RockValleyCollege 3301 N Mulford Road, Rockford, IL 61114-5699 (815)921-7821 Toll-free (800)973-7821 www.rockvalleycollege.edu

BID #24-26-D04 Sitework and Structural for Downtown Campus **Addendum One**

Released 11/26/2024

This thirty-eight (38) page addendum forms a part of the Bid Documents. It modifies the original bid documents as posted on the RVC website. The acknowledgement receipt of this addendum as specified is at the end of this document and must be included with submittal. FAILURE TO DO SO MAY SUBJECT BIDDER TO DISQUALIFICATION.

ADDENDUM: Addendum One addresses a process to request to be added to a prime/sub

list for this project, questions and clarifications, a revised bid form, and

drawings for DLC and DTC.

Invitation to be Added to a Prime/Sub list

Vendors wishing to be added to a list of vendors who have received the bid documents for this project may email their business name, profession/field, and contact information to RVC-BusinessServicesOffice@RockValleyCollege.edu.

Vendors can send a request to the same email to request a copy of the list.

Questions and Clarifications begin on page three.

Rock Valley College

BID #24-26-D04 Sitework and Structural for Downtown Campus

Please acknowledge receipt of this addendum by including this page with your submittal. Include your company name, address, printed name, title and signature in your acknowledgement below. Failure to do so could result in disqualification of your bid.

I acknowledge receipt of Addendum # 1						
Company Name						
Street Address		City & State				
Signature	Date					
Printed Name & Title						
Telephone Number	FAX Number					
Addendum One						

Issued by:
Karen Kerr
Director of Business Services
Rock Valley College
3301 N Mulford Road
Rockford IL 61114

SECTION 00 90 01 BIDDING AND CONTRACT REQUIREMENTS ADDENDUM NUMBER (01)

Demonica Kemper Associates 125 N. Halsted Street, Suite 301 Chicago, IL 60661 312.496.0000

To: Prospective Bidders

Issued: November 25, 2024

Re: ADDENDUM NUMBER (01) TO THE BIDDING DOCUMENTS FOR

Rock Valley College New Downtown Campus Sitework and Structural Bid #24-26-D04

Architect's Project Number: 23-030

This addendum forms a part of the bidding and contract documents and modifies the original bidding documents dated November 18, 2024. Acknowledge receipt of this addendum in the space provided on Bid Form. FAILURE TO DO SO MAY SUBJECT BIDDER TO DISQUALIFICATION.

ADDENDA TO THE PROJECT MANUAL

A. None.

ADDENDA TO THE DRAWINGS

Downtown Learning Center

- 1. 10/A3.51
 - A. Revised structure and detailing at parapet.
- 2. 15/A3.51
 - A. Revised structure and detailing at parapet.
- 3. 1/A3.52
 - A. Revised structure and detailing at parapet.
- 4. 3/A6.01
 - A. Revised slab to foundation wall detail.
- 5. 4/A6.01
 - A. Revised slab to foundation wall detail.
- 6. 2/A6.02
 - A. Revised width of foundation wall.
- 7. 3/A6.02
 - A. Revised slab to foundation wall detail.
- 8. 4/A6.02
 - A. Revised slab to foundation wall detail.
- 9. 1/A6.03
 - A. Revised structure and detailing at parapet.
- 10. 2/A6.03
 - A. Revised structure and detailing at parapet.
- 11. 3/A6.03
 - A. Revised structure and detailing at parapet.

- 12. 11/A7.01
 - A. Revised width of foundation wall.
- 13. 12/A7.01
 - A. Revised slab to foundation wall detail.
- 14. Sheet S0.00
 - A. Sheet index updated to add S3.12
- 15. Sheet S1.00
 - A. Foundation and stem wall dimensions updated per arch request.
 - B. Column locations and amount at half height feature wall along Grid D.1 updated.
 - C. Base Plate Schedule removed from foundation plan and information was distributed to the details (done to match DTC project).
 - D. Various footing reinforcement values updated.
- 16. Sheet S1.01
 - A. Deck dimensions added around precast wall end adjustments (Grid A and A.0).
 - B. Detail callout and steel elevations updated at canopy framing, 2/S1.01.
 - C. Detail callout 10/S3.02 added where precast façade wall is supported by steel framing.
- 17. Sheet S1.02
 - A. Beam sizes and connection adjusted to fit architectural sections (along Grid 13).
- 18. Sheet S2.00
 - A. Detail 9/S2.00 adjusted to alternative stem connection to avoid visual seam at base of curtain wall
 - B. Pier size and reinforcement adjusted at detail 10.
- 19. Sheet S2.01
 - A. Details 13 and 14 adjusted.
- 20. Sheet S3.00
 - A. Base plate schedules added to details 1 and 2.
- 21. Sheet S3.02
 - A. Base plate schedule added to detail 1.
 - B. Detail 6 updated to fit deeper brick dimensions below floor deck.
 - C. Details 10 and 11 added, see notes on plan sheets.
- 22. Sheet S3.12
 - A. Detail sheet added

Downtown Training Center

- 1. A1.10
 - A. Added section tag "6/A7.02" near grid line 27 between gride lines N and O.
- 2. 9/A3.51
 - A. Added gusset plate to detail
- 3. 1/A3.51
 - A. Revised structure at parapet.
- 4. 1/A6.04
 - A. Added gusset plate to detail
- 5. 2/A6.04
 - A. Revised structure at parapet.
- 6. A7.02
 - A. Added detail 6/A7.02
- 7. Sheet S0.01
 - A. Steel general notes updated. Callouts for high-strength moment frame base plates added.
 - B. Post-Installed Anchors updated to Hilti products.
- 8. Sheet S1.00
 - A. Retaining wall foundations updated as required for coordination between slab and stem wall.
 - B. Details added at oversized feature walls at Grid M and Grid S.
- 9. Sheet S1.01
 - A. Detail cut added at edge of deck along Grid 25.
 - B. Details updated at wind girt across EV Lab detail 14/S4.01 along Grid 23.
- 10. Sheet S1.02
 - A. Keynotes updated regarding roof decking edge connections as required per diaphragm forces (and alignment with DLC project for ease in construction).

- B. Roof beams updated to reduce section sizes and provide simpler connections in the field.
- 11. Sheet S2.00
 - A. Retaining wall foundation depth at elevator pit reduced.
 - B. Sump pit wall reinforcement detail reference updated.
 - C. Detail 14/S2.00 updated to reflect the reality of oversized stem wall. Foundation size and construction notes were added/updated to ensure that backfill is provided evenly either side of wall. In the event one side cannot be backfilled simultaneously as the other, this wall has been designed for a retaining condition.
- 12. Sheet S2.01
 - A. Retaining wall dimension maximums added to details.
 - B. Elevator detail updated and mat slab footing depth reduced.
 - C. Details 8 and 9 were added at northeast and southeast oversized feature walls (see above notes on sheet S1.00).
- 13. Sheet S3.10
 - A. Weld callouts updated to periodic welds, not continuous.
- 14. Sheet S3.11
 - A. Details 6 and 7 added to set per architectural request/coordination.
- 15. Sheet S4.01
 - A. Detail 14 added at wind girt, beam section updated, and web stiffeners added to resist torsional forces.

BIDDER QUESTIONS AND CLARIFICATIONS

Question 01: We would like to request the Civil CAD file for our use in doing takeoffs. Can this be provided?

Answer 01: No

Question 02: Please clarify which Bid Package relates to Alternate Bid No. 3. Where Is the Alternate Bid No. 3 work indicated on the drawings?

<u>Answer 02</u>: Alternate #3 is a deduct alternate to remove the precast concrete form liners. There are no drawings showing the deduct. The text of alternate #3 in section 01 23 00 outlines what is required.

Question 03: Various allowances and unit prices are mentioned in the bid documents, but the bid form does not appear to have spaces listed for them.

Answer 03: RJC will update its bid form

Question 04: Which bid package is responsible for constructing the Dumpster Enclosure which is Detailed on Sheet A1.02 – Architectural Site Details?

<u>Answer 04:</u> THE SITEWORK CONTRACTOR is responsible for all excavations as required throughout the Project Site including these posts and pads. The STRUCTURAL CONTRACTOR shall be responsible for installing the hot-dipped galvanized steel posts, plates, gate framework (installed), and is also responsible for the concrete pad associated with the dumpster enclosure. The metal panel screening will be part of Bid Package #005 – (Metal Panels) to be released at a later date as the screening materials need to match the building metal panel makeup. Any additional framing will also be the responsibility of the METAL PANELS CONTRACTOR.

Question 05: Which bid package is responsible for pouring the building foundation walls and caps? (Stoops are specifically noted to be included in both bid packages)

<u>Answer 05</u>: Bid Package #4.2 STRUCTURAL shall be responsible for all building foundation walls and caps. If the stoops have frost walls/knee walls beneath them, then they will be part of the STRUCTURAL CONTRACTOR'S scope of work. All exterior concrete without foundations, frost walls, and/or knee walls shall be the responsibility of the SITEWORK CONTRACTOR.

Question 06: For the purposes of the bid, are all existing soils onsite assumed to be considered clean/uncontaminated material that will meet CCDD requirements?

<u>Answer 06</u>: Yes, all existing soils are deemed and considered to be clean and uncontaminated. The SITEWORK CONTRACTOR shall include the allowance below of \$100,000 to account for any unforeseen obstacles (UST's). Please Note the bid supplements already contain the allowance noted above

Question 07: Plan sheet C1.08 – Site Grading Area 1 shows the building FFE = 720.00. Should this be 723.002

Answer 07: yes

Question 08: Are landscape plans being provided?

Answer 08: No, landscaping (trees, bushes, ornamental plants) will be bid in a later package.

Question 09: Scope of work item #32 calls for drain tiles under sidewalks. Is there a specific location where they are required and is there a detail for the installation?

<u>Answer 09</u>: The SITEWORK CONTRACTOR is responsible for any drain tile that is in the Site (part of the Sitework/Civil drawings). The drain tile going around the footings/foundations of the buildings is the responsibility of the STRUCTURAL CONTRACTOR.

Question 10: Decorative aluminum fencing: Civil Plan calls for 6' height. Architectural Site Plan and Spec Section 32 31 19 both call for 7' height. Please clarify

Answer 10: The fence is to be 7' tall.

Question 11: Sanitary Sewer Grease interceptors: What size (gallon volume) interceptors are required? Are precast concrete interceptors acceptable?

<u>Answer 11</u>: Please see the Plumbing Drawings and Schedules that are included in the Architectural Drawing Sets. Grease and oil interceptors will be bid in a later bid package.

Question 12: Are Generator foundations included in this bid? Which bid package/trade contractor is responsible?

<u>Answer 12</u>: No, the generator foundations are the responsibility of the main electrical contractor and will be part of Bid Package #005 which includes the installation of the generator. Also included in the work of the main electrical contractor is the installation/construction of the transformer pads.

Attachments:

- 1. <u>Drawings</u>: DTC: A1.10, A3.51, A6.04, A7.02, S0.01, S1.00, S1.01, S1.02, S2.00, S2.01, S3.10, S3.11, S4.01. DLC: A3.51, A6.01, A6.02, A6.03, A7.01, S0.00, S1.00, S1.01, S1.02, S2.00, S2.01, S3.00, S3.02, S3.12
- 2. **Specifications**: None.

This addendum consists of (4) page, excluding attachments.

END 00 90 01.

Rock Valley College Downtown Campus

Construction Manager TO:

Ringland-Johnson, Inc. 1725 Huntwood Dr. Cherry Valley, IL 61016

Bidders shall include the Bid Package Number on the Bid Form as well as the Envelope the Bid is submitted in. BID SUBMITTED BY: BID PACKAGE: CONTRACTOR: TELEPHONE: EMAIL: DATE: The Undersigned, having become familiar with the local conditions affecting the cost of the Work and with the Bidding Documents as prepared by Ringland-Johnson, Inc., proposes to furnish all labor, material and equipment required for Bid Package for the Rock Valley College Downtown Campus. Note: The Bidder agrees the Owner shall have the right to accept the Base Bid for a period of sixty (60) days, and any of the Allowances and Alternates for a period of sixty (60) days, from the date of opening of the bids at no increase in cost. A. Base Bid: Bidder agrees to perform complete Work shown and specified in the Bidding Documents, exclusive of Alternate Bids, for the lump sum price of: DOLLARS \$ DOLLARS \$		E-mail: <u>estimating@ringland.com</u>	
BID PACKAGE: CONTRACTOR: TELEPHONE: EMAIL: DATE: The Undersigned, having become familiar with the local conditions affecting the cost of the Work and with the Bidding Documents as prepared by Ringland-Johnson, Inc., proposes to furnish all labor, material and equipment required for Bid Package for the Rock Valley College Downtown Campus. Note: The Bidder agrees the Owner shall have the right to accept the Base Bid for a period of sixty (60) days, and any of the Allowances and Alternates for a period of sixty (60) days, from the date of opening of the bids at no increase in cost. A. Base Bid: Bidder agrees to perform complete Work shown and specified in the Bidding Documents, exclusive of Alternate Bids, for the lump sum price of: DOLLARS \$ DOLLARS \$ C. Alternate No. 1: (if applicable for bid package) DOLLARS \$ DOLLARS \$ DOLLARS \$	Bidders	shall include the Bid Package Number on the	Bid Form as well as the Envelope the Bid is submitted in.
CONTRACTOR: TELEPHONE: EMAIL: DATE: The Undersigned, having become familiar with the local conditions affecting the cost of the Work and with the Bidding Documents as prepared by Ringland-Johnson, Inc., proposes to furnish all labor, material and equipment required for Bid Package for the Rock Valley College Downtown Campus. Note: The Bidder agrees the Owner shall have the right to accept the Base Bid for a period of sixty (60) days, and any of the Allowances and Alternates for a period of sixty (60) days, from the date of opening of the bids at no increase in cost. A. Base Bid: Bidder agrees to perform complete Work shown and specified in the Bidding Documents, exclusive of Alternate Bids, for the lump sum price of: DOLLARS \$	BID SUE	BMITTED BY:	
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Bidder agrees to perform complete Work shown and specified in the Bidding Documents, exclusive of Alternate Bids, for the lump sum price of:	days, ar	nd any of the Allowances and Alternates fo	• • • • • • • • • • • • • • • • • • • •
B. Alternate No. 1: (if applicable for bid package) DOLLARS \$ C. Alternate No. 2: (if applicable for bid package) DOLLARS \$ D. Alternate No. 3: (if applicable for bid package)	Α.	Bidder agrees to perform complete Work	shown and specified in the Bidding Documents, exclusive of
C. Alternate No. 2: (if applicable for bid package) DOLLARS \$ DOLLARS \$ Dollars \$ Alternate No. 3: (if applicable for bid package)			DOLLARS \$
C. Alternate No. 2: (if applicable for bid package) DOLLARS \$ D. Alternate No. 3: (if applicable for bid package)	В.	Alternate No. 1: (if applicable for bid pack	age)
DOLLARS \$			DOLLARS \$
D. <u>Alternate No. 3: (if applicable for bid package)</u>	C.	Alternate No. 2: (if applicable for bid pack	age)
			DOLLARS \$
DOLLARS \$	D.	Alternate No. 3: (if applicable for bid pack	age)
			DOLLARS \$

E.	Provide Unit Pricing the following breakdown of your bid (for accounting purposes only):				
	UNIT PRICE NO. 1: Excavation/undercut, and r from site of unsuitable soil (per CY)	removal \$		CY	
	UNIT PRICE NO. 2: Import, place, and compact engineered fill to meet compaction specs (per			CY	
	UNIT PRICE NO. 3: Import, place and compact fill (per CY)	granular \$	·····	CY	
F.	Allowances:				
	Allowance #1: The SITETWORK CONTR (CY) of excavation / undercut, and ren compact granular fill. This dollar amou multiplied by 2,200 cubic yards.	noval from site	of unsuitable soil ar	nd import, place, and	
	Unit Price 1:+ Unit Price 3:	=	X 2,200 =_		
	Allowance #2: The SITEWORK CONTRA			· ·	
G.	<u>LABOR</u> – List all classifications, along with thei <u>Submit on a separate sheet the breakdown of</u> <u>base rate, fringes, FICA, SUTA, FUTA, W/C insu</u>	the below labo	r rates for each clas	sification, showing	
	CLASSIFICATION	REG RATE	OT RATE	DT RATE	
H.	EQUIPMENT – List all equipment, and the billing	ng rates, to be u	ised on this project	(OK to attach).	
	TYPE D	AILY RATE	WEEKLY RATE	MONTHLY RATE	

I. <u>REQUIRED INFORMATION</u>

- The Undersigned agrees to furnish, for the Construction Manager's approval, the following information, complete and in the form prescribed, within the stipulated times, <u>prior to commencement of Work.</u> Failure to furnish such information shall be cause to withhold any and all payment which may become due Undersigned.
 - (1) Fully executed Subcontract Agreement (on Construction Manager's form);
 - (2) Insurance Certificate;
 - (3) Payment and Performance Bonds with Dual Oblige Rider
 - (4) Designation of a Project Superintendent (with OSHA 30-hour card);
 - (5) Schedule of Work; and
 - (6) Submittal and Material Schedule.

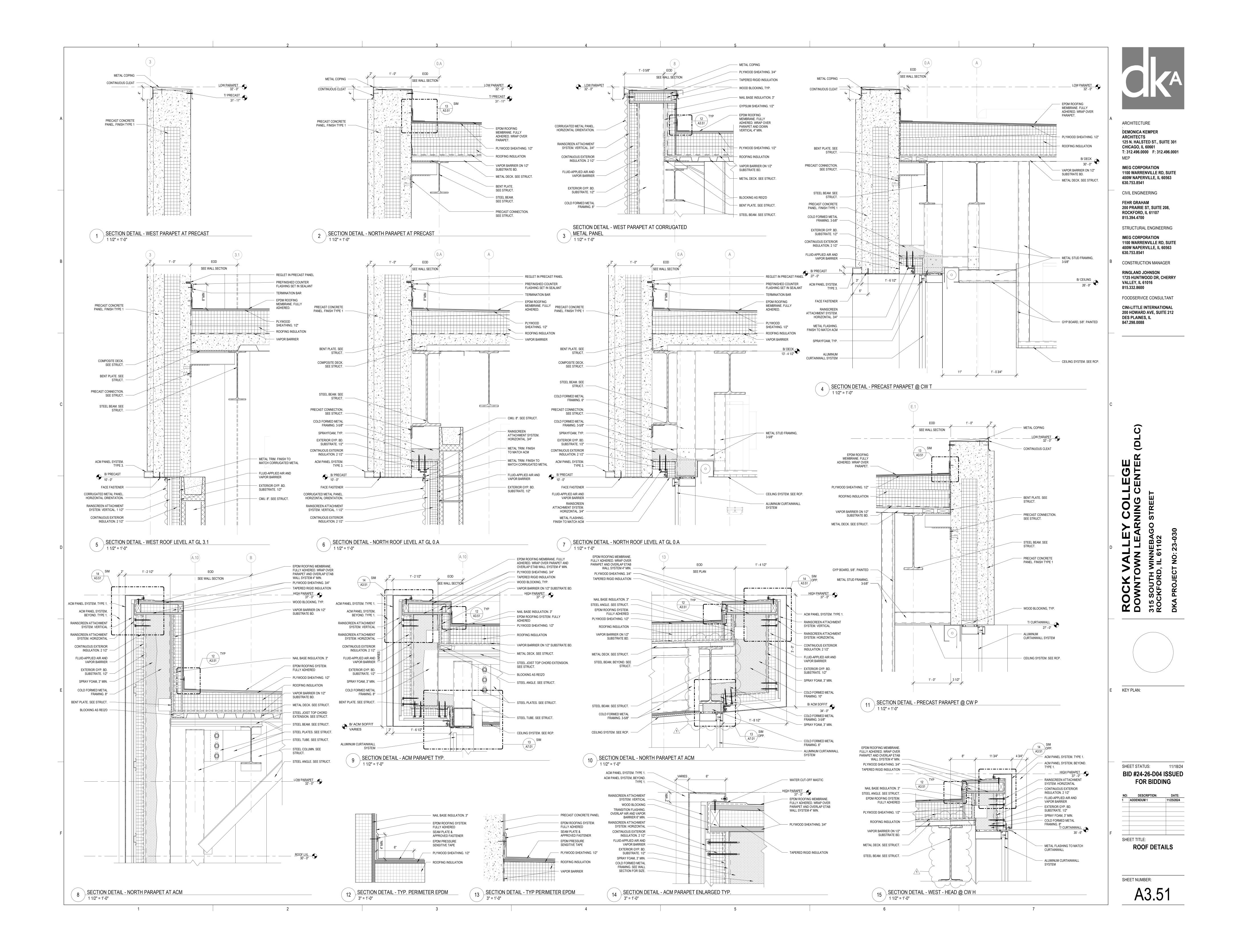
J.	<u>SCHI</u>	<u>EDULE</u>			
			Total number of calenda work in this contract (ex	_ ,	
			Substantial completion d	ate.	
	Bidd	ers are encou	raged to attach a bar chart sch	edule	
K.	ADD	ENDUM/BID	NOTICE RECEIPT		
	We a	acknowledge	receipt of Addenda #	through #	
	We a	acknowledge	receipt of Bid Notice #	through #	·
L.		VISIT/WALK- er has comple	<u>THRU:</u> eted site visit/walk-thru on		
M.	STAT	TEMENT OF C	ONTRACTOR'S BUSINESS ORGA	NIZATION	
	1.	For Bid Su	ıbmitted by an individual, name	e of Owner:	
	2.	For Bid su	bmitted by a corporation, list t	he name and title of Off	 icers authorized to sign
			Name		Title
			Name		 Title

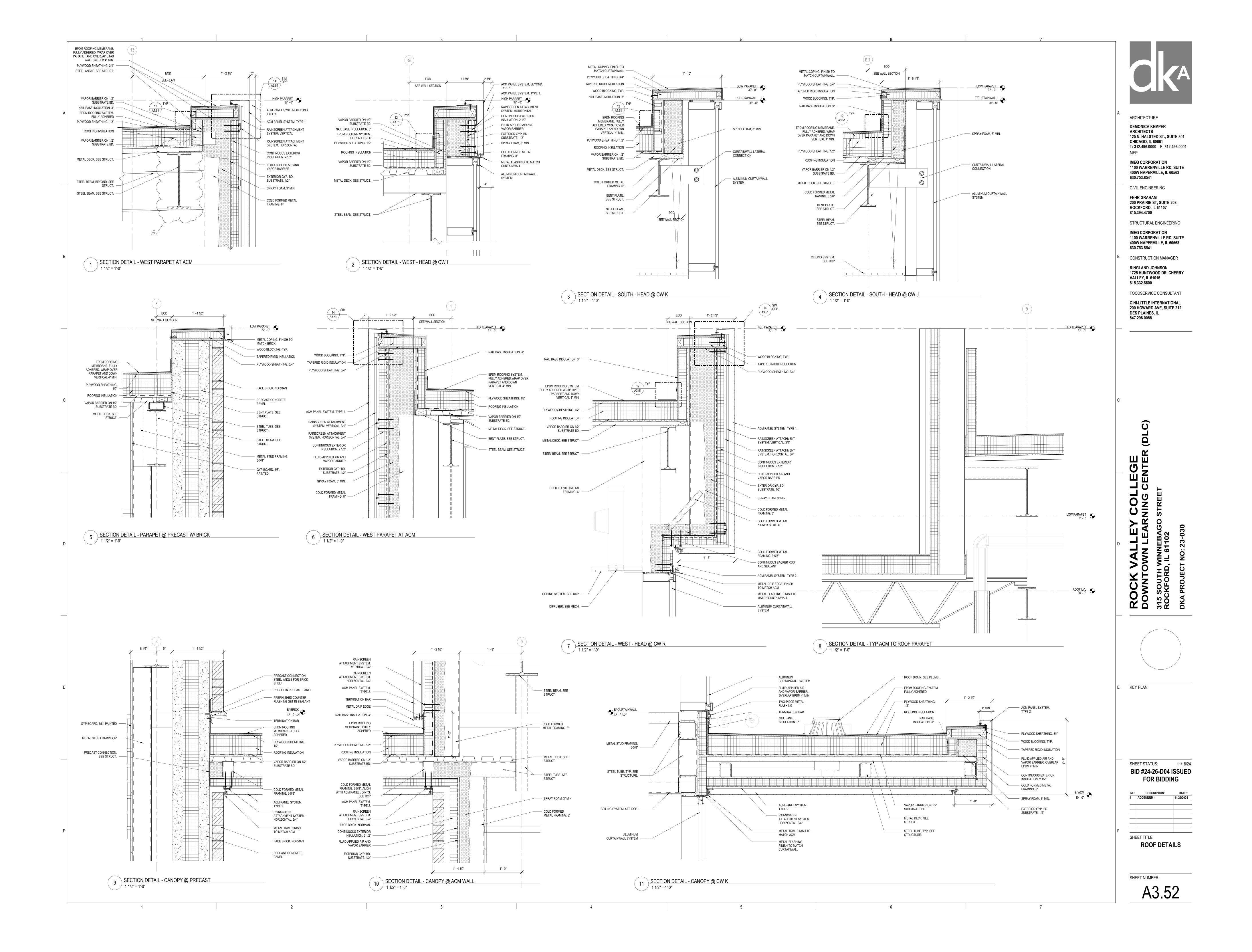
3.

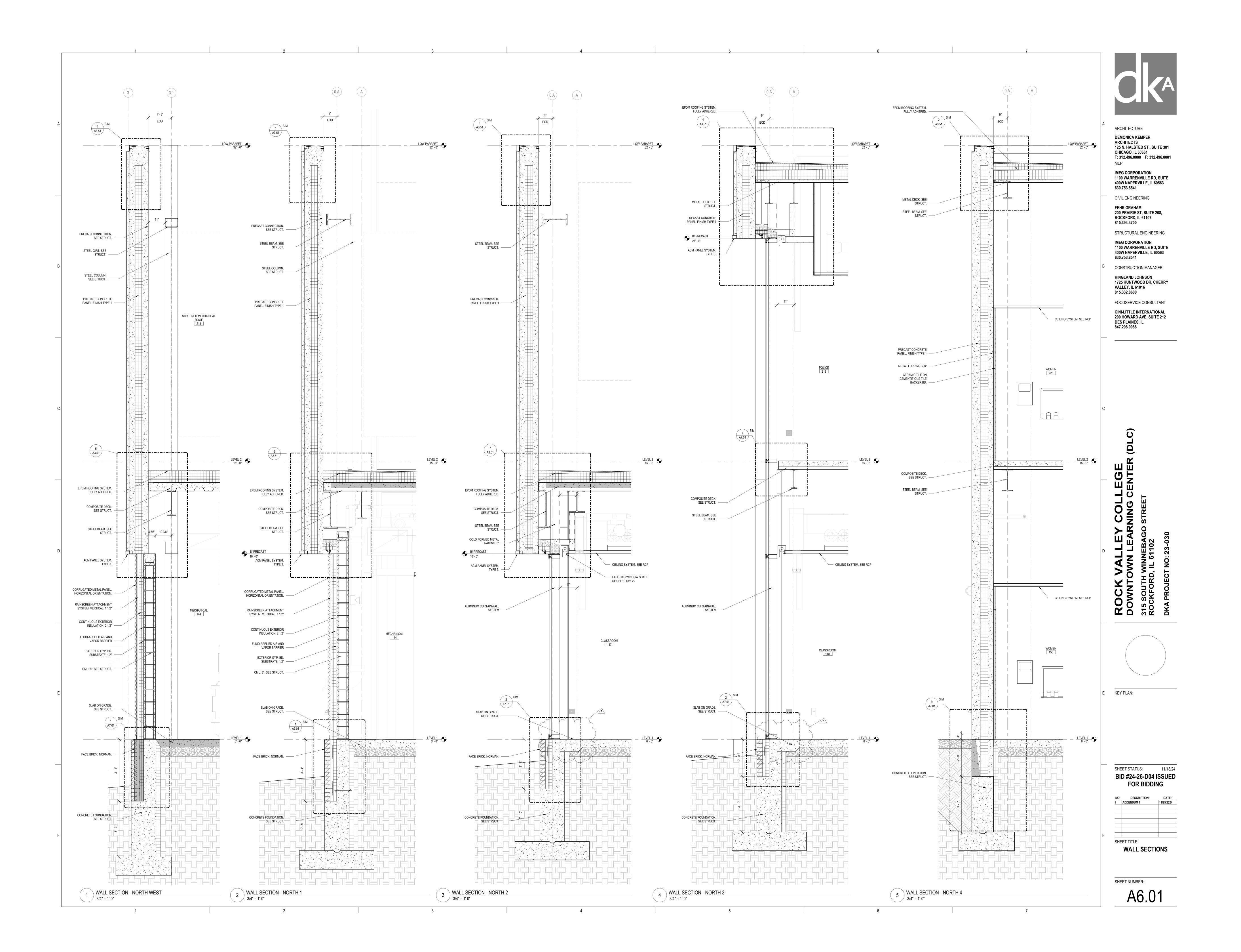
All B	idders:					
a.	Name of Firm					
b.	Official Address					
c.	Dated	da	ay of	Mor	nth of	Year
d.	Name					
e.	Signature					
f.	Type of Corporation	Sub S	C Corp	(circle one)	
g.	Disadvantaged subcontra Certification government Dollar amount and percer Disadvantaged business n	agency for a ntage of your	bove: r bid as liste	ed above:		(attach copy)

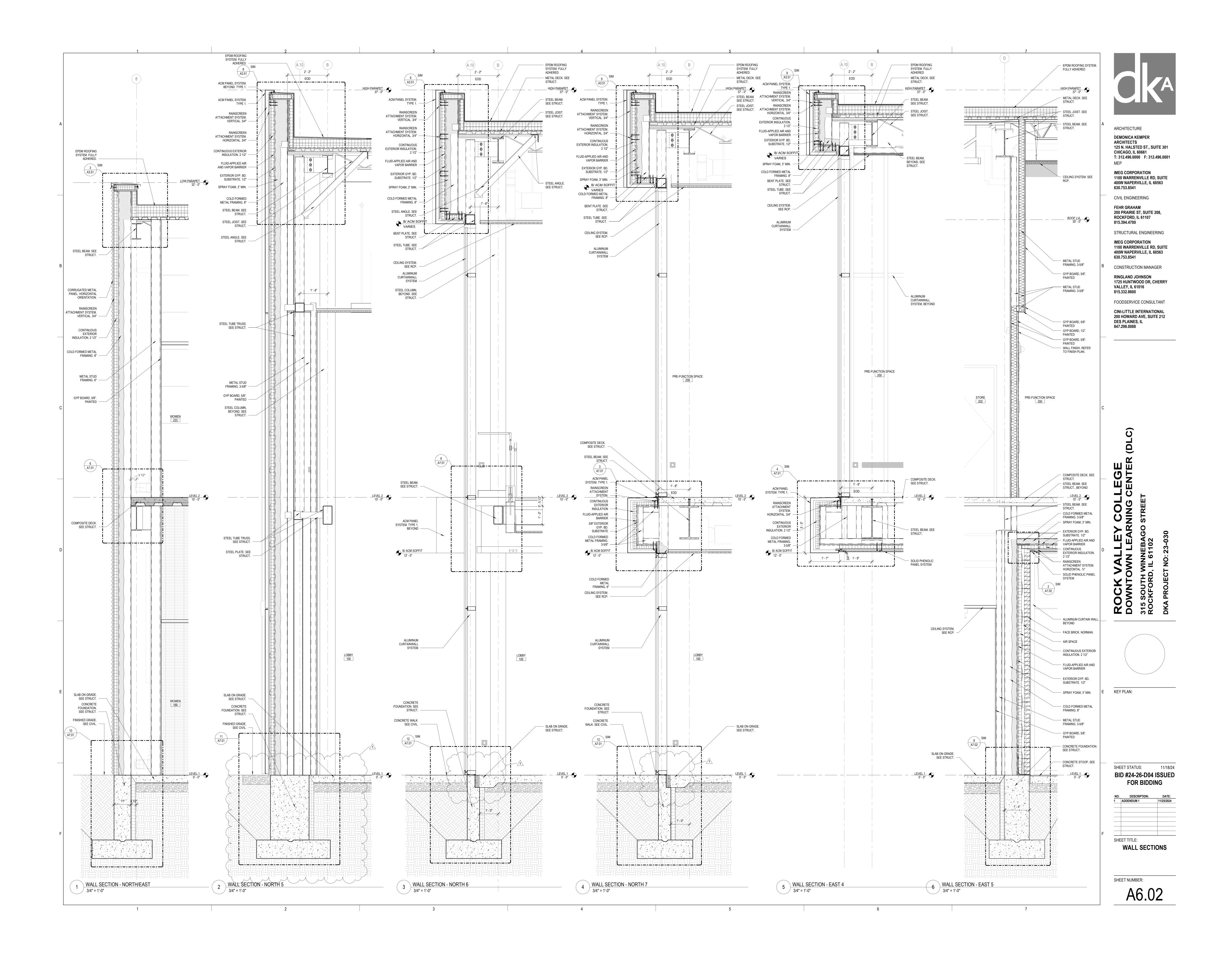
Bids will be opened at public opening and reviewed by the Owner.

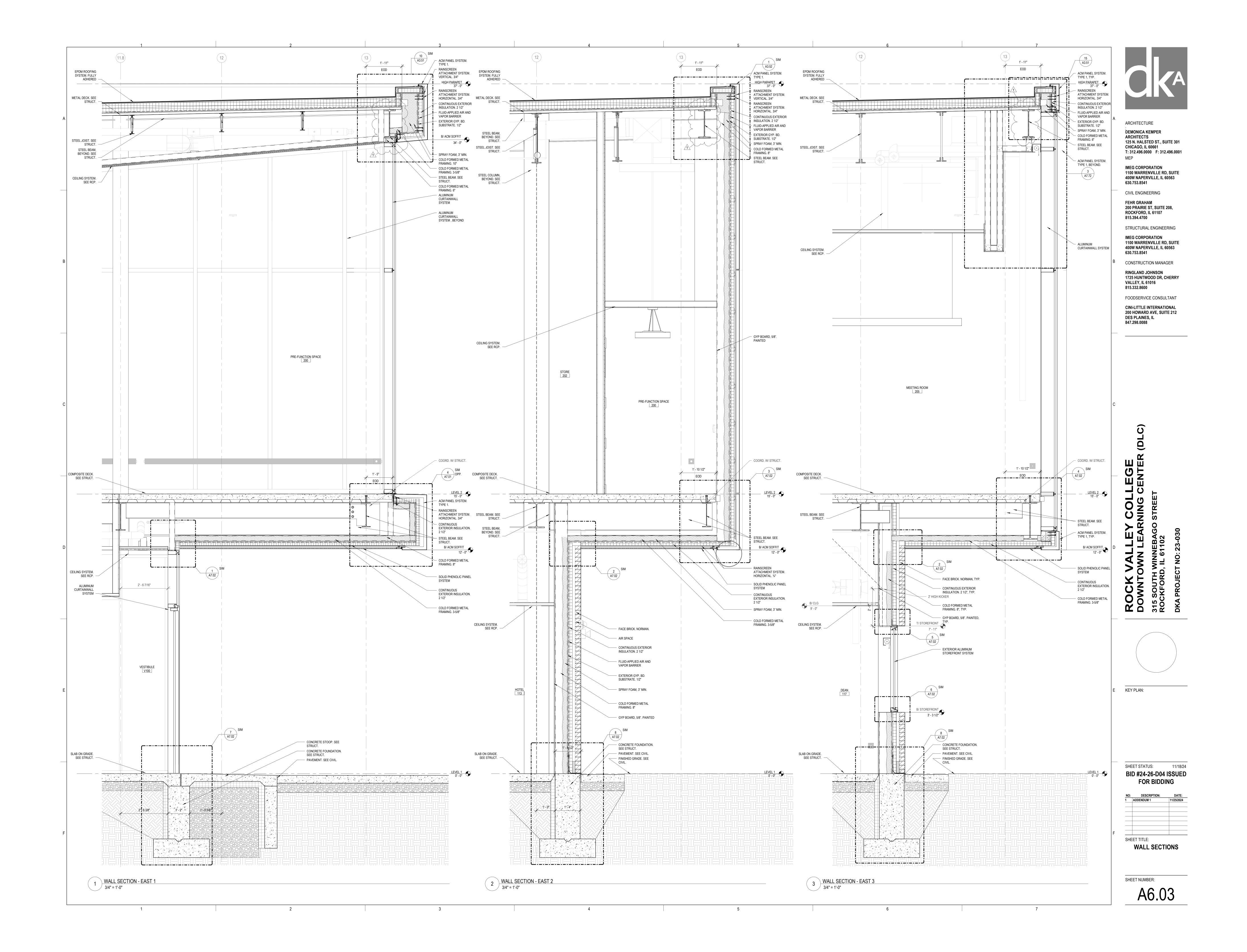
END OF DOCUMENT - BID FORM

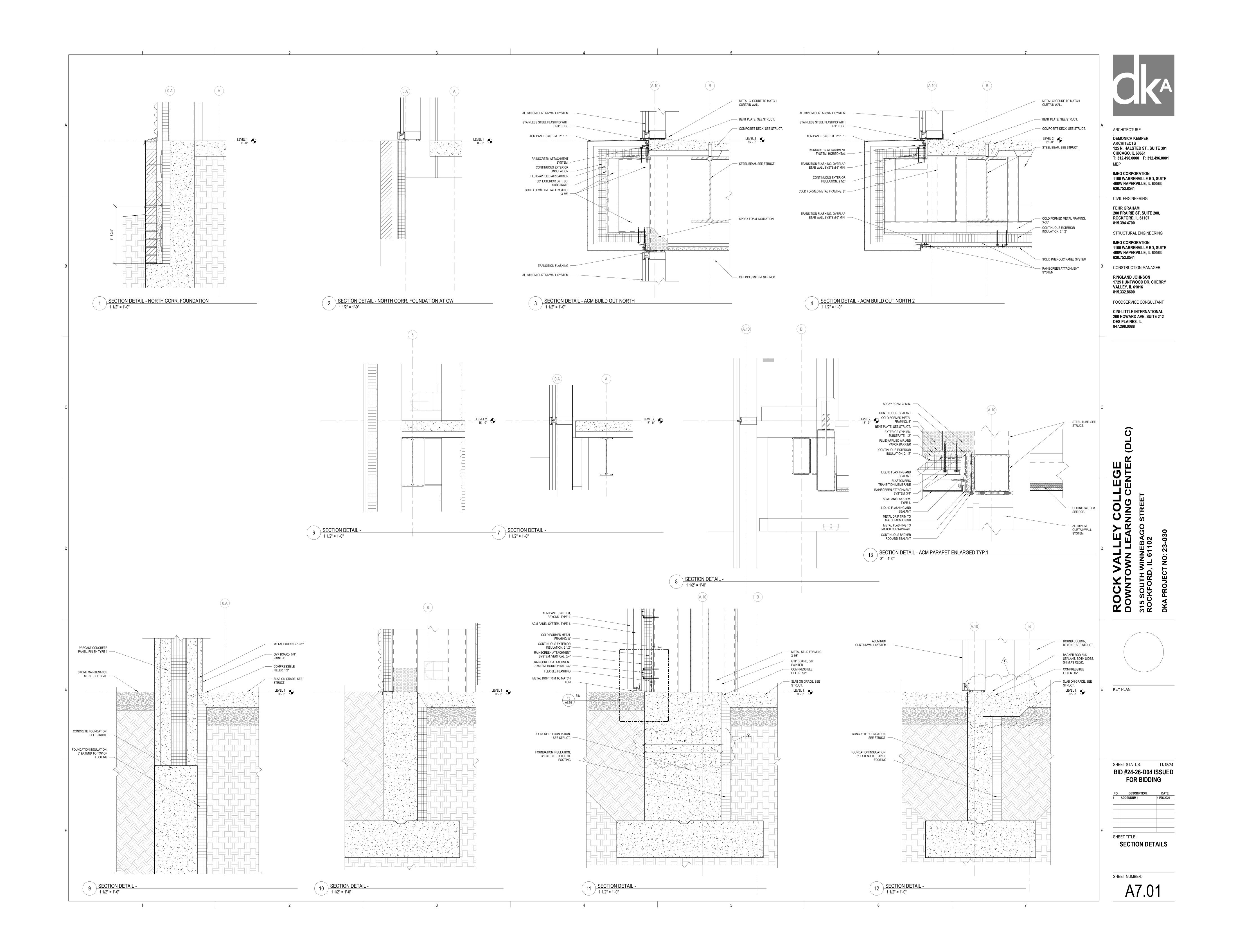












DESIGN CRITERIA

- 1. STRUCTURE HAS BEEN DESIGNED TO COMPLY WITH INTERNATIONAL BUILDING CODE 2018 AND SUBSEQUENT REFERENCE STANDARDS.
- RISK CATEGORY: III

SUPERIMPOSED DEAD LOADS: SEE LOADING PLANS					
ROOF	TYPICAL		24 PSF		
FLOOR	TYPICAL		90 PSF		
SUPERIMPOSED LIVE LOADS:	E LOADS:				
ROOF	TYPICAL	NONE - SEE	SNOW LOADS		
	TYPICAL (CLASSROOMS)	40 PSF			
	CORRIDORS, STAIRS AND PUBLIC AREAS	100 PSF			
	SECOND LEVEL CORRIDORS	80 PSF			
FLOOR	PARTITION LOAD	15 PSF			
	IT ROOMS AND MEP AREAS (SEE MECHANICAL UNITS NOTE BELOW.)	125 PSF			
	LIGHT STORAGE	125 PSF			
OTHER	HANDRAILS	50 PLF VERT	LF HORIZ PLUS OR 200 LBS IN ON, APPLIED AT ING		

- 5. LIVE LOAD REDUCTIONS HAVE BEEN APPLIED AS ALLOWED PER CODE
- MECHANICAL UNITS: THE CONTRACTOR SHALL CONFIRM THE ACTUAL MECHANICAL UNITS PURCHASED AND INSTALLED ARE OF WEIGHT AND SIZE SUCH THAT: a. THE UNIT WEIGHT IS LESS THAN OR EQUAL TO WEIGHT LISTED ON PLAN.
- b. THE UNIT LENGTH OR WIDTH ARE EACH LESS THAN 15 FEET. IF ANY UNIT DIMENSION IS GREATER THAN 15 FEET, SNOW DRIFT ON ROOF SHALL BE ACCOUNTED FOR.

c. THE TOTAL SUPERIMPOSED LOAD UNDER EACH UNIT DOES NOT EXCEED THE LIVE LOAD

FOR WHICH THE FLOOR WAS DESIGNED IN THE FLOOR AREA WHERE THE UNIT IS LOCATED AS INDICATED BY THE EQUATION BELOW: CONTRACTOR SHALL NOTIFY THE STRUCTURAL ENGINEER PRIOR TO CONSTRUCTION ON THE LOCATION OF ANY MECHANICAL UNITS WHERE THE SUPERIMPOSED LOAD UNDER THE UNIT EXCEEDS THE INDICATED DESIGN SIZE AND LOAD FOR THE ROOF AND/OR LIVE LOAD FOR THE FLOOR AS INDICATED ON THE PLAN.

TOTAL SUPERIMPOSED LOAD UNDER UNIT =	TOTAL EQUIPMENT WEIGHT / UNIT FOOTPRINT AREA =	INDICATED SERVICE LEVEL DESIGN LIVE LOAD
TOTAL EQUIPMENT WEIGHT =	OPERATING WEIGHT OF UNIT HOUSEKEEPING PAD + INTER ANCILLARY ITEMS ASSOCIATI	TIA BLOCK + OTHER
UNIT FOOTPRINT AREA =	EFFECTIVE AREA OF UNIT OR PAD, WHICHEVER IS LARGER	
EFFECTIVE AREA =	(LENGTH + 6 FEET) x (WIDTH	+ 6 FEET)

GROUND SNOW	25 PSF	
SNOW EXPOSURE FACTOR	1.0	
THERMAL FACTOR	1.0	
IMPORTANCE FACTOR	1.1	
FLAT-ROOF SNOW	19.25 PSF	
RAIN-ON-SNOW SURCHARGE	5 PSF	
DESIGN SNOW	25 PSF	

SEE S0.03 FOR SNOW DRIFT PLAN.

8.	SEISMIC:	
	SEISMIC DESIGN CATEGORY	A
	IMPORTANCE FACTOR	1.25
	SITE CLASS	С
	SS	0.109 g
	S1	0.059 g
	SDS	0.094 g
	SD1	0.059 g
	SEISMIC FORCE RESISTING SYSTEM	STEEL ORDINARY MOMENT FRAMES
	RESPONSE MODIFICATION COEFFICIENT, R	3.5
	Cd	3.0
	ANALYSIS PROCEDURE	EQUIVALENT LATERAL FORCE
	SEISMIC RESPONSE COEFFICIENT, CS	0.0277
	DESIGN BASE SHEAR (STRENGTH LEVEL)	80 KIPS

WIND: VULT = 115 MPH BASIC WIND SPEED VASD = $115MPH \times 0.6 = 69 MPH$ EXPOSURE CLASS INTERNAL PRESSURE COEFFICIENT, GCpi PEAK MAIN WIND FORCE PRESSURE 28.15 PSF (STRENGTH LEVEL) COMPONENTS & CLADDING: ZONE 3 ROOF COMPONENTS POSITIVE | NEGATIVE | POSITIVE | NEGATIVE | POSITIVE | NEGATIVE SUPPORT BEAMS (A>100 SF) ROOF SHEATHING

(1. 55 5.)						
DECK FASTENERS (A=10 SF)	16 PSF	-52.9 PSF	16 PSF	-69.8 PSF	16 PSF	-69.8 I
WALL COMPONENTS	ZON	NE 4	ZON	NE 5		
A=200 SF	24.6 PSF	-27.1 PSF	24.6 PSF	-28.9 PSF		
A=50 SF	27.3 PSF	-29.8 PSF	27.3 PSF	-34.3 PSF		
A=20 SF	29.1 PSF	-31.6 PSF	29.1 PSF	-37.8 PSF	-	

FORCES USED BY THE SUBCONTRACTOR FOR ANY SPECIFIC APPLICATION NOT LISTED ABOVE ARE THE RESPONSIBILITY OF THE SUBCONTRACTOR. b. WIND PRESSURES ARE ULTIMATE DESIGN LEVEL.

a. THE PRESSURES LISTED ARE IN ACCORDANCE THE IBC AND ASCE 7. THE DESIGN

c. SEE ASCE 7 FOR ZONE DEFINITIONS AND EXTENT OF ZONES.

10. C & C WIND PRESSURE NOTES:

- d. SUBMIT DESIGN CALCULATIONS SIGNED AND SEALED BY A LICENSED ENGINEER IN THE PROJECT'S JURISDICTION FOR ANY DESIRED MODIFICATION TO THE STATED
- 11. ALL LATERAL LOAD RESISTANCE AND STABILITY OF THE BUILDING IN THE COMPLETED STRUCTURE IS PROVIDED BY MOMENT FRAMES WITH WELDED BEAM-TO-COLUMN CONNECTIONS FRAMED IN EACH ORTHOGONAL DIRECTION. THE METEL DECKING AND STEEL JOISTS/PURLINS SERVE AS THE HORIZONTAL ROOF DIAPHRAGM DISTRIBUTING THE LATERAL FORCES TO THE VERTICAL LATERAL ELEMENTS WHICH IN TURN CARRY THE LOAD TO THE BUILDING FOUNDATIONS. COMPOSITE METAL DECK ACTS AS THE HORIZONTAL DIAPHRAGM AT THE UPPER FLOOR LEVEL.

- 1. DURING THE CONSTRUCTION PERIOD. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF PERSONNEL AND PROPERTY ON AND AROUND THE JOBSITE. THE CONTRACTOR SHALL PROVIDE ADEQUATE SHORING, BRACING, GUYS, ETC. IN ACCORDANCE WITH ALL NATIONAL, STATE, AND LOCAL SAFETY ORDINANCES. TEMPORARY BRACING, SHORING, GUYING, ETC. SHALL AVOID EXCESSIVE STRESSES AND HOLD STRUCTURAL ELEMENTS IN PLACE DURING CONSTRUCTION. THE STRUCTURE SHOULD NOT BE CONSIDERED STABLE UNTIL ALL STRUCTURAL ELEMENTS HAVE BEEN
- CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. ALL DRAWINGS AND SPECIFICATIONS ARE CONSIDERED TO BE A PART OF THE CONTRACT. DOCUMENTS. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE REVIEW AND COORDINATION OF ALL DRAWINGS PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES OR OMISSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO THE START OF CONSTRUCTION SO A CLARIFICATION CAN BE ISSUED. ANY WORK THAT DEVIATES FROM OR IS PERFORMED IN CONFLICT WITH THE CONTRACT DOCUMENTS OR ANY CODE REQUIREMENTS SHALL BE CORRECTED BY THE CONTRACTOR AT THEIR OWN EXPENSE AND AT NO EXPENSE TO THE OWNER OR THE DESIGN PROFESSIONALS.
- 3. THE CONTRACT DOCUMENTS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING ALLOWABLE CONSTRUCTION LOADS AND FOR DETERMINING SEQUENCES OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE AND SAFETY OF WORKERS DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO: FALSEWORK, FORMWORK, STAGING, BRACING, AND SHORING FOR LOADS DUE TO CONSTRUCTION EQUIPMENT, ETC. OBSERVATION VISITS TO THE SITE BY THE ARCHITECT SHALL NOT INCLUDE INSPECTION OR APPROVAL OF THE ABOVE ITEMS AND DO NOT IN ANY WAY RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITIES FOR THE ABOVE. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO MAINTAIN AND ENSURE THE INTEGRITY OF THE STRUCTURE AT ALL STAGES OF CONSTRUCTION.
- 4. ALL DIMENSIONS AND SITE CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR AT THE JOBSITE PRIOR TO BID SUBMITTAL, START OF SHOP DRAWINGS, START OF CONSTRUCTION, AND/OR FABRICATION OF MATERIALS, IF DISCREPANCIES ARE ENCOUNTERED, OR CONDITIONS DEVELOP THAT ARE NOT COVERED BY THE CONTRACT DOCUMENTS, THE ARCHITECT SHALL BE NOTIFIED FOR CLARIFICATION. 5. STRUCTURAL SUBSTITUTIONS MAY BE ALLOWED WITH THE APPROVAL OF THE
- STRUCTURAL ENGINEER. SUPPLIER SHALL PROVIDE SIGNED AND SEALED DESIGN CALCULATIONS OR SUITABLE PRODUCT LITERATURE FOR THE COMPONENTS. ALL PRODUCT SUBSTITUTIONS SHALL INCLUDE A CODE EVALUATION REPORT SPECIFIC TO THE BUILDING CODE LISTED IN THE DESIGN CRITERIA. 6. STRUCTURAL DRAWINGS INCLUDE DESIGN REQUIREMENTS AND DIMENSIONS FOR STRUCTURAL INTEGRITY BUT DO NOT SHOW ALL DETAIL DIMENSIONS TO FIT INTRICATE
- ARCHITECTURAL AND MECHANICAL DETAILS. CONTRACTOR SHALL CONSTRUCT THE WORK SO IT WILL CONFORM TO THE CLEARANCES REQUIRED BY ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DESIGN. ALL SYMBOLS AND ABBREVIATIONS USED ON THE DRAWINGS ARE CONSIDERED TO BE CONSTRUCTION STANDARDS. IF CLARIFICATION IS REQUIRED, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT PRIOR TO PROCEEDING WITH THE WORK. 8. DO NOT SCALE DRAWINGS. PRINTED DIMENSIONS HAVE PRECEDENCE OVER SCALED DRAWINGS AND LARGE-SCALE OVER SMALL-SCALE DRAWINGS. CONTRACTOR TO DETERMINE ALL FINAL DIMENSIONS WITH ARCHITECT. 9. TYPICAL DETAILS SHALL APPLY TO SITUATIONS OCCURRING ON THE PROJECT THAT ARE
- GIVEN, CONSTRUCTION SHALL BE AS SHOWN FOR SIMILAR WORK. 10. SEE ARCHITECTURAL, ELECTRICAL, AND MECHANICAL DRAWINGS FOR DETAILS, CONDITIONS, PITS, TRENCHES, PADS, DEPRESSIONS, ROOF / FLOOR OPENINGS, TOP OF WALL ELEVATIONS, STAIRS, SLEEVES, ITEMS TO BE EMBEDDED OR ATTACHED TO STRUCTURAL ELEMENTS. ETC.. NOT SHOWN ON THE STRUCTURAL DRAWINGS. FOR THESE NON-STRUCTURAL ELEMENTS SHOWN ON STRUCTURAL DRAWINGS, THEY ARE FOR GENERAL INFORMATION ONLY.

THE SAME OR SIMILAR TO THOSE SPECIFICALLY REFERENCED. WHERE NO DETAILS ARE

- 11. COORDINATE FLOOR FINISH INCLUDING, BUT NOT LIMITED TO THE "FLATNESS" AND "LEVELNESS" REQUIREMENTS, WITH THE FLOOR FINISH CONTRACTOR. PROVIDE UNDERLAYMENT / TOPPING WHERE REQUIRED TO PROVIDE A SURFACE ACCEPTABLE FOR INSTALLATION OF FLOOR FINISHES. SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
- 12. ESTABLISH AND VERIFY ALL OPENINGS AND INSERTS FOR MECHANICAL, ELECTRICAL, AND PLUMBING WITH APPROPRIATE TRADE CONTRACTORS. OPENING SIZES AND LOCATIONS SHOWN FOR DUCTS, PIPE, INSERTS, AND OTHER PENETRATIONS WHEN SHOWN ARE FOR GENERAL INFORMATION ONLY AND SHALL BE VERIFIED PRIOR TO FORMING 13. THE EXACT WEIGHTS, DIMENSIONS, AND LOCATIONS OF ALL MECHANICAL UNITS AND ELECTRICAL GEAR SUPPORTED ON STRUCTURAL FRAMING SHALL BE DETERMINED AND COORDINATED BY THE CONTRACTOR PRIOR TO DETAILING THE STRUCTURAL FRAMING SUPPORTING THOSE UNITS. IF THE UNIT WEIGHTS ARE GREATER THAN THE WEIGHTS SHOWN ON THE STRUCTURAL DRAWINGS, THE STRUCTURAL ENGINEER SHALL BE NOTIFIED PRIOR TO DETAILING THE STRUCTURE. UNIT WEIGHTS. DIMENSIONS, AND LOCATIONS SHOWN ON THE STRUCTURAL DRAWINGS ARE APPROXIMATE ONLY AND
- 14. PROVIDE TEMPORARY BLOCKOUTS AND TEMPORARY OPENINGS IN THE STRUCTURE AS REQUIRED TO PERMIT INSTALLATION OF ALL WORK. BLOCKOUTS AND TEMPORARY OPENINGS SHALL BE LOCATED, CONFIGURED, DETAILED, AND INFILLED IN A MANNER THAT ALTERS NEITHER THE STRENGTH OF THE STRUCTURAL FRAMING NOR THE STRENGTH OF CONNECTIONS. INFILL ALL BLOCKOUTS AND TEMPORARY OPENINGS USING THE MATERIALS SPECIFIED FOR THE FRAMING AT THE LOCATIONS WHERE THE BLOCKOUTS AND OPENINGS OCCUR. SUBMIT DRAWINGS INDICATING THE LOCATIONS, DIMENSIONS, AND DETAILS OF ALL PROPOSED BLOCKOUTS AND OPENINGS AND DETAILS INDICATING THE MANNER IN WHICH THE BLOCKOUTS AND OPENINGS WILL BE INFILLED.

SHALL NOT BE USED FOR DETAILING THE STRUCTURE.

- 15. NO HOLES, NOTCHES, BLOCK-OUTS, ETC. ARE ALLOWED IN STRUCTURAL ELEMENTS UNLESS SPECIFICALLY DETAILED ON THE STRUCTURAL DRAWINGS OR APPROVED BY THE STRUCTURAL ENGINEER.
- 16. PENETRATIONS IN CONCRETE SHALL BE CAST-IN-PLACE AND SHALL NOT BE PERMITTED EXCEPT AS SHOWN IN THE STRUCTURAL DRAWINGS. 17. BEFORE SUBMITTING A PROPOSAL FOR THIS WORK, THE CONTRACTOR SHALL VISIT THE PREMISES AND BECOME FULLY ACQUAINTED WITH FIELD CONDITIONS. TEMPORARY CONSTRUCTION REQUIRED, QUANTITIES AND TYPE OF EQUIPMENT, ETC. THE PROPOSAL
- SHALL INCLUDE ALL SUMS REQUIRED TO DO THE WORK. 18. ELEMENTS SUCH AS NON-BEARING PARTITIONS, ETC. ATTACHED TO AND/OR SUPPORTED BY THE STRUCTURE SHALL TAKE INTO ACCOUNT DEFLECTIONS AND OTHER STRUCTURAL MOVEMENTS. THE STRUCTURAL FRAMING WAS DESIGNED TO LIMIT DRIFT AND DEFLECTION OF THE STRUCTURAL SYSTEM TO LESS THAN THE MAXIMUM PERMITTED DEFLECTIONS LISTED IN THE BUILDING CODE. THE CONTRACTOR SHALL COORDINATE THE WORK OF OTHER TRADES TO ACCOMMODATE THESE DEFLECTIONS AND TO
- ACCOMMODATE CONSTRUCTION TOLERANCES 19. TOPS OF ALL MASONRY WALLS SHALL BE CONNECTED TO THE UNDERSIDE OF THE STRUCTURAL FRAMING PER DETAILS PROVIDED ON THE STRUCTURAL DRAWINGS. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF SUCH WALLS 20. FIRE PROTECTION FOR ALL STRUCTURAL PARTS SHALL BE PROVIDED AS SPECIFIED BY THE ARCHITECTURAL DRAWINGS. UL FIRE RESISTANCE RATING RESTRAINT CLASSIFICATION AS FOLLOWS:
- a. "PRIMARY STRUCTURAL FRAME", AS DEFINED BY IBC SECTION 202 IS "RESTRAINED" EXCEPT AS INDICATED IN FOLLOWING NOTE. b. THE FOLLOWING FRAMING IS "UNRESTRAINED":
 - CONCRETE WALLS, IN END BAYS AND OTHER LOCATIONS WHERE THE END OF THE FRAMING IS NOT ABUTTING FRAMING IN AN ADJACENT BAY. . HOLLOW CORE SLABS IN END BAYS AND OTHER LOCATIONS WHERE THE END OF THE SLAB IS NOT ABUTTING SLABS IN AN ADJACENT BAY. 3. STEEL JOISTS IN END BAYS ON ROOFS SUPPORTING STEEL DECK.

1. FRAMING SUPPORTED BY BEARING WALLS, OTHER THAN CAST-IN-PLACE

SUBMITTALS

SUBMITTALS ARE:

- a. CONCRETE MIX DESIGNS b. MATERIAL PRODUCT DATA FOR STRUCTURAL MATERIALS c. CONCRETE AND MASONRY REINFORCING
- d. STEEL FABRICATION AND MISCELLANEOUS METALS e. JOISTS AND JOIST GIRDERS f. STEEL DECK g. COLD FORMED STEEL FRAMING AND CONNECTIONS
- SUBMITTALS SHALL BE REVIEWED AND COORDINATED PRIOR TO SUBMITTING TO THE ARCHITECT. EACH SHOP DRAWING SUBMITTED SHALL BE STAMPED INDICATING REVIEW BY THE CONSTRUCTION MANAGER/GENERAL CONTRACTOR AND REVIEW BY THE ARCHITECT SHALL NOT BEGIN UNTIL THIS IS COMPLETE. WORK SHALL NOT BEGIN
- WITHOUT REVIEW BY THE DESIGN PROFESSIONALS SUBMITTALS SHALL BE REVIEWED BY THE DESIGN PROFESSIONALS FOR GENERAL CONFORMANCE WITH DESIGN CONCEPT ONLY, NOTATIONS MADE BY THE DESIGN
- PROFESSIONALS ON THE SHOP DRAWINGS DO NOT RELIEVE THE CONTRACTOR FROM COMPLYING WITH THE REQUIREMENTS OF THE DRAWINGS. 4. FOR ADDITIONAL INFORMATION ON REQUIRED SUBMITTALS, SEE INDIVIDUAL MATERIAL

DEFERRED SUBMITTALS

EACH STAIR.

4. ALL WOOD CONSTRUCTION.

- DEFERRED SUBMITTALS PER SECTION 107.3.4.1 SHALL BE SUBMITTED TO THE BUILDING OFFICIAL AND THE DESIGN PROFESSIONALS AND REVIEWED PRIOR TO INSTALLATION. 2. DEFERRED SUBMITTALS ARE:
- PRECAST CONCRETE ELEMENTS AND CONNECTIONS b. STEEL JOISTS AND JOIST GIRDERS
- c. EXTERIOR WALL SYSTEMS
- d. CURTAIN WALL AND STOREFRONT SYSTEMS . COLD FORMED STEEL FRAMING AND CONNECTIONS
- STAIRS, ACCESS LADDERS, HANDRAILS, GUARDRAILS, AND GRATING BUILDING MAINTENANCE DAVIT PEDESTALS, TIE-BACKS, AND FALL ARREST SYSTEMS GRAVITY SUPPORT AND ANCHORAGE FOR MECHANICAL, ELECTRICAL, PLUMBING, AND
- FIRE PROTECTION EQUIPMENT AND SYSTEMS 3. ALL DEFERRED SUBMITTALS SHALL BEAR THE STAMP AND SIGNATURE OF THE QUALIFIED STRUCTURAL ENGINEER ENGINEER. REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED, RESPONSIBLE FOR THE PREPARATION OF THESE DOCUMENTS.
- a. STEEL STAIRS IN STEEL FRAMED STRUCTURES SHALL BE CONFIGURED SO THE STAIR STRINGERS CONNECT TO THE WEBS OF SUPPORTING STRUCTURAL STEEL FLOOR FRAMING MEMBERS, STAIR STRINGERS MAY NOT CONNECT TO SLABS ON DECK, STAIR STRINGER AND HANGER CONNECTIONS SHALL BE CONFIGURED SO THAT THEY CONNECT TO THE SUPPORTING STRUCTURAL STEEL IN A MANNER THAT IMPOSES NO TORSION UPON THE SUPPORTING STRUCTURAL MEMBER. WHERE STAIR HANGERS MUST FRAME ECCENTRICALLY TO THE SUPPORTING STEEL, SUPPLEMENTAL FRAMING SHALL BE PROVIDED AS INDICATED ON THE CONTRACT DOCUMENTS TO PREVENT TORSION ON THE SUPPORTING STEEL FRAMING.
- b. DESIGN FRAMING MEMBERS IN COMMUNICATING STAIRS AND MONUMENTAL STAIRS TO LIMIT LIVE LOAD DEFLECTION TO THE SMALLER OF L/600 OR 1/4". SIZE STAIR FRAMING MEMBERS TO PROVIDE A STAIR ASSEMBLY WITH A NATURAL FREQUENCY > 5 HERTZ AND PEAK ACCELERATION, ap/g = 0.015, AS COMPUTED PER AISC DESIGN GUIDE 11 EQUATION 2.3 USING INDOOR FOOTBRIDGE CRITERIA. : SEE ARCHITECTURAL DRAWINGS FOR STEEL STAIR DETAILS. DESIGN OF FRAMING MEMBERS AND CONNECTIONS TO BE BY SPECIALTY ENGINEER, WORKING DIRECTLY WITH THE STAIR DETAILER AND FABRICATOR. WHERE SUPPORT POSTS ARE REQUIRED, PROVIDE 3'-0" SQUARE x 1'-0" THICKENED SLAB WITH (4) #5 BOTTOM BARS AT BASE OF
- FACADE: a. DESIGN AND DETAILING OF THE FACADE SYSTEM AND CONNECTIONS TO THE STRUCTURE

GRAVITY LOAD CONNECTIONS MAY BE MADE TO THE GIRTS.

- SHALL TAKE INTO CONSIDERATION THE FOLLOWING MOVEMENTS: 1. ±1/2" VERTICAL DIFFERENTIAL DEFLECTION OF SLAB EDGES ON ADJACENT FLOORS
- . ±1/2" HORIZONTAL DIFFERENTIAL DEFLECTION BETWEEN ADJACENT FLOORS DIFFERENTIAL THERMAL EXPANSION / CONTRACTION BETWEEN FACADE SYSTEM AND SUPPORTING PRIMARY STRUCTURAL SYSTEM 4. THE FACADE SHALL NOT BE INSTALLED UNTIL AFTER THE SUPERSTRUCTURE HAS BEEN
- PLUMBED, ALL FRAMING CONNECTIONS HAVE BEEN INSTALLED, AND ALL SHORES AND RESHORES HAVE BEEN REMOVED. WHERE STRUCTURAL STEEL HORIZONTAL GIRTS ARE PROVIDED. THOSE GIRTS MAY BE USED ONLY TO RESIST LATERAL LOADS FROM THE FACADE. VERTICAL LOADS MAY NOT BE IMPOSED BY THE FACADE UPON THE GIRT FRAMING UNLESS THE SECTIONS AND DETAILS ON THE STRUCTURAL DRAWINGS SPECIFICALLY INDICATE THAT FACADE

1. FOUNDATION AND RETAINING WALL DESIGN IS BASED ON THE SOILS EXPLORATION REPORT DATED MAY 31, 2024 PERFORMED BY TESTING SERVICE CORPORATION (TSC PROJECT #: L-97,257). FOLLOW RECOMMENDATIONS IN REPORT FOR ALL FOUNDATION WORK. REPORT IS ON FILE WITH THE ARCHITECT

2.	SOIL PROPERTIES:				
	FROST DEPTH	24 IN (HEATED, INTERIOR FOOTINGS) 42 IN (EXTERIOR FOOTINGS) 42 IN (UNHEATED, ISOLATED FOOTINGS)			
	COEFFICIENT OF FRICTION	0.32 (ASSUMED)			
	EQUIVALENT FLUID PRESSURES:				
	ACTIVE	50 PSF/FT (DRAINED)			
	AT REST	70 PSF/FT (DRAINED)			
	PASSIVE	240 PSF/FT OF DEPTH (ASSUMED)			

- 3. SUBGRADE PREPARATION FOR FOOTINGS AND SLABS-ON-GRADE SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT AND SHALL BE IN COMPLIANCE WITH THE APPLICABLE REQUIREMENTS OF THE GOVERNING AUTHORITIES HAVING JURISDICTION. THE CONTRACTOR SHALL DIRECT QUESTIONS REGARDING THE SUBGRADE PREPARATION REQUIREMENTS TO THE GEOTECHNICAL 4. ANY TESTS, INSPECTIONS, FIELD OBSERVATIONS, OR APPROVAL FROM THE
- GEOTECHNICAL ENGINEER SHALL BE PERFORMED PRIOR TO PLACEMENT OF CONCRETE. ALTERATIONS TO SITE PREPARATION OR GRADING SHALL BE REPORTED TO THE GEOTECHNICAL ENGINEER PRIOR TO CONSTRUCTION. 5. PROPERTY LINE LOCATIONS INDICATED ON FOUNDATION PLANS ARE APPROXIMATE.
- 6. ALL EXCAVATIONS SHALL BE PROPERLY AND SAFELY BACKFILLED. DO NOT PLACE BACKFILL BEHIND RETAINING / BASEMENT WALLS BEFORE CONCRETE HAS ATTAINED SPECIFIED COMPRESSIVE STRENGTH, CONTRACTOR SHALL BRACE OR PROTECT ALL WALLS BELOW GRADE FROM LATERAL LOADS UNTIL SUPPORTING FLOORS ARE COMPLETELY IN PLACE AND HAVE ATTAINED 7-DAY STRENGTH MINIMUM. BACKFILLING IS NOT PERMITTED FOR FOUNDATION WALLS UNTIL SUPPORTED SLAB TOP AND BOTTOM ARE IN PLACE OR THE WALL IS ADEQUATELY BRACED TO RESIST LATERAL LOADS. 7. SOIL BEHIND RETAINING WALLS AND BASEMENT WALLS SHALL BE DRAINED TO ELIMINATE HYDROSTATIC PRESSURE BEHIND THE WALL. DESIGN OF SUCH WALL DRAINAGE SYSTEMS

SEE ARCHITECTURAL AND/OR SITE DRAWINGS FOR LOCATION OF THE STRUCTURE

IS THE RESPONSIBILITY OF THE CONTRACTOR. 8. CONTRACTOR SHALL PROVIDE DE-WATERING OF EXCAVATIONS FROM SURFACE WATER, GROUNDWATER, OR SEEPAGE. DETAILS OF GROUNDWATER INFORMATION SHALL BE OBTAINED FROM THE GEOTECHNICAL REPORT. IF GROUNDWATER IS ENCOUNTERED DURING EXCAVATION, PROCEDURES SHALL BE IMPLEMENTED AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER

9. PROVIDE SHORING WHERE THERE IS INSUFFICIENT SPACE FOR STABLE-SLOPED

- EMBANKMENTS. 10. CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF ALL CRIBBING, SHEETING, SHORING, ETC, REQUIRED FOR CONSTRUCTION OF THE PROJECT AND SHALL BE SOLELY RESPONSIBLE FOR ALL EXCAVATION PROCEDURES INCLUDING LAGGING, SHORING, AND PROTECTION OF ADJACENT PROPERTY, STRUCTURES, STREETS, AND UTILITIES, CONTRACTOR SHALL SUBMIT DESIGN CALCULATIONS AND SHOP DRAWINGS SIGNED AND SEALED BY AN ENGINEER LICENSED IN THE PROJECT'S
- 11. CONTRACTOR SHALL INVESTIGATE SITE DURING CLEARING AND EARTHWORK OPERATIONS FOR FILL MATERIAL OR BURIED STRUCTURES SUCH AS CESSPOOLS. CISTERNS, AND FOUNDATIONS, IF ANY SUCH MATERIAL OR STRUCTURES ARE FOUND. ARCHITECT SHALL BE NOTIFIED IMMEDIATELY. 12. ANY REQUIRED IMPORT FILL SHALL HAVE A LOW POTENTIAL FOR EXPANSION AND SHALL
- BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO IMPORTING. 13. UTILITY LINES SHALL NOT BE PLACED THROUGH OR BELOW FOUNDATIONS WITHOUT THE STRUCTURAL ENGINEER'S APPROVAL. BELOW GRADE UTILITY OR PIPE ELEVATIONS, WHERE SHOWN, ARE INDICATED FOR REFERENCE ONLY, REQUIRED ELEVATIONS SHALL BE DETERMINED BY OTHERS AND COORDINATED WITH THE FOUNDATIONS. 14. WHERE GRADE ELEVATIONS ARE APPROXIMATELY EQUAL ON BOTH SIDES OF WALLS.
- 15. ALL REQUIRED BACKFILL AND UTILITY TRENCH BACKFILL WITHIN THE BUILDING AREA SHALL BE COMPACTED IN ACCORDANCE WITH THE GEOTECH OR SOILS REPORT.

BACKFILL SHALL BE PLACED SO THAT IT IS NOT UNBALANCED BY MORE THAN 2 FEET ON

SHALLOW FOUNDATIONS

1. SEE THE GEOTECHNICAL REPORT FOR SHALLOW FOUNDATION REQUIREMENTS.

NET ALLOWABLE BEARING PRESSURE 2500 PSF

BEARING ELEVATIONS WHERE OCCURRING UON.

- 2. FOUNDATION ELEVATIONS SHOWN INDICATE LOCATIONS WHERE ADEQUATE SOIL BEARING PRESSURE IS ANTICIPATED. IF INADEQUATE BEARING CAPACITY IS ENCOUNTERED, CONTACT STRUCTURAL ENGINEER FOR RESOLUTION. BEARING ELEVATIONS ARE ESTIMATED FROM SOIL BORING DATA INDICATED IN THE GEOTECHNICAL REPORT. DETERMINATION OF FINAL BEARING ELEVATIONS AND FIELD VERIFICATION OF ALLOWABLE BEARING PRESSURE SHALL BE MADE BY AN EXPERIENCED. QUALIFIED GEOTECHNICAL ENGINEER PRIOR TO PLACING FOUNDATIONS.
- 3. ALL FOUNDATIONS SHALL BEAR BELOW THE FROST DEPTH, OR LOWER WHERE INDICATED ON FOUNDATION PLAN. IN CASE OF CONFLICT, NOTIFY THE DESIGN PROFESSIONALS IN ADVANCE OF ANY CONSTRUCTION TO ALLOW FOR ADJUSTMENT. 4. FOUNDATIONS SHALL BE PLACED ON UNDISTURBED SOIL OR COMPACTED STRUCTURAL FILL, AND CLEAN AND FREE OF LOOSE DEBRIS AND STANDING WATER AT TIME OF CONCRETE PLACEMENT
- 5. WHERE FOUNDATIONS BEAR ON ROCK, FOUNDATIONS SHALL BEAR ON THAT ROCK OR ON LEAN CONCRETE FILL.

6. NEW FOOTING BEARING ELEVATIONS SHALL MATCH ADJACENT EXISTING FOOTING

7. THE SLOPE BETWEEN THE LOWER EDGES OF ADJACENT FOOTINGS SHALL NOT EXCEED 45 DEGREES WITH THE HORIZONTAL UON IN THE GEOTECHNICAL REPORT. CONTACT STRUCTURAL ENGINEER WHERE ADEQUATE SLOPE IS NOT ACHIEVED.

REINFORCING STEEL

CONCRETE EXPOSURE

1. ALL REINFORCING STEEL SHALL BE DETAILED AND PLACED IN CONFORMANCE WITH ACI 318, "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE", AND ACI 301, "SPECIFICATIONS FOR STRUCTURAL CONCRETE", UNLESS NOTED OTHERWISE. 2 CONCRETE DEINEODOING STEEL SHALL CONFORM TO THE FOLLOWING STANDARDS

CONCRETE REINFORCING STEEL SHALL CONFORM TO THE FOLLOWING STANDARDS:				
REINFORCING STEEL (UNLESS SPECIFIED ON PLANS)	ASTM A615, GR 60	Fy= 60 KSI		
WELDED REINFORCING STEEL	ASTM A706, GR 60	Fy= 60 KSI		
WELDED WIRE REINFORCING	ASTM A1064	Fy= 65 KSI		
DEFORMED BAR ANCHORS	ASTM A1064	Fy= 70 KSI		
HEADED DEFORMED BARS	ASTM A970	Fy= DEFORMED BAR TENSILE STRENGTH		
HEADED STEEL STUD SHEAR REINFORCING	ASTM A1044	Fy= 51 KSI		

REINFORCEMENT

BOTTOM BARS

3. MINIMUM CONCRETE COVER SHALL BE PROVIDED AS FOLLOWS TO THE OUTERMOST REINFORCING BARS:

MEMBER

CAST AGAINST AND PERMANENTLY IN CONTACT WITH GROUND	ALL	ALL	3
EXPOSED TO WEATHER OR IN CONTACT WITH	ALL	#6 TO #18	2
GROUND SURFACES	/ LE	#5 AND SMALLER	1-1/2
	SLABS, JOISTS, AND WALLS	#14 & #18	1-1/2
NOT EXPOSED TO WEATHER OR IN CONTACT		#11 AND SMALLER	3/4
WITH GROUND SURFACES	BEAMS, COLUMNS, PEDESTALS, AND TENSION TIES	PRIMARY REINF, STIRRUPS, TIES, SPIRALS, AND HOOPS	1-1/2
	BOUNDARY ELEMENTS	ALL	1-1/2
OTHER	PARKING	TOP BARS	1-1/2

4. REINFORCING STEEL SHALL BE INSTALLED TO WITHIN THE FOLLOWING TOLERANCES.

LEVEL SLABS

INDICATED TOLERANCES ARE PER ACI 117, "SPECIFICATIONS FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS".		
	ITEM FOR WHICH TOLERANCE IS BEING MEASURED	PERMITTED TOLERANCE
	CONCRETE COVER FOR SLAB TOP AND BOTTOM BARS	±1/4"
	COVER FOR OTHER REINFORCING STEEL	±3/8"
	SPECIFIED SPACING BETWEEN PARALLEL BARS IN SLAB	± SPECIFIED SPACING/4 (BUT NOT TO EXCEED 1")
	HORIZONTAL DEVIATION FROM SPECIFIED LOCATION UON	±3"
	SPACING AND LOCATION OF BEAM STIRRUPS	± (BEAM DEPTH IN INCHES/12) x 1"
	SPACING AND LOCATION OF COLUMN TIES	± (MIN COL DIMENSION IN INCHES/12) x 1"
	LOCATION OF ENDS OF BARS	

LOCATION OF ENDS OF BARS PERPENDICULAR TO SLAB EDGES ±1"

- 5. THE ABOVE LIST OF PERMITTED TOLERANCES SHALL BE PROVIDED ON ALL REINFORCING STEEL PLACING DRAWINGS. PLACING DRAWINGS THAT DO NOT PROVIDE THIS LIST OF TOLERANCES WILL BE REJECTED.
- 6. FIELD BENDING OF REINFORCING STEEL IS NOT PERMITTED UON. 7. WELDING OF REINFORCING STEEL OTHER THAN A706 IS PROHIBITIED. WELDING OF REINFORCING BARS SHALL BE IN ACCORDANCE WITH AWS D1.4 OR D1.8. 8. HEADED STUDS AND DEFORMED BAR ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. SUPPORTS AND TIE WIRE FOR STAINLESS OR GALVANIZED REINFORCING SHALL BE
- SUPPORTS AND TIE WIRE FOR COATED REINFORCING SHALL BE PLASTIC PROTECTED. STAINLESS OR GALVANIZED STEEL PROTECTED RESPECTIVELY. SUPPORTS AND TIE WIRE FOR UNCOATING REINFORCING SHALL BE PLAIN WIRE, NO PROTECTION. 10. ALL WELDED WIRE REINFORCING SHALL BE LAP SPLICED 2 PANELS (1'-0" MIN).
- a. SPLICES IN REINFORCING STEEL SHALL BE MADE ONLY AT LOCATIONS WHERE SPLICES ARE SHOWN ON THE STRUCTURAL DRAWINGS AND AT THOSE LOCATIONS WHERE SPLICES HAVE BEEN DETAILED ON THE REINFORCING STEEL PLACING DRAWINGS THAT HAVE BEEN REVIEWED AND APPROVED BY THE STRUCTURAL ENGINEER, ALL SPLICES SHALL BE CLASS B TENSION LAP SPLICES UON. b. MECHANICAL SPLICE COUPLERS MAY BE USED INSTEAD OF TENSION LAP SPLICES AT THE CONTRACTOR'S OPTION AT ANY LOCATION. MECHANICAL SPLICE COUPLERS MUST BE USED WHERE SPLICING #14 AND LARGER BARS. INCLUDING WHERE SPLICING #14 AND LARGER BARS TO #11 AND SMALLER BARS. STAGGER MECHANICAL SPLICES IN ADJACENT BARS 30" MINIMUM. c. COMPRESSION LAP SPLICES MAY BE USED ONLY AT THOSE LOCATIONS WHERE SUCH SPLICES ARE SPECIFICALLY INDICATED. STAGGER SPLICES WHERE REQUIRED TO
- 12. ALL HOOKS SHALL BE STANDARD HOOKS OR STANDARD STIRRUP HOOKS UON. STANDARD STIRRUP HOOKS SHALL HAVE CONTINUOUS BAR AT INSIDE CORNER OF HOOK. 13. VERTICAL REINFORCING STEEL IN CONCRETE AND MASONRY WALLS WITH ONE LAYER OF REINFORCING BARS SHALL BE INSTALLED IN THE CENTER OF THE WALL UON. VERIFY

PROVIDE 1 1/2" MINIMUM CLEAR SPACING BETWEEN REINFORCING STEEL AT SPLICE

- VERTICAL REINFORCING LOCATION WITH RETAINING WALL DETAILS 14. STANDARD STIRRUP HOOKS FOR #3, #4, AND #5 BARS SHALL BE PROVIDED IN SLABS LESS
- THAN 9" THICK. 15. DOWELS SHALL MATCH GRADE, SIZE, SPACING, AND QUANTITY OF LAPPED REINFORCING STEEL UON, EXTEND ALL DOWELS FOR FULL DEPTH OF SUPPORTING FLEMENT AND PROVIDE HOOKS UON. DOWELS SHALL NOT BE POST-INSTALLED INTO FRESH CONCRETE. 16. HEADED DEFORMED BARS MAY ONLY BE USED ON #11 AND SMALLER BARS. THREADED OR
- FORGED HEADS CAN BE USED AT THE FABRICATOR'S DISCRETION. 17. CUTTING OF REINFORCING STEEL IS PROHIBITED. HEATING OF BARS FOR BENDING IS PROHIBITED. 19. REINFORCING STEEL PLACING DRAWINGS SHALL BE PREPARED IN ACCORDANCE WITH
- THE REQUIREMENTS OF ACI 315. THE PLACING DRAWINGS SHALL SHOW ALL INFORMATION NECESSARY TO FABRICATE AND PLACE THE REINFORCING STEEL. 20. FIBER REINFORCING: a. STRUCTURAL MACRO SYNTHETIC FIBER REINFORCING SHALL COMPLY WITH ASTM C1116. TYPE III AND ASTM D7508. b. MACRO SYNTHETIC FIBERS SHALL BE "TUF-STRAND SF" FIBERS MANUFACTURED BY
- THE EUCLID CHEMICAL COMPANY OR "STRUX 90/40" FIBERS MANUFACTURED BY GCP. PROVIDE 4 LBS OF MACRO FIBER REINFORCING PER CUBIC YARD OF CONCRETE WHERE FIBER REINFORCING IS INDICATED UON. 21. REINFORCING STEEL SPACINGS ARE CENTER-TO-CENTER DIMENSIONS UON. REINFORCING STEEL SHOWN IN SECTION PERPENDICULAR TO THE CUT ARE CONTINUOUS UON.

22. THE SPACING OF ALL REINFORCING STEEL MUST BE COMPUTED BY THE REINFORCING

DO NOT SHOW SUFFICIENT INFORMATION NEEDED TO PLACE THE REINFORCING STEEL

STEEL DETAILER AND MUST BE INDICATED ON THE PLACING DRAWINGS. EXTENT ARROWS. MUST BE USED TO CLEARLY INDICATE THE LOCATIONS WHERE GROUPS OF REINFORCING BARS ARE TO BE INSTALLED. 23. A LIST OF ALL APPLICABLE REINFORCING STEEL PLACEMENT TOLERANCES SHALL BE INDICATED ON ALL REINFORCING STEEL PLACING DRAWINGS. PLACING DRAWINGS THAT

WILL BE REJECTED.

CAST-IN-PLACE CONCRETE

1. ALL CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF ACI 318. BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE, AND ACI 301, SPECIFICATIONS FOR STRUCTURAL CONCRETE UON.

ASTM C595, TYPE IL
ASTM C618, TYPE C OR F
ASTM C989
ASTM C33
ASTM C330
POTABLE
ASTM C260
ASTM C494

- 2. CONCRETE MATERIALS SHALL CONFORM TO:
- AIR ENTRAINMENT: a. CONCRETE IN EXTERIOR FOUNDATION WALLS AND PIERS EXPOSED TO EARTH SURFACES SHALL BE AIR ENTRAINED WITH THE APPROPRIATE PERCENTAGE AIR CONTENT LISTED IN THE TABLE BELOW AS APPLICABLE FOR THE INDICATED EXPOSURE CLASS AND NOMINAL MAXIMUM AGGREGATE SIZE IN THE CONCRETE MIX. THE REQUIRED AIR CONTENT VALUE MAY BE REDUCED BY 1% FOR ALL CONCRETE WITH COMPRESSIVE STRENGTH GREATER THAN 5000 PSI. THE ALLOWED TOLERANCE
- ON THE REQUIRED AIR CONTENT IS ±1.5%. b. ALL LIGHTWEIGHT CONCRETE SHALL HAVE 4-7% AIR ENTRAINMENT.

	NOMINAL MAXIMUM AGGREGATE SIZE		REQUIRED AIR CONTENT PER EXPOSURE CATEGORY				
			F1		F2	F2	
	3/8" 6%		7.5%				
	1/2"	1/2" 5.5%			7%		
	3/4"		5%		6%		
	1"		4.5%		6%	6%	
4.	CONCRETE STRENG	THS SHAL	L CONFORM	I TO:	•		
	LOCATION	f'c AT 28 I	DAYS (PSI)	MAXIMUM PERM WATER-CEMEN		EXPOSURE CLASS	
	ALL FOUNDATION CONCRETE UON	4000		0.55		F2	
	SLABS-ON-GRADE UON	3000		0.55		F1	
	NORMAL-WEIGHT SLAB ON DECK	4000		0.55		F1	

REQUIRED NOMINAL MAXIMUM COARSE AGGREGATE SIZE (SMALLER NOMINAL MAXIMUM COARSE AGGREGATE SIZE SHALL BE USED WHERE REQUIRED PER ACI 318):						
CONCRETE ELEMEN	NT		UIRED NOMINAL M REGATE SIZE*	IAXIMUM COARSE		
ALL CONCRETE UO	N	1"				
TOPPING SLABS LES	SS THAN 3" THICK	3/8"				

- 6. ALL FOUNDATION ELEMENTS SHALL BE CENTERED UNDER WALLS, PIERS, OR COLUMNS UON. "ROUGH JOINTS" ARE JOINTS ROUGHENED TO AN AMPLITUDE OF 1/4" AND FREE AND CLEAN OF LAITANCE. PROVIDE ROUGH JOINTS AT ALL CONSTRUCTION JOINTS UON. 8. CONTRACTOR SHALL SUBMIT PROPOSED LOCATIONS OF ALL CONSTRUCTION JOINTS
- WHERE JOINTS ARE NOT INDICATED ON THE DRAWINGS. 9. CONSTRUCTION JOINTS IN CAST-IN-PLACE CONCRETE SHALL BE LOCATED WITHIN THE MIDDLE THIRD OF SPAN. PROPOSED CONSTRUCTION JOINT LOCATIONS SHALL BE SHOWN ON REINFORCING STEEL PLACING DRAWINGS. ANY STOP IN CONCRETE WORK MUST BE MADE WITH VERTICAL BULKHEADS AND HORIZONTAL KEYS UON. ALL REINFORCING TO BE CONTINUOUS THROUGH JOINTS UON.
- NOT PERMITTED EXCEPT WHERE SPECIFICALLY INDICATED ON THE STRUCTURAL DRAWINGS. 11. HORIZONTAL CONSTRUCTION JOINTS AND ALL OTHER HORIZONTAL JOINTS ABUTTING PREVIOUSLY CAST CONCRETE ELEMENTS SHALL BE ROUGH JOINTS UON. 12. CONSTRUCTION JOINTS IN SLAB ON DECK SHALL BE LOCATED AS FOLLOWS: a. JOINTS PERPENDICULAR TO THE DECK SPAN SHALL BE LOCATED MIDWAY BETWEEN

10. HORIZONTAL CONSTRUCTION JOINTS THROUGH CAST-IN-PLACE CONCRETE FRAMING ARE

- ADJACENT PARALLEL BEAMS b. JOINTS PARALLEL TO GIRDERS SHALL BE LOCATED 4 FEET AWAY FROM THE GIRDERS. c. JOINTS PERPENDICULAR TO GIRDERS SHALL BE LOCATED NO FARTHER THAN 'S'/2 FROM ONE END OF THE GIRDER WHERE 'S' IS THE DIMENSION BETWEEN ADJACENT BEAMS FRAMING TO THE GIRDER. 13. PROVIDE TEMPLATES TO SET ANY EMBEDDED ITEMS.
- 14. INSTALLATION OF ELECTRICAL CABLE, CONDUIT, AND PIPING IN OR THROUGH CONCRETI COLUMNS AND WALLS IS PROHIBITED UNLESS APPROVED BY THE STRUCTURAL ENGINEER PRIOR TO INSTALLATION. INSTALLATION OF PIPING IN CAST-IN-PLACE CONCRETE IS PROHIBITED UNLESS APPROVED BY STRUCTURAL ENGINEER PRIOR TO INSTALLATION. DRAWINGS SHALL BE SUBMITTED FOR REVIEW SHOWING PROPOSED PLACEMENT OF ELECTRICAL CABLE AND CONDUIT IN SLABS. THOSE DRAWINGS SHALL SHOW SIZES AND DIMENSIONED LOCATIONS OF ALL CABLE AND CONDUIT. 15. ELECTRICAL CABLE AND CONDUIT (HEREAFTER REFERRED TO AS CONDUIT) MAY BE INSTALLED IN SLABS ON DECK SUBJECT TO THE FOLLOWING CONSTRAINTS:
- a. CONDUIT SHALL BE NO LARGER THAN 1 1/2" MAXIMUM OUTSIDE DIAMETER. b. PARALLEL CONDUITS SHALL BE INSTALLED IN A SINGLE LAYER AND SHALL BE SPACED NO CLOSER THAN 3" c. CONDUIT RUNNING PERPENDICULAR OR SKEWED TO THE DECK SPAN MAY BE INSTALLED DIRECTLY ON TOP OF THE DECK. CONDUIT RUNNING PARALLEL TO THE
- DECK SPAN SHALL BE INSTALLED 1" CLEAR ABOVE THE TOP OF THE DECK. REQUIRED MINIMUM CLEAR COVER BETWEEN TOP OF SLAB AND TOP OF CONDUIT e. ONLY ONE LAYER OF CONDUIT MAY CROSS OVER ANOTHER LAYER OF CONDUIT AT ANY LOCATION.
- f. INSTALLATION OF CONDUIT ON TOP OF THE CONTINUOUS WELDED WIRE FABRIC SLAB REINFORCING STEEL IS NOT PERMITTED. g. LOCATIONS WHERE MULTIPLE CONDUITS EXIST VERTICALLY FROM THE SLAB SHALL BE FREATED AS A MULTIPLE SLAB OPENING AND ADDITIONAL REINFORCING STEEL SHALL BE PROVIDED AROUND THE EFFECTIVE SLAB OPENING AS REQUIRED.
- h. COORDINATED DRAWINGS SHALL BE SUBMITTED FOR REVIEW SHOWING THE PROPOSED LOCATIONS OF ALL SLAB-EMBEDDED ELECTRICAL CONDUIT. THESE DRAWINGS SHALL SHOW "DRAWN TO SCALE" CONDUIT RUNS, LOCATIONS, AND DIMENSIONS WHERE GROUPED CONDUITS EXIT THE SLABS ALONG WITH LOCATIONS AND DIMENSIONS OF SLAB-EMBEDDED ELECTRICAL BOXES. i. INSTALLATION OF CONDUIT IN PARKING LEVEL SLABS AND SLABS EXPOSED TO
- WEATHER IS NOT PERMITTED. 16. PROVIDE CONTINUOUS BENTONITE WATERSTOPS IN ALL CONSTRUCTION JOINTS IN BELOW GRADE CONCRETE CONSTRUCTION. COORDINATE WATERSTOPS WITH ARCHITECTURAL DRAWINGS. 17. PROJECTING CORNERS OF BEAMS, WALLS, COLUMNS, ETC, SHALL BE FORMED WITH A 3/4" CHAMFER UNLESS NOTED ON ARCHITECTURAL DRAWINGS.
- 18. SLOPE SLABS TO DRAINS, SEE ARCHITECTURAL AND MEP DRAWINGS FOR DRAIN LOCATIONS AND SLOPE REQUIREMENTS, SLAB THICKNESSES SHOWN ON DRAWINGS ARE MINIMUMS. 19. NO LOADS SHALL BE PLACED ON STRUCTURAL CONCRETE SLABS ON DECK WITHIN 7 DAYS AFTER CONCRETE IS PLACED.
- 20. AFTER CONCRETE IS PLACED, IN NO CASE SHALL THE SUPERIMPOSED CONSTRUCTION LOADS BE GREATER THAN SPECIFIED DESIGN LIVE LOADS UNLESS THE WORK IS SHORED. 21. NOTIFY THE ARCHITECT 48 HOURS MINIMUM PRIOR TO ALL POURS. 22. CONTRACTOR SHALL SURVEY ALL CONCRETE WORK WITHIN 48 HOURS OF PLACING

CONCRETE TO ENSURE PLACEMENT IS IN ACCORDANCE WITH PROJECT REQUIREMENTS.

- 23. ALL FORMWORK, SHORING, AND RESHORING SHALL BE DESIGNED BY AN ENGINEER LICENSED IN THE PROJECT'S JURISDICTION. ALL SUBMISSIONS SHALL BE SIGNED AND SEALED. 24. CONCRETE FILL THICKNESS SHOWN ON FRAMING PLANS AND DETAIL SHEETS IS MINIMUM THICKNESS. PROVIDE ALLOWANCES FOR ADDITIONAL CONCRETE FILL REQUIRED TO
- COMPENSATE FOR BEAM OR DECK DEFLECTIONS AND TO MAINTAIN SURFACE TOLERANCES SPECIFIED. 25. PROVIDE SELF-LEVELING UNDERLAYMENT AT ELEVATED CONCRETE SLABS AND SLABS ON DECK AS REQUIRED TO MEET FLOOR FLATNESS AND LEVELNESS REQUIREMENTS. 26. CORING OF CONCRETE IS NOT PERMITTED UNLESS APPROVED BY THE STRUCTURAL
- ENGINEER. SUBMIT LOCATIONS AND SIZES OF ANY PROPOSED CONCRETE CORES. 7. REINFORCING STEEL SHALL NOT BE DAMAGED WHEN DRILLING CONCRETE. 28. ADHERE TO ACI 305R AND ACI 306R FOR HOT AND COLD WEATHER CONCRETE CONSTRUCTION. 29. DRYPACK AND GROUT SHALL HAVE A MINIMUM 28-DAY STRENGTH OF 7000 PSI 30. THE PROPOSED MATERIALS AND MIX DESIGN SHALL BE FULLY DOCUMENTED AND
- REVIEWED BY THE TESTING AND INSPECTION AGENCY. RESPONSIBILITY FOR OBTAINING THE REQUIRED DESIGN STRENGTH IS THE CONTRACTOR'S. SUBMIT TEST DATA ON EACH PROPOSED MIX FOR REVIEW IN ACCORDANCE WITH THE APPLICABLE CODE. MIX DESIGNS SUBMITTED WITHOUT THE REQUIRED TEST DATA WILL BE RETURNED WITHOUT REVIEW. 31. CONTRACTOR SHALL SUBMIT A SINGLE DIMENSIONED AND COORDINATED DRAWING FOR
- EACH LEVEL SHOWING THE LOCATIONS OF THE FOLLOWING: a. SLAB OPENINGS AND PENETRATIONS b. SLEEVES, CAST-IN-PLACE AND POST-INSTALLED FIELD CORED c. SLAB-EMBEDDED ELECTRICAL CABLE AND CONDUIT d. EMBEDDED PLATES AND ALL OTHER EMBEDDED ITEMS
- 32. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS, LOCATIONS, AND DETAILS OF ALL ARCHITECTURAL FEATURES IN THE CONCRETE. SEE ARCHITECTURAL DRAWINGS AND PROJECT SPECIFICATIONS FOR REQUIREMENTS FOR ALL CONCRETE FINISHES.

ARCHITECTURE: **DEMONICA KEMPER** ARCHITECTS 125 N. HALSTED ST., SUITE 301

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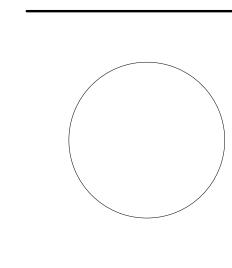
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CONSTRUCTION MANAGER

RINGLAND JOHNSON 1725 HUNTWOOD DR. CHERRY **VALLEY. IL 61016** 815.332.8600



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SHEET NAME

STRUCTURAL SHEET INDEX

GENERAL NOTES

LIVE LOAD PLAN

FOUNDATION PLAN

ROOF FRAMING PLAN

CONCRETE DETAILS

CONCRETE DETAILS

CONCRETE DETAILS

CATHALLIAN MASHINES THEY AND SUCCESSION OF THE S

GRAND TOTAL: 19

PRELIMINARY

STEEL FLOOR FRAMING DETAILS

STEEL FLOOR FRAMING DETAILS

STEEL FLOOR FRAMING DETAILS

STEEL ROOF FRAMING DETAILS

STEEL ROOF FRAMING DETAILS

STEEL ROOF FRAMING DETAILS

ELEVATIONS AND SECTIONS

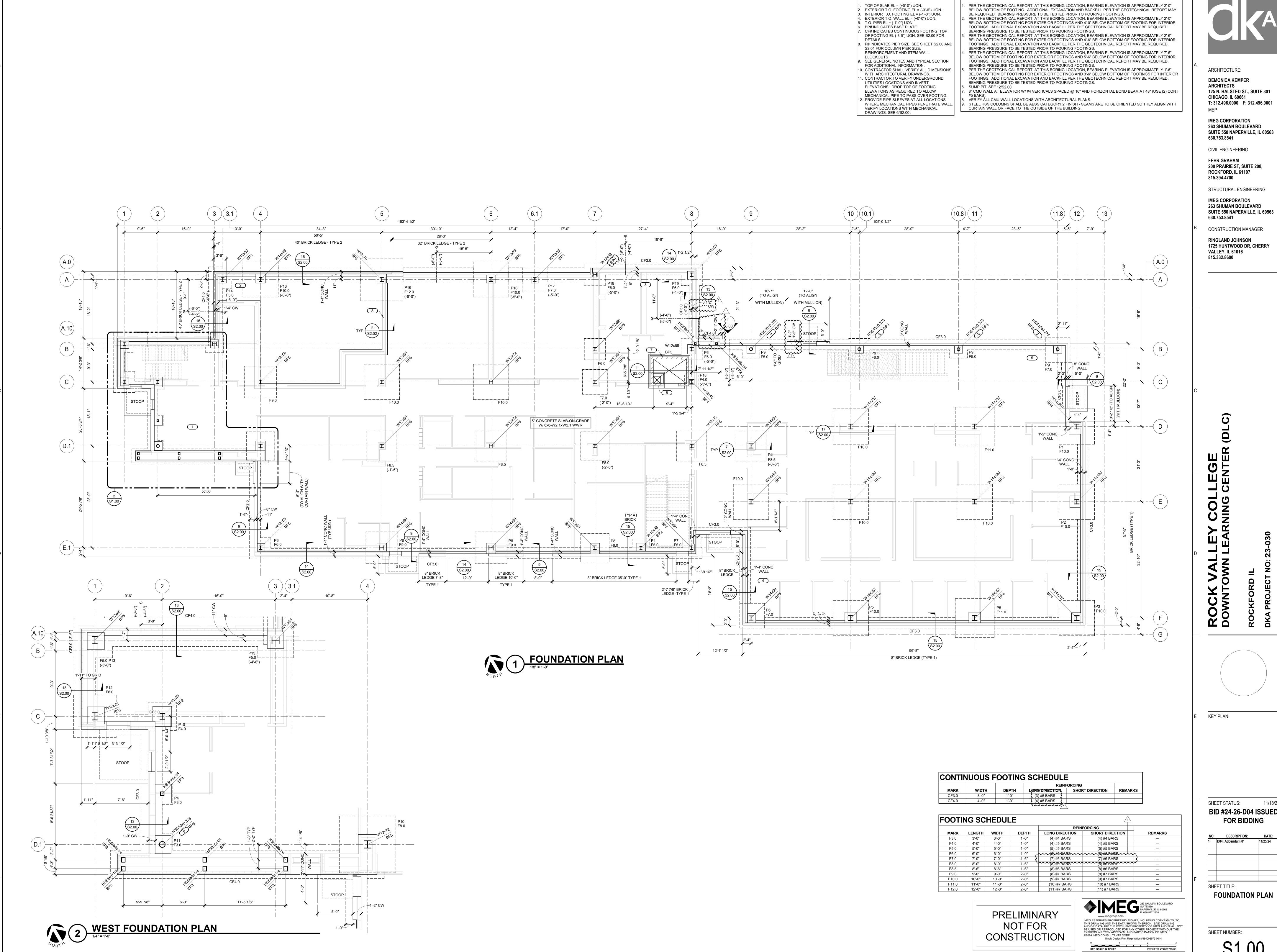
LEVEL 02 FRAMING PLAN

SPECIAL INSPECTIONS AND TESTING

SNOW DRIFT PLAN. SYMBOLS AND ABBREVIATIONS

<u>----</u>

SHEET TITLE: **GENERAL NOTES** SHEET NUMBER:



KEYNOTES: #

GENERAL FOUNDATION SHEET NOTES:

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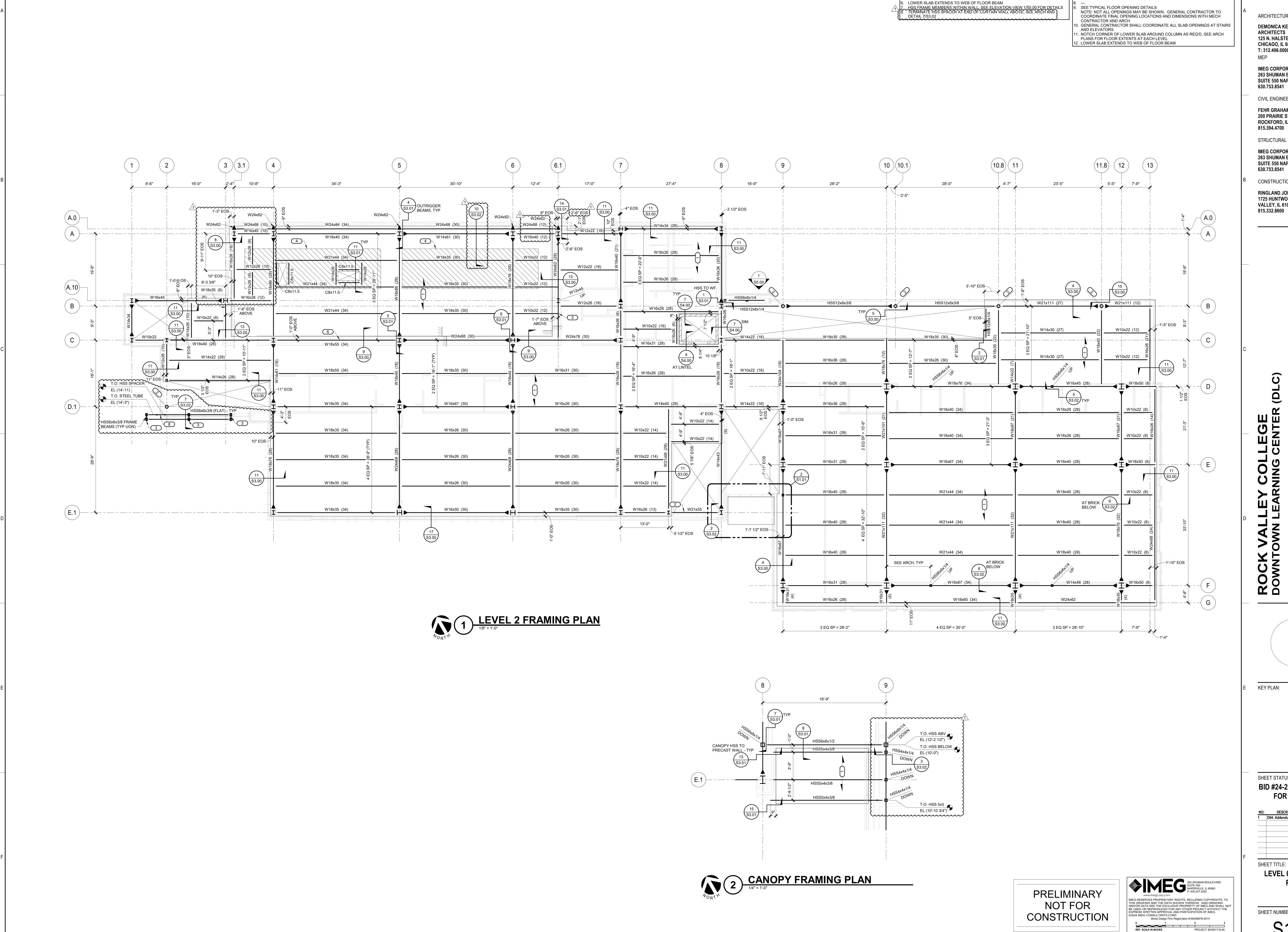
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FOUNDATION PLAN



GENERAL CONCRETE SHEET NOTES:

TOP OF SLAB EL = (+15'-0") UON TOP OF STEEL EL = (+14'-6 1/2") UON

LOWER ROOF (MECHANICAL AREA) TOP OF SLAB EL = (+13'-10") UON

FLOOR (AND LOWER ROOF MECHANICAL AREA) SLAB SHALL BE 3-1/2" NW

CONCRÈTE ON 2" (20 GA) VLI COMPOSITE STEEL DECK (5 1/2" TOTAL), 2 SPAN MIN, WITH 6x6-W1.4xW1.4 WWR. SEE DETAIL 3/S3.00 FOR MORE INFORMATION. CANOPY ROOF DECK SHALL CONSIST OF 1-1/2" (20 GA) STEEL ROOF DECK

(VULCRAFT 1.5B20-36 OR APPROVED SUBSTITUTE), (2) SPAN (MIN). PROVIDE 36/4 FASTENING WITH 5/8"Ø PUDDLE WELDS AND (2) #10 SIDELAP SCREWS.

BEAMS NOT INDICATING A NUMBER OF REQUIRED SHEAR STUDS SHALL HAVE STUDS PLACED ALONG BEAMS AT A MAXIMUM SPACING OF 1'-0". PROVIDE 3/4"

LOWER ROOF TOP OF STEEL EL= (+13'-4-1/2") UON

DIA x 4-1/2" HSA UNLESS NOTED OTHERWISE

KEYNOTES: #

INDICATES DIRECTION OF DECK SPAN, SEE FRAMING NOTES FOR DECK

STEEL HSS COLUMNS SHALL BE AESS CATEGORY 2 FINISH - SEAMS ARE TO BE

BUILDING.
3. ÁDDÍTÍONÁL HSS 6x6x3/8 BRACE BETWEEN COLUMNS (SHORT SPAN) ALIGNED AT

PLANS. THE COMBINED WEIGHT OF ROOFTOP UNIT, CURB AND ALL CATWALKS

AND PLENUMS SHALL NOT EXCEED 35 KIPS. COORDINATE FINAL UNIT AND DUCT

NOTCH CORNER OF LOWER SLAB AROUND COLUMN AS REQ'D, SEE ARCH PLANS FOR FLOOR EXTENTS AT EACH LEVEL AND DETAIL 12/S3.00 FOR DECK SUPPORT

OR SHAFT LOCATIONS WITH MECHANICAL CONTRACTOR.

ORIENTED SO THEY ALIGN WITH CURTAIN WALL OR FACE TO THE OUTSIDE OF TH

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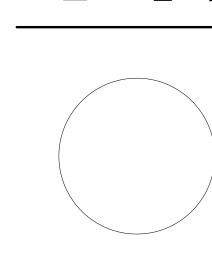
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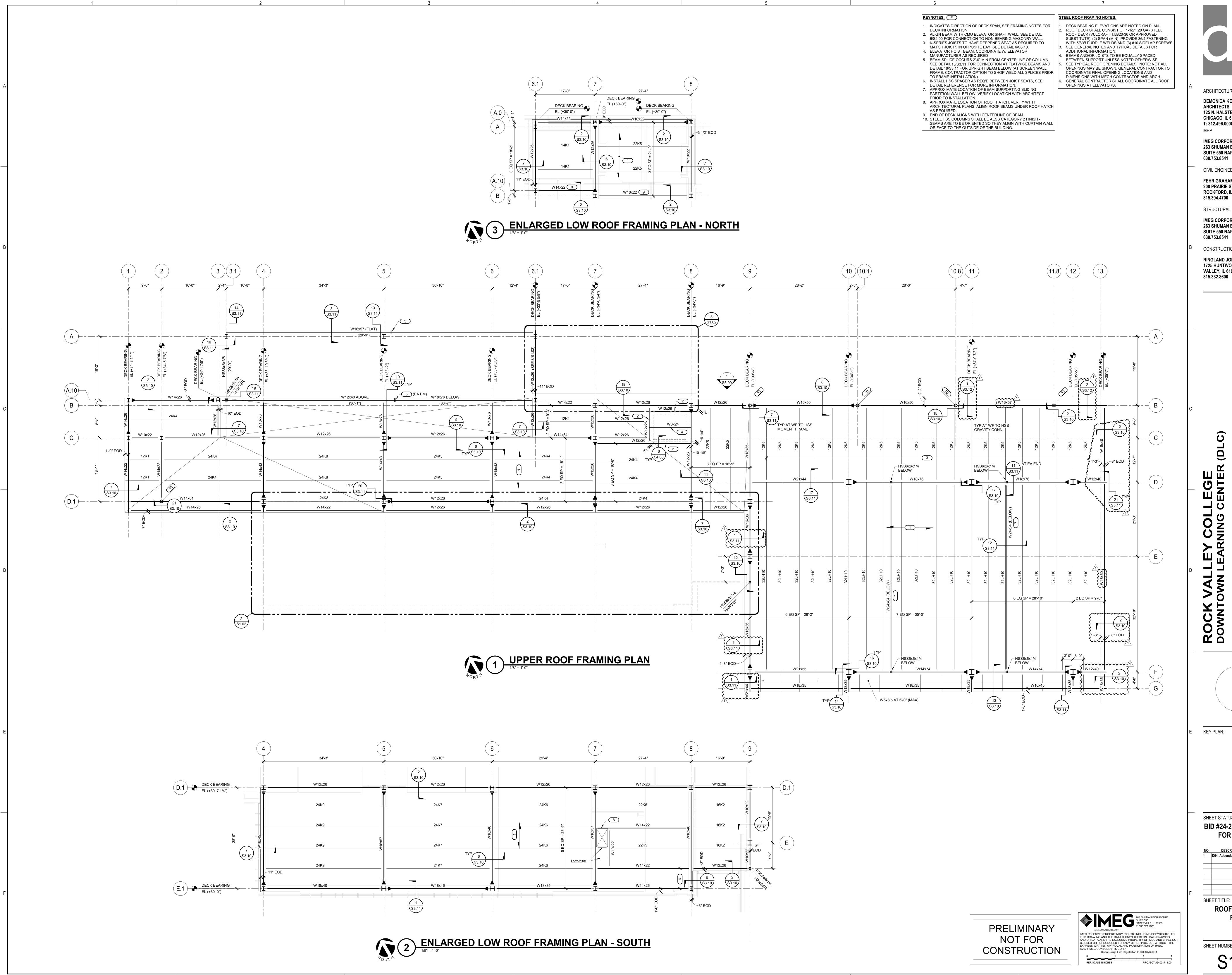
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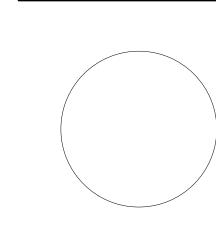
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KEY PLAN:

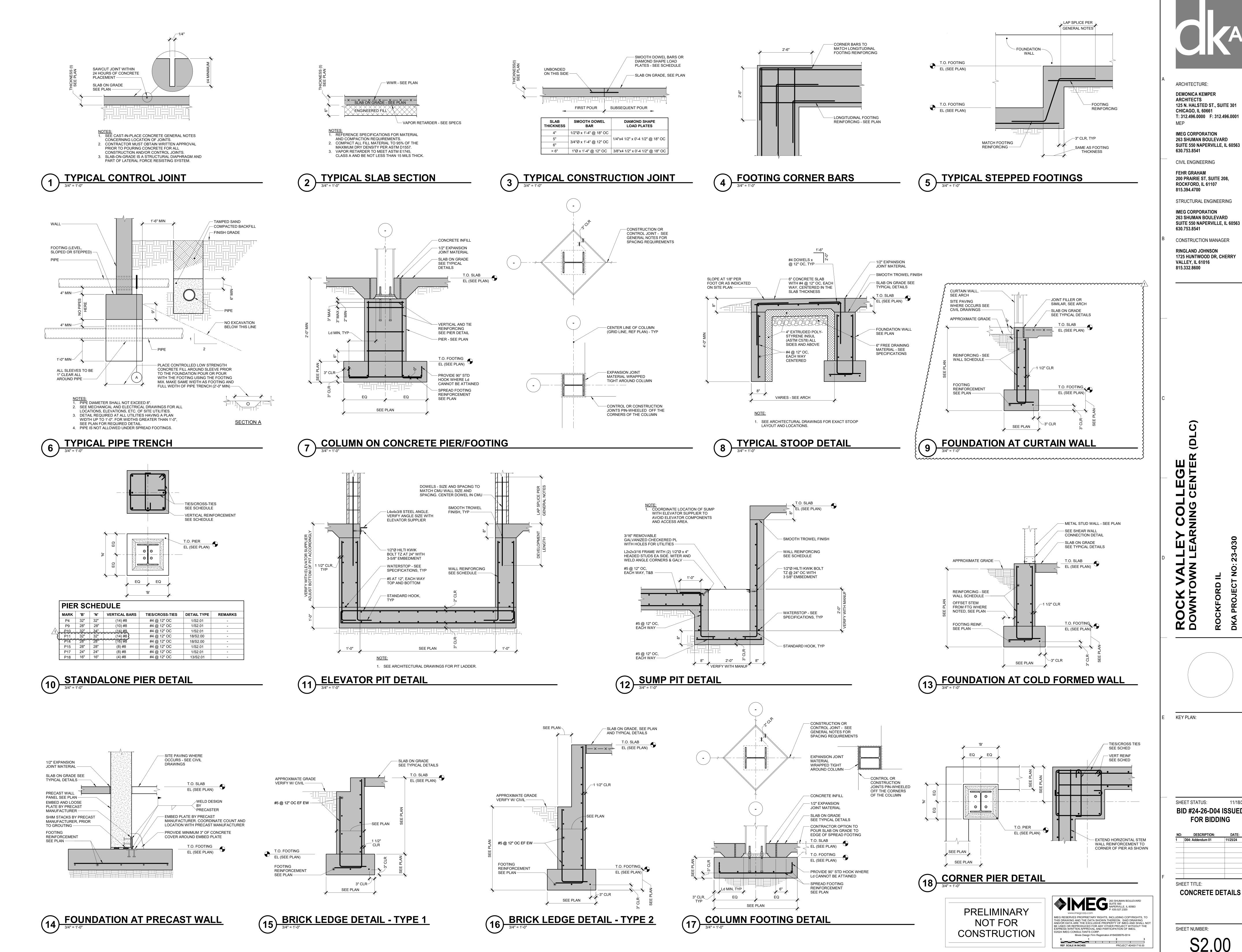
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ROOF FRAMING PLAN

SHEET NUMBER:

S1.02



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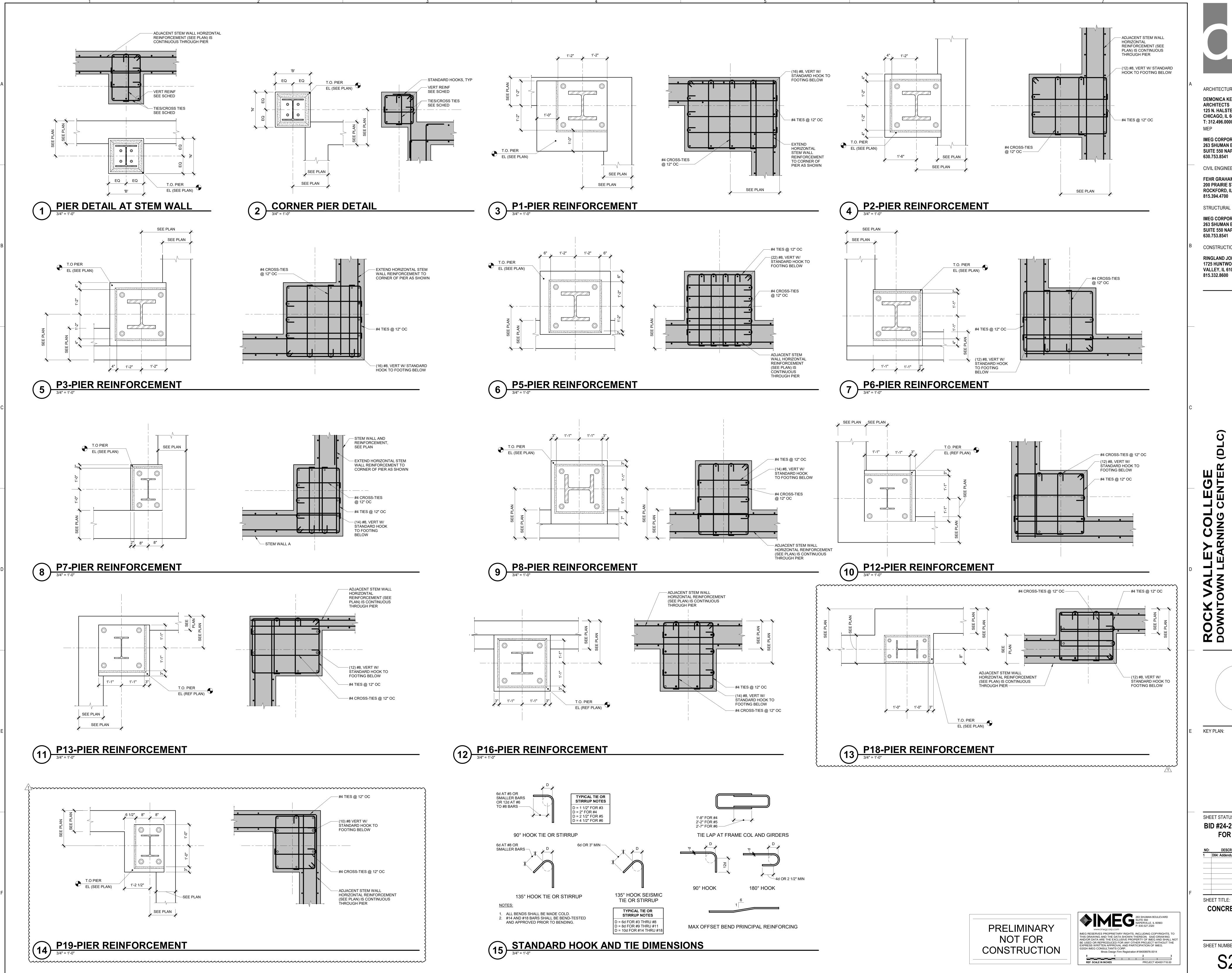
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DESCRIPTION: SHEET TITLE:

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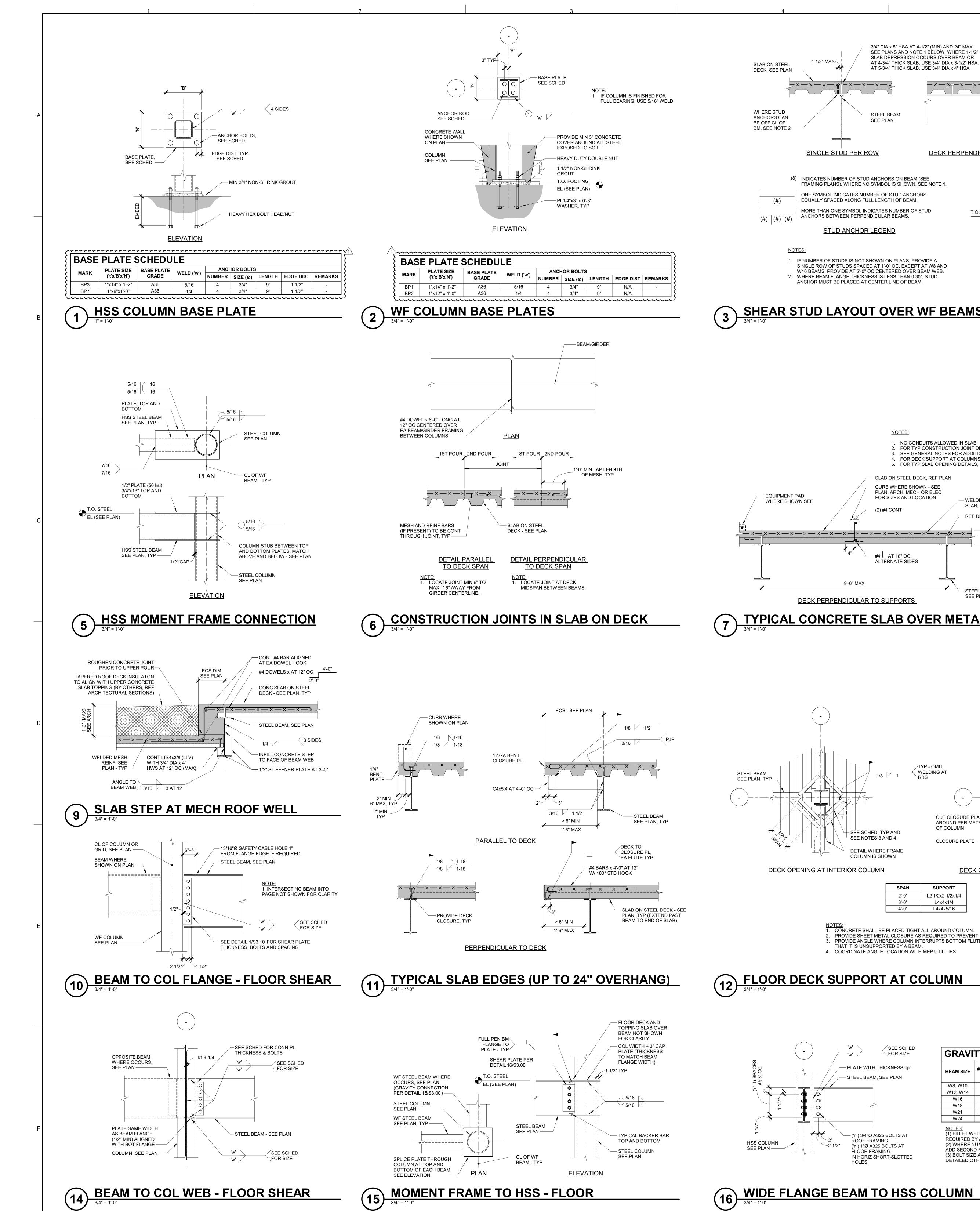
CONSTRUCTION MANAGER

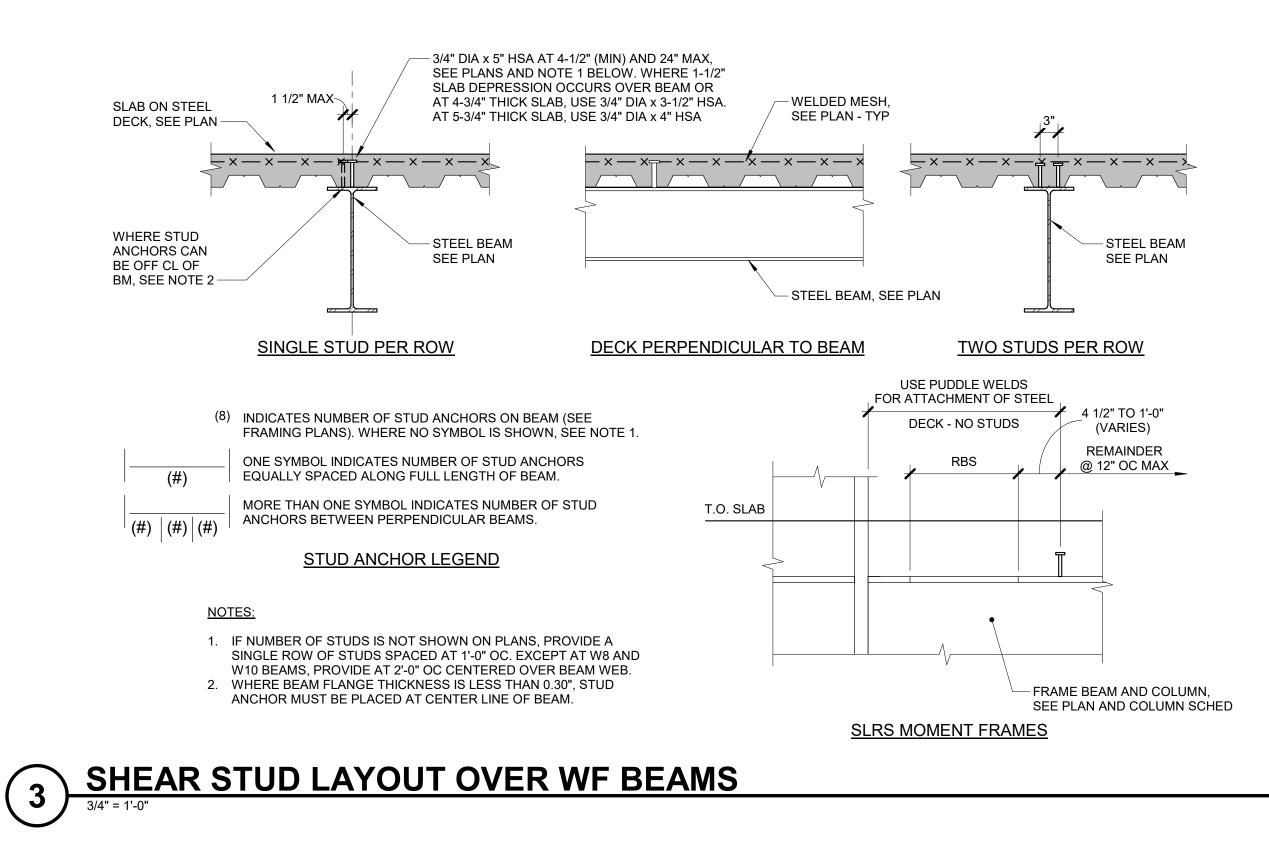
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SHEET TITLE:

CONCRETE DETAILS





SEE SCHED

W12, W14

FOR SIZE

— PLATE WITH THICKNESS 'tpl'

- ('n') 3/4"Ø A325 BOLTS AT

('n') 1"Ø A325 BOLTS AT

IN HORIZ SHORT-SLOTTED

ROOF FRAMING

FLOOR FRAMING

- STEEL BEAM, SEE PLAN

GRAVITY BEAM CONNECTION SCHEDULE

NOTES: (1) FILLET WELD SIZE, 'w', SHALL BE AS SHOWN UNLESS A LARGER SIZE IS

(2) WHERE NUMBER OF BOLTS NOTED IN SCHED CANNOT BE IN A SINGLE ROW,

(3) BOLT SIZE AND QUANTITY SHALL BE TYPICAL FOR ALL CONDITIONS UNLESS

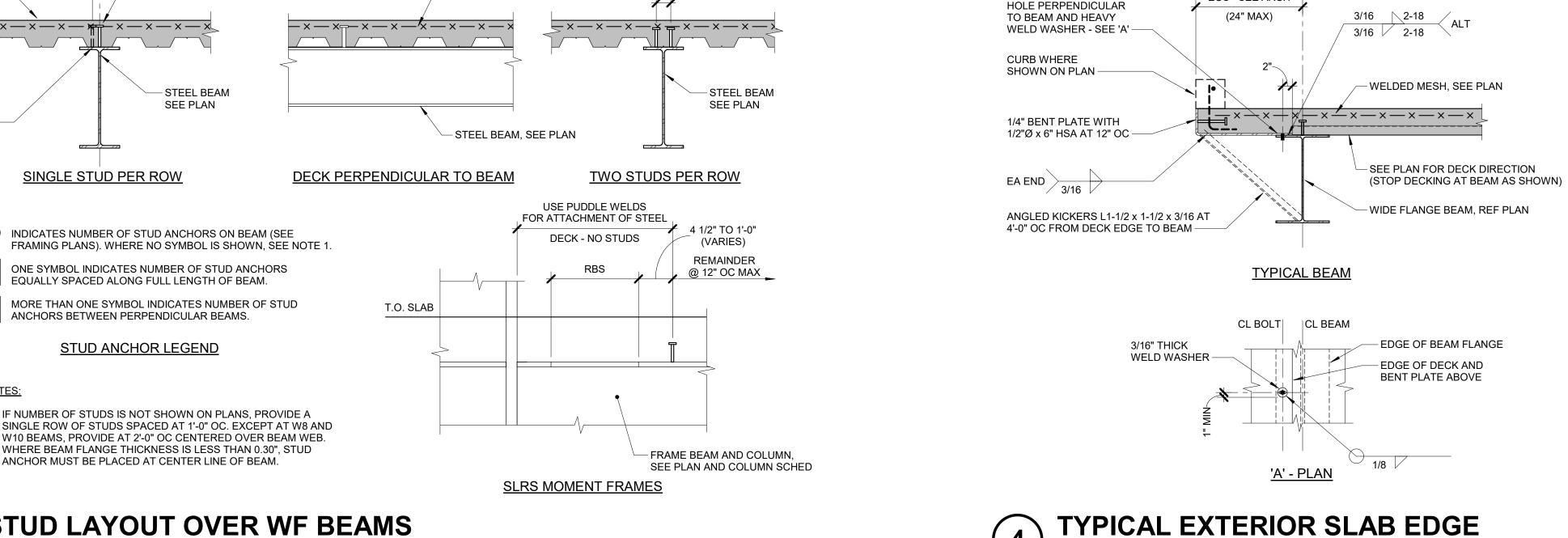
REQUIRED BY AISC STEEL CONSTRUCTION MANUAL, TABLE J2.4.

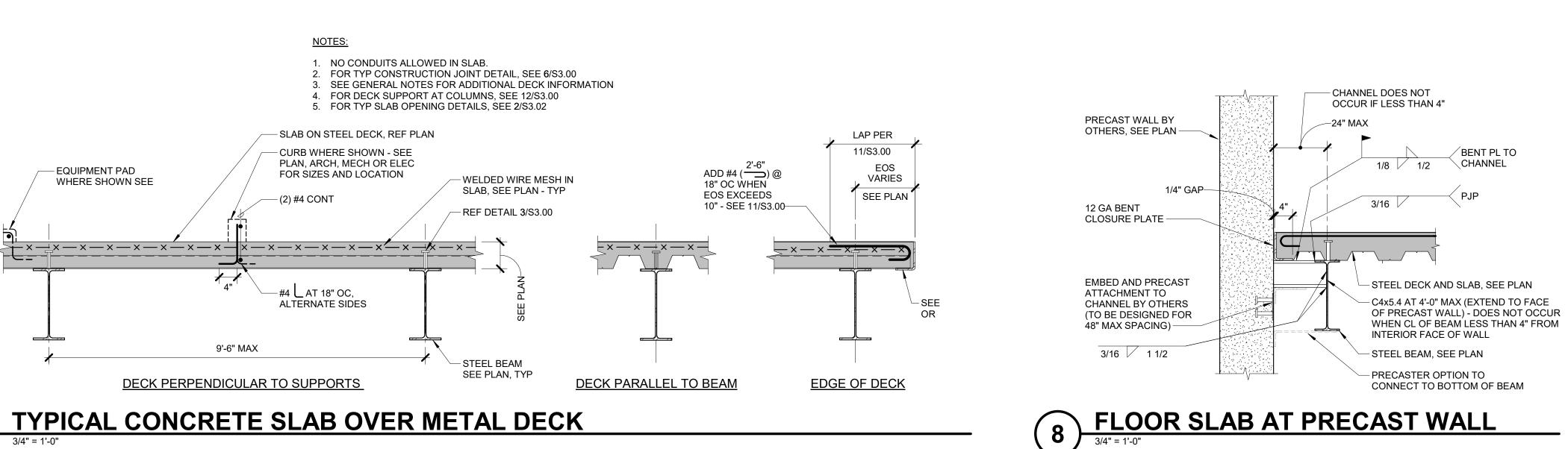
ADD SECOND ROW WITH TWO BOLTS MINIMUM.

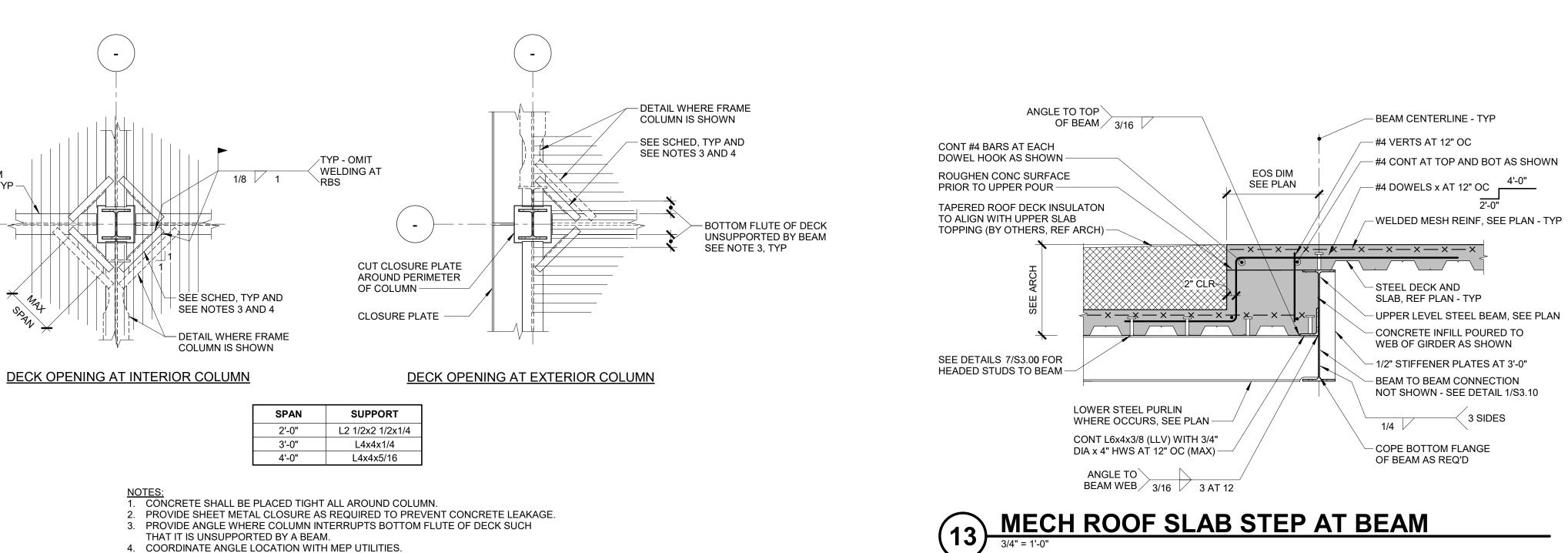
1"Ø BOLTS

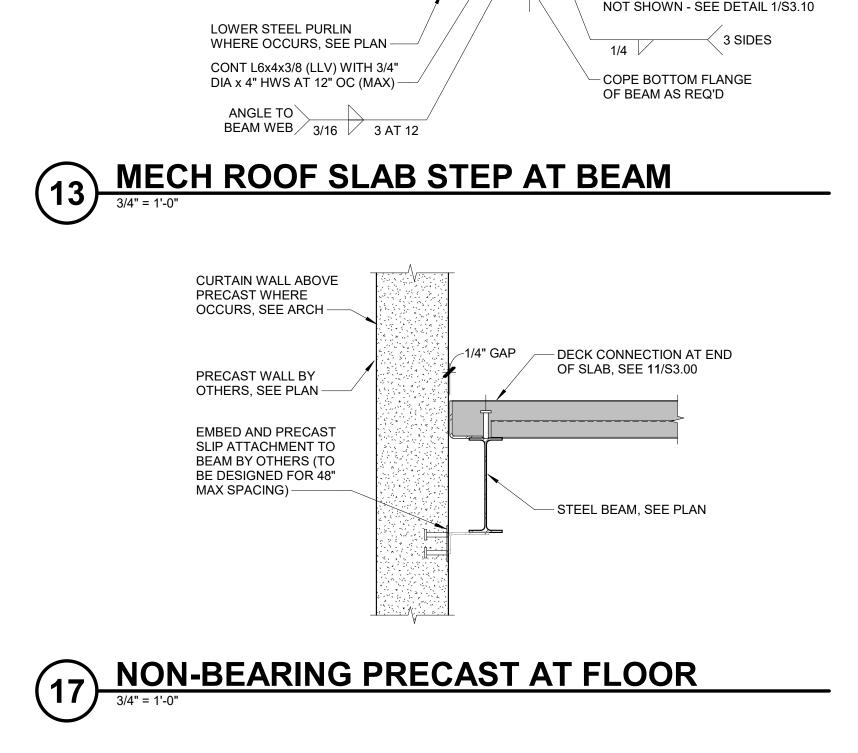
PL THICK PL WELD (1

5/16"









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NOT FOR

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REF. SCALE IN INCHES PROJECT #24001718.00

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CL BEAM BELOW

ARCHITECTURE:

ARCHITECTS

630.753.8541

MEP

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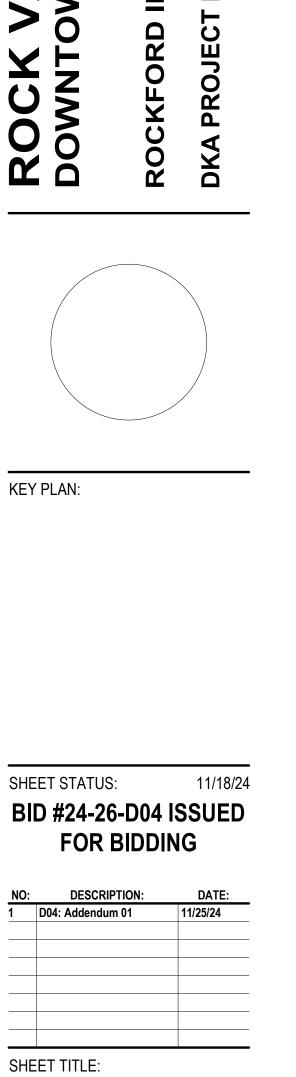
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EOS - SEE ARCH

3/4"Ø A325 BOLT AT 48" IN

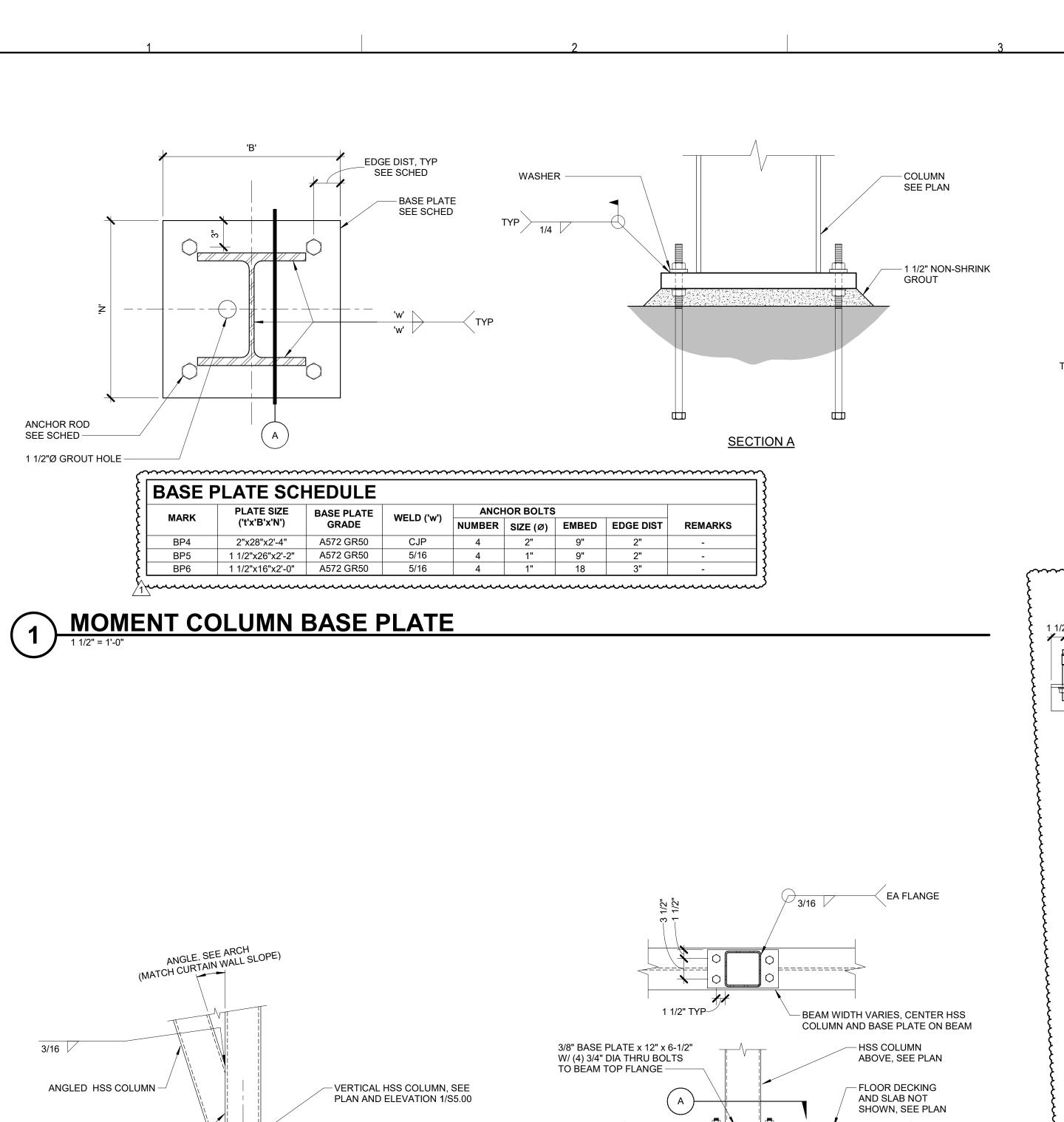
13/16" x 2-1/4" SLOTTED



SHEET NUMBER:

STEEL FLOOR

FRAMING DETAILS



FLOOR BEAM, SEE PLAN —

- 1/4" WEB STIFFENER PLATE EACH SIDE OF BEAM

3/16 2"

✓ EA FLANGE

SEE PLAN

- 1/4" WEB STIFFENER PLATE

EACH SIDE OF BEAM

- FLOOR DECKING

AND SLAB NOT

SHOWN, SEE PLAN

- STEEL COLUMN ABOVE,

5 HSS COLUMN OVER FLOOR BEAM

3/16 6"

3/8" BASE PLATE x (COL

DEPTH + 6") x 8-1/2" W/

(4) 3/4" DIA THRU BOLTS

FLOOR BEAM, SEE PLAN -

9 WF COLUMN TO FLOOR BEAM

3/4" = 1'-0"

- SEE DETAIL 1/S3.00 FOR

1/4

4 HSS COLUMN AT WALL FRAME

(3) SIDES 3/16

SIDES 3/16

T.O. STEEL (TYP)
EL (SEE PLAN)

CENTER BEAM ON COLUMN —

HSS COLUMN,

ANGLE TO

COLUMN, (3)

8 HSS BEAM TO COLUMN
1 1/2" = 1'-0"

L2x2x1/4 x 4-1/2" ERECTION

ANGLES TOP AND BOT OF

BEAM, INSTALL BOT ANGLE

PRIOR TO FRAMING ———

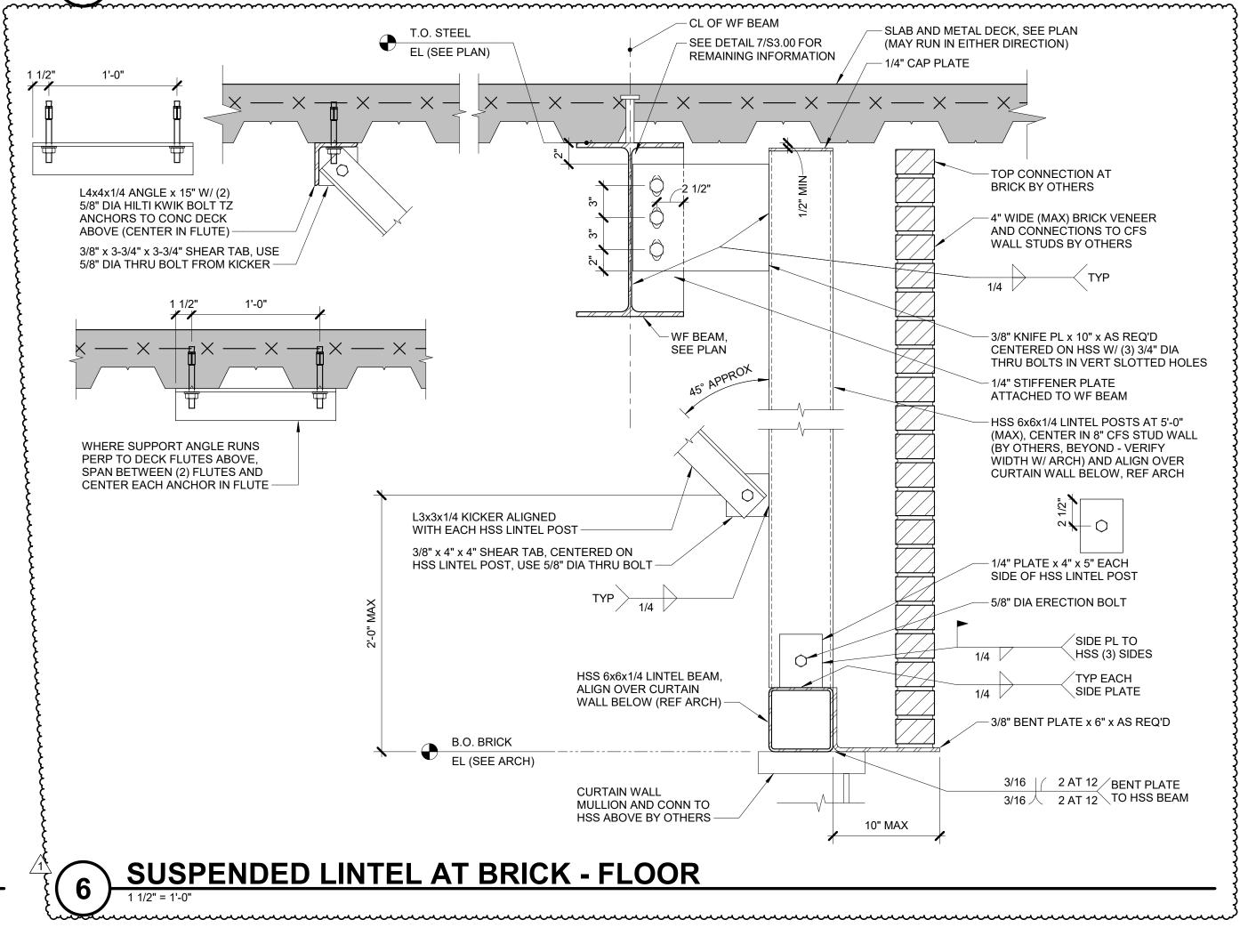
FLAT HSS BRACING

BEYOND, SEE PLAN -

PRECAST PANEL

ANGLE TO COLUMN, (4) SIDES 3/16

BASE PLATE INFORMATION



PRECAST WALL BEYOND -

- HSS7x3x3/8 POST ALIGNED

AT EACH CENTILEVER HSS -

INFILL WALL BETWEEN HSS

- NON-STRUCTURAL CFS

BY OTHERS (AS REQ'D) —

- HSS7x4x3/8 CURTAIN WALL

ARCH (4'-0" MAX LENGTH) -

SUPPORT BEAM, REF

CURTAIN WALL BY

ABOVE AND BELOW

OTHERS, TYP

INTERIOR BEAM BOX

CONNECTIONS —

WF BEAM, SEE PLAN -

SUPPORTS ALIGNED

SEGMENT EACH SIDE —

REF ARCH (24" MAX)

CURTAIN WALL SUPPORT AT STAIRS

AT EXTERIOR FACE

OF CURTAIN WALL

1/4

HSS3x3x3/8

CANTILEVERED

OUT BY OTHERS, SEE

ARCH FOR SHAPE AND

SEE ARCH

— CURTAIN WALL ABOVE

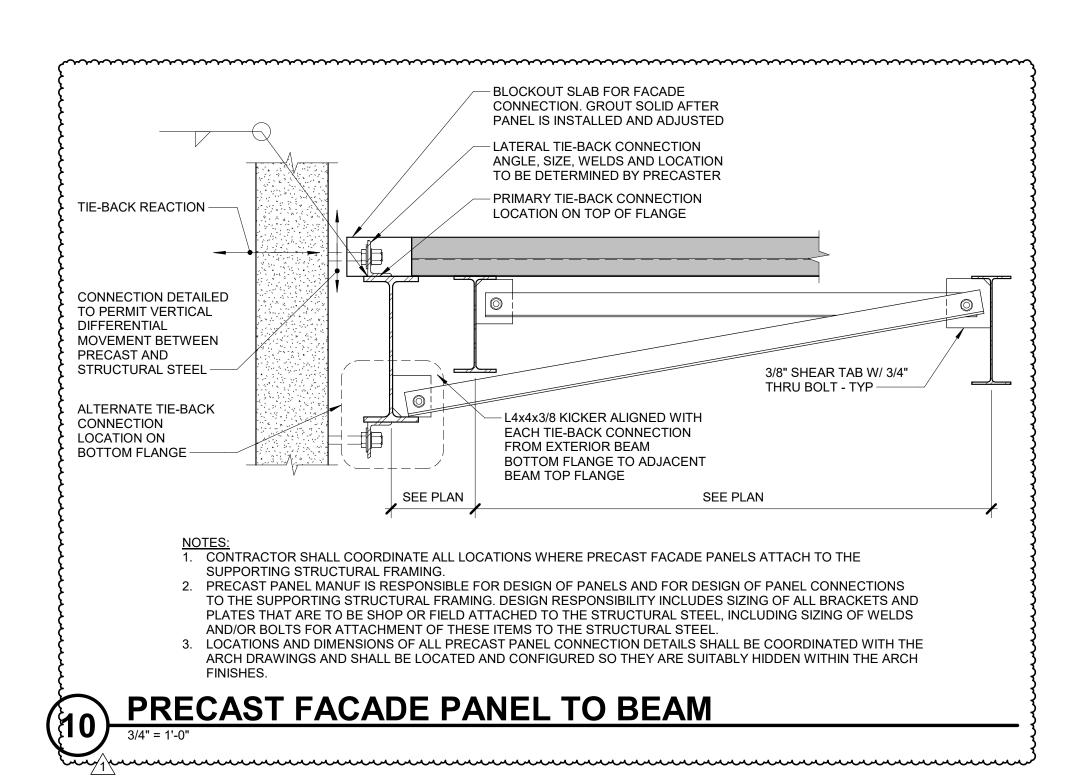
ELEVATION 'A'

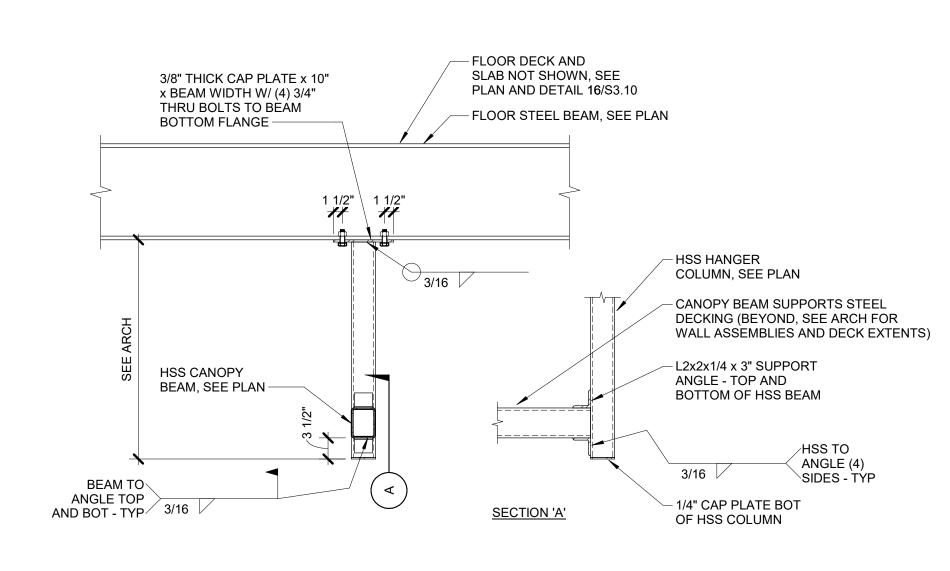
AND BELOW HSS FRAME

- CONNECTION FROM HSS7x4

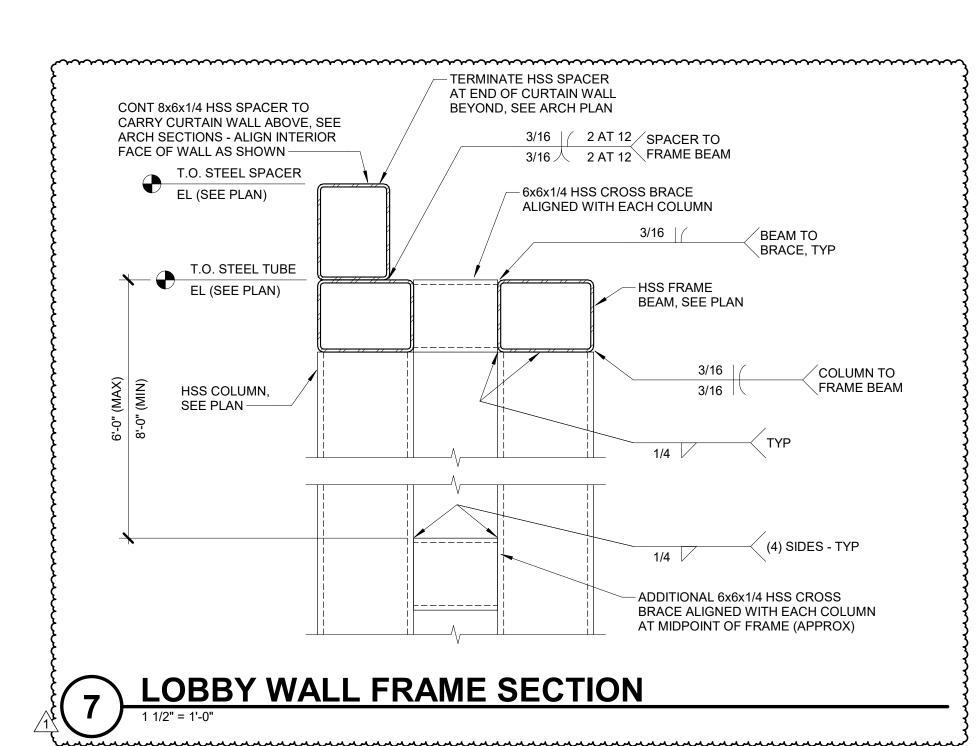
DESIGNED BY OTHERS, TYP

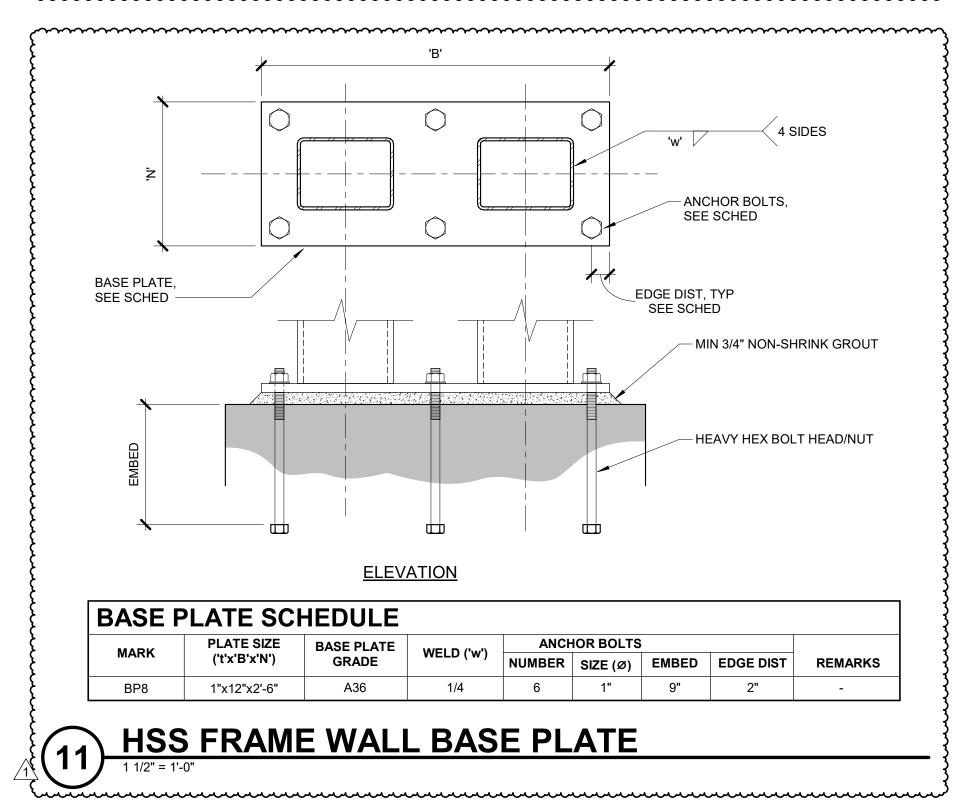
BEAM TO PRECAST WALL



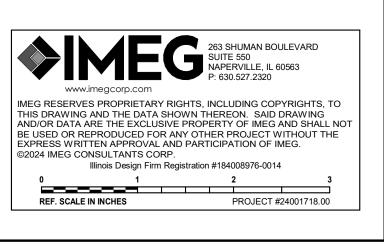


3 HSS HANGER COL AT CANOPY





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CONSTRUCTION



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ROCK VALLEY COLLEGE
DOWNTOWN LEARNING CENTER (DLC)

SHEET STATUS: 11/18/24
BID #24-26-D04 ISSUED

KEY PLAN:

NO: DESCRIPTION: DATE:

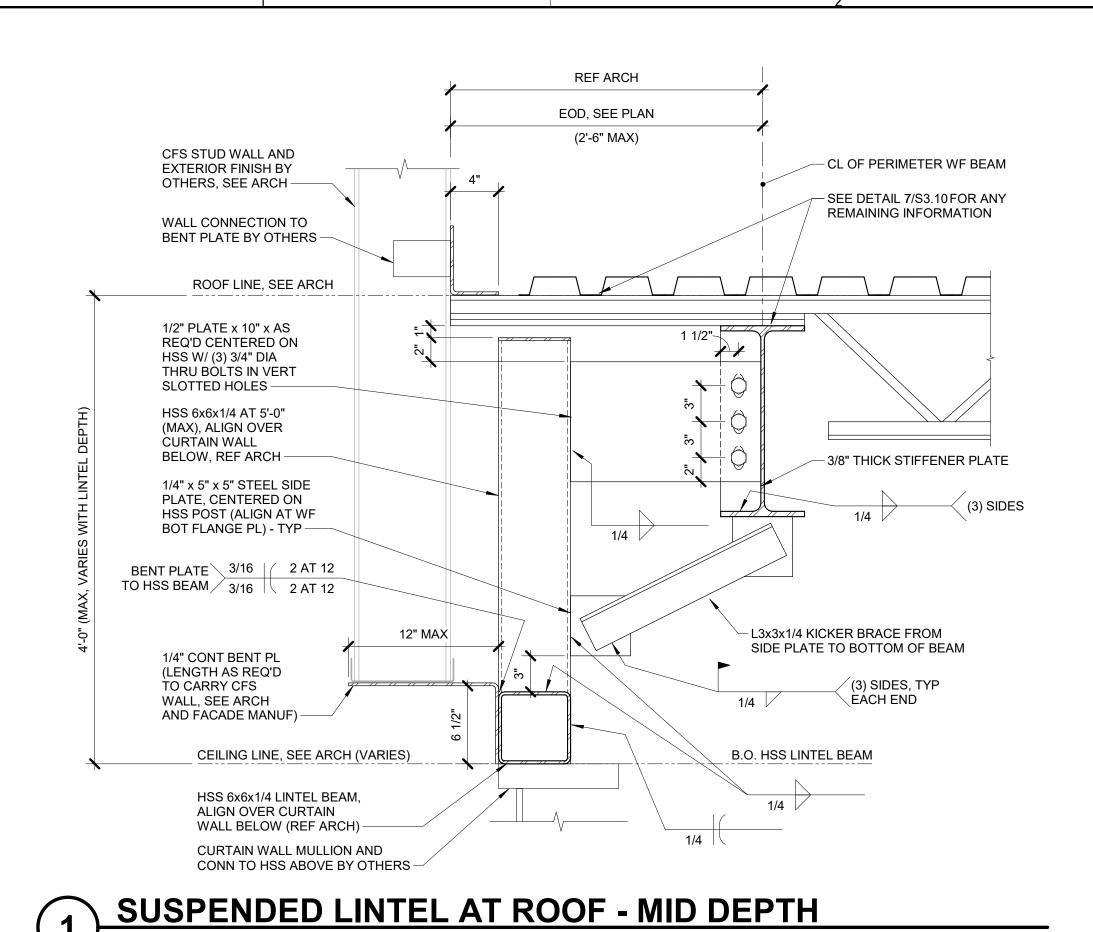
1 D04: Addendum 01 11/25/24

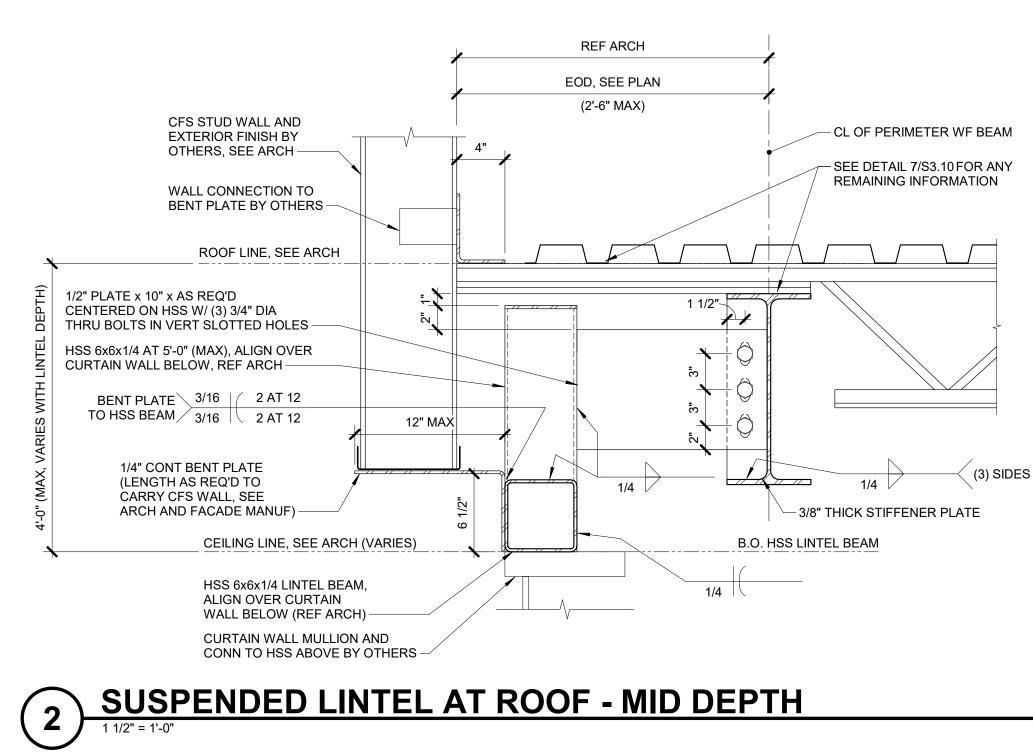
SHEET TITLE:

STEEL FLOOR
FRAMING DETAILS

SHEET NUMBER:

S3.02





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SHEET STATUS:

SHEET TITLE:

SHEET NUMBER:

STEEL ROOF

FRAMING DETAILS

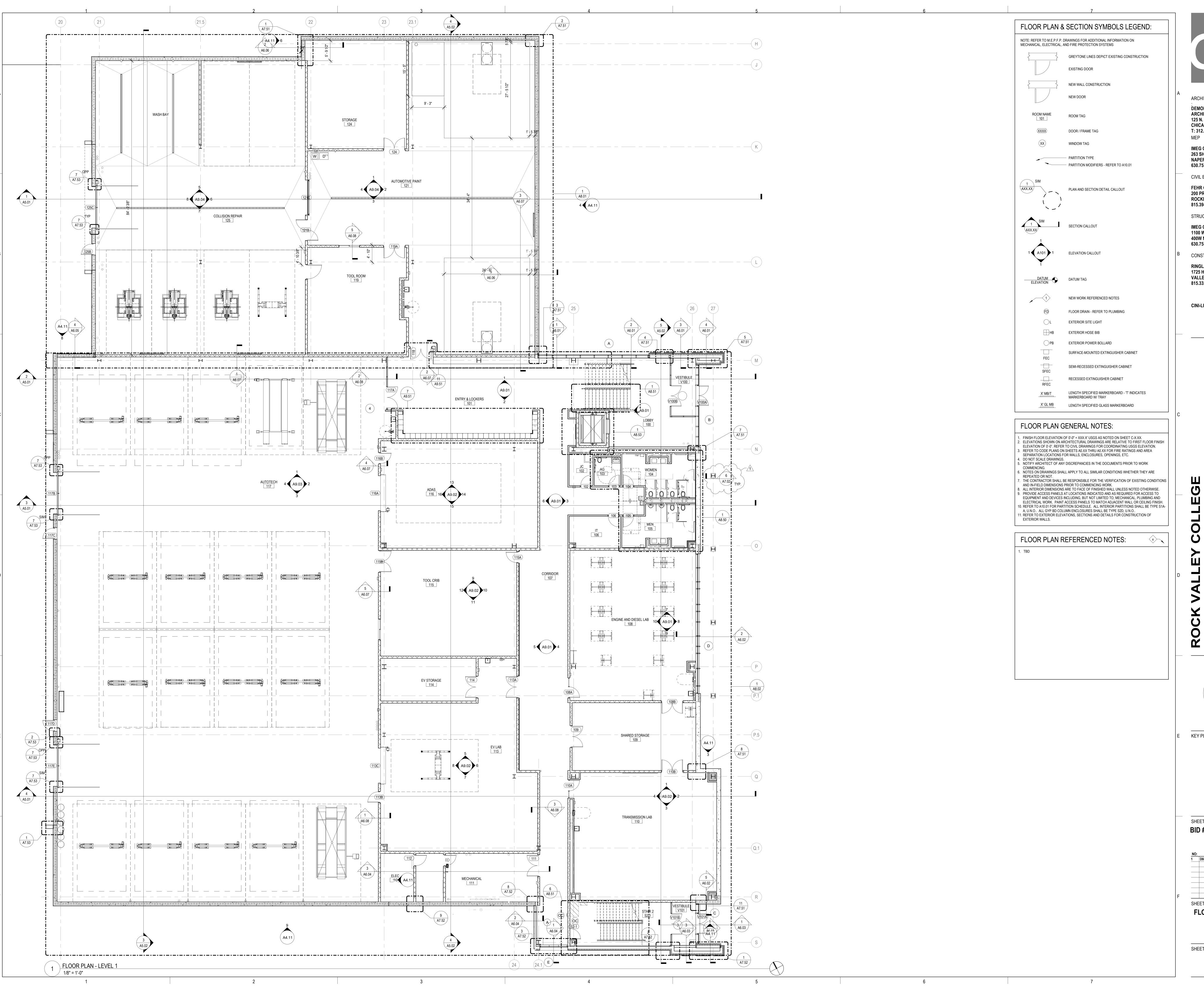
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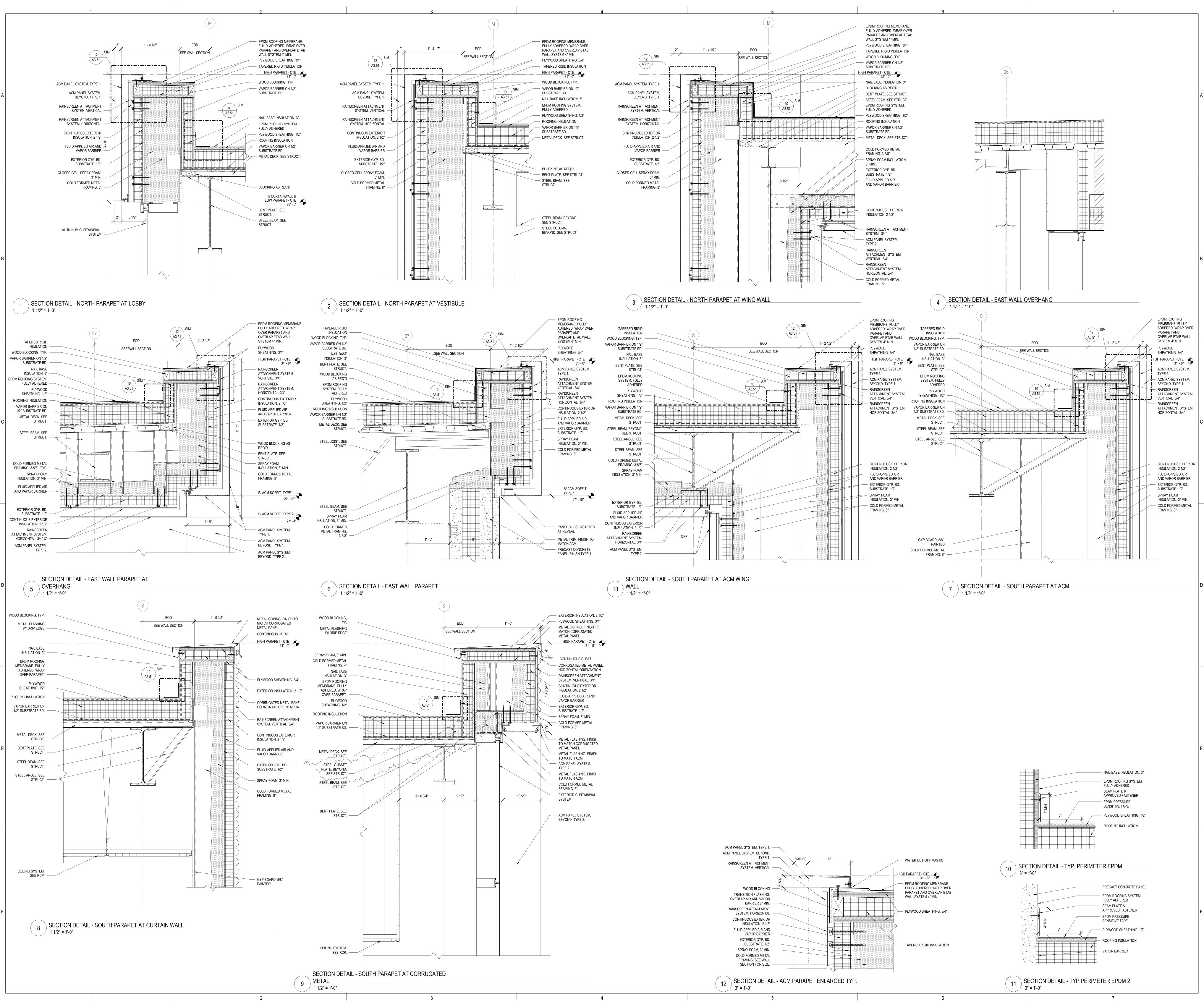
CONSTRUCTION MANAGER RINGLAND JOHNSON

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CINI-LITTLE INTERNATIONAL

SHEET TITLE:

FLOOR PLAN - LEVEL





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CINI-LITTLE INTERNATIONAL

ALLEY COLLEGE VN TRAINING CENTER (DTC) TREET

KEY PLAN:

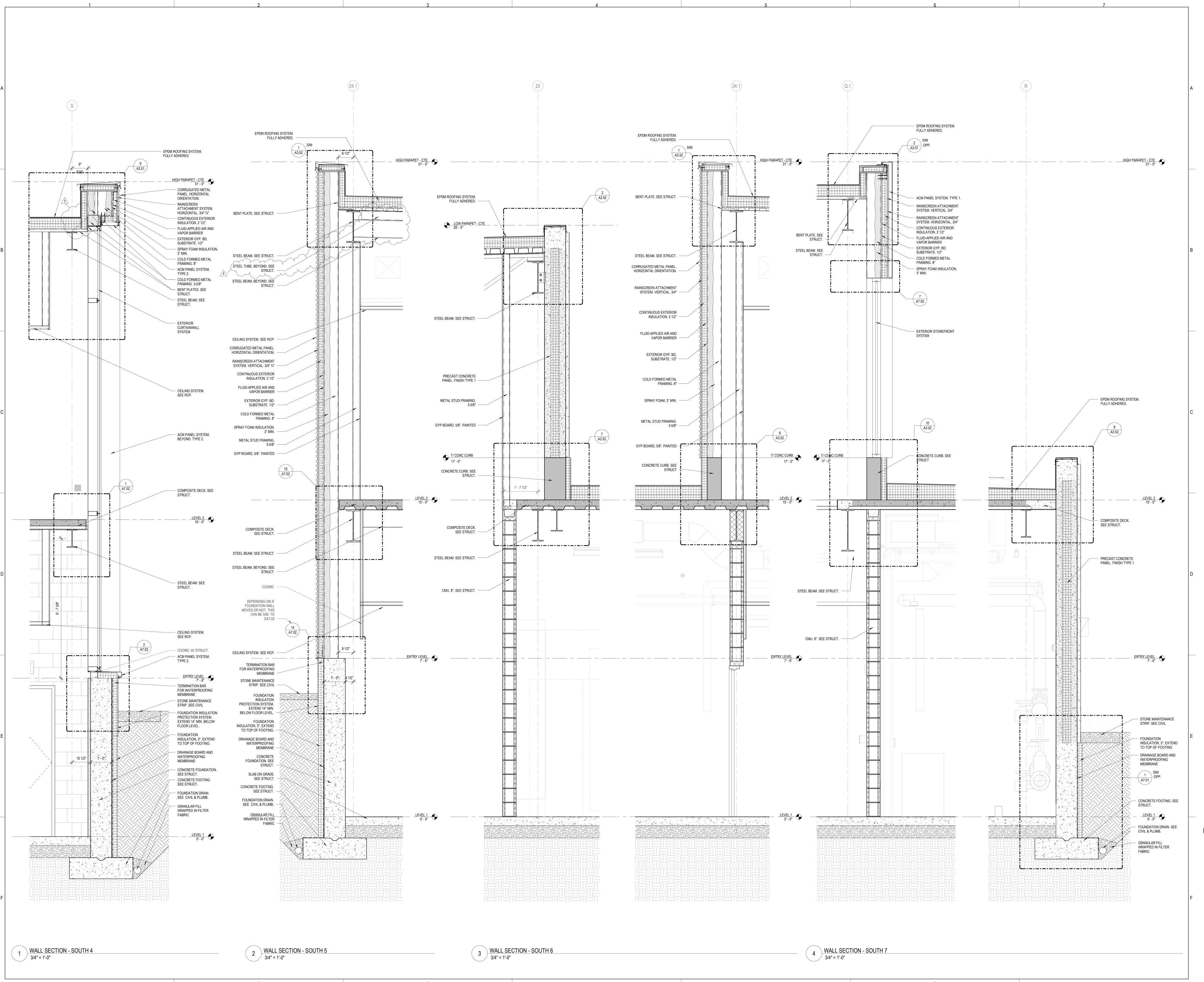
SHEET STATUS: 11/18/24
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FOR BIDDING

NO: DESCRIPTION: DATE:

1 D04: Addendum 01 11/25/24

SHEET TITLE:

ROOF DETAILS





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KEY PLAN:

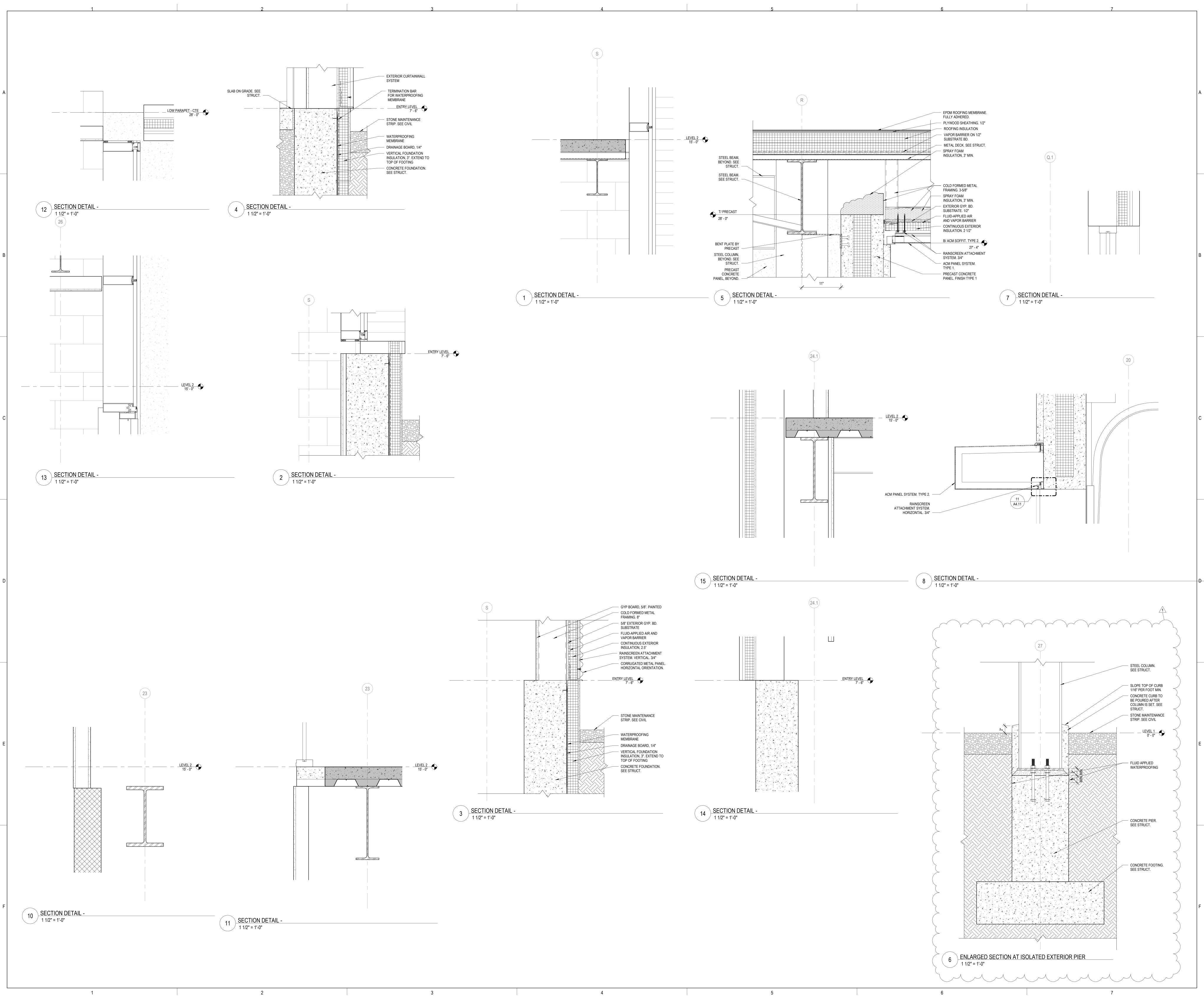
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DESCRIPTION:

SHEET TITLE: **WALL SECTIONS**

SHEET NUMBER:

A6.04





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KEY PLAN:

SHEET STATUS: BID #24-26-D04 - ISSUED **FOR BIDDING**

 DESCRIPTION:
 DATE:

 04: Addendum 01
 11/25/24
 SHEET TITLE:

SECTION DETAILS

SHEET NUMBER:

A7.02

STRUCTURAL PRECAST CONCRETE

- PRECAST CONTRACTOR SHALL ENGAGE AN ENGINEER LICENSED IN THE PROJECT'S JURISDICTION TO DESIGN THE CONNECTIONS AND MEMBERS AND SUBMIT SIGNED AND SEALED DRAWINGS AND STRUCTURAL CALCULATIONS PRIOR TO FABRICATION. THE CERTIFICATION OF DOCUMENTS BY THE PRECAST CONTRACTOR IMPLIES ACCEPTANCE
- OF DESIGN RESPONSIBILITY. THE PRECAST SYSTEM SHALL BE DESIGNED FOR THE LOADS INDICATED ON THE STRUCTURAL DRAWINGS PLUS THE DEAD LOAD OF THE STRUCTURE AND FOR THE LOADS AND LOAD COMBINATIONS MANDATED IN THE BUILDING CODE. THE DESIGN OF PRECAST CONCRETE SHALL BE IN ACCORDANCE WITH ALL APPLICABLE REQUIREMENTS AND STANDARDS OF ACI AND PCI.

CALCULATIONS AND SHOP DRAWINGS SHALL SHOW A COMPLETE AND RATIONAL LOAD

- PATH AND SHALL CLEARLY INDICATE THE SERVICE LEVEL REACTIONS IMPOSED ON THE SUPPORTING STRUCTURAL SYSTEM AND/OR FOUNDATION SYSTEM. ALL FIELD ANCHORAGE REQUIREMENTS, INCLUDING FIELD WELDING, SHALL BE SHOWN ON SHOP DRAWINGS. REVIEW OF THE PRECAST SHOP DRAWINGS AND CALCULATIONS BY THE STRUCTURAL ENGINEER WILL BE SOLELY FOR THE PURPOSE OF REVIEWING THE IMPACT OF THESE LOADS UPON THE SUPPORTING STRUCTURAL SYSTEM AND/OR FOUNDATION. PRECAST MEMBER SIZES, OPENINGS, ANTICIPATED CAMBER, REINFORCING STEEL,
- CONCRETE COMPRESSIVE STRENGTHS, GROUT STRENGTHS, AND CONNECTION DETAILS SHOWN ON THE CONTRACT DOCUMENTS FOR PRECAST CONCRETE FRAMING ARE TO BE CONSIDERED GUIDELINES FOR BIDDING PURPOSES ONLY UON. DETERMINATION OF THE ACTUAL REQUIRED SIZES, OPENINGS, CAMBER, REINFORCING STEEL QUANTITIES AND CONFIGURATIONS, CONCRETE AND GROUT COMPRESSIVE STRENGTHS, AND CONNECTION DETAILS SHALL BE DETERMINED BY THE PRECAST MANUFACTURER'S ENGINEER AND INCLUDED IN SHOP DRAWINGS. IF ANY DIMENSION SHOULD REQUIRE CHANGING, COORDINATION WITH ALL TRADES IS REQUIRED BY CONTRACTOR.
- PRECAST MANUFACTURER IS RESPONSIBLE FOR DESIGN OF ALL CONNECTION DETAILS BETWEEN PRECAST MEMBERS, CONNECTION DETAILS BETWEEN PRECAST MEMBERS AND SUPPORTING STRUCTURAL MEMBERS AND FOUNDATIONS, AND CONNECTION DETAILS OF ALL ELEMENTS CONNECTING TO THE PRECAST. CONNECTIONS TO THE PRIMARY STRUCTURAL SYSTEM SHALL BE DESIGNED AND DETAILED SO THOSE CONNECTIONS IMPOSE NEITHER ECCENTRIC NOR TORSIONAL LOADS UPON THE SUPPORTING MEMBERS.
- PRECAST CONCRETE PRESTRESSING STEEL WIRE SHALL BE HIGH STRENGTH STEEL WIRES, HAVE A MINIMUM ULTIMATE STRENGTH OF 270 KSI AND CONFORM TO ASTM A416. CONCRETE USED FOR MANUFACTURE OF PRECAST ELEMENTS SHALL HAVE A MINIMUM

THE ARCHITECTURAL DRAWINGS. SEE THE ARCHITECTURAL DRAWINGS FOR ADDITIONAL

STRENGTH OF 5000 PSI. THE MINIMUM STRENGTH OF CONCRETE AT TRANSFER SHALL BE PRECAST SHALL BE DESIGNED TO MEET THE FIRE-RATING REQUIREMENTS INDICATED ON

GENERAL (FABRICATION):

INFORMATION

- THE PRECAST MANUFACTURING PLANT SHALL BE CERTIFIED BY THE PRECAST / PRESTRESSED CONCRETE INSTITUTE (PCI) PRIOR TO THE START OF PRODUCTION. 10. ARCHITECTURAL PRECAST CONCRETE SHALL ONLY BE FURNISHED BY A MANUFACTURER
- WHO CAN DEMONSTRATE BY REPRESENTATIVE PROJECTS, EQUIPMENT, PERSONNEL, ETC.. A PROVEN ABILITY TO PRODUCE AND INSTALL THE PRECAST CONCRETE FOR THIS 11. THE TOPS OF COMPOSITE MEMBERS SHALL BE CAST ROUGH WITH A MINIMUM AMPLITUDE
- OF 1/4" TO PROVIDE ADEQUATE BOND TO CAST-IN-PLACE CONCRETE. CONTACT SURFACES SHALL BE THOROUGHLY CLEANED PRIOR TO POURING CONCRETE.
- 12. PRECAST MANUFACTURER SHALL COORDINATE LOCATIONS OF ELECTRICAL CONDUIT JUNCTION BOXES, SLEEVES, AND OPENINGS IN PRECAST FOR PASSAGE OF CONDUIT,
- PIPE, AND OTHER UTILITIES WITH SUBCONTRACTORS PRIOR TO THE APPROVAL OF SHOP DRAWINGS. CORING AND DRILLING OF PRECAST IS PROHIBITED UNLESS AUTHORIZED BY
- 13. PRECAST MANUFACTURER SHALL COORDINATE LOCATIONS OF INSERTS, EMBEDMENTS, AND ANCHORS FOR ATTACHMENT OF EQUIPMENT AND ARCHITECTURAL ELEMENTS. 14. PRECAST MANUFACTURER SHALL PROVIDE EMBEDMENT PLATES FOR CONNECTIONS
- SHOWN ON THE STRUCTURAL DRAWINGS AS WELL AS PROVIDE FORMED OPENINGS AND CUTOUTS SHOWN ON ARCHITECTURAL AND STRUCTURAL DRAWINGS. EMBED PLATES. OPENINGS, AND CUTOUTS SHALL BE COORDINATED WITH LOCATIONS OF PRESTRESSING WIRE. THE ARCHITECT SHALL BE INFORMED OF ANY CONFLICTS PRIOR TO FABRICATION. 15. PRECAST MANUFACTURER SHALL BE RESPONSIBLE FOR ALL OPENINGS THROUGH PRECAST UNITS LARGER THAN 8"x8" OR 8"Ø. ALL OTHER OPENINGS LESS THAN 8" SHALL BE CUT BY THE TRADE REQUIRING THEM AND THE LOCATIONS SHALL BE APPROVED BY

THE PRECAST SUPPLIER PRIOR TO CUTTING. VERIFY SIZE, LOCATION, AND QUANTITY OF

- ALL OPENINGS WITH MECHANICAL, ELECTRICAL, AND ARCHITECTURAL PLANS AND ALL CONTRACTORS. 16. EMBEDDED PLATE ASSEMBLIES. WELD PLATES. BOLTS. AND OTHER CONNECTIONS IN
- PRECAST CONCRETE SHALL BE HOT-DIP GALVANIZED TYPE 304 STAINLESS STEEL UON. REPAIR GALVANIZED SURFACES WITH GALVANIZING REPAIR PAINT. 17. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS, LOCATIONS, AND DETAILS OF ALL
- ARCHITECTURAL FEATURES IN THE PRECAST. SEE ARCHITECTURAL DRAWINGS AND PROJECT SPECIFICATIONS FOR ALL CONCRETE FINISH REQUIREMENTS. 18. ALL PRECAST CONCRETE UNITS SHALL HAVE REACHED THEIR DESIGN STRENGTH PRIOR
- TO SHIPMENT TO SITE. 19. MANUFACTURER TO CHOOSE BEARING PADS FROM THE FOLLOWING: a. RANDOM ORIENTED FIBER, REINFORCED ELASTOMERIC PADS WITH AN ULTIMATE
- COMPRESSIVE STRENGTH OF 4000 PSI AND SURFACE HARDNESS OF 70 TO 90 SHORE A b. ELASTOMERIC PADS COMPLYING WITH ASTM D4014, PLAIN, VULCANIZED, 100% POLYCHLOROPRENE (NEOPRENE) ELASTOMER WITH SURFACE HARDNESS OF 50 TO 70

c. HARDBOARD COMPLYING WITH AHA A135.4, CLASS 1, TEMPERED HARDBOARD STRIPS,

SMOOTH ON BOTH SIDES. GENERAL (INSTALLATION): 20. INSTALLATION OF PRECAST CONCRETE SHALL BE IN ACCORDANCE WITH ALL APPLICABLE

REQUIREMENTS AND STANDARDS OF ACI AND PCI.

- CONTRACTOR SHALL PROVIDE ALL NECESSARY INSERTS, ADDITIONAL REINFORCING, BRACING AND LIFTING EQUIPMENT AS REQUIRED TO LIFT AND HANDLE MEMBERS SAFELY AND WITHOUT CRACKING OR DAMAGE. 22. ALL TEMPORARY SHORING PROVIDED BY THE PRECAST SUPPLIER SHALL BE DESIGNED BY
- THE PRECAST SUPPLIER AND COORDINATED WITH OTHER TRADES. 23. PRECAST UNITS SHALL BE ERECTED SIMULTANEOUSLY ON EACH SIDE OF ALL SUPPORTING BEAMS OR WALLS. THE BEAMS SHALL BE BRACED TO PREVENT ROTATION
- UNTIL THE PRECAST UNITS ARE FULLY ERECTED. 24. PATCH ALL LOW AREAS OF PRECAST FLOOR AND ROOF AS REQUIRED TO PRODUCE A
- FLAT SURFACE ACCEPTABLE TO THE ARCHITECT AND OWNER. SUBMIT PROPOSED PATCHING PROCEDURE FOR REVIEW PRIOR TO START OF WORK. PRECAST CONCRETE HOLLOW CORE SLABS:
- 25. HOLLOW CORE SLABS SHALL BE FABRICATED WITH OPEN VOIDS ALONG THE FULL LENGTH OF THE MEMBER EXCEPT WHERE SLABS OR SLAB ZONES ARE IDENTIFIED AS BEING SOLID. WEIGHT OF HOLLOW CORE SLABS SHALL NOT EXCEED: a. 8" HOLLOW CORE: 63 PSF b. 10" HOLLOW CORE: 76 PSF
- c. 12" HOLLOW CORE: 86 PSF 26. ALL TOPPING SLABS TO BE COMPOSITE WITH HOLLOW CORE SLABS UON. 27. SEE ARCHITECTURAL DRAWINGS AND DETAILS FOR ALL NON-STRUCTURAL TOPPING OR
- LIGHTWEIGHT CONCRETE / GYPCRETE LEVELING FILL 28. THE MINIMUM WIDTH OF CUT HOLLOW CORE SLABS SHALL BE 2 FEET. 29. HOLLOW CORE SLABS ADJACENT TO OPENINGS SHALL BE DESIGNED FOR THE ADDITIONAL LOAD DUE TO THE INTERRUPTED SLABS. ALL HEADERS AT OPENINGS SHALL
- BE DESIGNED BY THE PRECAST SUPPLIER. THE BOTTOM OF THE HEADER FRAMING MEMBERS SHALL PROTRUDE NO MORE THAN THE THICKNESS OF THE ANGLE BELOW THE BOTTOM OF THE SLAB. RECESS CONNECTION ANGLES BELOW THE TOP OF THE SUPPORTING SLAB AS REQUIRED WHERE CONNECTION ANGLES WOULD OTHERWISE BE EXPOSED TO VIEW.
- 30. GROUT ALL KEYWAYS BETWEEN HOLLOW CORE SLABS. USE MINIMUM 4000 PSI GROUT STRENGTH.
- 31. MANUFACTURER SHALL PROVIDE CRITERIA AND GUIDELINES FOR FIELD CORING HOLES THROUGH THE SLAB AND SHALL SHOW THIS CRITERIA ON THE SHOP DRAWINGS. 32. WHERE COMPOSITE CONCRETE TOPPING IS REQUIRED ON SLABS, SUCH TOPPING SHALL BE INSTALLED SO THE TOP OF THE TOPPING IS FINISHED FLAT AND LEVEL AT THE SPECIFIED FINISHED FLOOR ELEVATION UON. TOPPING CONCRETE SHALL BE REDUCED IN THICKNESS AT MIDSPAN TO ACCOMMODATE SLAB CAMBER AND SHALL BE CONSIDERED IN
- 33. PROVIDE WELD PLATES AT 4 FEET ON CENTER AND INSTALL AT ONE END ONLY IN ALTERNATING ENDS OF SLABS. WHERE SLABS ARE BEARING ON WALLS OR BEAMS FROM ONE SIDE ONLY, PROVIDE WELD PLATES AT 4 FEET ON CENTER AT SLAB ENDS UON. SHOW WELD PLATES ON SLAB PIECE DRAWINGS AND ON SLAB ERECTION PLANS. DESIGN WELD
- PLATES FOR 6 KIPS STRENGTH LEVEL USABLE SHEAR STRENGTH IN ANY DIRECTION UON. 34. HOLLOW CORE SLAB MANUFACTURER SHALL DESIGN SLABS FOR NEGATIVE MOMENT AND SHEAR AT SLAB CANTILEVERS. DESIGN OF CANTILEVERED SLABS SHALL INCLUDE

CALCULATION OF DEFLECTION AT CANTILEVER ENDS.

- 35. PROVIDE (1) #5 FIELD-INSTALLED BAR IN JOINTS BETWEEN ADJACENT SLABS CLOSEST TO EXTERIOR SLAB EDGES. LAP BARS WITH A CLASS B SPLICE.
- ARCHITECTURAL PRECAST CONCRETE WALL PANELS: 36. PRECAST WALL MANUFACTURER SHALL COORDINATE THE DIMENSIONS, LOCATIONS, AND DETAILS OF ALL PRECAST CONNECTIONS TO THE STRUCTURE WITH THE STEEL FABRICATOR AND CONCRETE CONTRACTOR. ANGLES, PLATES, AND SUPPLEMENTAL FRAMING REQUIRED FOR ATTACHMENT OF THE PRECAST PANELS TO STRUCTURAL STEEL FRAMING SHALL BE PROVIDED BY THE STRUCTURAL STEEL FABRICATOR. EMBEDS IN CONCRETE REQUIRED FOR ATTACHMENT OF THE PRECAST PANELS TO THE STRUCTURE SHALL BE PROVIDED BY THE PRECAST MANUFACTURER. BARS, RODS, BOLTS, AND BRACKETS THAT ARE IN DIRECT CONTACT WITH THE PRECAST PANELS AND SHIMS, NUTS,

RODS. BOLTS. AND WASHERS REQUIRED FOR ATTACHMENT OF THE PANELS TO

- CONCRETE SYSTEM SHALL BE PROVIDED BY THE PRECAST MANUFACTURER. 7. PRECAST WALL PANELS AND CONNECTIONS MUST TAKE INTO ACCOUNT OTHER EFFECTS, INCLUDING BUT NOT LIMITED TO PANEL SHRINKAGE, THERMAL BOWING, AND ECCENTRIC LOADING DUE TO BOWING AND/OR ERECTION. THE PRECAST MANUFACTURER SHALL BRING TO THE ATTENTION OF THE STRUCTURAL ENGINEER ALL STEEL TO PRECAST PANEL DETAILS REQUIRED TO ACCOMMODATE HORIZONTAL MOVEMENT. UON ON THE PRECAST MANUFACTURER'S SHOP DRAWINGS, PLANS, AND DETAILS, ALL RESTRAINT FORCES DEVELOPED IN THE EMBED CONNECTIONS SHALL BE ADEQUATELY DESIGNED FOR AND RESISTED BY THE PRECAST CONCRETE CONNECTION.
- 38. FOUNDATION DESIGN IS BASED ON PRECAST CONCRETE SHEAR WALL PANELS TIED TOGETHER PERFORMING INDIVIDUALLY FOR LATERAL SHEAR DISTRIBUTION TO THE FOUNDATIONS. BASED ON ACTUAL WALL PANEL SYSTEM SUPPLIED, MODIFICATIONS TO
- THE FOUNDATION MAY BE REQUIRED. 39. PANEL CONNECTION DETAILS SHOWN ON THE CONTRACT DOCUMENTS ARE MINIMUM REQUIREMENTS. FINAL CONNECTION DETAILS SHALL BE DETERMINED BY THE PRECAST MANUFACTURER'S ENGINEER.
- 40. PANELS SHALL BE DESIGNED TO SPAN COLUMN-TO-COLUMN UON, GRAVITY CONNECTIONS TO SPANDREL BEAMS ARE PERMITTED ONLY WHERE INDICATED ON
- 41. PANEL CONNECTIONS TO THE STRUCTURE SHALL BE DETAILED TO PERMIT DIFFERENTIAL THERMAL EXPANSION / CONTRACTION TO OCCUR BETWEEN THE PANELS AND THE SUPPORTING STRUCTURAL FRAMING IN A DIRECTION PARALLEL TO THE LENGTH OF THE PANELS WHILE RESTRAINING THE PANEL TO THE STRUCTURE AT ONE POINT.
- 42. PANEL CONNECTIONS TO THE STRUCTURE SHALL BE DETAILED TO PERMIT VERTICAL DIFFERENTIAL DEFLECTION OF THE SUPPORTING STRUCTURAL FRAMING TO OCCUR BETWEEN ADJACENT FLOORS. 43. LATERAL TIEBACK CONNECTIONS SHALL BE DETAILED TO PERMIT VERTICAL DIFFERENTIAL DEFLECTION TO OCCUR BETWEEN THE PANELS AND THE SUPPORT STRUCTURAL

JOINT REINFORCING

- 1. CMU CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH TMS 402/602 "BUILDING CODE REQUIREMENTS AND SPECIFICATION FOR MASONRY STRUCTURES". MINIMUM 28-DAY COMPRESSIVE STRENGTHS FOR CMU CONSTRUCTION SHALL BE: DESIGN ASSEMBLY STRENGTH, f'm INDIVIDUAL CONCRETE MASONRY UNITS 3250 PSI 2500 PSI
- CMU MATERIALS SHALL CONFORM TO THE FOLLOWING STANDARDS: CONCRETE MASONRY UNITS ASTM C90. NORMAL-WEIGHT UON ASTM C270, TYPE S UON ASTM C270. TYPE N (NON-STRUCTURAL MASONRY) MORTAR ASTM C270, TYPE M (WHERE IN CONTACT WITH SOIL)
- 4. WIRE REINFORCING PER ASTM A82 FOR SINGLE-WYTHE CMU WALLS, CMU CAVITY WALLS,

ASTM A82

AND MULTI-WYTHE COMPOSITE CMU WALLS SH A153, CORROSION RESISTANT HORIZONTAL LAI FOLLOWING GAUGE AND VERTICAL SPACING:	
RUNNING BOND	9GA AT 16" OC (ALL WIDTHS)
BELOW GRADE WALLS	9GA AT 8" OC
OTHER THAN RUNNING BOND	9GA AT 16" OC (6"-8" WIDTHS) 9GA AT 8" OC (10"-16" WIDTHS)

- 5. ALL LOAD BEARING CMU WALLS TO HAVE FULL MORTAR BED, HEAD, AND COLLAR JOINTS. 6. GROUT SOLID ALL JAMBS FULL HEIGHT IN LOAD BEARING CMU WALLS TO UNDERSIDE OF STEEL LINTEL PLUS ONE CELL BEYOND BEARING LENGTH. 7. PROVIDE MINIMUM 1" GROUT BETWEEN MAIN REINFORCING AND/OR BOLTS AND CMU UNIT FACE. VERTICAL REINFORCEMENT SHALL BE CENTERED IN WALL UON. VERTICAL REINFORCING BARS SHALL BE SECURELY HELD IN POSITION BY WIRE TIES OR OTHER APPROVED MEANS TO ENSURE DESIGN LOCATION AND LAP. PLACE BARS AND LAP PRIOR TO GROUTING.
- HORIZONTAL BOND BEAM AND VERTICAL REINFORCING SHALL BE CONTINUOUS UON. 9. CELLS SHALL BE IN VERTICAL ALIGNMENT. DOWEL SIZE AND LOCATION IN FOOTINGS SHALL BE SET TO ALIGN WITH VERTICAL REINFORCING STEEL WITHIN 6" TOLERANCE. VERTICAL REINFORCEMENT TO RUN FULL HEIGHT OF WALL UON. 10. ALL CELLS CONTAINING REINFORCING SHALL BE FILLED SOLID WITH GROUT.
- 11. GROUT CELLS SOLID IN ALL WALLS UON. GROUT IN 5'-4" MAXIMUM LIFTS. 12. GROUT SOLID ALL COURSES BELOW GRADE. 13. LIFTS OF GROUT SHALL BE KEYED 1 1/2" INTO THE PREVIOUS COURSE BELOW.
- 14. HORIZONTAL BAR REINFORCEMENT SHALL BE FULLY EMBEDDED IN GROUT IN AN UNINTERRUPTED POUR.
- 15. ALL BOND BEAMS TO HAVE A MINIMUM 8" DEPTH. PROVIDE TALLER BOND BEAMS AS NEEDED FOR COURSING OR TO AVOID INTERFERENCE BETWEEN REINFORCING STEEL AND POST-INSTALLED ANCHORS. CUT AND STEP BOND BEAM AS REQUIRED.
- 16. PROVIDE HORIZONTAL TIES WHERE CMU ABUTS CONCRETE. 17. COORDINATE ANY UNIDENTIFIED PIPE OR DUCT PASSING THROUGH STRUCTURAL CMU WALLS WITH TYPICAL DETAILS UON. ADDITIONAL LINTELS MAY BE REQUIRED. COORDINATE WITH STRUCTURAL ENGINEER FOR REQUIRED LINTEL SIZE BEFORE CONSTRUCTION OF
- 18. PIPE AND CONDUIT SHALL NOT BE PERMITTED IN CELLS WITH VERTICAL REINFORCEMENT CONDUIT TO BE LOCATED TO AVOID ALL HORIZONTAL REINFORCEMENT. NO ALUMINUM
- CONDUITS PERMITTED. 19. SEE ARCHITECTURAL DRAWINGS FOR SURFACE AND HEIGHT OF UNITS, LAYING PATTERN.
- AND JOINT TYPE. ALL BLOCK SHALL BE LAID IN RUNNING BOND UON. 20. SEE ARCHITECTURAL DRAWINGS FOR OTHER WALL ASSEMBLY COMPONENTS. 21. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS AND DIMENSIONS OF ALL NON-LOAD
- BEARING CMU WALLS. 22. MINIMUM WALL VERTICAL REINFORCING SHALL BE #5 BAR FULL HEIGHT IN CENTER OF GROUTED CELL AT WALL INTERSECTIONS CORNERS WALL ENDS JAMBS AT WALL OPENINGS, EACH SIDE OF CONTROL JOINTS, AND AT INTERVALS NOT TO EXCEED 48" UON.
- 23. MINIMUM HORIZONTAL REINFORCING SHALL BE (2)#5 BARS IN CENTER OF MINIMUM 16" DEEP CONTINUOUS GROUTED BOND BEAM AT ELEVATED FLOOR, INTERMEDIATE STAIR LANDINGS, AND ROOF LINES AND (1)#5 BAR IN CENTER OF 8" DEEP CONTINUOUS GROUTED BOND BEAM AT TOP OF PARAPET OR FREE-STANDING WALL AND AT INTERVALS NOT TO EXCEED 48" UON. PLACE BARS AT ELEVATED FLOOR AND ROOF LINES CONTINUOUS THROUGH CONTROL JOINTS.

1. PROVIDE LINTELS OVER ALL OPENINGS AND RECESSES IN MASONRY CONSTRUCTION. LINTELS ARE NOT REQUIRED OVER OPENINGS 12" OR LESS IN WIDTH THAT ARE AT LEAST ONE COURSE BELOW THE BOND BEAM AT THE TOP OF WALL. 2. PENETRATIONS NOT IDENTIFIED ON THE DOCUMENTS ARE TO BE TREATED IN A MANNER SIMILAR TO THE IDENTIFIED LOCATIONS.

3.	LINTELS IN NON-BEARING WALLS AND CLADDING SHALL BE SIZED PER THE FOLLOWING:				
	SPAN, L	4" CLADDING	8" CMU *		
	0' < L = 4'-0"	L4x4x1/4	(2) L3-1/2x3-1/2x1/4		
	4'-0" < L = 6'-0"	L6x4x5/16 (LLV)	(2) L4x3-1/2x3/8 (LLV)		
	6'-0" < L = 8'-0"	L7x4x3/8 (LLV)	(2) L5x3-1/2x3/8 (LLV)		
	*ALL ANGLES TO BE BACK-TO	-BACK AND WELDED TOP AND	BOTTOM 3" @ 12".		
	CMU BLOCK OPTIONS				

*ALL ANGLES TO	BE BACK-TO-BACK	AND WELDED TOP	P AND BOTTOM 3" (@ 12".
CMU BLOCK OPTI	ONS			
SPAN, L	6"	8"	10"	12"
0' < L = 4'-0"	8" DEEP w/ (1)#4 BOT	8" DEEP w/ (1)#4 BOT	8" DEEP w/ (1)#5 BOT	8" DEEP w (1)#5 BOT
4'-0" < L = 6'-0"	8" DEEP w/ (1)#4 BOT	8" DEEP w/ (1)#5 BOT	8" DEEP w/ (1)#5 BOT	16" DEEP \((1)#5 BOT
6'-0" < L = 8'-0"	16" DEEP w/ (1)#4 BOT	16" DEEP w/ (1)#4 BOT	16" DEEP w/ (1)#5 BOT	16" DEEP \((1)#5 BOT
8'-0" < L = 10'-0"	16" DEEP w/ (1)#5 BOT	16" DEEP w/ (2)#5 BOT	16" DEEP w/ (2)#5 BOT	16" DEEP \((2)#5 BOT

- PLATES UON. 5. TEMPORARY SHORING OF CMU LINTELS MUST BE PROVIDED UNTIL CMU HAS REACHED 75% OF DESIGN STRENGTH 6. ALL STEEL LINTELS IN EXTERIOR WALL CONSTRUCTION SHALL BE HOT-DIP GALVANIZED
- 4. ALL LINTELS SHALL HAVE A MINIMUM OF 8" END BEARING AND DO NOT REQUIRE BEARING

1. STRUCTURAL STEEL SHALL BE DETAILED IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) "DETAILING FOR STEEL CONSTRUCTION" AND FABRICATED AND ERECTED IN ACCORDANCE WITH THE "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS"

2. STRUCTURAL STEEL SHALL CONFORM TO ASTM STANDARDS AS NOTED BELOW:

WIDE FLANGE SHAPES	ASTM A992	Fy= 50 KSI
OTHER ROLLED SHAPES	ASTM A36	Fy= 36 KSI
HSS SECTIONS, SQ/RECT	ASTM A500, GR C	Fy= 50 KSI
BASE AND CONNECTION PLATES	ASTM A36	Fy= 36 KSI
MOMENT FRAME BASE PLATES (HIGH- STRENGTH AS NOTED)	ASTM A572, GR 50	Fy= 50 KSI
	 	
ANCHOR RODS	ASTM F1554, GR 36	Fy= 36 KSI
ANCHOR RODS HEAVY HEX NUTS		Fy= 36 KSI
	ASTM F1554, GR 36	Fy= 36 KSI
HEAVY HEX NUTS	ASTM F1554, GR 36 ASTM A563	Fy= 36 KSI
HEAVY HEX NUTS WASHERS	ASTM F1554, GR 36 ASTM A563 ASTM F436	Fy= 36 KSI

- HIGH STRENGTH BOLTS SHALL BE INSTALLED IN ACCORDANCE WITH AISC "SPECIFICATIONS FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS". SEE DETAILS FOR BOLT SIZE AND MATERIAL ASTM DESIGNATION. 4. ALL BOLTED CONNECTIONS SHALL BE GRADE A325N BEARING TYPE BOLTS UON. ALL
- BOLTS SHALL BE INSTALLED TO A MINIMUM SNUG TIGHT CONDITION UON. 5. FULLY TENSIONED HIGH STRENGTH BOLTS AND SLIP CRITICAL HIGH STRENGTH BOLTS SHALL USE TENSION-CONTROL "TWIST-OFF" BOLTS OR BE INSTALLED USING THE TURN OF
- FIELD CONNECTIONS SHALL BE WELDED OR BOLTED. SHOP CONNECTIONS SHALL BE WELDED UON. WELDS INDICATED WITH A SHOP WELD SYMBOL MAY BE MADE IN THE FIELD WITH THE APPROVAL OF THE STRUCTURAL ENGINEER. LOCATIONS OF ALL FIELD WELDS SHALL BE CLEARLY SHOWN ON THE SHOP DRAWINGS. WELDS SHALL BE DESIGNED TO BE FULLY EQUIVALENT IN STRENGTH TO BOLTED CONNECTIONS DETAILED TO MINIMIZE BENDING IN THE CONNECTION.
- WELD LENGTHS INDICATED ON THE DRAWINGS ARE THE NET EFFECTIVE LENGTH REQUIRED. WHERE WELD LENGTH IS NOT SPECIFIED, PROVIDE WELD ALONG ENTIRE INTERSECTION OF THE JOINED PARTS. WHERE FILLET WELD SYMBOL IS GIVEN WITHOUT INDICATION OF SIZE, USE MINIMUM WELD SIZE AS SPECIFIED IN AISC 360, TABLE J2.4.

8. ALL WELDING OF STRUCTURAL STEEL SHALL BE PERFORMED BY CERTIFIED WELDERS

WITH EXPERIENCE AND CERTIFICATION IN THE TYPES OF WELDING INDICATED. WELDERS

- SHALL HAVE BEEN RECENTLY QUALIFIED AS PRESCRIBED IN "QUALIFICATION PROCEDURES" OF THE AMERICAN WELDING SOCIETY (AWS). HEADED STUD ANCHORS (HSA): SHALL BE INSTALLED IN ACCORDANCE WITH AWS D1.1 AND SHALL BE AUTOMATICALLY END WELDED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS IN SUCH A MANNER AS TO PROVIDE COMPLETE FUSION BETWEEN THE END OF THE HSA AND THE STEEL SHAPE. THERE SHOULD BE NO POROSITY OR EVIDENCE OF LACK OF FUSION BETWEEN THE WELDED END OF THE HSA
- AND THE STEEL SHAPE. THE HSA SHALL DECREASE IN LENGTH DURING WELDING APPROXIMATELY 1/8" FOR 5/8"Ø AND SMALLER AND 3/16" FOR LARGER THAN 5/8"Ø. MINIMUM HORIZONTAL CONCRETE COVER FOR HSA TO BE 2". 11. BEAMS SHALL BE CAMBERED UPWARD WHERE SHOWN ON THE DRAWINGS. WHERE NO
- UPWARD CAMBER IS INDICATED, ANY MILL CAMBER SHALL BE DETAILED UPWARD IN THE 12. SPLICING OF STEEL MEMBERS WHERE NOT DETAILED ON THE DRAWINGS IS PROHIBITED
- WITHOUT THE PRIOR APPROVAL OF THE STRUCTURAL ENGINEER AS TO LOCATION, TYPE OF SPLICE, AND CONNECTION TO BE MADE. 13. PROVIDE ONE SHOP COAT OF PAINT ON ALL STRUCTURAL STEEL NOT COVERED WITH
- CONCRETE, FIREPROOFING, MASONRY, OR AT CONTACT SURFACES AT HIGH STRENGTH 14. ALL STEEL EXPOSED TO WEATHER OR AS NOTED ON PLAN SHALL BE HOT-DIP GALVANIZED
- AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 G60. ABRADED AREAS TO BE TOUCHED UP WITH COLD GALVANIZING COMPOUND IN ACCORDANCE WITH ASTM A780 15. ALL GALVANIZED HOLLOW SECTIONS SHALL HAVE WELDED CAP PLATES TO SEAL
- EXPOSED ENDS. 16. CUTS, HOLES, OPENINGS, ETC. REQUIRED IN STRUCTURAL STEEL MEMBERS FOR THE WORK OF OTHER TRADES SHALL BE SHOWN ON THE SHOP DRAWINGS. BURNING OR TORCHING OF HOLES, CUTS, AND OTHER FIELD MODIFICATIONS SHALL NOT BE ALLOWED,
- EXCEPT BY WRITTEN AUTHORIZATION FROM THE STRUCTURAL ENGINEER. 17. SEE ARCHITECTURAL, MECHANICAL, ELECTRICAL, ETC. FOR MISCELLANEOUS STEEL NOT DETAILED SPECIFICALLY ON THE STRUCTURAL DRAWINGS. 18. GROUT FOR BASE AND BEARING PLATES SHALL BE A NON-SHRINK, NON-METALLIC
- PRODUCT. MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS SHALL BE 7000 PSI. INSTALL GROUT PRIOR TO APPLYING SIGNIFICANT LOADING TO MEMBER. 19 THE STRUCTURAL STEEL FABRICATOR SHALL FURNISH SHOP DRAWINGS OF ALL

STRUCTURAL STEEL FOR REVIEW AND APPROVAL BEFORE FABRICATION.

JOIST BEING USED.

1. DESIGN, FABRICATION, AND ERECTION SHALL BE IN ACCORDANCE WITH THE STEEL JOIST INSTITUTE (SJI) SPECIFICATION BY A MEMBER OF THE SJI, APPROVED FOR THE TYPE OF

	DETAILS WITH WELD INFORMATION		DETAILS WITH BOLT INFORMATION		MINIMUM END BEARING (IN)	
JOIST TYPE/SERIES	FILLET WELD SIZE	WELD LENGTH (IN)	BOLT DIAMETER (IN)	BOLT MATERIAL	STEEL	MASONRY
K	1/8	2 1/2	1/2	A307	2 1/2	4
LH/DLH 02-06	3/16	2 1/2	3/4	A307	2 1/2	6
LH/DLH 07-17	1/4	2 1/2	3/4	A307	4	6
LH/DLH 18-25	1/4	4	3/4	A325	6	6
JOIST GIRDER	1/4	4	3/4	A325	6	6

- 2. ATTACH STEEL JOIST TO SUPPORT AS FOLLOWS: WHERE WELDS OR BOLTS ARE INDICATED, WELD/BOLT TO BE INSTALLED ON BOTH SIDES
- OF JOIST SEAT UON. 3. DESIGN JOIST SEAT FOR 1500 LBS (1.0 WL) ROLLOVER LOAD FOR K-SERIES JOISTS ONLY.
- ALL ROOF JOISTS SHALL BE DESIGNED FOR A 15 PSF NET WIND UPLIFT (LRFD). 5. SPECIAL JOIST AND JOIST GIRDER DEFLECTION REQUIREMENTS: a. ROOF JOISTS: LIVE LOAD = L/360 & TOTAL LOAD = L/240
- b. FLOOR JOISTS: LIVE LOAD = L/480 & TOTAL LOAD = L/360 6. PROVIDE SIGNED AND SEALED SHOP DRAWINGS AND CALCULATIONS FOR SPECIAL JOIST AND JOIST GIRDER DESIGNS. JOIST DESIGNER SHALL UTILIZE LOADINGS INDICATED ON THE STRUCTURAL DRAWINGS. 7. PROVIDE BRIDGING PER SJI SPECIFICATIONS. DESIGN AND PROVIDE UPLIFT BRIDGING TO
- WITHSTAND A NET UPLIFT PRESSURE AS INDICATED ABOVE. WHERE BRIDGING INTERFERES WITH MECHANICAL OR OTHER TRADE INSTALLATIONS, THE JOIST MANUFACTURER SHALL PROVIDE DIRECTION FOR REMOVAL AND REPLACEMENT OF ANY 8. HANGING OF MISCELLANEOUS ITEMS IS NOT PERMITTED FROM BRIDGING / BRACING.
- 10. ALL JOIST HEADERS AND ACCESSORIES SHALL BE DESIGNED AND FURNISHED BY THE JOIST FABRICATOR. 11. STEEL JOISTS SHALL BE TOP CHORD BEARING UON.

12. THE JOIST FABRICATOR SHALL FURNISH SHOP DRAWINGS OF ALL BAR JOIST MATERIAL

9. PROVIDE ANCHORS AT EACH END OF EACH ROW OF BRIDGING TOP AND BOTTOM CHORDS

STEEL DECK

EXCEPT AT EXPANSION JOINTS.

- 1. MATERIAL, DETAILING, DESIGN, MANUFACTURE, AND ERECTION OF STEEL DECKS SHALL BE IN ACCORDANCE WITH THE STEEL DECK INSTITUTE (SDI) SPECIFICATION. 2. DECK SIZE AND GAUGE INDICATED ON THE DRAWINGS ARE BASED ON THE FOLLOWING: a. CURRENT VERSION OF VULCRAFT CATALOG FOR GRAVITY DESIGN LOADS AND UNSHORED CONSTRUCTION SPANS
- b. SDI DIAPHRAGM DESIGN MANUAL 4 FOR DIAPHRAGM LOADS . PROVIDE MINIMUM DECK BEARING AND LAP LENGTHS PER MANUFACTURER'S RECOMMENDATIONS.

AND ACCESSORIES FOR REVIEW AND APPROVAL BEFORE FABRICATION.

- 4. FOR PENETRATIONS LESS THAN OR EQUAL TO 12"Ø OR 12"x12". FRAMING OF OPENINGS FOR OTHER TRADES SHALL BE THE RESPONSIBILITY OF THE TRADES INVOLVED. HOLES LOCATED AND DIMENSIONED ON THE DRAWINGS SHALL BE THE RESPONSIBILITY OF THE DECK ERECTOR. SEE STRUCTURAL FRAMING DETAILS FOR ANY OPENING EXCEEDING
- LIMITS NOTED. 5. SUBMIT SHOP DRAWINGS SHOWING DECKING LAYOUT, DECK GAUGE, DECK DIRECTION,
- FASTENERS, AND FASTENING PATTERN FOR REVIEW AND APPROVAL. ROOF DECK: a. ALL ROOF DECK SHALL BE GALVANIZED TO CONFORM TO ASTM A653 WITH A MINIMUM
- COATING OF G60. b. ALL ROOF DECK SHALL BE PRIME PAINTED GRAY TO CONFORM TO ASTM A1008. c. DO NOT EXCEED 25 LBS PER HANGER AND A MINIMUM SPACING OF 2'-0" ON CENTER WHEN ATTACHING TO ROOF DECK. THIS 25 LBS LOAD AND 2'-0" SPACING INCLUDE ADJACENT MECHANICAL, ELECTRICAL, AND ARCHITECTURAL ITEMS HANGING FROM THE DECK. IF THE HANGER RESTRICTIONS CANNOT BE ACHIEVED, SUPPLEMENTAL FRAMING SUPPORTED OFF STEEL FRAMING WILL NEED TO BE ADDED. THE GENERAL
- CONTRACTOR IS RESPONSIBLE FOR COORDINATING LOCATION AND WEIGHT OF ALL THE ELEMENTS BEING HUNG WITH STRUCTURAL ENGINEER UON. DECK MANUFACTURER SHALL FURNISH ALL RIDGE AND VALLEY PLATES, SUMP PANS, DRAIN PLATES, AND OTHER ACCESSORIES REQUIRED FOR A COMPLETE INSTALLATION.
- COMPOSITE DECK: a. ALL FLOOR DECK SHALL BE GALVANIZED TO CONFORM TO ASTM A653 WITH A MINIMUM COATING OF G60

PROVIDED BY THE STEEL FABRICATOR.

- b. CONDUITS SHALL NOT BE PLACED IN SLAB ON DECK WITHOUT COORDINATION WITH THE STRUCTURAL ENGINEER UON. c. COORDINATE ALL PENETRATIONS, EMBEDS, AND RECESSES IN COMPOSITE DECK WITH THE STRUCTURAL ENGINEER UON. d. COMPOSITE DECK HAS BEEN DESIGNED FOR THE UNSHORED CLEAR SPAN.
- CONCRETE FILL THICKNESS SHOWN ON FRAMING PLANS AND DETAIL SHEETS IS A MINIMUM THICKNESS. CONTRACTOR TO PROVIDE CONCRETE FILL REQUIRED TO COMPENSATE FOR BEAM AND DECK DEFLECTIONS AND TO MAINTAIN SURFACE TOLERANCES SPECIFIED. DO NOT INSTALL MORE THAN 1" OF ADDITIONAL CONCRETE WITHOUT NOTIFYING STRUCTURAL ENGINEER. e. DECK MANUFACTURER SHALL PROVIDE ALL CLOSURE PLATES AND POUR STOPS NOT

POST-INSTALLED ANCHORS

1. POST-INSTALLED ANCHORS SHALL CONSIST OF THE FOLLOWING UNLESS OTHERWISE

<u> </u>	<u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>
INSTALLATION CONDITION	ANCHOR TYPE
EXPANSION ANCHORS INTO CONCRETE	HILTI KWIK BOLT TZ2 (ESR-4266)
SCREW ANCHORS > 1/4"Ø INTO CONCRETE	SIMPSON KWIK HUS-EZ (ESR-3027)
ADHESIVE ANCHORS INTO CONCRETE	HILTI SAFE-SET SYSTEM W/ HIT-HY 200 V3 AND HIT-Z ROD (ESR-4868) or HILTI SAFE-SET SYSTEM W/ HIT-HY 200 V3 AND HAS-E THREADED ROD (ESR-4868) or HILTI SAFE-SET SYSTEM W/ HIT-RE 500 V3 AND HAS-E THREADED ROD (ESR-4868) FOR ALL ADHESIVE ANCHORS, HOLES SHALL BE HAMMER DRILLED AND HOLES MAY BE DRY OR WATER SATURATED
EXPANSION ANCHORS INTO GROUTED CMU	HILTI KWIK TZ2 (ESR-4561)
SCREW ANCHORS > 1/4"Ø INTO GROUTED CMU	HILTI KWIK HUS-EZ (ESR-3056)

- 2. ALTERNATIVE ANCHORS MAY BE USED IF APPROVED IN WRITING BY THE STRUCTURAL ENGINEER. THE CONTRACTOR SHALL SUBMIT CALCULATIONS SIGNED AND SEALED BY AN ENGINEER LICENSED IN THE PROJECT'S JURISDICTION VERIFYING PROPOSED ALTERNATIVE ANCHORS WILL PROVIDE THE SAME OR GREATER LOAD-CARRYING CAPACITY AS THE SPECIFIED ANCHORS. THE CONTRACTOR SHALL SUBMIT EVALUATION REPORTS. EACH ANCHOR CONFIGURATION SHALL BE EVALUATED AND COMPARED TO THE
- 3. CRACKED CONCRETE IS ASSUMED FOR ALL ANCHORAGE DESIGN CONDITIONS UNLESS IT CAN BE DEMONSTRATED THROUGH ENGINEERING ANALYSIS THAT THE CONCRETE
- REMAINS UNCRACKED DURING THE GOVERNING ULTIMATE LOAD STATE. 4. POST-INSTALLED ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH THE
- MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS. THE CONTRACTOR SHALL ARRANGE FOR AN ANCHOR MANUFACTURER'S REPRESENTATIVE TO PROVIDE ONSITE INSTALLATION TRAINING FOR EACH SPECIFIED
- ANCHOR TYPE. THE STRUCTURAL ENGINEER SHALL RECEIVE DOCUMENTATION VERIFYING ALL OF THE CONTRACTOR'S PERSONNEL WHO INSTALL ANCHORS HAVE BEEN TRAINED PRIOR TO COMMENCEMENT OF INSTALLING ANCHORS.
- . INSTALLATION OF ADHESIVE ANCHORS SHALL BE PERFORMED BY PERSONNEL CERTIFIED BY AN APPROVED CERTIFICATION PROGRAM. CERTIFICATION SHALL INCLUDE WRITTEN AND PERFORMANCE TESTS IN ACCORDANCE WITH THE ACI/CRSI ADHESIVE ANCHOR INSTALLER CERTIFICATION PROGRAM OR EQUIVALENT. THE ACCEPTABILITY OF CERTIFICATIONS OTHER THAN THE ACI/CRSI ADHESIVE INSTALLER CERTIFICATION WILL BE DETERMINED BY THE STRUCTURAL ENGINEER.
- 7. CONCRETE SHALL HAVE ACHIEVED DESIGN STRENGTH PRIOR TO INSTALLING POST-INSTALLED ANCHORS. ADHESIVE ANCHORS SHALL BE INSTALLED IN CONCRETE THAT HAS CURED FOR A MINIMUM OF 21 DAYS. 8. ANCHOR CAPACITY IS DEPENDENT UPON SPACING BETWEEN ANCHORS AND PROXIMITY
- OF ANCHORS TO EDGES OF CONCRETE OR MASONRY. INSTALL ANCHORS IN ACCORDANCE WITH SPACING AND EDGE CLEARANCES INDICATED ON THE DRAWINGS. 9. POST-INSTALLED ANCHORS AND DOWELS SHALL BE INSTALLED IN A MANNER THAT DOES NOT DAMAGE REINFORCING STEEL, CONDUIT OR OTHER EMBEDDED ITEMS. REINFORCING STEEL SHALL BE LOCATED BY NON-DESTRUCTIVE MEANS PRIOR TO DRILLING HOLES. PLATES AND BRACKETS THROUGH WHICH ANCHORS WILL BE INSTALLED SHALL NOT BE FABRICATED UNTIL AFTER REINFORCING STEEL IS LOCATED AND ANCHOR LOCATIONS ARE ADJUSTED. CONTRACTOR SHALL NOTIFY STRUCTURAL ENGINEER TO OBTAIN
- ALTERNATIVE ANCHOR LAYOUT WHERE ANCHORS MUST BE RELOCATED TO AVOID INTERFERENCE WITH REINFORCING STEEL 10. ADHESIVE ANCHORING SYSTEMS ARE PERMITTED TO BE USED FOR INSTALLATION OF REINFORCING STEEL INTO EXISTING CONCRETE ONLY WHERE SPECIFICALLY INDICATED IN THE CONTRACT DOCUMENTS OR WITH APPROVAL FROM THE STRUCTURAL ENGINEER. LOCATIONS WHERE REINFORCING STEEL WAS INCORRECTLY PLACED OR MISSED SHALL
- BE SUBMITTED TO THE ENGINEER FOR REVIEW. 11. WHERE POST-INSTALLED MECHANICAL ANCHOR EMBEDMENT DEPTHS ARE SPECIFIED. THOSE DEPTHS ARE THE REQUIRED MINIMUM NOMINAL EMBEDMENT DEPTHS. WHERE MECHANICAL ANCHOR EMBEDMENT DEPTHS ARE NOT INDICATED, THE ANCHORS SHALL BE INSTALLED TO THE MAXIMUM EMBEDMENT DEPTH NOTED IN THE MANUFACTURER'S
- 12. ADHESIVE ANCHORS SHALL BE INSTALLED WITH A MINIMUM 6" EMBEDMENT DEPTH UON. 13. THE ICC EVALUATION SERVICE REPORT (ESR) SHALL BE IN CONFORMANCE WITH THE ICC-ES CRITERIA AS INDICATED.

PRODUCT TECHNICAL GUIDE.

- 1. THE ELEVATORS, ASSOCIATED EQUIPMENT, GUIDE RAILS, AND BRACKETS ARE DEFERRED SUBMITTAL ITEMS.
- 2. INSTALLATION OF ELEVATORS, ASSOCIATED EQUIPMENT, GUIDE RAILS, AND BRACKETS SHALL NOT BE STARTED UNTIL DETAILED PLANS AND ENGINEERING CALCULATIONS HAVE BEEN SUBMITTED FOR REVIEW AND APPROVAL BY THE DESIGN PROFESSIONALS. PROVISION FOR ELEVATORS, ASSOCIATED EQUIPMENT, GUIDE RAILS, AND BRACKETS HAS
 - BEEN INCLUDED IN THE DESIGN OF THE STRUCTURE.

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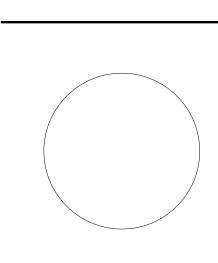
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CONSTRUCTION MANAGER

RINGLAND JOHNSON

1725 HUNTWOOD DR, CHERRY **VALLEY, IL 61016** 815.332.8600



KEY PLAN:

SHEET STATUS:

BID #24-26-D04 ISSUED

FOR BIDDING

DESCRIPTION: SHEET TITLE:

SHEET NUMBER:

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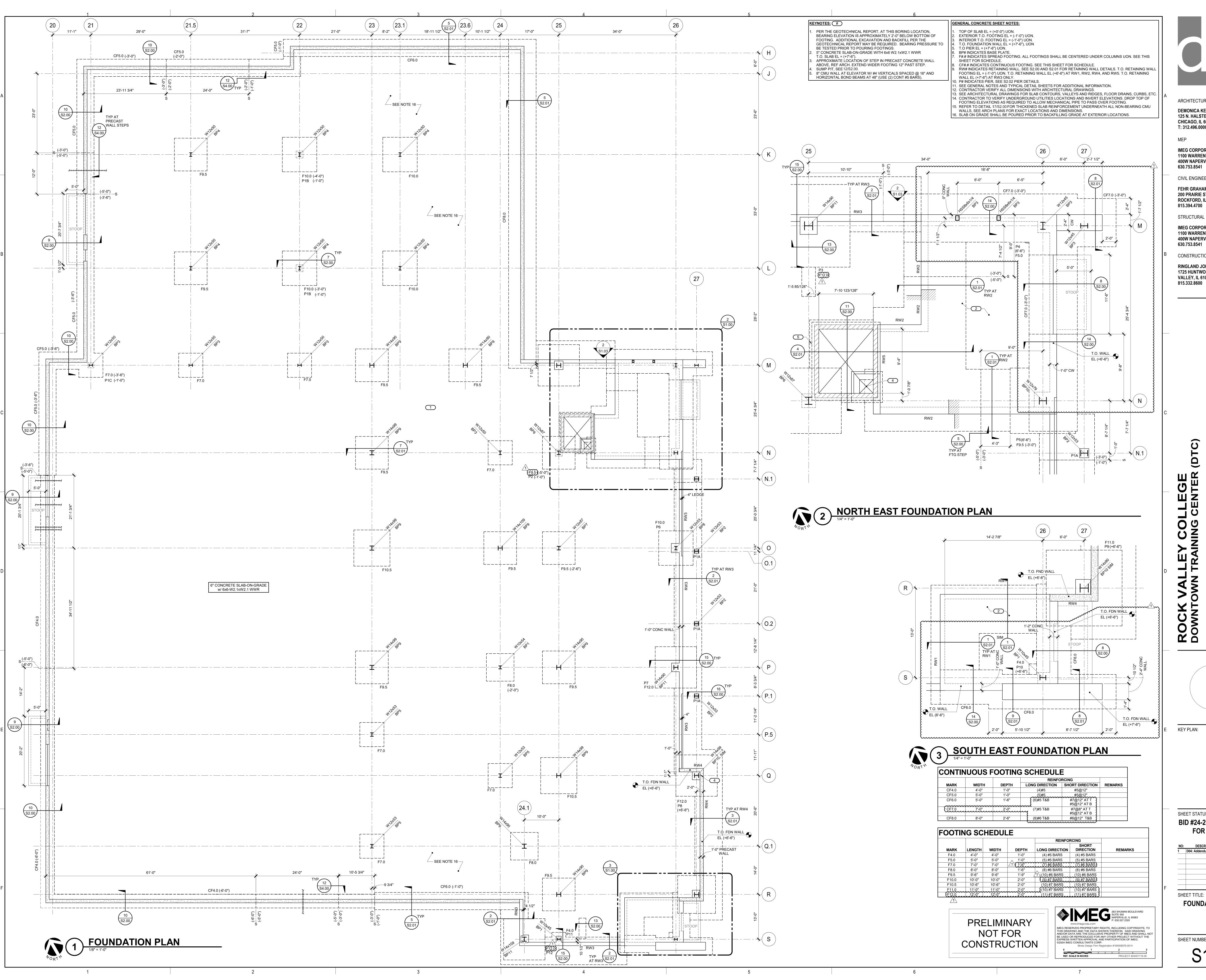
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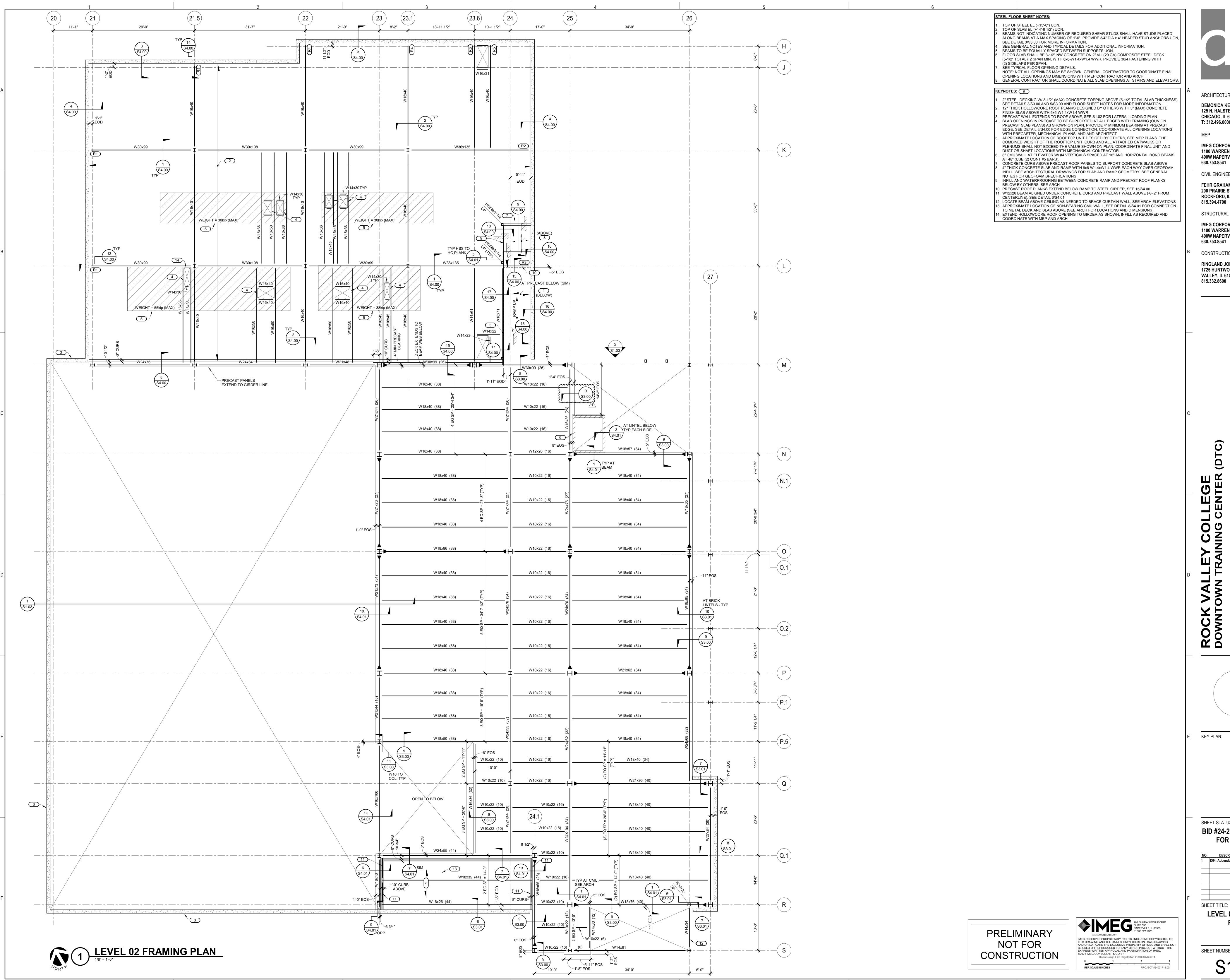
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FOUNDATION PLAN



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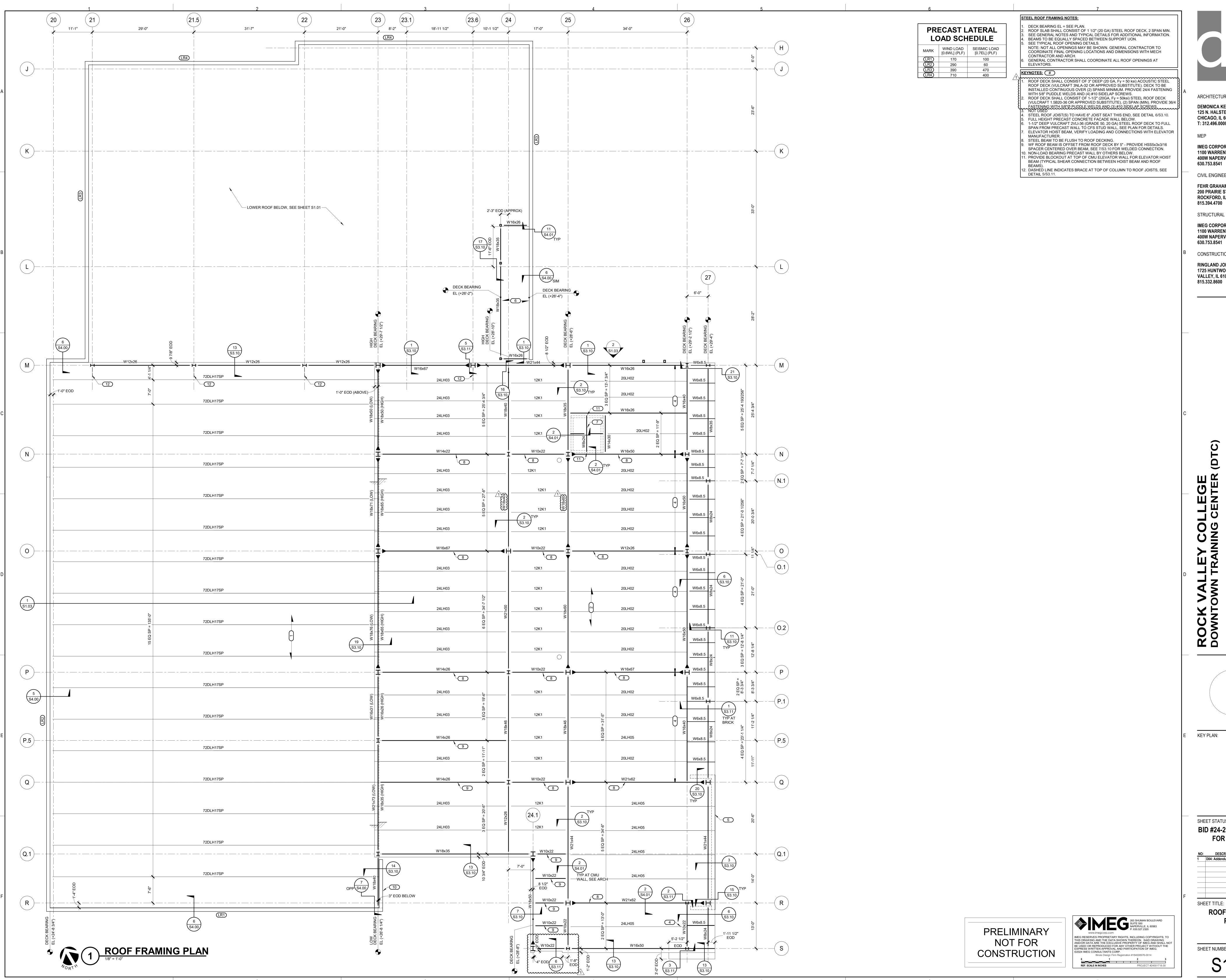
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BID #24-26-D04 ISSUED **FOR BIDDING**

SHEET TITLE: **LEVEL 02 FRAMING**



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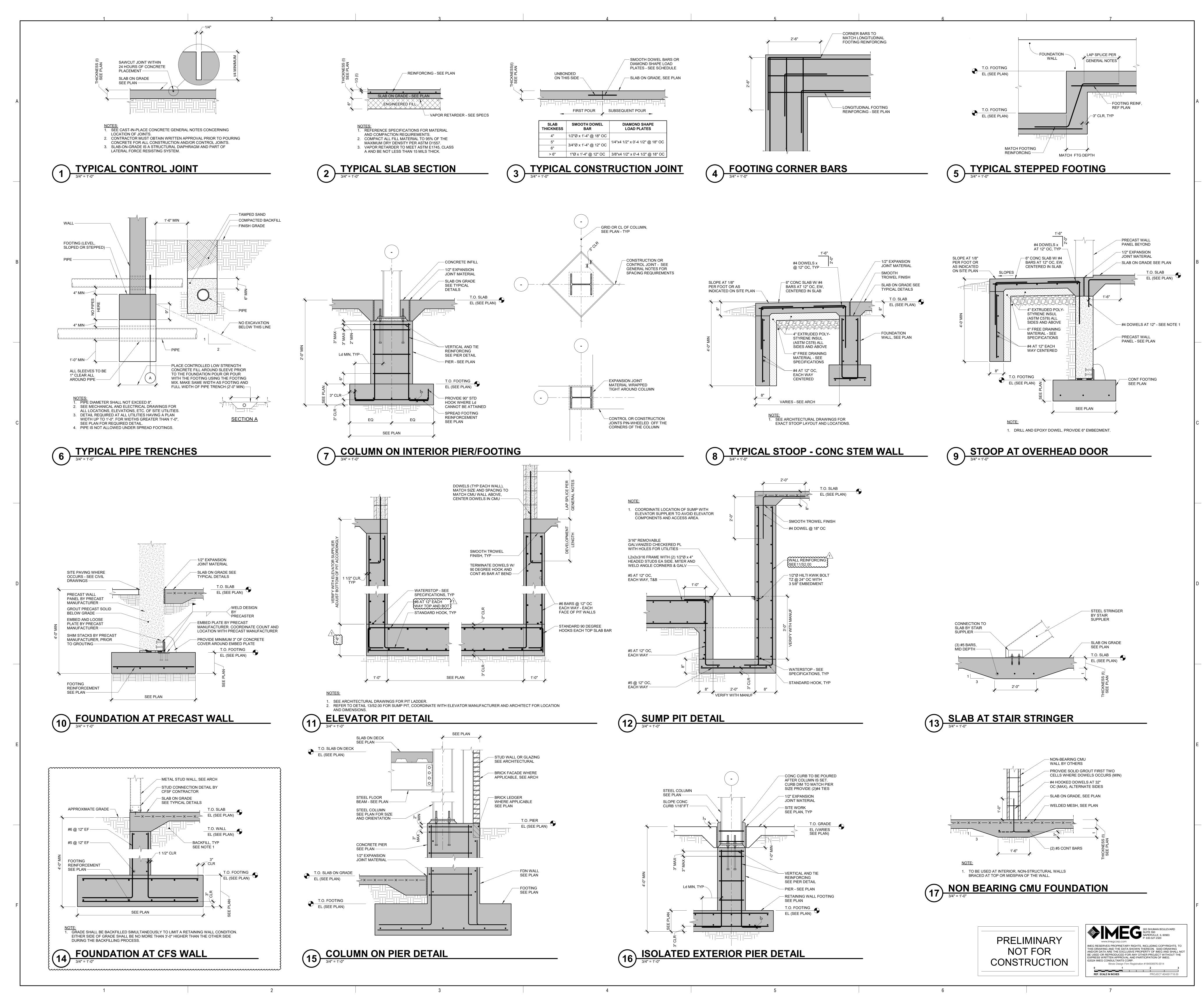
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CONSTRUCTION MANAGER

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ROOF FRAMING



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MEP **IMEG CORPORATION** 1100 WARRENVILLE RD, SUITE 400W NAPERVILLE, IL 60563

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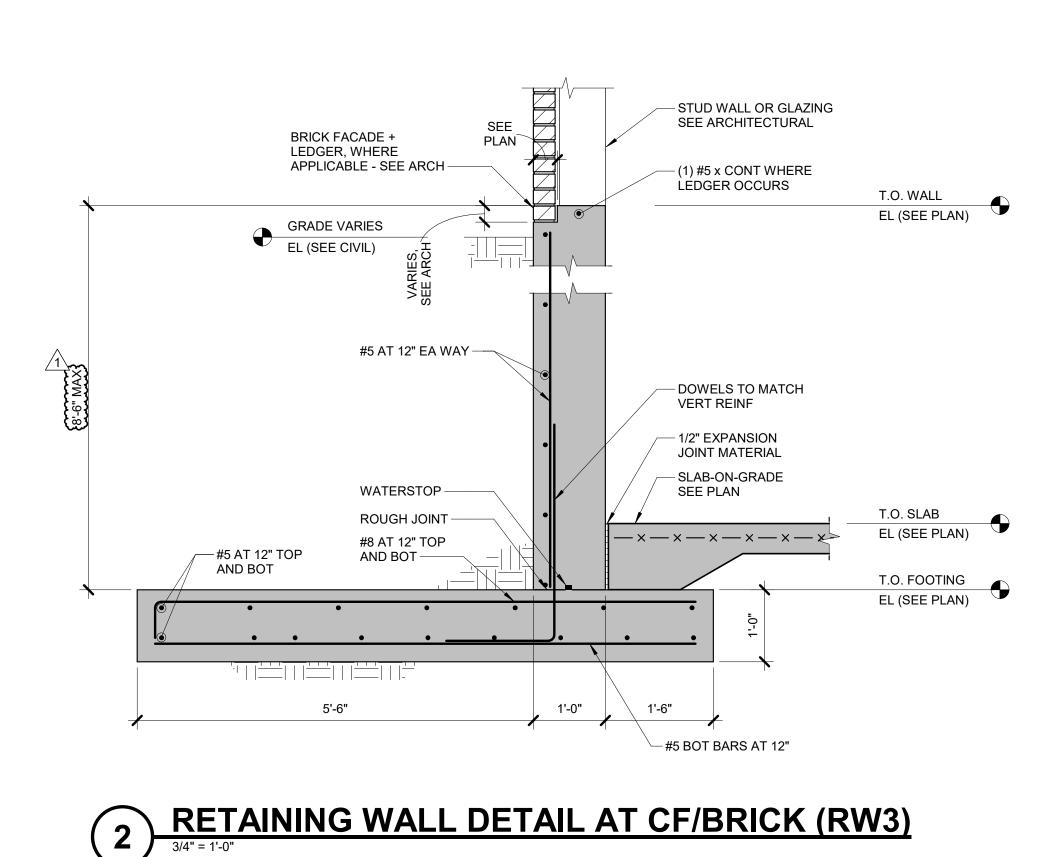
CONSTRUCTION MANAGER RINGLAND JOHNSON 1725 HUNTWOOD DR, CHERRY **VALLEY, IL 61016**

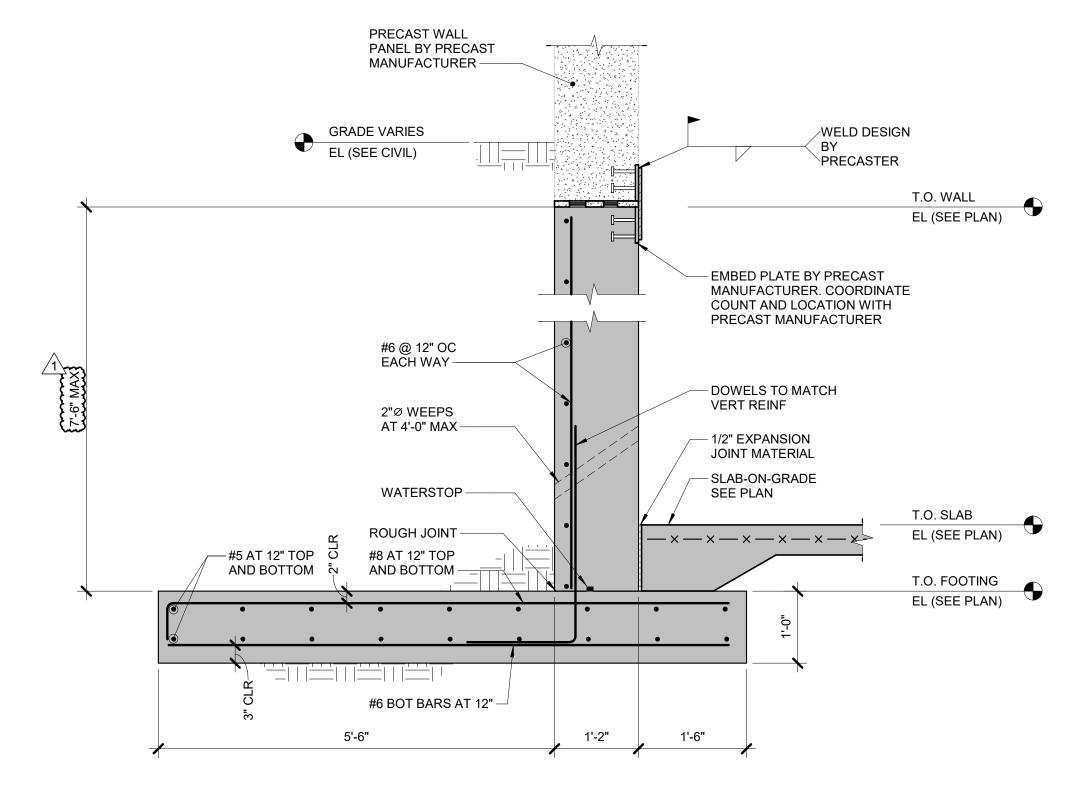
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DESCRIPTION: SHEET TITLE:

CONCRETE DETAILS

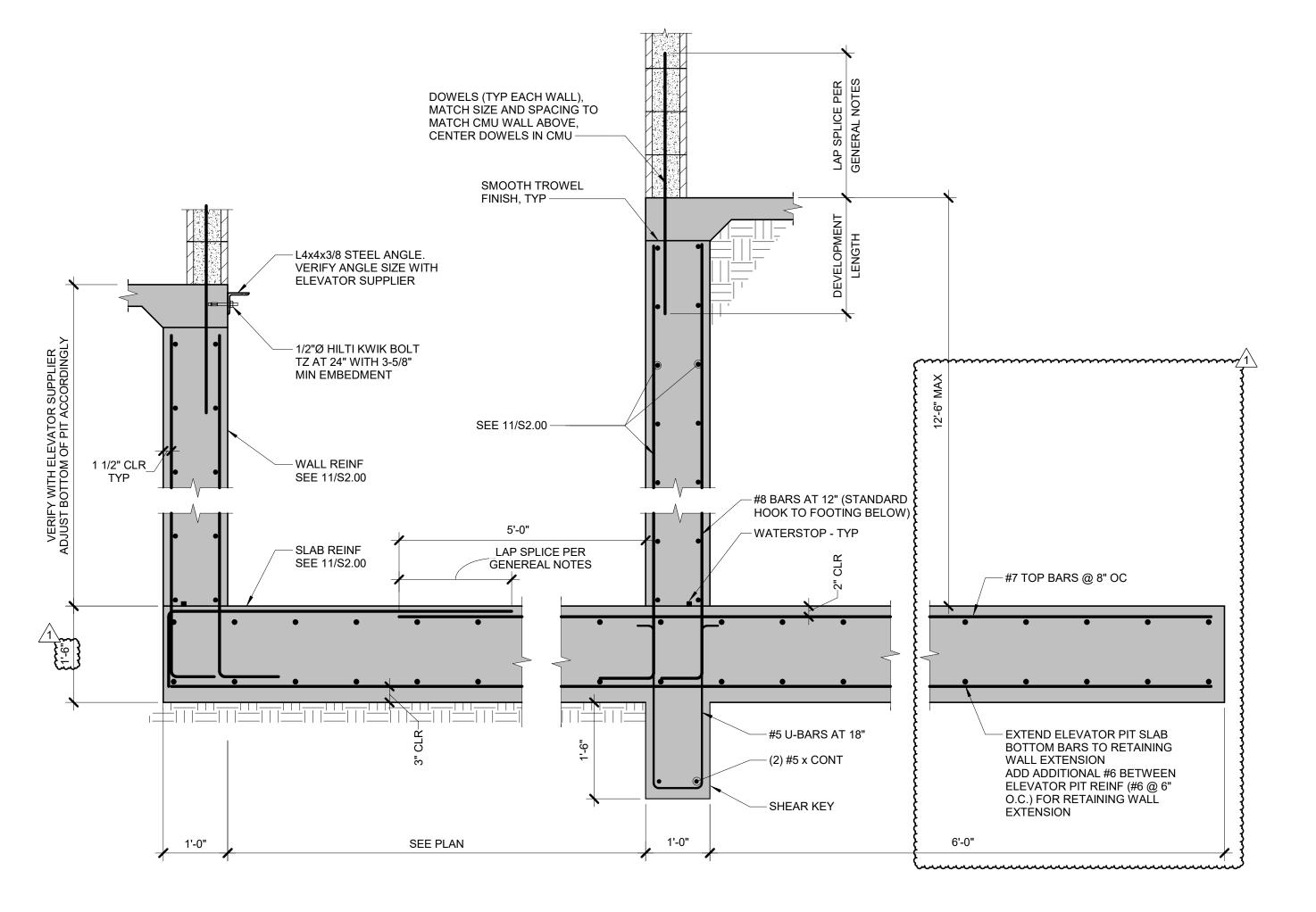


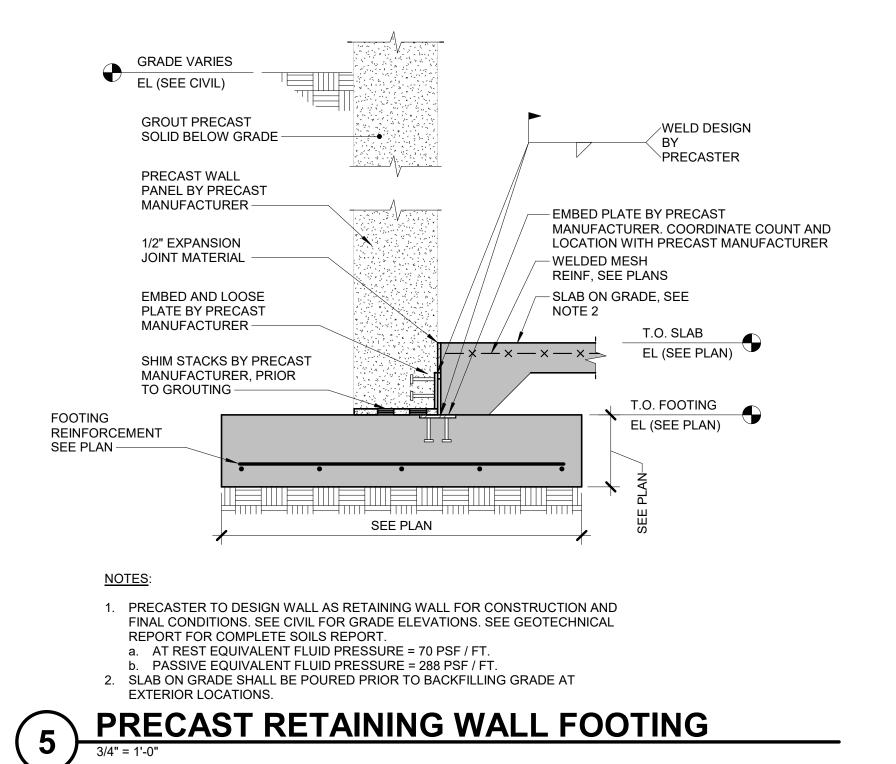


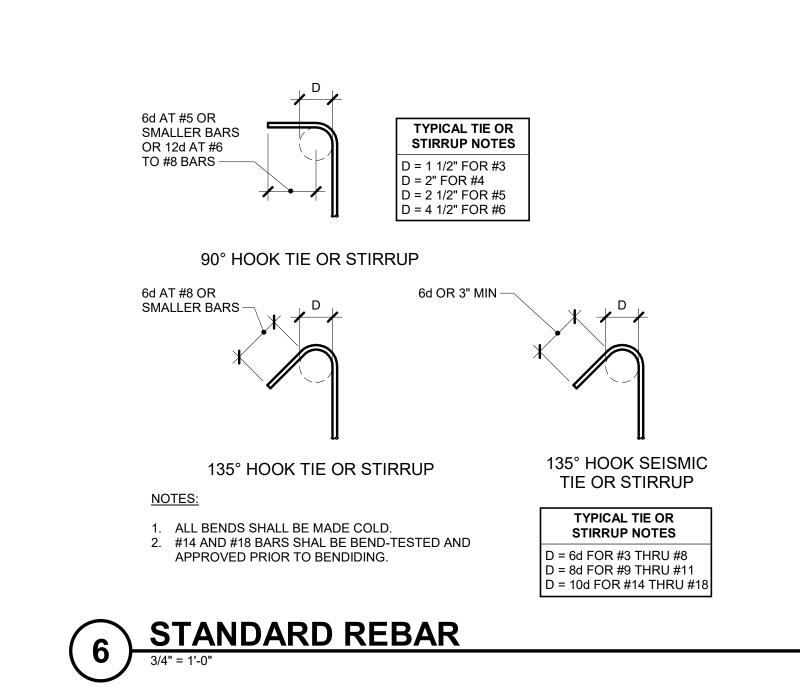
RETAINING WALL DETAIL AT PRECASTER (RW4)

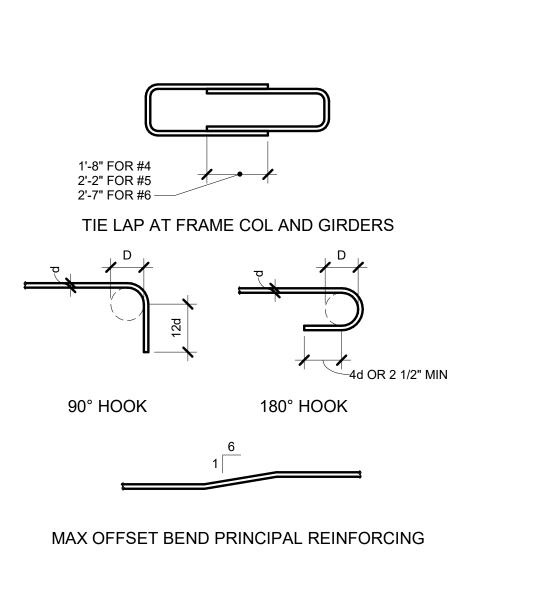
3/4" = 1'-0"

1 RETAINING WALL DETAIL (RW1 - RW2)



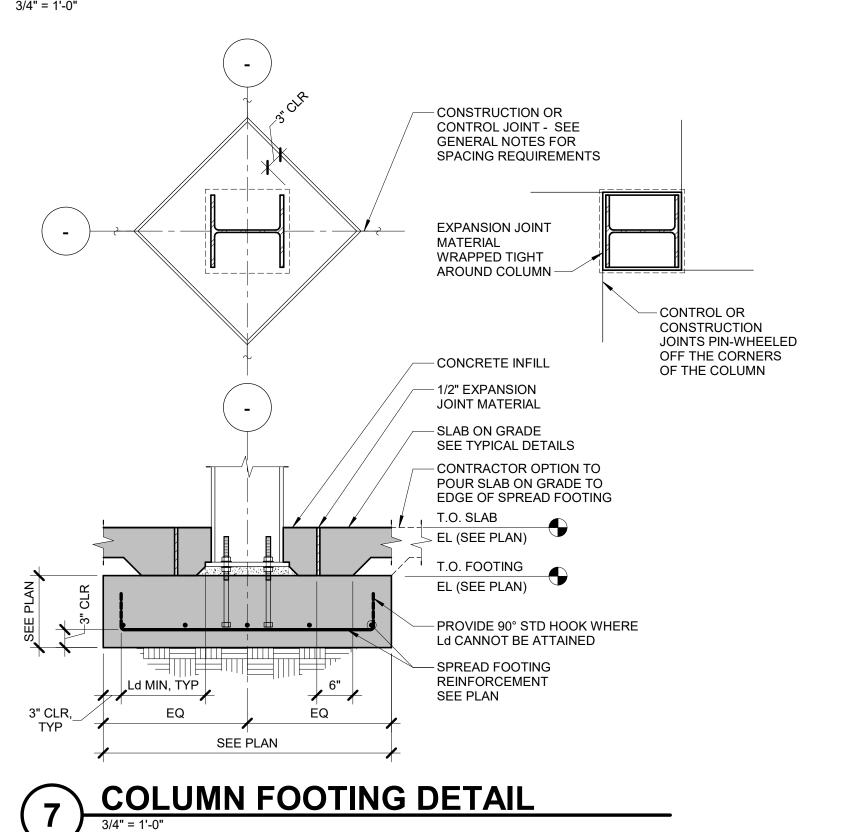


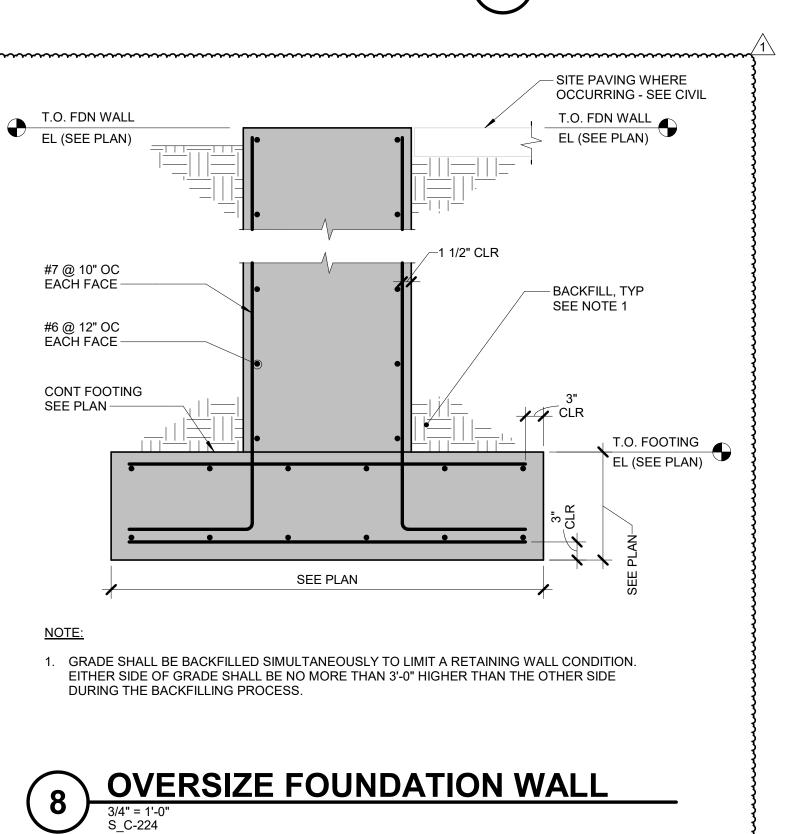


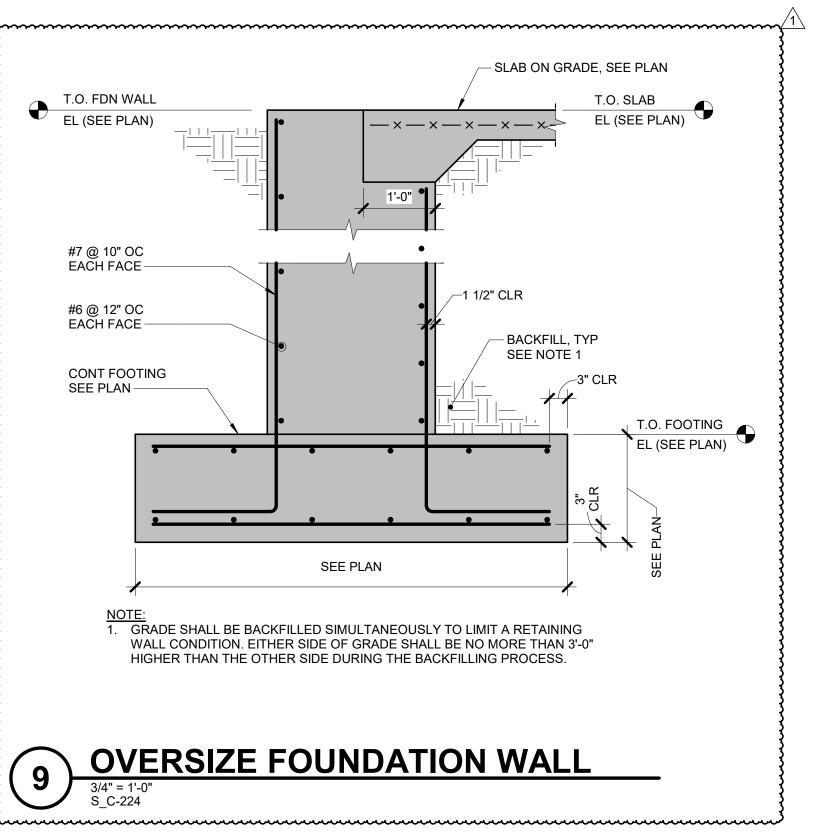


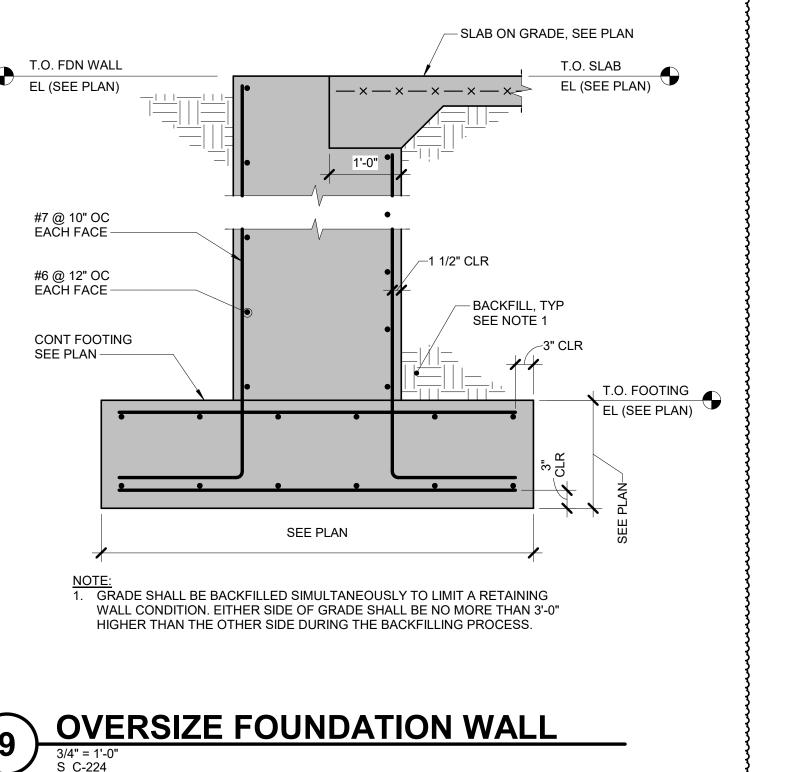
RETAINING WALL AT ELEVATOR (RW5)

3/4" = 1'-0"









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ARCHITECTURE:

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MEP **IMEG CORPORATION** 1100 WARRENVILLE RD, SUITE 400W NAPERVILLE, IL 60563

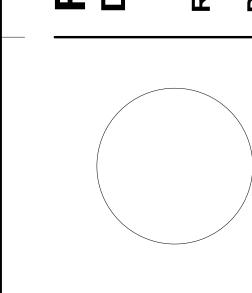
630.753.8541 CIVIL ENGINEERING

FEHR GRAHAM 200 PRAIRIE ST, SUITE 208, ROCKFORD, IL 61107 815.394.4700

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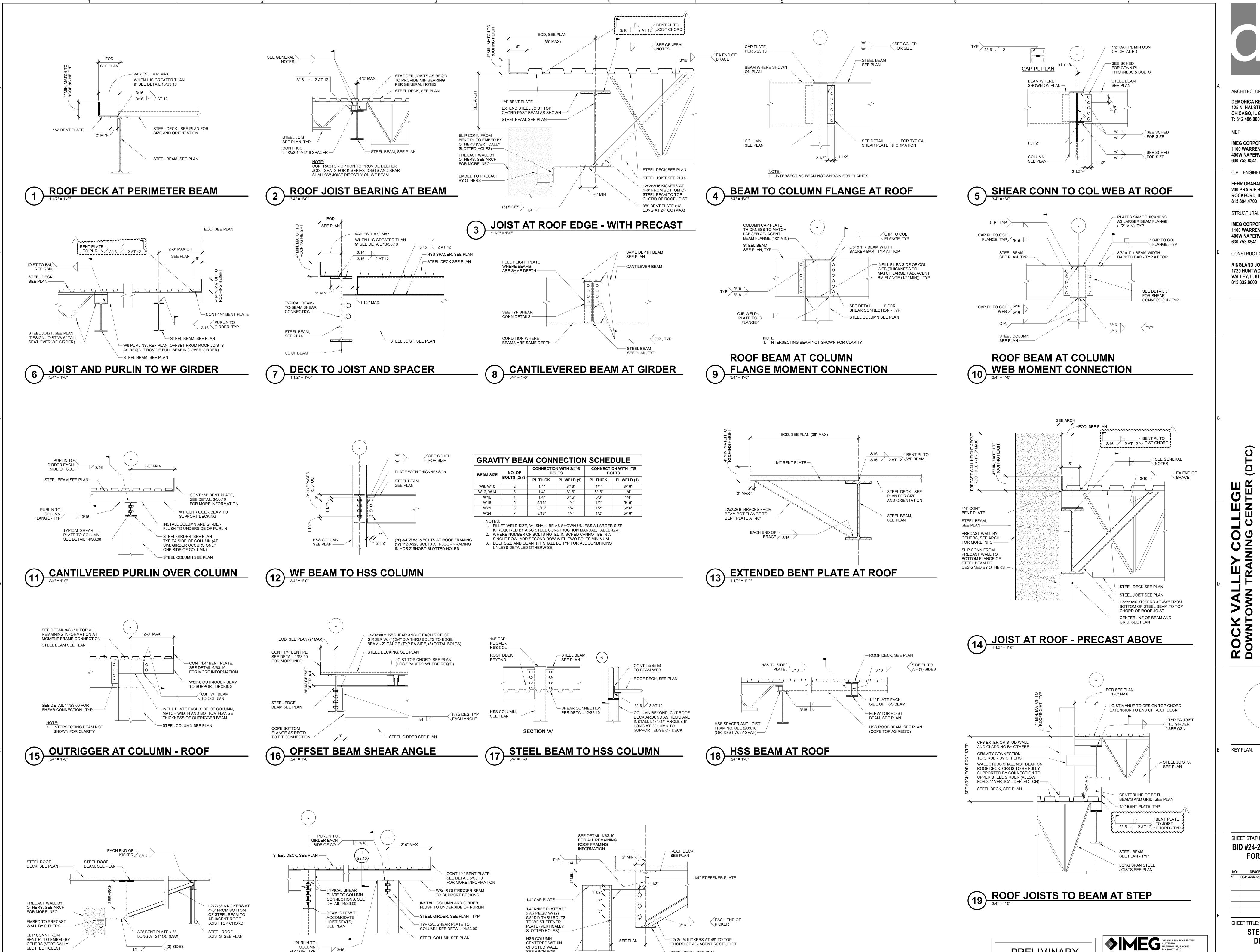
RINGLAND JOHNSON 1725 HUNTWOOD DR, CHERRY **VALLEY, IL 61016** 815.332.8600



KEY PLAN:

SHEET STATUS: BID #24-26-D04 ISSUED **FOR BIDDING**

DESCRIPTION: DATE: SHEET TITLE: **CONCRETE DETAILS**



CHORD OF ADJACENT ROOF JOIST

- STEEL BEAM, SEE PLAN

CFS STUD WALL,

SEE ARCH FOR

WALL ASSEMBLY -

CURTAIN WALL FRAME AT ROOF

1 1/2" = 1'-0"

OTHERS (VERTICALLY

SLOTTED HOLES) —

(3) SIDES

PRECAST WING WALL AT ROOF

3/4" = 1'-0"

FLANGE - TYP/

CANTILVERED PURLIN OVER COLUMN

ARCHITECTURE:

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CONSTRUCTION MANAGER

RINGLAND JOHNSON 1725 HUNTWOOD DR, CHERRY **VALLEY, IL 61016**

SHEET STATUS: BID #24-26-D04 ISSUED FOR BIDDING

DESCRIPTION:

SHEET TITLE: STEEL ROOF

DETAILS

PRELIMINARY

NOT FOR

CONSTRUCTION

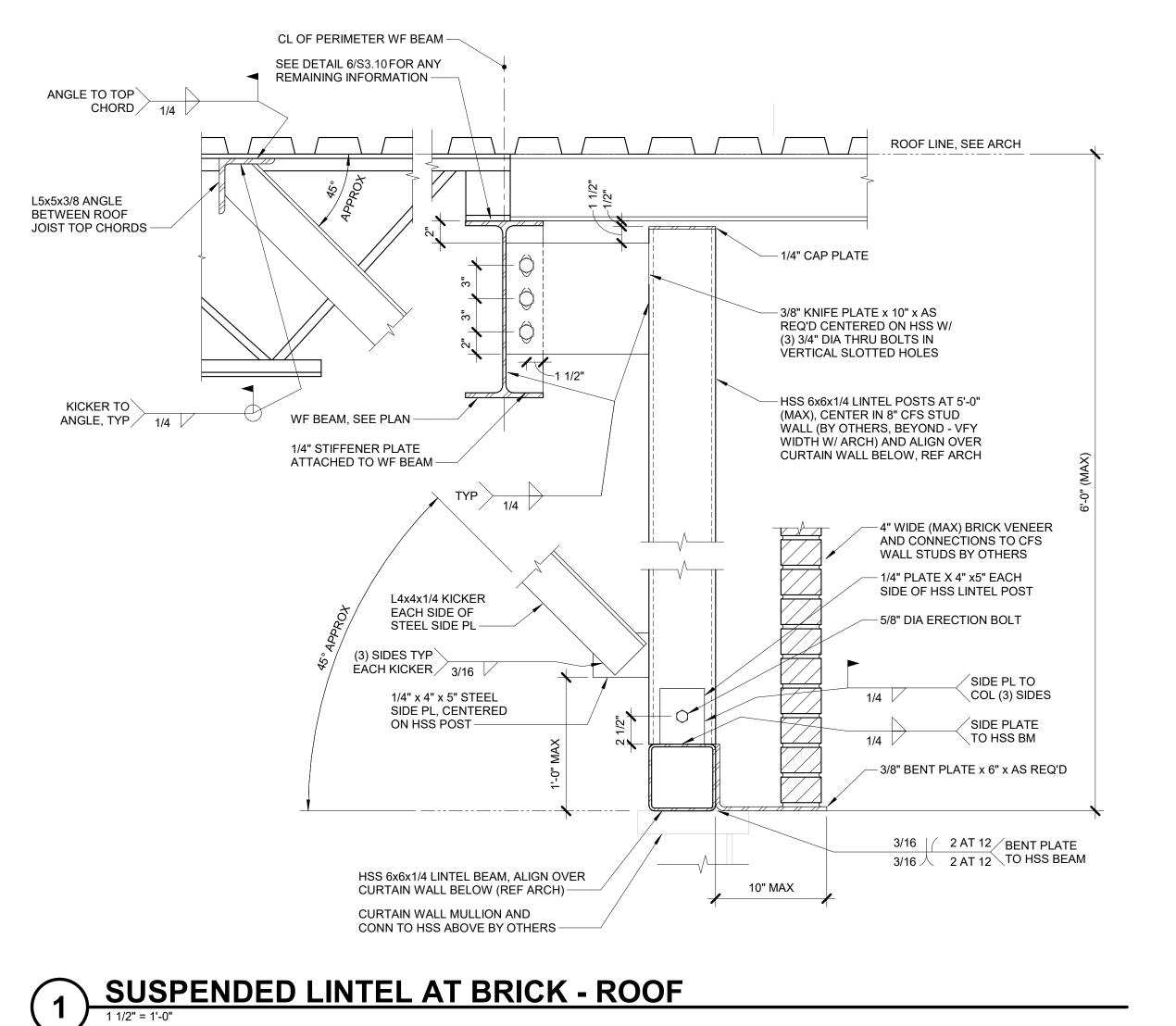
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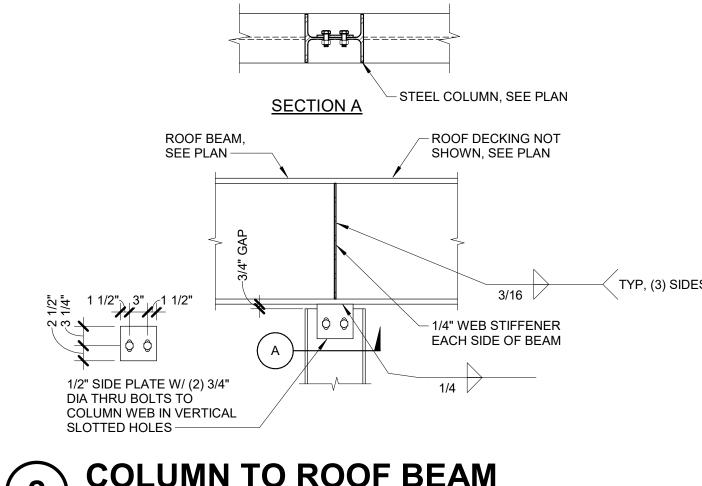
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REF. SCALE IN INCHES PROJECT #24001718.00





ROOF GIRDER, SEE PLAN (CONTINUOUS OVER COLUMN)—

3/4" PLATE x LARGER OF

BEAM FLANGE WIDTH OR COLUMN WIDTH + 1" W/ (4)

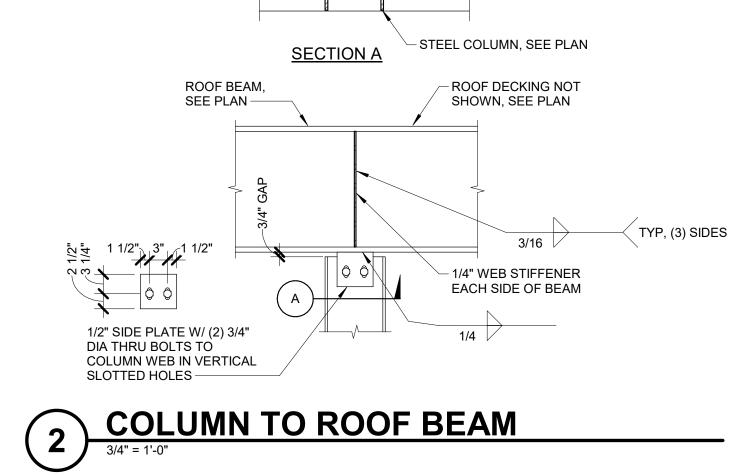
3/4" DIA THRU BOLTS TO BEAM BOTTOM FLANGE —

WF COLUMN, SEE PLAN —

- ROOF DECK, SEE PLAN

√1 1/2" TYP√

1 1/2" TYP



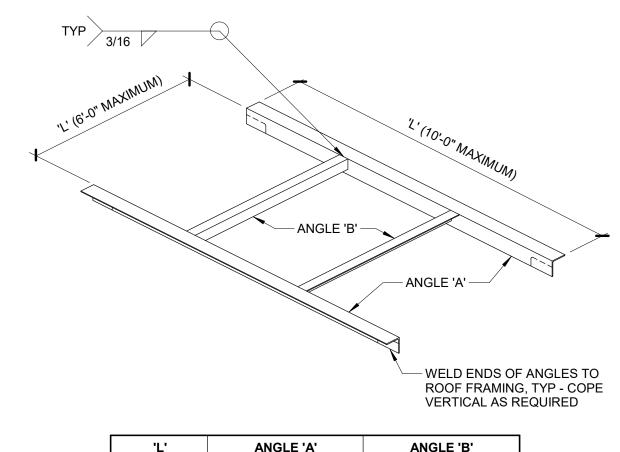
FULL HEIGHT SHEAR PLATE, SEE 14/S3.00 FOR GRAVITY CONNECTION AND 7/S3.00

FOR WEB STIFFENER

ROOF DECKING NOT SHOWN, SEE PLAN

PERPENDICULAR BEAM,

SEE PLAN (COPE BOTTOM FLANGE AS REQ'S FOR FIT)



ANGLE 'B' ANGLE 'A' UP TO 1'-0" NONE NONE 1'-1" TO 4'-6" L4x4x1/4 4'-7" TO 6'-0" L4x4x5/16 L4x4x1/4 6'-1" TO 8'-0" L4x4x3/8 8'-1" TO 10'-0" L6x4x3/8 (LLV)

1. SEE ARCHI AND MECHANICAL DRAWINGS FOR SIZE AND

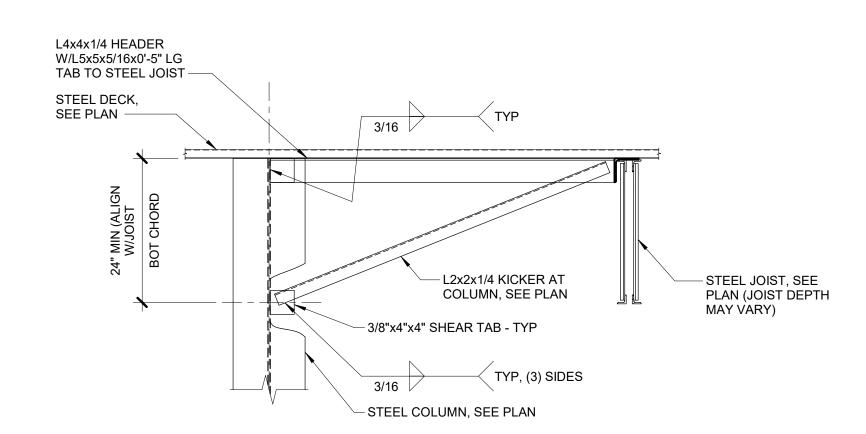
LOCATION OF ALL OPENINGS.

2. ROOF OPENING FRAMING NOT REQUIRED AT SIDE DISCHARGE ROOF DRAINS. COORDINATE WITH MECHANICAL CONTRACTOR.

COLUMN OVER ROOF BEAM

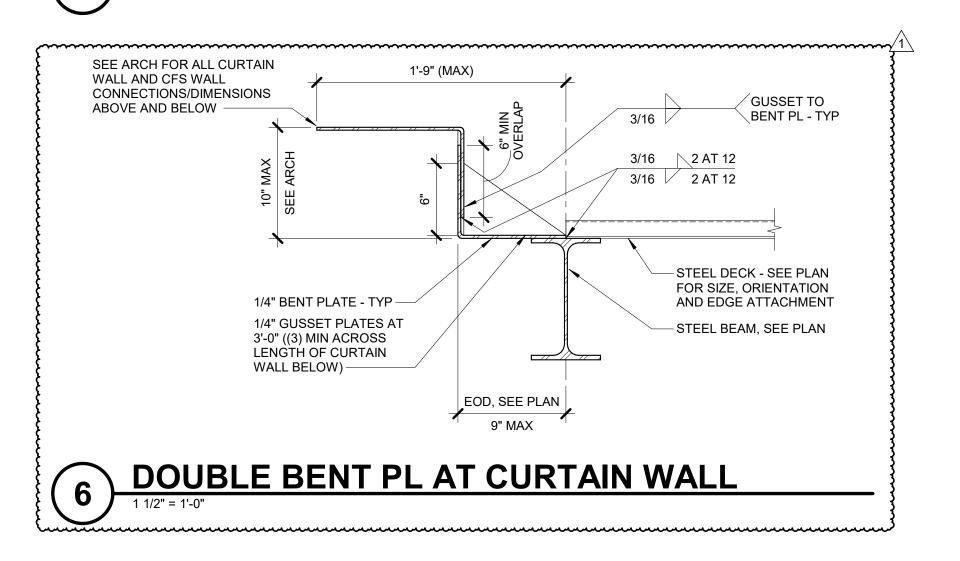
3/4" = 1'-0" ROOF OPENING DETAIL

3/4" = 1'-0"



5 COLUMN BRACE AT ROOF

3/4" = 1'-0"



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CONSTRUCTION MANAGER

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630.753.8541

KEY PLAN:

SHEET STATUS:

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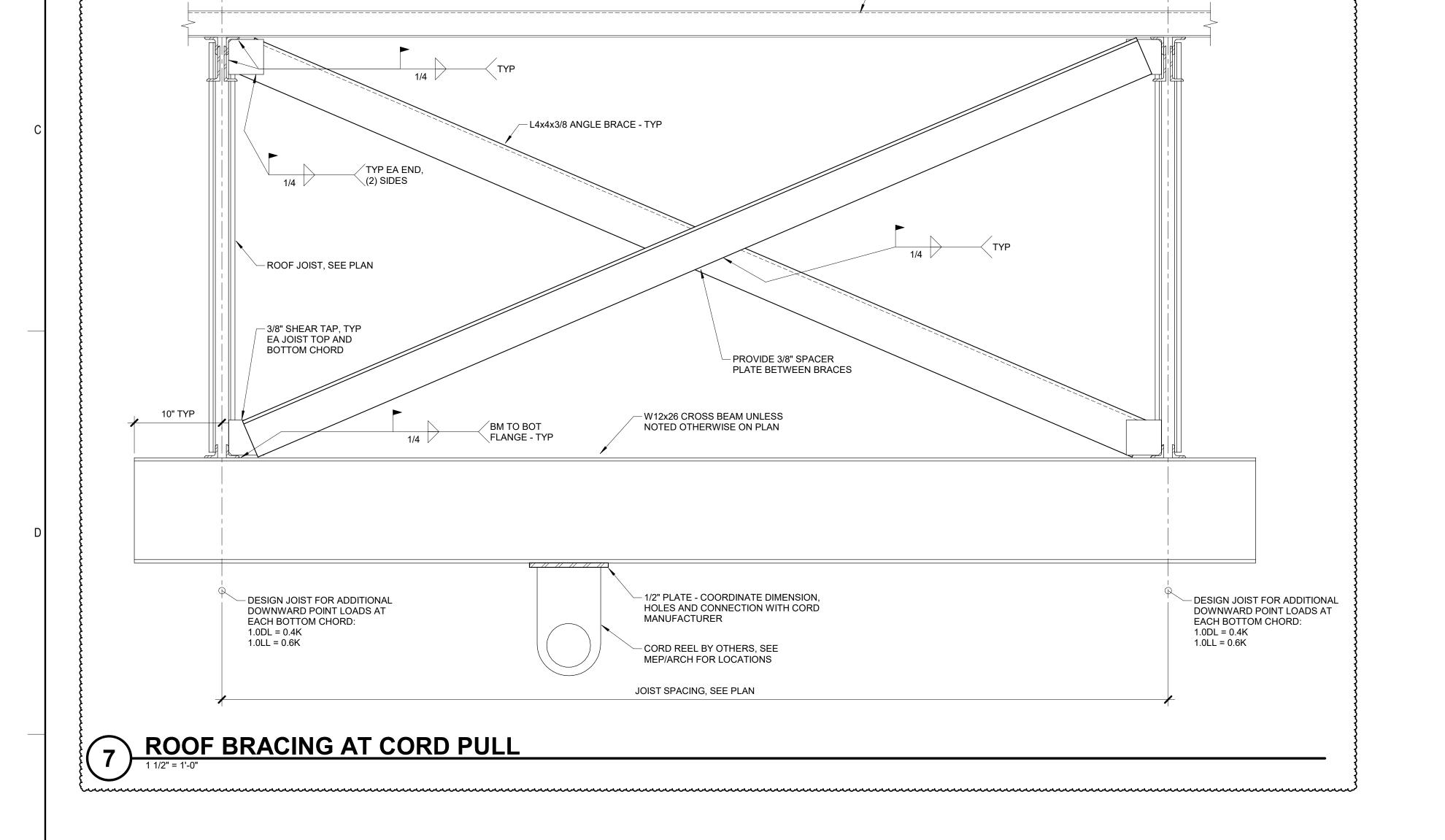
STEEL ROOF

DETAILS

DESCRIPTION: DATE:

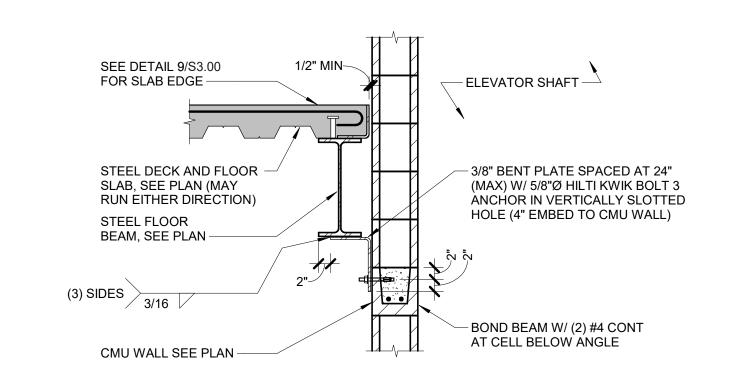
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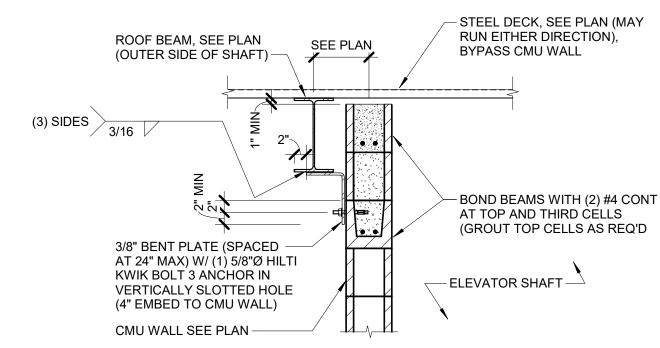
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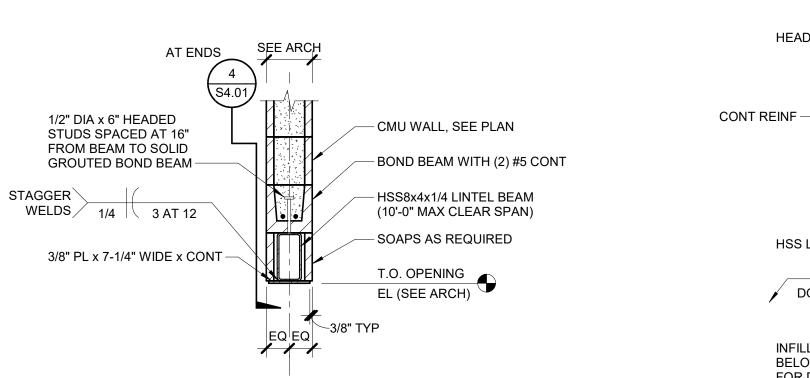


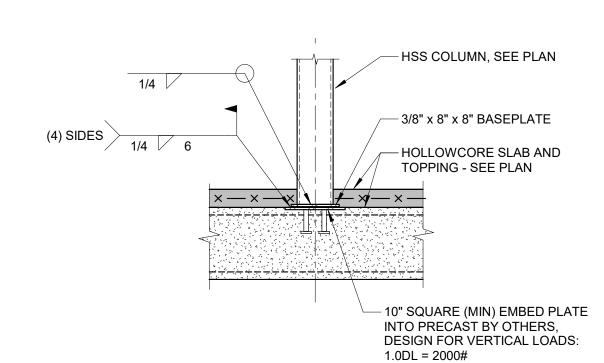
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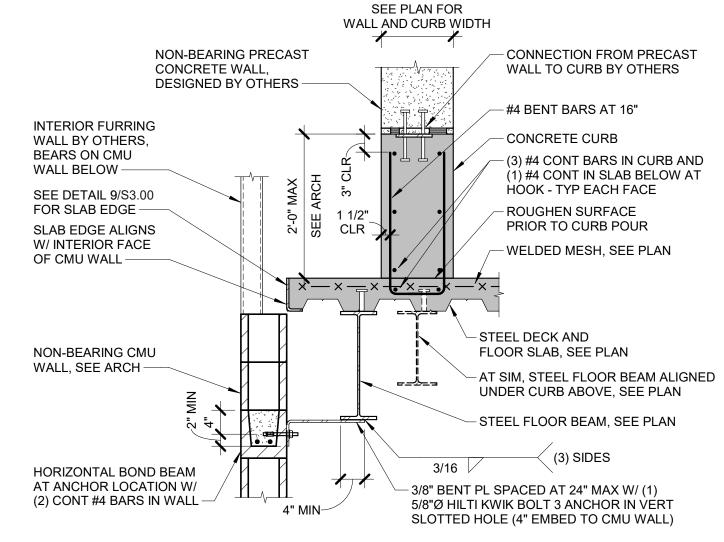


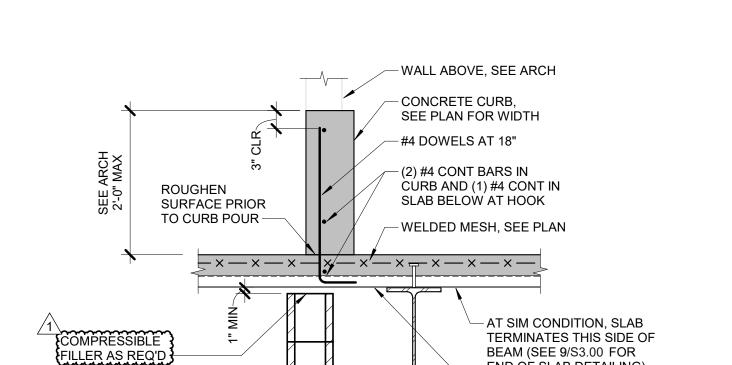












END OF SLAB DETAILING)

- STEEL DECK AND SLAB, SEE PLAN

— STEEL FLOOR BEAM, SEE PLAN

- 3/8" BENT PLATE SPACED AT 24"

HOLE (4" EMBED TO CMU WALL)

MAX W/ (1) 5/8"Ø HILTI KWIK BOLT 3

ANCHOR IN VERTICALLY SLOTTED





HEADED STUDS -

HSS LINTEL -

___ELEVATOR -

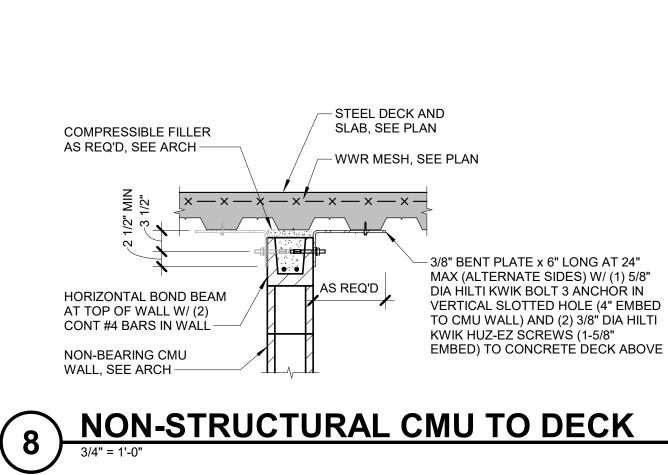
SEE ARCH

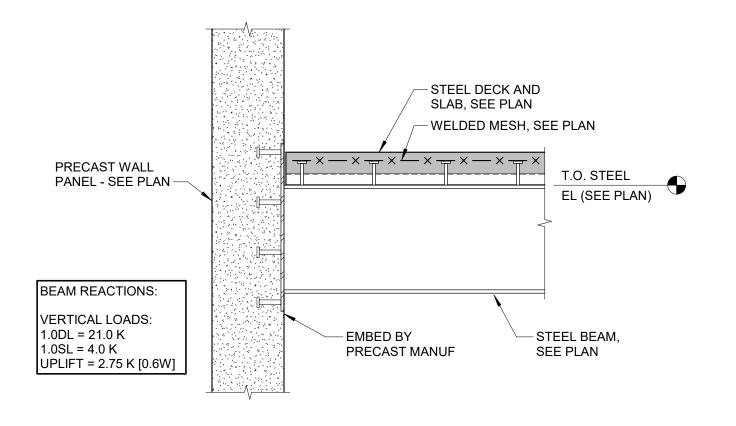
BELOW LINTEL AS REQ'D

▶ DOOR OPENING,

INFILL CMU WALL







NOTE: SEE DETAIL 3/S4.01 FOR ANY REMAINING INFORMATION

FIRST COURSE ABOVE BOND

BEAM PARALLEL TO LINTEL

- 1/2" DIA x 6" HEADED STUDS

TO GRÒUTÉD CELLS BELOW

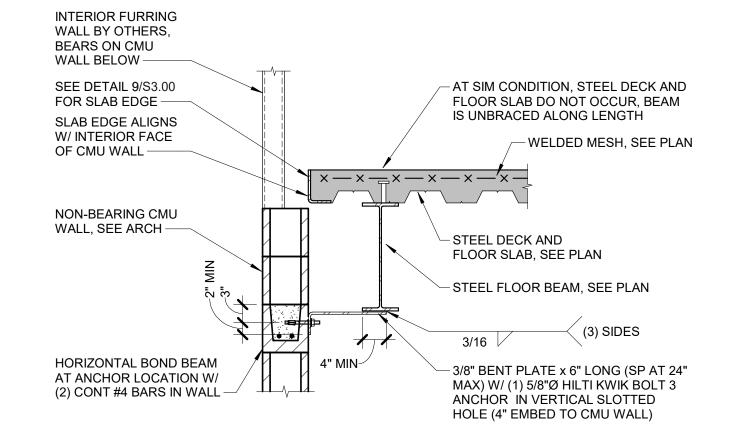
AT 16" (MAX) FROM LINTEL

- CMU WALL, SEE PLAN

(2) #5 BARS IN WALL

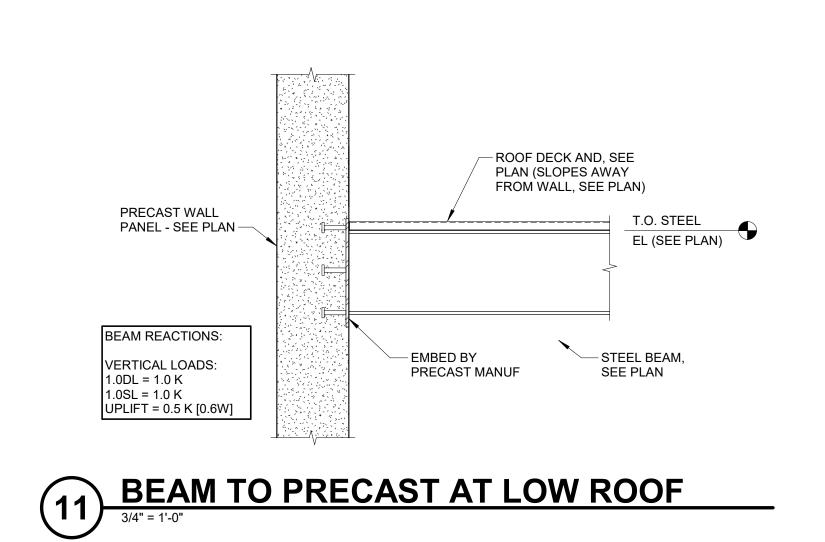
BELOW LINTEL

SOAPS AS REQUIRED



6 PRECAST WALL OVER SLAB

3/4" = 1'-0"



7 CURB AT LOWER ROOF

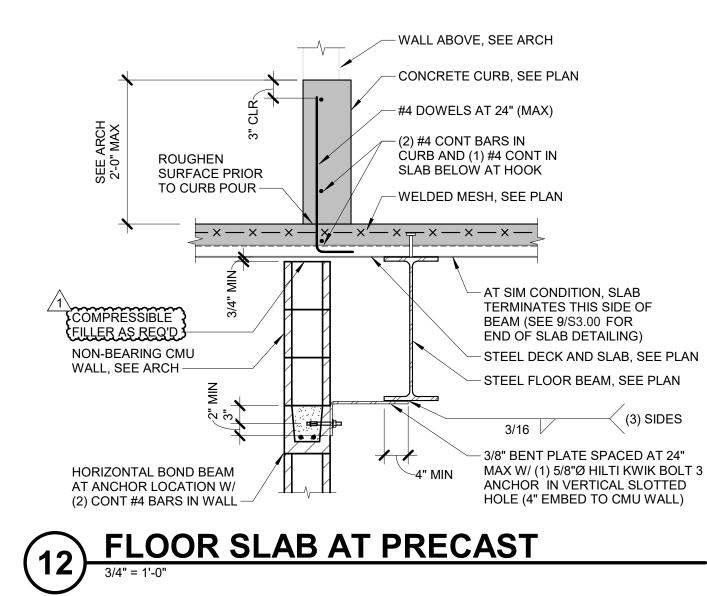
NON-BEARING CMU

HORIZONTAL BOND BEAM

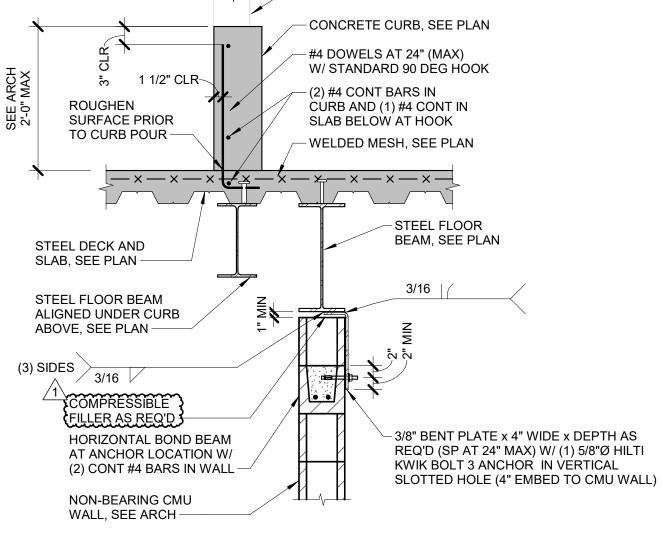
AT ANCHOR LOCATION W/

(2) CONT #4 BARS IN WALL -

WALL, SEE ARCH-



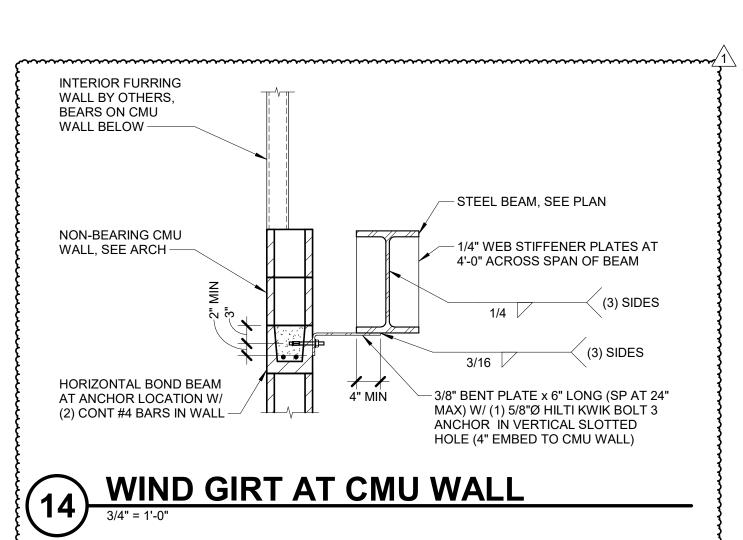
CONCRETE CURB, SEE PLAN -#4 DOWELS AT 24" (MAX) W/ STANDARD 90 DEG HOOK



CMU WALL BELOW STEEL BEAM

3/4" = 1'-0"





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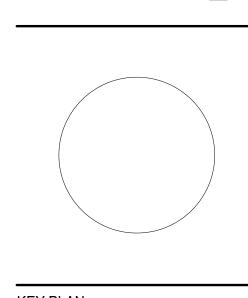
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SHEET STATUS: BID #24-26-D04 ISSUED **FOR BIDDING**

NO:	DESCRIPTION:	DATE:
1	D04: Addendum 01	11/25/24

PRECAST AND **MASONRY DETAILS**