

GENERAL STRUCTURAL NOTES

GENERAL NOTES

- THESE NOTES SHALL BE USED IN CONJUNCTION WITH THE DRAWINGS AND SPECIFICATIONS. THE DRAWINGS AND SPECIFICATIONS ARE COMPLIMENTARY AND NEITHER ARE INTENDED TO STAND ALONE FOR ANY PORTION OF THE WORK DESCRIBED IN THESE DOCUMENTS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER.
- CONTRACTOR SHALL CHECK DIMENSIONS, FRAMING CONDITIONS AND SITE CONDITIONS BEFORE STARTING WORK AND SHALL COORDINATE THESE DRAWINGS WITH DRAWINGS FROM ARCHITECT AND OTHER TRADES. OWNER, ARCHITECT AND ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES OR POSSIBLE DEFICIENCIES.
- CONDITIONS NOT SPECIFICALLY DETAILED SHALL BE CONSTRUCTED AS SPECIFIED IN TYPICAL DETAILS FOR THE RESPECTIVE MATERIALS.
- THE DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. ALL BRACING, TEMPORARY SUPPORTS, SHORING, ETC. IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. OBSERVATION VISITS TO THE JOB SITE BY THE ARCHITECT AND THE ENGINEER DO NOT INCLUDE INSPECTION OF CONSTRUCTION PROCEDURES. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL CONSTRUCTION METHODS AND FOR SAFETY CONDITIONS AT THE WORK SITE. THESE VISITS ARE NOT SPECIAL INSPECTIONS.
- DESIGN, MATERIALS, EQUIPMENT AND PRODUCTS OTHER THAN THOSE DESCRIBED BELOW OR INDICATED ON THE DRAWINGS MAY BE CONSIDERED FOR USE PROVIDED PRIOR APPROVAL IS OBTAINED FROM THE OWNER, ARCHITECT, ENGINEER AND APPLICABLE GOVERNING CODE AUTHORITY.
- NO FIELD REVISIONS TO ANY STRUCTURAL COMPONENTS SHALL BE MADE WITHOUT PRIOR APPROVAL BY THE ENGINEER. THIS INCLUDES – BUT IS NOT LIMITED TO – REVISIONS DUE TO MISLOCATION, MISFIT OR ANY OTHER CONSTRUCTION ERROR.
- PROVIDE SLEEVE LAYOUTS FOR ALL PIPES AND ELECTRICAL PENETRATIONS THROUGH STRUCTURAL MEMBERS (ALL TRADES INCLUDED). LAYOUTS ARE TO BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.
- ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE GOVERNING BUILDING CODE.
- DRAWINGS AND DETAILS ARE NOT TO BE SCALED FOR DETERMINATION OF QUANTITIES, LENGTH, OR CONFIGURATION OF MATERIALS.

BASIS FOR DESIGN

- BUILDING CODE: 2006 IBC, ASCE 7–05,
- DEAD LOADS:
SELF-WEIGHT OF THE STRUCTURAL COMPONENTS AND
ROOFING MATERIAL 10 PSF

COLLATERAL LOAD (NON-STRUCTURAL PERMANENT
EQUIPMENT BELOW ROOF LINE – CEILING, LIGHTING,
INSULATION, ETC) 5 PSF
 - LIVE LOADS:
ROOF LIVE LOAD 20 PSF (NON-REDUCIBLE)
 - SNOW LOADS (PER ASCE 7–05):
GROUND SNOW LOAD, Pg 30 PSF
ROOF SHOW LOAD, Pf 30 PSF
IMPORTANCE FACTOR, Is 1.0
THERMAL FACTOR, Ct 1.0 (ENCLOSED AREAS)
SNOW EXPOSURE FACTOR, Ce 0.9
RAIN ON SNOW AS APPLICABLE PER ASCE 7–05
 - WIND LOAD:
BASIC WIND SPEED 90 MPH
IMPORTANCE FACTOR, Iw 1.0
EXPOSURE C
INTERNAL PRESSURE COEFFICIENT, Gcpi ±0.18
 - SEISMIC LOAD:
Ss 15.6%g
S1 7.7%g
SDs 16.7%g
SD1 12.3%g
IMPORTANCE FACTOR, Ie 1.0
SITE CLASSIFICATION D
SEISMIC DESIGN CATEGORY C
SEISMIC FORCE RESISTING SYSTEM WALL FRAMING SYSTEM
RESPONSE MODIFICATION COEFFICIENT, R 2.0
SYSTEM OVERSTRENGTH FACTOR, ϕ_e 2.5
DEFLECTION AMPLIFICATION FACTOR, C_d 1.75
ANALYSIS PROCEDURE EQUIVALENT LATERAL FORCE PROCEDURE (ASCE 7–05, 12.5)
 - DEFLECTION LIMITATIONS:
ROOF MEMBERS L/240
LINTEL SUPPORTING WALLS WITH VENEERS
(INCLUDING EIFS, BRICK OR STONE) VERTICAL L/600

GEOTECHNICAL RECOMMENDATIONS

- FIRM: ANDERSON ENGINEERING, REPORT #50062–16, DATE: JULY 7, 2016
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SOIL PROPERTIES OF THE SITE AT THE TIME OF POURING.
 - A GEOTECHNICAL ENGINEER SHALL BE RETAINED BY THE OWNER TO MONITOR CONSTRUCTION AND BE PRESENT DURING EXCAVATION AS WELL AS AT THE TIME OF POURING.
 - THE DISTANCE BETWEEN THE BOTTOM OF THE FOUNDATION AND FINISH GRADE OR PAVING SHALL BE 30" MINIMUM.
 - BOTTOM OF FOUNDATIONS NOTED ON THE FOUNDATION DRAWINGS MAY BE LOWERED AS NECESSARY TO OBTAIN THE SPECIFIED BEARING CAPACITY AND/OR COVER.

SLAB ON GRADE

- PROVIDE SLAB CONTROL JOINTS (CJ) WHERE INDICATED ON PLAN. CONTROL JOINTS SHALL BE SAW CUT APPROX 1/4 OF THE SLAB DEPTH. CONTROL JOINTS SHALL BE CUT AS SOON AS POSSIBLE (WITHIN 12 HOURS OF POUR).
- CONSTRUCTION JOINTS SHALL BE A FORMED VERTICAL EDGE REINFORCED WITH #4x24" SMOOTH DOWELS AT 24" O.C. WITH ONE END WRAPPED OR GREASED.
- CONTRACTION JOINTS SHALL FOLLOW THE SAME CONSTRUCTION METHOD AS CONSTRUCTION JOINT WITH THE ADDITION OF A 1/2" EXPANSION MATERIAL. THEY MAY BE SUBSTITUTED FOR ANY CONSTRUCTION JOINT AND SHALL BE USED WHERE INDICATED ON THE PLAN OR AT 80'–0" O.C. MAX.

WELDS

- ALL WELDS SHALL BE PERFORMED USING E70XX ELECTRODES (70 KSI MIN. TENSILE).
- ALL WELDS SHALL BE PERFORMED BY A CERTIFIED WELDER AND SHALL CONFORM TO AISC AND AWS SPECIFICATIONS.
- ALL BUTT WELDS AT WEB AND FLANGES SHALL BE FULL PENETRATION WELDS.
- ALL CONNECTION WELDS SHALL BE A MINIMUM OF 3/16" CONTINUOUS FILLET WELD ON ALL SIDES UNO

GENERAL STRUCTURAL NOTES

FOUNDATION

- SITE PREPARATION SHALL FOLLOW THE GEOTECHNICAL ENGINEERING REPORT RECOMMENDATIONS.
- EXISTING FILL SOILS BENEATH THE CONCRETE SLAB AND BASE ROCK SHALL BE REMOVED AND REPLACED. FILL SOILS VARY IN DEPTH FROM 2.5 FEET TO 6.0 FEET BELOW FINISHED FLOOR ELEVATION. REFER TO GEOTECHNICAL REPORT BORING LOGS FOR APPROXIMATE FILL SOIL DEPTHS AND LOCATIONS.
- AFTER REMOVAL OF EXISTING FILL, A REPRESENTATIVE FROM THE GEOTECHNICAL ENGINEER SHOULD BE RETAINED TO EVALUATE CURRENT SITE CONDITIONS. ANY AREAS OF UNSTABLE SOIL SUBGRADE IDENTIFIED SHALL BE REMOVED.
- PRIOR TO PLACING ANY FILL OR COMPACTED AGGREGATE BASE, THE BUILDING PAD SHALL BE PROOF-ROLLED WITH A 20–25 TON DUMP TRUCK. SOILS THAT ARE OBSERVED TO RUT OR DEFLECT EXCESSIVELY UNDER THE MOVING LOADS SHOULD BE UNDERCUT AND REPLACED WITH PROPERLY COMPACTED FILLS.
- AFTER PROOF-ROLLING, BUT BEFORE PLACING FILL, THE UPPER 6" OF EXPOSED SUBGRADE SHALL BE SCARIFIED AND PROCESSED WITHIN THE RANGE OF 1%–5% ABOVE OPTIMUM MOISTURE CONTENT AS DETERMINED BY THE STANDARD PROCTOR PROCEDURES AS OUTLINED IN ASTM D698. THE SUBGRADE SOILS SHALL BE RECOMPACTED TO A DRY DENSITY OF 94%–96.5% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY.
- ALL STRUCTURAL FILL SHALL BE APPROVED BY GEOTECHNICAL ENGINEER AND PLACED ACCORDING TO THE GEOTECHNICAL REPORT. CONTINUOUS FIELD INSPECTION AND FIELD DENSITY AND MOISTURE CONTENT TESTS SHOULD BE PERFORMED ON EACH LIFT OF THE FILL TO ENSURE COMPLIANCE WITH PROJECT SPECIFICATIONS.
- ALL CONCRETE FOOTINGS SHALL BEAR ON FIRM, UNDISTURBED SOIL.

REINFORCED CONCRETE FOR USE IN FOUNDATIONS

- CONCRETE WORK SHALL CONFORM TO ALL REQUIREMENTS OF ACI 301 LATEST EDITION, "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS" AND ACI 318 LATEST EDITION, "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE."
- ALL ELEVATIONS ARE GIVEN WITH REFERENCE TO FINISH FLOOR DATUM 100'–0".
- ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 3/4" UNO.
- VERIFY ALL DIMENSIONS AND ELEVATIONS OF RECESS, LEDGES AND STEPS WITH ARCHITECT BEFORE COMMENCEMENT OF FORMWORK.
- VERIFY ALL DIMENSIONS, SLOPES, DEPRESSIONS, EMBEDMENT, ETC. BEFORE PLACING CONCRETE.
- UNO, CONCRETE SHALL HAVE TYPE I, II, OR I/II CEMENT AND SAND AND GRAVEL OR CRUSHED STONE AGGREGATE. NORMAL WEIGHT AGGREGATE SHALL MEET THE REQUIREMENTS OF ASTM C33.
- UNO, CONCRETE SHALL HAVE A 28 DAYS STRENGTH AS FOLLOWS:
FOOTINGS 4,000 PSI
INTERIOR SLABS 4,000 PSI
EXTERIOR SLABS 4,500 PSI
- ALL CONCRETE EXPOSED TO FREEZE/THAW SHALL HAVE APPROXIMATELY 5% AIR ENTRAINMENT AND A MINIMUM 28 DAY STRENGTH OF 4,500 PSI.
- SLUMP OF CONCRETE SHALL BE 2"–4" AT THE END OF THE TRUCK OR PUMP HOSE. SLUMP LOSS DUE TO PUMPING SHALL BE ACCOMMODATED. SLUMP SHALL NOT EXCEED 8" IF A SUPERPLASTICIZER OR MID-RANGE WATER REDUCING ADMIXTURE IS USED.
- THE CONTRACTOR SHALL SUBMIT CONCRETE MIX DESIGNS FOR REVIEW THAT INCLUDE PROPORTIONS OF MATERIALS USED ALONG WITH ADEQUATE DOCUMENTATION TO DETERMINE THE STANDARD DEVIATION AND/OR TEST RESULTS FROM TRIAL MIXTURES IF SUFFICIENT HISTORICAL DATA IS NOT AVAILABLE.
- REINFORCEMENT STEEL SHALL CONFORM TO GRADE 60 ASTM A–615.
- STEEL FOR STIRRUPS SHALL CONFORM TO GRADE 40 MIN ASTM A–615.
- UNO, WELDING TO REINFORCING BARS SHALL NOT BE PERMITTED. ELECTRICAL GROUNDING AND OTHER REQUIRED CONNECTIONS TO REINFORCING BARS SHALL BE ACHIEVED BY CLAMPS OR MANUFACTURED CONNECTIONS.
- LAP SPLICES AND EMBEDMENT OF REINFORCING BARS SHALL CONFORM TO THE LATEST EDITION OF ACI 318 FOR CLASS B LAP SPLICES OR 48 BAR DIAMETERS WHICHEVER IS MORE RESTRICTIVE.
- CONTRACTOR SHALL CHECK WITH ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND ANY OTHER DISCIPLINE AND ALL SUB-CONTRACTORS FOR OPENINGS, SLEEVES, ANCHORS, HANGERS, INSERTS, SLAB DEPRESSIONS OR OTHER ITEMS RELATED TO CONCRETE WORK AND SHALL ASSUME RESPONSIBILITY FOR THEIR PROPER LOCATION.
- HIGH STRENGTH GROUT SHALL BE PREPACKAGED AND BE NON-SHRINK ACCORDING TO CRD–C–821–92. GROUT SHALL REACH A COMPRESSIVE STRENGTH OF 5,000 PSI IN 28 DAYS AT FLUID CONSISTENCY AND SHALL NOT BLEED. GROUT SHALL BE MOIST CURED FOR A MINIMUM OF 24 HOURS.

SHOP DRAWINGS

- SHOP DRAWINGS SHALL BE SUBMITTED AS EITHER HARD COPIES OR ELECTRONICALLY IN A PDF VERSION. HARD COPY SUBMITTALS SHALL CONTAIN A MINIMUM OF 2 REPRODUCTIONS OF EACH SHEET. ONE SUBMITTAL WILL BE RETURNED TO THE CONTRACTOR WHO SHALL BE REQUIRED TO MAKE COLOR OR BLACK/RED REPRODUCTIONS AS REQUIRED FOR USE BY CONTRACTOR OR SUB-CONTRACTORS. ELECTRONIC SUBMITTALS MAY BE USED AT THE DISCRETION OF THE CONTRACTOR WITH THE APPROVAL OF THE ARCHITECT. ELECTRONIC SUBMITTALS WILL BE RETURNED TO THE CONTRACTOR IN A PDF VERSION.
- SHOP DRAWINGS SHALL BE ORIGINAL DRAWINGS PREPARED BY THE CONTRACTOR OR MATERIAL FABRICATOR(S). REPRODUCTION OF THE STRUCTURAL DRAWINGS FOR USE AS SHOP DRAWINGS IS NOT PERMITTED AND WILL BE REJECTED WITHOUT BEING REVIEWED. A LICENSE TO USE ANY PORTION OR ALL OF THE ELECTRONIC STRUCTURAL FILES FOR THE LIMITED PURPOSE OF ASSISTING IN THE CONTRACTOR'S PREPARATION OF THE SHOP DRAWINGS FOR SUBMITTAL UNDER THE CONSTRUCTION CONTRACT DOCUMENTS MAY BE PURCHASED FROM OBELISK ENGINEERING UNDER A STANDARD FORM OF AGREEMENT FOR A FEE OF \$100.00 / SHEET. UNDER SUCH AN AGREEMENT, THESE FILES WILL BE PROVIDED IN AUTOCAD VERSION 2004. FILES WILL NOT BE RELEASED FOR USE PRIOR TO RECEIPT OF BOTH THE SIGNED AGREEMENT AND PAYMENT.

STEEL ROOF DECK

- SHEET STEEL FOR STEEL ROOF DECK SHALL CONFORM TO ASTM A653 STRUCTURAL QUALITY, WITH A MINIMUM YIELD STRENGTH OF 33 KSI.
- GALVANIZING SHALL CONFORM TO ASTM A924 WITH A MINIMUM COATING CLASS OF G30 AS DEFINED IN ASTM A653.
- MINIMUM SECTION PROPERTIES FOR STEEL ROOF SHALL BE AS FOLLOWS:
DECK 1p (N"4/FT) 5p (N"3/FT) In (N"4/FT) 5n (N"3/FT)
1.5B–22go 0.155 0.186 0.183 0.192
- WHERE POSSIBLE, STEEL ROOF DECK OVER STEEL JOISTS SHALL BE CONTINUOUS OVER A MINIMUM OF 3 SPANS, UNO.
- ANCHOR DECK TO STEEL SUPPORTING MEMBERS BY ARC SPOT PUDDLE WELDS OR APPROVED MECHANICAL FASTENERS. REFER ANSI/SDI–RD1.0 "STANDARD FOR STEEL ROOF DECK." REFER "ROOF DECK ATTACHMENT DETAIL" FOR ADDITIONAL INFORMATION.
- TRADES THAT SUBSEQUENTLY CUT UNSCHEDULED OPENINGS THROUGH THE STEEL ROOF DECK ARE RESPONSIBLE FOR REINFORCING THE OPENINGS IN ACCORDANCE WITH THE REQUIREMENTS OF THE ENGINEER OF RECORD.

GENERAL STRUCTURAL NOTES

STRUCTURAL STEEL

- FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH ANSI/AISC 360–05 "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" DATED MARCH 9, 2005, AISC 303–05 "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES" DATED MARCH 18, 2005 AND THE STANDARDS OF THE AMERICAN WELDING SOCIETY.
- ALL STRUCTURAL STEEL SHALL BE DETAILED AND FABRICATED BY FABRICATOR WITH AT LEAST AN AISC STD CERTIFICATION. IF THE STEEL FABRICATOR DOES NOT HAVE THE REQUIRED CERTIFICATION, THE FABRICATOR SHALL PAY FOR THE "IN-PLANT" INSPECTIONS ASSOCIATED WITH THE SPECIAL INSPECTION REQUIREMENTS OF THE IBC CODE.
- UNO ALL STRUCTURAL STEEL "H"–SHAPED BEAMS AND COLUMNS SHALL CONFORM TO ASTM A992, GRADE 50.
- ALL STRUCTURAL TUBE MATERIAL SHALL CONFORM TO ASTM A500 GRADE B WITH 46 KSI MINIMUM TENSILE STRENGTH. ALL STRUCTURAL PIPE MATERIAL SHALL CONFORM TO ASTM A53 GRADE B (35 KSI).
- ALL OTHER MISCELLANEOUS STRUCTURAL STEEL, INCLUDING ANGLES AND CHANNELS, SHALL CONFORM TO ASTM A36, UNO.
- NO HOLES SHALL BE CUT THROUGH STEEL BEAMS IN THE FIELD UNLESS FIRST APPROVED BY THE ENGINEER AND/OR ARCHITECT.
- SPLICING OF STRUCTURAL STEEL MEMBERS WITHOUT APPROVAL OF THE ENGINEER–OF-RECORD IS NOT PERMITTED.
- FABRICATORS SHALL SUBMIT A SET OF SHOP DRAWINGS FOR APPROVAL PRIOR TO FABRICATION.
- REFER TO THE SPECIFICATIONS FOR PAINTING REQUIREMENTS OF STRUCTURAL STEEL MEMBERS. DO NOT PAINT DEFORMED BAR ANCHORS.
- ALL CONNECTION BOLTS SHALL CONFORM TO ASTM A325–N AND BE AMERICAN MADE.
- ALL BEAMS SHALL BE ERECTED WITH NATURAL CAMBER UP.
- U.N.O., ALL BEAM-TO BEAM AND BEAM-TO-COLUMN CONNECTIONS SHALL BE DESIGNED FOR THE SERVICE LEVEL SHEAR INDICATED ON THE DRAWINGS OR SHALL BE DETAILED AS SHOWN ON THE DRAWINGS. WHERE NO SHEAR IS INDICATED, THE BEAM IS NON-COMPOSITE, AND NO DETAIL IS PROVIDED, BEAM-TO-BEAM AND BEAM-TO-COLUMN CONNECTIONS SHALL BE DESIGNED FOR THE GREATER OF 6 KIPS (SERVICE LOAD) OR 10 KIPS (FACTORED LOAD) OR THE END REACTION FOR THE MAXIMUM UNIFORM LOAD ACCORDING TO THE TABLES OF "MAXIMUM TOTAL UNIFORM LOAD" IN PART 3 OF THE AISC MANUAL. NOTIFY THE ENGINEER OF RECORD OF ANY COMPOSITE BEAMS WHERE SHEARS ARE NOT INDICATED AND NO DETAILS ARE PROVIDED.
- THE FABRICATOR SHALL RETAIN A PROFESSIONAL ENGINEER, LICENSED IN THE STATE OF MISSOURI WHO SHALL BE RESPONSIBLE FOR ALL CONNECTIONS NOT SHOWN, OR ONLY PARTIALLY DETAILED ON THE DRAWINGS. AS EVIDENCE OF COMPLIANCE WITH THE REQUIREMENT, SUBMIT CONNECTION DRAWINGS WITH CALCULATIONS, EACH SEALED BY THE FABRICATOR'S ENGINEER. THE CALCULATIONS WILL BE RETAINED BY THE ARCHITECT AND WILL NOT BE RETURNED.
- WELD ONE 3/8" FULL-HEIGHT STIFFENER EACH SIDE OF BEAM WEB AT POINTS WHERE A COLUMN REACTION IS APPLIED THROUGH THE TOP BEAM FLANGE.

OPEN WEB STEEL JOISTS

- BAR JOISTS SHALL BE DESIGNED, DETAILED, FABRICATED AND ERECTED ACCORDING TO THE STEEL JOIST INSTITUTE "STANDARD SPECIFICATIONS FOR OPEN-WEB STEEL JOISTS, K-SERIES" DATED NOVEMBER 4, 1985 AND REVISED TO NOVEMBER 10, 2003. THEY SHALL MEET AND BE INSTALLED PER ALL OSHA REQUIREMENTS.
- ALL BRIDGING SHALL BE PERMANENTLY INSTALLED BEFORE CONSTRUCTION LOADS ARE APPLIED. BRIDGING SHALL BE DESIGNED BY THE JOIST FABRICATOR.
- EACH LINE OF BRIDGING SHALL BE ANCHORED AT ENDS TO WALLS OR BEAMS.
- NAME OF JOIST MANUFACTURER SHALL BE ON SHOP DRAWINGS.
- JOISTS MUST BE FIELD BOLTED NEAR ALL COLUMNS WHERE BEAMS DO NOT FRAME INTO COLUMNS. TYPICAL AT EXTERIOR AND INTERIOR.

- TOP AND BOTTOM JOIST CHORDS ARE NOT DESIGNED FOR CONCENTRATED LOADS. PLACE LOADS AT PANEL POINTS OR FIELD WELD (2) L2x2x1/4 AS WEB MEMBERS BETWEEN TOP AND BOTTOM CHORDS FROM POINT OF LOAD APPLICATION TO NEAREST PANEL POINT ON OPPOSITE CHORD.
- ADD (1) CONTINUOUS ROW OF BRIDGING AT FIRST BOTTOM CHORD PANEL POINT AT EACH END OF ALL ROOF JOISTS THAT HAVE A NET UPLIFT. MATCH BRIDGING TYPE USED IN SAME BAY AS SHOWN ON PLANS.
- THE FABRICATOR SHALL RETAIN THE SERVICES OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF MISSOURI WHO SHALL DESIGN THE STEEL JOISTS IN ACCORDANCE WITH THE CURRENT STEEL JOIST INSTITUTE STANDARD SPECIFICATIONS LOAD TABLES & WEIGHT TABLES. THE FABRICATOR SHALL SUBMIT DESIGN CALCULATIONS WITH A COVER LETTER BEARING THE SEAL AND SIGNATURE OF THE FABRICATOR'S DESIGN PROFESSIONAL. THESE CALCULATIONS WILL BE RETAINED BY THE ARCHITECT AND WILL NOT BE RETURNED.

LIGHT GAUGE METAL STUDS AND JOISTS

- LIGHT GAUGE METAL STUD/JOIST FABRICATION AND ERECTION SHALL MEET THE SPECIFICATIONS OF THE STEEL STUD MANUFACTURER'S ASSOCIATION (SSMA) AND NORTH AMERICAN SPECIFICATION FOR DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS (AISI S100).
- ALL LIGHT GAUGE METAL STUDS SHALL CONFORM TO ASTM A653–11 GRADE A WITH 40 KSI MINIMUM TENSILE STRENGTH.
- UNO, IN LOAD-BEARING WALLS, TOP AND BOTTOM TRACK SHALL BE INSTALLED WITH FULL CONTACT OVER STUD EDGE (SNUG TIGHT).
- UNO, TRACK THICKNESS SIZE SHALL MATCH LOAD-BEARING STUD THICKNESS.
- UNO, ALL NON LOAD-BEARING WALL BOTTOM TRACKS SHALL BE ATTACHED TO CONCRETE W/ 0.145"x1 5/8" SHOTPINS AT 24" O.C. MIN, UNO ON SHEARWALL SCHEDULE. SHOT PINS SHALL BE HLTI X-U TYPE OR EQUAL.
- REFER TO SECTIONS AND PLAN NOTES FOR LOAD BEARING WALLS FOR BOTTOM TRACK ATTACHMENTS.
- LATERAL BRIDGING SHALL BE PROVIDED BY USING HORIZONTAL COLD-FORMED U–CHANNEL BRIDGING CENTERED IN THE STUDS, SPACED AT 4'–0" O.C. MAX. REFER TO MANUFACTURER'S DOCUMENTATION.
- SEE TYPICAL BOX HEADER DETAIL ON DRAWINGS.
- UNO ALL INTERIOR NON-LOAD-BEARING STUDS SHALL BE MINIMUM 20 GAUGE.
- USE A SLIP TRACK SYSTEM AT ALL NON-LOAD-BEARING WALLS.
- ALL JOISTS SHALL BE SIMPLE SPAN BETWEEN SUPPORTS. SEE DRAWINGS FOR SIZE AND DETAILS.

GENERAL STRUCTURAL NOTES

SPECIAL INSPECTION NOTES

- THE ITEMS IN THE SCHEDULE SHALL BE INSPECTED AT THE PRESCRIBED FREQUENCY BY A QUALIFIED SPECIAL INSPECTOR FAMILIAR WITH THE TYPES OF CONSTRUCTION REQUIRED FOR THIS PARTICULAR PROJECT. THE SPECIAL INSPECTORS SHALL KEEP RECORDS OF ALL INSPECTIONS AND SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, THE ARCHITECT, THE STRUCTURAL ENGINEER–OF-RECORD, AND THE CONTRACTOR. THE CONTENTS OF THE REPORTS SHALL BE AS DEFINED IN IBC SECTION 1704.1.2. STRUCTURAL BUILDING MATERIALS SHALL BE SAMPLED AND TESTED AS REQUIRED IN THE CONTRACT DOCUMENTS AND THE SPECIFICATIONS. ANY MATERIALS THAT FAIL TO MEET THE REQUIREMENTS OF THE CONTRACT DOCUMENTS AND/OR THE SPECIFICATIONS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ARCHITECT. SPECIAL INSPECTION TESTING REQUIREMENTS APPLY EQUALLY TO ALL BIDDER DESIGNED COMPONENTS.
- SPECIAL INSPECTION AND TESTING REQUIREMENTS FOR PROPRIETARY SYSTEMS SHALL BE AS REQUIRED BY THE REGISTERED DESIGN PROFESSIONAL RESPONSIBLE FOR THEIR DESIGN. IN NO INSTANCES SHALL THE REQUIRED INSPECTIONS AND TESTING BE LESS THAN SPECIFIED IN THIS SCHEDULE. PER IBC SECTION 1704.2.2, COMPONENTS FABRICATED BY AN APPROVED FABRICATOR ARE NOT REQUIRED TO HAVE SPECIAL INSPECTION.
- CONTINUOUS INSPECTION IS DEFINED BY IBC SECTION 1702 AS THE FULL-TIME OBSERVATION OF WORK REQUIRING SPECIAL INSPECTION BY AN APPROVED SPECIAL INSPECTOR WHO IS PRESENT IN THE AREA WHERE THE WORK HAS BEEN OR IS BEING PERFORMED AND AT THE COMPLETION OF THE WORK. PERIODIC INSPECTION IS DEFINED BY IBC SECTION 1702 AS THE PART-TIME OR INTERMITTENT OBSERVATION OF WORK REQUIRING SPECIAL INSPECTION BY AN APPROVED SPECIAL INSPECTOR WHO IS PRESENT IN THE AREA WHERE THE WORK HAS BEEN OR IS BEING PERFORMED AND AT THE COMPLETION OF THE WORK.
- PREFABRICATED COMPONENTS SHALL BE SUBJECT TO THE INSPECTION AND TESTING REQUIREMENTS OF THIS SCHEDULE. CONTINUOUS INSPECTION SHALL NOT BE REQUIRED DURING PREFABRICATION IF THE APPROVED AGENCY CERTIFIES THE CONSTRUCTION AND THE MANUFACTURER SUBMITS EVIDENCE OF COMPLIANCE.
- INSPECTION OF DRILLED CONCRETE ANCHORS, INCLUDING UNDERCUT, EXPANSION, AND ADHESIVE GROUTED ANCHORS, SHALL INCLUDE VISUAL VERIFICATION OF ANCHOR TYPE AND DIMENSIONS, OF DRILLED HOLE DEPTH, SPACING EDGE DISTANCES, HOLE CLEANING, ANCHOR EMBEDMENT, AND TIGHTENING TORQUE. FOR GROUTED ANCHORS, GROUT INSTALLATION SHALL BE OBSERVED AND GROUT PRODUCT SPECIFICATION AND REPARATION SHALL BE VERIFIED.
- THE SPECIAL INSPECTOR SHALL PERFORM AN INSPECTION OF THE STEEL FRAME TO VERIFY COMPLIANCE WITH THE DETAILS SHOWN ON THE APPROVED CONSTRUCTION DOCUMENTS, SUCH AS BRACING, STIFFENING, MEMBER LOCATIONS, AND PROPER APPLICATION OF JOINT DETAILS AT EACH CONNECTION.
- A VISUAL INSPECTION OF ALL WELDS SHALL BE MADE PRIOR TO COMPLETION OR PRIOR TO SHIPMENT OF SHOP WELDING.

VERIFICATION AND INSPECTION	CONT OR PERIODIC	REFERENCE STANDARD	2009 IBC REFERENCE
SOILS AND FOUNDATION CONSTRUCTION			
VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	P	–	–
VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	P	–	–
PERFORM CLASSIFICATION AND TESTING OF CONTROLLED FILL MATERIALS.	P	–	–
VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF CONTROLLED FILL.	C	–	–
PRIOR TO PLACEMENT OF CONTROLLED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	P	–	–
CONCRETE CONSTRUCTION		ACI 318–05	
INSPECTION OF REINFORCING STEEL, INCLUDING PRESTRESSING TENDONS, AND PLACEMENT.	P	3.5, 7.1–7.7	1913.4
INSPECT BOLTS TO BE INSTALLED IN CONCRETE PRIOR TO AND DURING PLACEMENT OF CONCRETE.	C	–	1911.5
VERIFYING USE OF REQUIRED DESIGN MIX.	P	CH. 4, 5.2–5.4	1904.22, 1913.2, 1913.3
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.	C	5.6, 5.8 ASTM C-31 ASTM C-172	1913.10
ERECTION OF PRECAST CONCRETE MEMBERS.	P	CH 16	–
NOTE: THE TABLE PRESENTED HERE IS A PARTIAL DUPLICATION OF THE TABLE IN THE IBC AND IS NON-INCLUSIVE OF ALL ITEMS IN THE IBC. ALL SPECIAL INSPECTION REQUIREMENTS LISTED IN THE IBC SHALL BE PERFORMED AS APPLICABLE.			

ABBREVIATIONS

AB – ANCHOR BOLT
AR – ANCHOR ROD
BLOG – ARCHITECTURAL
BLDG – BUILDING
B.O. – BOTTOM OF
C – CENTER LINE
CLR – CLEAR
CMU – CONCRETE MASONRY UNIT
COL – COLUMN
CONC – CONCRETE
CONT – CONTINUOUS
DBL – DOUBLE
DEMO – DEMOLITION
DIA OR Ø – DIAMETER
DIM – DIMENSION
DWG – DRAWING
(E) – EXISTING
EA – EACH
EQ – EQUAL
F.F. – FINISH FLOOR
HI – HIGH
HORIZ – HORIZONTAL
IBC – INTERNATIONAL BUILDING CODE
INFO – INFORMATION
K – KIP (1,000 LBS.)
LONG – LONGITUDINAL
MAX – MAXIMUM
MECH – MECHANICAL
MFR – MANUFACTURER
MIN – MINIMUM
MISC – MISCELLANEOUS
NS/FS – NEAR SIDE AND FAR SIDE
NTS – NOT TO SCALE
O.C. – ON CENTER
PL – PLATE
PRELIM – PRELIMINARY
PSF – POUNDS PER SQUARE FOOT
REINF – REINFORCING
REQ'D – REQUIRED
SIM – SIMILAR
STD – STANDARD
T&B – TOP AND BOTTOM
T.O. – TOP OF
TYP – TYPICAL
UNO – UNLESS NOTED OTHERWISE
VERT – VERTICAL
W/ – WITH
WT – WEIGHT
WWF – WELDED WIRE FABRIC

Revisions	By
Last Modification	
DATE	INT'Ls

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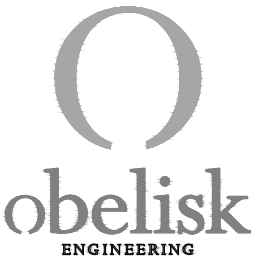
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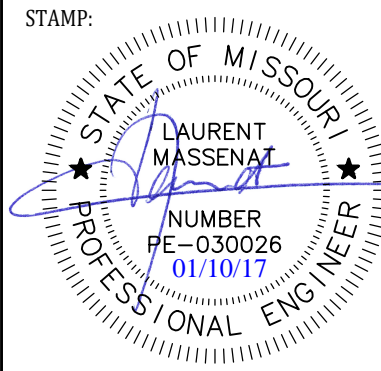
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S01

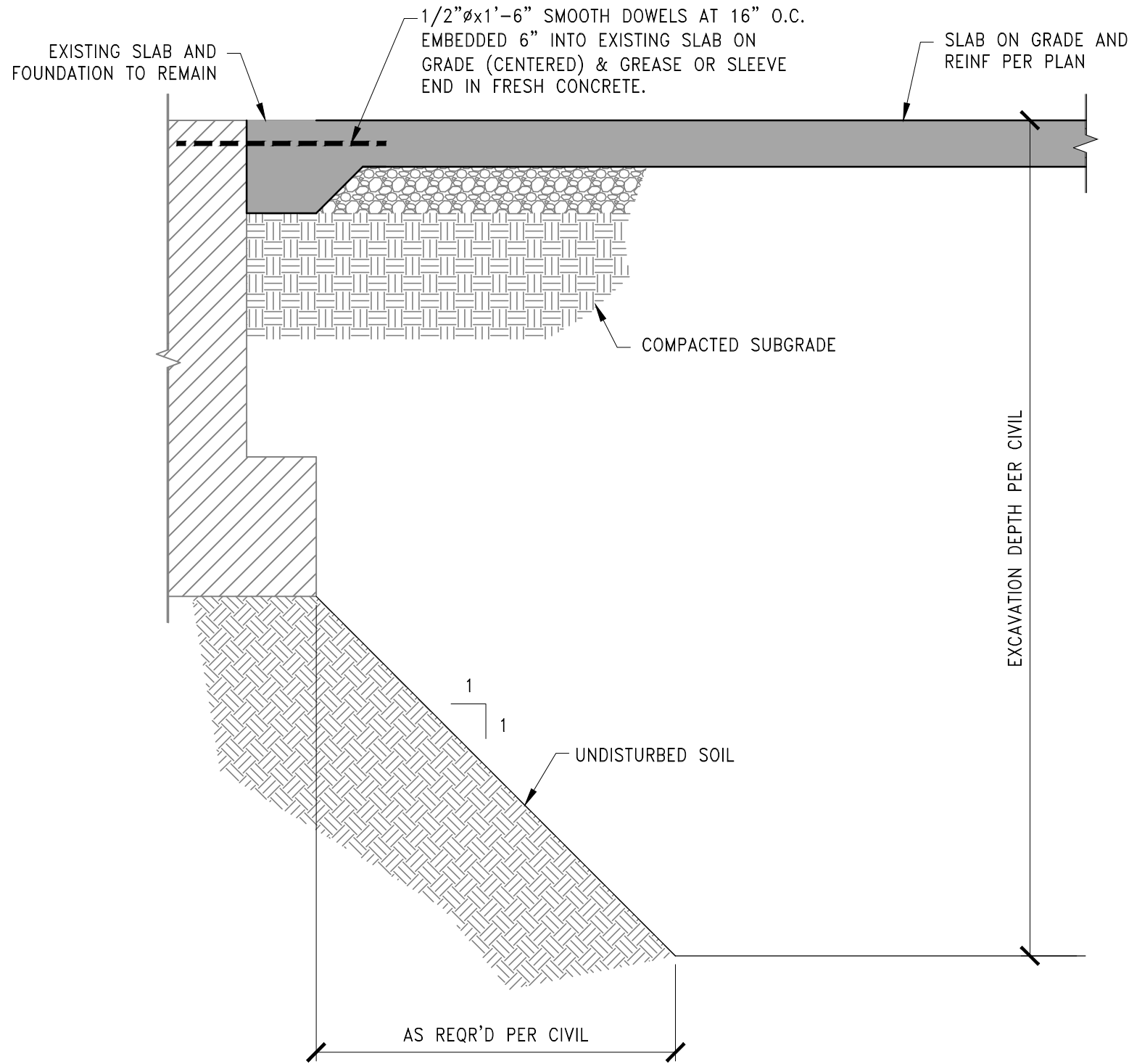


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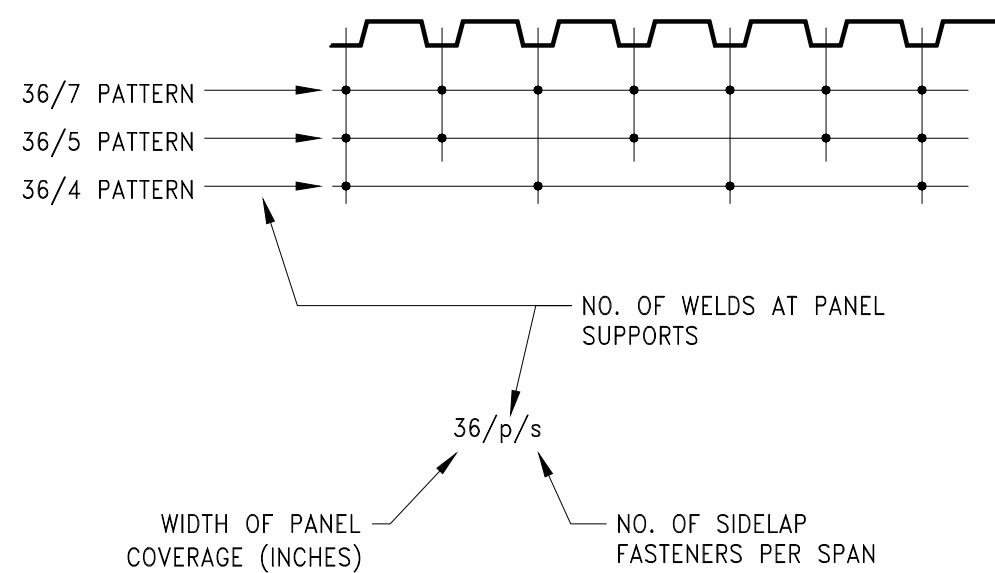
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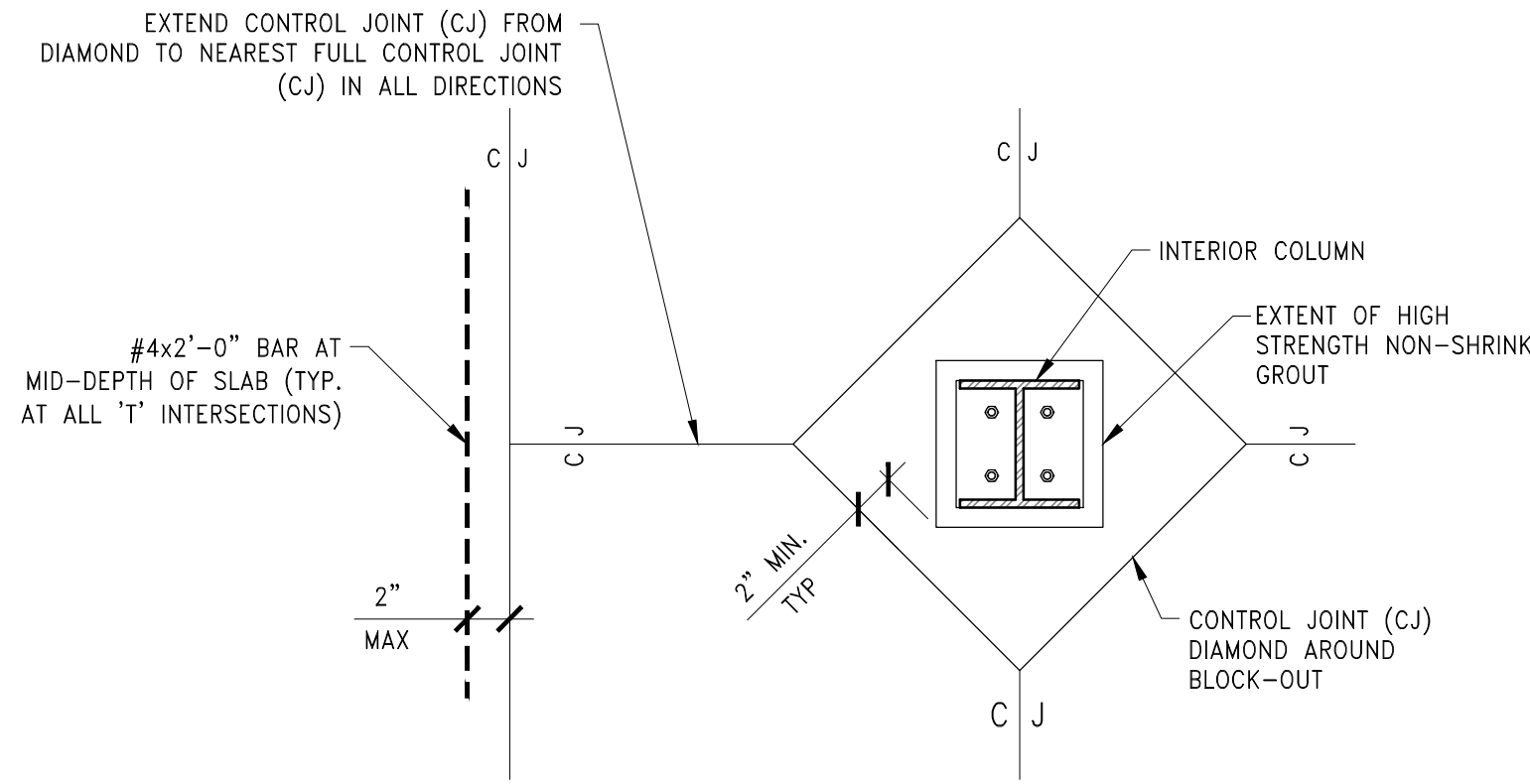


5
S02 **TYPICAL SLAB EXCAVATION DETAIL**
SCALE: NTS

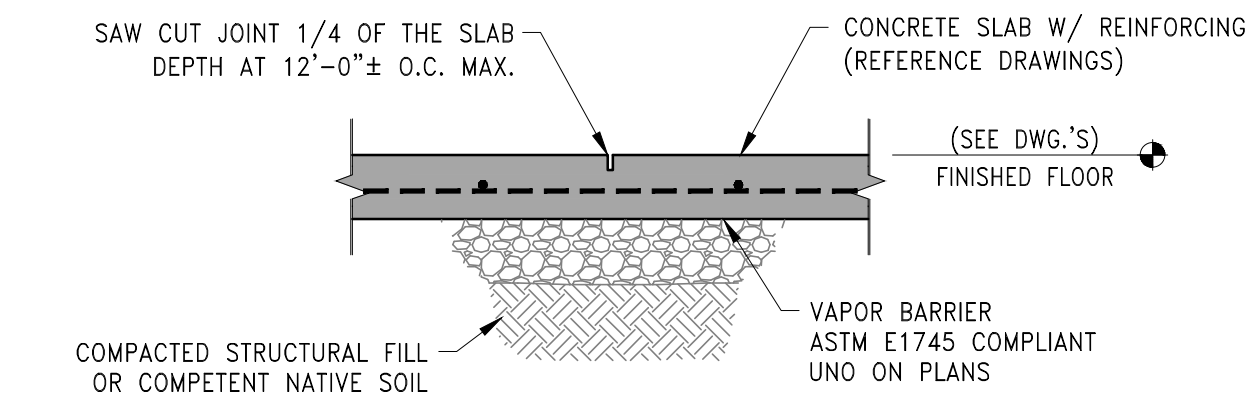


- NOTE:
1. REFER TO DIAGRAM ABOVE FOR EXPLANATION OF DECK ATTACHMENT DESIGNATIONS.
 2. CONNECTION AT SUPPORTS SHALL BE #12 TEK SCREWS.
 3. SIDELAP CONNECTIONS SHALL BE #10 TEK SCREWS EQ SPACED BETWEEN SUPPORTS.
 4. PROVIDE 3/8"x1 1/4" ARC SEAM WELDS AT 12" O.C. TYP AT PERIMETER OF DIAPHRAGM.

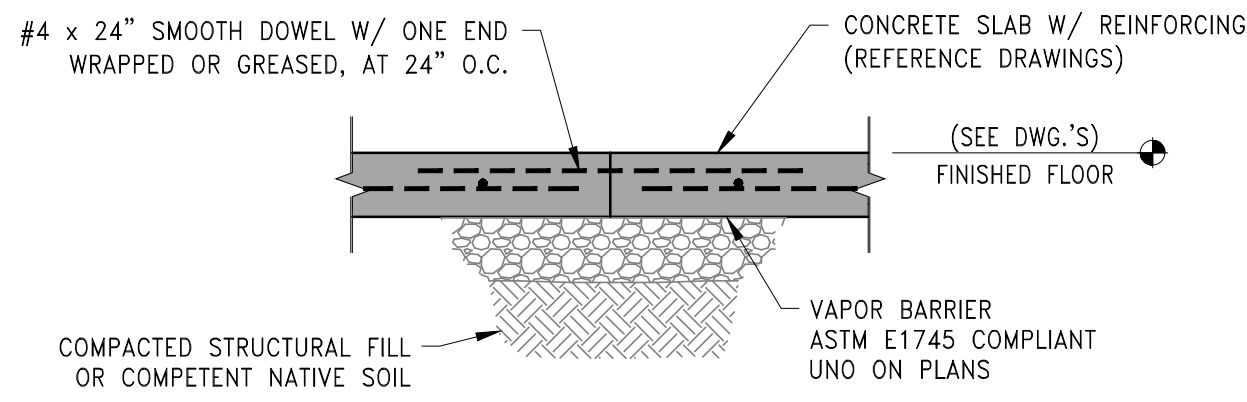
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S02 **TYP DECK ATTACHMENT**
SCALE: NTS



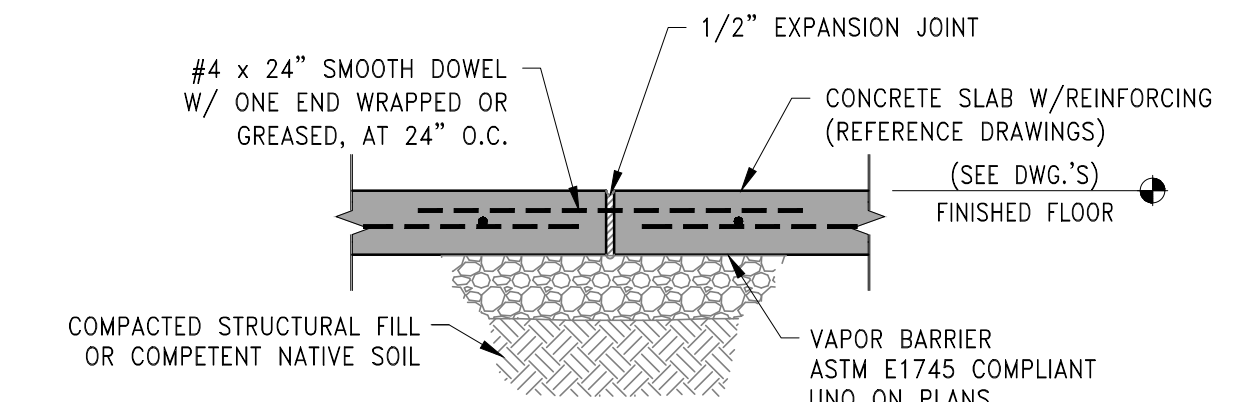
TYP DIAMOND HEAD CONTROL JOINT AT RECESSED COLUMN



CONTROL JOINT (CJ)



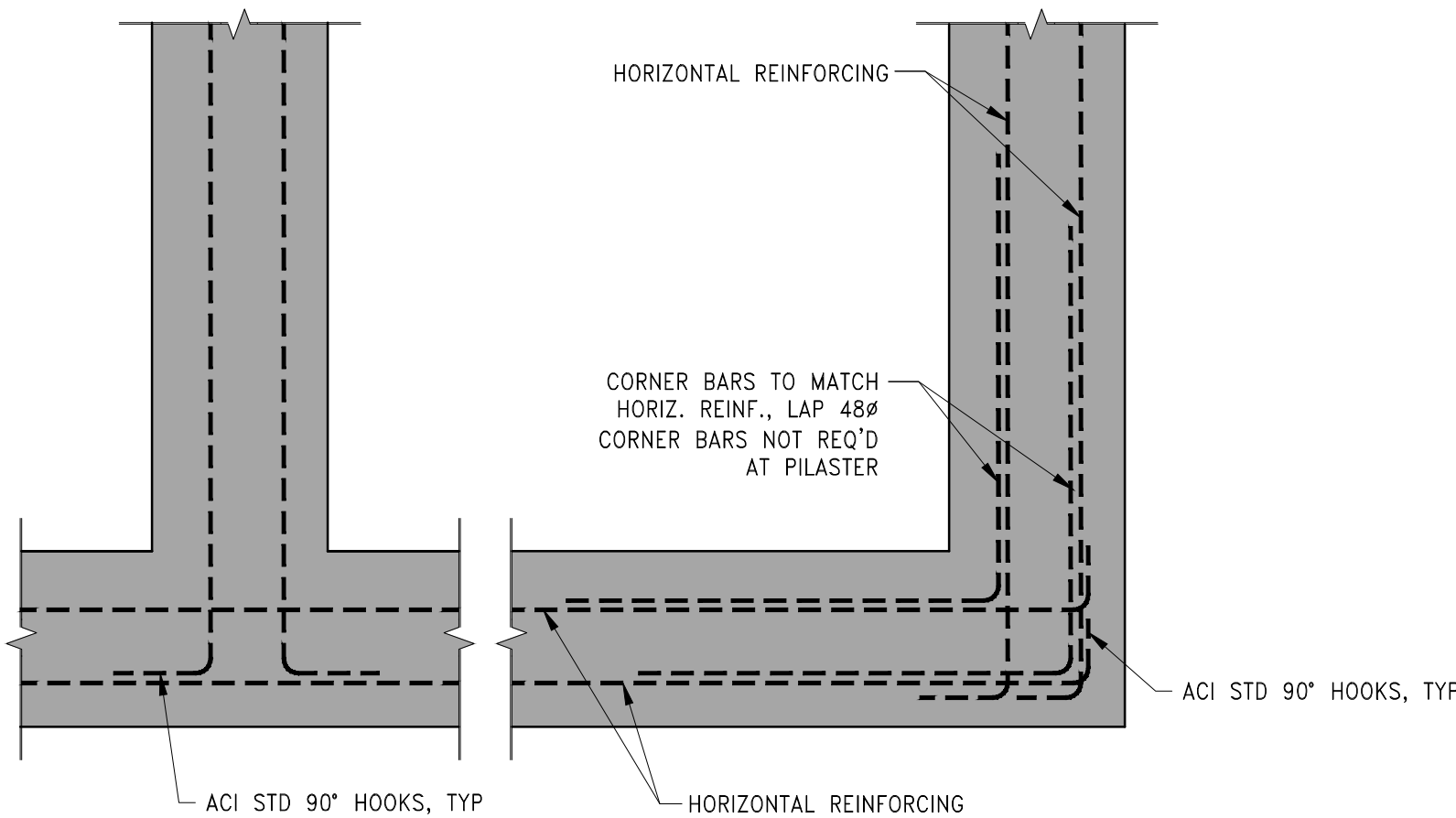
CONSTRUCTION JOINT



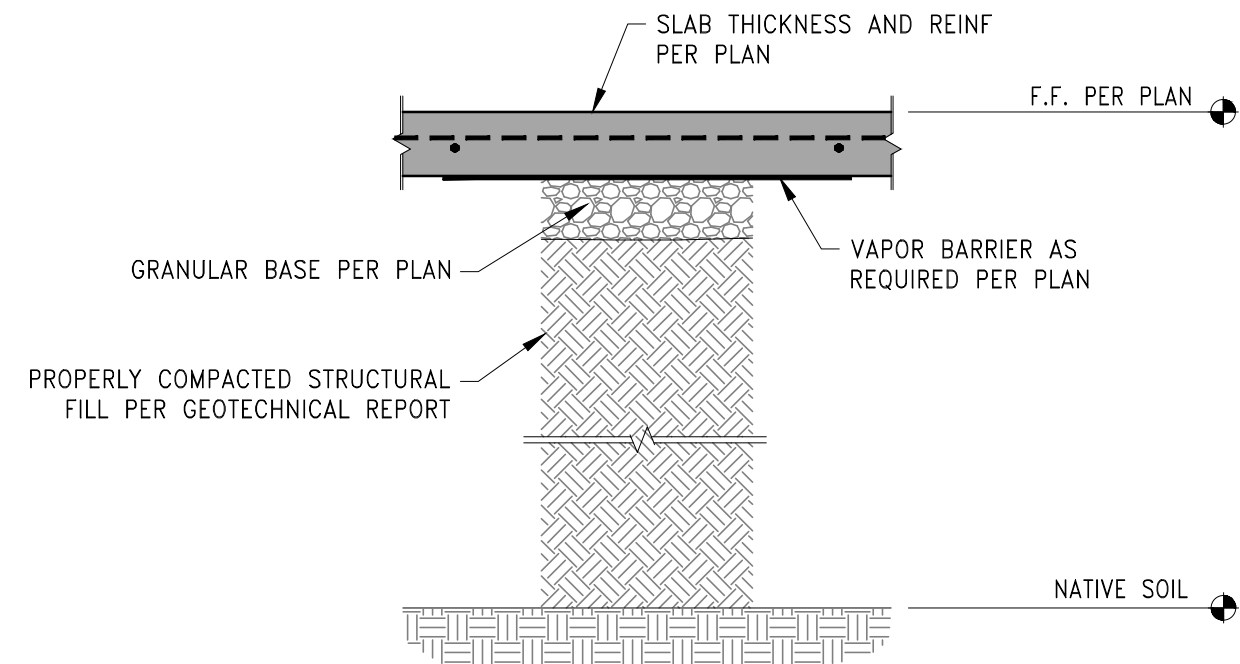
EXPANSION/CONTRACTION JOINT

- NOTES:
- A. CONTROL JOINTS (CJ) LOCATIONS PER FOUNDATION PLAN.
 - B. USE "SOFT CUT SAW" W/N 12 HRS. OF POUR W/O CAUSING RAVELING OF CONCRETE. SAW CUT ALONG SHORT DIRECTION OF POUR FIRST.
 - C. CONTROL JOINTS (CJ) ARE TO ENCLOSE APPROXIMATELY 150 SQ. FT. AREAS MAX.
 - D. CONSTRUCTION JOINTS ARE TO BE LOCATED AT THE CONTRACTOR'S DISCRETION WHEN MULTIPLE POURS ARE REQUIRED AND WILL BE A MIN. OF 5'-0" FROM ALL COLUMNS.
 - E. DIAMOND HEAD CONTROL JOINT APPLIES AT RECESSED COLUMNS ONLY IF APPLICABLE.

3
S02 **TYP SLAB ON GRADE JOINTS DETAIL**
SCALE: NTS

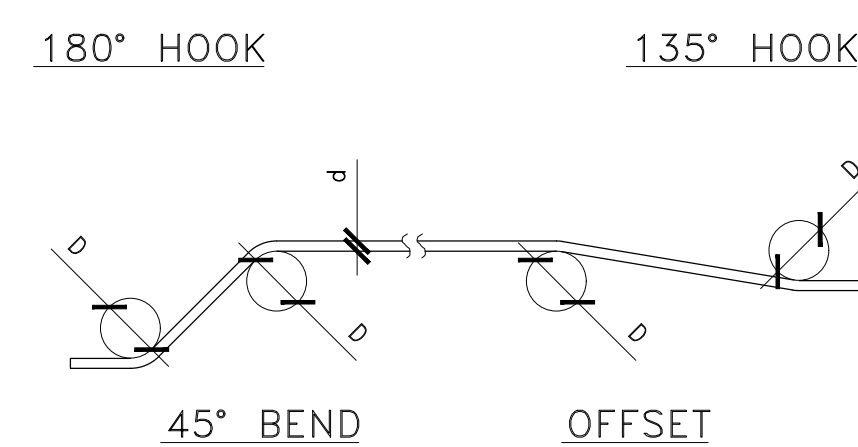
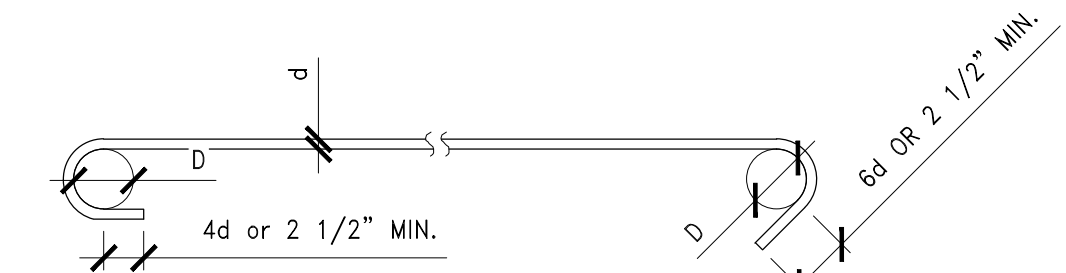
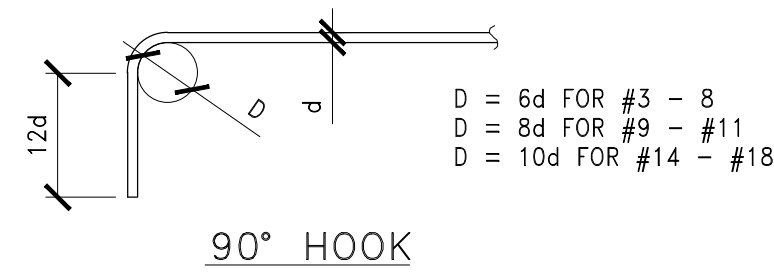


4
S02 **TYP CORNER BARS**
SCALE: NTS



- NOTE:
- A. STRUCTURAL FILL PAD SHALL EXTEND A MINIMUM OF 5'-0" OUTSIDE BUILDING PERIMETER IN ALL DIRECTIONS. SITE PREPARATION SHALL BE OBSERVED BY A REPRESENTATIVE OF THE GEOTECHNICAL ENGINEER.

1
S02 **TYP SITE/SOIL PREPARATION**
SCALE: NTS



2
S02 **TYP REBAR BEND DETAIL**
SCALE: NTS

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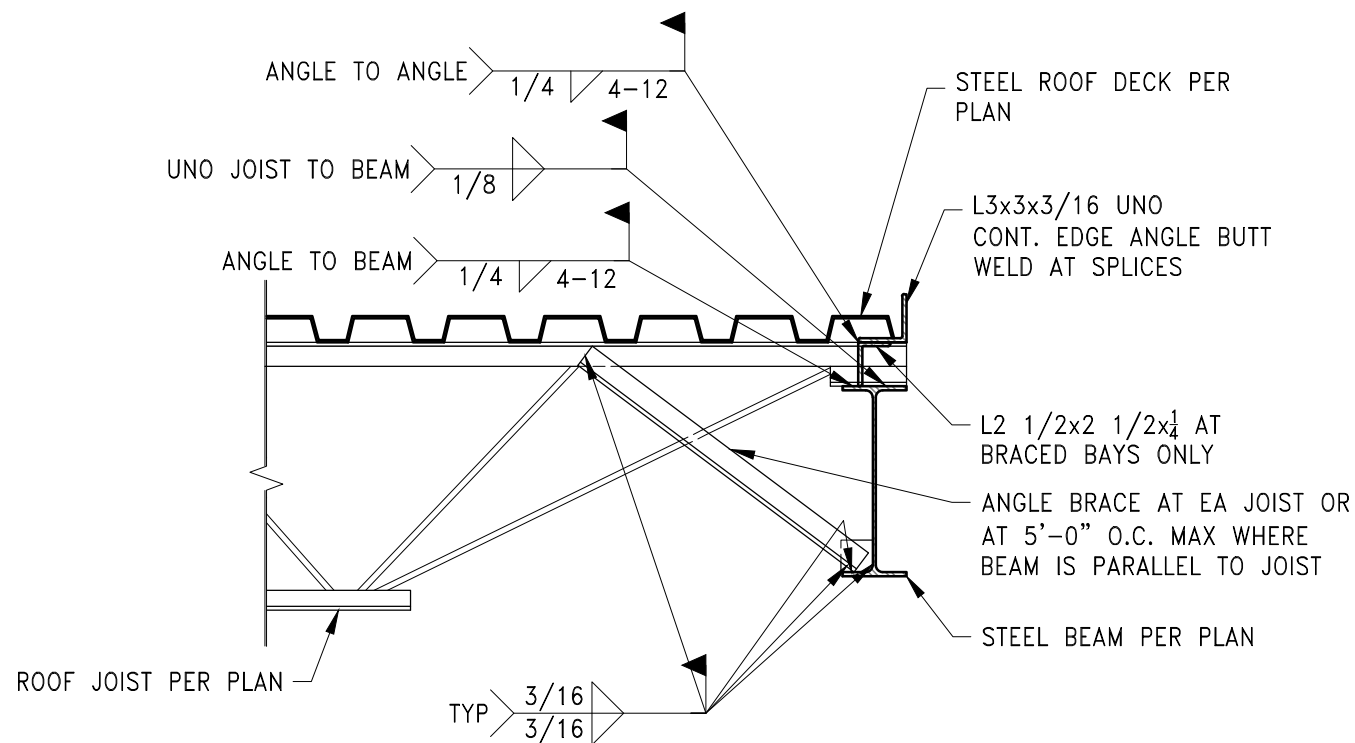
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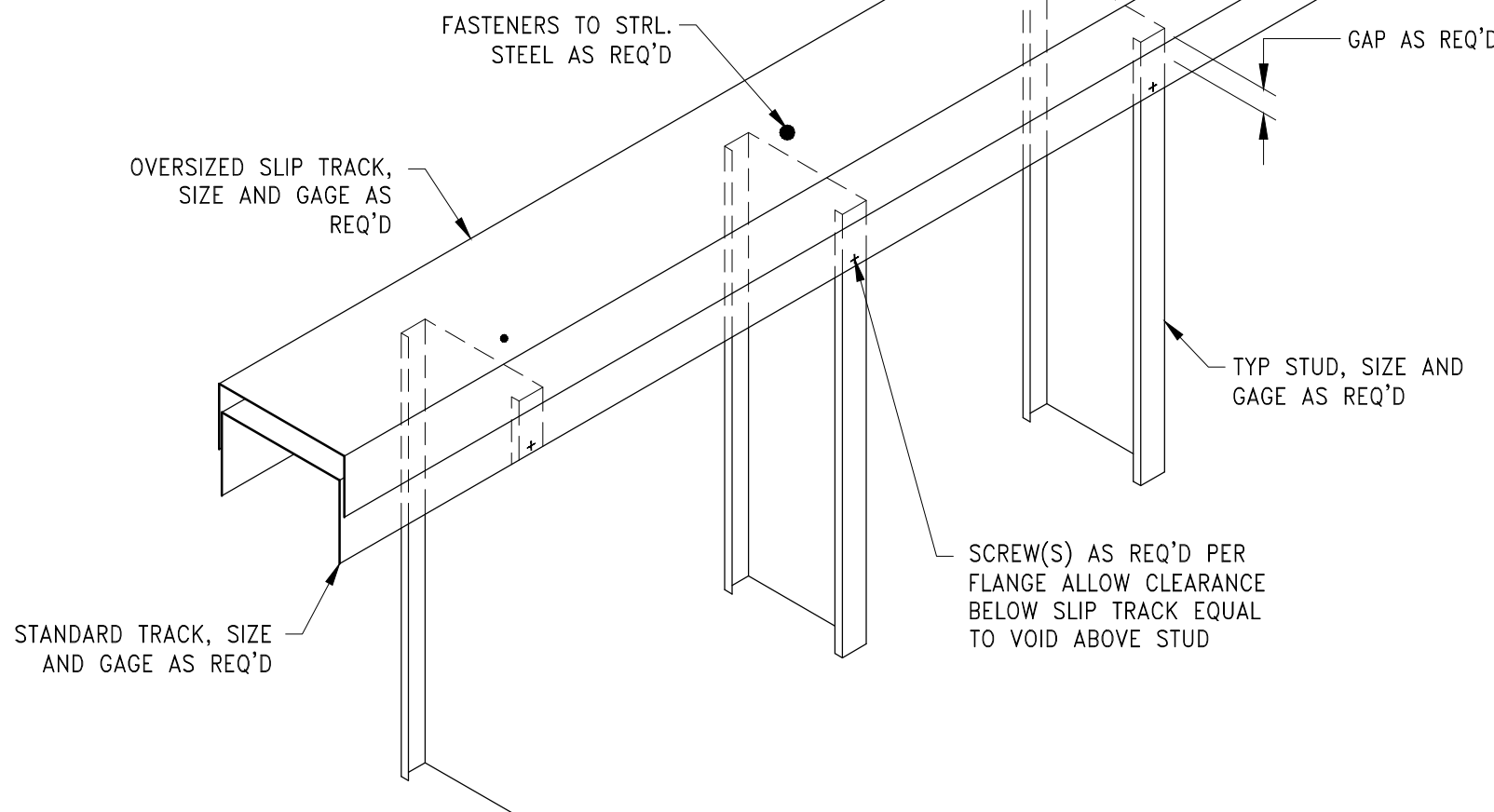
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12 TYP JOIST CONNECTION

SCALE: NTS

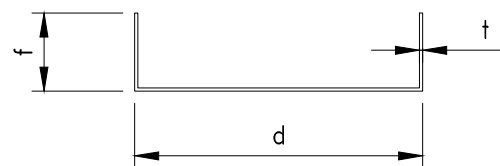
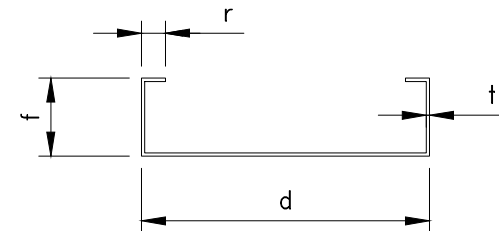


9 DOUBLE SLIP TRACK AT NON-LOAD-BEARING WALLS

SCALE: NTS

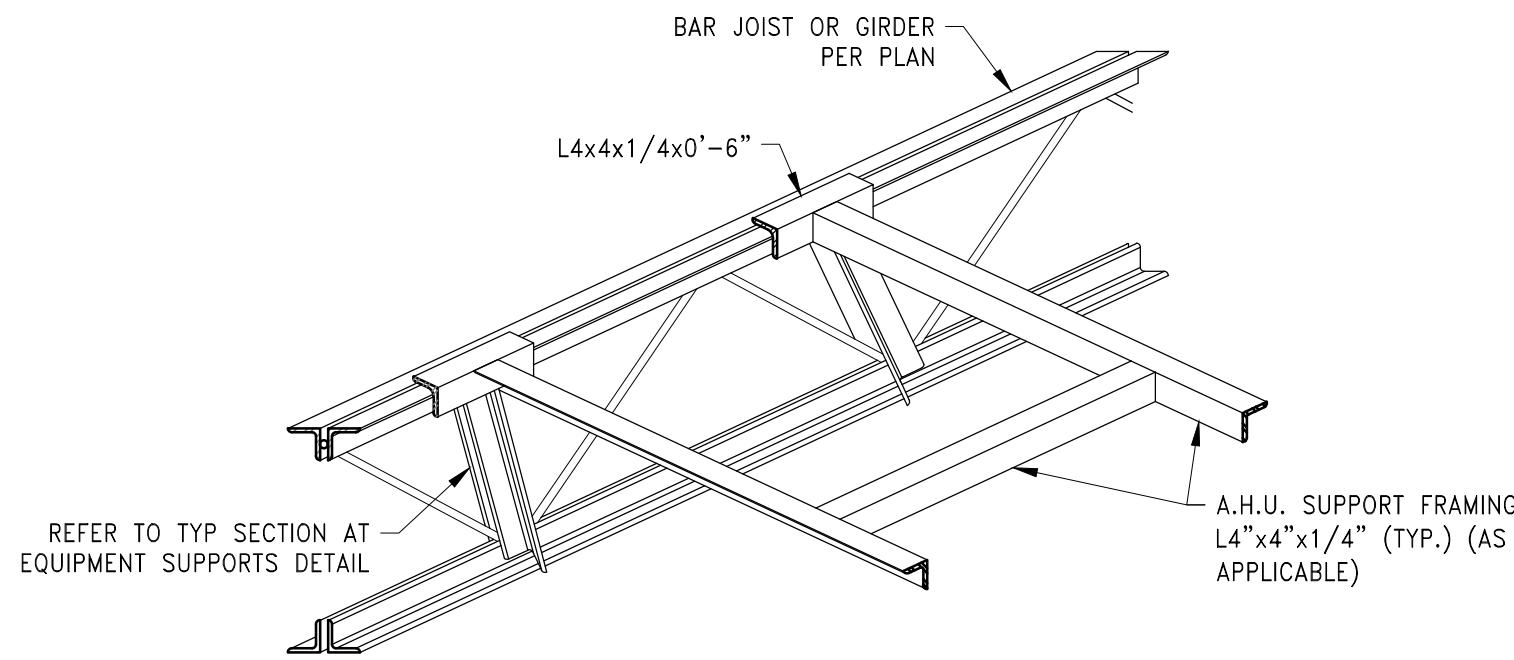
LIGHT GAUGE METAL STUD/JOIST SCHEDULE						
COMMON DESIGNATION	SSMA DESIGNATION	d	f	r	t	
3 5/8" CSJ, 20 GA.	362S162-33	3 5/8"	1 5/8"	1/2"	.033"	
3 5/8" CSJ, 18 GA.	362S162-43	3 5/8"	1 5/8"	1/2"	.043"	
6" CSJ, 20 GA.	600S162-33	6"	1 5/8"	1/2"	.033"	
6" CSJ, 18 GA.	600S162-43	6"	1 5/8"	1/2"	.043"	
6" CSJ, 16 GA.	600S162-54	6"	1 5/8"	1/2"	.054"	
6" CSJ, 14 GA.	600S162-68	6"	1 5/8"	1/2"	.068"	
6" CSJ, 12 GA.	600S162-97	6"	1 5/8"	1/2"	.097"	
8" CSJ, 20 GA.	800S162-33	8"	1 5/8"	1/2"	.033"	
8" CSJ, 18 GA.	800S162-43	8"	1 5/8"	1/2"	.043"	
8" CSJ, 16 GA.	800S162-54	8"	1 5/8"	1/2"	.054"	
8" CSJ, 14 GA.	800S162-68	8"	1 5/8"	1/2"	.068"	
8" CSJ, 12 GA.	800S162-97	8"	1 5/8"	1/2"	.097"	
10" CSJ, 18 GA.	1000S162-43	10"	1 5/8"	1/2"	.043"	
10" CSJ, 16 GA.	1000S162-54	10"	1 5/8"	1/2"	.054"	
10" CSJ, 14 GA.	1000S162-68	10"	1 5/8"	1/2"	.068"	
10" CSJ, 12 GA.	1000S162-97	10"	1 5/8"	1/2"	.097"	
12" CSJ, 18 GA.	1200S162-43	12"	1 5/8"	1/2"	.043"	
12" CSJ, 16 GA.	1200S162-54	12"	1 5/8"	1/2"	.054"	
12" CSJ, 14 GA.	1200S162-68	12"	1 5/8"	1/2"	.068"	
12" CSJ, 12 GA.	1200S162-97	12"	1 5/8"	1/2"	.097"	

LIGHT GAUGE METAL TRACK SCHEDULE						
COMMON DESIGNATION	SSMA DESIGNATION	d	f	t		
3 5/8" T, 20 GA.	362T150-33	3 5/8"	1 1/2"	.033"		
3 5/8" T, 18 GA.	362T150-43	3 5/8"	1 1/2"	.043"		
6" T, 20 GA.	600T150-33	6"	1 1/2"	.033"		
6" T, 18 GA.	600T150-43	6"	1 1/2"	.043"		
6" T, 16 GA.	600T150-54	6"	1 1/2"	.054"		
6" T, 14 GA.	600T150-68	6"	1 1/2"	.068"		
6" T, 12 GA.	600T150-97	6"	1 1/2"	.097"		
8" T, 20 GA.	800T150-33	8"	1 1/2"	.033"		
8" T, 18 GA.	800T150-43	8"	1 1/2"	.043"		
8" T, 16 GA.	800T150-54	8"	1 1/2"	.054"		
8" T, 14 GA.	800T150-68	8"	1 1/2"	.068"		
8" T, 12 GA.	800T150-97	8"	1 1/2"	.097"		
10" T, 18 GA.	1000T150-43	10"	1 1/2"	.043"		
10" T, 16 GA.	1000T150-54	10"	1 1/2"	.054"		
10" T, 14 GA.	1000T150-68	10"	1 1/2"	.068"		
10" T, 12 GA.	1000T150-97	10"	1 1/2"	.097"		
12" T, 18 GA.	1200T150-43	12"	1 1/2"	.043"		
12" T, 16 GA.	1200T150-54	12"	1 1/2"	.054"		
12" T, 14 GA.	1200T150-68	12"	1 1/2"	.068"		
12" T, 12 GA.	1200T150-97	12"	1 1/2"	.097"		



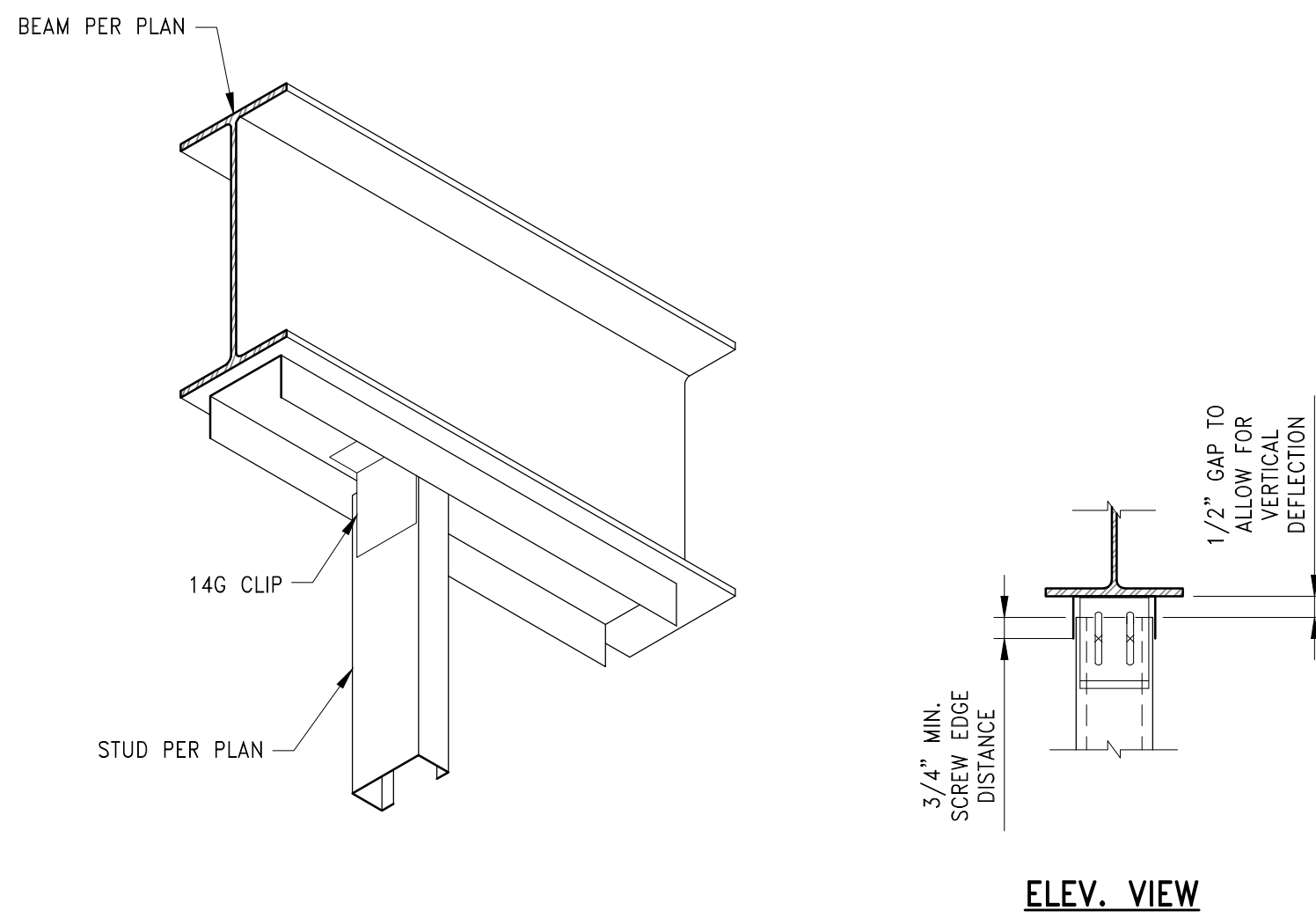
7 METAL STUD AND TRACK SCHEDULE

SCALE: NTS



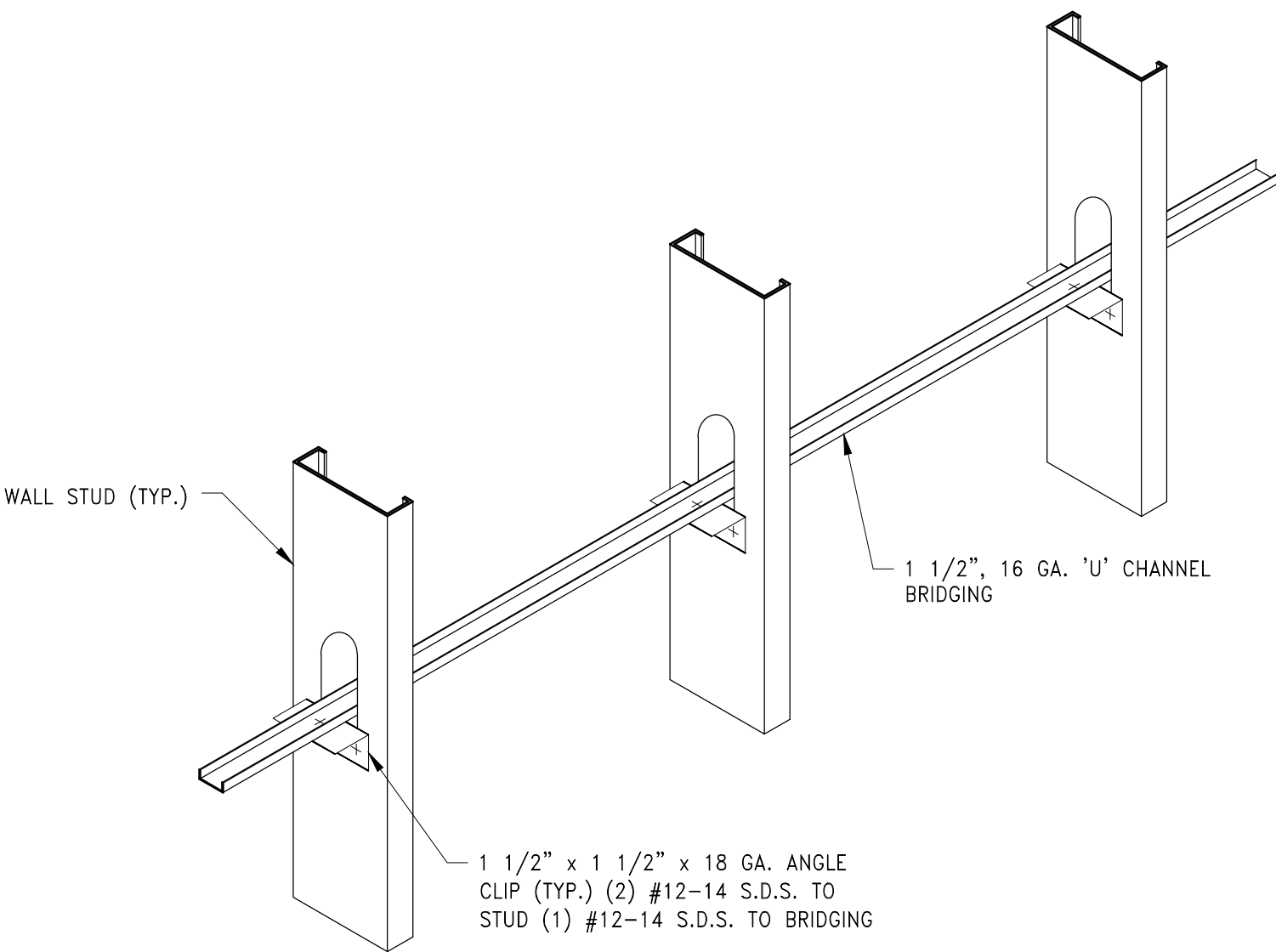
13 TYP FRAMING AT ROOF OPENING

SCALE: NTS



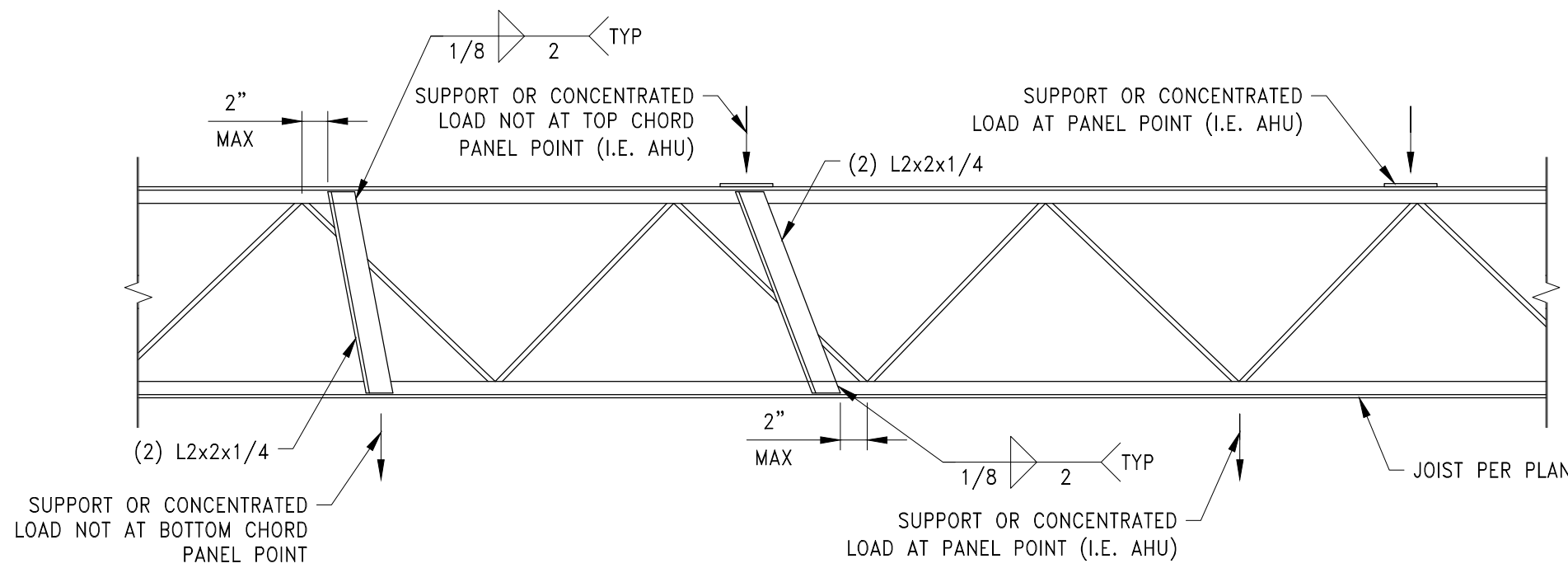
10 COLD FORMED TRACK UNDER BEAM

SCALE: NTS



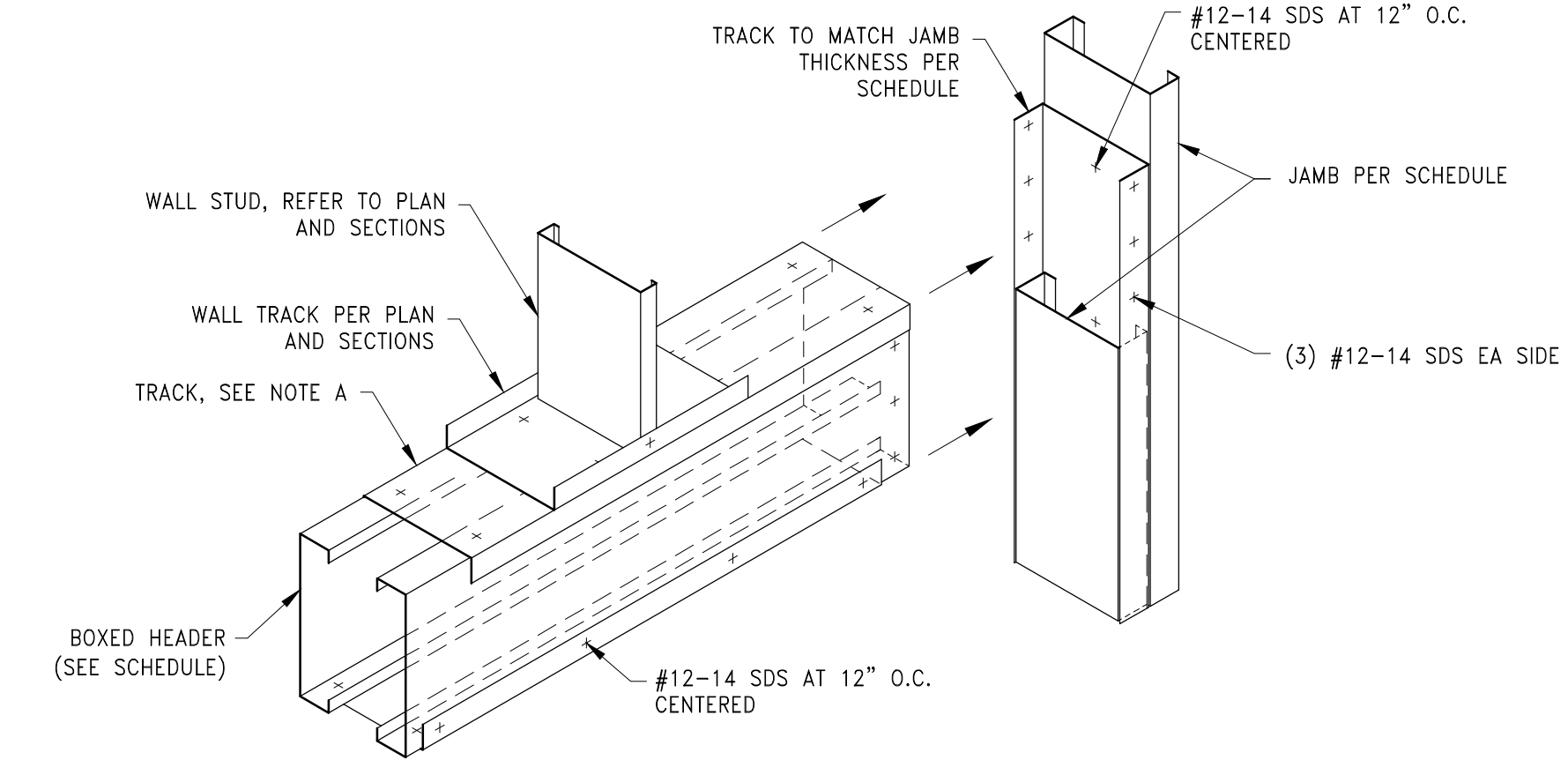
8 TYP BRIDGING CONNECTION

SCALE: NTS



14 TYP SECTION AT EQUIP SUPPORTS

SCALE: NTS



11 TYP BOXED BEAM AT STUD WALL

SCALE: NTS

NON LOAD-BEARING FRAMED OPENING SCHEDULE		
SPAN	HEADER & SILL	JAMB
4'-0" AND UNDER	(2) 362S162-43	(2) 362S162-43
8'-0" AND UNDER	(2) 600S162-43	(2) 362S162-43

LOAD-BEARING FRAMED OPENING SCHEDULE		
TYPE	HEADER & SILL	JAMB
B1	(2) 600S162-43	(2) 600S162-43
B2	(2) 1200S162-43	(2) 600S162-43
B3	(2) 600S162-43	(2) 600S162-43

NOTE:
A. GAUGE OF ALL TRACK MEMBERS IN BOX BEAMS SHALL MATCH TYP TOP AND BOTTOM TRACK GAUGE USED IN THE ADJACENT WALL(S).

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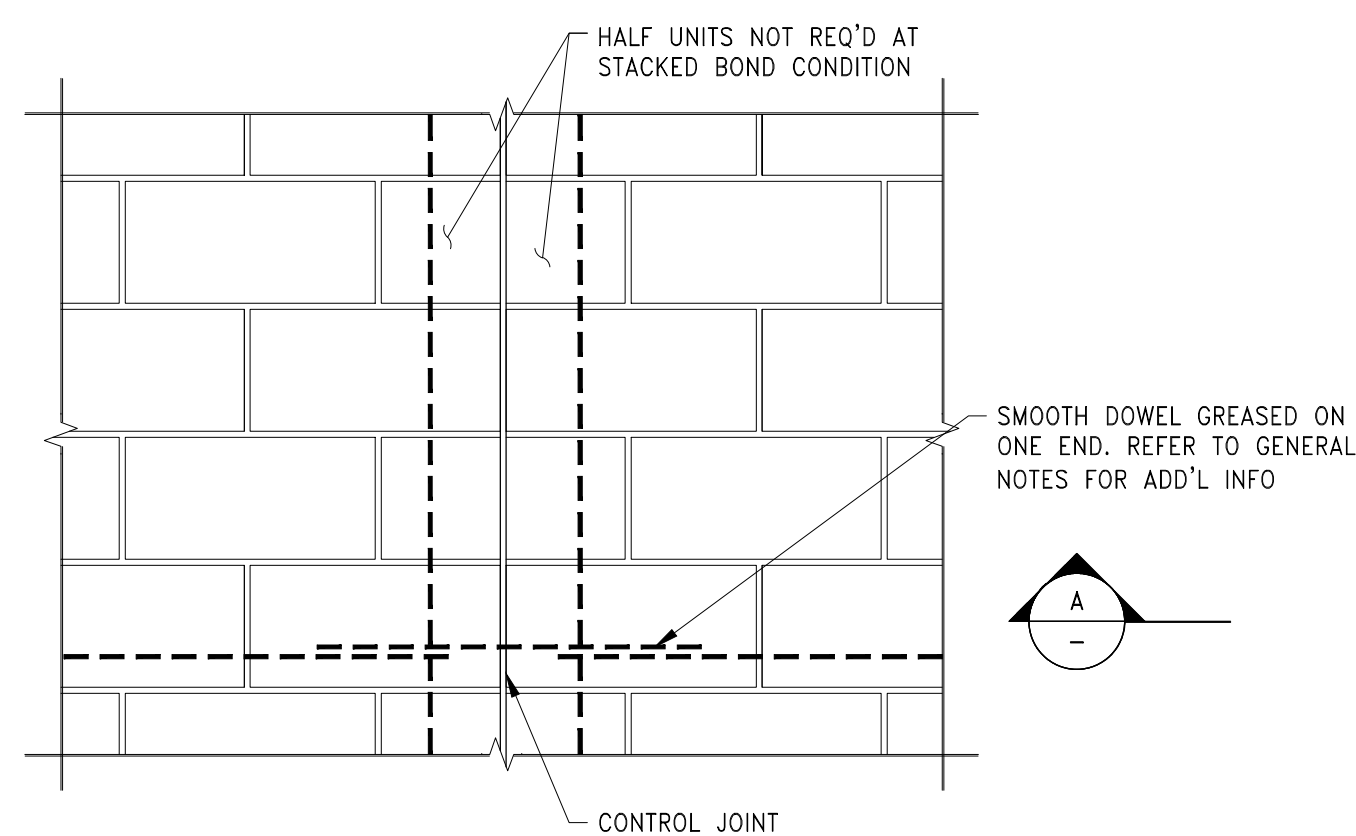
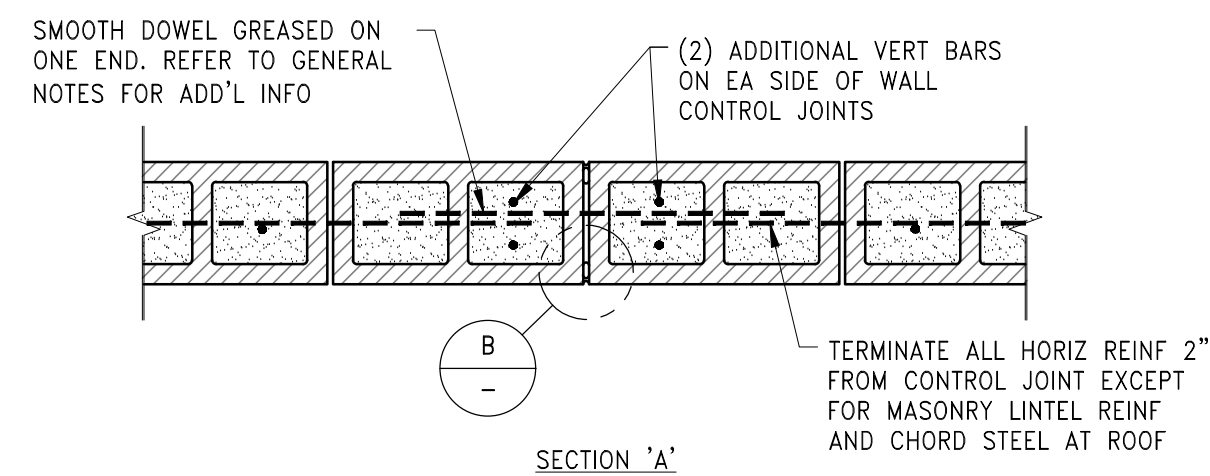
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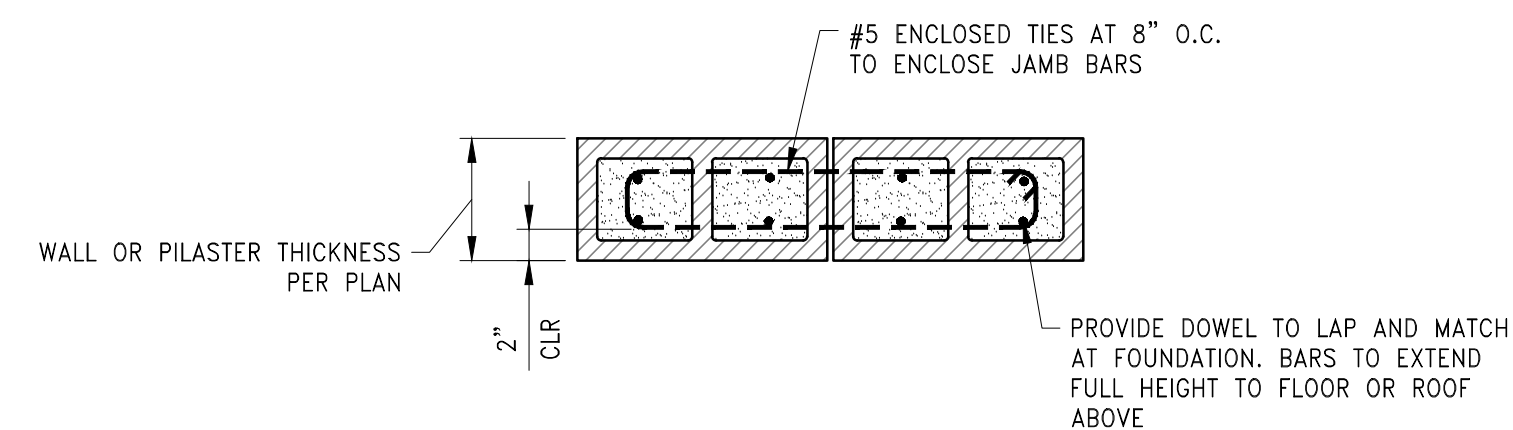
- 16 TYP MASONRY CONTROL JOINT

WALL OR PILASTER THICKNESS PER PLAN

2" CLR

#5 ENCLOSED TIES AT 8" O.C. TO ENCLOSE JAMB BARS

PROVIDE DOWEL TO LAP AND ANCHOR AT FOUNDATION. BARS TO EXTEND TO FULL HEIGHT TO FLOOR OR ABOVE



- 17 TYP MASONRY JAMB DETAIL

VERIFICATION AND INSPECTION	CONT OR PERIODIC	REFERENCE STANDARD	2009 IBC REFERENCE
MASONRY LEVEL 1 (IBC 1704.5.1 & 1704.5.2)			
<p>AS MASONRY CONSTRUCTION BEGINS, THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE:</p> <ul style="list-style-type: none"> • PROPORTIONS OF SITE PREPARED MORTAR. <ul style="list-style-type: none"> • CONSTRUCTION OF MORTAR JOINTS. • LOCATION OF REINFORCEMENT AND CONNECTORS. 	<p>P</p> <p>P</p> <p>P</p>	<p>—</p> <p>—</p> <p>—</p>	<p>—</p> <p>—</p> <p>—</p>
<p>THE INSPECTION PROGRAM SHALL VERIFY:</p> <ul style="list-style-type: none"> • SIZE AND LOCATION OF STRUCTURAL ELEMENTS. • TYPE, SIZE AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES OR OTHER REINFORCEMENT. • SPECIFIED SIZE, GRADE AND TYPE OF REINFORCEMENT. • WELDING OF REINFORCEMENT BARS. • PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40°F) OR HOT WEATHER (TEMPERATURE ABOVE 90°F) 	<p>P</p> <p>P</p> <p>P</p> <p>C</p> <p>P</p>	<p>—</p> <p>—</p> <p>—</p> <p>—</p> <p>—</p>	<p>—</p> <p>—</p> <p>—</p> <p>—</p> <p>—</p>
<p>PRIOR TO GROUTING, THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE:</p> <ul style="list-style-type: none"> • GROUT SPACE IS CLEAR. • PLACEMENT OF REINFORCEMENT AND CONNECTORS. • PROPORTIONS OF SITE-PREPARED GROUT • CONSTRUCTION OF MORTAR JOINTS. 	<p>P</p> <p>P</p> <p>P</p> <p>P</p>	<p>—</p> <p>—</p> <p>—</p> <p>—</p>	<p>—</p> <p>—</p> <p>—</p> <p>—</p>
GROUT PLACEMENT SHALL BE VERIFIED TO ENSURE COMPLIANCE WITH CODE AND CONSTRUCTION DOCUMENT PROVISIONS.	C	—	—
PREPARATIONS OF ANY REQUIRED GROUT SPECIMENS, MORTAR SPECIMENS AND/OR PRISMS SHALL BE OBSERVED.	C	—	—
COMPLIANCE WITH REQUIRED INSPECTION PROVISIONS OF THE CONSTRUCTION DOCUMENTS AND THE APPROVED SUBMITTALS SHALL BE VERIFIED.	P	—	—

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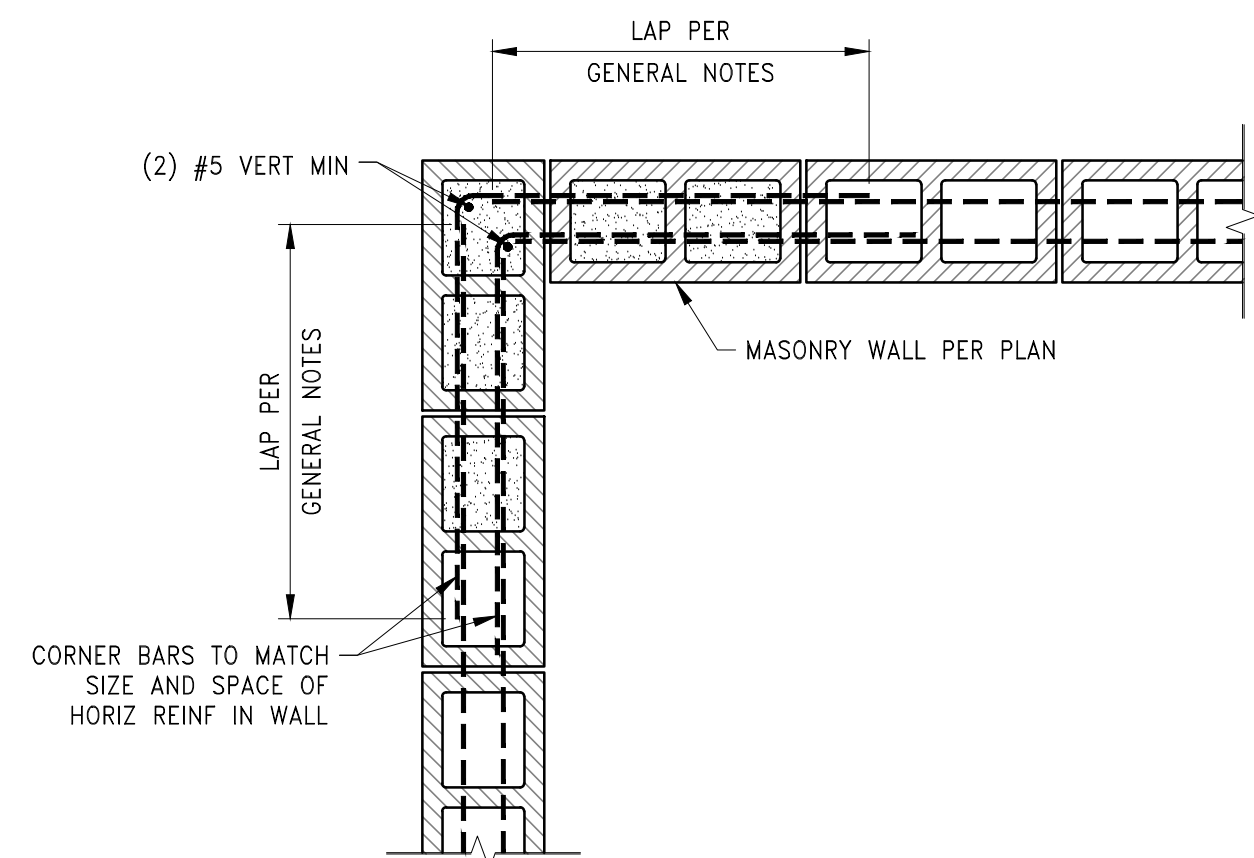
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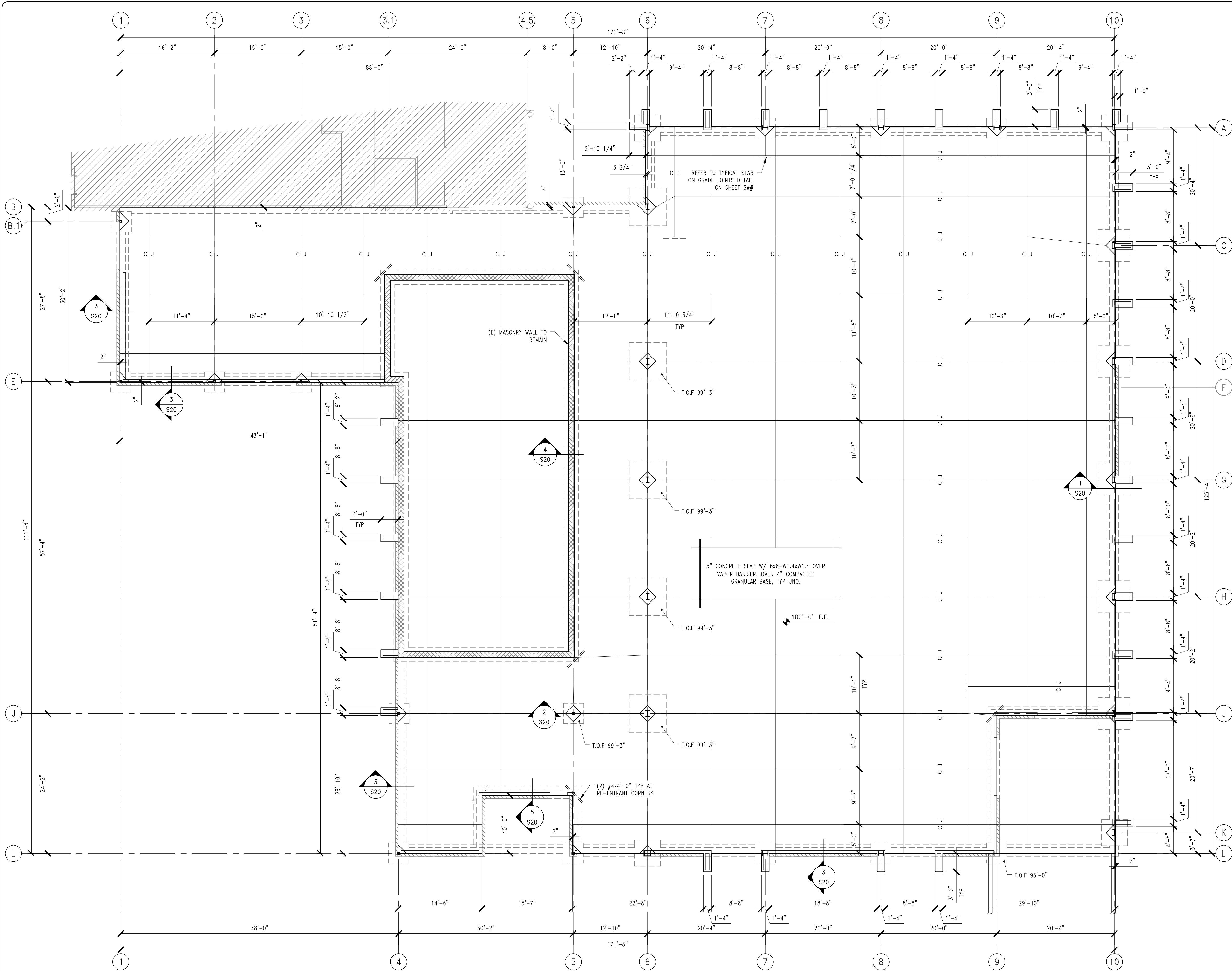
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S04



- 15 TYP MASONRY CORNER (PLAN)

S04 SCALE: NTS



- FOUNDATION PLAN NOTES:
- A. CONTRACTOR TO VERIFY ALL DIMENSIONS, PRIOR TO CONSTRUCTION.
 - B. CONTRACTOR TO VERIFY LOCATION OF ALL INSERTS IN SLAB W/ APPROVED MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS PRIOR TO CONSTRUCTION.
 - C. TYPICAL DETAILS AND NOTES SHALL APPLY, THOUGH NOT NECESSARILY INDICATED AT A SPECIFIC LOCATION ON PLANS.
 - D. REFER TO THE GEOTECHNICAL REPORT AND GENERAL NOTES FOR SUBGRADE PREPARATION INFORMATION AND REMOVAL/REPLACEMENT OF FILL SOILS.
 - E. AFTER REMOVAL OF FILL SOILS, SITE SUBGRADE WILL NOT BE ADEQUATE TO SUPPORT RUBBER TIRE CONSTRUCTION TRAFFIC. TRACKED EQUIPMENT SHALL BE USED UNTIL A MINIMUM OF 2 FEET OF FULLY COMPACTED STRUCTURAL FILL HAS BEEN PLACED OVER THE EXISTING SUBGRADE.
 - F. REFER TO CIVIL ENGINEER AND GEOTECHNICAL REPORT FOR MOISTURE MITIGATION INFORMATION AS WELL AS FRENCH DRAIN AND SPRING BOX LOCATIONS.
 - G. PROVIDE CONTROL JOINTS IN CONCRETE SLAB ON GRADE AS SHOWN, PER TYPICAL DETAIL AND THE GENERAL NOTES.
 - H. (E) . . . INDICATES EXISTING, WHERE SHOWN ON PLANS.

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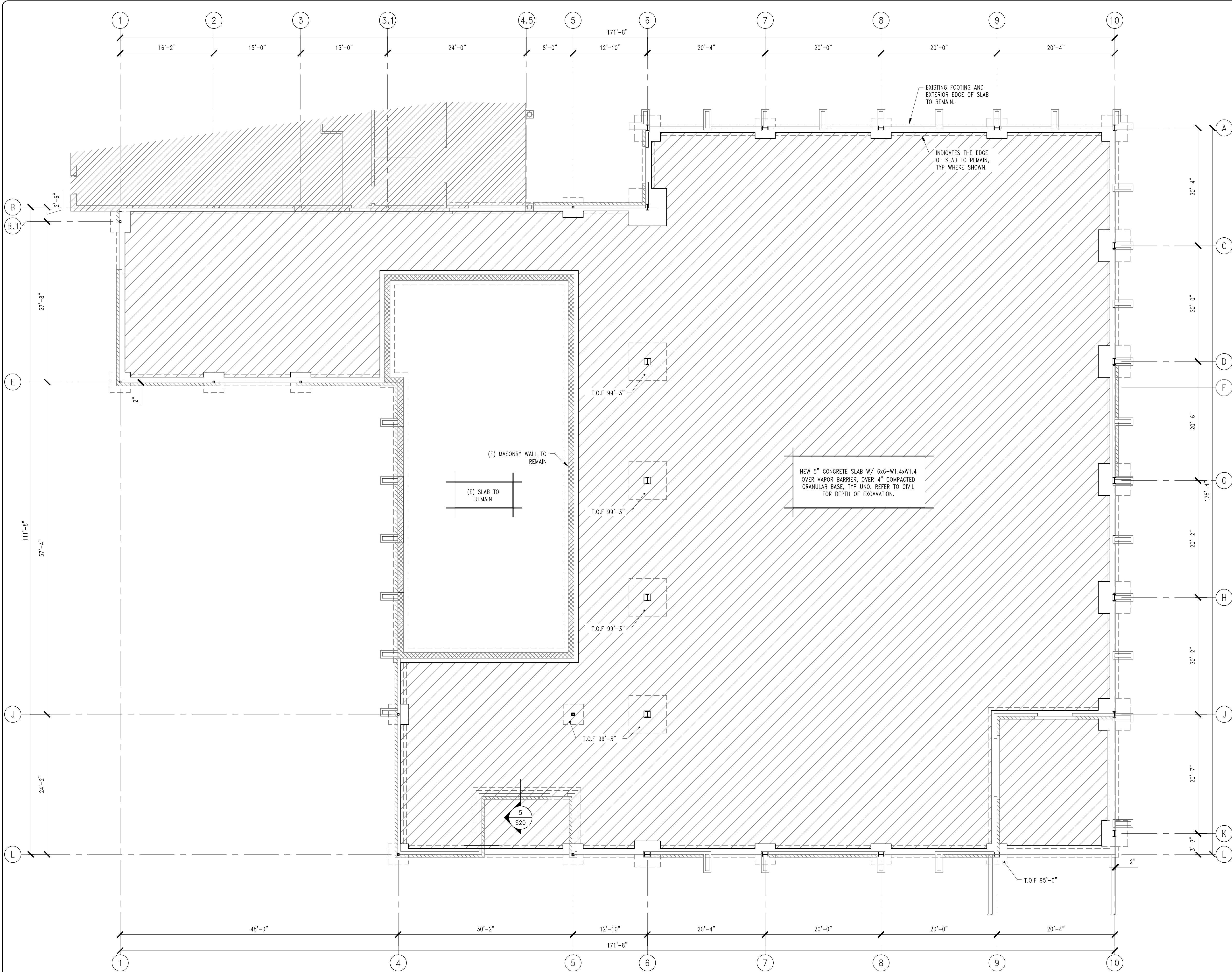
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FOUNDATION REPLACEMENT PLAN
SCALE: 1/8"=1'-0"

S10



- FOUNDATION PLAN NOTES:
- CONTRACTOR TO VERIFY ALL DIMENSIONS, PRIOR TO CONSTRUCTION.
 - CONTRACTOR TO VERIFY LOCATION OF ALL INSERTS IN SLAB W/ APPROVED MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS PRIOR TO CONSTRUCTION.
 - TYPICAL DETAILS AND NOTES SHALL APPLY, THOUGH NOT NECESSARILY INDICATED AT A SPECIFIC LOCATION ON PLANS.
 - REFER TO THE GEOTECHNICAL REPORT AND GENERAL NOTES FOR SUBGRADE PREPARATION INFORMATION AND REMOVAL/REPLACEMENT OF FILL SOILS.
 - AFTER REMOVAL OF FILL SOILS, SITE SUBGRADE WILL NOT BE ADEQUATE TO SUPPORT RUBBER TIRE CONSTRUCTION TRAFFIC. TRACKED EQUIPMENT SHALL BE USED UNTIL A MINIMUM OF 2 FEET OF FULLY COMPACTED STRUCTURAL FILL HAS BEEN PLACED OVER THE EXISTING SUBGRADE.
 - REFER TO CIVIL ENGINEER AND GEOTECHNICAL REPORT FOR MOISTURE MITIGATION INFORMATION AS WELL AS FRENCH DRAIN AND SPRING BOX LOCATIONS.
 - PROVIDE CONTROL JOINTS IN CONCRETE SLAB ON GRADE, PER TYPICAL DETAIL AND THE GENERAL NOTES. START 5'-0" FROM EDGE OF SLAB AND OPTIMIZE LOCATIONS W/ ARCH DRAWINGS. SIM TO SHEET S10.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR THE SHORING DESIGN AND CONSTRUCTION SEQUENCE. SHORING SHALL BE NECESSARY IN EVERY AREA WHERE EXCAVATION HAS THE POTENTIAL TO UNDERMINE THE EXISTING FOOTING. RE: DTL S/S02 AND GEOTECHNICAL BORING LOGS TO DETERMINE WHETHER EXCAVATION WILL VIOLATE UNDISTURBED SOIL REGION. CONTRACTOR SHALL SUBMIT A CONSTRUCTION SEQUENCE AND SHORING PLAN SEALED BY THEIR ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION
 - (E) . . . INDICATES EXISTING, WHERE SHOWN ON PLANS.

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Missouri A-4617

Conference Center Renovations
Leggett & Platt
INCORPORATED
#1 Leggett Road Carthage, MO

718 WEST SHERIDAN
OKLAHOMA CITY
OKLAHOMA, 73102
405 290.7676
WWW.OBELISKENGINEERING.COM
JOB # 1867-16

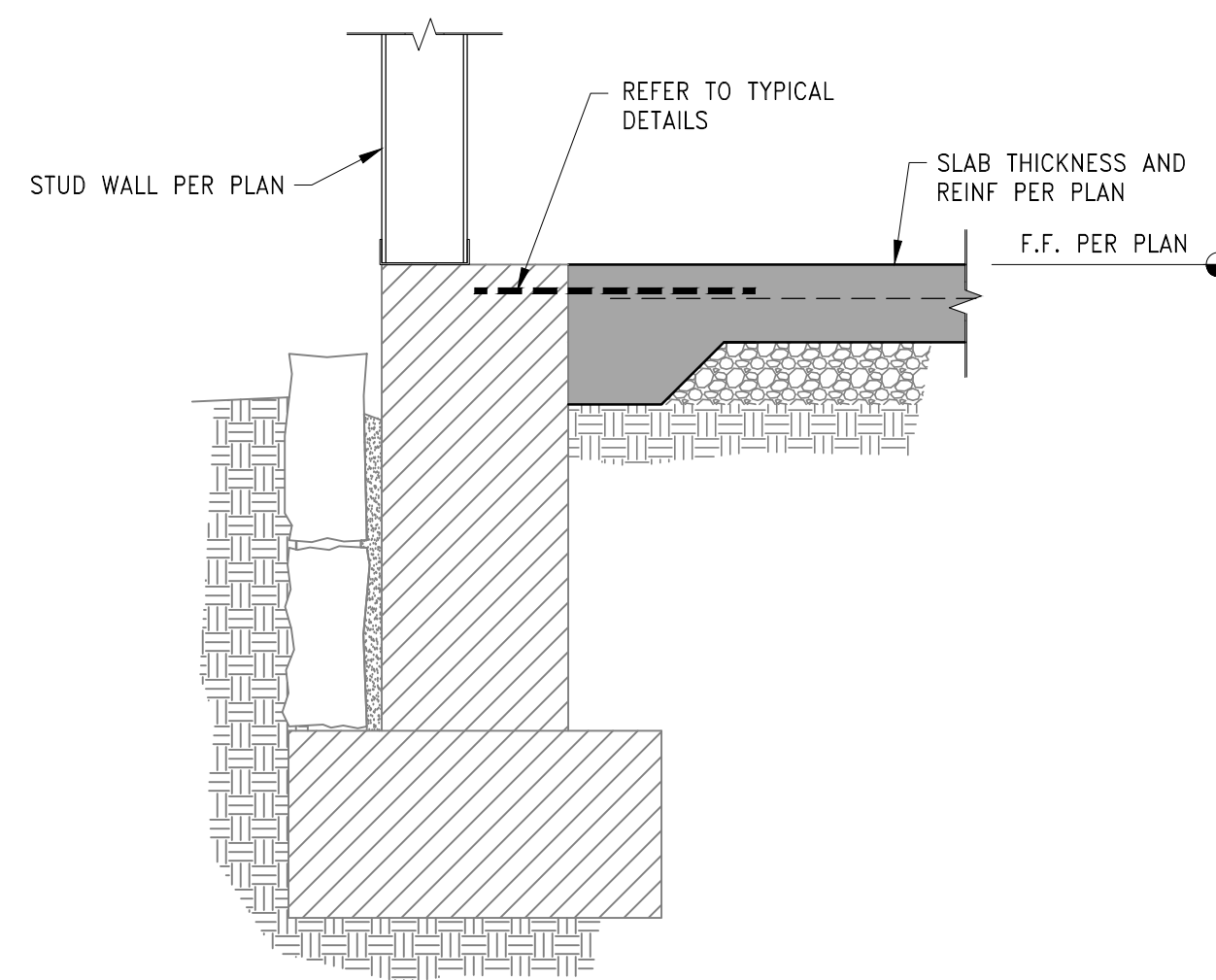
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CA # 2007012537
- EXPIRES 12/31/17

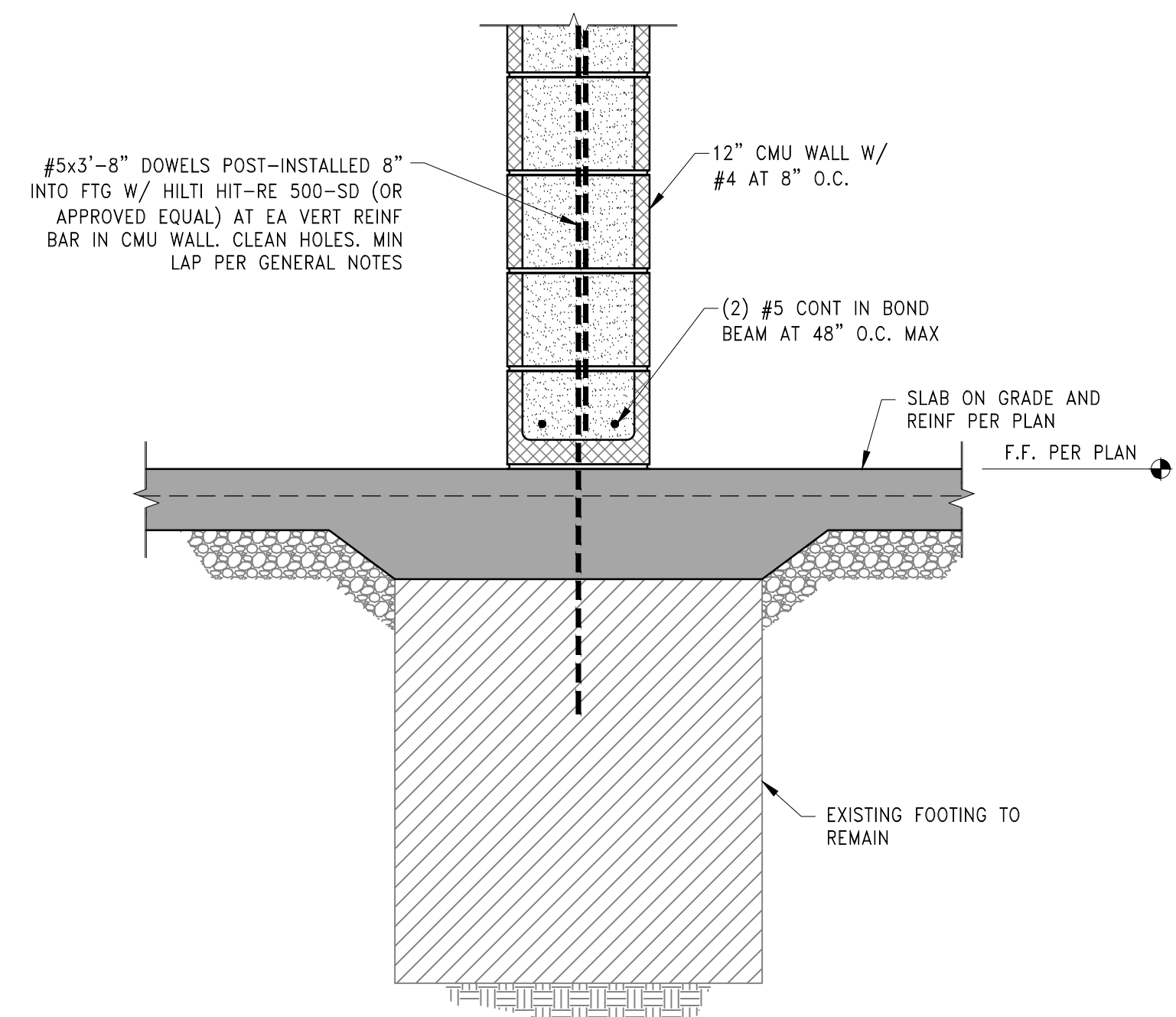
FOUNDATION REPAIR PLAN
SCALE: 1/8"=1'-0"

Drawn By JB
Checked By
Date 01/06/2017
Scale -
Job Number 1627

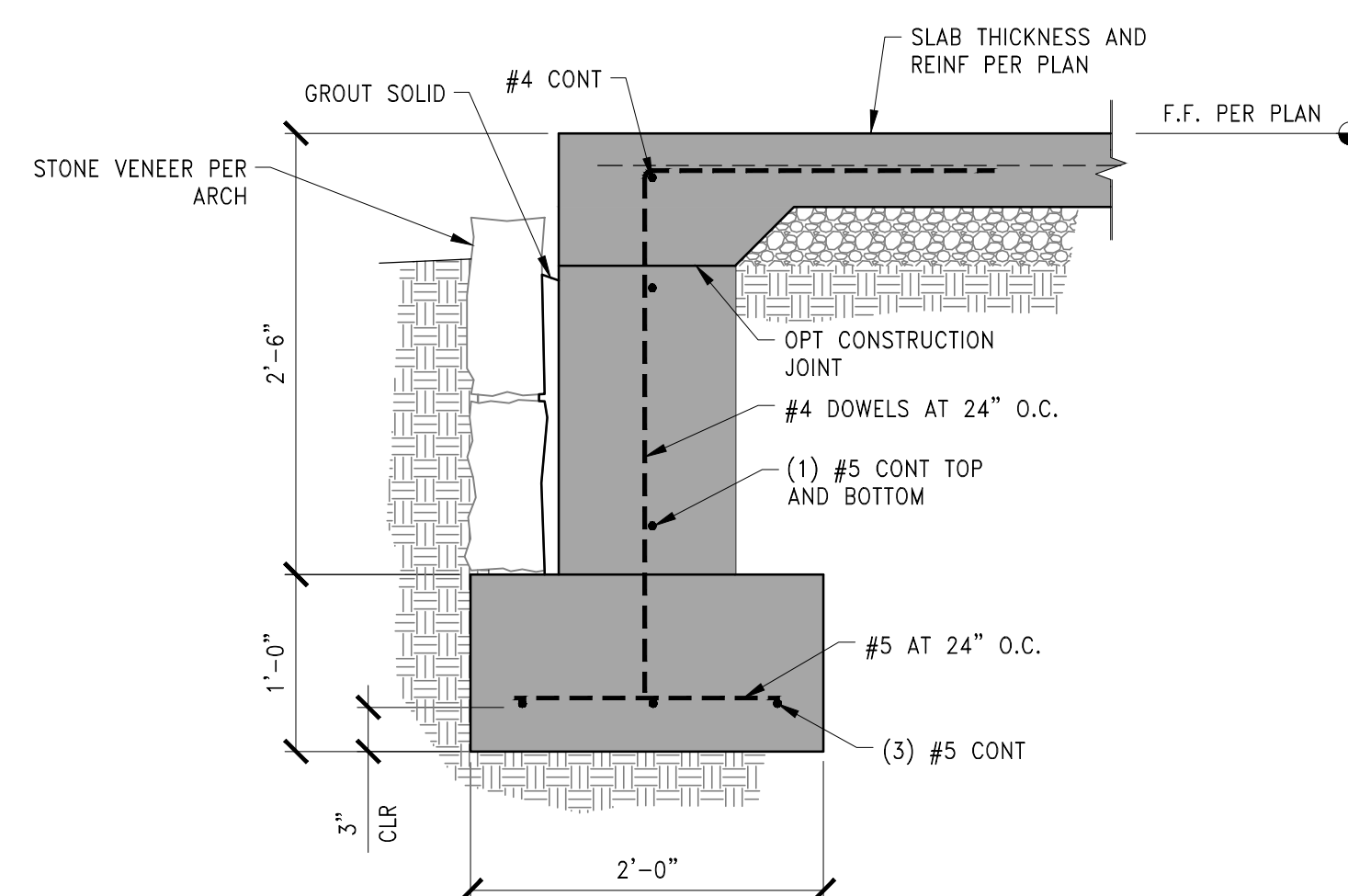
S11



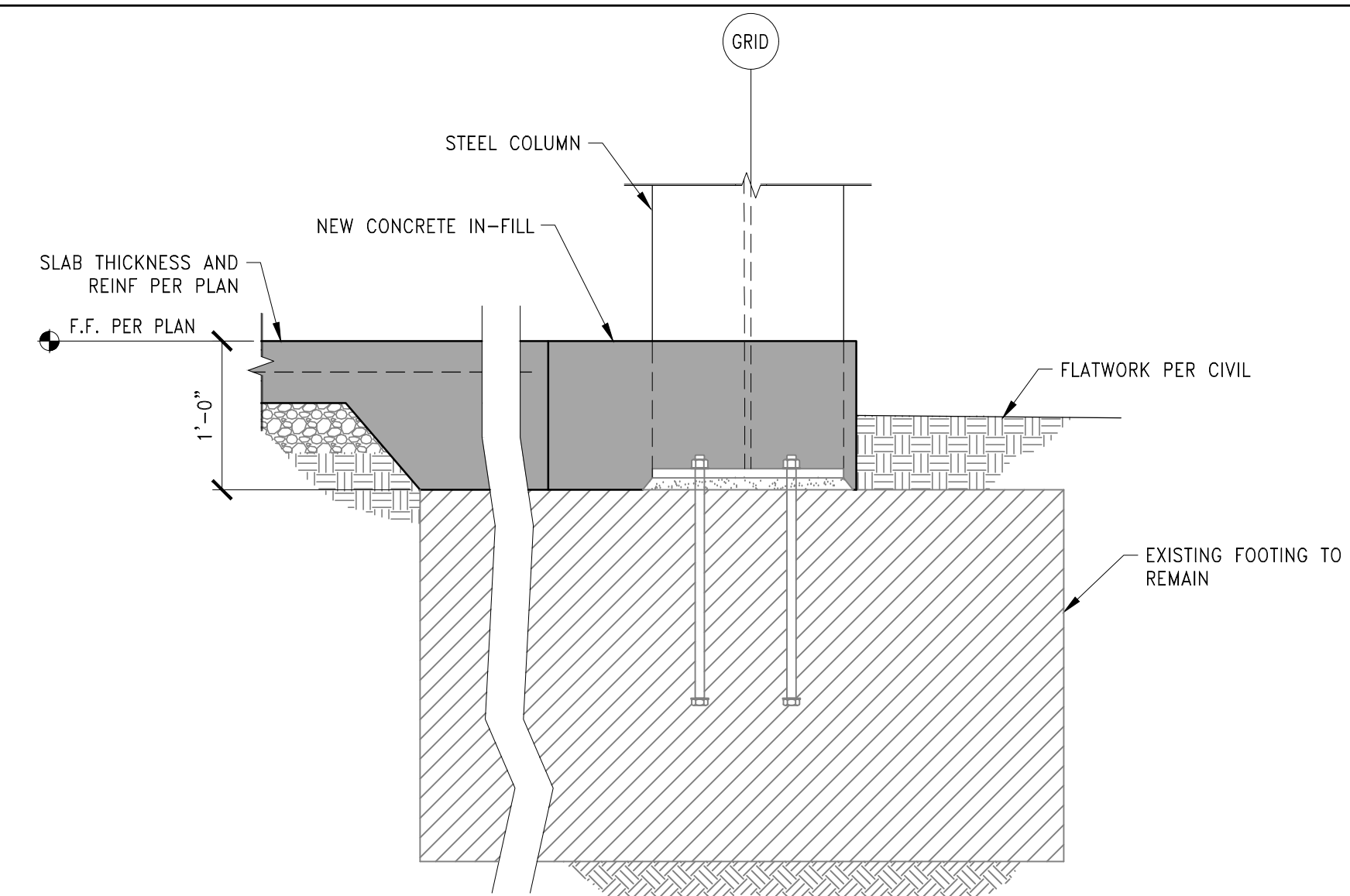
3 NEW SLAB AT CONTINUOUS FOOTING S20 SCALE: NTS



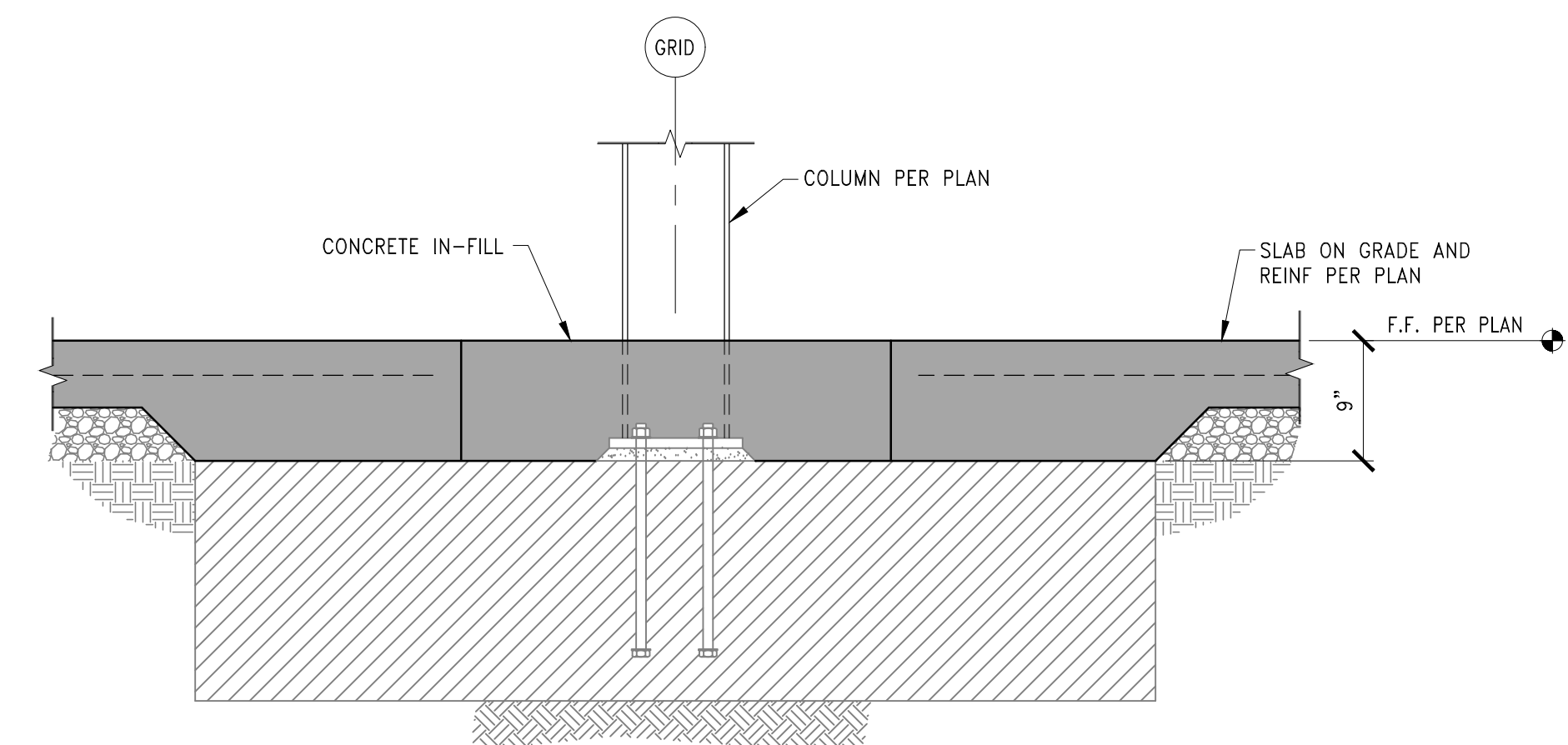
4 NEW SLAB AT EXISTING MASONRY WALL
S20 SCALE: NTS



5 NEW SLAB AT CONTINUOUS FOOTING



1 NEW SLAB AT EXTERIOR COLUMN FOOTING S20 SCALE: NTS



2 NEW SLAB AT INTERIOR COLUMN FOOTING
S20 SCALE: NTS

Revisions	By
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DATE	INT'L

Hunter & Millard
ARCHITECTS, INC.

3323 E. 32nd St. Suite 'B'
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Hunter & Millard
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Missouri Certificate of Authority: A-2008008317

Elliott D. Hunter Architect
Missouri A-4617

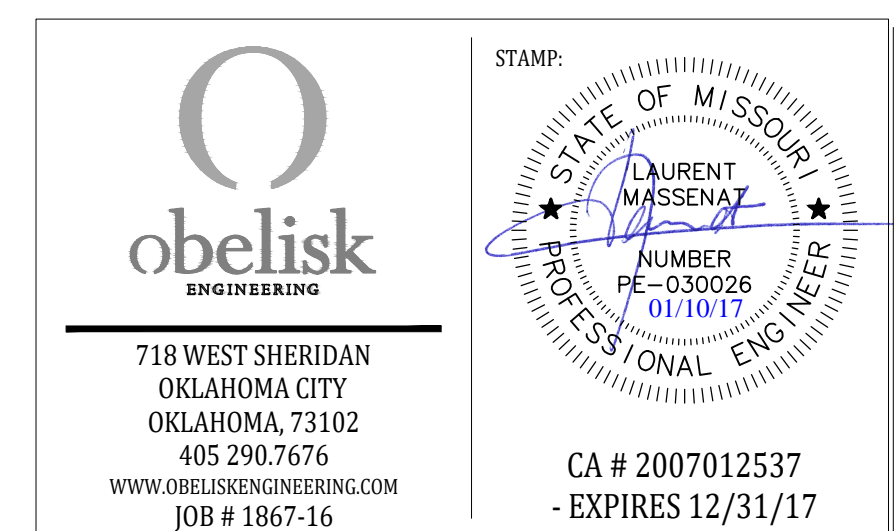
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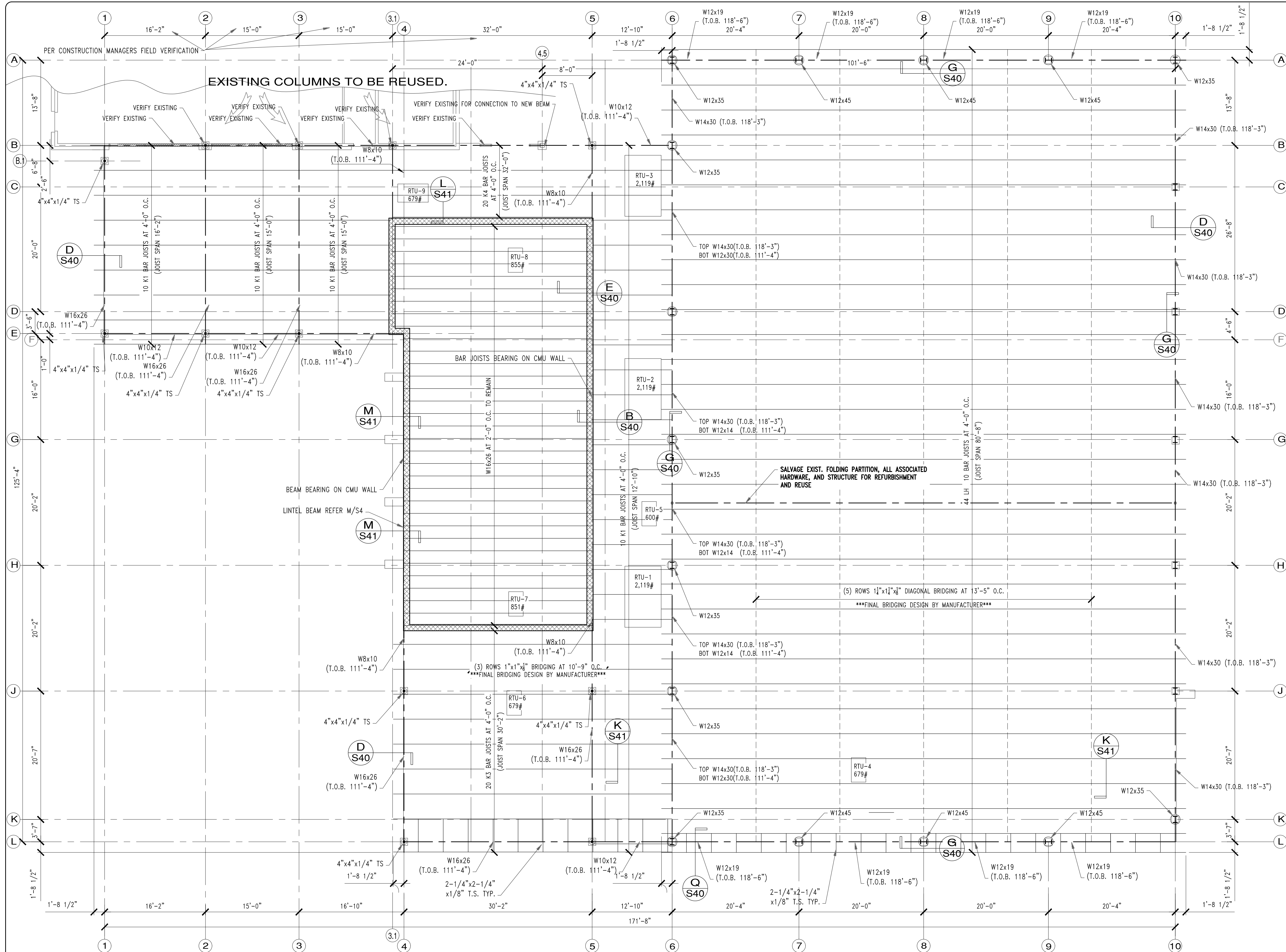
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S20





- FRAMING PLAN NOTES:
- A. CONTRACTOR TO VERIFY ALL DIMENSIONS, PRIOR TO CONSTRUCTION.
- B. TYPICAL DETAILS AND NOTES SHALL APPLY, THOUGH NOT NECESSARILY INDICATED AT A SPECIFIC LOCATION ON PLANS.
- C. NEW METAL STUD WALLS TO BE 550S162-43 AT 16" O.C. UNO ON PLANS.
- D. (E) . . . INDICATES EXISTING, WHERE SHOWN ON PLANS
- E. RTU SHOWN AS CONCEPTUAL. REFER TO MECHANICAL DRAWINGS FOR EXACT LOCATIONS

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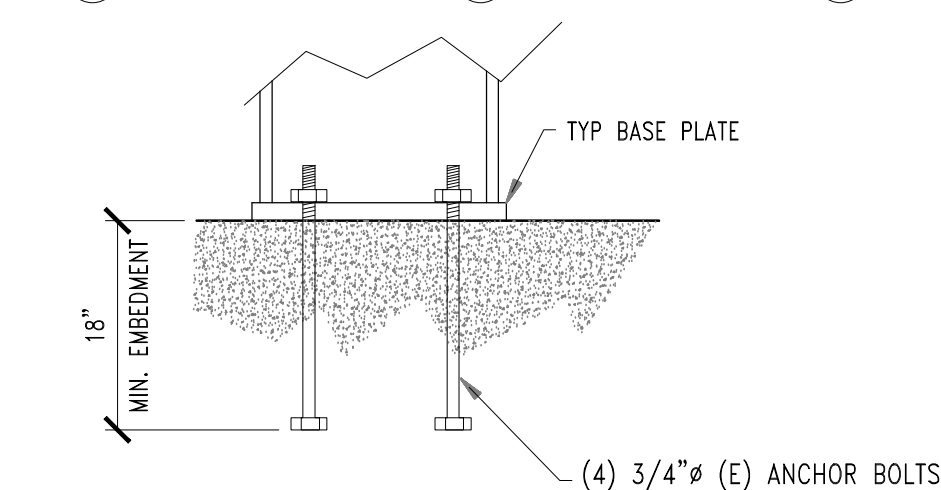
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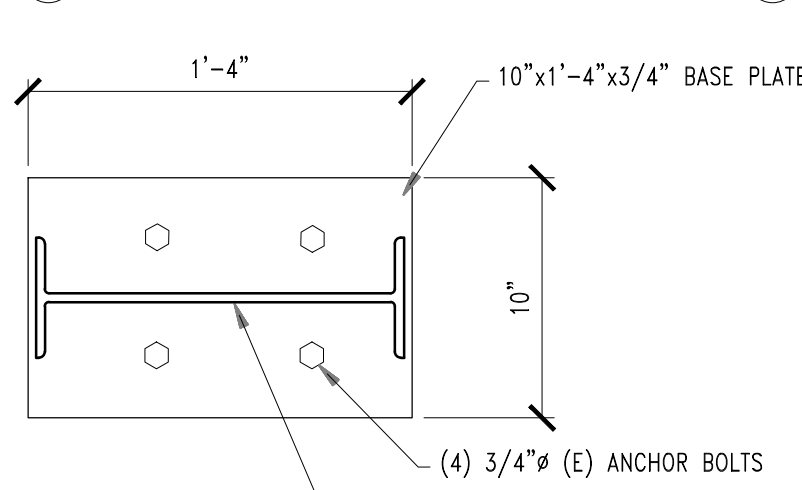
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S30



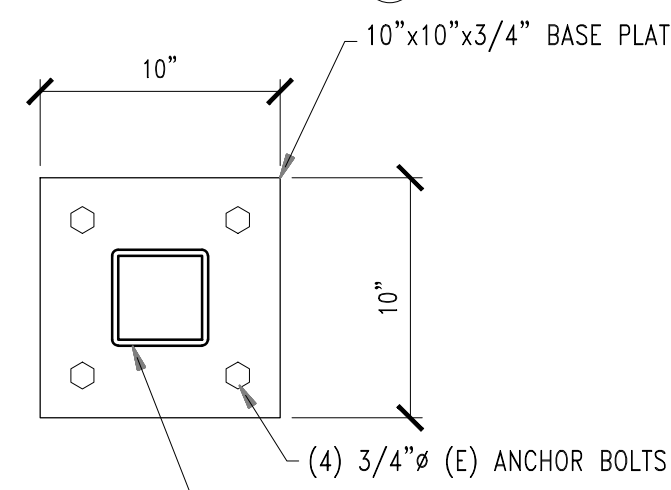
Detail T S2
Anchor Bolt Embedment
SCALE: 3" = 1'-0"



Detail S S2
Base Plate Plan
SCALE: 3" = 1'-0"

REPLACEMENT FRAMING PLAN

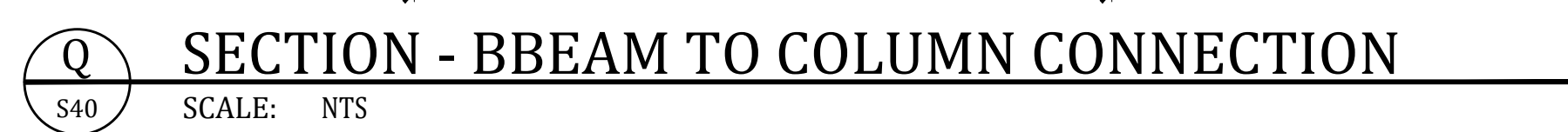
SCALE: 1/8" = 1'-0"



Detail R S2
Base Plate Plan
SCALE: 3" = 1'-0"

obelisk
ENGINEERING
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JOB # 1867-16

STAMP:
STATE OF MISSOURI
LAURENT MASSENAZ
NUMBER
PE-030026
01/10/17
PROFESSIONAL ENGINEER
CA # 2007012537
- EXPIRES 12/31/17



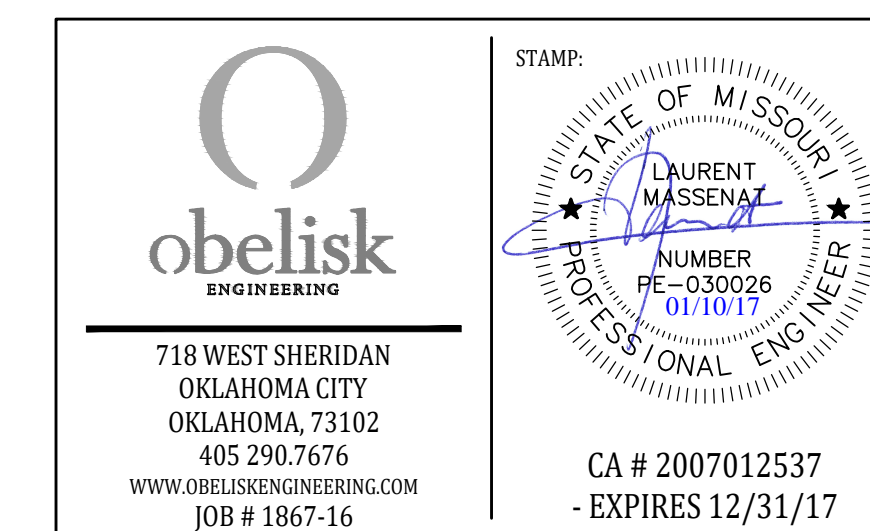
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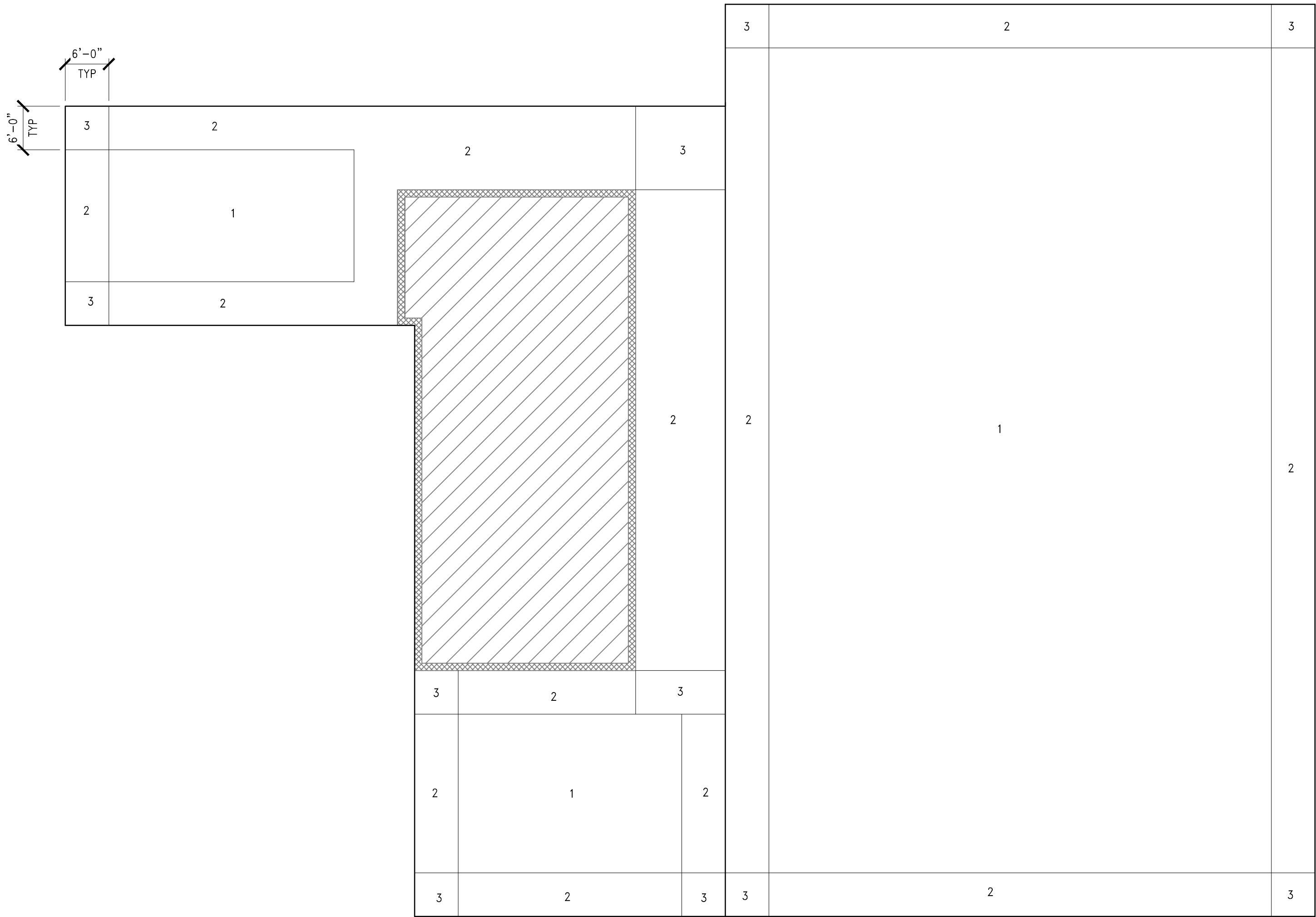
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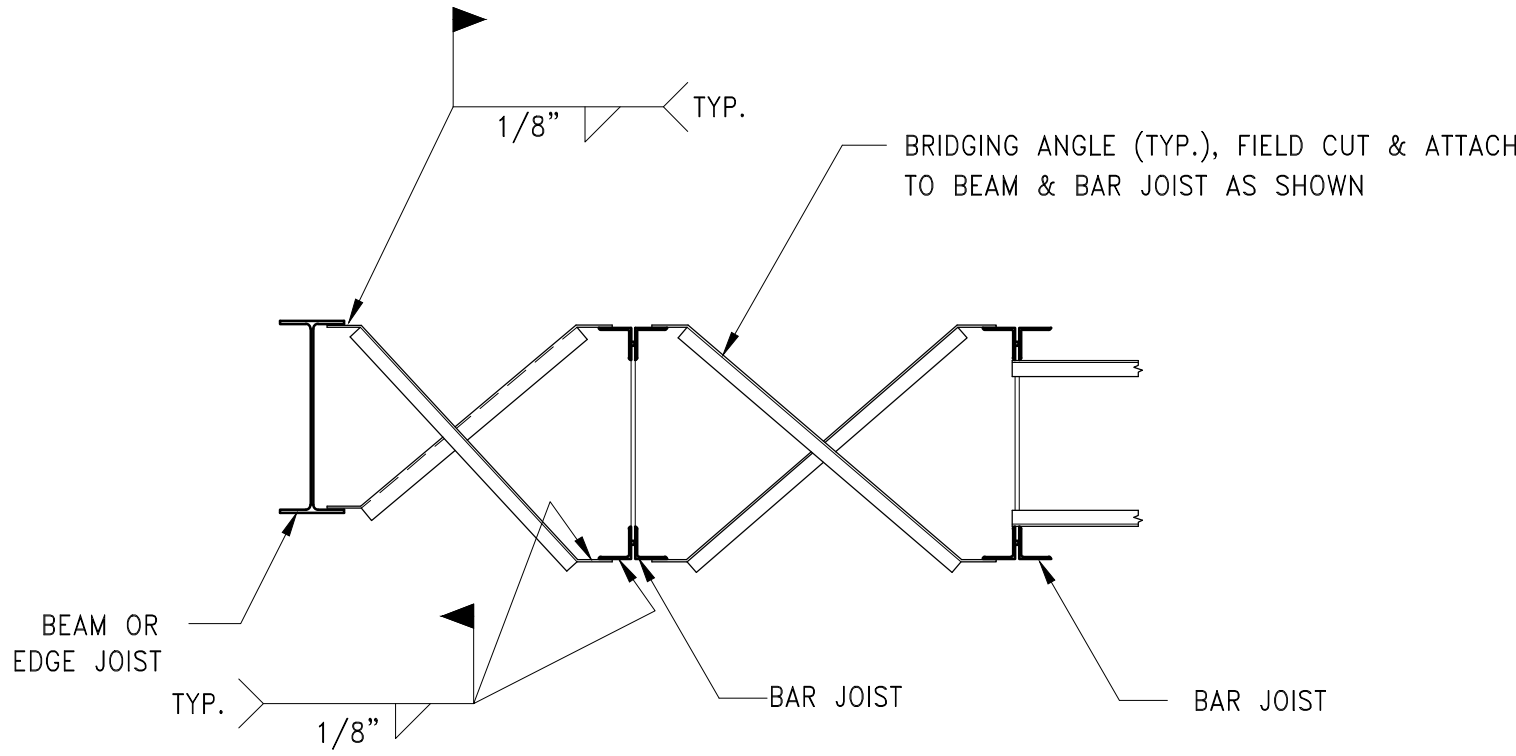
S40



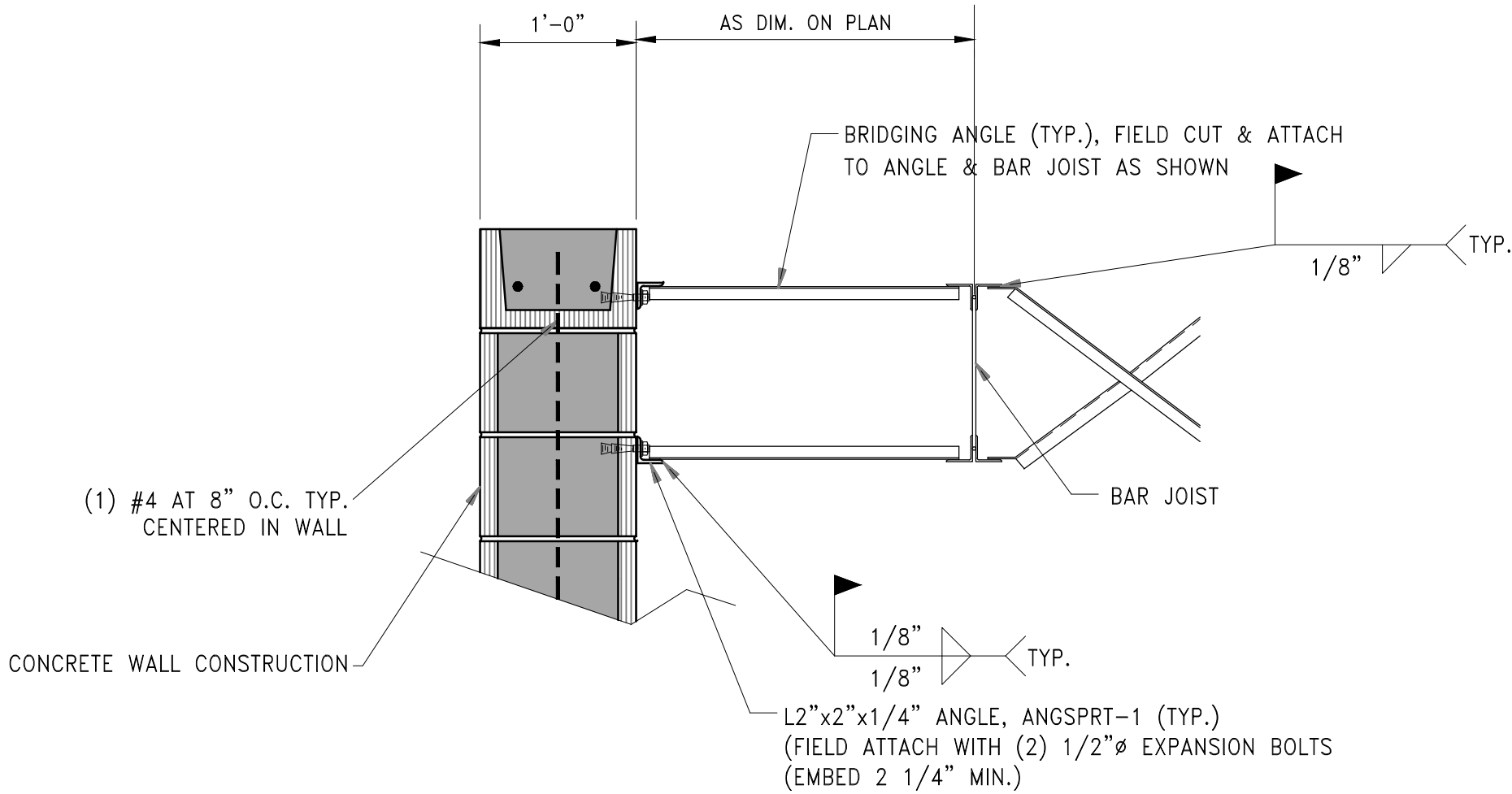
NOTES:
1. THE VALUES LISTED ARE GROSS UPLIFT LOADS. USE
A RELIABLE DEAD LOAD OF 4.0 PSF IN COMBINATION
W/ THESE VALUES TO DETERMINE NET UPLIFT
VALUES.
2. JOIST FABRICATOR TO REFER TO FRAMING PLAN FOR
APPROXIMATE RTU WEIGHTS AND LOCATIONS.

COMPONENT & CLADDING GROSS ROOF UPLIFT (PSF)				
MARK	≤ 10 SQFT	25 SQFT	50 SQFT	≥ 100 SQFT
1	-17.68	-17.08	-16.63	-16.18
2	-29.66	-25.49	-22.33	-19.18
3	-44.65	-34.51	-26.84	-19.18

K
S41
SECTION - JOIST BRIDGING ANGLE DETAIL
SCALE: NTS

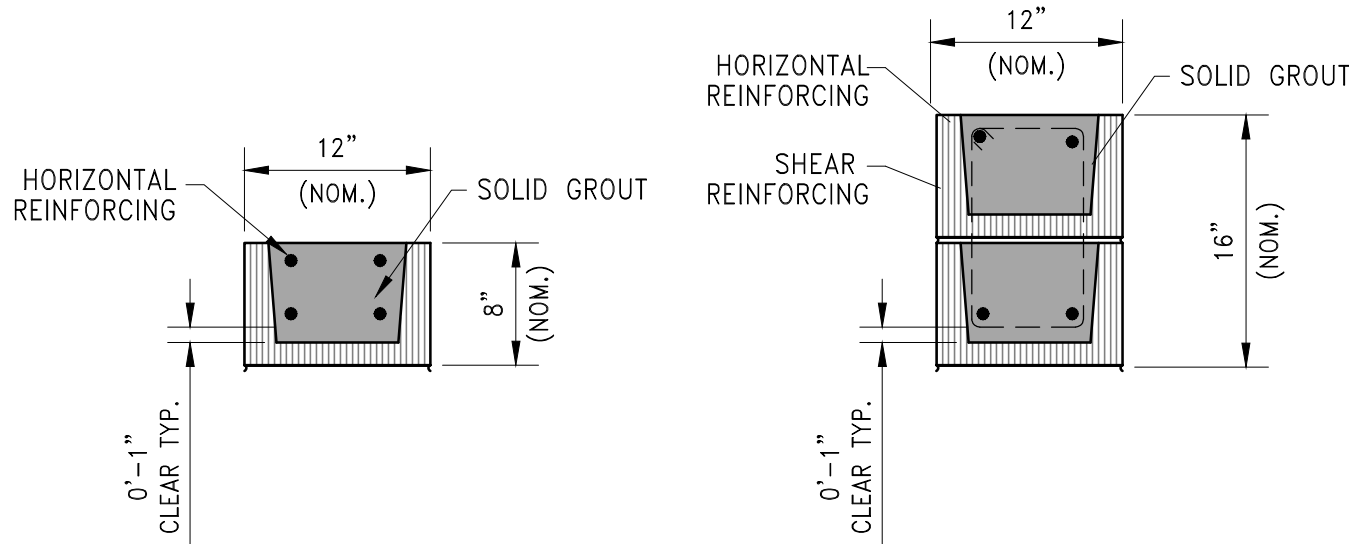


M
S41
SECTION - MASONRY LINTEL BEAM SCHEDULE
SCALE: NTS



L
S41
SECTION - JOIST BRIDGING ANGLE DETAIL
SCALE: NTS

CLEAR SPAN	NOMINAL DEPTH	BEARING	HORIZONTAL REINFORCING	SHEAR REINFORCING
0'-0" THRU 8'-0"	8"	8"	(4) #5	N/A
8'-0" THRU 16'-0"	16"	16"	(4) #5	1/4" Ø TIES AT 16" O.C.



NOTE:
USE (2) #4 VERTICAL REINFORCING IN SOLID GROUTED CELL
FOR MAS'Y JAMB UNDER LINTEL BEAM AT EA. SIDE OF OPENING
& AT ALL BUILDING CORNERS.

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