

GENERAL STRUCTURAL NOTES

- GN.1 THE CONTRACTOR IS RESPONSIBLE FOR ALL FORMS, STAGING, BRACING, AND SHORING, ETC.
- GN.2 COORDINATE ALL WORK WITH PROJECT AS A WHOLE. NOTATIONS ON SIZE PLACEMENT AND CONNECTIONS OF ANY PROPOSED WORK BY OTHERS IS PRELIMINARY AND REQUIRES COORDINATION. DO NOT PROCEED WITH FABRICATION OR INSTALLATION PRIOR TO COORDINATING WITH OTHER TRADES.
- GN.3 PROVIDE LEAVES, CURBS, LEDGES, INSERTS AND OPENINGS AS REQUIRED FOR COMPLETE PROJECT.
- GN.4 ALL ALTERATIONS OF STRUCTURAL ITEMS REQUIRES APPROVAL OF THE ENGINEER OF RECORD.
- GN.5 PERFORM SPECIAL INSPECTIONS AND TESTING IN ACCORDANCE WITH PREVAILING BUILDING CODES.

FOUNDATIONS

- F.1 PRIOR TO PLACING CONCRETE FOOTINGS, PERFORM SOIL TESTS TO CONFIRM SOIL BEARING VALUES. NOTIFY ARCHITECT OF ANY VARIANCE FROM ANTICIPATED VALUES.
- F.2 NO FOUNDATIONS OR SLABS SHALL BE POURED WITHIN OR ON SOILS CONTAINING FREE WATER, FROST, ICE, OR LOOSE MATERIAL.
- F.3 PLACE ALL SLABS AND TRENCH FOOTINGS ON 6" OF GRANULAR FILL COMPACTED TO 95% PROCTOR.
- F.4 PLACE ALL SLABS ON 15 MIL VAPOR BARRIER.

CONCRETE MATERIALS & SCHEDULE

STRUCTURAL ELEMENT	COMPRESSIVE STRENGTH AT 28 DAYS, f_c (psi)	REMARKS
FOUNDATIONS, FOOTINGS, & PIERS	4000	
INTERIOR SLABS	4000	
EXTERIOR WALKS	4500	
ALL OTHER CONCRETE	4000	

STRUCTURAL STEEL

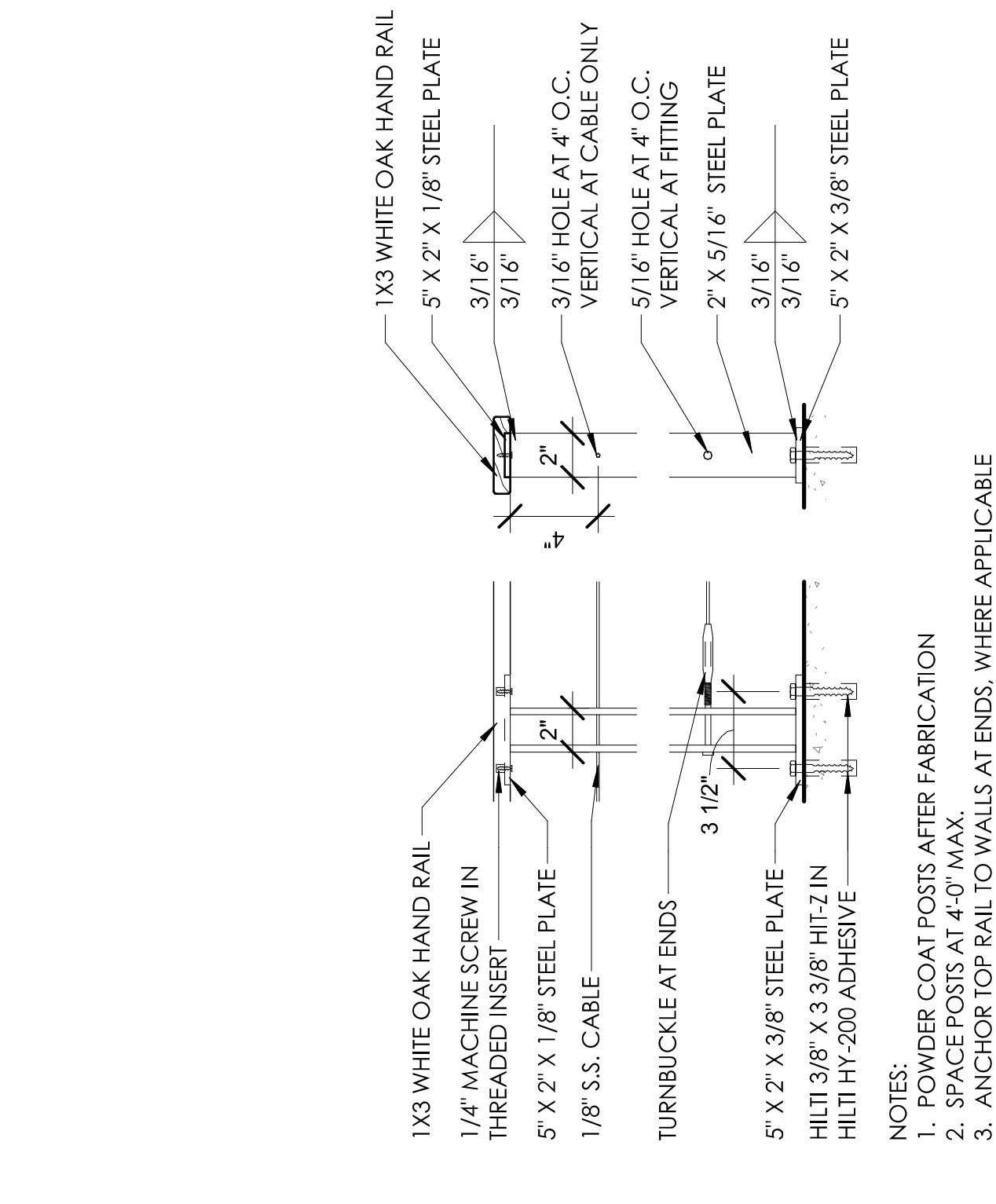
- SS.1 STRUCTURAL STEEL ROLLED SHAPES AND PLATES SHALL CONFORM TO THE LATEST EDITION. ALL DIMENSIONS AND PROPERTIES SHALL BE IN ACCORDANCE TO ASTM A6.

STEEL MATERIALS SCHEDULE		
STRUCTURAL ELEMENT	MINIMUM YIELD STRENGTH F_y (ksi)	REMARKS
PLATES, ANGLES, CHANNELS, OTHER	36	ASTM A36
TYPICAL ANCHOR BOLTS	36	ASTM F1554 GRADE 36
HOLLOW STRUCTURAL SECTIONS	46	ASTM A500 GRADE B

- SS.2 ANCHOR BOLTS SHALL CONFORM TO ASTM F1554 GRADE 36, UNLESS NOTED OTHERWISE.
- SS.3 CONNECTION BOLTS FOR STRUCTURAL STEEL MEMBERS SHALL BE 3/4" DIA. UNLESS NOTED OTHERWISE. CONNECTION BOLTS SHALL BE HARDENED WASHER PLACED UNDER THE ELEMENT TO BE TIGHTENED.
- SS.4 DETAILING OF STRUCTURAL STEEL CONNECTIONS MUST BE CONSISTENT WITH RECOGNIZED, PUBLISHED METHODS SUCH AS THE AISC MANUAL CONNECTION MANUAL, OR THE AISC DETAILING FOR STEEL CONSTRUCTION MANUAL.
- SS.5 STANDARD FRAMING CONNECTIONS SHOWN AND / OR NOTE DETAILED SHALL BE RATED FOR A MINIMUM UNFACTORED END REACTION OF 12.0 KIPS.
- SS.6 A PROFESSIONAL ENGINEER LICENSED IN THE PROTECT STATE SHALL PREPARE SHOP DRAWINGS FOR ALL MEMBERS AND CONNECTIONS AND PERFORM FINAL ENGINEERING DESIGN, AS REQUIRED.
- SS.7 STRUCTURAL STEEL DETAILING, FABRICATION AND ERECTION SHALL CONFORM TO THE AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES' AISC 303-10.
- SS.8 WELDING SHALL CONFORM TO THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE AWS D1.1. ELECTRODES FOR SHOP AND FIELD WELDING SHALL BE AS SPECIFIED AND WELDERS SHALL BE QUALIFIED, CERTIFIED, WELDERS PER THE ABOVE STANDARD.
- SS.9 ALL WELDS NOT DETAILED SHALL BE A MINIMUM OF 1/4" ALL AROUND UNLESS NOTED OTHERWISE.
- SS.10 THERE SHALL BE NO FIELD CUTTING OF STRUCTURAL STEEL MEMBERS FOR THE WORK OF OTHER TRADES WITHOUT PRIOR APPROVAL OF THE STRUCTURAL ENGINEER.

POST INSTALLED ANCHORS

- P.1.1 USE THE FOLLOWING EXPANSION ANCHORS UNLESS ALTERNATIVES ARE APPROVED BY ENGINEER OF RECORD.
 - ATTACHMENT TO CONCRETE:** EXPANSION TYPE: HIT-ULTRABOLT 3 ADHESIVE TYPE: HIT STANDARD HAS-E RODS WITH HIT-HY200
 - ATTACHMENT TO SOLID MASONRY:** EXPANSION TYPE: HIT-ULTRABOLT HAS-E RODS WITH HIT-HY70 MAX ADHESIVE TYPE: HIT-ULTRABOLT HAS-E RODS WITH HIT-HY70
 - ATTACHMENT TO HOLLOW MASONRY:** EXPANSION TYPE: HIT-ULTRABOLT SLEEVE ANCHORS ADHESIVE TYPE: HIT-ULTRABOLT HAS-E RODS WITH HIT-HY70



4 GUARD RAIL DETAIL
A102
1 1/2" = 1'-0"

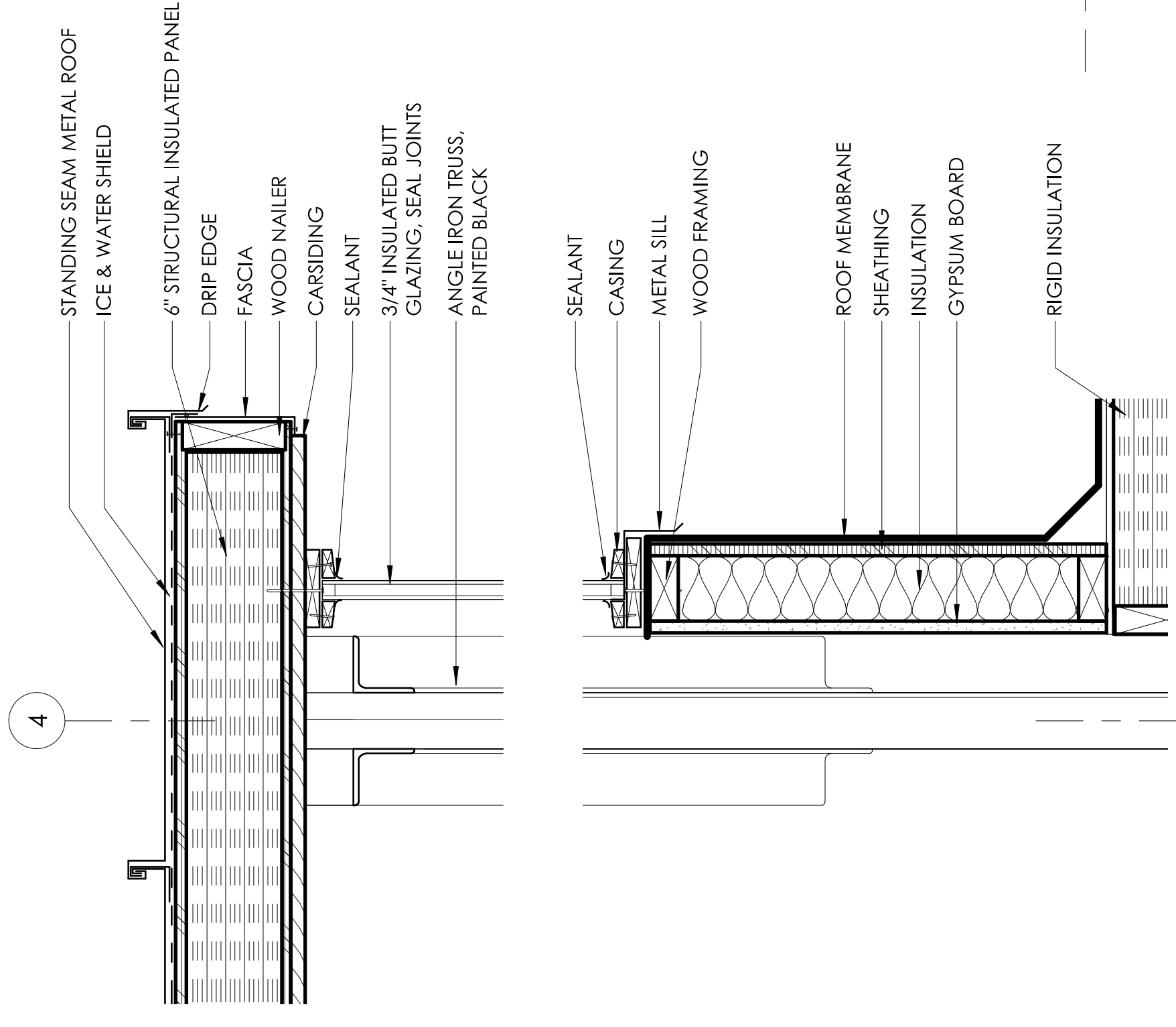
REINFORCED CONCRETE

- RC.1 CONCRETE SHALL HAVE THE UNIT WEIGHT AND THE MINIMUM COMPRESSIVE STRENGTH (f_c) AT 28 DAYS AS SHOWN ON THE CONCRETE MATERIALS SCHEDULE. THE CONTRACTOR SHALL SUBMIT MIX DESIGNS WITH SUBSTANTIATING STRENGTH TEST DATA FOR REVIEW FOR EACH MIX DESIGN USED PER SPECIFICATION REQUIREMENTS PRIOR TO CONCRETE PLACEMENT.
- RC.2 ENTRAIN AIR ACCORDING TO THE SPECIFICATIONS FOR CONCRETE EXPOSED TO FREEZING TEMPERATURES.
- RC.3 DO NOT USE CALCIUM CHLORIDE IN CONCRETE.
- RC.4 MIX, TRANSPORT AND PLACE CONCRETE ACCORDING TO ACI 301, LATEST EDITION.
- RC.5 CONCRETE WORK SHALL CONFORM WITH ACI 318 'BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE'.
- RC.6 PROVIDE 3/4" CHAMFER AT EXPOSED EXTERNAL CONCRETE EDGES.
- RC.7 CONCRETE REINFORCEMENT TO CONFORM WITH ASTM A615, GRADE 60.
- RC.8 HORIZONTAL WALL REINFORCEMENT SHALL BE CONTINUOUS AND SHALL HAVE SUFFICIENT DEVELOPMENT LENGTHS. CORNER REINFORCEMENT EQUIVALENT SIZE LAPPED WITH A TENSION SPLICE AT CORNERS AND INTERSECTIONS.
- RC.9 PROVIDE CONTROL JOINTS AND CONSTRUCTION JOINTS AS SHOWN ON DRAWINGS. DO NOT EXCEED 12'-0" BETWEEN CONTROL JOINTS. CUT 1/8" WIDE TO 1/4" DEPTH OF JOINT WITHIN 24 HOURS OF PLACEMENT FINISHES.
- RC.10 SLABS SHALL MEET FLATNESS CRITERIA NECESSARY FOR SELECTED FINISHES.
- RC.11 LAP WELDED WIRE FABRIC (2) FULL MESH PANELS AND SECURELY TIE.
- RC.12 PROVIDE (2) #4 X 3'-0" REINFORCEMENT BARS IN SLABS AT REENTRANT CORNERS. PLACE BARS MID-DEPTH WITH 2" EDGE COVER.
- RC.13 WALL CONTROL JOINTS TO BE 3/4" DEEP V-TYPE.

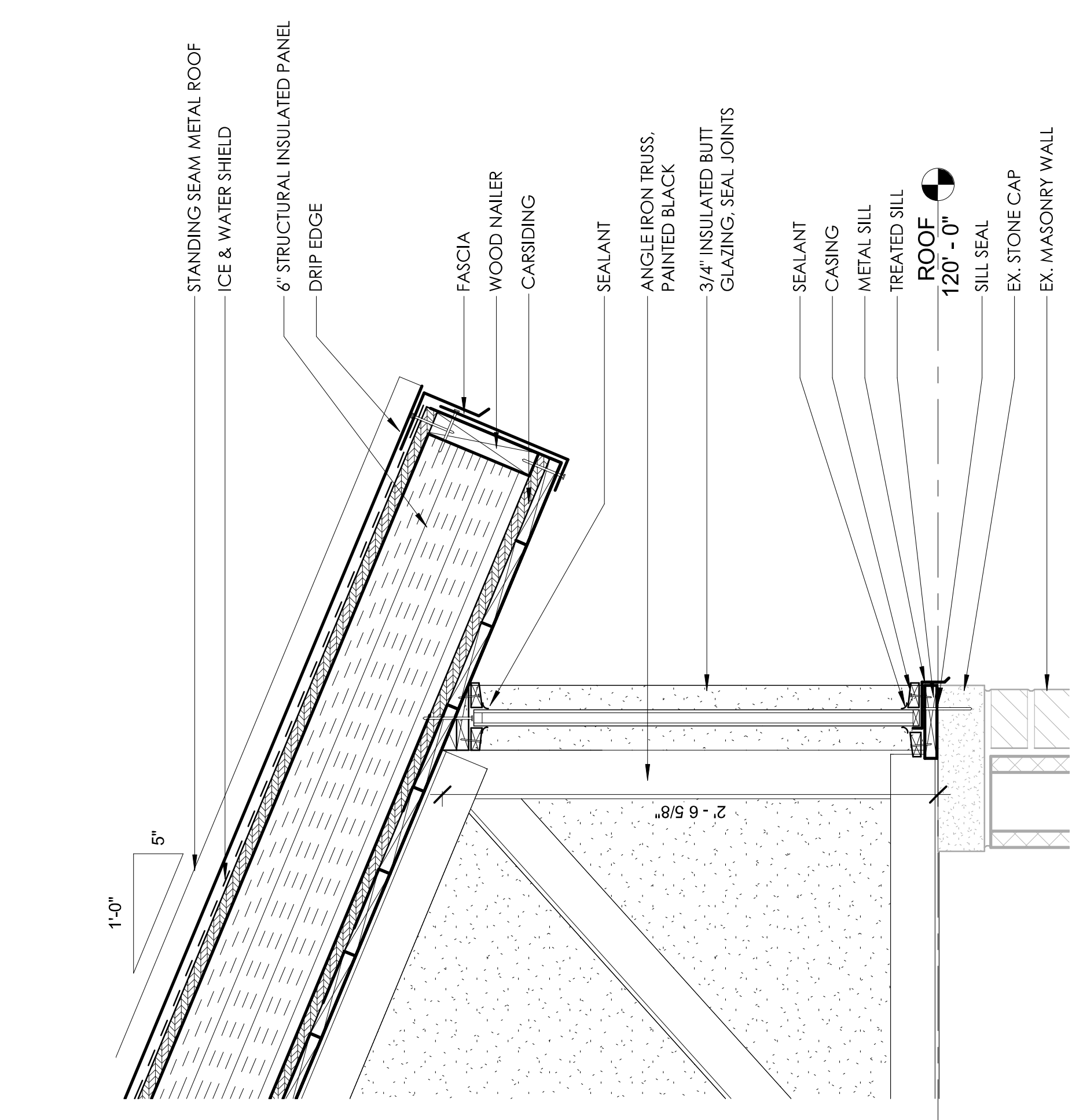
METAL FRAMING

- MF.1 USE CCA OR ACO PRESSURE TREATED WOOD IN CONTACT WITH CONCRETE, GYPSUM CEMENT, OR EXPOSED TO MOISTURE. PLACE FOAM SEAL BETWEEN WOOD AND TRACK.
- MF.2 USE COATED, PUNCHED COLD-FORMED METAL FRAMING, ASTM E119, E72 & E99.
- MF.3 STUDS TO BE 3 5/8" OF GAUGE APPROPRIATE TO HEIGHT.
- MF.4 USE MANUFACTURER APPROVED FASTENERS.
- MF.5 BRACE FRAMES AS RECOMMENDED BY MANUFACTURER.
- MF.6 USE NO. 2 OR BETTER WOOD NAILERS AROUND ALL FRAMED OPENINGS.

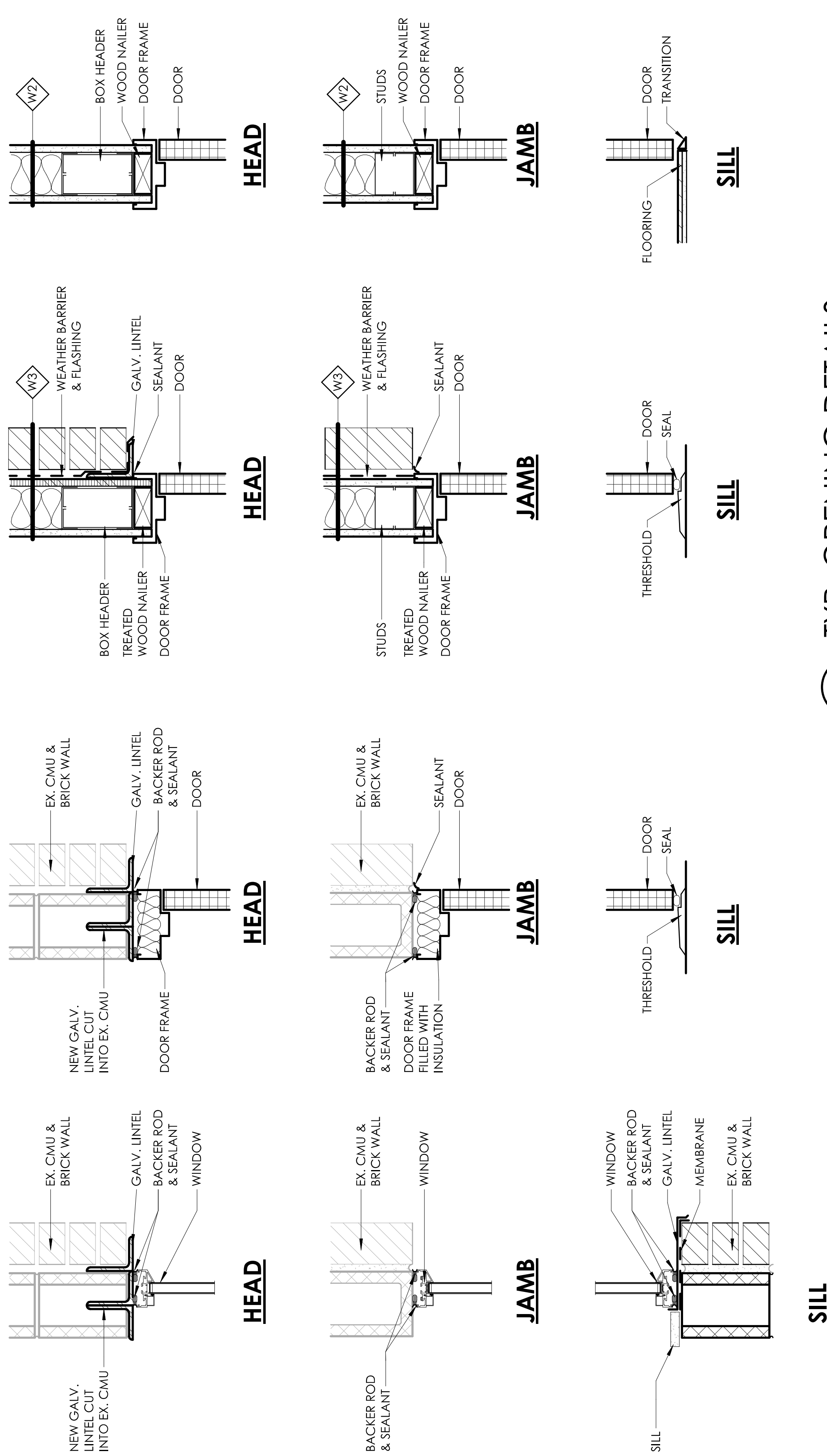
HEADER SCHEDULE		
MARK	OPENING	SIZE
H1	UP TO 4'-0"	BOX OF (2) 6" + (2) 3 5/8" TRACK
H2	4'-0" TO 8'-0"	BOX OF (2) 8" + (2) 3 5/8" TRACK
H3	>8'-0" TO 12'-0"	BOX OF (2) 12" + (2) 3 5/8" TRACK



2 RAKE DETAIL
A103
1 1/2" = 1'-0"



1 ROOF DETAIL
A103
1 1/2" = 1'-0"



3 TYP. OPENING DETAILS
1 1/2" = 1'-0"

