

General Notes (Continued)

SC. STRUCTURAL STEEL CONNECTIONS

- SC.1 ALL LOADS GIVEN ON THE DRAWINGS FOR THE DESIGN OF STRUCTURAL STEEL CONNECTIONS ARE IN ACCORDANCE WITH "LOAD AND RESISTANCE FACTOR DESIGN" (LRFD).
SC.2 CONNECTION DETAILS SHOWN ON THE DRAWINGS ARE CONCEPTUAL UNLESS COMPLETELY DETAILED.
SC.3 ALL STRUCTURAL STEEL CONNECTIONS NOT COMPLETELY DETAILED ON THE STRUCTURAL DRAWINGS SHALL BE DESIGNED BY THE CONTRACTOR TO RESIST FORCES INDICATED.
SC.4 ALTERNATE CONNECTION DETAILS MAY BE UTILIZED BY THE CONTRACTOR WITH PRIOR APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER.
SC.5 DESIGN CALCULATIONS FOR THE CONNECTIONS SHALL BE PROVIDED BY THE CONTRACTOR AND DESIGNED BY A PROFESSIONAL ENGINEER.
SC.6 REQUIRED CONNECTION INFORMATION SHALL BE SHOWN AT EACH DETAILED CONNECTION ON THE SUBMITTAL DRAWINGS AS FOLLOWS:
A. DESIGN REACTION.
B. CALCULATION PAGE NUMBER.
C. CONNECTION CAPACITY.
SC.7 ALL NON-COMPOSITE BEAM CONNECTIONS SHALL BE "SIMPLE SHEAR CONNECTIONS", UNLESS NOTED.
SC.8 WHERE BEAM REACTIONS ARE SHOWN ON THE DRAWINGS, THE CONNECTIONS SHALL DEVELOP THE REACTIONS SHOWN.
SC.9 ERECTION AIDS ARE NOT SHOWN ON THESE DRAWINGS. CONTRACTOR IS TO PROVIDE ERECTION AIDS AS REQUIRED AND REMOVE THEM ONCE WORK IS COMPLETE.
SC.10 AXIAL LOADS AND MOMENTS ARE TO BE CONSIDERED REVERSIBLE AND CONCURRENT WITH SHEAR REACTIONS, UNLESS NOTED.
SC.11 FOR CONNECTION DESIGN AND DETAILING, MEMBER WORK LINES ARE TO BE CONSIDERED ALONG THE MEMBERS' NEUTRAL AXES, UNLESS NOTED.
SC.12 ALL WELDS SHALL CONFORM TO THE AMERICAN WELDING SOCIETY (ANSI/AWS D1.1) STANDARDS AND MUST BE PERFORMED BY AN ANSI/AWS CERTIFIED WELDER.
SC.13 ALL WELD SIZES ARE TO BE CONSIDERED AS EFFECTIVE WELD SIZES AND MUST BE INCREASED TO ACCOUNT FOR ANY GAPS OR SKEWS BETWEEN MEMBERS AS REQUIRED BY ANSI/AWS D1.1.
SC.14 ALL BOLTS SHALL BE 3/4" DIAMETER OR GREATER, UNLESS NOTED. USE SNUG TIGHT BEARING CONNECTIONS FOR ALL BOLTED CONNECTIONS UNLESS NOTED.
SC.15 BOLTS THROUGH 4" WIDE BEAM FLANGES SHALL BE 5/8" DIAMETER.
SC.16 BOLTS LOADED IN TENSION SHALL BE FULLY PRETENSIONED ACCORDING TO RCSC.
SC.17 DO NOT REUSE PRETENSIONED BOLTS.

SJ. STEEL JOISTS

- SJ.1 DESIGN, FABRICATE, AND ERECT STEEL JOISTS IN ACCORDANCE WITH THE SJI.
SJ.2 PROVIDE A MINIMUM END BEARING ON STEEL SUPPORTS AS REQUIRED BY SJI. STAGGER THE ENDS OF JOIST IF NECESSARY. CONTRACTOR COORDINATE METAL DECK SPLICE LOCATION TO CENTER OVER JOIST.
SJ.3 PROVIDE HORIZONTAL AND DIAGONAL BRIDGING IN ACCORDANCE WITH SJI TO PROVIDE ADEQUATE JOIST CHORD BRACING.
SJ.4 AT JOISTS PARALLEL TO MASONRY WALL, WELD EACH BRIDGING ROW TOP BOTTOM TO AN ANGLE 3X3X3/16X0'-6". ANCHOR ANGLE WITH TWO 3/4" DIAMETER SLEEVE ANCHORS WITH A TWO-INCH EMBEDMENT INTO WALL.
SJ.5 PROVIDE SLOPED BEARING ENDS WHERE JOIST SLOPE EXCEEDS 1/4" PER FOOT.
SJ.6 AT JOISTS PARALLEL TO BEAMS, ANCHOR BRIDGING ROWS BY WELDING TO BEAMS.
SJ.7 DESIGN ROOF JOISTS TO RESIST NET WIND UPLIFT PRESSURES. SEE THE COMPONENT AND CLADDING WIND LOAD TABLE SHOWN ON THE DRAWINGS.
SJ.8 DESIGN CALCULATIONS SHALL BE SUBMITTED FOR THE FILES OF THE STRUCTURAL ENGINEER AND ARCHITECT FOR JOISTS WITH CANTILEVERS OR CONCENTRATED LOADS AND FOR JOIST SIZES FOR WHICH STANDARD SJI LOAD TABLES ARE NOT APPLICABLE. CALCULATIONS SHALL BEAR THE SEAL OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED. SHOP DRAWINGS CONTAINING JOISTS FOR WHICH CALCULATIONS HAVE NOT BEEN RECEIVED OR REQUIRED CONNECTION INFORMATION IS NOT PROVIDED WILL BE RETURNED UNCHECKED AS AN INCOMPLETE SUBMITTAL.
SJ.9 PROVIDE JOIST REINFORCEMENT OF ANY CONCENTRATED LOADS NOT LOCATED AT A JOIST PANEL POINT.
SJ.10 CAMBER AND DEFLECTION SHOULD BE CONSIDERED WHEN DETAILING / CONSTRUCTING FRAMING ADJACENT TO OR ATTACHING TO JOISTS.
SJ.11 JOISTS SHALL BE EQUALLY SPACED IN BAYS, UNLESS NOTED.

SD. STEEL DECK

- SD.1 DECK PROPERTIES AND ATTACHMENTS SHALL BE IN ACCORDANCE WITH THE STEEL DECK INSTITUTE.
SD.2 DECK SHALL BE CONTINUOUS OVER THREE OR MORE SPANS.
SD.3 DO NOT SHORE DECK.
SD.4 SIDELAP AND PERIMETER DECK EDGE FASTENERS ARE TO BE INSTALLED BETWEEN SUPPORTS.
SD.5 TYPICAL ROOF DECK: WIDE RIB TYPE "WR", STEEL ROOF DECK, 20 GAGE, 1-1/2" DEEP, GALVANIZED. SHEET STEEL FOR DECK SHALL HAVE A MINIMUM YIELD STRENGTH OF 33 KSI.
SD.6 TORNADO SHELTER ROOF DECK (SECOND FLOOR): 4 1/2" THICK CONCRETE SLAB ON COMPOSITE STEEL FORM DECK, 20 GAGE, 1-1/2" DEEP VL DECK WITH #306 EW AT MID-DEPTH, (TOTAL THICKNESS = 6"). SHEET STEEL FOR DECK SHALL HAVE A MINIMUM YIELD STRENGTH OF 33 KSI.
SD.7 COLD-FORMED METAL FRAMING, SUSPENDED CEILINGS, LIGHT FIXTURES AND DUCTS OR OTHER UTILITIES SHALL NOT BE SUPPORTED BY THE METAL ROOF DECK.
SD.8 DO NOT ALLOW EXTRANEOUS MATERIALS AND SYSTEMS TO BE INCORPORATED INTO REFERENCED TESTED FIRE-RATED DESIGN ASSEMBLIES (TYPICALLY U.L. DESIGNS). THIS INCLUDES CASTING EMBEDDED CONDUITS AND PIPING IN CONCRETE SLABS ON METAL DECK. REFER TO THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR ASSEMBLY DESCRIPTIONS.

CF. COLD-FORMED METAL FRAMING

- CF.1 DESIGN OF COLD-FORMED METAL FRAMING COMPONENTS AND ACCESSORIES IS THE RESPONSIBILITY OF THE COLD-FORMED METAL FRAMING MANUFACTURER. COLD-FORMED METAL FRAMING INCLUDES ANY BUILDING COMPONENT WHICH UTILIZES LIGHT GAGE STEEL FRAMING MEMBERS, THEIR CONNECTION TO EACH OTHER AND THEIR CONNECTION TO THE BUILDING'S PRIMARY STRUCTURAL FRAME.
CF.2 ANY COLD-FORMED MEMBER SIZES NOTED ARE FOR PRELIMINARY PRICING INFORMATION ONLY. THE COMPLETE DESIGN OF COLD-FORMED METAL FRAMING SYSTEM AND PREPARATION OF ERECTION DRAWINGS ARE BY THE ENGINEER RESPONSIBLE FOR THEIR DESIGN.
CF.3 SUBMIT THE FOLLOWING:
A. PRODUCT DATA: FOR EACH TYPE OF COLD-FORMED METAL FRAMING PRODUCT AND ACCESSORY UTILIZED.
B. SHOP DRAWINGS: SHOW LAYOUT, SPACINGS, SIZES, THICKNESS, AND TYPES OF COLD-FORMED METAL FRAMING; FABRICATIONS; AND FASTENING AND ANCHORAGE DETAILS, INCLUDING MECHANICAL FASTENERS. SHOW REINFORCING CHANNELS, OPENING FRAMING, SUPPLEMENTAL FRAMING, STRAPPING, BRACING, BRIDGING, SPLICES, ACCESSORIES, CONNECTION DETAILS, AND ATTACHMENT TO ADJOINING WORK.
C. CALCULATIONS: COLD-FORMED METAL FRAMING DESIGN CALCULATIONS FOR THE FILES OF THE STRUCTURAL ENGINEER AND ARCHITECT. CALCULATIONS SHALL BEAR THE SEAL OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED.
CF.4 PROVIDE COLD-FORMED METAL FRAMING CAPABLE OF WITHSTANDING DESIGN LOADS WITHIN LIMITS AND UNDER CONDITIONS INDICATED.
A. DESIGN LOADS AS INDICATED IN SECTION 05 OF THESE GENERAL NOTES.
B. DEFLECTION LIMITS: DESIGN FRAMING SYSTEMS TO WITHSTAND DESIGN LOADS WITHOUT DEFLECTIONS GREATER THAN THE FOLLOWING:
1. EXTERIOR NON-LOAD-BEARING FRAMING: HORIZONTAL DEFLECTION OF 1/400 OF THE WALL HEIGHT AT BRICK LOCATIONS AND 1/240 ELSEWHERE.
2. EXTERIOR NON-LOAD-BEARING WALL FRAMING: HORIZONTAL DEFLECTION OF 1/240 OF THE WALL HEIGHT UNDER A HORIZONTAL LOAD OF 5 LB F/SQ. FT.
3. CEILING JOIST FRAMING: VERTICAL DEFLECTION OF 1/240 OF THE SPAN.
CF.5 DESIGN CURTAIN WALL FRAMING SYSTEM TO ACCOMMODATE LIVE LOAD DEFLECTION OF PRIMARY BUILDING STRUCTURE AS FOLLOWS:
A. UPWARD AND DOWNWARD MOVEMENT OF 3/4 INCH.

MA. MASONRY

- MA.1 MASONRY CONSTRUCTION SHALL CONFORM TO TMS 402/ACI 530/ASCE 5 AND TMS 602/ACI 530.1/ASCE 6 SPECIFICATIONS.
MA.2 CONCRETE MASONRY UNITS (CMU) SHALL BE LIGHTWEIGHT (DENSITY = 105 PCF), CONFORMING TO ASTM C90, UNLESS NOTED.
MA.3 COMPRESSIVE STRENGTH OF MASONRY (F'm): 2000 PSI AT 28 DAYS.
MA.4 GROUT SHALL CONFORM TO ASTM C476 WITH COMPRESSIVE STRENGTH (F'g) OF 2500 PSI AT 28 DAYS. GROUT SHALL BE PLACED ACCORDING TO TMS 602/ACI 530.1/ASCE 6 SECTION 3.5.
MA.5 MORTAR SHALL CONFORM TO ASTM C270, TYPE S OR M FOR TYPICAL CONDITIONS, TYPE M FOR BASEMENT AND RETAINING WALLS.
MA.6 ALL MASONRY SHALL BE RUNNING BOND, UNLESS NOTED.
MA.7 ALL BLOCK CELLS AND CAVITIES BELOW GRADE SHALL BE FILLED WITH CONCRETE OR GROUT.
MA.8 SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF MASONRY CONTROL JOINTS AND OPENINGS.
MA.9 REINFORCING BARS: ASTM A615 GRADE 60. LAP REINFORCING BARS ACCORDING TO TYPICAL DETAILS.
MA.10 HORIZONTAL JOINT REINFORCING: LADDER TYPE, 9 GAGE SPACED VERTICALLY AT 16", UNLESS NOTED. PLACE REINFORCING ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. LAP REINFORCING A MINIMUM OF 6".
MA.11 WHEN REINFORCING BARS ARE SPECIFIED, PROVIDE AT EACH SIDE OF CONTROL JOINTS, OPENINGS AND WALL ENDS ACCORDING TO TYPICAL DETAILS. REINFORCING BARS TO BE CENTERED IN WALL, UNLESS NOTED.

MA.12 CONDUIT, PIPING, AND SLEEVES OF ANY MATERIAL TO BE EMBEDDED IN MASONRY SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS:

- A. CONDUIT, PIPING, AND SLEEVES OF ALUMINUM SHALL NOT BE EMBEDDED IN MASONRY.
B. CONDUIT, PIPING, AND SLEEVES SHALL NOT PASS THROUGH JAMBS, LINTELS, BOND BEAMS, OR SHEAR WALLS WITHOUT APPROVAL BY THE STRUCTURAL ENGINEER.
C. REINFORCING SHALL NOT BE CUT, BENT, OR DISPLACED FOR PLACEMENT OF CONDUIT, PIPING, AND SLEEVES.
D. CONDUIT, PIPING, AND SLEEVES SHALL BE NO CLOSER THAN 3 DIAMETERS ON CENTER. MINIMUM SPACING OF DIFFERENT DIAMETERS SHALL BE DETERMINED USING THE LARGER DIAMETER.

MA.13 TEMPORARY BRACING OF CMU WALLS IS THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL REMAIN IN PLACE UNTIL PERMANENT RESTRAINT IS PROVIDED.

PA. POST INSTALLED ANCHORS

- PA.1 POST INSTALLED ANCHORS SHALL COMPLY WITH ACI-318 CHAPTER 17.
PA.2 ACCEPTABLE MANUFACTURERS SHALL INCLUDE BUT ARE NOT LIMITED TO HILTI, INC. AND SIMPSON STRONG-TIE COMPANY, INC. AND DEWALT ANCHORS.
PA.3 CARE SHALL BE TAKEN IN PLACING POST INSTALLED ANCHORS TO AVOID CONFLICTS WITH EXISTING REBAR.
PA.4 HOLES SHALL BE DRILLED AND CLEANED IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS. SUBMITTAL REQUESTS, FOR PRODUCTS OTHER THAN THOSE SHOWN, SHALL BE SUBMITTED TO THE CONTRACTOR ALONG WITH PREPARED DOCUMENTATION DEMONSTRATING THAT THE PRODUCT IS CAPABLE OF ACHIEVING EQUIVALENT PERFORMANCE VALUES (MINIMUM) OF THE SPECIFIED PRODUCT USING THE APPROPRIATE DESIGN PROCEDURE AND/OR STANDARD(S) AS REQUIRED BY THE BUILDING CODE.
PA.5 THE CONTRACTOR SHALL FOLLOW ALL MANUFACTURER'S INSTALLATION GUIDELINES, SPECIFICATIONS, AND RECOMMENDATIONS.
PA.6 MASONRY ANCHORS MUST BE INSTALLED IN CONCRETE AGED A MINIMUM OF 21 DAYS.
PA.7 A REPRESENTATIVE OF THE POST-INSTALLED ANCHOR MANUFACTURER SHALL BE PRESENT FOR THE FIELD INSTALLATION OF EACH TYPE OF ANCHOR USED TO DEMONSTRATE AND INSTRUCT TO THE CONTRACTOR'S INSTALLATION CREW PERSONNEL THE PROPER METHOD OF INSTALLATION. SHOULD THE CONTRACTOR CHANGE INSTALLATION CREW OR INDIVIDUALS INSTALLING THE ANCHORS, THE MANUFACTURER'S REPRESENTATIVE SHALL BE NOTIFIED BY THE CONTRACTOR TO RETURN AND PROVIDE INSTRUCTION TO THE NEW INSTALLER(S).
PA.8 CONCRETE ANCHORS:
1. MECHANICAL ANCHORS FOR USE IN CRACKED AND UNCRACKED CONCRETE SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI-308.2 AND ICC-ES AC193.
2. ADHESIVE ANCHORS FOR USE IN CRACKED AND UNCRACKED CONCRETE SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI308.4 AND ICC-ES AC308.
PA.9 MASONRY ANCHORS:
1. ANCHORAGE TO SOLID-GROUTED CONCRETE MASONRY:
A. MECHANICAL AND CONCRETE SCREW ANCHORS FOR USE IN SOLID-GROUTED CONCRETE MASONRY SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ICC-ES AC01 OR ICC-ES AC106, RESPECTIVELY.
B. ADHESIVE ANCHORS FOR USE IN SOLID-GROUTED CONCRETE MASONRY SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ICC-ES AC58 OR AC60.
2. ANCHORAGE TO HOLLOW CONCRETE MASONRY/UNREINFORCED CLAY BRICK MASONRY:
A. SCREW ANCHORS FOR USE IN HOLLOW CONCRETE MASONRY SHALL HAVE BEEN TESTED AND QUALIFIED IN ACCORDANCE WITH ICC-ES AC106.
B. ADHESIVE ANCHORS WITH SCREEN TUBES SHALL BE TESTED AND QUALIFIED IN ACCORDANCE WITH ICC-ES AC58 OR AC60, AS APPROPRIATE. THE APPROPRIATE SCREEN TUBE SHALL BE USED AS RECOMMENDED BY THE ADHESIVE MANUFACTURER.



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SHEET TITLE:
GENERAL NOTES (CONTINUED)

Table with columns: #, Description, Date. Includes project manager and drawing information.

JOB NO. 19-32
SHEET NO. S0.2
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