

**ADDENDUM 02**

Addendum #	02	Date Issued	04/01/2022
Project Name Job #	FB&T Arena and SJM Additions and Renovations – Bid Package 01	EAPC Project 20191170 OSE #R0319--23X/FBT	
Bid Date Time	04/07/2022	2:30pm	

THIS ADDENDUM AMENDS AND BECOMES PART OF THE CONTRACT DOCUMENTS FOR BID PACKAGE 01 OF EAPC PROJECT 20191170 DATED 03/01/2022, RESPECTIVELY. EACH BIDDER SHALL ACKNOWLEDGE RECEIPT OF THIS ADDENDUM BY MARKING THE ADDENDUM NUMBER AND DATE ON THE BID FORM.

SPECIFICATIONS

NA

DRAWINGS

S002	Revise footing schedule per attached S002
S101A	Add generator enclosure details per attached S101A
S101B	Revise wall thickness per attached S101B
S101C	Revise elevator shaft per attached S101C
S101D	Revise hydrotherapy area per attached S101D
S201B	Add sheet note "5" per attached S201B
S201C	Add sheet note "5" and Keynotes 32 and 33 per attached S201C
S202A	Add sheet note "7" per attached S202A
S202B	Add sheet note "7" per attached S202B
S202C	See attached S202C for various note and framing revisions
S202D	Add sheet note "7" per attached S202D
S203C	Revise framing around elevator shaft per attached S203C

**ADDENDUM 01** *continued*

S302	Revise/add details per attached S302
S401	Revise details per attached S401
S407	Revise details per attached S407

PRIOR APPROVALS

NA

ATTACHMENTS

Pre-Bid Sign-in Sheet	S201C
Pre-Bid Meeting Agenda/Notes	S202A
General Schedule	S202B
Site Logistics Plan	S202C
S002	S202D
S101A	S203C
S101B	S302
S101C	S401
S101D	S407
S201B	



GENERAL CONTRACTORS
Henry Carlson Construction LLC

FB + T BP #01 Pre Bid Meeting 3/29/22

Sign-In Sheet

Shawn Crowley EAPC shawn.crowley@eapc.net

Todd Baack OSE 605-280-4360 todd.baack@State.SD.us

Reed Leibel SDSU 605-688-5020 reed.leibel@sdstate.edu

Aaron Maley ISI 701-840-1955 amaley@industrial
bu.illers.com

Jeff Holm SDSU athletics 605-595-2403 jeff.holm@sdstate.edu

Christi Williams SDSU Athletics 605-695-3558 Christi.William
@sdstate.edu

Matt Kolbert HCC 605-366-1912 mkolbert@henrycarlson.com





GENERAL CONTRACTORS

Henry Carlson Construction_{LLC}

***SDSU First Bank & Trust Arena
Addition & Renovation
(Bid Package #1)***

Pre-Bid Meeting (Bid Package #1)
3/29/22 11:00 AM
SDSU FS 110 Commons

Meeting Agenda:

- 1) Project Team Introductions
 - A. Henry Carlson – CM at Risk
 1. Chad Nelson – Senior Project Manager (605-310-5032)
 2. Matt Kolbeck – Project Manager (605-366-1912)
 3. Joe Turpeinen – Superintendent (605-838-7721)
 4. Mike Ralston – Precon/Estimator (605-254-6661)
 - B. Design Team
 1. Architect – Shawn Crowley – EAPC
 2. Architect – Mike Harvey – Perkins & Will
 3. Structural – Darren Heff – Heyer Engineering
 4. Mechanical – Stuart Oster – WPE
 5. Electrical – Jon Kennedy – WPE
 - C. Office of the State Engineer
 1. Todd Baack – State Engineer’s Office, Project Manager
 - D. SDSU Facilities & Athletics
 1. Reed Leibel – Facilities
 2. Jeff Holm – Athletics
 3. Christi Williams – Athletics
- 2) Project Overview – Project consists of a new East and West entry addition, locker room & suite area infill addition, and renovation of the current arena on the campus of South Dakota State University. Addition is approximately 16,800 SF and will be a steel structure, composite concrete slabs, with CMU and drywall partitions. Interior renovation includes addition of structural steel and precast treads and risers for new arena seating platforms, along with several finish type of improvements.
- 3) Procurement Requirements: Make sure to review all of Division 00 – CM Supplemental Specifications.
 - A. Bonding - payment and performance bond amount requested on bid form as an add alternate.
 - B. Insurance – please review “Division 00 – CM Supplemental Specification” for requirements
 - C. Bid Security – Is required, please see “Instructions to Bidders” for this information.
 - D. Bid Form and Work Group Scopes – in “Division 00 – CM Supplemental Specification”
 - E. Bid Submittal Requirements:
 1. Bid Date: **4/7/22** (Please see index of work scopes for specific times)
 2. All bids **MUST** be submitted in a sealed envelope, mailed or delivered to the **OSE Office** in Pierre SD.
 - a. **Joe Foss Building, 523 East Capital, Pierre SD 57501-3182**



b. Fax and e-mail BID MODIFICATIONS ONLY are allowed.

3. Bid form and work scope is required to be filled out completely. Make sure all boxes have been checked prior to submission and that bids include all required attachments.
- F. Substitutions
 1. Substitutions process is noted in "Division 00 – CM Supplemental Specifications", as well as in the section 012500 in the spec. book.
 2. Substitutions after the bidding process or substitutions for convenience will not be accepted without monetary or significant schedule benefit for the Owner.
- G. Notice of Award –
 1. Bids will be opened publicly day of bid; however, bids will also be reviewed by HCC, OSE, SDSU, EAPA, and Perkins & Will to ensure completeness prior to award.
 2. Bidders may be required to provide further breakdowns, unit prices, and labor rates prior to award.
- 4) Contracting Requirements:
 - A. Contracts will be issued as LUMP SUM contracts. Bidders will be responsible for all project quantities from bid documents. Changes in work will result in appropriate changes to contract.
 - B. Agreement and Insurance Requirements –
 1. Standard HCC Subcontract Agreement as outlined in "Division 00 – CM Supplemental Specification"
- 5) Communication during Bidding Period
 - A. Obtaining documents –
 1. Documents are available at several plan rooms (See "Invitation to Bid").
 - B. Bidder's Requests for Information – email questions to mkolbeck@henrycarlson.com;
 - C. Bidder's Substitution Requests – email to mkolbeck@henrycarlson.com.
- 6) Construction Documents:
 - A. Scopes of Work –
 1. Index of Bid Packages (HCC Front End)
 - B. Plan/Schedule Review – ***Milestone schedule attached***
 1. Description of project phasing
 2. Construction Start – targeting early May, 2022
 3. Milestone schedule attached for reference
 4. Preconstruction Meeting scheduled for late April following bid awards
 5. Subcontractor "Buy-In" meeting – After project award to finalize construction schedule. Meeting will be held with all subcontractors and key vendors to discuss durations, overlap of activities, and activities/material that need to be completed/onsite prior for the next activity to start.
 - C. Winter Conditions – See bid scopes for specifics
 1. None anticipated
 - D. Use of Site – ***Site Utilization Plan attached***
 1. Review the site utilization plan regarding parking, lay down, trailer storage.
 2. Coordination with other contractors
 3. All tobacco products (cigarettes, e-cigarettes, chewing tobacco, tobacco pouches, etc.) are not allowed anywhere on state property.



GENERAL CONTRACTORS

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4. Parking on site is extremely limited – company vehicles only will be allowed.
 - E. Work Hours, Logistics, and Housekeeping Items:
 1. Work hours are typical **7:30 AM to 5:00 PM**. HCC and/ or Owner may amend hours as required to maintain schedule or due to other extenuating circumstances.
 - F. LEED
 1. This state project will not be a LEED project.
 - G. Commissioning
 1. Commissioning will occur for this project and be conducted by QSE.
 - H. Procure
 1. Project info, communication, contract procurement, submittals, RFI's, meeting agendas, drawings, RFP's, etc.
- 7) Separate Contracts:
- A. Work by Owner
 1. Geotechnical Testing
- 8) Minutes: HCC will record and distribute meeting minutes via addendum.
- 9) Sign-in Sheet: Minutes will include list of meeting attendees.
- 10) Bid Addenda:
- A. Addendum #1 – Posted March 25th, 2022
 - B. Addendum #2 – Pending
- 11) Questions
- A. Questions from pre-bid:

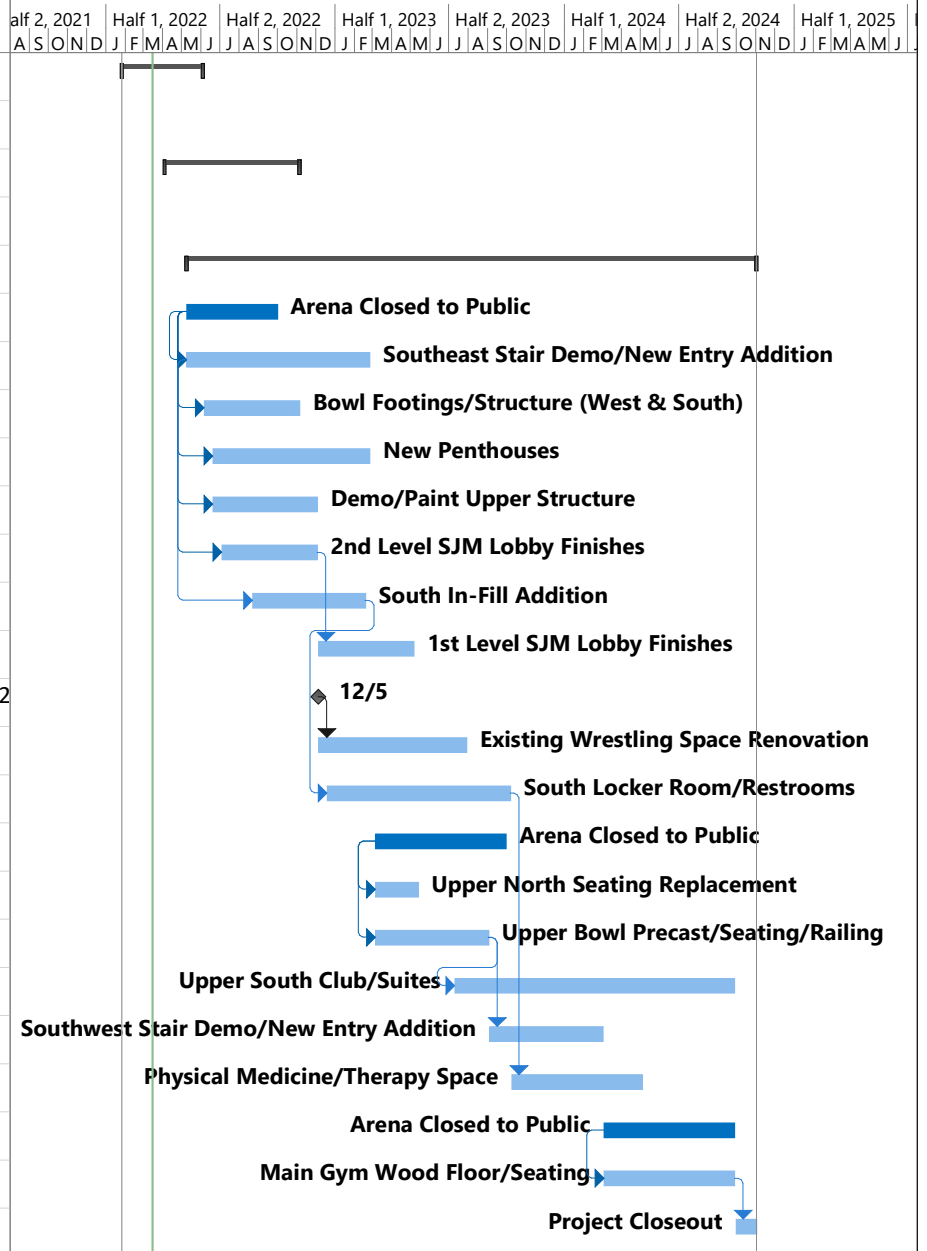
Meeting Notes:

- 1) Any company specific proposal of work is not recommended to be attached to bid form
- 2) Per Fencing/ Logistics Plan, there is a OH coiling door for access into arena at the West Entry. We intend to use this entry for temporary use while East Entry is being constructed.
- 3) Roughly 13' of headroom AFF at 1st floor on both West and East ends
- 4) The use of electrical machinery is **highly** recommended by SDSU for inside work. Activities will be ongoing throughout summer and then into school year.

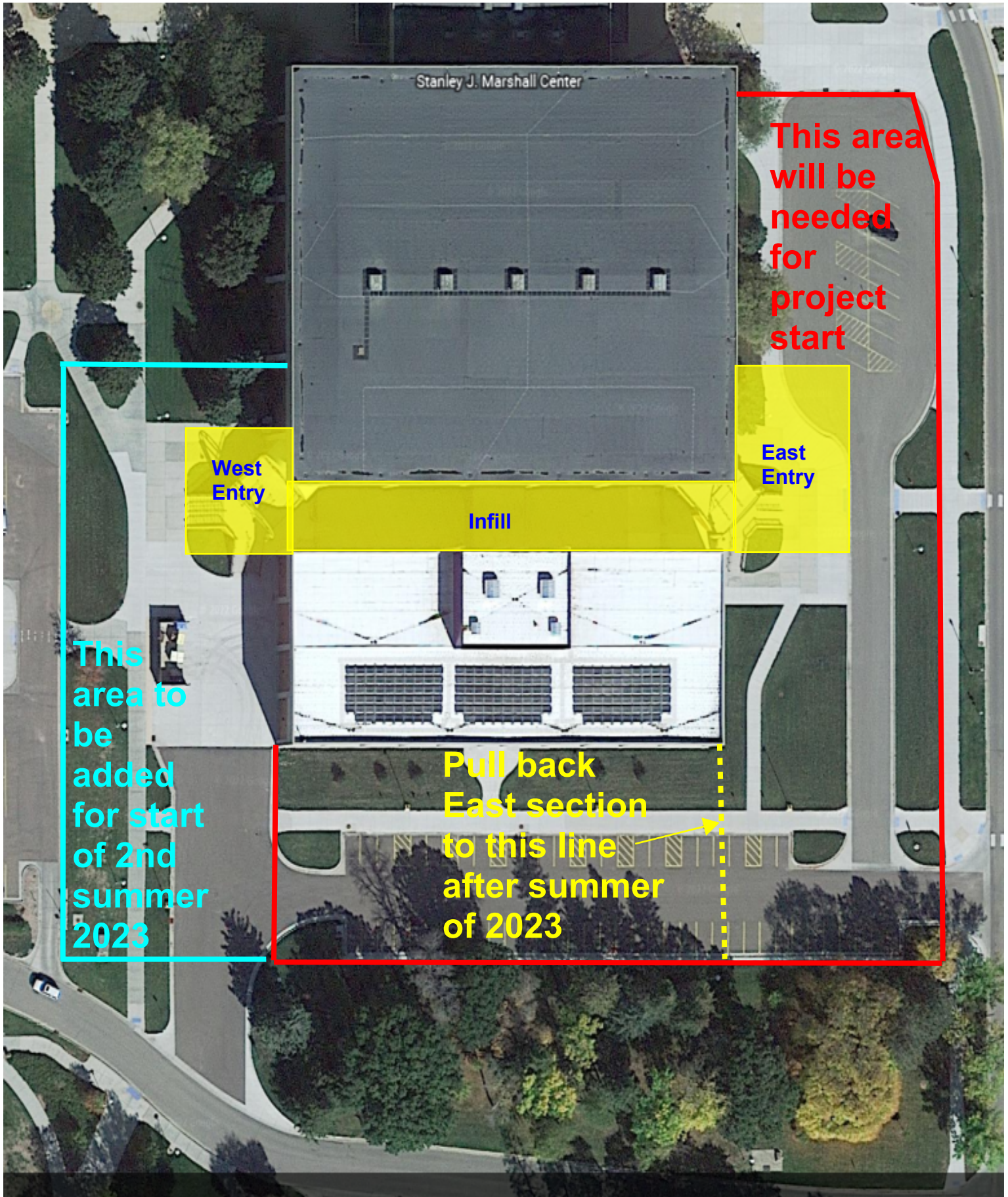
First Bank & Trust Arena Addition & Renovations

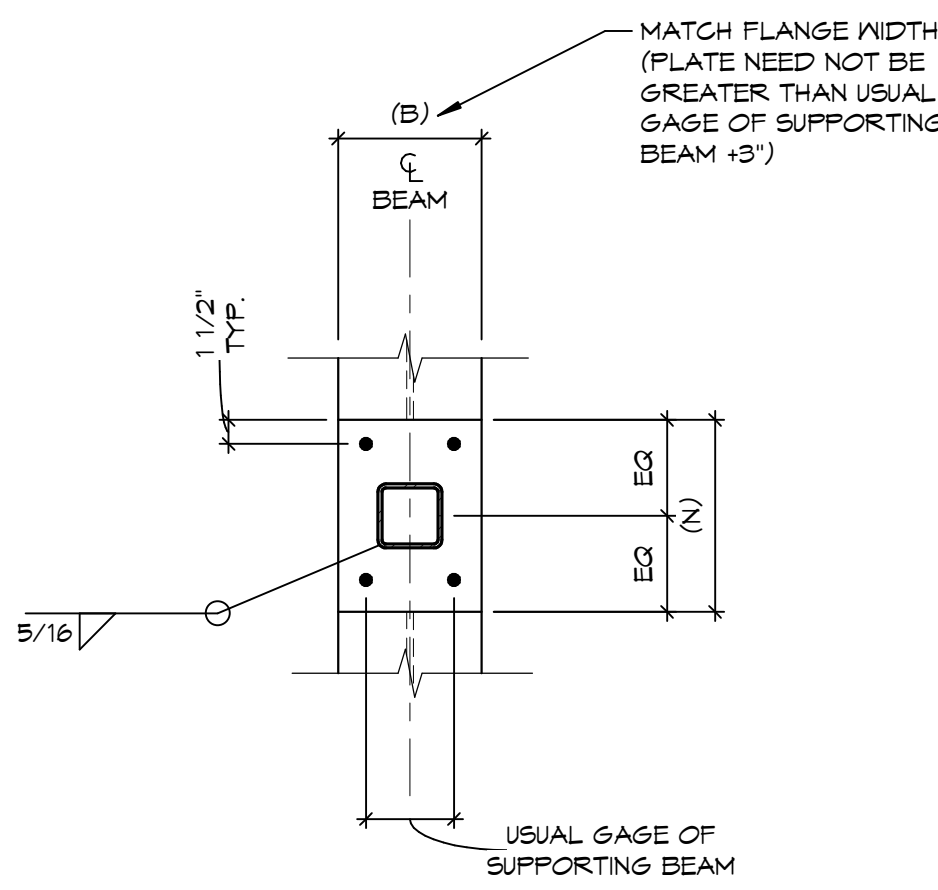
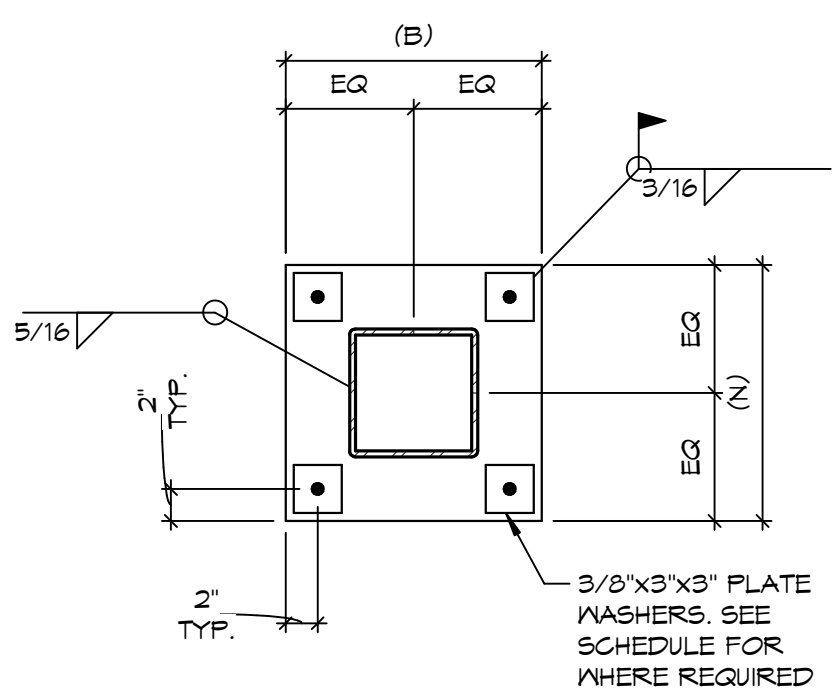
General Draft Schedule (3-10-22)

ID	Task Name	Duration	Start	Finish	
					<div> <div>Half 2, 2021</div> <div>Half 1, 2022</div> <div>Half 2, 2022</div> <div>Half 1, 2023</div> <div>Half 2, 2023</div> <div>Half 1, 2024</div> <div>Half 2, 2024</div> <div>Half 1, 2025</div> </div> <div> <div>A</div><div>S</div><div>O</div><div>N</div><div>D</div> <div>J</div><div>F</div><div>M</div><div>A</div><div>M</div><div>J</div> <div>J</div><div>A</div><div>S</div><div>O</div><div>N</div><div>D</div> <div>J</div><div>F</div><div>M</div><div>A</div><div>M</div><div>J</div> <div>J</div><div>A</div><div>S</div><div>O</div><div>N</div><div>D</div> <div>J</div><div>F</div><div>M</div><div>A</div><div>M</div><div>J</div> <div>J</div><div>A</div><div>S</div><div>O</div><div>N</div><div>D</div> <div>J</div><div>F</div><div>M</div><div>A</div><div>M</div><div>J</div> </div>
1	Preconstruction	93 days	Wed 1/26/22	Fri 6/3/22	
7					
8	Long Lead Critical Materials	155 days	Mon 4/4/22	Fri 11/4/22	
14					
15	Building Construction	650 days	Mon 5/9/22	Fri 11/1/24	
16	Arena Closed to Public	105 days	Mon 5/9/22	Fri 9/30/22	
18	Southeast Stair Demo/New Entry Addition	210 days	Mon 5/9/22	Fri 2/24/23	
20	Bowl Footings/Structure (West & South)	110 days	Mon 6/6/22	Fri 11/4/22	
17	New Penthouses	180 days	Mon 6/20/22	Fri 2/24/23	
19	Demo/Paint Upper Structure	120 days	Mon 6/20/22	Fri 12/2/22	
21	2nd Level SJM Lobby Finishes	110 days	Mon 7/4/22	Fri 12/2/22	
22	South In-Fill Addition	130 days	Mon 8/22/22	Fri 2/17/23	
23	1st Level SJM Lobby Finishes	110 days	Mon 12/5/22	Fri 5/5/23	
24	Wrestling Move to New Facility	0 days	Mon 12/5/22	Mon 12/5/22	
25	Existing Wrestling Space Renovation	170 days	Mon 12/5/22	Fri 7/28/23	
26	South Locker Room/Restrooms	210 days	Mon 12/19/22	Fri 10/6/23	
27	Arena Closed to Public	150 days	Mon 3/6/23	Fri 9/29/23	
28	Upper North Seating Replacement	50 days	Mon 3/6/23	Fri 5/12/23	
29	Upper Bowl Precast/Seating/Railing	130 days	Mon 3/6/23	Fri 9/1/23	
30	Upper South Club/Suites	320 days	Mon 7/10/23	Fri 9/27/24	
31	Southwest Stair Demo/New Entry Addition	130 days	Mon 9/4/23	Fri 3/1/24	
32	Physical Medicine/Therapy Space	150 days	Mon 10/9/23	Fri 5/3/24	
33	Arena Closed to Public	150 days	Mon 3/4/24	Fri 9/27/24	
34	Main Gym Wood Floor/Seating	150 days	Mon 3/4/24	Fri 9/27/24	
35	Project Closeout	25 days	Mon 9/30/24	Fri 11/1/24	



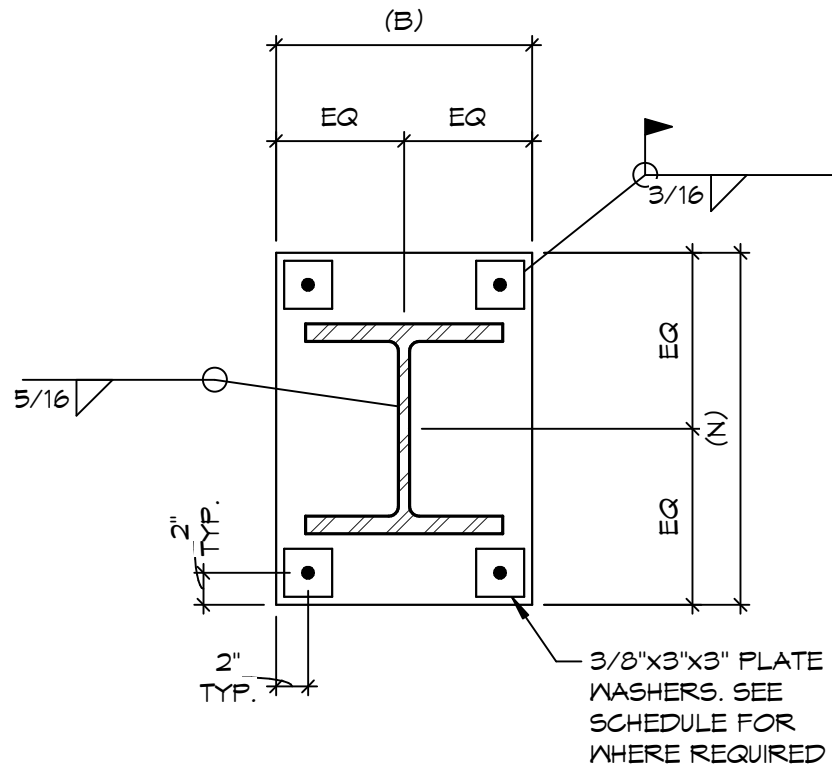
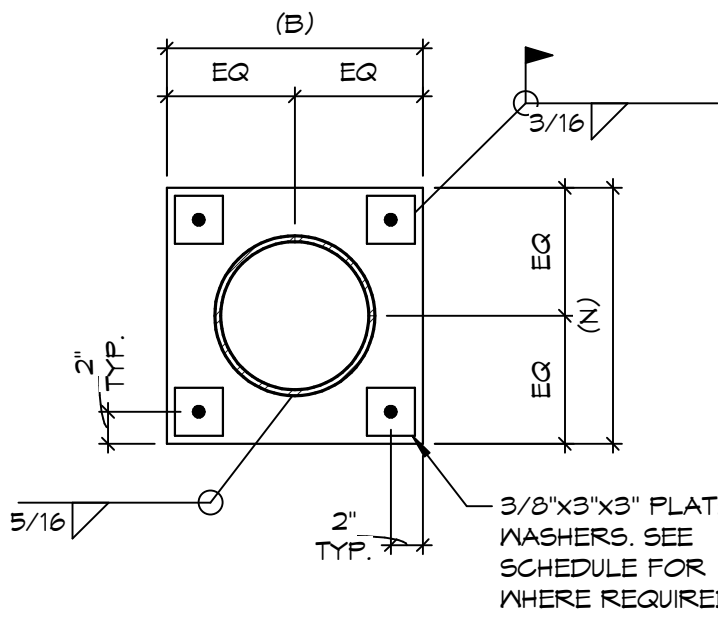
SDSU FB&T Arena Additions Temporary Fencing Plan





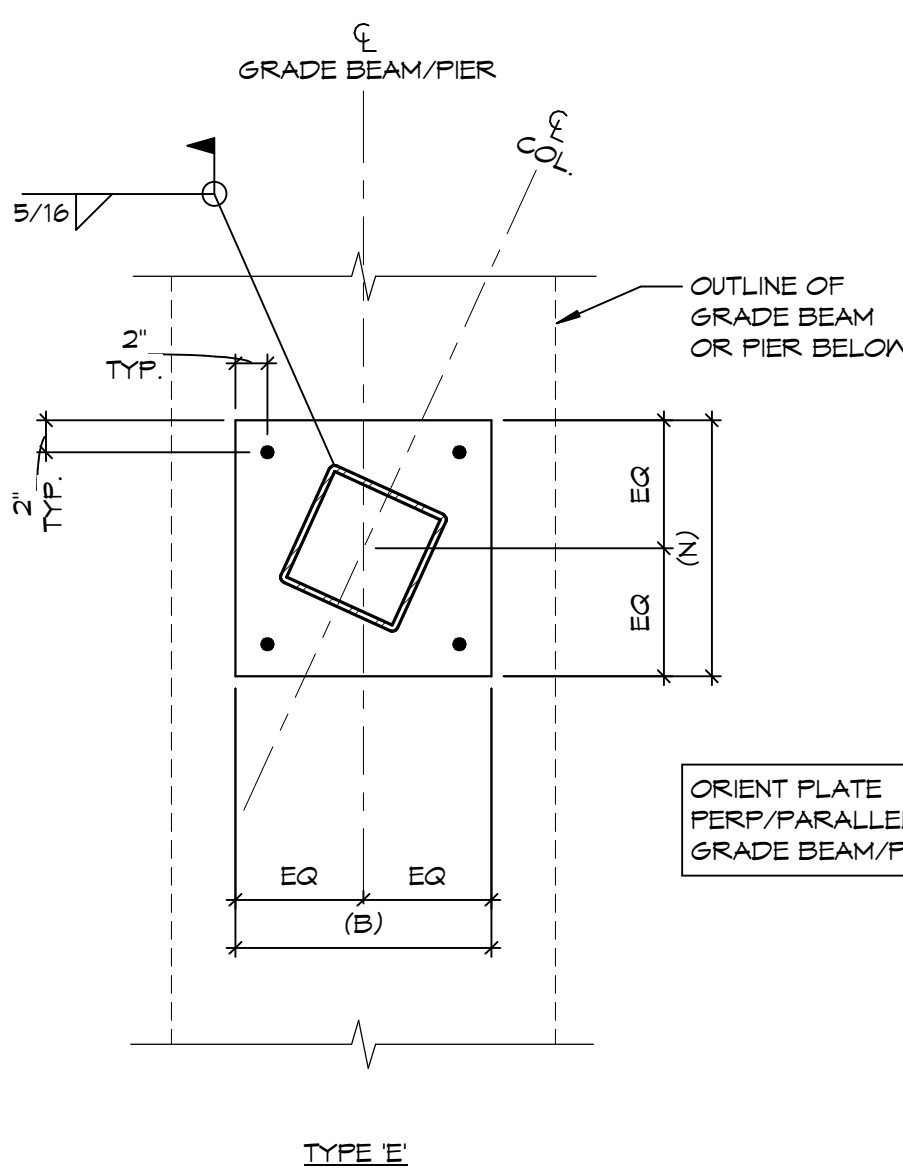
TYPE A

TYPE B



TYPE C

TYPE D



TYPE E

ANCHOR ROD DETAIL

BASE PLATE LAYOUT DETAIL
5002 1" = 1'-0"

MARK	SIZE (WxD)	BOT BARS	TOP BARS	STIRRUPS	DETAIL	REMARKS
GB1	3' - 4' x 4' - 10"	(4) - #7	(4) - #7	#4 @ 1' - 0" O.C.	3/5302	
GB2	2' - 4' x 4' - 10"	(4) - #7	(4) - #7	#4 @ 1' - 0" O.C.	2/5302	
GB3	2' - 4' x 4' - 10"	(4) - #7	(4) - #7	#4 @ 1' - 0" O.C.	5/5302	
GB4	2' - 4' x 4' - 10"	(4) - #7	(4) - #7	#4 @ 10" O.C.	5/5302	
GB5	2' - 0' x 4' - 10"	(5) - #8	(4) - #7	#4 @ 10" O.C.	5/5302	
GB6	2' - 0' x 4' - 10"	(4) - #7	(4) - #7	#4 @ 1' - 0" O.C.	5/5302	
GB7	2' - 4' x 3' - 10"	(4) - #7	(6) - #8	#4 @ 5" O.C.	5/5302	
GB8	2' - 4' x 4' - 10"	(4) - #7	(5) - #8	#4 @ 1' - 0" O.C.	5/5302	
GB9	2' - 4' x 3' - 10"	(4) - #7	(4) - #7	#4 @ 1' - 0" O.C.	5/5302	
GB10	2' - 4' x 3' - 10"	(4) - #7	(3) - #8	#4 @ 10" O.C.	5/5302	

NOTES:

- U.O.N. PROVIDE 90° STD HOOKS @ EA. END OF TOP, BOTTOM & SIDE REINFORCING.

MARK	SIZE	REINFORCING	REMARKS
MW1	--	--	--

NOTES:

- DYLS TO FOUNDATION WALL SHALL ALWAYS BE A SINGLE DYIL CENTERED IN CMU WALL REGARDLESS IF CMU WALL HAS A SINGLE VERT. BAR CENTERED OR 2 BARS (1 EA. FACE).
- SEE SHEET 5001 FOR LAP LENGTHS @ VERTICAL REINFORCING.
- IN ADDITION TO THE REINFORCING NOTED ABOVE AND ON PLANS, PROVIDE VERTICAL REINFORCING AT CORNERS, ENDS OF WALLS, OPENING JAMBS AND AT EA. SIDE OF VERTICAL CONTROL JOINTS.

MARK	SIZE	BEARING PL. @ EA. END	REMARKS
L1	--	--	--

MARK	(B) WIDTH	(N) LENGTH	VERT REINF./DYIL	TIES	TOP OF PIER	DETAIL	REMARKS
P1	2' - 4"	2' - 4"	(3) - #8	#3 @ 1' - 0" O.C.	#4 - 4"	16/5301	
P2	2' - 0"	2' - 0"	(3) - #8	#3 @ 1' - 0" O.C.	#8 - 10"	16/5301	
P3	2' - 0"	2' - 0"	(3) - #8	#3 @ 1' - 0" O.C.	100' - 0"	16/5301	
P4	2' - 4"	2' - 4"	(3) - #8	#3 @ 1' - 0" O.C.	#8 - 2"	16/5301	
P5	2' - 4"	2' - 4"	(3) - #8	#3 @ 1' - 0" O.C.	#8 - 2"	17/5301	
P6	2' - 4"	2' - 4"	(3) - #8	#3 @ 1' - 0" O.C.	#4 - 4"	17/5301	
P7	1' - 6"	1' - 6"	(4) - #6	#3 @ 1' - 0" O.C.	#8 - 2"	16/5301	
P8	2' - 4"	2' - 4"	(3) - #8	#3 @ 1' - 0" O.C.	#4 - 4"	14/5301	
P9	2' - 8"	2' - 8"	(3) - #8	#3 @ 1' - 0" O.C.	#4 - 4"	20/5301	
P10	2' - 0"	2' - 0"	(3) - #8	#3 @ 1' - 0" O.C.	#8 - 2"	21/5301	
P11	1' - 8"	1' - 8"	(4) - #7	#3 @ 1' - 0" O.C.	#4 - 4"	22/5301	
P12	2' - 8"	2' - 8"	(3) - #8	#3 @ 1' - 0" O.C.	#4 - 4"	16/5301	
P13	2' - 4"	2' - 4"	(3) - #8	#3 @ 1' - 0" O.C.	#8 - 2"	23/5301	

NOTES:

- U.O.N. PROVIDE (3) TIES @ 3' O.C. @ TOP OF ALL PIERS.

COLUMN, BASEPLATE & ANCHOR ROD SCHEDULE									
MARK	SIZE	BASEPLATE			ANCHOR RODS				REMARKS
		TYPE	(B)	(N)	THICKNESS	NUMBER	DIA.	EMBED	
C1	H55 5x5x1/4	--	--	--	--	--	--	--	S.D. 10/5401 & 1/5402 FOR COLUMN BASE CONNECTION
C2	H55 5x5x3/8	--	--	--	--	--	--	--	S.D. 10/5401 & 1/5402 FOR COLUMN BASE CONNECTION
C3	H55 4x4x1/4	A	1' - 0"	1' - 0"	1"	(4)	1"	1' - 0"	55 KSI
C4	H55 6x6x3/8	B	--	1' - 0"	1"	(4)	3/4"	--	A325
C5	H55 6x6x3/8	A	1' - 2"	1' - 2"	1"	(4)	1"	1' - 0"	55 KSI
C6	H55 10.000x10.315	C	1' - 3"	1' - 3"	1"	(4)	1"	1' - 0"	55 KSI
C7	H55 6x6x1/2	A	1' - 4"	1' - 4"	1 1/2"	(4)	1"	1' - 6"	55 KSI
C8	H55 6x6x1/2	A	1' - 5"	1' - 5"	1 1/2"	(4)	1"	1' - 6"	55 KSI
C9	H55 15x15x5/8	A	2' - 2"	2' - 2"	1 1/2"	(4)	1"	1' - 6"	55 KSI
C10	M10x48	D	1' - 0"	1' - 0"	1 1/2"	(4)	1"	1' - 6"	55 KSI
C11	M12x120	D	1' - 4"	1' - 10"	1 1/2"	(4)	1"	1' - 6"	55 KSI
C12	M14x193	D	1' - 6"	2' - 0"	1 1/2"	(4)	1"	1' - 6"	55 KSI
C13	H55 6x6x1/2	E	1' - 4"	1' - 4"	1 1/2"	(4)	1"	1' - 0"	55 KSI
C14	H55 7x7x1/4	A	1' - 3"	1' - 3"	1"	(4)	1"	1' - 0"	55 KSI
C15	H55 6x6x1/2	B	--	1' - 2"	1"	(4)	3/4"	--	A325

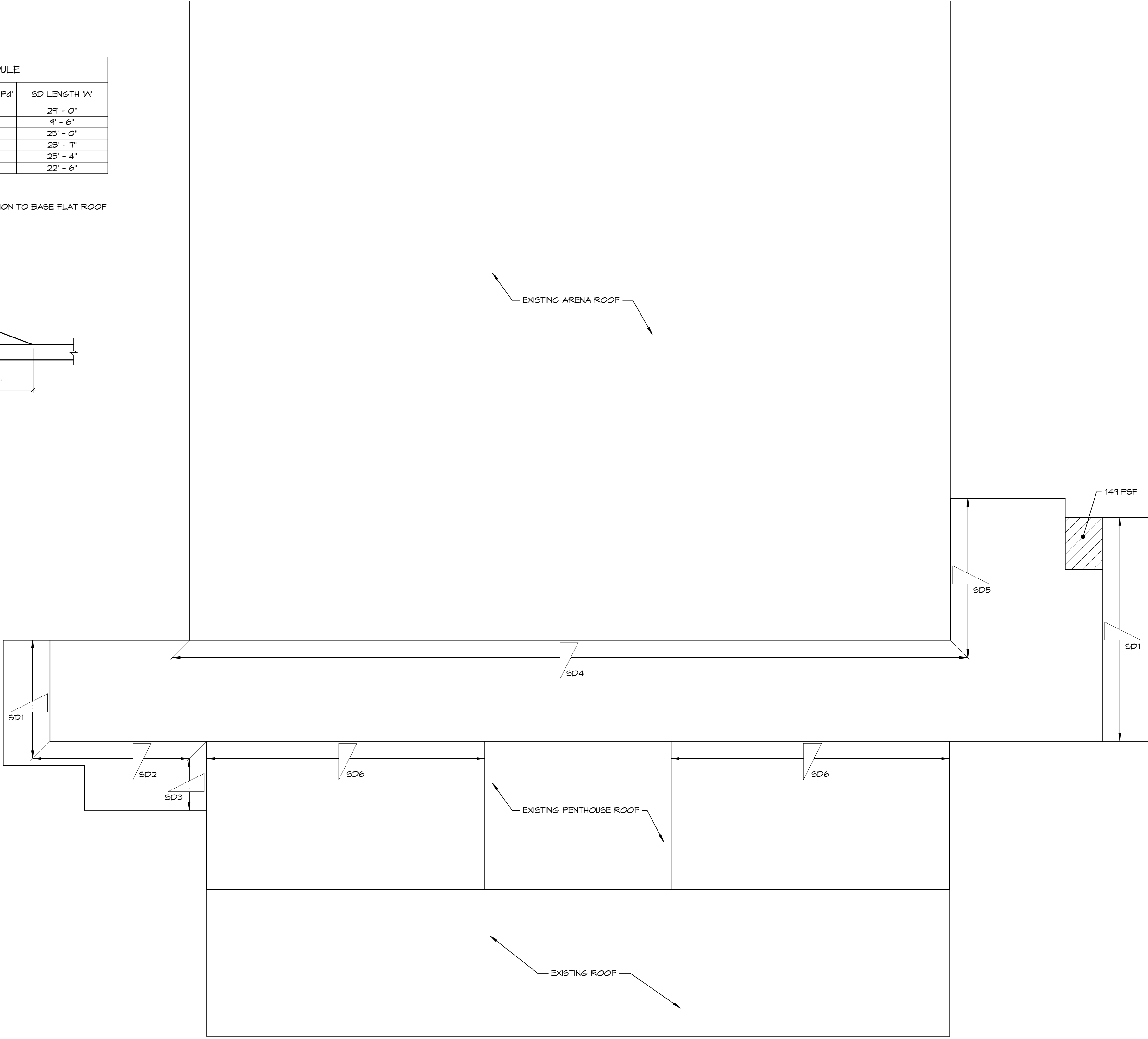
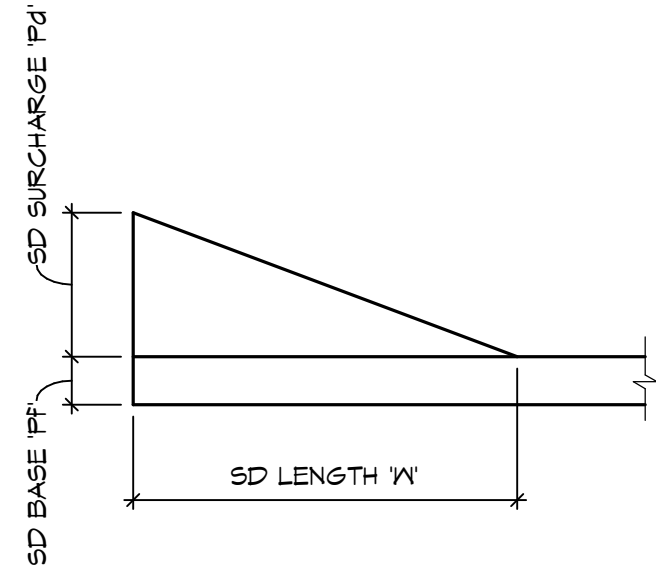
NOTES:

- S.D. 1/5002 FOR BASE PLATE TYPES & ANCHOR ROD LAYOUTS.

SD MARK	SD BASE 'PSF	SD SURCHARGE 'PSF	SD LENGTH 'W'
SD1	30.5 PSF	149.0 PSF	28' - 0"
SD2	30.5 PSF	49.0 PSF	9' - 6"
SD3	30.5 PSF	129.0 PSF	25' - 0"
SD4	30.5 PSF	121.0 PSF	23' - 1"
SD5	30.5 PSF	130.0 PSF	25' - 4"
SD6	30.5 PSF	119.0 PSF	22' - 6"

NOTES:

- U.O.N. SNOW LOADS SHOWN ARE IN ADDITION TO BASE FLAT ROOF SNOW LOADS NOTED ON 5001.



MARK	OVERALL DEPTH	BOTTOM REINFORCING		FILE CAP DETAIL	REMARKS
		LONG BARS	SHORT BARS		
FC2	2' - 6"	(4) - #6	(9) - #6	11/5301	
PC3	2' - 6"	(4) - #6	3 WAYS	12/5301	
FC3-T	2' - 6"	(4) - #6	3 WAYS	12/5301	PROVIDE TOP REINF. TO MATCH BTM. PROVIDE TENSION DYLS
PC4	2' - 6"	(9) - #6	(9) - #6	13/5301	
PC5	2' - 10"	(9) - #7	(9) - #7	14/5301	
PC6	3' - 6"	(9) - #7	(13) - #7	15/5301	

NOTES:

- WHEN PLACING REINFORCING THE 'LONG BARS' SHALL ALWAYS BE PLACED AS THE OUTSIDE LAYER.
- UNLESS OTHERWISE NOTED PROVIDE #4 @ 1'-0" O.C. EACH WAY @ TOP OF FILE CAP.
- SEE DETAIL 1/5302 & 8/5302 FOR TYPICAL FILE CAP DETAILS.
- ALL BOTTOM BARS TO HAVE STD. 180° HOOKS @ EA. END.
- ALL TOP BARS TO HAVE STD. 90° HOOKS @ EA. END.
- ALL FILE CAPS DENOTED AS FCX-T PROVIDE TENSION DOWELS AS SHOWN IN DETAIL 2/5303.

MARK	SIZE	DEPTH	REINFORCING		REMARKS
			TRANS.	LONG.	
F4.0	4' - 0" x 4' - 0"	1' - 0"	(5) - #5	(4) - #5	
F4.3 x 4.0	4' - 4 1/2" x 4' - 0"	2' - 0"	(11) - #5	(7) - #6	
F4.5	4' - 6" x 4' - 6"	1' - 0"	(5) - #5	(5) - #5	REINF. TOP & BTM.
F4.83	4' - 10" x 4' - 10"	1' - 4"	(5) - #5	(5) - #5	REINF. TOP & BTM.
F6.0	6' - 0" x 6' - 0"	1' - 2"	(6) - #6	(6) - #6	REINF. TOP & BTM.
F6.5	6' - 6" x 6' - 6"	1' - 2"	(7) - #6	(7) - #6	REINF. TOP & BTM.
F16.2 x 13.6	16' - 2" x 13' - 1"	1' - 6"	(14) - #6	(14) - #6	REINF. TOP & BTM.
FC2.0	2' - 0" CONT.	1' - 0"	--	(2) - #5	
FC2.0A	2' - 0" CONT.	2' - 0"	--	(2) - #5	
FC2.3	2' - 4" CONT.	2' - 0"	--	--	S.D. 10/5302 FOR REINF.
FC3.5	3' - 6" CONT.	1' - 0"	--	(4) - #5	
FC3.5A	3' - 6" CONT.	1' - 0"	#4 @ 1'-0" O.C.	(4) - #5	REINF. TOP & BTM.
FC4.5	4' - 4" CONT.	1' - 0"	#4 @ 1'-0" O.C.	(5) - #5	REINF. TOP & BTM.

CONSULTANTS

CLIENT
SOUTH DAKOTA STATE UNIVERSITY

PROJECT DESCRIPTION
FB&T ARENA AND SJM ADDITIONS AND RENOVATIONS

(OSE# R0319-23X/FBT)
(SDSU# WO#22-103751)

CITY BROOKINGS
STATE SOUTH DAKOTA

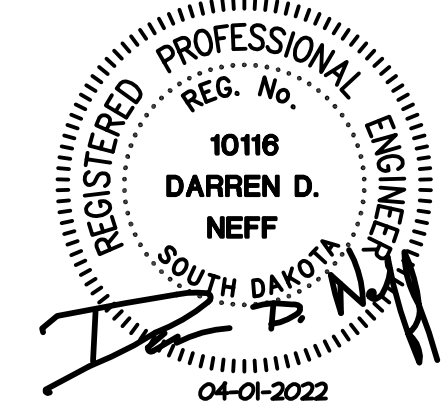
ISSUE DATES

1	ADDENDUM #2	04/01/2022
BP01	BID PACKAGE 01	03/01/2022

PROJECT NO: 20191170
DRAWN BY: CJK
CHECKED BY: DDN

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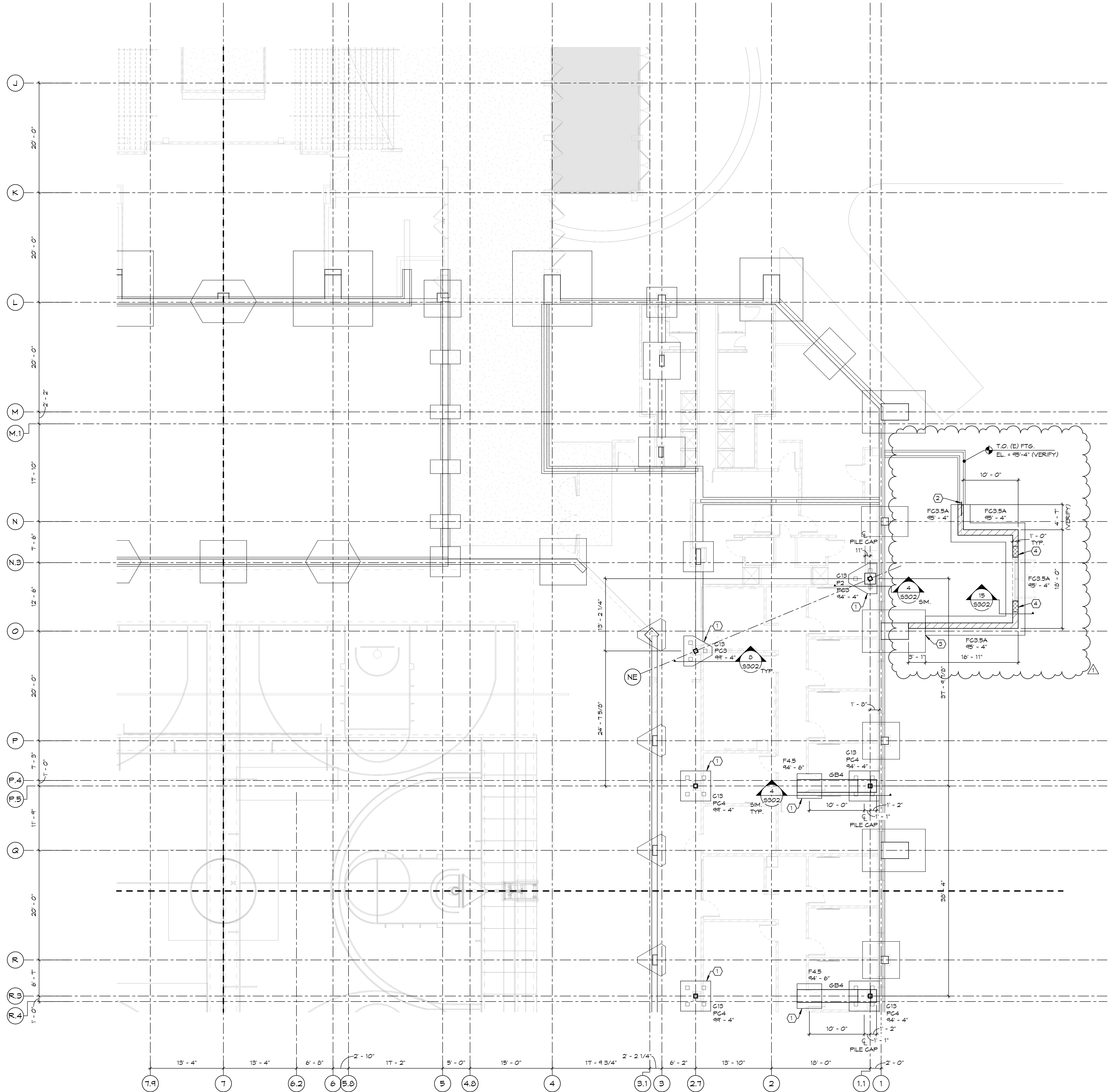
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STRUCTURAL SCHEDULES

SHEET NOTES:

1. TOP OF GRADE BEAM ELEVATION = 99'-4" (U.O.N.)
2. WHERE EXISTING CONCRETE SLAB REMOVAL & REPLACEMENT IS REQUIRED TO INSTALL NEW FOUNDATIONS, SAW CUT & REMOVE RECTANGULAR/SQUARE PORTIONS AND REPLACE W/ 4" THICK CONCRETE SLAB-ON-GRADE OVER 6" FREE DRAINING GRANULAR FILL OVER 15 MIL VAPOR BARRIER. REINFORCE NEW SLAB W/ #5 @ 1'-0" O.C. DOWEL NEW SLAB TO EXISTING SLAB W/ 1/2" Ø x 1'-6" SMOOTH DOWELS @ 2'-0" O.C.
3. REMOVE AND REPLACE EXISTING NON-BRS CMU WALLS AND FOOTINGS AS NEEDED FOR INSTALLATION OF NEW FOUNDATION COMPONENTS. VERIFY LOCATION OF EXISTING CMU WALLS W/ ARCH.

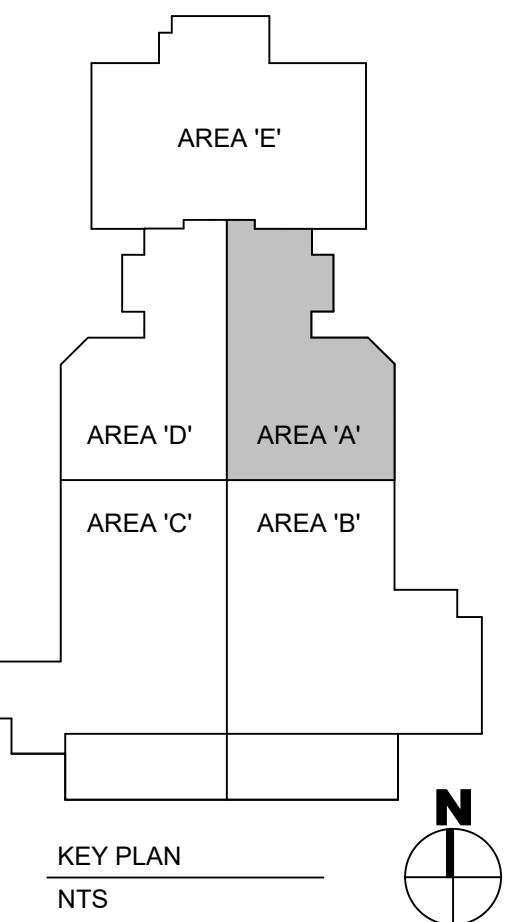
KEY NOTES:

1. REMOVE & REPLACE EXISTING CONCRETE SLAB AS NEEDED FOR INSTALLATION OF NEW FOUNDATIONS (PILE CAPS, GRADE BEAMS, FOOTINGS, ETC.)
2. PROVIDE #5 x 2'-6" DYWIDAGS @ 1'-0" O.C. TO EX. CONC. FDN WALL. DRILL & ADHERE TO EX. FDN WALL USING HILTI HY-200 ADHESIVE. CENTER DYWIDAGS ON EX. FDN WALL AND PROVIDE 6" EMBED.
3. PROVIDE (4)-#5 x 2'-6" DYWIDAGS TO EX. CONC. PILE CAP. DRILL & ADHERE TO EX. PILE CAP USING HILTI HY-200 ADHESIVE. CENTER DYWIDAGS VERTICALLY ON DEPTH OF NEW FTG. PROVIDE 6" EMBEDMENT INTO EX. PILE CAP.
4. AT JAMBS PROVIDE 2'-0" SOLID GROUTED SECTION OF WALL W/ (2)-#5 PER CORE (1 EA. FACE).



FOOTING & FOUNDATION PLAN - AREA A
1/8" = 1'-0"

CONSULTANTS



CLIENT
SOUTH DAKOTA STATE UNIVERSITY

PROJECT DESCRIPTION
FB&T ARENA AND SJM ADDITIONS AND RENOVATIONS

(OSE# R0319-23X/FBT)
(SDSU# WO#22-103751)

CITY BROOKINGS
STATE SOUTH DAKOTA

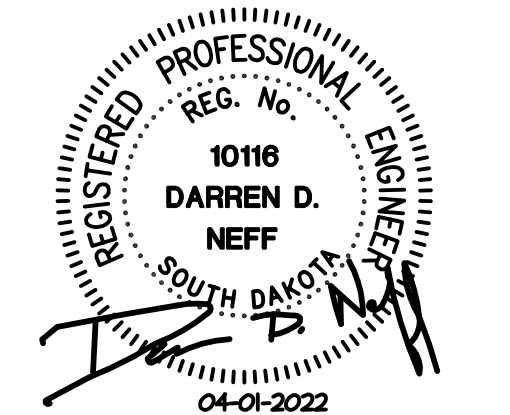
ISSUE DATES

1	ADDENDUM #2	04/01/2022
BP01	BID PACKAGE 01	03/01/2022
MARK	DESCRIPTION	DATE

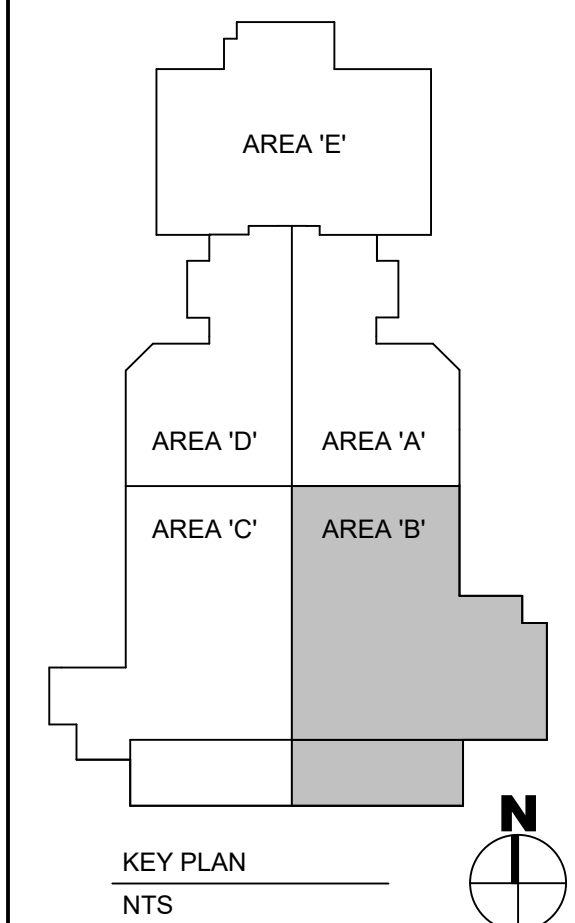
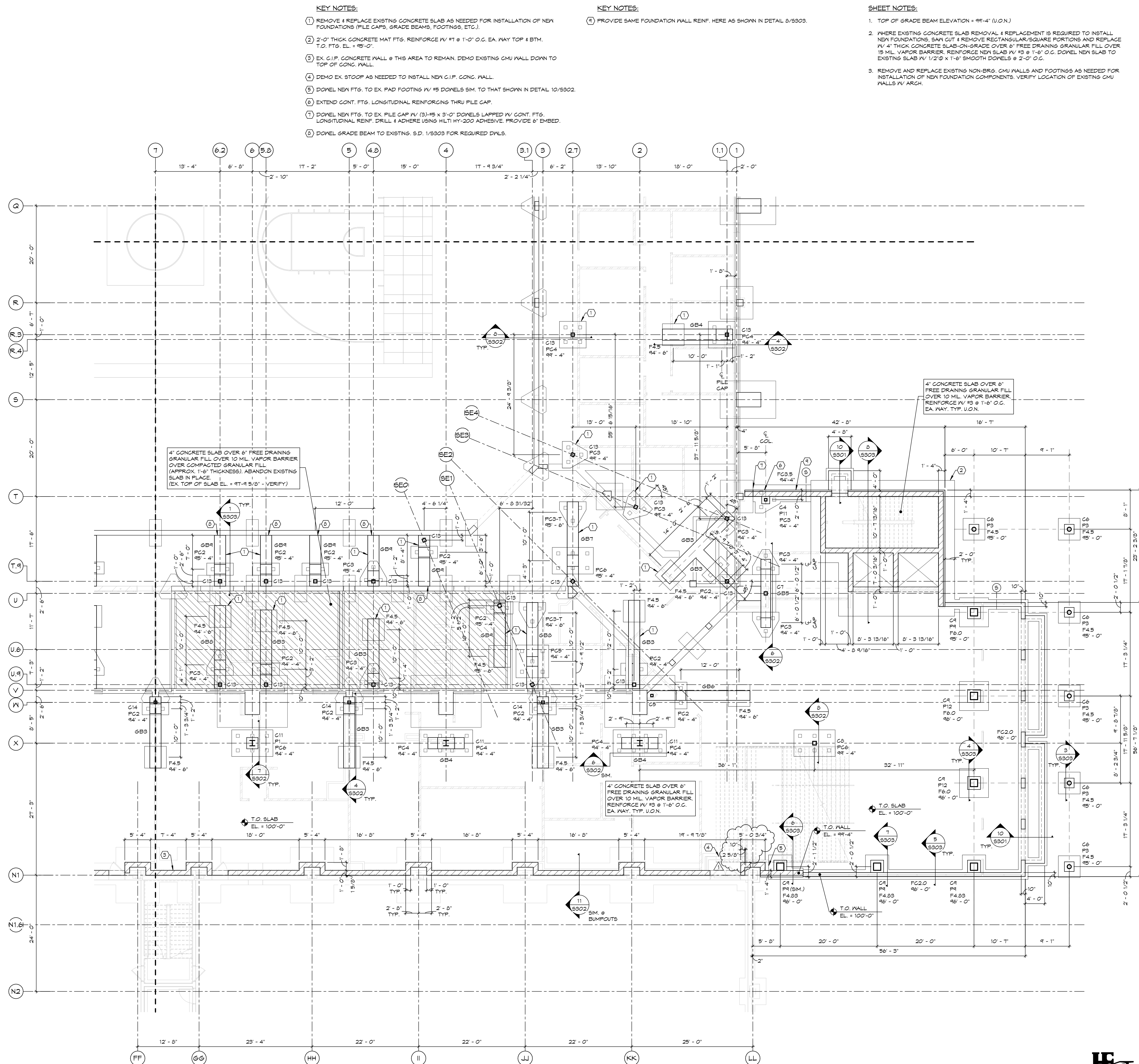
PROJECT NO: 20191170
DRAWN BY: CJK
CHECKED BY: DDN

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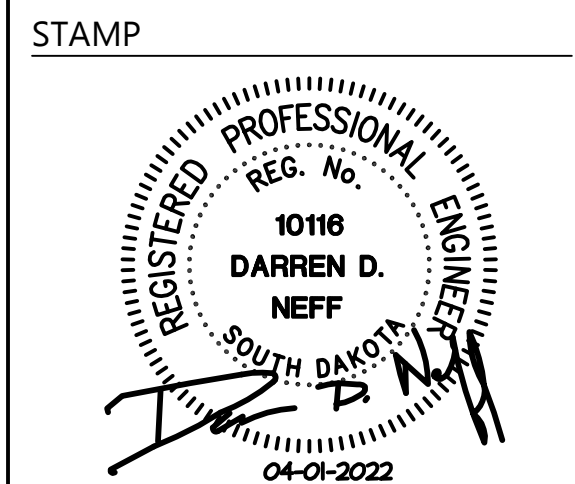
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DRAWING TITLE
FOOTING & FOUNDATION PLAN - AREA A

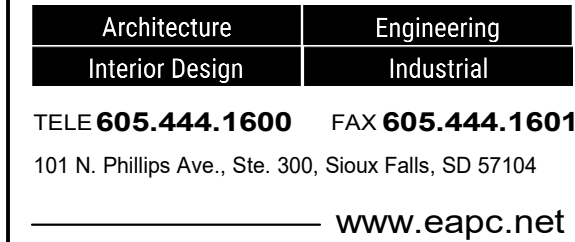


1	ADDENDUM #2	04/01/2022
BP01	BID PACKAGE 01	03/01/2022
MARK	DESCRIPTION	DATE



1. TOP OF GRADE BEAM ELEVATION = 99'-4" (11.0%)
2. WHERE EXISTING CONCRETE SLAB REMOVAL & REPLACEMENT IS REQUIRED TO INSTALL NEW FOUNDATIONS, SAW CUT & REMOVE RECTANGULAR/SQUARE FOUNDATIONS AND REPLACE W/ 4" THICK CONCRETE SLAB-ON-GRADE OVER 6" FREE DRaining GRANULAR FILL OVER 15 MIL VAPOR BARRIER. REINFORCE NEW SLAB W/ #5 @ 1'-6" O.C. DOWEL NEW SLAB TO EXISTING SLAB W/ 1/2"x2"x1'-6" SMOOTH DOWELS @ 2'-0" O.C.
3. REMOVE AND REPLACE EXISTING NON-BRG. GUY WALLS AND FOOTINGS AS NEEDED FOR INSTALLATION OF NEW FOUNDATION COMPONENTS. VERIFY LOCATION OF EXISTING GUY WALLS W/ ARCH.

- (1) STEP LAYOUT IN TOP OF FOUNDATION WALL.
- (2) REMOVE & REPLACE EXISTING CONCRETE SLAB AS NEEDED FOR INSTALLATION OF NEW FOUNDATIONS (PILE CAPS, GRADE BEAMS, FOOTINGS, ETC.).
- (3) CENTER PILE CAP BELOW CENTERLINE OF #10 COLUMN/GRADE BEAM.
- (4) CENTER PILE CAP BELOW #14 COLUMN.
- (5) EX. C.I.P. CONCRETE WALL @ THIS AREA TO REMAIN. DEMO EXISTING CMU WALL DOWN TO TOP OF CONC. WALL.
- (6) DEMO EX. STOOP AS NEEDED TO INSTALL NEW C.I.P. CONC. WALL.
- (7) DOYSEL NEW FTGS. TO EX. PAD FOOTING W/ 1# DOYELS SIM. TO THAT SHOWN IN DETAIL 10/8302.
- (8) DOYSEL GRADE BEAM TO EXISTING. S.D. 1/5303 FOR REQUIRED DYLS.
- (9) SEE CIVIL DRAWINGS FOR TRASH ENCLOSURE SLAB.
- (10) S.D. 12/5303 FOR REQUIRED THICKENED SLABS @ CHANGE IN FLOOR ELEVATION.



KEY PLAN

NTS

The key plan is a schematic map of the site. It is divided into five labeled areas: AREA 'E' at the top, AREA 'A' on the right, AREA 'B' on the bottom right, AREA 'C' on the bottom left, and AREA 'D' on the middle left. Areas 'C' and 'D' are shaded gray. A north arrow is located in the bottom right corner, pointing upwards.

(OSE# R0319-23X/FBT)
(SDSU# WO#22-103751)

CITY	BROOKINGS
STATE	SOUTH DAKOTA

PROJECT NO:	20191170
DRAWN BY:	CJK
CHECKED BY:	DDN

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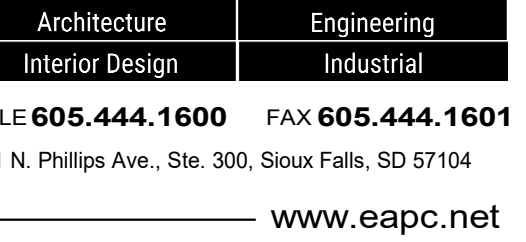
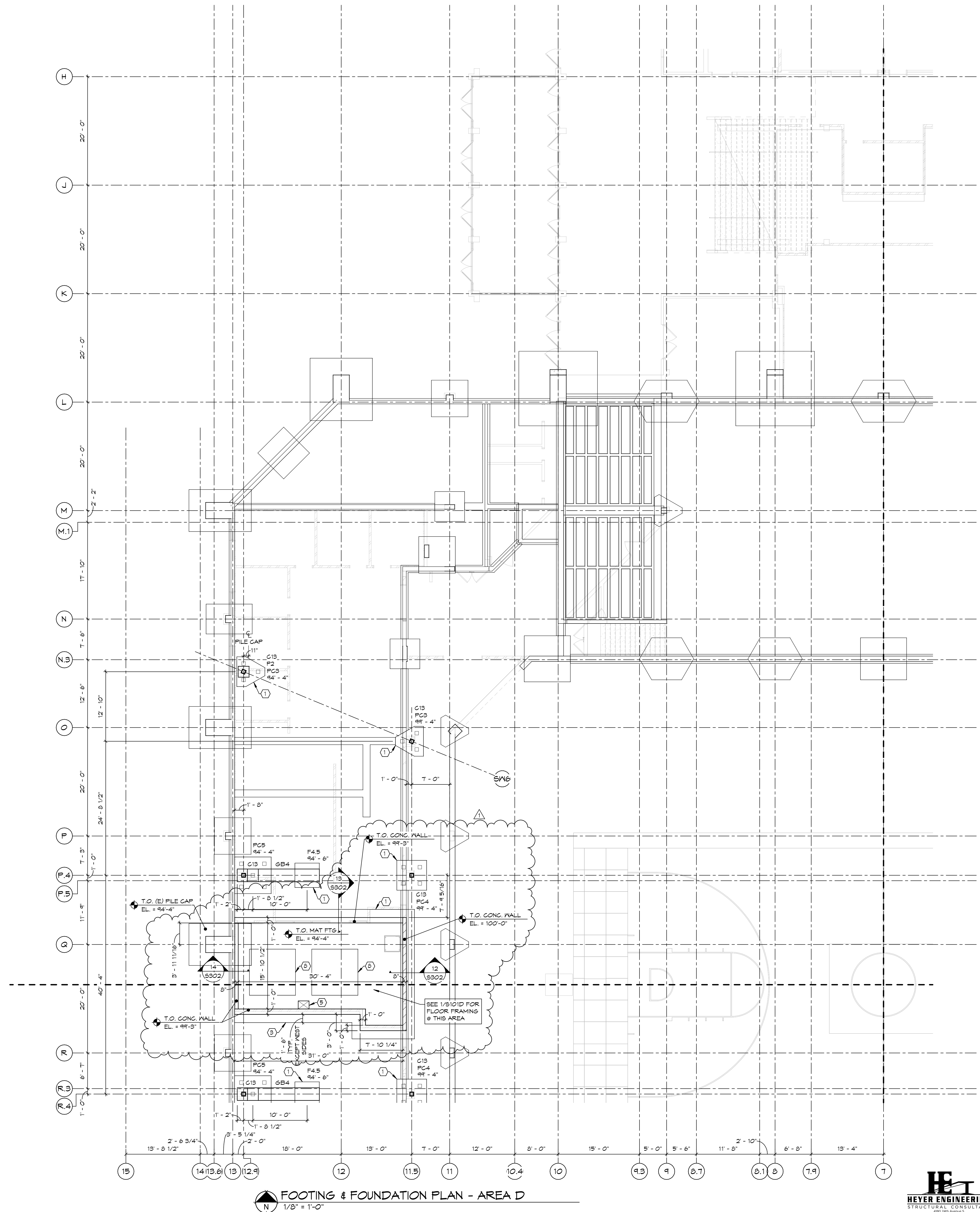
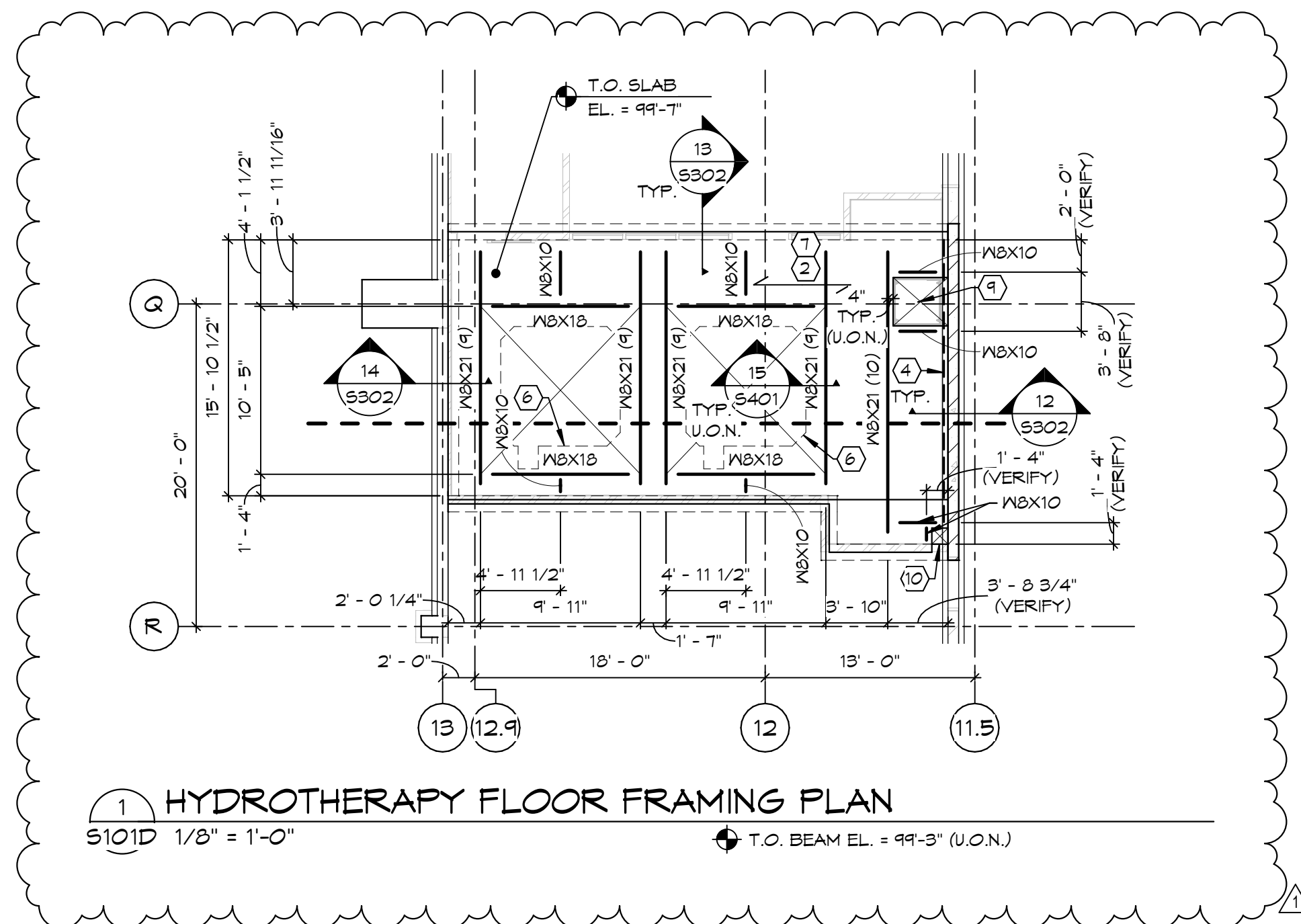
FOOTING &
FOUNDATION PLAN -
AREA C

S101C



1. TOP OF GRADE BEAM ELEVATION = 99'-4" (I.O.N.)
2. WHERE EXISTING CONCRETE SLAB REMOVAL & REPLACEMENT IS REQUIRED TO INSTALL NEW FOUNDATION, SAW CUT & REMOVE RECTANGULAR/SQUARE PORTIONS AND REPLACE W/ 4" THICK CONCRETE SLAB-ON-GRADE OVER 6" FINE GRADING GRANULAR FILL OVER 15 MI. VAPOR BARRIER. REINFORCE NEW SLAB W/ #3 @ 1'-6" O.C. DOWEL NEW SLAB TO EXISTING SLAB W/ 1/2" Ø X 1'-6" SMOOTH DOWELS @ 2'-0" O.C.
3. REMOVE AND REPLACE EXISTING NON-BERG CMU WALLS AND FOOTINGS AS NEEDED FOR INSTALLATION OF NEW FOUNDATION COMPONENTS. VERIFY LOCATION OF EXISTING CMU WALLS W/ ARCH.

- 1 REMOVE & REPLACE EXISTING CONCRETE SLAB AS NEEDED FOR INSTALLATION OF NEW FOUNDATIONS (PILE CAPS, GRADE BEAMS, FOOTINGS, ETC.).
- 2 2" 1/2 THICK NORMAL WEIGHT CONCRETE OVER 1" 2X10 B.G. VULCRAFT VLR COMPOSITE DECK (4" TOTAL THICKNESS). REINFORCE SLAB W/ #3 @ 8" O.C. E.G. MAY CENTERED IN CONCRETE. PROVIDE 2" MIN. COVER. REINFORCING BARS SPACING W/ 5/8" ID PUDDLE WELDS ON A 36/4 PATTERN (HEADED STUD CAN BE USED IN PLACE OF PUDDLE WELD). FASTEN SIDELAPS W/ 5/8" X 1" ARCH SEAM WELDS @ 2'-6" O.C. (MAX.) E.G. SPAN. PROVIDE (3) 5-PAN CONDITION (MIN) WHERE POSSIBLE.
- 3 1"-0" THICK CONCRETE MAT FOOTING. REINFORCE W/ #5 @ 1'-0" O.C. E.G. MAY TOP @ BTM. VERTING PLY 1/4" & 1/4" ARCH FOR HOUSKEEPING PASS REQUIRED BELOW TUBS. COVER NEW MAT FTG. TO EXISTING PILE CAP W/ #5 X 3'-0" DYNLS @ 2'-0" O.C. DRILL & ADHERE DYNLS TO EXISTING PILE CAP USING HLT #1-200 ADHESIVE. PROVIDE (6" EMBEDMENT; POSITION DYNLS @ MID-DEPTH OF NEW FTG. PROVIDE DYNLS @ 9 SIDES OF EXISTING PILE CAP.
- 4 1/8X3/8" B.T. CONT. ANGLE FOR SLAB SUPPORT. S.D. 12/3302
- 5 BUMP PUT. VERIFY SIZE & LOCATION W/ MECH.
- 6 OUTLINE OF SLAB EDGE/ROUGH OPENING. VERIFY EXACT SIZE/DIMENSIONS W/ HYDROTHERMY TUB SUPPL.
- 7 5" CONCRETE SLABS OVER COMPOSITE CONCRETE STRUCTURAL SLAB. REIN. W/ 4" FIBERMESH. SUBMIT SUGGESTED DESIGN TO ENGINEER FOR REVIEW. SLOPE TOPPING TO DRAINS SEE ARCH. 4 MECH. FOR DRAIN LOCATIONS/INFO. SEE ARCH. FOR REQUIRED WATERPROOF MEMBRANE BETWEEN TOP OF COMPOSITE SLAB & TOPPING.
- 8 9'-6" SQ. X 2'-1" THICK CONCRETE SUPPORT FOR HYDROTHERMY TUB. S.D. 16/3302 FOR REQUIRED REINFORCING. T.O. CONC. @ 9'-6" (VERIFY). VERIFY SIZE & LOCATION W/ TUB SUPPLIER.
- 9 ACCESS HATCH. SEE ARCH. FOR EXACT SIZE & LOCATION. S.D. 15/3401 (SM) FOR SLAB EDGE DETAIL.
- 10 MECH. PENETRATION. SEE ARCH. FOR EXACT SIZE & LOCATION. S.D. 15/3401 (SM.) FOR SLAB EDGE DETAIL.



A key plan showing the layout of the site. The plan is divided into five areas: AREA 'E' at the top, AREA 'D' on the left, AREA 'A' on the right, AREA 'C' at the bottom left, and AREA 'B' at the bottom right. A north arrow is located at the bottom right of the plan, pointing upwards. The text 'KEY PLAN' and 'NTS' (Not To Scale) are at the bottom left.

ISSUE DATES

1	ADDENDUM #2	04/01/2022
P01	BID PACKAGE 01	03/01/2022
MARK	DESCRIPTION	DATE

PROJECT NO:	20191170
DRAWN BY:	CJK
CHECKED BY:	DDN

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RAWING TITLE

FOOTING &
FOUNDATION PLAN -
AREA D

S101D

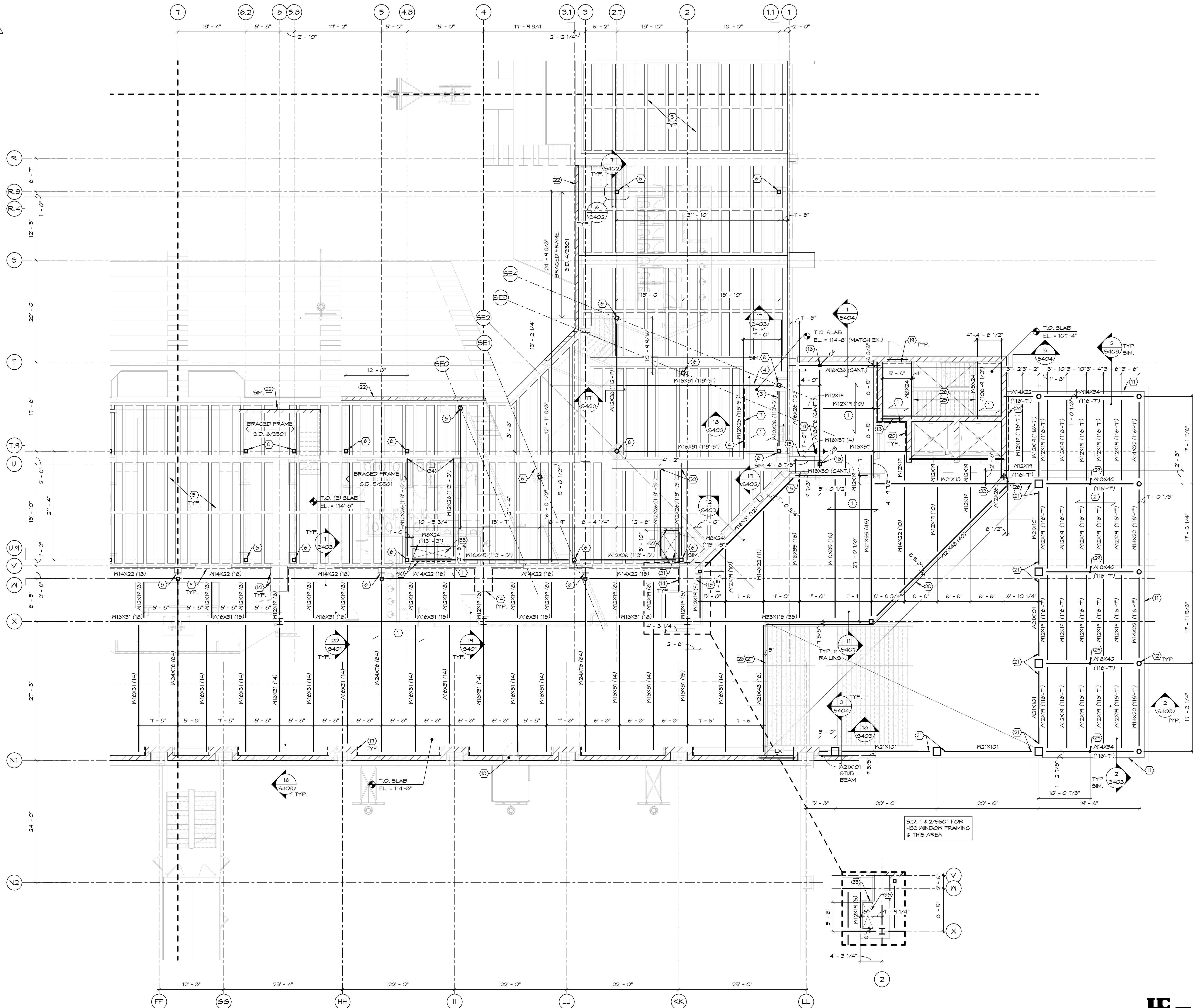


SHEET NOTES:

1. VERIFY ALL DIMENSIONS WITH ARCHITECTURAL PLANS.
2. SEE SHEET S001 FOR GENERAL STRUCTURAL NOTES.
3. S.D. 2/5401 FOR TYP. WELDED ANGLE FRAME REQUIRED @ ROOF PENETRATIONS.
4. WHERE NEW COLUMN LOCATIONS REQUIRE CORE-DRILLING THRU AN EXISTING CONCRETE JOIST, PROVIDE TEMP. SHORING OF EXISTING CONCRETE JOIST UNTIL NEW STEEL COLUMN & SUPPORT ANGLES ARE INSTALLED AS SHOWN IN DETAIL 1/5402.
5. ALL SHEAR STUDS TO BE 3/4"Ø x 4" HIGH. S.D. 3/5401 FOR LAYOUT INFORMATION. AT BEAMS WHERE COMPOSITE SLAB IS PRESENT AND NO SHEAR STUD QUANTITY IS NOTED, PROVIDE SHEAR STUDS @ 1'-0" O.C. ALONG ENTIRE SPAN. FOR BEAMS WHERE COMPOSITE SLAB IS ONLY OVER A PORTION OF THE SPAN, PROVIDE SHEAR STUDS @ 1'-0" O.C. ALONG PORTION OF SPAN WHERE COMPOSITE SLAB IS PRESENT.

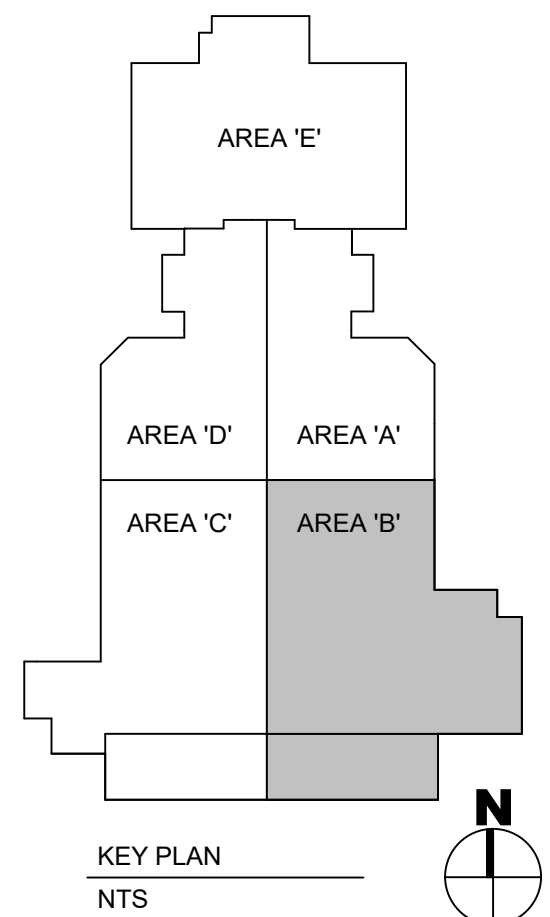
KEY NOTES:

- 1 1/2" THICK NORMAL WEIGHT CONCRETE OVER 2" x 10 GA. VULCRAFT VLI COMPOSITE DECK (6 1/2" TOTAL THICKNESS). REINFORCE SLAB W/ #3 @ 1'-0" O.C. EA. MAY CENTERED IN CONCRETE ABOVE METAL DECK. FASTEN DECK TO FLOOR FRAMING W/ 5/8"Ø PUDDLE WELDS ON A 36/4 PATTERN (HEADED STUD CAN BE USED IN PLACE OF PUDDLE WELD). FASTEN SIDELAP W/ 3/8"x1 1/2" ARC BEAM WELDS @ 2'-6" O.C. (MAX.) @ EA. SPAN. PROVIDE (3)-SPAN CONDITION (MIN.) WHERE POSSIBLE.
- 1 1/2" x 20 GA. TYPE 'B' (WIDE RIB) METAL ROOF DECK. FASTEN TO ROOF FRAMING W/ 5/8"Ø PUDDLE WELDS ON A 36/7 PATTERN W/ (1)-1/10 TEK SCREW PER SPAN. FASTEN TO PERIMETER FRAMING W/ 5/8"Ø PUDDLE WELDS @ 6" O.C. PROVIDE (3)-SPAN CONDITION (MIN.).
- W10X30 SPACER BEAM WELDED TO TOP OF W12 BEAM. S.D. 10/5402.
- HSS 4x4x3/8" TUBE WELDED TO TOP OF STL. BEAM.
- EX. CONCRETE FAN & JOIST FLOOR SYSTEM W/ 3" THICK SLAB & 1'-1" OVERALL DEPTH @ JOISTS - VERIFY.
- NEW STEEL COLUMNS FOR SUPPORT OF PRECAST STADIA SEATING AND STEEL RAKER BEAMS ABOVE. S.D. 6/5402 & 1/5402. @ SIM. OMIT COLLAR SHOWN IN DETAILS @ 1/5402.
- L4x4x1/4" CONT. ANGLE. S.D. 10/5402.
- L4x4x1/4" x 1'-4" ANGLE. FASTEN TO EX. CONCRETE COLUMN W/ (2)-1/2"Øx4" SIMPSON TITEN HD SCREW ANCHORS. PROVIDE 6" GAGE DISTANCE @ ANCHORS.
- L4x4x1/4" CONT. ANGLE. S.D. 1/5403.
- L4x4x1/4" CONT. ANGLE. FASTEN TO EX. CONG. COLUMN W/ 1/2"Øx4" SIMPSON TITEN HD SCREW ANCHORS @ 8" O.C.
- DENOTES CONT. BENT PLATE @ ROOF EDGE.
- PROVIDE STIFFENER PLATE WELDED TO COLUMN FOR CONT. BENT PLATE SUPPORT SIM. TO THAT SHOWN IN DETAIL 2/5403.
- MOMENT CONNECTION. S.D. 11/5403.
- S.D. 11/5402 FOR CONNECTION OF BEAM TO EX. CONG. COLUMN.
- S.D. 12/5403 FOR CONT. BENT PLATE @ SLAB EDGE @ THIS AREA.
- S.D. 13/5403 FOR REQUIREMENTS @ STACKED COLUMNS.
- L4x4x1/4" x 1'-1" ANGLE W/ (2)-5/8"Ø x 5" SIMPSON TITEN HD SCREW ANCHORS. PROVIDE 6" GAGE DIM. @ ANCHORS.
- PROVIDE BENT BAR DVLS TO SLAB SIM. TO DETAIL 6/5403.
- PROVIDE SAME L4x4 CONT. AS SHOWN IN DETAIL 3/5404 @ SIDES OF STAIR LANDINGS.
- S.D. 3/5404 FOR CONT. ANGLE.
- S.D. 10/5403 FOR ADDITIONAL ANGLES REQUIRED @ BEAM-COLUMN CONNECTIONS.
- 8" CMU WALL FOR SUPPORT OF PRECAST STADIA & STAIRS. COORDINATE T.O. WALL W/ FC SUPPLIER & ARCH. S.D. 5/5404.
- S.D. 4/5401 FOR CONNECTION STL. BEAM TO CMU WALL AT THIS LOCATION.
- L5x3x3/8" CONT. ANGLE SIM. TO DETAIL 6/5403.
- S.D. 10/5401 FOR TYP. SLAB EDGE @ STAIRS.
- S.D. 4/5401 FOR CONNECTION OF STL. BEAM TO CMU WALL AT THIS LOCATION.
- PROVIDE SAME SLAB EDGE DETAIL AS SHOWN IN DETAIL 10/5401.
- DENOTES SLAB EDGE.
- HSS 3x3x1/4" HANGER DOWN TO HSS WINDOW FRAMING BELOW. S.D. 1/5403.
- HSS 4x4x3/8" BETWEEN TOP OF STL. BEAM AND UNDERSIDE OF EX. CONG. JOIST FLOOR SYSTEM SIM. TO DETAIL 10/5402.
- CUT NEW 5'-2"x3'-6" MECH. OPENING THRU EX. CONG. FLOOR AFTER ADDITIONAL STEEL FRAMING IS INSTALLED. (VERIFY SIZE W/ MECH.)
- S.D. 14/5401 FOR STL. BEAM CONNECTION TO EX. CONG. BEAM.
- CUT NEW 7'-10"x3'-0" MECH. OPENING THRU EX. CONG. FLOOR AFTER ADDITIONAL STEEL FRAMING IS INSTALLED. (VERIFY SIZE W/ MECH.)
- POCKET NEW BEAM INTO EX. 1'-0" CMU WALL. PROVIDE 8" BRG. AND FILL 4 COURSES SOLID BELOW BEAM BEARING.
- PROVIDE 6 1/2"x6 1/2"x3/8" BENT PLATE BETWEEN BENT PLATES @ BEAMS. NOTCH @ EX. COLUMN AS NEEDED.
- MECH. PENETRATION THRU FLOOR. S.D. 22/5401 FOR SLAB EDGE DETAIL @ TYP. MECH. PENETRATIONS @ NEW COMPOSITE FLOOR. VERIFY SIZE W/ MECH.



SECOND FLOOR FRAMING PLAN - AREA B
1/8" = 1'-0"

CONSULTANTS



CLIENT
SOUTH DAKOTA STATE UNIVERSITY

PROJECT DESCRIPTION
FB&T ARENA AND SJM ADDITIONS AND RENOVATIONS

(OSE# R0319-23X/FBT)
(SDSU# WO#22-103751)

CITY BROOKINGS
STATE SOUTH DAKOTA

ISSUE DATES

1	ADDENDUM #2	04/01/2022
BP01	BID PACKAGE 01	03/01/2022
MARK	DESCRIPTION	DATE

PROJECT NO: 20191170
DRAWN BY: CJK
CHECKED BY: DDN

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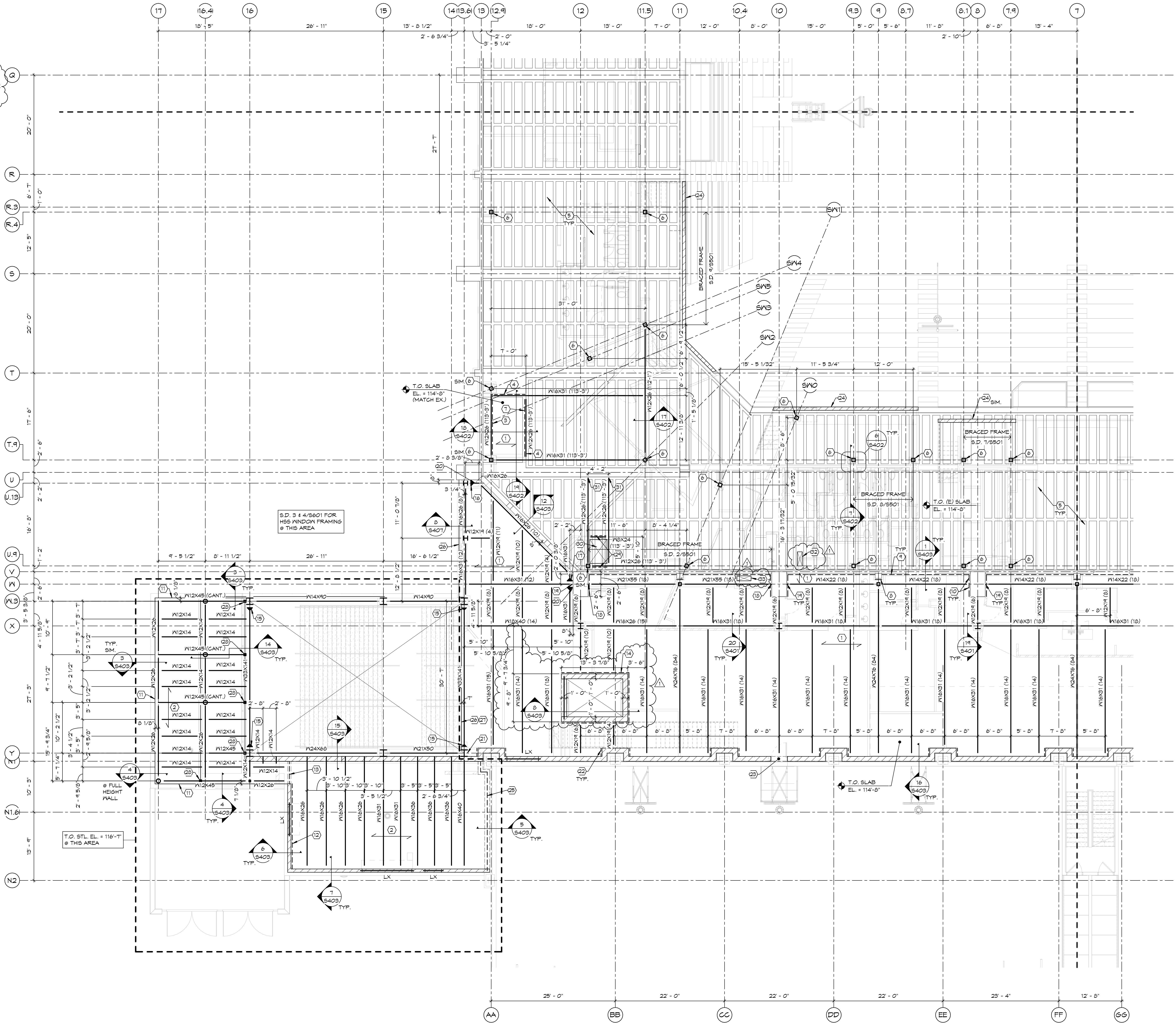
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SECOND FLOOR FRAMING PLAN - AREA B

SHEET NOTES:

1. VERIFY ALL DIMENSIONS WITH ARCHITECTURAL PLANS.
2. SEE SHEET 5001 FOR GENERAL STRUCTURAL NOTES.
3. S.D. 2/5401 FOR TYP. WELDED ANGLE FRAME REQUIRED @ ROOF PENETRATIONS.
4. WHERE NEW COLUMN LOCATIONS REQUIRE CORE-DRILLING THRU AN EXISTING CONCRETE JOIST, PROVIDE TEMP. SHORING OF EXISTING CONCRETE JOIST UNTIL NEW STEEL COLUMN & SUPPORT ANGLES ARE INSTALLED AS SHOWN IN DETAIL 7/5402.
5. ALL SHEAR STUDS TO BE 3/4"Ø x 4" HIGH, S.D. 3/5401 FOR LAYOUT INFORMATION. AT BEAMS WHERE COMPOSITE SLAB IS PRESENT AND NO SHEAR STUD QUANTITY IS NOTED, PROVIDE SHEAR STUDS @ 1'-0" O.C. ALONG ENTIRE SPAN FOR BEAMS WHERE COMPOSITE SLAB IS ONLY OVER A PORTION OF THE SPAN, PROVIDE SHEAR STUDS @ 1'-0" O.C. ALONG PORTION OF SPAN WHERE COMPOSITE SLAB IS PRESENT.

KEY NOTES:

- 1 1/2" THICK NORMAL WEIGHT CONCRETE OVER 2" x 18 GA. VULCRAFT VLI COMPOSITE DECK (6 1/2" TOTAL THICKNESS). REINFORCE SLAB W/ #3 @ 1'-0" O.C. EA. MAY CENTERED IN CONCRETE ABOVE METAL DECK. FASTEN DECK TO FLOOR FRAMING W/ 5/8"Ø PUDDLE WELDS ON A 36/4 PATTERN. HEADED STUD CAN BE USED IN PLACE OF PUDDLE WELD). FASTEN SIDELARS W/ 3/8"x1 1/2" ARC BEAM WELDS @ 2'-6" O.C. (MAX.) @ EA. SPAN. PROVIDE (3)-SPAN CONDITION (MIN.) WHERE POSSIBLE.
- 1 1/2" x 20 GA. TYPE B (WIDE RIB) METAL ROOF DECK. FASTEN TO ROOF FRAMING W/ 5/8"Ø PUDDLE WELDS ON A 36/7 PATTERN W/ (1)-#10 TEK SCREW PER SPAN. FASTEN TO PERIMETER FRAMING W/ 5/8"Ø PUDDLE WELDS @ 8" O.C. PROVIDE (3)-SPAN CONDITION (MIN.).
- W10x30 SPACER BEAM WELDED TO TOP OF M12. S.D. 18/5402.
- HSS 4x4x3/8" TUBE WELDED TO TOP OF STL. BEAM.
- EX. CONCRETE PAN & JOIST FLOOR SYSTEM W/ 3" THICK SLAB & 1'-1" OVERALL DEPTH @ JOISTS - VERIFY.
- NEW STEEL COLUMNS FOR SUPPORT OF PRECAST STADIA SEATING AND STEEL RAKER BEAMS ABOVE. S.D. 6/5402 & 7/5402. (Ø SIM. OMIT COLLAR SHOWN IN DETAILS @ 1/5402).
- L4x4x1/4" CONT. ANGLE. S.D. 18/5402.
- L4x4x1/4" x 1'-4" ANGLE. FASTEN TO EX. CONCRETE COLUMN W/ (2)-1/2"Øx4" SIMPSON TITEN HD SCREW ANCHORS. PROVIDE 8" GAGE DISTANCE @ ANCHORS.
- L4x4x1/4" CONT. ANGLE. S.D. 1/5403.
- L4x4x1/4" CONT. ANGLE. FASTEN TO EX. CONG. COLUMN W/ 1/2"Øx4" SIMPSON TITEN HD SCREW ANCHORS @ 8" O.C.
- DENOTES CONT. BENT PLATE @ ROOF EDGE.
- L5x3x3/8" CONT. ANGLE. S.D. 6/5403.
- PROVIDE 3/8"x3" CONT. PLATE W/ 1/2"Øx4" HCA @ 2'-0" @ TOP OF WALL SIM. TO DETAIL 9/5403.
- L4x4x1/4" ANGLE. S.D. 8/5403.
- MOMENT CONNECTION. S.D. 9/5403.
- MOMENT CONNECTION. S.D. 10/5403.
- MOMENT CONNECTION. S.D. 11/5403.
- S.D. 12/5402 FOR CONNECTION OF BEAM TO EX. CONG. COLUMN.
- S.D. 11/5402 FOR CONNECTION OF BEAM TO EX. CONG. COLUMN.
- S.D. 12/5403 FOR CONT. BENT PLATE @ SLAB EDGE AT THIS AREA.
- PROVIDE L4x4x1/4" ANGLE WELDED TO COLUMN FOR DECK SUPPORT.
- L4x4x1/4" x 1'-1" ANGLE W/ (2)-5/8"Ø x 5" SIMPSON TITEN HD SCREW ANCHORS. PROVIDE 8" GAGE DIM. @ ANCHORS.
- PROVIDE BENT BAR DWLS TO SLAB SIM. TO DETAIL 6/5403.
- 8" CMU WALL FOR SUPPORT OF PRECAST STADIA & STAIRS. COORDINATE T.O. WALL W/ PC SUPPLIER & ARCH. S.D. 5/5404.
- CONT. EMBED. PLATE @ TOP OF WALL. S.D. 5/5403.
- DENOTES SLAB EDGE.
- PROVIDE SAME SLAB EDGE DETAIL AS SHOWN IN DETAIL 10/5401.
- HSS 5x5x1/4" HANGER DOWN TO HSS WINDOW FRAMING BELOW. S.D. 6/5403.
- HSS 4x4x3/8" BETWEEN TOP OF STL. BEAM AND UNDERSIDE OF EX. CONG. JOIST FLOOR SYSTEM SIM. TO DETAIL 18/5402.
- CUT NEW 5'-2"x3'-6" MECH. OPENING THRU EX. CONG. FLOOR AFTER ADDITIONAL STEEL FRAMING IS INSTALLED. (VERIFY SIZE W/ MECH.)
- S.D. 14/5401 FOR STL. BEAM CONNECTION TO EX. CONG. BEAM.
- MECH. PENETRATION THRU EXISTING CONCRETE FLOOR STRUCTURE. LOCATION BETWEEN EXISTING CONCRETE JOISTS.
- MECH. PENETRATION. LEAVE MTL. DECK IN PLACE AND BLOCK OUT OPENING. DURING CONG. POUR CUT OUT AND REMOVE MTL. DECK AFTER SLAB CURES.

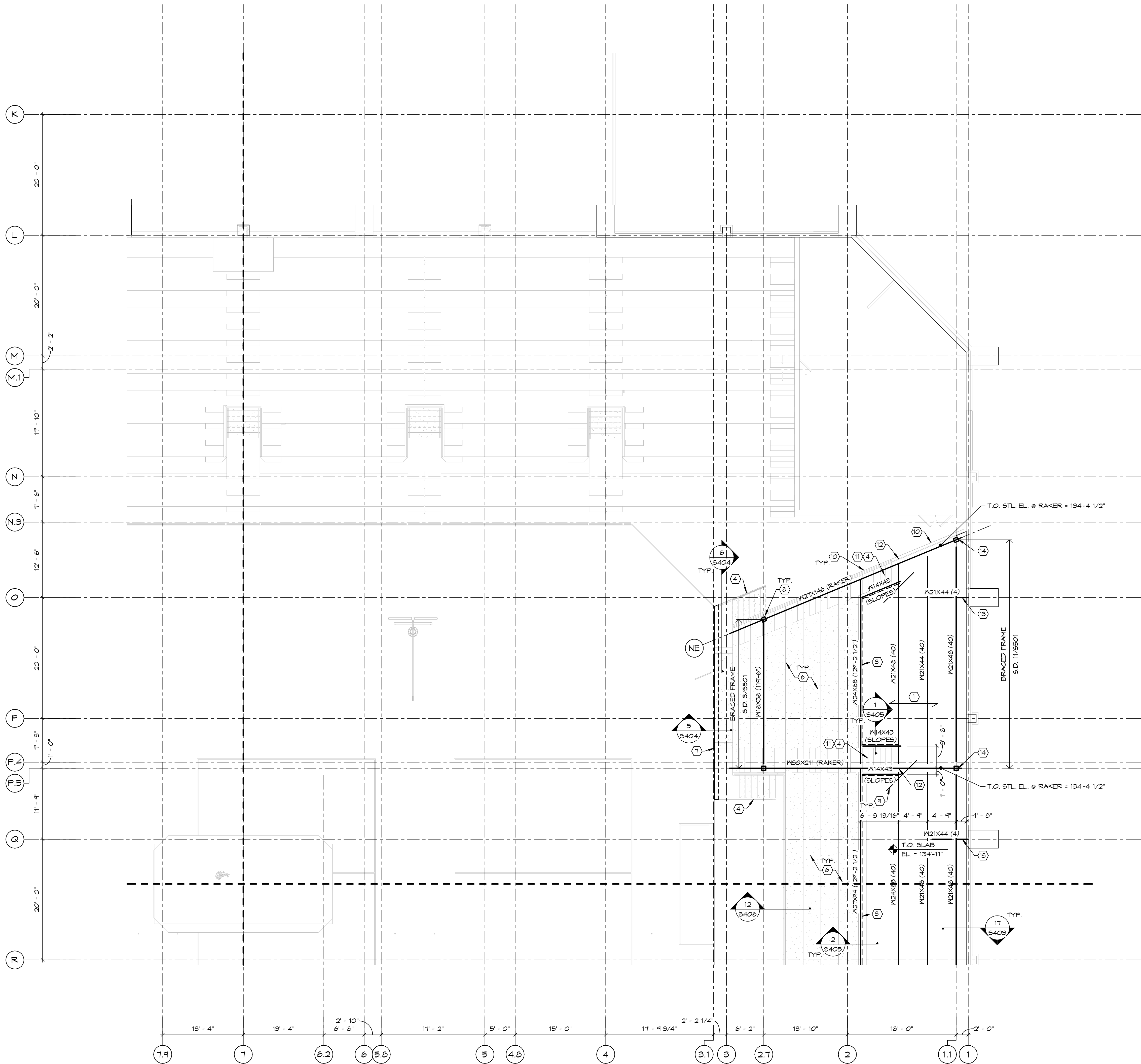


SHEET NOTES:

1. VERIFY ALL DIMENSIONS V/ ARCHITECTURAL DRAWINGS WHICH SHALL BE GOVERNING.
2. VERIFY T.O. STL. ELEVATIONS V/ PRECAST STADIA SUPPLIER.
3. SEE SHEET 0001 FOR GENERAL STRUCTURAL NOTES.
4. ► DENOTES MOMENT CONNECTION.
5. S.D. 7/5404 FOR TYPICAL STL. RAKER EXTENSION @ LOW END WHEN NEAR EXISTING SECOND FLOOR CONC. FLOOR STRUCTURE.
6. S.D. 3/5405, 4/5405, 5/5405, & 6/5405 FOR TYPICAL STADIA AND STADIA CONNECTION DETAILS.
7. ALL SHEAR STUDS TO BE 3/4"Ø X 4" HIGH. S.D. 3/5401 FOR LAYOUT INFORMATION. AT BEAMS WHERE COMPOSITE SLAB IS PRESENT AND NO SHEAR STUD QUANTITY IS NOTED, PROVIDE SHEAR STUDS @ 1'-0" O.C. ALONG ENTIRE SPAN. FOR BEAMS WHERE COMPOSITE SLAB IS ONLY OVER A PORTION OF THE SPAN, PROVIDE SHEAR STUDS @ 1'-0" O.C. ALONG PORTION OF SPAN WHERE COMPOSITE SLAB IS PRESENT.

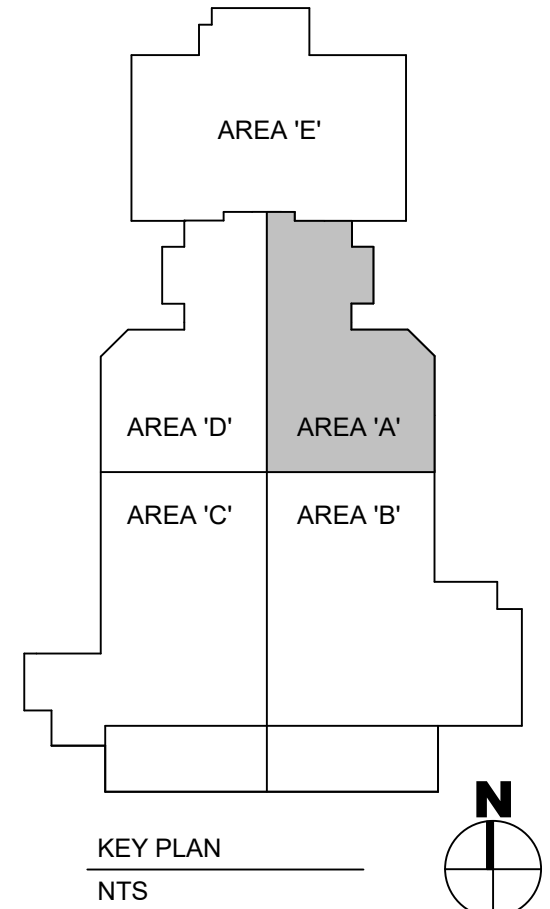
KEY NOTES:

1. 4 1/2" THICK NORMAL WEIGHT CONCRETE OVER 3"x18" GA. VULCRAFT VLI COMPOSITE (6 1/2" TOTAL THICKNESS). REINFORCE SLAB V/ #5 @ 1'-0" O.C. EA. VARY CENTERED IN CONCRETE ABOVE METAL DECK. FASTEN DECK TO FLOOR FRAMING V/ 5/8"Ø PUDDLE WELDS ON A 36/4 PATTERN (HEADED STUD CAN BE USED IN PLACE OF PUDDLE WELD). FASTEN SIDELAPS V/ 3/8"x1 1/2" ARC SEAM WELDS @ 2'-6" O.C. (MAX.) @ EA. SPAN. PROVIDE (3)-SPAN (MIN.) CONDITION WHERE POSSIBLE.
2. NOT USED.
3. PRECAST CONCRETE WALL PANEL - BY PRECAST SUPPLIER.
4. PRECAST CONCRETE STAIRS - BY PRECAST SUPPLIER.
5. NOT USED.
6. PRECAST STADIA SEATING - BY PRECAST SUPPLIER. SEE ARCH. FOR LAYOUT/DIMENSIONS.
7. 8" CMU WALL BELOW FOR SUPPORT OF PRECAST STADIA & STAIRS. S.D. 5/5404.
8. S.D. 8/5404 FOR TYP. RAKER BEAM TO COLUMN CONNECTION.
9. PROVIDE (3)-#3 X T-O" @ 6" O.C. @ RE-ENTRANT CORNERS. (TYP.)
10. 6" PC SPANDREL PANEL (TYP. @ EDGE OF STADIA - SEE ARCH.) S.D. 10/5404.
11. S.D. 9/5404 FOR CONNECTION OF PC STAIR TO STL. BEAM.
12. S.D. 11/5404 FOR SUPPORT/CONNECTION OF BEAM @ RAKER.
13. S.D. 12/5404 FOR ANGLE BRACE TO EX. CONC. COLUMN.
14. RUN RAKER BEAM OVER TOP OF HSS COLUMN AND FRAME M21 BEAMS INTO SIDE OF RAKER SIM. TO DETAIL 8/5404.



MEZZANINE FRAMING PLAN - AREA A
1/8" = 1'-0"

CONSULTANTS



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SOUTH DAKOTA STATE UNIVERSITY

PROJECT DESCRIPTION
FB&T ARENA AND SJM ADDITIONS AND RENOVATIONS

(OSE# R0319-23X/FBT)
(SDSU# WO#22-103751)

CITY BROOKINGS
STATE SOUTH DAKOTA

ISSUE DATES

1	ADDENDUM #2	04/01/2022
BP01	BID PACKAGE 01	03/01/2022
MARK	DESCRIPTION	DATE

PROJECT NO: 20191170
DRAWN BY: CJK
CHECKED BY: DDN

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MEZZANINE FRAMING PLAN - AREA A

SHEET NOTES:

1. VERIFY ALL DIMENSIONS IN ARCHITECTURAL DRAWINGS WHICH SHALL BE GOVERNING.
2. VERIFY T.O. STL. ELEVATIONS IN/ PRECAST STADIA SUPPLIER.
3. SEE SHEET 5001 FOR GENERAL STRUCTURAL NOTES.
4. ► DENOTES MOMENT CONNECTION.

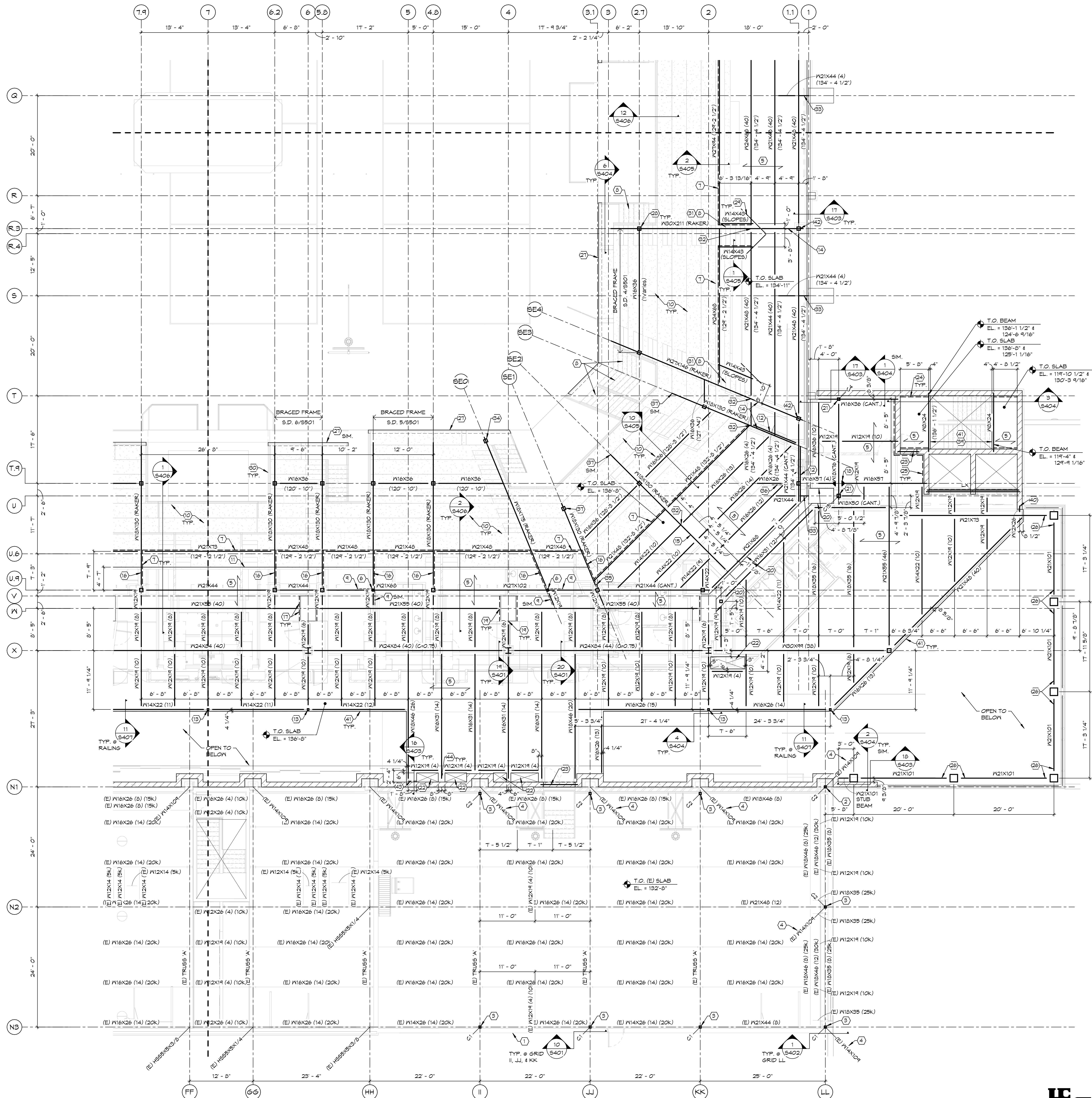
5. S.D. 1/5404 FOR TYPICAL STL. RAKER EXTENSION @ LOW END WHEN NEAR EXISTING SECOND FLOOR CONC. FLOOR STRUCTURE.

6. S.D. 3/5405, 4/5405, 5/5405, 6/5405 FOR TYPICAL STADIA AND STADIA CONNECTION DETAILS.

7. ALL SHEAR STUDS TO BE 3/4" Ø x 4" HIGH, S.D. 3/5401 FOR LAYOUT INFORMATION. AT BEAMS WHERE COMPOSITE SLAB IS PRESENT AND NO SHEAR STUD QUANTITY IS NOTED, PROVIDE SHEAR STUDS @ 1'-0" O.C. ALONG ENTIRE SPAN FOR BEAMS WHERE COMPOSITE SLAB IS ONLY OVER A PORTION OF THE SPAN, PROVIDE SHEAR STUDS @ 1'-0" O.C. ALONG PORTION OF SPAN WHERE COMPOSITE SLAB IS PRESENT.

KEY NOTES:

- (1) EXISTING 8" x 8" CONT. CONCRETE CURB BELOW STEEL STUD WALL.
- (2) COLUMN UP TO ABOVE. COLUMN BEARS @ ELEV. 132'-2 1/2" (T.O. EXISTING COLUMN).
- (3) COLUMN UP TO ABOVE. COLUMN BEARS @ ELEV. 132'-5" (T.O. EXISTING COLUMN/STUB COLUMN).
- (4) EXISTING COLUMN BELOW.
- (5) 4 1/2" THICK NORMAL WEIGHT CONCRETE OVER 2" x 10 GA. VULCRAFT VLI COMPOSITE DECK (6 1/2" TOTAL THICKNESS), REINFORCE SLAB IN/ #3 @ 1'-0" O.C. EA. MAY CENTERED IN CONCRETE ABOVE METAL DECK. FASTEN DECK TO FLOOR FRAMING IN/ 5/8" RUDDE WELDS ON A 36/4 PATTERN (HEADED STUD CAN BE USED IN PLACE OF RUDDE WELD). FASTEN SIDELAPS IN/ 3/8" x 1 1/2" ARC SEAM WELDS @ 2'-6" O.C. (MAX.) @ EA. SPAN. PROVIDE (3)-SPAN CONDITION (MIN.) WHERE POSSIBLE.
- (6) HSS 4x4x3/8" HANGER DOWN TO BEAM BELOW, S.D. 15/5404.
- (7) PRECAST CONCRETE WALL PANEL - BY PRECAST SUPPLIER.
- (8) PRECAST CONCRETE STAIRS - BY PRECAST SUPPLIER.
- (9) L2 1/2x2 1/2x1/4" ANGLE BRACE, S.D. 14/5404 (15/5404 @ SIM.).
- (10) PRECAST STADIA SEATING - BY PRECAST SUPPLIER. SEE ARCH. FOR LAYOUT/DIMENSIONS.
- (11) EDGE OF COMPOSITE SLAB.
- (12) K21X62 WELDED TO TOP OF BEAM BELOW, S.D. 11/5405.
- (13) HSS 4x4x1/4" HANGER UP TO BEAM ABOVE.
- (14) T.O. STL. EL. @ RAKER = 134'-4 1/2".
- (15) T.O. STL. EL. @ RAKER = 136'-1 1/2".
- (16) T.O. STL. EL. @ RAKER = 129'-2 1/2".
- (17) L4x4x1/4" CONT. ANGLE, FASTEN TO EX. CONC. COLUMN IN/ 1/2" Øx4" SIMPSON TITEN HD SCREW ANCHORS @ 8" O.C.
- (18) MOMENT CONNECTION, S.D. 11/5403.
- (19) S.D. 11/5402 FOR CONNECTION OF BEAM TO EX. CONC. COLUMN.
- (20) S.D. 12/5403 FOR CONT. BENT PLATE @ SLAB EDGE @ THIS AREA.
- (21) S.D. 15/5403 FOR REQUIREMENTS @ STACKED COLUMNS.
- (22) MECH. PENETRATION THRU FLOOR, S.D. 22/5401 FOR SLAB EDGE DETAIL @ TYP. MECH. PENETRATIONS @ NEW COMPOSITE FLOOR, VERIFY SIZE IN/ MECH.
- (23) PROVIDE BENT BAR DVLS TO SLAB SIM. TO DETAIL 5/5403.
- (24) PROVIDE SAME L4x4 CONT. AS SHOWN IN DETAIL 3/5404 @ SIDES OF STAIR LANDINGS.
- (25) S.D. 12/5403 FOR CONT. ANGLE.
- (26) S.D. 16/5403 FOR ADDITIONAL ANGLES REQUIRED @ BEAM-COLUMN CONNECTION.
- (27) 8" CMU WALL BELOW FOR SUPPORT OF PRECAST STADIA & STAIRS, S.D. 5/5404.
- (28) S.D. 8/5404 FOR TYP. RAKER BEAM TO COLUMN CONNECTION.
- (29) PROVIDE (3)-#3 x 1'-0" @ 6" O.C. @ RE-ENTRANT CORNERS, (TYP.)
- (30) 6" PC SPANDREL PANEL (TYP. @ ENDS OF STADIA - SEE ARCH.) S.D. 10/5404.
- (31) S.D. 9/5404 FOR CONNECTION OF PC STAIR TO STL. BEAM.
- (32) S.D. 11/5404 FOR SUPPORT/CONNECTION OF BEAM @ RAKER.
- (33) S.D. 12/5404 FOR ANGLE BRACE TO EX. CONC. COLUMN.
- (34) S.D. 8/5405 FOR BEAM-COLUMN CONNECTION.
- (35) PROVIDE EMBED. PLATE @ PC WALL FOR SUPPORT OF STL. BEAM, S.D. 9/5405.
- (36) ANGLE BRACE, S.D. 12/5405.
- (37) S.D. 15/5406 FOR CONNECTION DETAIL.
- (38) S.D. 4/5401 FOR CONNECTION OF STL. BEAM TO CMU WALL AT THIS LOCATION.
- (39) S.D. 10/5401 FOR TYP. SLAB EDGE @ STAIRS.
- (40) S.D. 4/5401 FOR CONNECTION OF STL. BEAM TO CMU WALL @ THIS LOCATION.
- (41) DENOTES SLAB EDGE.
- (42) RUN RAKER BEAM OVER TOP OF HSS COLUMN AND FRAME K21 BEAMS INTO SIDE OF RAKER SIM. TO DETAIL 5/5404.
- (43) PROVIDE 3/8" THICK CLOSURE PLATE ON BENT PLATE FOUR STOP @ WALL, FASTEN TO WALL IN/ (2)-5/8" Øx5" SIMPSON TITEN HD SCREW ANCHORS, PROVIDE 8" GAGE DIMENSION @ ANCHORS.
- (44) PROVIDE U-SHAPED BENT PLATE FOUR STOP @ AREA BETWEEN MECH. OPENINGS.



MEZZANINE FRAMING PLAN - AREA B

1/8" = 1'-0"

T.O. STL. EL. = 136'-1 1/2" (U.O.N.)



Architecture Engineering

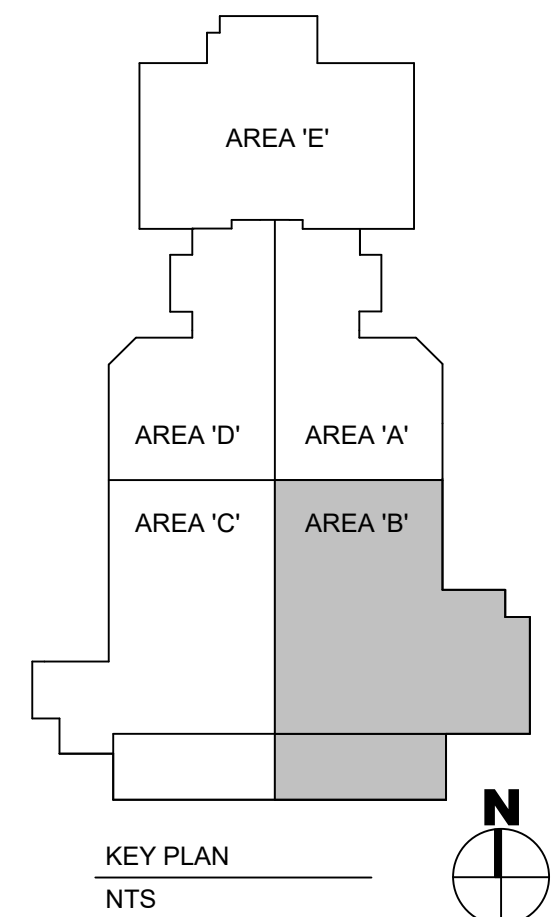
Interior Design Industrial

TELE 605.444.1600 FAX 605.444.1601

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CONSULTANTS



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CITY BROOKINGS

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ISSUE DATES

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PROJECT NO: 20191170

DRAWN BY: CJK

CHECKED BY: DDN

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MEZZANINE FRAMING PLAN - AREA B



S202B

SHEET NOTES:

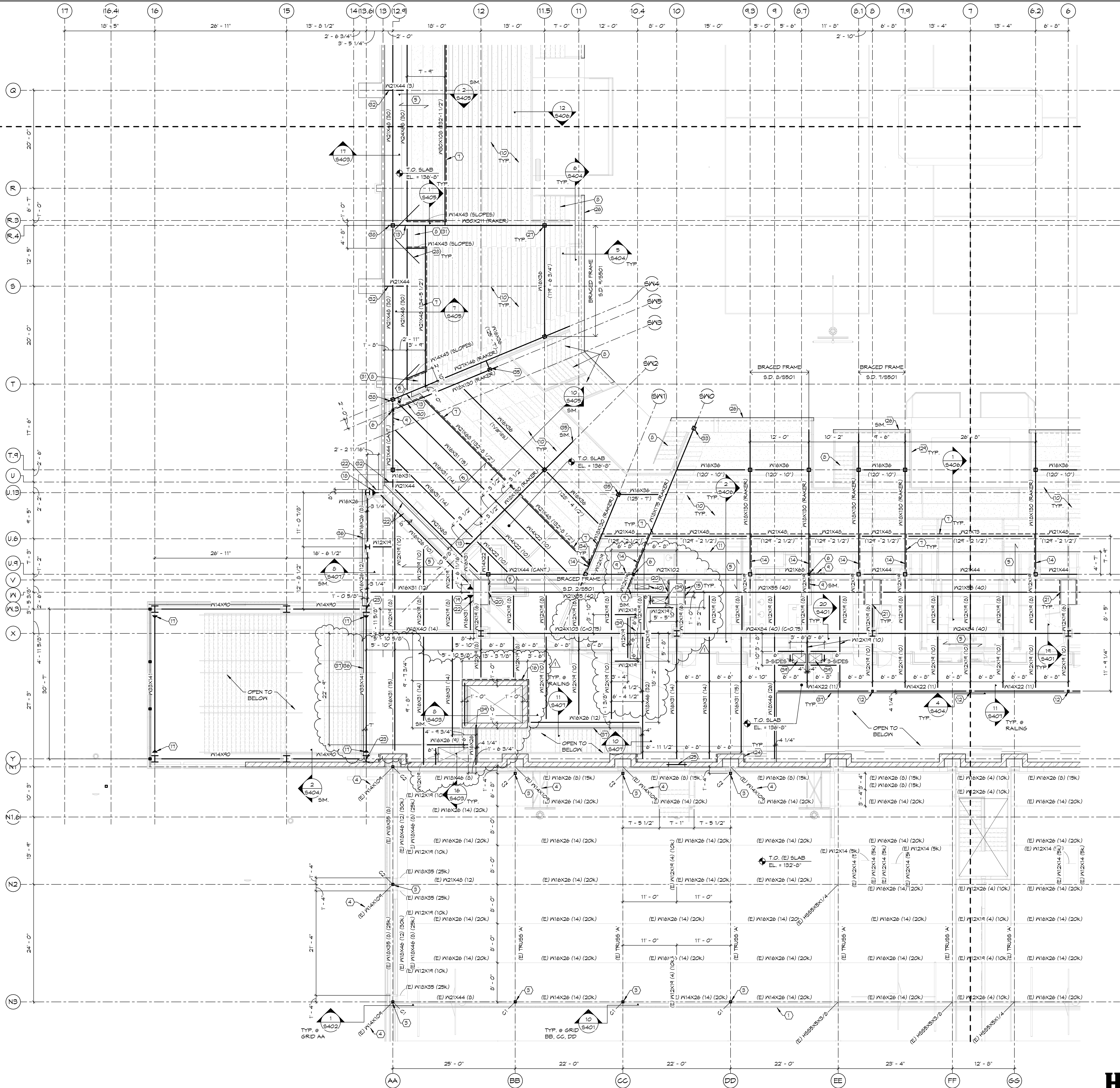
1. VERIFY ALL DIMENSIONS IV/ ARCHITECTURAL DRAWINGS WHICH SHALL BE GOVERNING.
2. VERIFY T.O. STL. ELEVATIONS IV/ PRECAST STADIA SUPPLIER.
3. SEE SHEET 5001 FOR GENERAL STRUCTURAL NOTES.
4. ► DENOTES MOMENT CONNECTION.
5. S.D. 7/5404 FOR TYPICAL STL. RAKER EXTENSION @ LOW END WHEN NEAR EXISTING SECOND FLOOR CONC. FLOOR STRUCTURE.

6. S.D. 3/5405, 4/5405, 5/5405, 6/5405 FOR TYPICAL STADIA AND STADIA CONNECTION DETAILS.

7. ALL SHEAR STUDS TO BE 3/4" Ø x 4" HIGH, S.D. 3/5401 FOR LAYOUT INFORMATION. AT BEAMS WHERE COMPOSITE SLAB IS PRESENT AND NO SHEAR STUD QUANTITY IS NOTED, PROVIDE SHEAR STUDS @ 1'-0" O.C. ALONG ENTIRE SPAN. FOR BEAMS WHERE COMPOSITE SLAB IS ONLY OVER A PORTION OF THE SPAN, PROVIDE SHEAR STUDS @ 1'-0" O.C. ALONG PORTION OF SPAN WHERE COMPOSITE SLAB IS PRESENT.

KEY NOTES:

1. EXISTING 8" x 8" CONT. CONCRETE CURB BELOW STEEL STUD WALL.
2. COLUMN UP TO ABOVE. COLUMN BEARS @ ELEV. 132'-2 1/2" (T.O. EXISTING COLUMN).
3. COLUMN UP TO ABOVE. COLUMN BEARS @ ELEV. 132'-8" (T.O. EXISTING COLUMN/STUB COLUMN).
4. EXISTING COLUMN BELOW.
5. 4 1/2" THICK NORMAL WEIGHT CONCRETE OVER 2" x 18 GA. VULCRAFT VLI COMPOSITE DECK (6 1/2" TOTAL THICKNESS) REINFORCE SLAB IV/ #3 @ 1'-0" O.C. EA. MAY CENTERED IN CONCRETE ABOVE METAL DECK. FASTEN DECK TO FLOOR FRAMING IV/ 5/8" Ø RUDDE WELDS ON A 36/4 PATTERN (HEADED STUD CAN BE USED IN PLACE OF RUDDE WELD). FASTEN SIDELAPS IV/ 3/8" x 1 1/2" ARC BEAM WELDS @ 2'-6" O.C. (MAX.) @ EA. SPAN. PROVIDE (3)-SPAN CONDITION (MIN.) WHERE POSSIBLE.
6. HSS 4x4x3/8" HANGER DOWN TO BEAM BELOW. S.D. 13/5404.
7. PRECAST CONCRETE WALL PANEL - BY PRECAST SUPPLIER.
8. PRECAST CONCRETE STAIRS - BY PRECAST SUPPLIER.
9. L2 1/2x2 1/2x1/4" ANGLE BRACE. S.D. 14/5404 (13/5404 @ SIM.).
10. PRECAST STADIA SEATING - BY PRECAST SUPPLIER. SEE ARCH. FOR LAYOUT/DIMENSIONS.
11. EDGE OF COMPOSITE SLAB.
12. HSS 4x4x1/4" HANGER UP TO BEAM ABOVE.
13. T.O. STL. EL. @ RAKER = 136'-1 1/2".
14. T.O. STL. EL. @ RAKER = 129'-2 1/2".
15. L4x4x1/4" CONT. ANGLE. FASTEN TO EX. CONC. COLUMN IV/ 1/2" Ø x 4" SIMPSON TITEN HD SCREEN ANCHORS @ 8" O.C.
16. L4x4x1/4" ANGLE. S.D. 8/5403.
17. MOMENT CONNECTION. S.D. 9/5403.
18. MOMENT CONNECTION. S.D. 10/5403.
19. MOMENT CONNECTION. S.D. 11/5403.
20. S.D. 12/5402 FOR CONNECTION OF BEAM TO EX. CONCRETE COLUMN.
21. S.D. 11/5402 FOR CONNECTION OF BEAM TO EX. CONCRETE COLUMN.
22. S.D. 12/5403 FOR CONT. BENT PLATE @ SLAB EDGE @ THIS AREA.
23. PROVIDE L4x4x1/4" ANGLE WELDED TO COLUMN FOR DECK SUPPORT.
24. L4x4x1/4" x 1'-1" ANGLE IV/ (2)-3/8" Ø x 5" SIMPSON TITEN HD SCREEN ANCHORS. PROVIDE 6" GAGE DIM. @ ANCHORS.
25. PROVIDE BENT BAR DYLS TO SLAB SIM. TO DETAIL 8/5403.
26. 6" CMU WALL BELOW FOR SUPPORT OF PRECAST STADIA & STAIRS. S.D. 5/5404.
27. S.D. 8/5404 FOR TYP. RAKER BEAM TO COLUMN CONNECTION.
28. PROVIDE (3)-#3 x T-0" @ 6" O.C. @ RE-ENTRANT CORNERS. (TYP.)
29. 6" PC SPANREL PANEL (TYP. @ EDGE OF STADIA - SEE ARCH.) S.D. 10/5404.
30. T.O. STL. EL. @ RAKER = 132'-8 1/2".
31. S.D. 9/5404 FOR CONNECTION OF PC STAIR TO STL. BEAM.
32. S.D. 12/5404 FOR ANGLE BRACE TO EX. CONC. COLUMN.
33. S.D. 8/5405 FOR BEAM-COLUMN CONNECTION.
34. PROVIDE EMBED. PLATE @ PC WALL FOR SUPPORT OF STL. BEAM. S.D. 9/5405.
35. S.D. 13/5406 FOR CONNECTION DETAIL.
36. DENOTES SLAB EDGE.
37. PROVIDE SAME SLAB EDGE DETAIL AS SHOWN IN DETAIL 10/5407.
38. RUN RAKER BEAM OVER TOP OF HSS COLUMN AND FRAME M21 BEAMS INTO SIDE OF RAKER SIM. TO DETAIL 8/5404.
39. MECH. PENETRATION THRU FLOOR. S.D. 22/5401 FOR SLAB EDGE DETAIL @ TYP. MECH. PENETRATIONS @ NON COMPOSITE FLOOR. PROVIDE M12x14 BEAMS AROUND MECH. OPENINGS WHERE NO BEAM SIZE IS DENOTED. WHERE OPENINGS EXIST ON BOTH SIDES OF BEAM PROVIDE A U-SHAPED CONT. BENT PLATE. VERIFY SIZE OF OPENING IV/ MECH.
40. MECH. PENETRATION. LEAVE MTL. DECK IN PLACE AND BLOCK OUT OPENING. DURING CONC. POUR CUT OUT AND REMOVE MTL. DECK AFTER SLAB CURES.



MEZZANINE FRAMING PLAN - AREA C



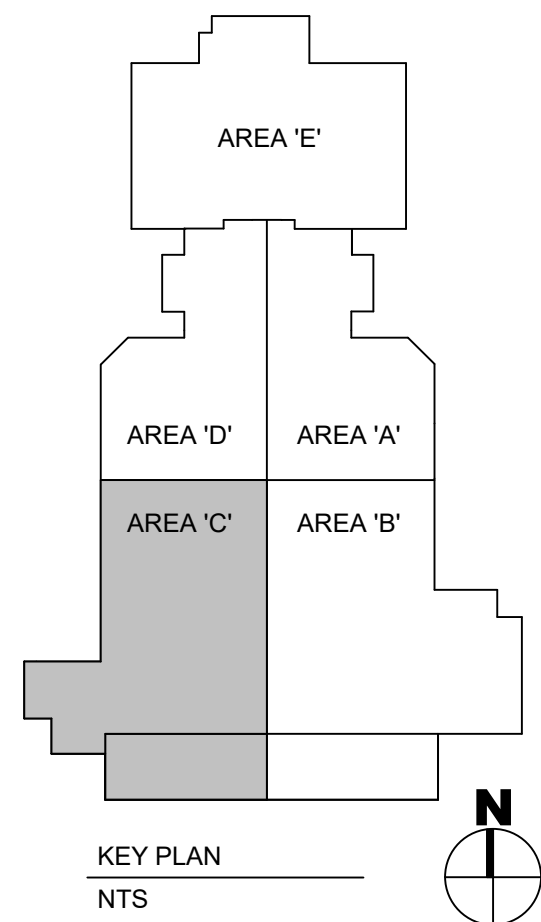
1/8" = 1'-0"

T.O. STL. EL. = 136'-1 1/2" (U.O.N.)



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101 N. Phillips Ave., Ste. 300, Sioux Falls, SD 57104
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CITY BROOKINGS
STATE SOUTH DAKOTA

ISSUE DATES

1. ADDENDUM #2	04/01/2022
BP01 BID PACKAGE 01	03/01/2022
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MEZZANINE FRAMING PLAN - AREA C



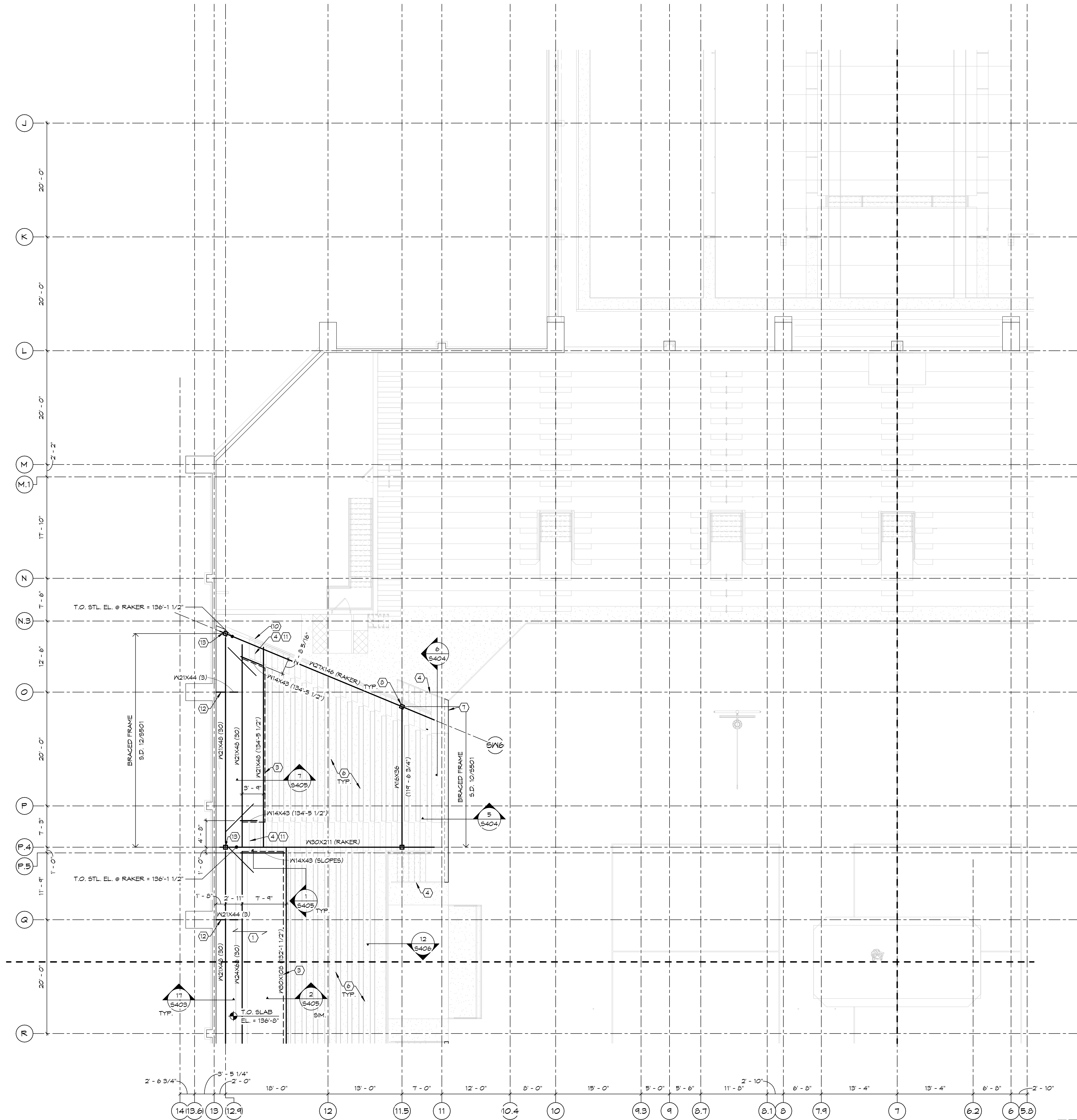
S202C

SHEET NOTES:

1. VERIFY ALL DIMENSIONS W/ ARCHITECTURAL DRAWINGS WHICH SHALL BE GOVERNING.
2. VERIFY T.O. STL. ELEVATIONS W/ PRECAST STADIA SUPPLIER.
3. SEE SHEET S001 FOR GENERAL STRUCTURAL NOTES.
4. ► DENOTES MOMENT CONNECTION.
5. S.D. 7/5404 FOR TYPICAL STL. RAKER EXTENSION @ LOW END WHEN NEAR EXISTING SECOND FLOOR CONC. FLOOR STRUCTURE.
6. S.D. 3/5405, 4/5405, 5/5405, & 6/5405 FOR TYPICAL STADIA AND STADIA CONNECTION DETAILS.
7. ALL SHEAR STUDS TO BE 3/4"Ø x 4" HIGH, S.D. 3/5401 FOR LAYOUT INFORMATION. AT BEAMS WHERE COMPOSITE SLAB IS PRESENT AND NO SHEAR STUD QUANTITY IS NOTED, PROVIDE SHEAR STUDS @ 1'-0" O.C. ALONG ENTIRE SPAN. FOR BEAMS WHERE COMPOSITE SLAB IS ONLY OVER A PORTION OF THE SPAN, PROVIDE SHEAR STUDS @ 1'-0" O.C. ALONG PORTION OF SPAN WHERE COMPOSITE SLAB IS PRESENT.

KEY NOTES:

1. 4 1/2" THICK NORMAL WEIGHT CONCRETE OVER 3"X15 GA. VULCRAFT VLI COMPOSITE (5 1/2" TOTAL THICKNESS). REINFORCE SLAB W/ #3 @ 1'-0" O.C. EA. WAY CENTERED IN CONCRETE ABOVE METAL DECK. FASTEN DECK TO FLOOR FRAMING W/ 5/8"Ø PUDDLE WELDS ON A 36/4 PATTERN (HEADED STUD CAN BE USED IN PLACE OF PUDDLE WELD). FASTEN SIDELAPS W/ 3/8"X1 1/2" ARC BEAM WELDS @ 2'-6" O.C. (MAX.) @ EA. SPAN. PROVIDE (3)X(SPAN (MIN.)) CONDITION WHERE POSSIBLE.
2. NOT USED.
3. PRECAST CONCRETE WALL PANEL - BY PRECAST SUPPLIER.
4. PRECAST CONCRETE STAIRS - BY PRECAST SUPPLIER.
5. NOT USED.
6. PRECAST STADIA SEATING - BY PRECAST SUPPLIER. SEE ARCH. FOR LAYOUT/DIMENSIONS.
7. 6" CMU WALL BELOW FOR SUPPORT OF PRECAST STADIA & STAIRS. S.D. 5/5404.
8. S.D. 8/5404 FOR TYP. RAKER BEAM TO COLUMN CONNECTION.
9. PROVIDE (3)X3 x 7'-0" @ 6" O.C. @ RE-ENTRANT CORNERS. (TYP.)
10. 6" PC SPANDREL PANEL (TYP. @ EDGE OF STADIA - SEE ARCH.) S.D. 10/5404.
11. S.D. 9/5404 FOR CONNECTION OF PC STAIR TO STL. BEAM.
12. S.D. 12/5404 FOR ANGLE BRACE TO EX. CONC. COLUMN.
13. RUN RAKER BEAM OVER TOP OF HS8 COLUMN AND FRAME W21 BEAMS INTO SIDE OF RAKER SM. TO DETAIL 8/5404.



MEZZANINE FRAMING PLAN - AREA D

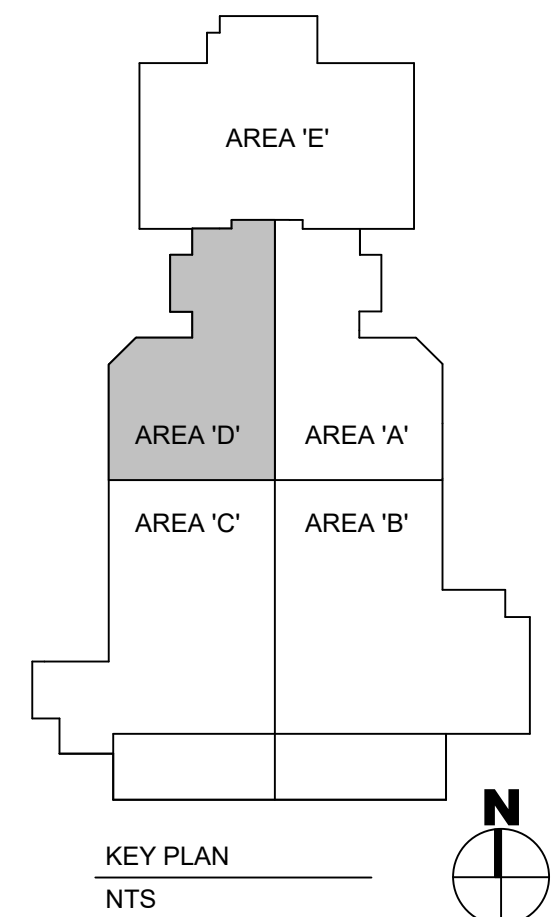
1/8" = 1'-0"

T.O. STL. EL. = 136'-1 1/2" (U.O.N.)



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TELE 605.444.1600 FAX 605.444.1601
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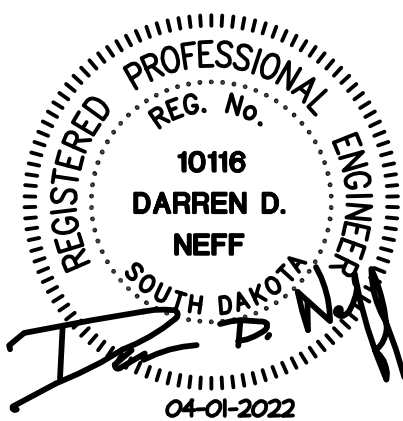
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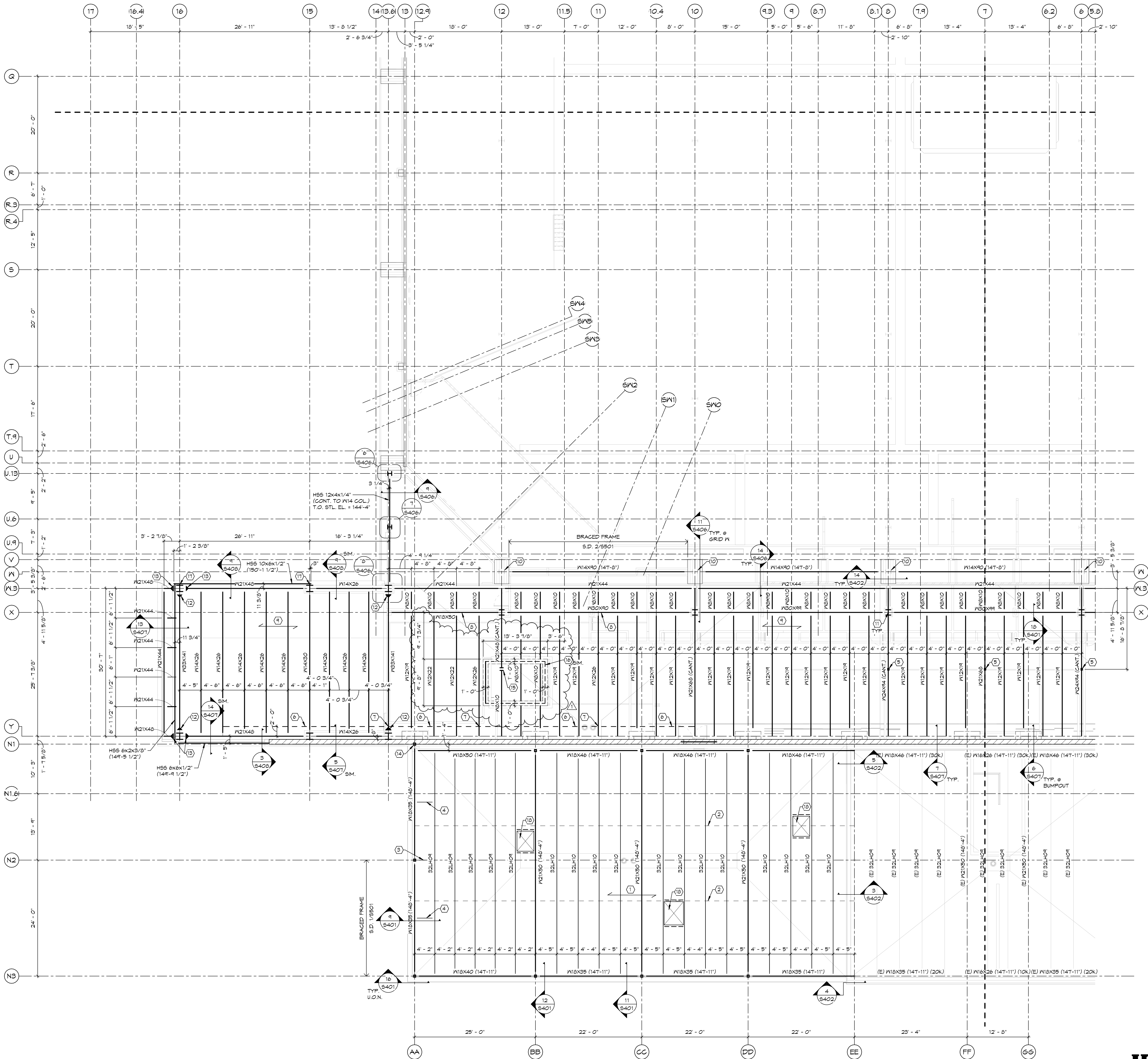


DRAWING TITLE
MEZZANINE FRAMING PLAN - AREA D

S202D

- SHEET NOTES:**
1. VERIFY ALL DIMENSIONS WITH ARCHITECTURAL PLANS.
 2. SEE SHEET S001 FOR GENERAL STRUCTURAL NOTES.
 3. S.D. 2/5401 FOR TYP. WELDED ANGLE FRAME REQUIRED @ ROOF PENETRATIONS.
 4. S.D. 1/5401 FOR TYP. JOIST REINF. DETAIL @ CONCENTRATED LOADS.

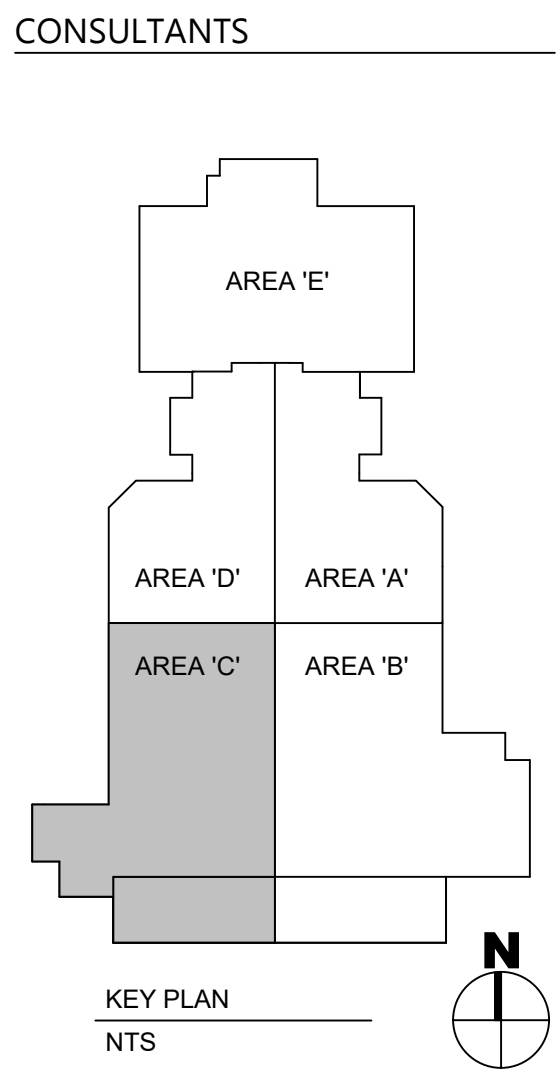
- KEY NOTES:**
- 1 1/2" x 20 GA. TYPE 'B' (WIDE RIB) METAL ROOF DECK. FASTEN TO ROOF FRAMING W/ 5/8" PUDDLE WELDS ON A 36/4 PATTERN. FASTEN SIDELAPS W/ (1)-#10 TEK SCREWS PER SPAN. FASTEN TO PERIMETER FRAMING W/ 5/8" PUDDLE WELDS @ 1'-0" O.C. PROVIDE (3)-SPAN CONDITION (MIN.).
 - HORIZONTAL JOIST BRIDGING. JOIST SUPPLIER SHALL AS A MINIMUM PROVIDE NUMBER OF ROWS SHOWN ON PLANS UNLESS MORE ROWS ARE REQUIRED BY DESIGN PER SJI SPECIFICATIONS.
 - L3X3X1/4" ANGLE BRACE. S.D. 9/5401.
 - L3X3X1/4" ANGLE BRACE @ BEAM MID-SPAN. S.D. 9/5401.
 - H55 4X4X1/4" HANGER DOWN TO FLOOR BELOW. S.D. 10/5406.
 - C12X30.7 CHANNEL PLACED TOE DOWN ON TOP OF STEEL BEAMS BELOW MTL. DECK. COPE FLANGES @ BEAM LOCATIONS. SPLICE CHANNEL WHERE NOTED ON PLAN. S.D. 3/5407. FASTEN METAL DECK TO CHANNEL W/ 5/8" PUDDLE WELDS @ 6" O.C.
 - CHANNEL SPLICE LOCATION.
 - FASTEN MTL. DECK TO BEAM FLANGE W/ 5/8" PUDDLE WELDS @ 6" O.C.
 - 1 1/2" x 20 GA. TYPE 'B' (WIDE RIB) METAL ROOF DECK. FASTEN TO ROOF FRAMING W/ 5/8" PUDDLE WELDS ON A 36/7 PATTERN. FASTEN SIDELAPS W/ (2)-#10 TEK SCREWS PER SPAN. FASTEN TO PERIMETER FRAMING W/ 5/8" PUDDLE WELDS @ 6" O.C. PROVIDE (3)-SPAN CONDITION (MIN.).
 - END VERTICAL OF EX. STL. ROOF TRUSS. (14WF6 - VERIFY)
 - S.D. 14/5403 FOR TYP. BEAM-TO-COLUMN CONNECTION @ CANTILEVERED BEAMS.
 - MOMENT CONNECTION. S.D. 4/5406.
 - MOMENT CONNECTION. S.D. 5/5406.
 - NOTCH CMU WALL AND STL. LINTEL BTM PLATE AROUND STEEL COLUMN. ADJUST ANY BOND BEAM REINFORCING ACCORDINGLY SUCH THAT STEEL COLUMN DOES NOT INTERRUPT REINF.
 - BEAM SPLICE LOCATION. S.D. 2/5407.
 - CONT. EMBED. PLATE @ TOP OF WALL. S.D. 16/5406.
 - S.D. 1/5408 FOR CONNECTION OF H55 WINDOW FRAMING TO COLUMN.
 - MECH. PENETRATION THRU ROOF DECK. SEE MECH. FOR EXACT SIZE & LOCATION AND S.D. 2/5401 FOR REQUIRED WELDED ANGLE FRAME.



ROOF FRAMING PLAN - AREA C
1/8" = 1'-0"
T.O. STL. EL. = 191'-4" (V.O.N.)



EAPC
Architecture Interior Design Industrial
TELE 605.444.1600 FAX 605.444.1601
101 N. Phillips Ave., Ste. 300, Sioux Falls, SD 57104
www.eapc.net



CLIENT
SOUTH DAKOTA STATE UNIVERSITY

PROJECT DESCRIPTION
FB&T ARENA AND SJM ADDITIONS AND RENOVATIONS
(OSE# R0319-23X/FBT)
(SDSU# WO#22-103751)

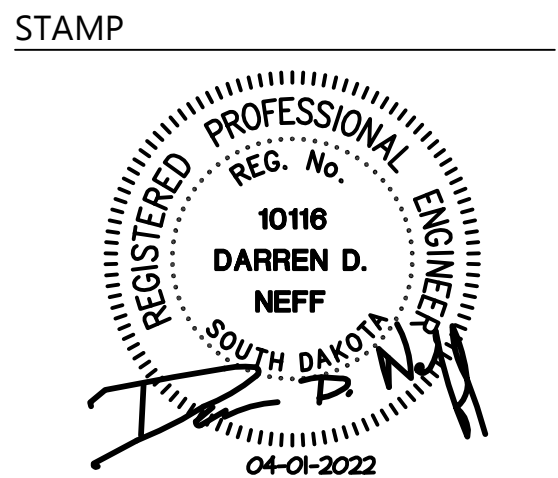
CITY BROOKINGS
STATE SOUTH DAKOTA

ISSUE DATES

1	ADDENDUM #2	04/01/2022
BP01	BID PACKAGE 01	03/01/2022
MARK	DESCRIPTION	DATE

PROJECT NO: 20191170
DRAWN BY: CJK
CHECKED BY: DDN

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DRAWING TITLE
HIGH ROOF FRAMING PLAN - AREA C

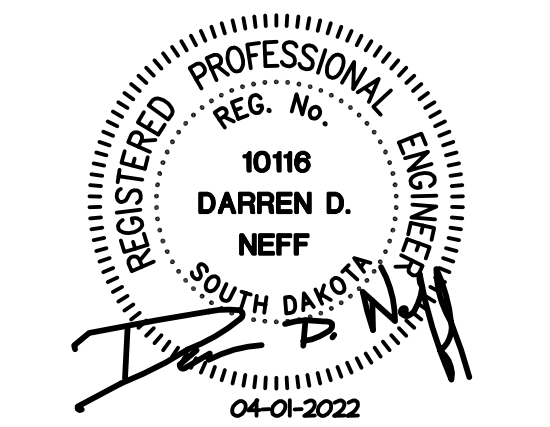
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BP01	BID PACKAGE 01	03/01/2022
MARK	DESCRIPTION	DATE

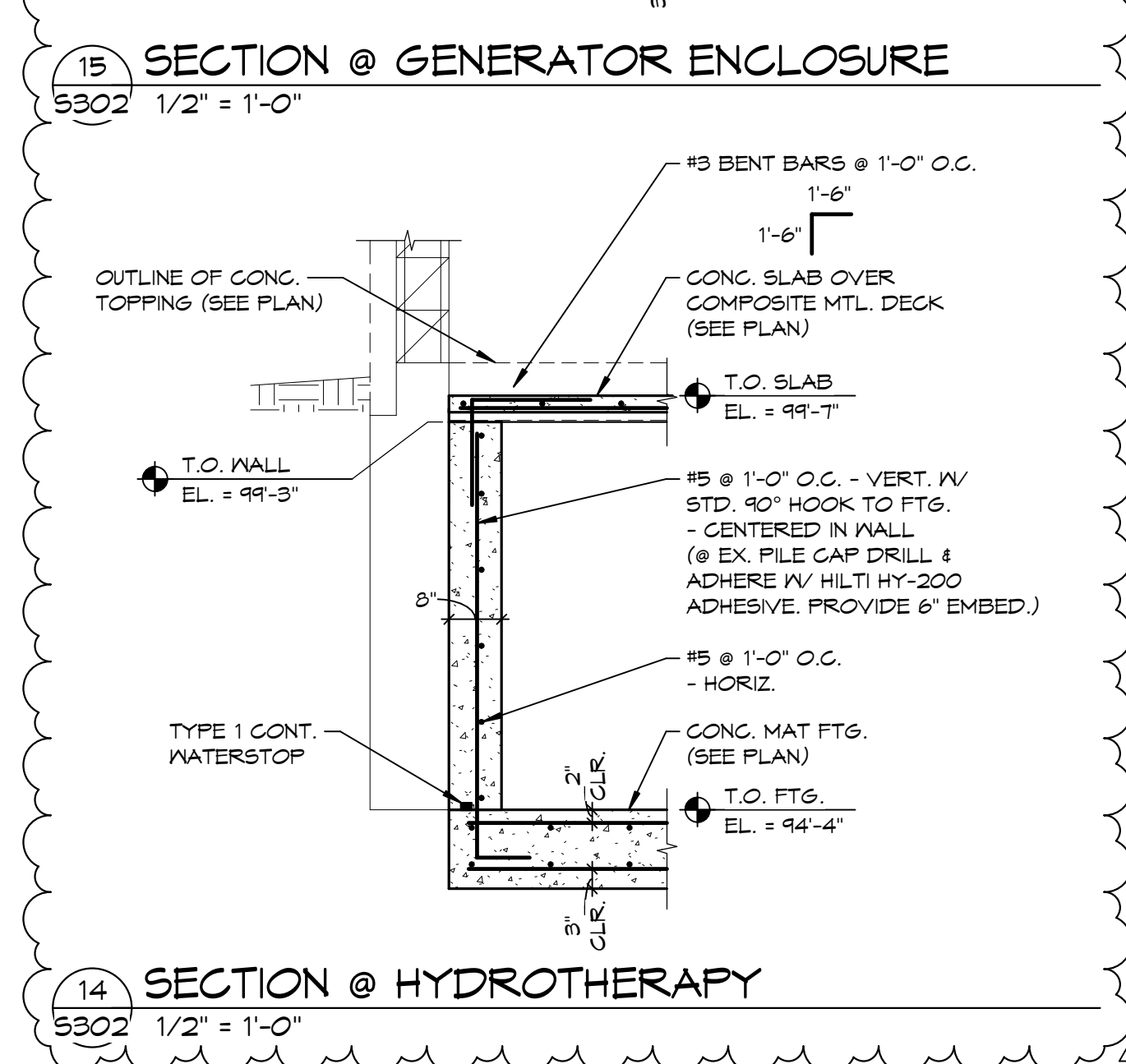
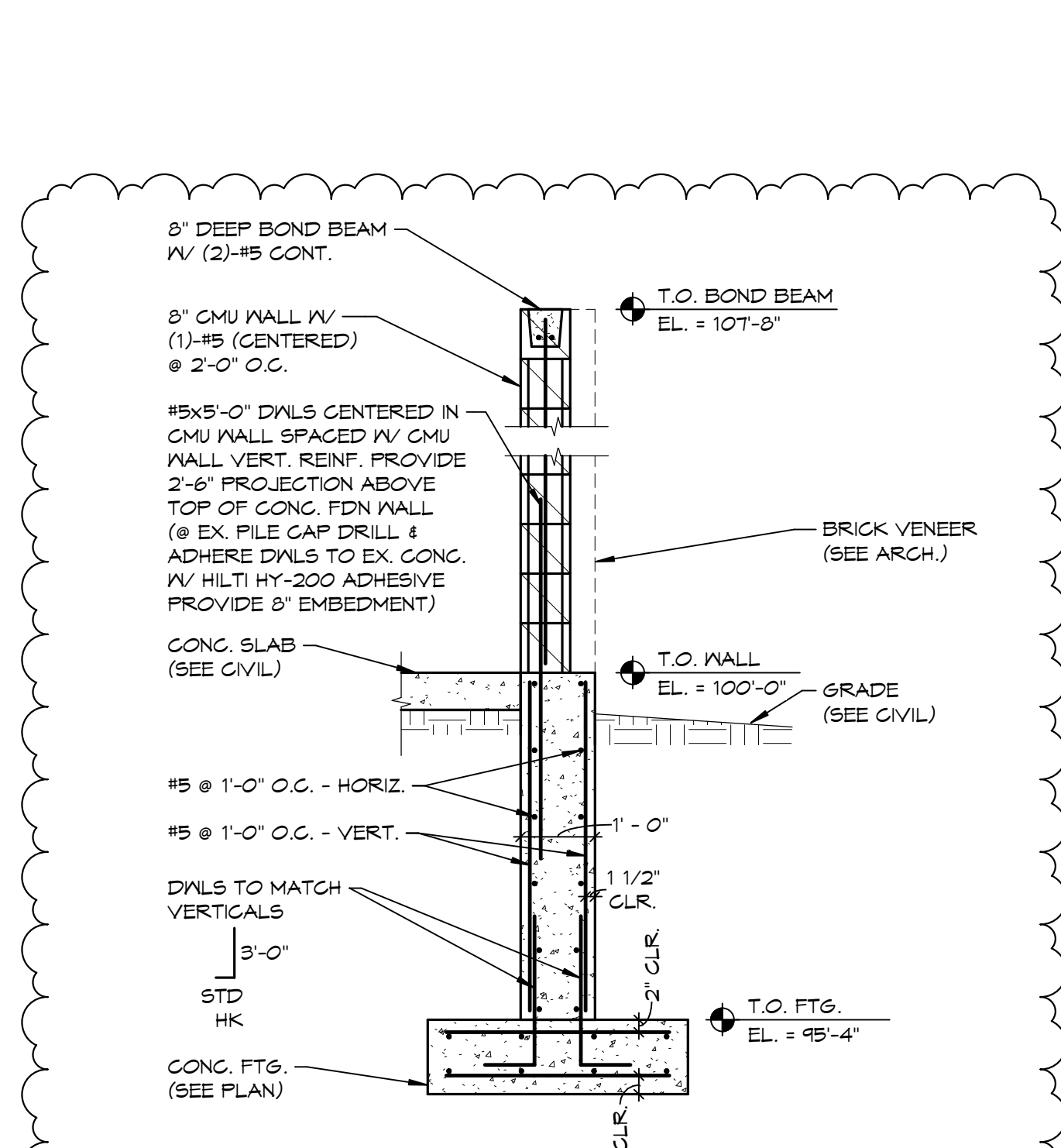
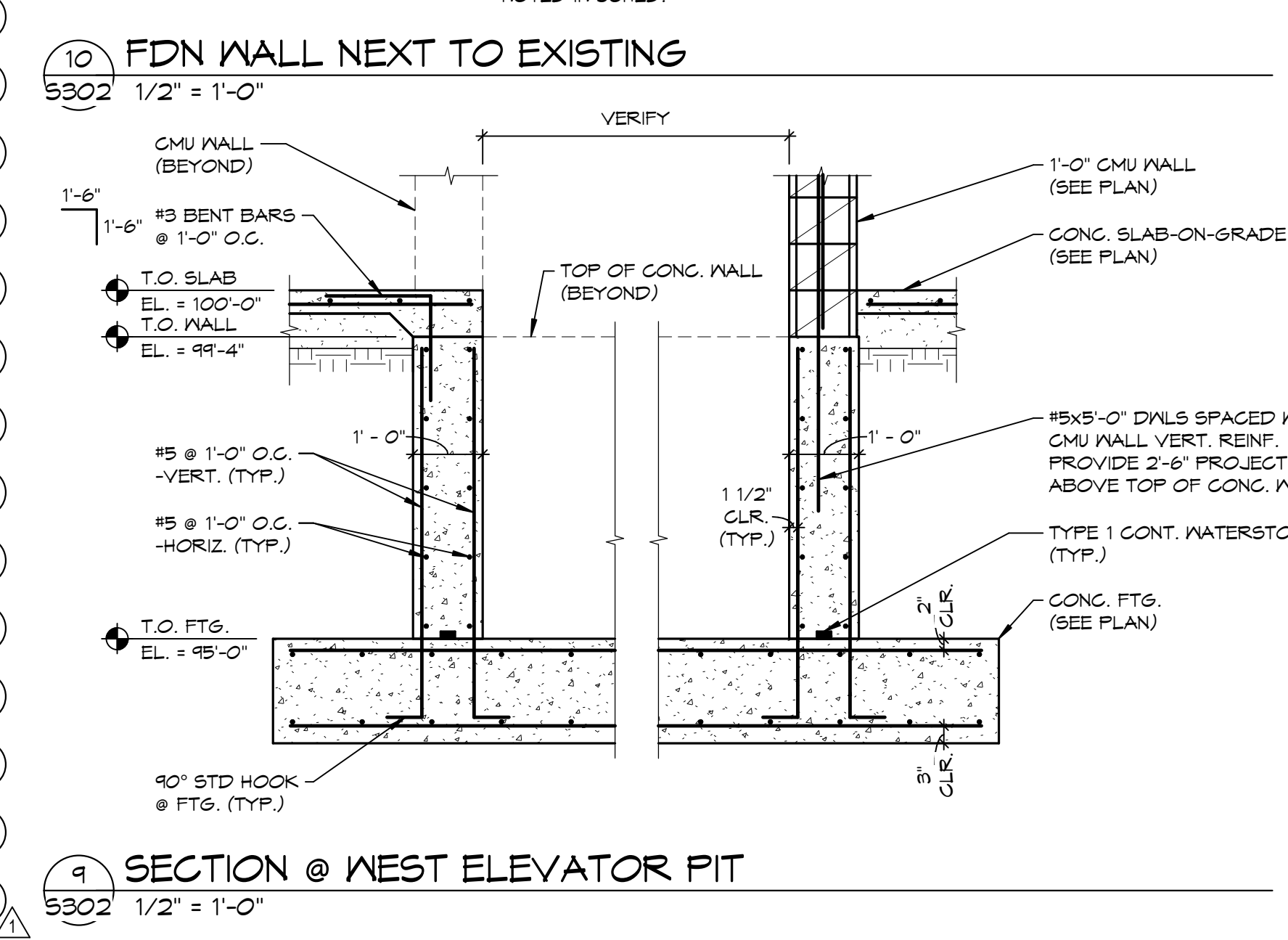
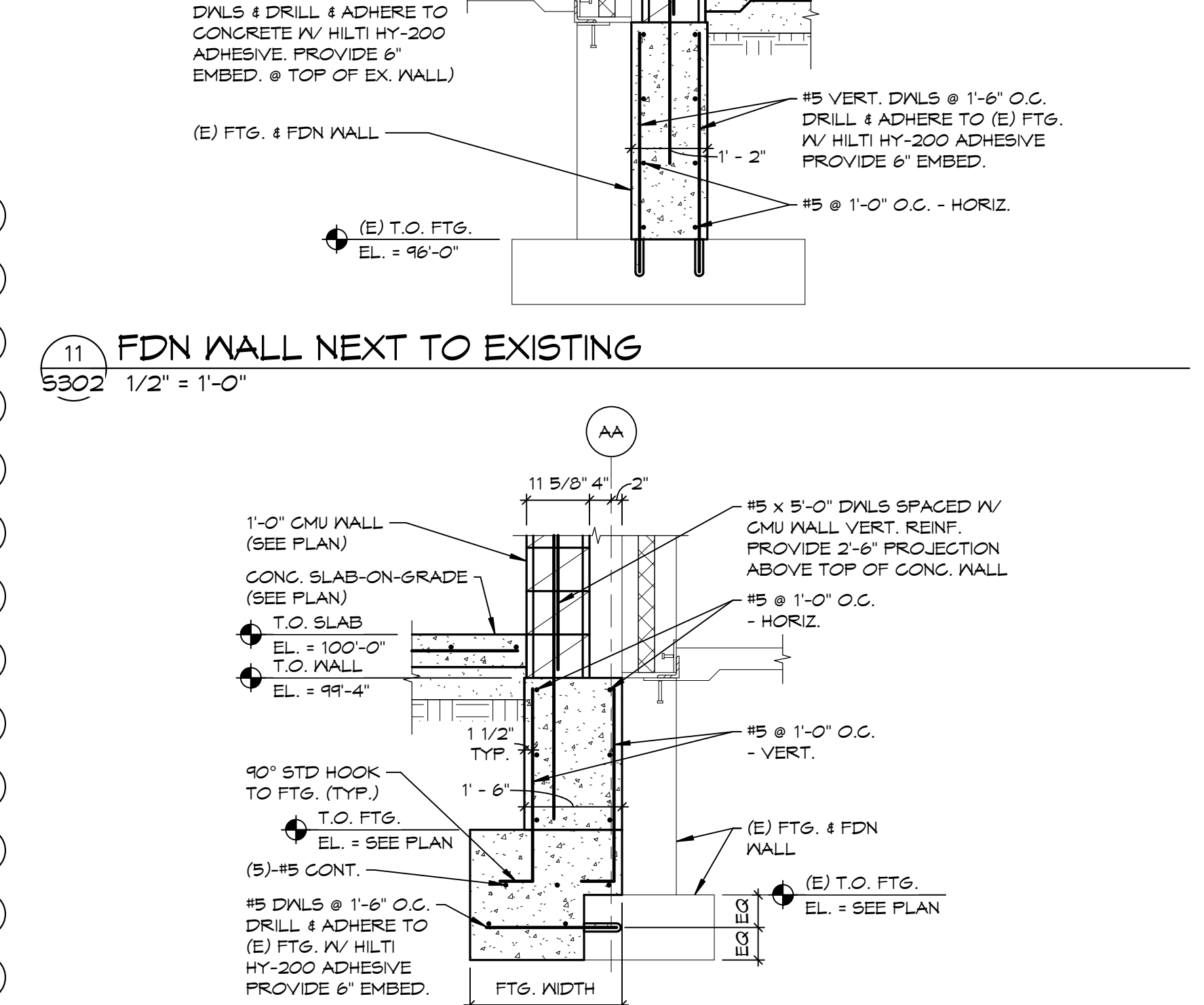
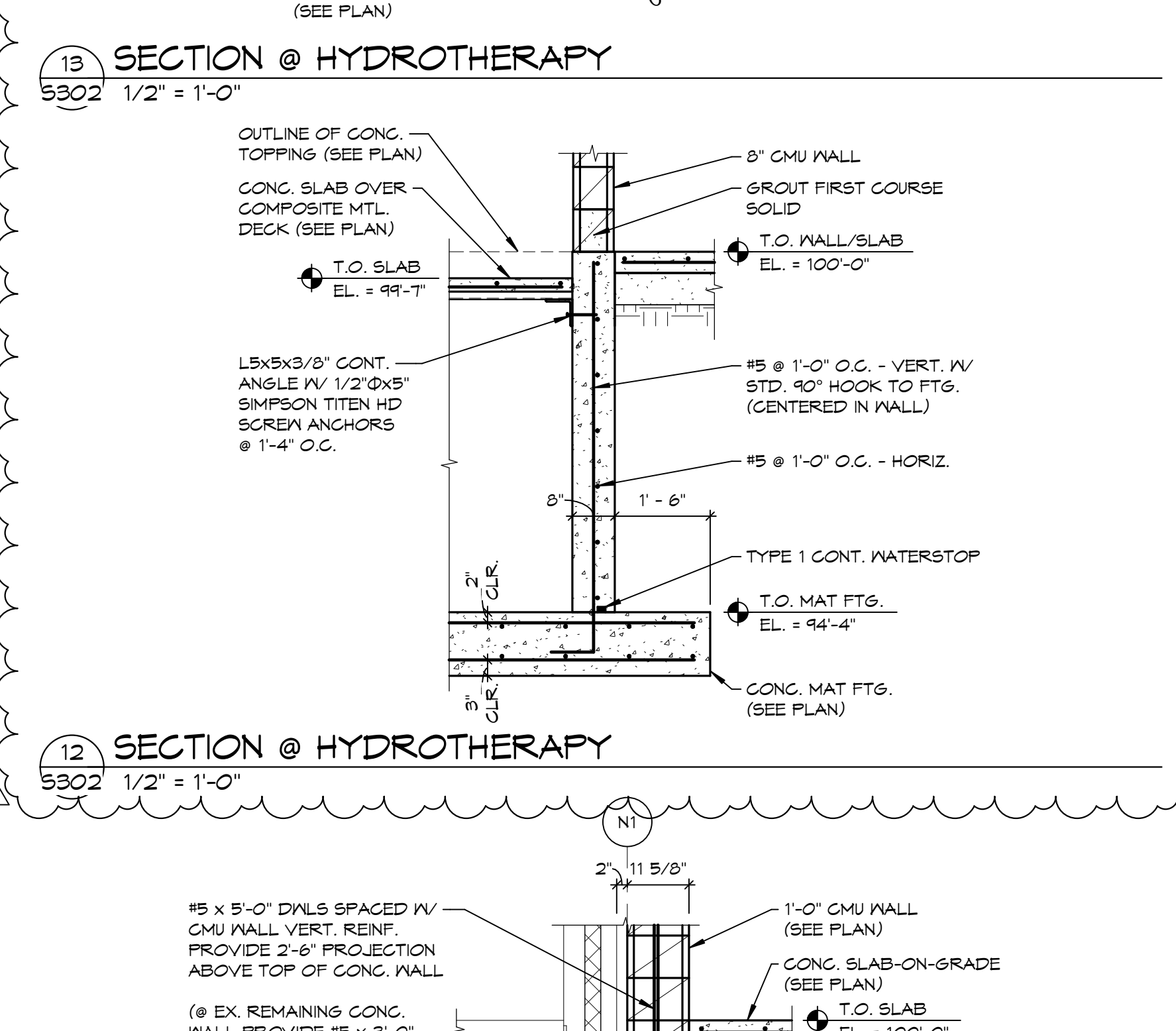
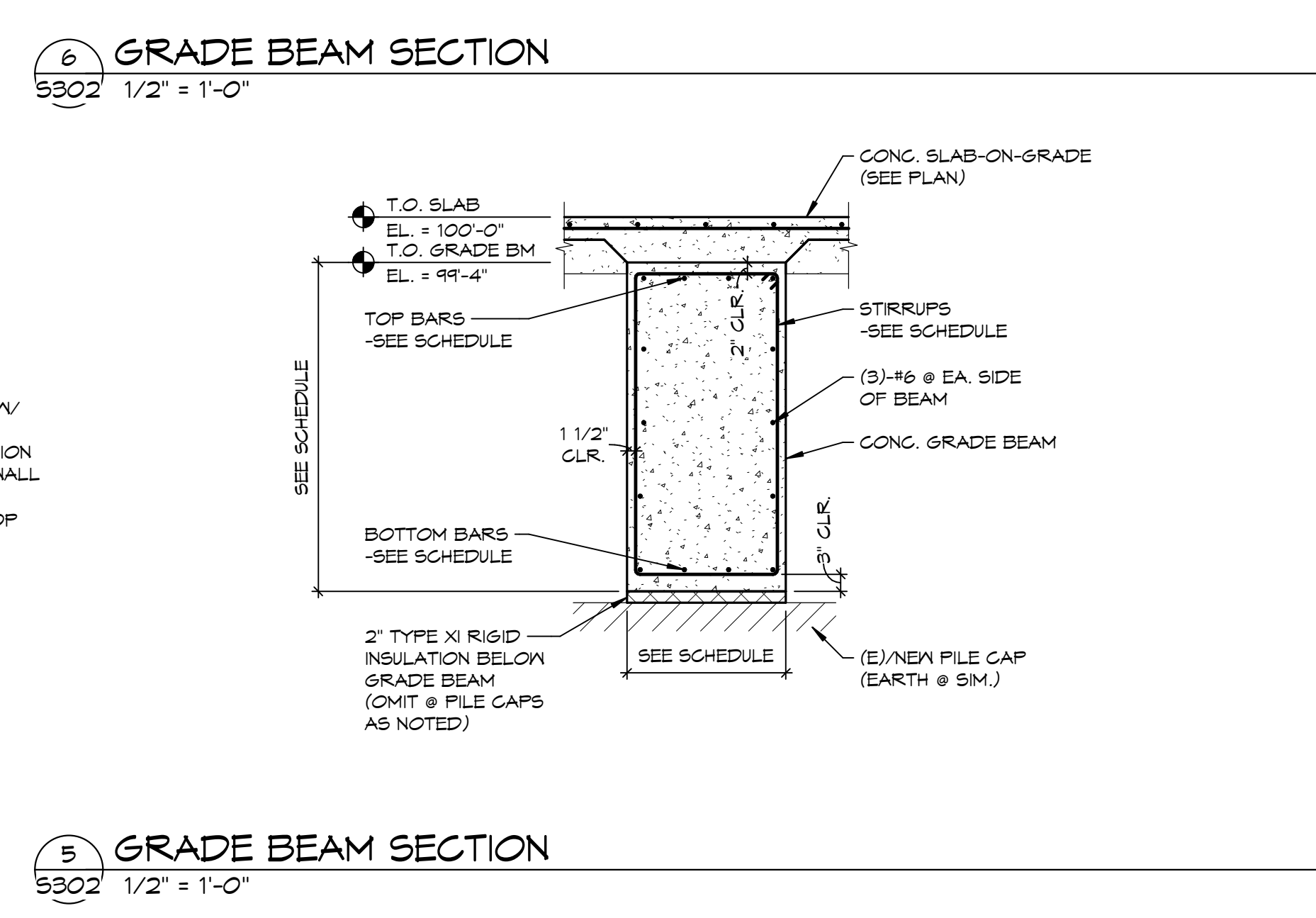
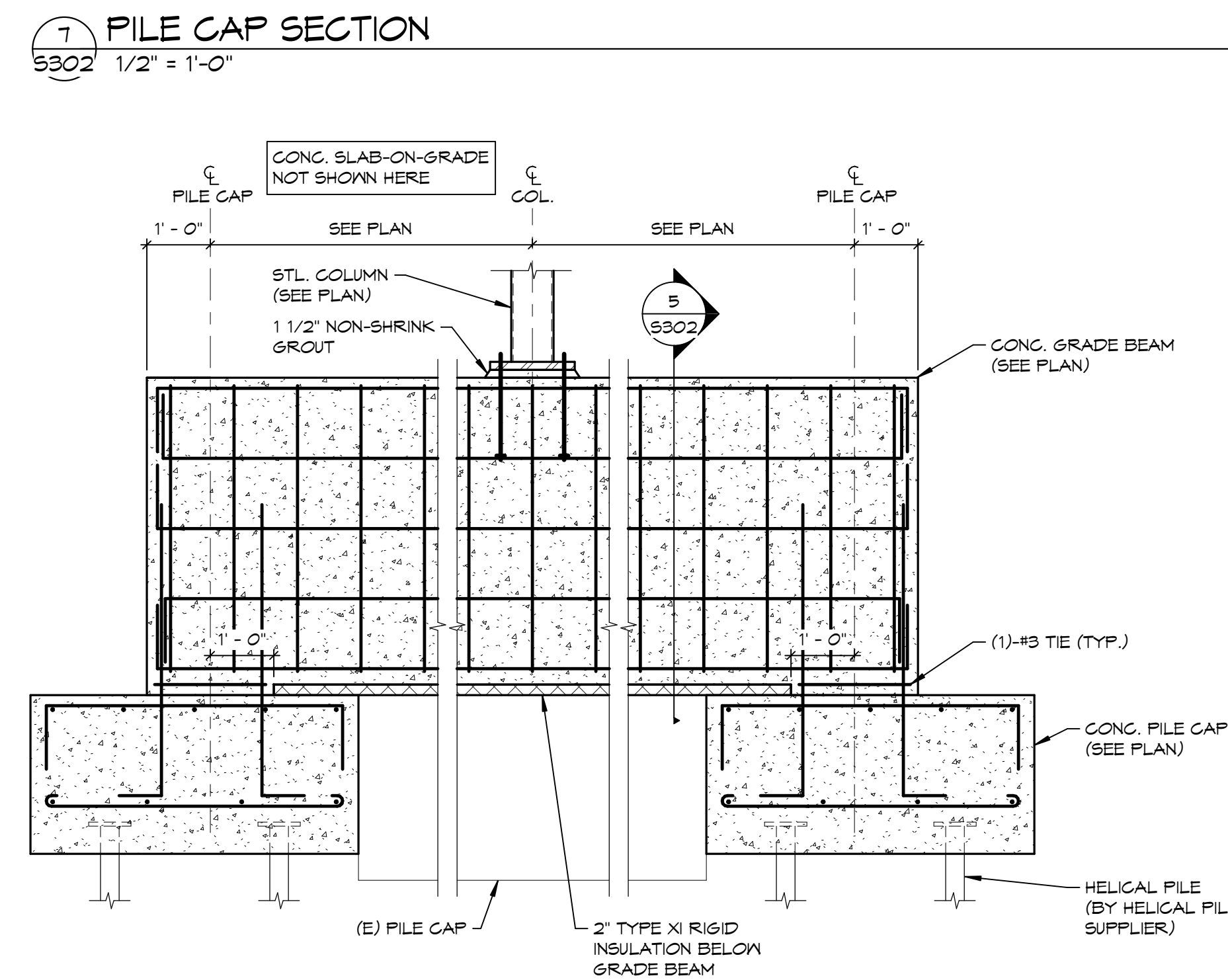
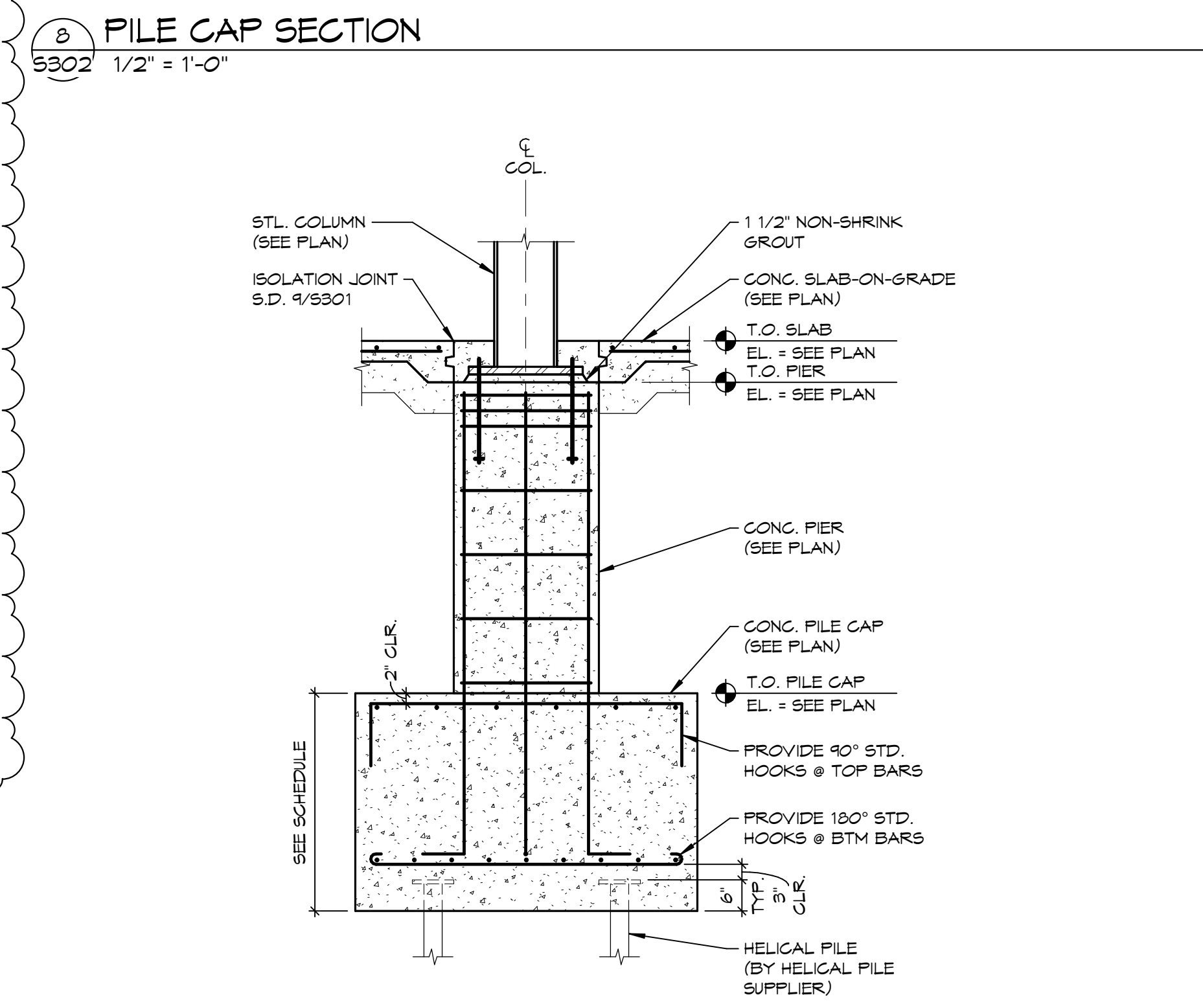
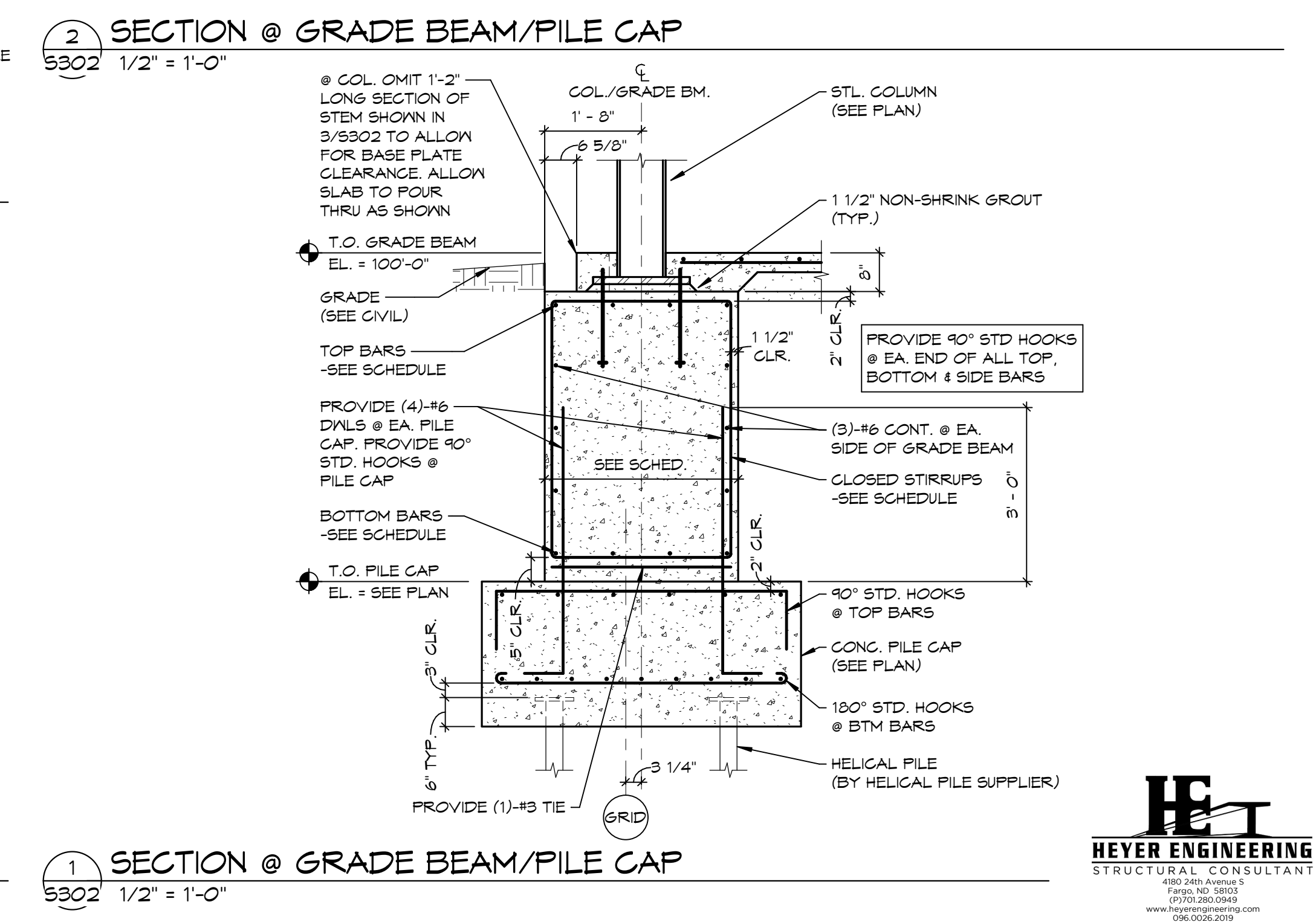
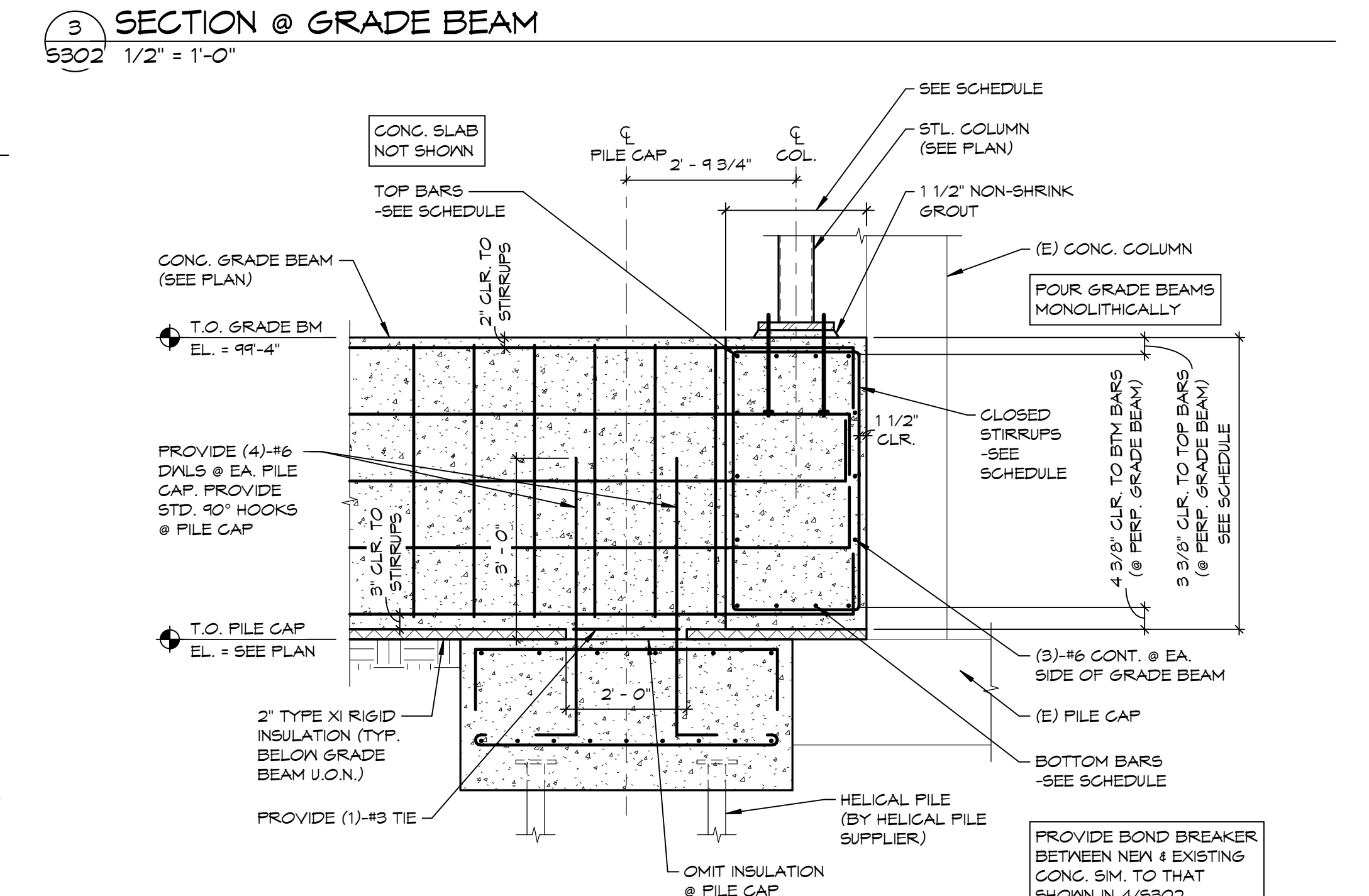
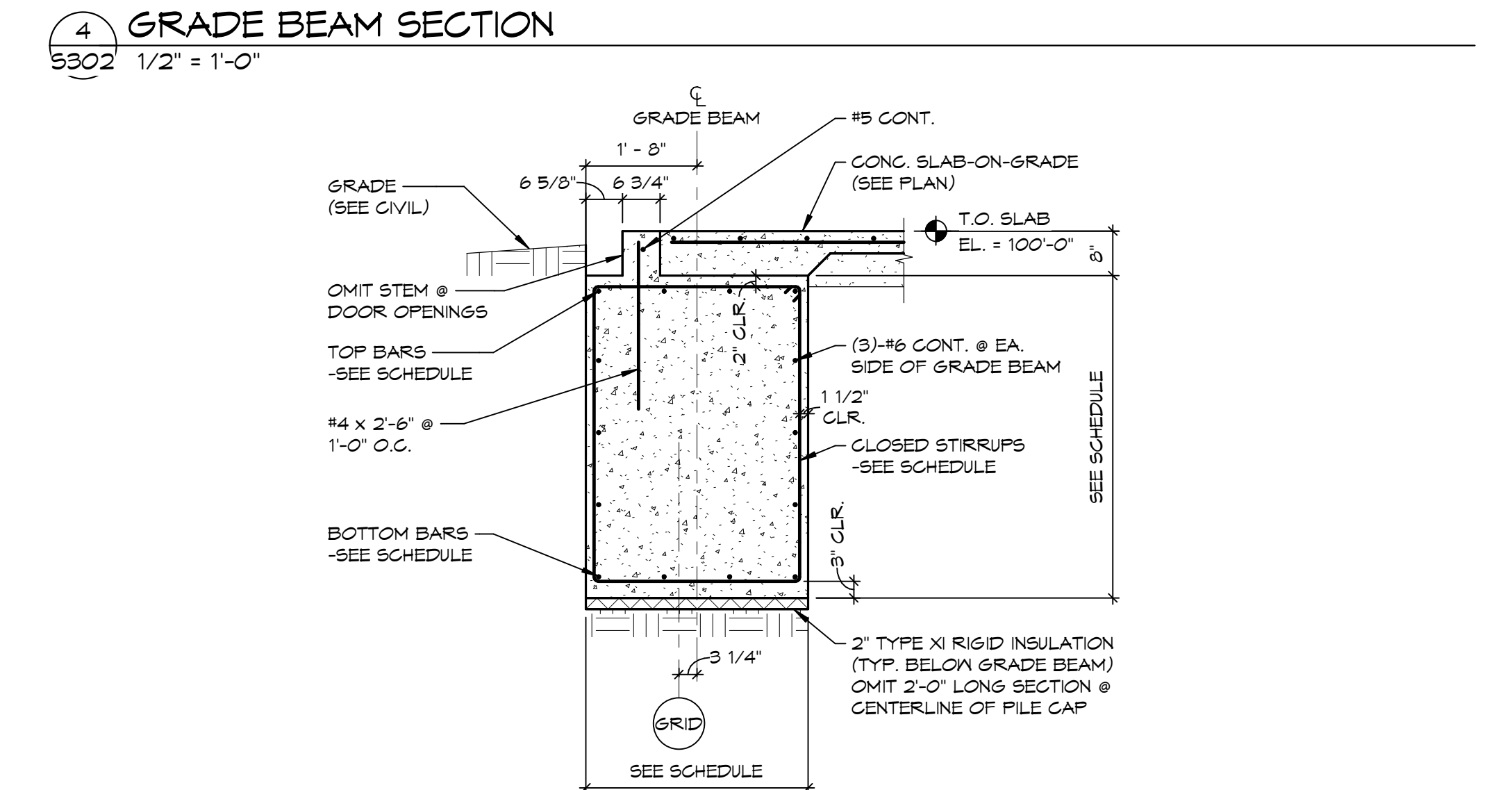
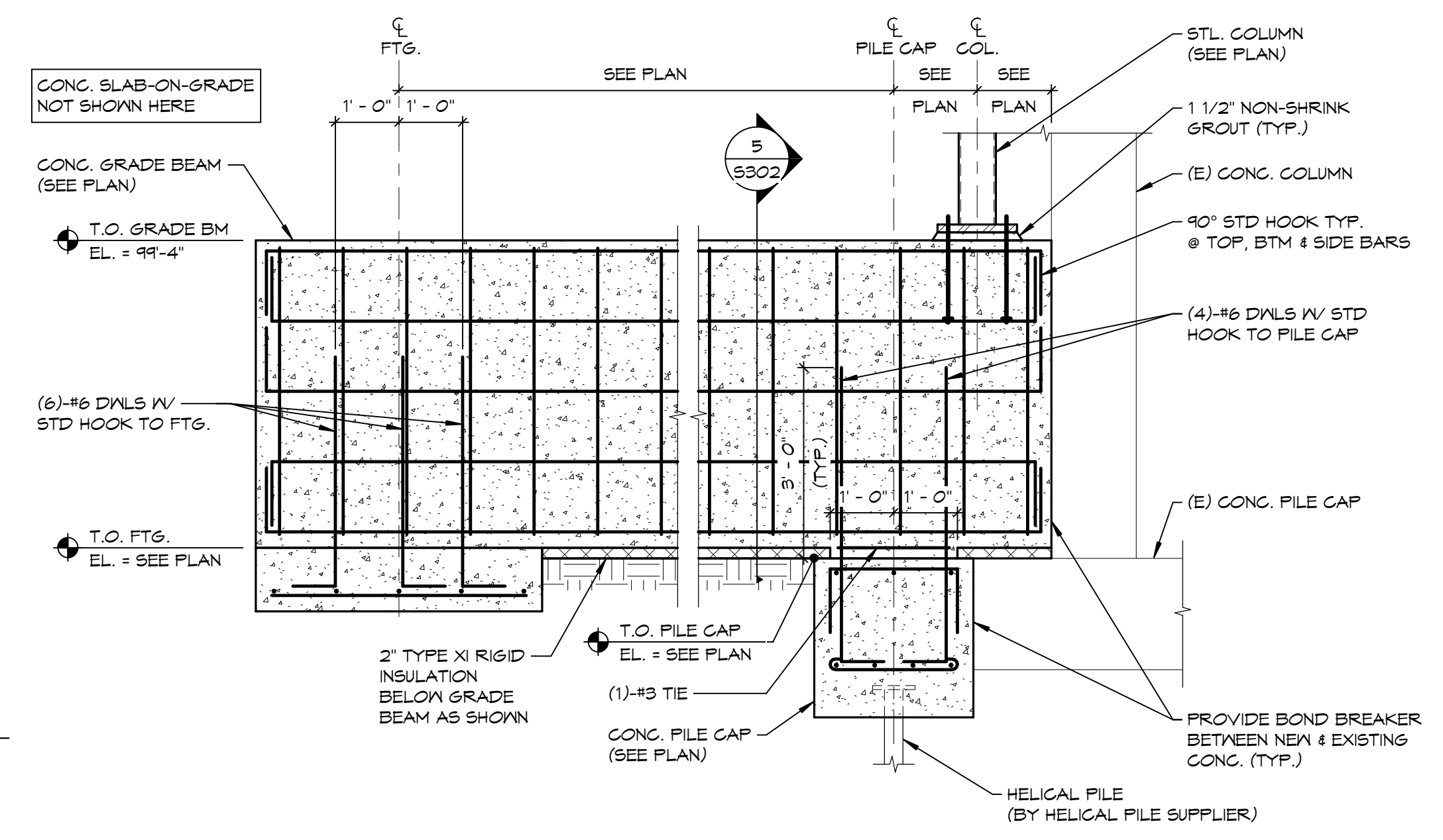
PROJECT NO: 20191710
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STAMP



DRAWING TITLE
FOUNDATION DETAILS



1	ADDENDUM #2	04/01/2022
BP01	BID PACKAGE 01	03/01/2022
MARK	DESCRIPTION	DATE

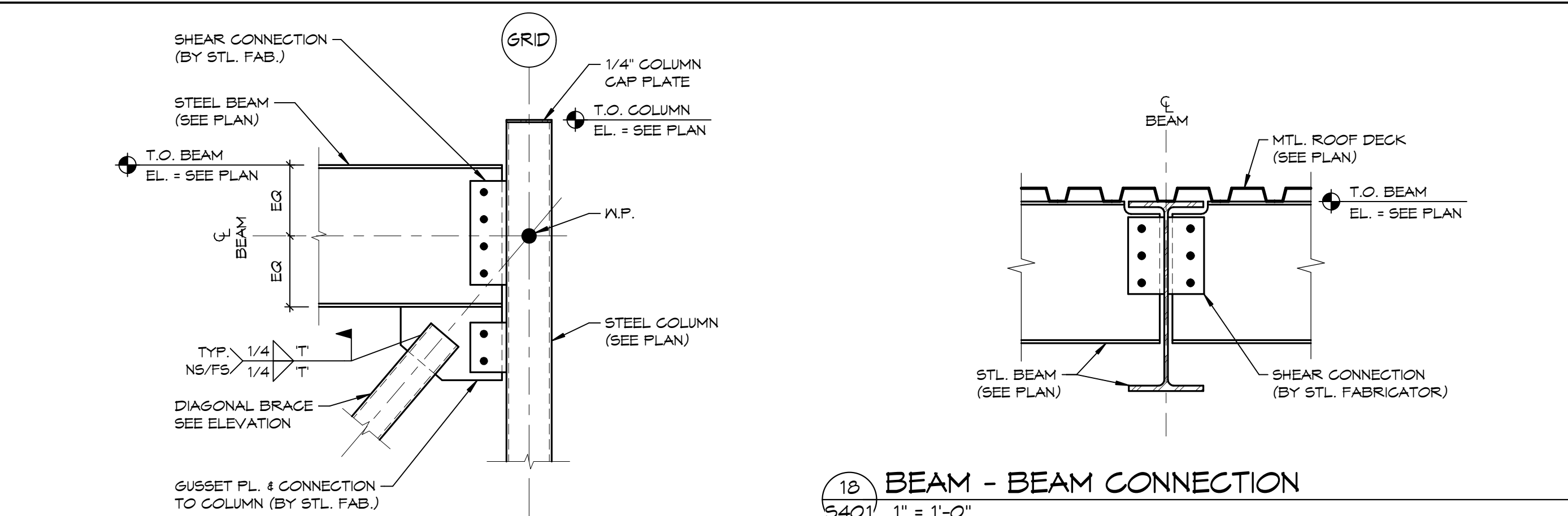
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DRAWN BY: CJK
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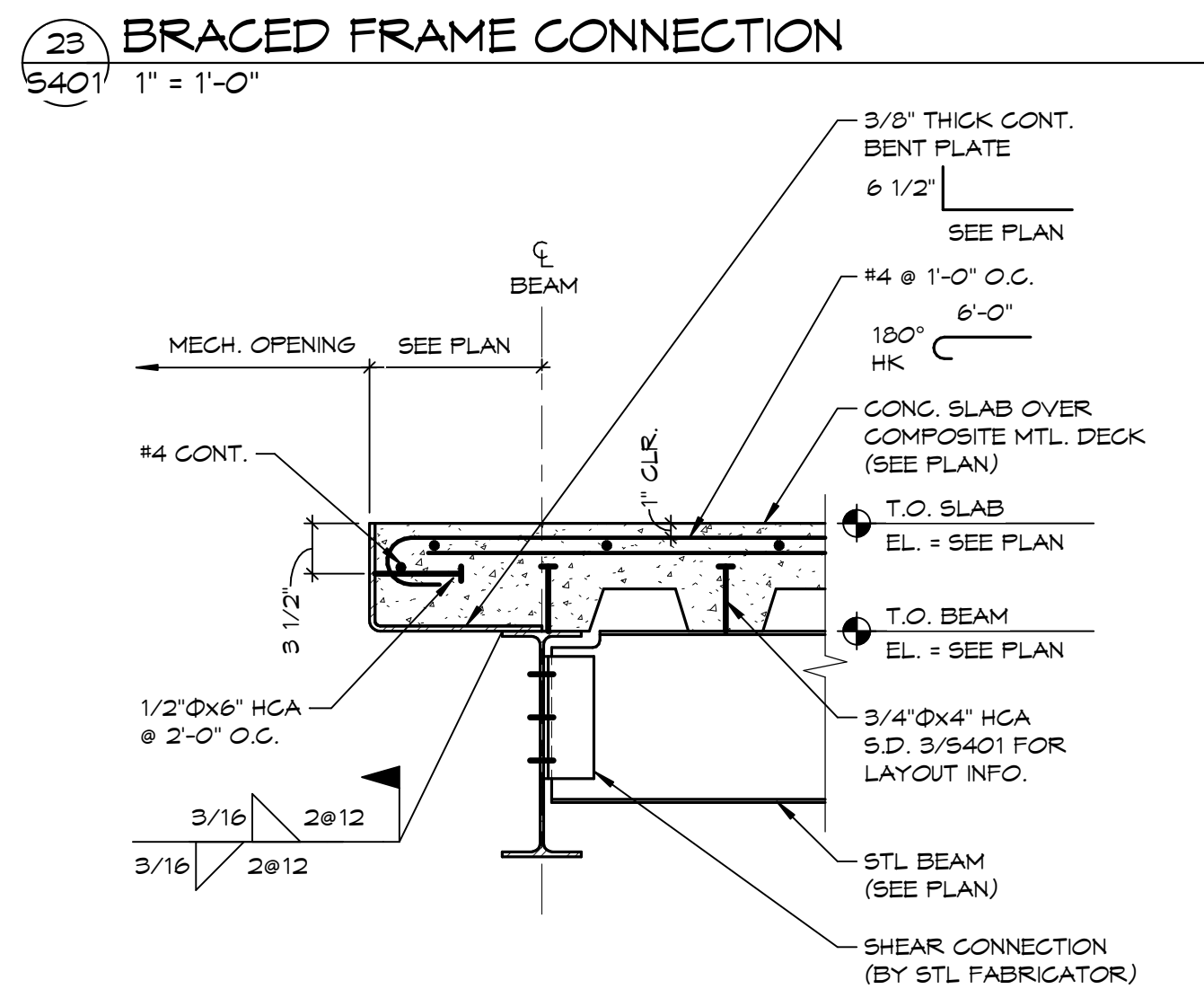
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DRAWING TITLE
FRAMING DETAILS



12 BEAM - BEAM CONNECTION
S401 1" = 1'-0"



23 BRACED FRAME CONNECTION
S401 1" = 1'-0"

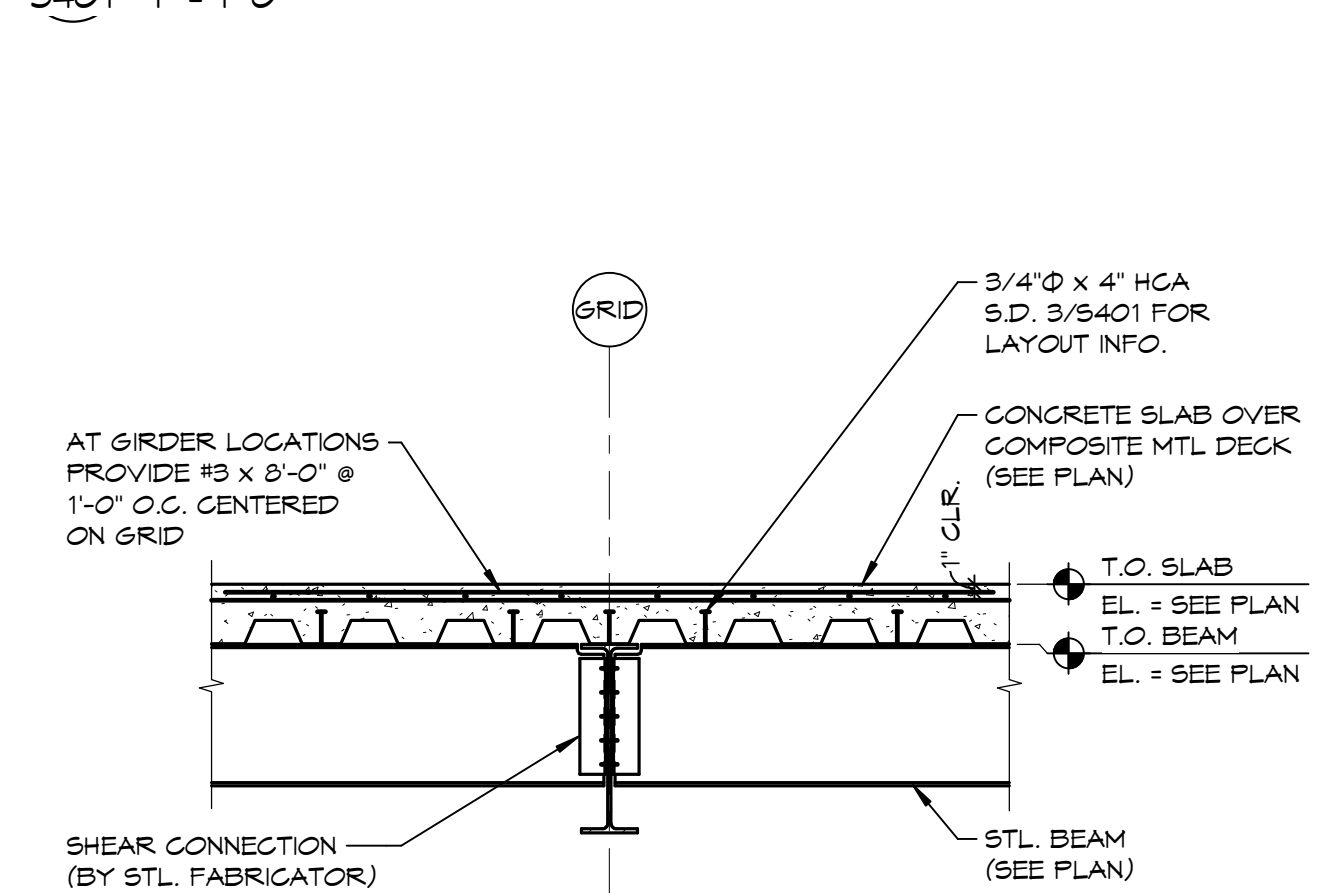


22 SLAB EDGE DETAIL
S401 1" = 1'-0"

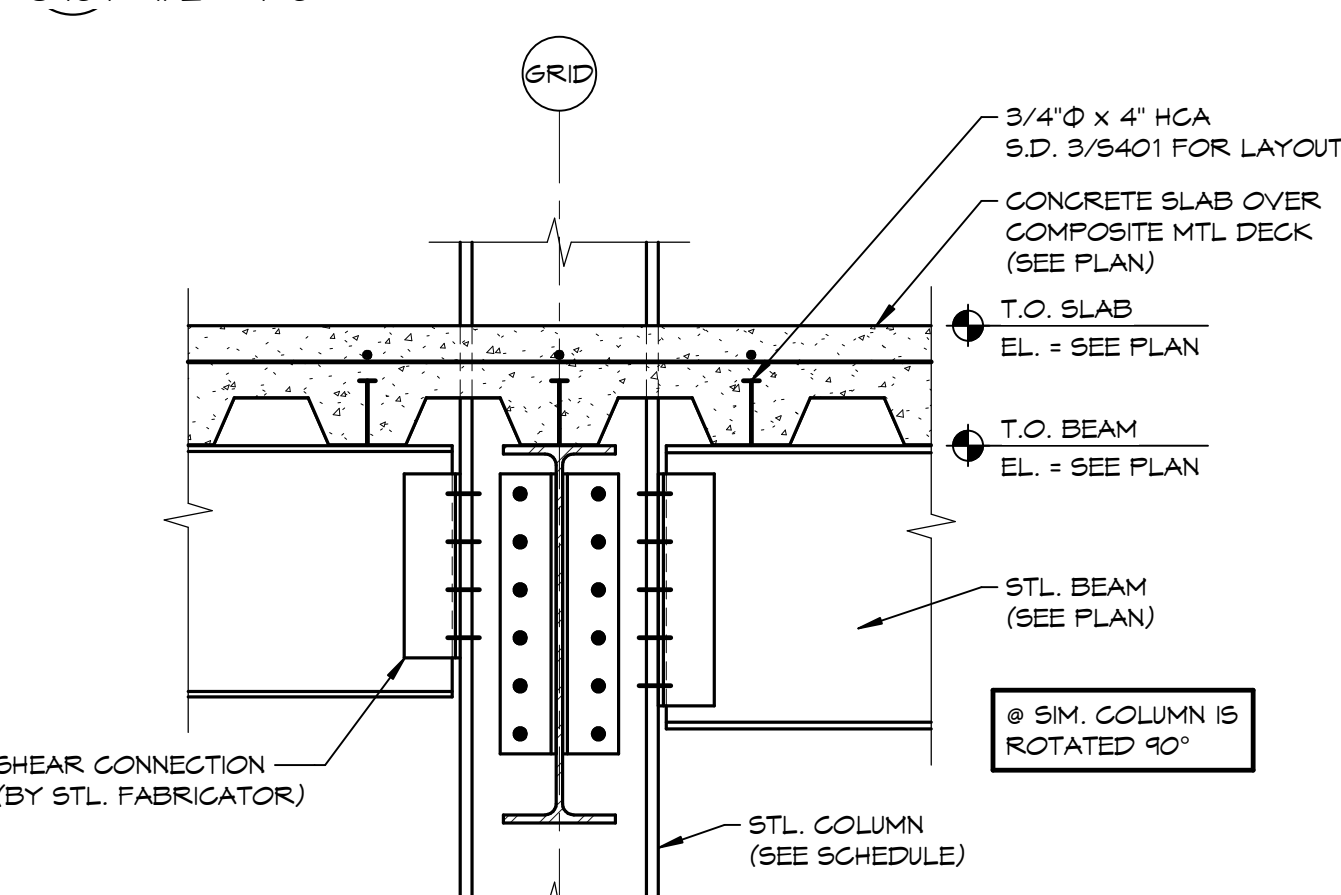
17 NOT USED
S401 1" = 1'-0"

16 BEAM - COLUMN CONNECTION
S401 1" = 1'-0"

21 NOT USED
S401 1" = 1'-0"

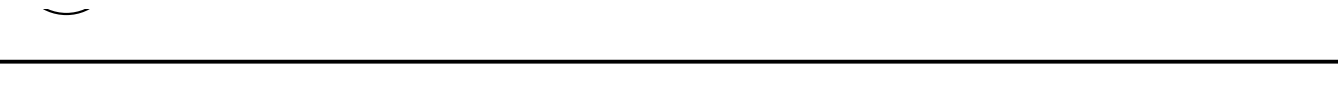


20 BEAM - BEAM CONNECTION
S401 1/2" = 1'-0"

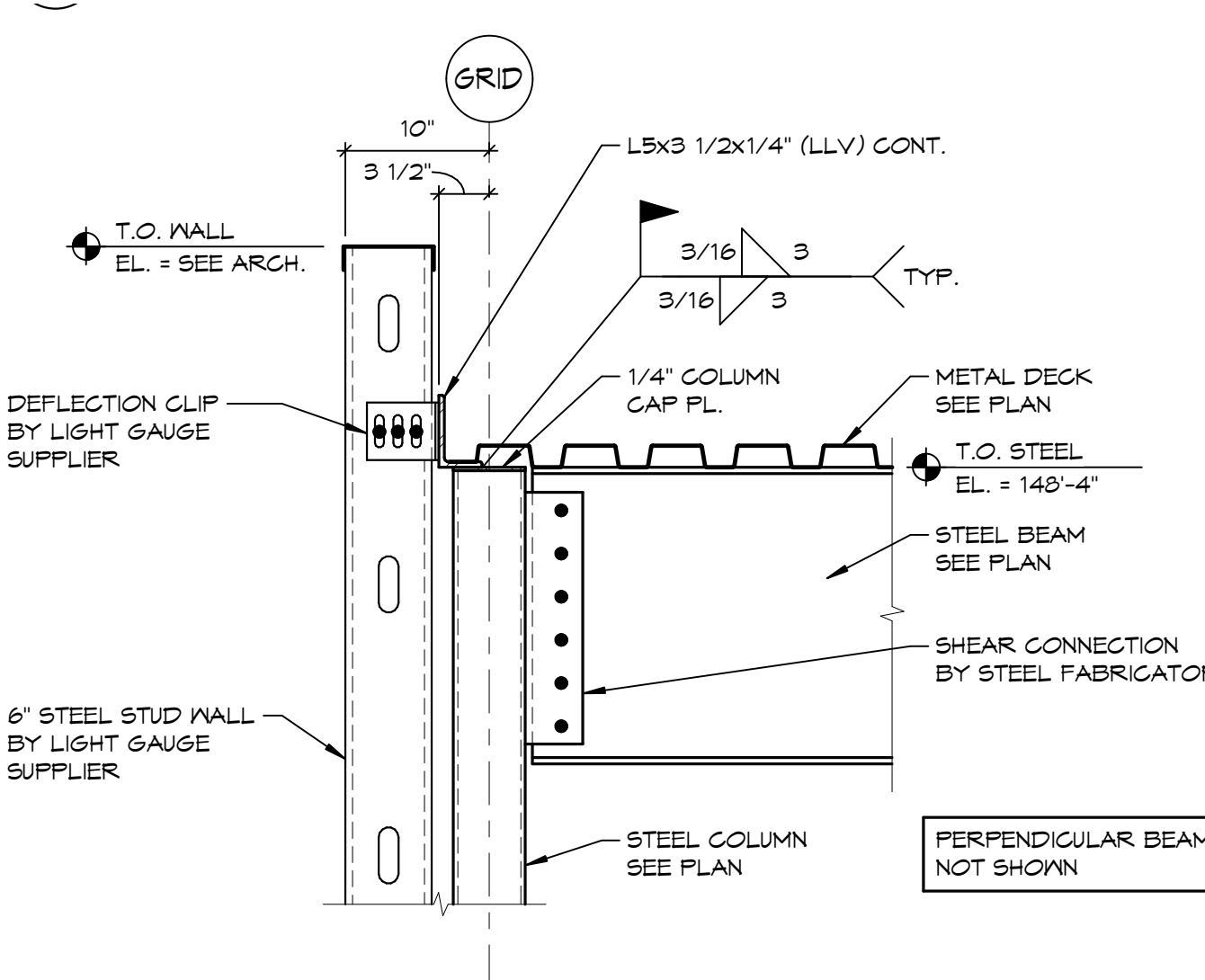


19 BEAM - COLUMN CONNECTION
S401 1" = 1'-0"

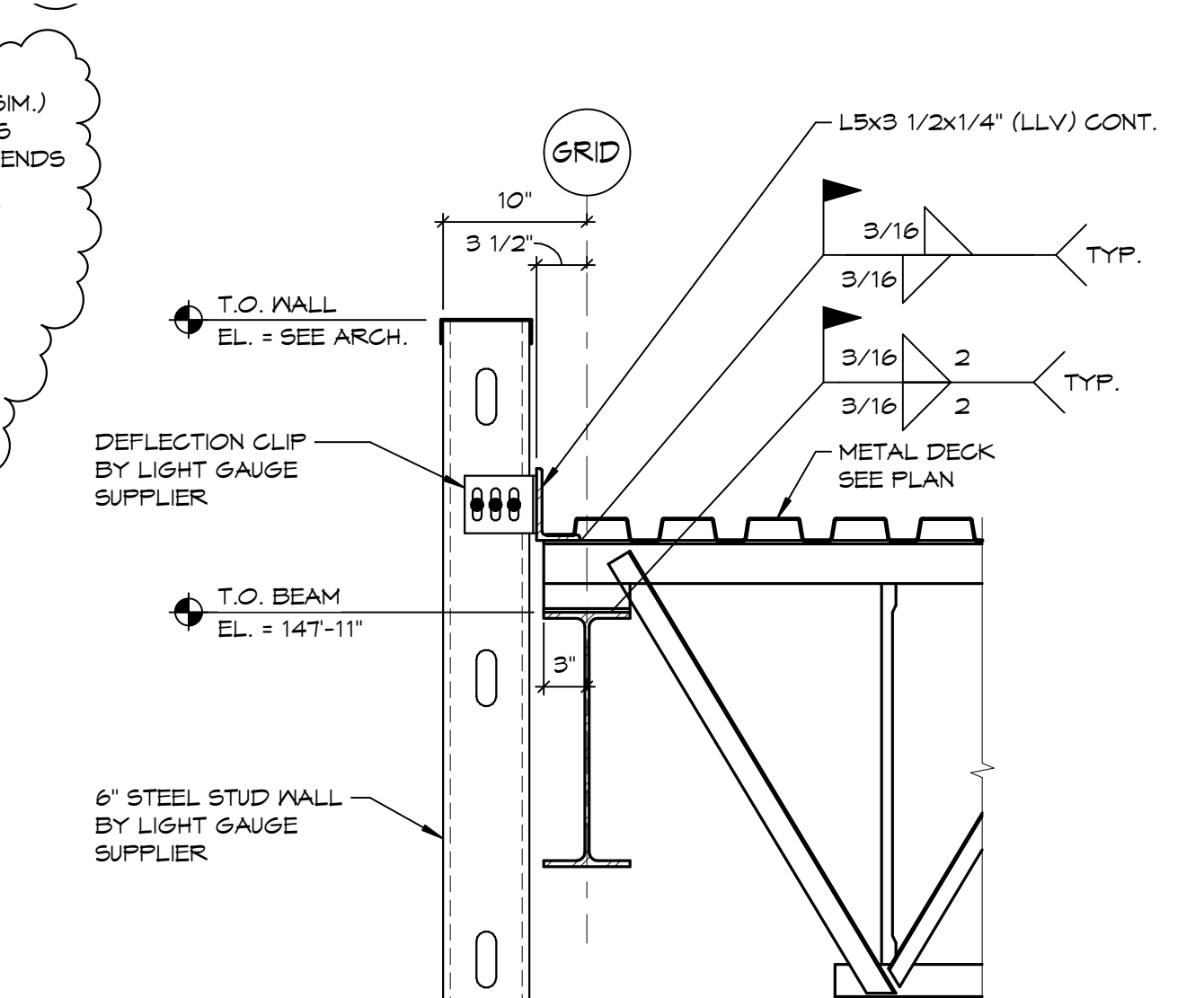
14 CONNECTION @ EX. CONCRETE BEAM
S401 1" = 1'-0"



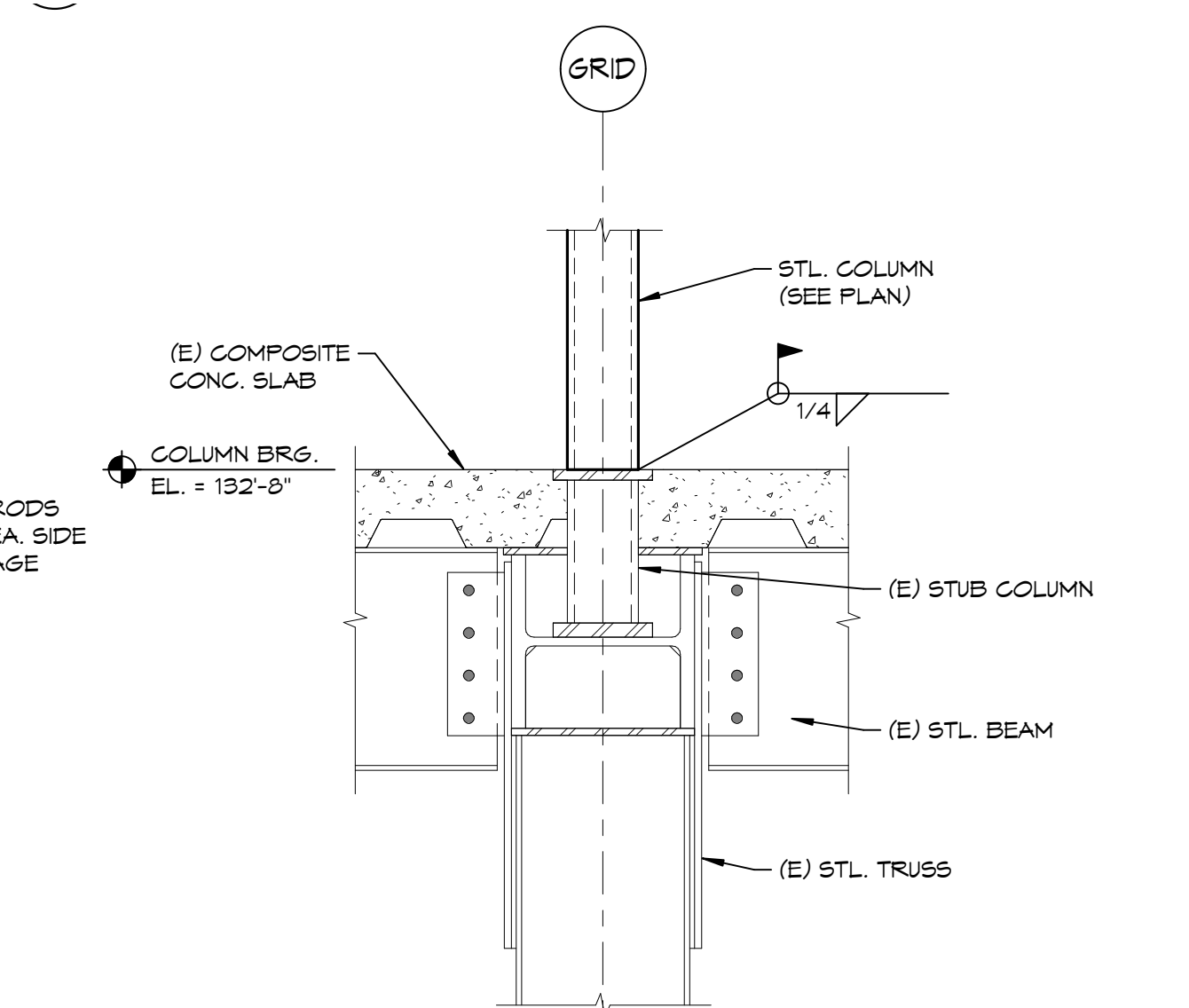
13 NOT USED
S401 1" = 1'-0"



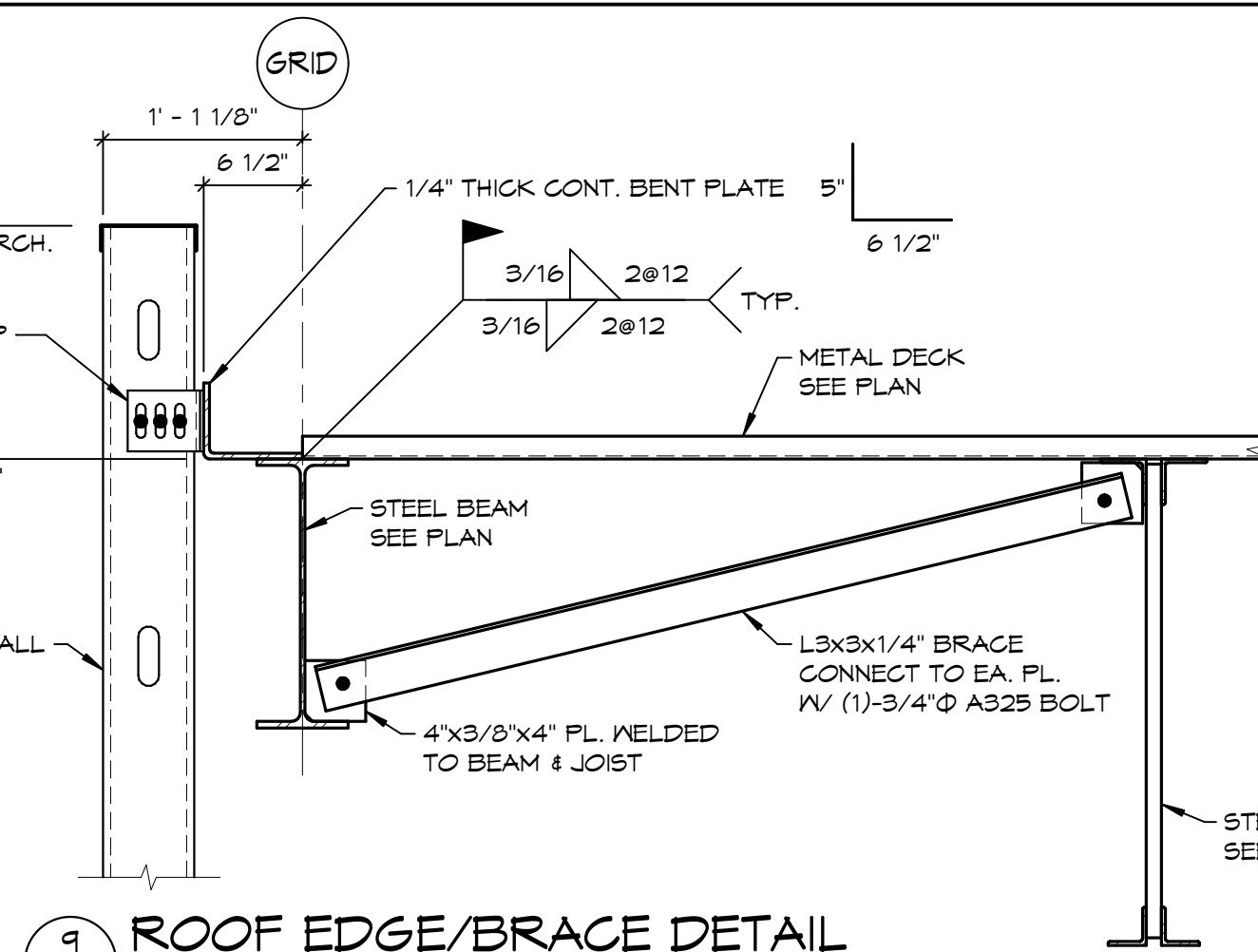
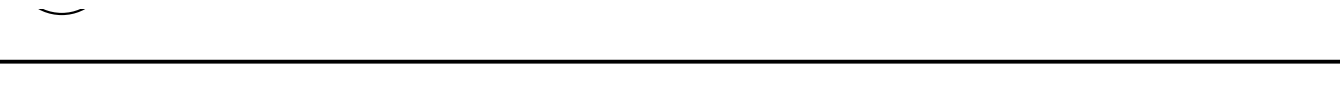
12 STEEL BEAM - COLUMN CONNECTION
S401 1" = 1'-0"



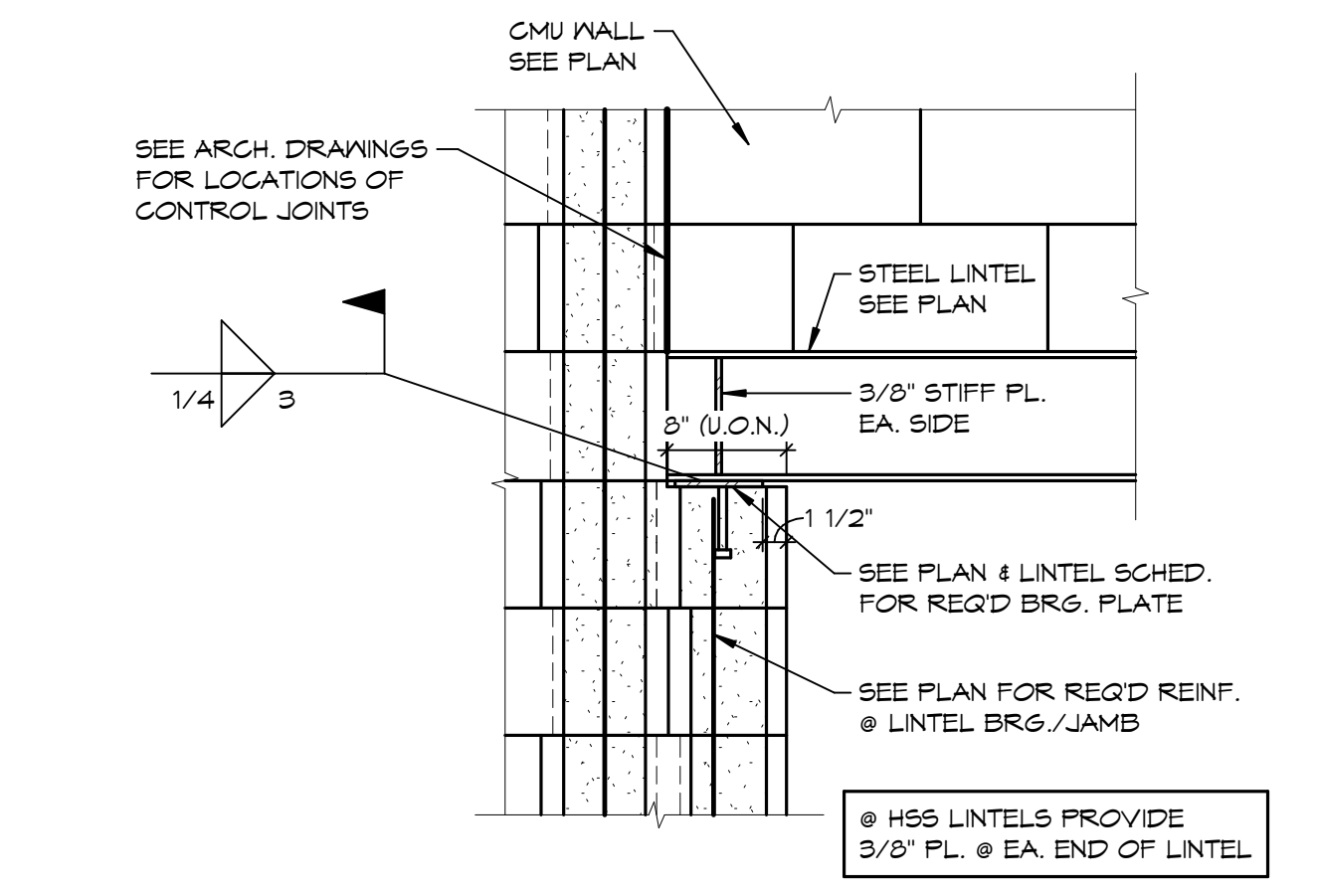
11 STEEL JOIST BEARING DETAIL
S401 1" = 1'-0"



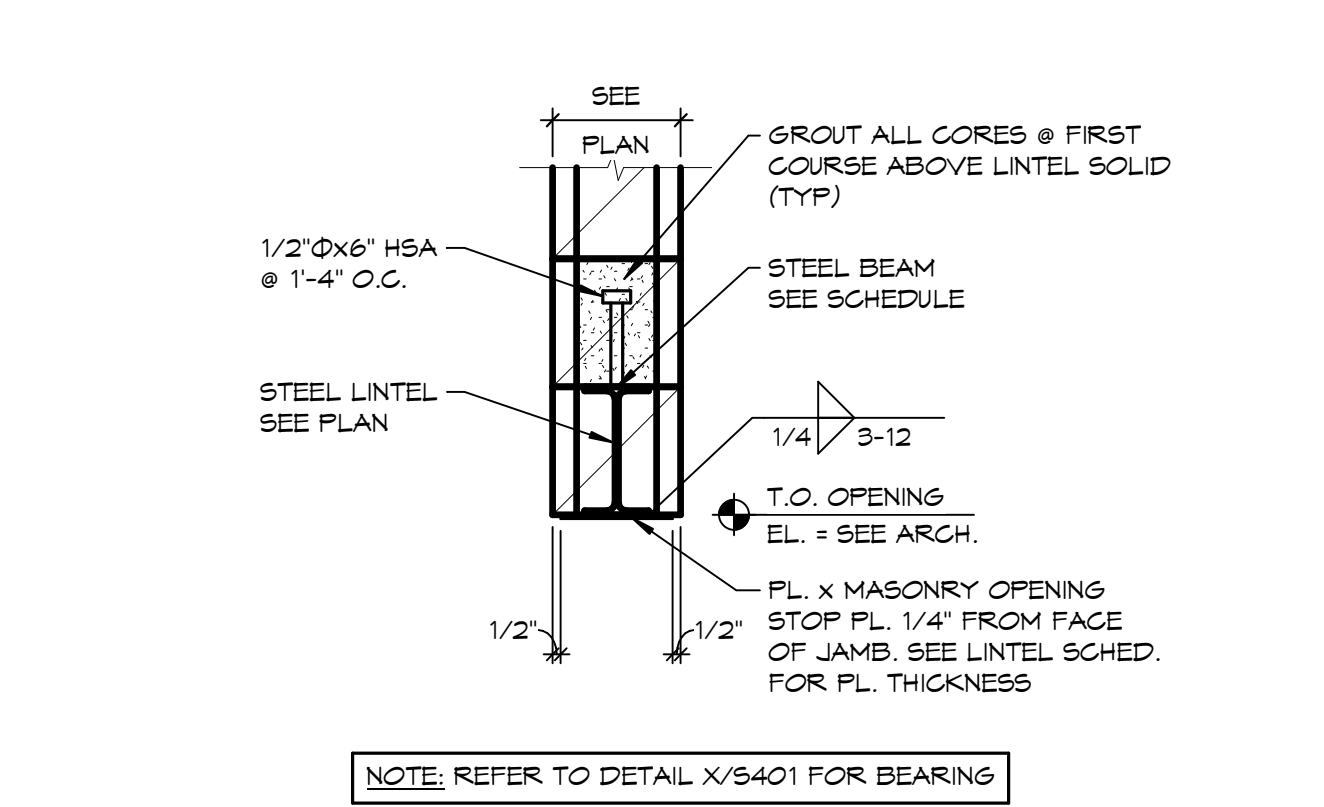
10 COLUMN SUPPORT DETAIL
S401 1" = 1'-0"



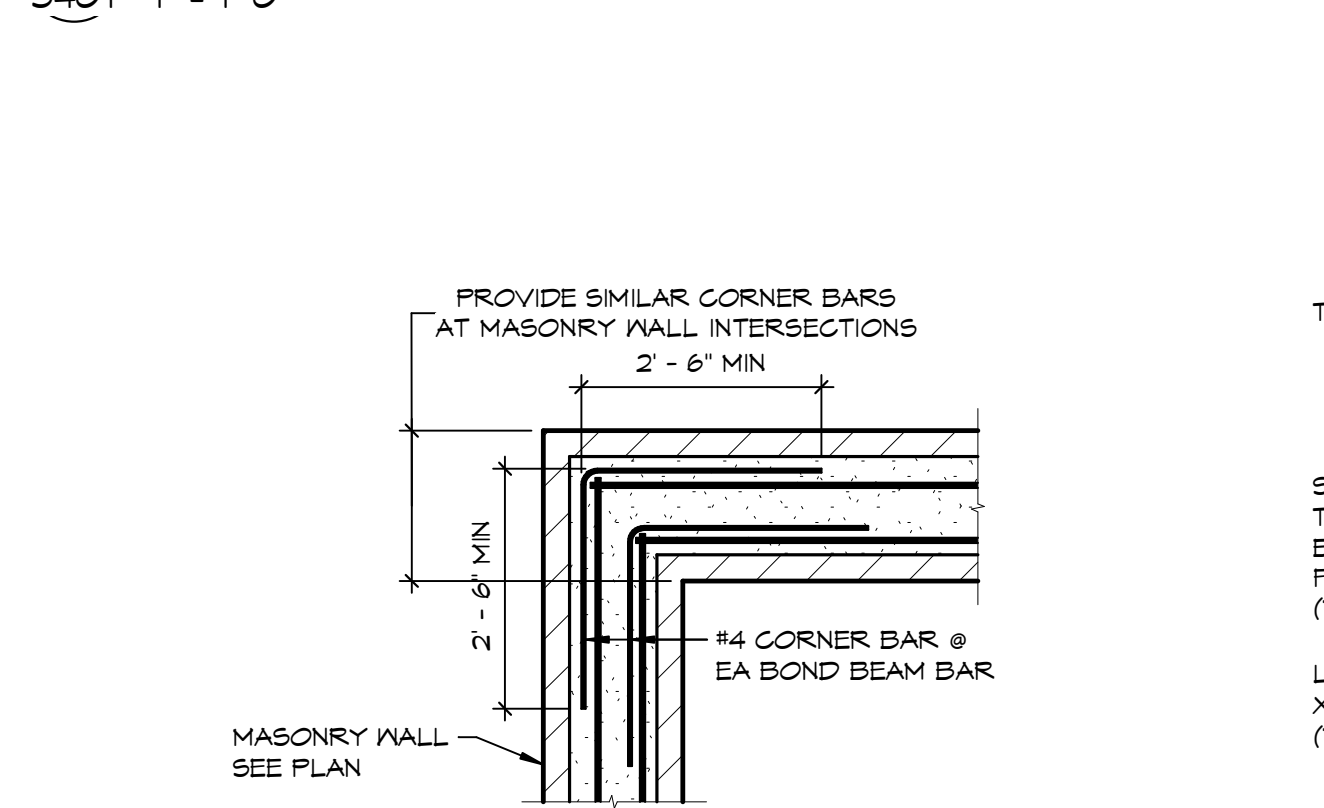
9 ROOF EDGE/BRACE DETAIL
S401 1" = 1'-0"



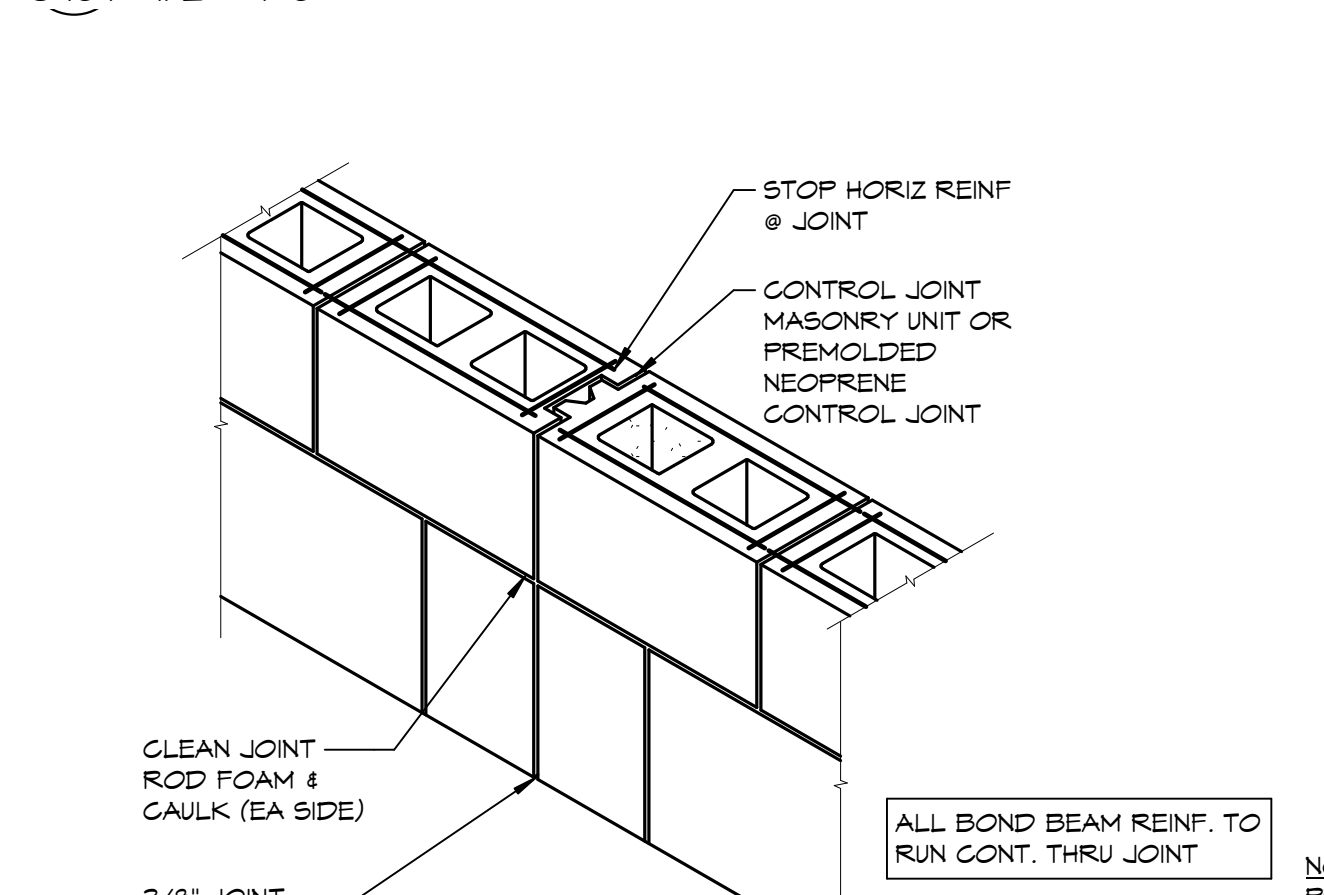
8 STEEL LINTEL BRG. DETAIL
S401 1" = 1'-0"



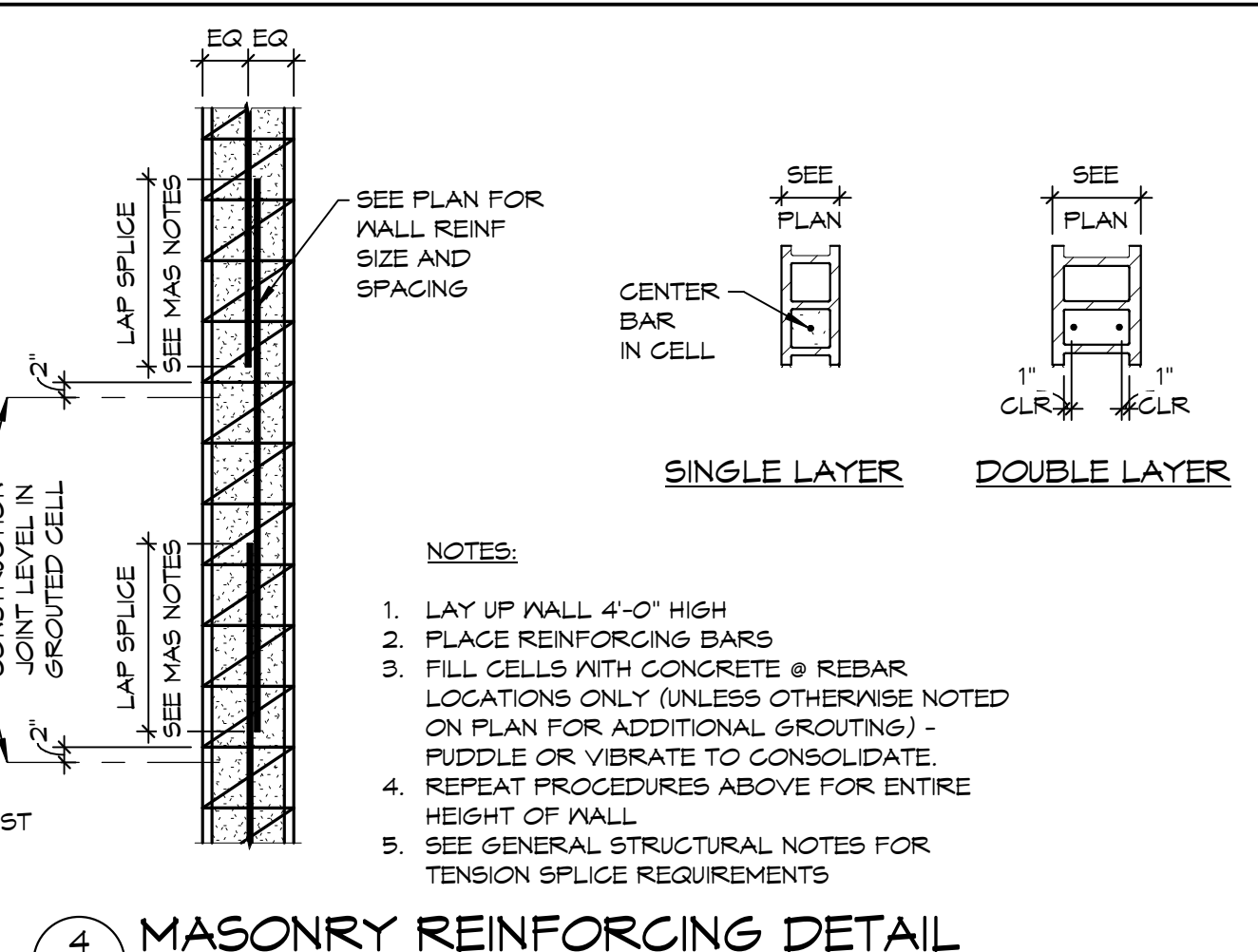
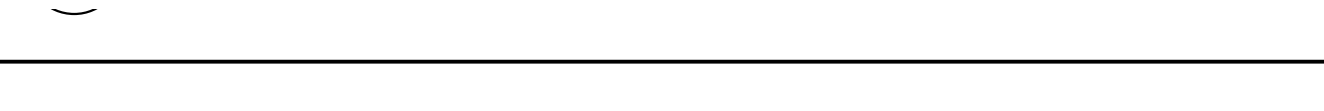
7 LINTEL DETAIL
S401 1" = 1'-0"



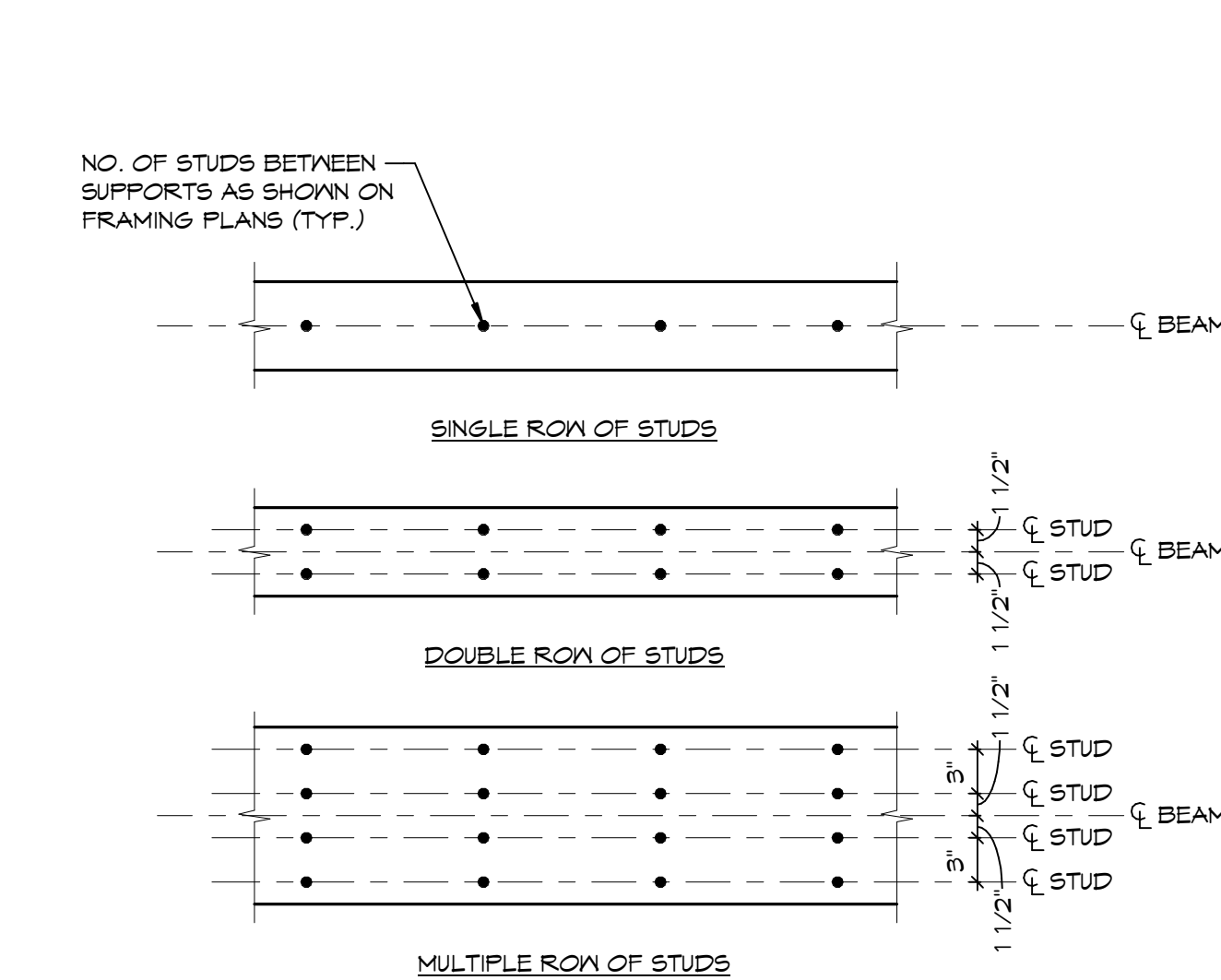
6 MASONRY CORNER BAR DETAIL
S401 1/2" = 1'-0"



5 MASONRY CONTROL JOINT DETAIL
S401 1/2" = 1'-0"

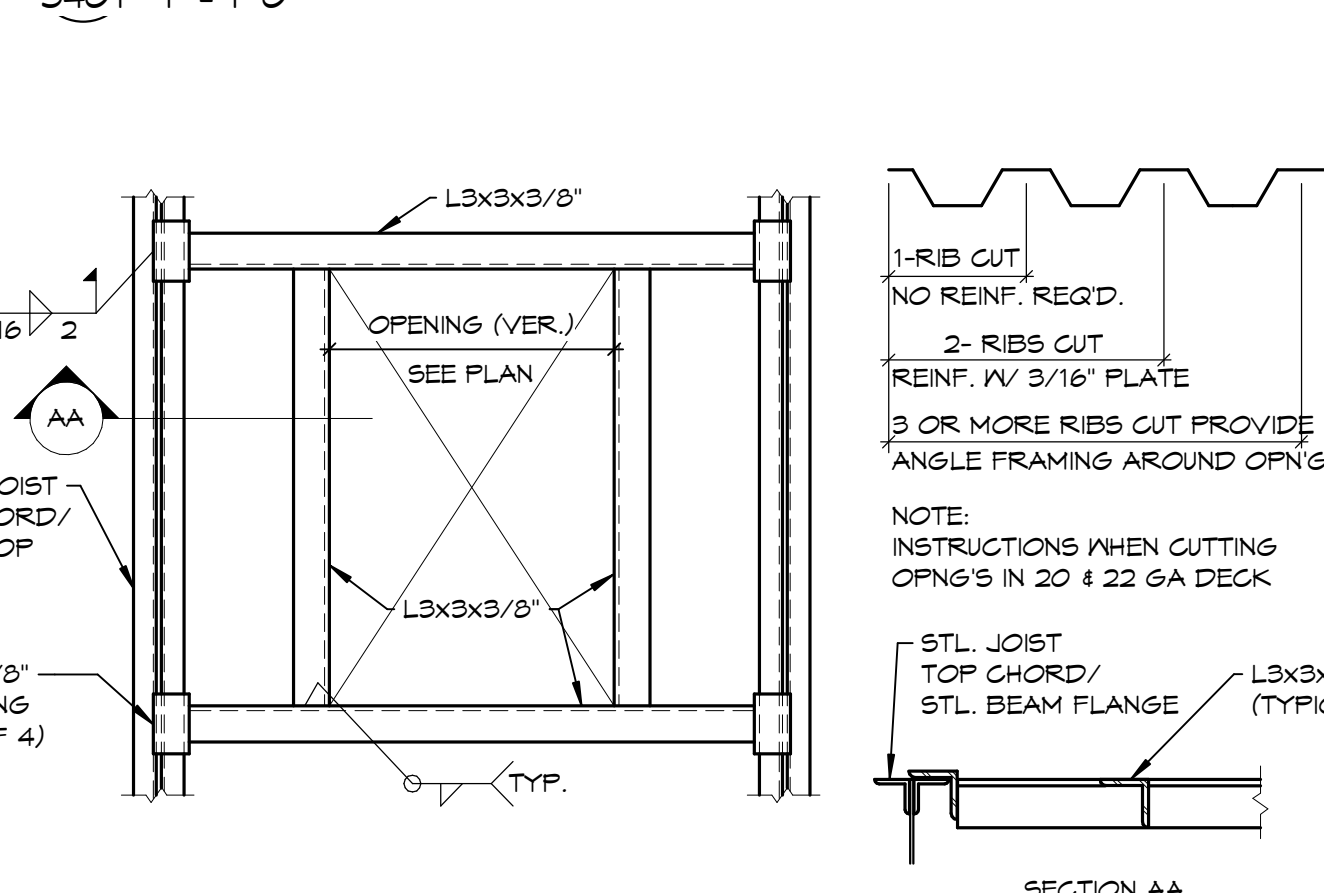


4 MASONRY REINFORCING DETAIL
S401 1/2" = 1'-0"

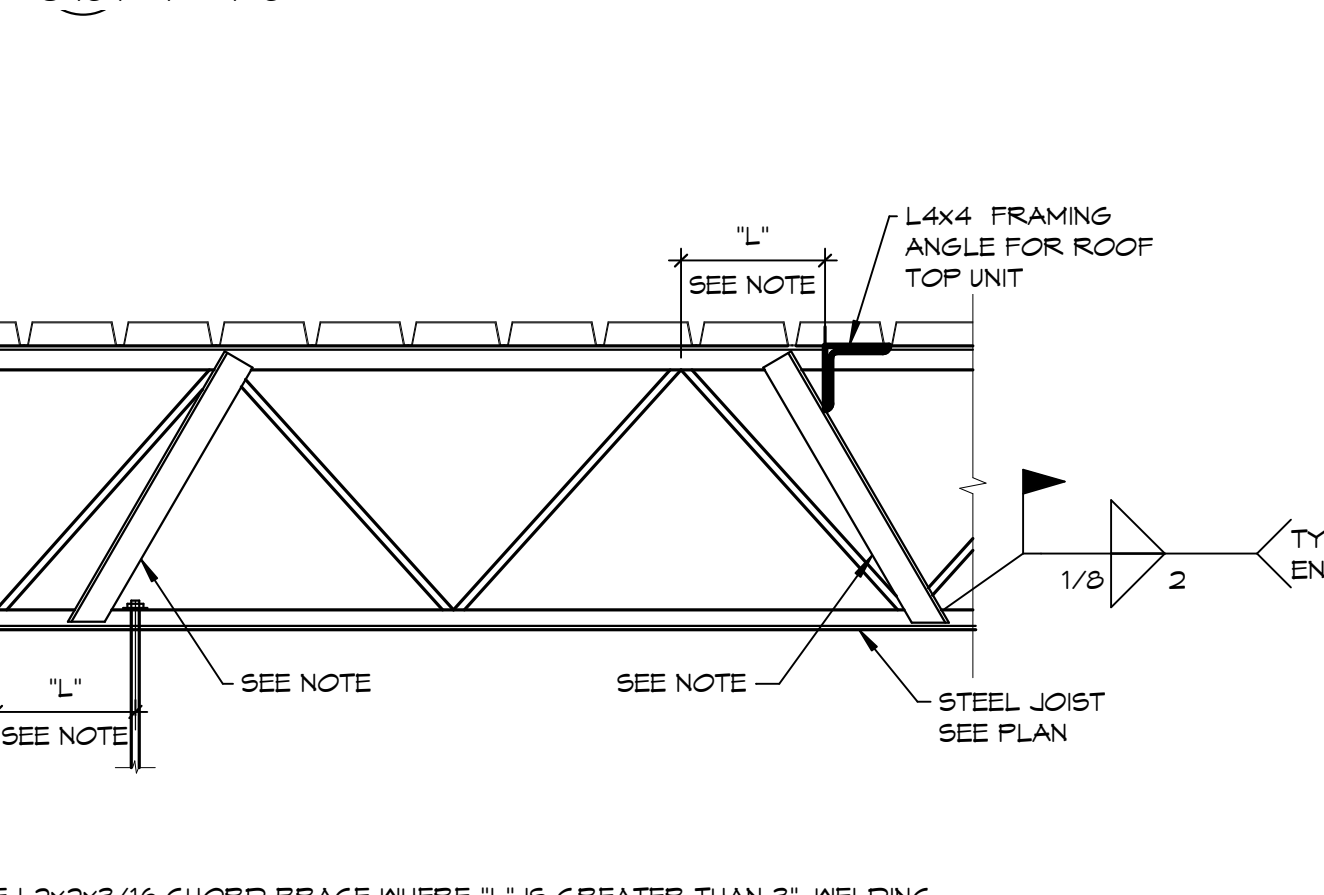


NOTE:
1. PLACE STUDS BETWEEN SUPPORTS WITH AN EQUAL NUMBER. (ARRANGE SYMMETRICALLY ABOUT THE BEAM CENTERLINE AXIS).
2. PLACE THE STUDS IN THE FOLLOWING SEQUENCE UNTIL THE NUMBER DEFINED ON THE DRAWINGS ARE USED:
A. DETERMINE HOW MANY ROWS ARE REQUIRED BASED ON A STUD SPACING OF 1'-0" FOR DECK FLUTES PERPENDICULAR TO THE BEAM OF 6" FOR DECK FLUTES PARALLEL TO THE BEAM.
B. IF ONE ROW OF STUDS IS REQUIRED, PLACE STUDS 2'-0" O.C. FROM BEAM ENDS TOWARD BEAM CENTERLINE (CENTER STUD IN FLUTE WHERE APPLICABLE).
C. PLACE REMAINDER OF STUDS AT 2'-0" O.C., STARTING 1'-0" FROM BEAM ENDS. (1'-0" SPACING OF STUDS WILL RESULT).
D. WHERE DECK FLUTES ARE PARALLEL TO BEAM AND STUDS ARE STILL REMAINING AFTER STEP C, PLACE THE REMAINDER OF THE STUDS IN SUCH A WAY AS TO END UP WITH A MINIMUM OF 6" SPACING STARTING FROM THE ENDS OF THE BEAM.
E. IF MORE THAN ONE ROW IS REQUIRED, PLACE ALL FULL ROWS AT THE MINIMUM (6" OR 1'-0") SPACING, PLACE THE LAST ROW, OR ROWS, IN ACCORDANCE WITH STEPS B, C, AND D, NOTING THE REQUIREMENT TO ARRANGE STUDS SYMMETRICALLY ABOUT BEAM CENTERLINE AXIS.
3. STUDS ON CANTILEVERING SEGMENTS SHALL BE PLACED ON BEAM CENTERLINE AXIS AT 1'-0" O.C. ARE NOT INCLUDED IN THE NUMBER OF STUDS GIVEN ON THE DRAWINGS.

3 SHEAR STUD PLACEMENT
S401 1" = 1'-0"



2 ANGLE FRAMING @ ROOF OPENING
S401 1" = 1'-0"



1 JOIST REINFORCING DETAIL
S401 1" = 1'-0"

