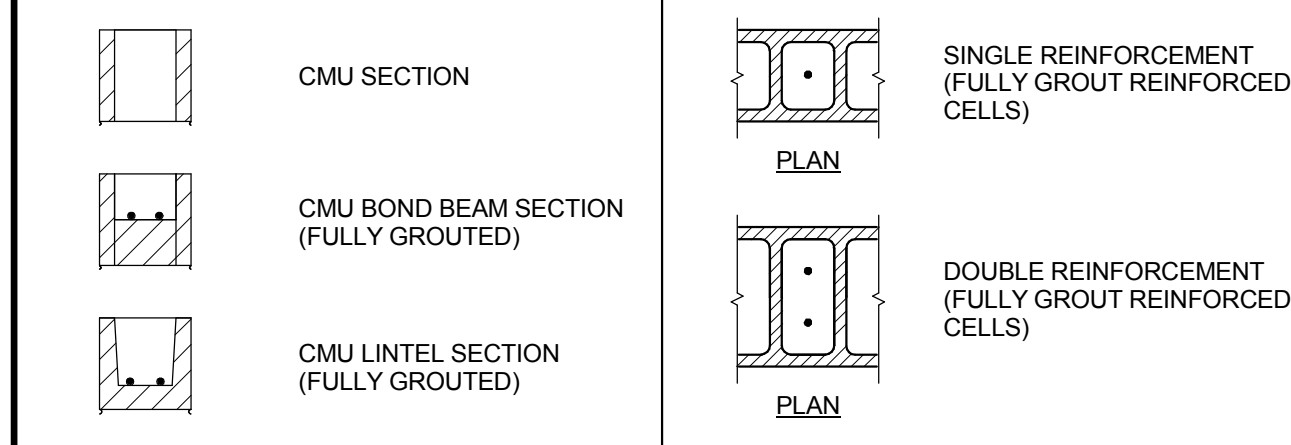


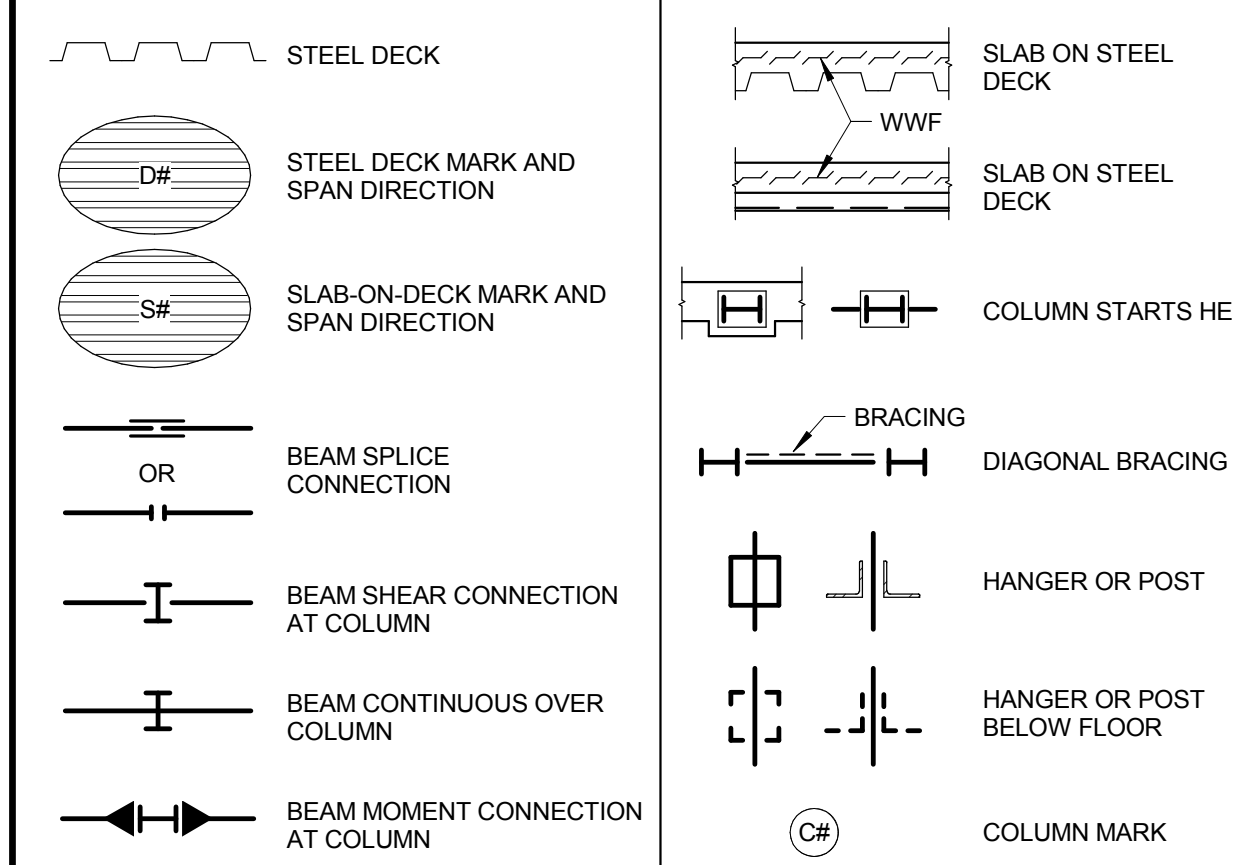
MASONRY MEMBERS



CONNECTORS

CONNECTOR	SECTION	END/ALT VIEW
CAST-IN ANCHOR ROD		
POST-INSTALLED MECHANICAL ANCHOR		
POST INSTALLED ADHESIVE ANCHOR		
HEADED STUD		
BOLT		

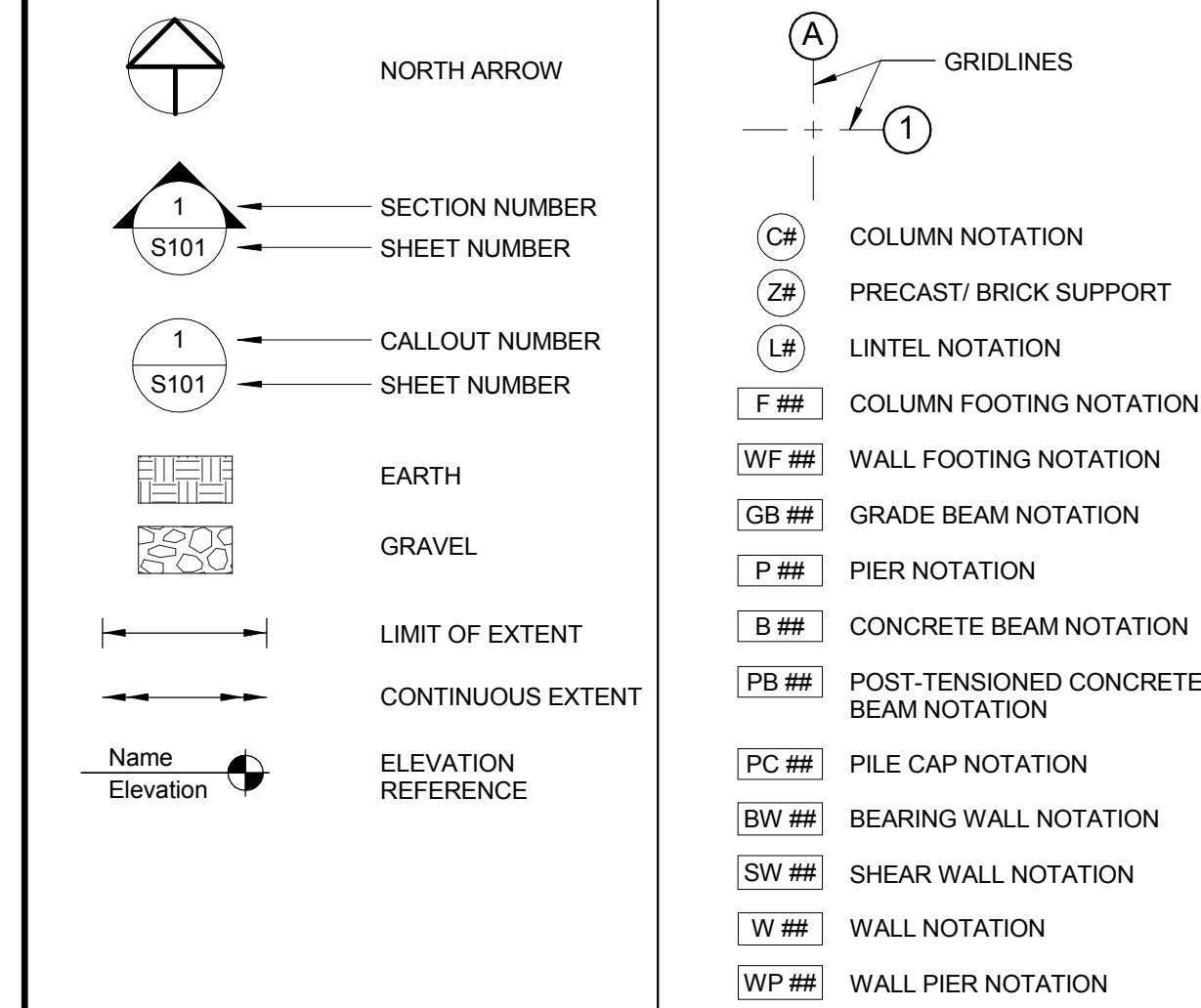
STEEL SYMBOLS



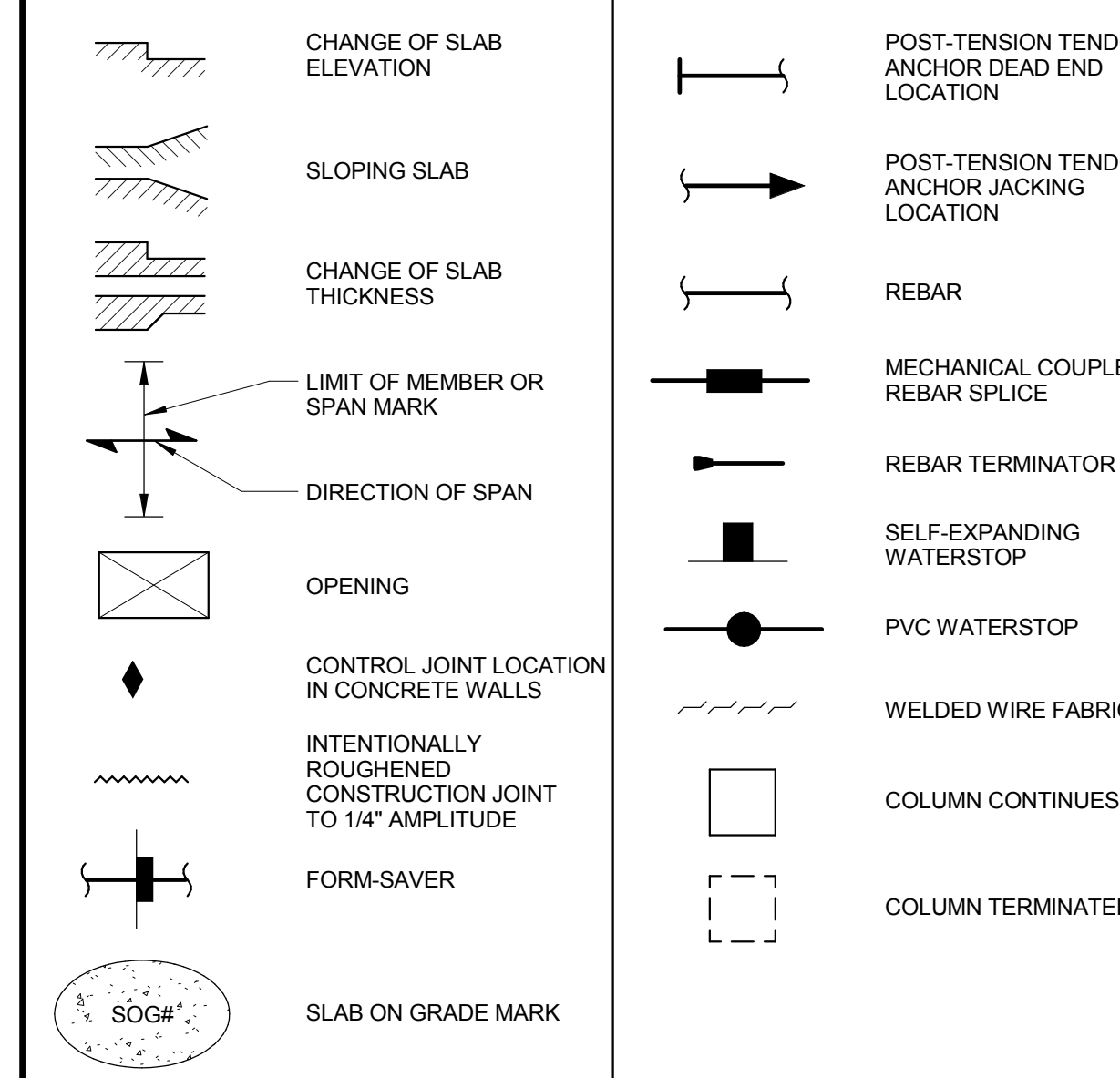
STEEL MEMBERS

SHAPE	SECTION	ELEVATION	PLAN VIEW
W-SHAPE BEAM			
CHANNEL			
ANGLE			
DOUBLE ANGLE			
HOLLOW STRUCTURAL SECTION -RECTANGULAR			
HOLLOW STRUCTURAL SECTION -CIRCULAR (PIPE)			
OPEN WEB STEEL JOIST			

MISCELLANEOUS SYMBOLS



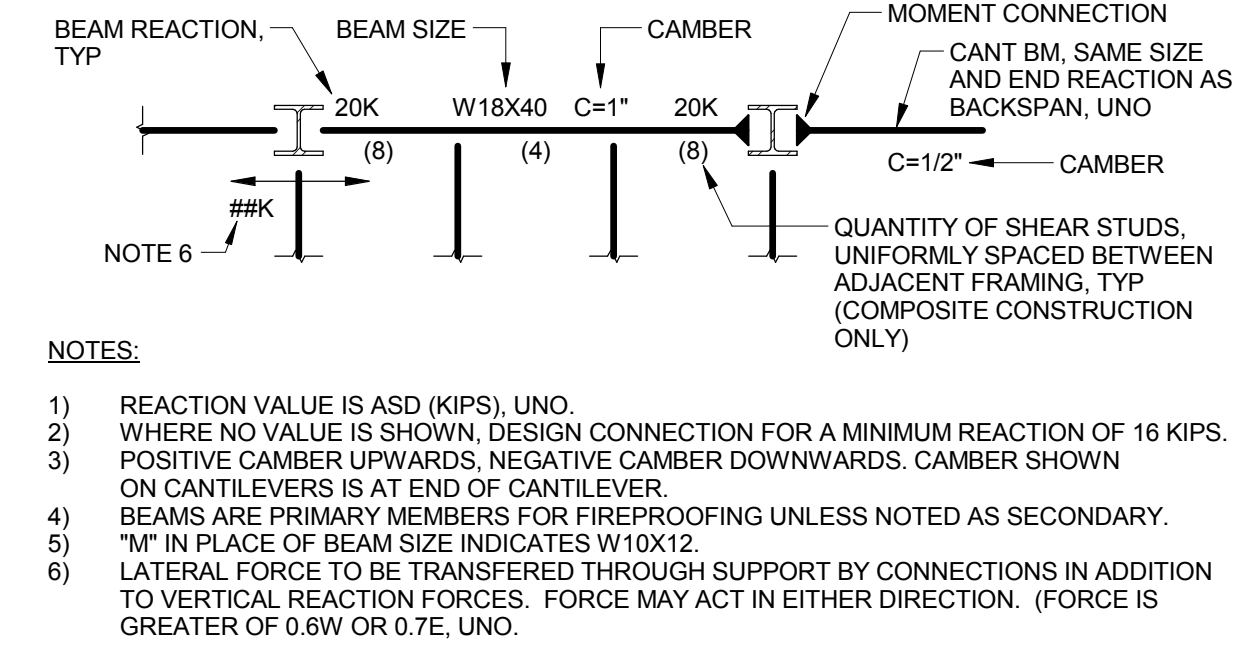
CONCRETE SYMBOLS



STRUCTURAL DRAWINGS ABBREVIATIONS

&	AND	JST	JOIST
A/E	ARCHITECT/ENGINEER	JT	JOINT
ACI	AMERICAN CONCRETE INSTITUTE	KB	KNEE BRACE
ADDL	ADDITIONAL	KIP-K	1,000 POUNDS
ADJ	ADJACENT	KO	KNOCK-OUT
AGGR	AGGREGATE	KSI	KIPS PER SQUARE INCH
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	L	ANGLE OR LENGTH
ALT	ALTERNATE	LAB	LABORATORY
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	LB	POUND
APPROX	APPROXIMATE	LF	LINEAL FOOT
AR	ANCHOR ROD	LIN	LINEAL, LINEAR
ARCH	ARCHITECTURAL	LLH	LONG LEG HORIZONTAL
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	LLV	LONG LEG VERTICAL
AWS	AMERICAN WELDING SOCIETY	LONGIT	LONGITUDINAL
B/	BOTTOM OF	LP	LOW POINT
BAL	BALANCE	LSL	LAMINATED STRAND LUMBER
BD	BOARD	LSLT	LONG SLOTTED HOLE
BF	BRACED FRAME	LTWT	LIGHT WEIGHT
BLDG	BUILDING	LVL	LAMINATED VENEER LUMBER
BLK	BLOCK	MAS	MASONRY
BLKG	BLOCKING	MATL	MATERIAL
BM	BEAM	MAX	MAXIMUM
BOT	BOTTOM	MB	MACHINE BOLT
BRG	BEARING	MC	MISCELLANEOUS CHANNEL
BRKT	BRACKET	MECH	MECHANICAL
BTWN	BETWEEN	MEMB	MEMBRANE
BU	BUILT UP	MEP	MECHANICAL/ELECTRICAL/PLUMBING
C	STANDARD CHANNEL	MF	MOMENT FRAME
CANT	CANTILEVER	MFR	MANUFACTURER
CC	CENTER TO CENTER	MIN	MINIMUM
CF	COLD FORMED	MISC	MISCELLANEOUS
CG	CENTER OF GRAVITY	MO	MASONRY OPENING
CIP	CAST-IN-PLACE	MULT	MULTIPLE
CJ	CONTROL JOINT OR CONSTRUCTION JOINT	N/A	NOT APPLICABLE
CJP	COMPLETE JOINT PENETRATION	NO	NUMBER
CL	CENTERLINE	NOM	NOMINAL
CLR	CLEARANCE, CLEAR	NS	NEAR SIDE
CMU	CONCRETE MASONRY UNIT	NTS	NOT TO SCALE
COL	COLUMN	OC	ON CENTER
CONC	CONCRETE	OD	OUTSIDE DIAMETER
CONN	CONNECTION	OF	OUTSIDE FACE
CONST	CONSTRUCTION	OFD	OVERFLOW DRAIN
CONT	CONTINUOUS	OH	OVERHEAD
CONTR	CONTRACTOR	OPNG	OPENING
CTR	CENTER	OPP	OPPOSITE
CTRD	CENTERED	OPPHD	OPPOSITE HAND
CU FT	CUBIC FEET	ORIG	ORIGINAL
CU IN	CUBIC INCH	OVS	OVERSIZED HOLE
CYD	CUBIC YARD	OWJ	PRE-MANUFACTURED OPEN WEB JOIST
DBA	DEFORMED BAR ANCHOR	PC	PRECAST CONCRETE
DBL	DOUBLE	PEMB	PRE-ENGINEERED METAL BUILDING
DEG	DEGREE	PERIM	PERIMETER
DEMO	DEMOLITION, DEMOLISH	PERM	PERMANENT
DEPT	DEPARTMENT	PERP	PERPENDICULAR
DET	DETAIL	PJP	PARTIAL JOINT PENETRATION
DIA	DIAMETER	PL	PLATE
DIAG	DIAGONAL	PLF	POUNDS PER LINEAL FOOT
DIAPH	DIAPHRAGM	PLYWD	PLYWOOD
DIM	DIMENSION	PREFAB	PREFABRICATED
DN	DOWN	PRELIM	PRELIMINARY
DO	DITTO	PREP	PREPARATION, PREPARE
DP	DEEP	PROJ	PROJECTION
DWG	DRAWING	PS	PRESTRESSED
DWL	DOWELS	PSF	POUNDS PER SQUARE FOOT
EA	EACH	PSI	POUNDS PER SQUARE INCH
EF	EACH FACE	PSL	PARALLEL STRAND LUMBER
EJ	EXPANSION JOINT	PT	POST-TENSIONED
EL ELEV	ELEVATION	R	RADIUS
ELEC	ELECTRICAL	RD	ROOF DRAIN
ENCL	ENCLOSURE	REF	REFERENCE
ENGR	ENGINEER	REINF	REINFORCEMENT, REINFORCE
EOD	EDGE OF DECK	REQD	REQUIRED
EOJ	EDGE OF JOIST	RO	ROUGH OPENING
EOS	EDGE OF SLAB	RTU	ROOFTOP MECHANICAL UNIT
EQ	EQUAL	S	SLOPE
EQPT	EQUIPMENT	SCHED	SCHEDULE
ES	EACH SIDE	SECT	SECTION
EW	EACH WAY	SF	SQUARE FEET
EX	EXISTING	SHT	SHEET
EXP	EXPANSION	SIM	SIMILAR
EXT	EXTERIOR	SOG	SLAB-ON-GRADE
FD	FLOOR DRAIN	SPA	SPACES, SPACE
FDN	FOUNDATION	SPECS	SPECIFICATIONS
FIN	FINISH	SQ	SQUARE
FLG	FLANGE	SS	STAINLESS STEEL
FLR	FLOOR	SSLT	SHORT SLOTTED HOLE
FS	FAR SIDE	STD	STANDARD
FTG	FOOTING	STIFF	STIFFENER
FTGD	FOOTING DRAIN	STL	STEEL
FV	FIELD VERIFY	STRUC	STRUCTURAL
GA	GAUGE	SYM	SYMMETRICAL
GALV	GALVANIZED	T & B	TOP AND BOTTOM
GB	GRADE BEAM	T/	TOP OF
GL	GLUED LAMINATED TIMBER (GLULAM)	TGB	TOP OF GRADE BEAM
GRND	GROUND	TBS	MECHANICAL TENSION BUTT SPLICE
GT	GRIDDER TRUSS	TEMP	TEMPERATURE
HAS	HEADED ANCHOR STUD	THRU	THROUGH
HORIZ	HORIZONTAL	TJI	PREFABRICATED WOOD I-JOIST
HP	HIGH POINT	TRANS	TRANSVERSE
HSS	HOLLOW STRUCTURAL SECTION	TYP	TYPICAL
HT	HIP TRUSS	UL	UNDERWRITERS' LABORATORY INC.
HVAC	HEATING, VENTILATION, AIR CONDITIONING	UNO	UNLESS NOTED OTHERWISE
ID	INSIDE DIAMETER	UT	ULTRA-SONIC TEST
IF	INSIDE FACE	VERT	VERTICAL
IN	INCH	W	WIDE FLANGE
INCL	INCLUDE	W/	WITH
INFO	INFORMATION	W/O	WITHOUT
INSUL	INSULATION	WO	WOOD
INT	INTERIOR	WH	WEEP HOLE
JBRG	JOIST BEARING	WP	WORK POINT
		WT	WEIGHT, STRUCTURAL T
		WWF	WELDED WIRE FABRIC
		XS	EXTRA STRONG (PIPE)
		XXS	DOUBLE EXTRA STRONG (PIPE)

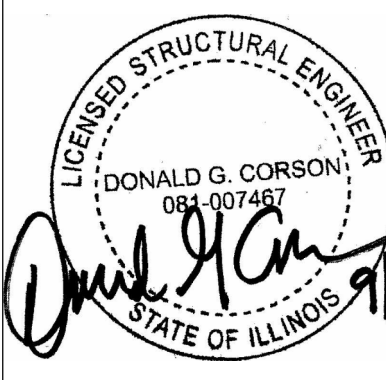
STEEL BEAM LEGEND



- NOTES:
- 1) REACTION VALUE IS ASD (KIPS), UNO.
 - 2) WHERE NO VALUE IS SHOWN, DESIGN CONNECTION FOR A MINIMUM REACTION OF 16 KIPS.
 - 3) POSITIVE CAMBER UPWARDS, NEGATIVE CAMBER DOWNWARDS. CAMBER SHOWN ON CANTILEVERS IS AT END OF CANTILEVER.
 - 4) BEAMS ARE PRIMARY MEMBERS FOR FIREPROOFING UNLESS NOTED AS SECONDARY.
 - 5) "W" IN PLACE OF BEAM SIZE INDICATES W10X12.
 - 6) LATERAL FORCE TO BE TRANSFERRED THROUGH SUPPORT BY CONNECTIONS IN ADDITION TO VERTICAL REACTION FORCES. FORCE MAY ACT IN EITHER DIRECTION. (FORCE IS GREATER OF 0.5W OR 0.7E, UNO).

100% CONSTRUCTION DOCUMENTS

CONSULTANTS:



PROJECT MANAGER:



Project Number

16-198

Scale

AS INDICATED

Office of
Construction
and Facilities
Management

Drawing Title:

ABBREVIATIONS AND SYMBOLS

Location

MARION VAMC
MARION, IL, 62959

Project Title

ADD STRUCTURAL
IMPROVEMENTS TO BUILDING
42

Approved: Project Director

Date

09/06/17

Checked

DGC

Drawn

JHC

VA PROJECT NUMBER

657-343

Building Number

42

Drawing Number

SS-001

Dwg. 1 of 28

GENERAL

STRUCTURES INDICATED ON THESE DRAWINGS HAVE BEEN DESIGNED FOR THE IN-SERVICE LOADS ONLY. THE METHODS, MEANS, PROCEDURES, AND SEQUENCES OF CONSTRUCTION ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE STRUCTURES ARE DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER CONSTRUCTION IS COMPLETE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE CONSTRUCTION PROCEDURES AND SEQUENCES TO ENSURE THE SAFETY OF THE STRUCTURES AND RELATED COMPONENTS DURING CONSTRUCTION. THIS INCLUDES THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING, GUYS, TIEDOWNS, ETC.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THAT CONSTRUCTION LOADS DO NOT EXCEED THE CAPACITY OF ANY STRUCTURAL ELEMENT AT THE TIME THE LOADS ARE APPLIED.

THE STRUCTURAL DRAWINGS AND SPECIFICATIONS SHALL BE USED IN CONJUNCTION WITH THE DRAWINGS AND SPECIFICATIONS OF ALL OTHER DISCIPLINES, TRADES, AND DELEGATED DESIGN ELEMENTS. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF THE STRUCTURAL WORK WITH ALL OTHER APPLICABLE TRADES.

THE GENERAL NOTES ON THE DRAWINGS ARE TO BE USED IN CONJUNCTION WITH THE FULL WRITTEN MATERIAL SPECIFICATIONS (IF ANY) FOR THE PROJECT.

IF A DISCREPANCY IS NOTED ON THE DRAWINGS, GENERAL NOTES, OR SPECIFICATIONS, THE CONTRACTOR SHALL SUBMIT TO THE STRUCTURAL ENGINEER A WRITTEN REQUEST FOR CLARIFICATION AND SHALL NOT PROCEED WITH THE AFFECTED WORK WITHOUT DOCUMENTED RESOLUTION OF THE DISCREPANCY. ALL COSTS RESULTING FROM THE CONTRACTOR IMPROPERLY PROCEEDING WITH THE AFFECTED WORK PRIOR TO DOCUMENTED RESOLUTION OF THE DISCREPANCY, INCLUDING COST OF REMOVAL AND REPLACEMENT OF NON-CONFORMING WORK, SHALL BE BORNE BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

CONCRETE MIX DESIGN SUBMITTALS

THE CONTRACTOR SHALL SUBMIT FOR THE REVIEW OF THE STRUCTURAL ENGINEER A MIX DESIGN FOR EACH PROPOSED CLASS OF CONCRETE. EACH MIX DESIGN SHALL BE IDENTIFIED BY A MIX NUMBER OR OTHER UNIQUE IDENTIFICATION. THE CONTRACTOR SHALL NOT VARY FROM THE MIX DESIGNS NOR USE ANY CONCRETE OTHER THAN THE APPROVED MIX DESIGNS WITHOUT THE APPROVAL OF THE STRUCTURAL ENGINEER. MIX DESIGN SUBMITTALS SHALL INCLUDE THE FOLLOWING INFORMATION:

- MIX DESIGN NUMBER OR UNIQUE IDENTIFICATION AND INTENDED LOCATION OF PLACEMENT
- CEMENT TYPE, PROPORTION AND NAME OF MANUFACTURER
- FLY ASH PROPORTION (WHEN USED), LABORATORY ANALYSIS CERTIFICATION, AND NAME AND LOCATION OF SUPPLIER
- COURSE AGGREGATE PROPORTION, GRADATION REPORT, NAME AND LOCATION OF SUPPLIER
- FINE AGGREGATE PROPORTION, GRADATION REPORT, NAME AND LOCATION OF SUPPLIER
- MIXING WATER PROPORTION AND SOURCE
- AD MIXTURE DOSAGES, PRODUCT NAME(S) AND MANUFACTURER NAME(S)
- FIBER REINFORCEMENT DOSAGE (WHEN USED), PRODUCT NAME AND MANUFACTURER NAME
- DESIGN 28-DAY COMPRESSIVE STRENGTH (F'C)
- DESIGN SLUMP RANGE
- DESIGN AIR-ENTRAINMENT (FOR CONCRETE REQUIRING ENTRAINED AIR)
- STATISTICAL ANALYSIS OF LABORATORY STRENGTH TEST DATA IN ACCORDANCE WITH "STANDARD DEVIATION" DETERMINATION OUTLINED IN ACI 318
- TEMPERATURE CONTROL PLAN INCLUDING MIX DESIGN CALCULATIONS FOR TEMPERATURE GAIN, PROTECTION, AND INSULATION MEASURES AND COOLING METHODS IF APPROPRIATE.

DELEGATED DESIGN

FOR ALL SUBMITTALS INDICATED AS "DELEGATED DESIGN," THE CONTRACTOR SHALL ENGAGE A LICENSED PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED TO DESIGN AND DETAIL THE ITEMS NOTED IN THE STRUCTURAL SUBMITTALS AND SPECIFICATIONS AS A DELEGATED DESIGN.

THE SHOP DRAWINGS AND CALCULATIONS SHALL BE SUBMITTED FOR REVIEW AND CONTAIN OR INDICATE THE FOLLOWING AT A MINIMUM:

- PROFESSIONAL ENGINEER'S SEAL AND SIGNATURE RESPONSIBLE FOR THEIR PREPARATION
- COMPLIANCE WITH THE PERFORMANCE REQUIREMENTS AND DESIGN CRITERIA NOTED IN THE CONTRACT DOCUMENTS (DRAWINGS AND SPECIFICATIONS)
- LOCATION, TYPE, MAGNITUDE AND DIRECTION OF ALL LOADS IMPOSED ON THE BUILDING STRUCTURE

SUBMITTALS THAT DO NOT CONTAIN THE INFORMATION NOTED ABOVE WILL BE REJECTED WITHOUT COMMENT.

THE STRUCTURAL ENGINEER'S REVIEW OF DELEGATED DESIGN SUBMITTALS WILL BE FOR GENERAL CONFORMANCE WITH THE DESIGN LOADING, DESIGN INTENT AND LOADS IMPOSED.

SHOP DRAWING SUBMITTALS

THE CONTRACTOR SHALL PREPARE DETAILED SHOP DRAWINGS TO ENABLE HIM TO FABRICATE, ERECT AND CONSTRUCT ALL PARTS OF THE WORK IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS. THESE SHOP DRAWINGS WILL BE REVIEWED FOR GENERAL COMPLIANCE WITH THE DESIGN INTENT ONLY. THE CONTRACTOR IS RESPONSIBLE FOR ALL DIMENSIONS, ACCURACY AND FIT OF WORK.

ALL SHOP DRAWINGS SHALL BE REVIEWED BY THE CONTRACTOR PRIOR TO SUBMITTAL TO THE STRUCTURAL ENGINEER. SUBMITTALS NOT SUBMITTED WITHOUT CONTRACTOR'S REVIEW WILL BE RETURNED UNCHECKED.

PROVIDE ALL SUBMITTALS IN ELECTRONIC PDF FORMAT.

SUBMIT SHOP DRAWINGS FOR EACH OF THE FOLLOWING ITEMS:

- CONCRETE REINFORCEMENT
- STRUCTURAL STEEL
- STEEL DECK

SUBMIT DELEGATED DESIGN SHOP DRAWINGS FOR EACH OF THE FOLLOWING ITEMS:

- STRUCTURAL STEEL CONNECTIONS (INCLUDING DESIGN CALCULATIONS AND SUMMARY PAGE FOR CONNECTIONS NOT SPECIFICALLY DETAILED IN THE CONTRACT DRAWINGS)
- COLD-FORMED STEEL FRAMING (INCLUDING DESIGN CALCULATIONS, MEMBER PROPERTIES, FASTENER REQUIREMENTS, ASSEMBLY DETAILS AND CONNECTION DETAILS)

PRODUCT DATA SUBMITTALS

THE CONTRACTOR SHALL SUBMIT FOR APPROVAL PRODUCT DATA FOR THE SPECIFIC ITEMS LISTED BELOW. CONTRACTOR SHALL NOT USE PRODUCTS OTHER THAN THOSE SUBMITTED WITHOUT THE APPROVAL OF THE STRUCTURAL ENGINEER.

- FIBER REINFORCEMENT FOR CONCRETE
- CONCRETE CURING COMPOUND
- CONCRETE JOINT SEALANT
- WATER STOPS
- NON-SHRINK GROUT
- COLD-FORMED STEEL FRAMING
- COLD-FORMED STEEL FRAMING CONNECTOR HARDWARE
- VAPOR RETARDER

RENOVATION (EXISTING CONDITIONS)

INFORMATION SHOWN FOR THE EXISTING STRUCTURE ON THESE DRAWINGS WAS TAKEN FROM DRAWINGS THAT WERE PREPARED FOR THE US DEPARTMENT FOR VETERAN AFFAIRS, PREPARED BY FGM, INC., ENTITLED CLINICAL AND OUTPATIENT ADDITION, DATED 25 MARCH 1994.

WORK SHOWN ON THESE PLANS ASSUMES THAT THE ORIGINAL CONSTRUCTION WAS PERFORMED IN ACCORDANCE WITH THE ABOVE INDICATED ORIGINAL DRAWINGS INCLUDING (BUT NOT LIMITED TO) DIMENSIONS, ELEVATIONS, MEMBER SIZES, MATERIALS, DETAILS, ETC. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE CONDITIONS RELATING TO THE EXISTING STRUCTURE AND TO NOTIFY THE STRUCTURAL ENGINEER IMMEDIATELY OF ANY DISCREPANCIES OR CONFLICTS.

WHERE NEW WORK IS TO BE FITTED TO OLD WORK, THE CONTRACTOR SHALL CHECK ALL DIMENSIONS AND CONDITIONS IN THE FIELD, AND REPORT ANY ERRORS OR DISCREPANCIES TO THE STRUCTURAL ENGINEER PRIOR TO THE FABRICATION AND ERECTION OF ANY NEW MEMBERS.

EXISTING MATERIALS TO BE REMOVED AND REINSTALLED AS PART OF THIS PROJECT, THAT BECOME DAMAGED, SHALL BE REPLACED WITH NEW MATERIAL OF EQUAL QUALITY AND APPEARANCE AT THE CONTRACTOR'S EXPENSE.

ALL WORK SHALL BE PERFORMED WITHOUT DAMAGE TO ADJACENT RETAINED WORK. ADJACENT EXISTING CONSTRUCTION SHALL BE PROTECTED FROM DUST, DIRT AND DEBRIS ACCUMULATION AT ALL TIMES.

FOUNDATIONS

FOUNDATION EXCAVATIONS AND SOIL RELATED WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT NUMBER 2017-3060.10 PREPARED BY SCI ENGINEERING, INC., DATED MARCH 27, 2017.

DESIGN NET SOIL PRESSURE:

SPREAD FOOTINGS: 4,000 PSF
CONTINUOUS WALL FOOTINGS: 4,000 PSF

FOUNDATIONS AND SOILS RELATED WORK SHALL BE INSPECTED BY A LICENSED GEOTECHNICAL ENGINEER. WRITTEN FIELD REPORTS SHALL BE FORWARDED TO THE STRUCTURAL ENGINEER AS SOON AS THEY BECOME AVAILABLE.

FOUNDATION CONDITIONS NOTED DURING CONSTRUCTION, WHICH DIFFER FROM THOSE DESCRIBED IN THE GEOTECHNICAL REPORT, SHALL BE REPORTED TO THE STRUCTURAL ENGINEER AND GEOTECHNICAL ENGINEER BEFORE FURTHER CONSTRUCTION IS ATTEMPTED.

EXCAVATIONS FOR SPREAD FOOTINGS, COMBINED FOOTINGS, CONTINUOUS FOOTINGS AND MAT FOUNDATIONS SHALL BE CLEANED AND HAND TAMPED TO UNIFORM SURFACE AND SHALL BE PROTECTED AND MAINTAINED UNIFORM UNTIL CONCRETE IS PLACED.

BELOW-GRADE WALLS

DO NOT BACKFILL AGAINST BELOW-GRADE CONCRETE (OR MASONRY) WALLS UNTIL THE CONCRETE (OR MASONRY ASSEMBLAGE) HAS REACHED ITS 28-DAY COMPRESSIVE STRENGTH.

WHERE BACKFILL IS REQUIRED ON BOTH SIDES OF BELOW-GRADE WALLS, BACKFILL EVENLY ON EACH SIDE OF EACH WALL TO PREVENT UNBALANCED SOIL LOADS AGAINST THE WALL.

UNLESS NOTED OTHERWISE, DO NOT BACKFILL AGAINST BASEMENT WALLS UNTIL THE BASEMENT AND GROUND FLOOR SLABS HAVE BEEN COMPLETELY INSTALLED AND REACHED THEIR 28-DAY COMPRESSIVE STRENGTH AND ALL FLOOR FRAMING AND SLAB CONNECTIONS TO THE BASEMENT WALLS HAVE BEEN COMPLETELY INSTALLED.

WHERE BASEMENT WALLS OCCUR, BACKFILL EVENLY ON ALL SIDES OF THE BUILDING TO PREVENT UNBALANCED SOIL LOADS AGAINST THE BASEMENT STRUCTURE, UNLESS NOTED OTHERWISE.

FLOWABLE FILL

WHERE INDICATED ON THE STRUCTURAL DRAWINGS, FLOWABLE FILL SHALL BE A CONTROLLED LOW-STRENGTH MATERIAL (CLSM) PRODUCED AND PLACED IN ACCORDANCE WITH RECOMMENDATIONS OF ACI 229. PROVIDE MATERIAL WITH 28-DAY COMPRESSIVE STRENGTH OF 1,000 PSI UNLESS NOTED OTHERWISE.

CONCRETE

REINFORCED CONCRETE HAS BEEN DESIGNED IN ACCORDANCE WITH THE BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE (ACI 318) AND COMMENTARY (ACI 318R).

MIXING, TRANSPORTING, AND PLACING OF CONCRETE SHALL CONFORM TO THE LATEST EDITION OF THE SPECIFICATIONS FOR STRUCTURAL CONCRETE (ACI 301).

READY-MIXED CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF ASTM C94/C94M. IN CASE OF A DISCREPANCY, THE PLANS AND SPECIFICATIONS SHALL GOVERN.

CEMENT SHALL CONFORM TO ASTM C150/C150M, TYPE I, UNO.

FLY ASH SHALL CONFORM TO ASTM C618, CLASS C OR F.

NORMAL WEIGHT AGGREGATES SHALL CONFORM TO ASTM C33/C33M.

WATER-REDUCING ADMIXTURES SHALL CONFORM TO ASTM C494/C494M.

AIR-ENTRAINING ADMIXTURES SHALL CONFORM TO ASTM C260/C260M AND SHALL BE CERTIFIED BY THE MANUFACTURER TO BE COMPATIBLE WITH OTHER ADMIXTURES. SUBMITTALS AND SPECIFICATIONS SHALL GOVERN.

CALCIUM CHLORIDE ADMIXTURES OR ADMIXTURES CONTAINING MORE THAN 0.1 PERCENT CHLORIDE IONS SHALL NOT BE USED.

IN COLD WEATHER CONDITIONS, MIXING, PLACING, FINISHING, CURING AND PROTECTION OF CONCRETE SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF ACI 308R, COLD WEATHER CONCRETING.

IN HOT WEATHER CONDITIONS, MIXING, PLACING, FINISHING, CURING AND PROTECTION OF CONCRETE SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF ACI 308R, HOT WEATHER CONCRETING.

CONCRETE ELEMENTS WITH A MINIMUM DIMENSION OF 4 FEET SHALL BE CONSIDERED MASS CONCRETE. REFERENCE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS, MASS CONCRETE SHALL BE PLACED AND CURED UNDER THE FOLLOWING CONDITIONS: INITIAL CONCRETE TEMPERATURE SHALL NOT EXCEED 70 DEGREES F, TEMPERATURE DIFFERENTIAL WITHIN THE CONCRETE DURING CURING SHALL NOT EXCEED 35 DEGREES F, MAXIMUM INTERNAL TEMPERATURE OF THE CONCRETE SHALL NOT EXCEED 100 DEGREES F.

USE OF CONSTRUCTION JOINTS AT LOCATIONS OTHER THAN THOSE INDICATED ON THE DRAWINGS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW.

SLUMP FOR PUMPED CONCRETE SHALL BE MEASURED AT POINT OF DISCHARGE.

NORMAL WEIGHT CONCRETE SHALL HAVE THE PROPERTIES AS INDICATED IN THE CONCRETE MIX SCHEDULE AND SPECIFICATIONS.

CONCRETE SLABS ON GRADE

SLABS ON GRADE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE GUIDE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION (ACI 302.1R).

PLACE CONCRETE IN A MANNER SO AS TO PREVENT SEGREGATION OF THE MIX. DELAY FLOATING AND TROWELING OPERATIONS UNTIL THE CONCRETE HAS LOST SURFACE WATER SHEEN OR ALL FREE WATER. DO NOT SPRINKLE FREE CEMENT ON THE SLAB SURFACE.

PROVIDE CURING OF CONCRETE SLABS ON GRADE AS REQUIRED TO ACCOMMODATE FLOOR FINISHES AND FINISH MATERIALS PER THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS. REVIEW ALL FLOOR FINISH REQUIREMENTS PRIOR TO PLACEMENT OF CONCRETE SLABS AND COORDINATE SLAB MIX, PLACEMENT AND CURING TO COMPLY WITH FINISH FLOORING MATERIAL MANUFACTURER'S REQUIREMENTS.

CURING PROCEDURES SHALL COMPLY WITH ACI 302.1R AND USE OF CURING MATERIALS SHALL BE APPLIED IN STRICT ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS. MOISTURE RETENTION COVERS, IF USED, SHALL BE APPLIED FLAT AND SMOOTH TO RESULT IN A UNIFORM APPEARANCE AND MINIMIZE SURFACE MARKINGS AND BLEMISHES.

UNLESS NOTED OTHERWISE, OR UNLESS MORE STRINGENT REQUIREMENTS APPLY, CURE SLABS ON GRADE AS FOLLOWS:

SLABS RECEIVING FLOOR COVERING MATERIALS: MOIST CURE A MINIMUM OF 7 DAYS (OR, IF APPROVED BY FLOOR FINISH MATERIAL MANUFACTURER, USE ASTM C309, TYPE 1, CLASS B, WATERBORNE, MEMBRANE-FORMING CURING COMPOUND, DISSIPATING). REMOVAL OF CURING COMPOUND MATERIAL, IF REQUIRED FOR PROPER INSTALLATION OF FLOOR FINISH MATERIALS, SHALL BE PERFORMED BY THE CONCRETE CONTRACTOR.

EXPOSED SLABS UNO: ASTM C1315, TYPE 1, CLASS A, WATERBORNE, MEMBRANE-FORMING CURING AND SEALING COMPOUND.

EXPOSED WAREHOUSE SLABS: USE ASHFORD FORMULA CURING/ SEALING/ HARDENING COMPOUND.

PROVIDE SLABS ON GRADE WITH A SMOOTH TROWEL FINISH UNLESS NOTED OTHERWISE.

CONTRACTOR SHALL REVIEW ALL REQUIRED FLOOR FINISH MATERIAL REQUIREMENTS PRIOR TO PLACEMENT OF CONCRETE AND SHALL PROVIDE FLOOR SLAB FLATNESS AND LEVELNESS MEETING THE FINISH MATERIAL SUPPLIER'S WRITTEN REQUIREMENTS. FLATNESS AND LEVELNESS SHALL BE THE MORE STRINGENT OF THE FINISH MATERIAL REQUIREMENTS AND THE FOLLOWING:

ALL SLABS, UNO:

OVERALL VALUES: FF=25 FL=20
LOCAL VALUES: FF=20 FL=15

WAREHOUSE SLABS:

OVERALL VALUES: FF=35 FL=25
LOCAL VALUES: FF=25 FL=15

CONTRACTOR SHALL PROVIDE ALL NECESSARY REPAIR, GRINDING AND/OR LEVELING OF THE CONCRETE SLAB TO ACCOMMODATE ALL FLOOR FINISHES PRIOR TO INSTALLATION OF THE FINISH MATERIALS WITH NO ADDITIONAL COST TO THE PROJECT.

THE MINIMUM LOCAL AREA SHALL BE ANY BAY DEFINED BY COLUMN LINES.

UNLESS SHOWN OR NOTED OTHERWISE, PROVIDE CONTROL OR CONSTRUCTION JOINTS IN SLABS ON-GRADE AT A MAXIMUM SPACING OF 36 TIMES THE SLAB THICKNESS. PROVIDE JOINTS AT ALL COLUMN LOCATIONS. LOCATE JOINTS TO ELIMINATE RE-ENTRANT CORNERS AND TO CREATE SQUARE OR RECTANGULAR SECTIONS WITH MAXIMUM LONG SIDE TO SHORT SIDE RATIO OF 1.5 TO 1.

CONTROL JOINTS IN SLABS ON GRADE SHALL NOT RECEIVE JOINT FILLER MATERIAL UNLESS NOTED OTHERWISE.

CONCRETE UNIT MASONRY

CONCRETE MASONRY HAS BEEN DESIGNED IN ACCORDANCE WITH THE LATEST EDITION OF THE BUILDING CODE REQUIREMENTS OF CONCRETE MASONRY STRUCTURES (ACI 530).

CONCRETE MASONRY SHALL CONSIST OF HOLLOW UNITS CONFORMING TO THE REQUIREMENTS OF ASTM C90, WITH A MINIMUM OF COURSE COMPRESSIVE STRENGTH OF 1,800 PSI. CONCRETE MASONRY ASSEMBLAGES SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (F'M) OF 1,500 PSI AT 28 DAYS.

MORTAR SHALL BE TYPE S PROPORTIONED IN ACCORDANCE WITH ASTM C270.

GROUT FOR REINFORCED MASONRY SHALL BE PROPORTIONED IN ACCORDANCE WITH ASTM C470. COARSE AND FINE AGGREGATES SHALL CONFORM TO ASTM C 404. USE COARSE GROUT FOR ALL GROUTING EXCEPT HIGH-LIFT POURS DEFINED BY ACI 530-05 TABLE 1.16.1, WHERE FINE GROUT SHALL BE USED.

PROVIDE 9-GAUGE GALVANIZED STEEL WIRE JOINT REINFORCEMENT IN ALL MASONRY CONSTRUCTION. REINFORCEMENT SHALL BE CONTINUOUS AND BE LAPPED EIGHT INCHES AT SPLICES. CUT REINFORCEMENT AT ALL CONTROL AND EXPANSION JOINTS. SPACE REINFORCEMENT AT 8" ON CENTER FOR PARAPETS AND BELOW GROUND FLOOR ELEVATION. ELSEWHERE SPACE REINFORCEMENT AT 16 INCHES ON CENTER.

BEAMS AND LINTELS SHALL BEAR A MINIMUM OF 8 INCHES ONTO SUPPORTING MASONRY, UNLESS NOTE OTHERWISE. BEARING FOR ALL BEAMS, LINTELS, JOISTS, ETC. SHALL BE GROUTED SOLO A MINIMUM OF ONE COURSE (6 INCHES) BELOW BEARING ELEVATION, UNLESS NOTED OTHERWISE.

PROVIDE MASONRY CONTROL JOINTS AT 25'-0" OC MAXIMUM, UNO. LOCATE JOINTS IN ACCORDANCE WITH NCMAT TEK 10-2C "CONTROL JOINTS FOR CONCRETE MASONRY WALLS - EMPIRICAL METHOD" AT OFFSETS, SETBACKS, WALL INTERSECTIONS, CORNERS, CHANGES IN THICKNESS, CHANGES IN HEIGHT, OR EDGE OF OPENINGS.

VAPOR RETARDER

VAPOR RETARDER SHALL BE ASTM E1748 CLASS A WITH A PERMEANCE OF 0.1 PERMS OR LESS. UNO. INSTALL, INSPECT AND REPAIR IN ACCORDANCE WITH ASTM E1943 AND MANUFACTURER'S WRITTEN REQUIREMENTS. INSTALL VAPOR RETARDER ONLY AT LOCATIONS SPECIFICALLY INDICATED.

CONCRETE SLABS ON METAL DECK

UNLESS INDICATED OTHERWISE ON THE DRAWINGS, CONCRETE SLABS ON METAL DECK SHALL BE PLACED AS REQUIRED TO MAINTAIN A CONSTANT SLAB THICKNESS.

CONTRACTOR SHALL ALLOW FOR THE DEFLECTION OF THE FLOOR ASSEMBLY DUE TO THE WET WEIGHT OF THE CONCRETE WHEN CALCULATING CONCRETE QUANTITIES AND SHALL INCLUDE THE COST OF ALL REQUIRED SLAB-ON-DECK CONCRETE IN THE BID PRICE.

PRIOR TO PLACEMENT OF CONCRETE SLABS ON METAL DECK, THE CONTRACTOR SHALL CAREFULLY REVIEW THE ELEVATIONS OF THE STRUCTURAL STEEL FRAMING, INCLUDING CAMBERED MEMBERS, FOR CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS. CONTRACTOR SHALL NOTIFY THE STRUCTURAL ENGINEER OF ANY DISCREPANCIES (SUCH AS IMPROPER CAMBER, IMPROPER STEEL ELEVATIONS, ETC.) IMMEDIATELY AND SHALL NOT BEGIN CONCRETE PLACEMENT WITHOUT PRIOR REVIEW BY THE STRUCTURAL ENGINEER.

ACTUAL CONCRETE SLAB THICKNESS SHALL NOT BE LESS THAN THE INDICATED NOMINAL THICKNESS AT ANY LOCATION. IF ANY CONDITION IS DISCOVERED THAT WOULD PREVENT PLACEMENT OF CONCRETE TO THE NOMINAL THICKNESS:

CONTRACTOR SHALL NOTIFY THE STRUCTURAL ENGINEER IMMEDIATELY AND SHALL NOT PROCEED WITH CONCRETE PLACEMENT WITHOUT PRIOR REVIEW BY THE STRUCTURAL ENGINEER.

PROVIDE SLABS ON METAL DECK WITH A SMOOTH TROWEL FINISH UNLESS NOTED OTHERWISE.

CONTRACTOR SHALL REVIEW ALL REQUIRED FLOOR FINISH MATERIAL REQUIREMENTS PRIOR TO PLACEMENT OF CONCRETE AND SHALL PROVIDE FLOOR SLAB FLATNESS MEETING THE FINISH MATERIAL SUPPLIER'S WRITTEN REQUIREMENTS. FLATNESS SHALL BE THE MORE STRINGENT OF THE FINISH MATERIAL REQUIREMENTS AND THE FOLLOWING:

ALL SLABS, UNO:

OVERALL VALUES: FF=25
LOCAL VALUES: FF=20

CONTRACTOR SHALL PROVIDE ALL NECESSARY REPAIR, GRINDING AND/OR LEVELING OF THE CONCRETE SLAB TO ACCOMMODATE ALL FLOOR FINISHES PRIOR TO INSTALLATION OF THE FINISH MATERIALS WITH NO ADDITIONAL COST TO THE PROJECT.

PLACE CONCRETE IN A MANNER SO AS TO PREVENT SEGREGATION OF THE MIX. DELAY FLOATING AND TROWELING OPERATIONS UNTIL THE CONCRETE HAS LOST SURFACE WATER SHEEN OR ALL FREE WATER. DO NOT SPRINKLE FREE CEMENT ON THE SLAB SURFACE.

PROVIDE CURING OF CONCRETE SLABS ON METAL DECK AS REQUIRED TO ACCOMMODATE FLOOR FINISHES AND FINISH MATERIALS PER THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS. REVIEW ALL FLOOR FINISH REQUIREMENTS PRIOR TO PLACEMENT OF CONCRETE SLABS AND COORDINATE SLAB MIX, PLACEMENT AND CURING TO COMPLY WITH FINISH FLOORING MATERIAL MANUFACTURER'S REQUIREMENTS.

CURING PROCEDURES SHALL COMPLY WITH ACI 302.1R AND USE OF CURING MATERIALS SHALL BE APPLIED IN STRICT ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS. MOISTURE RETENTION COVERS, IF USED, SHALL BE APPLIED FLAT AND SMOOTH TO RESULT IN A UNIFORM APPEARANCE AND MINIMIZE SURFACE MARKINGS AND BLEMISHES.

UNLESS NOTED OTHERWISE, OR UNLESS MORE STRINGENT REQUIREMENTS APPLY, CURE SLABS ON METAL DECK AS FOLLOWS:

SLABS RECEIVING FLOOR COVERING MATERIALS: MOIST CURE A MINIMUM OF 7 DAYS (OR, IF APPROVED BY FLOOR FINISH MATERIAL MANUFACTURER, USE ASTM C309, TYPE 1, CLASS B, WATERBORNE, MEMBRANE-FORMING CURING COMPOUND, DISSIPATING). REMOVAL OF CURING COMPOUND MATERIAL, IF REQUIRED FOR PROPER INSTALLATION OF FLOOR FINISH MATERIALS, SHALL BE PERFORMED BY THE CONCRETE CONTRACTOR.

EXPOSED SLABS: USE ASTM C1315, TYPE 1, CLASS A, WATERBORNE, MEMBRANE-FORMING CURING AND SEALING COMPOUND.

REINFORCING STEEL

REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A615 AND SHALL HAVE A MINIMUM YIELD STRENGTH OF 60,000 PSI.

REINFORCING BAR DETAILING, FABRICATING, AND PLACING SHALL CONFORM TO THE LATEST EDITION OF THE FOLLOWING STANDARDS: ACI 301, ACI 315, ACI 318, ACI DETAILING MANUAL (SP96), AND CRSI MANUAL OF STANDARD PRACTICE.

THE CONTRACTOR SHALL PROVIDE BAR SUPPORTS AND SPACERS AS REQUIRED TO MAINTAIN PROPER SUPPORT AND POSITIONING OF THE REINFORCING STEEL THROUGHOUT CONCRETE PLACEMENT OPERATIONS. DESIGN OF THE SUPPORT SYSTEM SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

UNLESS A GREATER AMOUNT OF COVER IS INDICATED ON THE DRAWINGS, PROVIDE THE FOLLOWING MINIMUM CONCRETE COVER OVER REINFORCEMENT AS FOLLOWS:

CONCRETE CAST AGAINST EARTH:
FOUNDATION TOP REINFORCEMENT: 3 INCHES
FOUNDATION BOTTOM AND SIDE REINFORCEMENT: 2 INCHES
WALL REINFORCEMENT - #6 AND SMALLER: 1-1/2 INCHES
WALL REINFORCEMENT - #6 AND LARGER: 2 INCHES
ELEVATED SLAB TOP REINFORCEMENT: 1 INCH
BEAM TOP REINFORCEMENT: 2-1/2 INCHES
BEAM BOTTOM REINFORCEMENT: 2 INCHES
BEAM STIRRUPS AT TOP: 2 INCHES
COLUMN LONGITUDINAL REINFORCEMENT: 1-1/2 INCHES
COLUMN TIES: 2 INCHES
SLAB ON METAL DECK REINFORCEMENT: SEE DETAILS

REINFORCING STEEL SHALL NOT BE TACK WELDED, WELDED, HEATED OR CUT UNLESS INDICATED ON THE CONTRACT DOCUMENTS OR APPROVED BY THE STRUCTURAL ENGINEER.

WHERE LAP SPICE LENGTHS ARE NOT SHOWN OR NOTED, PROVIDE A CLASS "B" LAP.

ALL 90 DEGREE AND 180 DEGREE BENDS SHOWN ON THE DRAWINGS SHALL BE STANDARD HOOKS, UNLESS NOTED OTHERWISE.

PROVIDE CORNER BARS OF SAME SIZE AND SPACING AS HORIZONTAL BARS AT CORNERS OF ALL WALLS AND GRADE BEAMS. LAP SPICE CORNERS BARS WITH STRAIGHT BARS.

UNLESS OTHERWISE SHOWN OR NOTED, PROVIDE #4 BARS (ONE EACH FACE) AROUND UNFRAMED OPENINGS IN CONCRETE WALLS AND GRADE BEAMS. PLACE BARS PARALLEL TO THE SIDES OF THE OPENING AND EXTEND 24" BEYOND CORNERS.

WELDED WIRE FABRIC

WELDED WIRE FABRIC SHALL BE SMOOTH WIRE FABRIC CONFORMING TO ASTM A1064/A1064M. FABRIC SHALL BE SUPPLIED IN FLAT SHEETS AND LAPPED A MINIMUM OF ONE SPACE PLUS ONE TIE.

WELDED WIRE FABRIC SHALL BE PLACED AS FOLLOWS, UNLESS NOTED OTHERWISE: 7 INCHES DOWN FROM TOP OF SLAB
SLABS ON METAL DECK: 3/4 INCH DOWN FROM TOP OF SLAB.

FIBER REINFORCEMENT (SYNTHETIC)

MICRO-FIBER REINFORCEMENT SHALL BE VIRGIN (NON-RECYCLED) NYLON OR POLYPROPYLENE FIBERS COMPLYING WITH ASTM C1116/C1116M, WITH LONGEST FIBERS NOT LESS THAN 0.75 INCHES.

MACRO-FIBER REINFORCEMENT SHALL BE VIRGIN (NON-RECYCLED) POLYPROPYLENE / POLYETHYLENE FIBER BLEND COMPLYING WITH ASTM C1116, WITH LONGEST FIBERS NOT LESS THAN 1.75 INCHES.

FIBERS SHALL BE INTRODUCED INTO CONCRETE MIX AT THE BATCH PLANT AND MIXED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

DOSEAGE RATES SHALL BE AS INDICATED IN THE CONTRACT DOCUMENTS. USE ONLY THE FIBER TYPE INDICATED FOR EACH APPLICATION. SUBSTITUTION OF FIBER TYPES IS NOT PERMITTED.

CONCRETE TESTING

MAKE ONE SET OF TEST CYLINDERS IN ACCORDANCE WITH ASTM C311/C31M FOR EACH DAY'S POUR AND FOR EACH 50 CUBIC YARDS FOR EACH TYPE OF CONCRETE PLACED. EACH SET SHALL INCLUDE ONE SPECIMEN TESTED AT 7 DAYS, ONE SPECIMEN TESTED AT 28 DAYS AND ONE SPECIMEN RETAINED IN RESERVE TO BE TESTED AT THE DIRECTION OF THE STRUCTURAL ENGINEER. AFTER GOOD CONCRETE QUALITY CONTROL HAS BEEN ESTABLISHED AND MAINTAINED BY THE COR, MAKE ONE SET OF TEST CYLINDERS FOR EACH DAY'S POUR AND EACH 100 CUBIC YARDS FOR EACH TYPE OF CONCRETE PLACED. SPARE CYLINDER MAY BE DISCARDED 90 DAYS AFTER CASTING UNLESS DIRECTED OTHERWISE BY THE STRUCTURAL ENGINEER. THIS SET OF TEST CYLINDERS SHALL BE PROTECTED AGAINST FREEZING.

WHEN THE AMBIENT TEMPERATURE IS EXPECTED TO FALL BELOW 40 DEGREES DURING THE COURSE OF A CONCRETE POUR OR SUBSEQUENT CURING PROCESS, AN ADDITIONAL SET OF CONCRETE TEST CYLINDERS SHALL BE MADE AND TESTED. THESE CYLINDERS SHALL BE STORED IMMEDIATELY ADJACENT TO AND CURED UNDER THE SAME CONDITIONS AS THE BUILDING CONCRETE. SPECIAL CURING BOXES ARE NOT PERMITTED FOR THESE TEST CYLINDERS.

NON-SHRINK GROUT

GROUT SHALL BE A NON-METALLIC, SHRINKAGE RESISTANT (WHEN TESTED IN ACCORDANCE WITH THE LATEST EDITION OF ASTM C827 OR CRD-C821), PREMIXED, NON-CORROSIVE, NON-STAINING PRODUCT CONTAINING PORTLAND CEMENT, SILICA SANDS, SHRINKAGE COMPENSATING AGENTS AND FLUIDITY IMPROVING COMPOUNDS. GROUT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (F'C) OF 5,000 PSI IN 28 DAYS.

WATERSTOPS

SELF-EXPANDING STRIP WATER STOPS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.

MASTIC COATING

MASTIC COATING FOR PROTECTION OF INDICATED ITEMS SHALL BE BITUMASTIC 50 COAT, TARI-MASTIC BY CARBOLINE OR EQUIVALENT SUBSTITUTE, RECOMMENDED BY THE STRUCTURAL ENGINEER. INSTALL AT LOCATIONS INDICATED ON DRAWINGS.

UNLESS NOTED OTHERWISE, APPLY MASTIC TO A COATING THICKNESS OF 18 MILS. PROVIDE FULL COVERAGE OVER ITEMS INDICATED TO RECEIVE COATING.

STRUCTURAL STEEL - ASD

STRUCTURAL STEEL DETAILING, FABRICATION AND ERECTION SHALL CONFORM TO THE ANSIAISC 360 SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS, LATEST EDITION WITH AMENDMENTS, AND THE AISI 305 CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES, LATEST EDITION WITH AMENDMENTS.

STRUCTURAL STEEL WIDE FLANGE SHAPES SHALL CONFORM TO ASTM A992/A992M.

STRUCTURAL STEEL PLATES AND ROLLED SHAPES OTHER THAN WIDE-FLANGE SHAPES SHALL CONFORM TO ASTM A588/A588M, UNLESS NOTED OTHERWISE.

STRUCTURAL STEEL TUBING SHALL CONFORM TO ASTM A500/A500M, GRADE B.

STRUCTURAL PIPE SHALL CONFORM TO ASTM A53/A53M, GRADE B.

STRUCTURAL STEEL ROD HANGERS AND BRACING SHALL CONFORM TO ASTM A36, UNLESS NOTED OTHERWISE.

ANCHOR RODS SHALL CONFORM TO ASTM F1554, GRADE 36/A36M, UNLESS NOTED OTHERWISE.

BOLTED CONNECTIONS SHALL CONFORM TO THE SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM F3125/F3125M GRADE 120 OR 150 BOLTS, APPROVED BY THE RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS OF THE ENGINEERING FOUNDATION. BOLTED CONNECTIONS FOR STRUCTURAL STEEL MEMBERS SHALL BE MADE WITH 3/4" DIAMETER F3125/F3125M BOLTS. UNLESS NOTED OTHERWISE, BOLTED CONNECTIONS SHALL BE TIGHTENED TO THE SLUG TIGHT CONDITION, EXCEPT BOLTED CONNECTIONS IN BRACE ELEMENTS ARE TO BE FULLY PRETENSIONED WITH CLASS A TIGHTENING SURFACES.

WELDING PROCEDURES SHALL CONFORM TO THE LATEST EDITION OF THE AMERICAN WELDING SOCIETY'S STRUCTURAL WELDING CODE FOR STEEL ANSIAWS D1.1.

SPECIAL INSPECTION SERVICES SCHEDULE - CONCRETE CONSTRUCTION				
REFERENCED STANDARDS PER IBC, CHAPTER 17				
VERIFICATION AND INSPECTION TASK	TEST / INSPECTION	DESCRIPTION OF TEST / INSPECTION	APPLICABLE TO PROJECT (Y/N)	FREQUENCY
MATERIAL TESTING	TEST	REFERENCE CAST-IN-PLACE CONCRETE SPECIFICATION FOR EXTENT OF TESTING REQUIRED	-	-
QUALITY CONTROL	INSPECTION	VERIFY THAT QUALITY CONTROL TESTING IS PROVIDED IN ACCORDANCE WITH THE PROJECT REQUIREMENTS.	Y	PERIODIC
REINFORCING STEEL	INSPECTION	INSPECTION OF REINFORCING STEEL, INCLUDING PRESTRESSING TENDONS (WHEN USED) AND PLACEMENT AS FOLLOWS: VERIFY THAT REINFORCEMENT SURFACES ARE FREE OF EXCESS RUST OR OTHER COATINGS THAT MAY ADVERSELY AFFECT BONDING CAPACITY. IF OILING OF FORMS IS REQUIRED, VERIFY THAT IT IS APPLIED BEFORE REINFORCING IS PLACED. VERIFY REINFORCING BARS FOR COMPLIANCE WITH CONTRACT DOCUMENTS AND APPROVED SHOP DRAWINGS AS FOLLOWS: MATERIAL GRADE, SIZE, QUANTITY, SPACING, AND LAYERING; BARS ARE ADEQUATELY TIED AND SUPPORTED ON CHAIRS OR BOLSTERS; PROPER HOOK TYPE AND LOCATION; SPICE LOCATIONS AND REQUIRED LENGTH OF LAP; PROPER CLEARANCE AND COVER REQUIREMENTS FROM CONCRETE SURFACES; SUFFICIENT SPACING BETWEEN REINFORCEMENT FOR CONCRETE PLACEMENT; VERIFY THAT UNSCHEDULED/ADDITIONAL REINFORCING BARS SHOWN ON PLAN, IN DETAIL, OR SPECIFIED IN NOTES ARE PROVIDED AND ARE IN COMPLIANCE WITH CONTRACT DOCUMENTS AND APPROVED SHOP DRAWINGS.	Y	PERIODIC
		MECHANICAL SPLICES: (TENSION AND/OR COMPRESSION) ON THE PROJECT, VERIFY COMPLIANCE WITH SPECIFICATIONS AND CONFORMANCE WITH THE MANUFACTURER'S RECOMMENDATIONS FOR INSTALLATION. VERIFY THAT THE MANUFACTURER IS PRESENT FOR THE FIRST INSTALLATION OF EACH TYPE OF SPICE ON THE PROJECT.	Y	PERIODIC
		VERIFY THAT WELDED WIRE REINFORCEMENT IS COMPOSED OF FLAT SHEETS, HAS PROPER WIRE GAUGE AND SPACING, IS PROPERLY SUPPORTED, AND IS PROPERLY LAPPED.	Y	PERIODIC
		INSPECT HEADED STUD SHEAR REINFORCEMENT TO ENSURE THAT IT CONFORMS TO THE PROJECT REQUIREMENTS.	Y	PERIODIC
		REVIEW TYPE AND SPACING: VERIFY THAT REINFORCING IS ADEQUATELY SUPPORTED TO RESIST DISPLACEMENT OR SHIFTING DURING CONCRETE PLACEMENT; VERIFY WELDING OF REINFORCEMENT IS PERFORMED ACCORDING TO AWS REQUIREMENTS AND THAT IT IS INSPECTED BY THE TESTING LABORATORY.	Y	PERIODIC
		INSPECT BOLTS AND ANCHOR RODS TO BE CAST IN CONCRETE PRIOR TO PLACEMENT OF CONCRETE FOR SIZE, QUANTITY, LOCATION, POSITION AND EMBEDMENT. INSPECT DURING PLACEMENT FOR PROPER CONCRETE CONSOLIDATION AROUND BOLTS AND ANCHORS.	Y	CONTINUOUS
		BOLTS AND/OR ANCHOR RODS USED IN LATERAL FORCE RESISTING SYSTEM AT THE FOLLOWING LOCATIONS: «LIST GRID LOCATIONS»	Y	CONTINUOUS
		20% OF BOLTS AND/OR ANCHOR RODS USED ELSEWHERE.	Y	PERIODIC
		REVIEW AND BECOME FAMILIAR WITH THE MIX DESIGNS SPECIFIED ON THE PROJECT. VERIFY MIX DESIGN PROVIDED BY THE CONTRACTOR IS CONSISTENT WITH PROJECT SPECIFICATIONS AT LOCATION INDICATED. REVIEW CONCRETE BATCH TICKETS TO PROPER MIX ID, TYPE OF CONCRETE AND STRENGTH FOR THE PLACEMENT LOCATION. VERIFY THAT WATER ADDED AT SITE (IF PERMITTED), DOES NOT EXCEED THAT ALLOWED BY THE MIX DESIGN.	Y	PERIODIC
		INSPECTION OF FORMED AREA	Y	PERIODIC
FORMWORK	INSPECTION	VERIFY THAT ALL DEBRIS AND FOREIGN MATTER HAVE BEEN REMOVED BEFORE CONCRETE IS PLACED	Y	PERIODIC
MATERIAL SAMPLING AND TESTING	TEST	INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED. VERIFY FORMWORK USED IN COMPLIANCE WITH THE SPECIFICATIONS AND APPROVAL SHOP DRAWINGS (WHEN REQUIRED). 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	Y	CONTINUOUS
CONCRETE PLACEMENT	INSPECTION	INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES AS FOLLOWS: VERIFY THE CONCRETE IS NOT OVER 90 MINUTES OLD AT TIME OF PLACEMENT; HOT-WEATHER OR COLD-WEATHER TECHNIQUES ARE BEING APPLIED AS REQUIRED; CONCRETE BEING DEPOSITED IN UNIFORM, THAT THE VERTICAL DROP DOES NOT EXCEED SIX FEET, AND THAT CONCRETE IS NOT PERMITTED TO DROP FREELY OVER REINFORCEMENT CAUSING SEGREGATION; CONCRETE IS PROPERLY VIBRATED; EMBEDDED ITEMS AND REINFORCING STEEL ARE NOT ADVERSELY ALTERED DURING PLACEMENT. NOTE IF ANYTHING WAS DISPLACED OR OTHERWISE ALTERED DURING PLACEMENT; VERIFY THAT THERE ARE NO COLD JOINTS WITHIN THE AREA OF THE POUR.	Y	CONTINUOUS
		VERIFY THE CURING PROCESS IS AS SPECIFIED IN THE CONTRACT DOCUMENTS AND THAT ANY CURING COMPOUND USED IS APPLIED IN ACCORDANCE WITH MANUFACTURER'S PRINTED APPLICATION INSTRUCTIONS.	Y	PERIODIC
CURING AND PROTECTION	INSPECTION	VERIFY THAT LOCATION OF VERTICAL AND HORIZONTAL CONSTRUCTION JOINTS FOR COMPLIANCE WITH THE CONSTRUCTION JOINT LOCATION PLAN SUBMITTED BY THE CONTRACTOR TO ENGINEER OF RECORD. VERIFY THAT REINFORCEMENT, DOWELS, KEYS, AND BULKHEADS AT CONSTRUCTION JOINTS ARE IN CONFORMANCE WITH THE CONTRACT DOCUMENTS.	Y	PERIODIC
CONSTRUCTION JOINTS	INSPECTION		Y	PERIODIC

SPECIAL INSPECTION SERVICES SCHEDULE - SOILS AND EARTHWORK				
REFERENCED STANDARDS PER IBC, CHAPTER 17				
VERIFICATION AND INSPECTION TASK	TEST / INSPECTION	DESCRIPTION OF TEST / INSPECTION	APPLICABLE TO PROJECT (Y/N)	FREQUENCY
FOOTING SUBGRADE COMPACTION OF SOILS	TEST	REFERENCE EARTHWORK SPECIFICATION FOR EXTENT OF TESTING REQUIRED	Y	PERIODIC
CONTROLLED STRUCTURAL FILL	TEST	REFERENCE EARTHWORK SPECIFICATION FOR EXTENT OF TESTING REQUIRED	Y	PERIODIC
FOOTING SUBGRADE MATERIAL	INSPECTION	INSPECT SOILS BELOW FOUNDATIONS AND SLABS FOR ADEQUATE COMPACTION AND BEARING CAPACITY PROPER TO PLACEMENT OF CONCRETE.	Y	PERIODIC
EXCAVATION	INSPECTION	VERIFY EXCAVATIONS ARE EXTENDED TO THE PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	Y	PERIODIC
CLASSIFICATION OF CONTROLLED FILL	INSPECTION	INSPECT PLACEMENT, LIFT THICKNESS AND COMPACTION OF CONTROLLED FILL.	Y	PERIODIC
USE OF PROPER MATERIALS	INSPECTION	VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF CONTROLLED FILL.	Y	CONTINUOUS
OBSERVATION OF SUBGRADE	INSPECTION	PRIOR TO PLACEMENT OF CONTROLLED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY	Y	PERIODIC

SPECIAL INSPECTION SERVICES SCHEDULE - COLD FORMED METAL FRAMING				
REFERENCED STANDARDS PER IBC, CHAPTER 17				
VERIFICATION AND INSPECTION TASK	TEST / INSPECTION	DESCRIPTION OF TEST / INSPECTION	APPLICABLE TO PROJECT (Y/N)	FREQUENCY
QUALITY	INSPECTION	VISUALLY INSPECT THE MATERIAL PRIOR TO INSTALLATION FOR DAMAGE.	Y	PERIODIC
MATERIAL	INSPECTION	VERIFY THE SIZE, GAUGE, TYPE, PROPERTIES, AND FINISH COMPLY WITH THE CONTRACT DOCUMENTS.	Y	PERIODIC
INSTALLATION	INSPECTION	VERIFY THE COLD FORMED FRAMING MEMBERS ARE INSTALLED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND APPROVED SHOP DRAWINGS.	Y	PERIODIC
CONNECTIONS	INSPECTION	VERIFY CONNECTIONS FOR LOAD BEARING MEMBERS, TRUSS FRAMING, DIAPHRAGMS AND SHEAR WALL ANCHORAGE AND HOLDOWNS IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND APPROVED SHOP DRAWINGS.	Y	PERIODIC
TRUSS BRACING	INSPECTION	FOR TRUSSES WITH CLEAR SPAN GREATER THAN 80 FEET, VERIFY THAT THE TEMPORARY INSTALLATION RESTRAINT/BRACING AND THE PERMANENT INDIVIDUAL TRUSS MEMBER RESTRAINT/BRACING ARE INSTALLED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND APPROVED SHOP DRAWINGS.	N	PERIODIC

SPECIAL INSPECTION SERVICES SCHEDULE - STEEL DECK				
REFERENCED STANDARDS PER IBC, CHAPTER 17				
VERIFICATION AND INSPECTION TASK	TEST / INSPECTION	DESCRIPTION OF TEST / INSPECTION	APPLICABLE TO PROJECT (Y/N)	FREQUENCY
QUALITY	INSPECTION	VISUALLY INSPECT THE DECK PRIOR TO INSTALLATION FOR DAMAGE.	Y	PERIODIC
DECK MATERIAL	INSPECTION	VERIFY THAT THE DECK DEPTH, GAUGE, TYPE, PROPERTIES, AND FINISH COMPLY WITH THE CONTRACT DOCUMENTS.	Y	PERIODIC
DECK ATTACHMENT	INSPECTION	VERIFY THAT THE DECK ATTACHMENT TO THE SUPPORTING STEEL IS AS SPECIFIED IN THE CONTRACT DOCUMENTS.	Y	PERIODIC
DECK SUPPORT	INSPECTION	VERIFY THAT THE PROPER DECK SUPPORT IS USED AROUND OPENINGS.	Y	PERIODIC
DECK ACCESSORIES	INSPECTION	VERIFY THAT DECK ACCESSORIES ARE BEING INSTALLED ACCORDING TO THE CONTRACT DOCUMENTS AND APPROVED SHOP DRAWINGS.	Y	PERIODIC

SPECIAL INSPECTION SERVICES SCHEDULE - MASONRY CONSTRUCTION (LEVEL 1 INSPECTION)				
REFERENCED STANDARDS PER IBC, CHAPTER 17				
VERIFICATION AND INSPECTION TASK	TEST / INSPECTION	DESCRIPTION OF TEST / INSPECTION	APPLICABLE TO PROJECT (Y/N)	FREQUENCY
MATERIAL TESTING	TEST	REFERENCE MASONRY SPECIFICATION FOR EXTENT OF TESTING REQUIRED	-	-
QUALITY CONTROL	INSPECTION	VERIFY THAT QUALITY CONTROL TESTING IS PROVIDED IN ACCORDANCE WITH THE PROJECT REQUIREMENTS.	Y	PERIODIC
MATERIALS	INSPECTION	VERIFY THE MATERIALS ARE STORED PROPERLY BEFORE PLACEMENT IN THE STRUCTURE	Y	PERIODIC
WALL LOCATIONS	INSPECTION	VERIFY THE WALL LOCATIONS AND THICKNESSES	Y	PERIODIC
CONTROL JOINTS	INSPECTION	VERIFY THE PROPER INSTALLATION OF CONTROL JOINTS, TYPE AND LOCATION	Y	PERIODIC
OPENINGS	INSPECTION	VERIFY THE PROPER INSTALLATION OF STRUCTURAL ELEMENTS AROUND OPENINGS INCLUDING LINTELS, SILLS, AND DOOR OR WINDOW JAMBS INCLUDING MASONRY UNIT TYPE AND REINFORCEMENT	Y	PERIODIC
CONNECTIONS	INSPECTION	VERIFY THE MASONRY IS PROPERLY CONNECTED TO THE SUPPORTING STRUCTURE(S)	Y	PERIODIC
REINFORCING STEEL	INSPECTION	INSPECTION OF REINFORCING STEEL AND PLACEMENT AS FOLLOWS: VERIFY THAT REINFORCEMENT SURFACES ARE FREE OF EXCESS RUST OR OTHER COATINGS THAT MAY ADVERSELY AFFECT BONDING CAPACITY. VERIFY REINFORCING BARS AND HORIZONTAL JOINT REINFORCEMENT FOR COMPLIANCE WITH CONTRACT DOCUMENTS AND APPROVED SHOP DRAWINGS AS FOLLOWS: MATERIAL GRADE, SIZE, QUANTITY, SPACING, AND LAYERING; BARS ARE ADEQUATELY TIED AND SUPPORTED ON CHAIRS OR BOLSTERS AS REQUIRED; PROPER HOOK TYPE AND LOCATION; SPICE LOCATIONS AND REQUIRED LENGTH OF LAP; PROPER CLEARANCE AND COVER REQUIREMENTS FROM MASONRY SURFACES; SUFFICIENT SPACING BETWEEN REINFORCEMENT FOR GROUT PLACEMENT; VERIFY THAT UNSCHEDULED/ADDITIONAL REINFORCING BARS SHOWN ON PLAN, IN DETAILS, OR SPECIFIED IN NOTES ARE PROVIDED AND ARE IN COMPLIANCE WITH CONTRACT DOCUMENTS AND APPROVED SHOP DRAWINGS.	Y	PERIODIC
		INSPECT EMBEDDED ITEMS TO BE CAST IN MASONRY PRIOR TO PLACEMENT OF GROUT FOR SIZE, QUANTITY, LOCATION, POSITION AND EMBEDMENT. INSPECT DURING PLACEMENT FOR PROPER GROUT CONSOLIDATION EMBEDDED ITEMS.	Y	PERIODIC
		INSPECT THE MORTAR AND GROUT USED ON THE PROJECT AS FOLLOWS: VERIFY THAT MORTAR AND GROUT MATERIALS COMPLY WITH THE CONTRACT DOCUMENTS AND APPROVED SUBMITTALS.	Y	PERIODIC
		SITE-MIXED MORTAR: VERIFY THE MORTAR IS MIXED IN ACCORDANCE WITH SPECIFIED PROPORTIONS.	Y	PERIODIC
		BAG-MIX MORTAR: VERIFY THE MORTAR IS MIXED ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS.	Y	PERIODIC
		VERIFY PROPER MORTAR PLACEMENT.	Y	PERIODIC
		GROUT BAG MIX: VERIFY THAT THE GROUT IS MIXED ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS.	Y	PERIODIC
		READY-MIX GROUT: VERIFY THE MIX NUMBER AND GROUT STRENGTH.	Y	PERIODIC
		PRIOR TO ANY GROUTING PROCEDURE, INSPECT THE GROUT SPACE TO VERIFY THAT IT IS CLEAN AND THAT CLEANOUTS, IF REQUIRED, ARE IN PLACE AND CONFORM TO REQUIREMENTS OF THE CONTRACT DOCUMENTS.	Y	PERIODIC
		VERIFY THE PROPER GROUTING IS PERFORMED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.	Y	PERIODIC
EMBEDDED ITEMS	INSPECTION	VERIFY THE PROPER CONSTRUCTION TECHNIQUES ARE FOLLOWED FOR PROTECTION OF MASONRY DURING HOT-WEATHER AND/OR COLD-WEATHER CONSTRUCTION.	Y	PERIODIC
MORTAR AND GROUT	INSPECTION		Y	PERIODIC
PROTECTION	INSPECTION		Y	PERIODIC

SPECIAL INSPECTION SERVICES SCHEDULE - STEEL CONSTRUCTION				
REFERENCED STANDARDS PER IBC, CHAPTER 17				
VERIFICATION AND INSPECTION TASK	TEST / INSPECTION	DESCRIPTION OF TEST / INSPECTION	APPLICABLE TO PROJECT (Y/N)	FREQUENCY
FABRICATOR QUALITY CONTROL PROCESS	INSPECTION	VERIFY THE FABRICATOR MEETS AISC CERTIFIED FABRICATOR REQUIREMENT LISTED IN THE PROJECT SPECIFICATIONS.	Y	ONE-TIME
QUALITY	INSPECTION	VISUALLY INSPECT STEEL AS IT IS RECEIVED FOR POSSIBLE DAMAGE IN SHIPPING, WORKMANSHIP, AND PIECE MARKING.	Y	PERIODIC
MILL TEST REPORTS	INSPECTION	REVIEW CERTIFIED MILL TEST REPORTS AND IDENTIFICATION MARKINGS ON WIDE-FLANGE SHAPES, HIGH-STRENGTH BOLTS, NUTS AND WELDING ELECTRODES.	N	PERIODIC
WELDED CONNECTIONS	INSPECTION	INSPECT FIELD WELDED CONNECTIONS AS FOLLOWS: INSPECT 100% OF COMPLETE JOINT PENETRATION FIELD WELDS. ULTRASONIC TESTING OF ALL COMPLETE PENETRATIONS WELDS.	Y	CONTINUOUS
		INSPECT 100% OF PARTIAL JOINT PENETRATION FIELD WELDS.	Y	CONTINUOUS
		INSPECT 100% OF MULTI-PASS FILLET FIELD WELDS.	Y	CONTINUOUS
		INSPECT 100% OF FILLET FIELD WELDS IN LATERAL-LOAD-RESISTING BRACED FRAMES AND MOMENT FRAMES.	Y	CONTINUOUS
		INSPECT 10% OF OTHER FILLET FIELD WELDS.	Y	PERIODIC
		PERFORM PRE-WELDING INSPECTIONS TO VERIFY THAT MATERIALS (I.E. STRUCTURAL STEEL, WELD FILLER MATERIAL, ETC.), WELDING PROCEDURES, AND WELDING PERSONNEL QUALIFICATIONS ARE APPROPRIATE.	Y	PERIODIC
		VISUALLY INSPECT FIELD WELDS ACCORDING TO AWS D1.1:01.1M.	Y	PERIODIC
		VERIFY WELDING PROCEDURES ARE IN ACCORDANCE WITH AWS REQUIREMENTS.	Y	PERIODIC
		INSPECT PRE-HEAT, POST-HEAT AND SURFACE PREPARATION BETWEEN PASSES.	Y	PERIODIC
		VERIFY SIZE AND LENGTH OF FILLET WELDS.	Y	PERIODIC
BOLTED CONNECTIONS	INSPECTION	VERIFY THAT WELDS ARE CLEAN; WELDER IDENTIFICATION IS LEGIBLE; SIZE, LENGTH AND LOCATION OF WELDS; VERIFY THAT WELDS MEET ACCEPTANCE CRITERIA; PLACEMENT OF REINFORCEMENT FILLETS; REMOVAL OF BACKING BARS AND WELD TABS AS REQUIRED; AND REPAIR ACTIVITIES.	Y	PERIODIC
		INSPECT BOLTED CONNECTIONS AS FOLLOWS: INSPECT 100% OF ALL PRE-TENSIONED AND SLIP-CRITICAL BOLTED CONNECTIONS.	N	CONTINUOUS
		INSPECT 100% OF BOLTED CONNECTIONS IN LATERAL-LOAD-RESISTING BRACED FRAMES AND MOMENT FRAMES.	Y	PERIODIC
		INSPECT 20% OF ALL OTHER BOLTED CONNECTIONS.	Y	CONTINUOUS
		FOR SLIP-CRITICAL BOLTED CONNECTIONS, VERIFY INSTALLATION IS PERFORMED IN ACCORDANCE WITH ONE OF THE FOLLOWING METHODS: TURN-OF-NUT: ACCORDING TO RCSC'S "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A 325 OR A 490 BOLTS."	N	CONTINUOUS
		CALIBRATED WRENCH: ACCORDING TO RCSC'S "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A 325 OR A 490 BOLTS."	N	CONTINUOUS
		TWIST-OFF TENSION CONTROL BOLT: ASTM F 1852.	N	CONTINUOUS
		DIRECT-TENSION CONTROL BOLT: ASTM F 1852.	N	CONTINUOUS
		FOR ALL BOLTED CONNECTIONS, VERIFY QUANTITY, SIZE AND GRADE OF BOLTS, REQUIRED SURFACE PREPARATION AND PROPER FIT-UP OF CONNECTED ELEMENTS.	Y	PERIODIC
		VERIFY THAT STEEL MEMBER SIZES AND STEEL GRADE CONFORM TO THE CONTRACT DOCUMENTS AND APPROVED SHOP DRAWINGS.	Y	PERIODIC
MEMBERS SIZES AND GRADE	INSPECTION	INSPECT STEEL FRAME FOR COMPLIANCE WITH STRUCTURAL DRAWINGS, INCLUDING BRACING, MEMBER CONFIGURATION AND CONNECTION DETAILS AS FOLLOWS: CHECK THE INSTALLATION OF BASE PLATES FOR PROPER LEVELING AND VERIFY PROPER GROUT TYPE AND INSTALLATION PROCEDURES ARE FOLLOWED.	Y	PERIODIC
STEEL FRAMING, DETAILS AND CONNECTORS	INSPECTION	INSPECT 100% OF BEAM AND GIRDER CONSTRUCTION AND ASSEMBLIES.	Y	PERIODIC
		INSPECT 100% OF ALL BRACED FRAME AND MOMENT FRAME ASSEMBLIES.	Y	CONTINUOUS
		INSPECT 100% OF THE COLUMN SPICES AND BASE JOINTS FOR VERIFICATION THAT GAPS IN CONTACT BEARING DO NOT EXCEED 1/16 INCH. GAPS GREATER THAN 1/16 INCH SHALL BE REPORTED TO THE ENGINEER OF RECORD FOR ASSESSMENT.	Y	CONTINUOUS
		INSPECT COMPOSITE STEEL BEAM SHEAR CONNECTORS AS FOLLOWS: OBSERVE THE WELDING OF SHEAR CONNECTORS. INSPECT STUDS FOR FULL 360 DEGREE FLASH.	Y	CONTINUOUS
		INSPECT SIZE, NUMBER, POSITIONING AND WELDING OF SHEAR CONNECTORS.	Y	CONTINUOUS
		RING TEST 10% OF SHEAR CONNECTORS WITH A 3 LB HAMMER.	Y	PERIODIC
		BEND TEST ALL QUESTIONABLE STUDS TO 15 DEGREES.	Y	CONTINUOUS
		INSPECT STEEL GRATING AS FOLLOWS: VISUALLY INSPECT THE GRATING FOR DAMAGE DURING SHIPPING.	N	PERIODIC
		VERIFY THAT THE GRATING DEPTH, TYPE OR PROPERTIES, AND FINISH COMPLY WITH THE CONTRACT DOCUMENTS AND/OR APPROVED SHOP DRAWINGS.	N	PERIODIC
		VERIFY ALL GRATING ATTACHMENT TO THE SUPPORTING CONCRETE, STEEL, AND/OR MASONRY AS SPECIFIED IN THE CONTRACT DOCUMENTS AND/OR APPROVED SHOP DRAWINGS.	N	PERIODIC
COMPOSITE BEAM SHEAR CONNECTORS	TEST		Y	CONTINUOUS
GRATING	INSPECTION		N	PERIODIC

SPECIAL INSPECTION

THE CONTRACTOR SHALL EMPLOY INDEPENDENT AGENCY(IES) OR INDIVIDUAL(S) TO PROVIDE SPECIAL INSPECTION FOR ITEMS AS INDICATED ON THE DRAWINGS.

SPECIAL INSPECTION IS A MANDATORY REQUIREMENT FOR VERIFYING CONFORMANCE OF THE INDICATED CONSTRUCTION. SPECIAL INSPECTION IS REQUIRED IN ADDITION TO ALL MATERIAL TESTS AND INSPECTIONS IDENTIFIED ELSEWHERE IN THE CONSTRUCTION DOCUMENTS.

THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON, WHO SHALL DEMONSTRATE COMPETENCE TO THE SATISFACTION OF THE BUILDING OFFICIAL AND THE STRUCTURAL ENGINEER, FOR INSPECTION OF EACH PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.

"PERIODIC" SPECIAL INSPECTION IS DEFINED 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 IS BEING PERFORMED AND AT THE COMPLETION OF THE WORK."

"CONTINUOUS" SPECIAL INSPECTION IS DEFINED AS "THE FULL-TIME OBSERVATION OF WORK REQUIRING SPECIAL INSPECTION BY AN APPROVED SPECIAL INSPECTOR WHO IS PRESENT IN THE AREA WHERE THE WORK IS BEING PERFORMED."

SUBMIT TO THE STRUCTURAL ENGINEER FOR REVIEW A MINIMUM OF 14 DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION OF ELEMENTS REQUIRING SPECIAL INSPECTION THE FOLLOWING:

1. NAME(S), ADDRESS(ES), TELEPHONE NUMBER(S), EMAIL ADDRESS(ES), AND STATEMENT(S) OF QUALIFICATIONS OF ALL SPECIAL INSPECTOR(S) TO BE ENGAGED ON THE PROJECT.
2. A LISTING OF ALL ITEMS TO RECEIVE SPECIAL INSPECTION, DESIGNATION WHETHER INSPECTIONS WILL BE CONTINUOUS OR PERIODIC AND THE NAME OF THE INDIVIDUAL THAT WILL BE PERFORMING INSPECTION FOR EACH ITEM.

THE CONTRACTOR SHALL COORDINATE WITH THE SPECIAL INSPECTOR SUFFICIENTLY IN ADVANCE OF WORK REQUIRING SPECIAL INSPECTION AND SHALL PROVIDE ACCESS TO THE SITE AND TO THE CONSTRUCTION DOCUMENTS (CURRENT DRAWINGS AND SPECIFICATIONS) FOR THE SPECIAL INSPECTOR CARRY OUT THE REQUIRED OPERATIONS.

THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK REQUIRING SPECIAL INSPECTION FOR CONFORMANCE TO THE CONSTRUCTION DOCUMENTS. ALL NON-CONFORMING WORK SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF UNCORRECTED, TO THE IMMEDIATE ATTENTION OF THE OWNER OR OWNER'S AGENT AND STRUCTURAL ENGINEER.

THE SPECIAL INSPECTOR SHALL SUBMIT PERIODIC PROGRESS REPORTS TO THE OWNER OR OWNER'S AGENT, CONTRACTOR AND STRUCTURAL ENGINEER IDENTIFYING ALL SPECIAL INSPECTION OPERATIONS PERFORMED. REPORTS SHALL BE SUBMITTED NO MORE THAN 7 DAYS FOLLOWING EACH SPECIAL INSPECTION OPERATION. REPORTS SHALL IDENTIFY THE ITEM(S) INSPECTED AND AN INDICATION OF WHETHER THE INSPECTED ITEMS WERE IN CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS.

AT THE COMPLETION OF ALL WORK REQUIRING SPECIAL INSPECTION, THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT TO THE OWNER OR OWNER'S AGENT, CONTRACTOR AND STRUCTURAL ENGINEER STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE SPECIAL INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS.

FAILURE TO PERFORM SPECIAL INSPECTION FOR THE INDICATED CONSTRUCTION OR FAILURE TO CORRECT NON-CONFORMING WORK SHALL CONSTITUTE A BASIS FOR REJECTION OF THE WORK AND REMOVAL AND REPLACEMENT BY THE GENERAL CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER, INCLUDING, BUT NOT LIMITED TO:

1. THE COST OF REMOVAL AND REPLACEMENT OF ALL WORK FOR WHICH SPECIAL INSPECTION WAS REQUIRED BUT NOT PERFORMED, INCLUDING THE COST OF TESTING AND SPECIAL INSPECTION FOR THE REPLACEMENT WORK.
2. THE COST OF ALL RELATED WORK MADE NECESSARY BY THE REMOVAL AND REPLACEMENT OF THE UNSPECTED WORK PER ITEM 1 ABOVE.
3. THE COST FOR DESIGN PROFESSIONAL'S SERVICES RELATED TO ALL WORK FOR WHICH SPECIAL INSPECTION WAS REQUIRED BUT NOT PERFORMED AND SERVICES RELATED TO THE REPLACEMENT WORK.

PROVIDE SPECIAL INSPECTION FOR THE FOLLOWING CONSTRUCTION:






SOILS AND EARTHWORK
FOUNDATION WALLS AND PITS
CONCRETE
MASONRY (LEVEL 1)
STEEL
STEEL DECK

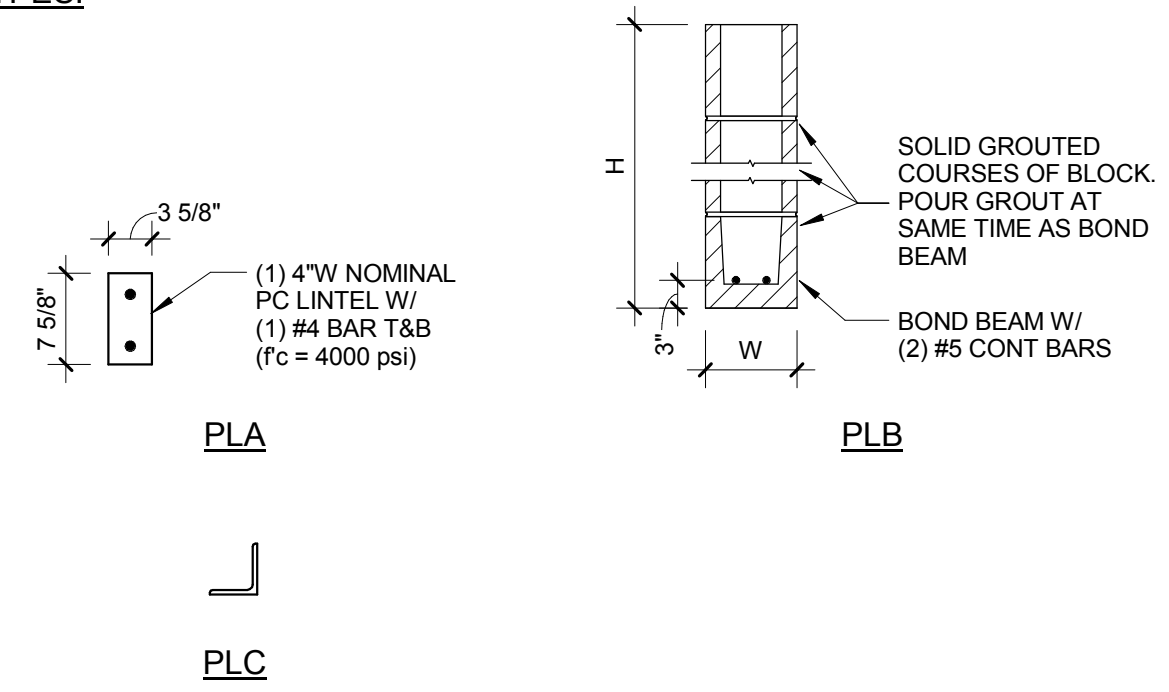
SEE TABLES ON THE DRAWINGS FOR SPECIAL INSPECTION PROGRAM REQUIREMENTS.

SPECIAL INSPECTION SERVICES SCHEDULE - FOUNDATION WALLS AND PITS				
REFERENCED STANDARDS PER IBC, CHAPTER 17				
VERIFICATION AND INSPECTION TASK	TEST / INSPECTION	DESCRIPTION OF TEST / INSPECTION	APPLICABLE TO PROJECT (Y/N)	FREQUENCY
CONCRETE PLACEMENT	INSPECTION	THE INSPECTOR MUST BE PRESENT FULL TIME DURING THE ENTIRE PLACEMENT OF THE FIRST 2 SHALLOW FOUNDATION CONCRETE POURS AND THEN MUST BE PRESENT AT THE START OF 100% OF OTHER CONCRETE POURS.	Y	PERIODIC
FORMWORK	INSPECTION	VERIFY THAT FORMS ARE PLUMB AND STRAIGHT, BRACED AGAINST MOVEMENT, AND LUBRICATED FOR REMOVAL.	Y	PERIODIC
DIMENSIONS	INSPECTION	VERIFY WALL/PIT DIMENSIONS.	Y	PERIODIC
EMBEDDED ITEMS	INSPECTION	VERIFY ANCHOR RODS AND/OR DOWELS ARE INSTALLED WITH THE EMBEDMENT AND PROJECTED LENGTHS AND IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.	Y	PERIODIC
REINFORCEMENT	INSPECTION	VERIFY PIT/WALL REINFORCEMENT PRIOR TO PLACEMENT OF CONCRETE.	Y	PERIODIC
WATERSTOPS	INSPECTION	VERIFY WATER STOPS ARE PROPERLY INSTALLED AND ANCHORED INTO POSITION PRIOR TO PLACEMENT OF CONCRETE.	Y	PERIODIC
BACKFILL OPERATIONS	INSPECTION	VERIFY THAT FOUNDATION AND PIT WALLS WITH UNEVEN BACKFILL CONDITIONS ARE NOT BACKFILLED UNTIL FLOOR CONSTRUCTION AT TOP OF WALL IS COMPLETE OR TEMPORARY BRACING IS PROVIDED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.	Y	PERIODIC
CONCRETE	INSPECTION	VERIFY CONCRETE PLACEMENT AS OUTLINED IN THIS INSPECTION PLAN.	Y	PERIODIC

SPECIAL INSPECTION SERVICES SCHEDULE - SHALLOW FOUNDATIONS				
REFERENCED STANDARDS PER IBC, CHAPTER 17				
VERIFICATION AND INSPECTION TASK	TEST / INSPECTION	DESCRIPTION OF TEST / INSPECTION	APPLICABLE TO PROJECT (Y/N)	FREQUENCY
CONCRETE PLACEMENT	INSPECTION	THE INSPECTOR MUST BE PRESENT FULL TIME DURING THE ENTIRE PLACEMENT OF THE FIRST 2 SHALLOW FOUNDATION CONCRETE POURS AND THEN MUST BE PRESENT AT THE START OF 100% OF OTHER CONCRETE POURS.	Y	PERIODIC
FOOTING SUBGRADE	INSPECTION	VERIFY APPROVAL OF THE FOOTING SUBGRADE PRIOR TO PLACEMENT OF FOUNDATION CONCRETE.	Y	PERIODIC
FORMWORK	INSPECTION	VERIFY THAT FORMS ARE PLUMB AND STRAIGHT, BRACED AGAINST MOVEMENT, AND LUBRICATED FOR REMOVAL.	Y	PERIODIC
EARTH-FORMED FOUNDATION	INSPECTION	FOR EARTH-FORMED FOUNDATIONS, VERIFY THAT EARTH FORMS ARE SUFFICIENTLY UNIFORM TO ALLOW FOR PROPER DIMENSIONS AND REQUIRED CONCRETE COVER OVER REINFORCEMENT.	Y	PERIODIC
DIMENSIONS	INSPECTION	VERIFY FOUNDATION DIMENSIONS.	Y	PERIODIC
EMBEDDED ITEMS	INSPECTION	VERIFY ANCHOR RODS AND/OR DOWELS ARE INSTALLED WITH THE EMBEDMENT AND PROJECTED LENGTHS AND IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.	Y	PERIODIC
REINFORCEMENT	INSPECTION	VERIFY FOUNDATION REINFORCEMENT PRIOR TO PLACEMENT OF CONCRETE.	Y	PERIODIC
CONCRETE	INSPECTION	VERIFY CONCRETE PLACEMENT AS OUTLINED IN THIS INSPECTION PLAN.	Y	PERIODIC

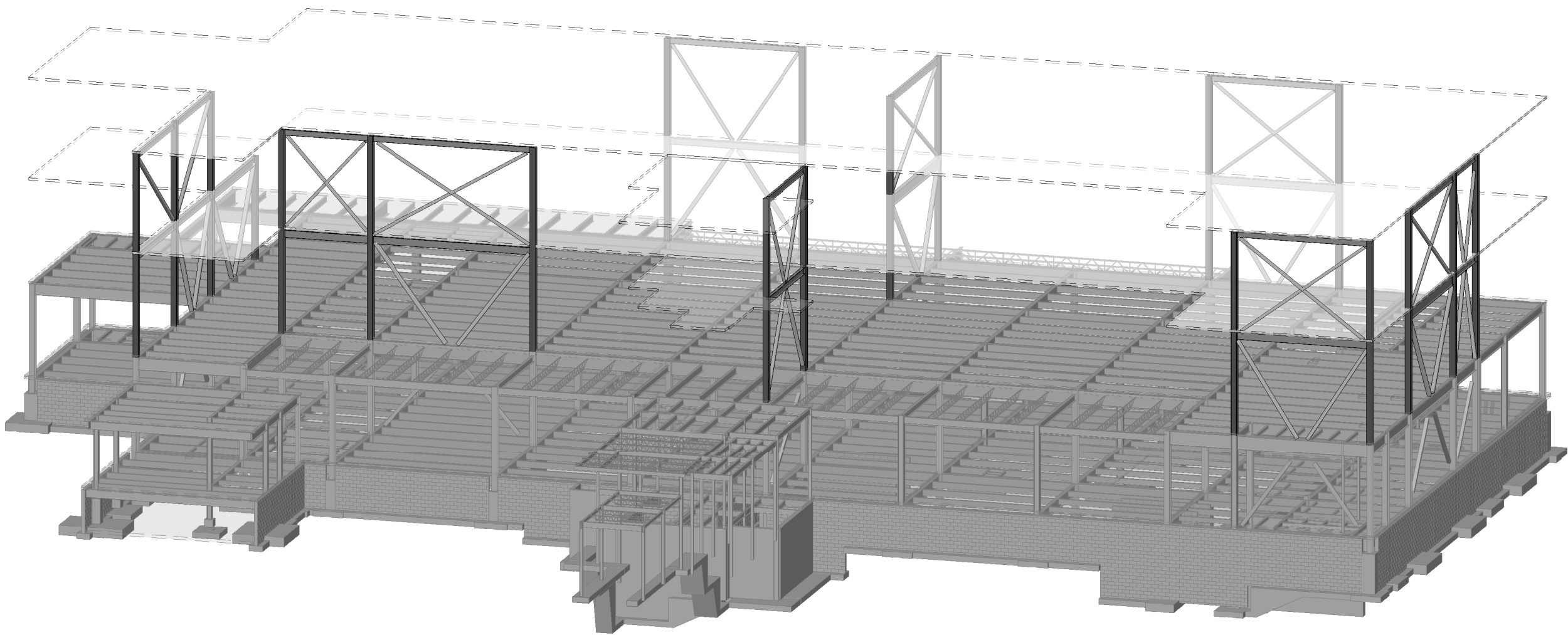
100% CONSTRUCTION DOCUMENTS

Revisions:	Date	<div><div><div>Baysinger Design Group, Inc. 4301 West 126th Street, Suite 100B Morton Grove, Illinois 60053 Phone: 847.980.8115 Fax: 847.980.8102 www.baysingerdesigngroup.com</div></div><div><div>AMERICAN STRUCTUREPOINT INC. 2240 Shadeland Street, Indianapolis, IN 46256 Tel: 317.252.5500 Fax: 317.252.5270 www.structurepoint.com</div></div></div>	<div><div></div><div>PROJECT MANAGER: Raleigh, NC Indianapolis, IN Pittsburgh, PA Virginia Beach, VA Fort Collins, CO</div></div> <div><div>Project Number 16-198</div><div>Scale AS INDICATED</div></div> <div><div>Office of Construction and Facilities Management</div><div></div></div> <div><div>Drawing Title: SPECIAL INSPECTION REQUIREMENTS</div><div>Location MARION VAMC MARION, IL, 62959</div></div> <div><div>Project Title ADD STRUCTURAL IMPROVEMENTS TO BUILDING 42</div><div>Approved: Project Director</div><div>Date 09/06/17</div><div>Checked DGC</div><div>Drawn JHC</div></div> <div><div>VA PROJECT NUMBER 657-343</div><div>Building Number 42</div><div>Drawing Number SS-003</div><div>Dwg. 3 of 28</div></div>
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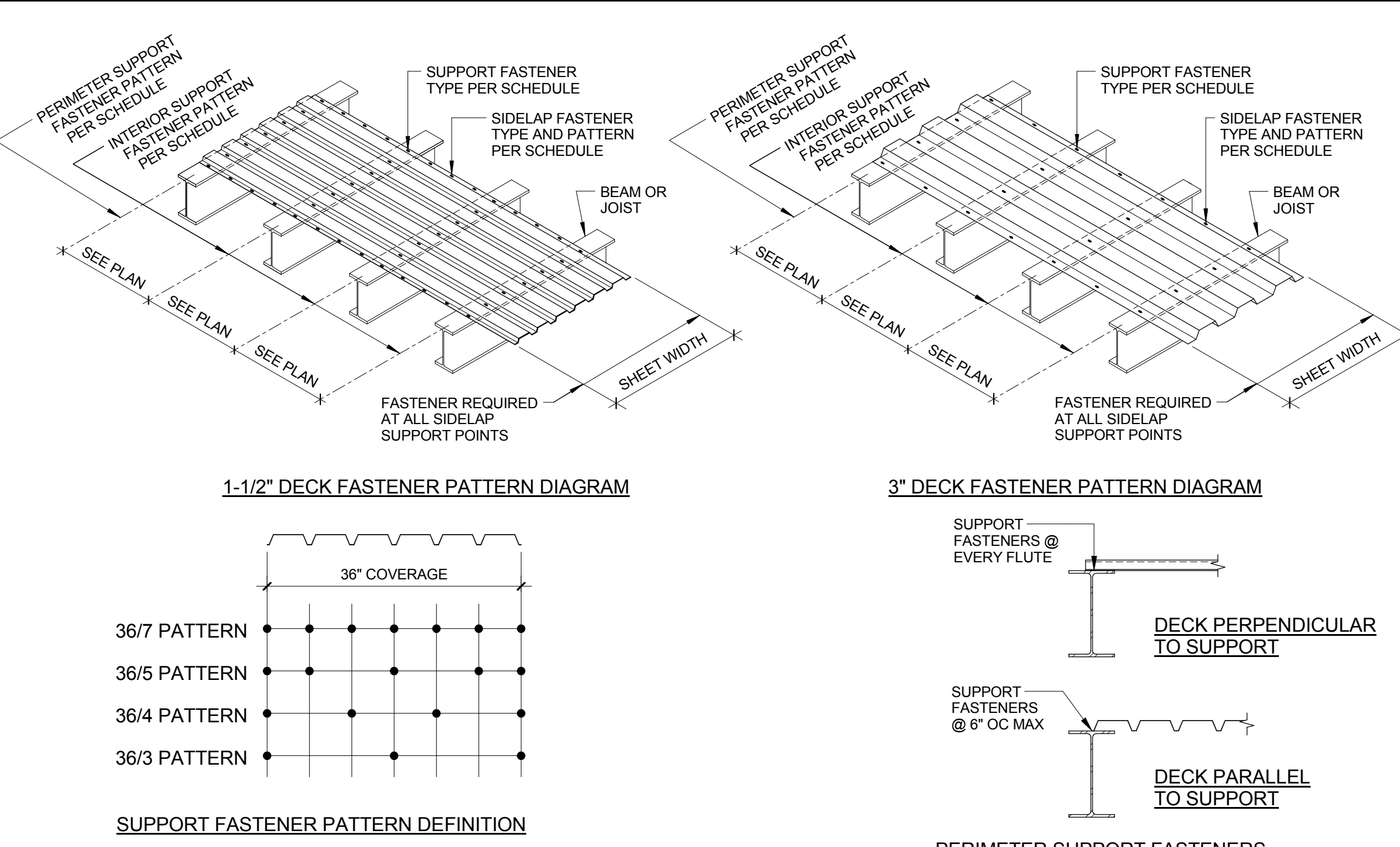
PRESCRIPTIVE LINTEL SCHEDULE			
GENERAL NOTE: PROVIDE LINTELS IN THIS SCHEDULE FOR MASONRY OPENINGS WHERE SPECIFIC LINTELS (L#) ARE NOT OTHERWISE INDICATED. WHERE A SPECIFIC LINTEL (L#) IS INDICATED FOR A PARTICULAR OPENING, PROVIDE THE SPECIFIC LINTEL (L#). FOR OPENINGS BEYOND THE LIMITS AND/OR MATERIALS IDENTIFIED IN THIS SCHEDULE WHERE SPECIFIC LINTELS (L#) ARE NOT OTHERWISE INDICATED, CONTACT THE STRUCTURAL ENGINEER FOR REQUIRED LINTEL SIZE AND TYPE.			
SECTION	CLEAR OPENING	TYPE	NOTES
4W x 8H (NOMINAL) PRECAST	UP TO 6'-0"	PLA	4" CMU
W x 8 H (NOMINAL) CMU	UP TO 4'-0"	PLB	6", 8", 10", 12" CMU
W x 16 H (NOMINAL) CMU	>4'-0" UP TO 6'-0"	PLB	6", 8", 10", 12" CMU
W x 24 H (NOMINAL) CMU	>6'-0" UP TO 8'-0"	PLB	6", 8", 10", 12" CMU
L3 1/2 x 3 1/2 x 5/16	UP TO 4'-0"	PLC	4" MASONRY VENEER
L5 x 3 1/2 x 5/16 (LLV)	>4'-0" UP TO 6'-0"	PLC	4" MASONRY VENEER
L6 x 3 1/2 x 5/16 (LLV)	>6'-0" UP TO 8'-0"	PLC	4" MASONRY VENEER
TYPES:			
			
PRESCRIPTIVE LINTEL SCHEDULE NOTES: 1. ALL LINTELS BEAR 0'-8" ONTO SUPPORTING WALLS, UNO. 2. ALL STEEL LINTELS IN EXTERIOR WALLS SHALL BE GALVANIZED.			

WALL FOOTING SCHEDULE			
MARK	SIZE (W x D)	FTG REINF	REMARKS
WF36	3'-0" x 1'-0"	(3) #5 CONT	EMBED REINF 6" INTO ADJ FTG W/ EPOXY

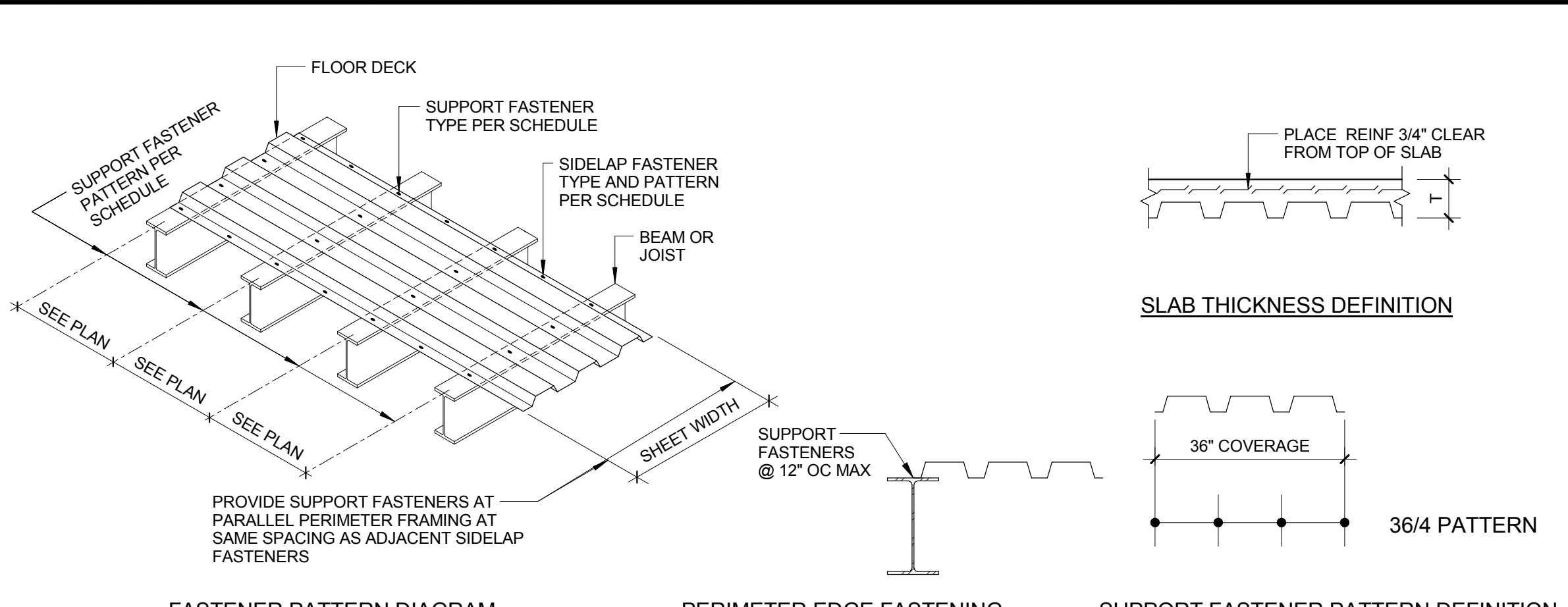
CONCRETE MIX SCHEDULE						
CONCRETE USAGE	28-DAY COMPRESSIVE STRENGTH (PSI)	MINIMUM CEMENTITIOUS MATLS (LB/CYD)	MAX CEMENT REPLACEMENT (NOTE 3)	MAXIMUM W/CM RATIO	AIR CONTENT (PERCENT)	MAXIMUM AGGREGATE SIZE (INCHES)
FOOTINGS	3,000	423	20%	0.55	0-3	1.5
MASS CONC (MIN DIMENSIONS > 4 FEET)	4,000	470	20%	0.50	0-3	1.5
GRADE BEAMS, PIERS, FOUNDATION WALLS	4,000	470	20%	0.50	0-3	1
SLABS ON GRADE (6 INCHES OR LESS)	4,000	470	20%	0.48	0-3	1
SLABS ON METAL DECK	4,000	470	20%	0.48	0-3	1
LIGHTWEIGHT SLABS ON METAL DECK	4,000	470	N/A	0.48	6 +/- 1	1
NOTES: 1. SEE GENERAL NOTES AND SPECIFICATIONS FOR ADDITIONAL INFORMATION. 2. ALL CONCRETE IS NORMAL WEIGHT AND CEMENT IS ASTM C150 TYPE 1, UNO. DO NOT USE LIGHTWEIGHT CONCRETE UNLESS SPECIFICALLY INDICATED. 3. ACCEPTABLE CEMENT REPLACEMENT MATERIAL, WHERE PERMITTED, SHALL BE FLY ASH, ASTM C618 TYPE C OR F, UNO. 4. TARGET SLUMP SHALL BE DETERMINED BY THE CONTRACTOR AS NEEDED FOR PROPER PLACEMENT. 5. WHERE NOTED, BLENDED AGGREGATE WITH ZONE 2 CONSENSUS PER ACI 302 IS MANDATORY.						



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SS-004
ASSUMED FUTURE VERTICAL EXPANSION

STEEL DECK SCHEDULE									
MARK	HEIGHT	GAUGE	TYPE	FINISH	SUPPORT FASTENER TYPE	PERIMETER SUPPORT FASTENER PATTERN	INTERIOR SUPPORT FASTENER PATTERN	SIDLAP FASTENER TYPE	NOTES
D1	1-1/2"	22 GA	TYPE B	PAINTED	5/8" DIA PUDDLE WELDS	SEE BELOW	36/4	#10 TEK SCREWS	2 PER SPAN
									
NOTES: 1. FASTEN THROUGH MULTIPLE SHEETS AT ALL END AND SIDE LAPS. 2. END LAPS SHALL OCCUR ONLY AT SUPPORT POINTS. 3. DECK SHALL BE INSTALLED IN MINIMUM THREE SPAN CONDITION, UNO.									

NON-COATED REINFORCING BAR DEVELOPMENT AND SPLICE LENGTHS			
f'c = 4000 PSI			
BAR SIZE	Ld	Ldt	Lt
#3	15	20	26
#4	19	25	33
#5	24	32	41
#6	29	38	50
#7	42	55	71
#8	48	63	82
#9	54	71	92
#10	60	78	102
#11	66	86	112
NOTES: 1. db = NOMINAL BAR DIAMETER Ld = TENSION DEVELOPMENT LENGTH Ldt = DEVELOPMENT LENGTH OF TOP BARS IN TENSION Lt = TENSION LAP SPICE LENGTH Ldt = TENSION LAP SPICE LENGTH OF TOP BARS Lc = COMPRESSION DEVELOPMENT LENGTH Lc = TIED COLUMN LAP SPICE IN COMPRESSION Lcs = SPIRAL COLUMN LAP SPICE IN COMPRESSION 2. REBAR DEVELOPMENT/SPLICE LENGTHS ARE BASED ON ACI 318, REINFORCEMENT YIELD STRENGTH, Fy = 60 KSI. 3. *TOP BARS* = HORIZONTAL BEAM, MAT, OR SLAB REINFORCING WITH MORE THAN 12" CAST BELOW. 4. ALL SPLICES SHALL BE TENSION SPLICES, UNO. 5. LARGER DIAMETER SPLICE LENGTHS GOVERN AT BAR SIZE TRANSITIONS. 6. FOR LIGHTWEIGHT CONCRETE, MULTIPLY TABLE VALUES BY 1.33, UNO.			

SLAB ON DECK SCHEDULE										
MARK	HEIGHT	GAUGE	TYPE	FINISH	SLAB T	SLAB REINFORCING	SUPPORT FASTENER TYPE	SUPPORT FASTENER PATTERN	SIDLAP FASTENER TYPE	NOTES
S1	1 1/2"	22 GA	COMPOSITE	GALV	5"	6x6-W2.9W2.9 WWF	5/8" DIA PUDDLE WELDS	36-4	BUTTON PUNCH	LIGHTWEIGHT CONCRETE
S2	1 1/2"	22 GA	COMPOSITE	GALV	8"	6x6-W2.9W2.9 WWF	5/8" DIA PUDDLE WELDS	36-4	BUTTON PUNCH	LIGHTWEIGHT CONCRETE
										
NOTES: 1. CONCRETE TO BE NORMAL WEIGHT, UNO. 2. FASTEN THROUGH MULTIPLE SHEETS AT ALL END AND SIDE LAPS. 3. END LAPS SHALL OCCUR ONLY AT SUPPORT POINTS. 4. DECK SHALL BE INSTALLED IN MINIMUM THREE SPAN CONDITION, UNO. 5. FOR DECK SPANS 6'-0" OR LESS, PROVIDE ONE SIDELAP FASTENER AT MID-SPAN OF EACH JOIST OR BEAM SPACE. 6. FOR DECK SPANS EXCEEDING 6'-0", PROVIDE SIDELAP FASTENERS AT 3'-0" OC, MAX.										

DBA SCHEDULE		
COLUMN	DBA LAYOUT	BEAM END STIFFENER PLATES REQUIRED
A7	(1) BEAM W/ (1) ROW OF (1)	
A16	(1) BEAM W/ (2) ROWS OF (3)	
A22	(1) BEAM W/ (5) ROWS OF (3)	YES
A24	(1) BEAM W/ (5) ROWS OF (3)	YES
C7	(2) BEAMS W/ (2) ROWS OF (3)	
C9	(1) BEAM W/ (1) ROWS OF (3)	
C11	(2) BEAMS W/ (2) ROWS OF (3)	
C14	(1) BEAM W/ (5) ROWS OF (3)	YES
C16	(1) BEAM W/ (1) ROW OF (1)	
C24	(2) BEAM W/ (3) ROWS OF (3)	
E24	(2) BEAMS W/ (1) ROWS OF (3)	
F24	(1) BEAM W/ (4) ROWS OF (3)	YES
G7	(2) BEAMS W/ (3) ROWS OF (3)	
H16	(1) BEAM W/ (1) ROW OF (3)	
J14	(1) BEAM W/ (4) ROWS OF (3)	
J15	(1) BEAM W/ (4) ROWS OF (3)	
J16	(1) BEAM W/ (2) ROWS OF (3)	
J19	(1) BEAM W/ (4) ROWS OF (3)	YES
J21	(1) BEAM W/ (4) ROWS OF (3)	YES
NOTES: 1. THIS SCHEDULE DETERMINES THE LAYOUT OF SHEAR STUDS WITHIN A DISTANCE "D" EQUAL TO THE DEPTH OF THE EXISTING BEAM OF THE BEAM END AS SPECIFIED IN "NEW SHEAR WALL DETAIL AT EXISTING FOUNDATION AND FRAMING". ADDITIONAL SHEAR STUDS AT 2'-0" OC REQUIRED FOR ENTIRE BEAM LENGTH. 2. USE DBA GROUP SPACING AS SHOWN IN SECTION A-A OF "NEW SHEAR WALL DETAIL AT EXISTING FOUNDATION AND FRAMING".		

SLAB ON METAL DECK FLATNESS SCHEDULE		
CLASSIFICATION	OVERALL FF	MIN LOCAL FF
CONVENTIONAL	20	15
MODERATELY FLAT	25	20
FLAT	35	25
VERY FLAT	45	35
SUPER FLAT	60	40
FLOOR TYPE / LOCATION		REQUIRED SLAB
EXPOSED WAREHOUSE, MANUFACTURING AREAS, UNO		FLAT
EXPOSED UTILITY/MECHANICAL AREAS, UNO		MODERATELY FLAT
FLOORS WITH CARPET, VCT FINISH, UNO		MODERATELY FLAT
TILE UP TO 16" LONG DIMENSION, >=1/4" GROUT JOINTS		FLAT
TILE UP TO 16" LONG DIMENSION, 3/16" GROUT JOINTS		VERY FLAT
TILE UP TO 16" LONG DIMENSION, 1/8" GROUT JOINTS		SUPER FLAT
TILE >16" TO <36" LONG DIMENSION, >=1/4" GROUT JOINTS		VERY FLAT
TILE >16" TO <36" LONG DIMENSION, <1/4" GROUT JOINTS		SUPER FLAT
TILE >36" LONG DIMENSION		SUPER FLAT
NOTES: 1. GENERAL CONTRACTOR SHALL REVIEW ALL FLOOR FINISH REQUIREMENTS FOR THE PROJECT AND PROVIDE CONCRETE SLAB SURFACE FINISHES IN ACCORDANCE WITH THE REQUIREMENTS OF THE SPECIFIED FLOOR FINISH MATERIALS. WHERE TOLERANCES FOR THE FLOOR FINISH MATERIALS DIFFER FROM THIS SCHEDULE, THE MORE STRINGENT REQUIREMENTS SHALL APPLY. 2. GENERAL CONTRACTOR SHALL COORDINATE WITH THE FINISH FLOORING SUPPLIER TO PROVIDE ALL NECESSARY REPAIR, GRINDING, AND / OR LEVELING OF THE CONCRETE SLAB TO ACCOMMODATE ALL FLOOR FINISHES PRIOR TO INSTALLATION OF FINISH MATERIALS WITH NO ADDITIONAL COST TO THE PROJECT.		

COLUMN FOOTING SCHEDULE			
MARK	FTG SIZE (W x L x D)	FTG REINFORCEMENT	REMARKS
F4.0	4'-0" x 4'-0" x 1'-0"	(5) #5 EW BOT	
NOTES: 1. ALLOWABLE SOIL BEARING PRESSURE = 4,000 PSF (UNFACTORED) 2. FOOTING CONCRETE STRENGTH = 3,000 PSI			

MASONRY REINFORCING STEEL LAP SPLICE CHART			
BAR SPLICE LENGTHS			
BAR	UNCOATED BARS TYPE 1.0LD	EPOXY-COATED BARS TYPE 1.0LD	EPOXY-COATED BARS TYPE 1.5LD
#3	20"	36"	54"
#4	26"	48"	72"
#5	32"	60"	90"
#6	39"	72"	108"
#7	45"	84"	126"
#8	52"	96"	144"
#9	58"	109"	164"
NOTES: 1. ALL SPLICES ARE TYPE 1.0LD, UNO. 2. BARS LARGER THAN #9 ARE REQUIRED TO BE SPLICED BY MECHANICAL CONNECTORS, UNO. 3. SPLICES BASED ON Fy = 33,000 PSI AND Fm = 1500 PSI. 4. ALL BARS ARE UNCOATED, UNO.			

CMU WALL REINFORCEMENT SCHEDULE			
MARK	SIZE	VERTICAL REINFORCEMENT	REMARKS
W1	8	#5 @ 24" OC	
NOTES: 1. SEE THE STRUCTURAL DRAWINGS, ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR REQUIRED HORIZONTAL (BOND BEAM AND JOINT) REINFORCEMENT AND REQUIRED ADDITIONAL VERTICAL REINFORCEMENT. 2. PROVIDE MATCHING HOOKED DOWELS INTO THE FOUNDATION FOR ALL VERTICAL REINFORCEMENT. GROUT SOLID ALL CELLS CONTAINING VERTICAL REINFORCEMENT.			

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Virginia Beach, VA
Fort Collins, CO

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: SCHEDULES

Location: MARION VAMC MARION, IL, 62959

Project Title: ADD STRUCTURAL IMPROVEMENTS TO BUILDING 42

Approved: Project Director

Date: 09/06/17

Checked: DGC

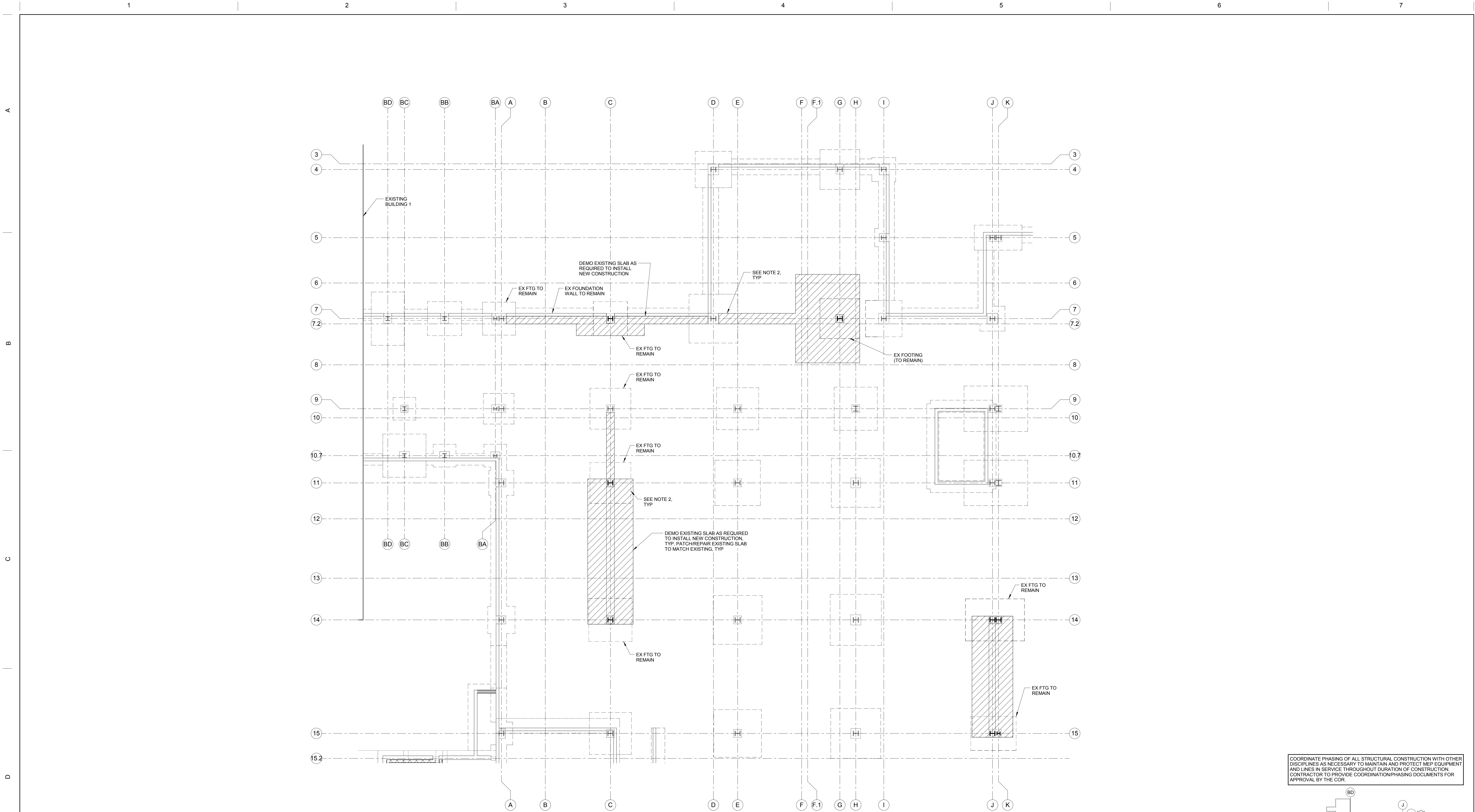
Drawn: JHC

VA PROJECT NUMBER: 657-343

Building Number: 42

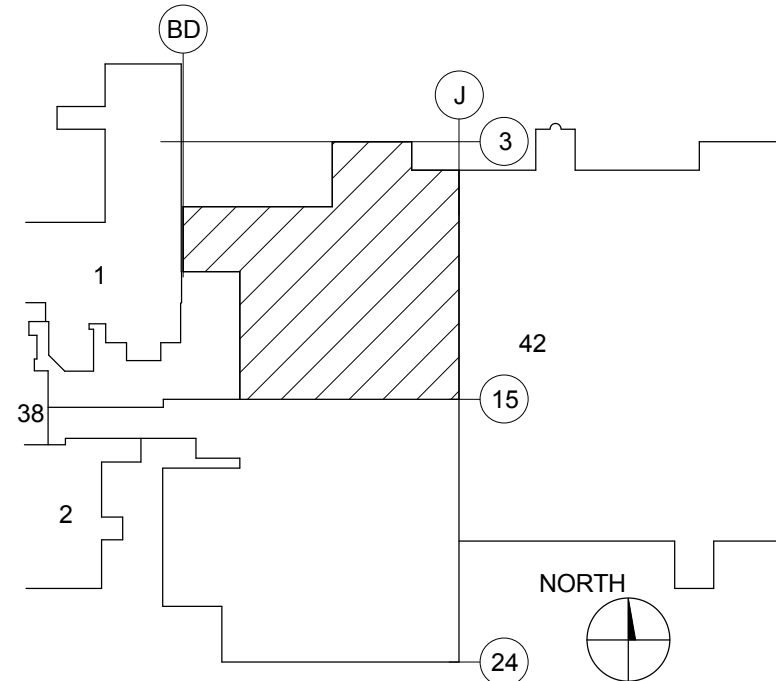
Drawing Number: SS-004

Dwg. 4 of 28



1
SD110
FOUNDATION DEMOLITION PLAN - NORTH
1/8" = 1'-0"
GENERAL PLAN NOTES:
1. CONTRACTOR SHALL VERIFY ALL CONDITIONS IN THE FIELD PRIOR TO BEGINNING DEMOLITION WORK.
2. CONTRACTOR SHALL VERIFY SLAB CONDITION AT EXISTING FOOTINGS PRIOR TO DEMOLITION. DO NOT CUT EXISTING FOOTINGS.

COORDINATE PHASING OF ALL STRUCTURAL CONSTRUCTION WITH OTHER DISCIPLINES AS NECESSARY TO MAINTAIN AND PROTECT MEP EQUIPMENT AND LINES IN SERVICE THROUGHOUT DURATION OF CONSTRUCTION. CONTRACTOR TO PROVIDE COORDINATION/PHASING DOCUMENTS FOR APPROVAL BY THE COR.



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Fort Collins, CO

Project Number
16-198
Scale
AS INDICATED

Office of
Construction
and Facilities
Management



Drawing Title:
FOUNDATION DEMOLITION PLAN - NORTH

Location
**MARION VAMC
MARION, IL, 62959**

Project Title
**ADD STRUCTURAL
IMPROVEMENTS TO BUILDING
42**

Approved: Project Director

Date
09/06/17

Checked
DCG

Drawn
JHC

VA PROJECT NUMBER
657-343

Building Number
42

Drawing Number
SD110

Dwg. 5 of 28

A

B

C

D

E

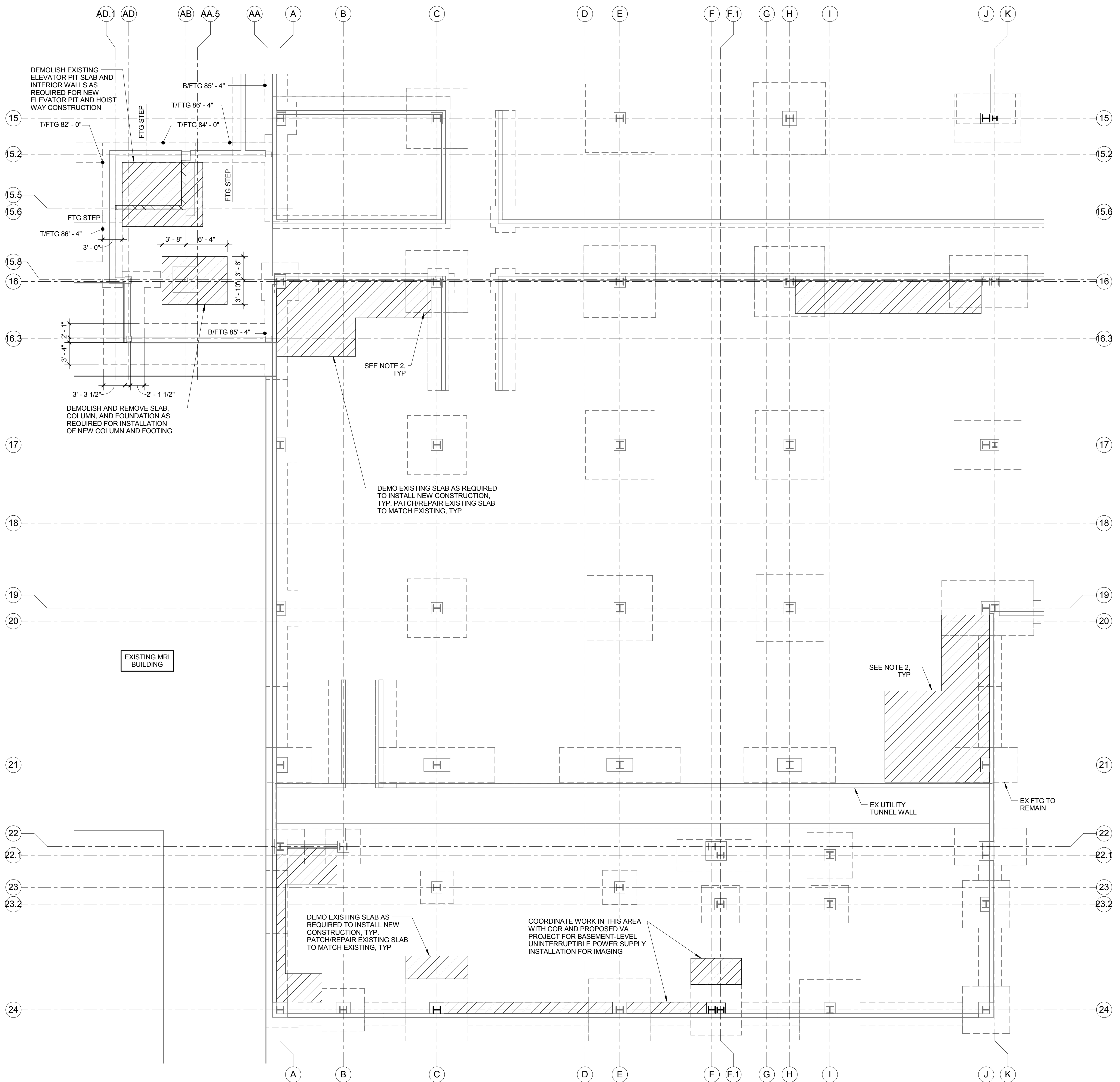
A

B

C

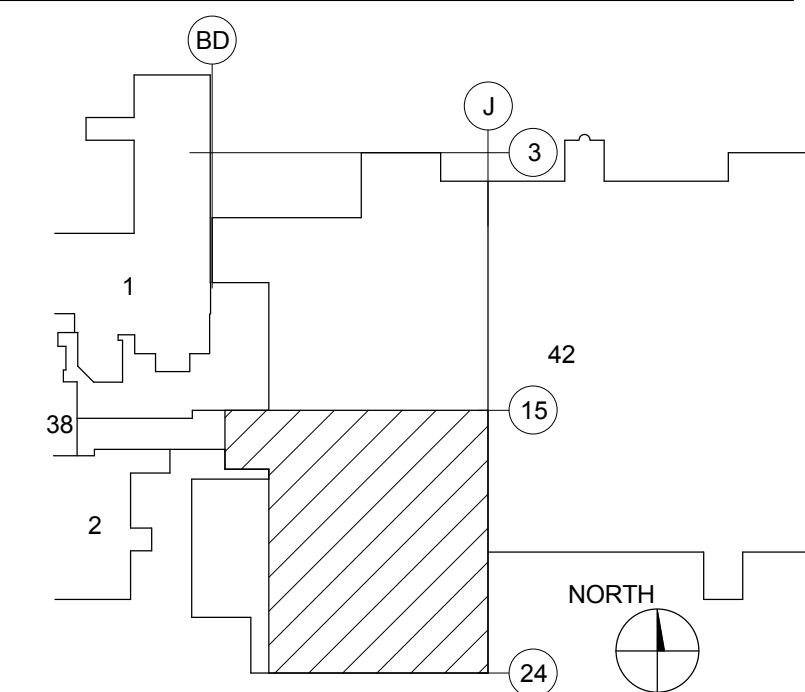
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E



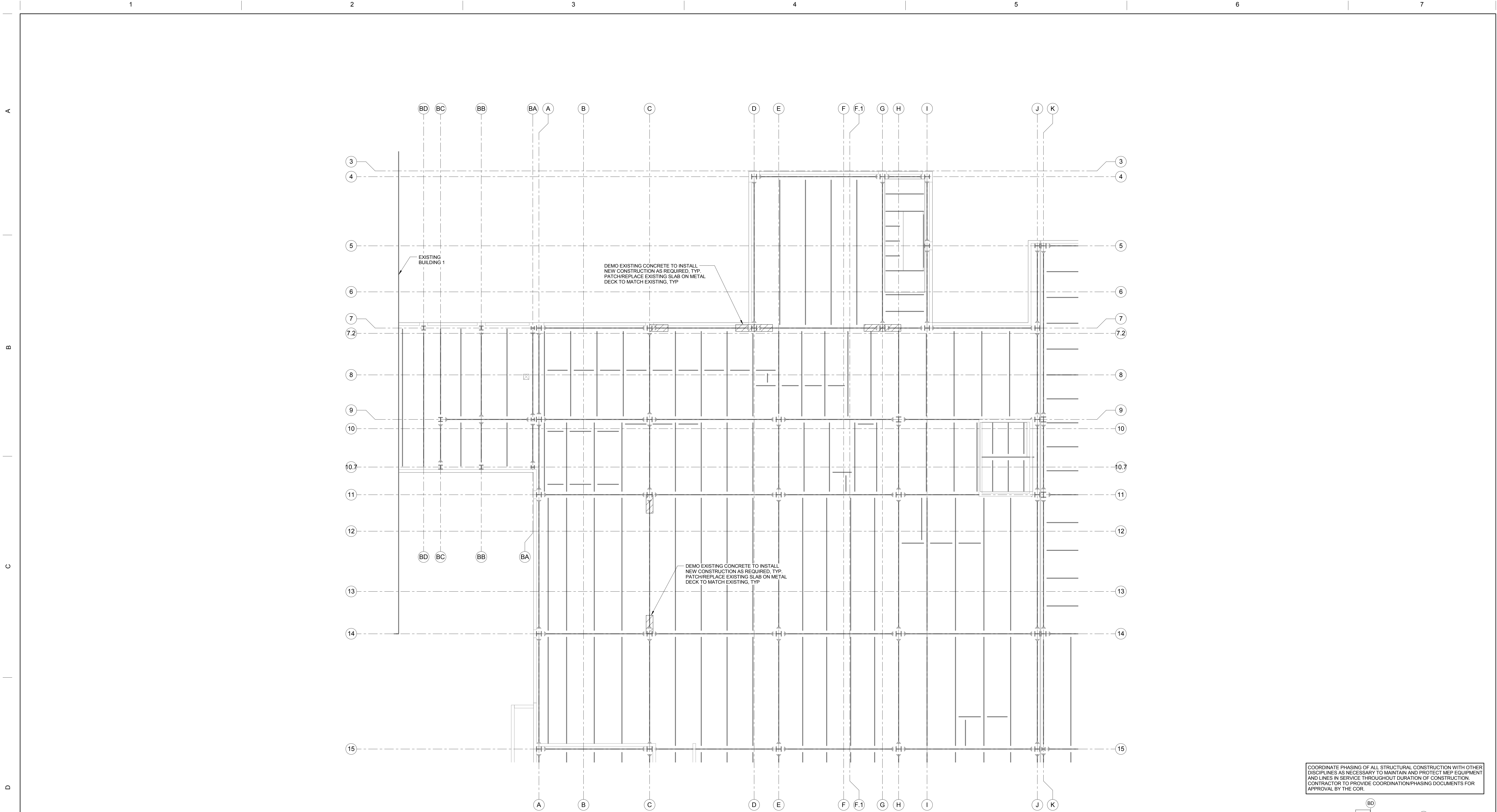
1 SD111 1/8" = 1'-0"
FOUNDATION DEMOLITION PLAN - SOUTH
GENERAL PLAN NOTES:
1. CONTRACTOR SHALL VERIFY ALL CONDITIONS IN THE FIELD PRIOR TO BEGINNING DEMOLITION WORK.
2. CONTRACTOR SHALL VERIFY SLAB CONDITION AT EXISTING FOOTINGS PRIOR TO DEMOLITION. DO NOT CUT EXISTING FOOTINGS.

COORDINATE PHASING OF ALL STRUCTURAL CONSTRUCTION WITH OTHER DISCIPLINES AS NECESSARY TO MAINTAIN AND PROTECT MEP EQUIPMENT AND LINES IN SERVICE THROUGHOUT DURATION OF CONSTRUCTION. CONTRACTOR TO PROVIDE COORDINATION/PHASING DOCUMENTS FOR APPROVAL BY THE COR.



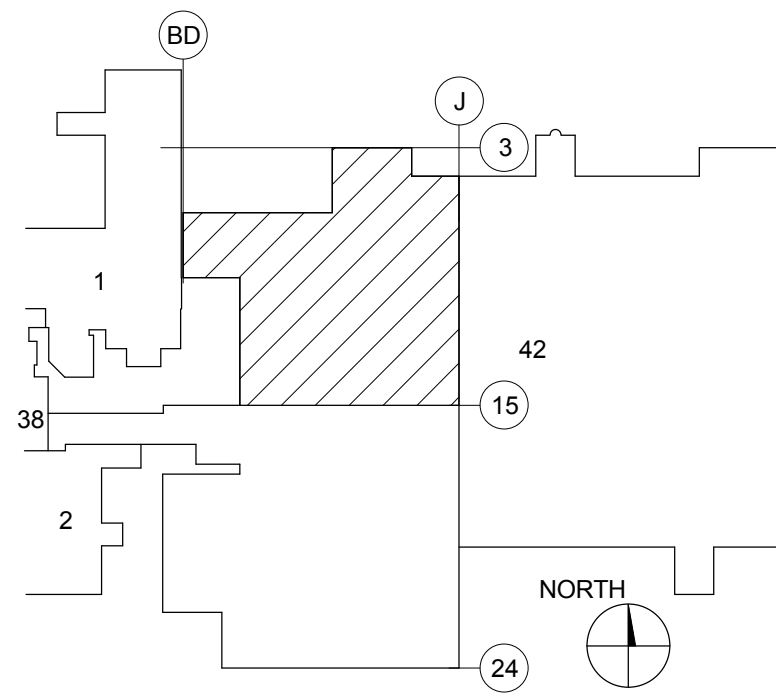
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CONSULTANTS: Baysinger Design Group, Inc. 1201 West 10th Street, Suite 1000 Mankato, Illinois 62001 Phone: 618.990.8015 Fax: 618.990.8012 www.baysingerdesigngroup.com Main Design Team: 1614/0112 www.baysingerdesigngroup.com 7240 Shadeland Station, Indianapolis, IN 46256 Tel: 317.567.5500 Fax: 317.567.5270 www.structurepoint.com		 AMERICAN STRUCTUREPOINT INC. 7240 Shadeland Station, Indianapolis, IN 46256 Tel: 317.567.5500 Fax: 317.567.5270 www.structurepoint.com		 DONALD G. CORSON 084-007497 STATE OF ILLINOIS		PROJECT MANAGER: APOGEE Consulting Group Engineers Architects www.acgp-usa.com 919-858-7420 Raleigh, NC Indianapolis, IN Pittsburgh, PA Virginia Beach, VA Fort Collins, CO		Project Number 16-198 Scale AS INDICATED		Office of Construction and Facilities Management U.S. Department of Veterans Affairs		Drawing Title: FOUNDATION DEMOLITION PLAN - SOUTH Location MARION VAMC MARION, IL, 62959		Project Title ADD STRUCTURAL IMPROVEMENTS TO BUILDING 42 Approved: Project Director Date 09/06/17 Checked DCG Drawn JHC		VA PROJECT NUMBER 657-343 Building Number 42 Drawing Number SD111 Dwg. 6 of 28	
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1
SD210
GROUND FLOOR FRAMING DEMOLITION PLAN - NORTH
1/8" = 1'-0"

COORDINATE PHASING OF ALL STRUCTURAL CONSTRUCTION WITH OTHER DISCIPLINES AS NECESSARY TO MAINTAIN AND PROTECT MEP EQUIPMENT AND LINES IN SERVICE THROUGHOUT DURATION OF CONSTRUCTION. CONTRACTOR TO PROVIDE COORDINATION/PHASING DOCUMENTS FOR APPROVAL BY THE COR.

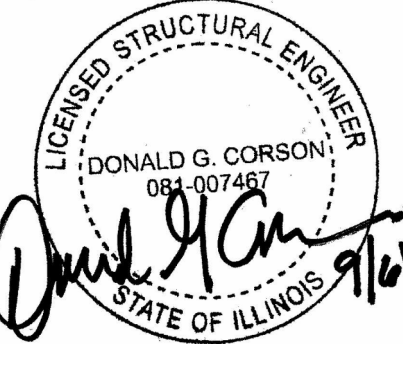


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Pittsburgh, PA
Virginia Beach, VA
Fort Collins, CO

Project Number
16-198

Scale
AS INDICATED

Office of
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and Facilities
Management



Drawing Title:
GROUND FLOOR FRAMING DEMOLITION
PLAN

Location
MARION VAMC
MARION, IL, 62959

Project Title
ADD STRUCTURAL
IMPROVEMENTS TO BUILDING
42

Approved: Project Director

Date
09/06/17

Checked
DCG

Drawn
JHC

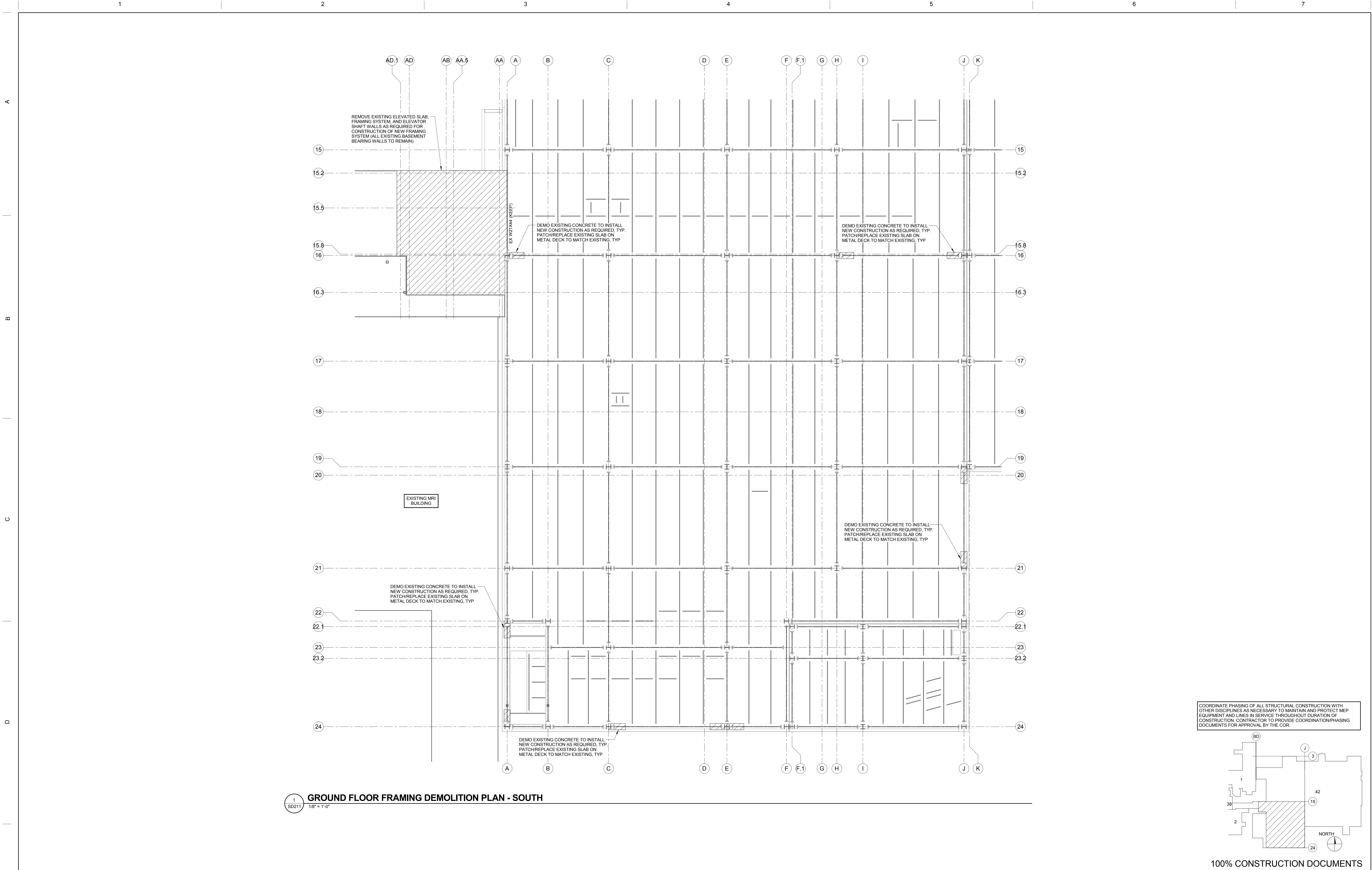
VA PROJECT NUMBER
657-343

Building Number
42

Drawing Number

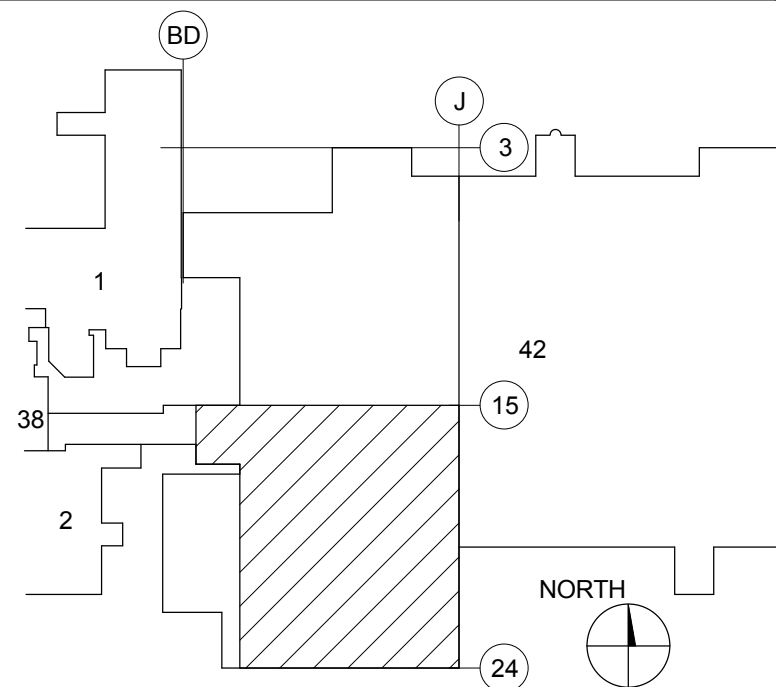
SD210

Dwg. 7 of 28



1
SD211
GROUND FLOOR FRAMING DEMOLITION PLAN - SOUTH
1/8" = 1'-0"

COORDINATE PHASING OF ALL STRUCTURAL CONSTRUCTION WITH OTHER DISCIPLINES AS NECESSARY TO MAINTAIN AND PROTECT MEP EQUIPMENT AND LINES IN SERVICE THROUGHOUT DURATION OF CONSTRUCTION. CONTRACTOR TO PROVIDE COORDINATION/PHASING DOCUMENTS FOR APPROVAL BY THE COR.



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Project Number
16-198

Scale
AS INDICATED

Office of
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Management



U.S. Department
of Veterans Affairs

Drawing Title:
GROUND FLOOR FRAMING DEMOLITION
PLAN

Location

MARION VAMC
MARION, IL, 62959

Project Title:
ADD STRUCTURAL
IMPROVEMENTS TO BUILDING
42

Approved: Project Director

Date
09/06/17

Checked
DCG

Drawn
JHC

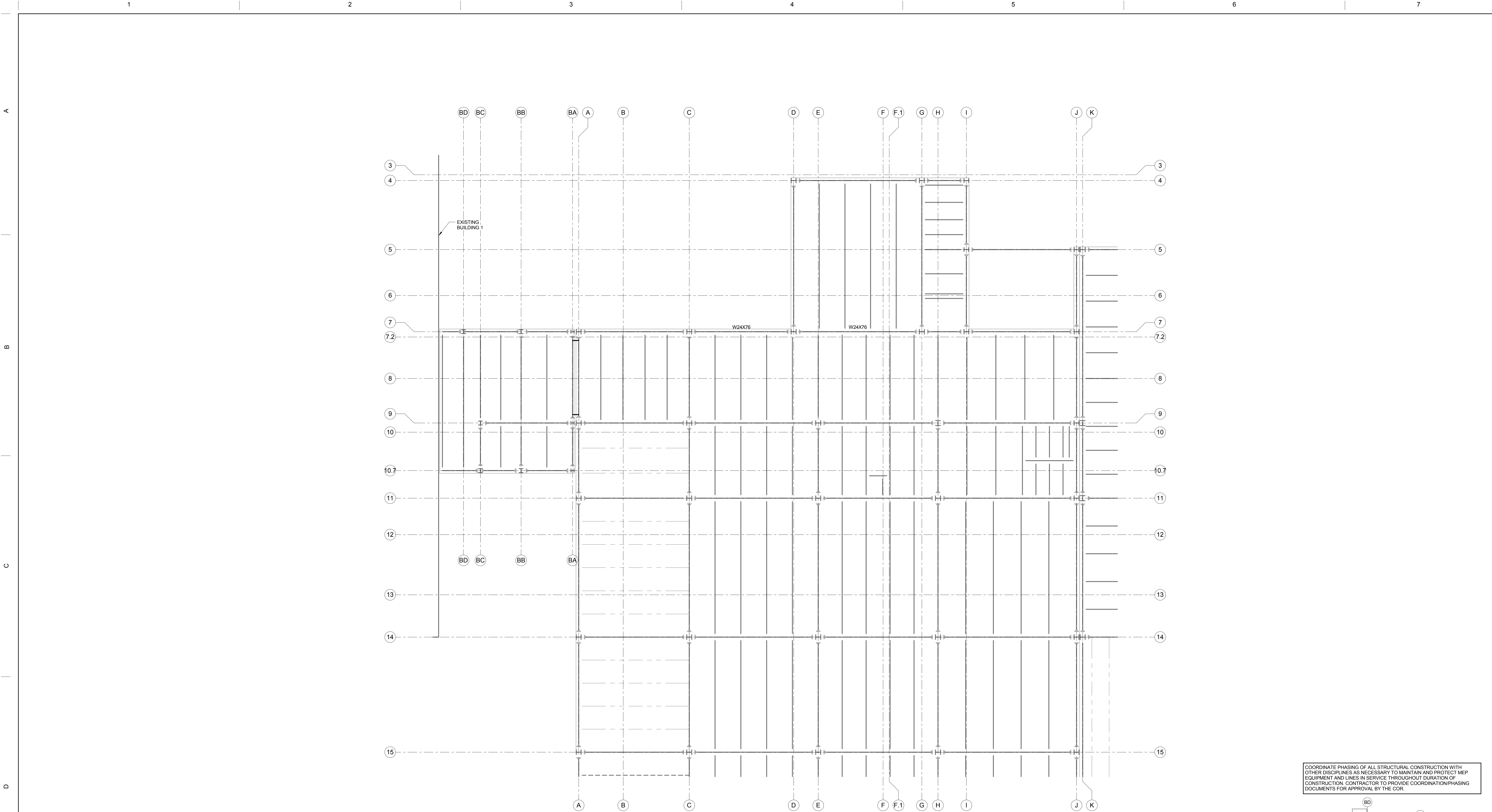
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657-343

Building Number
42

Drawing Number

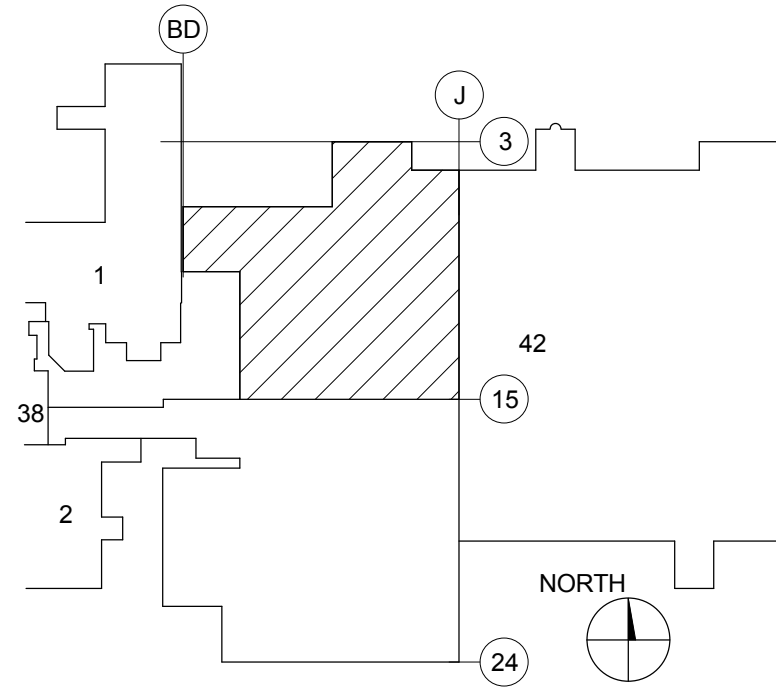
SD211

Dwg. 8 of 28



1
SD212
2ND/ROOF FRAMING DEMOLITION PLAN - NORTH
1/8" = 1'-0"

COORDINATE PHASING OF ALL STRUCTURAL CONSTRUCTION WITH OTHER DISCIPLINES AS NECESSARY TO MAINTAIN AND PROTECT MEP EQUIPMENT AND LINES IN SERVICE THROUGHOUT DURATION OF CONSTRUCTION. CONTRACTOR TO PROVIDE COORDINATION/PHASING DOCUMENTS FOR APPROVAL BY THE COR.

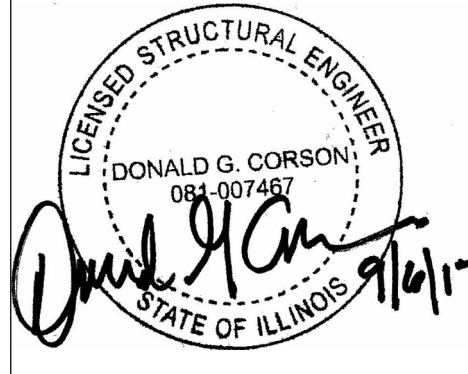


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Project Number
16-198
Scale
AS INDICATED

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Drawing Title:
2ND FLOOR FRAMING DEMOLITION
PLAN

Location
MARION VAMC
MARION, IL, 62959

Project Title
ADD STRUCTURAL
IMPROVEMENTS TO BUILDING
42

Approved: Project Director

Date
09/06/17

Checked
DCG

Drawn
JHC

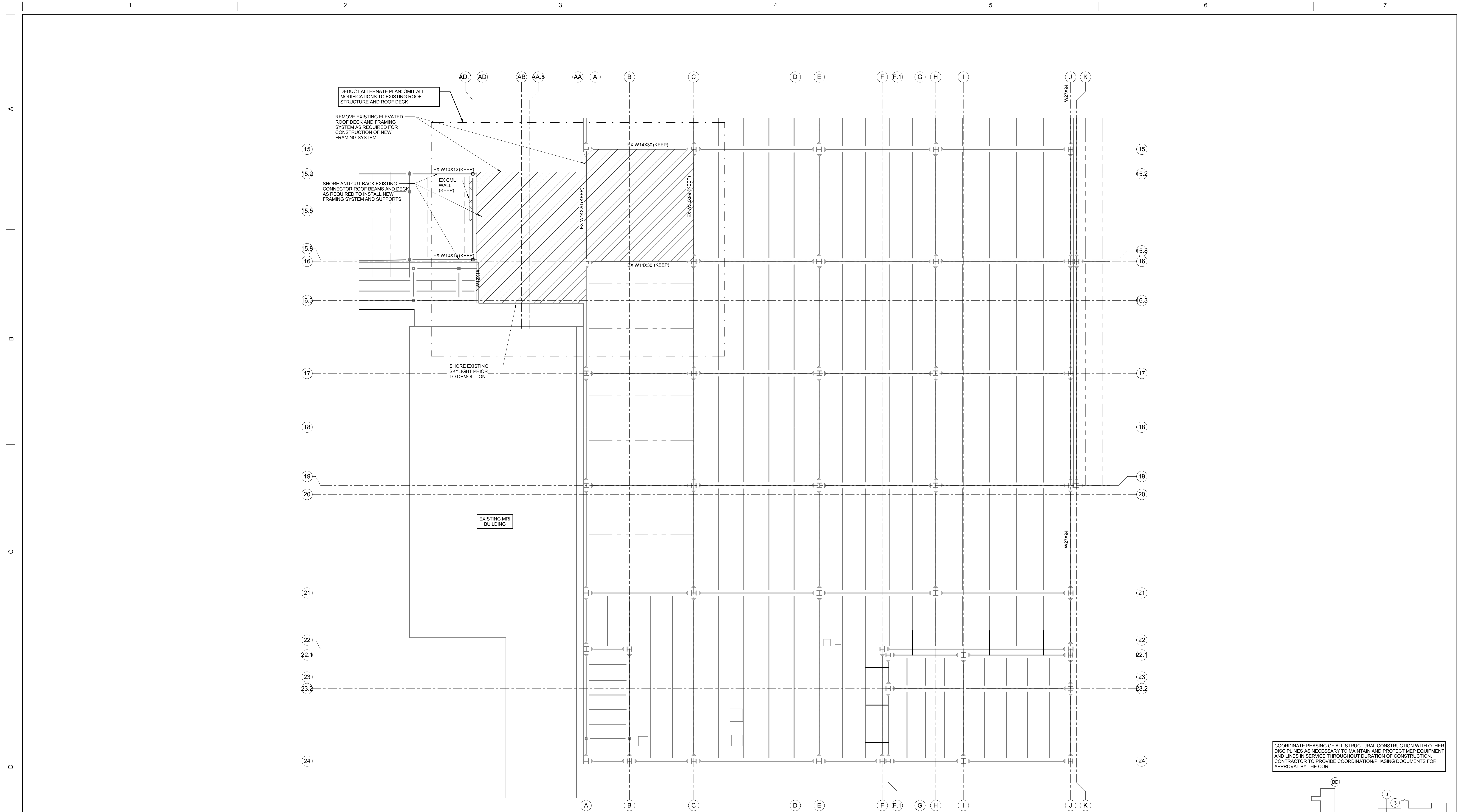
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657-343

Building Number
42

Drawing Number

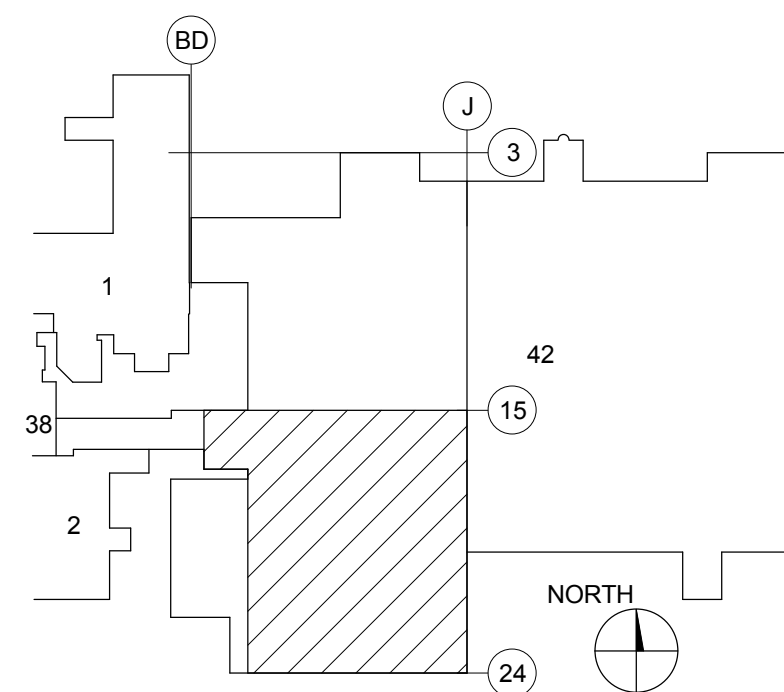
SD212

Dwg. 9 of 28



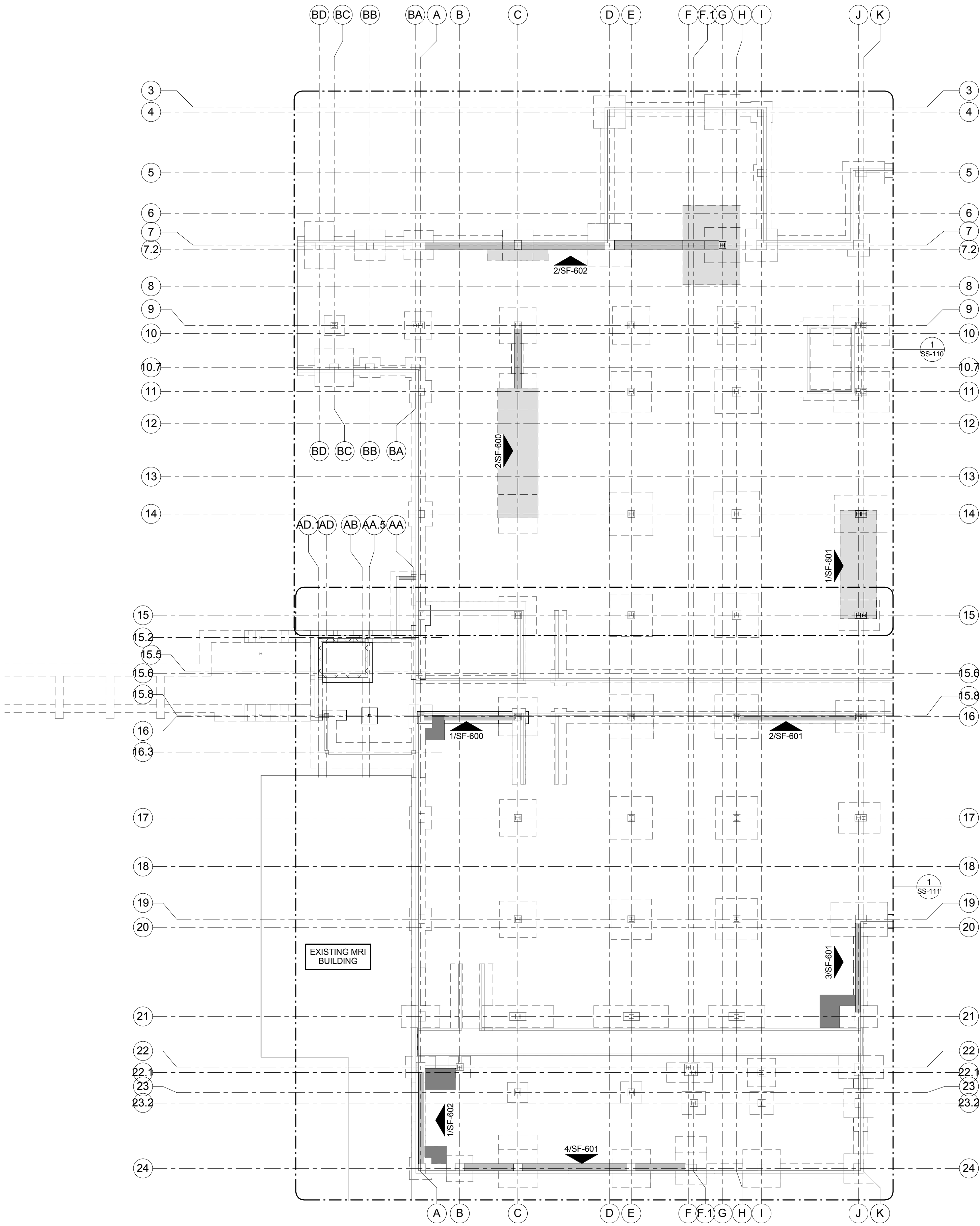
1 SD213 2ND/ROOF FRAMING DEMOLITION PLAN - SOUTH
1/8" = 1'-0"

COORDINATE PHASING OF ALL STRUCTURAL CONSTRUCTION WITH OTHER DISCIPLINES AS NECESSARY TO MAINTAIN AND PROTECT MEP EQUIPMENT AND LINES IN SERVICE THROUGHOUT DURATION OF CONSTRUCTION. CONTRACTOR TO PROVIDE COORDINATION/PHASING DOCUMENTS FOR APPROVAL BY THE COR.



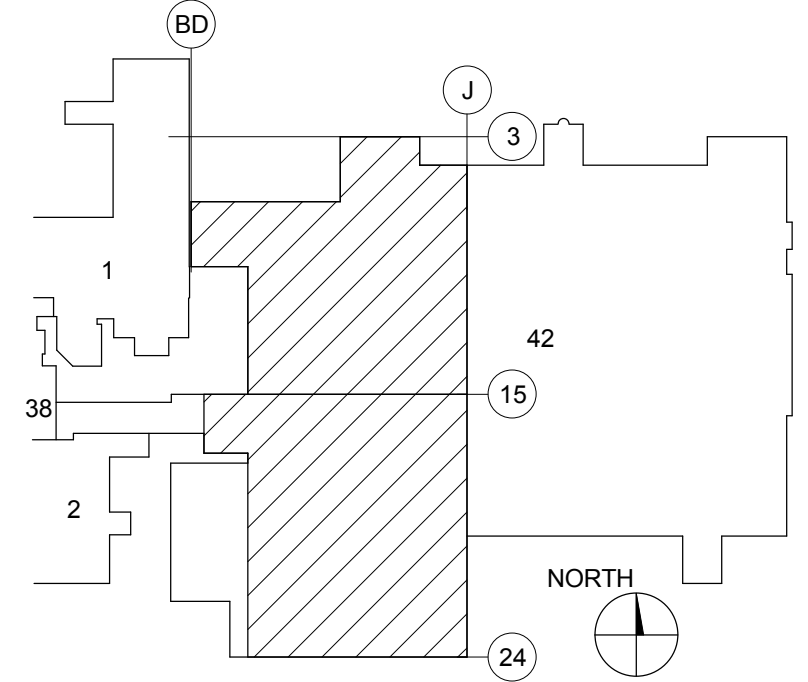
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Revisions:	Date	CONSULTANTS:		 Baysinger Design Group, Inc. 4211 West 14th Street, Suite 100B Morton, Illinois 62450 Phone: 618.990.8815 Fax: 618.990.8812 www.BaysingerDesignGroup.com	 AMERICAN STRUCTUREPOINT INC. 7240 Shadeland Station, Indianapolis, IN 46256 Tel: 317.543.5500 Fax: 317.543.0210 www.structurepoint.com		PROJECT MANAGER:		Project Number 16-198	Scale AS INDICATED	 Office of Construction and Facilities Management	Drawing Title: 2ND FLOOR FRAMING DEMOLITION PLAN		Project Title: ADD STRUCTURAL IMPROVEMENTS TO BUILDING 42		VA PROJECT NUMBER 657-343	
		 APOGEE Consulting Group Engineers Architects www.acgp-ga.com 919-858-7420					Raleigh, NC Indianapolis, IN Pittsburgh, PA Virginia Beach, VA Fort Collins, CO		MARION VAMC MARION, IL, 62959			Approved: Project Director		Building Number 42		Drawing Number SD213	
														Date 09/06/17		Checked DCG	
														Drawn JHC		Dwg. 10 of 28	



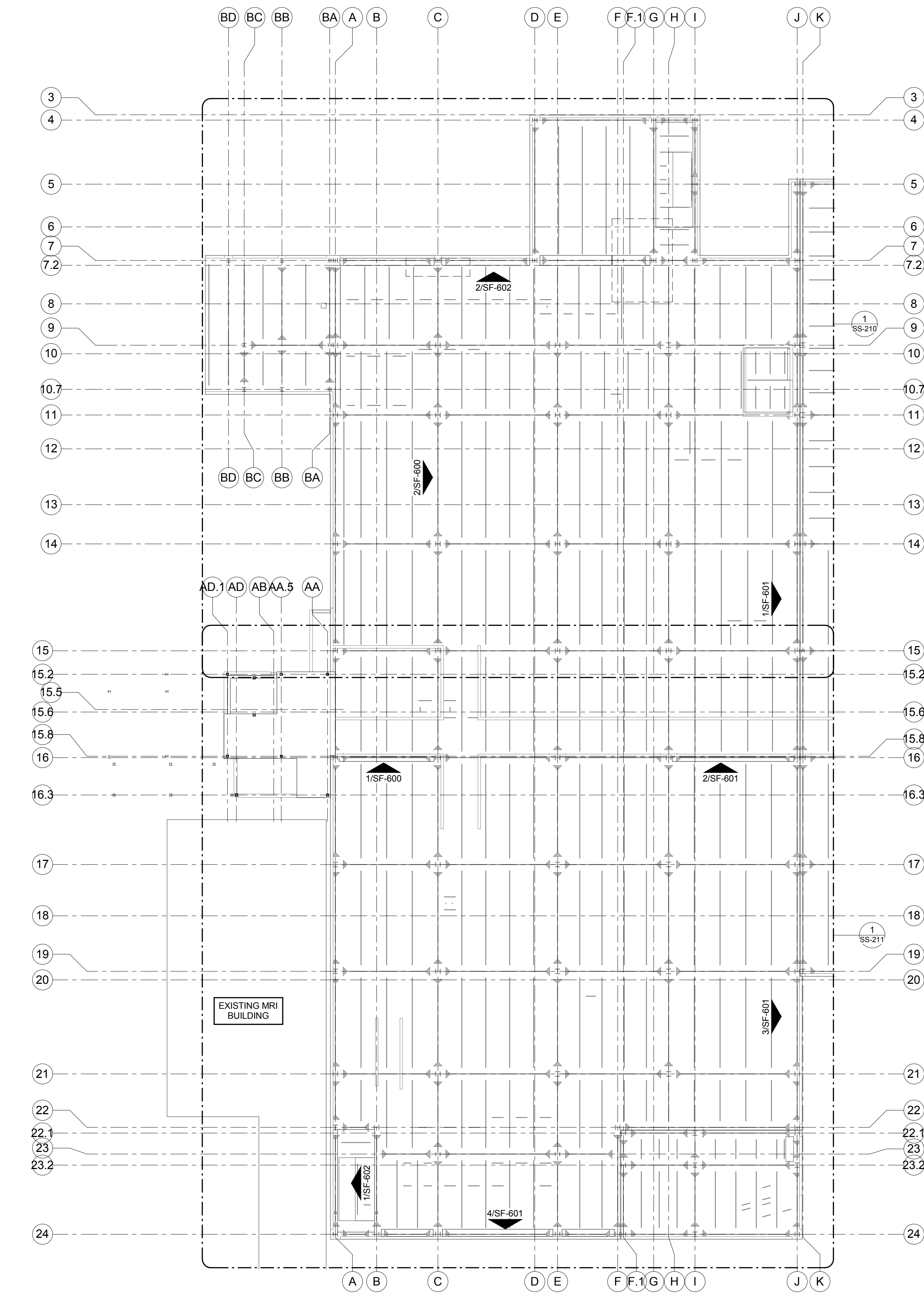
1 SS-100 1/16" = 1'-0" OVERALL FOUNDATION PLAN

NOTE: STRUCTURAL IMPROVEMENTS FOR LATERAL LOAD RESISTING SYSTEMS APPLY ONLY TO INDICATED AREAS WEST OF THE EXISTING STRUCTURAL EXPANSION JOINT BETWEEN COLUMN LINES J AND K. STRUCTURAL IMPROVEMENTS FOR LATERAL LOAD RESISTING SYSTEMS EAST OF THE EXPANSION JOINT ARE NOT INCLUDED IN THIS PROJECT.



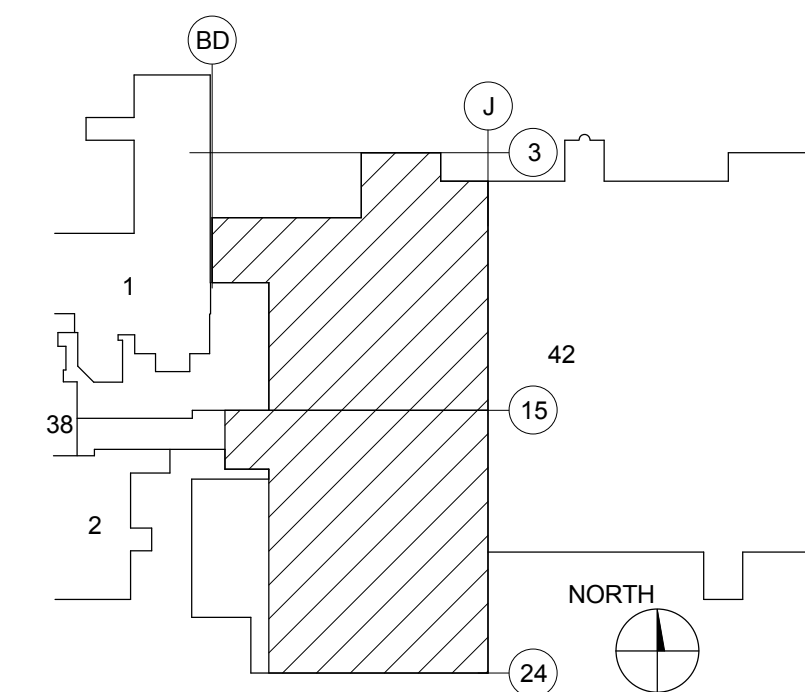
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Revisions:	Date	CONSULTANTS:			PROJECT MANAGER:		Project Number 16-198	Scale AS INDICATED	Office of Construction and Facilities Management VA U.S. Department of Veterans Affairs	Drawing Title: OVERALL FOUNDATION PLAN	Project Title: ADD STRUCTURAL IMPROVEMENTS TO BUILDING 42	VA PROJECT NUMBER 657-343				
		 Baysinger Design Group, Inc. 4311 West DuPont Street, Suite 300B Morton, Illinois 62570 Phone: 618.990.8815 Fax: 618.990.8812 www.baysingerdesigngroup.com	 AMERICAN STRUCTUREPOINT INC. 7240 Shadeland Station, Indianapolis, IN 46256 Tel: 317.547.5500 Fax: 317.543.0210 www.structurepoint.com		 APOGEE Consulting Group Engineers Architects www.acgp-ga.com 919-858-7420		Raleigh, NC Indianapolis, IN Pittsburgh, PA Virginia Beach, VA Fort Collins, CO			Location MARION VAMC MARION, IL, 62959	Approved: Project Director	Date 09/06/17	Checked DGC	Drawn JHC	Building Number 42	Drawing Number SS-100



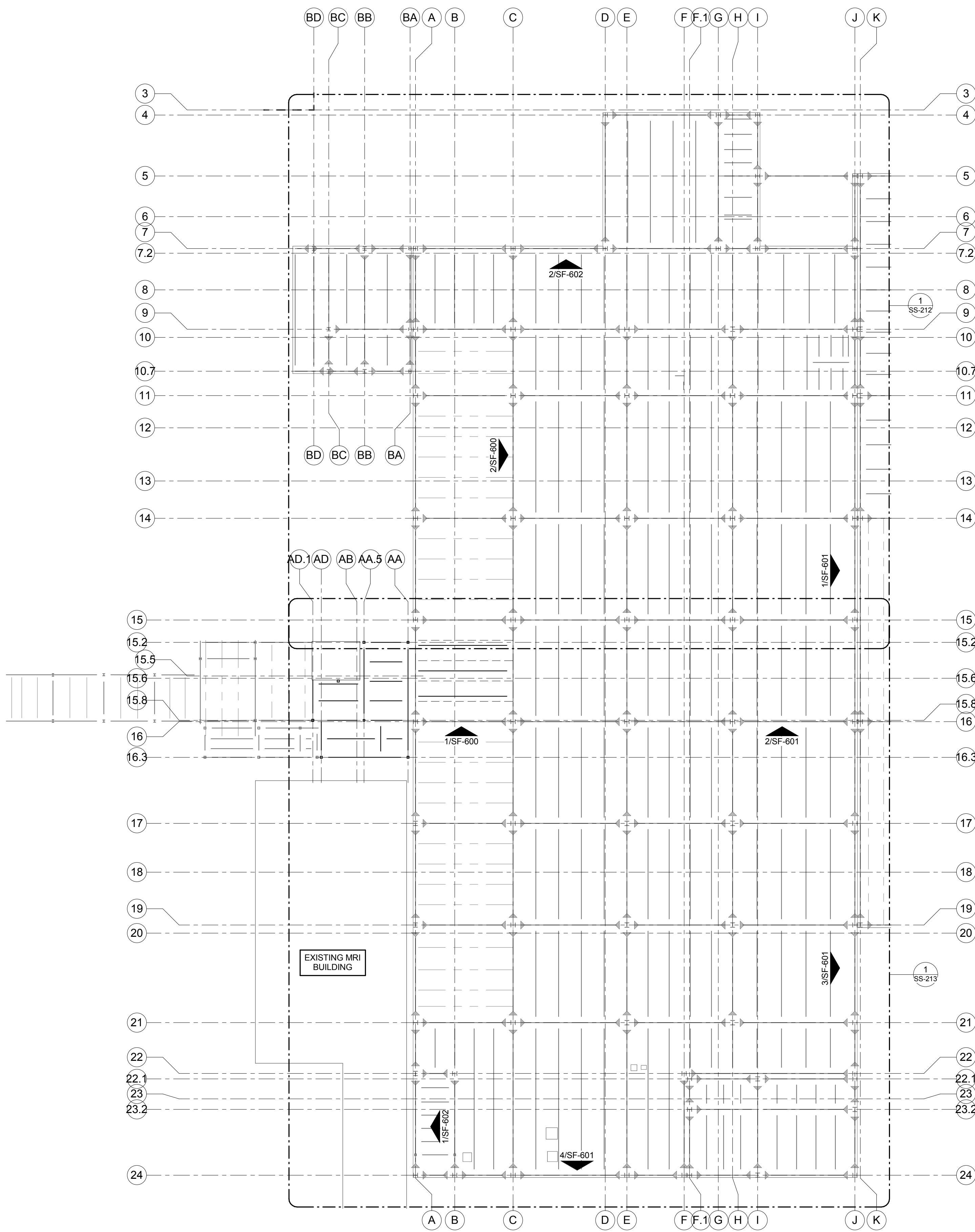
1 SS-101 OVERALL GROUND FLOOR FRAMING PLAN
1/16" = 1'-0"

NOTE: STRUCTURAL IMPROVEMENTS FOR LATERAL LOAD RESISTING SYSTEMS APPLY ONLY TO INDICATED AREAS WEST OF THE EXISTING STRUCTURAL EXPANSION JOINT BETWEEN COLUMN LINES J AND K. STRUCTURAL IMPROVEMENTS FOR LATERAL LOAD RESISTING SYSTEMS EAST OF THE EXPANSION JOINT ARE NOT INCLUDED IN THIS PROJECT.



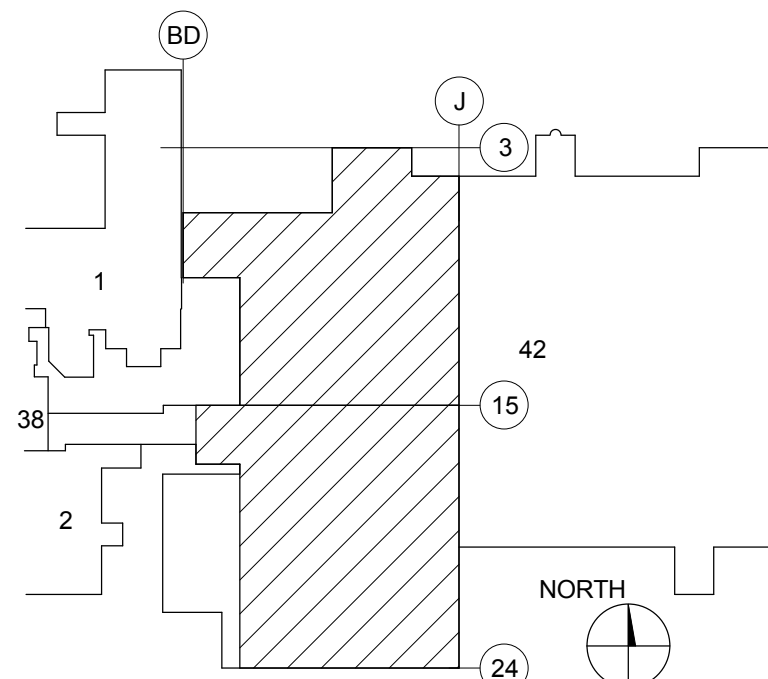
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Revisions:	Date	CONSULTANTS:			PROJECT MANAGER:		Project Number 16-198	Scale AS INDICATED	Office of Construction and Facilities Management VA U.S. Department of Veterans Affairs	Drawing Title: OVERALL GROUND FLOOR FRAMING PLAN		Project Title: ADD STRUCTURAL IMPROVEMENTS TO BUILDING 42		VA PROJECT NUMBER 657-343			
		 Baysinger Design Group, Inc. 4311 West 124th Street, Suite 100B Morton, Illinois 62570 Phone: 618.990.8815 Fax: 618.990.8812 Email: baysingerdesigngroup.com	 AMERICAN STRUCTUREPOINT INC. 7240 Shadeland Station, Indianapolis, IN 46256 Tel: 317.547.5500 Fax: 317.543.9210 www.structurepoint.com		 APOGEE Consulting Group Engineers Architects www.acgp-ga.com 919-858-7420		Raleigh, NC Indianapolis, IN Pittsburgh, PA Virginia Beach, VA Fort Collins, CO			MARION VAMC MARION, IL, 62959		Approved: Project Director		Drawing Number			
														Date 09/06/17	Checked DGC	Drawn JHC	SS-101



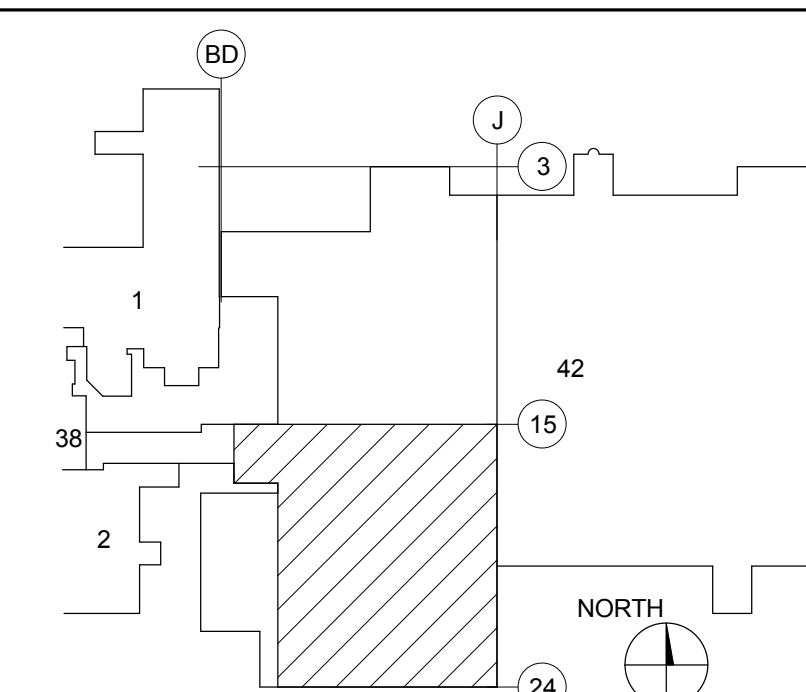
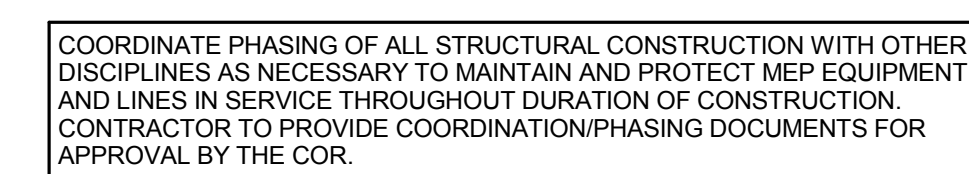
1 OVERALL 2ND/ROOF FRAMING PLAN
1/16" = 1'-0"

NOTE: STRUCTURAL IMPROVEMENTS FOR LATERAL LOAD RESISTING SYSTEMS APPLY ONLY TO INDICATED AREAS WEST OF THE EXISTING STRUCTURAL EXPANSION JOINT BETWEEN COLUMN LINES J AND K. STRUCTURAL IMPROVEMENTS FOR LATERAL LOAD RESISTING SYSTEMS EAST OF THE EXPANSION JOINT ARE NOT INCLUDED IN THIS PROJECT.

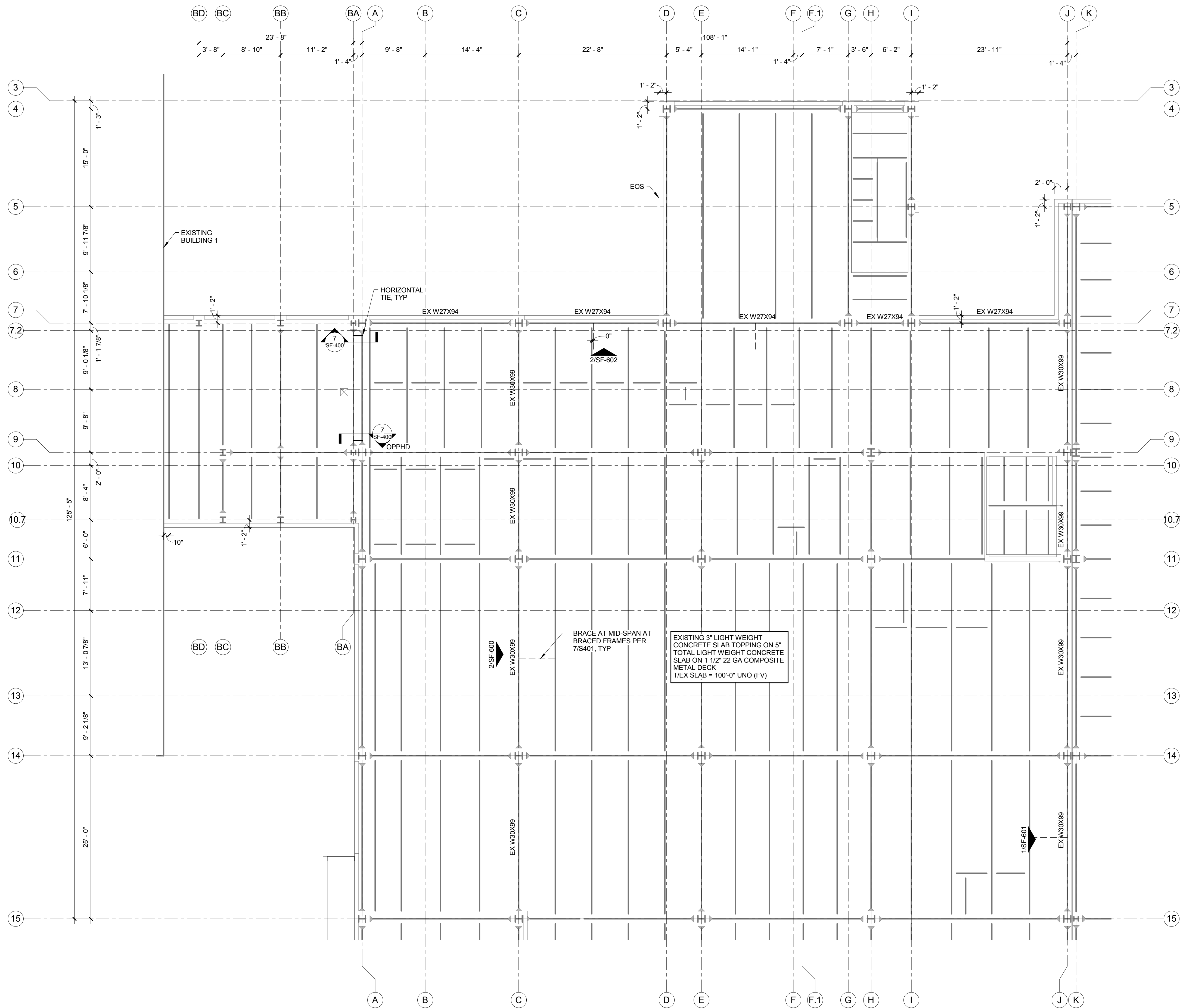


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Revisions:	Date	CONSULTANTS:			PROJECT MANAGER: Raleigh, NC Indianapolis, IN Pittsburgh, PA Virginia Beach, VA Fort Collins, CO	Project Number 16-198	Scale AS INDICATED	Office of Construction and Facilities Management VA U.S. Department of Veterans Affairs	Drawing Title: OVERALL 2ND/ROOF FRAMING PLAN	Project Title: ADD STRUCTURAL IMPROVEMENTS TO BUILDING 42	VA PROJECT NUMBER 657-343		
		Baysinger Design Group, Inc. 4201 West 124th Street, Suite 100B Morton, Illinois 62550 Phone: 618.990.8815 Fax: 618.990.8812 Email: BaysingerDesignGroup.com				AMERICAN STRUCTUREPOINT INC. 7240 Shadeland Station, Indianapolis, IN 46256 Tel: 317.547.5500 Fax: 317.543.9270 www.structurepoint.com			MARION VAMC MARION, IL, 62959		Approved: Project Director	Building Number 42	Drawing Number SS-102
									Date 09/06/17	Checked DGC	Drawn JHC	Dwg. 13 of 28	



Dwg. 15 of 28



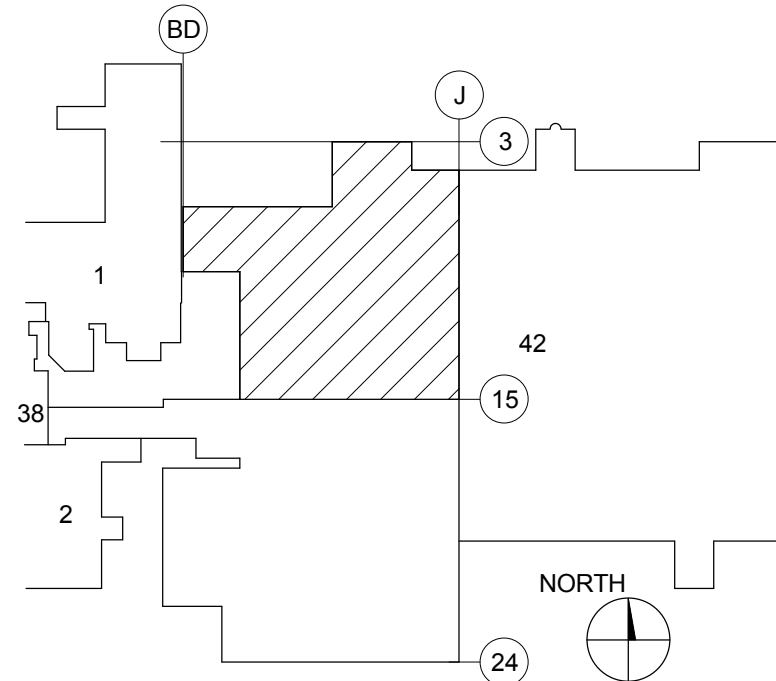
NOTE: STRUCTURE EAST OF LINE K IS OUTSIDE OF PROJECT SCOPE.

GROUND FLOOR FRAMING PLAN
1/8" = 1'-0"

GENERAL PLAN NOTES:

1. REFERENCE TOP OF GROUND FLOOR TOPPING SLAB (T/SLAB) = 100'-0" UNO (U.S.G.S. 469.70)
2. TOP OF STEEL (T/STL) ELEVATION = 99'-4" UNO.
3. REFER TO STRUCTURAL GENERAL NOTES, LEGEND, SCHEDULES, TYPICAL DETAILS, AND SPECIAL INSPECTION REQUIREMENTS FOR ADDITIONAL INFORMATION.
4. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION AND DIMENSIONS.
5. SEE SHEET DESIGNATIONS PER PLAN FOR BRACE ELEVATIONS.
6. EXISTING ELEVATIONS AND EXTENTS OF CONSTRUCTION NOTED ARE PER AS-BUILT DOCUMENTATION. EXISTING INFORMATION SHALL BE FIELD VERIFIED PRIOR TO CONSTRUCTION.
7. EXISTING MOMENT CONNECTIONS ARE TO BE LEFT IN PLACE. THEY ARE SHOWN FOR REFERENCE ONLY.

COORDINATE PHASING OF ALL STRUCTURAL CONSTRUCTION WITH OTHER DISCIPLINES AS NECESSARY TO MAINTAIN AND PROTECT MEP EQUIPMENT AND LINES IN SERVICE THROUGHOUT DURATION OF CONSTRUCTION. CONTRACTOR TO PROVIDE COORDINATION/PHASING DOCUMENTS FOR APPROVAL BY THE COR.



100% CONSTRUCTION DOCUMENTS

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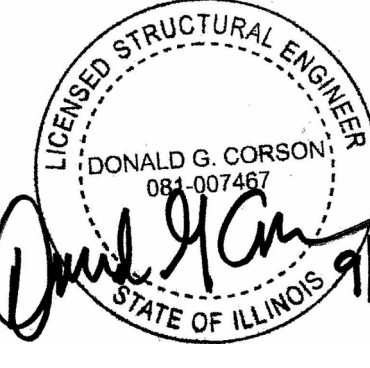
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PROJECT MANAGER:



Raleigh, NC
Indianapolis, IN
Pittsburgh, PA
Virginia Beach, VA
Fort Collins, CO

Project Number
16-198

Scale
AS INDICATED

Office of
Construction
and Facilities
Management



U.S. Department
of Veterans Affairs

Drawing Title:

GROUND FLOOR FRAMING PLAN

Location

**MARION VAMC
MARION, IL, 62959**

Project Title

**ADD STRUCTURAL
IMPROVEMENTS TO BUILDING
42**

Approved: Project Director

Date

09/06/17

Checked

DGC

Drawn

JHC

VA PROJECT NUMBER
657-343

Building Number
42

Drawing Number

SS-210

Dwg. 16 of 28

Revisions:

Date

1

2

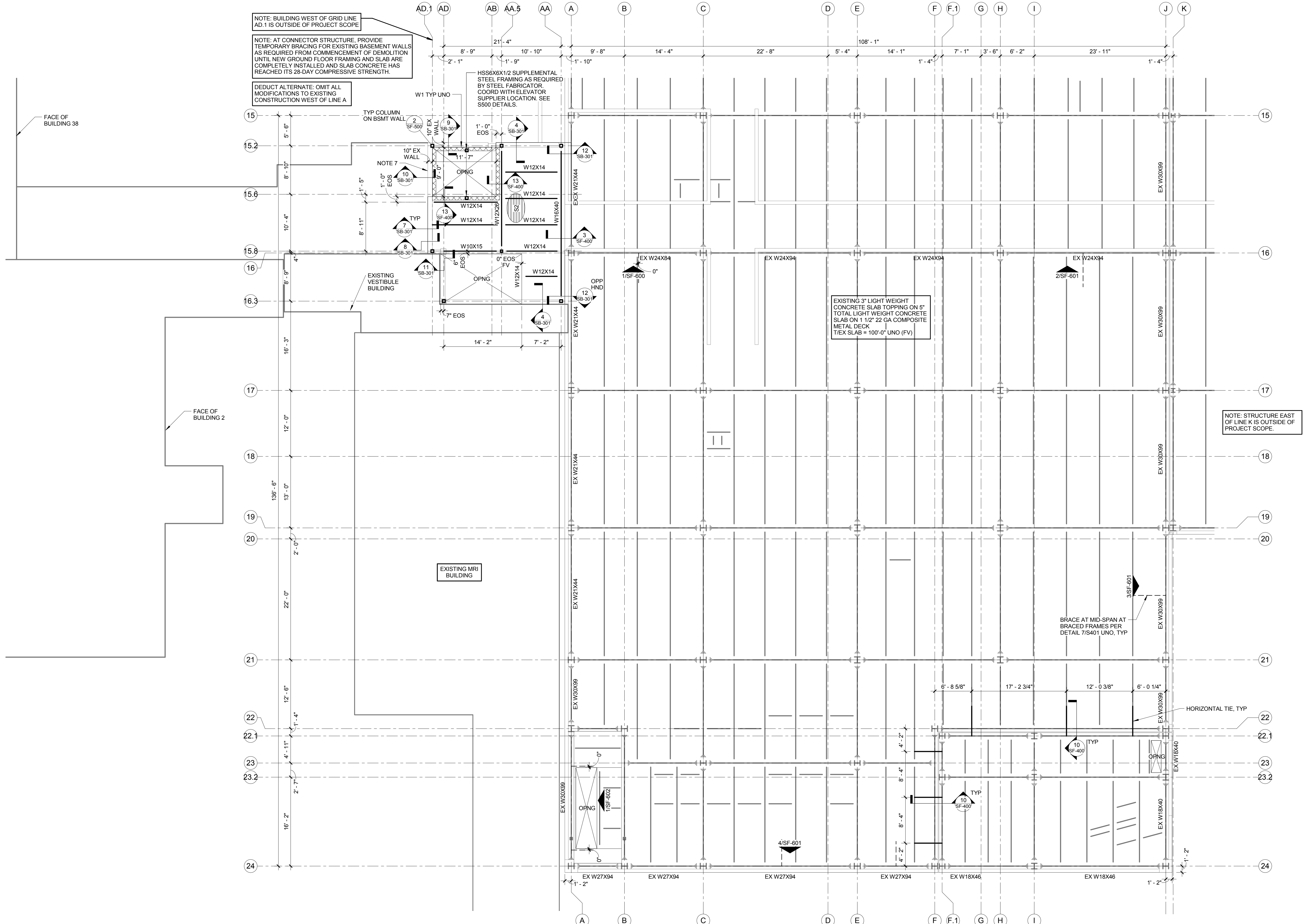
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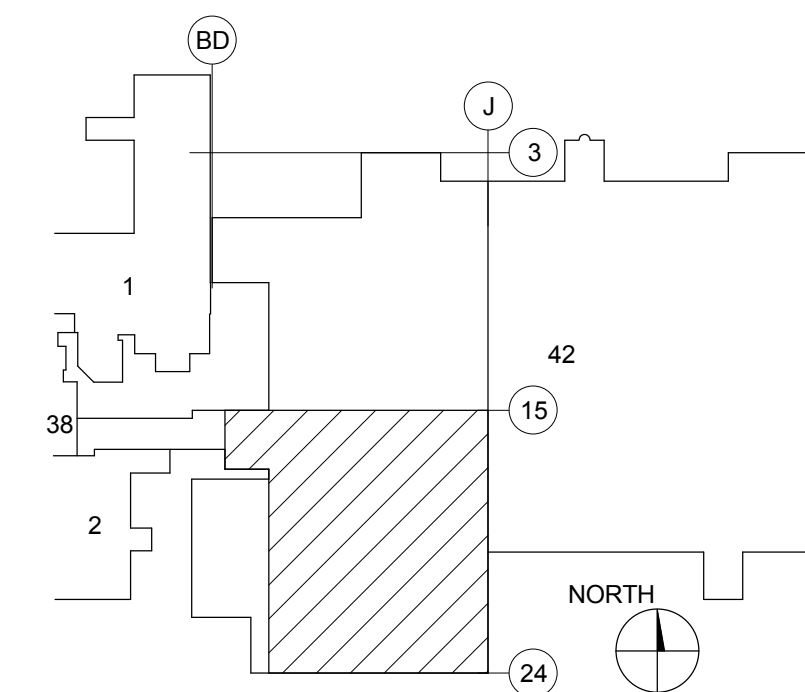
GROUND FLOOR FRAMING PLAN

1/8" = 1'-0"

GENERAL PLAN NOTES:

- REFERENCE TOP OF GROUND FLOOR TOPPING SLAB (T/SLAB) = 100'-0" UNO (U.S.G.S. 469.70)
- TOP OF STEEL (T/STL) ELEVATION = 99'-4" UNO.
- REFER TO STRUCTURAL GENERAL NOTES, LEGEND, SCHEDULES, TYPICAL DETAILS, AND SPECIAL INSPECTION REQUIREMENTS FOR ADDITIONAL INFORMATION.
- SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION AND DIMENSIONS.
- SEE SHEET DESIGNATIONS PER PLAN FOR BRACE ELEVATIONS.
- EXISTING ELEVATIONS AND EXTENTS OF CONSTRUCTION NOTED ARE PER AS-BUILT DOCUMENTATION. EXISTING INFORMATION SHALL BE FIELD VERIFIED PRIOR TO CONSTRUCTION.
- NOTED EXTENTS OF EXISTING WEST WALL OF ELEVATOR TO REMAIN. SEE DETAILS FOR REQUIRED MODIFICATIONS INTO NEW CONSTRUCTION.

COORDINATE PHASING OF ALL STRUCTURAL CONSTRUCTION WITH OTHER DISCIPLINES AS NECESSARY TO MAINTAIN AND PROTECT MEP EQUIPMENT AND LINES IN SERVICE THROUGHOUT DURATION OF CONSTRUCTION. CONTRACTOR TO PROVIDE COORDINATION PHASING DOCUMENTS FOR APPROVAL BY THE COR.

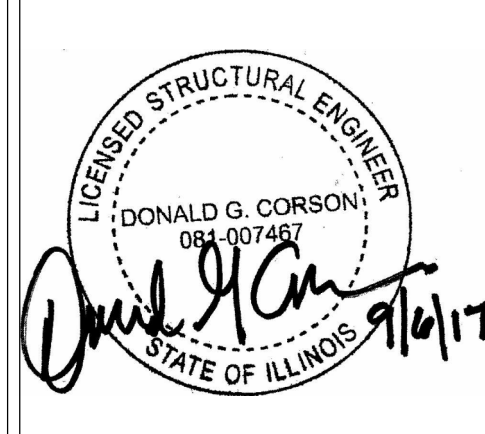


100% CONSTRUCTION DOCUMENTS

CONSULTANTS:

Baysinger Design Group, Inc.
4201 West DuPont Street, Suite 100B
Morton, Illinois 62450
Phone: 618.990.8815
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www.structurepoint.com



PROJECT MANAGER:

APOGEE
Consulting Group
Engineers / Architects
www.acgp-gps.com
919-858-7420

Raleigh, NC
Indianapolis, IN
Pittsburgh, PA
Virginia Beach, VA
Fort Collins, CO

Office of
Construction
and Facilities
Management



Drawing Title:
GROUND FLOOR FRAMING PLAN

Location
**MARION VAMC
MARION, IL, 62959**

Project Title
**ADD STRUCTURAL
IMPROVEMENTS TO BUILDING
42**

Approved: Project Director

Date 09/06/17	Checked DGC	Drawn JHC
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VA PROJECT NUMBER
657-343

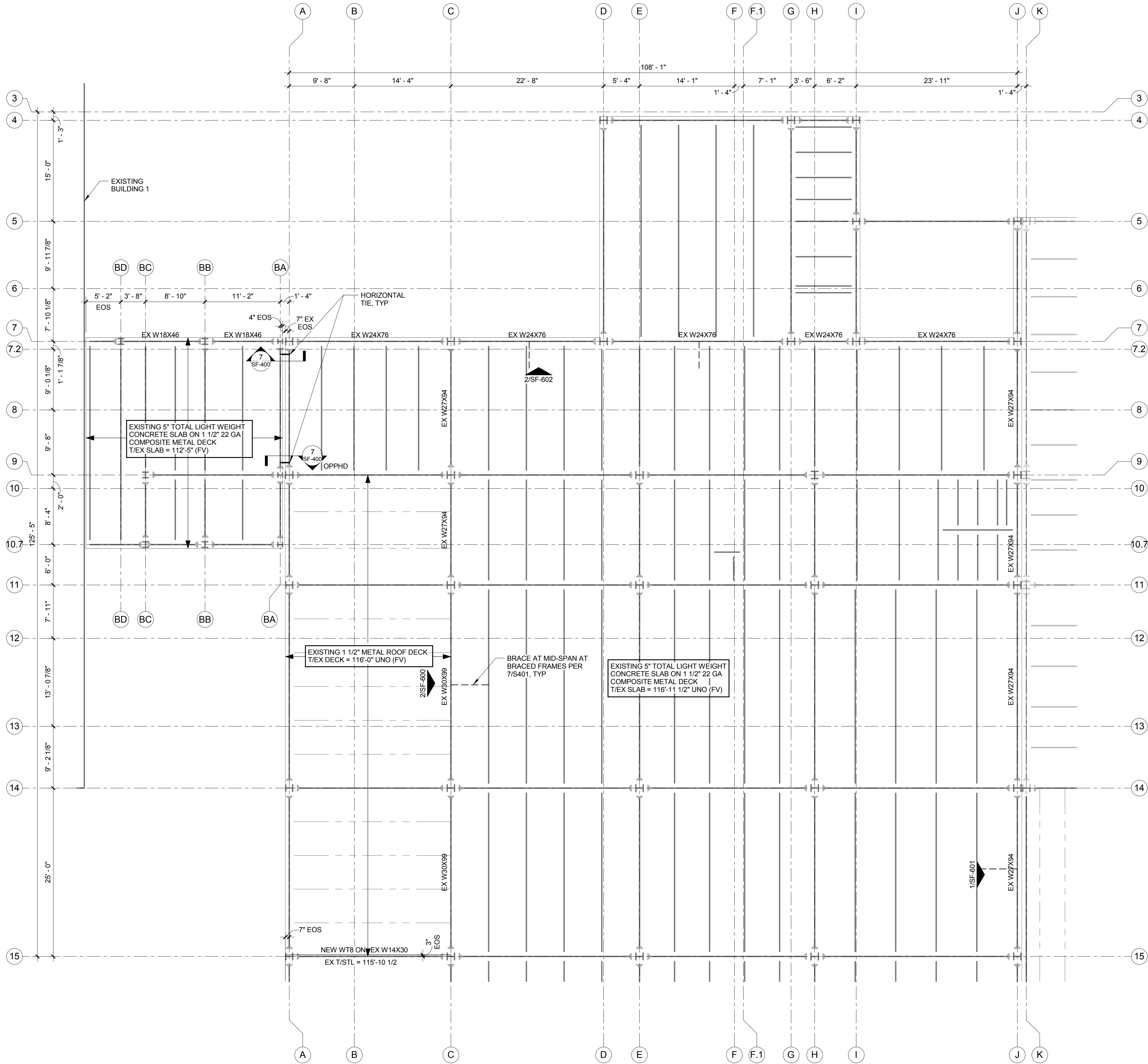
Building Number
42

Drawing Number
SS-211

Dwg. 17 of 28

Revisions:

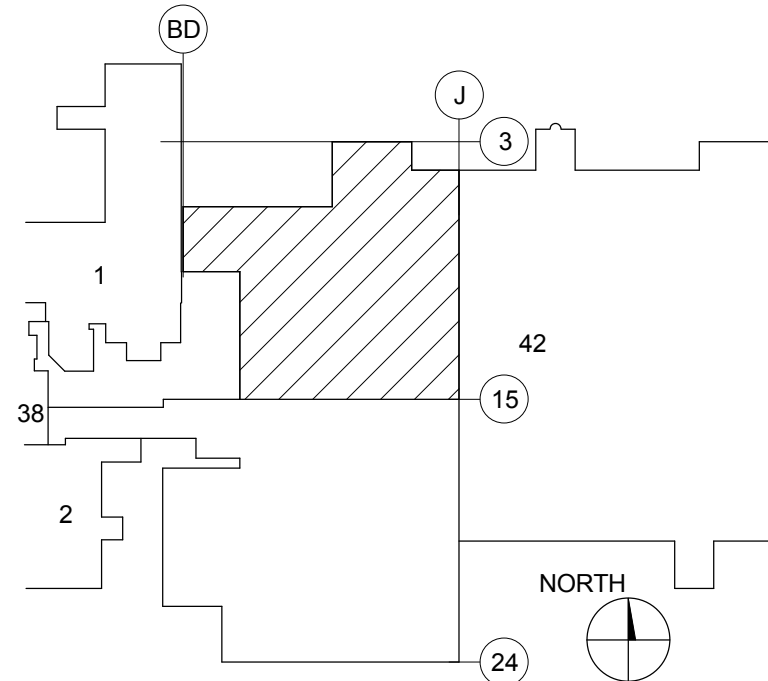
Date



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

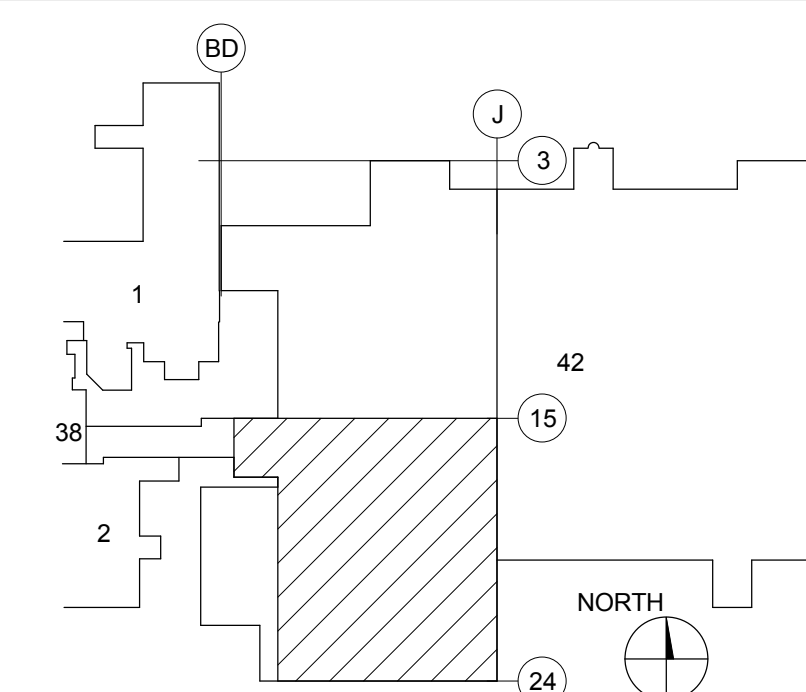
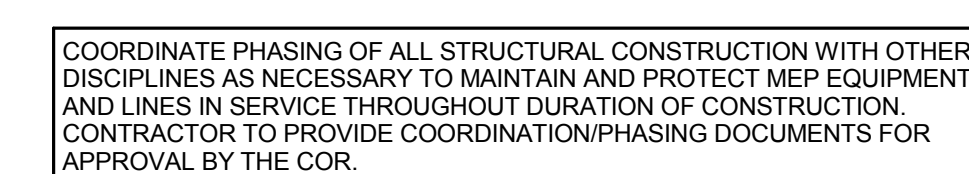
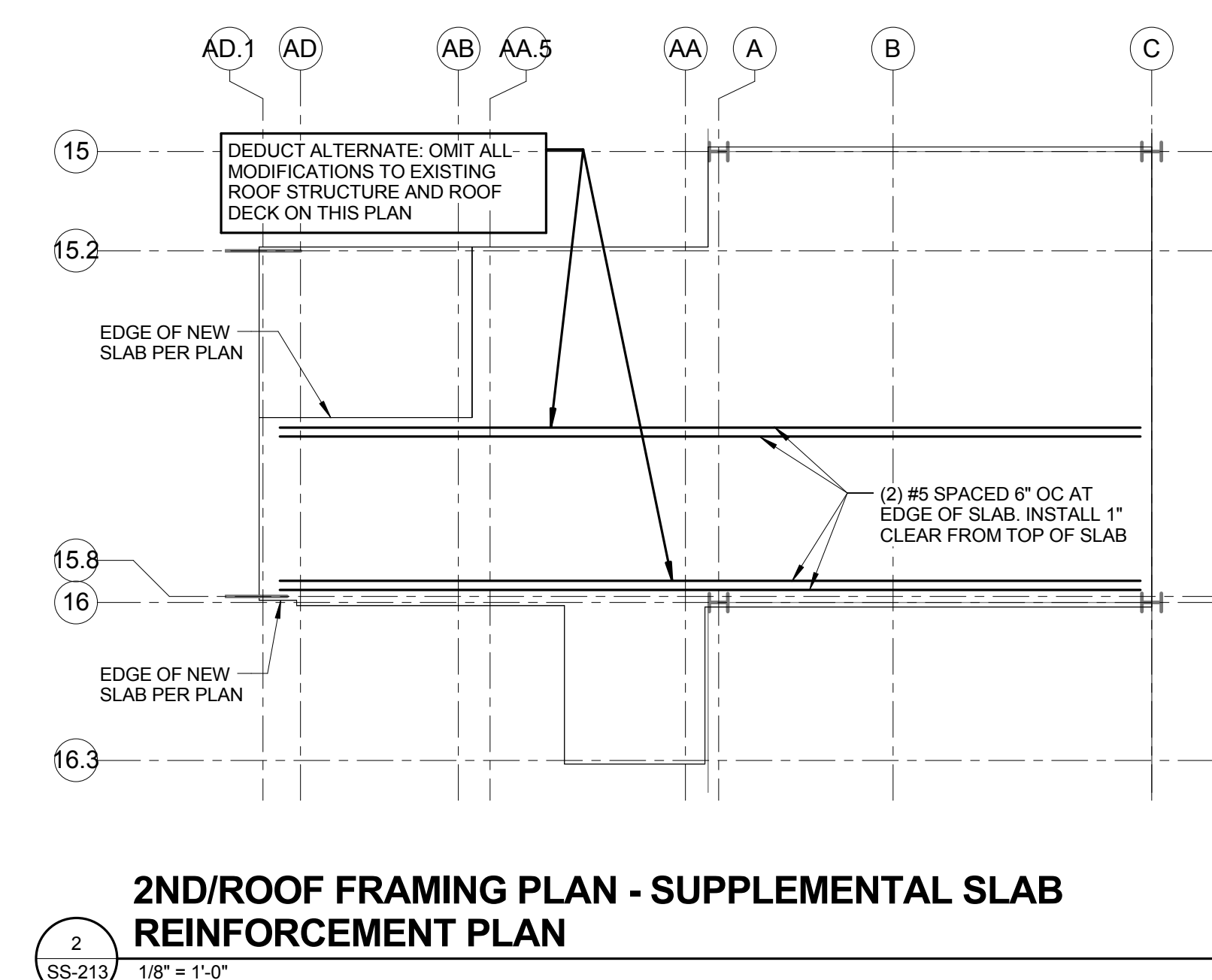
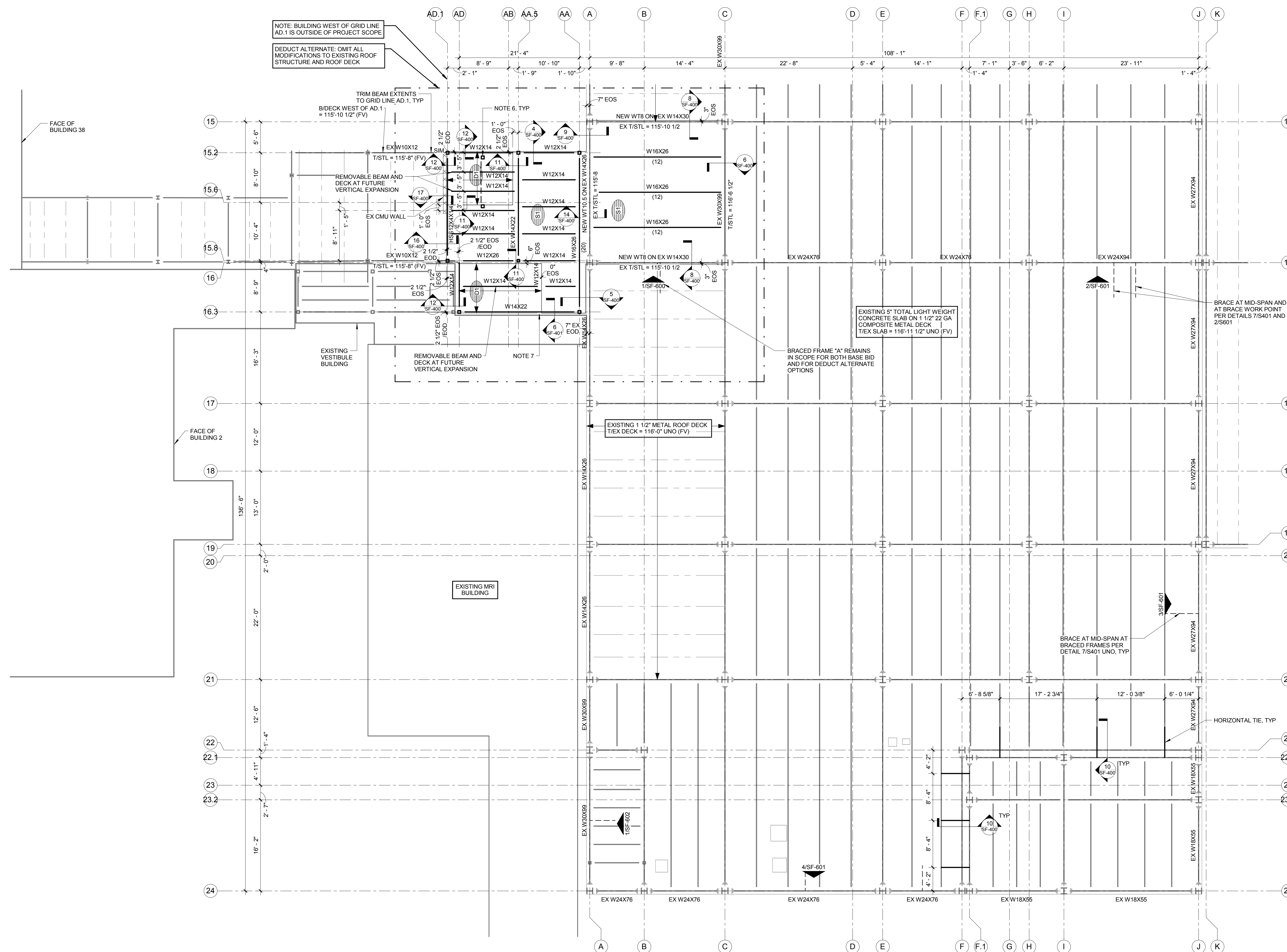
- GENERAL PLAN NOTES:**
- REFERENCE TOP OF GROUND FLOOR TOPPING SLAB (T/SLAB) = 100'-0" UNO (U.S.G.S. 469.70)
 - TOP OF STEEL (T/STL) ELEVATION = 116'-6 1/2" UNO, TOP OF EXISTING SLAB ON METAL DECK ELEVATION = 116'-11 1/2" UNO.
 - REFER TO STRUCTURAL GENERAL NOTES, LEGEND, SCHEDULES, TYPICAL DETAILS, AND SPECIAL INSPECTION REQUIREMENTS FOR ADDITIONAL INFORMATION.
 - SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION AND DIMENSIONS.
 - EXISTING ELEVATIONS AND EXTENTS OF CONSTRUCTION NOTED ARE PER AS-BUILT DOCUMENTATION. EXISTING INFORMATION SHALL BE FIELD VERIFIED PRIOR TO CONSTRUCTION.

COORDINATE PHASING OF ALL STRUCTURAL CONSTRUCTION WITH OTHER DISCIPLINES AS NECESSARY TO MAINTAIN AND PROTECT MEP EQUIPMENT AND LINES IN SERVICE THROUGHOUT DURATION OF CONSTRUCTION. CONTRACTOR TO PROVIDE COORDINATION/PHASING DOCUMENTS FOR APPROVAL BY THE COR.



100% CONSTRUCTION DOCUMENTS

Revisions:	Date	CONSULTANTS: Baysinger Design Group, Inc. 4311 West 14th Street, Suite 100B Moline, Illinois 62301 Phone: 618.990.8815 Fax: 618.990.8812 www.baysingerdesigngroup.com	 STRUCTUREPOINT INC. 7240 Skansland Station, Indianapolis, IN 46256 Tel: 317.540.5500 Fax: 317.540.9270 www.structurepoint.com		PROJECT MANAGER: APOGEE Consulting Group Engineers Architects www.acgp-ga.com 919-858-7420 Raleigh, NC Indianapolis, IN Pittsburgh, PA Virginia Beach, VA Fort Collins, CO	Project Number 16-198 Scale AS INDICATED	Office of Construction and Facilities Management U.S. Department of Veterans Affairs	Drawing Title: 2ND/ROOF FRAMING PLAN Location MARION VAMC MARION, IL, 62959	Project Title ADD STRUCTURAL IMPROVEMENTS TO BUILDING 42 Approved: Project Director Date 09/06/17 Checked DGC Drawn JHC	VA PROJECT NUMBER 657-343 Building Number 42 Drawing Number SS-212 Dwg. 18 of 28
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2ND/ROOF FRAMING PLAN

$$3 \overline{) 1/8'' = 1'-0''}$$

GENERAL PLAN NOTES:

1. REFERENCE TOP OF GROUND FLOOR TOPPING SLAB (TSLAB) = 100'-0" UNO (U.S.G. S. 488.70)
2. TOP OF STEEL (TSTS) ELEVATION = 116'-4 1/2" UNO. TOP OF EXISTING SLAB ON METAL DECK ELEVATION = 116'-11 1/2" UNO.
3. REFER TO STRUCTURAL GENERAL NOTES, LEGEND, SCHEDULES, TYPICAL DETAILS, AND SPECIAL INSPECTION REQUIREMENTS FOR ADDITIONAL INFORMATION.
4. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION AND DIMENSIONS.
5. ALL CHANGES AND EXTENTS OF CONSTRUCTION NOTE ARE PER AS-BUILT DOCUMENTATION. EXISTING INFORMATION SHALL BE FIELD VERIFIED PRIOR TO CONSTRUCTION.
6. HSX50X12 1/2 SUPPLEMENTAL STEEL FRAMING WITH W8X18 HOIST BEAM AS REQUIRED BY STEEL FABRICATOR. COORDINATE LOCATION WITH ELEVATOR SUPPLIER. SUPPORT HOIST BEAM FROM BOTTOM FLANGE OF INTERIOR (2) REMOVABLE BEAMS.
7. SKYLIGHT EXISTING 2' X 2' AS ACQUIRED DURING DEMOLITION OF EXISTING SKYLIGHT. RECONSTRUCTION OF NEW WALL AND REINSTALLATION OF SKYLIGHT PER DETAIL F.1 ON PREVIOUS DRAWINGS TITLED IMPROVED 842 NORTHWEST VESTIBULE DATE 1-31-14.

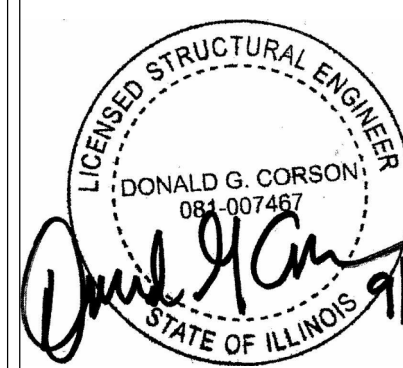
CONSULTANTS:



4301 West DeYoung Street, Suite 100B
Maywood, Illinois 60150

Phone: 618.998.8012
Fax: 618.998.8030

Illinois Design Firm No. 184-001212
www.BattisauerDesignGroup.com



PROJECT MANAGER:

Project Number	16-198
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Scale
AS INDICATED

Raleigh, NC
Indianapolis, IN
Pittsburgh, PA
Virginia Beach, VA
Fort Collins, CO

Office of
Construction
and Facilities
Management



Drawing Title:
2ND/ROOF FRAMING PLAN

Location

MARION VAMC
MARION, IL, 62959

Project Title	ADD STRUCTURAL IMPROVEMENTS TO BUILDING 42
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	Approved: Project Director

Date

	Checked
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	Drawn
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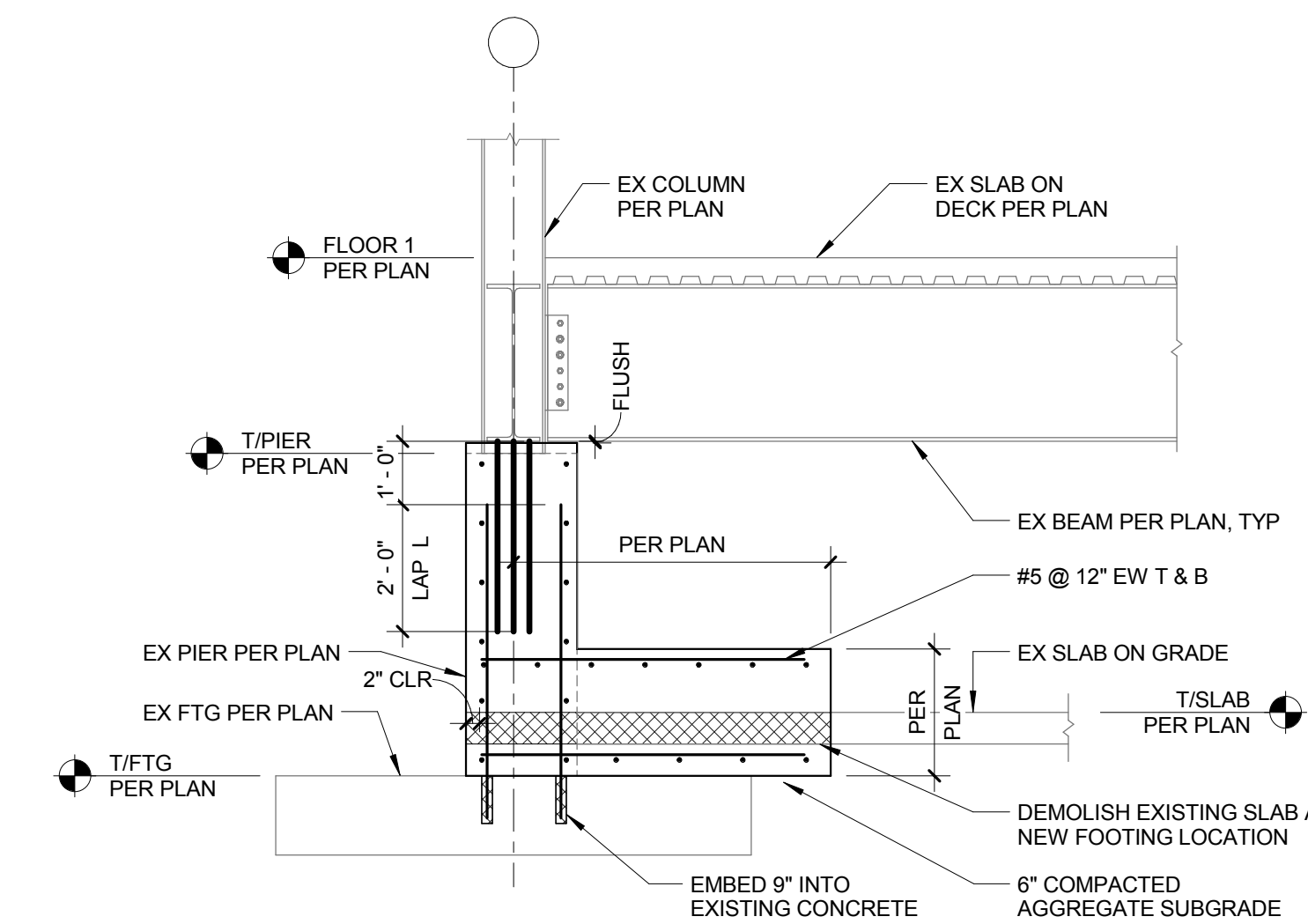
VA PROJECT NUMBER	657-343
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Building Number	42
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	Drawing Number

SS-213

Page 10 of 28



1
SB-300

NEW SHEAR WALL DETAIL AT EXISTING FOUNDATION AND FRAMING

N.T.S.

2
SB-300

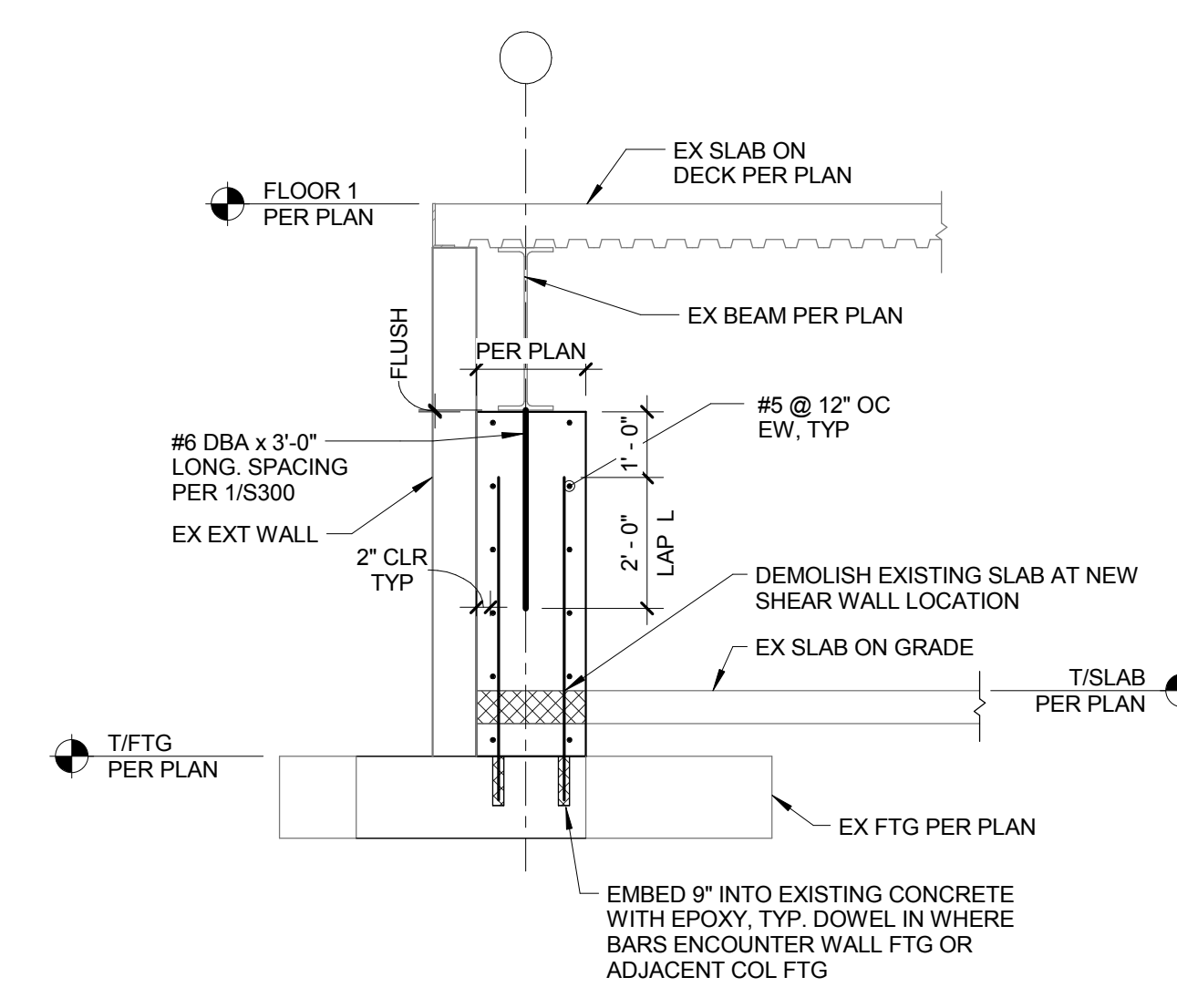
FOOTING DETAIL AT NEW SHEAR WALL AND EXISTING FOUNDATION

N.T.S.

3
SB-300

NEW SHEAR WALL DETAIL
N.T.S.

4 FOUNDATION REINFORCING DETAIL WITH SHEAR WALL
SB-300 N.T.S.

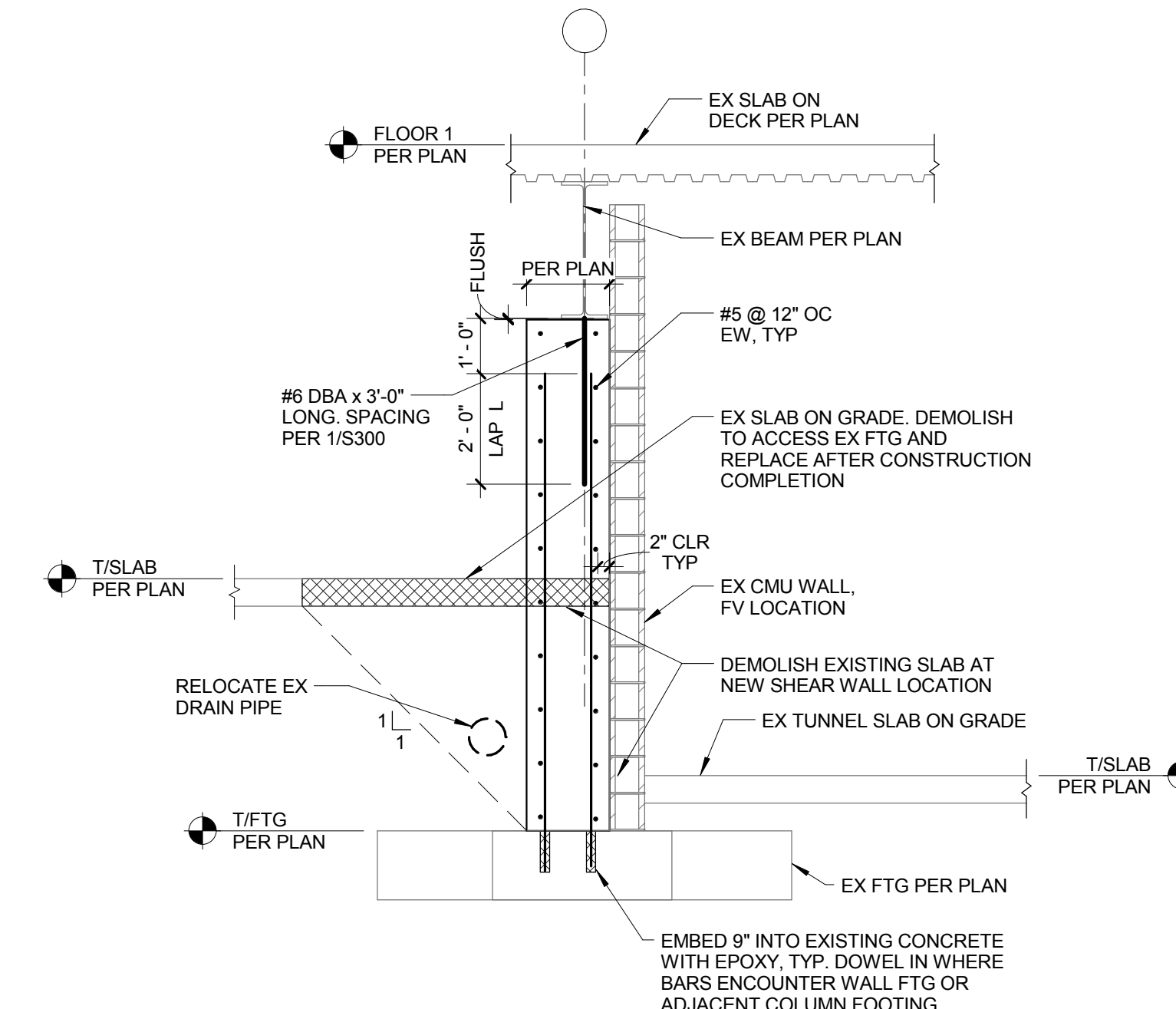


5 FOUNDATION REINF DETAIL WITH SHEAR WALL AT COLUMN FTG

6 FOUNDATION REINF DETAIL WITH SHEAR WALL AT STRIP FTG
SB-300 N.T.S.

7
SB-300 N.T.S.

8 NEW SHEAR WALL DETAIL AT EXT WALL
SB-300 N.T.S.



9 **FOOTING DETAIL AT EX FDN**
SB-300 N.T.S.

10
SB-300

NEW SHEAR WALL DETAIL AT EX FDN AND FRAMING
N.T.S.






11 **NEW SHEAR WALL AND FTG DETAIL**
SB-300 N.T.S.

12
SB-300

NEW SHEAR WALL DETAIL

N.T.S.

100% CONSTRUCTION DOCUMENTS

<div> <div> <div>CONSULTANTS:</div> <div>  <div> <div>Baysinger Design Group, Inc.</div> <div> 1311 West Wynton Street, Suite 100 Mesa, Illinois 60241 Phone: (312) 361-1811 Fax: (312) 361-8102 </div> <div> 1800 North Delta Park, Suite 100 Mesa, Illinois 60241 Phone: (312) 361-1811 Fax: (312) 361-8102 </div> </div> </div> <div>  <div> <div>AMERICAN STRUCTUREPOINT INC.</div> <div> 2860 Shadeland Station, Indianapolis, IN 46256 Tel: 317 547-5560 FAX: 317 544-0210 www.structurepoint.com </div> </div> </div> </div> </div>		<div> <div>  <div> <div>LICENSED STRUCTURAL ENGINEER</div> <div>DONALD G. CORSON</div> <div>NO. 914117</div> <div>STATE OF ILLINOIS</div> </div> </div> </div>		<div> <div>PROJECT MANAGER:</div> <div> <div>Project Number 16-198</div> <div>Scale AS INDICATED</div> </div> </div>		<div> <div>Office of Construction and Facilities Management</div> <div>   <div>U.S. Department of Veterans Affairs</div> </div> </div>		<div> <div>Drawing Title:</div> <div>SUBSTRUCTURE SECTIONS AND DETAILS</div> </div>		<div> <div>Project Title</div> <div>ADD STRUCTURAL IMPROVEMENTS TO BUILDING 42</div> </div>		<div> <div>VA PROJECT NUMBER</div> <div>657-343</div> </div>	
<div> <div>Revisions:</div> <div> <div>Date</div> <div></div> </div> </div>		<div> <div>Location</div> <div>MARION VAMC MARION, IL, 62959</div> </div>		<div> <div>Approved: Project Director</div> <div> <div>Date</div> <div>09/06/17</div> </div> </div>		<div> <div>Checked:</div> <div>DGC</div> </div>		<div> <div>Drawn:</div> <div>JHC</div> </div>		<div> <div>Drawing Number</div> <div>SB-300</div> </div>		<div> <div>Dwg. 20 of 28</div> </div>	

1 INTERFACE OF NEW AND EXISTING WALL

2
SB-301

HSS COLUMN ON FOOTING
N.T.S.

DOWEL SIZE AND SPACING			
SLAB DEPTH (IN)	DOWEL BAR DIAMETER (IN)	TOTAL BAR LENGTH (IN)	BAR SPACING (CTR - CTR) (IN)
4	3/4	16	24
5-6	3/4	16	12

4 **SLAB ON EX FOUNDATION WALL**
SB-301 N.T.S.

5 TYPICAL SUMP PIT AT ELEVATOR PIT
SB-301 N.T.S.

6 ELEVATOR PIT TIE-IN DETAIL

7 BEAM TO EX FOUNDATION WALL
SB-301 N.T.S.

8 SLAB ON EX FOUNDATION WALL
SB-301 N.T.S.

9 SECTION
SB-301 N.T.S.

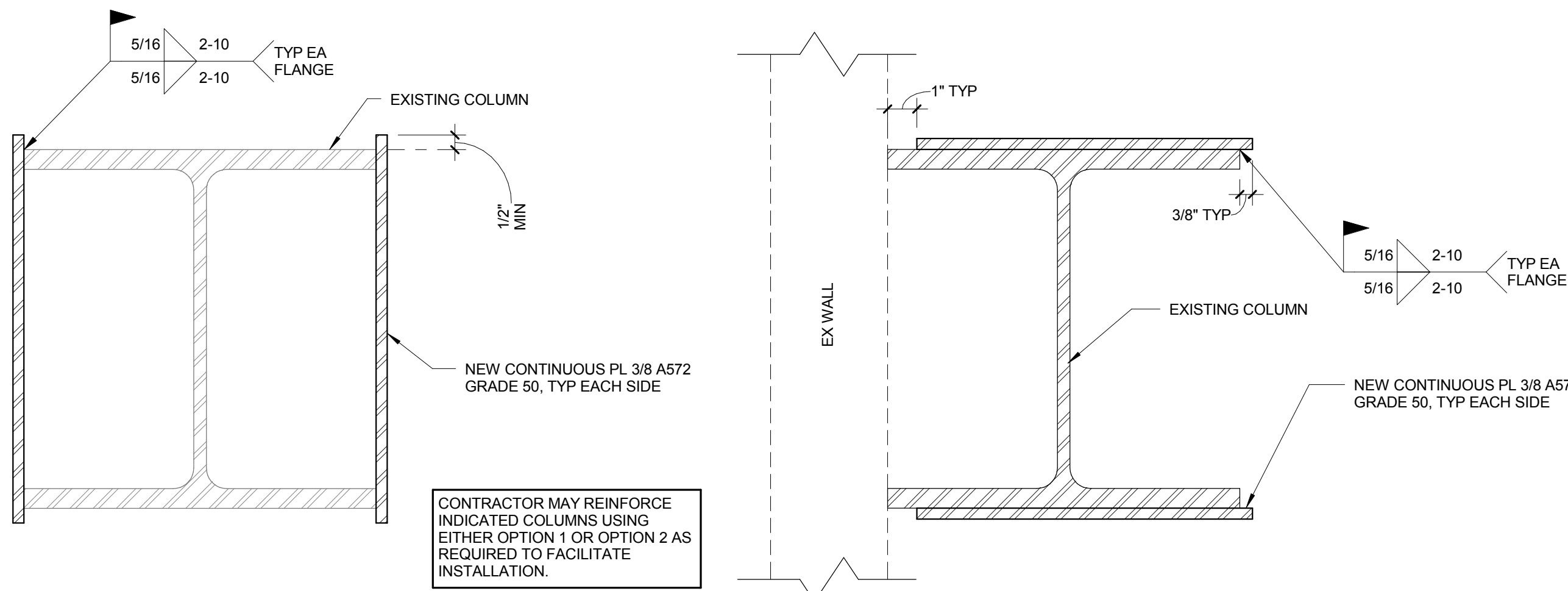
12 **COLUMN PIER DETAIL**
SB-301 N.T.S.

10 SECTION
SB-301 N.T.S.

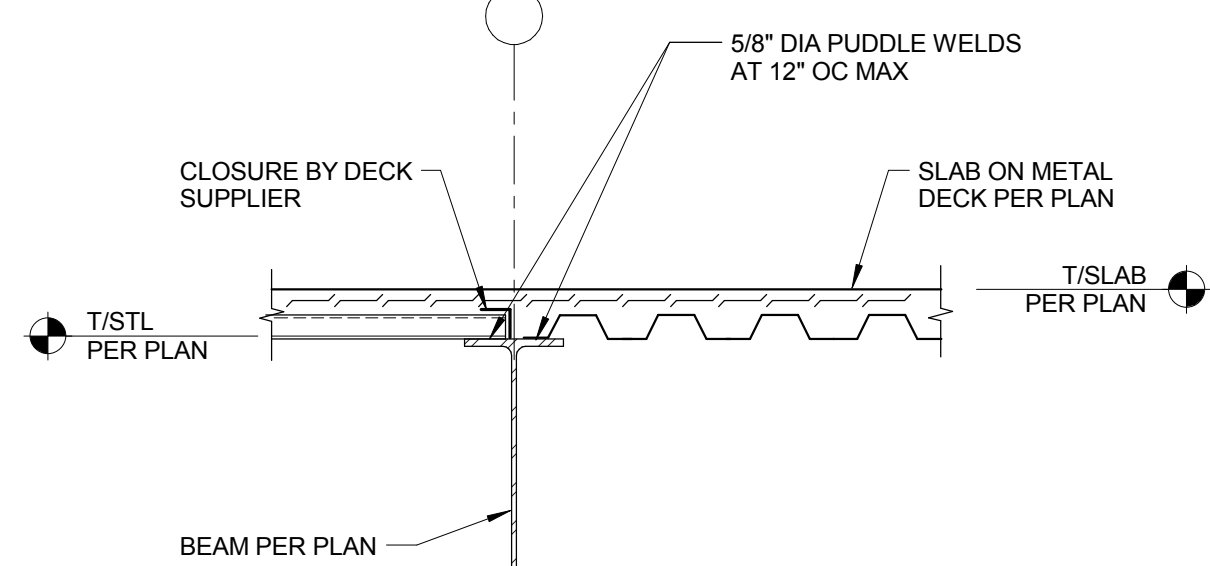
11 SECTION
SB-301 N.T.S.

13 **SLOPED NEW FOOTING SECTION**
SB-301 N.T.S.

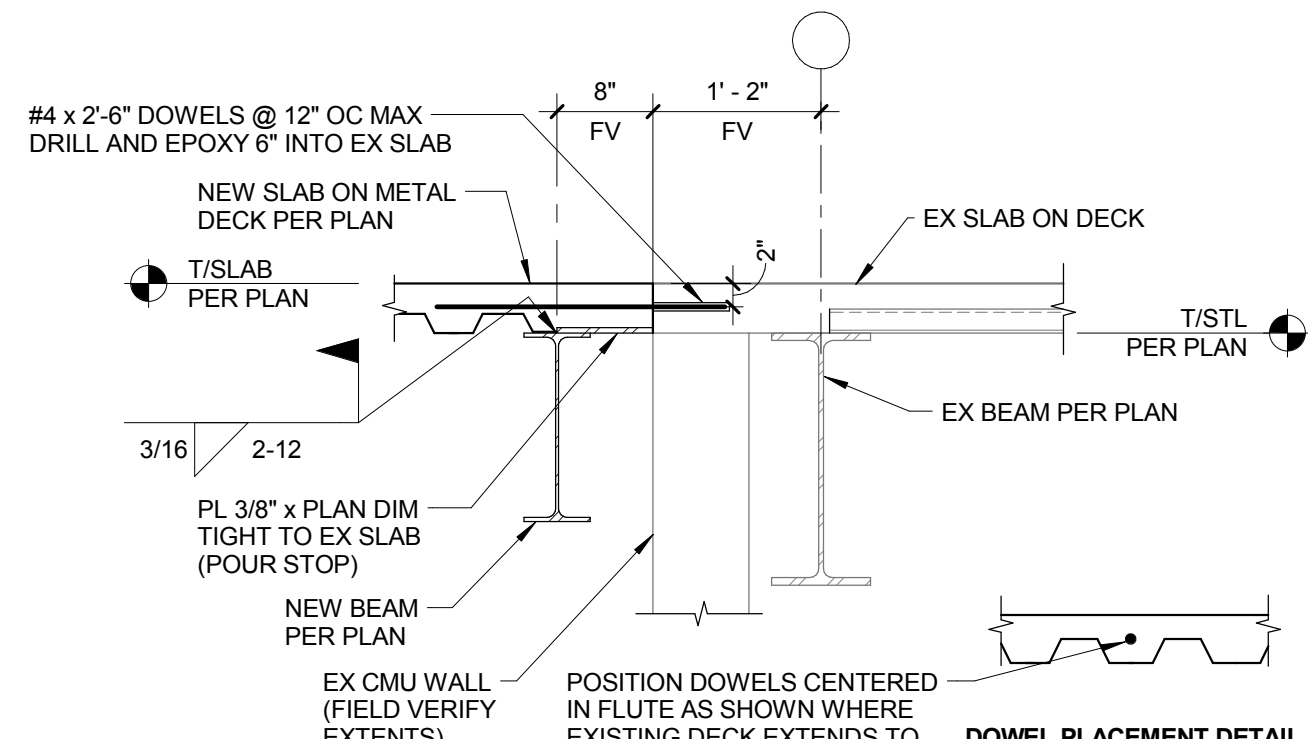
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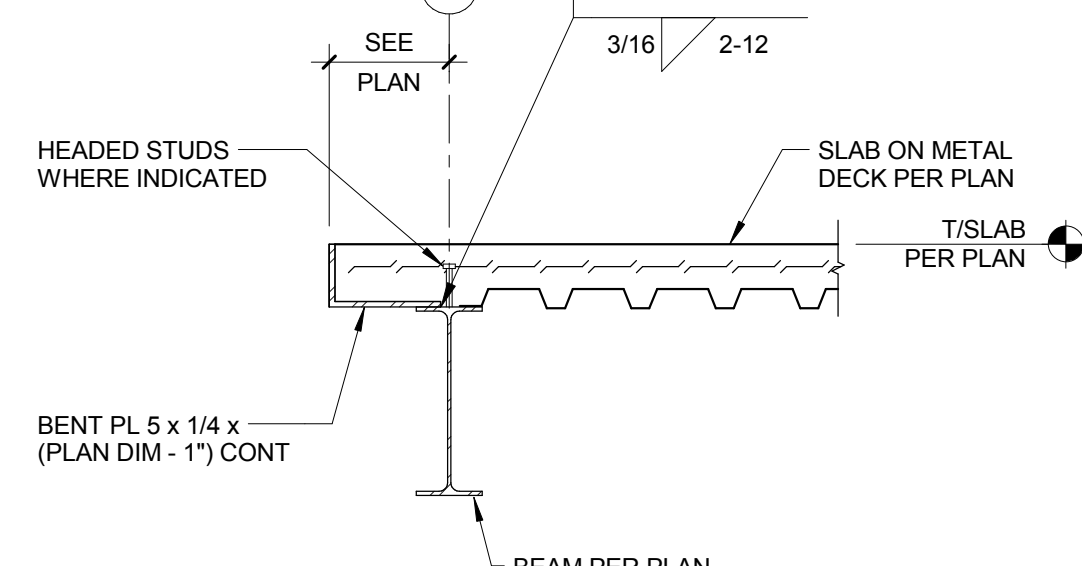
1 COLUMN REINFORCING DETAIL
SF-400 N.T.S.



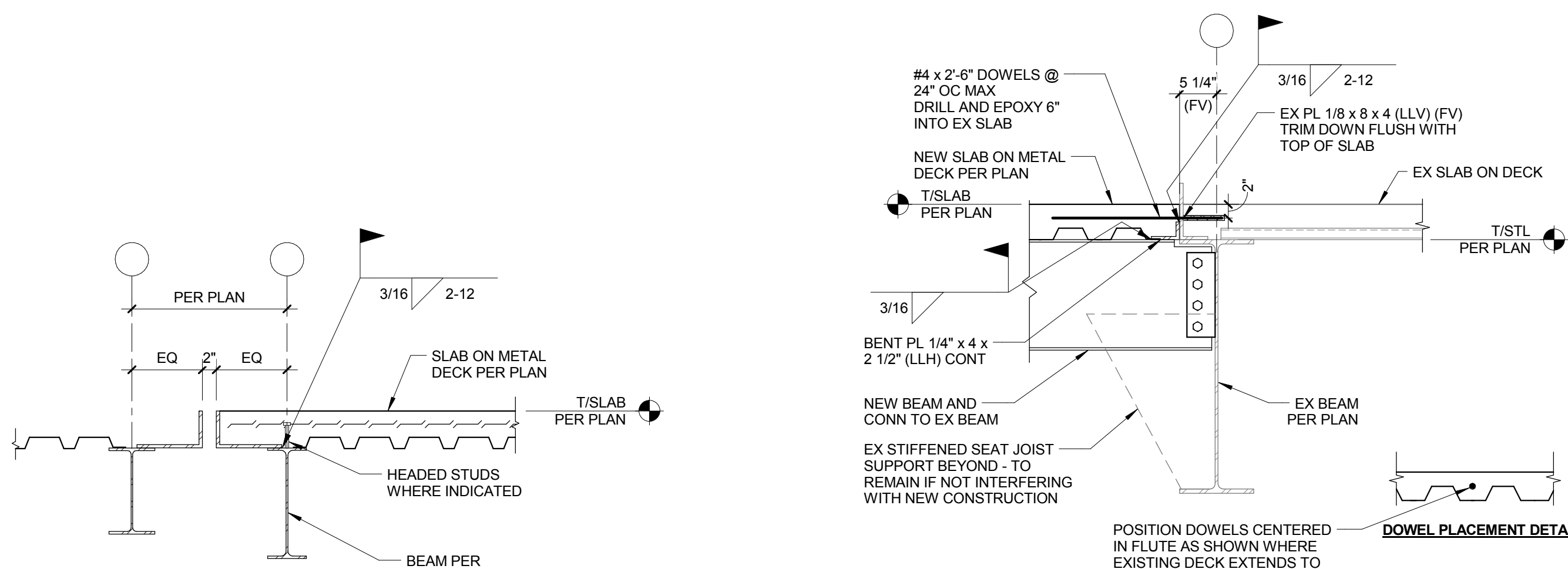
2 CHANGE IN FLOOR DECK SPAN DIRECTION
SF-400 N.T.S.



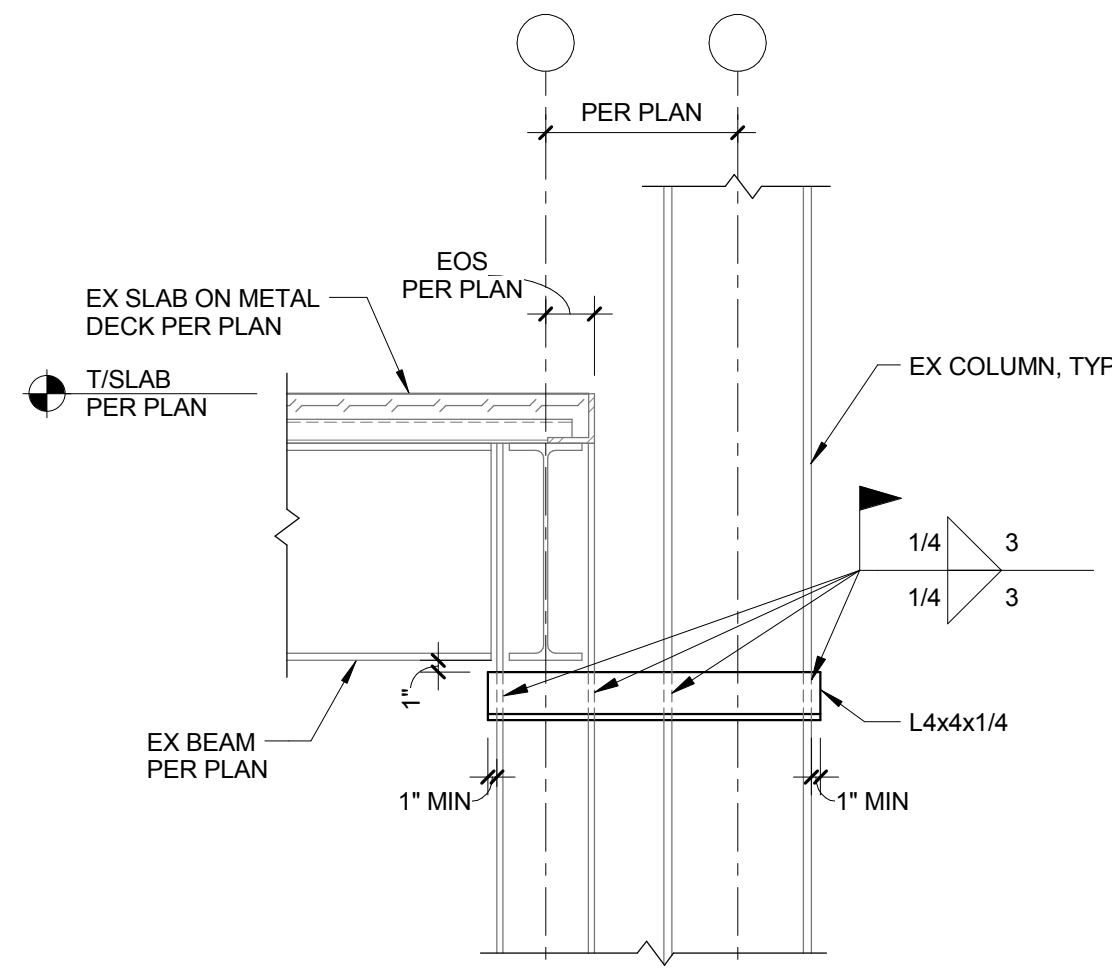
3 SECTION
SF-400 N.T.S.



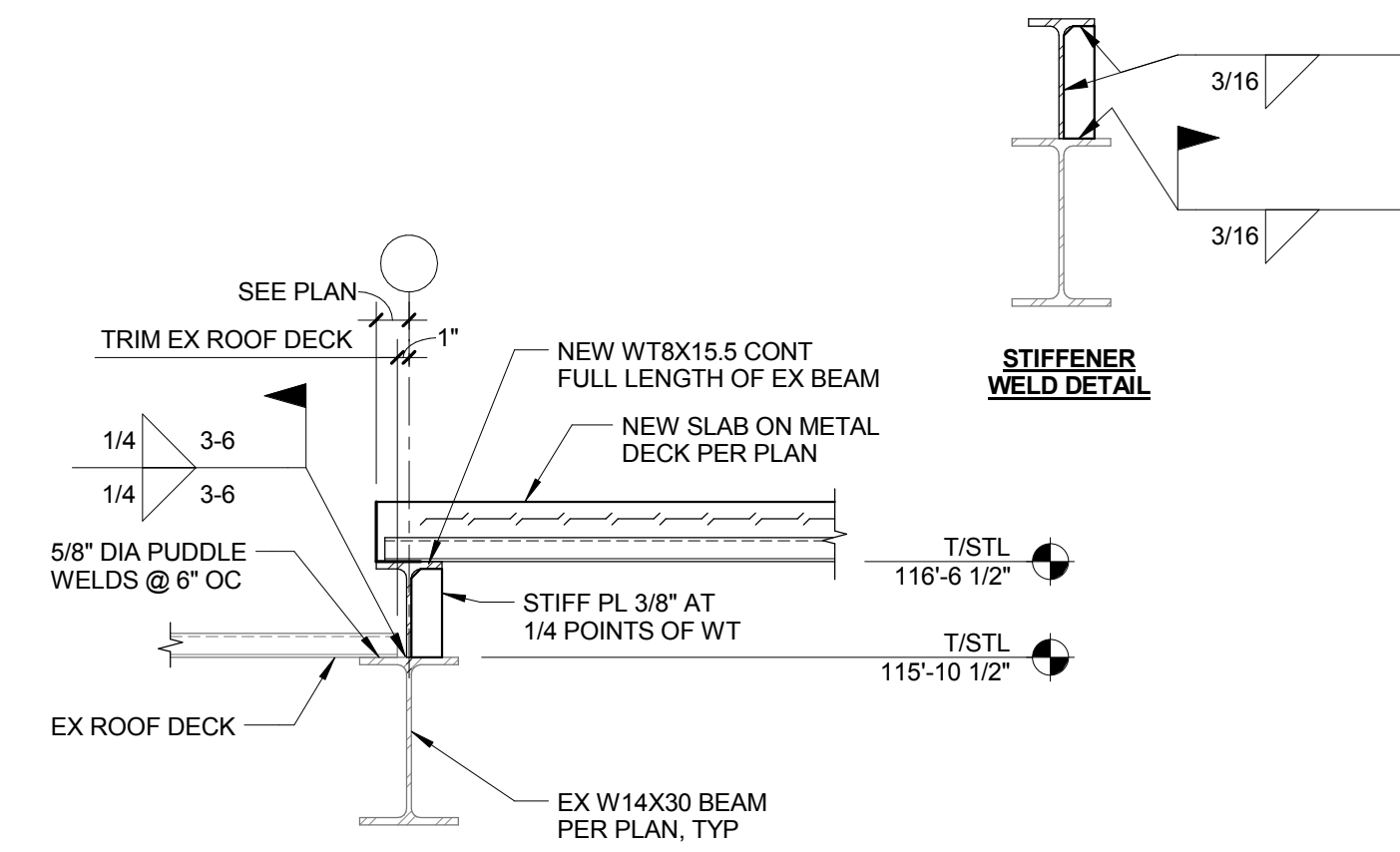
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SF-400 N.T.S.



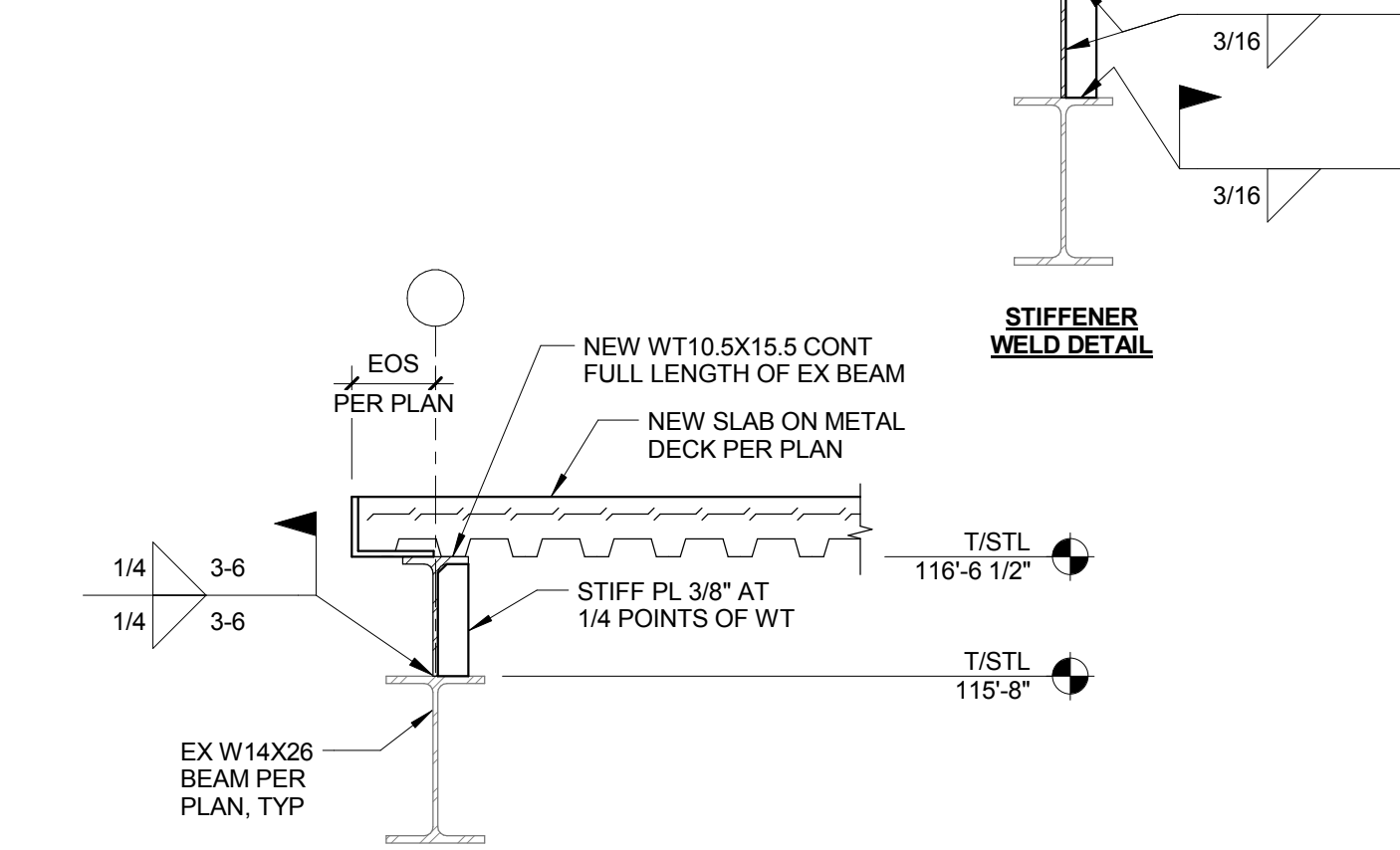
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SF-400 N.T.S.



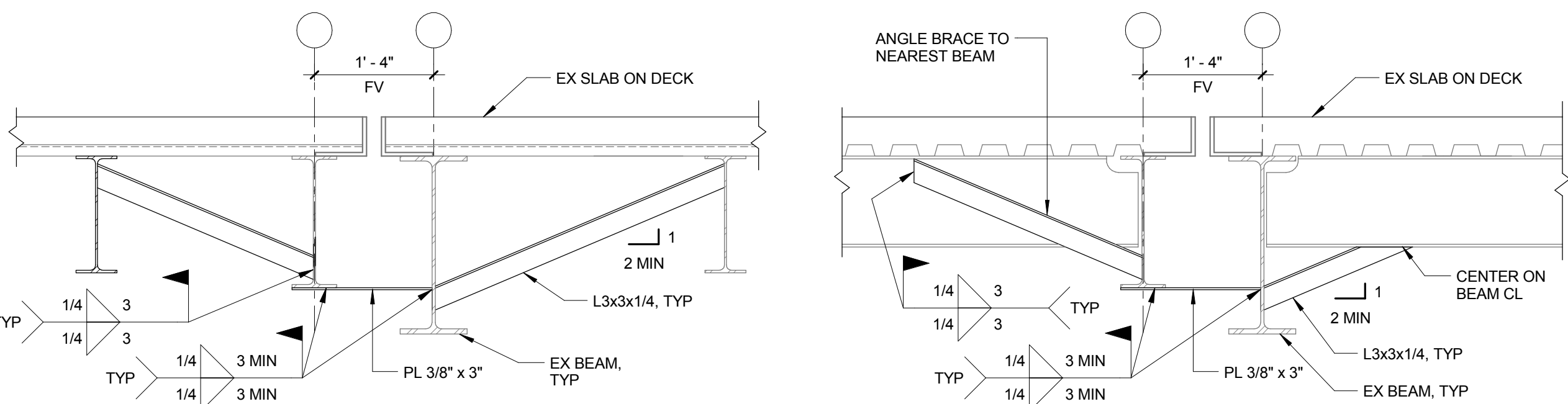
7 LATERAL TIE-FRAME DETAIL AT NW CONNECTOR
SF-400 N.T.S.



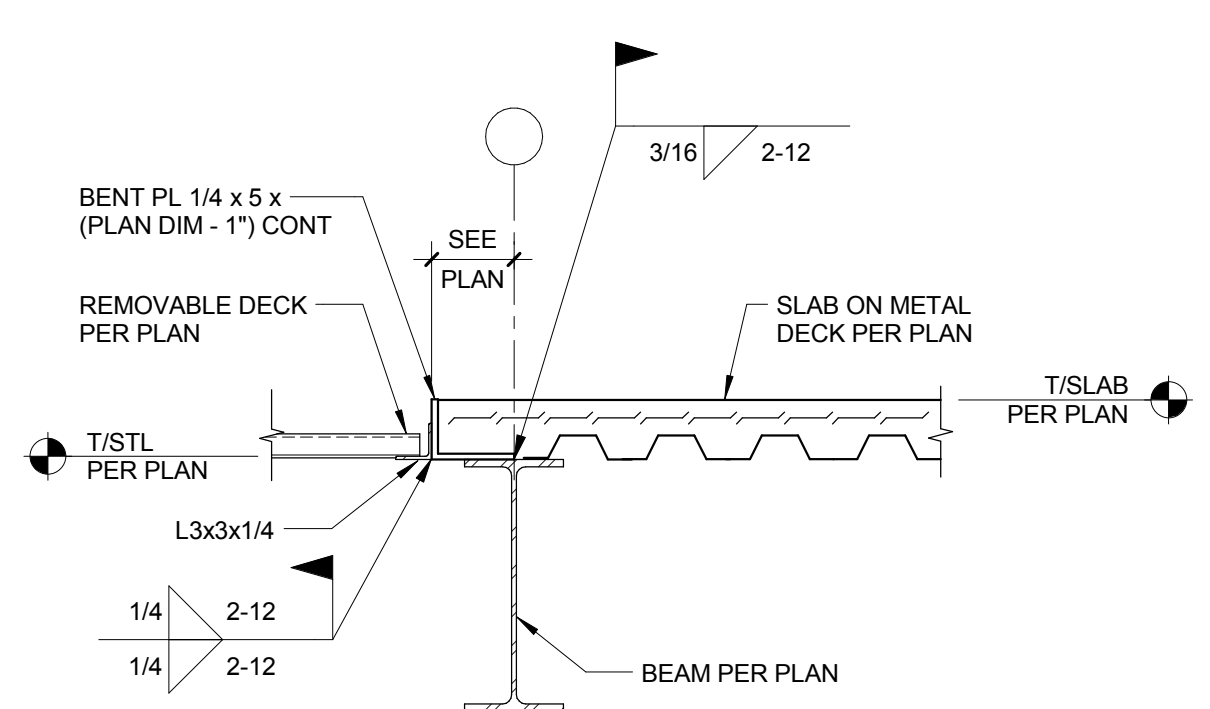
8 SECTION
SF-400 N.T.S.



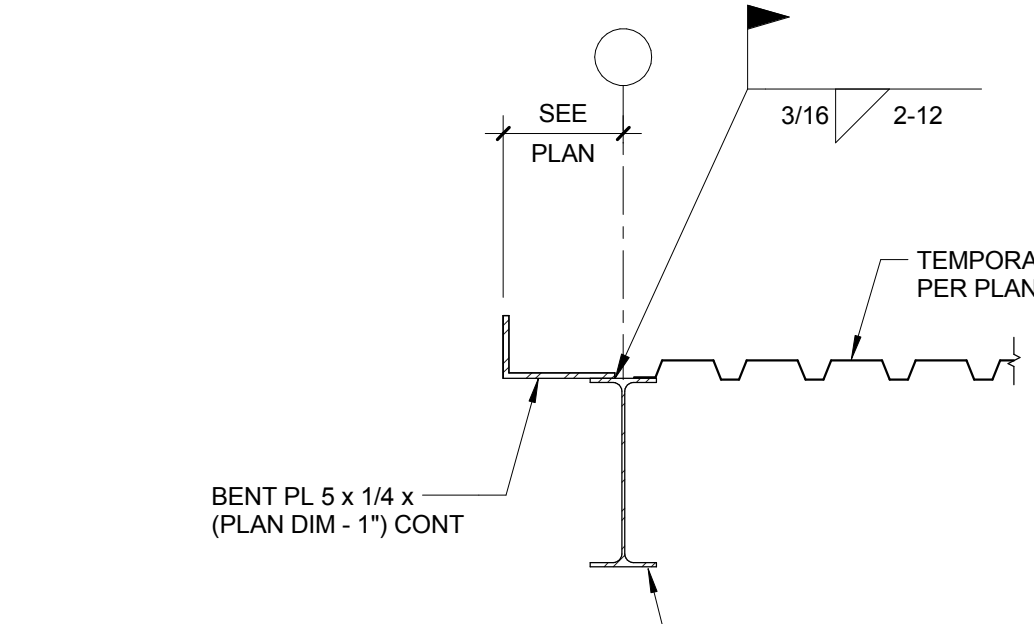
9 SECTION
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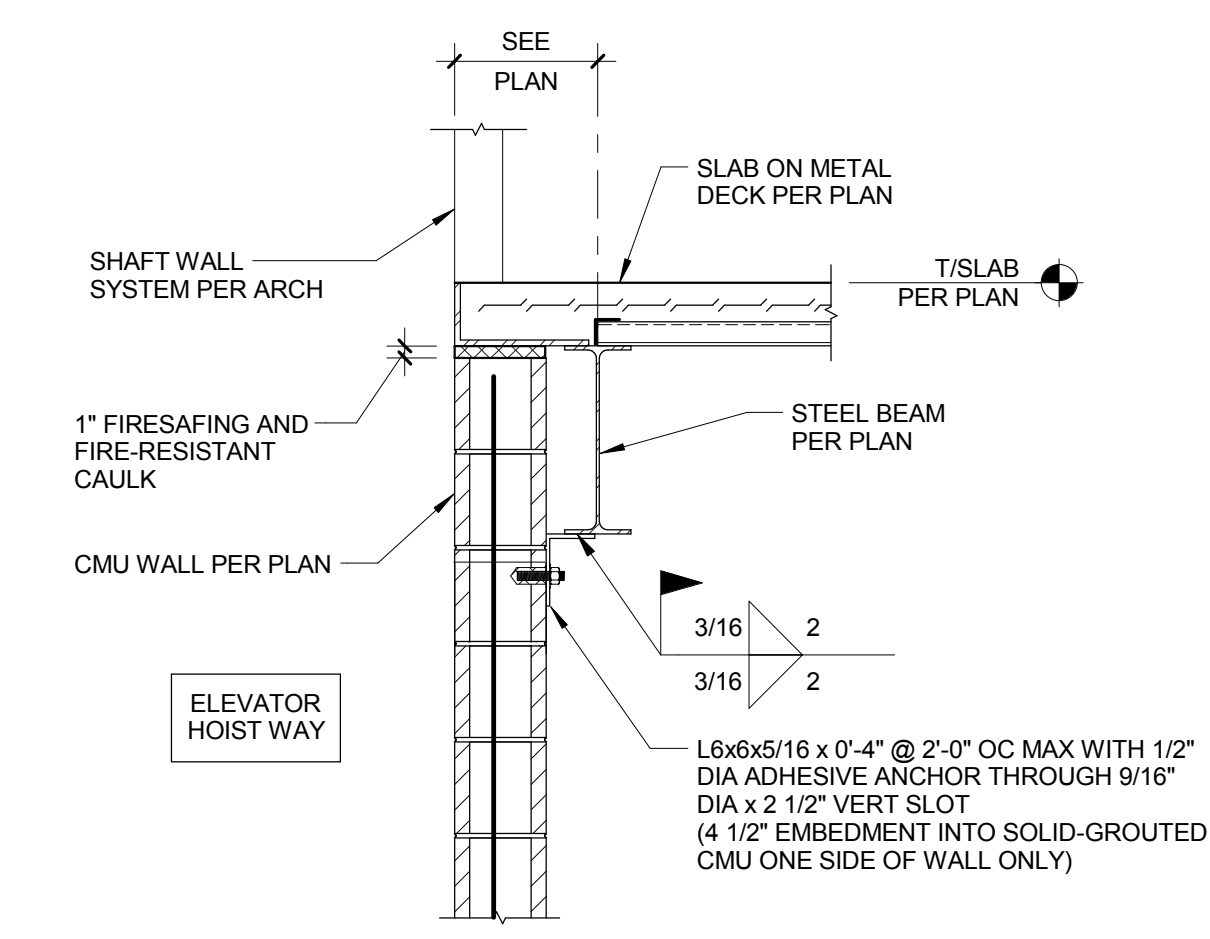
10 LATERAL TIE FRAMING DETAILS
SF-400 N.T.S.



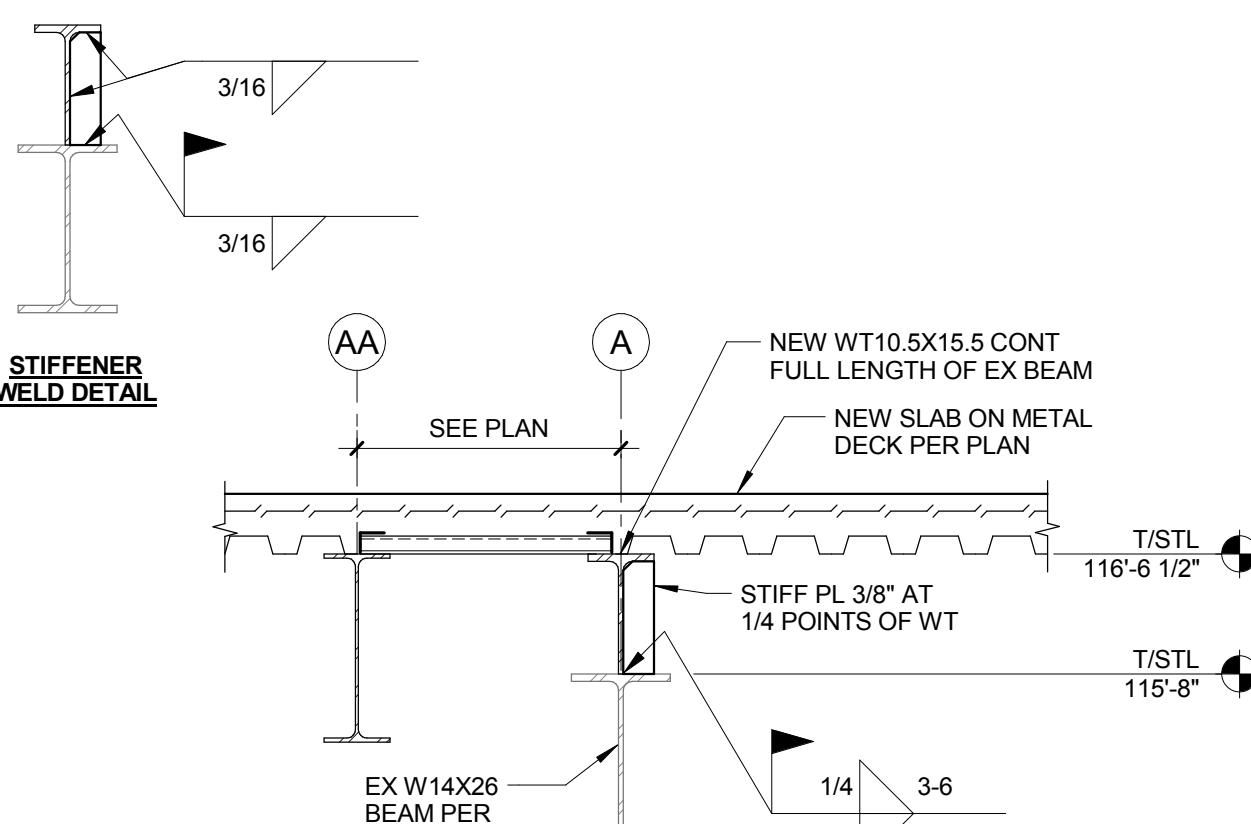
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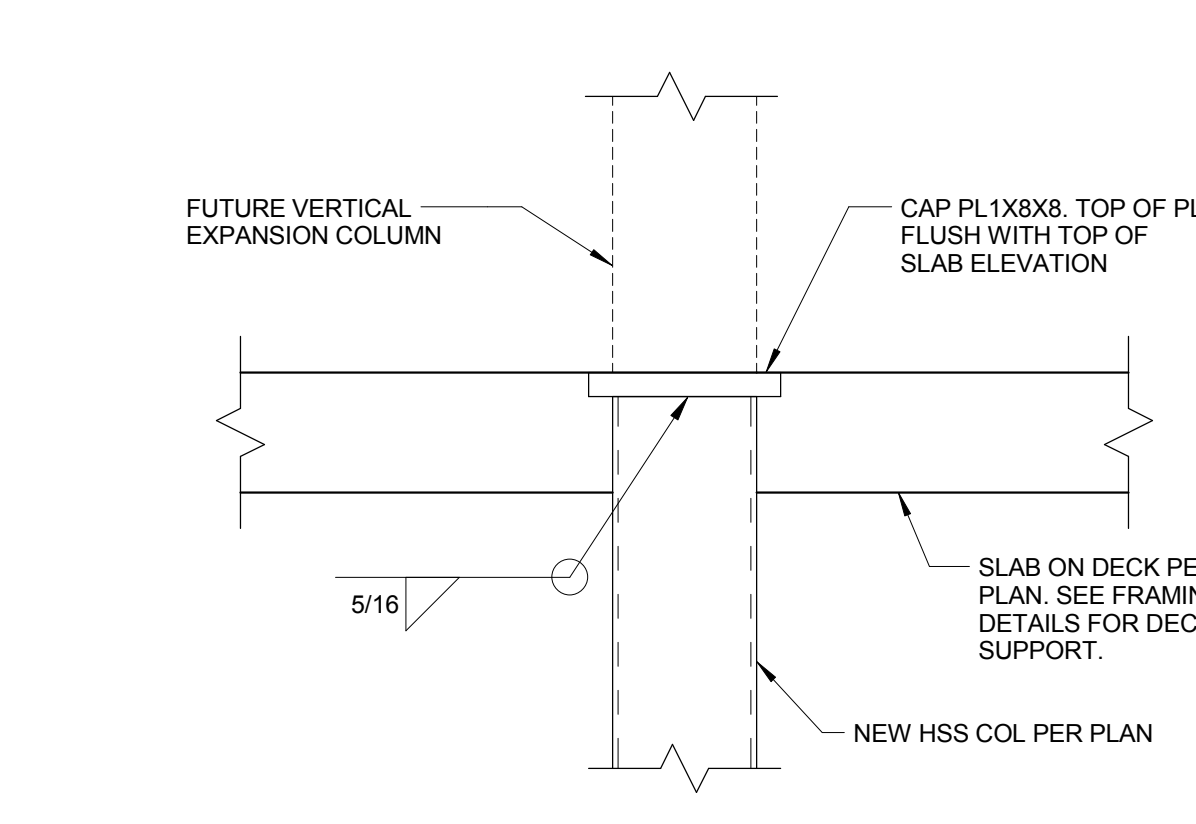
12 SECTION
SF-400 N.T.S.



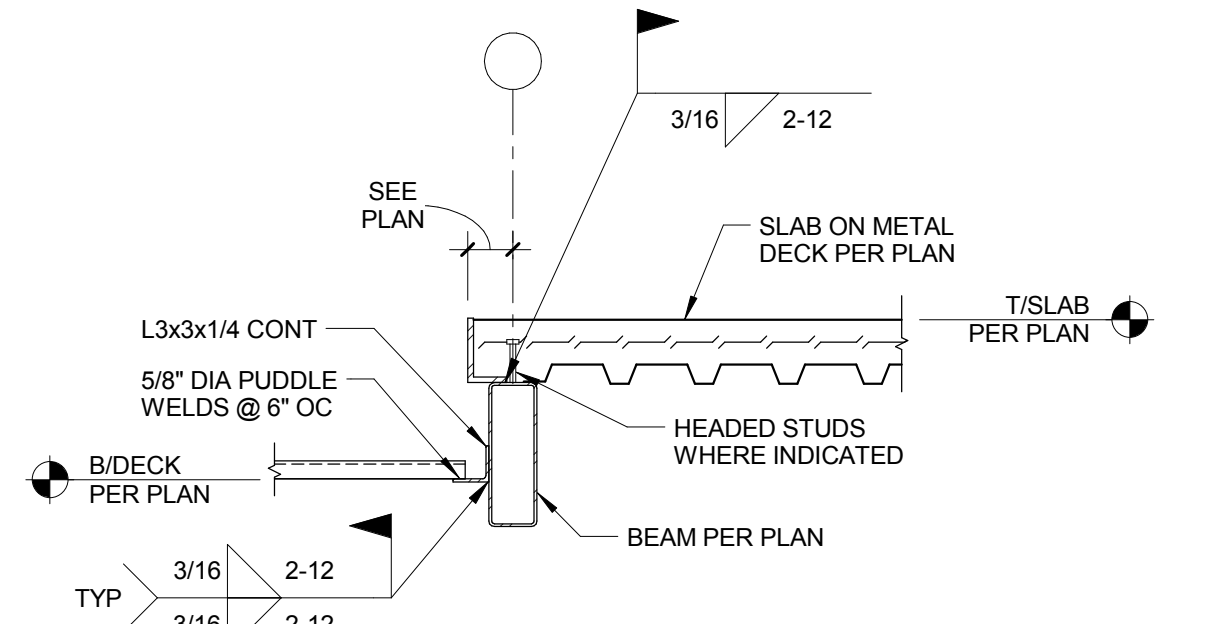
13 TYPICAL MASONRY WALL ANCHORAGE AT BEAM
SF-400 N.T.S.



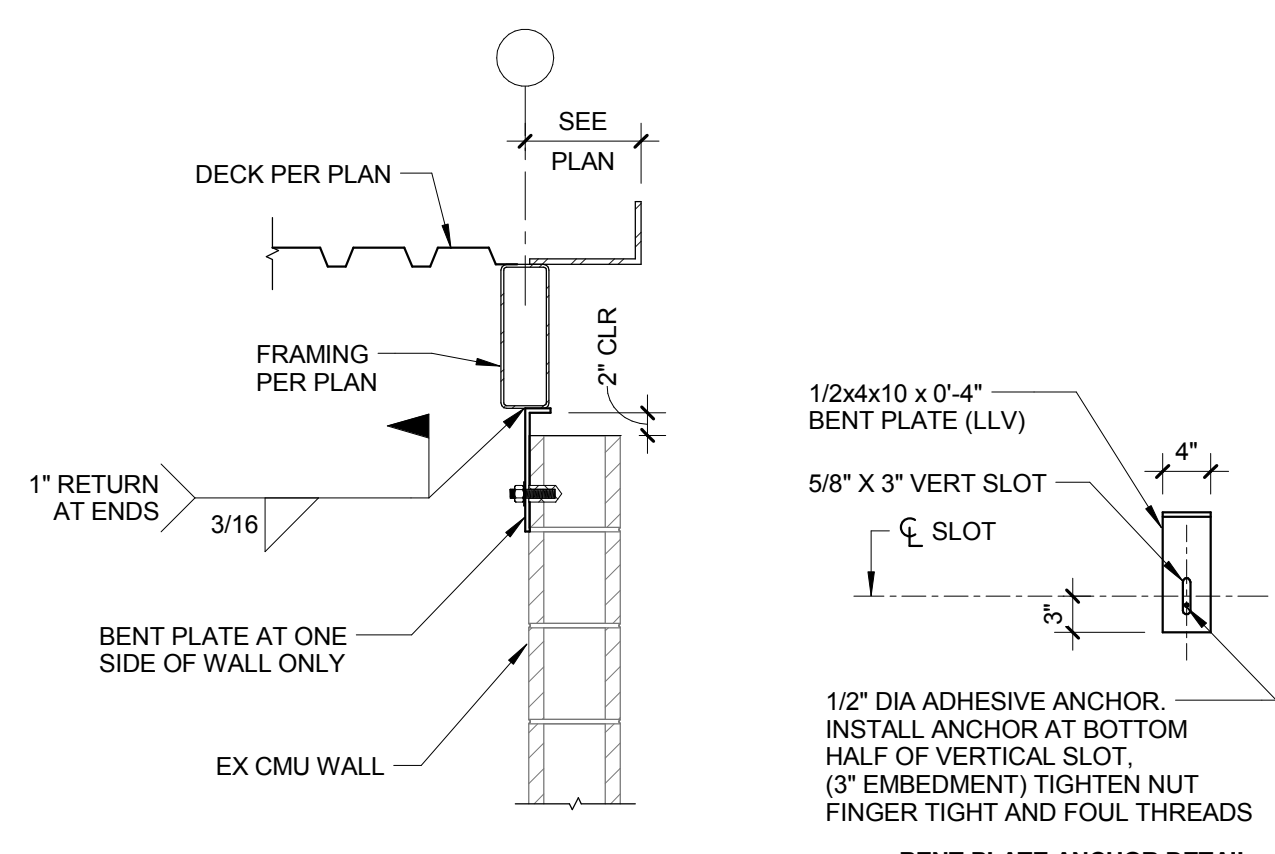
14 SECTION
SF-400 N.T.S.



15 TYPICAL CONNECTOR COLUMN CAP PLATE
SF-400 N.T.S.



16 SECTION
SF-400 N.T.S.



17 TYPICAL MASONRY WALL ANCHORAGE AT BEAM
SF-400 N.T.S.

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CONSULTANTS: Baysinger Design Group, Inc. 4201 West 126th Street, Suite 100B Morton, Illinois 62450 Phone: 618.990.8015 Fax: 618.990.8012 www.baysingerdesigngroup.com		 AMERICAN STRUCTUREPOINT INC. 7240 Shadeland Station, Indianapolis, IN 46256 Tel: 317.540.5500 Fax: 317.540.9270 www.structurepoint.com		PROJECT MANAGER: APOGEE Consulting Group Engineers Architects www.acgp-gsa.com 919-858-7420		Project Number 16-198		Scale AS INDICATED		Office of Construction and Facilities Management 		Drawing Title: SUPERSTRUCTURE SECTIONS AND DETAILS		Project Title: ADD STRUCTURAL IMPROVEMENTS TO BUILDING 42		VA PROJECT NUMBER 657-343	
Revisions:		Date:								Location: MARION VAMC MARION, IL, 62959		Approved: Project Director		Drawing Number SF-400		Dwg. 22 of 28	
												Date 09/06/17		Checked DGC		Drawn JHC	

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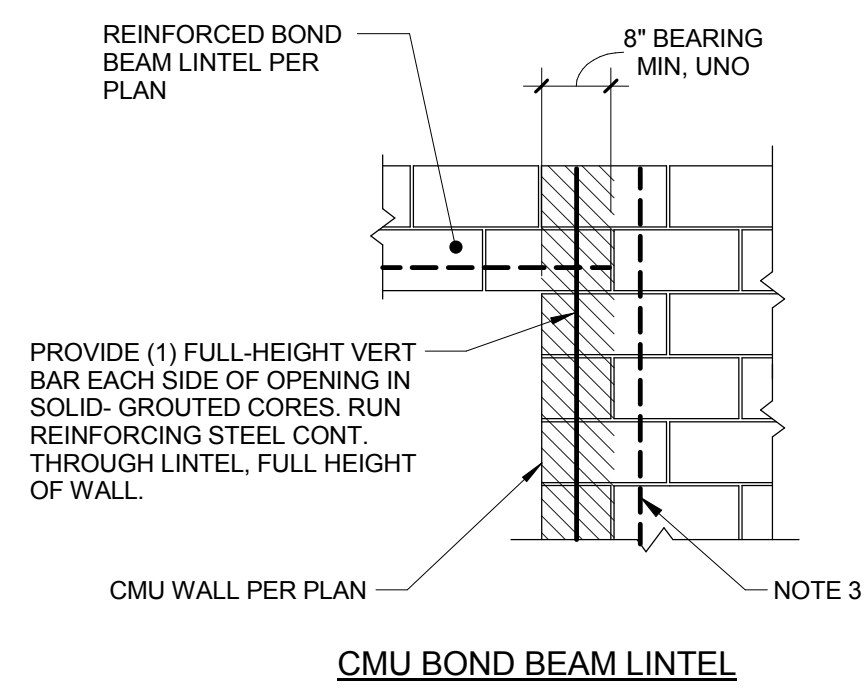
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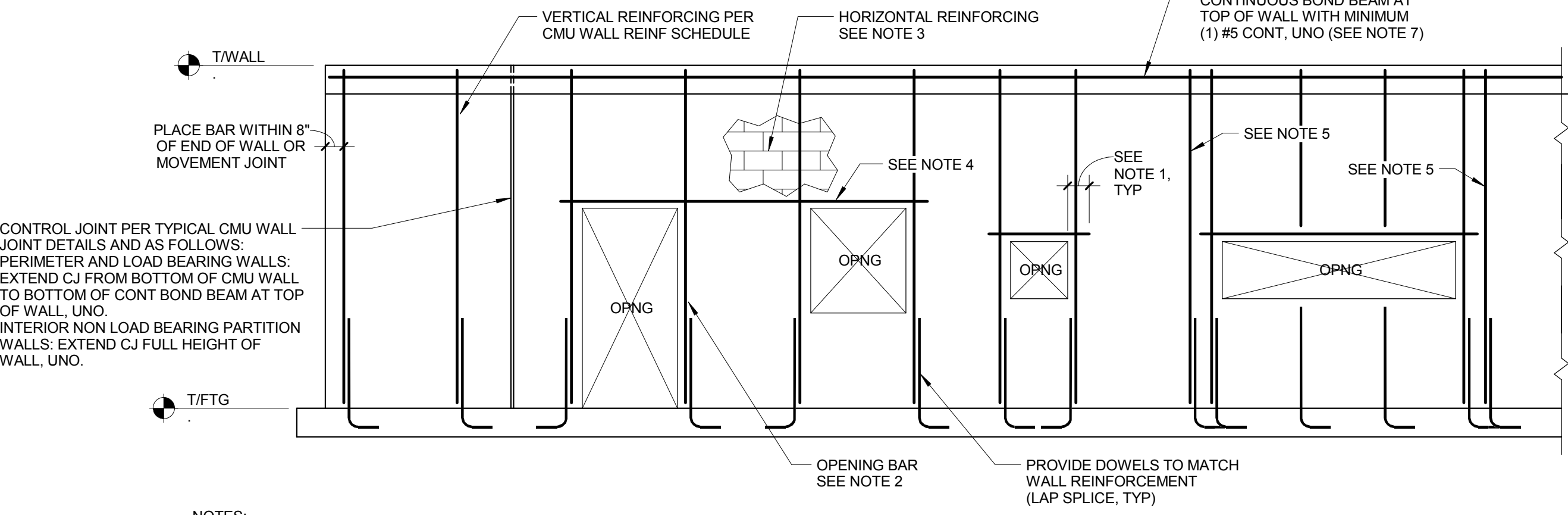
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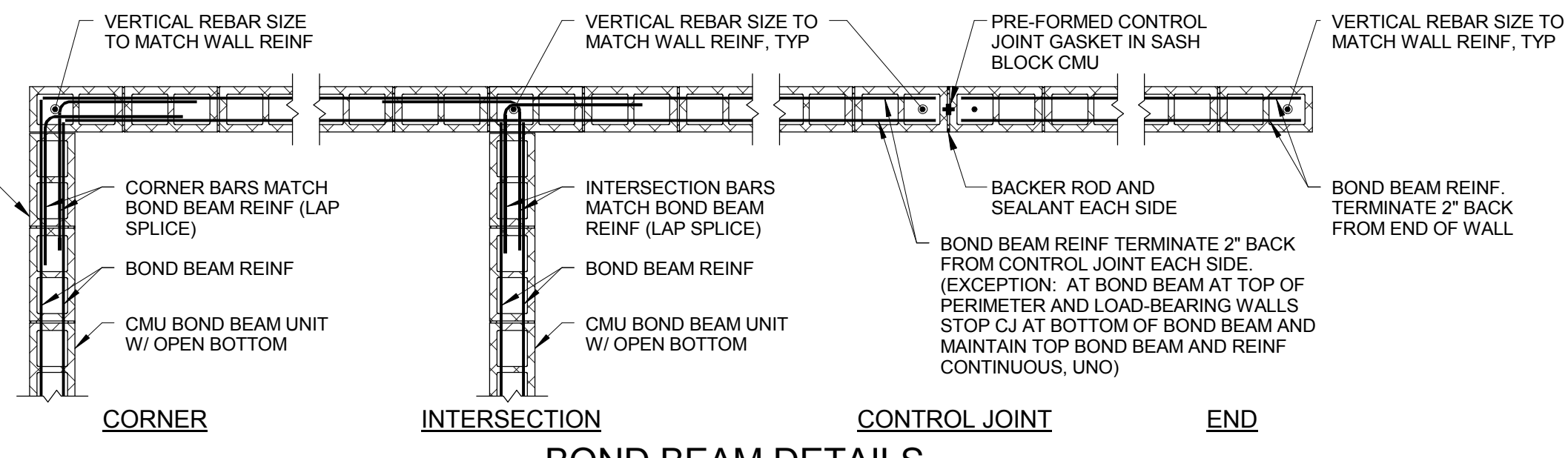
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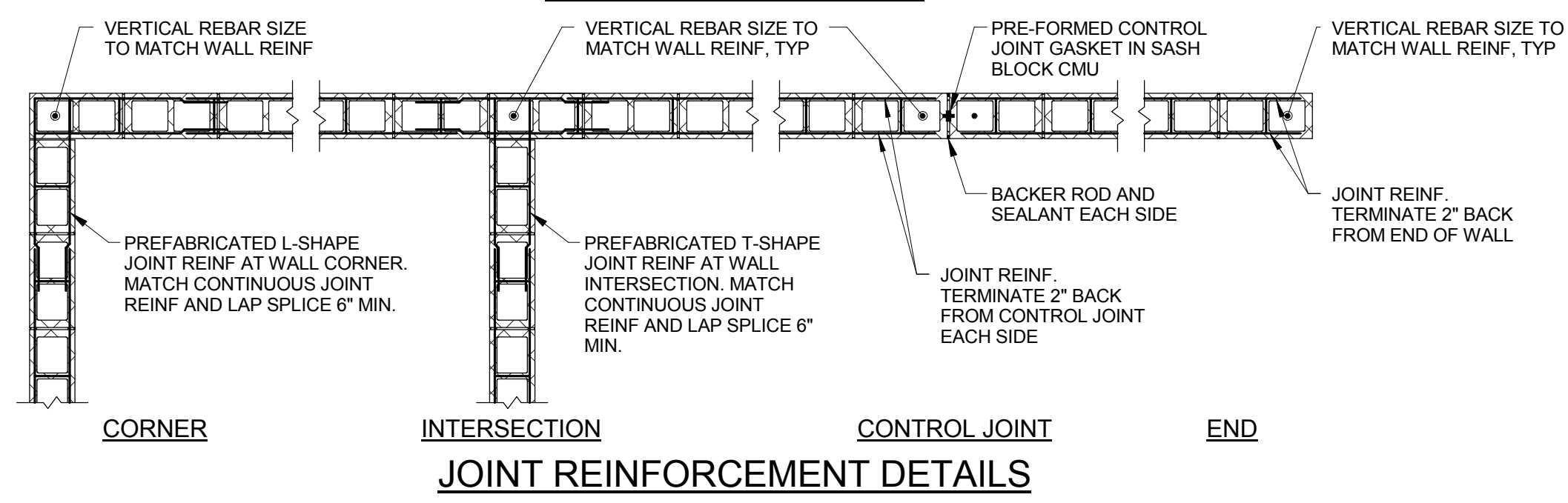
- NOTES:
1. INSTALL LINTELS TO PROVIDE EQUAL BEARING LENGTH EACH SIDE OF OPENING. UNO.
 2. VERTICAL BARS SHALL BE THE SAME SIZE AS TYPICAL VERTICAL WALL REINFORCEMENT. UNO.
 3. FOR OPENINGS THAT INTERRUPT 2 OR MORE REGULARLY SPACED VERTICAL BARS, PROVIDE ONE ADDITIONAL FULL-HEIGHT BAR @ 8" OC ADJACENT TO EACH JAMB FOR EVERY 2 BARS INTERRUPTED BY THE OPENING.



- NOTES:
1. PROVIDE MINIMUM OF 8" BEARING AT BOND BEAM LINTELS. UNO.
 2. PROVIDE FULL HEIGHT VERTICAL JAMB BAR EACH SIDE OF EVERY OPENING.
 3. HORIZONTAL REINFORCING TO CONSIST OF 9 GAUGE LADDER TYPE WIRE REINFORCING SPACED AT 16" OC VERTICALLY. UNO.
 4. PROVIDE CONTINUOUS BOND BEAM LINTELS OVER ADJACENT SAME-HEIGHT OPENINGS WITH LESS THAN 2'-8" OF MASONRY BETWEEN OPENINGS.
 5. FOR OPENINGS THAT INTERRUPT 2 OR MORE REGULARLY SPACED VERTICAL BARS, PROVIDE ONE ADDITIONAL BAR AT 8" OC ADJACENT TO EACH JAMB FOR EVERY 2 BARS INTERRUPTED BY THE OPENING.
 6. CONDITION SHOWN ON THIS DETAIL IS FOR BOND BEAM LINTELS. SEE LINTEL BEARING DETAILS FOR BAR PLACEMENT INFORMATION AT STEEL AND PRECAST LINTELS (WHEN PERMITTED).
 7. PROVIDE ADDITIONAL CONTINUOUS BOND BEAMS WHERE INDICATED ON THE DRAWINGS.



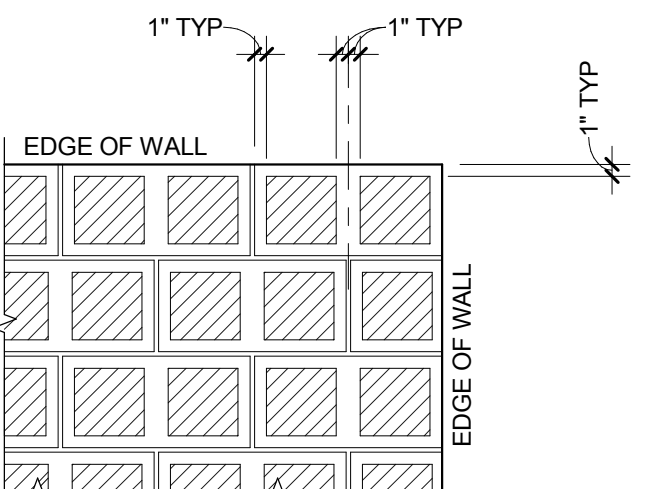
- NOTES:
1. VERTICAL REINFORCEMENT INDICATED ON THIS DETAIL IS REQUIRED IN ADDITION TO SCHEDULED VERTICAL REINFORCEMENT. UNLESS SCHEDULED REINFORCEMENT ALREADY OCCURS AT THE INDICATED LOCATIONS.
 2. PROVIDE LAPPED DOWELS INTO FOUNDATION AT ALL VERTICAL REINFORCEMENT.



1 TYPICAL LINTEL BEARING DETAILS
SF-401 N.T.S.

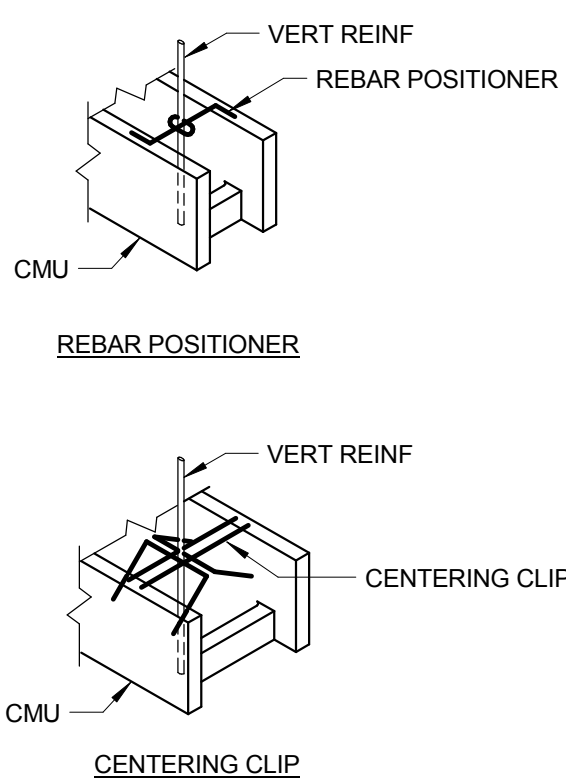
2 TYPICAL REINFORCING AT CMU WALLS
SF-401 N.T.S.

3 TYPICAL CMU WALL JOINT DETAILS
SF-401 N.T.S.

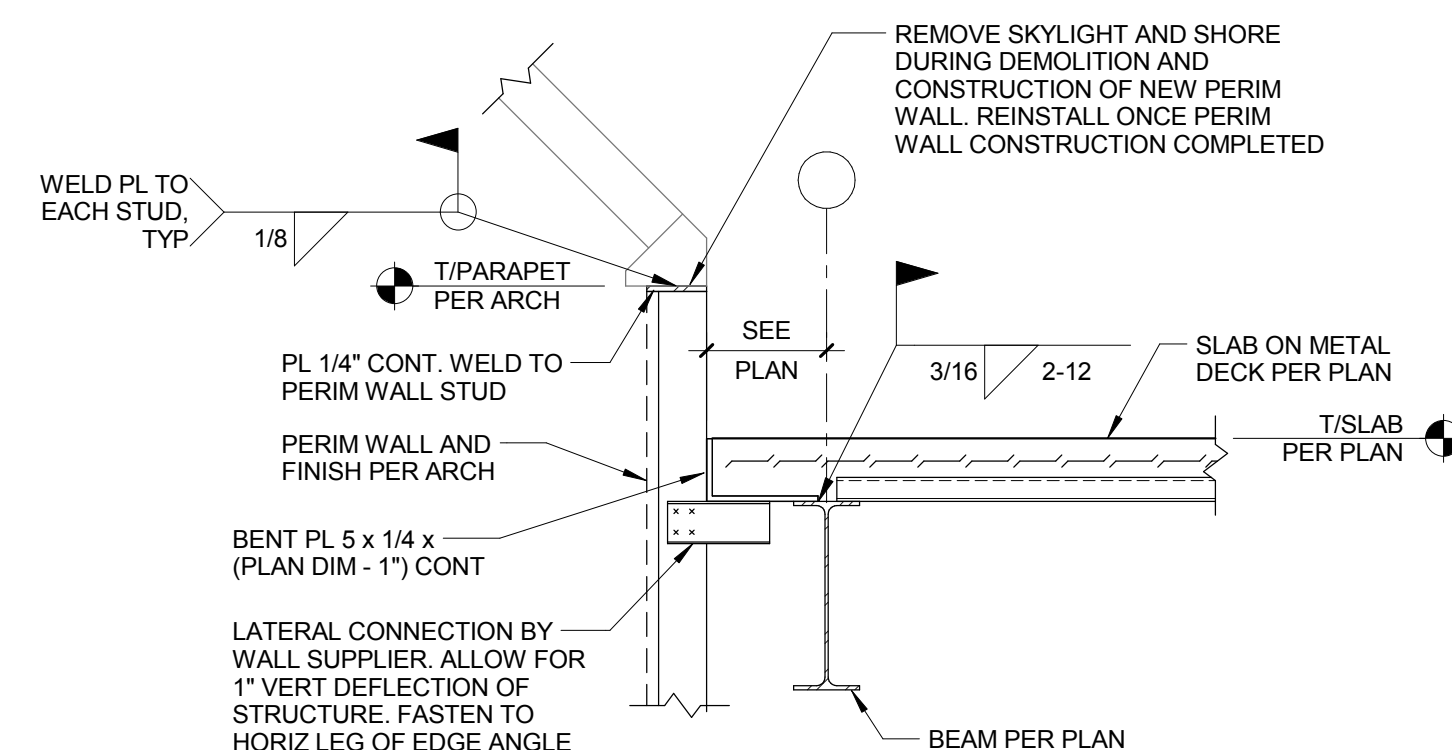


- NOTES:
1. ONLY ONE ANCHOR MAY BE PLACED IN EACH CORE.
 2. SHADED AREAS ARE ACCEPTABLE AREAS TO USE POST-INSTALLED ANCHORS.
 3. ANCHOR LOCATIONS MUST STAY 1" CLEAR OF MORTAR JOINTS.
 4. ANCHOR LOCATIONS MUST CLEAR INTERIOR WALLS OF CMU.

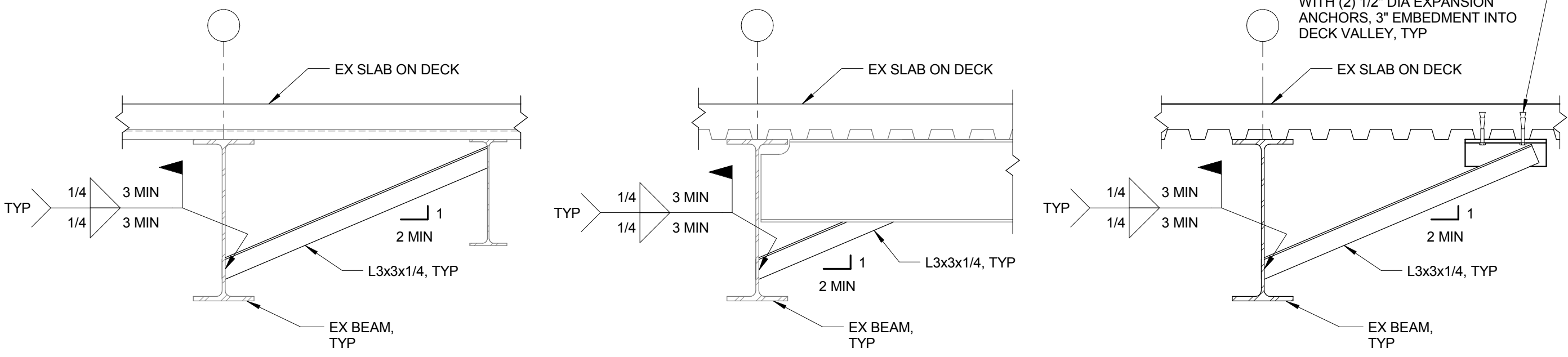
4 ACCEPTABLE LOCATIONS FOR POST-INSTALLED ANCHORS IN CMU WALLS
SF-401 N.T.S.



5 TYPICAL REBAR POSITIONERS
SF-401 N.T.S.



6 SECTION OF SKYLIGHT TO CONNECTOR BUILDING
SF-401 N.T.S.



7 BRACED FRAME BEAM BRACING DETAIL
SF-401 N.T.S.

B

B

C

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D

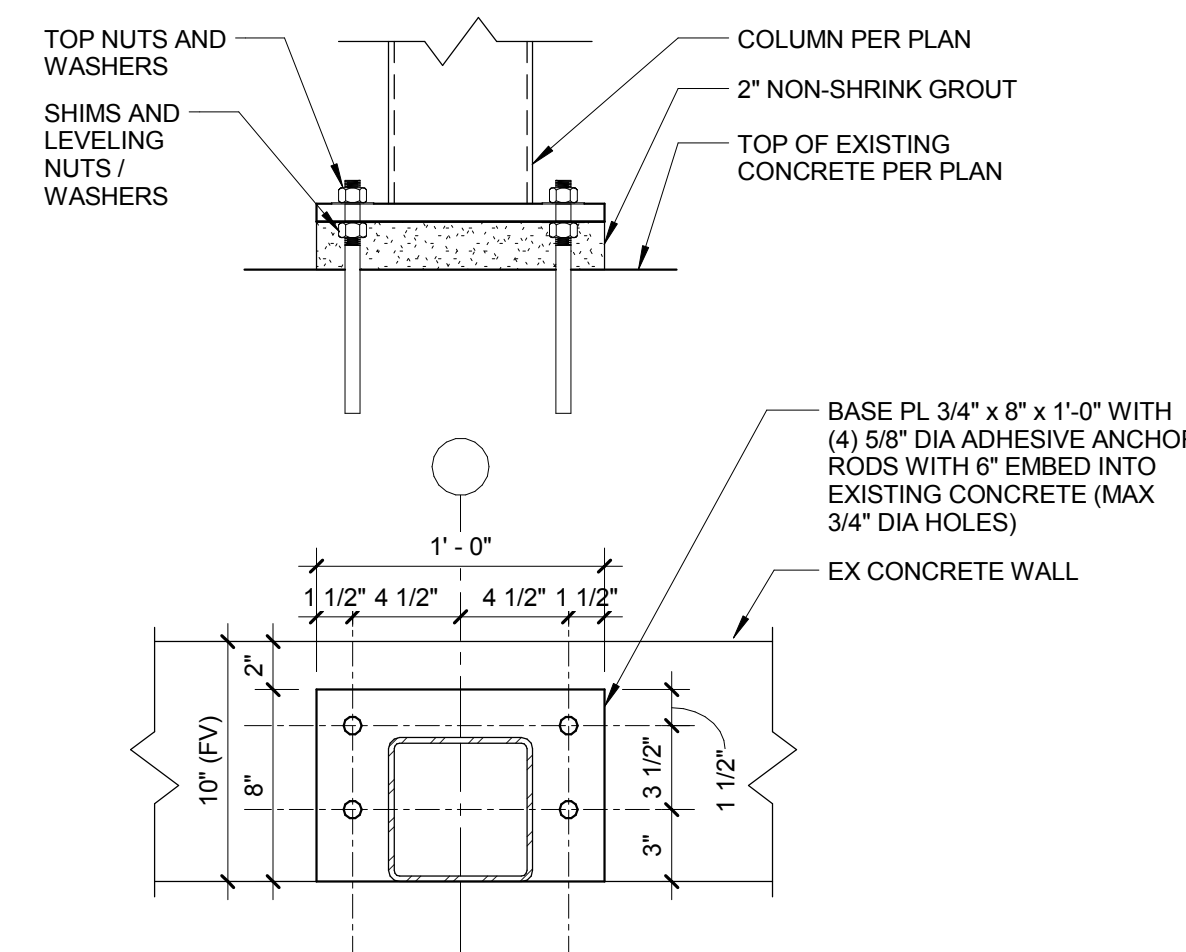
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100% CONSTRUCTION DOCUMENTS

		CONSULTANTS:				<div><div><div><div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></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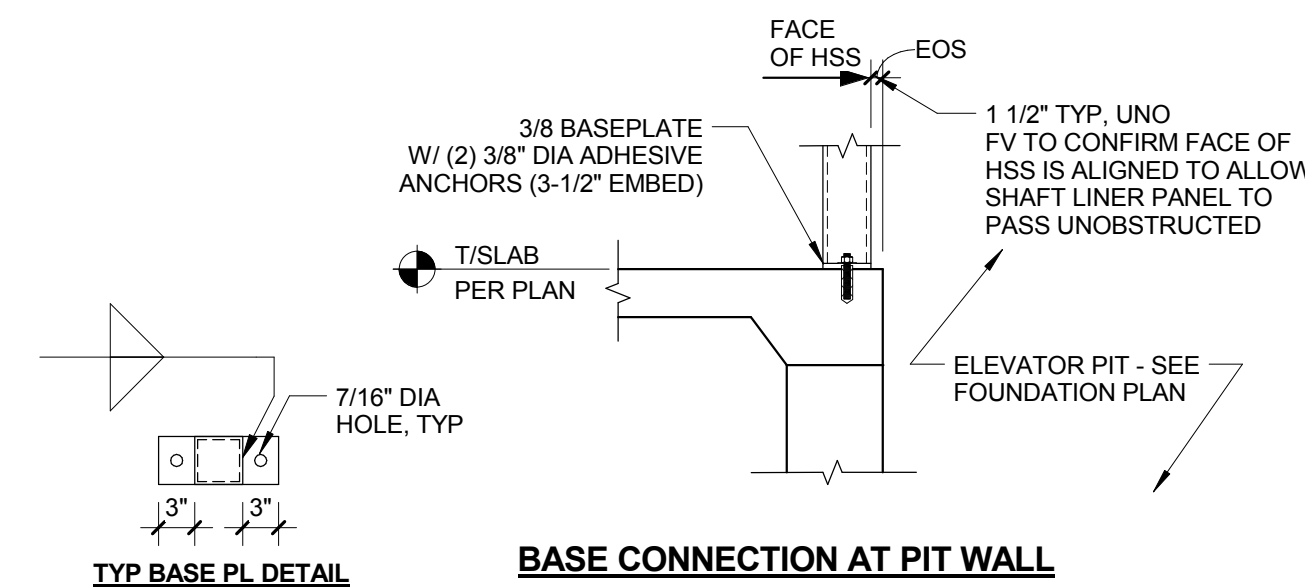
CONNECTION AT FLOOR SLAB

TOP CONNECTION AT ROOF FRAMING

**TOP CONNECTION
AT STEEL SUPPORT (CENTERED)**

GUIDE RAIL BRACKET T-PLATE SUPPORT

TYP COLUMN BASE PL DETAIL ON EX WALL OR PIER



BASE CONNECTION AT PIT WALL

BASE CONNECTION AT STEEL SUPPORT

**TOP CONNECTION
AT STEEL SUPPORT (ECCENTRIC)**

- NOTES:**
1. SEE PLANS FOR FRAMING CONDITIONS AT BASE AND TOP OF HSS.
 2. COORDINATE LOCATIONS OF ALL REQUIRED SUPPLEMENTAL SUPPORTS WITH ELEVATOR CONTRACTOR AND SHAFT WALL CONTRACTOR PRIOR TO INSTALLATION.

ELEVATOR SUPPLEMENTAL GUIDE RAIL SUPPORTS

1 EL
SF-500 N.T.S.

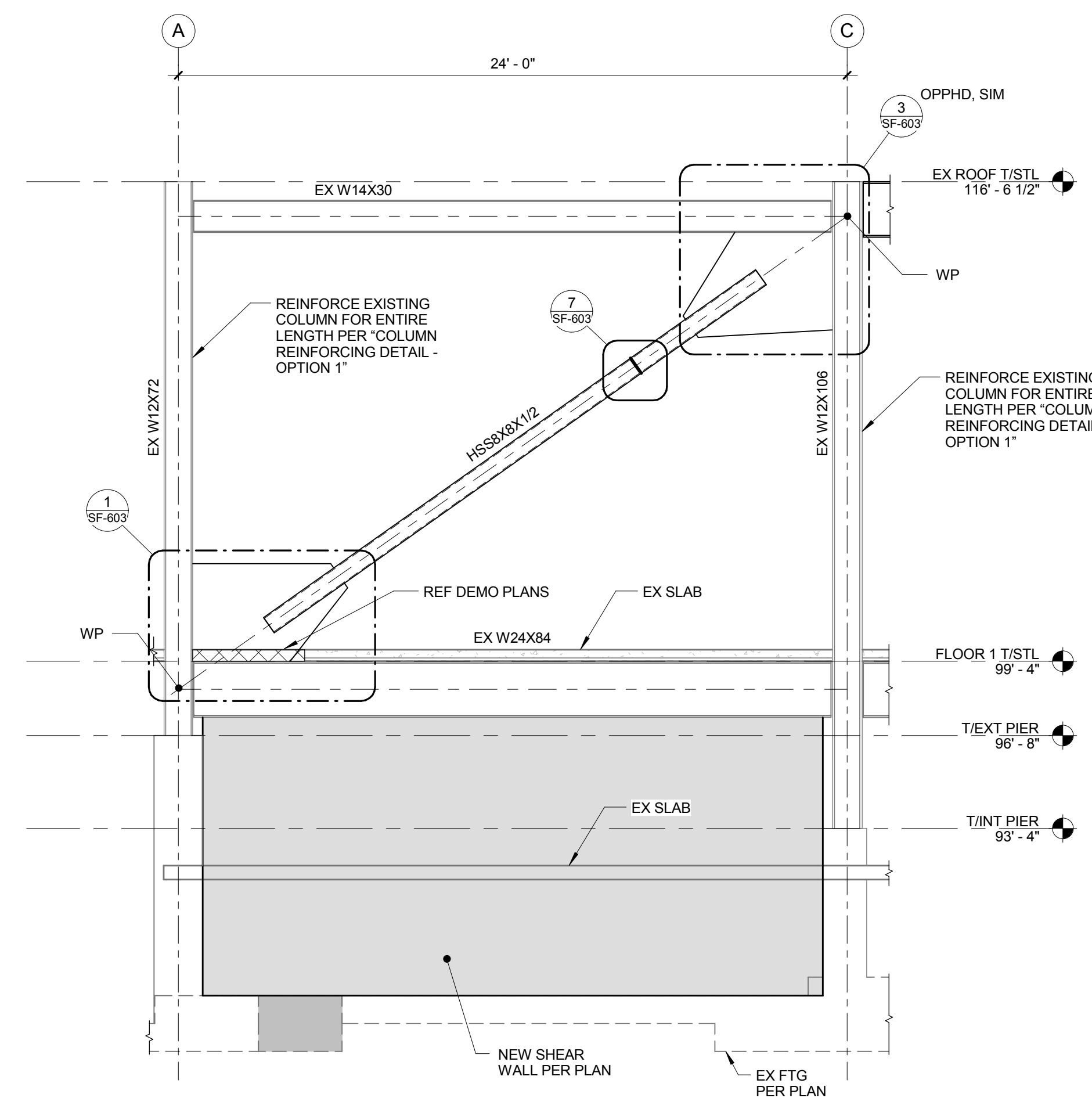
COLUMN SCHEDULE									
EX ROOF T/STL									EX ROOF T/STL
116' - 6 1/2"	HSS60X6 1/2	HSS60X6 1/2	HSS60X6 1/2	HSS60X6 1/4	HSS60X6 1/2	HSS60X6 1/2	HSS60X6 1/2	116' - 6 1/2"	
FLOOR 1 T/STL									FLOOR 1 T/STL
99' - 4"	T/PIER 97" - 10" (FV EX BRG PL EL)	T/PIER 97" - 10" (FV EX BRG PL EL)	T/WALL 99' - 4"		T/FTG 99' - 4"	T/WALL 99' - 4"	T/WALL 99' - 4"	99' - 4"	
				T/FTG 86' - 4"					
Column Locations	AA-15.2	AA-16.3	AA-15-15.2	AA-15-15.8	AD-16.3	AD-1-15.2	AD-1-15.8		

NOTE: SEE DETAIL 15/S400 FOR COLUMN CAP PLATE

COLUMN SCHEDULE

N.T.S

[illegible]

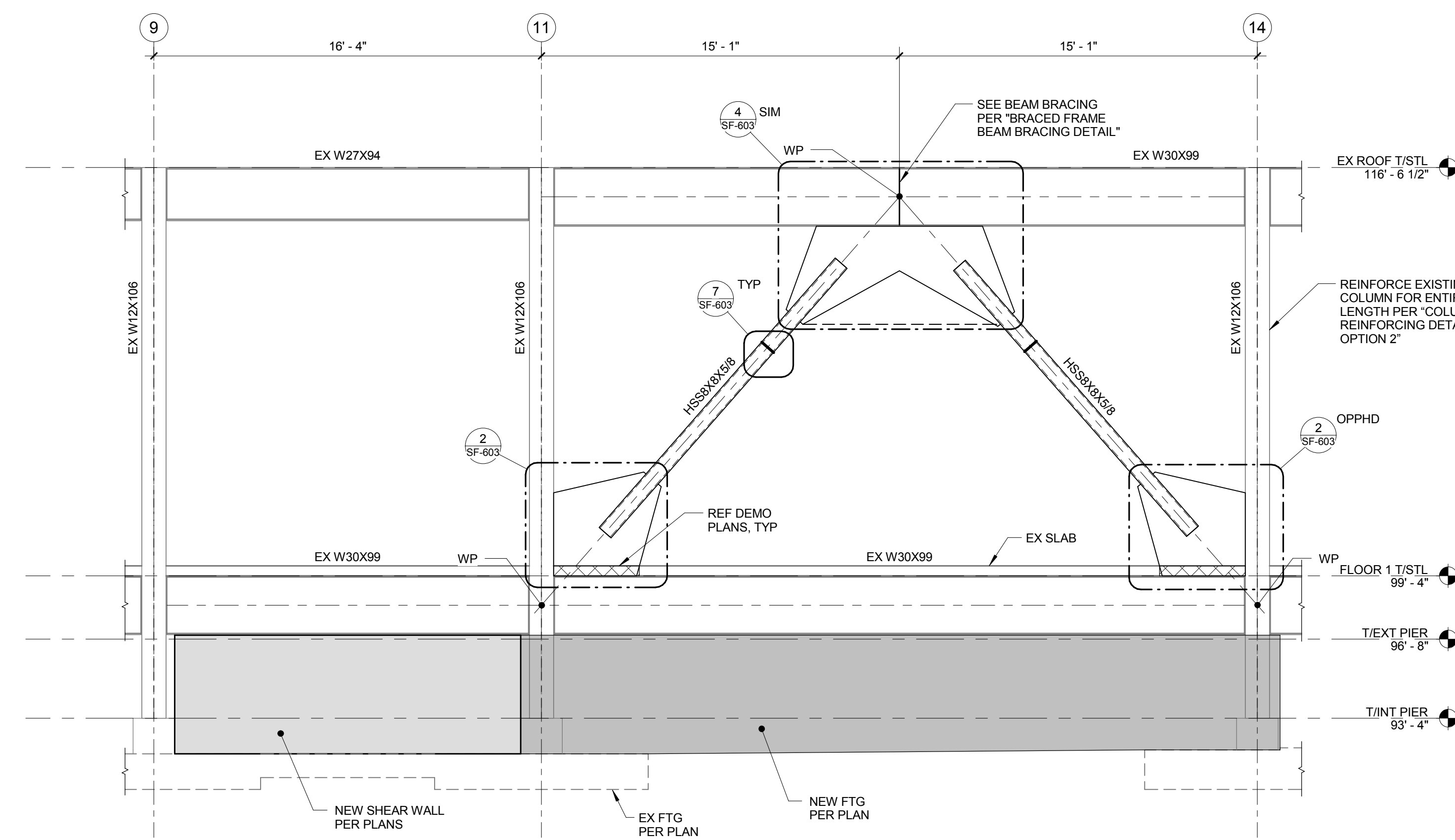


SF-600_1_

NTS

NOT

- NOTES:
1. SEE "PROTECTED ZONE OF BRACED FRAME DETAIL" FOR ADDITIONAL REQUIREMENTS



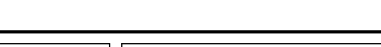
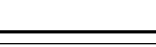
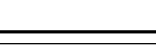
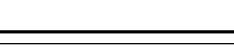
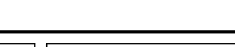
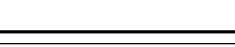
SF-600_2_

NTS

NOTE

- NOTES:
1. SEE "PROTECTED ZONE OF BRACED FRAME DETAIL" FOR ADDITIONAL REQUIREMENTS

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		CONSULTANTS:						PROJECT MANAGER:		Project Number 16-198		Scale AS INDICATED		Office of Construction and Facilities Management		Drawing Title: BRACED FRAME		Project Title ADD STRUCTURAL IMPROVEMENTS TO BUILDING 42		VA PROJECT NUMBER 657-343			
		 Baysinger Design Group, Inc. 1311 West 16th Street, Suite 100B Mount Pleasant, MO 64601 Phone: (417) 734-1111 Fax: (417) 734-1112 Email: info@baysingerdesign.com Baysinger Design Group, Inc. is an Equal Opportunity Employer		 AMERICAN STRUCTUREPOINT INC. 2566 Shadeland Station, Indianapolis, IN 46256 Tel: 317-547-1550 Fax: 317-547-0210 www.structurepoint.com				 Apogee Consulting Group Engineers Architects www.apogee-gpa.com 917-858-7420		Raleigh, NC Indianapolis, IN Pittsburgh, PA Virginia Beach, VA Fort Collins, CO						Location MARION VAMC MARION, IL, 62959		Approved: Project Director		Building Number 42			
Revisions:		Date												 		Date 09/06/17		Checked DGC		Drawn JHC		SF-600 Dwg. 25 of 28	

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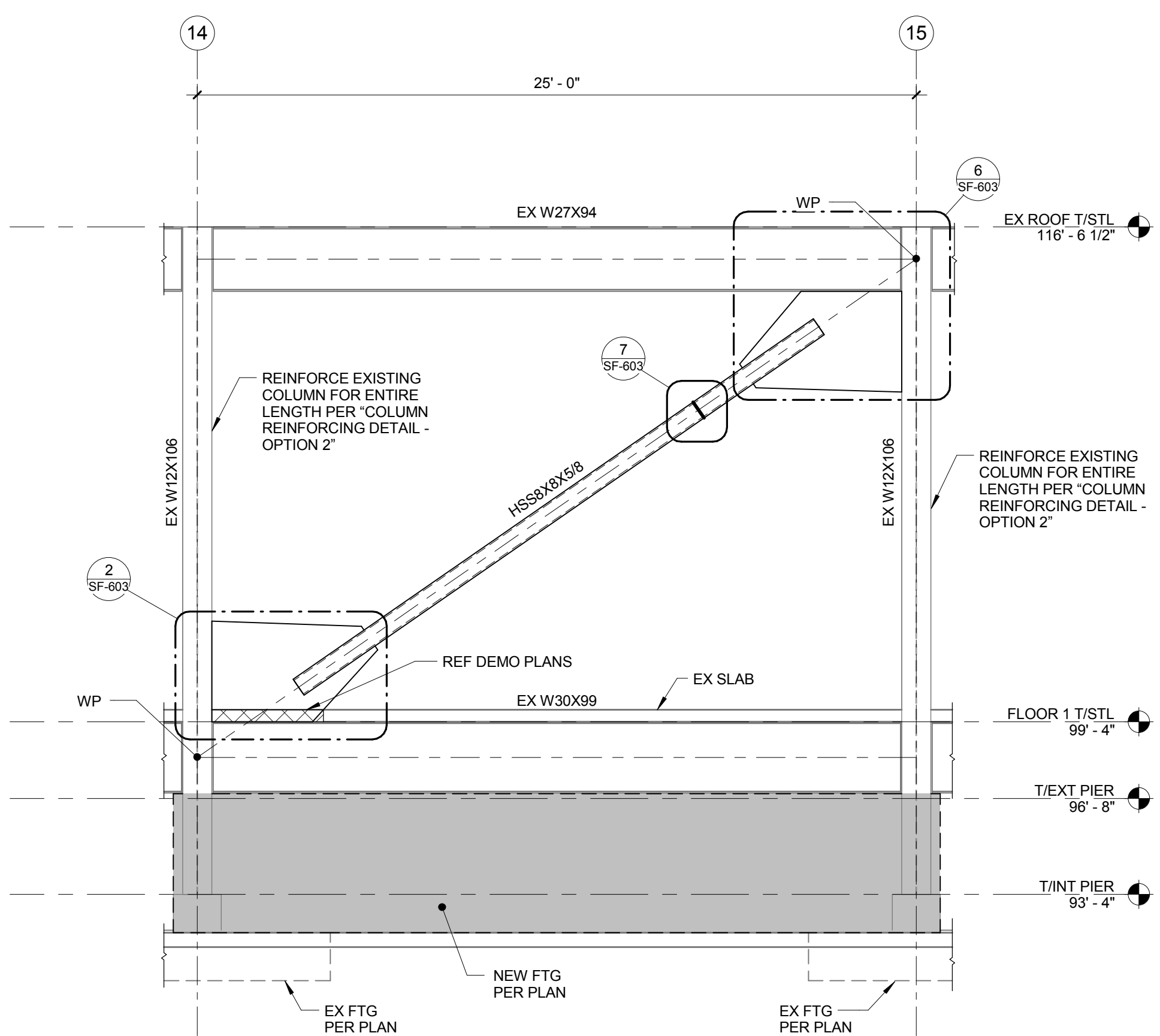
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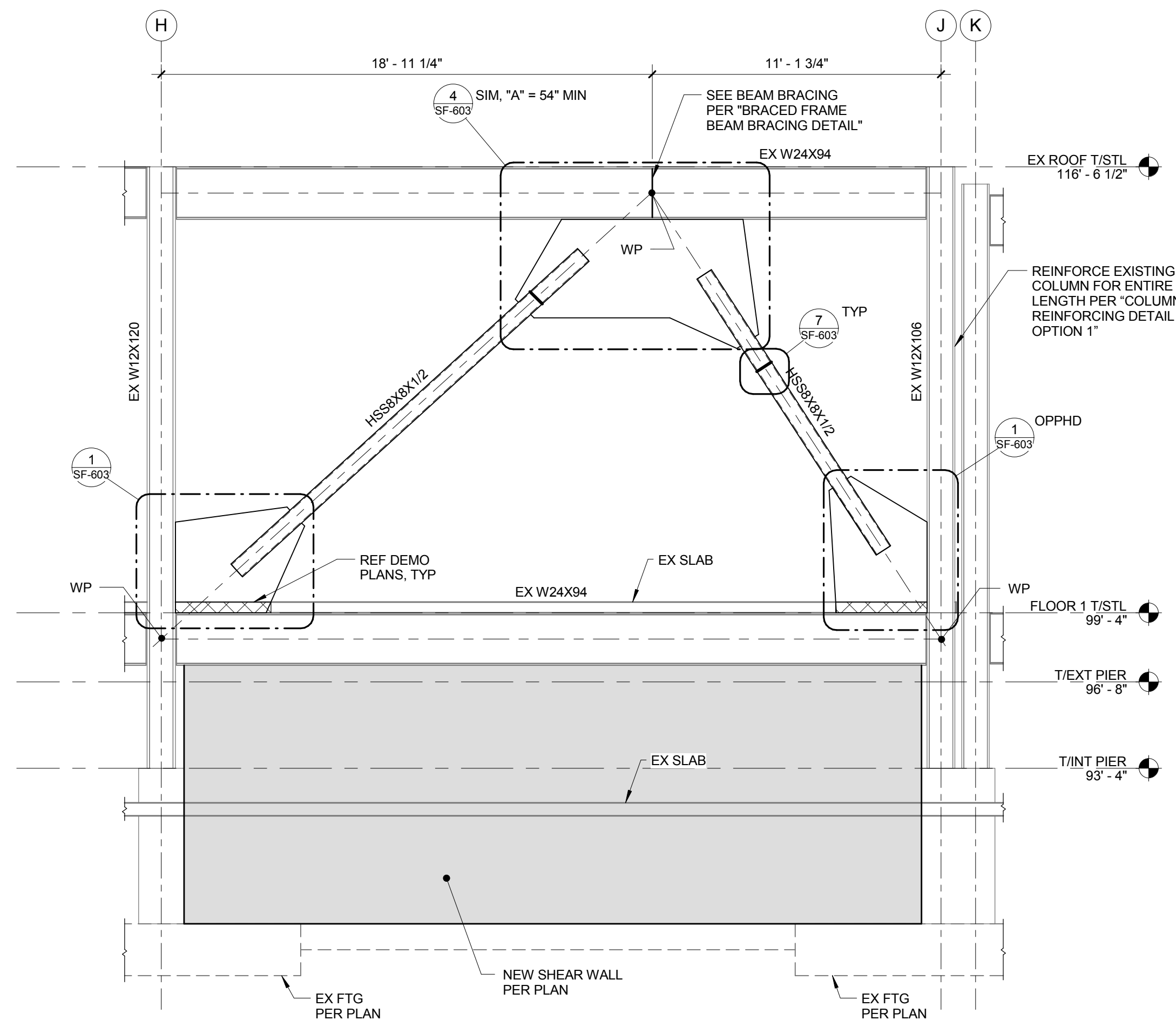
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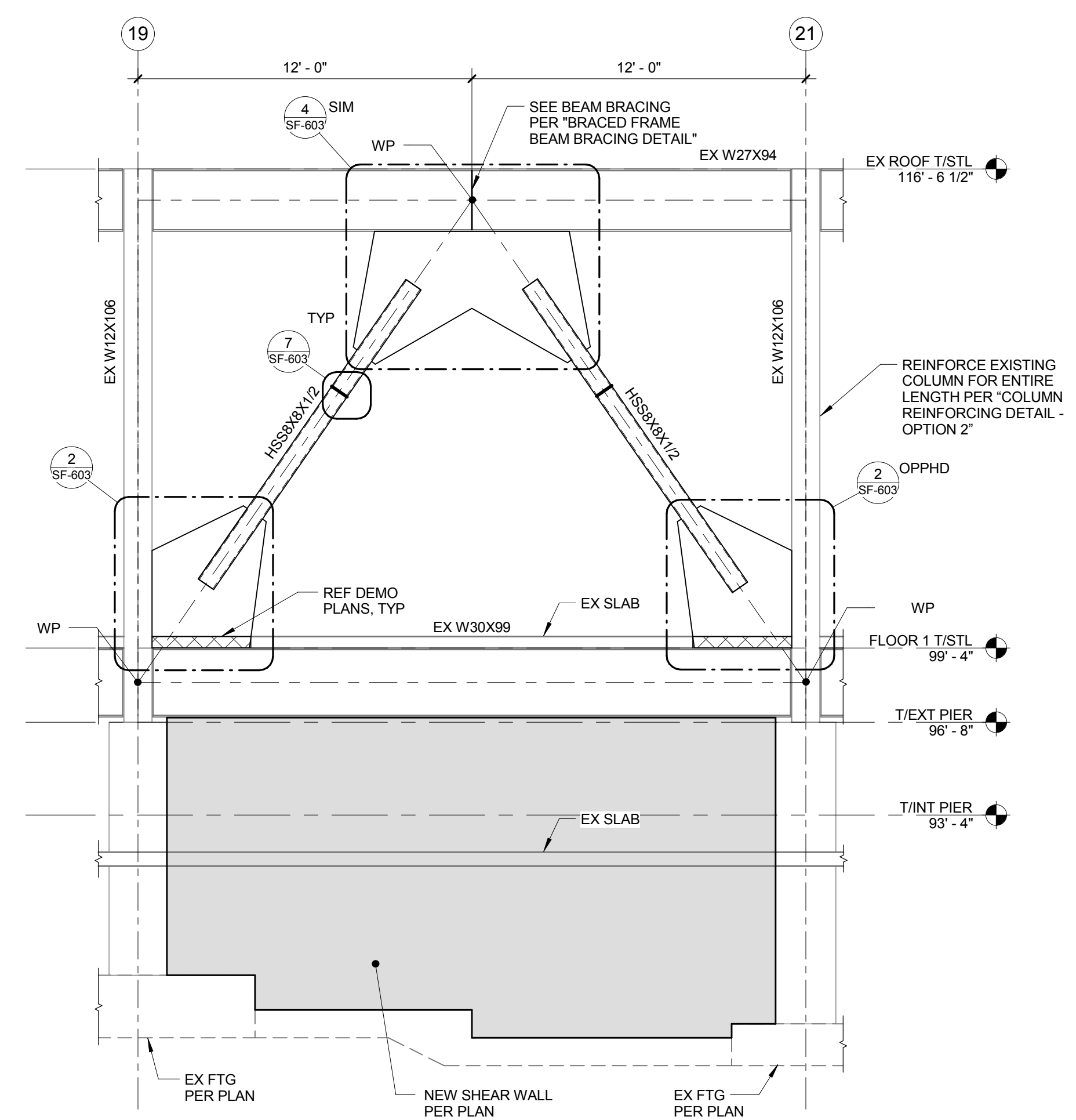
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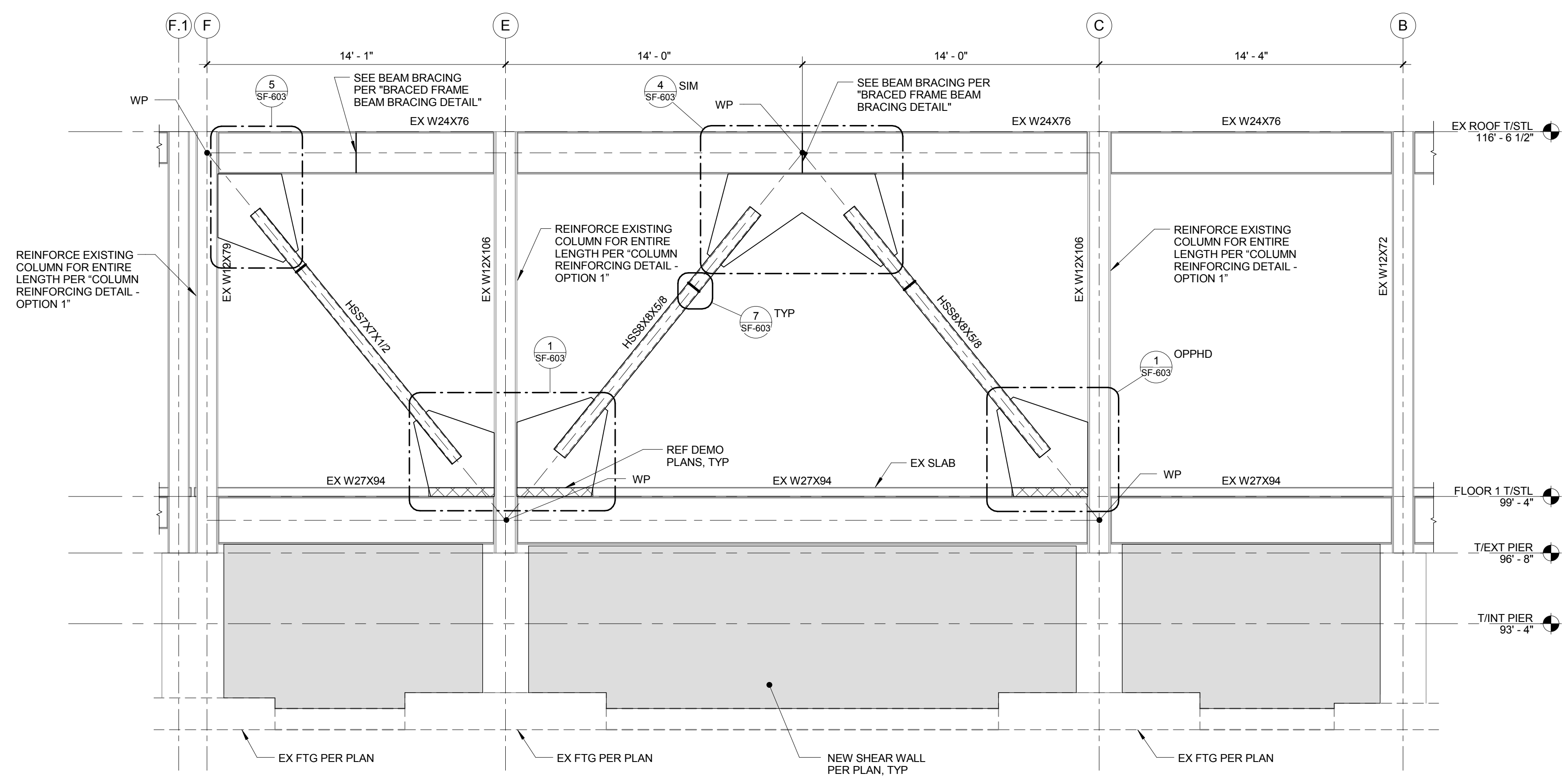
1 **FRAME C (LINE J)**
N.T.S.
NOTES:
1. SEE "PROTECTED ZONE OF BRACED FRAME DETAIL" FOR ADDITIONAL REQUIREMENTS.



2 **SF-601_2**
N.T.S.
NOTES:
1. SEE "PROTECTED ZONE OF BRACED FRAME DETAIL" FOR ADDITIONAL REQUIREMENTS.



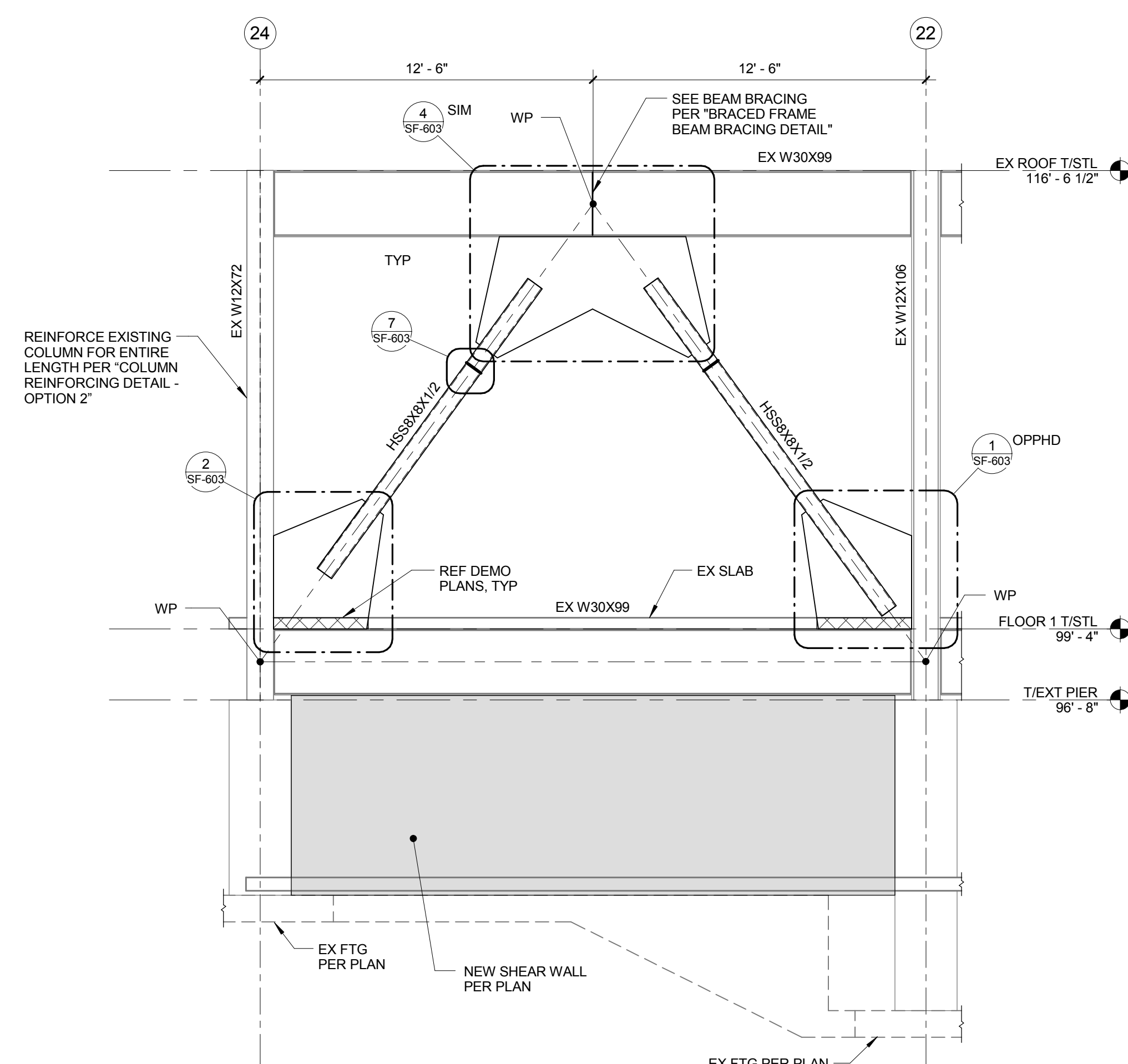
3 **FRAME L (LINE J)**
N.T.S.
NOTES:
1. SEE "PROTECTED ZONE OF BRACED FRAME DETAIL" FOR ADDITIONAL REQUIREMENTS.



4 **FRAME M (LINE 24)**
N.T.S.
NOTES:
1. SEE "PROTECTED ZONE OF BRACED FRAME DETAIL" FOR ADDITIONAL REQUIREMENTS.

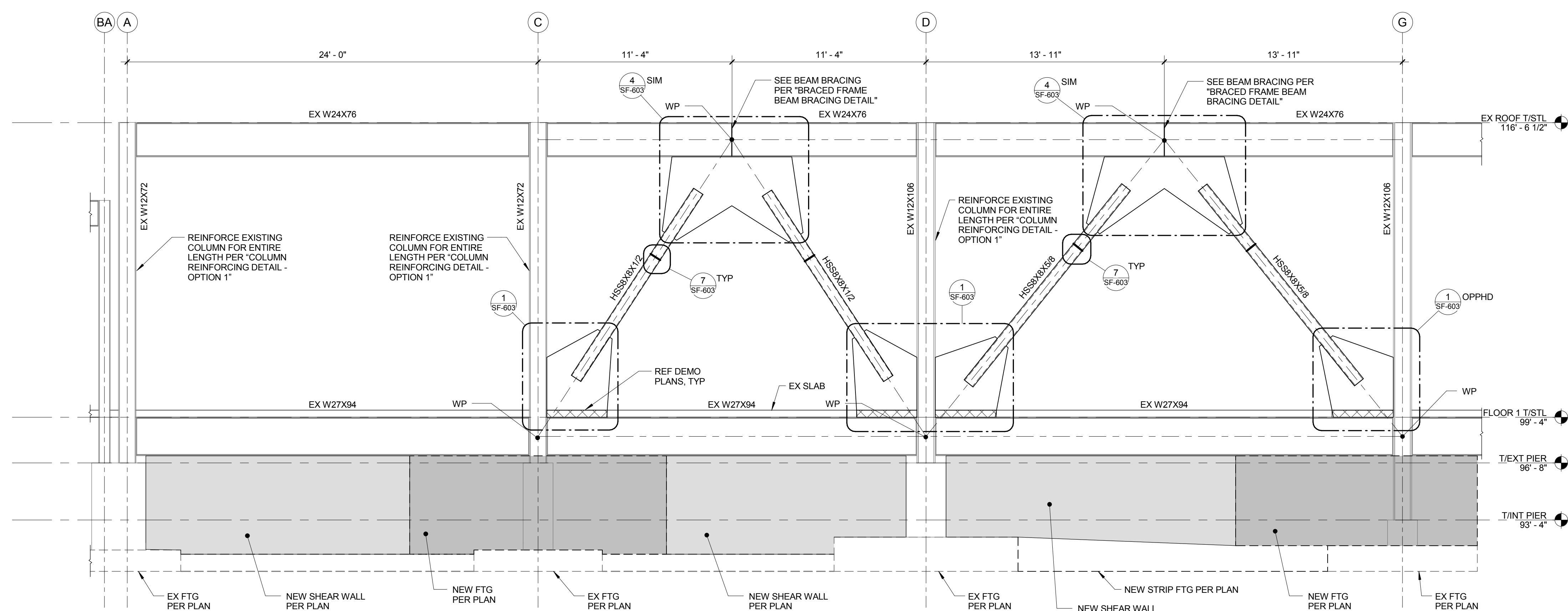
100% CONSTRUCTION DOCUMENTS

Revisions:	CONSULTANTS:			PROJECT MANAGER: Raleigh, NC Indianapolis, IN Pittsburgh, PA Virginia Beach, VA Fort Collins, CO	Project Number 16-198	Scale AS INDICATED	Office of Construction and Facilities Management 	Drawing Title: BRACED FRAME	Project Title: ADD STRUCTURAL IMPROVEMENTS TO BUILDING 42	VA PROJECT NUMBER 657-343					
	 Baysinger Design Group, Inc. 1311 West DuPont Street, Suite 100B Moline, Illinois 62459 Phone: 815.990.8115 Fax: 815.990.8152 Email: info@baysingerdesign.com										 AMERICAN STRUCTUREPOINT INC. 7240 Shadeland Station, Indianapolis, IN 46256 Tel: 317.547.5500 Fax: 317.543.9270 www.structurepoint.com	Building Number 42	Drawing Number SF-601		
											Approved: Project Director	Date 09/06/17	Checked DGC	Drawn JHC	Dwg. 26 of 28



FRAME N (LINE A)

NOTES:
1. SEE "PROTECTED ZONE OF BRACED FRAME DETAIL" FOR ADDITIONAL REQUIREMENTS.








2 **FRAME Q (LINE 7)**

2 FR

NOTES:
1. SEE "PROTECTED ZONE OF BRACED FRAME DETAIL" FOR ADDITIONAL REQUIREMENTS.

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		CONSULTANTS:  Baysinger Design Group, Inc. 1311 West Wynton Street, Suite 100 Moline, Illinois 61701 Phone: (309) 761-0111 Fax: (309) 761-0112 Email: info@baysingerdesigngroup.com 2860 Shadeland Station, Indianapolis, IN 46256 Tel: 317 547-5580 FAX 317 543-0210 www.structurepoint.com				PROJECT MANAGER:  APOGEE Consulting Group Engineers Architects www.acgp-inc.com 919-858-7420 Raleigh, NC Indianapolis, IN Pittsburgh, PA Virginia Beach, VA Fort Collins, CO		Project Number 16-198		Scale AS INDICATED		Office of Construction and Facilities Management   U.S. Department of Veterans Affairs		Drawing Title: BRACED FRAME		Project Title ADD STRUCTURAL IMPROVEMENTS TO BUILDING 42		VA PROJECT NUMBER 657-343	
Revisions:		Date		Location MARION VAMC MARION, IL, 62959		Approved: Project Director		Drawing Number SF-602		Building Number 42		Date 09/06/17		Checked DGC		Drawn JHC		Dwg. 27 of 28	

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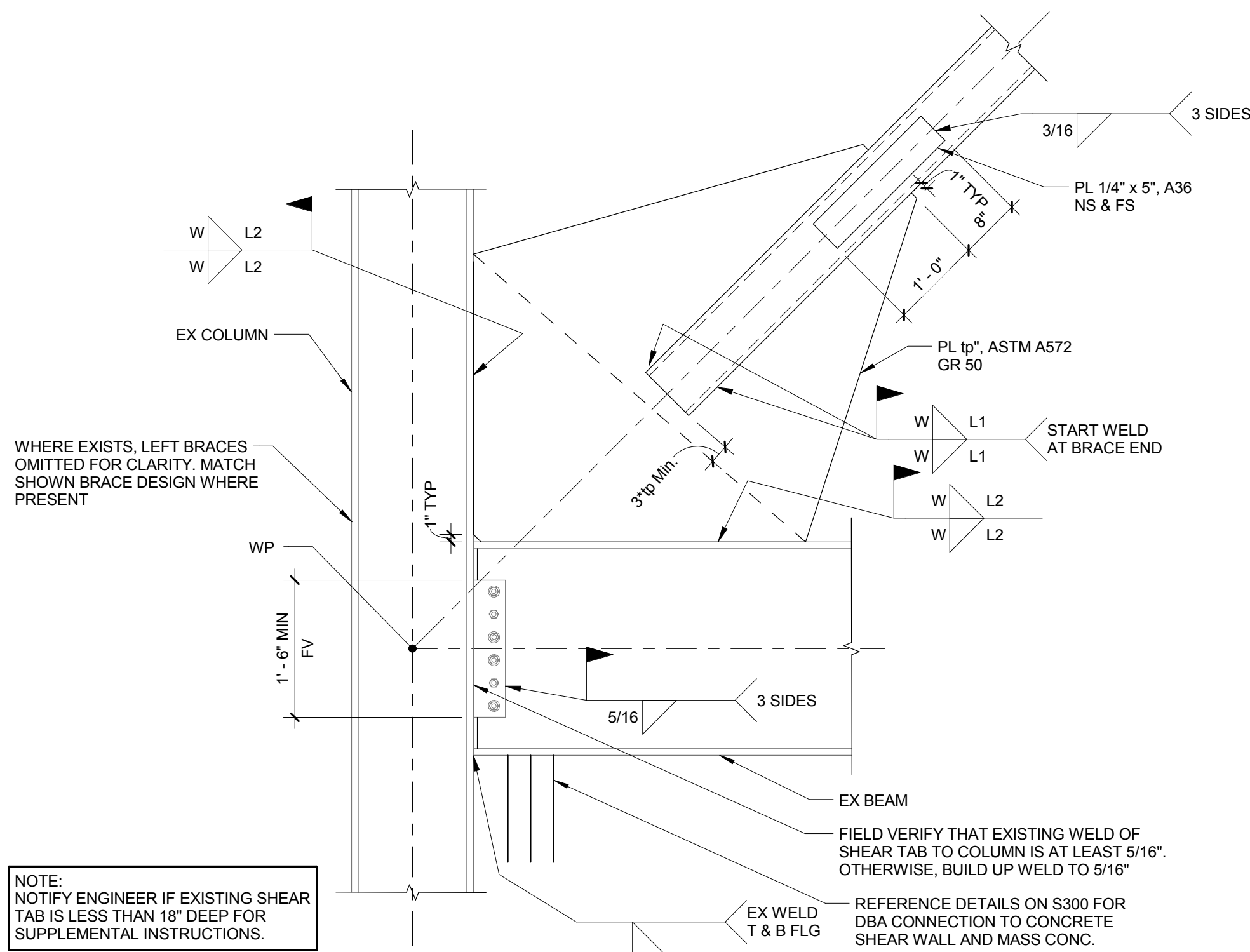
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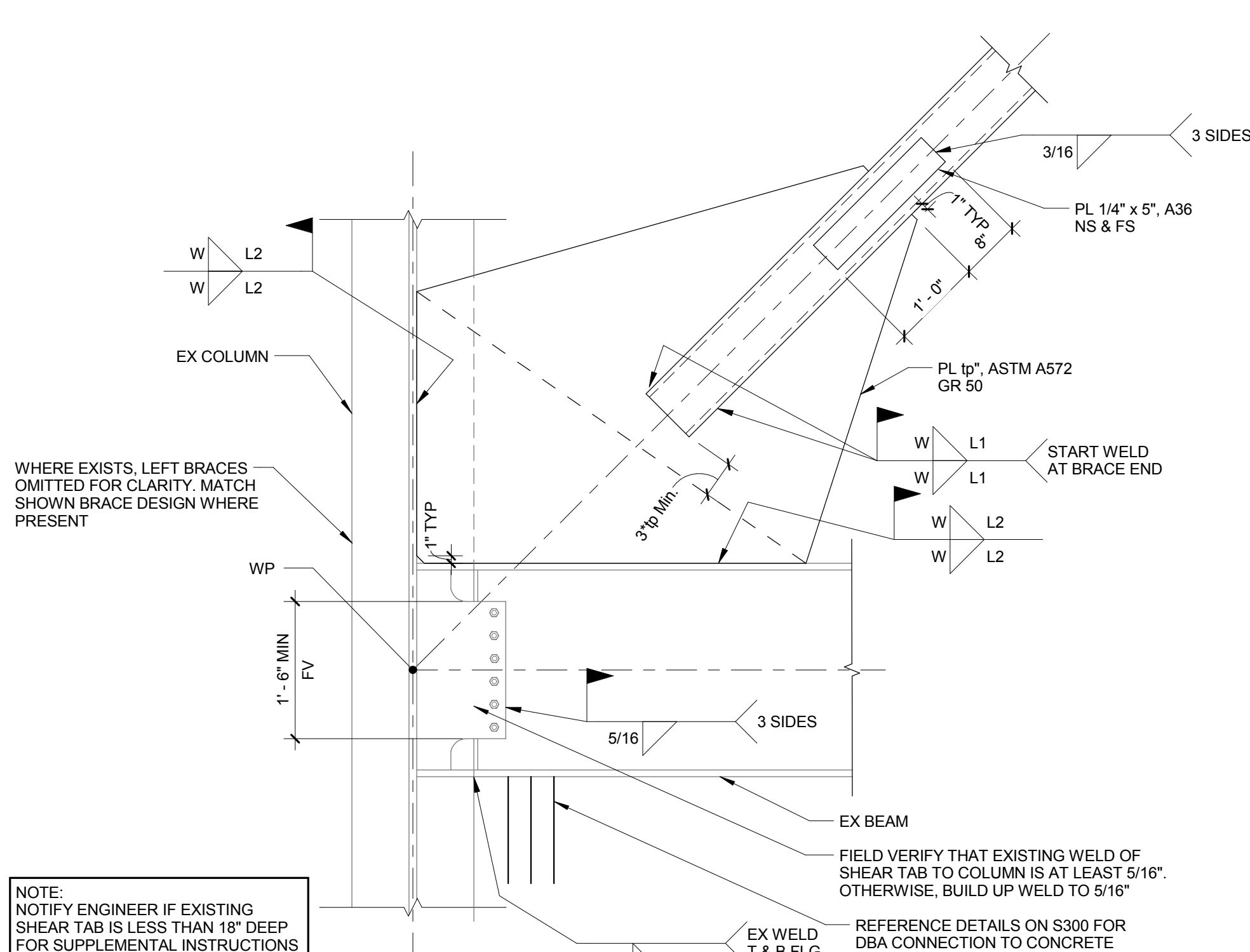
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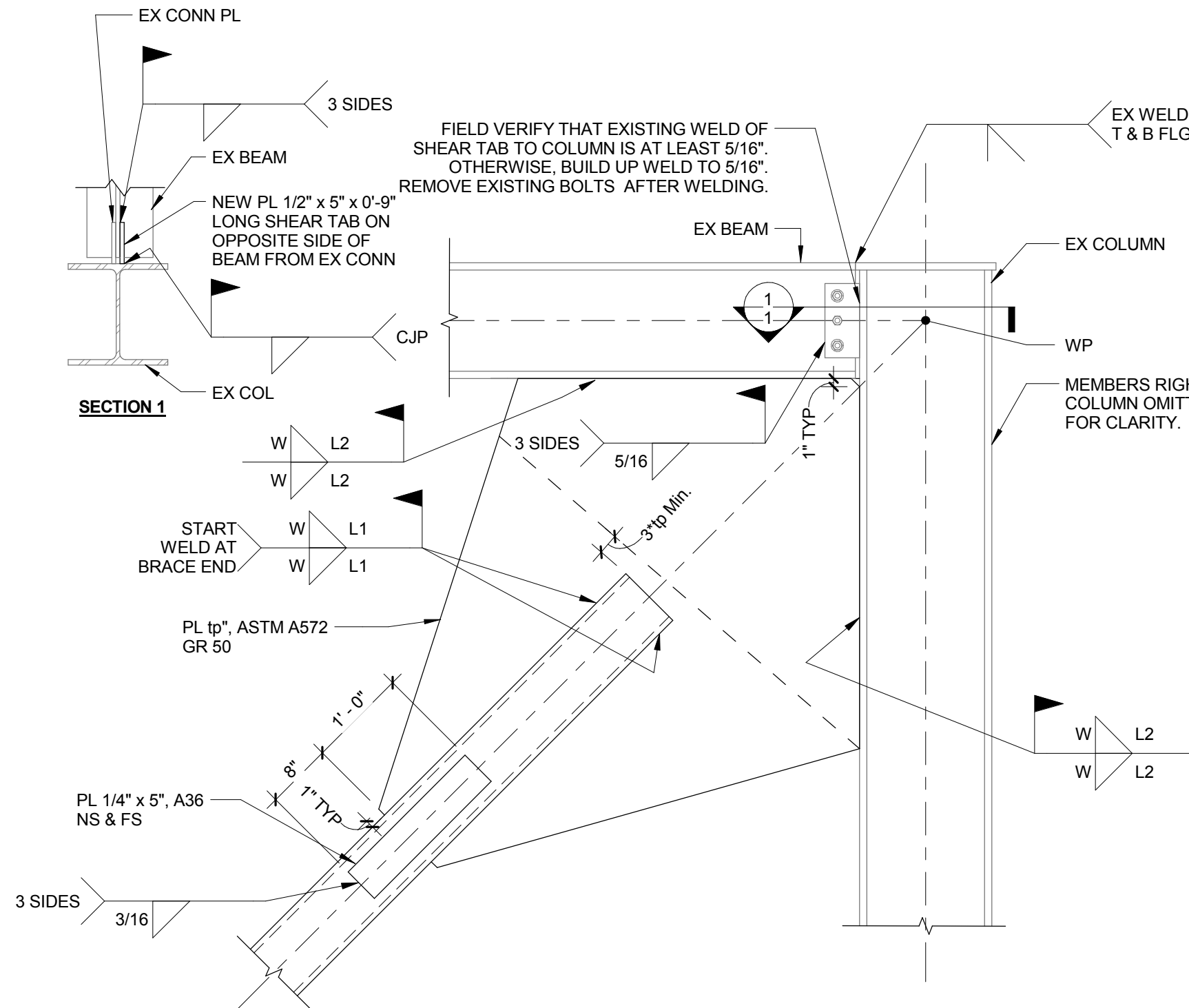


BRACE WELD TABLE					
BRACE	AXIAL FORCE (K)	L1 (IN)	L2 (IN)	tp (IN)	W (IN)
HSS8x8x5/8	704	36	42	1 1/4"	5/8"
HSS8x8x1/2	580	37	42	1"	1/2"
HSS7x7x1/2	498	32	36	1"	1/2"
HSS6x6x1/2	418	27	32	1"	1/2"

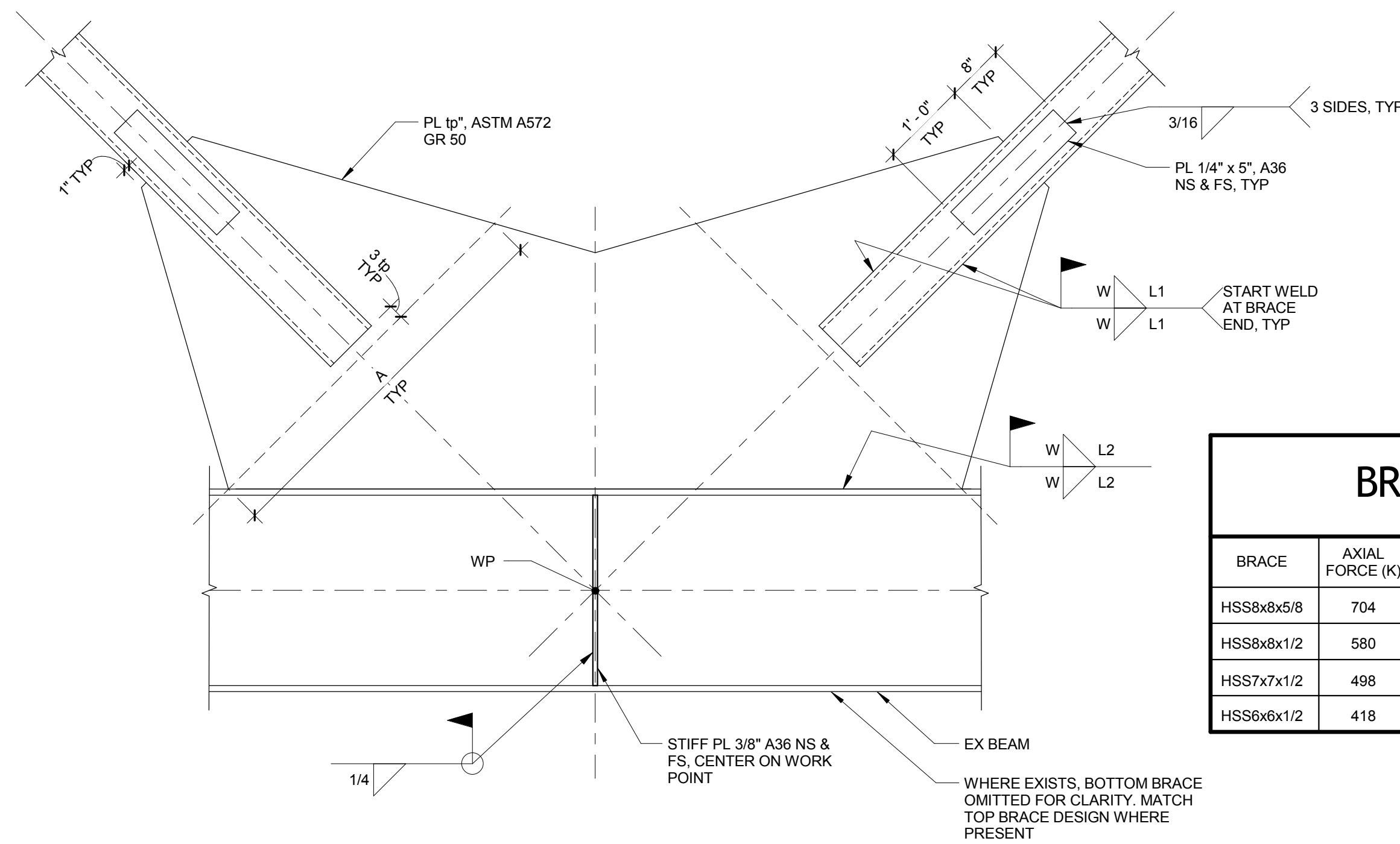
1 BRACE DETAIL
SF-603 N.T.S.



2 BRACE DETAIL
SF-603 N.T.S.

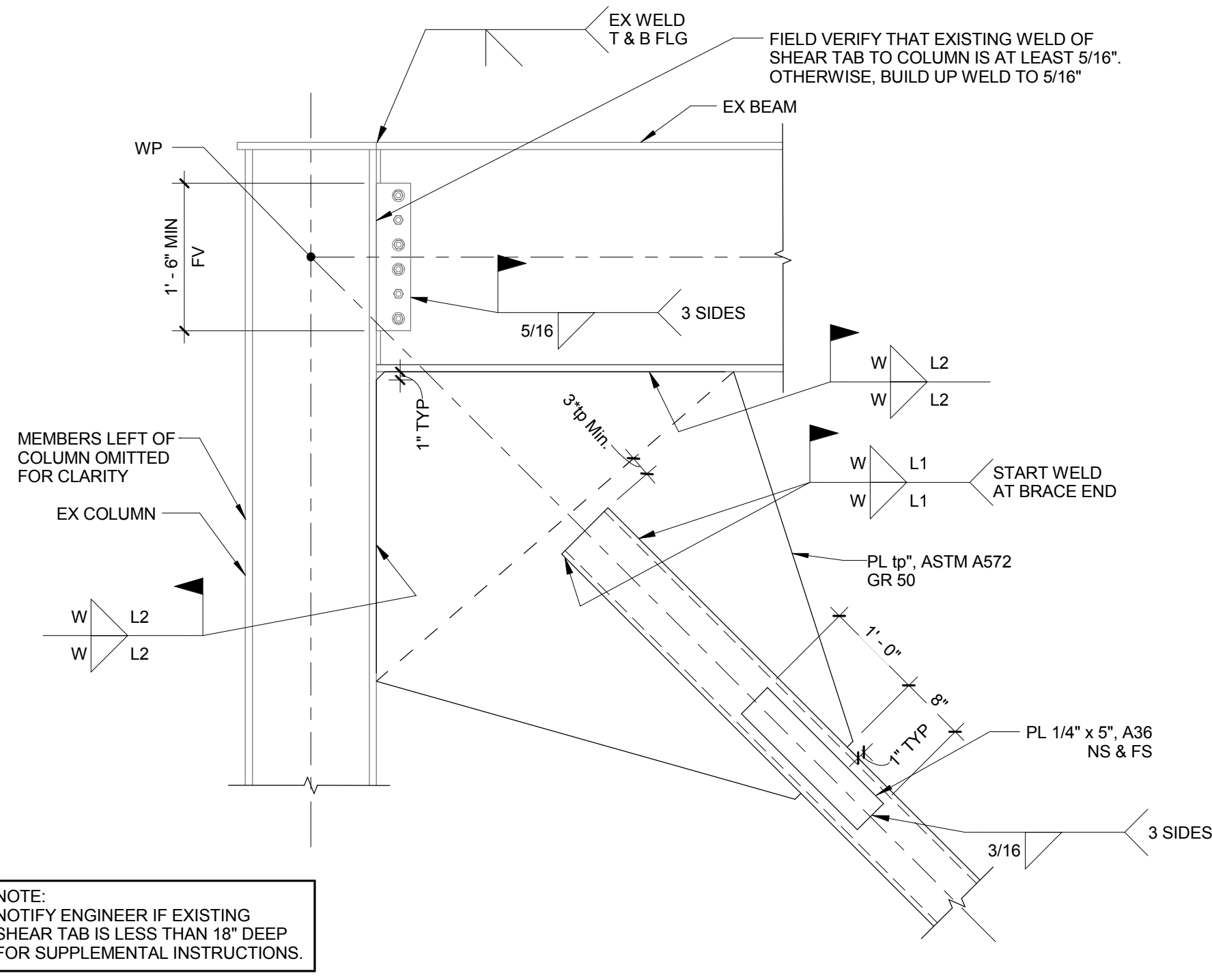


3 BRACE DETAIL
SF-603 N.T.S.

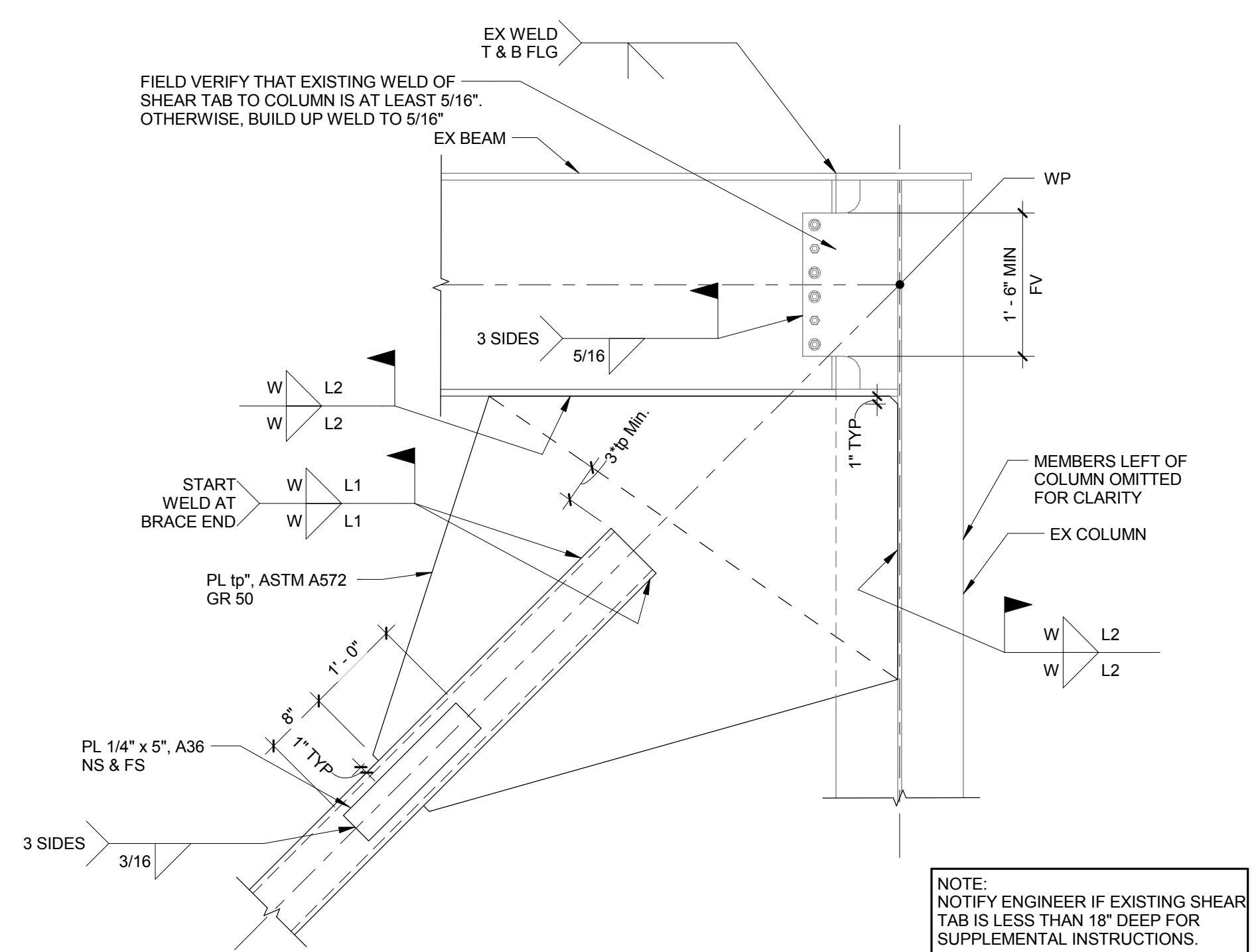


BRACE WELD TABLE						
BRACE	AXIAL FORCE (K)	L1 (IN)	L2 (IN)	A (IN)	tp (IN)	W (IN)
HSS8x8x5/8	704	28	80	28 MIN	1 1/4"	5/8"
HSS8x8x1/2	580	30	72	46 MIN	1"	1/2"
HSS7x7x1/2	498	24	62	40 MIN	1"	1/2"
HSS6x6x1/2	418	20	52	32 MIN	1"	1/2"

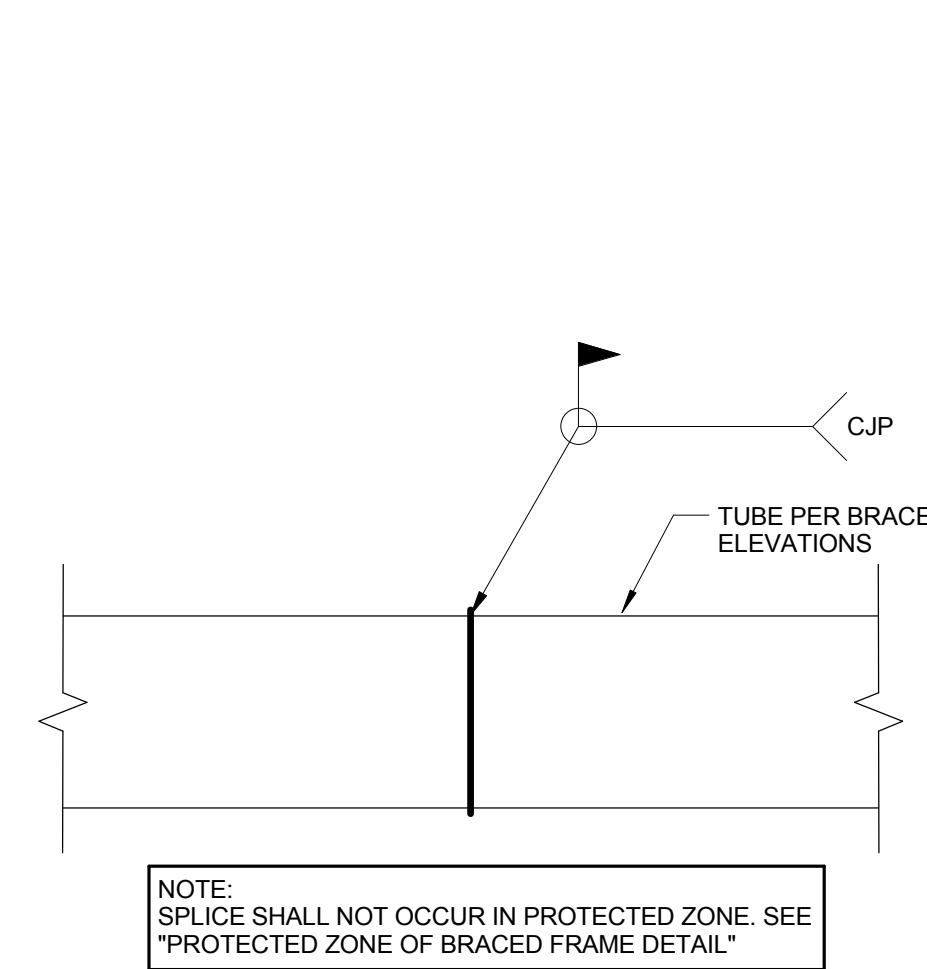
4 BRACE DETAIL
SF-603 N.T.S.



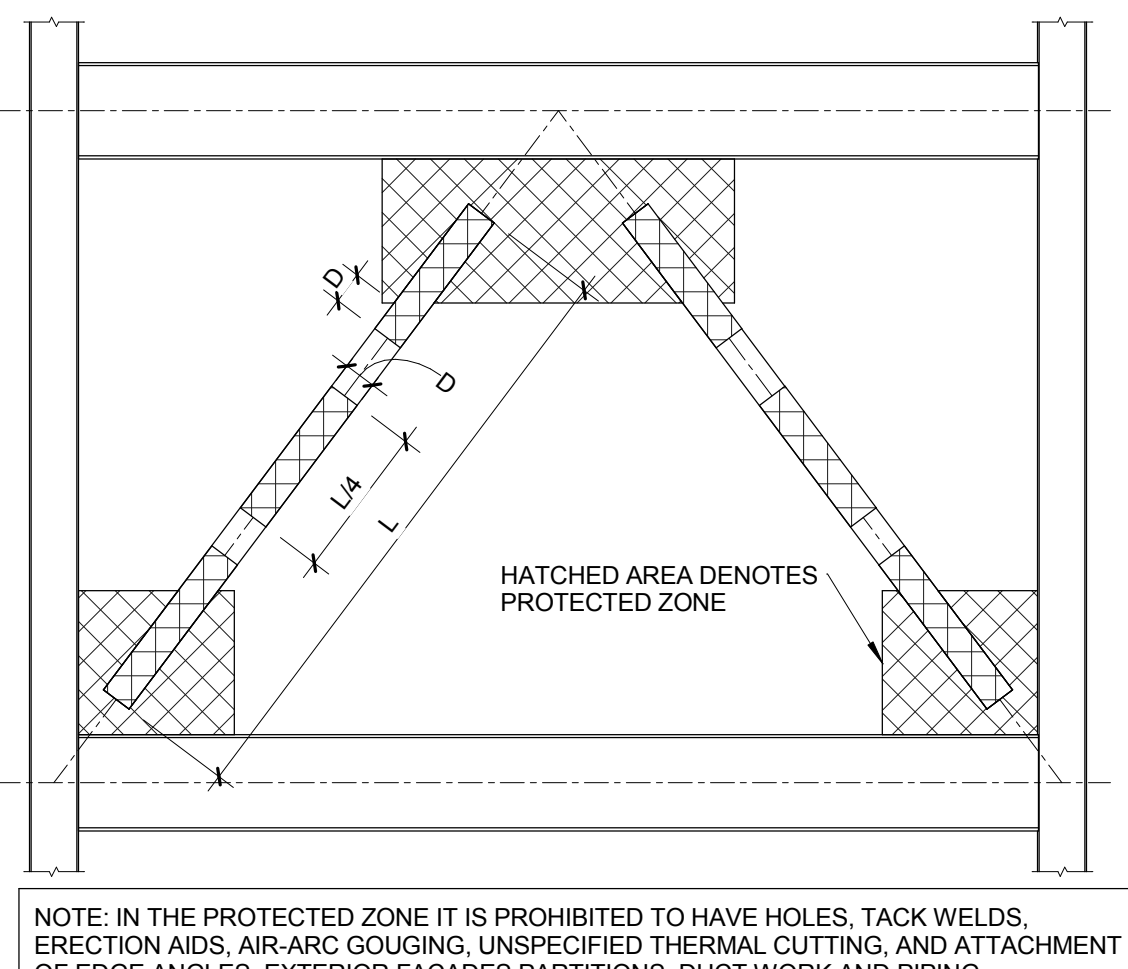
5 BRACE DETAIL
SF-603 N.T.S.



6 BRACE DETAIL
SF-603 N.T.S.



7 BRACE SPLICE DETAIL
SF-603 N.T.S.



8 PROTECTED ZONE OF BRACED FRAME DETAIL
SF-603 N.T.S.

100% CONSTRUCTION DOCUMENTS

CONSULTANTS: Baysinger Design Group, Inc. 4201 West 126th Street, Suite 100B Morton, Illinois 62550 Phone: 618.990.8015 Fax: 618.990.8012 www.baysingerdesigngroup.com		 AMERICAN STRUCTUREPOINT INC. 7240 Shadeland Station, Indianapolis, IN 46256 Tel: 317.540.5500 Fax: 317.540.9270 www.structurepoint.com		 PROJECT MANAGER: Raleigh, NC Indianapolis, IN Pittsburgh, PA Virginia Beach, VA Fort Collins, CO APOGEE Consulting Group Engineers Architects www.acgp-gps.com 919-858-7420		Project Number 16-198 Scale AS INDICATED Office of Construction and Facilities Management VA U.S. Department of Veterans Affairs		Drawing Title: BRACED FRAME DETAILS Location MARION VAMC MARION, IL, 62959		Project Title ADD STRUCTURAL IMPROVEMENTS TO BUILDING 42 Approved: Project Director Date 09/06/17 Checked DGC Drawn JHC		VA PROJECT NUMBER 657-343 Building Number 42 Drawing Number SF-603 Dwg. 28 of 28
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