ABBREVIATIONS

(E)	EXISTING
(N)	NEW
[UP]	UPSTANDING BEAM
[VIF]	VERIFY IN FIELD
AB	ANCHOR BOLT
ARCH	ARCHITECTURAL
B	BOTTOM BAR(S)
BLKG	BLOCKING
BM	BEAM
BN	BOUNDARY NAILING
BOE	BASE OF EXCAVATION
BOT	BOTTOM
CA	COLUMN ABOVE
CB	COLUMN BELOW
CJP	COMPLETE JOINT PENETRATION
CL	CENTERLINE
CLR	CLEAR
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONT	CONTINUOUS
DBL	DOUBLE
DEG	DEGREE(S)
DIA	DIAMETER
DWG	DRAWING
EA	EACH
EF	EACH FACE
ELEV	ELEVATION
EMBED	EMBEDDED OR EMBEDMENT
EN	EDGE NAILING
EQ	EQUAL
ES	EACH SIDE
EW	EACH WAY
EXT	EXTERIOR
FDN	FOUNDATION
FG	FINISHED GRADE
FN	FIELD NAILING
FS	FAR SIDE
FTG	FOOTING
GA	GAUGE
GB	GRADE BEAM
HDR	HEADER
HGR	HANGER

ABBREVIATIONS

HORIZ	HORIZONTAL
INT	INTERIOR
LWC	LIGHTWEIGHT CONCRETE
MAX	MAXIMUM
MECH	MECHANICAL
MFR	MANUFACTURER
MIN	MINIMUM
NO. OR #	NUMBER
NS	NEAR SIDE
OC	ON CENTER
OH	OPPOSITE HAND
OMF	ORDINARY MOMENT FRAME
PC	PILE CAP
PEN	PENETRATION
PJP	PARTIAL JOINT PENETRATION
PL	PLATE
RC	REINFORCED CONCRETE
REINF	REINFORCEMENT OR REINFORCING STEEL
REQ'D	REQUIRED
SCBF	SPECIAL CONCENTRICALLY BRACED FRAME
SCHED	SCHEDULE
SHTHG	SHEATHING
SIM	SIMILAR
SMRF	SPECIAL MOMENT RESISTING FRAME
SOG	SLAB ON GRADE
STD	STANDARD
SYM	SYMMETRIC
T	TOP BAR(S)
T&B	TOP AND BOTTOM
T.O.	TOP OF
THK	THICK / THICKNESS
TOC	TOP OF CONCRETE
TOD	TOP OF DECK
TOF	TOP OF FOOTING
TOFR	TOP OF FRAMING
TOG	TOP OF GRADE
TOPC	TOP OF PILE CAP
TOS	TOP OF STEEL
TOW	TOP OF WALL
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
VERT	VERTICAL
WP	WORK POINT

GR **GENERAL REQUIREMENTS**

GR-1 MATERIALS AND WORKMANSHIP TO CONFORM WITH THE 2015 INTERNATIONAL BUILDING CODE BUILDING CODE AND THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.

GR-2 REFERENCE TO CODES, RULES, REGULATIONS, STANDARDS, MANUFACTURER'S INSTRUCTIONS OR REQUIREMENTS OF REGULATORY AGENCIES IS TO THE LATEST PRINTED EDITION OF EACH IN EFFECT AT THE DATE OF SUBMISSION OF BID UNLESS THE DOCUMENT DATE IS SHOWN.

GR-3 VERIFY ALL DIMENSIONS, ELEVATIONS, & SITE CONDITIONS BEFORE STARTING WORK. NOTIFY STRUCTURAL ENGINEER OF DISCREPANCIES.

GR-4 REFER TO ARCHITECTURAL & CIVIL DRAWINGS FOR EXTERIOR SLABS.

GR-5 DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF SIMILAR CHARACTER TO DETAILS SHOWN, USE SIMILAR DETAILS OF CONSTRUCTION, SUBJECT TO REVIEW BY THE OWNER'S REPRESENTATIVE.

GR-6 THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE WORK OF ALL TRADES AND FOR CHECKING DIMENSIONS. NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES AND RESOLVE BEFORE PROCEEDING WITH THE WORK.

GR-7 DO NOT SCALE THE DRAWINGS.

GR-8 PROVIDE MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES INCLUDE, BUT MAY NOT BE LIMITED TO, BRACING AND SHORING FOR LOADS DURING CONSTRUCTION. RETAIN A REGISTERED CIVIL ENGINEER WHOM IS PROPERLY QUALIFIED TO DESIGN BRACING, SHORING, ETC. VISITS TO THE SITE BY THE OWNER'S REPRESENTATIVE WILL NOT INCLUDE OBSERVATION OF THE ABOVE NOTED ITEMS.

GR-9 INFORMATION SHOWN ON THE DRAWINGS RELATED TO EXISTING CONDITIONS REPRESENTS THE PRESENT KNOWLEDGE, BUT WITHOUT GUARANTEE OF ACCURACY. 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.

GR-10 REFER TO ARCHITECTURAL DRAWINGS FOR SIZE AND LOCATION OF FLOOR, ROOF AND WALL OPENINGS NOT SHOWN ON THE STRUCTURAL DRAWINGS. COORDINATE THE SIZE AND LOCATION OF OPENINGS ASSOCIATED WITH, BUT NOT LIMITED TO, ELECTRICAL, MECHANICAL AND PLUMBING TRADES. SUBMIT FINAL SIZING AND LOCATION REQUIREMENTS OF OPENINGS TO THE OWNER'S REPRESENTATIVE FOR REVIEW.

GR-11 THE CONTRACTOR IS SOLELY RESPONSIBLE FOR PROVIDING A SAFE PLACE TO WORK AND MEETING THE REQUIREMENTS OF ALL APPLICABLE JURISDICTIONS. EXECUTE WORK TO ENSURE THE SAFETY OF PERSONS AND ADJACENT PROPERTY AGAINST DAMAGE BY FALLING DEBRIS AND OTHER HAZARDS IN CONNECTION WITH THIS WORK.

FN-1 **FOUNDATION AND SITE WORK**

FN-1 GROUNDWATER WAS NOT ENCOUNTERED DURING EXPLORATION AND IS NOT EXPECTED TO BE A FACTOR IN DEVELOPMENT OF SITE.

FN-2 LOCATE AND PROTECT EXISTING UTILITIES TO REMAIN DURING AND/OR AFTER CONSTRUCTION.

FN-3 REMOVE ABANDONED FOOTINGS, UTILITIES, ETC. WHICH INTERFERE WITH NEW CONSTRUCTION, UNLESS OTHERWISE INDICATED.

FN-4 NOTIFY THE OWNER'S REPRESENTATIVE IF ANY BURIED STRUCTURES NOT INDICATED,

FN-5 THE CONTRACTOR IS SOLELY RESPONSIBLE FOR EXCAVATION PROCEDURES INCLUDING LAGGING, SHORING, UNDERPINNING AND PROTECTION OF EXISTING CONSTRUCTION.

FN-6 REMOVE LOOSE SOIL AND STANDING WATER FROM FOUNDATION EXCAVATIONS PRIOR TO PLACING CONCRETE.

FN-7 EXCAVATIONS FOR FOUNDATIONS MUST BE ACCEPTED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACING REINFORCING AND CONCRETE. NOTIFY THE GEOTECHNICAL ENGINEER WHEN EXCAVATIONS ARE READY FOR INSPECTION.

FN-8 PLACE BACKFILL BEHIND RETAINING WALLS AFTER CONCRETE OR MASONRY HAS ATTAINED FULL DESIGN STRENGTH. BRACE BUILDING AND PIT WALLS BELOW GRADE FROM LATERAL LOADS UNTIL ATTACHED FLOORS AND SLABS ON GRADE ARE COMPLETE AND HAVE ATTAINED FULL DESIGN STRENGTH.

FN-9 COMPACT EXCAVATION BACKFILLS IN LAYERS PER THE GEOTECHNICAL REPORT. FIELD OBSERVATION AND TESTING SHALL BE PERFORMED BY THE SOILS ENGINEER DURING GRADING TO ASSIST THE CONTRACTOR IN OBTAINING THE REQUIRED DEGREE OF COMPACTION AND PROPER MOISTURE CONTENT.

FN-10 IF ADVERSE SOIL CONDITIONS ARE ENCOUNTERED, NOTIFY GEOTECHNICAL ENGINEER AND ADDITIONAL SOILS REPORT MAY BE REQUIRED.

DC **DESIGN CRITERIA**

DC-1

APPLICABLE CODE: 2015 INTERNATIONAL BUILDING CODE

DC-2

FOUNDATION DESIGNS ARE IN ACCORDANCE WITH RECOMMENDATIONS PROVIDED IN "GEOTECHNICAL AND GEOLOGIC HAZARD INVESTIGATION, LOT 44R OF SUMMIT EDEN PHASE 1C, 8647 E. COPPER CREST, SUMMIT POWDER MOUNTAIN RESORT, WEBER COUNTY, UTAH, PROJECT NO. 02732-001" DATED MARCH 19, 2018 BY IGES.

ALLOWABLE NET SOIL PRESSURE	=3400 PSF
ALLOWABLE NET SOIL PRESSURE, PAD	=3400 PSF
COEFFICIENT OF FRICTION	=0.47
FRICTION ANGLE, BEDROCK	=40 PSF
COHESION, BEDROCK	=55 PSF

NEW SOIL RETAINING STRUCTURES HAVE BEEN DESIGNED WITH THE FOLLOWING CRITERIA.

ACTIVE/PASSIVE EQUIVALENT FLUID PRESSURES:

RESTRAINED RETAINING WALLS W/ LEVEL BACKFILL	=55 PCF
RESTRAINED WALL W/ 2:1 SLOPED BACKFILL	=85 PCF

DC-3

GRAVITY LOADS:

A. DEAD LOADS - VARY BASED ON ACTUAL BUILDING AND EQUIPMENT OPERATING WEIGHTS.
B. LIVE LOADS - ROOF = 20PSF (REDUCIBLE)
FLOOR = 40PSF
DECK = 60PSF
EXTERIOR DECK = 60PSF

DC-4

SEISMIC DESIGN:

SEISMIC DESIGN CATEGORY = D
SITE CLASS = C
ANALYSIS PROCEDURE = EQUIVALENT LATERAL FORCE PROCEDURE
RHO = 1.3

S_S = 0.813
S_1 = 0.270
S_{DS} = 0.583
S_{D1} = 0.283
I = 1 FOR OCCUPANCY CATEGORY (II)

STRUCTURE: MAIN RESIDENCE
LFRS = SPECIAL REINFORCED CONCRETE SHEAR WALLS
R = 5
OVERSTRENGTH = 2.5
Cs = 0.117
BASE SHEAR V= 108K

DC-5

WIND DESIGN:

BASIC WIND SPEED, V = 115MPH (3 SECOND GUST)
Kd = 0.85
EXPOSURE CATEGORY = C
Kzt = 1.484
GUST EFFECT FACTOR = 0.85
ENCLOSURE CLASSIFICATION = ENCLOSED
INTERNAL PRESSURE COEFFICIENT GCpi = ±0.18
Kz = 0.96
qz = 40.9PSF RISK CATEGORY = II

SU **SUBMITTALS**

SU-1 SUBMITTAL REVIEW FOR ITEMS DESIGNED BY NOUS, 10 BUSINESS DAY REVIEW TIME IS REQUIRED UNLESS OTHERWISE AGREED.

SU-2 RFI REVIEW: ALLOW 5 BUSINESS DAY RESPONSE UNLESS OTHERWISE AGREED.

SU-3 SUBMIT COPIES OF REQUIRED SUBMITTALS TO OWNER'S REPRESENTATIVE FOR REVIEW.

SU-4 CONCRETE REINFORCING STEEL:

- A. SUBMIT CERTIFIED MATERIAL CERTIFICATES FOR REINFORCING STEEL SIGNED BY THE MANUFACTURER AND CONTRACTOR.
- B. SUBMIT SHOP DRAWINGS FOR FABRICATION, BENDING AND PLACEMENT OF CONCRETE REINFORCEMENT IN ACCORDANCE WITH ACI 315 "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT."

SU-5 CAST-IN-PLACE CONCRETE:

- A. SUBMIT MIX DESIGNS PREPARED, STAMPED AND SIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF CALIFORNIA FOR EACH CLASS OF CONCRETE. INCLUDE RESULTS OF SLUMP, SHRINKAGE AND COMPRESSION TESTS USED TO ESTABLISH MIX PROPORTIONS. ALSO INCLUDE CERTIFIED MATERIAL CERTIFICATES FOR EACH COMPONENT OF THE MIX.
- B. SUBMIT PROPOSED CONSTRUCTION JOINT LOCATIONS FOR REVIEW.
- C. SUBMIT PRODUCT DATA FOR CURING MATERIALS.
- D. SUBMIT PRODUCT DATA FOR NON-SHRINK GROUT.

SU-6 STRUCTURAL STEEL:

- A. SUBMIT MILL CERTIFICATES FOR STRUCTURAL STEEL SHAPES INDICATING STRUCTURAL STRENGTH AND CHEMICAL COMPOSITION FOR EACH HEAT OF STEEL
- B. SUBMIT SHOP DRAWINGS PRIOR TO FABRICATION. INCLUDE AT A MINIMUM ASTM MATERIAL DESIGNATIONS, MEMBER SIZES, SIZES AND TYPES OF WELDS, SIZES AND TYPES OF BOLTS AND DIMENSIONS.
- C. SUBMIT MILL CERTIFICATES FOR FASTENERS AND THREADED RODS.
- D. SUBMIT WELDING PROCEDURE SPECIFICATION FOR EACH TYPE OF WELD TO BE USED AND PRODUCT DATA FOR WELDING ELECTRODES.
- E. SUBMIT MANUFACTURERS PRODUCT DATA FOR PRIMER AND FINISH PAINT INCLUDING COLOR CHARTS.

SU-7 MECHANICAL ANCHORS: SUBMIT PRODUCT DATA FOR EACH TYPE OF ANCHOR USED.

SU-8 ADHESIVE ANCHORS: SUBMIT PRODUCT DATA FOR EACH TYPE OF ADHESIVE ANCHORING SYSTEM USED.

SO **STRUCTURAL OBSERVATIONS**

SO-1 NOTIFY THE ENGINEER AT SIGNIFICANT CONSTRUCTION STAGES 72 HOURS IN ADVANCE AND PROVIDE ACCESS FOR THE FOLLOWING STRUCTURAL OBSERVATIONS:

- A. FOUNDATIONS
  1. REINFORCEMENT
- B. STEEL FRAMING
  1. GENERAL
  2. MOMENT FRAMES
- C. WOOD FRAMING
  1. GENERAL
  2. SHEAR WALLS AND HOLD-DOWNS
  3. DIAPHRAGMS AND COLLECTORS
- D. CONCRETE
  1. WALL REINFORCEMENT
  2. SLABS AND SLABS-ON-GRADE

A COPY OF THE CONDITIONS OF LISTING SHALL BE MADE AVAILABLE AT THE JOB SITE.

IO **STRUCTURAL TEST AND INSPECTIONS**

IO-1 AN INDEPENDENT TESTING AGENCY AND SPECIAL INSPECTORS WILL BE RETAINED BY THE OWNER TO PERFORM THE FOLLOWING TESTS AND INSPECTION. PROVIDE ACCESS AND FURNISH SAMPLES TO THE AGENCY AS REQUIRED BY THE CONTRACT DOCUMENTS.

IO-2 CONTRACTORS RESPONSIBLE FOR THE CONSTRUCTION OF A WIND OR SEISMIC FORCE RESISTING SYSTEM/ COMPONENT AS LISTED IN THE "STATEMENT OF SPECIAL INSPECTION" SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE LADBS INSPECTORS AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON SUCH A SYSTEM OR COMPONENT PER 1704.4.

IO-3 IF INITIAL TESTS OR INSPECTIONS MADE BY THE OWNER'S TESTING AGENCY REVEAL THAT ANY PORTION OF THE WORK DOES NOT COMPLY WITH THE CONTRACT DOCUMENTS, ADDITIONAL TESTS, INSPECTIONS, AND NECESSARY REPAIRS WILL BE MADE AT THE CONTRACTOR'S EXPENSE.

IO-4 THE FOLLOWING ITEMS REQUIRE TESTS AND INSPECTIONS IN ACCORDANCE WITH THE REQUIREMENTS OF THE CHAPTER "STRUCTURAL TEST AND INSPECTIONS" OF THE CODE OF THE GOVERNING JURISDICTION AS NOTED IN THE GENERAL SECTION OF THESE GENERAL NOTES. AN "X" PRESENT IN COLUMN "C" INDICATES CONTINUOUS INSPECTION & "X" PRESENT IN COLUMN "P" INDICATES PERIODIC INSPECTION.

CAST IN PLACE DEEP FOUNDATIONS

	VERIFICATION AND INSPECTION	C	P
1.	1.OBSERVE DRILLING OPERATIONS AND MAINTAIN COMPLETE AND ACCURATE RECORDS FOR EACH ELEMENT.	X	-
2.	VERIFY PLACEMENT LOCATIONS AND PLUMBNESS, CONFIRM ELEMENT DIAMETERS, BELL DIAMETERS (IF APPLICABLE), LENTHS, EMBEDMENT INTO BEDROCK (IF APPLICABLE) AND ADEQUATE END BEARING STRATA CAPACITY, RECORD CONCRETE OR GROUT VOLUMES.	X	-
3.	FOR CONCRETE ELEMENTS, PERFORM ADDITIONAL INSPECTIONS IN ACCORDANCE WITH SECTION 1704.4.	-	-

CONCRETE

	VERIFICATION AND INSPECTION	C	P
1.	INSPECTION OF REINFORCING STEEL, PRESTRESSING TENDONS, AND PLACEMENTS.	-	X
2.	INSPECTION OF REINFORCING STEEL WELDING IN ACCORDANCE WITH TABLE 1704.3 ITEM 5B OF IBC/CBC.	-	-
3.	INSPECTION OF BOLTS TO BE INSTALLED IN CONCRETE PRIOR TO AND DURING PLACEMENT OF CONCRETE WHERE ALLOWABLE LOADS HAVE BEEN INCREASED OR WHERE STRENGTH DESIGN IS USED.	X	-
4.	INSPECTION OF ANCHORS INSTALLED IN HARDENED CONCRETE. (i.e. POST INSTALLED ANCHORS).	-	X
5.	VERIFYING USE OF REQUIRED DESIGN MIX.	-	X
6.	AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X	-
7.	INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X	-
8.	INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	-	X
9.	INSPECTION OF PRESTRESSED CONCRETE:		
a.	PRE-STRESSED CONCRETE - APPLICATION OF PRESTRESSING FORCES.	X	-
b.	PRE-STRESSED CONCRETE - GROUTING OF BONDED PRESTRESSING TENDONS IN THE SEISMIC-FORCE-RESISTING SYSTEM.	X	-
10.	ERECTION OF PRECAST CONCRETE MEMBERS.	-	X
11.	VERIFICATION OF IN-SITU CONCRETE STRENGTH PRIOR TO STRESSING OF TENDONS IN POSTTENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM THE BEAMS AND STRUCTURAL SLABS.	-	X
12.	INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF CONCRETE MEMBER BEING FORMED.	-	X

ROUGH CARPENTRY

	VERIFICATION AND INSPECTION	C	P
1.	SHEARWALL HOLDOWNS AND SILL ANCHORS.	-	X
2.	SHEARWALL NAILING WITH NAIL SPACING LESS THAN 4" OC.	-	X
3.	DIAPHRAGM NAILING WITH NAIL SPACING LESS THAN 4" OC.	-	X
4.	STRAPS AT DIAPHRAGM INSTALLATION.	-	X

SOILS

	VERIFICATION AND INSPECTION	C	P
1.	VERIFY MATERIALS BELOW SHALLOW FOUNDATION ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	-	X
2.	VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	-	X
3.	PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	-	X
4.	VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	X	-
5.	PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	-	X

STRUCTURAL STEEL

	VERIFICATION AND INSPECTION	C	P
1.	MATERIAL VERIFICATION OF HIGH-STRENGTH BOLTS, NUTS, AND WASHERS:		
a.	MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED.	-	X
b.	IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.	-	X
2.	INSPECTION OF HIGH-STRENGTH BOLTING:		
a.	SNUG-TIGHT JOINTS.	-	X
b.	PRETENSIONED AND SLIP-CRITICAL JOINTS USING TURN-OF-NUT WITH MATCHMAKING, TWIST-OFF BOLT OR DIRECT TENSION INDICATOR METHODS OF INSTALLATION.	-	X
c.	PRETENSIONED AND SLIP-CRITICAL JOINTS USING TURN-OF-NUT WITHOUT MATCHMAKING OR CALIBRATED WRENCH METHODS OF INSTALLATION.	X	-
3.	MATERIAL VERIFICATION OF STRUCTURAL STEEL AND COLD-FRAMED STEEL DECK:		
a.	FOR STRUCTURAL STEEL IDENTIFICATION MARKINGS TO CONFORM TO AISC 360.	-	X
b.	FOR OTHER STEEL, IDENTIFICATION MARKINGS CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.	-	X
c.	MANUFACTURER'S CERTIFIED TESTS REPORT.	-	X
4.	MATERIAL VERIFICATION OF WELD FILLER MATERIALS:		
a.	IDENTIFICATION MARKINGS TO CONFORM TO AWS SPECIFICATION IN THE APPROVED CONSTRUCTION DOCUMNETS.	-	X
b.	MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED.	-	X
5. a	INSPECTION OF WELDING - STRUCTURAL STEEL AND COLD-FORMED STEEL DECK:		
1.	COMPLETE AND PARTIAL JOINT PENETRATION GROOVE WELDS.	X	-
2.	MULTIPASS FILLET WELDS.	X	-
3.	SINGLE-PASS FILLET WELDS > 5/16".	X	-
4.	PLUG AND SLOT WELDS.	X	-
5.	SINGLE-PASS FILLET WELDS < 5/16".	-	X
6.	FLOOR AND ROOF DECK WELDS.	-	X
5. b	INSPECTION OF WELDING - REINFORCING STEEL:		
1.	VERIFICATION OF WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A 706.	-	X
2.	REINFORCING STEEL RESISTING FLEXURAL AND AXIAL FORCES IN INTERMEDIATE AND SPECIAL MOMENT FRAMES AND BOUNDARY ELEMENTS OF SPECIAL STRUCTURAL WALLS OF CONCRETE AND SHEAR REINFORCEMENT.	X	-
3.	SHEAR REINFORCEMENT.	X	-
4.	OTHER REINFORCEMENT STEEL.	-	X
6.	INSPECTION OF STEEL FRAME JOINT DETAILS FOR COMPLIANCE:		
a.	DETAILS SUCH AS BRACING AND STIFFENING.	-	X
b.	MEMBER LOCATIONS.	-	X
c.	APPLICATION OF JOINT DETAILS AT EACH CONNECTION.	-	X

STRUCTURAL DRAWING LIST

Sheet Number	Sheet Name
S0 SERIES: TYPICAL DETAILS AND GENERAL NOTES	
S0.00	GENERAL NOTES, ABBREVIATIONS & SHEET LIST
S0.01	GENERAL NOTES
S0.02	GENERAL NOTES
S0.10	TYPICAL CONCRETE DETAILS
S0.11	TYPICAL CONCRETE DETAILS
S0.12	TYPICAL CONCRETE DETAILS
S0.20	TYPICAL STEEL DETAILS
S0.21	TYPICAL STEEL DETAILS
S0.22	TYPICAL STEEL DETAILS
S0.30	TYPICAL WOOD DETAILS
S0.31	TYPICAL WOOD DETAILS
S0.32	TYPICAL WOOD DETAILS
S0.33	TYPICAL WOOD DETAILS
S0.34	TYPICAL WOOD DETAILS
S0.40	TYPICAL METAL DECK DETAILS
S0.41	TYPICAL METAL DECK DETAILS
S0.42	TYPICAL METAL DECK DETAILS
S1 SERIES: SITE PLAN	
S1.00	SITE PLAN
S2 SERIES: FOUNDATION AND FRAMING PLANS	
S2.01	LIVING ROOM FRAMING PLAN
S2.02	KITCHEN FRAMING PLAN
S2.03	TERRACE AND SHELL FRAMING PLAN
S2.04	LOW ROOF & OFFICE FRAMING PLAN
S2.05	HIGH ROOF FRAMING PLAN
S3 SERIES: RC AND SHEAR WALL ELEVATIONS	
S3.00	RC WALL ELEVATION
S3.01	RC WALL ELEVATION
S3.02	RC WALL ELEVATION
S4 SERIES: BUILDING SECTIONS	
S4.00	BUILDING SECTIONS
S4.01	BUILDING SECTIONS
S4.02	BUILDING SECTIONS
S5 SERIES: PARTIAL PLANS & PROJECT SPECIFIC DETAILS	
S5.00	EXTERIOR DECK PARTIAL PLAN
S5.01	ENTRY PARTIAL PLAN
S6 SERIES: 3D VIEWS	
S6.00	3D VIEWS

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NOT FOR CONSTRUCTION

REVISIONS:

DESCRIPTION:	BY:	DATE:

HILLSIDE REVIEW

SCALE: AS NOTED	DATE: 3/16/2018
	DRAWN: Author / CHECKED: Checker
GENERAL NOTES, ABBREVIATIONS & SHEET LIST	SHEET: S0.00

PLOTTED ON: 4/13/2018 7:41:49 PM

DP — DRILLED PIERS

DP-1 DESIGN AND PROVIDE A FULL-LENGTH WATERTIGHT TEMPORARY STEEL CASING, AS REQUIRED, TO MAINTAIN SHAFT WALLS WITHOUT DISPLACING AND TO WITHSTAND COMBINED COMPRESSIVE AND WITHDRAWAL STRESSES. WITHDRAW CASING AS CONCRETE IS PLACED MAINTAINING A HEAD OF CONCRETE BETWEEN 5 AND 10 FEET ABOVE THE CASING BOTTOM.

DP-2 EACH DRILLED PIER MUST BE INSPECTED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACING CONCRETE AND REINFORCING STEEL. ADJUST SHAFT LENGTHS UNDER DIRECTION OF THE GEOTECHNICAL ENGINEER AND THE OWNER'S REPRESENTATIVE BASED ON SOIL CONDITIONS OBSERVED AT TIME OF DRILLING.

DP-3 PLACE REINFORCING STEEL IN ONE CONTINUOUS UNIT AND ACCURATELY HOLD SECURELY IN FINAL POSITION USING CHAIRS OR SPACERS DURING CONCRETE PLACEMENT.

DP-4 KEEP EXCAVATIONS FREE OF WATER BEFORE PLACING CONCRETE UNLESS OTHERWISE APPROVED BY THE GEOTECHNICAL ENGINEER. IF UNABLE TO SEAL OFF WATER FLOW AND APPROVED BY THE GEOTECHNICAL ENGINEER, ALLOW WATER LEVEL TO ATTAIN ITS NORMAL LEVEL AND PLACE CONCRETE BY THE TREMIE METHOD OR OTHER APPROVED METHOD.

DP-5 USE AN ELEPHANT TRUNK, TREMIE PIPE, OR OTHER APPROVED METHOD TO PLACE CONCRETE IN A CONTINUOUS AND SMOOTH FLOW WITHOUT SEGREGATING THE CONCRETE. DO NOT ALLOW CONCRETE TO FREE FALL MORE THAN 5 FEET.

DP-6 MECHANICALLY VIBRATE AT LEAST THE TOP 25 FEET OF CONCRETE AT EACH PIER.

DP-7 WHEN THE TREMIE METHOD IS ALLOWED, MAINTAIN AT LEAST 5 FEET OF CONCRETE HEAD ABOVE THE END OF THE TREMIE PIPE DURING THE ENTIRE CONCRETE PLACING OPERATION.

CC — CAST IN PLACE CONCRETE

CC-1 PROPORTION, MIX, TRANSPORT, AND PLACE CAST-IN-PLACE CONCRETE IN ACCORDANCE WITH ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE," UON.

CC-2 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.

CC-3 ROUGHEN CONCRETE SURFACES OF CONSTRUCTION JOINTS TO 1/4 INCH AMPLITUDE AND CLEAN OF LAITANCE, FOREIGN MATTER, AND LOOSE PARTICLES. LOCATE CONSTRUCTION JOINTS AS SHOWN ON THE DRAWINGS. SUBMIT ALTERNATE JOINT LOCATIONS OR JOINTS NOT SHOWN TO THE OWNER'S REPRESENTATIVE FOR REVIEW AND APPROVAL PRIOR TO PROCEEDING WITH THE WORK.

CC-4 AT LOCATIONS WHERE CONCRETE IS CAST AGAINST EXISTING CONCRETE, ROUGHEN CONTACT SURFACES TO 1/4 INCH AMPLITUDE AND CLEAN OF LAITANCE, FOREIGN MATTER, AND LOOSE PARTICLES.

CC-5 AT LOCATIONS WHERE CONCRETE IS CAST AGAINST EXISTING MASONRY, THOROUGHLY ROUGHEN CONTACT SURFACES BY LIGHT SANDBLASTING OR OTHER SUITABLE MEANS AND CLEAN OF LAITANCE, FOREIGN MATTER, AND LOOSE PARTICLES.

CC-6 REFER TO ARCHITECTURAL AND MECHANICAL DRAWINGS FOR LOCATIONS OF ADDITIONAL CONCRETE CURBS AND HOUSEKEEPING PADS NOT SHOWN.

CC-7 CONTINUOUSLY MOIST CURE CONCRETE SLABS-ON-GRADE FOR 7 DAYS MINIMUM. WATER FOG SPRAYS, PONDING, SATURATED ABSORPTIVE COVERS, OR MOISTURE RETAINING COVERS MAY BE USED. CURING COMPOUNDS CAN BE USED BASED ON SATISFACTORY PERFORMANCE ON PREVIOUS APPLICATIONS. CONTRACTOR TO SUBMIT SPECIFICATIONS FOR REVIEW AND APPROVAL.

CC-8 NON-SHRINK GROUT: NON-METALLIC AGGREGATE TYPE, COMPLYING WITH ASTM C1107 AND CAPABLE OF DEVELOPING A MINIMUM COMPRESSIVE STRENGTH OF 7,000 PSI AT 28 DAYS.

CC-9 CONCRETE TYPES:

CLASS	LOCATION	28 DAY F'c	TYPE	W/C RATIO	MAX AGGREGATE SIZE
A	DEEP FOUNDATIONS	5000 PSI	NORMAL WEIGHT	0.45	3/4
B	SHALLOW FOUNDATIONS, MISC CURBS, PADS, ETC.	3000 PSI	NORMAL WEIGHT	0.65	3/4
C	SLABS ON GRADE	3000 PSI	NORMAL WEIGHT	0.5	3/8
D	WALLS, SUSPENDED SLABS, AND COLUMNS	5000 PSI	NORMAL WEIGHT	0.45	3/4

CC-10 CONCRETE CLEAR COVER TO REINFORCING BARS IS AS FOLLOWS:

LOCATION	CLEAR COVER
CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	
- ALL BARS	3"
CONCRETE EXPOSED TO EARTH OR WEATHER:	
- #6 THROUGH #18 BARS	2"
- #5 BAR, W31 OR D31 WIRE, AND SMALLER	1 1/2"
CONCRETE NOT EXPOSED TO EARTH TO WEATHER OR IN CONTACT WITH GROUND:	
- SLABS, WALLS, JOISTS: #14 AND #18 BARS	1" - 1 1/2"
- SLABS, WALLS, JOISTS: #11 AND SMALLER	3/4"
- BEAMS, COLUMNS: PRIMARY REINFORCEMENT, TIES, STIRRUPS, SPIRALS	1" - 1 1/2"

FW — FORMWORK

FW-1 DESIGN AND CONSTRUCT FORMWORK IN ACCORDANCE WITH ACI 347 "RECOMMENDED PRACTICE FOR CONCRETE FORMWORK" AND ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE," UON.

FW-2 REMOVE FORMS AND SHORES IN ACCORDANCE WITH THE FOLLOWING:

A. 48 HOURS: FORMS FOR FOOTINGS, PILE CAPS, AND GRADE BEAMS

B. 72 HOURS: FORMS FOR COLUMNS, WALLS, AND SIDE FORMS FOR BEAMS AND GIRDERS

C. 7 DAYS, AND f'c=3,500 PSI MIN: BOTTOM FORMS AND SHORES FOR MILDLY REINFORCED SLABS, BEAMS, ANDD GIRDERS

FW-3 PROVIDE POUR POCKETS IN FORMS AND UNDER EXISTING STRUCTURAL MEMBERS AS REQUIRED TO PREVENT AIR POCKETS AND/OR "HONEYCOMB" UNDER OR AROUND THE EXISTING MEMBERS. CONCRETE CAST WITH AIR POCKETS AND/OR "HONEYCOMB" UNDER OR AROUND THE MEMBERS IS NOT ACCEPTABLE.

FW-4 PROVIDE 3/4 INCH x 3/4 INCH CHAMFER STRIPS ON ALL EXTERNAL CORNERS OF BEAMS, COLUMNS, AND WALLS, UON.

FW-5 PROVIDE CURING WHERE FORMS ARE REMOVED IN LESS THAN 7 DAYS, INCLUDING BUT NOT LIMITED TO WALLS, COLUMNS, AND UNDERSIDE OF ELEVATED SLABS.

RE — REINFORCING STEEL

RE-1 FABRICATE AND PLACE REINFORCING STEEL IN ACCORDANCE WITH ACI 315 "DETAILS AND DETAILING CONCRETE REINFORCING" AND ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE," UON.

RE-2 ACCURATELY POSITION, SUPPORT, AND SECURE REINFORCEMENT FROM DISPLACING DUE TO FORMWORK, CONSTRUCTION, OR CONCRETE PLACEMENT OPERATIONS. LOCATE AND SUPPORT REINFORCING BY METAL CHAIRS, RUNNERS, BOLSTERS, SPACERS, AND HANGERS AT A MAXIMUM 3-FOOT SPACING.

RE-3 MECHANICAL COUPLERS: LENTON THREADED OR INTERLOCK COUPLERS BY ERICO (IAPMO UES ER-0129 & LARR 24507), OR EXTENDER BY HEADED REINFORCEMENT CORPORATION (ICC ESR-2764 & LARR 25347). COUPLERS FOR BEAM AND SLAB BARS AT FORMED CONSTRUCTION JOINTS MAY BE LENTON FORM SAVERS BY ERICO (IAPMO ER-0188 & LARR 25893).

RE-4 WELD REINFORCING STEEL IN ACCORDANCE WITH AWS D1.4 USING QUALIFIED WELDERS.

RE-5 TERMINATE REINFORCING STEEL IN STD HOOKS, UNLESS OTHERWISE SHOWN.

RE-6 PROVIDE REINFORCING SHOWN OR NOTED CONTINUOUS IN LENGTHS AS LONG AS PRACTICABLE.

RE-7 REINFORCING STEEL #8 AND LARGER AND ALL REINFORCING STEEL TO BE WELDED TO BE ASTM A706, 60KSI. ALL OTHER REINFORCING STEEL TO BE ASTM A615, 60KSI.

RE-8 SMOOTH DOWELS IN SLAB ON GRADE TO BE ASTM A36, 36KSI.

SS — STRUCTURAL STEEL

SS-1 AISC CERTIFIED FABRICATOR OR LADBS LICENSED FABRICATOR IS REQUIRED FOR ALL STRUCTURAL STEEL.

SS-2 FABRICATE AND ERECT STRUCTURAL STEEL IN ACCORDANCE WITH AISC "SPECIFICATION FOR DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS." WELDED CONNECTIONS TO CONFORM TO AWS D1.1.

SS-3 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.

SS-4 STRUCTURAL STEEL AND CONNECTIONS EXPOSED TO VIEW IN THE COMPLETE BUILDING ARE DESIGNATED ARCHITECTURALLY EXPOSED STRUCTURAL STEEL (ARCHITECTURALLY EXPOSED STRUCTURAL STEEL).

SS-5 ARC-WELDING ELECTRODE / FILLER METALS TO BE LOW HYDROGEN TYPES E7XTX, E7XTXX OR E70XXX MINIMUM AS APPLICABLE. DEMAND CRITICAL WELDS, WHERE NOTED AS "DC", SHALL BE MADE WITH A FILLER METAL CAPABLE OF PROVIDING A MINIMUM CHARPY V-NOTCH (CVN) TOUGHNESS OF 20 FT-LB (27J) AT -20°F (-29°C), AS DETERMINED BY THE APPROPRIATE AWS CLASSIFICATION TEST METHOD, AND 40 FT-LB (54J) AT 70°F (21°C), WHEN THE STEEL FRAME IS NORMALLY ENCLOSED AND MAINTAINED AT A TEMPERATURE OF 50°F (10°C) OR HIGHER.

SS-6 WELDERS TO BE CERTIFIED BY AWS . ALL SHOP WELDS MUST BE PREFORMED IN AN AWS CERTIFIED OR LADBS LICENSED FABRICATORS SHOP.

SS-7 WHERE FIELD WELDING IS NOTED, THE DESIGNATION IS GIVEN AS A SUGGESTED CONSTRUCTION PROCEDURE ONLY.

SS-8 FIELD WELDING TO BE DONE BY WELDERS CERTIFIED BY AWS OR THE LADBS FOR STRUCTURAL.

SS-9 PROVIDE NATURAL CAMBER UP, UNLESS OTHERWISE NOTED, EXCEPT AT CANTILEVERS. AT CANTILEVERS PROVIDE CAMBER SUCH THAT TIP OF CANTILEVER IS ABOVE FINAL.

SS-10 SPLICE MEMBERS ONLY WHERE INDICATED.

SS-11 STRUCTURAL STEEL TO CONFORM TO THE FOLLOWING UNLESS OTHERWISE NOTED:

LOCATION	CLEAR COVER
ROLLED SHAPES	
WIDE FLANGES AND WT	ASTM A992, GR50
CHANNELS, ANGLES & OTHER	ASTM A36
PLATES	
COLUMN BASE PLATES	ASTM A572, GR 50
BRACE GUSSET PLATES	ASTM A572, GR 50
BEAM COVER/SIDE PLATES	ASTM A36
COLUMN CONTINUITY PLATES	ASTM A572, GR 50
BEAM STIFFENER PLATES	ASTM A36
DECK CLOSURE PLATES	ASTM A36
OTHER, OUN	ASTM A572, GR 50
OTHER TYPES	
STEEL PIPE	ASTM A53, GRADE B
HOLLOW STRUCTURAL SECTION (HSS)	ASTM A500, GRADE B
STAINLESS STEEL SHAPES, PLATES AND BARS	ASTM A276
BOLTS	ASTM A325X
MACHINE BOLTS	ASTM A307
ANCHOR BOLTS / ANCHOR RODS	ASTM F1554, GR 36
THREADED AND HANGER ROD	ASTM A36
WELDED SHEAR CONNETORS	ASTM A108 GRADE 1015 THROUGH 1020
NUTS FOR BOLTS AND MACHINE BOLTS	ASTM A563
HARDENED WASHERS	ASTM F436
UNHARDED WASHERS	ASTM F844
PLAIN WASHERS	ANSI B18.22.1
BEVELED WASHERS	ANSI B18.23.1

DK — METAL DECKING

DK-1 STRUCTURAL PROPERTIES OF STEEL DECK SYSTEM SHALL EQUAL OR EXCEED THE PROPERTIES LISTED IN TYPICAL DETAILS.

DK-2 DECK SHALL HAVE A MINIMUM OF 2" BEARING AT ALL SUPPORTING MEMBERS (MEMBERS) PERPENDICULAR TO DECK SPAN), AND 1 1/2" AT ALL PARALLEL MEMBERS.

DK-3 PROVIDE BENT PLATE CLOSURE PIECES AT ALL INTERIOR AND EXTERIOR EDGES OF DECK UNLESS OTHERWISE NOTED. SEE TYPICAL DETAILS.

DK-4 OPENINGS THROUGH DECKING SHOWN ON FRAMING PLANS ARE NOT COMPLETE AS TO NUMBER, SIZE AND LOCATION. FOR COMPLETE INFORMATION REFER TO DRAWINGS OTHER THAN STRUCTURAL.

DK-5 USE STRENGTHENING AT OPENINGS AS SHOWN IN TYPICAL DETAILS (AS APPLICABLE) UNLESS OTHERWISE NOTED. PROVIDE STRENGTHENING BEFORE CUTTING OPENING.

DK-6 FOR SPECIAL DECK OPENING CONDITIONS NOT COVERED IN TYPICAL DETAILS, SUBMIT LAYOUT OF OPENINGS AND PROPOSED REINFORCING OF DECK FOR REVIEW.

DK-7 MULTIPLE OPENINGS WITH A CLEAR DISTANCE LESS THAN THREE TIMES THE SIZE OF THE LARGER OPENING TO BE TREATED AS A SINGLE GROUP OPENING.

DK-8 IF OPENING IS CUT PRIOR TO FILL PLACEMENT, PROVIDE CLOSURE PIECES AND SHORING AS REQUIRED.

DK-9 FOR SINGLE OPENING THROUGH DECK THAT CUTS ONLY ONE WEB AND IS 4" SQ OR 4" DIA MAXIMUM, NO STRENGTHENING IS REQUIRED.

DK-10 SEE MECHANICAL / PLUMBING DRAWINGS FOR DETAILS OF UTILITIES SUSPENDED FROM THE CONCRETE AND STEEL DECK SYSTEM. POINT LOADS TO THE DECK FROM THESE DETAILS SHALL NOT EXCEED 100 LBS PER HANGER. IN ADDITION, LOADS ON HANGERS SHALL BE DISTRIBUTED IN SUCH A MANNER THAT THE TRIBUTARY LOADS FOR EACH HANGER SHALL NOT EXCEED [THE SUPERIMPOSED DEAD LOADS] [5 LBS PER SQ FT].

DK-11 THE FIRST SHEET OF STEEL DECKING ADJACENT & PARALLEL TO PERIMETER WF BEAMS & WF BEAMS WITH MOMENT CONNECTIONS AT EACH END, SHALL BE A FULL WIDTH SHEET.

DK-12 ALL FLOOR AND ROOF DECK TO BE GALVANIZED IN ACCORDANCE WITH ASTM A653 COATING CLASS g60. REPAIR DAMAGED COATING.

DK-13 WHERE POSSIBLE, LAYOUT METAL DECK TO SPAN AT LEAST THREE SPANS CONTINUOUSLY. TERMINATE ENDS OVER SUPPORTS EXCEPT AT OPENINGS OR BUILDING EDGES WHERE METAL DECKS MAY BE CANTILEVERED AS SHOWN.

RC — ROUGH CARPENTRY

RC-1 FRAMING LUMBER: DOUGLAS FIR (COAST REGION) GRADED AND MARKED IN ACCORDANCE WITH THE STD GRADING RULES NO. 17 OF THE WEST COAST LUMBER INSPECTION BUREAU (WCLIB) OR WESTERN LUMBER GRADING RULES, OF THE WESTERN WOOD PRODUCTS ASSOCIATION (WWPA). USE LUMBER OF THE FOLLOWING GRADES:

- A. STUDS: DF #1 PRESSURE OR PRESERVE TREATED, NATURALLY DURABLE, OR FOUNDATION GRADE REDWOOD; 19% MOISTURE CONTENT
- B. STUDS: DF #2; 19% MOISTURE CONTENT
- C. JOISTS, PLANKS AND PLATES: DF #1; 15% MOISTURE CONTENT
- D. BEAMS, 5" & WIDER: DF SELECT STRUCTURAL; 19%
- E. BEAMS, 4" & NARROWER: DF #1; 19% MOISTURE CONTENT
- F. POSTS, 6X6 & LARGER: DF SELECTUR STRUCTURAL; 19% MOISTURE CONTENT
- G. POSTS, 4X6 & SMALLER: DF #1; 19% MOISTURE CONTENT
- H. FRAMING, BLOCKING AND BRIDGING: DF #2; 15% MOISTURE CONTENT
- I. PLYWOOD BLOCKING: DF #1; 19% MOISTURE CONTENT
- J. BACKING: PER CONSTRUCTION; 19% MOISTURE CONTENT
- F. STRIPPING AND FURRING

RC-2 MANUFACTURED LUMBER:

- A. TJI: DEPTH AND SPACING PER PLAN, ESR-1153. SEE SHEET TJI-1 FOR FRAMING AND INSTALLATION GUILDELINES.
- B. LVL: MICROLAM LVL 1.9E, ESR-1387
- C. PSL: PARALLAM PSL 2.0E, ESR-1387

RC-3 PANEL SHEATHING: IDENTIFY WOOD STRUCTURAL PANELS WITH THE APPROPRIATE TRADEMARK OF APA-THE ENGINEERED WOOD ASSOCIATION AND MEET THE REQUIREMENTS OF THE VOLUNTARY PRODUCT STD PS-1 OR PS-2 AND APA PRP-108 PERFORMANCE STD.

- A. PANEL SHEATHING TO BE EXPOSURE 1.
- B. PLYWOOD PANELS TO BE 5-PLY MINIMUM, EXCEPT 3/8" PANELS TO BE 3-PLY MINIMUM.
- C. PLYWOOD TO BE C-C GRADE AT LOCATIONS EXPOSED TO WEATHER; CD GRADE ELSEWHERE.
- D. SHEATH ALL EXTERIOR WALLS WITH 15/32" PLYWOOD WITH 10d NAILS WITH (6",6",12") OC, (BN, EN, FN).
- E. PROVIDE THE FOLLOWING GRADE AND SPAN RATINGS:

PANEL THICKNESS	MINIMUM GRADE	ROOF/FLOOR RATING
3/8	STRUCTURAL 1	24/0
7/16	STRUCTURAL 1	24/16
15/32	STRUCTURAL 1	32/16
19/32 AND 5/8	CD/CC	40/20
3/4	CD/CC	48/24
7/8 AND 1	CD/CC	54/32
1 1/8	CD/CC	60/48

RC-4 ROUGH HARDWARE:

- A. NAILS: COMMON WIRE NAILS, FEDERAL SPECIFICATION FF-N-105B, STANDARD LENGTHS UON USE HOT-DIPPED ZINC-COATED GALVANIZED NAILS FOR EXTERIOR INSTALLATIONS AND WHEN PENETRATING PRESSURE TREATED OR FIRE-RETARDANT LUMBER.
- B. BOLTS AND THREADED RODS: ASTM A307, SQ OR HEXAGONAL HEAD MACHINE BOLTS WITH ASTM A563 NUTS. USE MALLEABLE IRON WASHERS UNDER HEAD AND NUT WHEN IN CONTACT WITH WOOD. AT SILL PLATES USE 2"x2"x3/16" MINIMUM PLATE WASHERS.
- C. LAG SCREWS: ASTM A307, ANSI/ASME STANDARD B18.2.1. USE ANSI B18.22.1 WASHERS UNDER HEAD WHEN IN CONTACT WITH WOOD.
- D. SCREWS: ASTM A307, ANSI/ASME STANDARD B18.6.1. USE CADMIUM-PLATED PAN OR ROUND HEADED SCREWS AT STEEL TO WOOD AND WOOD TO WOOD CONNECTIONS.
- E. BOLTS, NUTS, WASHERS, STRAPS AND OTHER HARDWARE EXPOSED TO THE WEATHER TO BE HOT-DIPPED GALVANIZED OR STAINLESS STEEL.
- F. FRAMING CLIPS, SHEET METAL STRAPS, ETC.: SIMPSON, UNIVERSAL, OR EQUIVALENT. DESIGNATIONS ON DRAWINGS ARE BASED ON SIMPSON CATALOGUE NUMBERS.

RC-5 NAILING:

- A. DRIVE NAILS PERPENDICULAR TO THE GRAIN, UON
- B. PREDRILLED HOLES TO 3/4 OF NAIL DIA WHERE SPECIFIED AND WHEN WOOD TENDS TO SPLIT.
- C. AIR-DRIVEN NAILS TO BE FULL-HEADED NAILS. DO NOT OVERDRIVE NAILS.
- D. PANEL SHEATHING
  1. AT DIAPHRAGM SHEATHING, USE RING SHANK NAILS. USE SMOOTH SHANK NAILS AT WALLS.
  2. USE OF MACHINE NAILING IS SUBJECT TO A SATISFACTORY JOB SITE DEMONSTRATION FOR EACH PROJECT AND APPROVAL BY THE OWNER'S REPRESENTATIVE. NAIL HEADS THAT PENETRATE THE OUTER PLY MORE THAN WOULD BE NORMAL FOR A HAND HAMMER OR IF THE MINIMUM ALLOWABLE EDGE DISTANCES ARE NOT MAINTAINED THE INSTALLATION IS UNSATISFACTORY. MACHINE NAILING IS NOT APPROVED IN 5/16" OR LESS SHEATHING.
  3. DIAPHRAGM NAILING TO BE INSPECTED BEFORE COVERING. FACE GRAIN OF PLYWOOD TO BE PERPENDICULAR TO SUPPORTS. DIAPHRAGM SHEATHING MUST BE BLOCKED AT EDGES.
  4. DIAPHRAGM NAILING TO BE INSPECTED BEFORE COVERING. FACE GRAIN OF PLYWOOD TO BE PERPENDICULAR TO SUPPORTS. DIAPHRAGM SHEATHING MUST BE BLOCKED AT EDGES.
  5. GLUE FLOOR SHEATHING AT ALL POINTS OF CONTACT.
- E. PROVIDE MINIMUM NAILING PER TABLE 2304.9.1 OF THE IBC/CBC, UON

RC-6 BOLT AND SCREW INSTALLATION

- A. DRILL BOLT HOLES 1/32 TO 1/16 (MAX) INCH LARGER IN DIA THAN THE BOLT NOMINAL DIA.
- B. DRILL PRE-BORED LEAD HOLES FOR WOOD SCREWS AS FOLLOWS.
  1. PROVIDE LEAD HOLE 40% - 70% OF THREADED SHANK DIA AND FULL DIA FOR SMOOTH SHANK PORTION.
  2. DRILL LEAD HOLE FOR THE SHANK TO A DEPTH EQUAL TO THE LENGTH OF THE UNTHREADED PORTION IN THE MAIN MEMBER. USE A DRILL BIT 7/8 THE DIA OF THE WOOD SCREW.
  3. EXTEND THE LEAD HOLE FOR THE THREADED PORTION OF THE SCREW WITH A DRILL BIT WHOSE DIA IS 40%-70% THE DIA OF THE SCREW AT THE ROOT OF THE THREAD.
  4. INSERT THE SCREW INTO LEAD HOLE BY TURNING. DO NOT DRIVE WITH A HAMMER.
  5. LUBRICATE WITH SOAP OR BEESWAX TO FACILITATE INSTALLATION.
- C. DRILL PRE-BORED LEAD HOLES FOR LAG SCREWS AS FOLLOWS.
  1. PROVIDE LEAD HOLE 40% - 70% OF THREADED SHANK DIA AND FULL DIA FOR SMOOTH SHANK PORTION.
  2. DRILL LEAD HOLE FOR THE SHANK TO A DEPTH EQUAL TO THE LENGTH OF THE UNTHREADED PORTION IN THE MAIN MEMBER. USE A DRILL BIT OF THE SAME DIA AS THE LAG SCREW.
  3. EXTEND THE LEAD HOLE FOR THE THREADED PORTION OF THE LAG SCREW WITH A DRILL BIT WHOSE DIA IS 60 PERCENT OF THE NOMINAL LAG SCREW DIA.
  4. INSERT LAG SCREW INTO LEAD HOLE BY TURNING. DO NOT DRIVE WITH A HAMMER.
  5. LUBRICATE WITH SOAP OR BEESWAX TO FACILITATE INSTALLATION.

RC-7 HOLD DOWN CONNECTOR BOLTS INTO WOOD FRAMING REQUIRE APPROVED PLATE WASHERS; AND HOLD DOWNS SHALL BE FINGER TIGHT AND 1/2 WRENCH TURN JUST PRIOR TO COVERING WALL FRAMING. CONNECTOR BOLTS INTO WOOD FRAMING REQUIRE STEEL PLATE WASHERS ON THE OPPOSITE SIDE OF ANCHORAGE DEVICE. PLATE SHALL BE 0.299x3x3 IN MIN.

RC-8 HOLD-DOWN HARDWARE MUST BE SECURED IN PLACE PRIOR TO FOUNDATION INSPECTION.

RC-9 INSTALL SOLID BLOCKING BETWEEN JOISTS AT ENDS AND OVER SUPPORTS. PROVIDE 2 INCH BY 3 INCH CROSS BRIDGING, METAL BRIDGING, OR SOLID BLOCKING BETWEEN JOISTS IN SPANS EQUALLY SPACED 8 FEET OC MAXIMUM AND WHERE INDICATED.

RC-10 DO NOT USE WOOD SHINGLE SHIMS UNDER STUDS, JOISTS, BEAMS, OR POSTS.

FASTENING SCHEDULE

	CONNECTION	NAILING	STAPLES	LOCATION
1	JOIST TO SILL OR GIRDER	3-8d COMMON	3-3" 14 GA STAPLES	TOE NAIL
2	BRIDGING TO JOISTS	2-8d COMMON	2-3" 14 GA STAPLES	TOE NAIL, EA END
3	SOLE PLATE TO JOISTS OR BLOCKING	16d COMMON @ 16" OC	3" 14 GA STAPLES @ 12" OC	TYP FACE NAIL
4	TOP PLATE TO STUD	2-16d COMMON	3-3" 14 GA STAPLES	END NAIL
5A	STUD TO SOL PLATE	4-8d COMMON	3-3" 14 GA STAPLES	TOE NAIL
5B	STUD TO SOL PLATE	2-16d COMMON	3-3" 14 GA STAPLES	END NAIL
6	DOUBLE STUDS	16d COMMON @ 24" OC	3" 14 GA STAPLES @ 8" OC	FACE NAIL
7A	DOUBLE TOP PLATE	16d COMMON @ 16" OC	3" 14 GA STAPLES @ 12" OC	TYP FACE NAIL
7B	DOUBLE TOP PLATE	8-16d COMMON	12-3" 14 GA STAPLES	LAP SPLICE
8	BLOCKIGN BETWEEN JOISTS OR RAFTERS TO TOP PLATE	3-8d COMMON	3-3" 14 GA STAPLES	TOE NAIL
9	RIM JOISTS TO TOP PLATE	4-8d COMMON	3" 14 GA STAPLES @ 6" OC	TOE NAIL
10	TOP PLATES, LAPS AND INTERSECTIONS	2-16d COMMON	3-3" 14 GA STAPLES	FACE NAIL
11	CONT HEADER, TWO PIECES	16d COMMON	-	16" OC ALONG EDGE
12	CEILING JOISTS TO PLATE	3-8d COMMON	5-3" 14 GA STAPLES	TOE NAIL
13	CONT HEADER TO STUD	4-8d COMMON	-	TOE NAIL
14	CEILING JOISTS, LAPS OVER PARTITIONS	3-16d COMMON	3-3" 14 GA STAPLES	FACE NAIL
15	CEILING JOISTS PARALLEL TO RAFTERS	3-16d COMMON	4-3" 14 GA STAPLES	FACE NAIL
16	RAFTER TO PLATE	3-8d COMMON	3-3" 14 GA STAPLES	TOE NAIL
17A	BUILT-UP GIRDER BEAMS	20d COMMON @ 32" OC	3" 14 GA STAPLES @ 24" OC	FACE NAIL @ T&B STAGGERED
17B	BUILT-UP GIRDER BEAMS	2-20d COMMON	3-3" 14 GA STAPLES	FACE NAIL @ ENDS & EACH SPLICE
18	JOIST TO BAND JOIST	3-16d COMMON	4-3" 14 GA STAPLES	TOE NAIL

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NOT FOR CONSTRUCTION

REVISIONS:

DESCRIPTION:	BY:	DATE:

HILLSIDE REVIEW

SCALE:	DATE:
AS NOTED	3/16/2018
	DRAWN: Author / CHECKED: Checker
GENERAL NOTES	SHEET: S0.01

PLOTTED ON: 4/13/2018 7:41:53 PM

AD-C CHEMICAL ANCHORS AND REBAR IN HARDENED CONCRETE

AD-C1 ADHESIVE ANCHORS SYSTEM (CONCRETE): HILTI HIT-RE 500-V3 (ICC ESR-3814 & LARR 26028) AND SIMPSON STRONG TIE SET-XP (ICC-ES ESR 2508 & LARR 25744). SD (ICC ESR 3013) USE ONLY ADHESIVE ANCHOR SYSTEMS THAT HAVE BEEN PRE-QUALIFIED IN ACCORDANCE WITH THE PROVISIONS OF ICC ES AC306, APPROVED FOR USE IN CRACKED CONCRETE. ANCHOR SYSTEMS SHALL BE INSTALLED PER THE REQUIREMENTS OF THE ICC ES EVALUATION SERVICES REPORT TO THE SPECIFIC ANCHOR. ADHESIVE ANCHORS IN UNREINFORCED MASONRY: SIMPSON STRONG TIE "SET" (ICC-ES ESR-1772 & LARR 25279).

AD-C2 REMOVE GREASE, OIL, RUST AND ANY OTHER LAITANCE FROM RODS AND DOWELS PRIOR TO INSTALLATION.

AD-C3 WHERE ADHESIVE ANCHOR SYSTEMS ARE USED TO INSTALL REINFORCING DOWEL BARS, ONLY 25% OF THE DOWELS NEED TO BE TESTED IF THE FOLLOWING CONDITIONS ARE MET.

- A. THE DOWELS ARE USED EXCLUSIVELY TO TRANSMIT SHEAR FORCES ACROSS JOINTS BETWEEN EXISTING AND NEW CONSTRUCTION.
- B. THE NUMBER OF DOWELS IN ANY ONE MEMBER EQUALS OR EXCEEDS 12.
- C. THE DOWELS ARE UNIFORMLY DISTRIBUTED ACROSS SEISMIC FORCE RESISTING SYSTEM IS NOT REQUIRED.

AD-C4 TESTING OF SHEAR DOWELS ACROSS COLD JOINTS IN SLABS ON GRADE WHERE THE SLAB IS NOT PART OF THE LATERAL FORCE-RESISTING SYSTEM IS NOT REQUIRED.

AD-C5 REPLACE ANCHORS AND DOWELS THAT FAIL DURING TESTING AND RETEST. IF MORE THAN 10% OF THE TESTED DOWELS AND ANCHORS FAIL TO ACHIEVE THE SPECIFIED TEST LOAD, TEST 100% OF THE DOWELS AND ANCHORS IN THE LAST 2 DAYS OF ANCHOR INSTALLATION.

AD-C6 A HYDRAULIC CYLINDER SHALL BE USED TO APPLY THE TENSION TEST LOAD TO THE ANCHOR WITH THE CYLINDER SUPPORTED ON A LOADING PLATE HAVING A HOLE DIAMETER EQUAL TO 1.5 TO 2.0 TIMES THE ANCHOR HOLE DIAMETER (CONFINED CONFIGURATION) UNLESS OTHERWISE APPROVED BY ENFORCEMENT AGENCY.

AD-C7 THE ACCEPTABLE CRITERIA FOR INSTALLED ANCHORS IS THE HYDRAULIC RAM METHOD: THE ANCHOR SHALL HAVE NO OBSERVABLE MOVEMENT AT THE APPLICABLE TEST LOAD

AD-C8 ALL HOLES FOR POST-INSTALLED ANCHORS SHALL BE DRILLED, CLEANED, AND PREPARED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS OR THE APPLICABLE ICC ESR. ALL DEBRIS SHALL BE REMOVED BY IN-HOLE BRUSHING COMBINED WITH VACUUM OR OIL-FREE COMPRESSED AIR. JETTING HOLES WITH WATER IS NOT PERMITTED.

AD-C9 WHERE AN ANCHOR DOES NOT SET PROPERLY, OR FAILS A TENSION TEST, OR REINFORCEMENT IS ENCOUNTERED DURING DRILLING, THE DRILLED HOLE MAY NOT BE REUSED. ABANDONED HOLES SHALL BE FILLED WITH NON-SHRINK GROUT. THE MINIMUM CLEAR SPACING BETWEEN AN ABANDONED HOLE AND A DRILLED HOLE USED FOR A POST INSTALLED ANCHOR SHALL NOT BE LESS THAN 1 1/2 ANCHOR DIAMETERS UNLESS OTHERWISE APPROVED BY THE ENFORCEMENT AGENCY. IF THE ANCHOR OR DOWEL MAY NOT BE SHIFTED AS NOTED ABOVE, THE ENGINEER OF RECORD WILL DETERMINE A NEW LOCATION.

AD-C10 REQUIRED TEST LOADS SHALL BE DETERMINED AS THE LESSER OF 1.25 TIMES THE MAXIMUM DESIGN STRENGTH AS PROVIDED IN THE ICC ESR FOR THE SPECIFIC ANCHOR OR 80% OF THE NOMINAL YIELD STRENGTH OF THE ANCHOR ELEMENT. AS SUMMARIZED IN THE TABLE BELOW (NOTE: FOR LIGHT WEIGHT CONCRETE, REDUCE THE CAPACITY OF TESTING LOAD BY 50%):

TENSION TEST LOADS (POUNDS)				
HILTI KWIK HUS EZ (ICC ESR-2322)				
CRACKED CONCRETE SEISMIC CONDITION B				
NOMINAL ANCHOR DIA (IN)	NOMINAL REBAR SIZE	EMBEDMENT DEPTH Hef (IN)	NOMINAL WEIGHT CONCRETE (Fc = 4000 psi)	LIGHT WEIGHT CONCRETE (Fc = 5000 psi)
			CARBON STEEL	CARBON STEEL
1/2	#4	3	2000	2130
1/2	#4	6 1/2	4350	4610
5/8	#5	8	6500	4890
3/4	#6	10	9330	9880
7/8	#7	12	10170	10780
1	#8	14	12530	13280

TENSION TEST LOADS (POUNDS)				
HILTI KWIK HUS EZ (ICC ESR-3027)				
CRACKED CONCRETE SEISMIC CONDITION B				
NOMINAL ANCHOR DIA (IN)	NOMINAL REBAR SIZE	INSTALLATION TORQUE (FT-LB)	NOMINAL WEIGHT CONCRETE (Fc = 4000 psi)	LIGHT WEIGHT CONCRETE (Fc = 5000 psi)
			CARBON STEEL	CARBON STEEL
1/2	#4	3	2190	2320
1/2	#4	6 1/2	4750	5030
5/8	#5	8	7860	8330
3/4	#6	10	12650	13410
7/8	#7	12	17870	18910
1	#8	14	24010	25450

AD-S SCREW ANCHORS IN HARDENED CONCRETE

AD-S1 SCREW ANCHOR SYSTEM: HILTI KWIK HUS-EZ CARBON STEEL SCREW ANCHORS (ICC ESR-3027 & LARR 25897) OR SIMPSON STRONG TIE "TITEN-HD" (ICC-ES ESR-2713 & LARR 25714).

AD-S2 INSTALL ANCHORS IN DRY INTERIOR APPLICATIONS ONLY.

AD-S3 ANCHORS MAY NOT BE ATTACHED TO UNDERSIDE OF A BEAM, SLAB, OR METAL DECK W/ CONCRETE FILL.

AD-S4 RE-USE OF SCREW ANCHORS OR SCREW ANCHOR HOLES IS NOT PERMITTED.

AD-S5 SCREW ANCHORS SET WITH AN IMPACT WRENCH TO ALSO BE TESTED PER THE RELIABILITY TEST SECTION 8.8.2.2.3 OF AC 193.

AD-S6 SCREWS TO BE TESTED PER TEST REQUIREMENTS FOR EXPANSION ANCHORS EXCEPT AS NOTED.

- A. SCREW ANCHORS MAY BE LOOSENED A MAX. OF ONE FULL TURN TO FACILITATE THE POSITIONING OF A TEST COLLAR. FOLLOWING THE TENSION TEST, THE ANCHOR SHALL BE RE-TORQUED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- B. TEST LOADS(TWICE MAX. ALLOWABLE LOAD OR ONE AND QUARTER TIMES MAX. DESIGN STRENGTH OF ANCHORS AS PROVIDED IN THE ICC ESR).
- C. TESTING WITH TORQUE WRENCH IS NOT PERMITTED.

TENSION TEST LOADS (POUNDS)				
HILTI KWIK HUS EZ (ICC ESR-3027)				
CRACKED CONCRETE SEISMIC CONDITION B				
NOMINAL ANCHOR DIA (IN)	EMBEDMENT DEPTH Hnom (IN)	INSTALLATION TORQUE (FT-LB)	NOMINAL WEIGHT CONCRETE (Fc = 4000 psi)	LIGHT WEIGHT CONCRETE (Fc = 4000 psi)
			CARBON STEEL	CARBON STEEL
1/4	2 1/2	18	900	540
3/8	1 5/8	40	565	340
3/8	2 1/2	40	1670	1000
3/8	3 1/4	40	2590	1555
1/2	2 1/4	45	1230	735
1/2	3	45	2080	1248
1/2	4 1/4	45	3790	2275
5/8	3 1/4	85	2420	1450
5/8	4	85	5000	3000

AD-M MECHANICAL ANCHORS IN HARDENED CONCRETE

AD-M1 EXPANSION ANCHOR SYSTEM (CONCRETE): HILTI KWIK BOLT TZ OR SIMPSON STRONG BOLT II. USE ONLY EXPANSION ANCHOR SYSTEMS THAT HAVE BEEN PRE-QUALIFIED IN ACCORDANCE WITH THE PROVISIONS OF ICC ES AC193, APPROVED FOR USE IN CRACKED CONCRETE AND RECOGNIZED WITH ANCHOR CATEGORY 1 LISTINGS. ANCHOR SYSTEMS SHALL BE INSTALLED PER THE REQUIREMENTS OF THE ICC ESR FOR THE SPECIFIC ANCHOR.

AD-M2 UNDERCUT ANCHOR SYSTEM (CONCRETE): HILTI HDA (ICC ESR-1546). USE ONLY UNDERCUT ANCHOR SYSTEMS THAT HAVE BEEN PRE-QUALIFIED IN ACCORDANCE WITH THE PROVISIONS OF ICC ES AC193, APPROVED FOR USE IN CRACKED CONCRETE AND RECOGNIZED WITH ANCHOR CATEGORY 1 LISTINGS. ANCHOR SYSTEMS SHALL BE INSTALLED PER THE REQUIREMENTS OF THE ICC ESR FOR THE SPECIFIC ANCHOR.

AD-M3 WHERE THE MANUFACTURER'S INSTALLATION INSTRUCTIONS OR APPLICABLE ICC ESR CALL OF THE APPLICATION OF AN INSTALLATION TORQUE SHALL BE APPLIED WITH A CALIBRATED TORQUE WRENCH. FOLLOWING ATTAINMENT OF 10% OF THE SPECIFIED TORQUE, 100% OF COMPLETE TURNS OF THE NUT. THE SPECIFIED INSTALLATION TORQUE SHALL NOT BE EXCEEDED.

AD-M4 USE OF ZINC-COATED CARBON STEEL ANCHORS IS LIMITED TO DRY, INTERIOR LOCATIONS, UNLESS OTHERWISE NOTED. PROVIDE STAINLESS STEEL ANCHORS FOR APPLICATIONS EXPOSED TO EXTERIOR WEATHER CONDITIONS.

AD-M5 EXPANSION ANCHORS FOR NON-VIBRATION ISOLATED MECHANICAL EQUIPMENT RATED OF 10HP ARE NOTE PERMITTED BY ASCE 7-05 SECTION 13.6.5.5. ANCHORS INSTALLED IN OVERHEAD CONDITIONS FOR NON-VIBRATION ISOLATED EQUIPMENT WITH RECIPROCATING OR ROTATING MECHANISMS SHALL BE UNDERCUT ANCHORS.

AD-M6 WHERE MECHANICAL ANCHORS ARE USED IN A STANDOFF CONFIGURATION (I.E., WHERE THE ATTACHMENT IS SEPARATED FROM THE CONCRETE IN WHICH THE ANCHOR IS INSTALLED), A NUT AND WASHER SHALL BE PROVIDED AT THE CONCRETE SURFACE TO FACILITATE SETTING OF THE ANCHOR AND TO TRANSMIT AXIAL COMPRESSION LOADS INTO THE CONCRETE.

AD-M7 UNDERCUT ANCHORS THAT ALLOW VISUAL CONFIRMATION OF FULL SET NEED NOT BE TESTED. UNLESS OTHERWISE NOTED BY ENFORCEMENT AGENCY OR ENGINEER OF RECORD.

AD-M8 WHERE THE DESIGN TENSION ON ANCHORS IS LESS THAN 100 POUNDS AND THOSE ANCHORS ARE CLEARLY IDENTIFIED ON THE CONTRACT DOCUMENTS. ONLY 10% OF THOSE ANCHORS NEED TO BE TESTED, UNLESS OTHERWISE NOTED BY OSHPD OR STRUCTURAL ENGINEER OF RECORD.

AD-M9 THE TEST LOAD MAY BE APPLIED BY ANY METHOD THAT WILL EFFECTIVELY TRANSMIT A MEASURABLE TENSION LOAD TO THE ANCHOR. ACCEPTABLE METHODS INCLUDE:

- A. USE OF A HYDRAULIC JACK WHEREBY EITHER UNCONFINED OR CONFINED TESTING SHALL BE ACCEPTABLE.
- B. USE OF CALIBRATED SPRING LOADED DEVICES: OR
- C. USE OF CALIBRATED TORQUE WRENCH FOR TORQUE-CONTROLLED EXPANSION ANCHORS.

AD-M10 THE FOLLOWING CRITERIA APPLY FOR THE ACCEPTANCE OF INSTALLED ANCHORS:

- A. HYDRAULIC RAM METHOD: THE ANCHOR SHALL HAVE OBSERVABLE MOVEMENT AT THE APPLICABLE TEST LOAD. FOR EXPANSION ANCHORS, A PRACTICAL WAY TO DETERMINE OBSERVABLE MOVEMENT IS THAT THE WASHER UNDER THE NUT BECOMES LOOSE.
- B. TORQUE WRENCH METHOD: THE APPLICABLE TEST TORQUE MUST BE REACHED WITHIN ONE-HALF (1/2) TURN OF THE NUT

AD-M11 WHEN INSTALLING DRILLED-IN ANCHORS AND/OR POWDER DRIVEN PINS IN EXISTING NON-PRESTRESSED REINFORCED CONCRETE. USE CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE EXISTING REINFORCING BARS. WHEN INSTALLING THEM INTO EXISTING PRESTRESSED CONCRETE (PRE-OR POST-TENSIONED) LOCATE THE PRESTRESSED TENDONS BY USING A NON-DESTRUCTIVE METHOD PRIOR TO INSTALLATION. EXERCISE EXTREME CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE TENDONS DURING INSTALLATION. MAINTAIN WHICH EVER IS GREATER, BETWEEN THE REINFORCEMENT AND THE DRILLED-IN ANCHOR AND/OR PIN.

AD-M12 IF REBAR:

- A. IF THE ANCHOR MAY BE SHIFTED, FILL THE ABANDONED HOLE WITH NON-SHRINK GROUT. THE MINIMUM CLEAR SPACING BETWEEN AN ABANDONED HOLE AND A DRILLED HOLE USED FOR A POST INSTALLED ANCHOR SHALL NOT BE LESS THAN 1-1/2 ANCHOR DIAMETERS UNLESS OTHERWISE APPROVED BY THE STRUCTURAL ENGINEER OF RECORD AND OSHPD.
- B. IF THE ANCHOR LOCATION MAY NOT BE SHIFTED, CORE AN OVERSIZED HOLE AT THE DIRECTION OF THE ENGINEER OF RECORD AND INSTALL AN APPROVED ADHESIVE ANCHOR IN PLACE.

AD-M13 IF THE CONCRETE CRACKS DURING THE INSTALLATION OF THE ANCHOR. THE ANCHOR SHALL BE REMOVED.

AD-M14 POWER ACTUATED FASTENERS SHALL BE "HILTI" PER ICC ESR-2269 & LARR 25684 OR SIMPSON STRONG TIE (ICC-ES ESR-2138 & LARR 25469).

BASE MATERIAL	FASTENER TYPE	MINIMUM EMBEDMENT	MINIMUM EDGE DISTANCE
STEEL	X-U	3/8"	1/2"
CONCRETE	X-U	1"	3"

POWER ACTUALTED FASTENERS SHALL BE TENSION TESTED TO TWICE THE ALLOWABLE TENSION LOAD AS LISTED IN THE ICC ESR. THE ANCHOR SHOULD HAVE NO OBSERVABLE MOVEMENT AT THE APPLICABLE TEST LOAD. TESTING IS NOT REQUIRED OF POWER ACTUATED FASTENERS USED TO ATTACH TRACKS OF INTERIOR NON-SHEAR WALL PARTITIONS FOR SHEAR ONLY, WHERE THERE ARE AT LEAST THREE FASTENERS PER SEGMENT OF TRACK. THE TEST LOAD MAY BE APPLIED BY ANY METHOD THAT WILL EFFECTIVELY MEASURE THE TENSION IN THE FASTENER, SUCH AS DIRECT PULL WITH A HYDRAULIC JACK, CALIBRATED SPRING LOADED DEVICES, ETC.

AD-M15 REQUIRED TEST LOADS SHALL BE DETERMINED AS THE LESSER OF 1.25 TIMES THE MAXIMUM DESIGN STRENGTH AS PROVIDED IN THE ICC ESR FOR THE SPECIFIC ANCHOR OR 80% OF THE NOMINAL YIELD STRENGTH OF THE ANCHOR ELEMENT, AS SUMMARIZED IN THE TABLES BELOW (NOTE: HILTI HDA UNDERCUT ANCHORS CAN BE EXEMPT FROM PROOF LOADING REQUIREMENTS WITH VISUAL CONFIRMATION):

TENSION TEST LOADS (POUNDS)			
HILTI KWIK HUS EZ (ICC ESR-3027)			
CRACKED CONCRETE SEISMIC CONDITION B			
NOMINAL ANCHOR DIA (IN)	EMBEDMENT DEPTH Hef (IN)	INSTALLATION TORQUE (FT-LB)	NOMINAL WEIGHT CONCRETE (Fc = 4000 psi)
			CARBON STEEL
3/8"	2	25	1750
1/2"	2	40	1850
1/2"	3 1/4	40	3780
5/8"	3 1/8	60	3620
5/8"	4	60	5240
3/4"	3 3/4	110	4760
3/4"	4 3/4	110	6780

TENSION TEST LOADS (POUNDS)				
HILTI KWIK HUS EZ (ICC ESR-3027)				
CRACKED CONCRETE SEISMIC CONDITION B				
NOMINAL ANCHOR DIA (IN)	EMBEDMENT DEPTH Hef (IN)	INSTALLATION TORQUE (FT-LB)	NOMINAL WEIGHT CONCRETE (Fc = 4000 psi)	LIGHT WEIGHT CONCRETE (Fc = 4000 psi)
			CARBON STEEL	STAINLESS STEEL
3/8"	1 1/2	30	700	900

TENSION TEST LOADS (POUNDS)			
HILTI KWIK HUS EZ (ICC ESR-3027)			
CRACKED CONCRETE SEISMIC CONDITION B			
NOMINAL ANCHOR DIA (IN)	EMBEDMENT DEPTH Hef (IN)	INSTALLATION TORQUE (FT-LB)	NOMINAL WEIGHT CONCRETE (Fc = 4000 psi)
			CARBON STEEL
M10	3.94	37	6821
M12	4.92	59	8664
M16	7.48	84	17328
M20	9.84	221	25993

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HILLSIDE REVIEW

SCALE:	DATE:	
AS NOTED	3/16/2018	
	DRAWN: Author	CHECKED: Checker
GENERAL NOTES	SHEET: S0.02	

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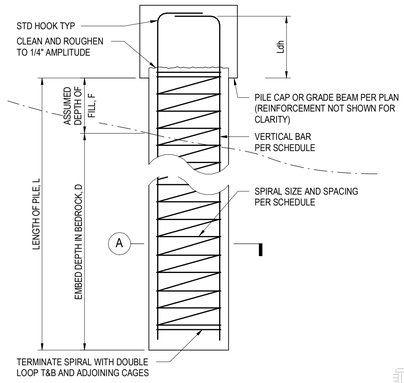

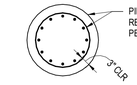

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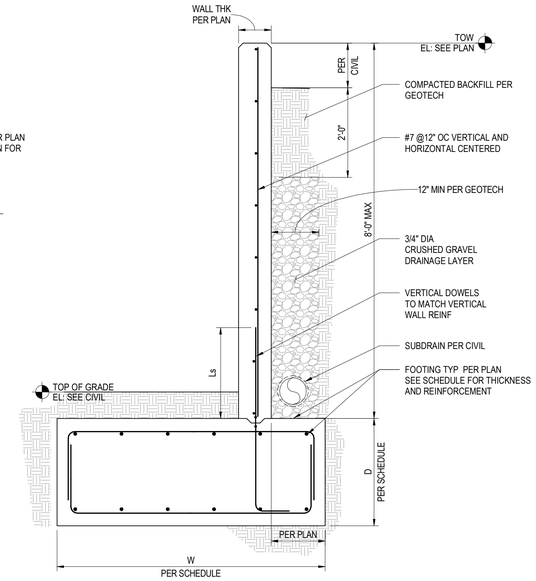
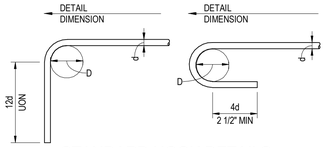
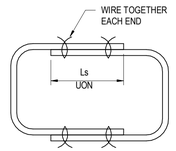




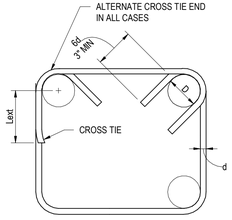
A STANDARD HOOK DETAILS

FOR DEFORMED BARS IN TENSION:
D = 6d FOR #3 THRU #8 BARS
D = 8d FOR #9 THRU #11 BARS
D = 10d FOR #14 AND #18 BARS

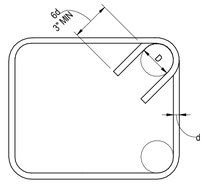
FOR STIRRUPS, TIES, AND HOOPS:
FOR #3 THRU #5 BARS: D = 4d, Lext = 6d, 3" MIN
FOR #6 THRU #8 BARS: D = 6d, Lext = 12d



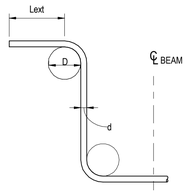
B TIE LAP DETAIL



C SPANDREL & BEAM SUPPLEMENTARY TIE



D COLUMN & SPANDREL TIE



E BEAM & JOIST STIRRUP

CONDITION	CONC TYPE	CONCRETE REINFORCING DEVELOPMENT & SPLICING LENGTHS (IN) FOR fc = 5.0 KSI																	
		BAR SIZE																	
		#3			#4			#5			#6			#7			#8		
		Ld	Ls	Ldh	Ld	Ls	Ldh	Ld	Ls	Ldh	Ld	Ls	Ldh	Ld	Ls	Ldh	Ld	Ls	Ldh
THICKNESS OF FRESH CONCRETE PLACED BELOW HORIZONTAL REINFORCEMENT > 12"																			
A & B	NWC	17	22	6	22	29	8	28	36	11	33	43	13	48	63	15	55	72	17
C	NWC	25	32	6	33	43	8	41	54	11	50	65	13	72	94	15	83	108	17
THICKNESS OF FRESH CONCRETE PLACED BELOW HORIZONTAL REINFORCEMENT ≤ 12"																			
A & B	NWC	13	17	6	17	22	8	21	28	11	25	33	13	37	48	15	42	55	17
C	NWC	19	25	6	25	33	8	32	41	11	38	50	13	56	72	15	64	83	17

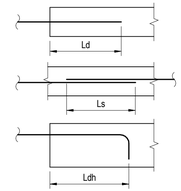
CONDITION	CONC TYPE	CONCRETE REINFORCING DEVELOPMENT & SPLICING LENGTHS (IN) FOR fc = 4.0 KSI																	
		BAR SIZE																	
		#3			#4			#5			#6			#7			#8		
		Ld	Ls	Ldh	Ld	Ls	Ldh	Ld	Ls	Ldh	Ld	Ls	Ldh	Ld	Ls	Ldh	Ld	Ls	Ldh
THICKNESS OF FRESH CONCRETE PLACED BELOW HORIZONTAL REINFORCEMENT > 12"																			
A & B	NWC	18	24	7	25	32	9	31	40	12	37	48	14	54	70	17	62	80	19
C	NWC	28	36	7	37	48	9	46	60	12	55	72	14	81	105	17	92	120	19
THICKNESS OF FRESH CONCRETE PLACED BELOW HORIZONTAL REINFORCEMENT ≤ 12"																			
A & B	NWC	14	18	7	19	25	9	24	31	12	28	37	14	42	54	17	47	62	19
C	NWC	21	28	7	28	37	9	36	46	12	43	55	14	62	81	17	71	92	19

CONDITION	CONC TYPE	CONCRETE REINFORCING DEVELOPMENT & SPLICING LENGTHS (IN) FOR fc = 3.0 KSI																							
		BAR SIZE																							
		#3			#4			#5			#6			#7			#8			#9			#10			#11		
		Ld	Ls	Ldh	Ld	Ls	Ldh	Ld	Ls	Ldh	Ld	Ls	Ldh	Ld	Ls	Ldh	Ld	Ls	Ldh	Ld	Ls	Ldh	Ld	Ls	Ldh	Ld	Ls	Ldh
THICKNESS OF FRESH CONCRETE PLACED BELOW HORIZONTAL REINFORCEMENT > 12"																											
A & B	NWC	21	28	8	28	37	11	36	46	14	43	56	16	62	81	19	71	93	22	80	104	25	90	118	28	100	131	31
C	NWC	32	42	8	43	56	11	53	69	14	64	83	16	93	121	19	107	139	22	120	157	25	136	176	28	151	196	31
THICKNESS OF FRESH CONCRETE PLACED BELOW HORIZONTAL REINFORCEMENT ≤ 12"																											
A & B	NWC	16	21	8	22	28	11	27	36	14	33	43	16	48	62	19	55	71	22	62	80	25	70	90	28	77	100	31
C	NWC	25	32	8	33	43	11	41	53	14	49	64	16	72	93	19	82	107	22	93	120	25	104	136	28	116	151	31

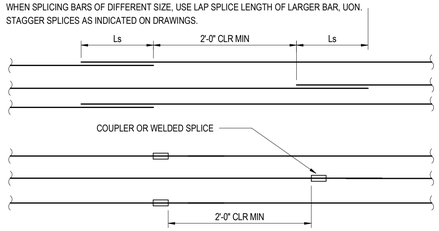
NOTES:
1. YIELD STRENGTH OF REINFORCEMENT = 60 KSI
2. UNCOATED OR ZINC-COATED (GALVANIZED) REINFORCEMENT
3. VALUES SHOWN FOR NORMAL WEIGHT CONCRETE ONLY, MULTIPLY BY 1.3 FOR LIGHTWEIGHT.
4. MORE THAN 12" OF CONCRETE CAST BELOW THE BARS ARE MOST TOP BARS. LESS THAN 12" OF CONCRETE CAST BELOW HORIZONTAL BARS ARE ALL VERTICAL BARS AND MOST BOTTOM BARSMORE THAN 12" OF CONCRETE CAST BELOW THE BARS ARE MOST TOP BARS. LESS THAN 12" OF CONCRETE CAST BELOW HORIZONTAL BARS ARE ALL VERTICAL BARS AND MOST BOTTOM BARS.
5. Ld = DEVELOPMENT LENGTH (ACI 318-14 TABLE 25.4.2.2)

Ls = LAP SPLICE LENGTH (ACI 318-14 TABLE 25.5.2.1)

Ldh = HOOK DEVELOPMENT LENGTH (ACI 318-14 25.4.3)



6. WHEN SPLICING BARS OF DIFFERENT SIZE, USE LAP SPLICE LENGTH OF LARGER BAR, UON.
7. STAGGER SPLICES AS INDICATED ON DRAWINGS.



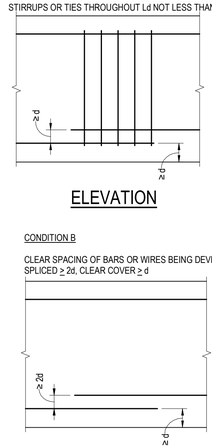
NOTE: WHERE COUPLER OR WELDED SPLICE CAN DEVELOP 125% OF THE YIELD STRENGTH OF THE REINFORCING BAR, STAGGERING OF THE SPLICES IS NOT REQUIRED.

8. Ls VALUES MAY BE REDUCED IF CLASS A SPLICE IS USED, SEE ACI 318-14 TABLE 25.5.2.1
9. Ldh VALUES MAY BE REDUCED, SEE ACI 318-14 25.4.3

NOTE: TABULATED VALUES FOR BEAMS OR COLUMNS ARE BASED ON TRANSVERSE REINFORCEMENT MEETING MINIMUM CODE REQUIREMENTS.

CONDITION A

CLEAR SPACING OF BARS OR WIRES BEING DEVELOPED OR LAP SPLICED ≥ d, STIRRUPS OR TIES THROUGHOUT Ld NOT LESS THAN CODE MINIMUM



ELEVATION SECTION

CONDITION B

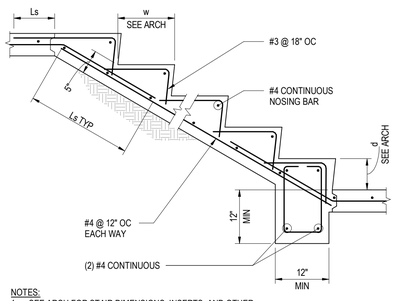
CLEAR SPACING OF BARS OR WIRES BEING DEVELOPED OR LAP SPLICED ≥ 2d, CLEAR COVER ≥ d

ELEVATION SECTION

CONDITION C

OTHER CASES

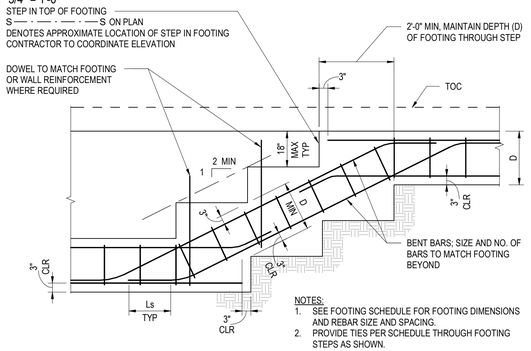
14 FRICTION PILE
NOT TO SCALE



NOTES:
1. SEE ARCH FOR STAIR DIMENSIONS, INSERTS, AND OTHER INFORMATION NOT SHOWN.

15 STAIR ON GRADE
NOT TO SCALE

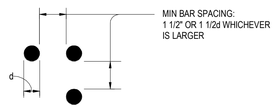
11 CANTILEVER SITE RETAINING WALL
3/4" = 1'-0"



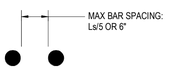
NOTES:
1. SEE FOOTING SCHEDULE FOR FOOTING DIMENSIONS AND REBAR SIZE AND SPACING.
2. PROVIDE TIES PER SCHEDULE THROUGH FOOTING STEPS AS SHOWN.

12 STEPS IN CONTINUOUS FOOTING
NOT TO SCALE

8 BAR BENDING DETAIL
NOT TO SCALE



A BAR SPACING FOR NON-SPLICED BARS



B BAR SPACING FOR BARS SPLICED WITH A NON-CONTACT LAP

9 BAR SPACING IN CONCRETE
NOT TO SCALE

6 REINFORCING DEVELOPMENT & SPLICE LENGTHS
NOT TO SCALE

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REVISIONS:

DESCRIPTION:	BY:	DATE:

HILLSIDE REVIEW

SCALE:	DATE:	
AS NOTED	3/16/2018	
	DRAWN: Author	CHECKED: Checker
TYPICAL CONCRETE DETAILS	SHEET: S0.10	

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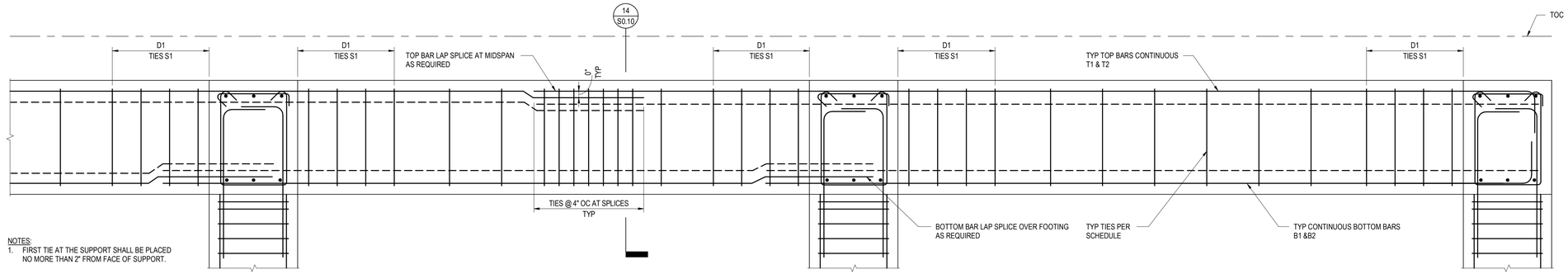
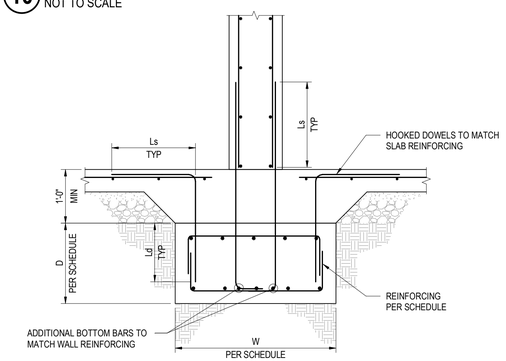
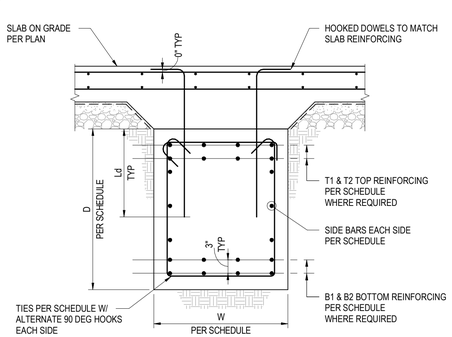


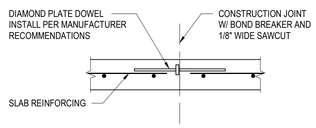
10 PILE GRADE BEAM REINFORCING ELEVATION
NOT TO SCALE



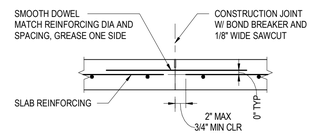
11 CONCRETE WALL CONTINUOUS FOOTING
NOT TO SCALE



12 INTERIOR GRADE BEAM
NOT TO SCALE



A CONSTRUCTION JOINT
SLAB ON GRADE ≥ 5" THICK

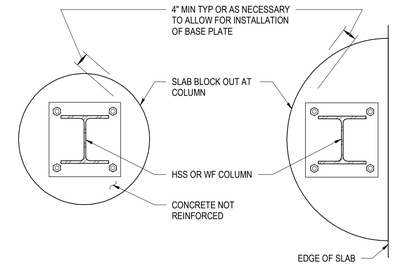


B CONSTRUCTION JOINT
SLAB ON GRADE < 5" THICK

NOTES:
1. EITHER CONTROL OR CONSTRUCTION JOINTS SHALL BE LOCATED NO FURTHER THAN 36 x SLAB THICKNESS UNLESS A SMALLER SPACING IS INDICATED ON DRAWINGS. ASPECT RATIO OF ENCLOSED AREA SHALL NOT EXCEED 1.5. SUBMIT LAYOUT FOR APPROVAL. LOCATE JOINTS ON COLUMN LINES AND UNDER PARTITIONS WHEREVER POSSIBLE. MAXIMUM SLAB AREA CONTROLLED BY JOINTING IS 400 SQ FT SAWCUT SHALL BE MADE AS SOON AS POSSIBLE AFTER SLAB FINISHING AS MAY SAFELY BE DONE WITHOUT DISLODGING AGGREGATE OR BREAKING EDGES, FILL SAWCUT JOINT WITH SEALANT AFTER SLAB HAS CURED.

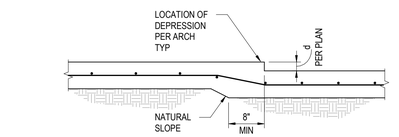
JOINT LAYOUT

8 SLAB ON GRADE CONSTRUCTION JOINT AND BLOCKOUT PREPARATION
NOT TO SCALE

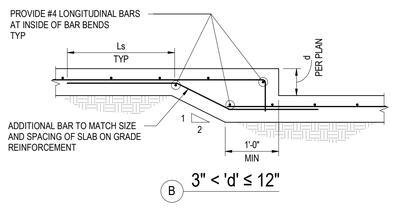


C PLAN-SLAB BLOCKOUT
AT COLUMN

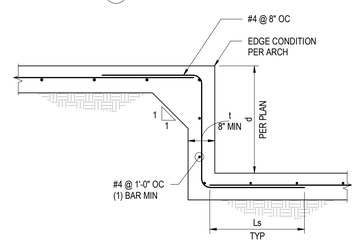
D PLAN-SLAB BLOCKOUT
AT EDGE COLUMN



A 'd' ≤ 3"



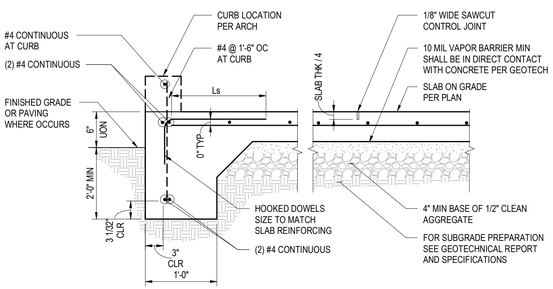
B 3" < 'd' ≤ 12"



C 12" < 'd' ≤ 42"

NOTES:
1. COORDINATE LOCATION, DEPTH, EXTENT, AND EDGE CONDITIONS OF DEPRESSIONS WITH ARCHITECTURAL DRAWINGS.

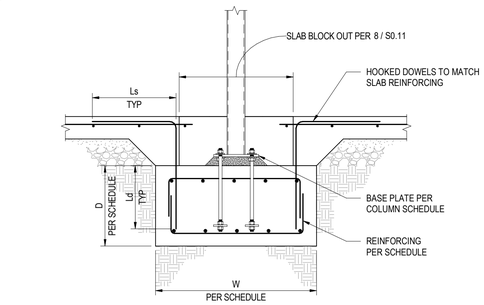
3 SLAB ON GRADE DEPRESSION
NOT TO SCALE



A EDGE OF SLAB ON GROUND

B SLAB-ON-GROUND

6 SLAB ON GRADE & CONTROL JOINT
NOT TO SCALE



NOTES:
1. PROVIDE 6" MIN CONCRETE COVER OVER COLUMN BASE PLATE AND ANCHOR RODS BELOW GRADE, TYPICAL.

9 STEEL COLUMN CONTINUOUS FOOTING
NOT TO SCALE

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REVISIONS:

DESCRIPTION:	BY:	DATE:

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SCALE: AS NOTED	DATE: 3/16/2018
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TYPICAL CONCRETE DETAILS	SHEET: S0.11

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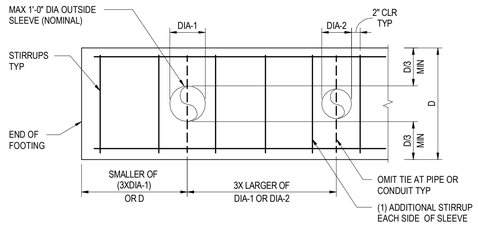
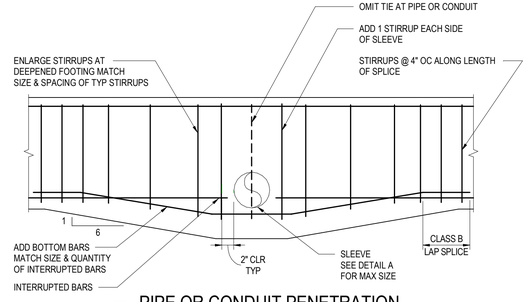
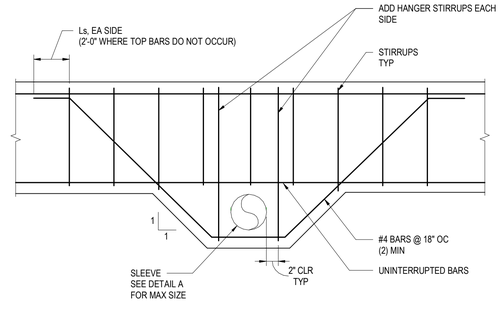


A PIPE OR CONDUIT PENETRATION THROUGH MIDDLE THIRD



B PIPE OR CONDUIT PENETRATION BELOW MIDDLE THIRD



C PIPE OR CONDUIT BELOW BOTTOM REINFORCEMENT

NOTES:
1. DO NOT CUT REINFORCING AT DETAIL A OR C, ONLY CUT INTERRUPTED REINFORCING AT DETAIL B.
2. PROVIDE MINIMUM 2" CLEAR BETWEEN SLEEVE AND REINFORCING.
3. SEE DETAIL 1 ON THIS SHEET FOR SLEEVE-TO-PIPE/CONDUIT CLEARANCE & INFO NOT NOTED.
4. CAULK SEAL GAP AT SLEEVE-TO-PIPE/CONDUIT INTERFACE ON EXTERIOR SIDE OF FOOTING.
5. IF PIPE OR CONDUIT PENETRATION OCCURS AT EITHER TOP OR BOTTOM REBAR SPLICE LOCATION PROVIDE (2) ADDITIONAL SHEAR STIRRUPS FOR A TOTAL OF 4 SHEAR STIRRUPS ON EACH SIDE OF PENETRATION.
6. IF PIPE OR CONDUIT SLEEVE IS ASTM A53 SCHEDULE 40 OR GREATER PIPE, ADDITIONAL STIRRUPS MAY BE ELIMINATED. SLEEVE SHALL BE GALVANIZED.

5 PIPE OR CONDUIT PENETRATIONS THRU CONTINUOUS FOOTINGS
NOT TO SCALE

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TYPICAL CONCRETE DETAILS	SHEET: S0.12	

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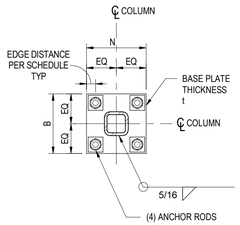
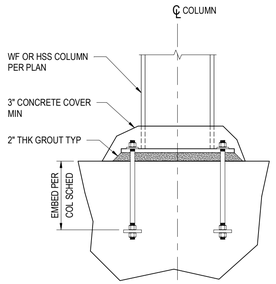
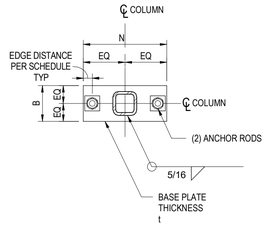
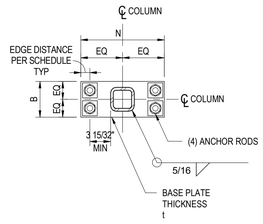


A HSS (SQUARE PLATE)





B HSS (RECTANGULAR PLATE)



C HSS (RECTANGULAR PLATE)

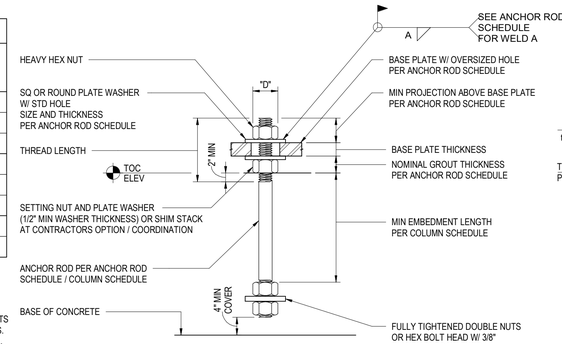
TYPICAL EDGE DISTANCE SCHEDULE	
ANCHOR ROD DIA	EDGE DISTANCE
3/4"	1 1/2"
7/8"	2"
1"	2 1/4"
1 1/4"	2 3/8"
1 1/2"	2 5/8"
1 3/4"	3"
2"	3 1/2"
2 1/2"	4"

NOTES:
1. BASE PLATE SIZE, THICKNESS AND ANCHOR RODS PER COLUMN SCHEDULE.
2. ANCHOR RODS, OVERSIZED HOLE AND WASHER REQUIREMENTS PER TYPICAL ANCHOR ROD DETAIL.

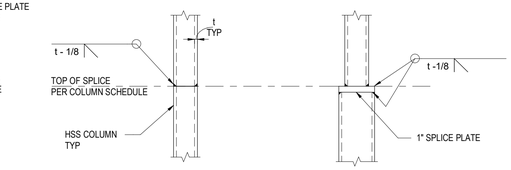
15 STEEL COLUMN BASE PLATES
NOT TO SCALE

ANCHOR ROD SCHEDULE								
MARK	ANCHOR ROD DIA	MAX ANCHOR ROD HOLE DIA D*	MIN WASHER SIZE	MIN WASHER THICKNESS	MIN PROJECTION ABOVE BASE PLATE	NOMINAL GROUT THICKNESS	WELD A	REMARKS
A	3/4"	1 5/16"	2"	1/4"	3"	2"	1/4	
B	7/8"	1 9/16"	2 1/2"	5/16"	3 1/2"	2"	1/4	
C	1"	1 13/16"	3"	3/8"	3 1/2"	2"	1/4	
D	1 1/4"	2 1/16"	3"	1/2"	4"	2"	3/8	
E	1 1/2"	2 5/16"	3 1/2"	1/2"	4"	2"	3/8	
F	1 3/4"	2 3/4"	4"	5/8"	5"	2"	1/2	
G	2"	3 1/4"	5"	3/4"	5"	2"	1/2	
H	2 1/2"	3 3/4"	5 1/2"	7/8"	5 1/2"	2"	3/4	

NOTES:
1. WHERE WELD A IS NOT SHOWN, TACK-WELD AS REQUIRED FOR ERECTION.
2. D* = RECOMENDED MAXIMUM ANCHOR ROD HOLE DIAMETER PER AISC TABLE 14-2.
3. CIRCULAR OR SQUARE WASHERS MEETING THE WASHER SIZE ARE ACCEPTABLE.
4. CLEARANCE MUST BE CONSIDERED WHEN CHOOSING AN APPROPRIATE ANCHOR ROD HOLE LOCATION. NOTING EFFECTS SUCH AS POSITION OF THE ROD IN THE HOLE WITH RESPECT TO THE COLUMN, WELD SIZE, AND OTHER INTERFERENCES.
5. WHEN BASE PLATES ARE LESS THAN 1 1/4" THICK, PUNCHING OF HOLES MAY BE AN ECONOMICAL OPTION. IN THIS CASE, 3/4" ANCHOR RODS AND 1 1/16" DIAMETER PUNCHED HOLES MAY BE USED WITH ASTM F844 (USS STANDARD) WASHER IN PLACE OF FABRICATED PLATE WASHERS.



7 ANCHOR ROD DETAIL AND SCHEDULE
NOT TO SCALE

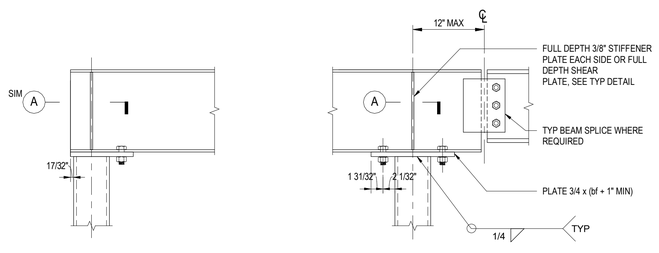


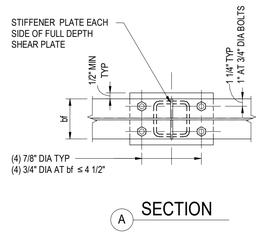
A EQUAL DEPTH AND WIDTH

B UNEQUAL DEPTH AND/OR WIDTH

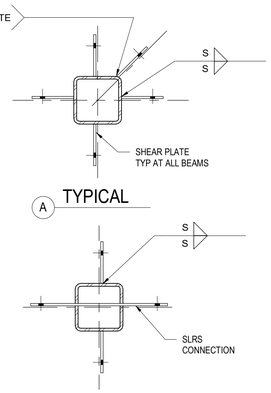
NOTES:
1. DETAIL SIMILAR AT LOCATIONS WITH ALIGNED EDGES.

1 HSS COLUMN SPLICE
NOT TO SCALE

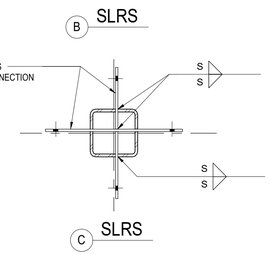




A SECTION



A TYPICAL



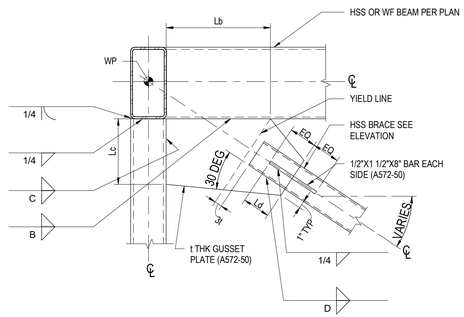
B SLRS

C SLRS

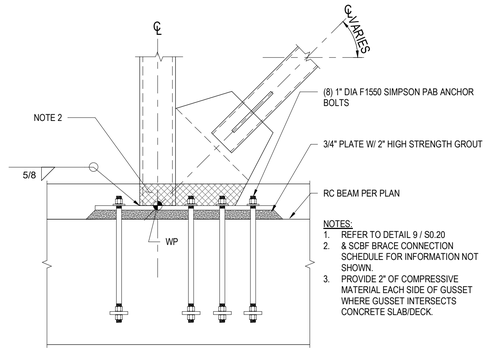
NOTES:
1. FOR INFO NOT SHOWN OR NOTED, SEE BEAM TO TYP COLUMN CONNECTION DETAIL.
2. FOR BOLTED SLRS CONNECTION IN ONE DIRECTION, USE DETAIL B.
3. FOR BOLTED SLRS CONNECTION IN MULTIPLE DIRECTIONS, USE DETAIL C.
4. USE SIMILAR CONNECTION AT ROUND HSS COLUMN.
5. FOR INFORMATION NOT SHOWN SEE BEAM CONNECTION SCHEDULE.
6. CONTRACTOR TO CUT AND REPAIR HSS USING CJPS AS REQUIRED TO INSTALL SHEAR PLATES FOR DETAIL C.
7. SUBSTITUTE DETAIL B OR C FOR DETAIL AT ENDS OF COLLECTOR LINES.

3 BEAM TO HSS COLUMN CONNECTION
NOT TO SCALE

8 SEATED WF BEAM TO HSS COLUMN
NOT TO SCALE



9 SCBF CONNECTION
NOT TO SCALE



NOTES:
1. REFER TO DETAIL 9 / S0.20
2. & SCBF BRACE CONNECTION SCHEDULE FOR INFORMATION NOT SHOWN.
3. PROVIDE 2" OF COMPRESSIVE MATERIAL EACH SIDE OF GUSSET WHERE GUSSET INTERSECTS CONCRETE SLAB/DECK.

6 SCBF BASE CONNECTION AT CONCRETE
NOT TO SCALE

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PROFESSIONAL ENGINEER
No.=0662846-2202
OMAR L. GARZA
STATE OF UTAH

NOT FOR CONSTRUCTION

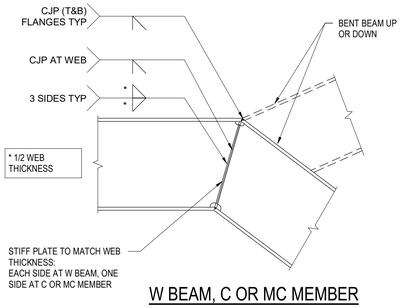
REVISIONS:

DESCRIPTION:	BY:	DATE:

HILLSIDE REVIEW

SCALE:	DATE:
AS NOTED	3/16/2018
	DRAWN: Author / CHECKED: Checker
TYPICAL STEEL DETAILS	SHEET: S0.20

PLOTTED ON: 4/13/2018 7:42:08 PM

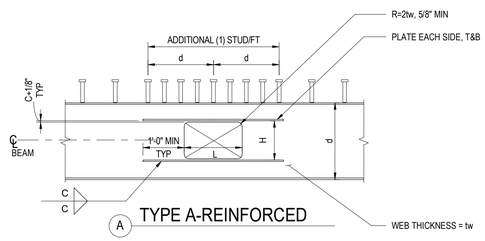


W BEAM, C OR MC MEMBER

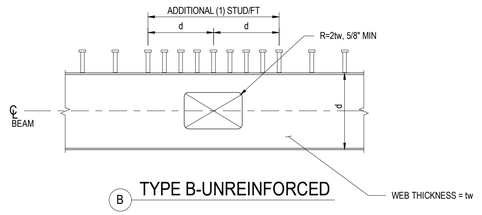
BROKEN BACK INDICATED THUS ON PLAN

TYPICAL BEAM BROKEN BACK CONNECTIONS

13 NOT TO SCALE



A TYPE A-REINFORCED



B TYPE B-UNREINFORCED

NOTES:
1. FOR OPENING SIZE HxL, LOC AND TYPE, SEE PLAN.
2. DETAILS SIMILAR AT CIRCULAR OPENINGS.
3. CENTER OPENING IN WEB UON ON PLAN.

BEAM PENETRATION SCHEDULE				
TYPE	PLATE SIZE	C		COMMENTS
A	PLATE 3/4"X2"	1/4"		
B	NOT REQD	-		

RECTANGULAR HOLE PENETRATION IN BEAM WEB

11 NOT TO SCALE

DEPTH OR SIZE OF SMALLER BEAM	ONE ROW OF BOLTS			TWO ROWS OF BOLTS		
	NO OF BOLTS, A325N UON (2)	SHEAR PLATE	WELD SIZE S (1)	NO OF BOLTS PER ROW, 7/8" DIA A325SC UON (2)	SHEAR PLATE	WELD SIZE S (1)
9", 10"	(2) 7/8" DIA	3/8"	1/4"	2	5/8"	7/16"
12", 14", C12, MC12	(3) 7/8" DIA	3/8"	1/4"	3	5/8"	7/16"
16"	(4) 7/8" DIA	3/8"	1/4"	4	5/8"	7/16"
18"	(4) 7/8" DIA	3/8"	1/4"	4	5/8"	7/16"
21"	(5) 7/8" DIA	3/8"	1/4"	5	5/8"	7/16"
24"	(6) 7/8" DIA	3/8"	1/4"	6	5/8"	7/16"
27"	(7) 7/8" DIA	1/2"	5/16"	7	5/8"	7/16"
30"	(8) 7/8" DIA	1/2"	5/16"	8	5/8"	7/16"
33" AND LARGER	(9) 7/8" DIA	1/2"	5/16"	9	5/8"	7/16"

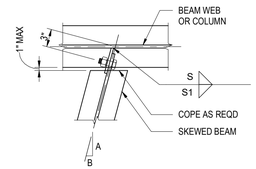
NOTES:
1. USE LARGER WELDS OR COMPLETE PENETRATION WELDS AT ALL SKEWED CONNECTIONS PER TYP DETAILS.
2. MARKS 2 — ON PLANS INDICATES 2 ROWS OF BOLTS. EACH ROW TO HAVE THE NUMBER OF BOLTS IN THE TABLE ABOVE. SPACE ROWS AT 3" OC.
3. MARKS F — ON PLANS INDICATES FLANGE BRACE PER 3 / S0.22
4. MARKS T — ON PLANS INDICATES WELDED TOP FLANGE PER TYPICAL DETAILS.
5. DEPTH OR SIZE CORRESPONDS TO THE SMALLEST BEAM, SEE TYPICAL DETAILS.
6. PROVIDE SLIP CRITICAL CONNECTIONS AT ALL SLRS FRAMING.

BEAM CONNECTION SCHEDULE

8 NOT TO SCALE

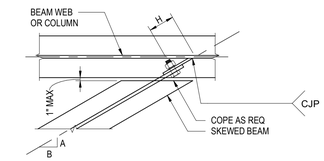
SKEWED UP TO 15 DEG			
A	B	WELD SIZE S1	
		3/8" SHEAR PLATE	1/2" SHEAR PLATE
12	UP TO 1 5/8"	S + 1/16	S + 1/16
12	OVER 1 5/8" TO 2 1/8"	S + 1/16	S + 1/8
12	OVER 2 1/8" TO 3 1/4"	S + 1/8	S + 1/8

NOTES:
1. FOR WELD SIZE S, BOLTS AND SHEAR PLATE, SEE BEAM CONNECTION SCHEDULE AND TYPICAL BEAM DETAILS.
2. FOR OTHER SKEWED BEAM CONDITIONS, PROVIDE COMPLETE JOINT PENETRATION WELDS PER LARGE SKEW DETAIL.



SKEWED UP TO 15 DEG

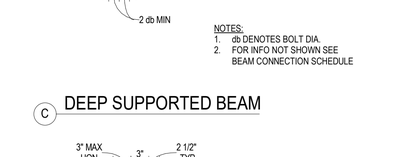
SKEWED UP TO 60 DEG		
A	B	H
12	UP TO 9	3" MAX
12	OVER 9 TO 10	3 1/8"
12	OVER 10 TO 11	3 1/4"
12	OVER 11 TO 12	3 3/8"
UNDER 12 TO 11	12	3 5/8"
UNDER 11 TO 10	12	3 3/4"
UNDER 10 TO 9	12	4"
UNDER 9 TO 8	12	4 1/4"
UNDER 8 TO 7	12	4 3/4"



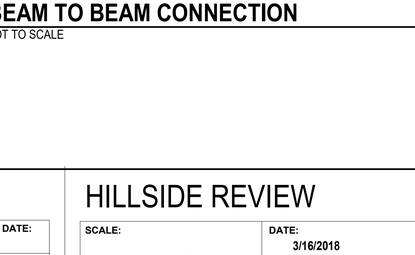
SKEWED UP TO 60 DEG

SKEWED BEAM CONNECTION - LARGE SKEWS

5 NOT TO SCALE



A SHALLOW SUPPORTED BEAM

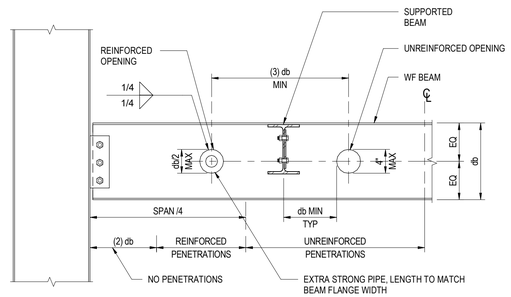


B EQUAL DEPTH BEAMS

NOTES:
1. db DENOTES BOLT DIA.
2. FOR INFO NOT SHOWN SEE BEAM CONNECTION SCHEDULE

C DEEP SUPPORTED BEAM

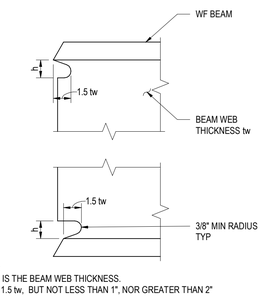
D SHALLOW (d< 8") SUPPORTED BEAM



NOTES:
1. COORDINATE BEAM PENETRATION LOCATIONS WITH OTHER DISCIPLINES.
2. SUBMIT BEAM PENETRATIONS NOT SPECIFICALLY LOCATED ON THE STRUCTURAL DRAWINGS FOR APPROVAL.

ROUND HOLE PENETRATION IN BEAM WEB

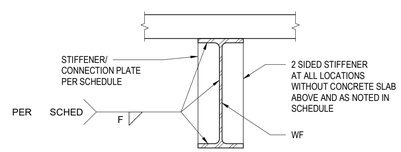
12 NOT TO SCALE



NOTES:
1. tw IS THE BEAM WEB THICKNESS.
2. h = 1.5 tw, BUT NOT LESS THAN 1", NOR GREATER THAN 2"

WELD ACCESS HOLES AT WF BEAMS

9 NOT TO SCALE



LOCATION	PLATE SIZE	WELD SIZE F	# OF PLATES
W12 & SMALLER	1/4"	1/8"	(1) SIDED
W18 THRU W14	3/8"	3/16"	(2) SIDED
W36 THRU W21	1/2"	1/4"	(2) SIDED
STAIR STRINGER CONNECTIONS	3/8"	3/16"	(2) SIDED

NOTES:
1. USE THIS DETAIL WHERE PLATES OR STIFFENERS ARE SHOWN BUT NOT DETAILED.
2. WELD TO BE MAX OF AWS MIN AND SCHEDULE SIZE.

STIFFENER CONNECTION PLATE

6 NOT TO SCALE

BEAM TO BEAM CONNECTION

3 NOT TO SCALE

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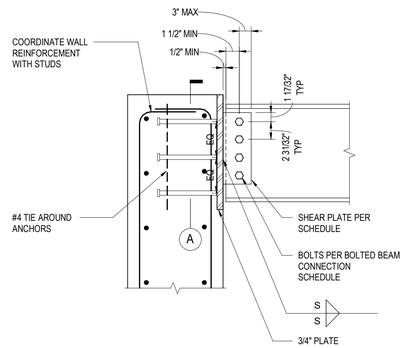
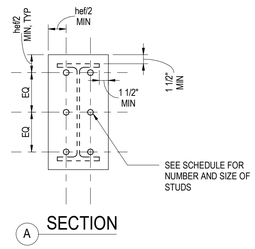


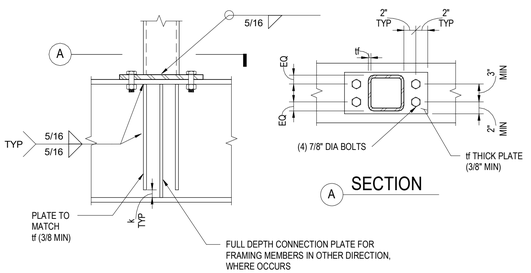


A SECTION

MEMBER SIZE	# OF STUDS	STUD, d	EMBED, hef
[DEFINE]	4	3/4"	6"
[DEFINE]	6	1"	8"

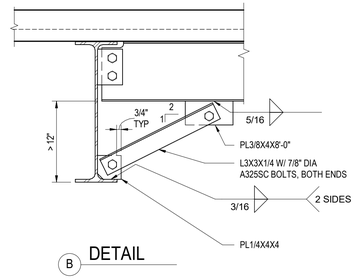
NOTES:
1. SEE BOLTED BEAM CONN SCHEDULE FOR INFO NOT SHOWN.
2. hef MIN = 7.5d

7 BEAM TO CONC WALL EMBED PLATE CONN
NOT TO SCALE



A SECTION

1 NON-FRAME TRANSFER GIRDER (HSS)
NOT TO SCALE



A DETAIL

B DETAIL

NOTES:
1. SUPPORT BOTTOM FLANGE W/ SHEAR PLATE OR BRACE WHERE SHOWN THUS: F ON PLAN.
2. FOR INFO NOT SHOWN OR NOTED, SEE BEAM CONNECTION SCHEDULE AND TYPICAL STEEL BEAM DETAILS.

3 FLANGE BRACE
NOT TO SCALE

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TYPICAL STEEL DETAILS	**SHEET:** S0.22

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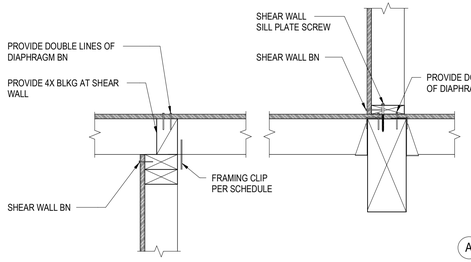
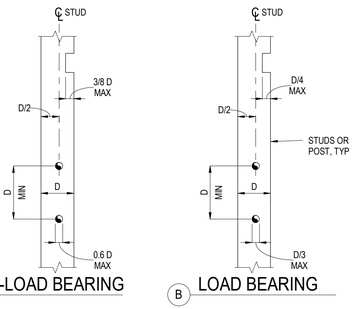


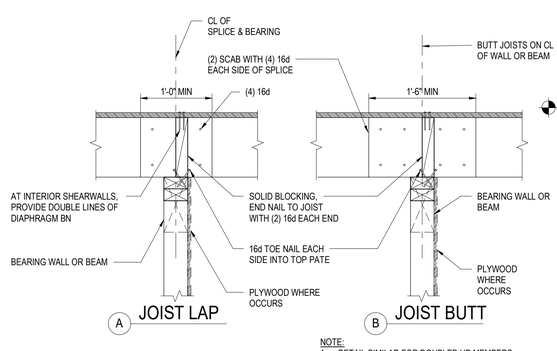
NOTE:
1. SEE SCHEDULES FOR FASTENER INFORMATION.

13 SHEAR WALL HORIZONTAL OFFSET
NOT TO SCALE



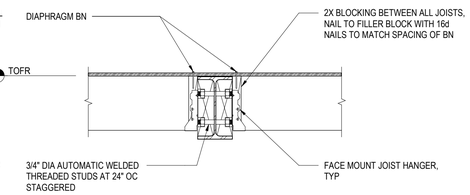
NOTES:
1. NOTCHING OF MEMBER IS NOT PERMITTED WITHOUT WRITTEN APPROVAL FROM THE OWNER'S REPRESENTATIVE.
2. DO NOT PLACE HOLES IN MEMBERS WITH HOLDOWN ANCHORS.
3. BORED HOLES SHALL NOT BE LOCATED AT THE SAME SECTION OF STUD AS A NOTCH.

10 HOLES AND NOTCHES IN STUDS OR POSTS
NOT TO SCALE

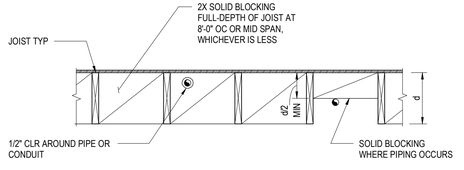


NOTE:
1. DETAIL SIMILAR FOR DOUBLED UP MEMBERS.

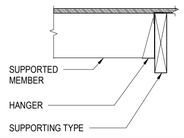
7 JOIST SPLICE AT BEARING WALLS OR BEAMS
NOT TO SCALE



4 JOIST PERPENDICULAR TO STEEL BEAM SIDE NAILER
NOT TO SCALE



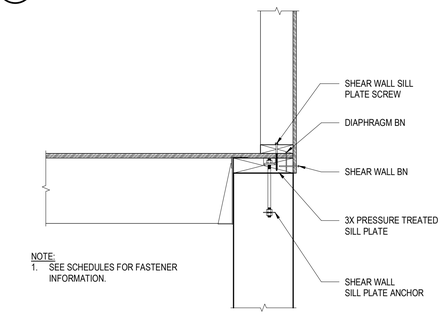
1 WOOD JOIST BLOCKING
NOT TO SCALE



HANGER SCHEDULE			
SUPPORTING TYPE	SUPPORTING MEMBER	SIMPSON HANGER OPTION	NOTES
SOLID SAWN	2X	BA	
SOLID SAWN	2X SKEWED	B SKEWED	
SOLID SAWN	4X	BA	
SOLID SAWN	6X8	HU68TF	
SOLID SAWN	6X8 SKEWED	HW68 SKEWED	
SOLID SAWN	6X10	HU610TF	
SOLID SAWN	6X10 SKEWED	HU610 SKEWED	
SOLID SAWN	6X12	HU612TF	
SOLID SAWN	6X12 SKEWED	HW612 SKEWED	
CONCRETE WALL	2X	W	
CONCRETE WALL	2X SKEWED	W SKEWED	

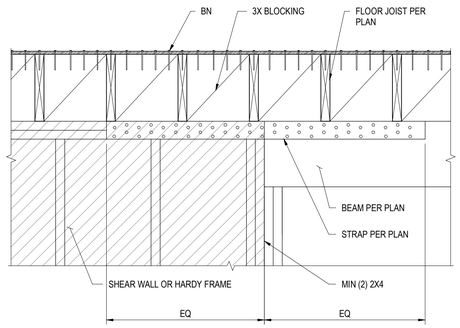
NOTES:
1. ALL HARDWARE SPECIFIED IS SIMPSON BRAND, UON

2 DIMENSION LUMBER HANGER SCHEDULE
NOT TO SCALE

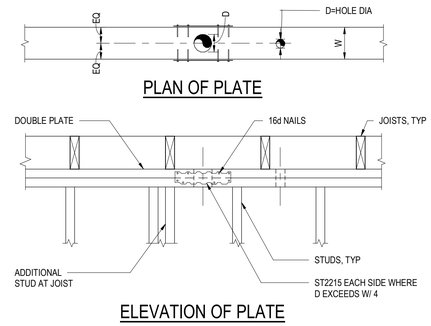


NOTE:
1. SEE SCHEDULES FOR FASTENER INFORMATION.

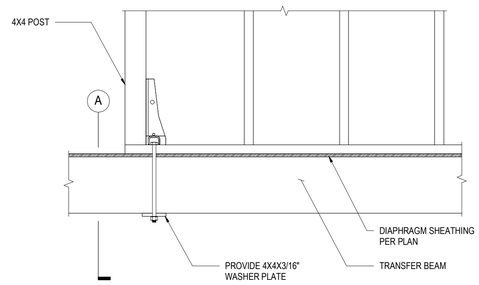
SHEAR WALL ON RC WALL JOIST PERPENDICULAR
14
NOT TO SCALE



11 TYPICAL DRAG DETAIL
NOT TO SCALE



8 HOLES IN PLATES OF WALLS
NOT TO SCALE



5
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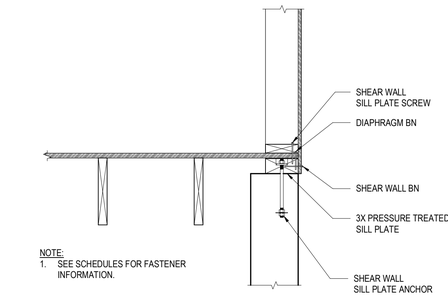
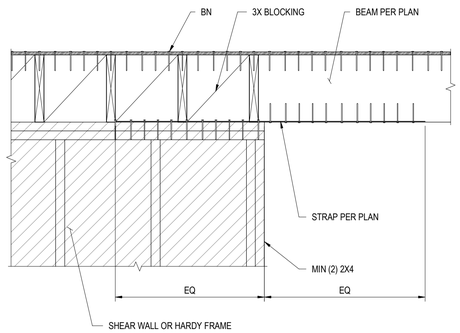
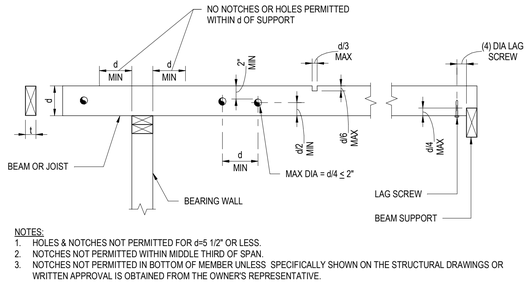


NOTE:
1. SEE SCHEDULES FOR FASTENER INFORMATION.

SHEAR WALL ON RC WALL JOIST PARALLEL
15
NOT TO SCALE

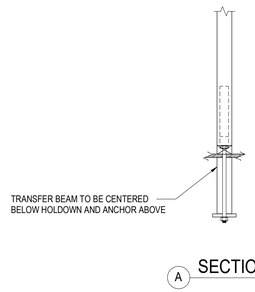


12 TYPICAL DRAG DETAILS
NOT TO SCALE

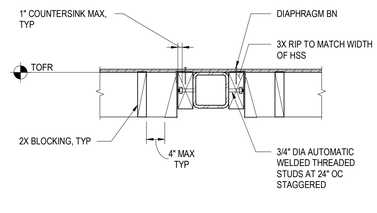


NOTES:
1. HOLES & NOTCHES NOT PERMITTED FOR d=5 1/2" OR LESS.
2. NOTCHES NOT PERMITTED WITHIN MIDDLE THIRD OF SPAN.
3. NOTCHES NOT PERMITTED IN BOTTOM OF MEMBER UNLESS SPECIFICALLY SHOWN ON THE STRUCTURAL DRAWINGS OR WRITTEN APPROVAL IS OBTAINED FROM THE OWNER'S REPRESENTATIVE.

9 HOLES AND NOTCHES IN BEAMS AND JOISTS
NOT TO SCALE



6 POST TO BEAM CONNECTION DETAIL
NOT TO SCALE



JOIST PERPENDICULAR TO STEEL HSS FLUSH
3
NOT TO SCALE

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TYPICAL WOOD DETAILS	SHEET: S0.30	

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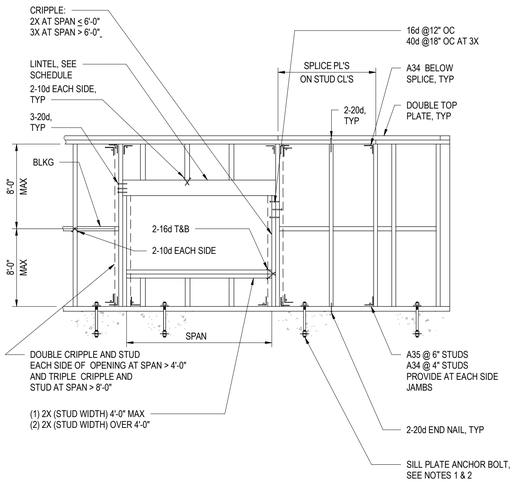
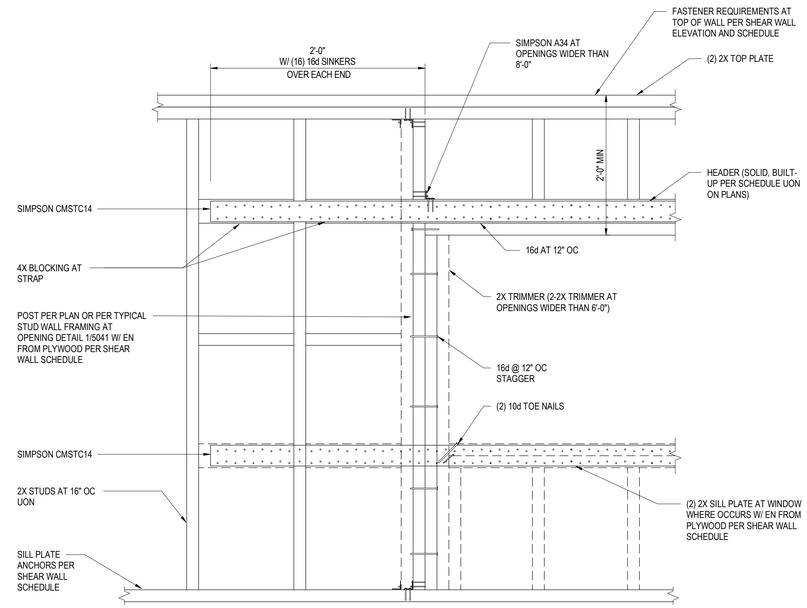


NOTES:
1. SILL PLATE ANCHOR BOLT TO BE 5/8" DIA WITH 2X2X3/16 PLATE WASHER AND 0'-8" MIN EMBED @ 4'-0" OC, 6" MIN AND 12" MAX FROM ENDS AND NOTCHES OVER 1/3 THE SILL WIDTH, UON, MIN (2) BOLTS PER PLATE.
2. AT NON BEARING WALLS ACCEPTABLE TO REPLACE ANCHOR BOLTS WITH SIMPSON PDPW-300@24" OC(LARR 25469) 6" MAX FROM ENDS AND NOTCHES PER ABOVE. AT BEARING WALLS USE OF EQUIVALENT SIMPSON PAB ANCHORS AS ALTERNATIVE FOR SILL ANCHORS IS ACCEPTABLE.
3. STUD SIZE AND SPACING TO BE 2X4 @ 16" OC OR 2X6 @ 16" OC, UON.

ELEVATION

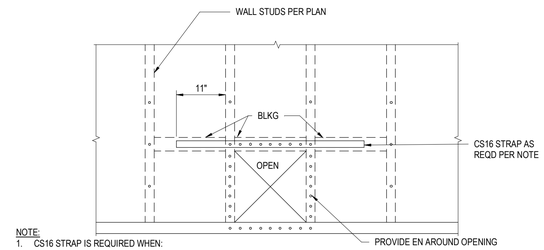
LINTEL SCHEDULE (UON ON DRAWINGS)				
	SPAN ≤ 3'-0"	SPAN ≤ 4'-0"	SPAN ≤ 6'-0"	SPAN OVER 6'-0"
2X4 STUDS	2-2X4 OR 4X4	2-2X6 OR 4X6	4x8	SEE PLANS
2X6 STUDS	3-2X6 OR 4X6 FLAT	6x6 OR 5 1/8"X6"GLB	6X8 OR 5 1/8"X6"GLB	

14 STUD WALL FRAMING
NOT TO SCALE



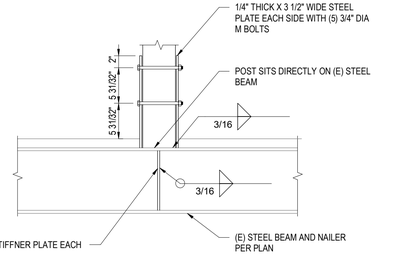
NOTES:
1. REFERENCE SHEAR WALL ELEVATION AND SCHEDULE FOR PANEL FASTENER INFORMATION NOT SHOWN.

11 SHEAR WALL FRAMING AT OPENING
NOT TO SCALE

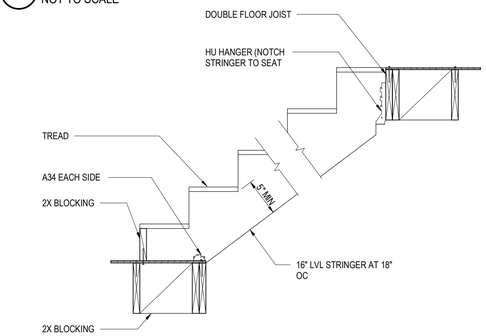


NOTE:
1. CS16 STRAP IS REQUIRED WHEN:
   A. THE PENETRATION IS LARGER THEN 25% OF WALL LENGTH.
   B. THE PENETRATIONS ARE CLOSER THAN 32" OC.
   C. A SECOND HORIZONTAL STRAP IS REQUIRED AT THE BOTTOM OF OPENING WHEN BOTTOM OF OPENING IS NOT AT BOTTOM PLATE.
   - 16X16 MAXIMUM OPENING SIZE.
   - BLOCKING AND STRAPS NOT REQUIRED WHEN PENETRATION IS LESS THAN OR EQUAL TO 6"
   - AND SPACED AT 2 OR MORE STUD BAYS.

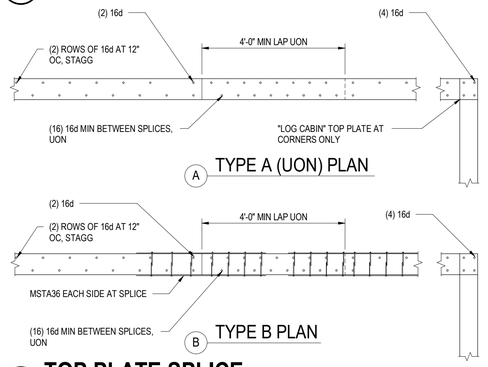
9 SHEAR WALL PENETRATION (16"X16") DETAIL
NOT TO SCALE



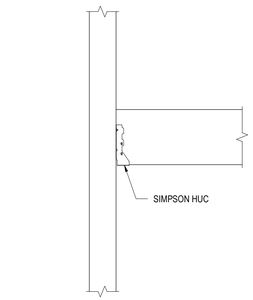
4 WOOD POST TO STEEL BEAM
NOT TO SCALE



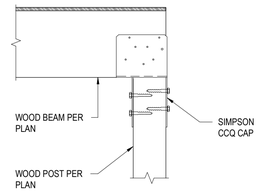
5 TYP WOOD STAIR FRAMING
NOT TO SCALE



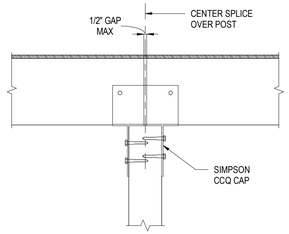
6 TOP PLATE SPLICE
NOT TO SCALE



1 CONCEALED POST TO BEAM CONNECTION
NOT TO SCALE



2 WOOD POST TO WOOD BEAM
NOT TO SCALE



3 WOOD POST TO WOOD BEAM
NOT TO SCALE

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REVISIONS:

DESCRIPTION:	BY:	DATE:

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SCALE:	DATE:	
AS NOTED	3/16/2018	
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TYPICAL WOOD DETAILS	SHEET: S0.31	

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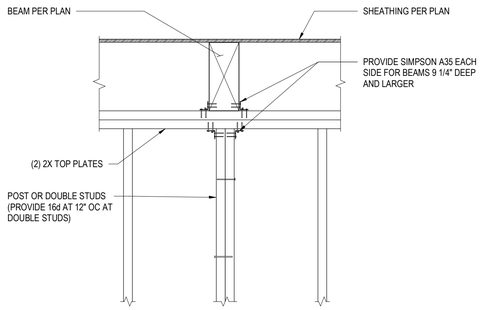


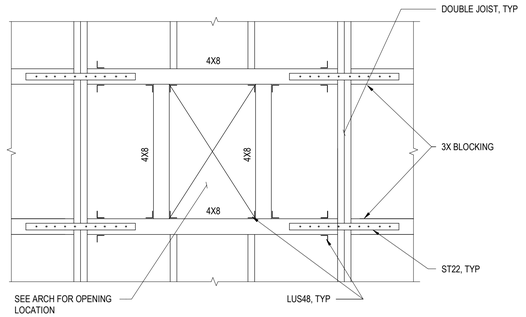
10 FLUSH BEAM PERPENDICULAR TO STUD WALL
NOT TO SCALE

11 POST AND BEAM CONNECTION IN STUD WALL
NOT TO SCALE

STRAP SCHEDULE						
MARK	TYPE	LENGTH	NAILS	MIN END LENGTH	ALLOWABLE LOAD	DETAIL
S1	CMST12	PER PLAN	(86) 10d	39"	9215#	-
S2	CMST14	PER PLAN	(66) 10d	30"	6490#	-
S3	CS14	PER PLAN	(30) 8d	16"	2490#	-
S4	CS16	PER PLAN	(22) 8d	13"	1705#	-
S5	CS18	PER PLAN	(18) 8d	11"	1370#	-

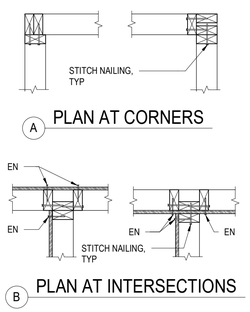
NOTES:
1. ALL STRAPS ARE SIMPSON BRAND (LARR 25713).
2. NAILS INDICATED ARE MINIMUM NUMBER OF NAILS REQUIRED IN MINIMUM END LENGTH DISTANCE SHOWN ABOVE.
3. REFER TO PLAN FOR REQUIRED LENGTH OF STRAPS. WHERE NO LENGTH IS INDICATED ON PLANS, STRAP LENGTH SHALL EQUAL TWICE THE MINIMUM END LENGTH DISTANCE SHOWN IN SCHEDULE ABOVE.
4. WHERE LENGTH OF STRAP IS LONGER THAN MINIMUM END LENGTH SHOWN ABOVE, PROVIDE FULL NAILING OVER ENTIRE LENGTH OF STRAP.
5. FULL NAILING IS EQUIVALENT NAILING REQUIRED OVER MINIMUM END LENGTH DISTANCE SHOWN ABOVE.

7 STRAP SCHEDULE
NOT TO SCALE

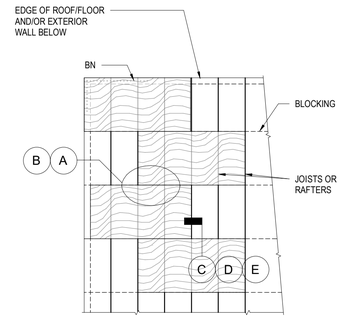


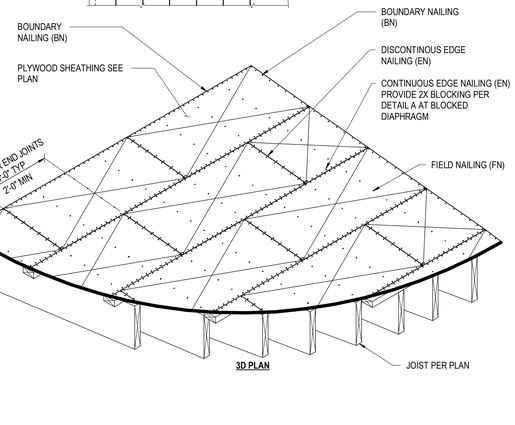
NOTE:
1. EDGE NAIL AROUND OPENING.

8 OPENING IN ROOF
NOT TO SCALE



9 STUD WALL CORNERS AND INTERSECTIONS
NOT TO SCALE



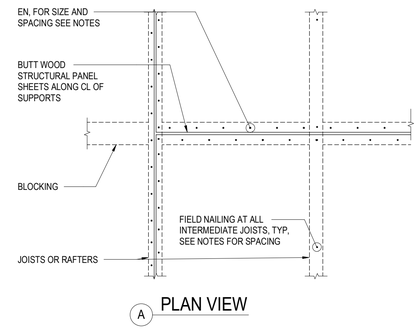


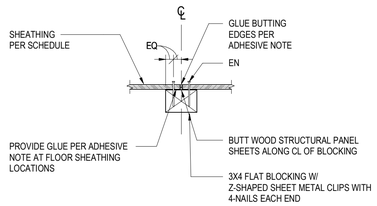
NOTES:
1. PROVIDE WOOD STRUCTURAL PANEL SHEETS NOT LESS THAN 2'-0" IN LEAST DIMENSION NOR LESS THAN 8'-0" SQ FEET IN AREA. USE FULL SHEETS WHEREVER POSSIBLE.
2. PLACE WOOD STRUCTURAL PANEL SHEET WITH FACE PLIES PERPENDICULAR TO JOISTS AND STAGGER 4'-0" EDGES AS SHOWN.
3. COORDINATE JOIST LAYOUT WITH 4'-0" MODULE AS RELATED TO STRUCTURAL 1 RATED SHEATHING EXPOSURE 1.
4. ADHESIVE: ADHESIVE SHALL CONFORM TO APA SPECIFICATION AFG-01 OR ASTM D3498, APPLIED IN ACCORDANCE WITH THE ADHESIVE MANUFACTURER'S RECOMMENDATIONS. IF OSB PANELS WITH SEALED SURFACES AND EDGES ARE TO BE USED, USE ONLY SOLVENT-BASED GLUES; CHECK WITH PANEL MANUFACTURER.
   EXECUTION:
   A. APPLY A BEAD OF GLUE ABOUT 1/4 INCH IN DIA TO ALL CONTACT/BEARING SURFACES. ON WIDE AREAS APPLY GLUE IN SERPENTINE PATTERN.
   B. APPLY TWO BEADS OF GLUE ON JOISTS WHERE PANEL ENDS BUTT.
   C. APPLY GLUE PROGRESSIVELY TO BUTTING EDGES OF PANELS AND INTO GROOVED EDGES OF TONGUE AND GROOVE PANELS AS WORK PROCEEDS. COMPLETE NAILING OF EACH PANEL BEFORE GLUE SETS.
5. AT INTERIOR SHEARWALL LOCATIONS, PROVIDE DOUBLE LINES OF DIAPHRAGM NAILING INTO TRANSFER BLOCKING OR TOP PLATES.

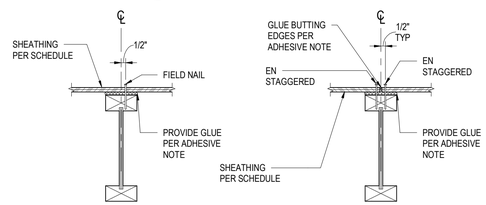
DIAPHRAGM SHEATHING SCHEDULE								
DIAPH TYPE	SHEATHING	NAILING						DETAIL
		LINES OF FASTENERS	TYPE*	WIDTH OF NAILED FACE	BN	EN	FN	
D1	15/32" DFL STRUCT I	1	10d COMMON	2"	4"	6"	12"	A
D2	23/32" DFL STRUCT I	2	10d COMMON	3"	2 1/2"	3"	12"	B

* NAILING TO BE RING OR SPIRAL SHANK, FULL HEAD.

6 DIAPHRAGM SHEATHING SCHEDULE
NOT TO SCALE







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TYPICAL WOOD DETAILS	SHEET: S0.32

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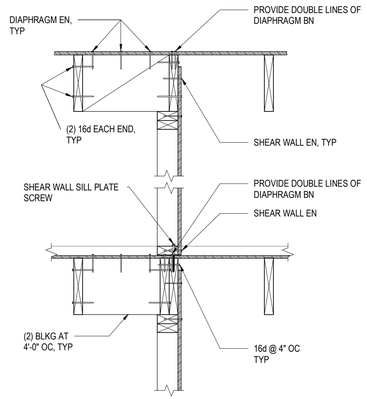
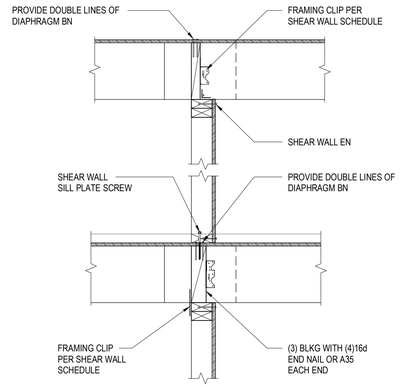


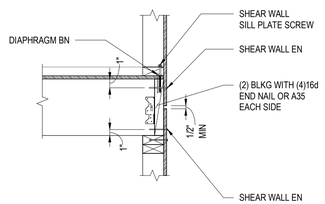
NOTES:
1. DETAIL SIMILAR AT DOUBLE SIDED SHEATHING.
2. SEE SCHEDULES FOR FASTENER INFORMATION.

10 JOIST PARALLEL TO SHEAR WALL CONNECTION
NOT TO SCALE



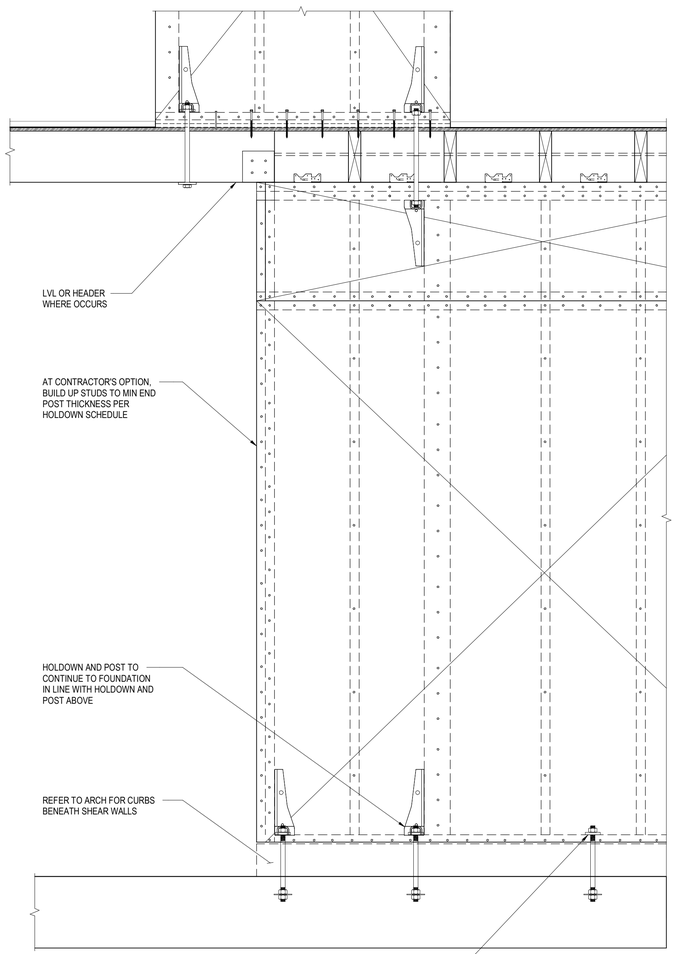
NOTES:
1. DETAIL SIMILAR AT DOUBLE SIDED SHEATHING.
2. SEE SCHEDULES FOR FASTENER INFORMATION.

11 JOIST PERPENDICULAR TO SHEAR WALL CONNECTION
NOT TO SCALE

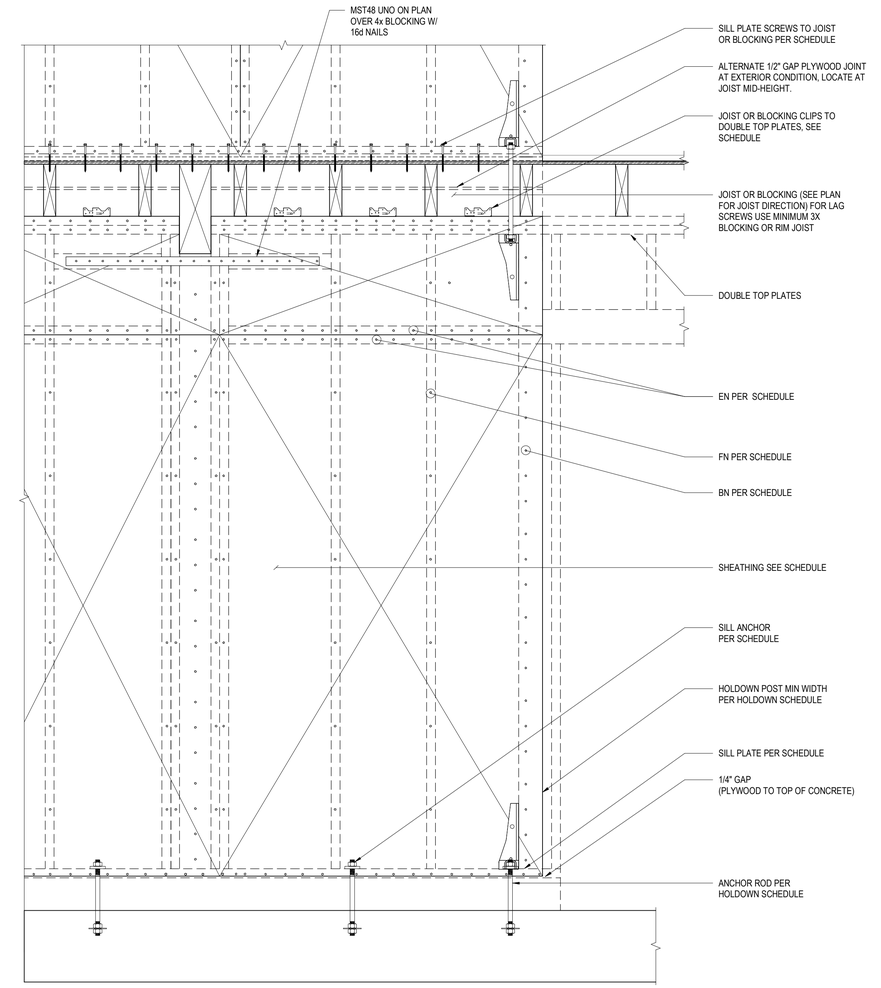


NOTES:
1. DETAIL SIMILAR AT DOUBLE SIDED SHEATHING.
2. SEE SCHEDULES FOR FASTENER INFORMATION.

12 JOIST PERPENDICULAR TO SHEAR WALL CONNECTION AT EXTERIOR
NOT TO SCALE



NOTES:
1. REFER TO PLAN & SHEAR WALL LEGEND FOR SHEAR WALL TYPE.
2. NAILING TO BE 1/2" DISTANCE FROM PANEL EDGE AND 3/8" DISTANCE FROM EDGE OF CONNECTING MEMBERS.
3. 3X STUD AND BLOCKING AT ALL ADJOINING PANEL EDGES.
4. WHERE PLYWOOD IS APPLIED TO BOTH FACES OF WALL, STAGGER IN ALL CASES.
5. A35 OR LTP4 SHEAR TRANSFER SHALL BE CONNECTING TO PLATE AND BLOCKING, JOIST OR RAFTER.
6. USE OF EQUIVALENT SIMPSON PAB ANCHORS AS ALTERNATIVE FOR SILL ANCHORS IS ACCEPTABLE.
7. PLYWOOD FACE GRAIN TO BE VERTICAL.
8. WHERE SHEARWALL SITS DIRECTLY ON FLOOR FRAMING, SEE
9. WHERE TOP OF SHEARWALL TERMINATES UNDER STEEL BEAM, SEE 9 / S0.34
10. WHERE SHEAR WALL TERMINATES AT STEEL COLUMN OR CONCRETE WALL, HOLDOWN MAY BE OMITTED. SEE & 11 / S0.34
11. WHERE SHEARWALL HORIZONTAL OFFSET OCCURS, SEE &
12. WHERE 3X SILL PLATE IS USED, PROVIDE 6" LONG SDS 1/4" SILL PLATE SCREWS.
13. "WHERE DOUBLE SILL PLATE IS USED, PROVIDE 6" LONG SIMPSON SDS SCREWS IN LIEU OF 4.5" LONG SCREWS.
14. 2X STUDS AT 16" OC, UON.



SHEAR WALL SCHEDULE

SHEAR WALL TYPE	PLYWOOD PANEL			NAILING SIZE	MIN STUD DEPTH	MIN SILL THK	SILL PLATE SCREWS (SIMPSON SDS 1/4" x 4 1/2" LONG) *	SILL PLATE ANCHOR TO CONCRETE SLAB	ALLOW SHEAR	A35 OR LTP5 FRAMING CLIPS
	APA RATED PLYWOOD			(BN) (EN) (FN)						
	THK	TYPE					ROWS & SPACING	SIZE & SPACING	PLF	
A	15/32"	STRUCT I	ONE SIDE	10d@ 6",6",12"	5 1/2"	2X	1 ROW @ 12" OC	5/8" DIA X 8" EMBED @ 24"OC	340	AT 12"OC ONE SIDE
B	15/32"	STRUCT I	ONE SIDE	10d@ 4",4",12"	5 1/2"	2X	1 ROW @ 8" OC	5/8" DIA X 8" EMBED @ 24"OC	510	AT 12"OC ONE SIDE
C	15/32"	STRUCT I	ONE SIDE	10d@ 3", 3",12"	5 1/2"	2X	1 ROW @ 6" OC	5/8" DIA X 8" EMBED @ 24"OC	665	AT 8"OC ONE SIDE
D	15/32"	STRUCT I	TWO SIDE	10d@ 2",2",12"	5 1/2"	2X	2 ROWS @ 4" OC	5/8" DIA X 8" EMBED @ 24"OC	1740	AT 8"OC TWO SIDES

9 SHEAR WALL SCHEDULE AND ELEVATION
NOT TO SCALE

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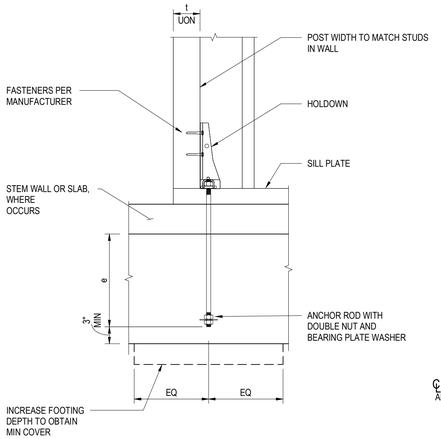


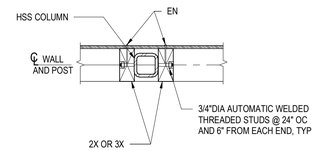
A WALL HOLDOWN AT FOUNDATION

HOLDOWN SCHEDULE					
HOLDOWN TYPE	HOLDOWN	FOUNDATION EMBED e	SLAB EMBED e1	POST THICKNESS t	ANCHOR BOLT DIA d
1	HD#	#	#	#	#
2	HD#	#	#	#	#

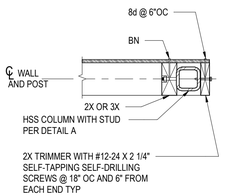
*HD# = SIMPSON HOLD- DOWN (LARR 25720).

SHEAR WALL HOLDOWN DETAILS

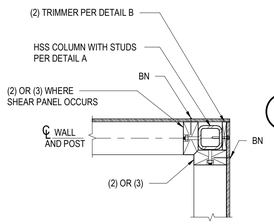
14 AND SCHEDULE
NOT TO SCALE



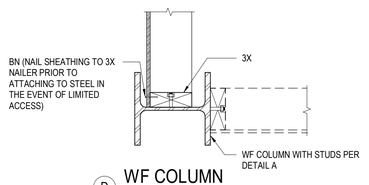
A HSS COLUMN



B HSS COLUMN

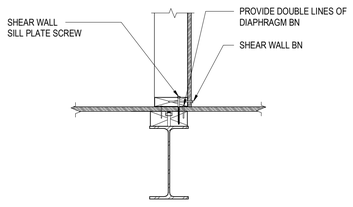


C HSS COLUMN



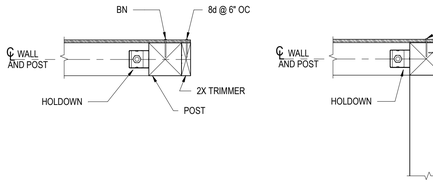
D WF COLUMN

11 SHEAR WALL STEEL COLUMN CONNECTION
NOT TO SCALE

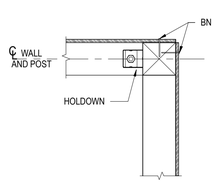


NOTE:
1. SEE SCHEDULES FOR FASTENER INFORMATION.

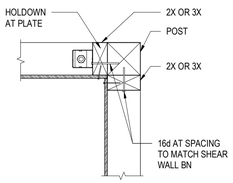
12 SHEAR WALL TRANSFER AT STEEL BEAM
NOT TO SCALE



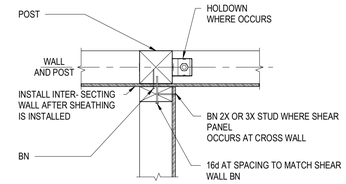
A END OF WALL



B CORNER

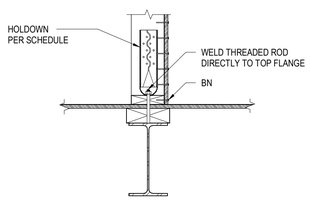


E CORNER

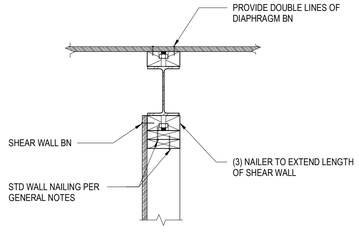


D INTERSECTION

7 SHEAR WALL CORNER AND INTERSECTION FRAMING
NOT TO SCALE

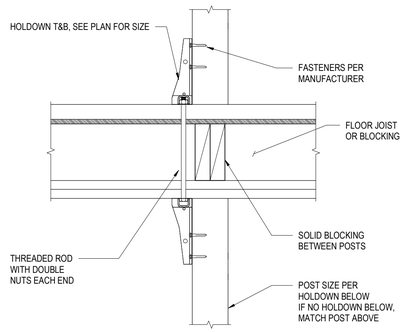


8 SHEAR WALL HOLDOWN AT STEEL BEAM
NOT TO SCALE

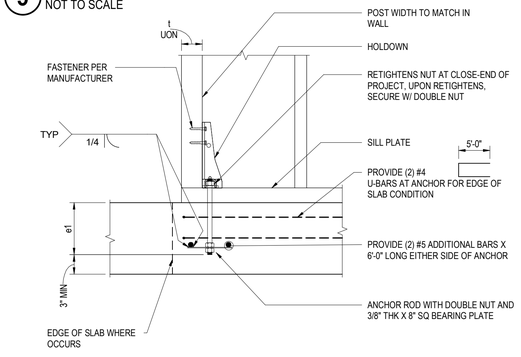


NOTE:
1. SEE SCHEDULES FOR FASTENER INFORMATION.

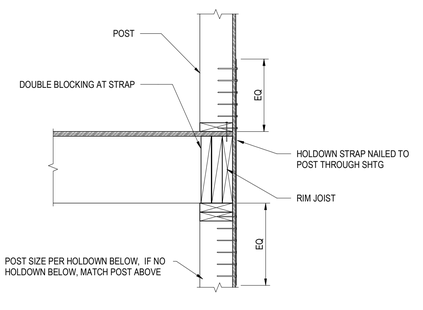
9 SHEAR WALL BELOW STEEL BEAM
NOT TO SCALE



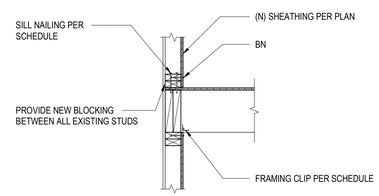
5 SHEAR WALL HOLDOWN BETWEEN FLOORS
NOT TO SCALE



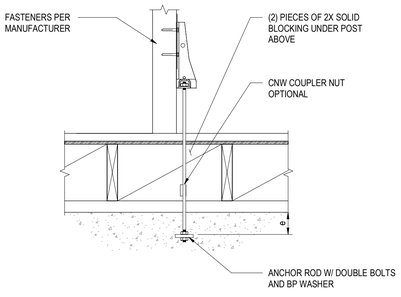
6 SHEAR WALL HOLDOWN AT SUSPENDED SLAB
NOT TO SCALE



1 SOLE PLATE NAILING AT SHEARWALL
NOT TO SCALE



2 SHEAR WALL STRAP HOLDOWN
NOT TO SCALE



3 SHEAR WALL HOLDOWN AT RAISED FLOOR
NOT TO SCALE

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600 WILSHIRE BOULEVARD, SUITE 760
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213 627 6687
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STATE OF UTAH

NOT FOR CONSTRUCTION

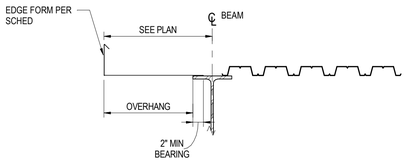
REVISIONS:

DESCRIPTION:	BY:	DATE:

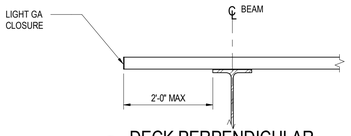
HILLSIDE REVIEW

SCALE: AS NOTED	DATE: 3/16/2018	
	DRAWN: Author	CHECKED: Checker
TYPICAL WOOD DETAILS	SHEET: S0.34	

PLOTTED ON: 4/13/2018 7:42:26 PM



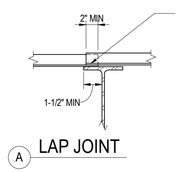
A DECK PARALLEL TO BEAM



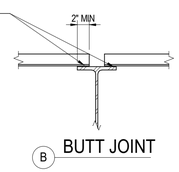
B DECK PERPENDICULAR TO BEAM

MAX OVERHANG	EDGE FORM GAGE
3"	16
5"	14
8"	12
11"	10
18"	1/4"
SEE DETAIL 6 FOR ELEVATOR SHAFTS	

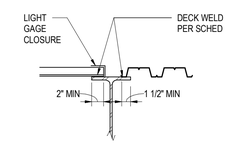
13 EDGE OF DECK - INTERIOR
NOT TO SCALE



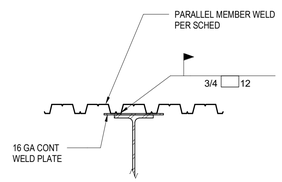
A LAP JOINT



B BUTT JOINT



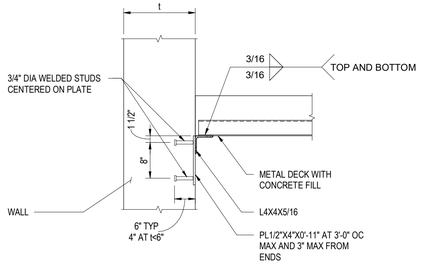
C DECK DIRECTION CHANGE



D DECK OFFSET

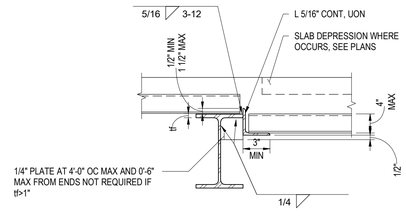
NOTE:
1. SEE STEEL DECK NOTES AND DECK SCHEDULE FOR COMPLETE INFORMATION.

14 TYPICAL DECK JOINT OVER SUPPORT
NOT TO SCALE



A DECK PERPENDICULAR TO CONCRETE WALL

12 METAL DECK SUPPORT AT CONCRETE WALL
NOT TO SCALE

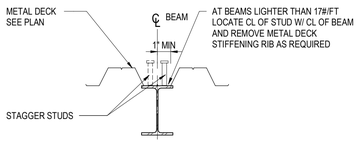


SEE DETAILS B, C AND D FOR ALTERNATE ANGLE LOCATIONS

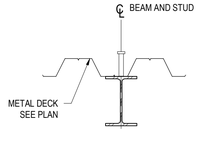
A SECTION

NOTE:
1. DETAIL SIMILAR AT BOTTOM FLANGE CONDITION.

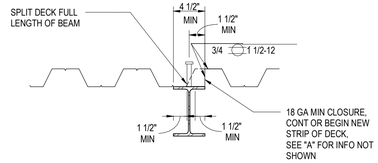
7 DECK SUPPORT AT CHANGE OF SLAB ELEVATION
NOT TO SCALE



A ALIGNED DECK

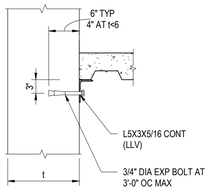


B ALIGNED DECK

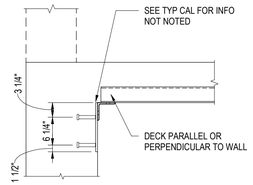


C OFFSET DECK

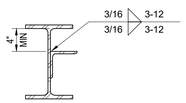
8 SHEAR STUDS DETAIL
NOT TO SCALE



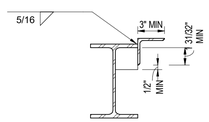
B DECK PARALLEL TO CONCRETE WALL



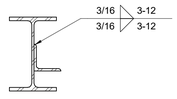
C AT TOP OF WALL OR STEP IN WALL



B SECTION



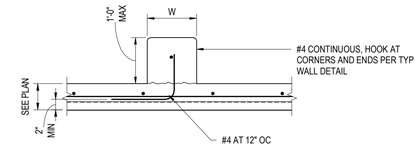
C SECTION



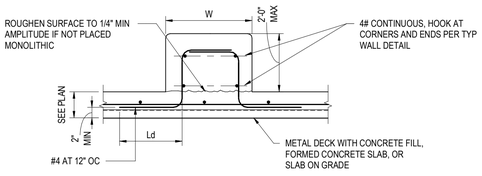
D SECTION

NOTES:
1. SEE GENERAL NOTES FOR MATERIAL SPECIFICATIONS.
2. STRUCTURAL PROPERTIES OF STEEL DECK SYSTEM SHALL EQUAL OR EXCEED THE PROPERTIES LISTED IN DETAIL 3 ON THIS SHEET.
3. DECK SHALL HAVE A MINIMUM OF 2" BEARING AT ALL SUPPORTING MEMBERS (MEMBERS) PERPENDICULAR TO DECK SPAN), AND 1 1/2" AT ALL PARALLEL MEMBERS.
4. DECK WELDING SHALL BE AS NOTED IN DETAIL 3 ON THIS SHEET.
5. PROVIDE BENT PLATE CLOSURE PIECES AT ALL INTERIOR AND EXTERIOR EDGES OF DECK UNLESS OTHERWISE NOTED. SEE DETAILS 5, 6 AND 7 ON THIS SHEET.
6. OPENINGS THROUGH DECKING SHOWN ON FRAMING PLANS ARE NOT COMPLETE AS TO NUMBER, SIZE AND LOCATION. FOR COMPLETE INFORMATION REFER TO DRAWINGS OTHER THAN STRUCTURAL.
7. USE STRENGTHENING AT OPENINGS AS SHOWN IN DETAILS 9, 10, 11 OR 12 (AS APPLICABLE) ON THIS SHEET UNLESS OTHERWISE NOTED. PROVIDE STRENGTHENING BEFORE CUTTING OPENING.
8. DETAILS SHOWN ARE FOR TYPICAL REINFORCING OF DECKS AT OPENINGS. FOR SPECIAL CONDITIONS, SUBMIT LAYOUT OF OPENINGS AND PROPOSED REINFORCING OF DECK FOR REVIEW.
9. MULTIPLE OPENINGS WITH A CLEAR DISTANCE LESS THAN THREE TIMES THE SIZE OF THE LARGER OPENING TO BE TREATED AS A SINGLE GROUP OPENING.
10. IF OPENING IS CUT PRIOR TO FILL PLACEMENT, PROVIDE CLOSURE PIECES AND SHORING AS REQUIRED.
11. FOR SINGLE OPENING THROUGH DECK THAT CUT ONLY ONE WEB AND ARE 4" SQ OR 4" DIA MAXIMUM, NO STRENGTHENING IS REQUIRED.
12. SEE MECHANICAL / PLUMBING DRAWINGS FOR DETAILS OF UTILITIES SUSPENDED FROM THE CONCRETE AND STEEL DECK SYSTEM. POINT LOADS TO THE DECK FROM THESE DETAILS SHALL NOT EXCEED 100 LBS PER HANGER. IN ADDITION, LOADS ON HANGERS SHALL BE DISTRIBUTED IN SUCH A MANNER THAT THE TRIBUTARY LOADS FOR EACH HANGER SHALL NOT EXCEED [THE SUPERIMPOSED DEAD LOADS] [5 LBS PER SQ FT].
13. SEE DETAILS 8 THIS SHEET FOR TYPICAL DECK SUPPORT AT COLUMNS.
14. THE FIRST SHEET OF STEEL DECKING ADJACENT & PARALLEL TO PERIMETER WF BEAMS & WF BEAMS WITH MOMENT CONNECTIONS AT EACH END, SHALL BE A FULL WIDTH SHEET.

1 STEEL DECK NOTES
NOT TO SCALE



A 4"<W<10"



B 10"<W<24"

NOTES:
1. SEE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR CURB LOCATIONS, DIMENSIONS, CHAMBERS AND INSERTS.
2. COORDINATE REINFORCEMENT LOCATIONS TO AVOID INTERFERENCE WITH INSTALLATION OF EXP ANCHORS IF USED.

3 CONCRETE CURB ON METAL DECK
NOT TO SCALE

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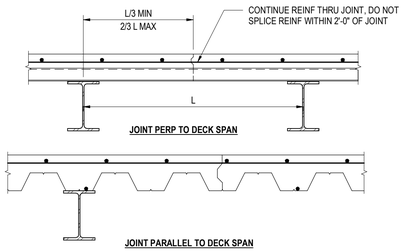
REVISIONS:

DESCRIPTION:	BY:	DATE:

HILLSIDE REVIEW

SCALE:	DATE:	
AS NOTED	3/16/2018	
	DRAWN: Author	CHECKED: Checker
TYPICAL METAL DECK DETAILS	SHEET: S0.40	

PLOTTED ON: 4/13/2018 7:42:26 PM

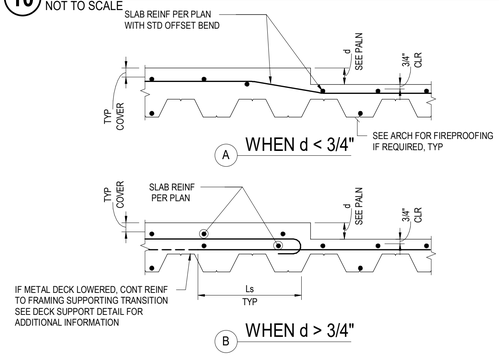


NOTE:
1. LIMIT CONCRETE FILL PLACEMENT TO 160 FT MAX IN ANY DIRECTION. WHERE REQUIRED, DIVIDE AREAS EQUALLY AND ALLOW A MIN OF (3) DAY BETWEEN ADJACENT PLACEMENTS.

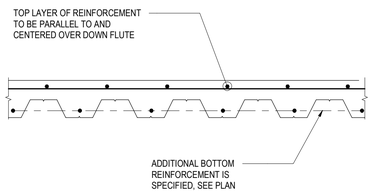
SLAB TYPE	DECK TYPE	HEIGHT	GAUGE	FACTORY VENTED	MINIMUM SECTION PROPERTIES			FILL		STUD SIZE	SLAB REINFORCING	ATTACHMENT TYPE				SIDE LAP
					I (IN^4)	S (IN^3)	S (IN^3)	SLAB TYPE	MIN THICKNESS ABOVE TOP FLUTE			TO PERIMETER SUPPORT		TO INTERMEDIATE SUPPORT		
												PERPENDICULAR TO DECK	PARALLEL TO DECK	PERPENDICULAR TO DECK	PARALLEL TO DECK	
S1	W	2"	18	YES	0.555	0.510	0.511	LIGHT WEIGHT CONCRETE	2"	3/4 DIA x2	#4 @12 OC PARALLEL TO DECK SPAN	1/2" DIA PUDDLE WELD AT ALL DOWN FLUTES	1/2" DIA PUDDLE WELD @ 12 OC	1/2" DIA PUDDLE WELD AT ALL DOWN FLUTES	1/2" DIA PUDDLE WELD @ 12 OC	1 1/2" SIDE SEAM WELD @ 12" OC
S2	W	2"	18	YES	0.555	0.510	0.511	LIGHT WEIGHT CONCRETE	8"	3/4 DIA x5	#5 @12 OC EA WAY TOP AND BOTTOM	-DO-	-DO-	-DO-	-DO-	-DO-

NOTES:
1. WHENEVER POSSIBLE, DECK LAYOUTS SHALL PROVIDE SHEETS OF SUFFICIENT LENGTH OF SPAN CONTINUOUSLY ACROSS AT LEAST THREE SPANS. ENDS SHALL TERMINATE OVER A SUPPORT PERPENDICULAR TO THE DECK SPAN, EXCEPT AT OPENINGS OR BUILDING EDGES WHERE DECKS MAY BE CANTILEVERED.
2. SHORE DECK AS REQUIRED BY MANUFACTURER.
3. PROVIDE A MINIMUM OF 2" BEARING AT SUPPORTING MEMBERS PERPENDICULAR TO DECK SPAN AND 1 1/2" AT MEMBERS PARALLEL TO DECK SPAN.
4. DIA OF PUDDLE WELD SHOWN REPRESENTS EFFECTIVE FUSION AREA.
5. EACH PUDDLE WELD SHOWN MAY BE REPLACED WITH A SHEAR STUD WELDED THROUGH DECK.
6. CONCRETE FILL THICKNESS SHOWN ON FRAMING PLANS AND DETAIL SHEETS ARE MINIMUM THINNESS. PROVIDE ADDITIONAL CONCRETE FILL AS REQUIRED TO COMPENSATE FOR BEAM OR DECK DEFLECTIONS AND MAINTAIN SURFACE TOLERANCES SPECIFIED.

10 SLAB ON METAL DECK CONSTRUCTION JOINT
NOT TO SCALE

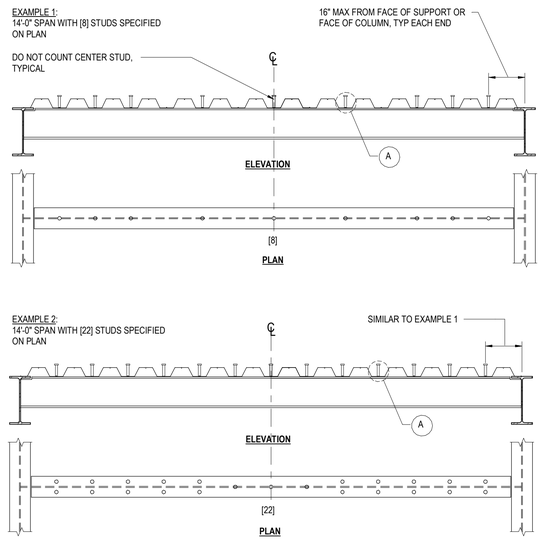


11 METAL DECK DEPRESSIONS
NOT TO SCALE



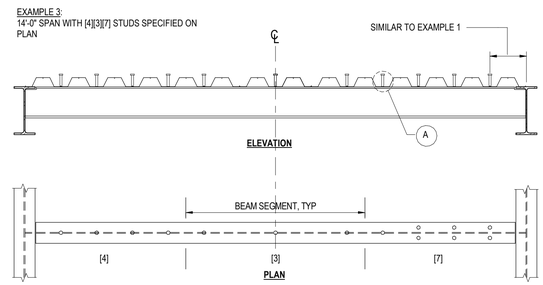
12 METAL DECK CONCRETE FILL REINFORCING
NOT TO SCALE

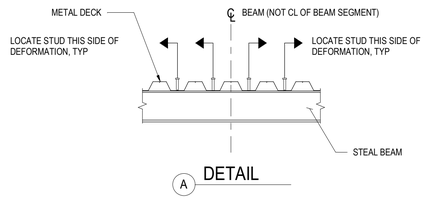
7 METAL DECK SCHEDULE OF PROPERTIES
NOT TO SCALE



NOTES:
1. MIN NUMBER OF STUDS REQUIRED PER SEGMENT OF BEAM IS SHOWN AS [N] ON FRAMING PLANS.
2. WHERE NO INDICATION IS GIVEN, PROVIDE STUDS AT 2'-0" OC MAX.
3. FOR DECK PARALLEL TO BEAM UNIFORMLY SPACE STUDS ALONG CL OF BEAM SEGMENT NO CLOSER THAN 4 1/2" OC, SEE STUD PLACEMENT DETAIL FORM MORE INFO.
4. FOR DECK PERPENDICULAR OR SKEWED TO BEAM, PLACE REQUIRED NUMBER OF SKEWED TO BEAM, PLACE REQUIRED NUMBER OF STUDS EQUALLY ALONG THE LENGTH OF BEAM SEGMENT FOR SPACING GREATER THAN 2'-0" OC OTHERWISE USE THE FOLLOWING METHOD:

   STEP A: PLACE STUDS IN ALTERNATE TROUGHS STARTING AT EACH END
   STEP B: PLACE ONE HALF OF REMAINING STUDS AT EACH END IN THE REMAINING TROUGHS STARTING AT THE END SUPPORT
   STEP C: AFTER A STUD HAS BEEN PLACED IN EACH TROUGH, PLACE A SECOND STUD PER TROUGH STARTING AT EACH END. SIMILAR FOR THREE STUDS PER TROUGH UNTIL THE PLAN SPECIFICATION ... [ ] HAS BEEN MET. SEE EXAMPLES 1, 2 AND 3.





NOTES:
1. PLACE STUDS AS CLOSE AS POSSIBLE TO CL OF DOWN TROUGH.
2. WHERE DOWN TROUGHS HAVE A DEFORMATION AT THE CL, PLACE STUDS TO THE SIDE FURTHEST FROM THE CENTER OF THE BEAM SPAN SEE ABOVE AND STUD LAYOUT DETAIL.

9 WELDED STUD LAYOUT
NOT TO SCALE

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CIVIL ENGINEERING:
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PROFESSIONAL ENGINEER
No.=1066846-2202
OMAR L. GARZA
STATE OF UTAH

NOT FOR CONSTRUCTION

REVISIONS:

DESCRIPTION:	BY:	DATE:

HILLSIDE REVIEW

SCALE:	DATE:	
AS NOTED	3/16/2018	
	DRAWN: Author	CHECKED: Checker
TYPICAL METAL DECK DETAILS	SHEET: S0.41	

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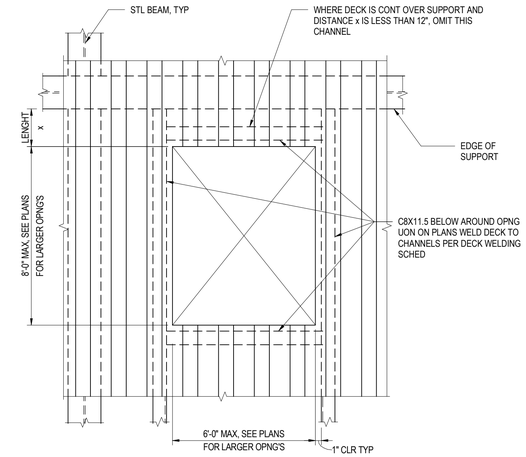
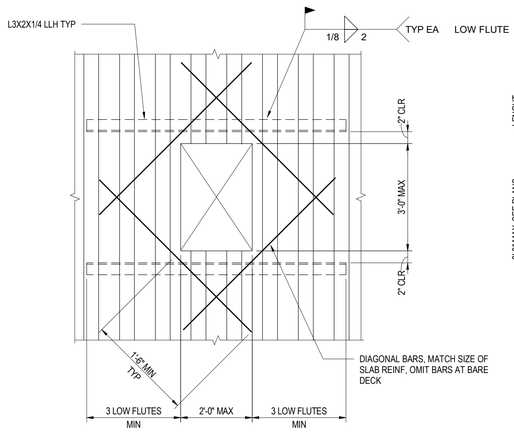
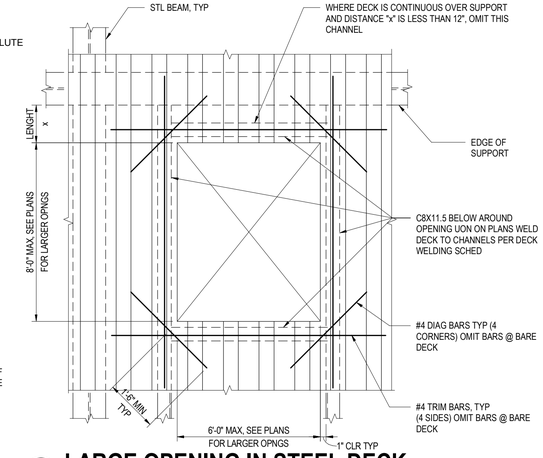


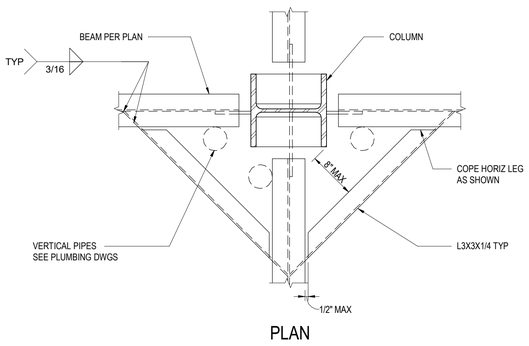
10 LARGE OPENING IN STEEL DECK
NOT TO SCALE



7 MEDIUM OPENING IN STEEL DECK
NOT TO SCALE

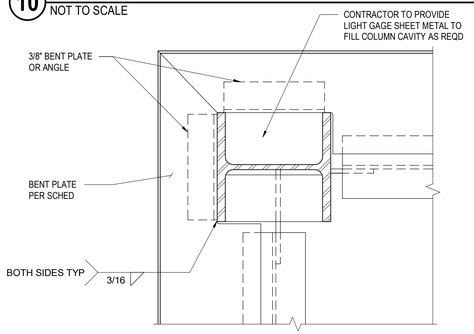


4 LARGE OPENING IN STEEL DECK
NOT TO SCALE



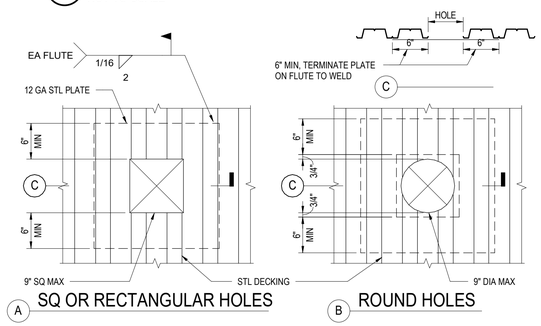
PLAN

1 OPENINGS ADJACENT TO COLUMN
NOT TO SCALE



PLAN

11 EDGE OF DECK AT EXTERIOR CORNER COLUMN
NOT TO SCALE

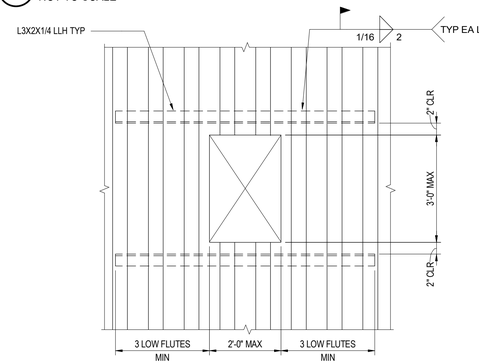


A SQ OR RECTANGULAR HOLES

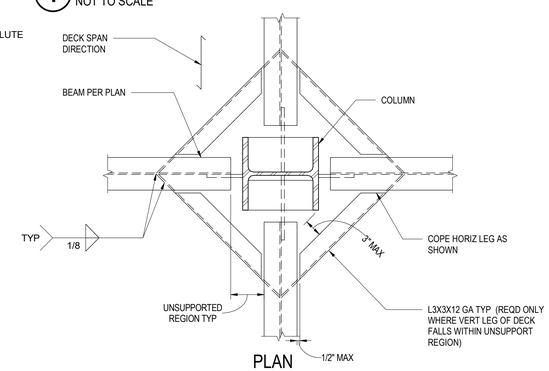
B ROUND HOLES

NOTES:
1. 12 GA PLATE MAY BE OMITTED IF HOLE IS CUT AFTER CONCRETE FILL HAS REACHED ITS DESIGN STRENGTH.
2. PLATE MAY BE LOCATED ABOVE DECK WHERE NO CONCRETE FILL OCCUR.

8 SMALL OPENING IN STEEL DECK
NOT TO SCALE

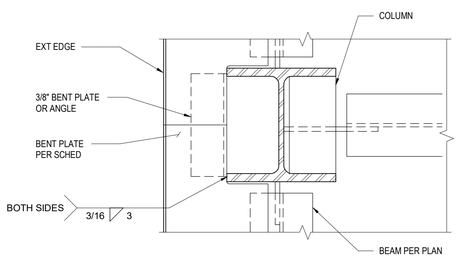


5 MEDIUM OPENING IN STEEL DECK
NOT TO SCALE

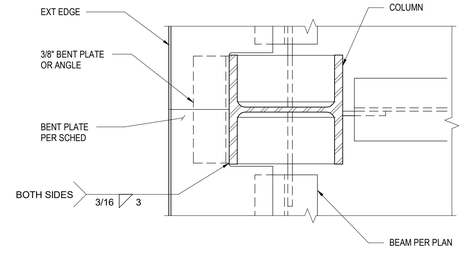


PLAN

2 DECK SUPPORT AT COLUMN
NOT TO SCALE



B PLANT-AT COLUMN WEB



A PLANT-AT COLUMN FLANGE

6 EDGE OF DECK AT EXTERIOR COLUMN
NOT TO SCALE

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PROFESSIONAL ENGINEER
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OMAR L. GARZA
STATE OF UTAH

NOT FOR CONSTRUCTION

REVISIONS:

DESCRIPTION:	BY:	DATE:

HILLSIDE REVIEW

SCALE: AS NOTED	DATE: 3/16/2018	
	DRAWN: Author	CHECKED: Checker
TYPICAL METAL DECK DETAILS	SHEET: S0.42	

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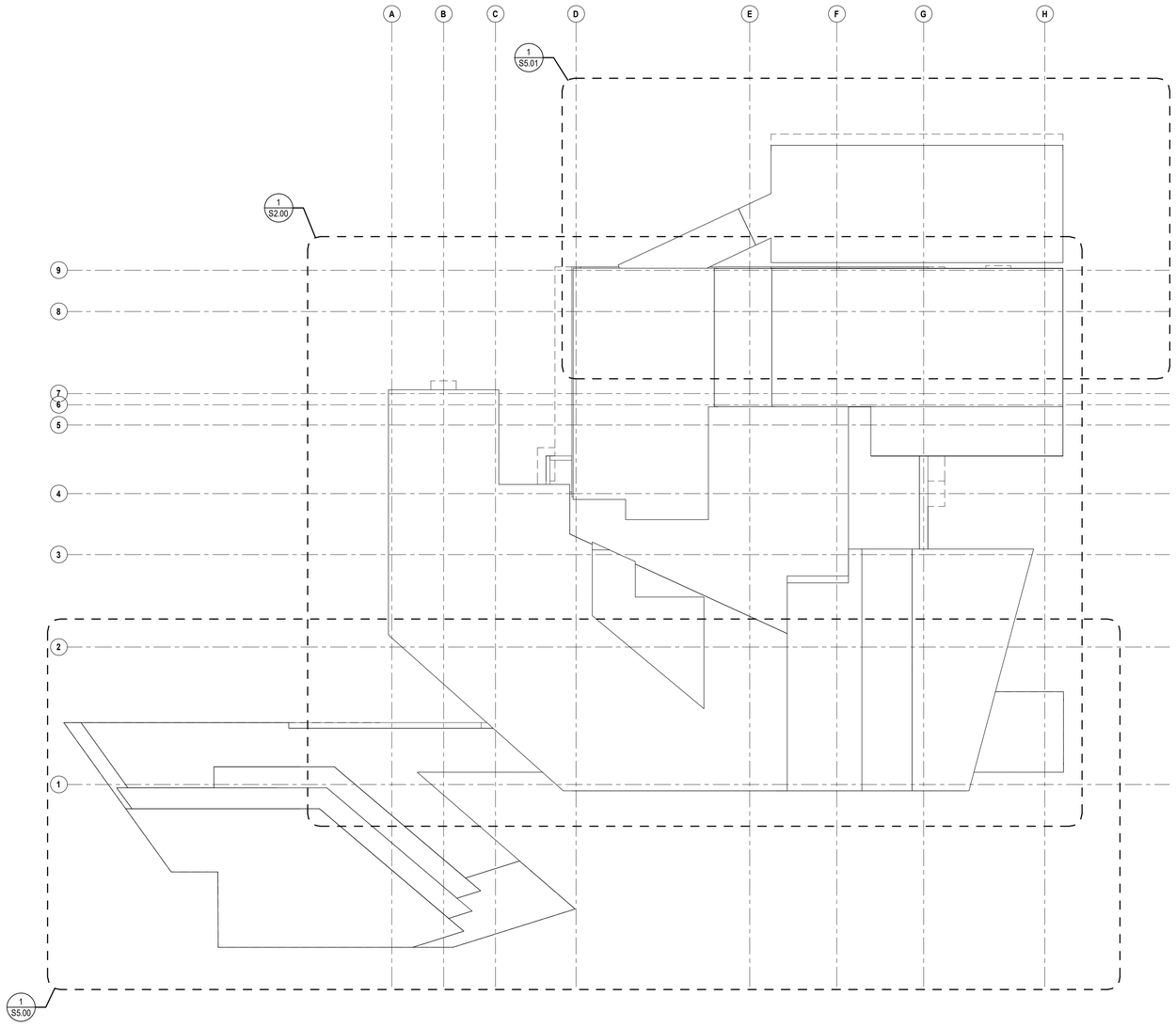

1 SITE PLAN
1/8" = 1'-0"

NOUS
600 WILSHIRE BOULEVARD, SUITE 760
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213 627 6687
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SCALE: AS NOTED	DATE: 3/16/2018	
	DRAWN: Author	CHECKED: Checker
SITE PLAN	SHEET: S1.00	

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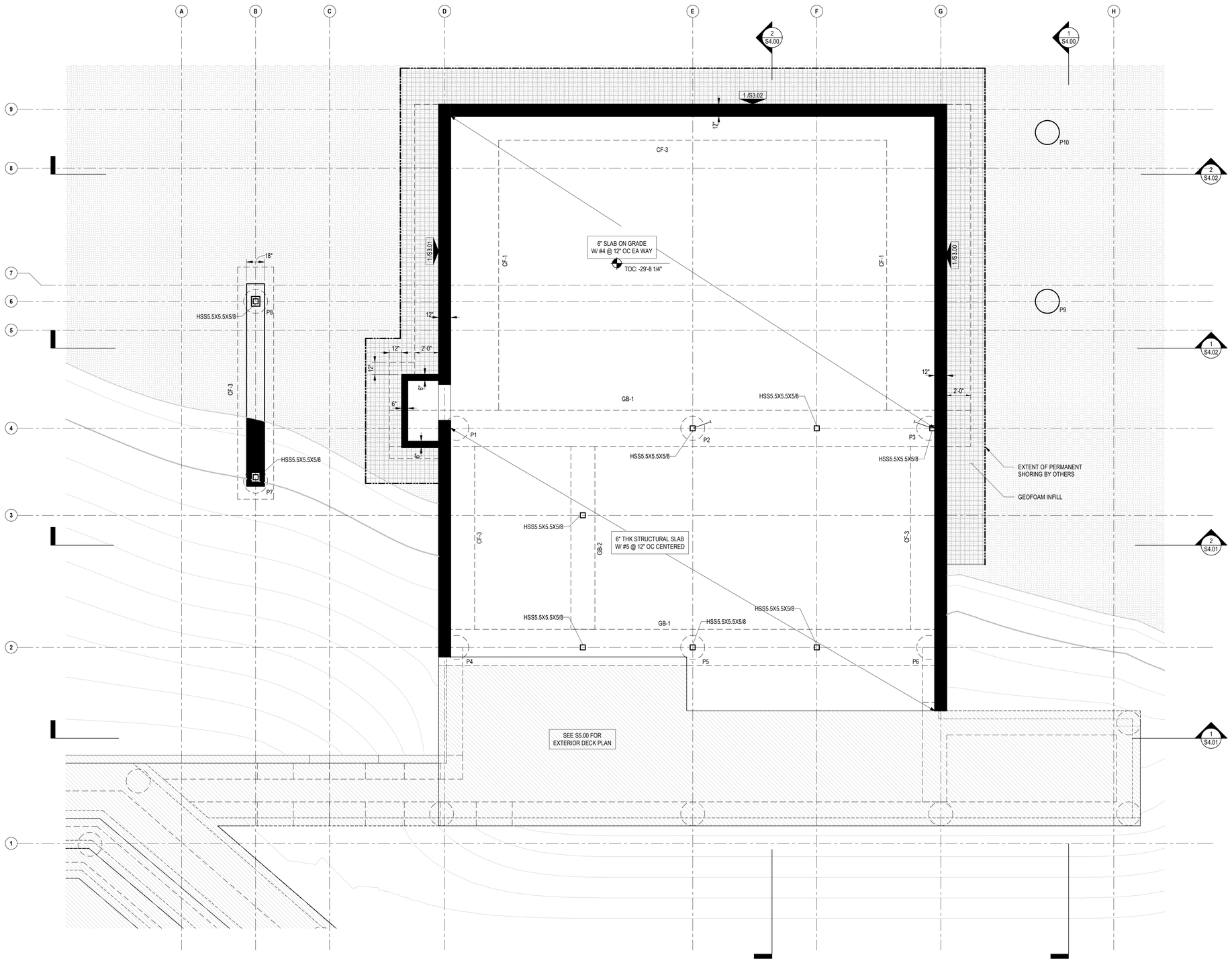

FRICTION PILE SCHEDULE

PILE MARK	DIA	EMBED DEPTH, D	ASSUMED DEPTH OF FILL, F	LENGTH OF PILE, L	VERTICAL BARS	SPIRAL SIZE & SPACING
P1	2'-0"	25'-0"	1'-6"	26'-6"	(8) #8	#4 @ 6" OC
P2	2'-0"	25'-0"	1'-6"	26'-6"	(8) #8	#4 @ 6" OC
P3	2'-0"	20'-0"	1'-6"	21'-6"	(8) #8	#4 @ 6" OC
P4	2'-0"	30'-0"	6'-0"	36'-0"	(12) #8	#4 @ 6" OC
P5	2'-0"	20'-0"	6'-0"	26'-0"	(12) #8	#4 @ 6" OC
P6	2'-0"	20'-0"	6'-0"	26'-0"	(12) #8	#4 @ 6" OC
P7	2'-0"	20'-0"	4'-6"	24'-6"	(8) #8	#4 @ 6" OC
P8	2'-0"	20'-0"	4'-6"	24'-6"	(8) #8	#4 @ 6" OC
P9	2'-0"	20'-0"	13'-0"	33'-0"	(8) #8	#4 @ 6" OC
P10	2'-0"	20'-0"	16'-0"	36'-0"	(8) #8	#4 @ 6" OC

GRADE BEAM SCHEDULE

TYPE MARK	WIDTH, W	DEPTH, D	LONGITUDINAL REINFORCEMENT				SIDE BARS (EA SIDE)	TRANSVERSE REINFORCEMENT	
			TOP BARS		BOTTOM BARS			TIES	ADDITIONAL TIES
			T1	T2	B1	B2			
GB-1	36"	36"	(6) #8		(6) #8			(4) #4 @ 16" OC	
GB-2	24"	24"	(4) #6		(4) #6			#4 @ 6" OC	
GB-3	24"	18"	(4) #6		(4) #6			#4 @ 6" OC	

CONTINUOUS FOOTING SCHEDULE

TYPE MARK	WIDTH, W	DEPTH, D	TOP BARS	BOTTOM BARS	TIES
CF-1	7' - 0"	2'-0"	(8) #6	(8) #6	#5 @ 8" OC
CF-2	3' - 0"	1'-6"	(4) #6	(4) #6	#5 @ 8" OC
CF-3	3' - 0"	2'-0"	(4) #5	(4) #5	#5 @ 12" OC
CF-4	2' - 0"	1'-6"	(3) #5	(3) #5	#5 @ 12" OC

REINFORCED CONCRETE WALL SCHEDULE

TYPE	WALL THICKNESS	VERTICAL REINF	HORIZONTAL REINF
RC 6"	6"	#6 @ 12" OC, CENTERED	#6 @ 12" OC, CENTERED
RC 8"	8"	#8 @ 12" OC, CENTERED	#6 @ 12" OC, CENTERED
RC 12"	12"	# 6 @ 12" OC, EA FACE	#6 @ 12" OC, EA FACE

PLAN LEGEND

- 5/S3.00 — INDICATES REINFORCED CONCRETE WALL ABOVE THICKNESS PER PLAN FOR TYPICAL REINFORCING INFORMATION SEE SCHEDULE
- INDICATES RC SHEAR WALL ELEVATION
- INDICATES STUD WALL PER ARCH
- BRACED FRAME ABOVE PER ELEVATION
- P# — INDICATES PILE TYPE, FOR ADDITIONAL INFORMATION REFER TO SCHEDULE
- C# — INDICATES STEEL COLUMN TYPE, FOR ADDITIONAL INFORMATION REFER TO SCHEDULE
- INDICATES STEP IN SLAB PER 3 / S0.11

FOUNDATION PLAN NOTES:

1. TOP OF FOOTING GRADE BEAM ELEVATION TO BE 1'-0" BELOW TOP OF SLAB OR FINISHED GRADE, UON.
2. REFER TO S0 SERIES SHEETS FOR GENERAL NOTES AND TYPICAL DETAILS.
3. ALL SETTING OUT DIMENSIONS ARE TO BE READ IN CONJUNCTION AND CONFIRMED WITH ARCHITECTURAL DRAWINGS.
4. PRIOR TO REQUESTING A BUILDING DEPARMENT FOUNDATION INSPECTION, THE SOILS ENGINEER/GEOTECHNICAL CONSULTANT SHALL INSPECT AND IMPROVE THE FOUNDATION EXCAVATIONS.
5. EXCAVATIONS SHALL BE MADE AS NEAR AS POSSIBLE TO THE NEAT LINES REQUIRED BY THE SIZE AND SHAPE OF THE STRUCTURE. NO MATERIAL IS TO BE EXCAVATED UNNECESSARILY.
6. CURBS AND DEPRESSIONS ARE SHOWN FOR REFERENCE ONLY. SEE ARCH DWGS FOR LOCATIONS, HEIGHT, AND THICKNESS.
7. SEE ARCH DWGS FOR EDGE OF SLAB LOCATIONS.
8. VERIFY LOCATION OF UNDERGROUND UTILITIES BEFORE EXCAVATIONS. NOTIFY ARCHITECT PRIOR TO EXCAVATION IN THE EVENT SUCH UTILITIES ARE ENCOUNTERED.
9. FOR DRAINAGE DETAILS, SUMPS, PITS, DAMP PROOFING, TRENCHES, CURBS, EXTERIOR WALKS, UTILITIES, EQUIPMENT DETAILS, STEPS, ETC., SEE DRAWINGS OTHER THAN STRUCTURAL.
10. SLAB CONSTRUCTION AND CONTROL JOINT LOCATIONS SHALL BE APPROVED BY THE ARCHITECT PRIOR TO PLACING ANY CONCRETE.
11. PROVIDE A 6" CURB AT EXTERIOR TIMBER WALLS. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS.

1 LOWER LEVEL FOUNDATION PLAN

1/4" = 1'-0"

NOUS
600 WILSHIRE BOULEVARD, SUITE 760
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213 627 6687
CONTACT@NOUSENGINEERING.COM

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REVISIONS:

DESCRIPTION:	BY:	DATE:

HILLSIDE REVIEW

SCALE:	DATE:
AS NOTED	3/16/2018
	DRAWN: HB / CHECKED: MM
LOWER LEVEL FOUNDATION PLAN	SHEET: S2.00

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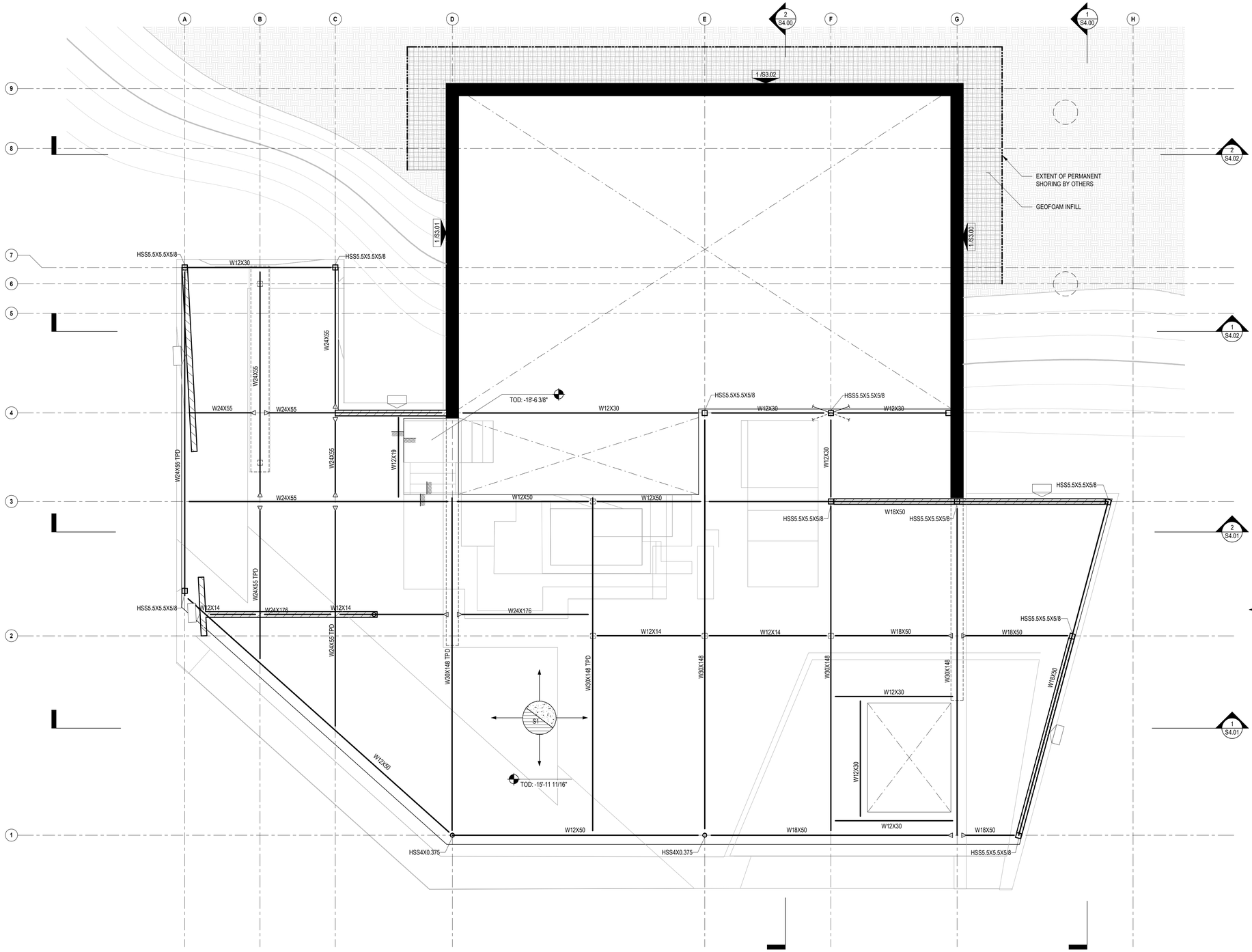


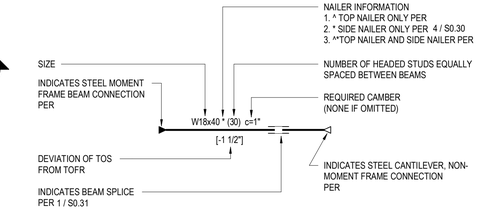
SHEAR WALL LEGEND NOTES:

1. LENGTH SHOWN INDICATES APPROXIMATE LENGTH OF SHEAR WALL, ACTUAL LENGTH MAY DEVIATE +/- 6".
2. HOLDOWN TYPE INDICATED OCCURS AT BOTH ENDS OF SHEAR WALL. AT SHEAR WALL CORNERS, USE GOVERNING HOLDOWN TYPE. WHERE SHEAR WALL TERMINATES AT STEEL COLUMN OR CONCRETE WALL, HOLDOWN MAY BE OMITTED.
3. FOR HOLDOWN AND ANCHOR BOLT INFORMATION REFER TO 14 / S0.34
4. FOR SHEAR WALL TYPE INFORMATION REFER TO 9 / S0.33

PLAN LEGEND

- 5/S3.00 — INDICATES REINFORCED CONCRETE WALL ABOVE THICKNESS PER PLAN FOR TYPICAL REINFORCING INFORMATION SEE SCHEDULE ON S2.00
- INDICATES RC SHEAR WALL ELEVATION
- SW1.1 — INDICATES WOOD SHEAR WALL ID, AT SIDE TO BE NAILED REFER TO "SHEAR WALL LEGEND" FOR ADDITIONAL INFORMATION
- INDICATES WOOD SHEAR WALL EXTENTS, ABOVE
- INDICATES WALL BELOW
- INDICATES STUD/BEARING WALL PER 14 / S0.31 THICKNESS AND LOCATION PER ARCH
- INDICATES STUD WALL PER ARCH
- BRACED FRAME ABOVE PER ELEVATION
- BRACED FRAME BELOW
- INDICATES STEP IN SLAB PER 3 / S0.11
- DN — INDICATES SLOPED DIAPHRAGM
- S# — INDICATES METAL DECKING TYPE AND SPAN DIRECTION FOR ADDITIONAL INFORMATION REFER TO 7 / S0.41

STEEL BEAM LEGEND



FRAMING PLAN NOTES:

1. TOP OF METAL DECK PER PLAN (TOD).
2. TOP OF STEEL BEAMS ARE FLUSH AND OCCUR IMMEDIATELY BELOW METAL DECK, UON.
3. REFER TO S0 SERIES SHEETS FOR GENERAL NOTES AND TYPICAL DETAILS.
4. DEPRESSIONS, CURBS, AND OPENINGS SHOWN ON THIS PLAN ARE NOT COMPLETE AS TO NUMBER, SIZE, AND LOCATION. FOR COMPLETE INFORMATION, REFER TO DRAWINGS OTHER THAN STRUCTURAL.
5. GENERAL CONTRACTOR SHALL COORDINATE THE LOCATION OF EQUIPMENT SUPPORT BEAMS AND BEAMS AROUND FLOOR OPENINGS WITH ALL PROJECT REQUIREMENTS.
6. EDGE OF SLAB LOCATIONS ARE APPROXIMATE, SEE ARCH DWGS FOR EDGE OF SLAB DIMENSIONS.
7. REFER TO S2.00 FOR ADDITIONAL INFORMATION.

1 LIVING ROOM FRAMING PLAN

1/4" = 1'-0"

NOUS

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DESCRIPTION:	BY:	DATE:

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SCALE: AS NOTED	DATE: 3/16/2018	
	DRAWN: HB	CHECKED: MM
LIVING ROOM FRAMING PLAN	SHEET: S2.01	

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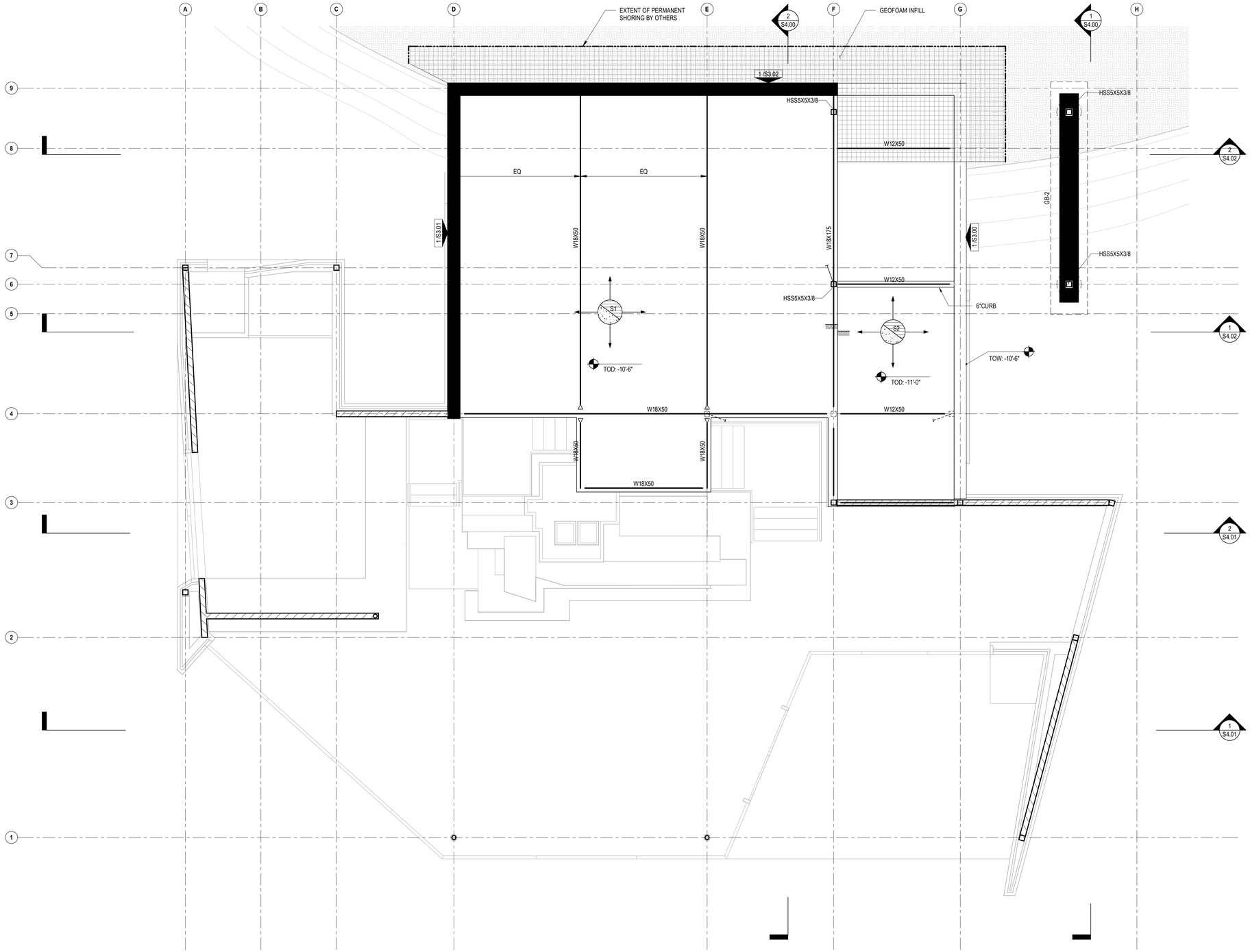
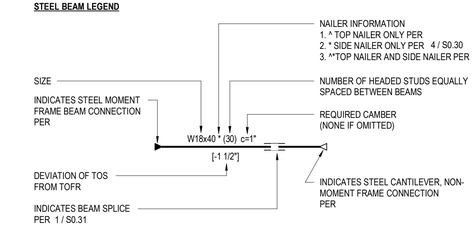


PLAN LEGEND

- INDICATES REINFORCED CONCRETE WALL ABOVE THICKNESS PER PLAN (5/S3.00) FOR TYPICAL REINFORCING INFORMATION SEE SCHEDULE ON S2.00
- INDICATES RC SHEAR WALL ELEVATION
- INDICATES WOOD SHEAR WALL ID, AT SIDE TO BE NAILED REFER TO "SHEAR WALL LEGEND" FOR ADDITIONAL INFORMATION (SW1.1)
- INDICATES WOOD SHEAR WALL EXTENTS, ABOVE
- INDICATES WALL BELOW
- INDICATES STUD/BEARING WALL PER 14 / S0.31 THICKNESS AND LOCATION PER ARCH
- INDICATES STUD WALL PER ARCH
- BRACED FRAME ABOVE PER ELEVATION
- BRACED FRAME BELOW
- INDICATES STEP IN SLAB
- INDICATES SLOPED DIAPHRAGM (DN)
- INDICATES METAL DECKING TYPE AND SPAN DIRECTION FOR ADDITIONAL INFORMATION REFER TO 7 / S0.41 (S#)

STEEL BEAM LEGEND



FRAMING PLAN NOTES:

1. REFER TO S2.01 FOR ADDITIONAL INFORMATION.

1 KITCHEN FRAMING PLAN

1/4" = 1'-0"

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SCALE: AS NOTED	DATE: 3/16/2018	
	DRAWN: Author	CHECKED: Checker
KITCHEN FRAMING PLAN	SHEET: S2.02	

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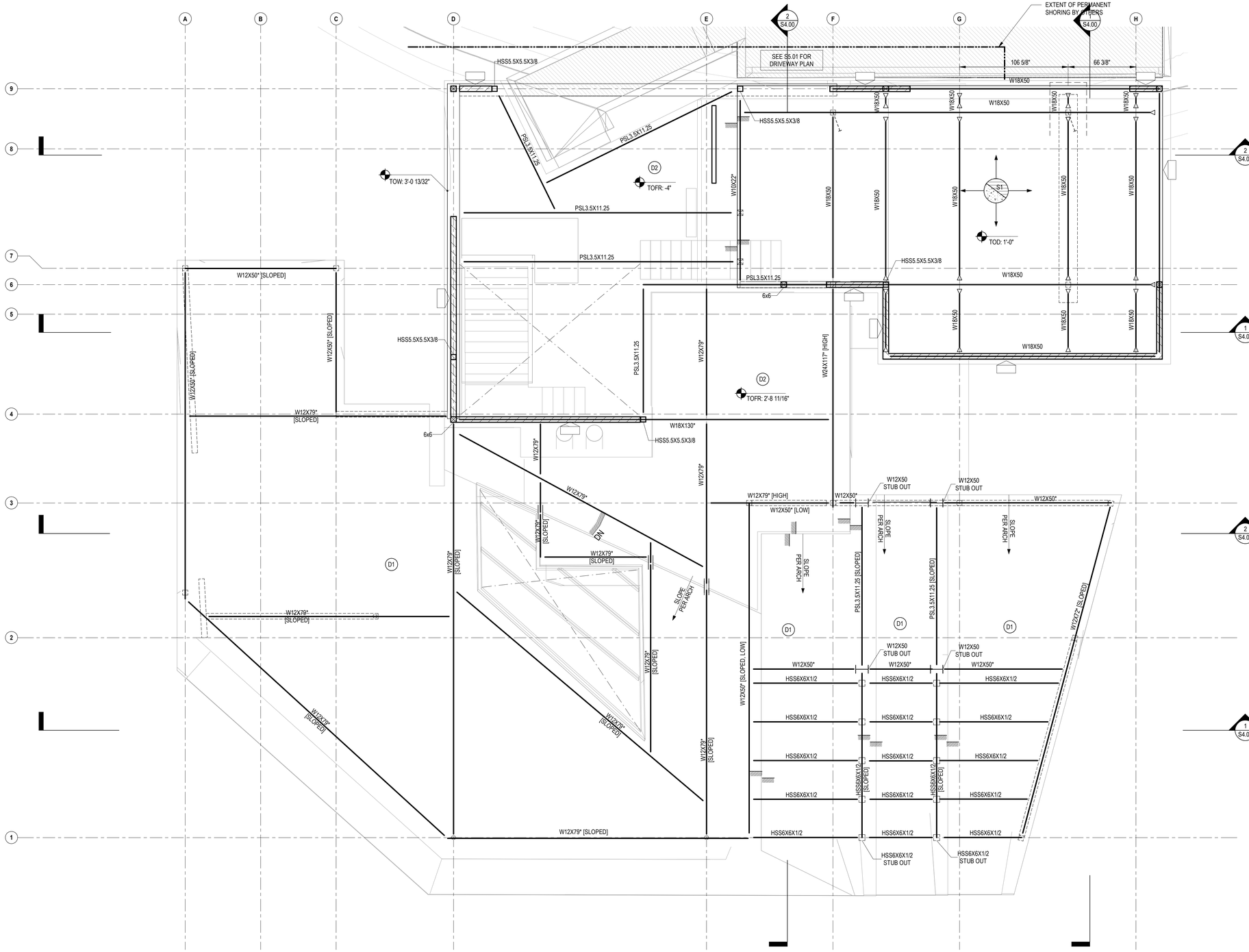
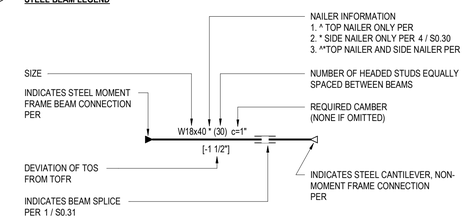


PLAN LEGEND

- SW1.1 — INDICATES WOOD SHEAR WALL ID, AT SIDE TO BE NAILED REFER TO "SHEAR WALL LEGEND" FOR ADDITIONAL INFORMATION
- INDICATES WOOD SHEAR WALL EXTENTS, ABOVE
- INDICATES WALL BELOW
- INDICATES STUD/BEARING WALL PER 14 / S0.31 THICKNESS AND LOCATION PER ARCH
- INDICATES STUD WALL PER ARCH
- BRACED FRAME ABOVE PER ELEVATION
- BRACED FRAME BELOW
- D1 — INDICATES DIAPHRAGM TYPE, FOR ADDITIONAL INFORMATION REFER TO 6 / S0.32
- J1 — INDICATES JOIST TYPE PER SCHEDULE EXTENT PER PLAN FOR HANGER INFORMATION SEE 2 / S0.30
- C# — INDICATES STEEL COLUMN TYPE, FOR ADDITIONAL INFORMATION REFER TO SCHEDULE
- INDICATES STEP IN DIAPHRAGM PER
- DN — INDICATES SLOPED DIAPHRAGM
- PSL — INDICATES PREFABRICATED WEYERHAUSER PARALLAM BEAM (LARR 25202)

STEEL BEAM LEGEND



FRAMING PLAN NOTES:

1. REFER TO S2.03 FOR INFORMATION NOT SHOWN.

1 TERRACE AND SHELL FRAMING PLAN
1/4" = 1'-0"

NOUS
600 WILSHIRE BOULEVARD, SUITE 760
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CONTACT@NOUSENGINEERING.COM

POWDER MOUNTAIN HOUSE
EDEN, UTAH

CLIENT
TOM BUTTGENBACH
8645 EAST COPPER CREST
EDEN, UT 84310

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DESCRIPTION:	BY:	DATE:

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SCALE:	DATE:
AS NOTED	3/16/2018
	DRAWN: Author / CHECKED: Checker
TERRACE AND SHELL FRAMING PLAN	SHEET: S2.03

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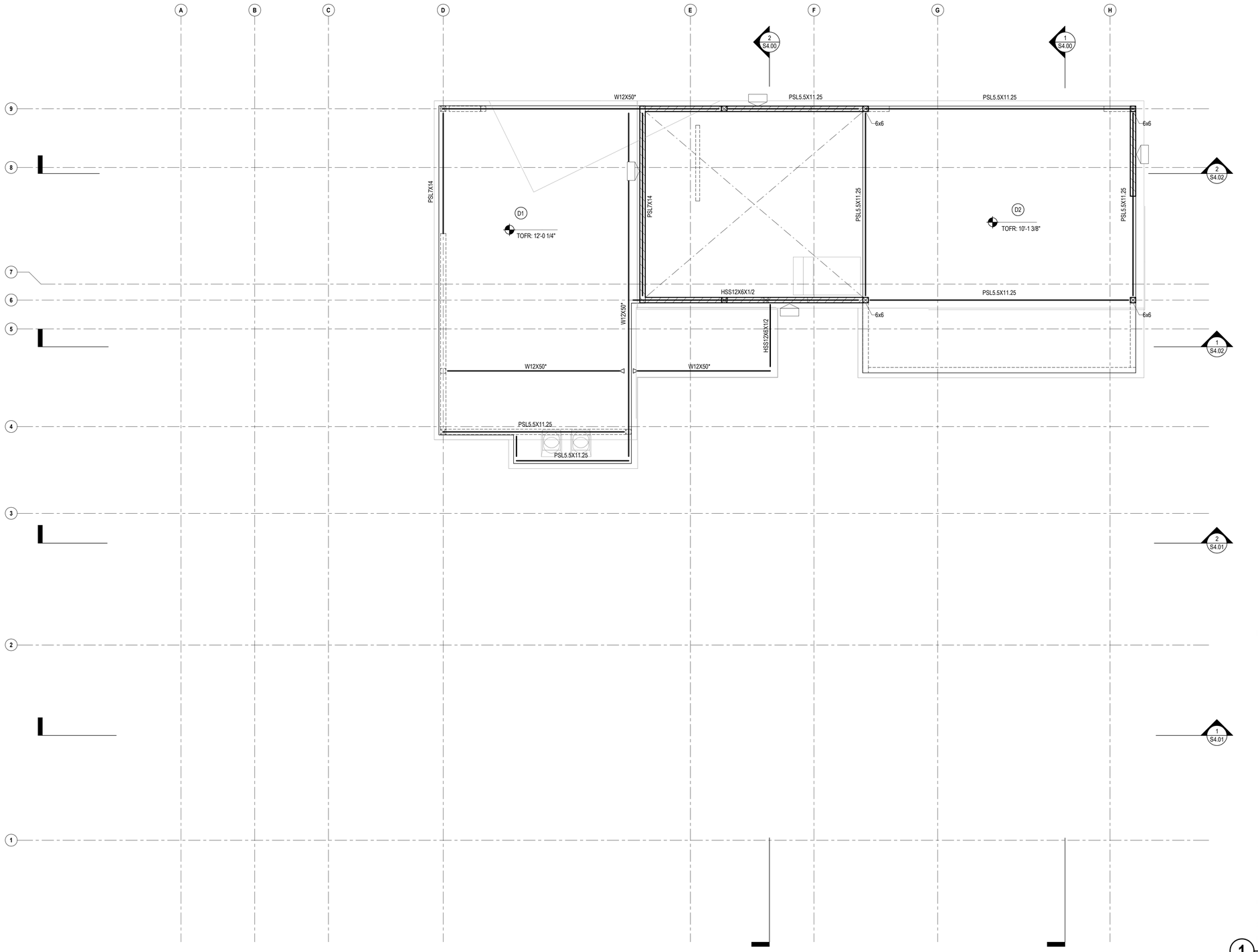

PLAN LEGEND

- SW1.1 — INDICATES WOOD SHEAR WALL ID, AT SIDE TO BE NAILED; REFER TO "SHEAR WALL LEGEND" FOR ADDITIONAL INFORMATION
- INDICATES WOOD SHEAR WALL EXTENTS, ABOVE
- INDICATES WALL BELOW
- INDICATES STUD/BEARING WALL PER 14 / S0.31; THICKNESS AND LOCATION PER ARCH
- INDICATES STUD WALL PER ARCH
- D1 — INDICATES DIAPHRAGM TYPE, FOR ADDITIONAL INFORMATION REFER TO 6 / S0.32
- J1 — INDICATES JOIST TYPE PER SCHEDULE 2 / S0.30; EXTENT PER PLAN; FOR HANGER INFORMATION SEE
- PSL — INDICATES PREFABRICATED WEYERHAUSER PARALLAM BEAM (LARR 25202)

FRAMING PLAN NOTES:

1. TOP OF FRAMING PER PLAN (TOFR). SHEATHING ABOVE TOP OF FRAMING.
2. REFER TO S2.04 FOR INFORMATION NOT SHOWN.

1 LOW ROOF & OFFICE FRAMING PLAN

1/4" = 1'-0"

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AS NOTED	3/16/2018	
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LOW ROOF & OFFICE FRAMING PLAN	SHEET: S2.04	

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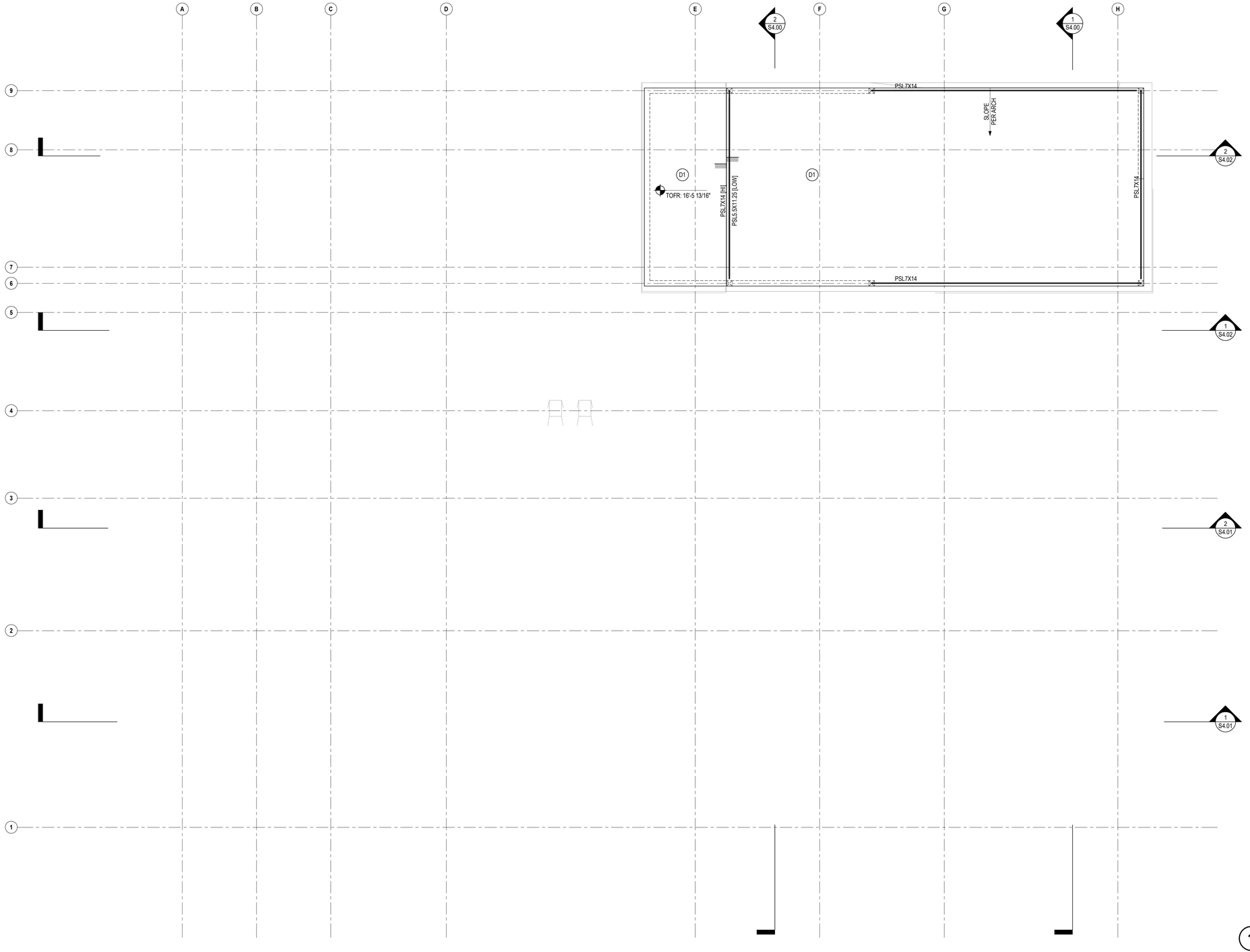

PLAN LEGEND

	INDICATES WALL BELOW
D1	INDICATES DIAPHRAGM TYPE, FOR ADDITIONAL INFORMATION REFER TO 6 / S0.32
J1	INDICATES JOIST TYPE PER SCHEDULE EXTENT PER PLAN FOR HANGER INFORMATION SEE 2 / S0.30
PSL	INDICATES PREFABRICATED WEYERHAUSER PARALLAM BEAM (LARR 25202)

FRAMING PLAN NOTES:

1. REFER TO S2.05 FOR INFORMATION NOT SHOWN.

1 HIGH ROOF FRAMING PLAN

1/4" = 1'-0"

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	DRAWN: Author	CHECKED: Checker
HIGH ROOF FRAMING PLAN	SHEET: S2.05	

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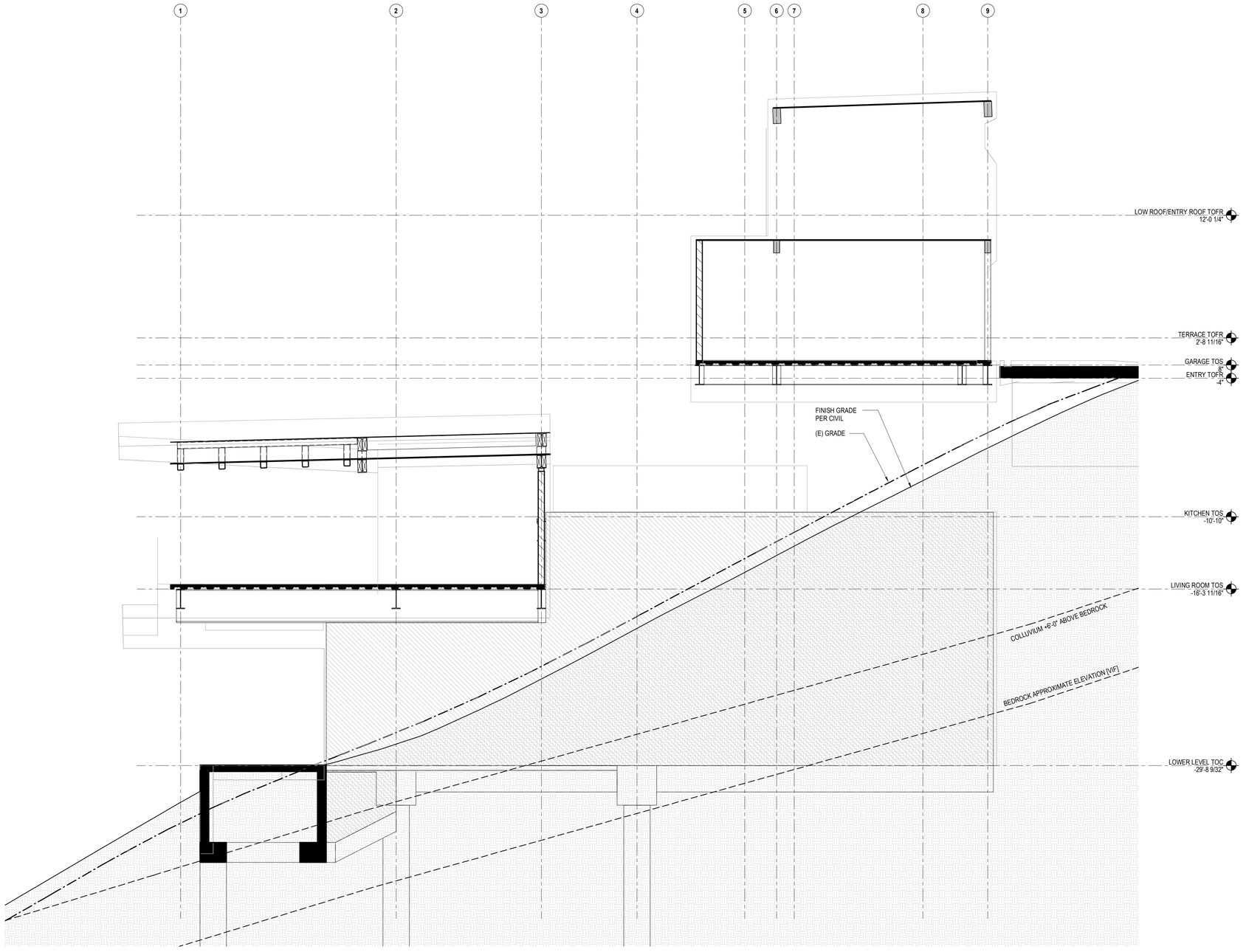

1 RC WALL ELVATION - EAST

1/4" = 1'-0"

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SCALE: AS NOTED	DATE: 3/16/2018	
	DRAWN: HB	CHECKED: MM
RC WALL ELEVATION	SHEET: S3.00	

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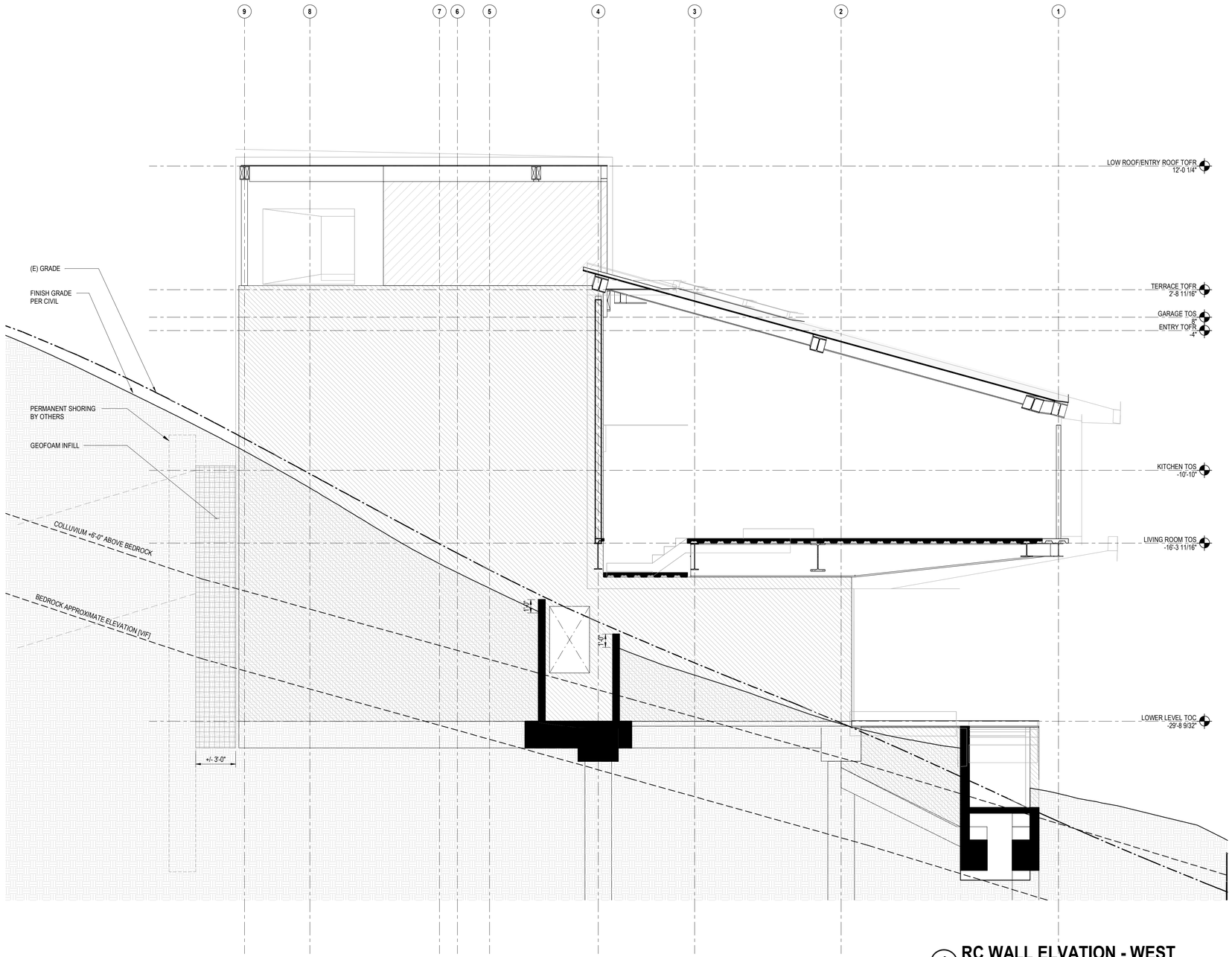

1 RC WALL ELVATION - WEST
1/4" = 1'-0"

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RC WALL ELEVATION	**SHEET:** S3.01

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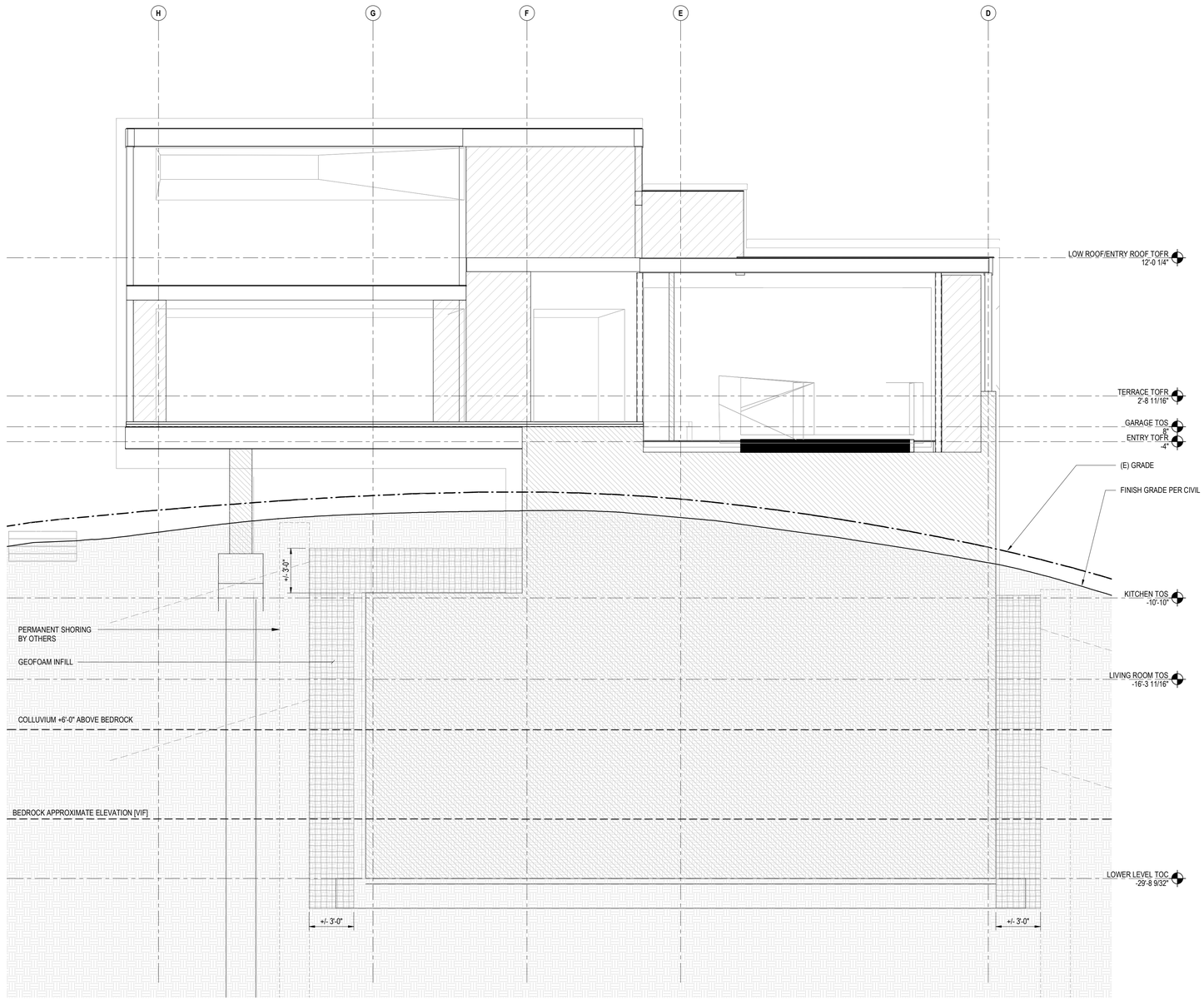

1 RC WALL ELVATION - NORTH

1/4" = 1'-0"

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RC WALL ELEVATION	**SHEET:** S3.02

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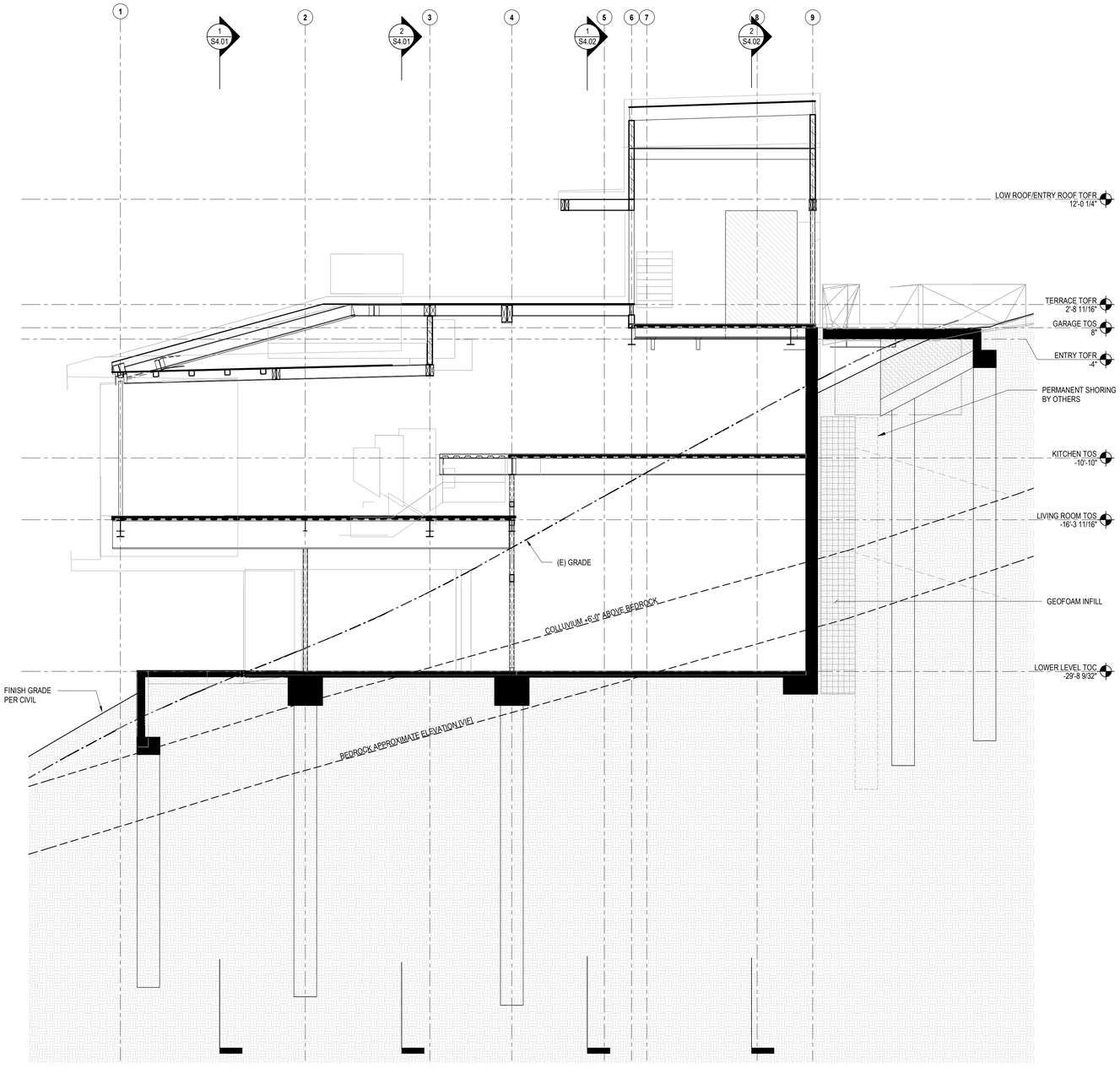
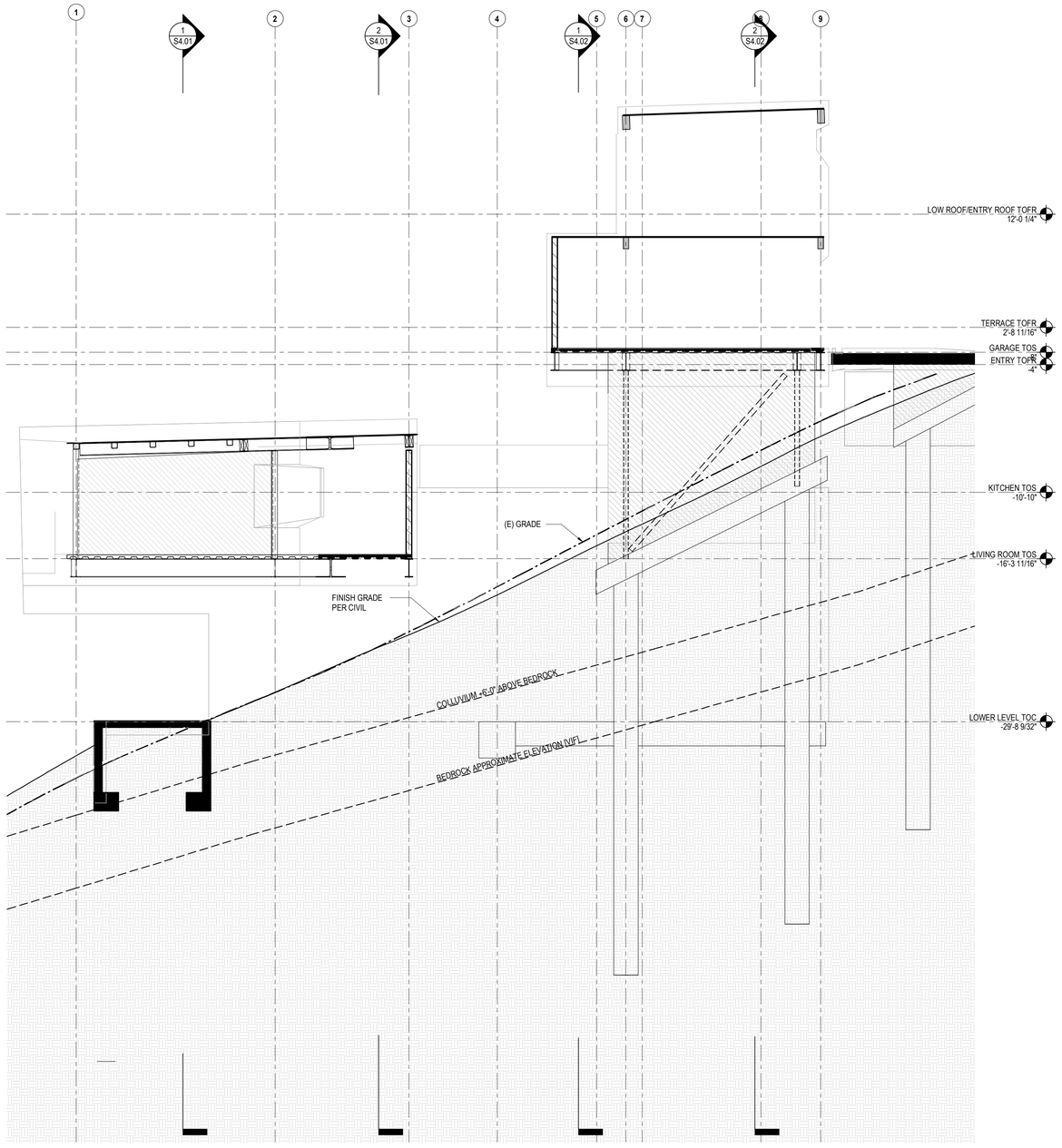


2 BUILDING SECTION

3/16" = 1'-0"



1 BUILDING SECTION

3/16" = 1'-0"

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	DRAWN: HB	CHECKED: MM
BUILDING SECTIONS	SHEET: S4.00	

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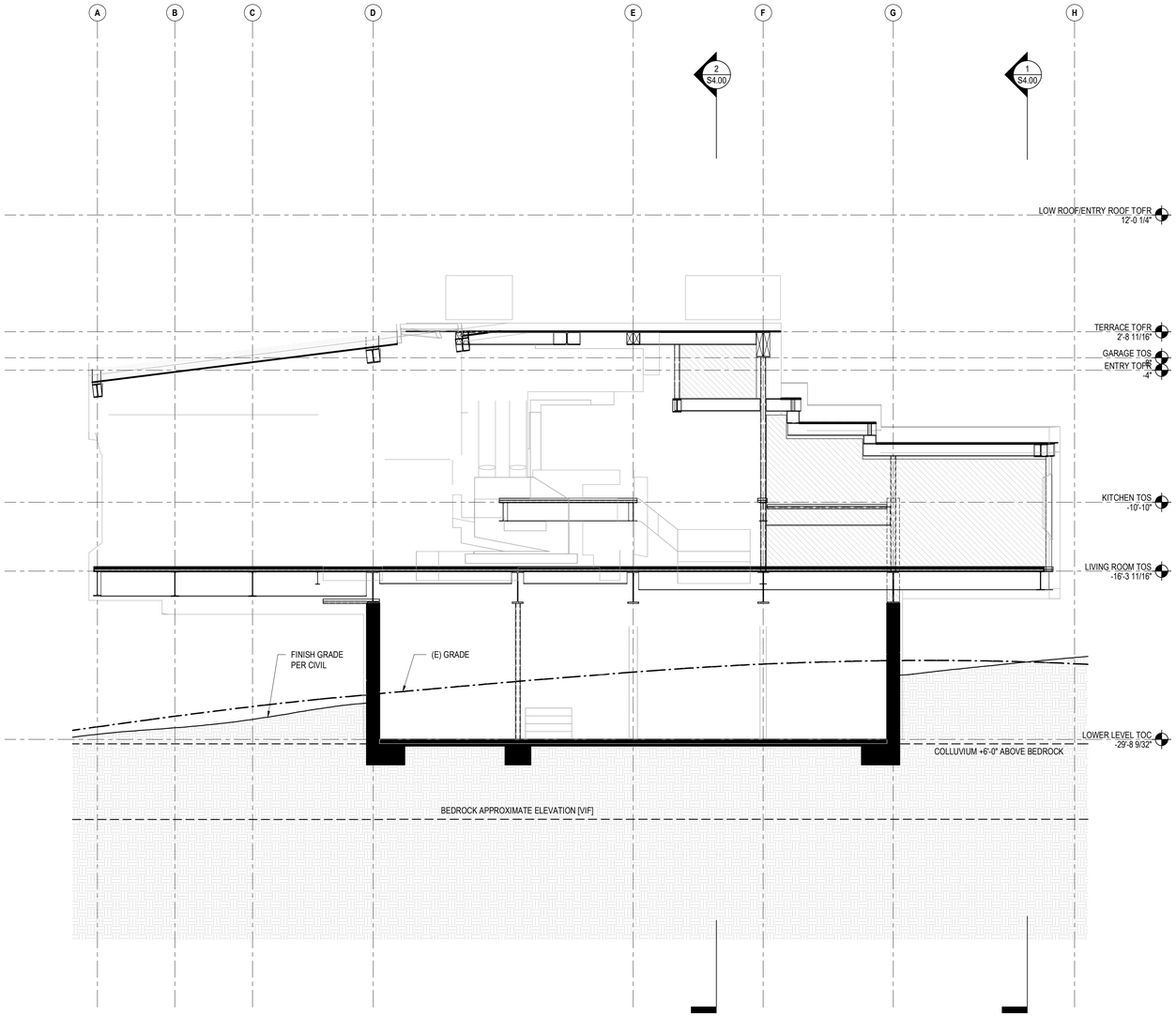
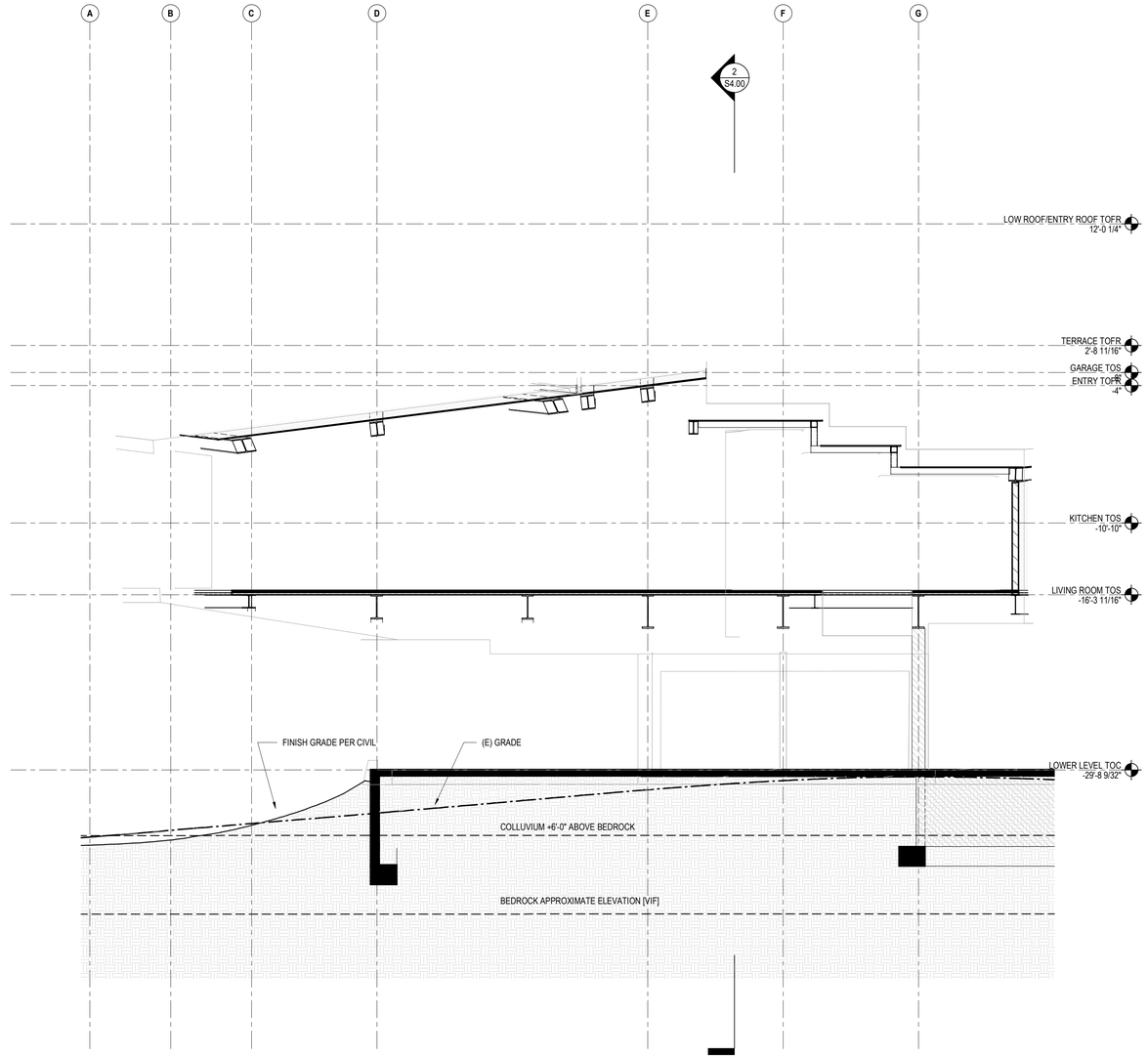


2 BUILDING SECTION

3/16" = 1'-0"



1 BUILDING SECTION

3/16" = 1'-0"

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SCALE: AS NOTED	DATE: 3/16/2018	
	DRAWN: HB	CHECKED: MM
BUILDING SECTIONS	SHEET: S4.01	

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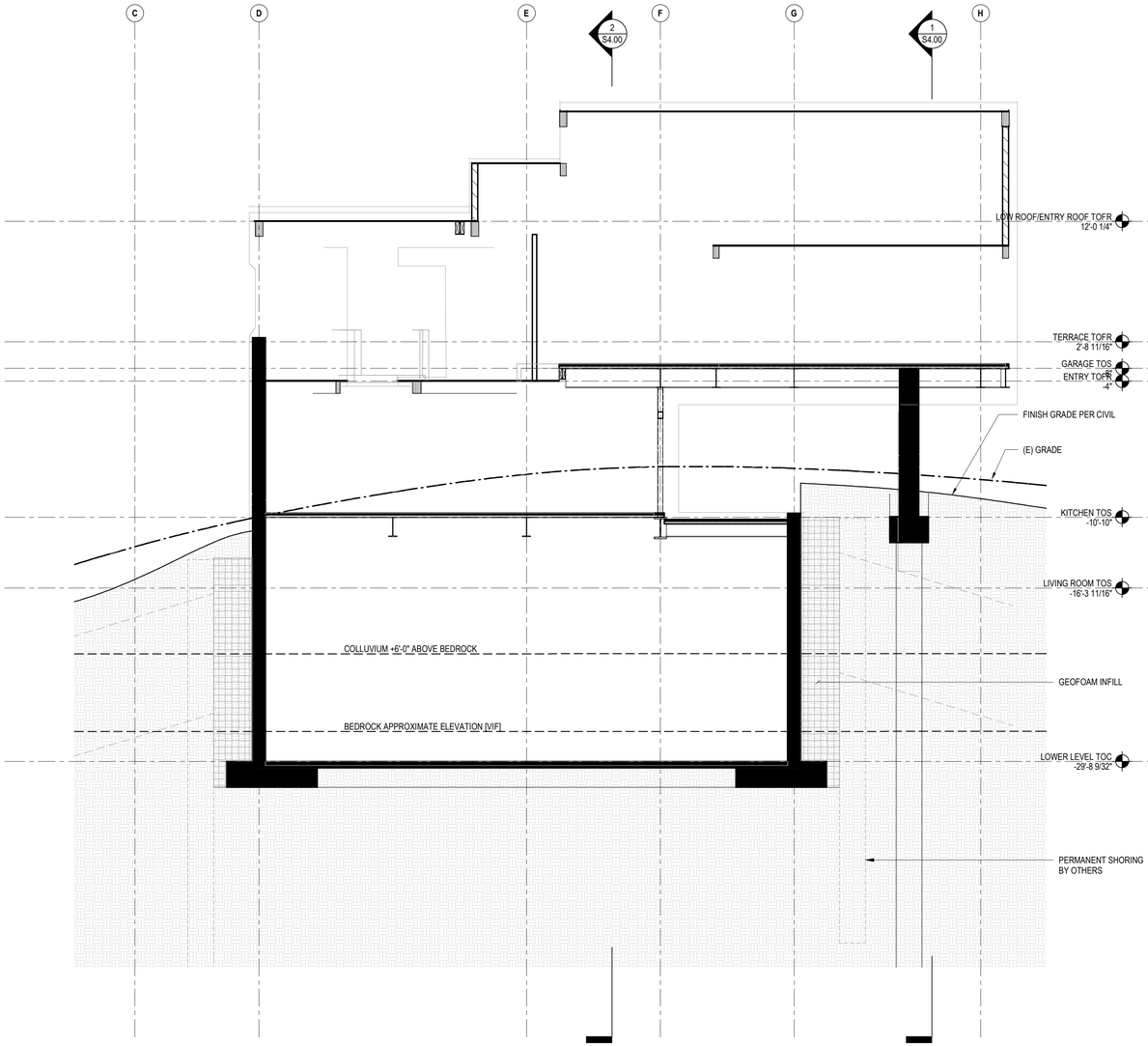
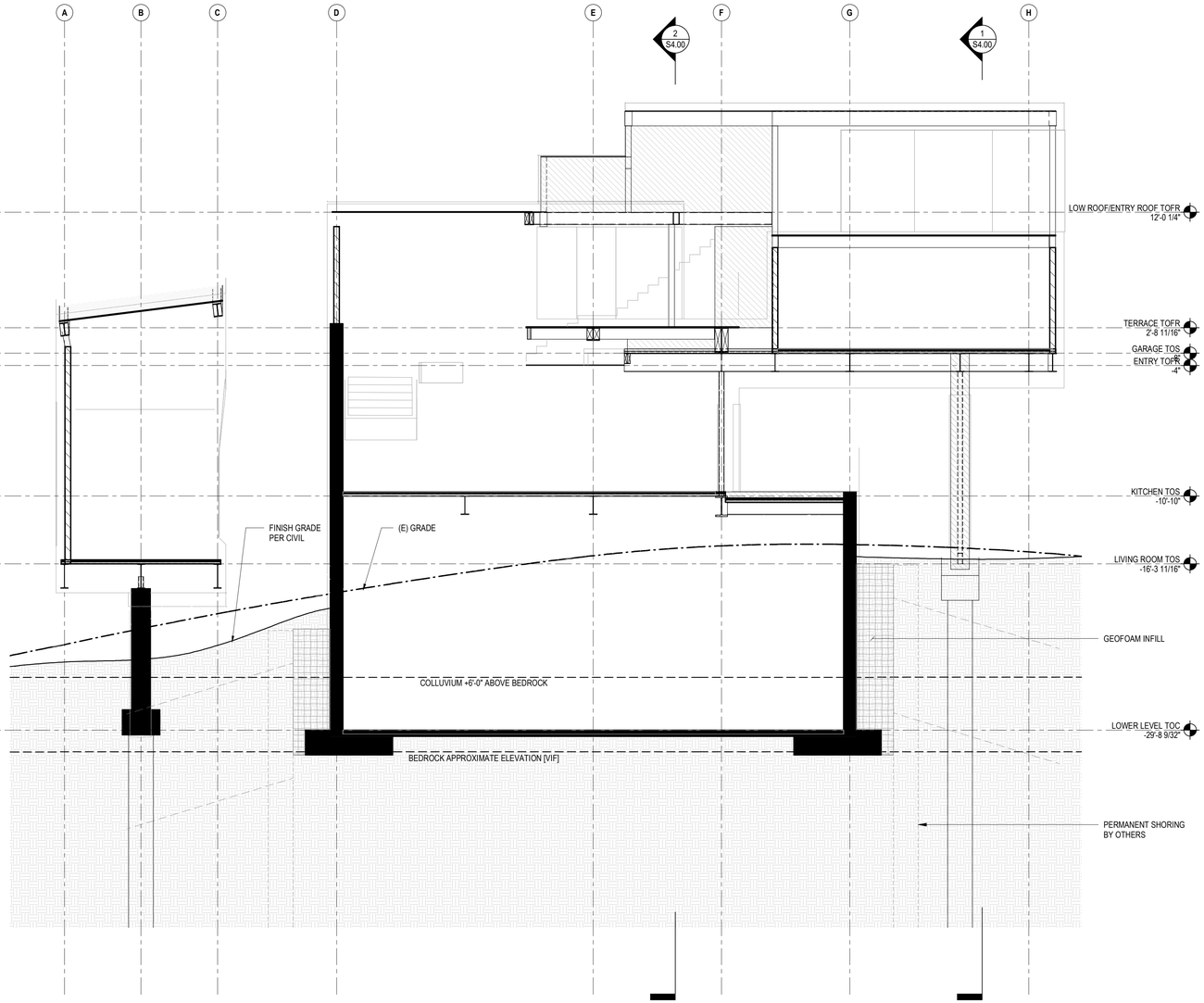


2 BUILDING SECTION
3/16" = 1'-0"



1 BUILDING SECTION
3/16" = 1'-0"

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	DRAWN: HB	CHECKED: MM
BUILDING SECTIONS	SHEET: S4.02	

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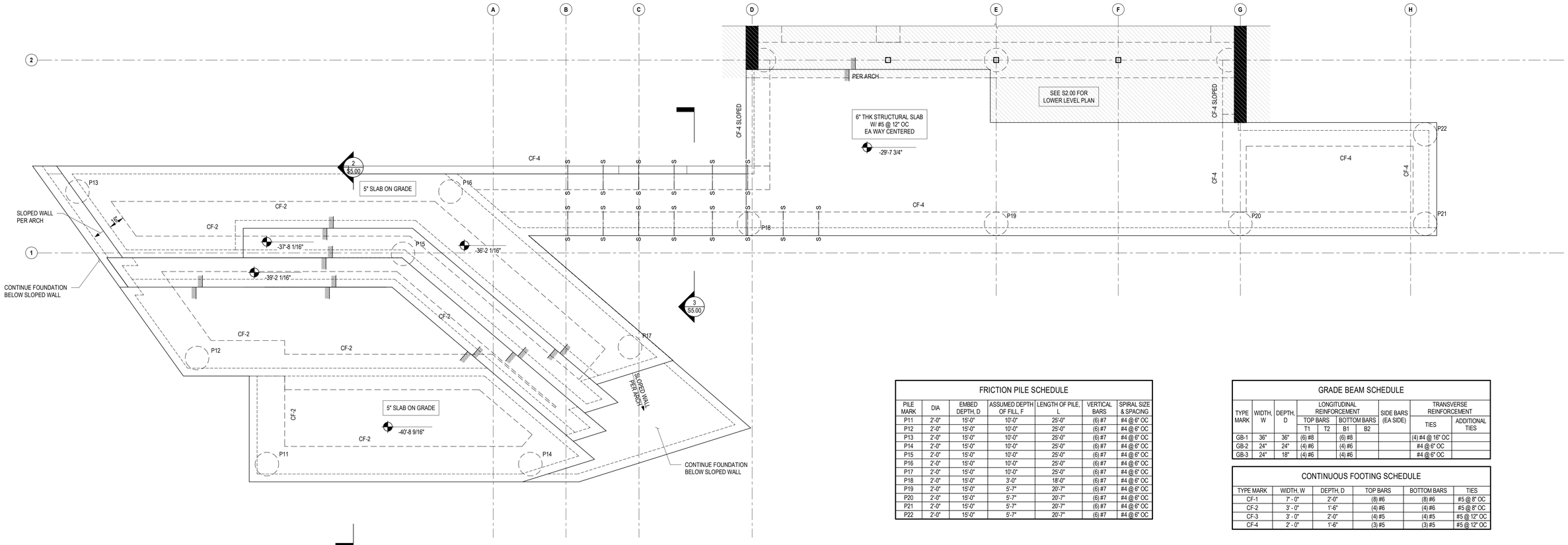

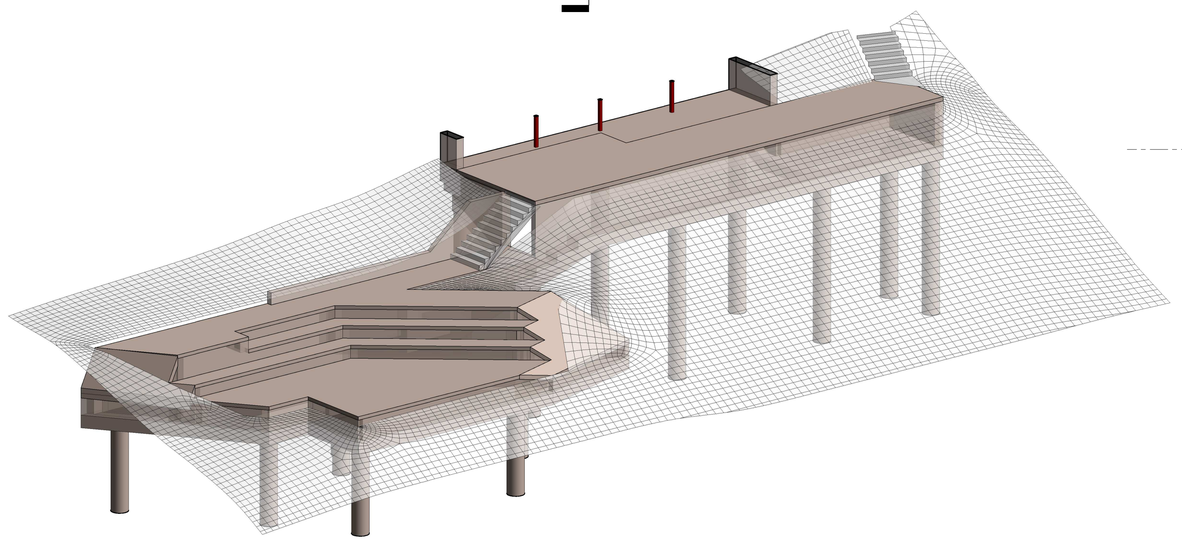

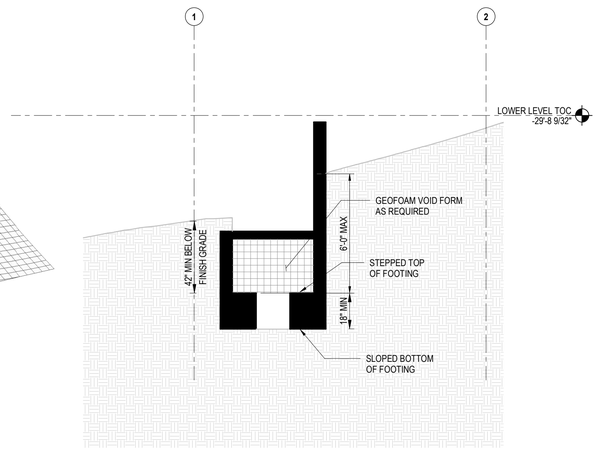

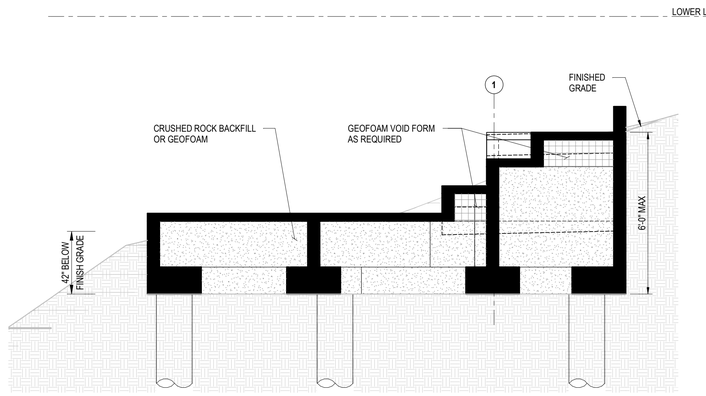

FRICTION PILE SCHEDULE

PILE MARK	DIA	EMBED DEPTH, D	ASSUMED DEPTH OF FILL, F	LENGTH OF PILE, L	VERTICAL BARS	SPIRAL SIZE & SPACING
P11	2'-0"	15'-0"	10'-0"	25'-0"	(6) #7	#4 @ 6" OC
P12	2'-0"	15'-0"	10'-0"	25'-0"	(6) #7	#4 @ 6" OC
P13	2'-0"	15'-0"	10'-0"	25'-0"	(6) #7	#4 @ 6" OC
P14	2'-0"	15'-0"	10'-0"	25'-0"	(6) #7	#4 @ 6" OC
P15	2'-0"	15'-0"	10'-0"	25'-0"	(6) #7	#4 @ 6" OC
P16	2'-0"	15'-0"	10'-0"	25'-0"	(6) #7	#4 @ 6" OC
P17	2'-0"	15'-0"	10'-0"	25'-0"	(6) #7	#4 @ 6" OC
P18	2'-0"	15'-0"	3'-0"	18'-0"	(6) #7	#4 @ 6" OC
P19	2'-0"	15'-0"	5'-7"	20'-7"	(6) #7	#4 @ 6" OC
P20	2'-0"	15'-0"	5'-7"	20'-7"	(6) #7	#4 @ 6" OC
P21	2'-0"	15'-0"	5'-7"	20'-7"	(6) #7	#4 @ 6" OC
P22	2'-0"	15'-0"	5'-7"	20'-7"	(6) #7	#4 @ 6" OC

GRADE BEAM SCHEDULE

TYPE MARK	WIDTH, W	DEPTH, D	LONGITUDINAL REINFORCEMENT				SIDE BARS (EA SIDE)	TRANSVERSE REINFORCEMENT	
			TOP BARS		BOTTOM BARS			TIES	ADDITIONAL TIES
			T1	T2	B1	B2			
GB-1	36"	36"	(6) #8		(6) #8			(4) #4 @ 16" OC	
GB-2	24"	24"	(4) #6		(4) #6			#4 @ 6" OC	
GB-3	24"	18"	(4) #6		(4) #6			#4 @ 6" OC	

CONTINUOUS FOOTING SCHEDULE

TYPE MARK	WIDTH, W	DEPTH, D	TOP BARS	BOTTOM BARS	TIES
CF-1	7' - 0"	2'-0"	(8) #6	(8) #6	#5 @ 8" OC
CF-2	3' - 0"	1'-6"	(4) #6	(4) #6	#5 @ 8" OC
CF-3	3' - 0"	2'-0"	(4) #5	(4) #5	#5 @ 12" OC
CF-4	2' - 0"	1'-6"	(3) #5	(3) #5	#5 @ 12" OC

1 LOWER LEVEL EXTERIOR PATIO PLAN
1/4" = 1'-0"

2 PATIO BENCHES SECTION
1/4" = 1'-0"

3 PATIO BENCHES SECTION
1/4" = 1'-0"

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PROFESSIONAL ENGINEER
No. 10662846-2202
OMAR L. GARZA
STATE OF UTAH

NOT FOR CONSTRUCTION

REVISIONS:

DESCRIPTION:	BY:	DATE:

HILLSIDE REVIEW

SCALE:	DATE:	
AS NOTED	3/16/2018	
	DRAWN: Author	CHECKED: Checker
EXTERIOR DECK PARTIAL PLAN	SHEET: S5.00	

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FRICTION PILE SCHEDULE

PILE MARK	DIA	EMBED DEPTH, D	ASSUMED DEPTH OF FILL, F	LENGTH OF PILE, L	VERTICAL BARS	SPIRAL SIZE & SPACING
P23	2'-0"	15'-0"	18'-0"	33'-0"	(6) #7	#4 @ 6" OC
P24	2'-0"	15'-0"	18'-0"	33'-0"	(6) #7	#4 @ 6" OC
P25	2'-0"	15'-0"	18'-0"	33'-0"	(6) #7	#4 @ 6" OC
P26	2'-0"	15'-0"	18'-0"	33'-0"	(6) #7	#4 @ 6" OC

CONTINUOUS FOOTING SCHEDULE

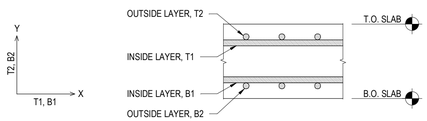
TYPE MARK	WIDTH, W	DEPTH, D	TOP BARS	BOTTOM BARS	TIES
CF-1	7' - 0"	2'-0"	(8) #6	(8) #6	#5 @ 8" OC
CF-2	3' - 0"	1'-6"	(4) #6	(4) #6	#5 @ 8" OC
CF-3	3' - 0"	2'-0"	(4) #5	(4) #5	#5 @ 12" OC
CF-4	2' - 0"	1'-6"	(3) #5	(3) #5	#5 @ 12" OC

GRADE BEAM SCHEDULE

TYPE MARK	WIDTH, W	DEPTH, D	LONGITUDINAL REINFORCEMENT				SIDE BARS (EA SIDE)	TRANSVERSE REINFORCEMENT	
			TOP BARS		BOTTOM BARS			TIES	ADDITIONAL TIES
			T1	T2	B1	B2			
GB-1	36"	36"	(6) #8		(6) #8			(4) #4 @ 16" OC	
GB-2	24"	24"	(4) #6		(4) #6			#4 @ 6" OC	
GB-3	24"	18"	(4) #6		(4) #6			#4 @ 6" OC	

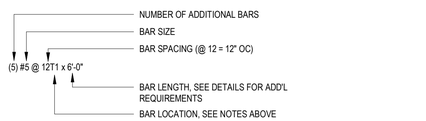
REINFORCEMENT PLAN NOTES:

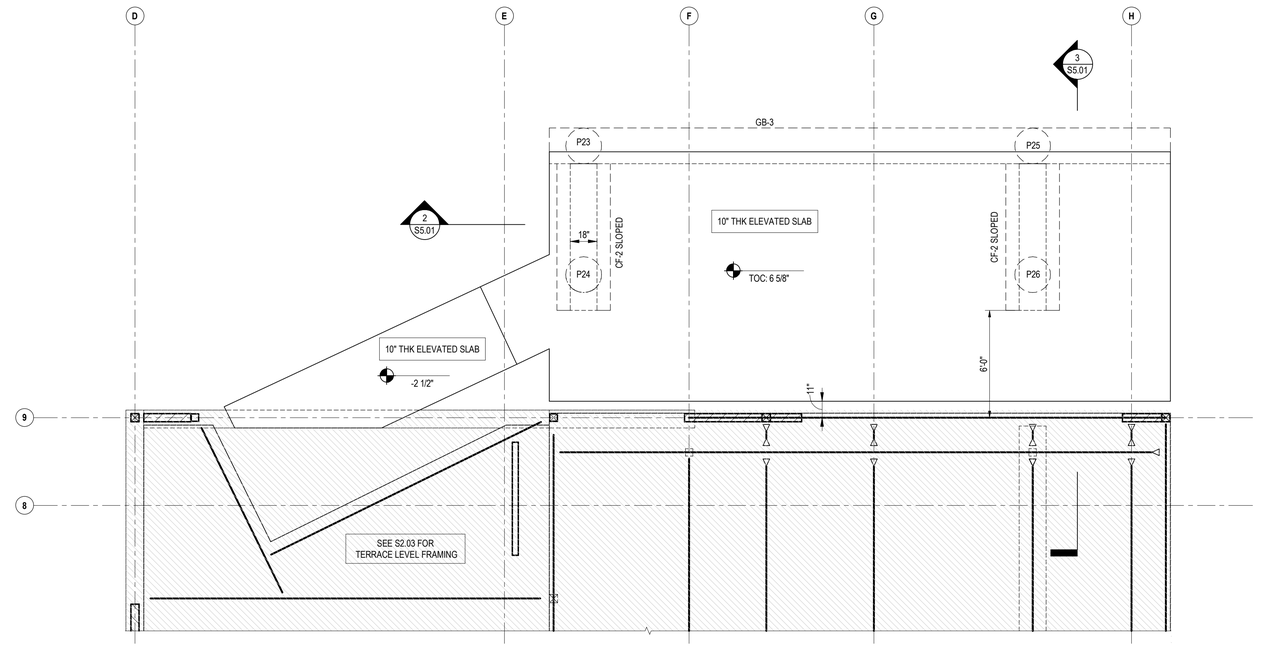
1. SEE FRAMING PLAN FOR THE TOP OF CONCRETE SLAB ELEVATION AND THICKNESS.
2. SLAB TO HAVE A CONTINUOUS MESH OF T&B REINFORCEMENT. SEE TYPICAL DETAILS FOR REBAR PLACEMENT INFORMATION.
3. ADD'L REINFORCEMENT TO BE CENTERED ON COLUMN UON.
4. ADD'L REINFORCEMENT TO BE DISTRIBUTED EVENLY ACROSS EXTENTS AS INDICATED.
5. FOR LOCATIONS WHERE REINFORCING AT OPENINGS CANNOT BE EXTENDED BEYOND EDGE TO PROVIDE REQUIRED TENSION DEVELOPMENT, PROVIDE HOOKED BARS.
6. ALL REINFORCING SHALL BE PLACE WITH THE NORTH-SOUTH (Y-DIRECTION) LAYER ON THE OUTSIDE AND THE EAST-WEST (X-DIRECTION) LAYER ON THE INSIDE AS FOLLOWS:



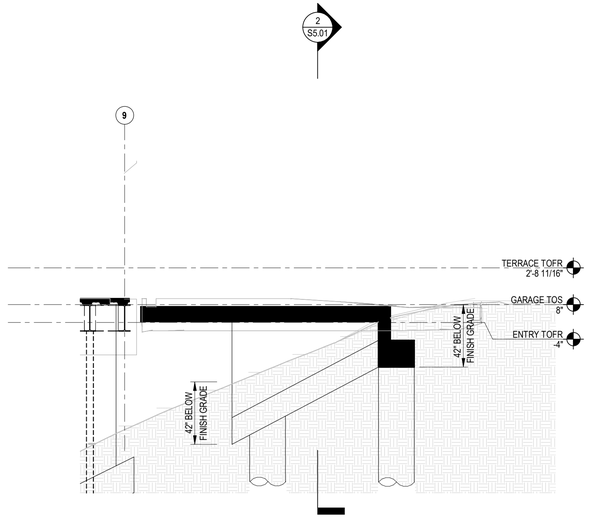
PLAN SECTION

7. ADD'L REINFORCING TO BE PROVIDED AS FOLLOWS:

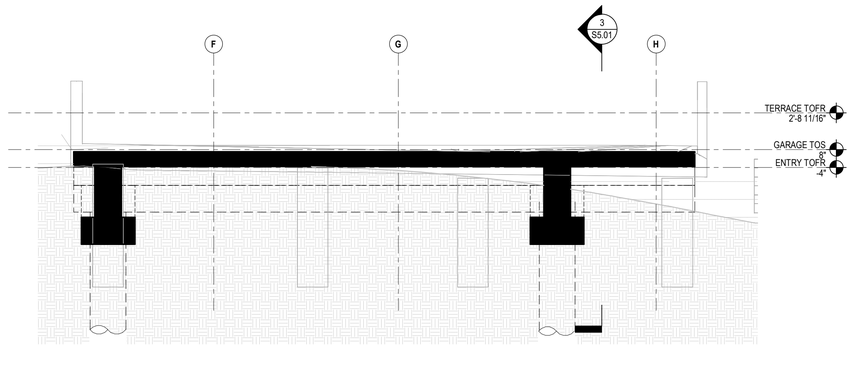




1 ENTRY PATIO PLAN
1/4" = 1'-0"



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



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

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ENTRY PARTIAL PLAN	SHEET: S5.01	

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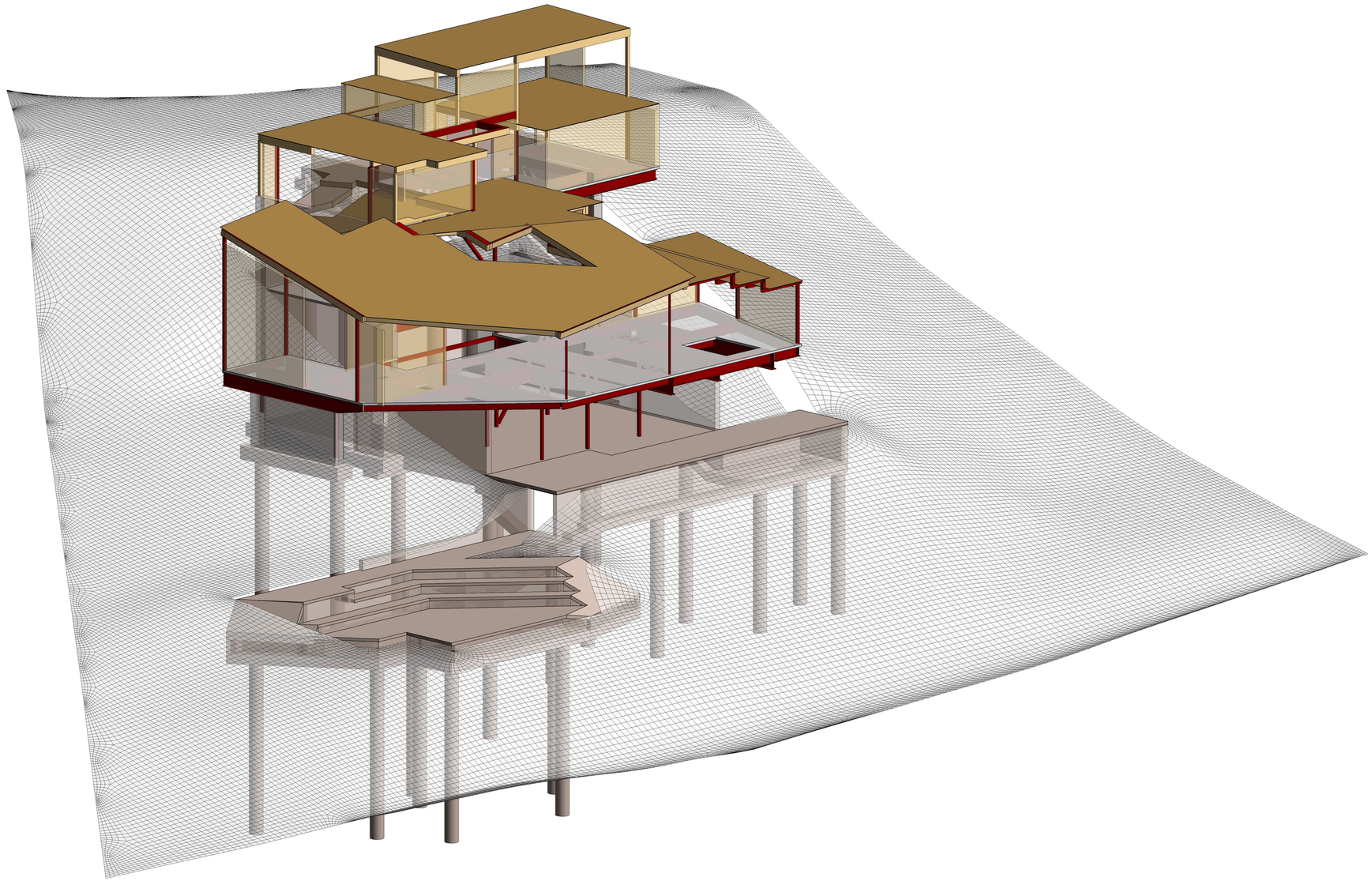

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3D VIEWS	**SHEET:** S6.00	

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