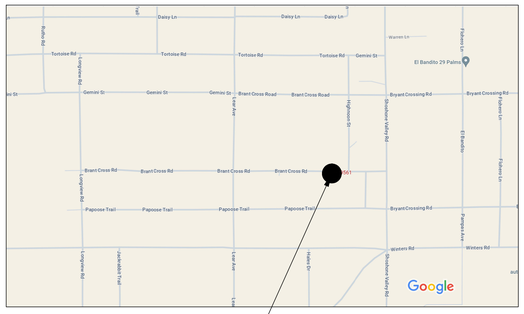
PAPOOSE TRAIL

69561 PAPOOSE TRAIL
TWENTYNINE PALMS, CA 92277

PLAN CHECK

MARCH 30, 2024
PROJECT NO: 2307

VICINITY MAP



69561 PAPOOSE TRAIL
TWENTYNINE PALMS, CA. 92277

2 VICINITY MAP
NTS

NORTH

PROJECT STATISTICS

PROPOSED WORK:

CONVERSION OF AN EXISTING 24' X 34' RECREATION CABIN TO A SINGLE FAMILY HOME. NEW 63 SF ADDITION. ALL PLUMBING, ELECTRICAL, SEPTIC AND MECHANICAL TO BE PERMITTED.

SITE ADDRESS:

69561 PAPOOSE TRAIL
TWENTYNINE PALMS, CA 92277

OWNER:

BOGDAN SEVASTIANOV
ZOIA LARINA
69561 PAPOOSE TRAIL
TWENTYNINE PALMS, CA
92277

LEGAL DESCRIPTION:

E 1/2 NW 1/4 SE 1/4 SE 1/4 SEC 21 TP 2N R 8E EX MNL RTS

PROJECT INFO:

APN: 0633181280000
REGION/CLUSTER:
ZONE: RL–2.5
TAX RATE:

AREA:

EXISTING BUILDING:

MAIN BUILDING (24' X 34')	=816 SF
COVERED PORCH (30' X 11')	=330 SF
TOTAL	=1146 SF

PROPOSED:

MAIN BUILDING (24' X 34')	=816 SF
ADDITION	=63 SF
COVERED PORCH (30' X 11')	=330 SF
TOTAL	=1209 SF

ARBORIST:

NONE: THERE ARE NO JOSHUA TREES ON THIS PROPERTY

CONSTRUCTION TYPE:

TYPE V – WOOD STUD CONSTRUCTION WITH WOOD EXTERIOR CLADDING

NUMBER OF PARKING SPACES:

HIGH FIRE SEVERITY ZONE:
NO

FIRE SPRINKLERS:

BY SEPARATE PERMIT:

ELECTRICAL
MECHANICAL
PLUMBING

ASBESTOS REMOVAL

APPLICABLE CODES:

2022 CALIFORNIA BUILDING CODE (BASED ON 2021 INTERNATIONAL BUILDING CODE) WITH CITY OF TWENTYNINE PALMS AMENDMENTS

2022 CALIFORNIA RESIDENTIAL CODE

2022 CALIFORNIA CODE OF REGULATIONS WITH TITLE 24 – PART 11 WITH CITY OF TWENTYNINE PALMS AMENDMENTS

2022 CALIFORNIA ELECTRICAL CODE WITH CITY OF TWENTYNINE PALMS AMENDMENTS

2022 CALIFORNIA MECHANICAL CODE WITH CITY OF TWENTYNINE PALMS AMENDMENTS

2022 CALIFORNIA PLUMBING CODE WITH CITY OF TWENTYNINE PALMS AMENDMENTS

2022 CALIFORNIA ENERGY CODE WITH CITY OF TWENTYNINE PALMS AMENDMENTS

2022 CALIFORNIA GREEN BUILDING STANDARD CODE (CALGREEN)

2022 CALIFORNIA FIRE CODE WITH AMENDMENTS VIA CITY OF TWENTYNINE PALMS MUNICIPAL CODE

PROJECT TEAM

OWNER:
BOGDAN SEVASTIANOV
ZOIA LARINA
69561 PAPOOSE TRAIL
TWENTYNINE PALMS, CA
92277UE
VERNON, CA 90058

STRUCTURAL ENGINEER:

CONTRACTOR:

OWNER/BUILDER

GENERAL NOTES:
ALL DIMENSIONS MUST BE VERIFIED IN FIELD
USE FIELD SURVEY AND TITLE REPORT TO VERIFY PROPERTY LINES, UTILITY EQUIPMENT ON SITE, AND EASEMENTS.

ARCHITECTURE INDEX

ARCHITECTURAL DRAWING INDEX

LEGEND:

SHEET #	SHEET TITLE	DESIGN DEVELOPMENT 11.17.23	AS-BUILTS 08.27.23	REVISIONS 02.04.24	REC CABIN CONVERSION 11.20.24
A000	GENERAL INFORMATION				
A0–0.00	VICINITY MAP/ PROJECT INFO./ INDEX/ PLOT PLAN	●	●	●	
A0–1.01	SYMB./ABBREV./GENERAL & ACCESSIBILITY NOTES	●	●	●	
A0–4.01	DEMOLITION PLAN	●	●	●	
A100	SITE INFORMATION				
A1–1.00	AS BUILT SITE PLAN	●	●	●	
A1–1.01	SITE PLAN			●	
A200	BUILDING PLANS	●			
A2–1.02	FLOOR PLAN	●	●	●	
A300	EXTERIOR ELEVATIONS				
A3–1.01	EXTERIOR ELEVATIONS	●	●	●	
A3–1.02	EXTERIOR ELEVATIONS			●	
A500	INTERIOR ELEVATIONS				
A5–1.01	PARTIAL PLAN –BATHROOM INTERIOR ELEVATIONS		●	●	
A5–1.02	PARTIAL PLAN –KITCHEN INTERIOR ELEVATIONS		●	●	
A600	REFLECTED CEILING PLAN				
A6–1.01	REFLECTED CEILING PLAN	●	●	●	
A900	SCHEDULES	●			
A9–1.01	DOOR AND WINDOW, FINISH SCHEDULE	●	●	●	

CONSULTANT INDEX

DRAWING INDEX

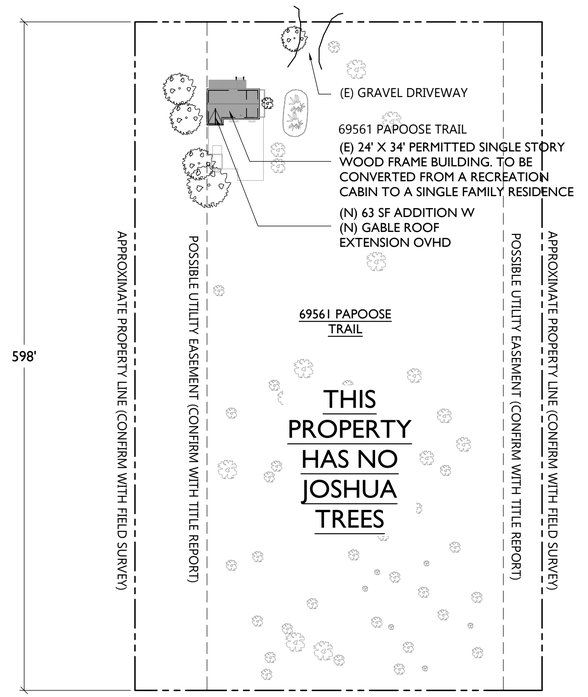
LEGEND:

SHEET #	SHEET TITLE	DESIGN DEVELOPMENT 11.17.23	PLAN CHECK 03.30.24	REVISIONS 02.04.24	REC CABIN CONVERSION 11.20.24
S	STRUCTURAL				
S0.01	GENERAL NOTES			●	●
S0.02	GENERAL NOTES			●	●
S1.01	TYPICAL DETAILS			●	●
S1.02	TYPICAL DETAILS			●	●
S2.01	FOUNDATION PLAN			●	●
S2.02	ROOF FRAMING PLAN			●	●
M	MECHANICAL				
E	ELECTRICAL				
P	PLUMBING				

County of San Bernardino
BUILDING AND SAFETY
THE PLANS AND DETAILS HAVE BEEN
REVIEWED
FOR CODE COMPLIANCE
REVIEW OF THESE PLANS DOES NOT BY ITSELF CONSTITUTE TO BE A PERMIT NOR ANY APPROVAL OR ISSUANCE UNDER COUNTY ORDINANCE
BY
DATE 03/05/2025
THESE PLANS SHALL BE ON THE JOB FOR ALL REQUESTED INSPECTIONS

PLOT PLAN

65' 265' 34'-1"



1 PLOT PLAN
SCALE: 1/64" = 1'-0"

NORTH

MUNSDOTTIR

MUNSDOTTIR STUDIO

JOSHUA TREE - LOS ANGELES

MOBILE 213.605.2864
EMAIL MOLLY@MUNSDOTTIR.COM
MUNSDOTTIR.COM

CONSULTANTS:

OWNER:

BOGDAN SEVASTIANOV
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TWENTYNINE PALMS, CA
92277
ZOIALARINA@GMAIL.COM

STRUCTURAL ENGINEER:

RME STRUCTURAL ENGINEERS
3655 TORRANCE BLVD,
3RD FLOOR #398
TORRANCE, CA 90503
NICK@RMESTRUCTURAL.COM
OFFICE: (310) 803–9440, EXT 101
CELL: (310) 844–0940

CONTRACTOR:

OWNER/ BUILDER

PAPOOSE TRAIL
69561 PAPOOSE TRAIL
TWENTYNINE PALMS, CA. 92277

DRAWING ISSUES

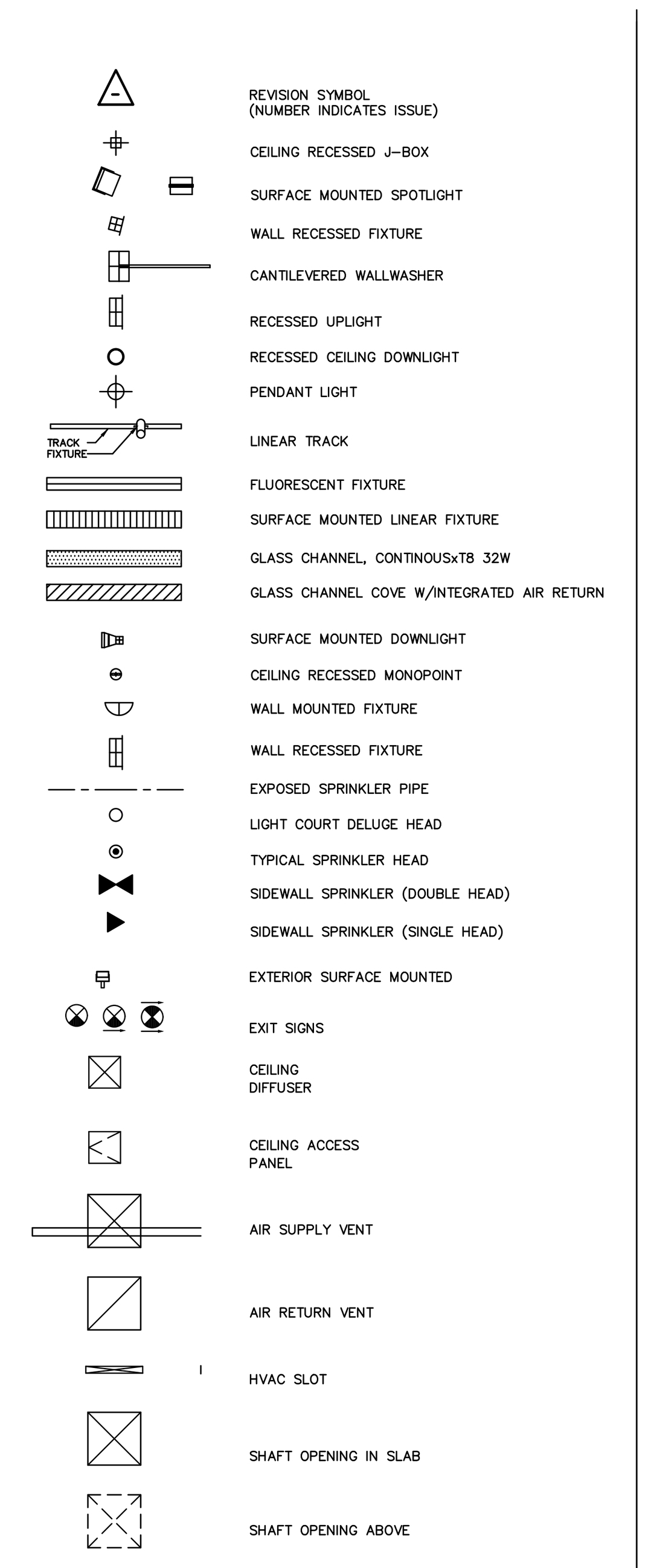
NO.	ISSUE	DATE
1	AS–BUILTS	08.27.23
2	DESIGN DEVELOPMENT	11.12.23
3	REVISIONS	02.04.24
4	PLAN CHECK	03.30.24
5	REC CABIN CONVERSION	11.20.24
6		

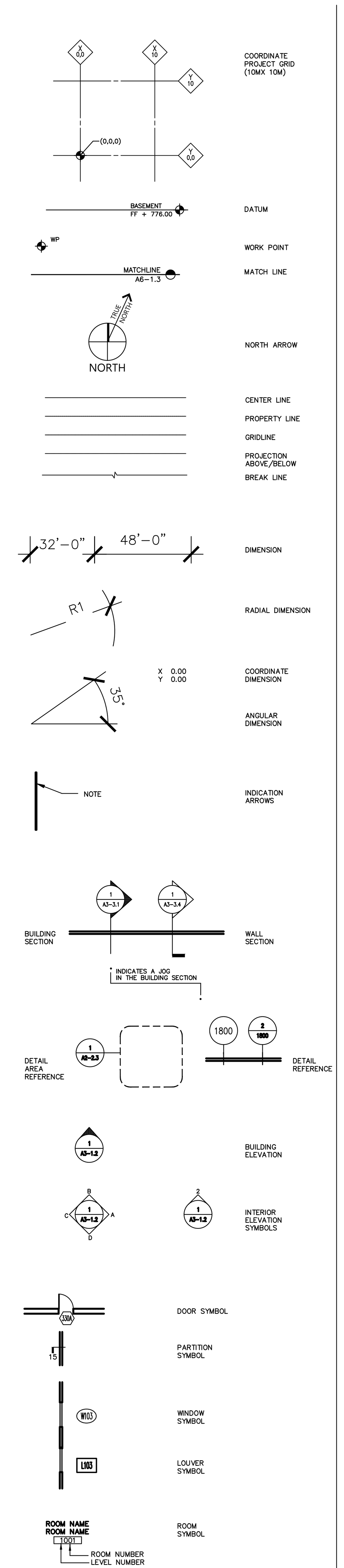
TITLE
COVER SHEET

PROJECT 2307
SCALE AS NOTED
DRAWN BY MM
DATE 11.20.24

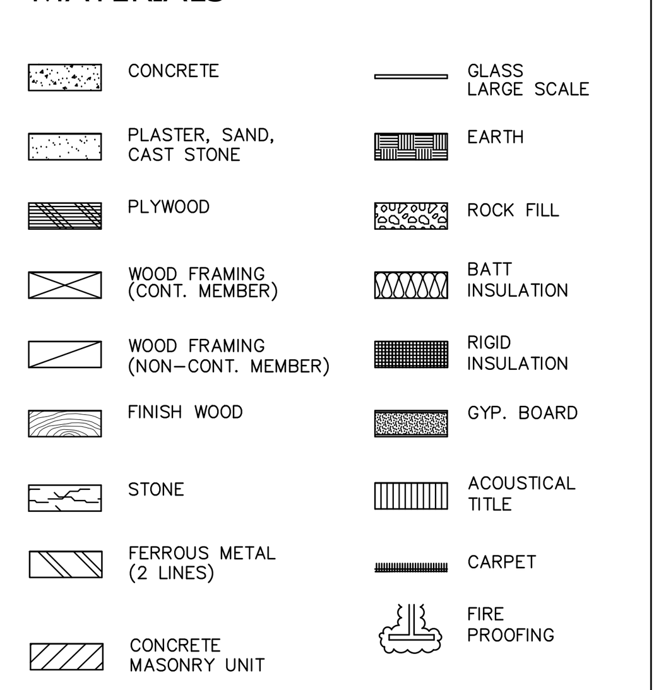
SHEET NUMBER
A0-0.00

SYMBOLS





MATERIALS



MATERIAL TYPES LEGEND

METAL CLADDING TYPES

M1 – XXX XXX

M2 – XXX XXX

M3 – XXX XXX

M4 – XXX XXX

M5 – XXX

EXTERIOR PLASTER TYPES

P1 – XXX XXX XXX

GLASS TYPES

GL–1 – XXX

GL–2 – XXX

GL–3 – XXX

GL–4 – XXX

GL–5 – XXX
NOTE: XXX
XXX

GL–6 – (1) 1/2" LAMINATED LIGHT

GL–7 – (1) 1/2" TEMPERED, LAMINATED LIGHT

GL–8 – XXX
NOTE: XXX
XXX

GL–9 – XXX

ABBREVIATIONS

&	AND
∠	ANGLE
@	AT
℄	CENTERLINE
[	CHANNEL
°	DEGREES
⌀	DIAMETER OR ROUND
=	EQUAL
‖	PARALLEL
⊥	PERPENDICULAR
℘	PLATE/PROPERTY LINE
#	POUND OR NUMBER
⊠	SF
∅	SI
A	ANCHOR
AC	AIR CONDITIONING
ACP	ACOUSTIC PANELS
ACT	ACOUSTIC CEILING TILE
ACWP	ACOUSTICAL WALL PANEL
AD	AREA DRAIN
AESS	ARCHITECTURALLY EXPOSED STRUCTURAL STEEL
AF	ACOUSTIC FINISH
AFL	ACCESS FLOORING
AFF	ABOVE FINISH FLOOR
ALT	ALTERNATE
ALUM	ALUMINUM
AP	ACCESS PANEL
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL
ASSM	ASSEMBLY
BR	BACKER ROD
BD	BOARD
BITUM	BITUMINOUS
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BM	BEAM
BOT	BOTTOM
BTWN	BETWEEN
CB	CATCH BASIN
CBP	CABLE PASS
CC	CENTER TO CENTER
CEM	CEMENT
CF	CUBIC FOOT
CFF	CONCRETE FLOATING FLOOR
C.I.P.	CAST IN PLACE
CIPAC	CAST IN PLACE ARCHITECTURAL CONCRETE
C.L.	CENTER LINE
CLG	CEILING
CLF	CHAIN LINK FENCING
CLR	CLEAR
COMP	COMPOSITE
COMPR	COMPRESSIBLE
CMU	CONCRETE MASONRY UNITS
COL	COLUMN
CONC	CONCRETE
CONT	CONTINUOUS
CORR	CORRIDOR/CORRUGATED
CP	CHECKERED PLATE
CPT	CARPET
CR	COLD ROLLLED (STEEL)
CSP	COMBINATION STAND PIPE
CT	CERAMIC TILE
CW	COLD WATER
CY	CUBIC YARD
DBL	DOUBLE
DEPT	DEPARTMENT
DET	DETAIL
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIAG	DIAGONAL
DIF	DIFFUSER
DN	DOWN
DR	DOOR
DRNG	DRAINAGE
DS	DOWNSPOUT
DSP	DRY STANDPIPE
DWG	DRAWING
E	EXISTING
EA	EACH
EC	EXPOSED CONSTRUCTION
EFC	EXPOXY FLOOR COATING
EJ	EXPANSION JOINT
EL	ELEVATION
ELEV	ELEVATOR
EPS	EXPANDED POLYSTYRENE
EQ	EQUAL
EQPT	EQUIPMENT
ESC	ESCALATOR
EXH	EXHAUST
EXP	EXPANSION
EXT	EXTERIOR
FA	FIRE ALARM
FD	FLOOR DRAIN
FDN	FOUNDATION
FE	FIRE EXTINGUISHER
FEC	FE CABINET
FF	FINISH FLOOR
FHC	FIRE HOSE CABINET
FIN	FINISH
FIXT	FIXTURE
FLR	FLOOR
FLSHG	FLASHING
FLUOR	FLUORESCENT
FOC	FACE OF CONCRETE
FOF	FACE OF FINISH
FOH	FRONT OF HOUSE
FOM	FACE OF MASONRY
FOS	FACE OF STUDS
F.R.	FIRE RETARDANT
FT	FOOT OR FEET
FURR	FURRING
GA	GAUGE
GALV	GALVANIZED
GB	GYPSUM BOARD
GBP	GYPSUM BOARD PLAQUE
GC	GENERAL CONTRACTOR
GFRG	GLASS FIBER REINFORCED GYPSUM
GL	GLASS
GND	GROUND
GP	GYPSUM PLASTER
GR	GRILLE
GVP	GYPSUM VENEER PLASTER
GWB	GYPSUM WALL BOARD
GYP. BD.	GYPSUM BOARD
H	HIGH
HB	HOSE BIB
HC	HANDICAP
HCW	HOLLOW CORE WOOD
HD	HEAD
HDR	HEADER
HDWD	HARDWOOD
HDWR	HARDWARE
HEX	HEXAGONAL
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HTG	HEATING
HTR	HEATER
HVAC	HEATING/VENT./AIR CONDIT.
HW	HOT WATER
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IN	INCH
INCL	INCLUDE(D)(ING)
INSUL	INSULATION
INT	INTERIOR
IV	IRRIGATION VALVE
JAN	JANITOR
JT	JOINT

KIP	1000 POUNDS
KSI	KIP'S PER SQUARE INCH
L	LONG/LENGTH
LAB	LABORATORY
LAM	LAMINATE
LAV	LAVATORY
LF	LINEAR FOOT
LH	LEFT HAND
LIN	LINEAL
LL	LIVE LOAD
LNF	LINOLEUM FLOORING
LWC	LIGHT WEIGHT CONCRETE
M	MEN'S RESTROOM
MACH	MACHINE
MAX	MAXIMUM
MECH	MECHANICAL
MED	MEDIUM
MEMB	MEMBRANE
MET	METAL
MFR	MANUFACTURER
MG	METAL GRATE
MGR	MANAGER
MH	MANHOLE
MIN	MINIMUM
MIR	MIRROR
MO	MASONRY OPENING
N	NORTH
NIC	NOT IN CONTRACT
NO	NUMBER
NRC	NOISE REDUCTION COEFFICIENT
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER (DIM)
OFD	OVERFLOW DRAIN
OFF	OFFICE
OPNG	OPENING
OPP	OPPOSITE
P	PAINT
PCF	POUNDS PER CUBIC FOOT
PCP	PORTLAND CEMENT PLASTER
PERF	PERFORATE(D)
PKG	PARKING
PL	PLATE
P LAM	PLASTIC LAMINATE
PLUMB	PLUMBING
PM	PERFORATED METAL
PMB	PERFORATED METAL BASE
PNL	PANEL
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
P.T.	POST TENSION
PTN	PARTITION
PTD.	PAINTED
PVC	POLYVINYL CHOLORIDE
PWD	PLYWOOD
QT	QUARRY TILE
QTR	QUARTER
R	RADIUS
	RISER
RB	RUBBER BASE
REF	REFERENCE
REINF	REINFORCED
RESIL	RESILIENT
RM	ROOM
RO	ROUGH OPENING
RT	RESILIENT TILE FLOORING
RWD	REDWOOD
S	SOUTH
SC	SOLID CORE
SCHED	SCHEDULE
S. CONC	SEALED CONCRETE
SCW	SOLID CORE WOOD
SD	STORM DRAIN
SDP	SOUND DIFFUSING PANEL
SECT	SECTION
SF	SQUARE FEET
SHT	SHEET
SHTG	SHEATHING
SIM	SIMILAR
SJ	SEISMIC JOINT
SLL	SOUND & LIGHT LOCK
SLNT	SEALANT
SP	STONE PAVERS
SPEC	SPECIFICATION
SQ	SQUARE
ST.STL.	STAINLESS STEEL
ST	STONE
STB	STONE BASE
STC	SOUND TRANSMISSION COEFFICIENT
STD	STANDARD
STL	STEEL
STN	STAIN
STOR	STORAGE
STRUCT	STRUCTURAL
SUSP	SUSPENDED
SLV	SLEEVE
SVF	SHEET VINYL FLOORING
SW	SWITCH
T&B	TOP AND BOTTOM
TC	TOP OF CURB
TEL	TELEPHONE
TEMP	TEMPORARY
	TEMPERATURE
	TEMPERED
TER	TERRAZZO
T&G	TONGUE AND GROOVE
THK	THICK(NESS)
THR	THRESHOLD
TO	TOP OF
TOC	TOP OF CONCRETE
TOP	TOP OF PARAPET
TOS	TOP OF STEEL
TOW	TOP OF WALL
TP	TOP OF PAVEMENT
TV	TELEVISION
TW	TOP OF WALL
TYP	TYPICAL
UBC	UNIFORM BUILDING CODE
UL	UNDERWRITER'S LABORATORY
UNF	UNFINISHED
UON	UNLESS OTHERWISE NOTED
UNO	UNLESS NOTED OTHERWISE
UW	UPHOLSTERED WALL SYSTEM
VCT	VINYL COMPOSITE TILE
VD	VELOUR DRAPERY
VENT	VENTILATION
VERT	VERTICAL
VEST	VESTIBULE
W	WEST
	WIDE
	WOMEN'S RESTROOM
W/	WITH
WB	WASHBASIN
WC	WATER CLOSET
WD	WOOD
WDB	WOOD BASE
WDF	WOOD FLOOR
WDP	WOOD PANELING
WFC	WALL FABRIC COVERING
WFF	WOOD FLOATING FLOOR
WG	WIRE GLASS
WIN	WINDOW
W/O	WITHOUT
WP	WATERPROOF(ING)
WPM	WATERPROOF MEMBRANE
WT	WEIGHT
YD	YARD DRAIN

TITLE

GENERAL AND ACCESSIBILITY NOTES

1.0 GENERAL NOTES

1.1 ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE CITY BUILDING CODE–LATEST EDITION–OR ANY GOVERNING BUILDING CODES AND REGULATIONS AT THE JOB SITE LOCALITY.

1.2 THESE DOCUMENTS SHALL BE INSPECTED BY THE OWNER, THE CONTRACTOR, AND ALL SUBCONTRACTORS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. ANY DISCREPANCIES, OMISSIONS, OR CONTRADICTIONS.

1.3 ANY GRADING, ELECTRICAL, MECHANICAL, AND/OR STRUCTURAL ENGINEERING INFORMATION SHOWN IN THESE DOCUMENTS SHALL BE CONSIDERED DIAGRAMMATIC ONLY, UNLESS THESE DOCUMENTS ARE SIGNED BY AN ENGINEER PRACTICING SUCH DISCIPLINE UNDER LICENSING BY THE STATE OF CALIFORNIA.

1.4 PLANS ARE TO BE READ AND CONSTRUCTED BY DIMENSIONS PROVIDED, NOT BY SCALING DRAWINGS, OMISSIONS OR DISCREPANCIES IN DIMENSIONS ARE TO BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR CLARIFICATION PRIOR TO COMMENCING WORK.

1.5 THE CONSTRUCTION SHALL NOT RESTRICT A 5' CLEAR AND UNOBSTRUCTED ACCESS TO ANY WATER OR POWER DISTRIBUTION FACILITIES (POWER POLES, PULL–BOXES, TRANSFORMERS, VAULTS, PUMPS, VALVES, METERS, APPURTENANCES, ETC.) OR TO THE LOCATION OF THE HOOK–UP. THE CONSTRUCTION SHALL NOT BE WITHIN 10' OF ANY POWER LINES – WHETHER OR NOT THE LINES ARE LOCATED ON THE PROPERTY. FAILURE TO COMPLY MAY CAUSE CONSTRUCTION DELAYS AND/OR ADDITIONAL EXPENSES.

1.6 AN APPROVED SEISMIC SHUTOFF VALVE WILL BE INSTALLED ON THE FUEL GAS LINE ON THE DOWN STREAM SIDE OF THE UTILITY METER AND BE RIGIDLY CONNECTED TO HE EXTERIOR OF THE BUILDING OR STRUCTURE CONTAINING THE FUEL GAS PIPING. (PER ORDINANCE 170,158) (INCLUDES COMMERCIAL ADDITIONS AND TI WORK OVER $10,000.) SEPARATE PLUMBING PERMIT IS REQUIRED.

1.7 PROVIDE ULTRA LOW FLUSH WATER CLOSETS FOR ALL NEW CONSTRUCTION. EXISTING SHOWER HEADS AND TOILETS MUST BE ADAPTED FOR LOW WATER CONSUMPTION.

1.8 A COPY OF THE EVALUATION REPORT AND/OR CONDITIONS OF LISTING SHALL BE MADE AVAILABLE AT THE JOB SITE.

2.0 CODE REQUIREMENTS

2.1 ALL EXTERIOR DOORS SHALL OPEN OVER A LANDING NOT MORE THAN 1/2" BELOW THE THRESHOLD.

2.2 EXIT SIGNS TO BE MIN. 6"X3/4" STROKE LETTERING ON A CONTRASTING BACKGROUND

2.3 EXIT DOORWAYS SHALL BE NOT LESS THAN 36" WIDTH AND NOT LESS THAN 6'–8" IN HEIGHT. EXIT DOORS SERVING 50 OR MORE OCCUPANTS SHALL OPEN IN THE DIRECTION OF EXIT.

2.4 ALL EXIT CORRIDORS MUST BE CONTINUOUS AND SHALL BE 44" WIDE MIN., TERMINATING IN A PUBLIC WAY OR EXIT COURT LEADING TO A PUBLIC WAY.

2.5 PUBLIC HALLWAYS AND EXIT COURT PASSAGEWAYS TO HAVE 7'–0" CLEAR HEIGHT TO LOWEST PROJECTIONS.

2.6 PROVIDE 36" WIDE DOORS TO ALL ACCESSIBLE ROOMS.

2.7 POST OCCUPANT LOAD SIGN

2.8 ADEQUATE VENTILATION SHALL BE PROVIDED PER CH.4 OF THE 2022 C.M.C.

2.9 LEVER OR PUSH/PULL HARDWARE SHALL BE PROVIDED FOR ALL EGRESS DOORS.

ACCESSIBILITY NOTES

3.0 APPLICATION AND ADMINISTRATION

3.1 WHEN ALTERATIONS OR ADDITIONS ARE MADE TO EXISTING BUILDINGS OR FACILITIES, AN ACCESSIBLE PATH OF TRAVEL TO THE SPECIFIC AREA OF ALTERATION OR ADDITION SHALL BE PROVIDED UNLESS OTHERWISE EXEMPT. 11B–202.4

3.2 PRIMARY PATH OF TRAVEL SHALL INCLUDE A PRIMARY ENTRANCE TO THE BUILDING OR FACILITY; TOILET AND BATHING FACILITIES SERVING THE AREA; DRINKING FOUNTAINS SERVING THE AREA; PUBLIC TELEPHONES SERVING THE AREA, AND SIGNS. 11B–202.4

3.3 WHEN THE ADJUSTED CONSTRUCTION COST IS LESS THAN OR EQUAL TO THE CURRENT VALUATION THRESHOLD $147,863.00, THE COST OF COMPLIANCE WITH THE PRIMARY ACCESSIBLE PATH OR TRAVEL REQUIREMENTS IS LIMITED TO 20 PERCENT OF THE ADJUSTED CONSTRUCTION COST OF ALTERATIONS, STRUCTURAL REPAIRS OR ADDITIONS PRESENTLY PLANNED AND THOSE DURING THE PRECEDING THREE–YEAR PERIOD.

3.4 ADJUSTED CONSTRUCTION COST OF ALTERATIONS, STRUCTURAL REPAIRS OR ADDITIONS DOES NOT INCLUDE THE COST OF ALTERATIONS TO PATH OF TRAVEL ELEMENTS

3.5 IN CHOOSING WHICH ACCESSIBLE ELEMENTS TO PROVIDE, PRIORITY SHOULD BE GIVEN TO THOSE ELEMENTS THAT WILL PROVIDE THE GREATEST ACCESS IN THE FOLLOWING ORDER: (1) AN ACCESSIBLE ENTRANCE; (2) AN ACCESSIBLE ROUTE TO THE ALTERED AREA; (3) AT LEAST ONE ACCESSIBLE RESTROOM FOR EACH SEX OR A SINGLE ACCESSIBLE UNISEX RESTROOM; (4) ACCESSIBLE TELEPHONES; (5) ACCESSIBLE DRINKING FOUNTAINS; AND (6) WHEN POSSIBLE, ADDITIONAL ACCESSIBLE ELEMENTS SUCH AS PARKING, SIGNS, STORAGE AND ALARMS. 11B–202.4

3.6 ALTERATIONS TO A QUALIFIED HISTORIC BUILDING OR FACILITY SHALL COMPLY WITH CHAPTER 11B UNLESS IT WILL THREATEN OR DESTROY THE HISTORICAL SIGNIFICANCE OR CHARACTER–DEFINING FEATURES OF THE BUILDING OR PROPERTY. IN THOSE CASES, ALTERNATIVE PROVISIONS SHALL BE APPLIED ON AN ITEM–BY–ITEM OR CASE–BY–CASE BASIS WITH SUFFICIENT WRITTEN DOCUMENTATION. 11B–202.5, SHBC 8–602

4.0 BUILDING BLOCKS

GROUND SURFACES

4.1 FLOOR SURFACES ALONG ACCESSIBLE ROUTES SHALL BE STABLE, FIRM, AND SLIP–RESISTANT

4.2 FLOORS OF A GIVEN STORY SHALL BE A COMMON LEVEL THROUGHOUT

CHANGES IN LEVEL

4.3 VERTICAL CHANGES IN LEVEL FOR FLOOR OR GROUND SURFACES MAY BE ¼ INCH HIGH MAXIMUM AND WITHOUT EDGE TREATMENT. CHANGES IN LEVEL GREATER THAN ¼ INCH AND NOT EXCEEDING ½ INCH IN HEIGHT SHALL BE BEVELED WITH A SLOPE NOT STEEPER THAN 1:2. §11B–303, FIGURES 11B–303.2 & 11B–303.3

4.4 CHANGES IN LEVEL GREATER THAN ½ INCH IN HEIGHT SHALL BE RAMPED AND SHALL COMPLY WITH THE REQUIREMENTS OF 11B–405 RAMPS OR 11B–406 CURB RAMPS AS APPLICABLE. §11B–303

4.5 ABRUPT CHANGES IN LEVEL EXCEEDING 4 INCHES IN A VERTICAL DIMENSION BETWEEN WALKS, SIDEWALKS OR OTHER PEDESTRIAN WAYS AND ADJACENT SURFACES OR FEATURES SHALL BE IDENTIFIED BY WARNING CURBS AT LEAST 6 INCHES IN HEIGHT ABOVE THE WALK OR SIDEWALK SURFACE OR BY GUARDS OR HANDRAILS WITH A GUIDE RAIL CENTERED 2 INCHES MINIMUM AND 4 INCHES MAXIMUM ABOVE THE SURFACE OF THE WALK OR SIDEWALK. THESE REQUIREMENTS DO NOT APPLY BETWEEN A WALK OR SIDEWALK AND AN ADJACENT STREET OR DRIVEWAY. §11B–303.5

TURNING SPACE

4.6 CIRCULAR TURNING SPACES SHALL BE A SPACE OF 60 INCHES DIAMETER MINIMUM AND MAY INCLUDE KNEE AND TOE CLEARANCE COMPLYING WITH 11B–306 KNEE AND TOE CLEARANCE. §11B–304.3.1

4.7.T–SHAPED TURNING SPACES SHALL BE A T–SHAPED SPACE WITHIN A 60 INCH SQUARE MINIMUM WITH ARMS AND BASE 36" WIDE MIN. EACH ARM OF THE T SHALL BE CLEAR OF OBSTRUCTIONS 12" MIN. IN EACH DIRECTION AND THE BASE SHALL BE CLEAR OF OBSTRUCTIONS 24" MIN. §11B–304.3.2, FIGURE 11B–304.3.2

KNEE AND TOE CLEARANCE

4.8 FOR LAVATORIES AND BUILT–IN DINING AND WORK SURFACES REQUIRED TO BE ACCESSIBLE, TOE CLEARANCE SHALL BE PROVIDED THAT IS 30 INCHES IN WIDTH AND 9 INCHES IN HEIGHT ABOVE THE FINISH FLOOR OR GROUND FOR A DEPTH OF 1 INCHES MINIMUM. §11B–306.2.1

4.9 TOE CLEARANCE SHALL EXTEND 19 INCHES MAXIMUM UNDER LAVATORIES FOR TOILET AND BATHING FACILITIES AND 25 INCHES MAXIMUM UNDER OTHER ELEMENTS. §11B–306.2.2

4.10 AT LAVATORIES IN TOILET AND BATHING FACILITIES, KNEE CLEARANCE SHALL BE PROVIDED THAT IS 30 INCHES IN WIDTH FOR A DEPTH OF 11 INCHES AT 9 INCHES ABOVE THE FINISH FLOOR OR GROUND AND FOR A DEPTH OF 8 INCHES AT 27 INCHES ABOVE THE FINISH FLOOR OR GROUND INCREASING TO 29 INCHES HIGH MINIMUM ABOVE THE FINISH FLOOR OR GROUND AT THE FRONT EDGE OF A COUNTER WITH A BUILT–IN LAVATORY OR AT THE FRONT EDGE OF A WALL–MOUNTED LAVATORY FIXTURE. §11B–306.3.3, FIGURE 11B–306.3(C)

4.11 AT DINING AND WORK SURFACES REQUIRED TO BE ACCESSIBLE, KNEE CLEARANCE SHALL BE PROVIDED THAT IS 30 INCHES IN WIDTH AT 27 INCHES ABOVE THE FINISH FLOOR OR GROUND FOR A DEPTH OF AT LEAST 19 INCHES. §11B–306.3

PROTRUDING OBJECTS

4.12 EXCEPT FOR HANDRAILS, OBJECTS WITH LEADING EDGES MORE THAN 27 INCHES AND LESS THAN 80 INCHES ABOVE THE FINISH FLOOR OR GROUND SHALL PROTRUDE NO MORE THAN 4 INCHES HORIZONTALLY INTO THE CIRCULATION PATH. HANDRAILS MAY PROTRUDE 4½ INCHES MAXIMUM. §11B–307.2, FIGURE 11B–307.2

4.13 FREESTANDING OBJECTS MOUNTED ON POSTS OR PYLONS SHALL OVERHANG CIRCULATION PATHS NO MORE THAN 12 INCHES WHEN LOCATED FROM 27 TO 80 INCHES ABOVE THE FINISH FLOOR OR GROUND. §11B–307.3, FIGURE 11B–307.3(A)

4.14 PROTRUDING OBJECTS SHALL NOT REDUCE THE CLEAR WIDTH REQUIRED FOR ACCESSIBLE ROUTES. §11B–307.5

4.15 LOWEST EDGE OF A SIGN OR OTHER OBSTRUCTION, WHEN MOUNTED BETWEEN POSTS OR PYLONS SEPARATED WITH A CLEAR DISTANCE GREATER THAN 12 INCHES, SHALL BE LESS THAN 27 INCHES OR MORE THAN 80 INCHES ABOVE THE FINISH FLOOR OR GROUND. §11B–307.3, FIGURE 11B–307.3(B)

4.16 VERTICAL CLEARANCE SHALL BE AT LEAST 80 INCHES HIGH ON CIRCULATION PATHS EXCEPT AT DOOR CLOSERS AND DOOR STOPS, WHICH MAY BE 78 INCHES MINIMUM ABOVE THE FINISH FLOOR OR GROUND. §11B–307.4

4.17 GUARDRAILS OR OTHER BARRIERS WITH A LEADING EDGE LOCATED 27 INCHES MAXIMUM ABOVE THE FINISH FLOOR OR GROUND SHALL BE PROVIDED WHERE THE VERTICAL CLEARANCE ON CIRCULATION PATHS IS LESS THAN 80 INCHES HIGH. §11B–307.4, FIGURE 11B–307.4

4.18 WHERE A GUY SUPPORT IS USED WITHIN EITHER THE WIDTH OF A CIRCULATION PATH OR 24" MAX. OUTSIDE OF A CIRCULATION PATH, A VERTICAL GUY BRACE, SIDEWALK GUY OR SIMILAR DEVICE SHALL BE USED TO PREVENT A HAZARD OR AN OVERHEAD OBSTRUCTION. §11B–307.4.1, FIGURE 11B–307.4.1

REACH RANGE

4.19 ELECTRICAL CONTROLS AND SWITCHES INTENDED TO BE USED BY THE OCCUPANT OF A ROOM OR AREA TO CONTROL LIGHTING AND RECEPTACLE OUTLETS, APPLIANCES OR COOLING, HEATING AND VENTILATING EQUIPMENT SHALL BE LOCATED WITHIN ALLOWABLE REACH RANGES. LOW REACH SHALL BE MEASURED TO THE BOTTOM OF THE OUTLET BOX AND HIGH REACH SHALL BE MEASURED TO THE TOP OF THE OUTLET BOX. §11B–308.1.1

4.20 ELECTRICAL RECEPTACLE OUTLETS ON BRANCH CIRCUITS OF 30 AMPERES OR LESS AND COMMUNICATION SYSTEM RECEPTACLES SHALL BE LOCATED WITHIN ALLOWABLE REACH RANGES. LOW REACH SHALL BE MEASURED TO THE BOTTOM OF THE OUTLET BOX AND HIGH REACH SHALL BE MEASURED TO THE TOP OF THE OUTLET BOX. §11B–308.1.2.

4.21 HIGH FORWARD REACH THAT IS UNOBSTRUCTED SHALL BE 48 INCHES MAXIMUM AND THE LOW FORWARD REACH SHALL BE 15 INCHES MINIMUM ABOVE THE FINISH FLOOR OR GROUND. §11B–308.2.1, FIGURE 11B–308.2.1

4.22 HIGH FORWARD REACH SHALL BE 48 INCHES MAXIMUM WHERE THE REACH DEPTH IS 20 INCHES OR LESS AND 44 INCHES MAXIMUM WHERE THE REACH DEPTH EXCEEDS 20 INCHES. HIGH FORWARD REACH SHALL NOT EXCEED 25 INCHES IN DEPTH. §11B–308.2.2, FIGURE 11B–308.2.2

4.23 HIGH SIDE REACH SHALL BE 48 INCHES MAXIMUM AND THE LOW SIDE REACH SHALL BE 15 INCHES MINIMUM ABOVE THE FINISH FLOOR WHERE THE SIDE REACH IS UNOBSTRUCTED OR THE DEPTH OF ANY OBSTRUCTION DOES NOT EXCEED 10 INCHES. §11B–308.3.1, FIGURE 11B–308.3.1

4.24 HIGH SIDE REACH SHALL BE 46 INCHES MAXIMUM ABOVE THE FINISH FLOOR OR GROUND WHERE THE HIGH SIDE REACH IS OVER AN OBSTRUCTION MORE THAN 10 INCHES BUT NOT MORE THAN 24 INCHES IN DEPTH. §11B–308.3.2, FIGURE 11B–308.3.2

4.25 OBSTRUCTIONS FOR HIGH SIDE REACH SHALL NOT EXCEED 34 INCHES IN HEIGHT AND 24 INCHES IN DEPTH. §11B–308.3.2, FIGURE 11B–308.3.2

4.26 OBSTRUCTED HIGH SIDE REACH FOR THE TOP OF WASHING MACHINES AND CLOTHES DRYERS SHALL BE PERMITTED TO BE 36 INCHES MAXIMUM ABOVE THE FINISH FLOOR. §11B–308.3.2

4.27 OBSTRUCTED HIGH SIDE REACH FOR THE OPERABLE PARTS OF FUEL DISPENSERS SHALL BE PERMITTED TO BE 54 INCHES MAXIMUM MEASURED FROM THE SURFACE OF THE VEHICULAR WAY WHERE FUEL DISPENSERS ARE INSTALLED ON EXISTING CURBS. §11B–308.3.2

OPERABLE PARTS

4.28 OPERABLE PARTS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST. FORCE REQUIRED TO ACTIVATE OPERABLE PARTS SHALL BE 5 POUNDS MAXIMUM. §11B–309.4

GENERAL NOTES:
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USE FIELD SURVEY AND TITLE REPORT TO VERIFY PROPERTY LINES, UTILITY EQUIPMENT ON SITE, AND EASEMENTS.

5.0 ACCESSIBLE ROUTES

5.1 AT LEAST ONE ACCESSIBLE ROUTE SHALL BE PROVIDED WITHIN THE SITE FROM ACCESSIBLE PARKING SPACES AND ACCESSIBLE PASSENGER LOADING ZONES; PUBLIC STREETS AND SIDEWALKS; AND PUBLIC TRANSPORTATION STOPS TO THE ACCESSIBLE BUILDING OR FACILITY ENTRANCE THEY SERVE. WHERE MORE THAN ONE ROUTE IS PROVIDED, ALL ROUTES MUST BE ACCESSIBLE. §11B–206.2.1 (SEE EXCEPTIONS)

5.2 AT LEAST ONE ACCESSIBLE ROUTE SHALL CONNECT ACCESSIBLE BUILDINGS, ACCESSIBLE FACILITIES, ACCESSIBLE ELEMENTS, AND ACCESSIBLE SPACES THAT ARE ON THE SAME SITE. §11B–206.2.2

5.3 AT LEAST ONE ACCESSIBLE ROUTE SHALL CONNECT EACH STORY AND MEZZANINE IN MULTI–STORY BUILDINGS AND FACILITIES. §11B–206.2.3

5.4 IN NEW CONSTRUCTION OF BUILDINGS WHERE ELEVATORS ARE REQUIRED BY 11B–206.2.3 MULTI–STORY BUILDINGS AND FACILITIES, AND WHICH EXCEED 10,000 SQUARE FEET ON ANY FLOOR, AN ACCESSIBLE MEANS OF VERTICAL ACCESS VIA RAMP, ELEVATOR OR LIFT SHALL BE PROVIDED WITHIN 200 FEET OF TRAVEL OF EACH STAIR AND EACH ESCALATOR. §11B–206.2.3.2

5.5 IN EXISTING BUILDINGS THAT EXCEED 10,000 SQUARE FEET ON ANY FLOOR AND IN WHICH ELEVATORS ARE REQUIRED BY 11B–206.2.3 MULTI–STORY BUILDINGS AND FACILITIES, WHENEVER A NEWLY CONSTRUCTED MEANS OF VERTICAL ACCESS IS PROVIDED VIA STAIRS OR AN ESCALATOR, AN ACCESSIBLE MEANS OF VERTICAL ACCESS VIA RAMP, ELEVATOR OR LIFT SHALL BE PROVIDED WITHIN 200 FEET OF TRAVEL OF EACH NEW STAIR OR ESCALATOR. §11B–206.2.3.2

5.6 AT LEAST ONE ACCESSIBLE ROUTE SHALL CONNECT ACCESSIBLE BUILDING OR FACILITY ENTRANCES WITH ALL ACCESSIBLE SPACES AND ELEMENTS WITHIN THE BUILDING OR FACILITY, INCLUDING MEZZANINES, WHICH ARE OTHERWISE CONNECTED BY A CIRCULATION PATH. §11B–206.2.4

5.7 ACCESSIBLE ROUTES SHALL COINCIDE WITH OR BE LOCATED IN THE SAME AREA AS GENERAL CIRCULATION PATHS. WHERE CIRCULATION PATHS ARE INTERIOR, REQUIRED ACCESSIBLE ROUTES SHALL ALSO BE INTERIOR; AN ACCESSIBLE ROUTE SHALL NOT PASS THROUGH KITCHENS, STORAGE ROOMS, RESTROOMS, CLOSETS OR OTHER SPACES USED FOR SIMILAR PURPOSES, EXCEPT AS PERMITTED BY CHAPTER 10. §11B–206.3

EMPLOYEE WORKSTATIONS

5.8 EMPLOYEE WORKSTATIONS SHALL BE ON AN ACCESSIBLE ROUTE COMPLYING WITH DIVISION 4. SPACES AND ELEMENTS WITHIN EMPLOYEE WORKSTATIONS SHALL ONLY BE REQUIRED TO COMPLY WITH SECTIONS 11B–207.1, 11B–215.3, 11B–302, 11B–303, AND 11B–404.2.3. COMMON USE CIRCULATION PATHS WITHIN EMPLOYEE WORKSTATIONS SHALL COMPLY WITH SECTION 11B–206.2.8. §11B–203.9

ENTRANCES

5.9 ENTRANCES SHALL BE PROVIDED IN ACCORDANCE WITH 11B–206.4 ENTRANCES. ENTRANCE DOORS, DOORWAYS, AND GATES SHALL COMPLY WITH 11B–404 DOORS, DOORWAYS, AND GATES AND SHALL BE ON AN ACCESSIBLE ROUTE COMPLYING WITH 11B–402 ACCESSIBLE ROUTES; (SEE EXCEPTIONS). §11B–206.4

5.10 ALL ENTRANCES AND EXTERIOR GROUND–FLOOR EXITS TO BUILDINGS AND FACILITIES SHALL COMPLY WITH 11B–404 DOORS, DOORWAYS, AND GATES. §11B–206.4.1

5.11 WHERE DIRECT ACCESS IS PROVIDED FOR PEDESTRIANS FROM A PARKING STRUCTURE TO A BUILDING OR FACILITY ENTRANCE, EACH DIRECT ACCESS TO THE BUILDING OR FACILITY ENTRANCE SHALL COMPLY WITH 11B–404 DOORS, DOORWAYS, AND GATES.§11B–206.4.2

5.12 DIRECT CONNECTIONS TO OTHER FACILITIES SHALL PROVIDE AN ACCESSIBLE ROUTE COMPLYING WITH 11B–404 DOORS, DOORWAYS, AND GATES FROM THE POINT OF CONNECTION TO BOARDING PLATFORMS AND ALL TRANSPORTATION SYSTEM ELEMENTS REQUIRED TO BE ACCESSIBLE. ANY ELEMENTS PROVIDED TO FACILITATE FUTURE DIRECT CONNECTIONS SHALL BE ON AN ACCESSIBLE ROUTE CONNECTING BOARDING PLATFORMS AND ALL TRANSPORTATION SYSTEM ELEMENTS REQUIRED TO BE ACCESSIBLE. §11B–206.4.4.2

TECHNICAL REQUIREMENTS FOR ACCESSIBLE ROUTES

5.13 ACCESSIBLE ROUTES SHALL CONSIST OF ONE OR MORE OF THE FOLLOWING COMPONENTS: WALKING SURFACES WITH A RUNNING SLOPE NOT STEEPER THAN 1:20 (5%), DOORWAYS, RAMPS, CURB RAMPS EXCLUDING THE FLARED SIDES, ELEVATORS, AND PLATFORM LIFTS 11B–402.2

5.14 THE RUNNING SLOPE OF WALKING SURFACES SHALL NOT BE STEEPER THAN 1:20 (5%). THE CROSS SLOPE OF WALKING SURFACES SHALL NOT BE STEEPER THAN 1:48 (2.083%).§11B–403.3

5.15 EXCEPT AT TURNS OR PASSING SPACES, THE CLEAR WIDTH OF WALKING SURFACES SHALL BE 36 INCHES MINIMUM. §11B–403.5.1

5.16 THE CLEAR WIDTH FOR WALKING SURFACES IN CORRIDORS SERVING AN OCCUPANT LOAD OF 10 OR MORE SHALL BE 44 INCHES MINIMUM. §11B–403.5.1 EXCEPTION 2

5.17 THE CLEAR WIDTH FOR SIDEWALKS AND WALKS SHALL BE 48 INCHES MINIMUM. §11B–403.5.1 EXCEPTION 3

5.18 THE CLEAR WIDTH FOR AISLES SHALL BE 36 INCHES MINIMUM IF SERVING ELEMENTS ON ONLY ONE SIDE, AND 44 INCHES MINIMUM IF SERVING ELEMENTS ON BOTH SIDES. §11B–403.5.1

5.19 THE CLEAR WIDTH FOR ACCESSIBLE ROUTES TO ACCESSIBLE TOILET COMPARTMENTS SHALL BE 44 INCHES EXCEPT FOR DOOR OPENING WIDTHS AND DOOR SWINGS. §11B–403.5.1

DOORS, DOORWAYS, AND GATES

5.20 DOORS, DOORWAYS, AND GATES PROVIDING USER PASSAGE SHALL BE PROVIDED IN ACCORDANCE WITH 11B–206.5 DOORS, DOORWAYS, AND GATES. §11B–206.5

5.21 DOORS, DOORWAYS AND GATES THAT ARE PART OF AN ACCESSIBLE ROUTE SHALL COMPLY WITH 11B–404 DOORS, DOORWAYS, AND GATES. §11B–404.1

5.22 REVOLVING DOORS, REVOLVING GATES, AND TURNSTILES SHALL NOT BE PART OF AN ACCESSIBLE ROUTE. §11B–402.2.1

5.23 AT LEAST ONE OF THE ACTIVE LEAVES OF DOORWAYS WITH TWO LEAVES SHALL COMPLY WITH 11B–404.2.3 CLEAR WIDTH AND 11B–404.2.4 MANEUVERING CLEARANCES. §11B–404.2.2

5.24 DOOR OPENINGS SHALL PROVIDE A CLEAR WIDTH OF 32 INCHES MINIMUM. CLEAR OPENINGS OF DOORWAYS WITH SWINGING DOORS SHALL BE MEASURED BETWEEN THE FACE OF THE DOOR AND THE STOP, WITH THE DOOR OPEN 90 DEGREES. OPENINGS MORE THAN 24 INCHES DEEP SHALL PROVIDE A CLEAR OPENING OF 36 INCHES MINIMUM. THERE SHALL BE NO PROJECTION INTO THE REQUIRED CLEAR OPENING WIDTH LOWER THAN 34" ABOVE THE FINISH FLOOR OR GROUND. PROJECTIONS INTO THE CLEAR OPENING WIDTH BETWEEN 34" AND 80" ABOVE THE FINISH FLOOR OR GROUND SHALL NOT EXCEED 4". §11B–404.2.3

5.25 MINIMUM MANEUVERING CLEARANCES AT DOORS AND GATES SHALL COMPLY WITH 11B–404.2.4 MANEUVERING CLEARANCES. MANEUVERING CLEARANCES SHALL EXTEND THE FULL WIDTH OF THE DOORWAY AND THE REQUIRED LATCH SIDE OR HINGE SIDE CLEARANCE. §11B–404.2.4

5.26 SWINGING DOORS AND GATES SHALL HAVE MANEUVERING CLEARANCES COMPLYING WITH TABLE 11B–404.2.4.1. §11B–404.2.4.1

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County of San Bernardino
BUILDING AND SAFETY
THE PLANS AND DETAILS HAVE BEEN
REVIEWED
FOR CODE COMPLIANCE
THE REVIEW OF THESE PLANS SHALL NOT BE CONSTRUED TO BE A PERMIT FOR ANY VIOLATION OF ANY CODE OR ORDINANCE OF THIS COUNTY
By
Date 03/05/2025
THESE PLANS SHALL BE ON THE JOB FOR ALL REQUESTED INSPECTIONS

PAPOOSE TRAIL
69561 PAPOOSE TRAIL
TWENTYNINE PALMS, CA. 92277

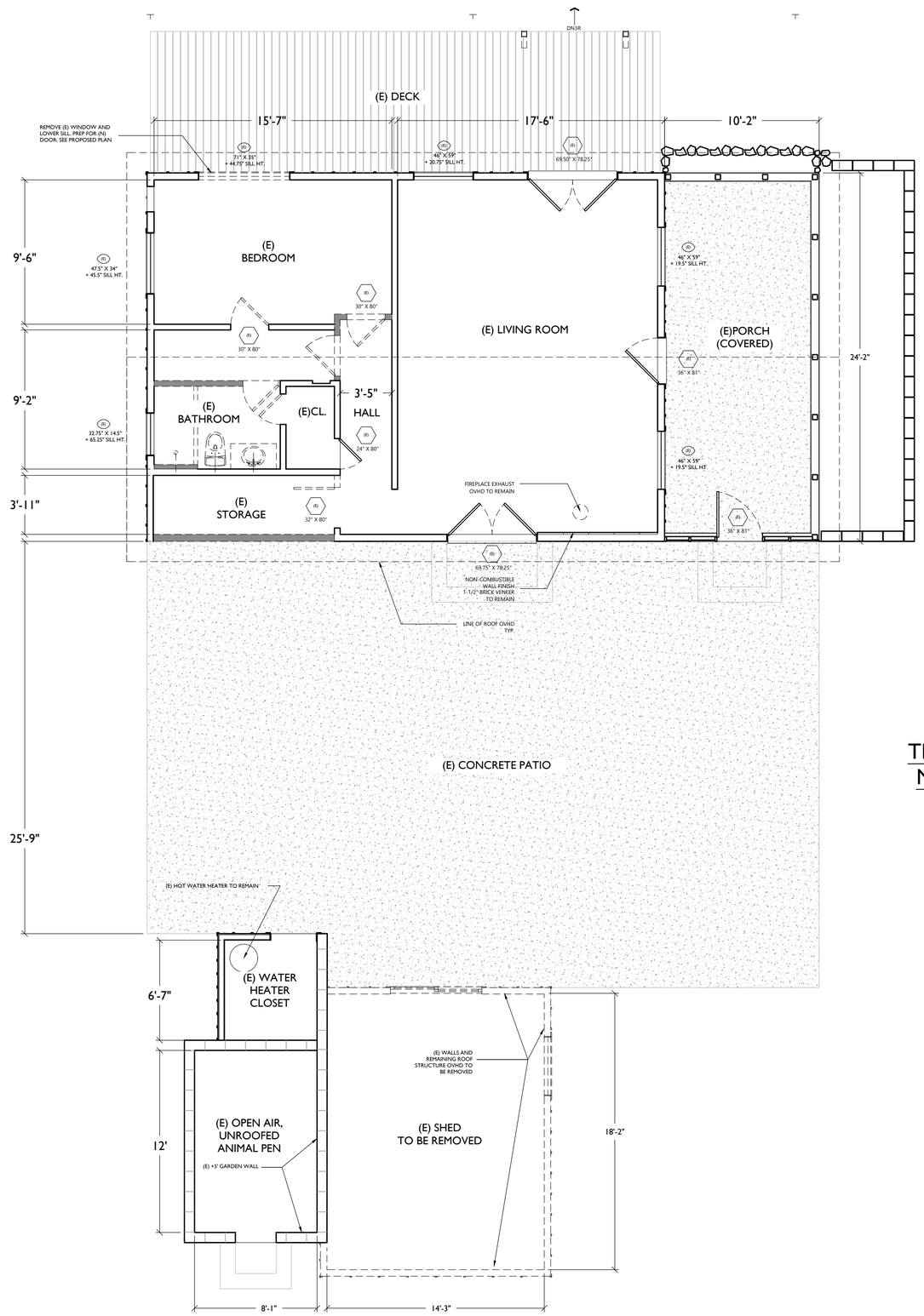
DRAWING ISSUES

NO.	ISSUE	DATE
1	AS–BUILTS	08.27.23
2	DESIGN DEVELOPMENT	11.12.23
3	REVISIONS	02.04.24
4	PLAN CHECK	03.30.24
5	REC CABIN CONVERSION	11.20.24
6		

TITLE

SYMBOLS, ABBREVIATIONS, GENERAL & ACCESSIBILITY NOTES

PROJECT 2307
SCALE AS NOTED
DRAWN BY MM
DATE 11.20.24
SHEET NUMBER A0-1.01



THIS PROPERTY HAS NO JOSHUA TREES

1 FLOOR PLAN
1/4" = 1'-0"
829 SQFT INTERIOR + 222 SQFT INTERIOR COVERED PORCH
495 SQFT INTERIOR + 94 SQFT INTERIOR

NORTH

GENERAL NOTES:
ALL DIMENSIONS MUST BE VERIFIED IN FIELD
USE FIELD SURVEY AND TITLE REPORT TO VERIFY PROPERTY LINES, UTILITY EQUIPMENT ON SITE, AND EASEMENTS.

LEGEND

EXISTING DOOR — (E) WIDTH X HEIGHT
EXISTING WINDOW — (E) WIDTH X HEIGHT SILL HEIGHT
TO BE REMOVED
(E) WALL TO REMAIN
MISC TO BE REMOVED

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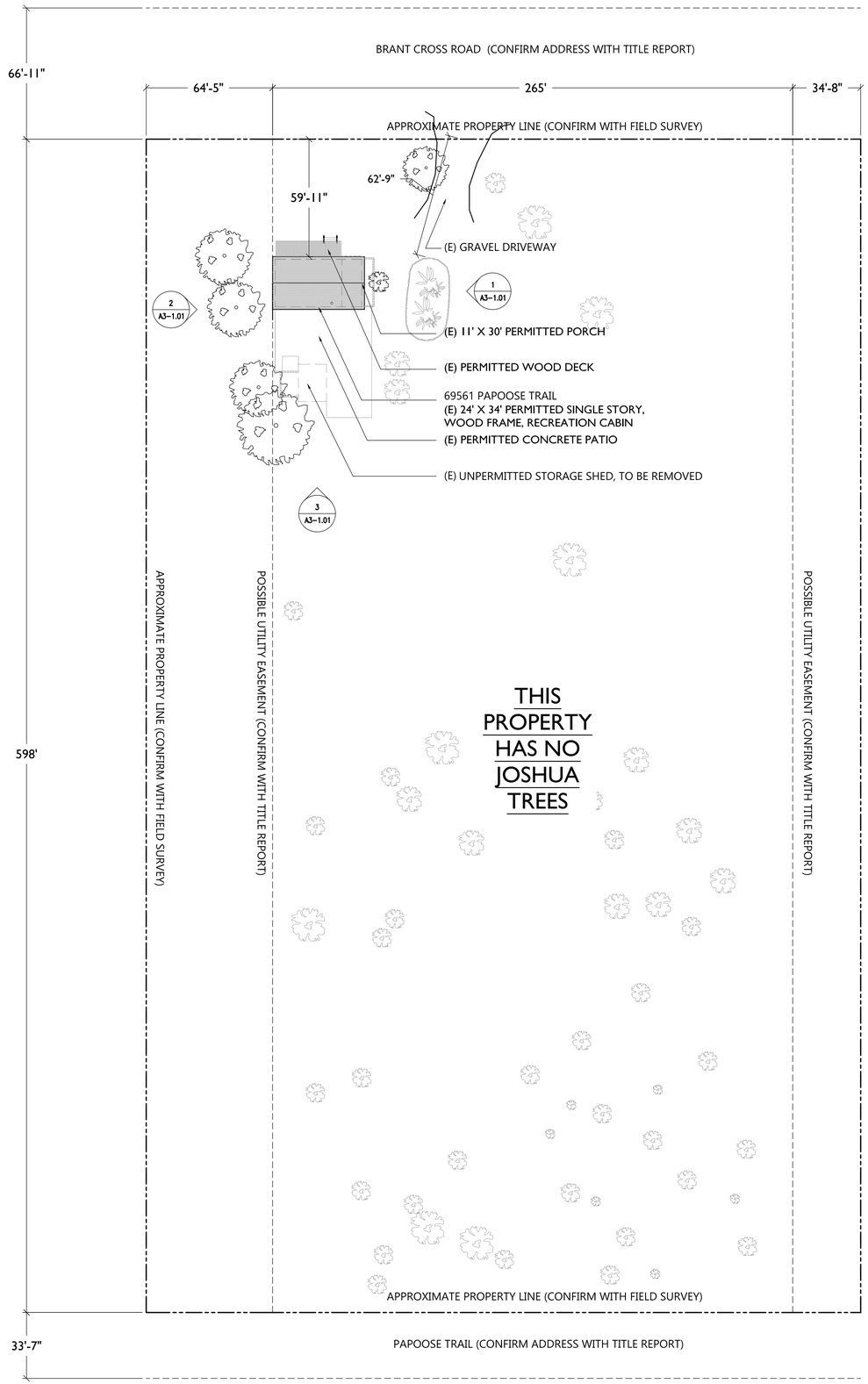
TITLE
DEMOLITION PLAN

PROJECT 2307
SCALE AS NOTED
DRAWN BY MM
DATE 11.20.24

SHEET NUMBER
A0-4.01



1 SITE PLAN

1/16" = 1'-0"
158,470.00 SQFT LOT SIZE

NORTH

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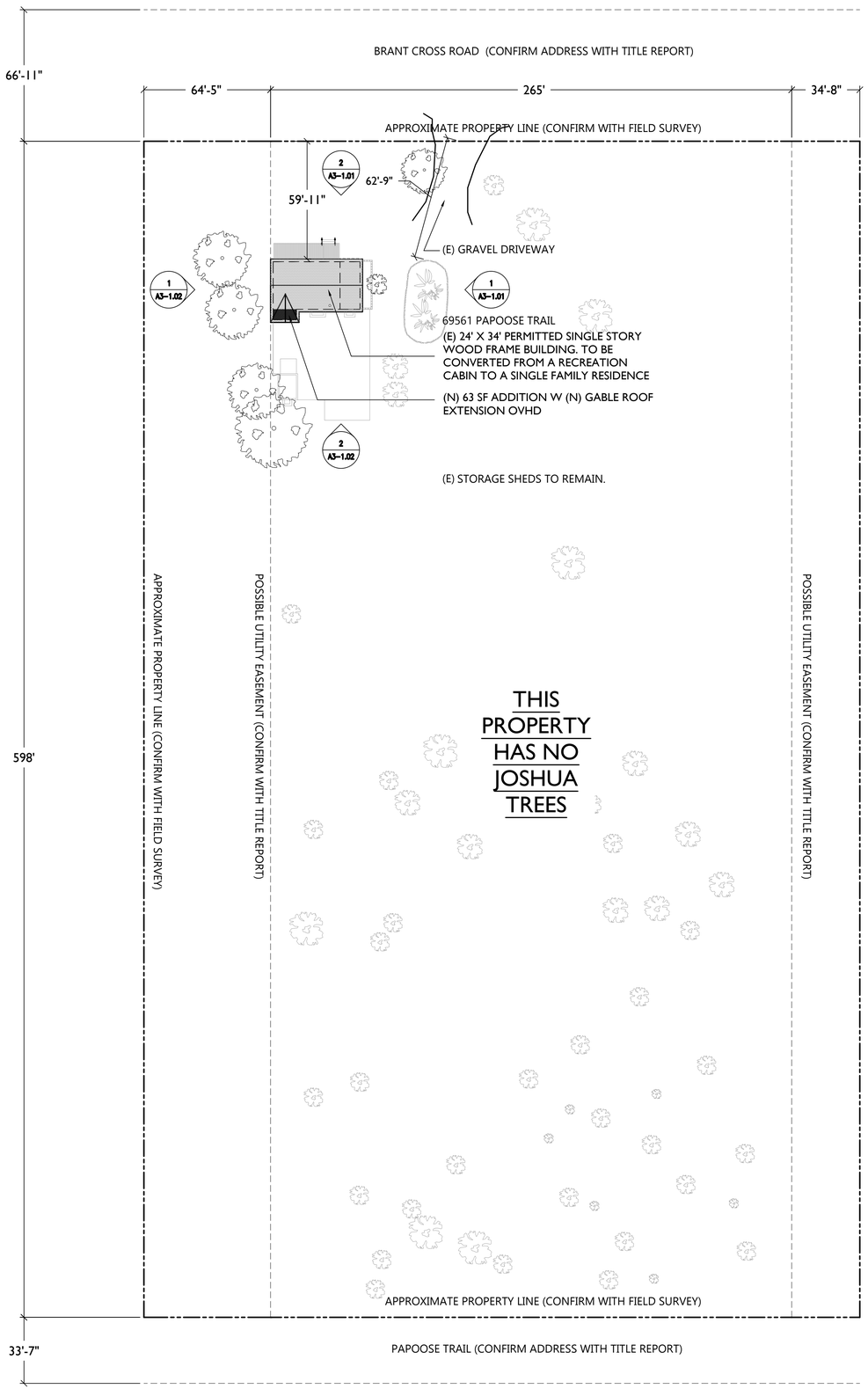
TITLE

AS BUILT SITE PLAN

PROJECT 2307
SCALE AS NOTED
DRAWN BY MM
DATE 11.20.24

SHEET NUMBER A1-1.00



1 SITE PLAN
1/16" = 1'-0"
158,470.00 SQFT LOT SIZE

NORTH

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TITLE

SITE PLAN

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SCALE AS NOTED
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DATE 11.20.24

SHEET NUMBER
A1-1.01

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LEGEND

EXISTING DOOR	(E) WIDTH X HEIGHT
EXISTING WINDOW	(E) WIDTH X HEIGHT SILL HEIGHT
NEW DOOR	(N) WIDTH X HEIGHT
NEW WINDOW	(NS) WIDTH X HEIGHT SILL HEIGHT
NEW WALL	
NEW 63 SF ADDITION	

DN.SR

2 A3–1.01

(E) WOOD DECK
+0'-10 ½"

9'-3"

44'-1"

15'-7" | 17'-1" | 9'-7"

(E) 46" X 59" + 20.75" SILL HT.

(E) 69.50" X 78.25"

1 60" X 80" C.I.F.

(E) WALL UNIT AIR CONDITIONER OPENING, FILL IN, PATCH AND PAINT TO MATCH ADJACENT FINISHES

(E) 46" X 59" + 19.5" SILL HT.

9'-6"

(E) 47.5" X 34" + 45.5" SILL HT.

(E) BEDROOM
+1'-0"

(E) CONCRETE FLOOR TO REMAIN, GRIND AND SEAL

20'-4"

CEILING HEIGHT = +7.94"

(E) LIVING ROOM
+1'-0"

(E) CONCRETE FLOOR TO REMAIN, GRIND AND SEAL

(E) PORCH (COVERED)
+0'-10 ½"

(E) CONCRETE FLOOR TO REMAIN, GRIND AND SEAL

LANDSCAPE

1 A5–1.01

23'-1" 24'-2"

1 A5–1.02

1 A5–1.01

(N) BENCH

(E) BATHROOM
+1'-0"

(E) CONCRETE FLOOR TO REMAIN, GRIND AND SEAL

3 32" X 80"

HALLWAY

(E) ELECTRICAL PANEL TO BE PERMITTED

4 124" X 80"

MECH. CL.

(N) SHOWER

9'-2"

(N) CONCRETE PAD

(N) AIR CONDITIONER

17 32.75" X 14.5" + 65.25" SILL HT.

3'-5"

(N) HVAC UNIT

(E) 124" X 80"

(E) 36" X 81"

(E) 46" X 59" + 19.5" SILL HT.

(E) FIREPLACE EXHAUST OVHD, C.I.F.

(N) FREESTANDING FIREPLACE

3'-8"

2'-8"

3'

24" DISHWASHER BY CLIENT

3'-7"

X 30" X 36" + 42" SILL HT. C.I.F.

9'-3"

1 A5–1.02

(E) CONCRETE FLOOR TO REMAIN, GRIND AND SEAL

5'-3"

(N) KITCHEN
+1'-0"

24" ELECTRIC STOVE/OVEN BY CLIENT

5'-4"

(E) EDISON ELECTRICAL POINT OF SERVICE, TO BE PERMITTED

36" REFRIGERATOR BY CLIENT

A 36" X 36" + 42" SILL HT. C.I.F.

8' | 3' CONFIRM W SPEC.

11'

11'-10"

(E) 69.75" X 78.25"

(E) RAISED CONCRETE LANDING +0'-10 ½"

DN2R

(E) NON-COMBUSTIBLE WALL FINISH - 1.5" BRICK VENEER

(N) NON-COMBUSTIBLE FLOOR FINISH

(E) 36" X 81"

(E) RAISED CONCRETE LANDING +0'-10 ½"

DN2R

(E) CONCRETE PATIO
+0'-0"

2 A5–1.02

1 FLOOR PLAN
½" = 1'-0"

NORTH

County of San Bernardino
BUILDING AND SAFETY
THE PLANS AND DETAILS HAVE BEEN
REVIEWED
FOR CODE COMPLIANCE.
THE REVIEW OF THESE PLANS DOES NOT SUPERSEDE THE ENFORCEMENT OF ANY VIOLATION OF ANY CODE OR ORDINANCE OF THIS COUNTY
By
Date 03/05/2025
THESE PLANS SHALL BE ON THE JOB FOR ALL REQUESTED INSPECTIONS

MUNSDOTTIR

MUNSDOTTIR STUDIO

JOSHUA TREE - LOS ANGELES

MOBILE 213.605.2864
EMAIL MOLLY@MUNSDOTTIR.COM
MUNSDOTTIR.COM

CONSULTANTS:

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BOGDAN SEVASTIANOV
ZOIA LARINA
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92277
ZOIALARINA@GMAIL.COM

STRUCTURAL ENGINEER:

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3655 TORRANCE BLVD,
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OFFICE: (310) 803–9440, EXT 101
CELL: (310) 844–0940

CONTRACTOR:

OWNER/ BUILDER

PAPOOSE TRAIL
69561 PAPOOSE TRAIL
TWENTYNINE PALMS, CA. 92277

DRAWING ISSUES

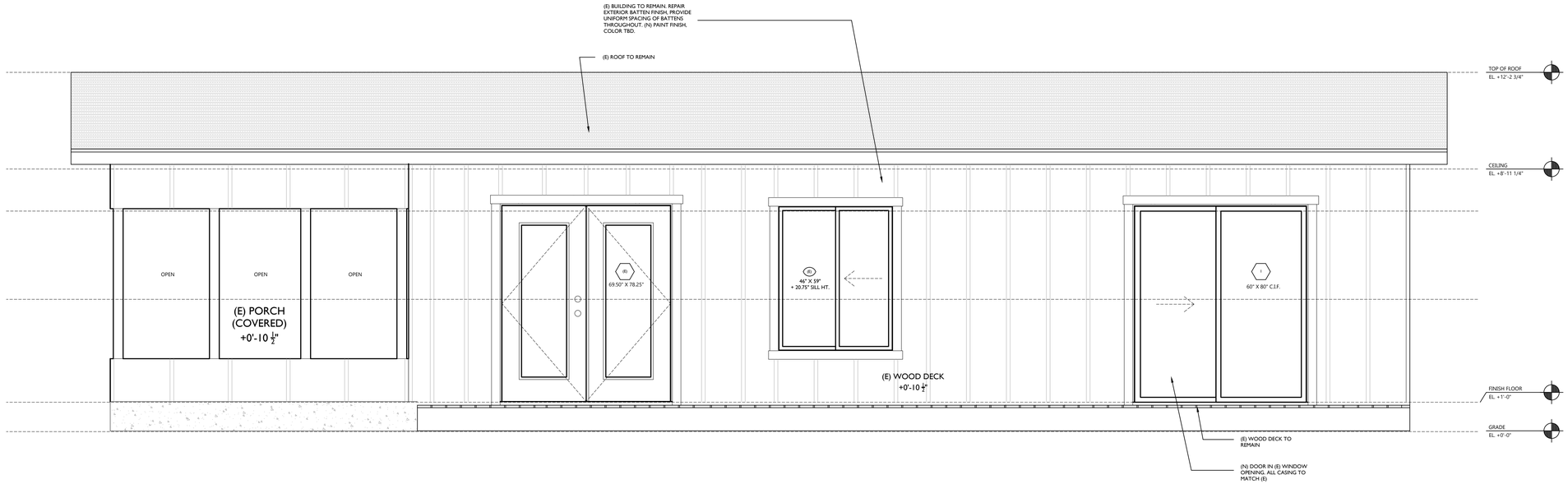
NO.	ISSUE	DATE
1	AS–BUILTS	08.27.23
2	DESIGN DEVELOPMENT	11.12.23
3	REVISIONS	02.04.24
4	PLAN CHECK	03.30.24
5	REC CABIN CONVERSION	11.20.24
6		

TITLE

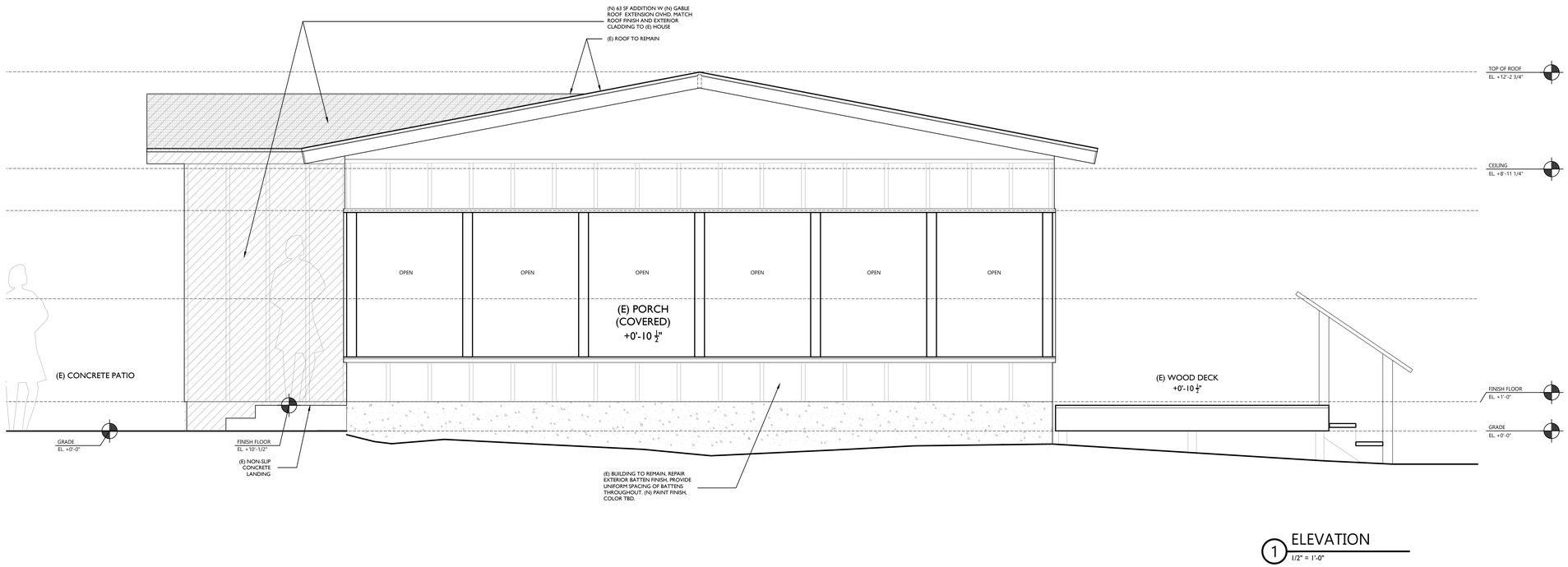
ENLARGED FLOOR PLAN

PROJECT 2307
SCALE AS NOTED
DRAWN BY MM
DATE 11.20.24

SHEET NUMBER A2-1.02



2 ELEVATION
1/2" = 1'-0"



1 ELEVATION
1/2" = 1'-0"

GENERAL NOTES:
ALL DIMENSIONS MUST BE VERIFIED IN FIELD
USE FIELD SURVEY AND TITLE REPORT TO VERIFY PROPERTY LINES, UTILITY EQUIPMENT ON SITE, AND EASEMENTS.

LEGEND

EXISTING DOOR	(E) WIDTH X HEIGHT
EXISTING WINDOW	(E) WIDTH X HEIGHT SILL HEIGHT
NEW DOOR	(N) WIDTH X HEIGHT
NEW WINDOW	(NS) WIDTH X HEIGHT SILL HEIGHT
NEW WALL	
NEW 63 SF ADDITION	

County of San Bernardino
BUILDING AND SAFETY
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By
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TWENTYNINE PALMS, CA. 92277

DRAWING ISSUES

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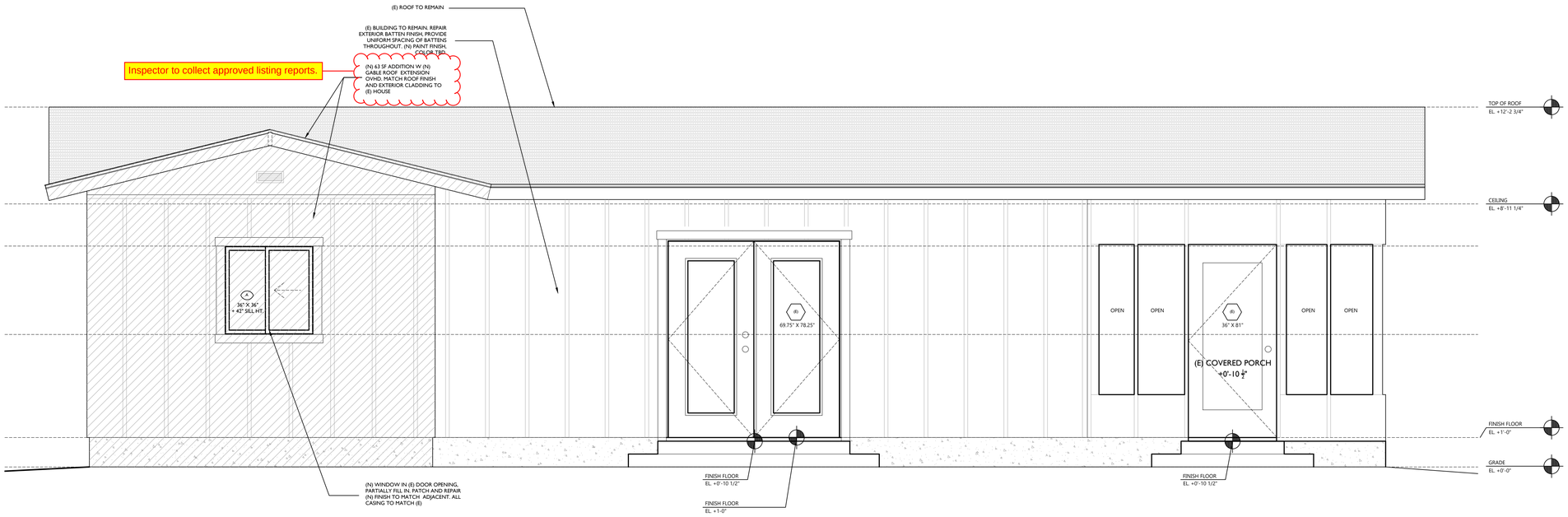
6		

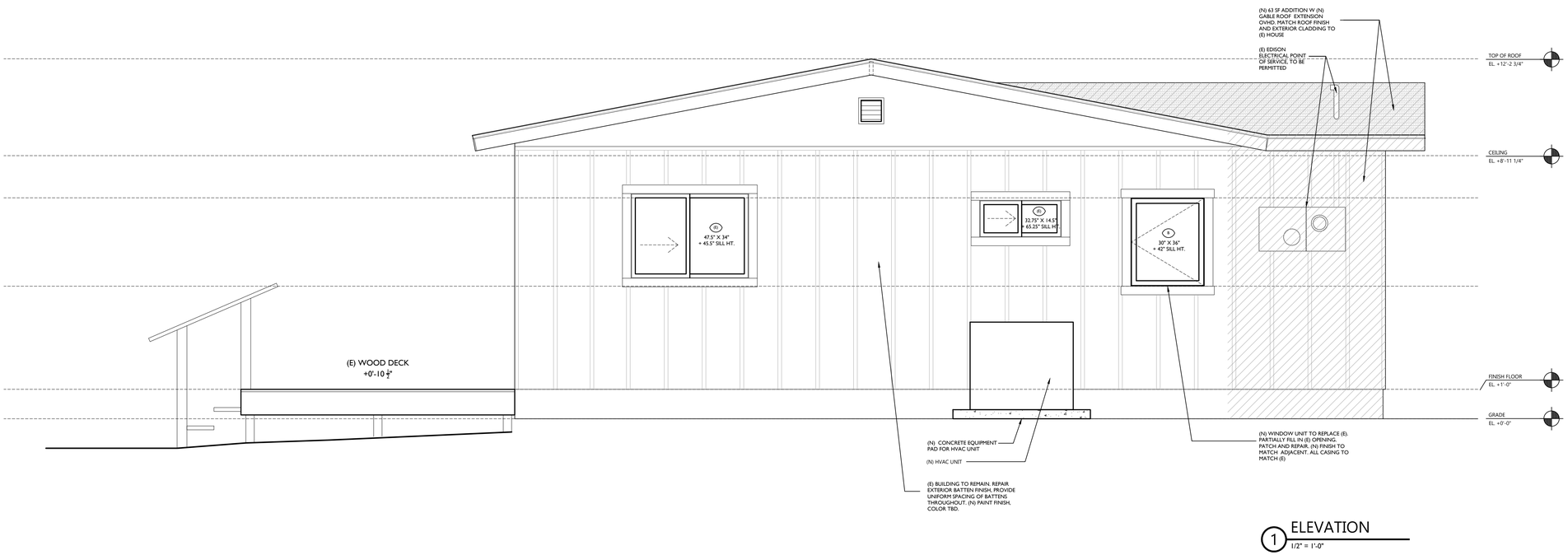
TITLE
EXTERIOR ELEVATIONS

PROJECT 2307
SCALE AS NOTED
DRAWN BY MM
DATE 11.20.24

SHEET NUMBER
A3-1.01



2 ELEVATION
1/2" = 1'-0"



1 ELEVATION
1/2" = 1'-0"

GENERAL NOTES:
ALL DIMENSIONS MUST BE VERIFIED IN FIELD
USE FIELD SURVEY AND TITLE REPORT TO VERIFY PROPERTY LINES, UTILITY EQUIPMENT ON SITE, AND EASEMENTS.

LEGEND

EXISTING DOOR	(E) WIDTH X HEIGHT
EXISTING WINDOW	(E) WIDTH X HEIGHT SILL HEIGHT
NEW DOOR	(N) WIDTH X HEIGHT
NEW WINDOW	(NS) WIDTH X HEIGHT SILL HEIGHT
NEW WALL	
NEW 63 SF ADDITION	

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Date 03/05/2025
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PAPOOSE TRAIL
69561 PAPOOSE TRAIL
TWENTYNINE PALMS, CA. 92277

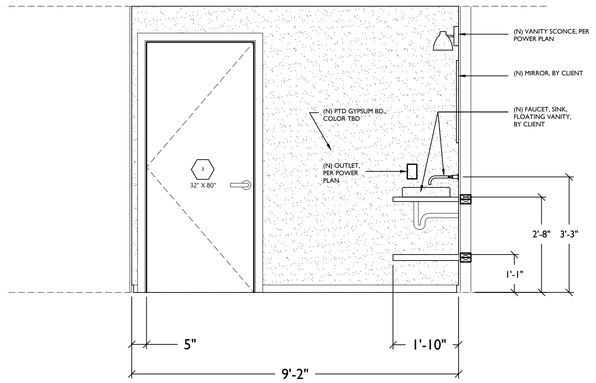
DRAWING ISSUES

NO.	ISSUE	DATE
1	AS-BUILTS	08.27.23
2	DESIGN DEVELOPMENT	11.12.23
3	REVISIONS	02.04.24
4	PLAN CHECK	03.30.24
5	REC CABIN CONVERSION	11.20.24
6		

TITLE
EXTERIOR ELEVATIONS

PROJECT 2307
SCALE AS NOTED
DRAWN BY MM
DATE 11.20.24

SHEET NUMBER
A3-1.02



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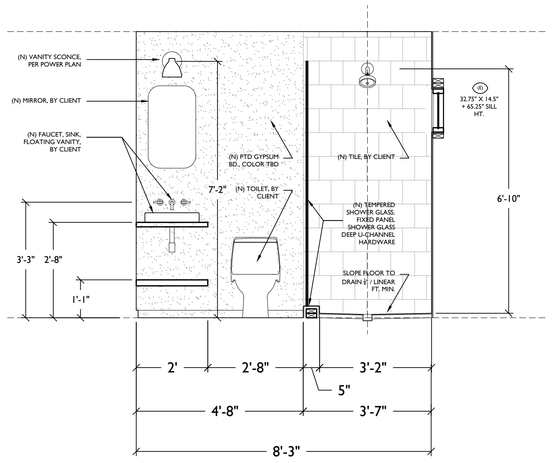

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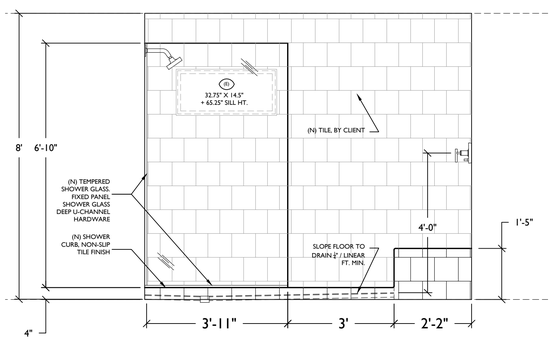

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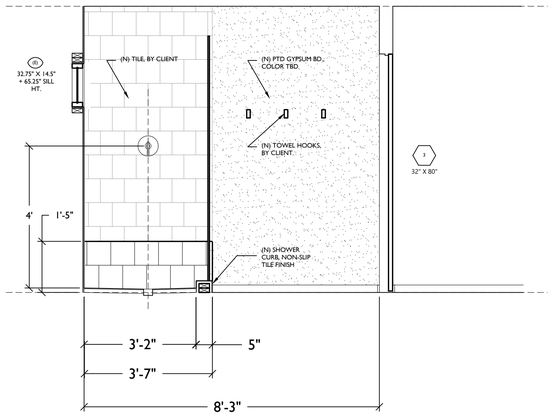
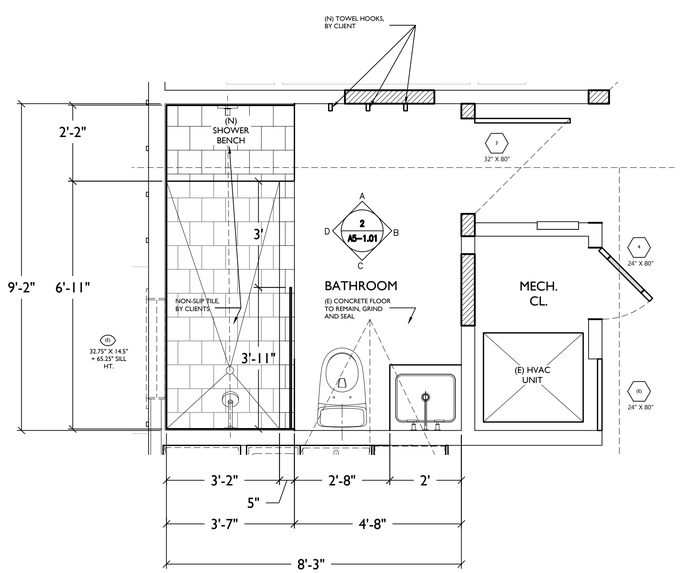


A

2 INTERIOR ELEVATIONS

1/2" = 1'-0"



1 PARTIAL FLOOR PLAN

1/2" = 1'-0"

GENERAL NOTES:

ALL DIMENSIONS MUST BE VERIFIED IN FIELD
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LEGEND

EXISTING DOOR — (E) WIDTH X HEIGHT

EXISTING WINDOW — (E) WIDTH X HEIGHT SILL HEIGHT

NEW DOOR — (N) WIDTH X HEIGHT

NEW WINDOW — (NN) WIDTH X HEIGHT SILL HEIGHT

NEW PARTITION WALL

MUNSDOTTIR

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County of San Bernardino
BUILDING AND SAFETY

THE PLANS AND DETAILS HAVE BEEN

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FOR CODE COMPLIANCE

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By

Date 03/05/2025

THESE PLANS SHALL BE ON THE JOB FOR ALL REQUESTED INSPECTIONS

PAPOOSE TRAIL
69561 PAPOOSE TRAIL
TWENTYNINE PALMS, CA. 92277

DRAWING ISSUES

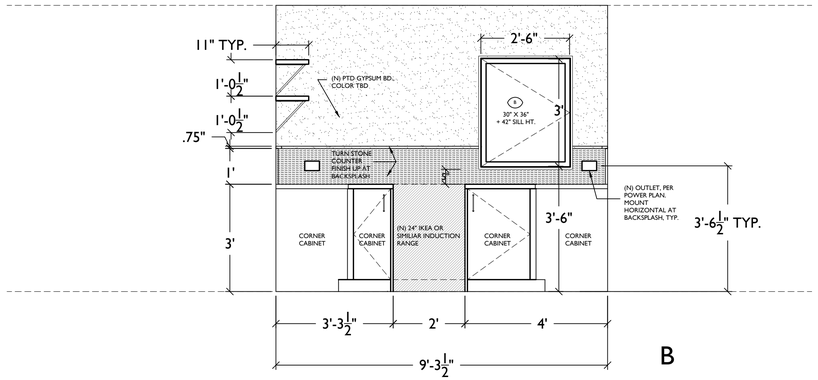
NO.	ISSUE	DATE
1	AS-BUILTS	08.27.23
2	DESIGN DEVELOPMENT	11.12.23
3	REVISIONS	02.04.24
4	PLAN CHECK	03.30.24
5	REC CABIN CONVERSION	11.20.24
6		

TITLE

PARTIAL PLAN:
BATHROOM
INTERIOR ELEVATIONS

PROJECT 2307
SCALE AS NOTED
DRAWN BY MM
DATE 11.20.24

SHEET NUMBER A5-1.01



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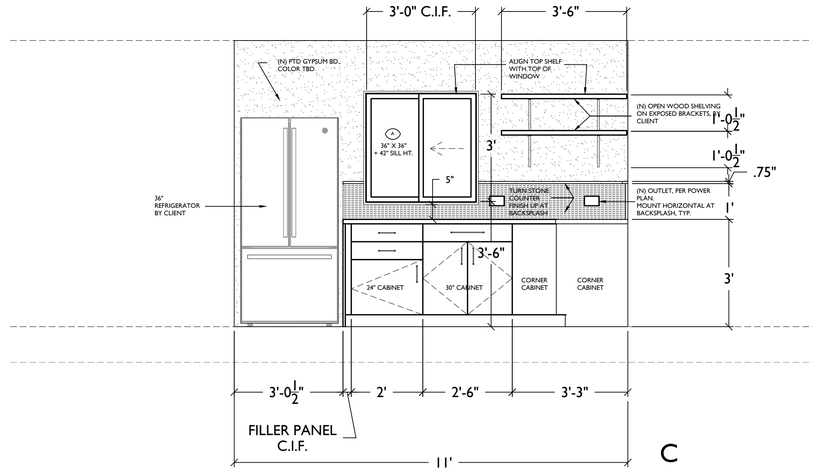

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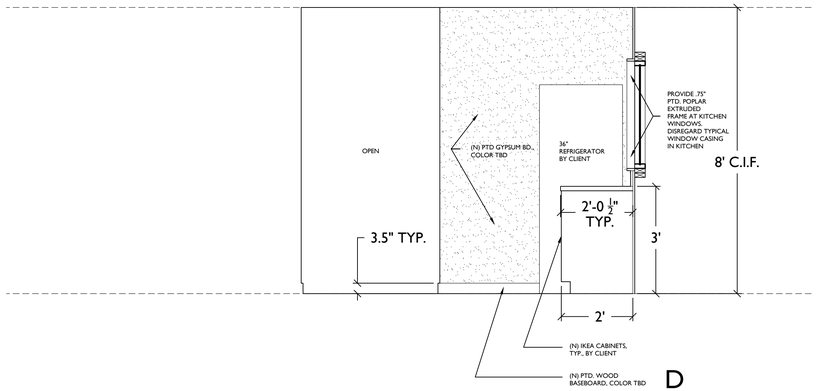

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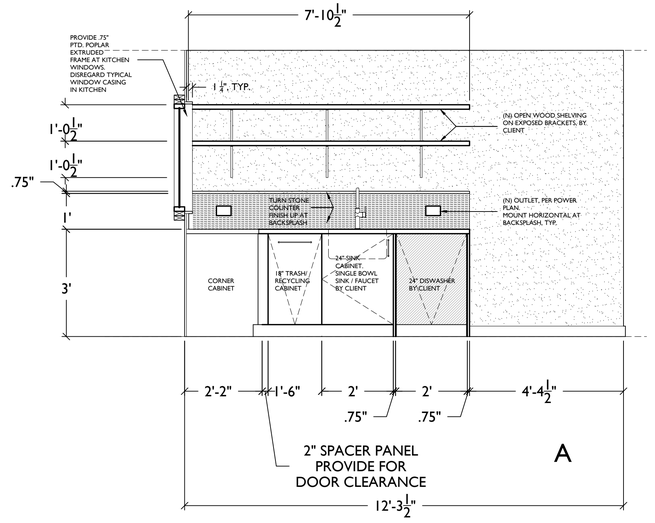
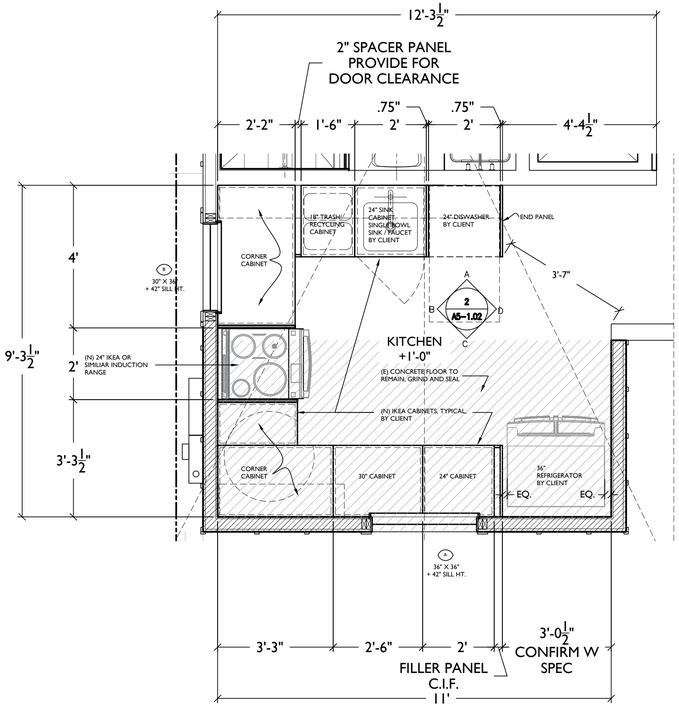


A

2 INTERIOR ELEVATIONS

½" = 1'-0"



1 PARTIAL FLOOR PLAN

½" = 1'-0"

GENERAL NOTES:

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LEGEND

EXISTING DOOR — (E) WIDTH X HEIGHT

EXISTING WINDOW — (E) WIDTH X HEIGHT SILL HEIGHT

NEW DOOR — (P) WIDTH X HEIGHT

NEW WINDOW — (N) WIDTH X HEIGHT SILL HEIGHT

NEW WALL

NEW 63 SF ADDITION

ALL CABINETRY AND COUNTER TOPS BY IKEA, BY CLIENT.

ALL APPLIANCES AND FIXTURES BY CLIENT

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DRAWING ISSUES

NO.	ISSUE	DATE
1	AS-BUILTS	08.27.23
2	DESIGN DEVELOPMENT	11.12.23
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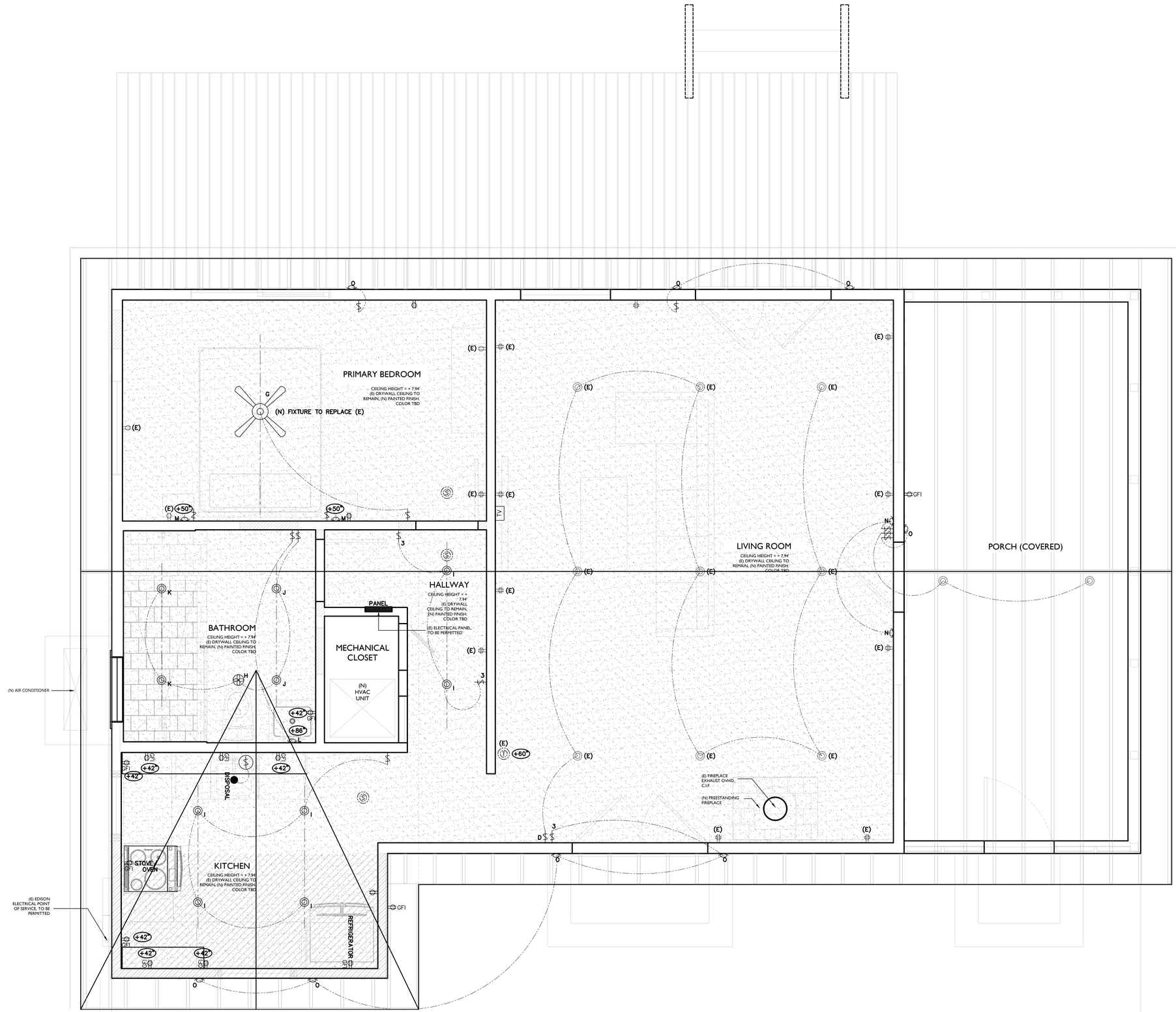
4	PLAN CHECK	03.30.24
5	REC. CABIN CONVERSION	11.20.24
6		

TITLE

PARTIAL PLAN:
KITCHEN
INTERIOR ELEVATIONS

PROJECT 2307
SCALE AS NOTED
DRAWN BY MM
DATE 11.20.24

SHEET NUMBER A5-1.02



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LEGEND

A	UNDER CABINET RECESSED TASK LIGHTING - ALKO LITTLE INCH
B	SURFACE MOUNTED LED FIXTURE
C	PORCELAIN LAMP HOLDER ON PANCAKE BOX W/ EXPOSED CONDUIT
D	SMALL PENDANT 3000K
E	LARGE LED PENDANT 3000K
F	EXTERIOR LED CAFE LIGHTS, UL LISTED FOR DAMP LOCATIONS
F2	SOLAR EXTERIOR LED CAFE LIGHTS, UL LISTED FOR DAMP LOCATIONS
G	CEILING FAN W LED LIGHT 3000K
H	BATHROOM EXHAUST FAN AS PER CODE
I	4" RECESSED LED CAN. TRIM ROUND, WHITE, COLOR TEMP 3000K
J	4" RECESSED LED CAN. TRIM ROUND, WHITE, UL LISTED FOR DAMP LOCATION, COLOR TEMP 3000K
K	4" LED DOWNLIGHT, UL LISTED FOR WET LOCATIONS, COLOR TEMP 3000K
L	LED WALL SCONCE - VANITY, 3000K
M	LED WALL SCONCE - READING 3000K
N	LED WALL SCONCE - LIVING ROOM ((N)FIXTURE IN (E) LOCATION 3000K
O	EXTERIOR LED WALL SCONCE, DAWN TO DUSK, UL LISTED FOR WET LOC.
P	EXTERIOR MOTION SENSOR LIGHT
TV	WALL MTD. FLAT SCREEN TV, PROVIDE RECESSED RECEPTACLE +52" AFF
$	SINGLE POLE SWITCH LOCATION,MATCH OUTLET STYLE TO (E)
$3	3-WAY SWITCH LOCATION, MATCH OUTLET STYLE TO (E)
$D	SWITCH WITH DIMMER, MATCH OUTLET STYLE TO (E)
	DUPLEX OUTLET LOCATION, MATCH OUTLET STYLE TO (E)
	QUAD OUTLET LOCATION, MATCH OUTLET STYLE TO (E)
GFI	GFI OUTLET - WET LOCATIONS AS PER CODE , MATCH OUTLET STYLE TO (E)
D	TELEPHONE / DATA
	SMOKE / CARBON MONOXIDE DETECTOR, HARDWIRED AS PER CODE
8'-0" A.F.F.	CEILING HEIGHT
+40"	HEIGHT, ON CENTER
	GARBAGE DISPOSAL W DECK MOUNTED AIR SWITCH
(E)	(E) LIGHT TO REMAIN
(E)	(E) OUTLET TO REMAIN

NOTE: ALL EXISTING ELECTRICAL, LABELED (E), IS "EXISTING TO REMAIN" AND WILL BE OFFICIALLY PERMITTED AS PART OF THIS SCOPE OF WORK. IF IT CANNOT BE PERMITTED DUE TO IMPROPER INSTALLATION, UT MUST BE REMOVED AND REPLACED WITH A CODE COMPLIANT REPLACEMENT.

County of San Bernardino
BUILDING AND SAFETY
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1 REFLECTED CEILING PLAN
1/4" = 1'-0"

NORTH

MUNSDOTTIR

MUNSDOTTIR STUDIO

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DRAWING ISSUES

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6		

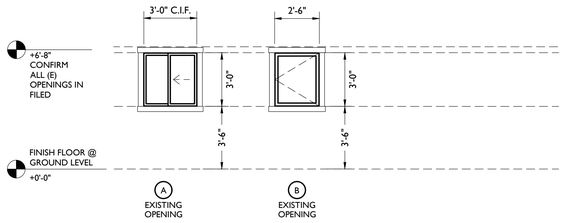
TITLE
REFLECTED CEILING PLAN

PROJECT 2307
SCALE AS NOTED
DRAWN BY MM
DATE 11.20.24

SHEET NUMBER
A6-1.02

GLAZING SYMBOL	GLAZING				FINISH			DIMENSIONS		LITE CUT	REMARKS*
	TYPE	MANUFACTURER	SERIES/ PROD #	MATERIAL	INTERIOR	EXTERIOR	GLAZING	W	H		
A	SLIDER	TO MATCH (E)	TO MATCH (E)	FIBERGLASS	TO MATCH (E)	TO MATCH (E)	AS PER TITLE 24	3'-0" C.I.F.	3'-0"	SINGLE	ALL (N) WINDOWS, MANUFACTURER/ FINISH TO MATCH (E) WINDOWS
B	CASEMENT	TO MATCH (E)	TO MATCH (E)	FIBERGLASS	TO MATCH (E)	TO MATCH (E)	AS PER TITLE 24	2'-6"	3'-0"	SINGLE	ALL (N) WINDOWS, MANUFACTURER/ FINISH TO MATCH (E) WINDOWS

Inspector to field verify U-Factor of 0.30 and SHGC of 0.23.



2 WINDOW SCHEDULE
SCALE: 1/4" = 1'-0"

DOOR NO.	DOOR							DIMENSIONS		HARDWARE	REMARKS
	TYPE	LEAFS	MANUFACTURER	SERIES/ PROD #	MATERIAL	FINISH	GLAZING	W	H		
1	SLIDER		TO MATCH (E)		FIBERGLASS	TO MATCH (E)	NA	6'-0" C.I.F.	6'-8"	EMTEK	
2	SINGLE	1	TO MATCH (E)		HOLLOW CORE	TO MATCH (E)	NA	2'-8"	6'-8"	EMTEK	
3	SINGLE	1	TO MATCH (E)		HOLLOW CORE	TO MATCH (E)	NA	2'-8"	6'-8"	EMTEK	
4	SINGLE	1	TO MATCH (E)		SOLID CORE	TO MATCH (E)	NA	2'-0"	6'-8"	EMTEK	16" X 10" INCH WHITE AIR VENT COVER STEEL RETURN AIR GRILLE
5											
6											

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

WINDOW AND DOOR NOTES:

1. CONTRACTOR AND DOOR/WINDOW MANUFACTURER TO VERIFY ALL WINDOW AND DOOR DIMENSIONS, OPENINGS, AND CONDITIONS IN FIELD PRIOR TO SIZING, ORDERING, AND INSTALLING UNITS. ALL SWING DIRECTION AS PER PLAN.
2. CONTRACTOR TO PROVIDE SAMPLES OF DOOR AND WINDOW MODELS, FINISHES, AND FRAME SAMPLES FOR APPROVAL BY OWNER AND DESIGNER PRIOR TO PLACING ORDER AND PRIOR TO ANY FABRICATION
3. GLAZING IN HAZARDOUS AREAS SHALL BE TEMPERED WITH APPROVED IMPACT HAZARD GLAZING:
   A. INGRESS AND EGRESS DOORS.
   B. PANELS IN SLIDING OR SWINGING DOORS.
   C. DOORS AND ENCLOSURES FOR BATHROOM SHOWERS,(ALSO GLAZING IN WALLS ENCLOSING THESE COMPARTMENTS WITHIN 5'-0" OF STANDING SURFACE).
   D. IF WITHIN 2'-0" OF VERTICAL EDGE OF CLOSED DOOR OR WITHIN 5'-0" OF STANDING SURFACE.
   E. IN HALL ENCLOSING STAIRWAY LANDING.
4. DOOR AND WINDOW DIMENSIONS CALLED OUT IN THIS SCHEDULE REFER TO DOOR PANEL OR WINDOW SASH SIZES ONLY. CONTRACTOR TO COORDINATE AND VERIFY FRAME DETAILS PER MANUFACTURERS SPECIFICATIONS, AND DETERMINE ROUGH OPENING DIMENSIONS FOR INSTALLATION OF DOOR PANELS AND WINDOW SASHES IN THIS SCHEDULE ACCORDING TO ADDITIONAL FRAME DIMENSION REQUIREMENTS.
5. CONTRACTOR TO PROVIDE WEATHER STRIPPING AND THERMAL/MOISTURE PROTECTION AT ALL EXTERIOR WINDOW / DOOR UNITS.
6. PROVIDE RAIN GUARDS OR DIVERTERS ON TOP OF ALL EXTERIOR DOORS.
7. ALL GLAZING BELOW 18" FROM FINISH FLOOR OR WITHIN 40" OF LOCK MECHANISM SHALL BE APPROVED FOR IMPACT HAZARD PER CODE.
8. UNUSED
9. EXIT DOORS ARE OPENABLE FROM THE INSIDE WITHOUT THE USE OF A KEY, SPECIAL KNOWLEDGE OR EFFORT.
10. THE FLOOR OR LANDING ON EACH SIDE OF THE DOORS SHALL NOT BE MORE THAN 1/2" INCH LOWER THAN THE THRESHOLD OF THE DOORWAY.
11. ALL EXTERIOR GLAZING TO BE AS PER TITLE 24 SPECIFICATIONS.
12. VELUX SKYLIGHTS TO BE FLASHED WITH VELUX PROPRIETARY FLASHING AND IN ACCORDANCE WITH VELUX INSTALLATION INSTRUCTIONS
13. DOORS TO THE DWELLING UNIT SHALL BE SOLID WOOD OR SOLID HONEYCOMB CORE STEEL (ALT. FIBERGLASS) AND NOT LESS THAT 1-3/8" THICK, OR 20-MIN. RATED UNLESS THE DWELLING UNIT AND THE GARAGE ARE PROTECTED BY AN AUTOMATIC FIRE SPRINKLER SYSTEM. DOORS SHALL BE SELF-CLOSING AND SELF-LATCHING

INTERIOR FINISH SCHEDULE

GENERAL NOTES:
ALL DIMENSIONS MUST BE VERIFIED IN FIELD.
USE FIELD SURVEY AND TITLE REPORT TO VERIFY PROPERTY LINES, UTILITY EQUIPMENT ON SITE, AND EASEMENTS.

ROOM NUMBER / NAME		FLOOR			BASE		WALLS						CEILING			REMARKS
		(N) HARDWOOD FLOORING	TILE	(E) CONCRETE SLAB	TILE	PTD. WOOD	(E) TO REMAIN, PATCH AND PAINT	(E) GYPSUM BOARD TO REMAIN, PATCH AND PAINT	TILE	(N) PAINTED GYPSUM BOARD FINISH	(E) WALL FINISH TO REMAIN, (N) PAINT	(E) WALL FINISH TO REMAIN	(N) STONE SLAB	(E) EXPOSED JOISTS PAINTED	(N) PAINTED GYPSUM BOARD	(E) CEILING FINISH TO REMAIN, (N) PAINT	
																1. REFER TO SPECIFICATIONS AND NOTES BELOW FOR NUMBERED FINISHES PAINT LEGEND 1. ALL INTERIOR PAINT: BENJAMIN MOORE AURA® INTERIOR WATERBORNE PAINT - MATTE FINISH PRIMER: KILZ 2® ALL-PURPOSE INTERIOR	EXTERIOR PRIMER 2. ALL EXTERIOR PAINT: BENJAMIN MOORE AURA® EXTERIOR PAINT - LOW LUSTRE FINISH PRIMER: KILZ 2® ALL-PURPOSE INTERIOR	EXTERIOR PRIMER 3. PAINT FINISH CODING: (E) EGGSHELL (F) FLAT/ MATTE (S) SEMI-GLOSS (X) NO PAINT
100	PORCH		3													
101	LIVING ROOM		3													
102	BATHROOM	2	3		5				7							
103	HALL		3													
104	PRIMARY BEDROOM		3													
106	KITCHEN		3													

3 FINISH SCHEDULE
SCALE: NTS

INTERIOR FINISH SPECIFICATIONS AND NOTES:

1. HARDWOOD FLOORING
   PRODUCT:
   FINISH:
   MANUFACTURER:
   SUPPLIER CONTACT:
2. TILE
   PRODUCT:
   FINISH:
   MANUFACTURER:
   SUPPLIER CONTACT:
3. (E) CONCRETE FLOOR 400 GRIT GRIND AND SEAL. SEALANT:
   PRODUCT:
   FINISH:
   MANUFACTURER:
   SUPPLIER CONTACT:
4. (E) CONCRETE FLOOR TO REMAIN
   PRODUCT:
   FINISH:
   MANUFACTURER:
   SUPPLIER CONTACT:
5. TILE
   PRODUCT:
   FINISH:
   MANUFACTURER:
   SUPPLIER CONTACT:
6. TILE
   PRODUCT:
   FINISH:
   MANUFACTURER:
   SUPPLIER CONTACT:
7. TILE
   PRODUCT:
   FINISH:
   MANUFACTURER:
   SUPPLIER CONTACT:
8. TONGUE AND GROOVE WOOD
   PRODUCT:
   FINISH:
   MANUFACTURER:
   SUPPLIER CONTACT:

County of San Bernardino
BUILDING AND SAFETY
THE PLANS AND DETAILS HAVE BEEN
REVIEWED
FOR CODE COMPLIANCE
THE REVIEW OF THESE PLANS DOES NOT CONSTITUTE TO BE A PERMIT NOR AN APPROVAL OR A VIOLATION OF ANY CODE OF ORDINANCES OF THIS COUNTY
By
Date 03/05/2025
THESE PLANS SHALL BE ON THE JOB SITE FOR ALL REQUESTED INSPECTIONS

MUNSDOTTIR STUDIO
JOSHUA TREE - LOS ANGELES
MOBILE 213.605.2864
EMAIL MOLLY@MUNSDOTTIR.COM
MUNSDOTTIR.COM

CONSULTANTS:

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STRUCTURAL ENGINEER:

RME STRUCTURAL ENGINEERS
3655 TORRANCE BLVD,
3RD FLOOR #398
TORRANCE, CA 90503
NICK@RMESTRUCTURAL.COM
OFFICE: (310) 803-9440, EXT 101
CELL: (310) 844-0940

CONTRACTOR:

OWNER/ BUILDER

92277

PAPOOSE TRAIL
69561 PAPOOSE TRAIL
TWENTYNINE PALMS, CA. 92277

DRAWING ISSUES

NO.	ISSUE	DATE
1	AS-BUILTS	08.27.23
2	DESIGN DEVELOPMENT	11.12.23
3	REVISIONS	02.04.24
4	PLAN CHECK	03.30.24
5	REC CABIN CONVERSION	11.20.24
6		

TITLE

SCHEDULES

PROJECT 2307
SCALE AS NOTED
DRAWN BY MM
DATE 11.20.24

SHEET NUMBER A9-1.01

STRUCTURAL OBSERVATION

PERIODIC STRUCTURAL OBSERVATION SHALL BE PROVIDED BY REIDAR MARRS ENGINEERS, INC. PER THE ATTACHED OBSERVATION SCHEDULE. CONTRACTOR SHALL NOTIFY ENGINEER 72 HOURS BEFORE REQUIRED OBSERVATIONS. DELINQUENT NOTIFICATION MAY REQUIRE DEMOLITION OF COVERING MATERIAL TO FACILITATE OBSERVATION.

STRUCTURAL OBSERVATION PROGRAM
AND DESIGNATION OF THE
STRUCTURAL OBSERVER

PROJECT ADDRESS: 69561 PAPOOSE TRAIL, TWENTYNINE PALMS, CA 92277
OWNER: BOGDAN SEVASTIANOV & ZOIA LARINA
ENGINEER: REIDAR MARRS ENGINEERS, INC.

STRUCTURAL OBSERVATION
(ONLY CHECKED ITEMS ARE REQUIRED)

FIRM OR INDIVIDUAL TO BE RESPONSIBLE FOR THE STRUCTURAL OBSERVATION:
NAME: REIDAR MARRS ENGINEERS PHONE: (310) 803.9440 CALIF. REGISTRATION: S7179

FOUNDATION	WALL	FRAME	DIAPHRAGM/SLAB/S.O.G.
FOOTINGS, STEM WALLS, PIERS ☒	CONCRETE ☐	STEEL MOMENT FRAME ☐	CONCRETE ☒
MAT FOUNDATION ☐	MASONRY ☐	STEEL BRACED FRAME ☐	STEEL DECK ☐
CAISSONS, PILES, GRADE BEAMS ☐	WOOD ☒	CONCRETE MOMENT FRAME ☐	WOOD ☒
STEPP'G/RET'G FOUND. – HILLSIDE SPECIAL ANCHORS ☐	SIMPSON STEEL STRONG WALLS ☐	MASONRY FRAME ☐	☐
OTHERS ☐	OTHERS ☐	OTHERS ☐	OTHERS ☐

DECLARATION BY OWNER

I, THE OWNER OF THE PROJECT, DECLARE THAT THE ABOVE LISTED FIRM OR INDIVIDUAL IS HIRED BY ME TO BE THE STRUCTURAL OBSERVER.

SIGNATURE DATE

ABBREVIATIONS

A.B.	ANCHOR BOLTS
A.R.	ANCHOR REINFORCEMENT (ALSO "AR")
ARCH.	ARCHITECT OR ARCHITECTURAL
AXO	AXONOMETRIC VIEW
B.B.	BASE BUILDING
B.N.	BOUNDARY NAILING
BLLN	BALLOON
BLK'G	BLOCKING
BM	BEAM
C&C	COMPONENT AND CLADDING
CF	COLD FORMED
CJ	CEILING JOIST
CONN.	CONNECTION
CONT.	CONTINUOUS
DFL	DOUGLAS FIR–LARCH
DJ	DECK JOISTS
DWG'S	DRAWINGS
E.N.	EDGE NAILING
EA	EACH
E.O.R.	ENGINEER OF RECORD
FJ	FLOOR JOISTS
F.N.	FIELD NAILING
FRM'G	FRAMING
FTG	FOOTING
GC	GENERAL CONTRACTOR
GL	GRID LINE
GLB	GLULAM BEAM
LB	LOAD BEARING
L.G.	LIGHT GAUGE
L.S.	LAP SPLICE
LVL	LAMINATED VENEER LUMBER
L.W.	LIGHT WEIGHT
MAX	MAXIMUM
M.B.	MACHINE BOLTS
M&M	MEANS AND METHODS
MIN	MINIMUM
NLB	NON LOAD BEARING
O.C.	ON CENTER
P.T.	PRESSURE OR PRESERVATIVE TREADED
ℙ	PLATE/PROPERTY LINE
PLYWD	PLYWOOD
PSL	PARALLAM
RBS	REDUCED BEAM SECTION
REINF.	REINFORCEMENT
REQ'D	REQUIRED
RJ	ROOF JOISTS
RR	ROOF RAFTERS
S.A.D.	SEE ARCHITECTURAL DRAWINGS
SCL	STRUCTURAL COMPOSITE LUMBER (SAME AS ENGINEERED LUMBER)
S.O.G.	SLAB ON GRADE
SCHED.	SCHEDULE
SHT'G	SHEATHING
SIM.	SIMILAR
SMS	SHEET METAL SCREWS
SS	SELECT STRUCTURAL
STAGG.	STAGGERED
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
U.S.P.	UNDER SEPARATE PERMIT
V.I.F.	VERIFY IN FIELD
WD	WOOD
W.N.S.	WELDED NELSON STUDS

STRUCTURAL OBSERVATION

1. PERIODIC STRUCTURAL OBSERVATION SHALL BE PROVIDED BY REIDAR MARRS ENGINEERS, INC. PER CBC 1704.6.
2. DEPUTY INSPECTOR MUST PERFORM INSPECTION BEFORE STRUCTURAL ENGINEER PERFORMS OBSERVATION. DEPUTY INSPECTOR'S REPORT MUST BE AVAILABLE AT THE TIME OF OBSERVATION. IF DEPUTY INSPECTION IS NOT COMPLETED, STRUCTURAL OBSERVATION REPORT WILL LIST MISSING INSPECTION AS DEFICIENCY.
3. CONTRACTOR SHALL KEEP LATEST ISSUED DRAWINGS, RFI'S RESPONSES, AND SKETCHES ON SITE, AND SHALL MAKE SUCH DOCUMENTS AVAILABLE TO THE STRUCTURAL OBSERVER AND DEPUTY INSPECTOR.
4. CONTRACTOR SHALL NOTIFY ENGINEER 3 BUSINESS DAYS BEFORE REQUIRED OBSERVATIONS. DELINQUENT NOTIFICATION MAY REQUIRE DEMOLITION OF COVERING MATERIAL TO FACILITATE OBSERVATION.
5. STRUCTURAL OBSERVATION IS REQUIRED FOR THE STRUCTURAL SYSTEM IN ACCORDANCE WITH THE STRUTURAL OBSERVATION SCHEDULE. STRUCTURAL OBSERVATION IS THE VISUAL OBSERVATION AT THE CONSTRUCTION SITE OF THE ELEMENTS AND CONNECTIONS OF THE STRUCTURAL SYSTEM AT SIGNIFICANT CONSTRUCTION STAGES AND THE COMPLETE STRUCTURE FOR GENERAL CONFORMANCE TO THE APPROVED PLANS AND SPECIFICATIONS. STRUCTURAL OBSERVATION DOES NOT WAIVE THE RESPONSIBILITY FOR THE INSPECTIONS REQUIRED OF THE BUILDING INSPECTOR OR THE DEPUTY INSPECTOR.
6. STRUCTURAL OBSERVATIONS PERFORMED BY ENGINEER DURING CONSTRUCTION ARE NOT CONTINUOUS AND SPECIAL INSPECTION SERVICES AND DO NOT WAIVE THE RESPONSIBILITY FOR THE INSPECTIONS REQUIRED OF THE BUILDING INSPECTOR OR THE DEPUTY INSPECTOR. OBSERVATIONS DO NOT GUARANTEE CONTRACTOR'S PERFORMANCE AND SHALL NOT BE CONSIDERED AS SUPERVISION OF CONSTRUCTION.
7. THE OWNER SHALL EMPLOY A STATE OF CALIFORNIA REGISTERED CIVIL OR STRUCTURAL ENGINEER OR LICENSED ARCHITECT TO PERFORM THE STRUCTURAL OBSERVATION. THE DEPARTMENT OF BUILDING AND SAFETY REQUIRES THE USE OF THE ENGINEER OR HIS/HER DESIGNEE RESPONSIBLE FOR THE STRUCTURAL DESIGN WHO ARE INDEPENDENT OF THE CONTRACTOR
8. THE OWNER OR OWNER'S REPRESENTATIVE SHALL COORDINATE AND CALL FOR A MEETING BETWEEN THE ENGINEER OR ARCHITECT RESPONSIBLE FOR THE STRUCTURAL DESIGN, STRUCTURAL OBSERVER, CONTRACTOR, AFFECTED SUBCONTRACTORS AND DEPUTY INSPECTORS. THE PURPOSE OF THE MEETING SHALL BE TO IDENTIFY THE MAJOR STRUCTURAL ELEMENTS AND CONNECTIONS THAT AFFECT THE VERTICAL AND LATERAL LOAD SYSTEMS OF THE STRUCTURE AND TO REVIEW SCHEDULING OF THE REQUIRED OBSERVATIONS.
9. THE STRUCTURAL OBSERVER SHALL PERFORM SITE VISITS AT THOSE STEPS IN THE PROGRESS OF THE WORK THAT ALLOW FOR CORRECTION OF DEFICIENCIES WITHOUT SUBSTANTIAL EFFORT OR UNCOVERING OF THE WORK INVOLVED. AT A MINIMUM, THE LISTED SIGNIFICANT CONSTRUCTION STAGES ON THE FOLLOWING STRUCTURAL OBSERVATION/SIGNIFICANT CONSTRUCTION STAGES TABLE REQUIRE A SITE VISIT AND AN OBSERVATION REPORT FROM THE STRUCTURAL OBSERVER.
10. A FINAL OBSERVATION REPORT AND THAT OF THE REGISTERED DEPUTY INSPECTOR MUST BE SUBMITTED WHICH SHOWS THAT ALL OBSERVED DEFICIENCIES WERE RESOLVED AND STRUCTURAL SYSTEM GENERALLY CONFORMS WITH THE APPROVED PLANS AND SPECIFICATIONS. THE DEPARTMENT OF BUILDING AND SAFETY WILL NOT ACCEPT THE STRUCTURAL WORK WITHOUT THIS FINAL OBSERVATION REPORT AND THAT OF THE REGISTERED DEPUTY INSPECTOR (WHEN PROVIDED) AND THE CORRECTION OF SPECIFIC DEFICIENCIES NOTED DURING NORMAL BUILDING INSPECTION.

STRUCTURAL SCOPE – BID DRAWINGS

THE FOLLOWING ITEMS ARE EXAMPLES OF ITEMS THAT ARE NOT INCLUDED IN THE DRAWINGS AND SHALL BE ESTIMATED AND PROVIDED BY THE CONTRACTOR BASED ON OTHER CONSULTANTS DRAWINGS AND SPECIFICATIONS:

- MEP ANCHORAGE
- FIRE SPRINKLERS
- ELEVATORS MISC. STEEL
- FACADE ATTACHMENT
- LANDSCAPE ELEMENTS
- MONUMENTS AND ARTWORK
- SIGNAGE
- POOL SHELL AND EQUIPMENT ANCHORAGE
- CABLE SYSTEMS
- MISC. METAL SHOWN IN CONSULTANTS' DRAWINGS OR REQUIRED FOR ATTACHMENTS OF THEIR COMPONENTS.
- GUARD RAIL INFILLS
- GLAZING AND ATTACHMENT
- STOREFRONT OR CURTAIN WALL
- ALL ALUMINUM
- INTERIOR AND DECORATIVE ELEMENT ATTACHMENTS
- FFE BACKING OR ATTACHMENTS.
- AWNINGS

STATEMENT OF SPECIAL INSPECTION

1. CONTINUOUS AND PERIODIC SPECIAL INSPECTION IS REQUIRED FOR THE WORK AS DESCRIBED IN CBC 2016 CHAPTER 17. SEE INSPECTION SCHEDULE BELOW. ONLY CHECKED ITEMS ARE REQUIRED.
2. APPROVAL BY THE INSPECTOR DOES NOT MEAN APPROVAL OF FAILURE TO COMPLY WITH THE PLANS OR SPECIFICATIONS. ANY DETAIL THAT FAILS TO BE CLEAR OR IS AMBIGUOUS MUST BE REFERRED TO THE STRUCTURAL ENGINEER FOR INTERPRETATION OR CLARIFICATION.
3. FOR VERIFICATION AND INSPECTION OF SOILS SEE SOILS REPORT.
4. CONTINUOUS SPECIAL INSPECTION PER AWS D1.1 IS REQUIRED FOR ALL STRUCTURAL STEEL WELDING, EXCEPT FOR SINGLE PASS FILLET WELDS NOT EXCEEDING $^{5}/_{16}$" IN SIZE. WELDING INSPECTORS SHALL BE AWS Q.C.–1 CERTIFIED.
5. STRUCTURAL WOOD. PERIODIC SPECIAL INSPECTION IS REQUIRED FOR WOOD SHEAR WALLS, SHEAR PANELS, AND DIAPHRAGMS, INCLUDING NAILING, BOLTING, ANCHORING, AND OTHER FASTENING OF COMPONENTS OF THE SEISMIC FORCE RESISTING SYSTEM, INCLUDING WOOD SHEAR WALLS, WOOD DIAPHRAGMS, DRAG STRUTS, BRACES, SHEAR PANELS, AND HOLDOWNS. EXCEPTION: SPECIAL INSPECTION IS NOT REQUIRED FOR WOOD SHEAR WALLS, SHEAR PANELS AND DIAPHRAGMS, INCLUDING NAILING, BOLTING, ANCHORING AND OTHER FASTENING TO OTHER COMPONENTS OF THE SEISMIC–FORCE–RESISTING SYSTEM, WHERE THE FASTENER SPACING OF THE SHEATHING IS MORE THAN 4 INCHES ON CENTER (O.C.). INSPECTIONS SHALL BE PERFORMED BEFORE COVERING.
6. CONTRACTORS RESPONSIBLE FOR CONSTRUCTION OF A WIND OR SEISMIC FORCE RESISTING SYSTEM/COMPONENT LISTED IN THIS STATEMENT OF SPECIAL INSPECTION SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE CITY INSPECTORS AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON SUCH A SYSTEM OR COMPONENT PER SEC 1704.4.
7. WHERE FABRICATION OF MEMBERS AND ASSEMBLIES IS PERFORMED ON THE PREMISES OF A FABRICATOR'S SHOP, SPECIAL INSPECTION OF THE FABRICATED ITEMS SHALL BE REQUIRED BY THIS SECTION, UNLESS THE FABRICATOR IS REGISTERED AND APPROVED TO PERFORM SUCH WORK WITHOUT SPECIAL INSPECTION. APPROVAL SHALL BE BASED UPON REVIEW OF THE FABRICATOR'S WRITTEN PROCEDURAL AND QUALITY CONTROL MANUALS AND PERIODIC AUDITING OF FABRICATION PRACTICES BY AN APPROVED SPECIAL INSPECTION AGENCY. AT COMPLETION OF FABRICATION, THE APPROVED FABRICATOR SHALL SUBMIT A CERTIFICATE OF COMPLIANCE TO THE BUILDING OFFICIAL STATING THAT THE WORK WAS PERFORMED IN ACCORDANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS. CONTRACTOR SHALL BE RESPONSIBLE OF VERIFYING APPROVAL OF FABRICATOR.

INSPECTION SCHEDULE

TYPE OF WORK	CODE REFERENCE	REMARKS	
CONCRETE WORK	CBC TABLE 1705.3		☐
SHOTCRETE WORK	CBC TABLE 1705.3		☐
REINFORCING STEEL	CBC TBL 1705.2.2 1705.3		☐
POST INSTALLED ANCHORS	CBC TABLE 1705.3	SEE ALSO ICC APPROVAL	☒
STRUCTURAL STEEL	CBC 1705.2		☐
STRUCTURAL STEEL WELDING	CBC 1705.2		☐
HIGH STRENGTH BOLTING	CBC 1705.2		☐
MASONRY WORK	CBC 1705.4		☐
HIGH LOAD DIAPHRAGMS	CBC 1705.5.1		☐
STRUCTURAL WOOD	CBC 1705.10.1 & 1705.11.2	SEE NOTE ABOVE	☒
COLD FORMED STEEL	CBC 1705.10.2 & 1705.11.3		☐
DRIVEN DEEP FOUND. ELEMENT	CBC TABLE 1705.7		☐
CAST IN PLACE DEEP FOUND.	CBC TABLE 1705.8		☐
SOIL CONDITION	CBC TABLE 1705.6	SEE SOILS REPORT FOR COMPLIANCE	☐

CODE

1. BUILDING SHALL COMPLY WITH THE 2022 CALIFORNIA BUILDING CODE/2024 TWENTYNINE PALMS MUNICIPAL CODE.
2. VERTICAL LIVE LOADS:
   - A. FLOOR 40 PSF
   - B. ROOF 20 PSF
3. LATERAL LOADS:
   - A. WIND:
     - BASIC WIND SPEED: 95 MPH
     - WIND IMPORTANCE FACTOR, Iw: 1.0
     - EXPOSURE TYPE: B
   - B. SEISMIC:
     - SITE CLASS: D
     - SEISMIC DESIGN CATEGORY: *NULL
     - RISK CATEGORY: II
     - SEISMIC IMPORTANCE FACTOR, Ie: 1.0
     - SS = 1.631
     - S1 = 0.596
     - FA = 1.2
     - FV = *NULL
     - SDS = 1.305
     - SD1 = *NULL
     - R = 6.5 (WOOD SHEAR WALLS)
     - r = 1.3
     - CS = 0.201
     - EQUIVALENT STATIC FORCE METHOD USED FOR DESIGN.
     - V = CS x W
     - *SEE SECTION 11.4.8 OF ASCE 7–16

GENERAL

1. ALL NEW CONSTRUCTION SHALL COMPLY WITH THE CONTRACT DOCUMENTS AND THE 2022 CALIFORNIA BUILDING CODE/2024 TWENTYNINE PALMS MUNICIPAL CODE.
2. REFERENCE TO CODES, RULES, REGULATIONS, STANDARDS, MANUFACTURER'S INSTRUCTIONS OR REQUIREMENTS OF REGULATORY AGENCIES ARE TO THE LATEST PRINTED EDITION OF EACH IN EFFECT AT THE DATE OF SUBMISSION OF BID UNLESS THE DOCUMENT DATE IS SHOWN.
3. TYPICAL DETAILS AND GENERAL NOTES APPLY TO ALL PARTS OF THE WORK EXCEPT WHERE SPECIFICALLY DETAILED OR UNLESS NOTED OTHERWISE (U.N.O.)
4. THE STRUCTURAL DRAWINGS ILLUSTRATE THE NEW STRUCTURAL MEMBERS. REFER TO ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR NON–STRUCTURAL ITEMS WHICH REQUIRE SPECIAL PROVISIONS DURING THE CONSTRUCTION OF THE STRUCTURAL MEMBERS.
5. REFER TO ARCHITECTURAL DRAWINGS FOR FLOOR DEPRESSIONS, EDGE OF SLAB, OPENINGS, SLOPES, DRAINS, CURBS, PADS, EMBEDDED ITEMS, NON–BEARING PARTITIONS, ETC. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR SLEEVES, OPENINGS, AND HANGERS FOR PIPES, DUCTS AND EQUIPMENT.
6. DRAWING DIMENSIONS ARE TO FACE OF STRUCTURE, JOINT CENTERLINE OR COLUMN GRID CENTERLINE UNLESS NOTED OTHERWISE. DO NOT SCALE THE DRAWINGS.
7. THE CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR COORDINATING THE WORK OF ALL TRADES AND SHALL VERIFY ALL DIMENSIONS AND CONDITIONS WHICH IMPACT THE WORK, FIELD VERIFY SIZES, ELEVATIONS, HOLE LOCATIONS, ETC. PRIOR TO FABRICATION. THE LANGUAGE "BY OTHERS" USED IN THIS STRUCTURAL DRAWING SET INDICATES ELEMENTS OR PARTS OF WORK NOT WITHIN RME SCOPE AND SHOWN OR REFERENCED FOR EASE OF COORDINATION ONLY. SUCH LANGUAGE SHALL NOT IMPLY THAT SUCH ELEMENTS OR PARTS OF WORK ARE EXCLUDED FROM THE CONTRACTOR'S SCOPE OF WORK.
8. CONTRACTOR SHALL CAREFULLY REVIEW THE DRAWINGS TO IDENTIFY THE SCOPE OF WORK REQUIRED, VISIT THE SITE TO RELATE THE SCOPE OF WORK TO EXISTING CONDITIONS AND DETERMINE THE EXTENT TO WHICH THOSE CONDITIONS AND PHYSICAL SURROUNDINGS WILL IMPACT THE WORK.
9. EXISTING CONDITIONS AS SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY. CONTRACTOR IS REQUIRED TO FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL REPORT CONDITIONS THAT CONFLICT WITH THE CONTRACT DOCUMENTS TO THE OWNER'S REPRESENTATIVE. DO NOT DEVIATE FROM THE CONTRACT DOCUMENTS WITHOUT WRITTEN DIRECTION FROM THE OWNER'S REPRESENTATIVE.
10. THE CONTRACTOR SHALL RESOLVE ANY CONFLICTS ON THE DRAWINGS OR IN THE SPECIFICATIONS WITH THE OWNER'S REPRESENTATIVE BEFORE PROCEEDING WITH THE WORK.
11. ANY DEVIATION, MODIFICATION & SUBSTITUTION FROM THE APPROVED SET OF STRUCTURAL DRAWINGS SHALL BE SUBMITTED TO THE OWNER'S REPRESENTATIVE FOR REVIEW/APPROVAL PRIOR TO ITS USE OR INCLUSION ON THE SHOP DRAWINGS & PRIOR TO PROCEEDING WITH THE WORK.
12. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY CONCRETE FORMWORK SHORING/RE–SHORING, EXCAVATION SHORING, DEMOLITION SHORING, BRACES, GUYS, HOIST BEAMS, ETC., REQUIRED TO SUPPORT ANY AND ALL LOADS THE BUILDING STRUCTURE AND COMPONENTS, EARTHWORK, OTHER STRUCTURES, AND UTILITIES ARE SUBJECTED TO DURING CONSTRUCTION. CONCRETE FORMWORK/CONCRETE RE–SHORING, DEMOLITION, AND EXCAVATION SHORING SYSTEMS MUST BE DESIGNED AND STAMPED BY A CIVIL OR STRUCTURAL ENGINEER LICENSED BY THE LOCAL JURISDICTION AND RETAINED BY THE CONTRACTOR. VISITS TO THE SITE BY RME DOES NOT INCLUDE OBSERVATION OF THE ABOVE NOTED ITEMS.
13. THE CONTRACTOR SHALL PROVIDE MEANS, METHOD, TECHNIQUES, SEQUENCE AND PROCEDURE OF CONSTRUCTION AS REQUIRED. SITE VISITS PERFORMED BY RME DO NOT INCLUDE INSPECTIONS OF MEANS AND METHODS OF CONSTRUCTION PERFORMED BY THE CONTRACTOR.
14. THE CONTRACTOR SHALL PROTECT ALL WORK, MATERIALS AND EQUIPMENT FROM DAMAGE AND SHALL PROVIDE PROPER STORAGE FACILITIES FOR MATERIALS AND EQUIPMENT DURING CONSTRUCTION.
15. A COPY OF ANY REQUIRED ICC–ESR RESEARCH REPORT AND/OR CONDITIONS OF LISTING SHALL BE MADE AVAILABLE AT THE JOB SITE.
16. ATTACHMENT OF NON–STRUCTURAL COMPONENTS SPECIFIED BY OTHERS TO STRUCTURAL ELEMENTS SHALL BE SPECIFIED BY THE NON–STRUCTURAL COMPONENT DESIGNER/SPECIFIER/INSTALLER. DESIGNER OF NON–STRUCTURAL ELEMENTS SHALL AT A MINIMUM SPECIFY THE CONNECTION TO THE STRUCTURE INCLUDING BUT NOT LIMITED TO: ANY TYPE OF CONNECTING HARDWARE, WIRE, HANGERS, FASTENERS, CLIPS, UNISTRUT MEMBERS. ATTACHMENT AND BRACING OF NON STRUCTURAL COMPONENTS SHALL MEET THE APPLICABLE BUILDING CODES. NON STRUCTURAL ELEMENTS SHALL INCLUDE, BUT NOT LIMITED TO: MEP AND HVAC EQUIPMENT & THEIR SUPPORTING PADS, INDUSTRIAL KITCHEN EQUIPMENT, PLATFORMS, FRAMES, ETC.; DUCTWORK, PIPES, CONDUITS, ARTWORK, GRILLES, GRATING, METAL SCREENS, ELEVATOR RAILS, STONE FINISH TILES, STONE CAPS, BRICK VENEER.
17. SPECIFICATIONS RELATED TO WATERPROOFING, INCLUDING BUT NOT LIMITED TO MEMBRANES, WATERSTOPS, SEALANTS, FLASHING, VAPOR BARRIER, ARE AS SPECIFIED BY ARCHITECT/WATER PROOFING CONSULTANT, AND ARE EXCLUDED FROM RME SCOPE.
18. ALLOW 10 BUSINESS DAYS FOR PROCESSING SHOP DRAWINGS AND SUBMITTALS AFTER RECEIPT. ALLOW 5 BUSINESS DAYS FOR RESPONDING TO REQUESTS FOR INFORMATION (RFI'S). PROVIDE 3 BUSINESS DAYS NOTICE FOR STRUCTURAL OBSERVATIONS.

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ZOIA LARINA
69561 PAPOOSE TRAIL
TWENTYNINE PALMS, CA 92277
ZOIALARINA@GMAIL.COM

ARCHITECTURAL DESIGNER:
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MUNSDOTTIR STUDIO
JOSHUA TREE, CA
t: 213/ 605 2864
MOLLY@MUNSDOTTIR.COM

ENGINEER:
Reidar Marrs Engineers, Inc.
3655 Torrance Blvd, 3rd Floor #398
Torrance, CA 90503
t: 310/ 803 9440
RME Job no. 24102

STAMP

REGISTERED PROFESSIONAL ENGINEER — NICHOLAS R. MARRS — No. S 7179 — STRUCTURAL — STATE OF CALIFORNIA

SIGN DATE 02/17/2025

DATE	ISSUE / REVISION
03–26–24	PLAN CHECK SET
02–17–25	⚠1 P.C. RESUBMITTAL

County of San Bernardino
BUILDING AND SAFETY
REVIEWED
FOR CODE COMPLIANCE
THIS SET OF PLANS AND SPECIFICATIONS MUST BE KEPT ON THE JOB AT ALL TIMES
IT IS UNLAWFUL TO MAKE ANY CHANGES OR ALTERATIONS ON SAME, OR TO DO ANY WORK DIFFERENT FROM THAT AUTHORIZED BY THE BUILDING OFFICIAL
DATE 03/05/2025
THESE PLANS SHALL BE ON THE JOB FOR ALL REQUESTED INSPECTIONS

SINGLE-FAMILY DWELLING REMODEL

69561 PAPOOSE TRAIL
TWENTYNINE PALMS, CA 92277

SHEET TITLE: GENERAL NOTES

JOB NO. 24102

DATE 02/17/2025

SCALE As Indicated

SHEET NO. S0.01

TIMBER

1. PROVIDE GRADE-MARKED DOUGLAS FIR STRUCTURAL LUMBER COMPLYING WITH STANDARD GRADING RULE NUMBER 16 OF THE WEST COAST LUMBER INSPECTION BUREAU. REGARDLESS OF THE MOISTURE CONTENT AT THE TIME OF MANUFACTURE, THE MOISTURE CONTENT UNDER SERVICE CONDITION AT THE TIME OF ENCLOSURE OF THE STRUCTURAL MEMBERS SHALL BE:
   A. 19% EXCEPT AS NOTED BELOW
   B. 15% FOR WOOD JOISTS AND BEAMS WITH MORE THAN 2 FRAMED LEVELS ABOVE THEM

   "S-DRY" LUMBER AND "MC15" LUMBER ARE RECOMMENDED FOR CASES "A" AND "B" ABOVE RESPECTIVELY.

   ALTERNATIVELY, LUMBER WITH HIGHER MOISTURE CONTENT AT THE TIME OF MANUFACTURE THAN THE VALUES SHOWN ABOVE MAY BE UTILIZED IF APPROVED IN WRITING BY THE OWNER. IN SUCH CASE, CONTRACTOR SHALL INFORM THE OWNER AND ADVISE IF VOLUMETRIC CHANGES SUCH AS WARPING, BENDING, TWISTING, ETC. ARE EXPECTED AND HOW THESE MAY AFFECT THE QUALITY OF CONSTRUCTION.

2. ALL STRUCTURAL SAWN LUMBER, UNLESS NOTED OTHERWISE, SHALL BE VISUALLY GRADED DOUGLAS FIR LARCH NO. 1.
   A. ALL 2x "DIMENSION LUMBER" MEMBERS SHALL BE DFL NO. 2
   B. ALL 4x "DIMENSION LUMBER" UP TO 4x8 SHALL BE DFL NO. 2
   C. ALL 4x10 OR DEEPER "DIMENSION LUMBER" MEMBERS SHALL BE DFL NO.1
   D. ALL 6x6 "POST AND TIMBER" MEMBERS SHALL BE DFL NO. 1
   E. ALL 6x8 "POST AND TIMBERS" MEMBERS SHALL BE DFL NO. 1
   F. ALL 6x10 OR DEEPER "BEAM AND STRINGERS" SHALL BE DFL NO. 1

3. ALL LUMBER IN DIRECT CONTACT WITH CONCRETE OR MASONRY, INCLUDING BUT NOT LIMITED TO FOUNDATION SILLS, SHALL BE NATURALLY DURABLE OR PRESERVATIVE-TREATED DOUGLAS FIR.

4. WOOD STRUCTURAL PANELS SHALL COMPLY WITH U.S. PRODUCT STANDARDS FOR ITS TYPE IN PS 1-09 OR PS 2-10 AND BE CLASSIFIED AS EXPOSURE 1. AS A MINIMUM ALL WOOD STRUCTURAL PANELS SHALL BE APA RATED SHEATHING UNLESS NOTED OTHERWISE ON PLANS AND DETAILS. PANEL CONSTRUCTION FOR ALL WOOD STRUCTURAL PANELS SHALL BE 5 PLY PLYWOOD, EXCEPT THAT OSB IS PERMITTED FOR WALL SHEATHING AT NON FIRE TREATED PANELS. MINIMUM GRADE VENEER FOR PLYWOOD SHALL BE "CD". ALL WOOD STRUCTURAL PANELS SHALL BE BLOCKED AT UNSUPPORTED EDGES. WALL PANELS SHALL BE 15/32 INCH, PANEL INDEX (P.I.) 32/16 U.N.O.

5. NAILS:
   A. ALL NAILS SHALL BE COMMON WIRE NAILS IN ACCORDANCE WITH THE LATEST EDITION OF THE "NATION DESIGN SPECIFICATION FOR WOOD CONSTRUCTION" (NDS)
   B. NAILING TO BE IN ACCORDANCE WITH CBC 2013 NAILING SCHEDULE UNLESS NOTED OTHERWISE.
   C. THE MINIMUM PENETRATION OF NAILS SHALL BE 10 TIMES THE NAIL SHANK DIAMETER OR $1\frac{1}{2}$", WHICHEVER IS GREATER. PENETRATION IS MEASURED INTO THE PIECE RECEIVING THE NAIL POINT.
   D. BORED HOLES SHALL BE PERMITTED FOR ALL NAILS TO HELP PREVENT WOOD FROM SPLITTING. BORE HOLES SHALL BE MANDATORY FOR 20d NAILS OR LARGER. WHEN UTILIZED, BORED HOLES SHALL HAVE DIAMETER NOT EXCEEDING 75% OF NAIL DIAMETER.
   E. EDGE DISTANCES, END DISTANCES, AND FASTENER SPACING SHALL BE SUFFICIENT TO PREVENT SPLITTING OF THE WOOD. BORED HOLES MAY BE UTILIZED TO HELP PREVENT WOOD FROM SPLITTING.
   D. ALL NAILS SHALL BE GALVANIZED WHEN EXPOSED TO WEATHER.

6. WOOD SCREWS:
   A. WOOD SCREWS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF "NATION DESIGN SPECIFICATION FOR WOOD CONSTRUCTION" (NDS).
   B. THE MINIMUM PENETRATION OF WOOD SCREWS SHALL BE 10 TIMES THE SCREW DIAMETER OR $1\frac{1}{2}$", WHICHEVER IS GREATER. PENETRATION IS MEASURED INTO THE PIECE RECEIVING THE NAIL POINT.
   C. LEAD HOLES SHALL BE ABOUT 7/8 THE DIAMETER OF THE SCREW.
   D. WOOD SCREWS SHALL BE TURNED, NOT DRIVEN, INTO LEAD HOLES. SOAP OR OTHER LUBRICANTS SHALL BE PERMITTED AS NEEDED TO FACILITATE THE INSERTION AND PREVENT DAMAGE OF THE WOOD SCREW.
   E. EDGE DISTANCES, END DISTANCES, AND FASTENER SPACING SHALL BE SUFFICIENT TO PREVENT SPLITTING OF THE WOOD.
   D. ALL WOOD SCREWS SHALL BE GALVANIZED WHEN EXPOSED TO WEATHER.

7. LAG SCREWS SHALL BE TURNED, NOT DRIVEN, INTO PRE DRILLED HOLES. PROVIDE LEAD HOLE 40% TO 70% OF THREADED SHANK DIAMETER AND FULL DIAMETER FOR SMOOTH SHANK PORTION.

8. ALL FRAMING HARDWARE SHALL BE STRONG-TIE CONNECTORS AS MANUFACTURED BY SIMPSON STRONG-TIE COMPANY, UNLESS NOTED OTHERWISE. INSTALL PER MANUFACTURER'S RECOMMENDATIONS AND ICC REQUIREMENTS. ALL BOLTS IN HOLD-DOWN ANCHORS SHALL BE TORQUED PER MANUFACTURERS REQUIREMENTS.

9. INSTALL HOLD DOWNS $\frac{1}{2}$ INCH MINIMUM ABOVE THE PLATE TO ALLOW FOR TIGHTENING ANCHOR BOLT. THE HOLD DOWN SHALL BE INSTALLED TIGHT TO THE POST WITHOUT FILLERS OR DAPPING. DO NOT BEND HOLD DOWN ANCHORS. HOLD DOWN HARDWARE SHALL BE IN PLACE PRIOR TO FOUNDATION INSPECTION. HOLD DOWN SHALL BE FINGER TIGHT AND $\frac{1}{2}$ WRENCH TURN JUST PRIOR TO COVERING THE WALL FRAMING. UPPER FLOOR HOLD DOWNS SHALL BE CONTINUED TO THE FOUNDATION PER TYPICAL DETAILS.

10. ALL BOLTS AND ANCHOR BOLTS IN WOOD SHALL BE A-307 STANDARD BOLTS. HOLES SHALL NOT BE MORE THAN 1/16" LARGER THAN THE BOLT DIAMETER. A STANDARD CUT WASHER (NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION – APPENDIX TABLE L6), OR METAL PLATE OR METAL STRAP OF EQUAL OR GREATER DIMENSIONS AND THICKNESS SHALL BE PROVIDED BETWEEN THE WOOD AND THE NUT.

11. DO NOT CUT, BORE, COUNTERSINK OR NOTCH WOOD MEMBERS EXCEPT WHERE SHOWN IN THE DETAILS.

12. PROVIDE DOUBLE JOISTS BENEATH ALL PARALLEL WALLS. PROVIDE SOLID BLOCKING BENEATH ALL WALLS PERPENDICULAR TO JOISTS.

13. JOISTS OR RAFTERS FRAMING FROM OPPOSITE SIDES OF BEAMS OR WALLS SHALL HAVE A LAP OF 4" OR MORE AND BE SPLICED WITH 4-16D NAILS, UNLESS NOTED OTHERWISE.

14. STRUCTURAL COMPOSITE LUMBER (SCL) OR ENGINEERED LUMBER

A. SCL MEMBERS INCLUDE I-JOISTS, PSL, LVL, LSL, BEAMS, HEADERS, POSTS, AND STUDS.
B. SCL MEMBERS SHALL BE MANUFACTURED BY A LICENSED FABRICATOR.
C. SUBSTITUTION OF PRODUCTS LISTED BELOW SHALL BE SUBMITTED TO RME FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION. INCLUDE ICC OR LARR AS APPLICABLE AND COMPARISON TABLES.
E. EXCEPT I-JOISTS AND LSL, SCL MEMBERS SHALL BE:
? MEMBER DEPTH 14" OR LESS: "RIGIDLAM" LVL MANUFACTURED BY "ROSEBURG", GRADE 2.0 (ICC-ESR 1210, LARR 25680).
? MEMBER DEPTH GREATER THAN 14": "PARALLAM" PSL MANUFACTURED BY "WEYERHAEUSER" GRADE 2.2 (ICC-ESR 1387, LARR 25202).
F. I-JOIST MEMBERS SHALL BE "TJI" JOISTS MANUFACTURED BY "WEYERHAEUSER" (ICC-ESR 1153, L.A. RR 25538).
G. LSL MEMBERS SHALL BE "TIMBERSTRAND" LSL MANUFACTURED BY "WEYERHAEUSER", GRADE 1.55E (ICC-ESR1387, LARR 25202).

15. HOT DIP GALVANIZED FASTENERS SUCH AS – BUT NOT LIMITED TO – NAILS, SCREWS, BOLTS, THREADED ROD, ETC., SHALL BE USED WHEN IN CONTACT WITH PRESERVATIVE OR FIRE RETARDANT TREATED LUMBER. EXCEPTION: PLAIN CARBON STEEL FASTENERS IN SBX/DOT AND ZINC BORATE PRESERVATIVE-TREATED WOOD IN AN INTERIOR, DRY ENVIRONMENT SHALL BE PERMITTED.

16. FRAMING CLIPS TO COMPLY WITH (IAPMO ER 0112 2606, L.A. RR 25814). STRAPS TO COMPLY WITH (ICC-ESR 2105, L.A. RR 25713).

17. NARROW STEEL SHEAR PANELS SHALL BE INSTALLED PER THE MANUFACTURERS RECOMMENDATIONS AND CONFORM TO THE FOLLOWING: HARDY FRAMES (HFX): LARR#25759 SIMPSON STRONG WALLS (SSW): LARR#25625

18. WOOD NAILERS: U.N.O. ON PLANS AND DETAILS, WHERE WOOD MEMBERS ARE TO BE CONNECTED TO STEEL ELEMENTS, OR WHERE WOOD NAILERS CONNECTED TO STEEL MEMBERS ARE NEEDED FOR PROPER INSTALLATION OF FINISH MATERIALS, AS A MINIMUM PROVIDE WOOD NAILERS AS SPECIFIED BELOW WITH $\frac{5}{8}$"ø WELDED THREADED STUDS @ 24" O.C:
A. WOOD NAILERS NEEDED ONLY FOR INSTALLATION OF FINISH MATERIAL: 2x WOOD NAILERS. COUNTERSINKING OF THREADED STUDS BOLT IS ACCEPTABLE IF NEEDED FOR FLUSH INSTALLATION OF FINISH MATERIAL.
B. WOOD NAILERS NEEDED TO SUPPORT OTHER WOOD ELEMENTS: 2x WOOD NAILERS OR 3x WOOD NAILERS WITH OR WITHOUT COUNTERSINKING OF THREADED STUDS BOLT RESPECTIVELY.

19. GLUE BETWEEN WOOD STRUCTURAL PANELS AND WOOD FRAMING MEMBERS SHALL BE APPLIED TO REDUCE SQUEAKINESS OF OCCUPIABLE SPACES. GLUE SHALL CONFORM TO APA PERFORMANCE SPECIFICATION AFG-01 OR ASTM D3498. INSTALL AS DIRECTED PER APA FORM NO. Q300P.

20. WOOD AND COMPONENTS IN EXTERIOR WALLS LABELED AS FIRE RATED BY THE ARCHITECT SHALL BEAR A FIRE-RETARDANT-TREATED STAMP INDICATION BY MEANS SATISFACTORY TO LOCAL AUTHORITIES. THE FOLLOWING FIRE RETARDANTS MAY BE USED:
A. FOR PLYWOOD AND LUMBER: D-BLAZE FIRE RETARDANT (ICC ESR-2645, LARR 24502). EQUIVALENT SUBSTITUTE MAY BE USED ONLY IF PRODUCT IS APPROVED BY THE EOR.

FOUNDATIONS

1. CONTRACTOR SHALL CONTACT ENGINEER IF EXCAVATIONS REVEAL UNFAVORABLE CONDITIONS. THE SERVICES OF A SOILS ENGINEER AND/OR GEOLOGIST MAY BE REQUIRED.

2. ALL FOOTINGS SHALL BE FOUNDED A MIN OF 24" BELOW THE LOWEST ADJACENT GRADE AND A MINIMUM OF 12" INTO NATIVE SOIL WHICHEVER GOVERNS UNLESS NOTED OTHERWISE.

3. 1500 PSF ALLOWABLE SOIL BEARING PRESSURE WAS USED IN THE DESIGN.

4. EXCAVATION SHALL BE PROPERLY BACKFILLED. ANY FILL SHALL BE COMPACTED TO A MINIMUM OF 90% RELATIVE COMPACTION.

5. REMOVE ABANDONED FOOTINGS, UTILITIES, ETC. WHICH INTERFERE WITH NEW CONSTRUCTION, UNLESS OTHERWISE INDICATED.

6. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR EXCAVATION PROCEDURES INCLUDING LAGGING, SHORING, UNDERPINNING AND PROTECTION OF EXISTING CONSTRUCTION.

7. LOCATE AND PROTECT EXISTING UTILITIES TO REMAIN DURING AND/OR AFTER CONSTRUCTION.

8. REMOVE LOOSE SOIL AND STANDING WATER FROM FOUNDATION EXCAVATIONS PRIOR TO PLACING CONCRETE.

9. NOTIFY THE OWNER'S REPRESENTATIVE IF ANY BURIED STRUCTURES NOT INDICATED, SUCH AS CESSPOOLS, CISTERNS, FOUNDATIONS, ETC., ARE FOUND.

10. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR EXCAVATION PROCEDURES INCLUDING LAGGING, SHORING, UNDERPINNING AND PROTECTION OF EXISTING CONSTRUCTION.

CONCRETE

1. CONCRETE IS REINFORCED AND CAST-IN-PLACE UNLESS OTHERWISE NOTED. WHERE REINFORCING IS NOT SPECIFICALLY SHOWN OR WHERE DETAILS ARE NOT GIVEN, PROVIDE REINFORCING SIMILAR TO THAT SHOWN FOR SIMILAR CONDITIONS, SUBJECT TO REVIEW BY THE OWNER'S REPRESENTATIVE.

2. ALL PHASES OF WORK PERTAINING TO THE CONCRETE CONSTRUCTION SHALL CONFORM TO THE LATEST EDITION OF ACI 318 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", AND THE LATEST EDITION OF ACI 117 "SPECIFICATIONS FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS"

3. ALL STRUCTURAL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS AND A MAX WATER CEMENT RATIO, W/C, AS FOLLOWS:

LOCATION	STRENGTH	W/C	TYPE OF CONCRETE
ALL LOCATIONS U.N.O.	2,500 PSI	0.50	NORMAL WEIGHT

4. NO MORE THAN ONE GRADE OF CONCRETE SHALL BE ON THE JOB SITE AT ANY ONE TIME.

5. ALL STRUCTURAL CONCRETE MIXES SHALL BE DESIGNED BY AN APPROVED LABORATORY AND SHALL BE STAMPED AND SIGNED BY A CIVIL ENGINEER LICENSED IN CALIFORNIA.

6. CONCRETE MIX PROPORTIONING SHALL MEET STATISTICAL STRENGTH REQUIREMENTS OF ACI 301 AND ACI 214R. MIX DESIGNS SHOWING COMPLIANCE WITH STRENGTH REQUIREMENTS TO BE SUBMITTED TO SEOR FOR REVIEW.

7. CONCRETE STRENGTH TEST REPORTS SHALL BE IN COMPLIANCE WITH ACI 318 AND SHALL BE SUBMITTED TO SEOR

8. CONCRETE MIXES SHALL BE PREPARED WITH TYPE II/V PORTLAND CEMENT CONFORMING TO ASTM C150.

9. CONCRETE MIX DESIGNS CONTAINING FLY ASH MAY BE USED. FLY ASH SHALL CONFORM WITH ASTM C618 AND MAY REPLACE UP TO 25% PORTLAND CEMENT BY WEIGHT. WHERE CONCRETE IS VISUALLY EXPOSED VERIFY WITH THE PROJECT ARCHITECT THE USE OF FLY ASH.

10. NORMAL WEIGHT CONCRETE AGGREGATES SHALL CONFORM TO ASTM C33. LIGHT WEIGHT CONCRETE AGGREGATES SHALL CONFORM TO ASTM C330.

11. WATER USED IN MIXING CONCRETE SHALL CONFORM WITH ASTM C1602.

12. THOROUGHLY CLEAN AND ROUGHEN ALL HARDENED CONCRETE AND MASONRY SURFACES TO RECEIVE NEW CONCRETE. INTERFACE SHALL BE ROUGHENED TO A FULL AMPLITUDE OF 1/4" UNLESS NOTED OTHERWISE.

13. KEY AND DOWEL POUR JOINTS AS SHOWN ON THE PLANS. ANY DEVIATION FROM POUR JOINTS SHOWN ON THE PLANS MUST BE APPROVED BY THE OWNER'S REPRESENTATIVE.

14. WHERE EMBEDDED ELEMENTS SUCH AS CONDUITS, PIPES, AND DUCTWORK ARE TO BE PLACED WITHIN CONCRETE MEMBERS, SLEEVES, OR COMPRESSIBLE MATERIAL, OR AIR GAP AROUND THESE ELEMENTS SHALL BE SPECIFIED BY OTHERS AS NEEDED TO AVOID DAMAGE OF THESE ELEMENTS AND FOR MEP CODE COMPLIANCE. CONTRACTOR SHALL CONFIRM WITH MEP SUBCONTRACTORS OR MEP ENGINEER THIS REQUIREMENT PRIOR TO PLACING THESE ELEMENTS WITHIN THE CONCRETE MEMBERS. REBAR SHALL BE ARRANGED AS CLOSE AS POSSIBLE AROUND THE EMBEDDED ELEMENTS AND SHALL NOT BE INTERRUPTED.

MECHANICAL AND ADHESIVE ANCHORS

1. ADHESIVE ANCHORS AND DOWELS INSTALLED INTO CONCRETE:
   A. "SET-XP" BY SIMPSON STRONG TIE (COLA RR#25744, ESR#2508)
   B. "HIT-HY 200" BY HILTI, INC. (COLA RR#25964, ESR#3187)
   C. "HIT-RE 500 V3" BY HILTI, INC. (COLA RR#26028, ESR#3814)

2. ADHESIVE ANCHORS AND DOWELS INSTALLED INTO GROUT-FILLED MASONRY UNITS:
   A. "SET-XP" BY SIMPSON STRONG TIE (COLA RR#25965, IAPMO#265)

3. ADHESIVE ANCHORS AND DOWELS INSTALLED INTO UNREINFORCED BRICK MASONRY (URM):
   A. "EPOXY-TIE ET-HP" BY SIMPSON STRONG TIE, IN CITY OF LOS ANGELES ONLY (COLA RR#25120)
   B. "EPOXY-TIE SET" BY SIMPSON STRONG TIE, NOT IN CITY OF LOS ANGELES (ESR#1772)

4. MECHANICAL ANCHORS INSTALLED INTO CONCRETE:
   A. "STRONG BOLT2" BY SIMPSON STRONG-TIE (COLA RR#25891, ESR#3037)
   B. "KWIK BOLT 3" BY HILTI, INC. NOT IN CITY OF LOS ANGELES (ESR#2302)
   C. "KWIK BOLT TZ" BY HILTI, INC. (COLA RR#25701, ESR#1917)

5. MECHANICAL ANCHORS INSTALLED INTO GROUT-FILLED MASONRY UNITS:
   A. "STRONG BOLT 2" BY SIMPSON STRONG-TIE (COLA RR#25936, IAPMO#240)

6. ADHESIVE ANCHORS: ASTM A36 THREADED RODS WITH ASTM A 563 GRADE A NUTS AND ANSI B18.22.1 TYPE A WASHERS, UNLESS OTHERWISE NOTED. ANCHORS DESIGNATED AS ASTM A193 GRADE B7 THREADED RODS TO USE ASTM A 563 GRADE DH HEAVY HEX NUTS AND ASTM F 436 WASHERS.

7. ADHESIVE DOWELS: ASTM A615 GRADE 60 REINFORCING STEEL.

8. ALL ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH ICC-ES REPORT AND COLA REPORT AND MANUFACTURERS RECOMMENDATIONS.

9. UNLESS OTHERWISE NOTED, PROVIDE MINIMUM EMBEDMENT OF ANCHORS PER ICC-ES REPORT, COLA REPORTS & MANUFACTURERS RECOMMENDATIONS.

10. CONFIRM FINAL ANCHOR LOCATIONS PRIOR TO FABRICATING PLATES, MEMBERS, OR OTHER STEEL ASSEMBLIES ATTACHED WITH MECHANICAL OR ADHESIVE ANCHORS. AT CONTRACTOR OPTION, OVERSIZED HOLES AND WELDED PLATE WASHERS CAN BE USED IN LIEU OF STANDARD DIAMETER HOLES. SIZE & WELD

11. PRIOR TO ALL DRILLING OR CORING, THE CONTRACTOR SHALL (1) VERIFY THE EXISTING CONCRETE OR MASONRY THICKNESS TO PREVENT DAMAGE TO THE OPPOSITE FACE OF CONCRETE AND MAINTAIN 1-1/2" CLEAR COVER U.N.O., AND (2) IDENTIFY EXISTING REINFORCING LOCATIONS BY PACHHOMETER, PROBING, CHIPPING, ETC. TO AVOID DAMAGE EXISTING REINFORCING.

12. IF REINFORCEMENT IS ENCOUNTERED DURING DRILLING, ABANDON AND SHIFT THE HOLE LOCATION TO AVOID THE REINFORCEMENT. PROVIDE A MINIMUM OF 2 ANCHOR DIAMETERS OR 1 INCH, WHICHEVER IS LARGER, OF SOUND CONCRETE BETWEEN THE DOWEL AND THE ABANDONED HOLE. FILL THE ABANDONED HOLE WITH NON-SHRINK GROUT. IF THE ANCHOR OR DOWEL MAY NOT BE SHIFTED AS NOTED ABOVE, THE ENGINEER WILL DETERMINE A NEW LOCATION.

13. ANCHORS SHALL BE PROOF-TESTED BY OWNER'S TESTING AND INSPECTION AGENCY. TEST 20% OF ALL ANCHORS.

14. TEST ANCHORS NO SOONER THAN 24 HOURS AFTER INSTALLATION.

15. APPLY TEST LOAD BY ANY METHOD THAT WILL EFFECTIVELY MEASURE THE TENSION ON THE ANCHOR SUCH AS DIRECT PULL WITH A HYDRAULIC JACK, TORQUE WRENCH, OR CALIBRATED SPRING-LOADING DEVICES, ETC.

16. ADHESIVE ANCHORS SHALL BE INSTALLED IN CONCRETE OR GROUT HAVING A MINIMUM AGE OF 21 DAYS AT THE TIME OF ANCHOR INSTALLATION.

17. FOR EXTERIOR AND FOR EXPOSED APPLICATIONS PROVIDE HOT DIP GALVANIZED OR STAINLESS STEEL ANCHORS.

County of San Bernardino
BUILDING AND SAFETY
THE PLANS AND DETAILS HAVE BEEN
REVIEWED
FOR CODE COMPLIANCE
THE REVIEW OF THESE PLANS SHALL NOT PREVENT THE CORRECTION OF ERRORS OR VIOLATION OF ANY CODE OR ORDINANCE IN THIS COUNTY
By
Date 03/05/2025
THESE PLANS SHALL BE ON THE JOB FOR ALL REQUESTED INSPECTIONS

OWNER:
BOGDAN SEVASTIANOV
ZOIA LARINA
69561 PAPOOSE TRAIL
TWENTYNINE PALMS, CA 92277
ZOIALARINA@GMAIL.COM

ARCHITECTURAL DESIGNER:
MOLLY MUNSON
MUNSDOTTIR STUDIO
JOSHUA TREE, CA
t: 213/ 605 2864
MOLLY@MUNSDOTTIR.COM

ENGINEER:
Reidar Marrs Engineers, Inc.
3655 Torrance Blvd, 3rd Floor #398
Torrance, CA 90503
t: 310/ 803 9440
RME Job no. 24102

STAMP
REGISTERED PROFESSIONAL ENGINEER
NICHOLAS R. MARRS
No. S 7179
STRUCTURAL
STATE OF CALIFORNIA
SIGN DATE 02/17/2025

DATE	ISSUE / REVISION
03-26-24	PLAN CHECK SET
02-17-25	⚠P.C. RESUBMITTAL

SINGLE-FAMILY DWELLING REMODEL

69561 PAPOOSE TRAIL
TWENTYNINE PALMS, CA 92277

SHEET TITLE
GENERAL NOTES

JOB NO. 24102

DATE 02/17/2025

SCALE As Indicated

SHEET NO. S0.02

ALL MEASUREMENTS ARE ACCURATE BUT NOT EXACT. ALL MUST BE FIELD CHECKED PRIOR TO DEMOLITION OR CONSTRUCTION

RME: IF THIS SHEET IS NOT 24"x 36" IT IS A REDUCED PRINT

STRUCTURAL STEEL

1. FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF AISC SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS, AND THE LATEST EDITION OF AISC SEISMIC PROVISIONS FOR STRUCTURAL STEEL BUILDINGS. WHERE THE STRUCTURAL STEEL IS EXPOSED, FABRICATION AND ERECTION SHALL ALSO BE IN ACCORDANCE WITH AISC CODE OF STANDARD PRACTICE FOR ARCHITECTURALLY EXPOSED STRUCTURAL STEEL.

2. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING ASTM DESIGNATION:

a. ALL WIDE FLANGE SHAPES	A992, GRADE 50
b. STEEL ANGLES	A36
c. ALL PLATES	A572, GRADE 50
d. HSS (RECTANGULAR AND SQUARE)	A500, GRADE B
e. HSS (ROUND)	A500, GRADE B
f. PIPE	A53, GRADE B
g. CHANNELS (C AND MC SECTIONS)	A36
h. ALL OTHER STRUCTURAL SECTIONS	A572, GRADE 50

3. ALL STEEL SHALL BE PROVIDED BY A CITY OF LOS ANGELES LICENSED FABRICATOR.

4. WHEN FABRICATING BEAMS PLACE NATURAL CAMBER UP.

5. ALL FLANGE STIFFENER PLATES SHALL BE ORIENTED SO THAT ROLLING DIRECTION OF PLATE IS PARALLEL WITH DIRECTION OF PRINCIPAL STRESS.

6. SPLICE MEMBERS ONLY WHERE INDICATED.

7. MECHANICAL FASTENING AND THREADED PARTS

A. BOLTS AND THREADED PARTS SHALL CONFORM TO THE FOLLOWING ASTM DESIGNATION:

a. HIGH STRENGTH BOLTS	A325X (PRE-TENSIONED AT ALL LFRS ELEMENTS W/ CLASS A FAYING SURFACE) A490 (PRE-TENSIONED)
b. HEADED AND BENT ANCHOR BOLTS U.N.O.	F1554, GR36
c. ALL THREADED RODS U.N.O.	F1554, GR36
d. TIE RODS	F1554, GR36
e. ANCHORS AT NON-MOMENT FRAME COLUMN BASE PL	F1554, GR55
f. ANCHORS AT MOMENT FRAME COLUMN BASE PL	F1554, GR105
g. NUTS FOR BOLTS AND MACHINE BOLTS	A563
h. HARDENED WASHERS	F436
i. UNHARDENED WASHERS	F844
j. PLAIN WASHERS	ANSI B18.22.1
k. BEVELED WASHERS	ANSI B18.23.1

B. HIGH STRENGTH BOLTS SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF "AISC SPECIFICATIONS FOR STRUCTURAL JOINTS USING HIGH STRENGTH BOLTS" BY RCSC. HIGH STRENGTH BOLTS SHALL BE BEARING TYPE WITH THREADS EXCLUDED FROM THE FROM THE SHEAR PLANES (I.E. A325-X).

C. ALL BOLTED CONNECTIONS SHALL HAVE A MINIMUM OF TWO $^{3}/_{4}$"ø BOLTS.

D. ALL HOLES SHALL BE STANDARD DIAMETER.

E. PROVIDE BEVELED WASHERS ON ALL CONNECTIONS WHERE SLOPE SURFACE EXCEEDS 1:20.

F. WELDING OF FASTENERS OR THREADED PARTS SHALL BE ALLOWED ONLY WHERE SPECIFICALLY SHOWN ON THE STRUCTURAL DRAWINGS. IN SUCH INSTANCES, WELDABLE FASTENERS OR THREADED PARTS SHALL BE PROVIDED, AND SHALL CONFORM TO SUPPLEMENTARY REQUIREMENT S1 WHENEVER SUCH REQUIREMENT IS AVAILABLE FOR A GIVEN ASTM SPECIFICATION. FOR WELDING OF REBAR SEE "REINFORCEMENT" SECTION

8. AFTER FABRICATION, ALL STEEL SHALL BE CLEANED FREE OF RUST, LOOSE MILL SCALE AND OIL.

9. PROVIDE FILLS AT SPLICES OF PARTS HAVING MORE THAN 1/8" DIFFERENCE IN THICKNESS.

10. HOT DIP GALVANIZE IN ACCORDANCE WITH ASTM A123 AND ASTM A153 STRUCTURAL STEEL AND FASTENERS THAT ARE PERMANENTLY EXPOSED TO THE WEATHER. REPAIR GALVANIZING AFTER WELDING IN ACCORDANCE WITH ASTM A780.

11. THE FULL DESIGN AND LOAD CARRYING CAPACITY OF THE STEELWORK SHALL NOT BE IMPAIRED DUE TO FABRICATION, SHIPMENT, OR ERECTION PROCEDURES, THROUGHOUT THE COMPLETE PROCESS. THE STABILITY OF ALL INDIVIDUAL MEMBERS AND ASSEMBLIES SHALL BE MAINTAINED.

12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF ALL ERECTION PROCEDURES AND SEQUENCES WITH RELATION TO TEMPERATURE DIFFERENTIALS AND WELD SHRINKAGE.

13. ALL ADDITIONAL STEEL REQUIRED FOR ERECTION PURPOSES SHALL BE PROVIDED AT NO ADDITIONAL COST AND SHALL BE REMOVED UNLESS APPROVED BY THE OWNER'S REPRESENTATIVE IN WRITING.

REINFORCEMENT CONTINUED...

14. ALL SLABS ON GRADE LESS THAN 6" IN THICKNESS SHALL BE REINFORCED WITH #4 REBARS AT 16 INCHES ON CENTERS EACH WAY, UNLESS NOTED OTHERWISE. PROVIDE ONE (1) LAYER OF 6X6/W2.9XW2.9 WELDED WIRE FABRIC CONTINUOUS FOR EVERY 3" ARCHITECTURAL CONCRETE FILLS ABOVE THE STRUCTURAL SLAB.

15. ALL MECHANICAL, PLUMBING AND ELECTRICAL EQUIPMENT PADS LESS THAN 4" THICK SHALL BE REINFORCED WITH AT LEAST ONE (1) LAYER OF 6X6/W2.9XW2.9 WELDED WIRE FABRIC AND HAVE HOOKED DOWELS (#3 AT 12' ON CENTERS) INTO THE STRUCTURAL SLAB. UNLESS NOTED OTHERWISE. FOR PADS GREATER THAN 4 INCHES THICK, USE REINFORCING AS SHOWN IN THE TYPICAL DETAILS.

16. ADDITIONAL REINFORCEMENT SHALL BE PROVIDED AROUND ALL SLAB AND WALL OPENINGS INCLUDING DIAGONAL BARS WITHOUT EXCEPTION.

17. ALL STRUCTURAL CONCRETE ELEMENTS REQUIRE REINFORCEMENT SINCE NO PLAIN CONCRETE ELEMENTS ARE USED. ALL CONCRETE SLABS SHALL HAVE A MINIMUM REINFORCEMENT PERCENTAGE OF 0.18 EACH WAY CONTINUOUS.

18. REINFORCING STEEL SHOP DRAWINGS SHALL INCLUDE SLAB OPENINGS, DEPRESSIONS, SLOPES, CURBS, DRAINS, AND SLAB EDGE LOCATIONS FROM ALL MEP TRADES. GENERAL CONTRACTOR IS RESPONSIBLE TO COORDINATE AND INDICATE ALL SLAB OPENINGS ON PLAN AND SUBMIT TO THE STRUCTURAL ENGINEER PRIOR TO SUBMITTAL OF REINFORCING SHOP DRAWINGS.

19. CONTRACTOR SHALL FURNISH MISCELLANEOUS REBAR IN ADDITION TO THE REBAR SPECIFIED ON THE STRUCTURAL DRAWINGS, WHICH SHALL BE INSTALLED AT EOR'S DISCRETION DURING CONSTRUCTION. THE AMOUNT OF ADDITIONAL REBAR SHALL BE 5 TONS OR 2% OF THE REBAR WEIGHT SPECIFIED PER STRUCTURAL DRAWINGS, WHICHEVER IS GREATER.

REINFORCEMENT

1. ALL REINFORCING BARS SHALL CONFORM TO ASTM A-615, GRADE 60, UNLESS NOTED OTHERWISE ON THE DRAWINGS AND BELOW:

A. SPIRALS SHALL BE COLD DRAWN BARS CONFORMING TO ASTM A-82.
B. REINFORCING FOR SLABS AND FOUNDATIONS MAY BE GRADE 75 IN LIEU OF GRADE 60 AT THE CONTRACTOR'S OPTION. THE OVERALL AMOUNT OF REINFORCING STEEL AND REBAR SPACING SHALL NOT BE ALTERED FROM WHAT SHOWN ON THE STRUCTURAL PLANS IF GRADE 75 KSI IS USED IN LIEU OF 60 KSI WITHOUT WRITTEN CONSENT OF THE E.O.R.
C. MOMENT FRAME LONGITUDINAL REBAR, COLUMN LONGITUDINAL REBAR, SHEAR WALL VERTICAL REBAR, AND COUPLING BEAM LONGITUDINAL REBAR SHALL BE EITHER ASTM A-706 [Fy=60 KSI] OR ASTM A-615, GRADE 60, WITH ACTUAL YIELD STRENGTH BASED ON MILL TESTS NOT GREATER THAN 78 KSI.
D. SMOOTH DOWELS IN SLAB ON GRADE: ASTM A36, 36 KSI

2. WELDING OF REINFORCEMENT (INCLUDING TACK WELDING) SHALL NOT BE DONE UNLESS SPECIFICALLY SHOWN ON THE DRAWINGS. WHERE SHOWN ON THE DRAWINGS, THE FOLLOWING SHALL APPLY:

A. WELDED REBAR SHALL COMPLY WITH ASTM A-706 [Fy=60 KSI]
B. WELDING SHALL CONFORM TO AWS D1.4
C. WELDING OF REINFORCING STEEL SHALL BE PERFORMED BY WELDERS CERTIFIED BY THE CITY OF LA
D. USE E90XX ELECTRODES

3. WELDED WIRE FABRIC SHALL BE MADE OF COLD DRAWN WIRE AND SHALL CONFORM TO ASTM A-185 [Fy=65 KSI]. MINIMUM LAP AT SPLICES OF 12 INCHES. PROVIDE MESH IN FLAT SHEETS ONLY. ROLLED MESH IS NOT ACCEPTABLE. OFFSET END-LAPS IN ADJACENT SHEETS TO PREVENT CONTINUOUS LAPS.

4. REINFORCING STEEL SHALL HAVE THE FOLLOWING CONCRETE COVER. SEE ACI FOR TOLERANCES:

A. CONCRETE PILES	2 1/2"
B. CONCRETE POURED AGAINST EARTH (OTHER THAN PILES)	3"
C. FORMED CONCRETE IN CONTACT WITH EARTH	2"
D. CONCRETE EXPOSED TO WEATHER (#6 AND LARGER)	2"
E. CONCRETE EXPOSED TO WEATHER (#5 AND SMALLER)	1-1/2"
F. SLABS (INCLUDING SLAB SUPPORTING EARTH), WALLS, AND JOISTS NOT EXPOSED TO WEATHER (#11 AND SMALLER)	1"
G. OTHER CONCRETE NOT EXPOSED TO WEATHER	1-1/2"

County of San Bernardino BUILDING AND SAFETY
THE PLANS AND DETAILS FOR THIS PROJECT ARE
REVIEWED
FOR CODE COMPLIANCE
THE REVIEW OF THESE PLANS DOES NOT CONSTITUTE TO BE A PERMIT NOR AN APPROVAL OF ANY VIOLATION OF ANY CODE OF ORDINANCE OF THIS COUNTY
By
Date 03/05/2025
THESE PLANS SHALL BE ON THE JOB SITE FOR REQUESTED INSPECTIONS

5. #5 AND LARGER REINFORCING BARS SHALL NOT BE SPLICED EXCEPT AS LOCATED AND DETAILED ON THE DRAWINGS. #4 AND SMALLER BARS WITH LENGTHS NOT SHOWN SHALL BE CONTINUOUS. PROVIDE CLASS 'B' SPLICE UNLESS NOTED OTHERWISE. ALL BARS IN MASONRY SHALL BE CONTINUOUS, LAPPING 48 BAR DIAMETERS, 2'-0" MINIMUM. HORIZONTAL WALL SPLICES SHALL BE STAGGERED. VERTICAL BARS SHALL NOT BE SPLICED EXCEPT AT HORIZONTAL SUPPORTS, SUCH AS FLOOR OR ROOF, UNLESS DETAILED OTHERWISE. ALL BARS ENDING AT THE FACE OF A WALL, COLUMN, OR BEAM SHALL EXTEND TO WITHIN 2" OF THE FAR FACE AND HAVE A 90 DEGREE HOOK, UNLESS OTHERWISE SHOWN.

6. BARS SHALL BE FIRMLY SUPPORTED AND ACCURATELY PLACED AS REQUIRED BY THE ACI STANDARDS, USING TIE AND SUPPORT BARS IN ADDITION TO REINFORCEMENT SHOWN WHERE NECESSARY FOR FIRM AND ACCURATE PLACING. PROVIDE DOWELS TO MATCH ALL REINFORCEMENT AT POUR JOINTS, UNLESS SHOWN OR NOTED OTHERWISE. ALL DOWELS AND BOLTS SHALL BE ACCURATELY SET IN PLACE BEFORE PLACING CONCRETE. NO WELDING OF REINFORCEMENT (INCLUDING TACK WELDING) SHALL BE DONE UNLESS SHOWN ON THE DRAWINGS OR APPROVED BY THE ENGINEER. ALL SLAB AND BEAM REINFORCEMENT SHALL BE CHAIRED UP.

7. IN WALL REINFORCING, CURTAINS CONTAINING VERTICAL AND HORIZONTAL BARS OF THE SAME SIZE, VERTICAL BARS SHALL BE PLACED CLOSEST TO THE WALL SURFACE. IN CURTAINS WHICH VERTICAL AND HORIZONTAL BARS ARE OF DIFFERENT SIZES OR SPACING, THE LAYER WITH THE MOST STEEL SHALL BE PLACED CLOSEST TO THE NEAR SURFACE, UNLESS NOTED OTHERWISE ON PLAN.

8. ALL BARS INTERRUPTED BY STRUCTURAL STEEL SHALL EXTEND TO WITHIN 1" OF STRUCTURAL STEEL FLANGE OR WEB AND HAVE A 90 DEGREE HOOK, UNLESS OTHERWISE SHOWN.

9. DRAWINGS SHOW TYPICAL REINFORCING CONDITIONS. CONTRACTOR SHALL PREPARE DETAILED PLACEMENT DRAWINGS OF ALL CONDITIONS SHOWING QUANTITY, SPACING, SIZES, CLEARANCES, LAPS, INTERSECTIONS, AND COVERAGE REQUIRED BY THE STRUCTURAL DETAILS, APPLICABLE CODE, AND TRADE STANDARDS. CONTRACTOR SHALL NOTIFY REINFORCING INSPECTOR OF ANY ADJUSTMENTS FROM TYPICAL CONDITIONS WHICH ARE PROPOSED IN PLACEMENT DRAWINGS TO FACILITATE FIELD PLACEMENT OF REINFORCING STEEL AND CONCRETE.

10. ALL PRINCIPAL REBAR SHALL TERMINATE WITH A STANDARD HOOK MINIMUM UNLESS SPECIFICALLY DETAILED OTHERWISE. REBAR BENDS SHALL BE MADE COLD. REBAR SHALL NOT BE BENT AFTER ANY PORTION OF THE BAR IS ENCASED IN CONCRETE.

11. ALL LAP SPLICES ARE CLASS 'B' LAP SPLICES UNLESS NOTED OTHERWISE.

12. MECHANICAL COUPLER SHALL BE BAR-LOCK COUPLER SYSTEM (ICC ESR-2495, LARR #25342) FOR GRADE 60 CONFORMING TO ASTM A615 OR ASTM A706 OR LENTON MECHANICAL COUPLERS (ICC ESR-0129 LARR #24507) FOR GRADE 60, 75 CONFORMING TO ASTM A615 OR APPROVED EQUAL.

13. ALL WALL FOOTING REINFORCEMENT SHALL BEND AROUND ALL CORNERS AND EXTEND 36 BAR DIAMETERS OR 18 INCHES WHICHEVER IS LARGER. UNLESS NOTED OTHERWISE.

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RME Job no. 24102

STAMP
REGISTERED PROFESSIONAL ENGINEER
NICHOLAS R. MARRS
No. S 7179
STRUCTURAL
STATE OF CALIFORNIA
SIGN DATE 02/17/2025

DATE	ISSUE / REVISION
03-26-24	PLAN CHECK SET
02-17-25	⚠P.C. RESUBMITTAL

SINGLE-FAMILY DWELLING REMODEL

69561 PAPOOSE TRAIL
TWENTYNINE PALMS, CA 92277

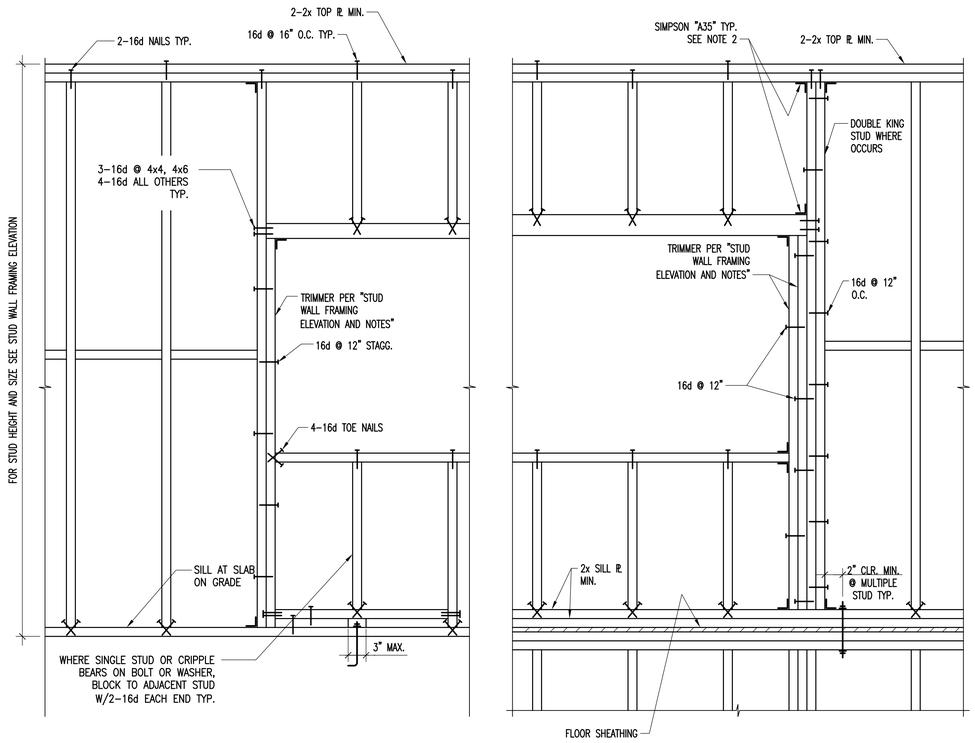
SHEET TITLE: GENERAL NOTES

JOB NO. 24102

DATE 02/17/2025

SCALE As Indicated

SHEET NO. S0.03 ⚠1



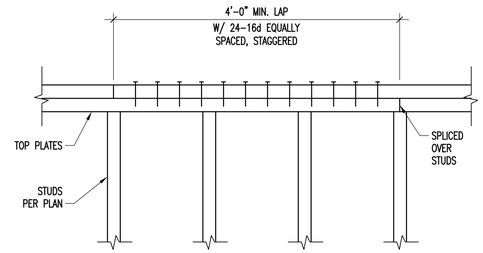
8'-0" MAX. OPENING

NOTES:

1. SEE "STUD WALL FRAMING ELEVATION AND NOTES" FOR MINIMUM HEADER SIZES, AND MINIMUM NUMBER AND SIZE OF TRIMMERS AND KING STUDS.
2. A35 CLIPS CAN BE OMITTED AT INTERIOR WALLS

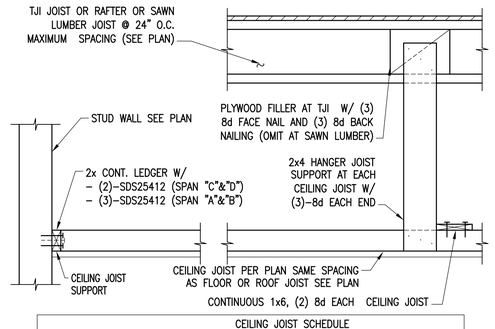
TYP. STUD WALL OPENING FRAMING

SCALE: N.T.S. — 8 / -



TYP. TOP PLATES SPLICE DETAIL

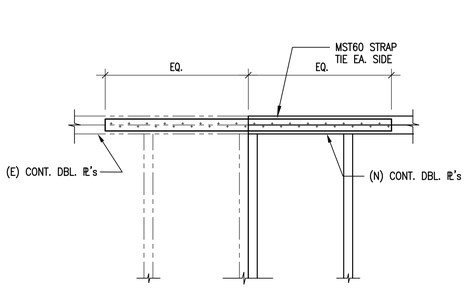
SCALE: N.T.S. — 4 / -



CEILING JOIST SCHEDULE		
SPAN #	MAX. SPAN BETWEEN SUPPORTS	CEILING JOIST SIZE AND SPACING
A	20'-0"	2x10 @ 16" O.C.
B	16'-0"	2x8 @ 16" O.C.
C	12'-0"	2x6 @ 16" O.C.
D	8'-0"	2x4 @ 16" O.C.

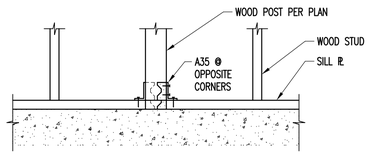
TYP. CEILING JOIST DETAIL

SCALE: N.T.S. — 1 / -

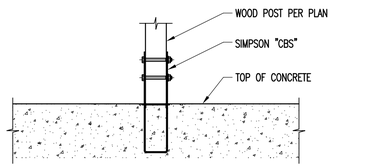


TYP. CONN. TO DBL. ℄S

SCALE: N.T.S. — 12 / -



WITHIN A WALL — B



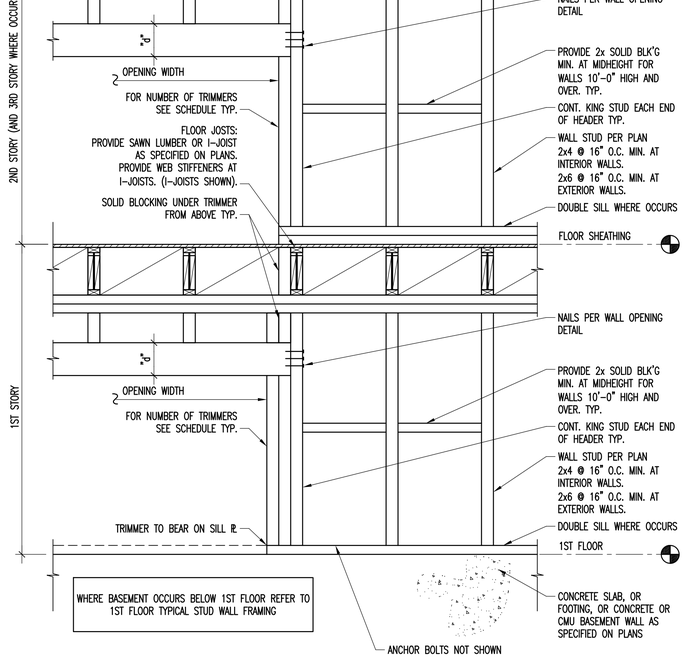
ISOLATED POST — A

TYP. POST BASE

SCALE: N.T.S. — 9 / -

TYP. MINIMUM ROOF HEADER SCHEDULE U.N.O. (FOR ROOF DECK SEE FLOOR HEADER SCHED.)

WIDTH OF OPENING	8'-0"	6'-0"	4'-0"
NUMBER OF TRIMMERS	1	1	1
"d" @ 4" WALLS	4x8	4x6	4x4
"d" @ 6" WALLS	6x6	6x6	6x6



STUD WALL PLATFORM FRAMING ELEVATION

SCALE: N.T.S. — 3 / -

TYP. MINIMUM FLOOR AND ROOF DECK HEADER SCHEDULE U.N.O.

WIDTH OF OPENING	8'-0"	6'-0"	4'-0"
NUMBER OF TRIMMERS	2	2	2
NON LOAD BEARING 4"	4x8	4x8	4x6
NON LOAD BEARING 6"	6x8	6x6	6x6
1 LEVEL BEARING 4"	4x16	4x12	4x8
1 LEVEL BEARING 6"	6x12	6x10	6x6
2 LEVEL BEARING 4"	4x16	4x12	4x8
2 LEVEL BEARING 6"	6x14	6x10	6x8
3 LEVEL BEARING 4"	–	4x14	4x10
3 LEVEL BEARING 6"	6x14	6x12	6x8
4 LEVEL BEARING 4"	–	4x14	4x10
4 LEVEL BEARING 6"	6x14	6x12	6x10

X LEVEL BEARING: INDICATES "X" # OF LEVELS SUPPORTED BY THE HEADER
4": INDICATES 4" STUD WALL
6": INDICATES 6" STUD WALL

NOTES:

1. SEE PLANS FOR SPECIAL FRAMING REQUIREMENTS. PLATFORM FRAMING SHALL BE PROVIDED UNLESS BALLOON FRAMING IS EXPLICITLY CALLED OUT ON THE PLANS
2. HEADER SIZES SHOWN IN SCHEDULES ABOVE ARE MINIMUM HEADER SIZES, SEE PLANS FOR WHERE LARGER HEADER SIZES ARE REQUIRED.
3. STUD HEIGHT LIMITATIONS:
   2x4 AT 16" O.C. NOT TO EXCEED 9 FEET.
   3x4 AT 16" O.C. NOT TO EXCEED 10 1/2 FEET.

   IF CALLED OUT STUD SIZES AT ANY GIVEN FLOOR LEVEL EXCEED THESE LIMITATIONS, CONTACT STRUCTURAL ENGINEER FOR CLARIFICATION.
4. AT EXTERIOR WALLS WHERE OPENING WIDTH > 3'-6", PROVIDE DOUBLE KING STUD EACH END OF HEADER. FOR ADDITIONAL DETAIL SEE "TYP. STUD WALL OPENING FRAMING".
5. TRIMMERS TO BE SAME SIZE AS STUDS AS GIVEN FLOOR LEVEL UNLESS NOTED OTHERWISE. SEE PLANS FOR POSTS WHERE REQUIRED INSTEAD OF TRIMMERS.
6. NAIL TRIMMERS TOGETHER W/16d NAILS AT 12" O.C. STAGGERED EACH FACE.
7. SEE PLANS FOR SHEAR WALL FRAMING REQUIREMENTS.
8. FOR ACTUAL WALL WIDTH, SEE ARCHITECTURAL DRAWINGS.
9. FOR NON-BEARING STUD WALLS, USE 2x4 STUD AT 16" O.C. U.N.O.
10. ALIGN ROOF & FLOOR FRAMING WITH STUDS AS SHOWN.

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STAMP: NICHOLAS R. MARRS — No. S 7179 — REGISTERED PROFESSIONAL ENGINEER — STRUCTURAL — STATE OF CALIFORNIA
SIGN DATE 02/17/2025

DATE	ISSUE / REVISION
03-26-24	PLAN CHECK SET
02-17-25	⚠P.C. RESUBMITTAL

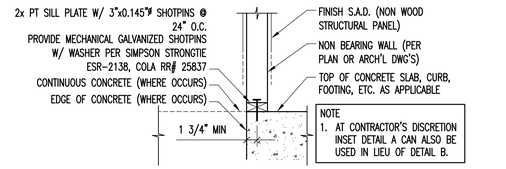
County of San Bernardino BUILDING AND SAFETY
THE PLANS AND DETAILS HAVE BEEN **REVIEWED FOR CODE COMPLIANCE**
THE REVIEW OF THESE PLANS DOES NOT CONSTITUTE TO BE A PERMIT NOR AN APPROVAL OF ANY VIOLATION OF ANY CODE OR ORDINANCE OF THE COUNTY
By
Date 03/05/2025
THESE PLANS SHALL BE ON THE JOB SITE AVAILABLE FOR REQUIRED INSPECTIONS

SINGLE-FAMILY DWELLING REMODEL

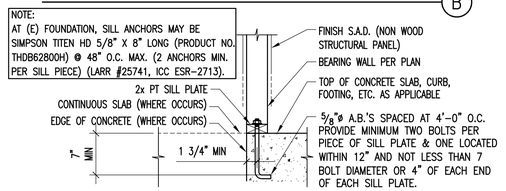
69561 PAPOOSE TRAIL
TWENTYNINE PALMS, CA 92277

SHEET TITLE: TYPICAL DETAILS

JOB NO. 24102
DATE 02/17/2025
SCALE As Indicated
SHEET NO. S1.01



NON BEARING WALL (B)(1)



BEARING WALL (A)

BASE DETAIL @ NON SHEAT'D WALL 10/-

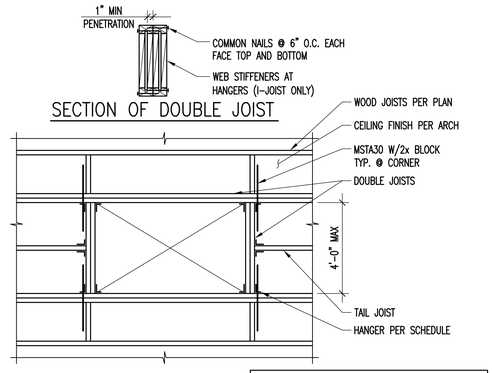
SCALE: N.T.S.

NAILING SCHEDULE (1)	
CONNECTION	NAILING
POST TO PIER PAD, TOE NAIL	3–16d or 4–8d
GIRDER TO POST, TOE NAIL	3–16d or 4–8d
JOIST TO SILL OR GIRDER, TOE NAIL	3–8d
BRIDGING TO JOIST, TOE NAIL EACH END	2–8d
JOIST TO BLOCKING, END NAIL	16d T&B OF EACH JOIST
RIM JOIST TO JOISTS, END NAIL	16d T&B OF EACH JOIST
RIM JOIST TO SILL, TOE NAIL	16d @ 16" O.C.
FLOOR JOIST LAP @ BEARING, FACE NAIL	2–16d
SOLE PLATE TO JOIST OR BLOCKING, FACE NAIL	16d @ 16" O.C.
TOP PLATE TO STUD, END NAIL	2–16d
STUD TO SOLE PLATE	2–16d END NAIL, OR 4–8d TOE NAIL
DOUBLED STUDS, FACE NAIL	16d @ 24" O.C.
DOUBLE TOP PLATES, FACE NAIL	8–16d
DOUBLE TOP PLATES, LAP SPLICE	16d @ 16" O.C.
TOP PLATES, LAPS AND INTERSECTIONS, FACE NAIL	2–16d
BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE, TOENAIL	3–8d
RIM JOIST TO TOP PLATE, TOENAIL	8d @ 16" O.C.
CONTINUOUS HEADER, TWO PIECES	16d @ 16" O.C. ALONG EACH EDGE
CEILING JOIST TO PLATE, TOE NAIL	3–8d
CONTINUOUS HEADER TO STUD, TOE NAIL	4–8d
CEILING JOISTS, LAP OVER PARTITIONS, FACE NAIL	3–16d
CEILING JOIST TO PARALLEL RAFTER, FACE NAIL	3–16d
RAFTER TO RIDGE	3–8d
RAFTER TIES, 2" LUMBER, FACE NAIL	3–16d
RAFTER TIES, 1" LUMBER, FACE NAIL	5–8d
RAFTER TO PLATE, TOE NAIL	3–8d
1"X4" MIN. BRACE TO EACH STUD AND PLATE, FACE NAIL	2–8d
BUILT-UP CORNER STUDS	16d @ 24" O.C.

NOTES:

1. ALTERNATIVELY, PROVIDE NAILING PER "FASTENING SCHEDULE" PER LATEST EDITIONOF CALIFORNIA BUILDING CODE

SCHEDULE (B)



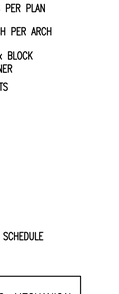
SECTION OF DOUBLE JOIST

PLAN VIEW

NOTE:
SEE ARCHITECTURAL, PLUMBING, MECHANICAL AND ELECTRICAL DRAWINGS FOR SIZE AND LOCATION OF OPENINGS

TYP. ATTIC CEILING OPENING 11/-

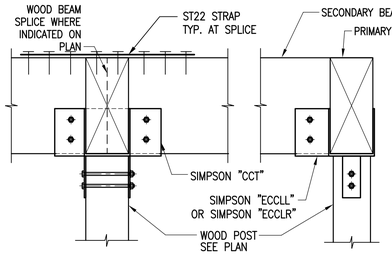
SCALE: N.T.S.



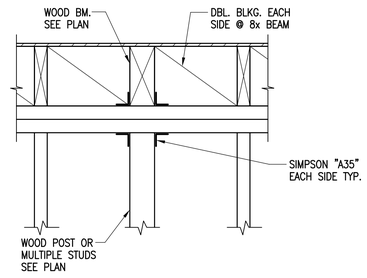
TOE NAIL INSTALLATION (A)

NAILING SCHEDULE 8/-

SCALE: N.T.S.



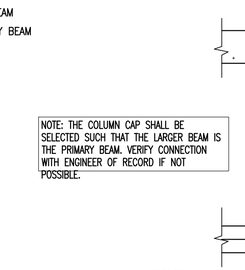
ISOLATED POST (A)



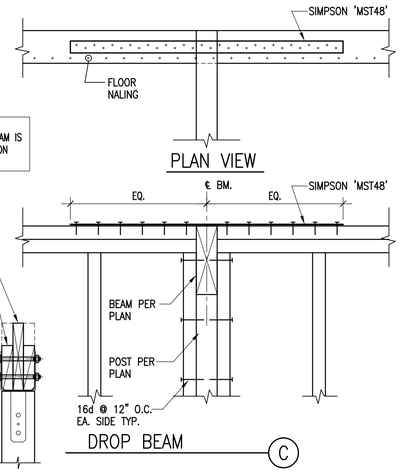
POST WITHIN WALL (B)

TYP. BEAM TO POST CONN. DETAIL 2/-

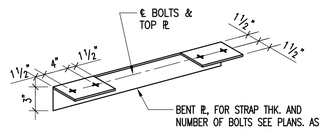
SCALE: N.T.S.

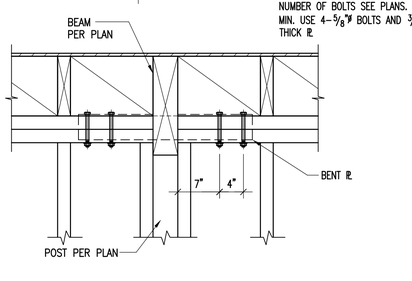


BEAM WITH DIFFERENT WIDTH (E)

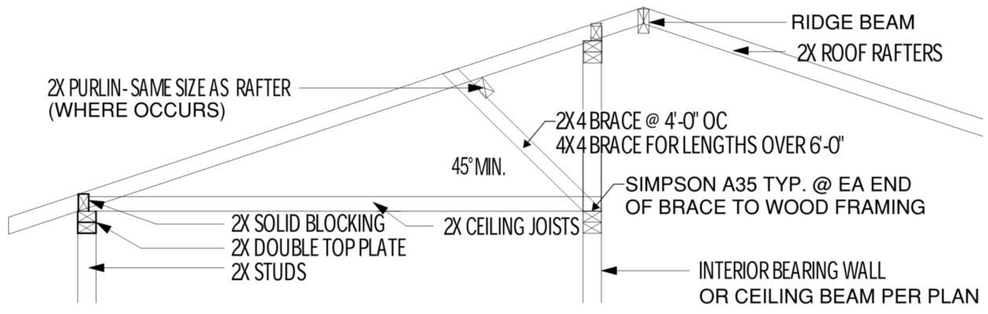


DROP BEAM (C)





DROP BEAM (D)



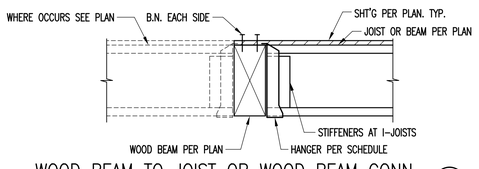
SECTION AT WALL BRACES 9/-

SCALE: N.T.S.

HANGER SCHEDULE – MANUFACTURER: SIMPSON STRONGTIE			
TOP MOUNT HANGER (SEE NOTE 1)		FACE MOUNT HANGER (SEE NOTE 1)	
JOIST/BEAM SIZE	HANGER TYPE	JOIST/BEAM SIZE	HANGER TYPE
ALL SAWN LUMBER U.N.O.	SIMPSON HUTF ESR-2553 COLA RR25800	ALL SAWN LUMBER U.N.O.	SIMPSON HU ESR-2549 COLA RR25807
2x6 THRU 2x16	SIMPSON LB ESR-2553 COLA RR25800	2x6 THRU 2x10	SIMPSON LUS ESR-2549 COLA RR25807
2–2x6 THRU 2–2x14	SIMPSON HUSTF ESR-2553 COLA RR25800	2–2x6 THRU 2–2x10	SIMPSON LUS ESR-2549 COLA RR25807
4x6 THRU 4x14	SIMPSON HUSTF ESR-2553 COLA RR25800	4x6 THRU 4x16	SIMPSON HUS ESR-2552 COLA RR25801
ALL I–JOIST U.N.O.	SIMPSON LBV ESR-2615 COLA RR25803	ALL I–JOIST U.N.O.	SIMPSON MIU ESR-2552 COLA RR25801
SINGLE I–JOIST TO WOOD BEAM 9¼ THRU 16 DEEP	SIMPSON ITS ESR-2615 COLA RR25803	SINGLE I–JOIST TO WOOD BEAM 9¼ THRU 16 DEEP	SIMPSON IUS ESR-2552 COLA RR25801
ALL PSL/LVL/LSL BEAMS U.N.O.	SIMPSON HGLTV ESR-2615 COLA RR25803	ALL PSL/LVL/LSL BEAMS U.N.O.	SIMPSON HGU ESR-2552 COLA RR25801
3½" AND 5¼" PSL/LVL/LSL UP TO 11⅞" DEEP	SIMPSON GLTV ESR-2615 COLA RR25803	3½" AND 5¼" PSL/LVL/LSL UP TO 11⅞" DEEP	SIMPSON MGU ESR-2552 COLA RR25801
ALL GLULAM BEAMS U.N.O.	SIMPSON EG ESR-2615 COLA RR25803	ALL GLULAM BEAMS U.N.O.	SIMPSON HHGU ESR-2552 COLA RR25801

NOTES:
1. PROVIDE TOP MOUNT HANGERS. FACE MOUNT HANGERS SHALL BE ALLOWED ONLY WHERE SPECIFICALLY INDICATED ON THE PLANS OR DETAILS
2. PROVIDE SKEWED, SLOPED HANGERS AS REQ'D
3. PROVIDE OFFSET OR CONCEALED FLANGE HANGERS AT EDGE CONDITIONS AS NEEDED

HANGER SCHEDULE (B)



WOOD BEAM TO JOIST OR WOOD BEAM CONN. (A)

TYP. BEAM/JOIST CONNECTIONS 3/-

SCALE: N.T.S.

OWNER:
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STAMP

SIGN DATE 02/17/2025

DATE	ISSUE / REVISION
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02-17-25	⚠P.C. RESUBMITTAL

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SINGLE-FAMILY DWELLING REMODEL

69561 PAPOOSE TRAIL
TWENTYNINE PALMS, CA 92277

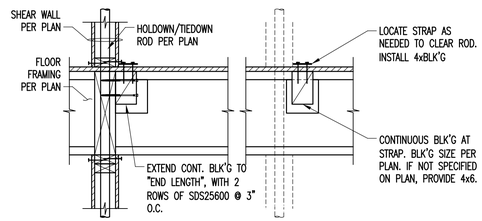
SHEET TITLE
TYPICAL DETAILS

JOB NO. 24102

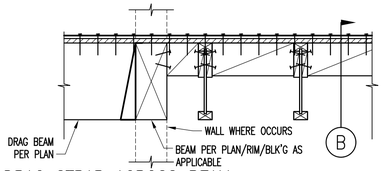
DATE 02/17/2025

SCALE As Indicated

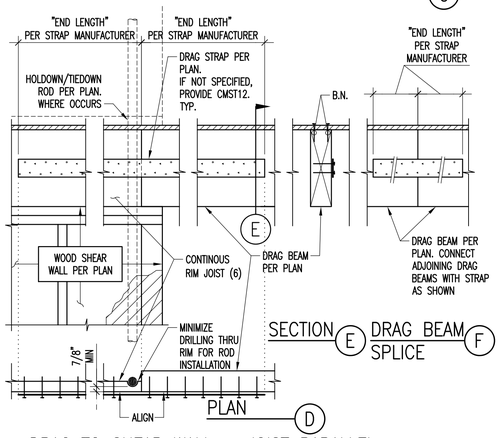
SHEET NO. S1.02



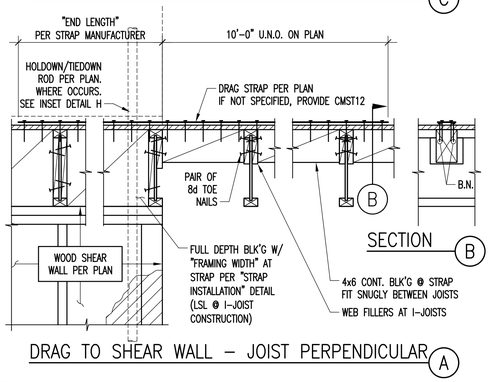
DRAG STRAP AND TENSION RODS (H)



DRAG STRAP ACROSS BEAM (G)



DRAG TO SHEAR WALL – JOIST PARALLEL (C)



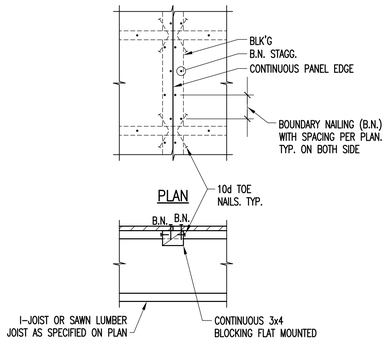
DRAG TO SHEAR WALL – JOIST PERPENDICULAR (A)

NOTES:

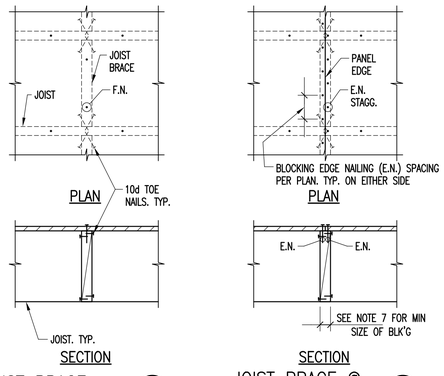
1. THIS DETAIL ADDRESSES CONSTRUCTION OF "DRAG" LINES AND THEIR CONNECTION TO THE SHEAR WALLS. DRAG BEAMS AND STRAPS ARE IDENTIFIED ON PLANS WITH THE WORD "DRAG".
2. FOR ADDITIONAL REQUIREMENTS OF STRAPS SEE "STRAP INSTALLATION" TYPICAL DETAIL.
3. PROVIDE CMST12 STRAPS, UNLESS OTHER SIZES ARE SPECIFIED ON PLANS
4. DETAILS APPLIES TO BOTH I–JOIST AND SAWN LUMBER CONSTRUCTION.
5. CUTTING, NOTCHING, OR DRILLING HOLE IN STRAPS FOR ROD INSTALLATION SHALL NOT BE PERMITTED. INSTEAD, PROVIDE ADDITIONAL BLK'G TO RELOCATE STRAP AND ALLOW FOR PROPER INSTALLATION. SEE INSET DETAIL "G".
6. RIM JOIST ABOVE SHEAR WALL RECEIVING STRAP SHALL NOT BE SPLICED WITHIN SHEAR WALL LENGTH

DRAGS & CONN. TO SHEAR WALLS (12)

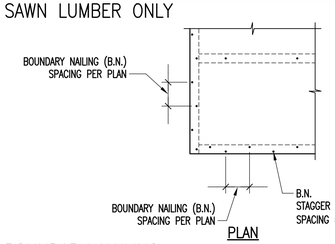
SCALE: N.T.S.



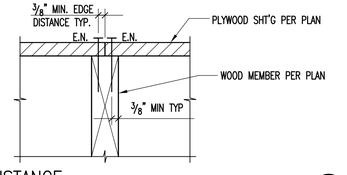
ADJOINING PANEL EDGES – NAILING TO CONT. BLK'G
SAWN LUMBER AND I–JOISTS (D)



JOIST BRACING – FULL DEPTH BLK'G
SAWN LUMBER ONLY (E)

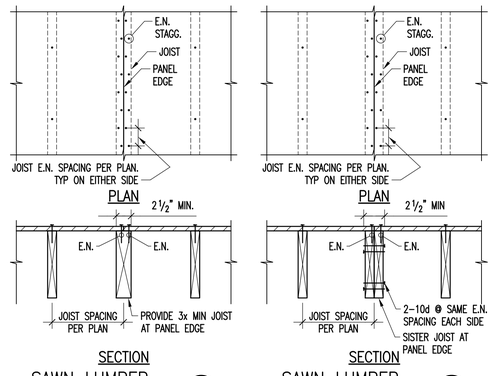


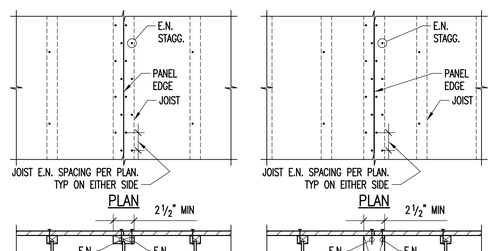
BOUNDARY NAILING
SAWN LUMBER AND I–JOISTS (F)



NAILING EDGE DISTANCE (G)

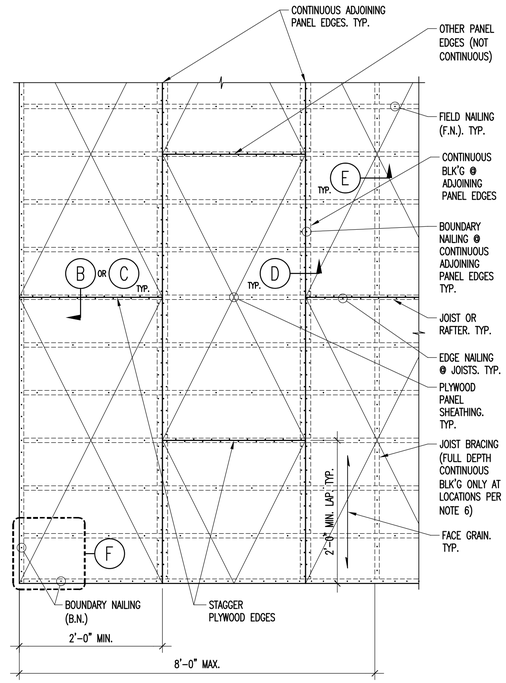
ADJOINING PANEL EDGES – NAILING TO JOISTS
NAIL SPACING GREATER THAN 3" (B)





NOTE:
DETAILS C1 AND C2 CAN BE INTERCHANGEABLY USED AT I–JOISTS ASSEMBLY. DETAILS C3 AND C4 CAN INTERCHANGEABLY BE USED AT SAWN LUMBER ASSEMBLIES

ADJOINING PANEL EDGES – NAILING TO JOISTS
NAIL SPACING = 3" OR LESS (C)



NOTES:

1. FOR SHEATHING THICKNESS AND GRADE SEE PLANS
2. FOR NAIL SIZE AND SPACING OF BOUNDARY NAILING (B.N.), EDGE NAILING (E.N.) AT JOISTS, EDGE NAILING AT BLOCK'G, SEE PLANS. FIELD NAILING (F.N.) SHALL ALWAYS BE @ 12" O.C.
3. PROVIDE MIN. 3/8" NAIL EDGE DISTANCE FROM PLYWOOD AND FRAMING MEMBERS. SEE INSET DETAIL "G"
4. FOR JOIST OR RAFTER SIZE AND SPACING SEE PLANS. PROVIDE SAWN LUMBER OR I–JOISTS MEMBERS AS SPECIFIED ON PLANS
5. BLOCK ALL PANEL EDGES AS SHOWN UNLESS OTHERWISE SPECIFIED EXPRESSLY ON THE PLANS. TONGUE AND GROOVE CANNOT BE USED AS SUBSTITUTION OF PANEL EDGES BLOCKING. WHERE BLOCKING IS NOT REQUIRED, TONGUE AND GROOVE MUST BE PROVIDED. WHERE BLOCKING IS REQUIRED, TONGUE AND GROOVE MAY BE OMITTED.
6. FULL DEPTH CONTINUOUS JOIST BRACING: AT SAWN LUMBER JOISTS WITH NOMINAL DEPTH–TO–THICKNESS RATIO EXCEEDING 6:1 PROVIDE FULL DEPTH CONTINUOUS JOIST BRACING MEMBERS @ 8'–0" MAX SPACING AS INDICATED ON THE PLAN ABOVE. AT ENGINEERED LUMBER JOISTS PROVIDE CONTINUOUS BRACING MEMBERS ONLY IF SPECIFIED PER MANUFACTURER'S RECOMMENDATIONS
7. (SAWN LUMBER ONLY) JOIST BRACING MEMBERS SHALL CONSISTS OF FULL DEPTH BLOCKING AS SHOWN PER INSET DETAIL "E". AS A MINIMUM PROVIDE 2x MEMBERS. IT SHALL BE PERMITTED TO USE JOIST BRACING BLOCKING AS PANEL EDGE BLOCKING PER INSET DETAIL "E2", PROVIDED THAT THE NAILED FACE OF FULL DEPTH BLOCKING MEETS THE LIMITATIONS SET FORTH ON NOTE 8.
8. THE MIN WIDTH OF NAILED FACE OF FRAMING AND BLOCKING AT ADJOINING PANEL EDGES SHALL BE AS FOLLOWS:
   - 1½" ACTUAL (2x NOMINAL) IF E.N. OR B.N. SPACING IS GREATER THAN 3". SEE INSET DETAILS "B", "D", AND "E2".
   - 2½" ACTUAL (3x NOMINAL) IF E.N. OR B.N. SPACING IS 3" OR LESS. SEE INSET DETAILS "C", "D", AND "E2".
9. ALL PLYWOOD END JOINTS SHALL BE STAGGERED 2'–0" MIN AS INDICATED
10. LONG DIMENSION OF PLYWOOD SHEATHING SHALL BE LAID PERPENDICULAR TO JOIST AS INDICATED
11. NOT USED
12. DIAPHRAGM NAILING TO BE OBSERVED BY STRUCTURAL ENGINEER BEFORE COVERING
13. PLYWOOD SPANS SHALL CONFORM WITH TABLE 2304.7 OF THE CBC

TYP. SHEATHING ASSEMBLY – FLOOR, DECK, AND ROOF (3)

SCALE: N.T.S.

TYP. LAYOUT AND NOTES (A)

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RME Job no. 24102

STAMP
REGISTERED PROFESSIONAL ENGINEER — NICHOLAS R. MARRS — No. S 7179 — STRUCTURAL — STATE OF CALIFORNIA
SIGN DATE 02/17/2025

DATE	ISSUE / REVISION
03–26–24	PLAN CHECK SET
02–17–25	⚠P.C. RESUBMITTAL

County of San Bernardino BUILDING AND SAFETY
THE PLANS AND DETAILS SHOWN ON THIS SET ARE
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FOR CODE COMPLIANCE
THE REVIEW OF THESE PLANS AND DETAILS DOES NOT CONSTITUTE A PERMIT NOR AN APPROVAL OF ANY VIOLATION OF ANY CODE OF ORDINANCE OF THIS COUNTY
By _____
Date 03/05/2025
THESE PLANS SHALL BE ON THE JOB SITE AT ALL REQUESTED INSPECTIONS

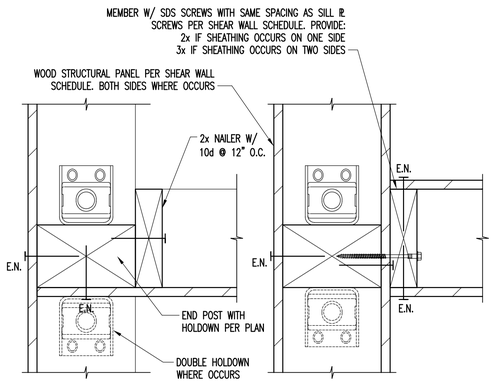
SINGLE-FAMILY DWELLING REMODEL

69561 PAPOOSE TRAIL
TWENTYNINE PALMS, CA 92277

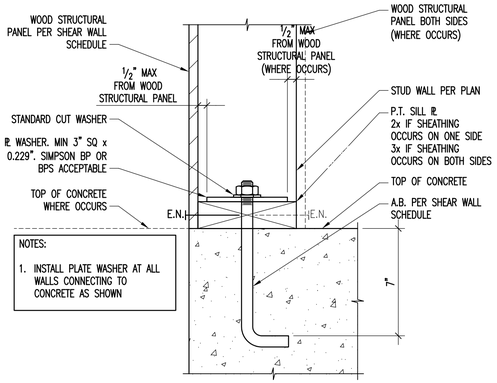
SHEET TITLE
TYPICAL DETAILS

JOB NO. 24102
DATE 02/17/2025
SCALE As Indicated

SHEET NO.
S1.03
1

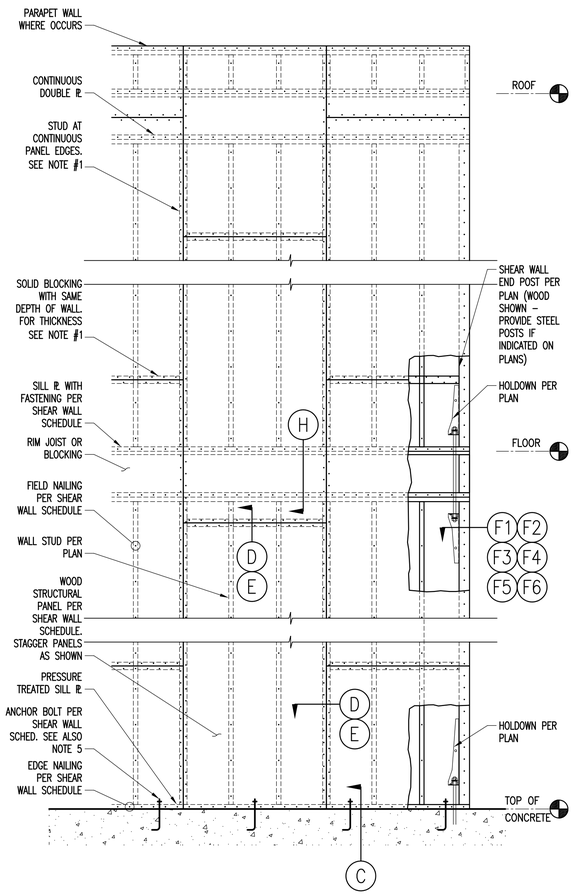


END CONDITION INTERSECTION (F3)



END CONDITION INTERSECTION (F4)

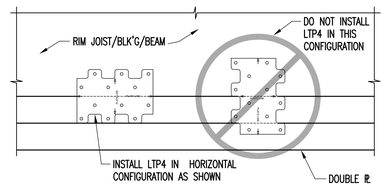
SILL PLATE CONNECTION TO CONCRETE (C)



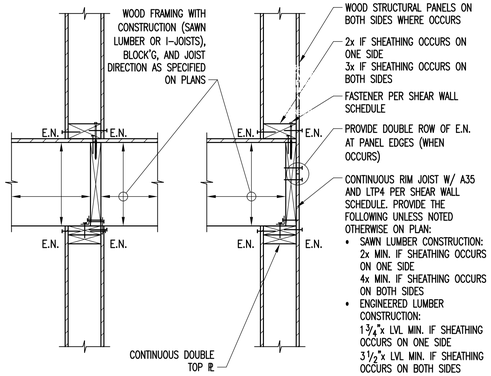
TYPICAL SHEAR WALL ELEVATION AND NOTES (A)

SHEAR WALL SCHEDULE NOTES:

1. FOR SHEAR WALL WITH SHEAR CAPACITY PER SCHEDULE EXCEEDING 350 #/FT FRAMING MEMBERS AT ADJOINING PANEL EDGES INCLUDING WALL STUDS AND BLOCKING SHALL BE 3" MIN. UNLESS THICKER MEMBERS ARE SPECIFIED ON PLANS. PROVIDE STAGGERED NAILING AT ALL PANEL EDGES.
2. WHERE PANELS ARE APPLIED ON BOTH FACES OF WALL STUDS ADJACENT PANEL EDGES SHALL BE OFFSET TO FALL ON DIFFERENT FRAMING MEMBERS. SEE INSET DETAIL E. ALSO SILL PLATE SHALL BE A 3x MEMBER PER INSET DETAILS C AND H.
3. NAILS SHALL BE PLACED NOT LESS THAN $\frac{3}{8}$ INCH FROM PANEL EDGES AT 2x MEMBERS ($\frac{1}{2}$ INCH AT 3x MEMBERS) & $\frac{3}{8}$ INCH FROM THE EDGE OF THE CONNECTING MEMBERS. ALL SHEAR WALL NAILING SHALL UTILIZE COMMON NAILS OR GALVANIZED BOX.
4. FOR HOLD–DOWNS TYPE AT THE END OF THE SHEAR WALL SEE PLANS AND HOLDOWN TYPICAL DETAILS AND SCHEDULE.
5. FOR ALL WALLS, PROVIDE MINIMUM TWO ANCHOR BOLTS PER PIECE OF SILL PLATE & ONE LOCATED WITHIN 12" AND NOT LESS THAN 7 BOLT DIAMETER OR 4$\frac{3}{8}$" OF EACH END OF EACH SILL PLATE
6. WOOD SCREWS SHALL BE SIMPSON SDS25600 FOR SILL ℄ CONNECTED TO WOOD RIM JOIST OR BLOCKING. PROVIDE SDS25412 FOR SILL PLATE CONNECTED TO TOP NAILER IN STEEL BEAMS
7. AT (E) FOUNDATION, SILL ANCHORS MAY BE UFP W/ 2–$1\frac{1}{2}$"ø TITEN HD SCREW ANCHORS W/ 5" MIN. EMBED AND W/ 5–$1\frac{1}{4}$"ø x 3" LONG SDS SCREWS TO SILL ℄. SPACING SHALL BE AS SAME AS ANCHOR BOLT SPACING PER SHEAR WALL SCHED. (LARR #25726, ICC ESR–2616 FOR UFP; LARR #25741, ICC ESR–2713 FOR TITEN HD)
8. WHEN LTP4 ARE USED, INSTALL LTP4 IN HORIZONTAL CONFIGURATION AS SHOWN ON INSET DETAIL A1
9. OSB OR PLYWOOD WOOD STRUCTURAL PANELS MAY BE USED FOR THE SHEAR WALL CONSTRUCTION, EXCEPT THAT OSB SHALL NOT BE PERMITTED IN SHEAR WALL CONSTRUCTION LABELED AS FIRE RETARDANT TREATED BY THE ARCHITECT. FOR FIRE RETARDANT TREATED SHEAR WALLS THE UNIT SHEAR CAPACITY IS REDUCED TO 84% OF THE ALLOWABLE VALUE PER THE CODE REPORTS FOR THE SPECIFIED FIRE TREATMENT PRODUCT. SEE TIMBER GENERAL NOTES FOR ADDITIONAL INFORMATION.

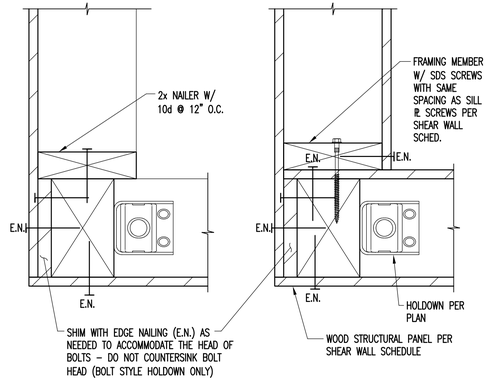


LTP 4 INSTALL. – ELEVATION VIEW (A1)

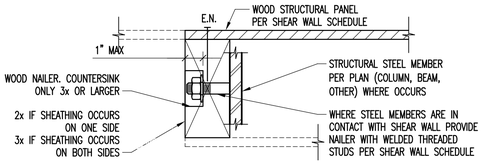


END CONDITION DOUBLE HOLDOWN (F5)

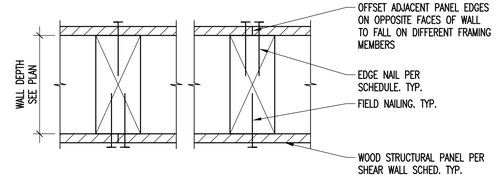
END CONDITION SINGLE HOLDOWN (F6)



FRAMING AT ADJACENT PANEL EDGES (D)



STEEL MEMBER IN CONTACT WITH SHEAR WALL (G)



FRAMING AT DOUBLE SIDED WALL (E)

SHEAR WALL TO FLOOR FRAMING (H)

END CONDITION CORNER (F1)

END CONDITION CORNER (F2)

SHEAR WALL SCHEDULE (2022 CBC – 2015 AF&PA SDPWS – TABLE 4.3A)

MARK	WOOD STRUCTURAL PANELS (8) (5–PLY PLYWOOD OR OSB U.N.O. ON THE PLANS)	NUMBER OF SIDES	NAILING		SHEAR CLIPS (9) (A35 OR LTP4)	SILL ℄ ATTACHMENT U.N.O.		WELDED THREADED STUDS AT WOOD NAILERS (WHERE OCCURS)	ALLOWABLE SHEAR (PLF)	ALLOW. SHEAR AT FIRE TREATED WALLS (PLF) (9)
			EDGE (E.N.)	FIELD (F.N.)		FRAMED FLOOR (4)	CONCRETE			
1	15/32" APA RATED SHEATHING (PI 32/16)	1	8d @ 6" O.C.	8d @ 12" O.C.	1 @ 16" O.C.	SDS @ 16" O.C.	5/8"ø A.B. @ 48" O.C.	5/8"ø @ 24" O.C.	260	218
2	15/32" APA RATED SHEATHING (PI 32/16)	1	8d @ 4" O.C.	8d @ 12" O.C.	1 @ 16" O.C.	SDS @ 12" O.C.	5/8"ø A.B. @ 48" O.C.	5/8"ø @ 24" O.C.	350	294
3	15/32" APA RATED STRUCT–I SHEATHING (PI 32/16)	1	10d @ 4" O.C.	10d @ 12" O.C.	1 @ 16" O.C.	SDS @ 8" O.C.	5/8"ø A.B. @ 32" O.C.	5/8"ø @ 24" O.C.	510	428
4	15/32" APA RATED STRUCT–I SHEATHING (PI 32/16)	1	10d @ 3" O.C.	10d @ 12" O.C.	1 @ 12" O.C.	SDS @ 6" O.C.	5/8"ø A.B. @ 24" O.C.	5/8"ø @ 24" O.C.	665	559
5	15/32" APA RATED STRUCT–I SHEATHING (PI 32/16)	1	10d @ 2" O.C.	10d @ 12" O.C.	1 @ 8" O.C.	SDS @ 4" O.C.	5/8"ø A.B. @ 20" O.C.	5/8"ø @ 24" O.C.	870	731
6	15/32" APA RATED STRUCT–I SHEATHING (PI 32/16)	2	10d @ 3" O.C.	10d @ 12" O.C.	1 @ 6" O.C. OR 2 @ 12"	SDS @ 3" O.C.	5/8"ø A.B. @ 16" O.C.	5/8"ø @ 16" O.C.	1330	1117
7	15/32" APA RATED STRUCT–I SHEATHING (PI 32/16)	2	10d @ 2" O.C.	10d @ 12" O.C.	2 @ 8" O.C.	2 ROWS SDS @ 4" O.C.	5/8"ø A.B. @ 12" O.C.	5/8"ø @ 12" O.C.	1740	1462

TYPICAL SHEAR WALL SCHEDULE (B)

SHEAR WALL ELEVATION SCHEDULE AND DETAILS

SCALE: N.T.S.

3 / –

OWNER:
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ENGINEER:
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t: 310/ 803 9440
RME Job no. 24102

STAMP

REGISTERED PROFESSIONAL ENGINEER — NICHOLAS R. MARRS — No. S 7179 — STRUCTURAL — STATE OF CALIFORNIA

SIGN DATE 02/17/2025

DATE	ISSUE / REVISION
03–26–24	PLAN CHECK SET
02–17–25	⚠P.C. RESUBMITTAL

County of San Bernardino BUILDING AND SAFETY
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SINGLE-FAMILY DWELLING REMODEL

69561 PAPOOSE TRAIL
TWENTYNINE PALMS,
CA 92277

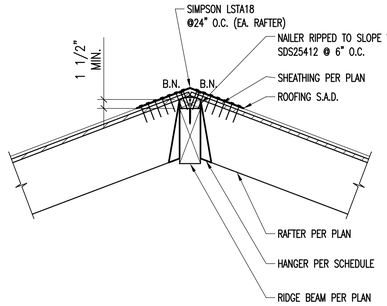
SHEET TITLE
TYPICAL DETAILS

JOB NO. 24102

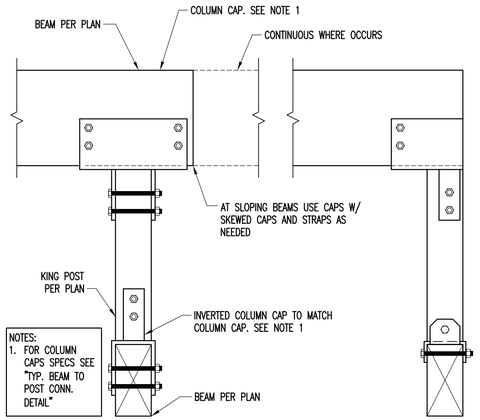
DATE 02/17/2025

SCALE As Indicated

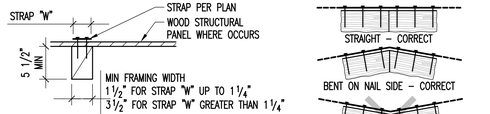
SHEET NO. S1.04 / 1



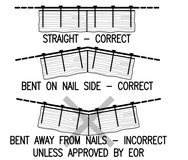
RIDGE DETAIL (10 / -)
SCALE: N.T.S.



TYP. KING POST DETAIL (7 / -)
SCALE: N.T.S.



MIN FRAMING SIZE (A)

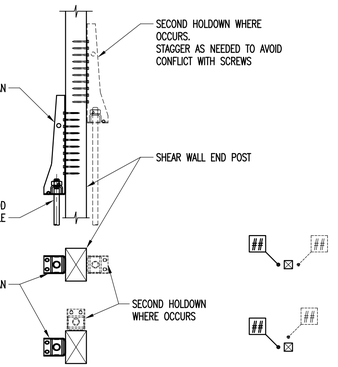


STRAP CONFIGURATION (B)

NOTES:

1. THIS DETAIL ADDRESSES INSTALLATION OF STRAPS AND APPLIES TO BOTH SAWN AND STRUCTURAL COMPOSITE LUMBER
2. STRAPS SIZE AND LENGTH ARE AS SPECIFIED ON FLOOR PLANS OR ELSEWHERE IN THIS DRAWING SET.
3. STRAPS ARE PER SIMPSON STRONGTIE (MANUFACTURER). ESR2105, COLARR#25713, COLARR#25910
4. STRAPS SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS. INSTALL ALL FASTENERS SPECIFIED BY MANUFACTURER. WHEN MULTIPLE OPTIONAL FASTENERS ARE SPECIFIED BY MANUFACTURER, PROVIDE LARGEST FASTENER, OR PROVIDE "END LENGTH" CONSISTENT WITH FASTENER UTILIZED
5. COILED STRAPS SHALL DEVELOP AS A MINIMUM "END LENGTH" AS SPECIFIED BY MANUFACTURER. LONGER STRAPS SHALL BE SPECIFIED WHEN SPECIFIED ON FLOOR PLANS OR ELSEWHERE IN THIS DRAWING SET.
6. FASTENERS SHALL ALWAYS BE DRIVEN INTO SOLID LUMBER WITH MIN SIZES PER INSET DETAIL "A". PROVIDE ADDITIONAL FRAMING OR BLOCKING AS NEEDED IF NOT SPECIFIED ON PLANS. FASTENERS THRU WOOD STRUCTURAL PANELS ONLY SHALL NOT BE PERMITTED.

STRAP INSTALLATION (4 / -)
SCALE: N.T.S.



CONSTRUCTION (A)

PLAN SYMBOL (B)

HOLDOWN WITH SCREWS (1 / -)
SCALE: N.T.S.

DETAIL (11 / -)
SCALE: N.T.S.

BASE DETAIL @ SHEATHED WALL OTHER THAN SHEAR WALLS (8 / -)
SCALE: N.T.S.

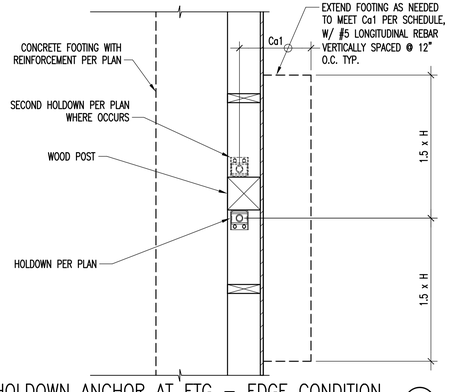
MARK (PER PLAN)	GRADE 36 ROD DIAM. "Da"	℄ WASHER T (IN)	℄ WASHER SIDE (IN)	HOLDOWN (1)	FASTENER	MIN POST SIZE (2)	CAPACITY	CAPACITY WITH 25% REDUCTION PER CITY OF LA
2	5/8"	3/8	1 1/2	HDU2	6-SDS25212	4x4	3,075 LBS	2,306 LBS
4	5/8"	3/8	1 1/2	HDU4	10-SDS25212	4x4	4,565 LBS	3,424 LBS
5	5/8"	3/8	1 1/2	HDU5	14-SDS25212	4x6	5,670 LBS	4,253 LBS
8	7/8"	3/8	2	HDU8	20-SDS25212	4x8 OR 6x6	7,890 LBS	5,918 LBS
11	1"	3/8	2	HDU11	30-SDS25212	6x6	9,535 LBS	7,151 LBS
14	1"	3/8	2	HDU14	36-SDS25212	6x6	14,390 LBS	10,793 LBS
12	1 1/8"	3/8	2 1/2	HD12	4-1"ø BOLTS	6x6	15,510 LBS	11,633 LBS
19	1 1/4"	3/8	3	HD19	5-1"ø BOLTS	4x8 OR 6x8	19,360 LBS	14,520 LBS
14 14	2-1"	3/8	2	DOUBLE HDU14	2 x 36-SDS25212	6x6	28,780 LBS	21,585 LBS

HOLDOWN SCHEDULE (A)

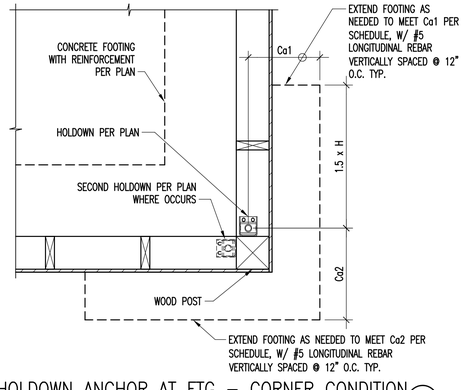
NOTES:

1. HDU SCREW-STYLE HOLDOWNS ARE PER LARR #25720, ICC ESR 2330. BOLT-STYLE HOLD DOWNS PER LARR #25828, IAPMO ESR 0143
2. POST SIZE SHOWN ON THE SCHEDULE ARE MINIMUM SIZES. IF LARGER SIZES ARE SPECIFIED ON THE PLANS THE SIZES SHOWN ON PLANS SHALL BE USED
3. ROD SHALL BE A36 ALL THREADED RODS
4. NUT AT HOLDOWN THREADED ROD SHOULD BE FINGER-TIGHT PLUS 1/2 TURN WITH A HAND WRENCH. DO NOT OVER-TORQUE THE NUT. DO NOT USE IMPACT WRENCHES.
5. HOLDOWN HARDWARE MUST BE SECURED IN PLACE PRIOR TO FOUNDATION INSPECTION/OBSERVATION
6. HOLDOWNS MUST BE INSPECTED/OBSERVED BEFORE COVERING WITH SHEATHING.

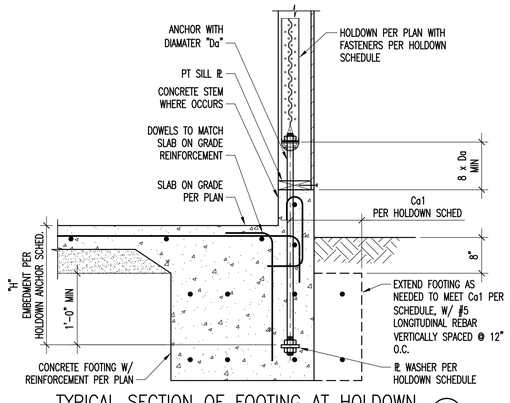
HOLDOWN SCHEDULE AND NOTES (2 / -)
SCALE: N.T.S.



HOLDOWN ANCHOR AT FTG – EDGE CONDITION (D)



HOLDOWN ANCHOR AT FTG – CORNER CONDITION (C)



TYPICAL SECTION OF FOOTING AT HOLDOWN (B)

MARK (PER PLAN)	GRADE 36 ROD DIAM. "Da"	℄ WASHER T (IN)	℄ WASHER SIDE (IN)	HOLDOWN ANCHOR IN CONCRETE FOOTING INSTALL.	H MIN	Ca1 MIN	Ca2 MIN	ANCHOR REINF. "Ar"
2	5/8"	3/8	1 1/2	EDGE/FIELD	12"	4"	NA	NR
				CORNER	12"	4"	4"	NR
4	5/8"	3/8	1 1/2	EDGE/FIELD	12"	4"	NA	NR
				CORNER	12"	4"	4"	NR
5	5/8"	3/8	1 1/2	EDGE/FIELD	12"	4"	NA	NR
				CORNER	12"	4"	4"	NR
8	7/8"	3/8	2	EDGE/FIELD	16"	4"	NA	NR
				CORNER	20"	4"	8"	NR
11	1"	3/8	2	EDGE/FIELD	18"	4"	NA	NR
				CORNER	24"	4"	7"	NR
14	1"	3/8	2	EDGE/FIELD	18"	4"	NA	NR
				CORNER	24"	4"	7"	NR
12	1 1/8"	3/8	2 1/2	EDGE/FIELD	20"	4"	NA	NR
				CORNER	24"	12"	12"	NR
19	1 1/4"	3/8	3	EDGE/FIELD	24"	4"	NA	NR
				CORNER	24"	15"	15"	NR
14 14	2-1"	3/8	2	EDGE/FIELD	24"	12"	NA	NR
				CORNER	24"	20"	20"	NR

SCHEDULE
HOLDOWN ANCHOR IN CONCRETE FOOTING (A)

HOLDOWN ANCHOR IN CONCRETE FOOTING (3 / -)
SCALE: N.T.S.

OWNER:
BOGDAN SEVASTIANOV
ZOIA LARINA
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ENGINEER:
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Torrance, CA 90503
t: 310/ 803 9440
RME Job no. 24102

STAMP
REGISTERED PROFESSIONAL ENGINEER
NICHOLAS R. MARRS
No. S 7179
STRUCTURAL
STATE OF CALIFORNIA
SIGN DATE 02/17/2025

DATE	ISSUE / REVISION
03-26-24	PLAN CHECK SET
02-17-25	⚠P.C. RESUBMITTAL

County of San Bernardino BUILDING AND SAFETY
THE PLANS AND DETAILS HEREON ARE
REVIEWED
FOR CODE COMPLIANCE
THE ISSUE OF THESE PLANS DOES NOT CONSTITUTE A PERMIT AND DOES NOT AUTHORIZE ANY VIOLATION OF ANY CODE OR LAW OF THIS COUNTY
By
Date 03/05/2025
THESE PLANS SHALL BE ON THE JOB SITE FOR REQUIRED INSPECTIONS

SINGLE-FAMILY DWELLING REMODEL

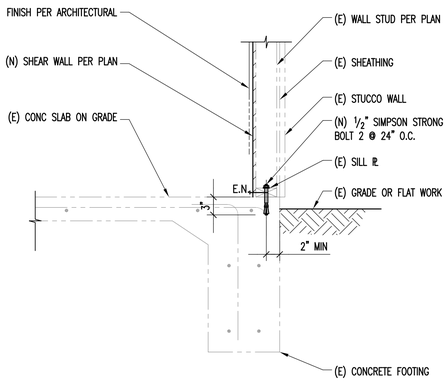
69561 PAPOOSE TRAIL
TWENTYNINE PALMS, CA 92277

SHEET TITLE
TYPICAL DETAILS

JOB NO. 24102
DATE 02/17/2025
SCALE As Indicated
SHEET NO. S1.05 ⚠1

ALL MEASUREMENTS ARE ACCURATE BUT NOT EXACT. ALL MUST BE FIELD CHECKED PRIOR TO DEMOLITION OR CONSTRUCTION

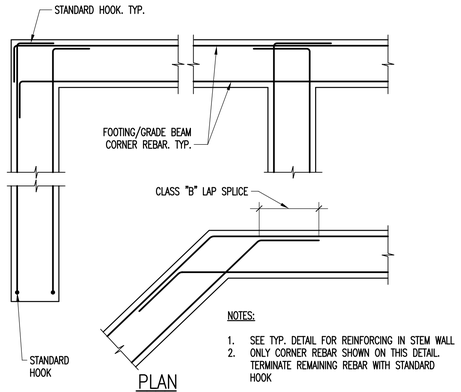
RME: IF THIS SHEET IS NOT 24"x 36" IT IS A REDUCED PRINT



DETAIL

SCALE: N.T.S.

10 / -



PLAN

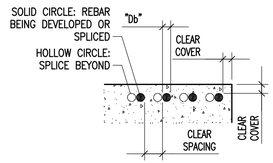
NOTES:

1. SEE TYP. DETAIL FOR REINFORCING IN STEM WALL
2. ONLY CORNER REBAR SHOWN ON THIS DETAIL. TERMINATE REMAINING REBAR WITH STANDARD HOOK

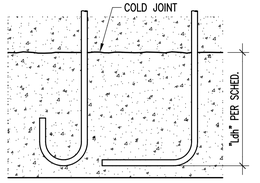
FOOTING AND GRADE BEAM REINFORCEMENT @ CORNERS

SCALE: N.T.S.

7 / -

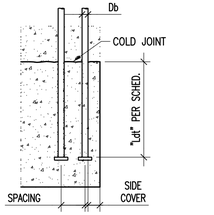


CLEAR COVER & CLEAR SPACING — A

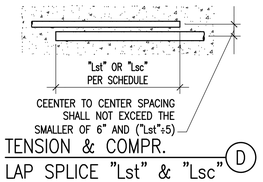


180° HOOK 90° HOOK

DEVELOPMENT OF STANDARD HOOK "Ldh" — B



DEVELOPMENT OF HEADED BAR "Ldt" — C



TENSION & COMPR. LAP SPLICE "Lst" & "Lsc" — D

DEVELOPMENT OF LONGITUDINAL REBAR (IN) SEE MODIFICATION FACTORS PER NOTE 2

LAP SPLICE OF LONGITUDINAL REBAR (IN) SEE MODIFICATION FACTORS PER NOTE 2

"Db" (IN)		f'c NORMAL WEIGHT (PSI)	TENSION DEVEL. LENGTH "Ld" 3,000	3,500	4,000	4,500	5,000	6,000	DEVEL. LENGTH "Ldh" STD HOOK 3,000	3,500	4,000	4,500	5,000	6,000	DEVEL. LENGTH "Ldt" HEADED BARS 3,000	4,000	4,500	5,000	6,000	COMPRESSION DEVEL. LENGTH "Ldc" 3,000	3,500	4,000	4,500	5,000	6,000
0.375		#3	17	16	15	14	13	12	–	6	6	6	6	6	7	7	6	6	6	6	8	8	8	8	8	8
0.500		#4	22	21	19	18	17	16	–	8	8	7	7	6	9	9	8	8	7	7	9	8	8	8	8	8
0.625		#5	28	26	24	23	22	21	20	–	10	9	9	8	8	8	7	11	11	10	9	9	9	8	11	10
0.750		#6	33	31	29	27	26	25	24	–	12	11	10	10	9	9	9	14	13	12	11	11	10	10	13	12
0.875		#7	48	45	42	40	38	36	34	–	14	13	12	11	11	10	10	16	15	14	13	12	12	11	15	14
1.000	REBAR	#8	55	51	48	45	43	41	39	–	16	15	14	13	12	12	11	18	17	16	15	14	13	13	17	16
1.128		#9	62	58	54	51	48	46	44	–	18	17	15	15	14	13	13	20	19	18	17	16	15	14	19	18
1.270		#10	70	65	61	57	54	52	50	–	20	19	17	16	16	15	14	23	21	20	19	18	17	16	21	20
1.410		#11	78	72	67	64	60	58	55	–	22	21	19	18	17	16	16	25	23	22	21	20	19	18	24	22
1.693		#14	93	86	81	76	72	69	66	–	26	25	23	22	21	20	19	NOT ALLOWED							28	26
2.257		#18	124	115	108	101	96	92	88	–	35	33	30	29	27	26	25								38	35

CLASS "A" LAP SPLICE LENGTHS SHALL BE CLASS "B"			TENSION LAP SPLICE "Lst" CLASS A	CLASS B (2) 3,000	3,500	4,000	4,500	5,000	6,000	COMPRESSION LAP SPLICE "Lsc" REBAR GRADE KSI ≤ 60 LESS THAN 3,000	≤ 60 3,000 AND HIGHER	> 60 LESS THAN 3,000	> 60 3,000 AND HIGHER
UNO, ALL LAP SPLICES SHALL BE CLASS "B"		2,500	–	22	20	19	18	17	16	16	16	22	24
		3,000	–	29	27	25	24	23	22	21	20	29	32
		3,500	–	36	33	31	30	28	27	26	25	36	39
		4,000	–	43	40	37	35	34	32	31	30	43	47
		4,500	–	63	58	54	51	49	47	45	35	50	55
		5,000	–	72	66	62	59	56	53	51	39	57	63
		6,000	–	81	75	70	66	63	60	57	44	64	71
			–	91	84	79	74	71	67	64	50	72	80
			–	101	93	87	82	78	75	71	55	80	88
			LAP SPLICE NOT ALLOWED SEE NOTES										

NOTES:

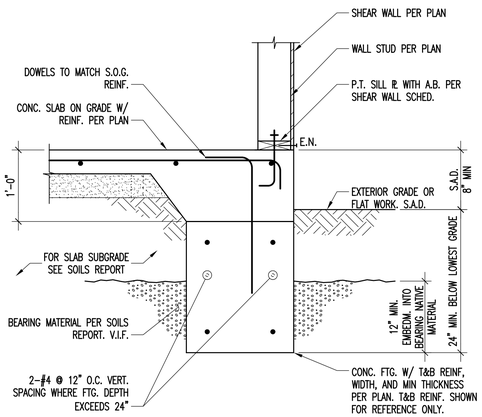
1. REBAR SHALL BE ALWAYS DEVELOPED ACROSS COLD JOINTS. SPLICES SHALL OCCUR ONLY WHERE SHOWN ON DETAILS. UNLESS OTHERWISE NOTED ELSEWHERE IN THE DRAWING SET, THE FOLLOWING SHALL APPLY:
   A. MIN DEVELOPMENT LENGTH ACROSS A COLD JOINT OF STRAIGHT REBAR SHALL BE "Ld"
   B. MIN DEVELOPMENT LENGTH ACROSS A COLD JOINT OF HOOKED REBAR SHALL BE "Ldh"
   C. LAP SPLICE SHALL BE CLASS B TENSION LAP SPLICE "Lst"
2. ALL THE DEVELOPMENT LENGTHS AND LAP SPLICES SHALL BE MODIFIED AS FOLLOWS:
   A. CASTING POSITION: IF MORE THAN 12 IN OF FRESH CONCRETE IS PLACED BELOW HORIZONTAL TOP REBAR, SCHEDULED VALUES OF "Ld" AND "Lst" SHALL BE MULTIPLIED BY 1.3.
   B. LIGHT WEIGHT CONCRETE: IF LIGHT WEIGHT CONCRETE IS USED, ALL THE DEVELOPMENT LENGTHS AND TENSION LAP SPLICE SCHEDULED VALUES SHALL BE MULTIPLIED BY 1.33. HEADED BARS ARE NOT ALLOWED IN LIGHT WEIGHT CONCRETE. COMPRESSION LAP SPLICE "Lsc" DO NOT NEED TO BE INCREASED
   C. GRADE OF STEEL: EXCEPT "Lsc", SCHEDULED LENGTHS APPLY TO REBAR WITH GRADE 60 KSI. WHERE REBAR WITH HIGHER STRENGTH IS SPECIFIED OR APPROVED AS A SUBSTITUTION, THE SPLICES PER TABLE ABOVE SHALL BE INCREASED PROPORTIONALLY TO THE HIGHER STRENGTH. FOR EXAMPLE, FOR GRADE 80, THE LENGTHS SHALL BE MULTIPLIED BY 80/60 = 1.33. HEADED BARS WITH GRADE GREATER THAN 60 KSI SHALL NOT BE PERMITTED.
   D. EPOXY COATING: SCHEDULED LENGTHS APPLY TO UNCOATED OR ZINC COATED (GALVANIZED) REBAR. IF EPOXY COATING IS SPECIFIED, SCHEDULED VALUED SHALL BE MULTIPLIED BY 1.2 FOR "Ldh", "Ldt" AND BY 1.5 FOR "Ld", "Lst". Ldc AND Lsc DO NOT NEED TO BE INCREASED.
   E. CONFINEMENT: SCHEDULED VALUES OF "Ld" AND "Lst" SHALL BE MULTIPLIED BY 1.5 FOR:
      • MEMBERS WITH TIES (SUCH AS COLUMNS, PILES, BEAMS, ETC.) WITH LONGITUDINAL REBAR WITH "CLEAR COVER" LESS THAN "Db" OR WITH "CLEAR SPACING" LESS THAN "Db"
      • MEMBERS WITHOUT TIES (SUCH AS WALLS, SLAB, FOOTINGS, ETC.) WITH LONGITUDINAL REBAR WITH "CLEAR SPACING" LESS THAN 2 x "Db"

      SCHEDULED VALUES OF "Lsc" SHALL BE MULTIPLIED BY 1.33 WHEN OCCURRING AT WALLS
3. HEADED DEFORMED BARS SHALL BE PERMITTED IF ALL FOLLOWING CONDITIONS ARE MET (SEE INSET DETAIL):
   • PROVIDE HRC555 HEADED DEFORMED BAR (RESEARCH REPORT ER 177) OR APPROVED EQUIVALENT
   • SIDE COVER IS AT LEAST 2xDb
   • REBAR SPACING IS AT LEAST 4xDb
4. WHERE REBAR OF DIFFERENT SIZE ARE LAP SPLICED, FOLLOWING SHALL APPLY:
   A. LAP SPLICE SHALL BE THE GREATER OF Ld OF LARGER BAR AND Lst OF SMALLER BAR (TENSION)
   B. LAP SPLICE SHALL BE THE GREATER OF Ldc OF LARGER BAR AND Lsc OF SMALLER BAR (COMPRESSION).
   C. TENSION SHALL BE ASSUMED UNLESS NOTED OTHERWISE ELSEWHERE IN THIS SET.
5. FOR LAP OF BUNDLED REBAR CONTACT E.O.R.
6. LAP SPLICE FOR #14 AND #18 ARE NOT ALLOWED. PROVIDE MECHANICAL OR WELDED SPLICES DEVELOPING 1.25Fy FOR THESE SPLICES. SUBMIT SELECTED SPLICE SYSTEM TO E.O.R. FOR APPROVAL.

DEVELOPMENT AND SPLICE OF REBAR IN CONCRETE

SCALE: N.T.S.

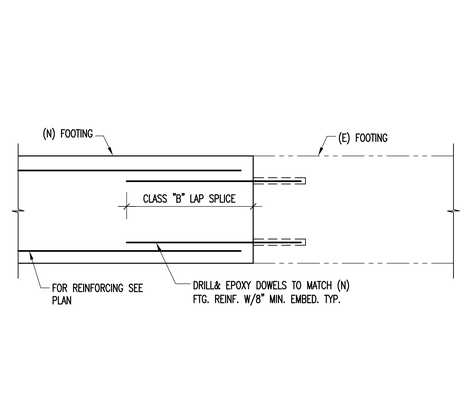
2 / -



FLY RAFTER DETAIL

SCALE: N.T.S.

11 / -



TYP. (N) S.O.G. TO (E) S.O.G.

SCALE: N.T.S.

8 / -

TYPE OF STANDARD HOOK	STANDARD HOOK GEOMETRY FOR LONGITUDINAL REBAR: BAR SIZE	MIN. INSIDE BENDING DIAMETER	STRAIGHT EXTENSION ℓext	TYPE OF STANDARD HOOK	STANDARD HOOK GEOMETRY FOR STIRRUPS, TIES, AND HOOKS: BAR SIZE	MIN. INSIDE BENDING DIAMETER	STRAIGHT EXTENSION ℓext	TYPE OF STANDARD HOOK
90° HOOK	#3 THRU #8	6db	12db	90°, DIA, ℓdh, ℓext	#3 THRU #5	4db	GREATER OF 6db AND 3"	90°, DIA, ℓext
	#9 THRU #11	8db			#6 THRU #8	6db	12db	
	#14 AND #18	10db						
135° HOOK	NA				#3 THRU #5	4db	GREATER OF 6db AND 3"	135°, DIA, ℓext
					#6 THRU #8	6db		
180° HOOK	#3 THRU #8	6db	GREATER OF 4db AND 2½"	180°, DIA, ℓdh, ℓext	#3 THRU #5	4db	GREATER OF 4db AND 2½"	180°, DIA, ℓext
	#9 THRU #11	8db			#6 THRU #8	6db		
	#14 AND #18	10db						

STANDARD HOOKS

SCALE: N.T.S.

3 / -

EXT. FTG. FOUNDED IN NATIVE SOIL

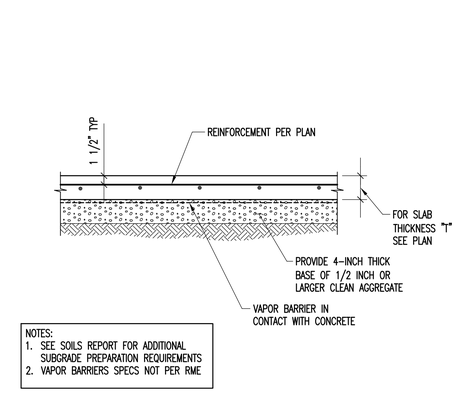
SCALE: N.T.S.

12 / -

TYP. (N) FTG TO (E) FTG

SCALE: N.T.S.

9 / -



NOTES:
1. SEE SOILS REPORT FOR ADDITIONAL SUBGRADE PREPARATION REQUIREMENTS
2. VAPOR BARRIERS SPECS NOT PER RME

TYPICAL SLAB ON GRADE

SCALE: N.T.S.

6 / -

OWNER:
BOGDAN SEVASTIANOV
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69561 PAPOOSE TRAIL
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ZOIALARINA@GMAIL.COM

ARCHITECTURAL DESIGNER:
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JOSHUA TREE, CA
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MOLLY@MUNSDOTTIR.COM

ENGINEER:
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3655 Torrance Blvd, 3rd Floor #398
Torrance, CA 90503
t: 310/ 803 9440
RME Job no. 24102

STAMP

REGISTERED PROFESSIONAL ENGINEER — NICHOLAS R. MARRS — No. S 7179 — STRUCTURAL — STATE OF CALIFORNIA

SIGN DATE 02/17/2025

DATE	ISSUE / REVISION
03-26-24	PLAN CHECK SET
02-17-25	⚠1 P.C. RESUBMITTAL

County of San Bernardino BUILDING AND SAFETY
THE PLANS AND DETAILS ARE
REVIEWED
FOR CODE COMPLIANCE
THE REVIEW OF THESE PLANS AND DETAILS DOES NOT CONSTITUTE YOUR A PERMIT FOR ANY VIOLATION OF ANY CODE OR ORDINANCE
THIS COUNTY
By
Date 03/05/2025
THESE PLANS SHALL BE ON THE JOB AT ALL REQUESTED INSPECTIONS

SINGLE-FAMILY DWELLING REMODEL

69561 PAPOOSE TRAIL
TWENTYNINE PALMS, CA 92277

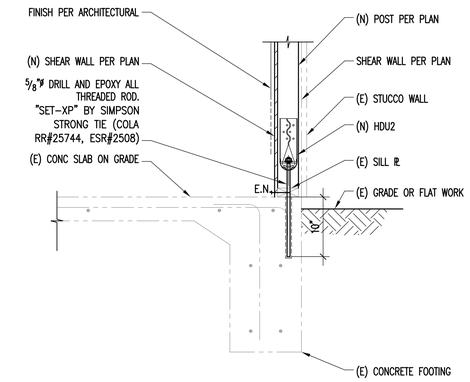
SHEET TITLE
TYPICAL DETAILS

JOB NO. 24102

DATE 02/17/2025

SCALE As Indicated

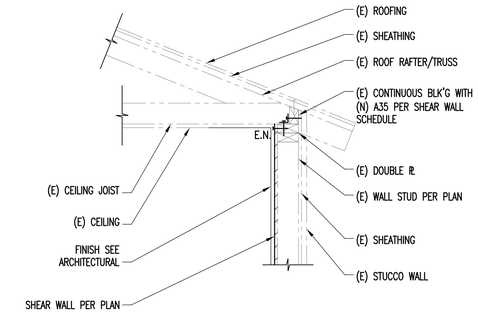
SHEET NO. S1.06 / 1



(N) HOLDOWN AT (E) WALL

SCALE: N.T.S.

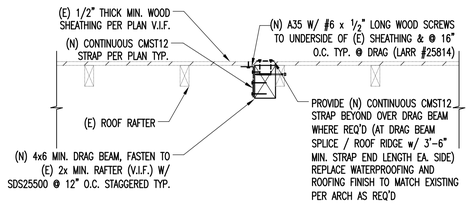
1



(N) SHEARWALL AT (E) WALL

SCALE: N.T.S.

2



(N) DRAG BEAM AT ROOF RAFTERS

SCALE: N.T.S.

3

OWNER:
BOGDAN SEVASTIANOV
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TWENTYNINE PALMS, CA 92277
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ARCHITECTURAL DESIGNER:
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t: 310/ 803 9440
RME Job no. 24102

STAMP

REGISTERED PROFESSIONAL ENGINEER
NICHOLAS R. MARRS
No. S 7179
STRUCTURAL
STATE OF CALIFORNIA

SIGN DATE 02/17/2025

DATE	ISSUE / REVISION
03-26-24	PLAN CHECK SET
02-17-25	⚠1 P.C. RESUBMITTAL

County of San Bernardino
BUILDING AND SAFETY
THE PLANS AND DETAILS HAVE BEEN
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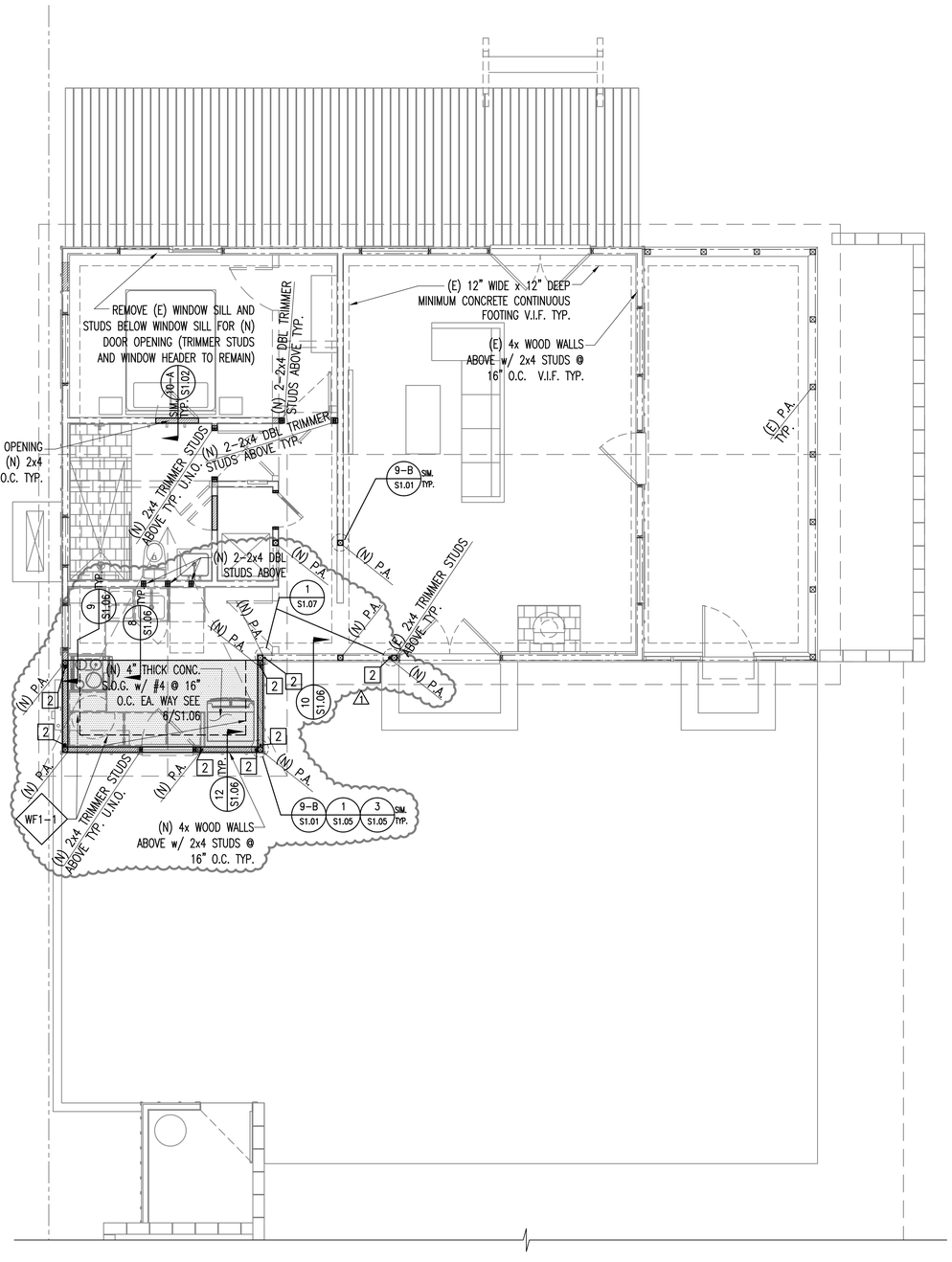
THE REVIEW OF THESE PLANS SHALL NOT BE CONSTRUED TO BE A PERMIT NOR AS AN APPROVAL OF ANY VIOLATION OF ANY CODE OR ORDINANCE OF THIS COUNTY
By
Date 03/05/2025
THESE PLANS SHALL BE ON THE JOB SITE FOR REQUESTED INSPECTIONS

SINGLE-FAMILY DWELLING REMODEL

69561 PAPOOSE TRAIL
TWENTYNINE PALMS, CA 92277

SHEET TITLE
TYPICAL DETAILS

JOB NO. 24102
DATE 02/17/2025
SCALE As Indicated
SHEET NO. S1.07 / 1



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

PLAN NOTES – EXISTING FIELD CONDITIONS:

701. THE LANGUAGE "EXISTING" (E) OR "BASE BUILDING" (B.B.) SHALL BE USED INTERCHANGEABLY.

702. EXISTING INFORMATION SHOWN IS BASED ON EXISTING STRUCTURAL DRAWINGS. CONTRACTOR HAS TO REVIEW EXISTING DRAWINGS AND FIELD VERIFY ALL EXISTING CONDITIONS INCLUDING BEAM SIZES, BEAM ELEVATIONS, SLAB THICKNESS, DIMENSIONS, CONFLICTS WITH MEP & FINISHES, ETC. PRIOR TO DETAILING OR FABRICATING. REPORT ANY CONFLICTS OR DIFFERENCES TO ARCHITECT AND ENGINEER FOR DIRECTION ON HOW TO PROCEED BEFORE DETAILING OR PERFORMING ANY STRUCTURAL WORK

703. EXISTING CONDITIONS AS SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY. THE CONTRACTOR IS REQUIRED TO FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO PROCEEDING WITH DETAILING, SHOP DRAWINGS, FABRICATION, AND CONSTRUCTION. CONTRACTOR SHALL REPORT CONDITIONS THAT CONFLICT WITH THE CONTRACT DOCUMENTS TO THE OWNER'S REPRESENTATIVE. DO NOT DEVIATE FROM THE CONTRACT DOCUMENTS WITHOUT WRITTEN DIRECTION FROM THE OWNER'S REPRESENTATIVE.

704. CONTRACTOR TO PERFORM ALL DEMO AND NEW CONSTRUCTION SUCH THAT EXISTING STRUCTURE IS NOT DAMAGED. ANY DAMAGE IS TO BE REPAIRED BY CONTRACTOR AT CONTRACTOR'S COST.

705. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO STARTING ANY DEMO OR NEW WORK. CONTRACTOR TO REMOVE AND REPLACE EXISTING FINISHES, MEP SYSTEMS, FIREPROOFING, ETC., IN ORDER TO INSTALL ALL NEW WORK.

706. SEE ARCH/MEP DRAWINGS FOR SLAB PENETRATIONS. ANY PENETRATIONS REQUIRED IN EXISTING FLOOR SHALL BE LOCATED TO AVOID EXISTING REINFORCING STEEL. PRIOR TO CORE DRILLING OR CUTTING OPENINGS, CONTRACTOR TO LOCATE EXISTING REINFORCING STEEL BARS IN SLAB BY NON-DESTRUCTIVE TESTING. LOCATE CORES TO AVOID CUTTING REBAR. SUBMIT A SINGLE COORDINATED SET OF PLANS FOR ALL FLOORS TO SHOW ALL NEW PENETRATION SIZES AND LOCATIONS DIMENSIONED FROM EXISTING COLUMN LINES FOR REVIEW AND APPROVAL BY ARCHITECT, STRUCTURAL ENGINEER, AND BUILDING ENGINEER. DO NOT CUT INTO EXISTING STRUCTURE OR MAKE ANY PENETRATION UNTIL APPROVAL IS PROVIDED.

707. NEW SLAB OPENING TO BE SAW CUT AFTER CORNERS ARE CORE DRILLED. DO NOT OVER CUT OPENING BEYOND DIMENSIONS OF CLEAR OPENING. DO NOT CUT EXISTING REBAR. SUBMIT METHOD OF CORE DRILLING, SAW CUTTING, AND REMOVING OF CONCRETE SLABS FROM BUILDING SUCH THAT MINIMAL DISRUPTION TO EXISTING BUILDING OCCURS. VERIFY BY X RAY/RADIOGRAPHIC TESTING OR SOME OTHER NON-DESTRUCTIVE TESTING METHOD THE LOCATIONS OF ELECTRICAL CONDUIT AND OTHER SYSTEMS EMBEDDED IN SLAB BEFORE CORE DRILLING OR SAW CUTTING. CONTRACTOR TO TAKE ALL PRECAUTIONS DURING CORE DRILLING AND SAW CUTTING TO SAFEGUARD WORKERS FROM CUTTING LIVE ELECTRICAL CONDUIT OR OTHER SYSTEMS THAT COULD BE HAZARDOUS TO ANYONE.

708. SEE ARCH/MEP DRAWINGS FOR MEP PADS, AND CURBS. PRIOR TO PROCEEDING WITH WORK, CONTRACTOR TO CONFIRM WEIGHTS OF EQUIPMENT AND CURBS AND CONFIRM THEY DO NOT EXCEED WEIGHTS SHOWN ON STRUCTURAL DRAWINGS. CONTRACTOR TO SUBMIT SHOP DRAWINGS TO SHOW ANY EQUIPMENT NOT SHOWN ON STRUCTURAL DRAWINGS. SHOP DRAWINGS TO PROVIDE SIZE, LOCATION, AND WEIGHT OF ALL EQUIPMENT IN A SINGLE SUBMITTAL. DESIGN OF CURBS, ANCHORAGE AND BRACING OF EQUIPMENT IS BY THE CONTRACTOR. SUBMIT CALCULATIONS AND DRAWINGS FOR REVIEW AND APPROVAL TO THE ARCHITECT AND TO THE BUILDING DEPARTMENT FOR DEFERRED APPROVAL.

709. ALL (N) CONC. OR (N) MASONRY SHALL BE CONNECTED TO ADJACENT (E) CONCRETE OR (E) MASONRY WITH DRILL & EPOXY DOWELS TO MATCH THE (N) REINFORCING. ALL SUCH DOWELS SHALL HAVE 8" MIN. EMBED. U.N.O.

SYMBOLS – EXISTING ELEMENTS

- INDICATES (E) WOOD WALLS
- INDICATES (E) BEAM
- INDICATES (E) JOISTS
- INDICATES (E) CONCRETE FOOTING
- INDICATES (E) WOOD WALLS

PLAN NOTES – FOUNDATION:

201. ALL GRADING & FOUNDATION WORK MUST BE OBSERVED AND APPROVED BY THE PROJECT GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF STEEL REINFORCEMENT AND POURING CONCRETE.

202. 1500 PSF ALLOWABLE SOIL BEARING PRESSURE WAS USED IN THE DESIGN.

203. ALL FOOTINGS SHALL BE THICKENED AS REQUIRED TO ACHIEVE A MINIMUM OF 12" EMBEDMENT INTO RECOMMENDED BEARING MATERIAL PER SOILS REPORT. UNLESS NOTED OTHERWISE MINIMUM THICKNESS SHALL BE 18". FOOTING THICKNESS SHOWN ON PLAN IS APPROXIMATE. CONTRACTOR TO VERIFY IN FIELD BASED ON ACTUAL DEPTH OF RECOMMENDED BEARING MATERIAL. NOTIFY ENGINEER IF ACTUAL FIELD CONDITIONS DIFFER. STEP FOOTINGS AND GRADE BEAMS PER TYPICAL DETAILS AS REQUIRED.

204. U.N.O. TOP OF CONCRETE GRADE BEAMS & TOP OF CONC. FOOTING ELEVATION SHALL BE 12" BELOW THE TOP OF THE LOWEST SLAB DIRECTLY ABOVE THE FOOTING. FOR TOP OF SLAB ELEVATION SEE ARCH'L DRAWINGS.

205. ALL HOLDOWN HARDWARE IS TO BE SECURED IN PLACE PRIOR TO FOUNDATION INSPECTION. HOLDOWNS SHALL BE RE-TIGHTENED JUST PRIOR TO COVERING THE WALL FRAMING PLATE WASHERS ARE REQUIRED FOR ALL HOLDOWNS.

206. FOR SLAB ON GRADE SUB-GRADE PREPARATION SEE SOILS REPORT.

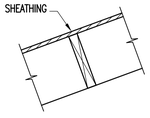
207. FOR VAPOR BARRIER AT INTERIOR SPACES S.A.D. SPECIFICATIONS/DRAWINGS.

PLAN NOTES – FRAMING:

301. PROVIDE WALL SHEATHING AT ALL EXTERIOR WALLS OTHER THAN SHEAR WALLS AS FOLLOWS: WOOD STRUCTURAL PANEL, 15/32" CD APA RATED PLYWOOD OR OSB SHEATHING, EXPOSURE 1, SPAN RATING 32/16, NAILED WITH 8d COMMONS SPACED AT 6" O.C. ALONG ALL PANEL EDGES (E.N.) AND 12" O.C. ALONG INTERMEDIATE SUPPORTS (FIELD) (F.N.)

302. HOLD DOWNS SHALL BE RE-TIGHTENED JUST PRIOR TO COVERING THE WALL FRAMING.

303. ROOF SHEATHING CONSTRUCTION AT SLOPED AND PITCHED ROOFS: WOOD STRUCTURAL PANEL, 5/8" CD APA RATED PLYWOOD SHEATHING, EXPOSURE 1, SPAN RATING 32/16. NAILING PER NAILING SCHEDULE.



ROOF/FLOOR/DECK NAILING SCHEDULE
WOOD STRUCTURAL PANEL DIAPHRAGM CONSTRUCTION
SEE "TYPICAL SHEATHING ASSEMBLY" UNDER TYPICAL DETAILS

TYPE	EDGE BLK'G NAIL SIZE	B.N. & C.P.E.	E.N.	LINES OF FASTENERS	LOCATION/ EXTENT U.N.O. ON FRAMING PLAN
"TYPE A"	3x4 FLAT 10d	2" O.C.	2" O.C.	1	TYPICAL @ ALL FRAMING LEVELS

B.N. = BOUNDARY NAILING – C.P.E. = CONTINUOUS PANEL EDGES

SYMBOLS – FOUNDATION

- INDICATES CHANGE IN FLOOR ELEVATION
- INDICATES CONCRETE FOOTING
- F# INDICATES CONCRETE FOOTING PER SCHEDULE THIS SHEET
- INDICATES WOOD POST

SYMBOLS – FRAMING

- INDICATES WOOD WALLS UNLESS OTHERWISE SPECIFIED ON THE FRAMING PLAN OR WALL STUD SCHEDULE PROVIDE:
  - EXTERIOR WALLS: S.A.D. OR 2x4 @ 16" O.C., WHICHEVER IS GREATER
  - INTERIOR WALLS: S.A.D. OR 2x4 @ 16" O.C., WHICHEVER IS GREATER
- Xxx INDICATES WOOD POST. UNLESS OTHERWISE SPECIFIED ON THE FRAMING PLAN THE POST SIZE SHALL BE THE GREATER OF THE FOLLOWING:
  - MIN. SIZE PER POST SCHEDULE WHERE PRESENT
  - 4x DEPTH OF WALL
  - SIZE INDICATED IN "HOLDOWN SCHEDULE" (FOR POSTS AT ENDS OF SHEAR WALLS ONLY)
- INDICATES EXTENT OF WOOD JOIST
- INDICATES DIRECTION OF WOOD JOIST
- MEMBER PREFIXES: R = ROOF G = RIDGE C = CEILING F = FLOOR H = HIP D = DECK S = SCL (SEE SCHEDULE)
- 2-X#x## WOOD MEMBER CALLOUT
  - SIZE: #x## SAWN LUMBER – S### SCL (SEE SCHED.)
  - PREFIX INDICATING MEMBER LOCATION (WHERE OCCURS)
  - NUMBER OF MEMBERS IN A BUILTUP ASSEMBLY (OMITTED IF = 1). SEE "BUILTUP BEAM/SISTERED JOIST" AND "BUCKETS OF BUILTUP BEAMS" PER TYPICAL DETAILS
- INDICATES CHANGE IN FLOOR ELEVATION
- P.A. INDICATES WOOD POST ABOVE
- #/#"-#" INDICATES WOOD SHEATHED SHEAR WALL: TYPE PER SHEAR WALL SCHEDULE UNDER TYP. DETAILS MINIMUM LENGTH
- ## INDICATES HOLDOWN TYPE PER TYPICAL DETAILS
- DRAG DRAG BEAM WITH BOUNDARY NAILING.
- DRAG STRAP & BLOCKING WITH BOUNDARY NAILING.

FOR CONSTRUCTION OF DRAG BEAMS AND DRAG STRAP SEE "DRAGS & CONN. TO SHEAR WALLS" TYPICAL DETAIL

- KP INDICATES KING POST
- HDR HEADER PER "TYP. STUD WALL FRAMING ELEVATION"

PLAN NOTES – SHEETS AND GENERAL:

101. GENERAL NOTES AND TYPICAL DETAILS SHEETS: SEE S0.01 THRU S1.07 SHEETS. GENERAL NOTES & TYPICAL DETAILS APPLY TO ALL PARTS OF THE WORK EXCEPT WHERE SPECIFICALLY DETAILED OR U.N.O. ON THE FLOOR PLANS AND PLAN NOTES

102. VERIFY ALL DIMENSIONS, ELEVATIONS, SLAB EDGES, SLAB DEPRESSIONS, SLAB OPENINGS, CURBS, FOOTING, PENETRATIONS, WALL OPENINGS WITH ARCHITECTURAL, MECHANICAL, PLUMBING, ELECTRICAL & CIVIL DRAWINGS.

103. FOR ALL DIMENSIONS & ROOF SLOPES S.A.D.

104. NON-BEARING WALLS SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. FOR NON-BEARING WALL LOCATIONS S.A.D.

WALL FOOTING SCHEDULE

MARK	WIDTH	THICKNESS	REINFORCEMENT		REMARKS
			TRANSVERSE	LONGITUDINAL	
WF1-1	1'-0"	12"	#4 @ 12" O.C. BOTT.	(2) – #4 BOTT. & (2) – #4 TOP	

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ENGINEER:
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t: 310/ 803 9440
RME Job no. 24102

STAMP
REGISTERED PROFESSIONAL ENGINEER – NICHOLAS R. MARRS – No. S 7179 – STRUCTURAL – STATE OF CALIFORNIA
SIGN DATE 02/17/2025

DATE	ISSUE / REVISION
03-26-24	PLAN CHECK SET
02-17-25	⚠P.C. RESUBMITTAL

County of San Bernardino BUILDING AND SAFETY
THE PLANS AND DETAILS HAVE BEEN
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By
Date 03/05/2025
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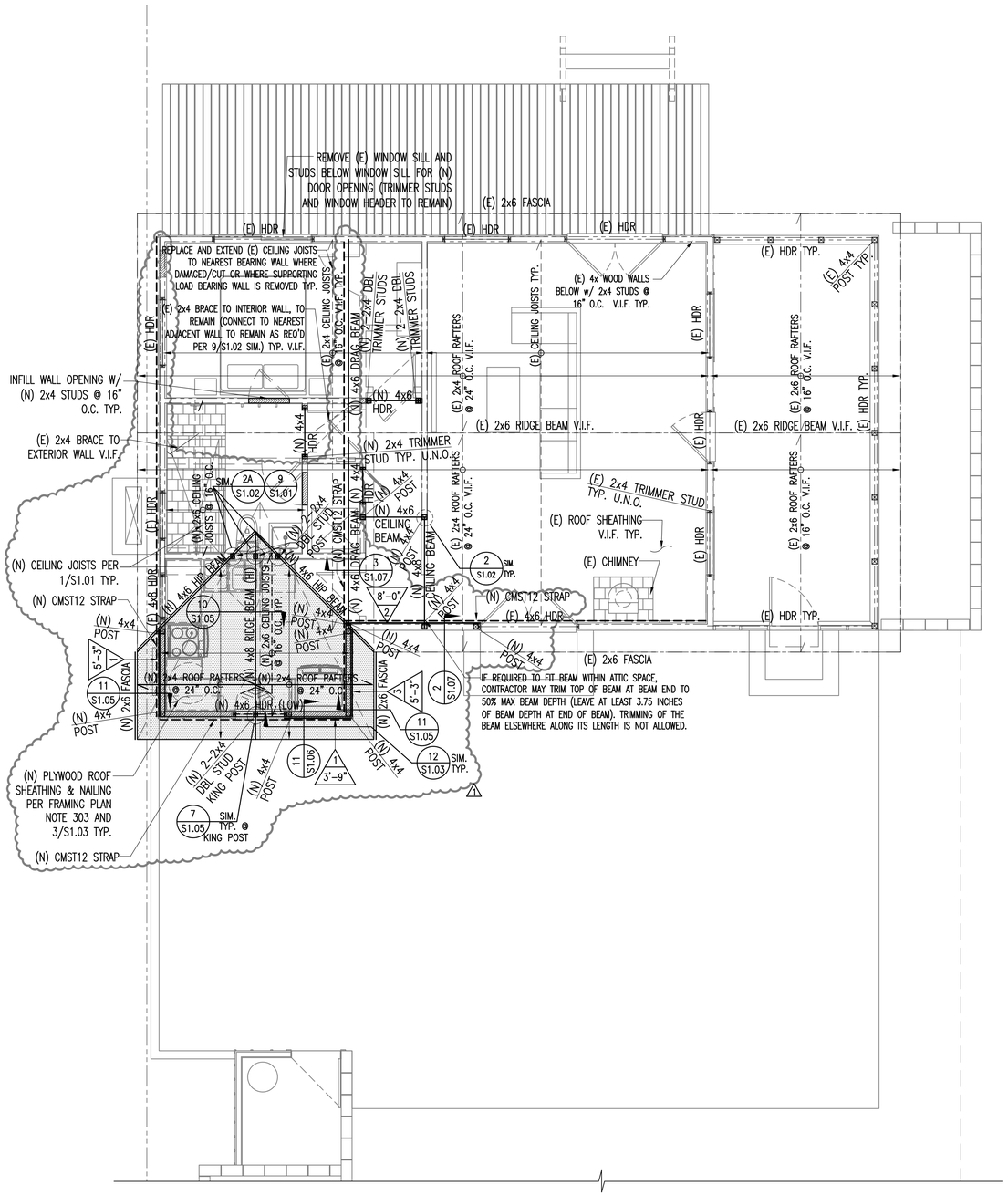
SINGLE-FAMILY DWELLING REMODEL

69561 PAPOOSE TRAIL
TWENTYNINE PALMS, CA 92277

SHEET TITLE
FOUNDATION PLAN

JOB NO. 24102
DATE 02/17/2025
SCALE As Indicated
SHEET NO. S2.01



ROOF FRAMING PLAN
SCALE:1/4"=1'-0"

N

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SYMBOLS – EXISTING ELEMENTS

- INDICATES (E) WOOD WALLS
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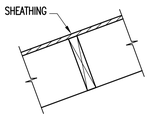

ROOF/FLOOR/DECK NAILING SCHEDULE
WOOD STRUCTURAL PANEL DIAPHRAGM CONSTRUCTION
SEE "TYPICAL SHEATHING ASSEMBLY" UNDER TYPICAL DETAILS

TYPE	EDGE BLK'G NAIL SIZE	B.N. & C.P.E.	F.N.	LINES OF FASTENERS	LOCATION/ EXTENT U.N.O. ON FRAMING PLAN
"TYPE A" 3x4 FLAT	10d	2" O.C.	2" O.C.	1	TYPICAL @ ALL FRAMING LEVELS

B.N. = BOUNDARY NAILING – C.P.E. = CONTINUOUS PANEL EDGES

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INDICATES EXTENT OF WOOD JOIST

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MEMBER PREFIXES — R = ROOF G = RIDGE C = CEILING F = FLOOR H = HIP D = DECK S = SCL (SEE SCHEDULE)

2-X#x## — WOOD MEMBER CALLOUT
SIZE: #x## SAWN LUMBER – S### SCL (SEE SCHED.)
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INDICATES CHANGE IN FLOOR ELEVATION

P.A. — INDICATES WOOD POST ABOVE

#'-#" — INDICATES WOOD SHEATHED SHEAR WALL:
TYPE PER SHEAR WALL SCHEDULE UNDER TYP. DETAILS
MINIMUM LENGTH

— INDICATES HOLDOWN TYPE PER TYPICAL DETAILS

DRAG — DRAG BEAM WITH BOUNDARY NAILING.
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DATE 02/17/2025
SCALE As Indicated
SHEET NO. S2.02

STRUCTURAL CALCULATIONS

PLAN CHECK RESUBMITTAL

69561 PAPOOSE TRAIL
Twentynine Palms
CA, 92277

RME Job No. 24102

Monday, February 17, 2025

3655 Torrance Blvd, 3rd Floor #398
Torrance, California 90503
(310) 803 9440
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Project Name / Address:

69561 Papoose Trail
Twentynine Palms, CA 92277
(RME Job # 24102)

Reidar Marrs Engineers, Inc.

STRUCTURAL CALCULATIONS

NEW CALCULATIONS SHOWN IN **DARK**

See previously submitted calculations in Gray

TABLE OF CONTENTS

Project Title:
Engineer:
Project ID:
Project Descr:

S2.2.1

Wood Beam

Project File: 69561 Papoose Trail.ec6

DESCRIPTION: 2x4 Roof Rafters at 24 OC

CODE REFERENCES

Calculations per NDS 2018, IBC 2021, SDPWS 2021
Load Combination Set : ASCE 7-16

Material Properties

Analysis Method : Allowable Stress Design
Load Combination : ASCE 7-16

Wood Species : Douglas Fir-Larch
Wood Grade : No.2

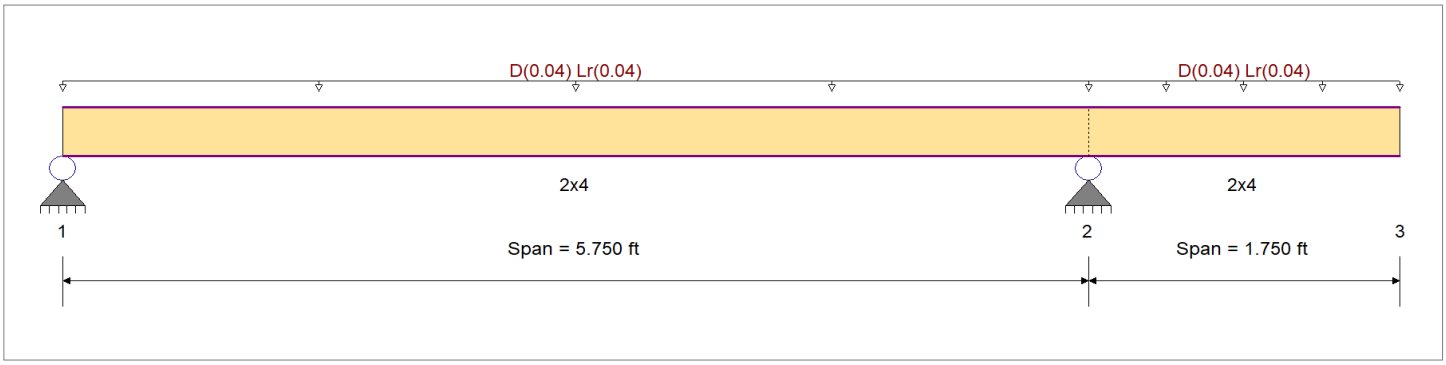
Beam Bracing : Beam is Fully Braced against lateral-torsional buckling

Fb +	900.0 psi
Fb -	900.0 psi
Fc - Prll	1,350.0 psi
Fc - Perp	625.0 psi
Fv	180.0 psi
Ft	575.0 psi

E : Modulus of Elasticity

Ebend- xx	1,600.0 ksi
Eminbend - xx	580.0 ksi
Density	31.210 pcf

Repetitive Member Stress Increase



Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Beam self weight calculated and added to loading
Load for Span Number 1
Uniform Load : D = 0.020, Lr = 0.020 ksf, Tributary Width = 2.0 ft
Load for Span Number 2
Uniform Load : D = 0.020, Lr = 0.020 ksf, Tributary Width = 2.0 ft

DESIGN SUMMARY

Design OK

Maximum Bending Stress Ratio	=	0.557 : 1	Maximum Shear Stress Ratio	=	0.294 : 1
Section used for this span		2x4	Section used for this span		2x4
fb: Actual	=	1,081.79 psi	fv: Actual	=	66.12 psi
F'b	=	1,940.63 psi	F'v	=	225.00 psi
Load Combination		+D+Lr	Load Combination		+D+Lr
Location of maximum on span	=	2.602 ft	Location of maximum on span	=	5.461 ft
Span # where maximum occurs	=	Span # 1	Span # where maximum occurs	=	Span # 1

Maximum Deflection

Max Downward Transient Deflection	0.090 in	Ratio =	764	>=240	Span: 1 : Lr Only
Max Upward Transient Deflection	-0.061 in	Ratio =	688	>=240	Span: 2 : Lr Only
Max Downward Total Deflection	0.183 in	Ratio =	376	>=180	Span: 1 : +D+Lr
Max Upward Total Deflection	-0.124 in	Ratio =	338	>=180	Span: 2 : +D+Lr

Maximum Forces & Stresses for Load Combinations

Load Combination / Segment Length	Span #	Max Stress Ratios M	V	CD	CM	C_t	CLx	C_F	Cfu	C_i	C_r	Moment Values M	fb	F'b	Shear Values V	fv	F'v
D Only														0.0	0.00	0.0	0.0
Length = 5.750 ft	1	0.393	0.207	0.90	1.00	1.00	1.00	1.500	1.00	1.00	1.15	0.14	548.5	1,397.3	0.12	33.5	162.0
Length = 1.750 ft	2	0.177	0.207	0.90	1.00	1.00	1.00	1.500	1.00	1.00	1.15	0.06	246.8	1,397.3	0.06	33.5	162.0
+D+Lr					1.00	1.00	1.00	1.500	1.00	1.00	1.15			0.0	0.00	0.0	0.0
Length = 5.750 ft	1	0.557	0.294	1.25	1.00	1.00	1.00	1.500	1.00	1.00	1.15	0.28	1,081.8	1,940.6	0.23	66.1	225.0
Length = 1.750 ft	2	0.251	0.294	1.25	1.00	1.00	1.00	1.500	1.00	1.00	1.15	0.12	486.8	1,940.6	0.12	66.1	225.0

Project Title:
Engineer:
Project ID:
Project Descr:

S2.2.2

Wood Beam

Project File: 69561 Papoose Trail.ec6

LIC# : KW-06019606, Build:20.25.02.04 — Reidar Marrs Engineers, Inc. —

DESCRIPTION: 2x4 Roof Rafters at 24 OC

Maximum Forces & Stresses for Load Combinations

Load Combination / Segment Length	Span #	Max Stress Ratios M	V	CD	CM	C_t	CLx	C_F	Cfu	C_i	C_r	Moment Values M	fb	F'b	Shear Values V	fv	F'v
+D+0.750Lr					1.00	1.00	1.00	1.500	1.00	1.00	1.15			0.0	0.00	0.0	0.0
Length = 5.750 ft	1	0.489	0.258	1.25	1.00	1.00	1.00	1.500	1.00	1.00	1.15	0.24	948.5	1,940.6	0.20	58.0	225.0
Length = 1.750 ft	2	0.220	0.258	1.25	1.00	1.00	1.00	1.500	1.00	1.00	1.15	0.11	426.8	1,940.6	0.10	58.0	225.0
+0.60D					1.00	1.00	1.00	1.500	1.00	1.00	1.15			0.0	0.00	0.0	0.0
Length = 5.750 ft	1	0.132	0.070	1.60	1.00	1.00	1.00	1.500	1.00	1.00	1.15	0.08	329.1	2,484.0	0.07	20.1	288.0
Length = 1.750 ft	2	0.060	0.070	1.60	1.00	1.00	1.00	1.500	1.00	1.00	1.15	0.04	148.1	2,484.0	0.04	20.1	288.0

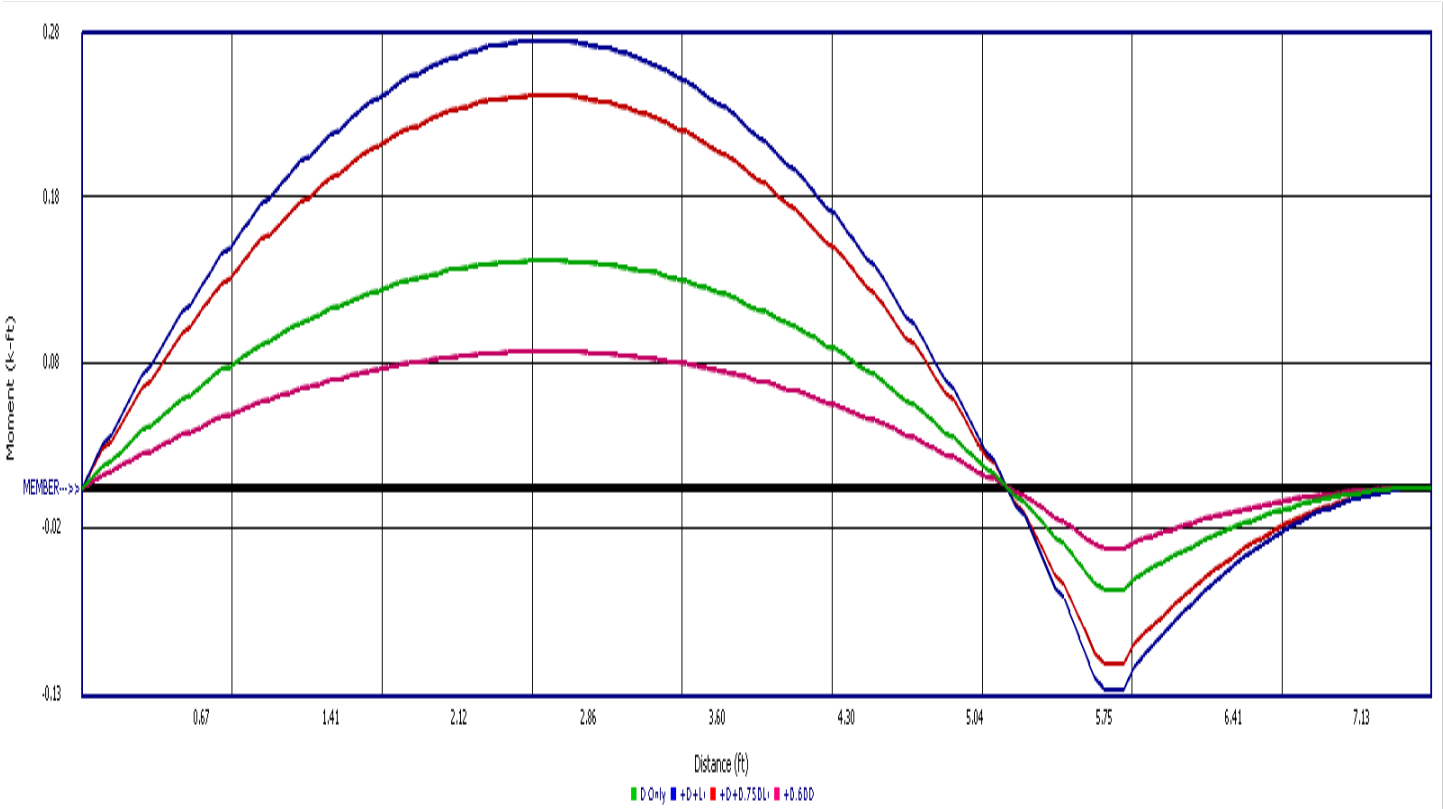
Overall Maximum Deflections

Span	Load Combination	Max. "-" Defl	Location in Span	Load Combination	Max. "+" Defl	Location in Span
1	+D+Lr	0.1830	2.795		0.0000	0.000
2		0.0000	2.795	+D+Lr	-0.1236	1.750

Vertical Reactions

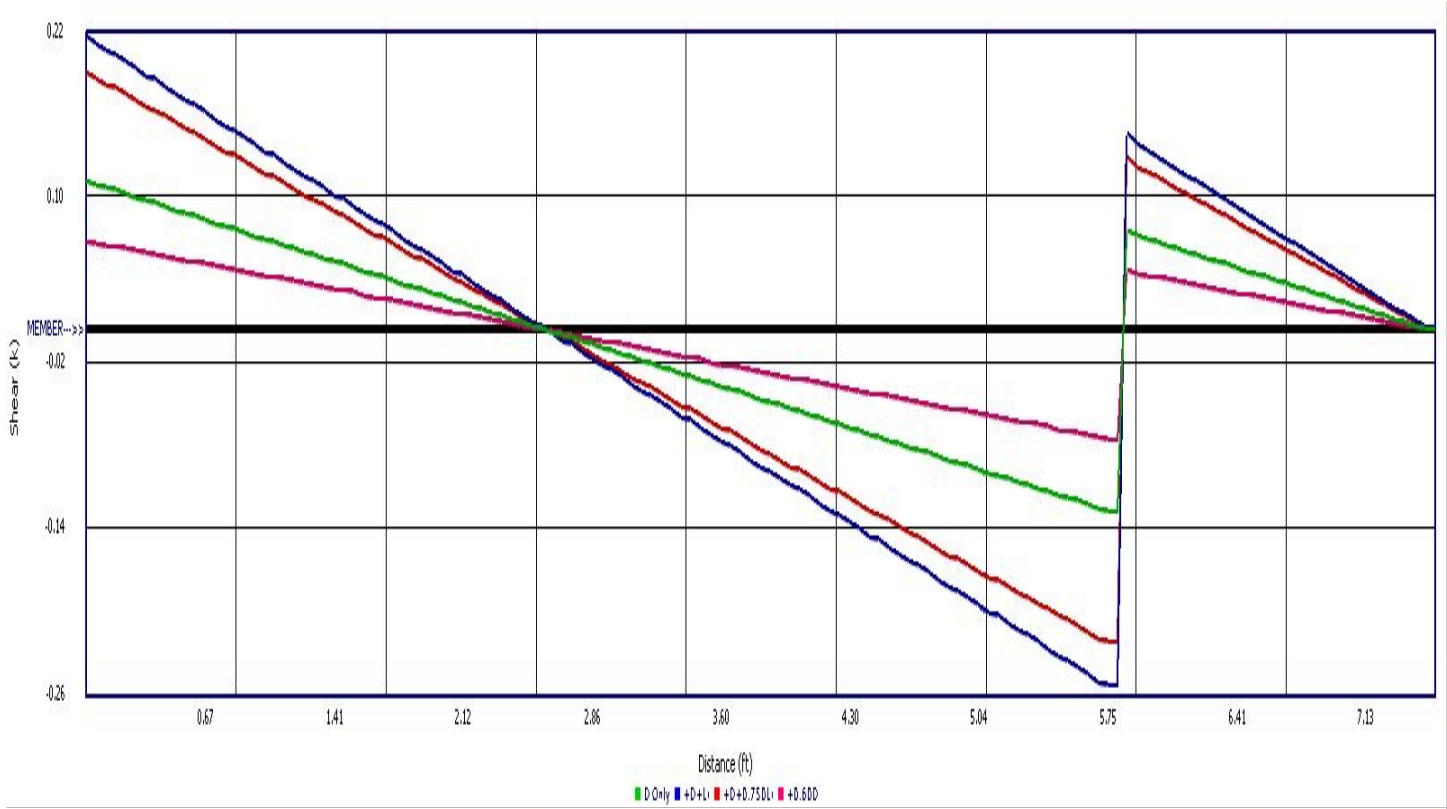
Support notation : Far left is #1 — Values in KIPS

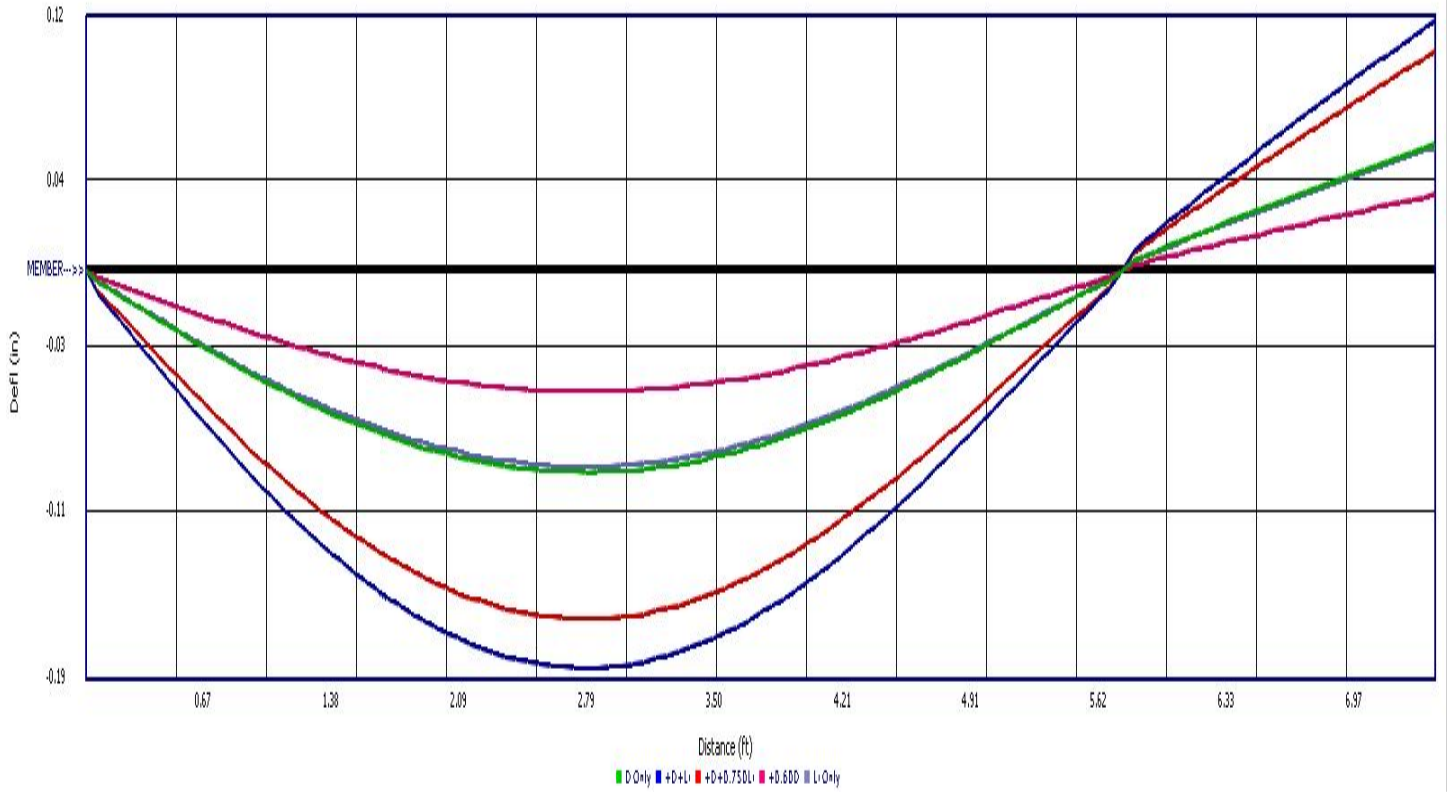
Load Combination	Support 1	Support 2	Support 3
Max Upward from all Load Conditions	0.212	0.397	
Max Upward from Load Combinations	0.212	0.397	
Max Upward from Load Cases	0.107	0.201	
D Only	0.107	0.201	
+D+Lr	0.212	0.397	
+D+0.750Lr	0.186	0.348	
+0.60D	0.064	0.121	
Lr Only	0.104	0.196	



Wood Beam

DESCRIPTION: 2x4 Roof Rafters at 24 OC





Project Title:
Engineer:
Project ID:
Project Descr:

S2.2.4

Wood Beam

Project File: 69561 Papoose Trail.ec6

LIC# : KW-06019606, Build:20.25.02.04 | Reidar Marrs Engineers, Inc. | (c) ENERCALC, LLC 1982-2025

DESCRIPTION: 4x8 Roof Ridge Beam

CODE REFERENCES

Calculations per NDS 2018, IBC 2021, SDPWS 2021
Load Combination Set : ASCE 7-16

Material Properties

Analysis Method : Allowable Stress Design
Load Combination : ASCE 7-16

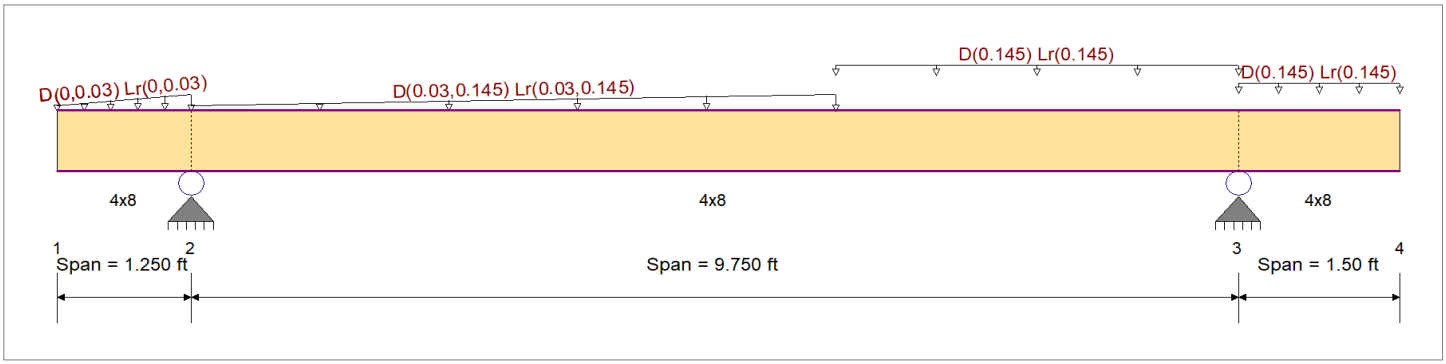
Wood Species : Douglas Fir-Larch
Wood Grade : No.2

Beam Bracing : Beam is Fully Braced against lateral-torsional buckling

Fb +	900.0 psi
Fb -	900.0 psi
Fc - Prll	1,350.0 psi
Fc - Perp	625.0 psi
Fv	180.0 psi
Ft	575.0 psi

E : Modulus of Elasticity

Ebend- xx	1,600.0 ksi
Eminbend - xx	580.0 ksi
Density	31.210 pcf



Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Beam self weight calculated and added to loading
Load for Span Number 1
Varying Uniform Load : D= 0.020->0.020, Lr= 0.020->0.020 ksf, Extent = 0.0 -->> 1.250 ft, Trib Width = 0.0->1.50 ft

Load for Span Number 2
Varying Uniform Load : D= 0.020->0.020, Lr= 0.020->0.020 ksf, Extent = 0.0 -->> 6.0 ft, Trib Width = 1.50->7.250 ft

Uniform Load : D = 0.020, Lr = 0.020 ksf, Extent = 6.0 -->> 9.750 ft, Tributary Width = 7.250 ft
Load for Span Number 3
Uniform Load : D = 0.020, Lr = 0.020 ksf, Tributary Width = 7.250 ft

DESIGN SUMMARY

Design OK

Maximum Bending Stress Ratio	=	0.714 : 1	Maximum Shear Stress Ratio	=	0.305 : 1
Section used for this span		4x8	Section used for this span		4x8
fb: Actual	=	1,044.27 psi	fv: Actual	=	68.67 psi
F'b	=	1,462.50 psi	F'v	=	225.00 psi
Load Combination		+D+Lr	Load Combination		+D+Lr
Location of maximum on span	=	5.244 ft	Location of maximum on span	=	9.176 ft
Span # where maximum occurs	=	Span # 2	Span # where maximum occurs	=	Span # 2

Maximum Deflection

Max Downward Transient Deflection	0.124 in	Ratio = 945	>=240	Span: 2 : Lr Only
Max Upward Transient Deflection	-0.058 in	Ratio = 616	>=240	Span: 3 : Lr Only
Max Downward Total Deflection	0.253 in	Ratio = 462	>=180	Span: 2 : +D+Lr
Max Upward Total Deflection	-0.119 in	Ratio = 300	>=180	Span: 3 : +D+Lr

Maximum Forces & Stresses for Load Combinations

Load Combination / Segment Length	Span #	Max Stress Ratios M	V	CD	CM	C_t	CLx	C_F	Cfu	C_i	C_r	Moment Values M	fb	F'b	Shear Values V	fv	F'v
D Only														0.0	0.00	0.0	0.0
Length = 1.250 ft	1	0.005	0.153	0.90	1.00	1.00	1.00	1.300	1.00	1.00	1.00	0.01	4.7	1,053.0	0.42	24.8	162.0

Wood Beam

Project File: 69561 Papoose Trail.ec6

DESCRIPTION: 4x8 Roof Ridge Beam

Maximum Forces & Stresses for Load Combinations

Load Combination / Segment Length	Span #	Max Stress Ratios M	V	CD	CM	C_t	CLx	C_F	Cfu	C_i	C_r	Moment Values M	fb	F'b	Shear Values V	fv	F'v
Length = 9.750 ft	**2**	0.507	0.216	0.90	1.00	1.00	1.00	1.300	1.00	1.00	1.00	1.36	533.8	1,053.0	0.59	35.0	162.0
Length = 1.50 ft	**3**	0.063	0.216	0.90	1.00	1.00	1.00	1.300	1.00	1.00	1.00	0.17	66.3	1,053.0	0.14	35.0	162.0
+D+Lr					1.00	1.00	1.00	1.300	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 1.250 ft	**1**	0.005	0.214	1.25	1.00	1.00	1.00	1.300	1.00	1.00	1.00	0.02	7.8	1,462.5	0.82	48.2	225.0
Length = 9.750 ft	**2**	0.714	0.305	1.25	1.00	1.00	1.00	1.300	1.00	1.00	1.00	2.67	1,044.3	1,462.5	1.16	68.7	225.0
Length = 1.50 ft	**3**	0.089	0.305	1.25	1.00	1.00	1.00	1.300	1.00	1.00	1.00	0.33	130.1	1,462.5	0.27	68.7	225.0
+D+0.750Lr					1.00	1.00	1.00	1.300	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 1.250 ft	**1**	0.005	0.188	1.25	1.00	1.00	1.00	1.300	1.00	1.00	1.00	0.02	7.0	1,462.5	0.72	42.4	225.0
Length = 9.750 ft	**2**	0.627	0.268	1.25	1.00	1.00	1.00	1.300	1.00	1.00	1.00	2.34	916.7	1,462.5	1.02	60.3	225.0
Length = 1.50 ft	**3**	0.078	0.268	1.25	1.00	1.00	1.00	1.300	1.00	1.00	1.00	0.29	114.1	1,462.5	0.24	60.3	225.0
+0.60D					1.00	1.00	1.00	1.300	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 1.250 ft	**1**	0.002	0.052	1.60	1.00	1.00	1.00	1.300	1.00	1.00	1.00	0.01	2.8	1,872.0	0.25	14.9	288.0
Length = 9.750 ft	**2**	0.171	0.073	1.60	1.00	1.00	1.00	1.300	1.00	1.00	1.00	0.82	320.3	1,872.0	0.36	21.0	288.0
Length = 1.50 ft	**3**	0.021	0.073	1.60	1.00	1.00	1.00	1.300	1.00	1.00	1.00	0.10	39.8	1,872.0	0.08	21.0	288.0

Overall Maximum Deflections

Span	Load Combination	Max. "-" Defl	Location in Span	Load Combination	Max. "+" Defl	Location in Span
1		0.0000	0.000	+D+Lr	-0.0988	0.000
2	+D+Lr	0.2532	4.998		0.0000	0.000
3		0.0000	4.998	+D+Lr	-0.1193	1.500

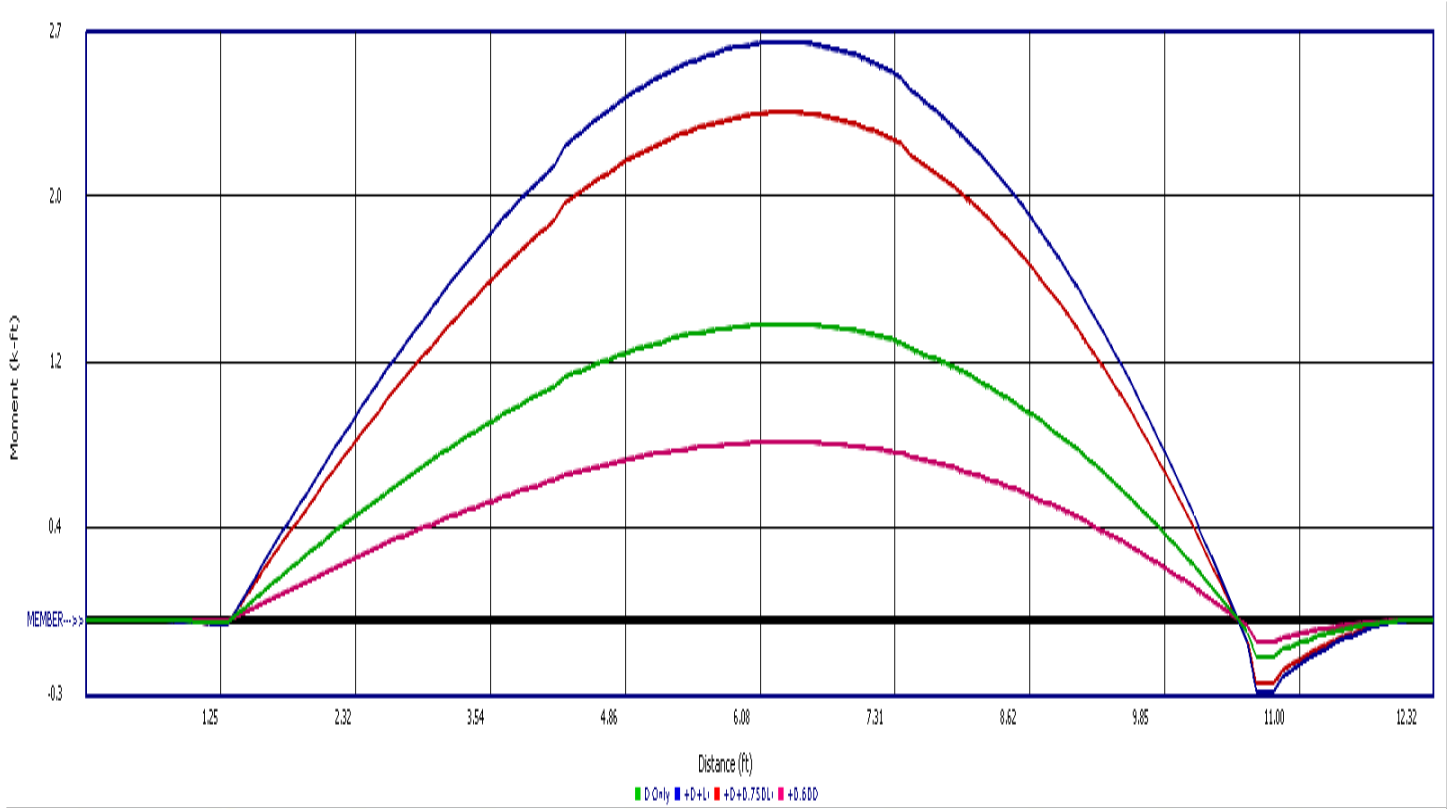
Vertical Reactions

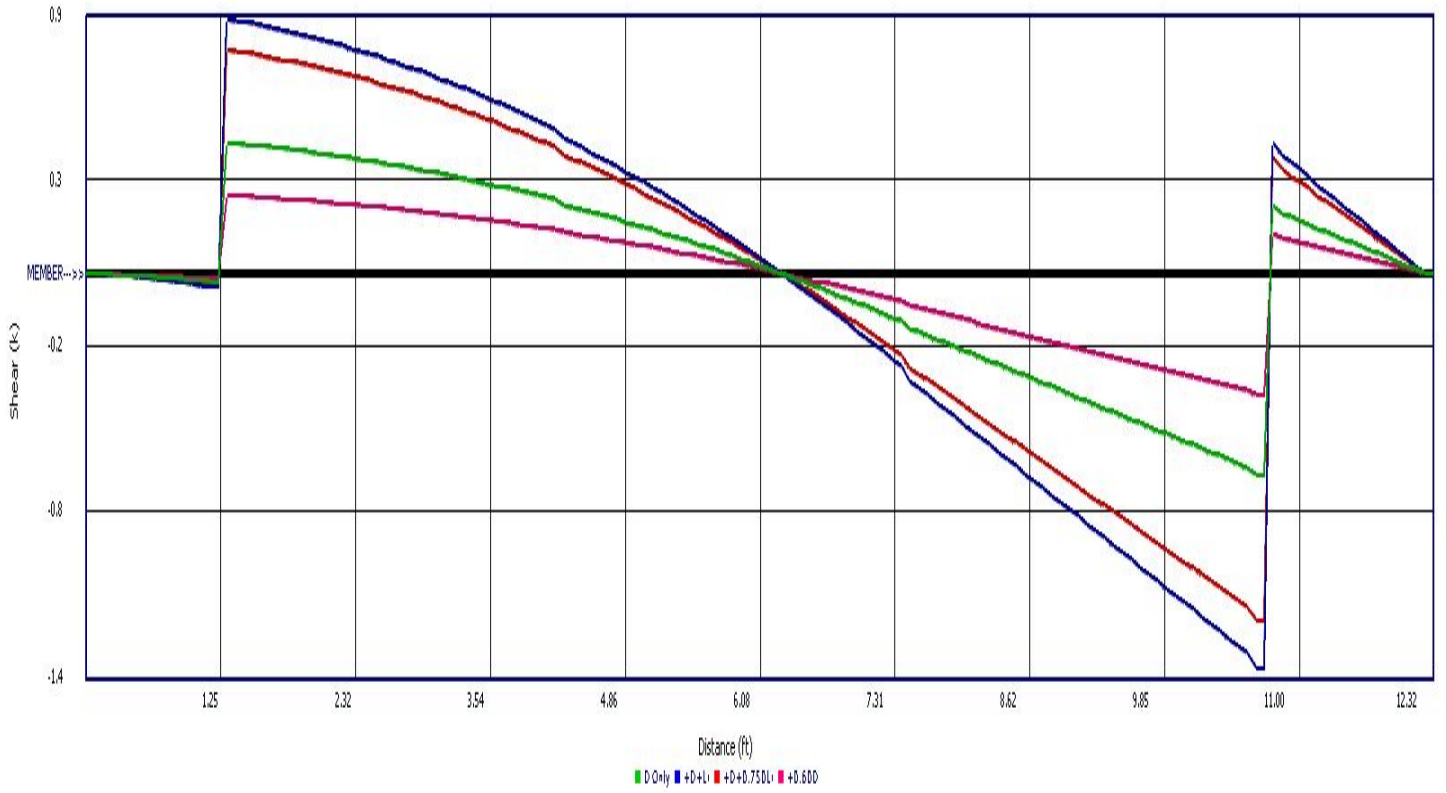
Support notation : Far left is #1 Values in KIPS

Load Combination	Support 1	Support 2	Support 3	Support 4
Max Upward from all Load Conditions		0.904	1.774	
Max Upward from Load Combinations		0.904	1.774	
Max Upward from Load Cases		0.469	0.905	
D Only		0.469	0.905	
+D+Lr		0.904	1.774	
+D+0.750Lr		0.796	1.557	
+0.60D		0.281	0.543	
Lr Only		0.435	0.870	

Wood Beam

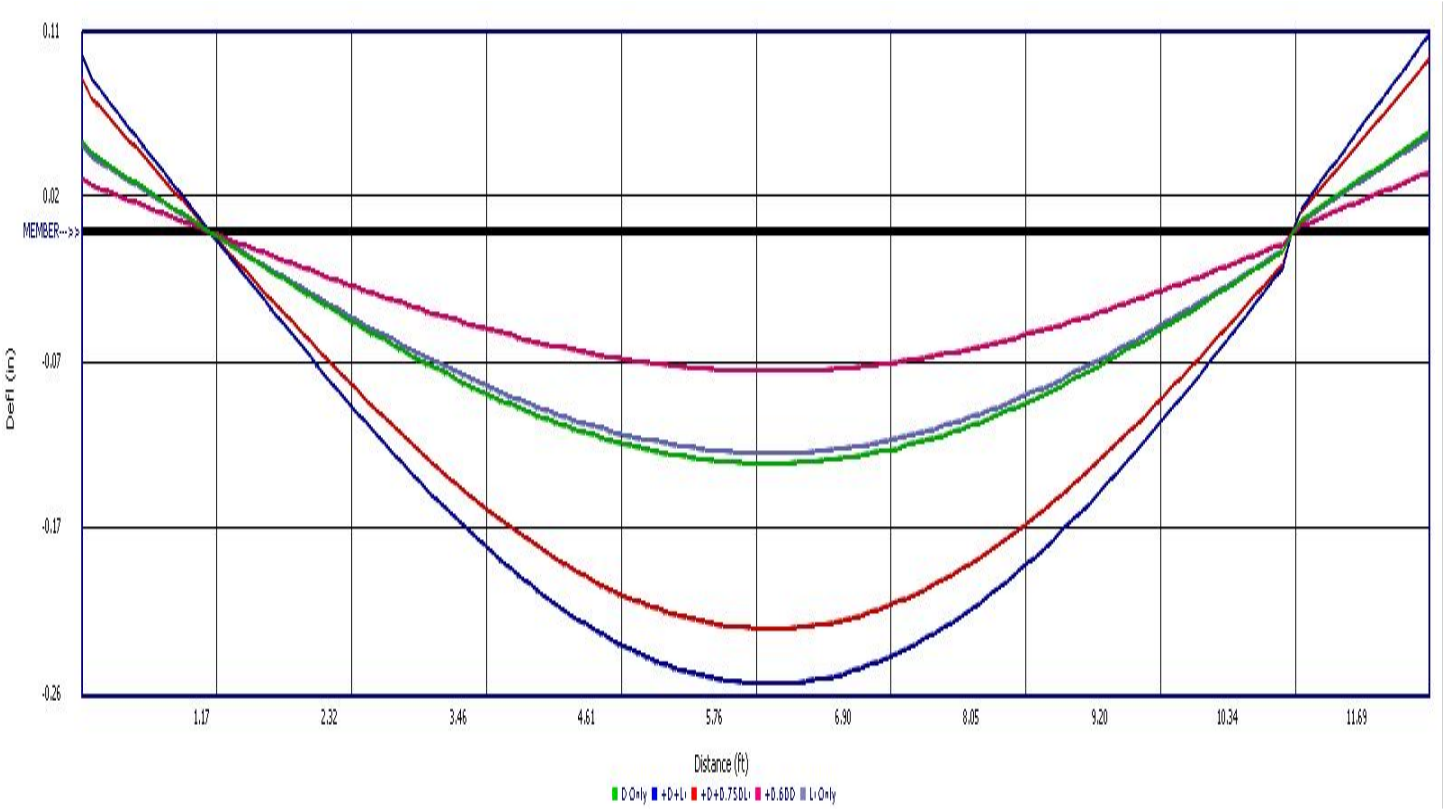
DESCRIPTION: 4x8 Roof Ridge Beam





Wood Beam

DESCRIPTION: 4x8 Roof Ridge Beam



Wood Column

Project File: 69561 Papoose Trail.ec6

DESCRIPTION: 2-2x4 Wood King Post Supporting 4x8 Ridge Beam - Worst Case Loading

Code References

Calculations per NDS 2018, IBC 2021, SDPWS 2021
Load Combinations Used : ASCE 7-16

General Information

Analysis Method	Allowable Stress Design	Wood Section Name	**2-2x4**
End Fixities	Top & Bottom Pinned	Wood Grading/Manuf.	Graded Lumber
Overall Column Height	3.5 ft	Wood Member Type	Sawn
(Used for non-slender calculations)			
Wood Species	Douglas Fir-Larch	Exact Width	**3.0** in
Wood Grade	No.2	Exact Depth	**3.50** in
Fb +	900.0 psi	Fv	180.0 psi
Fb -	900.0 psi	Ft	575.0 psi
Fc - Prll	1,350.0 psi	Density	31.210 pcf
Fc - Perp	625.0 psi		

Area	10.50 in^2
Ix	10.719 in^4
Iy	7.875 in^4

Allow Stress Modification Factors

Cf or Cv for Bending	1.50
Cf or Cv for Compressior	1.150
Cf or Cv for Tension	1.50
Cm : Wet Use Factor	1.0
Ct : Temperature Fact	1.0
Cfu : Flat Use Factor	1.0
Kf : Built-up columns	1.0
Use Cr : Repetitive ?	No

E : Modulus of Elasticity . . .

	x-x Bending	y-y Bending	Axial
Basic	1,600.0	1,600.0	1,600.0 ksi
Minimum	580.0	580.0	

Column Buckling Condition:
ABOUT X-X Axis: Lux = 3.5 ft, Kx = 1.0
ABOUT Y-Y Axis: Luy = 3.5 ft, Ky = 1.0

Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Column self weight included : 7.965 lbs * Dead Load Factor
AXIAL LOADS . . .
Axial Load at 3.50 ft, D = 0.9050, Lr = 0.870 k

DESIGN SUMMARY

Bending & Shear Check Results

PASS Max. Axial+Bending Stress Ratio = **0.1147 : 1**

Load Combination	+D+Lr
Governing NDS Forumla	Comp Only, fc/Fc'
Location of max.above base	0.0 ft
At maximum location values are . .	
Applied Axial	1.783 k
Applied Mx	0.0 k-ft
Applied My	0.0 k-ft
Fc : Allowable	1,480.32 psi

PASS Maximum Shear Stress Ratio = **0.0 : 1**

Load Combination	+0.60D
Location of max.above base	3.50 ft
Applied Design Shear	0.0 psi
Allowable Shear	288.0 psi

Maximum SERVICE Lateral Load Reactions . .

Top along Y-Y	0.0 k	Bottom along Y-Y	0.0 k
Top along X-X	0.0 k	Bottom along X-X	0.0 k

Maximum SERVICE Load Lateral Deflections . . .

Along Y-Y 0.0 in at 0.0 ft above base
for load combination : n/a

Along X-X 0.0 in at 0.0 ft above base
for load combination : n/a

Other Factors used to calculate allowable stresses . . .

	Bending	Compression	Tension

Load Combination Results

Load Combination	C_D	C_P	Maximum Axial + Bending Stress Ratios: Stress Ratio	Status	Location	Maximum Shear Ratios: Stress Ratio	Status	Location
D Only	0.900	0.842	0.07389	PASS	0.0 ft	0.0	PASS	3.50 ft
+D+Lr	1.250	0.763	0.1147	PASS	0.0 ft	0.0	PASS	3.50 ft
+D+0.750Lr	1.250	0.763	0.1007	PASS	0.0 ft	0.0	PASS	3.50 ft
+0.60D	1.600	0.684	0.03072	PASS	0.0 ft	0.0	PASS	3.50 ft

Maximum Reactions

Note: Only non-zero reactions are listed.

Load Combination	X-X Axis Reaction k @ Base	@ Top	Y-Y Axis Reaction @ Base	@ Top	Axial Reaction @ Base	My - End Moments k-ft @ Base	@ Top	Mx - End Moments @ Base	@ Top
D Only					0.913				
+D+Lr					1.783				
+D+0.750Lr					1.565				

Wood Column

Project File: 69561 Papoose Trail.ec6

DESCRIPTION: 2-2x4 Wood King Post Supporting 4x8 Ridge Beam - Worst Case Loading

Maximum Reactions

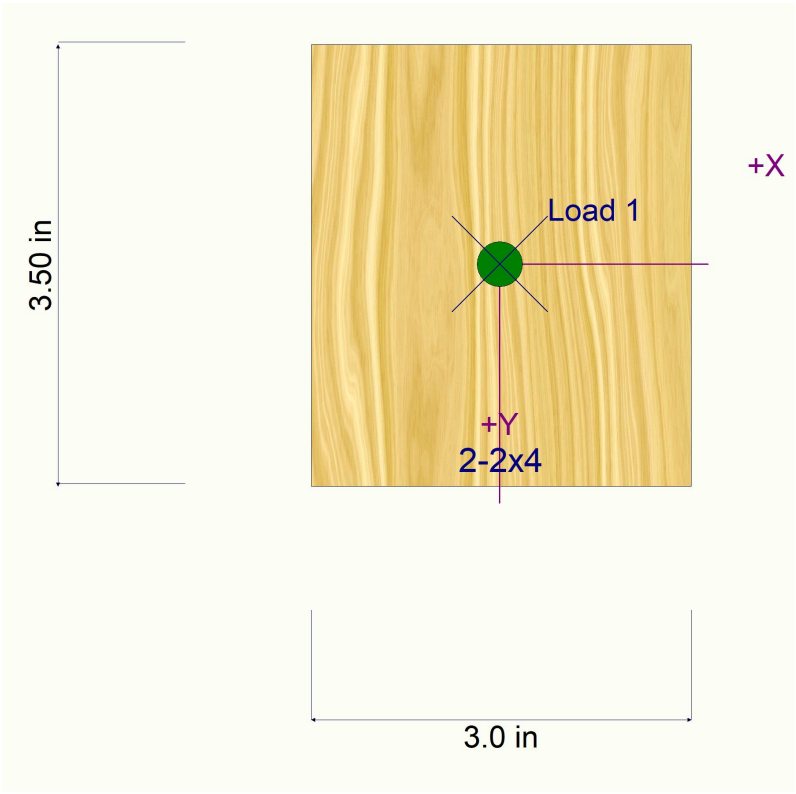
Note: Only non-zero reactions are listed.

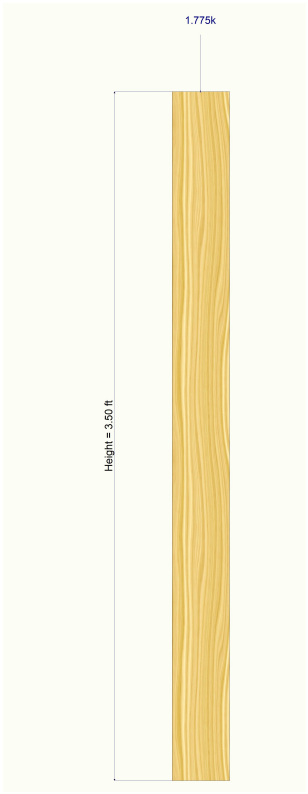
Load Combination	X-X Axis Reaction @ Base	@ Top	k	Y-Y Axis Reaction @ Base	@ Top	Axial Reaction @ Base	My - End Moments @ Base	@ Top	k-ft	Mx - End Moments @ Base	@ Top
+0.60D						0.548					
Lr Only						0.870					

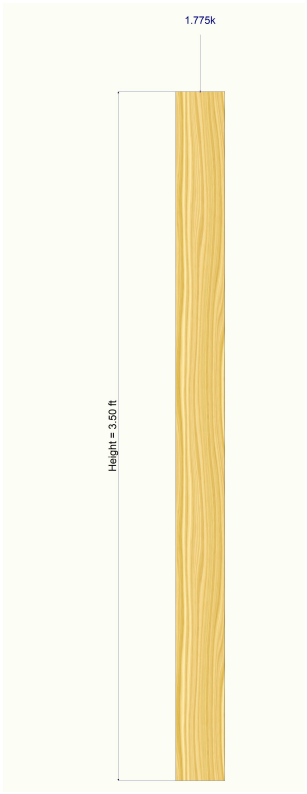
Maximum Deflections for Load Combinations

Load Combination	Max. X-X Deflection	Distance	Max. Y-Y Deflection	Distance
D Only	0.0000 in	0.000 ft	0.000 in	0.000 ft
+D+Lr	0.0000 in	0.000 ft	0.000 in	0.000 ft
+D+0.750Lr	0.0000 in	0.000 ft	0.000 in	0.000 ft
+0.60D	0.0000 in	0.000 ft	0.000 in	0.000 ft
Lr Only	0.0000 in	0.000 ft	0.000 in	0.000 ft

Sketches







Project Title:
Engineer:
Project ID:
Project Descr:

S2.2.10

Wood Beam

Project File: 69561 Papoose Trail.ec6

DESCRIPTION: 4x6 Header Supporting Roof Ridge Beam

CODE REFERENCES

Calculations per NDS 2018, IBC 2021, SDPWS 2021
Load Combination Set : ASCE 7-16

Material Properties

Analysis Method : Allowable Stress Design
Load Combination : ASCE 7-16

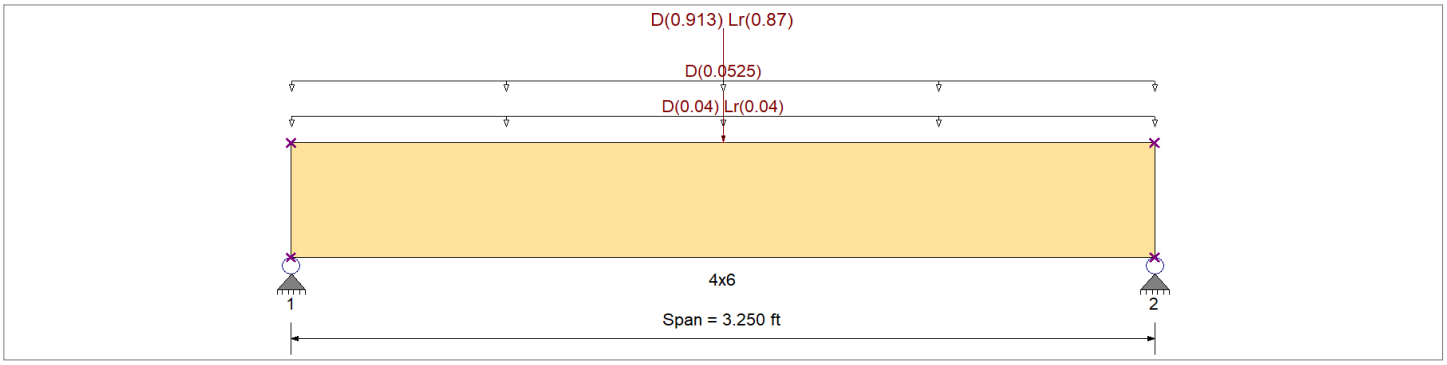
Wood Species : Douglas Fir-Larch
Wood Grade : No.2

Beam Bracing : Completely Unbraced

Fb +	900.0 psi
Fb -	900.0 psi
Fc - Prll	1,350.0 psi
Fc - Perp	625.0 psi
Fv	180.0 psi
Ft	575.0 psi

E : Modulus of Elasticity

Ebend- xx	1,600.0 ksi
Eminbend - xx	580.0 ksi
Density	31.210 pcf



Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Beam self weight calculated and added to loading
Uniform Load : D = 0.020, Lr = 0.020 ksf, Tributary Width = 2.0 ft
Point Load : D = 0.9130, Lr = 0.870 k @ 1.625 ft
Uniform Load : D = 0.0150 ksf, Tributary Width = 3.50 ft

DESIGN SUMMARY

Design OK

Maximum Bending Stress Ratio	=	0.761 : 1	Maximum Shear Stress Ratio	=	0.364 : 1
Section used for this span		4x6	Section used for this span		4x6
fb: Actual	=	1,107.89 psi	fv: Actual	=	81.97 psi
F'b	=	1,456.57 psi	F'v	=	225.00 psi
Load Combination		+D+Lr	Load Combination		+D+Lr
Location of maximum on span	=	1.625 ft	Location of maximum on span	=	2.799 ft
Span # where maximum occurs	=	Span # 1	Span # where maximum occurs	=	Span # 1

Maximum Deflection

Max Downward Transient Deflection	0.015 in	Ratio =	2561	>=240	Span: 1 : Lr Only
Max Upward Transient Deflection	0 in	Ratio =	0	<240	n/a
Max Downward Total Deflection	0.033 in	Ratio =	1182	>=180	Span: 1 : +D+Lr
Max Upward Total Deflection	0 in	Ratio =	0	<180	n/a

Maximum Forces & Stresses for Load Combinations

Load Combination		Max Stress Ratios										Moment Values			Shear Values		
Segment Length	Span #	M	V	CD	CM	C_t	CLx	C_F	Cfu	C_i	C_r	M	fb	F'b	V	fv	F'v
D Only														0.0	0.00	0.0	0.0
Length = 3.250 ft	1	0.563	0.274	0.90	1.00	1.00	1.00	1.300	1.00	1.00	1.00	0.87	591.3	1,050.0	0.57	44.4	162.0
+D+Lr					1.00	1.00	1.00	1.300	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 3.250 ft	1	0.761	0.364	1.25	1.00	1.00	1.00	1.300	1.00	1.00	1.00	1.63	1,107.9	1,456.6	1.05	82.0	225.0
+D+0.750Lr					1.00	1.00	1.00	1.300	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 3.250 ft	1	0.672	0.323	1.25	1.00	1.00	1.00	1.300	1.00	1.00	1.00	1.44	978.7	1,456.6	0.93	72.6	225.0
+0.60D					1.00	1.00	1.00	1.300	1.00	1.00	1.00			0.0	0.00	0.0	0.0

Wood Beam

Project File: 69561 Papoose Trail.ec6

DESCRIPTION: 4x6 Header Supporting Roof Ridge Beam

Maximum Forces & Stresses for Load Combinations

Load Combination		Max Stress Ratios										Moment Values			Shear Values		
Segment Length	Span #	M	V	CD	CM	C_t	CLx	C_F	Cfu	C_i	C_r	M	fb	F'b	V	fv	F'v
Length = 3.250 ft	**1**	0.191	0.093	1.60	1.00	1.00	0.99	1.300	1.00	1.00	1.00	0.52	354.8	1,862.1	0.34	26.7	288.0

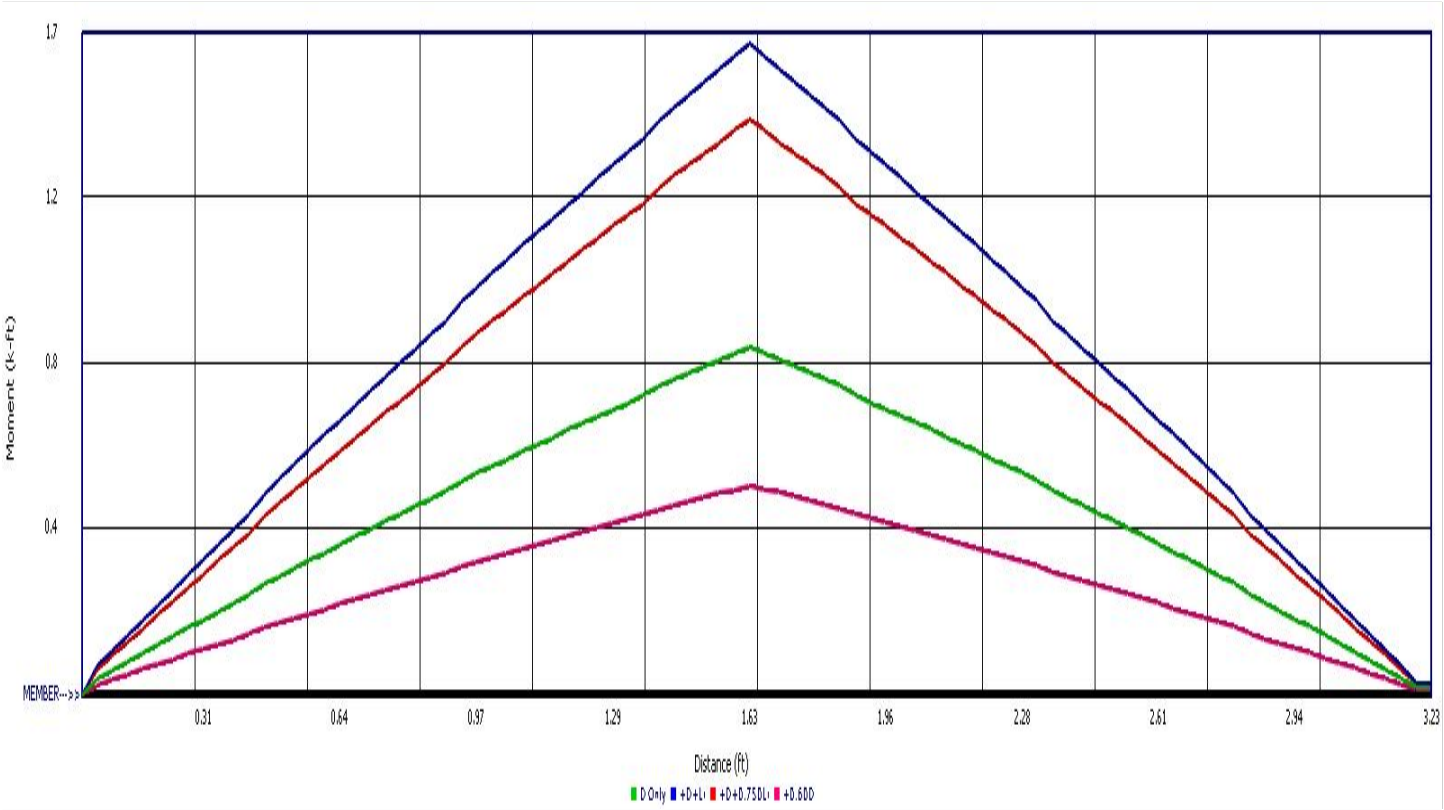
Overall Maximum Deflections

Span	Load Combination	Max. "-" Defl	Location in Span	Load Combination	Max. "+" Defl	Location in Span
1	+D+Lr	0.0330	1.637		0.0000	0.000

Vertical Reactions

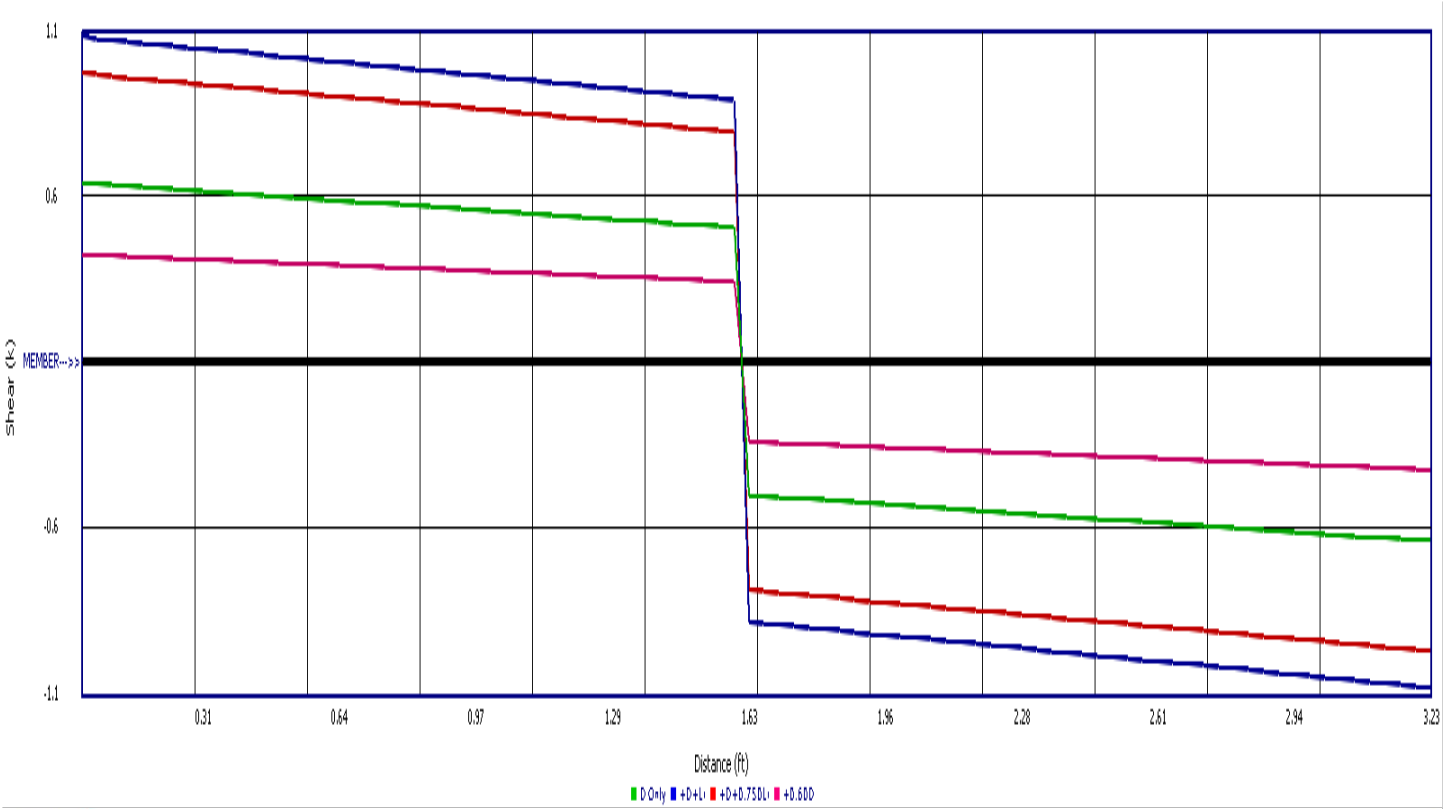
Support notation : Far left is #1 Values in KIPS

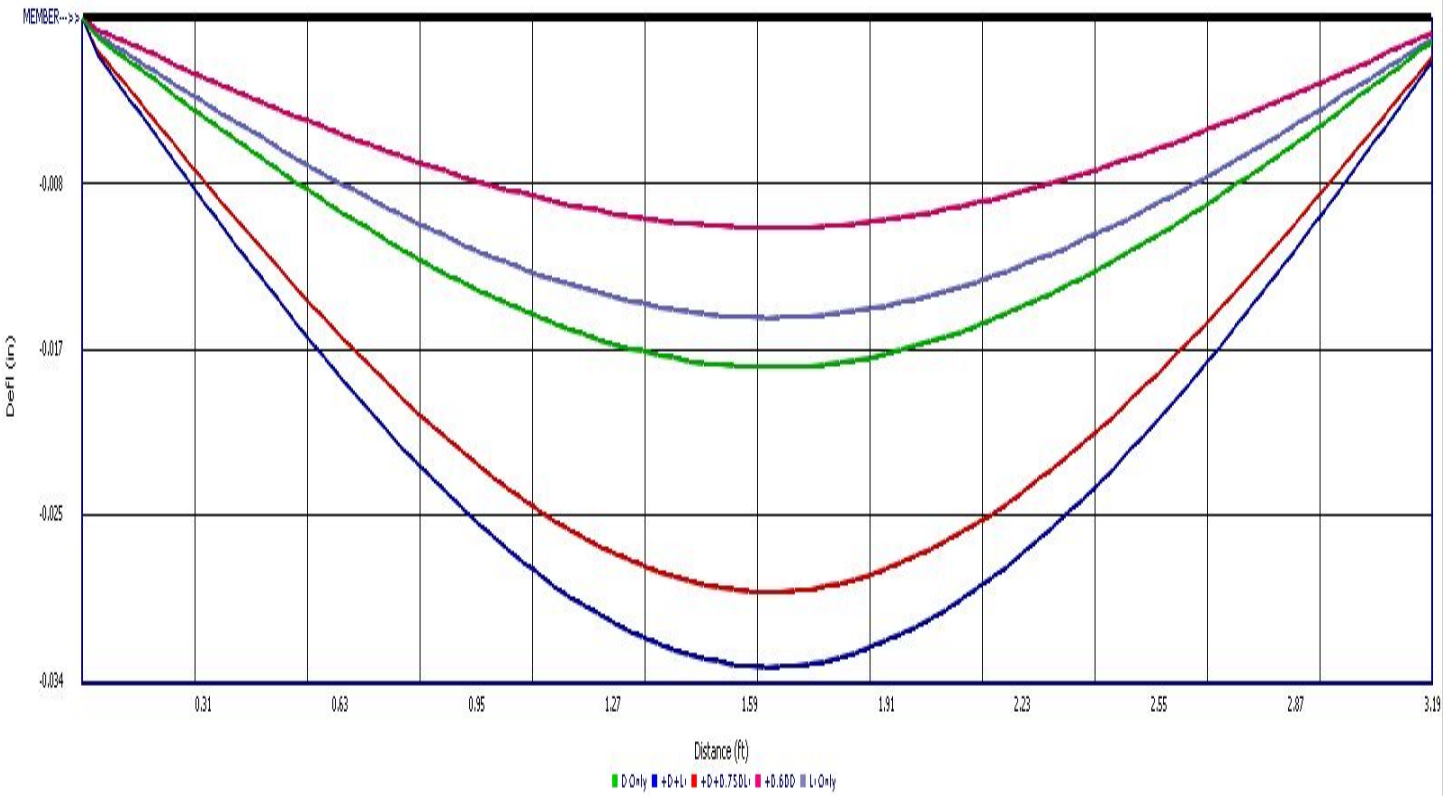
Load Combination	Support 1	Support 2
Max Upward from all Load Conditions	1.114	1.114
Max Upward from Load Combinations	1.114	1.114
Max Upward from Load Cases	0.614	0.614
D Only	0.614	0.614
+D+Lr	1.114	1.114
+D+0.750Lr	0.989	0.989
+0.60D	0.368	0.368
Lr Only	0.500	0.500



Wood Beam

DESCRIPTION: 4x6 Header Supporting Roof Ridge Beam





Project Title:
Engineer:
Project ID:
Project Descr:

S2.2.13

Wood Column

Project File: 69561 Papoose Trail.ec6

DESCRIPTION: 2x4 Trimmer Stud Supporting 4x6 Header

Code References

Calculations per NDS 2018, IBC 2021, SDPWS 2021
Load Combinations Used : ASCE 7-16

General Information

Analysis Method	Allowable Stress Design		
End Fixities	Top & Bottom Pinned		
Overall Column Height	6.5 ft		
(Used for non-slender calculations)			
Wood Species	Douglas Fir-Larch		
Wood Grade	No.2		
Fb +	900.0 psi	Fv	180.0 psi
Fb -	900.0 psi	Ft	575.0 psi
Fc - Prll	1,350.0 psi	Density	31.210 pcf
Fc - Perp	625.0 psi		

E : Modulus of Elasticity . . .	x-x Bending	y-y Bending	Axial
Basic	1,600.0	1,600.0	1,600.0 ksi
Minimum	580.0	580.0	

Wood Section Name	**2x4**		
Wood Grading/Manuf.	Graded Lumber		
Wood Member Type	Sawn		
Exact Width	**1.50** in	Allow Stress Modification Factors	
Exact Depth	**3.50** in	Cf or Cv for Bending	1.50
Area	5.250 in^2	Cf or Cv for Compressior	1.150
Ix	5.359 in^4	Cf or Cv for Tension	1.50
Iy	0.9844 in^4	Cm : Wet Use Factor	1.0
		Ct : Temperature Fact	1.0
		Cfu : Flat Use Factor	1.0
		Kf : Built-up columns	1.0
		Use Cr : Repetitive ?	No

Column Buckling Condition:
ABOUT X-X Axis: Lux = 6.5 ft, Kx = 1.0
Fully braced against buckling ABOUT Y-Y Axis

Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Column self weight included : 7.396 lbs * Dead Load Factor
AXIAL LOADS . . .
Axial Load at 6.50 ft, D = 0.6140, Lr = 0.50 k

DESIGN SUMMARY

Bending & Shear Check Results

PASS Max. Axial+Bending Stress Ratio = **0.2561 : 1**

Load Combination	+D+Lr
Governing NDS Forumla	Comp Only, fc/Fc'
Location of max.above base	0.0 ft
At maximum location values are . .	
Applied Axial	1.121 k
Applied Mx	0.0 k-ft
Applied My	0.0 k-ft
Fc : Allowable	834.17 psi

PASS Maximum Shear Stress Ratio = **0.0 : 1**

Load Combination	+0.60D
Location of max.above base	6.50 ft
Applied Design Shear	0.0 psi
Allowable Shear	288.0 psi

Maximum SERVICE Lateral Load Reactions . .

Top along Y-Y	0.0 k	Bottom along Y-Y	0.0 k
Top along X-X	0.0 k	Bottom along X-X	0.0 k

Maximum SERVICE Load Lateral Deflections . . .

Along Y-Y 0.0 in at 0.0 ft above base
for load combination : n/a

Along X-X 0.0 in at 0.0 ft above base
for load combination : n/a

Other Factors used to calculate allowable stresses . . .

	Bending	Compression	Tension

Load Combination Results

Load Combination	C_D	C_P	Maximum Axial + Bending Stress Ratios: Stress Ratio	Status	Location	Maximum Shear Ratios: Stress Ratio	Status	Location
D Only	0.900	0.551	0.1536	PASS	0.0 ft	0.0	PASS	6.50 ft
+D+Lr	1.250	0.430	0.2561	PASS	0.0 ft	0.0	PASS	6.50 ft
+D+0.750Lr	1.250	0.430	0.2275	PASS	0.0 ft	0.0	PASS	6.50 ft
+0.60D	1.600	0.349	0.08191	PASS	0.0 ft	0.0	PASS	6.50 ft

Maximum Reactions

Note: Only non-zero reactions are listed.

Load Combination	X-X Axis Reaction k @ Base	@ Top	Y-Y Axis Reaction @ Base	@ Top	Axial Reaction @ Base	My - End Moments k-ft @ Base	@ Top	Mx - End Moments @ Base	@ Top
D Only					0.621				
+D+Lr					1.121				
+D+0.750Lr					0.996				

Wood Column

Project File: 69561 Papoose Trail.ec6

DESCRIPTION: 2x4 Trimmer Stud Supporting 4x6 Header

Maximum Reactions

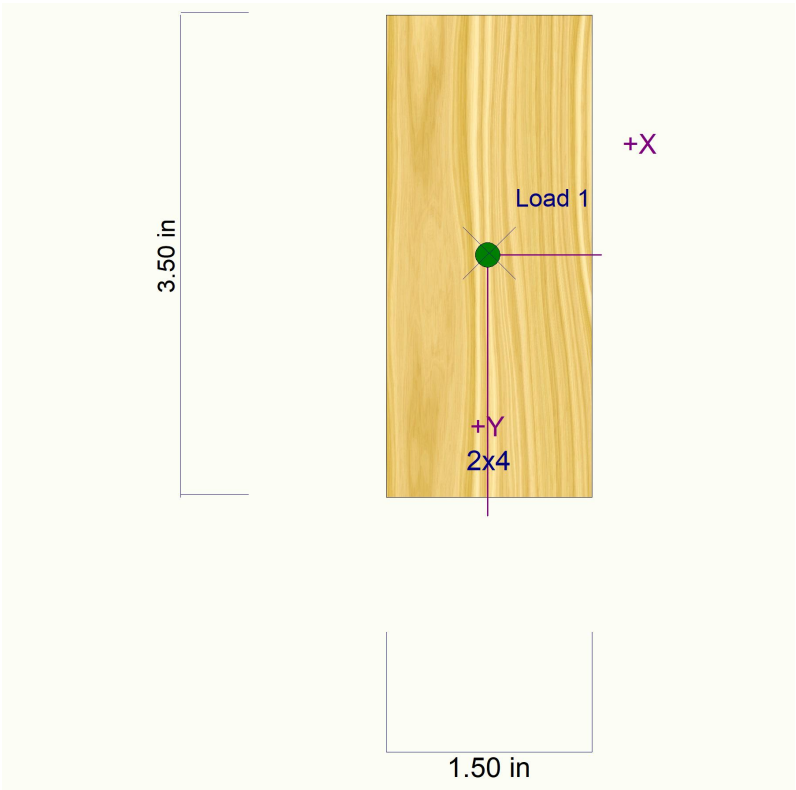
Note: Only non-zero reactions are listed.

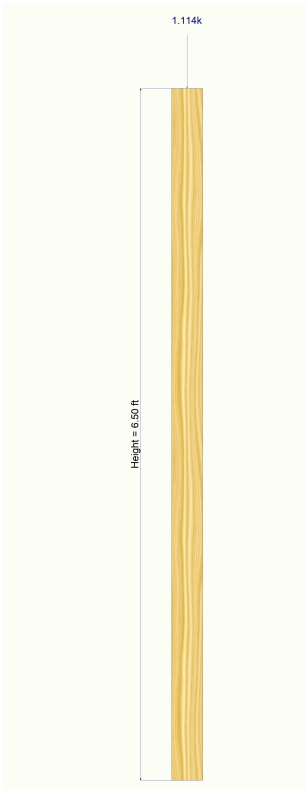
Load Combination	X-X Axis Reaction @ Base	@ Top	k	Y-Y Axis Reaction @ Base	@ Top	Axial Reaction @ Base	My - End Moments @ Base	@ Top	k-ft	Mx - End Moments @ Base	@ Top
+0.60D						0.373					
Lr Only						0.500					

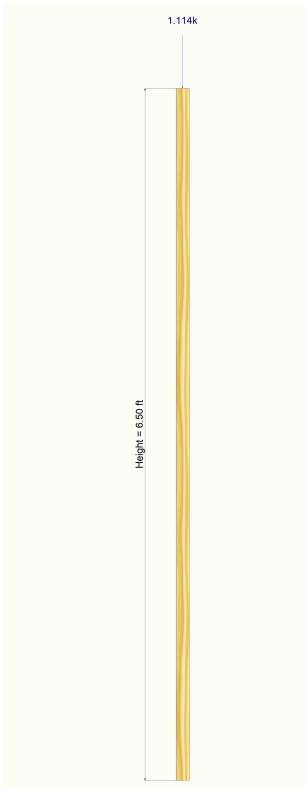
Maximum Deflections for Load Combinations

Load Combination	Max. X-X Deflection	Distance	Max. Y-Y Deflection	Distance
D Only	0.0000 in	0.000 ft	0.000 in	0.000 ft
+D+Lr	0.0000 in	0.000 ft	0.000 in	0.000 ft
+D+0.750Lr	0.0000 in	0.000 ft	0.000 in	0.000 ft
+0.60D	0.0000 in	0.000 ft	0.000 in	0.000 ft
Lr Only	0.0000 in	0.000 ft	0.000 in	0.000 ft

Sketches







Project Title:
Engineer:
Project ID:
Project Descr:

S2.2.15

Wood Beam

Project File: 69561 Papoose Trail.ec6

DESCRIPTION: 4x6 Roof Hip Beam

CODE REFERENCES

Calculations per NDS 2018, IBC 2021, SDPWS 2021
Load Combination Set : ASCE 7-16

Material Properties

Analysis Method : Allowable Stress Design
Load Combination : ASCE 7-16

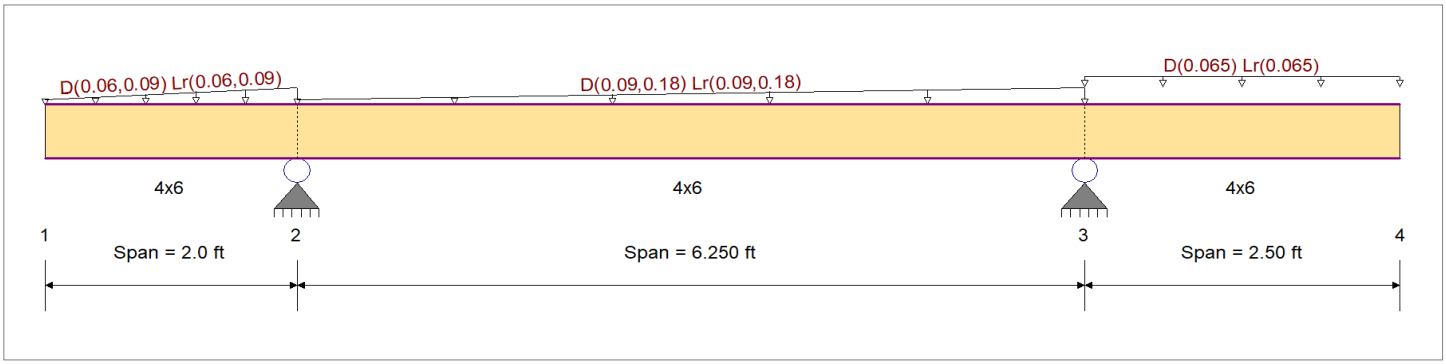
Wood Species : Douglas Fir-Larch
Wood Grade : No.2

Beam Bracing : Beam is Fully Braced against lateral-torsional buckling

Fb +	900.0 psi
Fb -	900.0 psi
Fc - Prll	1,350.0 psi
Fc - Perp	625.0 psi
Fv	180.0 psi
Ft	575.0 psi

E : Modulus of Elasticity

Ebend- xx	1,600.0 ksi
Eminbend - xx	580.0 ksi
Density	31.210 pcf



Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Beam self weight calculated and added to loading
Load for Span Number 1
Varying Uniform Load : D= 0.020->0.020, Lr= 0.020->0.020 ksf, Extent = 0.0 -->> 2.0 ft, Trib Width = 3.0->4.50 ft

Load for Span Number 2
Varying Uniform Load : D= 0.020->0.020, Lr= 0.020->0.020 ksf, Extent = 0.0 -->> 6.250 ft, Trib Width = 4.50->9.0 ft

Load for Span Number 3
Uniform Load : D = 0.020, Lr = 0.020 ksf, Tributary Width = 3.250 ft

DESIGN SUMMARY

Design OK

Maximum Bending Stress Ratio	=	0.459 : 1	Maximum Shear Stress Ratio	=	0.284 : 1
Section used for this span		4x6	Section used for this span		4x6
fb: Actual	=	670.60 psi	fv: Actual	=	63.98 psi
F'b	=	1,462.50 psi	F'v	=	225.00 psi
Load Combination		+D+Lr	Load Combination		+D+Lr
Location of maximum on span	=	3.204 ft	Location of maximum on span	=	5.830 ft
Span # where maximum occurs	=	Span # 2	Span # where maximum occurs	=	Span # 2

Maximum Deflection

Max Downward Transient Deflection	0.042 in	Ratio = 1805	>=240	Span: 2 : Lr Only
Max Upward Transient Deflection	-0.034 in	Ratio = 1398	>=240	Span: 1 : Lr Only
Max Downward Total Deflection	0.084 in	Ratio = 895	>=180	Span: 2 : +D+Lr
Max Upward Total Deflection	-0.069 in	Ratio = 694	>=180	Span: 1 : +D+Lr

Maximum Forces & Stresses for Load Combinations

Load Combination / Segment Length	Span #	Max Stress Ratios M	V	CD	CM	C_t	CLx	C_F	Cfu	C_i	C_r	Moment Values M	fb	F'b	Shear Values V	fv	F'v
D Only														0.0	0.00	0.0	0.0
Length = 2.0 ft	1	0.096	0.162	0.90	1.00	1.00	1.00	1.300	1.00	1.00	1.00	0.15	100.9	1,053.0	0.34	26.2	162.0
Length = 6.250 ft	2	0.322	0.200	0.90	1.00	1.00	1.00	1.300	1.00	1.00	1.00	0.50	338.6	1,053.0	0.42	32.5	162.0

Wood Beam

Project File: 69561 Papoose Trail.ec6

DESCRIPTION: 4x6 Roof Hip Beam

Maximum Forces & Stresses for Load Combinations

Load Combination / Segment Length	Span #	Max Stress Ratios M	V	CD	CM	C_t	CLx	C_F	Cfu	C_i	C_r	Moment Values M	fb	F'b	Shear Values V	fv	F'v
Length = 2.50 ft	**3**	0.140	0.200	0.90	1.00	1.00	1.00	1.300	1.00	1.00	1.00	0.22	147.0	1,053.0	0.14	32.5	162.0
+D+Lr					1.00	1.00	1.00	1.300	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 2.0 ft	**1**	0.134	0.229	1.25	1.00	1.00	1.00	1.300	1.00	1.00	1.00	0.29	196.1	1,462.5	0.66	51.6	225.0
Length = 6.250 ft	**2**	0.459	0.284	1.25	1.00	1.00	1.00	1.300	1.00	1.00	1.00	0.99	670.6	1,462.5	0.82	64.0	225.0
Length = 2.50 ft	**3**	0.195	0.284	1.25	1.00	1.00	1.00	1.300	1.00	1.00	1.00	0.42	285.1	1,462.5	0.28	64.0	225.0
+D+0.750Lr					1.00	1.00	1.00	1.300	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 2.0 ft	**1**	0.118	0.201	1.25	1.00	1.00	1.00	1.300	1.00	1.00	1.00	0.25	172.3	1,462.5	0.58	45.2	225.0
Length = 6.250 ft	**2**	0.402	0.249	1.25	1.00	1.00	1.00	1.300	1.00	1.00	1.00	0.86	587.6	1,462.5	0.72	56.1	225.0
Length = 2.50 ft	**3**	0.171	0.249	1.25	1.00	1.00	1.00	1.300	1.00	1.00	1.00	0.37	250.6	1,462.5	0.24	56.1	225.0
+0.60D					1.00	1.00	1.00	1.300	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 2.0 ft	**1**	0.032	0.055	1.60	1.00	1.00	1.00	1.300	1.00	1.00	1.00	0.09	60.5	1,872.0	0.20	15.7	288.0
Length = 6.250 ft	**2**	0.109	0.068	1.60	1.00	1.00	1.00	1.300	1.00	1.00	1.00	0.30	203.1	1,872.0	0.25	19.5	288.0
Length = 2.50 ft	**3**	0.047	0.068	1.60	1.00	1.00	1.00	1.300	1.00	1.00	1.00	0.13	88.2	1,872.0	0.09	19.5	288.0

Overall Maximum Deflections

Span	Load Combination	Max. "-" Defl	Location in Span	Load Combination	Max. "+" Defl	Location in Span
1		0.0000	0.000	+D+Lr	-0.0690	0.000
2	+D+Lr	0.0838	3.151		0.0000	0.000
3		0.0000	3.151	+D+Lr	-0.0788	2.500

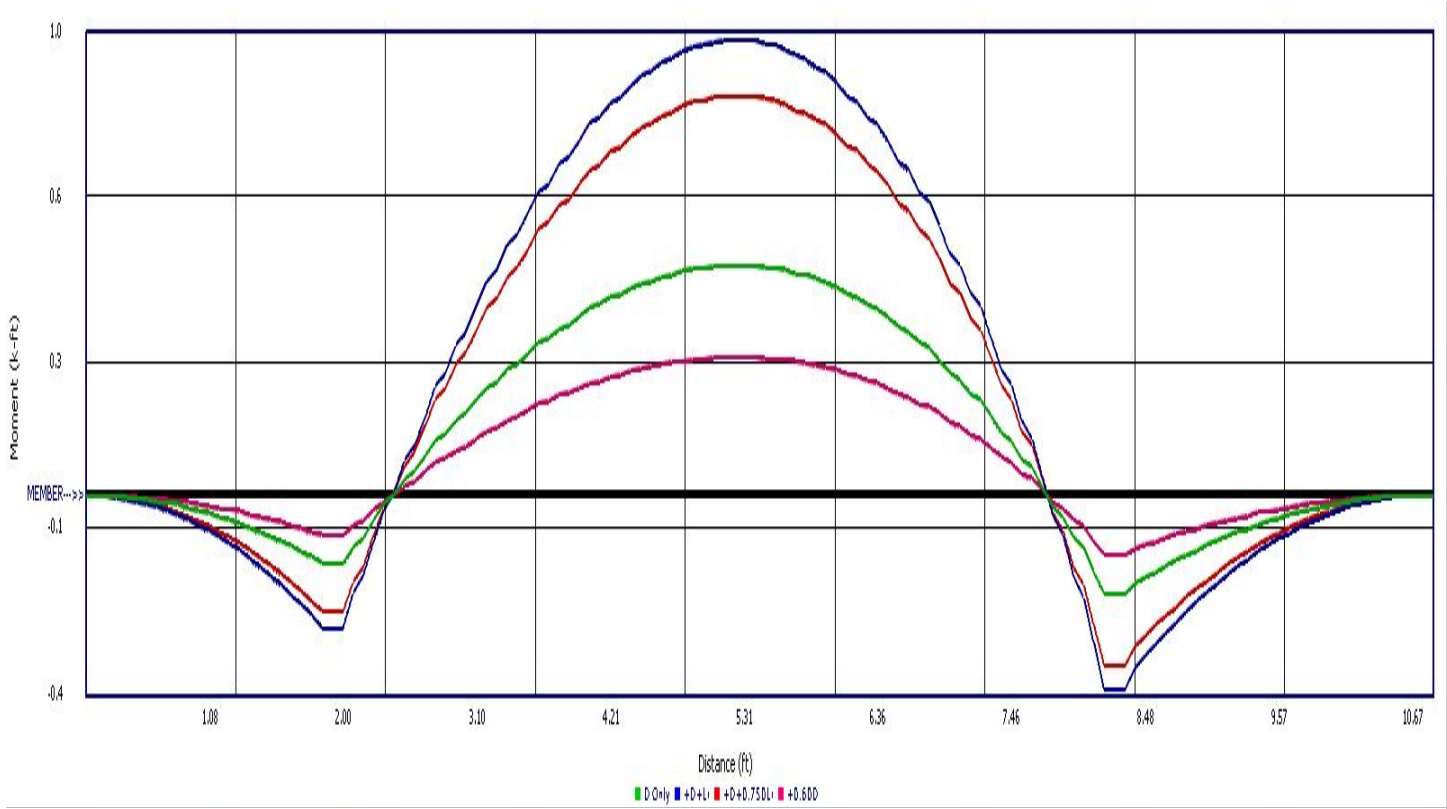
Vertical Reactions

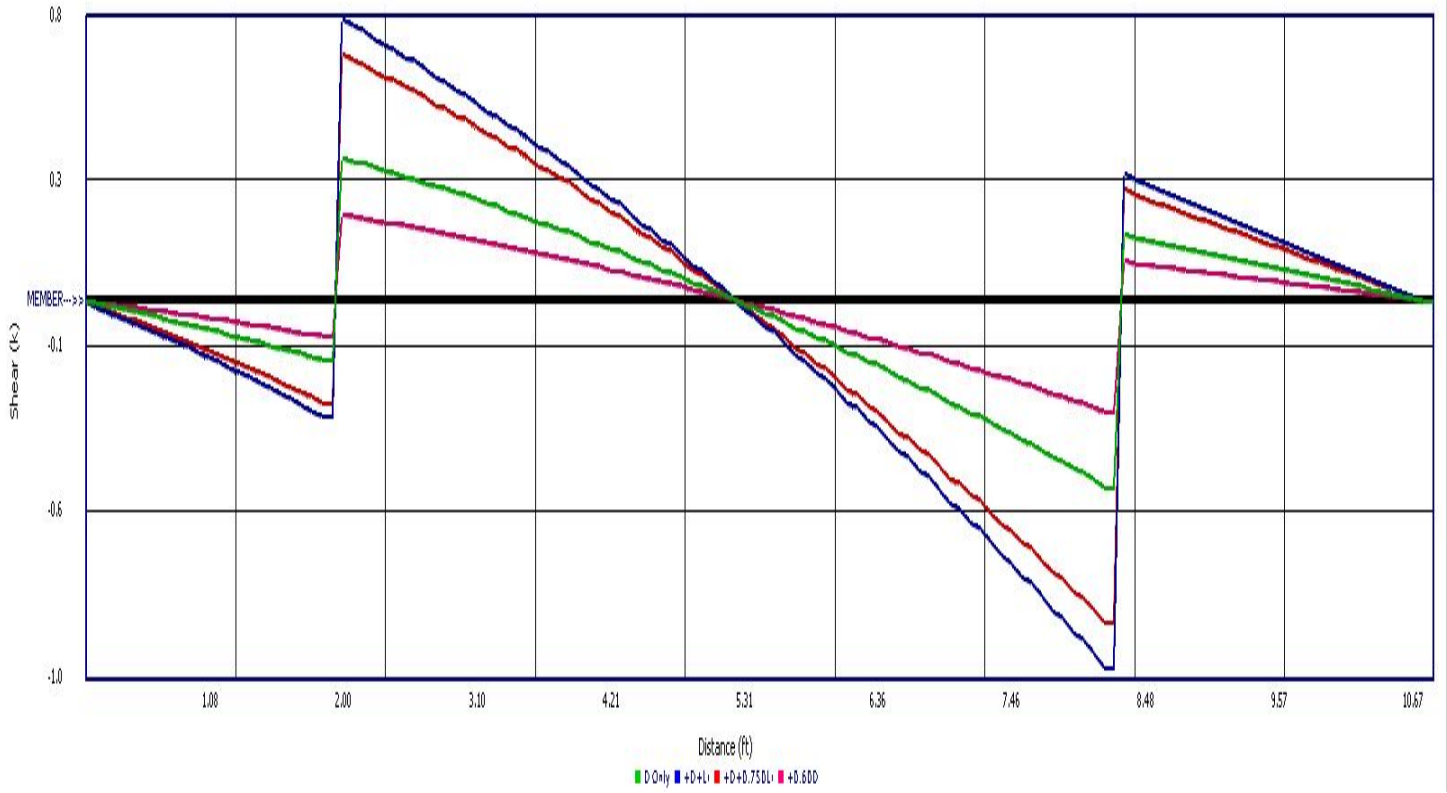
Support notation : Far left is #1 Values in KIPS

Load Combination	Support 1	Support 2	Support 3	Support 4
Max Upward from all Load Conditions		1.050	1.307	
Max Upward from Load Combinations		1.050	1.307	
Max Upward from Load Cases		0.536	0.666	
D Only		0.536	0.666	
+D+Lr		1.050	1.307	
+D+0.750Lr		0.922	1.147	
+0.60D		0.321	0.399	
Lr Only		0.515	0.641	

Wood Beam

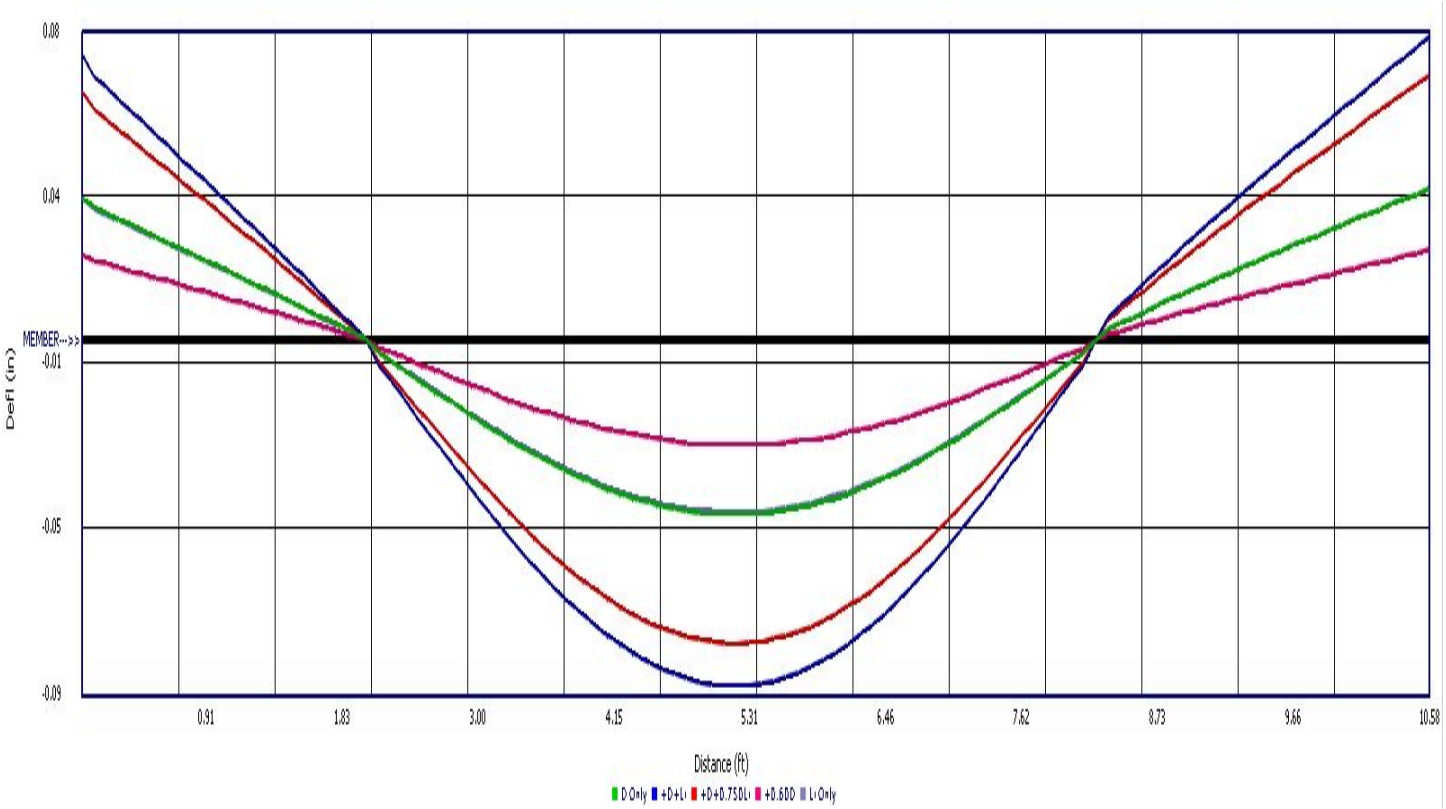
DESCRIPTION: 4x6 Roof Hip Beam





Wood Beam

DESCRIPTION: 4x6 Roof Hip Beam



Wood Column

Project File: 69561 Papoose Trail.ec6

DESCRIPTION: 2-2x4 Wood Post Supporting 4x6 Hip Beam

Code References

Calculations per NDS 2018, IBC 2021, SDPWS 2021
Load Combinations Used : ASCE 7-16

General Information

Analysis Method	Allowable Stress Design		
End Fixities	Top & Bottom Pinned		
Overall Column Height	10.5 ft		
(Used for non-slender calculations)			
Wood Species	Douglas Fir-Larch		
Wood Grade	No.2		
Fb +	900.0 psi	Fv	180.0 psi
Fb -	900.0 psi	Ft	575.0 psi
Fc - Prll	1,350.0 psi	Density	31.210 pcf
Fc - Perp	625.0 psi		

E : Modulus of Elasticity . . .	x-x Bending	y-y Bending	Axial
Basic	1,600.0	1,600.0	1,600.0 ksi
Minimum	580.0	580.0	

Wood Section Name	**2-2x4**		
Wood Grading/Manuf.	Graded Lumber		
Wood Member Type	Sawn		
Exact Width	**3.0** in	Allow Stress Modification Factors	
Exact Depth	**3.50** in	Cf or Cv for Bending	1.50
Area	10.50 in^2	Cf or Cv for Compressior	1.150
Ix	10.719 in^4	Cf or Cv for Tension	1.50
Iy	7.875 in^4	Cm : Wet Use Factor	1.0
		Ct : Temperature Fact	1.0
		Cfu : Flat Use Factor	1.0
		Kf : Built-up columns	1.0
		Use Cr : Repetitive ?	No

Column Buckling Condition:
ABOUT X-X Axis: Lux = 10.5 ft, Kx = 1.0
ABOUT Y-Y Axis: Luy = 10.5 ft, Ky = 1.0

Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Column self weight included : 23.895 lbs * Dead Load Factor
AXIAL LOADS . . .
Axial Load at 10.50 ft, D = 0.6660, Lr = 0.6410 k

DESIGN SUMMARY

Bending & Shear Check Results

PASS Max. Axial+Bending Stress Ratio = **0.4836 : 1**

Load Combination	+D+Lr
Governing NDS Forumla	Comp Only, fc/Fc'
Location of max.above base	0.0 ft
At maximum location values are . .	
Applied Axial	1.331 k
Applied Mx	0.0 k-ft
Applied My	0.0 k-ft
Fc : Allowable	262.088 psi

PASS Maximum Shear Stress Ratio = **0.0 : 1**

Load Combination	+0.60D
Location of max.above base	10.50 ft
Applied Design Shear	0.0 psi
Allowable Shear	288.0 psi

Maximum SERVICE Lateral Load Reactions . .

Top along Y-Y	0.0 k	Bottom along Y-Y	0.0 k
Top along X-X	0.0 k	Bottom along X-X	0.0 k

Maximum SERVICE Load Lateral Deflections . . .

Along Y-Y 0.0 in at 0.0 ft above base
for load combination : n/a

Along X-X 0.0 in at 0.0 ft above base
for load combination : n/a

Other Factors used to calculate allowable stresses . . .

	Bending	Compression	Tension

Load Combination Results

Load Combination	C_D	C_P	Maximum Axial + Bending Stress Ratios: Stress Ratio	Status	Location	Maximum Shear Ratios: Stress Ratio	Status	Location
D Only	0.900	0.185	0.2541	PASS	0.0 ft	0.0	PASS	10.50 ft
+D+Lr	1.250	0.135	0.4836	PASS	0.0 ft	0.0	PASS	10.50 ft
+D+0.750Lr	1.250	0.135	0.4254	PASS	0.0 ft	0.0	PASS	10.50 ft
+0.60D	1.600	0.106	0.1493	PASS	0.0 ft	0.0	PASS	10.50 ft

Maximum Reactions

Note: Only non-zero reactions are listed.

Load Combination	X-X Axis Reaction k @ Base	@ Top	Y-Y Axis Reaction @ Base	@ Top	Axial Reaction @ Base	My - End Moments k-ft @ Base	@ Top	Mx - End Moments @ Base	@ Top
D Only					0.690				
+D+Lr					1.331				
+D+0.750Lr					1.171				

Wood Column

Project File: 69561 Papoose Trail.ec6

DESCRIPTION: 2-2x4 Wood Post Supporting 4x6 Hip Beam

Maximum Reactions

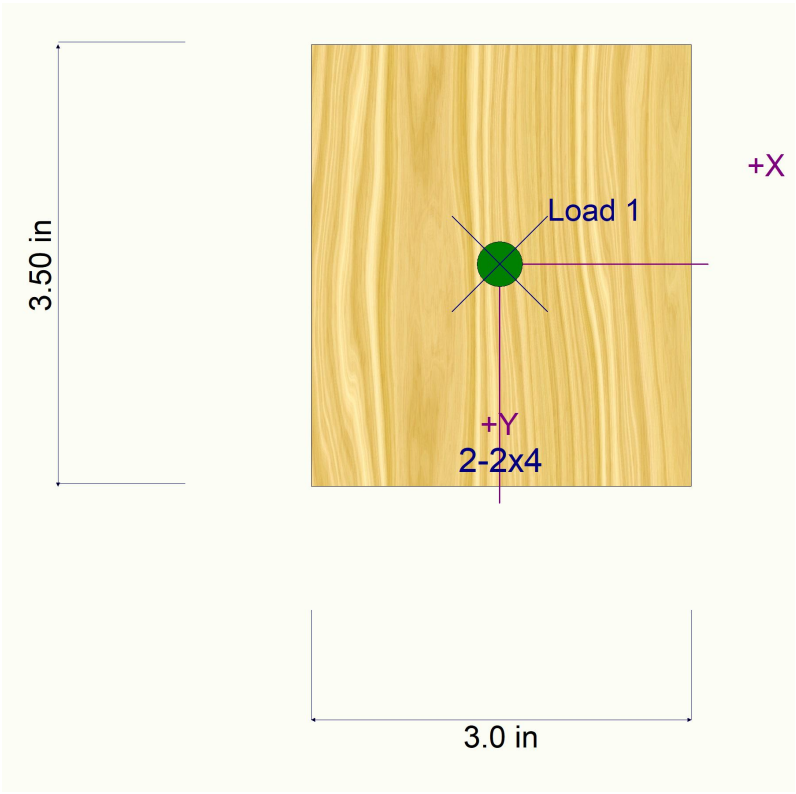
Note: Only non-zero reactions are listed.

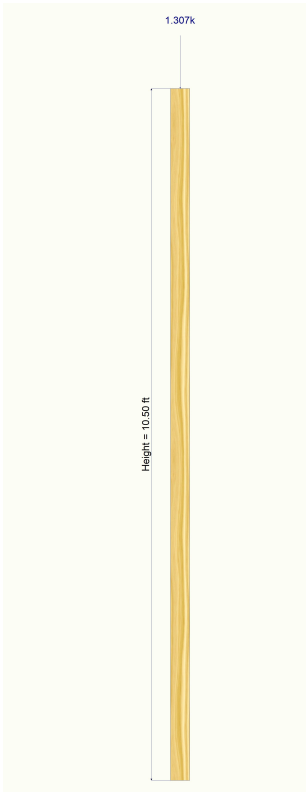
Load Combination	X-X Axis Reaction @ Base	@ Top	k	Y-Y Axis Reaction @ Base	@ Top	Axial Reaction @ Base	My - End Moments @ Base	@ Top	k-ft	Mx - End Moments @ Base	@ Top
+0.60D						0.414					
Lr Only						0.641					

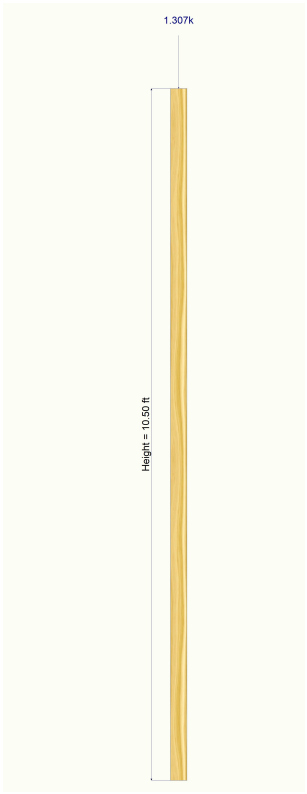
Maximum Deflections for Load Combinations

Load Combination	Max. X-X Deflection	Distance	Max. Y-Y Deflection	Distance
D Only	0.0000 in	0.000 ft	0.000 in	0.000 ft
+D+Lr	0.0000 in	0.000 ft	0.000 in	0.000 ft
+D+0.750Lr	0.0000 in	0.000 ft	0.000 in	0.000 ft
+0.60D	0.0000 in	0.000 ft	0.000 in	0.000 ft
Lr Only	0.0000 in	0.000 ft	0.000 in	0.000 ft

Sketches







Project Title:
Engineer:
Project ID:
Project Descr:

S2.2.21

Wood Beam

Project File: 69561 Papoose Trail.ec6

DESCRIPTION: 4x6 Roof Drag Beam

CODE REFERENCES

Calculations per NDS 2018, IBC 2021, SDPWS 2021
Load Combination Set : ASCE 7-16

Material Properties

Analysis Method : Allowable Stress Design
Load Combination : ASCE 7-16

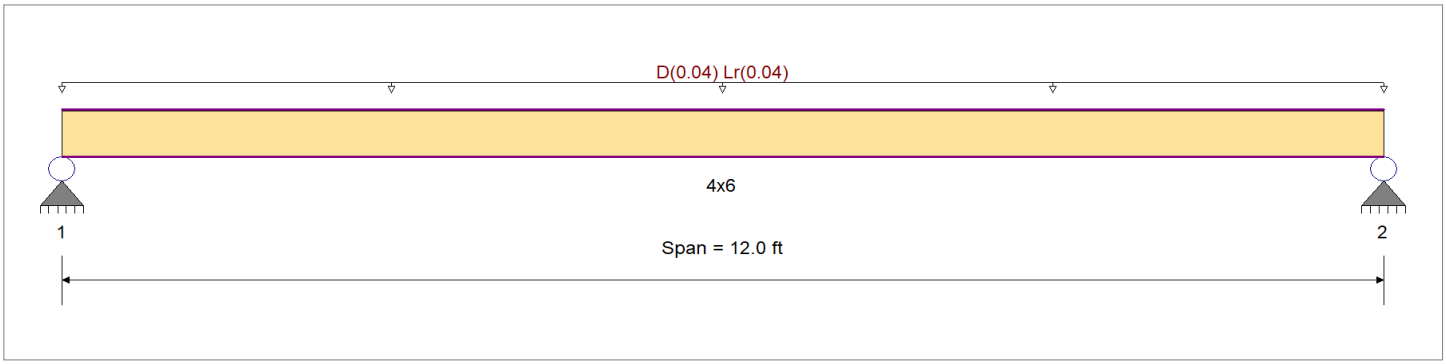
Wood Species : Douglas Fir-Larch
Wood Grade : No.2

Beam Bracing : Beam is Fully Braced against lateral-torsional buckling

Fb +	900.0 psi
Fb -	900.0 psi
Fc - Prll	1,350.0 psi
Fc - Perp	625.0 psi
Fv	180.0 psi
Ft	575.0 psi

E : Modulus of Elasticity

Ebend- xx	1,600.0 ksi
Eminbend - xx	580.0 ksi
Density	31.210 pcf



Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Beam self weight calculated and added to loading
Uniform Load : D = 0.020, Lr = 0.020 ksf, Tributary Width = 2.0 ft

DESIGN SUMMARY

Design OK

Maximum Bending Stress Ratio	=	0.705 : 1	Maximum Shear Stress Ratio	=	0.162 : 1
Section used for this span		4x6	Section used for this span		4x6
fb: Actual	=	1,030.34 psi	fv: Actual	=	36.48 psi
F'b	=	1,462.50 psi	F'v	=	225.00 psi
Load Combination		+D+Lr	Load Combination		+D+Lr
Location of maximum on span	=	6.000 ft	Location of maximum on span	=	0.000 ft
Span # where maximum occurs	=	Span # 1	Span # where maximum occurs	=	Span # 1

Maximum Deflection

Max Downward Transient Deflection	0.242 in	Ratio =	595	>=240	Span: 1 : Lr Only
Max Upward Transient Deflection	0 in	Ratio =	0	<240	n/a
Max Downward Total Deflection	0.509 in	Ratio =	283	>=180	Span: 1 : +D+Lr
Max Upward Total Deflection	0 in	Ratio =	0	<180	n/a

Maximum Forces & Stresses for Load Combinations

Load Combination / Segment Length	Span #	Max Stress Ratios M	V	CD	CM	C_t	CLx	C_F	Cfu	C_i	C_r	Moment Values M	fb	F'b	Shear Values V	fv	F'v
D Only														0.0	0.00	0.0	0.0
Length = 12.0 ft	1	0.513	0.118	0.90	1.00	1.00	1.00	1.300	1.00	1.00	1.00	0.80	540.7	1,053.0	0.25	19.1	162.0
+D+Lr					1.00	1.00	1.00	1.300	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 12.0 ft	1	0.705	0.162	1.25	1.00	1.00	1.00	1.300	1.00	1.00	1.00	1.52	1,030.3	1,462.5	0.47	36.5	225.0
+D+0.750Lr					1.00	1.00	1.00	1.300	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 12.0 ft	1	0.621	0.143	1.25	1.00	1.00	1.00	1.300	1.00	1.00	1.00	1.34	907.9	1,462.5	0.41	32.1	225.0
+0.60D					1.00	1.00	1.00	1.300	1.00	1.00	1.00			0.0	0.00	0.0	0.0
Length = 12.0 ft	1	0.173	0.040	1.60	1.00	1.00	1.00	1.300	1.00	1.00	1.00	0.48	324.4	1,872.0	0.15	11.5	288.0

Wood Beam

Project File: 69561 Papoose Trail.ec6

DESCRIPTION: 4x6 Roof Drag Beam

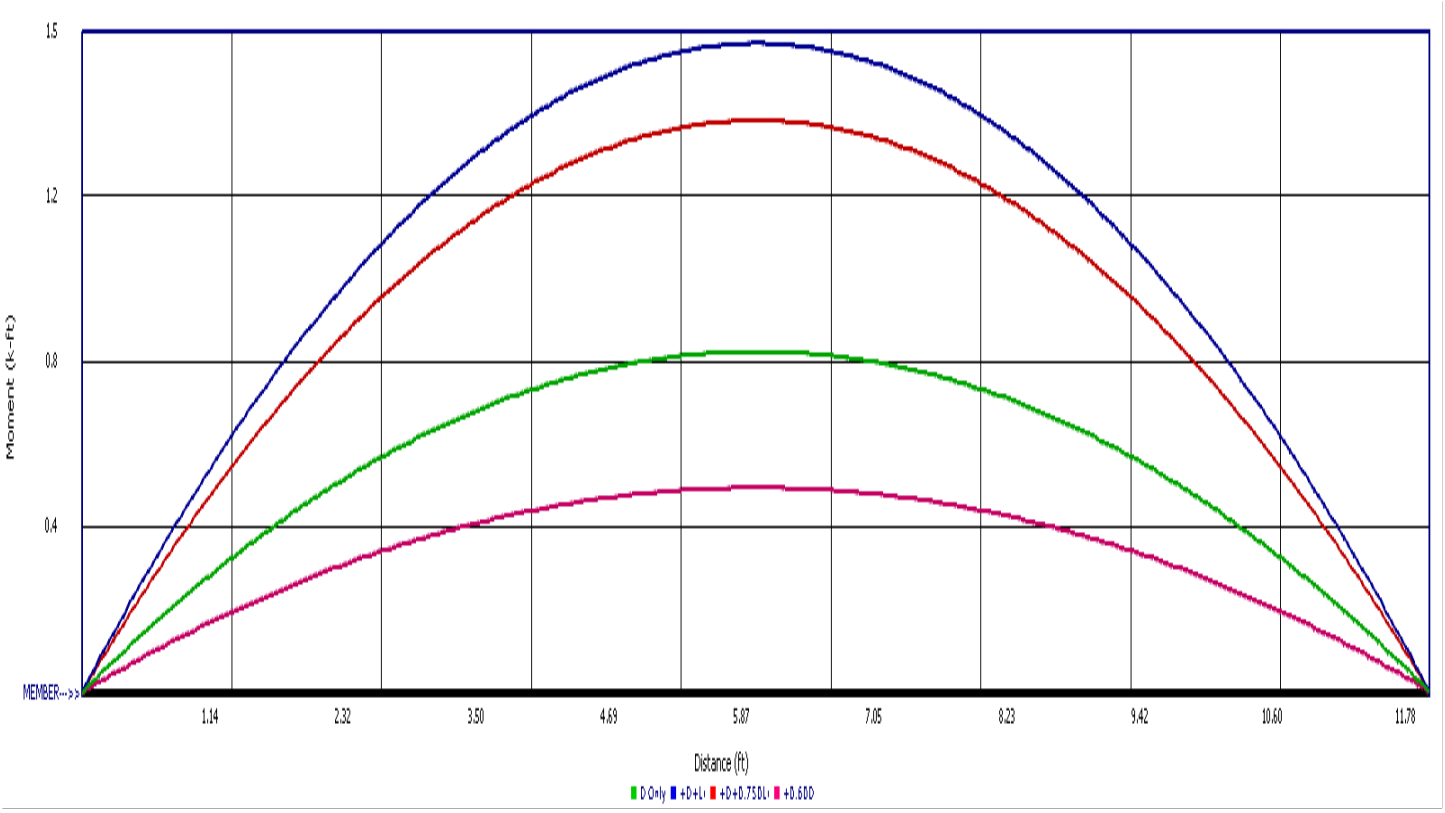
Overall Maximum Deflections

Span	Load Combination	Max. "-" Defl	Location in Span	Load Combination	Max. "+" Defl	Location in Span
1	+D+Lr	0.5088	6.044		0.0000	0.000

Vertical Reactions

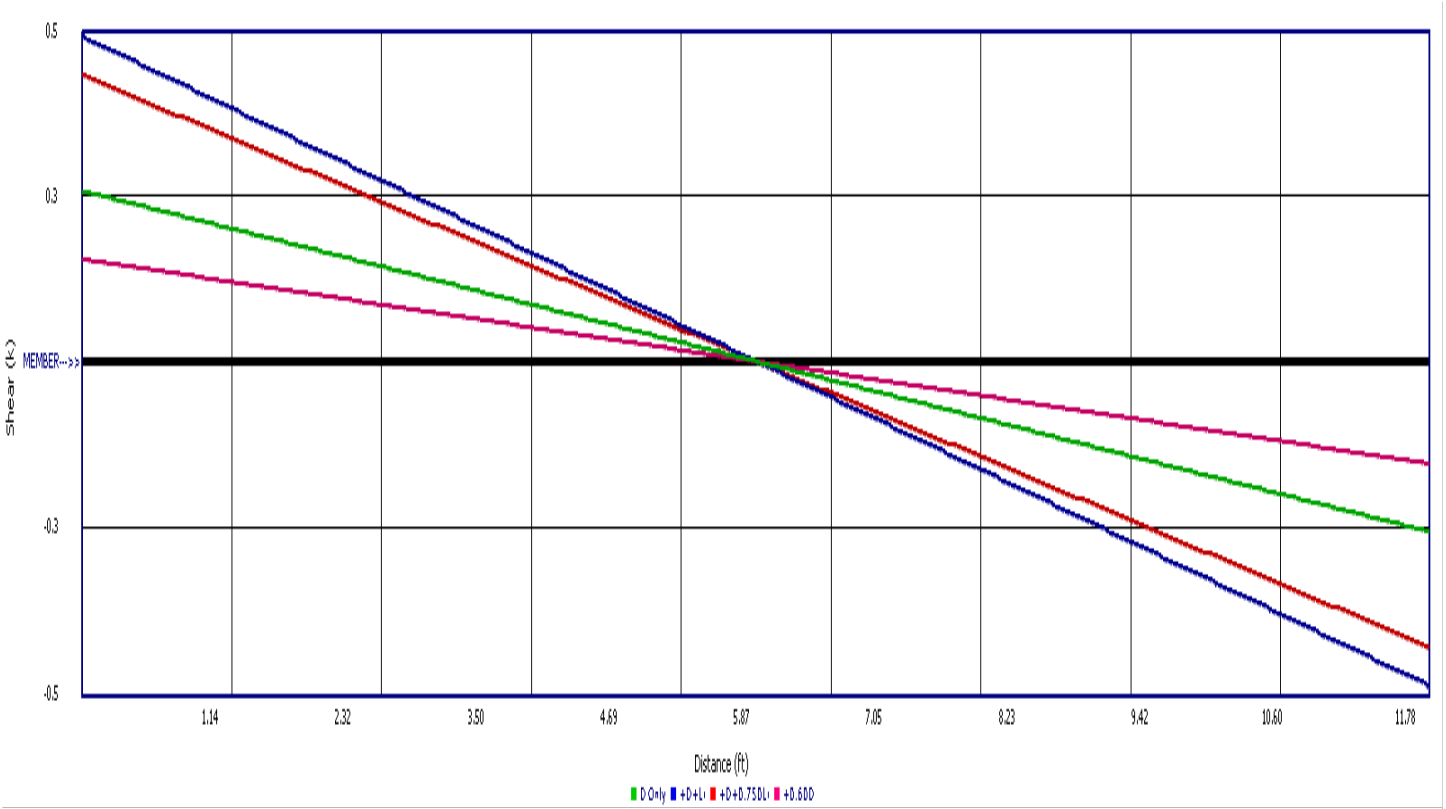
Support notation : Far left is #1 Values in KIPS

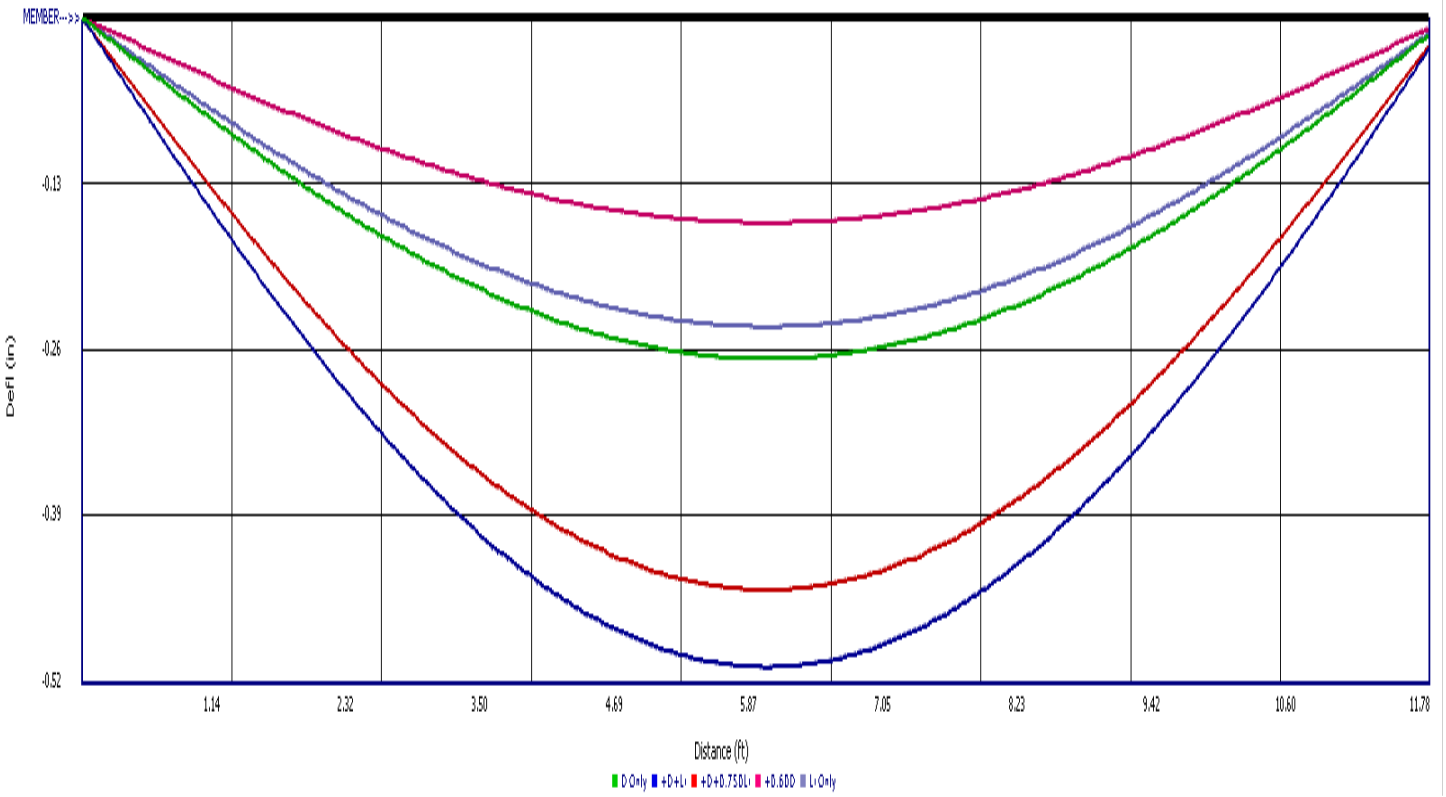
Load Combination	Support 1	Support 2
Max Upward from all Load Conditions	0.505	0.505
Max Upward from Load Combinations	0.505	0.505
Max Upward from Load Cases	0.265	0.265
D Only	0.265	0.265
+D+Lr	0.505	0.505
+D+0.750Lr	0.445	0.445
+0.60D	0.159	0.159
Lr Only	0.240	0.240



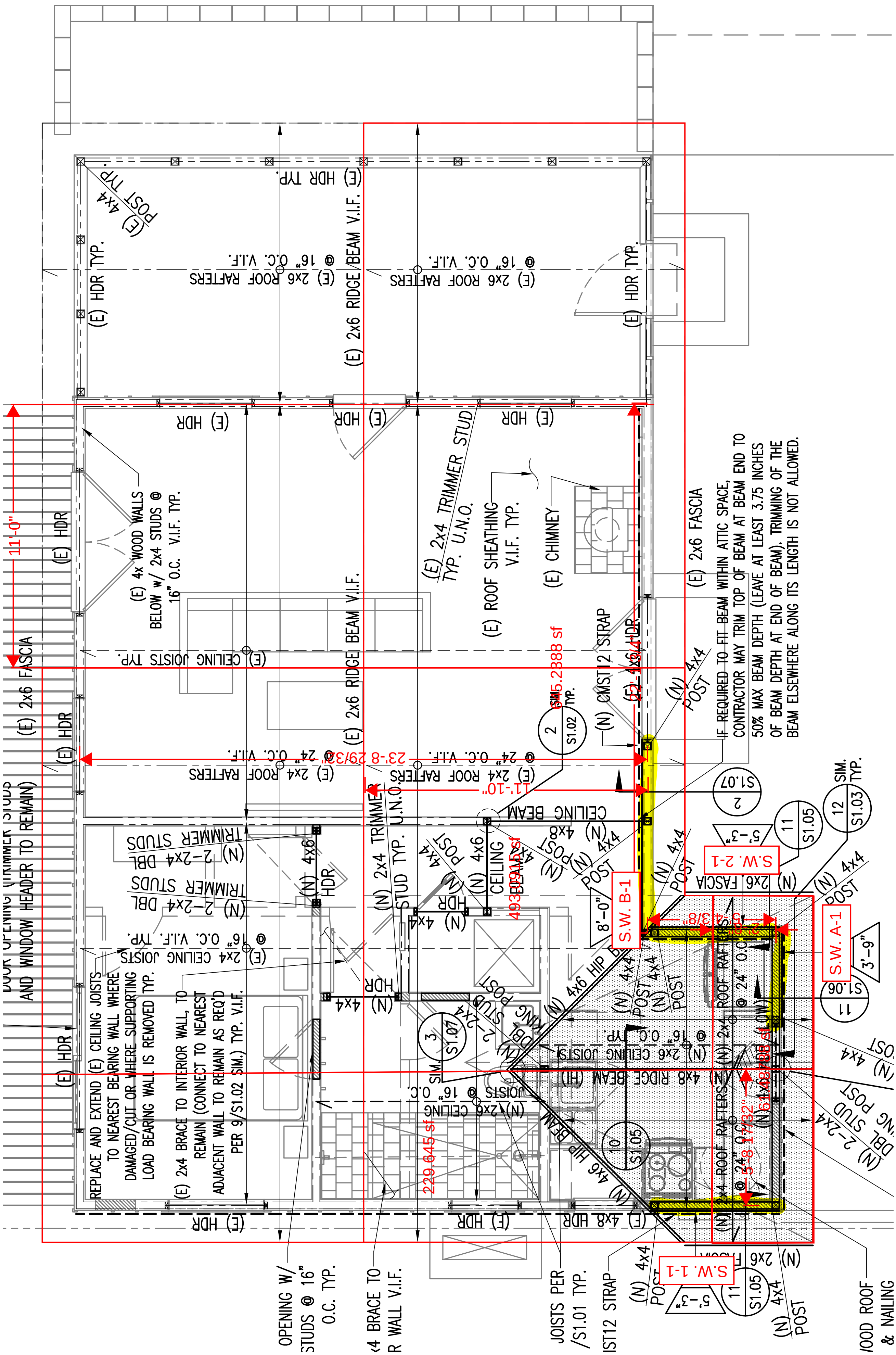
Wood Beam

DESCRIPTION: 4x6 Roof Drag Beam





SHEAR WALL KEY PLAN



Job Name	69561 Papoose Trail, Twentynine Palms
Job Number	24102

Seismic Parameters

S_{DS}	=	1.305	
Rho	ρ =	1.3	
C_d	C_d =	6.5	
Allowable Drift	Δ_a =	0.02	h_{sx}

Story Parameters

The highest level shall always be in the top row

Level	DL (psf)	LL (psf)	Floor depth (in)	Diaph./Conn. (plf)
Roof	20	0	8	425

Wood Structural Panel Parameters

	Exterior	Interior
Strength reduction factor	1.00	1.00
Stiffness reduction factor	1.00	1.00
Panel Type	Plywood	OSB
Wall Self Weight (psf)	24	12

Other

Use COLA HD values?	No

PROJECT : 69561 Papoose Trail, Twentynine P

JOB NO. : 24102

DATE : 2/17/2025

Reidar Marrs Engineers, Inc.

Wood Shear Wall Analysis Based on IBC 21 / CBC 22 / SDPWS 15 — Selection of shearwall types & Uplift Analysis

Design Input:

Shearwall type is per schedule in typical details

rho = 1.3 *(applied in the ASD unit shear)*

Vdesign is at strength level before rho is applied

Design Assumption: *Load combinations for compression design: 1.183DL +0.7E & 1.13DL+0.75LL+0.75Lr+0.525E*

Design Spectral Acceleration S_{DS} *1.305* *Load combination for tension design: 0.417DL + 0.7E*

Wall ID	Story	Length	Height	V_{DESIGN}	ASD Unit Shear	Capacity Reduction	Shearwall Type	Allowable shear	DCR	Wall Weight	Gravity Tributary	Wall DL	Wall LL	Tension @ left post	Comp. @ left post	Select Device	Allow tension	Allow Comp.	Tension DCR	Comp. DCR	Tension @ right post	Comp. @ right post	Select Device	Allow tension	Allow Comp.	Tension DCR	Comp. DCR
-	-	(ft)	(ft)	(kips)	(plf)	-	-	(plf)		(psf)	(ft)	(plf)	(plf)	(kips)	(kips)		(kips)	(kips)			(kips)	(kips)		(kips)	(kips)		
1-1	Roof	5.3	8.0	0.9	160	1.00	1	260	0.62	24	4.50	282	0	1.1	1.9	HDU2	3.1	8.6	0.36	0.22	1.1	1.9	HDU2	3.1	8.6	0.36	0.22
2-1	Roof	5.3	8.0	2.0	343	1.00	3	510	0.67	24	4.50	282	0	2.8	3.6	HDU2	3.1	8.6	0.90	0.42	2.8	3.6	HDU2	3.1	8.6	0.90	0.42
A-1	Roof	3.8	10.5	0.2	60	0.92	1	240	0.25	24	2.00	292	0	0.5	1.3	HDU2	3.1	4.9	0.17	0.25	0.5	1.3	HDU2	3.1	4.9	0.17	0.25
B-1	Roof	8.0	8.0	2.6	295	1.00	2	350	0.84	24	7.50	342	0	2.0	3.1	HDU2	3.1	8.6	0.64	0.37	2.0	3.1	HDU2	3.1	8.6	0.64	0.37

PROJECT : 69561 Papoose Trail, Twentynine P
JOB NO. : 24102
DATE : 2/17/2025

Reidar Marrs Engineers, Inc.

Wood Shear Wall Analysis Based on IBC 21 / CBC 22 / SDPWS 15 — Shearwall deflection check

Design Input:

Allowable story drift Δ_a = 0.02 h_{sx}

Deflection amplification factor C_d = 6.5

Design Spectral Acceleration S_{DS} 1.305

Wall ID	Story	Length	Height	V_{DESIGN}	ASD Unit Shear	Shearwall Type	Int/Ext	Left Device	Right Device	LRFD Unit Shear	Stiffness Reduction	G_a	$8vh^3/EAb$	vh/G_a	$\Delta_a h/b$	δ_{xe}	$\Delta_a * H/C_d$	Check
-	-	(ft)	(ft)	(kips)	(plf)							(k/in)				(in)	(in)	
1-1	Roof	5.3	8.0	0.9	160	1	E	HDU2	HDU2	176	1.00	12.0	0.007	0.107	0.050	0.165	0.30	OK
2-1	Roof	5.3	8.0	2.0	343	3	E	HDU2	HDU2	377	1.00	24.0	0.015	0.115	0.124	0.254	0.30	OK
A-1	Roof	3.8	10.5	0.2	60	1	E	HDU2	HDU2	66	1.00	12.0	0.008	0.054	0.042	0.105	0.39	OK
B-1	Roof	8.0	8.0	2.6	295	2	E	HDU2	HDU2	324	1.00	15.6	0.008	0.152	0.058	0.218	0.30	OK

General Footing

Project File: 69561 Papoose Trail.ec6

DESCRIPTION: Check Existing Continuous Wall Footing for HDU2 4x4 Shear Wall End Post Load (Worst-Case)

Code References

Calculations per ACI 318-19, IBC 2021
Load Combinations Used : ASCE 7-16

General Information

Material Properties

f'c : Concrete 28 day strength	=	2.50	ksi
fy : Rebar Yield	=	60.0	ksi
Ec : Concrete Elastic Modulus	=	2,850.0	ksi
Concrete Density	=	145.0	pcf
φ Values Flexure	=	0.90	
Shear	=	0.750	

Analysis Settings

Min Steel % Bending Reinf.	=	
Min Allow % Temp Reinf.	=	0.00180
Min. Overturning Safety Factor	=	1.0 : 1
Min. Sliding Safety Factor	=	1.0 : 1
Add Ftg Wt for Soil Pressure	:	Yes
Use ftg wt for stability, moments & shears	:	Yes
Add Pedestal Wt for Soil Pressure	:	No
Use Pedestal wt for stability, mom & shear	:	No

Soil Design Values

Allowable Soil Bearing	=	1.50	ksf
Soil Density	=	110.0	pcf
Increase Bearing By Footing Weight	=	No	
Soil Passive Resistance (for Sliding)	=	100.0	pcf
Soil/Concrete Friction Coeff.	=	0.250	

Increases based on footing Depth

Footing base depth below soil surface	=	1.0	ft
Allow press. increase per foot of depth	=		ksf
when footing base is below	=		ft

Increases based on footing plan dimension

Allowable pressure increase per foot of depth	=	ksf
when max. length or width is greater than	=	ft

Dimensions

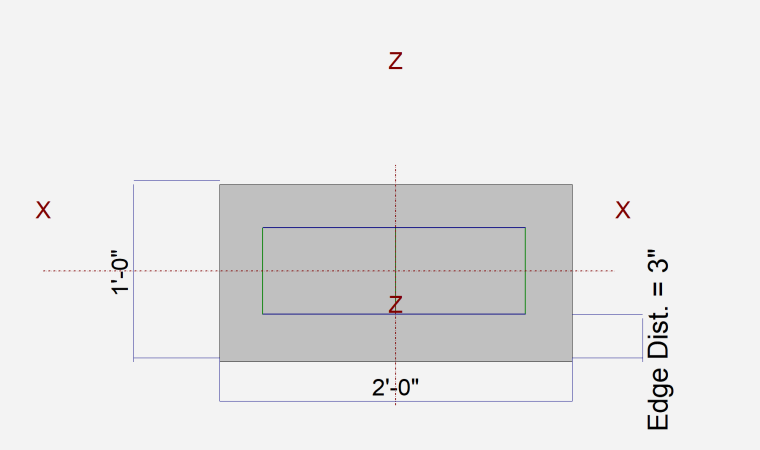
Width parallel to X-X Axis	=	2.0 ft
Length parallel to Z-Z Axis	=	1.0 ft
Footing Thickness	=	12.0 in

Pedestal dimensions...

px : parallel to X-X Axis	=	in
pz : parallel to Z-Z Axis	=	in
Height	=	in

Rebar Centerline to Edge of Concrete...

at Bottom of footing	=	3.0 in



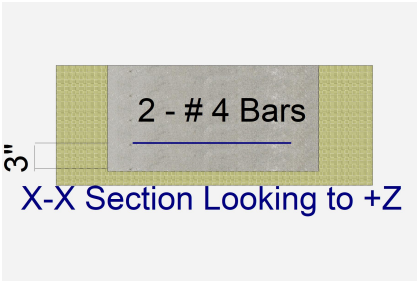
Reinforcing

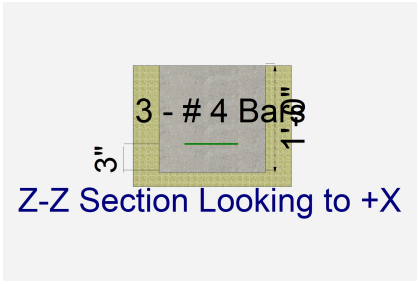
Bars parallel to X-X Axis			
Number of Bars	=		2.0
Reinforcing Bar Size	=	#	4
Bars parallel to Z-Z Axis			
Number of Bars	=		3.0
Reinforcing Bar Size	=	#	4

Bandwidth Distribution Check (ACI 15.4.4.2)

Direction Requiring Closer Separation

	Bars along Z-Z Axis
# Bars required within zone	66.7 %
# Bars required on each side of zone	33.3 %





Applied Loads

		D	Lr	L	S	W	E	H	
P : Column Load	=	0.440	0.40				2.780		k
OB : Overburden	=								ksf
M-xx	=								k-ft
M-zz	=								k-ft
V-x	=								k
V-z	=								k

General Footing

Project File: 69561 Papoose Trail.ec6

LIC# : KW-06019606, Build:20.25.02.04 Reidar Marrs Engineers, Inc. (c) ENERCALC, LLC 1982-2025

DESCRIPTION: Check Existing Continuous Wall Footing for HDU2 4x4 Shear Wall End Post Load (Worst-Case)

DESIGN SUMMARY

Design OK

	Min. Ratio	Item	Applied	Capacity	Governing Load Combination
PASS	0.8920	Soil Bearing	1.338 ksf	1.50 ksf	+D+0.70E about Z-Z axis
PASS	n/a	Overturning - X-X	0.0 k-ft	0.0 k-ft	No Overturning
PASS	n/a	Overturning - Z-Z	0.0 k-ft	0.0 k-ft	No Overturning
PASS	n/a	Sliding - X-X	0.0 k	0.0 k	No Sliding
PASS	n/a	Sliding - Z-Z	0.0 k	0.0 k	No Sliding
PASS	n/a	Uplift	0.0 k	0.0 k	No Uplift
PASS	0.05387	Z Flexure (+X)	0.8270 k-ft/ft	15.353 k-ft/ft	+1.20D+E
PASS	0.05387	Z Flexure (-X)	0.8270 k-ft/ft	15.353 k-ft/ft	+1.20D+E
PASS	0.01771	X Flexure (+Z)	0.2068 k-ft/ft	11.674 k-ft/ft	+1.20D+E
PASS	0.01771	X Flexure (-Z)	0.2068 k-ft/ft	11.674 k-ft/ft	+1.20D+E
PASS	0.07919	1-way Shear (+X)	3.676 psi	46.416 psi	+1.20D+E
PASS	0.07919	1-way Shear (-X)	3.676 psi	46.416 psi	+1.20D+E
PASS	n/a	1-way Shear (+Z)	0.0 psi	42.172 psi	n/a
PASS	n/a	1-way Shear (-Z)	0.0 psi	42.172 psi	n/a
PASS	0.04841	2-way Punching	7.261 psi	150.0 psi	+1.20D+E

Detailed Results

Soil Bearing

Rotation Axis & Load Combination...	Gross Allowable	Xecc (in)	Zecc (in)	Actual Soil Bearing Stress @ Location Bottom, -Z	Top, +Z	Left, -X	Right, +X	Actual / Allow Ratio
X-X, D Only	1.50	n/a	0.0	0.3650	0.3650	n/a	n/a	0.243
X-X, +D+Lr	1.50	n/a	0.0	0.5650	0.5650	n/a	n/a	0.377
X-X, +D+0.750Lr	1.50	n/a	0.0	0.5150	0.5150	n/a	n/a	0.343
X-X, +0.60D	1.50	n/a	0.0	0.2190	0.2190	n/a	n/a	0.146
X-X, +D+0.70E	1.50	n/a	0.0	1.338	1.338	n/a	n/a	0.892
X-X, +D+0.5250E	1.50	n/a	0.0	1.095	1.095	n/a	n/a	0.730
X-X, +0.60D+0.70E	1.50	n/a	0.0	1.192	1.192	n/a	n/a	0.795
Z-Z, D Only	1.50	0.0	n/a	n/a	n/a	0.3650	0.3650	0.243
Z-Z, +D+Lr	1.50	0.0	n/a	n/a	n/a	0.5650	0.5650	0.377
Z-Z, +D+0.750Lr	1.50	0.0	n/a	n/a	n/a	0.5150	0.5150	0.343
Z-Z, +0.60D	1.50	0.0	n/a	n/a	n/a	0.2190	0.2190	0.146
Z-Z, +D+0.70E	1.50	0.0	n/a	n/a	n/a	1.338	1.338	0.892
Z-Z, +D+0.5250E	1.50	0.0	n/a	n/a	n/a	1.095	1.095	0.730
Z-Z, +0.60D+0.70E	1.50	0.0	n/a	n/a	n/a	1.192	1.192	0.795

Overturning Stability

Rotation Axis & Load Combination...	Overturning Moment	Resisting Moment	Stability Ratio	Status
Footing Has NO Overturning				

Sliding Stability

All units k

Force Application Axis Load Combination...	Sliding Force	Resisting Force	Stability Ratio	Status
Footing Has NO Sliding				

Footing Flexure

Flexure Axis & Load Combination	Mu k-ft	Side	Tension Surface	As Req'd in^2	Gvrn. As in^2	Actual As in^2	Phi*Mn k-ft	Status
X-X, +1.40D	0.03850	+Z	Bottom	0.2592	ACI 7.6.1.1	0.30	11.674	OK
X-X, +1.40D	0.03850	-Z	Bottom	0.2592	ACI 7.6.1.1	0.30	11.674	OK
X-X, +1.20D+0.50Lr	0.04550	+Z	Bottom	0.2592	ACI 7.6.1.1	0.30	11.674	OK
X-X, +1.20D+0.50Lr	0.04550	-Z	Bottom	0.2592	ACI 7.6.1.1	0.30	11.674	OK
X-X, +1.20D	0.0330	+Z	Bottom	0.2592	ACI 7.6.1.1	0.30	11.674	OK
X-X, +1.20D	0.0330	-Z	Bottom	0.2592	ACI 7.6.1.1	0.30	11.674	OK
X-X, +1.20D+1.60Lr	0.0730	+Z	Bottom	0.2592	ACI 7.6.1.1	0.30	11.674	OK
X-X, +1.20D+1.60Lr	0.0730	-Z	Bottom	0.2592	ACI 7.6.1.1	0.30	11.674	OK
X-X, +0.90D	0.02475	+Z	Bottom	0.2592	ACI 7.6.1.1	0.30	11.674	OK
X-X, +0.90D	0.02475	-Z	Bottom	0.2592	ACI 7.6.1.1	0.30	11.674	OK
X-X, +1.20D+E	0.2068	+Z	Bottom	0.2592	ACI 7.6.1.1	0.30	11.674	OK

General Footing

DESCRIPTION: Check Existing Continuous Wall Footing for HDU2 4x4 Shear Wall End Post Load (Worst-Case)

Footing Flexure

Flexure Axis & Load Combination	Mu k-ft	Side	Tension Surface	As Req'd in^2	Gvrn. As in^2	Actual As in^2	Phi*Mn k-ft	Status
X-X, +1.20D+E	0.2068	-Z	Bottom	0.2592	ACI 7.6.1.1	0.30	11.674	OK
X-X, +0.90D+E	0.1985	+Z	Bottom	0.2592	ACI 7.6.1.1	0.30	11.674	OK
X-X, +0.90D+E	0.1985	-Z	Bottom	0.2592	ACI 7.6.1.1	0.30	11.674	OK
Z-Z, +1.40D	0.1540	-X	Bottom	0.2592	ACI 7.6.1.1	0.40	15.353	OK
Z-Z, +1.40D	0.1540	+X	Bottom	0.2592	ACI 7.6.1.1	0.40	15.353	OK
Z-Z, +1.20D+0.50Lr	0.1820	-X	Bottom	0.2592	ACI 7.6.1.1	0.40	15.353	OK
Z-Z, +1.20D+0.50Lr	0.1820	+X	Bottom	0.2592	ACI 7.6.1.1	0.40	15.353	OK
Z-Z, +1.20D	0.1320	-X	Bottom	0.2592	ACI 7.6.1.1	0.40	15.353	OK
Z-Z, +1.20D	0.1320	+X	Bottom	0.2592	ACI 7.6.1.1	0.40	15.353	OK
Z-Z, +1.20D+1.60Lr	0.2920	-X	Bottom	0.2592	ACI 7.6.1.1	0.40	15.353	OK
Z-Z, +1.20D+1.60Lr	0.2920	+X	Bottom	0.2592	ACI 7.6.1.1	0.40	15.353	OK
Z-Z, +0.90D	0.0990	-X	Bottom	0.2592	ACI 7.6.1.1	0.40	15.353	OK
Z-Z, +0.90D	0.0990	+X	Bottom	0.2592	ACI 7.6.1.1	0.40	15.353	OK
Z-Z, +1.20D+E	0.8270	-X	Bottom	0.2592	ACI 7.6.1.1	0.40	15.353	OK
Z-Z, +1.20D+E	0.8270	+X	Bottom	0.2592	ACI 7.6.1.1	0.40	15.353	OK
Z-Z, +0.90D+E	0.7940	-X	Bottom	0.2592	ACI 7.6.1.1	0.40	15.353	OK
Z-Z, +0.90D+E	0.7940	+X	Bottom	0.2592	ACI 7.6.1.1	0.40	15.353	OK

One Way Shear X

Load Combination...	Vu @ -X	Vu @ +X	Vu:Max	Phi Vn	Vu / Phi*Vn	Status
+1.40D	0.68 psi	0.68 psi	0.68 psi	46.42 psi	0.01	OK
+1.20D+0.50Lr	0.81 psi	0.81 psi	0.81 psi	46.42 psi	0.02	OK
+1.20D	0.59 psi	0.59 psi	0.59 psi	46.42 psi	0.01	OK
+1.20D+1.60Lr	1.30 psi	1.30 psi	1.30 psi	46.42 psi	0.03	OK
+0.90D	0.44 psi	0.44 psi	0.44 psi	46.42 psi	0.01	OK
+1.20D+E	3.68 psi	3.68 psi	3.68 psi	46.42 psi	0.08	OK
+0.90D+E	3.53 psi	3.53 psi	3.53 psi	46.42 psi	0.08	OK

One Way Shear Z

Load Combination...	Vu @ -Z	Vu @ +Z	Vu:Max	Phi Vn	Vu / Phi*Vn	Status
+1.40D	0.00 psi	0.00 psi	0.00 psi	42.17 psi	0.00	OK
+1.20D+0.50Lr	0.00 psi	0.00 psi	0.00 psi	42.17 psi	0.00	OK
+1.20D	0.00 psi	0.00 psi	0.00 psi	42.17 psi	0.00	OK
+1.20D+1.60Lr	0.00 psi	0.00 psi	0.00 psi	42.17 psi	0.00	OK
+0.90D	0.00 psi	0.00 psi	0.00 psi	42.17 psi	0.00	OK
+1.20D+E	0.00 psi	0.00 psi	0.00 psi	42.17 psi	0.00	OK
+0.90D+E	0.00 psi	0.00 psi	0.00 psi	42.17 psi	0.00	OK

Two-Way "Punching" Shear

All units k

Load Combination...	Vu	Phi*Vn	Vu / Phi*Vn	Status
+1.40D	1.35 psi	150.00 psi	0.009014	OK
+1.20D+0.50Lr	1.60 psi	150.00 psi	0.01065	OK
+1.20D	1.16 psi	150.00 psi	0.007727	OK
+1.20D+1.60Lr	2.56 psi	150.00 psi	0.01709	OK
+0.90D	0.87 psi	150.00 psi	0.005795	OK
+1.20D+E	7.26 psi	150.00 psi	0.04841	OK
+0.90D+E	6.97 psi	150.00 psi	0.04648	OK

Project Title:
Engineer:
Project ID:
Project Descr:

S4.2.4

General Footing

Project File: 69561 Papoose Trail.ec6

DESCRIPTION: Check New Continuous Wall Footing for HDU2 4x4 Shear Wall End Post Load (Worst-Case)

Code References

Calculations per ACI 318-19, IBC 2021
Load Combinations Used : ASCE 7-16

General Information

Material Properties

f'c : Concrete 28 day strength	=	2.50	ksi
fy : Rebar Yield	=	60.0	ksi
Ec : Concrete Elastic Modulus	=	2,850.0	ksi
Concrete Density	=	145.0	pcf
φ Values Flexure	=	0.90	
Shear	=	0.750	

Analysis Settings

Min Steel % Bending Reinf.	=	
Min Allow % Temp Reinf.	=	0.00180
Min. Overturning Safety Factor	=	1.0 : 1
Min. Sliding Safety Factor	=	1.0 : 1
Add Ftg Wt for Soil Pressure	:	Yes
Use ftg wt for stability, moments & shears	:	Yes
Add Pedestal Wt for Soil Pressure	:	No
Use Pedestal wt for stability, mom & shear	:	No

Soil Design Values

Allowable Soil Bearing	=	1.50	ksf
Soil Density	=	110.0	pcf
Increase Bearing By Footing Weight	=	No	
Soil Passive Resistance (for Sliding)	=	100.0	pcf
Soil/Concrete Friction Coeff.	=	0.250	

Increases based on footing Depth

Footing base depth below soil surface	=	1.0	ft
Allow press. increase per foot of depth	=		ksf
when footing base is below	=		ft

Increases based on footing plan dimension

Allowable pressure increase per foot of depth	=	ksf
when max. length or width is greater than	=	ft

Dimensions

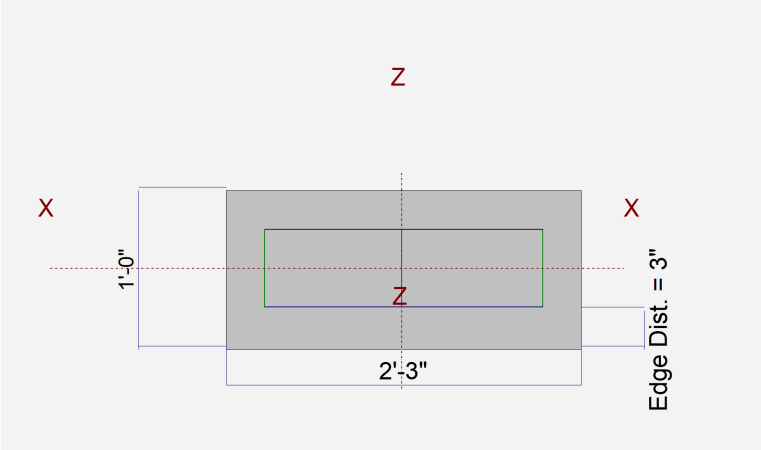
Width parallel to X-X Axis	=	2.250 ft
Length parallel to Z-Z Axis	=	1.0 ft
Footing Thickness	=	12.0 in

Pedestal dimensions...

px : parallel to X-X Axis	=	in
pz : parallel to Z-Z Axis	=	in
Height	=	in

Rebar Centerline to Edge of Concrete...

at Bottom of footing	=	3.0 in



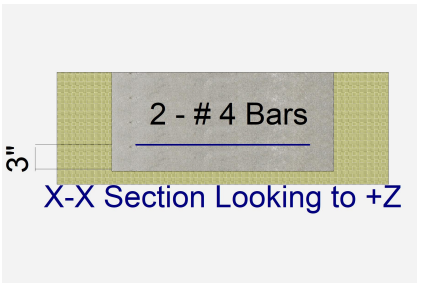
Reinforcing

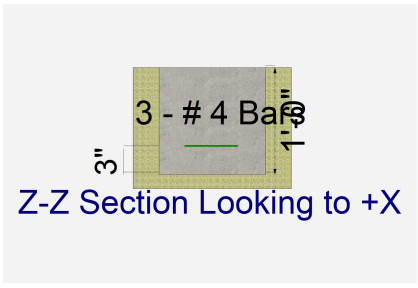
Bars parallel to X-X Axis			
Number of Bars	=		2.0
Reinforcing Bar Size	=	#	4
Bars parallel to Z-Z Axis			
Number of Bars	=		3.0
Reinforcing Bar Size	=	#	4

Bandwidth Distribution Check (ACI 15.4.4.2)

Direction Requiring Closer Separation

	Bars along Z-Z Axis
# Bars required within zone	61.5 %
# Bars required on each side of zone	38.5 %





Applied Loads

		D	Lr	L	S	W	E	H	
P : Column Load	=	0.6660	0.6410				3.367		k
OB : Overburden	=								ksf
M-xx	=								k-ft
M-zz	=								k-ft
V-x	=								k
V-z	=								k

General Footing

LIC# : KW-06019606, Build:20.25.02.04 Reidar Marrs Engineers, Inc. (c) ENERCALC, LLC 1982-2025

DESCRIPTION: Check New Continuous Wall Footing for HDU2 4x4 Shear Wall End Post Load (Worst-Case)

DESIGN SUMMARY

Design OK

	Min. Ratio	Item	Applied	Capacity	Governing Load Combination
PASS	0.9927	Soil Bearing	1.489 ksf	1.50 ksf	+D+0.70E about Z-Z axis
PASS	n/a	Overturning - X-X	0.0 k-ft	0.0 k-ft	No Overturning
PASS	n/a	Overturning - Z-Z	0.0 k-ft	0.0 k-ft	No Overturning
PASS	n/a	Sliding - X-X	0.0 k	0.0 k	No Sliding
PASS	n/a	Sliding - Z-Z	0.0 k	0.0 k	No Sliding
PASS	n/a	Uplift	0.0 k	0.0 k	No Uplift
PASS	0.07632	Z Flexure (+X)	1.172 k-ft/ft	15.353 k-ft/ft	+1.20D+E
PASS	0.07632	Z Flexure (-X)	1.172 k-ft/ft	15.353 k-ft/ft	+1.20D+E
PASS	0.02221	X Flexure (+Z)	0.2315 k-ft/ft	10.424 k-ft/ft	+1.20D+E
PASS	0.02221	X Flexure (-Z)	0.2315 k-ft/ft	10.424 k-ft/ft	+1.20D+E
PASS	0.1413	1-way Shear (+X)	6.558 psi	46.416 psi	+1.20D+E
PASS	0.1413	1-way Shear (-X)	6.558 psi	46.416 psi	+1.20D+E
PASS	n/a	1-way Shear (+Z)	0.0 psi	40.548 psi	n/a
PASS	n/a	1-way Shear (-Z)	0.0 psi	40.548 psi	n/a
PASS	0.06357	2-way Punching	9.536 psi	150.0 psi	+1.20D+E

Detailed Results

Soil Bearing

Rotation Axis & Load Combination...	Gross Allowable	Xecc (in)	Zecc (in)	Actual Soil Bearing Stress @ Location Bottom, -Z	Top, +Z	Left, -X	Right, +X	Actual / Allow Ratio
X-X, D Only	1.50	n/a	0.0	0.4410	0.4410	n/a	n/a	0.294
X-X, +D+Lr	1.50	n/a	0.0	0.7259	0.7259	n/a	n/a	0.484
X-X, +D+0.750Lr	1.50	n/a	0.0	0.6547	0.6547	n/a	n/a	0.437
X-X, +0.60D	1.50	n/a	0.0	0.2646	0.2646	n/a	n/a	0.176
X-X, +D+0.70E	1.50	n/a	0.0	1.489	1.489	n/a	n/a	0.993
X-X, +D+0.5250E	1.50	n/a	0.0	1.227	1.227	n/a	n/a	0.818
X-X, +0.60D+0.70E	1.50	n/a	0.0	1.312	1.312	n/a	n/a	0.875
Z-Z, D Only	1.50	0.0	n/a	n/a	n/a	0.4410	0.4410	0.294
Z-Z, +D+Lr	1.50	0.0	n/a	n/a	n/a	0.7259	0.7259	0.484
Z-Z, +D+0.750Lr	1.50	0.0	n/a	n/a	n/a	0.6547	0.6547	0.437
Z-Z, +0.60D	1.50	0.0	n/a	n/a	n/a	0.2646	0.2646	0.176
Z-Z, +D+0.70E	1.50	0.0	n/a	n/a	n/a	1.489	1.489	0.993
Z-Z, +D+0.5250E	1.50	0.0	n/a	n/a	n/a	1.227	1.227	0.818
Z-Z, +0.60D+0.70E	1.50	0.0	n/a	n/a	n/a	1.312	1.312	0.875

Overturning Stability

Rotation Axis & Load Combination...	Overturning Moment	Resisting Moment	Stability Ratio	Status
Footing Has NO Overturning				

All units k

Sliding Stability

Force Application Axis Load Combination...	Sliding Force	Resisting Force	Stability Ratio	Status
Footing Has NO Sliding				

Footing Flexure

Flexure Axis & Load Combination	Mu k-ft	Side	Tension Surface	As Req'd in^2	Gvrn. As in^2	Actual As in^2	Phi*Mn k-ft	Status
X-X, +1.40D	0.05180	+Z	Bottom	0.2592	ACI 7.6.1.1	0.2667	10.424	OK
X-X, +1.40D	0.05180	-Z	Bottom	0.2592	ACI 7.6.1.1	0.2667	10.424	OK
X-X, +1.20D+0.50Lr	0.06221	+Z	Bottom	0.2592	ACI 7.6.1.1	0.2667	10.424	OK
X-X, +1.20D+0.50Lr	0.06221	-Z	Bottom	0.2592	ACI 7.6.1.1	0.2667	10.424	OK
X-X, +1.20D	0.04440	+Z	Bottom	0.2592	ACI 7.6.1.1	0.2667	10.424	OK
X-X, +1.20D	0.04440	-Z	Bottom	0.2592	ACI 7.6.1.1	0.2667	10.424	OK
X-X, +1.20D+1.60Lr	0.1014	+Z	Bottom	0.2592	ACI 7.6.1.1	0.2667	10.424	OK
X-X, +1.20D+1.60Lr	0.1014	-Z	Bottom	0.2592	ACI 7.6.1.1	0.2667	10.424	OK
X-X, +0.90D	0.03330	+Z	Bottom	0.2592	ACI 7.6.1.1	0.2667	10.424	OK
X-X, +0.90D	0.03330	-Z	Bottom	0.2592	ACI 7.6.1.1	0.2667	10.424	OK
X-X, +1.20D+E	0.2315	+Z	Bottom	0.2592	ACI 7.6.1.1	0.2667	10.424	OK

General Footing

Project File: 69561 Papoose Trail.ec6

DESCRIPTION: Check New Continuous Wall Footing for HDU2 4x4 Shear Wall End Post Load (Worst-Case)

Footing Flexure

Flexure Axis & Load Combination	Mu k-ft	Side	Tension Surface	As Req'd in^2	Gvrn. As in^2	Actual As in^2	Phi*Mn k-ft	Status
X-X, +1.20D+E	0.2315	-Z	Bottom	0.2592	ACI 7.6.1.1	0.2667	10.424	OK
X-X, +0.90D+E	0.2204	+Z	Bottom	0.2592	ACI 7.6.1.1	0.2667	10.424	OK
X-X, +0.90D+E	0.2204	-Z	Bottom	0.2592	ACI 7.6.1.1	0.2667	10.424	OK
Z-Z, +1.40D	0.2622	-X	Bottom	0.2592	ACI 7.6.1.1	0.40	15.353	OK
Z-Z, +1.40D	0.2622	+X	Bottom	0.2592	ACI 7.6.1.1	0.40	15.353	OK
Z-Z, +1.20D+0.50Lr	0.3149	-X	Bottom	0.2592	ACI 7.6.1.1	0.40	15.353	OK
Z-Z, +1.20D+0.50Lr	0.3149	+X	Bottom	0.2592	ACI 7.6.1.1	0.40	15.353	OK
Z-Z, +1.20D	0.2248	-X	Bottom	0.2592	ACI 7.6.1.1	0.40	15.353	OK
Z-Z, +1.20D	0.2248	+X	Bottom	0.2592	ACI 7.6.1.1	0.40	15.353	OK
Z-Z, +1.20D+1.60Lr	0.5132	-X	Bottom	0.2592	ACI 7.6.1.1	0.40	15.353	OK
Z-Z, +1.20D+1.60Lr	0.5132	+X	Bottom	0.2592	ACI 7.6.1.1	0.40	15.353	OK
Z-Z, +0.90D	0.1686	-X	Bottom	0.2592	ACI 7.6.1.1	0.40	15.353	OK
Z-Z, +0.90D	0.1686	+X	Bottom	0.2592	ACI 7.6.1.1	0.40	15.353	OK
Z-Z, +1.20D+E	1.172	-X	Bottom	0.2592	ACI 7.6.1.1	0.40	15.353	OK
Z-Z, +1.20D+E	1.172	+X	Bottom	0.2592	ACI 7.6.1.1	0.40	15.353	OK
Z-Z, +0.90D+E	1.116	-X	Bottom	0.2592	ACI 7.6.1.1	0.40	15.353	OK
Z-Z, +0.90D+E	1.116	+X	Bottom	0.2592	ACI 7.6.1.1	0.40	15.353	OK

One Way Shear X

Load Combination...	Vu @ -X	Vu @ +X	Vu:Max	Phi Vn	Vu / Phi*Vn	Status
+1.40D	1.47 psi	1.47 psi	1.47 psi	46.42 psi	0.03	OK
+1.20D+0.50Lr	1.76 psi	1.76 psi	1.76 psi	46.42 psi	0.04	OK
+1.20D	1.26 psi	1.26 psi	1.26 psi	46.42 psi	0.03	OK
+1.20D+1.60Lr	2.87 psi	2.87 psi	2.87 psi	46.42 psi	0.06	OK
+0.90D	0.94 psi	0.94 psi	0.94 psi	46.42 psi	0.02	OK
+1.20D+E	6.56 psi	6.56 psi	6.56 psi	46.42 psi	0.14	OK
+0.90D+E	6.24 psi	6.24 psi	6.24 psi	46.42 psi	0.13	OK

One Way Shear Z

Load Combination...	Vu @ -Z	Vu @ +Z	Vu:Max	Phi Vn	Vu / Phi*Vn	Status
+1.40D	0.00 psi	0.00 psi	0.00 psi	40.55 psi	0.00	OK
+1.20D+0.50Lr	0.00 psi	0.00 psi	0.00 psi	40.55 psi	0.00	OK
+1.20D	0.00 psi	0.00 psi	0.00 psi	40.55 psi	0.00	OK
+1.20D+1.60Lr	0.00 psi	0.00 psi	0.00 psi	40.55 psi	0.00	OK
+0.90D	0.00 psi	0.00 psi	0.00 psi	40.55 psi	0.00	OK
+1.20D+E	0.00 psi	0.00 psi	0.00 psi	40.55 psi	0.00	OK
+0.90D+E	0.00 psi	0.00 psi	0.00 psi	40.55 psi	0.00	OK

Two-Way "Punching" Shear

All units k

Load Combination...	Vu	Phi*Vn	Vu / Phi*Vn	Status
+1.40D	2.13 psi	150.00 psi	0.01423	OK
+1.20D+0.50Lr	2.56 psi	150.00 psi	0.01709	OK
+1.20D	1.83 psi	150.00 psi	0.0122	OK
+1.20D+1.60Lr	4.18 psi	150.00 psi	0.02785	OK
+0.90D	1.37 psi	150.00 psi	0.009146	OK
+1.20D+E	9.54 psi	150.00 psi	0.06357	OK
+0.90D+E	9.08 psi	150.00 psi	0.06052	OK