

GENERAL NOTES

GENERAL

- ALL MATERIALS, WORKMANSHIP AND DETAILS SHALL CONFORM TO THE 2009 INTERNATIONAL BUILDING CODE WITH THE MASSACHUSETTS STATE AMMENDMENTS (8TH EDITION) AND THE REFERENCE STANDARDS INCLUDED THEREIN THAT ARE APPLICABLE TO THIS PROJECT.
- THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE CONTRACT DRAWINGS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT ARCHITECT BEFORE PROCEEDING WITH THE AFFECTED WORK. ANY VARIATIONS OR SUBSTITUTIONS OF MATERIALS OR DETAILS FROM THOSE INDICATED ON THE DRAWINGS MAY BE MADE ONLY WITH PRIOR APPROVAL OF THE PROJECT ARCHITECT.
- SHOP DRAWINGS FOR REINFORCING STEEL (INCLUDING ALL ACCESSORIES) AND STRUCTURAL STEEL SHALL BE SUBMITTED TO THE ARCHITECT AND A STAMPED APPROVAL RECEIVED BEFORE FABRICATION CAN PROCEED.
- NO MAIN FRAMING OR STRUCTURAL MEMBERS ARE TO BE MODIFIED, ALTERED OR CUT WITHOUT THE APPROVAL OF THE PROJECT ARCHITECT.
- FOR EXACT LOCATION OF FLOOR + ROOF OPENINGS, SEE ARCHITECTURAL, MECHANICAL, ELECTRICAL AND SHOP DRAWINGS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL JOB SAFETY DURING CONSTRUCTION INCLUDING BUT NOT LIMITED TO SHEETING, SHORING AND GUYSING STRUCTURES, BARRIERS AND SIGNAGE.
- ALL STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE ARCHITECTURAL, MECHANICAL, ELECTRICAL AND SHOP DRAWINGS AND SPECIFICATIONS.
- UNLESS OTHERWISE INDICATED, DETAILS SHOWN ON ANY DRAWING ARE TO BE CONSIDERED TYPICAL FOR ALL SIMILAR CONDITIONS.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, CO-ORDINATION OF OTHER TRADES AND TECHNIQUES TO PRODUCE A SOUND AND QUALITY BUILDING. ALL DIMENSIONS, ELEVATIONS AND CONDITIONS MUST BE VERIFIED BY THE GENERAL CONTRACTOR OR RESPONSIBLE TRADES PRIOR TO PRODUCTION OF SHOP DRAWINGS AND/OR COMMENSMENT OF THE WORK.

DESIGN LOADS

THE BUILDING STRUCTURE HAS BEEN DESIGNED FOR THE FOLLOWING LOADS IN ACCORDANCE WITH THE 2009 INTERNATIONAL BUILDING CODE WITH THE MASSACHUSETTS STATE AMMENDMENTS (8TH EDITION) AND ASCE 7-05.

SNOW LOAD: GROUND SNOW LOAD Pg=55 PSF  
IMPORTANCE FACTOR I=1  
TEMPERATURE FACTOR Ct=1  
EXPOSURE FACTOR Ce=10  
FLAT SNOW LOAD Pf=0.7\*Ce\*Ci\*I\*Pg  
Pf= 47 PSF  
DRIFTING AND SLIDING SNOW INCLUDED WHERE APPLICABLE

FLOOR LIVE LOAD:

- MAIN FLOOR - 100 PSF
- BASEMENT FLOOR - 100 PSF
- STAIRWAYS - 100 PSF

WIND: BASIC WIND SPEED (THREE SECOND GUST) V=100 PSF  
WIND IMPORTANCE FACTOR Iw=1  
WIND EXPOSURE CATEGORY =EXPOSURE CATEGORY B

SEISMIC:

SEISMIC IMPORTANCE FACTOR Is=1  
MAPPED SPECTRAL RESPONSE ACCELERATION Sa=0.25  
MAPPED SPECTRAL RESPONSE ACCELERATION Si=0.066  
SITE CLASS D  
SPECTRAL RESPONSE COEFFICIENT Sds=0.267  
SPECTRAL RESPONSE COEFFICIENT Sd1=0.106  
SEISMIC DESIGN CATEGORY B  
LATERAL LOAD RESISTANCE SYSTEM:  
BEARING WALL SYSTEM  
ORDINARY REINFORCED CONCRETE MASONRY SHEAR WALLS  
- RESPONSE MODIFICATION FACTOR R=2  
- DEFLECTION AMPLIFICATION FACTOR Cd=175  
ORDINARY REINFORCED CONCRETE SHEAR WALLS  
- RESPONSE MODIFICATION FACTOR R=4  
- DEFLECTION AMPLIFICATION FACTOR Cd=4

FOUNDATIONS

- EXCAVATE TO LINES AND GRADES REQUIRED TO PROPERLY INSTALL THE FOUNDATIONS ON UNDISTURBED SOIL OR CONTROLLED STRUCTURAL BACKFILL. APPROVED BY THE PROJECT ARCHITECT. REMOVE ALL SILTY TOPSOIL OR OBJECTIONABLE MATERIAL FROM UNDER SLABS ON GRADE. ALL EXCAVATIONS SHALL BE DRY BEFORE PLACING ANY CONCRETE.
- EXTERIOR WALL FOOTINGS ARE TO BE PLACED ON APPROVED SOIL, AT A MINIMUM DEPTH OF 4 FT. BELOW THE LOWEST ADJACENT GROUND SURFACE EXPOSED TO FREEZING. ANY ADJUSTMENT OF ELEVATIONS OF FOOTINGS DUE TO FIELD CONDITIONS MUST HAVE THE EXPRESSED APPROVAL OF THE PROJECT ARCHITECT. ESTIMATED ELEVATION OF BOTTOM INDICATED THUS [0'-0"].
- SOIL BEARING CAPACITY - NATURAL UNDISTURBED SOIL OR CONTROLLED STRUCTURAL BACKFILL. HAVING AN ALLOWABLE BEARING PRESSURE OF 5000 POUNDS PER SQ. FT.
- BACKFILL: THE EXCAVATION WITH APPROVED GRANULAR MATERIAL PLACED IN 6 IN. LAYERS AND COMPACTED TO 95% DENSITY AT OPTIMUM MOISTURE CONTENT, AS DEFINED BY ASTM D1557, METHOD D AFTER BOTTOM OF EXCAVATION HAS BEEN APPROVED BY THE PROJECT ARCHITECT.
- BACKFILLING AGAINST FOUNDATION WALLS TO BE DONE ONLY AFTER WALLS ARE BRACED TO PREVENT MOVEMENT.
- WHERE NEW FOUNDATIONS ARE BUILT IN THE SAME LOCATION AS REMOVED EXISTING FOUNDATIONS, THEY SHALL BEAR ON UNDISTURBED SOIL, AT OR BELOW THE ELEVATION OF THE EXISTING FOUNDATIONS.

CONCRETE WORK

A. CODE CONFORMANCE

- COMPLY WITH THE LATEST RECOMMENDATIONS OF THE FOLLOWING STANDARDS:
  - ACI 301 - SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS
  - ACI 315 - DETAILING REINFORCING STEEL
  - ACI 347 - FORMWORK
  - ACI 318 - BUILDING CODE REQUIREMENTS FOR STRUTURAL CONCRETE
  - ACI 318 CHAPTER 22 - BUILDING CODE REQUIREMENTS FOR STRUCTURAL PLAIN CONCRETE

B. MATERIALS

- CONCRETE: APPROVED READY MIXED CONCRETE HAVING AN ULTIMATE COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS. SLUMP 3-5 INCHES.
- REINFORCNG: DEFORMED BARS ASTM A615 GRADE 60 EXCEPT TIES AND STIRRUPS MAY BE GRADE 40. WELDED WIRE FABRIC ASTM A185.
- FORMWORK: SMOOTH PLYWOOD FORMS FOR EXPOSED SLABS OR VERTICAL SURFACES. BOARD FORMS FOR FOOTINGS OR UNEXPOSED CONCRETE SURFACES. NO EARTH FORMS PERMITTED.
- GROUT: NON-METALLIC NON-SHRINK TYPE UNDER BASE PLATES OR BEARING PLATES.

CONCRETE WORK (CONT)

C. EXECUTION

- CONCRETE: PLACE CONCRETE BY APPROVED METHODS OF ACI 304.
- REINFORCING - PLACE REINFORCING USING STANDARD BAR SUPPORTS TO PROVIDE PROPER CLEARANCE AND PREVENT DISPLACEMENT DURING CONCRETE OPERATIONS. LAP CONTINUOUS BARS 40 DIAMETERS.
- MINIMUM CONCRETE COVER:
  - CONCRETE PLACED AGAINST EARTH - 3 IN.
  - FORMED CONCRETE EXPOSED TO EARTH, WEATHER OR WATER - 1 1/2 IN., 2 IN. FOR #5 BAR OR LARGER
  - SLABS ON GRADE - 1 IN. FROM TOP.
- FORMWORK - PROPERLY BRACE AND SHORE FORMWORK TO MAINTAIN ALIGNMENT AND TOLERANCES IN ACCORDANCE WITH ACI 347.
- REINFORCING BARS SHALL BE PLACED IN ACCORDANCE WITH THE LATEST EDITION OF THE CRSI "RECOMMENDED PRACTICE FOR PLACING REINFORCING BARS".
- ALL WELDED WIRE MESH SHALL CONFORM TO ASTM A185. LAP TWO SQUARES AT ALL JOINTS AND TIE AT 3'-0" ON CENTER.
- PROVIDE TWO #5 BARS EACH SIDE OF ALL OPENINGS IN WALLS AND SLABS. BARS TO EXTEND 24" BEYOND EDGE OF OPENINGS. (FOR SIZE AND LOCATION OF OPENINGS, SEE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS).
- DETAILS NOT SHOWN ON DRAWINGS SHALL BE IN ACCORDANCE WITH THE ACI DETAILING MANUAL (ACI 315).

D. QUALITY CONTROL

- CONTRACTOR SHALL MAKE PROVISIONS TO HAVE FOUR CYLINDERS CAST FOR EACH 50 CUBIC YARDS OF CONCRETE POURED OR FOR ANY ONE DAY'S OPERATION.
- TESTING LABORATORY SHALL BE RESPONSIBLE FOR MAKING AND CURING SPECIMENS. IN CONFORMANCE TO ASTM C31 AND TESTING SPECIMENS IN ACCORDANCE WITH ASTM C39.
- ALL TESTING ASSOCIATED WITH CONCRETE SHALL BE IN ACCORDANCE WITH CHAPTER 17 OF THE MASSACHUSETTS STATE BUILDING CODE 8TH EDITION.
- THE PROGRAM OF SPECIAL INSPECTIONS SHALL BE SUBMITTED WITH THE PERMIT APPLICATION.
- THE COSTS OF ALL FEES, TESTS AND INSPECTIONS SHALL BE BORNE BY THE OWNER.

REINFORCED CONCRETE MASONRY

A. CODE CONFORMANCE

- ACI 530-08/ASCE 5-08/TMS 402-08 - "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES".
- ACI 530.1-08/ASCE 6-08/TMS 602-08 - "SPECIFICATION FOR MASONRY STRUCTURES".

- SUBMIT SHOP DRAWINGS FOR UNIT MASONRY REINFORCING FOR APPROVAL BEFORE FABRICATION. ALL WALLS SHALL BE SHOWN IN ELEVATION AT 1/4" SCALE.

B. MATERIALS

- HOLLOW LOAD BEARING CONCRETE BLOCK AND CONCRETE BLOCK BOND BEAMS - CONFORM TO ASTM C90, TYPE I, GRADE N-1. BLOCK UNITS SHALL BE TWO CELL 80% SOLID, MINIMUM COMPRESSIVE STRENGTH OF UNIT SHALL BE 2500 PSI AT 28 DAYS.
- MORTAR - CONFORM TO ASTM C270, TYPE S, MIX PROPORTIONS SHALL BE 1 PART PORTLAND CEMENT (ASTM C150 TYPE I), OVER 1/4 TO 1/2 PARTS HYDRATED LIME, NOT LESS THAN 2 1/4 OR MORE THAN 3 TIMES SUM OF CEMENT AND LIME VOLUMES FOR DAMP LOOSE AGGREGATE (ASTM C144). MINIMUM COMPRESSIVE STRENGTH 1800 PSI AT 28 DAYS FOR ALL CMU.
- MORTAR - CONFORM TO ASTM C270, TYPE N, MIX PROPORTIONS SHALL BE 1 PART PORTLAND CEMENT (ASTM C150 TYPE I), OVER 1/2 TO 1 1/4 PARTS HYDRATED LIME, NOT LESS THAN 2 1/4 OR MORE THAN 3 TIMES SUM OF CEMENT AND LIME VOLUMES FOR DAMP LOOSE AGGREGATE (ASTM C144) FOR ALL BRICK MASONRY.

- GROUT - CONFORM TO ASTM C476, FINE AGGREGATE AND PORTLAND CEMENT TYPE I, COMPRESSIVE STRENGTH 2500 PSI AT 28 DAYS.

• REINFORCING:

- DEFORMED BARS: ASTM A615 GRADE 60.
- JOINT REINFORCEMENT: CONFORM TO ASTM A82, ZINC COATED, DEFORMED DRAWN STEEL WIRE, TRUSS TYPE AS CALLED FOR ON DRAWINGS PROVIDE PREFABRICATED CORNERS AND TEES.

C. EXECUTION

- HOLLOW CONCRETE UNITS SHALL BE LAID IN RUNNING BOND UNLESS OTHERWISE NOTED. PROVIDE FULL MORTAR BED FOR FIRST COURSE. ALL EXPOSED JOINTS SHALL BE TOOLED CONCAVE. UNEXPOSED JOINTS SHALL BE STRUCK FLUSH. PROVIDE MORTAR ON WEBS OF CORES CARRYING GROUT TO PREVENT LEAKAGE.
- GROUTING: USE LOW LIFT (MANUAL PLACEMENT) OR HIGH LIFT (PUMPED PLACEMENT) TECHNIQUE ASSURING CONSOLIDATION OF GROUT IN BLOCK CELLS.
- REINFORCEMENT: PLACED DEFORMED BARS IN REQUIRED POSITION SECURING FROM DISPLACEMENT WITH PROPER CHAIRS OR WIRE TIES. LAP CONTINUOUS BARS 48 DIAMETER.
- WHERE GROUT IS SPECIFIED ON THE DRAWINGS OR IN THE SPECIFICATIONS, MORTAR IS NOT ACCEPTABLE.

- AT ALL BEAM AND JOIST BEARING POINTS, USE SOLID MASONRY UNITS AND ADD WALL REINFORCING FOR THREE COURSES BELOW BEARING AND AT LEAST ONE FOOT EACH SIDE OF BEARING POINT.

- ALL MORTAR SHALL BE BATCHED BY VOLUMES BY USE OF A TILT BOX OR SIMILAR DEVICE.

- BOND BEAMS TO BE INSTALLED AT THE FIRST BLOCK COURSE AND AT EACH FLOOR AND ROOF LEVEL AND WHERE NOTED ON THE PLANS. HORIZONTAL BOND BEAM REINFORCING STEEL TO BE TWO BARS MATCHING VERTICAL REINFORCING STEEL SIZE UNLESS OTHERWISE NOTED. BOND BEAM TO BE GROUTED SOLID.

D. QUALITY CONTROL

- SUBMIT MANUFACTURERS CERTIFICATION THAT CONCRETE MASONRY UNITS COMPLY WITH PROJECT SPECIFICATIONS.
- DESIGNATED TESTING AGENCY SHALL SAMPLE AND TEST GROUT IN ACCORDANCE WITH ASTM C1019.
- DESIGNATED TESTING AGENCY SHALL SAMPLE AND TEST MORTAR FOR CONCRETE MASONRY IN ACCORDANCE WITH ASTM C270 OR ASTM C780.

ALL TESTING ASSOCIATED WITH REINFORCED MASONRY SHALL BE IN ACCORDANCE WITH CHAPTER 21 OF THE MASSACHUSETTS STATE BUILDING CODE 8TH EDITION.

THE PROGRAM OF SPECIAL INSPECTIONS SHALL BE SUBMITTED WITH THE PERMIT APPLICATION.

THE COSTS OF ALL FEES, TESTS AND INSPECTIONS SHALL BE BORNE BY THE OWNER.

STRUCTURAL STEEL

A. CODE CONFORMANCE

- AISC - "SPECIFICATIONS FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDING".
- AWS - D11-04 STRUCTURAL WELDING SPECIFICATIONS.
- AISC STEEL CONSTRUCTION MANUAL - 13TH EDITION.
- AISC - CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES (AISC 303-05).
- B. MATERIALS
- STRUCTURAL WIDE FLANGE SHAPES - ASTM A992-50.
- OTHER STRUCTURAL SHAPES, PLATES - ASTM A36.
- TUBE COLUMNS - ASTM A500 - GRADE B - Fy=46 KSI.
- BOLTS: CONNECTIONS ASTM A325, ANCHOR RODS ASTM F 1554-55 KSI, NUTS: ASTM A563A HEAVY HEX WASHERS: ASTM F436.
- WELDING ELECTRODES: E70XX SERIES.
- PAINT: APPROVED PRIMER - 2 MILS THICK.
- C. EXECUTION
- FABRICATION: SHOP FABRICATE TO GREATEST EXTENT POSSIBLE BY WELDING. PROVIDE ALL BEAM STIFFENERS, COLUMN CAPS AND BASES, HOLES AND CONNECTIONS. SUBMIT SHOP DRAWINGS FOR STEEL MEMBERS PREPARED FROM FIELD DIMENSIONS, FOR APPROVAL BEFORE PROCEEDING WITH FABRICATION.
- ERECTION: PROVIDE ANCHOR BOLTS, LEVELING PLATES AND ALL NECESSARY HARDWARE TO ERECT THE STEEL FLOOR, LEVEL AND SQUARE. PROVIDE TEMPORARY BRACING UNTIL FLOORS OR WALLS ARE IN PLACE.
- CONTRACTOR SHALL FIELD TOUCH UP ALL ABRASIONS, BURNS AND SIMILAR DEFECTS IN PAINT OF THE STRUCTURAL STEEL, JOISTS AND METAL DECK.
- LINTELS SHALL BE PROVIDED OVER ALL OPENINGS IN MASONRY WALLS ACCORDING TO THE FOLLOWING SCHEDULE UNLESS OTHERWISE NOTED AND ARE TO BE HOT DIPPED GALVANIZED.

- OPENINGS UP TO 3'-0" L3 1/2 X 3 1/2 X 5/16 3 1/2" LEG VERT.  
3'-0" TO 4'-6" L4 X 3 1/2 X 5/16 4" LEG VERT.  
4'-7" TO 6'-0" L5 X 3 1/2 X 5/16 5" LEG VERT.  
6'-1" TO 8'-0" L6 X 3 1/2 X 5/16 6" LEG VERT.
- PROVIDE 8" BEARING EACH END OF LINTEL AND ONE L FOR EACH 4' OF WALL THICKNESS.
- D. QUALITY ASSURANCE
- PROVIDE SERVICE OF LICENSED INDEPENDENT TESTING LAB FOR THE FOLLOWING:
  - INSPECTION OF BOLT INSTALLATION AND TENSION.
  - VISUAL INSPECTION OF FILLET WELDS UNLESS OTHERWISE DESIGNATED.
  - ULTRASONIC TESTS OF ALL BUTT WELDS.
  - VISUAL INSPECTION OF BAR JOISTS.INSPECTION SERVICES MAY OCCUR IN SHOP OR FIELD AS REQUIRED.

ALL TESTING ASSOCIATED WITH STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH CHAPTER 17 OF THE MASSACHUSETTS STATE BUILDING CODE 8TH EDITION.

THE PROGRAM OF SPECIAL INSPECTIONS SHALL BE SUBMITTED WITH THE PERMIT APPLICATION.

THE COSTS OF ALL FEES, TESTS AND INSPECTIONS SHALL BE BORNE BY THE OWNER.

STEEL JOISTS

A. CODE CONFORMANCE

- COMPLY WITH LATEST STEEL JOIST INSTITUTE STANDARD SPECIFICATIONS FOR OPEN WEB STEEL JOISTS K OR LH SERIES AND JOIST GIRDERS.

B. MATERIALS

- STEEL JOISTS SHALL BE STANDARD K SERIES, YIELD STRESS 50 KSI, MANUFACTURED IN ACCORDANCE WITH SJI RECOMMENDATIONS.
- BRIDGING AND MISCELLANEOUS ITEMS SHALL CONFORM TO ASTM A36 STEEL.

- JOISTS SHALL RECEIVE ONE COAT OF SHOP PAINT MEETING MINIMUM PERFORMANCE REQUIREMENTS OF STEEL STRUCTURES PAINTING COUNCIL SPECIFICATIONS.

C. EXECUTION

- FASTEN END OF K SERIES JOISTS TO SUPPORTING MEMBERS WITH 2-3/16" FILLET WELDS 2' LONG. MINIMUM BEARING ON STEEL SHALL BE 2 1/2". MINIMUM BEARING ON MASONRY 4".

D. SUBMITTALS

- SUBMIT COMPLETE DETAILED SHOP DRAWINGS TO PROJECT ARCHITECT FOR APPROVAL BEFORE PROCEEDING WITH FABRICATION OF JOIST LAYOUT. INCLUDE METHODS OF FASTENING AND MISCELLANEOUS ITEMS.

COMPOSITE FLOOR DECK

A. CODE CONFORMANCE

COMPLY WITH LATEST EDITION OF STEEL DECK INSTITUTES "CODE OF STANDARD PRACTICE".

B. MATERIALS

- METAL FLOOR FORM - WIDE-RIB, COMPOSITE 2" DEEP X 20 GAGE, GALVANIZED CONFORMING TO ASTM A653 - MINIMUM YIELD STRESS 33000 PSI. GALVANIZING SHALL CONFORM TO ASTM A653 COATING CLASS G60 OR G90.

C. EXECUTION

- FLOOR DECK SHALL EXTEND OVER THREE OR MORE SPANS IF POSSIBLE. WELD DECK TO SUPPORTING MEMBERS WITH 3/4" DIAMETER PUDDLE WELDS AT 12" O.C. SPACE WELDS AT 6" EDGE OF DECK AND END LAPS. WELD SIDE LAPS AT 18" O.C. DECK MAY BE UNSHORED UNLESS INDICATED ON THE DRAWINGS.
- TOUCH UP ALL WELDS AND ABRASIONS IN THE FLOOR DECK WITH A ZINC-RICH PAINT.
- PROVIDE END CLOSURES, CAPS AND ALL OTHER ACCESSORIES REQUIRED FOR A COMPLETE INSTALLATION.
- D. SUBMITTALS
- SUBMIT COMPLETE SHOP DRAWINGS OF FLOOR DECK INCLUDING FASTENING REQUIREMENTS TO PROJECT ARCHITECT FOR APPROVAL BEFORE FABRICATION.

SHEAR CONNECTORS

- SHEAR CONNECTORS SHALL BE 3/4" DIAMETER X LENGTH SHOWN ON DRAWINGS HEADED STUDS WELDED TO BEAMS TO GIVE A SAFE WORKING HORIZONTAL SHEAR CAPACITY OF 11.5 KIPS.
- SHEAR CONNECTORS SHALL BE DISTRIBUTED UNIFORMLY ALONG EACH ORDER OR BEAM BETWEEN SUPPORTS, UNLESS NOTED OTHERWISE. LOCATE STUDS ON CENTERLINE OF MEMBER (CENTERED ON WEB) OR SYMMETRICALLY ABOUT CENTERLINE OF MEMBER IF MORE THAN A SINGLE ROW IS USED. WHERE STEEL DECK SPANS AT RIGHT ANGLES TO BEAM, LOCATE THE SHEAR CONNECTOR AT CENTERLINE OF DECK RIBS.
- SPACING OF SHEAR CONNECTORS SHALL BE IN ACCORDANCE WITH TYPICAL DETAILS INDICATED ON THE CONSTRUCTION DOCUMENTS.

METAL DECK

A. CODE CONFORMANCE

COMPLY WITH LATEST EDITION OF STEEL DECK INSTITUTES "CODE OF STANDARD PRACTICE".

B. MATERIALS

- ROOF DECK - 1 1/2" DEEP X 22 GAGE TYPE WR CONFORMING TO ASTM A653
- MINIMUM YIELD STRESS 33000 PSI.

C. EXECUTION

- ROOF DECK - FASTEN DECK TO SUPPORTS WITH 5/8" DIAMETER PUDDLE WELDS THRU 16 GAGE WELDING WASHERS. CONFORM TO WELDING PATTERN REQUIRED BY MANUFACTURER.

D. SUBMITTALS

SUBMIT COMPLETE SHOP DRAWINGS OF METAL FLOOR AND ROOF DECK INCLUDING FASTENING REQUIREMENTS TO PROJECT ARCHITECT FOR APPROVAL BEFORE FABRICATION.

CONCRETE UNDERPINNING

A. UNDERPINNING PROCEDURE

- VERIFY THE LOCATIONS, ELEVATIONS AND CONDITIONS OF THE EXISTING FOUNDATIONS IN THE AREA TO BE UNDERPINNED.
- COMPLETE MASS EXCAVATION TO THE BOTTOM OF EXISTING FOOTING.
- EXCAVATE UNDERPINNING PITS IN FOUR FOOT (MAXIMUM) SLOTS TO THE ELEVATIONS SHOWN ON THE PLANS. UNDERPINNING SHALL BE SHORED WITH 2-INCH THICK BY 10 TO 12-INCH WIDE NOMINAL) BOARDS TO PREVENT LOSS OF SOIL. THE UNDERPINNING NEED NOT BE SHORED IF THE SOIL REMAINS STABLE AND DOES NOT SHOW SIGNS OF CAVING AND CONCRETE IS POURED ON THE SAME DAY THE PIT IS EXCAVATED TO SUBGRADE.
- EXCAVATION SEQUENCE OF UNDERPINNING SHALL CONFORM TO THE FOLLOWING:
  1. NO TWO PITS CLOSER THAN 10 FOOT EDGE-TO-EDGE OR 15-FOOT CENTER-TO-CENTER SHALL BE EXCAVATED AT THE SAME TIME.
  2. NO TWO ADJACENT COLUMNS SHALL BE UNDERPINNED AT THE SAME TIME.
  3. THE DEEPEST UNDERPINNING PIT SHALL BE CONSTRUCTED FIRST WHERE THERE IS A STEP IN UNDERPINNING ELEVATION.

- FILL THE UNDERPINNING PIT WITH CONCRETE TO BETWEEN TWO (2') AND THREE (3') INCHES BELOW THE BOTTOM OF EXISTING FOOTING. ALLOW CONCRETE TO CURE OVERNIGHT.

- DRYPACK BETWEEN THE UNDERPINNING AND EXISTING FOOTING AFTER THE CONCRETE HAS CURED FOR 48 HOURS.

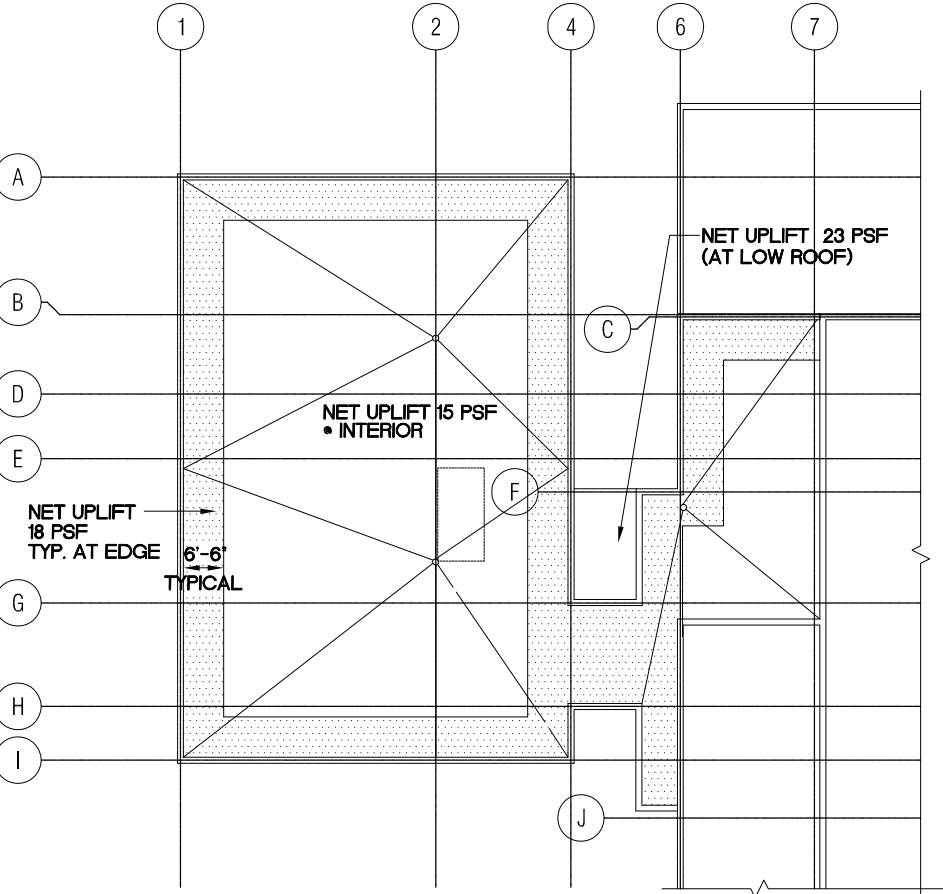
- COMPLETE CONSTRUCTION OF ALL UNDERPINNING PITS BEFORE CONTINUING MASS EXCAVATION IN AREA OF UNDERPINNING.

B. MATERIALS

- CONCRETE: CONCRETE FOR UNDERPINNING SHALL HAVE A 28-DAY COMPRESSIVE STRENGTH OF 3000 PSI (MIN). CONCRETE SHALL BE PUMPABLE AND CONSIST OF NORMAL WEIGHT AGGREGATE WITH A MAXIMUM SIZE OF 3/4". CEMENT FOR CONCRETE SHALL BE TYPE I OR II. ADMIXTURES MAY BE USED AS REQUIRED TO IMPROVE PUMPABILITY.

- REINFORCING STEEL: REINFORCING STEEL SHALL CONFORM TO ASTM A615 AND SHALL HAVE A TENSILE STRENGTH OF 60 KSI (MIN). REINFORCING BARS SHALL BE BARE STEEL WITH NO ADDITIONAL CORROSION PROTECTION.

- DRYPACK: DRYPACK FOR UNDERPINNING SHALL CONSIST OF 1 PART OF SAND WITH 1 PART OF CEMENT WITH ENOUGH WATER TO KEEP IT MOIST.



ROOF NET UPLIFT WIND LOAD PLAN  
1/32"-1'-0"



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| Issue                      | Date       |
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TEMPLE ANNEX  
GENERAL NOTES

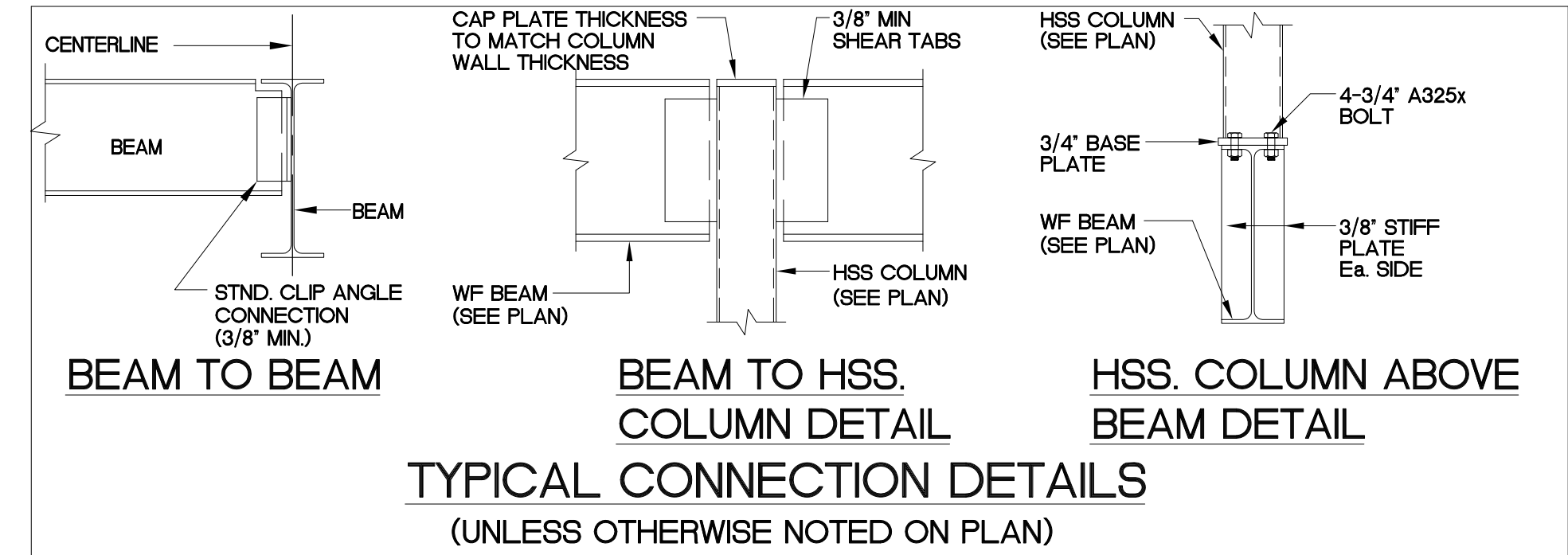
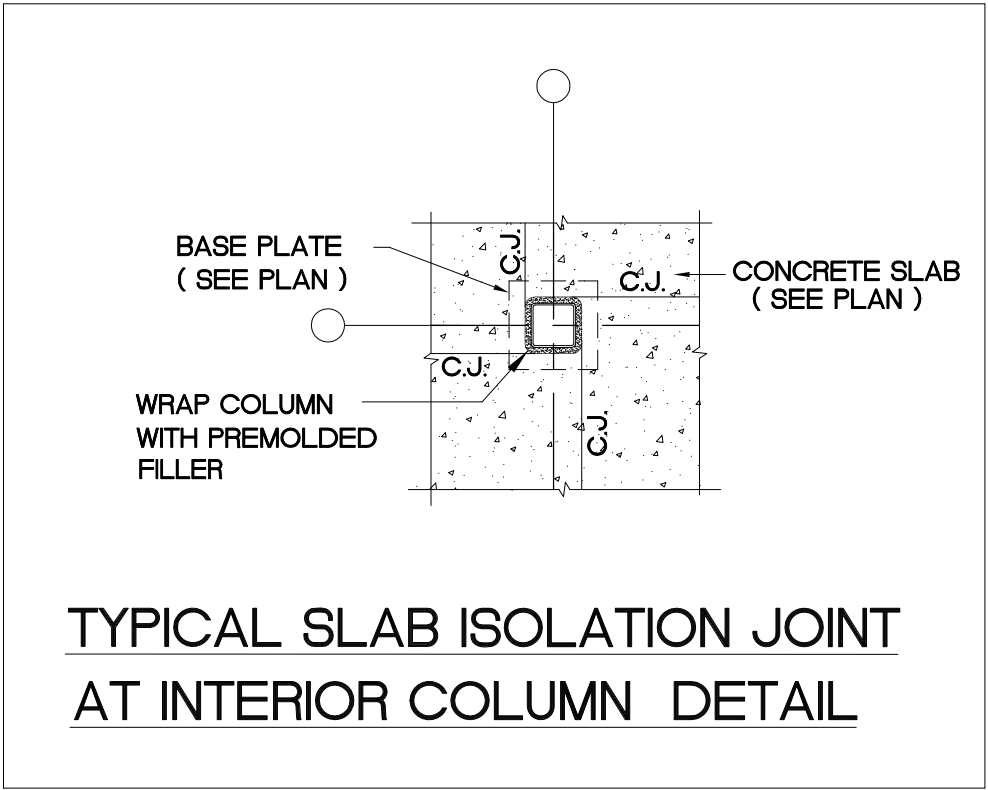
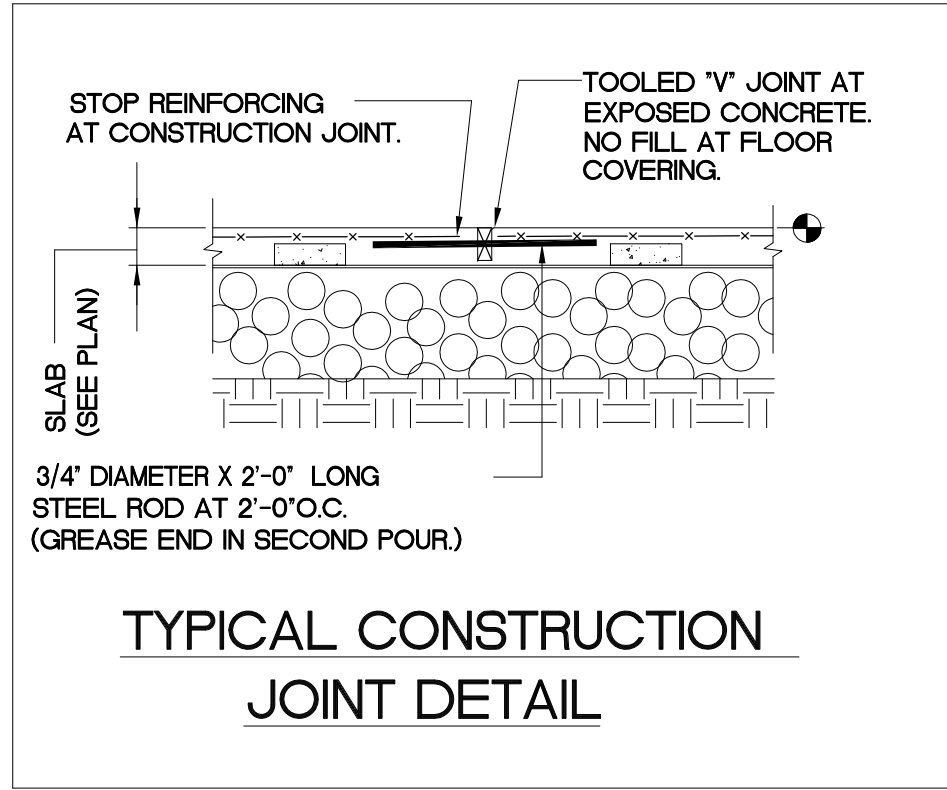
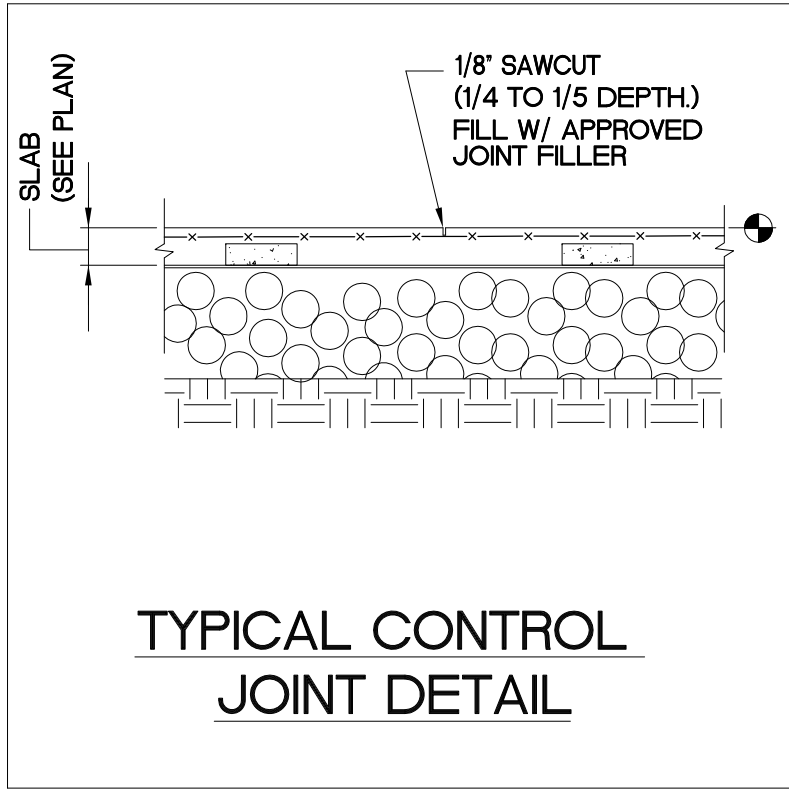
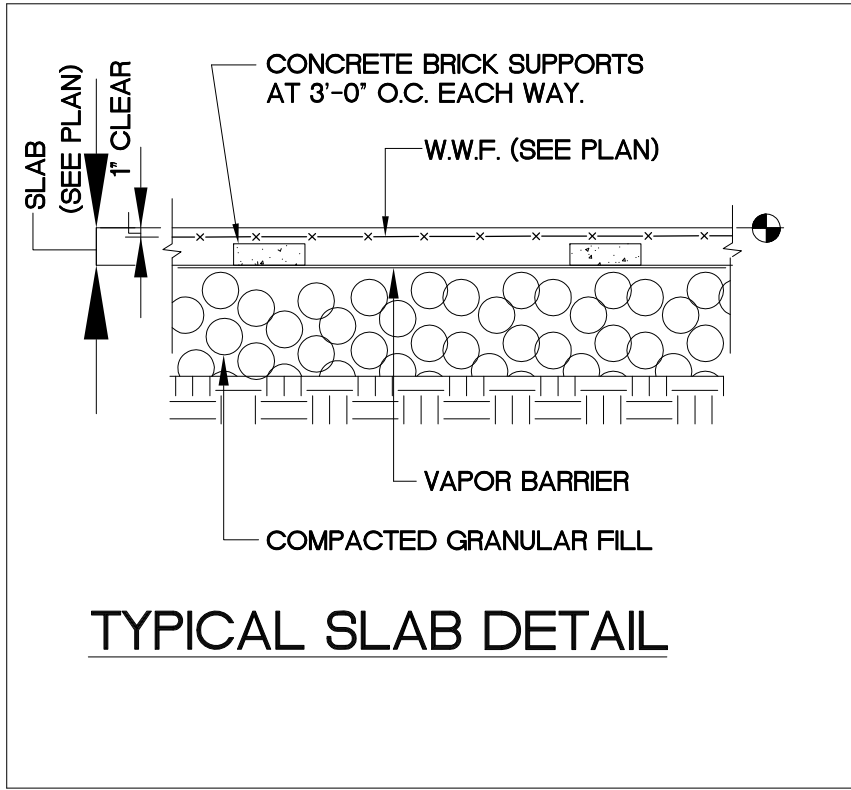
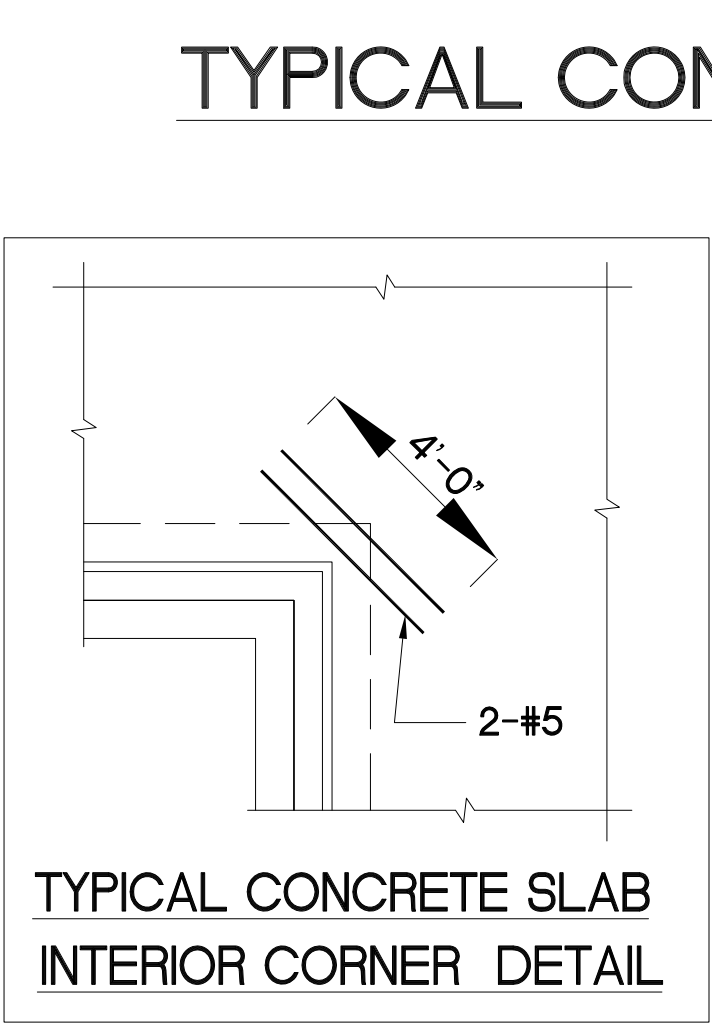
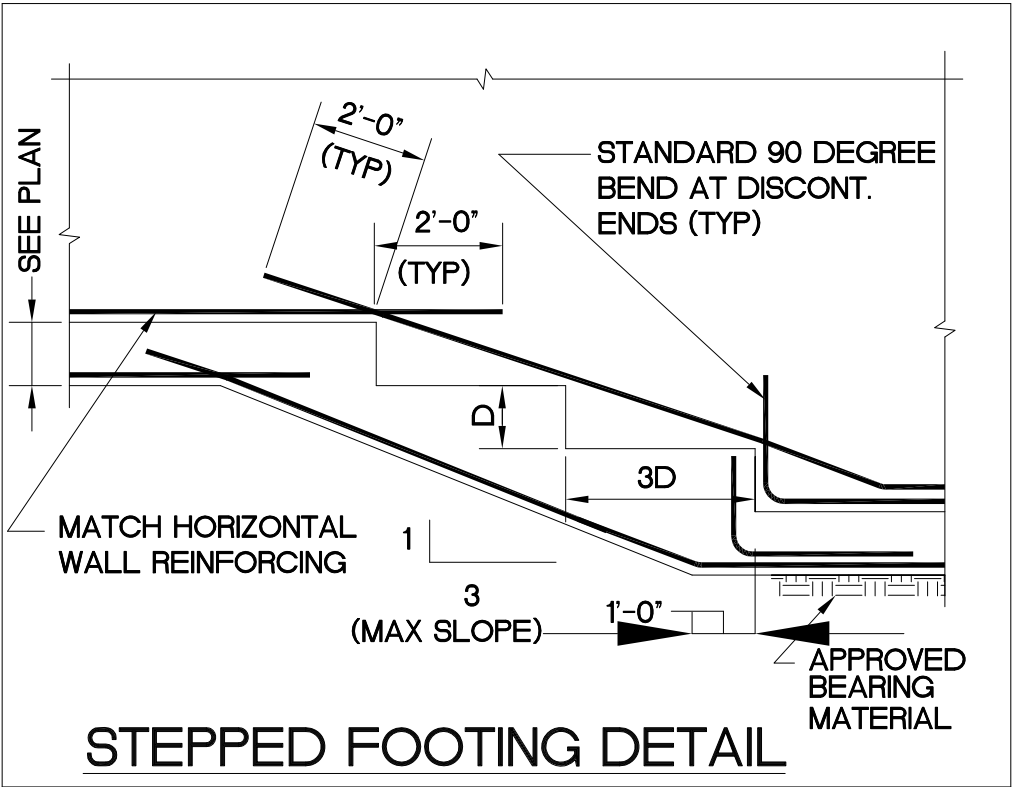
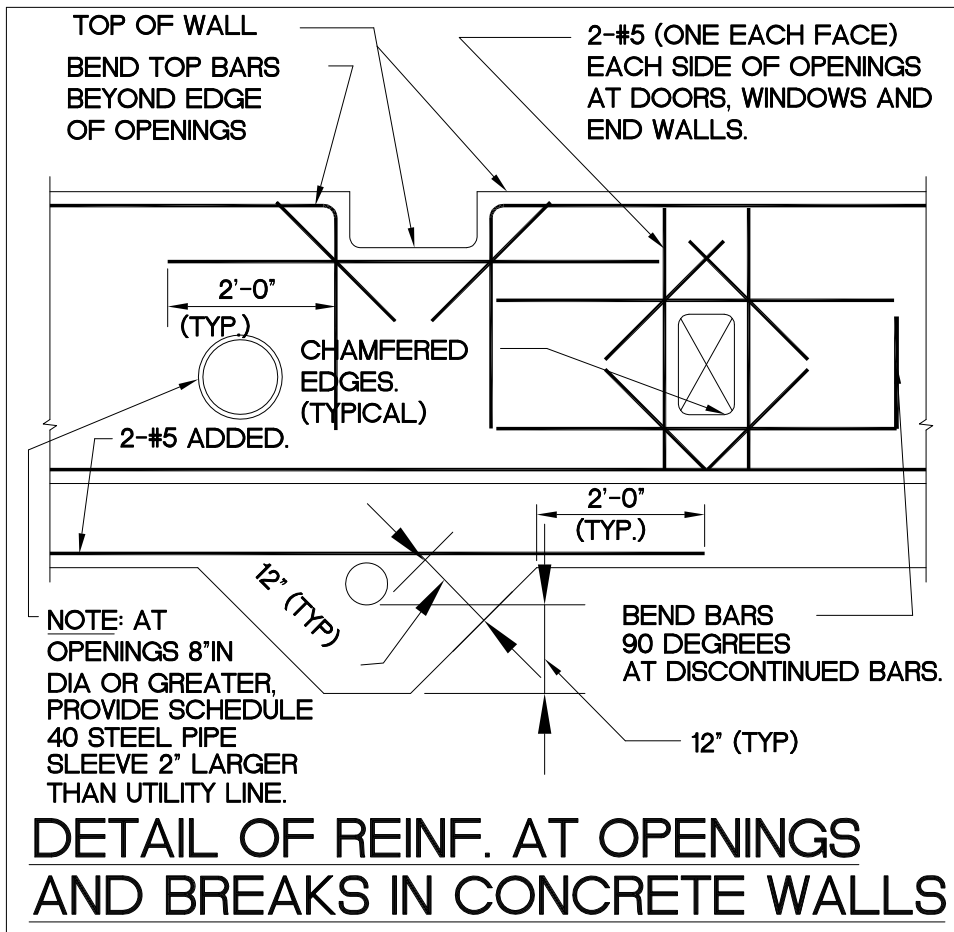
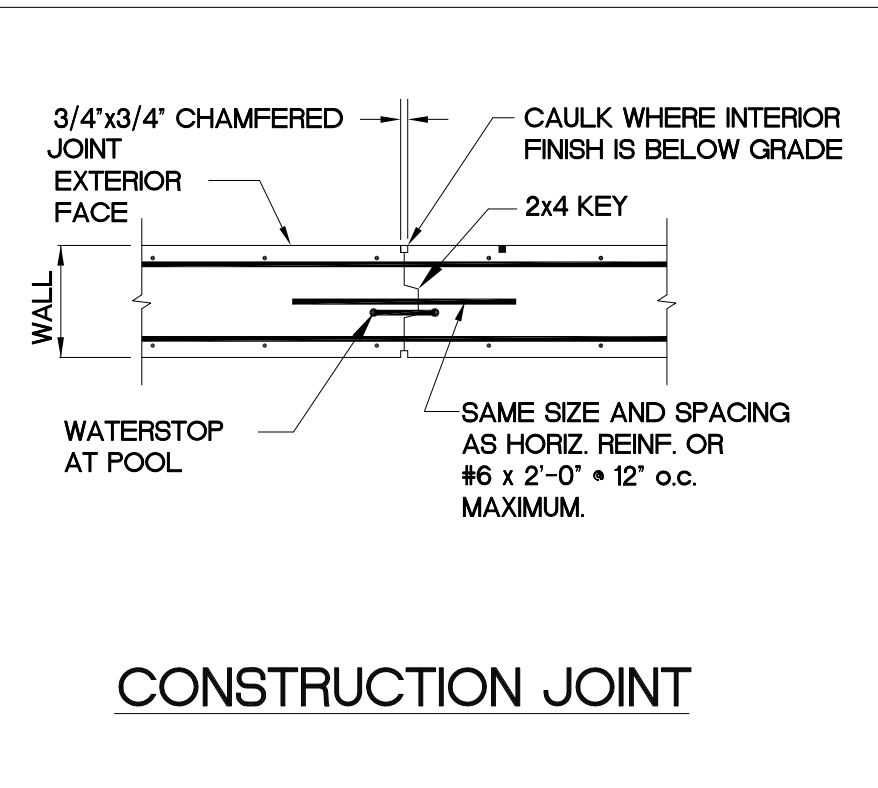
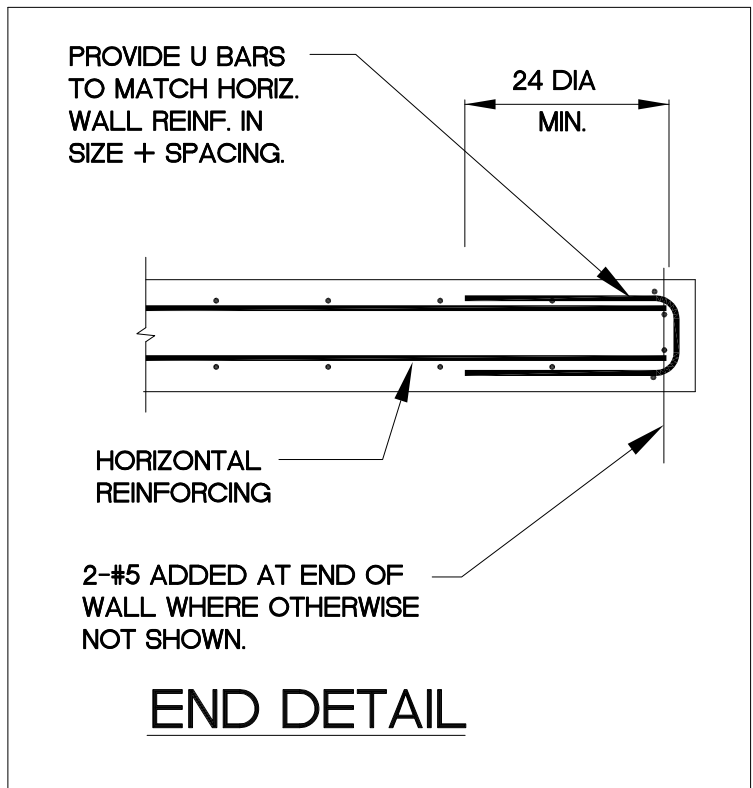
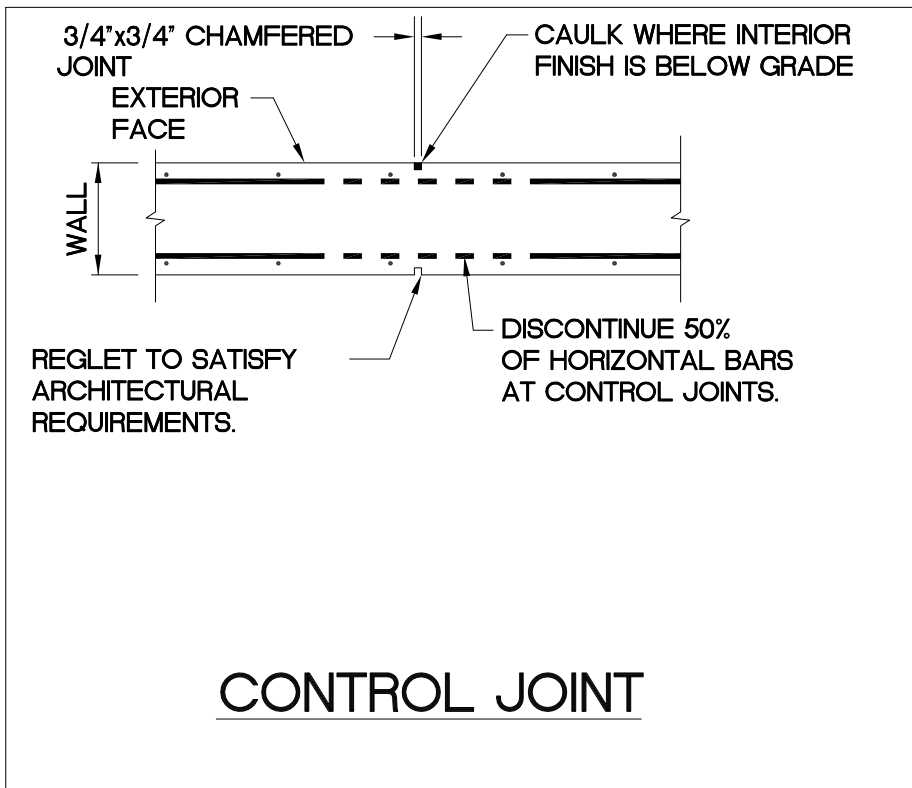
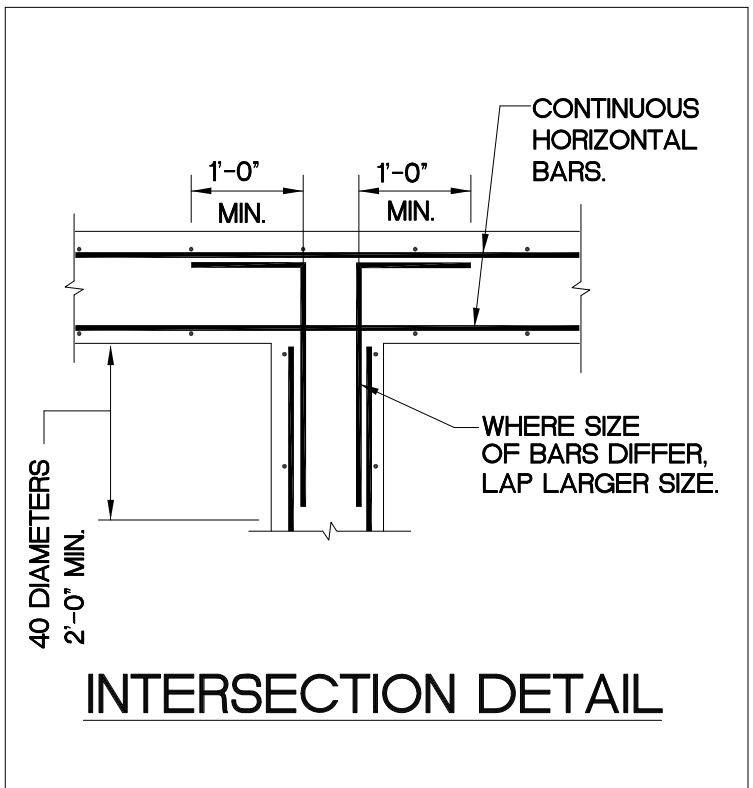
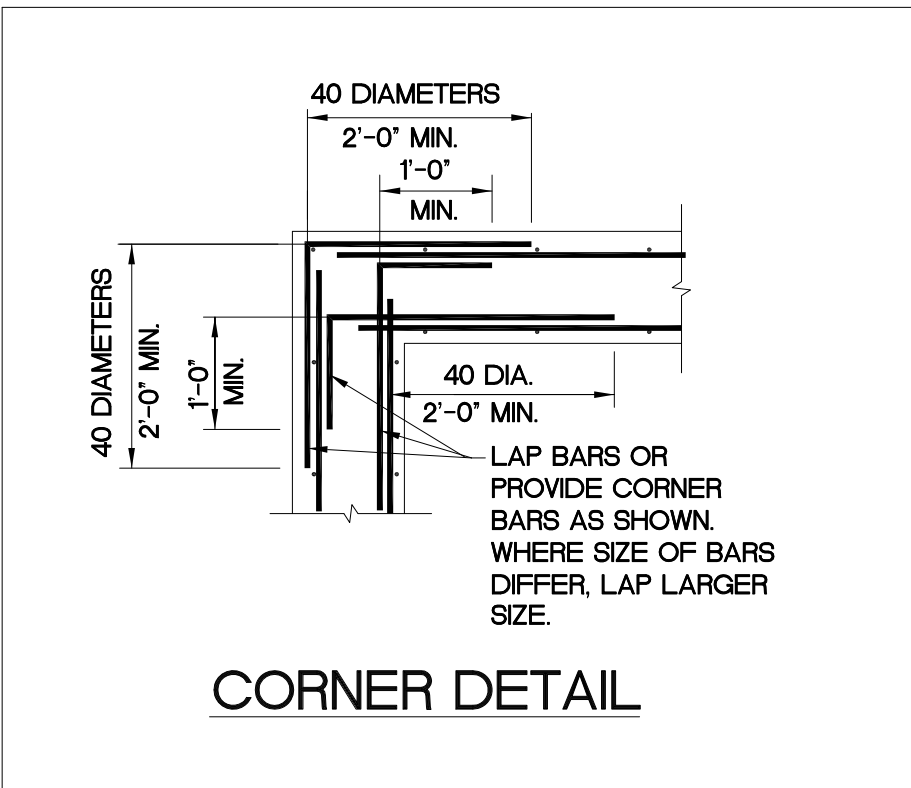
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S0-1

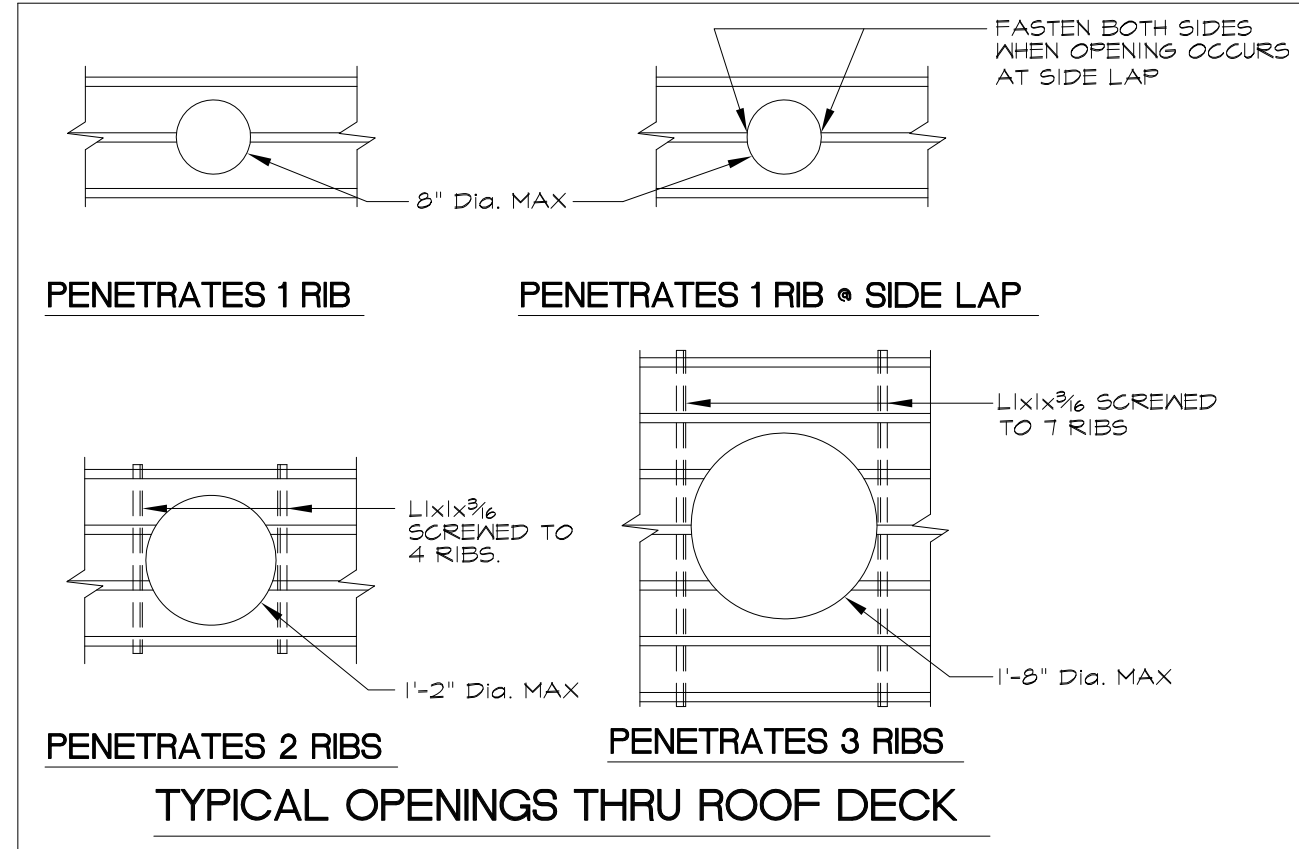
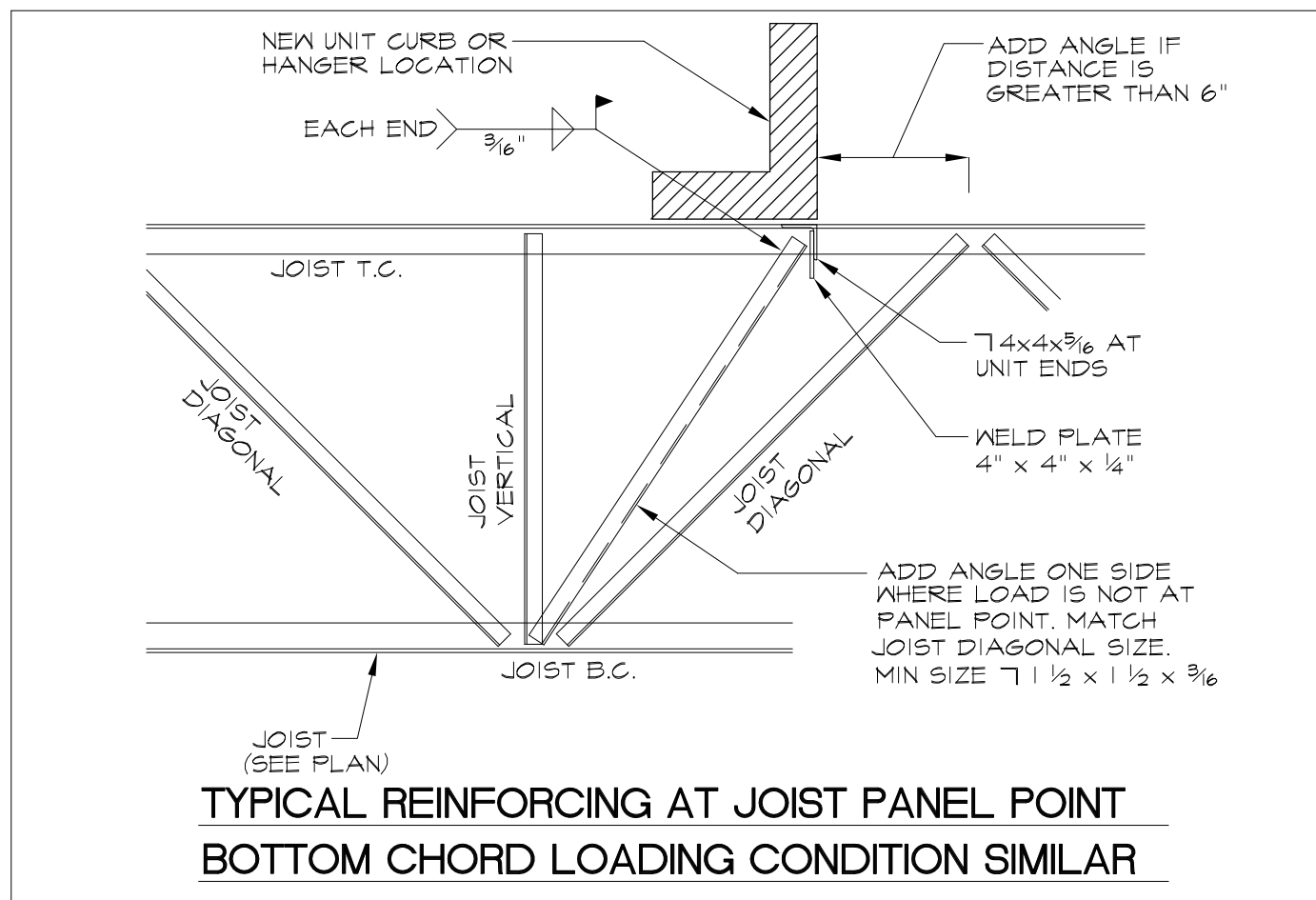
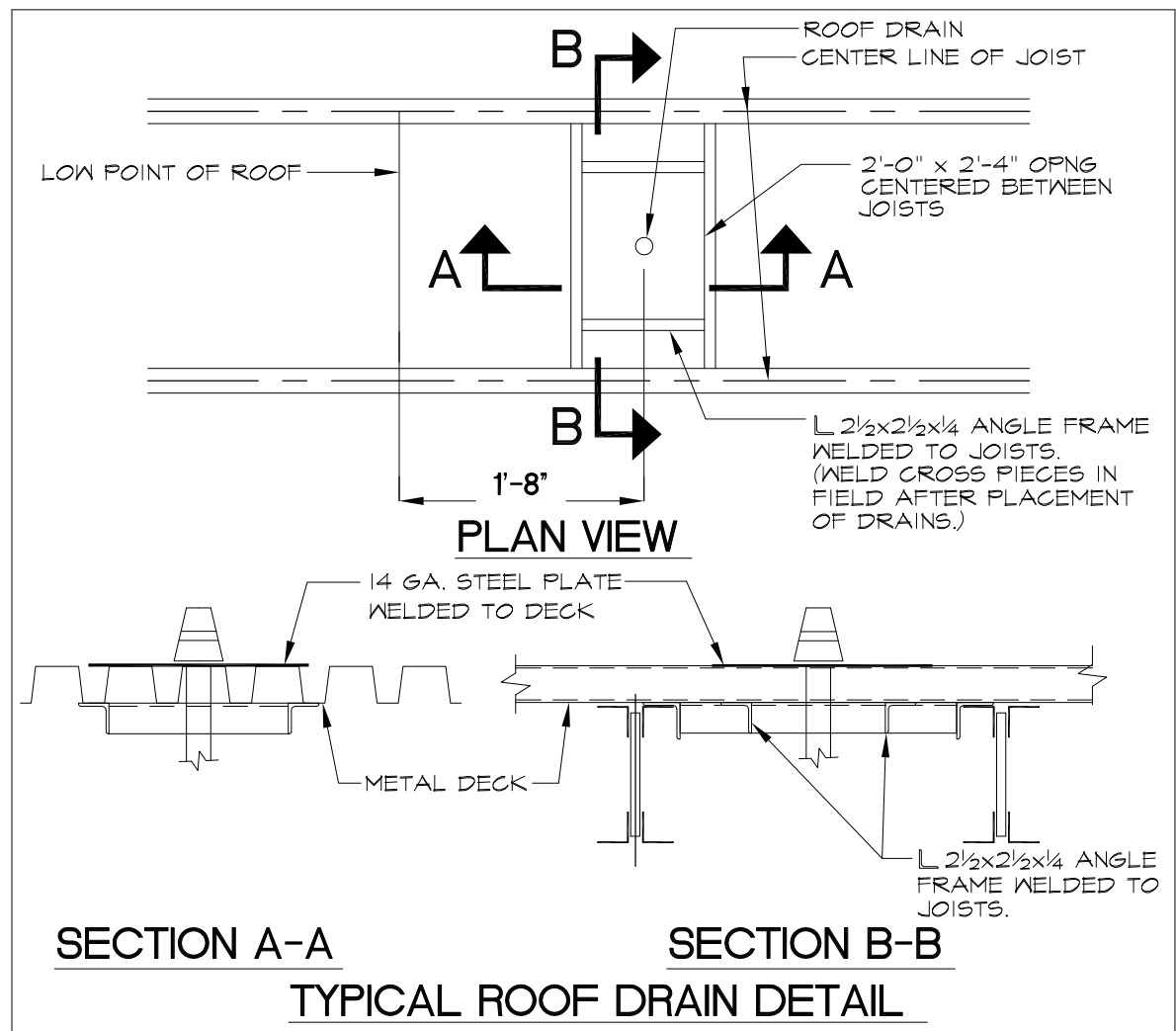
Project #

14012



| SIZE | FACTOR |
|------|--------|
| W8   | 2.4    |
| W10  | 2.2    |
| W12  | 2.1    |
| W14  | 1.8    |
| W16  | 1.7    |
| W18  | 1.7    |
| W21  | 1.6    |
| W24  | 1.6    |
| W27  | 1.4    |
| W30  | 1.4    |
| W33  | 1.4    |
| W36  | 1.4    |

TO OBTAIN THE END REACTION FOR COMPOSITE MEMBERS, MULTIPLY THE END REACTION FROM THE ABC AND 9TH EDITION TABLES BY THE APPLICABLE FACTOR.



## TYPICAL SLAB DETAILS

## SRI LAKSHMI TEMPLE NEW ADDITION

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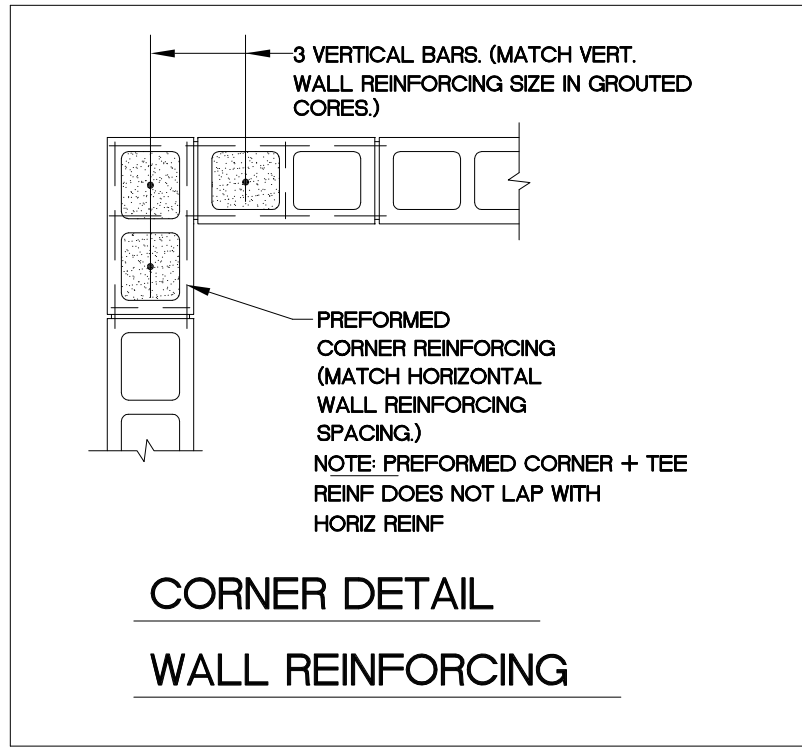
## TEMPLE ANNEX TYPICAL DETAILS

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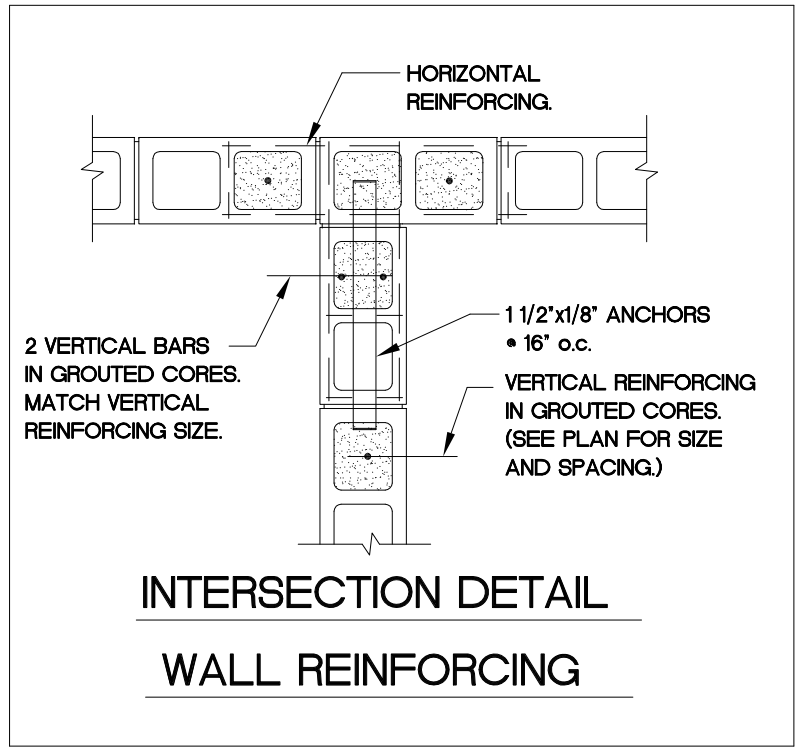
S0-2

Project # 14012

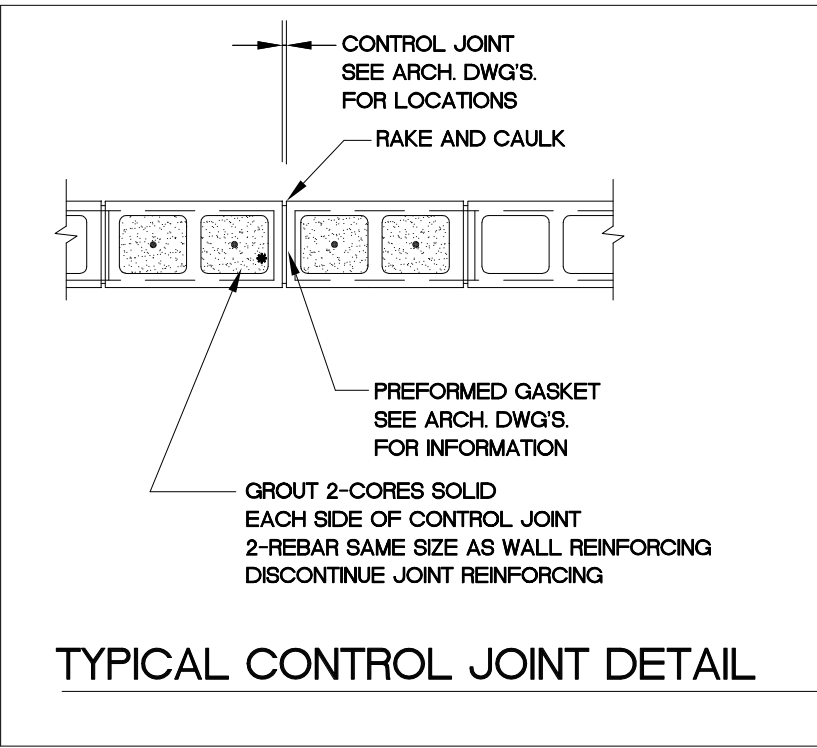




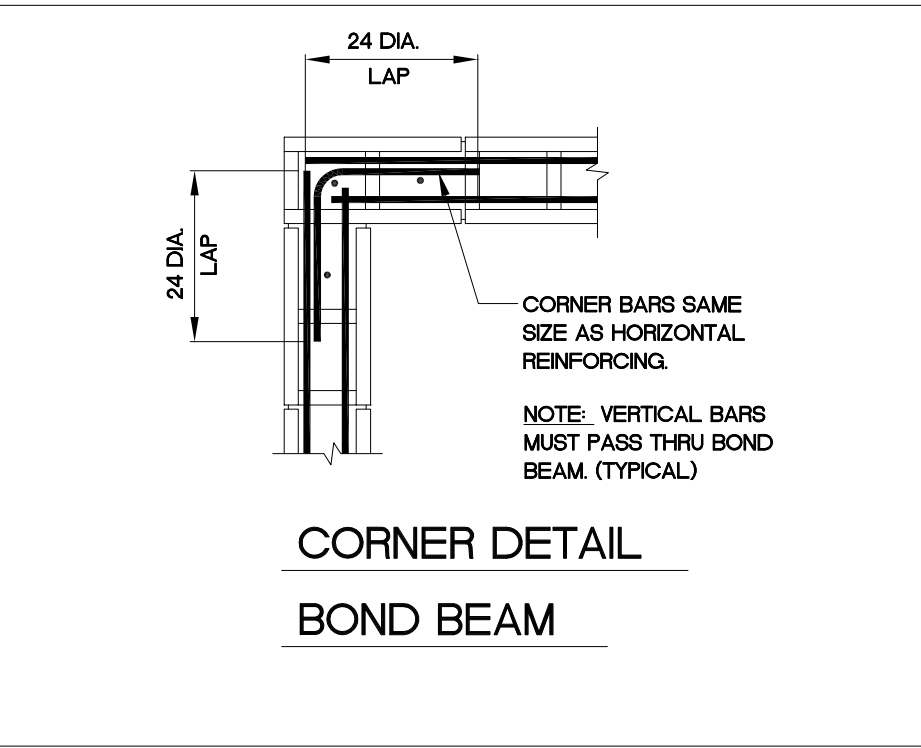
CORNER DETAIL  
WALL REINFORCING



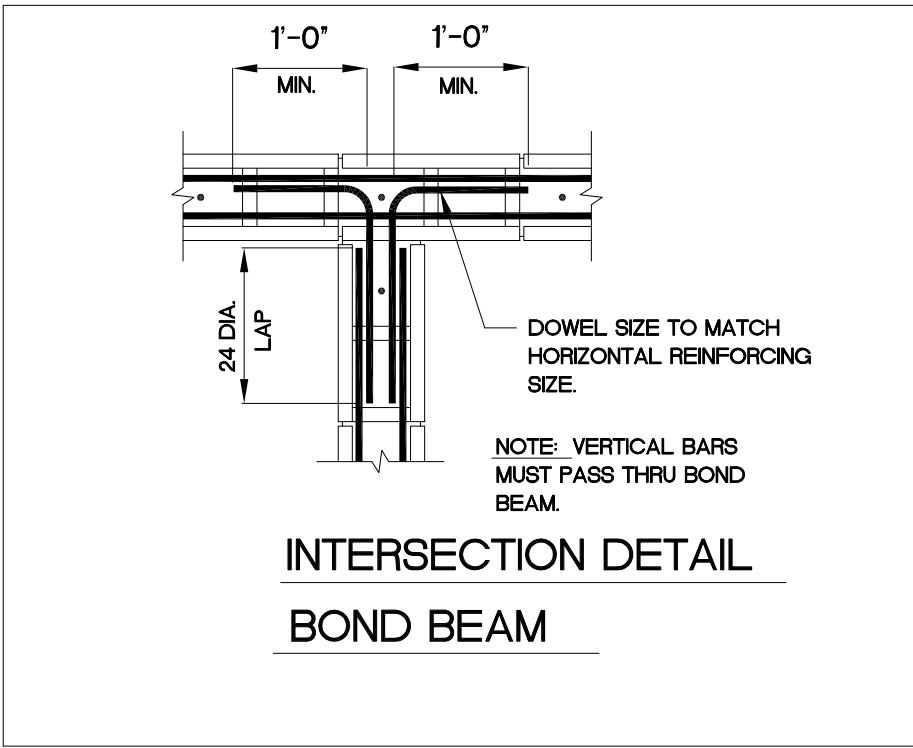
INTERSECTION DETAIL  
WALL REINFORCING



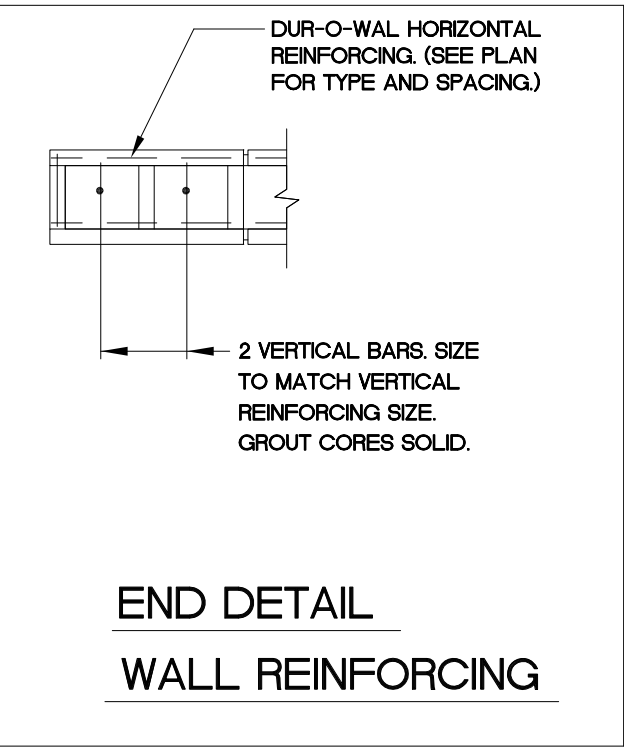
TYPICAL CONTROL JOINT DETAIL



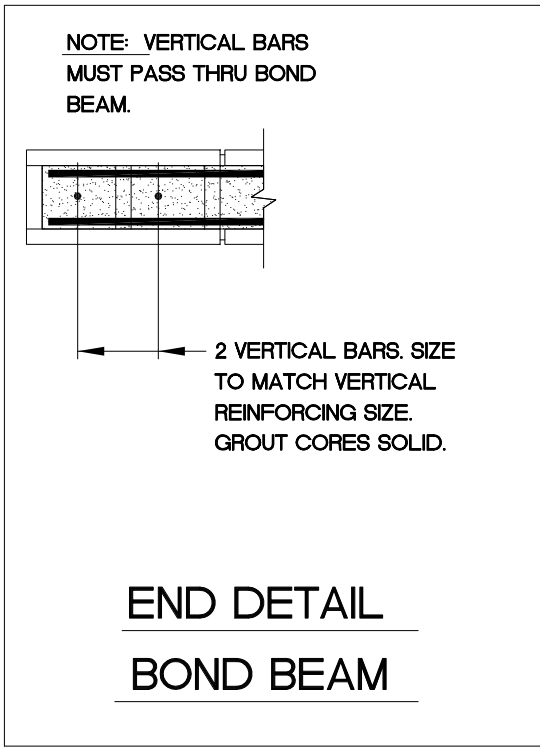
CORNER DETAIL  
BOND BEAM



INTERSECTION DETAIL  
BOND BEAM

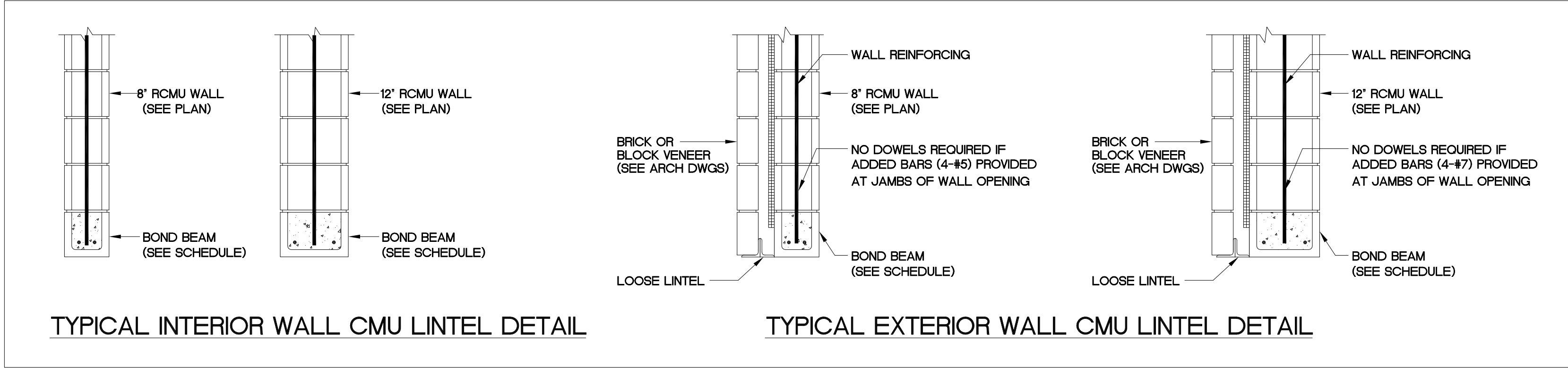


END DETAIL  
WALL REINFORCING



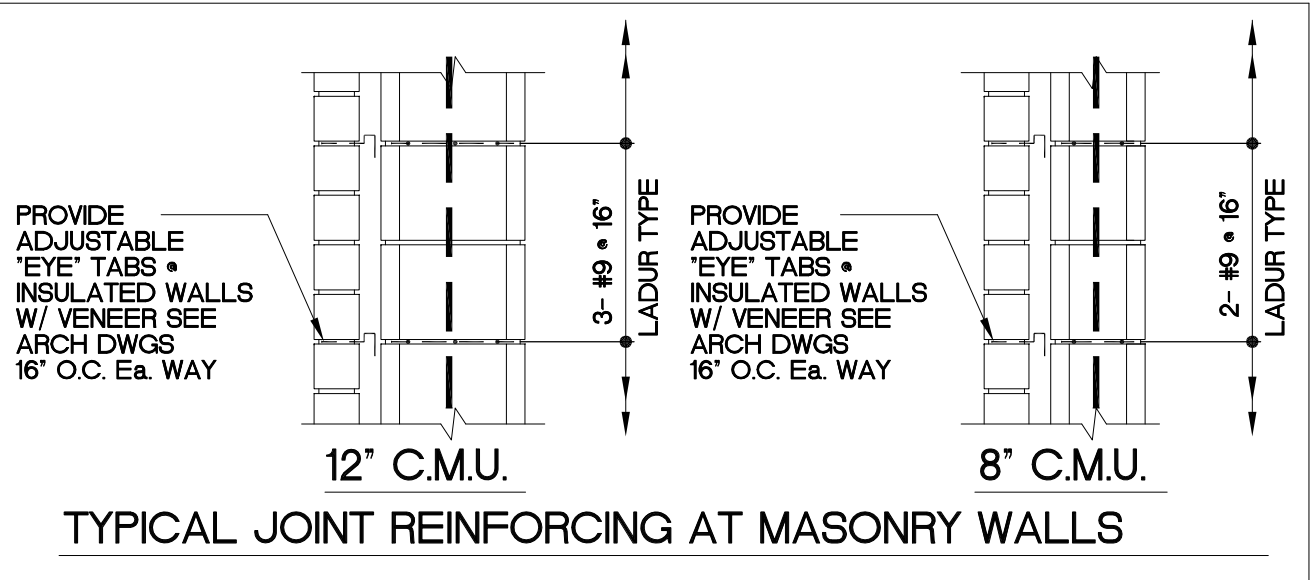
END DETAIL  
BOND BEAM

TYPICAL MASONRY BEARING WALL DETAILS

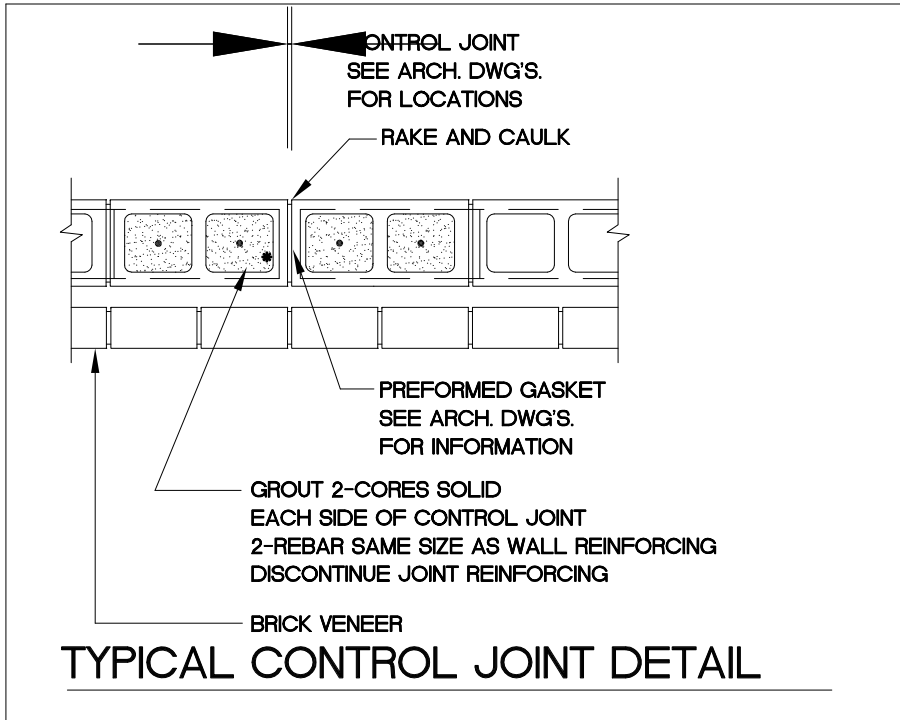


TYPICAL INTERIOR WALL CMU LINTEL DETAIL

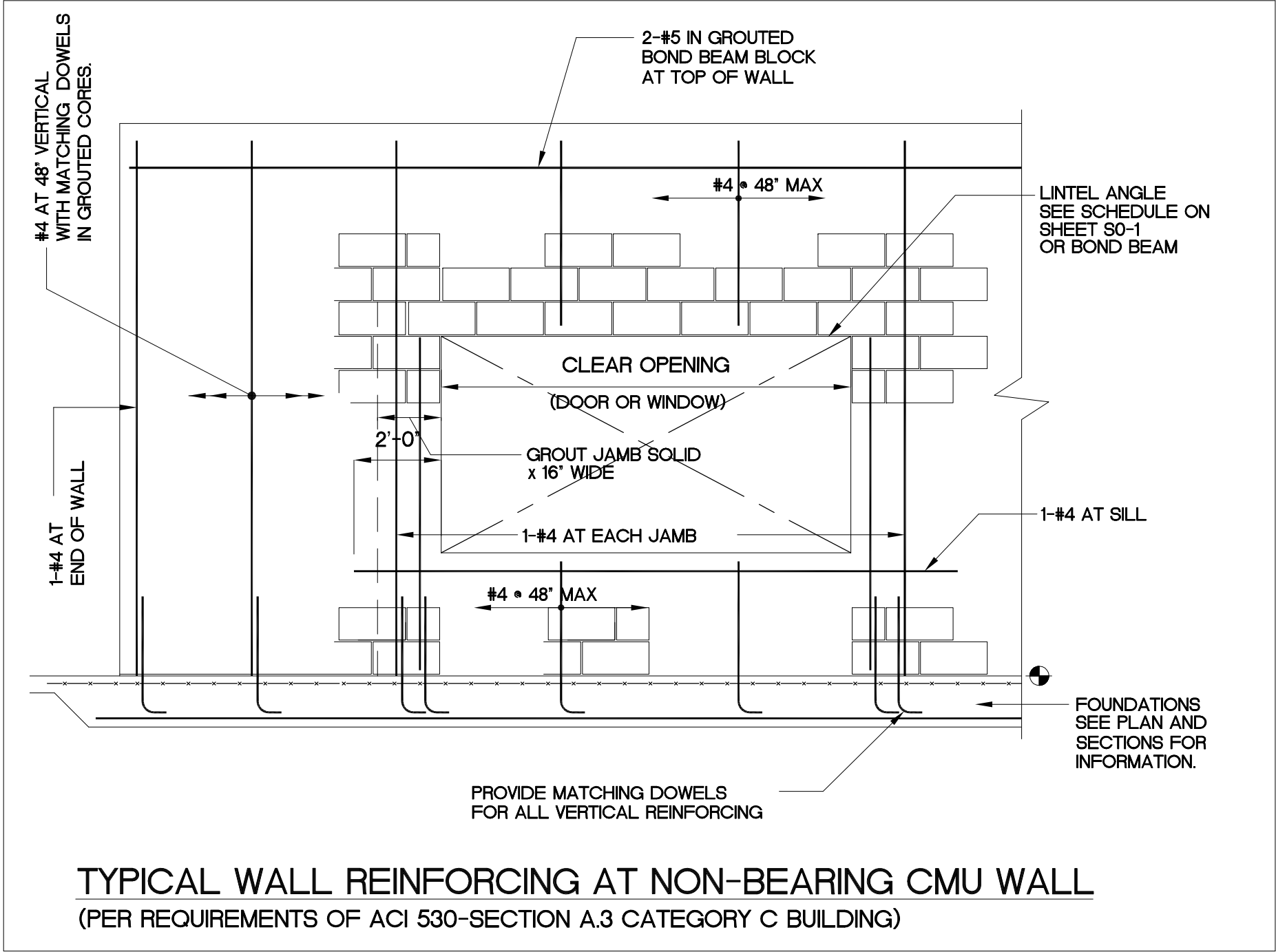
TYPICAL EXTERIOR WALL CMU LINTEL DETAIL



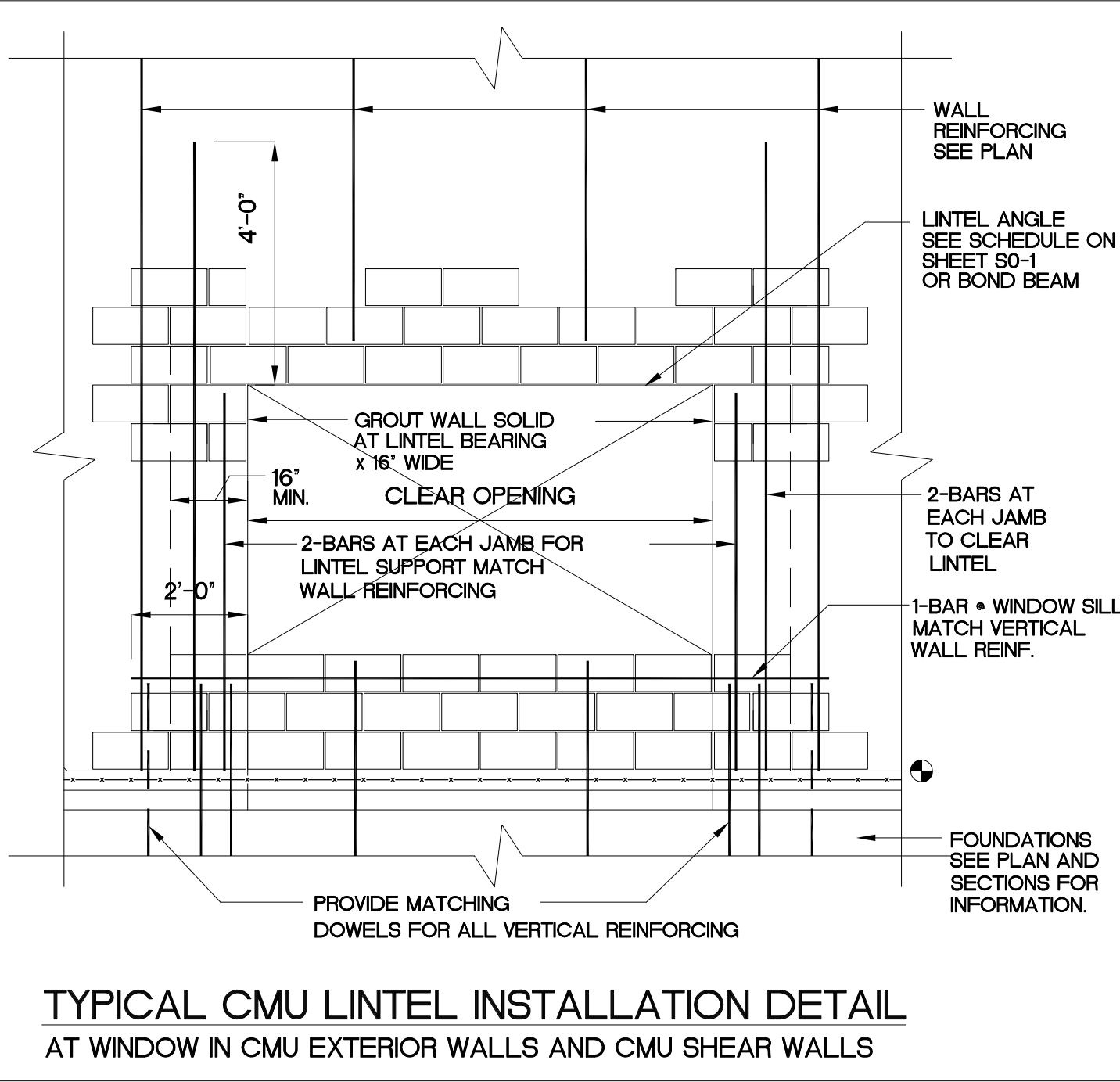
TYPICAL JOINT REINFORCING AT MASONRY WALLS



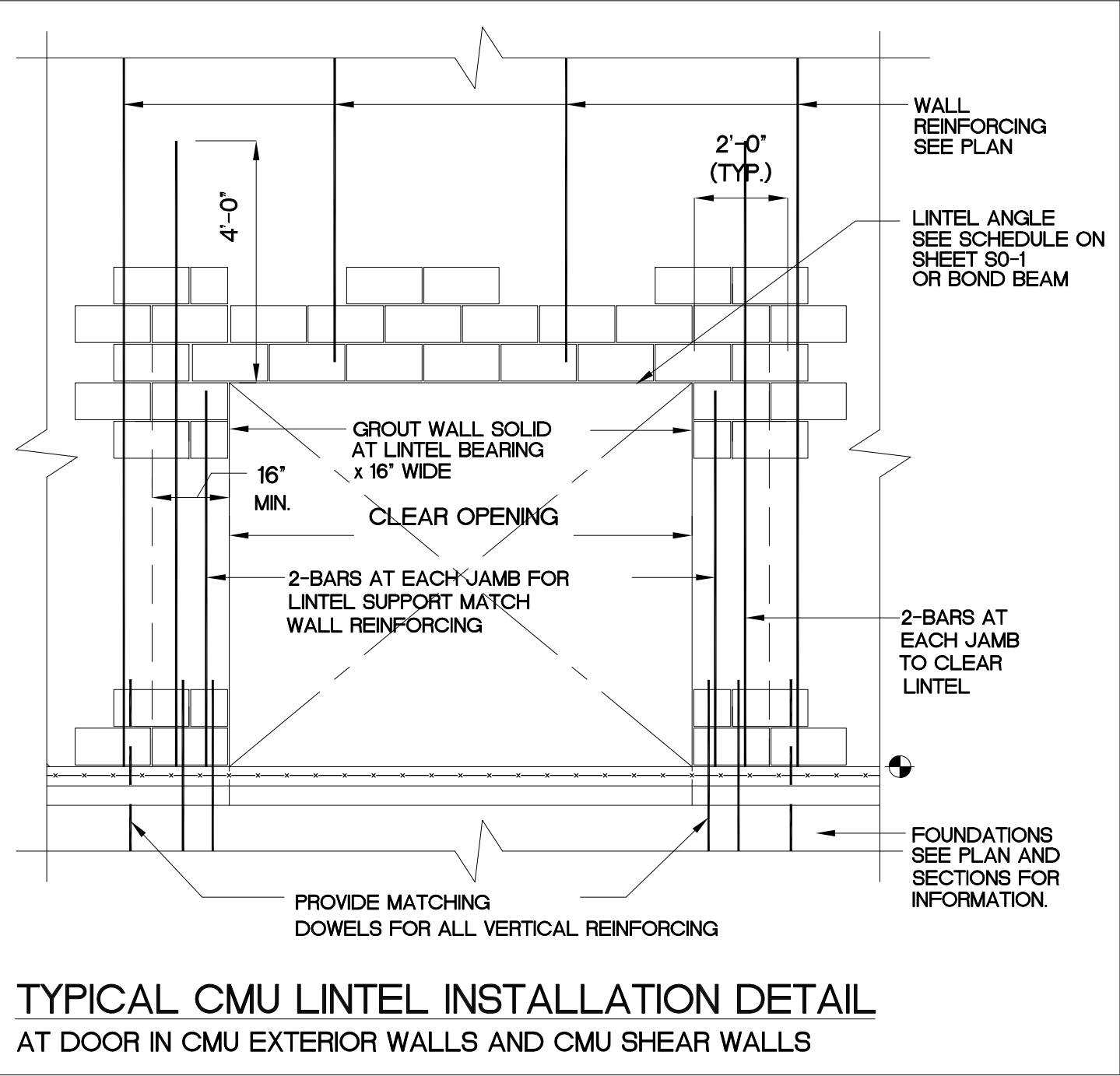
TYPICAL CONTROL JOINT DETAIL



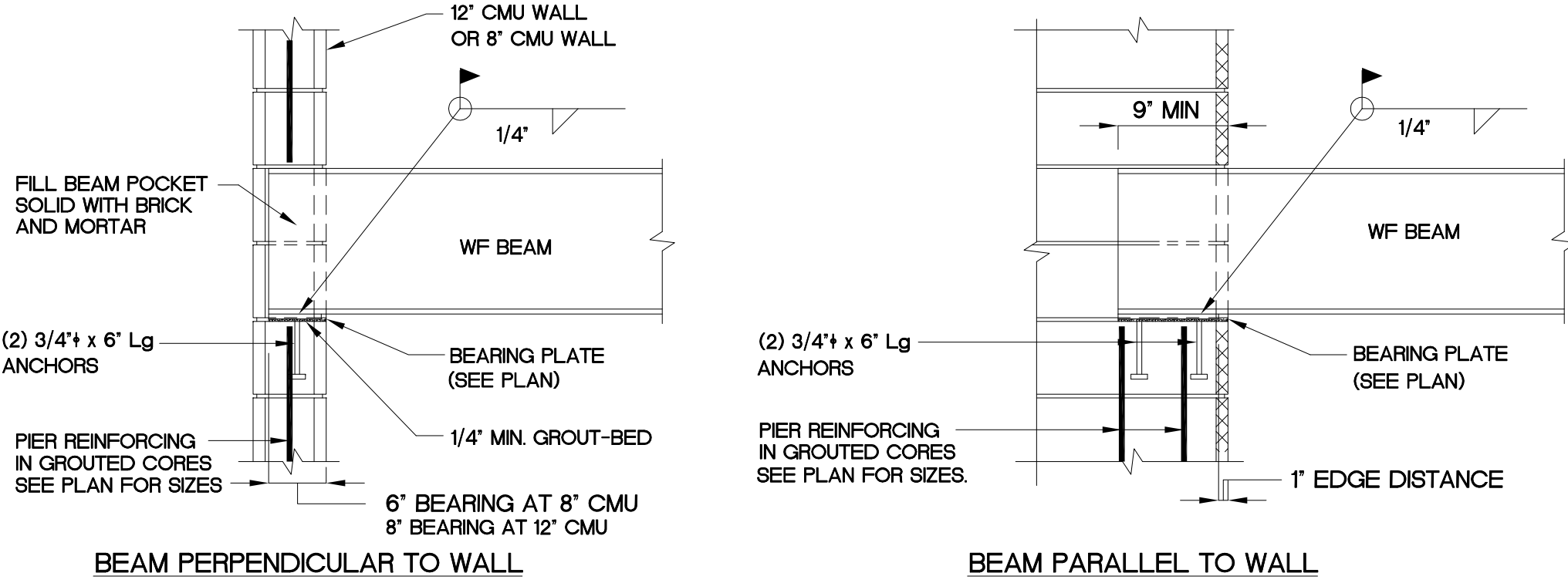
TYPICAL WALL REINFORCING AT NON-BEARING CMU WALL  
(PER REQUIREMENTS OF ACI 530-SECTION A.3 CATEGORY C BUILDING)



TYPICAL CMU LINTEL INSTALLATION DETAIL  
AT WINDOW IN CMU EXTERIOR WALLS AND CMU SHEAR WALLS



TYPICAL CMU LINTEL INSTALLATION DETAIL  
AT DOOR IN CMU EXTERIOR WALLS AND CMU SHEAR WALLS



TYPICAL BEAM BEARING DETAILS  
3/4"=1'-0"  
NOTE: BEARING PLATES TO HAVE 1/2" MIN. EDGE DISTANCE.

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TEMPLE ANNEX  
TYPICAL DETAILS

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S0-3

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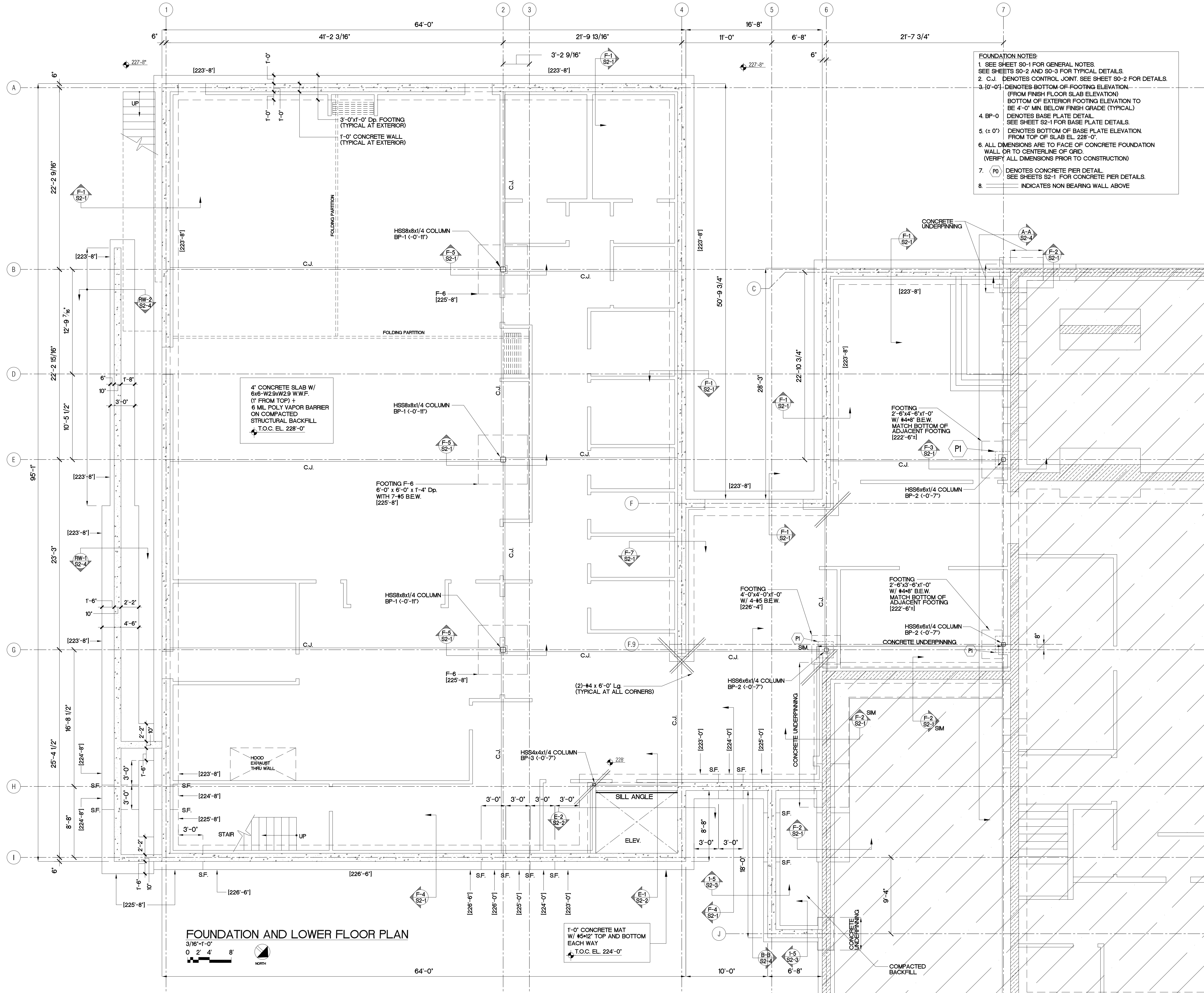
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TEMPLE ANNEX  
FOUNDATION/BASEMENT  
FLOOR PLAN

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S1-1

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TEMPLE ANNEX  
MAIN FLOOR  
FRAMING PLAN

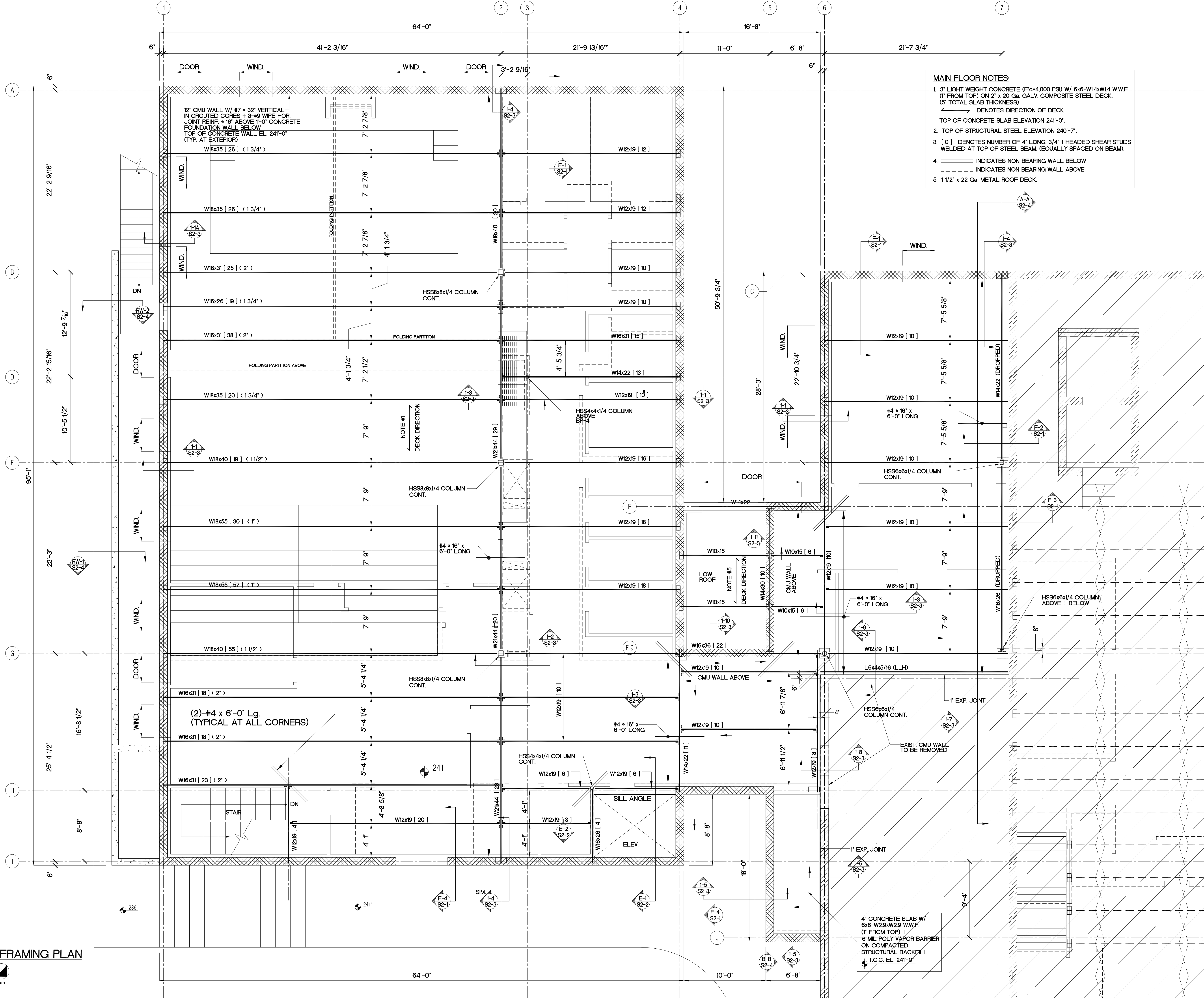
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Project # 14012

MAIN FLOOR FRAMING PLAN

3/16"-1'-0"  
0 2' 4' 8'  
NORTH



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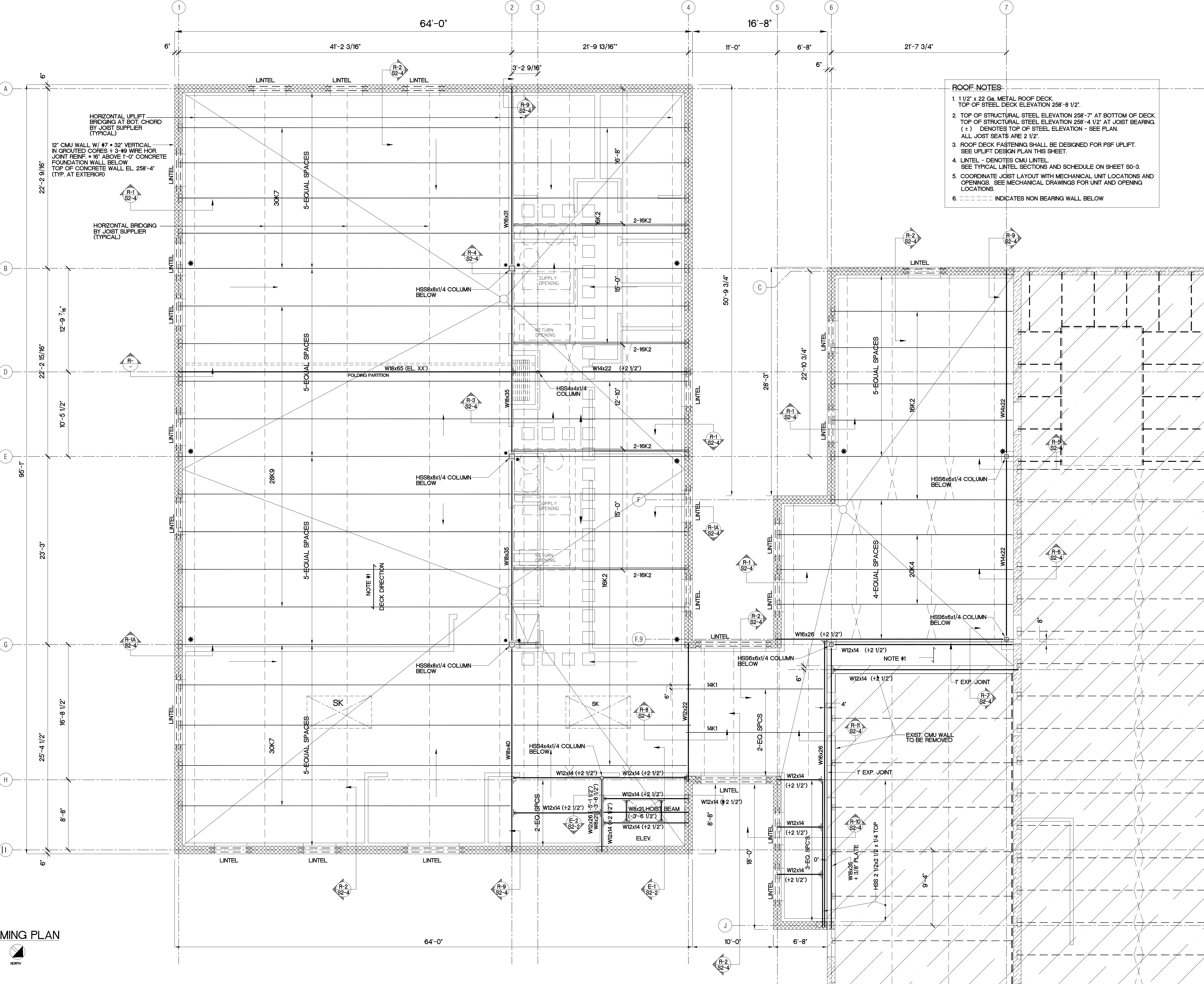
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TEMPLE ANNEX  
ROOF  
FRAMING PLAN

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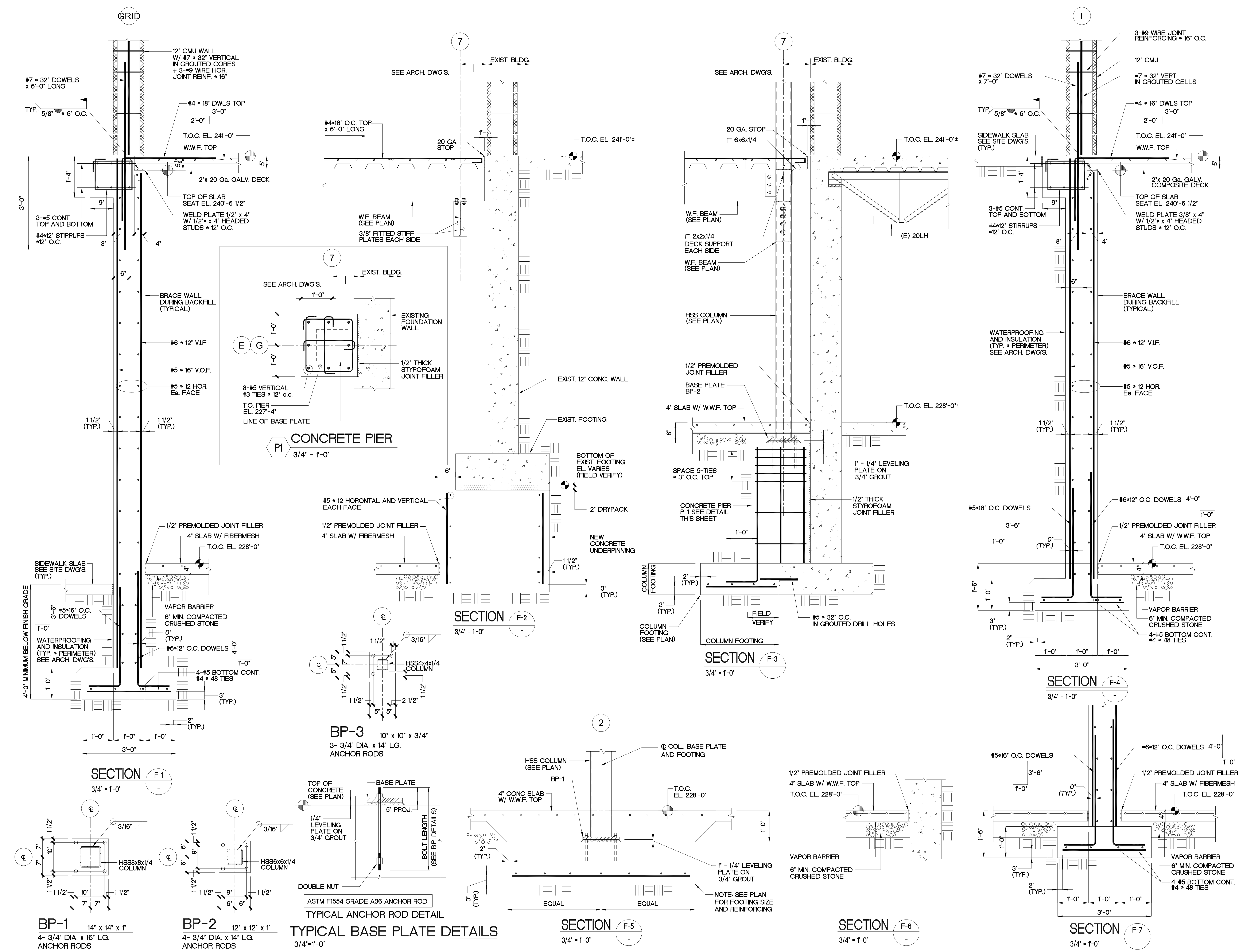
S1-3

Project # 14012



ROOF FRAMING PLAN  
1/8"=1'-0"  
0 2' 4' 8'





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TEMPLE ANNEX  
SECTIONS AND DETAILS

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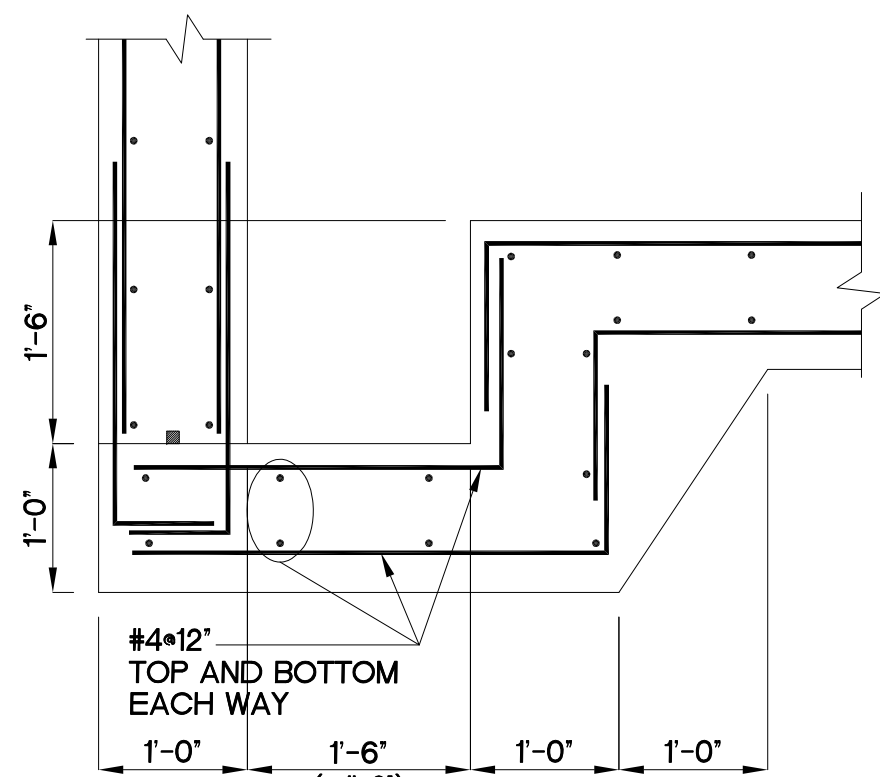
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S2-2

Project # 14012



(x 1'-6")  
SEE ARCH DWG'S. FOR ADDITIONAL INFO.  
TYPICAL SECTION AT SUMP PIT


$$\frac{3}{4}'' = 1'-0''$$



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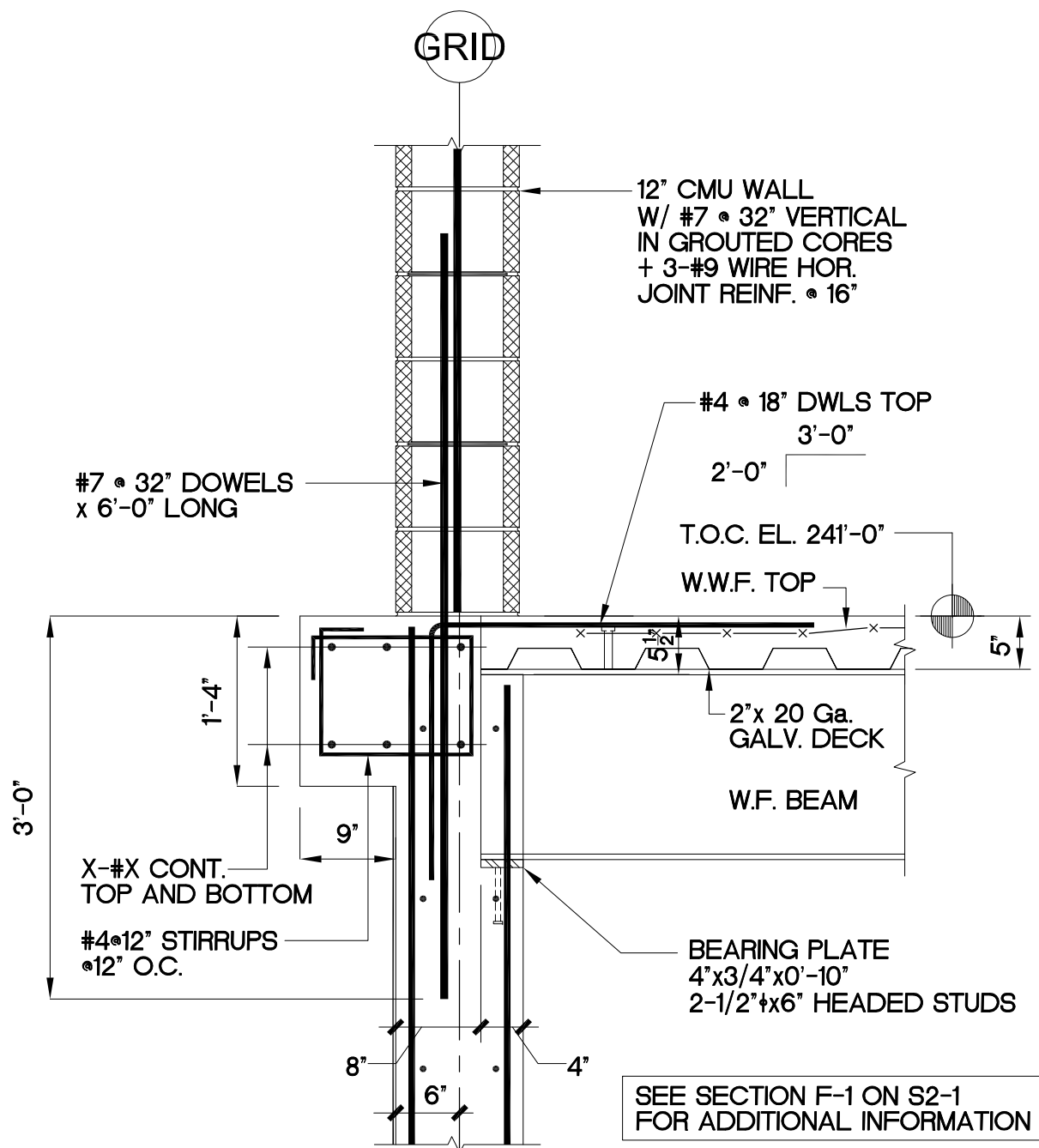
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TEMPLE ANNEX  
SECTIONS AND DETAILS

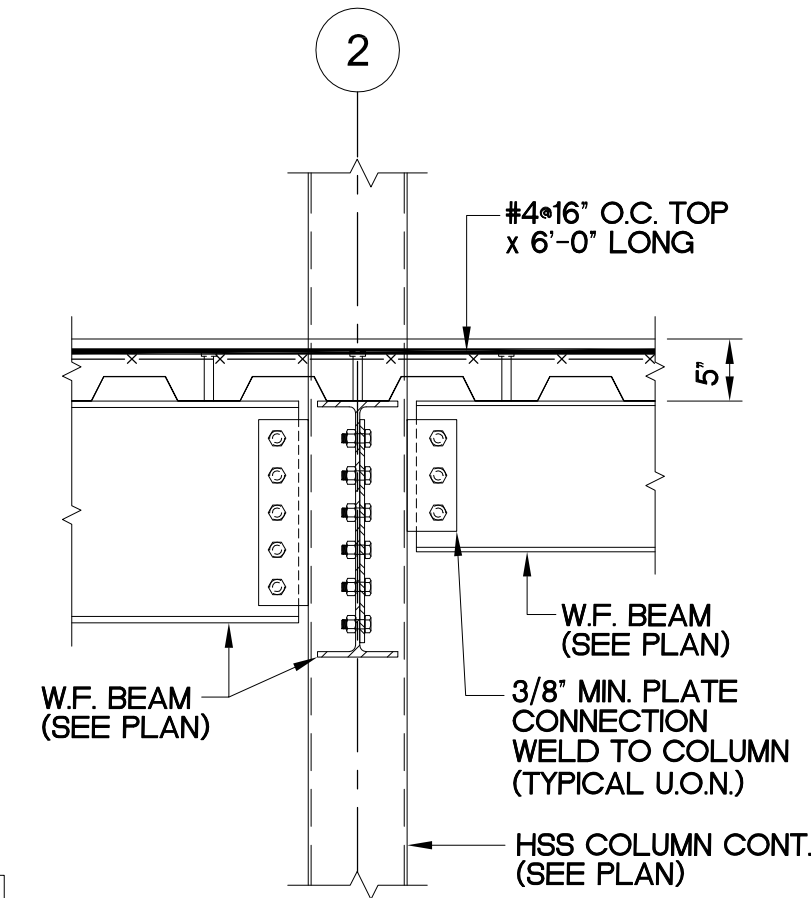
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S2-3

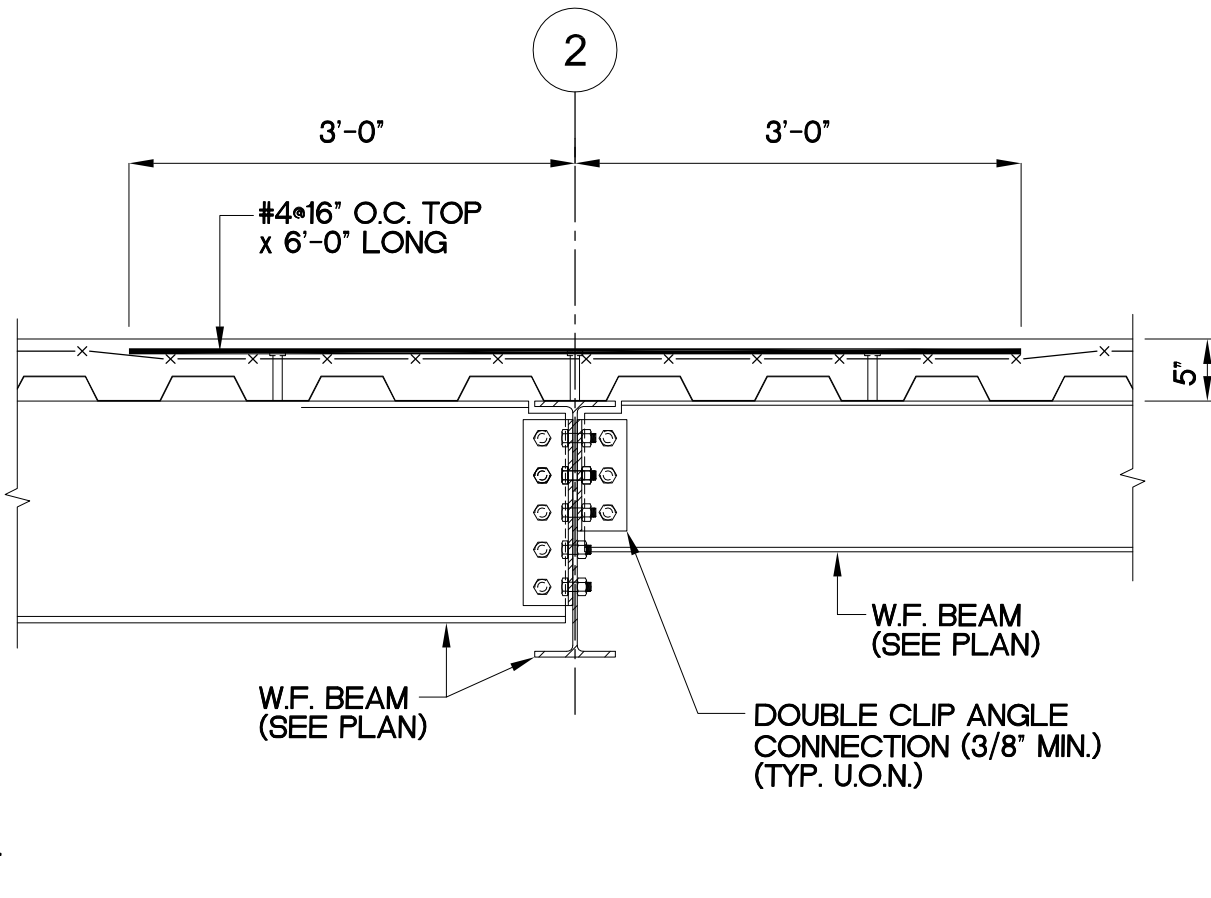
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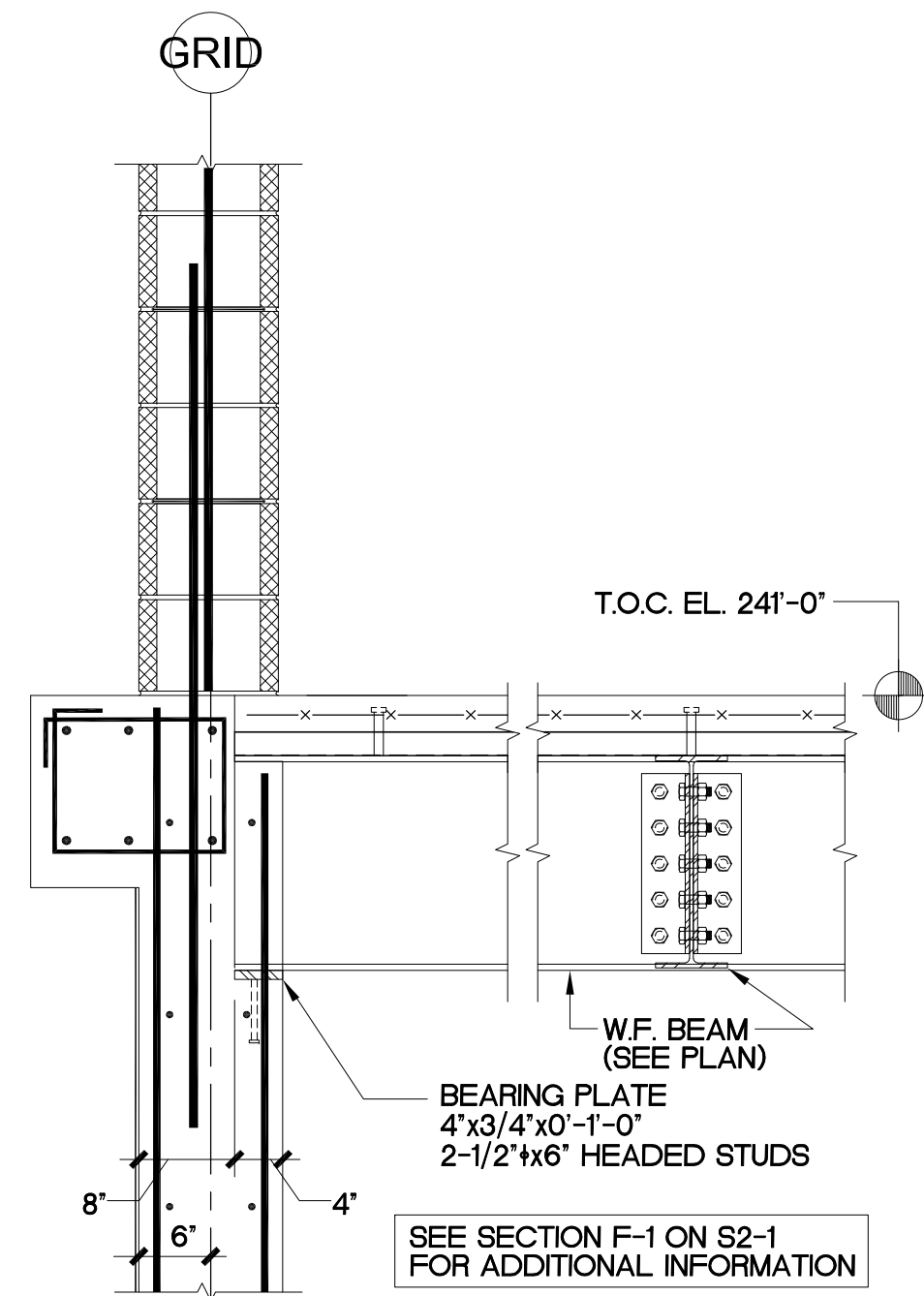
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3/4" = 1'-0"



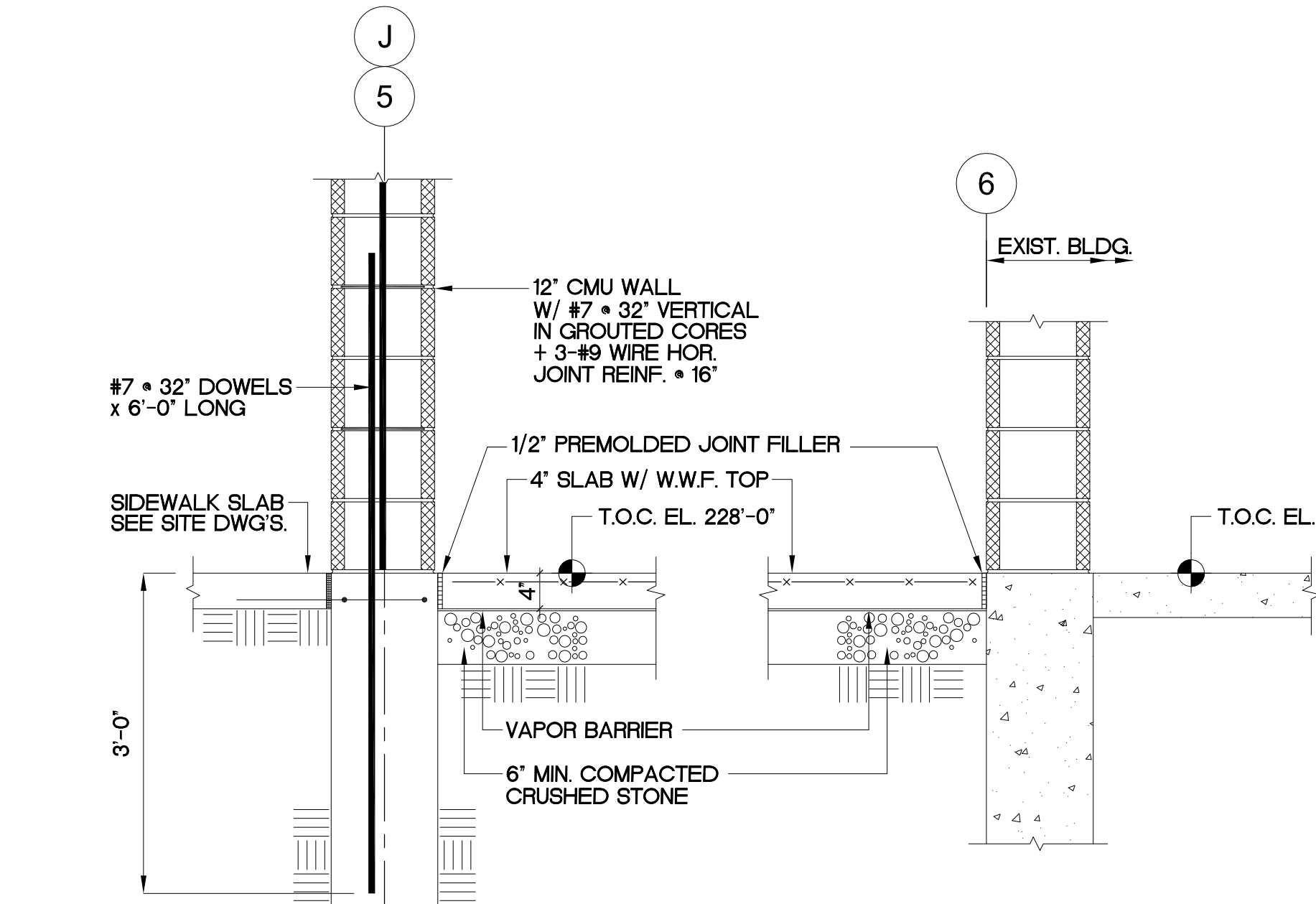
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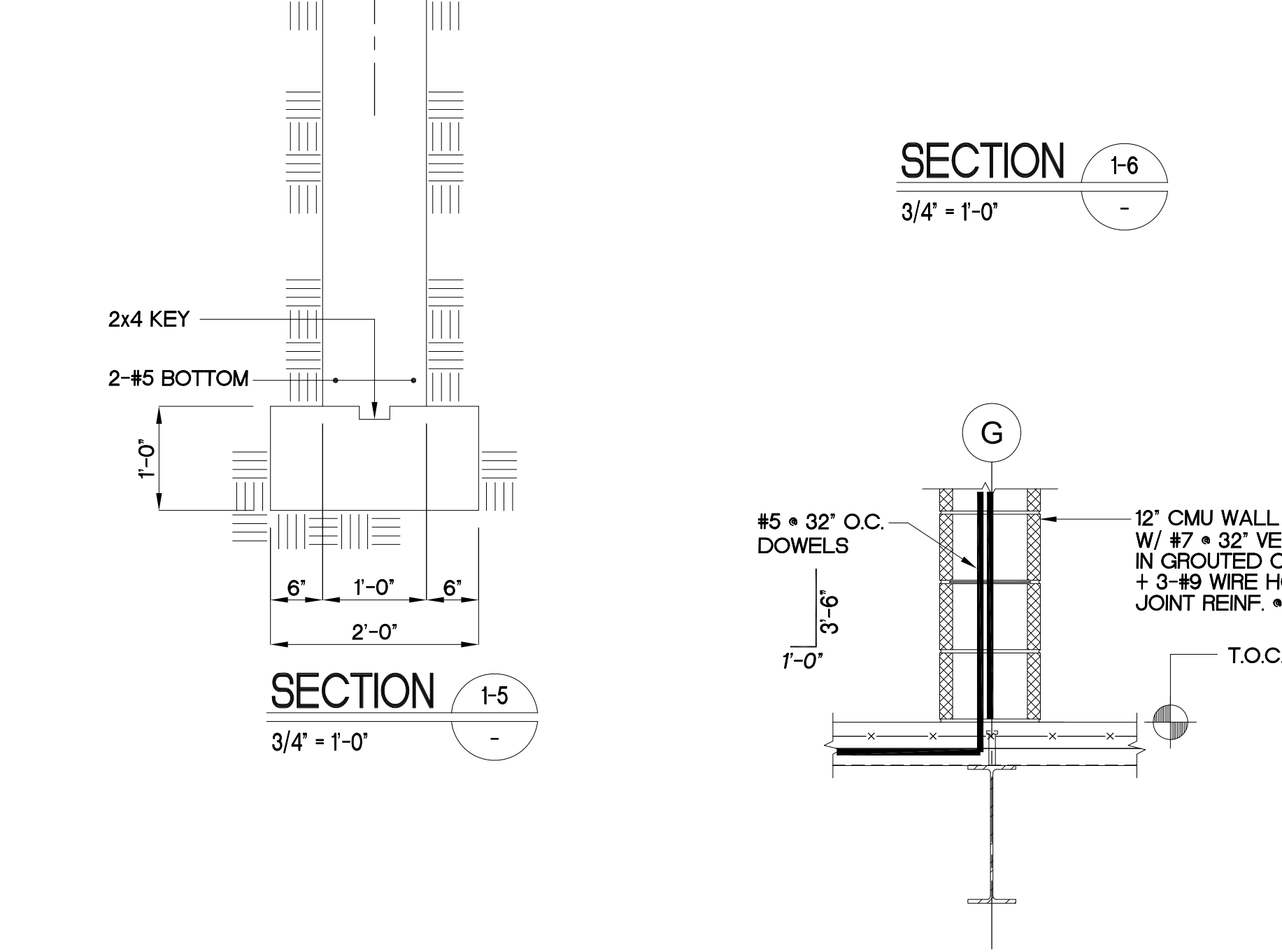
SECTION 1-3  
3/4" = 1'-0"



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



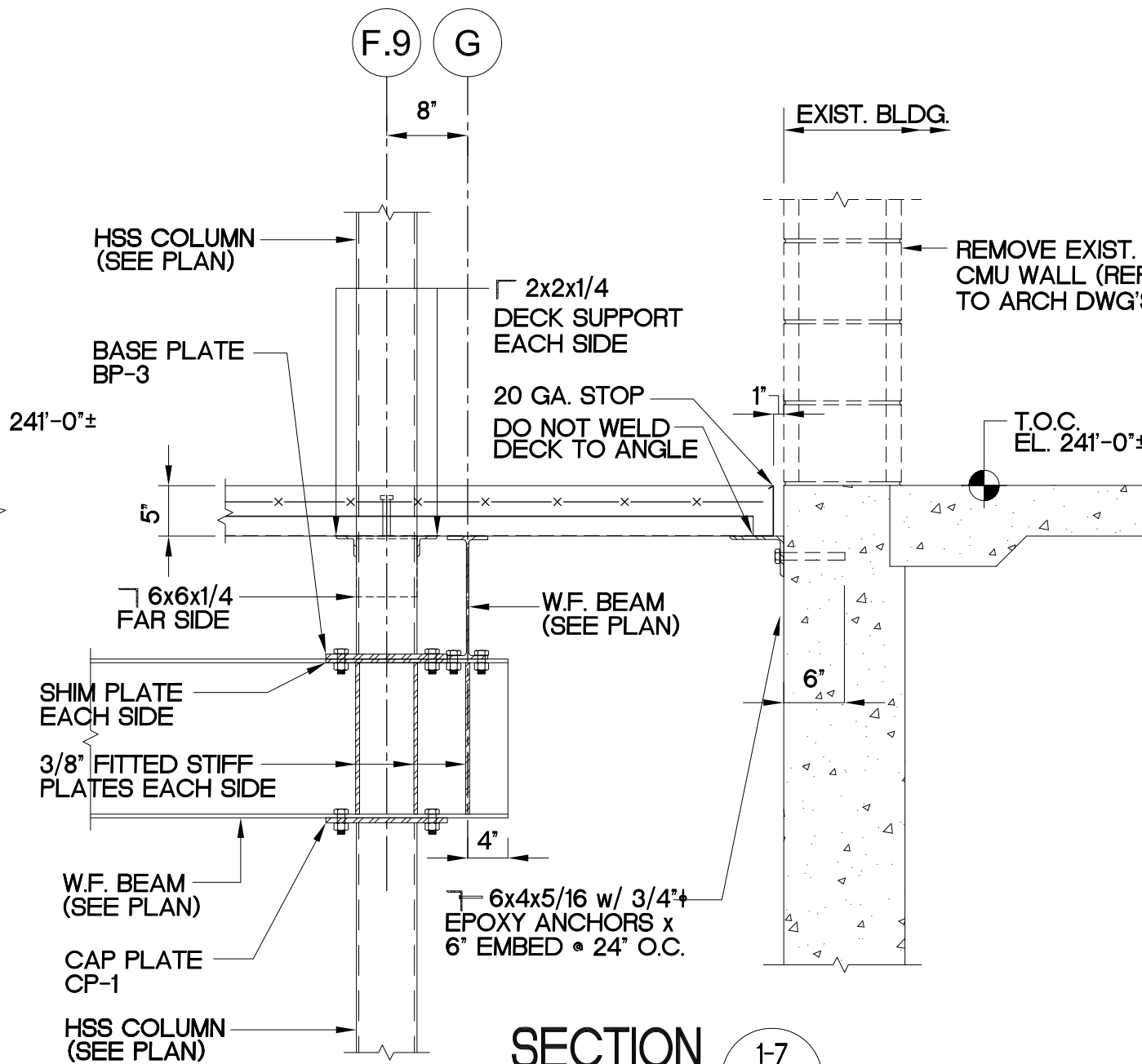
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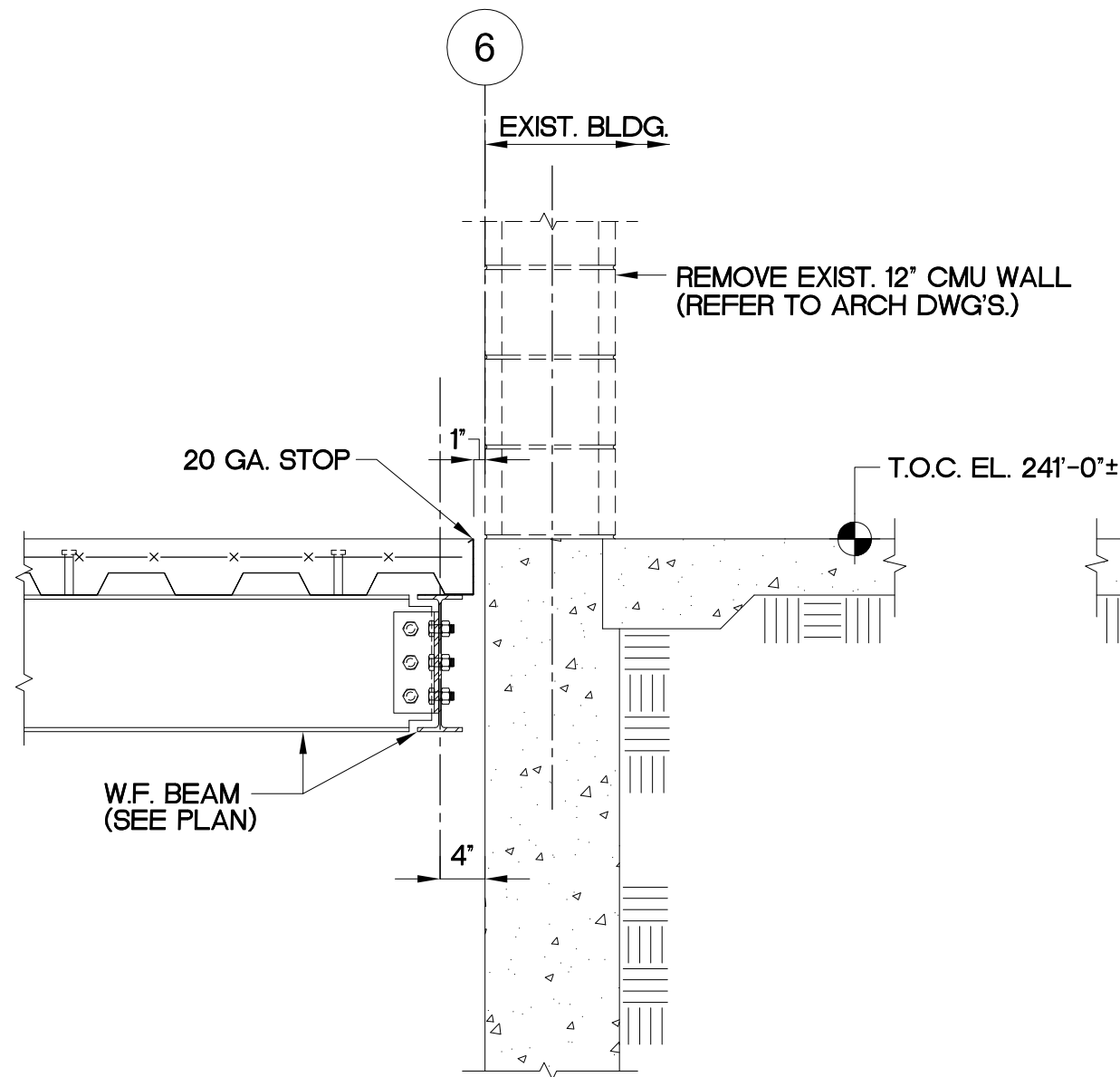
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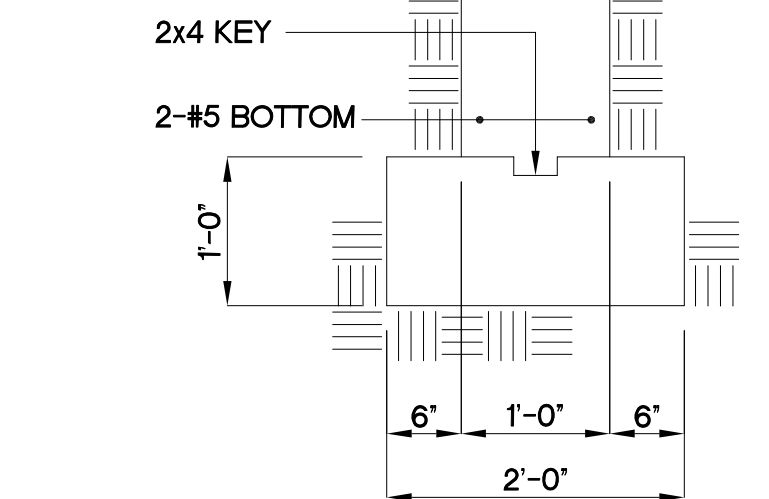
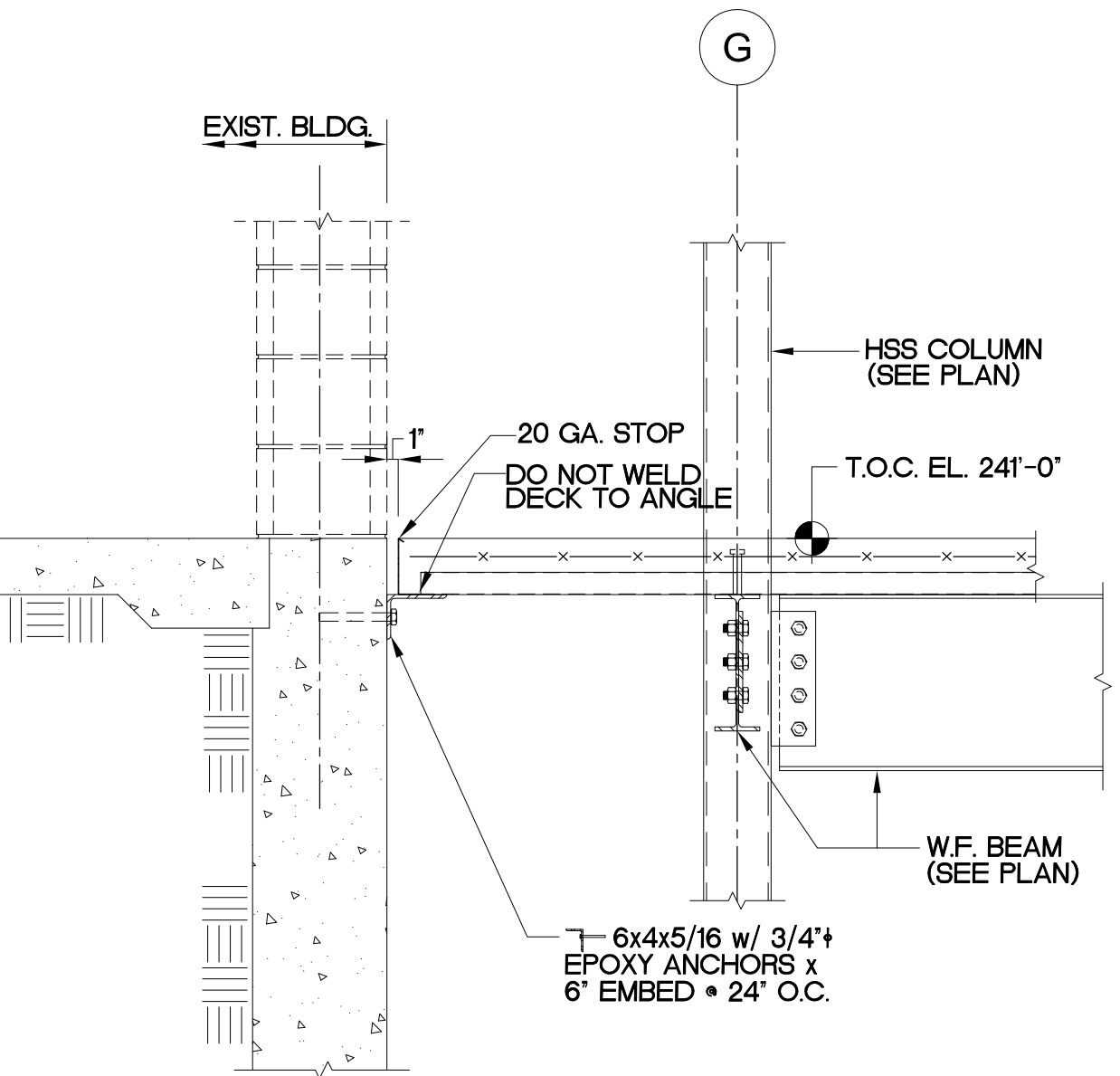
SECTION 1-7  
3/4" = 1'-0"



SECTION 1-8  
3/4" = 1'-0"



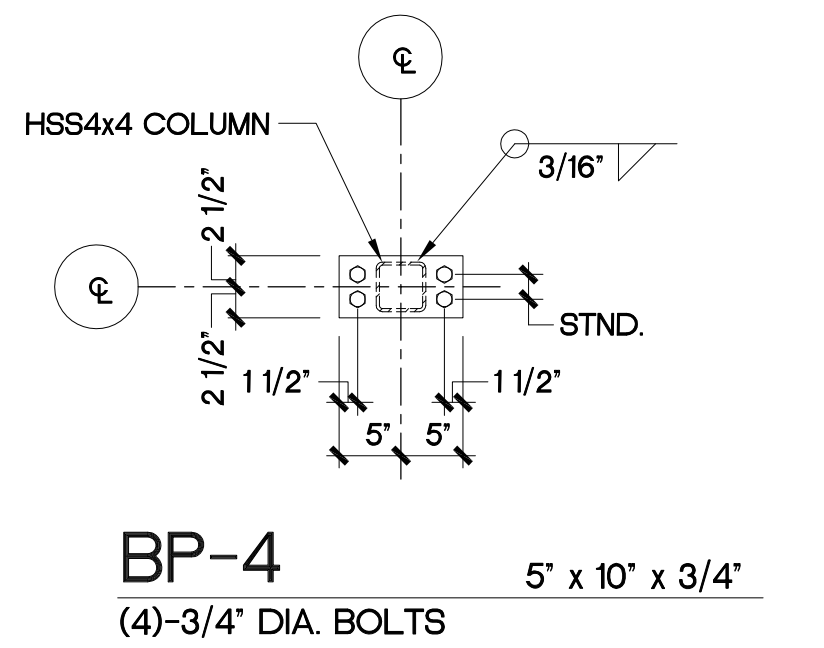
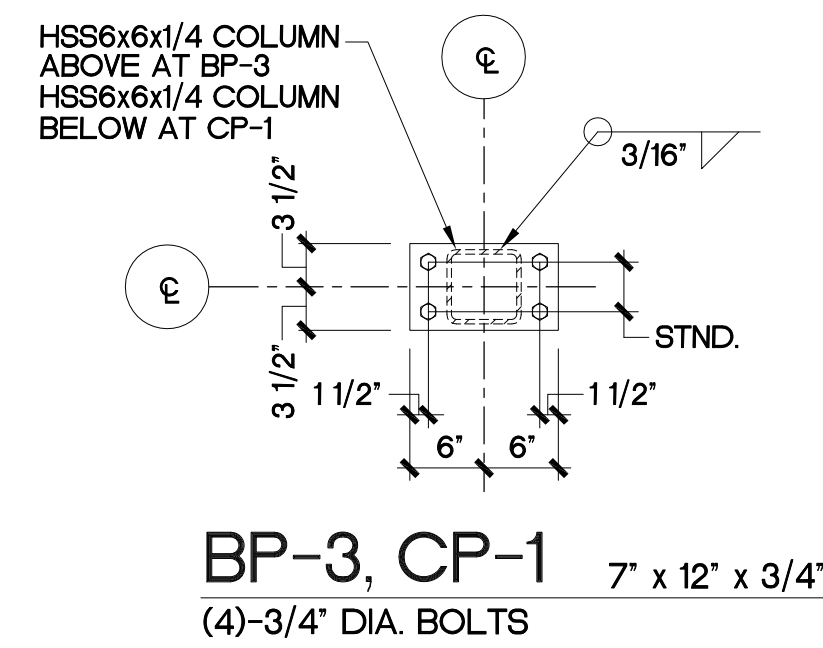
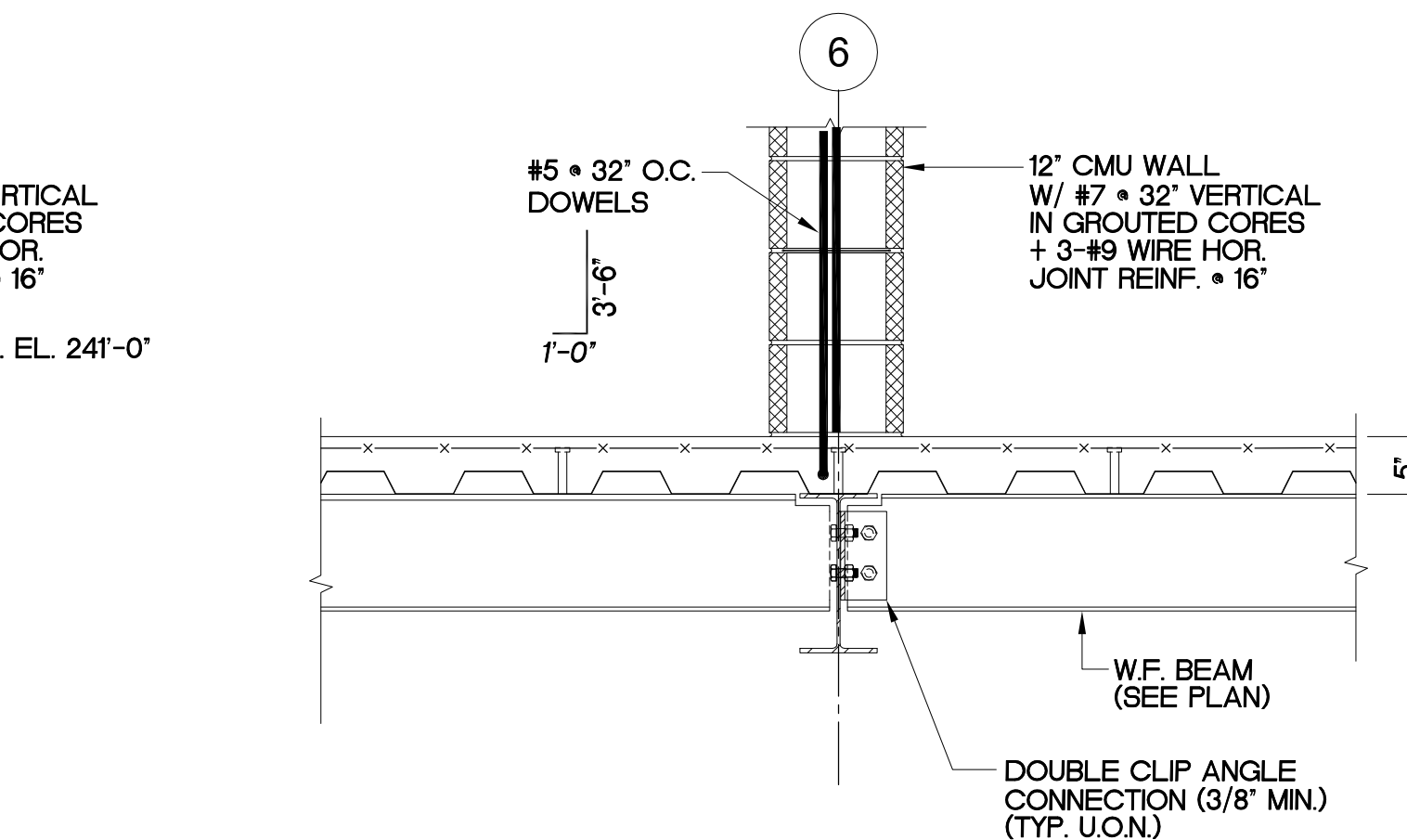
SECTION 1-9  
3/4" = 1'-0"



SECTION 1-10  
3/4" = 1'-0"



SECTION 1-11  
3/4" = 1'-0"



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TEMPLE ANNEX  
SECTIONS AND DETAILS

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Project # 14012

