT AND FILL SLOPES TO DIVERT DRAINAGE AWAY FROM SLOPE FACES.
15. FILL SLOPES SHOULD BE KEYED AND BENCHED INTO FIRM NATURAL GROUND WHEN THE EXISTING SLOPE TO RECEIVE FILL IS 5:1 OR STEEPER, HORIZONTAL TO VERTICAL. THE KEYS SHOULD BE TILTED INTO THE SLOPE A MINIMUM OF 2%, SHOULD BE A MINIMUM OF ONE EQUIPMENT WIDTH AND SHOULD BE A MINIMUM OF THREE (3) FEET DEEP ON THE OUTSIDE EDGE. ALL KEYS AND BENCHES SHOULD BE OBSERVED AND VERIFIED BY THE GEOTECHNICAL ENGINEER.



VICINITY MAP

SHEET INDEX

DRAFT & DESIGN
610 10TH ST. SUITE A
PASO ROBLES CA 93446
DJH1132@GMAIL.COM
805.975.3071

PROJECT INFORMATION

OWNER	PAUL VIBORG
PROJECT ADDRESS	1541 RIVER ROAD PASO ROBLES, CA 93446
APN	025-501-017
PHONE	805-674-9732

PROJECT STATISTICS

LOT SIZE	1.25 ACRES
OCCUPANCY (CBC 310.1)	U
CONSTRUCTION TYPE	VB
NEW OPEN SHED STORAGE BUILDING	4,080 SF
FIRE SPRINKLERS	NO
WUI	NO

PLAN PREPARED FOR:

PAUL VIBORG
1541 N. RIVER ROAD
PASO ROBLES, CA 93446

LICENSED ARCHITECT
Ken Michio Nagahara
C24346
05-26-2025
Renewal Date
STATE OF CALIFORNIA

AIR QUALITY CONTROL

DURING CONSTRUCTION/GROUND DISTURBING ACTIVITIES, THE FOLLOWING PARTICULATE (DUST) CONTROL MEASURES SHALL BE IMPLEMENTED. THE CONTRACTOR OR BUILDER SHALL BE DESIGNATED TO MONITOR THE DUST CONTROL PROGRAM AND ORDER INCREASED WATERING, AS NECESSARY, TO PREVENT TRANSPORT OF DUST OFF SITE. THEIR DUTIES SHALL INCLUDE HOLIDAY AND WEEKEND PERIODS WHEN WORK MAY NOT BE IN PROGRESS. THEIR CONTACT INFORMATION SHALL BE PRESENTED TO THE APCD PRIOR TO COMMENCEMENT OF CONSTRUCTION.

1. REDUCE THE AMOUNT OF DISTURBED AREA WHERE POSSIBLE
2. USE OR WATER TRUCKS OR SPRINKLER SYSTEMS IN SUFFICIENT QUANTITIES TO PREVENT AIRBORNE DUST FROM LEAVING THE SITE. INCREASED WATERING FREQUENCY WOULD BE REQUIRED WHENEVER WIND SPEEDS EXCEED 15 MPH. RECLAIMED (NONPOTABLE) WATER SHOULD BE USED WHENEVER POSSIBLE;
3. ALL DIRT STOCK-PILE AREAS SHOULD BE SPRAYED DAILY AS NEEDED;
4. ALL ROADWAYS, DRIVEWAYS, SIDEWALKS, ETC TO BE PAVED SHALL BE COMPLETED AS SOON AS POSSIBLE; AND
5. BUILDING PADS SHALL BE LAID AS SOON AS POSSIBLE AFTER GRADING UNLESS SEEDING OR SOIL BINDERS ARE USED.

DURING INITIAL GRADING/SCRAPING, BURNING SHALL NOT BE ALLOWED, OR IF NO ALTERNATIVE IS AVAILABLE, THE APPLICANT SHALL OBTAIN A BURN PERMIT FROM THE APCD AND COUNTY FIRE/CALIFORNIA DEPARTMENT OF FORESTRY, AND COMPLY WITH ALL CONDITIONS REQUIRED BY THESE AGENCIES.

SEPARATE PERMIT REQUIREMENTS

FIRE SPRINKLERS

STATEMENT OF SPECIAL INSPECTIONS:

('22 CBC Section 1704.3):

SPECIAL INSPECTIONS ARE NOT REQUIRED FOR THIS PROJECT

PROJECT DESCRIPTION

THE PURPOSE OF THIS PLAN IS TO CONSTRUCT A NEW OPEN SHED METAL BUILDING FOR STORAGE OF YARD EQUIPMENT PER PLANS ATTACHED.

CONSULTANTS

STRUCTURAL ENGINEERING
DARRELL KUDLA
610 10TH ST , SUITE A
PASO ROBLES, CA 93446

DESIGN AND DRAFTING
DH DRAFT AND DESIGN
610 10TH ST, SUITE A
PASO ROBLES, CA 93446
805.975.3071

METAL BUILDING
STAR BUILDING SYSTEMS

ARCHITECT
KMN ARCHITECT
KEN M. NAGAHARA
610 10TH ST, SUITE A
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805.610.7006

REVISION LOG

REV.	DESCRIPTION	DATE

PROJECT NO.	----
FILE NAME	T-1 TITLE SHEET.DWG
DRAWN BY	MTS
DATE	2/24/2025 9:36 AM

SHEET TITLE:

TITLE SHEET

GENERAL CONSTRUCTION NOTES

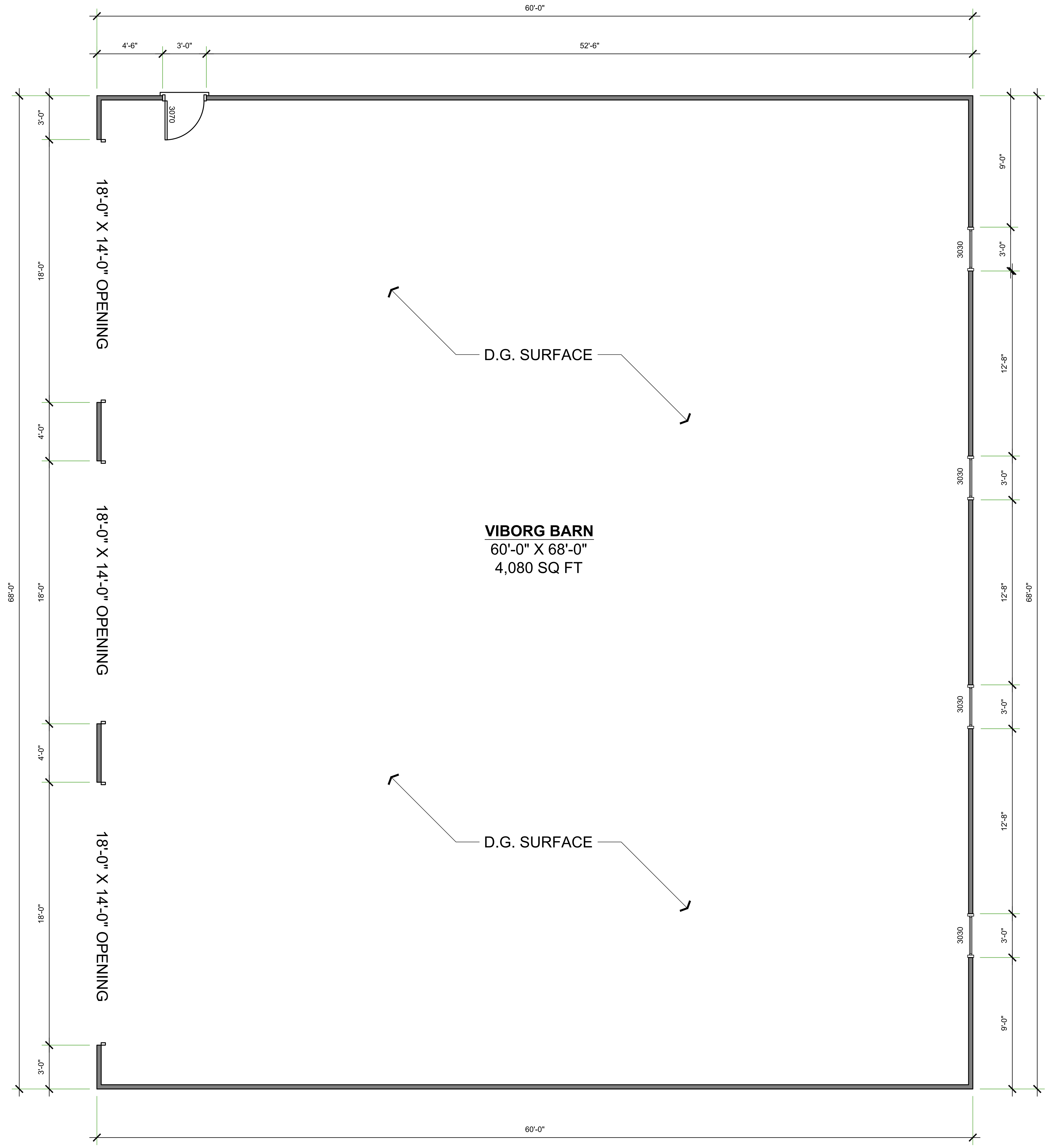
1. ALL WORK SHALL CONFORM WITH THE:
   - 2022 CBC (2021 IBC AND CALIFORNIA AMENDMENTS)
   - 2022 CEC (2020 NEC AND CALIFORNIA AMENDMENTS)
   - 2022 CMC (2021 IAPMO UMC AND CALIFORNIA AMENDMENTS)
   - 2022 CPC (2021 IAPMO UPC AND CALIFORNIA AMENDMENTS)
   - 2022 CENC AND T-24.
   - 2022 CALIFORNIA GREEN BUILDING CODE
   - 2022 CFC (2021 IFC AND CALIFORNIA AMENDMENTS)
   - 2022 PASO ROBLES CITY ORDINANCES

   THESE NOTES SHALL APPLY TO ALL DRAWINGS UNLESS OTHERWISE NOTED OR SHOWN. FEATURES OF CONSTRUCTION SHOWN ARE TYPICAL AND THEY SHALL APPLY GENERALLY THROUGHOUT SIMILAR CONDITIONS. ALL OMISSIONS OR CONFLICTS BETWEEN VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND/OR GENERAL NOTES SHALL BE BROUGHT TO THE ATTENTION OF THE ARHCITECT/ ENGINEER BY THE GENERAL CONTRACTOR BEFORE PROCEEDING WITH ANY WORK SO INVOLVED.
2. ALL WORK AND CONSTRUCTION METHODS AND MATERIALS SHALL COMPLY WITH ALL PROVISIONS OF THE BUILDING CODES AND OTHER RULES, REGULATIONS AND ORDINANCES GOVERNING THE CONSTRUCTION SITE. BUILDING CODE REQUIREMENTS IN ALL CASES TAKE PRECEDENCE OVER THE DRAWINGS. IT SHALL BE THE RESPONSIBILITY OF ANYONE SUPPLYING LABOR AND/OR MATERIALS TO BRING TO THE ATTENTION OF THE ARCHITECT/ENGINEER ANY DISCREPANCIES OR CONFLICTS BETWEEN THE REQUIREMENTS OF THE CODE AND THE DRAWINGS.
3. DO NOT SCALE THE DRAWINGS. DIMENSIONS SHOWN SHALL TAKE PRECEDENCE OVER DRAWING SCALE OR PROPORTION. LARGE SCALE DRAWINGS SHALL TAKE PRECEDENCE OVER SMALLER SCALE DRAWINGS.
4. THE CONTRACT DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. UNLESS OTHERWISE SHOWN, THEY DO NOT INDICATE METHOD OF CONSTRUCTION. CONTRACTOR SHALL SUPERVISE AND DIRECT WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES. OBSERVATION VISITS TO THE SITE BY FIELD REPRESENTATIVES OF THE ARCHITECT/ENGINEER SHALL NOT INCLUDE INSPECTIONS OF THE PROTECTIVE MEASURES OR THE CONSTRUCTION PROCEDURES REQUIRED FOR SAME, WHICH ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. ANY SUPPORT SERVICES PERFORMED BY THE ARCHITECT/ENGINEER DURING CONSTRUCTION SHALL BE DISTINGUISHED FROM CONTINUOUS AND DETAILED INSPECTION SERVICES WHICH ARE FURNISHED BY OTHERS. THESE SUPPORT SERVICES PERFORMED SOLELY FOR THE PURPOSE OF ASSISTING IN QUALITY CONTROL AND IN ACHIEVING CONFORMANCE WITH CONTRACT DRAWINGS AND SPECIFICATIONS, AND THEREFORE THEY DO NOT GUARANTEE CONTRACTOR'S PERFORMANCE AND SHALL NOT BE CONSTRUED AS SUPERVISION OF CONSTRUCTION.
5. CONTRACTOR HEREBY GUARANTEES TO THE OWNER AND THE ARCHITECT/ENGINEER THAT ALL MATERIALS, FIXTURES, AND EQUIPMENT FURNISHED TO THE PROJECT ARE NEW UNLESS OTHERWISE SPECIFIED. CONTRACTOR ALSO WARRANTS THAT ALL WORK WILL BE OF GOOD QUALITY AND FREE FROM ANY FAULTS AND DEFECTS FOR A PERIOD OF ONE YEAR AFTER THE DATE OF SUBSTANTIAL COMPLETION, UNLESS A GREATER WARRANTY OR GUARANTEE IS REQUIRED BY THE PROJECT SPECIFICATIONS.
6. ANYONE SUPPLYING LABOR AND/OR MATERIALS TO THE PROJECT SHALL CAREFULLY EXAMINE ALL SUBSURFACES TO RECEIVE WORK. ANY CONDITIONS DETRIMENTAL TO WORK SHALL BE REPORTED IN WRITING TO THE CONTRACTOR PRIOR TO BEGINNING WORK. COMMENCEMENT OF WORK SHALL IMPLY ACCEPTANCE OF ALL SUBSURFACES.
7. REFER TO ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR DEPRESSED SLABS CURB, FINISHES, TEXTURES, CLIPS, GROUNDS, ETC., NOT SHOWN ON STRUCTURAL DRAWINGS.
8. ANY MATERIALS STORED AT THE SITE SHALL BE COMPLETELY SUPPORTED FREE OF THE GROUND, COVERED AND OTHERWISE PROTECTED TO AVOID DAMAGE FROM THE ELEMENTS.
9. MORE DETAILED INFORMATION SHALL TAKE PRECEDENCE OVER LESSER DETAILED INFORMATION. SPECIFICATIONS SHALL TAKE PRECEDENCE OVER DRAWINGS.
10. GRADING PLANS, DRAINAGE IMPROVEMENTS, ROAD AND ACCESS REQUIREMENTS AND ENVIRONMENTAL HEALTH CONSIDERATIONS SHALL COMPLY WITH ALL APPLICABLE CODES AND LOCAL ORDINANCES.
11. THE CONTRACTOR AND ALL SUB-CONTRACTORS WILL BE HELD ACCOUNTABLE TO THE ABOVE GENERAL NOTES FOR THE CONSTRUCTION OF THE PROJECT.
12. THE CONTRACTOR SHALL BE RESPONSIBLE TO REMOVE OR DISBURSE ANY EXCESS MATERIAL FROM PROJECT SITE.
13. THIS SET OF PLANS TO BE ON JOB SITE AT ALL TIMES DURING CONSTRUCTION. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE APPROVED PLANS. NO CHANGES OR REVISIONS TO THE APPROVED PLANS OR SPECIFICATIONS SHALL BE PERMITTED UNLESS SUBMITTED TO AND APPROVED BY THE BUILDING OFFICIAL. THE ISSUANCE OF A PERMIT SHALL NOT PREVENT THE BUILDING OFFICIAL FROM REQUIRING THE CORRECTION OF ERRORS OR OMISSIONS FROM THE APPROVED PLANS AND SPECIFICATIONS. [CBC 108]
14. ALL CONTRACTORS AND SUB-CONTRACTORS MUST HAVE ON FILE WITH THE BUILDING DEPARTMENT, A LIST OF ALL SUCH CONTRACTORS AND SUB-CONTRACTORS WITH APPROPRIATE CURRENT BUSINESS LICENSE NUMBERS.
15. UNLESS NOTED OTHERWISE, ALL VESTIBULES, CLOSETS, COLUMNS, PROJECTIONS, RECESSES, OR OTHER ADJACENT AREAS WITHIN SCHEDULED AREA SHALL HAVE FINISHES AS SCHEDULED FOR THE RESPECTIVE SPACES IN WHICH THEY OCCUR.
16. CONTRACTOR SHALL VERIFY ALL SETBACKS, EASEMENTS, CONTOURS, AND BUILDING PAD PRIOR TO CONSTRUCTION.
17. TRUSS CALCULATIONS FOR APPROVED PROJECTS ARE REQUIRED TO BE ON THE JOB SITE AT TIME OF FRAMING INSPECTION WITH THE APPROPRIATE REQUIRED SIGNATURES AND STATEMENT AS FOLLOWS: TRUSS CALCULATIONS SHALL INCLUDE THE WET-STAMP AND SIGNATURE OF THE TRUSS DESIGN ENGINEER. IN ADDITION, THEY SHALL INCLUDE ON THE COVER SHEET A WET- SIGNED STATEMENT FROM THE PROJECT'S DESIGN ENGINEER THAT TRUSS CALCULATIONS AND LAYOUTS ARE IN SUBSTANTIAL CONFORMANCE WITH THE STRUCTURAL DESIGN AND INTENT OF THE STRUCTURE. FAILURE TO PROVIDE THEM AS STATED WILL RESULT IN A CORRECTION AND A FAILURE TO PASS FRAMING INSPECTION. [BSP]
18. VERIFY LOCATION OF ALL UTILITY TIE-INS AT STREET AND POINT OF CONNECTIONS AT BUILDING PRIOR TO CONSTRUCTION.
19. A COPY OF SOILS REPORT SHALL BE ON SITE DURING FOUNDATION INSPECTION.
20. ALL PROPERTY CORNERS SHOULD BE ESTABLISHED AT THE TIME OF FOUNDATION INSPECTION WITH THE MARK OF A LICENSED SURVEYOR.

SHEET NUMBER:

T-1.1

DRC Item 3



FLOOR PLAN

1/4" = 1'

DJH

DRAFT & DESIGN

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805.975.3071

PLAN PREPARED FOR:

PAUL VIBORG
1541 NORTH RIVER ROAD
PASO ROBLES, CA 93446

LICENSED ARCHITECT
Ken Michio Nagahara
C24346
05-26-2025
Renewal Date
STATE OF CALIFORNIA

REVISION LOG

REV.	DESCRIPTION	DATE

PROJECT NO. ----

FILE NAME A-1.1 FLOOR PLAN.DWG

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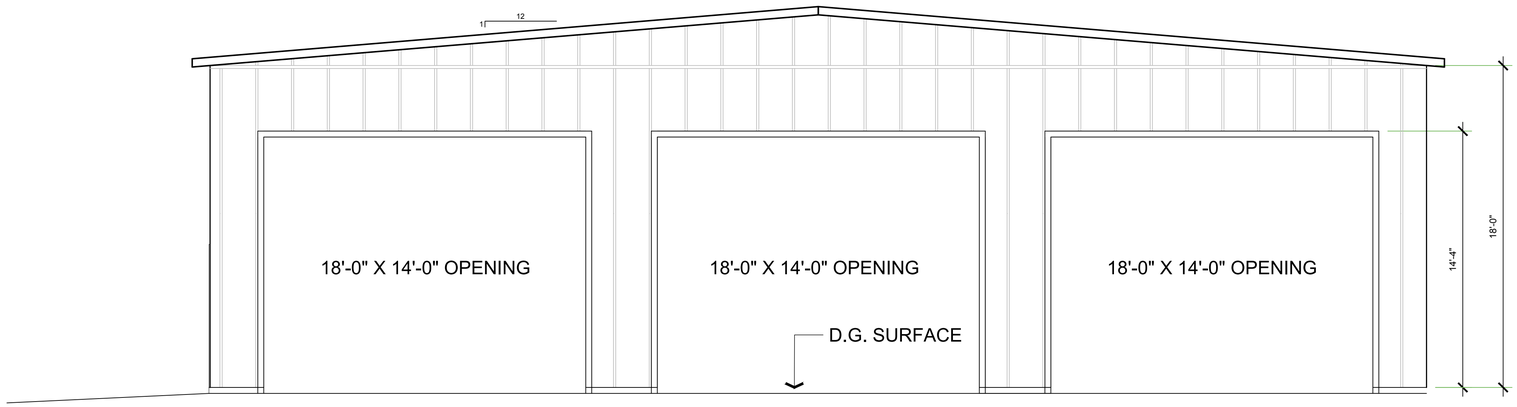
DATE 2/24/2025 9:15 AM

SHEET TITLE:

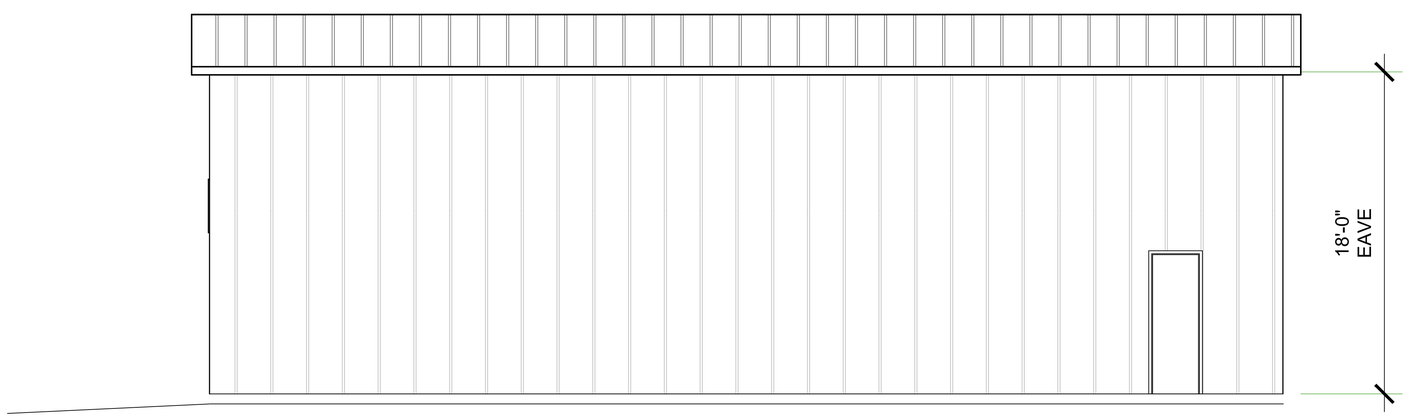
FLOOR PLAN

SHEET NUMBER:

A-1.1



FRONT ELEVATION
1/4" = 1'



LEFT ELEVATION
1/4" = 1'

DJH
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PLAN PREPARED FOR:

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PASO ROBLES, CA 93446

LICENSED ARCHITECT
Kenji Michio Nagahara
C-24345
05-26-2025
Renewal Date
STATE OF CALIFORNIA

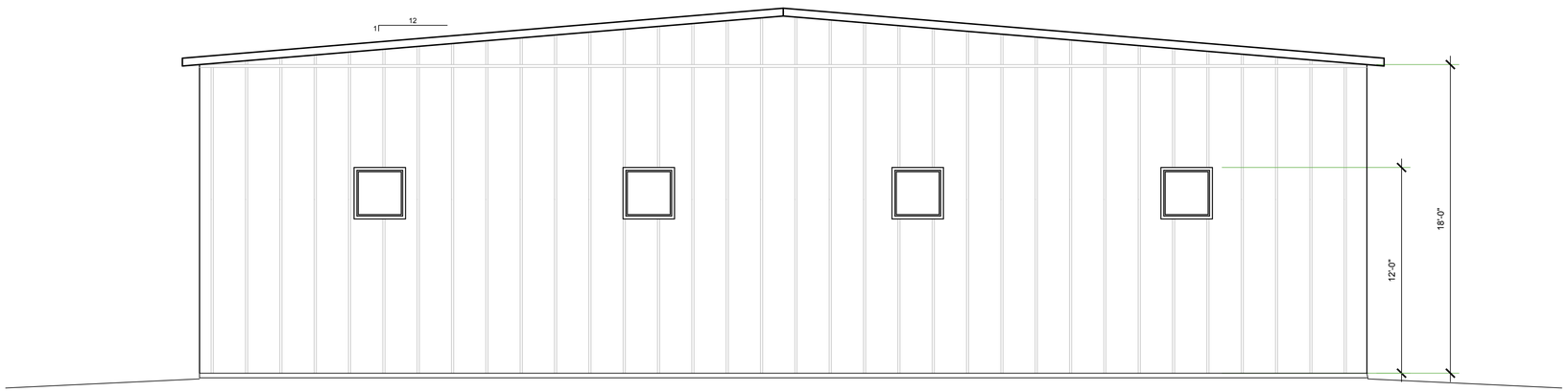
REVISION LOG

REV.	DESCRIPTION	DATE

PROJECT NO. —
FILE NAME A-2.1 ELEVATIONS.DWG
DRAWN BY MTS
DATE 2/24/2025 9:16 AM

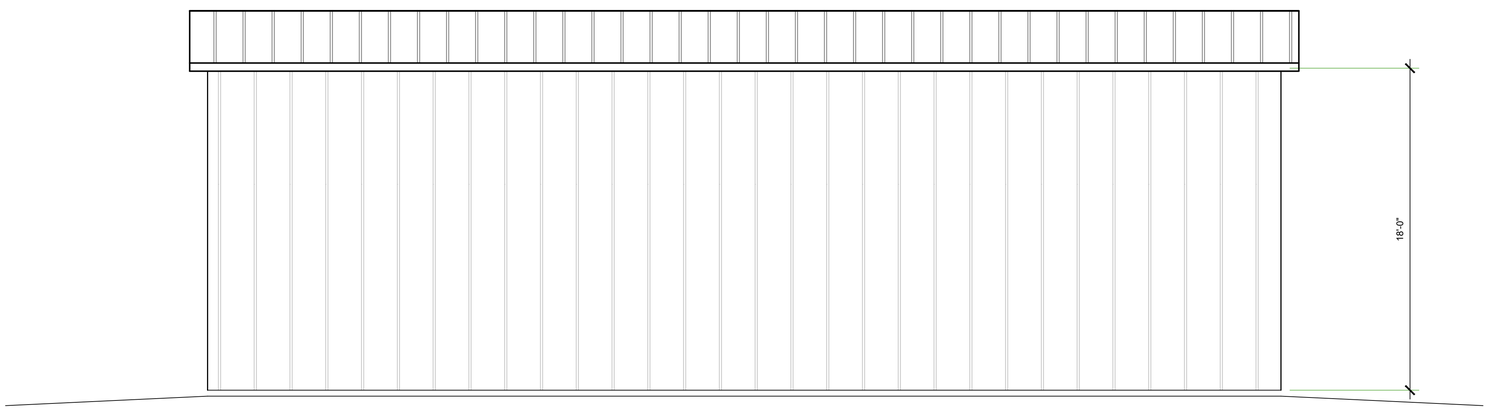
SHEET TITLE:
ELEVATIONS

SHEET NUMBER:
A-2.1



BACK ELEVATION

1/4" = 1'



RIGHT ELEVATION

1/4" = 1'

DJH
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805.975.3071

PLAN PREPARED FOR:

PAUL VIBORG
1541 NORTH RIVER ROAD
PASO ROBLES, CA 93446

LICENSED ARCHITECT
Dana Michio Nagahara
C24346
05-26-2025
Renewal Date
STATE OF CALIFORNIA

REVISION LOG

REV.	DESCRIPTION	DATE

PROJECT NO. —

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DATE 2/24/2025 9:16 AM

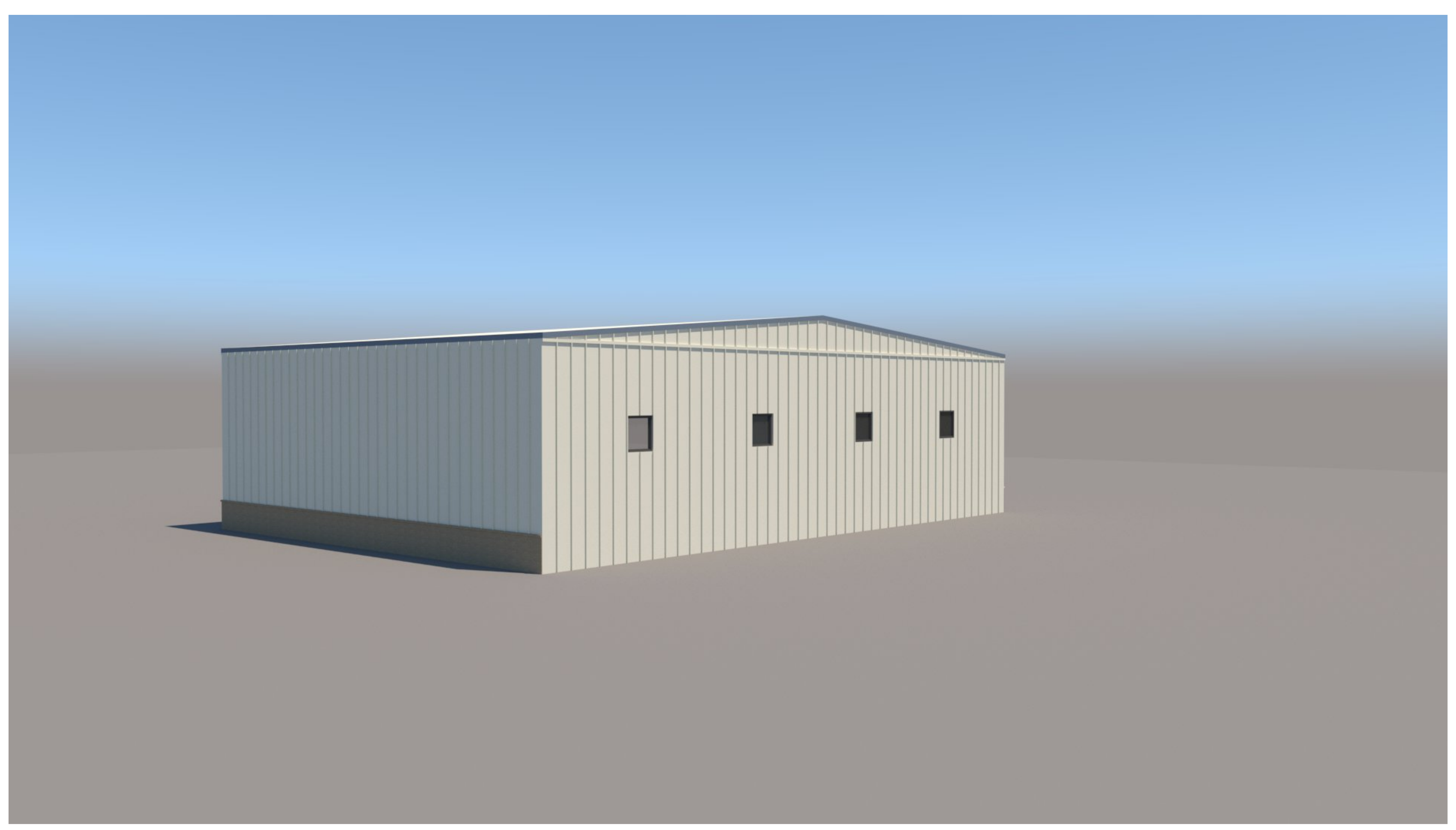
SHEET TITLE:

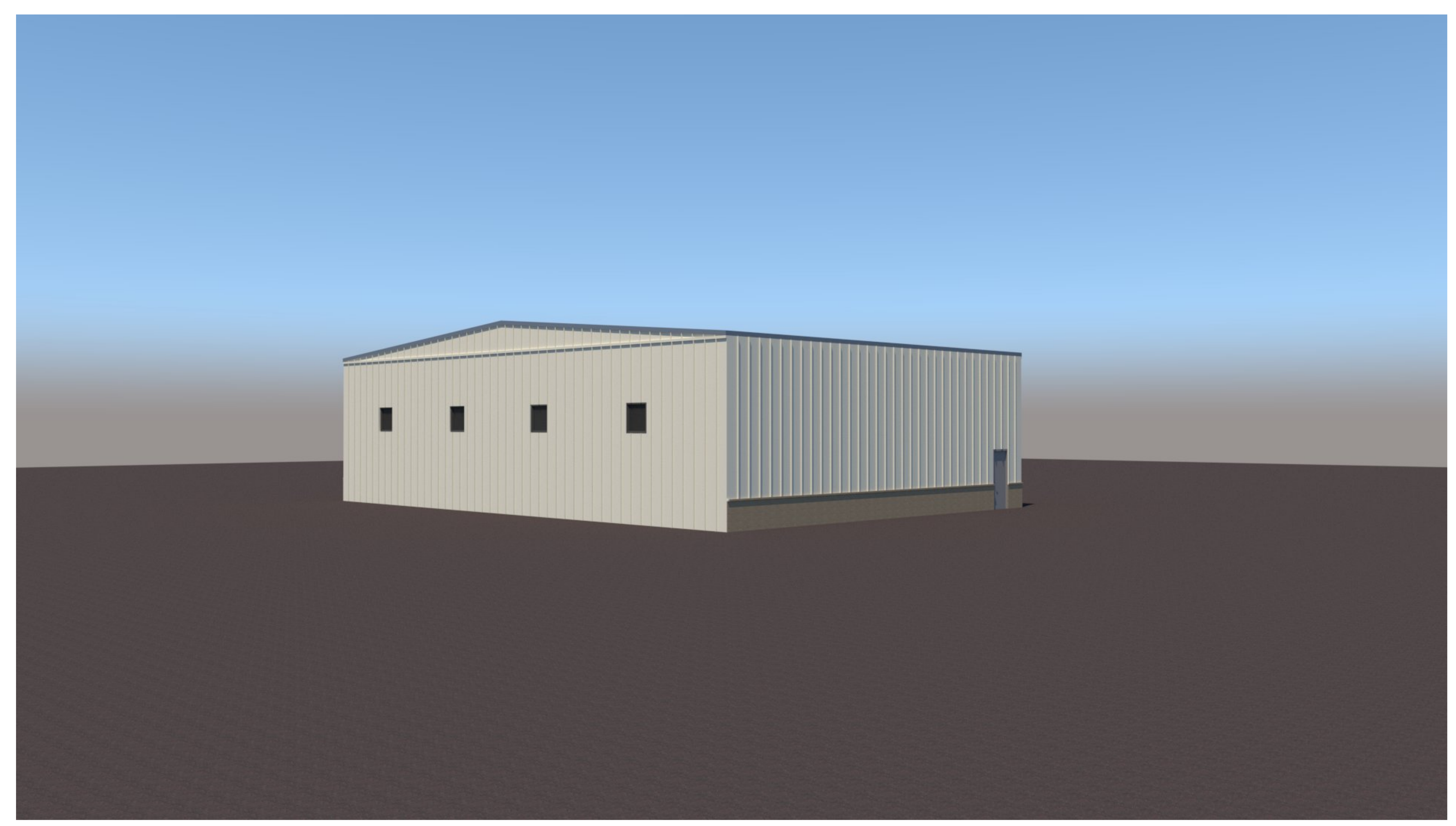
ELEVATIONS 2

SHEET NUMBER:

A-2.2

DRC Item 3





DJH

DRAFT & DESIGN

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805.975.3071

PLAN PREPARED FOR:

PAUL VIBORG
1541 NORTH RIVER ROAD
PASO ROBLES, CA 93446

LICENSED ARCHITECT
Ken Michio Nagahara
C24346
05-26-2025
Renewal Date
STATE OF CALIFORNIA

REVISION LOG

REV.	DESCRIPTION	DATE

PROJECT NO. ----

FILE NAME PS-1.1 PERSPECTIVE VIEW.DWG

DRAWN BY MTS

DATE 2/24/2025 9:16 AM

SHEET TITLE:

PERSPECTIVE VIEW

SHEET NUMBER:

PS-1.1

DRC Item 3

2022 CAL GREEN BUILDING STANDARD CODES: RESIDENTIAL MANDATORY MEASURES

CHAPTER 3
GREEN BUILDING
SECTION 301 GENERAL

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

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

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

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

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

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

SECTION 302 MIXED OCCUPANCY BUILDINGS

302.1 MIXED OCCUPANCY BUILDINGS. In mixed occupancy buildings, each portion of a building shall comply with the specific green building measures applicable to each specific occupancy.

Exceptions:

1. [HCD] Accessory structures and accessory occupancies serving residential buildings shall comply with Chapter 4 and Appendix A4, as applicable.
2. [HCD] For purposes of *CAL*Green, live/work units, complying with Section 419 of the *California Building Code*, shall not be considered mixed occupancies. Live/Work units shall comply with Chapter 4 and Appendix A4, as applicable.

DIVISION 4.1 PLANNING AND DESIGN

ABBREVIATION DEFINITIONS:

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

CHAPTER 4
RESIDENTIAL MANDATORY MEASURES

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

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

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

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

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

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

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

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

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

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

Exception: Additions and alterations not altering the drainage path.

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

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

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

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

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

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

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

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

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

Exceptions:

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

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

Notes:

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

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

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

Exception: Areas of parking facilities served by parking lifts.

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

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

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

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

Notes:

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

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

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

Exception: Areas of parking facilities served by parking lifts.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Notes:

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

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

DIVISION 4.2 ENERGY EFFICIENCY

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

DIVISION 4.3 WATER EFFICIENCY AND CONSERVATION

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

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

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

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

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

4.303.1.3 Showerheads.

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

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

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

4.303.1.4 Faucets.

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

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

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

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

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

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

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

TABLE H-2

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

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

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

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

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

TABLE - MAXIMUM FIXTURE WATER USE

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

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

NOTES:

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

DIVISION 4.4 MATERIAL CONSERVATION AND RESOURCE EFFICIENCY

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

4.408 CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING
4.408.1 CONSTRUCTION WASTE MANAGEMENT. Recycle and/or salvage for reuse a minimum of 75 percent of the non-hazardous construction and demolition waste in accordance with either Section 4.408.2, 4.408.3 or 4.408.4, or meet a more stringent local construction and demolition waste management ordinance.

Exceptions:

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

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

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

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

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

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

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

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

Notes:

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

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

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

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

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

DIVISION 4.5 ENVIRONMENTAL QUALITY

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

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

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

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

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

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LICENSED ARCHITECT
Ken Michio Nagahara
C24346
05-26-2025
Renewal Date
STATE OF CALIFORNIA

REVISION LOG

REV.	DESCRIPTION	DATE

PROJECT NO. ----
FILE NAME GC-2436.DWG
DRAWN BY MTS
DATE 2/24/2025 9:16 AM
SHEET TITLE:
CALIFORNIA GREEN CODE SHEET 1

SHEET NUMBER:
GC-1.1

DRC Item 3

2022 CAL GREEN BUILDING STANDARD CODES: RESIDENTIAL MANDATORY MEASURES

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

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

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

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

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

4.503 FIREPLACES

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

4.504 POLLUTANT CONTROL

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

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

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

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

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

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

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

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

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

TABLE 4.504.1 - ADHESIVE VOC LIMIT[1,2]

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

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

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

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

TABLE 4.504.2 - SEALANT VOC LIMIT

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

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

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

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

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

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

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

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

TABLE 4.504.5 - FORMALDEHYDE LIMITS[1]

MAXIMUM FORMALDEHYDE EMISSIONS IN PARTS PER MILLION

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

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

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

DIVISION 4.5 ENVIRONMENTAL QUALITY (continued)

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

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

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

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

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

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

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

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

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

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

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

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

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

4.505 INTERIOR MOISTURE CONTROL

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

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

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

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

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

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

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

4.506 INDOOR AIR QUALITY AND EXHAUST

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

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

Notes:

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

4.507 ENVIRONMENTAL COMFORT

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

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

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

CHAPTER 7
INSTALLER & SPECIAL INSPECTOR QUALIFICATIONS

702 QUALIFICATIONS

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

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

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

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

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

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

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

703 VERIFICATIONS

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

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LICENSED ARCHITECT
Michio Naga…
C24346
05-26-2025
Renewal Date
STATE OF CALIFORNIA

REVISION LOG

REV.	DESCRIPTION	DATE

PROJECT NO. ----
FILE NAME GC-2436.DWG
DRAWN BY MTS
DATE 2/24/2025 9:16 AM

SHEET TITLE:
CALIFORNIA GREEN CODE SHEET 2

SHEET NUMBER:
GC-1.2

DRC Item 3

ARCHITECTURAL NOTES AND SPECIFICATIONS

CODES AND STANDARDS

1. ALL WORK SHALL CONFORM WITH THE:

2022 CBC	2022 CEC
2022 CMC	2022 CPC
2022 CAL GREEN	2022 CFC
2022 CENC AND T-24	

LOCAL MUNICIPALITY STANDARDS AND ORDINANCES. WHERE A CONFLICT BETWEEN CODES AND ORDINANCES ARRISE, THE MOST STRINGENT REGULATION SHALL GOVERN. SPECIFICATIONS THAT REFERENCE CONDITIONS OUTSIDE THE SCOPE OF THIS PROJECT MAY BE OMITTED.

SECTION 120

1. 1403(D)(1) ALL SWINGING DOORS AND WINDOWS EXPOSED TO AMBIENT CONDITIONS OR TO UNCONDITIONED AREAS, SUCH AS GARAGES, SHALL BE FULLY WEATHER-STRIPPED, GASKETED OR OTHERWISE TREATED TO LIMIT INFILTRATION.
2. 1403(D)(1) ALL MANUFACTURED WINDOWS AND SLIDING GLASS DOORS SHALL MEET THE AIR INFILTRATION STANDARDS OF THE AMERICAN NATIONAL STANDARDS INSTITUTE WHEN TESTED IN ACCORDANCE WITH ASTM E282-73 AND SHALL BE CERTIFIED AND LABELED.
3. 1403(D)(2) ALL FAN SYSTEMS EXHAUSTING AIR FROM THE BUILDING ENVELOPE TO THE OUTSIDE SHALL BE PROVIDED WITH BACK-DRAFT DAMPERS OR AUTOMATIC DAMPERS.
4. 1404(D)(1) ALL TRANSVERSE DUCT, PLENUM, AND FITTED JOINTS SHALL BE SEALED WITH PRESSURE SENSITIVE TAPE OR MASTIC TO PREVENT AIR LOSS.
5. 1401(D)(2) INSULATION OF ALL DUCTS SHALL CONFORM TO THE PROVISIONS OF SECTION 1005 OF THE UNIFORM MECHANICAL CODE, CURRENT EDITION.
6. 1406(A) INDICATE THE MAKE AND MODEL NUMBER OF THE HOT WATER HEATER ON THE PLANS. THE UNIT MUST BE CERTIFIED BY THE CALIFORNIA ENERGY COMMISSION. (AMERICAN APPLIANCE G.V.F. 433-T).
7. 1406(D) RECIRCULATING HOT WATER PIPING IN ATTICS, GARAGES, CRAWL SPACES, OR UNHEATED SPACES OTHER THAN BETWEEN FLOORS OR IN INTERIOR WALLS SHALL BE INSULATED TO PROVIDE MAXIMUM LOSS OF NOT MORE THAN 50 BTU/HR. PER LINEAR FOOT FOR LARGER SIZES.
8. 1406(F) SHOWER HEADS, LAVATORY AND SINK FAUCETS MUST BE OF A MAKE AND MODEL NUMBER CERTIFIED BY THE CALIFORNIA ENERGY COMMISSION.

CARPENTRY

1. WOOD FRAMING MEMBERS TO BE AS FOLLOWS OR EQUAL EXCEPT AS SHOWN ON DRAWINGS:

A. POSTS	NO. 2 DOUGLAS FIR
B. COLUMNS	NO. 2 DOUGLAS FIR
C. JOISTS, BEAMS, AND STRINGERS	NO. 2 DOUGLAS FIR
D. BLOCKING, BRIDGING, 2X4 STUDS	UTILITY GRADE DOUGLAS FIR
E. STUDS 2X6 AND LARGER	NO. 2 DOUGLAS FIR
F. SILLS, SLEEPERS, PLATES, AND NAILING BLOCKS ON OR EMBEDDED IN CONCRETE	PRESSURE TREATED DOUGLAS FIR
G. DECKING (NOT EXPOSED)	UTILITY GRADE DOUGLAS FIR
H. DECKING (EXPOSED)	NO. 2 DOUGLAS FIR
I. RAFTERS	NO. 2 DOUGLAS FIR
J. HEADERS (INTERIOR)	NO. 2 DOUGLAS FIR
K. HEADERS (EXTERIOR)	NO. 2 DOUGLAS FIR

3. OTHER SIZES AS NOTED ON PLANS
4. ALL WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS.
5. ALL MISCELLANEOUS STEEL TO BE A-36, FABRICATED IN ACCORDANCE WITH AISC.
6. STEEL BOLTS TO BE A-307 OR BETTER. USE A-36 THREADED ROD WHEN COUPLING BOLT TO HOLDOWN & WHEN EPOXY IS REQUIRED.
7. ALL WELDING TO BE WITH E60XX OR E70XX ELECTRODES IN ACCORDANCE WITH AWS. (CERTIFIED WELDER).
8. ALL JOISTS OR BEAMS FRAMING INTO (NOT BEARING ON) BEAMS, HEADERS OR GIRDERS SHALL BE SUPPORTED WITH "U" TYPE "SIMPSON" OR EQUAL JOIST BEAM HANGERS. ALL POST-BEAM AND POST-FOOTING CONNECTIONS TO BE MADE WITH "SIMPSON" POST CAP AND POST BASE, AS REQUIRED.
9. BLOCK SOLID BETWEEN JOISTS AND RAFTERS AT BEARING WALLS. CROSS BRIDGE OR SOLID BLOCKING AT 8'-0" ON CENTER MAXIMUM WHEN DEPTH THICKNESS RATIO IS SIX TO ONE.
10. ALL PLYWOOD TO BE STANDARD GRADE WITH EXTERIOR GLUE. MINIMUM ROOF NAILING TO BE 8D AT 6-6-12" ON CENTER. MINIMUM FLOOR NAILING TO BE 10D AT 6-6-10" ON CENTER. STAGGER JOINTS ½". PLYWOOD INDEX I.D. FOR FLOORS 40/20 & ROOFS 32/16. CBC TABLE 2304.8(3)
11. DOUBLE FLOOR JOISTS UNDER BEARING PARTITIONS. CBC 2308.4.5
12. BUILDER SHALL PROVED A MINIMUM OF 22"X30" ACCESS READILY ACCESSIBLE TO ATTIC SPACES AND A MINIMUM OF 30"X30" ACCESS WITH ATTIC MOUNTED FURNACE. 30" HEAD SPACE IS REQUIRED. CBC 1208.2.
13. MINIMUM CEILING HEIGHT IN HABITABLE AREAS AND CORRIDORS TO BE 7'-0".
14. MINIMUM WIDTH FOR A CORRIDOR IS 36 INCHES FOR DWELLING UNITS OR OCCUPANT LOADS <50. CBC TABLE 1020.2
15. ALL EXTERIOR DOORS OR DOORS TO UNHEATED SPACES TO BE WEATHER-STRIPPED AND HAVE A SOLID CORE.
16. BUILDER TO PROVIDE VAPOR BARRIERS FOR FLOORS AND CEILINGS OF 15 LB. BUILDING PAPER OR KRAFT PAPER, FOIL BACK OR KRAFT BACK INSULATION AND 4 MIL POLYETHYLENE ON WARM SIDE OF INSULATION. REQUIRED TO 1 PERM.
17. SUPPORTING COLUMNS AND OTHER SUPPORTING ELEMENTS IN GARAGE(S) AND CARPORT(S) BENEATH ANOTHER STORY SHALL BE PROTECTED PER CBC 704
18. INSTALL TRUSS TIE-DOWNS AT EACH RAFTER TAIL, "SIMPSON" H-1 CLIPS.
19. DECK AND BALCONY GUARDRAILS TO BE MINIMUM OF 42" HIGH AND OPEN GUARDRAILS AND STAIR RAILING SHALL HAVE INTERMEDIATE RAILS OR ORNAMENTAL DESIGN SUCH THAT NO OBJECT 4" IN DIAMETER CAN PASS THROUGH. CBC 1015
20. STAIRWAY TO HAVE MAXIMUM RISE 7" AND MINIMUM RUN 11" CBC 10115.2. PROVIDE HANDRAIL FOR STAIRS WITH 4 OR MORE RISERS, GRIP PORTION OF HANDRAIL SHALL BE GREATER THAN 1-1/4" AND LESS THAN OR EQUAL TO 2" IN CROSS SECTIONAL DIMENSIONS CBC 1014. GUARDRAILS ARE REQUIRED FOR STAIRS AND PORCHES OVER 30" ABOVE GRADE CBC 1015. MINIMUM HEADROOM 80" CBC 1011.3. MINIMUM WIDTH PER CBC 1011.2.
21. GUARDRAILS, STAIR HANDRAILS, OR BALCONY RAILING SHALL BE DESIGNED TO RESIST A HORIZONTAL FORCE OF 50 LBS. PER LINEAL FOOT APPLIED AT THE TOP OF THE RAILING CBC 1607.8
22. MAXIMUM FLOOR LEVEL CHANGE AT DOOR IS 0.75" (½" HANDICAPPED ACCESS REQUIRED) EXCEPT IF STAIRS OR WHEN EXTERIOR LANDINGS ARE USED AND DOOR DOES NOT SWING OVER TOP STEP.
23. SILLS OF NON-BEARING PARTITIONS OR NON-SHEAR PARTITIONS MAY BE ATTACHED TO CONCRETE SLAB WITH RAMSET PINS #3320 OR #3348 AT 2'-0" ON CENTER. CHARGE TO BE USED SHALL BE DETERMINED BY DENSITY OF SLAB.
24. PROVIDE BRACING FOR EXTERIOR AND MAIN CROSS-STUD PARTITIONS. (FOR CONVENTIONAL LIGHT FRAME CONSTRUCTION ONLY) CBC 2308.6
25. BEARING WALLS SHALL BE BRACED AT EACH END OF OR AS NEAR AS POSSIBLE, AT EVERY 25' LINEAL WALL. THIS 1X6 NOTCHED BRACING TO RUN DIAGONALLY IN A STRAIGHT LINE FROM TOP PLATE TO THE BOTTOM PLATE AT AN ANGLE AS NEAR AS POSSIBLE TO 45 DEGREES BUT ALWAYS AT SUFFICIENT ANGLES TO INCLUDE 4 STUD SPACES.
26. PROVIDE LATERAL CROSS-BRACE AT PLATE LINE OF GARAGE (FOR CONVENTIONAL LIGHT FRAME CONSTRUCTION ONLY).
27. MANUFACTURERS CERTIFICATION OF GLU-LAM BEAMS SHALL BE PROPERLY IDENTIFIED FOR THE LOCATION AND SPECIFIC JOB SITE AT THE TIME OF INSPECTIONS CBC 2303.1.3.
28. ALL PLUMBING WALLS TO BE OF 2X6 MATERIALS EXCEPT WHERE NECESSARY.
29. ALL LUMBER SHALL HAVE A GRADE MARKED WITH A STAMP OF THE ASSOCIATION COVERING THE SPECIES AND UNDER WHOSE GRADING RULES IT WAS PRODUCED PER CBC 2303.1.1, 2303.1.5 AND 2303.2.4
30. TRUSSES TO BE FABRICATED IN A SHOP OF AN I.C.C. APPROVED FABRICATOR IN ACCORDANCE WITH CBC 2303.4 AND 1704.2.5
31. LAP ALL DOUBLE TOP PLATES PER FRAMING PLAN AT SPLICES.
32. SILLS TO BE DF PRESSURE-TREATED AT CONCRETE CBC 2304.12.1.2
33. FOUNDATION VENTS EQUAL TO ONE SQUARE FOOT FOR EACH 150 SQUARE FEET OF UNDERFLOOR AREA CBC 1202.4
34. WATER CLOSET COMPARTMENTS MUST HAVE 30" WIDTH AND 24" CLEAR IN FRONT OF THE WATER CLOSET.
35. RAFTERS SPANS SHALL COMPLY WITH AF&PA SPAN TABLES FOR JOISTS AND RAFTERS AND CBC TABLES 2308.7.2 (1-6)
36. FLOOR JOISTS SHALL COMPLY WITH SPAN CBC TABLES 2308.4.2.1(1) & (2).
37. CEILING JOIST SPANS SHALL COMPLY WITH CBC TABLES 2308.7.1 (1) & (2).
38. PROVIDE DRAFT STOPS AT ALL DUCTS, VENTS, FIREPLACE FLUE, AND VERTICAL FRAMED SHAFTS AS PER CBC 717.
39. PROVIDE FIRE BLOCKING AT FLOOR, CEILING COVES AND SOFFITS AS PER CBC 708.4.2
40. PROVIDE WEATHER PROTECTION PER CBC 1402.2.
41. ALL NAILING SHALL BE IN COMPLIANCE WITH CBC TABLE 2304.10.1.
4. PROVIDE FIRE PARTITIONS PER CBC 708 INCLUDING BUT NOT LIMITED TO CONCEALED SPACES OF STUD WALLS, INCLUDING FURRED AREAS WITH CONCEALED SPACES AT CEILING AND FLOOR LEVELS, AND AT 10' INTERVALS ALONG THE WALL LENGTH. ALSO PROVIDE FIRE STOPS AT ALL OPENINGS AROUND VENTS, PIPES DUCTS, CHIMNEYS, FIREPLACES, AND SIMILAR OPENINGS WHICH AFFORD PASSAGE OF FIRE BETWEEN FLOORS TO CEILINGS OR ATTICS
5. FIREPLACES: ALL FIREPLACES SHALL HAVE APPROVED CLOSEABLE METAL GLASS DOORS. OUTSIDE COMBUSTION AIR IS NOT REQUIRED ON INTERIOR FIREPLACES INSTALLED OVER A CONCRETE SLAB

ROOFING

1. IN ALL AREAS WHERE FIRE PROTECTION IS PROVIDED BY CALIFORNIA DEPARTMENT OF FORESTRY, THE ROOF COVERING SHALL BE MINIMUM CLASS "C" LISTED OR NON-COMBUSTIBLE TILE. CBC TABLE 1505.1
2. IN CALIFORNIA DEPARTMENT OF FORESTRY FIRE PROTECTION AREAS, THE INSTALLER OF THE ROOF COVERING SHALL PROVIDE CERTIFICATION TO THE BUILDING OWNER, AND TO THE INSPECTION AUTHORITY HAVING JURISDICTION.
3. ALL ROOFING SHALL BE APPLIED ACCORDING TO MANUFACTURERS RECOMMENDATIONS OVER A 15 LB ASPHALT FELT DRY SHEET. USE 30 LB. FELT AT CLAY OR CONCRETE TILE ROOFING. WOOD SHAKES TO BE INTERLACED WITH AN 18" WIDE STRIP OF 30 LB A.S.F.
4. ROOF COVERINGS AND INSTALLATION SHALL CONFORM TO CBC 1507 AND TABLES 1507.1.1 (1-3), 1507.2.8.2, 1507.3.7,1507.4.3(1-2) AND 1507.7.6.
5. ALL FLASHINGS TO BE IN COMPLIANCE WITH CBC 1503.2 & 1507.
6. PROVIDE RAFTER TIES AT EXPOSED ROOF (PITCHED CEILING), EITHER MECHANICAL TIES AT RIDGE, 2 FT. O.C. OR EQUIVALENT MATERIAL CBC 2308.7.5.
7. ROOF BRACING AND PURLINS SHALL BEAR TO PARTITIONS CBC 2308.7.7

SHEET METAL

1. PROVIDE AND INSTALL SHEET METAL DUCTS FROM ALL HOODS AND EXHAUST FANS TO OUTSIDE
2. ALL REQUIRED FLASHINGS TO BE 26 GA. GALVANIZED METAL, INCLUDING GUTTERS AND DOWNSPOUTS.
3. HEATING DUCTS TO BE INSTALLED WITHOUT IMPINGEMENT ON BUILDING SURFACE.
4. ALL METHODS OF FLASHING AND COUNTER FLASHING CHIMNEY, PARAPETS, BALCONIES, LANDING, EXTERIOR STAIRWAYS, ROOF TO WALL CONNECTIONS SHALL BE IN COMPLIANCE WITH CBC 1507
5. PROVIDE AN APPROVED FLASHING FOR EXTERIOR OPENINGS AND PARAPET WALLS CBC 1402.4

PLUMBING

1. PROVIDE AND INSTALL PLUMBING AND FIXTURES AS INDICATED ON PLANS ACCORDING TO STATE AND LOCAL PLUMBING CODES
2. NO PLUMBING VENTS ARE TO BE LOCATED WITHIN 3 FEET FROM A PROPERTY LINE.
3. WATER CLOSETS TO BE WATER SAVER TYPES: AMERICAN STANDARD #2122.448 OR EQUAL.
4. PROVIDE INSECT AND RODENT PROOFING WHERE ALL PLUMBING, WIRING AND VENTS PASS THROUGH THE PLATE
5. PROVIDE A WATER HEATER WITH A PRESSURE RELIEF VALVE HAVING A FULL SIZED DRAIN OF GALVANIZED STEEL OR HARD DRAWN COPPER TO THE OUTSIDE OF THE BUILDING WITH THE END NOT MORE THAN 2 FEET OR LESS THAN 6" ABOVE GRADE, POINTING DOWNWARD, THE TERMINAL END BEING UNTHREADED. CPC 504 & 507
6. WATER HEATERS CAPABLE OF IGNITING FLAMMABLE VAPORS SHALL BE INSTALLED ON AND 18" HIGH PLATFORM IF LOCATED IN A RESIDENTIAL GARAGE. ALL WATER HEATERS WITHIN A CABINET SHALL HAVE COMBUSTION AIR AS REQUIRED PER CPC 506
7. TOILET TO HAVE A MAXIMUM GALLON PER FLUSH PER CGBSC OR LOCAL JURISDICTION, WHICHEVER IS MORE RESTRICTIVE
8. SHOWER HEAD FLOW SHALL BE PER CGBSC OR LOCAL JURISDICTION, WHICHEVER IS MORE RESTRICTIVE
9. PROVIDE SEISMIC ANCHOR OR STRAP AND WRAP WATER HEATER
10. RESIDENTIAL LAVATORY / SINK FIXTURES FLOW SHALL BE PER CGBSC OR LOCAL JURISDICTION, WHICHEVER IS MORE RESTRICTIVE
11. NONRESIDENTIAL LAVATORY / SINK FIXTURES FLOW SHALL BE PER CGBSC OR LOCAL JURISDICTION, WHICHEVER IS MORE RESTRICTIVE
12. KITCHEN FAUCET FLOW SHALL BE PER CGBSC OR LOCAL JURISDICTION, WHICHEVER IS MORE RESTRICTIVE
13. WATER HEATER EQUIPMENT CERTIFIED BY CEC (2-5307)(A) TITLE 24 CAC
14. NO GAS PIPING SHALL BE INSTALLED IN OR ON THE GROUND, UNDER ANY BUILDING OR STRUCTURE. ALL EXPOSED GAS PIPING SHALL BE KEPT AT LEAST 6" ABOVE GRADE OR STRUCTURE
15. SHOWER STALL MUST CONFORM TO THE REQUIREMENTS OF CBC 2509
16. MAIN PLUMBING DRAIN SIZE AND LOCATION SHALL CONFORM TO CPC (FOUR WATER CLOSETS REQUIRE A 4" DIAMETER DRAIN PIPING)
17. WATER PRESSURE NOT TO EXCEED 80 PSI. IF WATER PRESSURE EXCEEDS 80 PSI OR AS DETERMINED BY BUILDING OFFICIALS, A PRESSURE RELIEF VALVE (PRV) SHALL BE USED
18. ALL OVERHEAD POTABLE WATER PIPING, AND ANY BRANCH FEED PIPES LOCATED IN OUTSIDE WALLS SHALL BE CONSTRUCTED OF TYPE L COPPER OR PEX.
19. OVERHEAD POTABLE WATER PIPING LOCATED IN ATTIC SPACES, IN UNDER FLOOR AREAS, AND EXTERIOR WALLS SHALL BE COVERED WITH INSULATION PROVIDING A MINIMUM RESISTANCE FACTOR OF R-3 OR GREATER. THE R-3 PIPE INSULATION SHALL BE IN ADDITION TO WALL INSULATION REQUIRED BY CALIFORNIA ENERGY STANDARDS
20. WHERE CONDENSATE OR DEFROST LIQUIDS ARE GENERATED IN AN ATTIC OR FURRED SPACE AND DAMAGE MAY RESULT FROM OVERFLOW, A SECONDARY WATER-TIGHT PAN OF CORROSION RESISTANT METAL SHALL BE INSTALLED BENEATH THE COOLING COIL OR UNIT TOP TO CATCH THE OVERFLOW CONDENSATE. THE PAN SHALL BE PROVIDED WITH A MINIMUM 3/4" Ø DRAIN WHICH IS TRAPPED AND VENTED AND SHALL BE DISCHARGED AT A POINT WHICH CAN BE READILY OBSERVED [CPC 814.2]
21. HOT WATER, COLD WATER AND GAS PIPING SHALL BE BONDED TO MAIN ELECTRICAL PANEL IN AN APPROVED MANNER [CEC 250.3 (8)]

UTILITY

1. CLOTHES DRYER SHALL BE VENTED TO EXTERIOR OF BUILDING
2. L.P.G. APPLIANCES SHALL NOT BE IN A BELOW GROUND PIT, BASEMENT OR OTHER SIMILAR LOCATION
3. APPLIANCES INSTALLED IN ABOVE GRADE UNDER FLOOR SPACE OR BASEMENT SHALL BE PROVIDED WITH AN APPROVED MEANS FOR REMOVAL OF UNBURNED GAS
4. APPLIANCES GENERATING A GLOW, SPARK OR FLAME MUST BE AT LEAST 18 INCHES ABOVE FLOOR LEVEL IN A GARAGE
5. PROVIDE COMBUSTION AIR OPENINGS WITHIN 12" OF THE FLOOR AND CEILING FOR GAS BURNING EQUIPMENT
6. GAS COOKING APPLIANCES SHALL HAVE INTERMITTENT IGNITION DEVICES.

HEATING AND AIR CONDITIONING

1. DUE TO CLIMACTIC VARIATIONS IN LOCATION, BUILDER OR HEATING CONTRACTOR TO PROVIDE HEAT LOSS CALCULATIONS AND LAYOUT.
2. SPECIFY HEATING TYPE AND FUEL AS SELECTED BY OWNER. BUILDER TO MAKE NECESSARY CHANGES IN PLANS TO ACCOMMODATE CHIMNEYS, VENTS, ETC. TO BE LOCATED AND INSTALLED AS REQUIRED.
3. ALL DUCTS TO BE INSTALLED WITHOUT IMPINGEMENT ON BUILDING SURFACES.
4. PROVIDE FURNACE ACCESS AND CLEARANCE AS REQUIRED BY 2022 CPC AND OTHER APPLICABLE CODES.
5. BUILDER TO PROVIDE ORIGINAL OCCUPANT WITH A LIST OF HEATING, COOLING, WATER HEATING AND LIGHTING SYSTEMS AND CONSERVATION OR SOLAR DEVICES.
6. HEATING SYSTEM TO PROVIDE 70° F @ 3'-0" ABOVE FLOOR IN EACH HABITABLE ROOM. CBC 1203.1
7. WARM AIR FURNACES ARE NOT PERMITTED IN A BEDROOM, BATHROOM, OR CLOSETS.
8. THERMOSTATICALLY CONTROLLED HEATING AND COOLING SYSTEMS (EXCEPT HEAT PUMPS) SHALL HAVE AN AUTOMATIC THERMOSTAT WITH A CLOCK MECHANISM IN WHICH THE OCCUPANT CAN MANUALLY PROGRAM TO AUTOMATICALLY SET BACK THE THERMOSTATS SET POINTS FOR AT LEAST 2 PERIODS WITHIN 24 HOURS.
9. FOR FURNACE AND WATER-HEATERS LOCATED IN ATTIC OR UNDER-FLOOR SPACES PROVIDE THE FOLLOWING :
   - A. AN ACCESS OPENING AND PASSAGE WAY OF SUFFICIENT SIZE TO PERMIT REMOVAL OF THE LARGEST PIECE OF THE FURNACE OR WATER HEATER (30" X 30" MIN.) ACCESS OPENING TO BE WITHIN 20' OF UNIT.
   - B. ATTIC PASSAGE WAY TO HAVE CONTINUOUS FLOORING, 24" WIDE MINIMUM.
   - C. A LEVEL WORKING PLATFORM OF NOT LESS THAN 30" IN DEPTH IN FRONT OF FIREBOX OR FURNACE OR IF FURNACE TEMPERATURE LIMIT CONTROL, VENT COLLAR, AIR FILTER, FUEL CONTROL VALVE, OR AIR HANDLING UNIT IS NOT SERVICEABLE FROM FIREBOX SIDE A CONTINUOUS FLOOR NOT LESS THAN 24" IN WIDTH SHALL BE PROVIDED FROM THE PLATFORM, FIREBOX SIDE, TO AND IN FRONT OF THIS EQUIPMENT.
   - D. UNDER FLOOR FURNACE IS SUPPORTED FROM THE GROUND SHALL REST ON A CONCRETE SLAB 3" MIN., ABOVE ADJOINING GROUND.
   - E. SUSPENDED FURNACES MUST HAVE MIN. 6" CLEARANCE TO GROUND.
   - F. FURNACE ROOM SHALL BE 12" WIDER THAN FURNACE. MIN. CLEAR WORKING SPACE TO BE 3" ON SIDES, BACK, AND TOP.
   - G. A 30" DEEP WORKING SPACE SHALL BE PROVIDED ALONG ENTIRE FRONT OF FIRE BOX SIDE OF FURNACE WHEN DOOR IS OPEN.
   - H. AN UNOBSTRUCTED ACCESS WORKING SPACE NOR LESS THAN 24" IN WIDTH AND 30" IN HEIGHT SHALL BE PROVIDED AT AIR FILTERS, FUEL CONTROL VALVES, VENT COLLARS, AIR HANDLING UNITS AND EXTERNALLY MOUNTED CONTROLS (15" IN THE LEAST DIMENSION IF EQUIPMENT CAN BE SERVICED FROM OPENING WITHOUT REMOVING PERMANENT CONSTRUCTION).
10. HEAT PUMPS: SHALL BE INSTALLED WITH A CONTROL TO PREVENT SUPPLEMENTARY HEATER OPERATION WHEN THE HEATING LOAD CAN BE MET BY THE HEAT PUMP ALONE. SUPPLEMENTARY HEATER OPERATION IS PERMITTED DURING TRANSIENT PERIODS, AS START-UPS FOLLOWING ROOM THERMOSTATS SET-POINT ADVANCE, AND DURING DEFROST. SUPPLEMENTARY HEAT MAY BE DERIVED FROM ANY SOURCE OF ELECTRIC RESISTANCE HEATING OR COMBUSTION HEATING.
11. IN ALL BATHS AND UTILITY AREAS NOT HAVING OPENABLE WINDOWS, INSTALL EXHAUST FANS CAPABLE OF PROVIDING AT LEAST 5 AIR CHANGES PER HOUR PER ROOM.

LIGHTING

1. LIGHTING IN KITCHEN AND BATHROOMS SHALL BE SEPARATELY SWITCHED TO APPROVED FIXTURES WITH A MINIMUM EFFICIENCY OF AT LEAST 40 LUMENS PER WATT (FLUORESCENT FIXTURES).
2. ALL RECESSED LIGHT FIXTURES INSTALLED IN AREAS TO RECEIVE INSULATION SHALL BE IC RATED UNITS (INSULATION ZERO CLEARANCE TYPE) AND NO PENETRATION OR REMOVAL OF INSULATION SHALL BE ALLOWED.
3. FLUORESCENT LIGHTING SHALL BE USED FOR GENERAL LIGHTING IN A BATHROOM OR ADJACENT ROOM WITH BATHROOM PLUMBING SUCH AS A LAVATORY AREA.

ELECTRICAL

1. ALL ELECTRICAL WIRING AND INSTALLATIONS SHALL BE AS REQUIRED BY STATE AND LOCAL ELECTRICAL CODES.
2. EACH DWELLING SHALL BE PROVIDED WITH AN APPROVED SMOKE DETECTION UNIT LOCATED AS SHOWN ON PLANS. THE UNIT SHALL BE INSTALLED IN AN AREA THAT IS CENTRALLY LOCATED GIVING EGRESS TO ALL ROOMS THAT ARE USED AS SLEEPING AREAS. CARE SHOULD BE EXERCISED TO ENSURE THAT INSTALLATION DOES NOT INTERFERE WITH THE OPERATING CHARACTER OF THE DETECTOR. WHEN ACTIVATED THE DETECTOR SHALL PROVIDE AN AUDIBLE ALARM TO BE HEARD IN ALL SLEEPING AREAS PER CBC 907.2.10.5. CONNECT TO HOUSE CURRENT AND PROVIDE BATTERY BACK-UP CBC 907.2.10.6. LOCATION OF SMOKE DETECTOR TO BE PER CBC 907.2.10.
3. PROVIDE AN ATTIC LIGHT SWITCH TO ATTIC LIGHT AT 5'-0" ABOVE FINISH FLOOR.
4. ALL WIRING TO BE ROMEX.
5. PROVIDE A PERMANENT ELECTRICAL OUTLET AND LIGHTING FIXTURE AT OR NEAR THE FURNACE OR WATER HEATER CONTROLLED BY A SWITCH LOCATED AT THE REQUIRED ACCESS OPENING.
6. ALL RECEPTACLES IN BATHROOMS, KITCHEN (COUNTER AREA), GARAGES, ACCESSORY BUILDINGS AT OR BELOW GRADE LEVEL INTENDED FOR HABITATION OR STORAGE / WORK AREAS, CRAWL SPACES AT OR BELOW GRADE LEVEL, BASEMENTS AND LAUNDRY AREAS SHALL BE G.F.C.I. CIRCUIT PROTECTION CEC 210.8
7. IN DINING AREA, A RECEPTACLE OUTLET SHALL BE INSTALLED AT EACH COUNTER SPACE WIDER THAN 12" CEC 210.52(C).
8. ELECTRICAL OUTLETS SHALL BE INSTALLED SO THAT AT NO POINT AROUND THE PERIMETER WALL OF ANY HABITABLE ROOM IS THERE NO MORE THAN 6' MEASURED HORIZONTALLY FROM SUCH AN OUTLET, INCLUDING ANY WALL 2' OR WIDER. (BATHROOM AND UTILITY ROOMS EXCEPTED). CEC 210.52(A).
9. AT LEAST ONE (1) WALL SWITCH CONTROLLED LIGHTING OUTLET SHALL BE INSTALLED IN EVERY HABITABLE ROOM, IN HALLWAYS, BATHROOMS STAIRWAYS, ATTACHED GARAGES, AND AT OUTDOOR ENTRANCES. AT LEAST ONE (1) LIGHTING OUTLET OUTLET SHALL BE INSTALLED IN AN ATTIC UNDER FLOOR SPACE, UTILITY ROOM, AND BASEMENT USED FOR STORAGE OR CONTAINING EQUIPMENT CEC 210.70.
10. COMPLETELY ENCLOSED CEILING MOUNTED LIGHT FIXTURES IN CLOTHES CLOSETS SHALL BE MIN 12" FROM EDGE OF SHELVES MEASURED HORIZONTALLY RECESSED AND FLUORESCENT FIXTURES MIN. 6". PENDANT LIGHTS ARE NOT PERMITTED. CEC 410.16.
11. 200 AMP ELECTRICAL METER WITH #4 UFER GROUND TO FOUNDATION FOR EACH DWELLING.
12. GFIC OUTLETS ON ALL ABOVE COUNTER OUTLETS IN KITCHEN MOUNTED +44" ABOVE FINISH FLOOR (TYP). OUTLETS SHALL BE LOCATED NO FARTHER THAN 24" AWAY FROM ANY POINT ALONG THE COUNTER AREA WIDER THAN 12". ON ANY PENINSULA / EATING BAR OUTLETS SHALL BE MOUNTED AT +27" ABOVE FINISH FLOOR AND SHALL BE LOCATED NO FARTHER THAN 24" AWAY FROM ANY POINT ALONG PENINSULA / EATING BAR. AT EATING BAR FACING KITCHEN SET GFIC AT +39", TURN OUTLET SIDEWAYS TO CLEAR COUNTER.
13. GFIC OUTLETS ON ALL ABOVE COUNTER OUTLETS IN BATHROOMS MOUNTED AT +42" ABOVE FINISH FLOOR (TYP).
14. GFIC OUTLETS ON ALL ABOVE COUNTER OUTLETS IN GARAGE MOUNTED AT +44" ABOVE FINISH FLOOR (TYP).
15. PROVIDE 110 V CEILING OUTLET FOR GARAGE DOOR OPENER.
16. PROVIDE WATERPROOF GFIC OUTLETS AT +18" ABOVE FINISH GRADE IN FRONT AND REAR OF BUILDING.
17. PROVIDE GFIC OUTLETS AT +27" ABOVE FINISH FLOOR ON ISLAND (SIDES OF ISLAND UNIT).
18. GFIC OUTLETS AT +44" ABOVE FINISH FLOOR IN LAUNDRY ROOM AT COUNTER.
19. PROVIDE GAS, 220V OUTLET, AND 110V OUTLET TO STOVE, COOK TOP, AND / OR OVENS (TYP). ALSO PROVIDE ELECTRICAL FOR EXHAUST HOOD ABOVE COOKTOP (TYP)
20. ALL NON-LOCKING OUTLETS WITHIN 5.5FT FROM FLOOR SHALL BE TAMPER RESISTANT
21. BRANCH CIRCUITS SERVING OUTLETS OF ANY DWELLING ROOMS, HALLWAYS, OR CLOSETS SHALL BE AFCI
22. PROVIDE CLEARANCES AROUND THE FAN AS REQUIRED BY THE 2022 CMC AND OTHER APPLICABLE CODES.
23. TWO 20-AMP SMALL-APPLIANCE BRANCH CIRCUITS REQUIRED IN KITCHEN AND SHALL SERVE ALL WALL AND FLOOR RECEPTACLES, ALL COUNTERTOP OUTLETS, AND RECEPTACLE OUTLETS FOR REFRIGERATION EQUIPMENT (CEC 210.52 (B))
24. LIGHTING NOTES:
   - 24.1. LIGHTING IN KITCHEN AND BATHROOMS SHALL BE SEPARATELY SWITCHED TO APPROVED FIXTURES WITH A MINIMUM EFFICIENCY OF AT LEAST 40 LUMENS PER WATT (FLUORESCENT TYPE FIXTURES).
   - 24.2. ALL RECESSED LIGHT FIXTURES INSTALLED IN AREAS TO RECEIVE INSULATION SHALL BE "IC" RATED UNITS (INSULATION ZERO CLEARANCE TYPE) AND NO PENETRATION OR REMOVAL OF INSULATION SHALL BE ALLOWED.
   - 24.3. FLUORESCENT LIGHTING SHALL BE USED FOR GENERAL LIGHTING IN A BATHROOM OR ADJACENT ROOM WITH BATHROOM PLUMBING SUCH AS LAVATORY AREA.
25. ALL BRANCH CIRCUITS (INCLUDING THE KITCHEN), EXCEPT THOSE IN THE BATHROOMS AND GARAGE SHALL BE PROTECTED BY LISTED, COMBINATION AFCI DEVICES (THIS INCLUDES THE KITCHEN)
26. IN ALL AREAS SPECIFIED BY 210.52 AND 550.13 CEC, ALL 125-VOLT, 15 AND 20-AMPERE RECEPTACLES SHALL BE LISTED TAMPER RESISTANT RECEPTACLES

WINDOWS

1. SAFETY GLAZING SHALL BE PER CBC 2406 AND LOCATED IN BUT NOT LIMITED TO THE FOLLOWING AREAS, (A) ALL DOORS; (B) WITHIN 24" OF DOORS; (C) WITHIN 18" OF FLOORS; (D) WITHIN TUB / SHOWER ENCLOSURES; (E) WITHIN HOT TUBS, WHIRLPOOL, SAUNA, SAUNA AND STEAM ROOMS; (F) GLAZING IN PORTION OF BUILDING WALL ENCLOSING THESE COMPARTMENTS WHERE THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 60" ABOVE A STANDING DRAIN.
2. ALL GLASS TO BE DUAL GLAZED, EXCEPT IN GARAGE.
3. ALL SKYLIGHTS WITHIN DWELLING TO BE DUAL GLAZED. IF JOB BUILT, A 1/16" PLASTIC PANEL MAY BE ADDED TO INSIDE. ALL GLASS IN SKYLIGHTS SHALL BE WIRE GLASS OR TEMPERED GLASS, MINIMUM THICKNESS 7/32". APPROVED PLASTICS MAY ALSO BE USED.
4. SKYLIGHT SHALL COMPLY WITH CBC 2606 (PLASTICS) OR CBC 2405 (GLAZING).
5. GLAZING IN AREAS SUBJECT TO HUMAN IMPACT OR HAZARDOUS LOCATIONS SHALL BE OF SAFETY GLAZING MATERIALS, SUCH AS LAMINATED GLASS, TEMPERED GLASS, WIRE GLASS AND SAFETY PLASTIC CBC SEC. 2406.4, INCLUDING GLAZING IN FIXED OR OPERABLE PANELS ADJACENT TO A DOOR IN A CLOSED POSITION AND WHERE THE NEAREST EXPOSED EDGE OF THE GLAZING IS WITHIN 24" ARC OF EITHER EDGE OF DOOR IN A CLOSED POSITION AND WHERE THE EXPOSED EDGE OF THE GLAZING IS LESS THAN 60" ABOVE THE WALKING SURFACE.
6. SLIDING GLASS DOORS TO BE TEMPERED.
7. UNLESS AN EXTERIOR DOOR IS PROVIDED, ONE WINDOW IN EACH BEDROOM SHALL HAVE A FINISHED HEIGHT OF NOT MORE THAN 44" ABOVE FINISH FLOOR. SUCH WINDOWS SHALL HAVE A CLEAR OPENABLE AREA OF NOT LESS THAN 5.7 SQ. FT. WITH NO DIMENSION LESS THAN 20" IN WIDTH OR 24" IN HEIGHT CBC 1030.
8. WINDOW AREA MUST BE AT LEAST 8% OF THE FLOOR AREA, 10 SQ. FT. MIN. IN HABITABLE ROOMS AND SHALL BE PROVIDED WITH NATURAL VENTILATION BY MEANS OF OPENABLE EXTERIOR OPENINGS WITH AREA OF NOT LESS THAN 4% OF THE FLOOR AREA OF SUCH WITH A MINIMUM OF 5 SQ. FT. CBC 1202.5.1
9. SHOWER DOORS AND BATH ENCLOSURES NOT TO BE LESS THAN 3/16" FULL TEMPERED SAFETY GLASS.
10. GLASS WINDOWS AND DOORS INCLUDING SHOWER ENCLOSURES SUBJECT TO HUMAN IMPACT MUST HAVE SAFETY GLAZING OR PROTECTIVE GRILL OR PUSH BAR CBC 2406.

INSULATION

1. ALL HEATING DUCTS LOCATED IN UNHEATED SPACES TO BE WRAPPED WITH 2" OF DUCT INSULATION. FLOOR INSULATION TO BE MINIMUM R-19.
2. CEILING INSULATION TO BE R-30 OR AS REQUIRED BY ENERGY CALCULATIONS.
3. ALL INSULATION TO BE CERTIFIED AND LABELED AS COMPLYING WITH THE CEC'S STANDARDS FOR INSULATING MATERIALS.
4. ALL EXTERIOR WALLS TO BE CAULKED BETWEEN SOLE PLATES AND FLOOR AND BETWEEN EXTERIOR WALL PANELS.
5. PROVIDE SOUND INSULATION IN PARTY WALLS EQUAL TO A SOUND TRANSMISSION CLASS 50 (STC 50) OR MORE. CAC T-25-1092
6. THE INSULATION INSTALLER SHALL POST IN A CONSPICUOUS LOCATION IN THE BUILDING A CERTIFICATE SIGNED BY THE INSTALLER AND THE BUILDER STATING THE INSULATION CONFORMS WITH REQUIREMENTS OF TITLE 24. PART 2 CHAPTER 2-53, & THE MATERIALS INSTALLED CONFORM WITH THE REQUIREMENTS OF TITLE 20, CHAPTER 7, SUB-CHAPTER 4, ARTICLE 3. THIS CERTIFICATE SHALL STATE THE MANUFACTURER'S NAME AND MATERIAL IDENTIFICATION, THE INSTALLED WEIGHT PER SQUARE FOOT CONSISTENT WITH THE MANUFACTURER'S LABELED DENSITY FOR THE DESIRED "R" VALUE. (SECTION 1403(D), TITLE 20 CAC)

DRYWALL / EXTERIOR FINISH

1. ALL UTILITY AREAS CONTAINING LAUNDRY FACILITIES SHALL BE FINISHED ON WALLS AND CEILING WITH WATERPROOF GYPSUM BOARD OR OTHER WATERPROOF MATERIAL.
2. ALL WALL SURFACES BEHIND CERAMIC TILE OR OTHER FINISH WALL MATERIALS ARE TO BE CONSTRUCTED OF MATERIAL NOT ADVERSELY AFFECTED BY WATER. (IF GYPSUM BOARD IS USED, IT MUST BE APPROVED WR BOARD INSTALLED ACCORDING TO CBC STANDARDS)
3. FIRE SEPARATION BETWEEN DWELLINGS AND ENCLOSED GARAGES TO BE APPROVED FIRE SEPARATION RATED MATERIAL. GARAGE DOOR TO BE 1 3/8" SELF-CLOSING SOLID CORE DOOR. SEPARATION TO EXTEND FROM ROOF SHEATHING TO CONCRETE FLOOR. CARPORT OPENING ON (2) SIDES REQUIRE NO FIRE SEPARATION. ANY WINDOWS OPENING TO CARPORT ARE TO BE FIXED AND DOORS
4. PROVIDE ONE-HOUR FIRE RESISTANT CONSTRUCTION THROUGHOUT FOR GROUP R, DIVISION 1 OCCUPANCIES TWO-STORIES OR MORE IN HEIGHT OR HAVING MORE THAN 3000 SQ. FT. OF FLOOR AREA ABOVE THE FIRST STORY EXCEPT AS PROVIDED IN SECTION 406.3. ARE TO BE SELF-CLOSING AS PER GARAGE REQUIREMENTS CBC 406.3.2.1.
5. PROVIDE AN APPROVED WATERPROOF BUILDING PAPER UNDER WOOD SIDING. CBC 1402.2
6. VENEER INSTALLATION TO COMPLY WITH CBC SECTION 1403.
7. LATHING AND PLASTERING SHALL COMPLY WITH LOCAL REQUIREMENTS.
8. LOCATE A 26 GA. G.I. STUCCO WEEP SCREED AT BOTTOM OF ALL STUCCO WALLS, PER CBC 2512.1.2

CABINETS AND MILLWORK

1. CABINET MAKER TO VERIFY ALL DIMENSIONS ON JOB BEFORE ASSEMBLY OF CABINETWORK AS SHOWN ON PLAN.
2. PROVIDE A 4" TOE SPACE AT ALL KITCHEN AND VANITY CABINETS.
3. HEIGHT TO COMBUSTIBLE MATERIAL ABOVE KITCHEN RANGES, 30" (UNPROTECTED), 24" (PROTECTED).

MISCELLANEOUS

1. ALL GARAGE DOORS TO BE EQUIPPED WITH APPROVED SAFETY SPRINGS.
2. EQUIPMENT WHICH REQUIRES PREVENTATIVE MAINTENANCE TO MAINTAIN EFFICIENT OPERATION SHALL BE FURNISHED WITH COMPLETE NECESSARY MAINTENANCE INFORMATION.
3. AN UNDER-FLOOR PLENUM SPACE MUST MEET THE REQUIREMENTS OF CMC.
4. PLANS AND SPECIFICATIONS SHOULD BE PROVIDED BY THE CLIENT TO SOILS ENGINEER PRIOR TO GRADING. PLANS SHOULD INCLUDE GRADING PLANS, FOUNDATION PLANS, FOUNDATION DETAILS AND STRUCTURAL CALCULATIONS. STRUCTURAL LOADS SHOULD BE SHOWN ON THE STRUCTURAL CALCULATIONS.
5. SAFETY GLAZING SHALL BE PER CBC 2406 AND LOCATED IN BUT NOT LIMITED TO THE FOLLOWING AREAS: (A) ALL DOORS; (B) WITHIN 24" OF DOORS; (C) WITHIN 18" OF FLOORS; (D) WITHIN TUB/SHOWER ENCLOSURES; (E) WITHIN HOT TUBS, WHIRLPOOL, SAUNA AND STEAM ROOMS; (F) GLAZING IN A PORTION OF A BUILDING WALL ENCLOSING THESE COMPARTMENTS WHERE THE BOTTOM EDGE OF GLAZING IS LESS THAN 60" ABOVE AN STANDING SURFACE AND DRAIN INLET.
6. FIRE STOPPING OR FIRE BLOCKS WHERE COMBUSTIBLE CONSTRUCTION OCCURS SHALL BE INSTALLED IN THE FOLLOWING LOCATIONS: A) IN CONCEALED SPACES OF STUD WALLS AND PARTITIONS INCLUDING FURRED SPACES, AT THE CEILING AND FLOOR LEVELS AND AT 10 FOOT INTERVALS BOTH VERTICAL AND HORIZONTAL; B) AT ALL INTERCONNECTIONS BETWEEN CONCEALED VERTICAL AND HORIZONTAL SPACES SUCH AS OCCUR AT SOFFITS, DROP CEILINGS AND COVE CEILINGS; C) IN CONCEALED SPACES BETWEEN STAIR STRINGERS AT THE TOP AND BOTTOM OF RUN AND BETWEEN STUDS ALONG AND IN LINE WITH THE RUN OF STAIRS IF THE WALLS UNDER STAIRS ARE UNFINISHED; D) IN OPENINGS AROUND VENTS, PIPES, DUCTS, CHIMNEYS, FIREPLACES AND SIMILAR OPENINGS WHICH AFFORD PASSAGE FOR FIRE AT CEILING AND FLOOR LEVELS, WITH NON COMBUSTIBLE MATERIALS; AND E) AT OPENINGS BETWEEN ATTIC SPACES AND CHIMNEY CHASES FOR FACTORY-BUILT CHIMNEYS. FIRE BLOCK CONSTRUCTION SHALL BE IN ACCORDANCE WITH CBC 718.
7. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE SPRINKLER SYSTEM (IF REQUIRED) WITH MECHANICAL, PLUMBING, ELECTRICAL, STRUCTURAL AND ARCHITECTURAL SYSTEM TO AVOID CONFLICTS. IF ANY SUCH CONFLICTS DO OCCUR, THEY SHALL BE REPORTED IMMEDIATELY TO THE OWNER AND/OR AGENT OF THE OWNER. WORK SHALL NOT PROCEED IN THE AREA OF CONFLICTS UNTIL THEY HAVE BEEN RESOLVED WITH THE OWNER AND/OR AGENT OF THE OWNER.
8. APPROVED BUILDING ADDRESS NUMBERS SHALL BE PLACED UPON THE STRUCTURE AS REQUIRED BY CITY OR COUNTY ORDINANCE. THE INDIVIDUAL NUMBERS SHALL CONTRAST WITH THEIR BACKGROUND AND HAVE A HEIGHT AND STROKE COMPATIBLE WITH THAT JURISDICTION
9. ROOF DRAINAGE SYSTEMS SHOULD BE DESIGNED SO WATER IS NOT DISCHARGED ONTO OR INJECTED INTO BEARING SOILS OR NEAR STRUCTURES

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05-26-2025
Renewal Date
STATE OF CALIFORNIA

REVISION LOG

REV.	DESCRIPTION	DATE

PROJECT NO. ----
FILE NAME ASP 20-02-19 RUSSELL.DWG
DRAWN BY MTS
DATE 02/02/2023
SHEET TITLE:

ARCHITECTURAL NOTES & SPECIFICATIONS

SHEET NUMBER:

ASP-1

METAL BUILDING FOUNDATION *DESIGN* *for*:

VIBORG SAND AND GRAVEL
1529 N. RIVER RD
PASO ROBLES, CA

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ABBREVIATIONS:

#	NUMBER OR POUND	FAB	FABRICATED	PROJ	PROJECT, PROJECTS, PROJECTION
~	APPROXIMATELY	FDN	FOUNDATION	PSF	POUNDS PER SQUARE FOOT
<	ANGLE	FF	FINISH FLOOR	PSI	POUNDS PER SQUARE INCH
@	AT	FG	FINISH GRADE	PSL	PARALAM LUMBER
AB	ANCHOR BOLT	FJ	FLOOR JOIST	PT	PRESSURE TREATED
ABV	ABOVE	FLR	FLOOR	PTDF	PRESSURE TREATED DOUGLAS FIR
ADDL	ADDITIONAL	FN	FIELD NAIL	PLY	PLYWOOD
ADJ	ADJACENT	FOC	FACE OF CONCRETE	QTY	QUANTITY
AITC	AMERICAN INSTITUTE OF TIMBER CONSTRUCTION	FOM	FACE OF MASONRY		
		FOS	FACE OF STUD		
AFF	ABOVE FINISH FLOOR	FRMG	FRAMING	R	RADIUS
ALT	ALTERNATE	FT	FOOT, FEET	REINF	REINFORCING
APA	AMERICAN PLYWOOD ASSOCIATION	FTG	FOOTING	REQ	REQUIRED
APPROX	APPROXIMATE			RET	RETAINING
ARCH	ARCHITECTURAL, ARCHITECT	GA	GAUGE	REV	REVERSE (MIRROR)
ASTM	AMERICAN STANDARDS OF TESTING AND MATERIALS	GALV	GALVANIZED	SCHD	SCHEDULE
		GLB	GLUED- LAMINATED BEAM	SECT	SECTION
BLDG	BUILDING	GYP. BD	GYPSUM BOARD	SGL	SINGLE
BLK	BLOCK, BLOCKING	(H)	HORIZONTAL	SHT	SHEET
BLW	BELOW	HD	HOLDOWN	SHTG	SHEATHING
BM	BEAM	HDG	HOT DIPPED GALVANIZED	SIM	SIMILAR
BN	BOUNDARY NAILING	HDR	HEADER	SMS	SHEET METAL SCREW
BOB	BOTTOM OF BEAM	HGR	HANGER	SOG	SLAB ON GRADE
BOT	BOTTOM	HORIZ	HORIZONTAL	SPEC	SPECIFICATION
BRG	BEARING	HS	HIGH STRENGTH	SQ	SQUARE
BTWN	BETWEEN	HSS	HOLLOW STRUCTURAL SECTION	SS	STAINLESS STEEL
		HT	HEIGHT	STD	STANDARD
CANT	CANTILEVER			STGD	STAGGERED
CHD	CHORD	ICC	INTERNATIONAL CODE COUNCIL	STIFF	STIFFENER
CJ	CONSTRUCTION OR CONTROL JOINT	ID	INSIDE DIAMETER	STL	STEEL
		INFO	INFORMATION	STRUCT	STRUCTURAL
CTR	CENTER	INSTALL	INSTALLATION	STRGR	STRINGER
CL	CENTER LINE	INT	INTERIOR	SW	SHEAR WALL
CLG	CEILING	INTRM	INTERMEDIATE	SYM	SYMMETRICAL
CLR	CLEAR	JST	JOIST		
CMU	CONCRETE MASONRY UNIT	JT	JOINT		
COL	COLUMN	LL	LIVE LOAD		
COMP	COMPOSITE, COMPOSITION	LONG	LONGITUDINAL	T&B	TOP AND BOTTOM
CONC	CONCRETE	LOC	LOCATION	T&G	TONGUE AND GROOVE
CONN	CONNECTION	LAG	LAG SCREW	TEMP	TEMPORARY
CONST	CONSTRUCTION	LRWT	LIGHT WEIGHT	TF	TOP FLANGE
CONT	CONTINUOUS	LSL	TIMBERSTRAND LUMBER	THK	THICK
CP	COMPLETE PENETRATION	LVL	LAMINATED VENEER LUMBER	THRU	THROUGH
CSK	COUNTERSINK	MAX	MAXIMUM	TN	TOE NAIL
D or d	NAIL PENNY SIZE	MB	MACHINE BOLT	TOB	TOP OF BEAM
DIA or Ø	DIAMETER	MECH	MECHANICAL	TOC	TOP OF CONCRETE
DBL	DOUBLE	MFR	MANUFACTURER	TOS	TOP OF STEEL
DET	DETAIL	MIN	MINIMUM	TOW	TOP OF WALL
DF	DOUGLAS FIR	MISC	MISCELLANEOUS	TRANSV	TRANSVERSE
DFL	DOUGLAS FIR - LARCH			TYP	TYPICAL
DIAG	DIAGONAL			UNO	UNLESS NOTED OTHERWISE
DIM	DIMENSION			URM	UNREINFORCED MASONRY
DKG	DECKING	(N)	NEW		
DL	DEAD LOAD	NIC	NOT IN CONTRACT		
DWG	DRAWING	NTS	NOT TO SCALE		
		OC	ON CENTER	(V)	VERTICAL
(E)	EXISTING	OD	OUTSIDE DIAMETER	VERT	VERTICAL
EA	EACH	OPNG	OPENING	V or I	VERIFY OR INSTALL
EF	EACH FACE	OPP	OPPOSITE	WWF	WELDED WIRE FABRIC
EJ	EXPANSION JOINT	ORIG	ORIGINAL	W/	WITH
ELEV	ELEVATION	O/	OVER	W/O	WITHOUT
EMBED	EMBEDMENT			WD	WOOD
EN	EDGE NAIL, END NAIL			WSHR	WASHER
EQ	EQUAL				
EQUIP	EQUIPMENT	PERP	PERPENDICULAR		
EW	EACH WAY	PL	PLATE		
		PLF	POUNDS PER LINEAR FOOT		
EXP	EXPANSION	PP	PARTIAL PENETRATION		
EXT	EXTERIOR	PREFAB	PREFABRICATED		

LEGEND:

= 2x6 DF #2 @ 16" O/C WALL FRAMING (U.O.N)

= SHEARWALL, REFER TO SCHEDULE FOR MATERIAL, NAILING, HARDWARE AND ANCHOR BOLT SPECS. INSTALL PER **(C/SN-1)**

= VERITCAL STRAP OR HOLDOWN @ END OF WALL TO 4x OR 6x POST (EN FULL HEIGHT)

= HORIZONTAL STRAP

= POST

= POST ABOVE

= TRUSS, RAFTER, CIELING JOIST, OR FLOOR JOIST: SPAN AND EXTENT.

= GIRDER TRUSS OR BEAM

= HANGER

= BUILDING LINE REFERENCE

= CONSTRUCTION DETAIL REFERENCE

= KEYED NOTE CALLOUT

GENERAL NOTES:

1. CONSTRUCTION SHALL COMPLY WITH THE LATEST EDITION OF THE CALIFORNIA BUILDING CODE (CBC), IBC STANDARDS. IBC ADOPTED STANDARDS, AND IBC RECOGNIZED STANDARDS.
2. THE CONSTRUCTION DOCUMENTS REPRESENT THE FINISHED STRUCTURE AND DO NOT INDICATE METHODS, PROCEDURES OR SEQUENCE OF CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO TAKE NECESSARY PRECAUTIONS TO MAINTAIN AND ENSURE THE INTEGRITY OF THE STRUCTURE DURING CONSTRUCTION. NEITHER THE OWNER NOR ARCHITECT OR STRUCTURAL ENGINEER WILL ENFORCE SAFETY MEASURES OR REGULATIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DESIGN, CONSTRUCT AND MAINTAIN ALL SAFETY DEVICES, INCLUDING BUT NOT LIMITED TO TEMPORARY GUARDRAILS, SHORING AND BRACING . THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO LOCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS AND REGULATIONS.
3. PROVIDE INSPECTION IN ACCORDANCE WITH CBC SECTION 108.4 AND AS SPECIFIED IN "TESTS AND SPECIAL INSPECTIONS." NOTES PROVIDED.
4. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE THE WORK OF THE SUB-CONTRACTORS AND TO CHECK DIMENSIONS. DISCREPANCIES SHALL BE CONVEYED TO THE ATTENTION OF THE ARCHITECT AND THE STRUCTURAL ENGINEER IN A TIMELY MANNER TO BE RESOLVED BEFORE PROCEEDING.
5. STRUCTURAL MEMBERS SHALL NOT BE CUT, NOTCHED OR OTHERWISE PENETRATED UNLESS SPECIFICALLY APPROVED BY THE STRUCTURAL ENGINEER IN ADVANCE OR SHOWN ON THE DRAWINGS. NO CHANGES ARE TO BE MADE TO THESE PLANS WITHOUT THE KNOWLEDGE AND WRITTEN CONSENT OF THE STRUCTURAL ENGINEER. MATERIALS SHALL BE FURNISHED AS SHOWN HEREIN UNLESS EQUAL ALTERNATES ARE APPROVED IN WRITING BY THE OWNER AND THE STRUCTURAL ENGINEER.
6. DETAILS NOT SPECIFICALLY SHOWN SHALL BE SIMILAR TO DETAILS FOR SIMILAR CONSTRUCTION SHOWN ON THESE DRAWINGS.
7. TYPICAL DETAILS SHALL APPLY UNLESS NOTED OTHERWISE ON THE DRAWINGS.
8. WHERE THE GENERAL NOTES AND THE TYPICAL DETAILS ARE IN CONFLICT WITH THE SPECIFICATIONS, THE GENERAL NOTES AND TYPICAL DETAILS SHALL GOVERN. NOTES AND DETAILS WITHIN THESE DRAWINGS TAKE PRECEDENCE OVER GENERAL NOTES.
9. DO NOT SCALE DRAWINGS. DRAWING SCALES GIVEN ARE APPROXIMATE. DIMENSIONS AND ELEVATIONS MUST BE VERIFIED WITH ARCHITECTURAL DRAWINGS. DISCREPANCIES SHALL BE CONVEYED TO THE ARCHITECT AND THE STRUCTURAL ENGINEER TO BE RESOLVED PRIOR TO PROCEEDING.
10. REFER TO ARCHITECTURAL AND CIVIL DRAWINGS FOR DIMENSIONS, SLOPES, DEPRESSIONS AND OTHER INFORMATION NOT SPECIFICALLY SHOWN ON THE STRUCTURAL DRAWINGS.
11. OPENINGS, POCKETS, ETC, SHALL NOT BE PLACED IN FOUNDATIONS, SLABS, WALLS, SHEAR WALLS, DECKS GIRDERS, BEAMS, JOISTS, COLUMNS, ETC, UNLESS SPECIFICALLY DETAILED ON THE STRUCTURAL DRAWINGS. NOTIFY THE STRUCTURAL ENGINEER IF MECHANICAL OR OTHER DRAWINGS SHOW OPENINGS, POCKETS, ETC, WHICH ARE NOT SHOWN ON THE STRUCTURAL DRAWINGS.
12. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE EXISTING UTILITIES WHETHER SHOWN HEREON OR NOT, AND TO PROTECT THEM FROM DAMAGE. THE CONTRACTOR SHALL BEAR THE EXPENSE OF REPAIR OR REPLACEMENT IN CONJUCTION WITH THE EXECUTION OT THIS WORK.
13. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE DETAILS TO AVOID THE INTERFERENCE OF EMBEDDED ITEMS, INCLUDING BUT NOT LIMITED TO REINFORCING STEEL, PRE-STRESSED STEEL AND HARDWARE AS WELL AS MISCELLANEOUS STEEL AND CONDUITS.
14. GENERAL CONTRACTOR SHALL VISIT THE JOB SITE AND VERIFY ALL GRADES, DIMENSIONS, AND CONDITIONS PRIOR TO BIDDING AND COMMENCING CONSTRUCTION. DIMENSIONS CONTROLLED BY EXISTING CONDITION SHALL BE VERIFIED BY THE CONTRACTOR AT THE SITE.
15. CONNECTIONS OF ITEMS SUPPORTED BY THE STRUCTURE ARE THE RESPONSIBILITY OF THE DISCIPLINES WHO ARE MAKING THESE ATTACHMENTS. THESE ATTACHMENTS SHALL BE DESIGNED TO RESIST GRAVITY, WIND, SEISMIC, THERMAL LOADS, ECT.
16. UNLESS SPECIFICALLY NOTED, VIBRATION EFFECTS OF MECHANICAL EQUIPMENT HAS NOT BEEN CONSIDERED BY THE STRUCTURAL ENGINEER.

ENGINEERS STATEMENT:

STATEMENT OF SPECIAL INSPECTIONS: ('22 CBC Section 1704.3):

Special Inspection **is** required for this project as required by design.

When applicable, Special Inspections shall be provided in accordance with the following *"Special Inspection and Structural Observation Requirements"*, located on sheet SN-1

STATEMENT OF STRUCTURAL OBSERVATIONS: ('22 CBC Section 1704.6):

Structural Observations **are** required for this project as required by design.

When applicable, Structural Observations shall be provided in accordance with the following *"Special Inspection and Structural Observation Requirements"*, located on sheet SN-1

PRE CONSTRUCTION:

CONTRACTOR RESPONSIBILITY

1. Each contractor shall thoroughly examine and be familiar with the drawings and related specifications. The bid submittal by the contractor represents that he is familiar with the local conditions under which the work is to be performed, and fully understands the facilities, difficulties and restrictions related to the execution of the work for this project. The failure or omission of any contractor to receive or examine any form, instrument, or other document, or to visit the site as necessary and become acquainted with the conditions existing there, shall in no way relieve any contractor from obligations with respect to their bid or the contract. Each contractor shall be totally familiar with pertinent rules and regulations of government bodies having jurisdiction, state of labor and materials markets, and shall make due allowance for all contingencies. No additional charges will be allowed because of lack of such knowledge. The submission of the contractor's bid shall be taken as prima facia evidence of compliance with this condition.

2. (CBC Section 1704.4): Each contractor responsible for the construction of a main wind- or seismic-force-resisting system, designated seismic system or a wind- or seismic-resisting component listed in the statement of special inspections shall submit a written statement of responsibility to the building official, engineer (Traverso) and the owner prior to the commencement of work on the system or component. The contractor's statement of responsibility shall contain the following:
   a. Acknowledgement of awareness of the special requirements contained in the statement of special inspections;
   b. Acknowledgement that control will be exercised to obtain conformance with the construction documents approved by the building official;
   c. Procedures for exercising control within the contractor's organization, the method and frequency of reporting and the distribution of the reports; and
   d. Identification and qualifications of the person(s) exercising such control and their position(s) in the organization.

SHEET INDEX:

SCOPE OF WORK:

THIS STRUCTURAL DESIGN PACKAGE CONSISTS OF CALCULATIONS AND FOUNDATION DRAWING S TO SUPPORT A PRE-MANUFACTURED 60'x 68' METAL BUILIDNG DESIGNED BY: STAR BUILDING SYSTEMS, JOB # 19-B-82019, DATED 1/6/25.

NO OTHER ANALYSIS HAS BEEN PROVIDED BY OR OFFICE AT THIS TIME, AND IS IN NO WAY IMPLIED.

REVISION LOG

REV.	DESCRIPTION	DATE

PROJECT NO. 25003

FILE NAME MTL BLDG.DWG

DRAWN BY A.T

DATE 2/21/2025 10:13 AM

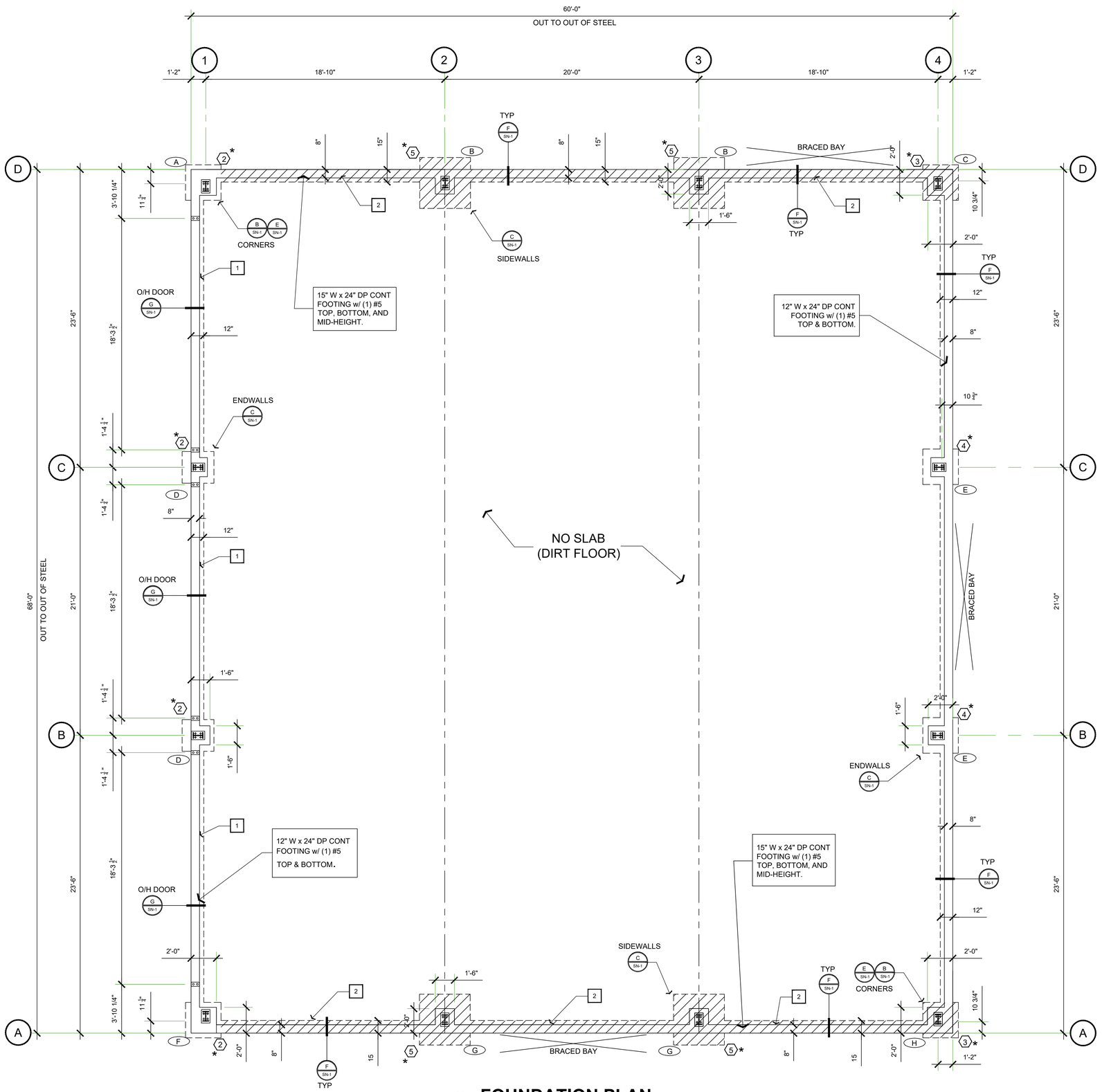
SHEET TITLE:

TITLE SHEET

SHEET NUMBER:

S-0

DRC Item 3



1 FOUNDATION PLAN

1/4" = 1'

PAD FOOTING SCHEDULE

CALL OUT	PAD SIZE +	BOLT EMBED •	REINFORCING
1	2'-0" SQ. x 24" DEEP	18"	(2) #4 EACH WAY TOP & BOTTOM
2	2'-6" SQ. x 24" DEEP	18"	(3) #4 EACH WAY TOP & BOTTOM
3	3'-0" SQ. x 36" DEEP	18"	(4) #4 EACH WAY TOP & BOTTOM
4	3'-6" SQ. x 36" DEEP	18"	(4) #4 EACH WAY TOP & BOTTOM
5	4'-0" SQ. x 36" DEEP	18"	(5) #4 EACH WAY TOP & BOTTOM
6	4'-6" SQ. x 21" DEEP		(5) #4 EACH WAY TOP & BOTTOM
7	5'-0" SQ. x 21" DEEP		(6) #4 EACH WAY TOP & BOTTOM

* = DENOTES FOOTING WHICH REQUIRE STRUCTURAL OBSERVATIONS ANCHOR BOLTS, REINFORCING, AND HAIRPIN PLACEMENT.

\+ = WHEN FOOTING DEPTH EXCEED, OR SOILS ENG'R REQUIRES FOOTINGS DEEPER THAN 24" BELOW GRADE: ADD (1) #5 VERTICAL BAR @ EACH CORNER OF FOOTING (4 TOTAL).

• = SEE PAD FOOTINGS DETAILS FOR EMBEDMET MEASUREMENT AND ANCHOR BOLT SPECIFICATIONS.

METAL BUILDING FOUNDATION NOTES:

GENERAL:

1. VERIFY ALL DIMENSIONS AGAINST ARCHITECTURAL AND METAL BUILDING DRAWINGS.
2. Contractor to verify all foundation dimensions with metal building manufacturer's anchor bolt setting plan, report any differences to ENGINEER.
3. Details #'s A/- thru H/- are general foundation related conditions that are to be incorporated as they relate to applicable conditions and/or other details, even though they may not be specifically delineated on these plans.
4. NOT USED.
5. NOT USED.
6. All continuous rebar at exterior and interior footings which past through a pad shall extend 4 feet beyond said pad without splices (min.) as per detail E/-.
7. All rebar bends to be made as per detail H/-.
8. Anchor bolt size, thread, count, location and projections are as per metal building manufacturer's anchor bolt setting plan. Minimum embedment depth of bolts at frames are to be **18"** into pad footings (embedment depth is measured from the bottom of slab), see detail D/-. Anchor bolts to have 3", 90 degree hooks or headed studs with double nuts and 3" square x .25" thick A-36 steel plate washers.
9. See metal building plans for base plate details, special edge conditions and anchor bolt placements (use template method).
10. " (#) " indicates pad footing. See pad footing schedule and detail A/-.
11. " (E) " indicates base plate reference number. See anchor bolt placement plans (by metal building manufacturer) for proper locations and call-outs to be verified with this plan prior to construction by the contractor. Notify ENGINEER if discrepancies arise.
12. " (#) " indicates building/frame lines.
13. " ▭ " indicates thrust hairpins. thrust Haipins shall be #4 with " crown and " long legs (minimum unless otherwise noted). Locate thrust hairpins around each anchor bolt pair with 2" clear from top of slab. See plans for locations

FOUNDATION DESIGN SOIL VALUES:

BEARING =1500 PSF, FROM REPORT
EXP. INDEX= MED, FROM REPORT
"NO ON-SITE INVESTIGATION PERFORMED BY STRUCT. ENG'R

REFER TO THE **"GENERAL SPECIFICATIONS FOR SOILS, FOUNDATIONS, CONCRETE AND REINFORCING"** NOTES ON **SN-1** FOR ADDITIONAL SPECIFICATIONS TO BE PART OF THE FOUNDATION CONSTRUCTION PACKAGE

SOILS REPORT REQUIREMENTS:

REFER TO THE PROJECT SOILS REPORT BY HALLEN GEOTECHNICAL, FILE # H-81134 DATED 7-16-18, FOR SOILS CONDITIONS AND SITE PREPARATION REQUIREMENTS. REPORT SHALL BE CONSIDERED PART OF THIS FOUNDATION PLAN AND ALL RECOMMENDATIONS SHALL BE IMPLEMENTED ACCORDINGLY.

BUILDING PAD, FOUNDATION AND SLAB PREP:

BUILDING PAD PREPARATION REQUIREMENTS SHALL BE PER PROJECT SOILS REPORT. WHERE REQUIRED, OVER EXCAVATION AND SCARIFICATION SHOULD EXTEND AT LEAST 5' BEYOND THE PERIMETER OF THE BUILDING LINES.

THE DEPTH OF BUILDING FOOTINGS SHALL BE DETERMINED ON-SITE BY SOILS ENGINEER. DEPTH OF FOOTINGS SHALL BEGIN AT COMPETENT MATERIAL, WHICH MAY NOT BE THE SAM AS FINISHED GRADE. THE FOUNDATION EXCAVATIONS SHALL BE OBSERVED BY THE ENGINEERING GEOLOGIST PRIOR TO ANY REINFORCING OR CONCRETE IS PLACED. FOR FOOTINGS DEEPER THAN NOTED ON THESE PLANS AFTER EXCAVATIONS, CONTACT FOUNDATION ENGINEER (TRAVERSO) FOR DEEPENED FOOTING REINFORCING REQUIREMENTS.

SLABS ON GRADE SUB-BASE PREPARATION AND MOISTURE CONTROL REQUIREMENTS SHALL BE AS REQUIRED BY SOILS REPORT. SOIL ENGINEER SHALL INSPECT AND APPROVE MOISTURE CONDITIONS OF ALL UNDER-SLAB AREAS JUST PRIOR TO CONCRETE PLACEMENT.

SOILS CONDITION OBSERVATIONS & NOTIFICATION:

PRIOR TO THE CONTRACTOR REQUESTING A BUILDING DEPARTMENT FOUNDATION INSPECTION, THE SOILS ENGINEER SHALL ADVISE THE BUILDING OFFICIAL IN WRITING THAT: (1) THE BUILDING PAD WAS PREPARED IN ACCORDANCE WITH THE SOILS REPORT. (2) THE UTILITY TRENCHES HAVE BEEN PROPERLY BACKFILLED AND COMPACTED. (3) THE FOUNDATION EXCAVATIONS COMPLY WITH THE INTENT OF THE SOILS REPORT.

KEYENOTES:

1 = REDUCE CURB HEIGHT AT OVERHEAD DOOR AS REQUIRED SEE DETAIL G-SN-1.

2 = CROSS HATCHED AREAS INDICATE 36" DEEP FOOTINGS

UNIQUE PERSPECTIVES
ARCHITECTURAL ENGINEERING

STRUCTURAL CONSULTANT

DARIN TRAVERSO, R.C.E.
Phone: (805)434-2950
Fax: (805)434-2909

1155 Rolfe ln.
Templeton, CA 93465

REGISTERED PROFESSIONAL ENGINEER
DARIN TRAVERSO
#54673
Expires 12/25
CIVIL
STATE OF CALIFORNIA

PLAN PREPARED FOR:

PAUL VIBORG
1541 N. RIVER RD
PASO ROBLES, CA

REVISION LOG

REV.	DESCRIPTION	DATE

PROJECT NO.

FILE NAME MTL BLDG.DWG

DRAWN BY A.T

DATE 2/21/2025 8:25 PM

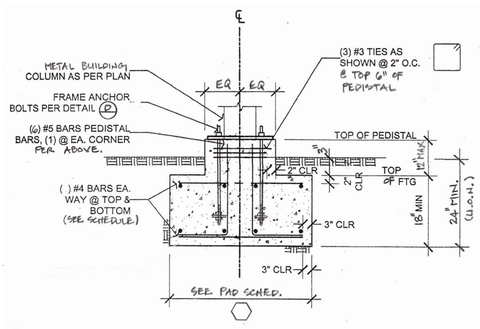
SHEET TITLE:

FOUNDATION PLAN

SHEET NUMBER:

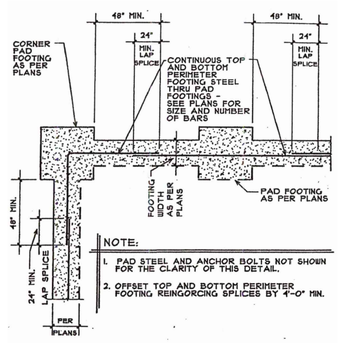
S-1

DRC Item 3



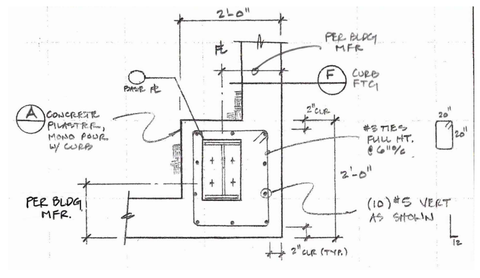
A TYP PAD FOOTING

N.T.S



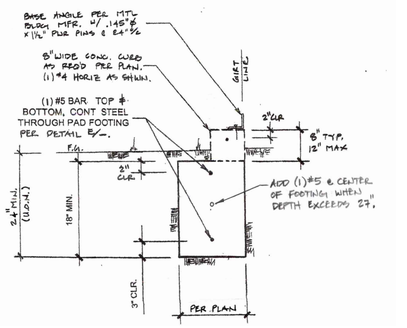
E FOOTING REBAR SPLICE

N.T.S



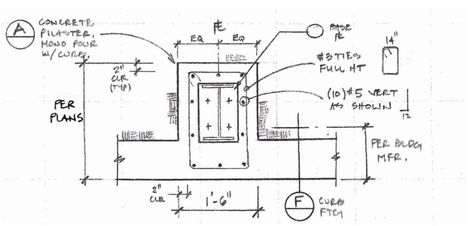
B PILASTER @ CORNERS

N.T.S



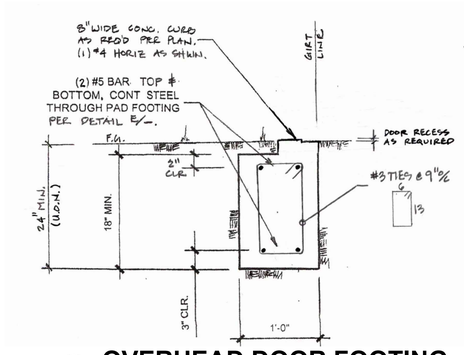
F PERIMETER FOOTING w/ CURB

N.T.S



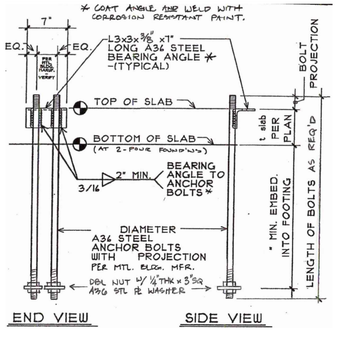
C PILASTER@ SIDE / END WALLS

N.T.S



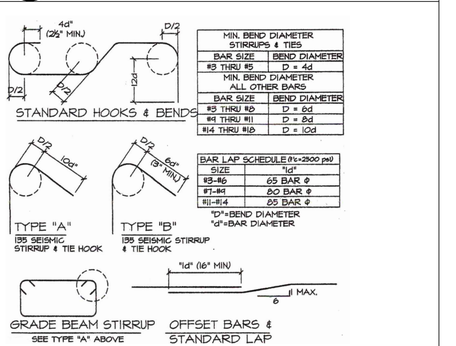
G OVERHEAD DOOR FOOTING

N.T.S



D BEARING ANGLE @ A.B'S

N.T.S



H STANDARD HOOKS, BENDS & LAPS

N.T.S

METAL BUILDING FOUNDATION NOTES:

GENERAL:

1. VERIFY ALL DIMENSIONS AGAINST ARCHITECTURAL AND METAL BUILDING DRAWINGS.
2. Contractor to verify all foundation dimensions with metal building manufacturer's anchor bolt setting plan, report any differences to ENGINEER.
3. Details #'s A/- thru H/- are general foundation related conditions that are to be incorporated as they relate to applicable conditions and/or other details, even though they may not be specifically delineated on these plans.
4. NOT USEDt.
5. NOT USED.
6. All continuous rebar at exterior and interior footings which past through a pad shall extend 4 feet beyond said pad without splices (min.) as per detail E/-.
7. All rebar bends to be made as per detail H/-.
8. Anchor bolt size, thread, count, location and projections are as per metal building manufacturer's anchor bolt setting plan. Minimum embedment depth of bolts at frames are to be **18"** into pad footings (embedment depth is measured from the bottom of slab), see detail D/-. Anchor bolts to have 3", 90 degree hooks or headed studs with double nuts and 3" square x .25" thick A-36 steel plate washers.
9. See metal building plans for base plate details, special edge conditions and anchor bolt placements (use template method).
10. " (#) " indicates pad footing. See pad footing schedule and detail A/-.
11. " (#/#) " indicates base plate reference number. See anchor bolt placement plans (by metal building manufacturer) for proper locations and call-outs to be verified with this plan prior to construction by the contractor. Notify ENGINEER if discrepancies arise.
12. " (#) " indicates building/frame lines.
13. " ⊏_____⊐ " indicates thrust hairpins. thrust Hairpins shall be #4 with " crown and " long legs (minimum unless otherwise noted). Locate thrust hairpins around each anchor bolt pair with 2" clear from top of slab. See plans for locations and detail C/-.

CONTRACTOR RESPONSBILITY (Pre-construction):

1. Each contractor shall thoroughly examine and be familiar with the drawings and related specifications. The bid submittal by the contractor represents that he is familiar with the local conditions under which the work is to be performed, and fully understands the facilities, difficulties and restrictions related to the execution of the work for this project. The failure or omission of any contractor to receive or examine any form, instrument, or other document, or to visit the site as necessary and become acquainted with the conditions existing there, shall in no way relieve any contractor from obligations with respect to their bid or the contract. Each contractor shall be totally familiar with pertinent rules and regulations of government bodies having jurisdiction, state of labor and materials markets, and shall make due allowance for all contingencies. No additional charges will be allowed because of lack of such knowledge. The submission of the contractor's bid shall be taken as prima facia evidence of compliance with this condition.

2. *(CBC Section 1704.4):* Each contractor responsible for the construction of a main wind- or seismic-force-resisting system, designated seismic system or a wind- or seismic-resisting component listed in the statement of special inspections shall submit a written statement of responsibility to the building official, engineer (Traverso) and the owner prior to the commencement of work on the system or component. The contractor's statement of responsibility shall contain the following:
   a. Acknowledgement of awareness of the special requirements contained in the statement of special inspections;
   b. Acknowledgement that control will be exercised to obtain conformance with the construction documents approved by the building official;
   c. Procedures for exercising control within the contractor's organization, the method and frequency of reporting and the distribution of the reports; and
   d. Identification and qualifications of the person(s) exercising such control and their position(s) in the organization.

GENERAL SPECIFICATIONS FOR SOILS:

1. It is recommended that on building sites exhibiting characteristics of instability (including but not limited to: loose surface soils, moisture variations, soil type variations, expansiveness, and slope instability), A soils investigation be performed (unless waived by the local building review agency). Any deviation from the design values shown below shall be brought to the engineers attention.
2. Refer to soils report or foundation investigation for compaction, fill, backfilling, and site preparation requirements and procedures. Where said report is not required by local building officials, follow CBC section 1804 requirements.
3. Allowable soils values and foundation design based upon:
   ⋈ Minimum CBC Section 1806.2 allowables.
   ( ) Soils Report by: MID-COAST GEOTECHNICAL
   File #: 17-7891 Dated: 10-12-17
   N/A
4. Minimum required soil bearing (DL+LL) to be 1500 p.s.f. (Ret Walls: Pa= pcf , Pp= pcf , u=).
5. Expansive index = MED (from report); Site Class = D (from report).
   * verification may be required by building official.
6. Actual soil conditions which deviate appreciably from that shown above shall be reported to the project engineer immediately.
7. All site work and grading shall be done in accordance with a licensed Civil and/or Soils Engineers recommendations, provided by others.
8. Positive drainage (min 5% slope) shall be provided away from the proposed structure for a distance of 10'-0" from face of exterior walls.

GENERAL SPECIFICATIONS FOR FOUNDATIONS:

1. Minimum footing requirements for stud walls shall be per Table 1809.7 of the CBC, unless a soils investigation requires otherwise. Where a soils report exists, soils engineer shall approve all site work, foundation excavations and bottom of footing depths prior to installation of reinforcing steel or concrete.
2. Foundations shall not be poured until all required formwork, reinforcing steel, holdowns, etc. have been properly placed and inspected by the local building official / inspector.
3. All required backfill at footings, utility trenches, and retaining walls shall be compacted to at least 90% of maximum density unless otherwise noted on a soils report.
4. Carry all foundations to required depths into compacted fill or natural soil (per project soils engineer) or as required by expansion index (low=15", medium=21", high=27") whichever is deeper. Excavate to required depths and dimensions, cut square and smooth with firm level bottoms, remove all loose material and debris, moisten several times just prior to pouring concrete. *Note:* no standing water is allowed in excavations during concrete placement.
5. All foundation excavations shall be horizontal, level, and stepped to conform to any contour slope of the project site. In Addition, footings on slopes shall have a minimum embedment such that there is at least (7) seven feet of horizontal distance from bottom of footing to the face of slope.
6. Moisture condensation under floor coverings has become critical due to the use of water-soluble adhesives, etc.; therefore, it is suggested that moisture sensitive slabs not be constructed during inclement weather conditions.
7. Anchor bolts to be full diameter, cut threads made from ASTM A-36 steel by an American manufacturer and installed per "Lateral Requirements" on the following pages.
8. See "General Specifications for Concrete" for concrete requirements.

GENERAL SPECIFICATIONS FOR CONCRETE:

1. All concrete shall have minimum compressive strength (f'c) as specified below at 28 days and shall be normal weight (UON).

Item	f'c	Spec. Insp'n Req'd? Yes	No
A. Slabs, Cont. Perimeter Ftgs, Pads	3000 psi	□	⋈*
B. Caissons, Grade Bms, Pedestals,	3000 psi	⋈	□*

(*Note: concrete supported on grade and designed with f'c=2500psi per CBC 1705.3 "exception". Provide batch plant tickets, or other approved documentation, to the Engineer and building official, to verify 3000psi mix.)

2. All work shall comply with CBC chapter 19, current ACI Building code (ACI 318), and the latest edition of the 'ACT manuals of construction practice.
3. The maximum slump shall be: Slabs……..3" (plus or minus 1")
   All other work……4" (plus or minus 1")
4. The minimum cement content shall be 5½ sacks per cu. yd and shall be Portland cement, type I or II, low alkali, per ASTM C-150 and shall conform to CBC 1905.1.
5. Maximum water-cement ratio: 6.75 gal. per #94 sack. Any water reducing agents added shall be used to reduce the water/cement ratio. Admixtures shall be approved be Engineer.
6. Aggregate shall conform to ASTM C-33. Maximum aggregate size shall be 1" (UON). Use ¾" aggregate for slab on grade. Use only aggregates known not to cause excessive shrinkage.
7. Concrete placement:
   A. Concrete shall not free-fall more than five (5) feet. Use tremie, pump, or other approved methods as required.
   B. Vibrate all concrete (including slabs) as it is placed with a mechanical vibrator operated by experienced personnel. Reinforcing and forms shall not be vibrated.
8. Curing: Freshly deposited concrete shall be protected from premature drying and excessively hot or cold temperatures, and shall be maintained with minimal moisture loss at a relatively constant temperature for the period of time necessary for the hydration of the cement (typically 7 days).
9. Slabs -on grade:
   A. These provisions are for "lightly loaded" building slabs conforming to the loading limitations of residential construction. For more heavily loaded slabs, a comprehensive design is required. Soils of low to medium expansiveness are anticipated. If other soils are encountered, a thorough structural analysis should be performed for modification of design.
   B. Unless specifically detailed or noted otherwise, construction and control joints shall be provided on all concrete slabs, and shall be located such that the area within the joints does not exceed 400 sq. ft., and is roughly square without interior corners.

GENERAL SPECIFICATIONS FOR REINFORCING:

1. Reinforcing steel shall be clean of rust, grease or other material likely to impair bond.
2. All reinforcing steel to be continuous and lapped (with staggered splices at adjacent bars) min 24" at splices, 20" at corners. Reinforcing bars shall have minimum bend radius of (6) times the bar diameter. Bars shall not be heated to facilitate bending. Once bent, steel shall not be straightened.
3. Reinforcing bars to be deformed bars conforming to ASTM A-615:
   #3, #4……Grade 40 #5 & larger……Grade 60
4. All reinforcing steel, anchor bolts and foundation hardware shall be located in the formwork and held firmly in place prior to and during concrete placement by means of wire supports.
5. Concrete cover is required as follows over reinforcing:
   3"……..where concrete is exposed to and cast against earth.
   2"……..where concrete is exposed to earth but cast against formwork.
   1½"……..where not exposed to earth or weather.
6. Reinforcing steel shall not be welded, unless specifically noted on the structural drawings. If allowed, welding shall conform to ACI 3.5.2 and ASTM A-706, Grade 60.

STATEMENT OF SPECIAL INSPECTIONS: ('22 CBC Section 1704.3):

Special Inspection **IS** required for this project as required by design.

When applicable, Special Inspections shall be provided in accordance with the following *"Special Inspection and Structural Observation Requirements"*.

STATEMENT OF STRUCTURAL OBSERVATIONS: ('22 CBC Section 1704.6):

Structural Observations **ARE** required for this project as required by design.

When applicable, Structural Observations shall be provided in accordance with the following *"Special Inspection and Structural Observation Requirements"*.

SPECIAL INSPECTION AND STRUCTURAL OBSERVATION REQUIREMENTS:

SPECIAL INSPECTIONS:

1. The engineer accepts no responsibility for ***special inspections*** during construction, or for the method or form of construction. Job site visits by the engineer do not constitute an official inspection.
2. Where "CONTINUOUS INSPECTION", "PERIODIC INSPECTION", or "SPECIAL INSPECTION" is required on the plans, the contractor, owner, or his agent shall employ an independent, approved* testing and inspection agency to provide a Deputy Inspector on site. Said Deputy Inspector shall understand that they as such, are acting as the agent of the engineer, architect, and governing jurisdictions (* per CBC Section 1703).
3. Special inspection and testing shall be provided as required by CBC Section 1704 and as noted below. Names and qualifications of Deputy Inspectors shall be submitted to the Building Department for review and approval prior to commencement of the work to be inspected. Upon completion of the structural work, the Deputy Inspector shall submit signed reports of all required inspections and tests to the contractor and owner as well as the Engineer and Building Official for review and approval, in accordance with CBC Section 1704.2.4.
4. Contractor shall advise the owner, or his agent, at least two weeks prior to the need for a special inspection. Furthermore, the contractor shall notify both the building department and the Deputy Inspector a minimum of 48 hours prior to the requested inspection date for scheduling confirmation.
5. Prior to any special inspection, the Deputy Inspector shall meet with the Engineer of Record for a review of items to be inspected and/or tested. The Deputy Inspector shall bring to the attention of the project engineer any and all deviations from the approved plans, or field conditions which will not allow for construction of the structural system per plans.
6. Continuous Special Inspection, except where Periodic Special Inspection is allowed below, is required for the following:

Soils: existing site soils conditions, fill placement and load bearing requirements per soils report as specified by CBC section 1705.6 and Table 1705.6.
Exception: not required during placement of controlled fill having a total depth of 12" or less.

Concrete: reinforcing, placing of concrete, during taking of test specimens, etc., as specified by CBC Section 1705.3 and Table 1705.3.
Exception: not required for foundation concrete if f'c design strength is not more than 2500 psi, and for site work concrete fully supported on earth. However, plant batch tickets or other certification will need to be provided to verify 3000 psi mix.

Epoxy/adhesive anchors in concrete and masonry per current 'ICC' report.

Structural steel construction: material verification, high strength bolting, welding, steel frame joint details and installation as required by CBC Section 1705.2 and AISC 360.

Pre-fabricated structures: where fabrication of structural members and assemblies are being performed on the premises of a fabrication shop, inspection of fabrication and implementation procedures shall be per CBC Section 1704.2.5.1.
Exception: not required where the fabricator is approved in accordance with CBC Section 1704.2.5.1.

High strength bolts: installation of high strength bolts shall be inspected in accordance with current AISC specifications, and CBC Section 1705.2 and AISC 341.

Shop welding*: in compliance with CBC Section 1705.2 and AWS D1.1 if not performed in an approved fabrication shop as defined above.

Field welding*: of load supporting steel members per CBC Section 1705.2 and AWS D1.1.
**Note: the special inspector need not be continuously present during welding of single-pass fillet welds not exceeding 5/16" size, provided the materials, qualifications of welding procedures, and welder certifications are verified prior to the start of work; periodic inspections are made of work in progress; and a visual inspection of all welds is made prior to completion, or prior to shipment of shop welding.*

Lateral force resisting system: Installation of all components of the structural system resisting lateral loads including: diaphragms, shearwalls, moment frames, bracing, overturning resistance (straps, holdowns, bolts…), shear transfer hardware and foundations as denoted on approved construction documents as required by CBC Section 1705.12.

7. ***SPECIAL INSPECTION*** *shall be provided for the following specific phases of construction:*

Item	Required? Yes	No	N/A	Remarks
A. Soils compliance prior to foundation inspection.	⋈	□	□	PER SOILS REPORT
B. Structural concrete over 2500 psi	□	⋈	□	
C. Structural masonry / Retaining walls	□	□	⋈	
D. Epoxy / Adhesive anchors	⋈	□	□	IF REQ'D BY OMISSION
E. Structural wood	□	□	⋈	
F. Wood framing members/ moisture	□	□	⋈	PER GREEN CODE
G. Structural steel construction	□	□	□	AS REQ'D BY BLDG MFR
H. Pre-fabricated structures	□	□	□	
I. High strength bolting	□	□	□	
J. Field welding	□	□	□	
K. Lateral force resisting system	□	□	□	
L. Sprayed-on fireproofing	□	□	□	PER ARCHITECT
M. Other: □ Helical Piers (SEC 1704.9) □ Storage Racks □ _____	□	□	□	

REQUIRED TESTING:

Structural testing for seismic resistance shall be provide per CBC Section 1706, and as noted below:

1. *Concrete* cylinders for 28 day strength (2 cylinders average) for each class of concrete, not less than once a day, not less than once for each 150 cu. yds., and not less than once for each 5,000 sf of slabs.
2. Non-destructive testing of all full penetration (complete joint penetration) *welded connections.*

STRUCTURAL OBSERVATIONS:

1. The owner shall employ the design engineer, or another licensed engineer or architect designated by the design engineer, to perform ***structural observations*** per CBC 1704.6 as indicated below. Observed deficiencies shall be reported in writing to the owners representative, special inspector, contractor, and building official. Owner or general contractor shall submit a copy of the structural observation report(s) to the governing agency.
2. Structural observation visits to the project site by engineer, or his designated representative, (support services) shall not include inspections of safety or protective measures, nor construction procedures, techniques or methods. Any support services performed by the engineer, during any phase of construction, shall be distinguished from continuous and detailed inspection services (as required by any regulating governmental agency, i.e. local building department) provided by others. These support services, whether of material or work, are performed solely for the purposes of assisting in quality control and in achieving conformance with contract documents, but to not guarantee contractor's performance and shall not be construed as supervision of construction.
3. The Architect or Engineer and the contractor and appropriate subcontractors shall hold a pre-construction meeting to review the details of the structural system to be structurally observed.
4. Scheduling: It is the responsibility of the project General Contractor to verify plans and details are being followed and to make deficiencies known to the engineer early enough to allow for correction prior to requesting final structural observations.
5. ***Structural observations*** *shall be provided for the following phases of construction:*

Item	Required? Yes	No	N/A	Remarks
A. Foundation reinforcing	⋈	□	□	
B. Slab/ Hairpins/ Bearing Angles	□	□	⋈	
C. Structural masonry / Retaining wall reinf'g	□	□	⋈	
D. Anchor bolts / Uplift (tension) anchors	⋈	□	□	
E. Shearwalls / Diaphragms / Collectors	□	□	⋈	
F. Structural wood framing / Ledgers	□	□	⋈	
G. Wall to diaphragm ties	□	□	⋈	
H. Moment frame attachment to framing	□	□	□	AS REQ'D BY BLDG MFR
I. Structural steel	□	□	□	
J. Upon completion of structural work for conformance to plans and specifications.	□	□	□	
K. Other: □ Helical Piers □ Storage Racks □ _____	□	□	□	

UNIQUE PERSPECTIVES
ARCHITECTURAL ENGINEERING

STRUCTURAL CONSULTANT

DARIN TRAVERSO, R.C.E.
Phone: (805)434-2950
Fax: (805)434-2909

1155 Rolfe In.
Templeton, CA 93465

REGISTERED PROFESSIONAL ENGINEER
DARIN TRAVERSO
#54673
Expires 12/25
CIVIL
STATE OF CALIFORNIA

PLAN PREPARED FOR:

PAUL VIBORG
1541 N. RIVER RD
PASO ROBLES, CA

REVISION LOG

REV.	DESCRIPTION	DATE

PROJECT NO. 25003
FILE NAME MTL BLDG.DWG
DRAWN BY A.T
DATE 2/21/2025 6:44 PM
SHEET TITLE:

NOTES & DETAIL SHEET

SHEET NUMBER:

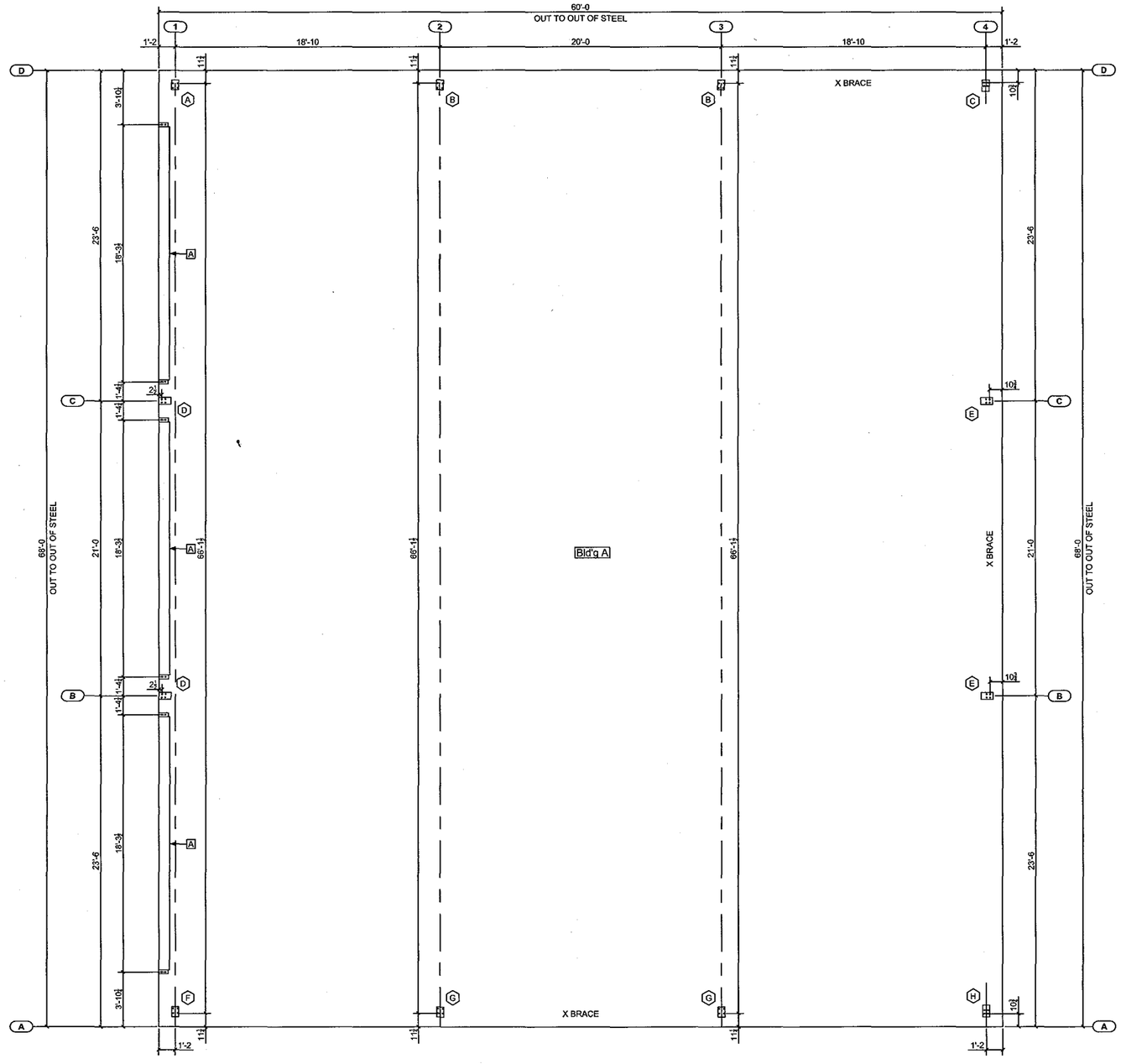
SN-1

DRC Item 3

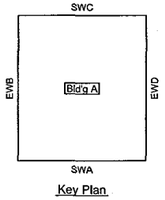
Anchor Rod Drawings

1) This drawing is for anchor rod placement only and is not foundation design.
2) Foundation must be square and level with all anchor rods true in size, location, and projection.
3) Projection shown must be held to keep threads clear of finished concrete.
4) This structural design data includes magnitude and location of design loads and *support conditions, material properties, and type and size of major* structural members necessary to show compliance with the Order Documents at the time of this issue. Any change to building loads or dimensions may change structural member sizes and locations shown. This structural design data will be superseded and voided by any future mailing.
5) Anchor rod size as noted on the drawings has been determined by shear and tension at the bottom of the base plate. The length of the anchor rod and method of load transfer to the foundation are to be determined by the foundation engineer. Anchor rods are not provided by the metal building manufacturer.
6) Anchor rods are ASTM F1554 Gr. 36 material unless noted otherwise.
7) 3000 psi concrete compressive strength (Fc) is assumed for the purpose of column base plate design unless otherwise noted.

Finished Floor at Elevation 100'-0"



Anchor Rod Setting Plan



Key Plan

FRAMED OPENING SCHEDULE			
MARK	DESCRIPTION	DETAIL	QUAN.
A	18'-0" X 15'-0" FRAMED OPENING	1	3

DETAILS SUBJECT TO CHANGE BASED ON FINAL DESIGN. ISSUED FOR CONSTRUCTION DRAWINGS WILL REPLACE THE PERMIT DRAWINGS.

Revision	Date	Description	By	Ck'd

Cornerstone Building Brands
13105 Northwest Freeway, Suite 500
Houston, TX 77040
cornerstonebuildingbrands.com

STAR

Project Name & Location:
PAUL VIBORG
1529 N RIVER RD
PASO ROBLES, CA 93446-7325

Customer:
DUECK CONSTRUCTION COMPANY INC
2313 SIGNORA ROSA CT
PASO ROBLES, CA 93446
ATTN: TIM DUECK

Drawing Status:
☐ Issued For Approval (Not For Construction)
☒ Issued For Permit

Scale:	NOT TO SCALE
Drawn by:	HPR 1/6/25
Checked by:	HPR 1/6/25
Project Engineer:	BXT
Job Number:	19-B-82019
Sheet Number:	F1 of 3

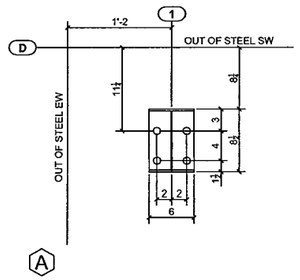
The engineer whose seal appears hereon is employed by or is contracted to provide engineering services for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only. The undersigned engineer is not the overall engineer of record for this project.

BRENDAN PATRICK TOOHEY, P.E.
CALIFORNIA P.E. C96062

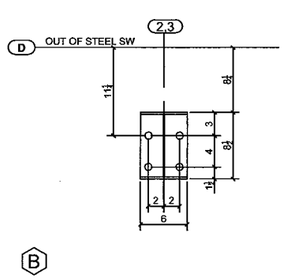
This item has been electronically signed and sealed by Brendan Patrick Toohey, P.E. on the date and/or time stamp shown using a digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified by a 3rd Party Certificate Authority on any electronic copy.

REGISTERED PROFESSIONAL ENGINEER
BRENDAN PATRICK TOOHEY
C96062
Jan 06, 2025
CIVIL
STATE OF CALIFORNIA

DRC Item 3



BASE PLATE SIZE = 6"W x 8 1/2"L x 3/4" THICK
ANCHOR ROD SIZE = 3/4" DIA.
ANCHOR ROD PROJECTION = 3"
BOTTOM OF BASE PLATE ELEVATION = 100'-0"



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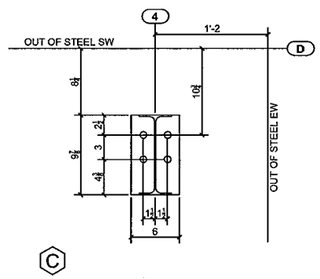
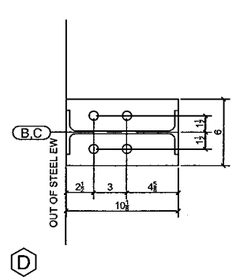
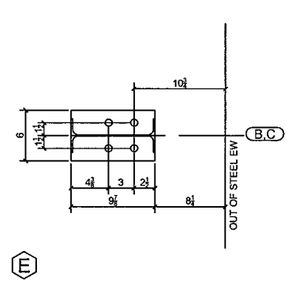
BOTTOM OF BASE PLATE ELEVATION = 100'-0"



BASE PLATE SIZE = 6"W x 9 1/2"L x 3/4" THICK
ANCHOR ROD SIZE = 3/4" DIA.
ANCHOR ROD PROJECTION = 2"
BOTTOM OF BASE PLATE ELEVATION = 100'-0"



BASE PLATE SIZE = 6"W x 10 1/2"L x 3/4" THICK
ANCHOR ROD SIZE = 3/4" DIA.
ANCHOR ROD PROJECTION = 2"
BOTTOM OF BASE PLATE ELEVATION = 100'-0"



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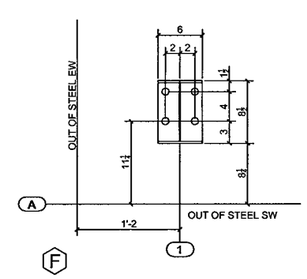

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ANCHOR ROD PROJECTION = 3"
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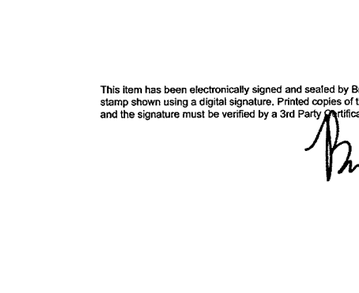
ANCHOR ROD SIZE = 3/4" DIA.
ANCHOR ROD PROJECTION = 2"
BOTTOM OF BASE PLATE ELEVATION = 100'-0"

BASE PLATE SIZE = 3 1/2"W x 8"L x 1/2" THICK
ANCHOR ROD SIZE = 1/2" DIA.
ANCHOR ROD PROJECTION = 2"
BOTTOM OF BASE PLATE ELEVATION = 100'-0"

AISC Code Of Standard Practice Tolerances For Setting Anchor Rods

Anchor Rod Setting Tolerances

Base Plate And Anchor Rod



Revision	Date	Description	By	Ck'd

Cornerstone Building Brands
13105 Northwest Freeway, Suite 500
Houston, TX 77040
cornerstonebuildingbrands.com

Project Name & Location:
PAUL VIBORG
1529 N RIVER RD
PASO ROBLES, CA 93446-7325

STAR BUILDING SYSTEMS

Customer:
DUECK CONSTRUCTION COMPANY INC
2313 SIGNORA ROSA CT
PASO ROBLES CA 93446
ATTN: TIM DUECK

Drawing Status:
☐ Issued For Approval (Not For Construction)
☒ Issued For Permit
☐ Issued For Construction

Scale:	NOT TO SCALE
Drawn by:	HPR 1/6/25
Checked by:	HPR 1/6/25
Project Engineer:	BXT
Job Number:	19-B-82019
Sheet Number:	F2 of 3

The engineer whose seal appears hereon is employed by or is contracted to provide engineering services for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only. The undersigned engineer is not the overall engineer of record for this project.

BRENDAN PATRICK TOOHEY, P.E.
CALIFORNIA P.E. C96062

This item has been electronically signed and sealed by Brendan Patrick Toohey, P.E. on the date and/or time stamp shown using a digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified by a 3rd Party Certificate Authority on any electronic copy.

REGISTERED PROFESSIONAL ENGINEER
BRENDAN PATRICK TOOHEY
C96062
Jan 06, 2025
CIVIL
STATE OF CALIFORNIA

DETAILS SUBJECT TO CHANGE BASED ON FINAL DESIGN.
ISSUED FOR CONSTRUCTION DRAWINGS WILL REPLACE THE PERMIT DRAWINGS.

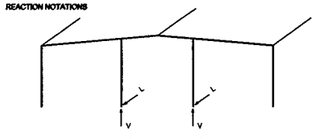
DRC Item 3

FRAME DESCRIPTION: Endwall EW9 | USER NAME:Joshua.L JOB NAME:82019A | DATE:12/27/24 FILE:REW3BLDG1 | PAGE:EW-1

PATH: R:\jobs\Active\Eng\19-B-82019\rver01-joshua.lorentson\BLDG-A\run01\

SUPPORT REACTIONS FOR EACH LOAD GROUP
NOTE: All reactions are in kips and kip-ft. TIME:16:38:51

REACTION NOTATIONS



LOAD GROUP REACTION TABLE

COLUMN	1-C			1-B		
LOAD GROUP	H	V	L	H	V	L
D	0.	1.4	0.0	0.	1.4	0.0
C	0.	1.2	0.0	0.	1.2	0.0
L	0.	4.7	-0.1	0.	4.7	-0.1
W-	0.	-5.0	-3.2	0.	-5.0	-3.2
W16+	0.	0.	3.4	0.	0.	3.4
W+	0.	-5.0	3.5	0.	-5.0	3.5
E+	0.	1.7	0.2	0.	1.7	0.3
E-	0.	-1.7	-0.2	0.	1.7	-0.3

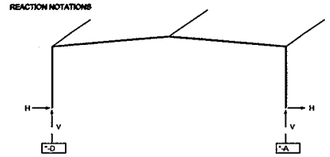
LOAD GROUP DESCRIPTION

D : Dead load
C : Collateral load
L : Live load
W- : Wind load as an outward acting suction
W16+ : Min. 16 psf wind as an inward acting pressure
W+ : Wind load as an inward acting pressure
E+ : Seismic force acting inward
E- : Seismic force acting outward

FRAME ID #2 cs 68/18/10.583 20/95/0 | USER NAME:Joshua.Lorentson JOB NAME:82019A | DATE:12/30/24 FILE:frame_1.fra | PAGE:2-2

SUPPORT REACTIONS FOR EACH LOAD GROUP
*LOCATION: Gridlines: 1
NOTES:(1) All reactions are in kips and kip-ft. TIME:11:50:10
(2) Primary wind load cases are not concurrent.
(3) X-bracing reactions (RSUPLW and RSUPEQ) are combined with LWL and LEQ groups only.

REACTION NOTATIONS



LOAD GROUP REACTION TABLE GRIDLINES * = 1

COLUMN	*-D			*-A		
LOAD GROUP	H	V	L	H	V	L
DL	0.7	1.6	-0.0	-0.7	1.6	-0.0
LL	2.4	4.3	-0.0	-2.4	4.3	-0.0
COLL	1.0	1.8	-0.0	-1.0	1.8	-0.0
EQ	-1.0	-0.5	-0.0	-1.0	0.5	-0.0
WL1	-4.7	-7.2	-0.0	1.7	-4.7	-0.0
WL2	-4.1	-5.0	-0.0	1.0	-2.5	-0.0
LWL1	-2.2	-6.7	-0.0	2.4	-5.2	-0.0
LWL2	-2.4	-5.2	-0.0	2.2	-6.7	-0.0
LWL3	-1.5	-4.5	-0.0	1.8	-3.0	-0.0
LWL4	-1.8	-3.0	-0.0	1.5	-4.5	-0.0
WL3	-1.7	-4.7	-0.0	4.7	-7.2	-0.0
WL4	-1.0	-2.5	-0.0	4.1	-5.0	-0.0

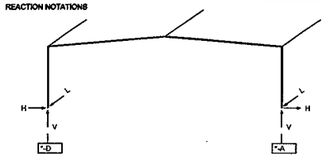
LOAD GROUP DESCRIPTION

DL : Roof Dead Load
LL : Roof Live Load
COLL : Roof Collateral Load
EQ : Lateral Seismic Load (parallel to plane of frame)
WL1 : Wind from Left to Right with +GCpi
WL2 : Wind from Left to Right with -GCpi
LWL1 : Windward Corner Left with +GCpi
LWL2 : Windward Corner Right with +GCpi
LWL3 : Windward Corner Left with -GCpi
LWL4 : Windward Corner Right with -GCpi
WL3 : Wind from Right to Left with +GCpi
WL4 : Wind from Right to Left with -GCpi

FRAME ID #1 cs 68/18/19.417 20/95/0 | USER NAME:Joshua.Lorentson JOB NAME:82019A | DATE:12/30/24 FILE:frames_2-3.fra | PAGE:1-2

SUPPORT REACTIONS FOR EACH LOAD GROUP
*LOCATION: Gridlines: 2 3
NOTES:(1) All reactions are in kips and kip-ft. TIME:11:59:26
(2) The seismic overstrength factor (Omega) is not included in the "RSOWEQ" and "RSUPEQ" Load Group reactions.
Seismic "BASE-ONLY" combinations reactions include an overstrength factor of 2.000
(3) Primary wind load cases are not concurrent.
(4) X-bracing reactions (RSUPLW and RSUPEQ) are combined with LWL and LEQ groups only.

REACTION NOTATIONS



LOAD GROUP REACTION TABLE GRIDLINES * = 2 3

COLUMN	*-D			*-A		
LOAD GROUP	H	V	L	H	V	L
DL	1.3	2.3	-0.0	-1.3	2.3	-0.0
LL	5.2	7.9	-0.0	-5.2	7.9	-0.0
COLL	2.2	3.3	-0.0	-2.2	3.3	-0.0
RSDWEQ	-0.0	5.6	-0.0	0.0	5.3	-0.0
EQ	-1.7	-0.8	-0.0	-1.7	0.8	-0.0
RSUPEQ	0.0	-5.6	-5.9	-0.0	-5.3	-5.9
WL1	-6.7	-9.3	-0.0	3.0	-6.5	-0.0
WL2	-5.2	-5.3	-0.0	1.4	-2.5	-0.0
WL3	-3.0	-6.5	-0.0	6.7	-9.3	-0.0
WL4	-1.4	-2.5	-0.0	5.2	-5.3	-0.0
LWL1	-3.2	-8.9	-0.0	3.5	-7.1	-0.0
RSUPLW	0.0	-5.1	-5.3	-0.0	-4.8	-5.3
LWL2	-3.5	-7.1	-0.0	3.2	-8.8	-0.0
LWL3	-1.6	-4.7	-0.0	1.9	-3.1	-0.0
LWL4	-1.9	-3.1	-0.0	1.6	-4.7	-0.0
RSDWLW	-0.0	5.1	-0.0	0.0	4.8	-0.0

LOAD GROUP DESCRIPTION

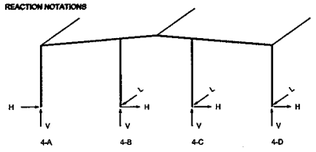
DL : Roof Dead Load
LL : Roof Live Load
COLL : Roof Collateral Load
RSDWEQ : Downward Acting Rod Brace Load from Long. Seismic
EQ : Lateral Seismic Load (parallel to plane of frame)
RSUPEQ : Upward Acting Rod Brace Load from Long. Seismic
WL1 : Wind from Left to Right with +GCpi
WL2 : Wind from Left to Right with -GCpi
WL3 : Wind from Right to Left with +GCpi
WL4 : Wind from Right to Left with -GCpi
LWL1 : Windward Corner Left with +GCpi
RSUPLW : Upward Acting Rod Brace Load from Long. Wind
LWL2 : Windward Corner Right with +GCpi
LWL3 : Windward Corner Left with -GCpi
LWL4 : Windward Corner Right with -GCpi
RSDWLW : Downward Acting Rod Brace Load from Long. Wind

FRAME DESCRIPTION: Endwall EW9 | USER NAME:Joshua.L JOB NAME:82019A | DATE:12/27/24 FILE:REW4BLDG1 | PAGE:EW-2

PATH: R:\jobs\Active\Eng\19-B-82019\rver01-joshua.lorentson\BLDG-A\run01\

SUPPORT REACTIONS FOR EACH LOAD GROUP
NOTE: All reactions are in kips and kip-ft. TIME:16:38:51

REACTION NOTATIONS



LOAD GROUP REACTION TABLE

COLUMN	4-A			4-B			4-C			4-D		
LOAD GROUP	H	V	L	H	V	L	H	V	L	H	V	L
D	0.0	0.5	0.	0.	1.0	0.0	0.	1.0	0.0	0.0	0.5	0.
C	0.0	0.5	0.	0.	1.3	0.0	0.	1.3	0.0	0.0	0.5	0.
L	0.0	2.1	0.	0.	4.8	0.0	0.	4.8	0.0	0.0	2.1	0.
W+	-0.1	-3.3	0.	0.	-7.5	3.5	0.	-7.5	3.5	0.1	-8.3	5.3
W-	-0.1	-3.3	0.	0.	-7.5	-3.3	0.	-7.5	-3.3	0.1	1.8	0.
WR	-0.1	-3.3	0.	0.	-6.2	0.0	1.4	-8.8	0.0	0.1	-3.3	0.
WL	-0.1	-3.3	0.	-1.4	-8.8	0.0	0.	-6.2	0.0	0.1	-3.3	0.
W16+	0.	0.	0.	0.	-7.5	3.5	0.	-7.5	3.5	0.	0.	0.
E+	0.	0.	0.	0.	0.	0.2	0.	0.	0.2	0.	-5.6	5.9
E-	0.	0.	0.	0.	0.	-0.2	0.	0.	-0.2	0.	5.6	0.
ER	0.	0.	0.	0.	1.5	0.	1.8	-1.5	0.	0.	0.	0.
EL	0.	0.	0.	-1.6	-1.5	0.	0.	1.5	0.	0.	0.	0.

LOAD GROUP DESCRIPTION

D : Dead load
C : Collateral load
L : Live load
W+ : Wind load as an inward acting pressure
W- : Wind load as an outward acting suction
WR : Wind force from the right
WL : Wind force from the left
W16+ : Min. 16 psf wind as an inward acting pressure
E+ : Seismic force acting inward
E- : Seismic force acting outward
ER : Seismic force from right
EL : Seismic force from left

NOTES

1) THE REACTIONS PROVIDED ARE BASED ON THE ORDER DOCUMENTS AT THE TIME OF MAILING. ANY CHANGES TO BUILDING LOADS OR DIMENSIONS MAY CHANGE THE REACTIONS. THE REACTIONS WILL BE SUPERSEDED AND VOIDED BY ANY FUTURE MAILING.
2) THE REACTIONS PROVIDED HAVE BEEN CREATED WITH THE FOLLOWING LAYOUT (UNLESS NOTED OTHERWISE).
a) A REACTION TABLE IS PROVIDED WITH THE REACTIONS FOR EACH LOAD GROUP.
b) RIGID FRAMES
(1) GABLED BUILDINGS
(a) LEFT AND RIGHT COLUMNS ARE DETERMINED AS IF VIEWING THE LEFT SIDE OF THE BUILDING, AS SHOWN ON THE ANCHOR ROD DRAWING, FROM THE OUTSIDE OF THE BUILDING.
(b) INTERIOR COLUMNS ARE SPACED FROM LEFT SIDE TO RIGHT SIDE.
(2) SINGLE SLOPE BUILDINGS
(a) LEFT COLUMN IS THE LOW SIDE COLUMN.
(b) RIGHT COLUMN IS THE HIGH SIDE COLUMN.
(c) INTERIOR COLUMNS ARE SPACED FROM LOW SIDE TO HIGH SIDE.
c) ENDWALLS
(1) LEFT AND RIGHT COLUMNS ARE DETERMINED AS IF VIEWING THE WALL FROM THE OUTSIDE.
(2) INTERIOR COLUMNS ARE SPACED FROM LEFT TO RIGHT.
d) ANCHOR ROD SIZE IS DETERMINED BY SHEAR AND TENSION AT THE BOTTOM OF THE BASE PLATE. THE LENGTH OF THE ANCHOR ROD AND METHOD OF LOAD TRANSFER TO THE FOUNDATION ARE TO BE DETERMINED BY THE FOUNDATION ENGINEER.
e) ANCHOR RODS ARE ASTM F1554 Gr. 36 MATERIAL UNLESS NOTED OTHERWISE ON THE ANCHOR ROD LAYOUT DRAWING.
f) X-BRACING
(1) ROD BRACING REACTIONS HAVE BEEN INCLUDED IN VALUES SHOWN IN THE REACTION TABLES.
(2) FOR IBC AND UBC BASED BUILDING CODES, WHEN X-BRACING IS PRESENT IN THE SIDEWALL, INDIVIDUAL LONGITUDINAL SEISMIC LOADS (RBUPEQ AND RBDWEQ) DO NOT INCLUDE THE AMPLIFICATION FACTOR, Ω_0.
(3) FOR CANADA BUILDING CODE (NBC), WHEN X-BRACING IS PRESENT IN THE SIDEWALL OR ENDWALL, INDIVIDUAL LONGITUDINAL SEISMIC LOADS (RBUPEQ & RBDWEQ) ARE MULTIPLIED BY FORCE REDUCTION FACTOR, Rd. WHEN SPECIFIED SHORT-PERIOD SPECTRAL ACCELERATION RATIO $I_E F_a S_a(0.2)$ IS GREATER THAN 0.45.
3) REACTIONS ARE PROVIDED AS UN-FACTORED FOR EACH LOAD GROUP APPLIED TO THE COLUMN. THE FOUNDATION ENGINEER WILL APPLY THE APPROPRIATE LOAD FACTORS AND COMBINE THE REACTIONS IN ACCORDANCE WITH THE BUILDING CODE AND DESIGN SPECIFICATIONS TO DETERMINE BEARING PRESSURES AND CONCRETE DESIGN. THE FACTORS APPLIED TO LOAD GROUPS FOR THE STEEL COLUMN DESIGN MAY BE DIFFERENT THAN THE FACTORS USED IN THE FOUNDATION DESIGN.
a) FOR PROJECTS USING ULTIMATE DESIGN WIND SPEEDS SUCH AS 2012 IBC, 2015 IBC, OR FLORIDA BUILDING CODE, THE WIND LOAD REACTIONS ARE AT A STRENGTH VALUE WITH A LOAD FACTOR OF 1.0.
b) FOR IBC CODES, THE SEISMIC REACTIONS PROVIDED ARE AT A STRENGTH LEVEL AND DO NOT CONTAIN THE RHO FACTOR.
c) FOR NBCC CODES, THE SEISMIC REACTIONS PROVIDED DO NOT CONTAIN THE R_d*R_o FACTOR.
THE MANUFACTURER DOES NOT PROVIDE "MAXIMUM" LOAD COMBINATION REACTIONS, HOWEVER, THE INDIVIDUAL LOAD REACTIONS PROVIDED MAY BE USED BY THE FOUNDATION ENGINEER TO DETERMINE THE APPLICABLE LOAD COMBINATIONS FOR HIS/HER DESIGN PROCEDURES AND ALLOW FOR AN ECONOMICAL FOUNDATION DESIGN.

DETAILS SUBJECT TO CHANGE BASED ON FINAL DESIGN. ISSUED FOR CONSTRUCTION DRAWINGS WILL REPLACE THE PERMIT DRAWINGS.

Revision	Date	Description	By	Ck'd

Cornerstone Building Brands
13105 Northwest Freeway, Suite 500
Houston, TX 77040
cornerstonebuildingbrands.com

Project Name & Location:
PAUL VIBORG
1529 N RIVER RD
PASO ROBLES, CA 93446-7325

STAR BUILDING SYSTEMS

Customer:
DUECK CONSTRUCTION COMPANY INC
2313 SIGNORA ROSA CT
PASO ROBLES, CA 93446
ATTN: TIM DUECK

Drawing Status:
☐ Issued For Approval (Not For Construction)
☒ Issued For Permit

Scale: NOT TO SCALE
Drawn by: HPR 1/6/25
Checked by: HPR 1/6/25
Project Engineer: BXT
Job Number: 19-B-82019
Sheet Number: F3 of 3

The engineer whose seal appears hereon is employed by or is contracted to provide engineering services for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only. The undersigned engineer is not the overall engineer of record for this project.

BRENDAN PATRICK TOOHEY, P.E.
CALIFORNIA P.E. C96062

This item has been electronically signed and sealed by Brendan Patrick Toohey, P.E. on the date and/or time stamp shown using a digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified by a 3rd Party Certificate Authority on any electronic copy.

REGISTERED PROFESSIONAL ENGINEER
BRENDAN PATRICK TOOHEY
C96062
Jan 06, 2025
CIVIL
STATE OF CALIFORNIA

DRC Item 3

Builder/Contractor Responsibilities

Drawing Validity- These drawings, supporting structural calculations and design certification are based on the order documents as of the date of these drawings. These documents describe the material supplied by the manufacturer as of the date of these drawings. Any changes to the order documents after the date on these drawings may void these drawings, supporting structural calculations and design certification. The Builder/Contractor is responsible for notifying the building authority of all changes to the order documents which result in changes to the drawings, supporting structural calculations and design certification.

Builder Acceptance of Drawings- Approval of the manufacturer's drawings and design data affirms that the manufacturer has correctly interpreted and applied the requirements of the order documents and constitutes Builder/Contractor acceptance of the manufacturer's interpretations of the order documents and standard product specifications, including its design, fabrication and quality criteria standards and tolerances. (AISC code of standard practice Sept 86 Section 4.2.1) (Mar 05 Section 4.4.1)

Code Official Approval- It is the responsibility of the Builder/Contractor to ensure that all project plans and specifications comply with the applicable requirements of any governing building authority. The Builder/Contractor is responsible for securing all required approvals and permits from the appropriate agency as required.

Building Erection - The Builder/Contractor is responsible for all erection of the steel and associated work in compliance with the Metal Building Manufacturers drawings. Temporary supports, such as temporary guys, braces, false work or other elements required for erection will be determined, furnished and installed by the erector (AISC Code of Standard Practice Sept 86 Section 7.9.1) (Mar 05 Section 7.10.3) (CSA/S16-09 Section 29).

Discrepancies - Where discrepancies exist between the Metal Building plans and plans for other trades, the Metal Building plans will govern. (AISC Code of Standard Practice Sept 86 Section 3.3) (Mar 05 Section 3.3)

Materials by Others - All interface and compatibility of any materials not furnished by the manufacturer are the responsibility of and to be coordinated by the Builder/Contractor or A/E firm. Unless specific design criteria concerning any interface between materials if furnished as a part of the order documents, the manufacturers assumptions will govern.

Modification of the Metal Building from Plans - The Metal Building supplied by the manufacturer has been designed according to the Building Code and specifications and the loads shown on this drawing. Modification of the building configuration, such as removing wall panels or braces, from that shown on these plans could affect the structural integrity of the building. The Metal Building Manufacturer or a Licensed Structural Engineer should be consulted prior to making any changes to the building configuration shown on these drawings. The Metal Building Manufacturer will assume no responsibility for any loads applied to the building not indicated on these drawings.

Foundation Design- The Metal Building Manufacturer is not responsible for the design, materials and workmanship of the foundation. Anchor rod plans prepared by the manufacturer are intended to show only location, diameter and projection of the anchor rods required to attach the Metal Building System to the foundation. It is the responsibility of the end customer to ensure that adequate provisions are made for specifying rod embedment, bearing values, tie rods and or other associated items embedded in the concrete foundation, as well as foundation design for the loads imposed by the Metal Building System, other imposed loads, and the bearing capacity of the soil and other conditions of the building site. (MBMA 06 Sections 3.2.2 and A3)

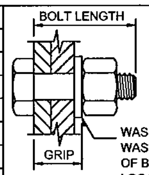
Shimming - In accordance with Section 6.10 of Chapter 4 Common Industry Practices in the Metal Building Systems Manual, shimming is a normal part of erection and is not subject to claim.

Building Descriptions			
Building ID	Width	Length	Height
Building A	68'-0	60'-0	18'-0

Download panel installation manuals from:
www.CBBmanuals.com

Descargue los manuales de instalación del panel desde:
www.CBBmanuals.com

½" DIA. A325 BOLT GRIP TABLE	
GRIP	LENGTH
0 TO 9/16"	1 1/4" F.T.
Over 9/16" TO 1 1/16"	1 3/4" F.T.
Over 1 1/16" TO 1 5/16"	2"
Over 1 5/16" TO 1 9/16"	2 1/4"
Over 1 9/16" TO 1 13/16"	2 1/2"
Over 1 13/16" TO 2 1/16"	2 3/4"
LOCATIONS OF BOLTS LONGER THAN 2 3/4" NOTED ON ERECTION DRAWINGS	
F.T. DENOTES FULLY THREADED	



NOTE: FULL THREAD ENGAGEMENT IS DEEMED TO HAVE BEEN MET WHEN THE END OF THE BOLT IS FLUSH WITH THE FACE OF THE NUT.

WASHER REQUIRED ONLY WHEN SPECIFIED. WASHER MAY BE LOCATED UNDER HEAD OF BOLT, UNDER NUT, OR AT BOTH AT LOCATIONS NOTED ON ERECTION DRAWINGS. ADD 5/32" FOR EACH WASHER TO MATERIAL THICKNESS TO DETERMINE GRIP.

STAR BUILDING SYSTEMS.
Part of the Cornerstone Building Brands Family

Sales: 800.879.7827
starbuildings.com

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13105 Northwest Freeway, Suite 500
Houston, TX 77040
cornerstonebuildingbrands.com

Field Services: 844.840.4603
field.services@cornerstone-bb.com

DESIGN CRITERIA

```
Job Number ......................: 19-B-82019
Builder .........................: DUECK CONSTRUCTION COMPANY INC-153691
Jobsite Location ................: PAUL VIBORG, PASO ROBLES, CA

Building Code ...................: 2022 CALIFORNIA BUILDING CODE
Building Risk Category ..........: Normal (Risk Category II)
Roof Dead Load
     Superimposed ...............: 2.08 psf
     Collateral .................: 5.00 psf
     (5.00 psf Other)
Roof Live Load ..................: 20.00 psf reduction allowed

Wind
     Ultimate Wind Speed (Vult) .: 95 mph
     Nominal Wind Speed (Vasd) ..: 74 mph (IBC section 1609.3.1)
     Serviceability Wind Speed ..: 64 mph
     Ground Elevation Factor ....: 0.98 (697 ft ASL)
     Wind Exposure Category .....: C
     Exposure Coefficient (MWFRS): 0.882
     Enclosure Classification ...: Enclosed Building
     Internal Pressure Coef (GCpi): 0.18/-0.18
     Wall Loads for components not provided by building manufacturer
     Zone 5 Areas (within 6.00' of corner) : 18.24 psf pressure -24.32 psf suction
     Zone 4 Areas (away from corners)      : 18.24 psf pressure -19.76 psf suction
     These values are the maximum values required based on a 10 sq ft area.
     Components with larger areas may have lower wind loads.

Seismic
     Seismic Importance Factor (Ie): 1.00
     Seismic Design Category ....: D
     Soil Site Class ............: D Stiff Soil (Default)
     Ss .........................: 1.169 g        Sds ....: 0.935 g
     S1 .........................: 0.426 g        Sd1 ....: 0.532 g
     Analysis Procedure .........: Equivalent Lateral Force
     Column Line                          4          1-3        SWA & SWC
     Basic Force Resisting System         B3         C4         B3
     Response Modification Coefficient (R) 3.25      3.50       3.25
     Seismic Response Coefficient (Cs)    0.288      0.267      0.288
     Design Base Shear in kips (V)        1.63       8.77       11.78
     Basic Structural System (from ASCE 7-16 Table 12.2-1)
       B3 - Ordinary Steel Concentrically Braced Frame
       C4 - Ordinary Steel Moment Frame
```

DEFLECTION CRITERIA

```
Job Number ......................: 19-B-82019
Builder .........................: DUECK CONSTRUCTION COMPANY INC-153691
Jobsite Location ................: PAUL VIBORG, PASO ROBLES, CA
```

The material supplied by the manufacturer has been designed with the following minimum deflection criteria. The actual deflection may be less depending on actual load and actual member length.

BUILDING DEFLECTION LIMITS ......: BLDG-A

Roof Limits	Rafters	Purlins	Panels
Live: L/	180	150	60
Serviceability Wind: L/	180	180	60
Total Gravity: L/	120	120	60
Total Uplift: L/	N/A	N/A	60

Frame Limits	Sidesway
Live: H/	60
Serviceability Wind: H/	60
Seismic Drift: H/	40
Total Gravity: H/	60
Service Seismic: H/	40

Wall Limits	Limit
Total Wind Panels: L/	60
Total Wind Girts: L/	90
Total Wind EW Columns: L/	120

The Service Seismic limit as shown here is at service level loads.

PROJECT NOTES

Material properties of steel bar, plate, and sheet used in the fabrication of built-up structural framing members conform to ASTM A529, ASTM A572, or ASTM A1011 with 55 ksi min. yield, except flanges wider than 12" and thicker than 3/8", all flanges thicker than 1", and all webs thicker than 3/8" are 50 ksi min. yield. Rod X-bracing conforms to ASTM A529 or ASTM A572 with 50 ksi min. yield. Cable X-bracing conforms to ASTM A475 7 Strand Extra High-Strength grade. Hot rolled structural shapes conform to ASTM A992, ASTM A529, or ASTM A572 with 50 ksi min. yield. Hot rolled angles, other than flange braces, conform to ASTM A36 minimum. Round and rectangular HSS conforms to ASTM A500 Grade B. Cold-formed steel secondary framing Members conform to ASTM A1011 or ASTM A653 Grade 55 with 55 ksi min. yield. For Canada, material properties conform to CAN/CSA G40.20/G40.21 or equivalent.

Unless otherwise noted, special inspection of fabricated items is not required. Per IBC section 1704.2.5.1, fabricator is approved to perform such work without special inspection through maintenance of IAS AC 472 certification MB-136.

Bolted joints with A325 Type 1 bolts greater than 1/2" diameter are specified as pre-tensioned joints in accordance with the most recent edition of the RCSC Specification for Structural Joints Using ASTM A325 or A490 Bolts. Pre Tensioning can be accomplished by using the turn-of-nut method of tightening, calibrated wrench, twist-off-type tension-control bolts or direct-tension indicator as acceptable to the Inspecting Agency and Building Official. Installation inspection requirements for pre-tensioned joints (Specification for Structural Joints Section 9.2) using turn-of-nut method is suggested. The connections on this project are not slip critical.

Design criteria as noted is as given within order documents and is applied in general accordance with the applicable provisions of the model code and/or specification indicated. Neither the metal building manufacturer nor the certifying engineer declares or attests that the loads as designated are proper for local provisions that may apply or for site specific parameters. The design criteria is supplied by the builder, project owner, or an Architect and/or Engineer of Record for the overall construction project.

This project is designed using manufacturer's standard serviceability criteria. Generally this means that all deflections are within typical performance limits for normal occupancy and standard metal building products.

This metal building system is designed as an Enclosed Building. Exterior and/or operable components including, but not limited to, doors, windows, vents, etc. ("Components") must be designed to withstand the required component and cladding wind pressures specified by the building code. In order to maintain the metal building system's Enclosed Building condition, all Components shall be closed when wind velocities reach half the designed wind load for the metal building system as shown on the drawings and design criteria documentation. Failure to maintain the metal building system's Enclosed Building condition will violate and void all warranties and certifications applicable to the material supplied by the metal building manufacturer.

The materials by the manufacturer will be fabricated in a facility that has received Certification of Accreditation for the Manufacture of Metal Building Systems (AC472) from International Accreditation Service (IAS). This certification is recognized under Section 1704 of the IBC for approved fabricator.

The framing at building A, gridline 1 is NOT designed to receive a future bay addition. Corresponding frame reactions are calculated based upon actual tributary area.

Framed openings, walk doors, and open areas shall be located in the bay and elevation as shown in the erection drawings. The cutting or removal of girts shown on the erection drawings due to the addition of framed openings, walk doors, or open areas not shown may void the design certifications supplied by the metal building manufacturer.

Using 8.1 x 6.3125 eave gutter with 4 x 5 downspouts, the roof drainage system has been designed using the method outlined in the MBMA Metal Building Systems Manual. Downspout locations have not been located on these drawings. The downspouts are to be placed on the building sidewalls at a spacing not to exceed 60 feet with the first downspout from both ends of the gutter run within 30 feet of the end. Downspout spacing that does not exceed the maximum spacing will be in compliance with the building code. The gutter and downspout system as provided by the manufacturer is designed to accommodate 2.9 in/hr rainfall intensity.

Drawing Index

Revision	Date	Description	By	Ck'd

Cornerstone Building Brands
13105 Northwest Freeway, Suite 500
Houston, TX 77040
cornerstonebuildingbrands.com

STAR

Customer:
DUECK CONSTRUCTION COMPANY INC
2313 SIGNORA ROSA CT
PASO ROBLES, CA 93446
ATTN: TIM DUECK

Project Name & Location:
PAUL VIBORG
1529 N RIVER RD
PASO ROBLES, CA 93446-7325

Drawing Status:
☐ Issued For Approval (Not For Construction)
☒ Issued For Permit
☐ Issued For Construction

Scale: NOT TO SCALE
Drawn by: HPR 1/6/25
Checked by: HPR 1/6/25
Project Engineer: BXT
Job Number: 19-B-82019
Sheet Number: E1 of 12

The engineer whose seal appears hereon is employed by or is contracted to provide engineering services for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only. The undersigned engineer is not the overall engineer of record for this project.

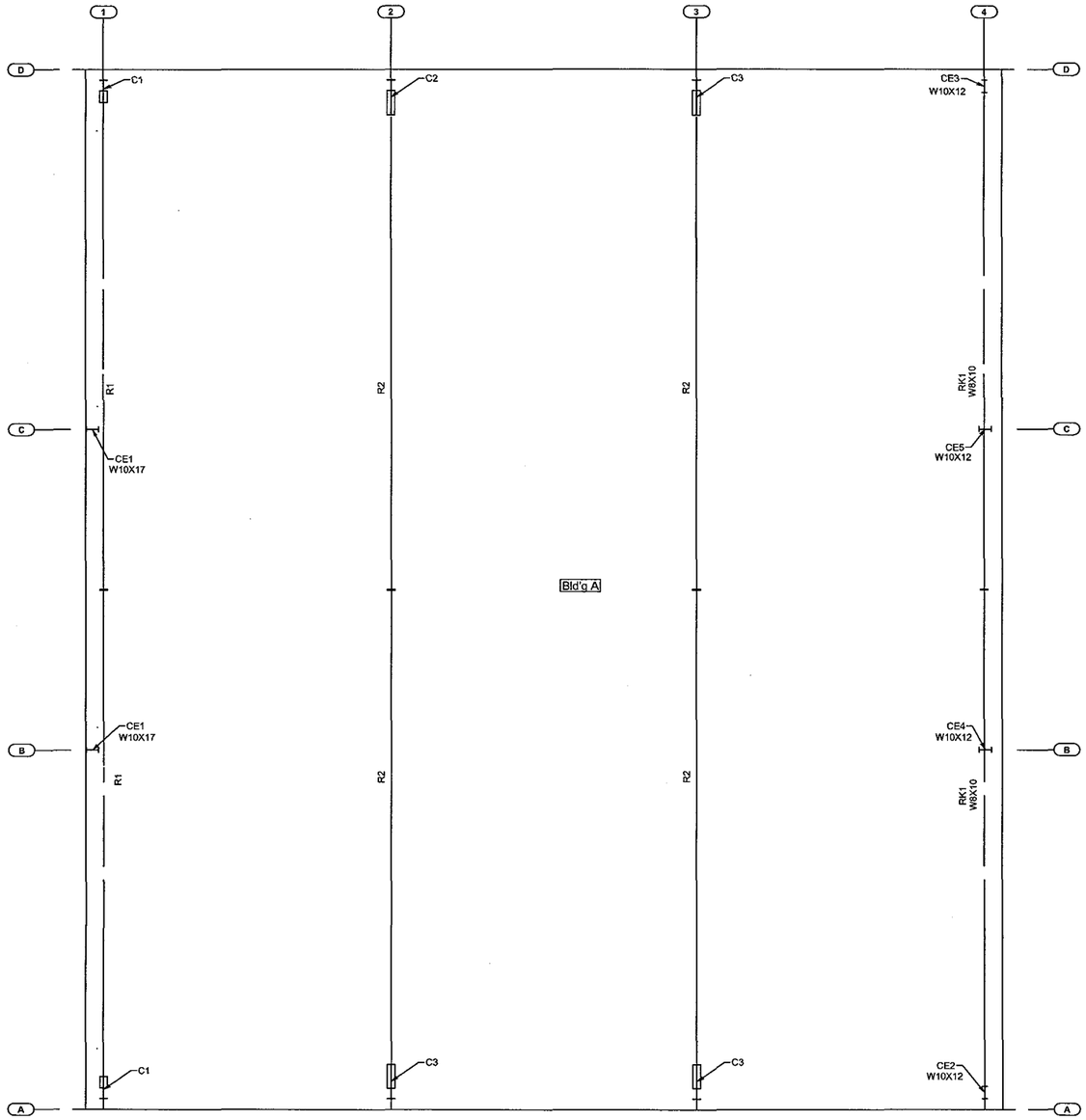
BRENDAN PATRICK TOOHEY, P.E.
CALIFORNIA P.E. C96062

This item has been electronically signed and sealed by Brendan Patrick Toohey, P.E. on the date and/or time stamp shown using a digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified by a 3rd Party Certificate Authority on any electronic copy.

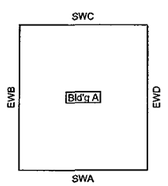
REGISTERED PROFESSIONAL ENGINEER
BRENDAN PATRICK TOOHEY
C96062
Jan 06, 2025
CIVIL
STATE OF CALIFORNIA

DETAILS SUBJECT TO CHANGE BASED ON FINAL DESIGN. ISSUED FOR CONSTRUCTION DRAWINGS WILL REPLACE THE PERMIT DRAWINGS.

DRC Item 3



Primary Steel Location Plan



Key Plan

DETAILS SUBJECT TO CHANGE BASED ON FINAL DESIGN. ISSUED FOR CONSTRUCTION DRAWINGS WILL REPLACE THE PERMIT DRAWINGS.

Revision	Date	Description	By	Ck'd

Cornerstone Building Brands
13105 Northwest Freeway, Suite 500
Houston, TX 77040
cornerstonebuildingbrands.com

STAR BUILDING SYSTEMS

Project Name & Location:
PAUL VIBORG
1529 N RIVER RD
PASO ROBLES, CA 93446-7325

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2313 SIGNORA ROSA CT
PASO ROBLES, CA 93446
ATTN: TIM DUECK

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Scale:	NOT TO SCALE
Drawn by:	HPR 1/6/25
Checked by:	HPR 1/6/25
Project Engineer:	BXT
Job Number:	19-B-82019
Sheet Number:	E2 of 12

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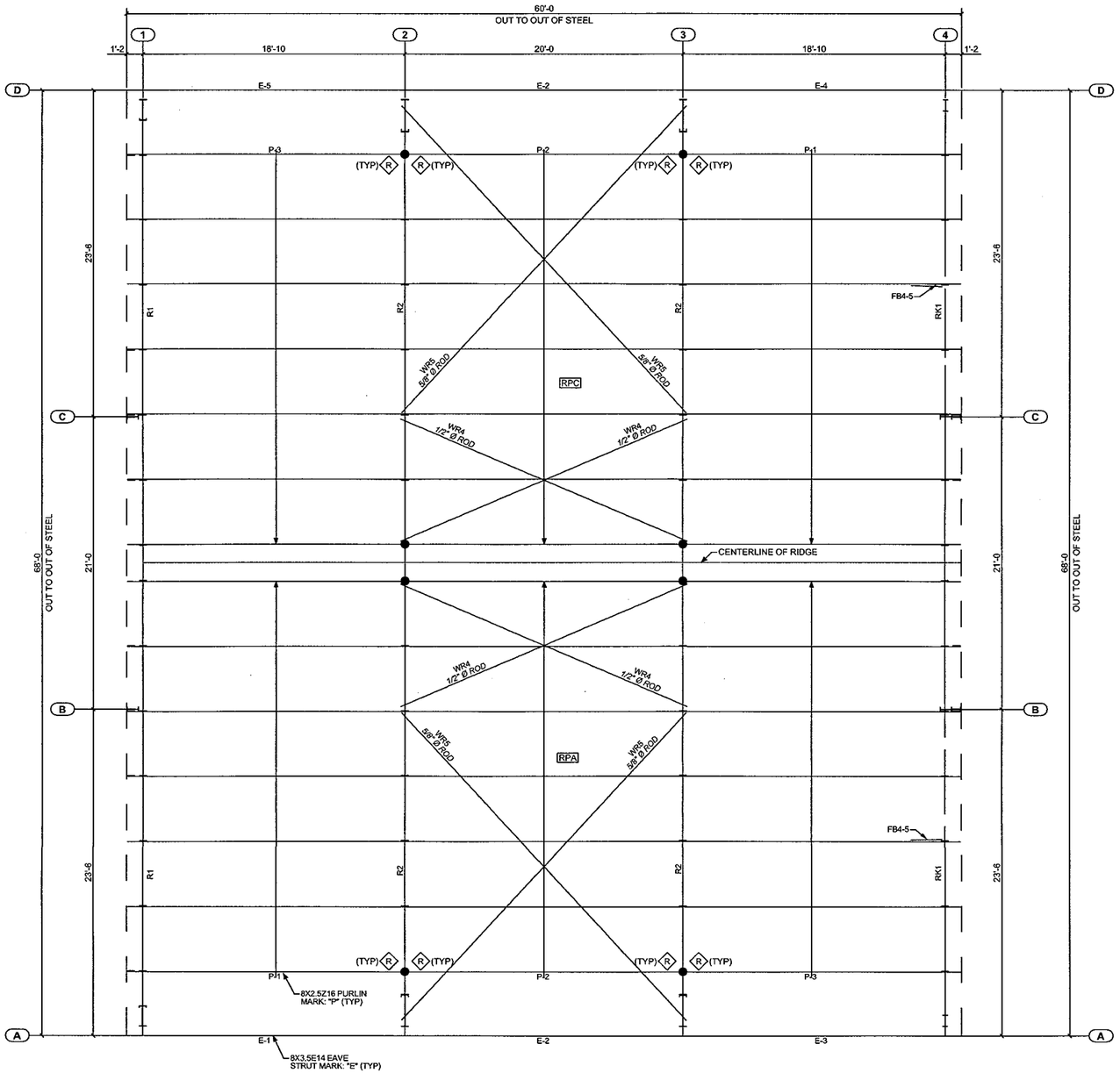
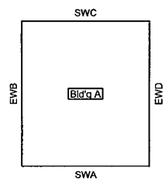
REGISTERED PROFESSIONAL ENGINEER
BRENDAN PATRICK TOOHEY
C96062
Jan 06, 2025
CIVIL
STATE OF CALIFORNIA

DRC Item 3

● — DENOTES: CLIP LOCATION
SC90 AT 8" PURLINS
SC92 AT 10" PURLINS
SC94 AT 12" PURLINS



Roof Framing Plan



Key Plan

ZEE SECTION LAP TABLE			
SYMBOL	LAP LENGTH	SYMBOL	LAP LENGTH
G	-0'-0 1/4"	T	2'-5 3/4"
S	0'-3 3/4"	V	3'-1 3/4"
R	1'-5 3/4"	REFER TO CF01122	

Revision	Date	Description	By	Ck'd

Cornerstone Building Brands
13105 Northwest Freeway, Suite 500
Houston, TX 77040
cornerstonebuildingbrands.com

STAR BUILDING SYSTEMS

Project Name & Location:
PAUL VIBORG
1529 N RIVER RD
PASO ROBLES, CA 93446-7325

Customer:
DUECK CONSTRUCTION COMPANY INC
2313 SIGNORA ROSA CT
PASO ROBLES, CA 93446
ATTN: TIM DUECK

Drawing Status:
☐ Issued For Approval (Not For Construction)
☐ Issued For Construction
☒ Issued For Permit

Scale:	NOT TO SCALE
Drawn by:	HPR 1/6/25
Checked by:	HPR 1/6/25
Project Engineer:	BXT
Job Number:	19-B-82019
Sheet Number:	E3 of 12

The engineer whose seal appears hereon is employed by or is contracted to provide engineering services for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only. The undersigned engineer is not the overall engineer of record for this project.

BRENDAN PATRICK TOOHEY, P.E.
CALIFORNIA P.E. C96062

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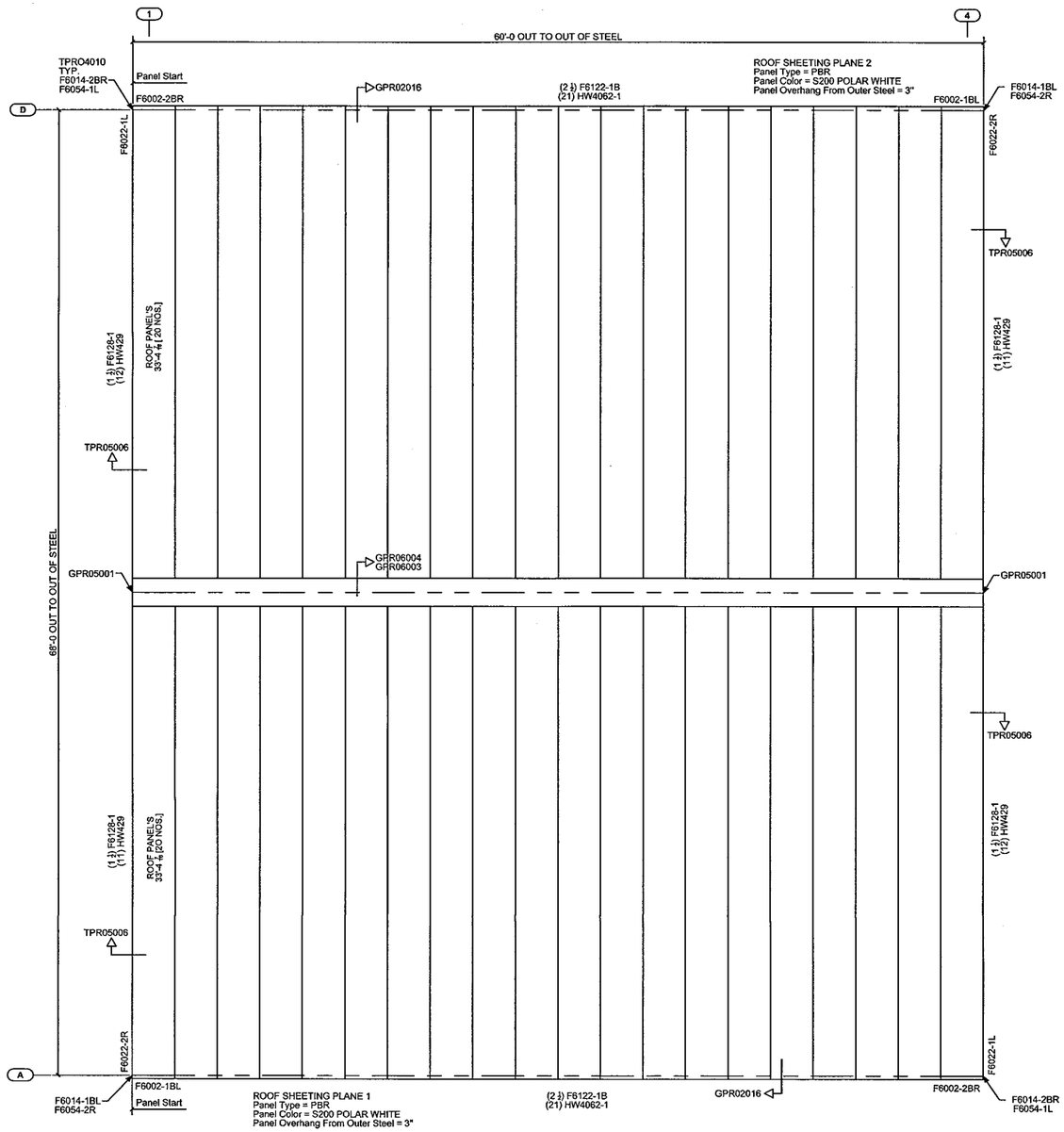
REGISTERED PROFESSIONAL ENGINEER
BRENDAN PATRICK TOOHEY
C96062
Jan 06, 2025
CIVIL
STATE OF CALIFORNIA

DETAILS SUBJECT TO CHANGE BASED ON FINAL DESIGN. ISSUED FOR CONSTRUCTION DRAWINGS WILL REPLACE THE PERMIT DRAWINGS.

DRC Item 3

PBR ROOF PANELS ARE TO BE FIELD CUT IF THE PANELS EXTEND OUTSIDE OF THE ROOF PLANE. PANELS ARE NOT TO BE BACK LAPPED.

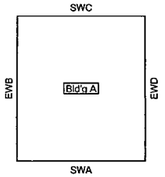


Roof Sheeting Plan

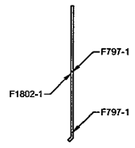
Non-Standard PBR Roof Panel Fasteners

SPEC100 member fasteners are to be used for panel the R Drawings
to secondary attachment in lieu of #3 shown on

SPEC101 lap fasteners are to be used for panel to panel and panel to trim attachment in lieu of #4 shown on the R Drawings



Key Plan



Downspout Layout
[1 Req'd @ SWA]
[1 Req'd @ SWC]

DOWNSPOUTS ARE TO BE PLACED AT A SPACING NOT TO EXCEED 60'-0" WITH A DOWNSPOUT WITHIN 30'-0" OF EACH END OF THE GUTTER RUN.

DETAILS SUBJECT TO CHANGE BASED ON FINAL DESIGN. ISSUED FOR CONSTRUCTION DRAWINGS WILL REPLACE THE PERMIT DRAWINGS.

Revision	Date	Description	By	Ck'd

Cornerstone Building Brands
13105 Northwest Freeway, Suite 500
Houston, TX 77040
cornerstonebuildingbrands.com

STAR

Customer:
DUECK CONSTRUCTION COMPANY INC
2515 SIGNORA ROSA CT
PASO ROBLES, CA 93446
ATTN: TIM DUECK

Project Name & Location:
PAUL VBORG
1529 N RIVER RD
PASO ROBLES, CA 93446-7325

Drawing Status:
☐ Issued For Approval
☐ Issued For Construction
☒ Issued For Permit

Scale:	NOT TO SCALE
Drawn by:	HPR 1/6/25
Checked by:	HPR 1/6/25
Project Engineer:	BXT
Job Number:	19-B-82019
Sheet Number:	E4 of 12

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BRENDAN PATRICK TOOHEY, P.E.
CALIFORNIA P.E. C96062

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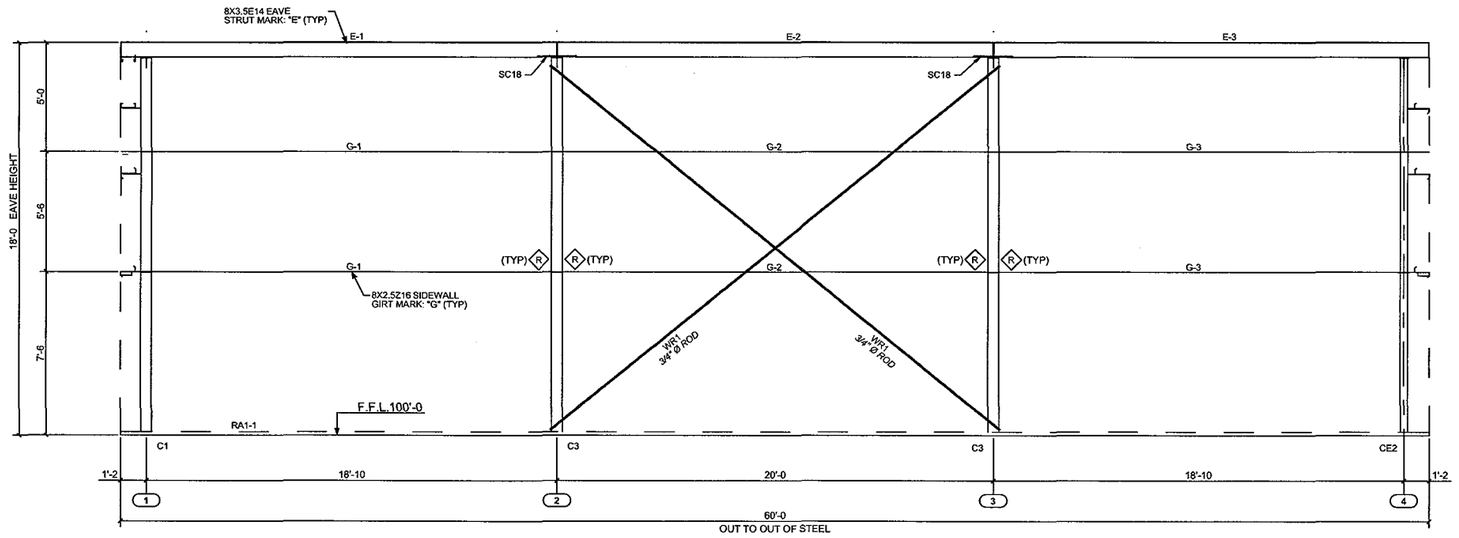
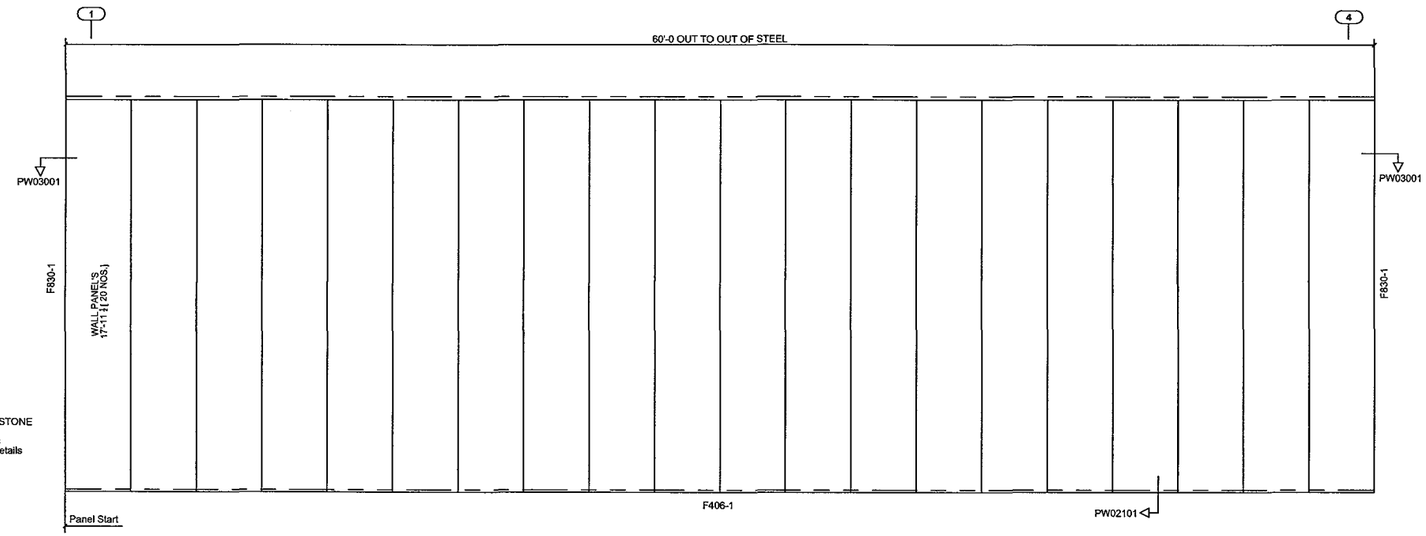
REGISTERED PROFESSIONAL ENGINEER
BRENDAN PATRICK TOOHEY
C96062
Jan 06, 2025
CIVIL
STATE OF CALIFORNIA

DRC Item 3

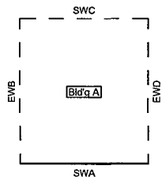


Sidewall Framing SWA at Grid Line A



Sidewall Sheeting SWA

PBR Wall Panels
Panel Coverage = 3'-0"
Panel Color = 5200 LIGHT STONE
Panel Pkg. Req'd. = PBS-3
Field Cut Panel and Trim as
required per Construction Details



Key Plan

ZEE SECTION LAP TABLE			
SYMBOL	LAP LENGTH	SYMBOL	LAP LENGTH
G	-0'-0 1/4"	T	2'-5 3/4"
S	0'-3 3/4"	V	3'-1 3/4"
R	1'-5 3/4"	REFER TO CF01122	

Revision	Date	Description	By	Ck'd

Cornerstone Building Brands
13105 Northwest Freeway, Suite 500
Houston, TX 77040
cornerstonebuildingbrands.com

Project Name & Location:
PAUL VBORG
1529 N RIVER RD
PASO ROBLES, CA 93446-7325

STAR BUILDING SYSTEM

Customer:
DUECK CONSTRUCTION COMPANY INC
2313 SIGNORA ROSA CT
PASO ROBLES, CA 93446
ATTN: TIM DUECK

Drawing Status: ☐ Issued For Approval (Not For Construction) ☐ Issued For Permit ☒ Issued For Construction

Scale:	NOT TO SCALE
Drawn by:	HPR 1/6/25
Checked by:	HPR 1/6/25
Project Engineer:	BXT
Job Number:	19-B-82019
Sheet Number:	E5 of 12

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BRENDAN PATRICK TOOHEY, P.E.
CALIFORNIA P.E. C96062

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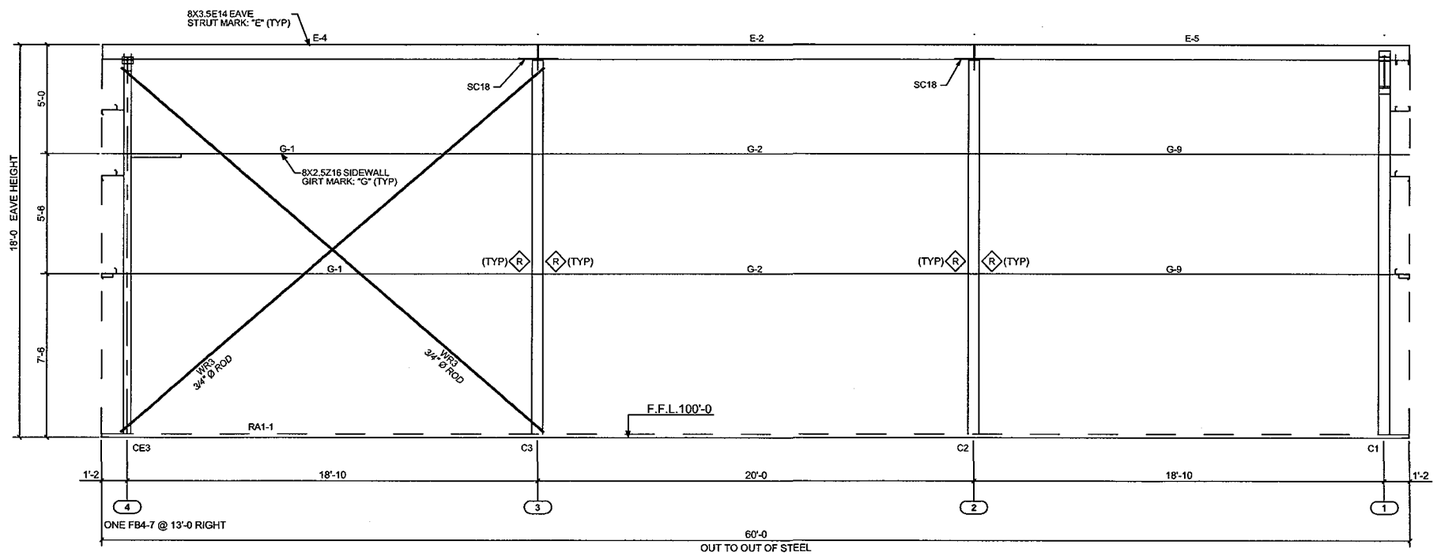
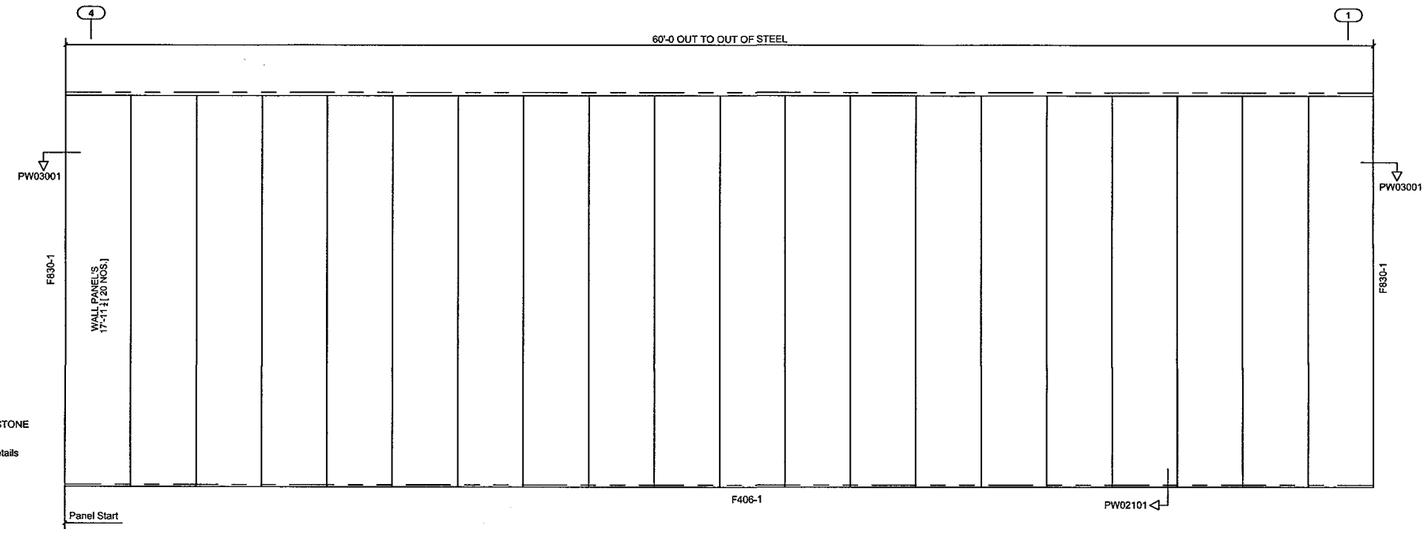
REGISTERED PROFESSIONAL ENGINEER
BRENDAN PATRICK TOOHEY
C96062
Jan 06, 2025
CIVIL
STATE OF CALIFORNIA

DETAILS SUBJECT TO CHANGE BASED ON FINAL DESIGN. ISSUED FOR CONSTRUCTION DRAWINGS WILL REPLACE THE PERMIT DRAWINGS.

DRC Item 3

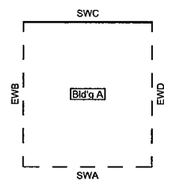


Sidewall Framing SWC at Grid Line D



PBR Wall Panels
Panel Coverage = 3'-0"
Panel Color = S200 LIGHT STONE
Panel Pkg. Req'd. = PBS-4
Field Cut Panel and Trim as required per Construction Details

Sidewall Sheeting SWC



Key Plan

ZEE SECTION LAP TABLE			
SYMBOL	LAP LENGTH	SYMBOL	LAP LENGTH
G	-0'-0 1/4"	T	2'-5 3/4"
S	0'-3 3/4"	V	3'-1 3/4"
R	1'-5 3/4"	REFER TO CF01122	

DETAILS SUBJECT TO CHANGE BASED ON FINAL DESIGN. ISSUED FOR CONSTRUCTION DRAWINGS WILL REPLACE THE PERMIT DRAWINGS.

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REGISTERED PROFESSIONAL ENGINEER BRENDAN PATRICK TOOHEY C96062 Jan 06, 2025 CIVIL STATE OF CALIFORNIA

Revision	Date	Description	By	Ck'd

Cornerstone Building Brands
13105 Northwest Freeway, Suite 500
Houston, TX 77040
cornerstonebuildingbrands.com

Project Name & Location:
PAUL VIBORG
1529 N RIVER RD
PASO ROBLES, CA 93446-7325

STAR

Customer:
DUECK CONSTRUCTION COMPANY INC
2313 SIGNORA ROSA CT
PASO ROBLES, CA 93446
ATTN: TIM DUECK

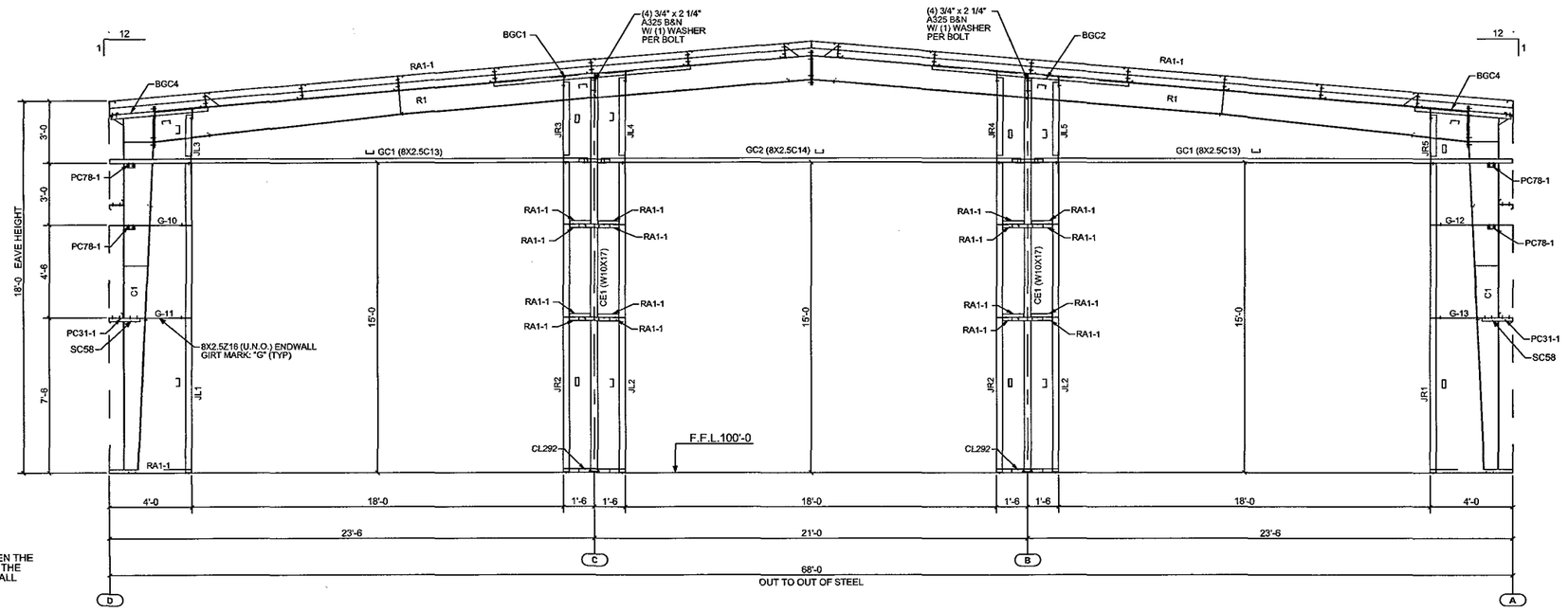
Drawing Status:
☐ Issued For Approval
☐ Issued For Construction
☒ Issued For Permit

Scale:	NOT TO SCALE
Drawn by:	HPR 1/6/25
Checked by:	HPR 1/6/25
Project Engineer:	BXT
Job Number:	19-B-82019
Sheet Number:	E6 of 12

The engineer whose seal appears hereon is employed by or is contracted to provide engineering services for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only. The undersigned engineer is not the overall engineer of record for this project.

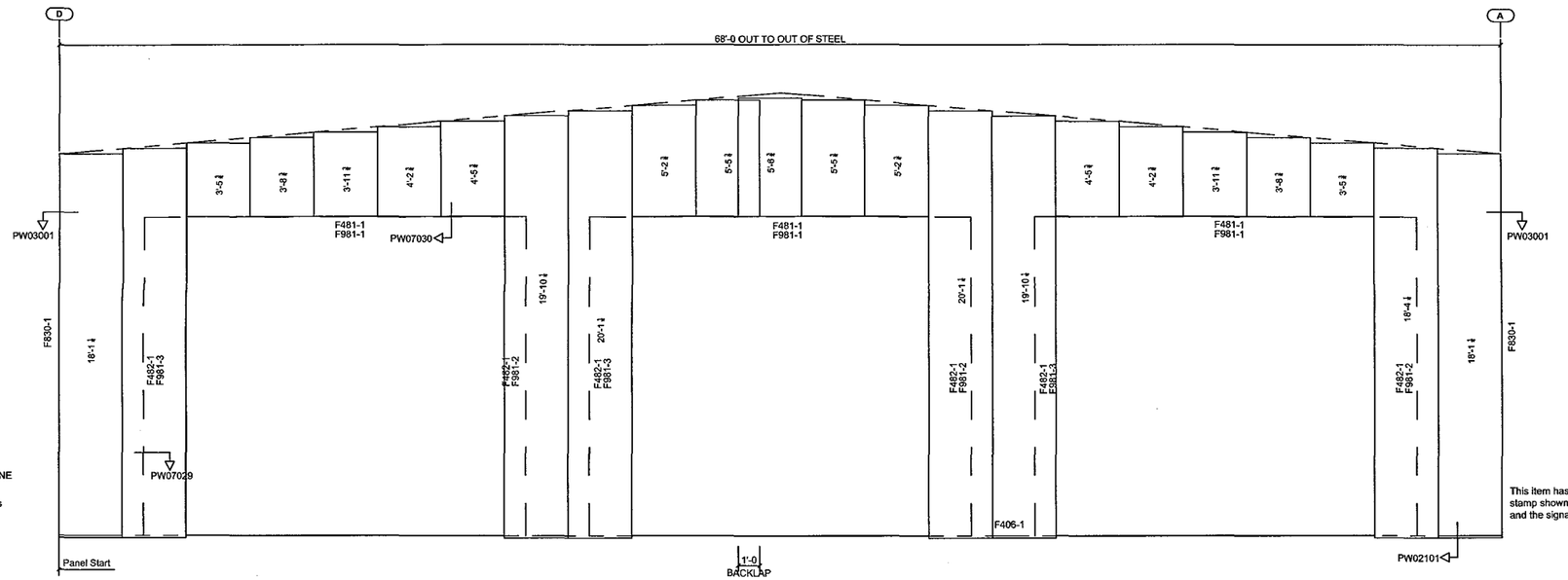
BRENDAN PATRICK TOOHEY, P.E.
CALIFORNIA P.E. C96062

DRC Item 3



Endwall Framing EWB at Grid Line 1

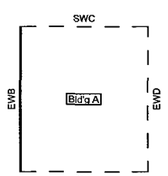
ALL JAMB AND SUB JAMB SIZE IS 8X3.5C14 TYP.U.N.O.



Endwall Sheeting EWB

CL292- FASTENS BETWEEN THE GIRTS ON EACH SIDE OF THE ENDWALL COLUMNS, AT ALL GIRT ELEVATIONS. REFER TO DETAILS.

PBR Wall Panels
Panel Coverage = 3'-0"
Panel Color = S200 LIGHT STONE
Panel Pkg. Req'd. = PBS-1
Field Cut Panel and Trim as required per Construction Details



Key Plan

DETAILS SUBJECT TO CHANGE BASED ON FINAL DESIGN. ISSUED FOR CONSTRUCTION DRAWINGS WILL REPLACE THE PERMIT DRAWINGS.

Revision	Date	By	Ck'd	Description

Cornerstone Building Brands
13105 Northwest Freeway, Suite 500
Houston, TX 77040
cornerstonebuildingbrands.com

Project Name & Location:
PAUL VIBORG
1529 N RIVER RD
PASO ROBLES, CA 93446-7325

Customer:
DUECK CONSTRUCTION COMPANY INC
2313 SIGNORA ROSA CT
PASO ROBLES, CA 93446
ATTN: TIM DUECK

Drawing Status:
☐ Issued For Approval (Not For Construction)
☒ Issued For Permit

Scale:	NOT TO SCALE	
Drawn by:	HPR	1/6/25
Checked by:	HPR	1/6/25
Project Engineer:	BXT	
Job Number:	19-B-82019	
Sheet Number:	E7 of 12	

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BRENDAN PATRICK TOOHEY, P.E.
CALIFORNIA P.E. C96062

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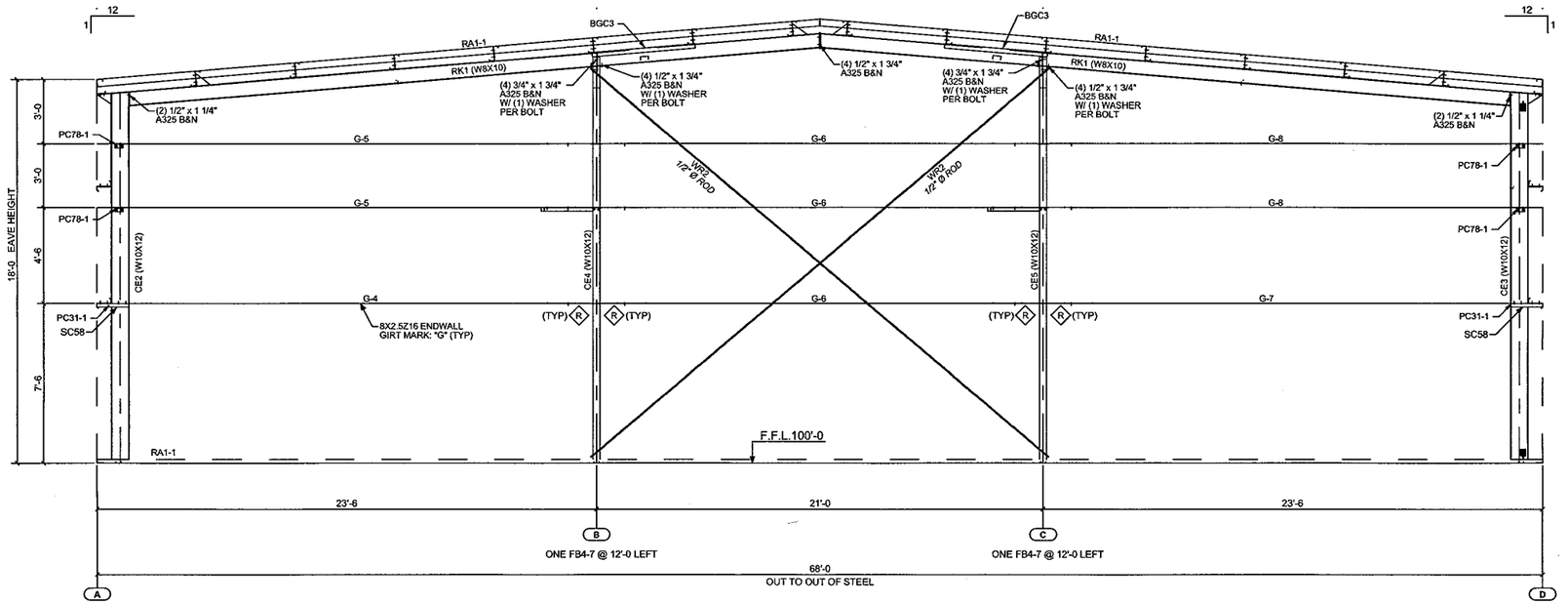
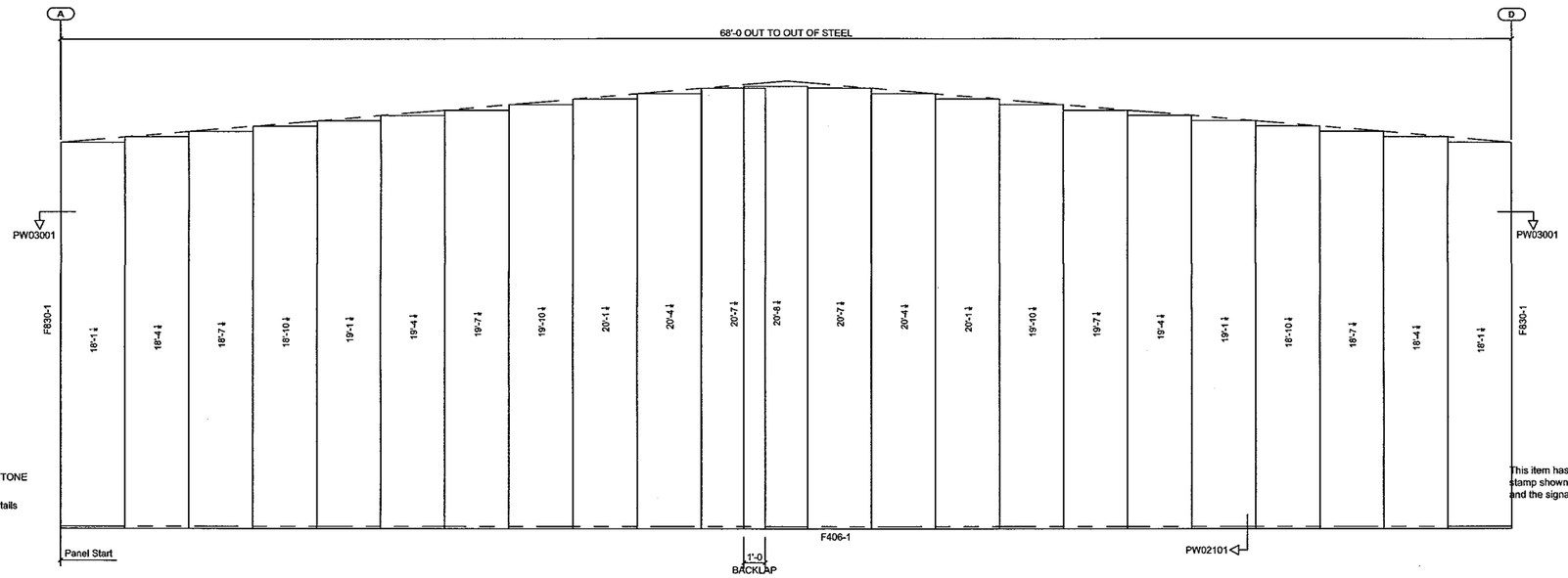
REGISTERED PROFESSIONAL ENGINEER
BRENDAN PATRICK TOOHEY
C96062
CIVIL
STATE OF CALIFORNIA
Jan 06, 2025

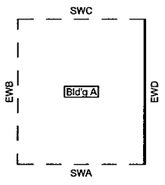
DRC Item 3



Endwall Framing EWD at Grid Line 4



Endwall Sheeting EWD



Key Plan

PBR Wall Panels
Panel Coverage = 3'-0"
Panel Color = S200 LIGHT STONE
Panel Pkg. Req'd. = PBS-2
Field Cut Panel and Trim as required per Construction Details

ZEE SECTION LAP TABLE			
SYMBOL	LAP LENGTH	SYMBOL	LAP LENGTH
S	-0'-0 1/4"	T	2'-5 3/4"
S1	0'-3 3/4"	V	3'-1 3/4"
R	1'-5 3/4"	REFER TO CF01122	

DETAILS SUBJECT TO CHANGE BASED ON FINAL DESIGN. ISSUED FOR CONSTRUCTION DRAWINGS WILL REPLACE THE PERMIT DRAWINGS.

Revision	Date	Description	By	Ck'd

Cornerstone Building Brands
13105 Northwest Freeway, Suite 500
Houston, TX 77040
cornerstonebuildingbrands.com

Project Name & Location:
PAUL VIBORG
1529 N RIVER RD
PASO ROBLES, CA 93446-7325

Customer:
DUECK CONSTRUCTION COMPANY INC
2313 SIGNORA ROSA CT
PASO ROBLES, CA 93446
ATTN: TIM DUECK

Drawing Status:
☐ Issued For Approval (Not For Construction)
☒ Issued For Permit

Scale:	NOT TO SCALE
Drawn by:	HPR 1/6/25
Checked by:	HPR 1/6/25
Project Engineer:	BXT
Job Number:	19-B-82019
Sheet Number:	E8 of 12

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BRENDAN PATRICK TOOHEY, P.E.
CALIFORNIA P.E. C96062

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REGISTERED PROFESSIONAL ENGINEER
BRENDAN PATRICK TOOHEY
C96062
Jan 06, 2025
CIVIL
STATE OF CALIFORNIA

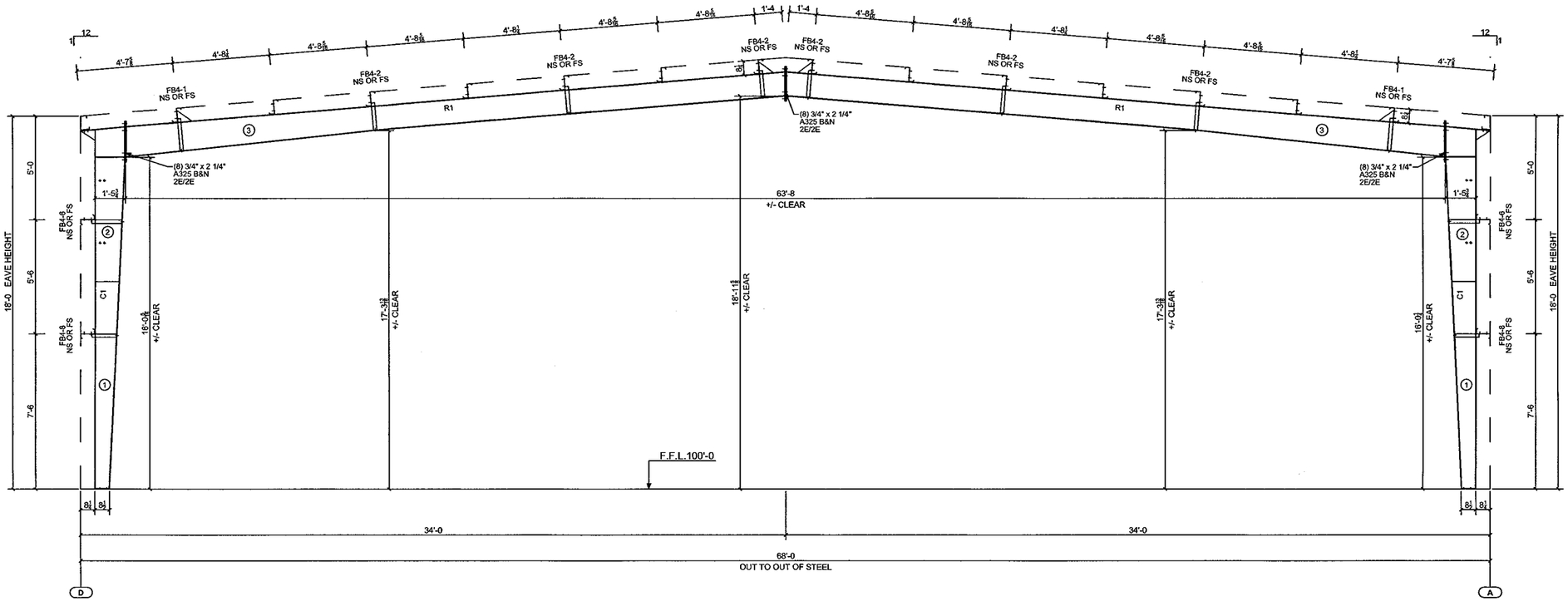
DRC Item 3

FRAME = Engl\19-B-82019\ver01-joshua.lorentson\LDG-A\Drfg\w02L (12/30/24 11:50:10)

APPROXIMATE MEMBER WEIGHTS	
PART MARK	WEIGHT
R1	585
C1	341

GENERAL NOTE:
FRAME CLEARANCES SHOWN ARE APPROXIMATE AND MAY VARY DUE TO CONDITIONS (DEFLECTION).

VERTICAL CLEARANCE DIMENSIONS ARE FROM FINISHED FLOOR REFERENCE ELEVATION.



Cross Section at Frame Line 1

PRIMARY BUILT-UP MEMBER SIZES							
MARK	OUTSIDE FLG THICK	OUTSIDE FLG WIDTH	INSIDE FLG THICK	INSIDE FLG WIDTH	WEB THICK	WEB START DEPTH	WEB END DEPTH
1	0.2500	6"	0.2500	6"	0.1340	8.0000	13.7351
2	0.2500	6"	0.2500	6"	0.1850	13.7351	16.9999
3	0.2500	6"	0.2500	6"	0.1340	17.0000	13.5000

DETAILS SUBJECT TO CHANGE BASED ON FINAL DESIGN. ISSUED FOR CONSTRUCTION DRAWINGS WILL REPLACE THE PERMIT DRAWINGS.

Revision	Date	Description	By	Ck'd

Cornerstone Building Brands
13105 Northwest Freeway, Suite 500
Houston, TX 77040
cornerstonebuildingbrands.com

STAR BUILDING SYSTEMS

Project Name & Location:
PAUL VIBORG
1529 N RIVER RD
PASO ROBLES, CA 93446-7325

Customer:
DUECK CONSTRUCTION COMPANY INC
2313 SIGNORA ROSA CT
PASO ROBLES, CA 93446
ATTN: TIM DUECK

Drawing Status:
☐ Issued For Approval (Not For Construction)
☒ Issued For Permit

Scale:	NOT TO SCALE
Drawn by:	HPR 1/6/25
Checked by:	HPR 1/6/25
Project Engineer:	BXT
Job Number:	19-B-82019
Sheet Number:	E9 of 12

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BRENDAN PATRICK TOOHEY, P.E.
CALIFORNIA P.E. C96062

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REGISTERED PROFESSIONAL ENGINEER
BRENDAN PATRICK TOOHEY
C96062
Jan 06, 2025
CIVIL
STATE OF CALIFORNIA

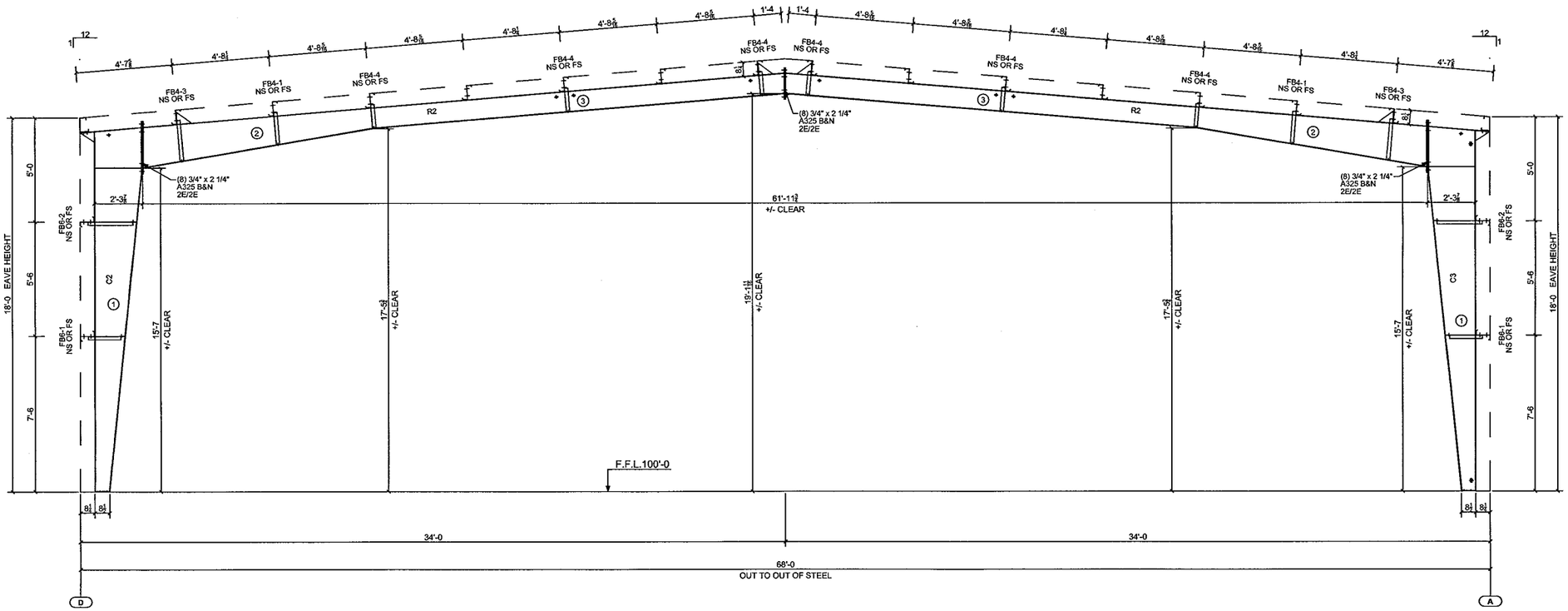
DRC Item 3

FRAME = Engl\19-B-82019\ver01-joshua.lorentson\BLDG-A\Drftg\x01L (12/30/24 11:59:26)

APPROXIMATE MEMBER WEIGHTS	
PART MARK	WEIGHT
R2	602
C2	445
C3	445

GENERAL NOTE:
FRAME CLEARANCES SHOWN ARE APPROXIMATE AND MAY VARY DUE TO CONDITIONS (DEFLECTION).

VERTICAL CLEARANCE DIMENSIONS ARE FROM FINISHED FLOOR REFERENCE ELEVATION.



Cross Section at Frame Line 2

PRIMARY BUILT-UP MEMBER SIZES							
MARK	OUTSIDE FLG THICK	OUTSIDE FLG WIDTH	INSIDE FLG THICK	INSIDE FLG WIDTH	WEB THICK	WEB START DEPTH	WEB END DEPTH
1	0.2500	6"	0.2500	6"	0.1850	8.0000	27.0000
2	0.2500	6"	0.3125	6"	0.1560	23.0000	11.5000
3	0.2500	6"	0.2500	6"	0.1340	11.5000	11.5000

DETAILS SUBJECT TO CHANGE BASED ON FINAL DESIGN. ISSUED FOR CONSTRUCTION DRAWINGS WILL REPLACE THE PERMIT DRAWINGS.

Revision	Date	Description	By	Ck'd

Cornerstone Building Brands
13105 Northwest Freeway, Suite 500
Houston, TX 77040
cornerstonebuildingbrands.com

Project Name & Location:
PAUL VIBORG
1529 N RIVER RD
PASO ROBLES, CA 93446-7325

STAR (Building Systems)

Customer:
DUECK CONSTRUCTION COMPANY INC
2313 SIGNORA ROSA CT
PASO ROBLES, CA 93446
ATTN: TIM DUECK

Drawing Status:
☐ Issued For Approval (Not For Construction)
☒ Issued For Permit
☐ Issued For Construction

Scale:	NOT TO SCALE
Drawn by:	HPR 1/6/25
Checked by:	HPR 1/6/25
Project Engineer:	BXT
Job Number:	19-B-82019
Sheet Number:	E10 of 12

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BRENDAN PATRICK TOOHEY, P.E.
CALIFORNIA P.E. C96062

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REGISTERED PROFESSIONAL ENGINEER
BRENDAN PATRICK TOOHEY
C96062
Jan 06, 2025
CIVIL
STATE OF CALIFORNIA

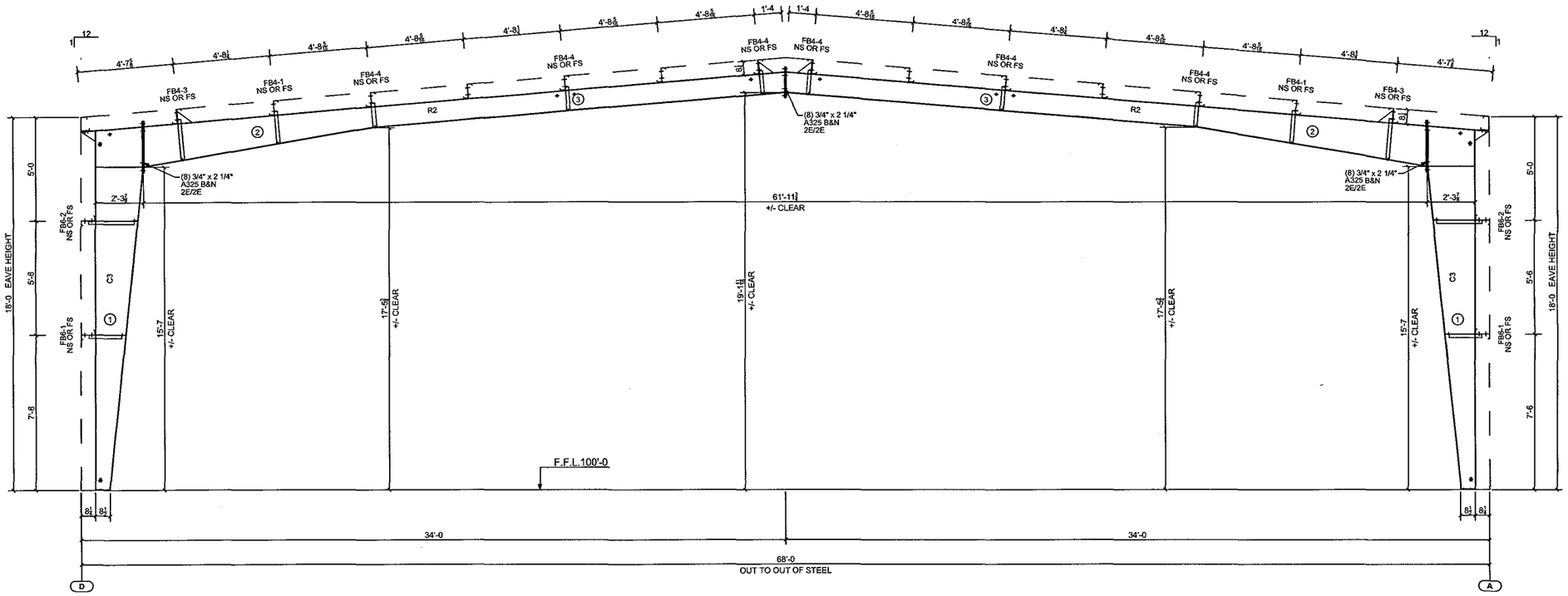
DRC Item 3

FRAME = Eng\19-B-82019\ver01-joshua.lorentson\BLDG-AI\Drfg\x01L (12/30/24 11:59:26)

APPROXIMATE MEMBER WEIGHTS	
PART MARK	WEIGHT
R2	602
C3	445

GENERAL NOTE:
FRAME CLEARANCES SHOWN ARE APPROXIMATE AND MAY VARY DUE TO CONDITIONS (DEFLECTION).

VERTICAL CLEARANCE DIMENSIONS ARE FROM FINISHED FLOOR REFERENCE ELEVATION.



Cross Section at Frame Line 3

PRIMARY BUILT-UP MEMBER SIZES							
MARK	OUTSIDE FLG THICK	OUTSIDE FLG WIDTH	INSIDE FLG THICK	INSIDE FLG WIDTH	WEB THICK	WEB START DEPTH	WEB END DEPTH
1	0.2500	6"	0.2500	6"	0.1850	8.0000	27.0000
2	0.2500	6"	0.3125	6"	0.1560	23.0000	11.5000
3	0.2500	6"	0.2500	6"	0.1340	11.5000	11.5000

DETAILS SUBJECT TO CHANGE BASED ON FINAL DESIGN. ISSUED FOR CONSTRUCTION DRAWINGS WILL REPLACE THE PERMIT DRAWINGS.

Revision	Date	Description	By	Ck'd

Cornerstone Building Brands
13105 Northwest Freeway, Suite 500
Houston, TX 77040
cornerstonebuildingbrands.com

Project Name & Location:
PAUL VIBORG
1529 N RIVER RD
PASO ROBLES, CA 93446-7325

STAR BUILDING SYSTEMS

Customer:
DUECK CONSTRUCTION COMPANY INC
2313 SIGNORA ROSA CT
PASO ROBLES, CA 93446
ATTN: TIM DUECK

Drawing Status:
☐ Issued For Approval (Not For Construction)
☒ Issued For Permit

Scale:	NOT TO SCALE
Drawn by:	HPR 1/6/25
Checked by:	HPR 1/6/25
Project Engineer:	BXT
Job Number:	19-B-82019
Sheet Number:	E11 of 12

The engineer whose seal appears hereon is employed by or is contracted to provide engineering services for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only. The undersigned engineer is not the overall engineer of record for this project.

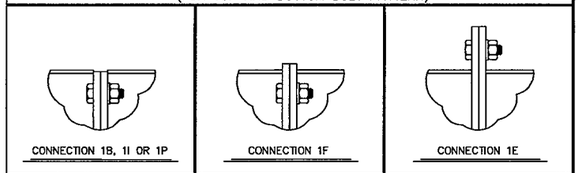
BRENDAN PATRICK TOOHEY, P.E.
CALIFORNIA P.E. C96062

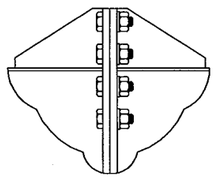
This item has been electronically signed and sealed by Brendan Patrick Toohey, P.E. on the date and/or time stamp shown using a digital signature. Printed copies of this document are not considered signed and sealed and the signature must be verified by a 3rd Party Certificate Authority on any electronic copy.

REGISTERED PROFESSIONAL ENGINEER
BRENDAN PATRICK TOOHEY
C96062
Jan 06, 2025
CIVIL
STATE OF CALIFORNIA

DRC Item 3

CONNECTION CODES
(FOR TOP AND BOTTOM BOLT PATTERN)





4 E /2 E H
- CONNECTION DESIGNATION
- BLANK = STANDARD CONNECTION
- H = HEAVY CONNECTION
- BOTTOM CONNECTION CODE
- BOTTOM QUANTITY OF BOLT ROWS
- CONNECTION DESIGNATION
- BLANK = STANDARD CONNECTION
- H = HEAVY CONNECTION
- TOP CONNECTION CODE
- TOP QUANTITY OF BOLT ROWS

CONNECTION CODE FORMAT
REFER TO FRAME PROFILE, UNDER SPLICE BOLT TABLE FOR CONNECTION CODE FOR EACH SPLICE

CONNECTION CODE DESCRIPTION

B = THIS DESCRIPTION CODE IS USED TO DEFINE SHEAR CONNECTIONS. BOLTS ARE LOCATED INSIDE THE TOP FLANGE AND CONNECTION PLATE IS RECESSED 1/8" BELOW THE TOP FLANGE. CONNECTION PLATE LENGTH MUST BE A MINIMUM OF HALF THE RAFTER WEB DEPTH AND SHALL NOT EXCEED THE RAFTER TOTAL DEPTH.

E = THIS DESCRIPTION CODE IS USED TO DEFINE MOMENT CONNECTIONS. BOLTS ARE LOCATED WITH ONE SET OUTSIDE THE TOP OR BOTTOM FLANGE AND THE REMAINING SETS ARE LOCATED INSIDE THE TOP OR BOTTOM FLANGE.

F = THIS DESCRIPTION CODE IS USED TO DEFINE MOMENT CONNECTIONS. BOLTS ARE LOCATED INSIDE THE TOP OR BOTTOM FLANGE AND CONNECTION PLATE PROJECTS 1/2" BEYOND THE TOP OR BOTTOM FLANGE.

I = THIS DESCRIPTION CODE IS USED TO DEFINE MOMENT CONNECTIONS. BOLTS ARE LOCATED INSIDE THE TOP OR BOTTOM FLANGE AND CONNECTION PLATE IS RECESSED 1/8" BELOW THE TOP OR BOTTOM FLANGE.

P = THIS DESCRIPTION CODE IS USED TO DEFINE SHEAR CONNECTIONS. BOLTS ARE LOCATED INSIDE THE TOP FLANGE AND CONNECTION PLATE IS RECESSED 1/8" BELOW THE TOP FLANGE. CONNECTION PLATE LENGTH MUST BE A MINIMUM OF HALF THE RAFTER WEB DEPTH AND SHALL NOT EXCEED THE RAFTER TOTAL DEPTH.

4X = THIS DESCRIPTION CODE IS USED TO DEFINE MOMENT CONNECTIONS. BOLTS ARE LOCATED WITH TWO SETS EACH SIDE OF THE TOP OR BOTTOM FLANGE WITH A GUSSET PLATE OUTSIDE THE TOP AND BOTTOM FLANGE OR COLUMN CAP PLATE.

GUSSET PLATE SIZE AND THICKNESS DETERMINED BY "EOS" OR DESIGN ENGINEER AND LISTED ON FRAME PROFILE. (SEE PAGE 13-05-17 AND 10-30-22)

CONNECTION BOLT DATA
REFER TO 05-12-11 & 05-12-12 FOR BOLT LENGTH

NAME	DESCRIPTION FOR A325 BOLT DIMENSIONS		A325 CONNECTION BOLT DIMENSIONS					
D	DIAMETER OF THE BOLT		1/2"	3/4"	7/8"	1"	1 1/4"	1 1/2"
HD	BOLT HOLE DIAMETER		9/16"	13/16"	15/16"	1 1/16"	1 5/16"	1 9/16"
G	BOLT GAUGE		2 1/2"	3"	4"	3 1/2"	4"	5 1/2"
	MAX. WEB THICKNESS (Max. 5/16" Fillet Weld) WITHOUT WASHER		1"	1 1/8"	1 7/8"	1 1/4"	1 3/8"	2 1/8"
	MAX. WEB THICKNESS (Max. 5/16" Fillet Weld) WITH WASHER		3/4"	7/8"	1 5/8"	7/8"	7/8"	1 7/8"
HG	HEAVY CONN. BOLT GAUGE		N/A	2 1/4"	2 5/8"	3"	3 3/4"	4"
S	NORMAL BOLT SPACING		2 1/2"	3"	3 1/4"	3 1/2"	4"	4 1/2"
BSMIN	MINIMUM SPACING BETWEEN TOP & BOTTOM SETS OF BOLTS		1 1/2"	2 1/4"	2 5/8"	3"	3 3/4"	4"
BSMAX	MAXIMUM BOLT SPACING BETWEEN TOP AND BOTTOM SETS OF BOLTS ON CONNECTION PLATES LESS THAN OR EQUAL TO 3/4" THICK		2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"
	SPLICE BOLT SPACING (NOT TO EXCEED 2'-0)		1/2 BSMAX (±1/16") WHEN BSMAX = 2'-0 1/16" TO 4'-0 1/3 BSMAX (±1/16") WHEN BSMAX = 4'-0 1/16" TO 6'-0 1/4 BSMAX (±1/16") WHEN BSMAX = 6'-0 1/16" TO 8'-0					
BFCD	MINIMUM BOLT-TO-FLANGE CLEARANCE AT OUT OF NUT SEE BOLT AT FLANGE DETAIL		1 1/2"	1 3/4"	1 7/8"	2 1/4"	2 1/2"	2 3/4"
PF	MINIMUM BOLT-TO-FLANGE CLEARANCE AT CONNECTION PLATE SEE BOLT AT FLANGE DETAIL		(BFCD + RNWT) PF INSIDE OF FLANGE IS INCREASED BASED ON THE YT & YB VALUE. PF FOR CONNECTION B, F, I AND P ARE THE SAME AS USED ON CONNECTION E					
NWT	NUT AND WASHER THICKNESS		SEE BOLT AT FLANGE DETAIL. NUT THICKNESS IS EQUAL TO THE BOLT DIAMETER AND .15625" WASHER THICKNESS IS USED EVEN IF A WASHER IS NOT REQUIRED.					
RNWT	RISE ON NUT AND WASHER THICKNESS							
TT	THICKNESS TOP FLANGE		REFER TO FRAME CROSS SECTION DRAWING FOR LARGEST FLANGE THICKNESS EITHER SIDE OF THE CONNECTION.					
TB	THICKNESS BOTTOM FLANGE							
YT	BOLT SPACING TOP (ROUND UP TO NEXT 1/2", MIN = S)		3" + TT	3 1/2" + TT	3 3/4" + TT	4 1/2" + TT	5" + TT	5 1/2" + TT
YB	BOLT SPACING BOTTOM (ROUND UP TO NEXT 1/2", MIN = S)		or TB Sloped	or TB Sloped	or TB Sloped	or TB Sloped	or TB Sloped	or TB Sloped
EED(E)	MINIMUM END EDGE DIMENSION		1 1/4"	1 1/4"	1 1/2"	1 3/4"	2 1/4"	2 5/8"
EED(S)	MINIMUM SIDE EDGE DIMENSION		3/4"	1"	1 1/8"	1 1/4"	1 5/8"	2 1/4"
EEDK	END EDGE DIMENSION AT KNEE CONNECTION		1 3/8"	1 3/8"	1 5/8"	1 7/8"	2 3/8"	2 3/4"
BCWM	MINIMUM BOLT CLEARANCE FROM A FLANGE OR WEB WELD	WITHOUT WASHER	7/16"	5/8"	3/4"	13/16"	1"	1 3/8"
		WITH HARDENED WASHER	9/16"	3/4"	7/8"	1"	1 1/4"	1 1/2"
WCSM	MINIMUM WIDTH OF CONNECTION PLATE (Standard Connection)		5"	6"	8"	8"	10"	12"
WCHM	MINIMUM WIDTH OF CONNECTION PLATE (Heavy Connection)		N/A	10"	12"	12"	16"	18"
TCMIN	MINIMUM THICKNESS OF CONNECTION PLATE		1/4"	3/8"	7/16"	1/2"	5/8"	1"

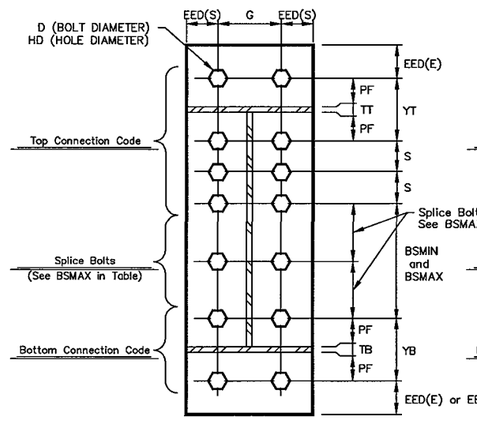
Frame Documentation
A325 Connection Bolt Details

Page 05-12-10
Date Jun '18 | Rev. 04

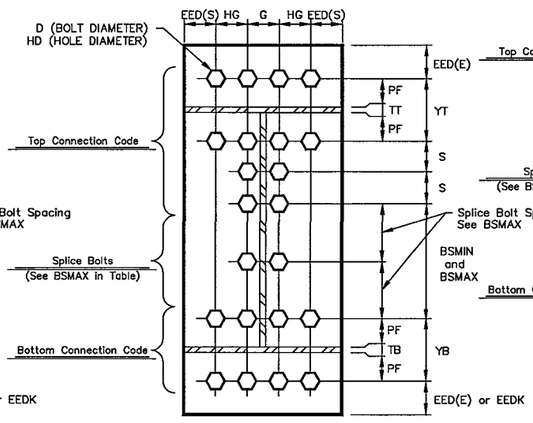
B 4E/2EH
- Connection Code (See "Connection Code Format" on this drawing)
- Connection Location

CROSS SECTION CONNECTION CODE KEY
(AS SHOWN AT CONNECTIONS ON FRAME CROSS SECTION DRAWINGS)

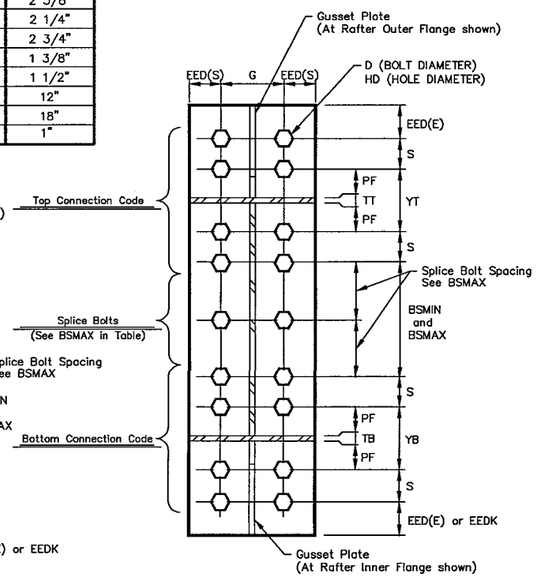
Flange Brace Material Schedule	
Part Mark	Material
FB4_	L 2" x 2" x 14 Ga.
FB5_	L 2" x 2" x 14 Ga.
FB6_	L 2" x 2" x 1/8"
FB7_	L 2 1/2" x 2 1/2" x 3/16"



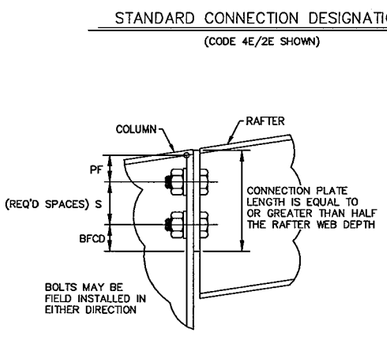
STANDARD CONNECTION DESIGNATION
(CODE 4E/2E SHOWN)



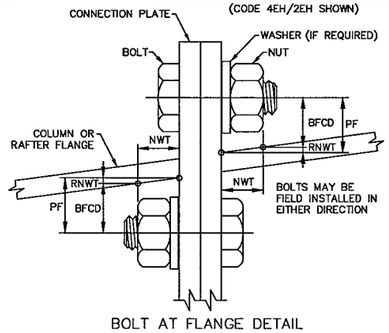
HEAVY CONNECTION DESIGNATION
(CODE 4EH/2EH SHOWN)



4X CONNECTION DESIGNATION
(CODE 4X/4X SHOWN)



CONNECTION B & P
(Low Side Shown, High Side Similar)



BOLT AT FLANGE DETAIL
(Top Flange Shown, Bottom Flange Similar)

DETAILS SUBJECT TO CHANGE BASED ON FINAL DESIGN. ISSUED FOR CONSTRUCTION DRAWINGS WILL REPLACE THE PERMIT DRAWINGS.

Revision	Date	Description	By	Ck'd

Cornerstone Building Brands
13105 Northwest Freeway, Suite 500
Houston, TX 77040
cornerstonebuildingbrands.com

Project Name & Location:
PAUL VIBORG
1529 N RIVER RD
PASO ROBLES, CA 93446-7325

Customer:
DUECK CONSTRUCTION COMPANY INC
2313 SIGNORA ROSA CT
PASO ROBLES, CA 93446
ATTN: TIM DUECK

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Scale:	NOT TO SCALE
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Checked by:	HPR 1/6/25
Project Engineer:	BXT
Job Number:	19-B-82019
Sheet Number:	E12 of 12

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BRENDAN PATRICK TOOHEY, P.E.
CALIFORNIA P.E. C96062

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REGISTERED PROFESSIONAL ENGINEER
BRENDAN PATRICK TOOHEY
C96062
Jan 06, 2025
CIVIL
STATE OF CALIFORNIA