GR GENERAL REQUIREMENTS

AS USED IN THESE GENERAL NOTES:
"DRAWINGS" MEANS THE LATEST STRUCTURAL DESIGN DRAWINGS, UON.
"SPECIFICATIONS" MEANS THE LATEST PROJECT SPECIFICATIONS, UON.
"CONTRACT DOCUMENTS" IS DEFINED AS THE DESIGN DRAWINGS AND THE SPECIFICATIONS.
"SER" IS DEFINED AS THE STRUCTURAL ENGINEER OF RECORD FOR THE STRUCTURE IN ITS FINAL CONDITION.
"DESIGN PROFESSIONALS" IS DEFINED AS THE OWNER'S ARCHITECT AND SER.
"MEP" INCLUDES, BUT IS NOT LIMITED TO MECHANICAL, ELECTRICAL, PLUMBING, FIRE PROTECTION.
"CONTRACTOR" IS DEFINED TO INCLUDE ANY OF THE FOLLOWING: GENERAL CONTRACTOR AND THEIR SUBCONTRACTORS, CONSTRUCTION MANAGER AND THE SUBCONTRACTORS, STRUCTURAL STEEL FABRICATOR OR STRUCTURAL STEEL ERECTOR.
"BASE BUILDING STRUCTURE" IS DEFINED AS THE STRUCTURAL FRAME DESIGNED BY THORNTON TOMASETTI.
"STRUCTURE IN ITS FINAL CONDITION" MEANS ALL STRUCTURAL ELEMENTS SHOWN ON THE STRUCTURAL CONTRACT DOCUMENTS ARE INSTALLED AND COMPLETELY CONNECTED AND INSPECTED WITH NO OUTSTANDING NON-COMPLIANCE ISSUES.

GR-2 THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF THE STRUCTURAL WORK WITH THE ARCHITECTURAL, CIVIL, MEP CONTRACT DOCUMENTS, AS WELL AS ANY OTHER APPLICABLE TRADES.

GR-3 THE CONTRACTOR IS RESPONSIBLE FOR THE STABILITY OF THE STRUCTURE UNTIL THE CONSTRUCTION OF THE STRUCTURE REACHES ITS FINAL CONDITION.

GR-4 THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE DESIGN, INSTALLATION, AND REMOVAL OF TEMPORARY BRACING AND CONSTRUCTION SUPPORTS, FOR NEW AND EXISTING STRUCTURES, AS NECESSARY TO COMPLETE THE PROJECT. NO PORTION OF THE PROJECT WHILE UNDER CONSTRUCTION IS INTENDED TO BE STABLE IN THE ABSENCE OF THE CONTRACTOR'S TEMPORARY SUPPORTS AND BRACES. CONTRACTOR SHALL RETAIN A STRUCTURAL ENGINEER LICENSED IN THE STATE IN WHICH THE PROJECT IS LOCATED TO DESIGN TEMPORARY BRACING AND CONSTRUCTION SUPPORTS.

GR-5 LATERAL LOAD RESISTANCE AND STABILITY OF THE STRUCTURE IN ITS FINAL CONDITION IS PROVIDED BY SHEARWALLS AND LATERAL STABILITY OF OTHER ELEMENTS IS PROVIDED THROUGH ROOF SHEATHING.

GR-6 THE SPECIFICATIONS ARE AN INTEGRAL PART OF THE CONTRACT DOCUMENTS AND SHALL BE USED IN CONJUNCTION WITH THE STRUCTURAL DRAWINGS.

GR-7 THE CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS AND COORDINATE WITH THE STRUCTURAL DRAWINGS, ARCHITECTURAL DRAWINGS, DRAWINGS FROM OTHER CONSULTANTS, PROJECT SHOP DRAWINGS AND FIELD CONDITIONS.

GR-8 IN CASES OF CONFLICT BETWEEN DRAWINGS AND/OR SPECIFICATIONS AND OTHER DISCIPLINES OR EXISTING CONDITIONS, CONTRACTOR SHALL NOTIFY THE DESIGN PROFESSIONALS AND OBTAIN CLARIFICATION PRIOR TO BIDDING AND PROCEEDING WITH WORK.

GR-9 APPLY DETAILS, SECTIONS, AND NOTES ON THE DRAWINGS WHERE CONDITIONS ARE SIMILAR TO THOSE INDICATED BY DETAIL, DETAIL TITLE OR NOTE.

GR-10 ONLY USE DIMENSIONS INDICATED ON THE DRAWINGS. DO NOT SCALE DRAWINGS.

GR-11 ASSUME EQUAL SPACING BETWEEN ESTABLISHED DIMENSIONS, IF NOT INDICATED ON DRAWINGS.

GR-12 CENTERLINES OF COLUMNS AND FOUNDATIONS COINCIDE WITH GRID LINE INTERSECTIONS, UON.

GR-13 CENTERLINES OF GRADE BEAMS AND WALLS COINCIDE WITH CENTERLINES OF FOUNDATIONS, UON.

GR-14 CENTERLINES OF FRAMING MEMBERS COINCIDE WITH COLUMN CENTERLINES, UON.

GR-15 THE CONTRACTOR SHALL PROTECT EXISTING FACILITIES, STRUCTURES AND UTILITIES FROM DAMAGE.

GR-16 THE CONTRACTOR SHALL VERIFY THAT CONSTRUCTION LOADS DO NOT EXCEED THE CAPACITY OF THE STRUCTURE AT THE TIME THE LOAD IS APPLIED.

GR-17 THE CONTRACTOR SHALL COORDINATE THE BOTTOM OF BASE PLATE ELEVATIONS WITH THE AS-BUILT TOP OF SUPPORT ELEVATIONS.

GR-18 THE CONTRACTOR SHALL VERIFY ALL OPENING SIZES AND LOCATIONS WITH OTHER DISCIPLINES. THE DRAWINGS DO NOT SHOW ALL OPENINGS REQUIRED. ADDITIONAL OPENINGS, BLOCKOUTS AND SLEEVES MAY BE REQUIRED BY OTHER DISCIPLINES AND SHALL BE CONSTRUCTED USING THE TYPICAL DETAILS AND/OR THE CRITERIA INDICATED ON THE DRAWINGS. OPENINGS REQUIRED BUT NOT SHOWN ON THE STRUCTURAL DRAWINGS MUST BE APPROVED BY THE STRUCTURAL ENGINEER.

GR-19 NOT USED.

GR-20 SEE ARCHITECTURAL, CIVIL, AND MEP CONTRACT DOCUMENTS FOR ADDITIONAL INFORMATION RELATING TO THE COORDINATION OF STRUCTURAL COMPONENTS INCLUDING, BUT NOT LIMITED TO:

CIVIL:
SITING OF BUILDING GRID LINES WITH RESPECT TO CITY BENCHMARKS
SITE PREPARATION
BACKFILLING MATERIALS AND REQUIREMENTS
PAVING AND SITE ELEMENTS OUTSIDE OF BUILDING ENVELOPE
NEW AND EXISTING SITE UTILITIES

ARCHITECTURAL:
PLAN DIMENSIONS AND PROJECT DATUM
SLAB EDGE DIMENSIONS
FINISH ELEVATIONS
WATERPROOFING AND DAMP-PROOFING DETAILS
RAMP GEOMETRY, PITS, SLAB SLOPES AND DEPRESSIONS
EMBEDMENTS, INSERTS, BLOCKOUTS, ETC.
EXACT OPENING SIZES FOR PIPES, DUCTS, ETC.
CONCRETE FINISHES AND TOPPING SLABS
CONCRETE CURBS AND HOUSEKEEPING PADS
INTERIOR NON-STRUCTURAL MASONRY PARTITIONS
FIRE RATINGS
OPERABLE PARTITIONS

MEP:
PIPE AND DUCT SIZES FOR OPENING AND SLEEVE COORDINATION
FLOOR DRAINS
UNDERFLOOR AND PERIMETER DRAINAGE SYSTEMS
EQUIPMENT CURBS
CONDUITS AND EMBEDMENTS IN WALLS AND SLABS

3

GR-21 STRUCTURAL OBSERVATION SHALL COMPLY WITH CBC 2010 SECTION 1702 FOR FOUNDATIONS PRIOR TO FIRST POUR, STRUCTURAL STEEL AFTER ERECTION, SHEARWALL NAILING AND ROOF DIAPHRAGM NAILING. STRUCTURAL OBSERVATION IS DEFINED AS THE VISUAL OBSERVATION FO THE STRUCTURAL SYSTEM BY A REGISTERED DESIGN PROFESSIONAL FOR GENERAL CONFORMANCE TO THE APPROVED CONSTRUCTION DOCUMENTS AT SIGNIFICANT CONSTRUCTION STAGES AND AT COMPLETION OF THE STRUCTURAL SYSTEM. STRUCTRUAL OBSERVATION DOES NOT INCLUDE OR WAIVE THE RESPONSIBILITY FOR THE INSPECTION REQUIRED BY SECTIONS 110, 1704 OR OTHER SECTIONS OF CBC.

CD CODES AND DESIGN CRITERIA

CD-1 PERFORM ALL CONSTRUCTION IN CONFORMANCE WITH THE BUILDING AND DESIGN CODES REFERENCED WITHIN THESE DOCUMENTS. THE PROJECT DOCUMENTS REFER TO THE FOLLOWING CODES AND STANDARDS, UON:

2010 CALIFORNIA BUILDING CODE (CBC) REFERENCING THE 2009 INTERNATIONAL BUILDING CODE, WITH SANTA MONICA MUNICIPAL CODE AMENDMENTS

STRUCTURAL CONCRETE:
"BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" THE AMERICAN CONCRETE INSTITUTE (ACI 318-2008)

STRUCTURAL STEEL:
"SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS", MARCH 9, 2005 THIRTEENTH EDITION CONFORMING TO THE PROVISIONS OF LOAD RESISTANCE FACTOR DESIGN, BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC-LRFD)

WOOD:
NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION" AMERICAN NATIONAL STANDARDS INSTITUTE / AMERICAN FOREST & PAPER ASSOCIATION (ANSI/AF&PA NDS-2005)

CD-2 LIVE LOADS:

ROOFS	20 PSF

CD-3 SUPERIMPOSED DEAD LOADS:

ROOFING, MEP, CEILING	18 PSF

CD-4 SNOW LOADS:
N/A

CD-5 WIND LOAD DESIGN DATA:

MAIN WIND FORCE RESISTING SYSTEM	
BASIC WIND SPEED, V	85 MPH
EXPOSURE	C
WIND IMPORTANCE FACTOR (Iw)	1.0
TOPOGRAPHIC FACTOR	1.0
BUILDING OCCUPANCY CATEGORY	II
INTERNAL PRESSURE COEFFICIENT	± 18 (ENCLOSED)

CD-6 SEISMIC LOAD DESIGN DATA:

SEISMIC IMPORTANCE FACTOR (I)	1.0
SEISMIC USE GROUP	
S_S	1.17 g
S_1	0.415 g
S_{DS}	1.009 g
S_{D1}	0.724 g
SITE CLASS	D
SEISMIC DESIGN CATEGORY	D
ANALYSIS PROCEDURE DESCRIPTION	EQUIVALENT LATERAL FORCE
SEISMIC LOAD RESISTING SYSTEM (SLRS) :	LIGHT-FRAMED WOOD SHEARWALL
RESPONSE MODIFICATION FACTOR (R)	6.5
SYSTEM OVERSTRENGTH (Ω_0)	3
DEFLECTION AMPLIFICATION FACTOR (C_D)	4
SEISMIC RESPONSE COEFFICIENT (C_S)	0.155
SEISMIC LOAD RESISTING SYSTEM (SLRS) :	SPECIAL REINFORCED MASONRY SHEARWALL
RESPONSE MODIFICATION FACTOR (R)	5
SYSTEM OVERSTRENGTH (Ω_0)	2 1/2
DEFLECTION AMPLIFICATION FACTOR (C_D)	3 1/2
SEISMIC RESPONSE COEFFICIENT (C_S)	0.202
LONGITUDE:	-118.4673
LATITUDE:	34.0203

CD-7 IN CASES WHERE THE CONTRACTOR DETERMINES THAT SUSPENDED OR FLOOR MOUNTED MEP EQUIPMENT LOADS EXIST WHICH EXCEED DESIGN LOADS INDICATED ON CONTRACT DOCUMENTS, CONTRACTOR SHALL SUBMIT LOAD DATA TO DESIGN PROFESSIONALS FOR REVIEW PRIOR TO PROCEEDING WITH WORK.

CD-8 DISTRIBUTE THE MAXIMUM LOAD HUNG FROM ANY STRUCTURAL MEMBER FOR MEP DUCTWORK, PIPING ETC OVER THE MEMBER'S TRIBUTARY AREA IN A WAY THAT THE DESIGN SUPERIMPOSED DEAD LOADS LISTED IN CONTRACT DOCUMENTS ARE NOT EXCEEDED. THE CONTRACTOR SHALL COORDINATE THE LOADS OF ALL TRADES AND PROVIDE ADDITIONAL SUPPORT OR DISTRIBUTION FRAMING AS REQUIRED TO ACHIEVE THE ALLOWABLE LOAD DISTRIBUTION.

CD-9 STRUCTURAL COMPONENTS ARE NOT DESIGNED FOR VIBRATING EQUIPMENT. MOUNT VIBRATING EQUIPMENT ON VIBRATION ISOLATORS.

CD-10 SERVICEABILITY:
LIVE LOAD DEFLECTION IS LESS THAN L/360

EXTERIOR SPANDRELS HAVE BEEN DESIGNED TO LIMIT LIVE LOAD MIDSPAN VERTICAL DEFLECTION TO 1/360 OF THE SPAN OR 1/2", WHICHEVER IS LESS.

CD-11 CONNECTIONS OF SYSTEMS DESIGNED BY CONTRACTOR'S ENGINEER SUCH AS, BUT NOT LIMITED TO, CLADDING, STAIRS, ELEVATORS, ESCALATORS, PRECAST STADIA, AND MEP LOADS ARE ASSUMED TO IMPOSE VERTICAL AND/OR HORIZONTAL LOADS ON THE BASE BUILDING STRUCTURAL MEMBERS WITHOUT GENERATING TORSION IN THE SUPPORTING STRUCTURAL MEMBERS. CONTRACTOR IS RESPONSIBLE FOR FURNISHING AND INSTALLING ALL SUPPLEMENTARY BRACING MEMBERS AS REQUIRED TO PREVENT TORSION ON THE BASE BUILDING STRUCTURE.

CD-12 FOR FIRE RATING AND FIREPROOFING ASSEMBLY EVALUATIONS, CONSIDER THE FOLLOWING ASSEMBLIES RESTRAINED: COMPOSITE WIDE-FLANGE STEEL FRAMING, INTERIOR BAYS OF CONTINUOUS CAST-IN-PLACE CONCRETE CONSTRUCTION. CONSIDER ALL OTHER ASSEMBLIES UNRESTRAINED.

SU SUBMITTALS

SU-1 TWENTY WORKING DAYS PRIOR TO SUBMITTING SHOP DRAWINGS, THE CONTRACTOR SHALL SUBMIT FOR STRUCTURAL ENGINEER' S REVIEW A SCHEDULE WHICH DETAILS THE ESTIMATED QUANTITY OF SHOP DRAWINGS AND THE DATE THE SHOP DRAWINGS WILL BE RECEIVED BY THE STRUCTURAL ENGINEER. THE STRUCTURAL ENGINEER SHALL HAVE THE OPPORTUNITY TO REVIEW THE PROPOSED SCHEDULE AND SUBMIT COMMENTS TO THE CONTRACTOR. THE FINAL SHOP DRAWING SCHEDULE SHALL BE DEVELOPED AND SUBMITTED TO THE STRUCTURAL ENGINEER. IN ACCORDANCE WITH THE SHOP DRAWING SCHEDULE, THE STRUCTURAL ENGINEER WILL RETURN THE SHOP DRAWING ITEMS WITHIN TEN WORKING DAYS AFTER HAVING RECEIVED THE REPRODUCIBLE SHOP DRAWING.

SU-2 THE CONTRACTOR IS TO REVIEW EACH SUBMITTAL PRIOR TO FORWARDING TO ARCHITECT AND STRUCTURAL ENGINEER. THE CONTRACTOR IS TO STAMP EACH SUBMITTAL VERIFYING THAT THE FOLLOWING IS ADDRESSED:
1. THE SHOP DRAWING IS REQUESTED.
2. THE SHOP DRAWING IS BASED ON THE LATEST DESIGN.
3. THE ARCHITECT' S AND STRUCTURAL ENGINEER' S COMMENTS FROM ANY PREVIOUS SUBMITTALS ARE ADDRESSED.
4. THE WORK IS COORDINATED AMONG ALL CONSTRUCTION TRADES.
5. REVISIONS FROM PREVIOUS SUBMITTALS ARE CLEARLY MARKED BY CIRCLING OR CLOUDS.
6. SUBMITTAL IS COMPLETE.
7. SUBMITTAL DOES NOT INCLUDE SUBSTITUTION REQUEST
8. SUBMITTAL SHALL INCLUDE A STAMP INDICATING PROJECT NAME AND LOCATION, SUBMITTAL NUMBER, SPECIFICATION SECTION NUMBER.

THE STRUCTURAL ENGINEER SHALL RETURN, WITHOUT COMMENT, SUBMITTALS WHICH THE CONTRACTOR HAS NOT STAMPED OR WHICH DO NOT MEET THE ABOVE REQUIREMENTS. THE STRUCTURAL ENGINEER' S REVIEW OF SUBMITTALS SHALL BE FOR GENERAL CONFORMANCE WITH THE DESIGN INTENT. NO WORK SHALL BE STARTED WITHOUT SUCH REVIEW.

SU-3 FOR COMPONENTS THAT REQUIRE ENGINEERING BY THE CONTRACTOR, PROVIDE A NOTE ON EACH SHOP DRAWING, WRITTEN AND SIGNED BY THE SUPPLIER' S ENGINEER, INDICATING THAT THE SHOP DRAWING IS IN CONFORMANCE WITH THE CALCULATIONS OF THE CONTRACTOR' S ENGINEER.

SU-4 THE FOLLOWING ITEMS REQUIRE SUBMITTALS FOR STRUCTURAL REVIEW AS OUTLINED IN THE SPECIFICATIONS:

03 10 00	S	CALC	CONCRETE FORMWORK
03 20 00	S		CONCRETE REINFORCING LAYOUT
03 30 00		CALC	CONCRETE MIX DESIGNS
03 30 00	S		CONCRETE CONSTRUCTION JOINT LAYOUT
04 22 00	S		MASONRY REINFORCEMENT LAYOUT
05 10 00	S		STRUCTURAL STEEL
06 18 00	S		GLU LAMINATED TIMBER

S = SHOP DRAWINGS AND/OR PRODUCT DATA REQUIRED
CALC = SUPPORTING CALCULATIONS REQUIRED, SIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE IN WHICH THE PROJECT IS LOCATED.

SU-5 THE ITEMS IN THIS SECTION REQUIRE SHOP DRAWINGS, SUBMITTED FOR REVIEW OF INTERACTION WITH THE BASE BUILDING STRUCTURE.

THE FOLLOWING SHOP DRAWINGS SHALL SHOW THE MAGNITUDES, DIRECTIONS, LOCATIONS AND CONNECTION CONDITIONS OF ALL LOADS IMPOSED ON THE SUPPORTING STRUCTURE. SUBMIT ALL INFORMATION ON STRUCTURAL DRAWINGS:

ARCHITECTURAL ORNAMENTATION (FLAGPOLES, CANOPIES, BANNERS,MASTS, ETC.)
SKYLIGHTS

IN ADDITION TO THE SHOP DRAWING REQUIREMENTS ABOVE, THE FOLLOWING SUBMITTALS SHALL ALSO LIST THE DESIGN LOADS USED AND BE SIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE IN WHICH THE PROJECT IS LOCATED:

3 EXTERIOR CLADDING SYSTEMS
PHOTOVOLTAIC PANELS

FO FOUNDATIONS

FO-1 THE FOUNDATION DESIGN IS BASED ON THE GEOTECHNICAL INVESTIGATION REPORT BY GEODESIGN, INC., DATED OCTOBER 8, 2010 (PROJECT NO. SMONICA-10-01).

FO-2 FOUNDATIONS HAVE BEEN DESIGNED BASED ON THE FOLLOWING DESIGN VALUES FROM THE GEOTECHNICAL INVESTIGATION REPORT:
MEDIUM DENSE TO DENSE, NATIVE SOIL
NET ALLOWABLE BEARING CAPACITY: 3,500 PSF (1/3 INCREASE FOR SEISMIC OR WIND)

COEFFICIENT OF FRICTION: 0.4

SEE GEOTECHNICAL REPORT FOR ADDITIONAL REQUIREMENTS AND INFORMATION. DESIGN VALUES SHALL BE FIELD VERIFIED BY QUALIFIED GEOTECHNICAL CONSULTANT RETAINED BY THE OWNER.

FO-3 THE CONTRACTOR SHALL VERIFY FOUNDATION INSTALLATION AND CONSTRUCTION IS IN CONFORMANCE WITH THE RECOMMENDATIONS OUTLINED IN THE GEOTECHNICAL REPORT.

FO-4 CONTRACTOR SHALL BE RESPONSIBLE TO ADEQUATELY PROTECT ALL EXCAVATION. WHERE NECESSARY, SHEET AND SHORE THE EXCAVATION WITH ALL REQUIRED TIEBACKS AND BRACING AS DETERMINED BY CONTRACTOR'S STRUCTURAL ENGINEER.

FO-5 DO NOT BACKFILL AGAINST CANTILEVER RETAINING WALLS UNTIL THE CONCRETE HAS ATTAINED 1**00%** OF ITS DESIGN STRENGTH.

CM CONCRETE MATERIALS

CM-1 CONCRETE STRENGTHS AND WEIGHT SHALL MEET THE FOLLOWING 20-DAY COMPRESSIVE STRENGTHS (f'C) UON (SEE SPECIFICATION SECTION 03 30 00 FOR ADDITIONAL CONCRETE PROPERTIES):

FOOTINGS	3,000 PSI NWT
FOUNDATION WALLS	3,000 PSI NWT
NON-SHRINK GROUT	8,000 PSI
SLAB-ON-GRADE	3,000 PSI NWT
CONCRETE HOUSEKEEPING PADS	3,000 PSI

CM-2 PROVIDE NORMAL WEIGHT CONCRETE WITH CURED DENSITY OF 145 +/- 5 PCF, AND AGGREGATE CONFORMING TO ASTM C33, UON. WHERE INDICATED, PROVIDE LIGHTWEIGHT CONCRETE WITH CURED DENSITY OF 112+/-3 PCF AND AGGREGATE CONFORMING TO ASTM C330.

CM-3 ALL CONCRETE SHALL BE THOROUGHLY CONSOLIDATED.

CM-4 THE USE OF CALCIUM CHLORIDE AND OTHER CHLORIDE CONTAINING AGENTS IS PROHIBITED. THE USE OF RECYCLED CONCRETE IS PROHIBITED. PLACEMENT WITHIN AND CONTACT BETWEEN ALUMINUM ITEMS, INCLUDING ALUMINUM CONDUIT, AND CONCRETE IS PROHIBITED.

CM-5 ALL CAST-IN-PLACE CONCRETE WILL EXPERIENCE DIFFERING VARIATIONS OF CRACKING. ANY ELEMENT EXPOSED TO DIRECT WEATHER AND/OR TEMPERATURE VARIATIONS DURING CONSTRUCTION OR IN THE FINAL CONDITION IS TO BE TREATED AND REGULARLY MAINTAINED TO PREVENT PROPAGATION OF CRACKS AND WATER PENETRATION. THE CONTRACTOR SHALL DEVELOP A REGULAR MAINTENANCE PROGRAM AND SUBMIT IT TO THE OWNER.

RE CONCRETE REINFORCEMENT

RE-1 ALL CONCRETE SHALL INCLUDE REINFORCEMENT. IF REINFORCEMENT IS NOT SPECIFICALLY INDICATED ON THE DRAWINGS, VERIFY WITH THE STRUCTURAL ENGINEER BEFORE PROCEEDING WITH WORK.

RE-2 REINFORCEMENT SHALL CONFORM TO THE FOLLOWING STANDARDS AND MATERIAL PROPERTIES:

DEFORMED BARS:	ASTM A615, GRADE 60, UON
WELDABLE DEFORMED BARS:	ASTM A706, GRADE 60, UON
EPOXY COATED DEFORMED BARS:	ASTM A615, GRADE 60, UON / A775
WELDED WIRE REINFORCEMENT	ASTM A185
EPOXY COATED WELDED WIRE REINFORCEMENT	ASTM A185 / A884
WELDED BAR ANCHORS:	NELSON D2L DEFORMED BAR ANCHORS (ICC-ES REPORT ER-5217)

RE-3 DETAIL REINFORCEMENT BASED ON THE PROJECT REQUIREMENTS, ACI-318 AND ACI-315, UON.

RE-4 WHERE A 90-DEG, 135 -DEG OR 180-DEG HOOK IS GRAPHICALLY INDICATED, PROVIDE CORRESPONDING ACI STANDARD HOOKS PER 1/S5.1, UON.

RE-5 DOWELS SHALL MATCH SIZE AND SPACING OF MAIN REINFORCEMENT, UON.

RE-6 REINFORCEMENT SHALL HAVE CONCRETE PROTECTION (CLEAR COVER) PER ACI 318 UNLESS OTHERWISE INDICATED ON THE DRAWINGS.

LOCATION	COVER
CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3"
CONCRETE EXPOSED TO EARTH OR WEATHER:	
NO 5 BARS OR SMALLER	1 1/2"
NO 6 BARS OR LARGER	2"
CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND	
SLABS, WALLS, JOISTS:	
NO 11 BARS OR SMALLER	3/4"
NO 14 AND LARGER	1 1/2"
BEAMS, COLUMNS:	
PRIMARY REINFORCEMENT, TIES, STIRRUPS, SPIRALS	1 1/2"
SHELLS, FOLDED PLATE MEMBERS:	
NO 5 BARS AND SMALLER	1/2"
NO 6 BARS AND LARGER	3/4"

RE-7 LAP REINFORCEMENT AS SPECIFICALLY DETAILED ON THE DRAWINGS. SEE REBAR OFFSET AND LAP SPLICE SCHEDULE, 1/S3.01

RE-8 UNLESS OTHERWISE NOTED ALL LAP SPLICES ARE TO BE CLASS "B" SPLICES PER REBAR OFFSET AND LAP SPLICE SCHEDULE, 1/S3.01

RE-9 PROVIDE MECHANICAL SPLICES FOR BARS LARGER THAN #11 OR WHERE INDICATED. PROVIDE TENSILE, PRE-QUALIFIED, WELDED OR THREADED MECHANICAL SPLICES UON.

RE-10 WELDING OF REINFORCING STEEL SHALL COMPLY WITH AWS D1.4

RE-11 LAP WELDED WIRE REINFORCEMENT TWO PANEL SPACINGS, UON

RE-12 PROVIDE LAP LOCATIONS AS FOLLOWS, UON:

A. GRADE BEAM / WALL (TOP HORIZONTAL REINFORCEMENT): AT CENTER OF SPAN
B. GRADE BEAM / WALL (BOTTOM HORIZONTAL REINFORCEMENT): AT SUPPORTS
C. WALL INSIDE FACE (VERTICAL REINFORCEMENT): AT SUPPORT
D. WALL OUTSIDE FACE (VERTICAL REINFORCEMENT): AT MIDHEIGHT OF WALL
E. UNLESS OTHERWISE NOTED TERMINATE BARS AT DISCONTINUOUS ENDS WITH STANDARD HOOKS.

RE-13 TERMINATION OF REINFORCEMENT, UON:

A. TERMINATE ALL BARS IN LAPS, 90 DEGREE BENDS, OR WITH DOWELS INTO EXISTING CONCRETE.
B. BEND TOP MAT OR FOOTING BARS DOWN TO BOTTOM BARS AT ENDS.
C. BEND BOTTOM MAT OR FOOTING BARS UP WITH STANDARD 90 DEGREE BENDS.
D. PROVIDE DOWELS FROM FOOTINGS AND SLABS INTO WALLS AND COLUMNS TO MATCH SIZE AND SPACING OF VERTICAL REINFORCEMENT.

RE-14 PROVIDE EPOXY COATED REINFORCEMENT AND ACCESSORIES IN AREAS OF DIRECT EXPOSURE TO THE ENVIRONMENT, CHEMICALS, OR DE-ICING FOR THE AREAS INDICATED ON THE DRAWINGS.

MA MASONRY

MA-1 LOAD BEARING AND BACKUP WALL CONCRETE MASONRY CONSTRUCTION SHALL CONFORM TO THE FOLLOWING MATERIAL STANDARDS:

CONCRETE BLOCK:	ASTM C9O, NORMAL WEIGHT - TYPE I
MORTAR:	ASTM C270, TYPE S OR M PORTLAND CEMENT / LIME ONLY (USE TYPE M MORTAR WHEN MASONRY IS IN DIRECT CONTACT WITH SOIL; TYPE S IN ALL OTHER CONDITIONS)
GROUT:	ASTM C476 (MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 2500 PSI)
REINFORCEMENT:	ASTM A615, GRADE 60
JOINT REINFORCEMENT:	ASTM A82, TRUSS OR LADDER TYPE
EXTERIOR JT REINF:	GALVANIZE PER ASTM A153
INTERIOR JT REINF:	GALVANIZE PER ASTM A641

MA-2 THE MINIMUM COMPRESSIVE STRENGTH OF THE MASONRY (F' M) SHALL BE 1,800 PSI, UON, AS DETERMINED IN ACCORDANCE WITH THE ABOVE REFERENCED SPECIFICATIONS FOR MASONRY STRUCTURES.

MA-3 PLACE MASONRY UNITS WITH FULL FACESHELL MORTAR COVERAGE ON HORIZONTAL AND VERTICAL FACE SHELLS. WEBS SHALL ALSO HAVE FULL MORTAR COVERAGE AROUND ALL GROUTED CELLS.

MA-4 LAY MASONRY UNITS IN RUNNING BOND UON.

MA-5 ALL MASONRY SHALL INCLUDE REINFORCEMENT. IF REINFORCEMENT IS NOT SPECIFICALLY INDICATED ON THE DRAWINGS, VERIFY WITH THE STRUCTURAL ENGINEER.

MA-6 CALCIUM CHLORIDE SHALL NOT BE USED IN MORTAR OR GROUT.

MA-7 ALL CELLS SHALL BE FULLY GROUTED.

CJ CONCRETE CONSTRUCTION JOINTS

CJ-1 PROVIDE CONSTRUCTION JOINTS IN ACCORDANCE WITH ACI-318. SUBMIT SHOP DRAWINGS SHOWING PROPOSED CONSTRUCTION JOINT LOCATIONS, DETAILS AND THE PLACEMENT SEQUENCE FOR THE STRUCTURAL ENGINEER'S APPROVAL PRIOR TO PROCEEDING WITH WORK.

CJ-2 NO HORIZONTAL CONSTRUCTION JOINTS WILL BE PERMITTED IN BEAMS, UPTURNED BEAMS, WALLS AND SLABS UNLESS SPECIFICALLY SHOWN ON THE DRAWINGS OR APPROVED IN WRITING BY THE DESIGN PROFESSIONALS PRIOR TO CONSTRUCTION.

CJ-3 PLACE VERTICAL CONSTRUCTION JOINTS TO PROVIDE A 60 FT MAXIMUM LENGTH OF CONCRETE PLACEMENT AND LOCATE AS FOLLOWS:
A. FOUNDATION WALLS: MINIMUM OF 8 FT FROM ANY COLUMN LINE OR WALL OPENING

B. GRADE BEAMS SUPPORTING FOUNDATION WALLS: AT CENTERLINES BETWEEN SUPPORTS

CJ-4 PROVIDE CONTINUOUS WATERSTOPS AT ALL CONSTRUCTION JOINTS EXPOSED TO SOIL OR WATER, AS DESCRIBED IN THE SPECIFICATIONS.

SS STRUCTURAL STEEL

SS-1 STEEL MATERIALS SHALL CONFORM TO THE FOLLOWING MINIMUM REQUIREMENTS UNLESS OTHERWISE NOTED ON THE CONTRACT DOCUMENTS:

ROLLED SHAPES AND CHANNELS:	ASTM A572 OR A992, MIN YIELD STRENGTH 50 KSI
ANGLES FOR TRUSSES AND BRACES:	ASTM A36 MIN YIELD STRENGTH 36 KSI
MISCELLANEOUS ANGLES:	ASTM A36
HOLLOW STRUCTURAL SECTIONS:	ASTM A500 GRADE B, MIN YIELD STRENGTH 42 KSI FOR ROUND AND 46 KSI FOR RECTANGULAR HSS
SEAMLESS PIPE:	ASTM A53 GRADE B, TYPE S, MIN YIELD STRENGTH 35 KSI.
PLATES:	ASTM A572, GRADE 50
RODS:	GRADE 65 CARBON STEEL

SS-2 CONNECTION MATERIAL SHALL CONFORM TO THE FOLLOWING MINIMUM REQUIREMENTS OR AS NEEDED FOR CONNECTION DESIGN:

ANGLES:	ASTM A36
WTs:	ASTM A992
PLATES:	ASTM A36, MINIMUM YIELD STRENGTH 36 KSI
BOLTS:	ASTM A325 OR A490
NUTS:	ASTM A563
WASHERS:	ASTM F436
ANCHOR RODS:	ASTM F1554 GRADE 55 WITH WELDABILITY SUPPLEMENT S1
HEADED STUDS:	ASTM A 108, GRADE 1010 THROUGH 1020 HEADED STUD TYPE, COLD-FINISHED CARBON STEEL, AWS D1.1, TYPE B. 3/4" DIAMETER
WELD ELECTRODES:	E70XX
CLEVISES:	ASTM A668

SS-3 STRUCTURAL STEEL MEMBERS AND CONNECTIONS DENOTED "SLRS" SHALL SATISFY REQUIREMENTS FOR THE SEISMIC LOAD RESISTING SYSTEM IN SPECIFICATION SECTION 05 12 00.

SS-4 WHERE NO CAMBER IS INDICATED, FABRICATE BEAMS SO THAT ANY NATURAL CAMBER IS UPWARD AFTER ERECTION.

SS-5 SPLICES SHALL BE ALLOWED ONLY AT LOCATIONS SPECIFICALLY INDICATED ON THE STRUCTURAL DRAWINGS UNLESS APPROVED OTHERWISE BY THE SER IN WRITING.

SS-6 FOR STEEL MEMBERS AND EMBEDMENTS EXPOSED TO WEATHER, PROVIDE HOT-DIPPED GALVANIZED FINISH.

SS-7 PROVIDE HOLES IN ALL STEEL AS REQUIRED TO PREVENT ANY ACCUMULATION OF WATER. ALL PENETRATIONS THROUGH MAIN MEMBERS SHALL NOT EXCEED 1 1/8" DIA AND SHALL BE GROUND SMOOTH. THESE DRAINS MUST BE KEPT CLEAN AND OPEN

SS-8 SHOW ALL COPES, HOLES, OPENINGS AND MODIFICATIONS REQUIRED IN STRUCTURAL STEEL MEMBERS FOR ERECTION OR THE WORK OF OTHER TRADES ON THE SHOP DRAWINGS FOR APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER.

SS-9 FIELD MODIFICATION OF STRUCTURAL STEEL IS PROHIBITED WITHOUT PRIOR APPROVAL OF THE ARCHITECT AND STRUCTURAL ENGINEER.

SS-10 THE CONTRACTOR SHALL SUBMIT A STEEL ERECTION PROCEDURE, PREPARED UNDER THE SUPERVISION OF A STRUCTURAL ENGINEER LICENSED IN THE STATE OF THE LOCATION OF THE PROJECT (THE CONTRACTOR'S ENGINEER) FOR REVIEW BY THE STRUCTURAL ENGINEER OF RECORD. THIS PROCEDURE MUST INCLUDE THE PROPOSED SURVEY REQUIRED BY THE STEEL SPECIFICATIONS.

SS-11 STEEL USING COMPLETE JOINT PENETRATION GROOVE WELDS THAT FUSE THROUGH THE THICKNESS OF THE FLANGE OR WEB SHALL HAVE A MINIMUM CHARPY V-NOTCH IMPACT TESTING VALUE AS FOLLOWS:

A. ASTM A6/A6M HOT-ROLLED SHAPES WITH A FLANGE THICKNESS EXCEEDING **[2]** INCHES AND BUILT-UP HEAVY SHAPES WITH PLATES EXCEEDING **[2]** INCHES IN THICKNESS: 20 FT-LB @ 70 DEG. F
B. REGARDLESS OF THICKNESS, ALL TRUSSES, LATERAL SYSTEM MEMBERS (INCLUDING COLUMNS, WIND GIRDERS, BRACES, ETC.): 20 FT-LB @ 70 DEG. F
C. STEEL EXPOSED TO TEMPERATURES IN SERVICE BELOW 50 DEG. F: 25 FT-LB @ [40] DEG. F.
D. WELD METAL: 20 FT-LB @ MINUS 20 DEG. F AND 40 FT-LB @ 70 DEG. F
E. WELD METAL EXPOSED TO TEMPERATURES IN SERVICE BELOW 50 DEG. F: 25 FT-LB @ MINUS 40 DEG. F
F. TESTING IS TO BE IN ACCORDANCE WITH ASTM A6/A6M, SUPPLEMENTARY REQUIREMENT S30, CHARPY V-NOTCH IMPACT TEST FOR STRUCTURAL SHAPES – ALTERNATE CORE LOCATION, AT ROLLED SHAPES AND ASTM A673 FOR PLATES, AT ANY PERMITTED LOCATIONS.

SC STRUCTURAL STEEL CONNECTIONS

SC-1 DO NOT USE OVERSIZED OR SLOTTED HOLES FOR ANY CONNECTIONS UNLESS SPECIFICALLY INDICATED ON THE DRAWINGS OR APPROVED IN WRITING BY THE SER

SC-2 ALL WELDING SHALL CONFORM TO THE REQUIREMENTS OF THE STRUCTURAL WELDING CODE, ANSI/AWS D1.1, LATEST EDITION. ALL WELD SIZES SHALL BE THE LARGER OF THE SIZE REQUIRED BY CONNECTION FORCES, THE MINIMUM SIZE PER ANSI/AWS D1.1, OR 3/16 INCH MINIMUM FILLET WELD UON. ANY WELD SIZES SHOWN ON THE DESIGN DRAWINGS ARE CONSIDERED EFFECTIVE WELD SIZES AND SHALL BE INCREASED IN ACCORDANCE WITH AWS AS REQUIRED BY GAPS OR SKEWS BETWEEN COMPONENTS.

SC-3 USE RUNOFF TABS AT ALL BEVEL AND FULL PENETRATION WELDS. REMOVE RUNOFF TABS BY NEAT CUTS AFTER WELD IS COMPLETED. GRIND SMOOTH WHERE REQUIRED BY DETAIL.

SC-4 WELDING EXPOSED TO LOW (OUTDOOR) TEMPERATURES IN SERVICE SHALL CONFORM TO AWS D1.5

SC-5 REMOVE WELD BACK UP BARS AND GRIND SMOOTH AFTER WELD IS COMPLETED, UON

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SHEET TITLE
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S0.01

SHEET OF
DWG. NO.:
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PA POST-INSTALLED ANCHORS

PA-1 POST-INSTALLED ANCHORS INCLUDE EXPANSION ANCHORS, SCREW ANCHORS, EPOXY ANCHORS/DOWELS, AND POWDER-ACTUATED FASTENERS.

PA-2 INSTALL POST-INSTALLED ANCHORS IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, APPLICABLE ICC-ES REPORT AND THE MANUFACTURER'S RECOMMENDATIONS.

PA-3 USE SCANNING EQUIPMENT OR OTHER MEANS TO LOCATE AND AVOID CUTTING OR DAMAGING REINFORCING BARS. SER APPROVAL IS REQUIRED PRIOR TO CUTTING OR DAMAGING REINFORCING.

PA-4 SPECIAL INSPECTION IS REQUIRED FOR ALL POST-INSTALLED ANCHOR INSTALLATIONS, UON.

PA-5 FIELD TESTING OF POST-INSTALLED ANCHORS IS REQUIRED, UON. TEST INSTALLED ANCHORS IN ACCORDANCE WITH THE FOLLOWING:

A. TEST 100% OF ANCHORS AT ALL STRUCTURAL APPLICATIONS, UON.
B. TEST 50% OF ANCHORS AT ALL NON-STRUCTURAL APPLICATIONS (SUCH AS EQUIPMENT ANCHORAGE), UON.
C. TEST 10% OF ANCHORS AT SILL PLATE BOLTING APPLICATIONS, UON.
D. IF ANY ANCHOR FAILS TESTING, TEST ALL ANCHORS OF THE SAME TYPE NOT PREVIOUSLY TESTED UNTIL 20 CONSECUTIVE ANCHORS PASS.
E. FIELD TESTS SHALL BE EITHER TENSION TESTS OR TORQUE TESTS, AS REQUIRED FOR THE SPECIFIC ANCHOR TYPE.
F. TENSION TESTS: APPLY TEST LOADS TO ANCHORS WITHOUT REMOVING THE NUT IF POSSIBLE. IF NOT, REMOVE NUT AND INSTALL A THREADED COUPLER TO THE SAME TIGHTNESS AS THE ORIGINAL NUT USING A TORQUE WRENCH. REACTION LOADS FROM TEST FIXTURES MAY BE APPLIED CLOSE TO THE ANCHOR BEING TESTED, PROVIDED THE ANCHOR IS NOT RESTRAINED FROM WITHDRAWING BY THE FIXTURES. TO BE ACCEPTABLE, ANCHORS SHALL HAVE NO OBSERVABLE MOVEMENT AT THE APPLICABLE TEST LOAD (OBSERVABLE MOVEMENT IS DEFINED AS THE WASHER UNDER THE NUT BECOMING LOOSE).
G. TORQUE TESTS: TO BE ACCEPTABLE, THE APPLICABLE TEST TORQUE MUST BE REACHED WITHIN ONE-HALF TURN OF THE NUT.
H. TEST EQUIPMENT IS TO BE CALIBRATED BY AN APPROVED TESTING LABORATORY IN ACCORDANCE WITH STANDARD RECOGNIZED PROCEDURES.
I. FIELD TESTING SHALL BE DONE IN THE PRESENCE OF THE PROJECT INSPECTOR.

PA-6 EXPANSION ANCHORS

A. EXPANSION ANCHORS SHALL BE ONE OF THE FOLLOWING, UON:

CARBON STEEL HILTI KWIK BOLT TZ
(ICC-ES REPORT ESR-1917)

SIMPSON STRONG-BOLT
(ICC-ES REPORT ESR-1771)

B. ANCHOR EMBEDMENT AND FIELD TEST VALUES ARE AS FOLLOWS, UON:

HILTI KWIK BOLT TZ IN NORMAL-WEIGHT CONCRETE			
ANCHOR DIAMETER	Hef	MINIMUM HOLE DEPTH	TORQUE TEST VALUE (FT-LBS)
3/8"	2"	2-5/8"	25
1/2"	2"	2-5/8"	40
5/8"	4"	4-3/4"	60
3/4"	4-3/4"	5-3/4"	110

HILTI KWIK BOLT TZ IN LIGHTWEIGHT CONCRETE			
ANCHOR DIAMETER	Hef	MINIMUM HOLE DEPTH	TORQUE TEST VALUE (FT-LBS)
3/8"	2"	2-5/8"	25
1/2"	2"	2-5/8"	40
5/8"	3-1/8"	3-7/8"	60

SIMPSON STRONG-BOLT IN NORMAL-WEIGHT CONCRETE			
ANCHOR DIAMETER	Hef	MINIMUM HOLE DEPTH	TORQUE TEST VALUE (FT-LBS)
1/2"	2-1/4"	2-3/4"	50
5/8"	4-1/2"	5-1/8"	85
3/4"	5"	5-3/4"	180
1"	9"	9-3/4"	230

SIMPSON STRONG-BOLT IN LIGHTWEIGHT CONCRETE			
ANCHOR DIAMETER	Hef	MINIMUM HOLE DEPTH	TORQUE TEST VALUE (FT-LBS)
1/2"	2-1/4"	2-3/4"	40
5/8"	2-3/4"	3-3/8"	40

C. Hef IS MEASURED FROM FACE OF CONCRETE SUBSTRATE TO THE TEETH ON THE EXPANSION ELEMENT.

D. CONTRACTOR SHALL PROVIDE ANCHORS WITH SUFFICIENT TOTAL LENGTH FOR THE SPECIFIED EMBEDMENT LENGTH, THICKNESS OF FASTENED PART, WASHER AND NUT.

PA-7 SCREW ANCHORS

A. SCREW ANCHORS SHALL BE SIMPSON TITEN HD (ICC-ES REPORT ESR-2713), UON.
B. ANCHOR EMBEDMENT SHALL BE AS SPECIFICALLY DETAILED ELSEWHERE IN THE DRAWINGS.
C. FIELD TEST VALUES ARE AS FOLLOWS, UON:

SCREW ANCHORS	
ANCHOR DIAMETER (IN)	TORQUE TEST VALUE (FT-LBS)
3/8	10
1/2	10
3/4	20

PA-8 EPOXY ANCHORS AND DOWELS

A. EPOXY SHALL BE ONE OF THE FOLLOWING, UON:

HILTI HY-150 MAX-SD (ICC-ES REPORT ESR-3013)

HILTI HIT-RE 500-SD (ICC-ES REPORT ESR-2322)

SIMPSON SET-XP (ICC-ES REPORT ESR-2508)

B. RODS EMBEDDED IN EPOXY SHALL BE CARBON STEEL THREADED RODS PER THE EPOXY MANUFACTURER'S ICC-ES REPORT.
C. REINFORCING STEEL BARS EMBEDDED IN EPOXY SHALL BE ASTM A615, GRADE 60, UON.
D. ANCHOR EMBEDMENT AND FIELD TEST VALUES ARE AS FOLLOWS, UON:

EPOXY ANCHORS IN NORMAL-WEIGHT CONCRETE (3000 PSI MIN)				
REBAR SIZE	EMBEDMENT (IN)	TENSION TEST VALUE (LBS)		
		HILTI HY-150 MAX-SD	HILTI HIT-RE 500-SD	SIMPSON SET-XP
#3	3	1420	2050	*
#4	4	2760	3640	5790
#5	5	4640	5750	6250
#6	6	7180	8150	11070
#7	7	9860	10140	8450
#8	8	12970	12380	17050
#9	9	*	14700	*
#10	10	*	16780	*
* LISTED EPOXY ADHESIVE MAY NOT BE USED WITH NOTED REBAR SIZES				

EPOXY ANCHORS IN NORMAL-WEIGHT CONCRETE (3000 PSI MIN)				
THREADED ROD DIAMETER (IN)	EMBEDMENT (IN)	TENSION TEST VALUE (LBS)		
		HILTI HY-150 MAX-SD	HILTI HIT-RE 500-SD	SIMPSON SET-XP
3/8	3	1420	2030	*
1/2	4	2760	3060	4090
5/8	5	4640	5770	6250
3/4	6	7180	8150	9650
7/8	7	9860	10200	8450
1	8	12970	12310	17050
1-1/4	10	*	16520	*
* LISTED EPOXY ADHESIVE MAY NOT BE USED WITH NOTED ROD SIZES				

E. TESTING OF EPOXY DOWELS AT JOINTS BETWEEN NEW AND EXISTING SLABS-ON-GRADE IS NOT REQUIRED.
F. TESTING OF #3 EPOXY DOWELS AT CURBS AND HOUSEKEEPING PADS IS NOT REQUIRED.
G. TESTING SHALL OCCUR AFTER EPOXY HAS CURED, AS PER MANUFACTURER'S RECOMMENDATIONS.

PA-9 POWDER-ACTUATED FASTENERS (PAF):

A. POWDER-ACTUATED FASTENERS SHALL BE ONE OF THE FOLLOWING, UON:

HILTI X-U (ICC-ES REPORT ESR-2269)

SIMPSON POWER-DRIVEN FASTENERS (ICC-ES REPORT ESR-2138)

B. PROVIDE 0.08" THICK x 1.1" SQUARE OR 1.425" ROUND WASHERS FOR ALL POWDER-ACTUATED FASTENERS.
C. FASTENER DIAMETER AND EMBEDMENT SHALL BE AS SPECIFICALLY DETAILED ELSEWHERE IN THE DRAWINGS.
D. TESTING OF POWDER-ACTUATED FASTENERS IS NOT REQUIRED.

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SHEET TITLE
GENERAL NOTES

SHEET NO.
S0.02

WD WOOD

WD-1 ALL FRAMING LUMBER SHALL BE DOUGLAS FIR, UON. GRADE SHALL BE AS FOLLOWS:

JOIST AND RAFTERS: NO. 1
POST, BEAMS, HEADERS: NO. 1
STUDS, PLATES, BLOCKS
LIGHT FRAMING AND MISC: NO. 2

WD-2 ALL LUMBER IN CONTACT WITH CONCRETE OR MASONRY 6'-0" OR LESS ABOVE GROUND SHALL BE PRESSURE TREATED.

WD-3 LUMBER MOISTURE CONTENT: SEE SPECIFICATIONS

WD-4 REJECTION OF WOOD MEMBERS: THE PROVISION IN DOC PS 20 (AS REFERENCED BY CBC 2303.1.1) WHICH PERMITS 5 PERCENT OF THE MATERIAL TO FALL BELOW GRADE SHALL NOT BE CONSTRUED TO PERMIT BELOW-GRADE MATERIAL TO BE USED AS LOAD-CARRYING MEMBERS WHICH HAVE BEEN DESIGNED FOR SPECIFIED ALLOWABLE STRESSES AND ACCEPTABLE SAFETY FACTORS. MATERIALS WHICH FALL BELOW GRADE SHALL BE REJECTED FOR LOAD-CARRYING USE. WOOD MEMBERS WHICH ARE REQUIRED TO CARRY DESIGN LOADS AND WHICH THE PROJECT ARCHITECT, ENGINEER OR INSPECTOR JUDGE TO BE MISGRADED SHALL BE REINSPECTED BY A QUALIFIED LUMBER GRADING INSPECTOR TO VERIFY THE PROPER GRADING OF THE MATERIAL. WOOD MEMBERS WHICH HAVE PERMISSIBLE GRADE CHARACTERISTICS OR DEFECTS IN SUCH COMBINATION AS TO AFFECT THE SERVICEABILITY OF THE MEMBER SHALL BE REJECTED BY THE PROJECT INSPECTOR WITH THE CONCURRENCE OF THE ARCHITECT OR STRUCTURAL ENGINEER.

WD-5 STRUCTURAL SHEATHING:

A. ROOF SHEATHING: 15/32" APA RATED SHEATHING 32/16", EXPOSURE 1, PS1-07, 5 PLY PLYWOOD
B. NOT USED
C. WALL SHEATHING: 15/32" APA RATED SHEATHING, EXPOSURE 1, PS1-07, 5 PLY PLYWOOD.

WD-6 NOT USED.

WD-7 NOT USED.

WD-8 NOT USED.

WD-9 NOT USED.

WD-10 NOT USED.

WD-11 GLUED-LAMINATED BEAMS:

A. 24FV4 FOR SIMPLE SPANS AND 24FV8 FOR CANTILEVERED AND CONTINUOUS BEAMS.
B. APPEARANCE: INDUSTRIAL GRADE TYP.; ARCHITECTURAL GRADE IF EXPOSED.
C. CAMBER TO RADIUS OF 1600' UON
D. ALL GLULAM BEAMS SHALL BE STAMPED WITH AN IDENTIFICATION MARK.

WD-12 NOT USED.

WD-13 FRAMING HARDWARE: AS MANUFACTURED BY SIMPSON CO. OR APPROVED EQUAL. SIMPSON DESIGNATIONS USED.

WD-14 NAILS: COMMON WIRE GAGE UON. NAILING TO CONFORM TO CBC TABLE 2304.9.1, UON.

WD-15 BOLTS: ASTM A307. ANCHOR RODS = ASTM F1554, FY = 36 KSI.

WD-16 PROVIDE LATERAL SUPPORT FOR BEAMS, JOISTS AND RAFTERS PER CBC 2308.8.5.

WD-17 NOT USED.

WD-18 NAILS, BOLTS AND SCREWS FOR PRESSURE PRESERVATIVE TREATED AND FIRE RETARDANT TREATED WOOD SHALL BE HOT-DIPPED ZINC COATED GALVANIZED.

SI SPECIAL INSPECTIONS

SI-1 ALL TESTS AND INSPECTIONS SHALL BE PERFORMED BY A SPECIAL INSPECTOR PER CBC SECTIONS 1704, 1707, AND 1708. THE SPECIAL INSPECTOR SHALL BE EMPLOYED BY THE OWNER, BUT NOT BY THE CONTRACTOR OR ANY OTHER PERSON RESPONSIBLE FOR THE WORK.

SI-2 THE SPECIAL INSPECTOR SHALL BE A QUALIFIED (LICENSED) PERSON WHO SHALL DEMONSTRATE COMPETENCE TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION. 3

SI-3 CONTRACTORS RESPONSIBLE FOR THE CONSTRUCTION OF A WIND OR SEISMIC FORCE RESISTING SYSTEM/COMPONENT LISTED IN THE "STATEMENT OF SPECIAL INSPECTION" SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE BUILDING INSPECTOR AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON SUCH SYSTEM OR COMPONENT PER CBC SECTION 1709.1. 3

SI-4 PER THE 2010 CBC, THE FOLLOWING ITEMS SHALL BE TESTED AND INSPECTED BY A DEPUTY INSPECTOR:

A. DIAPHRAGM AND SHEAR WALL NAILING 3
B. TABLES AS FOLLOWS:

LEVEL 1 SPECIAL INSPECTION

INSPECTION TASK	FREQUENCY OF INSPECTION: CONTINUOUS DURING TASK LISTED	FREQUENCY OF INSPECTION: PERIODICALLY DURING TASK LISTED	REFERENCE FOR CRITERIA: IBC SECTION	REFERENCE FOR CRITERIA: ACI 530/ASCE 5/TMS 402[a]	REFERENCE FOR CRITERIA: ACI 530/ASCE 6/TMS 602[a]
1. AS MASONRY CONSTRUCTION BEGINS, THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE:					
a. PROPORTIONS OF SITE PREPARED MORTAR.	—	X	—	—	ART. 2.6A
b. CONSTRUCTION OF MORTAR JOINTS.	—	X	—	—	ART. 3.3B
c. LOCATION OF REINFORCEMENT, CONNECTORS, PRESTRESSING TENDONS AND ANCHORAGES.	—	X	—	—	ART. 3.4, 3.6A
d. PRESTRESSING TECHNIQUE	—	X	—	—	ART. 3.6B
e. GRADE AND SIZE OF PRESTRESSING TENDONS AND ANCHORAGES	—	X	—	—	ART. 2.4B, 2.4H
2. THE INSPECTION PROGRAM SHALL VERIFY:					
a. SIZE AND LOCATION OF STRUCTURAL ELEMENTS.	—	X	—	—	ART. 3.3G
b. TYPE, SIZE AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS FRAMES OR OTHER CONSTRUCTION. 3	—	X	—	SEC. 1.2.2(e), 2.1.4, 3.1.6	ART. 3.3G
c. SPECIFIED SIZE, GRADE AND TYPE OF REINFORCEMENT	—	X	—	SEC. 1.13	ART. 3.3G
d. WELDING OF REINFORCEMENT BARS.	X	—	—	SEC. 2.1.10.7.2, 3.3.3.4(b)	—
e. PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40°F) OR HOT WEATHER (TEMPERATURE ABOVE 90°F)	—	X	SEC. 2104.3, 2104.4	—	ART 1.8C, 1.8D
f. APPLICATION AND MEASUREMENT OF PRESTRESSING FORCE.	—	X	—	—	ART 3.6B
3. PRIOR TO GROUTING, THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE:					
a. GROUT SPACE IS CLEAN	—	X	—	—	ART. 3.2D
b. PLACEMENT OF REINFORCEMENT AND CONNECTORS AND PRESTRESSING TENDONS AND ANCHORAGES.	—	X	—	SEC. 1.13	ART. 3.4
c. PROPORTIONS OF SITE-PREPARED GROUT AND PRESTRESSING GROUT FOR BONDED TENDONS.	—	X	—	—	ART. 2.6B
d. CONSTRUCTION OF MORTAR JOINTS	—	X	—	—	ART. 3.3B
4. GROUT PLACEMENT SHALL BE VERIFIED TO ENSURE COMPLIANCE WITH CODE AND CONSTRUCTION DOCUMENT PROVISIONS:	X	—	—	—	ART. 3.5
a. GROUTING OF PRESTRESSING BONDED TENDONS.	X	—	—	—	ART. 3.6C
5. PREPARATION OF ANY REQUIRED GROUT SPECIMENS, MORTAR SPECIMENS AND/OR PRISIMS SHALL BE OBSERVED	X	—	SEC. 2105.2.2, 2105.3	—	ART.1.4
6. COMPLIANCE WITH REQUIRED INSPECTION PROVISIONS OF THE CONSTRUCTION DOCUMENTS AND THE APPROVED SUBMITTALS SHALL BE VERIFIED	—	X	—	—	ART. 1.5

3 **TABLE 1704.7**
REQUIRED VERIFICATION AND INSPECTION OF SOILS

VERIFICATION AND INSPECTION TASK	CONTINUOUS DURING TASK LISTED	PERIODICALLY DURING TASK LISTED
1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS 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 CONTROLLED 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

TABLE 1704.3
REQUIRED VERIFICATION AND INSPECTION OF STEEL CONSTRUCTION

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCED STANDARD	IBC REFERENCE
1. MATERIAL VERIFICATION OF HIGH-STRENGTH BOLTS, NUTS AND WASHERS:				
a. IDENTIFICATION MARKING TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS 3	—	X	AISC 360, SECTION A3.3 AND APPLICABLE ASTM MATERIAL STANDARDS	
b. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED. 3	—	X	—	—
2. INSPECTION OF HIGH-STRENGTH BOLTING:				
a. SNUG-TIGHT JOINTS	—	X	AISC 360, SECTION M2.5	1704.3.3
b. PRETENSIONED AND SLIP-CRITICAL JOINTS USING TURN-OF-NUT WITH MATCHMARKINGM TWIST-OFF BOLT OR DIRECT TENSION INDICATOR METHODS OF INSTALLATION	—	X		
C. PRETENSIONED AND SLIP-CRITICAL JOINTS USING TURN-OF-NUT WITHOUT MATCHMARKING OR CALIBRATED WRENCH METHODS OF INSTALLATION 3	X	—		
3. MATERIAL VERIFICATION OF STRUCTURAL STEEL AND COLD-FORMED STEEL DECK:				
a. FOR STRUCTURAL STEEL, IDENTIFICATION MARKINGS TO CONFORM TO AISC 360 3	—	X	AISC 360, SECTION M5.5	
b. FOR OTHER STEEL, IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS	—	X	APPLICABLE ASTM MATERIAL STANDARDS	
C. MANUFACTURER'S CERTIFIED TEST REPORTS	—	X		
4. MATERIAL VERIFICATION OF WELD FILLER MATERIALS:				
a. IDENTIFICATION MARKINGS TO CONFORM TO AWS SPECIFICATION IN THE APPROVED CONSTRUCTION DOCUMENTS.	—	X	AISC 360, SECTION A3.5 AND APPLICABLE AWS A5 DOCUMENTS	—
b. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED.	—	X	—	—
5. INSPECTION OF WELDING:				
a. STRUCTURAL STEEL AND COLD FORMED STEEL DECK:				
1) COMPLETE AND PARTIAL JOINT PENETRATION GROOVE WELDS.	X	—	AWS D1.1	1704.3.1
2) MULTIPASS FILLET WELDS	X	—		
3) SINGLE-PASS FILLET WELDS > 5/16"	X	—		
4) SINGLE-PASS FILLET WELDS ≤ 5/16"	—	X		
5) FLOOR AND ROOF DECK WELDS	—	X	AWS D1.3	—
b. REINFORCING STEEL:				
1) VERIFICATION OF WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A 706	—	X	AWS D1.4 ACI 318: SECTION 3.5.2	—
2) REINFORCING STEEL-RESISTING FLEXURAL AND AXIAL FORCES IN INTERMEDIATE AND SPECIAL MOMENT FRAMES, AND BOUNDARY ELEMENTS OF SPECIAL REINFORCED CONCRETE SHEAR WALLS AND SHEAR REINFORCEMENT.	X	—		
3) SHEAR REINFORCEMENT.	X	—		
4) OTHER REINFORCING STEEL.	—			
6. INSPECTION OF STEEL FRAME JOINT DETAILS FOR COMPLIANCE:		X		
a. DETAILS SUCH AS BRACING AND STIFFENING.	—	X	—	1704.3.2
b. MEMBER LOCATIONS	—	X		
c. APPLICATION OF JOINT DETAILS AT EACH CONNECTION	—	X		

FOR SI: 1 INCH = 25.4 mm.
A. WHERE APPLICABLE, SEE ALSO SECTION 1707.1 SPECIAL INSPECTION FOR SEISMIC RESISTANCE

TABLE 1704.4 3
REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCED STANDARD	IBC REFERENCE
1. INSPECTION OF REINFORCING STEEL, INCLUDING PRESTRESSING TENDONS, AND PLACEMENT	—	X	ACI 318: 3.5, 7.1-7.7	1913.4
2. INSPECTION OF REINFORCING STEEL, WELDING IN ACCORDANCE WITH TABLE 1704.3, ITEM 5B	—	—	AWS D1.4 ACI 318: 3.5.2	—
3. INSPECT 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 3	X	—	ACI 318: 8.1.3, 21.2.8	1911.5 1912.1
4. INSPECTION OF ANCHORS INSTALLED IN HARDENED CONCRETE	—	X	ACI 318: 3.8.6, 8.1.3, 21.2.8	1912.1
5. VERIFYING USE OF REQUIRED DESIGN MIX	—	X	ACI 318: CH. 4, 5.2-5.4	1904.2.2, 1913.2, 1913.3
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	—	ASTM C 172 ASTM C 31 ACI 318: 5.6, 5.8	1913.10
7. INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES	X	—	ACI 318: 5.9, 5.10	1913.6, 1913.7, 1913.8
8. INSPECTION OF MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	—	X	ACI 318: 5.11-5.13	1913.9
9. INSPECTION OF PRESTRESSED CONCRETE: a. APPLICATION OF PRESTRESSING FORCES. b. GROUTING OF BONDED PRESTRESSING TENDONS IN THE SEISMIC-FORCE-RESISTING SYSTEM.	X X	—	ACI 318: 18.20 ACI 318: 18.18.4	—
10. ERECTION OF PRECAST CONCRETE MEMBERS.	—	X	ACI 318: CH. 16	—
11. VERIFICATION OF IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POSTTENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS.	—	X	ACI 318: 6.2	—
12. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED	—	X	ACI 318: 6.1.1	—

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SHEET TITLE
GENERAL NOTES

SHEET NO.
S0.03

ABBREVIATIONS

ABBREVIATION	DESCRIPTION
ABV	ABOVE
ADDL	ADDITIONAL
ADJ	ADJACENT
ALT	ALTERNATE
APPRX	APPROXIMATE
ARCH	ARCHITECT OR ARCHITECTURAL
B/	BOTTOM OF
B/B	BACK TO BACK
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BLW	BELOW
BM	BEAM
BOT	BOTTOM
BRDG	BRIDGING
BRG	BEARING
BTWN	BETWEEN
C/C	CENTER TO CENTER
CIP	CAST-IN-PLACE
CL	CENTER LINE
CLR	CLEAR OR CLEARANCE
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
COMP	COMPRESSION
CONC	CONCRETE
CONN	CONNECTION(S)
CONST	CONSTRUCTION
CONT	CONTINUOUS
db	REINFORCING BAR DIAMETER
DBL	DOUBLE
DEG	DEGREE(S)
DET	DETAIL
DIA	DIAMETER
DIAG	DIAGONAL
DIM(S)	DIMENSION(S)
DL	DEAD LOAD
DWG(S)	DRAWING(S)
DWL	DOWEL(S)
EA	EACH
ECC	ECCENTRICITY
EF	EACH FACE
EL	ELEVATION
ELEC	ELECTRICAL
ENGR	ENGINEER
EOS	EDGE OF SLAB
EQ	EQUAL
EQUIP	EQUIPMENT
EW	EACH WAY
EXP	EXPANSION
EXST	EXISTING
EXT	EXTERIOR
F/F	FACE TO FACE
FIN	FINISH(ED)
FLR	FLOOR
FND	FOUNDATION
FP	FIREPROOF(ING)
FS	FAR SIDE
FTG	FOOTING
GA	GAGE, GAUGE
GALV	GALVANIZED
GB	GRADE BEAM
GEN	GENERAL
GLB	GLU LAM BEAM
GR	GRADE
HK	HOOK
HORIZ	HORIZONTAL
HP	HIGH POINT
HT	HEIGHT
ID	INSIDE DIAMETER
IF	INSIDE FACE
INFO	INFORMATION
INT	INTERIOR
INTRM	INTERMEDIATE
JST(S)	JOIST(S)
JT	JOINT
K	KIPS (1,000 POUNDS)
KLF	KIP PER LINEAR FOOT
KSF	KIP PER SQUARE FOOT
LL	LIVE LOAD
LLH	LONG LEG HORIZONTAL

ABBREVIATION	DESCRIPTION
LLV	LONG LEG VERTICAL
LONG	LONGITUDINAL
LP	LOW POINT
LW	LIGHTWEIGHT
LWC	LIGHTWEIGHT CONCRETE
M	MOMENT
MATL	MATERIAL
MAX	MAXIMUM
MC	MOMENT CONNECTION(S)
MECH	MECHANICAL
MEP	MECHANICAL, ELECTRICAL, PLUMBING, FIRE PROTECTION
MEZZ	MEZZANINE
MFR	MANUFACTURER
MID	MIDDLE
MIN	MINIMUM
MISC	MISCELLANEOUS
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NS	NEAR SIDE
NTS	NOT TO SCALE
NW	NORMAL WEIGHT
NWC	NORMALWEIGHT CONCRETE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
OH	OPPOSITE HAND
OPNG(S)	OPENING(S)
OPP	OPPOSITE
OSL	OUTSTANDING LEG
P/T	POST-TENSIONED
PC	PIECE
PCY	POUNDS PER CUBIC YARD
PERP	PERPENDICULAR
PG	PLATE GIRDER
PL	PLATE
PRC	PRECAST
PRLL	PARALLEL
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	POINT
RAD	RADIUS
REF	REFERENCE
REINF	REINFORCE(D) (ING) OR (MENT)
REQD	REQUIRED
SCHED	SCHEDULE(D)
SDL	SUPERIMPOSED DEAD LOAD
SECT	SECTION
SER	STRUCTURAL ENGINEER OF RECORD
SF	SQUARE FOOT (FEET)
SHT	SHEET
SIM	SIMILAR
SLRS	SEISMIC LOAD RESISTING SYSTEM
SOG	SLAB ON GRADE
SP	SPACE
SPEC(S)	SPECIFICATION(S)
STD	STANDARD
STL	STEEL
STR	STRUCTURE
STRCTL	STRUCTURAL
SYM	SYMMETRICAL
T	TENSION
T&B	TOP AND BOTTOM
T/	TOP OF
TEMP	TEMPERATURE OR TEMPORARY
TEN	TENSION
THK	THICK OR THICKNESS
THRD	THREAD
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
V	SHEAR
VERT	VERTICAL
VIF	VERIFY IN FIELD
W/	WITH
W/O	WITHOUT
WD	WOOD
WP	WORK POINT
WPFG	WATERPROOFING
WS	WATERSTOP
WWR	WELDED WIRE REINFORCEMENT

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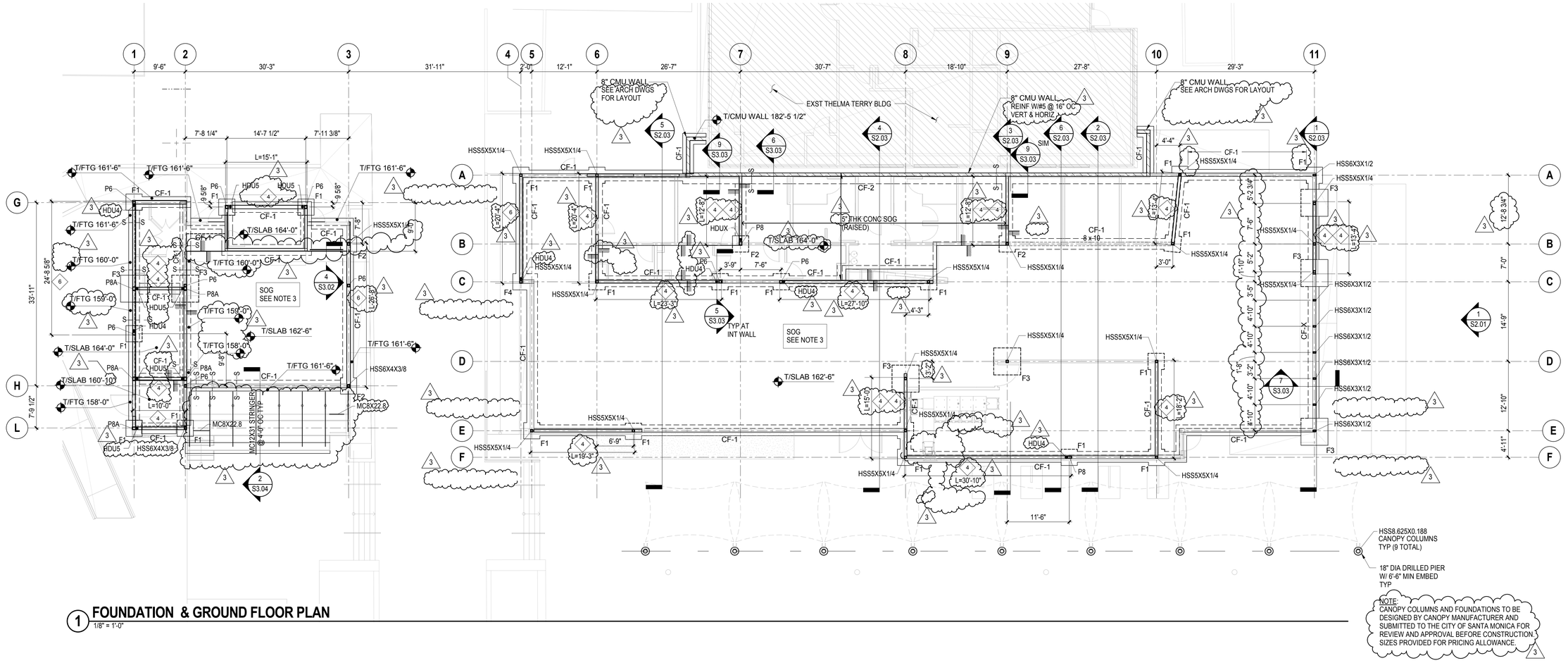
SHEET TITLE
ABBREVIATIONS

SHEET NO.
S0.04



NOTE:
CANOPY COLUMNS AND FOUNDATIONS TO BE DESIGNED BY CANOPY MANUFACTURER AND SUBMITTED TO THE CITY OF SANTA MONICA FOR REVIEW AND APPROVAL BEFORE CONSTRUCTION. SIZES PROVIDED FOR PRICING ALLOWANCE.

1 FOUNDATION & GROUND FLOOR PLAN
1/8" = 1'-0"

PLAN NOTES:

1. TOP OF SLAB ELEV = SEE PLAN, SEE ARCHITECTURAL DRAWING FOR SLAB DEPRESSIONS.
2. T/FOOTINGS = -1'-0" BELOW T/SOG UON.
3. SLAB-ON-GRADE (SOG) = 5" THK, f'c = 3,000 psi, REINFORCED WITH #4@12" OC EA WAY ON COMPACTED FILL. SUBSTRATE RECOMMENDATIONS PER GEOTECHNICAL REPORT
4. VERIFY LOCATION OF UNDERGROUND UTILITES BEFORE EXCAVATION. NOTIFY ARCHITECT PRIOR TO EXCAVATION IN THE EVENT SUCH UTILITIES ARE ENCOUNTERED.
5. SLAB CONSTRUCTION AND CONTROL JOINT LOCATIONS SHALL BE APPROVED BY THE ARCHITECT PRIOR TO PLACING ANY CONCRETE.
6. SEE MEP DRAWINGS FOR PIPE OR CONDUITS UNDER STRIP FOOTINGS OR THROUGH FOUNDATION WALLS. MAINTAIN ADJACENT FOOTINGS AND DO NOT DISTURB SUBGRADE OF FOOTINGS DURING EXCAVATION AND PIPE CONSTRUCTION.
7. SILL BOLTS ARE REQUIRED AT ALL STUD WALLS SHOWN ON STRUCTURAL PLANS. SEE S7.03 FOR DETAILS.
8. SEE ARCH DRAWINGS FOR NON-LOAD BEARING PARTITIONS.
9. STRUCTURAL STUD WALLS SHALL BE 2x6 STUDS AT 16" OC UON. SEE S7.03 FOR TYPICAL WALL FRAMING. SEE ARCH DRAWINGS FOR NON-LOAD BEARING PARTITION WALLS.
10. ALL EXTERIOR WALLS SHALL HAVE 1/2" PLYWOOD SHEATHING ON EXTERIOR FACE OF STUDS UNLESS OTHEREWISE NOTED. SEE S7.04 FOR SCHEDULE AND MIN NAILING.
11. SEE ARCH DRAWINGS FOR WEATHER PROTECTION COATINGS AT EXPOSED WOOD FRAMING.
12. EXCAVATIONS SHALL BE MADE IN COMPLIANCE WITH CAL/OSHA REGULATIONS.
13. ALL FOUNDATION EXCAVATIONS MUST BE OBSERVED AND APPROVED BY THE PROJECT GEOTECHNICAL CONSULTANT PRIOR TO PLACEMENT OF REINFORCING STEEL.
14. ALL HOLD-DOWN CONNECTORS SHALL BE RE-TIGHTENED TO FINGERTIGHT PLUS ONE-HALF WRENCH TURN JUST PRIOR TO ENCLOSURE.
15. SEE ARCHITECTURAL DRAWINGS FOR TOP OF FOUNDATION WALL CONDITIONS.

LEGEND:

1. X-X' — INDICATES ELEVATION MARK
2. INDICATES SHEARWALL SEE SCHEDULE ON S7.04
   INDICATES SHEATHING SIDE
   INDICATES BEARING AND/OR SHEARWALL
3. HDUX — INDICATES HOLDOWN SEE S7.04 FOR SCHEDULE AND DETAILS
4. STEEL COLUMN; PIER/PILASTER ABOVE; PLX EL X'-XX"; PIER/PILASTER MARK FOR DETAILS SEE SX.XX; T/PIER OR PILASTER; FOOTING MARK SEE FOOTING SCHEDULE ON S3.03; FX EL X'-XX"; FOOTING; TOP OF FOOTING EL WHERE DIFFERENT FROM TYPICAL
5. S — S — INDICATES STEP ON BOTTOM OF CONTINUOUS FOOTING SEE DETAIL 6 ON S3.02
6. PX — INDICATES WOOD POST SEE S7.03 FOR POST SCHEDULE SEE S7.04 FOR POST REQUIREMENTS AT HOLDOWNS.

SHEET REFERENCE:

1. GENERAL NOTES	S0.0X
2. ELEVATIONS & SECTIONS	S2.XX
3. TYPICAL CONCRETE DETAILS	S3.XX
4. TYPICAL STEEL DETAILS	S5.XX
5. TYPICAL CMU DETAILS	S6.XX
6. TYPICAL WOOD DETAILS	S7.XX

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FOUNDATION & GROUND FLOOR PLAN
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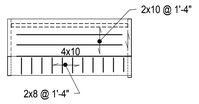
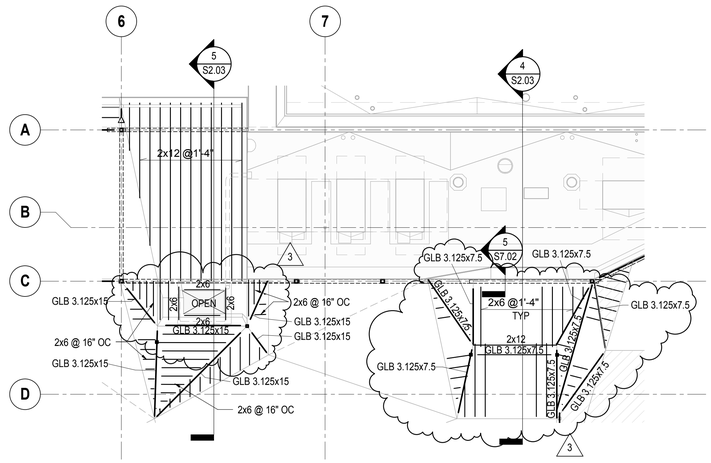
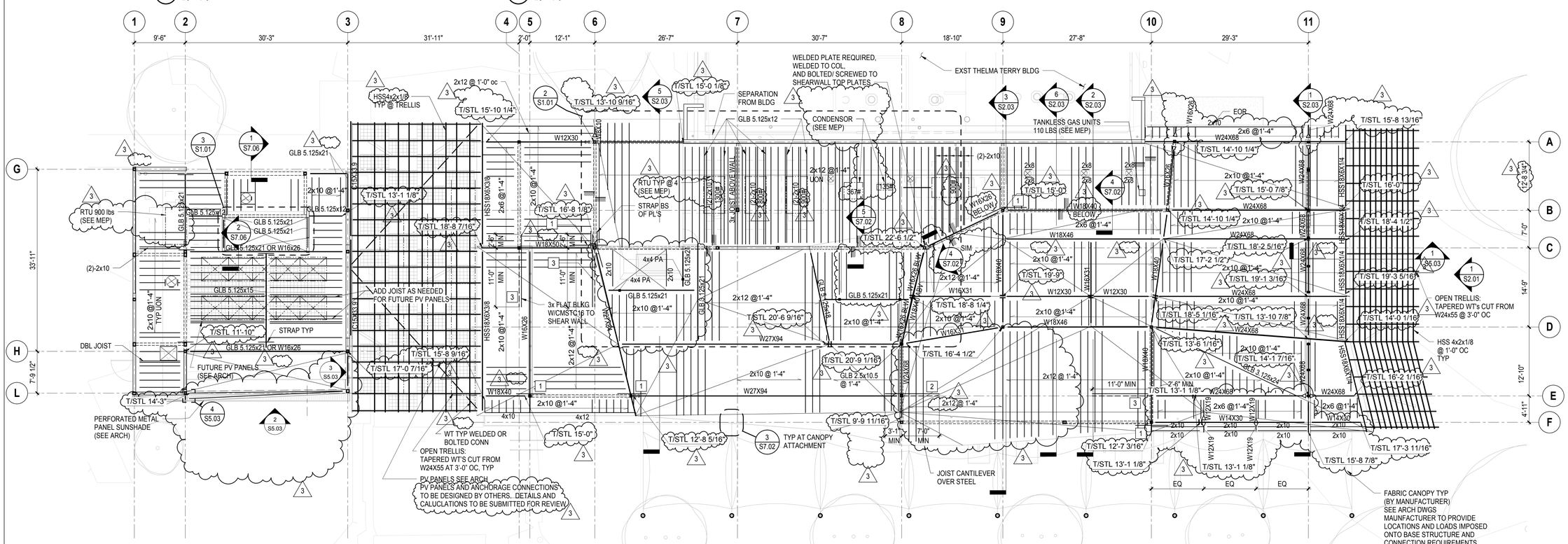




3 HIGH ROOF FRAMING PLAN
1/8" = 1'-0"

2 SKYLIGHT FRAMING PARTIAL PLAN
1/8" = 1'-0"



1 ROOF FRAMING PLAN
1/8" = 1'-0"

PLAN NOTES:

1. T/ROOF ELEVATION VARIES SEE PLAN, SEE ARCH DWGS FOR ADDITIONAL ELEVATION INFO NOT SHOWN.
2. T/ROOF ELEVATION = T/ROOF 1/2" PLYWOOD SHEATHING. ELEVATIONS INDICATE HEIGHT ABOVE FINISH FLOOR. FINISH FLOOR DATUM = +164.0'.
3. STRUCTURAL LOAD-BEARING STUD WALLS SUPPORTING THE ROOF ARE SHOWN THUS ::::: ON PLAN. SEE ARCH DRAWINGS FOR NON-LOAD BEARING PARTITIONS.
4. VERIFY ALL DIMENSIONS SHOWN AND NOT SHOWN WITH ARCH DRAWINGS.
5. FOR ROOFTOP EQUIPMENT AND ROOF OPENINGS, SEE ARCH AND MEP DRAWINGS. CONTRACTOR TO COORDINAE FINAL LOCATION OF EQUIPMENT SUPPORT BEAMS WITH EQUIPMENT REQUIREMENTS.
6. WHERE RIPPERS ARE ATTACHED TO TOP OF ROOF JOISTS (I.E. TO OBTAIN SLOPE FOR DRAINAGE), THE RIPPERS SHALL BE NAILED TO THE JOIST WITH 10d AT SPACING REQUIRED FOR DIAPHRAGM SHEAR. WHEN THE RIPPERS BECOME MORE THAN 1 1/2" DEEP, SIDE PLATES SHALL BE NAILED TO JOISTS AT SPACING REQUIRED TO TRANSFER DIAPHRAGM SHEAR.
7. MARK [1], ETC DESIGNATE SIMPSON STRONG-TIE STRAP CONNECTION.

PLAN MARK	STRAP
1	MST48
2	CS14
3	CMSTC16

SHEET REFERENCE:

1. GENERAL NOTES	S0.0X
2. ELEVATIONS & SECTIONS	S2.XX
3. TYPICAL CONCRETE DETAILS	S3.XX
4. TYPICAL STEEL DETAILS	S5.XX
5. TYPICAL CMU DETAILS	S6.XX
6. TYPICAL WOOD DETAILS	S7.XX

LEGEND:

1. +X'-X" — INDICATES TOP OF SHEATHING ELEVATION
2. (NOT USED)
3. — INDICATES TOP STEEL SPLICE
4. GLB — INDICATES GLULAM BEAMS
5. — INDICATES GRAVITY MOMENT CONNECTION

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ROOF FRAMING PLAN

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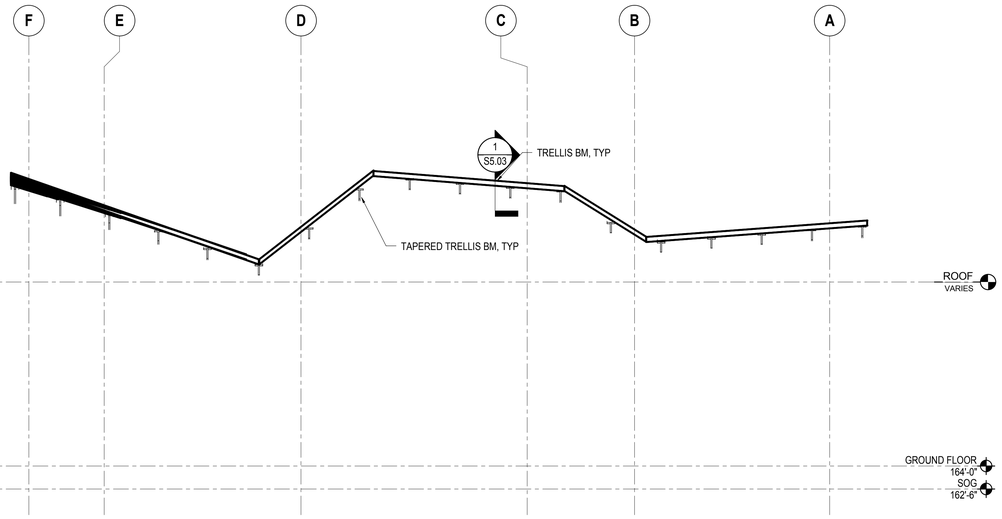

1 EAST TRELLIS ELEVATION

1/4" = 1'-0"

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SHEET TITLE
ELEVATIONS

SHEET NO.

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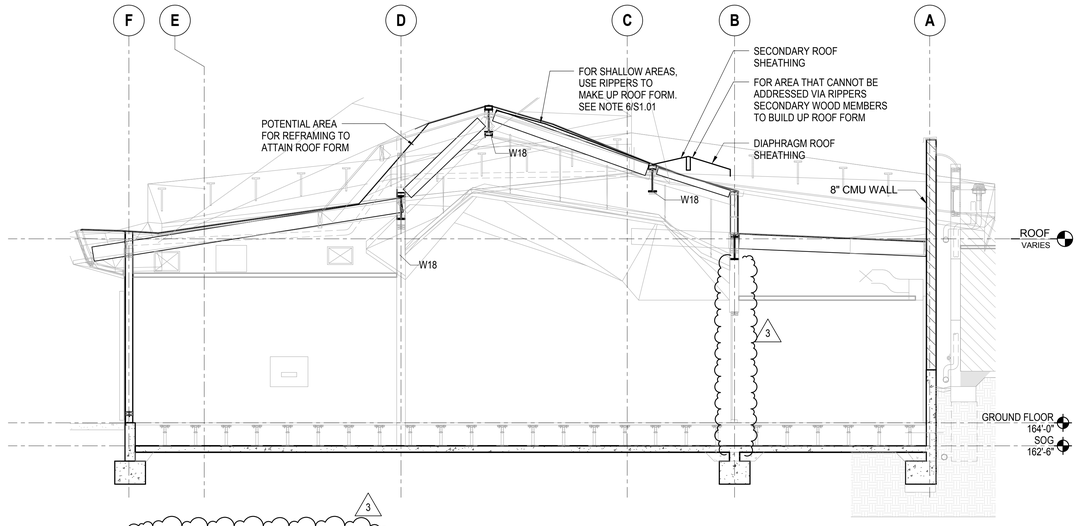
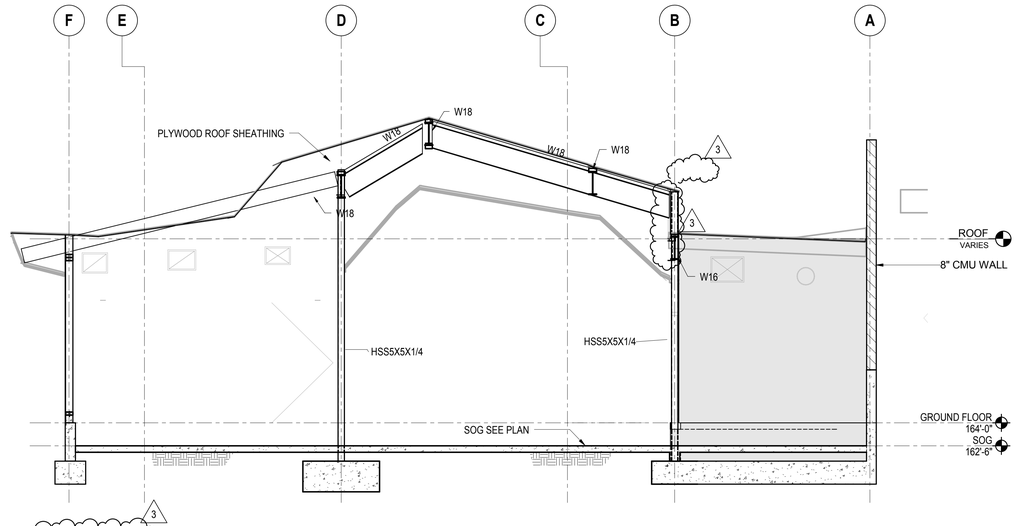
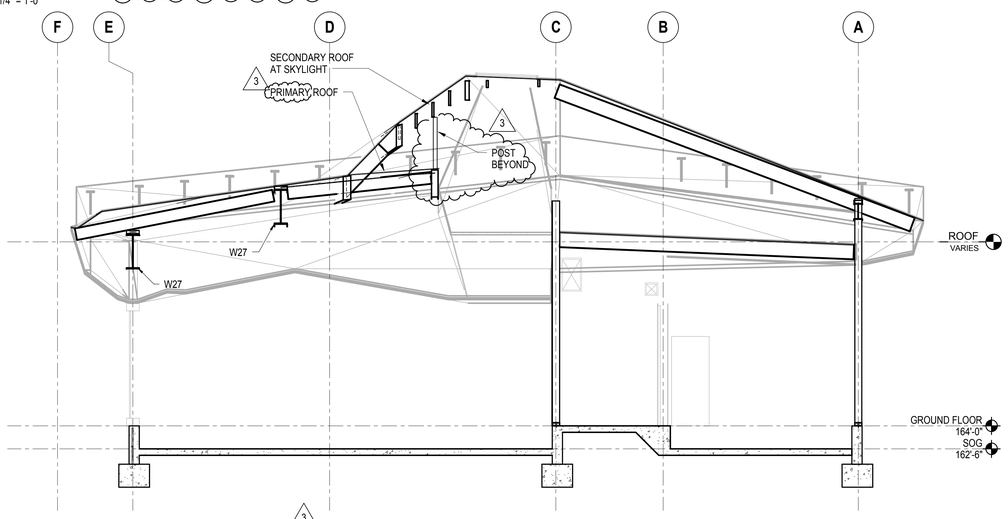


6 SECTION BETWEEN GRIDLINE 9 AND 10
1/4" = 1'-0"



3 SECTION AT GRIDLINE 9
1/4" = 1'-0"



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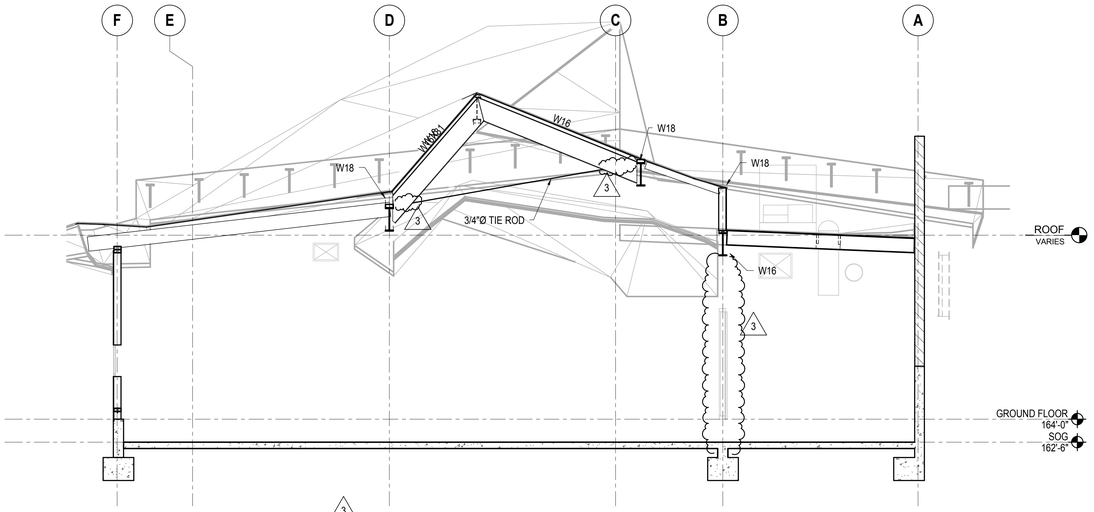
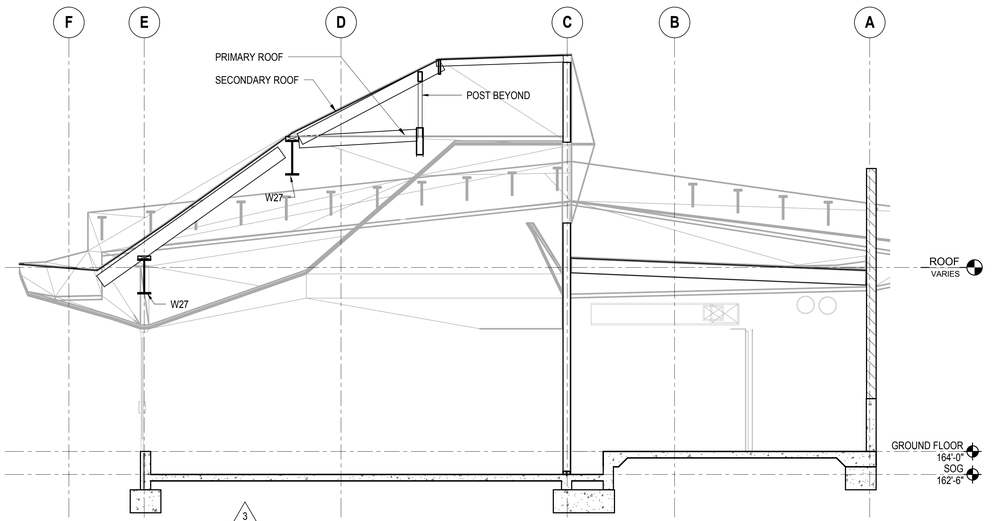
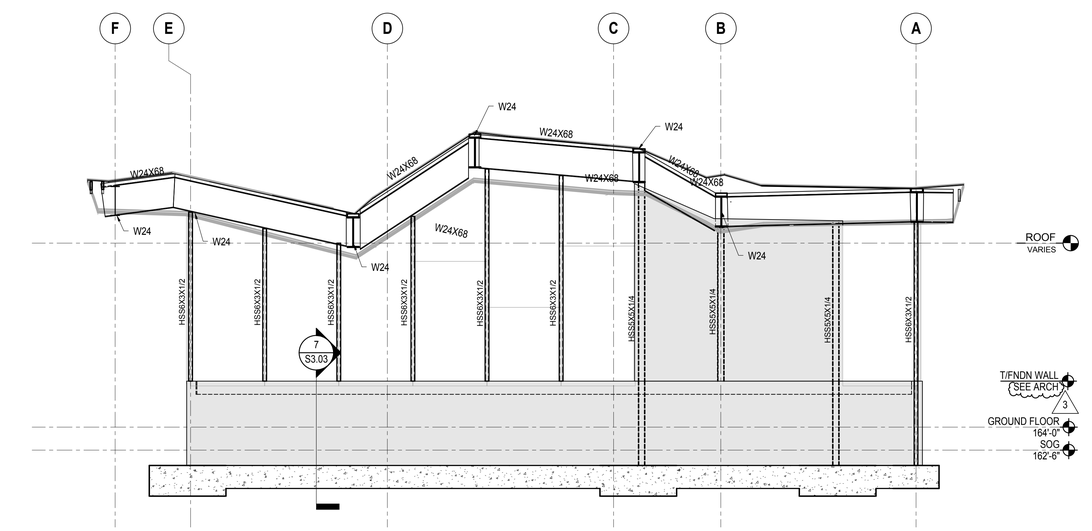


2 SECTION BETWEEN GRIDLINE 9 AND 10
1/4" = 1'-0"



4 SECTION WEST OF GRIDLINE 8
1/4" = 1'-0"



1 SECTION AT GRIDLINE 11
1/4" = 1'-0"

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3	07/16/12		BULLETIN 1
	06/20/12		PLAN CHECK 2
	05/07/12		PLAN CHECK 1
1	02/21/12		ADDENDUM 2

REVISIONS

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07/16/2012
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6693
SHEET TITLE
SECTIONS
SHEET NO.
S2.03

SHEET OF
DWG. NO.:
TITLE OF PROJECT:

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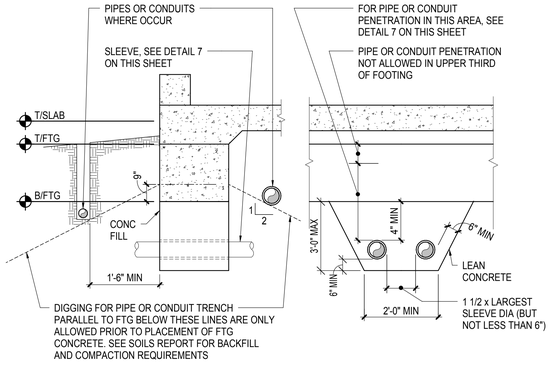
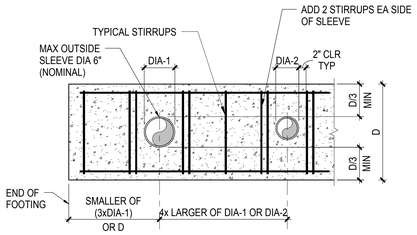


NOTES:

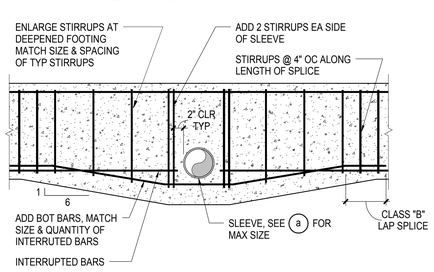
1. CONTRACTOR SHALL BE RESPONSIBLE FOR SHORING OR OTHERWISE MAINTAINING THE SIDES OF THE EXCAVATION FROM CAVE-IN UNTIL ALL BACKFILL IS COMPLETED.
2. ALL PIPES AND CONDUITS SHALL CLEAR SLEEVE BY 1/2" ALL AROUND, UON.
3. FIRE SERVICE LINES SHALL CLEAR SLEEVES 2" ALL AROUND.
4. TRENCHES FOR PIPES AND CONDUITS WITH INVERT ELEVATION BELOW 2'-6" FROM BOTTOM OF FOOTING SHALL BE FILLED PER GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.

9 PIPE OR CONDUIT CLEARANCE AT FOUNDATIONS

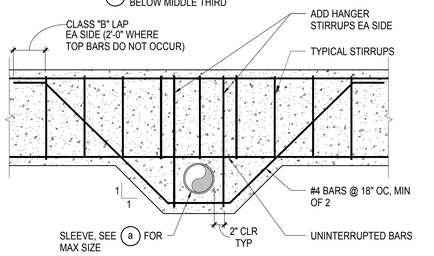
1" = 1'-0"



a PIPE OR CONDUIT PENETRATION THRU MIDDLE THIRD



b PIPE OR CONDUIT PENETRATION BELOW MIDDLE THIRD



c PIPE OR CONDUIT BELOW BOTTOM REINFORCEMENT

NOTES:

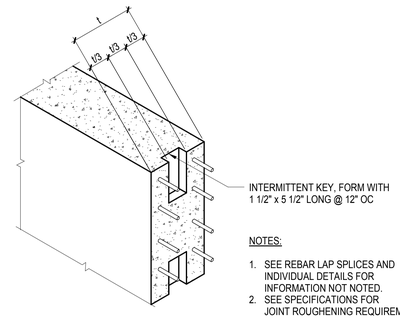
1. DO NOT CUT REINFORCING AT (a) OR (c). ONLY CUT INTERRUPTED REINFORCING AT (b).
2. PROVIDE MINIMUM 2" CLEAR BETWEEN SLEEVE AND REINFORCING.
3. SEE DETAIL 1 ON THIS SHEET FOR SLEEVE-TO-PIPE/CONDUIT CLEARANCE & INFO NOT NOTED.
4. CAULK SEAL GAP AT SLEEVE-TO-PIPE/CONDUIT INTERFACE ON EXTERIOR SIDE OF 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.

7 PIPE OR CONDUIT PENETRATIONS THRU CONTINUOUS FOUNDATIONS

1" = 1'-0"

6 CONCRETE CURB AND WALL INTERSECTIONS

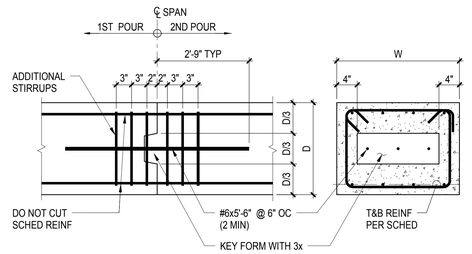
NOT TO SCALE



NOTES:

1. SEE REBAR LAP SPLICES AND INDIVIDUAL DETAILS FOR INFORMATION NOT NOTED.
2. SEE SPECIFICATIONS FOR JOINT ROUGHENING REQUIREMENTS.

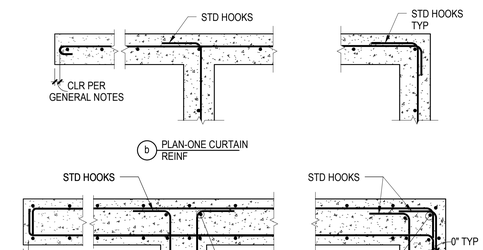
a CONCRETE WALL - VERTICAL



b BEAMS AND CONTINUOUS FOUNDATIONS

4 CONSTRUCTION JOINTS

NOT TO SCALE



b PLAN-ONE CURTAIN REINF

a PLAN-TWO CURTAINS REINF

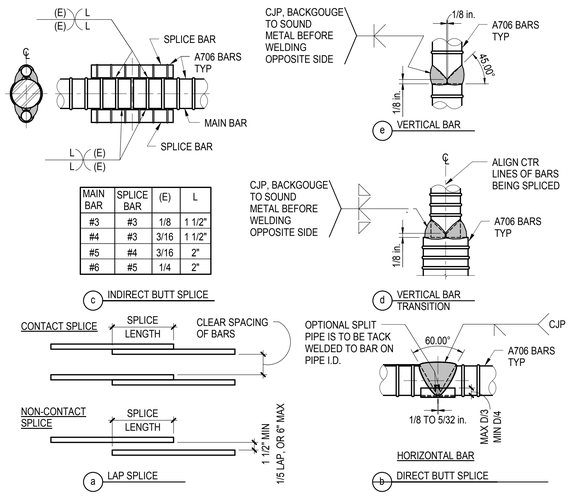
BAR SIZE	MAIN REINFORCEMENT 90° HOOK LENGTH "L"	MAIN REINFORCEMENT INSIDE DIA "D1"	MAIN REINFORCEMENT 180° HOOK LENGTH "L"	STIRRUPS & TIES 90° HOOK LENGTH "L"	STIRRUPS & TIES INSIDE DIA "D2"	STIRRUPS & TIES 135° HOOK LENGTH "L"	Ldh, DEVELOPMENT LENGTH (1) CONCRETE STRENGTH f'c = 3000 PSI	Ldh, DEVELOPMENT LENGTH (1) CONCRETE STRENGTH f'c = 4000 PSI
	90° HOOK		180° HOOK	90° HOOK		135° HOOK		
#3	4 1/2"	2 1/4"	2 1/2"	3"	1 1/2"	3"	0'-8"	0'-7"
#4	6"	3"	2 1/2"	3"	2"	3"	0'-11"	0'-9"
#5	7 1/2"	3 3/4"	2 1/2"	3 3/4"	2 1/2"	3 3/4"	1'-2"	1'-0"
#6	9"	4 1/2"	3"	9"	4 1/2"	4 1/2"	1'-4"	1'-2"
#7	10 1/2"	5 1/4"	3 1/2"	10 1/2"	5 1/4"	5 1/4"	1'-7"	1'-5"
#8	1'-0"	6"	4"	1'-0"	6"	6"	1'-10"	1'-7"
#9	1'-1 1/2"	9 1/2"	4 1/2"	-	-	-	2'-1"	1'-9"
#10	1'-3 1/4"	10 3/4"	5 1/4"	-	-	-	2'-3"	2'-0"
#11	1'-5"	1'-0"	5 3/4"	-	-	-	2'-6"	2'-2"

NOTES:

1. DEVELOPMENT LENGTHS IN TABLE ARE FOR NORMAL WEIGHT CONCRETE. WHERE LIGHTWEIGHT AGGREGATE CONCRETE IS USED, INCREASE DEVELOPMENT LENGTH BY 30%.

3 STANDARD HOOKS

NOT TO SCALE



MAIN BAR	SPLICE BAR	(E)	L
#3	#3	1/8	1 1/2"
#4	#3	3/16	1 1/2"
#5	#4	3/16	2"
#6	#5	1/4	2"

CONCRETE STRENGTH	f'c = 3000 PSI				f'c = 4000 PSI			
CLASS OF LAP SPLICE	CLASS "A"		CLASS "B"		CLASS "A"		CLASS "B"	
BAR SIZE \ CASE	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS
#3	1'-10"	1'-5"	2'-4"	1'-10"	1'-7"	1'-3"	2'-1"	1'-7"
#4	2'-5"	1'-10"	3'-1"	2'-5"	2'-1"	1'-7"	2'-9"	2'-1"
#5	3'-0"	2'-4"	3'-11"	3'-0"	2'-7"	2'-0"	3'-5"	2'-7"
#6	3'-7"	2'-9"	4'-8"	3'-7"	3'-1"	2'-5"	4'-1"	3'-1"
#7	5'-3"	4'-0"	6'-9"	5'-3"	4'-6"	3'-6"	5'-11"	4'-6"
#8	6'-0"	4'-7"	7'-9"	6'-0"	5'-2"	4'-0"	6'-9"	5'-2"
#9	6'-9"	5'-2"	8'-9"	6'-9"	5'-10"	4'-6"	7'-7"	5'-10"
#10	7'-7"	5'-10"	9'-10"	7'-7"	6'-7"	5'-1"	8'-6"	6'-7"
#11	8'-5"	6'-6"	10'-11"	8'-5"	7'-3"	5'-7"	9'-5"	7'-3"

NOTES:

1. UNLESS INDICATED OTHERWISE, USE THE CLASS "B" LAP SPLICE LENGTHS, MULTIPLIED BY THE APPLICABLE FACTOR(S) LISTED BELOW.
2. INCREASE THE LAP SPLICE OR DEVELOPMENT LENGTH BY 50% FOR ANY OF THE FOLLOWING CONDITIONS:
   A. THE BAR COVER IS LESS THAN OR EQUAL TO THE BAR DIAMETER.
   B. WHERE STIRRUPS OR TIES ARE SHOWN IN THE DRAWINGS THROUGHOUT LAP SPLICE OR DEVELOPMENT LENGTH AND THE CLEAR SPACING OF BARS PER (a) ABOVE IS LESS THAN 1 BAR DIAMETER.
   C. WHERE STIRRUPS OR TIES ARE NOT SHOWN THROUGHOUT LAP SPLICE OR DEVELOPMENT LENGTH AND THE CLEAR SPACING OF BARS PER (a) ABOVE IS LESS THAN 2 BAR DIAMETERS.
3. A CLASS "A" SPLICE MAY BE USED ONLY WHERE NOTED ON THE DRAWINGS. WHERE DEVELOPMENT LENGTH (Ld) IS REQUIRED OR CALLED OUT ON THE DRAWINGS, USE CLASS "A" LAP SPLICE LENGTH.
4. TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12 INCHES OF CONCRETE CAST BELOW THE BARS.
5. LAP SPLICE LENGTHS IN TABLE ARE FOR NORMAL WEIGHT CONCRETE. WHERE LIGHTWEIGHT AGGREGATE CONCRETE IS USED, INCREASE LAP SPLICE LENGTH BY 33%.
6. SPLICES OF HORIZONTAL REINFORCEMENT IN WALLS SHALL BE STAGGERED.
7. SPLICES OF HORIZONTAL REINFORCEMENT IN WALLS CONTAINING TWO CURTAINS OF REINFORCEMENT SHALL NOT OCCUR IN THE SAME LOCATION.

1 REBAR OFFSET, LAP SPLICE, AND BUTT SPLICE

NOT TO SCALE

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	05/07/12		PLAN CHECK 1

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S3.01

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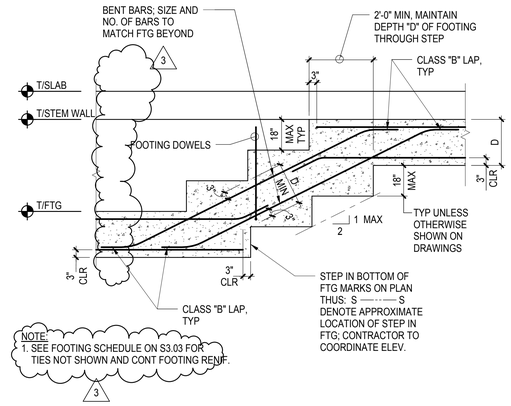
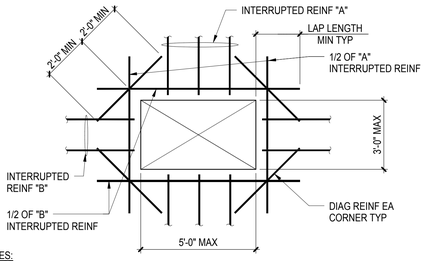


6 STEPS IN CONTINUOUS FOOTING
1/2" = 1'-0"

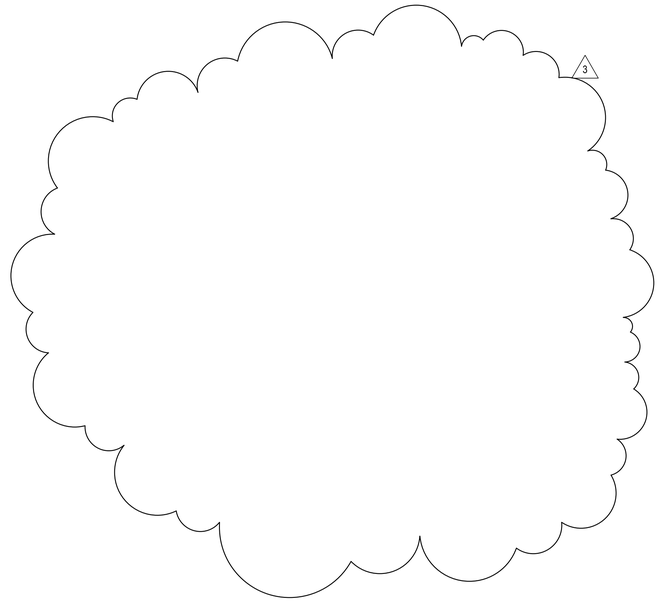


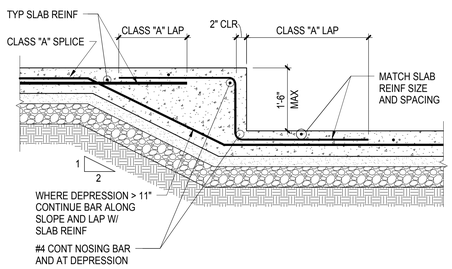
NOTES:

1. OPENING SIZE, LOCATION, AND REINFORCING SHALL BE SUBMITTED AS PART OF THE REINFORCING SHOP DRAWING SUBMITTAL FOR REVIEW AND APPROVAL.
2. AT EACH SIDE OF THE OPENING, ADD NOT LESS THAN ONE-HALF THE AREA OF REINFORCING THAT IS INTERRUPTED BY THE OPENING. WHERE THE BAR LENGTH PAST THE OPENING IS INTERRUPTED BY AN EDGE OF SLAB, PROVIDE A STANDARD HOOK AT THE DISCONTINUOUS END.
3. WHERE THE DIAGONAL LENGTH IS INTERRUPTED BY AN EDGE OF SLAB, PROVIDE A STANDARD HOOK.
4. NOT REQUIRED AT COLUMN LOCATIONS.

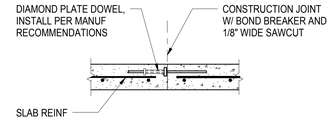
SCHEDULE OF DIAGONAL REINFORCING		
SLAB THICKNESS	DIAGONAL REINFEA CORNER	COMMENT
4" TO 5"	1-#4	CENTERED IN SLAB
>5" TO 8"	1-#5	CENTERED IN SLAB
>8" TO 12"	1-#5	T&B IN SLAB

3 OPENING IN SLAB-ON-GRADE
1" = 1'-0"

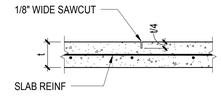




4 SLAB-ON-GRADE DEPRESSION
1" = 1'-0"



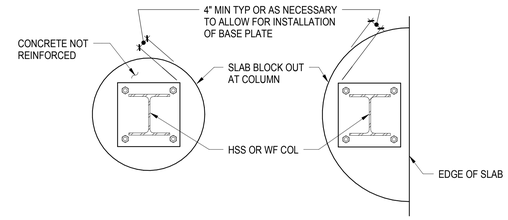
CONSTRUCTION JOINT, SLAB-ON-GRADE ≥ 5" THICK



CONTROL JOINT

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. SAWCUTS SHALL BE MADE AS SOON AS POSSIBLE AFTER SLAB FINISHING AS MAY SAFELY BE DONE WITHOUT DISLOGGING AGGREGATE OR BREAKING EDGES. FILL SAWCUT JOINT WITH SEALANT AFTER SLAB HAS CURED.

JOINT LAYOUT



PLAN - SLAB BLOCKOUT AT COLUMN

PLAN - SLAB BLOCKOUT AT EDGE COLUMN

SLAB-ON-GRADE CONSTRUCTION AND CONTROL JOINTS
1 1" = 1'-0"

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SHEET TITLE
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SHEET NO.
S3.02

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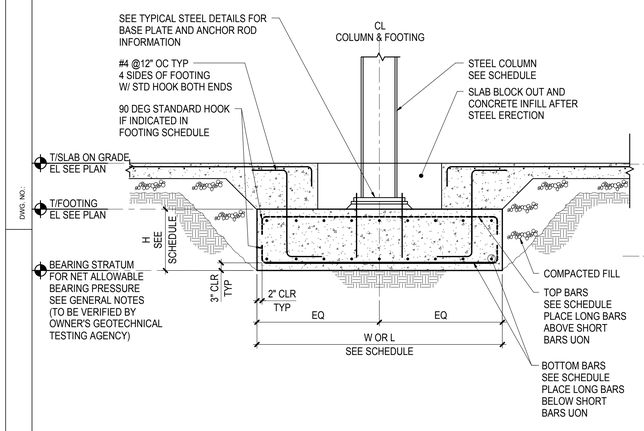
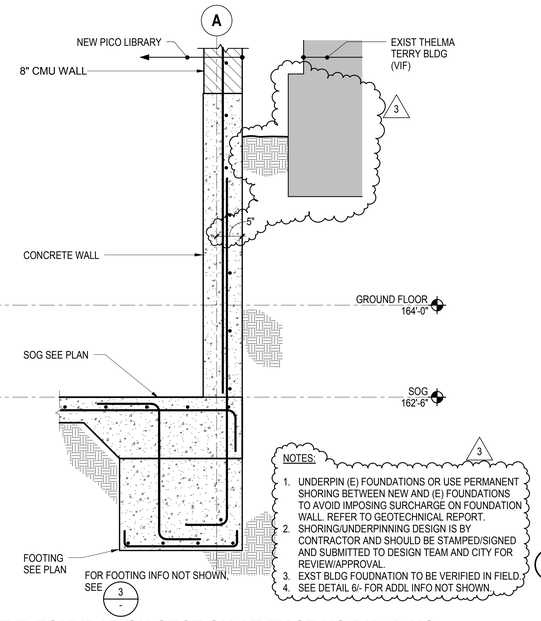
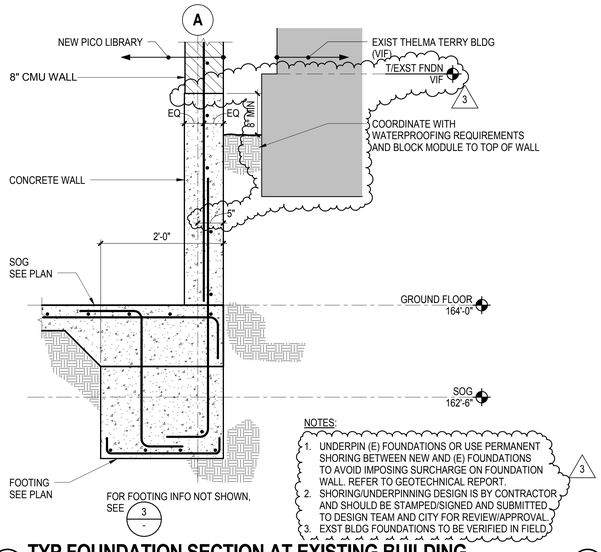


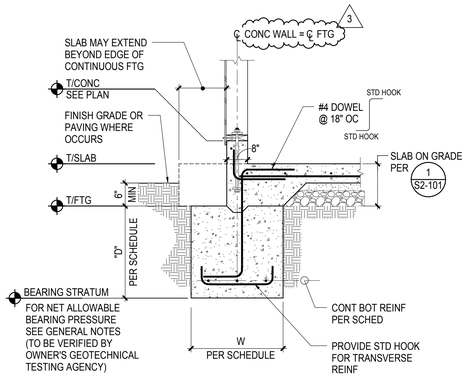
12 COLUMN FOOTING
1/2" = 1'-0"



9 TYP FOUNDATION SECTION AT EXISTING BUILDING
1" = 1'-0"



6 TYP FOUNDATION SECTION AT EXISTING BUILDING
1" = 1'-0"



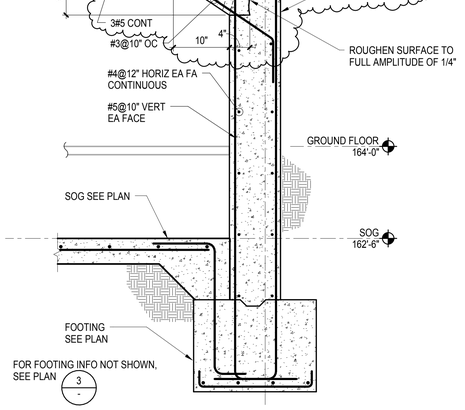
3 EXTERIOR CONTINUOUS FOOTING
3/4" = 1'-0"

ISOLATED FOOTING SCHEDULE						f'c =SEE GENERAL NOTES
MARK	SIZE			REINFORCEMENT		REMARKS
	L	W	H	BOTTOM BARS	TOP BARS	
F1	3'-0"	3'-0"	1'-6"	4-#4 EA WAY	4-#4 EA WAY	
F2	4'-0"	4'-0"	2'-0"	5-#5 EA WAY	5-#5 EA WAY	
F3	5'-0"	5'-0"	2'-0"	6-#5 EA WAY	6-#5 EA WAY	
F4	3'-0"	5'-0"	1'-6"	4-#5 LONG 6-#5 SHORT	4-#5 LONG 6-#5 SHORT	

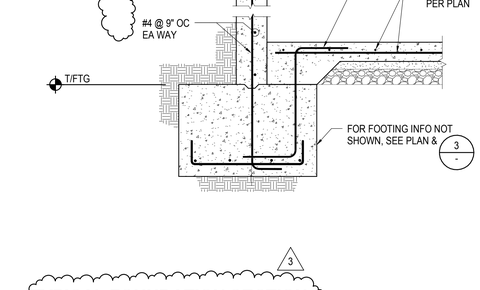
NOTE:

1. REINFORCEMENT SHALL NOT BE SPLICED WITHOUT WRITTEN AUTHORIZATION OF STRUCTURAL ENGINEER.

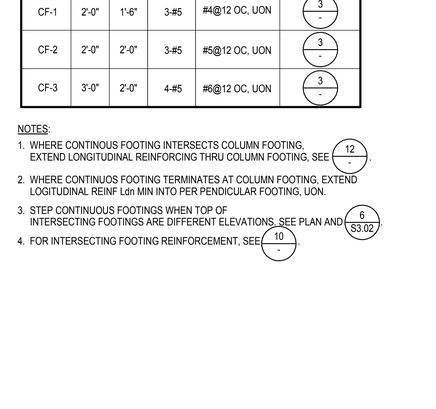
11 ISOLATED FOOTING SCHEDULE
12" = 1'-0"



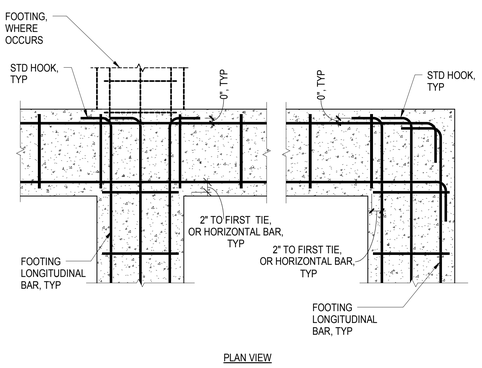
7 TYP FOUNDATION SECTION AT EAST GLAZING
1" = 1'-0"



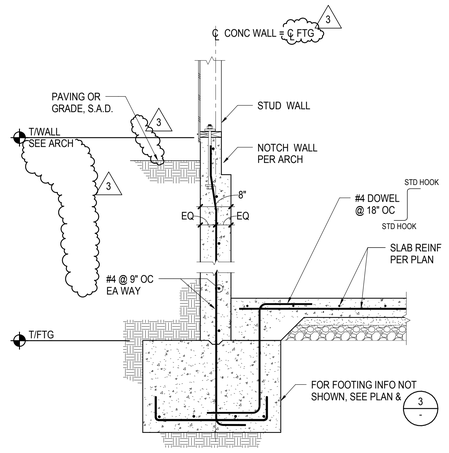
5 FOUNDATION SECTION AT INTERIOR WALL
1" = 1'-0"



2 INTERIOR CONTINUOUS FOOTING
3/4" = 1'-0"



10 CONTINUOUS FOOTING INTERSECTIONS
1" = 1'-0"



4 TYPICAL FOUNDATION SECTION
3/4" = 1'-0"

CONTINUOUS FOOTING SCHEDULE					
MARK	W	D	LONG BARS	TRANSVERSE BARS	DETAIL
CF-1	2'-0"	1'-6"	3-#5	#4@12 OC, UON	3 -
CF-2	2'-0"	2'-0"	3-#5	#5@12 OC, UON	3 -
CF-3	3'-0"	2'-0"	4-#5	#6@12 OC, UON	3 -

NOTES:

1. WHERE CONTINOUS FOOTING INTERSECTS COLUMN FOOTING, EXTEND LONGITUDINAL REINFORCING THRU COLUMN FOOTING, SEE 12 -.
2. WHERE CONTINUOS FOOTING TERMINATES AT COLUMN FOOTING, EXTEND LOGITUDINAL REINF Ldn MIN INTO PER PENDICULAR FOOTING, UON.
3. STEP CONTINUOUS FOOTINGS WHEN TOP OF INTERSECTING FOOTINGS ARE DIFFERENT ELEVATIONS. SEE PLAN AND 6 S3.02.
4. FOR INTERSECTING FOOTING REINFORCEMENT, SEE 10 -.

1 CONTINUOUS FOOTING SCHEDULE
NOT TO SCALE

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1001

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APPROVED BY: DATE: ____ 20__
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CITY OF SANTA MONICA
DEPARTMENT OF PUBLIC WORKS

REVIEWED BY: DATE: ____ 20__

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	05/07/12		PLAN CHECK 1
1	02/21/12		ADDENDUM 2

REVISIONS

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6693
SHEET TITLE
FOUNDATION SECTIONS AND DETAILS
SHEET NO.
S3.03

SHEET OF
DWG. NO:
TITLE OF PROJECT:
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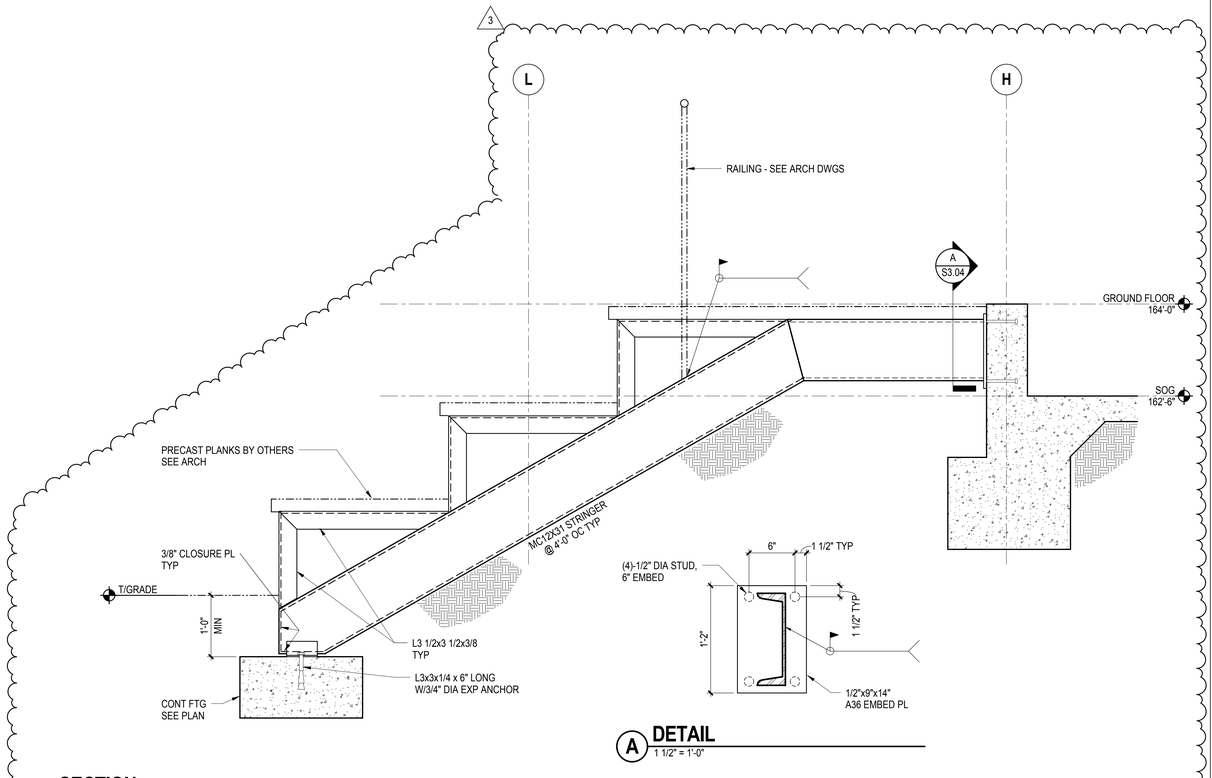
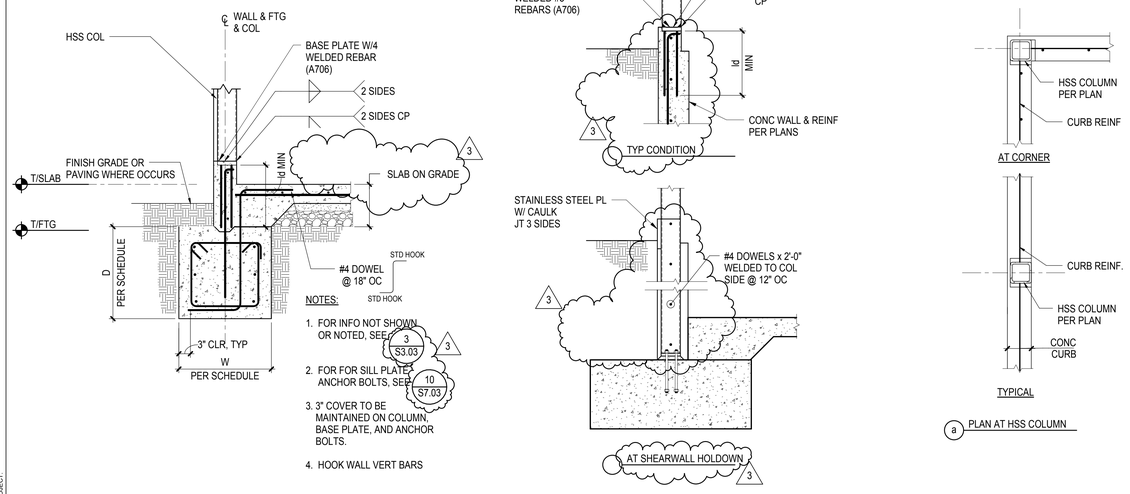
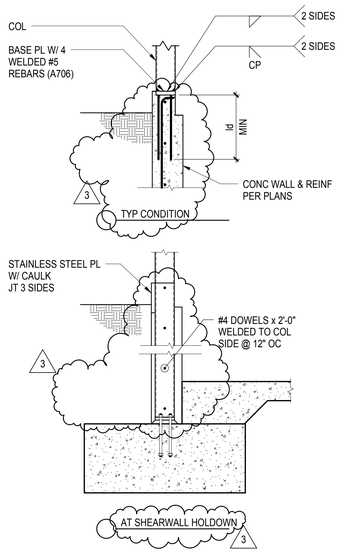


2 SECTION
1" = 1'-0"

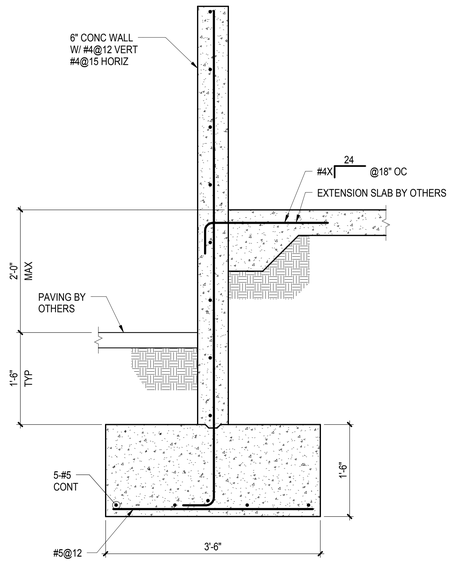
A DETAIL
1 1/2" = 1'-0"



10 EXTERIOR CONTINUOUS FOOTING WITH HSS COLUMN
3/4" = 1'-0"



a PLAN AT HSS COLUMN



1 SITE WALL AT ENTRY
1" = 1'-0"

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SHEET TITLE
FOUNDATION DETAILS

SHEET NO.
S3.04

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TITLE OF PROJECT:

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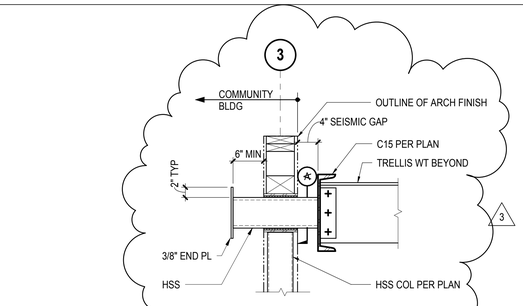
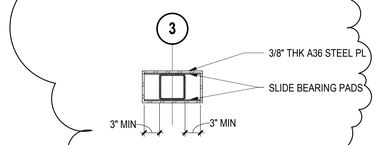
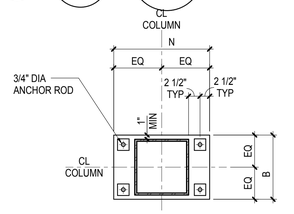


SECTION

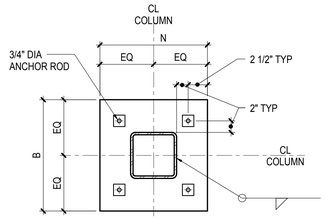


A DETAIL

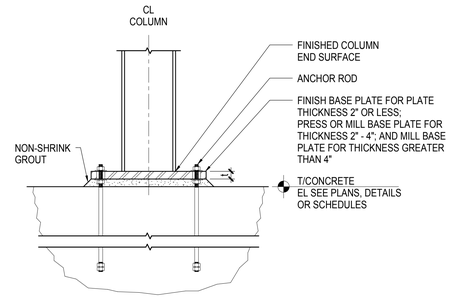
3 WEST TRELLIS DETAIL
1" = 1'-0"



RECTANGULAR BASE PLATE AT EXTERIOR LOCATIONS PLAN



SQUARE BASEPLATE AT INTERIOR LOCATIONS PLAN



ELEVATION

NOTES:

1. SEE COLUMN SCHEDULE FOR BASE PLATE SIZE, ORIENTATION AND THICKNESS.
2. BASE PLATE THICKNESS SHOWN IS A MIN. DIMENSION AFTER ALL MILLING IS COMPLETED.
3. COLUMN STABILITY DURING ERECTION IS RESPONSIBILITY OF CONTRACTOR
4. SEE ANCHOR ROD SCHEDULE AND TYPICAL ANCHOR ROD DETAIL FOR ADDITIONAL INFORMATION.
5. CONTRACTOR'S OPTION TO FIELD WELD COLUMNS TO BASEPLATES FOR HEAVY BASEPLATES.

1 TYPICAL BASEPLATE DETAILS
3/4" = 1'-0"

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SHEET TITLE
TYPICAL STEEL COLUMN DETAILS

SHEET NO.
S5.01

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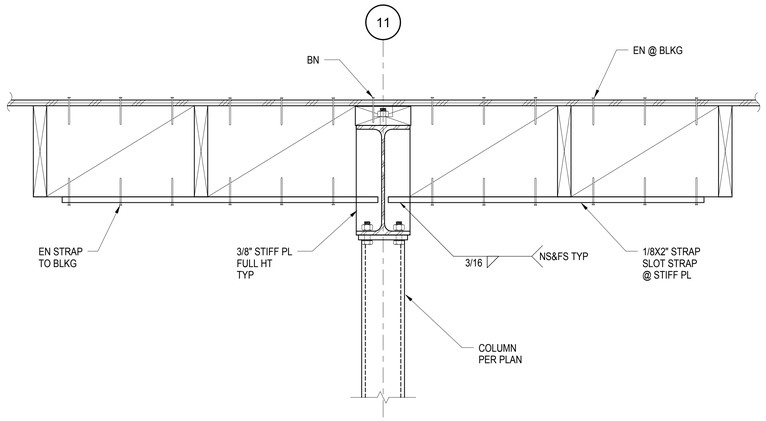
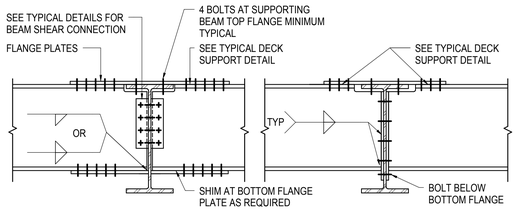
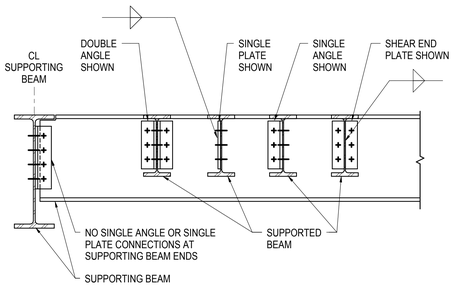


12 BRACE DETAIL AND COLUMN
1 1/2" = 1'-0"



A ALL BOLTED WITH FLANGE PLATE

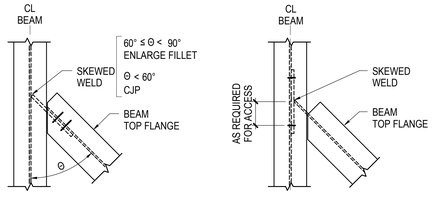
B ALL BOLTED WITH END PLATE



NOTES:

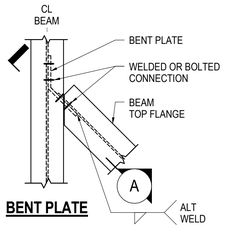
1. SUPPORTED BEAMS PRIMARILY SUPPORT DISTRIBUTED LOADS FROM SLABS OR DECKING.
2. SUPPORTING BEAMS SUPPORT SIGNIFICANT POINT LOADS FROM ONE OR MORE SUPPORTED BEAMS OR FROM COLUMNS BEING TRANSFERRED. SUPPORTING BEAMS MAY BE SUPPORTED BY COLUMNS OR BY OTHER SUPPORTING BEAMS.
3. FOR AISC SIMPLE SHEAR CONNECTIONS AT SUPPORTED BEAM ENDS, DOUBLE ANGLE, SINGLE PLATE, SINGLE ANGLE, OR SHEAR END PLATE MAY BE USED UON.
4. WELDED/BOLTED OR BOLTED/BOLTED CONNECTIONS PER AISC ARE PERMITTED.

3 TYPICAL BEAM TO BEAM SHEAR CONNECTION (4 TYPES)
3/4" = 1'-0"

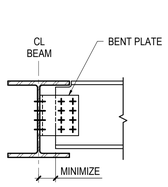


SKEWED SINGLE PLATE

SKEWED SHEAR END PLATE

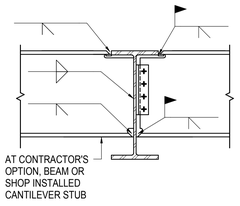


BENT PLATE

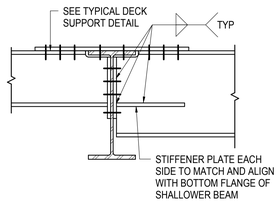


A SECTION

8 TYPICAL SKEWED BEAM SHEAR CONNECTION
3/4" = 1'-0"



C ALL WELDED

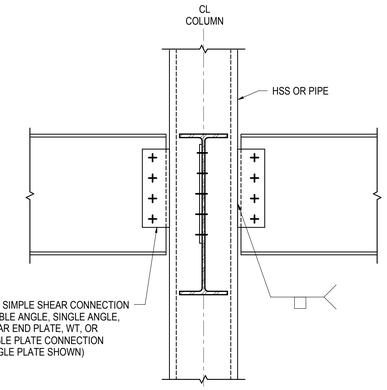


D VARIED DEPTH / BOLTED WITH END PLATE

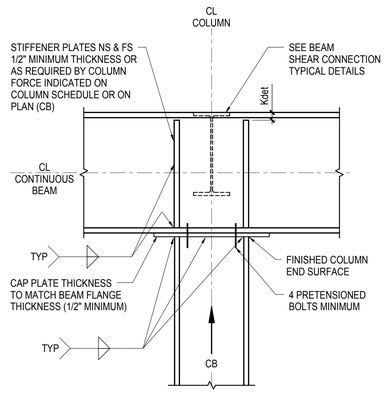
NOTES:

1. ALL BOLTED MOMENT AND AXIAL CONNECTIONS AT A MINIMUM SHALL HAVE PRETENSIONED BOLTS IN STANDARD HOLES AT FLANGES AND WEBS UON.
2. BOLTED MOMENT CONNECTIONS AT CANTILEVERS AND BACKSPANS SHALL USE SLIP CRITICAL BOLTS.

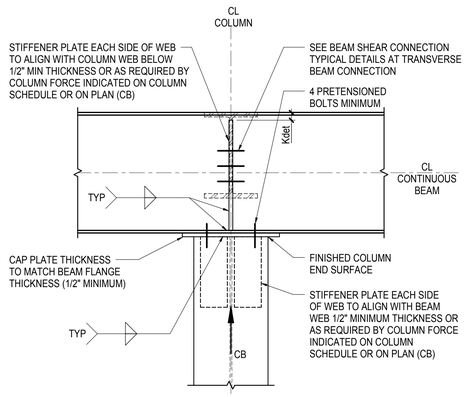
5 TYPICAL BEAM TO BEAM MOMENT CONNECTION
3/4" = 1'-0"



2 TYPICAL BEAM TO HSS/PIPE COLUMN SHEAR CONNECTION
1" = 1'-0"



A COLUMN WEB PARALLEL TO BEAM WEB



B COLUMN WEB PERPENDICULAR TO BEAM WEB

7 TYPICAL BEAM BEARING ON COLUMN (AXIAL ONLY)
1" = 1'-0"

1 TYPICAL BEAM CONNECTION SCHEDULE
3/4" = 1'-0"

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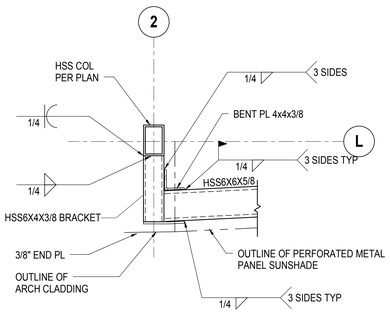
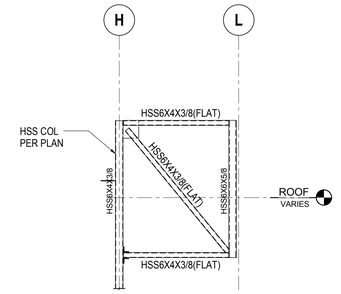
SHEET TITLE
TYPICAL STEEL BEAM DETAILS

SHEET NO.
S5.02

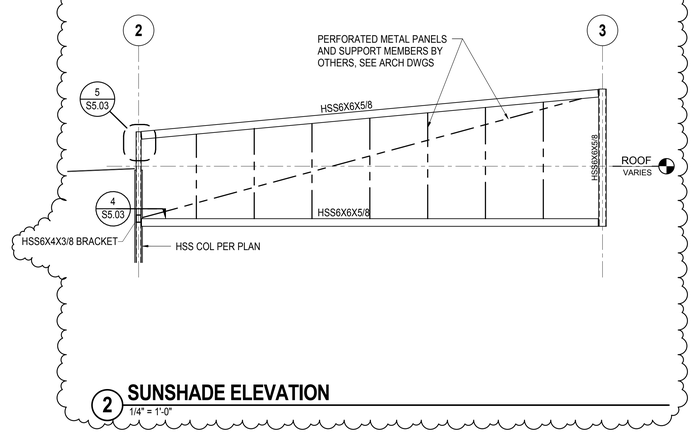


PLAN

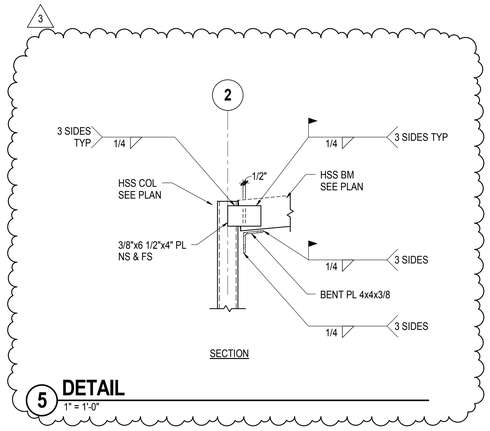
4 DETAIL
1" = 1'-0"



3 SUNSHADE ELEVATION
1/4" = 1'-0"

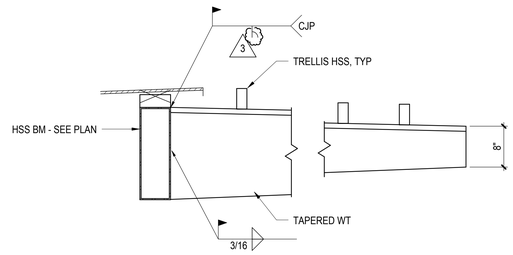


2 SUNSHADE ELEVATION
1/4" = 1'-0"



SECTION

5 DETAIL
1" = 1'-0"



1 SECTION AT TRELLIS
1" = 1'-0"

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Architecture Services Manager

CITY OF SANTA MONICA
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	05/07/12		PLAN CHECK 1

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DATE
07/16/2012

DRAWING NO.
6693

SHEET TITLE
STEEL SECTIONS & DETAILS

SHEET NO.
S5.03

SHEET OF

DWG. NO.:

TITLE OF PROJECT:

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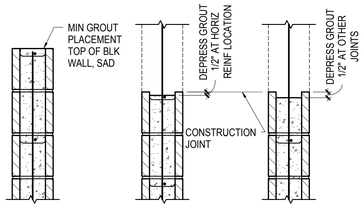
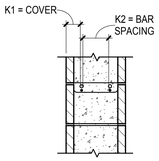


WALL SECTION VIEW

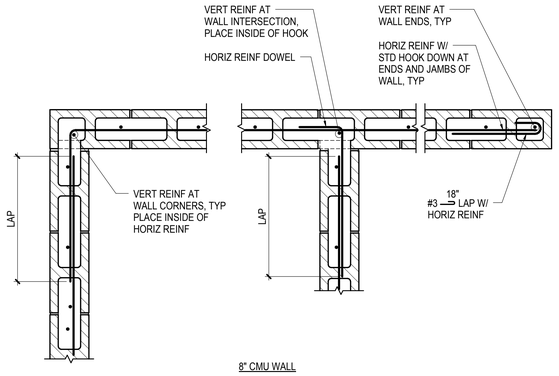
BAR SIZE	LAP SPLICE LENGTH (f'm = 2500 PSI)		
	FOR K ≥ 2db	FOR K ≥ 3db	FOR K ≥ 4db
#3	N.A.	1'-8"	1'-3"
#4	3'-0"	2'-2"	1'-8"
#5	3'-9"	2'-9"	2'-1"
#6	4'-6"	4'-3"	3'-3"
#7	5'-3"	5'-0"	3'-9"
#8	6'-0"	6'-0"	4'-11"
#9	6'-10"	6'-10"	5'-6"



A "K" DIMENSION

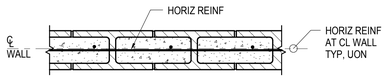
NOTES:
1. "K" SHALL BE TAKE AS THE CMU COVER DIMENSION OR THE CLEAR SPACING BETWEEN ADJACENT BARS, WHICHEVER IS LESS. SEE DETAIL "A" ABOVE.
2. WHERE EPOXY-COATED REINFORCING IS USED, INCREASE LAP SPLICE LENGTH BY 50%.
3. SPLICES OF HORIZONTAL REINFORCEMENT IN WALLS SHALL BE STAGGERED.
4. SPLICES OF HORIZONTAL REINFORCEMENT IN WALLS CONTAINING TWO CURTAINS OF REINFORCEMENT SHALL NOT OCCUR IN THE SAME LOCATION.
5. "N.A." MEANS "NOT ALLOWABLE". INCREASE "K" FOR ALLOWABLE LAP SPLICE.

6 CMU WALL CONSTRUCTION JOINTS
1" = 1'-0"

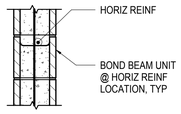


8" CMU WALL

3 REBAR OFFSET AND LAP SPLICE CMU f'm = 2500 PSI
1" = 1'-0"



A 8" CMU WALL PLAN VIEW

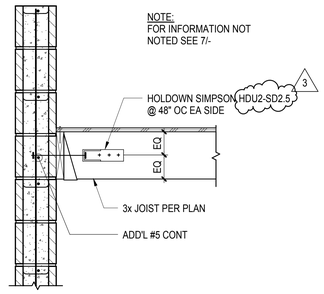


B SECTION VIEW

REINFORCING SCHEDULE FOR CONCRETE MASONRY WALLS				
WALL TYPE	NOMINAL THICKNESS	VERTICAL REINF	HORIZONTAL REINF	NO. OF REINF CURTAINS
CMU1	8"	#5 @ 16"OC	#6 @ 8"OC	SINGLE
CMU2	8"	#5 @ 16"OC	#5 @ 16"OC	SINGLE

NOTES:

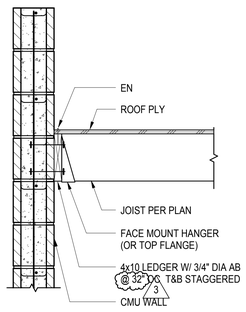
1. SEE PLANS FOR WALL TYPE LOCATIONS.
2. LAP SPLICE REINFORCING PER 3/-.
3. CMU SHALL BE RUNNING BOND AND FULLY GROUTED, UON.
4. USE DOUBLE OPEN END BLOCKS TO THE EXTENT PRACTICAL TYP, DO NOT PLACE CLOSED SIDES BACK TO BACK.
5. SEE STRUCTURAL GENERAL NOTES FOR MATERIAL SPECIFICATION,
6. FOR WALL CONSTRUCTION JOINTS, SEE DETAIL 6/-.
7. FOR WALL CORNERS & INTERSECTIONS, SEE DETAIL 5/-



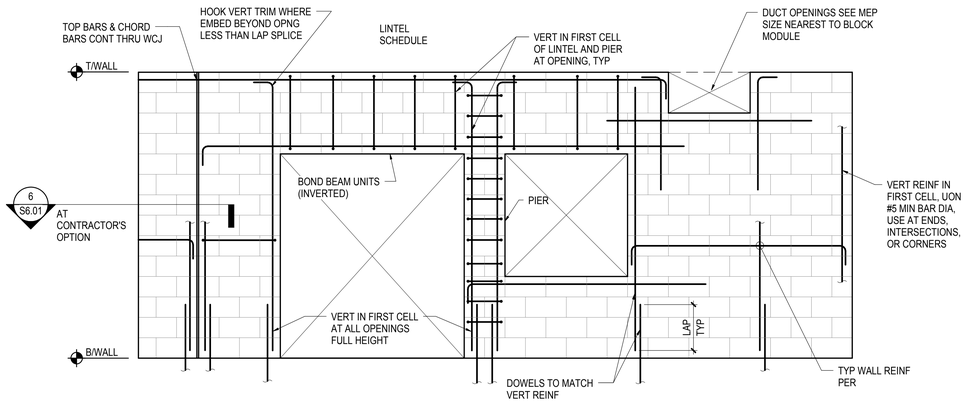
8 CMU WALL TIE AT PERPENDICULAR JOISTS
1" = 1'-0"

5 CMU WALL CORNERS & INTERSECTIONS
1" = 1'-0"

2 CMU WALL REINFORCING SCHEDULE
1" = 1'-0"



7 ROOF JOIST PERPENDICULAR TO EXTERIOR CMU WALL
1" = 1'-0"



4 TYPICAL CMU WALL ELEVATION W/ OPENINGS
1" = 1'-0"

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DEPARTMENT OF PUBLIC WORKS

REVIEWED BY : DATE : 20

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1	02/21/12		ADDENDUM 2

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SHEET TITLE
TYPICAL CMU DETAILS

SHEET NO.
S6.01

	CONNECTION	NAILING [a,m]
1.	Joist to sill or girder, toenail	3-8d
2.	Bridging to joists, toenail each end	2-8d
3.	1" x 6" subfloor or less to each joist, face nail	2-8d
4.	Wider than 1" x 6" subfloor to each joist, face nail	3-8d
5.	2" subfloor to joist or girder, blind and face nail	2-16d
6.	Sole plate to joist or blocking, typical face nail Sole plate to joist or blocking, at braced wall panels	16d at 16" OC 3-16d per 16"
7.	Top plate to stud, end nail	2-16d
8.	Stud to sole plate	4-8d, toenail or 2-16d, end nail [(s)]
9.	Double studs, face nail	16d at 24"OC
10.	Double top plates, typical face nail	16d at 16"OC UON
11.	Blocking between joists or rafters to top plate, toenail	3-8d
12.	Rim joist to top plate, toenail	8d at 6" OC
13.	Top plates, laps and intersections, face nail	2-16d
14.	Continuous header, two pieces	16d at 16" OC along each side
15.	Ceiling joists to plate, toenail	3-8d
16.	Continuous header to stud, toenail	4-8d
17.	Ceiling joist, laps over partitions, face nail	3-16d [q]
18.	Ceiling joists to parallel rafters, face nail	3-16d [q]
19.	Joist or rafters at all bearings-toenails, each side	3-8d [r]
20.	1" brace to each stud and plate, face nail	2-8d
21.	1" x 8" sheathing or less to each bearing, face nail	3-8d
22.	Wider than 1" x 8" sheathing to each bearing, face nail	3-8d
23.	Built-up corner studs	16d at 24" OC
24.	Built-up girder and beams [5]	20d at 32" OC face nail at top & bottom & staggered 2-20d face nail at ends & at each splice
25.	2" planks	16d at each bearing
26.	Collar tie to rafter, face nail	3-10d
27.	Jack rafter to hip, toenail Jack rafter to hip, toenail	3-10d 2-16d
28.	Roof rafter to 2-by ridge beam, toenail Roof rafter to 2-by ridge beam, face nai	2-16d 2-16d
29.	Joist to band joist, face nail	3-16d
30.	Ledger strip, face nail	3-16d
31.	Wood structural panels and particleboard [b] Subfloor, roof and wall sheathing (to framing): 1/2" and less 19/32" - 3/4" 7/8" - 1" 1 1/8" - 1 1/4" Combination subfloor-underlayment (to framing): 3/4" and less 7/8" - 1" 1 1/8" - 1 1/4"	 6d [c] 8d [d] or 6d [e] 8d [e] 10d [d] or 8d [e] 6d [e] 8d [e] 10d [d] or 8d [e]
32.	Panel siding (to framing): 1/2" or less 5/8"	 6d [f] 8d [f]
33.	Fiberboard Sheathing: [g] 1/2" 25/32"	 No. 11 ga. [h] 6d [d] No. 16 ga. [i] No. 11 ga. [h] 8d [g] No. 16 ga. [i]
34.	Interior paneling 1/4" 3/8"	 4d [j] 6d [k]

FOOTNOTES:

a. Use common wire nails except where otherwise stated.

b. Nails spaced at 6 inches on center at edges. 12 inches at intermdiate supports except 6 inches at all supports where spans are 48 inches or more. For nailing of wood structural panel and particleboard diaphragms and shear walls, refer to Sections 2305. Nails for wall sheathing may be common, box or casing.

c. Common or deformed shank. (6d-2", 8d-2-1/2", 10d-3")

d. Common. (6d-2", 8d-2-1/2", 10d-3")

e. Deformed shank. (6d-2", 8d-2-1/2", 10d-3")

f. Corrosion-resistant siding or casing nails conforming to the requirements of Section 2304.9.5.

g. Fasteners spaced 3 inches on center at exterior edges and 6 inches on center at intermediate supports, when used as structural sheathing Spacing shall be 6 inches on center on the edges and 12" on center at intermediate supports for non structural applications.

h. Corrosion-resistant roofing nails with 7/16" inch-diameter head and 1-1/2"-inch length for 1/2"-inch sheathing and 1-3/4"-inch length for 25/32-inch sheathing conforming to the requirements of Section 2304.9.5.

i. Corrosion-resistant staples with nominal 7/16-inch crown and 1-1/8-inch length for 1/2-inch sheathing and 1-1/2-inch length for 25/32-inch sheathing conforming to the requirements of Section 2304.9.5.

j. Casing or finish nails spaced 6-inches on panel edges, 12 inches at intermediate supports.

k. Panel supports at 24". Casing or finish nails spaced 6" on panel edges, 12" at intermediate supports.

l. For roof sheathing applications, 8d nails are the minimum required for wood structural panels.

m. Staples shall have a minimum crown width of 7/16 inch.

n. For roof sheathing applications, fasteners spaced 4 inches on center at edges, 8 inches at intermediate supports.

o. Fasteners spaced 4 inches on center at edges, 8 inches at intermediate supports for subfloor and wall sheathing and 3 inches on center at edges, 6 inches at intermediate supports for roof sheathing.

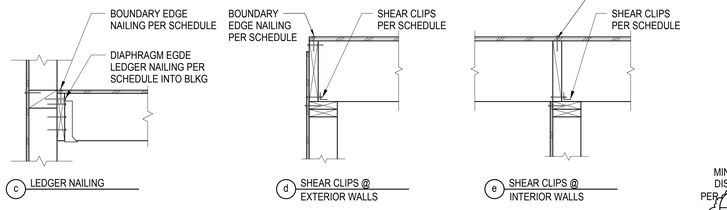
p. Fasteners spaced 4 inches on center at edges, 8 inches at intermediate supports.

q. For roof slopes 3:12 or greater in which ceiling joists serve as a tie for roof rafters, minimum nailing per CBC Table 2308.10.4.1.

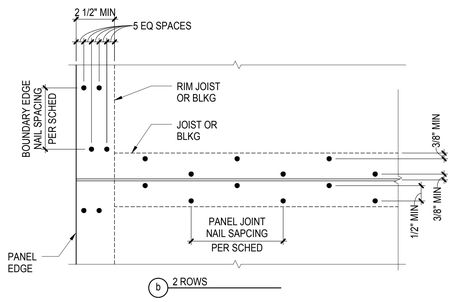
r. For roof slopes 3:12 or greater in which ceiling joists serve as a tie for roof rafters, minimum nailing must be adequate to withstand minimum wind uplift per CBC Table 2308.10.1.

s. At 3x sole, 2-20d end nails shall be used in place of 2-16d end nails.

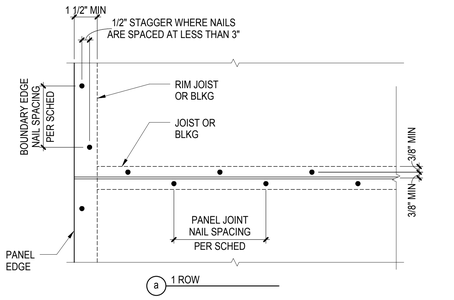
10 NAILING SCHEDULE
NOT TO SCALE



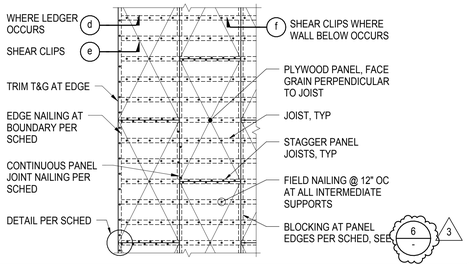
c LEDGER NAILING d SHEAR CLIPS @ EXTERIOR WALLS e SHEAR CLIPS @ INTERIOR WALLS



b 2 ROWS



a 1 ROW



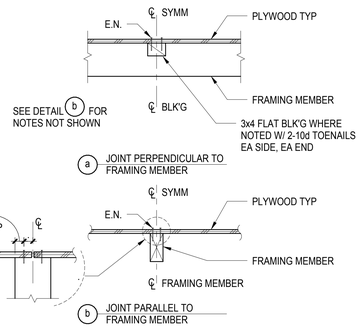
PLYWOOD NAILING SCHEDULE

MARK	NAIL SIZE	BOUNDARY EDGE NAIL SPACING	CONTINUOUS PANEL JOINT EDGE NAIL SPACING	STAGGERRED PANEL JOINT EDGE NAIL SPACING	DETAIL	BLOCKING REQUIRED	DIAPHRAGM EDGE LEDGER NAILING (OR SCREWS AS NOTED)	SHEAR CLIP SPACING (5)
1	10d				a			
2	8d							
3								

NOTES:

1. FOR 8d NAILS, PROVIDE 1 3/8" MINIMUM PENETRATION INTO FRAMING.
   FOR 10d NAILS, PROVIDE 1 1/2" MINIMUM PENETRATION INTO FRAMING.
2. MINIMUM PLYWOOD SHEATHING WIDTH IS 24".
3. SEE GENERAL NOTES FOR PLYWOOD GRADES AND THICKNESS.
4. 1 PSCA/PSCL OR EQUIVALENT AS REQD FOR ALIGNMENT AT ALL PANEL EDGES.
5. SHEAR CLIP SPACING AT SHEAR WALLS PER SHEAR WALL SCHEDULE.

7 DIAPHRAGM NAILING SCHEDULE
NOT TO SCALE



6 DIAPHRAGM PLYWOOD NAILING
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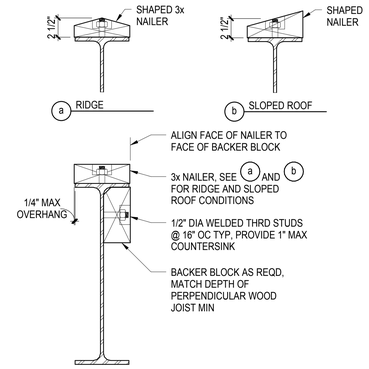


3 TYPICAL NAILER AND BACKER BLOCK
1 1/2" = 1'-0"

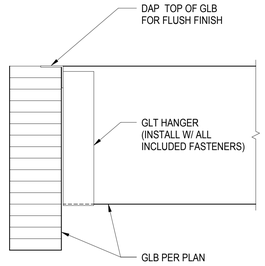
HANGER SCHEDULE

JOIST SIZE	HANGER AT JOIST TO WOOD BEAM: TYPICAL HANGER	FASTENERS INTO SUPPORT	SKEWED AND/OR SLOPED HANGER	FASTENERS INTO SUPPORT	HANGER AT JOIST TO STEEL WF BEAM: TYPICAL HANGER	FASTENERS INTO NAILER	SKEWED AND/OR SLOPED HANGER	FASTENERS INTO NAILER
2x4	LUS24	4-10dx1-1/2"	U24	4-10dx1-1/2"				
2x6	LUS26	4-10dx1-1/2"	U26	6-10dx1-1/2"	LB26	4-16dx2-1/2"	LBV, W=1-9/16	6-16dx2-1/2"
2x8	LUS28	6-10dx1-1/2"	U26	6-10dx1-1/2"	LB28	4-16dx2-1/2"	LBV, W=1-9/16, H=7-1/4	6-16dx2-1/2"
2x10	LUS210	8-10dx1-1/2"	U210	10-10dx1-1/2"	LB210	4-16dx2-1/2"	LBV, W=1-9/16, H=9-1/4	6-16dx2-1/2"
DBL 2x10	LUS210-2	8-16dx1-1/2"	U210-2	14-10dx1-1/2"	-	-	-	-
2x12	LUS210	8-10dx1-1/2"	U210	10-10dx1-1/2"	LB212	4-16dx2-1/2"	-	-

NOTES:

1. PROVIDE AND INSTALL NAILS INTO JOIST PER HANGER MANUFACTURER'S INSTRUCTIONS. FILL ALL HOLES TO ACHIEVE MAXIMUM VALUES AS SPECIFIED BY MFR.
2. TYPICAL HANGERS MAY BE USED UP TO 5° SKEW AND/OR 1/2":12 SLOPE. OTHERWISE PROVIDE SKEWED AND/OR SLOPED HANGERS.
3. SEE DETAIL 3 ON THIS SHEET FOR TYPICAL ATTACHMENT OF NAILERS AND BACKER BLOCK TO WIDE FLANGE BEAMS.

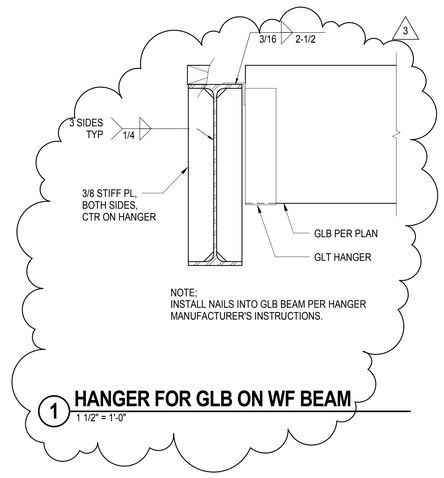
5 HANGER SCHEDULE
NOT TO SCALE



NOTE:1

1. INSTALL NAILS INTO GLB BEAMS PER HANGER MANUFACTURER'S INSTRUCTIONS.

4 HANGER FOR GLB TO GLB
1 1/2" = 1'-0"



1 HANGER FOR GLB ON WF BEAM
1 1/2" = 1'-0"

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ARCHITECT'S PROJECT NO.
1001

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SHEET TITLE
TYPICAL WOOD DETAILS AND SCHEDULES
SHEET NO.
S7.01

SHEET OF
DWG. NO.:
TITLE OF PROJECT:

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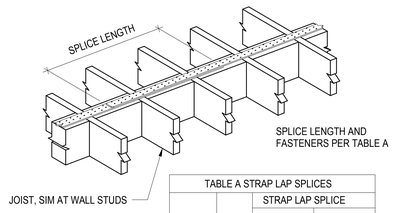
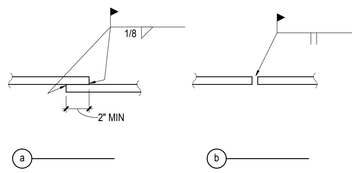


TABLE A STRAP LAP SPLICES			
MODEL No.	GAGE	STRAP LAP SPLICE	
		MINIMUM FASTENERS PER SPLICE	MINIMUM SPLICE LENGTH
CMST12	12	25-16d	22"
		30-10d	27"
CMST14	14	18-16d	16"
		21-10d	19"
CMSTC16	16	13-16d	11"
		15-10d	12"

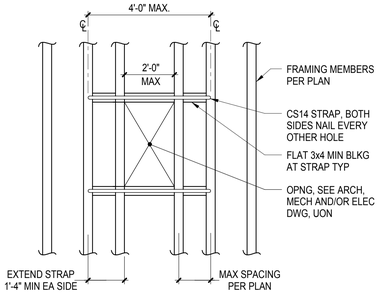
NOTES:
1. NO STRAP MODIFICATION IS ALLOWED AND SPLICE MUST MEET BOTH MINIMUM NUMBER OF FASTENERS AND THE MINIMUM SPLICE LENGTH.
2. ALTERNATE PER DETAIL 9/-. MAY BE USED AT CONTRACTOR'S OPTION.

12 STRAP SPLICE
NOT TO SCALE

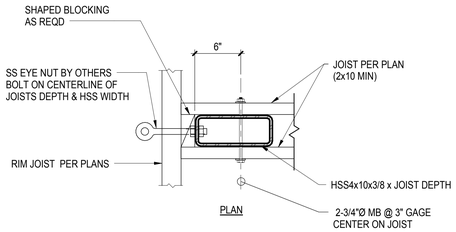


NOTE:
EITHER DETAIL (a) OR (b) MAY BE USED IN LIEU OF 1/-. COORDINATE ARCHITECTURAL FINISH REQUIREMENTS.

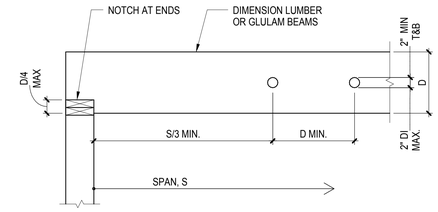
9 STRAP SPLICE - ALTERNATE
NOT TO SCALE



6 SMALL OPENING IN DIAPHRAGM
1/2" = 1'-0"



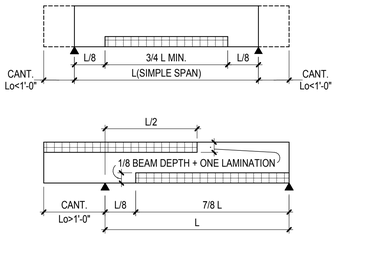
3 EYE BOLT ANCHOR DETAIL
1 1/2" = 1'-0"



NOTE:

1. NOTCH MAY OCCUR TOP OR BOTTOM, NOT BOTH.

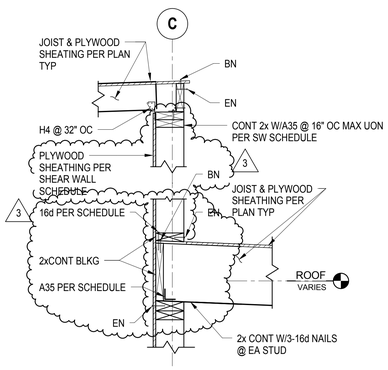
11 HOLES AND NOTCHES IN BEAMS
1" = 1'-0"



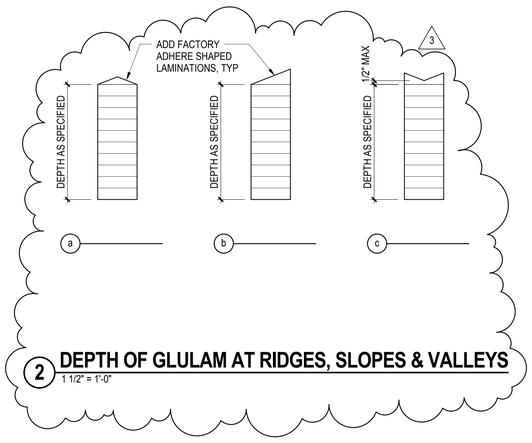
BEAM WITH ONE END CANTILEVERED

CROSS HATCHED AREA = PORTION OF BEAM WHERE THERE SHALL BE 6" MIN. END JOINT SPACING IN ADJACENT LAMINATIONS.

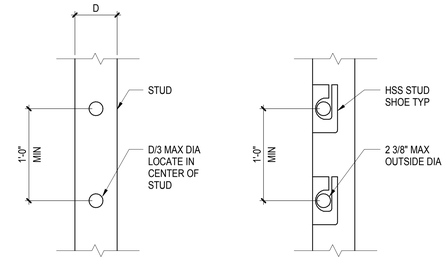
8 GLULAM LAMINATION SPLICE CRITERIA
1" = 1'-0"



5 SECTION
1" = 1'-0"



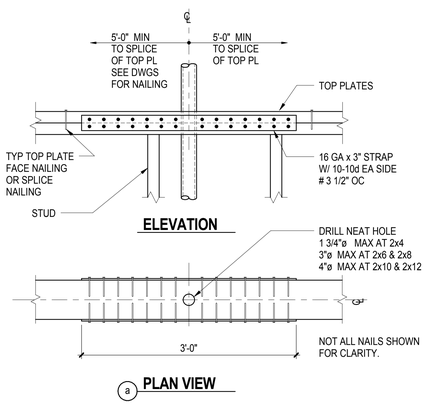
2 DEPTH OF GLULAM AT RIDGES, SLOPES & VALLEYS
1 1/2" = 1'-0"



a TYPICAL STUD WALLS

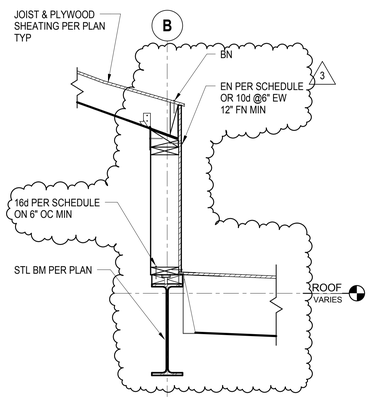
b INTERIOR NON-SHEAR WALLS

10 PENETRATIONS THROUGH WALL STUDS
1 1/2" = 1'-0"



a PLAN VIEW

7 TOP PLATE MEP PENETRATION
1 1/2" = 1'-0"



4 SECTION
1" = 1'-0"

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ARCHITECT'S PROJECT NO.
1001

ARCHITECT

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	05/07/12		PLAN CHECK 1

REVISIONS

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6693
SHEET TITLE
TYPICAL WOOD DETAILS
SHEET NO.
S7.02

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DWG NO.:
TITLE OF PROJECT:
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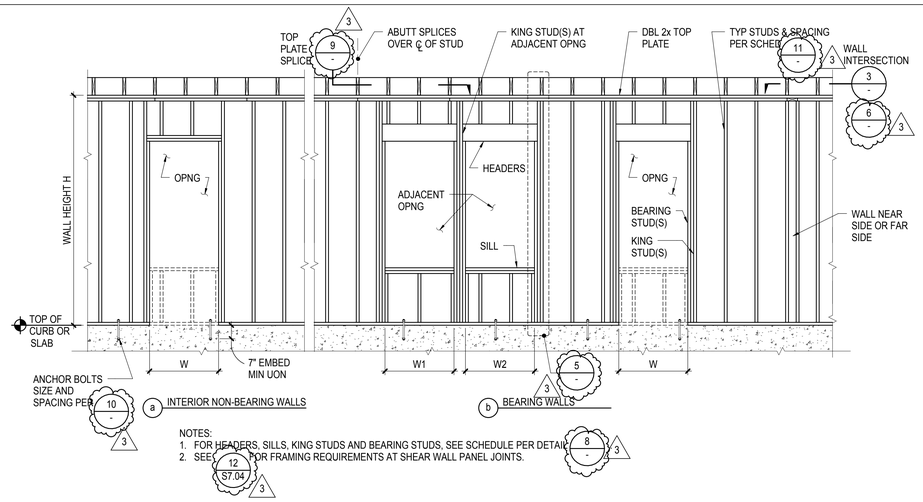
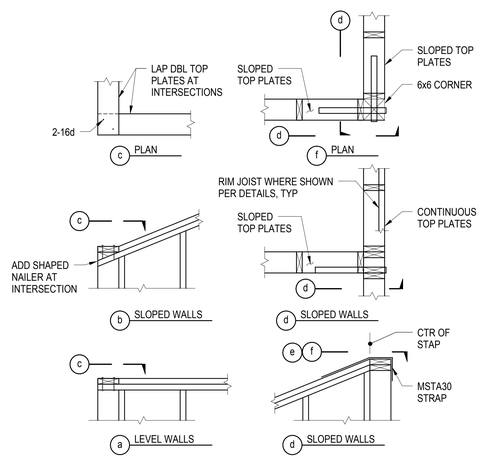
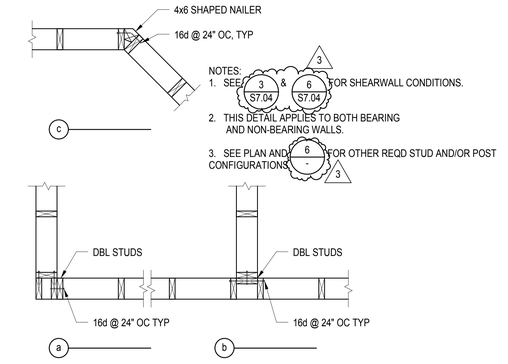


12 TYPICAL WALL FRAMING
3/8" = 1'-0"



6 TOP PLATE INTERSECTIONS
3/4" = 1'-0"



3 WALL INTERSECTIONS
3/4" = 1'-0"

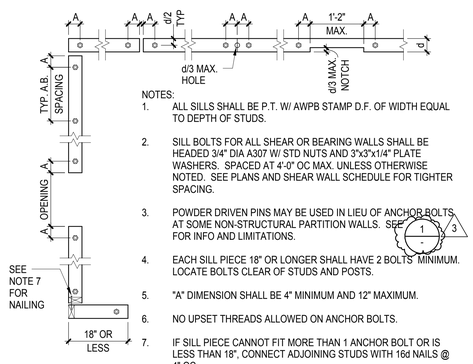
BEARING WALL STUD SCHEDULE		
WALL HEIGHT	STUD SIZE	SPACING
H ≤ 15'-0"	2x6	16"
15'-0" < H ≤ 19'-0"	2x6	8"

a

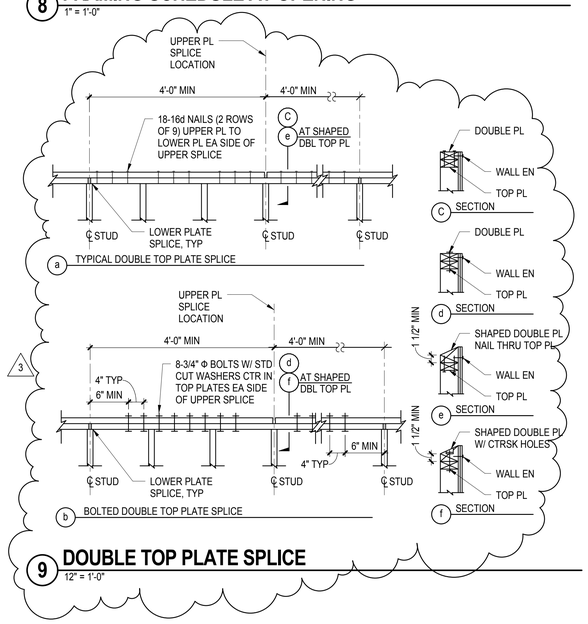
INTERIOR NON-BEARING WALL STUD SCHEDULE		
WALL HEIGHT	STUD SIZE	SPACING
H ≤ 10'-0"	2x4	16"
10' < H ≤ 15'-0"	2x6	16"
15'-0" < H ≤ 24'-0"	2x6	8"

b

11 WALL STUD SCHEDULE
1" = 1'-0"



10 ANCHOR BOLT AND SILL PLATE
3/4" = 1'-0"



8 FRAMING SCHEDULE AT OPENING
1" = 1'-0"

9 DOUBLE TOP PLATE SPLICE
12" = 1'-0"

NON-BEARING WALL SCHEDULE						
OPENING WIDTH	KING STUD(S)	ADJACENT OPENINGS		HEADER DEPTH	BEARING STUD(S)	SILL
		COMBINED WIDTH W1+ W2	KING STUD(S)			
W≤ 6'-0"	2-2x	6'-0" MAX	2-2x	2-2x	1-2x	1-2x
W≤ 10'-0"	2-2x	10'-0" MAX	3-2x	3-2x	1-2x	1-2x

b

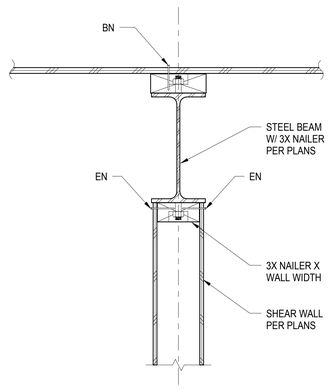
NOTES:

1. NOTE: AT HD, USE POST PER 10 S7.04 AND ADD KING STUD(S) TO HD POST IF REQUIRED TO CREATE A TOTAL POST WIDTH GREATER THAN THE SCHEDULED KING POST.
2. STUD, SILL, AND HEADER WIDTHS TO MATCH WALL FRAMING SIZE.

BEARING WALL SCHEDULE						
OPENING WIDTH	KING STUD(S)	ADJACENT OPENINGS		HEADER DEPTH UON ON PLAN	BEARING STUD(S)	SILL
		COMBINED WIDTH W1+ W2	KING STUD(S)			
W≤ 6'-0"	2-2x	6'-0" MAX	3-2x	8x	1-2x6	1-2x
W≤ 8'-0"	3-2x	8'-0" MAX	4-2x	10x	2-2x6	2-2x
W≤ 10'-0"	3-2x	10'-0" MAX	4-2x	12x	2-2x6	2-2x

a

5 WALL OPENING
1" = 1'-0"



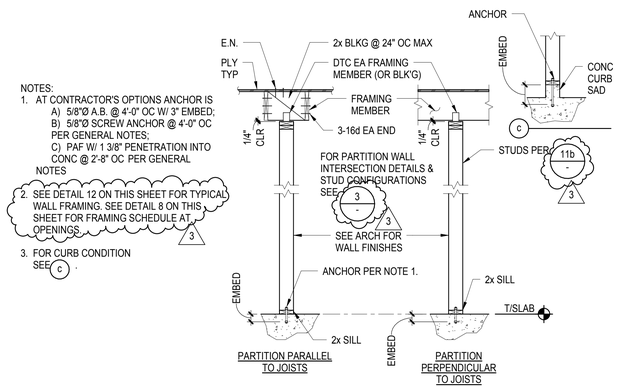
4 SHEAR WALL AT STEEL BEAM
1 1/2" = 1'-0"

POST SCHEDULE		
PLAN DESIGNATION	POST SIZE	COMMENTS
P4	4x4	
P6	6x6	
P8	8x8	
P8a	6x8	
P10	10x10	

NOTES:

1. SEE HOLDOWN SCHEDULE FOR ADDITIONAL POST REQUIREMENTS.
2. SEE GENERAL NOTES FOR REQUIRED LUMBER GRADING.
3. SEE PLAN FOR POST LOCATIONS.

2 POST SCHEDULE
1" = 1'-0"



1 NON-BEARING WALL PARTITION
1/2" = 1'-0"

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REVISIONS

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DATE
07/16/2012
DRAWING NO.
6693

SHEET TITLE
TYPICAL WOOD WALL FRAMING DETAILS
SHEET NO.
S7.03

SHEET OF
DWG. NO.:
TITLE OF PROJECT:

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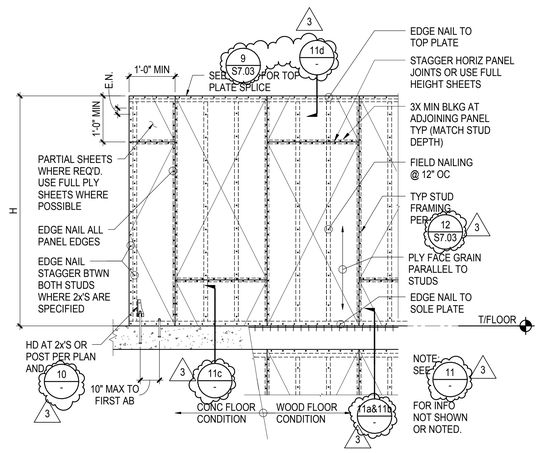


12 SHEARWALL ELEVATION

3/8" = 1'-0"

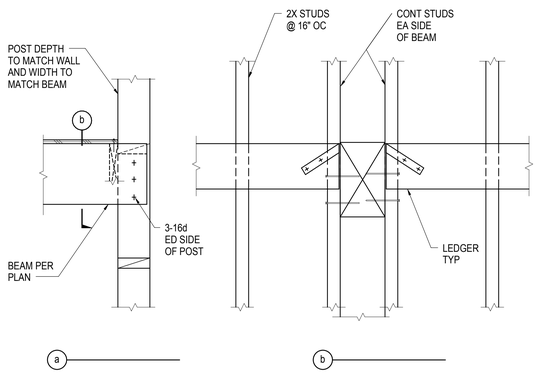
BEARING WALL STUD SCHEDULE							
	DETAIL CONDITION						
	a		b	c		d	
SHEARWALL SYMBOL (1) (2)	SOLE PLATE NAILING	SOLE PLATE SIZE	SHEAR CLIP	ANCHOR BOLT	MUD SILL	SHEAR CLIP	SHEARWALL CAPACITY (lbs/in)
6 (4)	-	-	-	3/4"DIA @ 4'-0"OC	2x	A35 @ 12" OC	340
4 (4)	-	-	-	3/4"DIA @ 4'-0"OC	3x	A35 @ 8" OC	510
4 4 (3)(4)	-	-	-	3/4"DIA @ 2'-0"OC	3x	A35 @ 8" OC EA SIDE	1020

NOTES:

1. USE 10d (2 1/8" LONG) COMMON WIRE NAILS UON
2. # NUMBER SHOWN IN SYMBOL REPRESENTS PLYWOOD PANEL EDGE NAIL SPACING IN INCHES.
3. ◇◇ DENOTES PLYWOOD ON BOTH SIDES OF WALL.
4. PROVIDE 3x FRAMING MEMBERS AT ALL PLYWOOD ADJOINING PANEL EDGES. STAGGER NAILS ON EACH SIDE OF STUD WHERE PLYWOOD IS ON BOTH SIDES. PROVIDE 1/2" MIN EDGE DISTANCE FROM PANEL EDGES AND 1/2" MIN EDGE DISTANCE OF CONNECTING MEMBERS.
5. USE LTP4 AS ALTERNATE TO A35 UON.
6. SEE DETAIL 10/S7.03 FOR ANCHOR BOLT AND SILL DETAIL.
7. PILOT DRILL HOLES FOR SOLE PLATE NAILING OR BOLTING.
8. NAILS INTO PRESSURE TREATED MUD SILL SHALL BE GALVANIZED.
9. SEE DETAIL 12/- FOR TYPICAL SHEAR WALL FRAMING ELEVATION.
10. SEE PLAN AND DETAIL 10/- FOR SHEAR WALL HOLDOWNS.

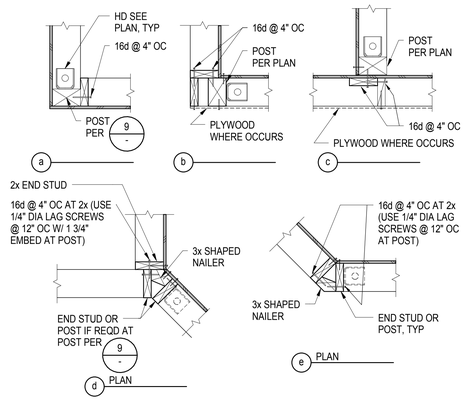
9 BEAM AND POST CONNECTION AT WALL

1" = 1'-0"



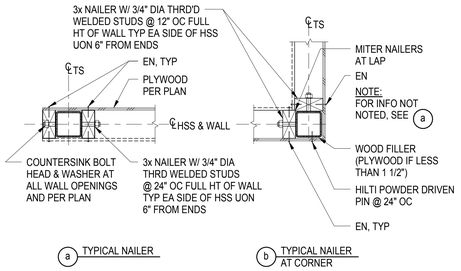
6 SHEARWALL INTERSECTIONS

1" = 1'-0"



3 NAILER AT HSS COLUMN

1" = 1'-0"



11 SHEARWALL SCHEDULE

1" = 1'-0"

HOLDOWN (1)(2)(3)	POST SIZE UON	MIN ANCHOR ROD DIA	MIN ANCHOR ROD EMBED
HDU2-SD2.5	2-2x SW	5/8"	9"
HDU4-SD2.5	2-2x SW	5/8"	9"
HDU5-SD2.5	3-2x SW	5/8"	9"
HDU8-SD2.5	3-2x SW	7/8"	12"
HDU11-SD2.5	4-2x SW	1"	12"
HDU14-SD2.5	5-2x SW	1"	12"

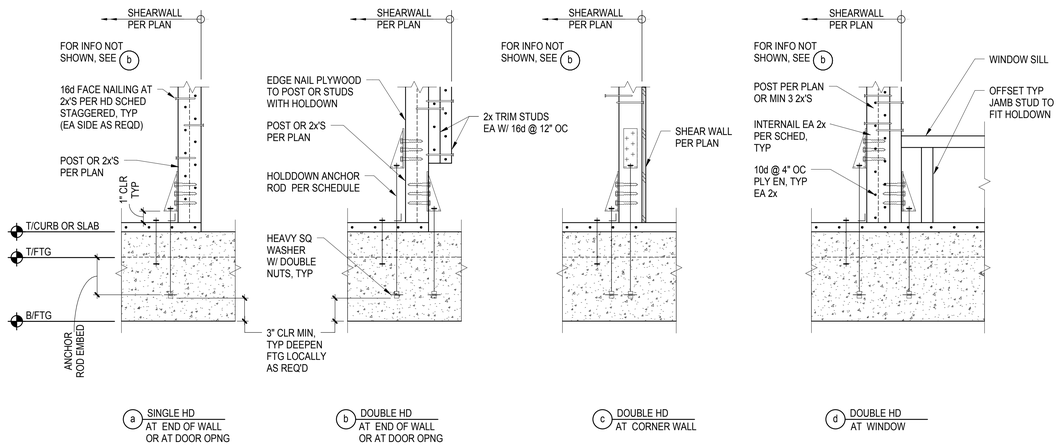
SW = STUD WIDTH

NOTES:

1. SEE PLAN FOR SIZES & LOCATIONS OF HOLDOWNS.
2. FOR HD AT WALL INTERSECTIONS SEE 3 & 6
3. FOLLOW ALL MANUFACTURER'S GUIDELINES NECESSARY TO ACHIEVE FULL ICC DESIGN VALUES.
4. AT MULTIPLE 2x HOLDOWN POST CONDITION, INTERNAIL STUDS W/ STAGGERED 16d @ 6" OC, UON

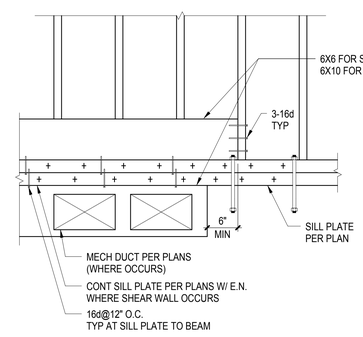
10 SHEARWALL HOLDOWNS INTO FOUNDATION

1 1/2" = 1'-0"



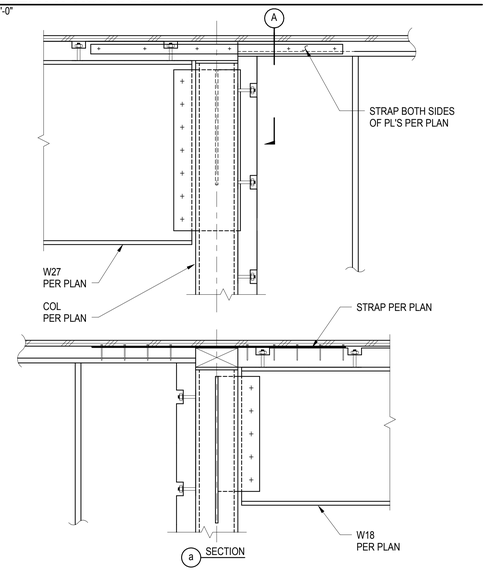
5 DUCT BELOW SHEARWALL

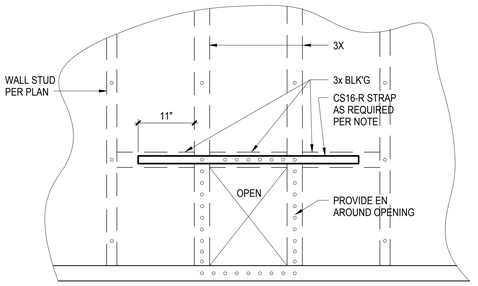
1" = 1'-0"



2 DRAG STRAP AT SHEAR WALL

1 1/2" = 1'-0"





NOTE:
CS16-R STRAP IS REQUIRED WHEN:

1. THE PENETRATION IS LARGER THAN 25% OF WALL LENGTH.
2. THE PENETRATION ARE CLOSER THAN 32" OC.
3. A SECOND HORIZONTAL STRAP IS REQUIRED AT THE BOTTOM OF OPENING WHEN BOTTOM OF OPENING IS NOT AT BOTTOM PLATE.
4. PROVIDE TRIM STUDS, SILL, AND HEADER PER TYPICAL WALL DETAIL WHERE OPENING IS WIDER THAN A STUD BAY.
5. BLOCKING AND STRAPS NOT REQUIRED WHEN PENETRATIONS IS LESS THAN OR EQUAL TO 6" AND SPACED AT 2 OR MORE STUD BAYS.

1 TYPICAL SHEARWALL PENETRATION DETAIL

1" = 1'-0"

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	05/07/12		PLAN CHECK 1
1	02/21/12		ADDENDUM 2

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SHEET TITLE
TYPICAL WOOD SHEARWALL DETAILS
SHEET NO.
S7.04

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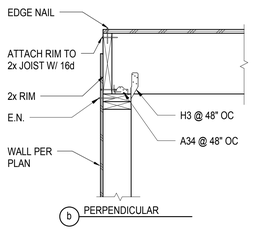
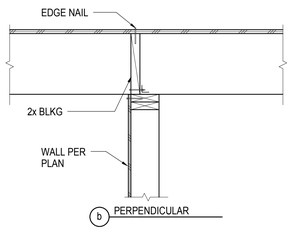
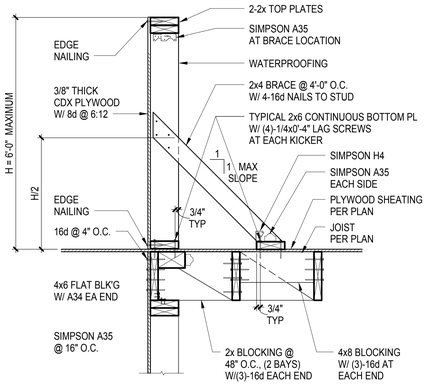
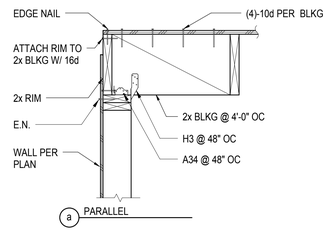
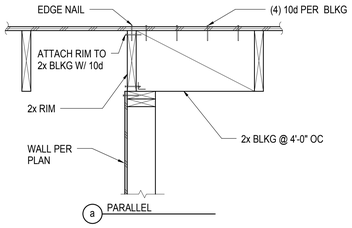










12 ROOF AT EXTERIOR WALL
1" = 1'-0"

NOTES:
1. WHERE JOIST DO NOT ALIGN WITH WALL STUDS, STRAP PER DETAIL 6/-
2. FOR WALLS WITH PLYWOOD SHEATHING ON LEDGER SIDE, SEE DETAIL 10/-

DEPTH	NAILS
11 7/8"	(3) 16d
14"	(4) 16d

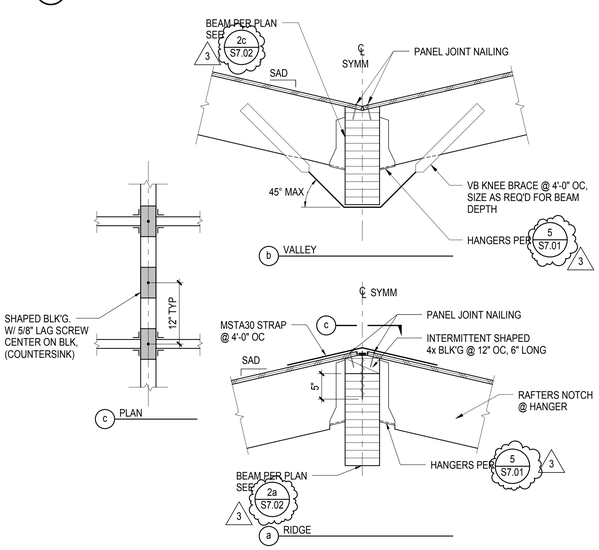
11 ROOF JOIST PERPENDUCULAR TO PARAPET WALL
1" = 1'-0"

9 ROOF JOIST AT INTERIOR WALL
1" = 1'-0"

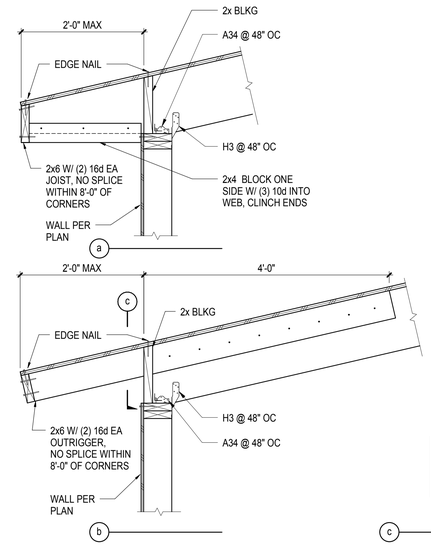
NOTE:
1. FOR INFO NOT SHOWN OR NOTED, SEE 5/-

8 ROOF JOIST PERPENDUCULAR TO PARAPET WALL
1" = 1'-0"

6 TYPICAL PARAPET DETAIL PARALLEL TO JOIST
1" = 1'-0"

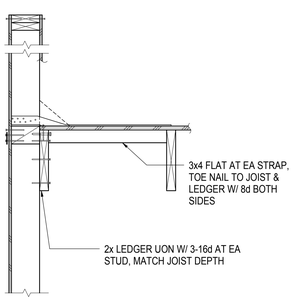


5 RIDGE / VALLEY AT BEAM
1" = 1'-0"



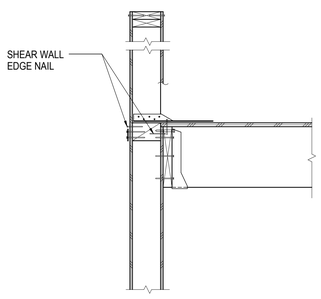
2 ROOF JOIST AT EAVE
1" = 1'-0"

NOTE:
1. FOR INFOR NOT SHOWN OR NOTED, SEE 5/-

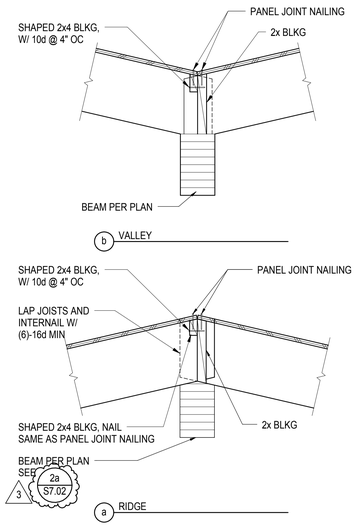


10 ROOF JOIST PARALLEL TO PARAPET WALL
1" = 1'-0"

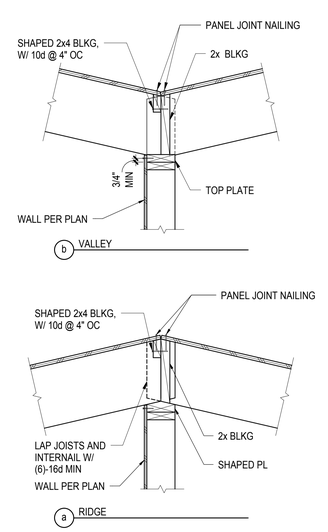
NOTE:
1. FOR INFOR NOT SHOWN OR NOTED, SEE 5/-



7 LEDGER AT PLYWOOD SHEATHING
1" = 1'-0"



4 RIDGE / VALLEY AT BEAM
1" = 1'-0"



1 RIDGE AT WALL
1" = 1'-0"

PICO BRANCH LIBRARY
2201Pico Blvd.
Santa Monica, CA 90404

PROJECT

KoningEizenberg Architecture
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310.828.0719 fax www.kearch.com

ARCHITECT'S PROJECT NO.
1001

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REGISTERED PROFESSIONAL ENGINEER
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DATE : 20
SUBMITTED BY :

DATE : 20
APPROVED BY :
Miriam Mulder,
Architecture Services Manager
CITY OF SANTA MONICA
DEPARTMENT OF PUBLIC WORKS

REVIEWED BY : DATE : 20

REVIEWED BY : DATE : 20

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CITY CLIENT

NO.	DATE	BY	DESCRIPTION
3	07/16/12		BULLETIN 1
	06/20/12		PLAN CHECK 2
	05/07/12		PLAN CHECK 1

REVISIONS

ISSUE
100% CONSTRUCTION DOCUMENTS
DATE
07/16/2012
DRAWING NO.
6693
SHEET TITLE
TYPICAL ROOF JOIST DETAILS
SHEET NO.
S7.05

SHEET OF
DWG. NO.:
TITLE OF PROJECT:

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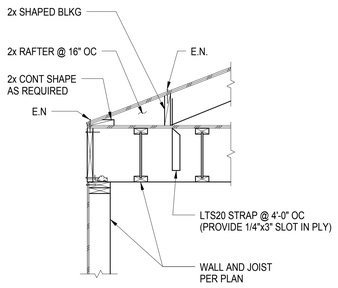
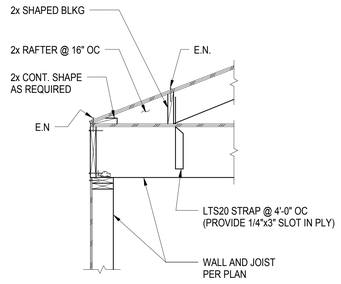
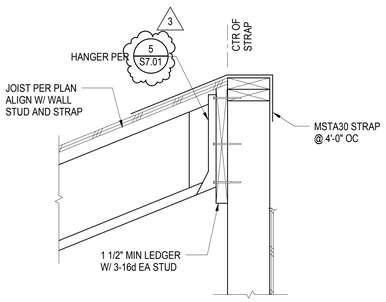
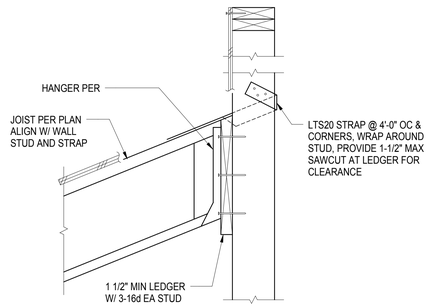




12 CALIFORNIA FRAMING WITH JOIST PERPENDICULAR
3/4" = 1'-0"

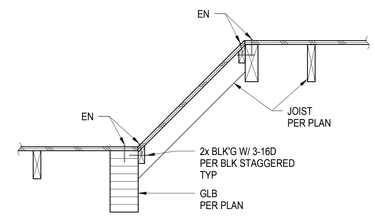
9 CALIFORNIA FRAMING WITH JOIST PARALLEL
3/4" = 1'-0"



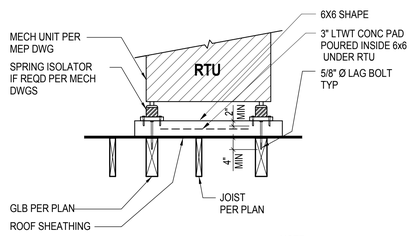


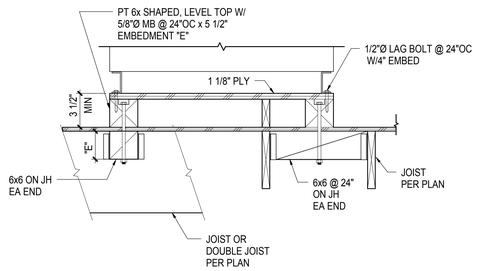
11 ROOF LEDGER
1 1/2" = 1'-0"

8 ROOF LEDGER
1 1/2" = 1'-0"



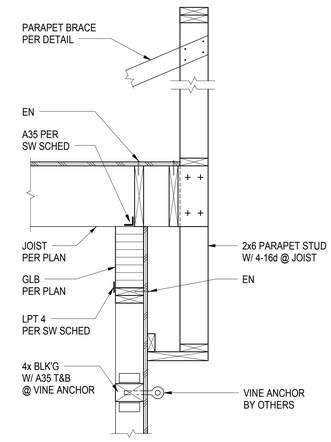
2 DETAIL
1" = 1'-0"





10 TYPICAL MECHANICAL UNIT AT ROOF
3/4" = 1'-0"

7 CONDENSING UNIT SUPPORT
1" = 1'-0"



1 DETAIL
1" = 1'-0"

SHEET OF

DWG NO.:

TITLE OF PROJECT:

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DATE: _____ 20__
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APPROVED BY:
Miriam Mulder,
Architecture Services Manager

CITY OF SANTA MONICA
DEPARTMENT OF PUBLIC WORKS

REVIEWED BY: DATE: _____ 20__

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CITY CLIENT

NO.	DATE	BY	DESCRIPTION
3	07/16/12		BULLETIN 1
	06/20/12		PLAN CHECK 2
	05/07/12		PLAN CHECK 1
1	02/21/12		ADDENDUM 2

REVISIONS

ISSUE

100% CONSTRUCTION DOCUMENTS
DATE
07/16/2012
DRAWING NO.
6693

SHEET TITLE
TYPICAL ROOF DETAILS

SHEET NO.
S7.06