

MIL JOB # - 201411.S.01  
DESIGNER: NC MARTIN  
PRINCIPAL: KELLY KNOWLES  
DATE PRINTED: 5/19/2021 12:58 PM  
FILE PATH: S:\03\003\033\001 - Steamboat Building 2021 - 2021.rvt  
PROJECT MANAGER: C. A. CHEN

SYMBOLS LEGEND			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	GRID LINES		MECH UNIT (XX.Xk = MECH UNIT OPERATING WEIGHT IN KIPS INCLUDING INERTIA BASE)
	SECTION OR DETAIL CUT		EXTENT OF CONCRETE PAD
	SHEET NUMBER		PAD THICKNESS
	ELEVATION CUT		STRUCTURAL MAS WALL CONTROL JOINT
	SHEET NUMBER		CAST-IN-PLACE CONCRETE
	ELEVATION CALLOUT		OVERFRAMING
	DRAWING REVISION NUMBER		SLAB TYPE
	CURRENT REVISION CLOUD		SLAB THICKNESS TYPE
	WELDED-WIRE REINFORCEMENT		FTG MARK (SF = STRIP FTG)
	ROUGHENED SURFACE, INTENTIONALLY ROUGHEN TO 1/4" AMPLITUDE, UNO		T/FTG EL
	SERVICE LOAD PROVIDED FOR SPECIALTY DESIGNER		COLUMN SIZE OR MARK
	STEP		STEEL BEAM
	SLOPE		BEAM SIZE (XX c=X" Xk k)
	KEY NOTE		SHEAR STUD QUANTITY
	SUBGRADE		ULTIMATE BM REACTION USING LRFD LOAD COMBINATIONS (KIPS)
	FORM SAVER		CAMBER (INCHES)
<b>NOTES:</b> 1. ITEMS NOT DESIGNED BY M/M ARE SHOWN HALFTONED. 2. ITEMS INCLUDE: - EXISTING CONSTRUCTION - PERFORMANCE SPECIFIED ITEMS (STAIRS, RAILINGS, ETC.)			EL OF T/STEEL
			FULL HEIGHT SHEAR CONNECTION, SEE 11/1A-S5.02
			MOMENT CONNECTION, SEE 7/1A-S5.02
			DECK TYPE
			ABOVE DECK CONCRETE THICKNESS TYPE
			DECK SPAN DIRECTION
			BRACING ABOVE LEVEL
			BRACING BELOW LEVEL

ABBREVIATIONS			
(E) or EXIST	Existing	EA	Each
(S)	Salvaged	EC	Epoxy Coated
/	Per	EE	Each End
@	At	EF	Each Face
AB	Anchor Bolt	EJ	Expansion Joint
ACI	American Concrete Institute	EL	Elevation
ADDNL	Additional	ELEV	Elevator
AESS	Architecturally Exposed Structural Steel	EMBED	Embedded
AFF	Above Finish Floor	EN	Edge Nail
ALT	Alternate	ENGR	Engineer
ALUM	Aluminum	EOR	Engineer-of-Record
APA	American Plywood Association	EO	Equal
APPROX	Approximate	EO SP	Equally Spaced
ARCH	Architect or Architectural	EQUIP	Equipment
B/ or BO	Bottom of	ES	Each Side
BAL	Balance	EW	Each Way
BD	Board	EXP	Expansion
BF	Braced Frame	EXP ANCH	Expansion Anchor
BG	Backgauge	EXT	Exterior
BL	Brick Ledge	F	Fluid Load
BLDG	Building	Fa	Flood Load
BLKG	Blocking	FAB	Fabricate
BM	Beam	FD	Footing Dowel
BN	Boundary Nail	FF	Finished Floor
BOS	Bottom of Steel	FIN	Finish(ed)
BOT or B	Bottom	FLG	Flange
BRG	Bearing	FLR	Floor
BSMT	Basement	FND	Foundation
BTWN	Between	FO	Face of
CC	Center to Center	FP	Full Penetration or Fire Proofing
CF	Cold Formed	FRAM	Framing
CG	Center of Gravity	FS	Far Side
CIP	Cast-In-Place	FT	Foot or Feet
CJ	Control Joint	FTG	Footing
CJP	Complete Joint Penetration	FV	Field Verify
CL	Centerline	GA	Gage or Gauge
CLG	Ceiling	GALV	Galvanized
CLMS	Ceiling/Light/Mechanical/ Superimposed Load	GC	General Contractor
CLR	Clear	GL	Glu-lam
CMU	Concrete Masonry Unit	GR	Grade or Grind
COL	Column	GR MB	Grade Beam
CONC	Concrete	H	Soil Lateral Load
CONN	Connection	HAS or HDAS	Headed Anchor Stud
CONST	Construction	HD	Headed or Holddown
CONT	Continue or Continuous	HDAR	Headed Anchor Rod
CONTR	Contractor	HDG	Hot Dipped Galvanized
COORD	Coordinate	HK	Hook
CSJ	Construction Joint	HORIZ	Horizontal
CTR(D)	Center(ed)	HT	Height
d	Penny	HVAC	Heating-Ventilating and A/C
D or DL	Dead Load	I.F.	Inside Face
DAS	Deformed Anchor Stud	IN	Inch
DBL	Double	INT	Interior
DCW	Demand Critical Weld	IS	Inside Diameter
DFS	Deferred Submittal	IT	Precast Inverted Tee Beam
DI	Gravity Ice Load	JUST	Joist
DIA OR Ø	Diameter	JT	Joint
DIAG	Diagonal	k	Kip
DIM	Dimension	L	Length or Live Load
DN	Down	LB(S)	Pound(s)
DO	Ditto	LCE	Compression Embedment
DP	Drilled Pier or Deep	LCS	Compression Lap Splice
DT	Precast Double Tee	LDH	Hook Development Length
DTL(s)	Detail(s)	LG	Length
DWG(s)	Drawing(s)	LL	Live Load
DWL(s)	Dowels(s)	LLH	Long Leg Horizontal
E	Earthquake Load	LLV	Long Leg Vertical
E-W	East-West		

LOC(s)	Location(s) or Locate	REINF	Reinforce(ng)(d)(ment)
LONG	Longitudinal	REQD	Required
Lr	Roof Live Load	REQT(s)	Requirement(s)
LSL	Laminated Strand Lumber	RET	Return
LT	Light	RO	Rough Opening
LTE	Tension Embedment	ROF	Random Oriented Fiber
LTS	Tension Lap Splice Length	S	South
LTWT	Lightweight	SC	Slip Critical
LVL	Level or Laminated Veneer Lumber	SCHED	Schedule
LWC	Light Weight Concrete	SECT	Section
MACH	Machine	SIM	Similar
MACH RM	Machine Room	SL	Snow Load
MAS	Masonry	SLH	Short Leg Horizontal
MATL	Material	SLRS	Seismic Load Resisting System
MAX	Maximum	SLV	Short Leg Vertical
MBS	Metal Building Supplier	SOG	Slab on Grade
MCJ	Masonry Control Joint	SP	Space(s)
MECH	Mechanical	SP @	Space at
MEP	Mech/Elect/Plumb	SPECS	Specifications
MIL	Micro-Lam	SPRT	Support
MIN	Minimum	SS	Stainless Steel
MISC	Miscellaneous	STD	Standard
MLS	Masonry Lap Splice	STIFF	Stiffener
mm	Millimeter	STL	Steel
MNFR	Manufacturer	STR	Structural
MO	Masonry Opening	SW	Shearwall
MTL	Metal	SYM	Symmetrical
N	North	T	Top or Thermal Load
N-S	North-South	T&B	Top and Bottom
NIC	Not in Contract	Ti or T.O.	Top of
NM	Non-Metallic	THK	Thick or Thickness
NO OR #	Number	TL	Total Load
NOM	Nominal	TOC	Top of Concrete
NS	Non-Shrink or Near Side	TOF	Top of Footing
NTS	Not to Scale	TOM	Top of Masonry
NWC	Normal Weight Concrete	TOP	Topping
O.F.	Outside Face	TOS	Top of Steel
OAE	Or Approved Equivalent	TOW	Top of Wall
OC	On Center	TRANS	Transverse
OD	Outside Diameter	TWS	Two-Way Slab
OH	Opposite Hand	TYP	Typical
OPNG	Opening	ULT	Ultimate
OPP	Opposite	UNO	Unless Noted Otherwise
OVS	Oversized	Vasd	Service Level/Nominal Design Wind Speed
OWS	One-Way Slab	VERT	Vertical
PAF	Powder Actuated Fastener	VIF	Verify in Field
PC	Precast	Vult	Ultimate Design Wind Speed
PCA	Portland Cement Association	W	Wind Load
PD	Pier Dowel	W/	With
PEMB	Pre-Engineered Metal Building	W/O	Without
PEN	Penetration	WD	Width or Wood
PERP	Perpendicular	WF	Wide Flange
PL	Plate (Steel)	Wi	Wind-on-Ice Load
PLF	Pounds Per Linear Foot	WP	Working Point or Waterproofing
PREFAB	Prefabricated	WPS	Welding Procedure Specification
PRELIM	Preliminary	WT	Weight
PS	Prestressed	WWR	Welded Wire Reinforcing
PSF	Pounds Per Square Foot	WxH	Width x Height
PSI	Pounds Per Square Inch		
PT	Point or Post-Tension or Pretensioned		
QTY	Quantity		
R	Radius or Rain Load		
RAD	Radius		
RB	Precast Rectangular Beam		
RC	Reinforced Concrete		
RE: or REF	Refer to (Reference)		

DEFERRED SUBMITTALS	
<b>1) GENERAL:</b> 1A) THE FOLLOWING PORTIONS OF THE STRUCTURAL DESIGN WILL NOT BE SUBMITTED AT THE TIME OF PERMIT APPLICATION. WHEN RECEIVED AND REVIEWED, THESE DEFERRED SUBMITTAL ITEMS SHALL BE SUBMITTED TO THE BUILDING OFFICIAL BY THE CONTRACTOR: - EXCAVATION SHORING - METAL STAIRS - ARCHITECTURAL/METAL CLADDING PANEL - LIGHT GAGE METAL STUDS - METAL RAILINGS - ANCHORAGE, BRACING AND ATTACHMENT OF REQUIRED ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, FIRE SPRINKLER, AND OTHER EQUIPMENT AND SYSTEMS. - PERMANENT EARTH SHORING SYSTEMS  1B) CONNECTION OF DEFERRED SUBMITTAL ITEMS TO PRIMARY STRUCTURE BY DEFERRED SUBMITTAL SUPPLIER. DEFERRED SUBMITTAL SUPPLIER TO PROVIDE CONNECTIONS AND FRAMING ARRANGEMENT TO AVOID LOADING WHICH EXCEEDS THE CAPACITY OF THE ELEMENT BEING ATTACHED TO. REFERENCE LOAD MAPS FOR MECHANICAL, ELECTRICAL, PLUMBING AND FIRE SPRINKLER LOAD ALLOWANCES.  1C) ALL DEFERRED SUBMITTALS TO BE ATTACHED TO PRIMARY STRUCTURE WITH A PINNED CONNECTION. MOMENT CONNECTIONS TO PRIMARY STRUCTURE NOT PERMITTED UNLESS NOTED ON DRAWINGS OR APPROVED BY ENGINEER IN WRITING PRIOR TO SUBMITTAL OF DRAWINGS OR CALCULATIONS.  1D) LOADING AND LOCATION FOR ATTACHMENT OF DEFERRED SUBMITTAL ITEMS ARE NOTED ON DRAWINGS AND ARE NOT TO BE RE-LOCATED OR INCREASED WITHOUT WRITTEN APPROVAL.  1E) GC / METAL STUD FRAMING DESIGNER / CLADDING DESIGNER COORDINATION: - METAL STUD FRAMING AND FRAMING ATTACHMENT IS DESIGNED FOR THE TRIBUTARY WIND AND GRAVITY LOAD OF THE STUD SPACING. CLADDING SUPPLIER TO DESIGN CLADDING TO ATTACH AT EACH STUD. CLADDING ATTACHMENT SPACING WHICH EXCEEDS THE STUD SPACING IS NOT ACCEPTABLE WITHOUT APPROVAL FROM THE METAL STUD SUPPLIER/DESIGNER AND THE PROJECT EOR. - IF THE CLADDING SUPPLIER DOES NOT WANT OR CANNOT ATTACH TO EACH STUD THE LOADS FROM THE CLADDING SUPPLIER MUST BE PROVIDED TO THE METAL STUD FRAMING SUPPLIER. THE METAL STUD FRAMING SUPPLIER WILL NEED TO INCORPORATE THESE LOADS INTO THE METAL STUD FRAMING DESIGN. - GC TO COORDINATE BETWEEN METAL STUD FRAMING SUPPLIER AND CLADDING SUPPLIER AS REQUIRED.  1F) FLOOR FRAMING AND EDGE ANGLE ARE DESIGNED TO SUPPORT ONE LEVEL OF CURTAIN WALL OR METAL STUD WALL FRAMING. SUPPORTING MULTIPLE LEVELS OF CURTAIN WALL OR METAL STUD WALL FROM ONE FLOOR LEVEL IS NOT PERMITTED.  1G) WALLS, GRADE BEAMS AND THE UNDERSIDE OF CONCRETE ON METAL DECK SHALL BE CONSIDERED CRACKED FOR THE PURPOSE OF DESIGNING ANCHORS FOR ATTACHMENT OF DEFERRED SUBMITTAL ITEMS.  1H) SUBMIT STAMPED STRUCTURAL CALCULATIONS FOR ALL DEFERRED SUBMITTAL ITEMS PRIOR TO OR CONCURRENTLY WITH DRAWINGS OR PRODUCT DATA. INCLUDE ANALYSIS OF ATTACHMENT TO PRIMARY STRUCTURE. INCLUDE CURRENT ICC REPORT WITH ALL PROPRIETARY STRUCTURAL ELEMENTS AND ANCHORS/FASTENERS.  1I) POWDER ACTUATED FASTENERS (PAF) INTO CONCRETE OR CMU SHALL NOT BE USED TO RESIST TENSION LOADS. POWDER ACTUATED FASTENERS SHALL NOT BE USED TO RESIST GRAVITY LOADS WHICH INCLUDE BRICK VENEER.  1J) REFERENCE COLD-FORMED STEEL FRAMING NOTES FOR ADDITIONAL DEFERRED SUBMITTAL DESIGN CRITERIA.	

DESIGN CRITERIA	
<b>1) CODES AND STANDARDS:</b> 1A) GENERAL DESIGN - INTERNATIONAL BUILDING CODE 2018  <b>2) SEISMIC LOADS</b> - SEISMIC DESIGN CATEGORY = C - RISK CATEGORY = II - EARTHQUAKE IMPORTANCE FACTOR, I <sub>e</sub> = 1.00 - DESIGN SPECTRAL RESPONSE COEFFICIENT, S <sub>Ds</sub> = 0.333 - DESIGN SPECTRAL RESPONSE COEFFICIENT, S <sub>D1</sub> = 0.133 - SOIL SITE CLASS = C - BASIC STRUCTURAL SYSTEM: CONCRETE SLAB ON METAL DECK ON COMPOSITE STEEL FRAMING WITH ORDINARY REINFORCED CONCRETE SHEAR WALLS UP TO LEVEL 1. - STRUCTURAL SEISMIC LATERAL SYSTEM: ORDINARY REINFORCED CONCRETE SHEAR WALLS - FUTURE PLAZA BUILDING ABOVE LEVEL 1: STRUCTURAL STEEL SYSTEMS NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE - RESPONSE MODIFICATION FACTOR, R = 3 - SEISMIC RESPONSE COEFFICIENT, C <sub>s</sub> = 0.111 - SYSTEM OVERSTRENGTH FACTOR, OMEGA = 3 - DESIGN BASE SHEAR EAST-WEST DIRECTION = 200 K - DESIGN BASE SHEAR NORTH-SOUTH DIRECTION = 200 K - SEISMIC ANALYSIS PROCEDURE: EQUIVALENT LATERAL-FORCE ANALYSIS  <b>3) WIND LOADS</b> - RISK CATEGORY = II - BASIC ULTIMATE WIND SPEED, V <sub>ult</sub> = 115 MPH - BASIC NOMINAL WIND SPEED, V <sub>asd</sub> = 89.1 MPH - EXPOSURE CATEGORY = C - INTERNAL PRESSURE COEFFICIENT, G <sub>cp</sub> = +/-0.18  <b>4) DESIGN WIND PRESSURE FOR COMPONENTS AND CLADDING AND ELEMENTS DESIGNED BY THE CONTRACTOR</b> 4A) LISTED COMPONENT AND CLADDING WIND PRESSURES ARE INCLUDED FOR REFERENCE ONLY. FINAL CALCULATIONS SHALL BE COMPLETED BY CONTRACTOR 4B) PRESSURES LISTED BELOW ARE ULTIMATE 4C) SEE 'WALL CORNER AND SPECIAL ROOF ZONES DIAGRAM' 4D) COMPONENT AND CLADDING SURFACE PRESSURES (PSF)  - <b>WALLS PRESSURES</b> WALLS AREA WALLS INTERIOR NEG (ZONE 4) WALLS CORNER NEG (ZONE 5) WALLS POSITIVE ZONE 4 & 5  - <b>ROOF PRESSURES</b> ROOF AREA ROOF INTERIOR NEG (ZONE 1) - USE THESE FOR JOIST UPLIFT WIND DESIGN FORCES UNO ROOF INTERIOR NEG (ZONE 1') ROOF NEGATIVE (ZONE 2) - EAVES, RAKES, RIDGES ROOF CORNERS NEG (ZONE 3) ROOF POSITIVE ALL ZONES ROOF NEGATIVE OVERHANG ZONE 1 & 1'  ROOF NEGATIVE OVERHANG ZONE 2 ROOF NEGATIVE OVERHANG ZONE 3'  - <b>PARAPET PRESSURES</b> PARAPET QP = 27.2 psf SOLID PARAPET PRESSURE PARAPET CASE A = ZONE 2: ZONE 3: PARAPET CASE B = INTERIOR ZONE: CORNER ZONE: PARAPET CASE A = PRESSURE TOWARDS BUILDING (POS) PARAPET CASE B = PRESSURE AWAY FROM BLDG (NEG) PARAPET CAP UPLIFT PRESSURES  <b>5) LATERAL LOAD RESISTING SYSTEM DESCRIPTION:</b> PROMENADE: CONCRETE SLAB ON METAL DECK ON COMPOSITE STEEL FRAMING WITH ORDINARY REINFORCED CONCRETE SHEAR WALLS FUTURE PLAZA BUILDING ABOVE LEVEL 1: STRUCTURAL STEEL SYSTEMS NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE WITH X STEEL BRACES ALONG EXTERIOR WALLS.  <b>6) GRAVITY LOADS</b> 6A) - LOWER LEVEL 1 SLAB ON GRADE = 100 PSF LIVE LOAD - LEVEL 1 = SEE LOAD PLAN ON 1/1A-S0.02  6B) DRIFTING, SLIDING AND UNBALANCED SNOW - GROUND SNOW LOAD = 132.0 PSF - SNOW EXPOSURE FACTOR, C <sub>e</sub> = 1.0 - SNOW LOAD IMPORTANCE FACTOR, I <sub>s</sub> = 1.0 - THERMAL FACTOR, C <sub>t</sub> = 1.20 - UNIFORM ROOF SNOW LOAD = 110.9 PSF - FLAT ROOF SNOW LOAD = 110.9 PSF  <b>7) RAIN LOADS:</b> 7A) DESIGN RAIN INTENSITY = 2.5 INCHES PER HOUR 7B) DESIGN RAIN ROOF PRESSURE = 21 PSF	

STRUCTURAL DRAWING LIST	
SHEET NUMBER	SHEET TITLE
1A-S0.01	NOTES
1A-S0.02	NOTES
1A-S0.03	NOTES
1A-S0.10	QUALITY ASSURANCE
1A-S0.11	QUALITY ASSURANCE
1A-S1.00	PROMENADE BUILDING - LOWER LEVEL 1
1A-S1.01	PROMENADE BUILDING - LEVEL 1
1A-S1.02	PROMENADE BUILDING - LEVEL 2 AND ROOF FRAMING PLAN
1A-S3.00	TYPICAL CONCRETE DETAILS
1A-S3.01	TYPICAL FOUNDATION DETAILS
1A-S3.02	CONCRETE DETAILS
1A-S3.10	TYPICAL SOG DETAILS
1A-S3.11	CONCRETE DETAILS
1A-S3.50	CONCRETE SUPPORTING STEEL DETAILS
1A-S3.51	CONCRETE SUPPORTING METAL DECK
1A-S4.00	MASONRY DETAILS
1A-S5.00	TYP STEEL BEAM CONNS - LRFD
1A-S5.01	TYP STEEL BEAM CONNS - LRFD
1A-S5.02	STEEL DETAILS
1A-S5.03	STEEL DETAILS
1A-S5.30	TYPICAL COMPOSITE SLAB DETAILS
1A-S5.31	TYPICAL SLAB ON METAL DECK DETAILS
1A-S5.40	PERFORMANCE SPECIFIED FRAMING

**ALERRA** east west partners  
MOUNTAIN COMPANY

2305 Mount Werner Circle  
Steamboat Springs, CO 80487

**Gensler**  
1225 17th Street  
Suite 150  
Denver, CO 80202  
United States  
Tel 303.595.8586  
Fax 303.825.6823

DESIGNWORKSHOP

141 9th Street  
PO Box 774943  
Steamboat Springs, CO 80477  
Tel 970.871.9494

1390 Lawrence Street  
Suite 100  
Denver, CO 80204  
Tel 303.623.5186

engineers

1499 West Colfax Ave.  
Lakewood, CO 80215  
United States  
Tel 303.431.6100

14143 Denver West Pkwy  
Suite 300  
Golden, CO  
United States  
Tel 303.421.6655

Seal / Signature

Date	Description
2021.05.19	BP3: PROMENADE - ISSUE FOR BID AND PERMIT

Project Name  
**SSRC | BASE AREA IMPROVEMENTS**

Project Number  
**20.1411.S.01**

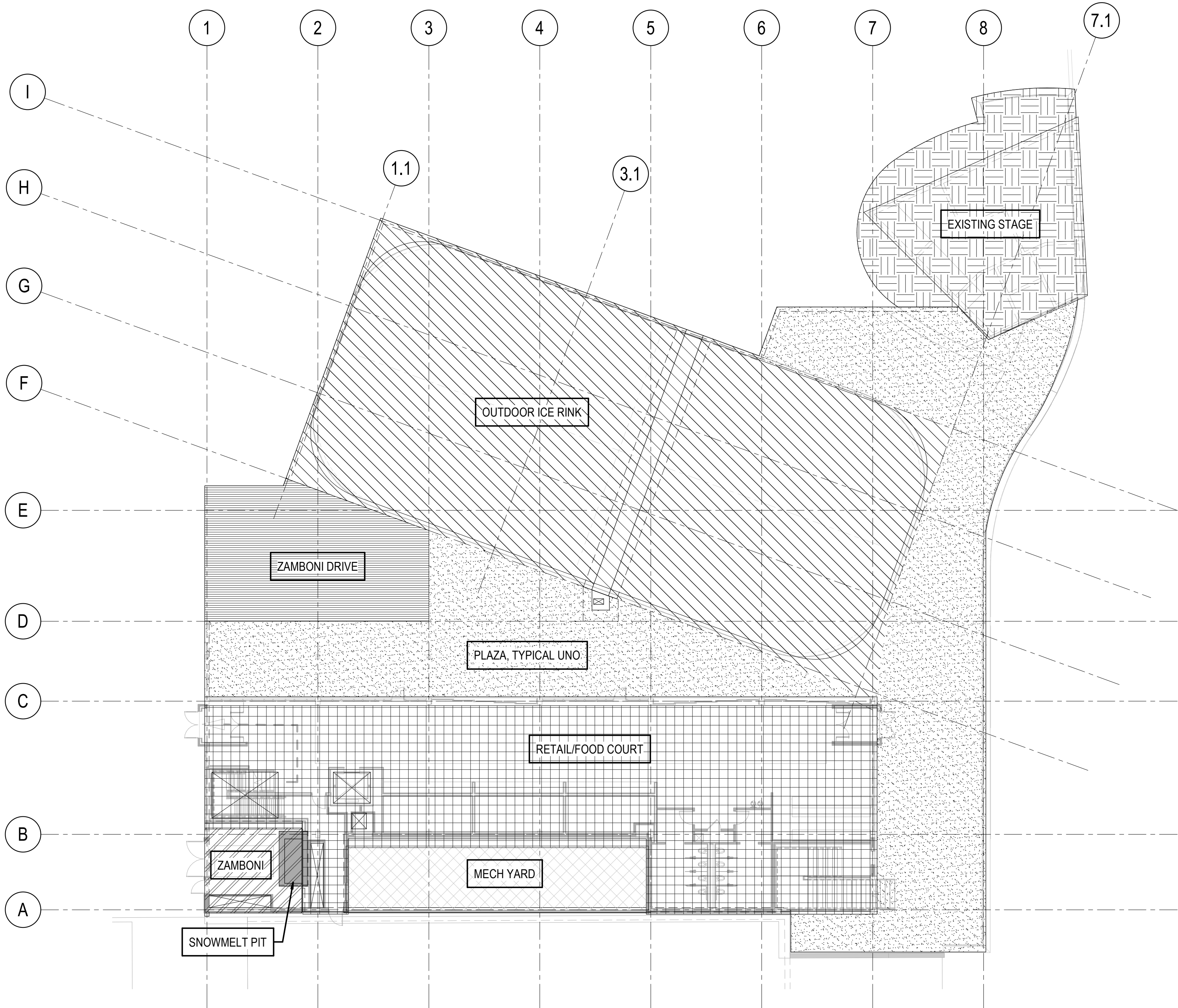
Description  
**NOTES**

Scale  
**12" = 1'-0"**

**1A-S0.01**

© 2021 Gensler © 2021 Martin/Martin





1 PLAZA LOADING PLAN  
1/16" = 1'-0"

GRAVITY LOADS				
LOCATION	SUPERIMPOSED DEAD LOAD (PSF)	LIVE LOAD (PSF)	LIVE LOAD REDUCTION	POINT LOAD (LB)
OUTDOOR ICE RINK	107	250	NO	2,000
PLAZA	75	250	NO	2,000 LBS PER WHEEL LOADS, 8,000 LBS TOTAL VEHICLE WEIGHT
RETAIL/FOOD COURT	55	100	NO	2,000
MECH YARD	75	75 + EQUIP BUT NOT LESS THAN 150	NO	-
EXISTING STAGE, PER EXISTING DRAWING DATED 2013	50	100 PER EXISTING DRAWING	YES	2,000
ZAMBONI	150	100	NO	4,800 LBS = MAX ZAMBONI AXLE LOAD, 7,700 = LBS MAX ZAMBONI TOTAL WEIGHT NON-CONCURRENT WITH 100 PSF UNIFORM LOAD
SNOWMELT PIT	75	300	NO	-
ZAMBONI DRIVE	75	250	NO	4,800 LBS = MAX ZAMBONI AXLE LOAD, 7,700 LBS = MAX ZAMBONI TOTAL WEIGHT NON-CONCURRENT WITH UNIFORM LOAD

NOTE:  
LOADS ARE SERVICE LEVEL.

FOUNDATION NOTES

- 1) DESIGN CRITERIA:**  
THE GEOTECHNICAL REPORT PREPARED BY NORTHWEST COLORADO CONSULTANTS, INC., NUMBER 20-12000, DATED 12/30/2020 PROVIDED CRITERIA FOR THE FOUNDATION DESIGN FOR THE PROJECT.
- 2) FOOTINGS:**  
2A) FOOTINGS ARE DESIGNED BASED ON IMPROVED SOILS USING AGGREGATE PIERS AT COLUMN FOOTINGS AND SHEAR WALL FOOTINGS. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.  
2B) FOOTING DESIGN CRITERIA:  
- MAXIMUM TOTAL LOAD BEARING PRESSURE = 7000 PSF  
- MINIMUM CONTINUOUS FOOTING WIDTH = 12 FT  
- MINIMUM SPREAD FOOTING WIDTH = 12 FT  
- ULTIMATE COEFFICIENT OF FRICTION TO RESIST LATERAL LOADS = 0.4  
- FROST DEPTH TO BOTTOM OF FOUNDATION = 48 IN
- 3) FOUNDATION WALLS:**  
2A) EQUIVALENT FLUID PRESSURES USED FOR WALL DESIGN:  
- "ACTIVE" CONDITION = 45 PCF  
- "AT REST" CONDITION = 55 PCF  
- "PASSIVE" CONDITION = 275 PCF  
- LATERAL PRESSURE DUE TO SURCHARGE = 250 PSF  
- ULTIMATE COEFFICIENT OF FRICTION TO RESIST LATERAL LOADS = 0.4  
3B) WALL DESIGN BASED ON IN-SITU SOILS ADJACENT TO FOUNDATION WALLS. SEE EARTHWORK SPECIFICATION FOR REQUIREMENTS.
- 4) SITE RETAINING WALLS:**  
4A) EQUIVALENT FLUID PRESSURES USED FOR WALL DESIGN:  
- "ACTIVE" CONDITION = 45 PCF  
- "AT REST" CONDITION = 55 PCF  
- "PASSIVE" CONDITION = 275 PCF  
- LATERAL PRESSURE DUE TO SURCHARGE = 250 PSF  
- LATERAL PRESSURE DUE TO SURCHARGE AT THE PLANTER WALL AND EXISTING STAGE = 100 PSF  
- ULTIMATE COEFFICIENT OF FRICTION TO RESIST LATERAL LOADS = 0.4  
4B) WALL DESIGN BASED ON IN-SITU SOILS ADJACENT TO FOUNDATION WALLS. SEE EARTHWORK SPECIFICATION FOR REQUIREMENTS.

GENERAL NOTES

- 1) GENERAL:**  
1A) ENGINEER: REFERENCES ON THE STRUCTURAL DRAWINGS TO "ENGINEER" MEAN THE STRUCTURAL ENGINEER OF RECORD. OTHER ENTITIES ARE SPECIFICALLY NOTED AS "CONTRACTOR'S ENGINEER", "MECHANICAL ENGINEER", ETC.  
1B) THESE NOTES SUPPLEMENT THE SPECIFICATIONS, WHICH SHALL BE REFERENCED FOR ADDITIONAL REQUIREMENTS.  
1C) UNDERGROUND UTILITIES: LOCATE EXISTING UTILITIES AND NOTIFY ARCHITECT OF EXISTING UTILITIES OR SUBGRADE CONDITIONS WHICH INTERFERE WITH WORK.  
1D) STRUCTURAL ELEMENTS ARE CENTERED ON GRID LINES AND GRID LINE INTERSECTIONS UNLESS DIMENSIONED OTHERWISE.
- 2) USE OF DRAWINGS:**  
2A) DO NOT SCALE DRAWINGS.  
2B) DETAILS ON DRAWINGS TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS.  
2C) DETAILS NOTED TYPICAL APPLY TO ALL SIMILAR CONDITIONS. WHERE NO SPECIFIC DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ELSEWHERE ON THE PROJECT.  
2D) WHERE DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, GENERAL NOTES AND SPECIFICATIONS:  
- CONTACT THE ARCHITECT PRIOR TO PROCEEDING WITH CONSTRUCTION  
- THE MORE STRINGENT REQUIREMENTS SHALL GOVERN FOR BIDDING / PRICING
- 3) EXISTING STRUCTURES:**  
3A) CONTRACT DOCUMENTS HAVE BEEN PREPARED USING AVAILABLE DRAWINGS AND SITE OBSERVATION AS PERMITTED BY ACCESS RESTRICTIONS DURING DESIGN.  
3B) DURING CONSTRUCTION, THE CONTRACTOR MAY ENCOUNTER EXISTING CONDITIONS WHICH ARE NOT KNOWN OR ARE AT VARIANCE WITH PROJECT DOCUMENTATION. CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ALL CONDITIONS NOT PER THE CONTRACT DOCUMENTS. EXAMPLES INCLUDE:  
- SIZES OR DIMENSIONS OTHER THAN THOSE SHOWN  
- DAMAGE OR DETERIORATION TO MATERIALS AND COMPONENTS  
- CONDITIONS OF INSTABILITY OR LACK OF SUPPORT  
- ITEMS NOTED AS EXISTING ON THE DRAWINGS BUT NOT FOUND IN THE FIELD  
3C) PREPARE DIMENSIONAL DRAWINGS OF ALL DISCOVERED ITEMS.  
3D) CONTRACTOR SHALL FIELD VERIFY ALL EXISTING STRUCTURAL CONDITIONS PRIOR TO SUBMITTING SHOP DRAWINGS.  
3E) CONTRACTOR SHALL MAKE ALLOWANCE FOR THE RESOLUTION OF SUCH DISCOVERIES IN THE CONSTRUCTION SCHEDULE.  
3F) SUBMIT A DIMENSIONED DRAWING OF ALL NEW OPENINGS THROUGH EXISTING STRUCTURE AND SECURE APPROVAL PRIOR TO CUTTING. NEW OPENING MAY BE EITHER SHOWN ON THE CONTRACT DOCUMENTS OR PROPOSED BY THE CONTRACTOR. DRAWING SHALL SHOW:  
- VERTICAL & HORIZONTAL LOCATION AND SIZE OF NEW OPENING(S)  
- ALL EXISTING OPENINGS IN THE VICINITY OF THE NEW OPENING(S)  
- ALL EXISTING STRUCTURE (BEAMS, COLUMNS, SLABS, WALLS, ETC) IN THE VICINITY OF THE NEW OPENING(S)  
- ALL REINFORCING BAR SIZES AND POSITIONS (LAYOUT LOCATION AND DEPTH) CONFLICTING WITH OR IN THE VICINITY OF THE NEW OPENING(S).
- 4) COORDINATION:**  
4A) STRUCTURAL DRAWINGS ARE NOT STAND-ALONE DOCUMENTS AND ARE INTENDED TO BE USED IN CONJUNCTION WITH CIVIL, ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND DRAWINGS FROM OTHER DISCIPLINES. THE CONTRACTOR SHALL COORDINATE ALL REQUIREMENTS OF THE CONTRACT DOCUMENTS INTO SHOP DRAWINGS AND WORK.  
4B) COORDINATE DIMENSIONS OF ALL OPENINGS, BLOCKOUTS, DEPRESSIONS, ETC., WITH ARCHITECTURAL DRAWINGS, DRAWINGS FROM OTHER DISCIPLINES, AND FIELD CONDITIONS PRIOR TO SHOP DRAWING SUBMITTAL.  
4C) SEE ARCHITECTURAL PLANS FOR INTERIOR PARTITIONS. PARTITION FRAMING SHALL BE CONNECTED TO THE PRIMARY STRUCTURE IN SUCH A WAY SO AS TO ALLOW FOR VERTICAL LIVE LOAD DEFLECTIONS OF SPAN/360 AT FLOOR FRAMING OR SPAN/240 AT ROOF FRAMING. DO NOT MAKE RIGID VERTICAL AND HORIZONTAL CONNECTIONS TO THE PRIMARY STRUCTURE IN THE PLANE OF THE PARTITION.
- 5) SUBMITTALS AND SUBSTITUTIONS:**  
5A) SUBMITTALS: REFER TO SPECIFICATIONS FOR DETAILED REQUIREMENTS.  
- IF THE CONTRACTOR REQUESTS A CHANGE FROM THE STRUCTURAL DRAWINGS, IT SHALL BE APPROVED BY THE ARCHITECT AND DESIGNED BY MARTIN/MARTIN, INC. PRIOR TO SUBMITTING SHOP DRAWINGS. VARIATION SHALL BE INDICATED ON THE SHOP DRAWINGS. CONTRACTOR SHALL COMPENSATE MARTIN/MARTIN, INC. FOR MAKING THE CHANGE.  
- CONSTRUCTION DOCUMENTS SHALL NOT BE REPRODUCED FOR USE IN SUBMITTALS  
- ALL SHOP DRAWINGS SHALL REFERENCE THE STRUCTURAL DRAWING NUMBER AND DETAIL USED TO PREPARE THE SUBMITTAL  
- SUBMIT A STATEMENT OF RESPONSIBILITY FOR CONSTRUCTION OF THE LATERAL LOAD RESISTING SYSTEM IDENTIFIED IN THE DESIGN CRITERIA IN ACCORDANCE WITH IBC 2018 SECTION 1704  
5B) SUBSTITUTIONS: ARCHITECT'S APPROVAL SHALL BE SECURED FOR ALL SUBSTITUTIONS  
5C) NONCONFORMANCE: NOTIFY ARCHITECT OF CONDITIONS NOT CONSTRUCTED PER THE CONTRACT DOCUMENTS PRIOR TO CORRECTING WITH CORRECTIVE WORK. SUBMIT PROPOSED REPAIR TO THE ARCHITECT FOR ACCEPTANCE. CONTRACTOR SHALL COMPENSATE MARTIN/MARTIN, INC. FOR DESIGNING THE REPAIR.
- 6) TEMPORARY CONDITIONS, CONSTRUCTION ENGINEERING, AND OSHA STANDARDS:**  
6A) THE STRUCTURE IS DESIGNED TO FUNCTION AS A UNIT UPON COMPLETION AND ONLY FOR LOADS ANTICIPATED DURING THE STRUCTURE'S SERVICE LIFE.  
6B) THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL TEMPORARY BRACING AND/OR SUPPORT THAT MAY BE REQUIRED AS THE RESULT OF THE CONTRACTOR'S CONSTRUCTION METHODS AND/OR SEQUENCES. REFER TO "LATERAL LOAD RESISTING SYSTEM DESCRIPTION" IN DESIGN CRITERIA FOR ADDITIONAL INFORMATION. CONTRACTOR SHALL PROVIDE ALL REQUIRED ENGINEERING AND OTHER MEASURES TO ACHIEVE THE MEANS, METHODS, AND SEQUENCES OF WORK WHICH MAY INCLUDE, BUT IS NOT LIMITED TO:  
- LAYOUT  
- DESIGN FOR FORMWORK, SHORING, AND RESHORING  
- DESIGN OF CONCRETE MIXES  
- ERECTION PROCEDURES WHICH ADDRESS STABILITY OF THE FRAME DURING CONSTRUCTION  
- WELD PROCEDURES  
- DESIGN OF TEMPORARY BRACING OF WALLS FOR WIND, SEISMIC, OR SOIL LOADS  
- SURVEYING TO VERIFY CONSTRUCTION TOLERANCES  
- EVALUATION OF TEMPORARY CONSTRUCTION LOADS ON STRUCTURE DUE TO EQUIPMENT AND MATERIALS  
- STRUCTURAL ENGINEERING TO RESIST ANY OTHER LOADS NOT IDENTIFIED ON DESIGN DRAWINGS  
6C) FOUNDATION WALLS SHALL NOT BE BACKFILLED UNTIL THE SLABS-ON-GRADE AND UPPER SLABS ARE IN-PLACE AND REACH FULL STRENGTH UNLESS ADEQUATE BRACING IS PROVIDED. USE ONLY HAND OPERATED TOOLS FOR COMPACTION ADJACENT TO FOUNDATION WALLS AND GRADE BEAMS. GRADE BEAMS SHALL BE BACKFILLED EVENLY ON BOTH SIDES.  
6D) NOTHING SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE CONSTRUED AS ELIMINATING THE NEED FOR THE CONTRACTOR TO COMPLY WITH ALL OSHA REQUIREMENTS. WHERE THE STRUCTURAL DRAWINGS APPEAR TO CONFLICT WITH OSHA REQUIREMENTS, THE STRUCTURAL DRAWINGS REPRESENT FINAL CONDITIONS ONLY.  
- THE CONTRACTOR SHALL ADD ALL ERECTION FRAMING NECESSARY TO COMPLY WITH OSHA.  
- THE CONTRACTOR SHALL ADD ALL NECESSARY BOLTS, ANCHOR BOLTS, PLATES, STIFFENER PLATES, STABILIZER PLATES, BRIDGING, BRACING, BEARING SEATS, COLUMN SPLICES, ETC., AS WELL AS CLOSURES FOR OPENINGS. IN ADDITION, FIELD WELD ANYTHING THAT MAY BE CONSIDERED A TRIP HAZARD, SUCH AS SHEAR STUDS, AFTER PROTECTIVE DECKING IS INSTALLED.  
- WASHERS OR RINGS MAY BE WELDED TO COLUMNS TO PROVIDE FOR SAFETY CABLES. HOLES IN COLUMNS FOR SAFETY CABLES SHALL BE SHOP INSTALLED AND SHALL BE INDICATED ON SHOP DRAWINGS. ADJUST COLUMN SPLICE LOCATIONS OR ADD COLUMN SPLICES AS NECESSARY TO COMPLY WITH OSHA REQUIREMENTS. SUBMIT PROPOSED LOCATIONS.  
- HOLES IN CONCRETE COLUMNS FOR SAFETY CABLES SHALL BE INDICATED ON THE SHOP DRAWINGS, SHALL BE LIMITED TO 1/8" MAXIMUM, LOCATED WITHIN THE MIDDLE THIRD OF THE COLUMN AND SHALL BE CREATED USING SLEEVES. DO NOT DRILL OR CORE COLUMNS TO INSTALL SAFETY CABLES.  
- ALL METAL JOISTS REQUIRED BY OSHA TO BE BOLTED SHALL HAVE ERECTION BOLTS INSTALLED REGARDLESS OF FINAL CONNECTION SHOWN ON THE STRUCTURAL DRAWINGS.



DESIGNER: NC MARTIN  
LEAD REVIT: TEO COLIN KNOWLES  
DATE PRINTED: 5/19/2021 12:05 PM  
FILE PATH: S:\001\003\103.001 - Steamboat Ridge\03 TBS.000 - Structural\_S00 - Promenade Building 2021 - 2021.rvt

MIL JOB #: 201411.S.01  
PRINCIPAL: KELLY KNOWLES  
FOR KELLY KNOWLES  
PROJECT MANAGER: C. A. CHEN

STEEL NOTES				
<b>1) CONNECTIONS:</b> 1A) PROVIDE CONNECTIONS AS SHOWN IN THE 'STEEL BEAM CONNECTION SCHEDULES' AND DETAILS HEREIN. REFER TO SPECIFICATION FOR ALTERNATIVES AND CONNECTIONS NOT SHOWN.				
<b>2) STEEL MATERIALS:</b> 2A) SEE 'STEEL MATERIAL TABLE'				
<b>3) WELDING REQUIREMENTS:</b> 3A) WELDERS: HAVE IN POSSESSION CURRENT EVIDENCE OF PASSING THE APPROPRIATE AWS. QUALIFICATION TESTS.  3B) MINIMUM WELDS: AISC SPECIFICATION, NOT LESS THAN 3/16" FILLET, CONTINUOUS UNLESS OTHERWISE NOTED.  3C) WELD SIZES AND LENGTHS CALLED FOR ON THE DRAWINGS ARE THE NET EFFECTIVE REQUIRED. INCREASE WELD SIZE IF GAPS EXIST AT THE FAYING SURFACE.  3D) WELD SIZES SHALL BE AS SHOWN UNLESS A GREATER SIZE IS REQUIRED BY ANSI/AISC 360-05 TABLES J2.3 AND J2.4.  3E) ALL GROOVE WELDS SHALL BE COMPLETE PENETRATION UNLESS NOTED.  3F) FIELD WELDING SYMBOLS INDICATE SEQUENCE CONSIDERED DURING DESIGN. THE CONTRACTOR SHALL REQUEST APPROVAL FROM THE ENGINEER TO MODIFY WELD INSTALLATION LOCATION INDICATED ON THE DOCUMENTS: FROM SHOP TO FIELD FROM FIELD TO SHOP  3G) DEFORMED ANCHOR STUDS (DAS) AND HEADED ANCHOR STUDS (HAS / HDAS) SHALL BE SHOP OR FIELD WELDED AT CONTRACTOR'S OPTION UNLESS NOTED OTHERWISE				
<b>4) COMPOSITE GRAVITY FRAMING:</b> 4A) COMPOSITE BEAMS ARE DESIGNED ASSUMING STUDS ARE INSTALLED IN THE WEAK POSITION (Rp = 0.6). SEE TYPICAL METAL DECK DETAILS FOR PLACEMENT REQUIREMENTS.  4B) COMPOSITE GIRDERS ARE DESIGNED ASSUMING STUDS ARE WELDED THROUGH THE METAL DECK AND/OR METAL DECKING/SHEET STEEL COVERS MORE THAN HALF OF THE TOP FLANGE (Rp = 0.75). SEE TYPICAL METAL DECK DETAILS FOR PLACEMENT REQUIREMENTS.				
<b>5) CAMBER:</b> 5A) FABRICATE BEAMS SUCH THAT ROLLING OR FABRICATION INDUCED CAMBER IS UP AFTER ERECTION.  5B) CAMBER SHOWN IS BASED ON THE COMPUTED DEFLECTION OF THE BEAM DUE TO SELF WEIGHT OF CONCRETE PLACED. DESIGN IS BASED ON THE THEORETICAL CONCRETE THICKNESS PLUS 1/2" THICKNESS FOR DECK LEVELING AND 1/2" THICKNESS FOR BEAM LEVELING. INCLUDE QUANTITY OF ADDED CONCRETE DUE TO DECK AND BEAM DEFLECTION IN BID.  <b>6) STRUCTURAL STEEL INSTALLATION:</b> 6A) UNLESS INDICATED OTHERWISE, SNUG TIGHTEN ALL JOINTS AS DEFINED BY AISC CONNECTIONS AS INDICATED BELOW SHALL BE PRETENSIONED PER TABLE J3.1 OF ANSI/ AISC 360-16 6B) CONNECTIONS NOTED ON THE DRAWINGS AS "SC" SHALL MEET THE FOLLOWING REQUIREMENTS: - FAYING SURFACES SHALL BE CLASS A PER AISC UNLESS NOTED OTHERWISE BOLTS SHALL BE PRETENSIONED PER TABLE J3.1 OF ANSI/AISC 360-16  <b>7) METAL DECK:</b> 7A) SEE 'METAL DECK SCHEDULE' FOR MATERIALS, PROFILE, AND CONNECTIONS TO STRUCTURE.  7B) QUALITY CONTROL AND QUALITY ASSURANCE FOR STEEL DECK INSTALLATION SHALL BE IN ACCORDANCE WITH SDI QA/QC-2011, "STANDARD FOR QUALITY CONTROL AND QUALITY ASSURANCE FOR THE INSTALLATION OF STEEL DECK" AS MODIFIED BY TABLE C-1 CONTAINED IN THE COMMENTARY TO THAT STANDARD.  7C) DECK DESIGN IS IN ACCORDANCE WITH STEEL DECK INSTITUTE (SDI) FLOOR DECK DESIGN MANUAL (2014), SDI ROOF DECK DESIGN MANUAL (2013), AND SDI DIAPHRAGM DESIGN MANUAL, 4TH EDITION (2015)  7D) PLACE CONCRETE ON METAL DECK IN ACCORDANCE WITH SDI FLOOR DECK DESIGN MANUAL (2014) TO LIMIT CONSTRUCTION LOADS TO ALLOWABLE MAGNITUDES. 7E) SCREED CONCRETE TO PROVIDE CONSTANT THICKNESS.  7F) REINFORCE OPENINGS IN METAL ROOF DECK AND FLOOR DECK SUPPORTING CONCRETE FILL IN ACCORDANCE WITH TYPICAL DECK OPENING DETAILS.  7G) INSTALL DECK OVER 4 SUPPORTS (3 SPAN CONTINUOUS) UNLESS NOTED OTHERWISE. DO NOT INSTALL DECK AS SINGLE SPAN UNLESS SPECIFICALLY SHOWN ON DRAWINGS.  7H) PROVIDE DECK ATTACHMENTS AS NOTED ON DRAWINGS. 7I) HANGERS: SEE TYPICAL METAL DECK DETAILS FOR ALLOWABLE HANGER LOADS, SPACING AND ATTACHMENT.  <b>8) STRUCTURAL COLD FORMED METAL FRAMING:</b> 8A) COLD FORMED METAL FRAMING IS A PERFORMANCE SPECIFIED ITEM DESIGNED BY THE CONTRACTOR. PROVIDE STUD DEPTH INDICATED ON THE DRAWINGS. DO NOT EXCEED MAXIMUM SPACING INDICATED. VARY FLANGE WIDTH, GAGE, YIELD STRENGTH, BRACING, STUD SPACING, ETC. AS REQUIRED TO SATISFY PERFORMANCE CRITERIA IN THE CONTRACT DOCUMENTS. MINIMUM STUD GAGE SPECIFIED IS REQUIRED FOR ATTACHMENT OF OTHER MATERIALS TO STUDS. DO NOT BASE BIDS ON MINIMUM GAGE OR MAXIMUM SPACING SPECIFIED.  8B) REFER TO DETAILS FOR MINIMUM CONNECTIONS AND OTHER REQUIREMENTS. DEVELOP FORCES NOTED. DO NOT IMPOSE FORCES ON THE BUILDING STRUCTURE IN DIRECTIONS OR AT LOCATIONS OTHER THAN THAT SHOWN ON THE STRUCTURAL DRAWINGS. DO NOT IMPOSE FORCES LARGER THAN SPECIFIED. CONNECTIONS TO CONCRETE SHALL NOT USE PAFs TO RESIST TENSION LOADS.  8C) LOAD BEARING METAL FRAMING: - MAXIMUM GAP BETWEEN WALL STUDS AND TRACK SHALL BE 1/8". SHIM AS REQUIRED TO ACHIEVE THIS CRITERIA. - ALL BRACING, BRIDGING, AND CONNECTIONS SHALL BE COMPLETE PRIOR TO PLACING CONCRETE SLABS OR INSTALLING ROOF FRAMING ABOVE.				

STEEL MATERIAL TABLE				
STEEL ELEMENT	ASTM/TYPE	Fy (KSI)	Fu (KSI)	COMMENTS
ANCHOR RODS	F1554 GR 55	55	75	WELDABLE, HEAVY HEX HEADED
ANCHOR RODS IN MASONRY	F1554 GR 36, F1554 GR 55, OR A307 GRADE A/C	36	58	WELDABLE, STD HEX HEAD
BOLTS	F3125 - TYPE A325 OR F1852	--	120	BOLTS ARE 3/4"Ø UNO. USE TENSION-CONTROLLED WHERE POSSIBLE
COLD-FORMED STUDS/PLATE, 33 AND 43 MIL	A1003	33	--	--
COLD-FORMED STUDS/PLATE, 54 MIL AND HEAVIER	A1003	50	--	--
COLD-FORMED TRACK, ALL THICKNESSES	A1003	33	--	--
DAS	A1064	70	80	--
HAS	A108	51	65	STUDS ARE 3/4"Ø UNO
OTHER SHAPES	A36	36	58	--
PIPE	A53 GR B	35	60	--
PLATES	A36	36	58	--
RECT HSS	A500 GR C	50	62	--
ROUND HSS	A500 GR C	46	62	--
STEEL GRATING				PER NAAMM MBG 531, "METAL BAR GRATING MANUAL"
WELDING ELECTRODES, THICKNESS OF THINNER PART > 0.1 INCHES (12 GA)	E70			PER AWS
WELDING ELECTRODES, THICKNESS OF THINNER PART ≤ 0.1 INCHES (12 GA)	E60 OR E70	--	--	PER AWS
WF, WT	A992	50	65	--

MASONRY NOTES				
<b>1) DEFINITIONS:</b> 1A) STRUCTURAL MASONRY IS DEFINED AS BEING EITHER LOAD BEARING AND/OR SERVING AS PART OF THE LATERAL LOAD RESISTING SYSTEM. STRUCTURAL MASONRY IS SHOWN ON THE STRUCTURAL PLANS AND DEFINED IN SCHEDULES AND DETAILS ON THE STRUCTURAL DRAWINGS.  1B) SEE ARCHITECTURAL DRAWINGS FOR LOCATION, THICKNESS AND EXTENT OF MASONRY PARTITIONS. SEE DETAILS ON THE STRUCTURAL DRAWINGS FOR GENERAL MASONRY PARTITION REQUIREMENTS.  <b>2) DESIGN STRENGTH:</b> 2A) DEVELOP 2000 PSI COMPRESSIVE STRENGTH (fm) IN 28 DAYS.  2B) STEEL REINFORCING: - PRIMARY REINFORCING: ASTM A615, 60 KSI - HORIZONTAL JOINT REINFORCING: ASTM A951, PREFABRICATED, LADDER TYPE  <b>3) SPLICES:</b> 3A) SEE MASONRY LAP SPlice SCHEDULE FOR LAP LENGTHS.  <b>4) INSTALLATION REQUIREMENTS:</b> 4A) GROUT SOLID ALL CELLS CONTAINING REINFORCING, EMBEDDED ITEMS, AND ALL OTHER CELLS NOTED ON THE CONTRACT DOCUMENTS.				
POST-INSTALLED ANCHOR NOTES				
<b>1) PERSONNEL REQUIREMENTS:</b> 1A) THE CONTRACTOR SHALL ARRANGE AN ANCHOR MANUFACTURER'S REPRESENTATIVE TO PROVIDE ONSITE INSTALLATION TRAINING FOR ALL OF THEIR ANCHORING PRODUCTS SPECIFIED. SUBMIT DOCUMENTED CONFIRMATION THAT ALL OF THE CONTRACTOR'S PERSONNEL WHO INSTALL ANCHORS HAVE PASSED THE TRAINING COURSE PRIOR TO THE COMMENCEMENT OF INSTALLING ANCHORS.  1B) PERSONNEL WHO WILL INSTALL HORIZONTAL OR UPWARDLY INCLINED ADHESIVE ANCHORS IN CONCRETE THAT SUPPORT SUSTAINED TENSION LOADS SHALL BE CERTIFIED BY THE ACI/CRSI ADHESIVE ANCHOR INSTALLER CERTIFICATION PROGRAM. THESE ANCHORS ARE DESIGNATED WITH A (CERT) AFTER THE ANCHOR CALL OUT. SUBMIT DOCUMENTED CONFIRMATION THAT PERSONNEL HAVE PASSED THE TRAINING COURSE PRIOR TO THE COMMENCEMENT OF INSTALLING ANCHORS.  <b>2) INSTALLATION REQUIREMENTS:</b> 2A) ALL POST-INSTALLED ANCHORS SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS AND PER MANUFACTURER'S ON-SITE TRAINING.  2B) ALL ADHESIVE ANCHORS AND ADHESIVE ANCHORED REINFORCEMENT DESIGNS ARE FOR INSTALLATION IN THE FOLLOWING CONDITIONS, UNLESS NOTED OTHERWISE. WRITTEN APPROVAL MUST BE RECEIVED FROM ENGINEER PRIOR TO INSTALLATION IN ALTERNATE CONDITIONS. - DRY CONCRETE, UNLESS NOTED OTHERWISE - CONCRETE TEMPERATURE AT TIME OF INSTALLATION THROUGH CURE TIME MUST BE WITHIN THE TEMPERATURE RANGE SPECIFIED IN MANUFACTURER'S PRINTED INSTALLATION INSTRUCTION FOR ADHESIVE GEL AND CURE TIMES. - ANCHOR HOLES TO BE HAMMER DRILLED AND CLEANED. - CONCRETE MUST BE AT LEAST 21 DAYS OLD BEFORE INSTALLATION OF ANCHORS. - HOLES TO BE CLEANED AND PREPARED IN STRICT ACCORDANCE WITH MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS AND EVALUATION REPORT PRIOR TO ADHESIVE INJECTION.  2C) THE POSITION OF EXISTING REINFORCING BARS IN THE CONCRETE STRUCTURE SHALL BE LOCATED PRIOR TO INSTALLING POST INSTALLED ANCHORS OR REINFORCEMENT. EXISTING REINFORCEMENT SHALL BE LOCATED USING A SCANNER, GPR, X-RAY, CHIPPING OR OTHER MEANS. DO NOT DAMAGE OR CUT EXISTING REINFORCEMENT.  <b>3) SUBSTITUTION REQUESTS:</b> 3A) SUBSTITUTION REQUESTS FOR ALTERNATE PRODUCTS MUST BE APPROVED IN WRITING BY THE STRUCTURAL ENGINEER PRIOR TO USE. CONTRACTOR SHALL PROVIDE CALCULATIONS AND PRODUCT DATA DEMONSTRATING THAT THE SUBSTITUTED PRODUCT IS IN COMPLIANCE WITH THE RELEVANT BUILDING CODES, LOAD RESISTANCE, INSTALLATION CATEGORY, CREEP APPROVAL, IN-SERVICE TEMPERATURE AND INSTALLATION TEMPERATURE OF THE SPECIFIED PRODUCT.				
POST-INSTALLED ANCHOR TABLE				
ANCHOR TYPE	PRODUCT	Fy (KSI)	Fu (KSI)	COMMENT
ADHESIVE (IN CONCRETE)	HILTI HIT-HY 200	-	-	SUBMIT CALCULATIONS FOR SUBSTITUTIONS
ADHESIVE (IN CONCRETE W/>12" EMBEDMENT)	HILTI HIT-RE 500 V3	-	-	SUBMIT CALCULATIONS FOR SUBSTITUTIONS
ADHESIVE (IN GROUTED OR HOLLOW MASONRY)	HILTI HIT-HY 270	-	-	SUBMIT CALCULATIONS FOR SUBSTITUTIONS
ADHESIVE ANCHOR RODS	-	36 MIN	58 MIN	THREADED ROD, UNGREASED
EXPANSION ANCHORS (IN CONCRETE)	HILTI KWIK BOLT TZ	-	-	SUBMIT CALCULATIONS FOR SUBSTITUTIONS
EXPANSION ANCHORS (IN GROUTED MASONRY)	HILTI KWIK BOLT 3	-	-	SUBMIT CALCULATIONS FOR SUBSTITUTIONS
SCREW ANCHORS	HILTI KWIK HUS-EZ	-	-	SUBMIT CALCULATIONS FOR SUBSTITUTIONS

METAL GAUGE CONVERSION	
GAUGE	MINIMUM THICKNESS (MILS*)
22	27
20	33
18	43
16	54
14	68
12	97

**NOTES:**  
\* 1 MIL = 1/1000"

CONCRETE NOTES				
<b>1) GENERAL:</b> 1A) ALL WORK SHALL CONFORM WITH ACI 301-10, UNLESS NOTED OTHERWISE IN DRAWINGS OR PROJECT SPECIFICATIONS.  1B) DETAIL BARS IN ACCORDANCE WITH THE DRAWINGS, PROJECT SPECIFICATIONS, AND ACI PUBLICATION SP-66 (2004): 'ACI DETAILING MANUAL'  <b>2) REINFORCING MATERIALS:</b> 2A) SEE 'REINFORCING MATERIAL TABLE'  <b>3) REINFORCING FABRICATION:</b> 3A) SPLICES: - NO SPLICING OF REINFORCEMENT PERMITTED EXCEPT AS NOTED ON DRAWINGS. MAKE BARS CONTINUOUS AROUND CORNERS WHERE DETAIL NOT PROVIDED. WHERE PERMITTED, SPLICES MAY BE MADE BY CONTACT LAPS OR MECHANICAL CONNECTORS. - SEE 'LAP SPlice SCHEDULE' FOR LAP LENGTHS. - SPlice CONTINUOUS TOP AND BOTTOM BARS IN WALLS, BEAMS, AND GRADE BEAMS 'LTS' UNLESS NOTED OTHERWISE. - SPlice TOP BARS AT MIDSPAN AND BOTTOM BARS OVER SUPPORT UNLESS NOTED OTHERWISE.  3B) MISCELLANEOUS REINFORCING REQUIREMENTS: - PROVIDE ADDITIONAL BARS OR STIRRUPS REQUIRED TO SECURE REINFORCING IN PLACE DURING CONCRETE PLACEMENT. - MAKE ALL REINFORCING BAR BENDS IN THE FABRICATOR'S SHOP UNLESS NOTED. - NO WELDING OF REINFORCING PERMITTED UNLESS NOTED ON DRAWINGS. WHERE PERMITTED, PERFORM WELDING IN ACCORDANCE WITH AWS D1.4-2011. - PROVIDE ADDED REINFORCING TO TRIM ALL OPENINGS, NOTCHES, AND REENTRANT CORNERS AS NOTED IN TYPICAL DETAILS.  <b>4) STRUCTURAL CONCRETE MIX REQUIREMENTS:</b> 4A) SEE 'CONCRETE MIX TABLE'  <b>5) SLAB-ON-GRADE:</b> 5A) VERIFY ALKALINITY OF CONCRETE SURFACE, SLAB VAPOR TRANSMISSION, AND SLAB FLATNESS/LEVELNESS ARE COMPATIBLE WITH FLOORING SYSTEM AND ADHESIVES PRIOR TO INSTALLING FLOORING.  5B) TAKE PRECAUTIONS TO MINIMIZE SLAB CURLING. GRIND SLAB OR USE LEVELING COMPOUND IF FLOOR FLATNESS AND LEVELNESS VALUES ARE NOT ACCEPTABLE TO THE ARCHITECT.  <b>6) NON-SHRINK GROUT:</b> 6A) CONFORM TO ASTM C1107  6B) ACHIEVE 6000 PSI COMPRESSIVE STRENGTH AT 28 DAYS.  <b>7) PLACING REINFORCEMENT:</b> 7A) REINFORCEMENT PROTECTION: - SEE 'REBAR COVER TABLE' - SEE ACI 117-10 FOR REINFORCEMENT PLACING TOLERANCES  7B) PROVIDE ACCESSORIES NECESSARY TO PROPERLY SUPPORT REINFORCING AND WELDED WIRE REINFORCEMENT AT POSITIONS SHOWN ON PLANS. ALL REINFORCING, DOWELS, BOLTS, AND EMBEDDED PLATES SHALL BE SET AND TIED IN PLACE BEFORE THE CONCRETE IS POURED. 'STABBING' INTO PREVIOUSLY PLACED CONCRETE IS NOT PERMITTED.  <b>8) CONSTRUCTION/CONTROL JOINTS:</b> 8A) SUBMIT DRAWINGS SHOWING CONSTRUCTION AND CONTROL JOINT LOCATIONS ALONG WITH THE SEQUENCE OF POURS. CONSTRUCTION JOINT LOCATIONS AND CASTING SEQUENCE SHALL BE ARRANGED TO MINIMIZE THE EFFECTS OF ELASTIC AND LONG-TERM SHORTENING/SHRINKAGE.  8B) CONSTRUCTION JOINTS IN SLABS-ON-DECK, SLABS-ON-GRADE, AND STRUCTURAL SLABS SHALL BE LOCATED TO ACCOMMODATE THE MAXIMUM LENGTH AND AREA THE CONTRACTOR CAN REASONABLY POUR, FINISH, AND JOINT IN THE SAME DAY, BUT SHALL NOT EXCEED 150 FEET WITH A MAXIMUM AREA OF 15,000 SQUARE FEET UNLESS APPROVED BY THE ENGINEER.  8C) CONCRETE CONSTRUCTION JOINT SURFACE SHALL BE CLEANED AND ALL LAITANCE AND LOOSE MATERIAL REMOVED PRIOR TO SECOND CONCRETE PLACEMENT.  8D) INTENTIONALLY ROUGHENED CONSTRUCTION JOINTS: WHERE CONSTRUCTION JOINTS ARE LABELED AS 'ROUGHENED' ON THE DRAWINGS, THE ENTIRE JOINT SURFACE SHALL BE MECHANICALLY ROUGHENED TO A 1/4" AMPLITUDE AND THOROUGHLY CLEANED. EXPOSE THE COARSE AGGREGATE IN THE HARDENED CONCRETE AND REMOVE ALL LAITANCE AND LOOSE MATERIAL.  <b>9) MODIFICATIONS TO HARDENED OR EXISTING CONCRETE</b> 9A) UNLESS NOTED ON THE STRUCTURAL DOCUMENTS MODIFICATIONS AS LISTED BELOW SHALL NOT BE MADE TO HARDENED OR EXISTING CONCRETE WITHOUT APPROVAL OF THE ARCHITECT: - SAW CUTTING - CORING - CHIPPING 9B) DO NOT CUT OR DAMAGE ANY REINFORCING WITHOUT APPROVAL OF THE ARCHITECT  <b>10) SLEEVES, OPENINGS, AND EMBEDDED PIPE/CONDUITS:</b> 10A) GENERAL - REFER TO TYPICAL DETAILS FOR REQUIREMENTS FOR CONDUIT AND PIPE EMBEDDED IN WALLS AND SLABS - REFER TO TYPICAL DETAILS FOR SPACING AND LAYOUT LIMITATIONS FOR SLEEVES AND OPENINGS - FORM OPENINGS AND PROVIDE SLEEVES BEFORE PLACING CONCRETE, CORING OF CONCRETE IS NOT PERMITTED - AT COMPOSITE SLABS DO NOT CUT DECK FOR AT LEAST 7 DAYS AFTER CONCRETE PLACEMENT 10B) REINFORCING - REFER TO TYPICAL DETAILS FOR REINFORCEMENT REQUIREMENTS AT SLEEVES, OPENINGS OR CONDUIT - DO NOT CUT REINFORCING WHICH MAY CONFLICT				

REINFORCING MATERIAL TABLE				
REINF ELEMENT	ASTM	Fy (KSI)	Fu (KSI)	COMMENTS
TYP REINFORCING	A615	60	90	-
WELDED & FIELD BENT REINF	A706	60	80	-
WELDED WIRE REINFORCING, SMOOTH	A1064	65	75	-
WELDED WIRE REINFORCING, DEFORMED	A1064	70	80	-
EPOXY COATING OF REINFORCING	A775 OR A934	-	-	-

CONCRETE MIX TABLE							
CONC MIX TYPE	INTENDED USE	28 DAY STRENGTH Fc (KSI)	CONC WEIGHT	MAX W/C RATIO, INCLUDING FLY ASH	MAX AGGREGATE SIZE (IN), NOTE a	TOTAL AIR CONTENT (%), NOTE b	OTHER REQTS, NOTE c
1	FOOTINGS	3.5	NWC	-	1	-	-
2	BSMT WALLS	4.5	NWC	-	3/4	-	-
3	BSMT WALLS EXPOSED TO MOISTURE	4.5	NWC	0.45	3/4	6	-
4	INT TOPPING SLABS, SLABS ON DECK	3.5	NWC	0.50	3/4	NP	FRC
5	ICE SHEET REFRIGERATED SLAB	4.5 MIN	NWC	0.45	3/8 TO 3/4	-	SEE SPEC 13.20.62
6	INT SLABS ON GRADE	3.5	NWC	-	1	NP	FRC
7	ALL CONC OTHERWISE NOT SPECIFIED	4	NWC	0.50	3/4	6	-

**CONCRETE MIX TABLE NOTES:**  
PROPORTIONS OF MATERIALS IN CONCRETE MIX SHALL BE ESTABLISHED TO:  
- PROVIDE THE MINIMUM COMPRESSIVE STRENGTH AS INDICATED IN THE MIX TABLE. DO NOT EXCEED THE MAXIMUM WATER-CEMENT RATIO NOTED.  
  
- PROVIDE WORKABILITY AND CONSISTENCY TO PERMIT CONCRETE TO BE WORKED READILY INTO FORMS AND AROUND REINFORCEMENT UNDER CONDITIONS OF PLACEMENT TO BE EMPLOYED, WITHOUT SEGREGATION OR EXCESSIVE BLEEDING. CONTRACTOR SHALL SELECT APPROPRIATE SLUMP. USE ADMIXTURES AS REQUIRED TO OBTAIN DESIRED RESULTS.  
  
USE TYPE II PORTLAND CEMENT UNLESS NOTED OTHERWISE. FOR CONCRETE MIXES USED ON FLOORS MINIMUM CEMENTITIOUS CONTENT SHALL BE 540 POUNDS PER CUBIC YARD.  
  
IN ORDER TO ACHIEVE LEED POINT FOR RECYCLED CONTENT, CONTRACTOR SHALL CONSIDER USING UP TO 20% FLY ASH BY WEIGHT OF CEMENTITIOUS MATERIALS FOR CONCRETE MIXES USED IN SLABS, AND UP TO 40% FLY ASH BY WEIGHT OF CEMENTITIOUS MATERIALS FOR DRILLED PIERS, WALLS, GRADE BEAMS, AND COLUMNS. FOR FLY ASH CONTENT EXCEEDING 20% FLY ASH BY WEIGHT OF CEMENTITIOUS MATERIALS, CONCRETE SHALL ACHIEVE 500 PSI WITHIN 24 HOURS. SPECIFIED STRENGTH IN TABLE IS REQUIRED AT 56 DAYS.  
  
FOR CONCRETE PLACED BY PUMPING PROVIDE CONCRETE MIX FLOWABILITY TO FACILITATE PUMPING. ENTRAINED AIR MAY BE USED TO FACILITATE PUMPING SUBJECT TO THE PROVISIONS OF NOTE b BELOW.  
a. FOR THE MAXIMUM COARSE AGGREGATE SIZE INDICATED, USE THE FOLLOWING AGGREGATE SIZE NUMBERS PER ASTM C33.  
3/4": #67 AGGREGATE  
1": #57 AGGREGATE  
  
b. WHERE AIR CONTENT IS INDICATED IN THE MIX TABLE, PROVIDE AIR ENTRAINING ADMIXTURE. TOTAL AIR CONTENT LIMITS INCLUDE BOTH ENTRAINED AND ENTRAPPED AIR +/- 1 1/2%. 'NP' IN COLUMN INDICATES ADDITION OF ENTRAINED AIR IS NOT PERMITTED EXCEPT WHERE CONTRACTOR CAN DEMONSTRATE THAT SLABS WITH ENTRAINED AIR WILL HAVE A FINISH ACCEPTABLE TO THE ARCHITECT WITHOUT BLISTERS. AIR CONTENT NOTED IS BASED ON 3/4" AGGREGATE. IF 3/8" AGGREGATE IS USED, INCREASE AIR CONTENT BY 1 1/2%.  
c. ABBREVIATIONS FOR OTHER REQUIREMENTS AS FOLLOWS:  
FRC = FIBER REINFORCED CONCRETE. 1 1/2 LB/YD



**ALERRA** east west partners  
MOUNTAIN COMPANY

2305 Mount Werner Circle  
Steamboat Springs, CO 80487

**Gensler**

1225 17th Street  
Suite 150  
Denver, CO 80202  
United States

**LANDMARK**  
CONSTRUCTION, INC.

141 9th Street  
PO Box 774943  
Steamboat Springs, CO 80477  
Tel 970.871.9494

**DESIGNWORKSHOP**

1390 Lawrence Street  
Suite 100  
Denver, CO 80204  
Tel 303.623.5186

**me**  
engineers

14143 Denver West Pkwy  
Suite 300  
Golden, CO  
United States  
Tel 303.421.6655

12499 West Colfax Ave.  
Lakewood, CO 80215  
United States  
Tel 303.431.6100

Seal / Signature

  
May 19, 2021

Date	Description
- 2021.05.19	BP3: PROMENADE - ISSUE FOR BID AND PERMIT

© 2021 Gensler © 2021 Martin/Martin



DESIGNER: NC MARTIN  
LEAD REVIT: TEO COLLIN WONGLES  
DATE PRINTED: 5/19/2021 12:00:08 PM  
PLOT PATH: E:\01-2021\003-1551-001 - Steamboat\_S00\_Promenade Building 2021 - 2021.rvt

MIL JOB # - 201411.S.01  
PRINCIPAL: KELLY KNOWLES  
FOR KELL: KNOWLES  
PROJECT MANAGER: C. A. CHEN

POST-INSTALLED ANCHORS/REINFORCING STEEL SPECIAL INSPECTIONS			
ITEM	FREQUENCY	STANDARD	CRITERIA
EXPANSION ANCHORS, SLEEVE ANCHORS, SCREW ANCHORS			
- PRIOR TO START OF WORK	-	ICC-ES REPORT	REVIEW CONTRACTOR'S INSTALLATION PROCEDURE
- PRIOR TO INSTALLATION OF ANCHOR	EACH ANCHOR	ICC-ES REPORT	VERIFY TYPE, DIAMETER, LENGTH, FINISH, AND BASE MATERIAL. VERIFY SOLID GROUTED AREA AROUND ANCHORS IN GROUTED MASONRY. VERIFY MAXIMUM IMPACT WRENCH TORQUE RATING FOR SCREW ANCHORS
- DURING INSTALLATION OF ANCHOR	C	ICC-ES REPORT	CONTINUOUS INSPECTION REQUIRED REGARDLESS IF PERIODIC INSPECTION IS PERMITTED BY ICC-ES REPORT. VERIFY HOLE DIMENSIONS, HOLE CLEANING, ANCHOR EMBEDMENT, EDGE DISTANCES AND SPACING
- AFTER INSTALLATION OF ATTACHED ASSEMBLY	100% VISUAL	-	VERIFY NUMBER, EDGE DISTANCES, AND ANCHOR FLUSH WITH AND PERPENDICULAR TO THE RECEIVING SURFACE
ADHESIVE ANCHORS, REINFORCING STEEL ANCHORED INTO HARDENED CONCRETE			
- PRIOR TO START OF WORK	-	ICC-ES REPORT	REVIEW CONTRACTOR'S INSTALLATION PROCEDURE
- PRIOR TO INSTALLATION OF ANCHOR	EACH ANCHOR	ICC-ES REPORT	VERIFY TYPE, DIAMETER, LENGTH, FINISH, AND BASE MATERIAL. VERIFY SOLID GROUTED AREA AROUND ANCHORS IN GROUTED MASONRY
- DURING INSTALLATION OF ANCHOR	C	ICC-ES REPORT	CONTINUOUS INSPECTION REQUIRED REGARDLESS IF PERIODIC INSPECTION IS PERMITTED BY ICC-ES REPORT. VERIFY HOLE DIMENSIONS, HOLE CLEANING, ANCHOR EMBEDMENT, EDGE DISTANCES AND SPACING
- AFTER INSTALLATION OF ATTACHED ASSEMBLY	100% VISUAL	-	VERIFY NUMBER, EDGE DISTANCES, AND ANCHOR FLUSH WITH AND PERPENDICULAR TO THE RECEIVING SURFACE
- CURE TIME	100% VISUAL	-	VERIFY FULL CURE TIME HAS ELAPSED PRIOR TO APPLICATION OF TORQUE OR LOAD TO ANCHOR

POST-INSTALLED ANCHOR/REINFORCING STEEL TESTING			
ITEM	FREQUENCY	STANDARD	CRITERIA
EXPANSION ANCHORS, SLEEVE ANCHORS, SCREW ANCHORS			
- TORQUE TEST	100%	-	TEST ANCHOR WITH CALIBRATED TORQUE WRENCH TO 100% OF THE INSTALLATION TORQUE NOTED IN ICC-ES REPORT. ATTAIN SPECIFIED TORQUE WITHIN 1/2 TURN OF THE NUT
ADHESIVE ANCHORS, REINFORCING STEEL ANCHORED INTO HARDENED CONCRETE			
- TENSION TEST	FIRST 3 AND 1% OF REMAINING	ASTM E488 STATIC TENSION	TEST THE INSTALLATION OF THE FIRST 3 OF EACH TYPE, BASE MATERIAL, AND POSITION (DOWN, HORIZONTAL, OVERHEAD). OBSERVE ASTM E488 MINIMUM EDGE DISTANCES FOR DETERMINING TEST LOCATIONS. SUBMIT PROPOSED TEST LOCATIONS AND REQUESTS FOR REQUIRED TENSION TEST LOAD VALUES TO ENGINEER

STRUCTURAL CONCRETE TESTING			
ITEM	FREQUENCY	STANDARD	CRITERIA
REINFORCING STEEL, BOLTS AND EMBEDMENTS			
- WELDING	-	-	PER STRUCTURAL STEEL TESTING
CONCRETE			
- COMPOSITE SAMPLE			
1. $f_c < 5000$ PSI	100 CY/MIX/DAY	ASTM C172	OBTAIN AT POINT OF PLACEMENT. FOR DRILLED PIERS OBTAIN NEAR BEGINNING OF LOAD PRIOR TO PLACEMENT IN SHAFT. ADJUST FREQUENCY AS REQUIRED TO PROVIDE MINIMUM 5 TOTAL TESTS PER MIX BUT NOT MORE THAN ONE SAMPLE PER TRUCK LOAD
2. $f_c \geq 5000$ PSI AND SHOTCRETE	50 CY/MIX/DAY		
- SLUMP/SLUMP FLOW	EACH COMPOSITE SAMPLE	ASTM C143 (SLUMP) OR ASTM C1611 (SLUMP FLOW)	SPECIFIED SLUMP SHALL BE AS SUBMITTED IN THE MIX DESIGN $\pm 1\frac{1}{2}$ ". PERFORM ADDITIONAL TESTS WHEN CONCRETE CONSISTENCY APPEARS TO CHANGE
- AIR CONTENT WHEN AIR ENTRAINMENT IS SPECIFIED AND LIGHTWEIGHT CONCRETE	EACH COMPOSITE SAMPLE	ASTM C231 PRESSURE METHOD (NWC) OR ASTM C173 VOLUMETRIC METHOD (LWC)	-
- TEMPERATURE	EACH COMPOSITE SAMPLE AND 60 MINUTE INTERVALS	ASTM C1064	REQUIRED WHEN AIR TEMPERATURE IS 40 °F AND BELOW OR 80°F AND ABOVE
- UNIT WEIGHT FOR STRUCTURAL LIGHTWEIGHT	EACH COMPOSITE SAMPLE	ASTM C138	-
- COLD WEATHER CURING	-	ASTM C1074	RECORD MAXIMUM AND MINIMUM CONCRETE TEMPERATURE DURING CURING PERIOD, WHEN DAILY AVERAGE AIR TEMPERATURE OF 40 °F OR BELOW IS EXPECTED FOR 3 SUCCESSIVE DAYS DURING CURING PERIOD
- COMPRESSIVE STRENGTH	EACH COMPOSITE SAMPLE	ASTM C31 ASTM C39 EITHER: (4)6x12 OR (6)4x8 CYLINDERS	TEST PER SCHEDULE BELOW: - 7 DAYS: (1) 6x12 OR (1) 4x8 - 28 DAYS: (2) 6x12 OR (3) 4x8 - 56 DAYS: (1) 6x12 OR (2) 4x8 (IF 28 DAY TESTS DO NOT ACHIEVE SPECIFIED 28 DAY STRENGTH) ACCEPTANCE CRITERIA PER ACI 318
SHOTCRETE (ADDITIONAL REQUIREMENTS)			
- COMPRESSIVE	-	IBC 2018 - 1908.10	-
- CURING	-	IBC 2018 - 1908.9	-
FLOOR FLATNESS REQUIREMENTS			
- MEASURE CONCRETE FLOOR FLATNESS (FF) AND FLOOR LEVELNESS (FL)	-	ASTM E1155	PERFORM MEASUREMENTS WITHIN 48 HOURS OF FINISHING OPERATIONS AND PRIOR TO REMOVAL OF SHORES OR FORMS. MEASURE AREAS INDICATED IN THE SPECIFICATIONS
STRUCTURAL CONCRETE TESTING NOTES:			
1. NONDESTRUCTIVE TESTING MAY BE PERMITTED BY THE ARCHITECT, BUT WILL NOT BE USED AS SOLE BASIS FOR APPROVAL OR REJECTION OF DEFICIENT CONCRETE.			
2. REPORTS OF COMPRESSIVE STRENGTH TESTS SHALL CONTAIN THE FOLLOWING INFORMATION: DATE OF CONCRETE PLACEMENT, LOCATION OF CONCRETE BATCH IN WORK, DESIGN 28-DAY COMPRESSIVE STRENGTH, SLUMP, CONCRETE SUPPLIER AND MIXTURE ID NUMBER, TIME OF BATCH AND PLACEMENT, AMBIENT AIR TEMPERATURE, SITE ADDED WATER AND ADMIXTURES, UNIT WEIGHT, AND AS REQUIRED BY ASTM C39.			

STRUCTURAL CONCRETE SPECIAL INSPECTIONS			
ITEM	FREQUENCY	STANDARD	CRITERIA
REINFORCING STEEL			
- DURING PLACEMENT	P	ACI 301-16 3.2.3.3	VERIFY GRADE, FINISH, SIZE, BAR QUANTITY, LOCATION, SPACING, COVER, HOOK LENGTHS, LOCATION, SPACING, COVER, HOOK LENGTHS, SPLICE LENGTH, SPLICE LOCATIONS, BEND DIAMETERS, COATING, SURFACE CONDITION, AND SUPPORT
- PRIOR TO PLACEMENT OF CONCRETE	100%		
- WELDING	C	AWS D1.4	VERIFY ASTM A706 REINFORCING STEEL
- FIELD BENDING	P	ACI 301-16 3.3.2.8	-
- COATED REINFORCING	P	ACI 301-16 3.2.1.2	-
- MECHANICAL CONNECTORS	C	ICC-ES REPORT	-
BOLTS AND EMBEDMENTS			
- PRIOR TO PLACEMENT OF CONCRETE	100%	-	VERIFY TYPE, FINISH, DIAMETER, LENGTH, QUANTITY, EMBEDMENT LENGTH, SPACING AND EDGE DISTANCES. VERIFY USE OF PLACING TEMPLATE WHERE SPECIFIED
- WELDING	-	-	INSPECT PER THE STRUCTURAL STEEL TABLE
CONCRETE			
- MIX DESIGN	EACH TRUCK	-	VERIFY USE OF APPROVED DESIGN MIXTURE FOR EACH TRUCK LOAD
- FORMWORK PRIOR TO PLACEMENT OF CONCRETE	P	ACI 301-16 2.2.2.3	INSPECT FIRST POUR OF EACH TYPE (GRADE, BEAM, COLUMN, STRUCTURAL SLAB, SLAB-ON-DECK, ETC.)
- PLACEMENT OF CONCRETE	C	ACI 301-16 5.3.2	-
- CURING	P	ACI 301-16 5.3.6	-
- SHORE/FORM REMOVAL	P	ACI 301-16 2.3.2	FOR BEAMS AND STRUCTURAL SLABS

QUALITY ASSURANCE GENERAL NOTES			
STATEMENT OF STRUCTURAL SPECIAL INSPECTIONS AND TESTING			
<b>1. GENERAL:</b>			
A. SCOPE OF WORK			
<ul style="list-style-type: none"><li>THE OWNER WILL ENGAGE A QUALIFIED INSPECTION AND TESTING AGENCY(S) TO PERFORM SPECIAL INSPECTIONS AND TESTING FOR ALL STRUCTURAL MEMBERS AND ASSEMBLIES AS NOTED HEREIN.</li><li>SPECIAL INSPECTIONS AND TESTING INCLUDE THE ADDITIONAL STRUCTURAL SPECIAL INSPECTION AND TESTING REQUIREMENTS FOR SEISMIC AND/OR WIND RESISTANCE.</li><li>SPECIAL INSPECTIONS ARE IN ADDITION TO INSPECTIONS BY THE AUTHORITY HAVING JURISDICTION REQUIRED BY IBC 2018 SECTION 110.</li><li>REFER TO THE SPECIFICATIONS FOR REPORTING AND PROCEDURAL REQUIREMENTS FOR QUALITY ASSURANCE AND QUALITY CONTROL.</li><li>REFER TO ARCH/MECH/ELEC/CIVIL SPECIFICATIONS AND DRAWINGS FOR ADDITIONAL SPECIAL INSPECTION AND TESTING THAT MAY BE REQUIRED.</li></ul>			
B. SPECIAL INSPECTIONS AND TESTING ARE APPLICABLE TO ALL REVISIONS AND/OR FUTURE WORK ADDED BY AMENDMENTS TO THESE DOCUMENTS.			
C. DEFINITIONS			
<ul style="list-style-type: none"><li>SPECIAL INSPECTOR: THE AGENCY ENGAGED BY THE OWNER AND APPROVED BY THE AUTHORITY HAVING JURISDICTION TO ACT AS THE DESIGNATED REPRESENTATIVE TO PERFORM INSPECTIONS.</li><li>SPECIAL INSPECTION: INSPECTION PERFORMED BY THE SPECIAL INSPECTOR ACCORDING TO IBC 2018 SECTION 1704 TO ENSURE COMPLIANCE WITH APPROVED CONSTRUCTION DOCUMENTS AND REFERENCED STANDARDS.</li><li>(P) PERIODIC INSPECTION: THE PART-TIME OR INTERMITTENT OBSERVATION BY THE SPECIAL INSPECTOR OF WORK BEING PERFORMED. SPECIAL INSPECTOR SHALL BE PRESENT IN THE AREA WHERE THE WORK IS BEING PERFORMED. OBSERVATION OF ALL WORK (100% VISUAL) SHALL BE MADE AT THE COMPLETION OF THE WORK.</li><li>(C) CONTINUOUS INSPECTION: THE FULL-TIME OBSERVATION BY THE SPECIAL INSPECTOR OF WORK BEING PERFORMED. SPECIAL INSPECTOR SHALL BE PRESENT IN THE AREA WHERE THE WORK IS BEING PERFORMED. OBSERVATION OF ALL WORK (100% VISUAL) SHALL BE MADE AT THE COMPLETION OF THE WORK.</li></ul>			
D. DEFICIENCIES IN WORK			
<ul style="list-style-type: none"><li>CORRECT DEFICIENCIES IN WORK THAT TESTS AND INSPECTIONS INDICATE DO NOT COMPLY WITH THE CONTRACT DOCUMENTS AND REFERENCED STANDARDS.</li><li>ALL COST OF ADDITIONAL TESTING AND/OR INSPECTIONS FOR CORRECTIVE WORK SHALL BE BORNE BY THE CONTRACTOR.</li></ul>			
<b>2. SHOP FABRICATIONS:</b>			
A. GENERAL			
<ul style="list-style-type: none"><li>PERFORM INSPECTIONS AND TESTING FOR ALL SHOP FABRICATED STRUCTURAL MEMBERS AND ASSEMBLIES AS NOTED HEREIN. SPECIAL INSPECTOR SHALL PERFORM SPECIAL INSPECTIONS AND TESTING UNLESS THE FABRICATOR IS REGISTERED AND APPROVED BY THE AUTHORITY HAVING JURISDICTION TO PERFORM SUCH WORK WITHOUT SPECIAL INSPECTION OR FABRICATION HAS A CURRENT ICC-ES EVALUATION REPORT. THE AUTHORITY HAVING JURISDICTION HAS APPROVED FABRICATORS PARTICIPATING IN THE AISC CERTIFICATION PROGRAM AND DESIGNATED AS AN AISC CERTIFIED PLANT, CATEGORY STD.</li><li>SPECIAL INSPECTOR SHALL VERIFY THE FABRICATOR MAINTAINS AND FOLLOWS DETAILED SHOP FABRICATION AND QUALITY CONTROL PROCEDURES, UNLESS FABRICATOR IS REGISTERED AND APPROVED.</li><li>AT THE COMPLETION OF FABRICATION, THE APPROVED FABRICATOR SHALL SUBMIT A CERTIFICATE OF COMPLIANCE TO THE AUTHORITY HAVING JURISDICTION ACCORDING TO IBC 2018 SECTION 1704.2.5.1.</li><li>APPROVED FABRICATORS MAY PERFORM TESTING NOTED HEREIN EXCEPT THAT NONDESTRUCTIVE TESTING (NDT) SHALL ONLY BE PERFORMED BY PERSONNEL WITH QUALIFICATIONS THAT MEET OR EXCEED THE CRITERIA OF AWS D1.1 SUBCLAUSE 6.14.6 AND AMERICAN SOCIETY FOR NONDESTRUCTIVE TESTING (ASNT) SNT-TC-1A OR ASNT CP-189.</li></ul>			
B. SHOP FABRICATIONS INCLUDED			
<ul style="list-style-type: none"><li>SHOP FABRICATED STRUCTURAL STEEL INCLUDING STAIRS AND RAILING ELEMENTS</li><li>SHOP FABRICATED COLD FORMED STEEL ELEMENTS</li></ul>			

SOILS SPECIAL INSPECTIONS			
ITEM	FREQUENCY	STANDARD	CRITERIA
SUBGRADE			
- EXCAVATION	P	-	VERIFY EXCAVATIONS ARE EXTENDED TO THE PROPER DEPTH AND HAVE REACHED THE PROPER BEARING MATERIAL
- BEARING MATERIAL	P	SOILS REPORT	VERIFY BEARING MATERIAL IS ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY
- RAMMED AGGREGATE PIERS	SPEC	SPEC	REFER TO THE SPECIFICATION FOR QUALITY ASSURANCE AND QUALITY CONTROL REQUIREMENTS FOR RAMMED AGGREGATE PIERS
CONTROLLED FILL			
- PRIOR TO PLACEMENT	P	-	VERIFY SUBGRADE HAS BEEN PROPERLY PREPARED
- PLACEMENT	C	-	VERIFY USE OF PROPER MATERIALS, DENSITIES, COMPACTION, AND LIFT THICKNESSES

**SOILS SPECIAL INSPECTION NOTES:**

1. SEE CIVIL DRAWINGS AND/OR SPECIFICATIONS FOR ADDITIONAL EARTHWORK AND UTILITY INSPECTION REQUIREMENTS.

2. SEE CIVIL DRAWINGS AND/OR SPECIFICATIONS FOR CLASSIFICATION AND TESTING REQUIREMENTS FOR COMPACTED FILL AND/OR CONTROLLED LOW-STRENGTH MATERIAL.



**ALERRA** east west partners  
MOUNTAIN COMPANY

2305 Mount Werner Circle  
Steamboat Springs, CO 80487

**Gensler**

1225 17th Street  
Suite 150  
Denver, CO 80202  
United States

Tel 303.595.8586  
Fax 303.825.6823



**DESIGNWORKSHOP**

141 9th Street  
PO Box 774943  
Steamboat Springs, CO 80477  
Tel 970.871.9494

1390 Lawrence Street  
Suite 100  
Denver, CO 80204  
Tel 303.623.5186



12499 West Colfax Ave.  
Lakewood, CO 80215  
United States  
Tel 303.431.6100

**me**  
engineers

14143 Denver West Pkwy  
Suite 300  
Golden, CO  
United States  
Tel 303.421.6655



Seal / Signature

May 19, 2021

Date	Description
2021.05.19	BP3: PROMENADE - ISSUE FOR BID AND PERMIT

Project Name
SSRC   BASE AREA IMPROVEMENTS
Project Number
20.1411.S.01
Description
QUALITY ASSURANCE
Scale
12" = 1'-0"

1A-S0.10



MIL JOB # - 201411.S.01  
DESIGNER: NC, MARTIN  
PRINCIPAL: KELLY KNOWLES  
LEAD REVIT TECH: COLIN KNOWLES  
DATE PRINTED: 5/19/2021 12:16:10 PM  
PLOT PATH: E:\MIL\201411.S.01\201411.S.01 - Steamboat\_Rivado\303 TBS5 000\_ Structural\_S01\_Promenade Building 2021 - 2021.rvt  
FOR KELLY KNOWLES  
PROJECT MANAGER: C. A. CHEN

STRUCTURAL COLD FORMED STEEL DECK SPECIAL INSPECTIONS			
ITEM	FREQUENCY	STANDARD	CRITERIA
PRIOR TO DECK PLACEMENT			
- VERIFY COMPLIANCE OF MATERIALS (DECK AND ALL DECK ACCESSORIES) WITH CONSTRUCTION DOCUMENTS, INCLUDING PROFILES, MATERIAL PROPERTIES, AND BASE METAL THICKNESS	PERFORM	SDI QA/QC-2011	-
- DOCUMENT ACCEPTANCE OR REJECTION OF DECK AND DECK ACCESSORIES	PERFORM	SDI QA/QC-2011	-
PRIOR TO WELDING			
- WELDING PROCEDURE SPECIFICATION (WPS) AVAILABLE	OBSERVE	SDI QA/QC-2011	-
- MANUFACTURER CERTIFICATIONS OF WELDING CONSUMABLES AVAILABLE	OBSERVE	SDI QA/QC-2011	-
- MATERIAL IDENTIFICATION (TYPE/GRADE)	OBSERVE	SDI QA/QC-2011	-
- CHECKING WELDING EQUIPMENT	OBSERVE	SDI QA/QC-2011	-
PRIOR TO MECHANICAL FASTENING (SCREWS AND PAFs)			
- MANUFACTURER INSTALLATION INSTRUCTIONS ARE AVAILABLE FOR MECHANICAL FASTENERS	OBSERVE	SDI QA/QC-2011	-
- PROPER TOOLS AVAILABLE FOR FASTENER INSTALLATIONS	OBSERVE	SDI QA/QC-2011	-
- PROPER STORAGE FOR MECHANICAL FASTENERS	OBSERVE	SDI QA/QC-2011	-
DURING DECK INSTALLATION			
DURING WELDING DECK CONNECTION INSTALLATION			
- USE OF QUALIFIED WELDERS		SDI QA/QC-2011	-
- CONTROL AND HANDLING OF WELDING CONSUMABLES	OBSERVE	SDI QA/QC-2011	-
- ENVIRONMENTAL CONDITIONS (WIND SPEED, MOISTURE, TEMPERATURE)	OBSERVE	SDI QA/QC-2011	-
- WPS FOLLOWED	OBSERVE	SDI QA/QC-2011	-
DURING MECHANICAL DECK CONNECTION INSTALLATION			
- FASTENING (SCREWS AND PAFs)	OBSERVE	SDI QA/QC-2011	-
- FASTENERS ARE POSITIONED AS REQUIRED	OBSERVE	SDI QA/QC-2011	-
- FASTENERS ARE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS	OBSERVE	SDI QA/QC-2011	-
AFTER DECK PLACEMENT			
- VERIFY COMPLIANCE OF DECK AND ALL DECK ACCESSORIES INSTALLATION COMPLY WITH CONSTRUCTION DOCUMENTS	PERFORM	SDI QA/QC-2011	-
- VERIFY DECK MATERIALS ARE REPRESENTED BY THE MILL CERTIFICATIONS THAT COMPLY WITH THE CONSTRUCTION DOCUMENTS	PERFORM	SDI QA/QC-2011	-
- DOCUMENT ACCEPTANCE OR REJECTION OF THE INSTALLATION OF DECK AND DECK ACCESSORIES	PERFORM	SDI QA/QC-2011	VERIFY CUTS OR NOTCHES THROUGH DECK ARE REPAIRED
AFTER WELDING			
- VERIFY SIZE AND LOCATION OF WELDS, INCLUDING SUPPORT, SIDELAP, AND PERIMETER WELDS	PERFORM	AWS D1.3, SDI C, SDI NC, SDI RD	-
- WELDS MEET VISUAL ACCEPTANCE CRITERIA	PERFORM	AWS D1.3, SDI C, SDI NC, SDI RD	-
- VERIFY REPAIR ACTIVITIES	PERFORM	AWS D1.3, SDI C, SDI NC, SDI RD	VERIFY WELDED AREAS ARE TREATED WITH APPROVED TREATMENT TO MATCH CORROSION RESISTANCE OF AFFECTED AREA
- DOCUMENT ACCEPTANCE OR REJECTION OF WELDS	PERFORM	AWS D1.3, SDI C, SDI NC, SDI RD	-
AFTER MECHANICAL FASTENING (SCREWS AND PAFs)			
- CHECK SPACING, TYPE, DIAMETER, AND INSTALLATION OF SUPPORT, SIDELAP, AND PERFORM PERIMETER FASTENERS	PERFORM	SDI C, SDI NC, SDI RD, ICC-ES REPORTS	VERIFY SCREWS ADEQUATELY PENETRATE BASE MATERIAL (3 THREADS MIN). NO POPPED SCREW HEADS OR STRIPPED SCREWS ARE PERMITTED. ALL DAMAGE SCREWS SHALL BE REPLACED. VERIFY PAFs ARE FULLY DRIVEN
- VERIFY REPAIR ACTIVITIES	PERFORM	SDI C, SDI NC, SDI RD	-
- DOCUMENT ACCEPTANCE OR REJECTION OF MECHANICAL FASTENERS	PERFORM	SDI C, SDI NC, SDI RD	VERIFY MATERIALS HAVE BEEN DRAWN TOGETHER

STRUCTURAL STEEL TESTING			
ITEM	FREQUENCY	STANDARD	CRITERIA/REMARKS
WELDING			
- COMPLETE JOINT PENETRATION GROOVE WELDS FOR MATERIAL 5/16" THICK AND GREATER	10%	UT	FREQUENCY SHALL BE INCREASED SHOULD THE REJECT RATE EXCEED 5% FOR AN INDIVIDUAL WELDER, IN ACCORDANCE WITH AISC 360, CHAPTER N.
- THERMALLY CUT SURFACES OF BEAM COPEES AND ACCESS HOLES WHEN MATERIAL THICKNESS EXCEEDS 2 INCHES	100%	MT OR PT	-
- SHEAR CONNECTOR, HEADED ANCHOR STUDS, DEFORMED ANCHOR STUDS, THREADED STUDS	2 BEND TESTS AT START OF EACH SHIFT, 1% BEND TEST, 100% RING TEST	AWS D1.1 SECTION 7	BEND TEST: PER AWS D1.1 BENT STUD (TORQUE TEST FOR THREADED STUDS) ACCEPTANCE CRITERIA: RING TEST: STRIKE WITH HAMMER. IF THE STUD RINGS, STUD IS ACCEPTABLE. IF STUD DOES NOT RING, PERFORM BEND TEST
FRAMING			
- SHAPES EXCEEDING 1 1/2 INCHES THICK, LOADED IN TENSION IN THE THROUGH- THICKNESS	100%	ASTM A898 (LEVEL 1 CRITERIA)	NOT REQUIRED FOR STEEL PRODUCED IN USA. CRITERIA TO BE MET 6 INCHES ABOVE AND BELOW EACH WELD. REQUIRED WHERE NOTED AS 'TTT' IN DRAWINGS
- PLATES EXCEEDING 3/4 INCH, LOADED IN TENSION IN THE THROUGH-THICKNESS DIRECTION IN TEE AND CORNER JOINTS	100%	ASTM A435	NOT REQUIRED FOR STEEL PRODUCED IN USA. ANY DISCONTINUITY CAUSING A TOTAL LOSS OF BACK REFLECTION THAT CANNOT BE CONTAINED WITHIN A CIRCLE 3 INCHES IN DIAMETER SHALL BE REJECTED. REQUIRED WHERE NOTED AS 'TTT' IN DRAWINGS
- EMBEDDED PLATE ASSEMBLIES WITH PLATES EXCEEDING 3/4 INCH	100%	UT	NOT REQUIRED FOR STEEL PRODUCED IN USA. TEST ALONG CENTERLINE OF PLATE WIDTH AFTER WELDING

UT - ULTRASONIC TESTING  
MT - MAGNETIC PARTICLE TESTING  
PT - PENETRANT TESTING  
SFRS - SEISMIC FORCE RESISTING SYSTEM  
TTT - TENSION THRU THICKNESS, SEE STR STEEL TESTING

STRUCTURAL STEEL INSPECTIONS			
ITEM	INSPECTION TASK	STANDARD	CRITERIA/REMARKS
- PRIOR TO FABRICATION OR ERECTION	PERFORM	AISC 360, CHAPTER N	REVIEW MATERIAL TEST REPORTS AND CERTIFICATIONS FOR STRUCTURAL STEEL, FASTENERS, ANCHOR RODS, HEADED STUD ANCHORS
PRIOR TO WELDING			
- REVIEW MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AND WELDING PROCEDURE SPECIFICATIONS	PERFORM	AISC 360, CHAPTER N	-
- FIT UP OF WELDS, INCLUDING JOINT GEOMETRY AND CONFIGURATIONS AND FINISH OF ACCESS HOLES	OBSERVE	AISC 360, CHAPTER N	-
- MATERIAL IDENTIFICATION	OBSERVE	AISC 360, CHAPTER N	-
- WELDER IDENTIFICATION SYSTEM	OBSERVE	AISC 360, CHAPTER N	-
DURING WELDING			
- USE OF QUALIFIED WELDERS	OBSERVE	AISC 360, CHAPTER N	-
- CONTROL AND HANDLING OF WELDING CONSUMABLES	OBSERVE	AISC 360, CHAPTER N	-
- NO WELDING OVER CRACKED TACK WELDS	OBSERVE	AISC 360, CHAPTER N	-
- ENVIRONMENTAL CONDITIONS, AND WPS FOLLOWED	OBSERVE	AISC 360, CHAPTER N	-
- WELDING TECHNIQUES - SINGLE PASS WELDS	OBSERVE	AISC 360, CHAPTER N	-
- WELDING TECHNIQUES - MULTI-PASS WELDS	OBSERVE	AISC 360, CHAPTER N	-
AFTER WELDING			
- WELDS CLEANED	OBSERVE	AISC 360, CHAPTER N	-
- SIZE, LENGTH, AND LOCATION OF WELDS	PERFORM	AISC 360, CHAPTER N	-
- WELDS MEET VISUAL ACCEPTANCE CRITERIA	PERFORM	AISC 360, CHAPTER N, AWS D1.1	WHERE INSPECTOR OBSERVES QUESTIONABLE WELDS, NON-DESTRUCTIVE TESTING SHALL BE PERFORMED
- ARC STRIKES	PERFORM	AISC 360, CHAPTER N	-
- K-AREA	PERFORM	AISC 360, CHAPTER N	-
- REPAIR ACTIVITIES	PERFORM	AISC 360, CHAPTER N	-
- PLACEMENT AND INSTALLATION OF HEADED STUD ANCHORS	PERFORM	AISC 360, CHAPTER N	-
- DOCUMENT ACCEPTANCE OR REJECTION OF WELDED MEMBER OR JOINT	PERFORM	AISC 360, CHAPTER N	-
PRIOR TO BOLTING			
- REVIEW MANUFACTURER CERTIFICATIONS FOR FASTENER MATERIALS	PERFORM	AISC 360, CHAPTER N	-
- FASTENERS MARKS IN ACCORDANCE WITH ASTM REQUIREMENTS	OBSERVE	AISC 360, CHAPTER N	-
- PROPER FASTENERS AND BOLTING PROCEDURE SELECTED FOR JOINT DETAIL	OBSERVE	AISC 360, CHAPTER N	-
- CONNECTING ELEMENTS MEET REQUIREMENTS, INCLUDING HOLE REPAIR AND FAYING SURFACE	OBSERVE	AISC 360, CHAPTER N	-
- PRE-INSTALLATION VERIFICATION TESTING	OBSERVE	AISC 360, CHAPTER N	NOT APPLICABLE FOR SNUG TIGHT JOINTS
- PROPER STORAGE FOR FASTENER COMPONENTS	OBSERVE	AISC 360, CHAPTER N	-
DURING BOLTING			
- FASTENERS PLACED IN ALL HOLES AND POSITIONED AS REQUIRED	OBSERVE	AISC 360, CHAPTER N	-
- PRETENSIONED AND SLIP-CRITICAL JOINTS	OBSERVE	AISC 360, CHAPTER N AND RCSC SPECIFICATION	JOINT BROUGHT IN SNUG-TIGHT CONDITION PRIOR TO PRETENSIONING, FASTENER PREVENTED FROM ROTATING, PRETENSIONED IN PROPER SEQUENCE
- PRETENSIONED AND SLIP-CRITICAL JOINTS USING CALIBRATED WRENCH OR TURN-OF-NUT METHOD WITHOUT MATCH-MARKING	PERFORM	AISC 360, CHAPTER N AND RCSC SPECIFICATION	JOINT BROUGHT IN SNUG-TIGHT CONDITION PRIOR TO PRETENSIONING, FASTENER PREVENTED FROM ROTATING, PRETENSIONED IN PROPER SEQUENCE. INSPECTOR SHALL BE RESENT DURING INSTALLATION OF FASTENERS
AFTER BOLTING			
- DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS	PERFORM	DOCUMENT ACCEPTANCE OR REJECTION MEMBER OR JOINT	-

OBSERVE - OBSERVE THESE ITEMS ON A RANDOM BASIS  
PERFORM - THESE INSPECTIONS SHALL BE PERFORMED FOR EACH WELDED CONNECTION, EACH BOLTED CONNECTION, AND EACH ITEM, PRIOR TO ACCEPTANCE



**ALERRA** east west partners  
MOUNTAIN COMPANY

2305 Mount Werner Circle  
Steamboat Springs, CO 80487

**Gensler**

1225 17th Street  
Suite 150  
Denver, CO 80202  
United States

Tel 303.595.8586  
Fax 303.825.6823



**DESIGNWORKSHOP**

141 9th Street  
PO Box 774943  
Steamboat Springs, CO 80477  
Tel 970.871.9494

1390 Lawrence Street  
Suite 100  
Denver, CO 80204  
Tel 303.623.5186



**me** engineers

12499 West Colfax Ave.  
Lakewood, CO 80215  
United States  
Tel 303.431.6100

14143 Denver West Pkwy  
Suite 300  
Golden, CO  
United States  
Tel 303.421.6655



Seal / Signature

△ Date	Description
- 2021.05.19	BP3: PROMENADE - ISSUE FOR BID AND PERMIT

Project Name  
**SSRC | BASE AREA IMPROVEMENTS**

Project Number  
**20.1411.S.01**

Description  
**QUALITY ASSURANCE**

Scale

**1A-S0.11**





© 2021 Gensler © 2021 Martin/Martin







SHEET NOTES

GENERAL:  
- FRAMING ARE FOR SHOWN FOR SCHEMATIC DESIGN PURPOSE.  
- SHADED AREA TO BE CONSTRUCTED AS PART OF THE FUTURE PLAZA BUILDING PACKAGE.



ALTERRA east west partners  
MOUNTAIN COMPANY

2305 Mount Werner Circle  
Steamboat Springs, CO 80487

Gensler

1225 17th Street  
Suite 150  
Denver, CO 80202  
United States  
Tel 303.595.8586  
Fax 303.825.6823



141 9th Street  
PO Box 774943  
Steamboat Springs, CO  
80477  
Tel 970.871.9494

DESIGNWORKSHOP

1390 Lawrence Street  
Suite 100  
Denver, CO 80204  
Tel 303.623.5186



12499 West Colfax Ave.  
Lakewood, CO 80215  
United States  
Tel 303.431.6100



14143 Denver West Pkwy  
Suite 300  
Golden, CO  
United States  
Tel 303.421.6655



May 19, 2021

Seal / Signature

Date Description

2021.05.19 BP3: PROMENADE - ISSUE FOR BID AND PERMIT

Project Name

SSRC | BASE AREA  
IMPROVEMENTS

Project Number

20.1411.S.01

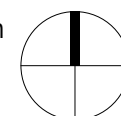
Description

PROMENADE BUILDING - LEVEL 2  
AND ROOF FRAMING PLAN

Scale

As indicated

Ref North

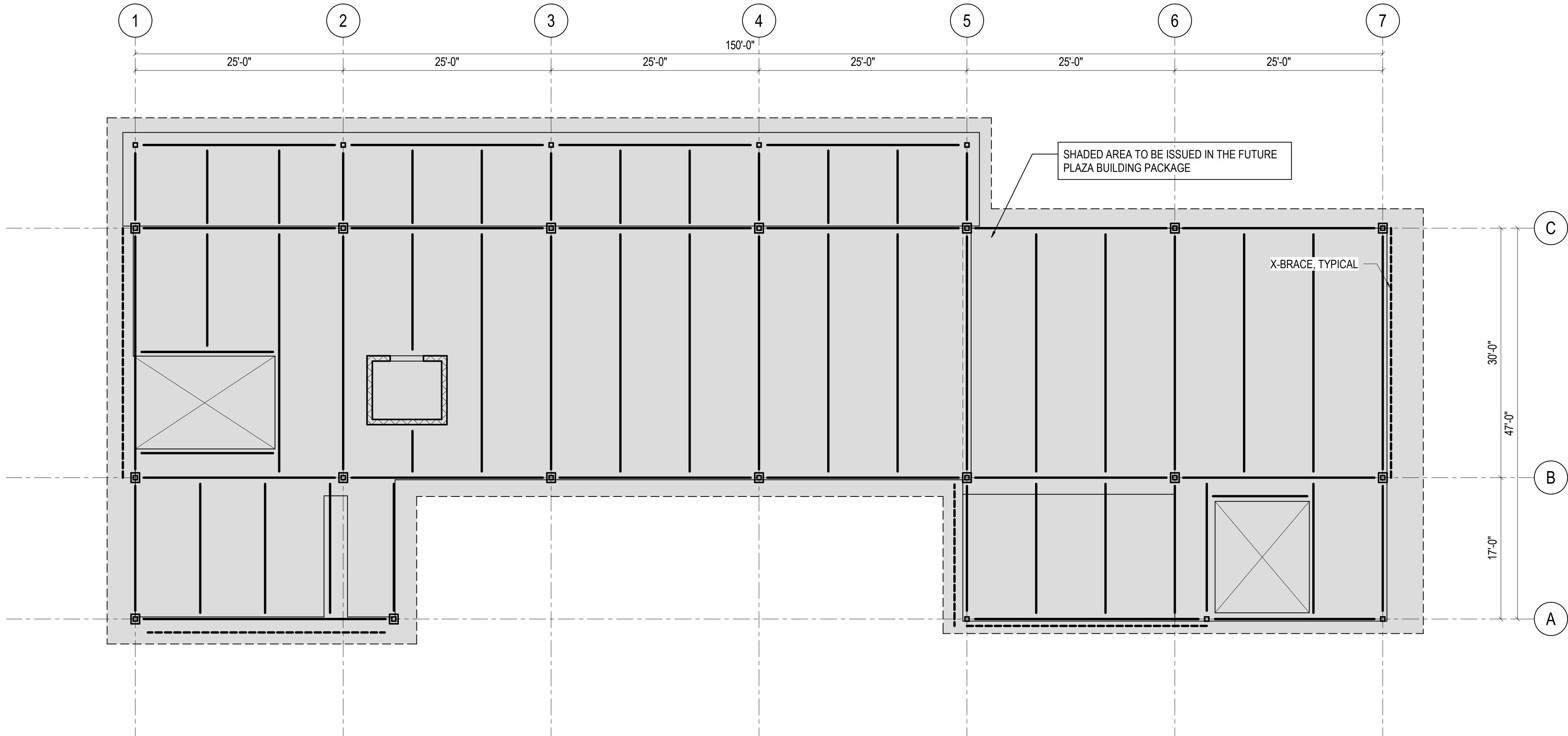


1A-S1.02

© 2021 Gensler

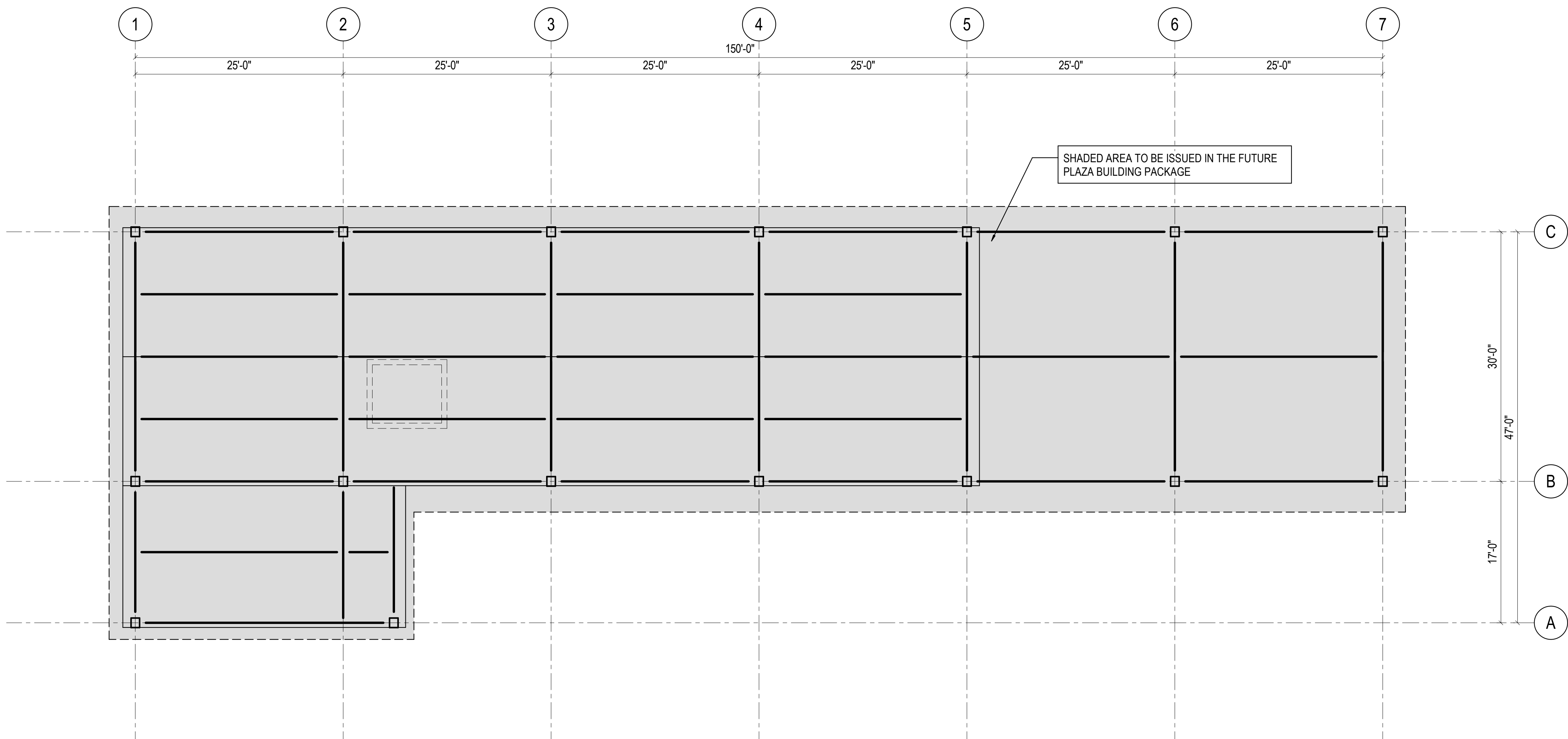
© 2021 Martin/Martin

KEY PLAN



1 FUTURE PLAZA BUILDING - LEVEL 2 FRAMING

1/8" = 1'-0"



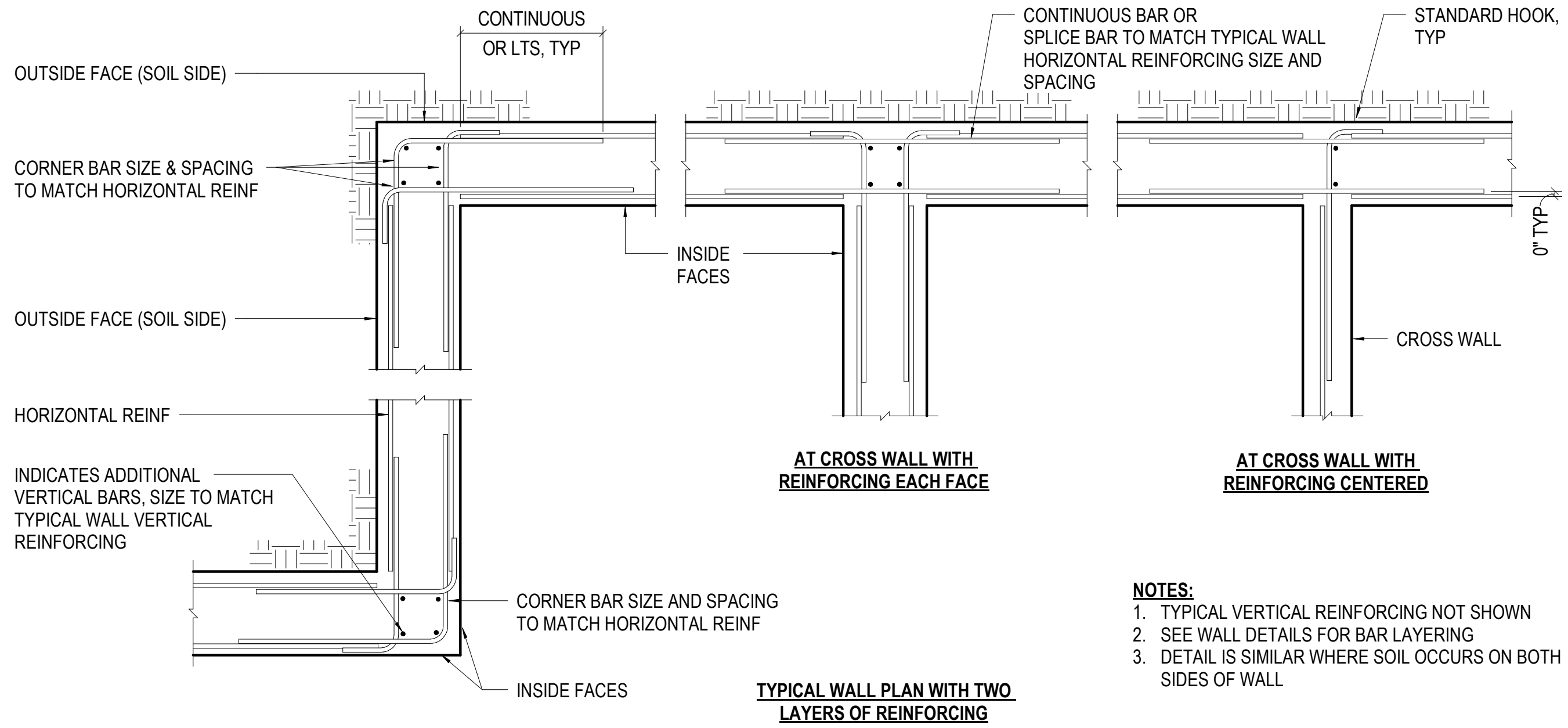
2 FUTURE PLAZA BUILDING - ROOF FRAMING

1/8" = 1'-0"

DESIGNER: NC MARTIN  
LEAD REVIT: TECH COLIN KNOWLES  
DATE PRINTED: 5/19/2021 12:06:13 PM  
FILE PATH: S:\20.1411.S.01 - Steamboat\Revit\20.1411.S.01 - Steamboat Building 2021 - 2021.rvt

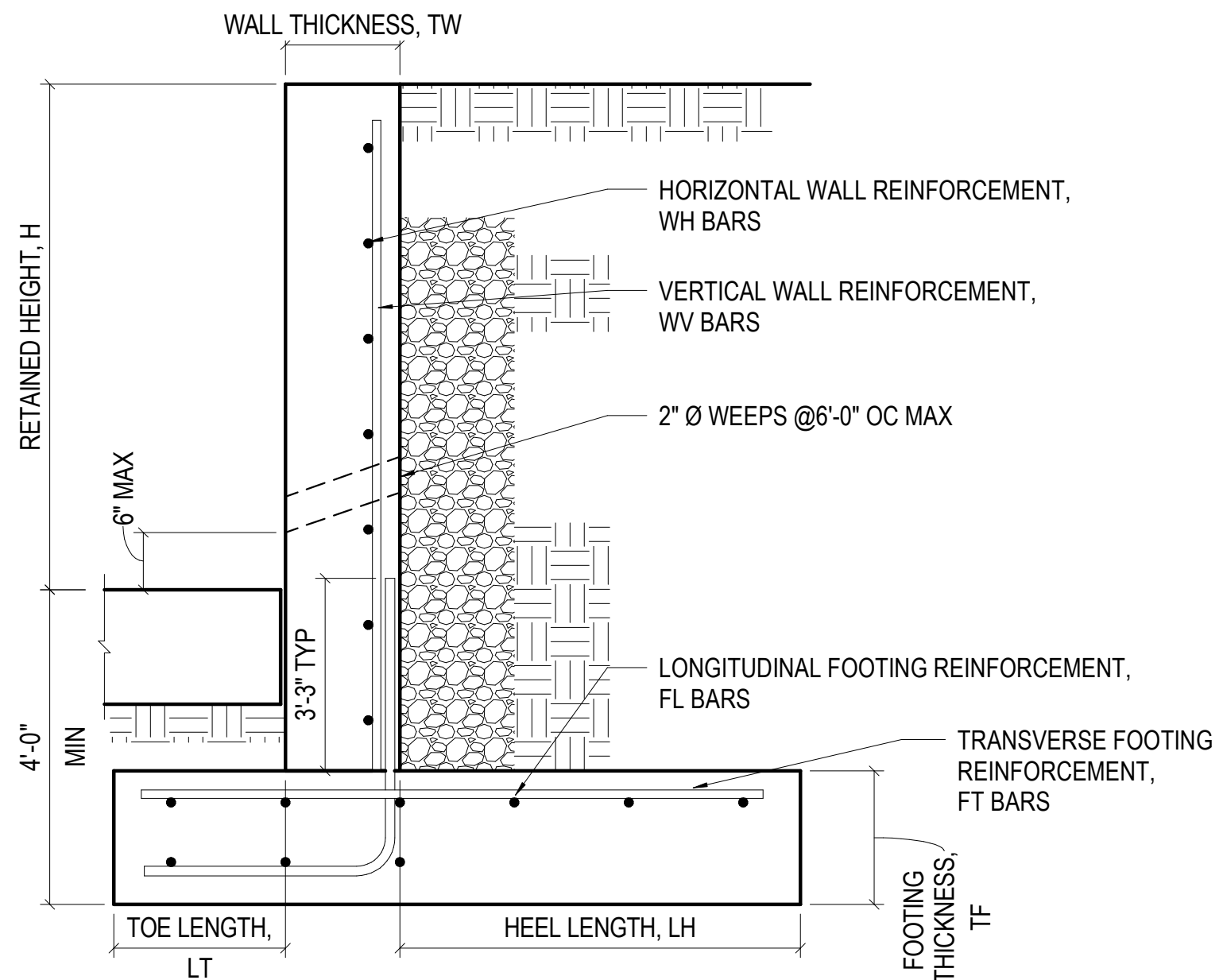
ML: 020 - 20.1411.S.01  
PRINCIPAL: KELLY KNOWLES  
FOR K: KELLY KNOWLES  
PROJECT MANAGER: C. A. CHEN





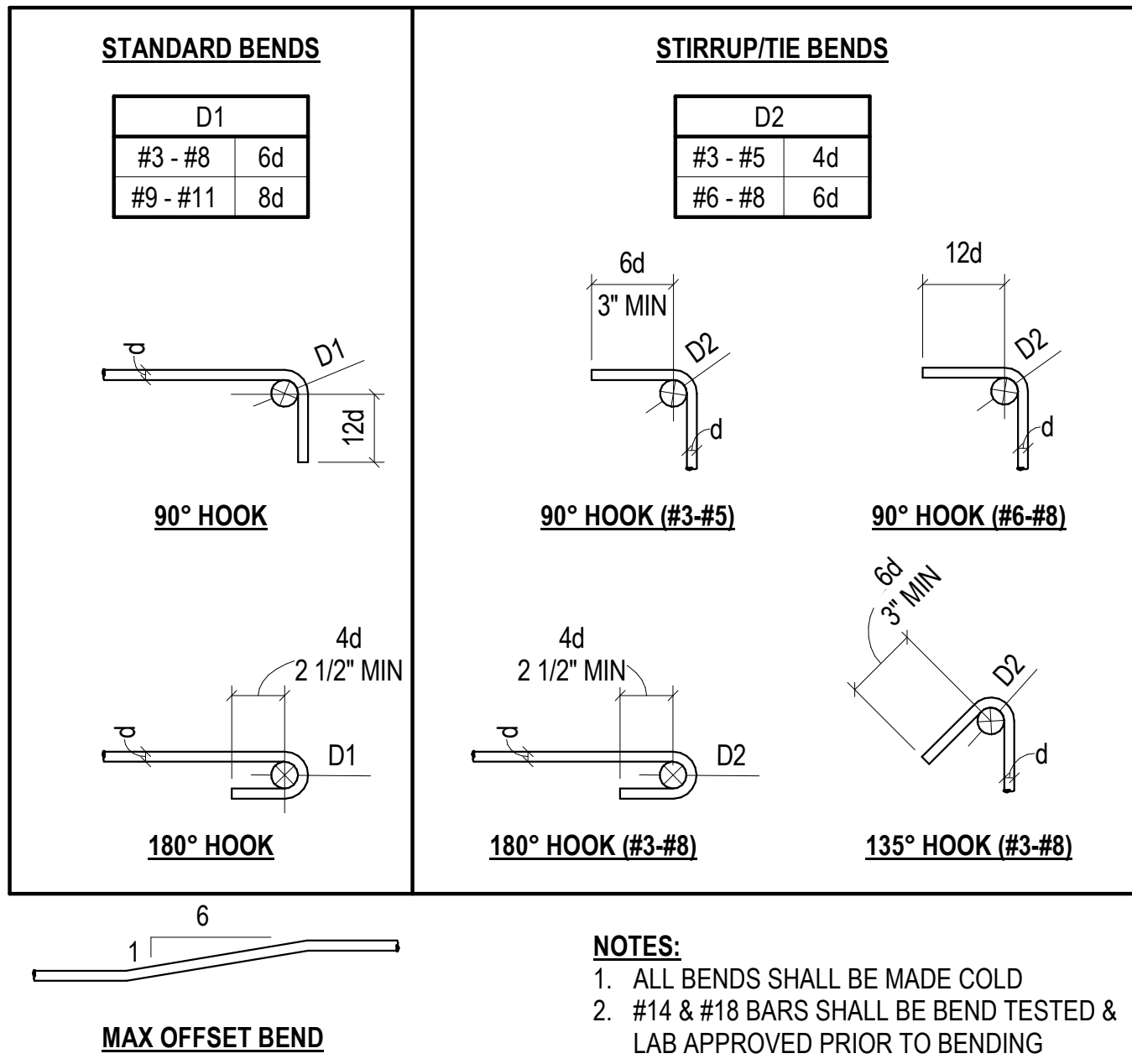
17 NO SCALE TYPICAL HORIZONTAL REINFORCING AT BASEMENT AND FOUNDATION WALLS

RETAINING WALL GEOMETRY								
RETAINING WALL DIMENSIONS & REINFORCEMENT								
H (FT)	LH (IN)	LT (IN)	TW (IN)	TF (IN)	VH	VW	FT	FL
2'-6"	28	15	8	12	#4@12"	#4@9"	#4@9"	4#5
5'-0"	54	20	9	15	#4@10"	#7@10"	#5@10"	8#5



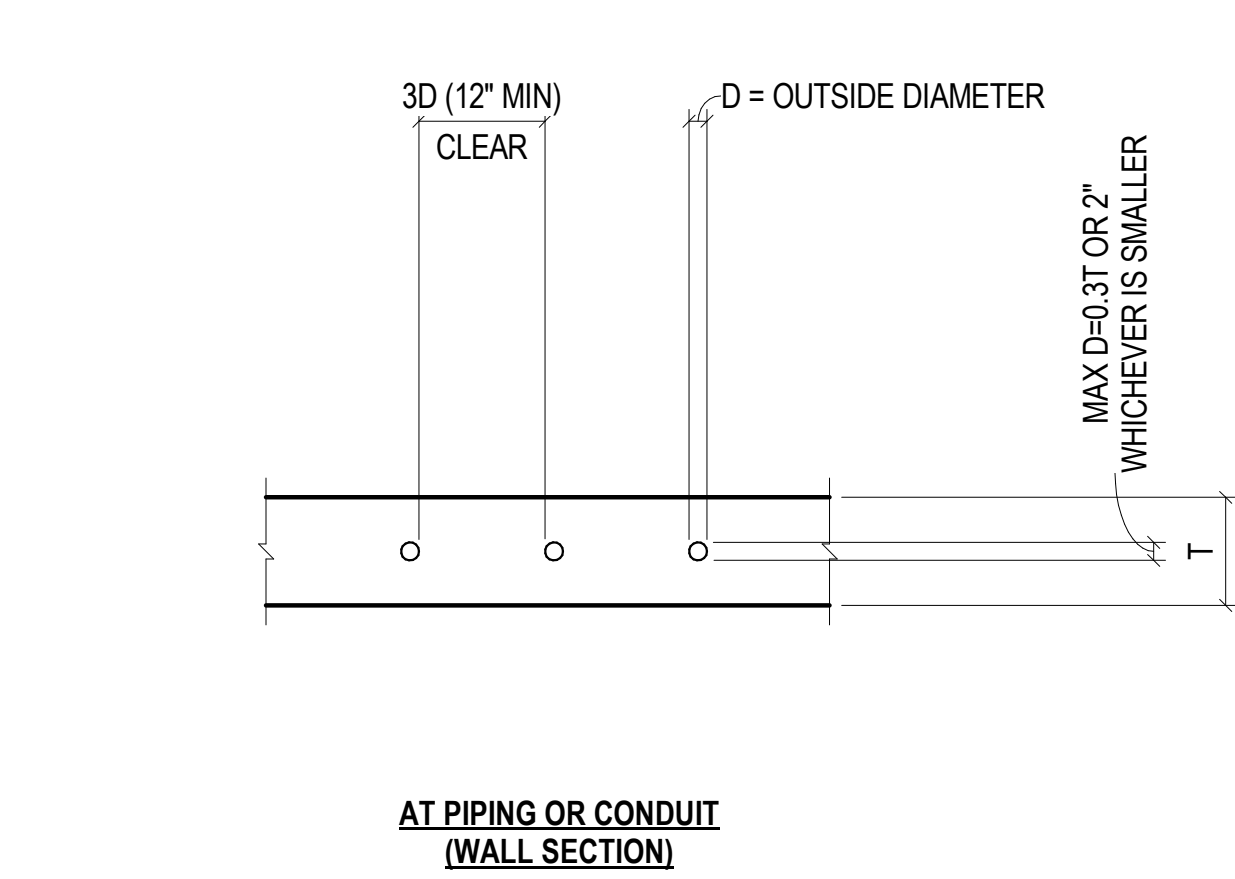
18 NO SCALE RETAINING WALL AT EXISTING STAGE

REBAR COVER TABLE	
CASE	COVER (IN)
CONCRETE PLACED AGAINST EARTH	3
CONCRETE PLACED IN FORMS, EXPOSED TO WEATHER OR EARTH	2
CONCRETE PLACED ON VOID FORMS WITH MASONITE OR PLYWOOD COVERING	2
SLABS OR WALLS NOT EXPOSED TO EARTH OR WEATHER	1



TYPICAL REINFORCING BENDS

10 NO SCALE REINFORCING DEVELOPMENT, PLACEMENT, AND BEND INFO



- NOTES:
- WHERE CLEAR DISTANCE BETWEEN PIPING/CONDUIT CAN NOT BE ACHIEVED AS SHOWN, STRUCTURAL ENGINEER OF RECORD SHALL BE NOTIFIED FOR REVIEW
  - IN WALL PIPING/CONDUITS GREATER THAN 0.3T SHALL BE SUBMITTED FOR REVIEW
  - LOCATE PIPING/CONDUITS WITHIN MIDDLE THIRD (T/3) OF WALL

11 NO SCALE CAST IN PLACE WALL PENETRATIONS

LAP SPLICE & DEVELOPMENT LENGTHS (INCHES)						
F'c=3,000 PSI, Fy=60,000 PSI						
BAR SIZE	CLEAR COVER	1" 1.5" 2"+	1" 1.5" 2"+	1" 1.5" 2"+	1" 1.5" 2"+	1" 1.5" 2"+
LDH	LCE	LCS	LTE	LTE TOP & LTS	LTS TOP	
#3	6	9	12	12	13	17
#4	8	11	15	14	18	23
#5	10	14	19	20	17	26
#6	12	17	23	27	20	35
#7	14	20	27	44	33	29
#8	16	22	30	55	42	33
#9	18	25	34	67	51	41
#10	20	28	38	79	61	49
#11	22	31	42	93	72	58

- GENERAL NOTES:
- LENGTHS SPECIFICALLY DETAILED ON DRAWINGS SHALL GOVERN IN LIEU OF LAP LENGTHS SCHEDULED
  - ABBREVIATIONS:
    - A. 'LCE' = COMPRESSION EMBEDMENT LENGTH
    - B. 'LCS' = COMPRESSION LAP SPLICE LENGTH
    - C. 'LDH' = HOOK DEVELOPMENT LENGTH
    - D. 'LTE' = TENSION EMBEDMENT LENGTH
    - E. 'LTS' = TENSION LAP SPLICE LENGTH
  - TOP BARS ARE HORIZONTAL BARS PLACED SUCH THAT MORE THAN 12 IN OF FRESH CONCRETE IS CAST BELOW THE BAR
  - CLEAR COVER IS DEFINED FROM THE NEAREST FACE OF CONCRETE TO THE BAR BEING DEVELOPED OR SPICED
  - UNLESS NOTED OTHERWISE, ALL HOOK BARS SHALL EXTEND TO THE FAR FACE LESS 2" COVER
  - IF A NOTE OR DETAIL CALLS FOR A BAR TO BE EMBEDDED Ld (DEVELOPMENT LENGTH) INTO CONCRETE, THIS SHALL CORRESPOND TO A 'LTE' LENGTH
  - IF A NOTE OR DETAIL REQUIRES A BAR TO HAVE A DEVELOPMENT OR LAP LENGTH BUT INSUFFICIENT DIMENSION IS AVAILABLE FOR THE LENGTH SCHEDULED, EXTEND BAR TO FAR FACE OF CONCRETE LESS 2" COVER AND HOOK

- ADJUSTMENTS TO GIVEN LENGTHS:
- IF REINFORCING IS SPECIFIED AS EPOXY COATED, INCREASE SCHEDULED LENGTHS BY 50%
  - IF LIGHTWEIGHT AGGREGATE IS SPECIFIED, INCREASE SCHEDULED LAP BY LENGTHS 30%
  - SCHEDULED LENGTHS ASSUME:
    - A. CLEAR COVER IS AS INDICATED IN SCHEDULE
    - B. CLEAR SPACING BETWEEN BARS IS GREATER THAN 2x CLEAR COVER
    - C. IF EITHER CONDITION A OR B IS NOT MET FOR A GIVEN BAR, INCREASE LENGTHS BY 50%
  - LENGTHS NOTED BASED ON Fy = 60,000 PSI.
    - A. FOR OTHER YIELD STRENGTHS, MULTIPLY LENGTHS NOTED BY Fy/60,000

- LAP SPLICE NOTES:
- ALL SPLICES SHALL BE WIRED IN CONTACT
  - ALL SPLICES ARE 'LTS' UNLESS NOTED OTHERWISE
  - SMALLER BAR LAP LENGTH SHALL BE USED WHEN SPLICING DIFFERENT SIZED BARS
    - A. COMPRESSION LAP LENGTH SHALL NOT BE LESS THAN 'LCE' OF THE LARGER BAR
    - B. TENSION LAP LENGTH SHALL NOT BE LESS THAN 'LTE' OF THE LARGER BAR
  - BUNDLED BAR SPLICES:
    - A. INDIVIDUAL BAR SPLICES WITHIN THE BUNDLE SHALL BE STAGGERED
    - B. INCREASE LAP LENGTH 20% FOR A 3 BAR BUNDLE
    - C. INCREASE LAP LENGTH 33% FOR A 4 BAR BUNDLE
  - TOP AND BOTTOM BEAM SPLICES SHALL BE STACKED VERTICALLY

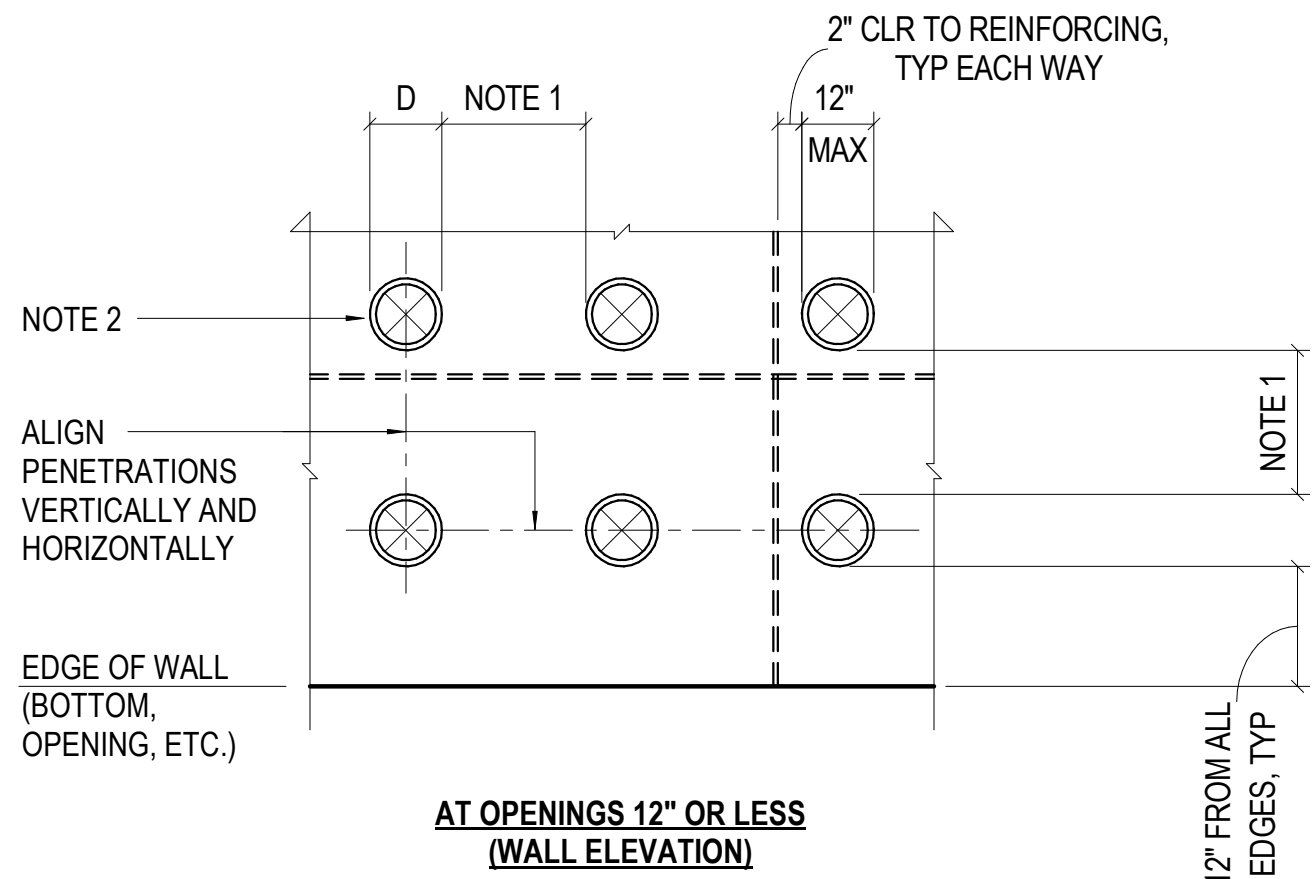
- HOOK EMBEDMENT NOTES:
- SCHEDULED HOOK EMBEDMENT LENGTHS ASSUME:
    - A. SIDE COVER IS 2 1/2 INCHES OR GREATER
    - B. COVER BEYOND IS 2 INCHES OR GREATER
  - IF REINFORCING IS SPECIFIED AS EPOXY COATED, INCREASE SCHEDULED LENGTHS BY 20%
  - IF LIGHTWEIGHT AGGREGATE IS SPECIFIED, INCREASE SCHEDULED LENGTHS BY 30%
  - IF SIDE COVER IS LESS THAN 2 1/2 INCHES, INCREASE LENGTHS BY 40%

LAP SPLICE & DEVELOPMENT LENGTHS (INCHES)						
F'c=3,500 PSI, Fy=60,000 PSI						
BAR SIZE	CLEAR COVER	1" 1.5" 2"+	1" 1.5" 2"+	1" 1.5" 2"+	1" 1.5" 2"+	1" 1.5" 2"+
LDH	LCE	LCS	LTE	LTE TOP & LTS	LTS TOP	
#3	6	8	12	12	12	16
#4	8	11	15	13	16	21
#5	9	13	19	19	16	24
#6	11	16	23	25	19	33
#7	13	18	27	41	31	27
#8	15	21	30	51	39	31
#9	16	23	34	62	47	38
#10	18	26	38	74	56	46
#11	20	28	42	86	66	54

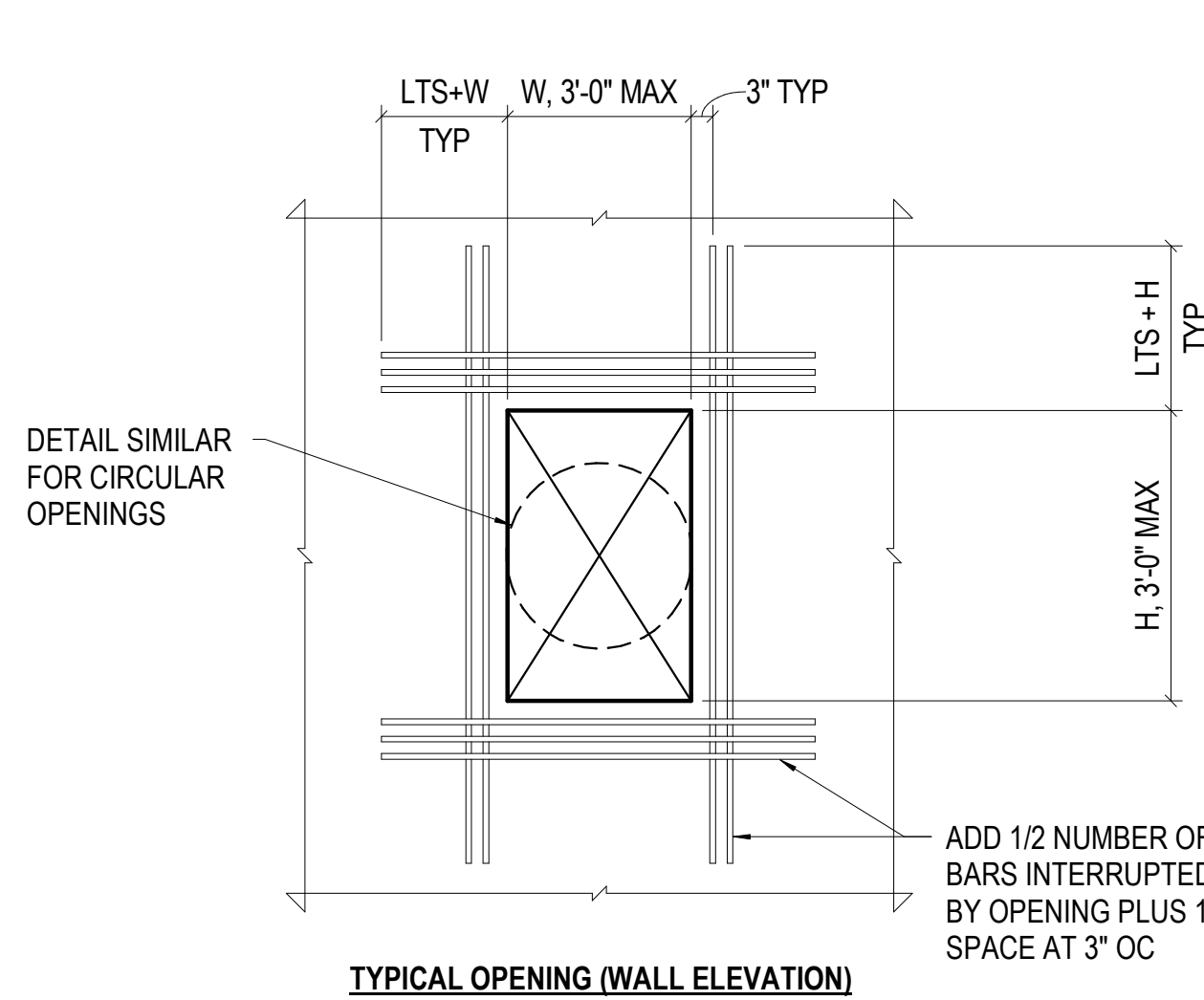
LAP SPLICE & DEVELOPMENT LENGTHS (INCHES)						
F'c=4,000 PSI, Fy=60,000 PSI						
BAR SIZE	CLEAR COVER	1" 1.5" 2"+	1" 1.5" 2"+	1" 1.5" 2"+	1" 1.5" 2"+	1" 1.5" 2"+
LDH	LCE	LCS	LTE	LTE TOP & LTS	LTS TOP	
#3	6	8	12	12	12	15
#4	7	10	15	12	15	20
#5	9	12	19	17	15	23
#6	10	15	23	24	18	31
#7	12	17	27	38	29	25
#8	14	19	30	48	36	29
#9	15	22	34	58	44	36
#10	17	24	38	69	53	43
#11	19	27	42	80	62	51

LAP SPLICE & DEVELOPMENT LENGTHS (INCHES)						
F'c=4,500 PSI, Fy=60,000 PSI						
BAR SIZE	CLEAR COVER	1" 1.5" 2"+	1" 1.5" 2"+	1" 1.5" 2"+	1" 1.5" 2"+	1" 1.5" 2"+
LDH	LCE	LCS	LTE	LTE TOP & LTS	LTS TOP	
#3	6	8	12	12	12	14
#4	7	9	15	12	14	19
#5	8	12	19	16	14	21
#6	10	14	23	22	17	29
#7	11	16	27	36	27	24
#8	13	18	30	45	34	27
#9	15	21	34	55	42	34
#10	16	23	38	65	50	40
#11	18	25	42	76	58	48

LAP SPLICE & DEVELOPMENT LENGTHS (INCHES)						
F'c=5,000 PSI, Fy=60,000 PSI						
BAR SIZE	CLEAR COVER	1" 1.5" 2"+	1" 1.5" 2"+	1" 1.5" 2"+	1" 1.5" 2"+	1" 1.5" 2"+
LDH	LCE	LCS	LTE	LTE TOP & LTS	LTS TOP	
#3	6	8	12	12	12	13
#4	6	9	15	12	14	18
#5	8	12	19	16	13	20
#6	9	14	23	21	16	28
#7	11	16	27	34	26	23
#8	12	18	30	43	32	26
#9	14	21	34	52	40	32
#10	15	23	38	62	47	38
#11	17	25	42	72	56	45



- NOTES:
- GREATER OF 2xD AND 12", WHERE CLEAR DISTANCE IS NOT ACHIEVABLE, TREAT AREA AS SINGLE OPENING REINFORCED PER 'TYPICAL OPENING' DETAIL
  - DO NOT CORE OPENINGS, SLEEVE OPENINGS PRIOR TO PLACING CONCRETE
  - DO NOT CUT REBAR AT PENETRATION LOCATIONS. REBAR MAY BE MOVED 8" MAX TO ACCOMMODATE PENETRATIONS
  - SCHEDULE 40 STEEL SLEEVES SHALL BE USED IN CRITICAL AREAS OF THE WALL AND SLABS AS DETERMINED BY STRUCTURAL ENGINEER OF RECORD

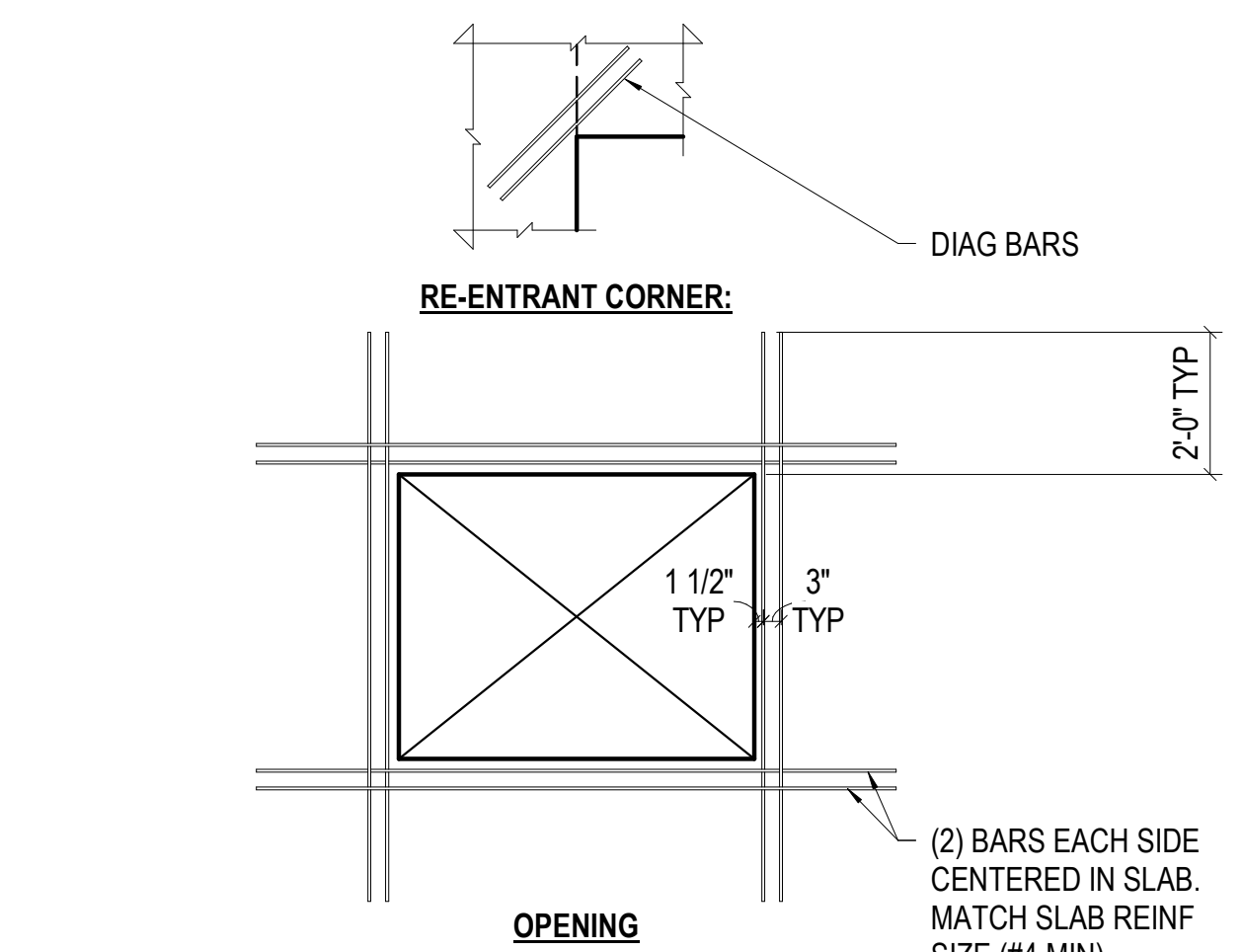


- NOTES:
- DETAIL APPLIES UNLESS REINFORCING IS SPECIFICALLY DETAILED ON THE DRAWINGS
  - HOOK BARS WITH STANDARD HOOK WHERE LTS CANNOT BE ACHIEVED

BAR SIZE	E	L	BAR SIZE	D
#3	3/16	2	#3	1/4
#4	1/4	2 1/2	#4	5/16
#5	5/16	3	#5	3/8
#6	3/8	3 1/2	#6	7/16
#7	7/16	4	#7	1/2
#8	1/2	4 1/2	#8	9/16

- NOTES:
- ALL WELDED REBAR SHALL BE A706

8 12" = 1'-0" TYPICAL REBAR WELD SCHEDULE

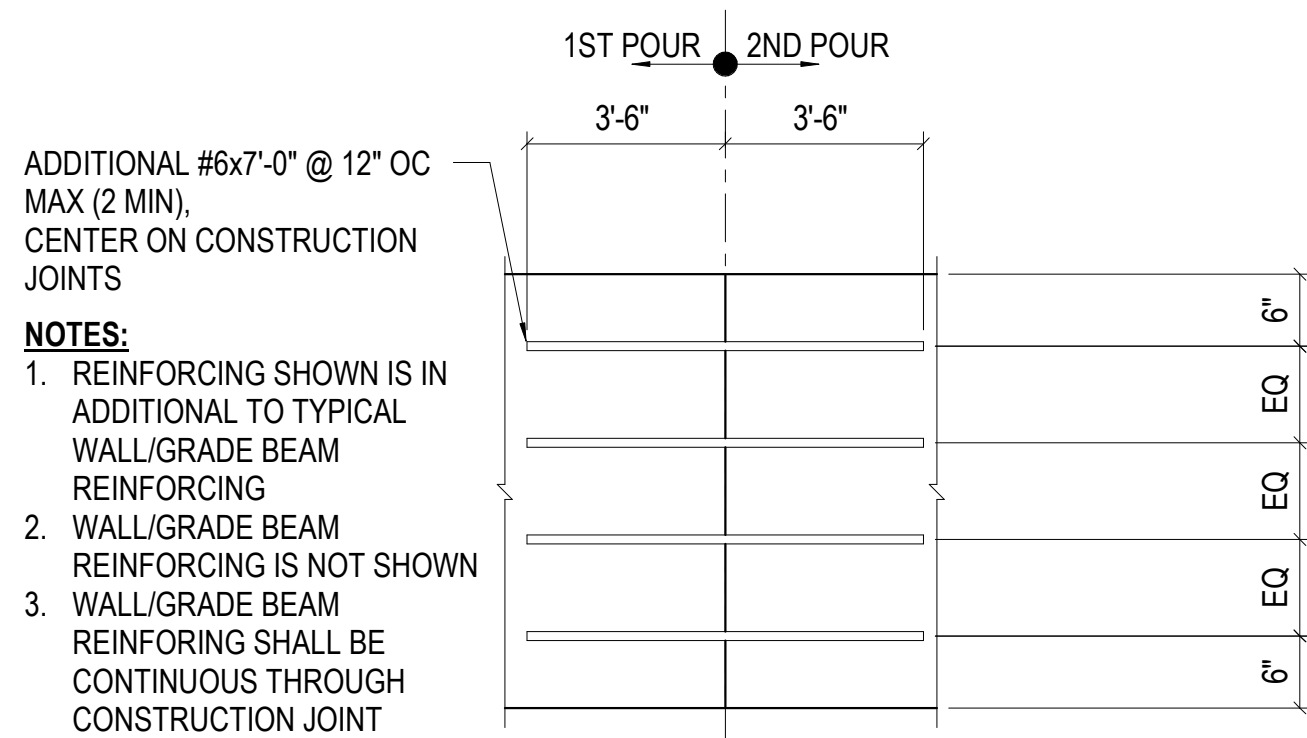


- NOTES:
- DETAIL APPLIES FOR ALL OPENINGS IN SOFFIT AND TOPPING SLABS
  - REINFORCEMENT NOT REQUIRED AT OPENINGS SMALLER THAN 10"x10"
  - SEE OTHER DETAILS FOR REINFORCEMENT AT OPENINGS IN CONCRETE WALLS, CONCRETE SLABS, AND METAL DECK SLABS

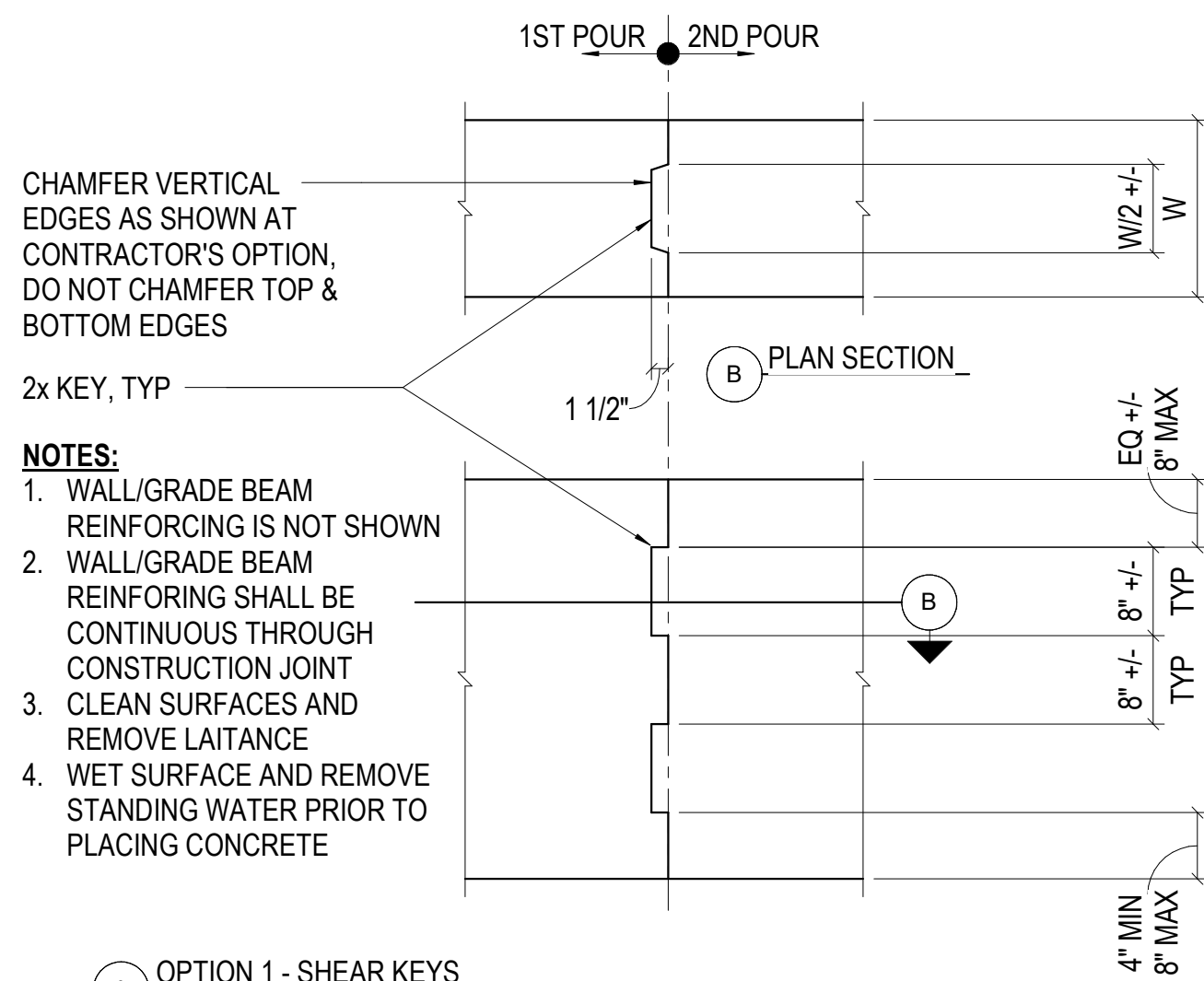
4 3/8" = 1'-0" TYP TRIM REIN



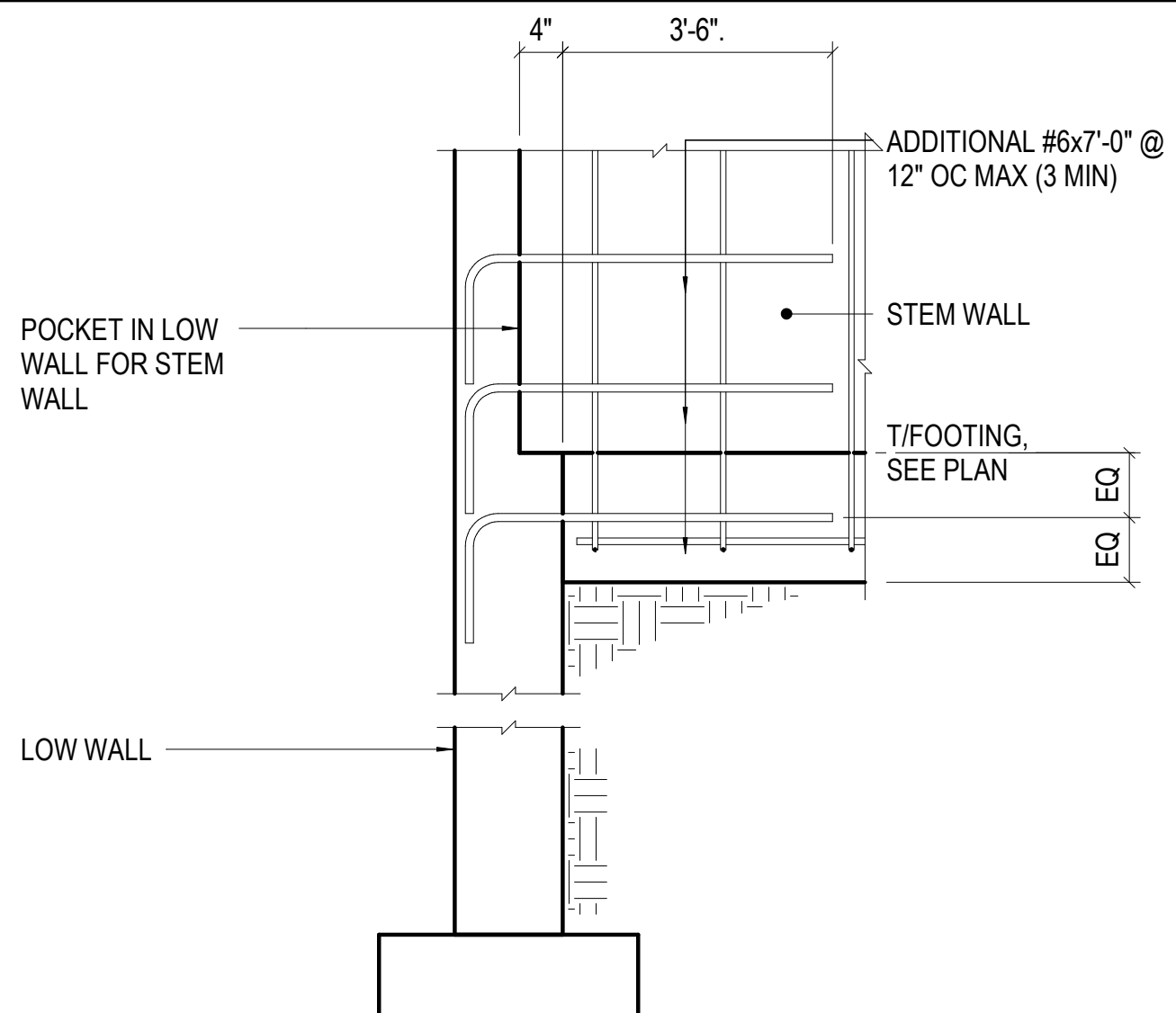
DESIGNER: NC MARTIN  
LEAD REVIEW: TECH COLIN KNOWLES  
DATE PRINTED: 5/19/2021 12:01:17 PM  
PLOT PATH: S:\19\203\153\001 - Steamboat\_Road\103 TBS 000 - Structural\_SBR\_Promenade Building 2021 - 2021.rvt  
ML 039 # 201411.S.01  
PRINCIPAL: KELLY KNOWLES  
ENGINEER: KELLY KNOWLES  
PROJECT MANAGER: C. A. CHEN



OPTION 2 - ADDITIONAL REINFORCING WALL ELEVATION

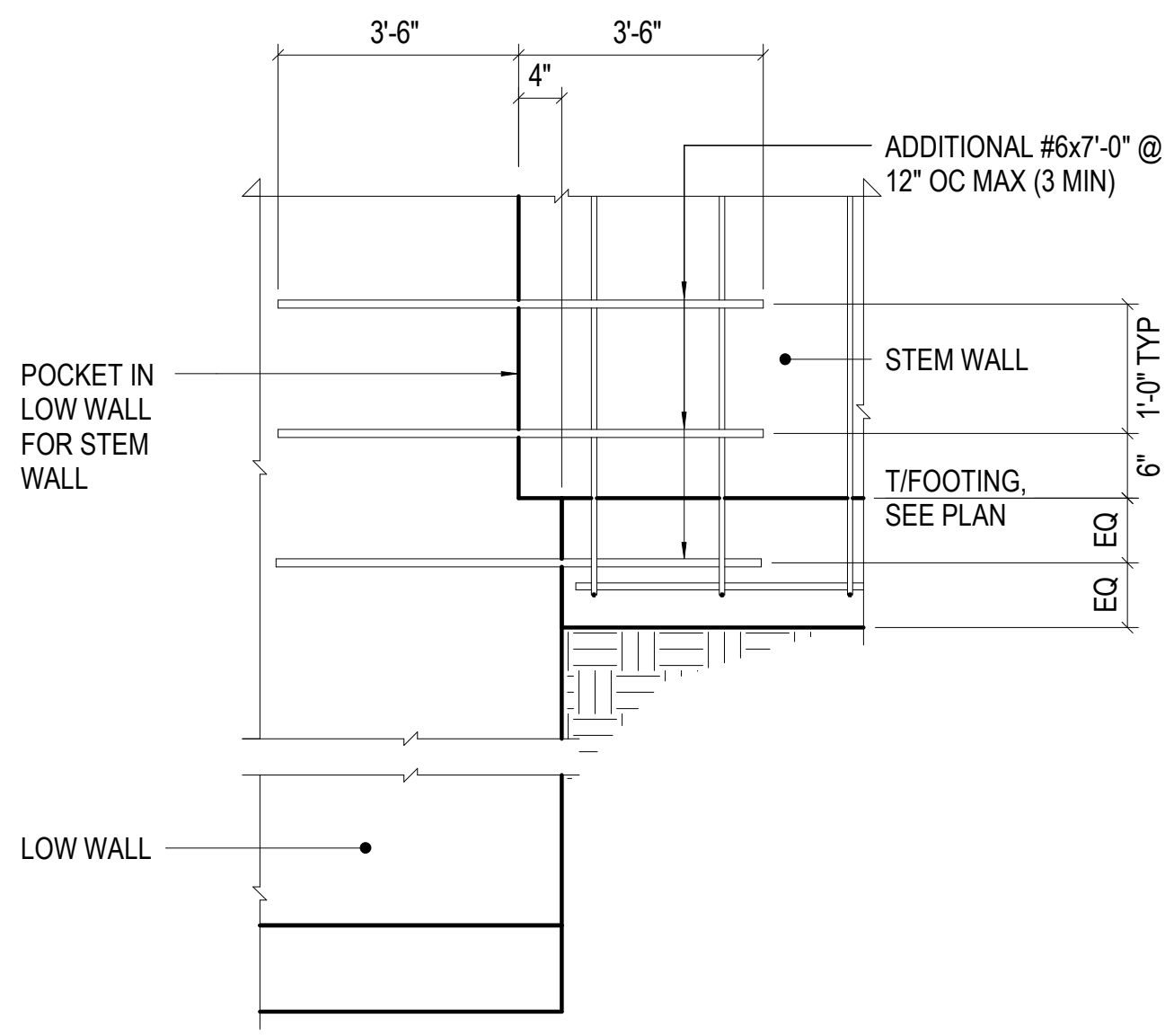


OPTION 1 - SHEAR KEYS WALL ELEVATION



AT STEM WALL PERPENDICULAR TO LOW WALL

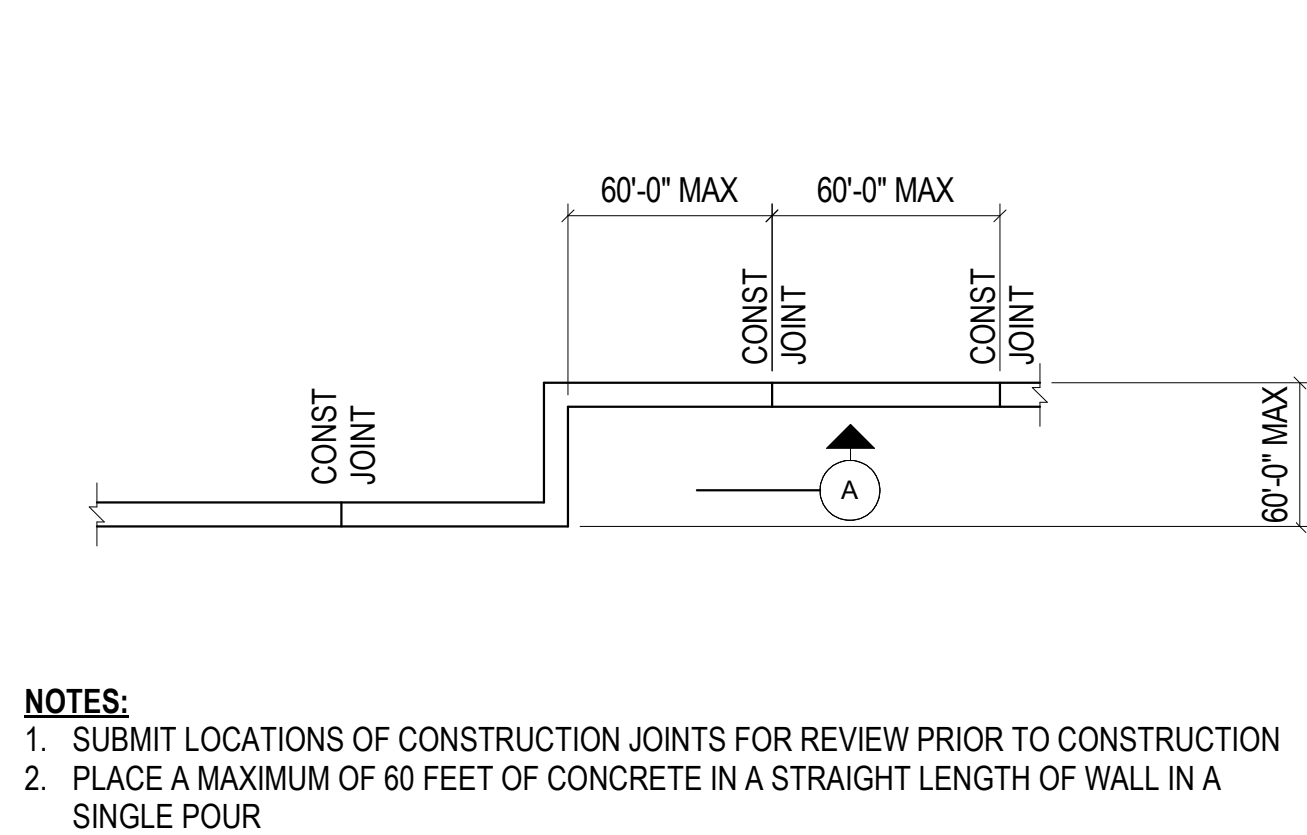
NOTES:  
1. WALL HORIZONTAL & VERTICAL MAT REINFORCING NOT SHOWN



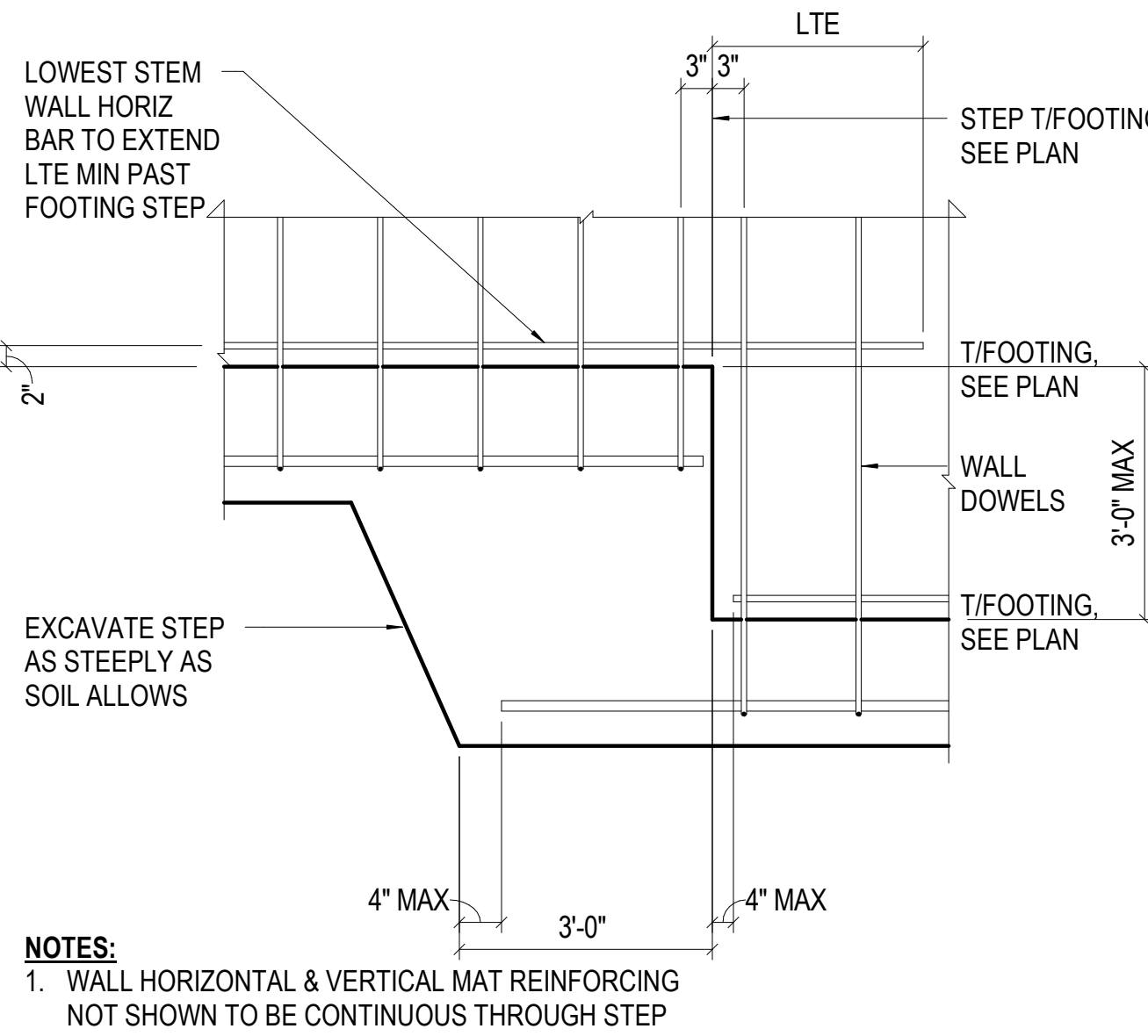
AT STEM WALL PARALLEL TO LOW WALL

NOTES:  
1. WALL HORIZONTAL & VERTICAL MAT REINFORCING NOT SHOWN TO BE CONTINUOUS THROUGH STEP

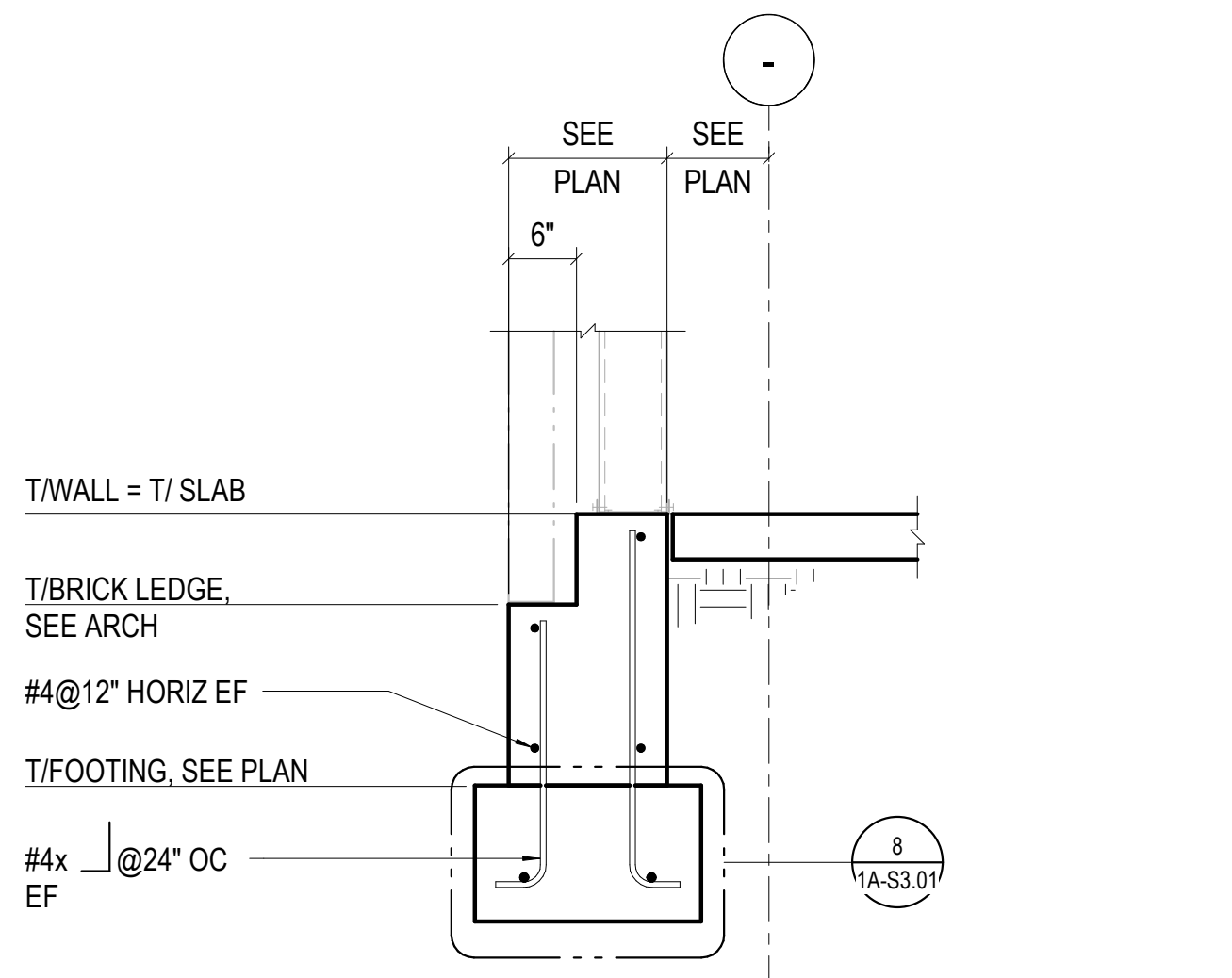
14 3/4" = 1'-0" STRIP FOOTING w/CIP STEM WALL STEP, GREATER THAN 3'-0"



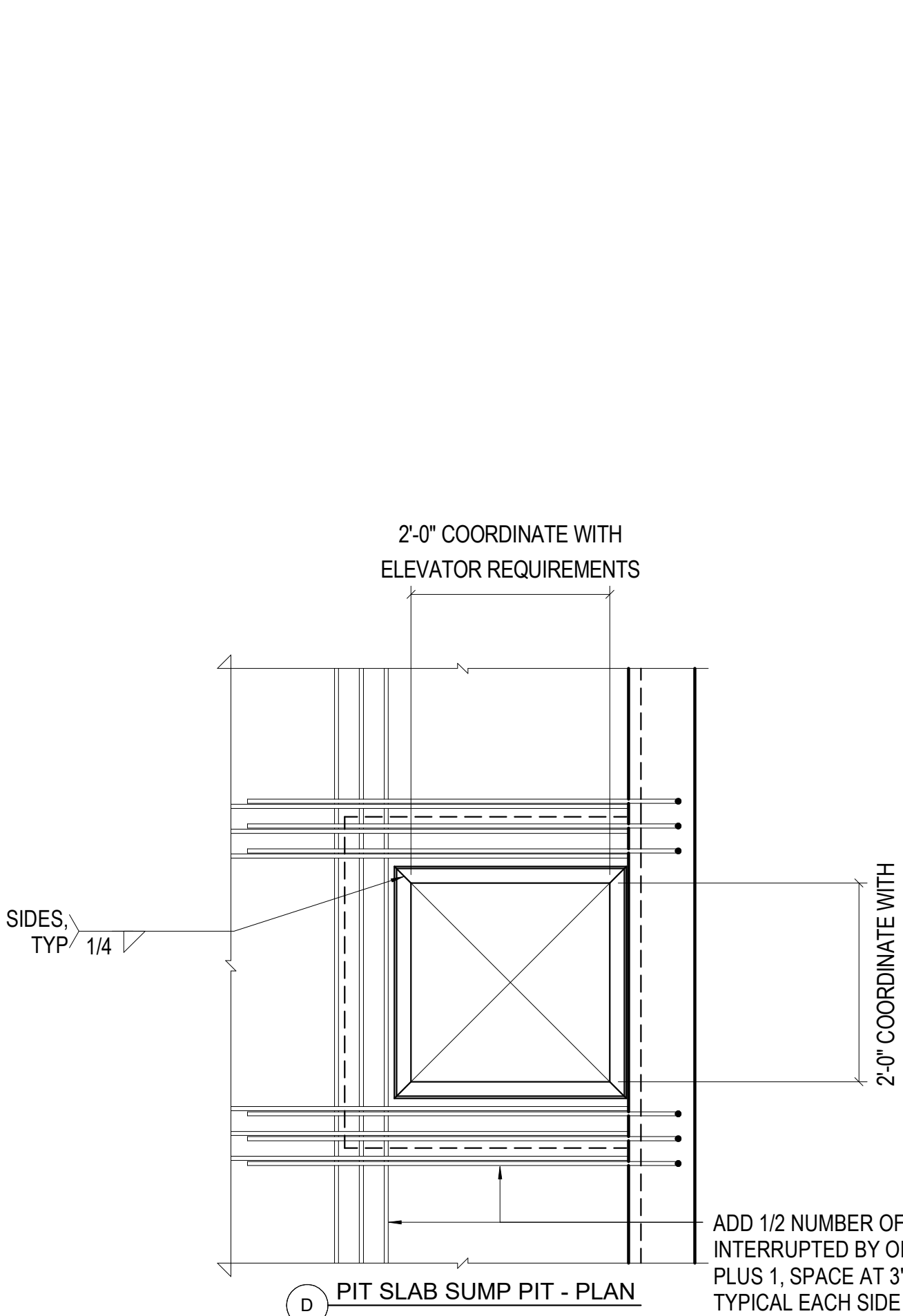
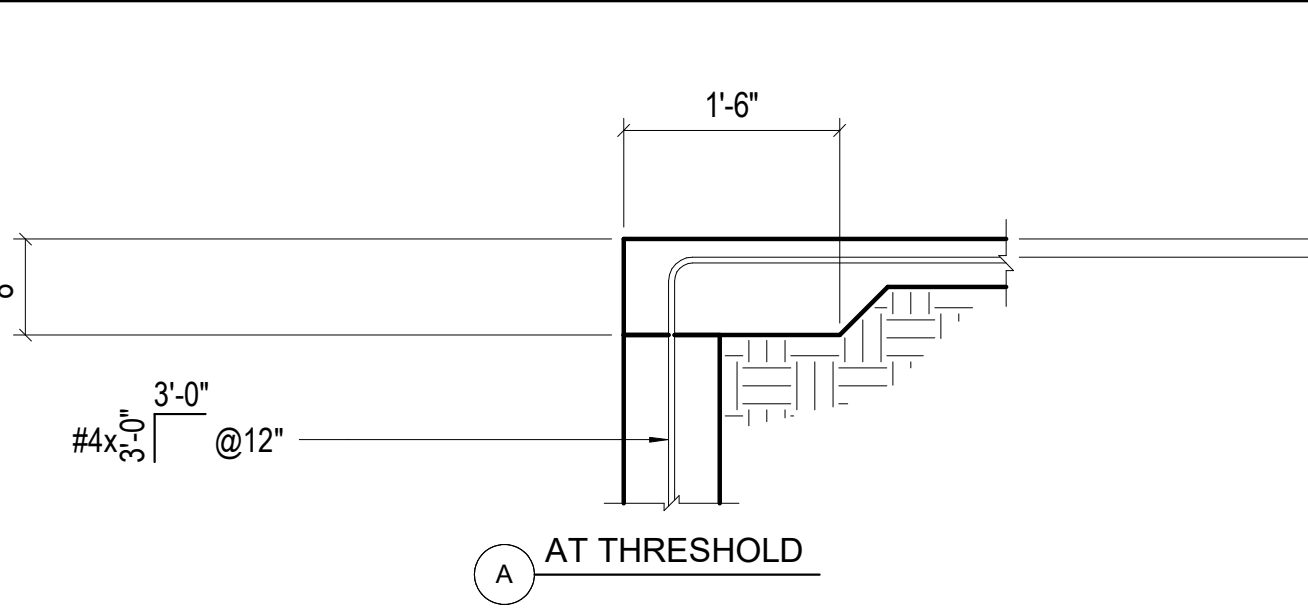
19 NO SCALE CONSTRUCTION JOINT IN WALL ON FOOTINGS



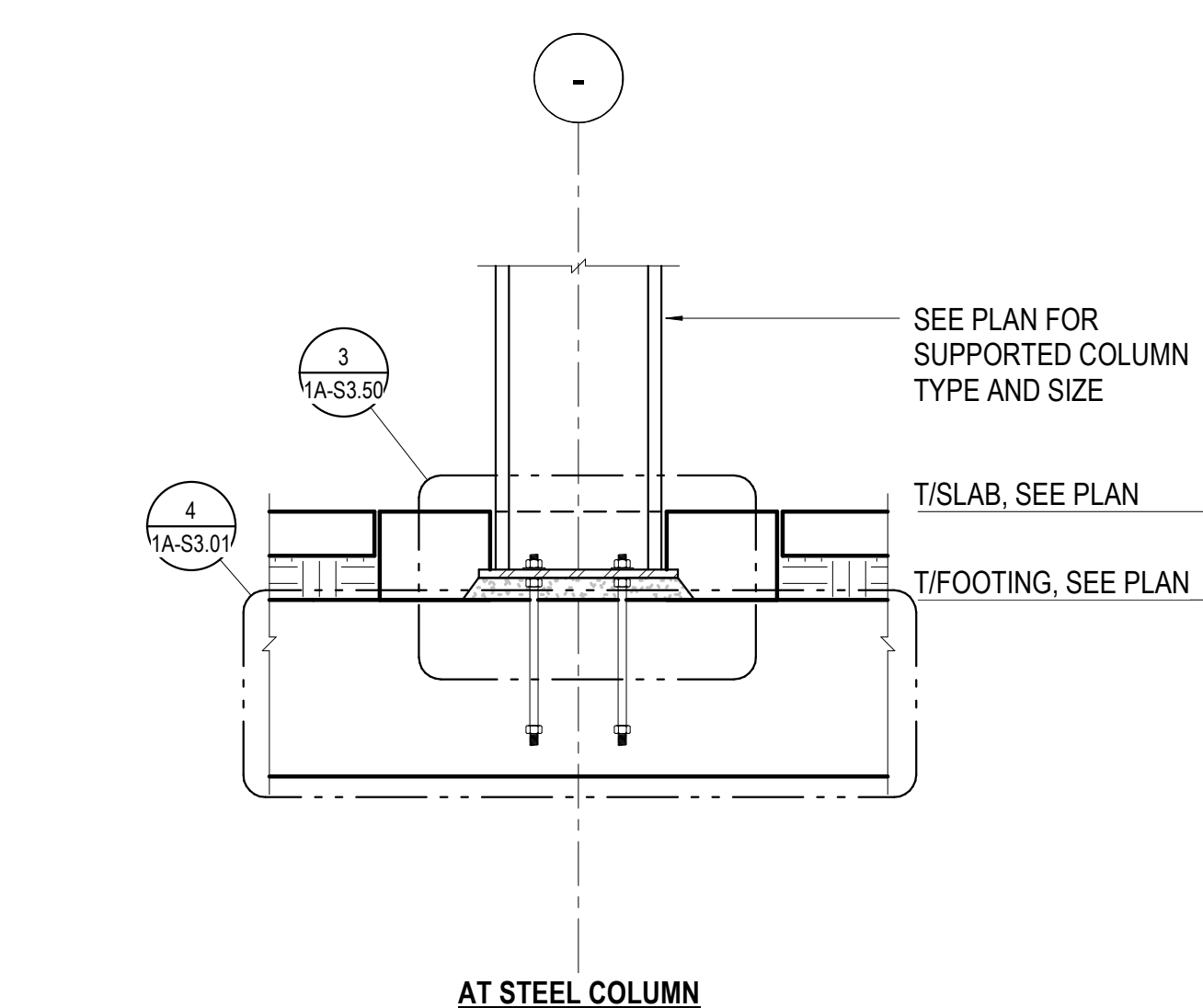
15 3/4" = 1'-0" STRIP FOOTING w/CIP STEM WALL STEP, 3'-0" AND LESS



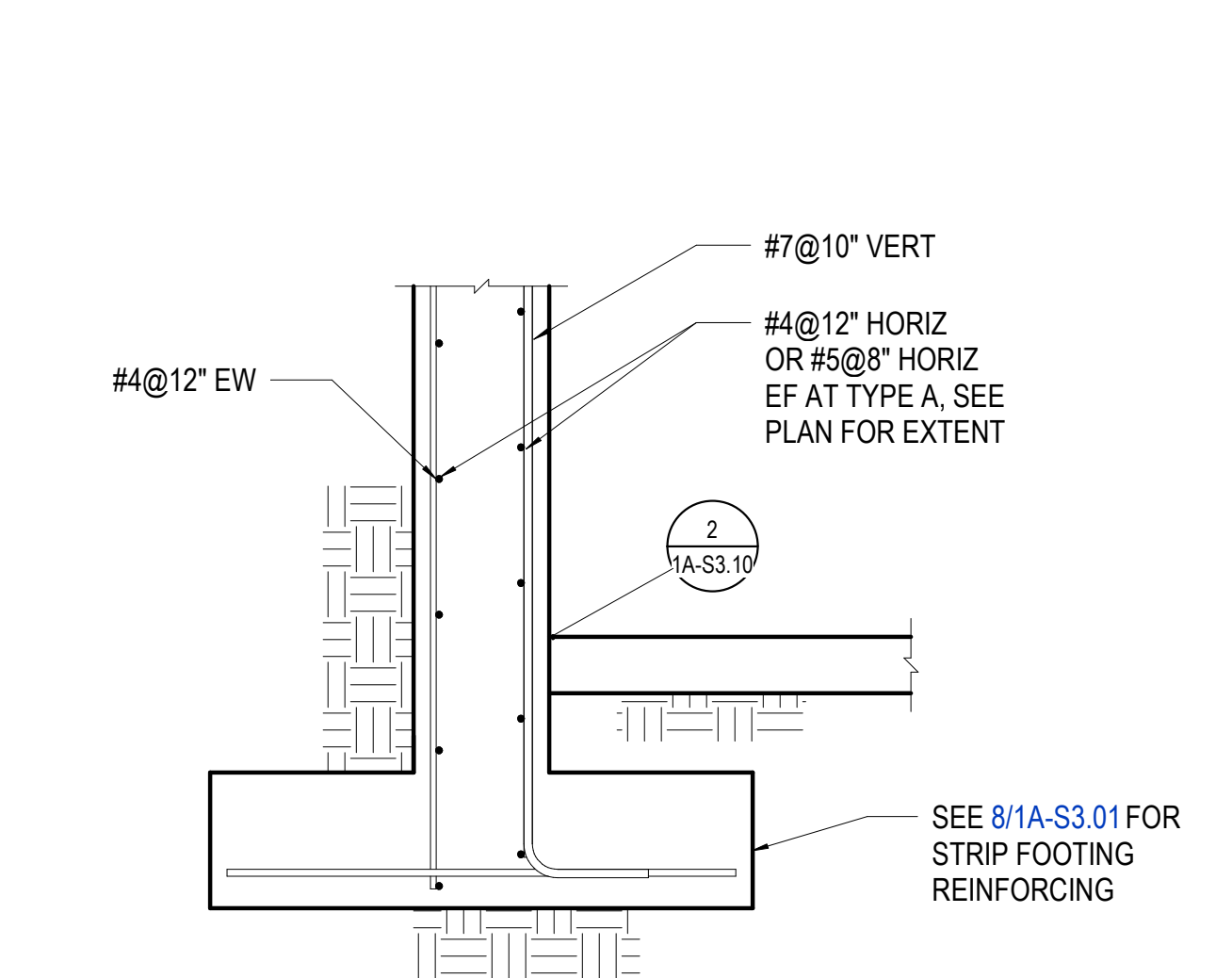
16 3/4" = 1'-0" WIDE STEM WALL AT PERIMETER WITH BRICK LEDGE



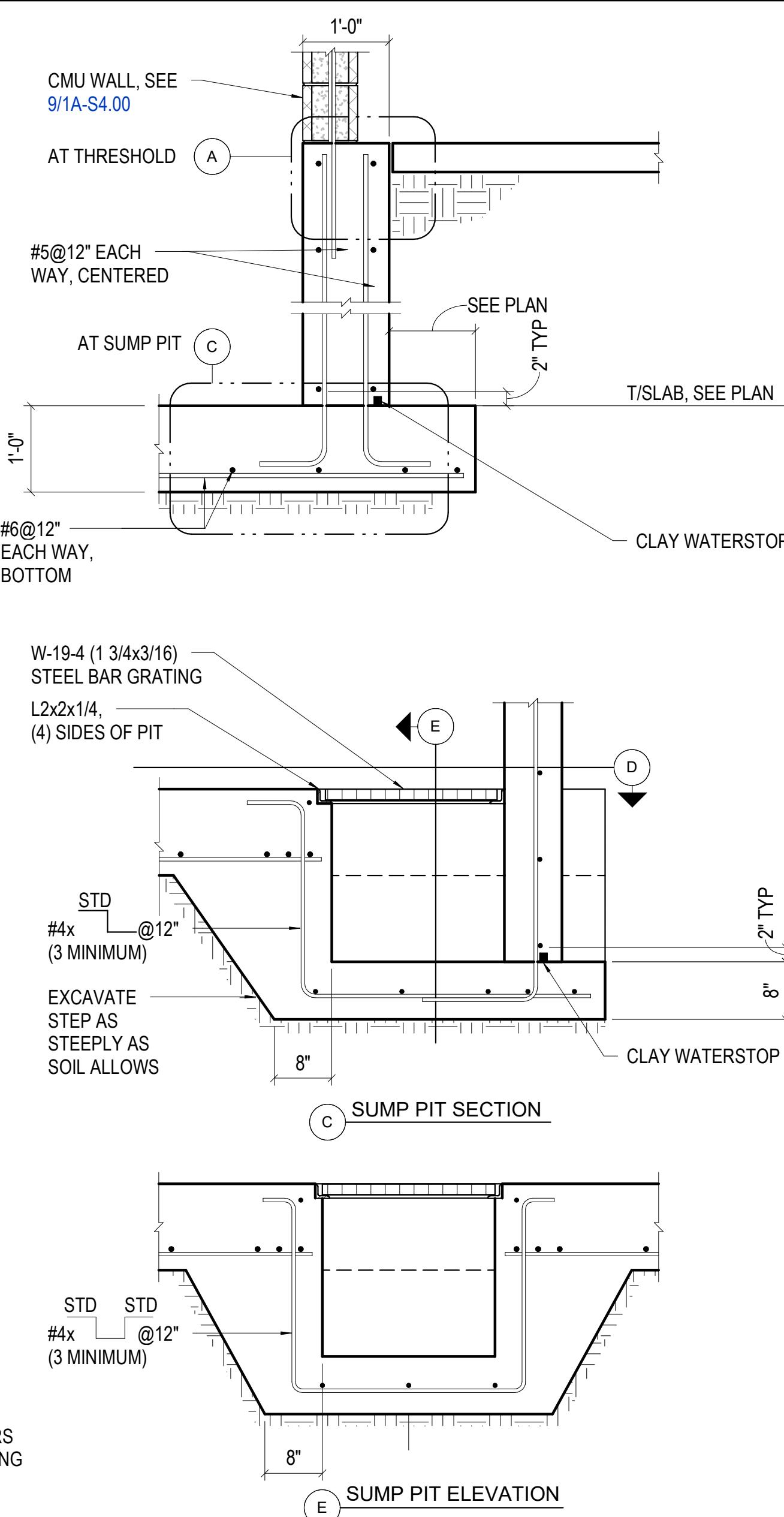
10 NO SCALE ELEVATOR PIT ON FOOTING



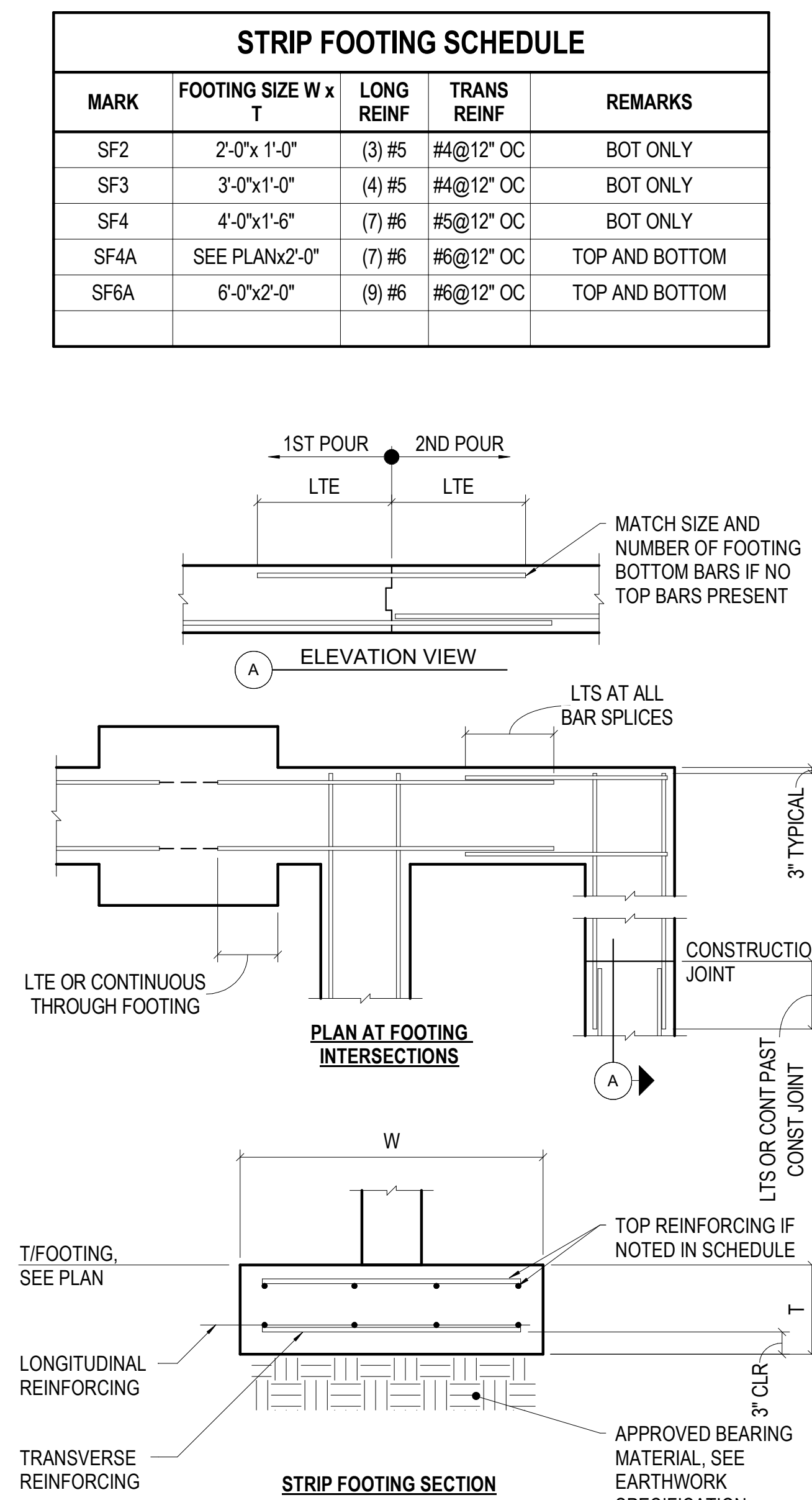
11 3/4" = 1'-0" INTERIOR COLUMN AT SPREAD FOOTING



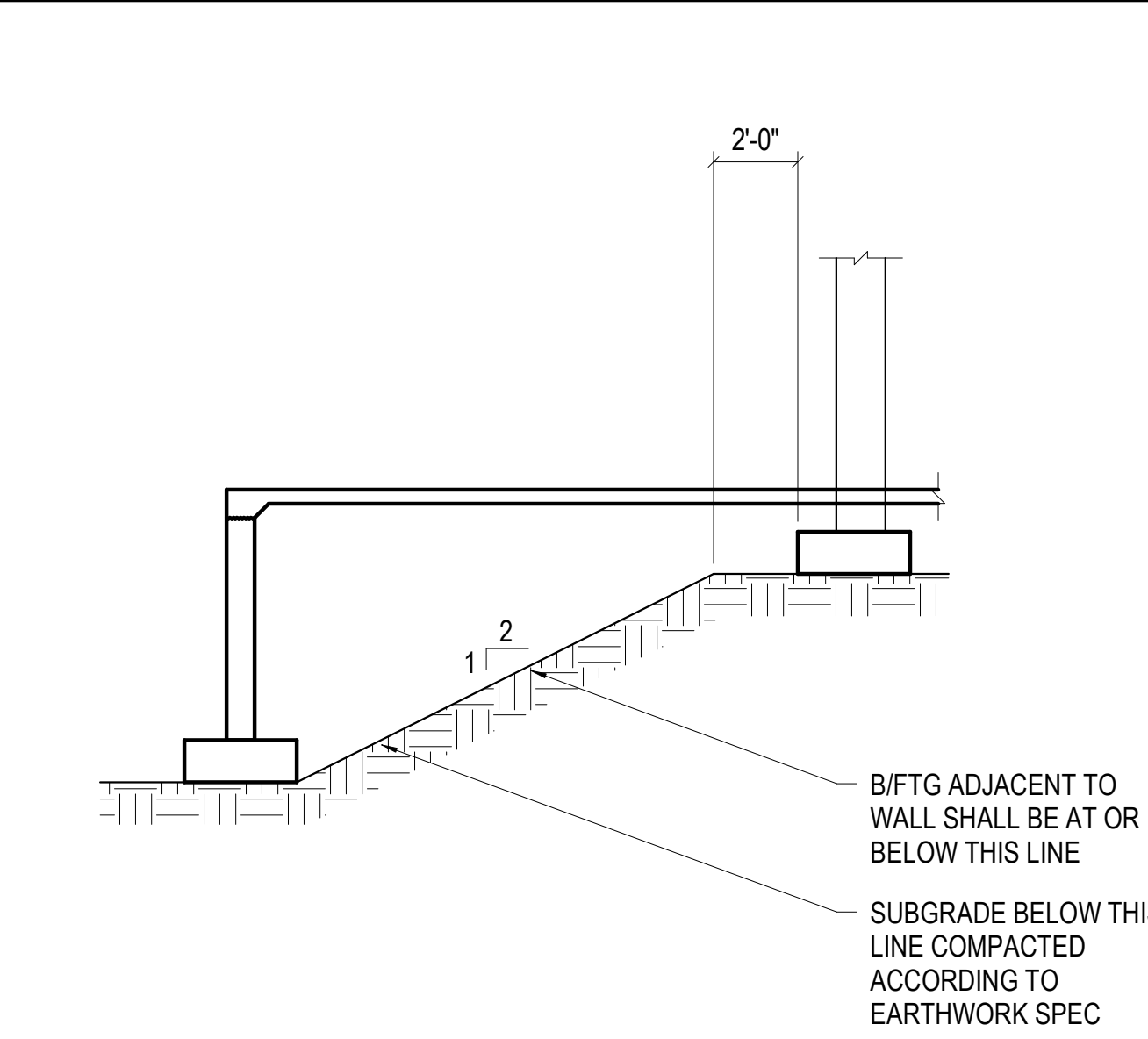
12 3/4" = 1'-0" TYPICAL FOUNDATION WALL



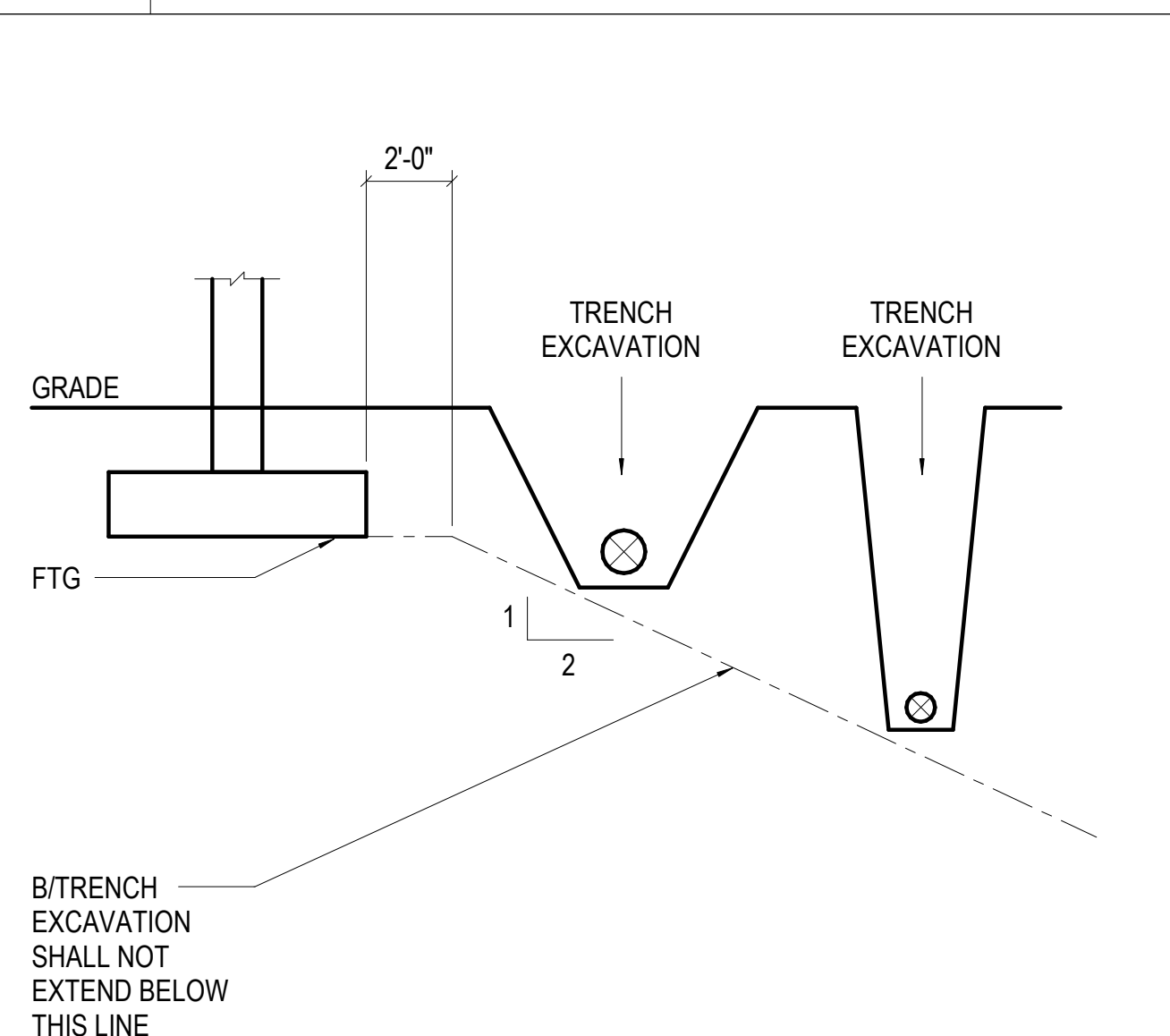
8 NO SCALE TYP STRIP FOOTING



NOTES:  
1. SEE 19/1A-S3.01 FOR POUR LENGTH LIMITS AND CONSTRUCTION JOINT DETAILS

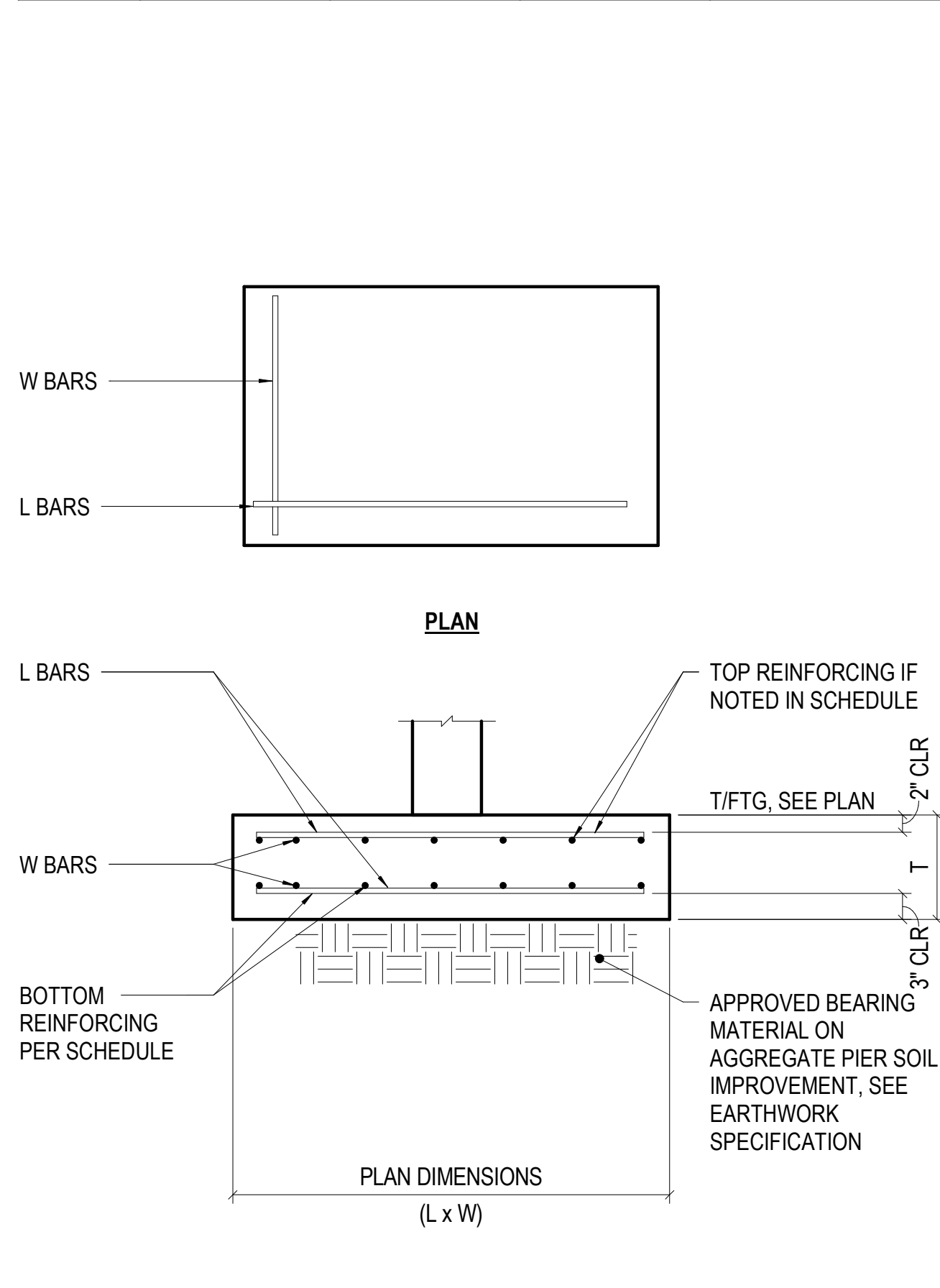


1 1/4" = 1'-0" TYP FTG ADJACENT TO WALL



2 NO SCALE TYP EXCAVATION AT FTG

SPREAD FOOTING SCHEDULE					
SOIL ALLOWABLE PRESSURE = 7000 PSF					
MARK	FOOTING SIZE L x W x T	REINFORCING	SERVICE CAPACITY (KIPS)	REMARKS	
F3x5	3'-0"x5'-0"x1'-8"	(6) #6 EW BOT	105	-	
F4x4	4'-0"x4'-0"x1'-4"	(5) #5 EW BOT	112	-	
F5x5	5'-0"x5'-0"x1'-8"	(6) #6 EW BOT	175	-	
F6x6	6'-0"x6'-0"x2'-0"	(7) #7 EW BOT	252	-	
F7x7	7'-0"x7'-0"x2'-4"	(8) #7 EW BOT	343	-	
F8x8	8'-0"x8'-0"x2'-6"	(9) #7 EW BOT	448	-	
F6xCONT-A	SEE PLANK3'-0"	#8@9" EW T&B	-	-	



4 NO SCALE TYP SPREAD FOOTING



Seal / Signature

Date	Description
2021.05.19	BP3: PROMENADE - ISSUE FOR BID AND PERMIT

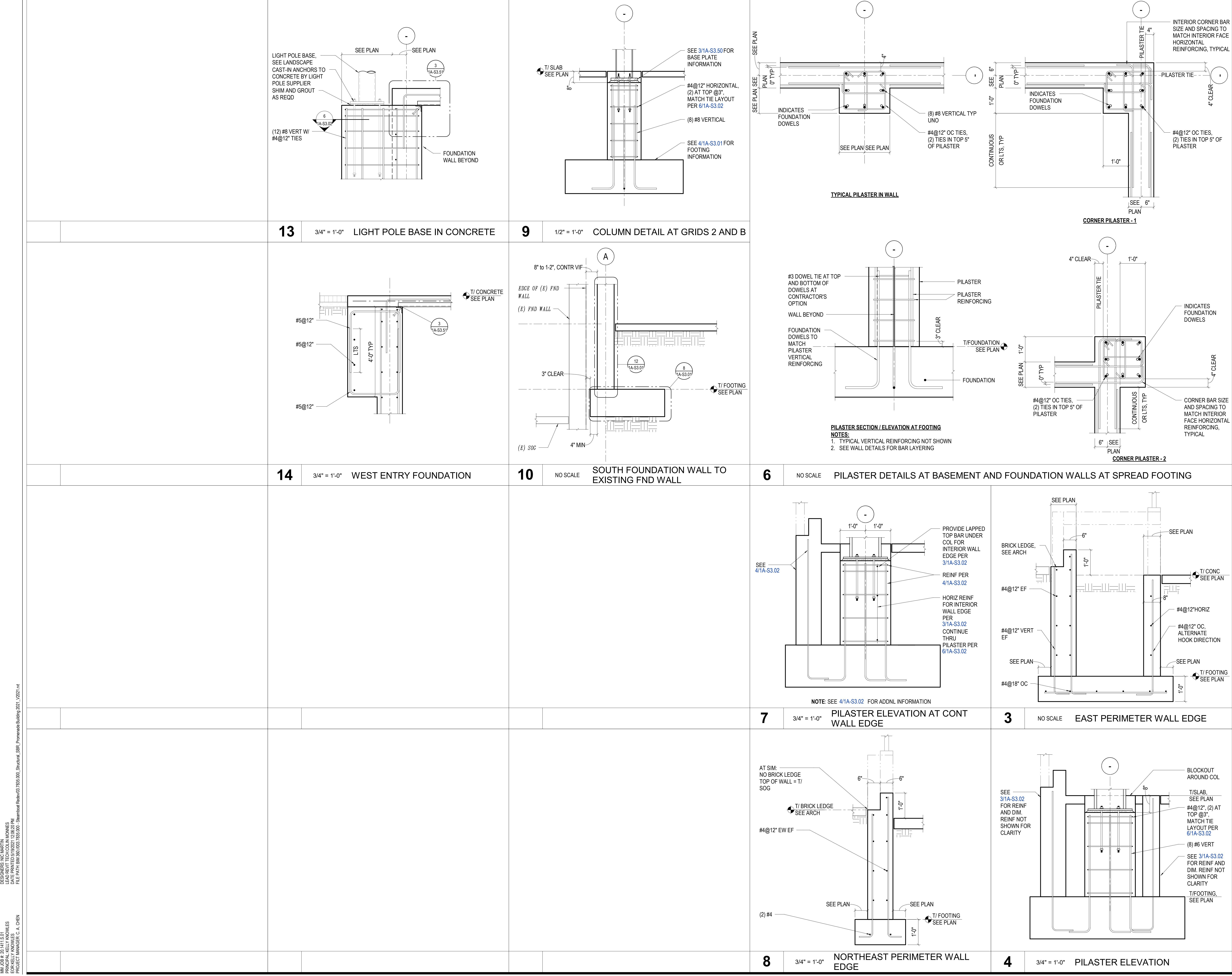
Project Name  
**SSRC | BASE AREA IMPROVEMENTS**  
Project Number  
**20.1411.S.01**  
Description  
**TYPICAL FOUNDATION DETAILS**

Scale  
As indicated

**1A-S3.01**



DESIGNER: NC MARTIN  
LEAD REVIT TECH COLIN KNOWLES  
DATE PRINTED: 5/19/2021 12:02:31 PM  
PLOT PATH: S:\19\203\185\001 - Steamboat Redevel\03 TBS\001 - Structural\_SRD\_Promenade Building 2021-2021.rvt  
ML 029 # 2014115.01  
PRINCIPAL: KELLY KNOWLES  
FOR: KELLY KNOWLES  
PROJECT MANAGER: C. A. CHEN



ALTRERA  
MOUNTAIN COMPANY

east west partners

2305 Mount Werner Circle  
Steamboat Springs, CO 80487

Gensler

1225 17th Street  
Suite 150  
Denver, CO 80202  
United States  
Tel 303.595.8586  
Fax 303.825.6823

1390 Lawrence Street  
Suite 100  
Denver, CO 80204  
Tel 303.623.5186

LANDMARK  
CONSULTANTS, P.C.

141 9th Street  
PO Box 774943  
Steamboat Springs, CO 80477  
Tel 970.871.9494

DESIGNWORKSHOP

1390 Lawrence Street  
Suite 100  
Denver, CO 80204  
Tel 303.623.5186

MARTIN/MARTIN  
CONSULTANTS, P.C.

1499 West Colfax Ave.  
Lakewood, CO 80215  
United States  
Tel 303.431.6100

me  
engineers

14143 Denver West Pkwy  
Suite 300  
Golden, CO  
United States  
Tel 303.421.6655

Professional Engineer  
88107  
May 19, 2021

Seal / Signature

Date

Description

2021.05.19

BP3: PROMENADE - ISSUE FOR BID AND PERMIT

Project Name

SSRC | BASE AREA IMPROVEMENTS

Project Number

20.1411.S.01

Description

CONCRETE DETAILS

Scale

As indicated

1A-S3.02

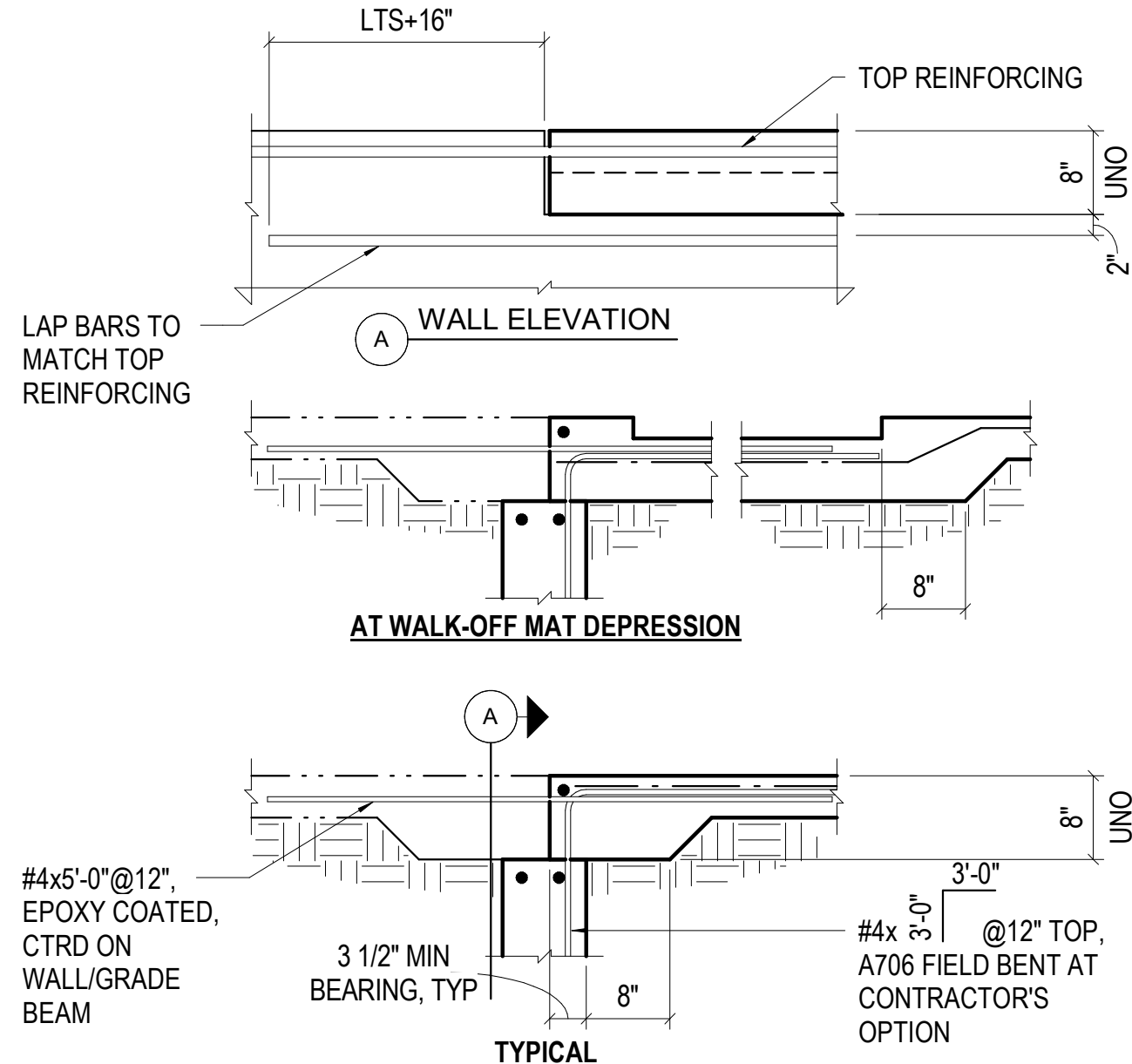
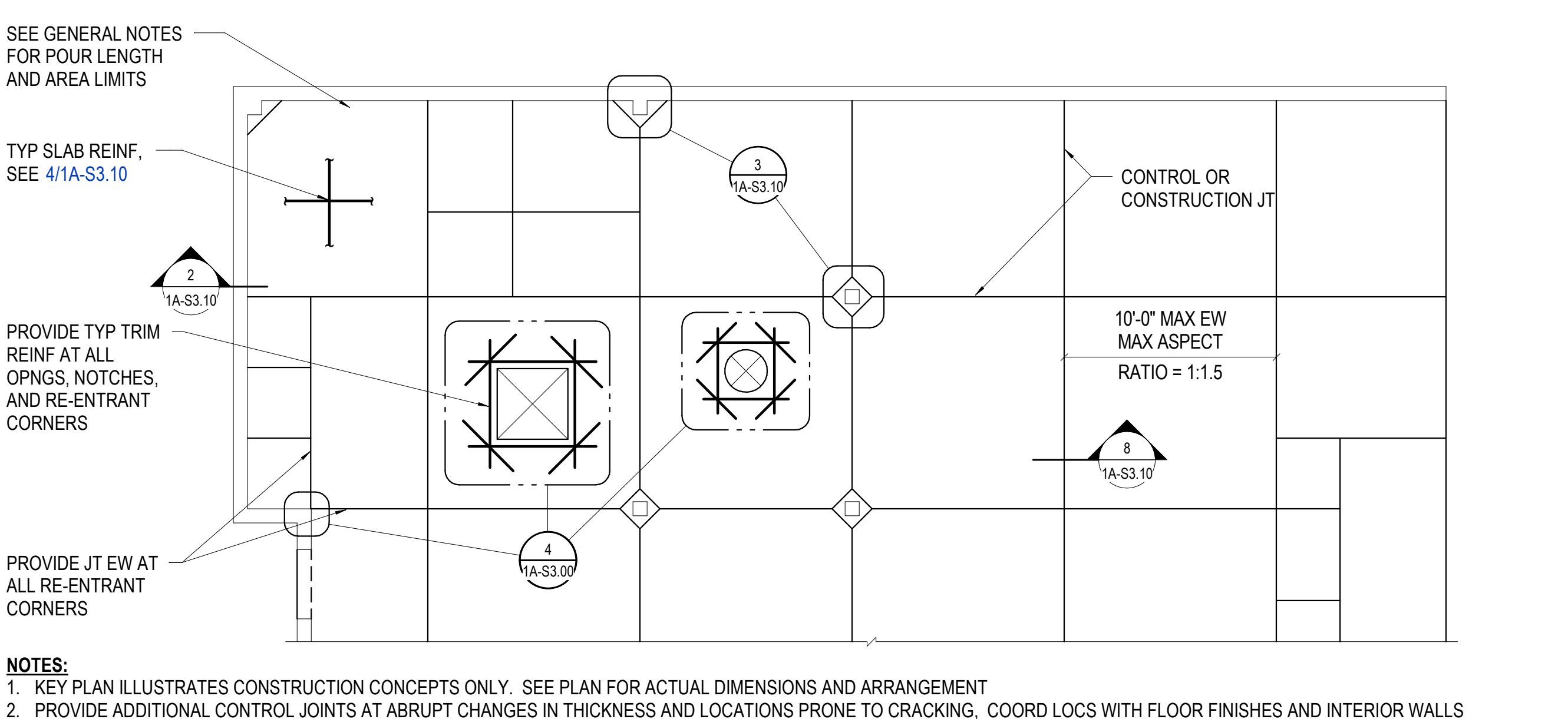
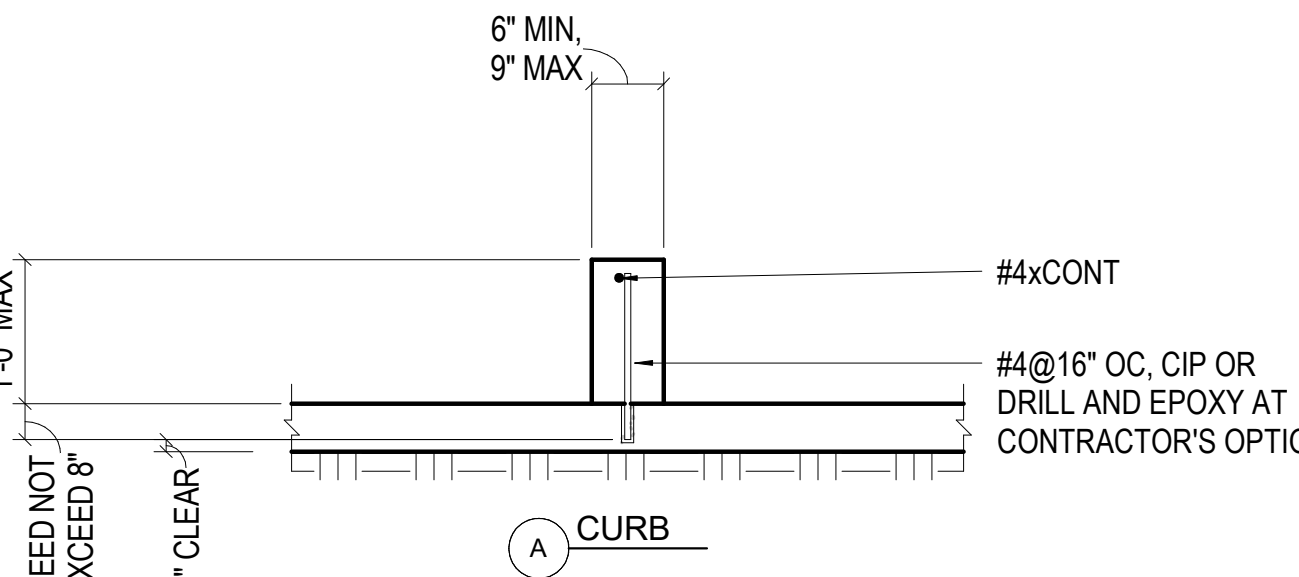
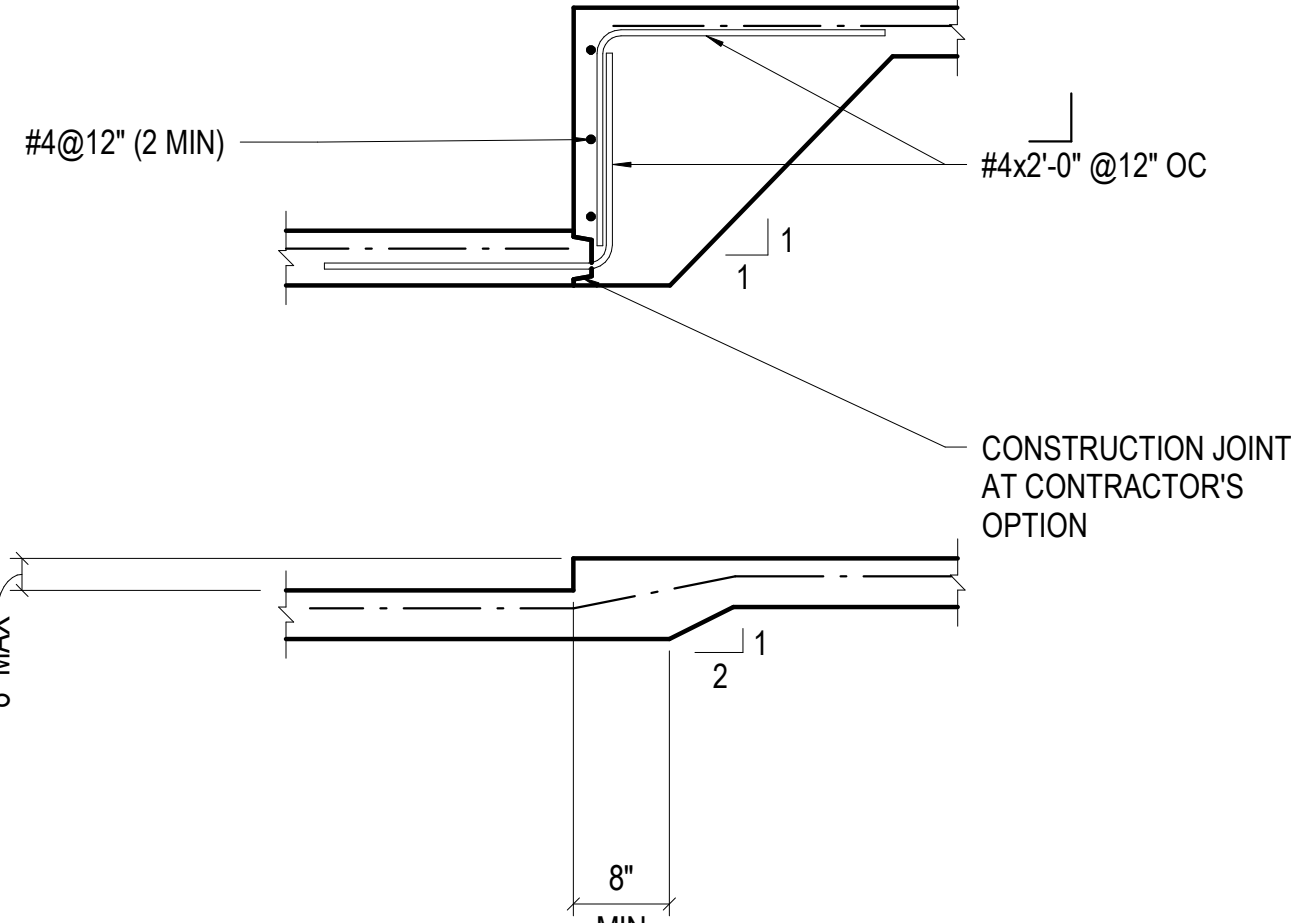
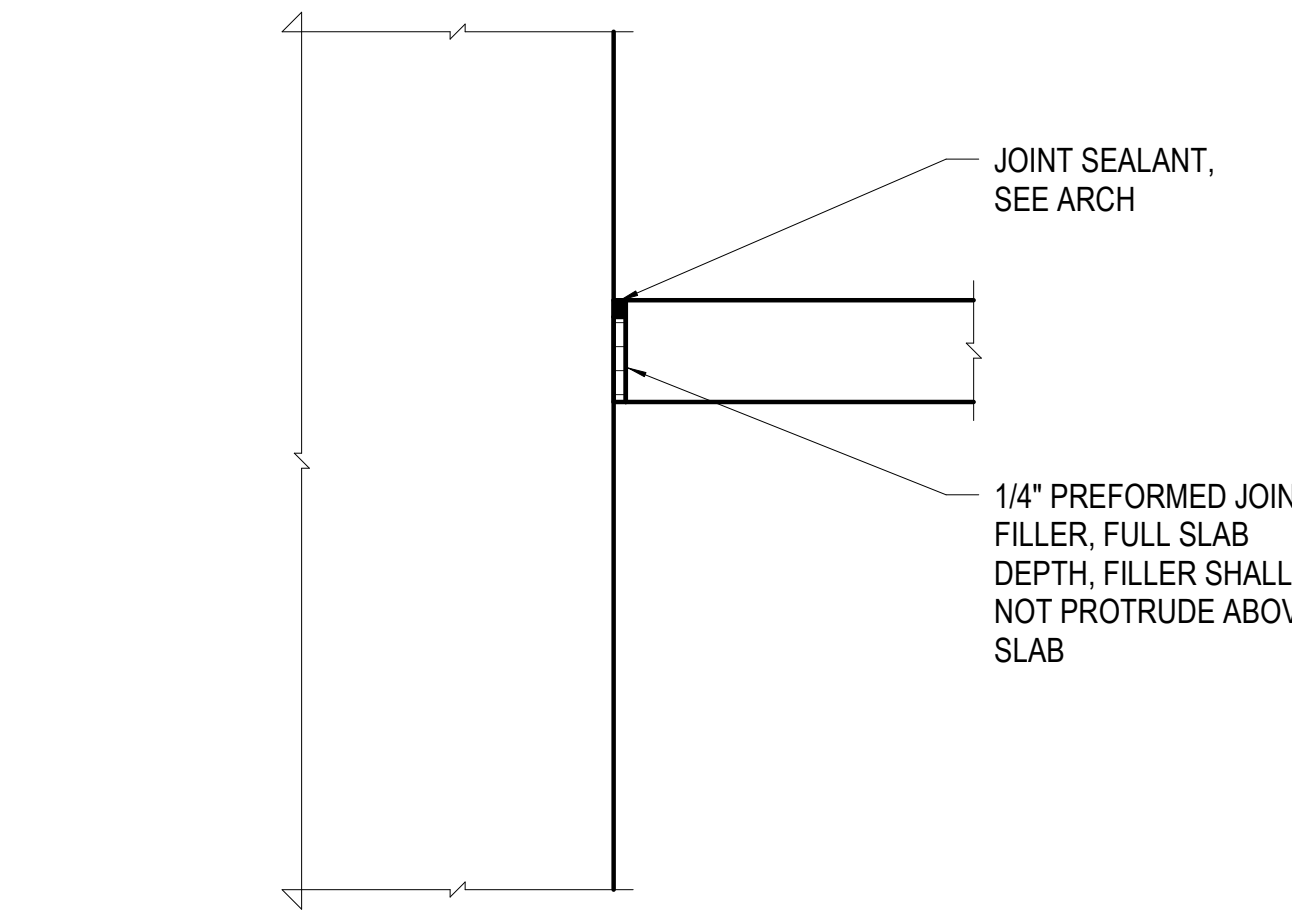
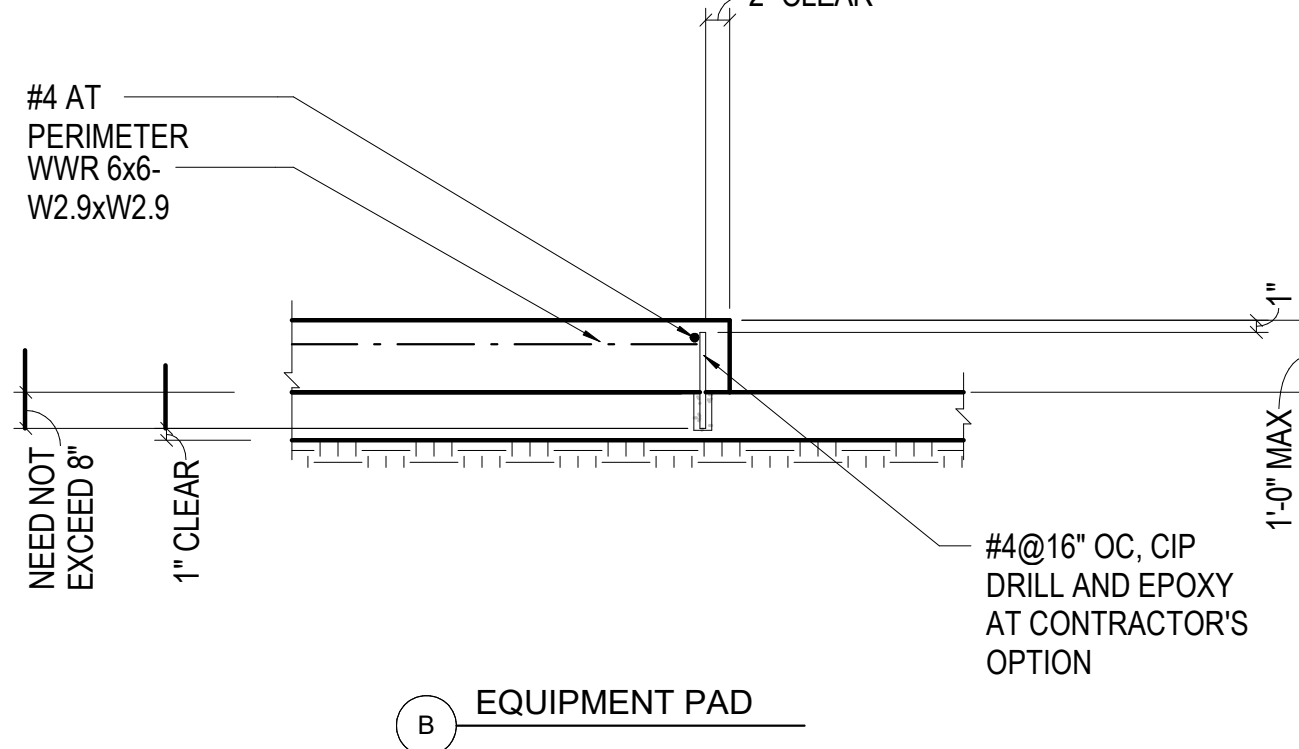
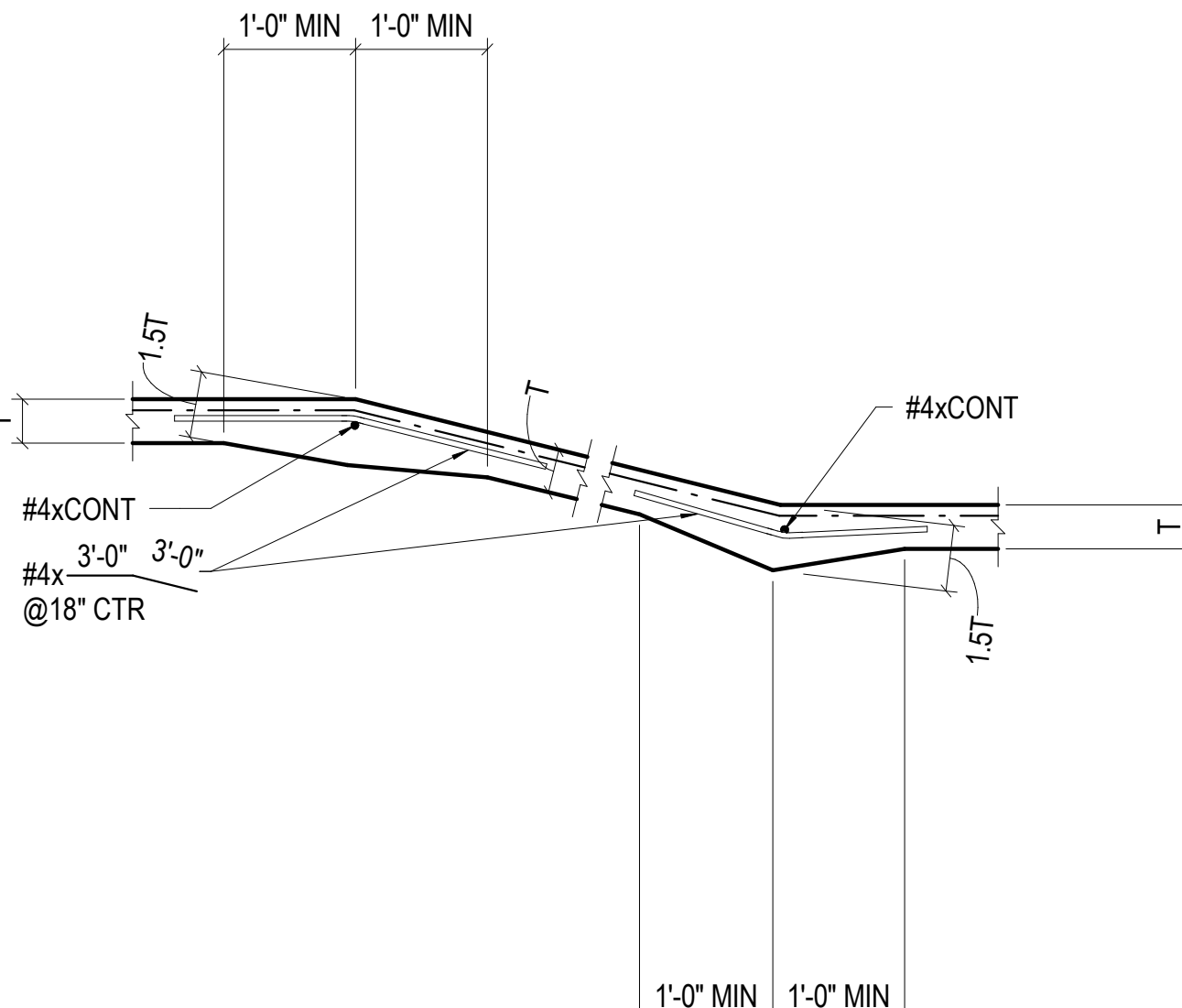
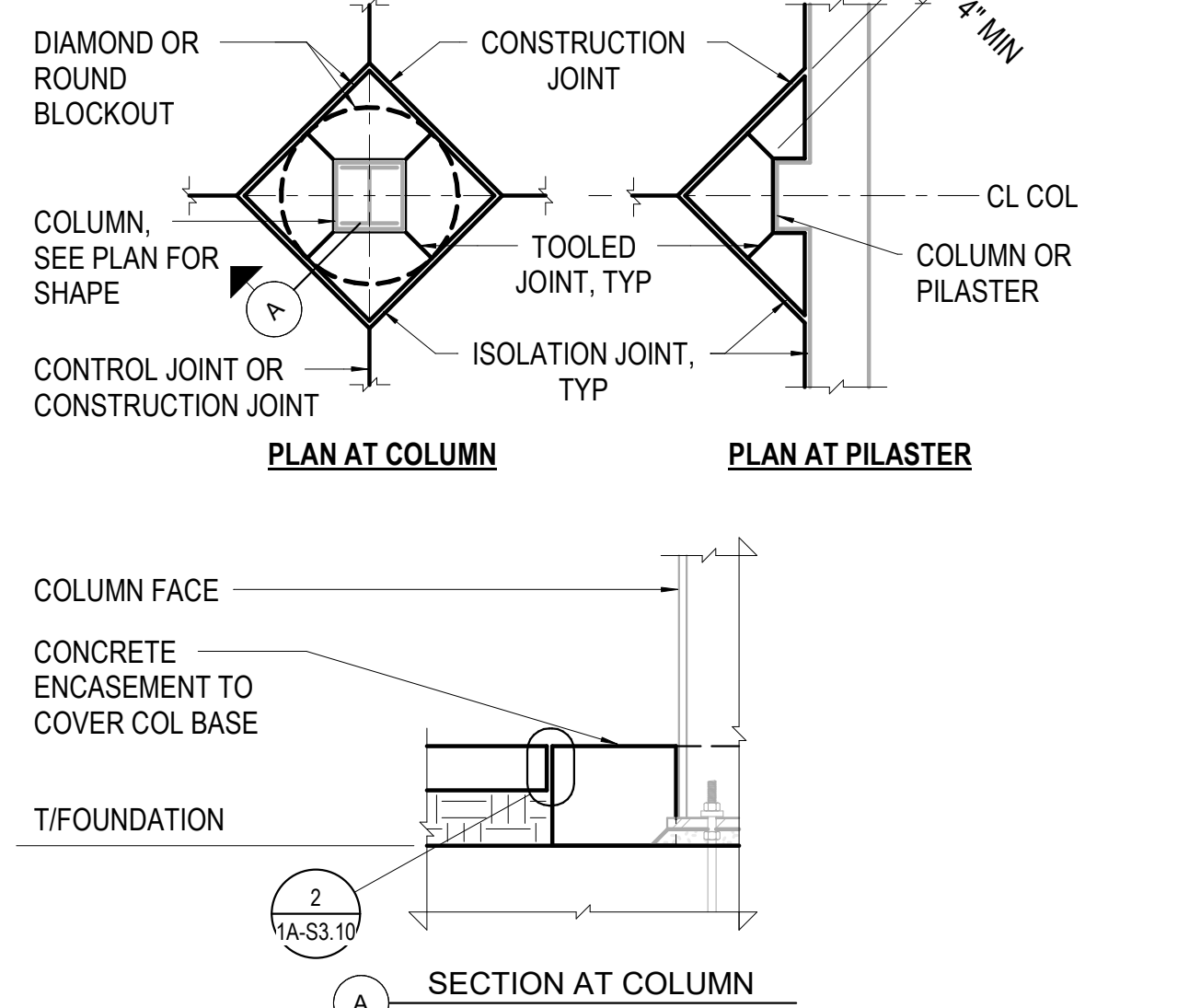
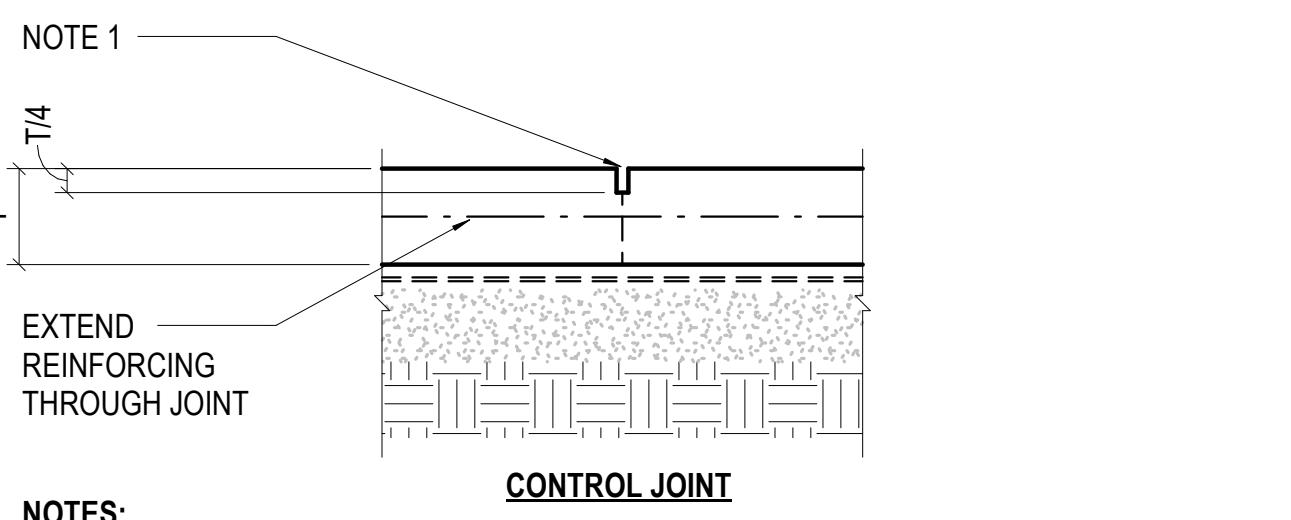
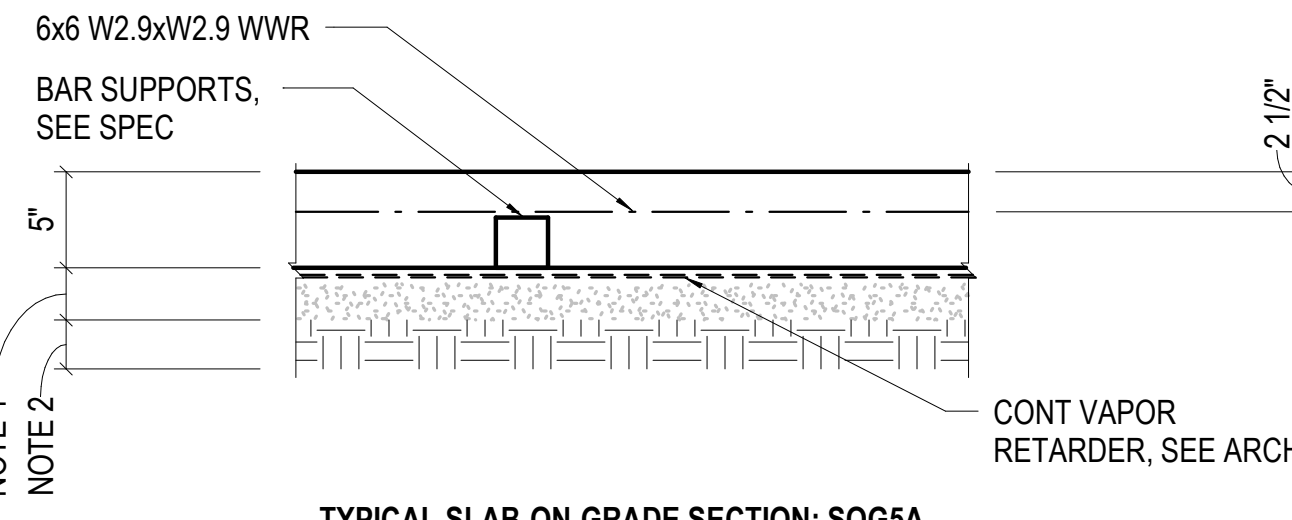
© 2021 Gensler

© 2021 Martin/Martin



DESIGNER: NC MARTIN  
LEAD REVIT: TECH COLIN KNOWLES  
DATE PRINTED: 5/19/2021 12:02:21 PM  
PLOT PATH: E:\01-2021\003-1551001 - Steamboat Ridge\03-1551001\_Structural\_SRD\_Promenade Building 2021-2021.rvt

MIL JOB # - 201411.S.01  
PRINCIPAL: KELLY KNOWLES  
FOR KELL: KNOWLES  
PROJECT MANAGER: C. A. CHEN

				<p>SEE GENERAL NOTES FOR POUR LENGTH AND AREA LIMITS</p> <p>TYP SLAB REINF, SEE 4/1A-S3.10</p> <p>PROVIDE TYP TRIM REINF AT ALL OPNGS, NOTCHES, AND RE-ENTRANT CORNERS</p> <p>PROVIDE JT EW AT ALL RE-ENTRANT CORNERS</p> <p>NOTES: 1. KEY PLAN ILLUSTRATES CONSTRUCTION CONCEPTS ONLY. SEE PLAN FOR ACTUAL DIMENSIONS AND ARRANGEMENT 2. PROVIDE ADDITIONAL CONTROL JOINTS AT ABRUPT CHANGES IN THICKNESS AND LOCATIONS PRONE TO CRACKING, COORD LOCS WITH FLOOR FINISHES AND INTERIOR WALLS</p> 						
		9	3/4" = 1'-0"	TYP SOG EXT THRESHOLD	5	NO SCALE	TYP SOG KEY PLAN			
										
					6	3/4" = 1'-0"	TYPICAL SOG STEP	2	1 1/2" = 1'-0"	TYP SOG ISOLATION JOINT
		<p>NOTES: 1. SEE ARCHITECT FOR SIZE, THICKNESS, AND LOCATIONS 2. WWR TO MATCH THAT OF SLAB OR 6x6-W2.9xW2.9 WHERE SLAB WWR NOT IDENTIFIED</p>								
		11	3/4" = 1'-0"	SLAB-ON-GRADE CURB/EQUIPMENT PAD	7	3/4" = 1'-0"	TYPICAL SOG RAMP/SLOPE	3	3/4" = 1'-0"	SOG BLOCKOUT AT COLUMN/PILASTER
						<p>NOTES: 1. GRANULAR COURSE: 6" MIN COMPACTED GRANULAR FILL, SEE EARTHWORK SPEC 2. PREPARED/COMPACTED SUBGRADE, SEE EARTHWORK SPEC</p>				
				8	1 1/2" = 1'-0"	SLAB-ON-GRADE JOINTS	4	1" = 1'-0"	TYP SLAB ON GRADE	

## Gensler

1225 17th Street  
Suite 150  
Denver, CO 80202  
United States

Tel 303.595.8586  
Fax 303.825.6823



141 9th Street  
PO Box 774943  
Steamboat Springs, CO 80477  
Tel 970.871.9494

## DESIGNWORKSHOP

1390 Lawrence Street  
Suite 100  
Denver, CO 80204  
Tel 303.623.5186



12499 West Colfax Ave.  
Lakewood, CO 80215  
United States  
Tel 303.431.6100



14143 Denver West Pkwy  
Suite 300  
Golden, CO  
United States  
Tel 303.421.6655



May 19, 2021

Seal / Signature

Date Description

2021.05.19 BP3: PROMENADE - ISSUE FOR BID AND PERMIT

Project Name

SSRC | BASE AREA IMPROVEMENTS

Project Number

20.1411.S.01

Description

TYPICAL SOG DETAILS

Scale

As indicated

# 1A-S3.10



DESIGNER: NC MARTIN  
LEAD REVIT TECH COLIN KNOWLES  
DATE PRINTED: 5/19/2021 12:02:23 PM  
PLOT PATH: E:\19\203\153\001 - Steamboat Redevel\03 TBS5.000\_Structural\_SRD\_Promenade Building 2021-2021.rvt  
ML 029 # 201411.S.01  
PRINCIPAL: KELLY KNOWLES  
PROJECT MANAGER: C. A. CHEN

				<div></div>	
				<div></div>	
				<div></div>	
				<div></div>	
				<div></div>	
				<div></div>	

ALTRERA

east west partners

2305 Mount Werner Circle  
Steamboat Springs, CO 80487

Gensler

1225 17th Street  
Suite 150  
Denver, CO 80202  
United States

Tel 303.595.8586  
Fax 303.825.6823

LANDMARK

CONSTRUCTION, INC.

141 9th Street  
PO Box 774943  
Steamboat Springs, CO 80477  
Tel 970.871.9494

DESIGNWORKSHOP

1390 Lawrence Street  
Suite 100  
Denver, CO 80204  
Tel 303.623.5186

MARTIN/MARTIN

CONSULTING ENGINEERS

14143 Denver West Pkwy  
Suite 300  
Golden, CO  
United States  
Tel 303.421.6655

me

engineers

12499 West Colfax Ave.  
Lakewood, CO 80215  
United States  
Tel 303.431.6100

Professional Engineer  
88107  
May 19, 2021

Seal / Signature

DateDescription

2021.05.19BP3: PROMENADE - ISSUE FOR BID AND PERMIT

Project Name

SSRC | BASE AREA IMPROVEMENTS

Project Number

20.1411.S.01

Description

CONCRETE DETAILS

Scale

3/4" = 1'-0"

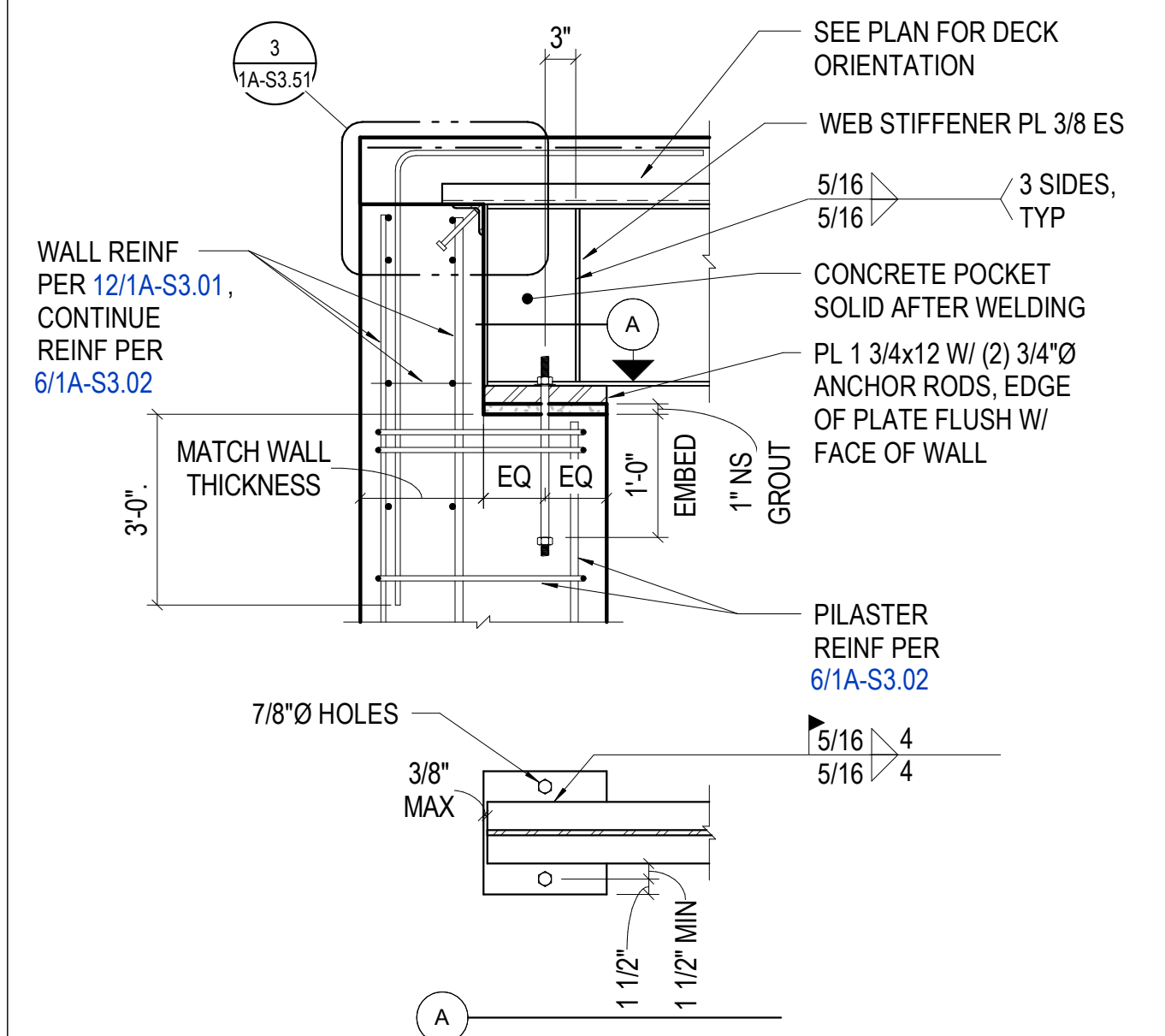
1A-S3.11

© 2021 Gensler

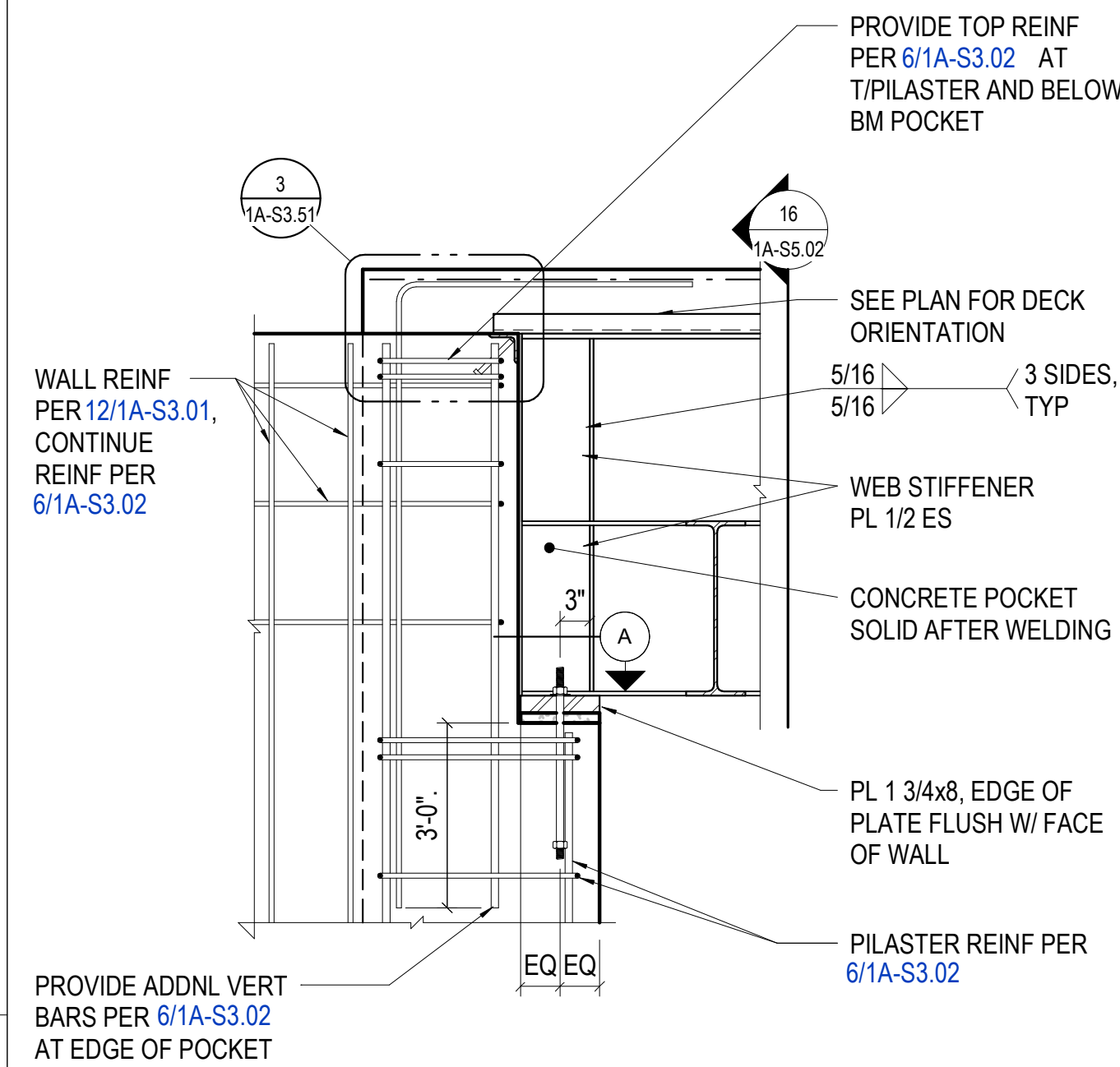
© 2021 Martin/Martin



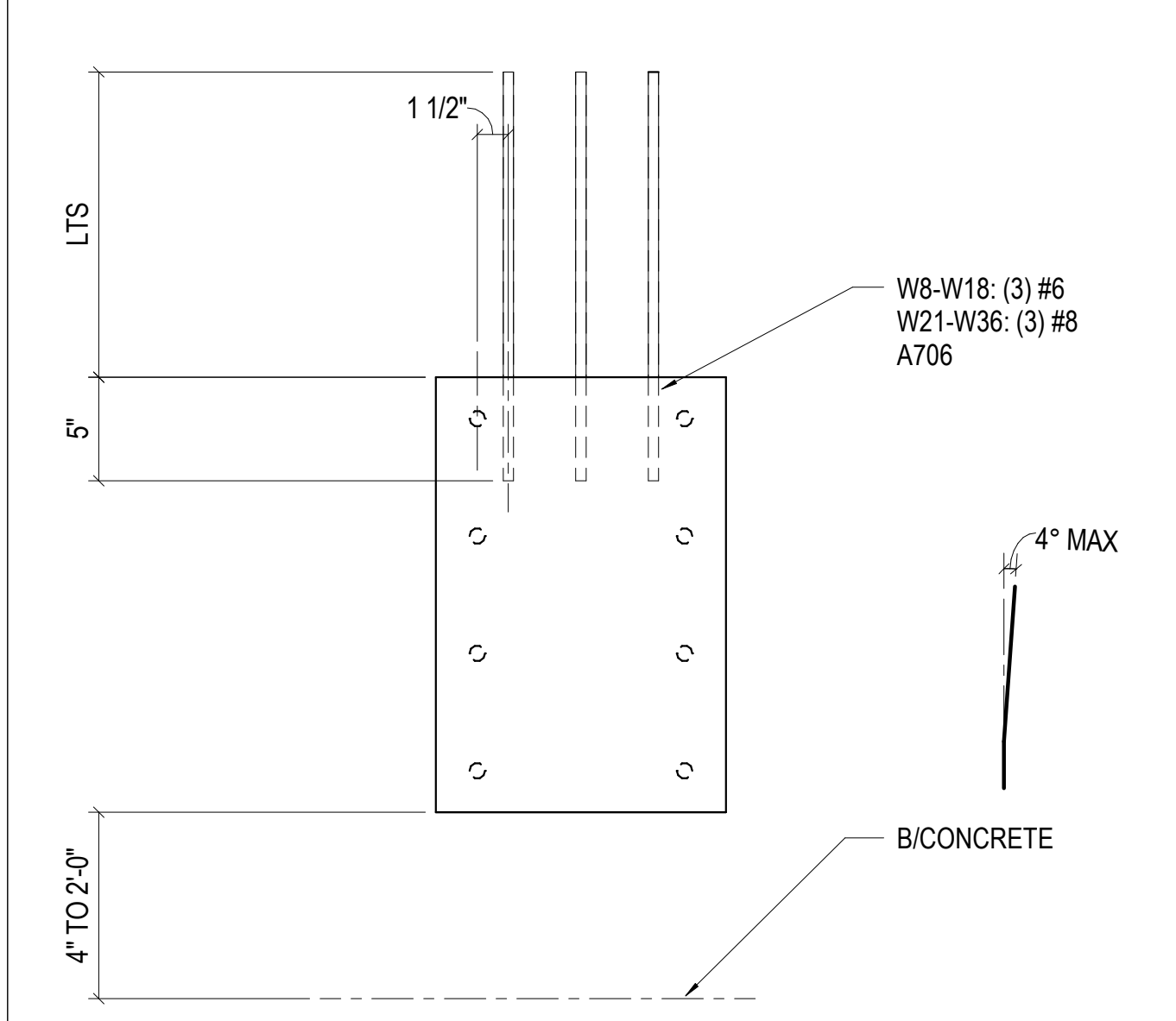
DESIGNER: NC MARTIN  
LEAD REVIT TECH COLIN KNOWLES  
DATE PRINTED: 5/19/2021 12:02:27 PM  
PLOT PATH: E:\19\203\153\001 - Steamboat Ridge\03 TBS\000\_Structural\_SRD\_Promenade Building 2021-2021.rvt  
MIL JOB # 201411.S.01  
PRINCIPAL: KELLY KNOWLES  
FOR KELL: KELLY KNOWLES  
PROJECT MANAGER: C. A. CHEN



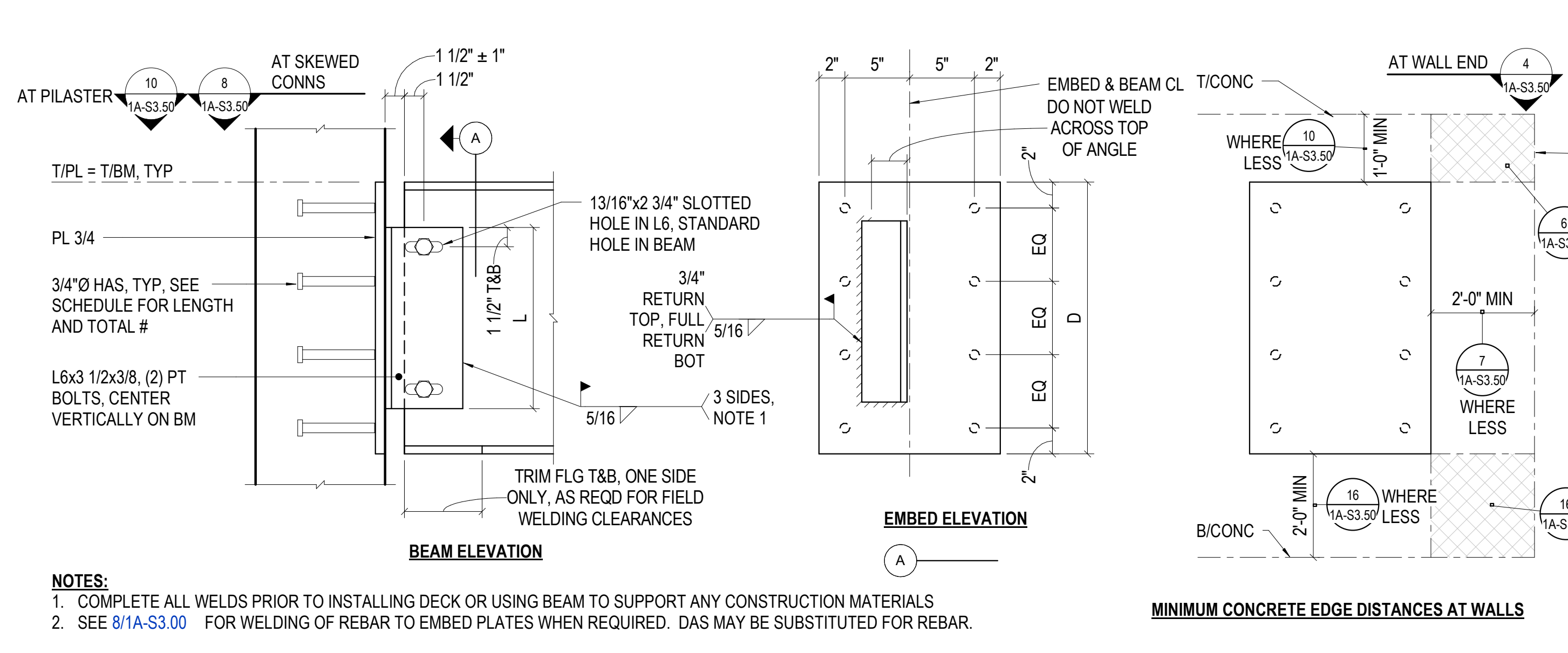
13 3/4" = 1'-0" CONCRETE BEAM BEARING - POCKET



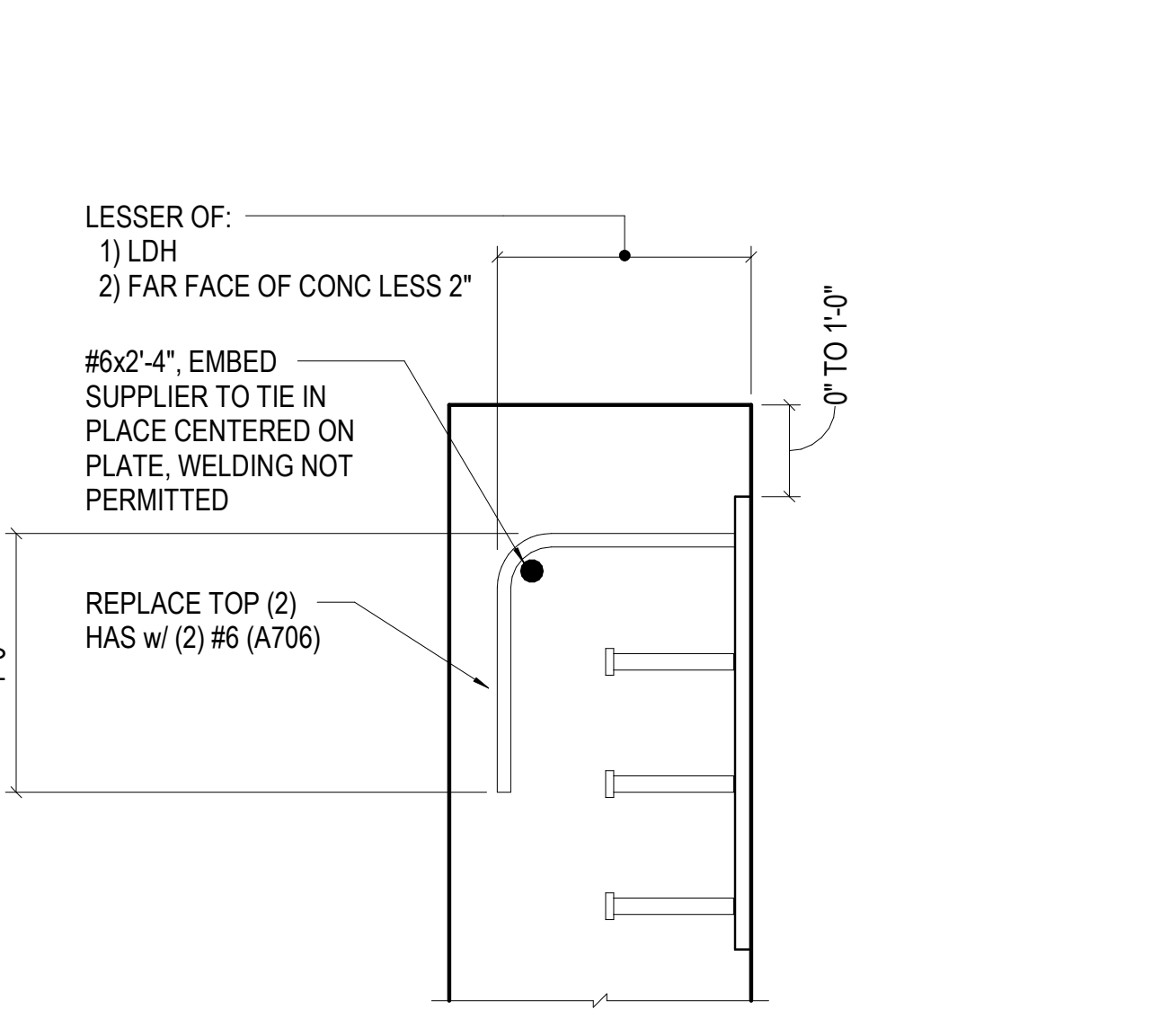
15 3/4" = 1'-0" CONCRETE BEAM BEARING - END POCKET



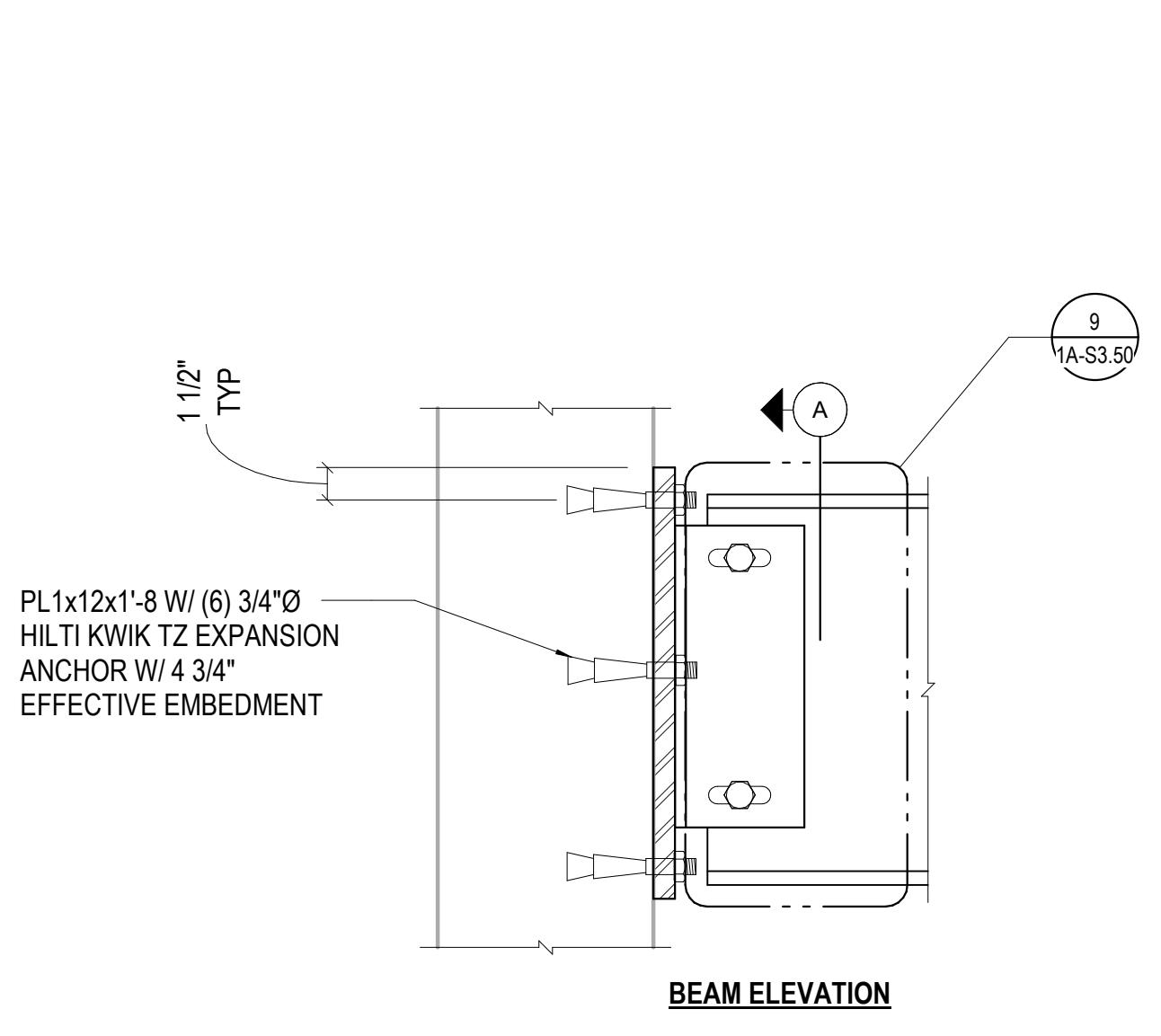
16 1 1/2" = 1'-0" BEAM EMBED NEAR BOTTOM OF WALL



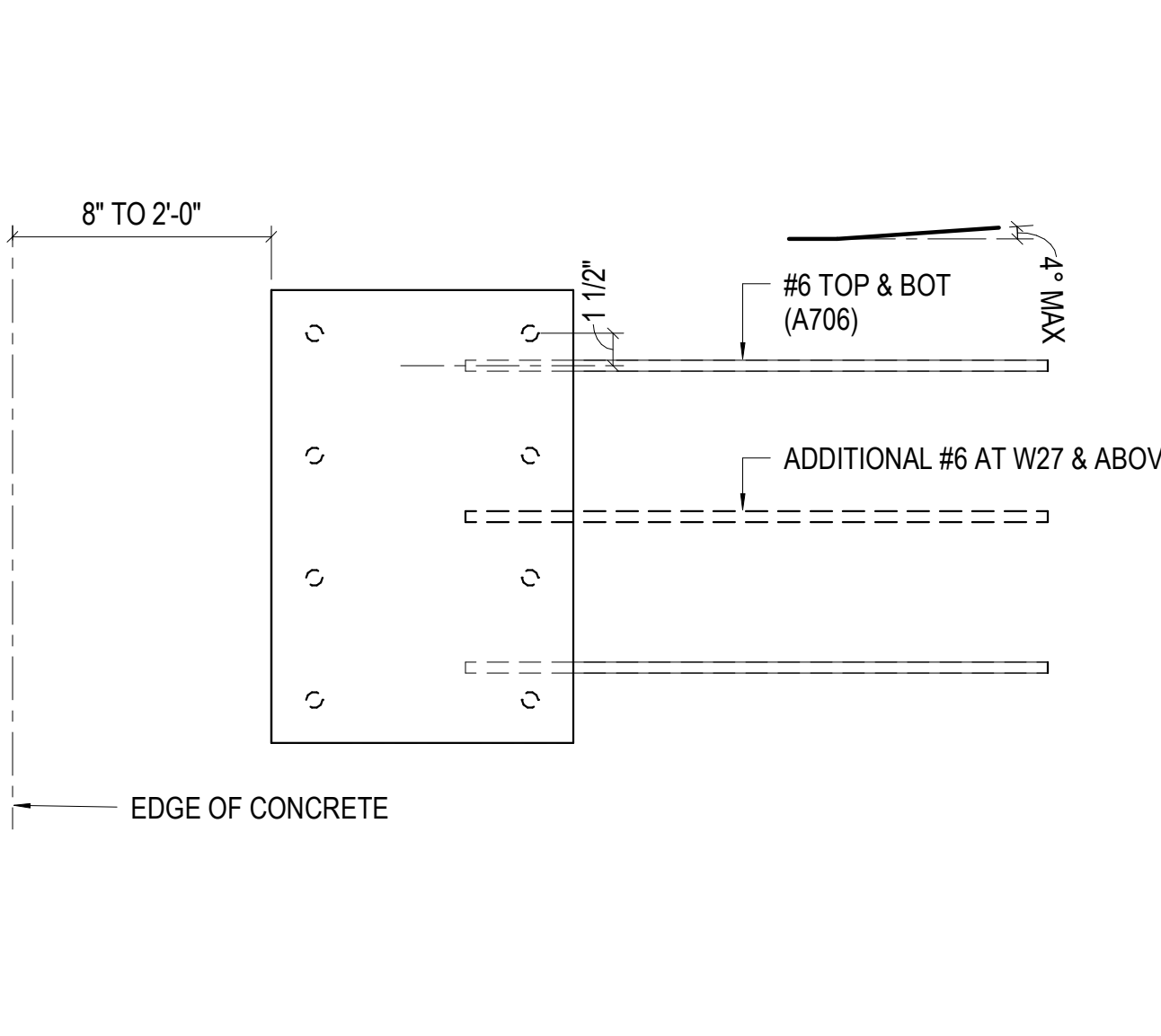
9 NO SCALE TYPICAL BEAM EMBED PL CONNECTION & SCHEDULE - LRFD



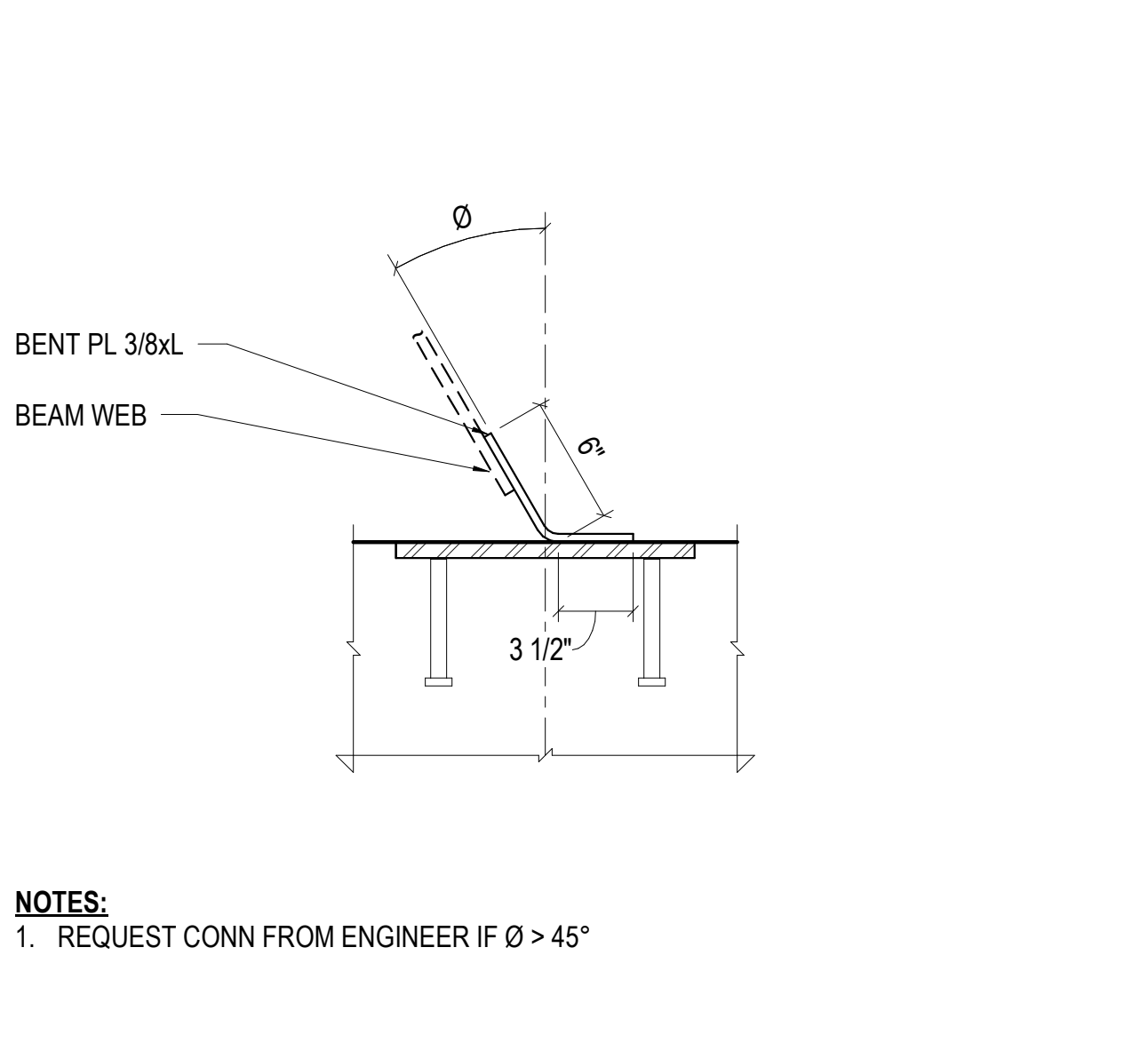
10 NO SCALE BEAM EMBED NEAR TOP OF WALL SINGLE SIDED



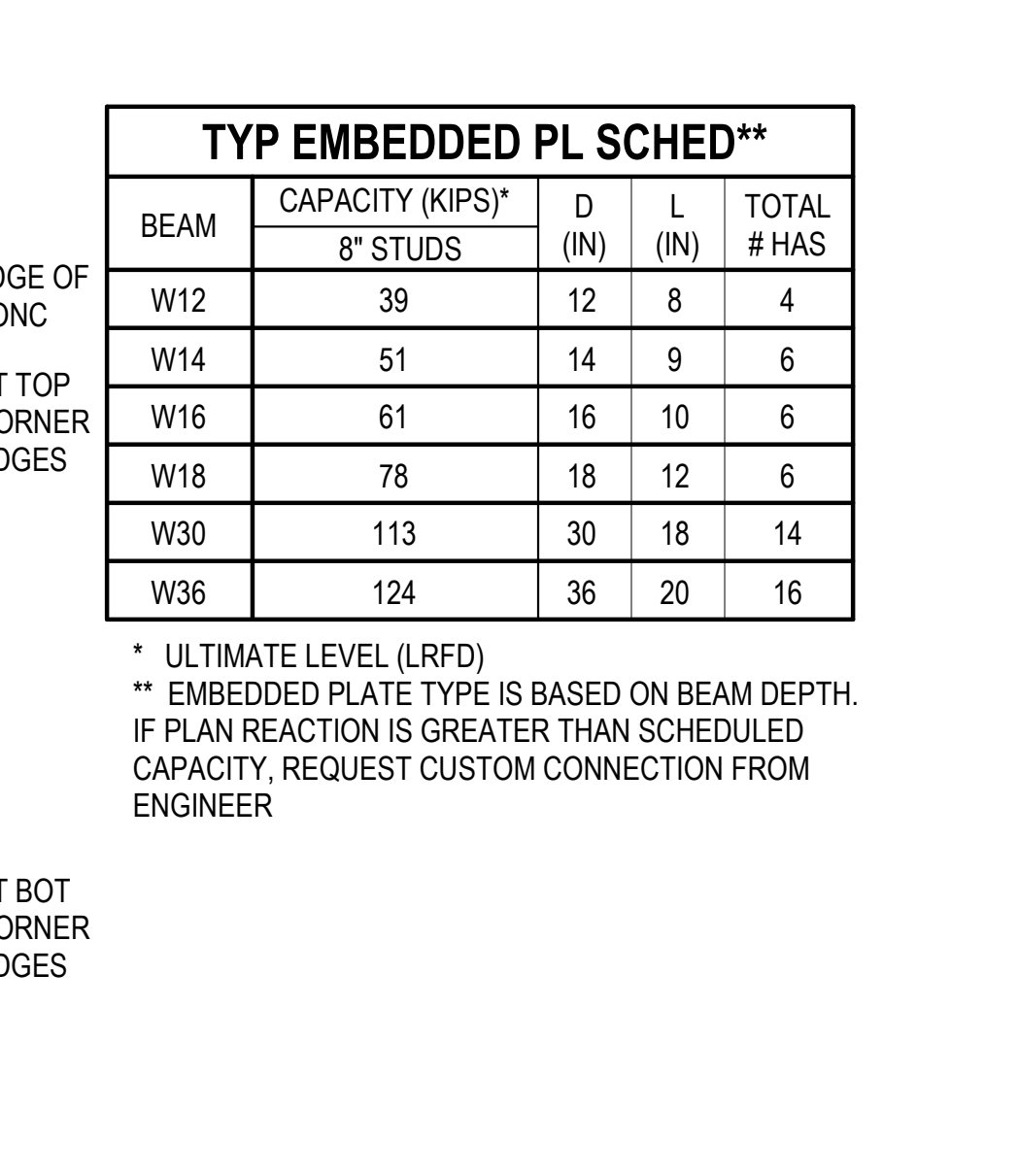
6 NO SCALE BEAM EMBED NEAR TOP EDGE OF WALL



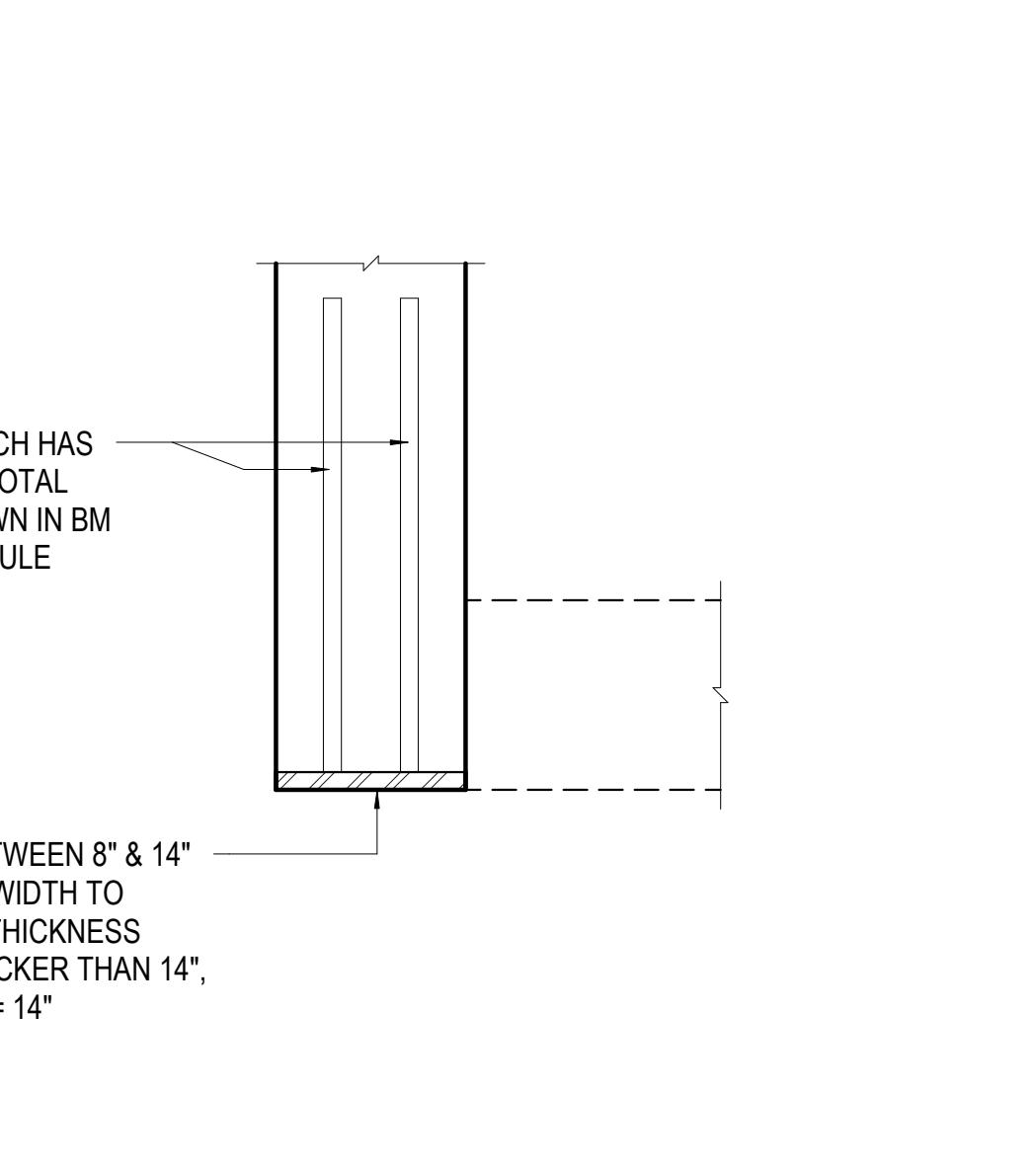
7 NO SCALE BEAM EMBED NEAR EDGE OF WALL



8 NO SCALE BEAM EMBED AT SKEWED BM



3 3/4" = 1'-0" TYPICAL GRAVITY COLUMN BASE PLATE



4 1 1/2" = 1'-0" BEAM EMBED AT END OF WALL

**ALERRA** east west partners  
MOUNTAIN COMPANY

2305 Mount Werner Circle  
Steamboat Springs, CO 80487

**Gensler**

1225 17th Street  
Suite 150  
Denver, CO 80202  
United States

Tel 303.595.8586  
Fax 303.825.6823

**LANDMARK**  
COLLECTIONS, INC.

141 9th Street  
PO Box 774943  
Steamboat Springs, CO 80477  
Tel 970.871.9494

**DESIGNWORKSHOP**

1390 Lawrence Street  
Suite 100  
Denver, CO 80204  
Tel 303.623.5186

**MARTIN/MARTIN**  
ENGINEERS

12499 West Colfax Ave.  
Lakewood, CO 80215  
United States  
Tel 303.431.6100

**me**  
engineers

14143 Denver West Pkwy  
Suite 300  
Golden, CO  
United States  
Tel 303.421.6655



Seal / Signature

Date Description

2021.05.19 BP3: PROMENADE - ISSUE FOR BID AND PERMIT

Project Name

**SSRC | BASE AREA IMPROVEMENTS**

Project Number

**20.1411.S.01**

Description

CONCRETE SUPPORTING STEEL DETAILS

Scale

As indicated

**1A-S3.50**







MIL JOB # 201411.S.01  
DESIGNER: NC MARTIN  
PRINCIPAL: KELLY KNOWLES  
DATE PRINTED: 5/19/2021 12:03:33 PM  
PROJECT MANAGER: C. A. CHEN

				<p><b>KEYNOTES:</b></p> <p>1 TYPICAL WALL VERTICAL REINFORCING: #4@48" OC</p> <p>2 BOND BEAM W/ (1) #5 AT T/WALL</p> <p>3 BOND BEAM W/ (1) #5 AT BOT OF ALL OPENINGS</p> <p>4 HORIZ JOINT REINF: "LADDER" TYPE JOINT REINF W/ (2) W1.7 WIRES @ 16" OC</p> <p>5 LINTEL</p> <p>6 CONTROL JOINTS @ 20'-0" OC MAX AND EACH END OF WALL</p> <p>7 JAMB REINFORCEMENT EACH SIDE OF OPENING</p> <p>8 DOWELS TO MATCH SIZE AND LOCATION OF VERTICAL BARS</p> <p>9 TERMINATE ALL HORIZONTAL REINFORCEMENT AT CONTROL JOINTS</p> <p>10 T/WALL SUPPORT, SEE DETAILS THIS PAGE, LOCATE AT 8'-0" ON CENTER MAX</p> <p>11 AT SERIES OF TWO OR MORE OPENINGS, MASONRY LINTEL REINFORCEMENT SHALL BE CONTINUOUS. IF SPACE BETWEEN OPENINGS IS LESS THAN 1'-4", USE OVERALL WIDTH OF SERIES OF OPENINGS TO DETERMINE LINTEL SIZE AND JAMB REINF</p> <p>12 WHERE EDGE OF OPENING IS FLUSH WITH PERPENDICULAR WALL, OR REQUIRED JAMB SIZE IS LARGER THAN AVAILABLE, A CONTROL JOINT IS NOT PERMITTED AT THIS INTERSECTION</p>			
		9		1/4" = 1'-0" TYPICAL MASONRY PARTITION ELEVATION			
		10		3/4" = 1'-0" MASONRY PARTITION SUPPORT - EOS		2	
						3/4" = 1'-0" MASONRY WALL INTERSECTION - PARTITION TO STRUCTURAL WALL	
		11		3/4" = 1'-0" TYP MASONRY PARTITION SUPPORT - PARALLEL/SKEWED TO DECK		6	
						3/4" = 1'-0" MASONRY PARTITION SUPPORT - ADJACENT TO STEEL BEAM	
						7	
						3/4" = 1'-0" TYPICAL MASONRY PARTITION SUPPORT - PERP TO DECK	
						3	
						3/4" = 1'-0" PARTITION TO PARTITION WALL DETAIL	

**Gensler**

1225 17th Street  
Suite 150  
Denver, CO 80202  
United States

Tel 303.595.8586  
Fax 303.825.6823



141 9th Street  
PO Box 774943  
Steamboat Springs, CO  
80477  
Tel 970.871.9494

**DESIGNWORKSHOP**

1390 Lawrence Street  
Suite 100  
Denver, CO 80204  
Tel 303.623.5186



12499 West Colfax Ave.  
Lakewood, CO 80215  
United States  
Tel 303.431.6100



14143 Denver West Pkwy  
Suite 300  
Golden, CO  
United States  
Tel 303.421.6655



Seal / Signature

Date	Description
2021.05.19	BP3: PROMENADE - ISSUE FOR BID AND PERMIT

Project Name	SSRC   BASE AREA IMPROVEMENTS
Project Number	20.1411.S.01
Description	MASONRY DETAILS

Scale  
As indicated

**1A-S4.00**







# OF BOLTS	TENSILE STRENGTH		
	$0.24" \leq t_w < 0.30"$	$0.30" \leq t_w < 0.35"$	$0.35" \leq t_w < 0.41"$
2	NP	NP	NP
3	36	46	53
4	59	74	86
5	82	102	119
6	104	131	152
7	127	159	186
8	150	187	218
9	172	215	250







				5	3/4" = 1'-0" SNOW MELT PIT SECTION
				3	3/4" = 1'-0" NEW STEEL ON EXISTING PIT WALL
				4	3/4" = 1'-0" MEP SUPPORT

DESIGNER: NC, MARTIN  
LEAD REVIT TECH COLIN KNOWLES  
DATE PRINTED: 5/19/2021 12:05:53 PM  
FILE PATH: E:\01-2021\03-1851001 - Steamboat Road\03-1851001\_Structural\_SRP\_Promenade Building 2021-10221.rvt

MIL JOB # - 201411.S.01  
PRINCIPAL: KELLY KNOWLES  
FOR: KELLY KNOWLES  
PROJECT MANAGER: C. A. CHEN

**ALTErrA** east west partners  
MOUNTAIN COMPANY

2305 Mount Werner Circle  
Steamboat Springs, CO 80487

**Gensler**

1225 17th Street  
Suite 150  
Denver, CO 80202  
United States

Tel 303.595.8585  
Fax 303.825.6823

CONSULTANTS, INC.

141 9th Street  
PO Box 774943  
Steamboat Springs, CO 80477  
Tel 970.871.9494

**DESIGNWORKSHOP**

1390 Lawrence Street  
Suite 100  
Denver, CO 80204  
Tel 303.623.5186

engineers

14143 Denver West Pkwy  
Suite 300  
Golden, CO  
United States

Tel 303.421.6655

STRUCTURAL ENGINEERS

12499 West Colfax Ave.  
Lakewood, CO 80215  
United States

Tel 303.431.6100

Seal / Signature

Date	Description
2021.05.19	BP3: PROMENADE - ISSUE FOR BID AND PERMIT

Project Name

SSRC | BASE AREA IMPROVEMENTS

Project Number

20.1411.S.01

Description

STEEL DETAILS

Scale

3/4" = 1'-0"

1A-S5.03

© 2021 Gensler

© 2021 Martin/Martin



DESIGNER: NC MARTIN  
LEAD REVIT TECH COLIN KNOXES  
DATE PRINTED: 5/19/2021 12:05:55 PM  
PLOT FILE: 501-500-003-1551-001 - Steamboat\_Roadway-03 TBS5-000\_Structural\_SRD\_Promenade Building 2021-12021.rvt  
MIL JOB # 201411.S.01  
PRINCIPAL: KELLY KNOXES  
FOR: KELLY KNOXES  
PROJECT MANAGER: C. A. CHEN

					<b>9</b>	3/4" = 1'-0"	EXTERIOR SLAB EDGE AT CANTLIEVERED FLOOR				
					<b>5</b>	3/4" = 1'-0"	EXTERIOR SLAB EDGE GUARD RAIL				
					<b>1</b>	3/4" = 1'-0"	TYPICAL EXTERIOR SLAB EDGE				
					<b>10</b>	3/4" = 1'-0"	EXTERIOR SLAB EDGE AT MECH YARD				
					<b>6</b>	3/4" = 1'-0"	TYP SLAB STEP - DECK PARALLEL				
					<b>2</b>	3/4" = 1'-0"	TYPICAL CHANGE IN COMPOSITE DECK DIRECTION				
					<b>11</b>	3/4" = 1'-0"	EXTERIOR SLAB EDGE - LEVEL 1 SLAB				
					<b>7</b>	3/4" = 1'-0"	TYP SLAB STEP - DECK PERP				
					<b>3</b>	3/4" = 1'-0"	MECHANICAL SHAFT COMPOSITE SLAB EDGE				
					<b>8</b>	3/4" = 1'-0"	TYPICAL METAL DECK SUPPORT AT FUTURE COLUMN				
					<b>4</b>	3/4" = 1'-0"	TYPICAL CHANGE IN COMPOSITE DECK DIRECTION				



Seal / Signature

Date	Description
2021.05.19	BP3: PROMENADE - ISSUE FOR BID AND PERMIT

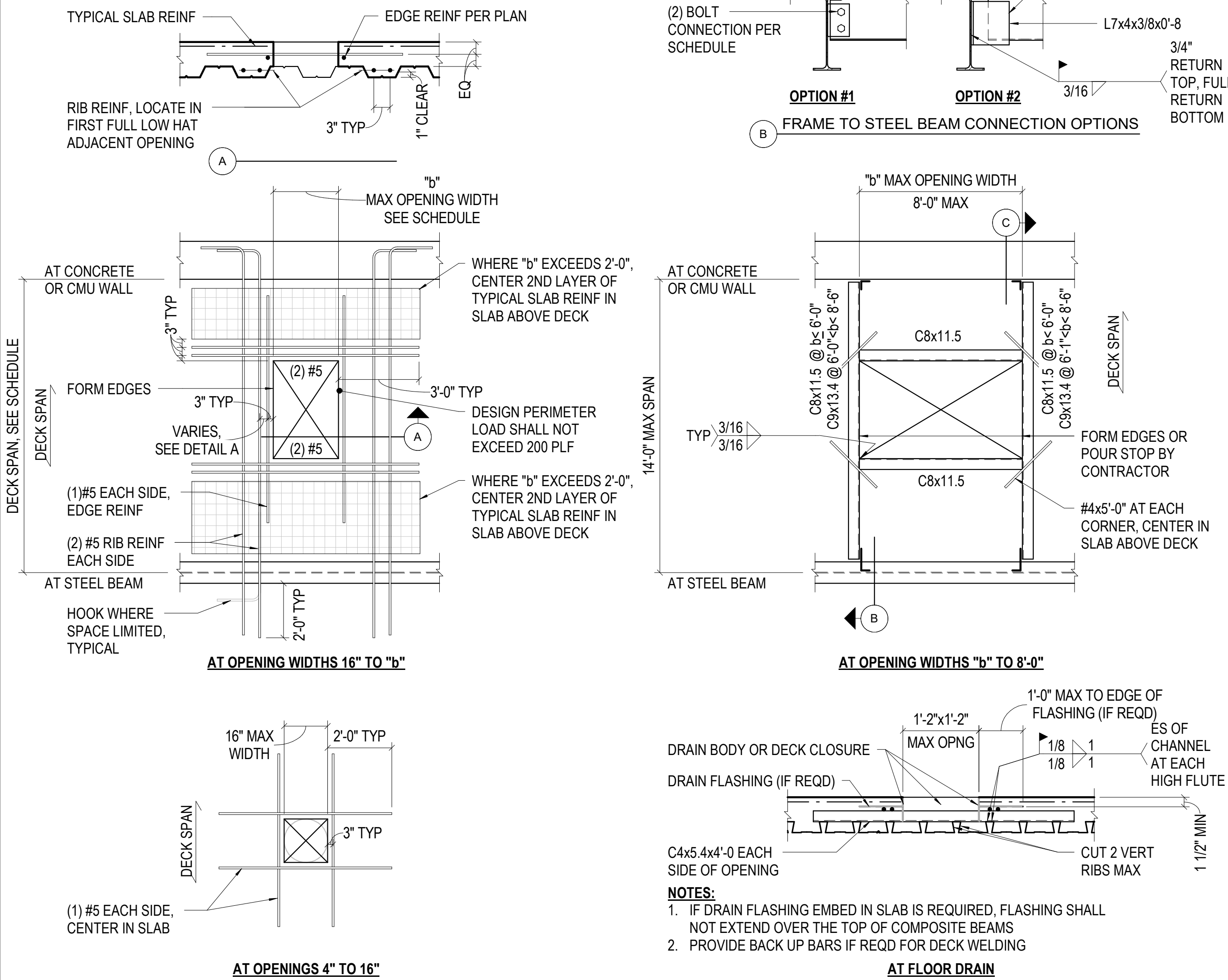
Project Name	SSRC   BASE AREA IMPROVEMENTS
Project Number	20.1411.S.01
Description	TYPICAL COMPOSITE SLAB DETAILS

Scale  
3/4" = 1'-0"

1A-S5.30



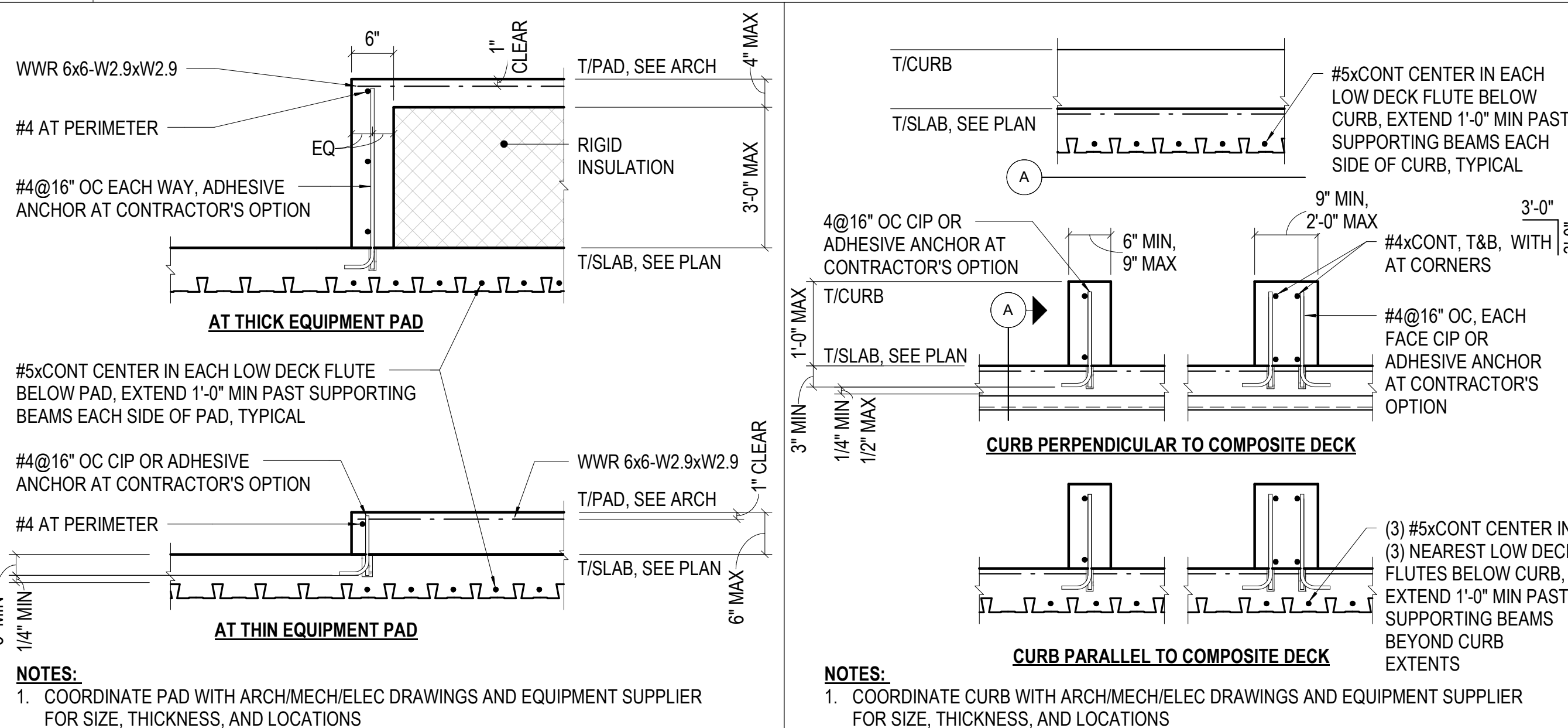
COMPOSITE SLAB PENETRATION REINFORCING				
SLAB TYPE	DECK SPAN (R)			
	LESS THAN 10'-0"	10'-0" TO 12'-0"	12'-0" TO 14'-0"	
	"b" - MAX OPENING WIDTH	"b" - MAX OPENING WIDTH	"b" - MAX OPENING WIDTH	
NORMAL WEIGHT	2VL1-4.5	4'-3"	3'-0"	2'-0"



- NOTES:**
- PLACE SLEEVES ON DECK PRIOR TO CONCRETE PLACEMENT
  - DO NOT CUT DECK UNTIL CONCRETE HAS REACHED 75%  $f_c$
  - WHERE POSSIBLE ALIGN PENETRATIONS PARALLEL & PERPENDICULAR TO DECK SUCH THAT ONE EDGE OF PENETRATION ALIGNS IN EACH DIRECTION
  - TREAT ADJACENT OPENINGS AS A SINGLE LARGE OPENING IF EITHER:
    - OPENINGS ARE ALIGNED PARALLEL TO DECK SPAN WITH LESS THAN 10" CLEAR OR
    - OPENINGS ARE ALIGNED PERPENDICULAR TO DECK SPAN WITH LESS THAN 20" CLEAR

- NOTES:**
- NO PENETRATION REINFORCING IS REQUIRED AT:
    - SLEEVES 4"Ø OR SMALLER
    - SLEEVES 4"Ø OR SMALLER ALIGNED PARALLEL TO DECK SPAN
    - SLEEVES 4"Ø OR SMALLER IF SPACED GREATER THAN 20" PERPENDICULAR TO DECK SPAN; IF SPACING BETWEEN OPENINGS PERPENDICULAR TO DECK SPAN DOES NOT EXCEED 20", REINFORCE AS A SINGLE OPENING

## 19 NO SCALE SLAB ON METAL DECK PENETRATIONS AND SLAB OPENINGS

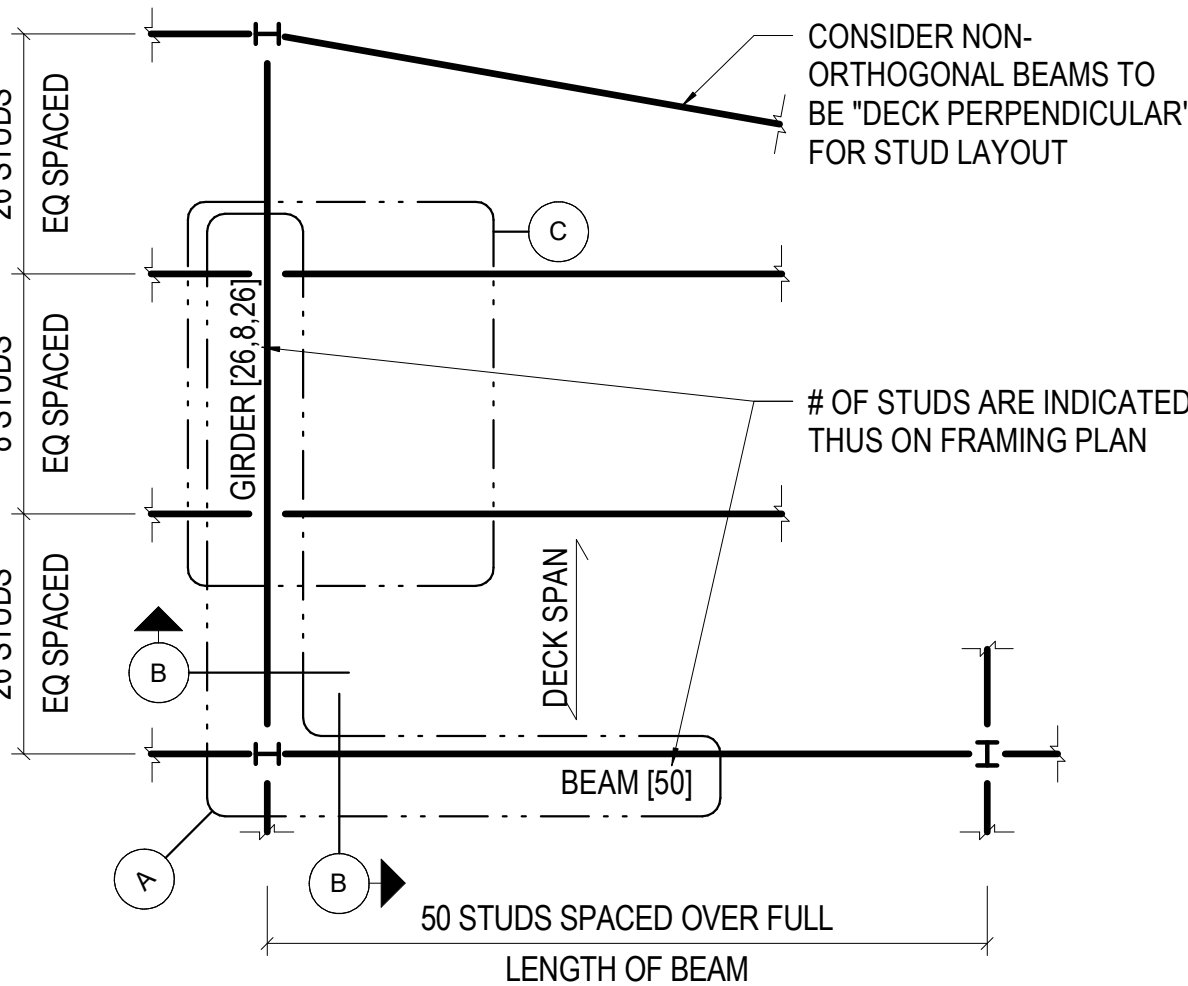


## 20 3/4" = 1'-0" EQUIPMENT PAD ON SLAB ON METAL DECK

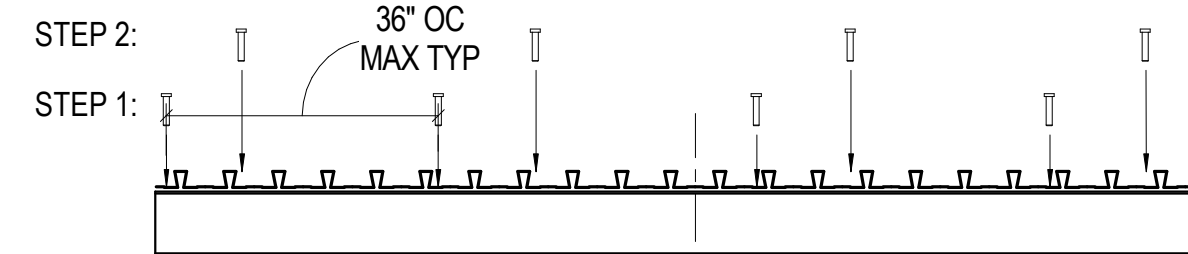
## 16 3/4" = 1'-0" CONCRETE CURB ON SLAB ON METAL DECK

SLAB ON METAL DECK CONNECTION SCHEDULE						
TYPE	PERPENDICULAR SUPPORT MEMBERS		PARALLEL SUPPORT MEMBERS		SIDELAPS	
	CONNECTION	PATTERN	CONN	PATTERN	CONN	PATTERN
A	3/4"Ø PUDDLE WELDS	36/4 AT VL DECK 30/4 AT 0.6C DECK 32/4 AT 1.0C DECK 32/4 AT 1.3C DECK	3/4"Ø PUDDLE WELDS	12" OC	#10 SCREW	3'-0" OC

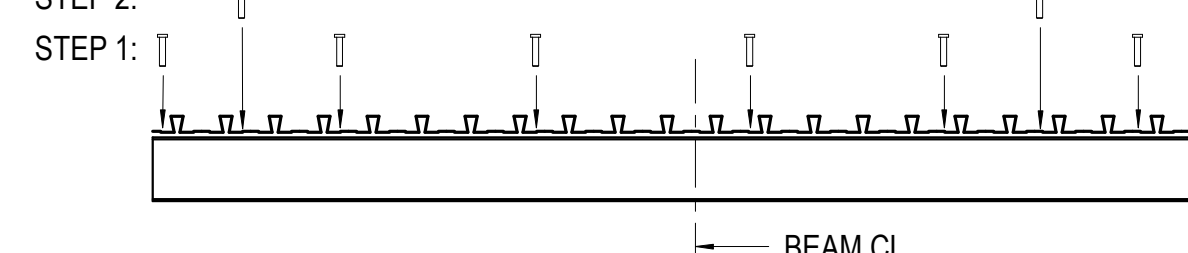
- NOTES:**
- SHEAR STUDS MAY REPLACE PUDDLE WELDS ONE-FOR-ONE



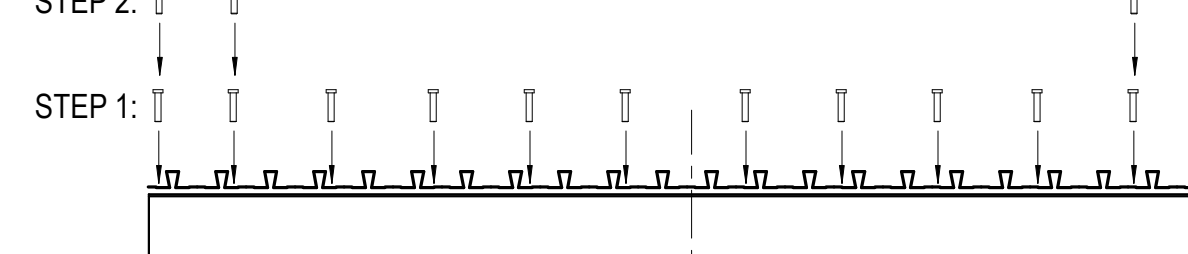
- CASE 1: # STUDS < # RIBS/2**
- STEP 1 = ONE STUD EVERY THIRD RIB
- STEP 2 = 1/2 OF REMAINING STUDS AT EACH END OF BEAM, PLACE IN EVERY OTHER EMPTY RIB STARTING FROM EACH END OF BEAM



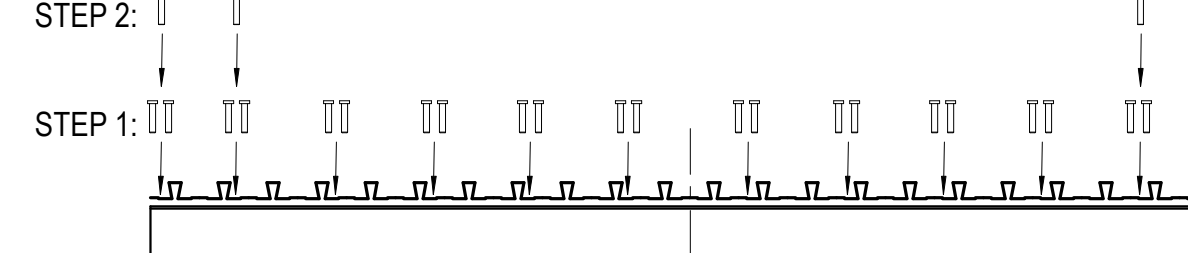
- CASE 2: # STUDS < # RIBS**
- STEP 1 = ONE STUD EVERY OTHER RIB
- STEP 2 = 1/2 OF REMAINING STUDS AT EACH END OF BEAM, PLACE IN EMPTY RIBS STARTING FROM EACH END OF BEAM



- CASE 3: # RIBS < # STUDS < 2x # RIBS**
- STEP 1 = ONE STUD EVERY RIB
- STEP 2 = 1/2 OF REMAINING STUDS AT EACH END OF BEAM, PLACE ONE IN EACH RIB STARTING FROM EACH END OF BEAM



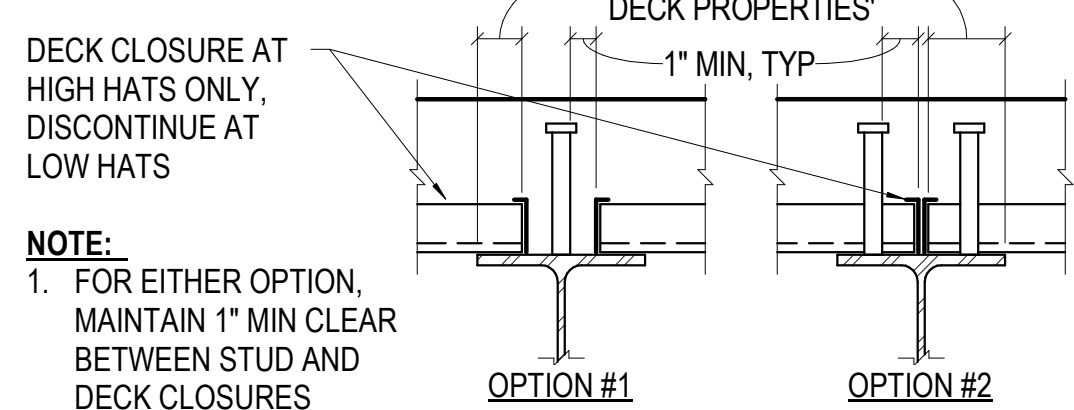
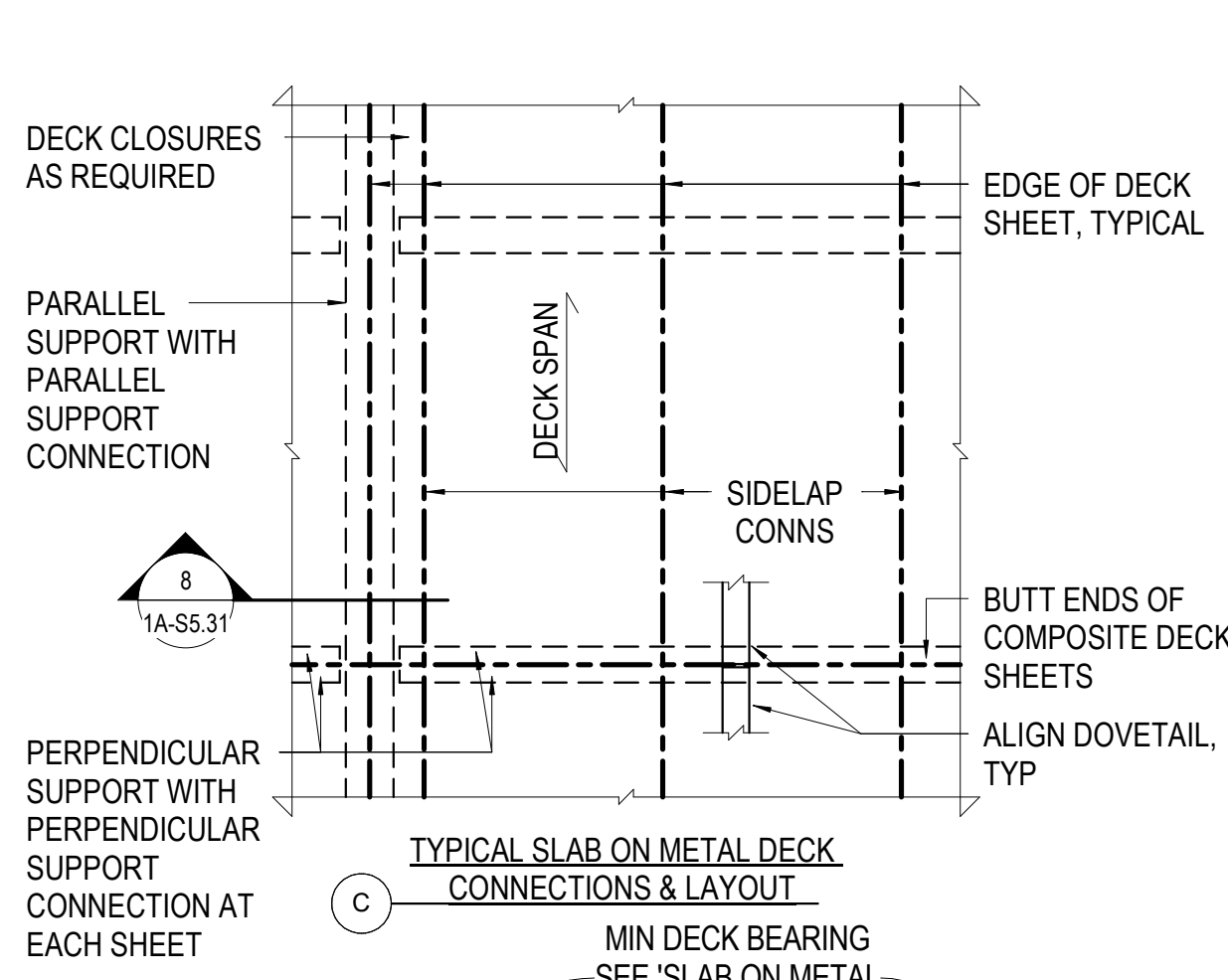
- CASE 4: # STUDS > 2x # RIBS**
- STEP 1 = TWO STUDS EVERY RIB
- STEP 2 = 1/2 OF REMAINING STUDS AT EACH END OF BEAM, PLACE ONE IN EACH RIB STARTING FROM EACH END OF BEAM



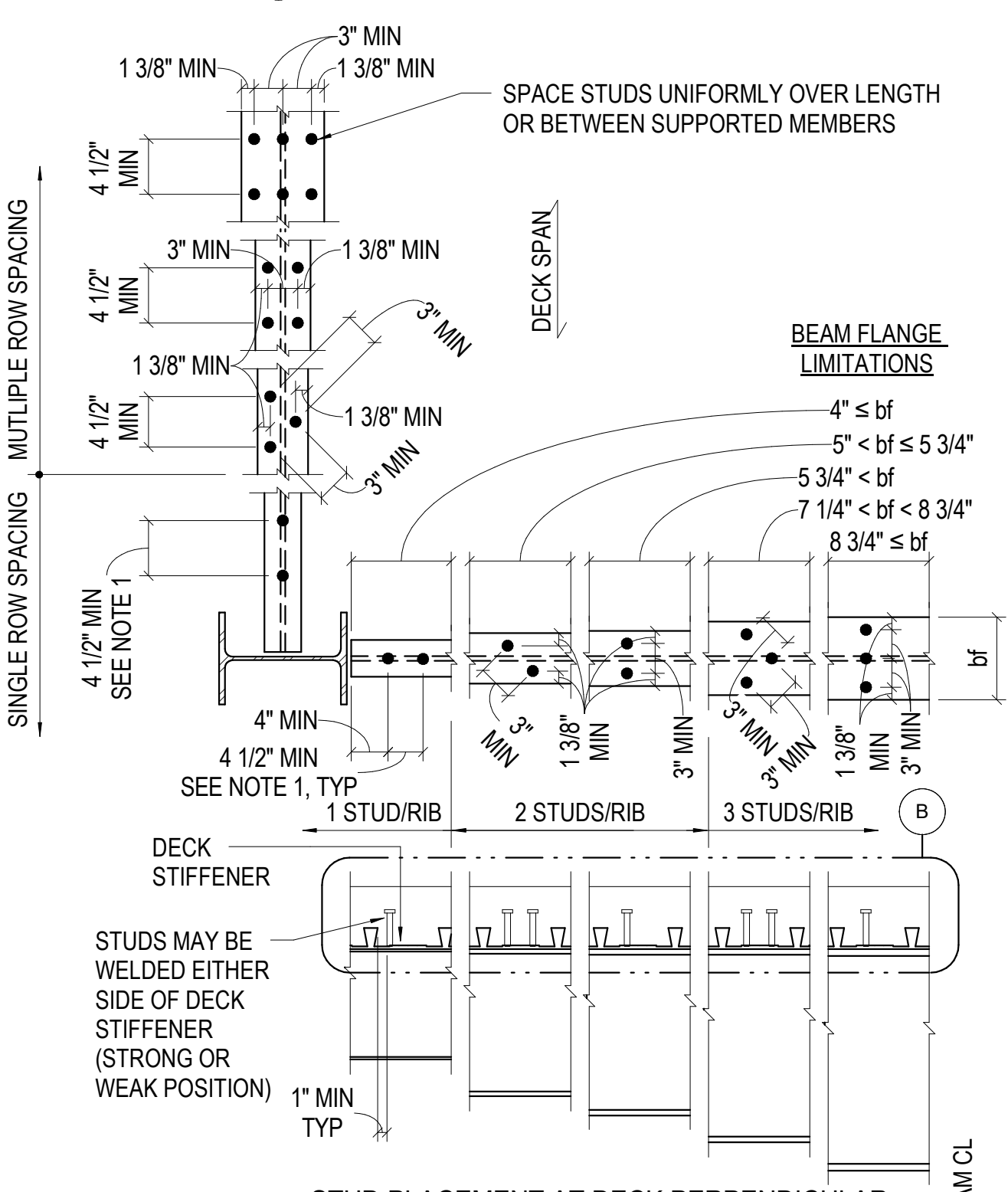
**STUD LAYOUT AT DECK PERPENDICULAR**

SLAB ON METAL DECK PROPERTIES							
DECK TYPE	DECK DEPTH (IN)	DECK GAUGE	DECK Fy (KSI)	I POS (IN <sup>4</sup> /FT)	S POS (IN <sup>3</sup> /FT)	S NEG (IN <sup>3</sup> /FT)	MINIMUM DECK BEARINGS (IN)
2" EPICORE	2	20	50	0.47	0.34	0.31	2 4
2" EPICORE	2	18	50	0.63	0.47	0.43	2 4

- NOTES:**
- COMPOSITE METAL DECK SPECIFIED IS MANUFACTURED BY EPICORE. ALTERNATE COMPOSITE METAL DECK MAY BE SUPPLIED PROVIDED MINIMUM DECK PROPERTIES ARE SATISFIED AND THE RATIO OF THE RIB WIDTH MEASURED AT MID HEIGHT OF DECK TO RIB HEIGHT IS NO LESS THAN 1.5.

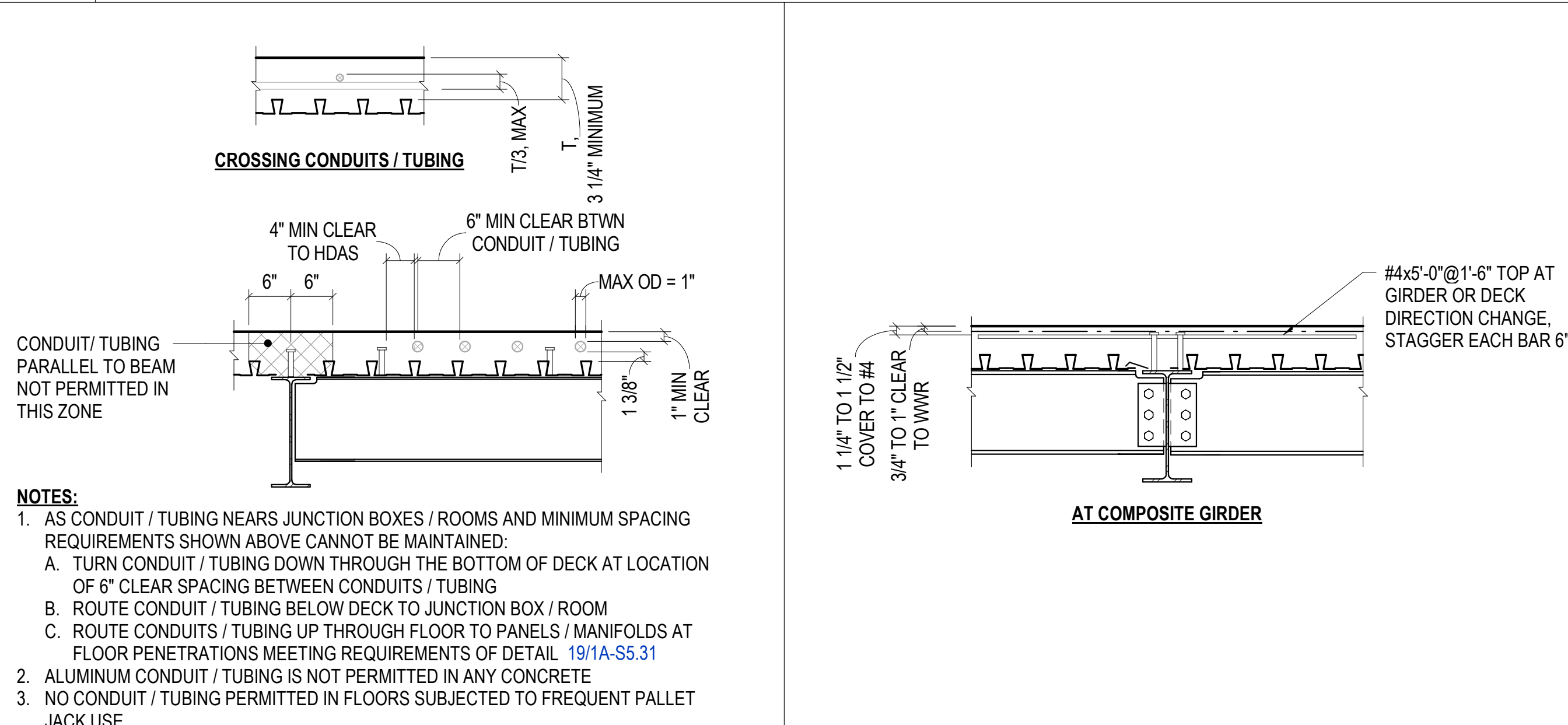


**STUD PLACEMENT AT DECK TERMINATION**



- NOTES:**
- PROVIDE STUDS AT 12" MAX WHERE NUMBER OF STUDS IS NOT INDICATED

## 11 NO SCALE TYPICAL SLAB ON METAL DECK SCHEDULE, DECK LAYOUT AND STUD LAYOUT



## 12 3/4" = 1'-0" TYPICAL CONDUIT / TUBING IN SLAB ON METAL DECK

## 8 3/4" = 1'-0" TYP SLAB ON METAL DECK GIRDER & DECK DIRECTION REINFORCING

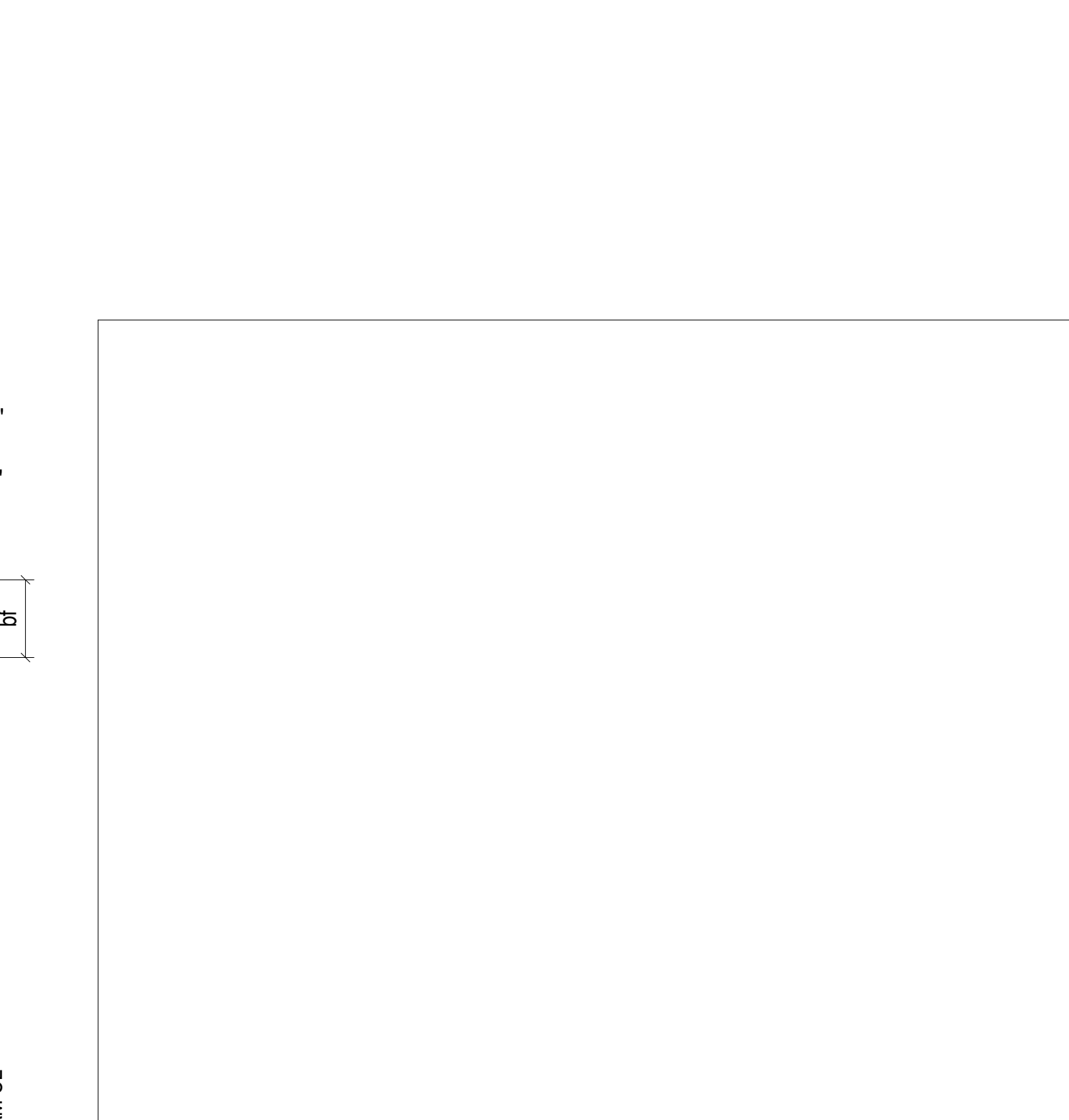
SLAB ON METAL DECK SCHEDULE									
SLAB MARK	DECK		CONCRETE			MAXIMUM UNSHORED DECK SPAN			CONN TYPE
	TYPE	GAGE	CONC ABOVE DECK (IN)	TOTAL THK (IN)	CONC TYPE (SEE NOTE 8)	1 SPAN	2 SPAN	3 SPAN	
2E3.25-20A	2" EPICORE	20	3 1/4	5 1/4	3 (NWC)	7'-5"	7'-10"	8'-1"	- A
2E3.25-18A	2" EPICORE	18	3 1/4	5 1/4	3 (NWC)	9'-0"	9'-3"	9'-6"	- A
2E3.25-20B	2" EPICORE	20	3 1/4	5 1/4	3 (NWC)	7'-5"	7'-10"	8'-1"	- A

- NOTES:**
- AT COMPOSITE SYSTEMS, NET-IN-PLACE LENGTH OF SHEAR STUDS SHALL MEET THE FOLLOWING:
    - 1 1/2" MIN ABOVE T/DECK
    - 1" MIN BELOW T/CONCRETE
  - SEE SPECIFICATIONS FOR FLOOR FINISH & FLATNESS REQUIREMENTS
  - INSTALL DECK OVER 4 SUPPORTS (3 SPAN CONTINUOUS) WHERE POSSIBLE
  - COMPOSITE DECK DESIGN IS SIZED BASED UPON THE FOLLOWING MAXIMUM CONDITIONS:
    - DECK DEFLECTION = 1/2"
    - AVERAGE SLAB THICKNESS INCREASED BY 1/2" FOR LEVELING
    - CONSTRUCTION LIVE LOAD = 20 PSF. IF CONSTRUCTION LIVE LOAD EXCEEDS 20 PSF, CONTRACTOR SHALL DESIGN FOR INCREASED LOADING
    - NORMAL WEIGHT CONCRETE: 150 PCF WET WEIGHT, 145 PCF DRY WEIGHT
  - DECK TYPE "VL" MAY BE EITHER "VL1" OR "VLJ"
  - SUBMIT SHOP DRAWINGS INDICATING STUD LAYOUT (NO. OF STUDS/RIB) AND PLACEMENT ALONG BEAM
  - IF ACTUAL DECK SPANS EXCEED MAXIMUMS SHOWN IN TABLE ABOVE, CONTRACTOR TO SHORE DECK, PROVIDE HEAVIER GAUGE DECK, OR PROVIDE MULTIPLE LAYERS OF DECK
  - SEE "CONCRETE MIX TABLE" IN GENERAL NOTES FOR CONCRETE MIX REQUIREMENTS
  - HANGERS WITH A 50 POUND MAXIMUM LOAD MAY BE PLACED AT 4'-0" MINIMUM SPACING EACH WAY, UNO

- NOTES:**
- FOR EITHER OPTION, MAINTAIN 1" MIN CLEAR BETWEEN STUD AND DECK CLOSURES

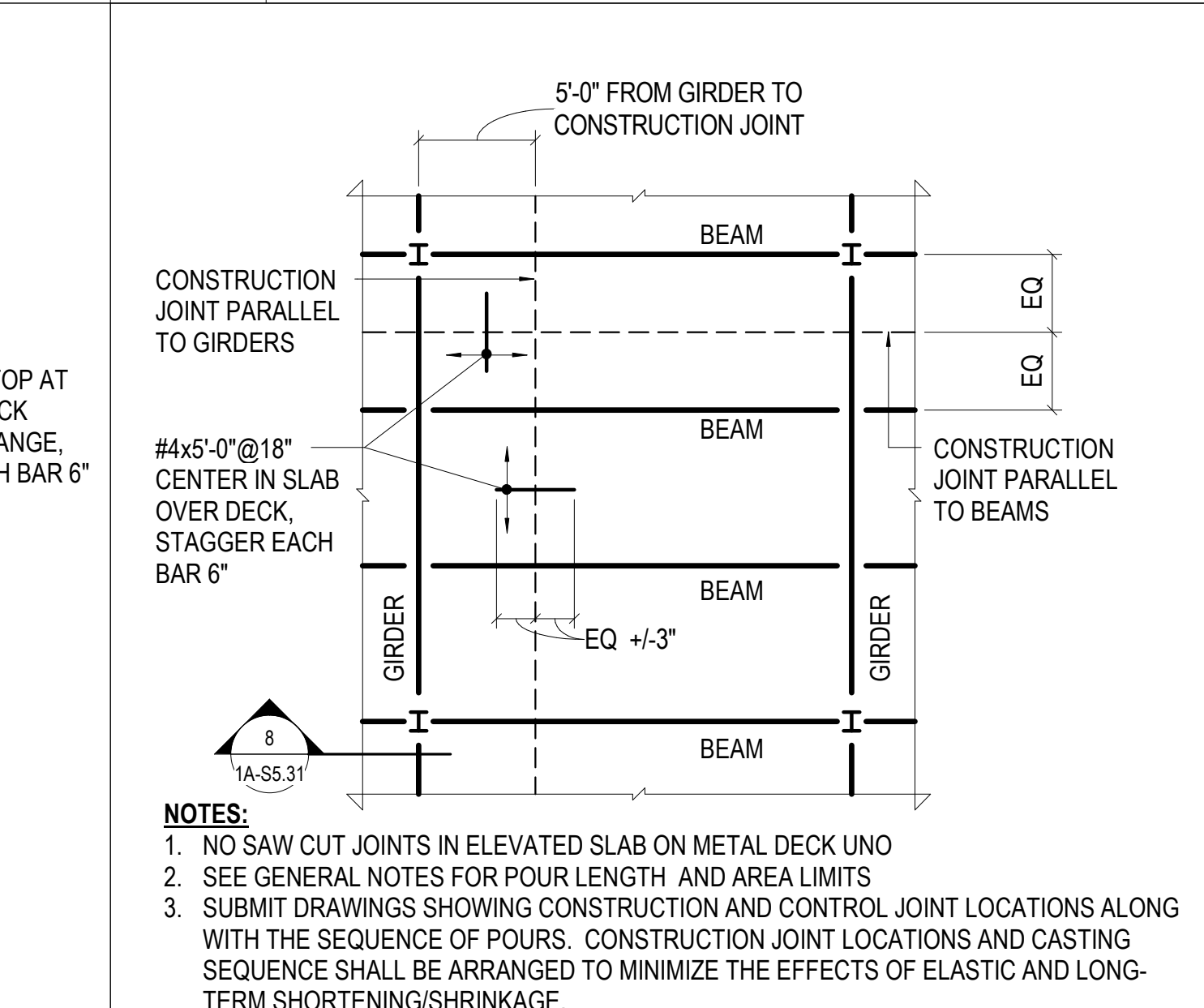


**STUD PLACEMENT AT DECK PERPENDICULAR**



- NOTES:**
- NO SAW CUT JOINTS IN ELEVATED SLAB ON METAL DECK UNO
  - SEE GENERAL NOTES FOR POUR LENGTH AND AREA LIMITS
  - SUBMIT DRAWINGS SHOWING CONSTRUCTION AND CONTROL JOINT LOCATIONS ALONG WITH THE SEQUENCE OF POURS. CONSTRUCTION JOINT LOCATIONS AND CASTING SEQUENCE SHALL BE ARRANGED TO MINIMIZE THE EFFECTS OF ELASTIC AND LONG-TERM SHORTENING/SHRINKAGE.

## 4 NO SCALE TYPICAL SLAB ON METAL DECK CONSTRUCTION JOINT LOCATIONS



## 4 NO SCALE TYPICAL SLAB ON METAL DECK CONSTRUCTION JOINT LOCATIONS

**Steamboat**  
ALTRERA east west partners  
2305 Mount Werner Circle  
Steamboat Springs, CO 80487

**Gensler**  
1225 17th Street  
Suite 150  
Denver, CO 80202  
United States  
Tel 303.595.8586  
Fax 303.825.6823

**LANDMARK**  
141 9th Street  
PO Box 774943  
Steamboat Springs, CO 80477  
Tel 970.871.9494

**MARTIN/MARTIN**  
12499 West Colfax Ave.  
Lakewood, CO 80215  
United States  
Tel 303.431.6100

**me**  
14143 Denver West Pkwy  
Suite 300  
Golden, CO 80204  
United States  
Tel 303.421.6655



Date	Description
2021.05.19	BP3: PROMENADE - ISSUE FOR BID AND PERMIT

Date	Description
2021.05.19	BP3: PROMENADE - ISSUE FOR BID AND PERMIT

Date	Description
2021.05.19	BP3: PROMENADE - ISSUE FOR BID AND PERMIT

Date	Description
2021.05.19	BP3: PROMENADE - ISSUE FOR BID AND PERMIT

Date	Description
2021.05.19	BP3: PROMENADE - ISSUE FOR BID AND PERMIT

Date	Description
2021.05.19	BP3: PROMENADE - ISSUE FOR BID AND PERMIT

Date	Description
2021.05.19	BP3: PROMENADE - ISSUE FOR BID AND PERMIT

Date	Description
2021.05.19	BP3: PROMENADE - ISSUE FOR BID AND PERMIT

Date	Description
2021.05.19	BP3: PROMENADE - ISSUE FOR BID AND PERMIT

Date	Description
2021.05.19	BP3: PROMENADE - ISSUE FOR BID AND PERMIT

Date	Description
2021.05.19	BP3: PROMENADE - ISSUE FOR BID AND PERMIT

Date	Description
2021.05.19	BP3: PROMENADE - ISSUE FOR BID AND PERMIT

Date	Description
2021.05.19	BP3: PROMENADE - ISSUE FOR BID AND PERMIT

Date	Description
2021.05.19	BP3: PROMENADE - ISSUE FOR BID AND PERMIT

Date	Description
2021.05.19	BP3: PROMENADE - ISSUE FOR BID AND PERMIT

Date	Description
2021.05.19	BP3: PROMENADE - ISSUE FOR BID AND PERMIT

Date	Description
2021.05.19	BP3: PROMENADE - ISSUE FOR BID AND PERMIT

Date	Description
2021.05.19	BP3: PROMENADE - ISSUE FOR BID AND PERMIT

Date	Description
2021.05.19	BP3: PROMENADE - ISSUE FOR BID AND PERMIT

Date	Description
2021.05.19	BP3: PROMENADE - ISSUE FOR BID AND PERMIT

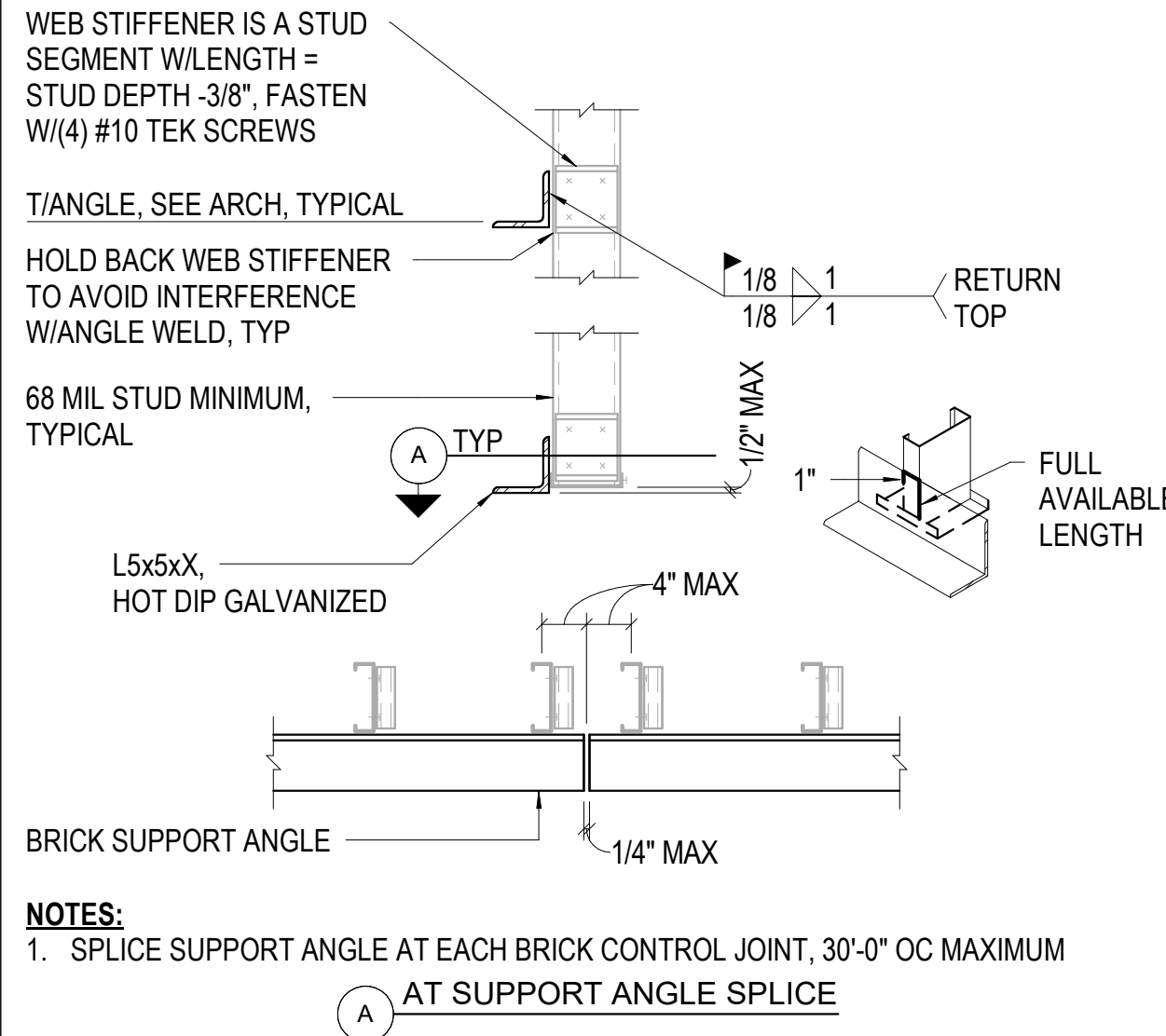
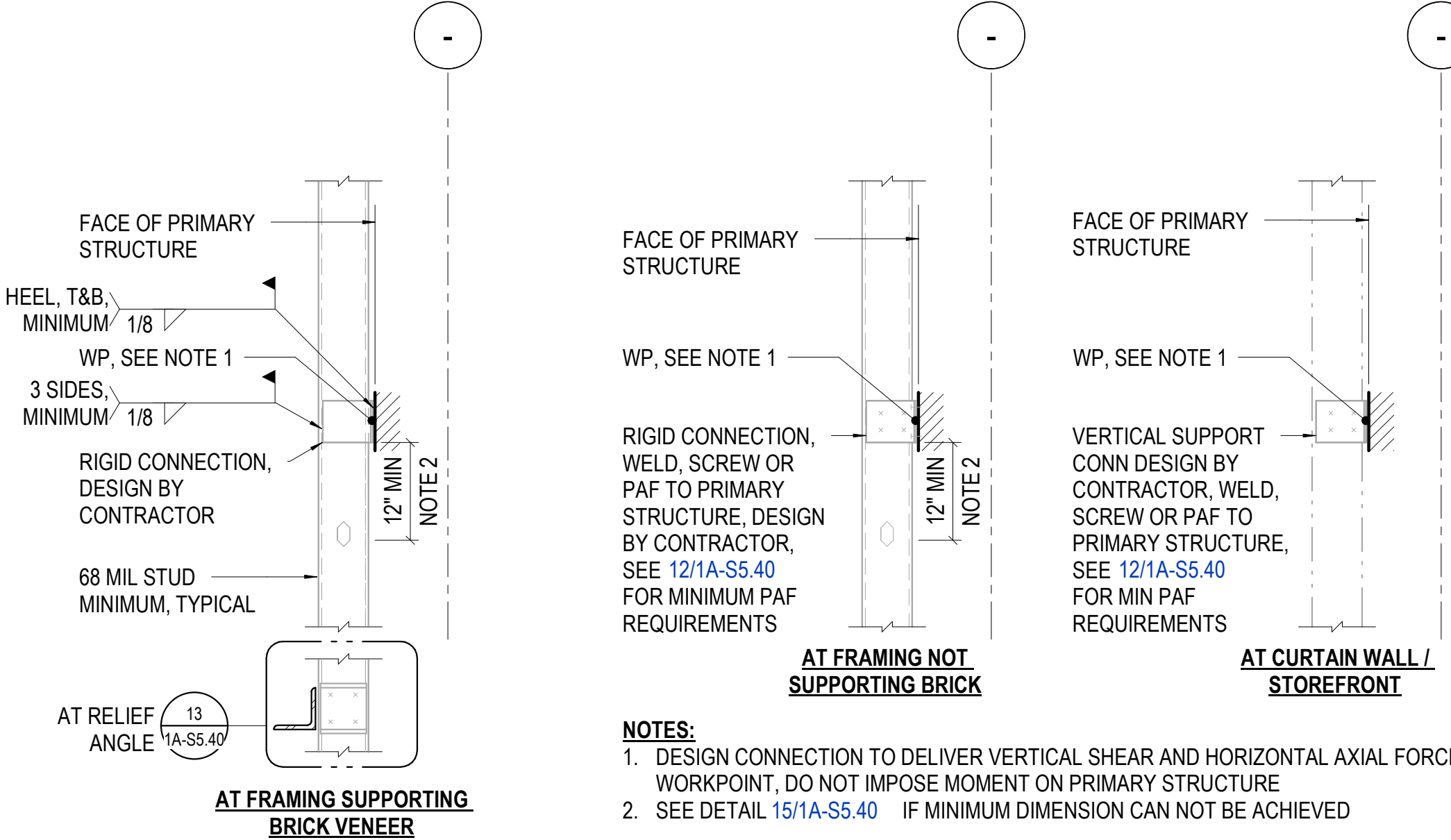
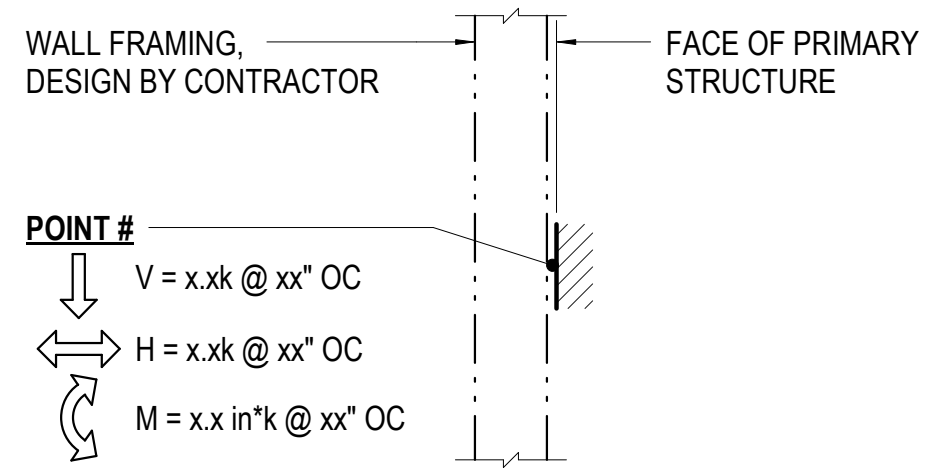
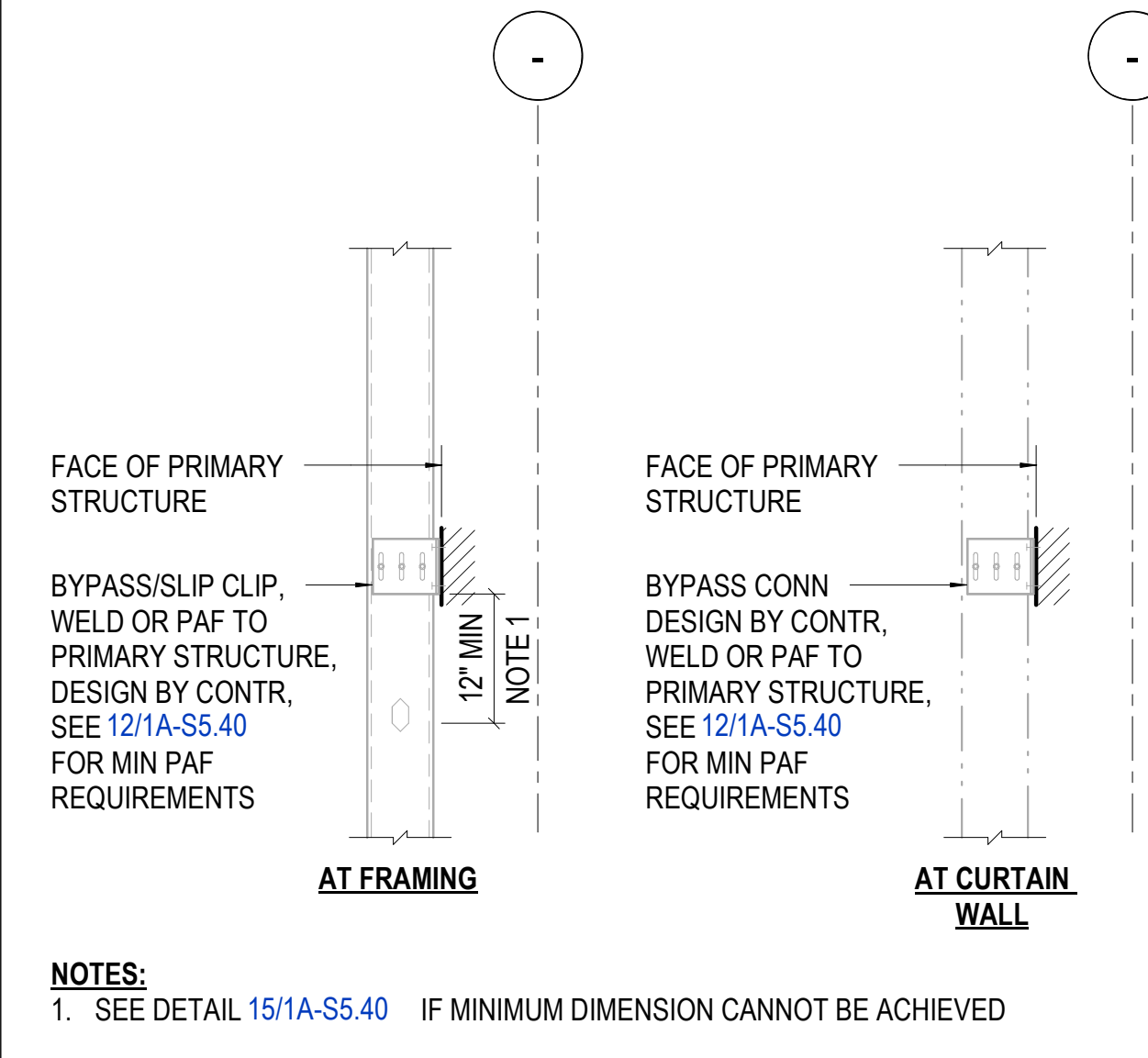
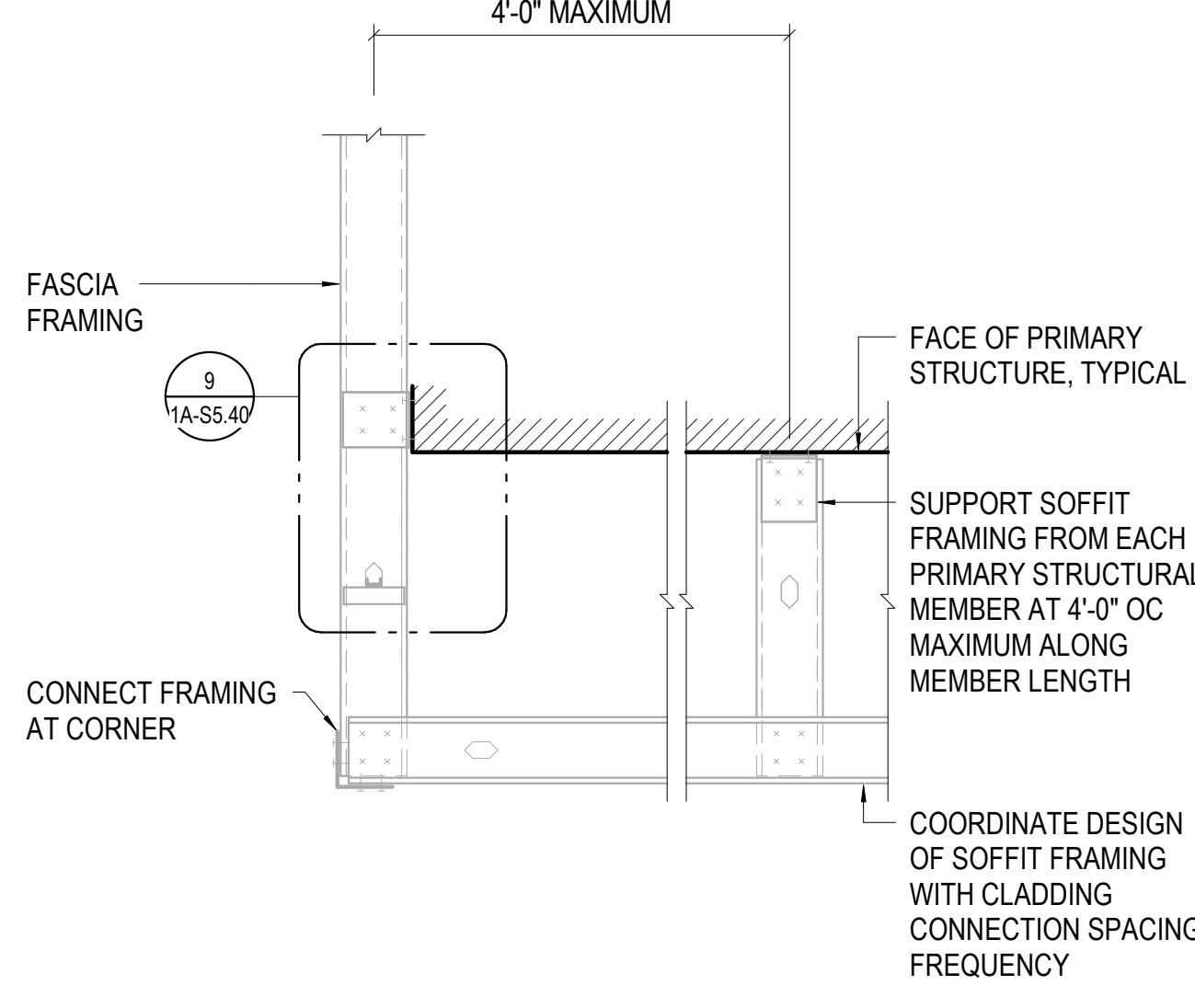
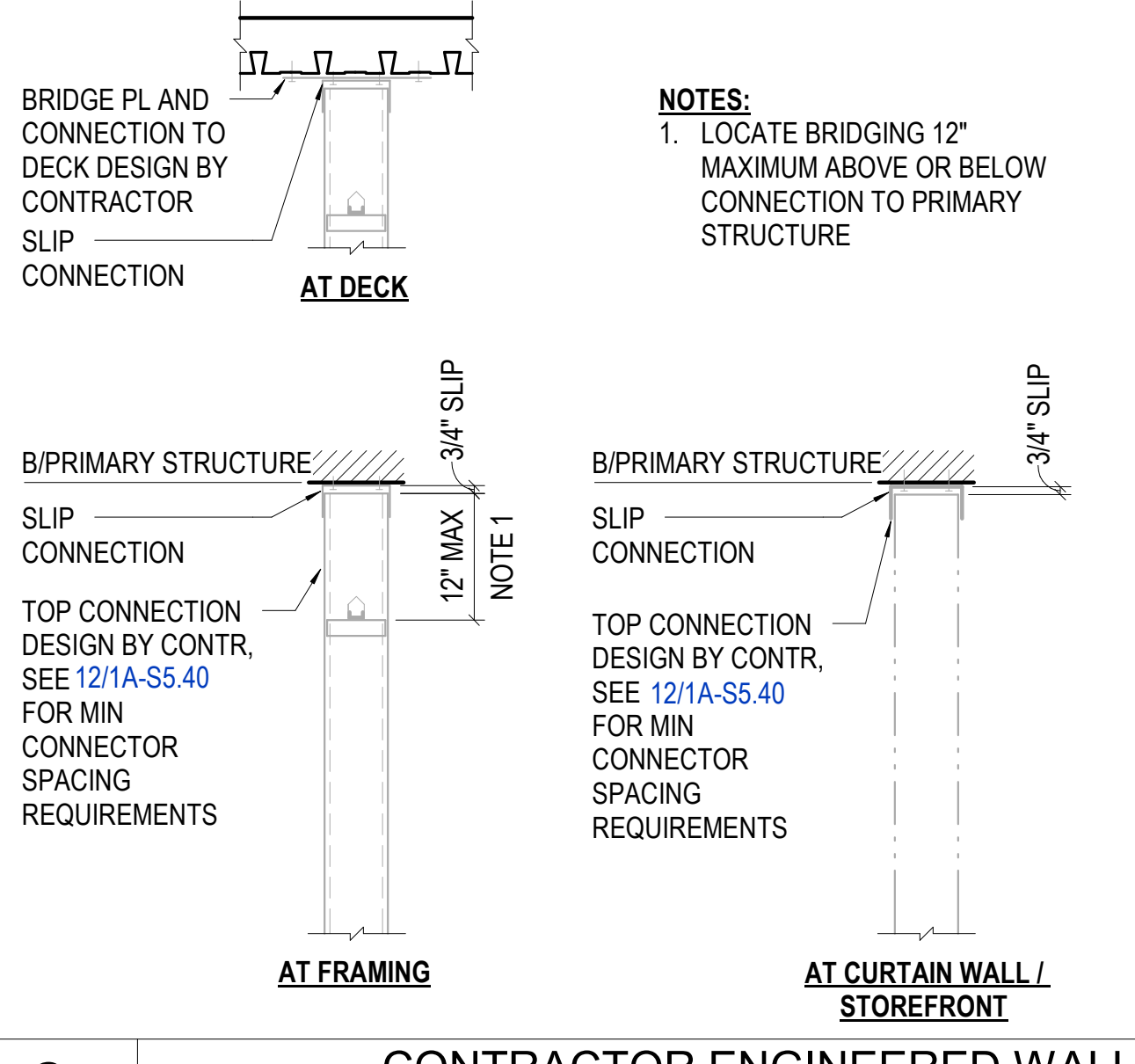
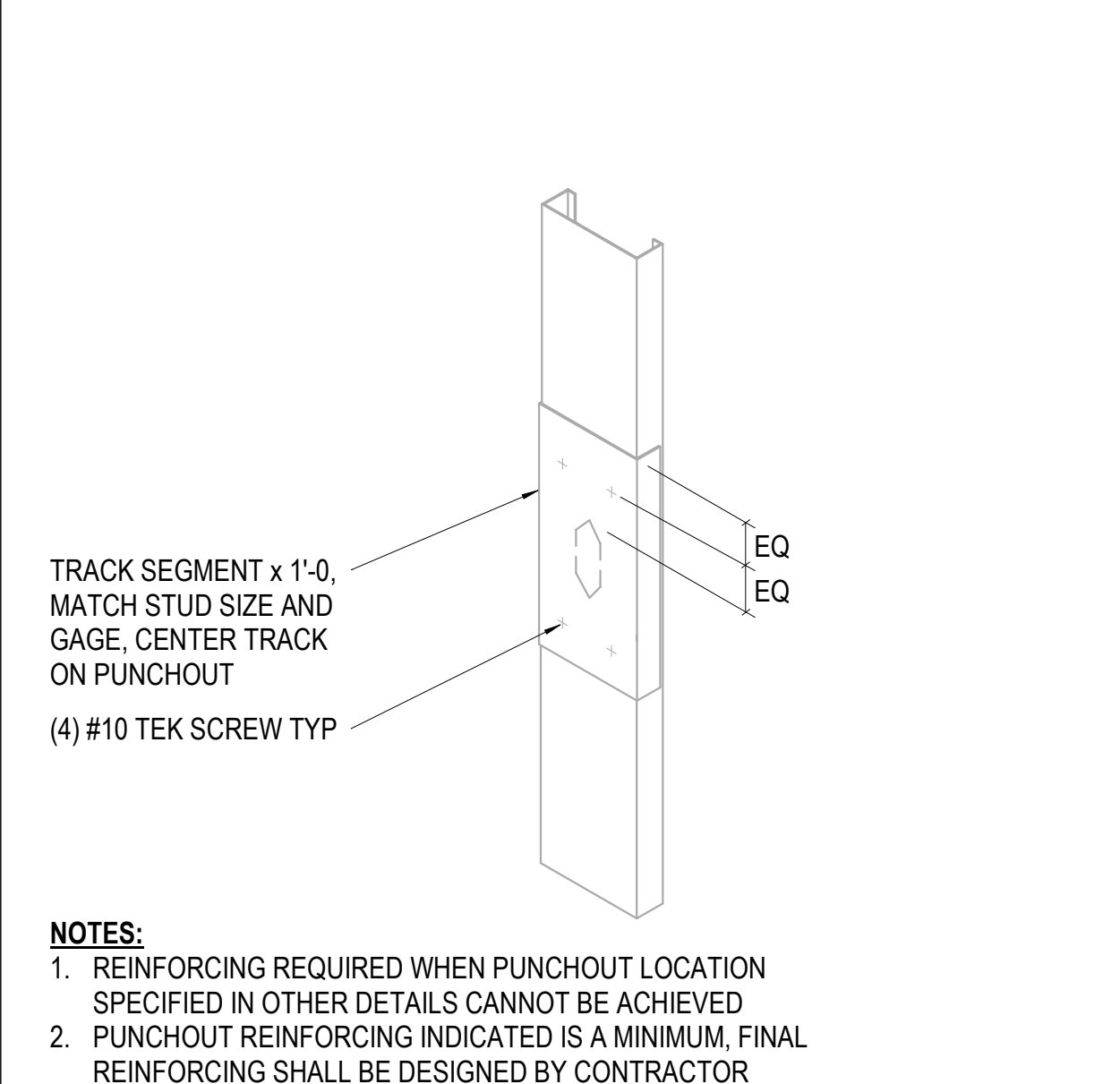
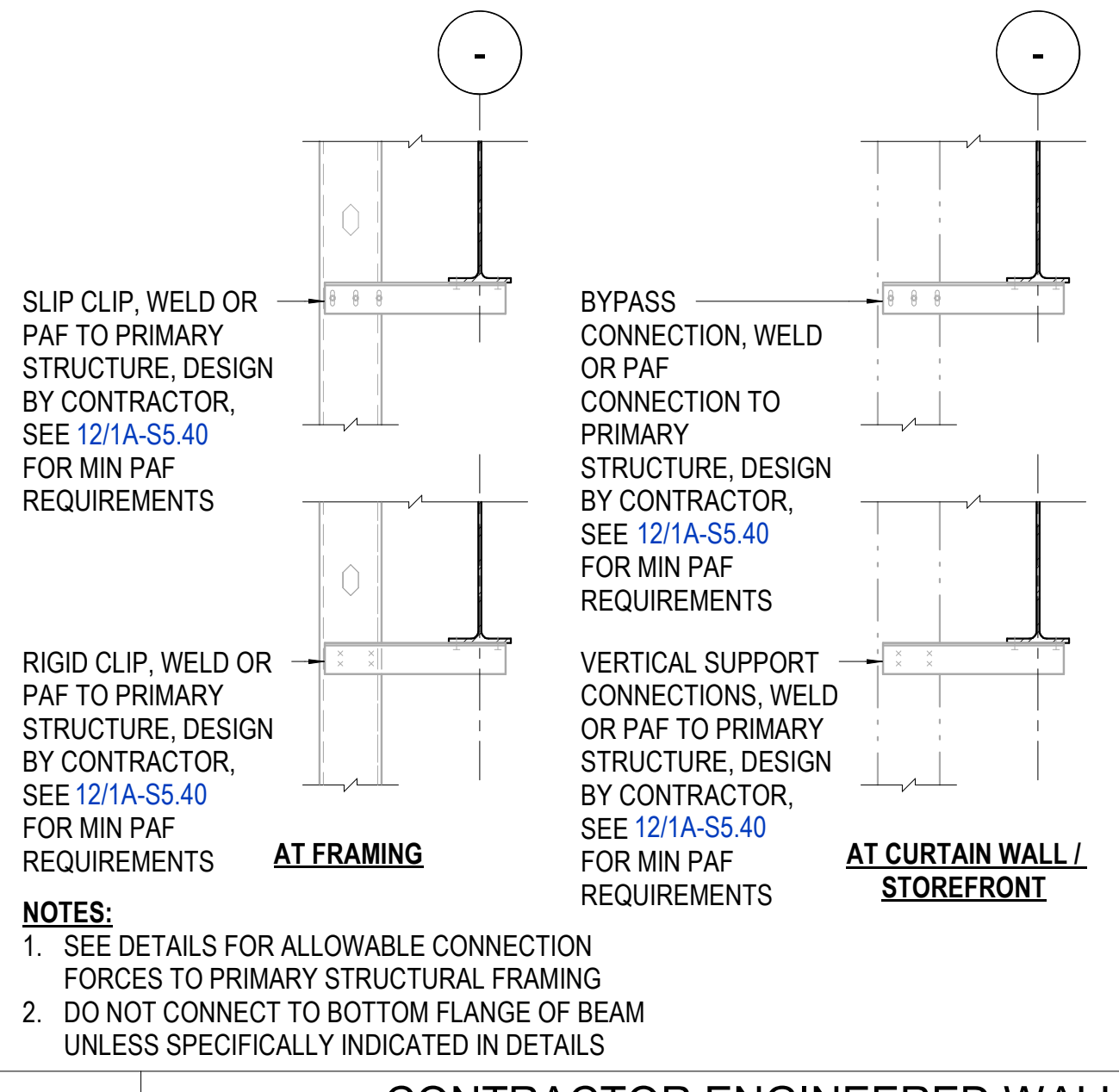
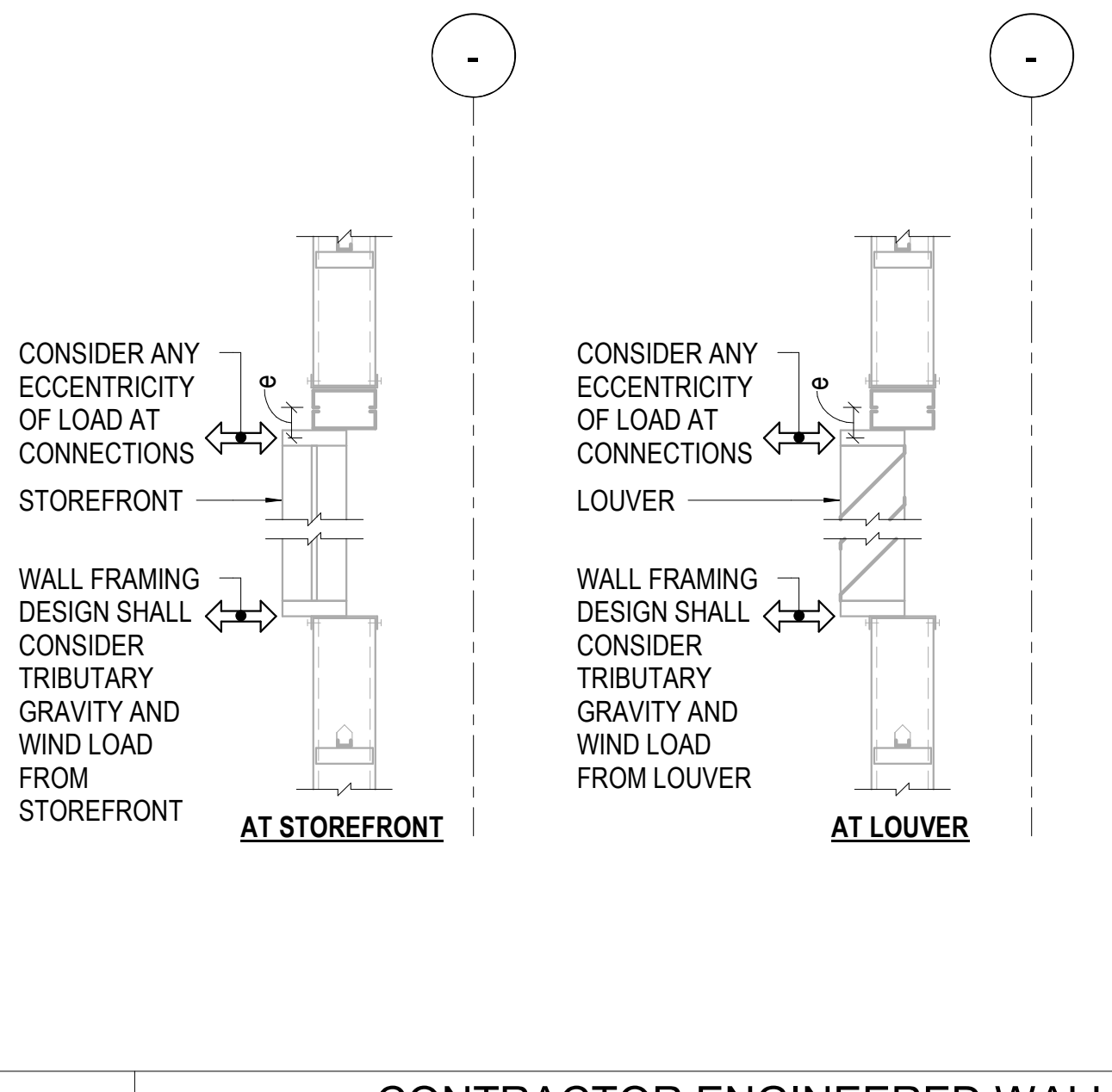
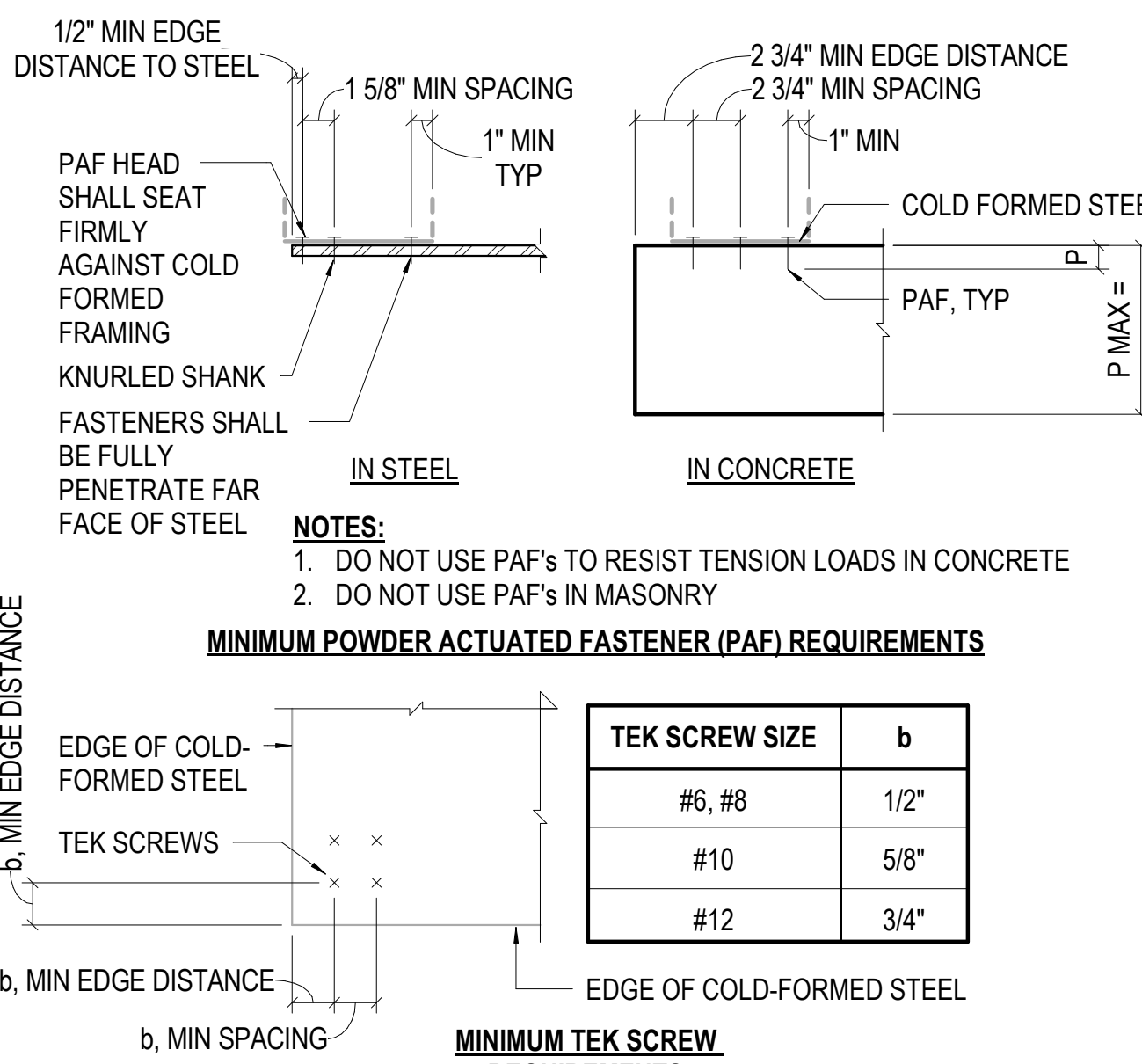
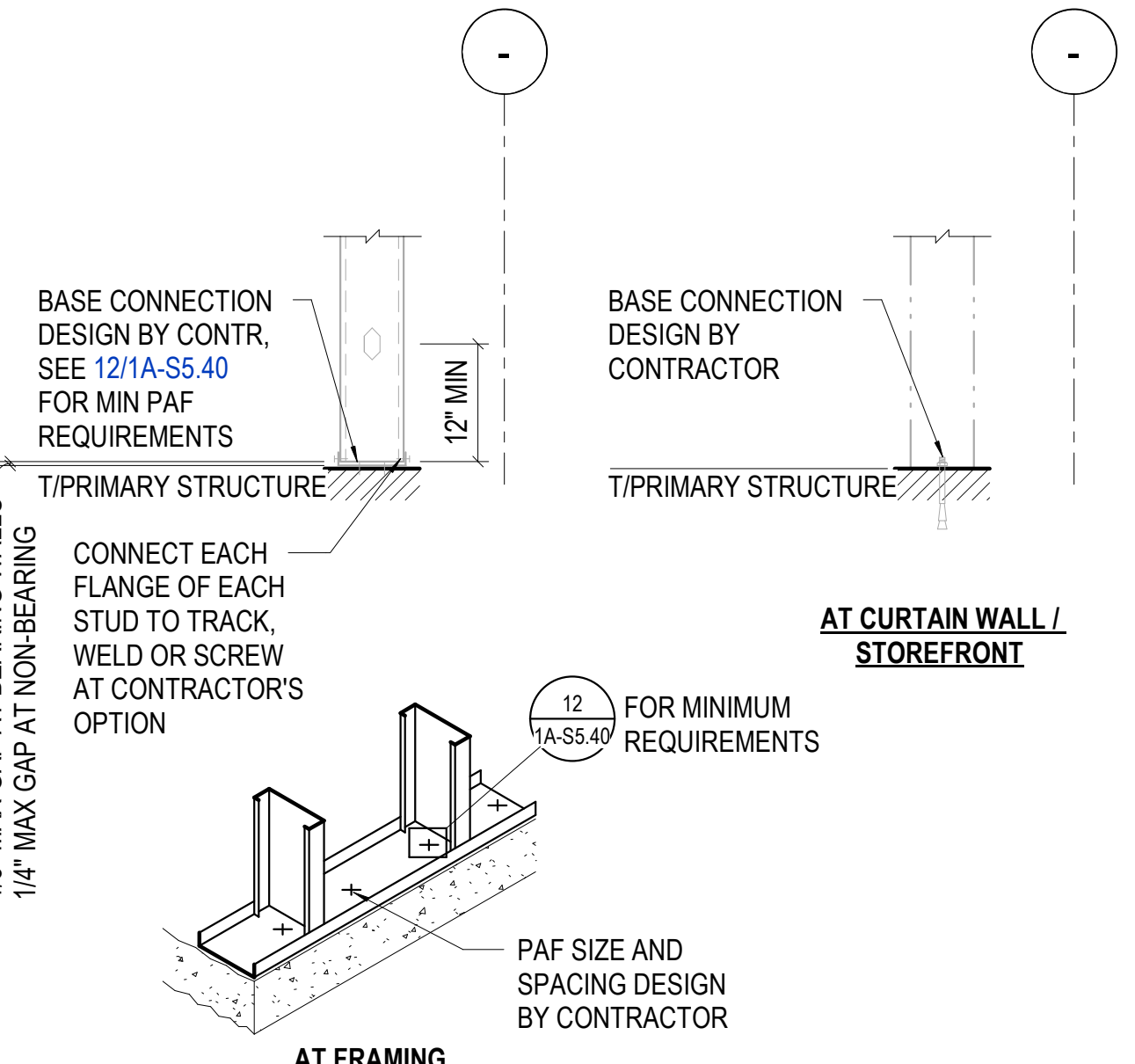
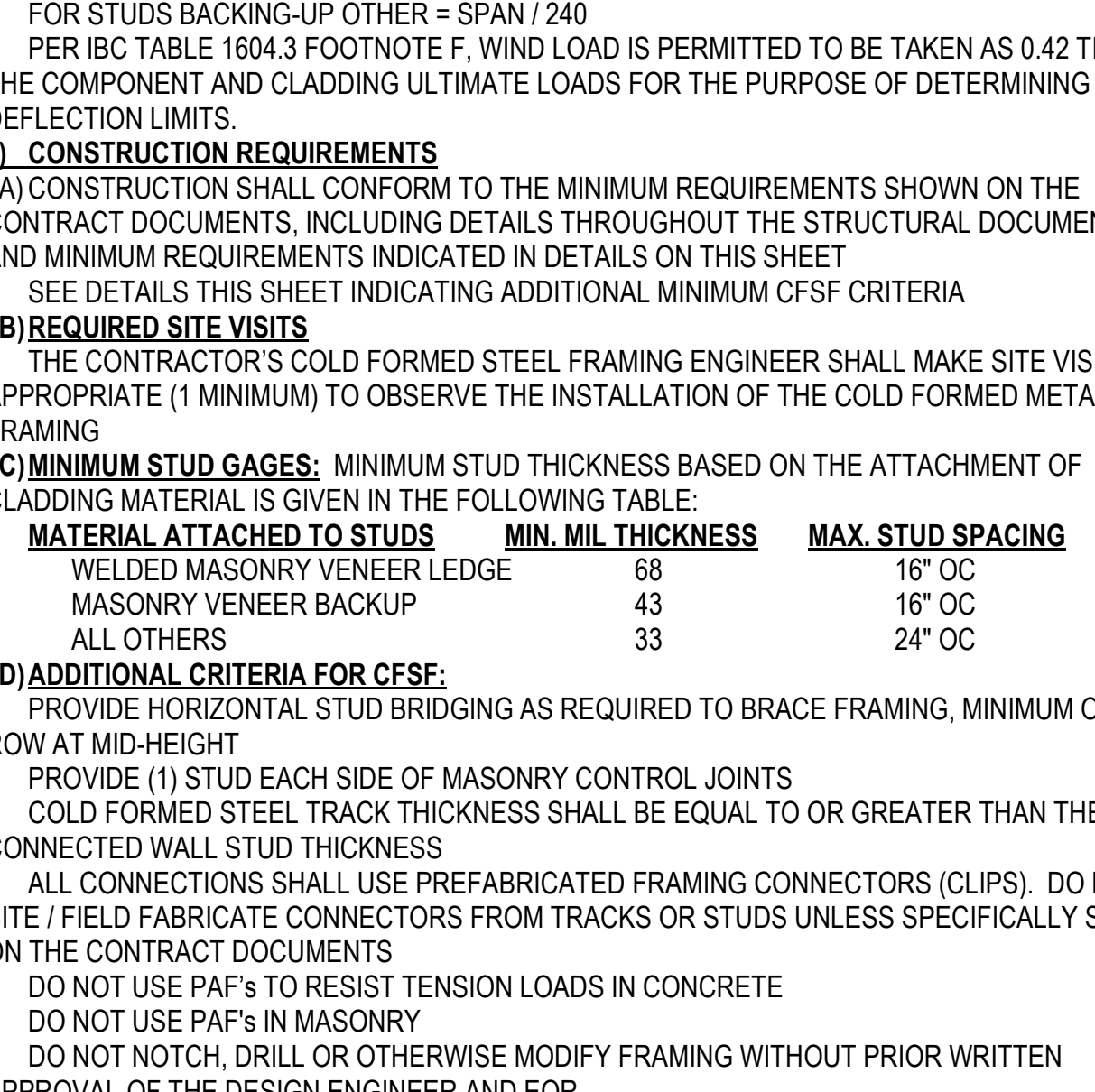
Date	Description
2021.05.19	BP3: PROMENADE - ISSUE FOR BID AND PERMIT

Date	Description
2021.05.19	BP3: PROMENADE - ISSUE FOR BID AND PERMIT



DESIGNER: NC MARTIN  
LEAD REVIT: TEAL COLIN KNOWLES  
DATE PRINTED: 5/19/2021 12:07:05 PM  
FILE PATH: E:\01-2021\03-155.001 - Steamboat Redevel\03 TBS5.000 - Structural\_SBR\_Promenade Building 2021-2021.rvt

MIL JOB #: 201411.S.01  
PRINCIPAL: KELLY KNOWLES  
FOR: KELLY KNOWLES  
PROJECT MANAGER: C. A. CHEN

				<b>DESIGN CRITERIA FOR PERFORMANCE SPECIFIED COLD FORMED STEEL FRAMING (CFSF)</b> <b>1) GENERAL COLD FORMED STEEL FRAMING REQUIREMENTS</b> 1A) COLD FORMED STEEL FRAMING (CFSF) USED FOR EXTERIOR CLADDING SUPPORT IS A PERFORMANCE SPECIFIED SYSTEM DESIGNED (ENGINEERED) AND PROVIDED BY THE CONTRACTOR 1B) THE CONTRACTOR SHALL DESIGN ALL MEMBERS AND CONNECTIONS FORMING A COMPLETE SYSTEM FOR THE CLADDING SELF WEIGHT, WIND AND SEISMIC FORCES INDICATED IN THE DESIGN CRITERIA SECTION AND AS INDICATED IN THE STRUCTURAL DOCUMENTS 1C) INFORMATION PERTAINING TO THE FRAMING IS SHOWN THROUGHOUT THE ARCHITECTURAL AND STRUCTURAL DOCUMENTS AND IN THE SPECIFICATIONS. CONTRACTOR SHALL REFERENCE AND COORDINATE FRAMING WITH ALL TRADES AND DESIGN DOCUMENTS 1D) REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS INCLUDING PROFESSIONAL ENGINEERING AND SUBMITTAL REQUIREMENTS 1E) VARIATIONS PROPOSED BY THE CONTRACTOR TO ACCOMMODATE PREFABRICATION AND ALTERNATE SCHEMES SHALL BE SUBMITTED FOR APPROVAL PRIOR TO PREPARING DRAWINGS AND ENGINEERING OF THE COLD FORMED STEEL FRAMING. <b>2) BIDDING REQUIREMENTS</b> 2A) THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING A BID THAT INCLUDES ALL ITEMS ASSOCIATED WITH THE DESIGN AND CONSTRUCTION OF THE EXTERIOR WALL AND SOFFIT FRAMING, INCLUDING BUT NOT LIMITED TO: - DESIGN OF THE FRAMING MEMBERS (STUDS, SILLS, HEADERS, JAMBS, SOFFITS, HANGERS & KICKERS, ETC.) - CONNECTION DESIGN: BOTH FRAMING-TO-FRAMING CONNECTIONS AND CONNECTIONS BETWEEN FRAMING AND THE PRIMARY STRUCTURAL FRAME - COORDINATION AND INSTALLATION OF ALL FRAMING 2B) BIDS SHALL BE BASED ON CONTRACTOR ENGINEERED SIZES TO RESIST THE DESIGN FORCES AND MEET THE MINIMUM REQUIREMENTS INDICATED IN THE CONTRACT DOCUMENTS - DO NOT BASE BIDS SOLELY ON THE MINIMUM REQUIREMENTS 2C) FRAMING MEMBERS DEPTHS SHALL BE AS NOTED ON ARCHITECTURAL DOCUMENTS, UNLESS NOTED OTHERWISE 2D) VARY MEMBER THICKNESS, FLANGE WIDTH, YIELD STRESS, AND SPACING AS REQUIRED TO SATISFY: - INDICATED PERFORMANCE CRITERIA - MINIMUM STRUCTURAL REQUIREMENTS INDICATED IN THE SPECIFICATIONS AND STRUCTURAL DETAILS <b>3) ENGINEERING REQUIREMENTS</b> <b>3A) GENERAL:</b> - FRAMING MEMBERS SHALL BE AS NOTED ON THE ARCHITECTURAL DOCUMENTS, UNLESS NOTED OTHERWISE - FRAMING MEMBERS SHALL DELIVER MAXIMUM FORCES TO THE PRIMARY STRUCTURAL FRAME AT THE LOCATIONS, DIRECTIONS, AND MAGNITUDES NOTED IN STRUCTURAL DETAILS THUS: <div data-bbox="2217 665 2564 837"><p>POINT # <math>V = x \cdot xk @ xk'' OC</math> <math>H = x \cdot xk @ xk'' OC</math> <math>M = x \cdot x \cdot in^k @ xk'' OC</math></p></div> - DO NOT CONNECT FRAMING TO THE PRIMARY STRUCTURAL FRAMING AT LOCATIONS OR IN WAYS NOT SPECIFICALLY INDICATED IN THE DETAILS - ALL CONNECTIONS TO PRIMARY STRUCTURE SHALL BE DESIGNED AS PINNED CONNECTIONS. DO NOT DELIVER MOMENT TO PRIMARY STRUCTURE UNLESS SPECIFICALLY INDICATED. - DO NOT CONNECT FRAMING TO THE BOTTOM FLANGE OF BEAMS UNLESS SPECIFICALLY INDICATED IN STRUCTURAL DETAILS <b>3B) GC / COLD FORMED STEEL FRAMING DESIGNER / CLADDING DESIGNER COORDINATION:</b> - COLD FORMED STEEL FRAMING MEMBERS AND FRAMING ATTACHMENT SHALL BE DESIGNED FOR THE TRIBUTARY LOADING AT THE FRAMING SPACING INDICATED ON THE CONTRACT DOCUMENTS - CLADDING SUPPLIER SHALL DESIGN CLADDING TO DISTRIBUTE LOAD UNIFORMLY TO AND ATTACH TO EACH FRAMING MEMBER. - CLADDING ATTACHMENT SPACING WHICH DOES NOT EQUALLY DISTRIBUTE LOAD TO EACH STEEL FRAMING MEMBER IS NOT ACCEPTABLE WITHOUT APPROVAL FROM THE STEEL FRAMING SUPPLIER / DESIGNER AND THE PROJECT ENGINEER OF RECORD (EOR) - IF THE CLADDING SUPPLIER DOES NOT AND / OR CANNOT UNIFORMLY LOAD / ATTACH TO EACH STEEL FRAMING MEMBER, THE LOADS FROM THE CLADDING SUPPLIER MUST BE PROVIDED TO THE FRAMING SUPPLIER. THE STEEL FRAMING SUPPLIER WILL NEED TO INCORPORATE THESE INCREASED LOADS INTO THE FRAMING DESIGN. - GC SHALL COORDINATE BETWEEN COLD FORMED STEEL FRAMING SUPPLIER AND CLADDING SUPPLIER AS REQUIRED. <b>3C) LOADS:</b> - WIND LOADS GIVEN IN THESE DOCUMENTS ARE BASED ON A COMPONENT AND CLADDING TRIBUTARY AREA OF 10 SQUARE FEET. REDUCTION IN LOADS BASED ON TRIBUTARY AREA ARE ALLOWED AS PERMITTED IN THE GOVERNING BUILDING CODE. - CALCULATE AND APPLY TO COLD FORMED STEEL FRAMING HEADERS, SILLS & JAMBS CUMULATIVE LINE AND CONCENTRATED TRIBUTARY LOADS FROM CLADDING DEAD LOAD AND WIND PRESSURES ON WINDOWS, LOUVERS, DOORS, CURTAIN WALL, AND OTHER OPENINGS - COORDINATE MULLION AND JAMB LOCATIONS WITH THE GENERAL CONTRACTOR - CONTRACTOR SHALL ACCOUNT FOR LOCALIZED LOADS AND MOMENTS DUE TO ECCENTRICALLY APPLIED LOADS SUCH AS SLIP CONNECTIONS AND WINDOW HEAD TRACKS <b>3D) PRIMARY FRAME DEFLECTIONS:</b> PROVIDE VERTICAL SLIP CONNECTIONS AND DEFLECTION TRACKS AS NEEDED TO ACCOMMODATE VERTICAL DEFLECTIONS OF THE PRIMARY STRUCTURAL FRAMING. UNLESS NOTED OTHERWISE, PROVIDE THE FOLLOWING ALLOWANCES FOR VERTICAL DEFLECTION OF THE PRIMARY STRUCTURAL FRAMING: - AT EXTERIOR / SPANDREL INFILL FRAMING: 3/4" - AT EXTERIOR / SPANDREL BYPASS FRAMING: 3/4" - AT INTERIOR FRAMING, GREATER OF L/240 OR 3/4" <b>3E) VERTICAL DEFLECTION CRITERIA:</b> DESIGN COLD FORMED METAL FRAMING HEADERS TO MEET THE FOLLOWING VERTICAL DEFLECTION CRITERIA: - FOR STUDS SUPPORTING MASONRY VENEER = SPAN / 600 - FOR STUDS SUPPORTING STUCCO = SPAN / 240 - FOR STUDS SUPPORTING THIN SET ADHERED VENEER = SPAN / 360 - FOR STUDS SUPPORTING METAL PANELS = SPAN / 240 - FOR STUDS SUPPORTING OTHER = SPAN / 240 <b>3F) HORIZONTAL DEFLECTION CRITERIA:</b> DESIGN COLD FORMED METAL FRAMING MEMBERS TO MEET THE FOLLOWING HORIZONTAL DEFLECTION CRITERIA: - FOR STUDS BACKING-UP MASONRY VENEER = SPAN / 600 - FOR STUDS BACKING-UP STUCCO OR THIN SET ADHERED VENEER = SPAN / 360 - FOR STUDS BACKING-UP METAL PANELS = SPAN / 240 - FOR STUDS BACKING-UP OTHER = SPAN / 240 - PER IBC TABLE 1604.3 FOOTNOTE F, WIND LOAD IS PERMITTED TO BE TAKEN AS 0.42 TIMES THE COMPONENT AND CLADDING ULTIMATE LOADS FOR THE PURPOSE OF DETERMINING DEFLECTION LIMITS. <b>4) CONSTRUCTION REQUIREMENTS</b> 4A) CONSTRUCTION SHALL CONFORM TO THE MINIMUM REQUIREMENTS SHOWN ON THE CONTRACT DOCUMENTS, INCLUDING DETAILS THROUGHOUT THE STRUCTURAL DOCUMENTS AND MINIMUM REQUIREMENTS INDICATED IN DETAILS ON THIS SHEET - SEE DETAILS THIS SHEET INDICATING ADDITIONAL MINIMUM CFSF CRITERIA <b>4B) REQUIRED SITE VISITS</b> - THE CONTRACTOR'S COLD FORMED STEEL FRAMING ENGINEER SHALL MAKE SITE VISITS AS APPROPRIATE (1 MINIMUM) TO OBSERVE THE INSTALLATION OF THE COLD FORMED METAL FRAMING. <b>4C) MINIMUM STUD GAGES:</b> MINIMUM STUD THICKNESS BASED ON THE ATTACHMENT OF CLADDING MATERIAL IS GIVEN IN THE FOLLOWING TABLE: <table data-bbox="2148 1772 2594 1835"><tr><th>MATERIAL ATTACHED TO STUDS</th><th>MIN. MIL THICKNESS</th><th>MAX. STUD SPACING</th></tr><tr><td>- WELDED MASONRY VENEER LEDGE</td><td>68</td><td>16" OC</td></tr><tr><td>- MASONRY VENEER BACKUP</td><td>43</td><td>16" OC</td></tr><tr><td>- ALL OTHERS</td><td>33</td><td>24" OC</td></tr></table> <b>4D) ADDITIONAL CRITERIA FOR CFSF:</b> - PROVIDE HORIZONTAL STUD BRIDGING AS REQUIRED TO BRACE FRAMING, MINIMUM OF (1) ROW AT MID-HEIGHT - PROVIDE (1) STUD EACH SIDE OF MASONRY CONTROL JOINTS - COLD FORMED STEEL TRACK THICKNESS SHALL BE EQUAL TO OR GREATER THAN THE CONNECTED WALL STUD THICKNESS - ALL CONNECTIONS SHALL USE PREFABRICATED FRAMING CONNECTORS (CLIPS). DO NOT SITE / FIELD FABRICATE CONNECTORS FROM TRACKS OR STUDS UNLESS SPECIFICALLY SHOWN ON THE CONTRACT DOCUMENTS - DO NOT USE PAFs TO RESIST TENSION LOADS IN CONCRETE - DO NOT USE PAFs IN MASONRY - DO NOT NOTCH, DRILL, OR OTHERWISE MODIFY FRAMING WITHOUT PRIOR WRITTEN APPROVAL OF THE DESIGN ENGINEER AND EOR		MATERIAL ATTACHED TO STUDS	MIN. MIL THICKNESS	MAX. STUD SPACING	- WELDED MASONRY VENEER LEDGE	68	16" OC	- MASONRY VENEER BACKUP	43	16" OC	- ALL OTHERS	33	24" OC
MATERIAL ATTACHED TO STUDS	MIN. MIL THICKNESS	MAX. STUD SPACING															
- WELDED MASONRY VENEER LEDGE	68	16" OC															
- MASONRY VENEER BACKUP	43	16" OC															
- ALL OTHERS	33	24" OC															
<b>13</b>	3/4" = 1'-0"	<b>CONTRACTOR ENGINEERED WALL - STONE SUPPORT TO MTL STUD</b>	<b>9</b>	3/4" = 1'-0"	<b>CONTRACTOR ENGINEERED WALL - FIXED CONNECTION MINIMUM REQUIREMENTS</b>												
																	
<b>14</b>	3/4" = 1'-0"	<b>CONTRACTOR ENGINEERED WALL - SLIP CONN MIN REQUIREMENTS</b>	<b>10</b>	3/4" = 1'-0"	<b>CONTRACTOR ENGINEERED WALL - SOFFIT FRAMING MIN REQ(T)s)</b>												
																	
<b>15</b>	3/4" = 1'-0"	<b>CONTRACTOR ENGINEERED WALL - PUNCHOUT REINFORCING</b>	<b>11</b>	3/4" = 1'-0"	<b>CONTRACTOR ENGINEERED WALL - CONN TO B/FLANGE REQ(T)s)</b>												
																	
<b>12</b>	1 1/2" = 1'-0"	<b>CONTRACTOR ENGINEERED WALL - FASTENER MINIMUM REQ(T)s)</b>	<b>8</b>	3/4" = 1'-0"	<b>CONTRACTOR ENGINEERED WALL - BASE CONN MIN REQUIREMENTS</b>												
<b>4</b>	3/4" = 1'-0"	<b>CONTR ENGINEERED WALL - NOTES /REQUIRED DESIGN CRITERIA</b>															



**ALERRA** east west partners  
MOUNTAIN COMPANY

2305 Mount Werner Circle  
Steamboat Springs, CO 80487

**Gensler**

1225 17th Street  
Suite 150  
Denver, CO 80202  
United States

Tel 303.595.8586  
Fax 303.825.6823

**LANDMARK**  
CONSTRUCTION, INC.

141 9th Street  
PO Box 774943  
Steamboat Springs, CO 80477  
Tel 970.871.9494

**DESIGNWORKSHOP**

1390 Lawrence Street  
Suite 100  
Denver, CO 80204  
Tel 303.623.5186

**MARTIN/MARTIN**  
ENGINEERS

12499 West Colfax Ave.  
Lakewood, CO 80215  
United States  
Tel 303.431.6100

**me**  
engineers

14143 Denver West Pkwy  
Suite 300  
Golden, CO  
United States  
Tel 303.421.6655



Seal / Signature	
Date	Description
2021.05.19	BP3: PROMENADE - ISSUE FOR BID AND PERMIT

Project Name	
SSRC   BASE AREA IMPROVEMENTS	
Project Number	
20.1411.S.01	
Description	
PERFORMANCE SPECIFIED FRAMING	
Scale	
As indicated	

1A-S5.40