

**GENERAL NOTES**

- REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND SITE DRAWINGS FOR VERIFICATION OF DIMENSIONS AND LOCATIONS OF PIPES, OPENINGS, CHASES, REGLETS, INSERTS, SLEEVES, DEPRESSIONS, ANCHOR BOLTS, ANGLE FRAMES, FLOOR PITCHES, AND ALL OTHER PROJECT REQUIREMENTS NOT SHOWN ON THE STRUCTURAL DRAWINGS.
- SECTIONS AND DETAILS SHOWN AS TYPICAL ARE APPLICABLE TO ALL SIMILAR CONDITIONS.
- CONTRACTOR SHALL VERIFY ALL CONDITIONS IN THE FIELD AND SHALL TAKE ALL NECESSARY FIELD MEASUREMENTS.
- THE USE OF STRUCTURAL AND ARCHITECTURAL DRAWINGS AS THE BASIS FOR SHOP DRAWINGS IS NOT ALLOWED.

**CODE**

1. 2003 INTERNATIONAL BUILDING CODE w/ MARYLAND SUPPLEMENT

**LOADS**

- L1. ROOF LOADS:**  
 GROUND SNOW LOAD..... 50 PSF  
 DEAD LOADS..... 12 PSF
- L2. WIND LOADS:**  
 IN ACCORDANCE WITH SECTION 1609.0 OF THE ABOVE REFERENCED CODE  
 100 MPH EXPOSURE B  
 IMPORTANCE FACTOR I = 1.0
- L3. SEISMIC LOADS:**  
 IN ACCORDANCE WITH SECTIONS 1613.0 THRU 1620.0 OF THE ABOVE REFERENCED CODE  
 SEISMIC DESIGN CATEGORY... I  
 SITE PROFILE..... C  
 RESPONSE MODIFICATION FACTOR..... 0.35  
 LEADURE..... 0.10  
 ORDINARY MOMENT FRAMES OF STEEL  
 LEADURE..... 3.0  
 EQUIVALENT LATERAL FORCE

**FOUNDATION NOTES**

- THE STRUCTURE SHALL BEAR ON NATURAL UNDISTURBED SOILS OR COMPACTED GRANULAR STRUCTURAL FILL COMPACTED ON THE NATURAL MATERIAL TO 95% MAXIMUM DRY DENSITY. DENSITY. THE MAXIMUM ALLOWABLE BEARING PRESSURE SHALL BE 2.0 TONS PER SQUARE FOOT.
- PLACE BACKFILL SIMULTANEOUSLY ON BOTH SIDES OF FOUNDATION WALLS TO THE GRADES INDICATED. WHERE EXTERIOR GRADE IS MORE THAN TWO FEET BELOW SLAB, WALLS SHALL BE BRACED UNTIL SLAB TO WHICH THEY ARE CONNECTED IS AT LEAST 14 DAYS.
- PROVIDE SHEETING, BRACING, AND UNDERPINNING AS REQUIRED TO PRESERVE ADJACENT STRUCTURES.
- PIPES WHICH CARRY WATER WILL NOT BE ALLOWED TO PASS UNDER FOOTINGS. STEP FOOTINGS APPROPRIATELY TO ALLOW PIPE TO PASS OVER FOOTING.
- FOUNDATION SHALL NOT BE PLACED IN WATER OR ON FROZEN GROUND.
- VERIFY LOCATIONS AND REQUIREMENTS FOR ALL INSERTS, EMBEDMENTS, SLEEVES, CONDUITS, AND PENETRATIONS WITH RESPECTIVE TRADES BEFORE PLACEMENT OF CONCRETE.
- DOWELS FROM FOOTINGS INTO PIERS, WALLS, AND COLUMNS SHALL BE THE SAME SIZE AND NUMBER AS PIERS, WALLS, AND COLUMNS ABOVE, EXCEPT AS OTHERWISE SHOWN.
- COORDINATE UNDER FLOOR AND PERIMETER DRAIN REQUIREMENTS WITH THE ARCHITECTURAL, CIVIL, AND PLUMBING DRAWINGS AND THE REQUIREMENTS OF THE GEOTECHNICAL ENGINEER.

**REINFORCED CONCRETE NOTES**

- ALL CONCRETE SHALL BE PROPORTIONED, MIXED AND PLACED IN ACCORDANCE WITH ACI 318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" AND ACI 301, "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS". MAXIMUM SLUMP SHALL BE 4 INCHES.
  - ALL CONCRETE SHALL BE CONTROLLED, MIXED, AND PLACED UNDER THE SUPERVISION OF AN APPROVED CONCRETE TESTING AGENCY.
  - UNLESS NOTED OTHERWISE, ALL CONCRETE SHALL BE NORMAL WEIGHT WITH A MINIMUM COMPRESSIVE STRENGTH AT THE END OF 28 DAYS AS FOLLOWS:
- | STRENGTH (PSI) | MAXIMUM AGGREGATE SIZE (in.) | ENTRAINED AIR (%) | APPLICATION                  |
|----------------|------------------------------|-------------------|------------------------------|
| 4000           | 1 1/2                        | 5                 | EXTERIOR DOLLY PADS & APRONS |
| 4000           | 3/4                          | 5                 | EXTERIOR SIDEWALKS           |
| 3000           | 3/4                          | 5                 | ALL OTHER CONCRETE           |
- THE USE OF "FLY ASH" IN CONCRETE MIX DESIGN IS NOT ALLOWED.
  - NO ADMIXTURES OTHER THAN LOW RANGE WATER REDUCER WILL BE ALLOWED.
  - THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER REMOVAL OF FORMWORK. FORMS SHALL BE REMOVED ONLY AFTER CONCRETE HAS ATTAINED SUFFICIENT STRENGTH TO SUPPORT ITS OWN WEIGHT. CONSTRUCTION LOADS AND LATERAL LOADS SHOULD BE PLACED WITHOUT DAMAGE TO THE STRUCTURE OR CAUSE ANY EXCESSIVE DEFLECTION.
  - CONSTRUCTION JOINT LOCATIONS, OTHER THAN THOSE SHOWN ON THE DRAWINGS, ARE PERMITTED SUBJECT TO PRIOR APPROVAL OF THE ENGINEER. CONTROL JOINTS AND EXPANSION JOINTS ARE MANDATORY AS SHOWN.
  - PROVIDE 3/4 INCH CHAMFER AT ALL CONTINUOUSLY EXPOSED CONCRETE EDGES, SUCH AS CURBS, EQUIPMENT PADS, AND EDGE OF WALLS.
  - PROVIDE FLANGED STEEL SLEEVES WHERE PIPES PASS THROUGH CONCRETE.
  - ALL DETAILING, FABRICATION AND PLACING OF REINFORCING STEEL SHALL BE IN ACCORDANCE WITH THE LATEST ACI 315 "DETAILS AND DETAILING OF CONCRETE REINFORCING".
  - REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60, UNLESS NOTED OTHERWISE ON THE DRAWINGS. THE CLEAR CONCRETE COVER OVER BARS SHALL BE AS FOLLOWS:

- | MAXIMUM | APPLICATION  |
|---------|--|
| 3"      | A. SURFACES PLACED IN CONTACT WITH THE GROUND..... |
| 3"      | B. FORMED SURFACE EXPOSED TO GROUND.....           |
| 1 1/2"  | C. INSIDE FACE OF FORMED WALL.....                 |
| 1 1/2"  | D. WALL PIER TIES.....                             |
| 3/4"    | E. SLAB REINFORCING.....                           |
- PROVIDE CLASS B SPLICES FOR ALL CONTINUOUS REINFORCEMENT UNLESS NOTED OTHERWISE.
  - SET AND THE ALL REINFORCEMENT BEFORE PLACING CONCRETE. SETTING OF ANCHOR BOLTS, DOWELS AND REINFORCEMENT INTO WET CONCRETE IS PROHIBITED.
  - ALL KEYS SHALL BE 2"x4" (NOMINAL) UNLESS NOTED OTHERWISE.
  - USE NON-SHRINK, NON-METALLIC GROUT WHERE INDICATED.
  - PROVIDE SEALANT FOR ALL EXPOSED TO WIND CONSTRUCTION AND/OR CONTROL JOINTS.

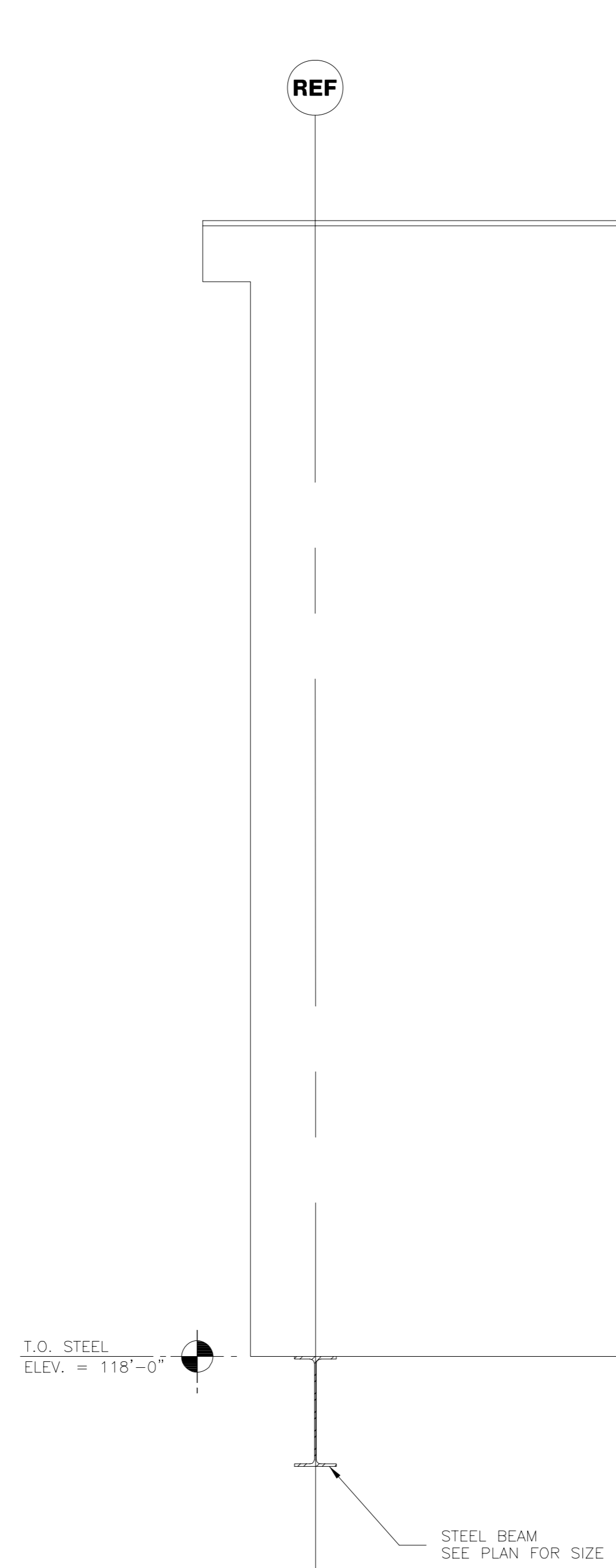
**LIGHT GAGE METAL FRAMING NOTES**

- DESIGN, FABRICATION AND ERECTION OF ALL LIGHT GAGE METAL FRAMING SHALL CONFORM TO ALL APPLICABLE CODES, STANDARDS AND ACCEPTED PRACTICES OF THE INDUSTRY.
- SIZE, GAGE, STEEL GRADE AND SPACING OF LIGHT GAGE METAL FRAMING MEMBERS SHALL BE SUCH AS TO SAFELY SUPPORT ALL APPLIED LOADS, TO SATISFY DIMENSIONAL REQUIREMENTS SHOWN ON ARCHITECTURAL DETAILS AND TO CONFORM TO MANUFACTURER'S RECOMMENDATIONS AND ACCEPTED INDUSTRY STANDARDS.
- PLANS AND DETAILS SHOW GENERAL FRAMING CONFIGURATION AND MAY BE MODIFIED BY THE CONTRACTOR SUBJECT TO REVIEW AND APPROVAL OF THE PROJECT ENGINEER.
- MEMBER SIZE AND SPACING SHALL BE AS SHOWN ON DRAWINGS.
- PROVIDE ADEQUATE ANCHORAGE AT FOUNDATION LEVEL AND OTHER SUPPORT LEVELS FOR SHEAR AND UPLIFT FORCES AT THOSE LOCATIONS WHERE SUCH FORCES ARE GENERATED BY WIND OR SEISMIC LOAD.
- SUBMIT SHOP DRAWINGS WHICH SHALL INCLUDE DIMENSIONED INDIVIDUAL TRUSS MEMBER CONFIGURATIONS, MEMBER LOADING AND SIZES, TEMPORARY AND PERMANENT BRACING REQUIREMENTS, CONNECTION LAYOUTS WITH THEIR ASSOCIATED SPECIFICATIONS AND A DIMENSIONED ERECTION PLAN INDICATING THE LOCATION OF EACH TRUSS, ALL OF WHICH SHALL BEAR THE STAMP AND SIGNATURE OF A PROFESSIONAL STRUCTURAL ENGINEER REGISTERED IN THE STATE OF THE PROJECT LOCATION.
- TRUSS MEMBERS SHALL NOT BE ALTERED IN THE FIELD WITHOUT THE SPECIFIC APPROVAL OF THE PROJECT ENGINEER.

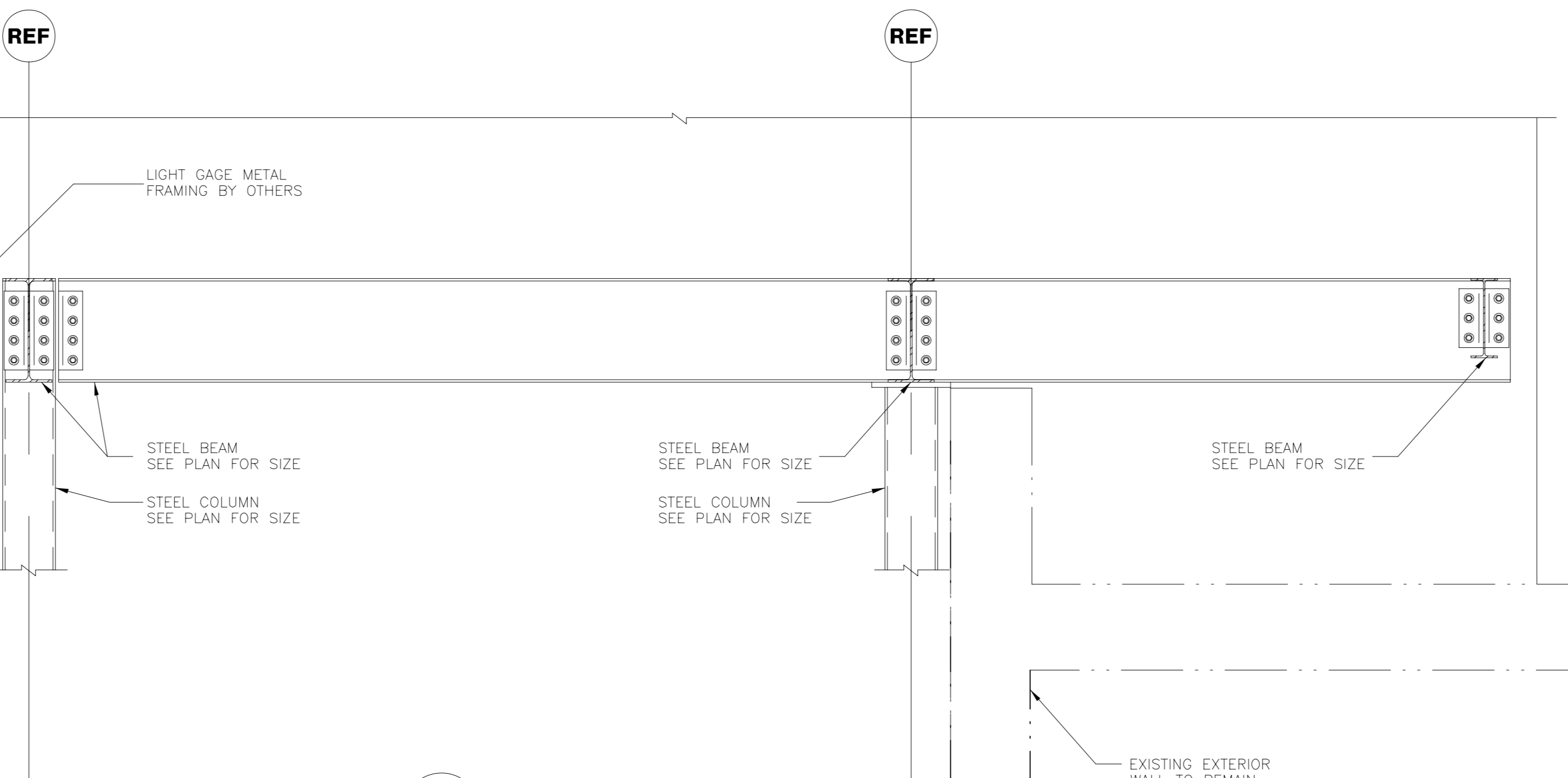
**STRUCTURAL STEEL NOTES**

- ALL STRUCTURAL STEEL WORK SHALL CONFORM TO THE "SPECIFICATION FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS" AND THE "CODE OF STANDARD PRACTICE" OF THE AISC.
- ALL WELDING SHALL BE IN ACCORDANCE WITH THE "STRUCTURAL WELDING CODE" OF THE AMERICAN WELDING SOCIETY.
- THE STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING:
  - ALL STRUCTURAL WIDE FLANGE SHAPES: ASTM A992, GRADE 50
  - ALL STRUCTURAL TUBES: ASTM A500, GRADE B, 46 KSI
  - ALL STRUCTURAL PIPES: ASTM A53, GRADE B OR ASTM A501
  - PLATES, BARS, CHANNELS, AND CONNECTION ANGLES: ASTM A36
  - ALL ANCHOR BOLTS: ASTM A307 UNLESS NOTED OTHERWISE
- ALL CONNECTIONS SHALL BE BOLTED WITH ASTM A325 HIGH-STRENGTH BOLTS OR WELDED IN ACCORDANCE TO AWS AND WITH THE AISC MANUAL REQUIREMENTS UNLESS NOTED OTHERWISE.
- ALL SIMPLY SUPPORTED BEAM-TO-BEAM AND BEAM-TO-COLUMN CONNECTIONS SHALL BE DOUBLE ANGLE IN CONFORMANCE WITH THE AISC MANUAL UNLESS INDICATED OTHERWISE ON THE STRUCTURAL DRAWINGS.
- SHOP AND FIELD CONNECTIONS SHALL BE MADE WELDING OR HIGH-STRENGTH BOLTING UNLESS OTHERWISE NOTED. THE BEAM CONNECTIONS SHALL PROVIDE SHEAR CAPACITIES AS FOLLOWS:
  - NON-COMPOSITE BEAMS:
    - SUPPORT A REACTION R EQUAL TO HALF THE TOTAL UNIFORM LOAD CAPACITY OF BEAMS FOR A GIVEN SHAPE, SPAN, AND STEEL SPECIFICATIONS (AISC) WITH THE EFFECTS OF ALL CONCENTRATED LOADS TAKEN INTO ACCOUNT.
  - COMPOSITE BEAMS (BEAMS WITH SHEAR CONNECTORS):
    - STEEL SECTION DEPTH = D (INCHES) AND RC = RC IS REQUIRED REACTION CAPACITY FOR COMPOSITE BEAMS:
      - FOR D GREATER THAN OR EQUAL TO 24", RC = 1.5R
      - FOR D GREATER THAN OR EQUAL TO 21", BUT LESS THAN 24", RC = 1.75R
      - FOR D GREATER THAN OR EQUAL TO 14", BUT LESS THAN 21", RC = 2.0R
      - FOR D LESS THAN 14", RC = 2.25R
- ADD TO R OR RC THE LOADS OR REACTIONS OF MEMBERS SUPPORTED BY A BEAM NEAR A SUPPORT AND/OR THE VERTICAL COMPONENT OF FORCES IN A DIAGONAL BRACING MEMBER FRAMING INTO THE MEMBER.
- FIELD WELDING OF STRUCTURAL MEMBERS IS NOT PERMITTED UNLESS INDICATED ON THE STRUCTURAL DRAWINGS OR WITHOUT WRITTEN PERMISSION OF THE ENGINEER.
- ALL MOMENT CONNECTIONS INDICATED ON THE STRUCTURAL DRAWINGS SHALL BE DESIGNED AND DETAILED FOR THE FULL MOMENT CAPACITY OF THE CONNECTING MEMBERS.

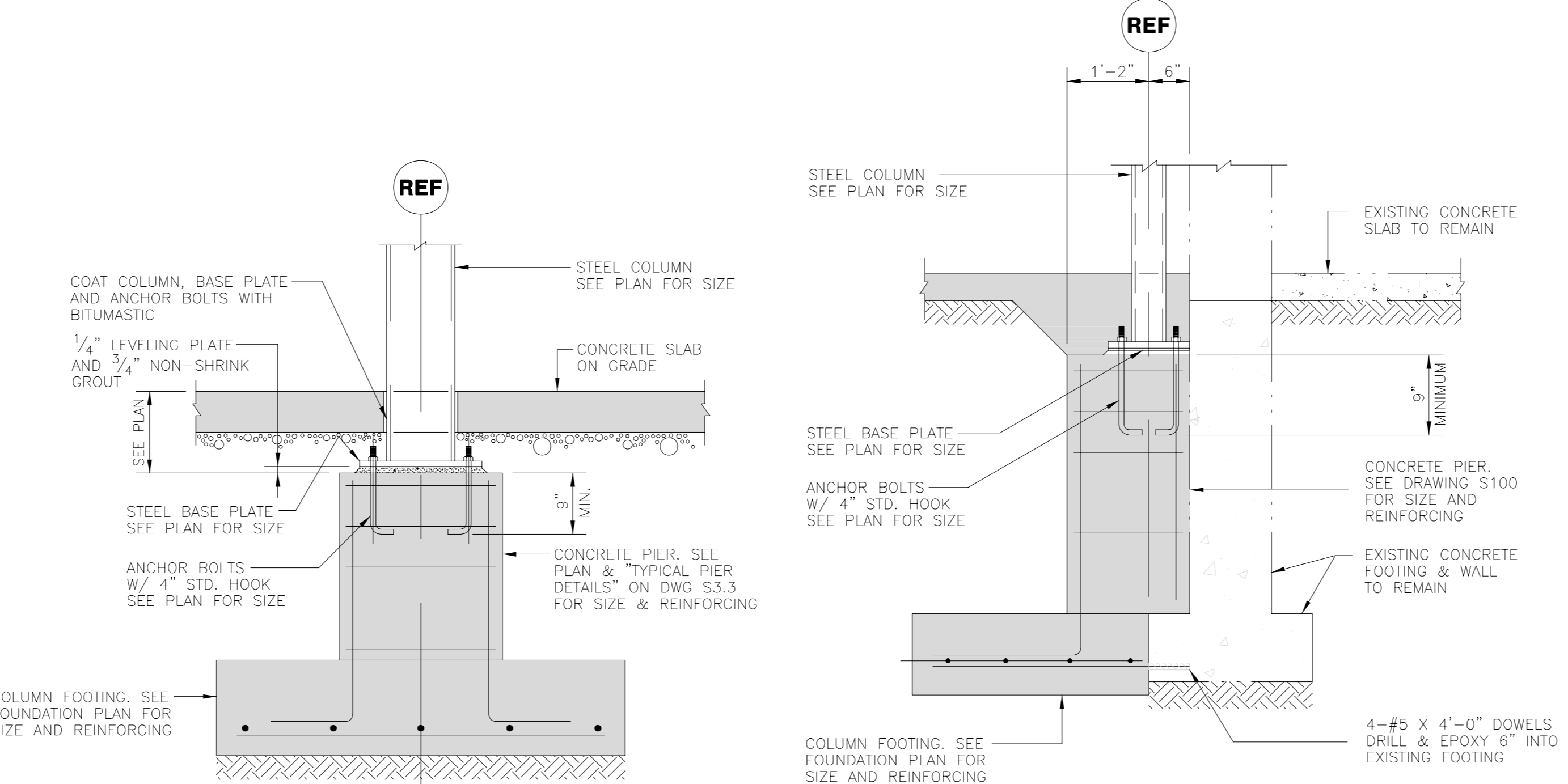
STANDARD ABBREVIATIONS	
A.F.F.	ADJACENT FINISH FLOOR
ADJ.	ADJACENT
ALT.	ALTERNATE
A.C.I.	AMERICAN CONCRETE INSTITUTE
A.P.A.	AMERICAN PLYWOOD ASSOCIATION
AB	ANCHOR BOLT
ABCH	ARCHITECT
BE	BEARING
BEW	BELIEVED
B.O.	BOTTOM OF
B.O.D.	BOTTOM OF DECK
C.I.P.	CAST IN PLACE
CL	CL
CONC.	CONCRETE
CONC. MASONRY UNIT	CONCRETE MASONRY UNIT
CONSTR.	CONSTRUCTION
CONT.	CONTINUOUS
CONTR.	CONTRACTOR
CONTR. JOINT	CONTRACTOR CONTROL JOINT
D.L.	DEAD LOAD
D.W.F.	DEFORMED ANCHOR STUD
D.W.F.	DEFORMED WIRE FABRIC
E.A.	EACH
E.F.	EACH FACE
E.L.	ELEVATION
E.L.D.	EDGE OF DECK
E.L.S.	EDGE OF SLAB
E.Q.	EQUAL
EXP.	EXPANSION
EXT.	EXTERIOR
F.D.	FLOOR DRAIN
F.O.	FOOTING
F.O.N.	FOUNDATION
G.	GAGE
GALV.	GALVANIZED
G.C.	GENERAL CONTRACTOR
G.L.B.	GLUE-LAM BEAM
H.A.S.	HEADED ANCHOR STUD
H.	HEIGHT
H.R.	HOOK
H.R.H.	HORIZONTAL
I.F.	INSIDE FACE
J.	JOB
J.S.T.	JOIST
K.S.I.	KIPS PER SQUARE INCH
L.T.	LIGHT
L.H.L.	LONG LEG HORIZONTAL
L.V.L.	LONG LEG VERTICAL
L.W.	LONG WAY
M.F.R.	MANUFACTURER
M.O.	MASONRY OPENING
M.T.L.	MATERIAL
M.	MAXIMUM
M.C.H.	MECHANICAL
M.S.C.	MISCELLANEOUS
M.	MID-SPAN BEAM OR COLUMN
M.N.	MINIMUM
N.S.	NOT TO SCALE
O.F.	OPENING FACE
O.H.	OPPOSITE HAND
P.W.D.	POWER-ACTUATED FASTENER
P.L.C.	PIPS PER SQUARE INCH
P.C.	PRECAST
R.	REFER TO
REF.	REQUIRED
REIN.	REINFORCING
REQ'D.	REQUIRED
R.O.D.	ROOF DRAIN
S.	SCHEDULE
S.H.	SHEATHING
S.H.T.	SHIELD
S.M.	SLAB TO GRADE
S.P.G.	SPACED
S.P.	STANDARD
S.T.D.	STANDARD
S.T.R.	STRUCTURAL
S.Y.M.	SYMMETRICAL
T.C.X.	TOP CHORD EXTENSION
T.O.	TOP OF
T.O.F.	TOP OF FOOTING
T.O.S.	TOP OF STEEL
T.O.W.	TOP OF WALL
T.A.B.	TOP AND BOTTOM
T.S.	TUBE STEEL COLUMN OR BEAM
U.N.F.	UNLESS NOTED OTHERWISE
V.I.F.	VERIFY IN FIELD
W.F.	WELDED WIRE FABRIC
W.P.	WOOD
W.P.	WORK POINT



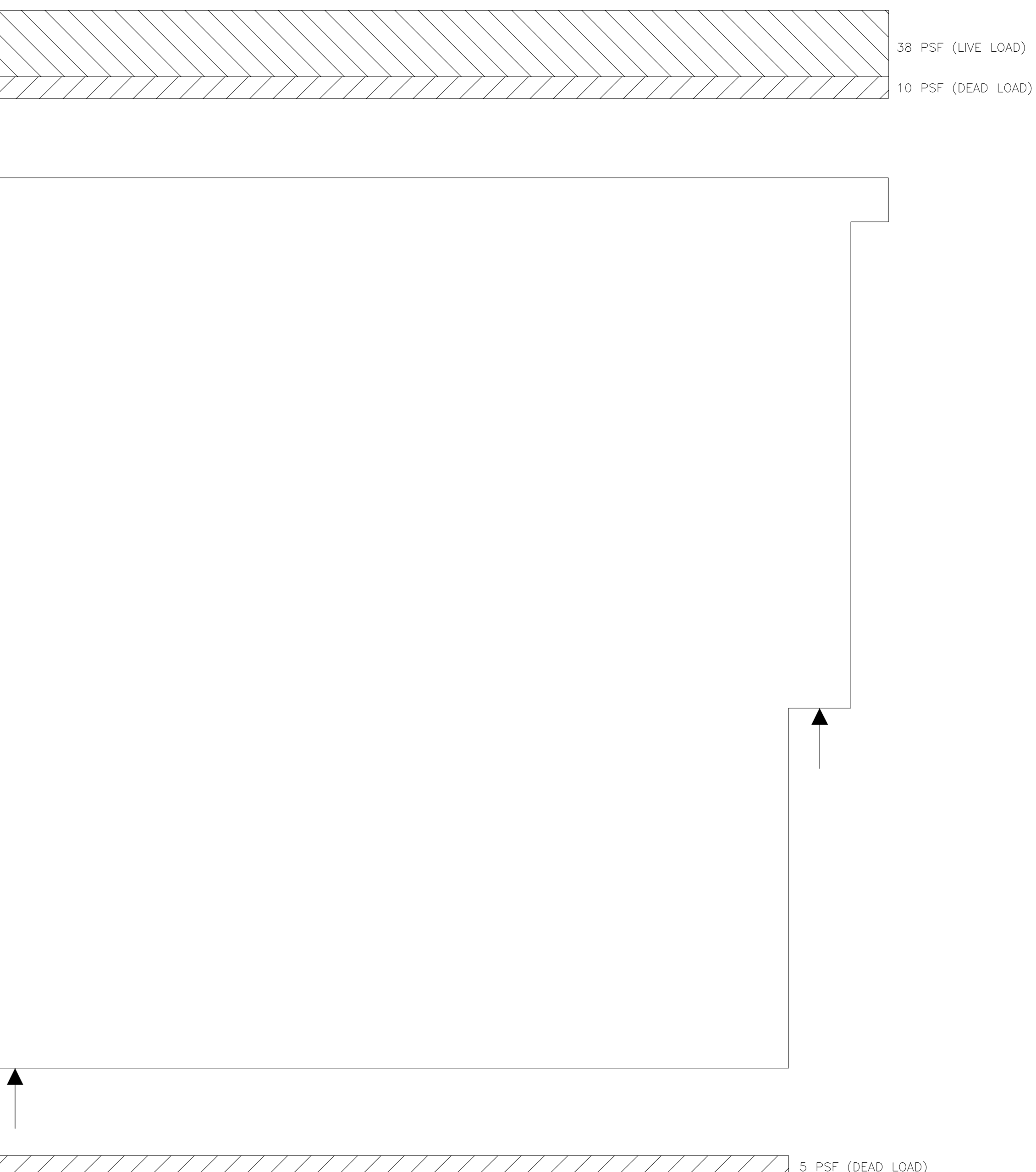
**1 DETAIL**  
SCALE: 3/4" = 1'-0"



**2 DETAIL**  
SCALE: 3/4" = 1'-0"

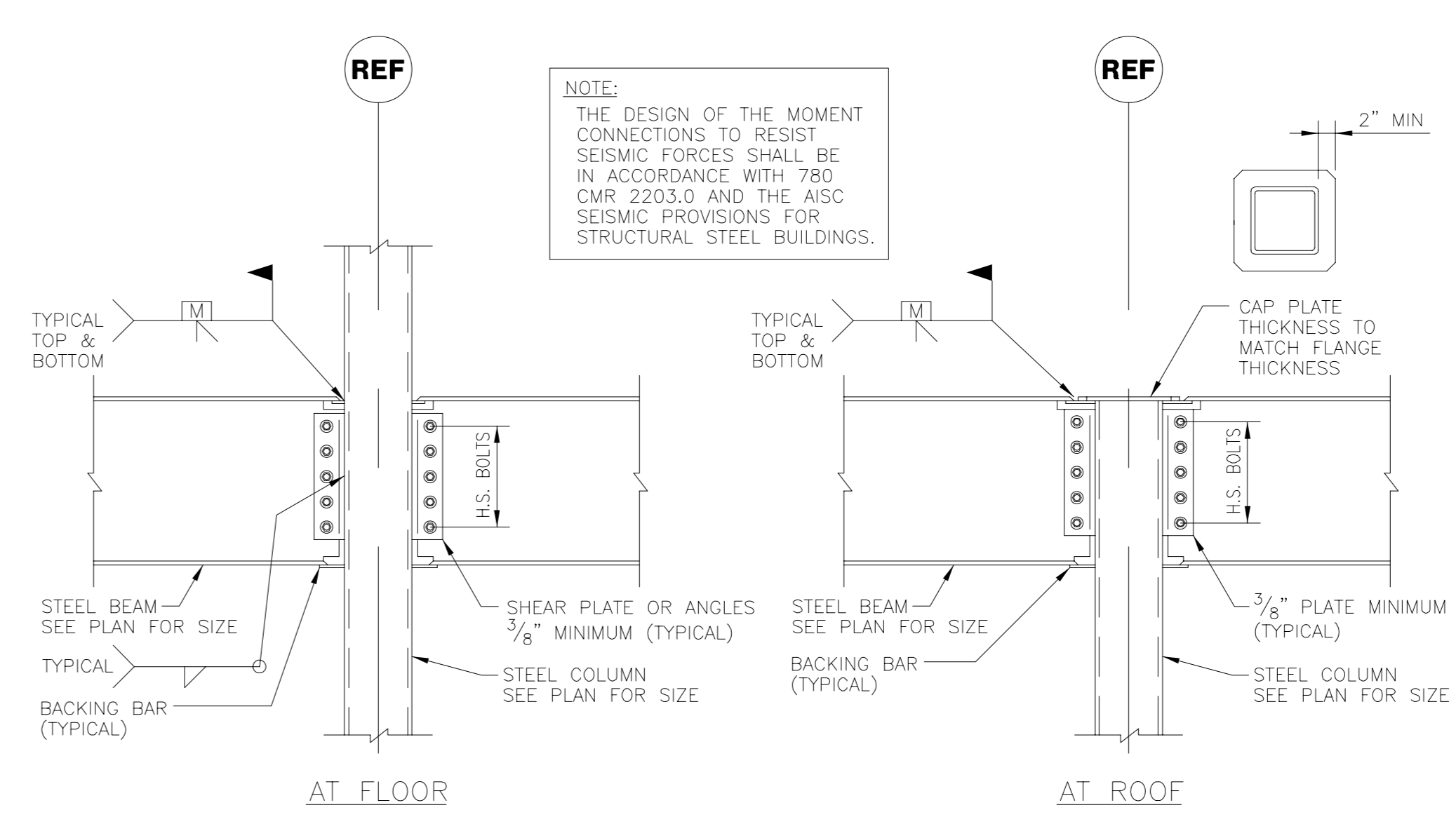


**TYPICAL CONCRETE FOOTING WITH PIER OR PILASTER DETAIL**  
NO SCALE



**LIGHT GAGE METAL TRUSS LOADING DIAGRAMS**

- NO SCALE
- NOTES:**
- REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION AND DETAILS.
  - COORDINATE WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
  - DESIGN TRUSSES FOR 100 MPH WIND.
  - DEFLECTIONS LIMITS:
    - L/240; DEAD LOAD
    - L/360; ROOF LIVE LOAD
  - AT GABLE ROOF LOCATION, OVERFRAME ROOF TRUSSES AS REQUIRED TO FORM GABLE PROFILE.



**TYPICAL MOMENT CONNECTION DETAILS**

- NO SCALE
- NOTES:**
- REMOVE BACKER BARS AT ALL BOTTOM FLANGE WELDS MADE IN THE DOWN HAND POSITION. THE ROOT WELD SHALL BE BACK GROUTED AND RE-WELDED.
  - A REINFORCING FILET WELD SHALL BE ADDED AT THE TOP OF TOP FLANGE FULL PENETRATION WELDS.
  - A REINFORCING FILET WELD SHALL BE ADDED AT THE TOP AND BOTTOM OF BOTTOM FLANGE FULL PENETRATION WELDS.

Project No.	05120
Revision	0
Drawn By	AS NOTED
Checked By	04/02/2007
Date	04/02/2007
Scale	AS NOTED
Sheet No.	S101
Phase	PERMIT
Owner	CENTRO HERITAGE SPE 4 LLC
Address	40 SKOKIE BLVD., SUITE 800 NORTHBROOK, IL 60062
Engineer	PINE TREE ENGINEERING
Address	PINE TREE SHOPPING CENTER, BRIGHTON AVE., PORTLAND, ME