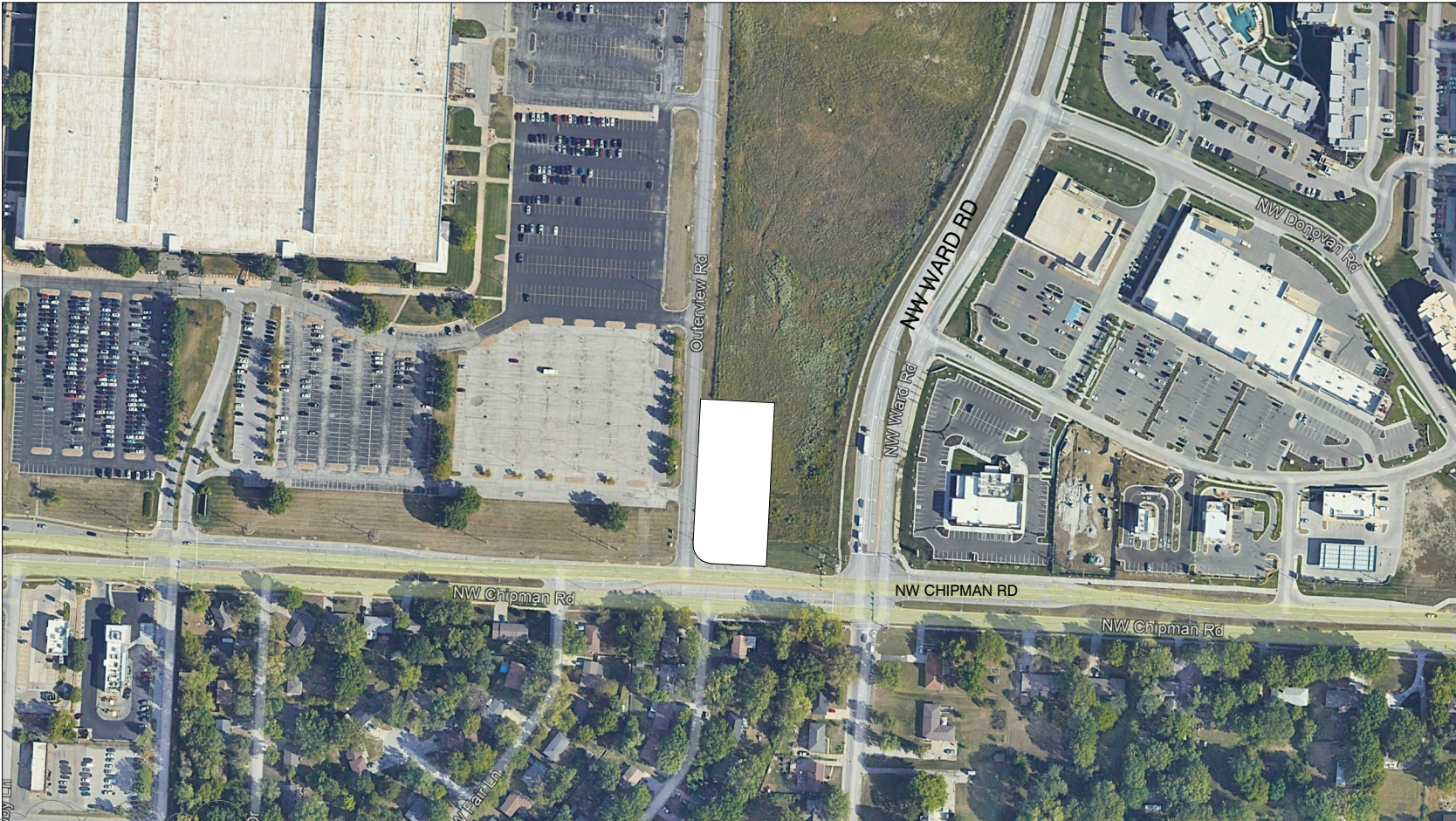


Andy's Frozen Custard #204
630 NW Chipman Road, Lee's Summit, MO 64086

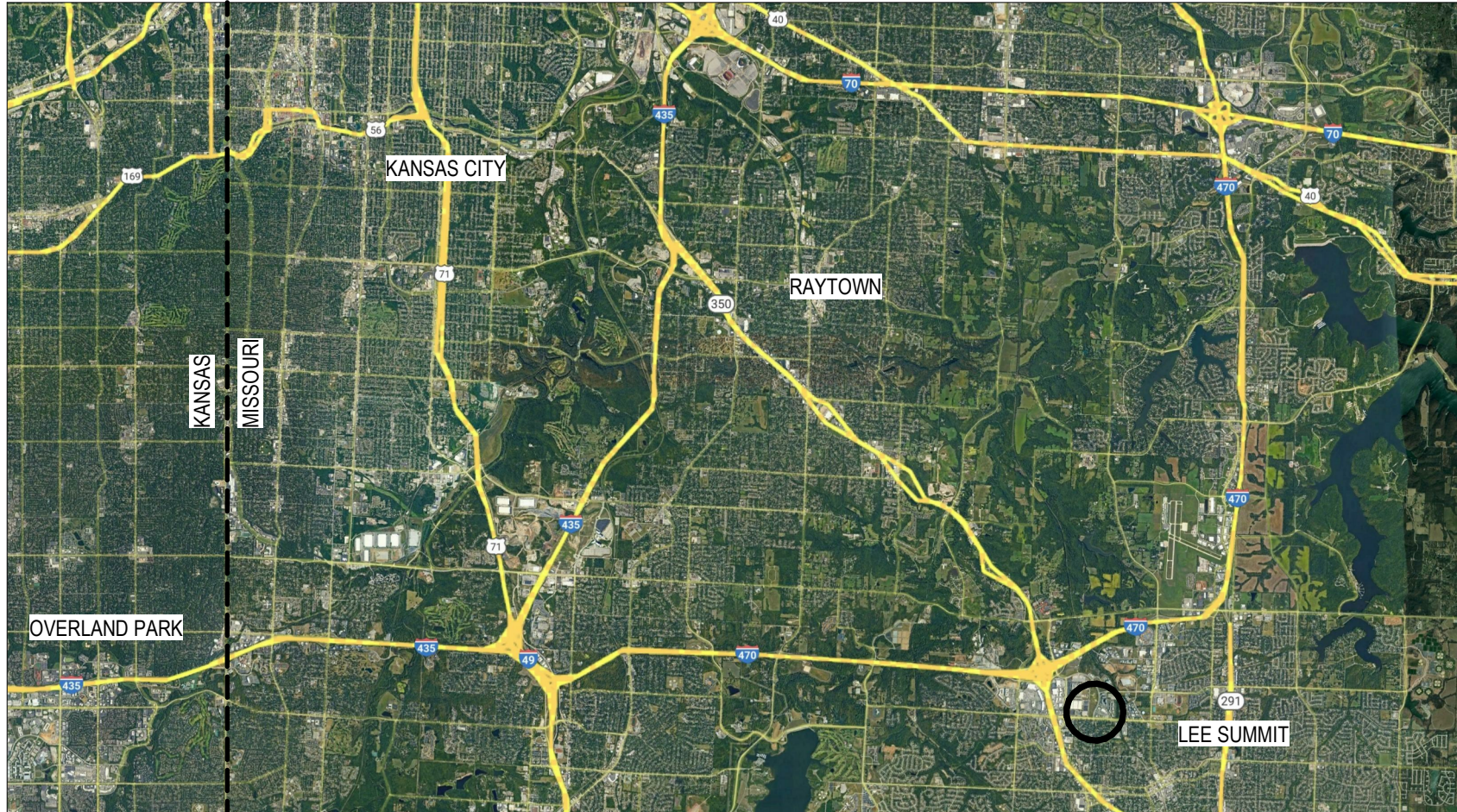
CONSTRUCTION DOCUMENTS | 05/01/2024

SITE PLAN:



630 NW Chipman Road, Lee's Summit, MO 64086

LOCATION PLAN:



Greater Kansas City Area

PROJECT DIRECTORY:

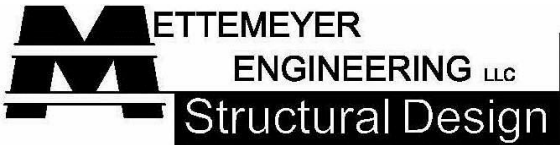
ARCHITECT / INTERIOR DESIGNER:

Hufft

3612 Karnes Blvd.
Kansas City, Missouri 64111
P: 816-531-0200

Contact: Wesley Yngsdal
Email: wyngsdal@hufft.com

STRUCTURAL ENGINEER:



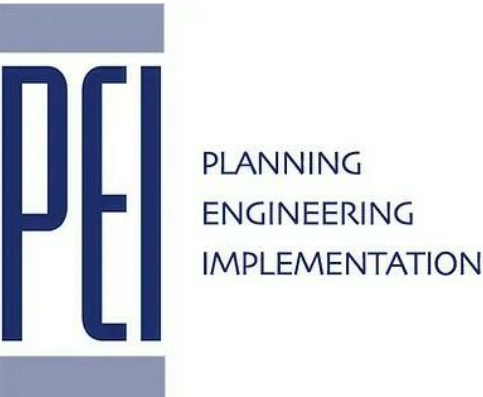
2101 W. CHESTERFIELD BLVD., B-105 PH. 417/890-8002
SPRINGFIELD, MO 65807 FAX 417/890-8003

Mettemeyer Structural

2225 W. Chesterfield Blvd. Suite 300
Springfield, MO 65807
P: 417.890.8002

CONTACT: Joshua Thorpe

CIVIL ENGINEER:



Phelps Engineering, Inc.

1270 N. Winchester
Olathe, KS 66061
P: 913.393.1155

CONTACT: Dan Finn

CLIENT CONTACT:



Andy's Frozen Custard

211 E. Water Street
Springfield, MO, 65806
P: 417-881-3500

Contact: Josh Braun
Email: josh.braun@eatandys.com

M.E.P. ENGINEER:



RTM Engineering Consultants

3333 East Battlefield Road, Suite 1000
Springfield, MO 65804
P: 417.881.0020

CONTACT: Tyler Enserro

SHEET INDEX

GENERAL

G000 COVER SHEET/DRAWING INDEX
G010 PROJECT DATA/ LIFE SAFETY

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C1 OVERALL SITE PLAN
C1.1 ENLARGED SITE PLAN
C1.2 ENLARGED SITE PLAN
C1.3 TRUCK TURN PLAN
C2 OVERALL GRADING PLAN
C2.1 ENLARGED GRADING PLAN
C2.2 ENLARGED GRADING PLAN
C3 UTILITY PLAN
C4 DRAINAGE MAP
C5 STORM SEWER PLAN & PROFILE
C5.1 SECONDARY STORM PLAN
C6 EROSION CONTROL PLAN
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A011 SITE SIGNAGE
A020 AXON 3D VIEWS
A101 FLOOR PLAN
A102 EQUIPMENT & FURNISHINGS PLAN
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S002 TYPICAL DETAILS
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E1 LIGHTING PLAN
E2 POWER PLAN
E3 SPECIAL SYSTEMS PLAN
E4 ELECTRICAL SCHEDULES AND DETAILS
E5 ELECTRICAL SCHEDULES

Hufft

PROJECT INFORMATION:

Andy's Frozen Custard #204

630 NW Chipman Road
Lee's Summit, Missouri 64086

OWNER:

ANDY'S FROZEN CUSTARD

211 E. Water Street
Springfield, MO 65806

www.eatandys.com

ARCHITECT:

HUFFT

3612 Karnes Boulevard
Kansas City, MO 64111
P: 816-531-0200

www.hufft.com

STRUCTURAL:

METTEMAYER ENGINEERING, LLC

2225 W. Chesterfield Blvd., Suite 300
Springfield, MO 65807
P: 417-890-8002

CIVIL/LANDSCAPE:

PHELPS ENGINEERING, INC.

1270 N. Winchester
Olathe, Kansas 66061
P: 913.538.5821

MEP:

RTM ENGINEERING CONSULTANTS

3333 E. Battlefield Road, Suite 1000
Springfield, MO 65804
P: 417-881-0020

ISSUE:

CONSTRUCTION DOCUMENTS
05/01/2024

REVISION SCHEDULE:

NO.	DATE	ISSUE
1	05/30/2024	Addendum 1

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05/30/2024

Architect: JEFFREY KLOCH
License Number: A-2016005093
Drawn By: WY
Project Number: 736

COVER SHEET/DRAWING
INDEX

G000

PROJECT INFORMATION:
Andy's Frozen Custard #204

630 NW Chipman Road
Lee's Summit, Missouri 64086

OWNER:
ANDY'S FROZEN CUSTARD

211 E. Water Street
Springfield, MO 65806
www.eatandys.com

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HUFFT
3612 Karnes Boulevard
Kansas City, MO 64111
P: 816-531-0200
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STRUCTURAL:

METTEMAYER ENGINEERING, LLC
2225 W. Chesterfield Blvd., Suite 300
Springfield, MO 65807
P: 417-990-9102

CIVIL/LANDSCAPE:

PHELPS ENGINEERING, INC.
1270 N. Winchester
Clathe, Kansas 66061
P: 913.539.5821

MEP:

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05/30/2024

Architect: JEFFREY KLOCH
License Number: A-2016005093
Drawn By: WY
Project Number: 736

PROJECT DATA/ LIFE SAFETY

G010

PROJECT DESCRIPTION

New construction of a 1-Story stand alone frozen custard store with drive-through and walk-up sales.

APPLICABLE CODES

Lee's Summit, MO enforces the 2018 International Building Code (IBC) or 2018 International Existing Building Code (IEBC) and associated International Codes:

- 2018 International Mechanical Code (IMC)
- 2018 International Plumbing Code (IPC)
- 2017 National Electrical Code (NFPA 70 NEC)
- 2018 International Fuel Gas Code (IFGC)
- ANSI A117.1 - 2009
- 2018 International Fire Code (IFC)

ZONING

The property is zoned PMIX, defined as planned mixed use.
Conditioned area of building is 1,980 SF.
Number of employees (max shift) = 8

Requirement	Ratio	Req.	Designed
Parking	2+1 per employee	10	21
Accessible		1	1

CONSTRUCTION TYPE chapter 5 & 6

The building is **TYPE V-B CONSTRUCTION** requires non-combustible construction and the fire resistance rating of structural elements as follows (Table 601):

- Primary Columns & Beams 0-hour
- Bearing Walls 0-hour
- Exterior Non-Bearing Walls 0-hour, if 10' or more to property line
- Floors 0-hour
- Roof 0-hour

Allowable building height and area (Table 503)
• Use: B 40'-0", 2 Story, & 9,000 SF

Building Area Modification (Section 506)
• None

FIRE PROTECTION chapter 9

Sprinklers (section 903) No, area does not exceed 5,000 sf or occupant load does not exceed 100

Fire Extinguishers (section 906) Yes, within 30 feet of commercial cooking equipment

Fire Alarm (section 907) No, occupant load does not exceed 300

OCCUPANCY CLASSIFICATION & EXIT CRITERIA chapter 10

Occupancy (Table 1004.1.2)

Occupancy	Area	Occupant Load	Total
A-2, Assembly, Unconcentrated Assembly	630 sf	15 net	42
B, Business (Office)	64 sf	100 net	1
A-2, Kitchen, Kitchen Commerical	1300 sf	200 gross	7
	1,994 gross sf		50

Requirement	Occupancy	Req.
Min. number of exits (section 1016.1)	A, B	2 at 1/2 the diagonal
Max travel distance (section 1016.2)	A, B	200 ft

PLUMBING SYSTEMS chapter 29

Min. Required Plumbing Fixtures (Table 2902.1)

Use Group	Occ. Load	Water Closets		Lavatories		Drinking Ftn		Service Sink	
		Req.	Design	Req.	Design	Req.	Design	Req.	Design
A-2	50	1/75	1 (M/F)	1/200	1 (M/F)	0*	0	1/500	1

*IPC Section 410.1, where water is served in restaurants, drinking fountains shall not be required.

CODE PLAN LEGEND

PARTITIONS/BARRIERS

- 1/2 HOUR FIRE RATED WALL
- - - - 1 HOUR FIRE RATED WALL
- . - . - 2 HOUR FIRE RATED WALL
- - - - 3 HOUR FIRE RATED WALL



FE - FIRE EXTINGUISHER



KNOX - KNOX BOX

TRAVEL



TRAVEL DISTANCE - START



TRAVEL DISTANCE - END

DOOR



OCCUPANTS



DIRECTION OF TRAVEL



PROVIDED WIDTH



REQUIRED WIDTH

1 LIFE SAFETY PLAN
3/16" = 1'-0"

SITE DEVELOPMENT PLANS
FOR
ANDY'S FROZEN CUSTARD
ADDRESS: 630 N.W. CHIPMAN ROAD
IN THE CITY OF LEE'S SUMMIT, JACKSON COUNTY, MISSOURI



FIRE ACCESS ROAD NOTE:

ALL FIRE ACCESS LANES SHALL BE HEAVY DUTY ASPHALT CAPABLE OF SUPPORTING 75,000--POUNDS.

OIL-GAS WELLS:

ACCORDING TO THE MISSOURI DEPARTMENT OF NATURAL RESOURCES STATE OIL & GAS COUNCIL WELLS, LOCATED AT www.dnr.mo.gov/geology/geosrv/oilandgas.htm, THERE ARE NO OIL OR GAS WELLS ON THE PROPERTY SHOWN HEREON.

PRE-CONSTRUCTION MEETING NOTE:

THE CONTRACTOR SHALL CONTACT THE CITY'S DEVELOPMENT SERVICES ENGINEERING INSPECTION TO SCHEDULE A PRE-CONSTRUCTION MEETING WITH A FIELD ENGINEERING INSPECTOR PRIOR TO ANY LAND DISTURBANCE WORK AT (816) 969-1200.

UTILITY COMPANIES:

MISSOURI GAS ENERGY (816) 969-2218
LUCAS WALLS (LUCAS.WALLS@SUG.COM)
3025 SOUTHEAST CLOVER DRIVE
LEE'S SUMMIT, MO 64082

EVERGY (816) 347-4339
PHILLIP INGRAM (PHILLIP.INGRAM@KCPL.COM)
RON DEJARNETTE (RON.DEJARNETTE@KCPL.COM) (816) 347-4316
1300 HAMLEN ROAD
LEE'S SUMMIT, MO 64081

STORM SEWER (PUBLIC WORKS DEPARTMENT) (816) 969-1800
220 SE GREEN STREET
LEE'S SUMMIT, MO 64063

SANITARY SEWER & WATER (WATER UTILITIES DEPT.) (816)-969-1900
1200 SE HAMLEN ROAD,
LEE'S SUMMIT, MO 64081

AT&T (913) 383-4929
MR. CLAYTON ANSPAUGH (CA4089@ATT.COM) (913) 383-4849--FAX
9444 NALL AVENUE
OVERLAND PARK, KANSAS 66207



UTILITY NOTES:
VISUAL INDICATIONS OF UTILITIES ARE AS SHOWN.
UNDERGROUND LOCATIONS SHOWN, AS FURNISHED BY THEIR
LESSORS, ARE APPROXIMATE AND SHOULD BE VERIFIED IN
THE FIELD AT THE TIME OF CONSTRUCTION. FOR ACTUAL
FIELD LOCATIONS OF UNDERGROUND UTILITIES CALL 811.

Know what's below.
Call before you dig.

	INDEX
C0	COVER SHEET
C0.1	DEMOLITION PLAN
C1	OVERALL SITE PLAN
C1.1	ENLARGED SITE PLAN
C1.2	TRUCK TURN PLAN
C2	OVERALL GRADING PLAN
C2.1-C2.2	ENLARGED GRADING PLAN
C3	UTILITY PLAN
C4	DRAINAGE MAP
C5	STORM SEWER PLAN & PROFILE
C5.1	SECONDARY STORM PLAN
C6-C6.1	EROSION CONTROL PLAN & DETAILS
C7-C7.6	STANDARD DETAILS LANDSCAPE PLAN SITE PHOTOMETRIC PLAN ARCHITECTURAL PLANS

LEGAL DESCRIPTION:

LOT 10E, SUMMIT FAIR, LOTS 10D - 10F, A SUBDIVISION IN THE CITY OF LEE'S SUMMIT, JACKSON COUNTY, MISSOURI, ACCORDING TO THE RECORDED PLAT THEREOF.

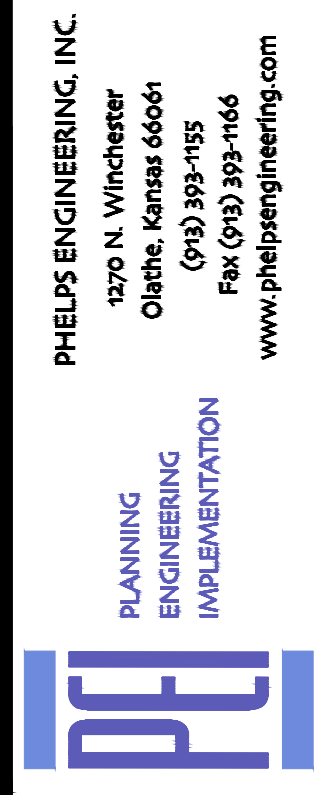
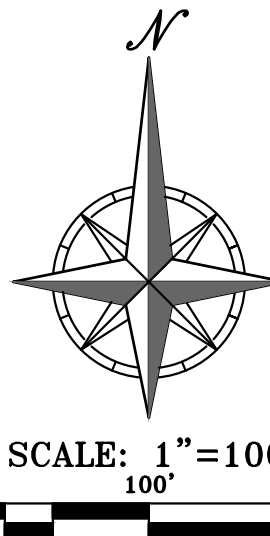
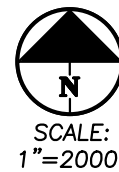
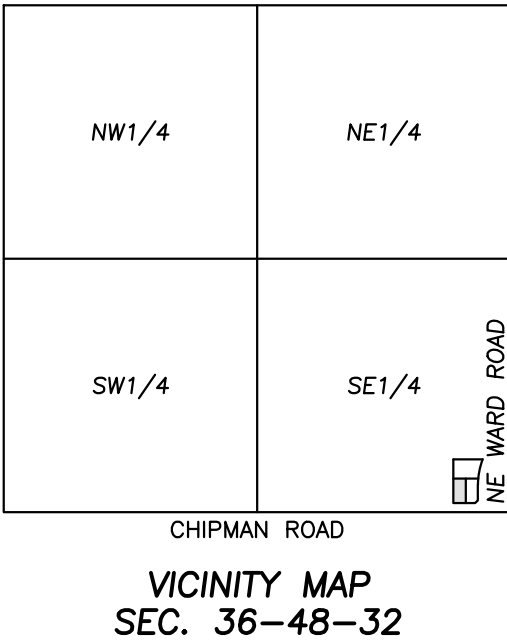
AREA = ±0.7686 ACRES / ±33,476 SQ.FT.

PREPARED & SUBMITTED BY:

PHELPS ENGINEERING, INC.
1270 N. WINCHESTER
OLATHE, KS 66061
913-393-1155 OFFICE
913-393-1166 FAX
CONTACT: JUDD CLAUSSEN, P.E.

DEVELOPER:

ANDY'S FROZEN CUSTARD
211 E. WATER ST.
SPRINGFIELD, MO 65806
417-986-3585
CONTACT: LIANA MOORE



COVER SHEET
ANDY'S FROZEN CUSTARD
630 NW CHIPMAN ROAD
LEE'S SUMMIT, MISSOURI

PROJECT NO.	240159	No.	Date	Revisions:	By	App.
DATE: 04-12-2024	DRAWN: AEB	1.	05-10-2024	REVIEWED PER CITY COMMENTS	AEB	DAF
CHECKED: DAF	APPROVED: JDC	2.	05-30-2024	REVIEWED PER CITY COMMENTS	AEB	DAF
CORPORATE DATE OF AUTHORIZATION						
LAND SURVEYING - LS-82						
ENGINEERING - E-361						
CERTIFICATE OF AUTHORIZATION						
LAND SURVEYING-200701028						
ENGINEERING-200700209						

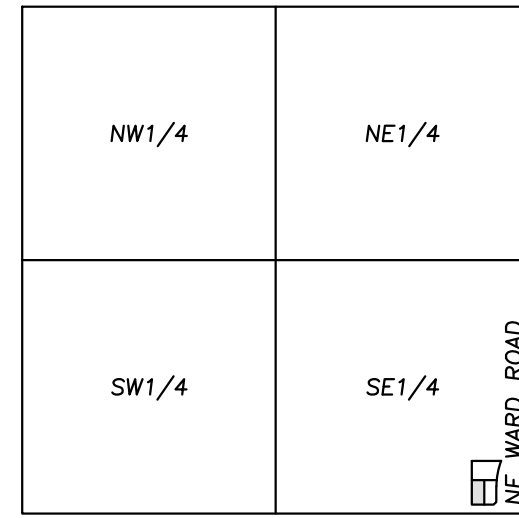
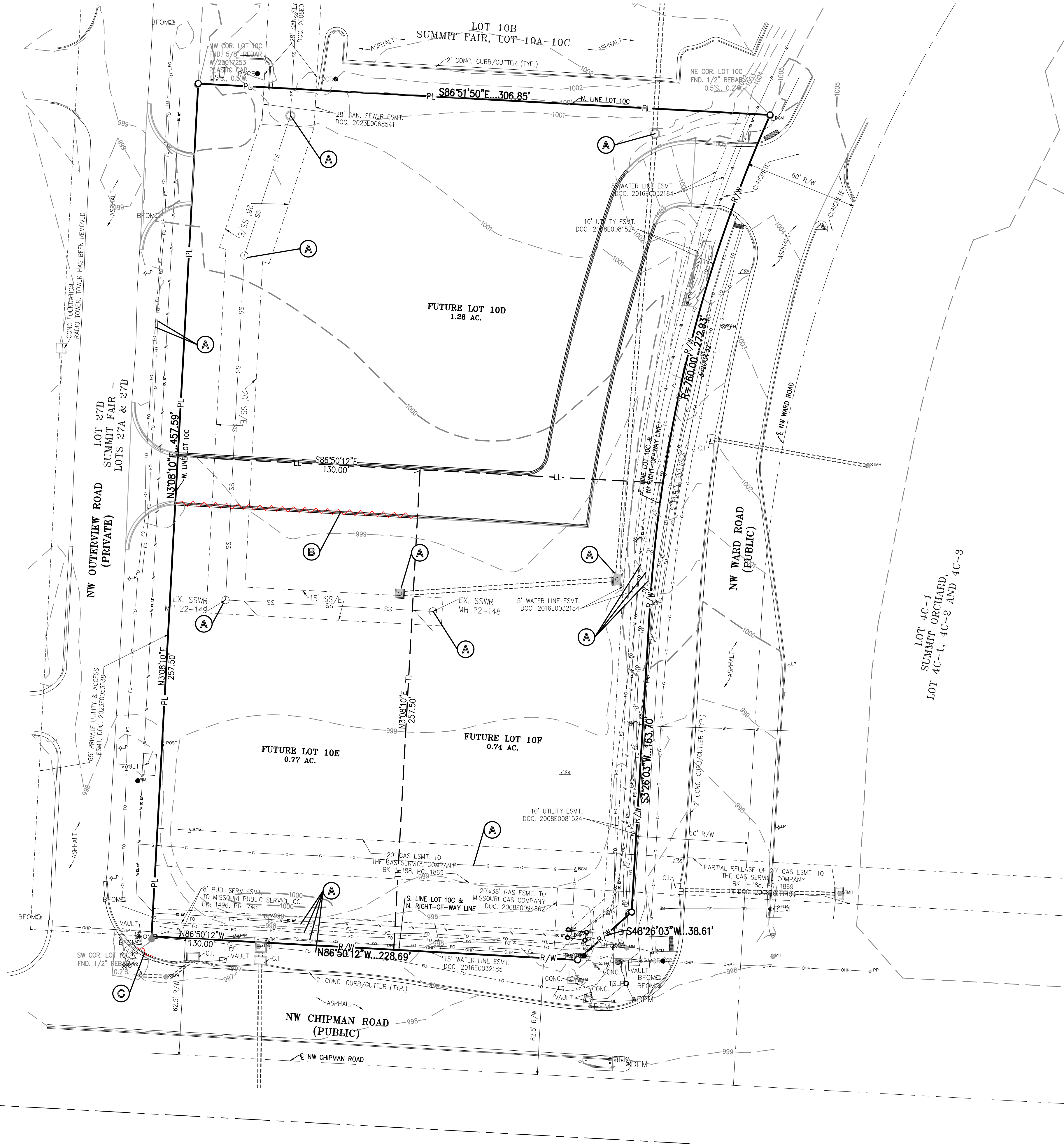
SHEET
C0

\\PHILIPS-SERVER\Projects\140159\Draw\Permit Plans\DEM.dwg Layout1 May 31, 2024 - 2:35pm Daniel Finn



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Call before you dig.

UTILITY NOTES:
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UNDERGROUND LOCATIONS SHOWN, AS FURNISHED BY THEIR
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VICINITY MAP
SEC. 36-48-32



SCALE: 1"=2000'

DEMOLITION KEY NOTES:

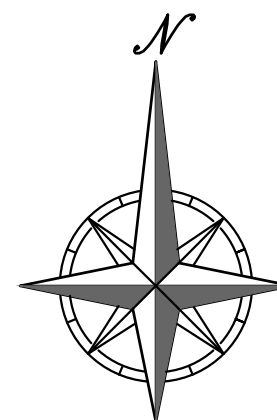
- (A)** ALL UTILITIES SERVING STRUCTURES IMMEDIATELY SURROUNDING THE DEMOLITION BOUNDARY SHALL REMAIN IN SERVICE THROUGHOUT THE PROJECT. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT ANY DAMAGE TO SUCH UTILITIES. TYPICAL LOCATION.
- (B)** CONTRACTOR TO PERFORM CLEAN SAW CUT ADJACENT TO INSIDE EDGE OF EXISTING TEMPORARY ASPHALT CURB. REMOVE EXISTING TEMPORARY ASPHALT CURB AND ASPHALT PAVEMENT FROM SAWCUT LINE TO EXISTING EDGE OF PAVEMENT TO PROVIDE CLEAN JOINT LINE WITH NEW PAVEMENT.
- (C)** CONTRACTOR TO PERFORM REMOVAL OF BACK OF CURB.

LEGEND

- PL ——— PROPERTY LINE
- LL ——— LOT LINE
- R/W ——— RIGHT-OF-WAY
- REMOVE EXISTING TEMPORARY ASPHALT CURB
- BT ——— EXISTING BURIED TELEPHONE
- CAV ——— EXISTING CABLE TELEVISION LINE
- FO ——— EXISTING FIBER OPTIC LINE
- W ——— EXISTING WATER LINE
- G ——— EXISTING GAS LINE
- BE ——— EXISTING BURIED ELECTRIC
- OHP ——— EXISTING OVERHEAD POWER LINE
- SS ——— EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- EXISTING FIRE HYDRANT
- LP ——— EXISTING LIGHT POLE
- EXISTING CHAIN LINK FENCE

DEMOLITION NOTES:

- THE CONTRACTOR IS RESPONSIBLE FOR THE DEMOLITION, REMOVAL, AND DISPOSAL (IN A LOCATION APPROVED BY ALL GOVERNING AUTHORITIES) ALL CURBS, PARKING, DRIVES, DRAINAGE STRUCTURES, UTILITIES, ETC., SUCH THAT THE IMPROVEMENTS SHOWN ON THE REMAINING PLANS CAN BE CONSTRUCTED. ALL FACILITIES TO BE REMOVED SHALL BE UNDERCUT TO SUITABLE MATERIAL AND BROUGHT TO GRADE WITH SUITABLE COMPACTED FILL MATERIAL.
- THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL DEBRIS FROM THE SITE AND DISPOSING THE DEBRIS IN A LAWFUL MANNER. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR DEMOLITION AND DISPOSAL.
- DAMAGE TO ALL EXISTING CONDITIONS TO REMAIN WILL BE REPLACED AT CONTRACTOR'S EXPENSE.
- CONTRACTOR MUST COORDINATE WITH OWNER PRIOR TO ANY CONSTRUCTION TO ESTABLISH CUSTOMER ACCESS AND TRAFFIC FLOW DURING ALL PHASES.



SCALE: 1"=30'
0' 30' 60'



PHILIPS ENGINEERING, INC.
1270 N. Winchester
Olathe, Kansas 66061
(913) 393-1155
Fax (913) 393-1165
www.philipsengineering.com

PLANNING
ENGINEERING
IMPLEMENTATION



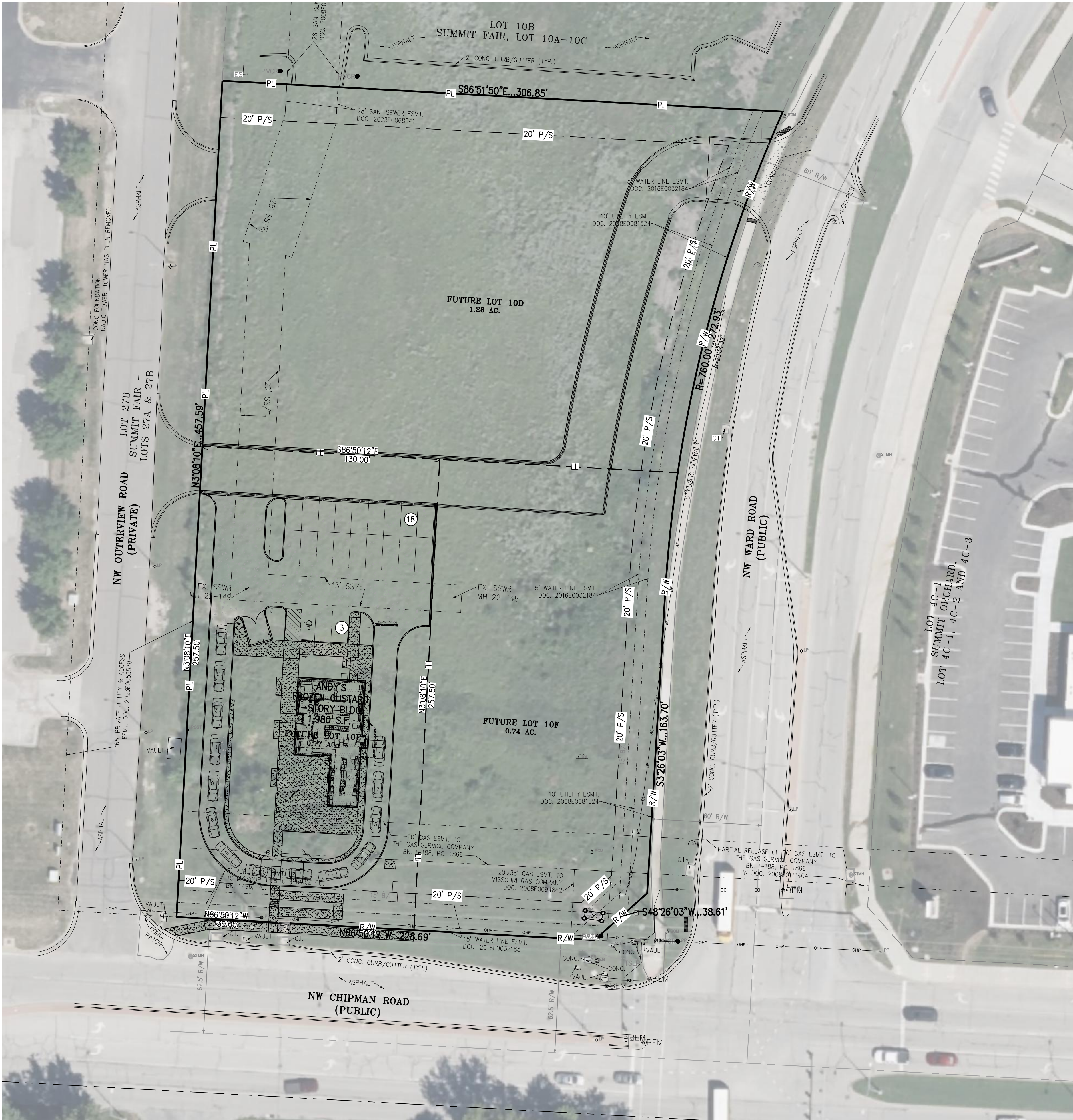
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LEE'S SUMMIT, MISSOURI

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ENGINEERING - 200700329						

SHEET

C0.1

\\PHILIPS-SERVER\Projects\Projects\140159\Draw\Permit Plans\OVERALL SITE.dwg Layout:1 May 31, 2024 - 2:37pm David Finn

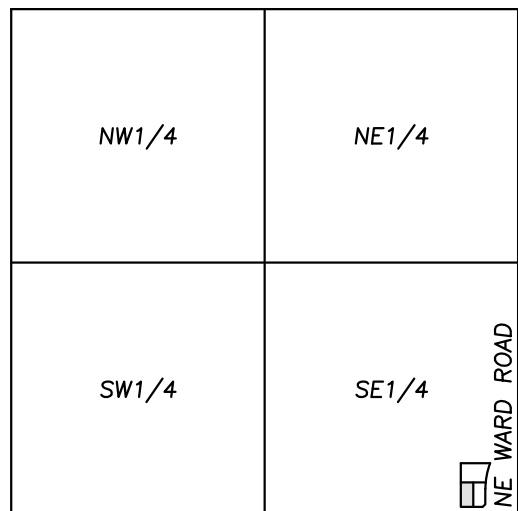


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CROSS ACCESSES AND CROSS PARKING

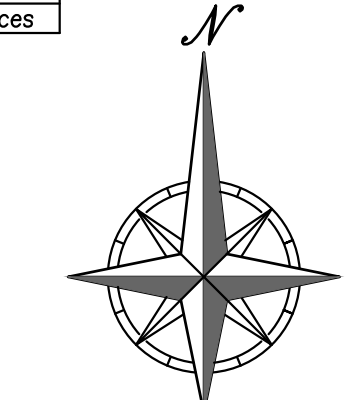
CROSS ACCESS AND CROSS PARKING RIGHTS AND OBLIGATIONS FOR LOTS
CREATED BY THE MINOR PLAT OF SUMMIT FAIR, LOTS 10D-10F ARE
ESTABLISHED VIA THE DECLARATION OF COVENANTS, CONDITIONS,
RESTRICTIONS AND EASEMENTS AS REFERENCED ON THE RECORDED PLAN.



VICINITY MAP
SEC. 36-48-32



LEGEND	
— PL —	PROPERTY LINE
— LL —	LOT LINE
— R/W —	RIGHT-OF-WAY
— 6" CONC. CURB —	6" CONCRETE CURB
[Pattern]	PROPOSED BUILDING
[Pattern]	CONCRETE PAVEMENT
[Pattern]	CONCRETE SIDEWALK



PARKING SUMMARY

Lot 10E	
Building SF - 1,980 S.F.	
Use - Carry out, drive up, or drive thru only	
# of employees (max shift) - 8	
Required Parking - 2 + 1 per employee (max shift)	10 Spaces
Parking Provided	21 Spaces

FIRE ACCESS ROAD NOTE:

ALL FIRE ACCESS LANES SHALL BE HEAVY DUTY ASPHALT CAPABLE OF
SUPPORTING 75,000-POUNDS.

PRE-CONSTRUCTION MEETING NOTE:

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INSPECTION TO SCHEDULE A PRE-CONSTRUCTION MEETING WITH A FIELD ENGINEERING
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OIL-GAS WELLS:

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AT www.dnr.mo.gov/geology/geosrv/oilandgas.htm, THERE ARE NO OIL OR GAS WELLS ON THE PROPERTY SHOWN
HEREON.

ZONING:

THIS PROPERTY IS ZONED PMIX, DEFINED AS PLANNED MIXED USE.

PAVEMENT MARKING AND SIGNAGE NOTES:

- PARKING STALL MARKING STRIPES SHALL BE FOUR INCH (4") WIDE WHITE STRIPES. DIRECTIONAL ARROW AND
HANDICAP STALL MARKINGS SHALL BE FURNISHED AT LOCATIONS SHOWN ON PLANS.
- HANDICAP PAVEMENT MARKINGS AND SIGNS SHALL CONFORM TO ALL FEDERAL (AMERICANS WITH DISABILITIES ACT)
AND STATE LAWS AND REGULATIONS.
- TRAFFIC CONTROL DEVICES AND PAVEMENT MARKINGS SHALL CONFORM TO THE REQUIREMENTS OF THE "MANUAL
OF UNIFORM TRAFFIC CONTROL DEVICES".
- STOP SIGNS SHALL BE PROVIDED AT ALL LOCATIONS AS SHOWN ON PLANS AND SHALL CONFORM TO THE
"MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES". SIGNS SHALL BE 18" X 12", 18 GAUGE STEEL AND SHALL BE
ENGINEER GRADE REFLECTIVE.
- TRAFFIC CONTROL AND PAVEMENT MARKINGS SHALL BE PAINTED WITH A WHITE SHERWIN WILLIAMS S-W TRAFFIC
MARKING SERIES B-29Y2 OR APPROVED EQUAL. THE PAVEMENT MARKING SHALL BE APPLIED IN ACCORDANCE WITH
MANUFACTURERS RECOMMENDATIONS. APPLY ON A CLEAN, DRY SURFACE AND AT A SURFACE TEMPERATURE OF NOT
LESS THAN 70°F AND THE AMBIENT AIR TEMPERATURE SHALL NOT BE LESS THAN 60°F AND RISING. TWO COATS
SHALL BE APPLIED.

SITE DIMENSION NOTES:

- BUILDING TIES SHOWN ARE TO THE OUTSIDE FACE OF PROPOSED WALLS. THE SUBCONTRACTOR SHALL REFER TO
THE ARCHITECTURAL PLANS FOR SPECIFIC DIMENSIONS AND LAYOUT INFORMATION FOR THE BUILDINGS.
- ALL DIMENSIONS SHOWN FOR THE PARKING LOT AND CURBS ARE MEASURED FORM BACK OF CURB TO BACK OF
CURB.

- SAFETY NOTICE TO CONTRACTOR: In accordance with generally accepted construction practices, the contractor
shall be solely and completely responsible for conditions of the job site, including safety of all persons and property
during performance of the work. This requirement will apply continuously and not be limited to normal working
hours. Any construction observation by the engineer of the contractor's performance is not intended to include
review of the adequacy of the contractor's safety measures, in, on or near the construction site.
- The contractor will be responsible for all damage to existing utilities, pavement, fences, structures and other
features not designated for removal. The contractor shall repair all damages at his expense.
- The contractor shall verify the flow lines of all existing storm or sanitary sewer connections and utility crossings
prior to the start of construction. Notify the engineer of any discrepancies.
- SAFETY NOTICE TO CONTRACTOR: In accordance with generally accepted construction practices, the contractor
shall be solely and completely responsible for conditions of the job site, including safety of all persons and property
during performance of the work. This requirement will apply continuously and not be limited to normal working
hours. Any construction observation by the engineer of the contractor's performance is not intended to include
review of the adequacy of the contractor's safety measures, in, on or near the construction site.
- Refer to the building plans for site lighting electrical requirements, including conduits, pole bases, pull boxes, etc.

- The contractor shall be responsible for all relocations, including but not limited to, all utilities, storm drainage,
sanitary sewer services, signs, traffic signals & poles, etc. as required. All work shall be in accordance with
governing authorities specifications and shall be approved by such. All cost shall be included in base bid.
- The demolition and removal(or relocation) of existing pavement, curbs, structures, utilities, and all other features
necessary to construct the proposed improvements, shall be performed by the contractor. All waste material
removed during construction shall be disposed off the project site. The contractor shall be responsible for all
permits for hauling and disposing of waste material. The disposal of waste material shall be in accordance with
all local, state and federal regulations.
- The contractor is responsible for coordination of his and his sub-contractor's work. The contractor shall assume
all responsibility for protecting and maintaining his work during the construction period and between the various
trades/sub-contractors constructing the work.
- The contractor will be responsible for securing all permits, bonds and insurance required by the contract
documents, City of Lee's Summit, Missouri, and all other governing agencies (including local, county, state and
federal authorities) having jurisdiction over the work proposed by these construction documents. The cost for all
permits, bonds and insurance shall be the contractors responsibility and shall be included in the bid for the work.

- The contractor shall have one (1) signed copy of the plans (approved by the City) and one (1) copy of the
appropriate Design and Construction Standards and Specifications at the job site at all times.
- All construction materials and procedures on this project shall conform to the latest revision of the following
governing requirements, incorporated herein by reference:
A) City ordinances & O.S.H.A. Regulations.
B) The City of Lee's Summit Technical Specifications and Municipal Code.

SITE PLAN NOTES:

LEGAL DESCRIPTION:

LOT 10E, SUMMIT FAIR, LOTS 10D - 10F, A SUBDIVISION IN THE CITY OF LEE'S SUMMIT, JACKSON COUNTY, MISSOURI,
ACCORDING TO THE RECORDED PLAT THEREOF.

AREA = ±0.7686 ACRES / ±33,476 SQ.FT.



PHILIPS ENGINEERING, INC.
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OVERALL SITE PLAN
ANDY'S FROZEN CUSTARD
630 NW CHIPMAN ROAD
LEE'S SUMMIT, MISSOURI

PROJECT NO.	240159	No.	Date	Revisions:		By	App.
				REVISED PER CITY COMMENTS	REVISED PER CITY COMMENTS		
DATE: 04-12-2024	DATE: 04-12-2024	DATE: 04-12-2024	DATE: 04-12-2024	DATE: 04-12-2024	DATE: 04-12-2024	DATE: 04-12-2024	DATE: 04-12-2024
CHECKER: DAF	CHECKER: DAF	CHECKER: DAF	CHECKER: DAF	CHECKER: DAF	CHECKER: DAF	CHECKER: DAF	CHECKER: DAF
DATE: 04-12-2024	DATE: 04-12-2024	DATE: 04-12-2024	DATE: 04-12-2024	DATE: 04-12-2024	DATE: 04-12-2024	DATE: 04-12-2024	DATE: 04-12-2024
CERTIFICATE OF AUTHORIZATION	CERTIFICATE OF AUTHORIZATION	CERTIFICATE OF AUTHORIZATION	CERTIFICATE OF AUTHORIZATION	CERTIFICATE OF AUTHORIZATION	CERTIFICATE OF AUTHORIZATION	CERTIFICATE OF AUTHORIZATION	CERTIFICATE OF AUTHORIZATION
LAND SURVEYING - LS-82	LAND SURVEYING - LS-82	LAND SURVEYING - LS-82	LAND SURVEYING - LS-82	LAND SURVEYING - LS-82	LAND SURVEYING - LS-82	LAND SURVEYING - LS-82	LAND SURVEYING - LS-82
ENGINEERING - E-361	ENGINEERING - E-361	ENGINEERING - E-361	ENGINEERING - E-361	ENGINEERING - E-361	ENGINEERING - E-361	ENGINEERING - E-361	ENGINEERING - E-361
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LAND SURVEYING - 200701028	LAND SURVEYING - 200701028	LAND SURVEYING - 200701028	LAND SURVEYING - 200701028	LAND SURVEYING - 200701028	LAND SURVEYING - 200701028	LAND SURVEYING - 200701028	LAND SURVEYING - 200701028
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SHEET

C1

\\PHILIPS-SERVER\Projects\Projects\240159\Drawings\Site Plans\Site.dwg Layout1 May 31, 2024 - 2:31pm Daniel Finn

65' PRIVATE UTILITY & ACCESS
ESMT, DOC. 2022E0053339

LOT 27B
SUMMIT FAIR -
LOTS 27A & 27B

NW OUTVIEW ROAD
(PRIVATE)

VAULT

POST

EX. SSWR
MH 22-149

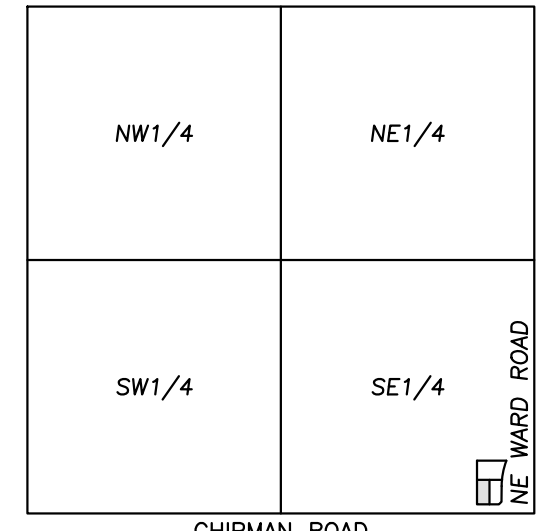
EX. SSWR
MH 22-148

FUTURE LOT 1 DE
ANDY'S
FROZEN CUSTARD
1-STORY BLDG.
1,980 S.F.

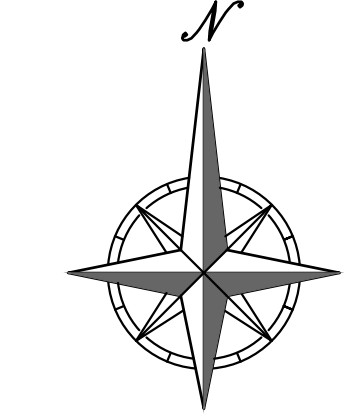
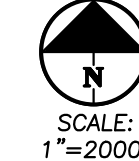
DO NOT ENTER

LEGEND

- PL — PROPERTY LINE
- LL — LOT LINE
- R/W — RIGHT-OF-WAY
- 6" CONCRETE CURB
- PROPOSED BUILDING
- CONCRETE PAVEMENT
- CONCRETE SIDEWALK



VICINITY MAP
SEC. 36-48-32



SITE KEY NOTES:

- (A) CONSTRUCT PRIVATE 6" MONOLITHIC CONCRETE CURB.
- (B) CONSTRUCT PRIVATE CONCRETE SIDEWALK (TYPICAL). SEE "PRIVATE CONCRETE SIDEWALKS (NON-REINFORCED)" DETAIL ON SHEET 7.1.
- (C) INSTALL ACCESSIBLE PAVEMENT MARKINGS PER ADA SPECIFICATIONS. SEE "ACCESSIBLE PARKING SPACE DETAIL" DETAIL ON SHEET C7.2.
- (D) INSTALL VAN ACCESSIBLE PARKING SIGN. SEE "ACCESSIBLE SIGN" DETAILS ON SHEET C7.2.
- (E) INSTALL ONE BIKE RACK FOR 2 SPACES.
- (F) INSTALL SPEED TABLE W/ SCORED CONCRETED CROSSWALK. SEE "CROSSWALK DETAIL" ON SHEET C7.1.
- (G) INSTALL CONCRETE PAVEMENT. SEE "CONCRETE PAVING" DETAIL ON SHEET C7.
- (H) INSTALL TRASH ENCLOSURE (RE: ARCHITECT PLANS).
- (I) CONSTRUCT ELECTRICAL UTILITY PAD (RE: EVERY WORKORDER).
- (J) INSTALL MONUMENT SIGN (RE: SITE SIGNAGE PLANS).
- (K) INSTALL PRE-ORDER MENU BOARD (RE: SITE SIGNAGE PLANS).
- (L) INSTALL CLEARANCE BAR (RE: SITE SIGNAGE PLANS).
- (M) PICK-UP WINDOW (RE: ARCHITECT PLANS).
- (N) CONSTRUCT PRIVATE ACCESSIBLE SIDEWALK CURB RAMP (OMIT DETECTABLE WARNING). SEE "PRIVATE SIDEWALK RAMP DETAIL" ON SHEET C7.1.
- (O) INSTALL 25 FT TALL FLAG POLE (RE: SITE SIGNAGE PLANS).
- (P) INSTALL PEDESTRIAN BENCH (SEE SHEET C7.4 FOR DETAILS).
- (Q) INSTALL FENCE (SEE SHEET C7.4 FOR DETAILS).
- (R) CONSTRUCT 24" WIDE PRIVATE CONCRETE SIDEWALK "RUNNER" STRIP ALONG DRIVE THRU.
- (S) CONSTRUCT CONCRETE STAIRS W/ HANDRAIL ON BOTH SIDES. SEE "CONCRETE STAIRS DETAIL" ON SHEET C7.6.
- (T) INSTALL DIRECTIONAL SIGNAGE (RE: SITE SIGNAGE PLANS).
- (U) INSTALL PUBLIC CONCRETE SIDEWALK.
- (V) INSTALL PUBLIC CONCRETE SIDEWALK RAMP. SEE "ADA RAMP" DETAIL ON SHEET C7.6.
- (W) CONSTRUCT PRIVATE TEMPORARY ASPHALT CURB IF ADJACENT CONSTRUCTION ACTIVITY IS NOT UNDERWAY OR EMINENT. SEE DETAIL "TEMPORARY ASPHALT CURB" ON SHEET C7.
- (X) INSTALL PUBLIC CONCRETE SIDEWALK ADJOINING EXISTING JUNCTION BOX. SEE "SIDEWALK ADJOINING EX. STORM STRUCTURE" DETAIL ON SHEET C7.6.
- (Y) INSTALL DRIVE THRU LOOP DETECTOR (RE: MEP PLANS FOR DETAILS).



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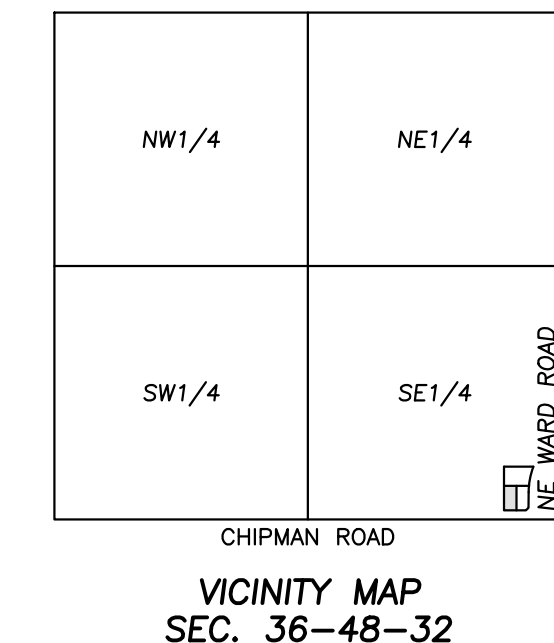


ENLARGED SITE PLAN
ANDY'S FROZEN CUSTARD
630 NW CHIPMAN ROAD
LEE'S SUMMIT, MISSOURI

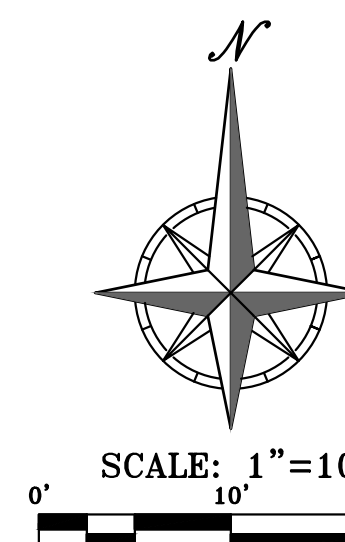
PROJECT NO.	240159	No.	Date	By	App.
DATE	04-12-2024	DRAWN	AEB	1.	05-10-2024
CHECKED	DAF	APPROVED	JDC	2.	05-30-2024
CERTIFICATE OF AUTHORIZATION					
LAND SURVEYING - LS-82					
ENGINEERING - E-36					
CERTIFICATE OF AUTHORIZATION					
LAND SURVEYING-20070128					
ENGINEERING-20070028					

SHEET




C1.1



SCALE:
1"=2000'



LEGEND

—— PL ——	PROPERTY LINE
— LL —	LOT LINE
— R/W —	RIGHT-OF-WAY
=====	6" CONCRETE CURB
	PROPOSED BUILDING
	CONCRETE PAVEMENT
	CONCRETE SIDEWALK

[illegible]

SHEET
C1.2

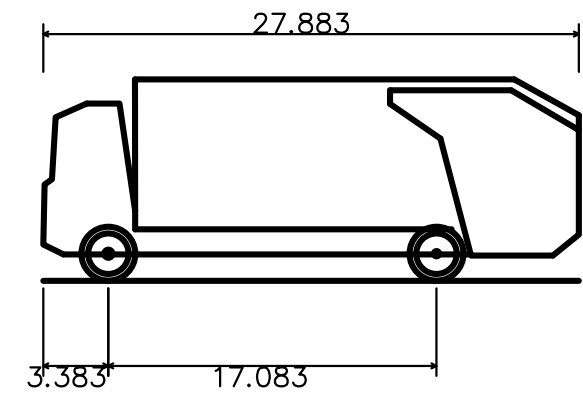
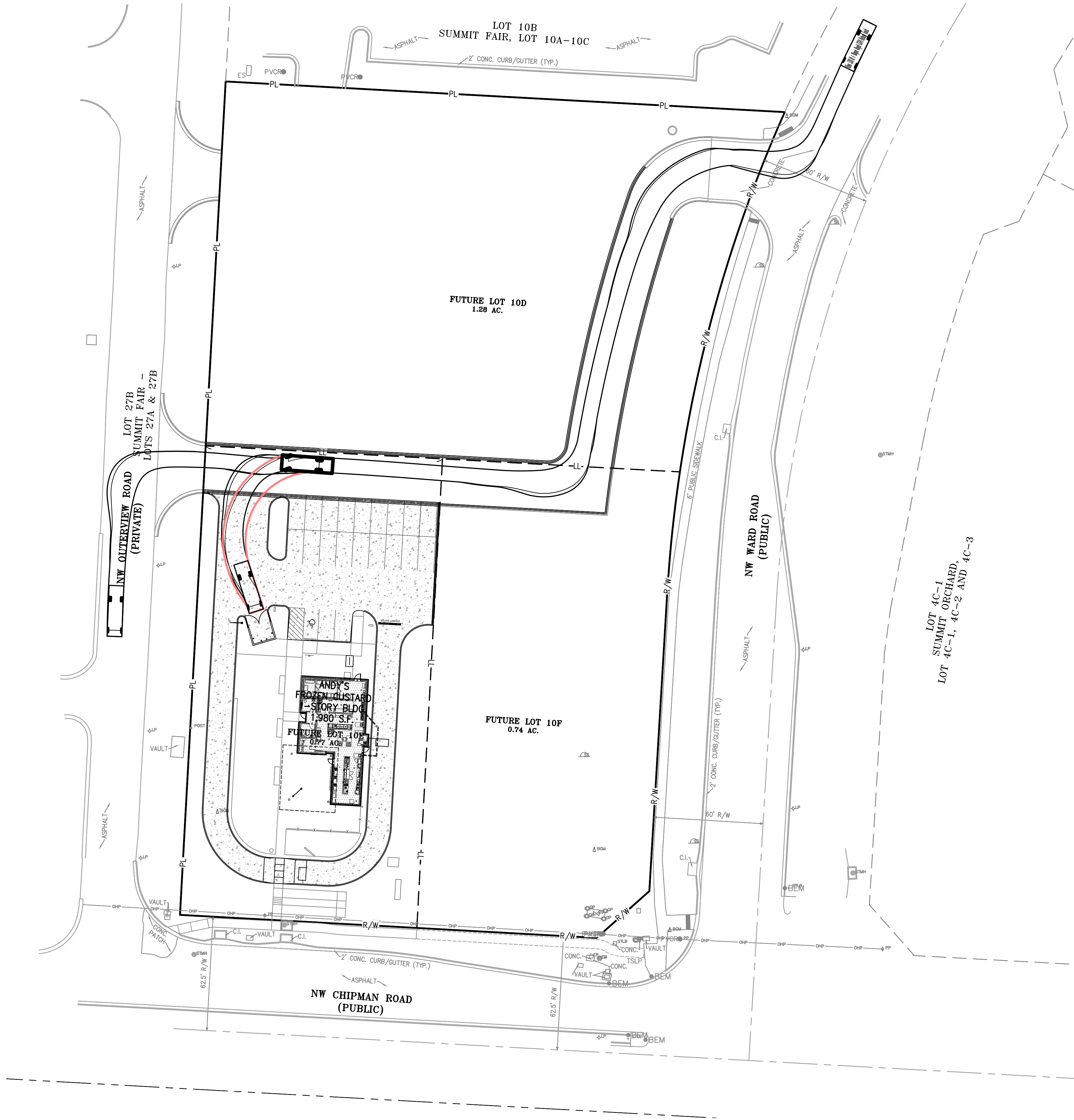
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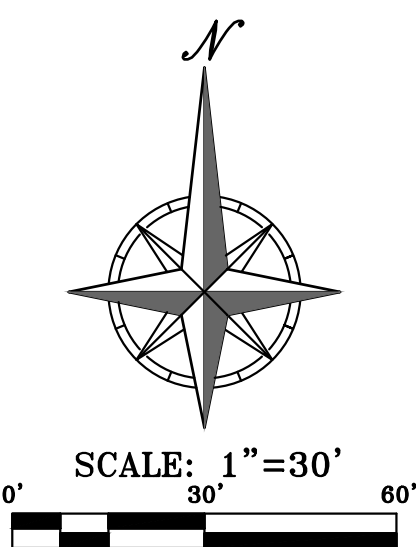
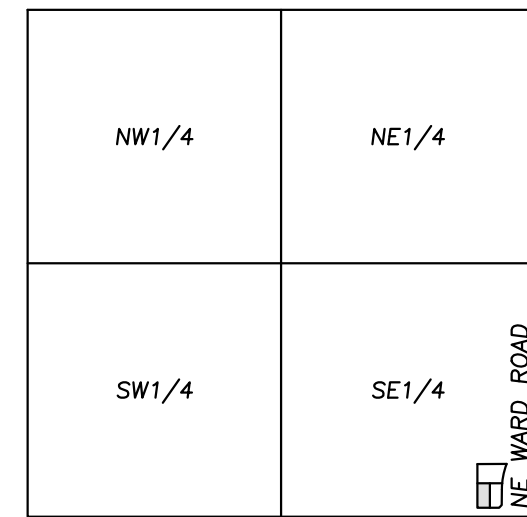
PHelps ENGINEERING, INC.
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Olathe, Kansas 66061
(913) 393-1955
Fax: (913) 393-1166
www.phelpsengineering.com

ENLARGED SITE PLAN
ANDY'S FROZEN CUSTARD
630 NW CHIPMAN ROAD
JEE'S SUMMIT MISSOURI

\\PHILIPS-SERVER\Projects\Projects\240159\Drawings\Permit Plans\TRUCK TURN.dwg Layout:1 May 31, 2024 - 2:33pm Daniel Finn

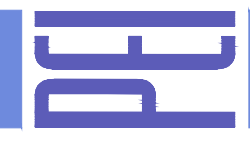


Hino 338 M + Wayne Royal GT14 Refuse Truck
Overall Length 27.883ft
Overall Width 8.042ft
Overall Body Height 10.488ft
Min Body Ground Clearance 1.318ft
Track Width 8.042ft
Lock-to-lock time 6.00s
Curb to Curb Turning Radius 27.400ft



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TRUCK TURN PLAN
ANDY'S FROZEN CUSTARD
630 NW CHIPMAN ROAD
LEE'S SUMMIT, MISSOURI

PROJECT NO.	240159	No.	Date	Revisions:	By	App.
DATE: 04-12-2024	DRAWN: AEB	1.	05-10-2024	REVISED PER CITY COMMENTS	AEB	DAF
CHECKED: DAF	APPROVED: JDC	2.	05-30-2024	REVISED PER CITY COMMENTS	AEB	DAF
CORPORATE DATE OF AUTHORIZATION						
LAND SURVEYING - LS-82						
ENGINEERING - E-361						
CERTIFICATE DATE OF AUTHORIZATION						
LAND SURVEYING - 2007001028						
ENGINEERING - 2007000038						

SHEET

C1.3

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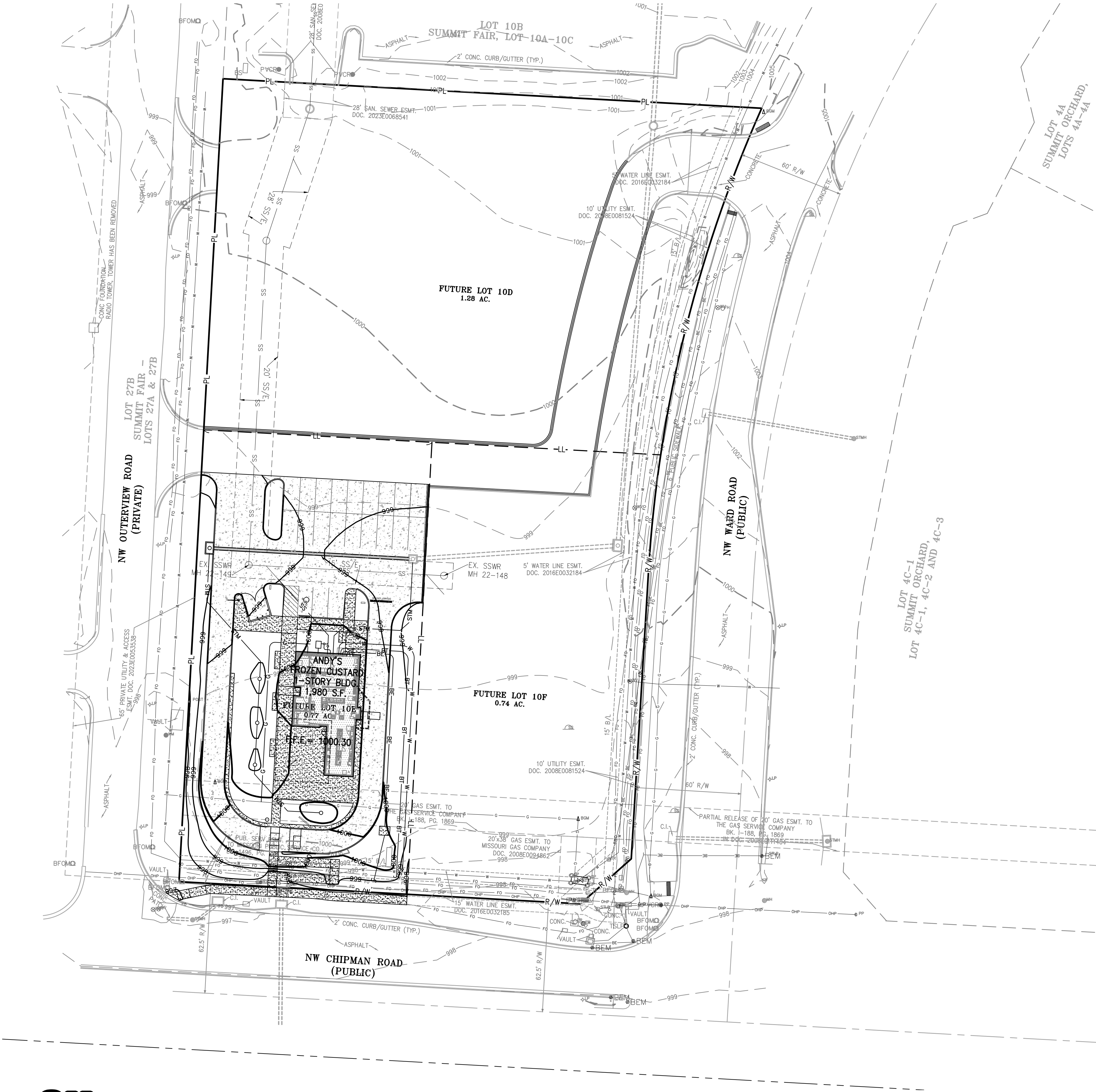


Know what's below.
Call before you dig.

UTILITY NOTES:
VISUAL INDICATIONS OF UTILITIES ARE AS SHOWN.
UNDERGROUND LOCATIONS SHOWN, AS FURNISHED BY THEIR
LESSORS, ARE APPROXIMATE AND SHOULD BE VERIFIED IN
THE FIELD AT THE TIME OF CONSTRUCTION. FOR ACTUAL
FIELD LOCATIONS OF UNDERGROUND UTILITIES CALL 811.

FLOOD NOTE:

THIS PROPERTY LIES WITHIN ZONE X, DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE
0.2% ANNUAL CHANCE FLOODPLAIN, AS SHOWN ON THE FLOOD INSURANCE RATE MAP
PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY FOR THE CITY OF LEE'S
SUMMIT, COMMUNITY NO. 290174, JACKSON COUNTY, MISSOURI, MAP NO. 29095C0417G, AND
DATED JANUARY 20, 2017.



SITE GRADING NOTES:

1. CONTOURS AND ELEVATIONS: Existing and proposed contours are shown on plans at one foot (1') contour intervals, unless otherwise noted. Proposed contours and elevations shown represent approximate finish grade. Contractor shall hold down subgrades to allow for pavement and sub-base thicknesses.
2. If the contractor does not accept existing topography as shown on the plans, without exception, he shall have made at his expense, a topographic survey by a registered land surveyor and submit it to the owner for review.
3. CLEARING AND GRUBBING: Prior to beginning preparation of subgrade, all areas under pavements or building shall be stripped of all topsoil, vegetation, large rock fragments (greater than 6 inches in any dimension) and any other deleterious material. The actual stripping depth should be based on visual examination during construction and the results of proof-rolling operations. The root systems of all trees (not designated to remain) shall be removed in their entirety. Stripping materials shall not be incorporated into structural fills.
4. TOPSOIL STRIPPING: Prior to the start of site grading, the contractor shall strip all topsoil from areas to be graded, and stockpiled at a location on or adjacent to the site as directed by the owner. At completion of grading operations and related construction, the contractor will be responsible for redistribution of topsoil over all areas disturbed by the construction activities. Topsoil shall be placed to a minimum depth of six inches (6") and in accordance with specifications for landscaping. At that time, and prior to the installation of landscaping or irrigation, all topsoil graded areas shall be visually inspected and accepted by the owner and I.T.L.
5. Contractor shall adjust and/or cut existing pavement as necessary to assure a smooth fit and continuous grade. Contractor shall assure positive drainage away from buildings for all natural and paved areas.
6. SUBGRADE PREPARATION: Prior to placement of new fill material, the existing subgrade shall be proofrolled and approved under the direction of the Geotechnical Engineer or his representative.
7. PROOFROLLING: Subsequent to completion of stripping and over-excavation, all building and pavement areas to receive engineered fill should be systematically proof-rolled using a tandem axle dump truck loaded to approximately 20,000 pounds per axle. Also, any finished subgrade areas to receive paving shall be proof-rolled within 48 hours of paving. Unsuitable soils that are detected and that can not be recompacted should be over-excavated and replaced with controlled structural fill.
8. EARTHWORK:
 - A) GEOTECHNICAL: All earthwork shall conform to the recommendations of the Geotechnical report. Said report and its recommendations are herein incorporated into the project requirements by reference. Prior to beginning construction, the contractor shall obtain a copy of and become familiar with the geotechnical report. Unless specifically noted on the plans, the recommendations in the geotechnical report are hereby incorporated into the project requirements and specifications.
 - B) SURFACE WATER: Surface water shall be intercepted and diverted during the placement of fill.
 - C) FILLS: All fills shall be considered controlled or structural fill and shall be free of vegetation, organic matter, topsoil and debris in areas where the thickness of the engineered fill is greater than five feet building and pavement construction should not commence until so authorized by the on-site geotechnical engineer to allow for consolidation.
 - D) BUILDING SUBGRADE: As specified in the Geotechnical Engineering Report, the upper section of building subgrade shall consist of Low Volume Change (LVC) material defined as approved, compacted granular fill or low to moderate plasticity cohesive soil materials stabilized with Class C Flyash. Granular fill shall consist of compacted granular materials with a maximum particle size of two (2) inches or less, such as limestone screenings. Refer to geotechnical report for complete requirements.
 - E) EXISTING SLOPES: Where fill material is to be placed on existing slopes greater than 5:1 (horizontal to vertical), existing slope shall be benched providing a minimum vertical face of twelve inches (12"). The benches should be cut wide enough to accommodate the compaction equipment. Fill material shall be placed and compacted in horizontal lifts not exceeding nine inches (9") (loose lift measurement), unless otherwise approved by the Geotechnical Engineer.
 - F) COMPACTION REQUIREMENTS: The upper 9 inches of pavement subgrade areas shall be compacted to a minimum density of ninety five percent (95%) of the material's maximum dry density as determined by ASTM D698 (standard proctor compaction). The moisture content at the time of placement and compaction shall be within a range of 0% below to 4% above optimum moisture content as defined by the standard proctor compaction procedure. The moisture contents shall be maintained within this range until completion of the work. Where compaction of earth fill by a large roller is impractical or undesirable, the earth fill shall be hand compacted with small vibrating rollers or mechanical tampers.
9. All cut or fill slopes shall be 3:1 or flatter. All asphalt parking areas shall be a minimum of 1% slope but not more than 5% slope unless otherwise noted. All pavements within ADA parking areas shall not exceed 2% total slope. All grades around building shall be held down 6" from finish floor and slope away another 6" in 10 feet. Contractor shall notify engineer prior to final subgrade construction of any areas not within this slope requirement.
10. TESTING AND INSPECTION: Owner's Independent Testing Laboratory (ITL) shall make tests of earthwork during construction and observe the placement of fills and other work performed on this project to verify that work has been completed in accordance with Geotechnical Engineering Report, Project Specifications and within industry standards. The ITL will be selected by the owner and the cost of testing will be the owner's responsibility.
11. CLASSIFICATION: All excavation shall be considered unclassified. No separate or additional payments shall be made for rock excavation.
12. PERMANENT RESTORATION: All areas disturbed by earthwork operations shall be sodded, unless shown otherwise by the landscaping plan or erosion control plan.
13. UTILITIES: The contractor is specifically cautioned that the location and/or elevation of existing utilities as shown on these plans is based on records of the various utility companies, and where possible, measurements taken in the field. The information is not to be relied on as being exact or complete. The contractor must call the appropriate utility companies at least 48 hours before any excavation to request exact field location of utilities. It shall be the responsibility of the contractor to relocate all existing utilities which conflict with the proposed improvements shown on the plans.
14. LAND DISTURBANCE: The contractor shall adhere to all terms & conditions as outlined in the EPA or applicable state N.P.D.E.S. permit for storm water discharge associated with construction activities. Refer to project S.W.P.P.P. requirements.

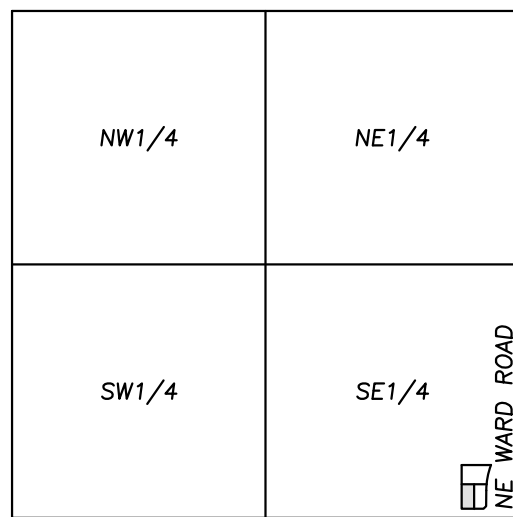
Earthwork Summary SUMMIT FAIR LOT 10-E 5/9/2024

Raw Excavation	10 Cu. Yds.
In Place Compaction (+15%)	-582 Cu. Yds.
Pavement Adjustment	538 Cu. Yds. (assume 10' of additional excavation)
Building Adjustment	147 Cu. Yds. (assume 24" of additional excavation)
On Site Net	113 Cu. Yds.

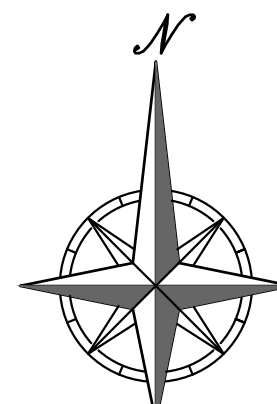
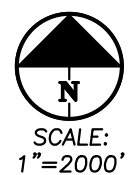
* EARTHWORK COMPUTATIONS BY PHELPS ENGINEERING, INC. ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY AND SHALL BE VERIFIED BY CONTRACTORS BY THEIR CHOSEN METHOD PRIOR TO PLACING BID. ALL EARTHWORK SHALL BE CONSIDERED UNCLASSIFIED. 15% WAS ADDED INTO RAW FILL QUANTITY TO ACCOUNT FOR SHRINKAGE.

LEGEND

— PL —	PROPERTY LINE
— LL —	LOT LINE
— R/W —	RIGHT-OF-WAY
=====	2' CURB & GUTTER
--- 920 ---	EXISTING CONTOURS
--- 920 ---	PROPOSED CONTOURS
XXX.XX	PROPOSED SPOT ELEVATION
LG	LIP OF GUTTER
TC	TOP OF CURB
SW	SIDEWALK
WE	WALK EXISTING
HP	HIGH POINT
LP	LOW POINT
P	TOP OF PAVEMENT
GR	TOP OF STRUCTURE
BS	GROUND ELEVATION
TS	TOP OF STEPS
BW	BOTTOM OF WALL
TW	TOP OF WALL
=====	EXISTING STORM SEWER
=====	PROPOSED STORM PIPE
=====	PROPOSED WET CURB & GUTTER
=====	PROPOSED DRY CURB & GUTTER



VICINITY MAP
SEC. 36-48-32



SCALE: 1"=30'
0' 30' 60'



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www.phelpsenr.com

PLANNING
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IMPLEMENTATION



OVERALL GRADING PLAN
ANDY'S FROZEN CUSTARD
630 NW CHIPMAN ROAD
LEE'S SUMMIT, MISSOURI

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CERTIFICATE OF AUTHORIZATION						
LAND SURVEYING-200701028						
ENGINEERING-200700209						

SHEET

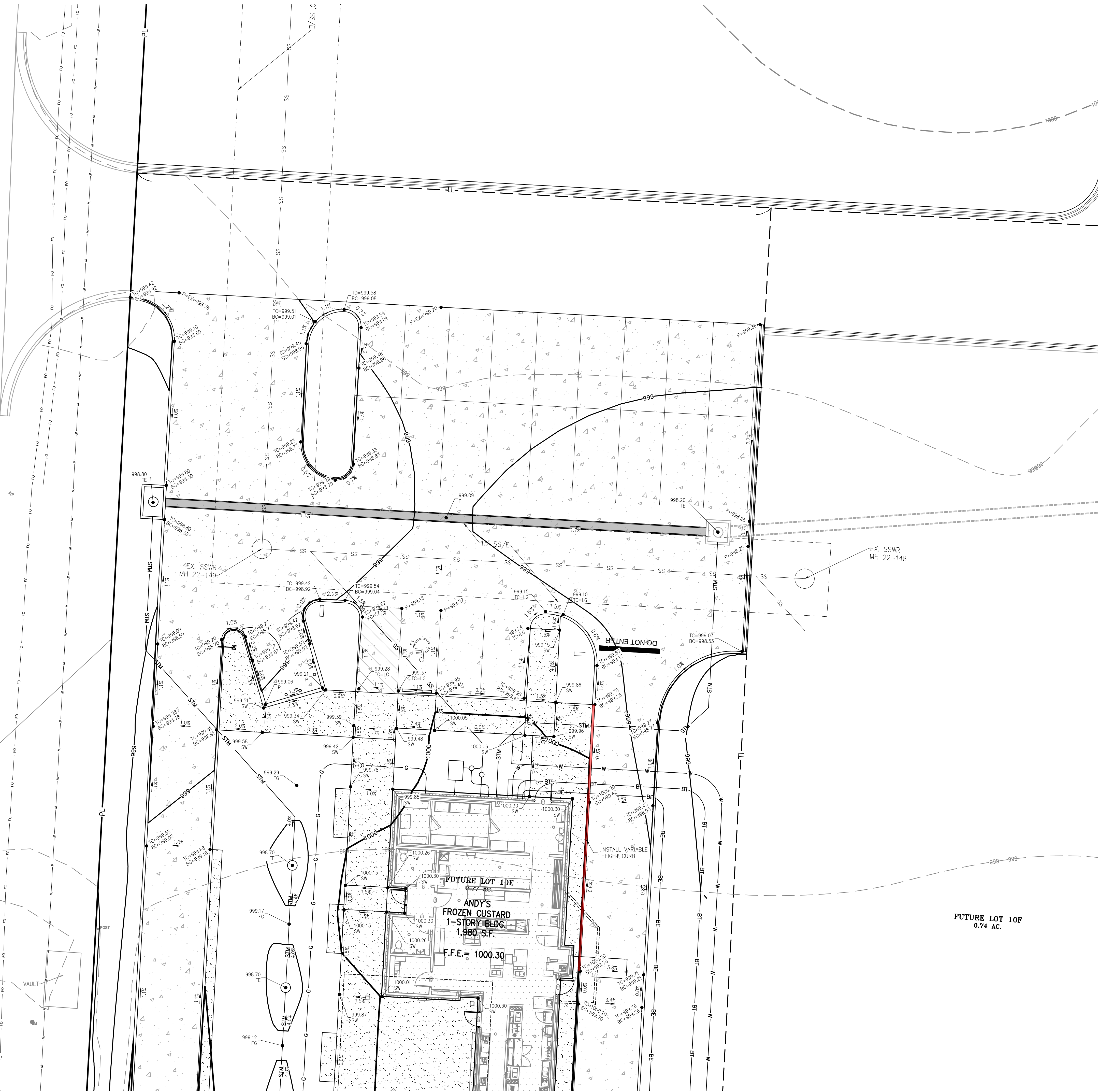
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65' PRIVATE UTILITY & ACCESS
ESMT 0.0% 20230505338

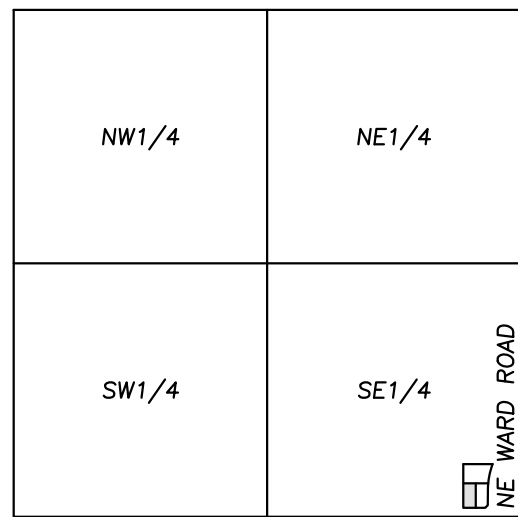
LOT 27B
SUMMIT FAIR -
LOTS 27A & 27B

NW OUTVIEW ROAD
(PRIVATE)



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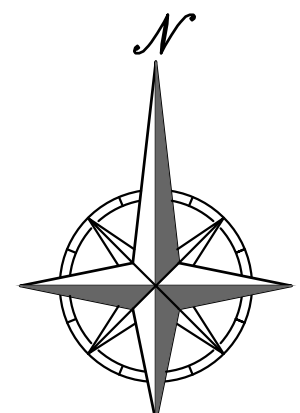
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FIELD LOCATIONS OF UNDERGROUND UTILITIES CALL 811.



VICINITY MAP
SEC. 36-48-32

LEGEND

- PL PROPERTY LINE
- LL LOT LINE
- R/W RIGHT-OF-WAY
- 2' CURB & GUTTER
- EXISTING CONTOURS
- PROPOSED CONTOURS
- PROPOSED SPOT ELEVATION
- LG LIP OF GUTTER
- TC TOP OF CURB
- SW SIDEWALK
- WE MATCH EXISTING
- HP HIGH POINT
- LP LOW POINT
- P TOP OF PAVEMENT
- TE TOP OF STRUCTURE
- GR GROUND ELEVATION
- BS BOTTOM OF STEPS
- TS TOP OF STEPS
- BW BOTTOM OF WALL
- TW TOP OF WALL
- EXISTING STORM SEWER
- PROPOSED STORM PIPE
- PROPOSED WET CURB & GUTTER
- PROPOSED DRY CURB & GUTTER

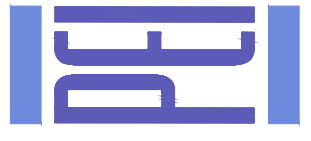


SCALE: 1"=10'
0' 10' 20'



PHELPS ENGINEERING, INC.
1200 N. Winchester
Olathe, Kansas 66061
(913) 393-1155
Fax (913) 393-1165
www.phelpsengineering.com

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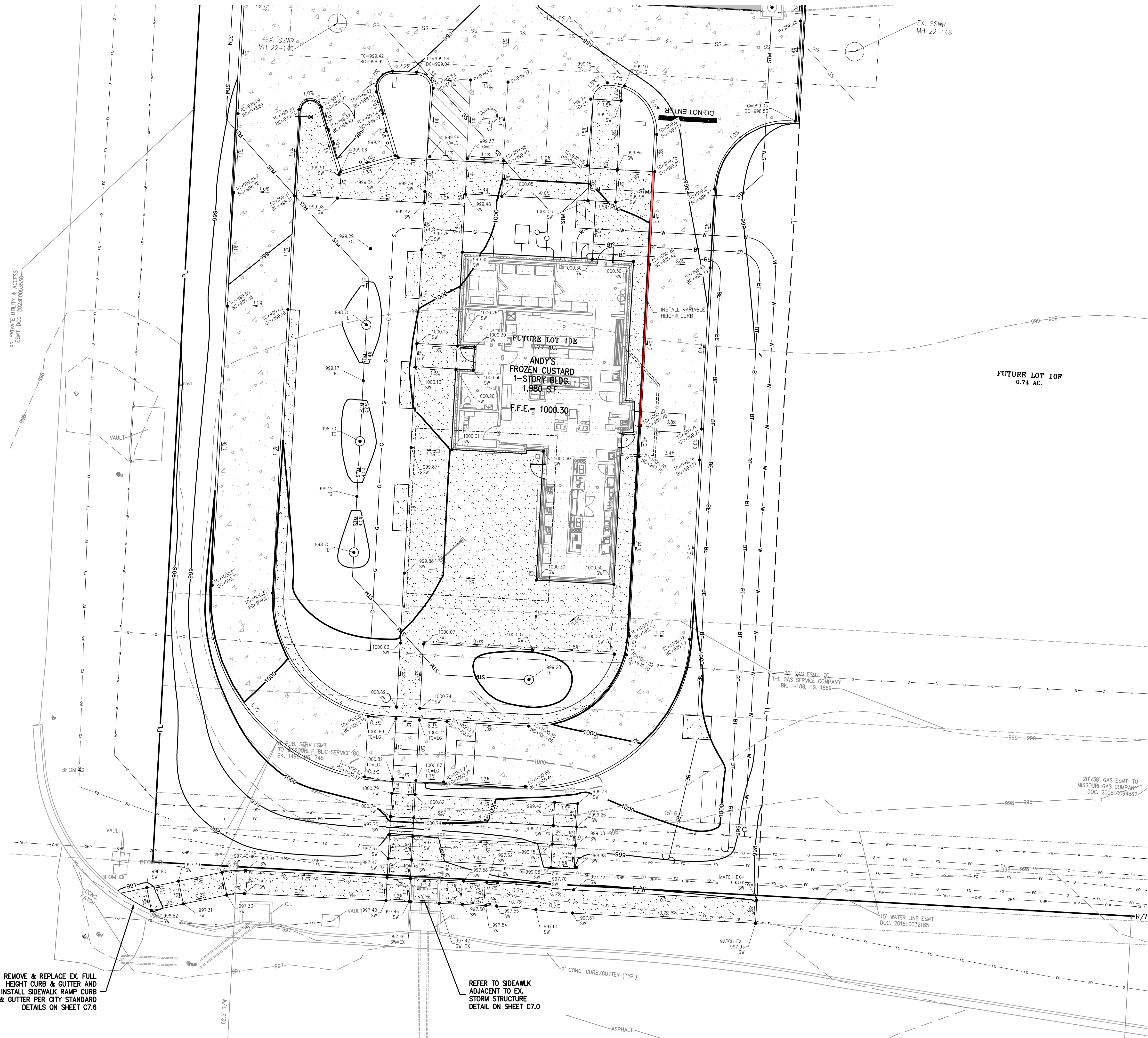
ENLARGED GRADING PLAN
ANDY'S FROZEN CUSTARD
630 NW CHIPMAN ROAD
LEE'S SUMMIT, MISSOURI

PROJECT NO.	240159	No.	Date	Revisions:	By	App.
DATE: 04-12-2024	DRAWN: AEB	1.	05-10-2024	REVISED PER CITY COMMENTS	AEB	DAF
CHECKED: DAF	APPROVED: JDC	2.	05-30-2024	REVISED PER CITY COMMENTS	AEB	DAF
CERTIFICATE OF AUTHORIZATION						
LAND SURVEYING - LS-82						
ENGINEERING - E-361						
CERTIFICATE OF AUTHORIZATION						
LAND SURVEYING - 200701028						
ENGINEERING - 200700029						

SHEET

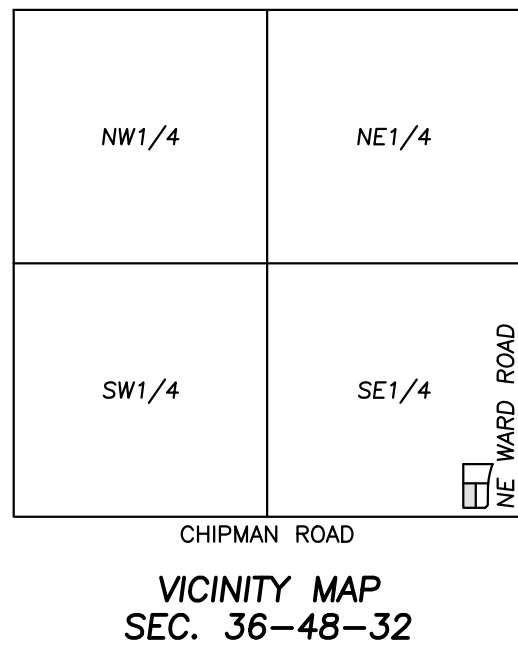
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CORPORATE SEAL									
LAND SURVEYING									
ENGINEERING									
STATE OF AUTHORIZATION									
LAND SURVEYING									
ENGINEERING									

SHEET

C2.2

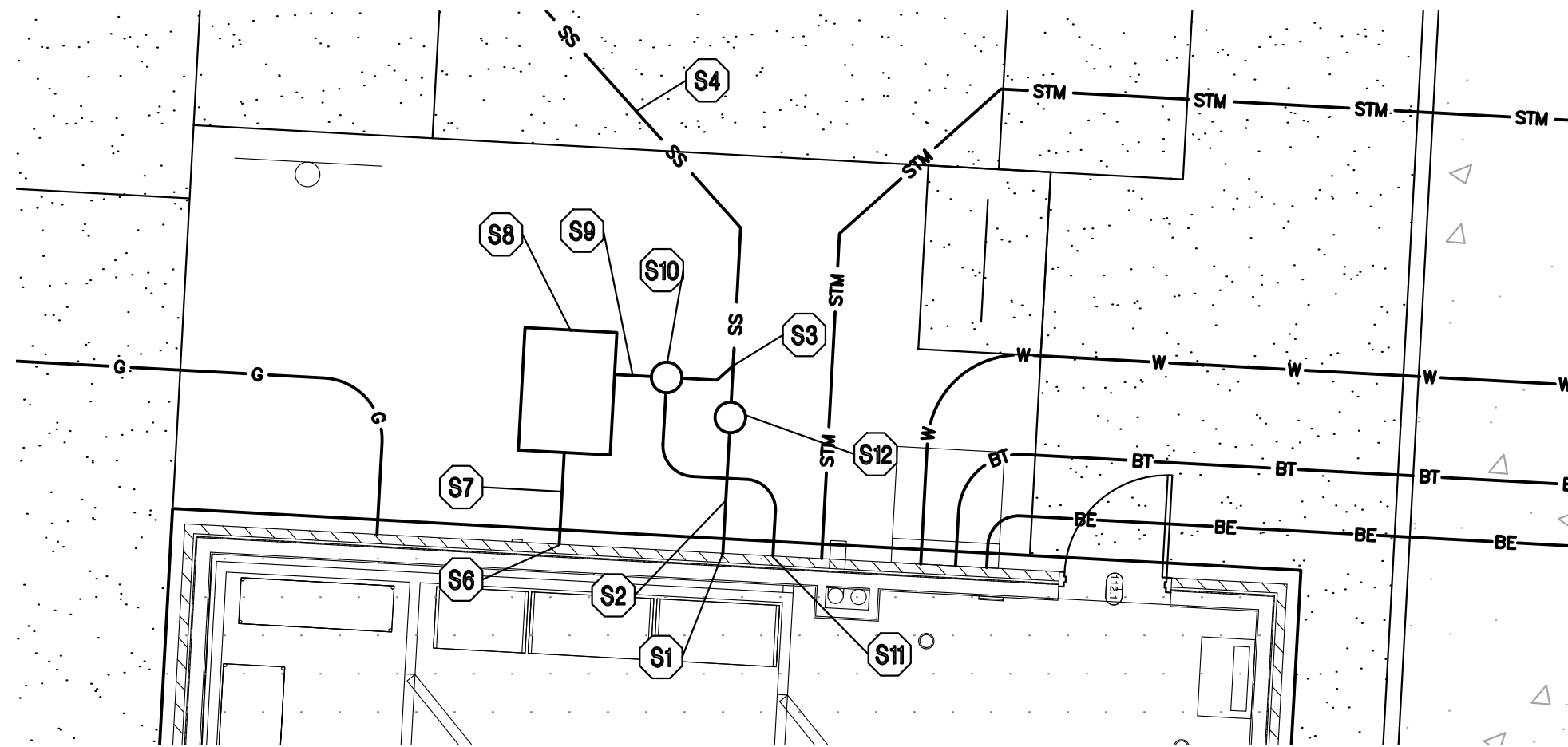
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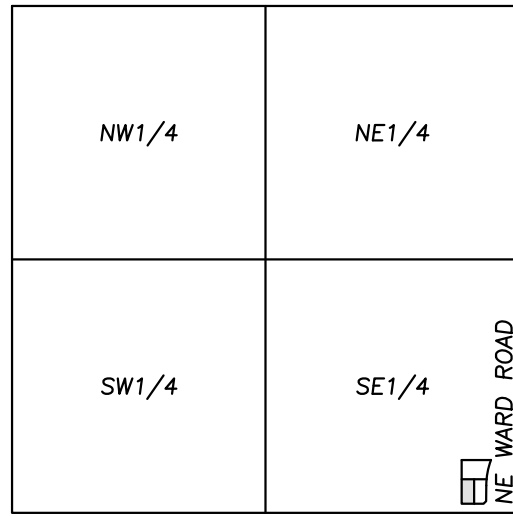
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LEGEND

- PL PROPERTY LINE
- LL LOT LINE
- R/W RIGHT-OF-WAY
- CAV EXISTING CABLE TELEVISION LINE
- FO EXISTING FIBER OPTIC LINE
- G EXISTING GAS LINE
- BE EXISTING BURIED ELECTRIC LINE
- DHP EXISTING OVERHEAD POWER LINE
- DHT EXISTING OVERHEAD TELEPHONE LINE
- SS EXISTING SANITARY SEWER LINE
- SD EXISTING STORM SEWER LINE (& SIZE)
- BT EXISTING BURIED TELEPHONE LINE
- W-6" EXISTING WATER LINE (& SIZE)
- SS PROPOSED SANITARY SEWER LINE
- 24"HDPE PROPOSED STORM SEWER LINE (& SIZE)



VICINITY MAP
SEC. 36-48-32



SCALE: 1"=30'
0' 30' 60'

UTILITY KEY NOTES:

- D1 PROPOSED 6" INTERNAL ROOF DRAIN CONNECTION. (RE: MEP PLANS). CONNECT TO INTERNAL ROOF DRAIN AND INSTALL UNDERGROUND SECONDARY STORM LINE.
- D2 INSTALL PRIVATE 18" NYOPLAST INLET DRAIN W/ STANDARD GRATE (SEE SHEET C7.3 FOR DETAIL).
- D3 INSTALL HDPE SECONDARY STORM LINE AT 1.0% MINIMUM SLOPE MAINTAINING 12" MINIMUM COVER (TYP). SEE SHEET C5.1 FOR TOP ELEVATIONS AND FLOWLINES.
- E1 FOLLOW ELECTRIC COMPANY WORK ORDER AND SPECIFICATIONS FOR PRIMARY ELECTRICAL SERVICE ROUTING AND CONNECTION TO EXISTING.
- E2 INSTALL CONCRETE TRANSFORMER PAD. CONTRACTOR TO VERIFY EXACT LOCATION AND SIZE WITH ELECTRIC COMPANY PRIOR TO CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION OF CONCRETE PAD AND CONDUIT AS REQUIRED BY THE ELECTRIC COMPANY. CONTRACTOR SHALL COORDINATE SAID WORK WITH THE ELECTRIC COMPANY.
- E3 ELECTRIC ENTRY INTO BUILDING. FOLLOW ELECTRIC COMPANY REQUIREMENTS (RE: BUILDING ELECTRICAL PLAN.)
- E4 CONTRACTOR TO INSTALL CONDUITS TO MENU BOARD & MONUMENT SIGN (RE: BUILDING ELECTRICAL PLANS FOR POWER REQUIREMENTS)
- G1 GAS ENTRY WITH GAS METER. CONTRACTOR SHALL COORDINATE WITH GAS COMPANY FOR TYPING OF INDIVIDUAL METER. SIZE OF GAS MAIN SHALL BE AS DETERMINED BY UTILITY OR AS SHOWN ON BUILDING PLANS. CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH GAS COMPANY REGARDING THE SIZE & INSTALLATION OF GAS SERVICE LINE.
- W1 CONTRACTOR TO COORDINATE 1" TAP ON EXISTING 12" MAIN VIA CORPORATION STOP FOR SOFT TYPE "K" COPPER DOMESTIC SERVICE LINE WITH CITY. THE CITY SHALL PERFORM THE TAP OF THE EXISTING MAIN. CONTACT CITY FOR TAPPING REQUIREMENTS. CONTRACTOR TO PAY ALL FEES FOR WATER MAIN TAP. OWNER WILL REIMBURSE CONTRACTOR FOR ACTUAL METER AND SYSTEM DEVELOPMENT FEES ASSESSED BY CITY.
- W2 INSTALL 1" DOMESTIC WATER METER PIT PER CITY REQUIREMENTS. THE CITY SHALL PROVIDE THE METER, THE PIT, AND ALL OTHER MATERIALS NECESSARY FOR THE INSTALLATION. CONTRACTOR TO COORDINATE AND PAY ALL FEES. INSTALLATION BY THE CONTRACTOR'S PLUMBER SHALL BE IN ACCORDANCE WITH CITY STANDARDS. CONTRACTOR SHALL TRANSITION FROM 1" SOFT TYPE "K" COPPER DOMESTIC WATER LINE TO 2" SOFT TYPE "K" COPPER DOMESTIC WATER LINE DOWNSTREAM OF METER.
- W3 2" SOFT TYPE "K" COPPER DOMESTIC WATER LINE ENTRY TO BUILDING. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ANY APPURTENANCES ON THE DOMESTIC LINE SUCH AS BACKFLOW PREVENTION DEVICES (RE: BUILDING PLANS), GATE VALVES, REDUCERS, BENDS, TEES, ETC., WHICH MAY BE REQUIRED. CONTRACTOR TO COORDINATE WITH THE DEVELOPMENT SERVICES INSPECTOR. CONNECTION MADE BY A CORPORATION STOP.
- W4 CONTRACTOR TO RELOCATE EX. PUBLIC FIRE HYDRANT OUTSIDE OF NEW SIDEWALK. ALL WORK TO BE COORDINATED WITH CITY OF LEE'S SUMMIT PUBLIC WORKS DEPARTMENT.
- T1 CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH THE TELEPHONE COMPANY FOR THE INSTALLATION OF BURIED TELEPHONE LINES. CONTRACTOR TO PROVIDE ONE (1) - 4" PVC SCH. 40 CONDUITS FROM BUILDING TO R/W. CONTRACTOR TO TERMINATE IN QUARTZ BOX WITH PULL STRING FROM BUILDING TO TELEPHONE FEED POINT. CONTRACTOR TO VERIFY EXACT ROUTING AND FEED POINT WITH TELEPHONE COMPANY.
- S1 CONNECT TO BLDG. INTERIOR PLUMBING SANITARY SEWER LINE. TRANSITION FROM 4" (INTERIOR) TO 6" (EXTERIOR) AT FOUNDATION WALL. (RE: MEP PLANS)
FG=1000.30
FL 6"=996.30
- S2 INSTALL 6 L.F. 6" PVC (SDR-26) SANITARY SEWER SERVICE LINE @ 3.3% SLOPE.
- S3 INSTALL 6"x6"x4" WYE CONNECTION.
FG=1001.20
FL=996.10
- S4 INSTALL 47 L.F. 6" PVC (SDR-26) SANITARY SEWER SERVICE LINE @ 5.2% SLOPE.
- S5 CONNECT TO EXISTING 6" PVC (SDR-26) SANITARY SEWER STUB. FG AT EOS=998.95
FL 6" AT EOS=993.65
- S6 CONNECT TO BLDG. INTERIOR PLUMBING GREASE LINE (RE: MEP PLANS)
FG=1000.30
FL 4"=996.30
- S7 INSTALL 3 L.F. 4" PVC (SDR-26) GREASE LINE @ 3.3% SLOPE.
- S8 INSTALL 98-75 SCHER GREASE INTERCEPTOR (SEE SHEET C7.3 FOR DETAIL)
TE=1000.20
FL 4" IN = 996.20
FL 4" OUT= 996.20
- S9 INSTALL 4 L.F. 4" PVC (SDR-26) GREASE LINE @ 2.5% SLOPE.
- S10 INSTALL SANITARY SEWER SAMPLING PORT (RE: MEP PLANS).
- S11 ROUTE 3" VENT LINE FROM SAMPLING PORT TO BUILDING. (RE: MEP PLANS).
- S12 INSTALL SANITARY SEWER CLEAN OUT IN NON-PAVED AREA (SEE SHEET C7.2 FOR DETAIL)

UTILITY NOTES:

- The contractor is specifically cautioned that the location and/or elevation of existing utilities as shown on these plans is based on records of the various utility companies, and where possible, measurements taken in the field. The information is not to be relied on as being exact or complete. The contractor must call the appropriate utility companies at least 48 hours before any excavation to request exact field location of utilities. It shall be the responsibility of the contractor to coordinate with and relocate &/or remove all existing utilities which conflict with the proposed improvements shown on the plans.
- The construction of storm sewers on this project shall conform to the requirements of the City's Technical Specifications and Design Criteria.
- The contractor shall field verify the exact location and elevation of the existing storm sewer lines and the existing elevation at locations where the proposed storm sewer collects or releases to existing ground. If discrepancies are encountered from the information shown on the plans, the contractor shall contact the design engineer. No pipes shall be laid until direction is received from the design engineer.
- It will be the contractors responsibility to field adjust the top of all manholes and boxes as necessary to match the grade of the adjacent area. Tops of existing manholes shall be raised as necessary to be flush with proposed pavement elevations, and to be 6-inches above finished ground elevations in non-paved areas. No separate or additional compensation will be made to the contractor for making final adjustments to the manholes and boxes.
- Inlet locations, horizontal pipe information and vertical pipe information is shown to the center of the structure. Deflection angles shown for storm sewer pipes are measured from the center of curb inlets and manholes. The contractor shall adjust the horizontal location of the pipes to go to the face of the boxes. All roof drains shall be connected to storm sewer structures. Provide cleanouts on roof drain lines at 100' max. Spacing and at all bend points. Do not connect roof drains directly to storm sewer pipe.
- The contractor shall be responsible for furnishing and installing all fire and domestic water lines, meters, backflow devices, pits, valves and all other incidentals required for a complete operable fire protection and domestic water system. All costs associated with the complete water system for the buildings shall be the responsibility of the contractor. All work shall conform to the requirements of City.
- The contractor shall be responsible for furnishing and installing all sanitary sewer service lines from the buildings to the public line. All work shall conform to the requirements of the City.
- The contractor will be responsible for securing all permits, bonds and insurance required by the contract documents, City, and all other governing agencies (including local, county, state and federal authorities) having jurisdiction over the work proposed by these construction documents. The cost for all permits bonds and insurance shall be the contractors responsibility and shall be included in the bid for the work.
- By the use of these construction documents the contractor hereby agrees that he/she shall be solely responsible for the safety of the construction workers and the public. The contractor agrees to hold the engineer and owner harmless for any and all injuries, claims, losses or damages related to the project.
- The Contractor shall be responsible for furnishing all materials, tools and equipment and installation of electrical power, telephone and gas service from a point of connection from the public utility lines to the building structures. This will include all conduits, service lines, meters, concrete pads and all other incidentals required for a complete and operational system as required by the owner and the public utilities. Refer to building plans for exact tie-in locations of all utilities. Contractor shall verify connection points prior to installation of utility line.
- Contractor shall notify the utility authorities inspectors 48 hours before connecting to any existing line.
- Water lines shall be as follows (unless otherwise shown on plans):
 - Pipe sizes less than 3-inches that are installed below grade and outside building shall comply with the following:
 - Seamless Copper Tubing: Type "K" soft copper, ASTM B88.
 - Fittings: Wrought copper (95.5 Tin Antimony solder joint), ASME B 16.22.
 - Pipe sizes 3-inches Through 48-inches that are installed below grade and outside building shall comply with one of the following:
 - Gray Cast Iron Water Pipe: ANSI A21.8, thickness class 52.
 - Fittings: Either mechanical joint or push-on joint, AWWA C110 or AWWA C111.
 - Elastomeric gaskets and lubricant: ASTM F477.
 - Cement Mortar Lining, AWWA C104
 - Ductile Iron Water Pipe: AWWA C151, thickness class 50.
 - Fittings: Either mechanical joint or push-on joint, AWWA C110 or AWWA C111.
 - Elastomeric gaskets and lubricant: ASTM F477.
 - Cement Mortar Lining, AWWA C104
 - Polyvinyl Chloride (PVC) Water Pipe: Pipe, AWWA C900, rated DR 18 (Class 150), continually marked as required.
 - Elastomeric gaskets and lubricant: ASTM F477 for smaller pipes.
 - Pipe joints: Integrally molded bell ends, ASTM D3139.
 - Trace wire: Magnetic detectable conductor, (#12 Copper) brightly colored plastic covering imprinted with "Water Service" in large letters
- Minimum trench width shall be 2 feet.
- Contractor shall maintain a minimum of 42" cover on all waterlines. All water line joints are to be mechanical joints with thrust blocking as called out in specifications and construction plans. Water mains and service lines shall be constructed in accordance to waterone's specifications for commercial services.
- All waterlines shall be kept min. ten (10') apart (parallel) from sanitary sewer lines or manholes. Or when crossing, on 24" vertical clearance (outside edge of pipe to outside edge of pipe) of the water line above the sewer line is required.
- Sanitary conflicts will be resolved prior to permit issuance.
- In the event of a vertical conflict between waterlines, sanitary lines, storm lines and gas lines (existing and proposed), the sanitary line shall be ductile iron pipe with mechanical joints at least 10 feet on both sides of crossing (or encased in concrete this same distance), the waterline shall have mechanical joints with appropriate thrust blocking as required to provide a minimum of 24" clearance. Meeting requirements of ANSI A21.10 or ANSI 21.11 (AWWA C-151) (CLASS 50).
- All underground storm, sanitary, water and other utility lines shall be installed, inspected and approved before backfilling. Failure to have inspection approval prior to backfill will constitute rejection of work.
- All necessary inspections and/or certifications required by codes and/or utility service companies shall be performed prior to announced building possession and the final connection of service. Contractor shall coordinate with all utility companies for installation requirements and specifications.
- Refer to building plans for site lighting electrical plan, irrigation, parking lot security system and associated conduit requirements. Coordinate with Owner that all required conduits are in place & tested prior to paving.
- When a building utility connection from site utilities leading up to the building cannot be made immediately, temporarily mark all such site utility terminations.
- Refer to the building plans for site lighting electrical requirements, including conduits, pole bases, pull boxes, etc.

UTILITY COMPANIES:

MISSOURI GAS ENERGY	(816) 969-2218
LUCAS WALLS (LUCAS.WALLS@GUG.COM)	
3025 SOUTHEAST CLOVER DRIVE	
LEE'S SUMMIT, MO 64082	
EVERGY	(816) 347-4339
PHILLIP INGRAM (PHILLIP.INGRAM@KCPL.COM)	
RON DEJARNETTE (RON.DEJARNETTE@KCPL.COM)	(816) 347-4316
1300 HAMBLEN ROAD	
LEE'S SUMMIT, MO 64081	
STORM SEWER (PUBLIC WORKS DEPARTMENT)	(816) 969-1800
220 SE GREEN STREET	
LEE'S SUMMIT, MO 64063	
SANITARY SEWER & WATER (WATER UTILITIES DEPT.)	(816)-969-1900
1200 SE HAMBLEN ROAD,	
LEE'S SUMMIT, MO 64081	
AT&T (913) 383-4929	
MR. CLAYTON ANSPAUGH (CA4089@ATT.COM)	(913) 383-4849-FAX
9444 NALL AVENUE	
OVERLAND PARK, KANSAS 66207	



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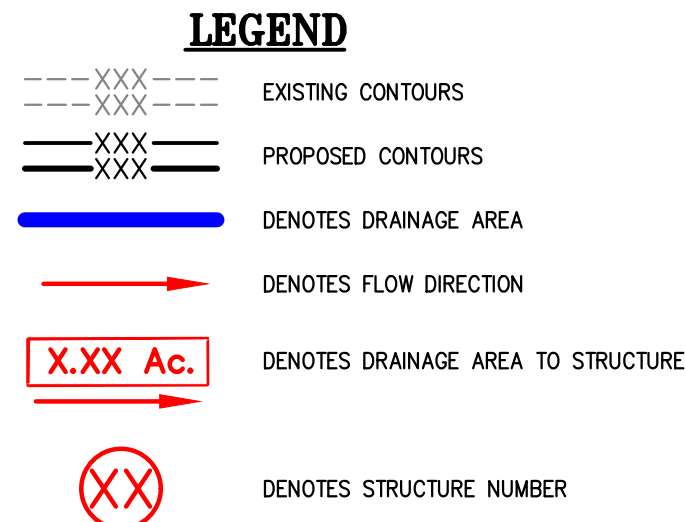
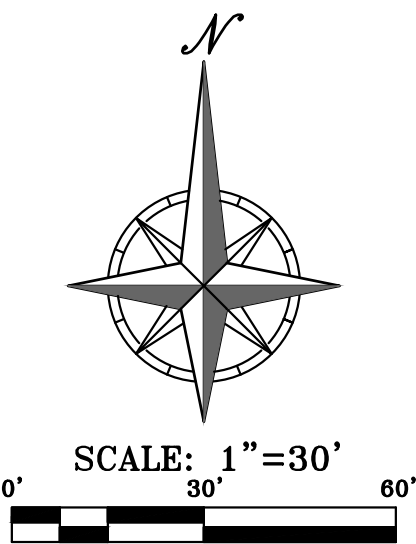


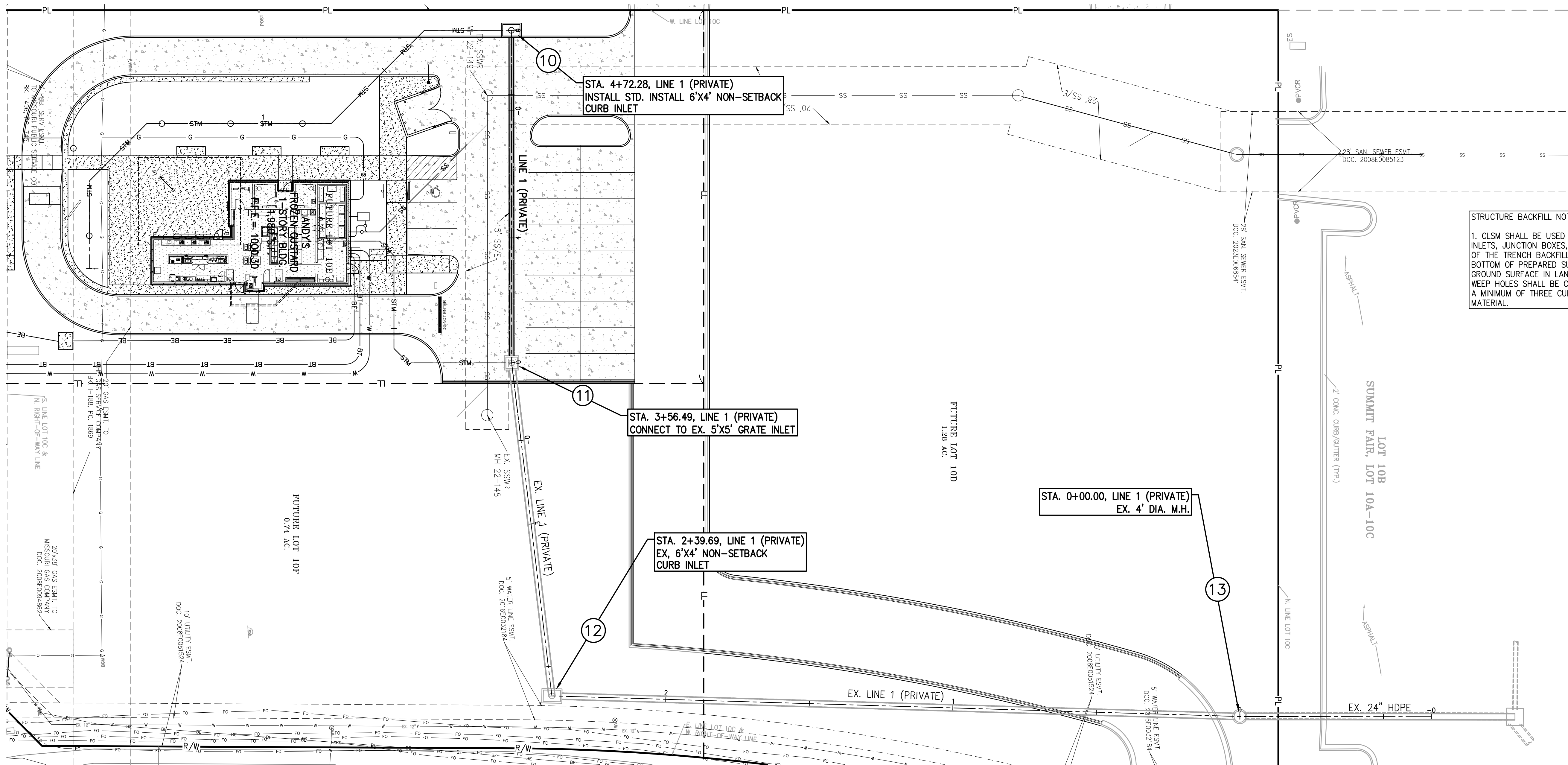
UTILITY PLAN
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630 NW CHIPMAN ROAD
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PROJECT NO.	240159	Date	No.	Revisions:	By	App.
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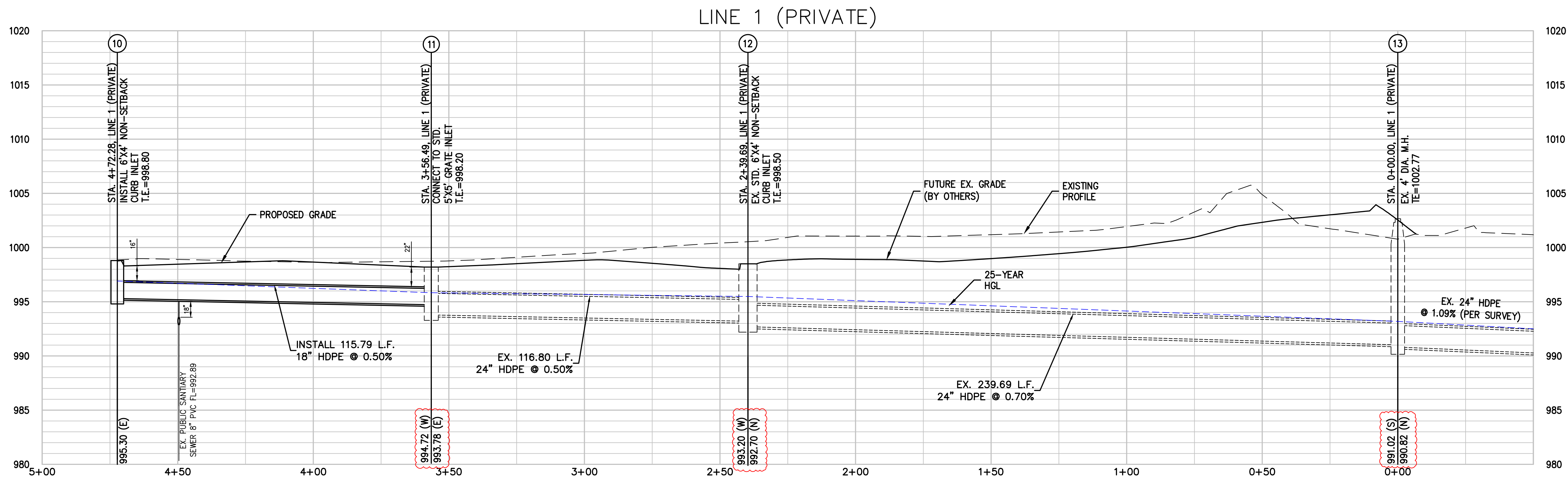
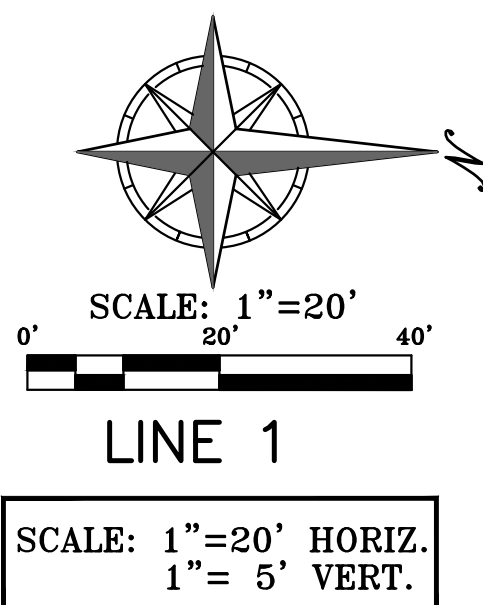
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STORM SEWER PLAN & PROFILE

ANDY'S FROZEN CUSTARD
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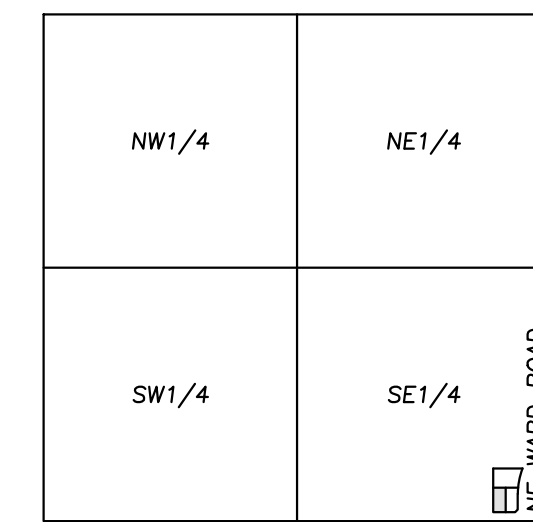
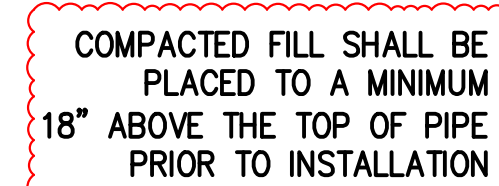
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LAND SURVEYING - LS-82			
ENGINEERING - E-361			
CERTIFICATE OF AUTHORIZATION			
LAND SURVEYING-20070128			
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SHEET

C5



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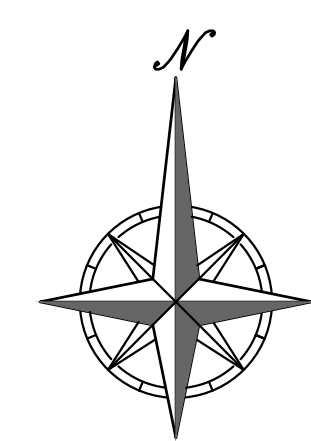
SCALE:
1"=2000'

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1"=2000'


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1. CONTRACTOR SHALL FILL AND COMPACT 95% STANDARD DENSITY TO A POINT 18 INCHES MINIMUM ABOVE THE TOP OF THE PIPE PRIOR TO EXCAVATION FOR THE PIPE.

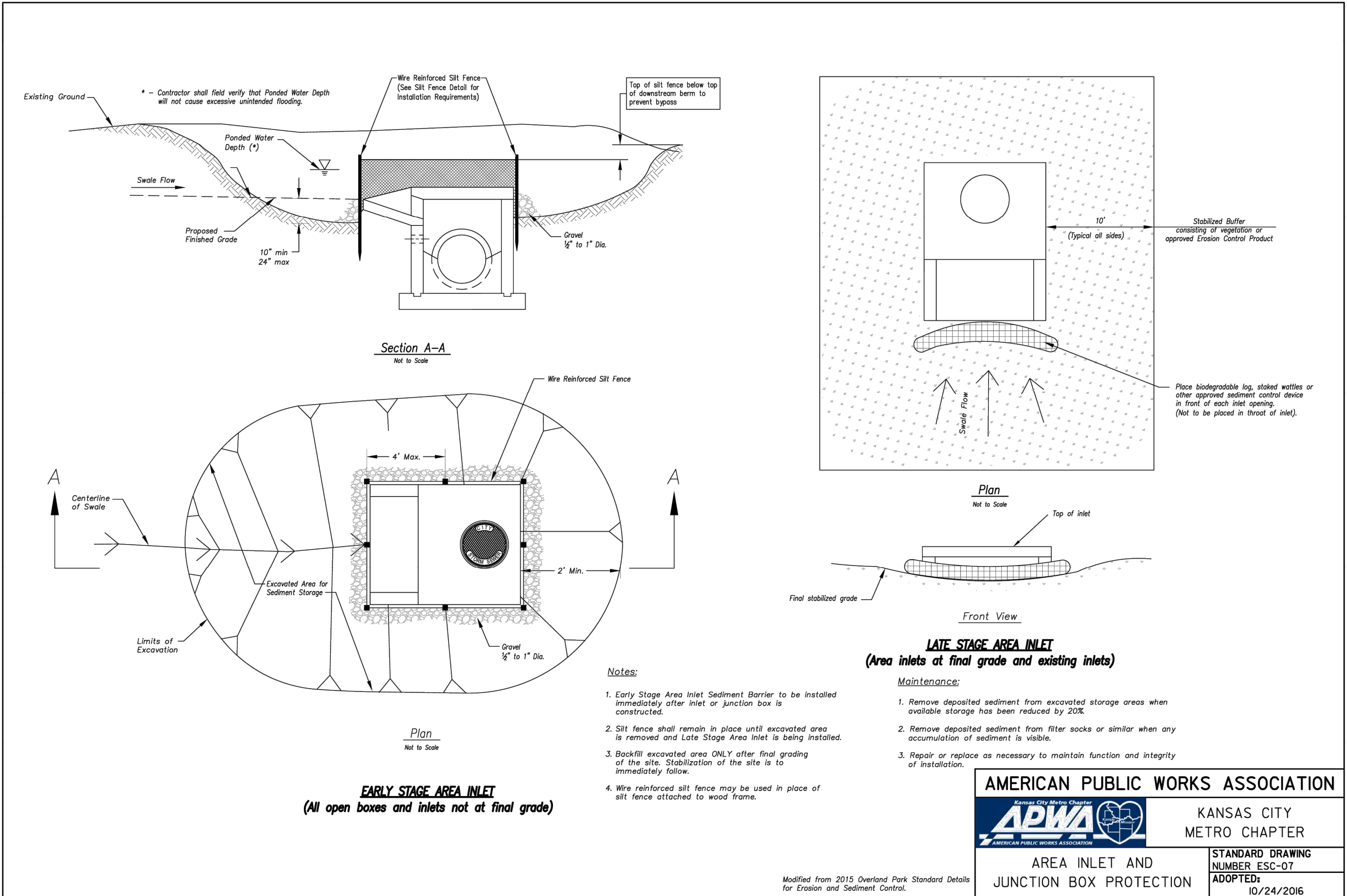
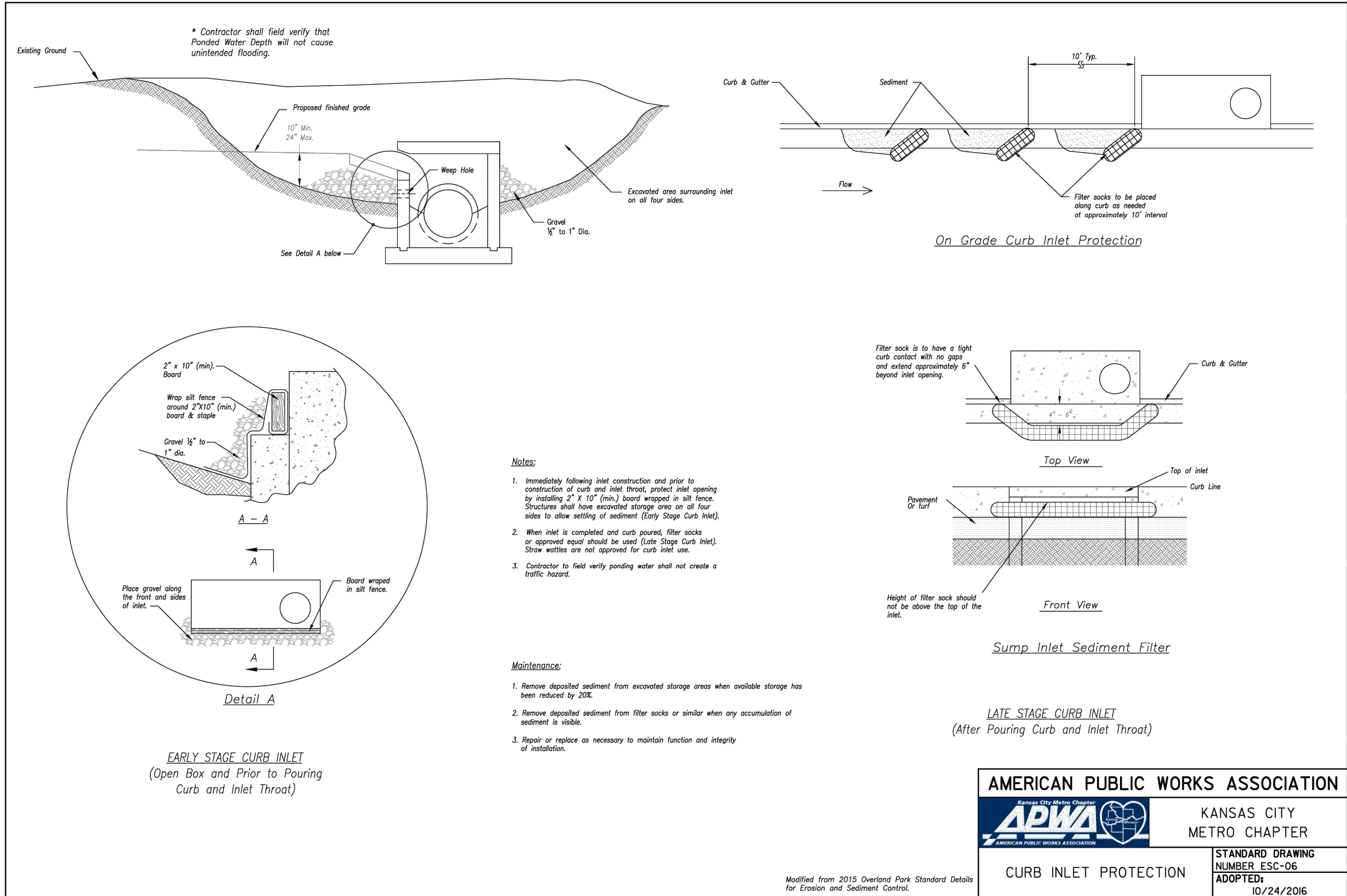
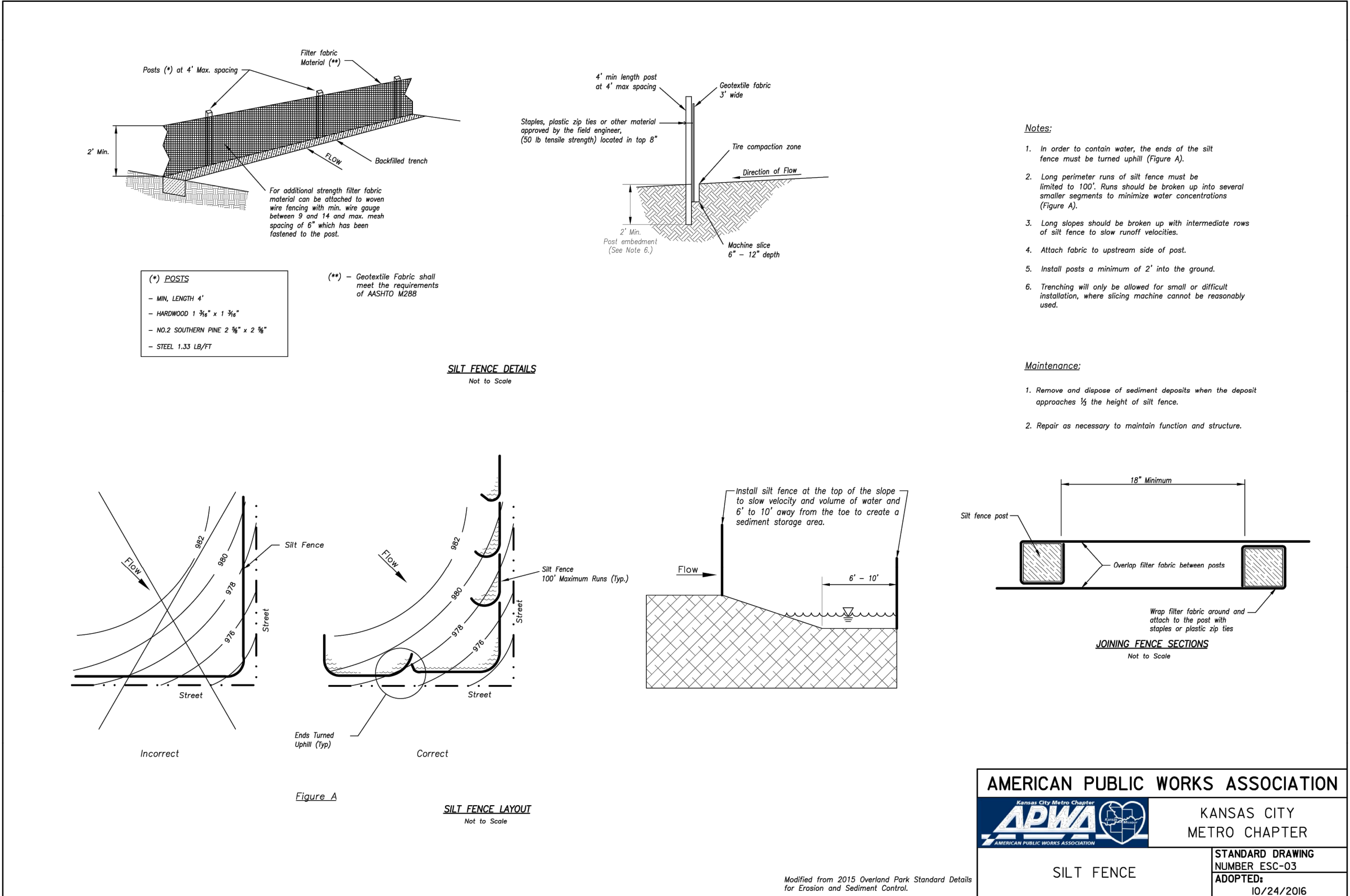
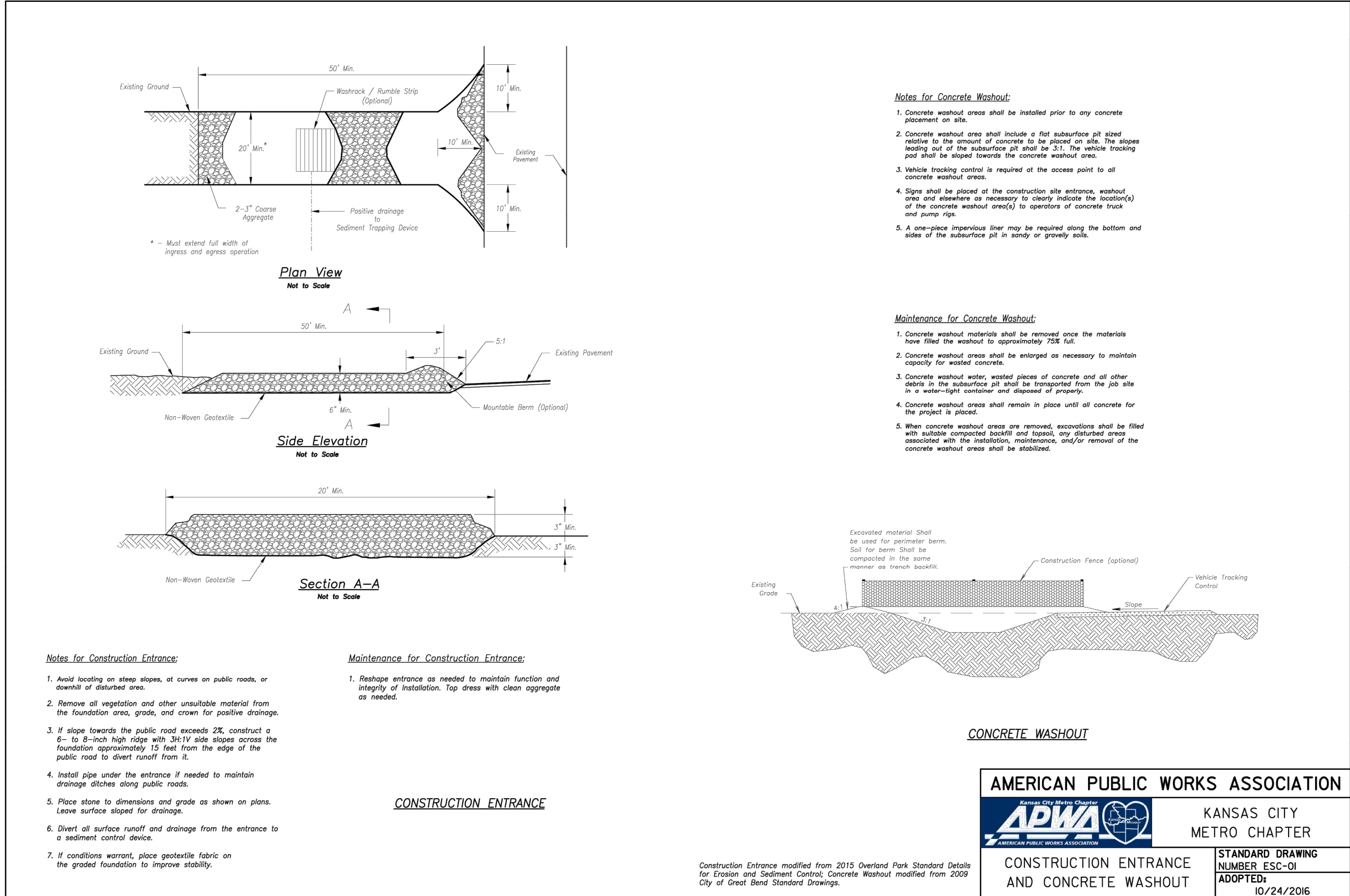


SCALE: 1"=10'

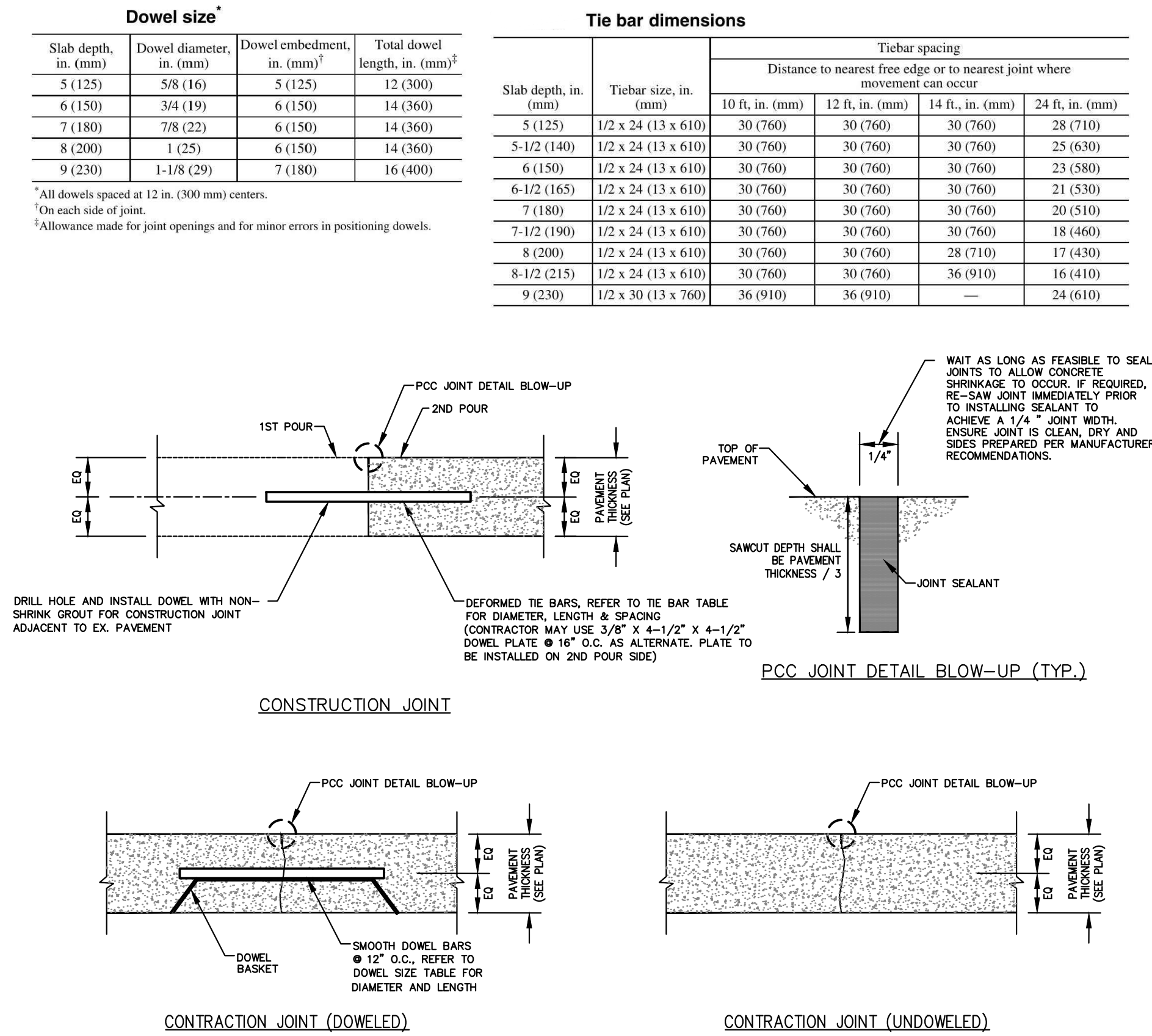


A horizontal scale bar with alternating black and white segments. It is marked with '0'', '10'', and '20'' at the beginning, middle, and end respectively.

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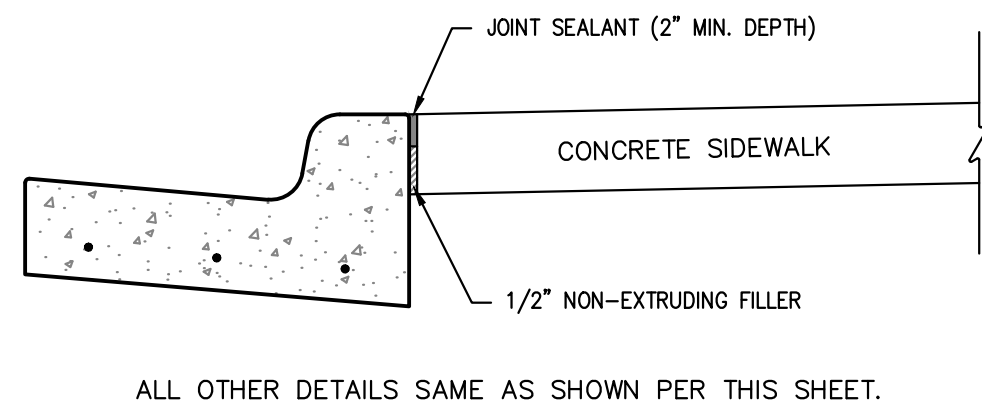
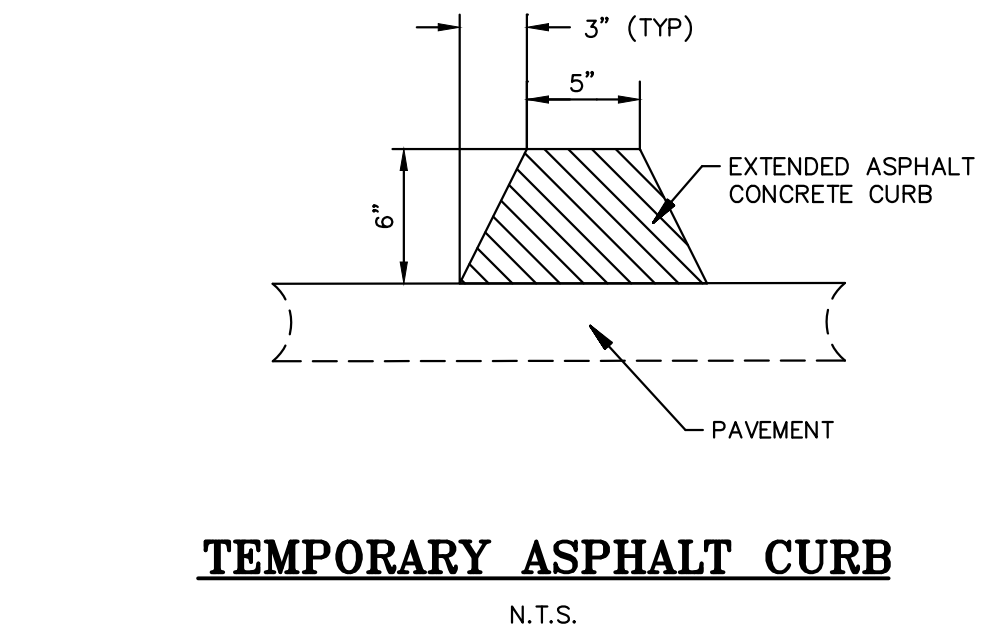
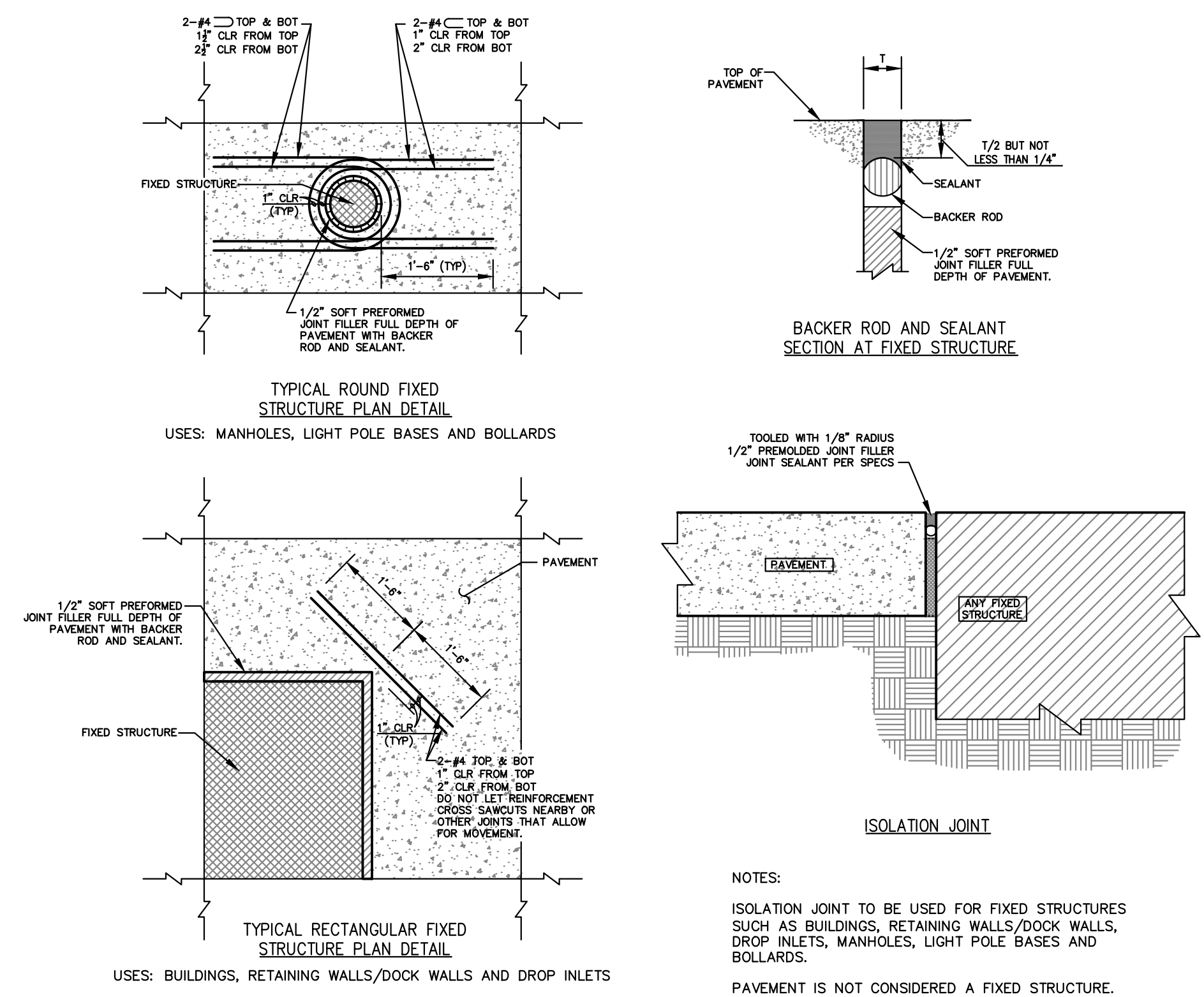


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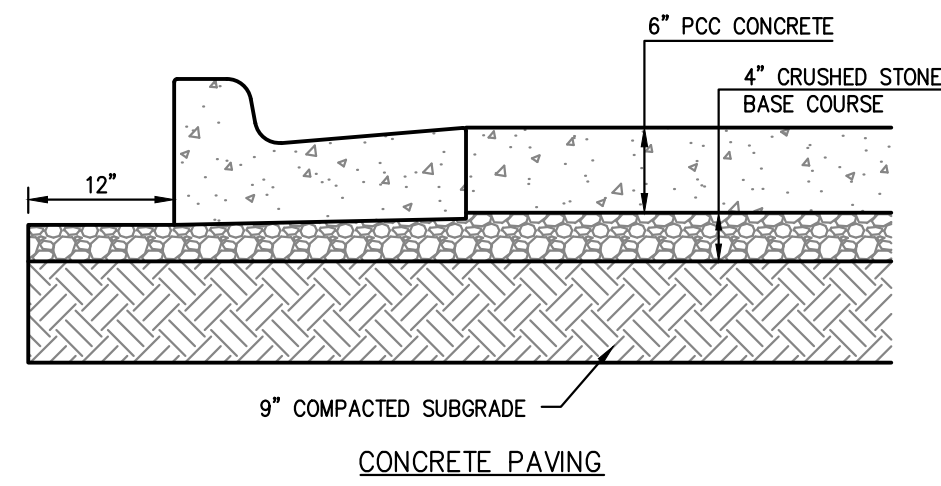
CONCRETE JOINT DETAILS

SCALE: N.T.S.



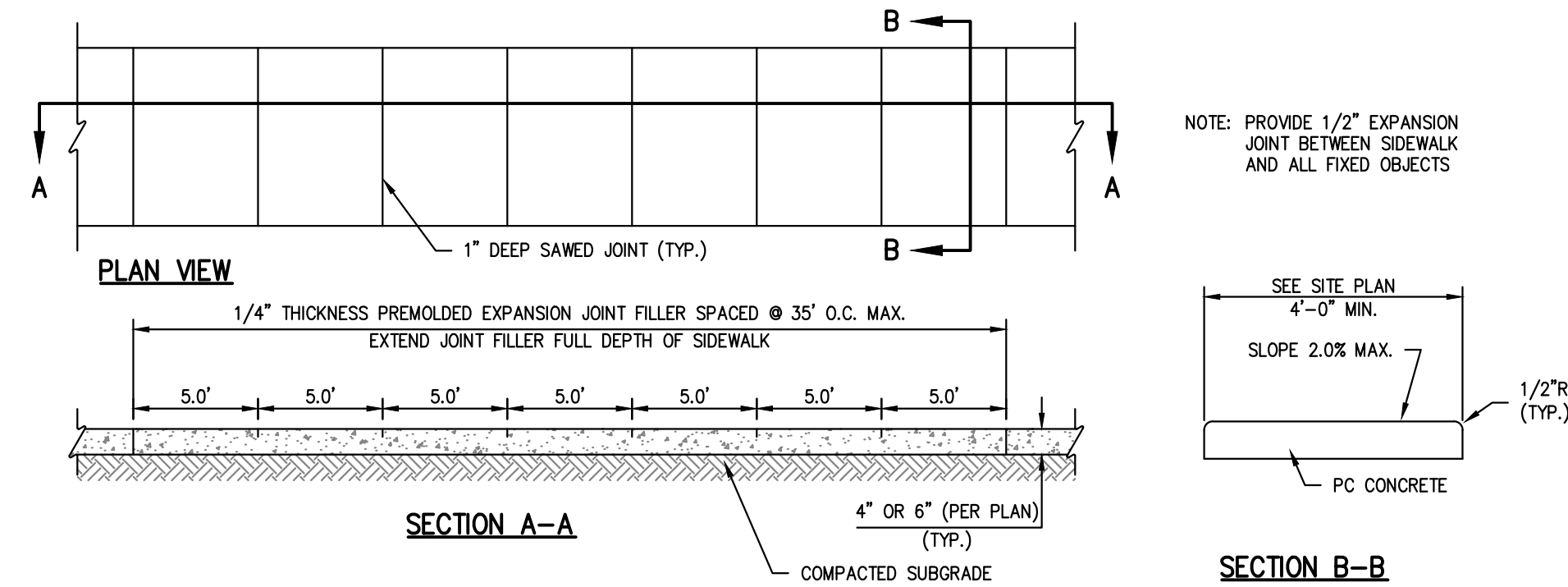
GENERAL PAVING NOTES:

- PRIOR TO PLACEMENT OF GRANULAR BASE OR ASPHALT, PROOF ROLL AND RE-COMPACT THE EXPOSED SURFACES UP TO A MINIMUM LATERAL DISTANCE OF TWO (2) FEET OUTSIDE THE PAVEMENT. ANY LOCALIZED SOFT, WET, OR LOOSE AREAS IDENTIFIED DURING THE PROOF ROLLING SHOULD BE REPAIRED PRIOR TO PAVING. FILL MATERIAL SHOULD BE PLACED IN LOOSE LIFTS UP TO A MAXIMUM OF EIGHT (8) INCHES IN THICKNESS AND COMPACTED TO AT LEAST 95% OF THE MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D698 AT MOISTURE CONTENTS WITHIN 0% AND +4% OF THE OPTIMUM FOR SOILS WITH A LIQUID LIMIT OF GREATER THAN 40, AND - +1% - 3% OF THE OPTIMUM FOR SOILS WITH A LIQUID LIMIT OF LESS THAN 40. MAXIMUM DRY DENSITY AND OPTIMUM MOISTURE CONTENT SHOULD BE DETERMINED BY THE STANDARD PROCTOR TEST (ASTM D 698).
- PROOFROLL WITH A 25 TON RUBBER TIRE VEHICLE AND REPAIR SUBGRADE DEFICIENCIES. IF ANY SIGNIFICANT EVENT, SUCH AS PRECIPITATION, OCCURS AFTER PROOFROLLING, THE SUBGRADE SHOULD BE REVIEWED BY QUALIFIED PERSONNEL IMMEDIATELY PRIOR TO PLACING THE PAVEMENT.
- CRUSHED STONE BASE COURSE USED BENEATH CONCRETE PAVING SHALL BE COMPACTED AB-3 OR EQUIVALENT.
- ALL SITE CONCRETE (CURBS, PAVEMENTS, SIDEWALKS, ETC.) SHALL MEET KANSAS CITY MATERIALS METRO BOARD (KOMMB) MIX DESIGN SPECIFICATIONS FOR 4,000 P.S.I. AIR ENTRAINED CONCRETE.
- IN NEW PAVEMENT AREAS, CONTRACTOR SHALL OVER EXCAVATE AS REQUIRED TO ESTABLISH NEW COMPACTED SUBGRADE ELEVATIONS.
- CONTRACTOR IS RESPONSIBLE FOR ALL PAVEMENT AND SUBGRADE MATERIALS TESTING
- FIBER REINFORCEMENT SHALL BE USED IN ALL CONCRETE CURB AND CONCRETE FLATWORK (SIDEWALKS, PAVEMENTS, ETC.). ALL FIBERS SHALL BE ALKALI-RESISTANT, NATURAL CELLULOSE FIBERS AS MANUFACTURED BY SOLOMON ULTRAFIBER 500, OR POLY PROPYLENE FIBRILLATED FIBERS AS MANUFACTURED BY SIKAFIBERMESH-300, OR AN APPROVED EQUAL IN ADVANCE BY THE ENGINEER.



PAVING SECTIONS

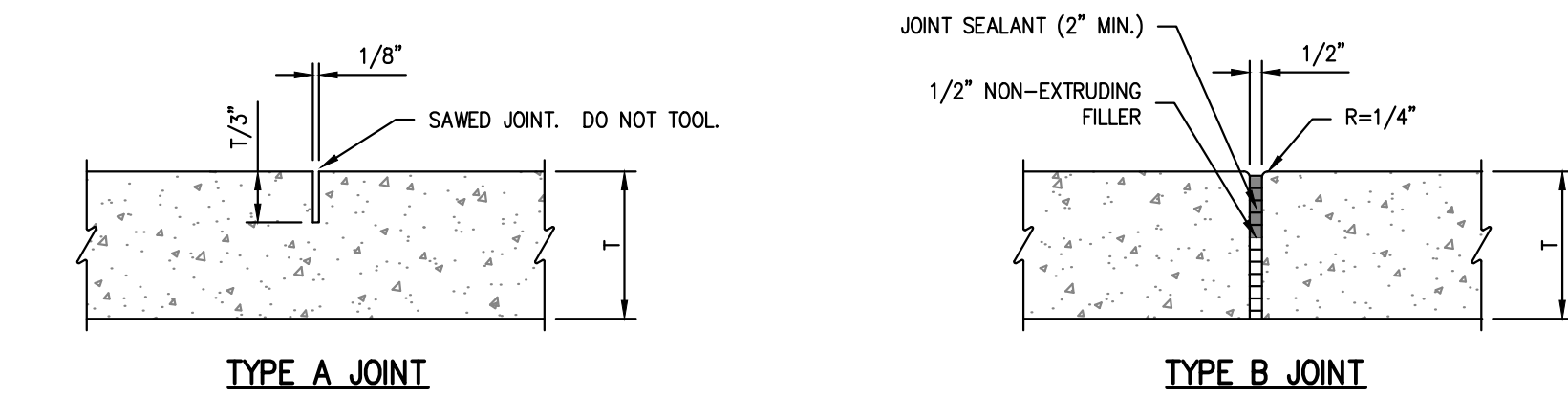
SCALE: N.T.S.



- NOTE:
- USE KANSAS CITY MATERIALS METRO BOARD (KOMMB) MIX DESIGN SPECIFICATIONS FOR 4,000 P.S.I. AIR ENTRAINED CONCRETE FOR ALL PRIVATE SIDEWALKS.

PRIVATE CONCRETE SIDEWALKS (NON REINFORCED)

SCALE: N.T.S.



NOTE: TYPE A JOINTS SHALL NOT EXCEED 20 TIMES THE PAVEMENT THICKNESS (T).

CONCRETE SIDEWALK JOINT DETAILS

SCALE: N.T.S.



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PLANNING
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IMPLEMENTATION



STANDARD DETAILS
ANDY'S FROZEN CUSTARD
630 NW CHIPMAN ROAD
LEE'S SUMMIT, MISSOURI

PROJECT NO.	240159	No.	1.	Date	05-10-2024	By	App.
DATE: 04-12-2024	DRAWN: AEB	CHECKED: DAF	APPROVED: JDC	1.	05-10-2024	AEB	DAF
CORPORATE DATE OF AUTHORIZATION							
LAND SURVEYING - LS-82							
ENGINEERING - E-SF							
CERTIFICATE OF AUTHORIZATION							
LAND SURVEYING-200701028							
ENGINEERING-200700209							

SHEET

C7

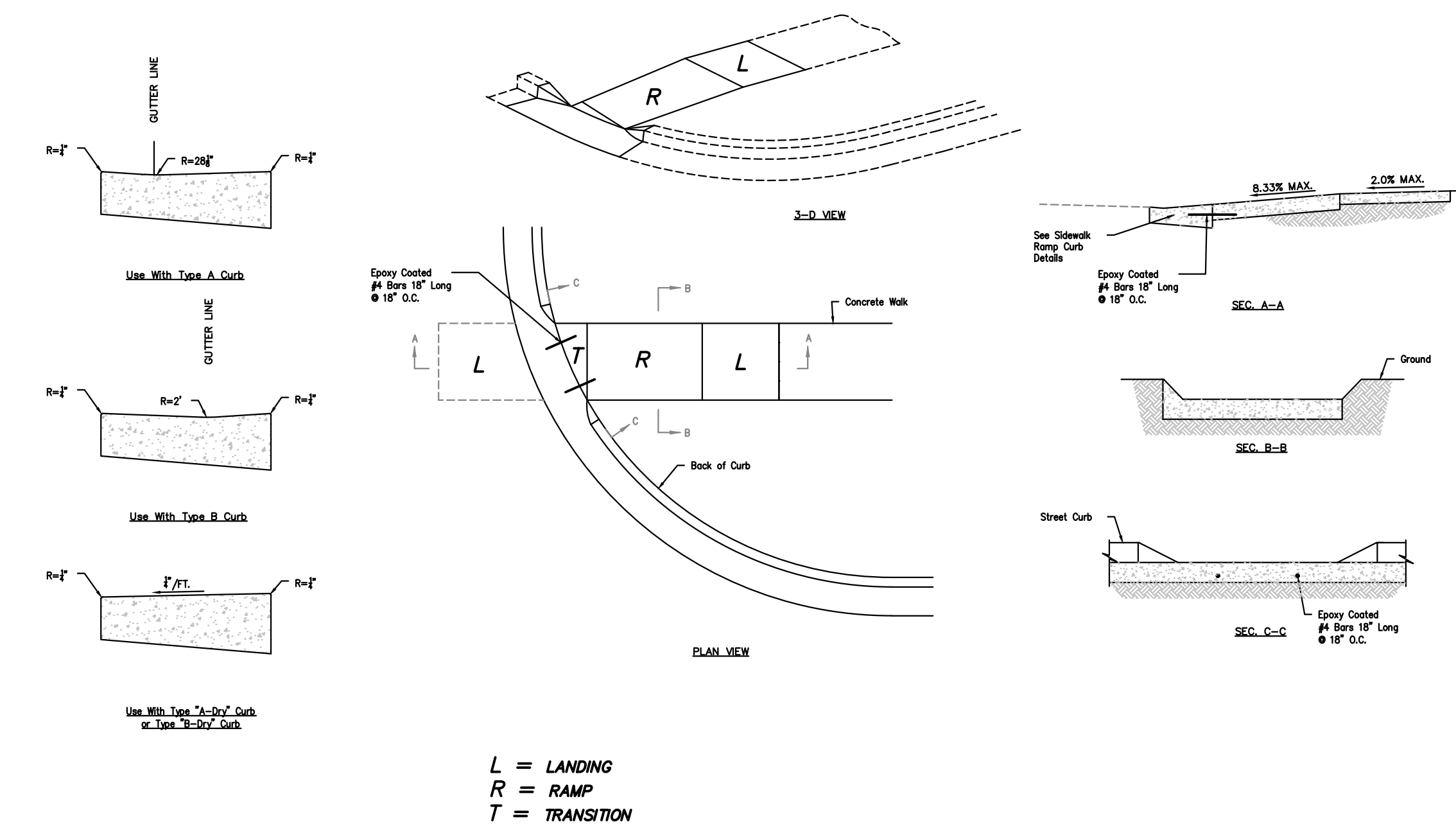
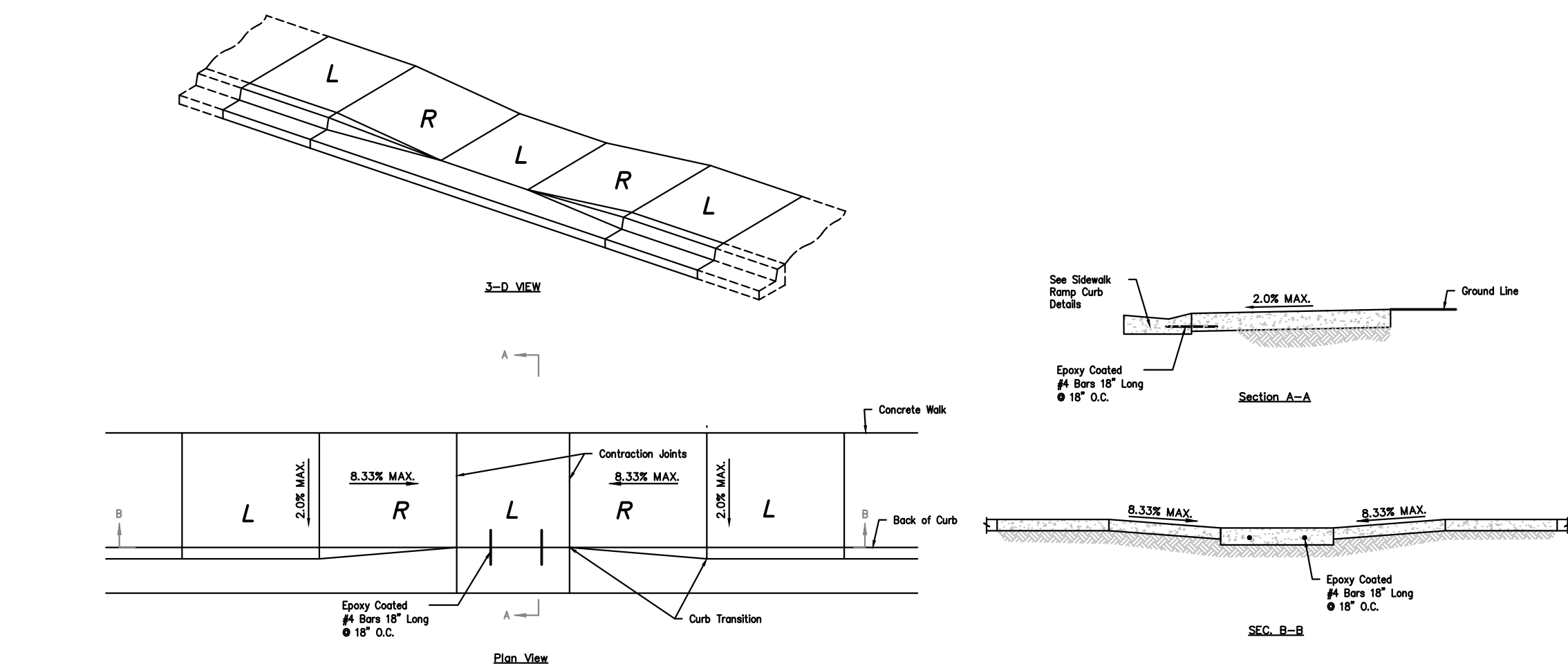


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PLANNING ENGINEERING IMPLEMENTATION



STANDARD DETAILS
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LEE'S SUMMIT, MISSOURI

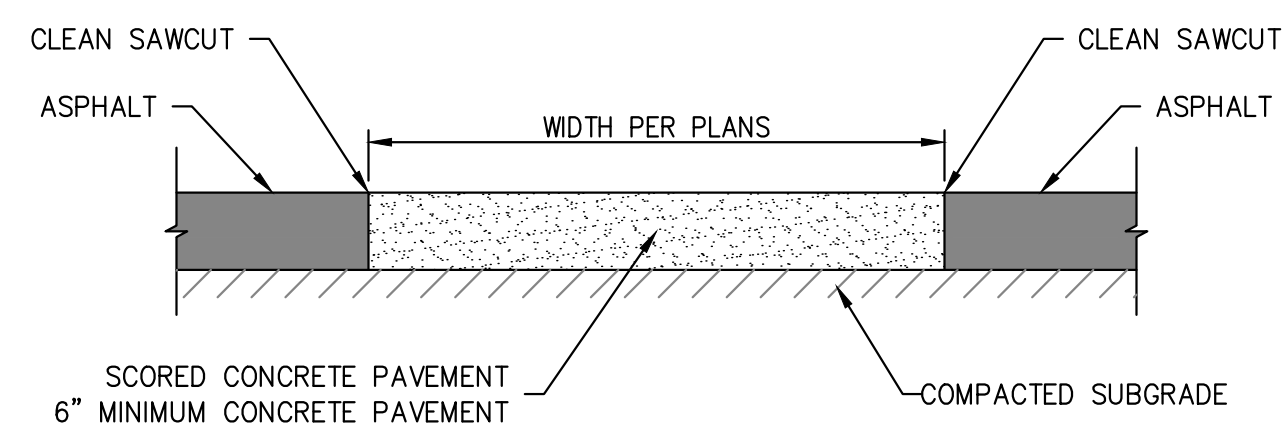


RAMP (Required to transition elevation): Max. Longitudinal Slope - 8.33%
Max. Cross Slope - 2.00%
Min. Width - 5'
Min. Length - 5'

LANDING (Required to change direction of travel): Max. Longitudinal Slope - 2.00%
Max. Cross Slope - 2.00%
Min. Width - 5'

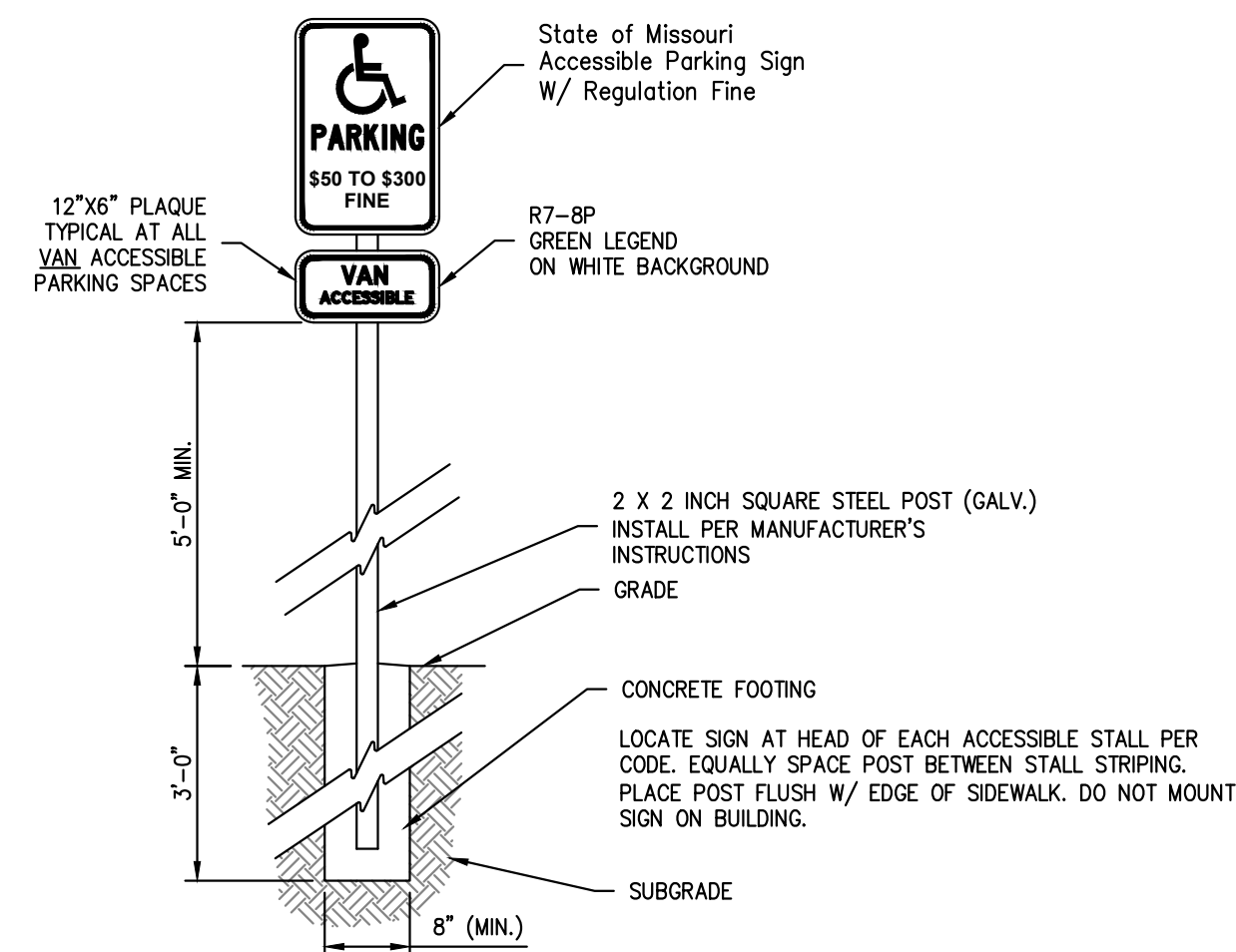
PRIVATE SIDEWALK RAMPS

SCALE: N.T.S.



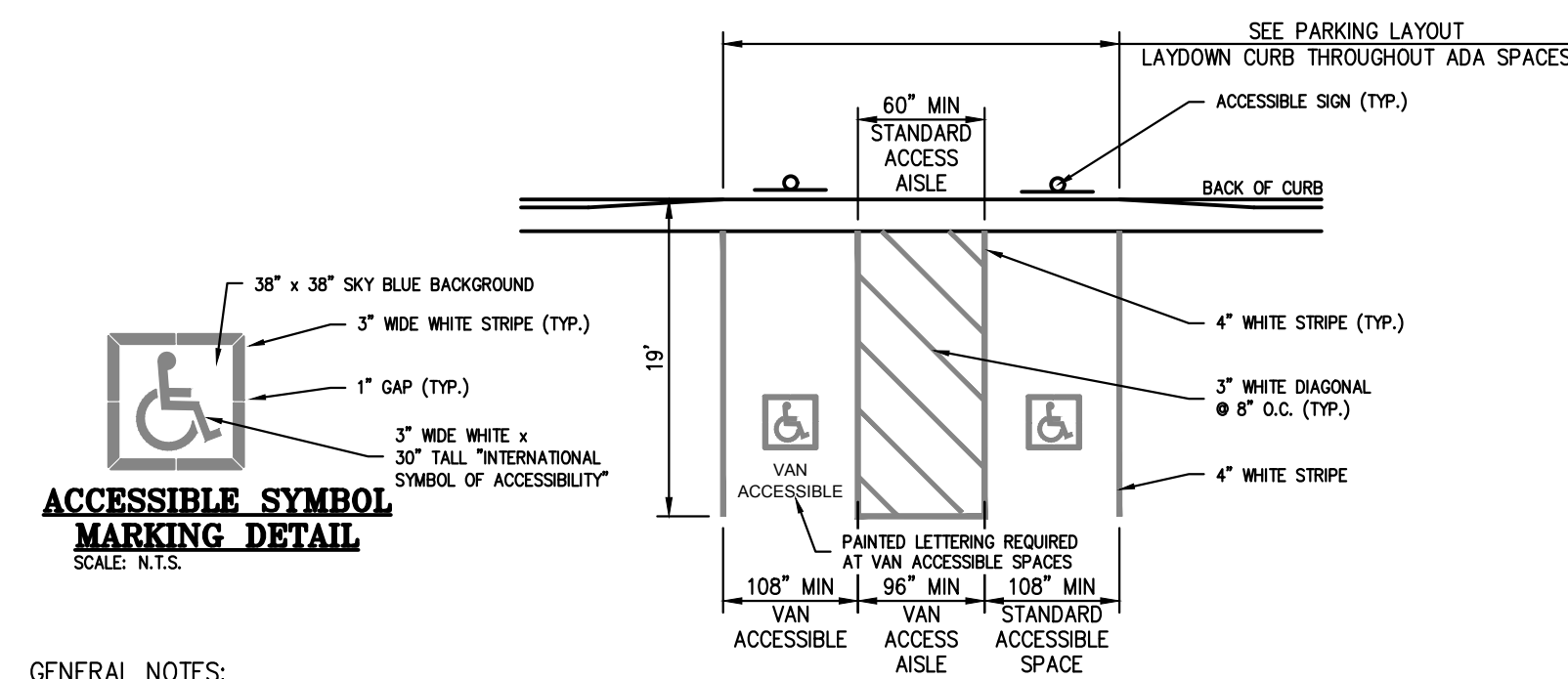
CROSSWALK DETAIL

SCALE: N.T.S.



ACCESSIBLE SIGN DETAIL IN GRASS AREA

SCALE: N.T.S.



GENERAL NOTES:

1. ALL PAVEMENT MARKINGS SHALL BE APPLIED BY A QUALIFIED CONTRACTOR HAVING A MINIMUM 3 YEARS EXPERIENCE IN TRAFFIC ROAD PAVEMENT MARKING APPLICATIONS.
2. PAINT SHALL BE A NON-BLEEDING, QUICK-DRYING, ACRYLIC PETROLEUM BASE FORMULA FOR TRAFFIC-REMARKING PURPOSES. PAINT MUST BE STORED & MIXED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS BEFORE APPLICATION.
3. SKEEP AND CLEAN SURFACE TO ELIMINATE LOOSE MATERIAL & DUST.
4. APPLY TWO (2) COATS OF PAINT AT MANUFACTURER RECOMMENDED RATE WITHOUT THE ADDITION OF THINNER, WITH A MAXIMUM OF 100 SQUARE FEET PER GALLON. COMPLY WITH CHEMICAL EQUIPMENT TO PRODUCE UNIFORM STRAIGHT EDGES. AT SIDEWALK, CURBS, AND CROSSLINKS USE A STRAIGHTEDGE TO ENSURE A UNIFORM, CLEAN, & STRAIGHT STRIPE.
5. THE FOLLOWING ITEMS SHALL BE PAINTED WITH THE COLORS NOTED BELOW:
 - A. HAND SIGNALS
 - B. PARKING STALL STRIPES: WHITE
 - C. HAND SIGNALS: SEE DETAIL SHEET
6. ACCESSIBLE PARKING SPACE DESIGN LAYOUT SHALL BE IN ACCORDANCE WITH CURRENT ADA REQUIREMENTS.
7. SEE SITE PLANS FOR PARKING EQUIPMENT LAYOUT.

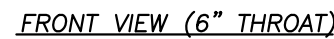
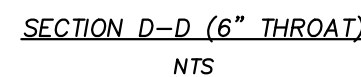
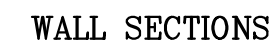
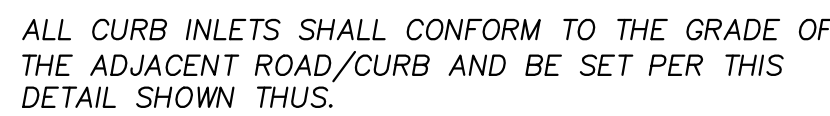
ACCESSIBLE PARKING SPACE DETAIL

SCALE: N.T.S.

	No.	Date	App. By
PROJECT NO. 240159			
DATED-17-2024 DRINK AEB	1.	09-10-2024	AEB DAF
CHECKED-DAT APPROVED-JDC	2.	09-30-2024	AEB DAF
DATE OF AUTHORIZATION CONSISTENT WITH THE CONTRACTING AGREEMENTS AND DRAWINGS - NO CHANGE IN SCOPE			
SIGNATURE OF AUTHORIZED PERSONNEL			
MATERIAL NUMBER-260700128			

SHEET

C7.1



Steel Inlet Frame Notes:

1. All welds shall be performed in accordance with appropriate AWS Specifications and Procedures.
2. All welds on exposed surfaces shall be dressed so as to provide a pleasing finished appearance.
3. The entire frame shall be hot dip zinc coated in accordance with ASTM A-123.



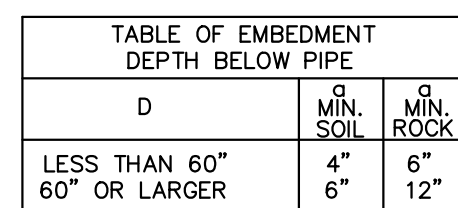
Waterline Bedding Material Gradation (% Passing)				
Sieve Size	Type 1 (11/2")	Type 2 (Buckshot)	Type 3 (Man Sand)	Type 4 (River Sand)
3/4"	95 - 100			
3/8"	40 - 60	100	100	
1/4"			90 - 100	
No. 4		60 - 80	85 - 90	100
No. 8	0 - 5	0 - 15	35 - 75	
No. 50			10 - 25	
No. 200	0	0	0 - 10	0 - 10

Trench Backfill

- 1 Backfill shall not be placed when material contains frost, is frozen, or a blanket of snow prevents proper compaction.
- 2 The Contractor shall remove from the project site waste material, trees, organic materials, rubbish, or other deleterious materials.
- 3 All trash and debris shall be removed from the pipeline excavation prior to backfilling.
- 4 Backfill material shall be carefully placed to avoid damage to or displacement of the pipe, other utilities or structures.
- 5 Unless otherwise specified, all trenches and excavations around structures shall be backfilled to the original ground surface.
- 6 Outside of paved areas, the backfill material shall be placed in layers not exceeding 8-inches in loose thickness and be compacted to at least 95% of maximum density. Compaction testing shall be in the discretion of the Engineer.
- 7 The method of compaction and the equipment used shall be appropriate for the material to be compacted and shall not transmit damaging stresses to the pipe.
- 8 The combination of the thickness of the layer, the method of compaction and the type of compaction equipment used shall be at the discretion of the Contractor subject to obtaining the required densities.

Pipe Embedment: All water, sanitary sewer, and storm sewer pipe shall be bedded in bedding aggregate as specified herein.

1. Bedding shall cover the entire width of trench.
2. The first layer of bedding placed on the bottom of excavation shall be in accordance with Figures 1 through 3.
3. After bedding at bottom of trench, in the middle 1/3 of excavation under the pipe shall be loose.
4. After pipe is placed, bedding material shall be placed in layers in accordance with manufacturer's recommendations.
5. Second layer of bedding material shall be placed under the lower haunches of the pipe up to the springline of the pipe. Material shall be packed to be in place under haunches and compacted at the springline elevation prior to placing additional bedding material.
6. The third layer of bedding material shall be placed 12 inches over the top of the pipe.
7. Contractors shall take measures to prevent pipe from floating during placement of bedding material so that pipe maintains proper grade as shown on the Plans.



LEGEND

D NOMINAL PIPE SIZE
a EMBEDMENT BELOW PIPE

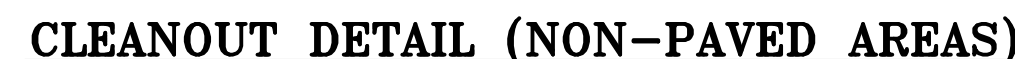
GRANULAR EMBEDMENT

EMBEDMENTS FOR STORM SEWER PIPE

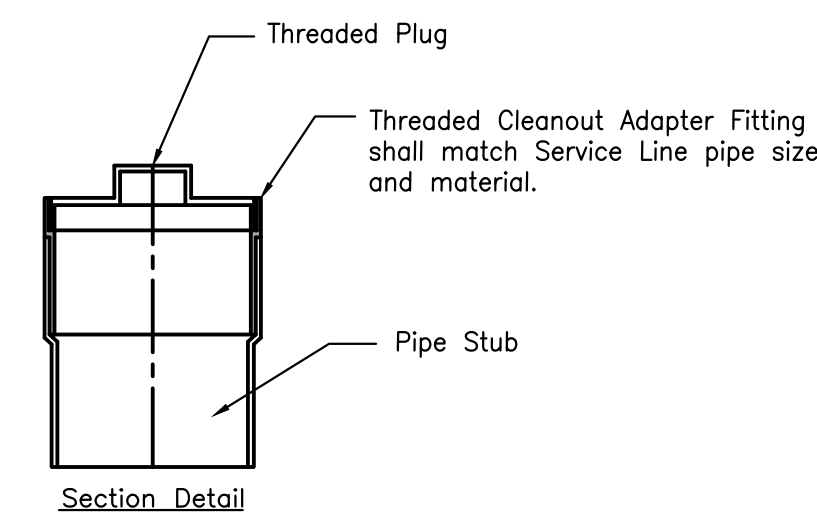
SCALE: N.T.S

NON-SETBACK CURB INLET

(6" Throat)
SCALE: N.T.S.



SCALE: N.T.S.



SPECIFICATIONS

- Notes:
- 4" FPT inlet/outlet with 4" plain end adapters, single inlet and triple outlet.
 - Unit weight - w/ cast iron covers: 190 lbs. (For wet weight add 1,043 lbs.)
 - Maximum operating temperature: 150° F continuous
 - Capacities - Liquid: 125 gal.
Grease: 861 lbs. (118 gal.) @75 GPM
Solids: 31 gal.
 - For gravity drainage applications only.
 - Do not use for pressure applications.
 - Cover placement allows full access to tank for proper maintenance.
 - Vent not required unless per local code.
 - Engineered inlet and outlet diffusers with inspection ports are removable to inspect / clean piping.
 - Integral air relief / Anti-siphon / Sampling access.
 - Adjustable cover adapter provides up to 4" of additional height.
 - Designed for below-grade, above-grade, indoor and outdoor installations.
 - Safety Star®, access restrictor built into cover adapter, prevents accidental entry to tank (450 lb rating).

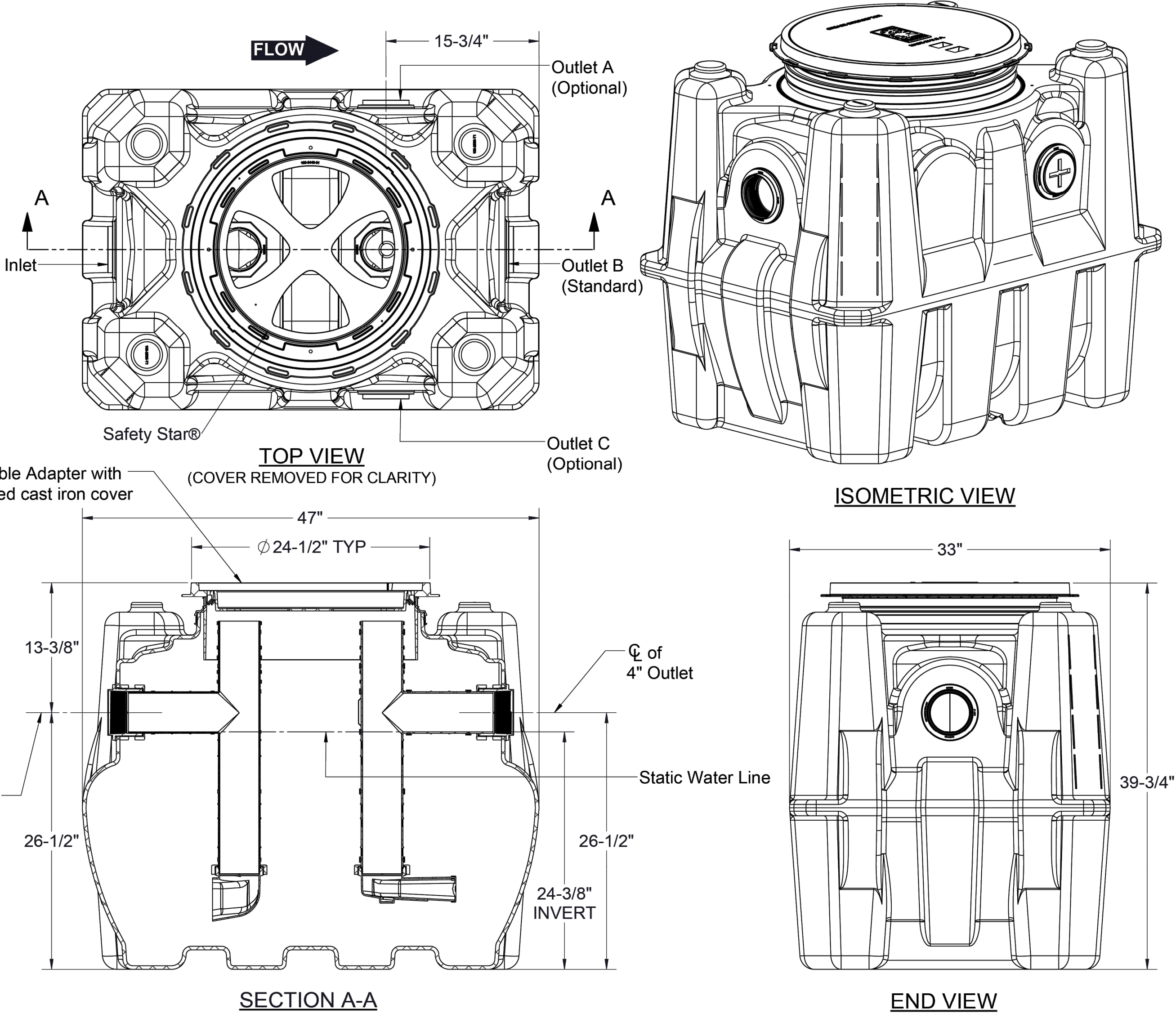
ENGINEER SPECIFICATION GUIDE

Schier Great Basin™ grease interceptor model # GB-75 shall be lifetime guaranteed and made in USA of seamless, rotationally-molded polyethylene with minimum 3/8" uniform wall thickness. Interceptor shall be furnished for above or below-grade installation with adjustable cover adapter, Safety Star® access restrictor built into each cover adapter, and three outlet options. Interceptor shall be certified to ASME A112.14.3 (Type D) and CSA B481.1. Interceptor flow rate shall be 75 GPM. Interceptor grease capacity shall be 861 lbs. Cover shall provide water/gas-tight seal and have minimum 16,000 lbs. load capacity.

CERTIFIED PERFORMANCE

Great Basin™ hydromechanical grease interceptors are third party performance-tested and listed by IAPMO to ASME #A112.14.3 and CSA B481.1 grease interceptor standards and greatly exceed requirements for grease separation and storage. They are compliant to the Uniform Plumbing Code and the International Plumbing Code.

Type D certification does not require a flow control



SPECIFICATION SHEET

MODEL NUMBER:

GB-75

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF SCHIER PRODUCTS. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF SCHIER PRODUCTS IS PROHIBITED.

PART NUMBER: 4045-007-02

DESCRIPTION:

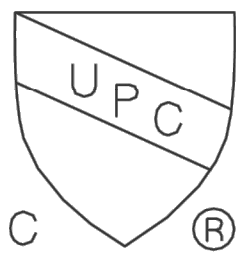
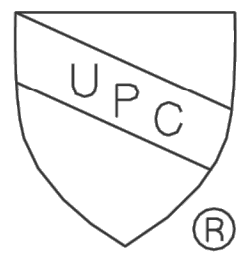
GB-75 GREASE INTERCEPTOR 75 GPM, 4" INLET/OUTLET, H-20 RATED CAST IRON COVER

DWG BY: C. BUSENITZ

DATE: 4/14/2022

REV: -

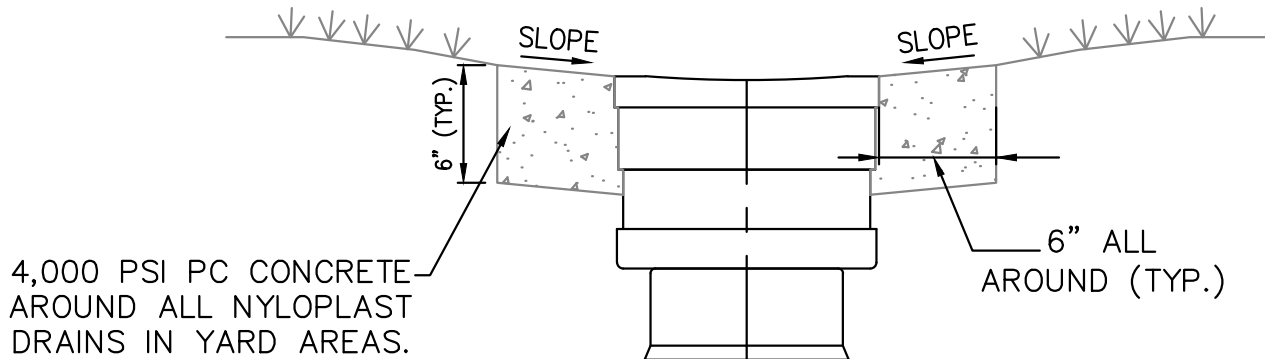
ECO: -



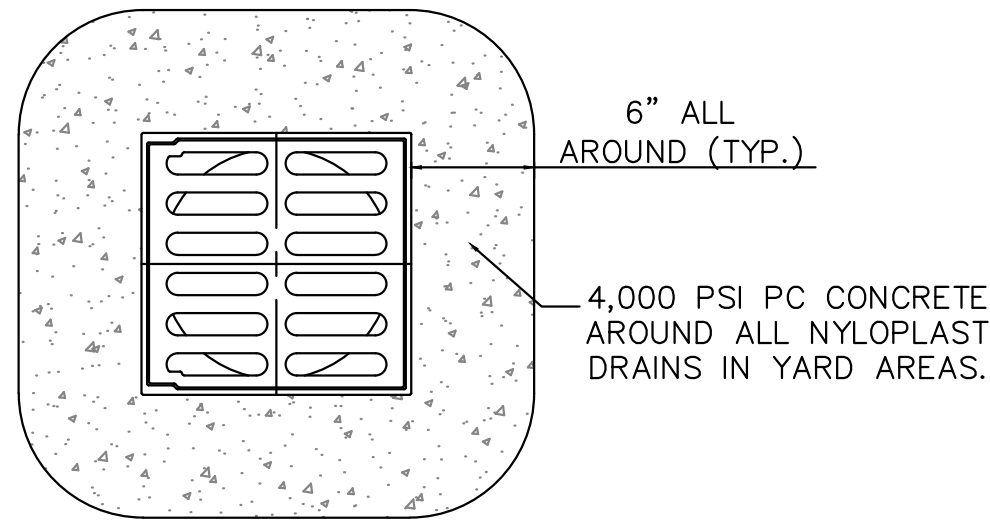
SCHIER

6455 Woodland Dr
Shawnee, KS 66218
Tel: 913-951-3300
Fax: 913-951-3399
schierproducts.com

24" NYLOPLAST INLINE DRAIN DETAIL



SECTION



PLAN

NOTE:
CONTRACTOR TO USE STANDARD GRATE IN GRASS OR LANDSCAPING AREAS AND TO USE PEDESTRIAN GRATE IN SIDEWALK AREAS.

DRAIN GRATE CONCRETE BUFFER DETAIL



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STANDARD DETAILS
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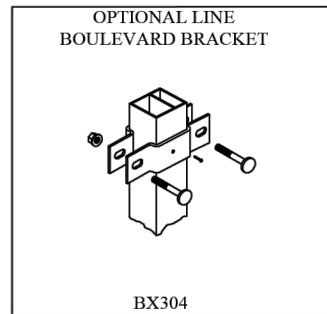
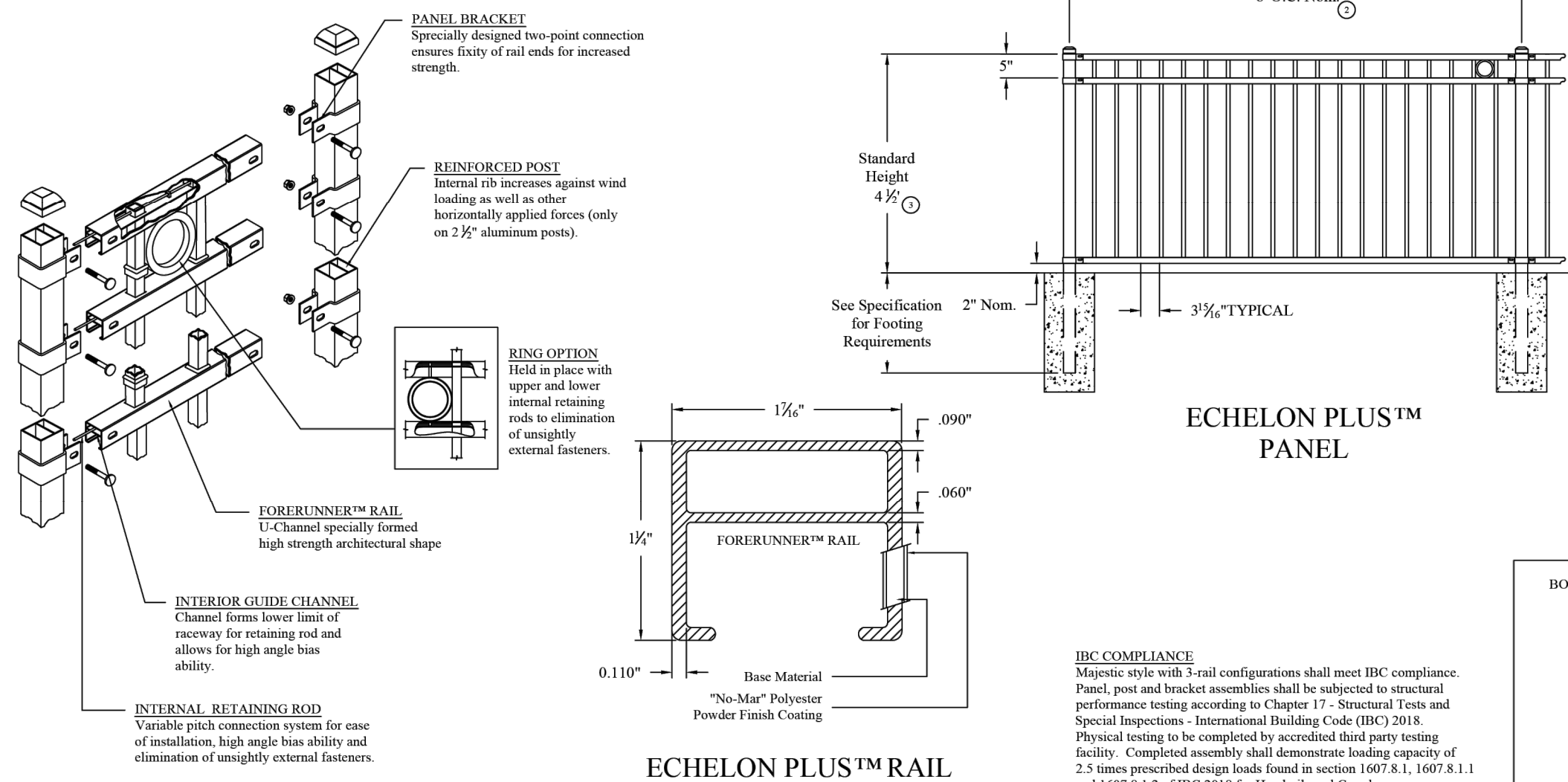
PROJECT NO.	240159	No.	Date	By	App.
DATE	04-12-2024	DRAWN	AEB	1.	05-10-2024
CHECKED	DAF	APPROVED	JDC	2.	05-30-2024
CORPORATE DATE OF AUTHORIZATION					
LAND SURVEYING - LS-82					
ENGINEERING - E-361					
CERTIFICATE OF AUTHORIZATION					
LAND SURVEYING-200701028					
ENGINEERING-200700209					

SHEET

C7.3

NOTES:

1. Post size and gauge depends on fence height and wind loads. See ECHELON PLUS™ specifications for post sizing chart.
2. Values shown are nominal and not to be used for installation purposes. See product specification for installation requirements.
3. Additional heights available by request.



ECHELON PLUS™ MAJESTIC 3-RAIL POOL PANEL

REV C (10/21)

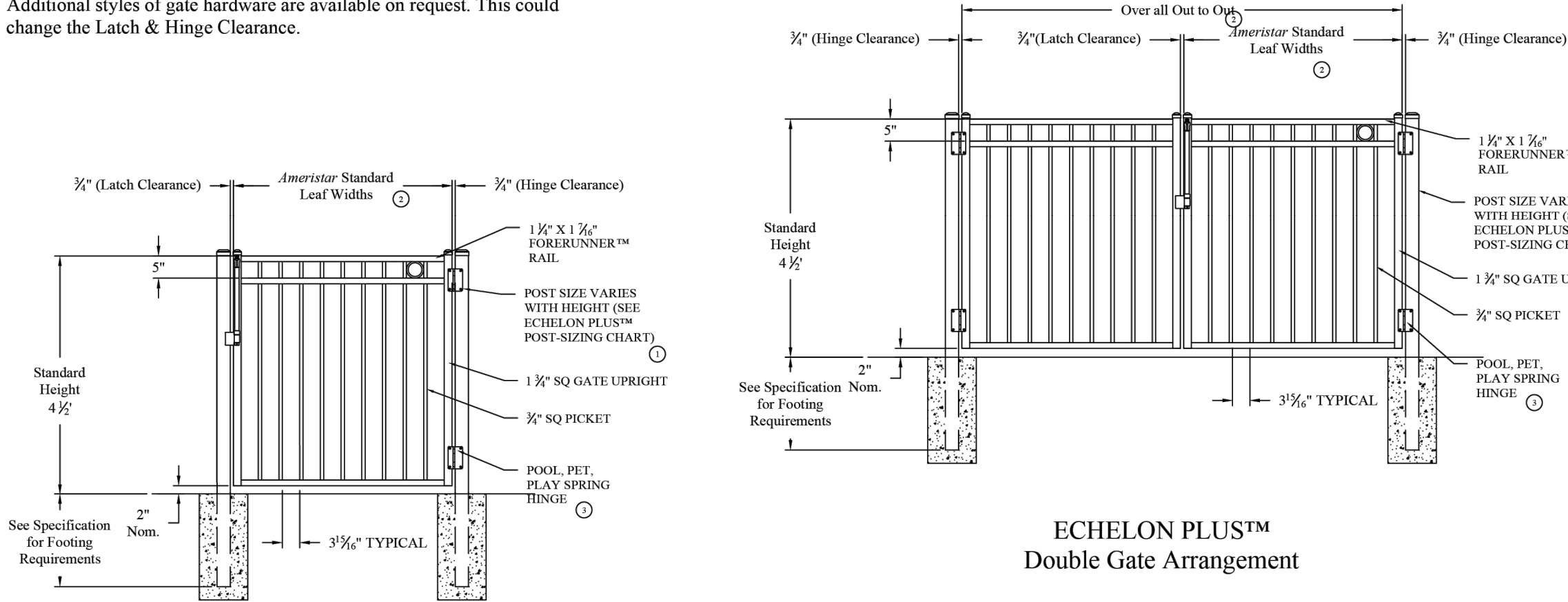


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ASSA ABLOY, the global leader in door opening solutions

AMERISTAR
ASSA ABLOY

NOTES:

1. Post size depends on fence height, weight, and wind loads. See Echelon Plus™ post sizing chart.
2. See Ameristar Gate Table for standard out to outs. Custom gate openings available for special out to out/leaf widths.
3. Additional styles of gate hardware are available on request. This could change the Latch & Hinge Clearance.



ECHELON PLUS™
Single Gate Arrangement

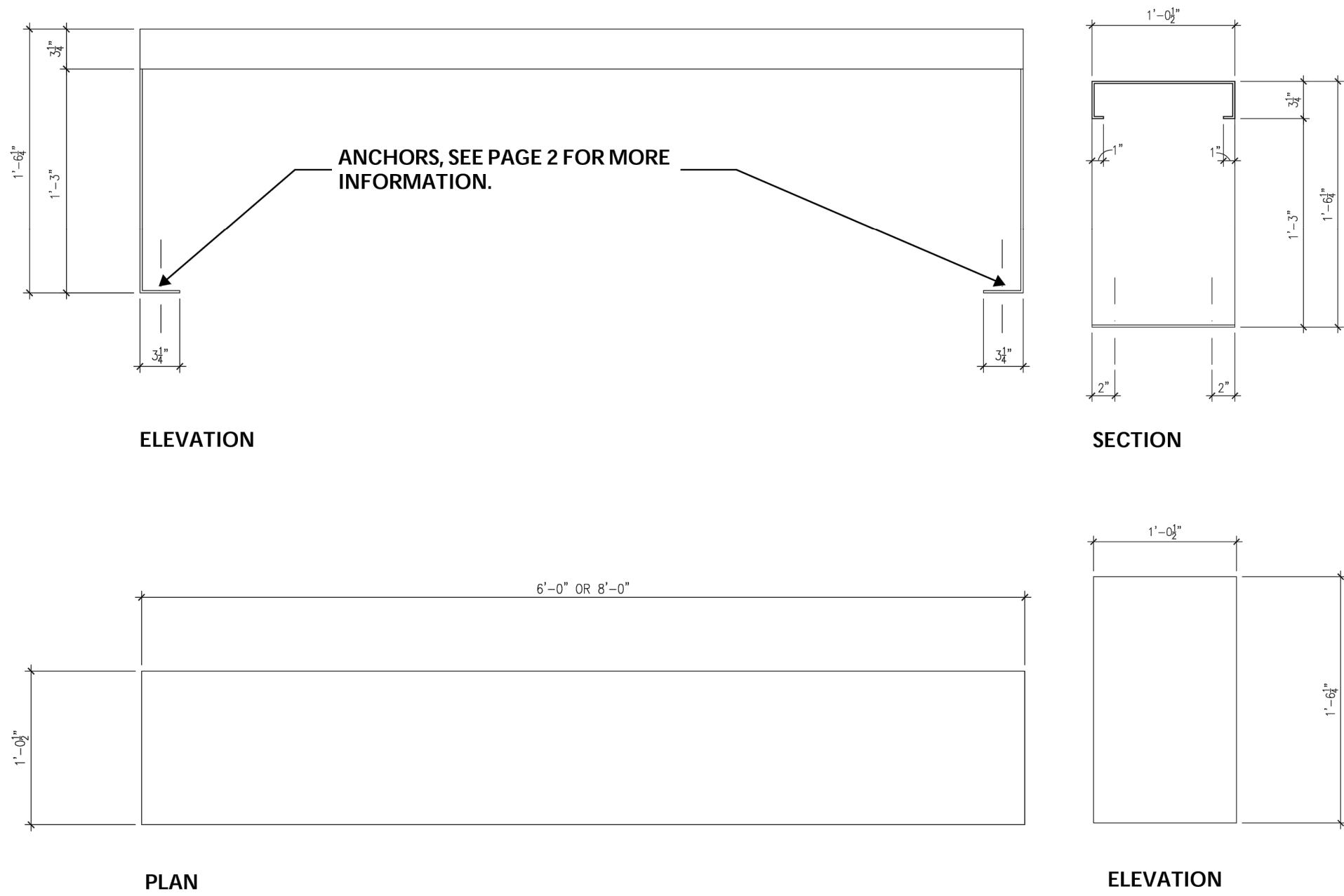
ECHELON PLUS™ MAJESTIC 3-RAIL POOL GATE

REV C (10/21)



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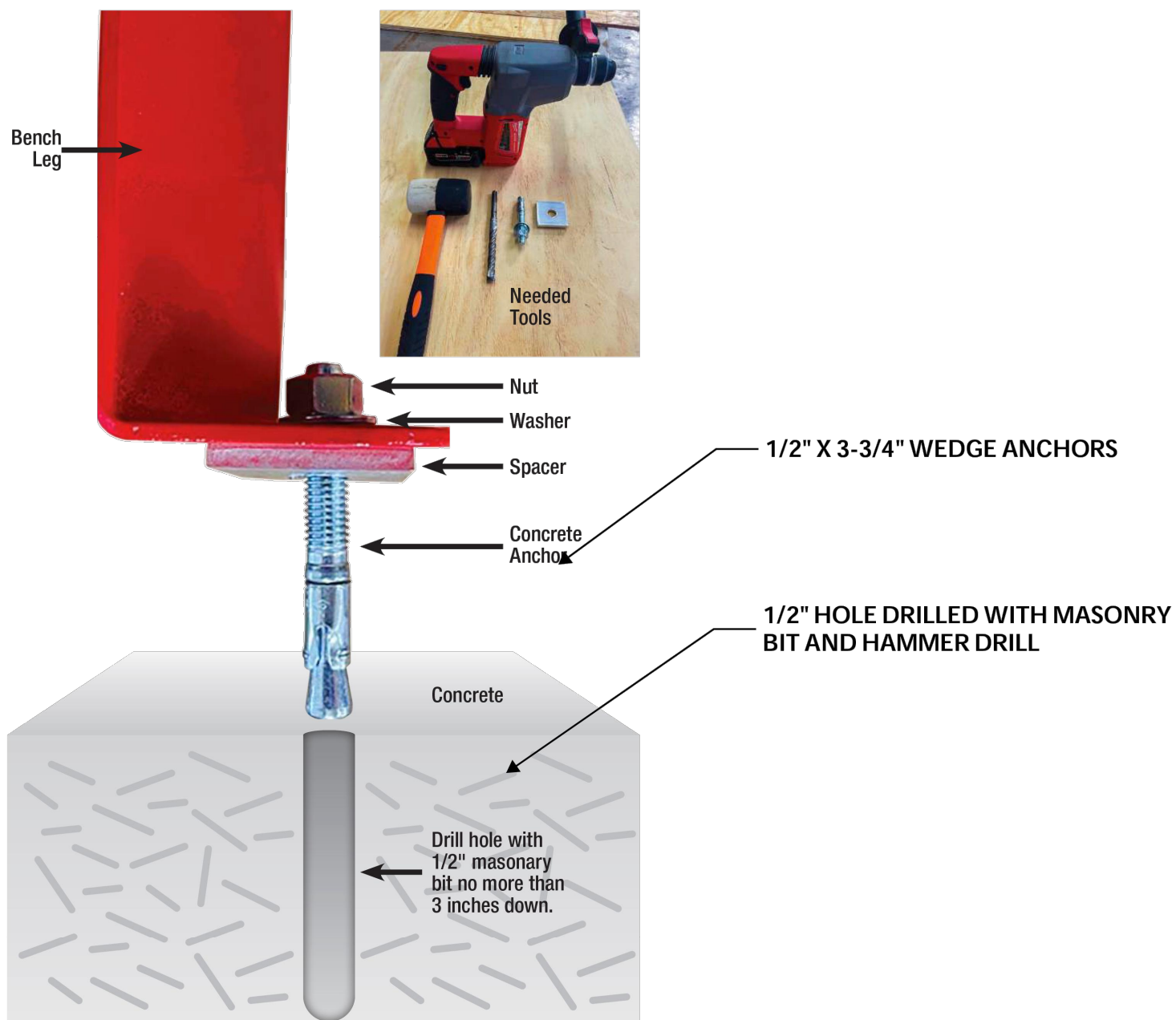


REFER TO PAGE 2 FOR NOTES AND ADDITIONAL
INFORMATION OF BENCH INSTALLATION AND FINISHES.

BENCH EXHIBIT

NOVEMBER 8, 2021

PAGE 1



INSTALLATION DIAGRAM

BENCH EXHIBIT

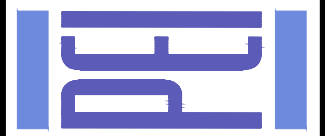
NOVEMBER 8, 2021

PAGE 2



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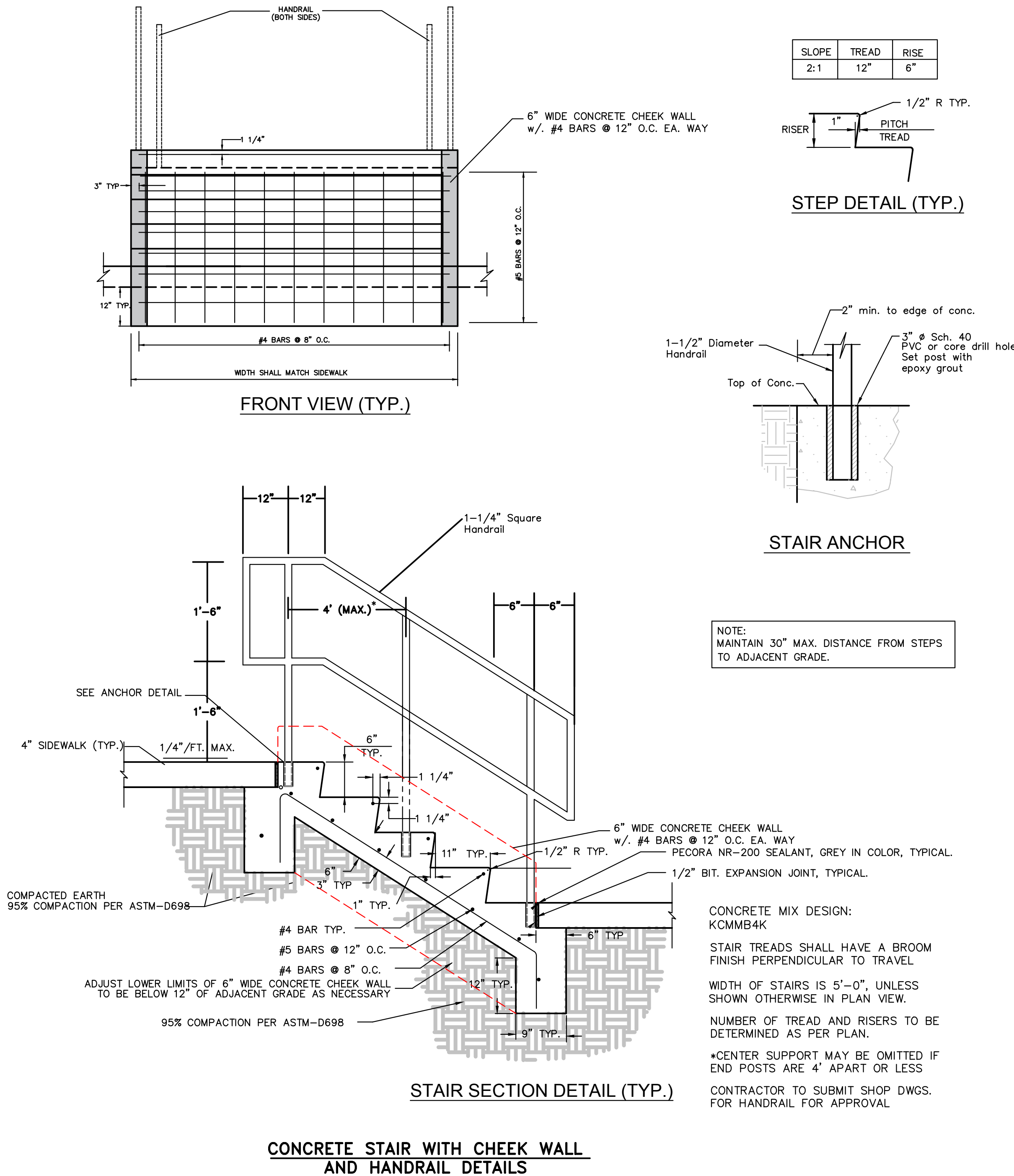
STANDARD DETAILS
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PROJECT NO.	240159	No.	1.	Date	05-10-2024	Revisions:	By	App.
DATE	04-12-2024	DRAWN	AEB	1.	05-10-2024	REVISED PER CITY COMMENTS	AEB	DAF
CHECKED	DAF	APPROVED	JDC	2.	05-30-2024	REVISED PER CITY COMMENTS	AEB	DAF
CERTIFICATE OF AUTHORIZATION								
LAND SURVEYING - LS-82								
ENGINEERING - E-361								
CERTIFICATE OF AUTHORIZATION								
LAND SURVEYING-200700128								
ENGINEERING-200700209								

SHEET

C7.4

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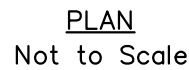
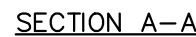
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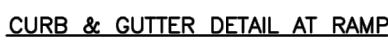
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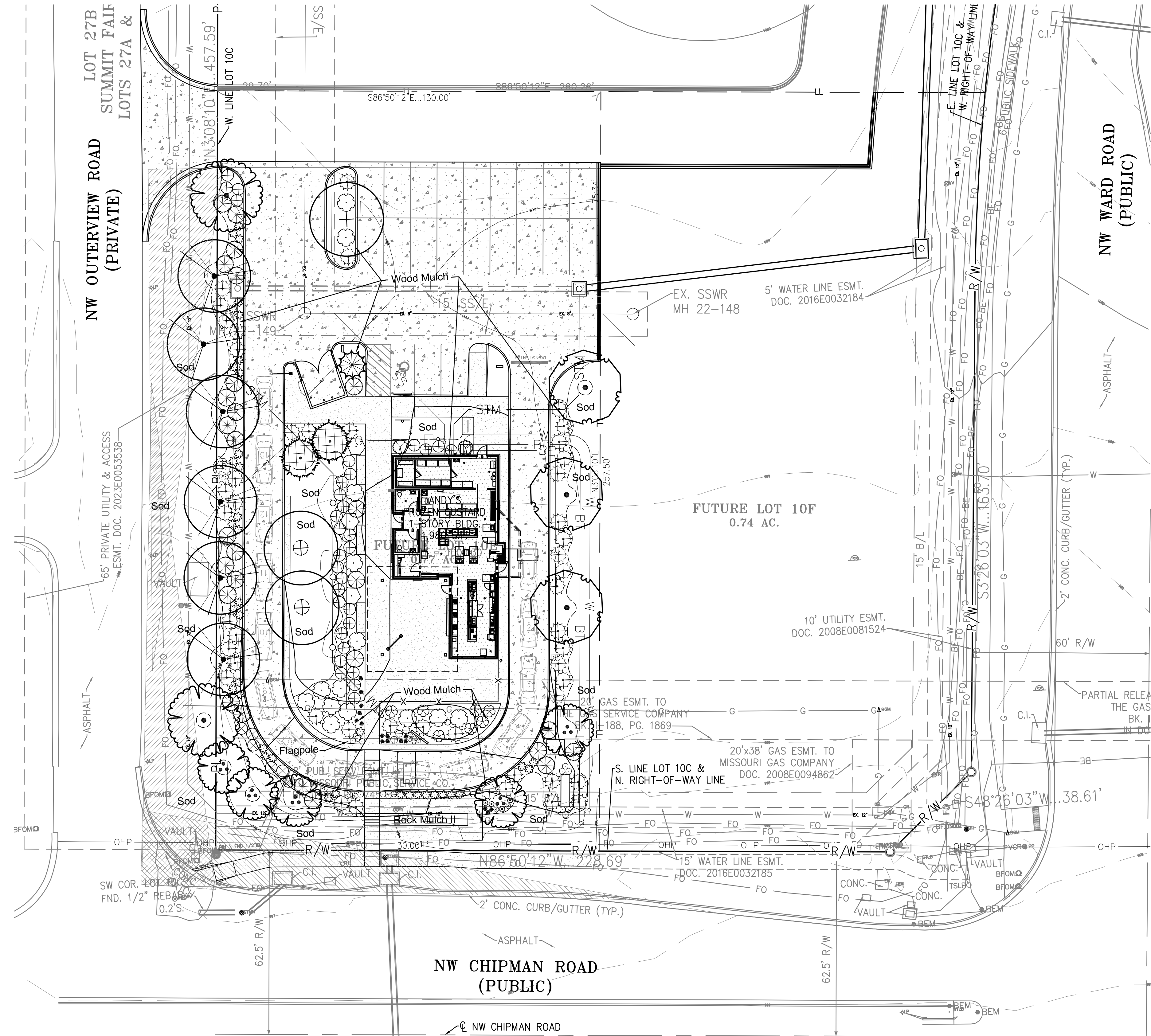
STANDARD DETAILS
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LEE'S SUMMIT, MISSOURI

PROJECT NO.	No.	Date	Revisions:		By	App.
			REVISED PER CITY COMMENTS	REVISED PER CITY COMMENTS		
240159	1.	05-10-2024			AEB	DAF
DATE:04-12-2024	2.	05-30-2024			AEB	DAF
CHECKED: DAF						
APPROVED: DAF						
CORPORATE AUTHORIZATION						
LAND SURVEYING - LS-82						
ENGINEERING - E-361						
PROFESSIONAL SEAL						
LAND SURVEYING-2007010728						
ENGINEERING-2007010728						



SCALE: N.T.S.





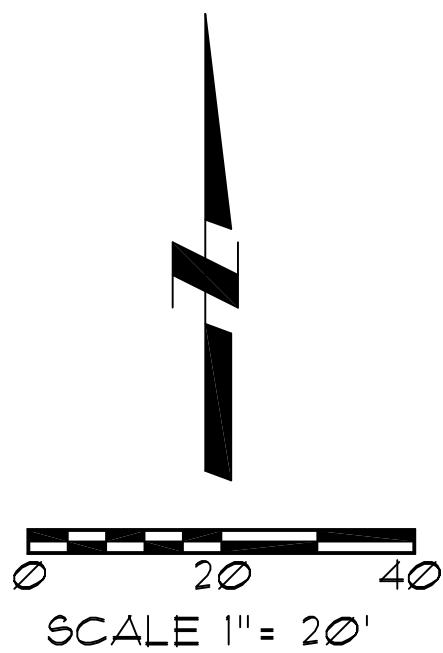
Utility Note:
Utilities shown on plan are diagrammatic and some may be missing. Before starting any construction call appropriate locating service. In Missouri call 1-800-DIG-RITE (344-7483) to have utilities located.

LANDSCAPE REQUIREMENTS:	Required	Provided
Street Trees		
Chipman 130' 1 tree per 30'	4.3	4
1 Shrub per 20'	6.5	7
NW Outerview Rd. 232' 1 tree per 30'	7.73	8
1 Shrub per 20'	11.6	12
Open Yard Trees 1 per 5000sf.-bldg.	6.29	6+
Open Yard Shrubs 2 shrubs per 5000sf.- bldg.	12.58	13+
Parking Lot Perimeter Along Street Solid Screen to 2 1/2', 12 plants per 40'	40	40+
Only ornamental trees and shrubs may be placed within utility easements.		

PLANT SCHEDULE

SYMBOL	QTY	BOTANICAL / COMMON NAME	CONT	CAL	SIZE
TREES					
	3	Gleditsia triacanthos 'Skyline' / 'Skyline' Honey Locust Seedless	B & B	2.5"Cal	
	1	Juniperus virginiana 'Canaertii' / Canaerti Juniper	B & B		6' hgt.
	2	Juniperus virginiana 'Hillspire' / Hillspire Juniper	B & B		8' hgt.
	2	Nyssa sylvatica / Black Gum	B & B	2.5"Cal	
	5	Populus tremuloides 'Prairie Gold' / Prairie Gold Aspen 3 Stem Clump w/ 1@1.5" cal.	B & B	1.5"Cal	
	6	Quercus bicolor / Swamp White Oak	B & B	2.5"Cal	
	3	Quercus shumardii / Shumard Red Oak	B & B	2.5" cal.	
SHRUBS					
	27	Juniperus chinensis 'Sea Green' / Sea Green Juniper 24" hgt. & sp.	5 gal		
	49	Juniperus virginiana 'Grey Owl' / Grey Owl Juniper 30" sp.	5 gal		
	3	Nepeta x faassenii 'Walkers Low' / Walkers Low Catmint	1 gal		
	2	Physocarpus opulifolius 'Center Glow' / Center Glow Ninebark 24"-30" hgt. & sp.	3 gal		
	14	Rhus aromatica 'Gro-Low' / Gro-Low Fragrant Sumac 18"-24" sp.	3 gal		
	3	Rhus typhina 'Tiger Eyes' / Tiger Eyes Sumac 30" hgt. & sp.	5 gal		
	5	Sedum spectabile 'Autumn Fire' / Showy Stonecrop 15"-18" hgt. & sp.	1 gal		
	7	Spiraea x bumalda 'Anthony Waterer' / Anthony Waterer Spiraea 18"-24" hgt.	3 gal		
	37	Spiraea x bumalda 'Gold Flame' / Gold Flame Spirea 18"-24" hgt.	3 gal		
ANNUALS/PERENNIALS					
	16	Ceratostigma plumbaginoides 'Blue Plumbago' / Blue Plumbago	1 gal		
GRASSES					
	17	Calamagrostis acutiflora 'Karl Foerster' / Feather Reed Grass 24" hgt.	3 gal		
	39	Miscanthus sinensis 'Morning Light' / Eulalia Grass	3 gal		
	6	Pennisetum alopecuroides 'Hameln' / Hameln Dwarf Fountain Grass 15"-18" hgt. & sp.	1 gal		

NOTE:
Details and specifications to be provided
in construction documents.



Landscape Plan Andy's Frozen Custard

Overview Road and NW Chipman Road
Lee's Summit, Missouri

LS-1



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05/13/2024

GENERAL NOTES:

For definitions of proper nouns used in these general notes (i.e. Owner, Architect, Contractor, Work, etc.), refer to AIA Document A201-2017 General Conditions of the Contract for Construction.

1. All work and materials furnished shall comply with ALL applicable building codes, including, but not limited to, the regulations of the National Board of Fire Underwriters, National Fire Protective Association Requirements and all Federal, State, and Municipal authorities having jurisdiction over the work.

2. Contractor is responsible for securing and obtaining all necessary permits, approvals, and inspections and paying all applicable fees for all Subcontractors.

3. Contractor must comply with all appropriate municipal and regulatory agencies, codes and requirements. The contractor shall submit certificates of insurance and lien waivers in accordance with building requirements and shall include a hold harmless clause for the owner, building management, and the Architect.

4. Contractor shall provide inspections as required for the City Building Department approval.

5. The submission of a proposal by the Contractor will be construed as evidence that a careful and thorough examination of the premises has been made and later claims for labor, materials or equipment required or for difficulties encountered, which could have been foreseen had such an examination been made, will not be recognized. The submission of a proposal by the Contractor shall also constitute a representation that the Contractor has checked and verified all quantities, work and materials involved and that he or she shall take responsibility or any deficiencies therein.

6. Before ordering any materials or doing any work, each Subcontractor shall verify all measurements at the building and shall be responsible for correctness of same. No extra charge or compensations will be allowed on account of any difference between actual dimensions and the measurements indicated on the drawings; any discrepancies between the drawings and field conditions which may be found shall be submitted to the Architect for consideration and clarification before proceeding with the work. The Contractor shall be responsible for any deviations from the Contract Documents.

7. All the Architect's drawings and construction notes are complimentary and what is called for by either will be binding as if called for by all; any work shown or referred to on any one drawing shall be provided by the Contractor as shown on all drawings. Whenever an item is specified and/or shown on the drawings by detail or reference it shall be considered typical for other items which are obviously intended to be the same, even though not so designated or specifically named but do serve the same function.

8. Larger scale details or drawings shall govern smaller scale drawings which they are intended to amplify. Details or conditions indicated for a portion of the work but not carried out fully for other portions shall apply throughout to all similar portions except as otherwise specifically noted. In every case a more expensive item or method shall be assumed over a less expensive one and dimensions shall be figured rather than determined by rule or scale.

9. The character and scope of the Work are illustrated by the Drawings. To interpret and explain the Drawings, other information deemed necessary by the Architect will be furnished to the Contractor when and as required by the Work. It is to be understood that the said additional drawings are to be of equal force as the original drawings, and shall be considered as forming a part of this set.

10. The Contractor shall abide by and comply with the true intent and meaning of the drawings and notes taken as a whole and shall not avail himself or herself of any obvious errors or omissions, should any exist. Should any error or discrepancy appear or any doubt arise as to the true meaning of the drawings or notes, the contractor shall bring such items to the attention of the Architect before submission of a bid or proposal for explanation or correction of same.

11. The work to be performed consists of furnishing all labor, equipment, tools, transportation, supplies, fees, materials, and services in accordance with these General Notes and Construction Documents; and includes performing all operations necessary to construct and install complete, in satisfactory condition, the various materials and equipment at the locations shown within the Construction Documents. It is intended that the drawings include and necessary to finish the entire work. The Contractor shall properly, notwithstanding the fact that every item necessarily involved may not be specifically mentioned or shown. Any item which may be reasonably construed as incidental to the proper and satisfactory completion of the work in accordance with the intent of these notes and drawings is hereby included.

12. The contractor shall notify the Architect immediately if he cannot for any reason comply with all the requirements of these General Notes and Construction Documents.

13. The contractor shall submit in writing all proposals for additional work to the Architect for review. No additional work by the Contractor or its agents is to proceed until a signed authorization to proceed is returned to Contractor.

14. Work affected by changes proposed in any revised drawings or other documents issued to the Contractor shall not be executed unless changes are accompanied by letter of authorization from the owner to proceed accordingly. In cases where instructions accompanying an issue of revised drawings or specifications request estimates of cost, such estimates shall be prepared and submitted promptly to the owner in order not to affect the progress of the work.

15. Payment will not be made to the Contractor on changes or extras unless they are approved in writing by Owner or Owner's Representative.

16. The Project has been designed and detailed for the specific materials and equipment specified. No substitutions shall be made without the express written consent of the Architect. If the specified material is not available, the contractor shall propose an alternate material and shall provide drawings, samples, specifications, manufacturer's literature, performance data, etc., in order that the Architect can evaluate the proposed substitution. If the substitution affects a correlated function, adjacent construction, or the work of any other contractor or trade, the necessary changes and modifications to the affected work shall be accomplished by the contractor at no additional expense to the owner. No requests for substitutes will be entertained by the Architect due to contractor's failure to order materials in a timely manner.

17. All materials required for the performance of this work shall be new and of the best quality of the kinds specified. The use of old or second-hand materials is strictly forbidden, except for locations on the drawings that refer to removal and relocation of materials or equipment. All materials shall be used in accordance with the manufacturer's specifications. The Contractor shall submit all product warranties. The Contractor shall warranty all work as per state and/or local jurisdiction regulations. Upon request, the manufacturer's representative shall go to the site and instruct the mechanics in the use of the materials or shall supervise their use.

18. The standard specifications of the manufacturers approved for use in the project are hereby made a part of these notes with the same force and effect as though herein written out in full, except that wherever the drawings require heavier members, better quality materials or are otherwise more stringent, those more stringent requirements shall govern.

19. The Contractor shall submit all fabrication shop drawings, samples, and fixture cuts for the Architect's review as required and/or indicated on the drawings. The Architect's review shall not be construed as an indication that the submittal is correct or suitable nor that work represented by submittal complies with the drawings, except as to the matters of finish, color, and other aesthetic matters. The duties noted above do not relieve the Contractor from responsibility to coordinate all trades and to check quantities and dimensions against conditions in the field. Contractors shall assume responsibility for all errors on their drawings.

20. The Contractor shall submit all shop drawings, complete with manufacturer's equipment cuts, for approval by the Architect prior to commencement of work.

21. When "approved equal", "equal to", or other general qualifying terms are used it shall be based upon the review and approval by the Owner or the Owner's Representative. No material substitutions shall be made without first informing the Owner. Submit substitute materials specifications and samples to the Architect for approval, in writing prior to commencement of work.

22. Any materials delivered or work performed, contrary to the drawings and specifications and approved shop drawings, shall be removed by the Contractor at his own expense, and the same shall be replaced with other materials or work satisfactory to the Architect. The Contractor shall also assume the cost of replacing the work which may be disturbed by the Contractor.

23. The Contractor shall be responsible for properly and accurately laying out the work and for the lines and measurements herein. The contractor shall establish necessary reference lines and permanent bench marks from which building lines and elevation shall be taken. Heights of all work called for "A.F.F." including but not limited to soffits, ceilings, doors, and hollow metal shall be true and level within a maximum tolerance of 1/8" overall throughout the entire project.

24. All HVAC, plumbing, sprinkler and electrical lines are to be coordinated so that no conflicts occur. Any conflicts which result in a relocation of a finished surface must be brought to the attention of the Architect/Engineer prior to installation.

25. Unless otherwise noted, the Contractor shall provide a one-year warranty covering all work performed and equipment installed, from the time of Substantial Completion.

26. Contractor shall carefully remove and protect items indicated by the Owner or in the Construction Documents to be saved for re-use.

27. The Contractor shall keep the Architect informed of the progress of the Work.

28. Contractor is responsible for the safety and protection of workers, public, and property.

29. A copy of the latest set of Construction Documents shall be kept at the job site for review by the Owner, the Owner's Representative, the Architect, or inspectors.

30. The Contractor shall have a competent superintendent on the premises at all times when the work is in progress.

31. All mechanical and electrical work shall be performed by persons licensed in their trades.

32. The Contractor shall coordinate their own work with the work of all other Contractors and Subcontractors, whether their own or those on separate contract. Prior to commencing work, the Contractor shall provide a work schedule to show estimated commencement and completion dates of each trade and also identifying long lead items. Contractor shall be responsible for giving all trades such information, plans or details as may be required for the proper installation of their work. All materials shall be ordered sufficiently ahead of time so that work can proceed on schedule. No substitution of materials will be accepted because of failure to do order material on time.

33. The owner reserves the right to let other contacts in connection with the work of the project. The contractor shall be responsible for coordination of work with other contractors. The Contractor shall afford other contractors reasonable opportunity for the introduction and storage of their materials and equipment and the execution of their work.

34. The Contractor is responsible for the following conditions:
A. The premises and the job site shall be maintained in a reasonably neat and orderly condition and kept free from accumulations of waste materials and rubbish during the entire construction period. Remove crates, cartons and other flammable waste materials or trash from the work areas at the end of each working day. Contractor to control cleaning to prevent dirt or dust from leaving the job site and infiltrating areas not involved in the project. No material or debris storage shall be permitted at the street or sidewalk at any time.

B. Electrical closets, pipe and duct shafts chases, furred spaces and similar spaces shall be cleaned and left free from rubbish loose plaster, mortar drippings, extraneous construction materials, dirt and dust.

C. Contractor shall protect and be responsible for the existing structure, facilities and improvements adjoining the area under this contract. Any disturbance or damage to adjoining property resulting directly or indirectly from the contractor's operation shall be promptly restored, repaired or replaced to the satisfaction of the client at no additional cost.

D. Clean up immediately upon completion of each trade's work.

E. This cleaning includes the removal of trash and rubbish from these areas, broom cleaning of floors, the removal of any plaster, mortar, dust and other extraneous materials from finish surfaces, including but not limited to miscellaneous metal, woodwork, plaster, glass, gypsum drywall, masonry, concrete, mechanical and electrical equipment, piping ductwork, conduit, and surfaces visible after permanent fixtures, induction unit covers, grilles, registers, and other such fixtures or devices are in place.

F. In addition to the cleaning specified above and the more specific cleaning which may be required in various sections of the specifications the premises shall be prepared for occupancy by:

(i) a thorough cleaning throughout including washing or cleaning by other approved methods of all floors and surfaces on which dirt or dust has collected and by washing glass, removing all paint, foreign material, and stains thereon.

(ii) providing and maintain adequate runner strips of non-staining reinforced kraft building paper on finished floors as required for protection.

(iii) leaving all fixtures and equipment in an undamaged, bright, clean, polished condition.

(iv) clean and polish all hardware and all other metal work.

(v) do all other cleaning as required to turn the premises over to the owner in a spotless and orderly condition.

35. The Owner reserves the right to accept or refuse any bids/proposals from any Contractor or Subcontractor without exception.

36. The Contractor is Responsible for the following conditions related to safety of public and property:

A. Institute and maintain safety measures and provide all equipment or temporary construction necessary to safeguard all persons and property affected.

B. Structures, devices, or construction equipment shall not be loaded in excess of their design capacity.

C. Before using construction equipment or devices, same shall be inspected by the person superintending the work, and defects or unsafe conditions shall be promptly corrected before use.

D. Determine location, protect and safeguard all utilities on or adjacent to site. Notify all utility companies and building management as required.

E. Maintain fire preventive, sanitary and safety facilities.

F. All machines, tools, service lines and conduits shall be shielded or barricaded to provide safety and prevent contact by the public.

G. No materials shall be dropped or thrown outside the exterior walls of the building.

H. Areas used by the public shall be maintained free from debris, equipment, materials.

ABBREVIATIONS:

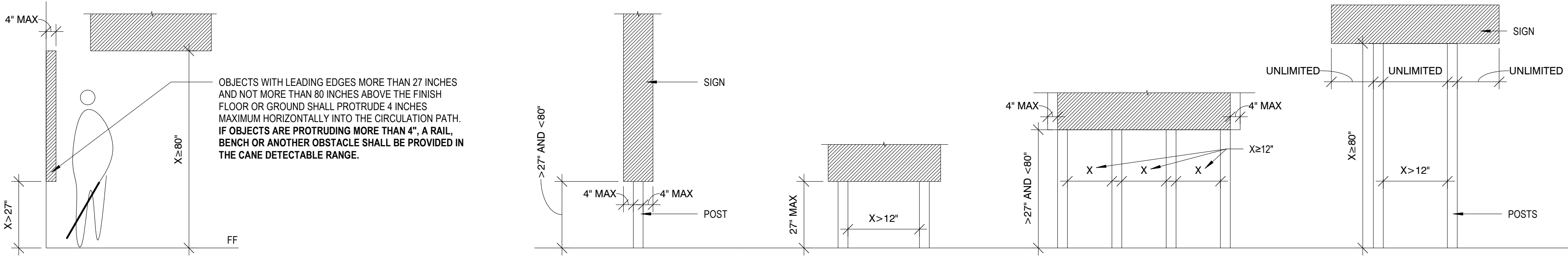
#	Pound or Number
&	And
Ø	Diameter or Round
@	At
A	
A/C	Air Conditioning
AB	Anchor Bolt
ABV	Above
AC OR ACOUS	Acoustical
ACC	Access
ACT	Acoustical Ceiling/Tile
ACU	Air Conditioning Unit
AD	Access Door
AD	Area Drain
ADD	Addendum
ADDL	Additional
ADH	Adhesive
ADJ	Adjacent
ADJT	Adjustable
AF	Above Finish Floor
AGG	Aggregate
AHU	Air Handling Unit
ALLOW	Allowance
ALT	Alternate
ALUM	Aluminum
ANC	Anchor Anchorage
ANG	Angle
ANOD	Anodized
AP OR AC PNL	Access Panel
APC	Architectural Precast Concrete
APPROX	Approximate
ARCH	Architect(ural)
ASPH	Asphalt
AUTO	Automatic
AVE	Avenue
AVG	Average
AWT	Acoustical Wall Treatment
B	
B&B	Balled & Bagged
BAL	Balance
BC	Back of Curb
BD	Board
BF	Bottom Face
BFE	Bottom Footing Elevation
BG	Bumper Guard
BITUM	Bituminous
BJT	Bed Joint
BL	Building Line
BLDG	Building
BLK	Block
BLKG	Blocking
BLR	Bailer
BLW	Below
BM	Beam
BM	Bench Mark
BO	Bottom Of
BOC	Bottom of Curb
BOS	Bottom of Steel
BOT	Bottom
BPL	Bearing Plate
BR	Bedroom
BRG	Bearing
BRIDG	Bridging
BRK	Brick
BRKT	Bracket
BRZ	Bronze
BS	Both Sides
BSMT	Basement
BTWN	Between
BUR	Built-up Roofing
BVL	Bevel(ed)
BW	Both Ways
BYND	Beyond
C	Celsius, Degree
C of O	Certificate of Occupancy
C to C	Center to Center
CAB	Cabinet
CANTL	Cantilever
CB	Catch Basin
CEM	Cement
CER	Ceramic
CF	Cubic Foot
CFI	Contractor Furnished Contractor Installed
CFM	Cubic Feet Per Minute
CG	Corner Guard
CH	Coat Hook
CHAM	Chamfer
CHBD	Chalkboard
CHEM	Chemical, Chemistry
CI	Cubic Inch
CIP	Cast-in-Place
CIPC	Cast-in-Place Concrete
CIR	Circle
CJ	Control Joint
CKT	Circuit
CL	Center Line
CLG	Ceiling
CLG HT	Ceiling Height
CLL	Contract Limit Line
CLO	Closet
CLR	Clear(ance)
CLRM	Classroom
CM	Centimeter(s)
CM	Construction Manager
CP	Currgated Metal Pipe
CMU	Conc. Masonry Unit
CND	Conduit
CO	Change Order

CO	Clean Out
COL	Column
COMM	Communication Outlet
CONC	Concrete
COND	Condenser or Condensate
CONF	Conference
CONN	Connect(ed)(ion)
CONST	Construction
CONT	Continuous
CONTR	Contractor
COORD	Coordinate
CORR	Corridor
CORR	Corrugated
CPT	Carpet(ed)
CRS	Course(s)
CSWK	Casework
CT	Ceramic Tile
CTR	Center
CUH	Cabinet Unit Heater
CW	Cold Water
CY	Cubic Yard
CYL	Cylinder
D	Depth
DB	Decibel
DBL	Double
DBL ACT	Double Acting
DC	Direct Current
DEG	Degree
DEMO	Demolish, Demolition
DEPT	Department
DF	Drinking Fountain
DH	Double Hung
DIA	Diameter
DIAG	Diagram
DIFF	Diffuser
DIM	Dimension
DIR	Direction, Director
DISP	Dispenser
DIST	Distribution
DIV	Division
DK	Dark
DL	Dead Load
DMT	Demountable
DN	Down
DO	Door Opening
DP	Deep Joint
DP	Deep
DR	Door
DS	Downspout
DSGN	Design
DTL	Detail
DUP	Duplicate
DW	Dishwasher
DWG	Drawing
DWL(S)	Dowel(s)
DWR	Drawer
E	East
EA	Each
EE	Each End
EF	Each Face
EF	Exhaust Fan
EG	Exhaust Grille
EIFS	Exterior Insulation& Finish System
EJT	Expansion Joint
EL OR ELV	Elevation
ELAS	Elastomeric
ELEC	Electrical
ELEV	Elevator
EMER	Emergency
ENCL	Enclosure
ENGR	Engineer
ENTR	Entrance
EQ	Equal
EQUIP	Equipment
ESC	Escalator
EST	Estimate
ESTB	Establish
EW	Each Way
EW	Electric Water Cooler
EXH	Exhaust
EXISTG	Existing
EXP	Expansion
EXT	Exterior
EXTRU	Extrusion
F	Fahrenheit
FA	Fire Alarm
FAS	Fastener, Fastener
FB	Face Brick
FBO	Furnished By Others
FCO	Floor Cleanout
LG	Large
LH	Left Hand
LN	Linear
FE	Fire Extinguisher
FEC	Fire Extinguisher Cabinet
FF	Finished Floor
FF&E	Furniture, Fixtures, & Equipment
FFE	Finished Floor Elevation
FFL	Finished Floor Line
FH	Fire Hydrant/Hose
FHC	Fire Hose Cabinet
FHMS	Flat Head Machine Screws
FHWS	Flat Head Wood Screws
FIN	Finish
FIX	Fixture
FL	Flow Lines
FLASH	Flashing

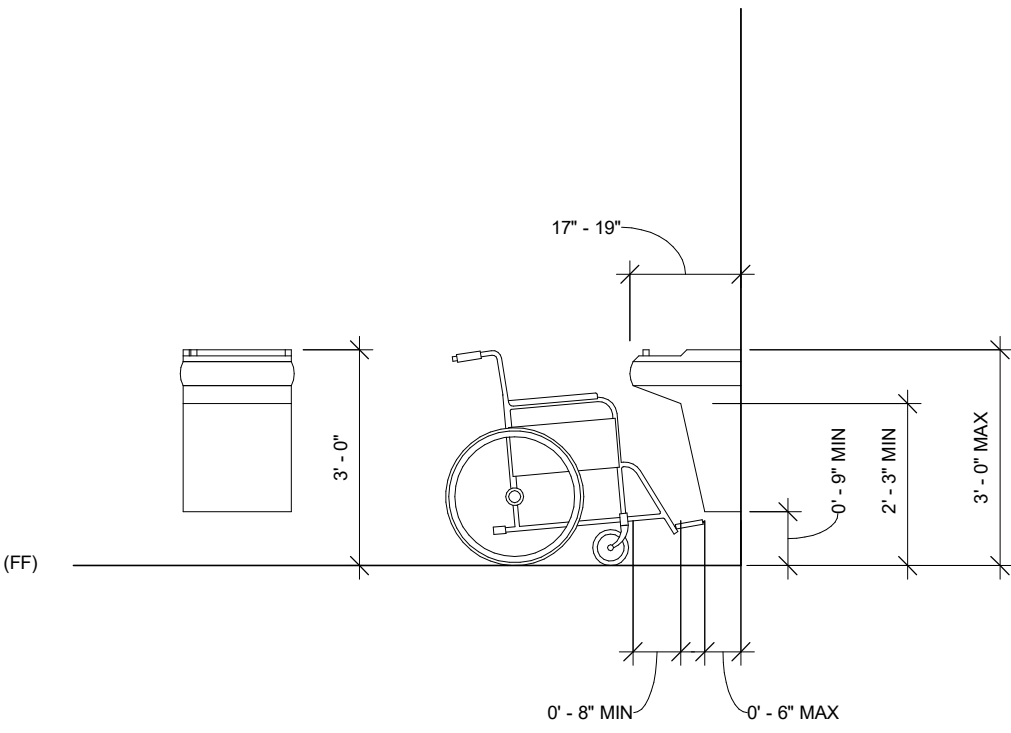
FLR	Floor
FLUOR	Fluorescent
FOC	Face of Concrete
FOF	Face of Finish
FOM	Face of Masonry
FOS	Face of Stud
FOW	Face of Wall
FR	Fireproof
FR	Fire Rated, Fire Retardant
FRM	Frame
FS	Full Size
FSP	Fire Stand Pipe
FT or '	Foot, Feet
FTG	Footing
FUR	Furring
FURN	Furnish
FUT	Future
FV	Field Verify
FVC	Fire Valve Cabinet
G	Gas
GA	Gage or Gauge
GAL	Gallon
GALV	Galvanized
GB Bar	Grab Bar
GC	General Contractor(or)
GEN	Generator
GFRG	Glass Fiber Reinforced Concrete
GFRG	Glass Fiber Reinforced Gypsum
GL	Glass
GLU LAM	Glue Laminated
GR	Grade
GR BM	Grade Beam
GRND	Ground
GSF	Gross Square Feet
GU	Gutter
GW	Gypsum Wallboard
GYP	Gypsum
GYP BD	Gypsum Wallboard
H	High
H PT	High Point
HB	Hose Bibb
HC	Hollow Core
HD	Head
HDBD	Headboard
HDF	High Density Fiberboard
HDR	Header
HDWD	Hardware
HDWR	Hardwood
HJT	Head Joint
HM	Hollow Metal
HNDRL	Handrail
HORIZ	Horizontal
HP	Horsepower
H	Hour
HT	Height
HTG	Heating
HTR	Heater
HVAC	Heating, Ventilating, Air Conditioning
HW	Hot Water
HW	Hot Water Heater
PL	Highway
HYD	Hydrant
HZ	Hertz
I	
ICF	Insulated Concrete Form
ID	Inside Diameter
IF	Inside Face
ILLUM	Illumination
IN or *	Inches
INCL	Include(d)(ing)
INFO	Information
INSUL	Insulation
INSUL PNL	Insulated Panel
INT	Interior
J	Joint
JAN	Janitor
JB	Junction Box
JC	Janitor's Closet
JST	Joist
JST BR	Joist Bearing
JT	Joint
K	Kilowatt
KD	Knocked Down
KIT	Kitchen
KO	Knockout
KPL	Kick Plate
KW	Kilowatts
L	Length
LAM	Laminated
LAV	Lavatory
LG	Large
LH	Left Hand
LN	Linear
LL	Live Load
LLH	Long Leg Horizontal
LLV	Long Leg Vertical
LOC	Locate, Location
LONG	Longitudinal
LP	Low Point
LT	Light
LTG	Lighting
LTL	Lintel
LVR	Louver
LWT	Lightweight
LWT CONC	Lightweight Concrete
M	

M	Meter
MACH	Machine
MAINT	Maintenance
MAN	Manual
MAS	Masonry
MATL	Material
MAX	Maximum
MBR	Member
MDF	Medium Density Fiberboard
MECH	Mechanical
MED	Medium
MEMB	Membrane
MEZZ	Mezzanine
MFR	Manufacturer
MIN	Minimum
MIN	Minute
MIR	Mirror
MISC	Miscellaneous
MIX	Mixture
MLDG	Modling
MLWK	Millwork
MM	Millimeter
MO	Masonry Opening
MOD	Modified, Modular
MS	Machine Screw
MTD	Mounted
MTL	Metal
MTR	Mortar
MULL	Mullion
N	North
NA	Not Applicable
NAT	Natural
NIC	Not In Contact
NO, NUM, #	Number
NOM	Normal
NORM	Normal
NRC	Noise Reduction Coefficient
NTS	Not to Scale
O	Overall
OA	Obscure
OB GL	Obscure Glass
OC	On Center
OD	Outside Diameter
OCFI	Owner Furnished Contractor Installed
OFF	Office
OFOI	Owner Furnished Owner Installed
OH	Overhead
OPWG	Opening
OPP	Opposite
ORD	Overflow Roof Drain
ORIG	Original
OTO	Out to Out
OZ	Ounce
P	Precast Concrete
PC	Point of Curve
PCF	Pounds per Cubic Foot
PERF	Perforated
PERP	Perpendicular
PI	Point of Intersection
PL	Plate
PL	Property Line
PLAM	Plastic Laminate
PLAS	Plaster
PLUMB	Plumbing
PLYWD	Plywood
PNL	Panel
PR	Pair
PREFAB	Prefabricated
PRELIM	Preliminary
PROJ	Projection
PROP	Property
PSF	Pounds per Square Foot
PSI	Pounds per Square Inch
PT	Paint
PT	Point, Point of Tangent
PTD	Paper Towel Dispenser
PTN	Partition
PVC	Polyvinyl Chloride
P/MT	Pavement
PWD	Plywood
Q	Quarry Tile
QT	Quart
QTR	Quarter
QTY	Quantity
QUAL	Quality
R	Riser
R, RAD	Radius
RA	Return Air
RB	Rubber Base
RCP	Reinforced Concrete Pipe
RD	Roof Drain
RE or REF	Reference
REBAR	Reinforcing Bar
REC	Recessed
RECP	Receptacle
RECT	Rectangular
REFR	Refrigerator
REG	Regular
REINF	Reinforcing(ed)
REOD	Required
RET	Return
REV	Revision
RFG	Roofing

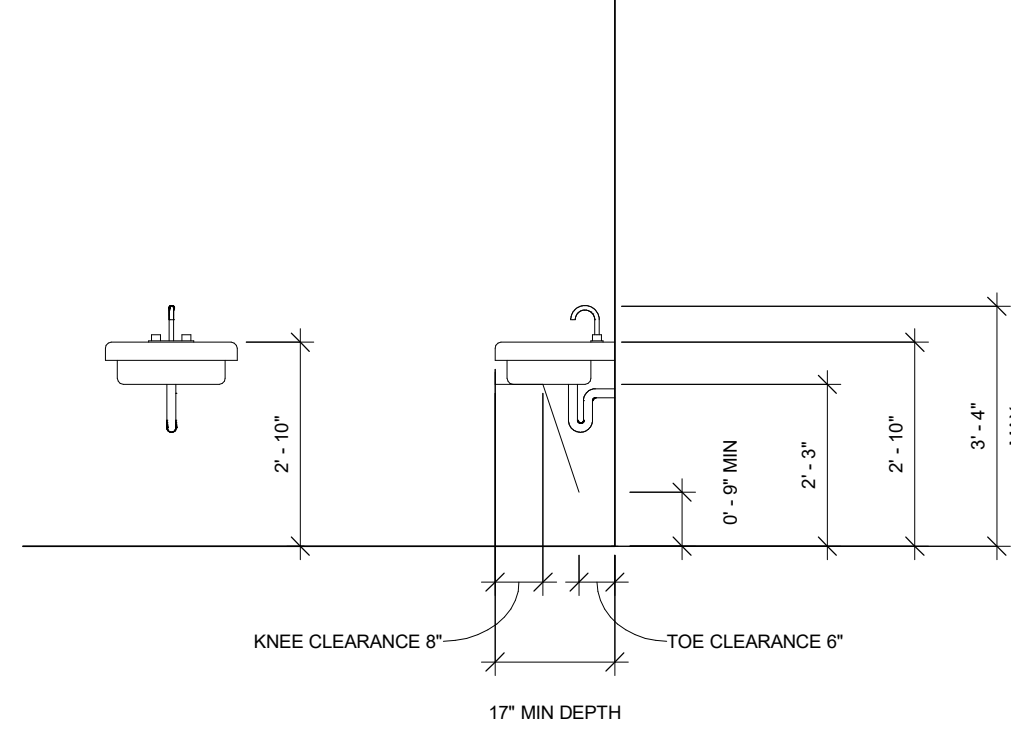
RH	Right Hand
RLF	Relief
RM	Room
RND	Round
RO	Rough Opening
ROW	Right of Way
S	South



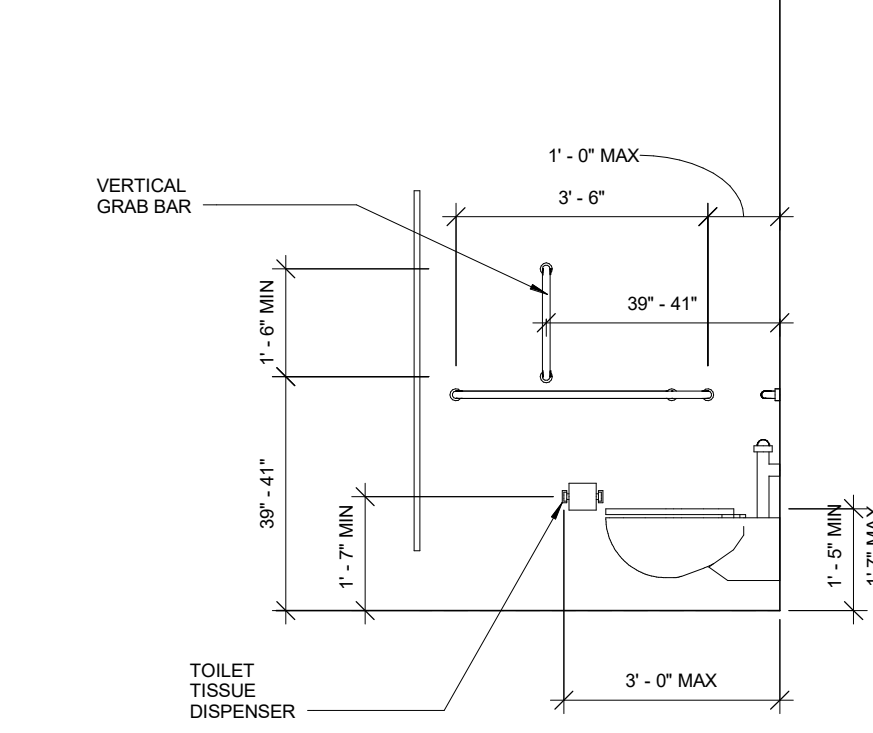
6 LIMITS OF PROTRUDING OBJECTS
3/8\" = 1'-0"



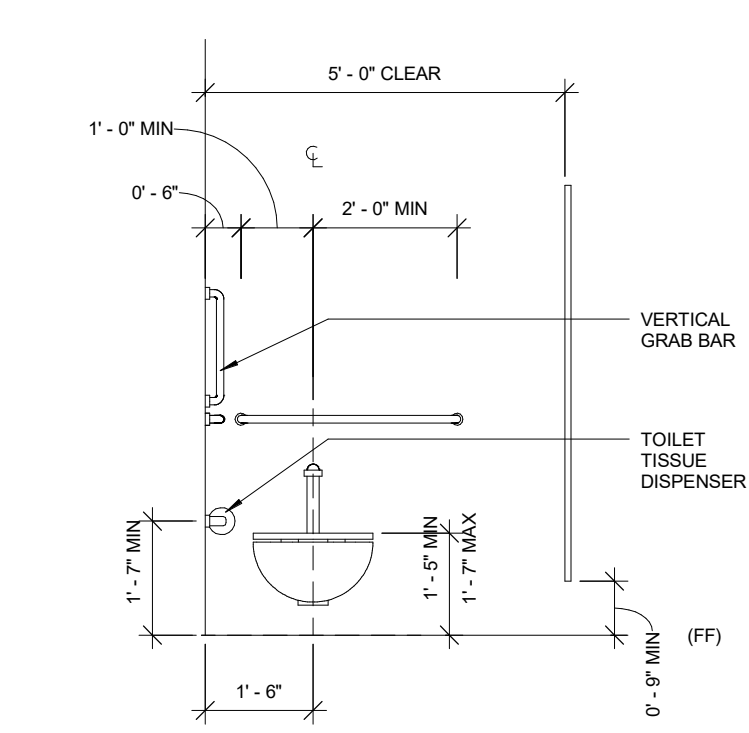
5 ACCESSIBLE DRINKING FOUNTAIN
3/8\" = 1'-0"



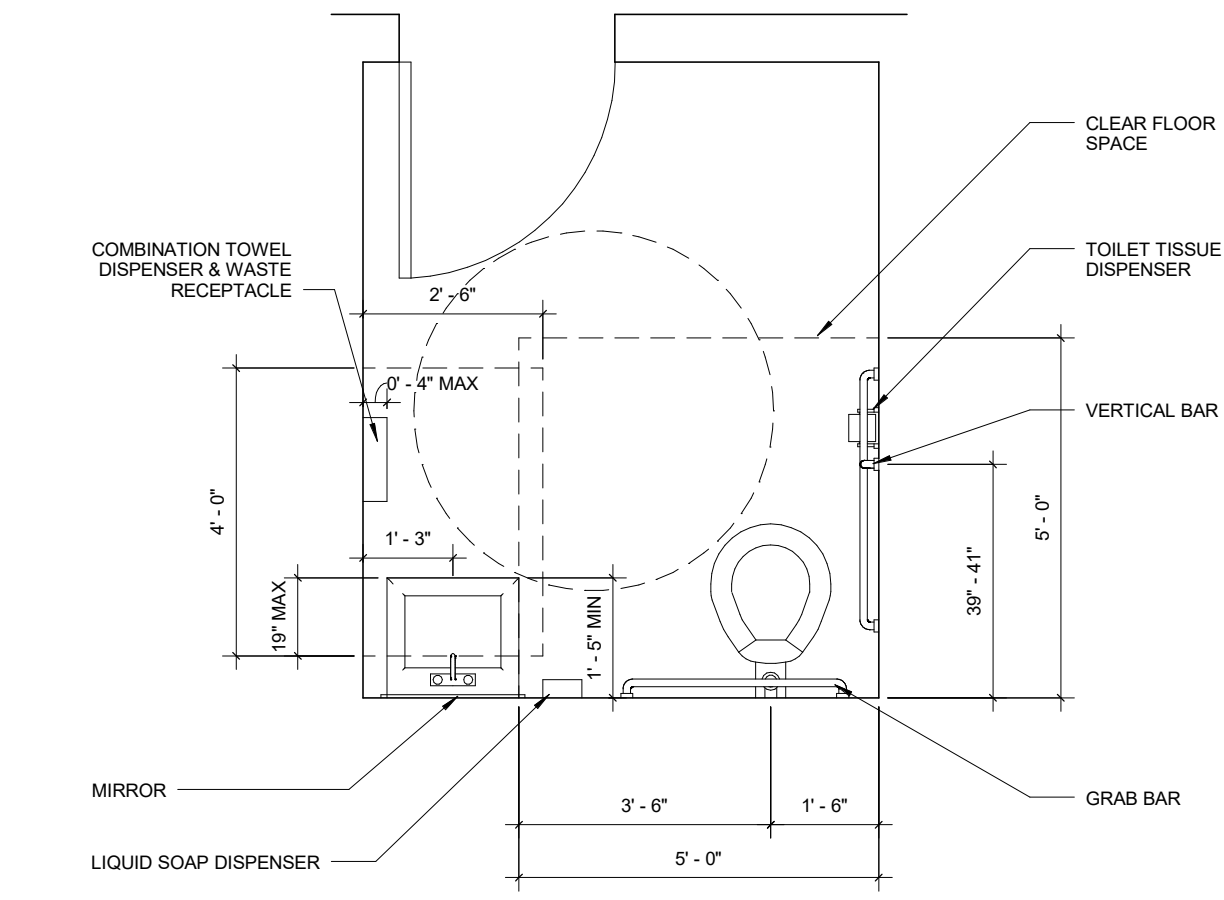
4 ACCESSIBLE LAVATORY
3/8\" = 1'-0"



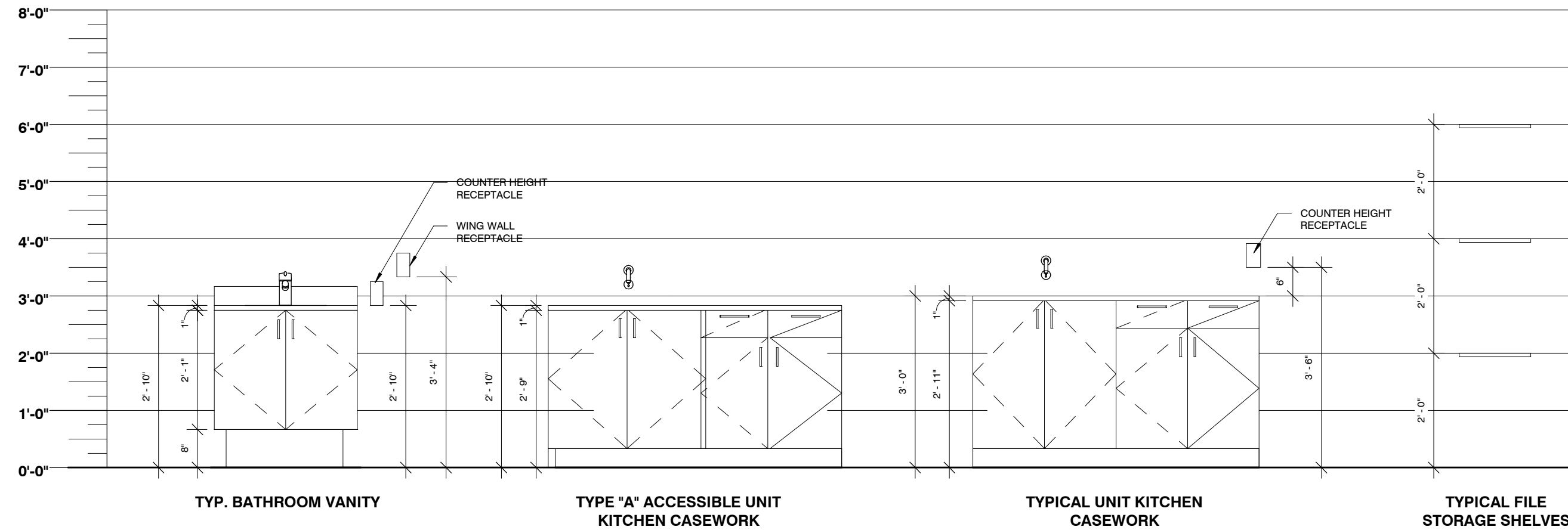
3 TYP. RESTROOM ACCESSORY PLACEMENT (SIDE)
3/8\" = 1'-0"



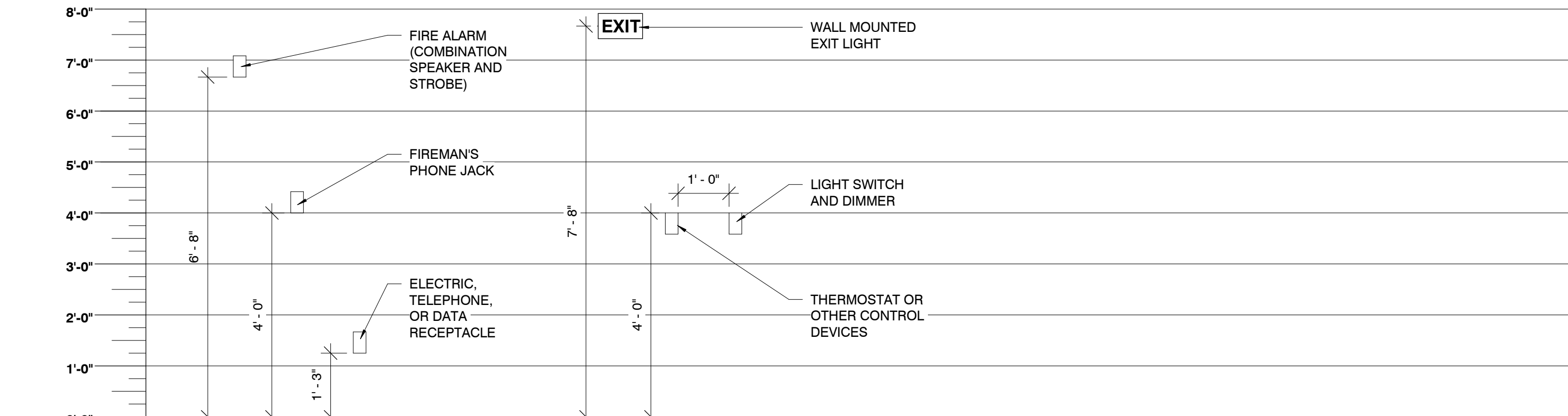
2 TYP. RESTROOM ACCESSORY PLACEMENT (FRONT)
3/8\" = 1'-0"



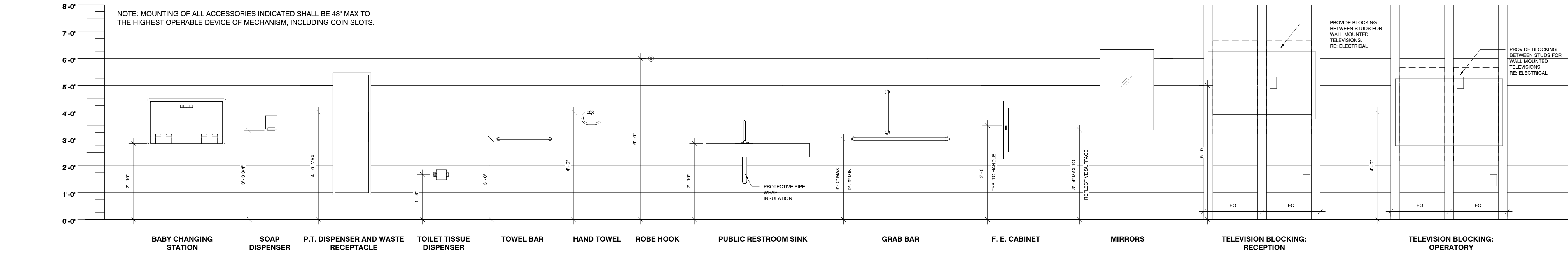
1 ACCESSIBLE TOILET LAYOUT
3/8\" = 1'-0"



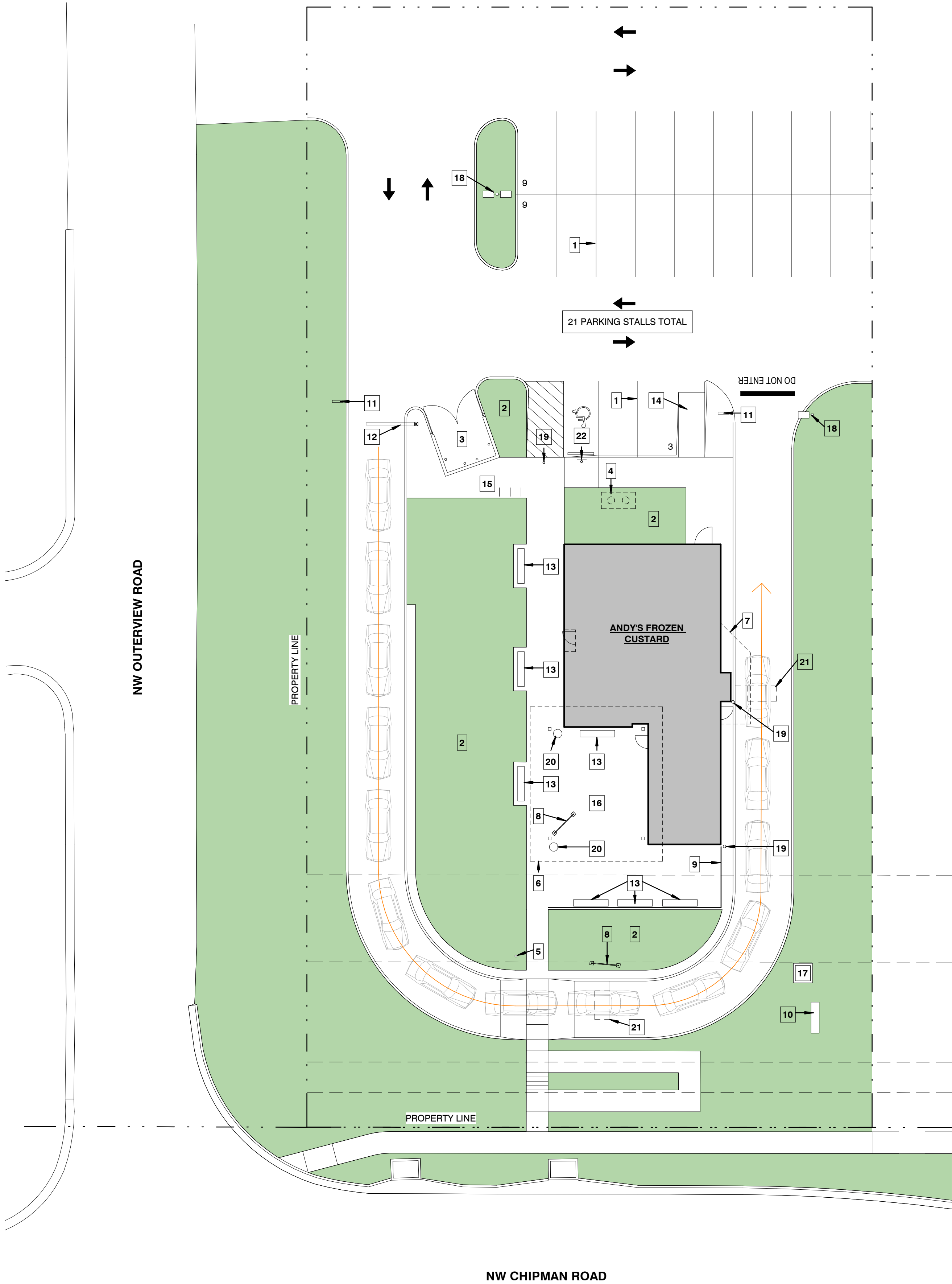
TYP. CASEWORK HEIGHTS
1/2\" = 1'-0"



MISC. HEIGHTS
1/2\" = 1'-0"



TYP. FIXTURE HEIGHTS
1/2\" = 1'-0"

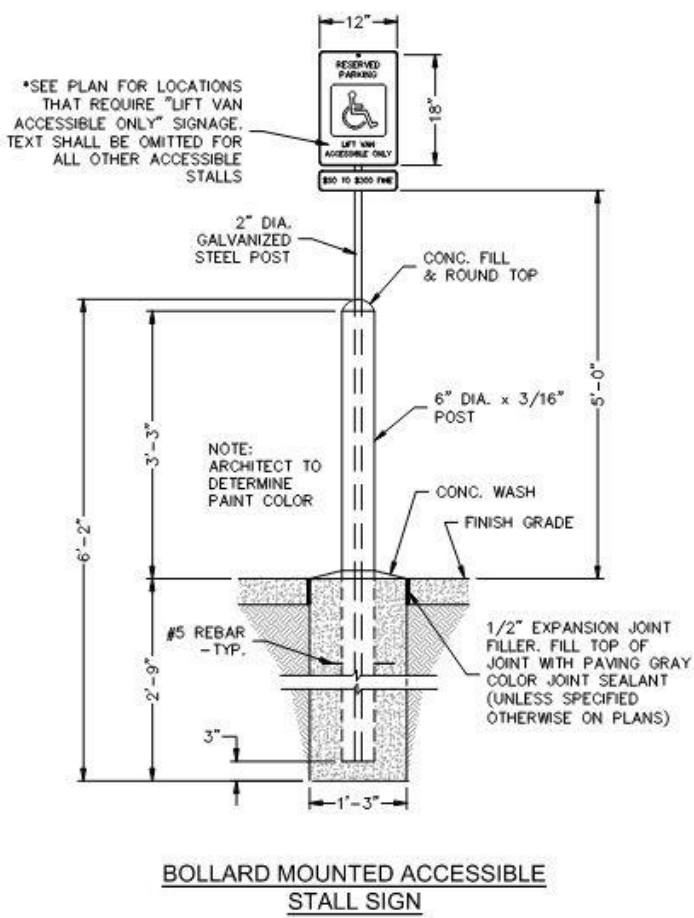


SITE PLAN KEYNOTES

- 1 ALL STALL AND SYMBOL DEMARCATION TO BE 4" WHITE STRIPING
- 2 LANDSCAPE / PLANTINGS, RE: LANDSCAPE DWGS
- 3 DUMPSTER ENCLOSURE, MASONRY TO MATCH BUILDING
- 4 GREASE INTERCEPTOR, RE: CIVIL & MEP DWGS
- 5 FLAGPOLE, OFCI, 40' SATIN ALUMINUM POLE WITH 8'X12' FLAG, W/ GROUND LIGHT FIXTURE INCORPORATED IN FOOTING
- 6 PATIO CANOPY AND STRUCTURE, RE: STRUCT DWGS
- 7 DRIVE-THRU CANOPY, RE: STRUCT DWGS
- 8 MENU BOARD, VERIFY LOCATION WITH OWNER, ALL SIGNAGE BY PINNACLE SIGN GROUP, RE: ELEC & SIGNAGE DWGS
- 9 36" METAL FENCE
- 10 MONUMENT SIGN, ALL SIGNAGE BY PINNACLE SIGN GROUP, VERIFY LOCATION WITH OWNER, RE: ELEC, STRUCT., & SIGNAGE DWGS
- 11 DIRECTIONAL SIGN, ALL SIGNAGE BY PINNACLE SIGN GROUP, RE: ELEC & SIGNAGE DWGS
- 12 DRIVE-THRU CLEARANCE SIGN, ALL SIGNAGE BY PINNACLE SIGN GROUP, RE: ELEC & SIGNAGE DWGS
- 13 STANDARD 8'-0" CORPORATE RED BENCH, OFCI
- 14 PROVIDE ACCESSIBLE CURB RAMP WITH DETECTABLE WARNING FOR PERSONS WITH VISUAL IMPAIRMENT
- 15 BIKE RACKS, INVERTED 'U' CBBR-2UR-SS
- 16 OUTDOOR PATIO, CONCRETE SLAB W/ SEALER
- 17 TRANSFORMER, RE: CIVIL & ELEC DWGS
- 18 LIGHT POLE, RE: SITE PHOTOMETRIC PLAN AND CIVIL DRAWINGS
- 19 6" DIA. CONCRETE BOLLARD PTD WHITE, TYP. RE: CIVIL
- 20 STANDARD CORPORATE WASTE RECETACLE, OFCI
- 21 LOOP DETECTOR, RE: ELEC
- 22 ACCESSIBLE SIGN EMBEDDED IN 6" DIA. CONCRETE BOLLARD PTD WHITE

SITE PLAN GENERAL NOTES:

1. COORDINATE SITE DETAILS INDICATED ON THIS SHEET WITH ALL CIVIL DRAWINGS. REFER TO CIVIL DRAWINGS FOR ADDITIONAL INFORMATION NOT INDICATED HERE AND NOTIFY ARCHITECT OF AND DISCREPANCIES
2. REFER TO LANDSCAPE PLANS FOR PLANTINGS TYPE AND LOCATION.



Hufft

PROJECT INFORMATION:

Andy's Frozen Custard #204

630 NW Chipman Road
Lee's Summit, Missouri 64086

OWNER:

ANDY'S FROZEN CUSTARD

211 E. Water Street
Springfield, MO 65806

www.eatandys.com

ARCHITECT:

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05/30/2024

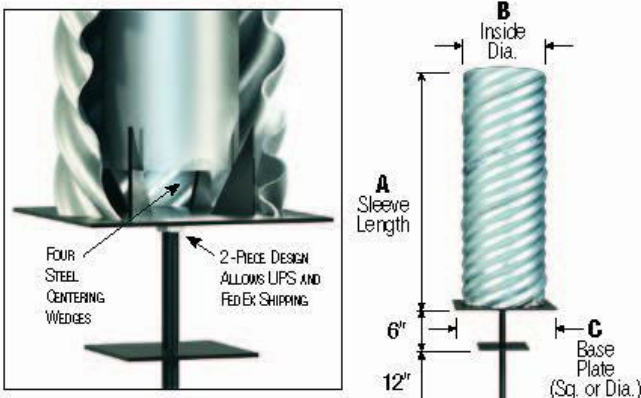
Architect: JEFFREY KLOCH
License Number: A-2016005093
Drawn By: MS
Project Number: 736

ARCHITECTURAL SITE PLAN

A010

Ground Sleeves - Steel

Corrugated Steel with Steel Lightning Spike
Two-Piece Design
Corrugated steel ground sleeves with steel lightning spikes are designed for use in ground set flagpole installations. (See Page 74.) Our superior 2-piece design contains an upper section manufactured of galvanized 16-gauge corrugated steel tube, a thick steel base plate, and steel centering wedges welded into the base to assist in proper installation of the flagpole. The lower section incorporates a threaded top 3/4" diameter steel grounding spike with 6" x 6" steel setting plate, allowing the concrete foundation to completely surround the sleeve. Ground sleeves for flagpoles up to 75' can be shipped via UPS and Fed Ex, providing significant savings over competitor's one piece designs. Contact Customer Service for custom sizes, larger sizes, or special applications.



Flagpole Wt.		4" Bolt Diameter Flanges		5" Bolt Diameter Flanges		6-7" Bolt Diameter Flanges		8" Bolt Diameter Flanges		10-12" Bolt Diameter Flanges	
Flange	Splice	Splice	Splice	Splice	Splice	Splice	Splice	Splice	Splice	Splice	Splice
20'	2"	GCA-2008	\$189	GCA-2008	\$201	GCA-2010	\$205				
25'	2-1/2"	GCA-2508	\$281	GCA-2508	\$288	GCA-2510	\$214				
30'	2"	GCA-3008	\$267	GCA-3008	\$213	GCA-3010	\$219	GCA-3012	\$244		
35'	2-1/2"			GCA-3508	\$220	GCA-3510	\$226	GCA-3512	\$255		
40'	2"			GCA-4008	\$225	GCA-4010	\$229	GCA-4012	\$281	GCA-4015	\$310
45'	2-1/2"					GCA-4510	\$266	GCA-4512	\$286	GCA-4515	\$321
50'	2"					GCA-5010	\$277			GCA-5015	\$367
55'	2-1/2"									GCA-5515	\$388
60'	2"									GCA-6015	\$403
65'	2-1/2"									GCA-6515	\$443
70'	2"									GCA-7015	\$483
75'	2-1/2"									GCA-7515	\$488
80'	2"									GCA-8015	\$546

*GCA Ground Sleeves May Be Combined For Quantity Discounts. See... Contact SKL.

Ground Sleeves - PVC

PVC Ground Sleeves aid in the proper Ground Set installation of smaller residential and commercial flagpoles. They are not recommended for use on installations exceeding 35'. Flagpoles having larger wall thicknesses, flagpoles located in high wind regions, or in flagpoles applications flying oversized or multiple flags. See Page 14, Ground Set Foundations, for more information.



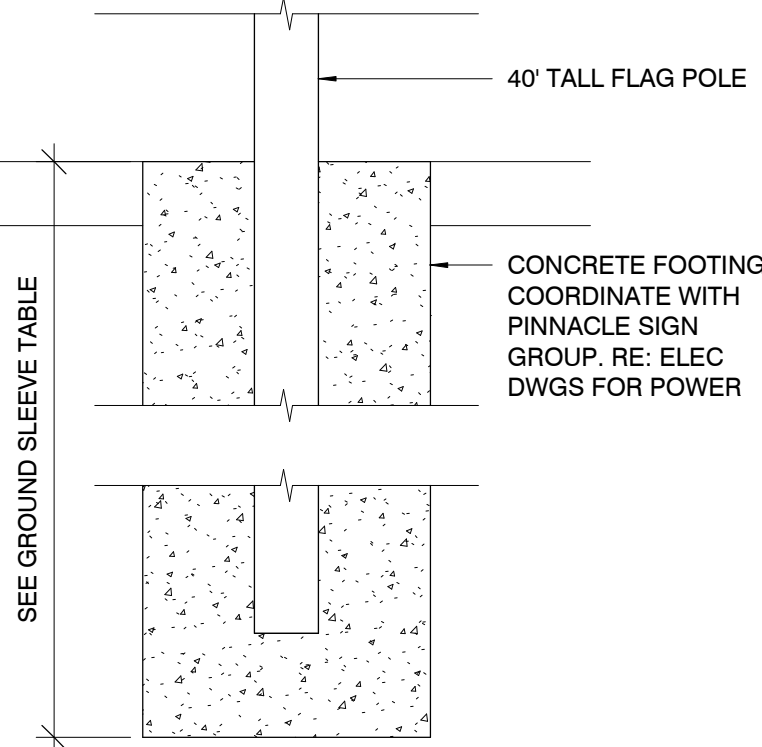
Flagpole Wt.		2" Bolt Diameter Flanges		2-1/2" Bolt Diameter Flanges		4" Bolt Diameter Flanges		5" Bolt Diameter Flanges	
Flange	Splice	Splice	Splice	Splice	Splice	Splice	Splice	Splice	Splice
15'	1-1/2"			GST-1504	\$18				
20'	2"	GST-2002	\$19	GST-2004	\$19	GST-2006	\$35	GST-2008	\$50
25'	2-1/2"			GST-2504	\$20	GST-2506	\$43	GST-2508	\$55
30'	2"					GST-3006	\$51	GST-3008	\$61
35'	2-1/2"							GST-3508	\$65

*PVC Ground Sleeves May Be Combined For Quantity Discounts. See... Contact SKL.

Lightning Rod Kit

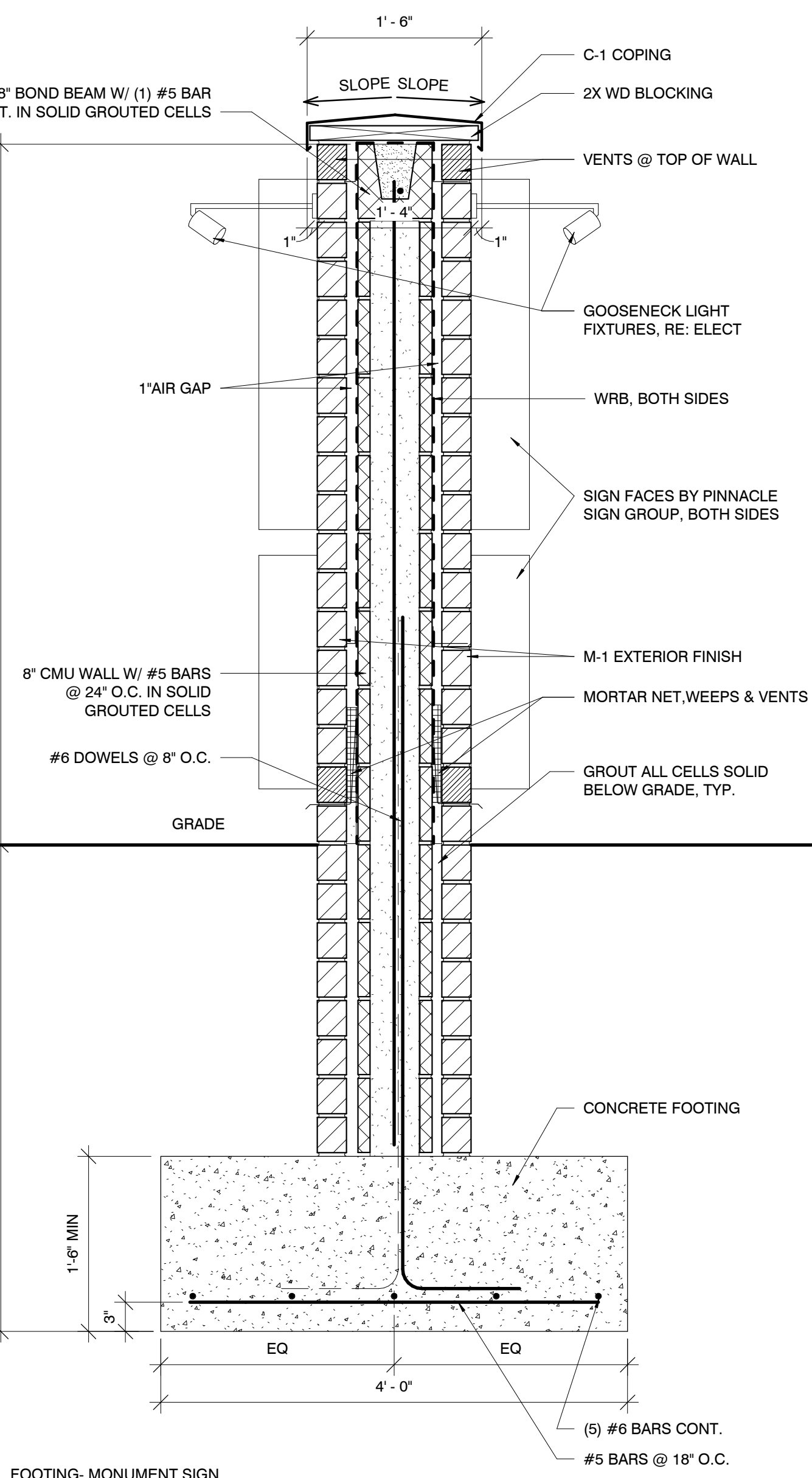
Lightning Rod Kits are constructed of 7-strand, 1/2" diameter x 6' long aluminum cable and 5/8" diameter x 5' long copper clad rod. Kit includes Drill and Tap Kit, assembly hardware and installation instructions for field installation.

DESCRIPTION	Part Number	1x	6x
Lightning Rod Kit	LPR-3019	\$192	\$172

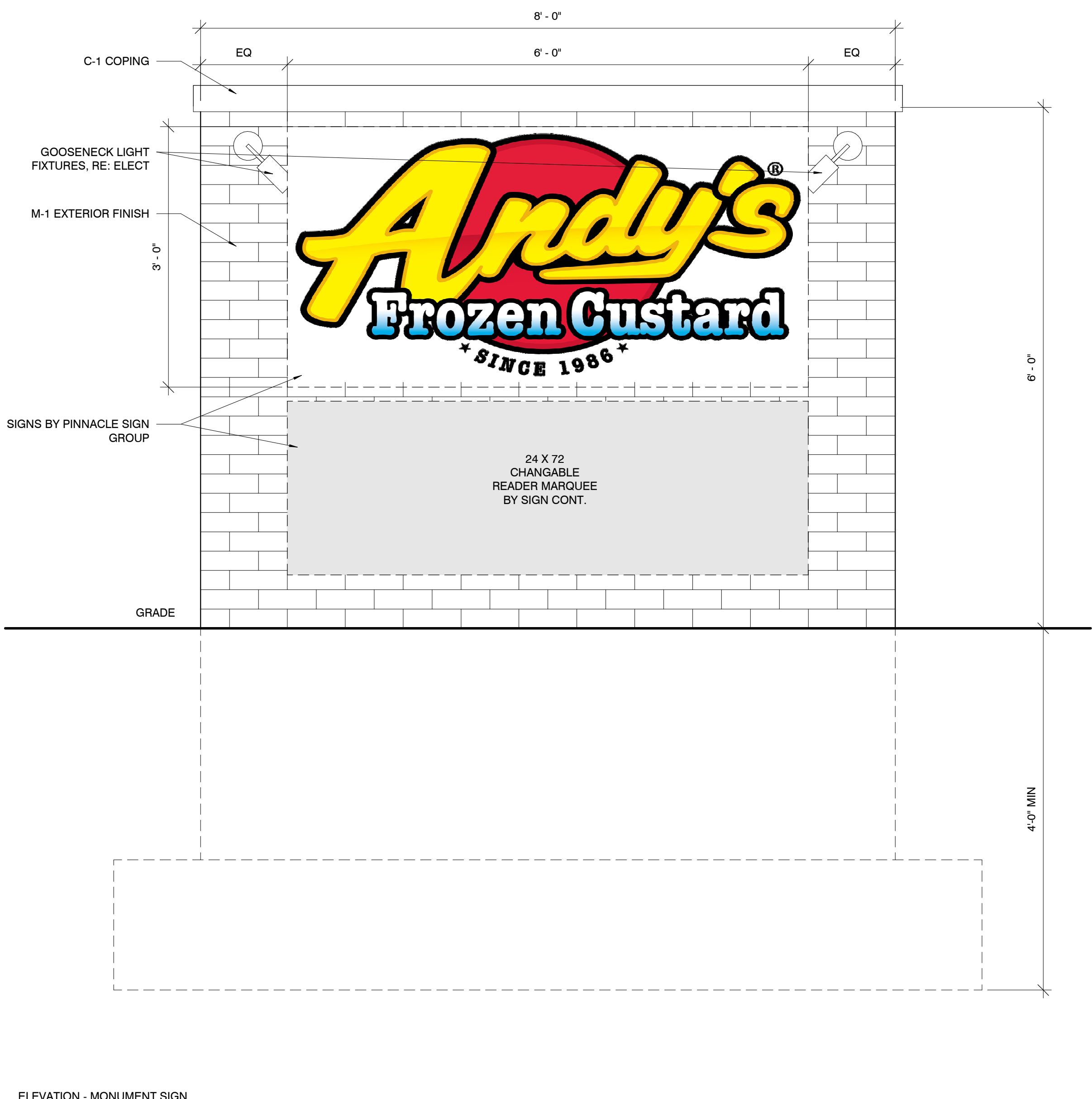


- GENERAL NOTES:**
1. ALL SIGNAGE BY PINNACLE SIGN GROUP.
 2. FOOTINGS FOR ALL SIGNAGE TO BE INSTALLED BY GENERAL CONTRACTOR. FOOTING DETAILS PROVIDED FOR REFERENCE ONLY. CONTRACTOR TO COORDINATE AND CONFIRM FOOTING SIZES, REINFORCING, AND ANCHORING WITH PINNACLE SIGN GROUP PRIOR TO CONSTRUCTING FOOTING.
 3. FOOTING, MANSORY, CAP, POWER, GOOSENECK LIGHT FIXTURES FOR MONUMENT SIGN BY CONTRACTOR.
 4. FLAGPOLE AND SLEEVE BY PINNACLE SIGN GROUP.

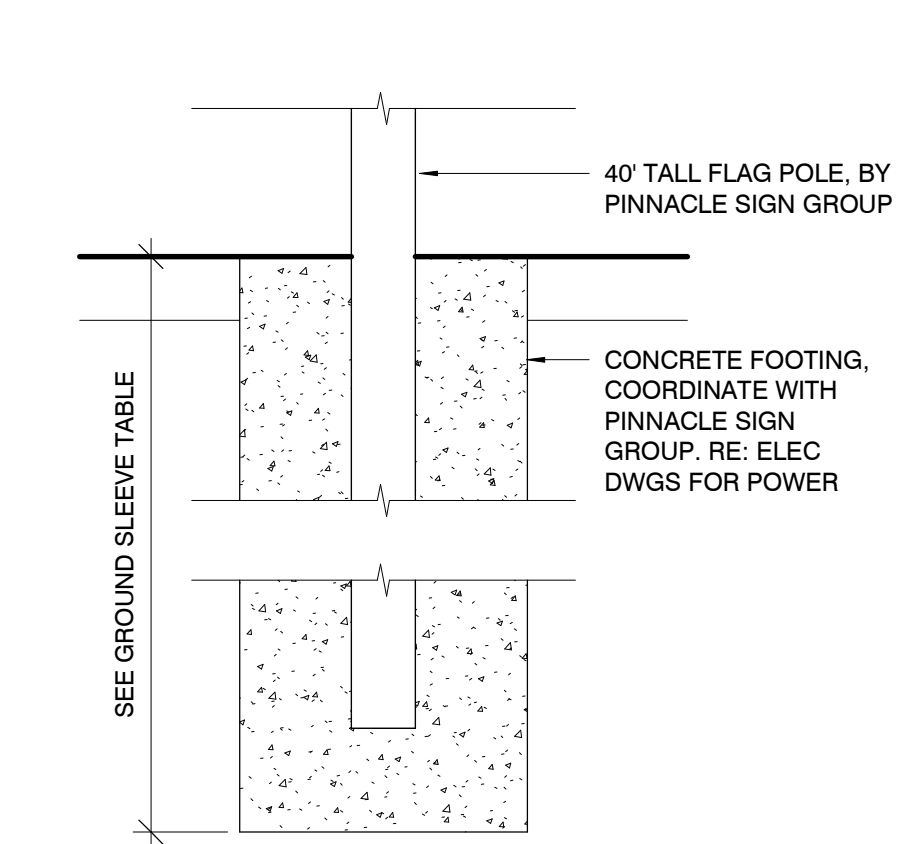
FOOTING - FLAG POLE (NOT TO SCALE)



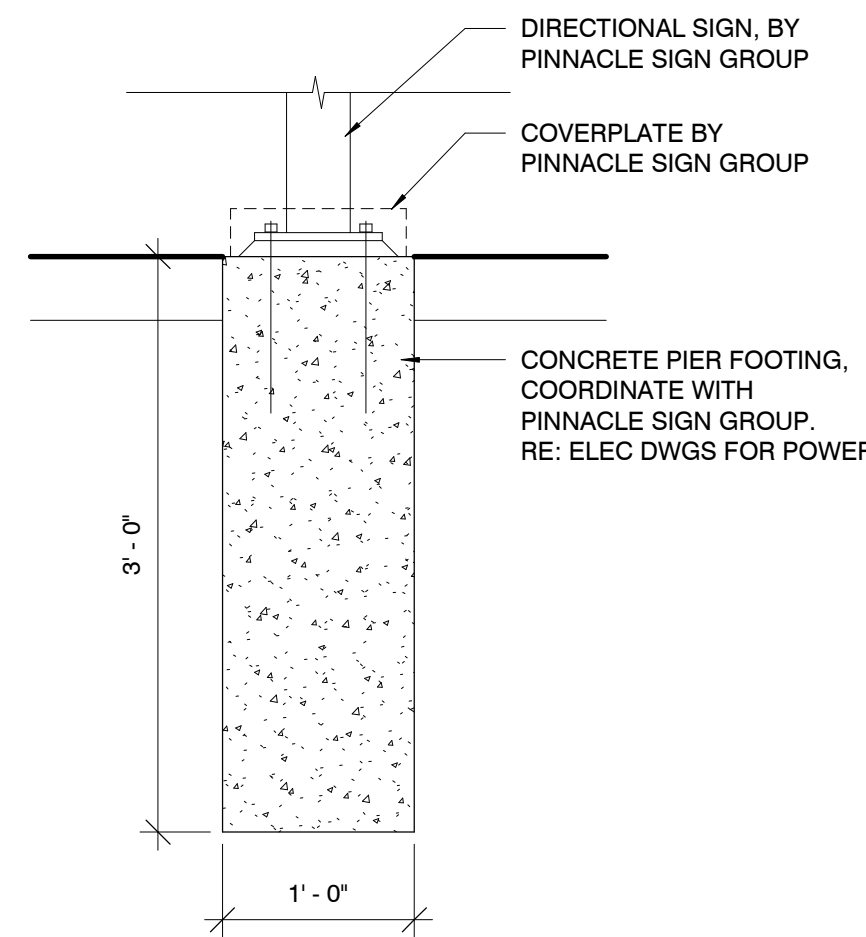
FOOTING - MONUMENT SIGN



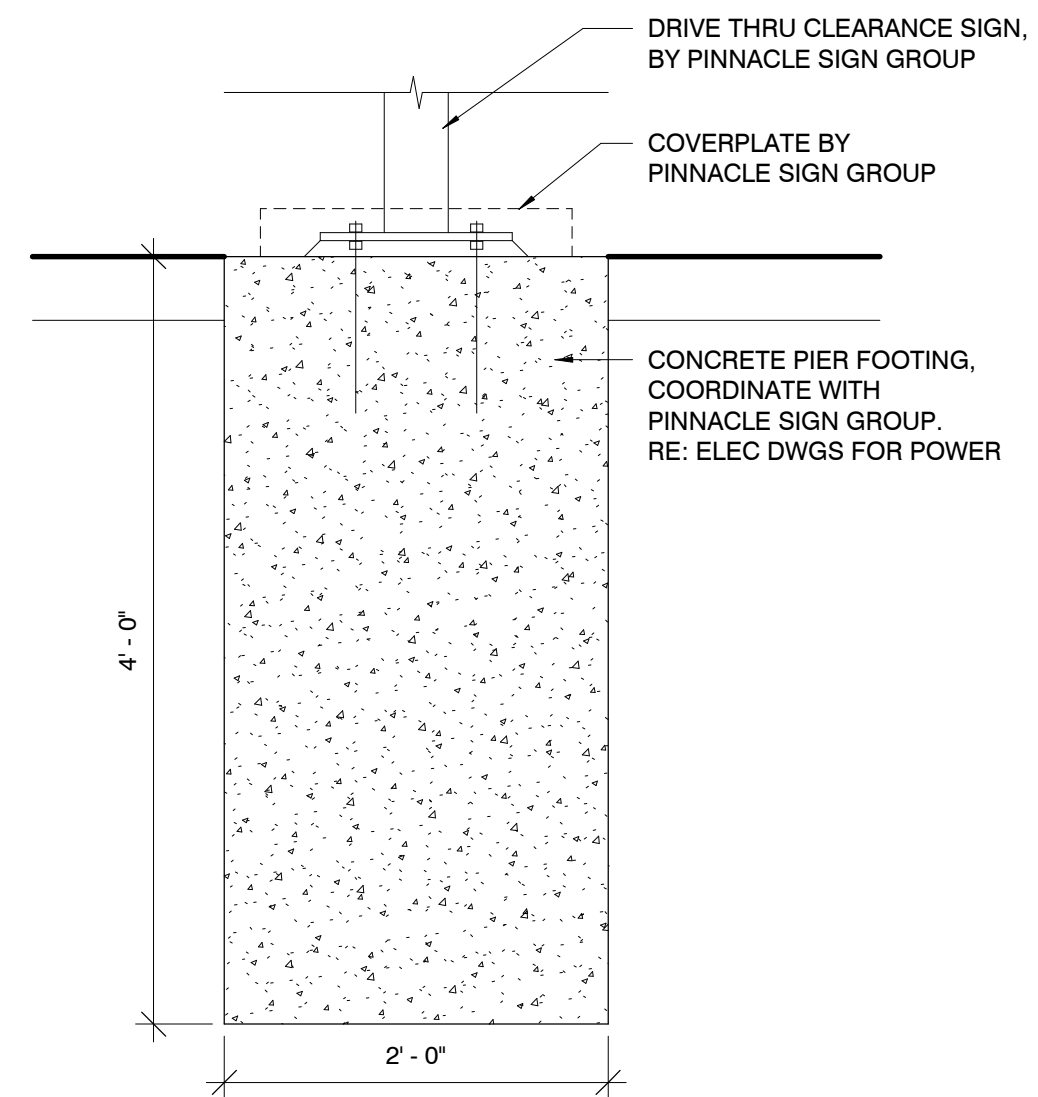
ELEVATION - MONUMENT SIGN



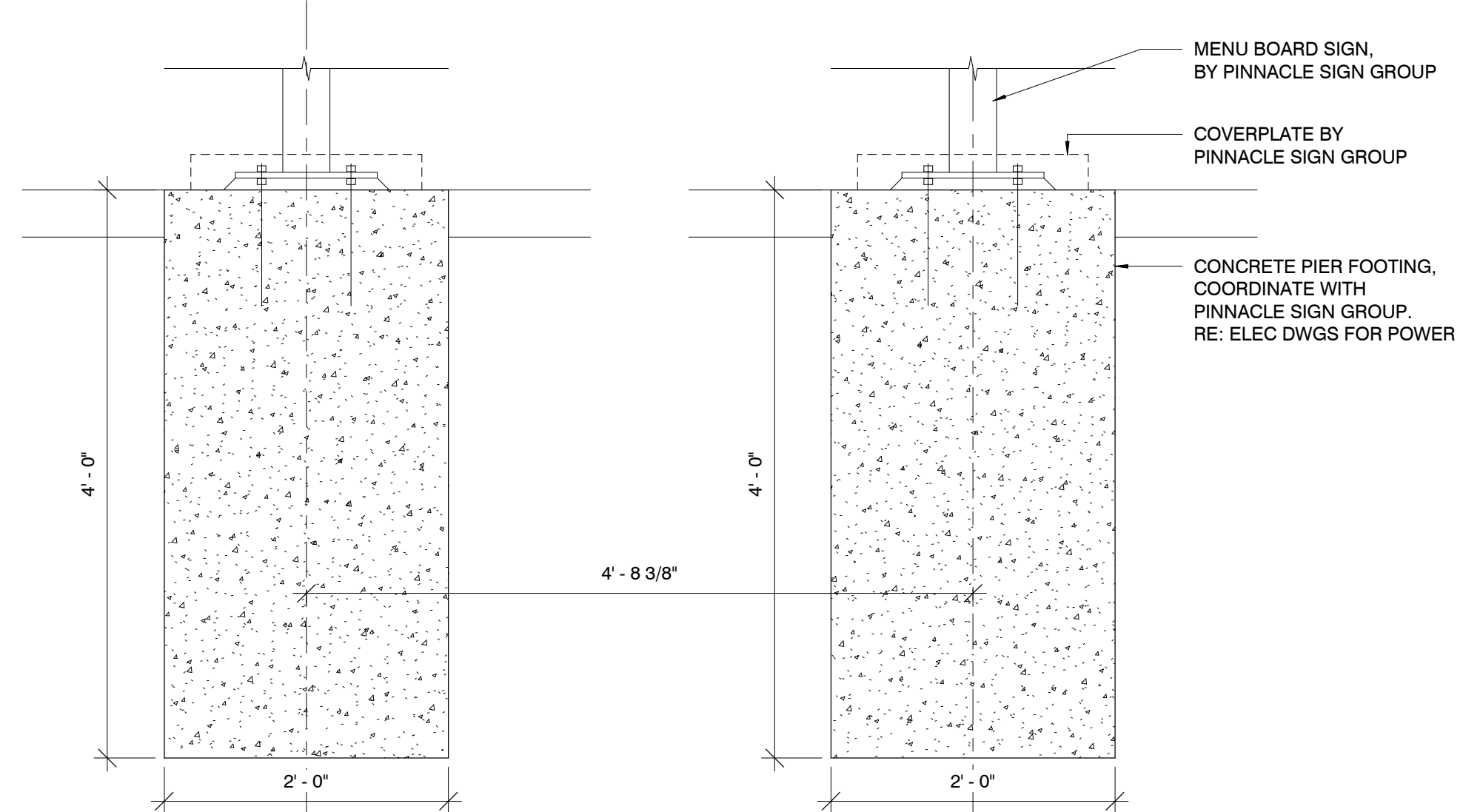
FOOTING - FLAG POLE (NOT TO SCALE)



FOOTING - DIRECTIONAL SIGN



FOOTING - DRIVE THRU CLEARANCE SIGN



FOOTING - MENU BOARD SIGN

PROJECT INFORMATION:
Andy's Frozen Custard #204

630 NW Chipman Road
Lee's Summit, Missouri 64086

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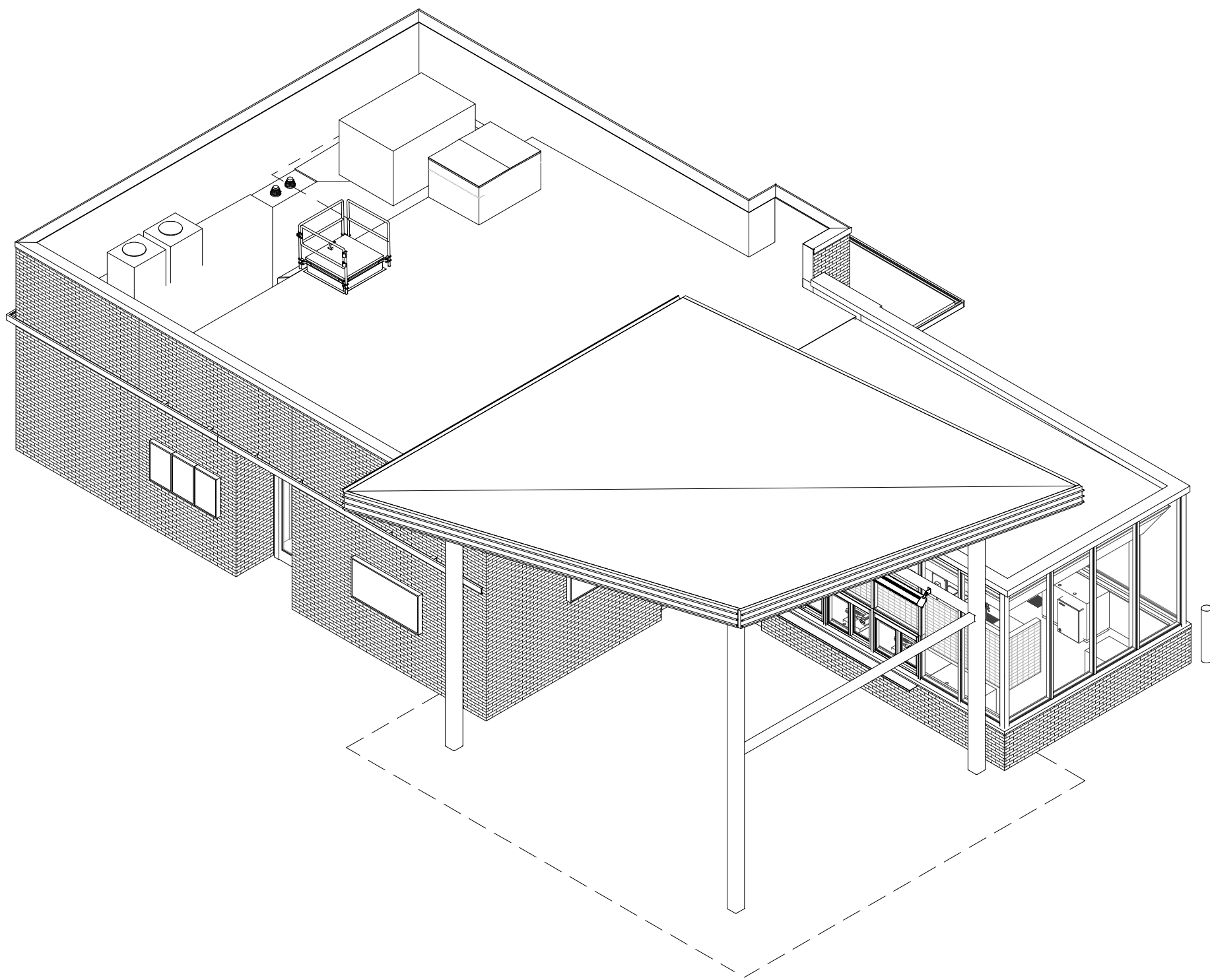
05/30/2024

Architect: JEFFREY KLOCH
License Number: A-2016005093
Drawn By: Author
Project Number: 738

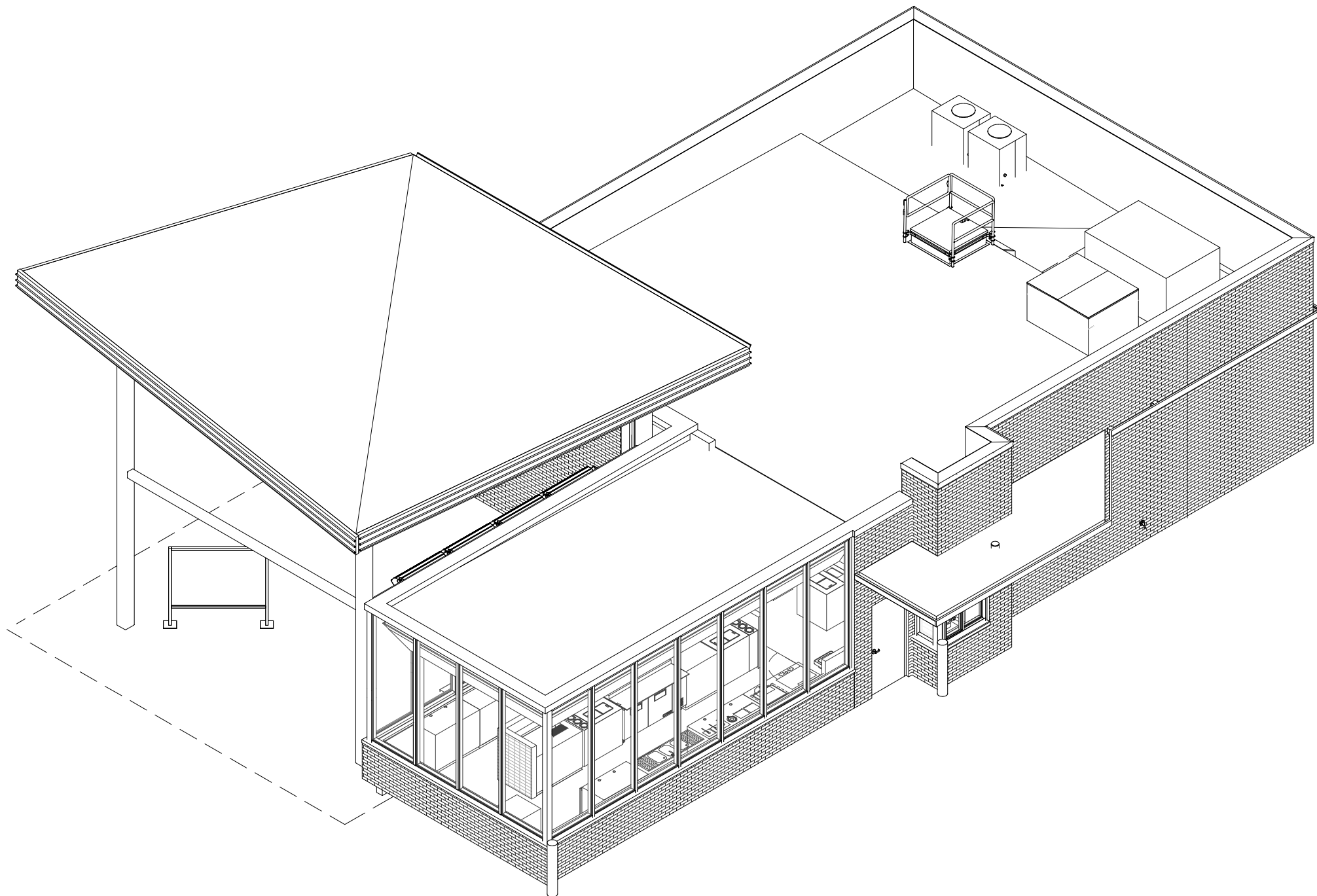
SITE SIGNAGE



EXTERIOR 3D VIEW - FRONT ENTRY VIEW (FOR REFERENCE ONLY)



2 AXON VIEW 2 (FOR REFERENCE ONLY)



1 AXON VIEW 1 (FOR REFERENCE ONLY)

Hufft

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05/30/2024

Architect: JEFFREY KLOOCH
License Number: A-2016005093
Drawn By: MS
Project Number: 736

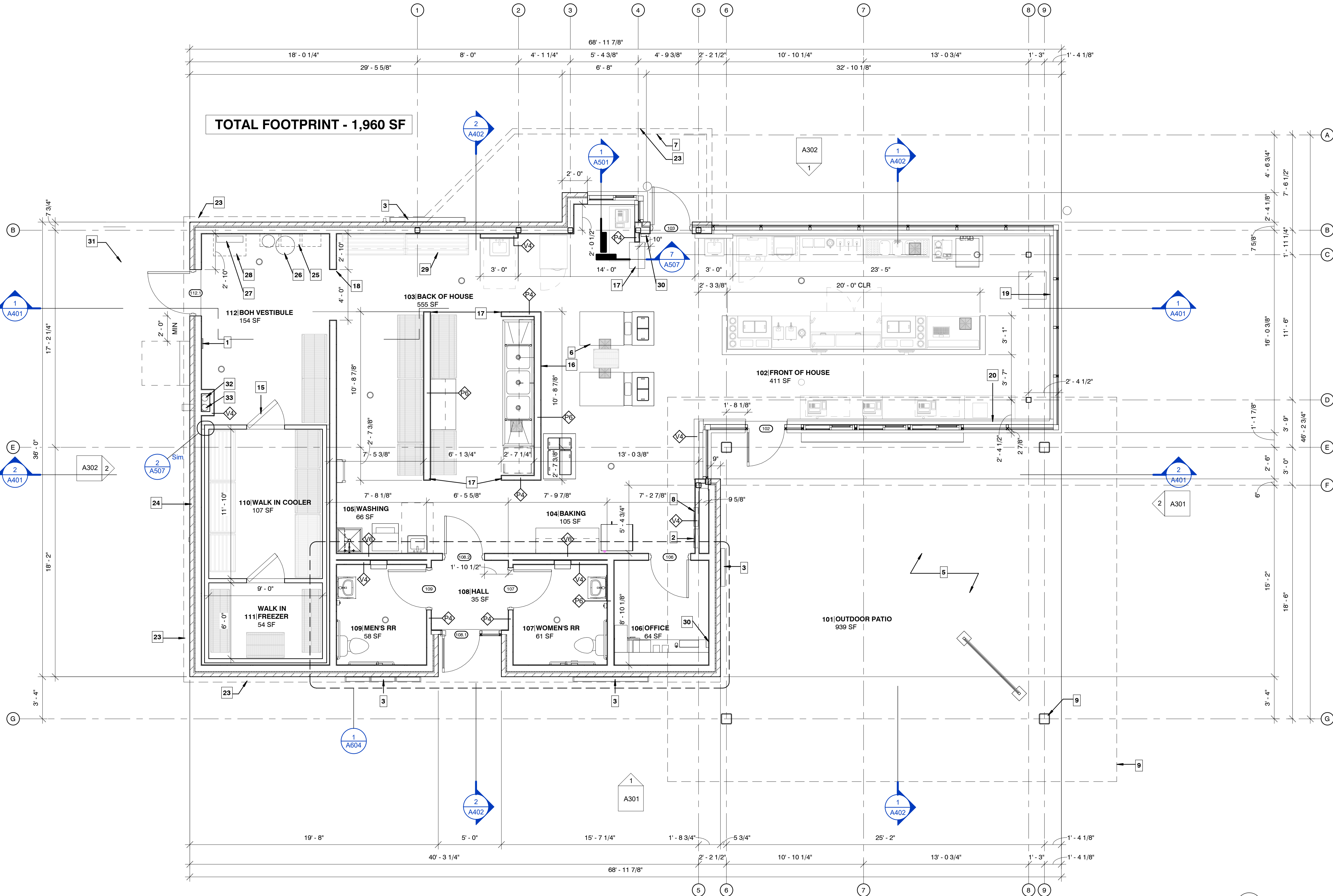
AXON 3D VIEWS

A020

PLAN KEYNOTES

- 1 FIRE EXTINGUISHER CABINET, RE: A507. PROVIDE A MINIMUM 2A,10B,C EXTINGUISHER
- 2 PANELBOARD(S), RE: ELEC. DWGS
- 3 BUILDING SIGNAGE, RE: ELEC. DWGS
- 5 OUTDOOR PATIO, CONCRETE SLAB W/ SEALER
- 6 PATIO CANOPY AND STRUCTURE, RE: STRUCT DWGS, STEEL COLUMNS, PTD
- 7 DRIVE-THRU CANOPY, RE: STRUCT DWGS
- 8 CUSTARD MACHINE SHUT-OFF SWITCH, RE: MEP DWGS
- 9 CUSTARD MACHINE TO STRADDLE FLOOR SINKS
- 15 WALK-IN COOLER/FREEZER, COORDINATE WITH SUPPLIER
- 16 PROVIDE HOT AND COLD WATER HOSE BIB ON WALL BEHIND AND ADJACENT TO CUSTARD MACHINES, RE: MEP DWGS
- 17 INSTALL STAINLESS STEEL CORNER GUARDS THROUGHOUT, TYP. ALL EXPOSED CORNERS RE: A507
- 18 CASED OPENING FOR BOH ACCESS. MAINTAIN A MIN OF 10' CLEAR OF OPENING.
- 19 ANDYS FROZEN CUSTARD NEON CONE SIGN - LOCATED INSIDE STORE IN FRONT OF STOREFRONT GLAZING, SUSPENDED. CONSEAL POWER SUPPLY ALONG INSIDE FACE OF MULLION.
- 20 ANDYS FROZEN CUSTARD 'SPRECHER ROOT BEER' NEON SIGN - LOCATED INSIDE STORE IN FRONT OF STOREFRONT GLAZING, SUSPENDED. CONSEAL POWER SUPPLY ALONG INSIDE FACE OF MULLION.
- 23 SIGNAGE LIGHTING BAND, BY PINNACLE SIGN GROUP. RE: ELEC DWGS & SIGNAGE DWGS
- 24 PRE-FINISHED DOWNSPOUT, TIE INTO BELOW GRADE STORM DRAINAGE SYSTEM. RE: MEP & CIVIL DWGS
- 25 TANKLESS WATER HEATERS, RE: MEP DWGS
- 27 WATER SOFTENER, RE: MEP DWGS
- 28 PRESSURE WASHER, RE: MEP DWGS
- 29 WALL SHELVES ABOVE DUNNAGE RACKS
- 30 IPAD HOLDER
- 31 SCREENING MASONRY WALL, M-1
- 32 ROOF DRAIN DOWN TO BELOW GRADE. RE: PLUMB, PROVIDE CLEAN-OUT AT WALL WITH STAINLESS STEEL WALL COVER
- 33 OVERFLOW ROOF DRAIN, STUB-OUT AT 12" AFF WITH OVERFLOW DRAIN NOZZLE, RE: PLUMB

- NOTE:**
1. CONTRACTOR TO VERIFY ALL DIMENSIONS AND LOCATIONS OF EXISTING STRUCTURE, MECHANICAL, ELECTRICAL, PLUMBING, ETC. AND NOTIFY ARCHITECT OF ANY DISCREPANCIES.
2. DIMENSIONS ARE FROM GRIDLINES TO FINISH FACE OF NEW PARTITIONS, U.O.N.
3. REFER TO A701 FOR ADDITIONAL NOTES PERTAINING TO WALL TYPE CONSTRUCTION AND DETAILING.
4. REFER TO EQUIPMENT PLAN FOR ALL EQUIPMENT.
5. REFER TO WALL SECTIONS FOR EXTERIOR WALL CONSTRUCTION.
6. REFERENCE CIVIL SITE PLAN FOR BUILDING LOCATION AND ORIENTATION ON SITE.



1 FLOOR PLAN
1/4" = 1'-0"

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05/30/2024

Architect: JEFFREY KLOCH
License Number: A-2016005093
Drawn By: MS
Project Number: 736

EQUIPMENT & FURNISHINGS PLAN

A102

FOOD SERVICE EQUIPMENT SCHEDULE:

ITEM #	QTY.	EQUIPMENT CATEGORY	NOTES	MANUFACTURER	MODEL #	PROVIDED BY
E1	2	CUSTARD MACHINE		SECO	DBC	SECO
E4	1	WASHER/DRYER		UNIMAC	UTEESASP	KITCHEN EQUIPMENT SUPPLIER
E7	1	ICE MAKER W/ BIN	AIRCOOLED	HOSHIZAKI	KM-231B-AJ	KITCHEN EQUIPMENT SUPPLIER
E7.1	1	FILTER SYSTEM, COMBINATION APPLICATIONS	PROVIDE AT ICE MACHINE	3M	DP190/DP195	KITCHEN EQUIPMENT SUPPLIER
E8	1	OVEN, CONVECTION, ELECTRIC	W/ STAND, CASTER	BLODGETT	CTB SINGLE	KITCHEN EQUIPMENT SUPPLIER
E10	1	WAREWASHER, UNDERCOUNTER, HIGH TEMP		HOBART	LXIH	KITCHEN EQUIPMENT SUPPLIER
E11	1	SINK, SCULLERY, 3 COMPARTMENTS		EAGLE GROUP	314-22-3-24	KITCHEN EQUIPMENT SUPPLIER
E13	3	CO2 TANK				OWNER
E17	1	MILK DISPENSER		SILVER KING	SKMAJ2	KITCHEN EQUIPMENT SUPPLIER
E20	3	TABLE, WORK; 24 X 60	W/ CASTERS ON BACK LINE	EAGLE GROUP	T2460SEB-BS	KITCHEN EQUIPMENT SUPPLIER
E21	1	TABLE, WORK; 24 X 52	W/ CASTERS ON BACK LINE	EAGLE GROUP	T2460SEB-BS	KITCHEN EQUIPMENT SUPPLIER
E22	1	COLLAR SINK		KMI	CUSTOM	KITCHEN EQUIPMENT SUPPLIER
E23	2	BLENDER		ASTRO BLENDER		KITCHEN EQUIPMENT SUPPLIER
E25	1	WAFFLE CONE MAKER	PROVIDE POWER FOR 2 WAFFLE CONE MAKERS	COBATCO	MD-10SSE-L	COBATCO
E26	1	MICROWAVE OVEN	PROGRAM PER ANDY'S FROZEN CUSTARD SPECIFICATION	PANASONIC	NE-1064	KITCHEN EQUIPMENT SUPPLIER
E26A	1	MICROWAVE SHELF; 18 X 24		METRO	1824NC	KITCHEN EQUIPMENT SUPPLIER
E27	1	DRINK MIXER	STERLING MULTIMIXER	IMH PRODUCTS	9B3CH	IMH PRODUCTS
E28	1	WARMER, FUDGE & SYRUP		SERVER PRODUCTS	82500	KITCHEN EQUIPMENT SUPPLIER
E29	3	LID W/ PUMP (FITS #10 CAN)		SERVER PRODUCTS	CP-10 83000	KITCHEN EQUIPMENT SUPPLIER
E30	2	WARMER, FUDGE & SYRUP		SERVER PRODUCTS	85070	KITCHEN EQUIPMENT SUPPLIER
E31	1	KEGERATOR	WATER SUPPLY AND CO2 TO CENTER TAP	BEVERAGE-AIR	DD48HC-1-S	KITCHEN EQUIPMENT SUPPLIER
E32	1	BOTTLE COOLER	W/CASTERS	BEVERAGE-AIR	BB24HC-1-G-S	KITCHEN EQUIPMENT SUPPLIER
E33	1	REFRIGERATOR, WORKTOP W/RAIL		TRUE	TPP-67	KITCHEN EQUIPMENT SUPPLIER
E34	1	WARMER, FUDGE & SYRUP		SERVER PRODUCTS	82060	KITCHEN EQUIPMENT SUPPLIER
E35	1	6"x48" SS SHELF				KITCHEN EQUIPMENT SUPPLIER
E36	1	31.5 X 50 ENCLOSED WORKTABLE	INCLUDES CUP DISPENSER		CUSTOM	KITCHEN EQUIPMENT SUPPLIER
E37	2	TABLE, WORK; 24 X 48	WAFFLE CONE MAKER TABLE W/ BACKSPLASH, CASTERS, UNDERSHELF	EAGLE GROUP		KITCHEN EQUIPMENT SUPPLIER
E38	1	FREEZER, REACH-IN		BEVERAGE-AIR	HF1-1HS	KITCHEN EQUIPMENT SUPPLIER
E39	1	TABLE, WORK; 24 X 78	OPEN BASE - FRONT POS. PROVIDE 2 GROMMET HOLES	EAGLE GROUP	CUSTOM	KITCHEN EQUIPMENT SUPPLIER
E39A	1	TABLE, WORK; 24 X 78	OPEN BASE - FRONT POS. PROVIDE 1 GROMMET HOLE	EAGLE GROUP	CUSTOM	KITCHEN EQUIPMENT SUPPLIER
E41	1	COFFEE MAKER, POUROVER		BUNN	13300.0002	KITCHEN EQUIPMENT SUPPLIER
E43	3	HAND SINK	PROVIDE ADA UNDERSINK PIPE PROTECTION WRAP	EAGLE	HSA-10-F	KITCHEN EQUIPMENT SUPPLIER
E45	2	CUSTARD MACHINE SHELF		KEMLEE MFG	CMSHELF	CONCEPT SERVICES
E46	4	LOW TEMPERATURE CHEST CABINET		GLOBAL REFRIGERATION, INC.	2SF	CONCEPT SERVICES
E47L	1	L-SHAPED ICE CREAM TABLE	LEFT SIDED CUP HOLDERS	KEMLEE MFG		CONCEPT SERVICES
E47R	1	L-SHAPED ICE CREAM TABLE	RIGHT SIDED CUP HOLDERS	KEMLEE MFG		CONCEPT SERVICES
E48	1	TABLE, WORK; 30 X 36		EAGLE GROUP	T3036SE-BS	CONCEPT SERVICES
E49	1	LOW TEMPERATURE CHEST CABINET		GLOBAL REFRIGERATION, INC.	6DF	CONCEPT SERVICES
E51	2	WALK-IN FREEZER			CUSTOM	KITCHEN EQUIPMENT SUPPLIER
E66	1	TABLE, WORK; 24 X 48	TABLE	EAGLE GROUP	ST6R5-2448SSK	KITCHEN EQUIPMENT SUPPLIER
E67	1	SHELVING, WIRE; 14 X 48	GREEN; WALL SHELF, RAIL TOP	METRO		KITCHEN EQUIPMENT SUPPLIER
E68	1	SHELVING, WIRE; 24 X 36	GREEN EPOXY COATED, W/ S-CLIPS, CLIP TO E78	METRO	2436NK3	KITCHEN EQUIPMENT SUPPLIER
E69	4	SHELVING, WIRE; 24 X 42; 72" POSTS	GREEN EPOXY COATED, W/ CASTERS	METRO		KITCHEN EQUIPMENT SUPPLIER
E70	1	SHELVING, WIRE; 24 X 60, 72" POSTS	GREEN EPOXY COATED, W/ CASTERS	METRO	2460NK3	KITCHEN EQUIPMENT SUPPLIER
E71	1	SHELVING, WIRE; 24 X 36; 72" POSTS	GREEN EPOXY COATED, W/ CASTERS	METRO	2436NK3	KITCHEN EQUIPMENT SUPPLIER
E72	3	SHELVING, WIRE; 24 X 60 POSTS; 74"	W/ CASTERS	METRO	2460NC	KITCHEN EQUIPMENT SUPPLIER
E73	2	SHELVING, WIRE; 18 X 42 POSTS; 27"	2 TIER - POS	METRO	1824NC	KITCHEN EQUIPMENT SUPPLIER
E74	2	RACK, DUNNAGE; 20 X 60		EAGLE GROUP	CUSTOM	KITCHEN EQUIPMENT SUPPLIER
E75	2	RACK, DUNNAGE; 28 X 48	WALK-IN COOLER - CUSTOM, SOLID TOP	EAGLE GROUP	CUSTOM	KITCHEN EQUIPMENT SUPPLIER
E76	1	RACK, DUNNAGE; 24 X 36	WALK-IN COOLER - CUSTOM, SOLID TOP	EAGLE GROUP	CUSTOM	KITCHEN EQUIPMENT SUPPLIER
E78	2	SHELVING, WIRE; 18 X 60	GREEN EPOXY COATED	METRO	1860NK3	KITCHEN EQUIPMENT SUPPLIER
E79	1	SHELVING, WIRE; 18 X 24	W/ CASTERS & SOLID TOP SHELF - CUSTARD MACHINE	METRO	1824NC	KITCHEN EQUIPMENT SUPPLIER
E80	6	SHELVING, WIRE; 14 X 60	GREEN; WALL SHELF, RAIL TOP	METRO	1460NK3	KITCHEN EQUIPMENT SUPPLIER
E82	1	SHELVING, WIRE; 14 X 36	GREEN; WALL SHELF	METRO	1436NK3	KITCHEN EQUIPMENT SUPPLIER
E84	2	SHELVING, WIRE; 14 X 24	GREEN; WALL SHELF	METRO		KITCHEN EQUIPMENT SUPPLIER
E85	1	SHELVING, WIRE; 24 X 30	W/ CASTERS	METRO	2430NC	KITCHEN EQUIPMENT SUPPLIER
E86	1	UTILITY SHELF	WITH MOP HANGER	EAGLE GROUP	USO814-16/3	KITCHEN EQUIPMENT SUPPLIER
E88	1	WATER PRESSURE WASHER	WALL MOUNTED PER MANUFACTURER'S DETAIL AND MOUNTING ACCESSORIES. 3/4" SCHEDULE 80 GALVANIZED PIPING, RE: MEP	HOTSY	7143	OWNER
E89	1	SAFE	UNDER OFFICE DESK	CSS	B3121DM-SR2-S G4440	KITCHEN EQUIPMENT SUPPLIER

NOTES:

- 1) PROVIDE BOBRICK B-211 SOAP DISPENSER AND BOBRICK B-262 PAPER TOWEL DISPENSER (WALL MOUNT) AT EACH HAND SINK
- 2) REFERENCE KITCHEN DWGS FOR ADDITIONAL CLARIFICATIONS

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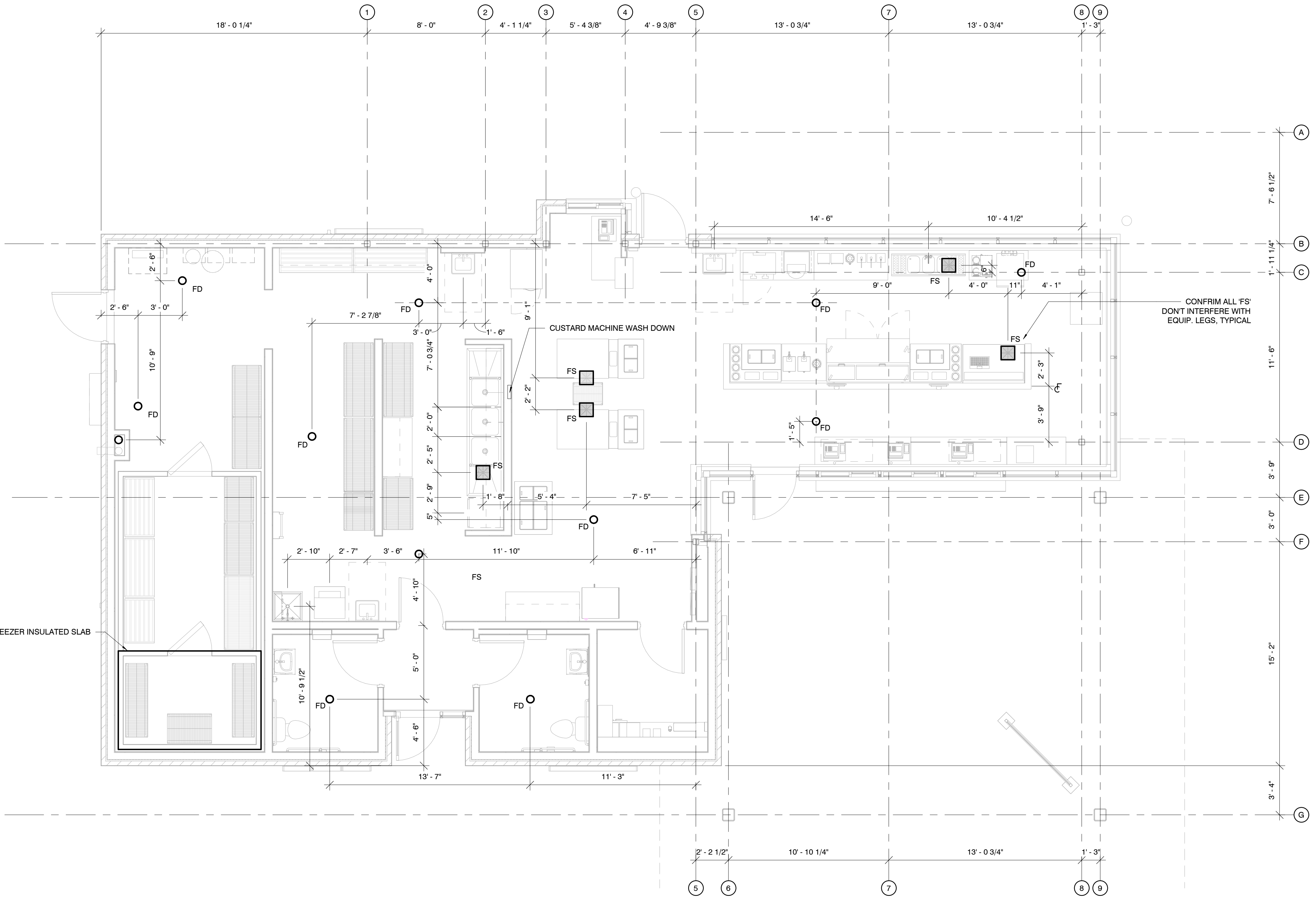


05/30/2024

Architect: JEFFREY KLOCH
License Number: A-2016005093
Drawn By: MS
Project Number: 736

DIMENSIONED PLUMBING PLAN

A103



1 DIMENSIONED PLUMBING PLAN
1/4" = 1'-0"

NOTE:
DIMENSIONS ARE FROM COLUMN GRID LINE TO CENTERLINE OF FIXTURE OR PLUMBING WALL. DIMENSIONS TO PLUMBING FIXTURES ARE PROVIDED FOR CONVENIENCE. CONTRACTOR RESPONSIBLE TO VERIFY LOCATIONS DURING ROUGH-IN. REFERENCE PLUMBING DRAWINGS AND EQUIPMENT DRAWINGS FOR ADDITIONAL CLARIFICATIONS.

LEGEND
FS = FLOOR SINK
FD = FLOOR DRAIN

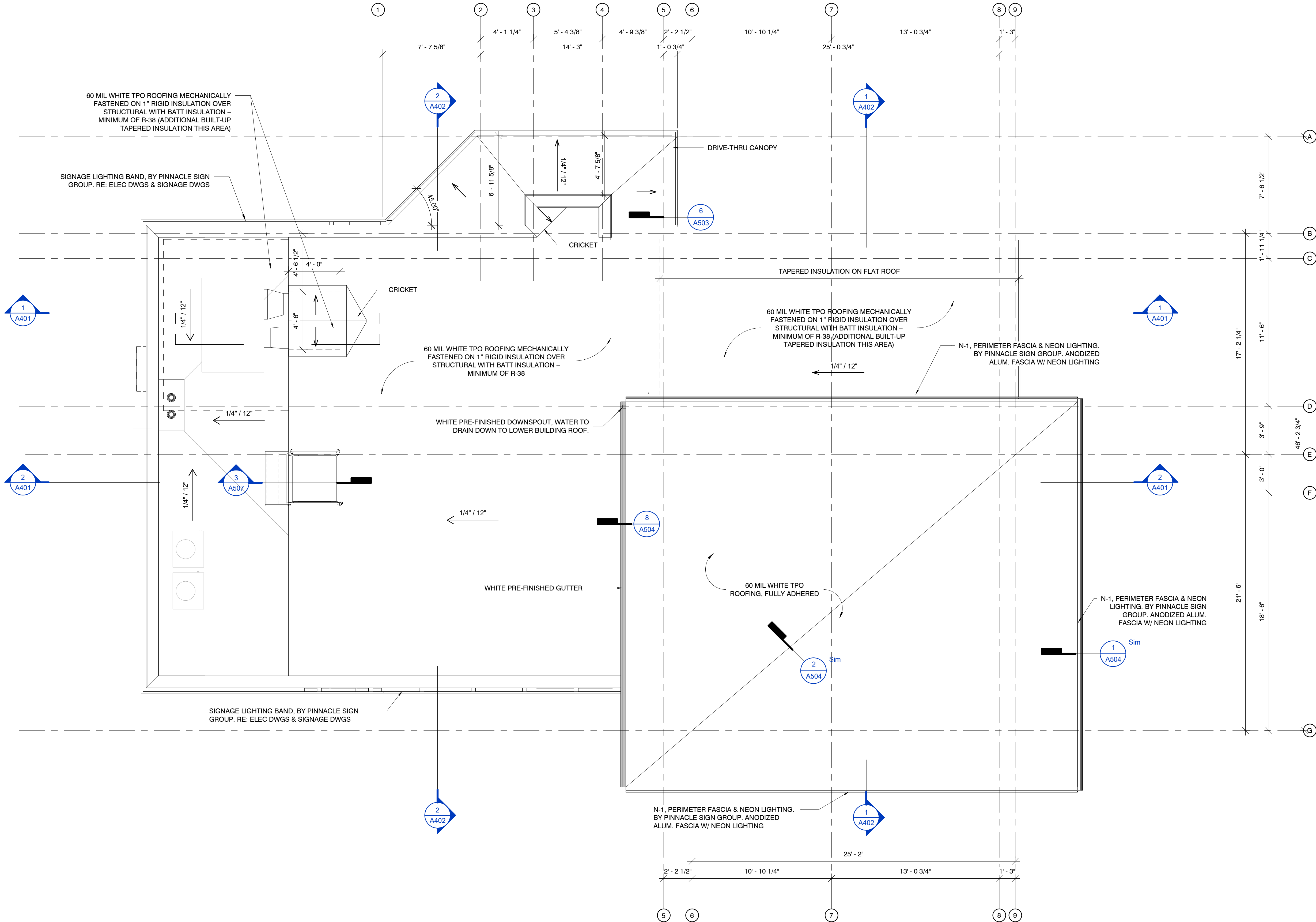


05/30/2024

Architect: JEFFREY KLOCH
License Number: A-2016005093
Drawn By: MS
Project Number: 739

ROOF PLAN

A104



1 ROOF PLAN
1/4" = 1'-0"



05/30/2024

Architect: JEFFREY KLOCH
License Number: A-2016005093
Drawn By: MS
Project Number: 739

REFLECTED CEILING PLAN

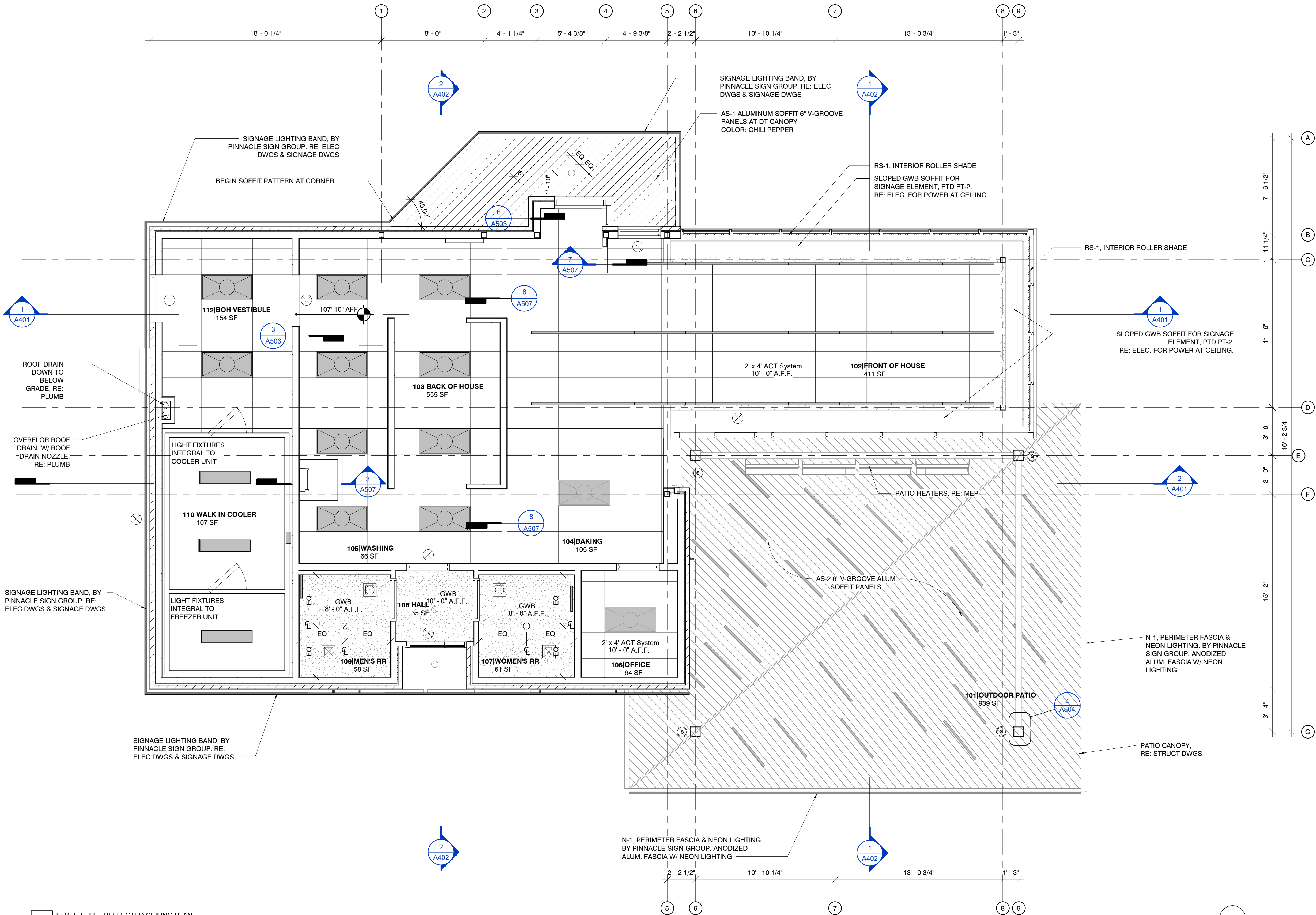
A105

NOTES:

- COORDINATE INSTALLATION OF SPEAKERS AND ACOUSTICS SYSTEM WITH OWNER AND AUDIO EQUIPMENT VENDOR.
- JIM KINKAIDE, SALES MANAGER
AUDIO ACOUSTICS, INC.
800 CEDARBROOK AVE.
SPRINGFIELD, MO 65802
TEL: 417-869-0770
FAX: 417-869-6568
- REFER TO E SERIES DRAWINGS FOR MORE SPECIFIC INFORMATION AND DETAILS
- REFER TO ELEC. DWGS FOR LIGHT FIXTURES
- ALL ACT CEILINGS REQUIRED TO MEET SEISMIC 'C' REQUIREMENTS.
- POWER SUPPLY/CONDUIT FROM BUILDING UP TO CANOPY TO BE LOCATED AT THE LOW END OF CANOPY AND HIDDEN, PAINTED PT-1.

RCP LEGEND

- | | |
|--|-----------------------|
| | 2X4 TROFFER |
| | LINEAR, SURFACE MOUNT |
| | LINEAR, SIGNAGE LED |
| | COOLER/FREEZER |
| | RR VANITY |
| | RECESSED CAN |
| | SCONCE |
| | EXIT LIGHT |
| | DIFFUSERS, RE: MECH |
| | DIFFUSERS, RE: MECH |
| | EXHAUST FAN, RE: MECH |
| | SPEAKER |



1 LEVEL 1 - FF - REFLECTED CEILING PLAN
1/4" = 1'-0"



05/30/2024

Architect: JEFFREY KLOCH
License Number: A-2016005093
Drawn By: MS
Project Number: 736

ELEVATIONS

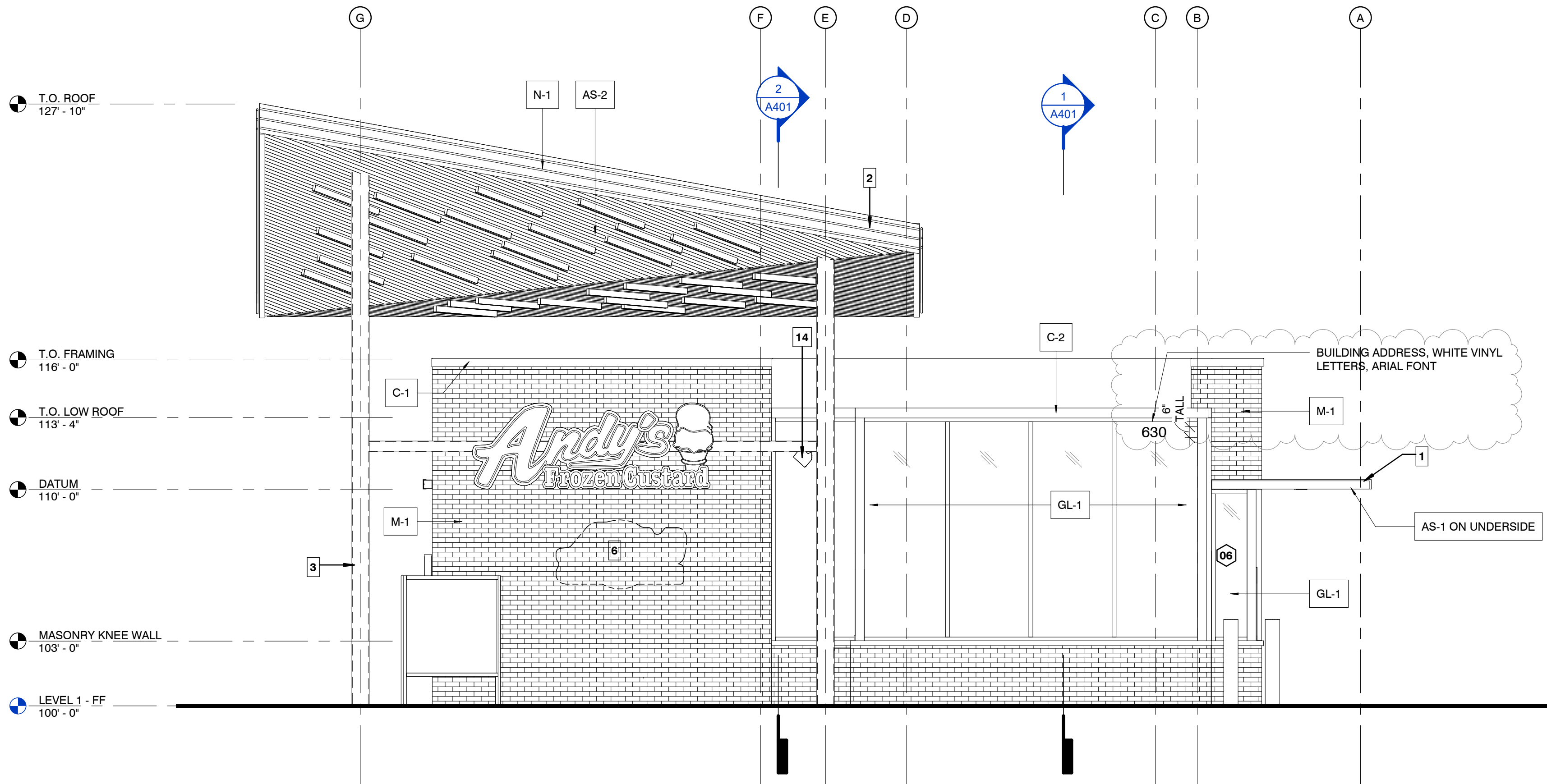
A301

ELEVATION KEYNOTES

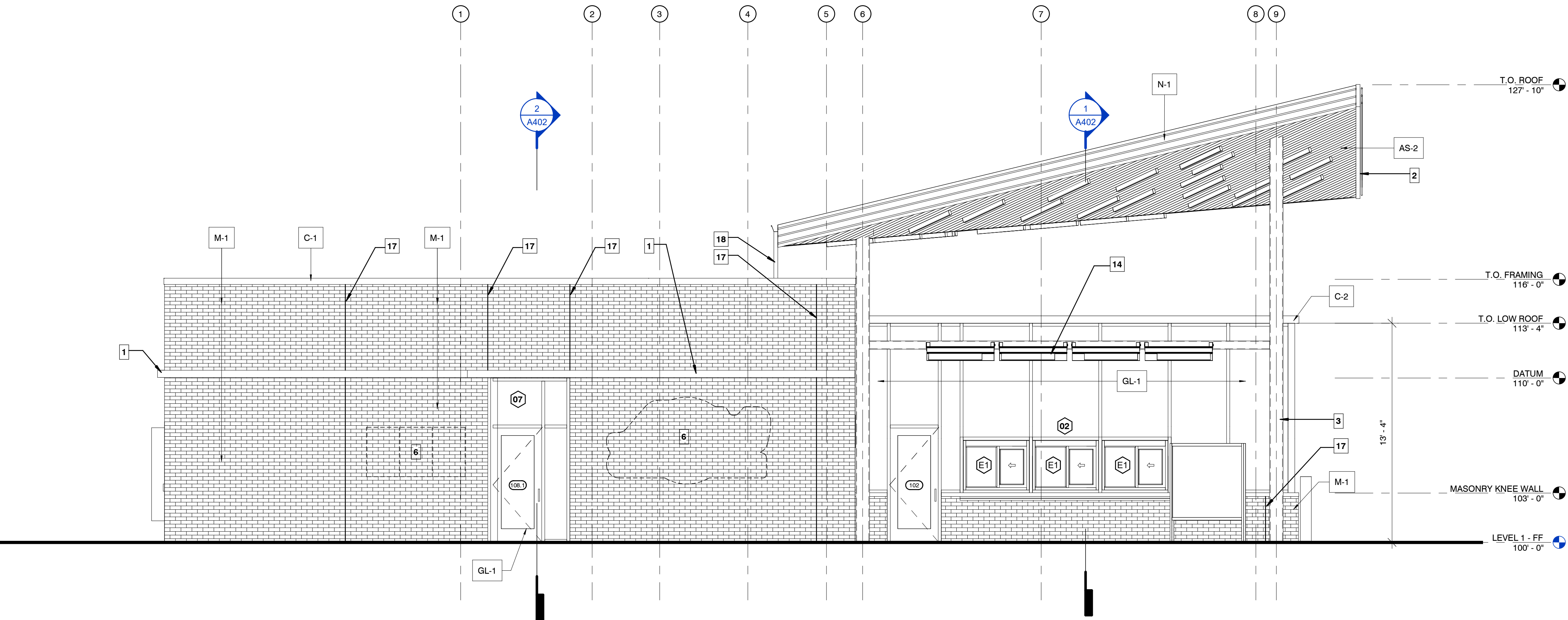
- DRIVE-THRU CANOPY & SIGNAGE LIGHTING BAND. SIGNAGE LIGHTING BAND PROVIDED BY PINNACLE SIGN GROUP
- PATIO CANOPY AND STRUCTURE. RE: STRUCT DWGS
- EXPOSED STRUCTURAL FRAMING TO BE PAINTED. PTD PT-1
- HM DOOR PTD. TO MATCH MASONRY WALL
- BUILDING SIGNAGE. RE: ELEC. DWGS & SIGNAGE DWGS. ALL SIGNAGE PROVIDED BY PINNACLE SIGN GROUP
- FULLY AUTOMATIC DRIVE-THRU WINDOW. RE: ELEC DWGS
- ELECTRICAL EQUIP., PAINTED TO MATCH M-1 (RE: MANUF. SPECIFICATIONS). RE: MEP DWGS
- EMERGENCY LIGHT FIXTURE
- DOOR CHIME
- WALL HYDRANT. RE: PLUMB. DWGS
- EXTERIOR HEATER MOUNTED TO STEEL FRAME. RE: MEP
- 60 MIL WHITE TPO ROOFING, FULLY ADHERED
- KEYNOTE NOT USED
- MASONRY CONTROL JOINT
- PRE-FINISHED GUTTER & DOWNSPOUT. DRAIN DOWN TO LOWER BUILDING ROOF. COORDINATE FASCIA W/ PINNACLE SIGN GROUP

EXTERIOR FINISH SCHEDULE

#	DESCRIPTION
AS-1	PATIO CANOPY MATERIAL: 6" V-GROOVE EXTRUDED ALUM SOFFIT PANELS COLOR: CHILI PEPPER
AS-2	PATIO CANOPY MATERIAL: 6" V-GROOVE EXTRUDED ALUM SOFFIT PANELS COLOR: BONE WHITE
C-1	COPING/ROOF EDGE TYPE 1: PRE-FINISHED ALUMINUM CAP AND SILL FLASHING AT MASONRY VENEER AND , TYP. COLOR: MATCH MASONRY COLOR
C-2	COPING/ROOF EDGE TYPE 2: ANNODIZED ALUMINUM CAP AND SILL FLASHING AT STOREFRONT, TYP. COLOR: MATCH STOREFRONT FRAMING
GL-1	GLAZING TYPE 1: STOREFRONT, KAWNEER 451T COLOR: CLEAR ANODIZED
M-1	MASONRY TYPE 1: GLEN GERY MODULAR BRICK COLOR: EBONITE VELOUR GROUT: TO MATCH BRICK
N-1	PERIMETER FASCIA & SHIELDED LED LIGHTING: BY PINNACLE SIGN GROUP ANODIZED ALUM. FASCIA W/ SHIELDED LED LIGHTING
VF-1	VINYL FILM: WHITE VINYL FILM ON INSIDE FACE OF GLASS



2 SOUTH ELEVATION
1/4" = 1'-0"



1 WEST ELEVATION
1/4" = 1'-0"

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05/30/2024

Architect: JEFFREY KLOCH
License Number: A-2016005093
Drawn By: MS
Project Number: 736

ELEVATIONS

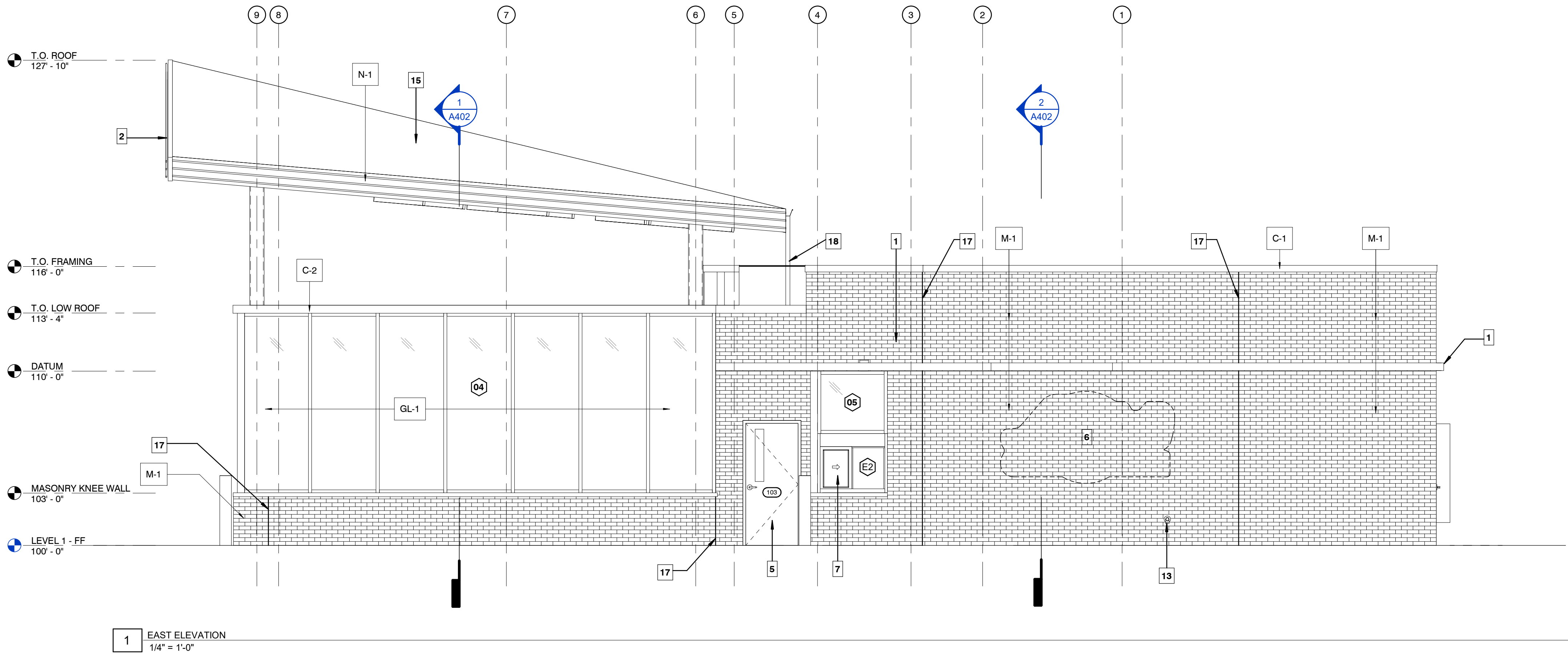
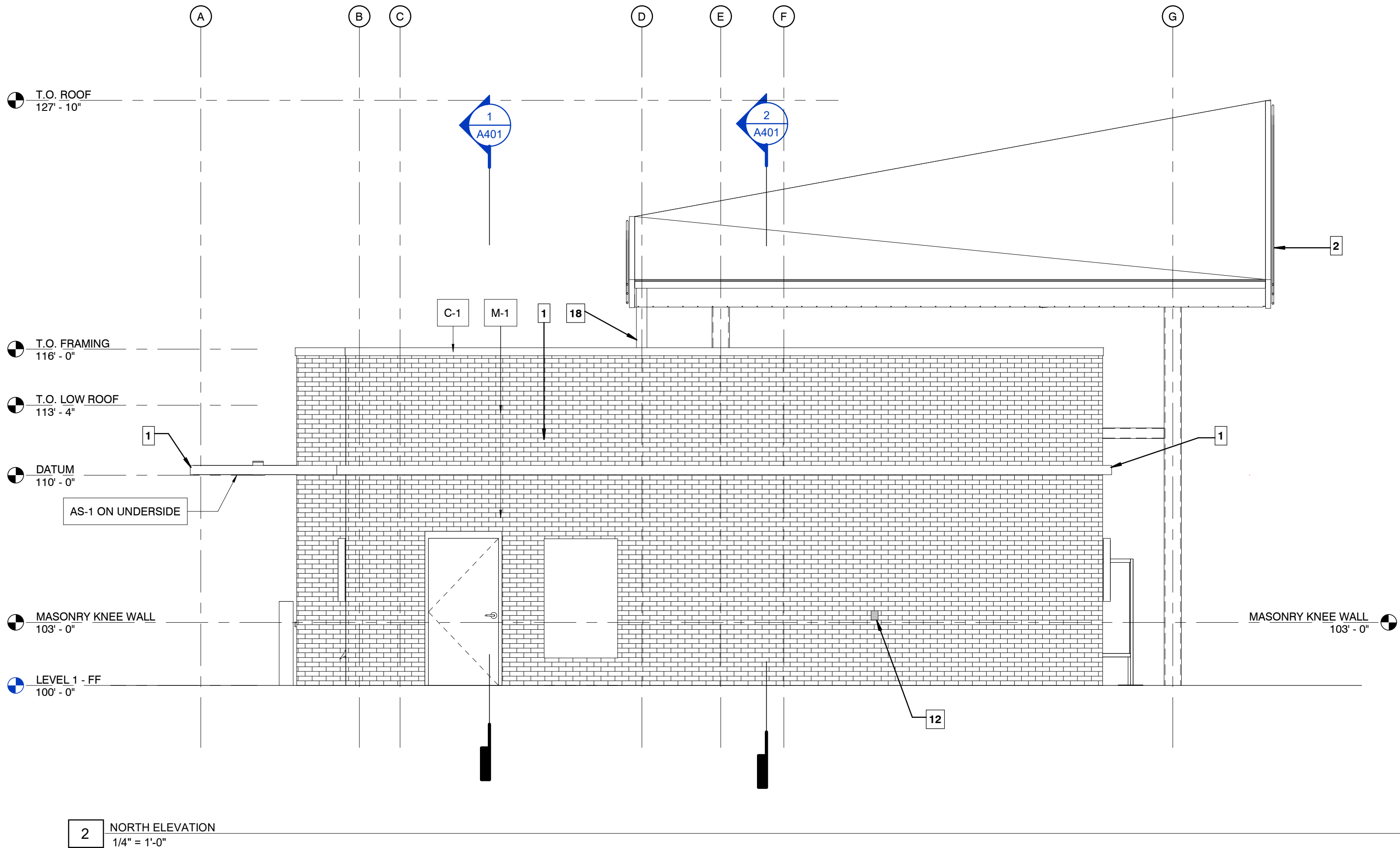
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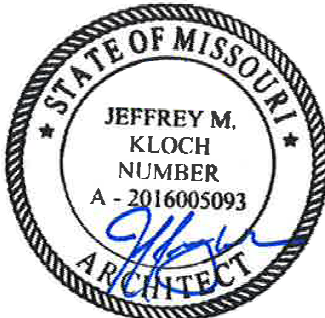
ELEVATION KEYNOTES

- 1 DRIVE-THRU CANOPY & SIGNAGE LIGHTING BAND. SIGNAGE LIGHTING BAND PROVIDED BY PINNACLE SIGN GROUP
- 2 PATIO CANOPY AND STRUCTURE. RE: STRUCT DWGS
- 3 EXPOSED STRUCTURAL FRAMING TO BE PAINTED. PTD PT-1
- 5 HM DOOR PTD. TO MATCH MASONRY WALL
- 6 BUILDING SIGNAGE. RE: ELEC. DWGS & SIGNAGE DWGS. ALL SIGNAGE PROVIDED BY PINNACLE SIGN GROUP
- 7 FULLY AUTOMATIC DRIVE-THRU WINDOW. RE: ELEC DWGS
- 8 ELECTRICAL EQUIP., PAINTED TO MATCH M-1 (RE: MANUF. SPECIFICATIONS). RE: MEP DWGS
- 11 EMERGENCY LIGHT FIXTURE
- 12 DOOR CHIME
- 13 WALL HYDRANT. RE: PLUMB. DWGS
- 14 EXTERIOR HEATER MOUNTED TO STEEL FRAME. RE: MEP
- 15 60 MIL WHITE TPO ROOFING, FULLY ADHERED
- 16 KEYNOTE NOT USED
- 17 MASONRY CONTROL JOINT
- 18 PRE-FINISHED GUTTER & DOWNSPOUT. DRAIN DOWN TO LOWER BUILDING ROOF. COORDINATE FASCIA W/ PINNACLE SIGN GROUP

EXTERIOR FINISH SCHEDULE

#	DESCRIPTION
AS-1	PATIO CANOPY MATERIAL: 6" V-GROOVE EXTRUDED ALUM SOFFIT PANELS COLOR: CHILI PEPPER
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C-2	COPING/ROOF EDGE TYPE 2: ANNOIDIZED ALUMINUM CAP AND SILL FLASHING AT STOREFRONT. TYP. COLOR: MATCH STOREFRONT FRAMING
GL-1	GLAZING TYPE 1: STOREFRONT. KAWNEER 451T COLOR: CLEAR ANODIZED
M-1	MASONRY TYPE 1: GLEN GERY MODULAR BRICK COLOR: EBONITE VELOUR GROUT: TO MATCH BRICK
N-1	PERIMETER FASCIA & SHIELDED LED LIGHTING: BY PINNACLE SIGN GROUP ANODIZED ALUM. FASCIA W/ SHIELDED LED LIGHTING
VF-1	VINYL FILM: WHITE VINYL FILM ON INSIDE FACE OF GLASS



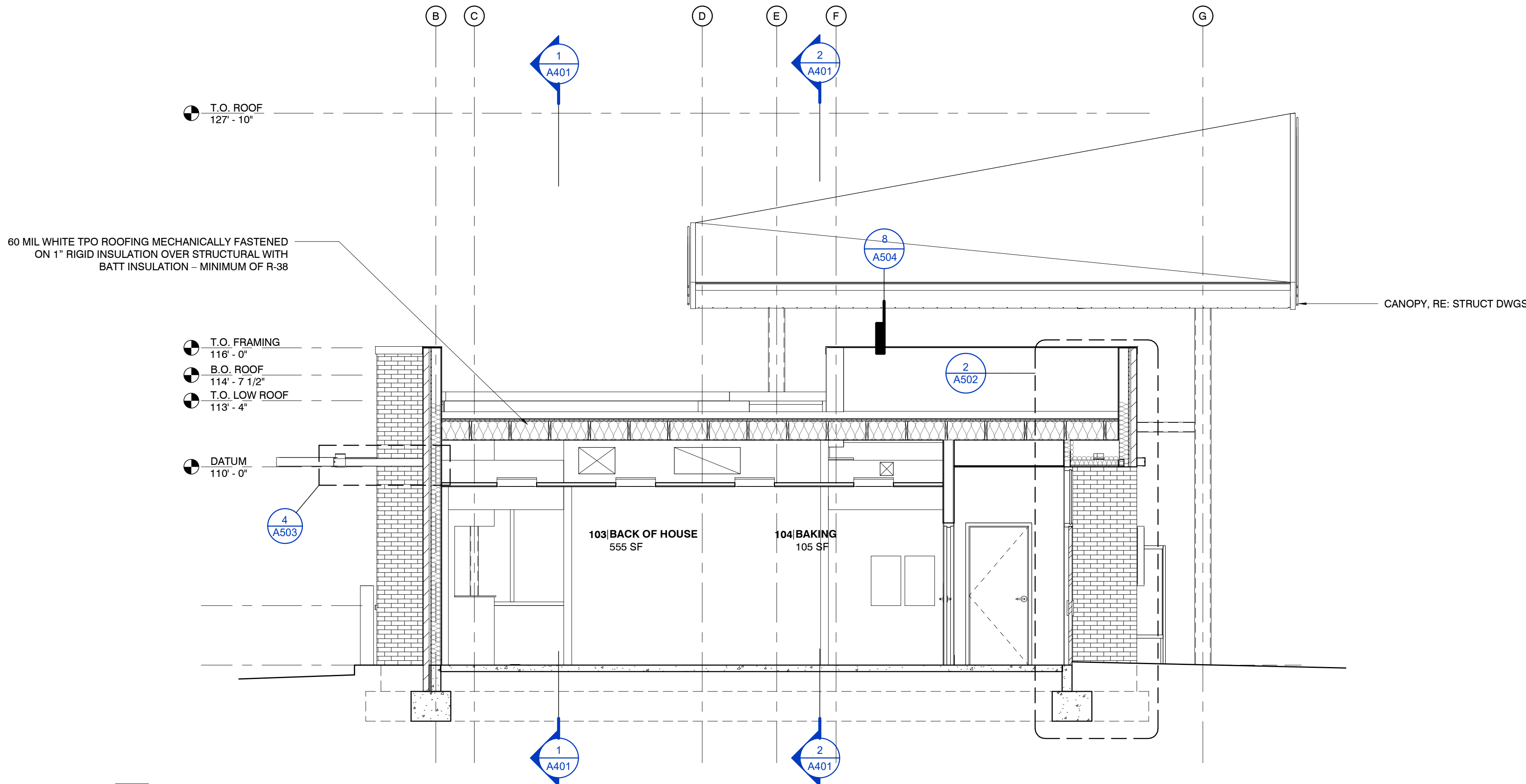


05/30/2024

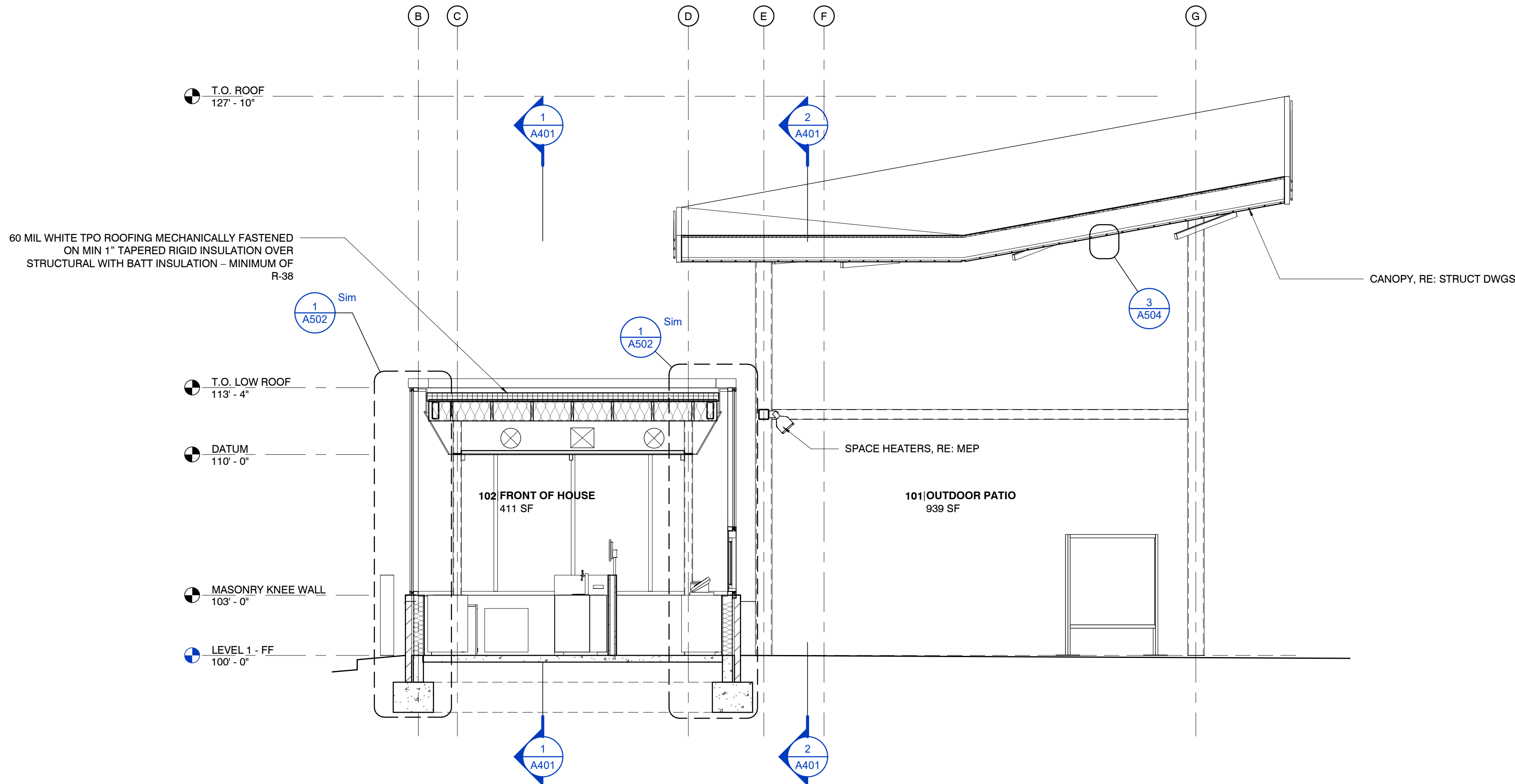
Architect: JEFFREY KLOCH
License Number: A-2016005093
Drawn By: MS
Project Number: 736

SECTIONS

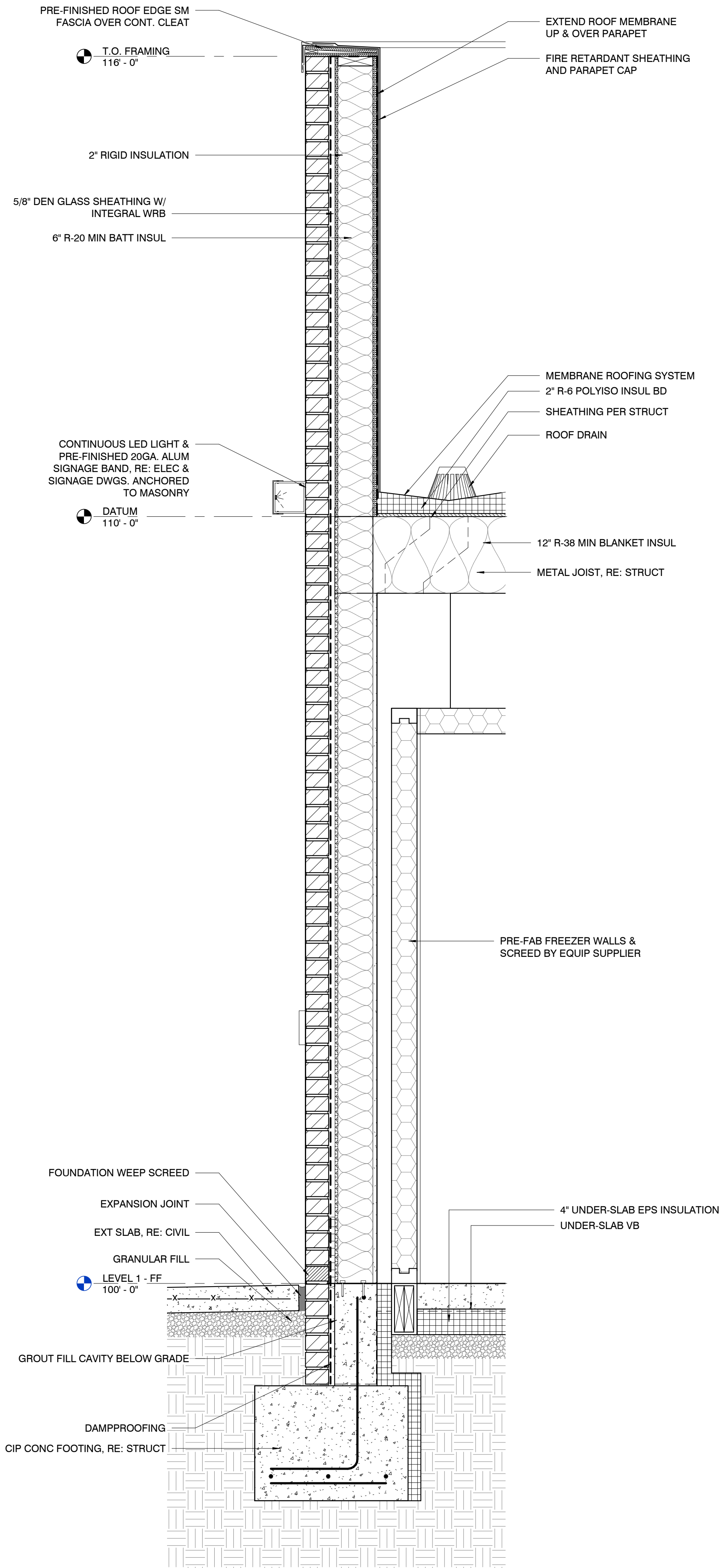
A402



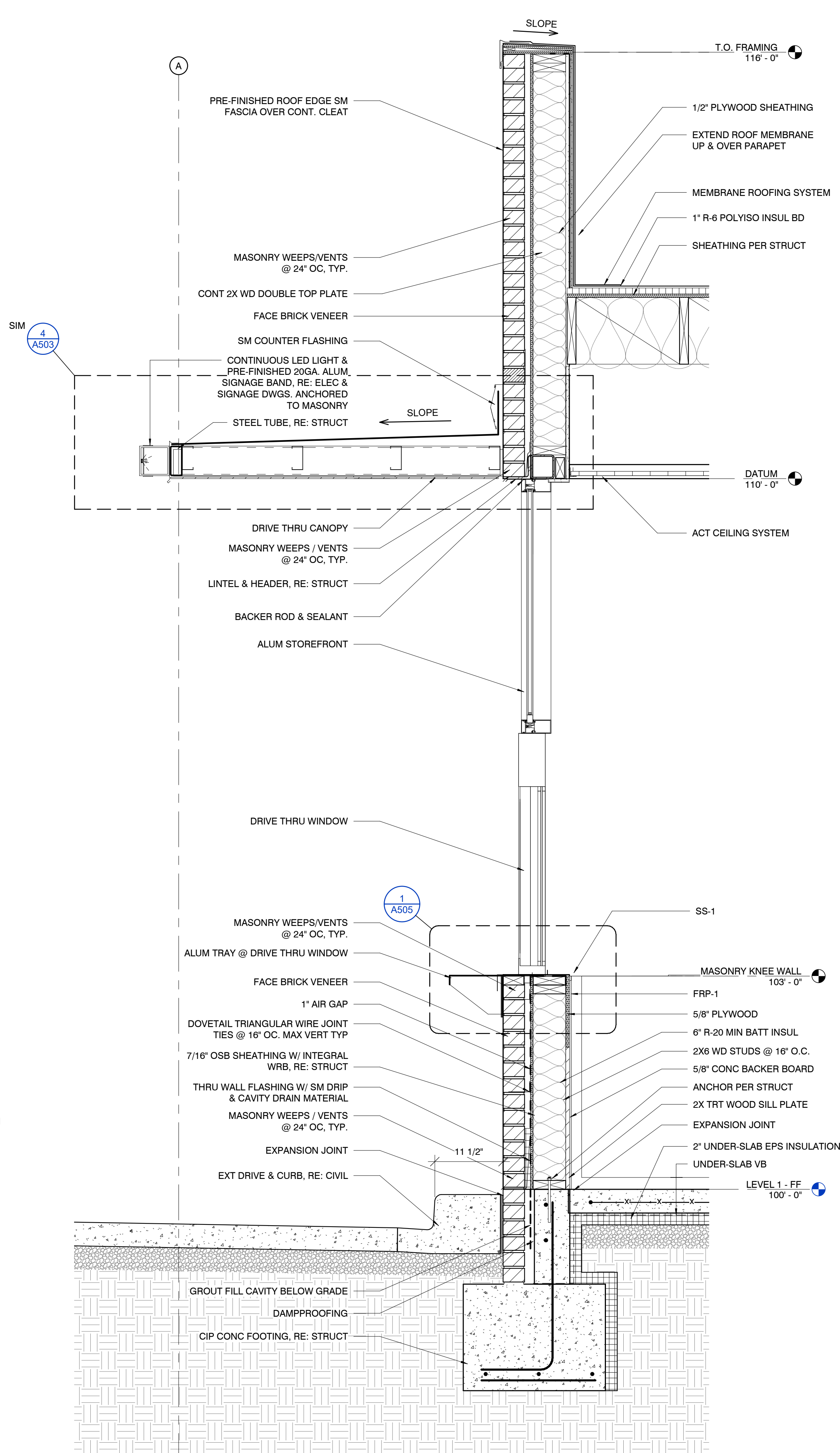
2 BUILDING SECTION
1/4" = 1'-0"



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



2 WALL SECTION - MECHANICAL AREA WALL
1" = 1'-0"



1 WALL SECTION - DRIVE THRU WINDOW
1" = 1'-0"

Hufft

PROJECT INFORMATION:
Andy's Frozen Custard #204

630 NW Chipman Road
Lee's Summit, Missouri 64086
OWNER:
ANDY'S FROZEN CUSTARD
211 E. Water Street
Springfield, MO 65806
www.eastandys.com

ARCHITECT:
HUFFT
3612 Karnes Boulevard
Kansas City, MO 64111
P: 816-531-0200
www.hufft.com

STRUCTURAL:
METTEMMEYER ENGINEERING, LLC
2225 W. Chesterfield Blvd., Suite 300
Springfield, MO 65807
P: 417-881-5102

CIVIL/LANDSCAPE:
PHELPS ENGINEERING, INC.
1270 N. Winchester
Olathe, Kansas 66061
P: 913.538.5821

MEP:
RTM ENGINEERING CONSULTANTS
3333 E. Battlefield Road, Suite 1000
Springfield, MO 65804
P: 417-881-0200

ISSUE:
CONSTRUCTION DOCUMENTS
05/01/2024

REVISION SCHEDULE:
NO. DATE ISSUE

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05/30/2024

Architect: JEFFREY KLOCH
License Number: A-2016005093
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Project Number: 736

WALL SECTIONS

A501

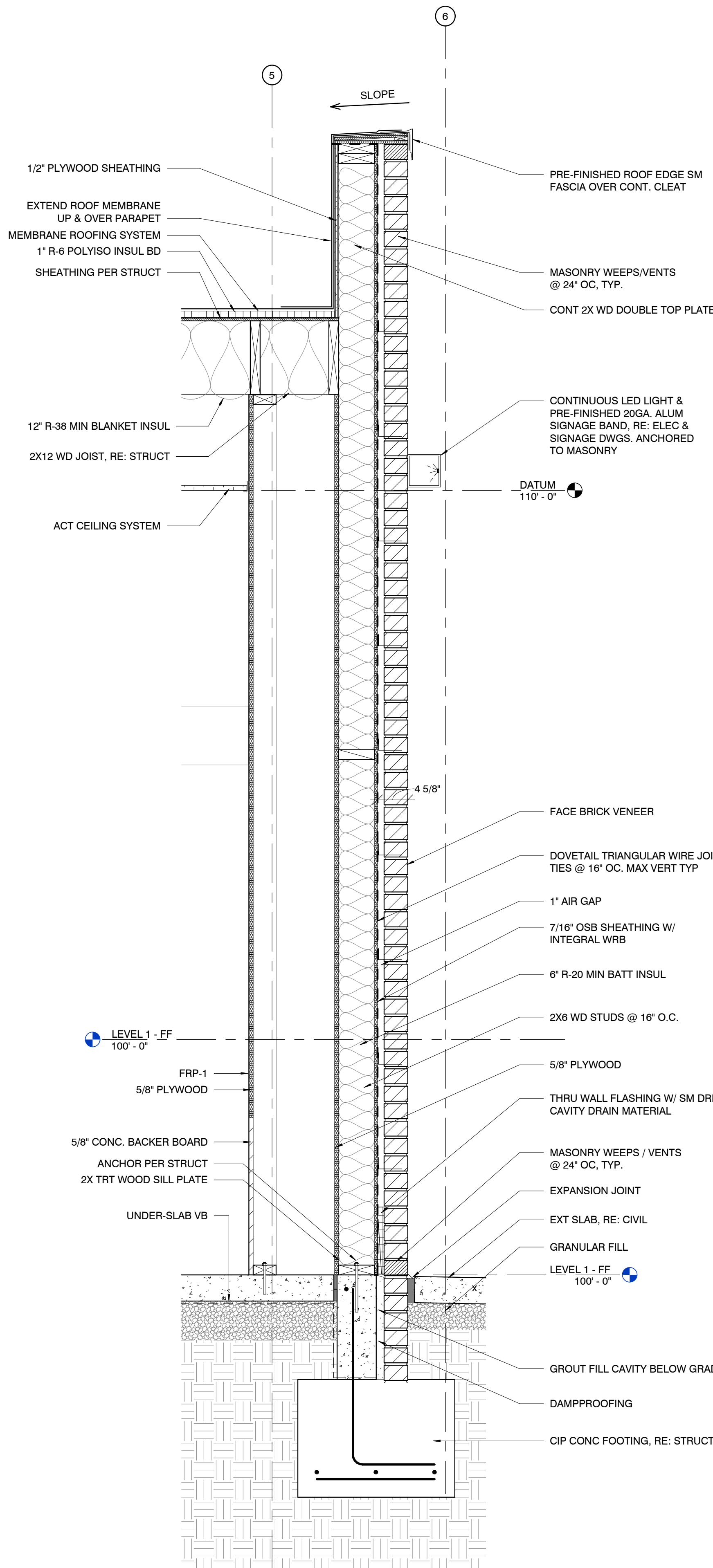


05/30/2024

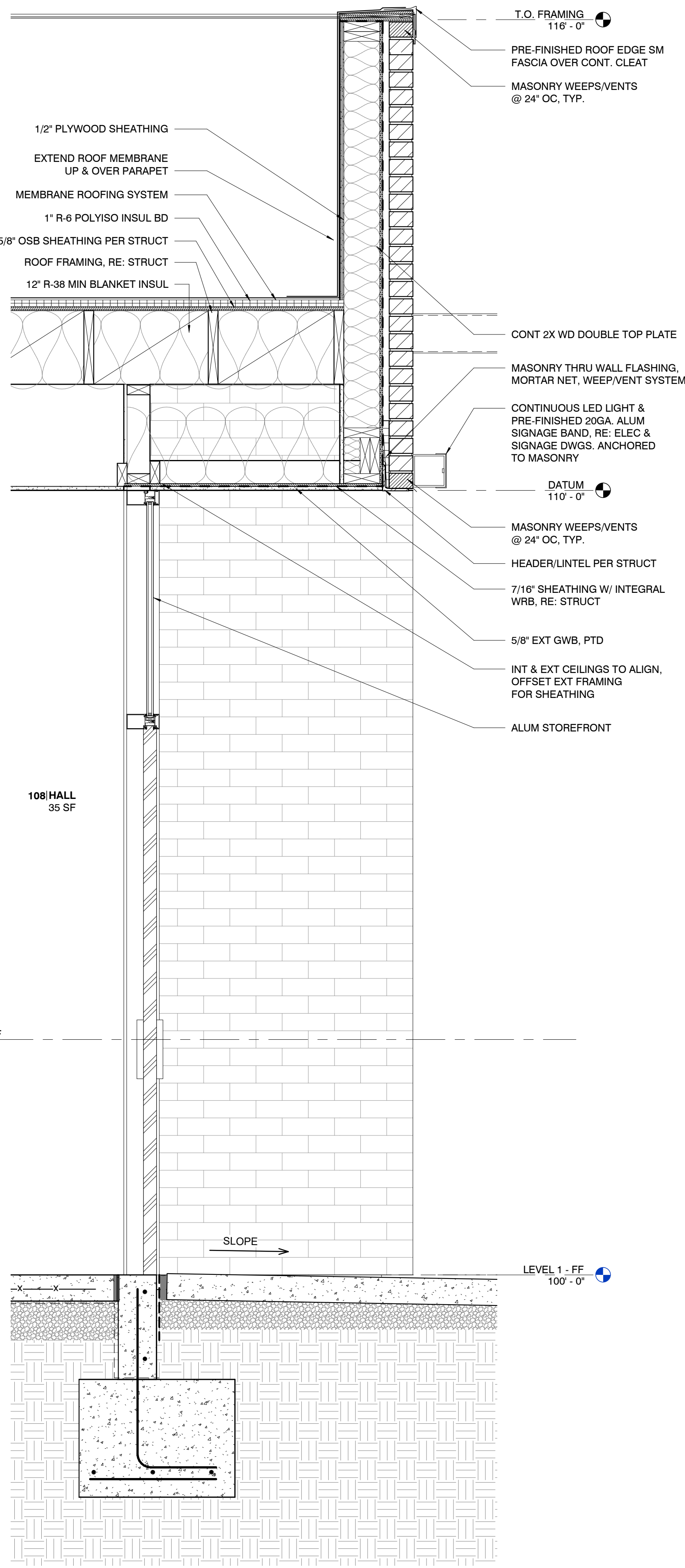
Architect: JEFFREY KLOCH
License Number: A-2016005093
Drawn By: MS
Project Number: 736

WALL SECTIONS

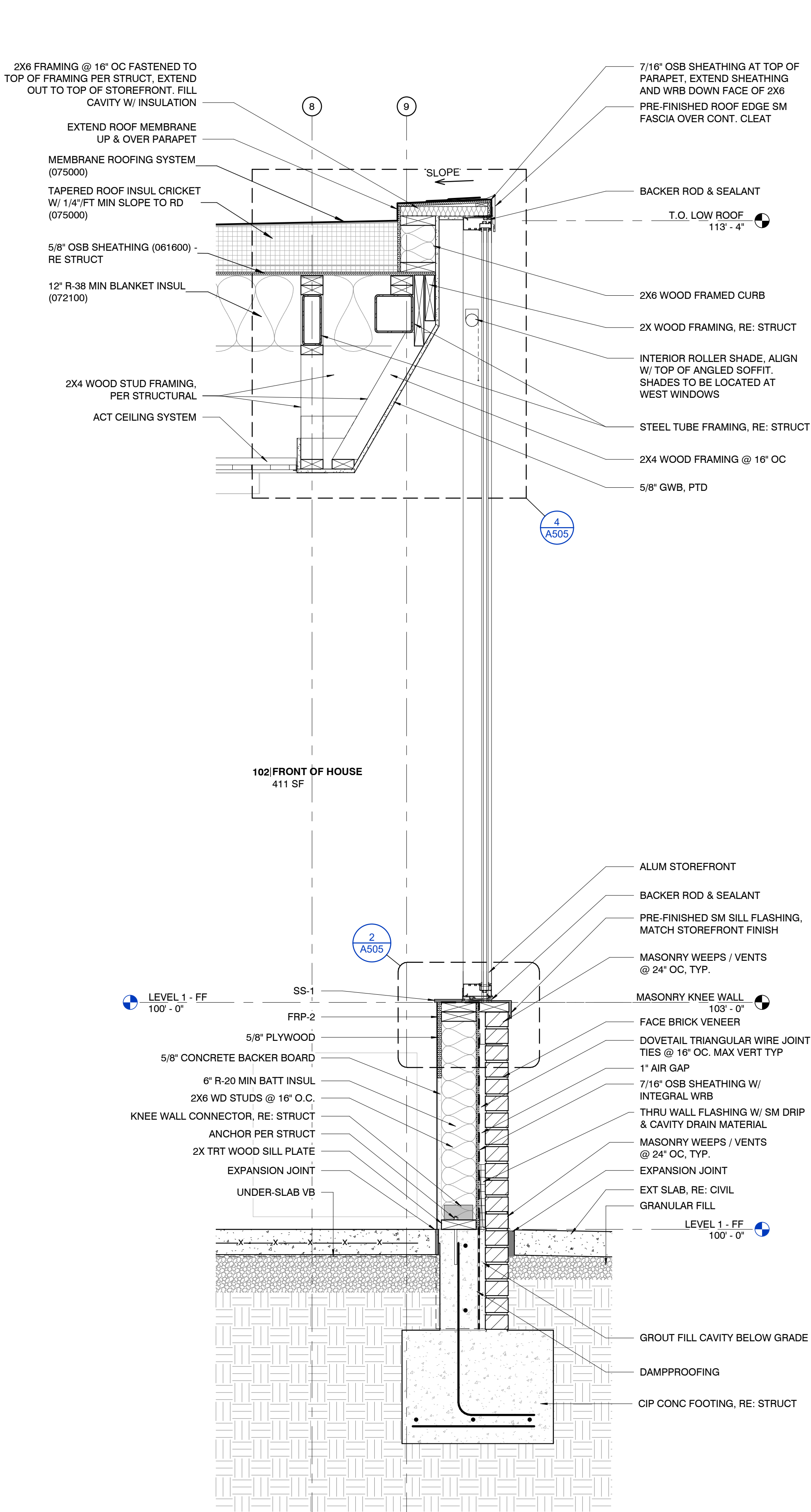
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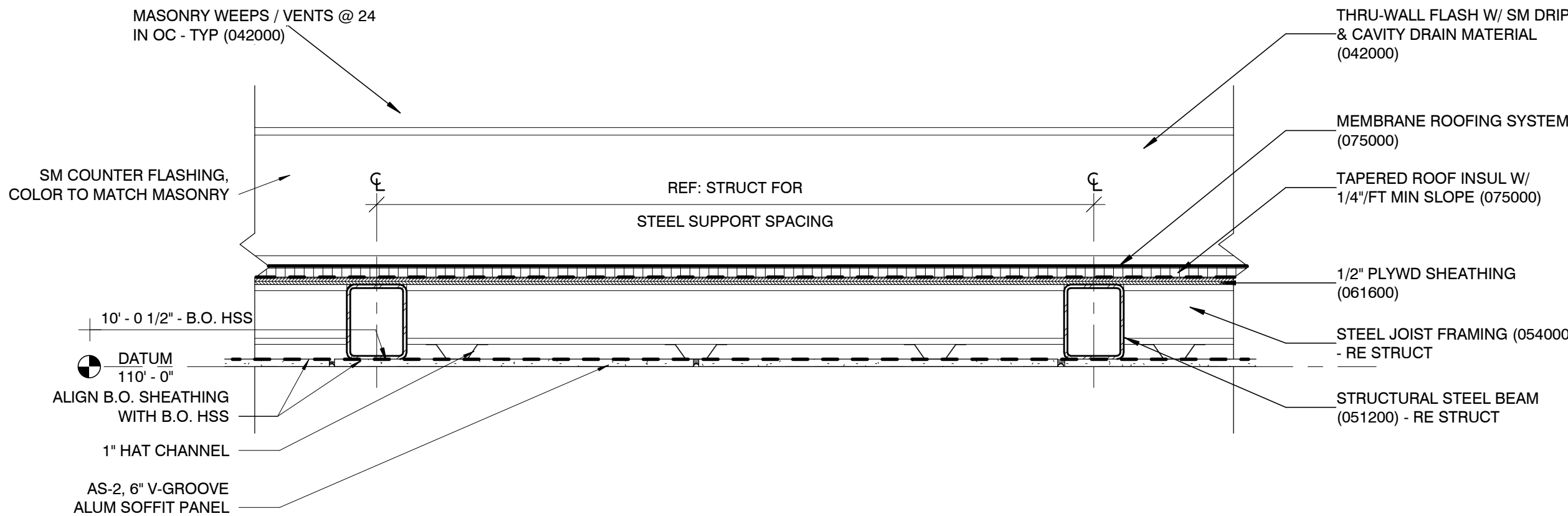
3 WALL SECTION - MASONRY WALL
1" = 1'-0"



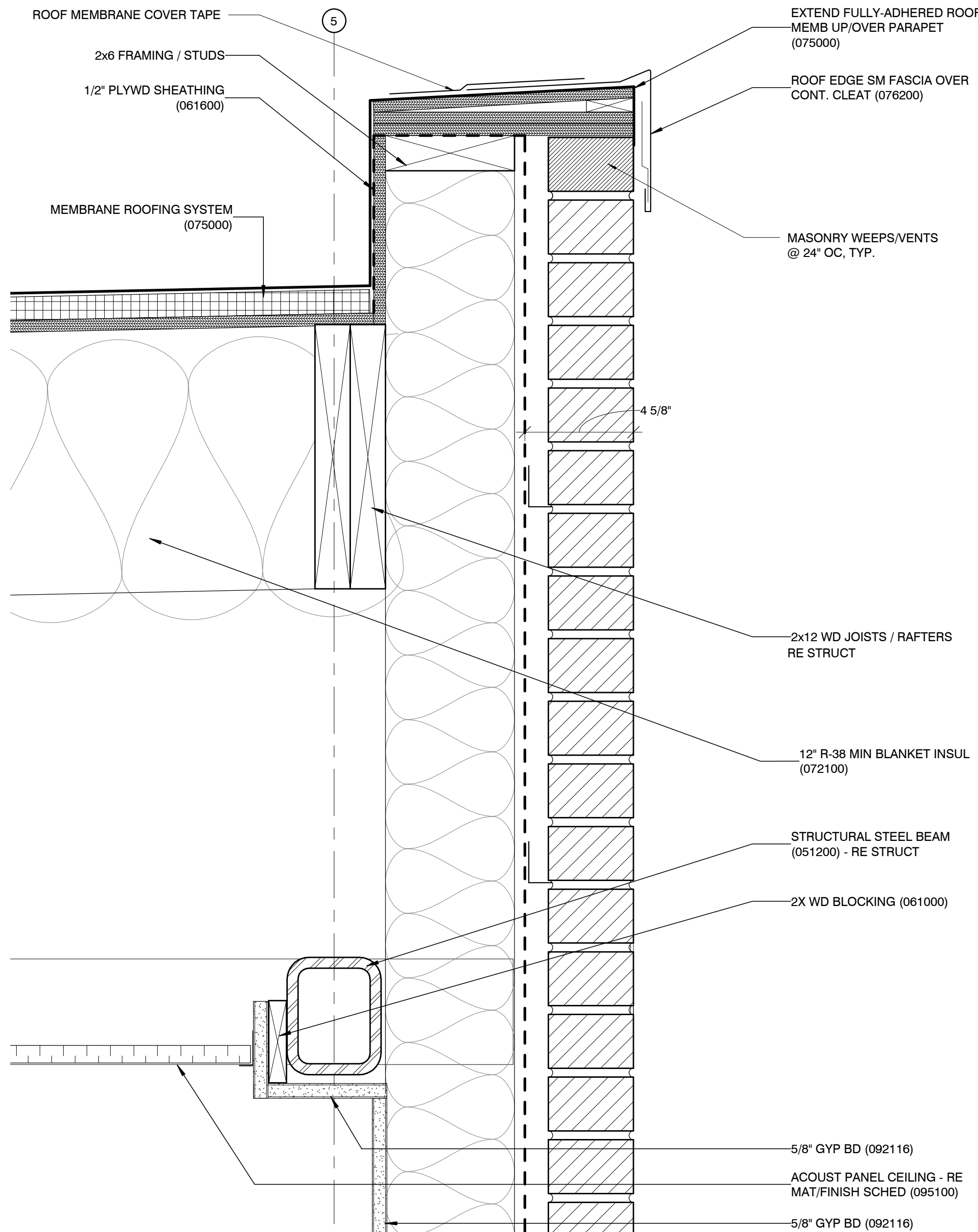
2 WALL SECTION - RECESSED ENTRY
1" = 1'-0"



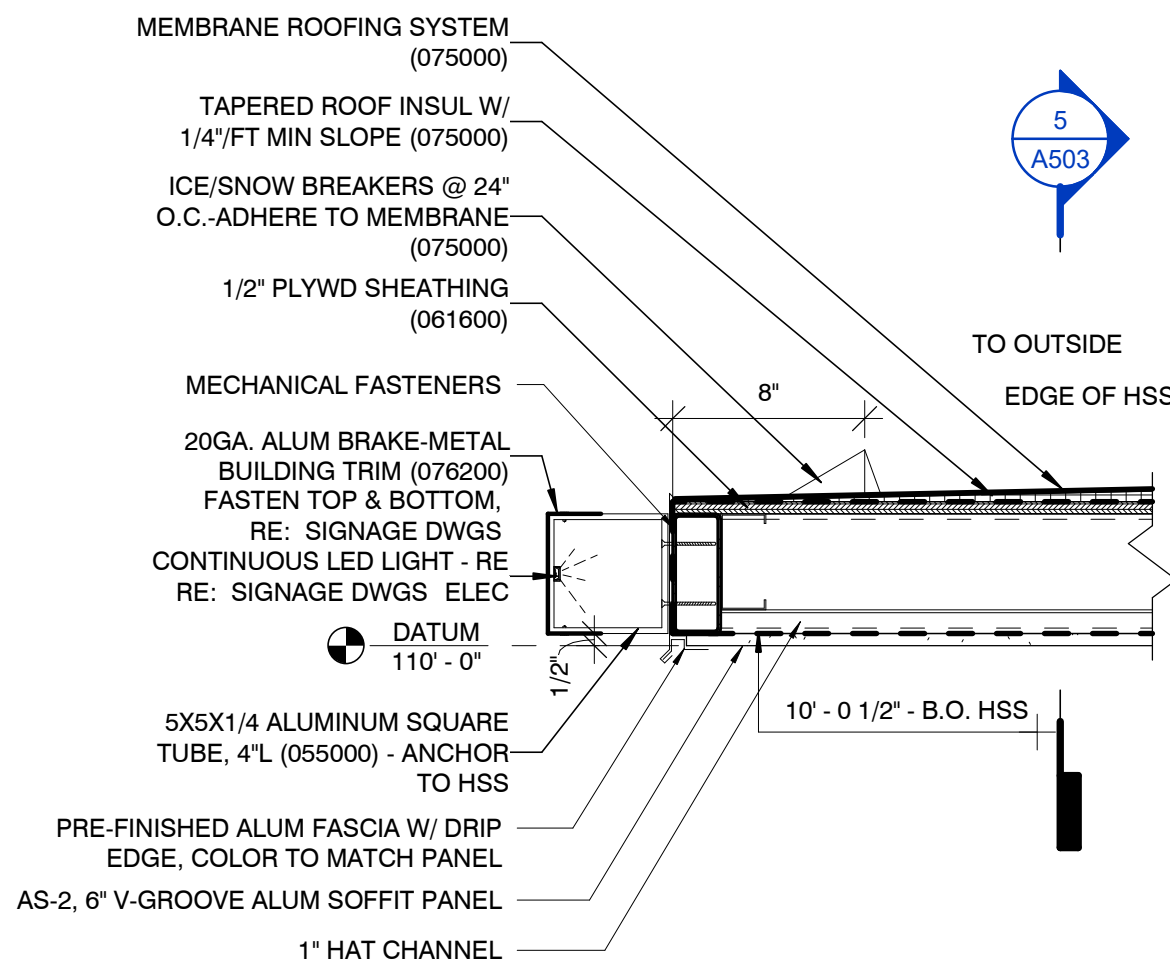
1 WALL SECTION - STOREFRONT @ MASONRY KNEE WALL
1" = 1'-0"



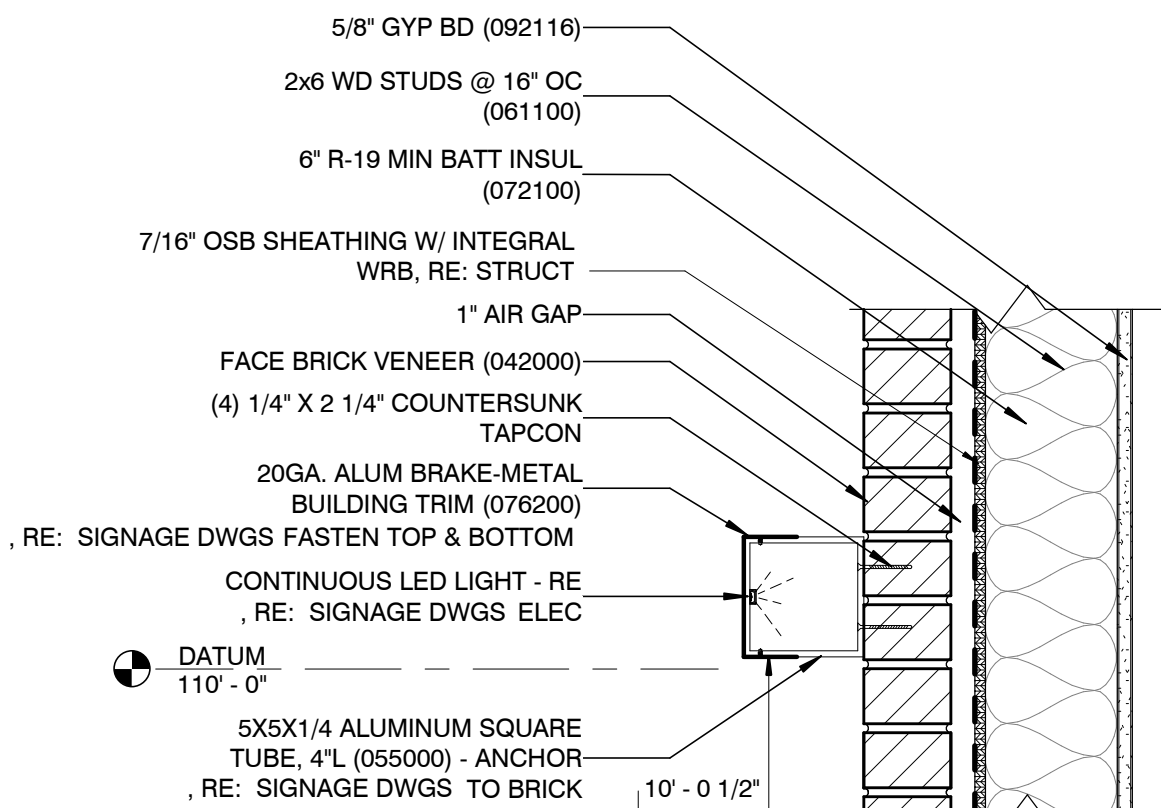
5 DETAIL - CANTILEVER CANOPY TRANSVERSE
1 1/2" = 1'-0"



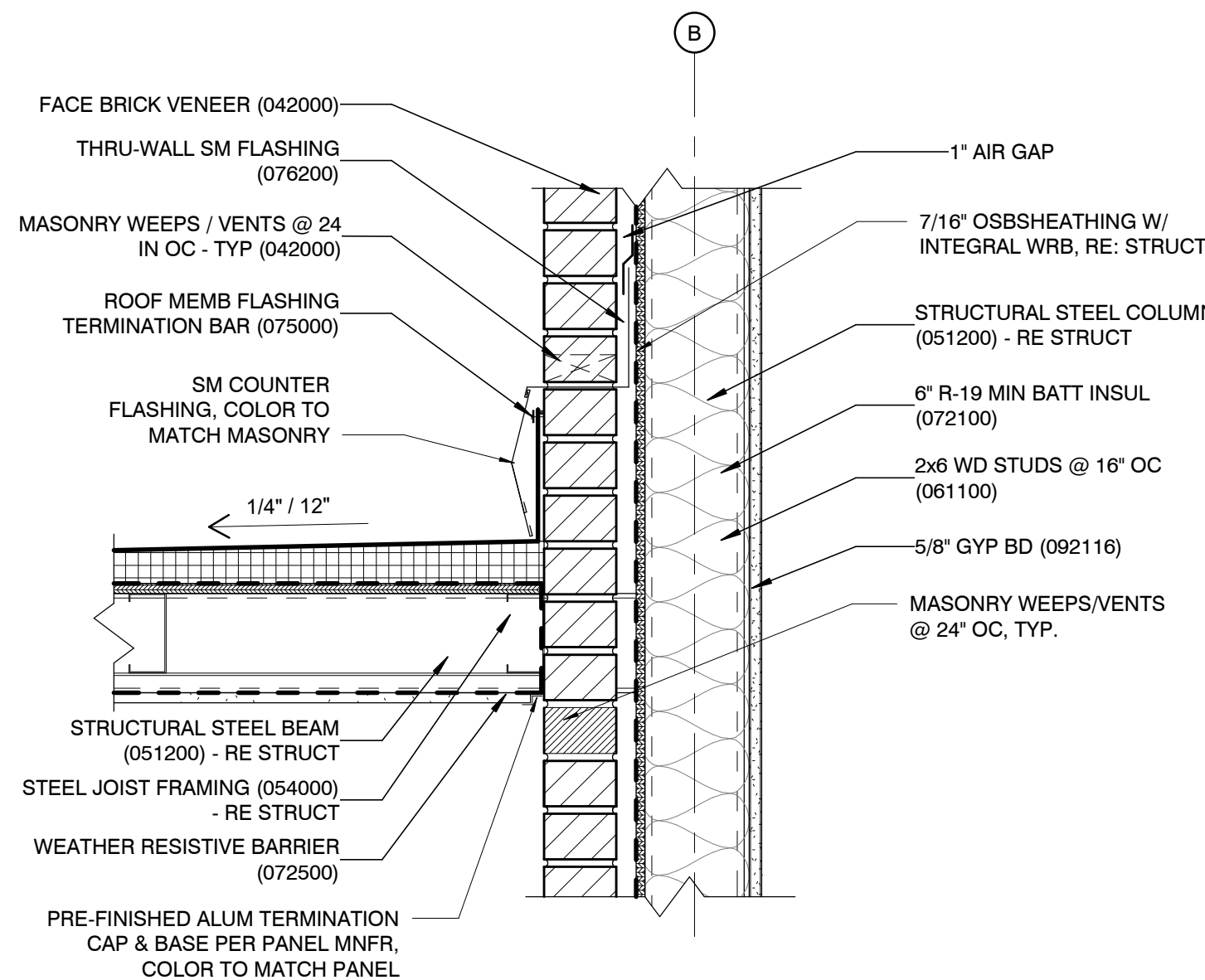
6 DRIVE THRU CANOPY STEEL @ MASONRY WALL
3" = 1'-0"



4 DETAIL - CANTILEVER CANOPY - DRIVE THRU
1 1/2" = 1'-0"



2 DETAIL - LIGHT BAND
1 1/2" = 1'-0"

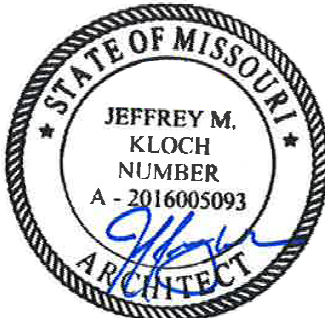


1 AXON - SIGNAGE / LIGHT BAND

NOTE: COORDINATE SIGNAGE BAND DETAILING WITH PINNACLE SIGN GROUP

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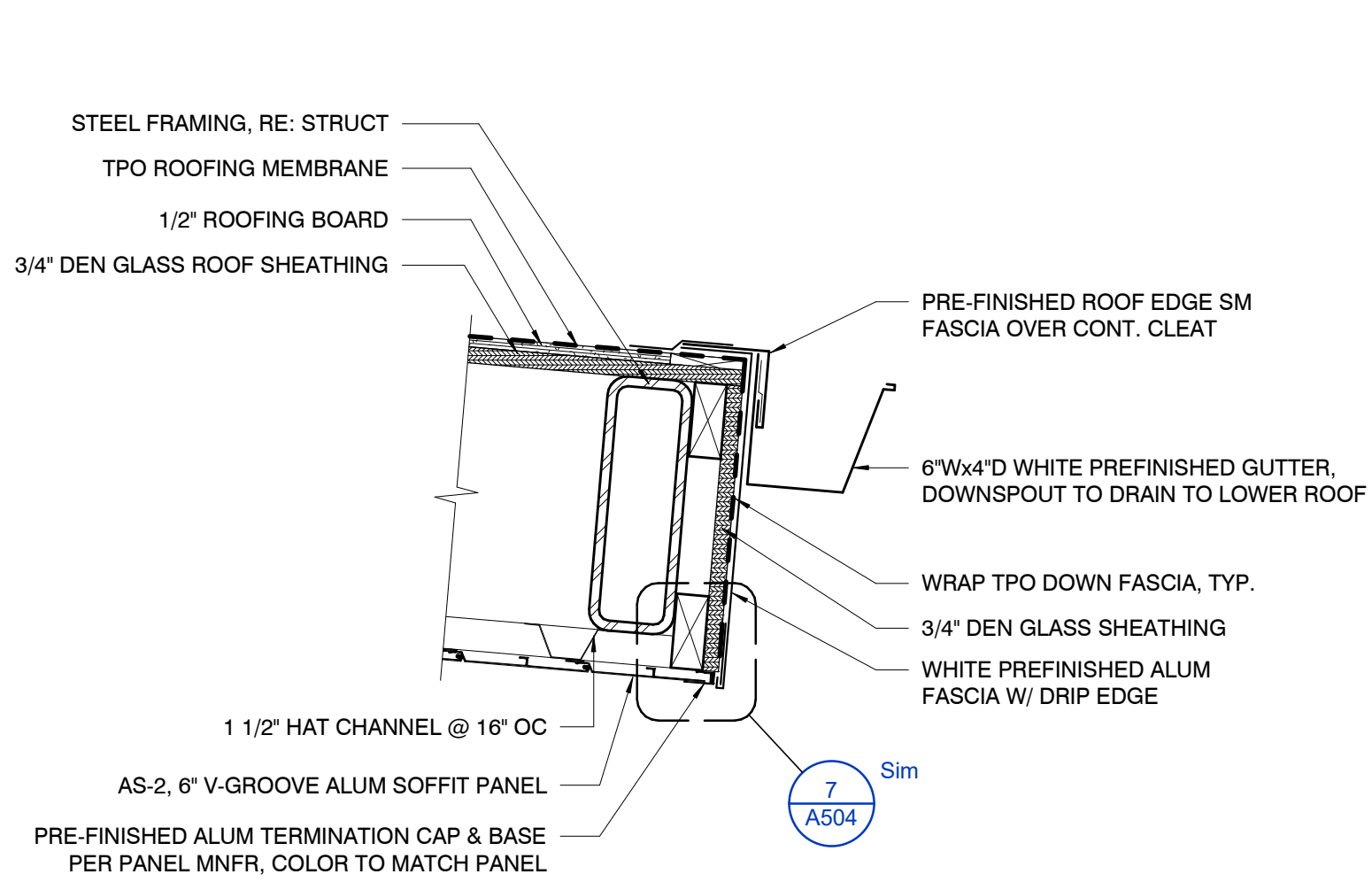


05/30/2024

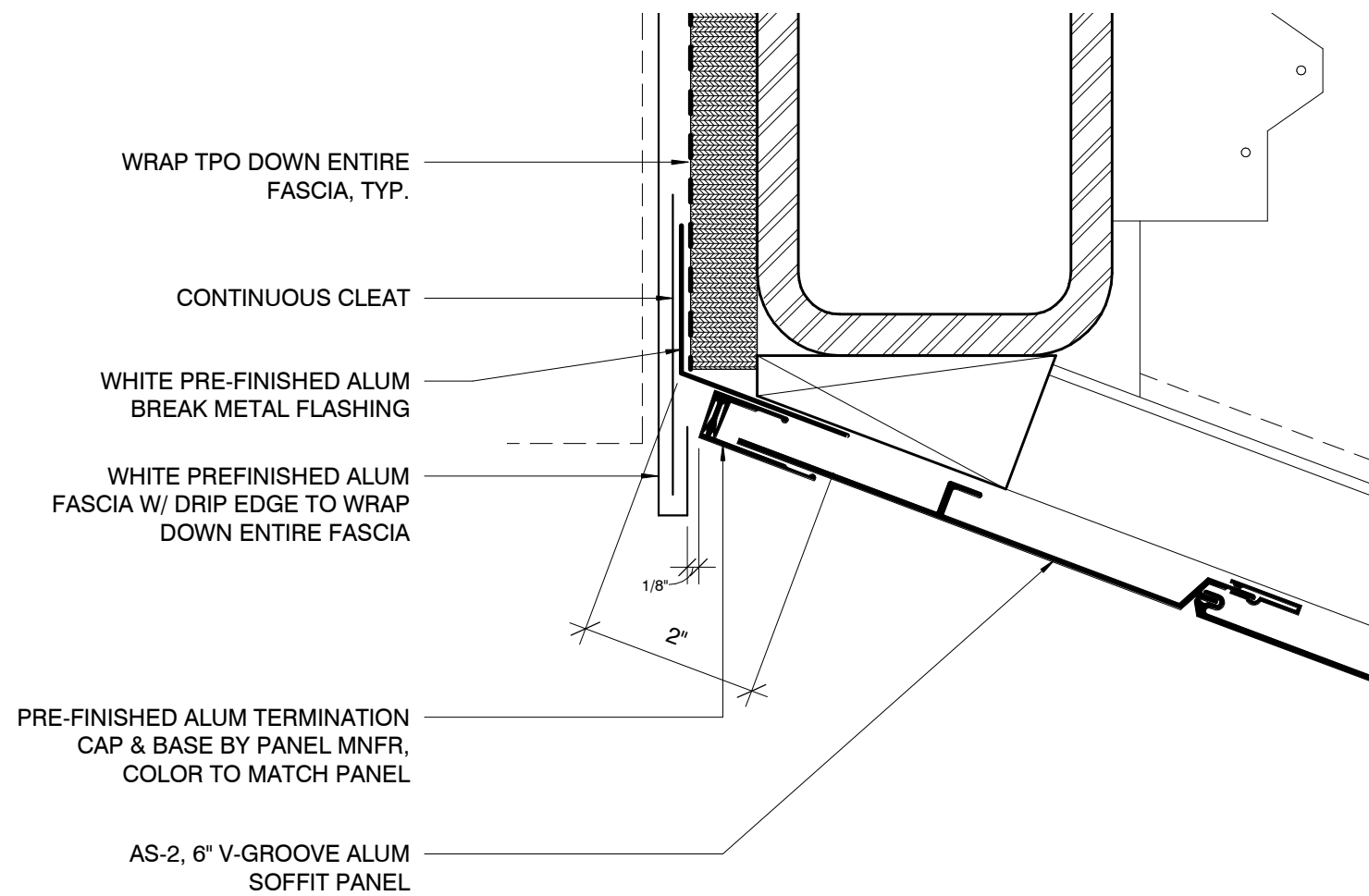
Architect: JEFFREY KLOCH
License Number: A-2016005093
Drawn By: MS
Project Number: 736

DETAILS - PATIO CANOPY

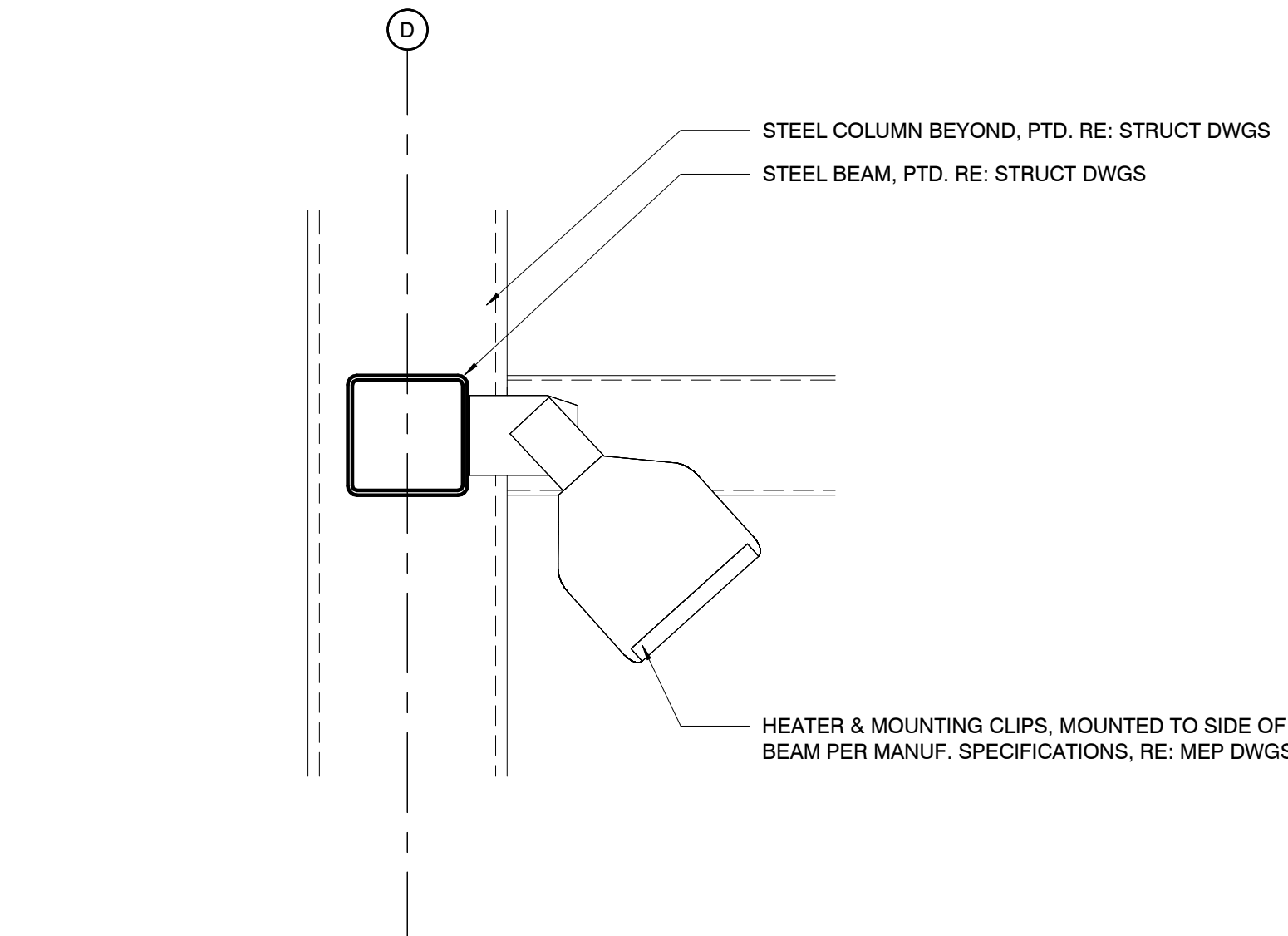
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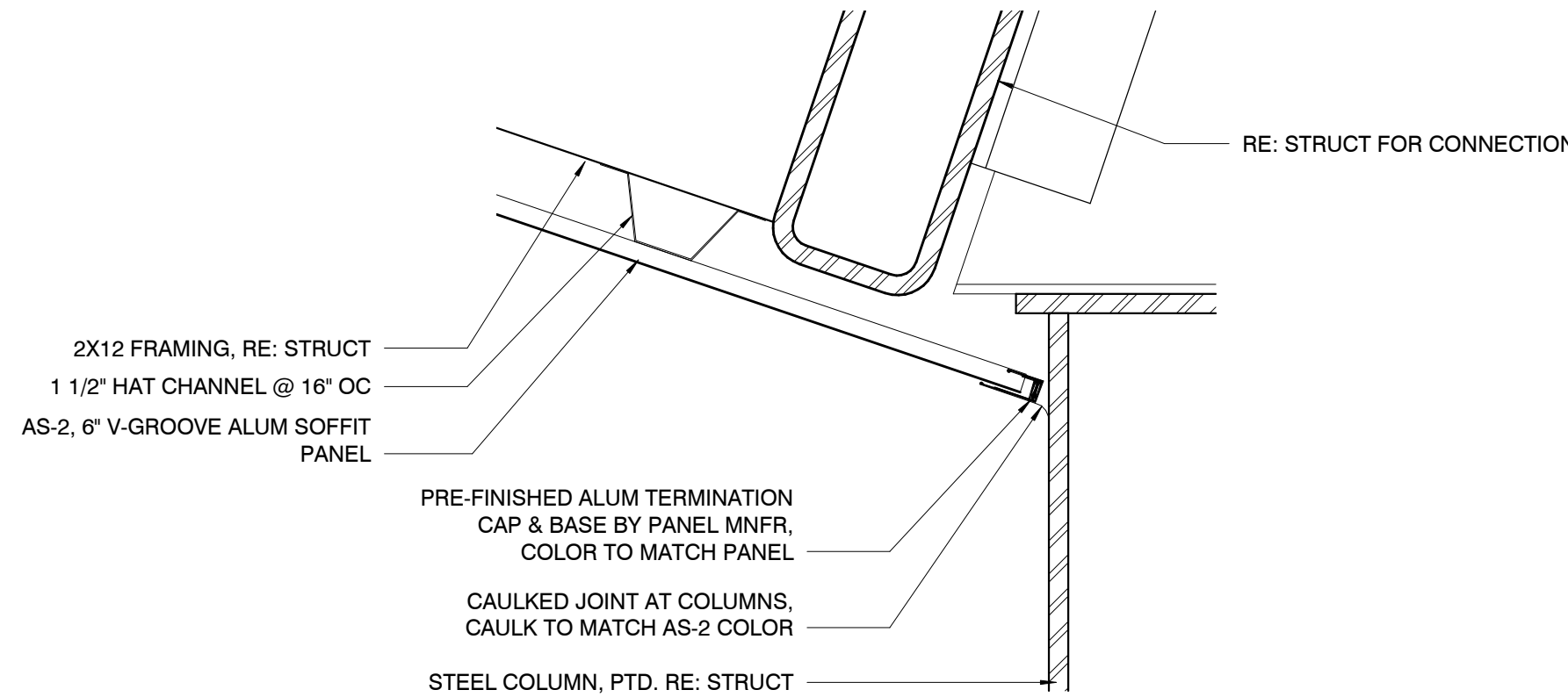
8 DETAIL - CANOPY ROOF DRAINAGE
1 1/2" = 1'-0"



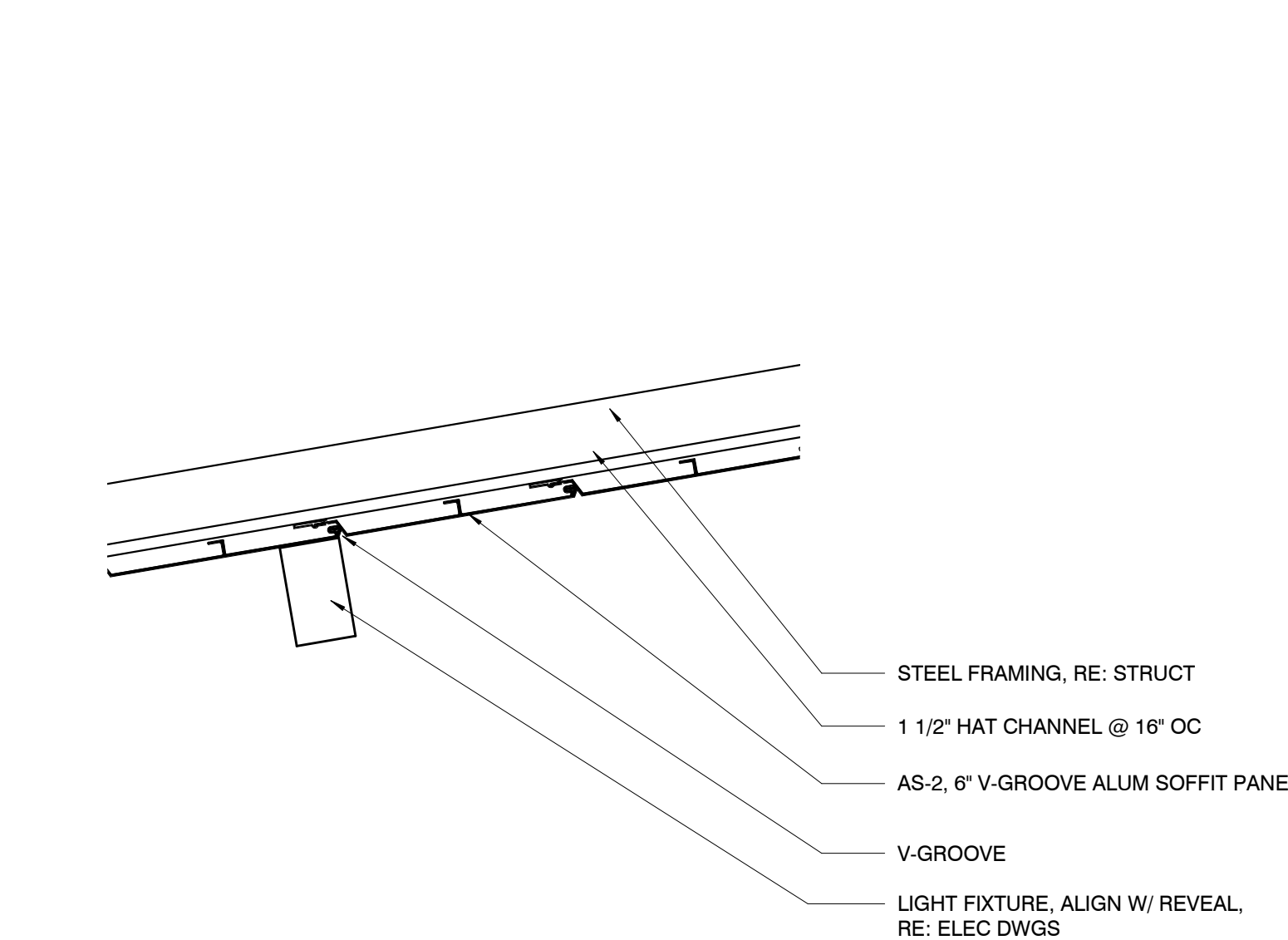
7 ENLARGED DETAIL - TYP. CANOPY FASCIA/SOFFIT
6" = 1'-0"



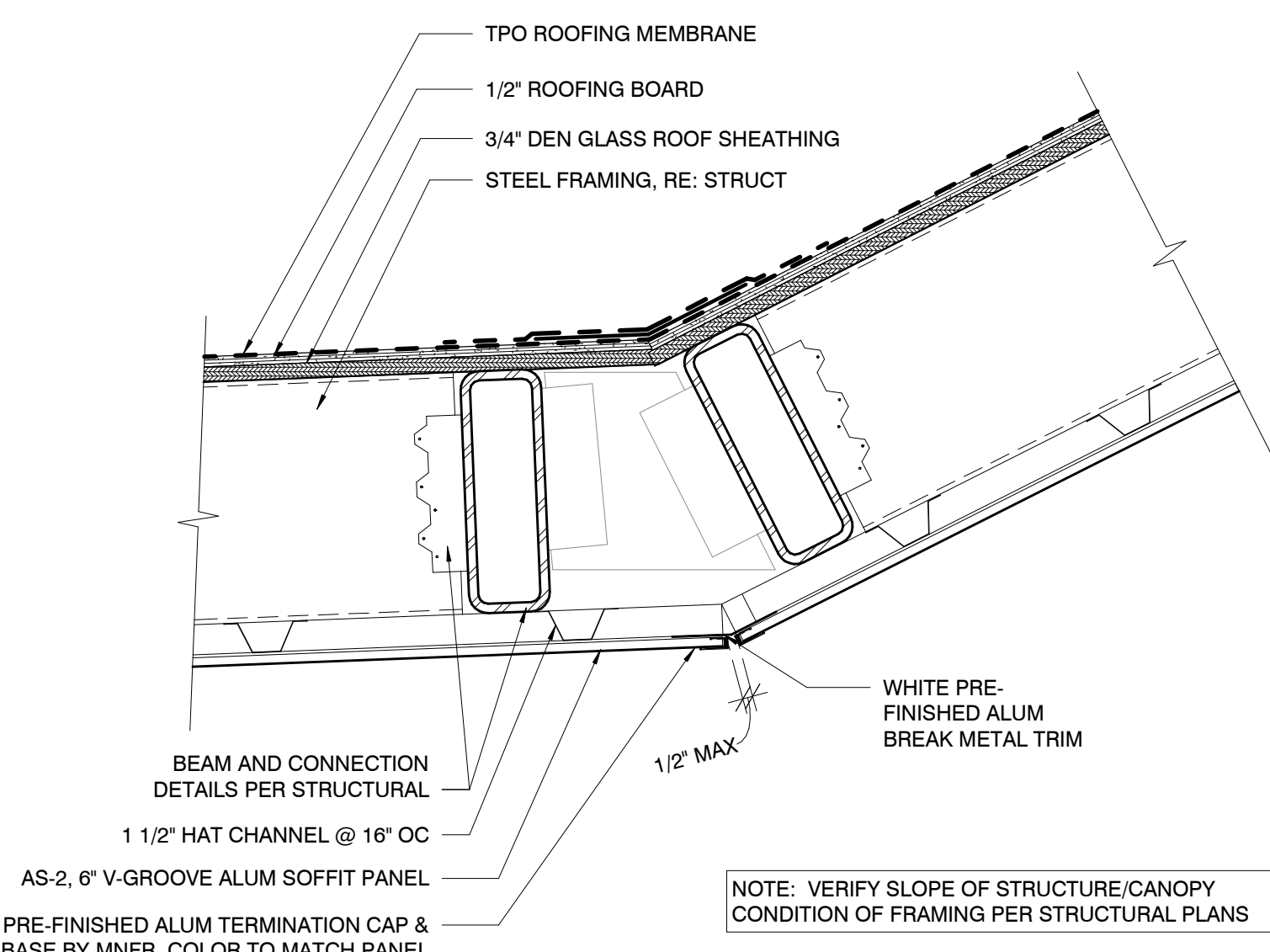
6 DETAIL - PATIO HEATER @ LOW BEAM
1 1/2" = 1'-0"



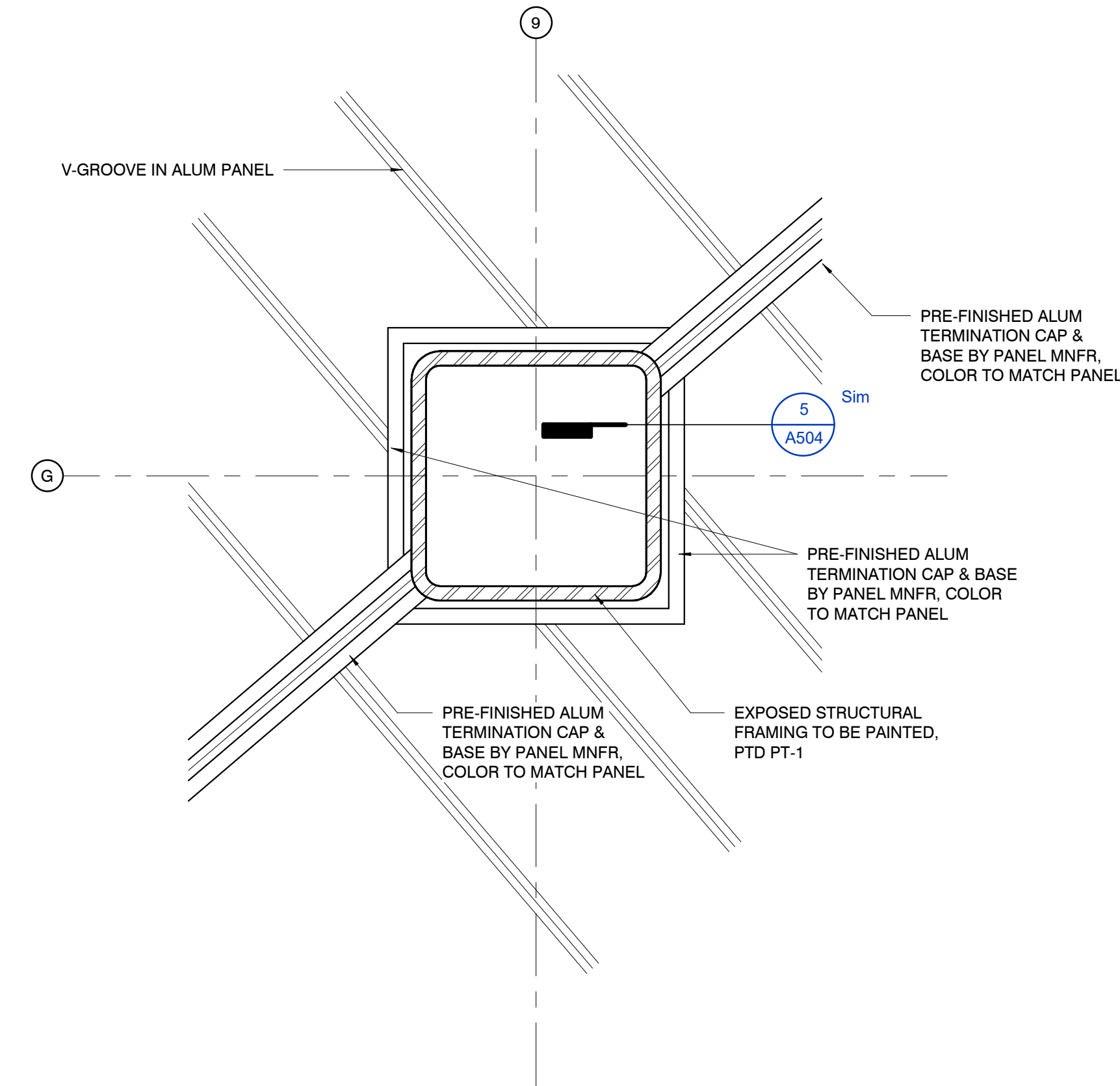
5 DETAIL - CANOPY REVEAL AT TOP OF COLUMN
3" = 1'-0"



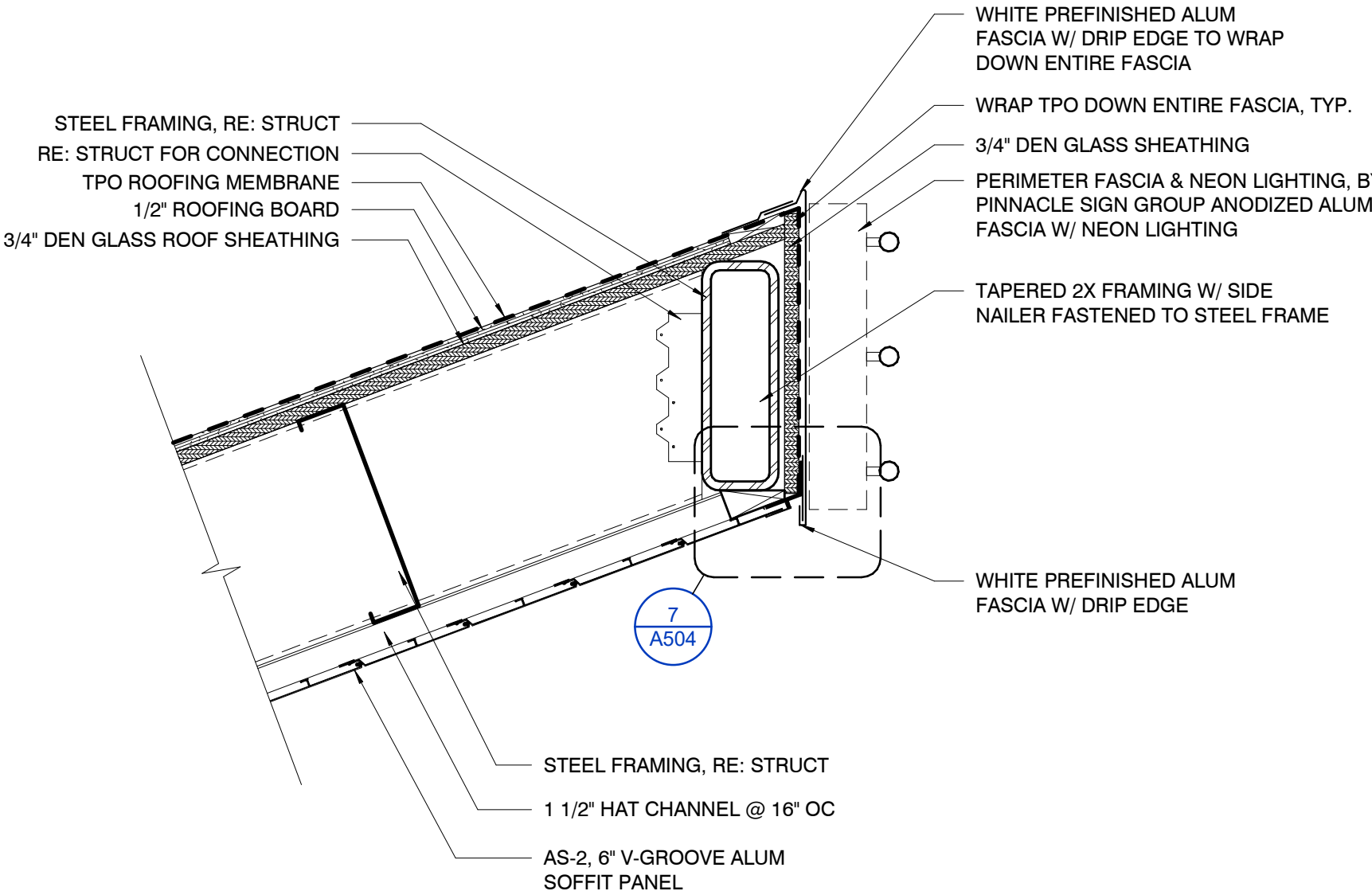
3 DETAIL - TYP. REVEAL @ CANOPY PANEL
3" = 1'-0"



2 DETAIL - PATIO CANOPY VALLEY
1 1/2" = 1'-0"



4 DETAIL - TYPICAL REVEAL @ COLUMN
3" = 1'-0"



1 DETAIL - CANOPY FASCIA/SOFFIT
1 1/2" = 1'-0"

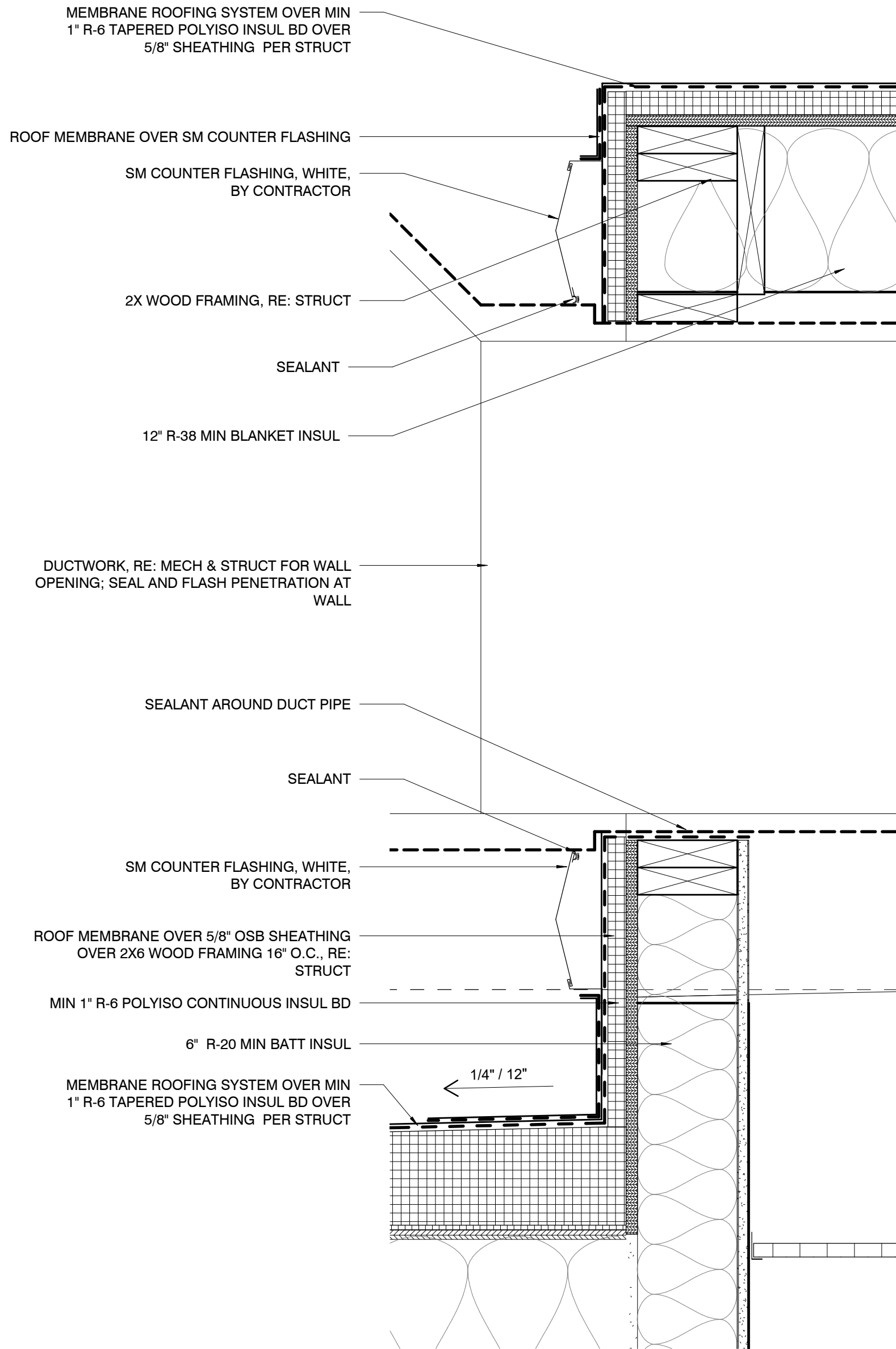


05/30/2024

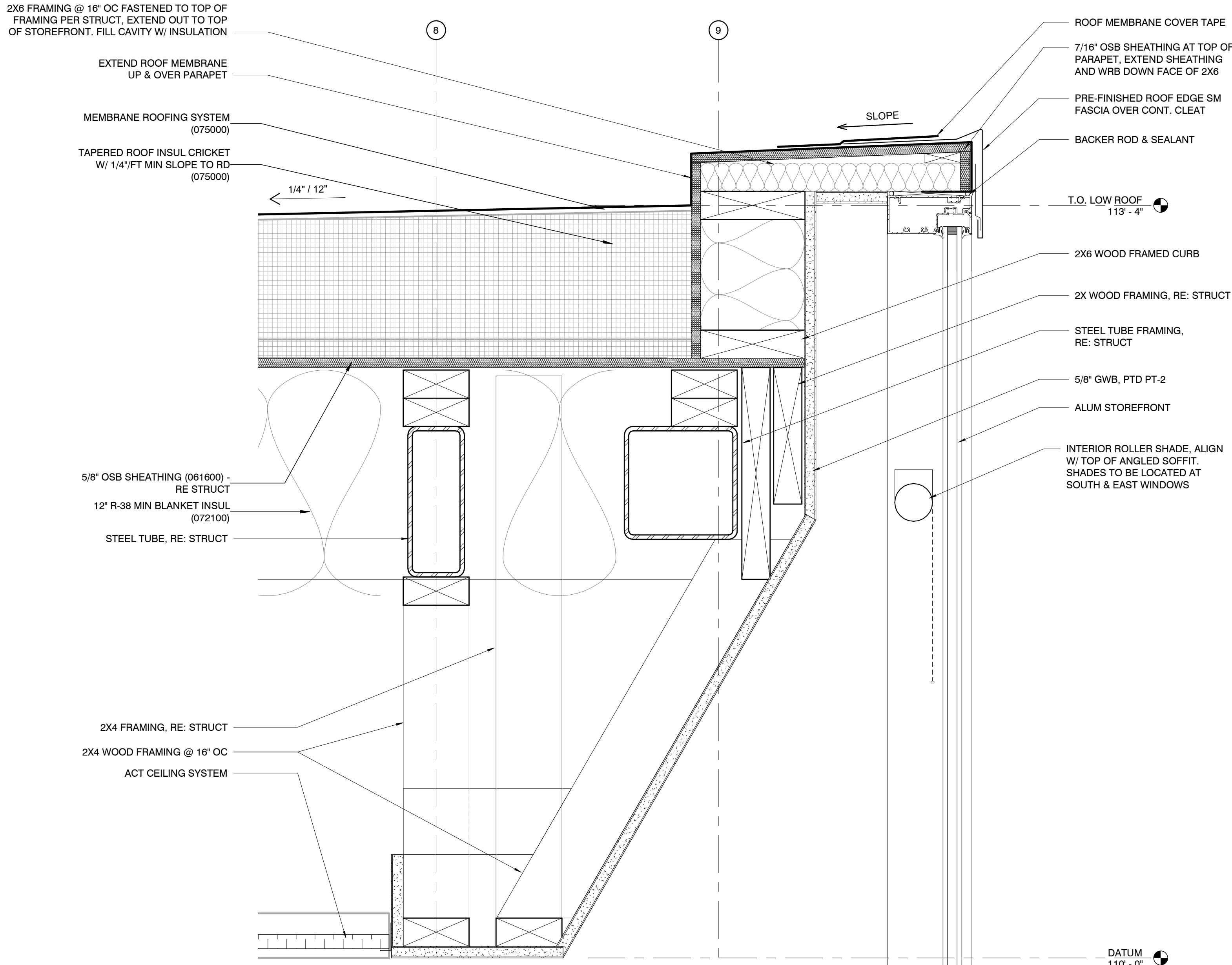
Architect: JEFFREY M. KLOCH
License Number: A-2016005093
Drawn By: MS
Project Number: 736

DETAILS - EXTERIOR

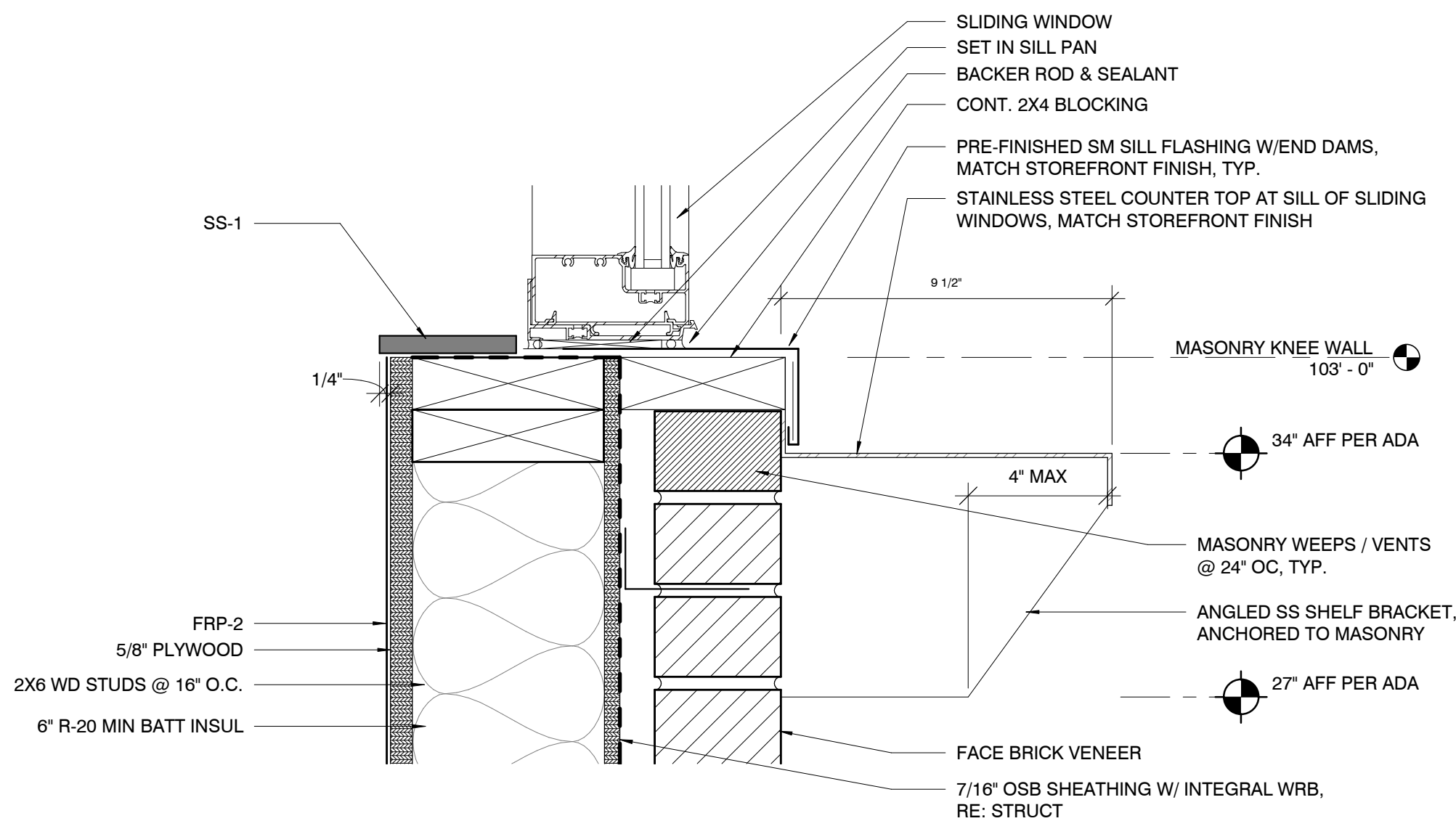
A505



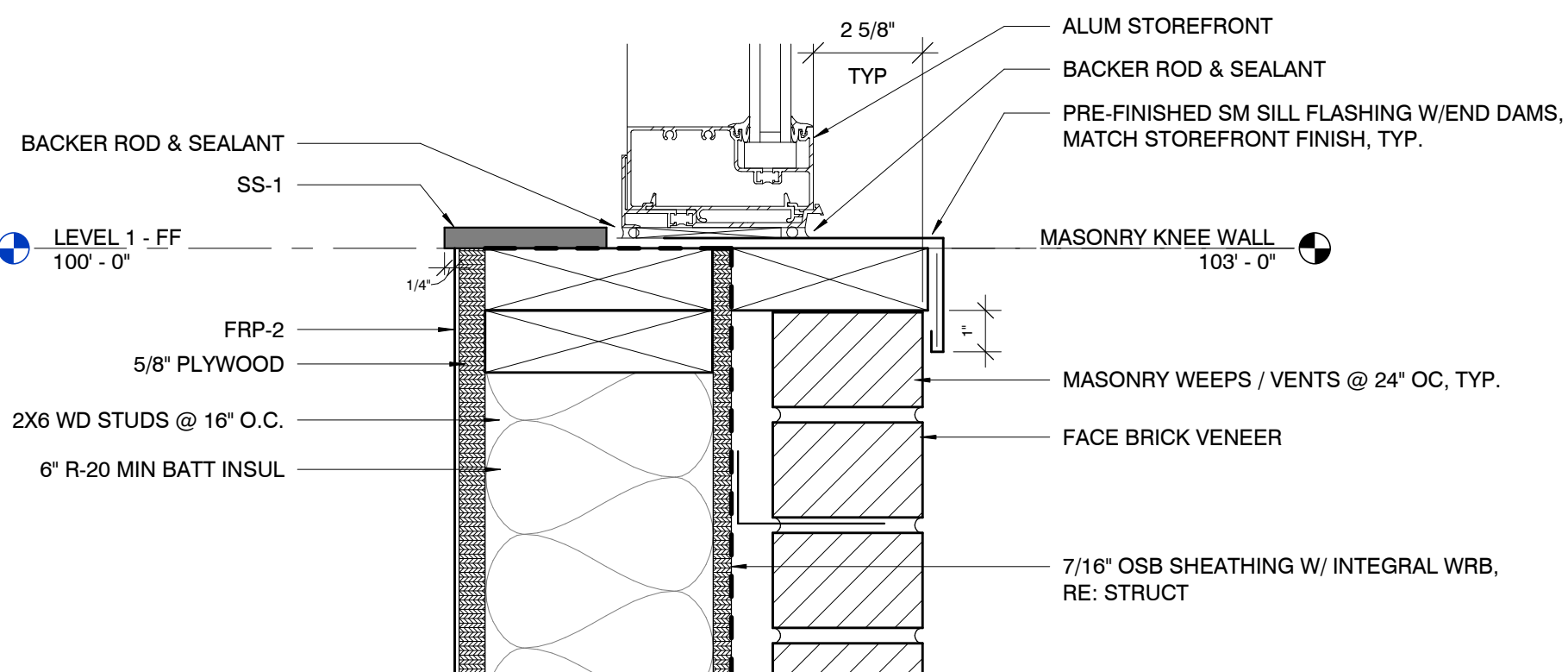
3 DETAIL - DUCT WALL PENETRATION
1:6



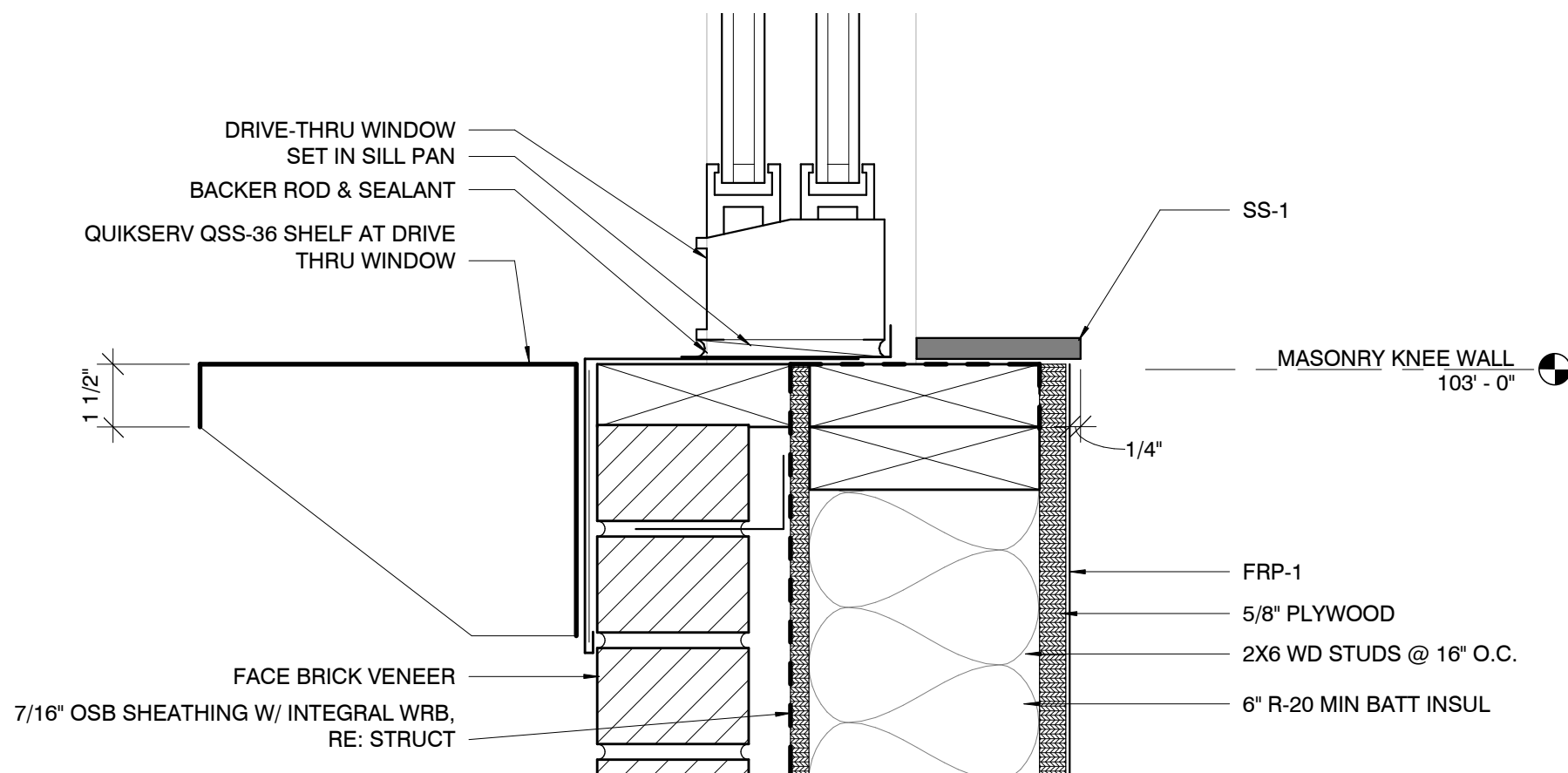
4 STOREFRONT PARAPET DETAIL
3\"/>



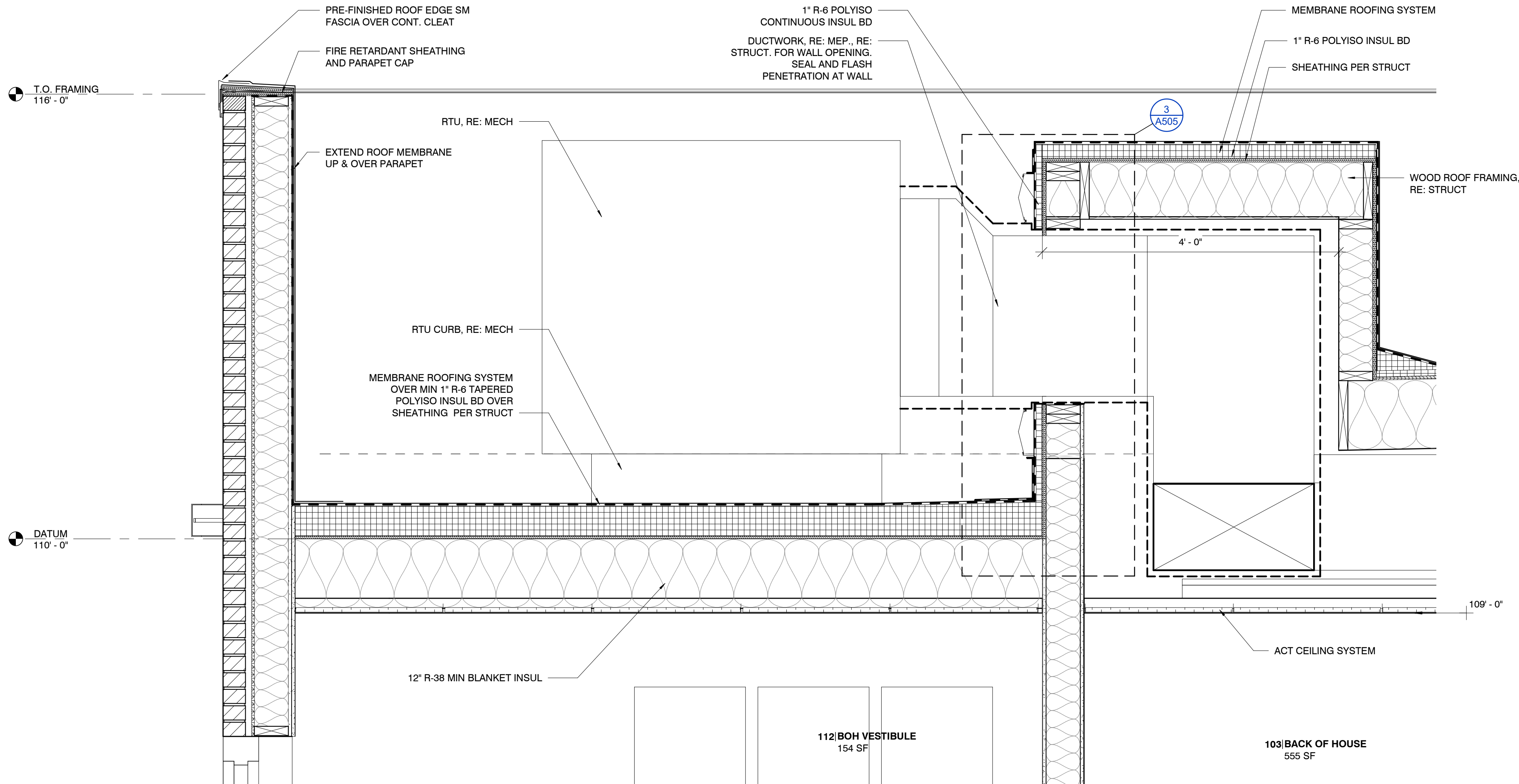
6 DETAIL - COUNTER @ SLIDING WINDOW
3\"/>



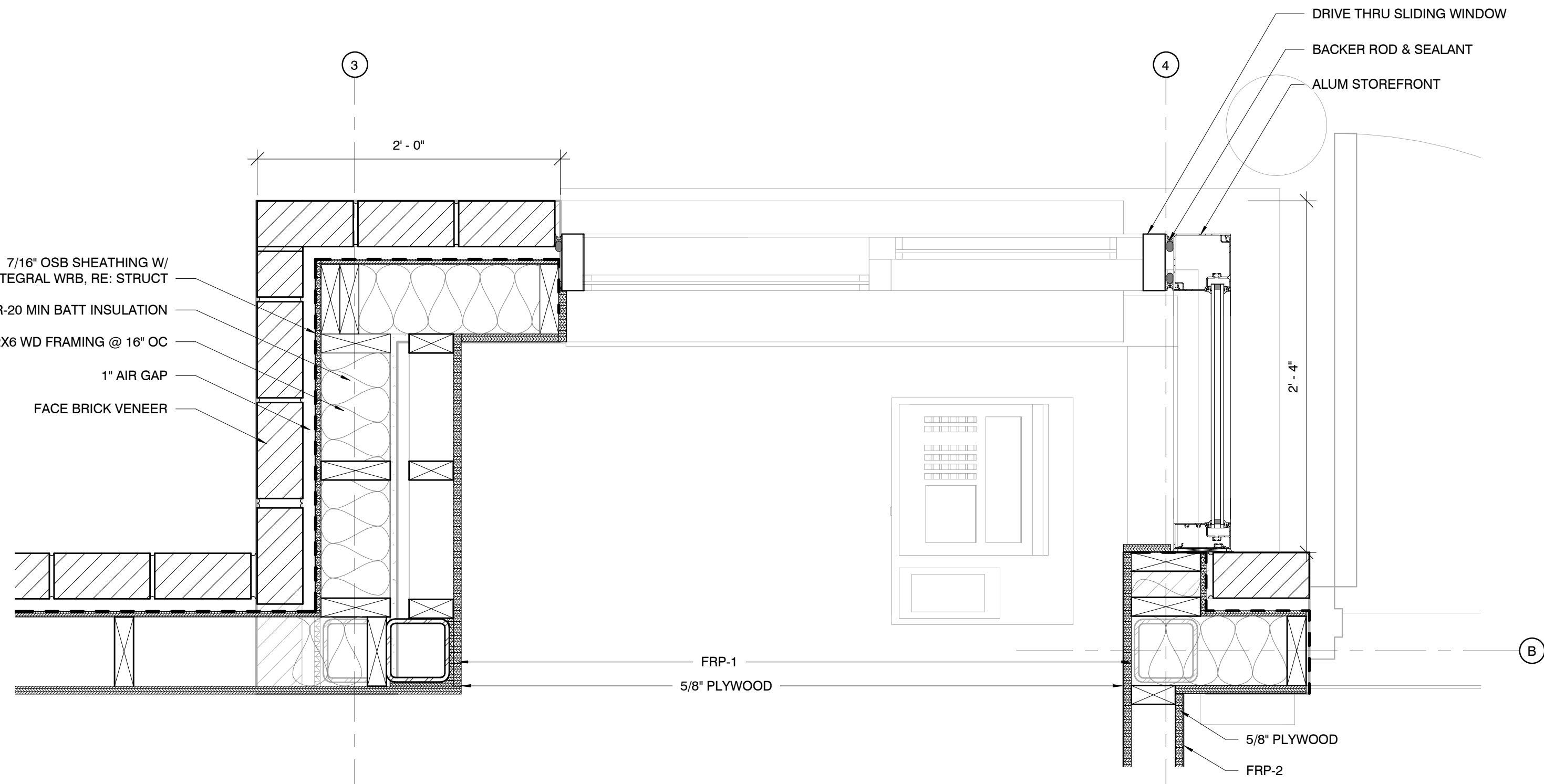
2 DETAIL - MASONRY KNEE WALL @ STOREFRONT
3\"/>



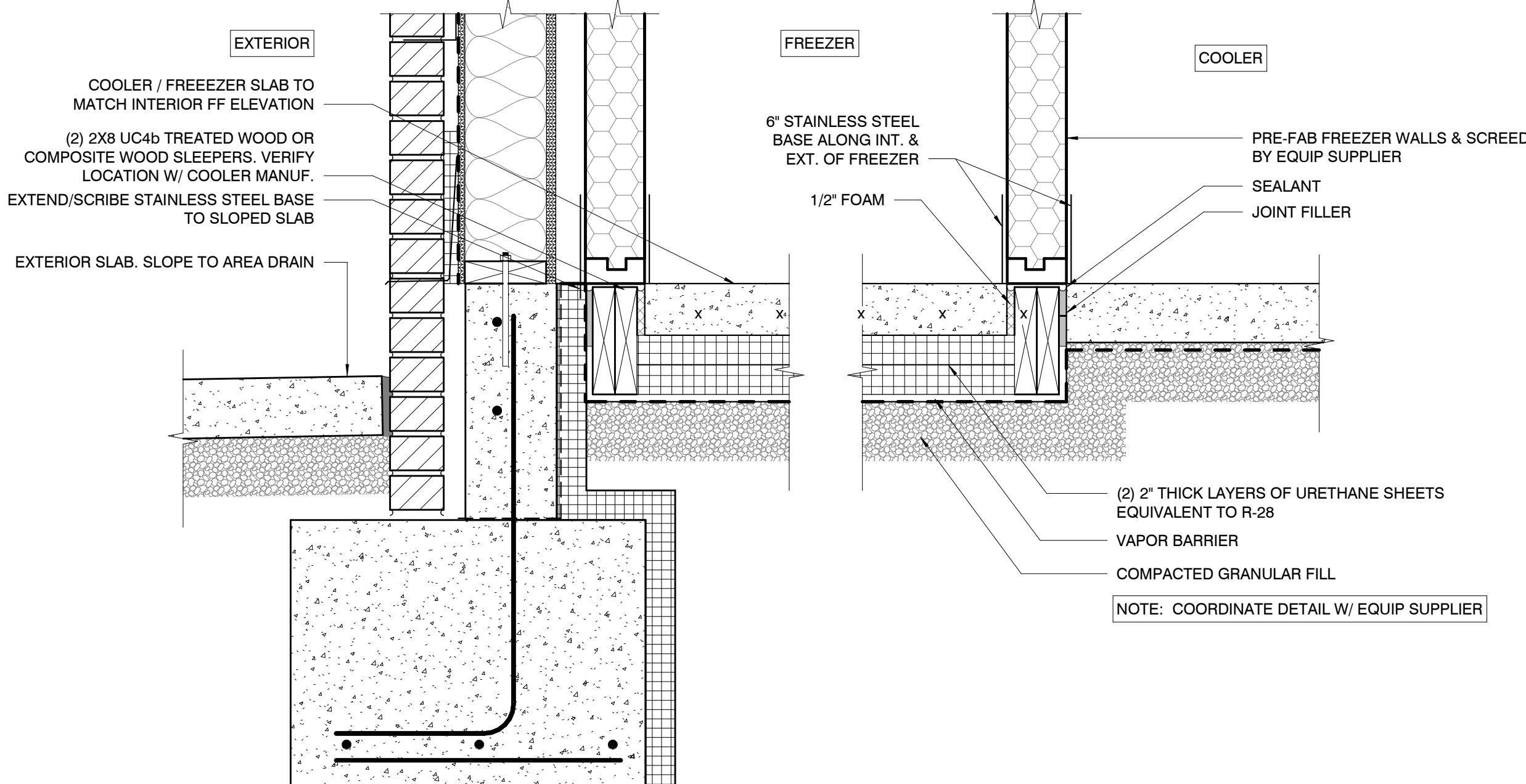
1 DETAIL - DRIVE THRU SILL
3\"/>



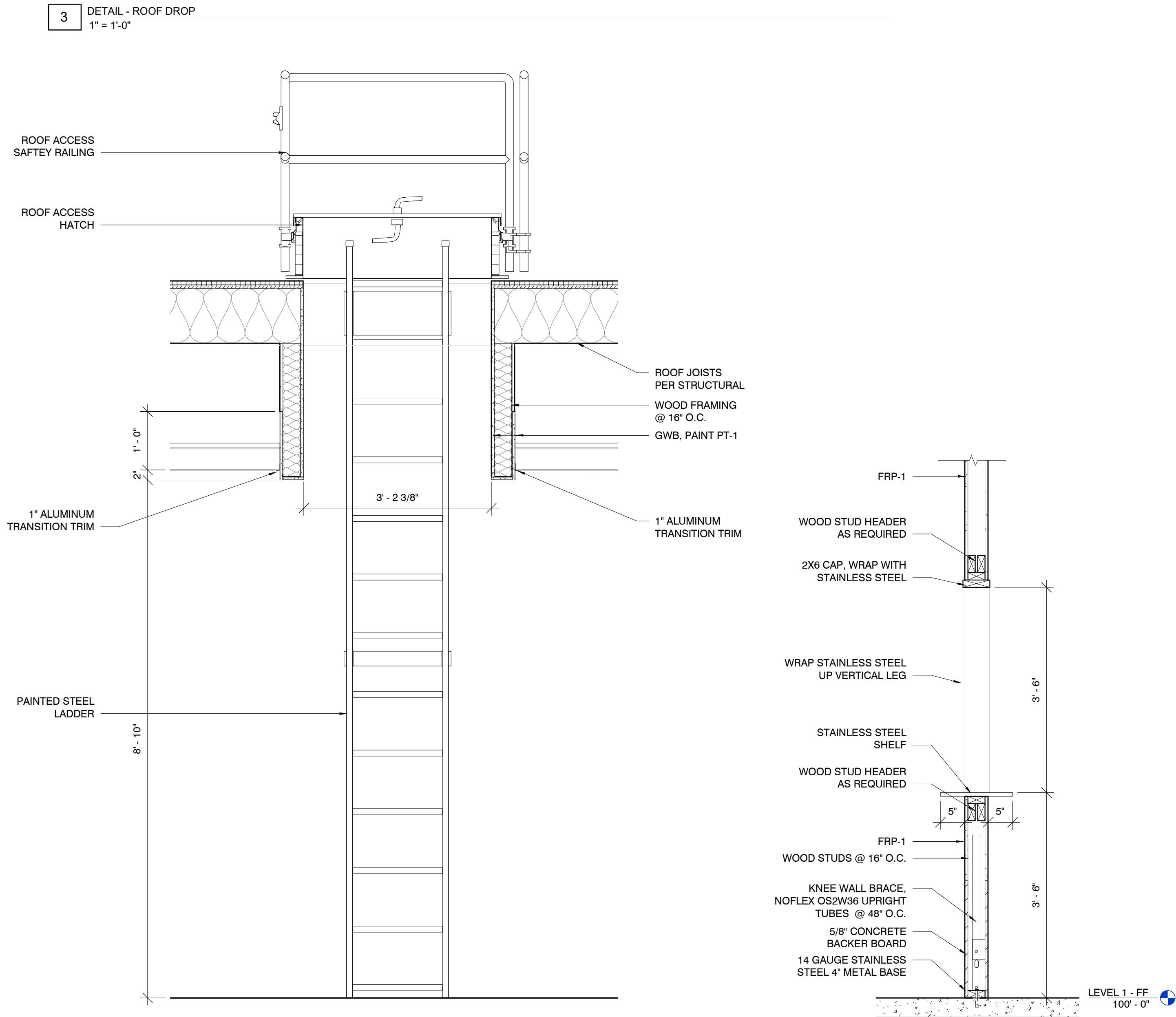
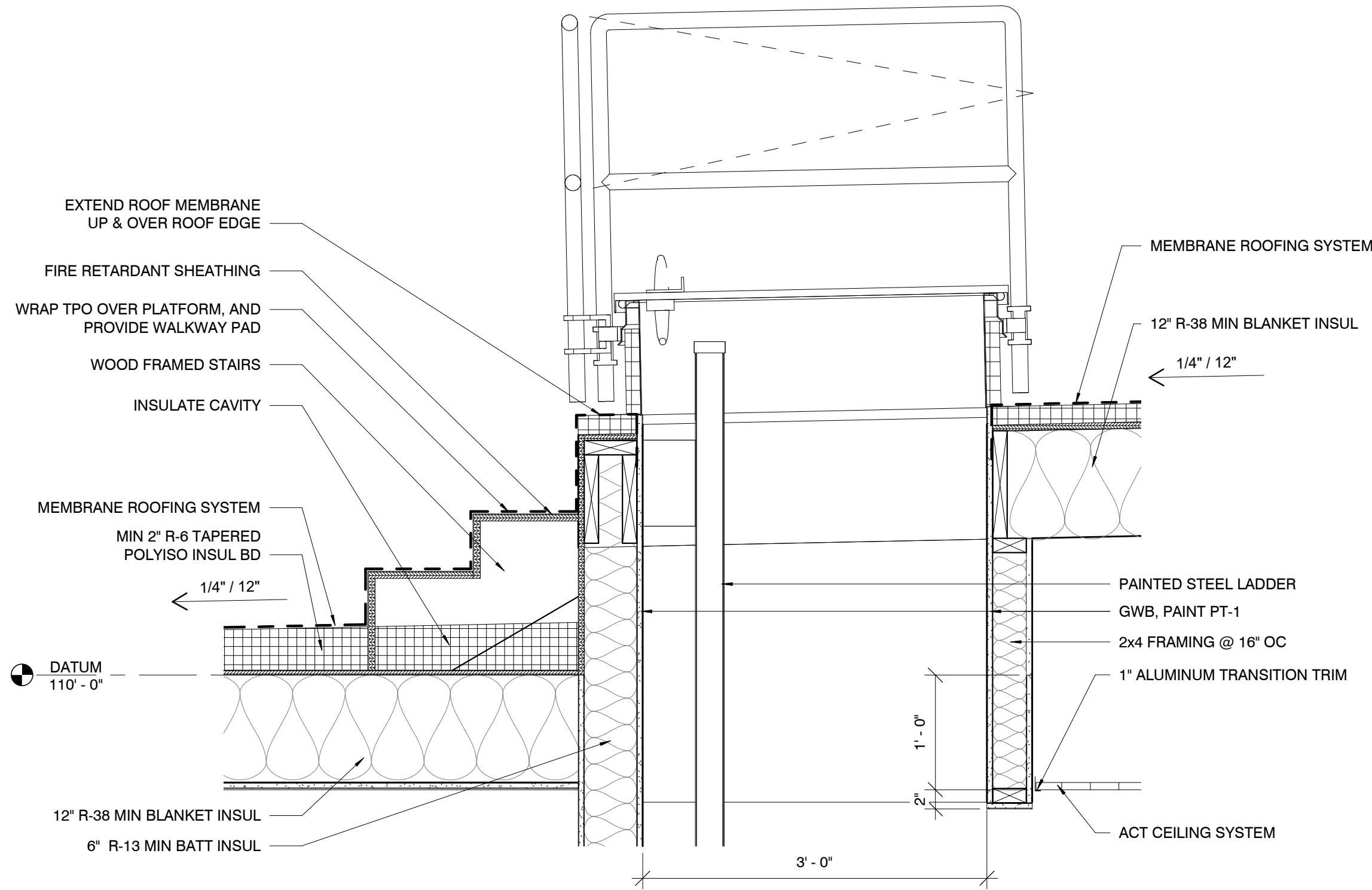
3 WALL SECTION - ROOF DROP
1" = 1'-0"



2 DETAIL - DRIVE THRU
1 1/2" = 1'-0"



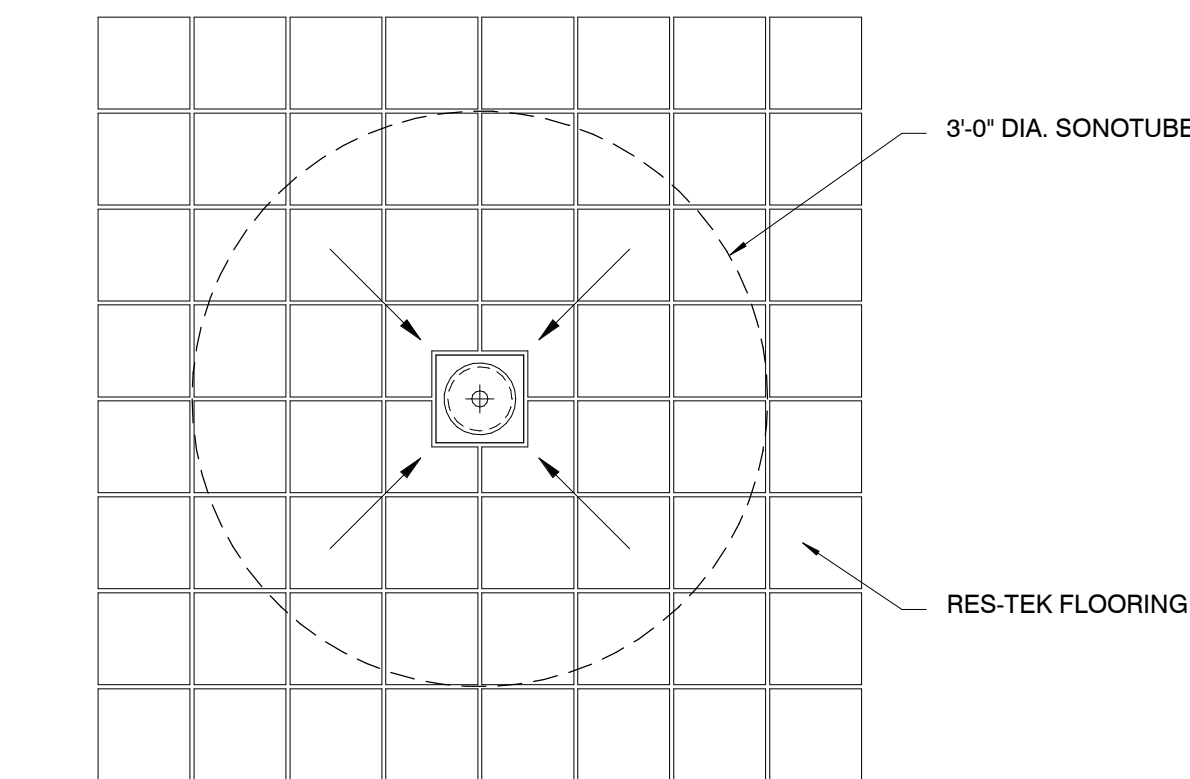
1 DETAIL - FREEZER INSULATED SLAB
1 1/2" = 1'-0"



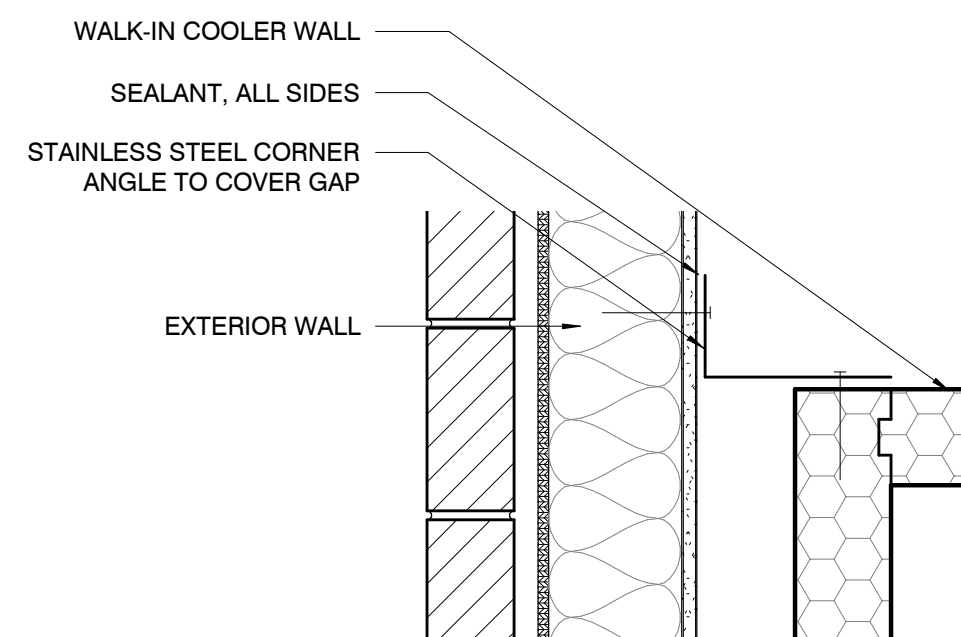
9 INTERIOR ELEVATION - ACCESS LADDER
3/4" = 1'-0"

7 DETAIL @ DRIVE THRU P.O.S.
3/4" = 1'-0"

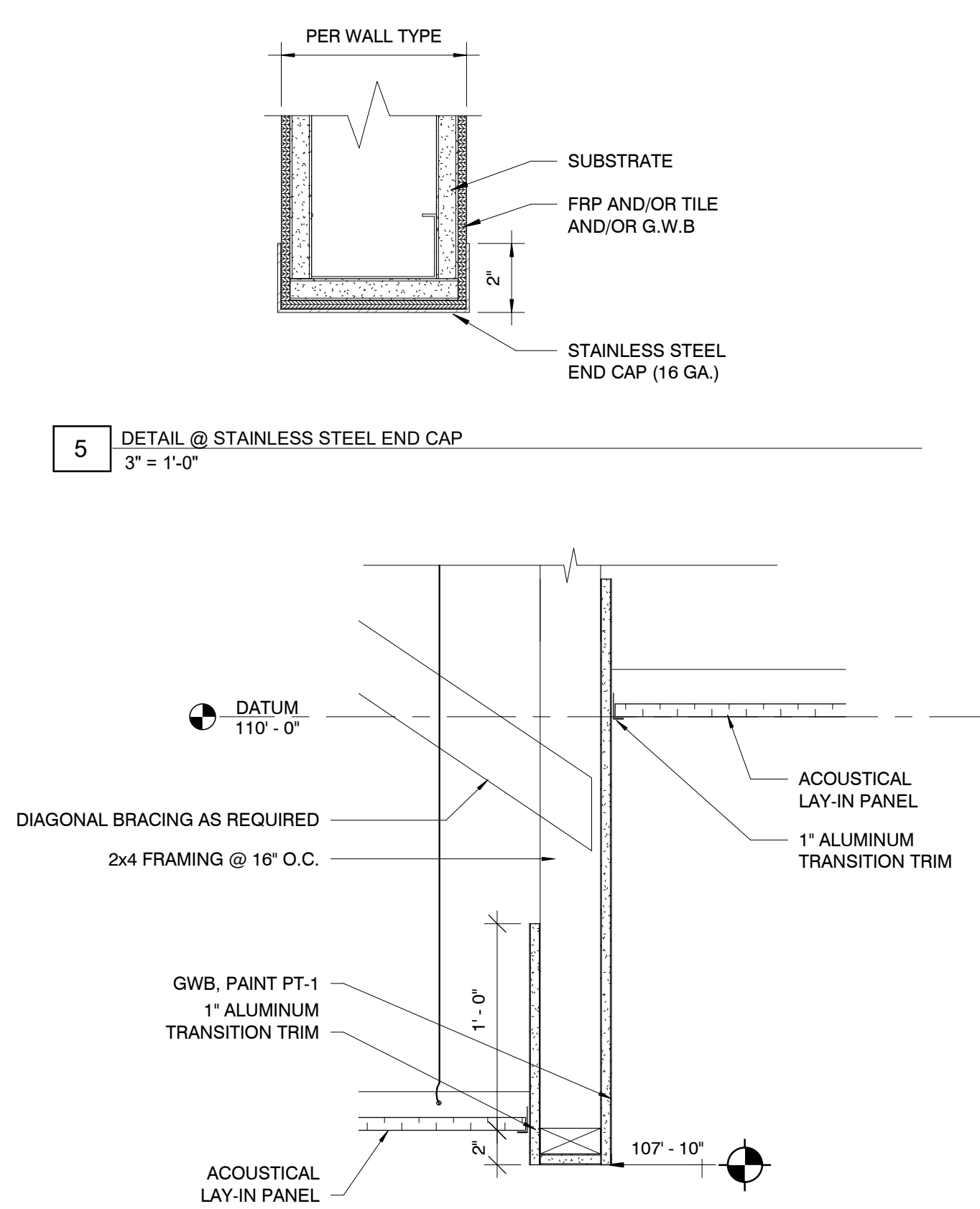
NOTE: INSTALL 3'-0" DIA. SONOTUBE CENTERED ON FLOOR DRAIN. POUR CONCRETE FLOOR SLAB OUTSIDE OF SONOTUBE ONCE CONCRETE CURES. REMOVE SONOTUBE & POUR REMAINING CONCRETE AROUND FLOOR DRAIN. SLOPE 1/4" PER FOOT TOWARDS DRAIN.



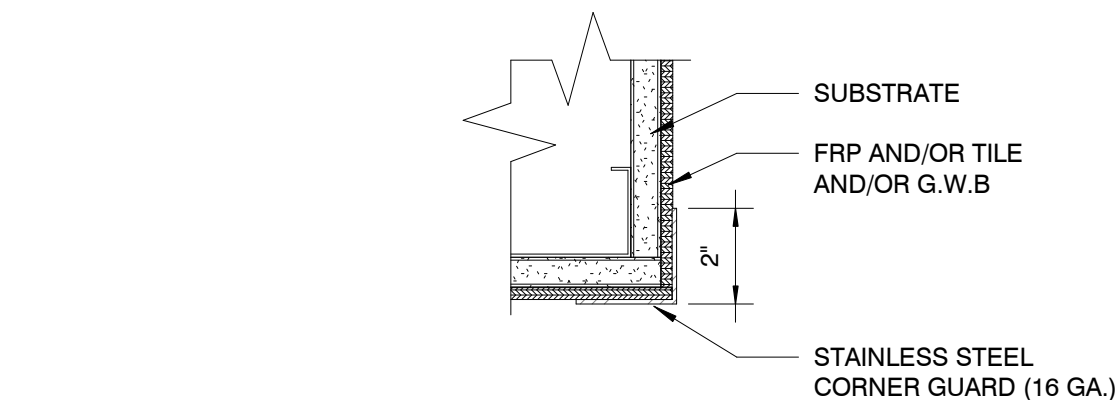
6 DETAIL @ FLOOR DRAIN
1" = 1'-0"



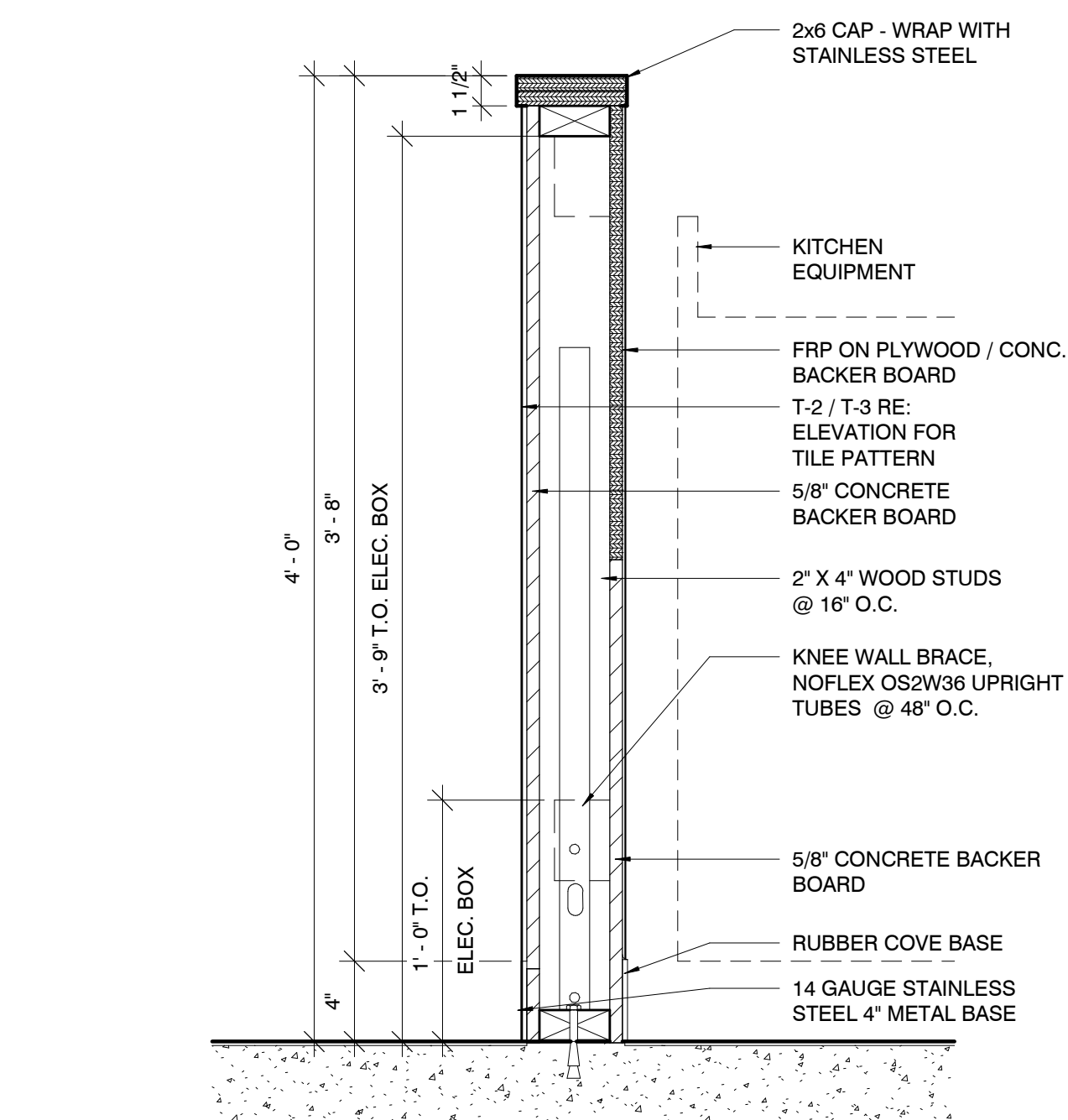
2 PLAN DETAIL - COOLER/FREEZER CLOSURE
1 1/2" = 1'-0"



8 DETAIL - CEILING TRANSITION
1 1/2" = 1'-0"



4 DETAIL @ STAINLESS STEEL CNR. GUARD
3" = 1'-0"



1 SECTION @ HALF WALL
1 1/2" = 1'-0"

Hufft

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Lee's Summit, Missouri 64086

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211 E. Water Street
Springfield, MO 65806

www.eatandys.com

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MEP:

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Springfield, MO 65804
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ISSUE:

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05/30/2024

Architect: JEFFREY M. KLOCH
License Number: A-2016005093
Drawn By: MS
Project Number: 736

DETAILS - INTERIOR

A507

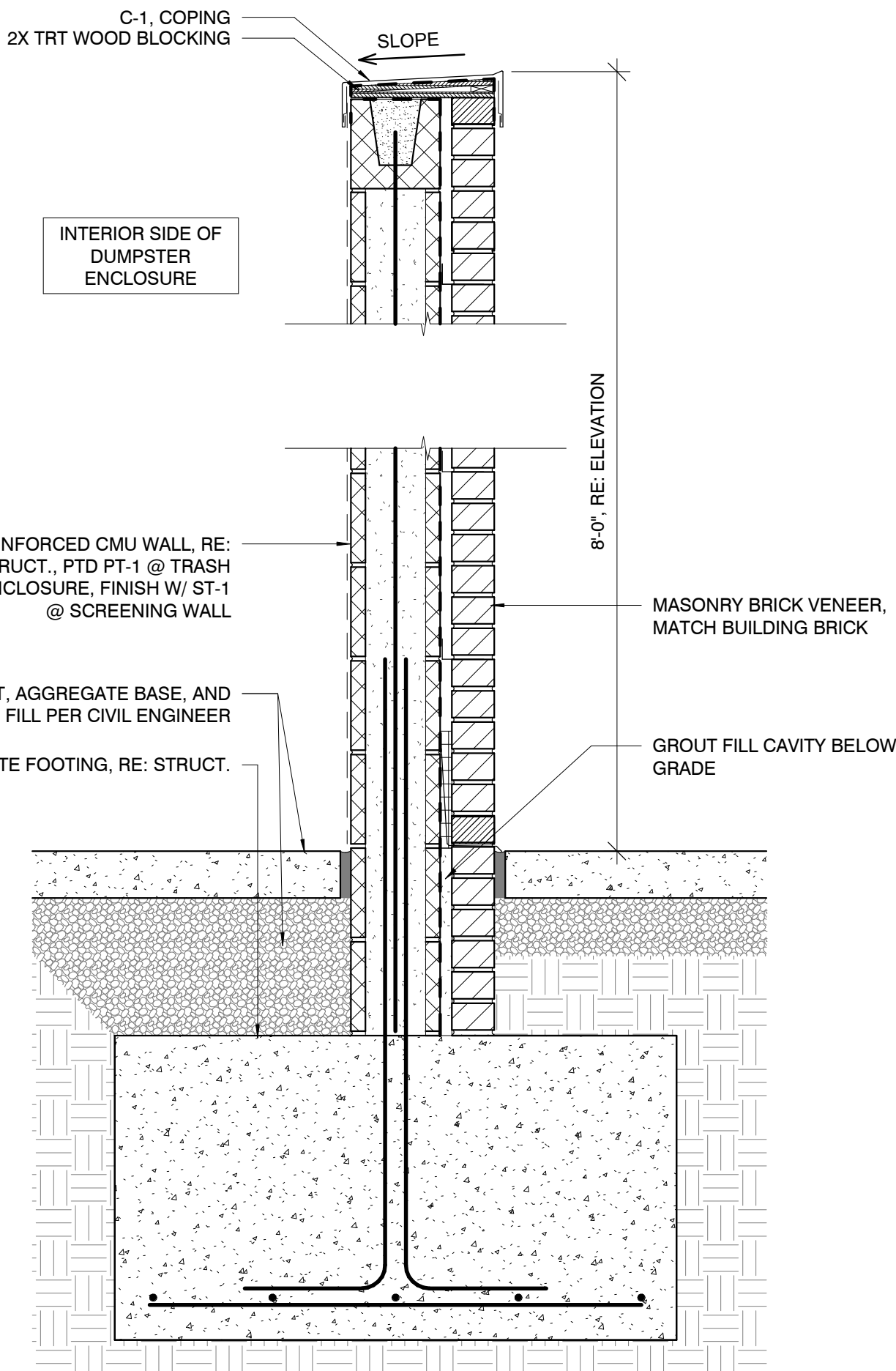


05/30/2024

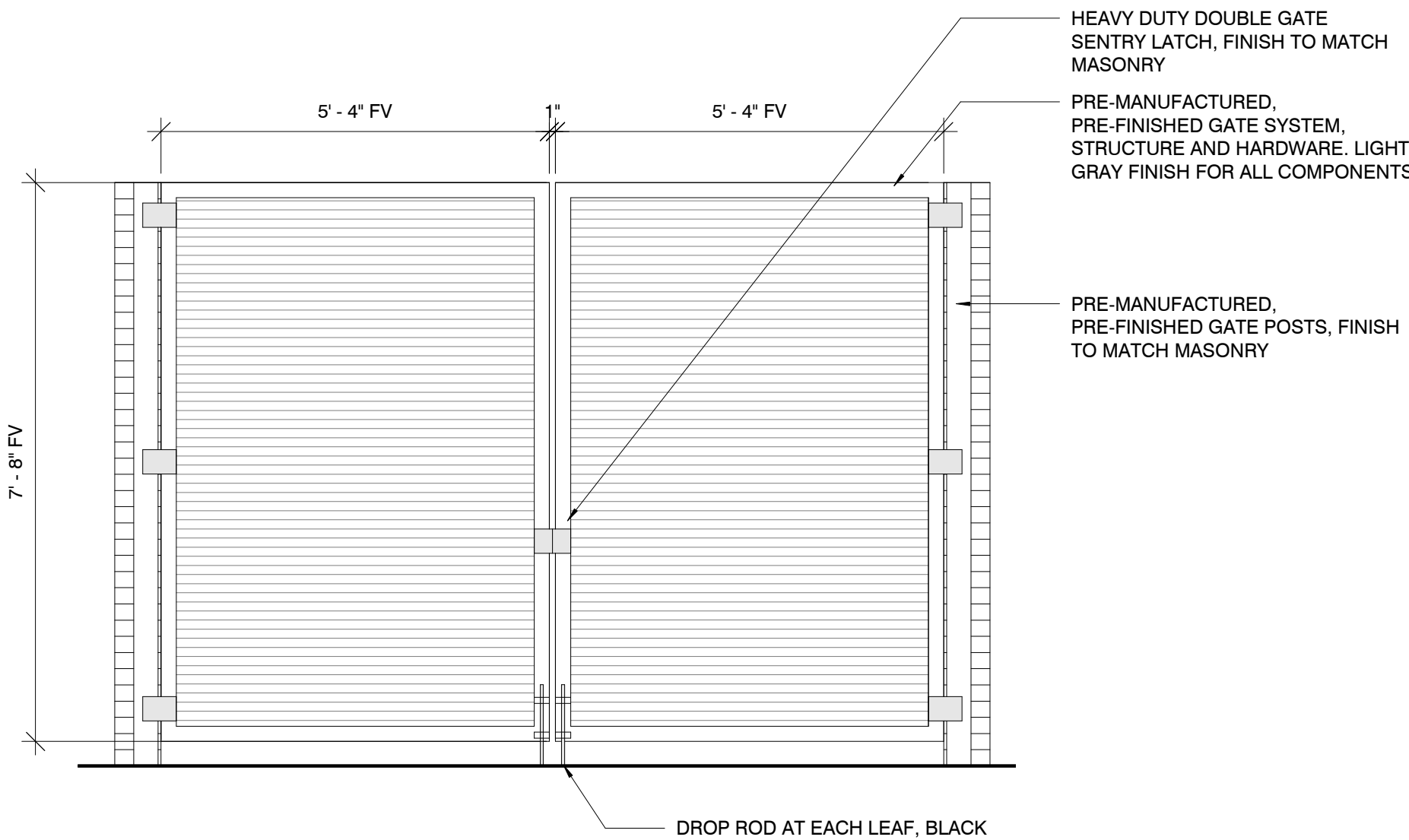
Architect: JEFFREY KLOCH
License Number: A-2016005093
Drawn By: MS
Project Number: 736

DETAILS - SITE

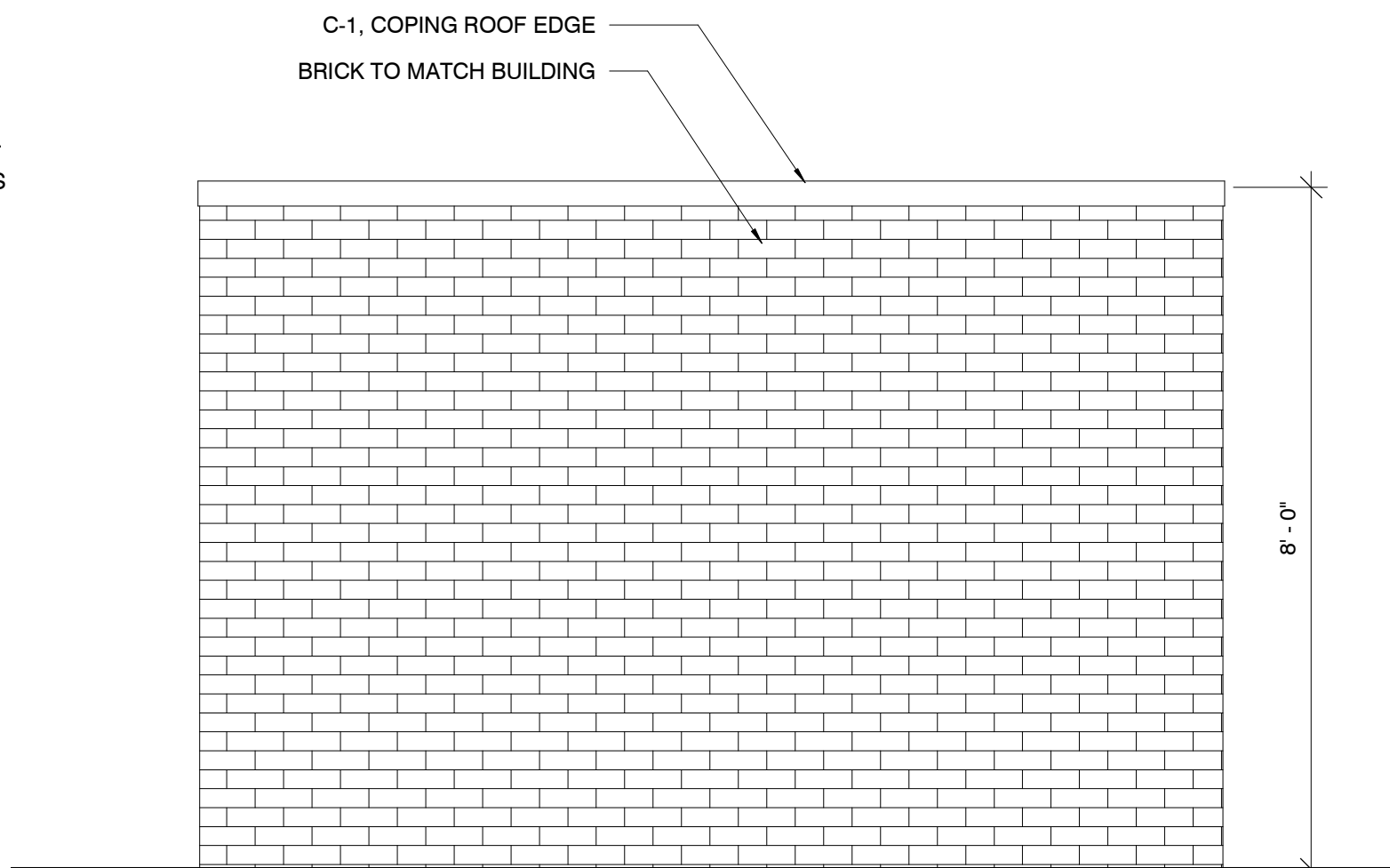
A508



4 DUMPSTER ENCLOSURE - SECTION
1" = 1'-0"

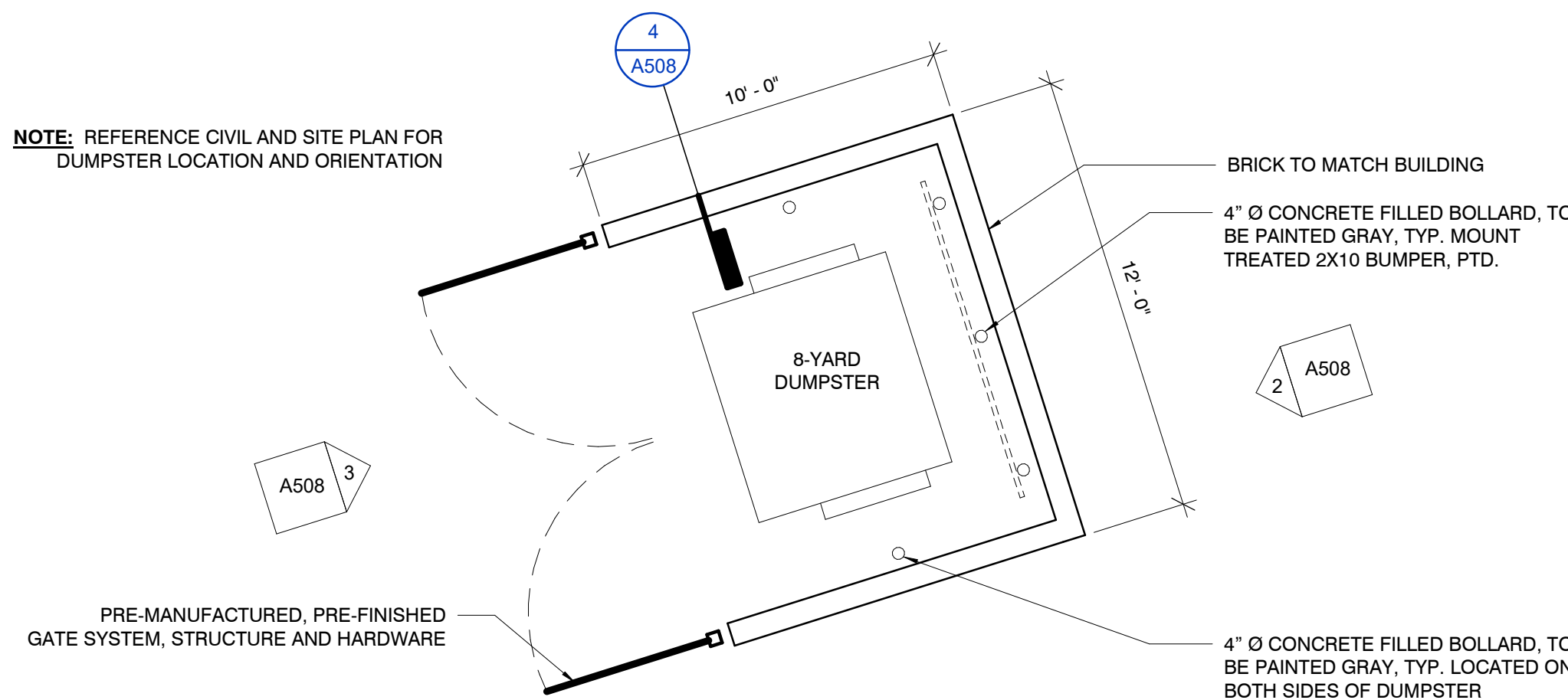


3 ELEVATION - DUMPSTER GATE
1/2" = 1'-0"



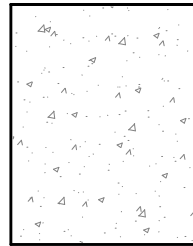
2 TYP. ELEVATION - DUMPSTER ENCLOSURE
1/2" = 1'-0"

NOTE: REFERENCE CIVIL AND SITE PLAN FOR
DUMPSTER LOCATION AND ORIENTATION

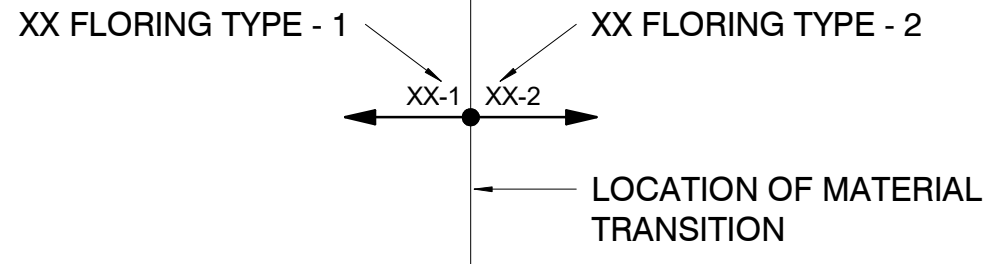


1 ENLARGED PLAN - DUMPSTER ENCLOSURE
1/4" = 1'-0"

FINISH MATERIAL KEY

	EF-1
	EPOXY FLOORING

MATERIAL TRANSITION TAG KEY



ROOM FINISH TAG KEY

WALL
BASE
FLOOR

FINISH NOTES:

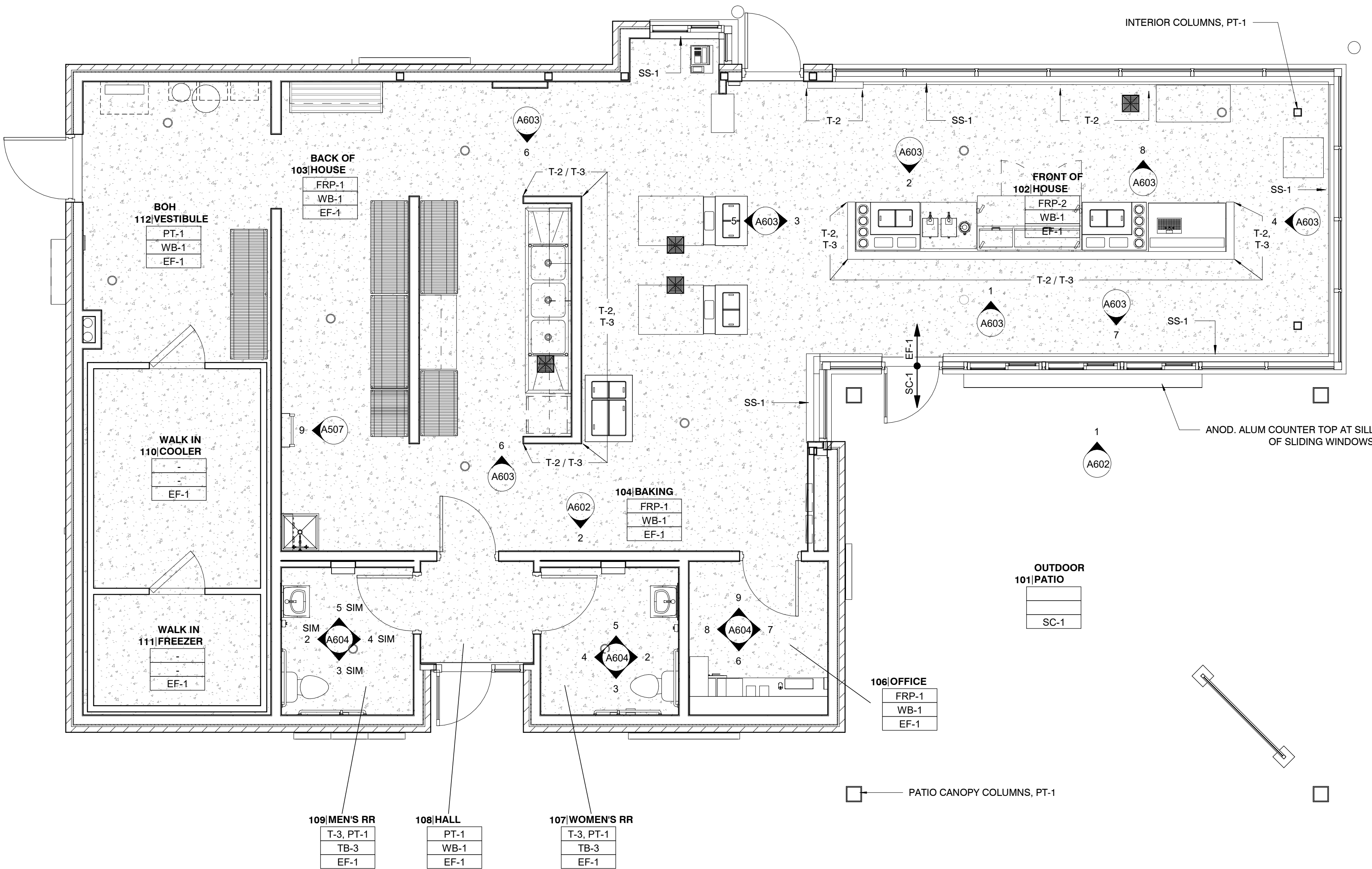
- ALL FINISHES TO COMPLY WITH CHAPTER 8, INTERIOR FINISHES, IN THE RELEVANT INTERNATIONAL BUILDING CODE.
- GENERAL CONTRACTOR TO ENSURE ALL FLOORS ARE PROPERLY PREPARED TO RECEIVE SPECIFIED FLOOR FINISH.
- GENERAL CONTRACTOR TO ENSURE ALL WALLS ARE PROPERLY PREPARED FOR SPECIFIED FINISH.
- ALL ADHESIVES, SOLVENTS, PAINTS AND SEALANTS TO COMPLY WITH VOLUNTARY SUSTAINABILITY GOALS FOR V.O.C. CONTENT PER SPECIFICATIONS IN PROJECT MANUAL.
- PAINT ALL WALLS PT-1 U.O.N.
- ALL FLOORING TRANSITIONS BETWEEN DIFFERING MATERIALS ARE TO HAVE PROPER TRANSITION STRIPS.
- WHERE INSTALLING TILE PRODUCT ALL CUTS SHALL BE GREATER THAN 4".
- ALL TILE GROUT JOINTS TO BE 1/8" U.O.N.
- ALL TILE GROUT JOINTS TO BE PROPERLY SEALED.
- WHERE STAGGERED OR BRICK INSTALLATION METHODS ARE USED WITH TILE, PROVIDE A 30% / 70% JOINT PLACEMENT, PER TCNA. CORNER GUARDS TO BE INSTALLED AT ALL OUTSIDE CORNERS, SUPPLIED AND INSTALLED BY G.C.
- NOT ALL FINISHES IN SCHEDULE OF FINISHES ARE NECESSARILY INCLUDED IN THIS SCOPE OF WORK. SEE ROOM FINISH PLAN AND INTERIOR ELEVATIONS FOR LOCATIONS.
- PAIN EXPOSED STRUCTURAL COLUMNS, EXPOSED DUCTWORK PT-1, SEMIGLOSS. INTERIOR DOORS AND FRAMES TO BE PAINTED PT-1 SEMIGLOSS BOTH SIDES UNLESS OTHERWISE NOTED.
- ALL PRELAMINATED FRP PANELS TO BE INSTALLED WITH FULL CONTACT ADHESIVE PER SPECIFICATIONS IN PROJECT MANUAL.
- PAIN SHEEN: CEILINGS - FLAT, STRUCTURAL COLUMNS AND EXPOSED METAL DUCTS - ACRYLIC ENAMEL, SEMI-GLOSS, WALLS - SATIN (UNLESS NOTED OTHERWISE)
- ALL BACK OF HOUSE WALL SURFACES TO BE FINISHED WITH FRP UNO.
- CONTRACTOR TO SUBMIT FINISH SAMPLES OF ALL FINISHES TO ARCHITECT FOR APPROVAL PRIOR TO ORDERING MATERIALS.
- ALL FOOD AND NON-FOOD SURFACES ARE TO BE SMOOTH, DURABLE, NON-ABSORBENT, LIGHT IN COLOR AND EASILY CLEANABLE PER HEALTH DEPARTMENT REGULATIONS.
- ALL FINISHES SHOWN ARE BASIS OF DESIGN. PROPOSED ALTERNATES SHALL BE APPROVED BY ARCHITECT WITH ALTERNATE SUBMITTALS.
- ALL TILE BASE GROUT LINES TO ALIGN WITH ADJACENT FLOOR TILE WHERE BOTH FLOOR AND WALL TILE ARE USED.

FINISH LEGEND

KEY	MANUFACTURER	DESCRIPTION	NOTES	LOCATION	FINISH TYPE	CONTACT
CASEWORK						
PL-1	FORMICA	927-58 FOLKSTONE MATTE FINISH		OFFICE	CASEWORK	
SS-1	CORIAN	1/2" SOLID SURFACE, COLOR: GLACIER WHITE	SILL AT STOREFRONT	FRONT OF HOUSE	CASEWORK	
CEILING						
ACT-1	ARMSTRONG	KITCHENZONE 2'x4' RECTANGULAR LAY-IN TILE AND GRID, WHITE		FRONT OF HOUSE & BACK OF HOUSE	CEILING	SAM ENGLE, 816-800-2582
ACT-2	ARMSTRONG	OPTIMA, 2'x4' RECTANGULAR LAY-IN TILE AND GRID, WHITE		OFFICE	CEILING	SAM ENGLE, 816-800-2582
CLG-1		GYPSUM WALL BOARD, PAINT PT-1		HALLWAY, RESTROOMS	CEILING	
RS-1	MECHOSHADE	SLIMLINE THERMOVEIL 1500 SERIES, WHITE SHADE FABRIC		FRONT OF HOUSE GLAZING	CEILING	
FLOOR						
EF-1	RES-TEK	MMA FLOORING	COLORED QUARTZ - LT GRAY CQ-5	GENERAL	FLOOR	JASON REDFIELD, 913-375-5191
SC-1		SEALED CONCRETE		OUTDOOR PATIO	FLOOR	
WALL						
FRP-1	MARLITE	STANDARD FRP, P100, WHITE		BACK OF HOUSE, OFFICE	WALL	
FRP-2	MARLITE	SMOOTH FRP, S100, S/2/S WHITE		FRONT OF HOUSE	WALL	
PT-1	SHERWIN WILLIAMS	SW 7006 EXTRA WHITE		GENERAL, EXPOSED COLUMNS	WALL	BROOK NIENSTEDT, 913-381-8633
PT-2	SHERWIN WILLIAMS	SW 6869 STOP		ACCENT, FRONT OF HOUSE SLOPED SOFFIT	WALL	BROOK NIENSTEDT, 913-381-8633
T-2	DALTILE	COLOR WHEEL COLLECTION CLASSIC, ARCTIC WHITE 0190, GLOSS, 3" X 6"	GROUT: MAPEI, FLEXCOLOR DESIGN 117 PURE WHITE	FRONT OF HOUSE ACCENT WALL TILE	WALL	JAIME RUFFING, 214-394-9498
T-3	DALTILE	COLOR MATCH COLLECTION, QF13 VALENTINE, GLOSS, 3" X 6"	GROUT: MAPEI, FLEXCOLOR DESIGN 117 PURE WHITE	FRONT OF HOUSE ACCENT WALL TILE, RESTROOMS	WALL	JAIME RUFFING, 214-394-9498
WALL BASE						
MB-1		14 GAUGE STAINLESS STEEL 4" METAL BASE		FRONT OF HOUSE ACCENT TILE WALLS	WALL BASE	
TB-3	DALTILE	COLOR MATCH COLLECTION, QF13 VALENTINE, GLOSS, 6" X 6", COVE BASE. FLAT TOP COVE BASE AT LOCATIONS WITH TILE ABOVE. SANITARY COVE BASE AT LOCATIONS WITHOUT TILE ABOVE	GROUT: MAPEI, FLEXCOLOR DESIGN 117 PURE WHITE	RESTROOMS	WALL BASE	JAIME RUFFING, 214-394-9498
WB-1	RES-TEK	4" EPOXY COVE BASE	TO MATCH EF-1	AT FRP LOCATIONS	WALL BASE	JASON REDFIELD, 913-375-5191

VENDOR LIST

ITEM	VENDOR	CONTACT
SIGNAGE	PINNACLE SIGN GROUP	TIM SWAIM, 417-869-6468
KITCHEN EQUIPMENT	CONCEPT SERVICES	SETH MIERL, 512-343-3100
WALK-IN COOLER/FREEZER	CONCEPT SERVICES	SETH MIERL, 512-343-3100
TILE	DALTILE	JAIME RUFFING, 214-394-9498
PRE-FAB TRASH ENCLOSURE GATES	AMETCO	



1 LEVEL 1 - FF - FINISH PLAN
1/4" = 1'-0"

Hufft

PROJECT INFORMATION:
Andy's Frozen Custard #204

630 NW Chipman Road
Lee's Summit, Missouri 64086

OWNER:

ANDY'S FROZEN CUSTARD

211 E. Water Street
Springfield, MO 65806
www.estandys.com

ARCHITECT:

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STRUCTURAL:

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MEP:

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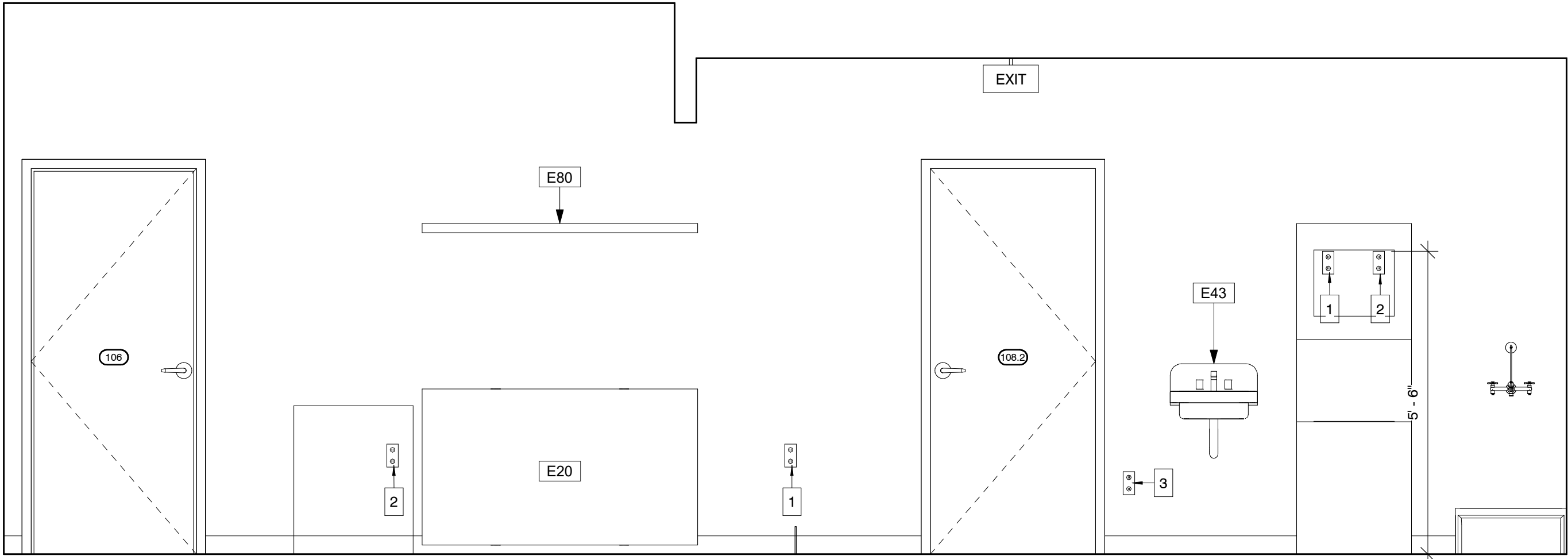
Architect: JEFFREY KLOCH
License Number: A-2016005093
Drawn By: MS
Project Number: 736

FINISH PLAN

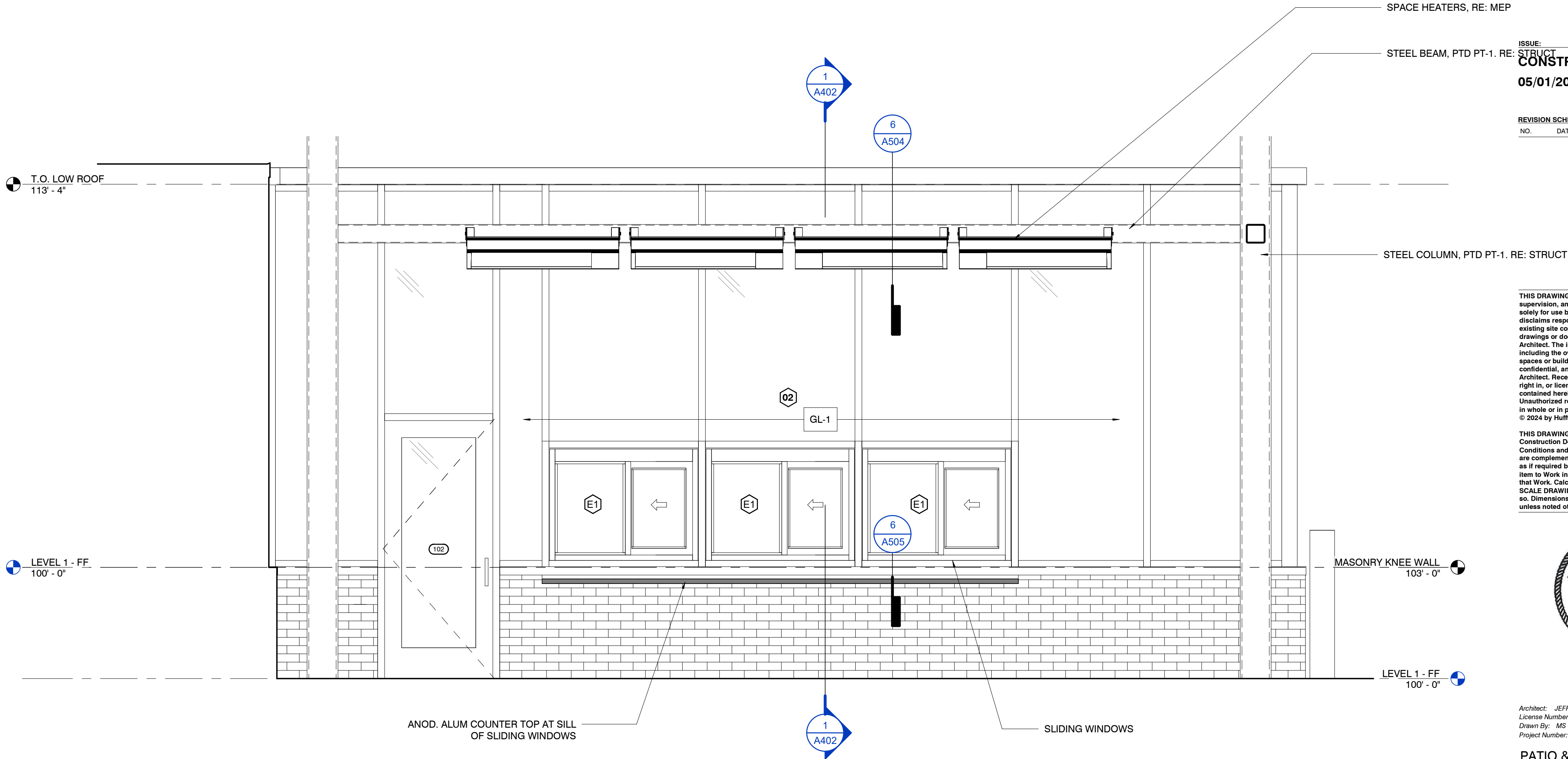
A601

EQUIP. KEYNOTES

1. DUPLEX RECEPTACLE
2. ADDITIONAL SPECIAL REPTACLE, RE: MEP
3. DUPLEX GFI RECEPTACLE



2 INTERIOR ELEVATION - BACK OF HOUSE
1/2" = 1'-0"



1 PATIO ELEVATION
1/2" = 1'-0"

Hufft

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License Number: A-2016005093
Drawn By: MS
Project Number: 736

PATIO & INTERIOR
ELEVATIONS

A602

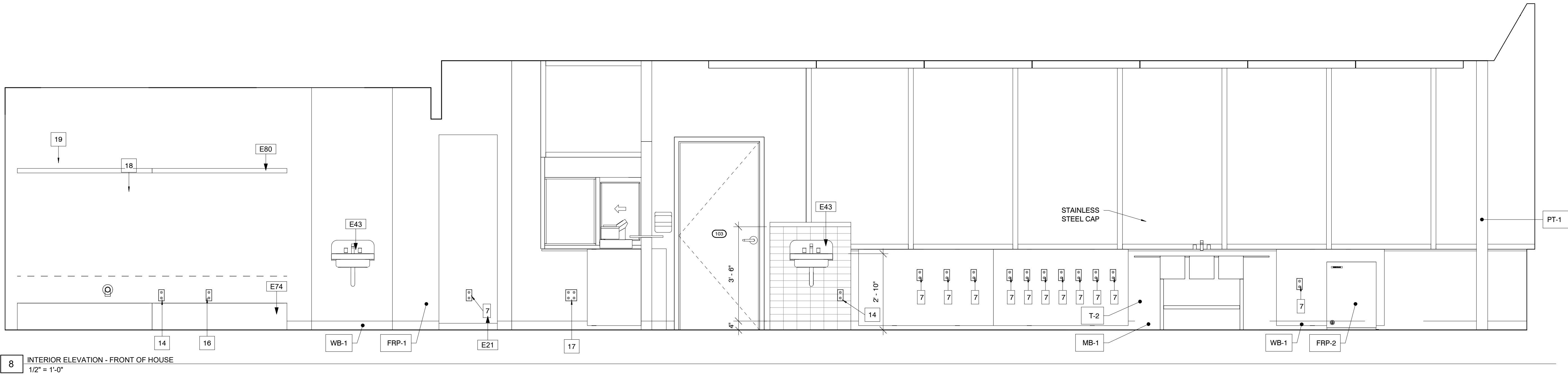


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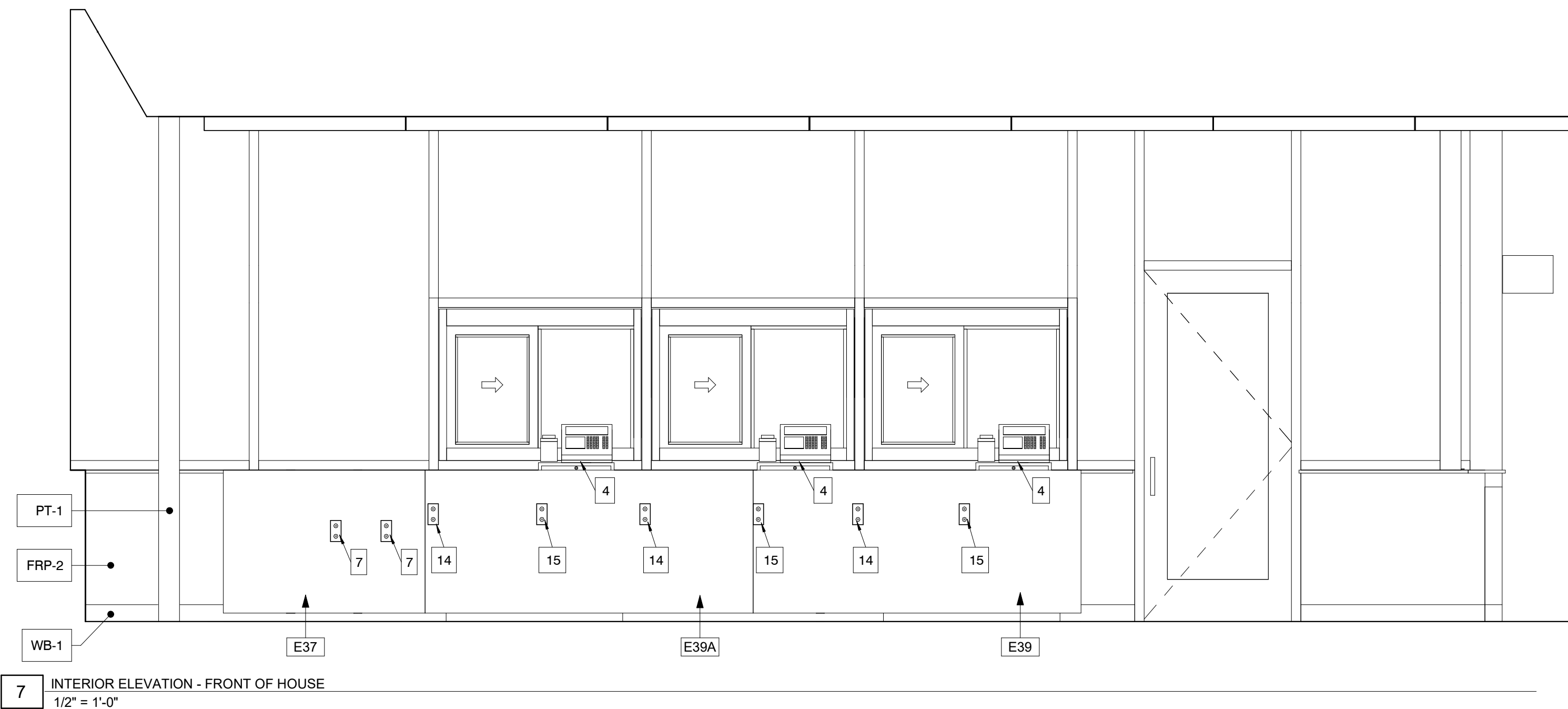
Architect: JEFFREY M. KLOCH
License Number: A-2016005093
Drawn By: MS
Project Number: 736

INTERIOR ELEVATIONS

A603



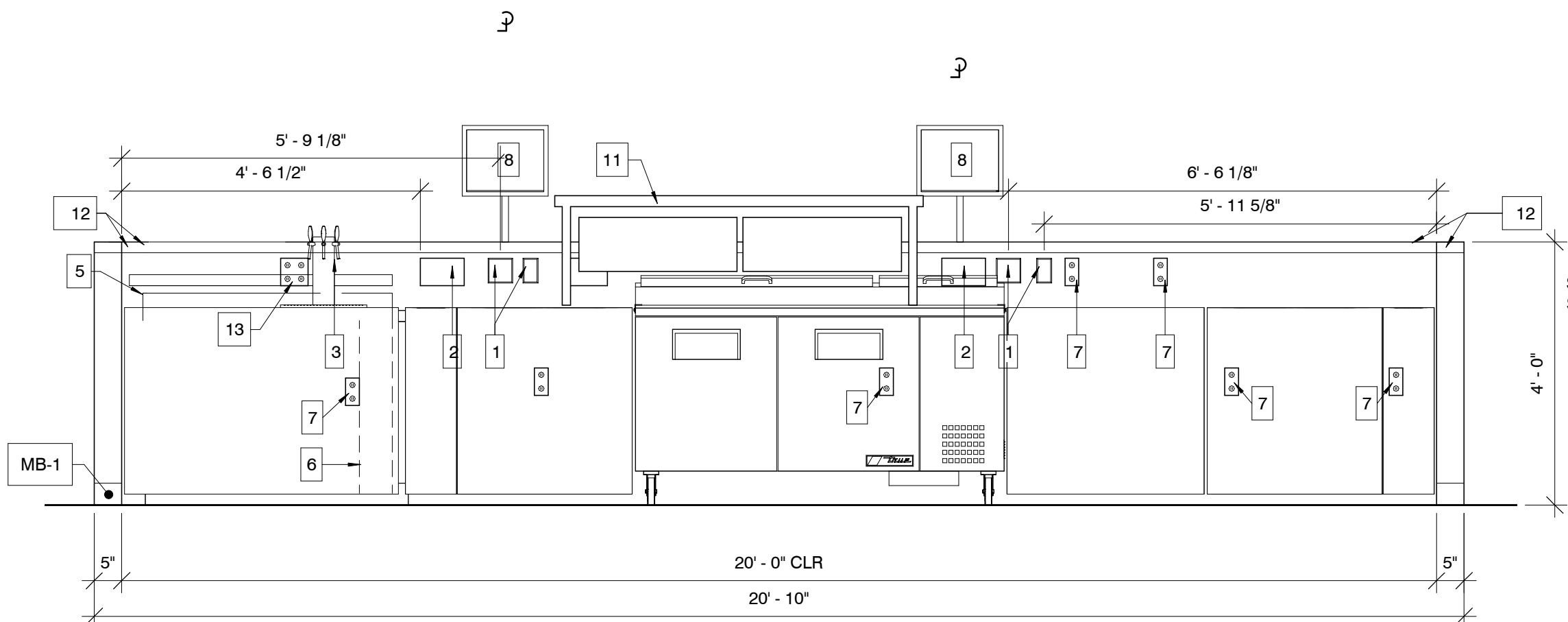
8 INTERIOR ELEVATION - FRONT OF HOUSE
1/2" = 1'-0"



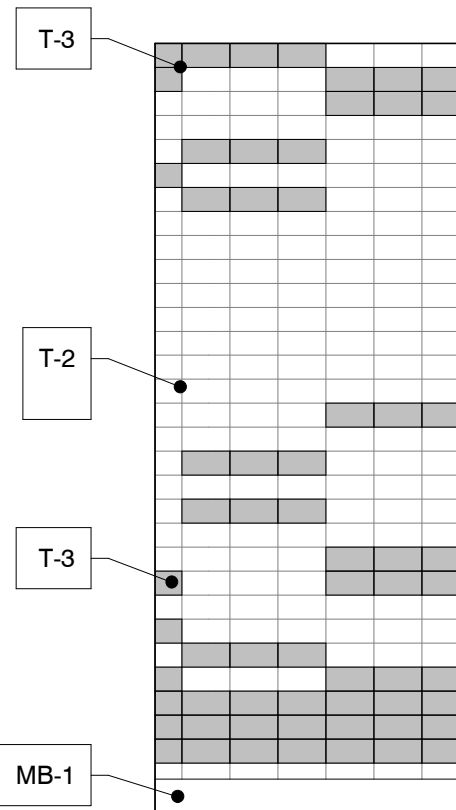
7 INTERIOR ELEVATION - FRONT OF HOUSE
1/2" = 1'-0"

EQUIP. KEYNOTES

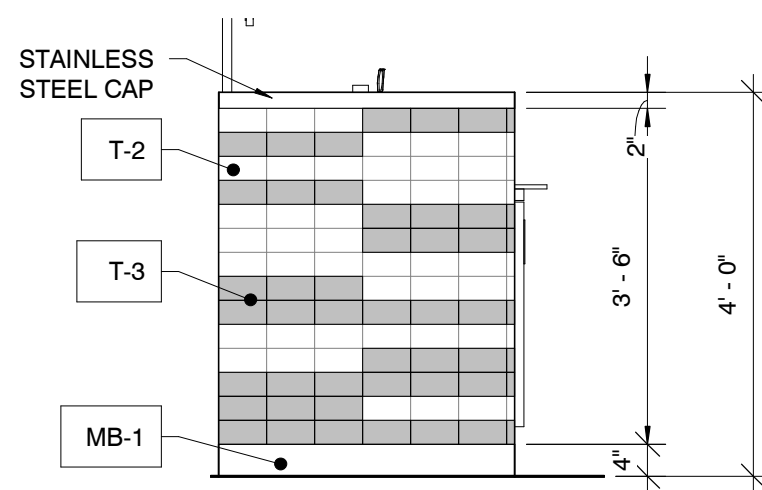
1. QUAD OUTLETS AND DATA
2. MONITOR CONTROL BOX MOUNTED TO INSIDE FACE OF WALL
3. ROOT BEER TOWER
4. TRANSACTION CASH REGISTER
5. 5" BACKPLASH
6. 6" CUP WELL INTEGRATED INTO CASE
7. DUPLEX OUTLET
8. DISPLAY SCREEN (ALIGN MONITORS WITH ENDS OF E-33)
9. REFRIGERATED WORK TABLE
10. DUPLEX OUTLET (2) CIRCUITS
11. STAINLESS STEEL SHELF INTEGRATED WITH WORK TABLE
12. STAINLESS STEEL WALL CAP
13. DOUBLE DUPLEX RECEPTACLE
14. DUPLEX GFI RECEPTACLE
15. IG DUPLEX RECEPTACLE FOR POS EQUIPMENT
16. DUPLEX GFI RECEPTACLE FOR WATER SOFTENER
17. IG DOUBLE DUPLEX RECEPTACLE FOR POS EQUIPMENT
18. WATER SOFTENER
19. WATER HEATER



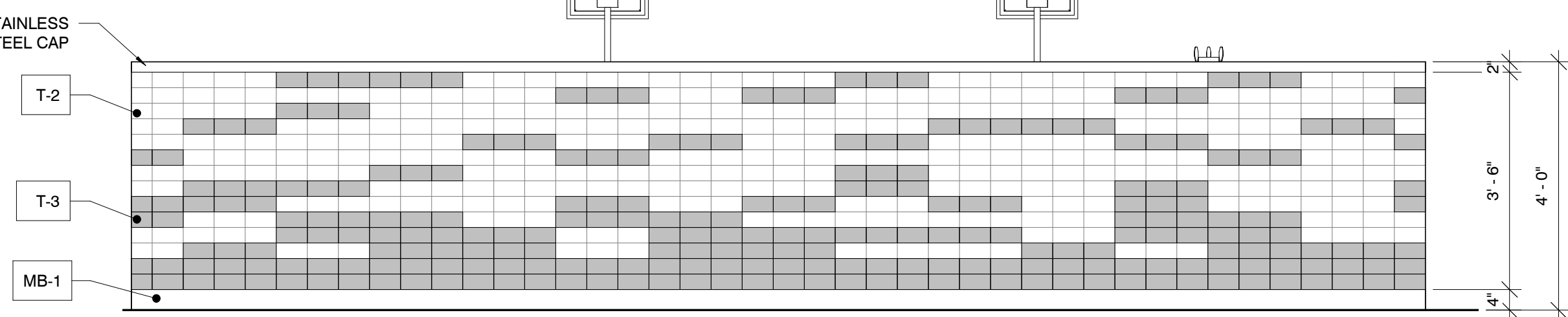
2 INTERIOR ELEVATION - FRONT OF HOUSE
1/2" = 1'-0"



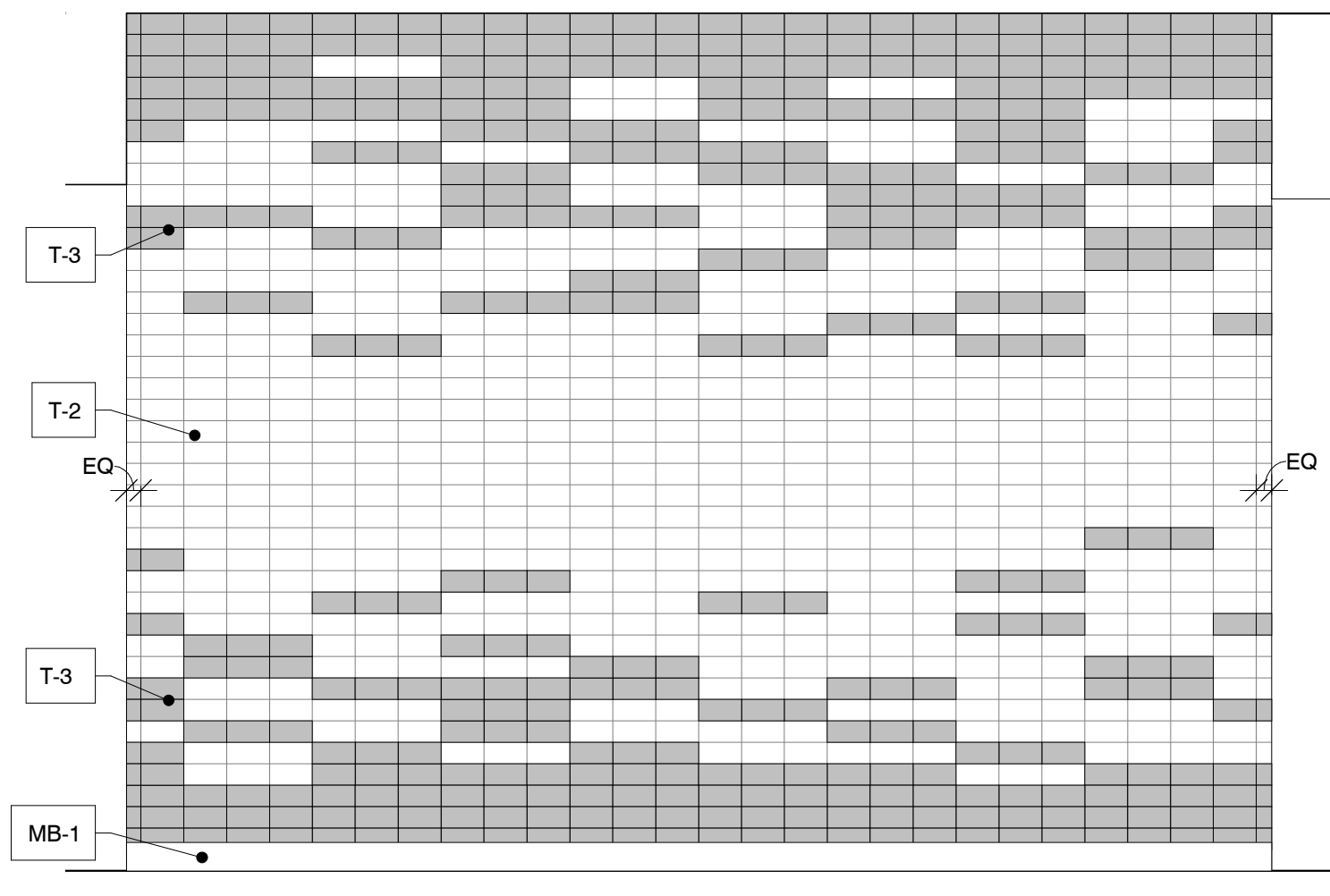
6 INTERIOR ELEVATION - FRONT OF HOUSE
1/2" = 1'-0"



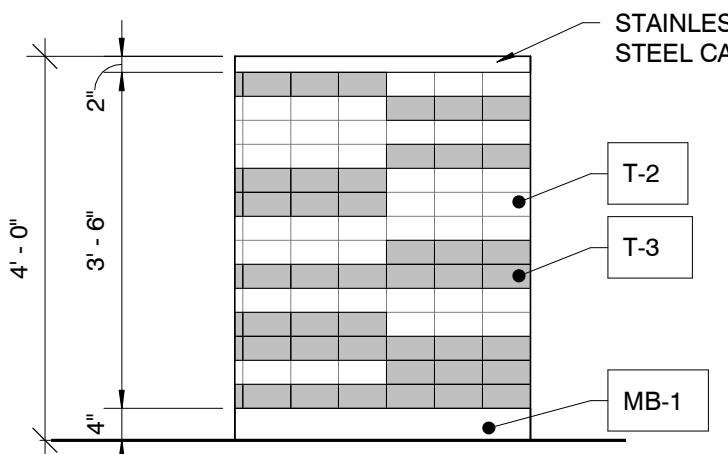
4 INTERIOR ELEVATION - FRONT OF HOUSE
1/2" = 1'-0"



1 INTERIOR ELEVATION - FRONT OF HOUSE
1/2" = 1'-0"



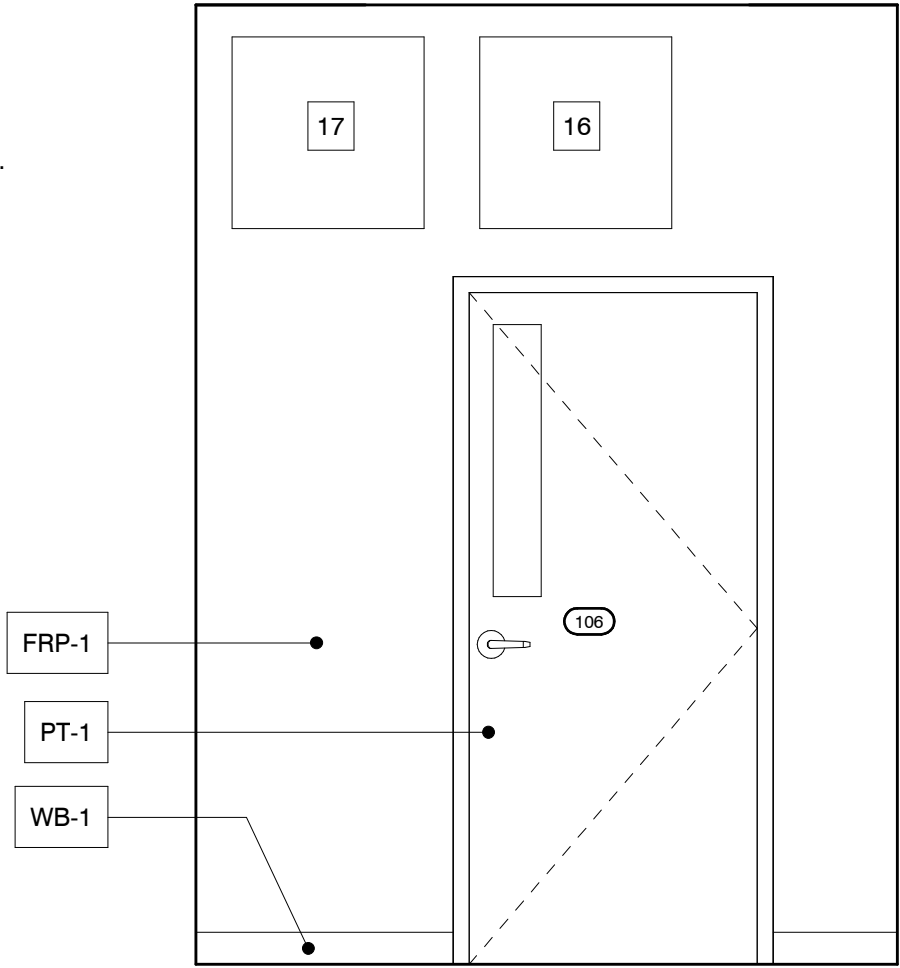
5 INTERIOR ELEVATION - FRONT OF HOUSE
1/2" = 1'-0"



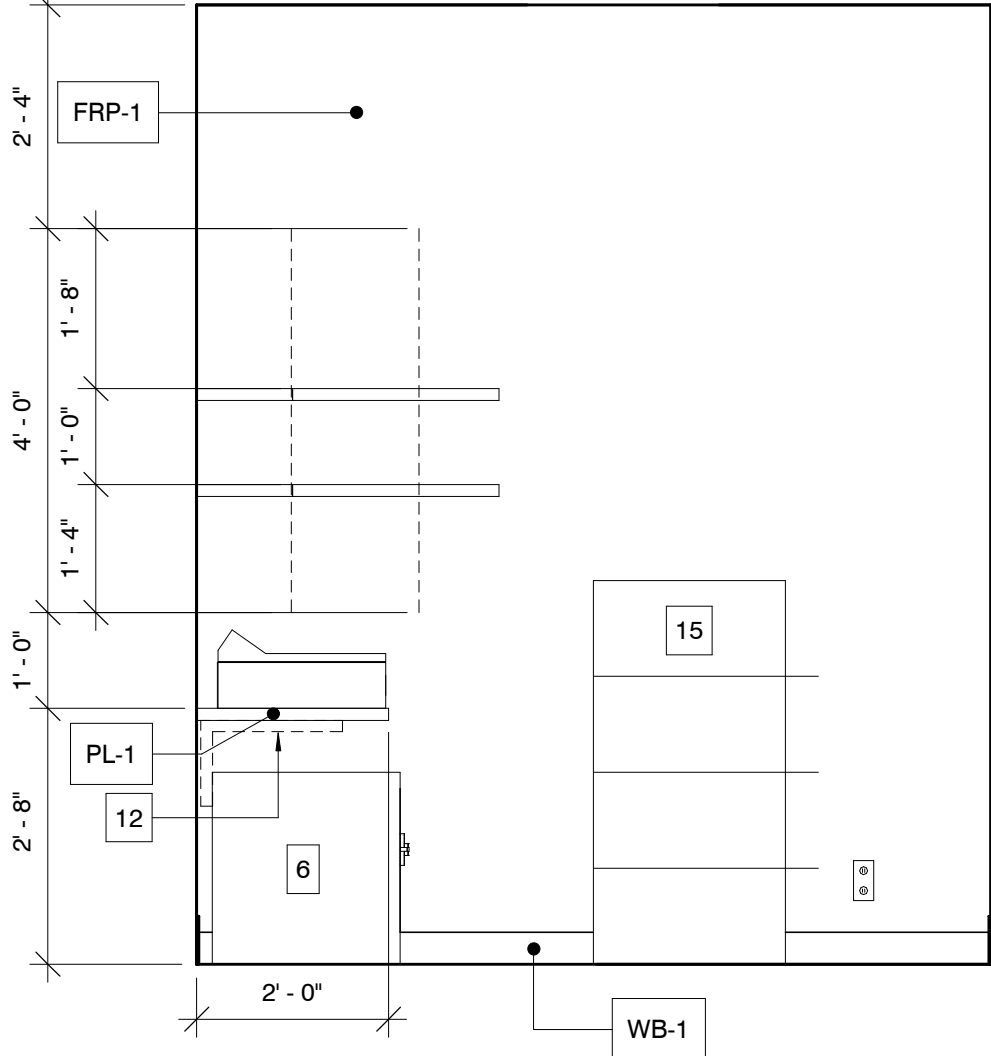
3 INTERIOR ELEVATION - FRONT OF HOUSE
1/2" = 1'-0"

OFFICE KEYNOTES

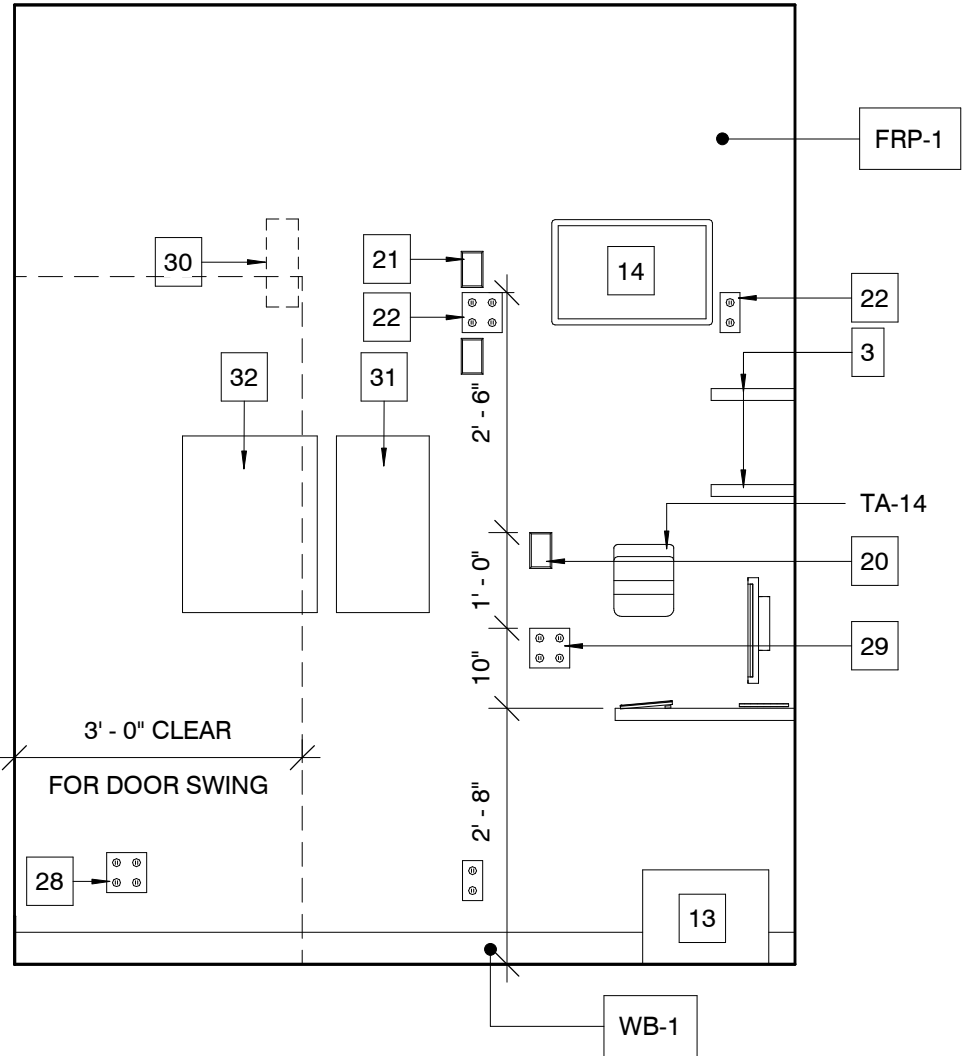
1. POS ROUTER
2. MUZAK
3. 12" MELAMINE SHELF ON BRACKETS @ 16" O.C. PROVIDE SOLID BLOCKING.
4. PRINTER
5. FAX
6. SAFE
7. PHONE SYSTEM
8. DUPLEX OUTLET AND DATA
9. MONITOR
10. COUNTER GROMET
11. MODEM AND ROUTER
12. COUNTER SUPPORT BRACKETS @ 4' O.C. PROVIDE BLOCKING
13. CPU
14. DRIVE THRU MONITOR
15. LATERAL FILES
16. NEON CONTROL PANEL
17. I.T. / INTERNET CABINET
18. 24" PLAM COUNTER
19. BUMP BAR EQUIPMENT
20. PHONE JACK @ 54" AFF
21. DATA
22. IG RECEPTACLE @ 84" AFF
23. IG RECEPTACLE FOR SOUND SYSTEM @ 84" AFF
24. IG RECEPTACLE FOR PRINTER
25. IG RECEPTACLE FOR FAX AND DATA
26. IG RECEPTACLE FOR COMPUTER SYSTEM
27. RECEPTACLE FOR SAFE
28. RECEPTACLE FOR GENERAL POWER
29. IG RECEPTACLE AT 42" AFF
30. DEMARCATION BLOCK
31. FASCIA LIGHTING ANIMATOR
32. SECURITY PANEL
33. DUPLEX GFI RECEPTACLE



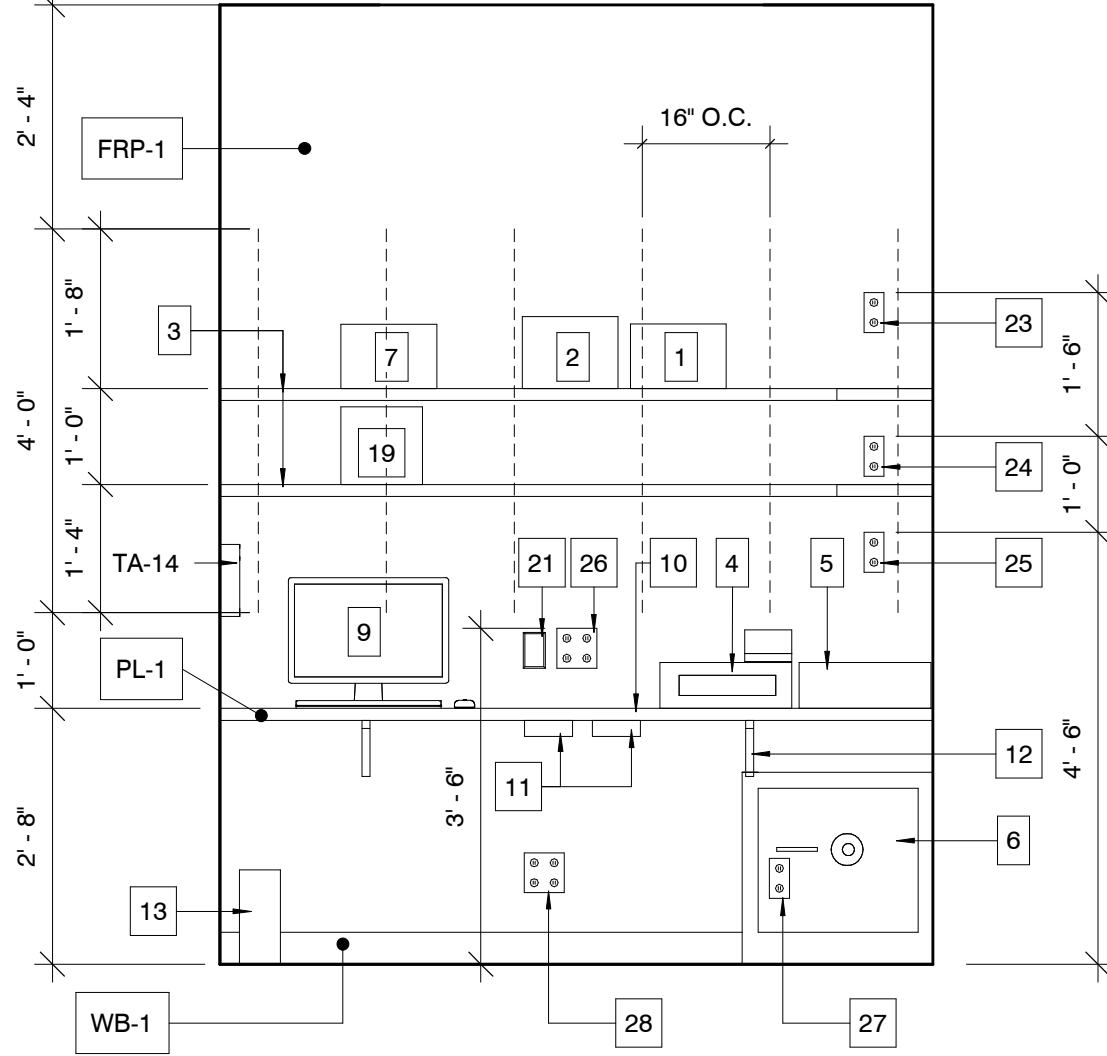
9 OFFICE ELEVATION 04
1/2" = 1'-0"



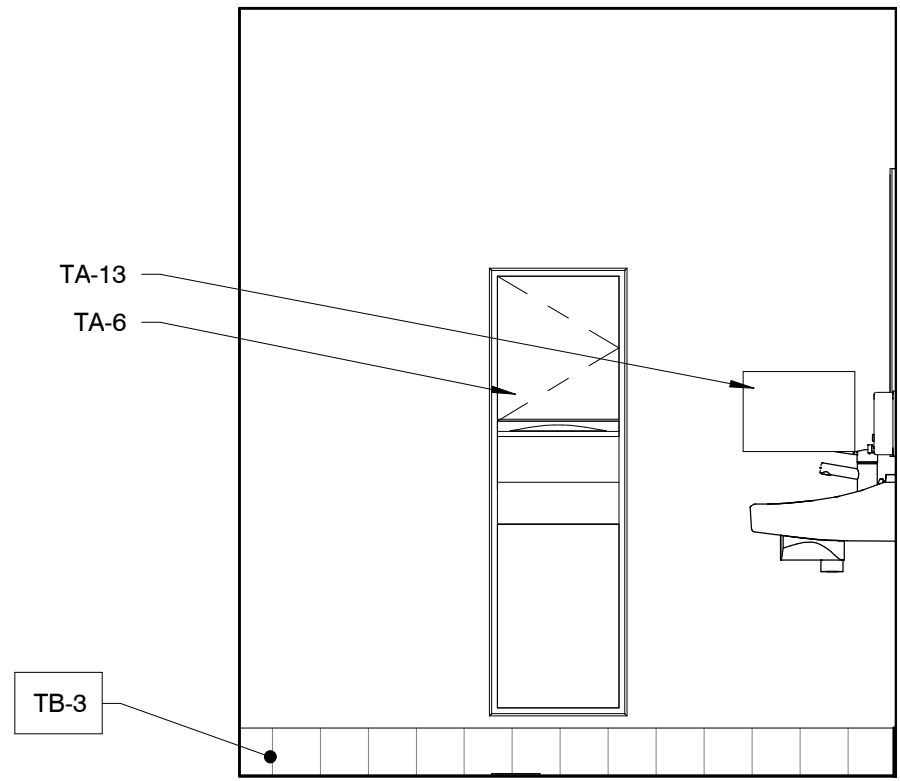
8 OFFICE ELEVATION 03
1/2" = 1'-0"



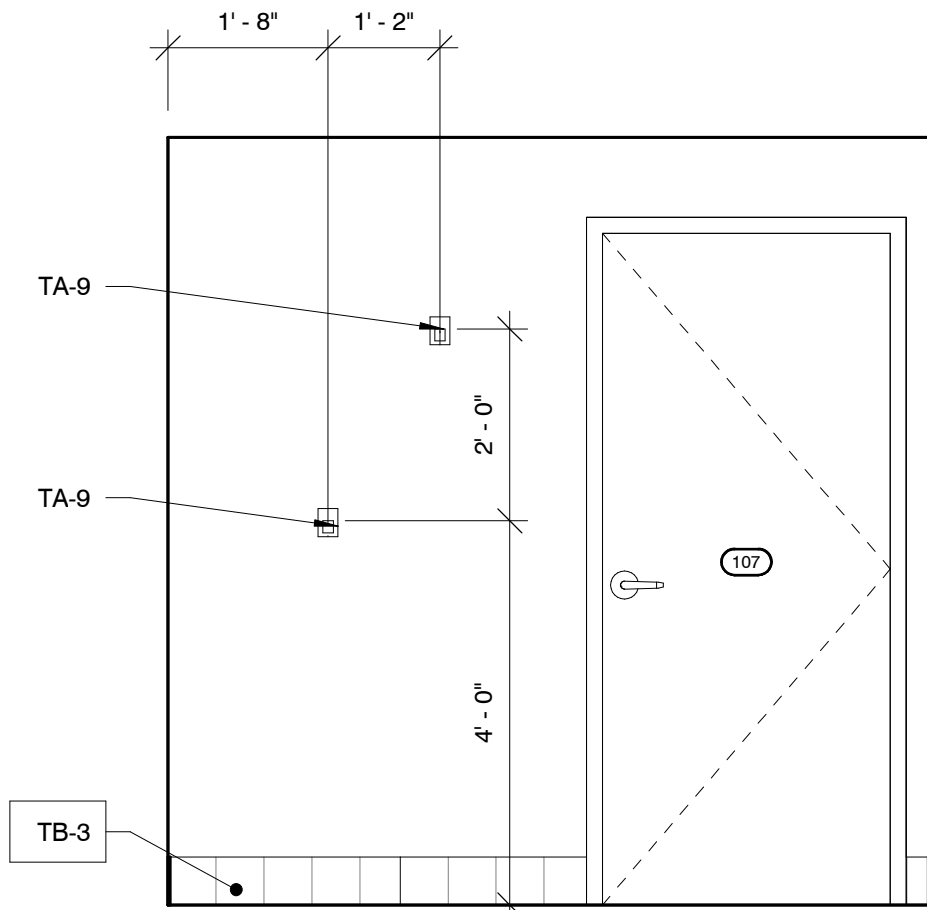
7 OFFICE ELEVATION 02
1/2" = 1'-0"



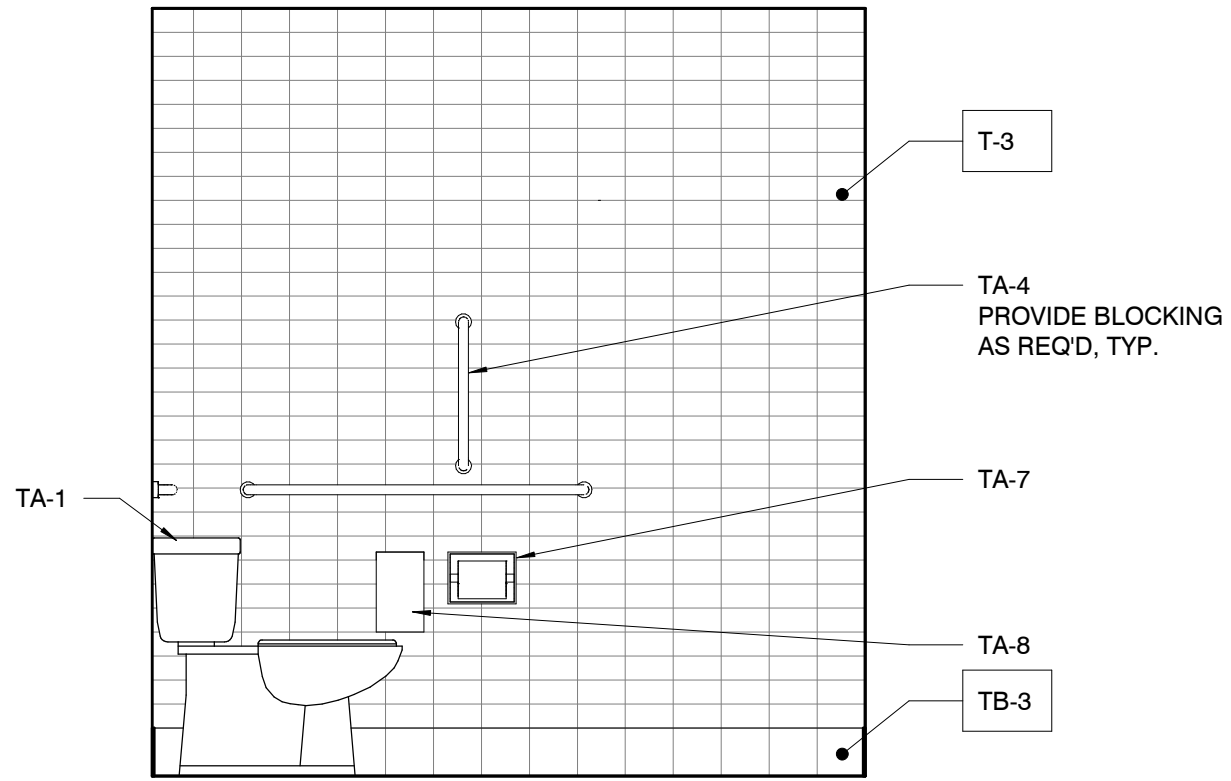
6 OFFICE ELEVATION 01
1/2" = 1'-0"



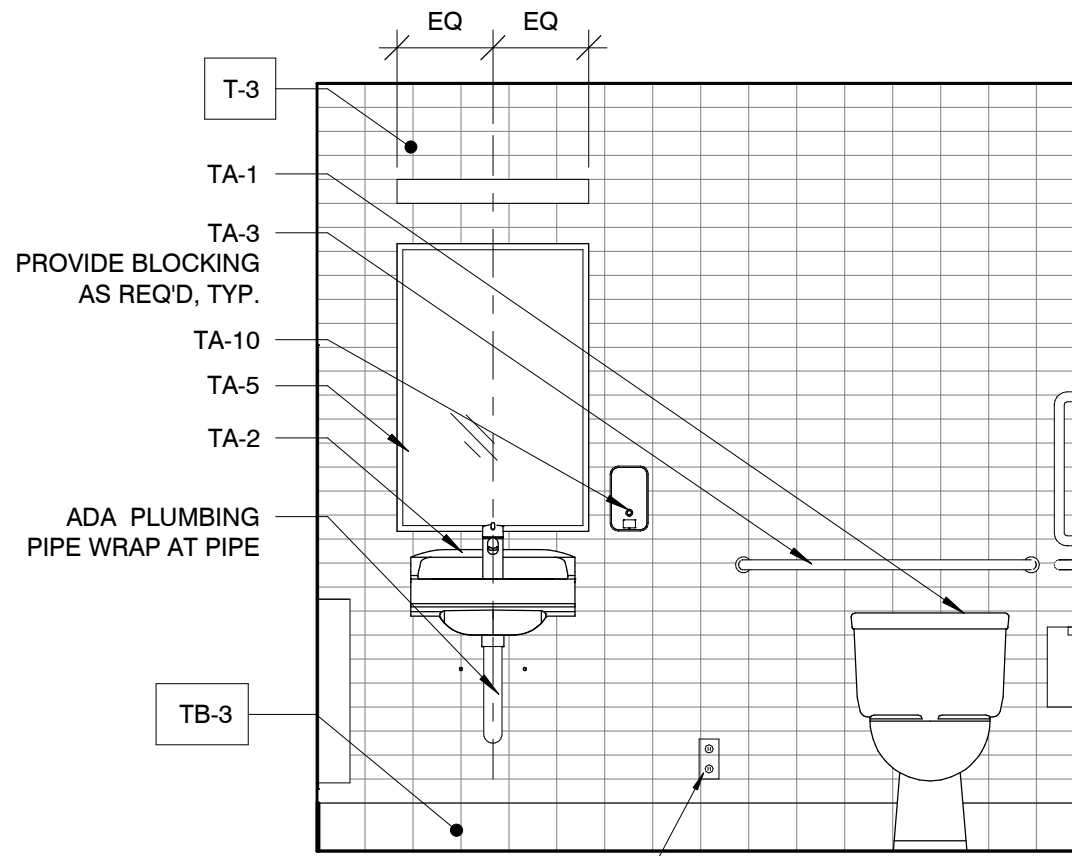
5 WOMEN'S RESTROOM 107 - 04
1/2" = 1'-0"



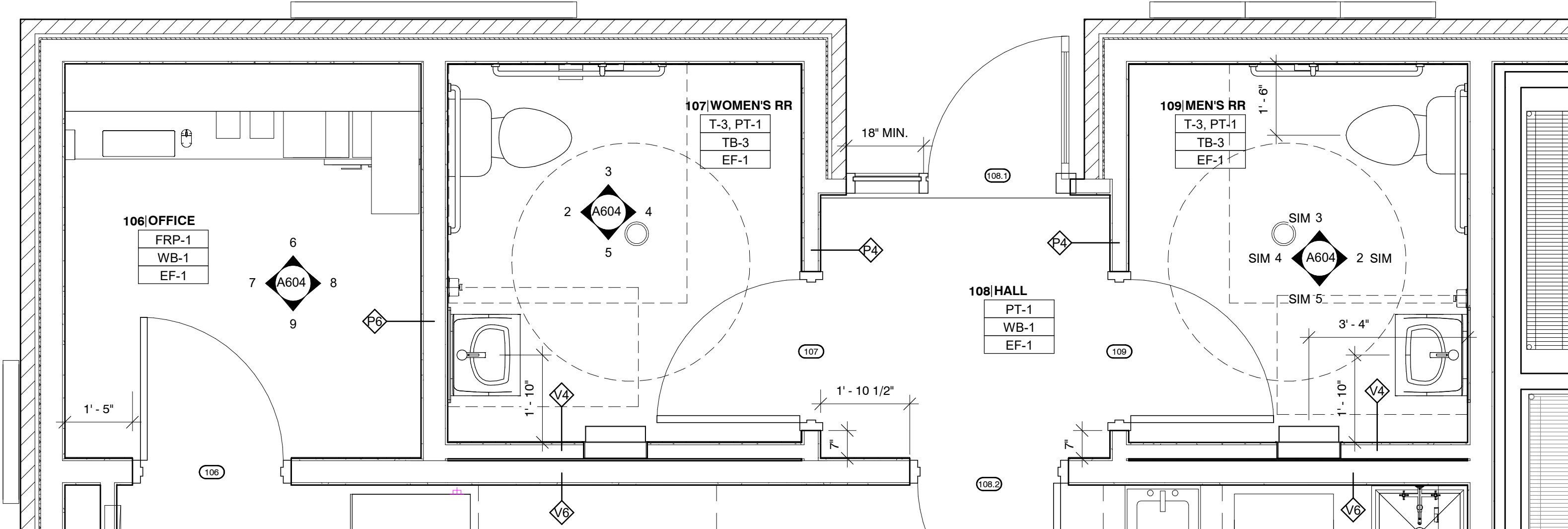
4 WOMEN'S RESTROOM 107 - 03
1/2" = 1'-0"



3 WOMEN'S RESTROOM 107 - 02
1/2" = 1'-0"



2 WOMEN'S RESTROOM 107 - 01
1/2" = 1'-0"



1 ENLARGED PLAN - OFFICE & RESTROOMS
1/2" = 1'-0"

FIXTURE & ACCESSORY LEGEND

#:	TYPE:	MANUFACTURER:	MODEL NUMBER:	MOUNTING HEIGHTS:
TA-1	TOILET	RE: PLUMB DWGS	RE: PLUMB DWGS	
TA-2	SINK	RE: PLUMB DWGS	RE: PLUMB DWGS	34" TO RIM
TA-3	GRAB BAR	BOBRICK	B-5806	36" TO TOP
TA-4	GRAB BAR	BOBRICK	B-5806	36" TO TOP
TA-5	MIRROR	BOBRICK	B-293-2436	40" TO BOTTOM
TA-6	PAPER TOWEL DISPENSOR/TRASH	BOBRICK	B-3944	8" TO BOTTOM
TA-7	TOILET TISSUE DISPENSOR	BOBRICK	B-2888	24" TO BOTTOM
TA-8	SANITARY NAPKIN DISPOSAL	BOBRICK	B-254	32" AFF TO TOP OF DISPENSOR
TA-9	HAT AND COAT HOOK	BOBRICK	B-6872	48" AFF ON DOOR - ADA, 72" ON DOOR
TA-10	SOAP DISPENSER	BOBRICK	B-2111	40" AFF TO BOTTOM
TA-11	MEN'S ACCESSIBLE RESTROOM SIGN	AMERAPRODUCTS	EP-4402	60" AFF TO CENTER
TA-12	WOMEN'S ACCESSIBLE RESTROOM SIGN	AMERAPRODUCTS	EP-4404	60" AFF TO CENTER
TA-13	EMPLOYEE HANDWASHING SIGNAGE	SMART SIGNS - JUST BATHROOM SIGNS	S-4482	BOTTOM RIGHT OF MIRROR
TA-14	IPAD HOLDER	BOBRICK	S-635	42" TO BOTTOM

NOTE: REFER TO ACCESSIBILITY DIAGRAMS ON A001 FOR ALL STANDARND MOUNTING HEIGHTS AND LOCATIONS OF GRAB BARS, TISSUE DISPENSER, ETC.

Hufft

PROJECT INFORMATION:

Andy's Frozen Custard #204

630 NW Chipman Road
Lee's Summit, Missouri 64086

OWNER:

ANDY'S FROZEN CUSTARD

211 E. Water Street
Springfield, MO 65806

www.eatandys.com

ARCHITECT:

HUFFT

3612 Karnes Boulevard
Kansas City, MO 64111

P: 816-531-0200

www.hufft.com

STRUCTURAL:

METTEMMEYER ENGINEERING, LLC

2225 W. Chesterfield Blvd., Suite 300
Springfield, MO 65807

P: 417-590-5102

CIVIL/LANDSCAPE:

PHELPS ENGINEERING, INC.

1270 N. Winchester
Clatto, Kansas 66061

P: 913.538.5821

MEP:

RTM ENGINEERING CONSULTANTS

3333 E. Battlefield Road, Suite 1000
Springfield, MO 65804

P: 417-881-0200

ISSUE:

CONSTRUCTION DOCUMENTS

05/01/2024

REVISION SCHEDULE:

NO. DATE ISSUE

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05/30/2024

Architect: JEFFREY KLOCH
License Number: A-2016005093
Drawn By: MS
Project Number: 736

INTERIOR ELEVATIONS

A604

HEAD

SILL

JAMB

INTERMEDIATE

OUTSIDE CORNER

INSIDE CORNER

E-2
QUIK SERV SLIDING WINDOW
FULLY AUTOMATIC, IF-4035E

E-1
QUIK SERV SLIDING WINDOW
SELF-CLOSING, SC-4030

STOREFRONT LEGEND

(S) = TEMPERED SAFETY GLAZING

GL-1 GLAZING TYPE 1 (TYPICAL):
STOREFRONT, KAWNEER 451T
FRONT SET WITH 1" INSULATED GLAZING.
ALL GLAZING TO BE GL-1, UNO

VF-1 VINYL FILM:
WHITE VINYL FILM ON INSIDE FACE OF
GLASS

NOTE: REFERENCE SPECIFICATIONS FOR GLAZING
REQUIREMENTS. FIELD VERIFY ALL DIMENSIONS.

Hufft

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Lee's Summit, Missouri 64086

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05/30/2024

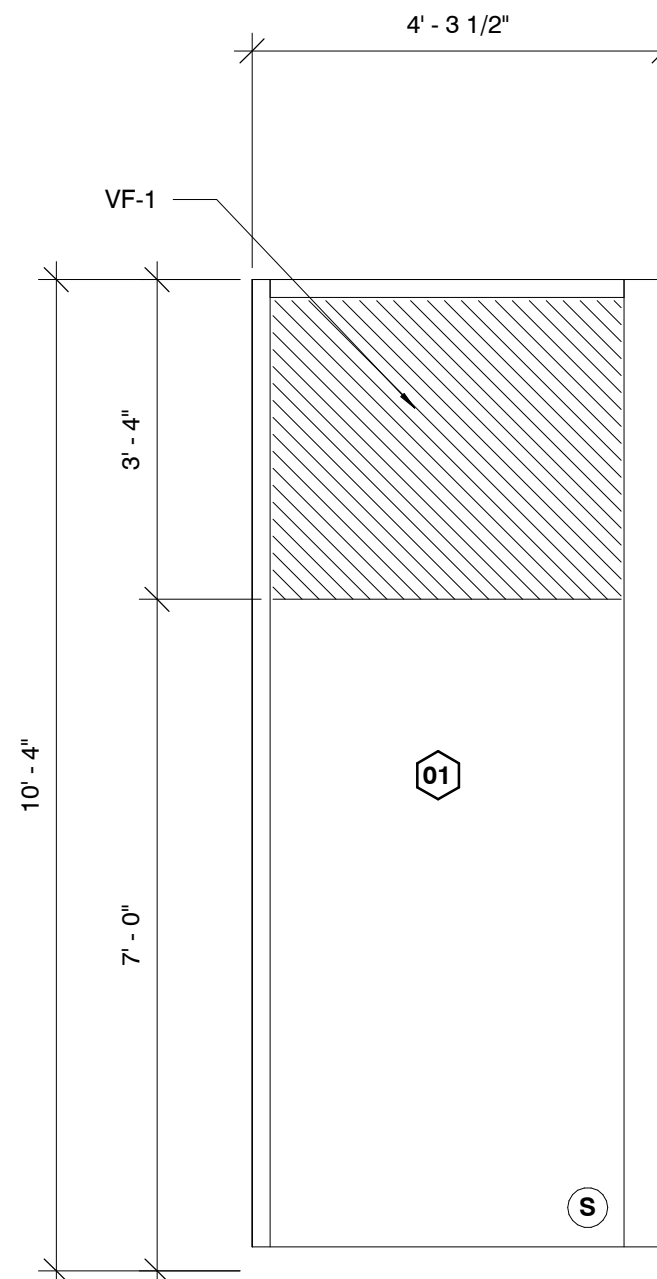
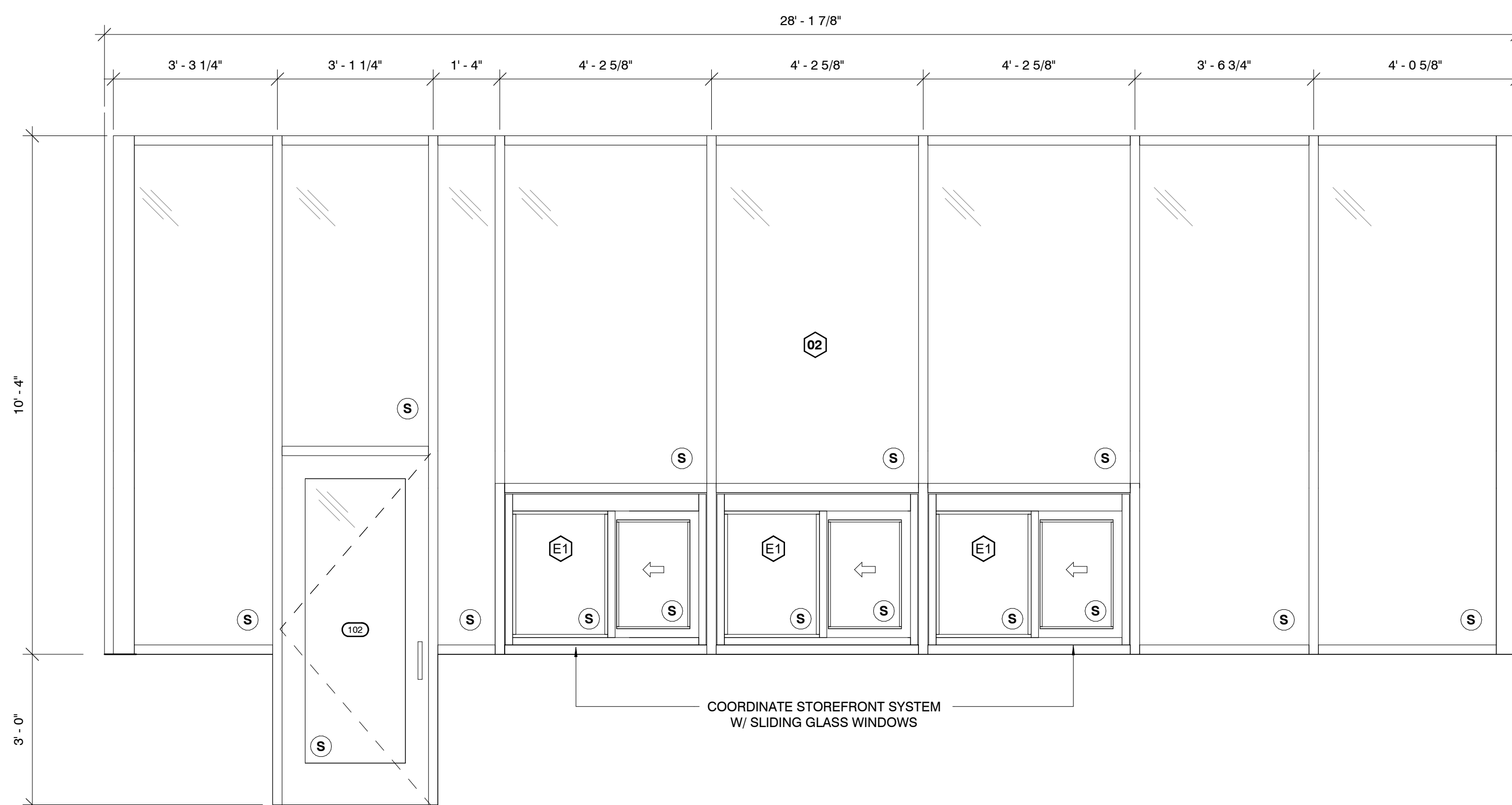
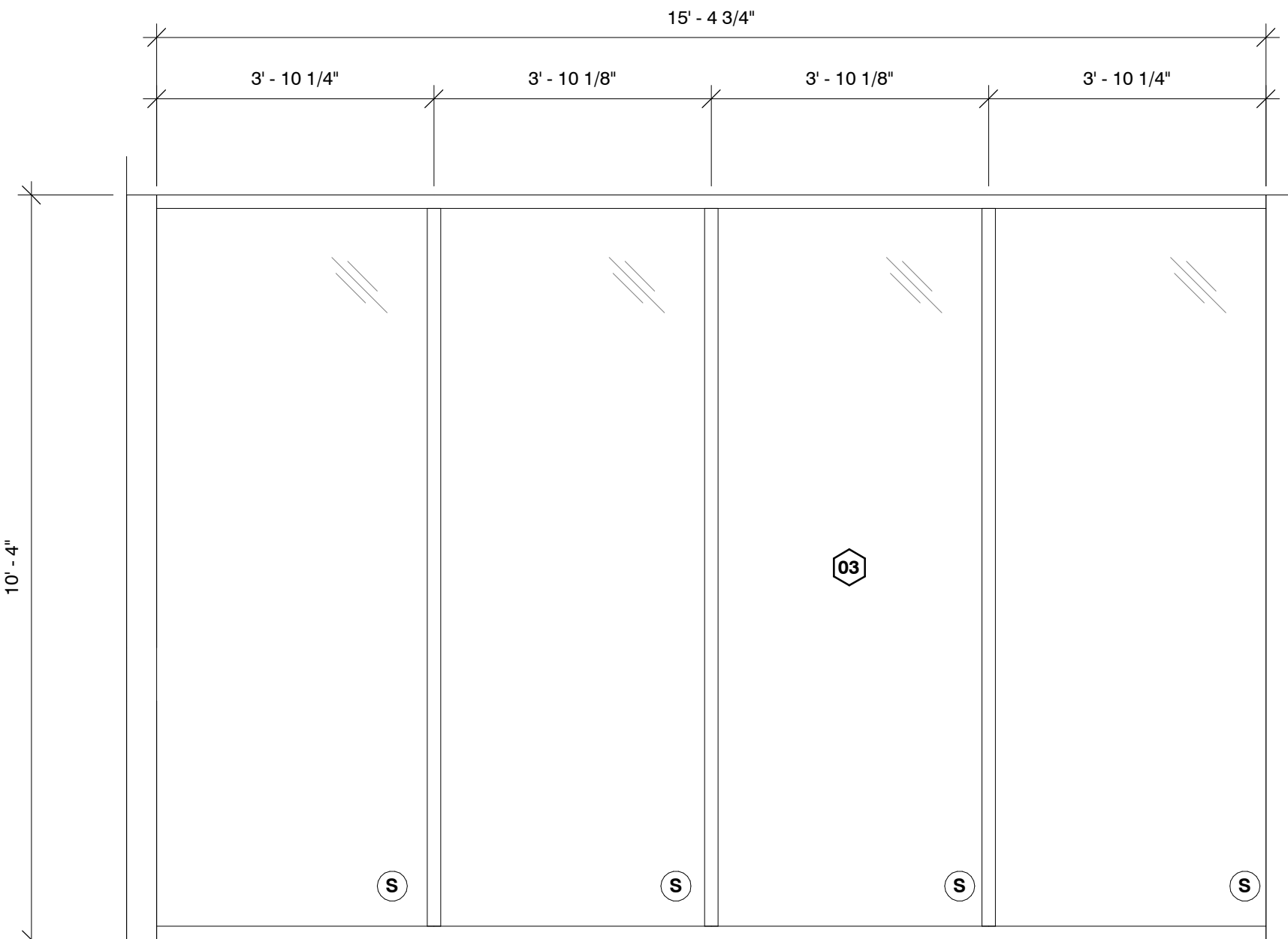
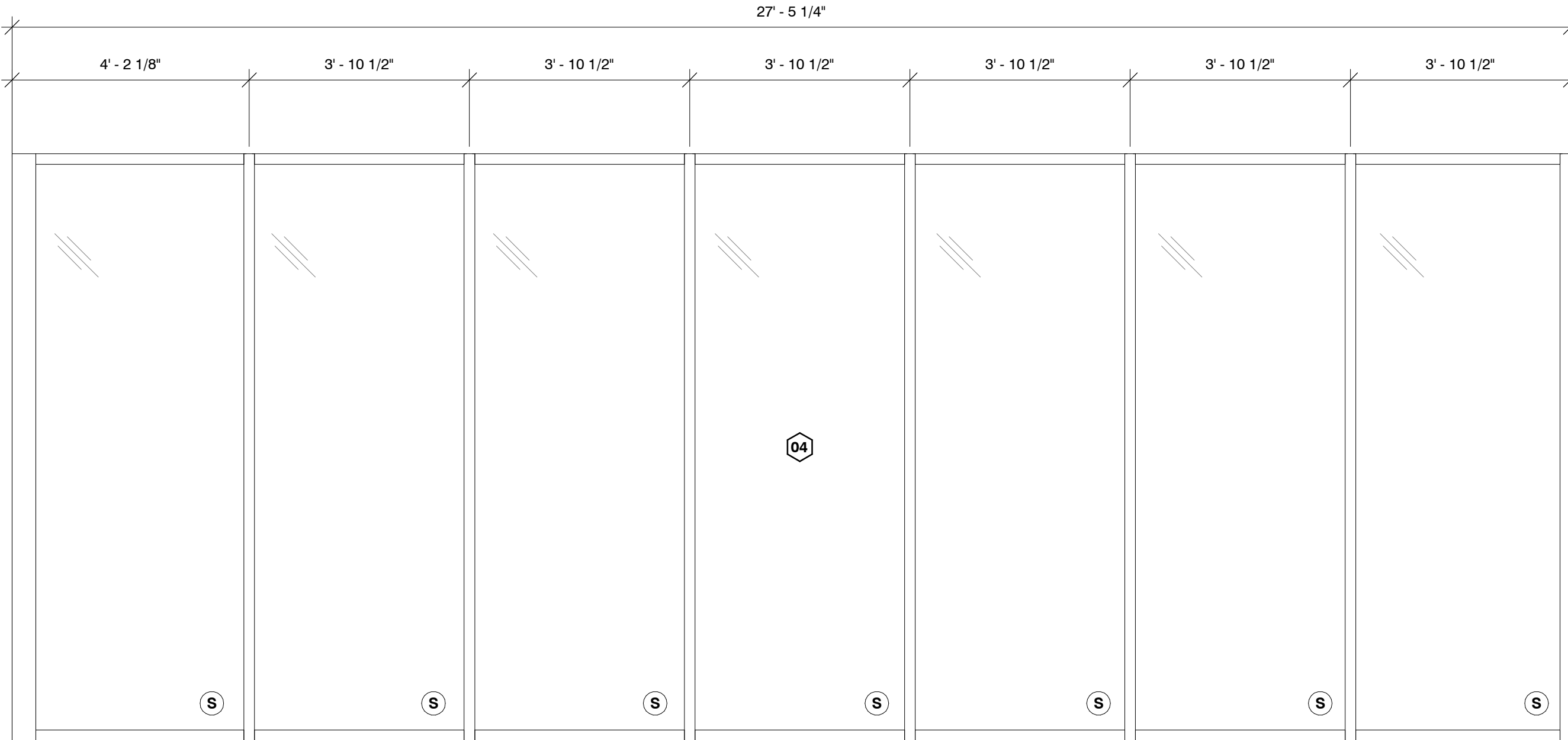
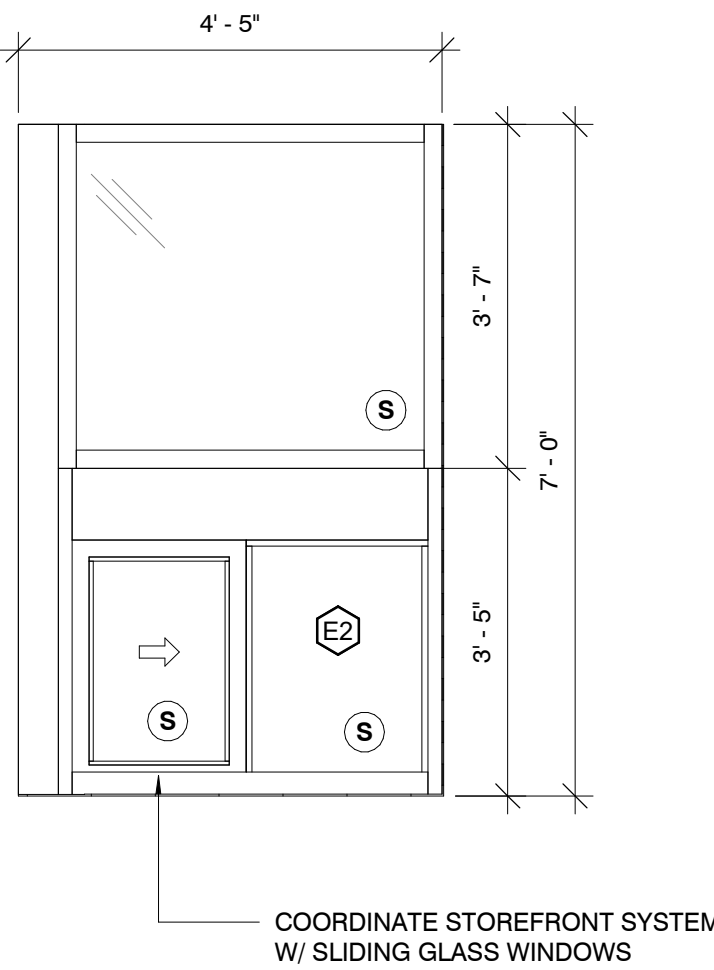
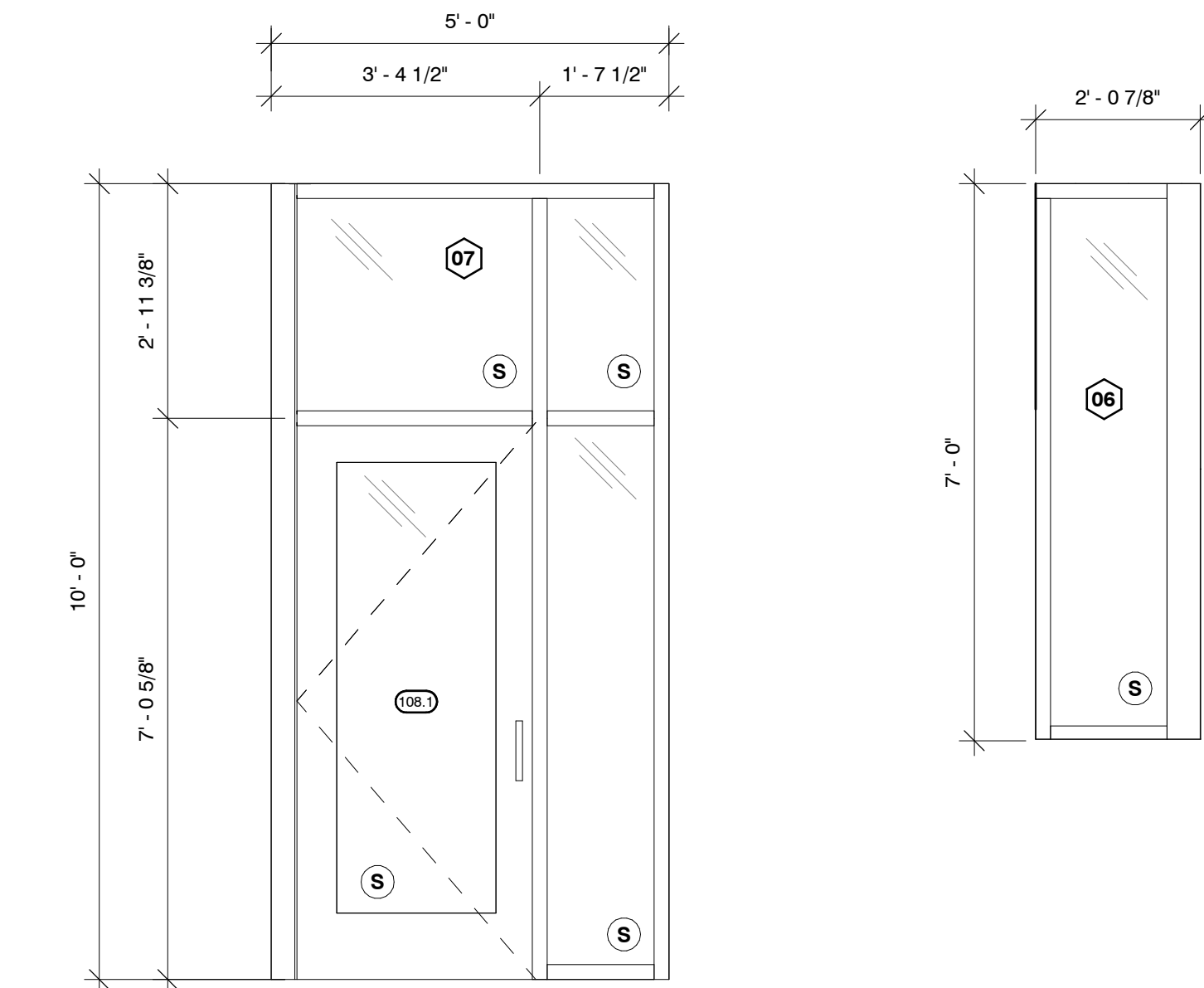
Architect: JEFFREY KLOCH
License Number: A-2016005093
Drawn By: MS
Project Number: 736

STOREFRONT ELEVATIONS

A702

3 STOREFRONT DETAILS
3" = 1'-0"

2 TYPICAL SLIDING WINDOW
1/2" = 1'-0"



1 STOREFRONT ELEVATIONS
1/2" = 1'-0"

SPECIAL CONDITIONS, REQUIREMENTS AND NOTES TO OWNER, DEVELOPER AND CONTRACTOR:

1. CONTRACTOR, BUILDER AND SUBCONTRACTORS INVOLVED IN ANY FORM OF CONSTRUCTION USING THESE CONTRACT DOCUMENTS SHALL BE INFORMED OF THE FOLLOWING RESPONSIBILITIES, PERFORMANCE CRITERIA, LIMITATIONS AND RISKS ASSOCIATED WITH CONSTRUCTION. IF THE OWNER, DEVELOPER OR CONTRACTOR IS NOT ABLE TO ACCEPT THE RESPONSIBILITIES OR PERFORMANCE CRITERIA AND LIMITATIONS, NOTIFY THE ENGINEER OF RECORD OR ARCHITECT PRIOR TO START OF CONSTRUCTION. IT SHALL BE EXPRESSLY UNDERSTOOD THAT THE ENGINEER IS NOT RESPONSIBLE OR LIABLE FOR THE LACK OF PERFORMANCE OF MATERIALS, SYSTEMS OR DESIGNS NOT BEING LIMITED TO ITEMS OUTLINED BELOW. CONTRACTORS AND SUBCONTRACTORS SHALL THOROUGHLY REVIEW ALL CONDITIONS AND RESPONSIBILITIES STATED IN THESE NOTES, PLANS, SECTIONS / DETAILS, AND SHALL NOTIFY THE ENGINEER AND OWNER IN WRITING PRIOR TO CONSTRUCTION OF ANY CONDITIONS OR RESPONSIBILITIES WHICH ARE NOT ACCEPTABLE OR NOT UNDERSTOOD.

2. THE CONTRACTOR SHALL USE ALL STANDARD MEANS TO ENSURE PROPER PROTECTION AND CURING OF ALL CEMENTITIOUS MATERIALS TO REDUCE CRACKING OR SURFACE SPALLING. PLAIN CONCRETE, REINFORCED CONCRETE, OR CONCRETE MASONRY DEVELOP CRACKS. THE CRACKS ARE DUE TO INHERENT SHRINKAGE, CREEP AND RESTRAINING EFFECTS. CRACKS ARE NORMALLY COSMETIC AND THE SYSTEM MAINTAINS SERVICEABILITY AND STRENGTH REQUIREMENTS. JOINTS MAY BE INDICATED TO CONTROL CRACKING, BUT ARE NOT MEANT TO ELIMINATE ALL CRACKING, AS THIS IS NOT PRACTICAL. EXTREME CRACKING MAY BE CAUSED BY POOR MATERIAL OR PLACEMENT. CONTACT THE ENGINEER OF RECORD FOR POSSIBLE REPAIR REQUIREMENTS.

3. FOUNDATION SETTLEMENT MAY CAUSE DISTORTION AND DISTRESS TO THE SUPPORTED STRUCTURE AS WELL AS ADJACENT UTILITIES, SLABS, FOUNDATIONS, ETC. THE GEOTECHNICAL REPORT MAY INDICATE A LEVEL OF DISPLACEMENT. ATTENTION TO PROPER SOIL PREPARATION AND GRADING, AS WELL AS PROPER DRAINAGE AWAY FROM STRUCTURE IS ESSENTIAL IN REDUCING EXPECTED SETTLEMENT. ALL REQUIREMENTS WITHIN THE GEOTECHNICAL REPORT ARE TO BE FOLLOWED. INFORM THE ENGINEER OF RECORD OF ANY CONFLICTS BETWEEN THE REPORT AND THE DRAWINGS.

4. VARIATION IN DIMENSIONS MAY OCCUR AS A RESULT OF THERMAL INFLUENCES, NATURAL DEFLECTIONS AND/OR CAMBERS OF MEMBERS. AS A RESULT, QUANTITIES MAY VARY AND ARCHITECTURAL FINISHES MAY BE AT RISK OF COSMETIC VARIATION OR DAMAGE.

5. THE ENGINEER OF RECORD SHALL NOT BE RESPONSIBLE FOR VARIATIONS TO PLANS BETWEEN BID PROCESS AND FINALIZED APPROVED DOCUMENTS RELEASED FOR CONSTRUCTION UNLESS SUCH VARIATIONS ARE ISSUED BY THE ENGINEER. ADDITIONS AND ALTERATIONS MAY BE MADE BY THE ENGINEER BETWEEN RELEASE OF BID DOCUMENTS AND FINALIZED CONSTRUCTION DOCUMENTS.

6. THESE DRAWINGS HAVE BEEN PREPARED USING STANDARDS OF PROFESSIONAL CARE AND COMPLETENESS NORMALLY EXERCISED UNDER SIMILAR CIRCUMSTANCES BY REPUTABLE STRUCTURAL ENGINEERS IN THIS OR SIMILAR LOCALITIES. THE NECESSITY THAT THE WORK DEPICTED WILL BE PERFORMED BY AN EXPERIENCED CONTRACTOR, SUBCONTRACTOR AND/OR WORKPERSONS WHO HAVE A WORKING KNOWLEDGE OF THE APPLICABLE CODE STANDARDS AND REQUIREMENTS AND OF INDUSTRY ACCEPTED STANDARD GOOD PRACTICE. AS NOT EVERY CONDITION OR ELEMENT IS (OR CAN BE) EXPLICITLY SHOWN ON THESE DRAWINGS, IT IS UNDERSTOOD THAT THE CONTRACTOR WILL USE INDUSTRY ACCEPTED STANDARD GOOD PRACTICE FOR ALL WORK EXPLICITLY SHOWN.

7. CALCULATION AND DESIGN OF MISCELLANEOUS NON-STRUCTURAL ITEMS, SUCH AS RAILINGS, NON-STRUCTURAL WALLS AND PARTIALLY CASTED STRUCTURAL ITEMS, SUCH AS CANOPIES, ARE NOT INCLUDED AND ARE TO BE PROVIDED BY OTHERS UNLESS SPECIFICALLY NOTED ON THESE DRAWINGS.

8. THESE DRAWINGS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE MEANS AND METHODS OF CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DESIGN AND PROVIDE ADEQUATE, SHORING, BRACING, FORMWORK, ETC. AS REQUIRED FOR THE PROTECTION OF LIFE AND PROPERTY DURING CONSTRUCTION.

9. CONSTRUCTION MATERIALS SHALL BE UNIFORMLY SPREAD OUT SUCH THAT DESIGN LIVE LOAD PER SQUARE FOOT AS STATED HEREIN IS NOT EXCEEDED. VISITS TO THE SITE BY THE STRUCTURAL ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS.

10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXCAVATION PROCEDURES INCLUDING SHORING AND PROTECTION OF ADJACENT PROPERTY, STRUCTURES, STREETS AND UTILITIES IN ACCORDANCE WITH THE LOCAL BUILDING DEPARTMENT, SHALL COMPLY WITH ALL APPLICABLE BUILDING CODES, REGULATIONS AND SAFETY REQUIREMENTS.

11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL DIMENSIONS, CONDITIONS AND ELEVATIONS WITH OTHER DISCIPLINES DRAWINGS PRIOR TO START OF CONSTRUCTION. THE CONTRACTOR SHALL INFORM THE ARCHITECT AND ENGINEER IN WRITING OF ANY DISCREPANCIES, OMISSIONS OR COMMISSIONS NOTED ON THE DRAWINGS. ANY SUCH DISCREPANCY, OMISSION OR VARIATION NOT REPORTED BEFORE THE START OF CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

12. WHERE REFERENCE IS MADE TO VARIOUS TEST STANDARDS FOR MATERIALS, SUCH STANDARDS SHALL BE THE LATEST EDITION AND/OR ADDENDA.

13. OPTIONS ARE FOR CONTRACTOR'S CONVENIENCE. IF AN OPTION IS USED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL NECESSARY CHANGES AND SHALL COORDINATE ALL DETAILS.

14. TYPICAL GENERAL, STRUCTURAL NOTES AND DETAILS SHALL APPLY, THOUGH NOT NECESSARILY AT A SPECIFIC LOCATION ON PLANS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT. DETAILS MAY ONLY SHOW ONE SIDE OF CONNECTION OR MAY OMIT INFORMATION FOR CLARITY. WHERE DISCREPANCIES OCCUR IN THESE DRAWINGS, SPECIFIC NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL STRUCTURAL NOTES AND TYPICAL DETAILS.

15. ALL OPENINGS ARE NOT SHOWN ON THESE DRAWINGS. ESTABLISH AND VERIFY ALL OPENINGS AND INSERTS FOR ARCHITECTURAL, MECHANICAL, PLUMBING AND ELECTRICAL WITH APPROPRIATE TRADES, DRAWINGS AND SUBCONTRACTORS PRIOR TO CONSTRUCTION. OPENINGS MAY REQUIRE ADDITIONAL REINFORCING OR SUPPORTS AS SHOWN ON TYPICAL DETAILS. IF TYPICAL DETAILS FOR ALL CONDITIONS ARE NOT INCLUDED HEREIN, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REQUEST IN WRITING ADDITIONAL INFORMATION.

16. ALL INSPECTIONS REQUIRED BY THE BUILDING CODES, LOCAL BUILDING OFFICIALS, OR BY THESE PLANS SHALL BE PROVIDED BY AN INDEPENDENT INSPECTION COMPANY OR THE BUILDING DEPARTMENT. SPECIAL INSPECTION REQUIREMENTS STATED HEREIN ARE PARTIAL. COMPLETE INSPECTION REQUIREMENTS SHALL BE AS DIRECTED BY THE LOCAL BUILDING DEPARTMENT. SITE VISITS BY THE ENGINEER DO NOT CONSTITUTE A SPECIAL INSPECTION, UNLESS SPECIFICALLY CONTRACTED FOR.

17. SHOP DRAWINGS SHALL BE SUBMITTED FOR ALL STRUCTURAL ITEMS. SHOP DRAWINGS ARE REVIEWED ONLY FOR GENERAL COMPLIANCE WITH THE STRUCTURAL DRAWINGS. REVIEW DOES NOT INDICATE THAT THE SHOP DRAWINGS ARE CORRECT OR COMPLETE. RESPONSIBILITY FOR CORRECTNESS SHALL REST WITH THE CONTRACTOR. ANY CHANGES, SUBSTITUTIONS, OR DEVIATIONS FROM CONTRACT DRAWINGS SHALL BE CLOUDED. ANY OF THE AFOREMENTIONED SHALL NOT BE CONSIDERED APPROVED AFTER ENGINEERS REVIEW UNLESS SPECIFICALLY NOTED ACCORDINGLY. THE SHOP DRAWINGS DO NOT SUPERSEDE OR REPLACE THE ORIGINAL CONTRACT DRAWINGS. ANY ENGINEERING PROVIDED BY OTHERS AND SUBMITTED FOR REVIEW SHALL BEAR THE SEAL OF AN APPROPRIATELY REGISTERED ENGINEER. THE ENGINEER OF RECORD SHALL NOT BE RESPONSIBLE FOR THE ADEQUACY OF ENGINEERING DESIGNS PERFORMED BY OTHERS. ALLOW A MINIMUM OF 10 WORKING DAYS FOR THE ENGINEER'S REVIEW. ONE COPY OF EACH SUBMITTAL WILL BE RETAINED FOR THE ENGINEER'S RECORDS.

CONFLICTING REQUIREMENTS:

1. ANY AND ALL CONFLICTS WITHIN THE CONTRACT DOCUMENTS (PLANS, SPECIFICATIONS AND OTHER DOCUMENTS), OR BETWEEN THE DOCUMENTS AND EXISTING PROJECT CONDITIONS SHALL BE QUANTIFIED BY THE CONTRACTOR(S); AND ALL ASSOCIATED COSTS MUST BE INCLUDED IN THE CONTRACTOR(S) BASE BID; OR ANY AND/OR ALL COSTS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR(S). IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR(S) TO BRING EACH CONFLICT TO THE ATTENTION OF THE ENGINEER OF RECORD. ALL CONFLICTS SHALL BE IDENTIFIED IN WRITTEN FORM AND SUBMITTED THROUGH THE "REQUEST FOR INFORMATION" (RFI) PROCESS DURING BIDDING. THE ENGINEER OF RECORD SHALL REVIEW ALL IDENTIFIED CONFLICTS AND RENDER TO THE CONTRACTOR(S) THEIR DECISION.

2. IF THE CONTRACTOR(S) DO NOT SUBMIT AN RFI AND/OR DO NOT RECEIVE A DIRECTIVE OR CLARIFICATION IN WRITING FROM THE ENGINEER OF RECORD THROUGH A FAULT OF THEIR OWN, CONTRACTOR SHALL BE REQUIRED TO COMPLY WITH THE MORE STRINGENT STANDARD, OR HIGHER LEVEL OF QUALITY AT NO ADDITIONAL COSTS TO THE OWNER.

3. IF COMPLIANCE WITH TWO OR MORE STANDARDS IS SPECIFIED AND THE STANDARDS ESTABLISH A DIFFERENT OR CONFLICTING REQUIREMENTS FOR MINIMUM QUANTITIES OR QUALITY LEVELS, COMPLY WITH THE MOST STRINGENT REQUIREMENT.

DEFERRED SUBMITTALS:

1. IN ACCORDANCE WITH THE IBC SECTION 106.3.4.2, SPECIALTY ITEMS, PRE-ENGINEERED COMPONENTS, AND DESIGN BUILD ELEMENTS MAY BE SUBMITTED FOR APPROVAL BY THE ENGINEER OF RECORD AND THE BUILDING OFFICIAL BY DEFERRED SUBMITTAL. SUCH ITEMS ARE DEFINED AS THOSE SPECIFIED IN CONSTRUCTION DOCUMENTS BUT WHICH REQUIRE DESIGN BY THE MANUFACTURER, SUPPLIER, OR INSTALLER.

2. SUBMITTALS ARE REQUIRED FOR THE FOLLOWING:

- SIMPSON STRONG-TIE, OR EQUAL, HARDWARE (INCLUDING ALL TRUSS HANGERS)
- LIGHT GAGE FRAMING
- CANOPIES
- HAND/GUARD RAILS
- SIGNS

3. SUBMITTALS SHALL INCLUDE:

- CALCULATIONS PREPARED AND SEALED BY AN APPROPRIATELY REGISTERED ENGINEER (THE "SPECIALTY ENGINEER").
- DIAGRAM PREPARED AND SEALED BY THE SPECIALTY ENGINEER, SHOWING LOAD MAGNITUDES AND LOCATIONS - SEPARATED INTO DEAD, LIVE, WIND AND/OR SEISMIC COMPONENTS - THAT ARE DUE TO THE PRIMARY STRUCTURE.
- ERECTION OR DESIGN DRAWINGS BEARING THE SPECIALTY ENGINEER'S SEAL AND THE ARCHITECT'S STAMP INDICATING HIS REVIEW.

4. SUBMIT (1) REPRODUCIBLE COPY, ONE (1) WET SEALED COPY FOR THE STRUCTURAL ENGINEER OF RECORD'S FILE, AND ADDITIONAL COPIES AS ARE NECESSARY FOR THE BUILDING DEPARTMENT. SUBMITTALS CONTAINING EXCEPTIONS, CORRECTIONS, OR OTHER REVIEW COMMENTS ARE NOT ACCEPTABLE FOR SUBMITTAL TO THE BUILDING DEPARTMENT.

5. THE STRUCTURAL ENGINEER OF RECORD'S REVIEW IS STRICTLY LIMITED TO THE FOLLOWING:

- THE DRAWINGS AND CALCULATIONS ARE PROPERLY SEALED.
- THE LOAD CRITERIA IS CONSISTENT WITH THE CONTRACT DOCUMENTS AND INTERNATIONAL BUILDING CODE REQUIREMENTS.
- THE CONNECTIONS TO THE PRIMARY STRUCTURE ARE CONSISTENT WITH THE PRIMARY DESIGN.
- THE BASE STRUCTURE IS CAPABLE OF SUPPORTING THE IMPOSED LOADS.

6. IF THE LOADS IMPOSED ON THE STRUCTURE EXCEED THE LOAD ALLOWANCE PROVIDED THE STRUCTURAL ENGINEER OF RECORD WILL REJECT THE SUBMITTAL. ONLY AT THE OWNER'S WRITTEN DIRECTION WILL MODIFICATIONS TO THE BASE STRUCTURE TO ACCOMMODATE THE SPECIALTY ITEMS) BE MADE BY THE ENGINEER OF RECORD. DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THEIR DESIGN AND THE ENGINEER OF RECORD AND THE BUILDING OFFICIAL HAVE APPROVED SUBMITTAL DOCUMENTS.

ELECTRONIC FILES:

ELECTRONIC FILES CREATED BY METTEMMEYER ENGINEERING, LLC, ARE AVAILABLE FOR USE BY THE GENERAL CONTRACTOR, SUBCONTRACTORS, OR BUILDERS INVOLVED IN ANY FORM OF CONSTRUCTION AND BIDS ON THE PROJECT BASED ON THE FOLLOWING TERMS AND CONDITIONS:

BY USING THIS COMPUTER-GENERATED DRAWING, YOU WILL INDICATE YOUR ACCEPTANCE OF THE FOLLOWING TERMS AND CONDITIONS. THE PURPOSE OF THIS AGREEMENT IS TO SET FORTH THE CONDITIONS FOR THE USE BY A SECOND PARTY (USER) OF COMPUTER-GENERATED DRAWINGS PREPARED BY METTEMMEYER ENGINEERING, LLC. METTEMMEYER ENGINEERING, LLC RETAINS OWNERSHIP OF THE INFORMATION CONTAINED ON THE DRAWINGS. PERMISSION TO USE THESE MATERIALS IS GIVEN ONLY SUBJECT TO THE TERMS OF THIS AGREEMENT.

ARTICLE 1. THE INFORMATION RECORDED ON COMPUTER-GENERATED DRAWINGS REPRESENTS A PORTION OF STRUCTURAL ENGINEERING SERVICES PERFORMED BY METTEMMEYER ENGINEERING, LLC. NO REPRESENTATION IS MADE BY METTEMMEYER ENGINEERING, LLC THAT THE DATA IS WITHOUT INACCURACY. METTEMMEYER ENGINEERING, LLC GRANTS PERMISSION TO USE ITS COMPUTER-GENERATED DRAWINGS WITH THIS UNDERSTANDING AND WITH NO LIABILITIES EITHER EXPRESSED OR IMPLIED FOR ACCURACY OR COMPLETENESS. THE USER AGREES TO HOLD HARMLESS AND DEFEND METTEMMEYER ENGINEERING, LLC IN THE EVENT OF ANY ACTION AGAINST OR BY THE USER FOR THE PREPARATION OF INFORMATION GENERATED THROUGH THE USE OF COMPUTER-GENERATED DRAWINGS PREPARED BY METTEMMEYER ENGINEERING, LLC. FURTHER, IN THE EVENT OF SUCH LEGAL ACTION, THE USER AGREES TO PAY REASONABLE ATTORNEY'S FEES AND EXPENSES INCURRED BY METTEMMEYER ENGINEERING, LLC IN RESOLVING THE MATTER.

ARTICLE 2. COMPUTER-GENERATED DRAWINGS ARE MADE AVAILABLE SOLELY FOR THE FACILITATION OF THE USER'S WORK ON THE SPECIFIC PROJECT IDENTIFIED BE. ON ANY AND NO PERMISSION IS GRANTED HEREIN FOR COPYING OR REUSE. THE USER'S ACCEPTANCE OF THESE TERMS, WHICH IS COMMUNICATED BY OPENING OR USING THIS DRAWING, CONSTITUTES A WAIVER OF LIABILITY AND THE ACCEPTANCE OF RESPONSIBILITIES FOR THE COORDINATION OF ANY REVISIONS AND COMPUTER-GENERATED INTERLINEATIONS MADE TO THE INFORMATION TRANSMITTED.

ARTICLE 3. UTILIZATION OF COMPUTER-GENERATED DRAWINGS NOT IN ACCORDANCE WITH THE TERMS OF THIS AGREEMENT SHALL CONSTITUTE A BREACH OF THIS AGREEMENT; METTEMMEYER ENGINEERING, LLC WILL AT SUCH TIME DEMAND RETURN OF ITS PROPERTY AND MAY SEEK LEGAL RECOURSE AND THE COST OF REASONABLE FEES.

STRUCTURAL FIELD OBSERVATION SCHEDULING:

NOTIFY THE STRUCTURAL ENGINEER OF RECORD FOR OBSERVATION OF THE FOLLOWING ITEMS:
NOTE: GENERAL CONTRACTOR SHOULD ALLOW ADEQUATE TIME FOR SCHEDULING OF A SITE OBSERVATION VISIT BY THE STRUCTURAL ENGINEER, TYPICALLY THREE TO FOUR DAYS.

THE ENGINEER OF RECORD'S PERIODIC FIELD OBSERVATIONS ARE NOT TO BE CONSIDERED SPECIAL INSPECTIONS AND ARE ONLY OBSERVATIONS OF WORK TO ASSURE GENERAL CONFORMANCE WITH THE CONTRACT DOCUMENTS.

- OBSERVE FOUNDATION REINFORCING PRIOR TO CONCRETE POUR AT FIRST BUILDING IN PHASE AND FOR ANY BUILDING THAT IS NOT DEEMED TYPICAL.
- OBSERVE WOOD FRAMING AFTER 2ND FLOOR FRAMING IS COMPLETE, BUT PRIOR TO COMPLETION OF 3RD FLOOR FRAMING AT FIRST BUILDING IN PHASE AND FOR ANY BUILDING THAT IS NOT DEEMED TYPICAL.
- OBSERVE WOOD FRAMING AFTER COMPLETION OF WOOD FRAMING AND SHEAR WALL COMPONENTS, BUT PRIOR TO INSULATION AND DRYWALL INSTALLATION, OF FIRST BUILDING IN PHASE AND FOR ANY BUILDING THAT IS NOT DEEMED TYPICAL.

FOUNDATIONS:

1. GEOTECHNICAL REPORT: RONE ENGINEERING, 8206 MARSHALL DRIVE, LENEXA, KS, 66241

REPORT NO.: 24-28620

2. THE OWNER SHALL EMPLOY A GEOTECHNICAL ENGINEER TO PROVIDE SOIL TESTING AND REVIEW DURING CONSTRUCTION. THE GEOTECHNICAL ENGINEER SHALL REVIEW AND APPROVE THE FOUNDATION REQUIREMENTS OF THE CONTRACT DOCUMENTS. IF CONDITIONS VARY FROM THAT INDICATED HEREIN, THEN THE GEOTECHNICAL ENGINEER SHALL NOTIFY THE ARCHITECT AND ENGINEER PRIOR TO FOUNDATION CONSTRUCTION.

3. EXISTING FILL MATERIAL SHALL BE ENTIRELY REMOVED BENEATH THE BUILDING FOUNDATION AND REPLACED WITH STRUCTURAL FILL PER GEOTECHNICAL REPORT.

4. THE BACKFILL SHALL BE PLACED AND COMPACTED ON EACH SIDE OF FOUNDATION WALLS SUCH THAT NO UNBALANCED LATERAL LOADS ARE INDUCED TO THE WALL. **PROVIDE CLEAN CRUSHED STONE BACKFILL PER GEOTECH REPORT.**

5. BACKFILL SHALL BE PLACED EVENLY AGAINST EACH SIDE OF SUBGRADE STRUCTURAL ELEMENTS TO PRODUCE APPROXIMATELY EQUAL AND OPPOSITE LATERAL PRESSURES.

SLAB ON GRADE SUPPORT:

1. **TYPICAL CONCRETE SLAB ON GRADE SHALL BE 4" THICK WITH 6x6 W1.4xW1.4 WWR ON CHAIRS OVER 10-MIL VAPOR BARRIER.**

2. SLAB ON GROUND SUPPORT: MINIMUM 4" LAYER OF GRANULAR BASE CONSISTING OF AN OPEN GRADED CRUSHED STONE (ASTM C33, #57 STONE OR SIMILAR), PER GEOTECHNICAL REPORT.

3. UNLESS NOTED OTHERWISE IN THE GEOTECHNICAL REPORT, CONCRETE SLABS ON GROUND SHALL BE SUPPORTED ON SELECT FILL MATERIAL. AS NOTED ABOVE, FILL MATERIAL SHOULD BE MOISTENED, BUT NOT SATURATED, JUST PRIOR TO PLACING CONCRETE. CARE SHALL BE TAKEN IN PLACING SLABS ON GRADE SO AS NOT TO DISTURB FILL MATERIAL OR REINFORCING. THE FILL MATERIAL SHALL BE COMPACTED TO NO LESS THAN 95% COMPACTION AT MOISTURE CONTENT RANGE OF 3% BELOW TO 3% ABOVE OPTIMUM MOISTURE CONTENT BEFORE PLACEMENT OF SLABS. REFER TO GEOTECHNICAL REPORT FOR ANY ADDITIONAL REQUIREMENTS.

SHALLOW SPREAD FOOTINGS:

1. FROST DEPTH IS 36" BELOW GRADE.

2. ALLOWABLE FOOTING BEARING CAPACITY IS 1800 PSF

3. ALL FOOTINGS SHALL EXTEND TO DEPTH NOTED ABOVE UNLESS NOTED OTHERWISE ON PLANS OR DETAIL. GRADE IS DEFINED AS TOP OF SLAB FOR INTERIOR FOOTINGS, AND LOWEST ADJACENT COMPACTED SUBGRADE (PAD GRADE BEFORE LANDSCAPING) OR NATURAL GRADE WITHIN 5 FEET OF BUILDING FOR PERIMETER FOOTINGS. GRADE IS DEFINED AS TOP OF EXTERIOR PAVING OR CONCRETE WHERE EXTERIOR PAVING OR CONCRETE IS PERMANENTLY LOCATED DIRECTLY ADJACENT TO BUILDING AND EXTENDS AT LEAST 5 FEET FROM BUILDING.

4. FOOTING EXCAVATIONS SHALL BE CLEAN AND FREE FROM LOOSE DEBRIS, STANDING WATER, OR UNCOMPACTED MATERIAL AT TIME OF CONCRETE PLACEMENT.

5. EXCAVATION FOR FOOTINGS SHALL BE CUT TO ACCURATE SIZE AND DIMENSIONS AS SHOWN ON PLANS. ALL SOIL BELOW SLABS AND FOOTINGS SHALL BE PROPERLY COMPACTED AND SUBGRADE BROUGHT TO A REASONABLE TRUE AND LEVEL PLANE BEFORE PLACING CONCRETE.

6. SITE PREPARATION AND GRADING REQUIREMENTS OF THE GEOTECHNICAL REPORT AND ANY ADDENDA SHALL BE COMPLETED PRIOR TO CONSTRUCTION OF FOUNDATIONS, ANY TESTS, INSPECTIONS, FIELD OBSERVATIONS, OR APPROVAL FROM THE GEOTECHNICAL ENGINEER SHALL BE PERFORMED PRIOR TO PLACEMENT OF FOUNDATION REINFORCING STEEL OR CONCRETE. ALTERATIONS TO SITE PREPARATION OR GRADING SHALL BE REPORTED TO THE ENGINEER PRIOR TO FOUNDATION CONSTRUCTION.

CONCRETE:

1. MINIMUM 28 DAY STRENGTH (F_{cc}) AS FOLLOWS:

USE TYPE	STRENGTH	ACI EXPOSURE CLASSIFICATIONS
FOUNDATIONS	4000 PSI	F1 S0 W0 C0
INTERIOR SLAB ON GROUND	4000 PSI	F0 S0 W0 C0
EXTERIOR SLAB ON GROUND AND FOUNDATION WALLS	5000 PSI	F3 S0 W1 C2

2. A MIX DESIGN SHALL BE SUBMITTED FOR REVIEW FOR EACH MIX TYPE AND SHALL INCLUDE ALL MATERIALS TO BE USED, SIEVE ANALYSIS OF AGGREGATE, AND DATA FOR ALL PRODUCTS.

3. AIR ENTRAINMENT AS FOLLOWS:

- EXTERIOR CONCRETE SHALL BE PER ASTM C260, 6% +/- 1.5%
- INTERIOR CONCRETE SHALL BE LIMITED TO 3% IN ACCORDANCE WITH ACI 302.1R

4. FLY ASH MAY BE USED AT CONTRACTOR'S OPTION. IF USED IT SHALL BE LIMITED TO 20% AND MEET ASTM 6618, CLASS C OR F.

5. CONCRETE MIXES SHALL BE DESIGNED BY A CERTIFIED LABORATORY AND APPROVED BY THE ENGINEER ACCORDING TO ACI 301.

6. THE CONCRETE SUPPLIER SHALL STATE THE SLUMP AND ADDITIVES USED IN THE MIX DESIGN.
A. MAXIMUM SLUMP FOR EXTERIOR SLABS SHALL BE 4" +/- 1".
B. MAXIMUM SLUMP FOR ALL OTHER CONCRETE SHALL BE 3" +/- 1".
C. WATER SHALL BE CLEAN AND POTABLE. IF ADDITIONAL FLOWABILITY IS REQUIRED FOR PLACEMENT AND ANY CONCRETE PLACEMENT REQUIRING REDUCING ADJUTIVE CONFORMING TO ASTM C494, TYPE A OR F, SHALL BE USED. NO ADDITIONAL WATER MAY BE ADDED TO THE MIX. THE ONLY WATER WHICH MAY BE ADDED ON SITE IS MIX WATER THAT HAS BEEN LEFT OUT AT THE BATCH PLANT.
D. CONCRETE DELIVERY TICKET SHALL CLEARLY INDICATE THE AMOUNT OF MIX WATER WHICH HAS BEEN LEFT OUT. MAXIMUM SLUMP SHALL BE 8" FOR CONCRETE WITH VERIFIED SLUMP OF 7" TO 4" BEFORE ADDING HIGH-RANGE WATER-REDUCING ADMIXTURE OR PLASTICIZING ADMIXTURE. SEE DIVISION 3 SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

7. PORTLAND CEMENT SHALL CONFORM TO ASTM C 150 TYPE II CEMENT. CALCIUM CHLORIDE IS NOT ALLOWED.

8. NO MORE THAN 90 MINUTES SHALL ELAPSE BETWEEN CONCRETE BATCHING AND CONCRETE PLACEMENT, UNLESS APPROVED BY THE ENGINEER OR AUTHORIZED TESTING AGENCY.

9. CONCRETE MIXING, PLACEMENT AND QUALITY SHALL BE PER IBC SECTION 1904, ASTM C 94, ASTM C 885, AND ACI 302. MECHANICALLY VIBRATE ALL CONCRETE WHEN PLACED. EXCEPT SLABS ON GROUND NEED ONLY BE VIBRATED OR THOROUGHLY RODDED AROUND EMBEDDED STRAPS OR HARDWARE. BOLTS FOR UPLIFT ANCHORS, CURBS AND EDGES OF SLAB STEPS AND UNDER FLOOR DUCTS OR SIMILAR ELEMENTS. REMOVE ALL DEBRIS FROM FORMS BEFORE PLACING CONCRETE.

10. ALL ITEMS THAT ARE CAST INTO CONCRETE SUCH AS REINFORCING, DOWELS, BOLTS, ANCHORS, SLEEVES, EMBEDS, INSERTS, ETC. SHALL BE SECURELY POSITIONED IN THE FORMS BEFORE PLACING THE CONCRETE. SUPPORT ALL REINFORCING WITH CHAIRS AS REQUIRED. FLOODING OR OTHER ITEMS IS NOT PERMITTED. REINFORCING, DOWELS, EMBEDS, AND INSERTS SHALL BE CLEAN OF OIL, GREASE, AND DIRT PRIOR TO CASTING.

11. CONCRETE SLAB ON GROUND CONTROL JOINTS SHALL BE AS SHOWN ON THE FOUNDATION PLAN OR TYPICAL DETAILS. WHERE CONTROL JOINTS ARE NOT SHOWN ON PLANS, ALL CONCRETE SLABS ON GROUND SHALL BE BOUND BY KEYS, DOWELS OR SAWCUT CONTROL JOINTS SUCH THAT THE ENCLOSED AREA DOES NOT EXCEED 144 SQUARE FEET. RATIO OF BOUNDARY DIMENSIONS SHALL NOT EXCEED 1.5:1. LOCATE CONTROL JOINTS OFF OF CORNERS OF DIAMOND ISOLATION LEAVE OUTS AND RE-ENTRANT CORNERS. KEYS OR DOWELED CONSTRUCTION JOINTS NEED ONLY OCCUR AT EXPOSED EDGES DURING POURING. ALL OTHER JOINTS MAY BE SAWCUT. SAWCUT JOINTS SHALL BE CUT IN SLABS ON GROUND AS SOON AS POSSIBLE WITHIN 24 HOURS AFTER SLAB FINISHING AS MAY BE SAFELY DONE WITHOUT DISLODGING AGGREGATE.

12. PIPES OTHER THAN ELECTRICAL CONDUITS SHALL NOT BE EMBEDDED IN STRUCTURAL CONCRETE EXCEPT WHERE SPECIFICALLY APPROVED BY THE ENGINEER. MAXIMUM PIPE SIZE SHALL BE 10" OR THE SLAB THICKNESS AND LOCATED AT MID-DEPTH. MINIMUM SPACING SHALL BE 3 TIMES THE OUTSIDE PIPE DIAMETER. PIPES SHALL NOT IMPAIR THE STRENGTH OF THE MEMBER.

13. PROTECT CONCRETE FROM DAMAGE OR REDUCED STRENGTH DUE TO HOT OR COLD WEATHER IN ACCORDANCE WITH ACI 308 AND 306 AND IBC SECTION 1905. WEDGED DOWELS, BOLTS OR INSERTS ARE CALLED TO BE ANCHORED TO CAST IN PLACE CONCRETE ELEMENTS USING EPOXY ADHESIVES. FOLLOW ALL MANUFACTURERS RECOMMENDATIONS. ALTERNATE ANCHORAGE SYSTEMS MAY BE USED WITH ENGINEERS PRIOR APPROVAL.

CONCRETE TESTING SERVICES:

1. TESTING OF COMPOSITE SAMPLES OF FRESH CONCRETE OBTAINED ACCORDING TO ASTM C 172 SHALL BE PERFORMED ACCORDING TO THE FOLLOWING REQUIREMENTS:

A. FREQUENCY: OBTAIN ONE COMPOSITE SAMPLE FOR EACH DAY'S POUR OF EACH CONCRETE MIX EXCEEDING 50 CUBIC YARDS (4 CUBIC METERS), BUT LESS THAN 25 CUBIC YARDS (19 CUBIC METERS). PLUS ONE SET FOR EACH ADDITIONAL 50 CUBIC YARDS (38 CUBIC METERS) OR FRACTION THEREOF. WHEN FREQUENCY OF TESTING WILL PROVIDE FEWER THAN FIVE COMPRESSIVE-STRENGTH TESTS FOR EACH CONCRETE MIX, TESTING SHALL BE CONDUCTED FROM AT LEAST FIVE RANDOMLY SELECTED BATCHES OR FROM EACH BATCH IF FEWER THAN FIVE ARE USED.

B. SLUMP: ASTM C 143; ONE TEST AT POINT OF PLACEMENT FOR EACH COMPOSITE SAMPLE, BUT NOT LESS THAN ONE TEST FOR EACH DAY'S POUR OF EACH CONCRETE MIX. PERFORM ADDITIONAL TESTS WHEN CONCRETE CONSISTENCY APPEARS TO CHANGE.

C. AIR CONTENT: ASTM C 231, PRESSURE METHOD, FOR NORMAL-WEIGHT CONCRETE; ASTM C 173, VOLUMETRIC METHOD, FOR STRUCTURAL LIGHTWEIGHT CONCRETE; ONE TEST FOR EACH COMPOSITE SAMPLE, BUT NOT LESS THAN ONE TEST FOR EACH DAY'S POUR OF EACH CONCRETE MIX.

D. CONCRETE TEMPERATURE: ASTM C 1064; ONE TEST HOURLY WHEN AIR TEMPERATURE IS 40 DEGREES FAHRENHEIT (4.4 DEGREES CELSIUS) AND BELOW AND WHEN 80 DEGREES FAHRENHEIT (27 DEGREES CELSIUS) AND ABOVE, AND ONE TEST FOR EACH COMPOSITE SAMPLE.

E. COMPRESSION TEST SPECIMENS: ASTM C 31/C 31M, CAST AND LABORATORY CURE ONE SET OF FOUR STANDARD CYLINDER SPECIMENS FOR EACH COMPOSITE SAMPLE. FIELD-CURED SPECIMENS BELOW MAY BE REQUIRED TO VERIFY ADEQUACY OF CURING AND PROTECTION OF CONCRETE OR TO VERIFY STRENGTH FOR REMOVAL OF SHORING AND RESHORING IN MULTISTORY CONSTRUCTION.

F. COMPRESSIVE-STRENGTH TESTS: ASTM C 39; TEST TWO LABORATORY-CURED SPECIMENS AT 7 DAYS AND TWO AT 28 DAYS. A COMPRESSIVE-STRENGTH TEST SHALL BE THE AVERAGE COMPRESSIVE STRENGTH FROM TWO SPECIMENS OBTAINED FROM SAME COMPOSITE SAMPLE AND TESTED AT AGE INDICATED. ANY CONCRETE SAMPLING BEYOND THE DAYS ABOVE SHALL BE DIRECTED BY THE CONTRACTOR AT THE CONTRACTOR'S COST.

MASONRY (CONCRETE BLOCK) AND CLAY MASONRY:

1. ALL MASONRY OPERATIONS SHALL BE DONE IN ACCORDANCE WITH THE PROVISIONS OF THE ACI 530 AND THE IBC.

2. COMPRESSIVE STRENGTH OF CONCRETE MASONRY CONSTRUCTION (CMU) SHALL BE AS FOLLOWS (PSI). MASONRY STRENGTH SHALL BE (F_m) 1500 PSI.

A. MASONRY ASSEMBLY STRENGTH (F _m DESIGN)	2000 PSI
B. BLOCK STRENGTH	2000 PSI
C. TYPE S MORTAR STRENGTH	2000 PSI
D. GROUT STRENGTH	2000 PSI
E. TYPE N MORTAR STRENGTH	2650 PSI

3. CONCRETE BLOCK SHALL BE HOLLOW LOAD-BEARING CONCRETE MASONRY UNITS CONFORMING TO ASTM C90, GRADE N-1. ALL BLOCKS SHALL BE PLACED IN RUNNING BOND CONSTRUCTION (UNLESS NOTED OTHERWISE) WITH ALL VERTICAL CELLS IN ALIGNMENT.

4. MORTAR MIX SHALL CONFORM TO REQUIREMENTS OF ACI 530, TYPE M OR S, TYPE S MORTAR SHALL BE USED WHERE MASONRY IS IN CONTACT WITH SOIL.

5. USE SUFFICIENT WATER FOR GROUT TO FLOW INTO ALL CELLS OF THE MASONRY WITHOUT SEGREGATION. ALL CELLS IN CONCRETE BLOCKS CONTAINING REINFORCING SHALL BE FILLED SOLID WITH GROUT. ALL MASONRY CELLS BELOW FINISHED FLOOR OR GRADE SHALL BE GROUTED.

6. INSTALLATION OF GROUT SHALL BE COMPLETED USING A LOW LIFT GROUT PROCEDURE. STOP GROUT 1 1/2" BELOW TOP OF BLOCK AT EACH LIFT.

7. LAP REINFORCING 60 BAR DIAMETERS FOR GRADE 60.

8. MINIMUM WALL VERTICAL REINFORCING, UNLESS NOTED OTHERWISE ON PLANS OR DETAILS, SHALL BE A SINGLE #5 BAR AT 32" O.C. FULL HEIGHT IN CENTER OF GROUTED CELL. PROVIDE REINFORCING AT ALL WALL INTERSECTIONS, CORNERS, WALL ENDS, OPENING JAMBS, AND EACH SIDE OF CONTROL JOINTS. MAXIMUM SPACING SHALL NOT EXCEED 48 INCHES ON CENTER. TIE AT 8'-0" VERTICALLY. AT BOND BEAM LOCATIONS, WITH SINGLE WIRE LOOP TIE OR EQUIVALENT. DOWEL ALL VERTICAL REINFORCING TO FOUNDATION WITH DOWELS TO MATCH AND LAP VERTICAL REINFORCING.

9. MINIMUM WALL HORIZONTAL REINFORCING, UNLESS NOTED OTHERWISE ON PLANS OR DETAILS, SHALL BE A SINGLE #5 BAR IN CENTER OF 8 INCH DEEP CONTINUOUSLY GROUTED BOND BEAMS AT 8'-0" O.C. AND AT TOP OF PARAPETS OR FREE-STANDING WALLS. BOND BEAMS SHALL BE CONTINUOUS THROUGH CONTROL JOINTS. PROVIDE BENT BARS PER TYPICAL DETAILS TO MATCH AND LAP HORIZONTAL BOND BEAM REINFORCING AT CORNERS AND WALL INTERSECTIONS TO MAINTAIN BOND BEAM CONTINUITY.

10. MINIMUM LINTEL ASSEMBLY, UNLESS NOTED OR DETAILED OTHERWISE, SHALL BE 24" DEEP, CONSISTING OF TWO COURSES OF 8" DEEP OPEN END CMU OVER 8" DEEP BOND BEAM OR LINTEL BLOCK. REINFORCE WITH (2) #5 IN BOTTOM OF BOND BEAM OR LINTEL BLOCK. GROUT ASSEMBLY SOLID AND EXTEND A MINIMUM OF 2'-0" PAST EACH JAMB.

11. LADDER OR TRUSS TYPE REINFORCING SHALL BE USED AT JOINTS BETWEEN MASONRY UNITS. PROVIDE GALVANIZED 9 GAUGE WIRES SPACED AT 16" O.C. AT FACE SHELLS. STOP JOINT REINFORCING EACH SIDE OF VERTICAL CONTROL JOINTS.

12. UNLESS OTHERWISE NOTED ON ARCHITECTURAL DRAWINGS PROVIDE CONTROL / EXPANSION JOINTS AT 24'-0" ON CENTER OR 1.5x HEIGHT, WHICHEVER IS LESS.

STEEL LINTELS:

1. LINTELS FOR OPENINGS LESS THAN 4'-0" ARE L5x5x3/8 W/ 8" OF BEARING ON EACH SIDE OF THE OPENING.

2. LINTELS FOR OPENINGS MORE THAN 4'-0" ARE L5x5x3/8 W/ (2) 1/4"x4'-12" (SDS25412) SIMPSON SDS SCREW AT 16" O.C. SPACING.

3. PROVIDE 8" OF END BEARING ON EACH SIDE OF THE OPENING FOR ALL LINTELS.

4. GALVANIZE ALL STEEL LINTELS.

ABBREVIATIONS:

1. B/ = BOTTOM OF

2. BRG = BEARING

3. DBE = DECK BEARING ELEVATION

4. EL = ELEVATION

5. EOR = ENGINEER OF RECORD

6. f_c = CONCRETE COMPRESSIVE STRENGTH

7. FTG = FOOTING

8. FV = FIELD VERIFY

9. G.C. = GENERAL CONTRACTOR

10. H.A.S. = HEADED ANCHOR STUD

11. JBE = JOIST BEARING ELEVATION

12. MEP = MECHANICAL, ELECTRICAL, PLUMBING

13. MFR = MANUFACTURER

14. RTU = ROOF TOP UNIT

15. T/ = TOP OF

16. U.N.O. = UNLESS NOTED OTHERWISE

STRUCTURAL STEEL:

1. STRUCTURAL STEEL MEMBERS SHALL CONFORM WITH THE FOLLOWING STANDARDS AND MATERIAL PROPERTIES UNLESS NOTED OTHERWISE

SHAPE	STANDARD	F _y
ROLLED WIDE FLANGE SECTIONS	ASTM A992	50 KSI
CHANNELS AND ANGLES	ASTM A36	36 KSI
BARs AND PLATES	ASTM A36	36 KSI
BOLTS AT STEEL CONNECTIONS	ASTM A325 OR A490	—
ANCHOR RODS	ASTM F1554	36 KSI

2. ALL BOLTS SHALL BE INSTALLED AS BEARING-TYPE CONNECTIONS WITH THREADS EXCLUDED FROM SHEAR PLANE (TYPE "X" CONNECTION), UNLESS NOTED OTHERWISE. HIGH-STRENGTH BOLTS SHALL BE TIGHTENED USING ANY AISC APPROVED METHOD. ALL NON-SLIP CRITICAL

POST-INSTALLED ANCHORS:

1. POST-INSTALLED ANCHORS SHALL ONLY BE USED WHERE SPECIFIED ON THE CONSTRUCTION DOCUMENTS. SPECIAL INSPECTIONS ARE REQUIRED PER THE PROVISIONS SET FORTH IN BELOW. REFERENCED IBC CODE REPORTS. ANCHORS ARE TO BE INSTALLED BY EXPERIENCED INSTALLERS OR CONTRACTOR TO CONTACT MANUFACTURER'S REPRESENTATIVE FOR PROPER PRODUCT INSTALLATION TRAINING ON INITIAL ANCHORS. SUBSTITUTION REQUESTS, FOR PRODUCTS OTHER THAN THOSE SPECIFIED BELOW, SHALL BE SUBMITTED BY THE CONTRACTOR TO THE ENGINEER OF RECORD ALONG WITH CALCULATIONS THAT ARE PREPARED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER. THE CALCULATIONS SHALL DEMONSTRATE THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE PERTINENT EQUIVALENT PERFORMANCE VALUES (MINIMUM) OF THE SPECIFIED PRODUCT USING THE APPROPRIATE DESIGN PROCEDURE AND/OR STANDARD(S) AS REQUIRED BY THE BUILDING CODE.

2. CONCRETE ANCHORS

A. MECHANICAL ANCHORS FOR USE IN CRACKED AND UNCRACKED CONCRETE SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 308.2 AND ICC-ES AC108. PRE-APPROVED MECHANICAL ANCHORS INCLUDE:

SIMPSON STRONG-TIE "TITEN-HD" (ICC-ES ESR-2713)
HILTI KWIK HUS-EZ "KH-EZ" (ICC-ES ESR-3027)

B. ADHESIVE ANCHORS FOR USE IN CRACKED AND UNCRACKED CONCRETE SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ICC-ES AC308. PRE-APPROVED ADHESIVE ANCHORS INCLUDE:

SIMPSON STRONG-TIE "GT" (ICC-ES ESR-2508)
HILTI HIT-HY 200-A (ICC-ES ESR 3187)

3. MASONRY ANCHORS

A. ANCHORAGE TO SOLID-GROUTED CONCRETE MASONRY

MECHANICAL AND CONCRETE SCREW ANCHORS FOR USE IN SOLID-GROUTED CONCRETE MASONRY SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ICC-ES AC01 OR AC106, RESPECTIVELY. PRE-APPROVED MECHANICAL AND CONCRETE SCREW ANCHORS INCLUDE:

SIMPSON STRONG-TIE "TITEN-HD" (ICC-ES ESR-1056)
HILTI "KH-EZ" CRC (ICC-ES ESR-3056)

ADHESIVE ANCHORS FOR USE IN SOLID-GROUTED CONCRETE MASONRY SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ICC-ES AC58. PRE-APPROVED ADHESIVE ANCHORS INCLUDE:

SIMPSON STRONG-TIE "GT" (ICC-ES ESR-1772)
HILTI "HIT-HY 200-A (ICC-ES ESR-3963)

CONNECTION TYPE:

- | | |
|---|---|
| 1. JOIST TO SILL OR GIRDER, TOENAIL..... | 3 - 8d TOENAIL |
| 2. BRIDGING TO JOIST | 2 - 8d TOENAIL EACH END |
| 3. 1"x6" (25MMx152MM) SUBFLOOR OR LESS TO JOIST | 2 - 8d FACE NAIL |
| 4. WIDER THAN 1"x6"(25MMx152MM) SUBFLOOR TO JOIST | 3 - 8d FACE NAIL |
| 5. 2" (52MM) SUBFLOOR TO GIRDER | 2 - 16d BLIND AND FACE NAIL |
| 6. SOLE PLATE TO JOIST OR BLOCKING | 16d @ 16" O.C. TYP. FACE NAIL |
| 7. SOLE PLATE TO JOIST OR BLOCKING, AT BRACED W. PANELS | 3 - 16d @ 16" O.C. |
| 8. TOP PLATE TO STUD..... | 2 - 16d END NAIL |
| 9. STUD TO SOLE PLATE | 4 - 8d TOENAIL OR 2 - 16d END NAIL |
| 10. DOUBLE STUDS | 16d @ 24" O.C. FACE NAIL |
| 11. DOUBLE TOP PLATES | 16d @ 16" O.C. TYP. FACE NAIL |
| 12. DOUBLE TOP PLATES, LAP SPLICE | 8 - 16d |
| 13. BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE | 3 - 8d TOENAIL |
| 14. RIM JOIST TO TOP PLATE | 8d @ 8" O.C. TOENAIL |
| 15. TOP PLATES, LAPS AND INTERSECTIONS | 2 - 16d FACE NAIL |
| 16. CONTINUOUS HEADER, TWO PIECES..... | 16d @ 16" O.C. ALONG EDGE |
| 17. CEILING JOISTS TO PLATE | 3 - 8d TOENAIL |
| 18. CONTINUOUS HEADER TO STUD | 4 - 8d TOENAIL |
| 19. CEILING JOISTS, LAP OVER PARTITIONS | 3 - 16d MIN. FACE NAIL (SEE TABLE 2308.10.4.1) |
| 20. CEILING JOISTS TO PARALLEL RAFTERS | 3 - 16d MIN. FACE NAIL (SEE TABLE 2308.10.4.1) |
| 21. RAFTER TO PLATE | 3 - 8d TOENAIL |
| 22. 1" (25MM) BRACE TO EACH STUD AND PLATE | 2 - 8d FACE NAIL |
| 23. 1"x8" SHEATHING OR LESS TO EACH BEARING | 3 - 8d FACE NAIL |
| 24. WIDER THAN 1"x8" SHEATHING TO EACH BEARING..... | 3 - 8d FACE NAIL |
| 25. BUILT-UP CORNER STUDS | 16d @ 24" O.C. |
| 26. 2" PLANKS | 16d AT EACH BEARING |
| 27. COLLAR TIE TO RAFTER | 3 - 10d FACE NAIL |
| 28. JACK RAFTER TO HIP | 3 - 10d TOENAIL OR 2 - 16d FACE NAIL |
| 29. ROOF RAFTER TO 2-BY RIDGE BEAM | 2 - 16d TOENAIL OR 2 - 16d FACE NAIL |
| 30. JOIST TO BAND JOIST..... | 3 - 16d FACE NAIL |
| 31. LEDGER STRIP | 3 - 16d FACE NAIL |
| 32. BUILT-UP GIRDER AND BEAMS | 20d @ 32" O.C. FACE NAIL AT TOP AND BOTTOM STAGGERED ON OPPOSITE SIDES AND 2 - 20d FACE NAILS AT ENDS AND AT EACH SPLICE) |

NAILING:

STRUCTURAL LUMBER:

1. LUMBER SHALL BE GOOD SOUND, WELL SEASONED, S4S, AND MOISTURE CONTENT OF 19% MAXIMUM WITH THE FOLLOWING ALLOWABLE STRESSES:

STUDS:	BEAMS & JOISTS:	LVL BEAMS:	TREATED BEAMS & JOISTS:
#2 DOUGLAS-FIR	#2 DOUGLAS-FIR	A. F _v = 2300 PSI	#1 S.Y.P.
A. F _v = 900 PSI	A. F _v = 900 PSI	B. F _v = 2900 PSI	
B. F _v = 1350 PSI	B. F _v = 1350 PSI	C. E = 2000000 PSI	
C. F _v = 180 PSI	C. F _v = 180 PSI		
D. E = 1600000 PSI	D. E = 1600000 PSI		

A. PLATES IN CONTACT WITH CONCRETE SHALL BE TREATED #1 SOUTHERN YELLOW PINE (S.Y.P.).

B. CONTRACTOR MAY SUBSTITUTE AN ALTERNATE SPECIES ONLY WITH WRITTEN APPROVAL BY THE STRUCTURAL ENGINEER OF RECORD.

C. LUMBER SHALL BE SELECTED SUCH THAT NO PIECES WITH LARGE KNOTS, WARPS, SPLITS, OR DEFECTS ARE USED.

2. FRAMING, ROUGH CARPENTRY, AND MISCELLANEOUS CARPENTRY WORK SHALL BE GOVERNED BY THE INTERNATIONAL BUILDING CODE REQUIREMENTS. ALL SUCH WORK SHALL COMPLY WITH CONSTRUCTION, CONNECTION, AND GENERAL REQUIREMENTS OF CHAPTER 23 OF THE CODE. IT SHALL BE A REQUIREMENT OF THIS CONTRACT THAT THE GENERAL CONTRACTOR / PROJECT MANAGER PROVIDE A COPY OF THIS CHAPTER TO ALL PERTINENT PARTIES.

3. THE GENERAL CONTRACTOR / PROJECT MANAGER AND FRAMING SUB-CONTRACTOR ARE RESPONSIBLE FOR INSTALLING THE CORRECT NAIL SIZE AS SPECIFIED ON THE CONTRACT DOCUMENTS AND/OR ON APPROVED TRUSS SHOP DRAWINGS. COMMON NAIL SIZES ARE AS FOLLOWS AND SHOULD BE CONSIDERED AS MINIMUMS.

DESIGNATION	DIAMETER	LENGTH
8D	0.131"	3"
10D	0.148"	3"
12D	0.148"	3 1/4"
16D	0.162"	3 1/2"

4. THE GENERAL CONTRACTOR / PROJECT MANAGER AND FRAMING SUB-CONTRACTOR ARE RESPONSIBLE FOR VERIFYING THE APPROPRIATE NAIL SIZE WHEN USING NAIL GUNS. FAILURE TO USE CORRECT NAIL SIZES, AS STATED ABOVE, MAY RESULT IN THE REMOVAL OF ALL CONSTRUCTION TO DATE AND RECONSTRUCTING AT FRAMING CONTRACTOR'S EXPENSE.

5. THE USE OF NAIL GUNS FOR JOIST HANGERS IS LIMITED PER MANUFACTURER'S RECOMMENDATIONS.

6. DRIVING NAILS INTO EXISTING HOLES IS NOT ACCEPTABLE UNLESS THE ORIGINAL NAIL SIZE IS 75% OF THE DIAMETER OF THE NEW NAIL.

7. HOLES DRILLED IN EXTERIOR WALLS, SHEAR WALLS, AND INTERIOR LOAD BEARING WALLS FOR WIRING AND/OR PLUMBING SHALL BE CENTERED. NO OTHER HOLES OR NOTCHES ARE PERMITTED. ALLOWED HOLE SIZES ARE AS FOLLOWS:

STUD OR PLATE SIZE	MAXIMUM HOLE DIAMETER
2x4	1"
2x6	1"
2x8	1 1/2"

8. HOLES DRILLED IN NON-LOAD BEARING INTERIOR WALL STUDS FOR WIRING AND/OR PLUMBING SHALL BE CENTERED. NO OTHER HOLES OR NOTCHES ARE PERMITTED. ALLOWED HOLE SIZES ARE AS FOLLOWS:

STUD OR PLATE SIZE	MAXIMUM HOLE DIAMETER
2x4	2"
2x6	3 1/4"
2x8	4 1/4"

9. HOLES OR NOTCHES IN JOISTS AND RAFTERS ARE NOT ALLOWED UNLESS SPECIFICALLY APPROVED BY THE ENGINEER OF RECORD. CONTRACTOR SHALL PROVIDE PROPOSED HOLE OR NOTCH SIZES AND LOCATIONS FOR REVIEW.

10. MULTIPLE LAMINATIONS (TRIPLE 2x MAXIMUM) SHALL BE NAILED TOGETHER WITH 2 ROWS OF 0.162x3 1/2" NAILS EACH FACE FOR THREE PLY AND ONE FACE FOR TWO PLY AT 24" O.C. STAGGERED 12". DITCH NAILS AS REQUIRED.

11. TYPICAL MINIMUM NAILING REQUIREMENTS ARE PER THE NAILING SCHEDULE ON THE CONTRACT DOCUMENTS.

12. SPECIFIED CONNECTORS ARE SIMPSON PRODUCTS PER 2019-2020 CATALOG AND ARE TO BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS.

13. ALL BEAMS BEARING PERPENDICULAR TO WALL FRAMING SHALL BE SUPPORTED BY MULTIPLE STUDS FOR THE FULL WIDTH OF THE BEAM. MULTIPLE STUDS SHALL CONTINUE TO FOUNDATION.

14. SILL PLATES AT ALL STRUCTURAL WALLS SHALL BE SECURED TO THE FOUNDATION WITH SIMPSON THD8X20X10MG (8X20X1) SCREW ANCHORS AT 4'-0" O.C. MAXIMUM SPACING UNLESS NOTED OTHERWISE. USE A MINIMUM OF TWO SCREW ANCHORS PER SECTION OF PLATE. SCREW ANCHORS SHALL BE PLACED AT A MAXIMUM OF 12" FROM END OF PLATE AND NO CLOSER THAN 4" FROM END OF PLATE, REFER TO IBC CHAPTER 23. SCREW ANCHOR SPACING MAY DIFFER AT SHEAR WALLS. REFER TO SHEAR WALL SCHEDULE, PLANS, AND DETAILS FOR ADDITIONAL INFORMATION.

15. SILL PLATES AT NON-STRUCTURAL WALLS SHALL BE SECURED TO THE FOUNDATION WITH (1) 0.157"x0 PWDER ACTUATED FASTENER AT 32" O.C. MAXIMUM SPACING. USE A MINIMUM OF TWO P.A.F. ANCHORS PER SECTION OF PLATE. P.A.F. ANCHORS SHALL BE PLACED AT A MAXIMUM OF 12" FROM END OF PLATE AND NO CLOSER THAN 4" FROM END OF PLATE, REFER TO IBC CHAPTER 23.

16. 2x FRAMED OVERBUILDS NOT OTHERWISE CALLED OUT ON PLANS SHALL BE 2x6 JOISTS AT 24" O.C. WITH MAXIMUM SPAN OF 8'-0". PROVIDE CRIPPLE WALLS AS REQUIRED. CRIPPLE WALLS SHALL BEAR DIRECTLY OVER ROOF FRAMING MEMBERS BELOW. DO NOT BEAR CRIPPLE WALLS ON SHEATHING ONLY.

17. CONCENTRATED LOADING SUCH AS CEILINGS, PIPE HANGERS, MECHANICAL DUCTWORK, ELECTRICAL FIXTURES, ETC. WHICH ARE TO BE ATTACHED TO ELEVATED FLOOR OR ROOF STRUCTURES SHALL BE SECURED TO THE JOISTS, RAFTERS, TRUSSES, OR BEAMS, NOT TO THE FLOOR OR ROOF SHEATHING.

ROOF SHEATHING

1. ROOF SHEATHING SHALL BE 5/8" THICK, 32/16 APA RATED, EXPOSURE 1. BLOCKING IS NOT REQUIRED AT EDGES. SECURE SHEATHING TO SUPPORTS WITH 0.131"x0 NAILS WITH A MINIMUM 1 3/8" PENETRATION INTO FRAMING MEMBER. PLACE NAILS AT 6" O.C. AT EDGES AND AT 12" O.C. IN THE FIELD. TYPICAL UNLESS NOTED OTHERWISE. PROVIDE SIMPSON PSC1 PANEL SHEATHING CLIPS BETWEEN EVERY ROOF TRUSS OR JOIST.

2. MINIMUM SHEATHING SHEET SIZE SHALL BE 2'-0"x4'-0" AND TWO-SPAN MINIMUM. SHEATHING SHALL BE LAID HORIZONTALLY PER TYPICAL DETAILS ON S0 SHEETS.

3. NAILS USED TO ATTACH SHEATHING SHALL HAVE A MINIMUM PENETRATION OF 1 5/8" INTO THE SUPPORTING MEMBER.

4. WHERE EDGE NAILING OCCURS FOR MULTIPLE SHEETS ON A SINGLE SUPPORTING MEMBER OFFSET NAILS 1 1/2" MINIMUM.

5. CONCENTRATED LOADING SUCH AS CEILINGS, PIPE HANGERS, MECHANICAL DUCTWORK, ELECTRICAL FIXTURES, ETC. WHICH ARE TO BE ATTACHED TO ELEVATED FLOOR OR ROOF STRUCTURES SHALL BE SECURED TO THE JOISTS, RAFTERS, TRUSSES, OR BEAMS, NOT TO THE FLOOR OR ROOF SHEATHING.

6. A 6" MAXIMUM DRILLED HOLE IS ALLOWED IN SHEATHING. HOLES LARGER THAN 6" DIAMETER REQUIRE ADDITIONAL FRAMING OR REINFORCEMENT. CONTACT ENGINEER OF RECORD FOR ADDITIONAL FRAMING REQUIRED.

EXTERIOR WALL AND SHEAR WALL SHEATHING

1. SHEATHING SHALL BE AS NOTED ON THE PLANS AND SCHEDULES. AS A MINIMUM, SHEATHING SHALL BE 7/16" THICK, 32/16 APA RATED, EXPOSURE 1. BLOCKING IS REQUIRED AT EDGES AT ALL EXTERIOR WALLS, REFER TO SHEAR WALL SCHEDULE FOR PANEL EDGE BLOCKING REQUIREMENTS AT SHEAR WALLS. SECURE SHEATHING TO SUPPORTS WITH 0.131"x0 NAILS WITH A MINIMUM 1 3/8" PENETRATION INTO FRAMING MEMBER. PLACE NAILS AT 6" O.C. AT EDGES AND AT 12" O.C. IN THE FIELD AT EXTERIOR WALLS. REFER TO PLANS AND SHEAR WALL SCHEDULE FOR ADDITIONAL NAIL SPACING AND SIZE REQUIREMENTS AT SHEAR WALLS.

2. MINIMUM SHEATHING SHEET SIZE SHALL BE 2'-0"x4'-0" AND TWO-SPAN MINIMUM. SHEATHING SHALL BE LAID VERTICALLY PER TYPICAL DETAILS ON S0 SHEETS.

3. BLOCKING IS REQUIRED AT ALL EDGES AND SHALL MATCH WALL CAVITY DEPTH. USE 2x BLOCKING WHERE EDGE NAIL SPACING IS 4" O.C. OR GREATER. USE 3x BLOCKING WHERE EDGE NAIL SPACING IS LESS THAN 4" O.C. REFER TO TYPICAL DETAILS ON S0 SHEETS FOR ADDITIONAL BLOCKING REQUIREMENTS.

4. EXTERIOR NON SHEAR WALLS SHEATHING SHALL BE 7/16" THICK, 32/16 APA RATED, EXPOSURE 1. SECURE SHEATHING TO SUPPORTS WITH 0.131"x0 NAILS WITH A MINIMUM 1 3/8" PENETRATION INTO FRAMING MEMBER. PLACE NAILS AT 6" O.C. AT EDGES AND AT 12" O.C. IN THE FIELD AT EXTERIOR WALLS.

Hufft

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ISSUE:

CONSTRUCTION DOCUMENTS

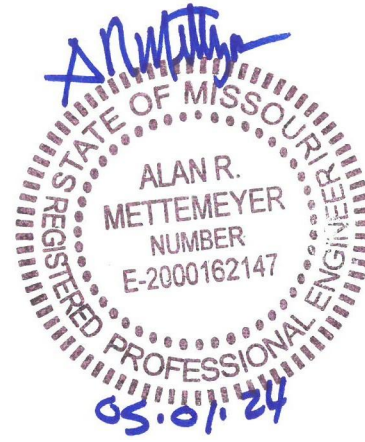
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REVISION SCHEDULE:

NO.	DATE	ISSUE
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Engineer: Alan R. Mettemeyer
License Number: MO# E-2000162147
Drawn By: JCF
Project Number: 24-0121

GENERAL NOTES

S001



- | | |
|---|---|
| BASIS FOR DESIGN: | |
| 1. BUILDING CODE: IBC 2018 | |
| 2. DEAD LOADS | |
| A. TYPICAL ROOF | 20 PSF |
| 3. LIVE LOADS | |
| A. ROOF (NO REDUCTION) | 20 PSF |
| 4. SNOW LOAD | |
| A. GROUND SNOW | $P_g = 20 \text{ PSF}$ |
| B. FLAT ROOF SNOW LOAD | $P_f = 15.4 \text{ PSF (MAIN BUILDING)}$
$P_f = 16.8 \text{ PSF (CANOPY)}$ |
| C. EXPOSURE FACTOR | $C_e = 1.0$ |
| D. IMPORTANCE FACTOR | $I_s = 1.0$ |
| E. THERMAL FACTOR | $C_t = 1.0 \text{ (MAIN BUILDING)}$
$C_t = 1.2 \text{ (CANOPY)}$ |
| F. RAIN ON SNOW | 5 PSF |
| G. MINIMUM SNOW | $P_m = 20 \text{ PSF}$ |
| 5. WIND LOAD | |
| A. WIND DESIGN PROCEDURE = METHOD 1 | |
| B. BASIC WIND SPEED (3-SECOND GUST): | |
| ULTIMATE, $V = 109 \text{ MPH}$ | |
| SERVICE, $V = 84 \text{ MPH}$ | |
| C. RISK CATEGORY = II | |
| D. EXPOSURE = "C" | |
| E. INTERNAL PRESSURE COEFFICIENT, | $Gcp = \pm 0.18 \text{ (MAIN BUILDING)}$
$Gcp = 0 \text{ (CANOPY)}$ |
| F. WIND DESIGN PRESSURES (COMPONENTS & CLADDING) | |
| 6. SEISMIC LOAD | |
| A. IMPORTANCE FACTOR, $I_h = 1.0$ | |
| B. $S_s = 0.099$ | |
| C. $S_i = 0.068$ | |
| D. SITE CLASSIFICATION = D | |
| E. $S_{DS} = 0.102$ | |
| F. $S_{D1} = 0.109$ | |
| G. SEISMIC DESIGN CATEGORY = B | |
| H. BASIC SEISMIC FORCE RESISTING SYSTEM: LIGHT FRAMED WOOD SHEAR WALLS (MAIN BUILDING) AND STEEL ORDINARY CANTILEVER COLUMN-JOIST SYSTEM (CANOPY) | |
| I. DESIGN BASE SHEAR, $V = 1.8 \text{ KIPS (MAIN BUILDING)}$
$V = 2.2 \text{ KIPS (CANOPY)}$ | |
| J. RESPONSE MODIFICATION COEFFICIENT $R = 6.5 \text{ (MAIN BUILDING)}$
$R = 1.25 \text{ (CANOPY)}$ | |
| L. SEISMIC RESPONSE COEFFICIENT $C_s = 0.016 \text{ (MAIN BUILDING)}$
$C_s = 0.085 \text{ (CANOPY)}$ | |
| K. ANALYSIS PROCEDURE USED = EQUIV. LATERAL FORCE PROCEDURE | |

ROOF GROSS UPLIFT - CANOPY			
AREA SUPPORT FT²	ROOF UPLIFT ZONES		
	ZONE 1	ZONE 2	ZONE 3
9	14.8' -25.6	22.1' -39.0	29.5' -51.2
18	14.8' -25.6	22.1' -39.0	22.1' -39.0
36	14.8' -25.6	14.8' -25.6	14.8' -25.6

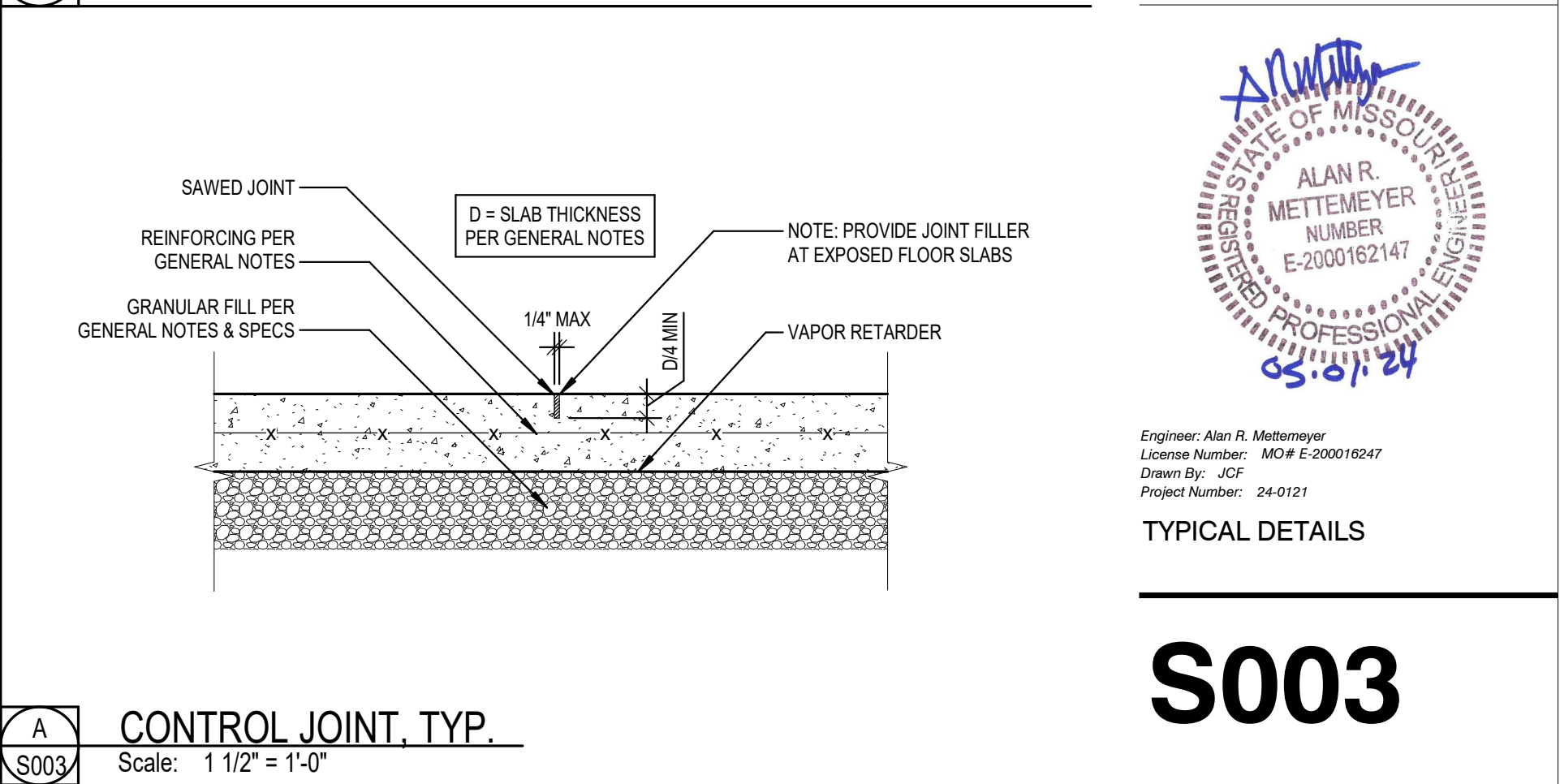
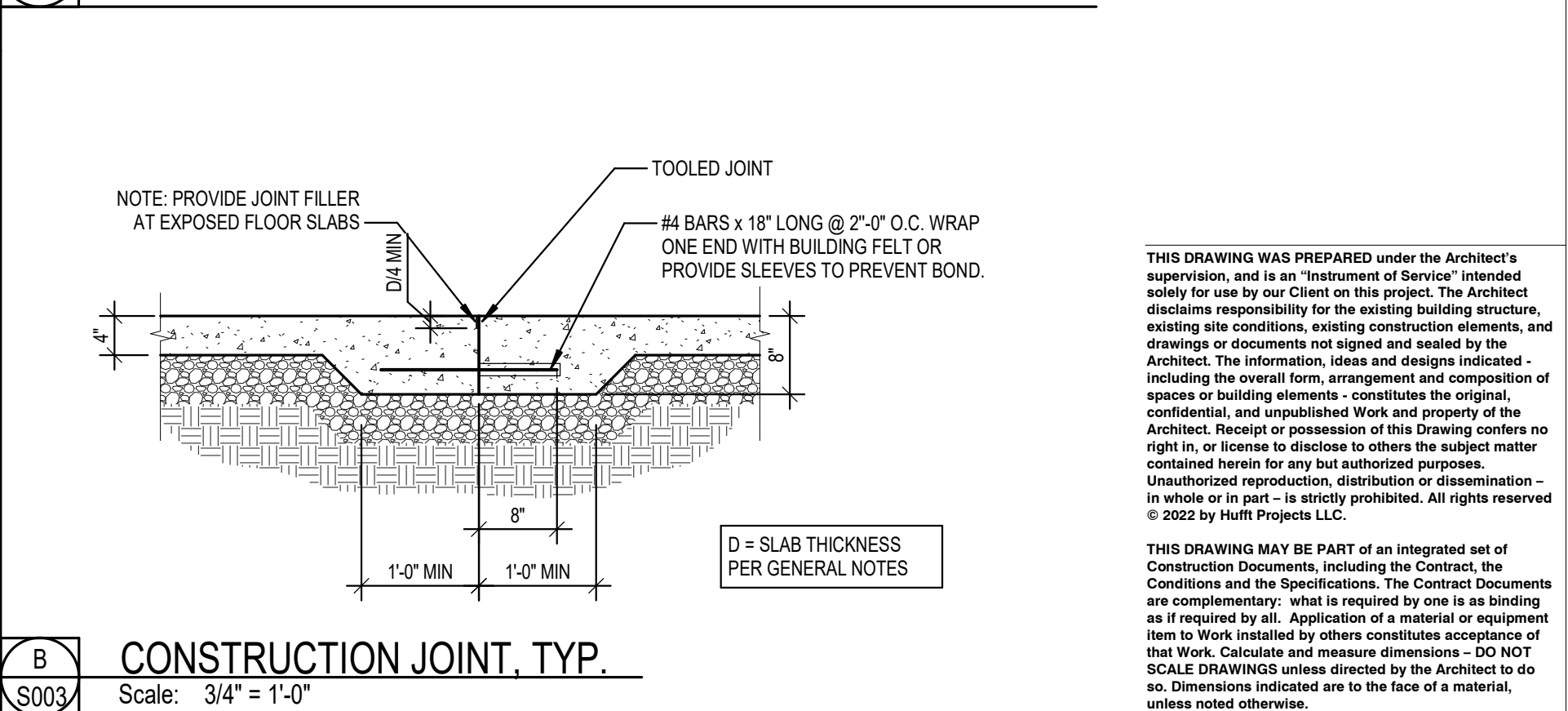
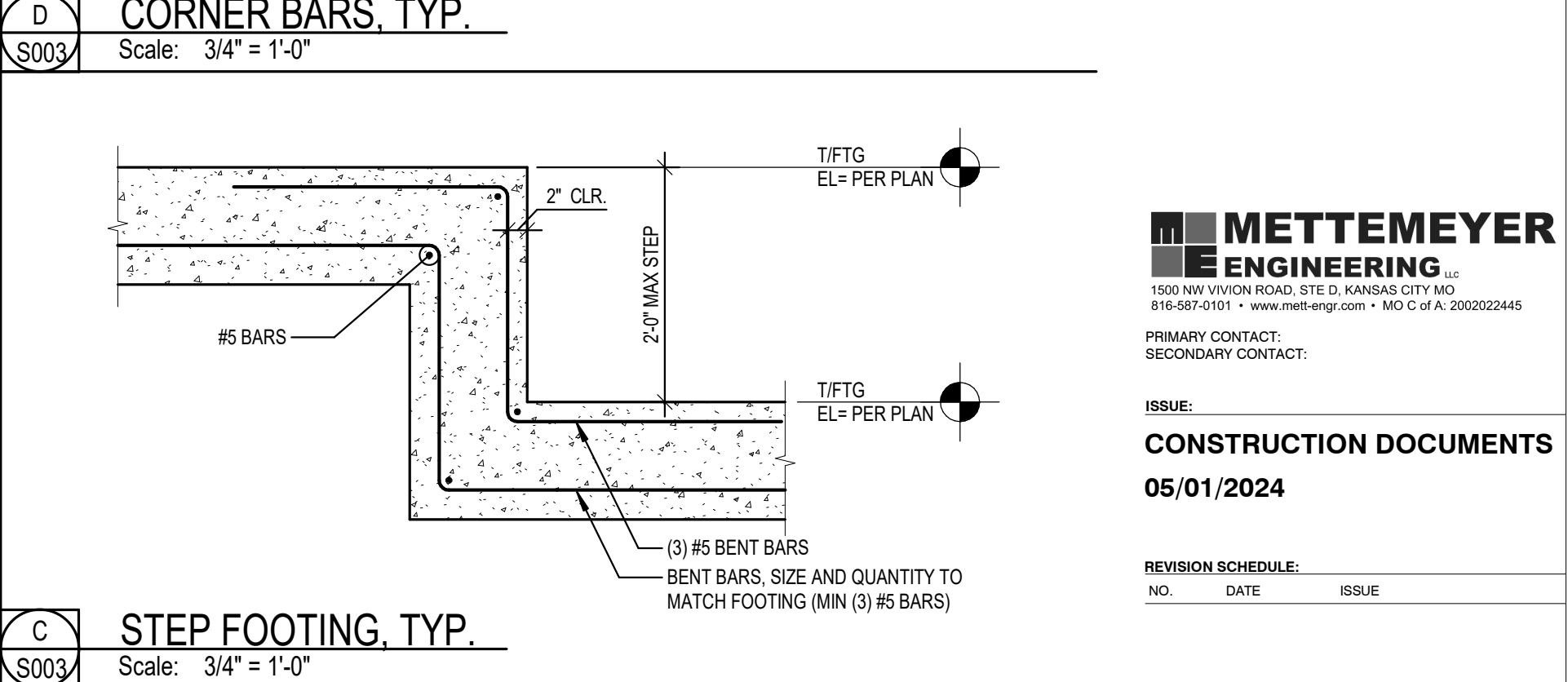
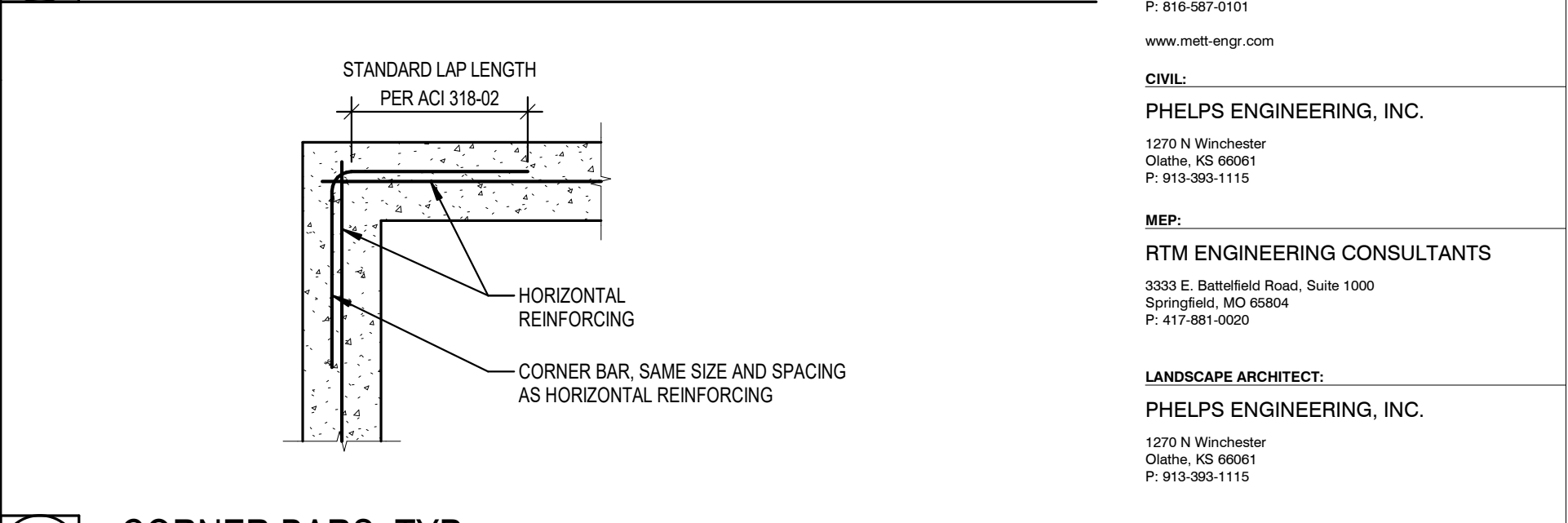
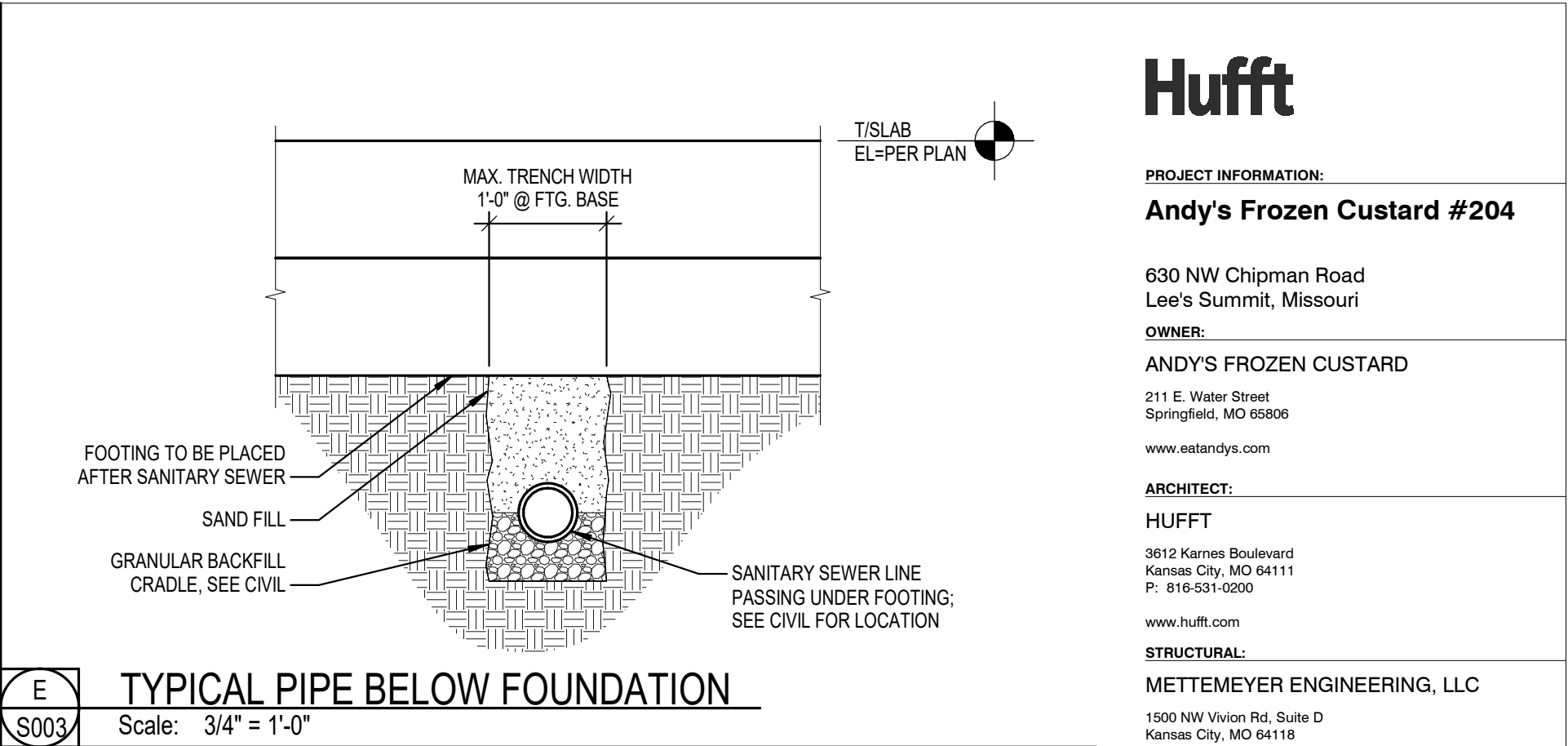
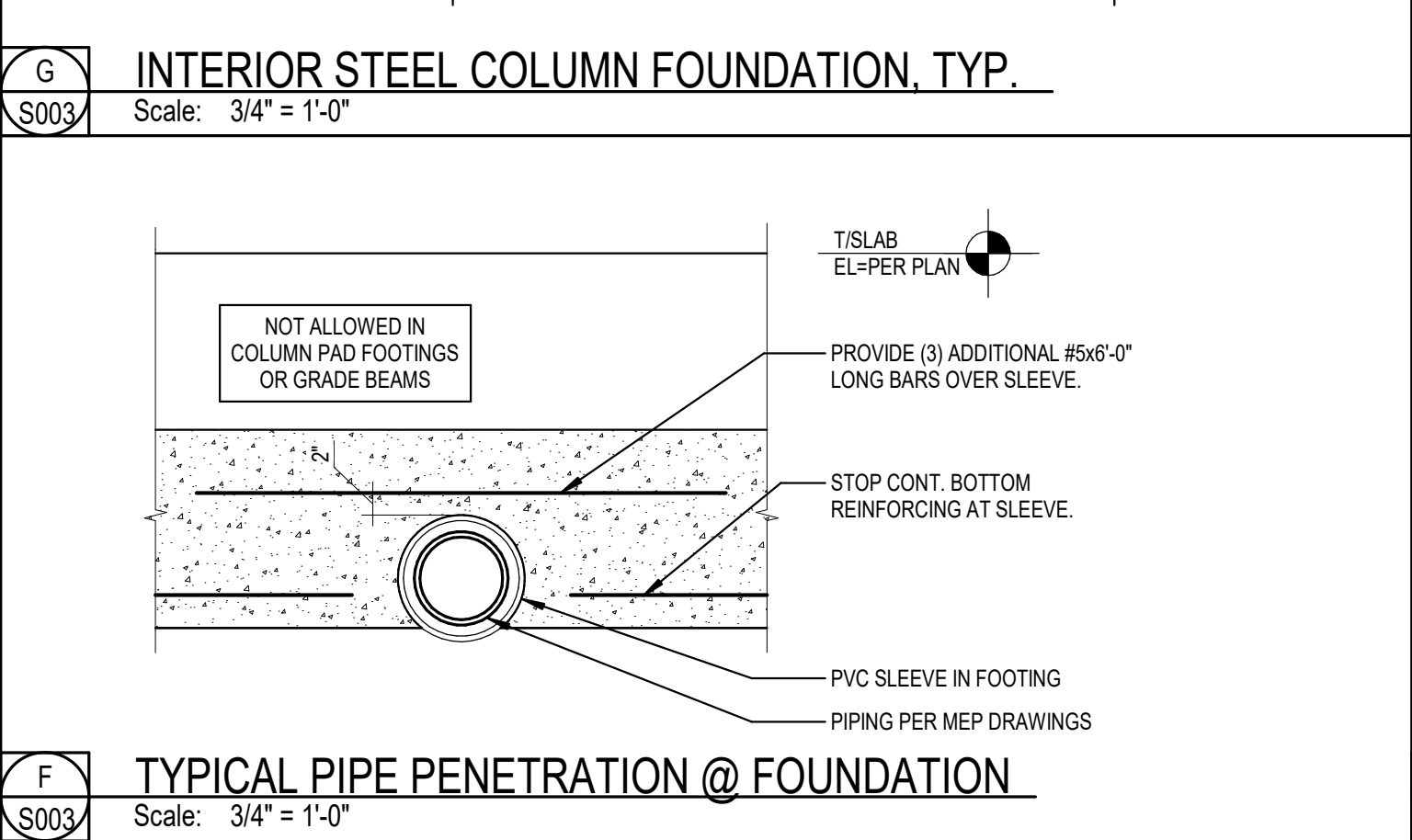
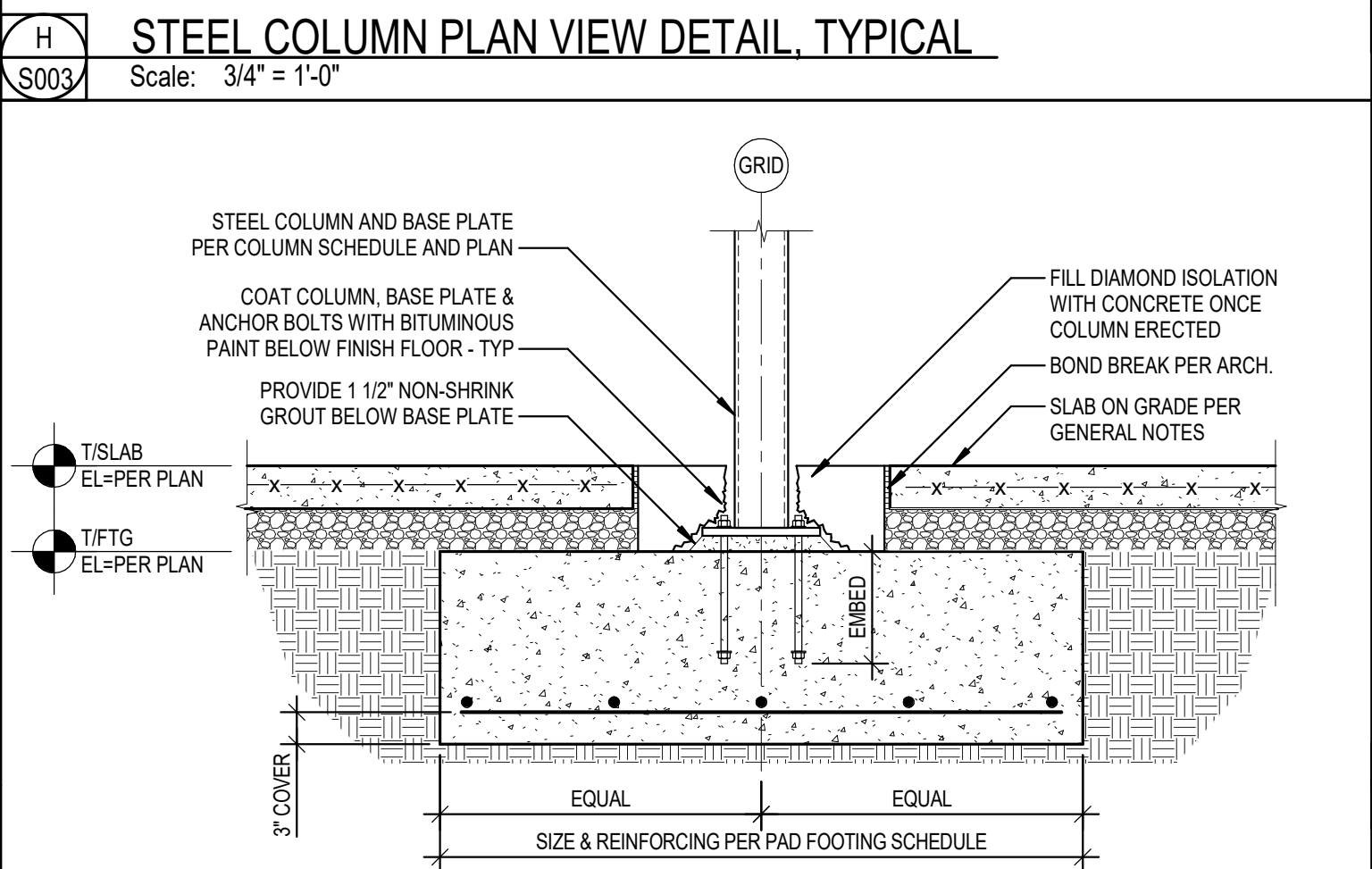
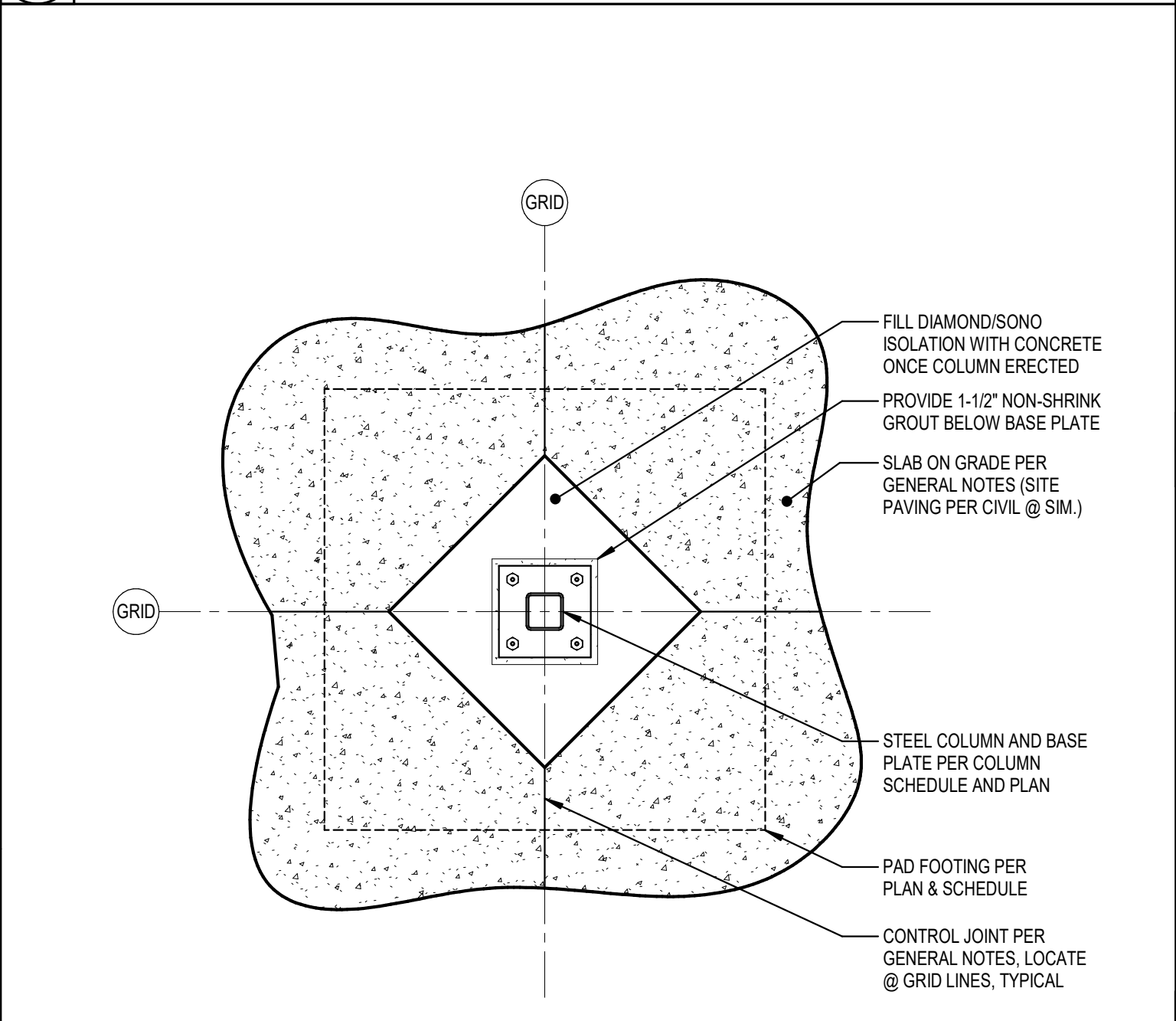
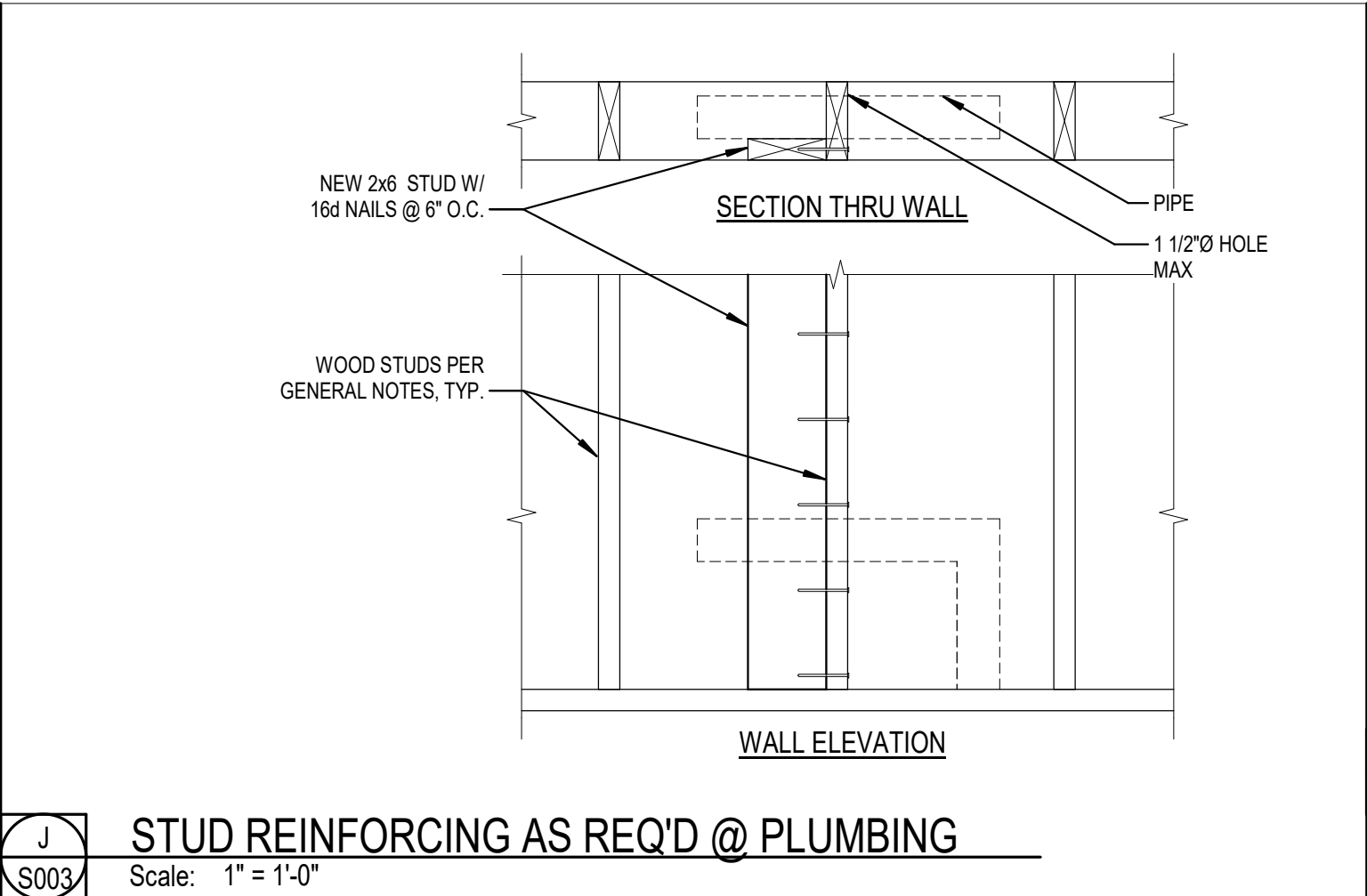
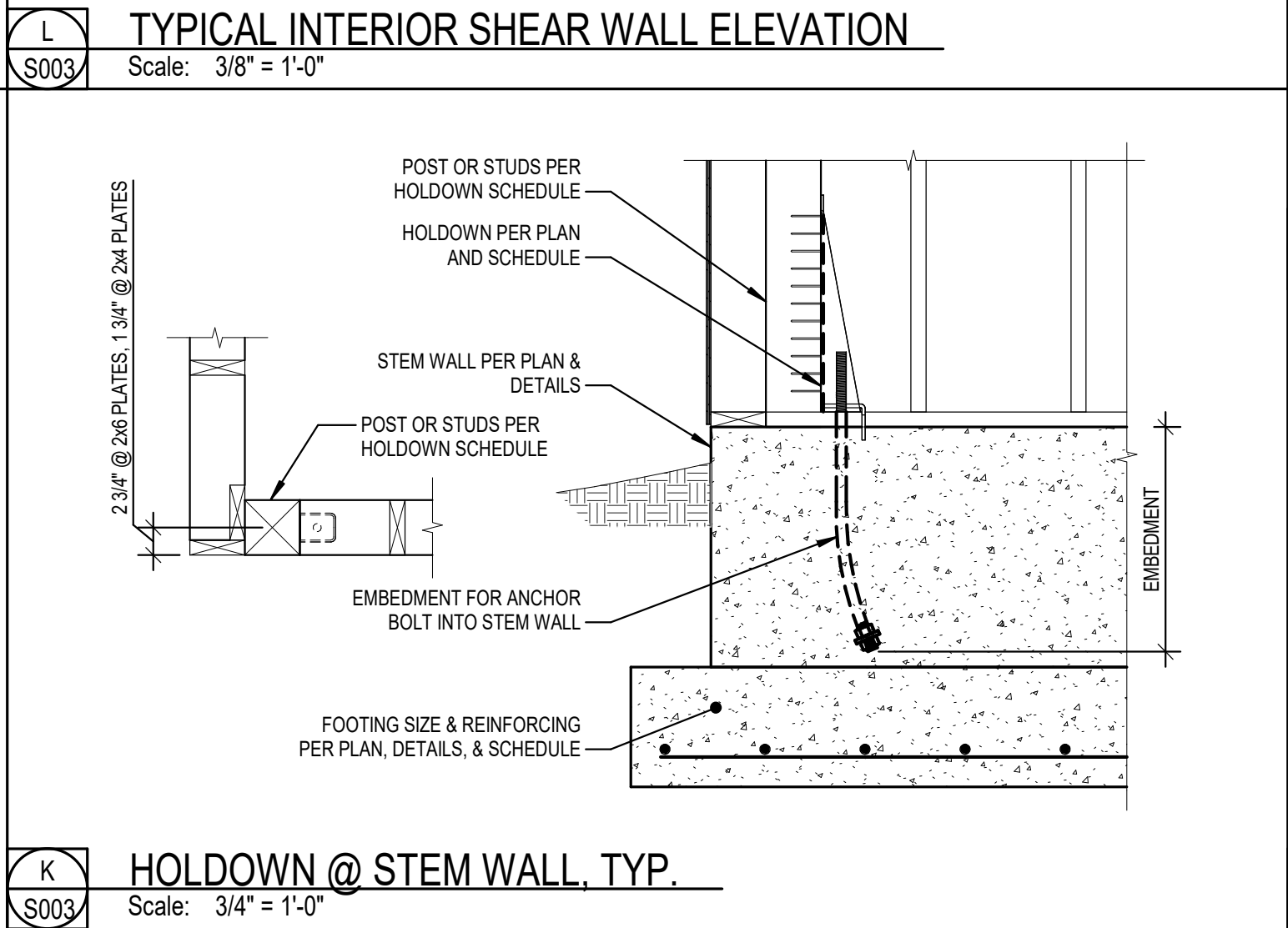
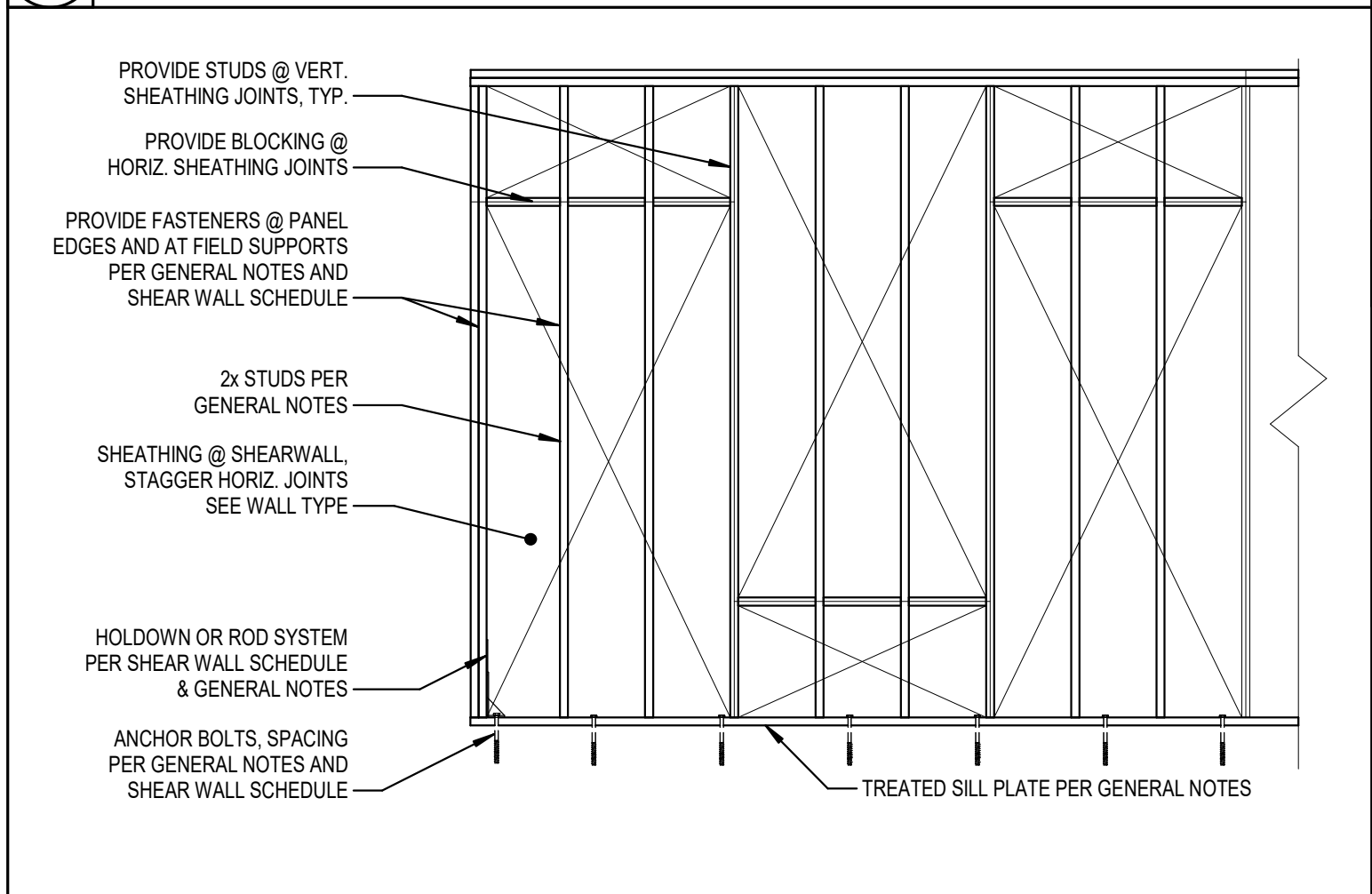
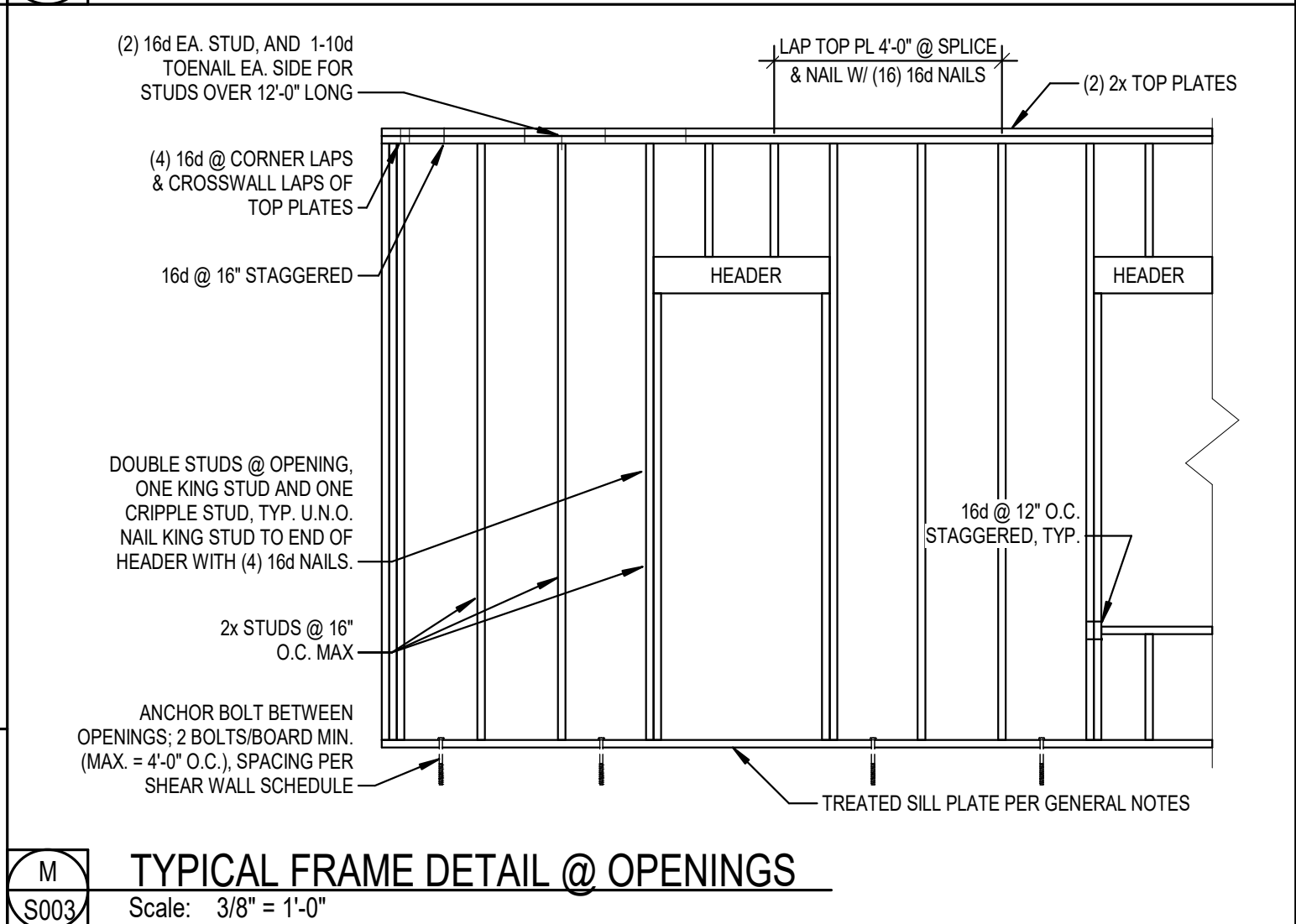
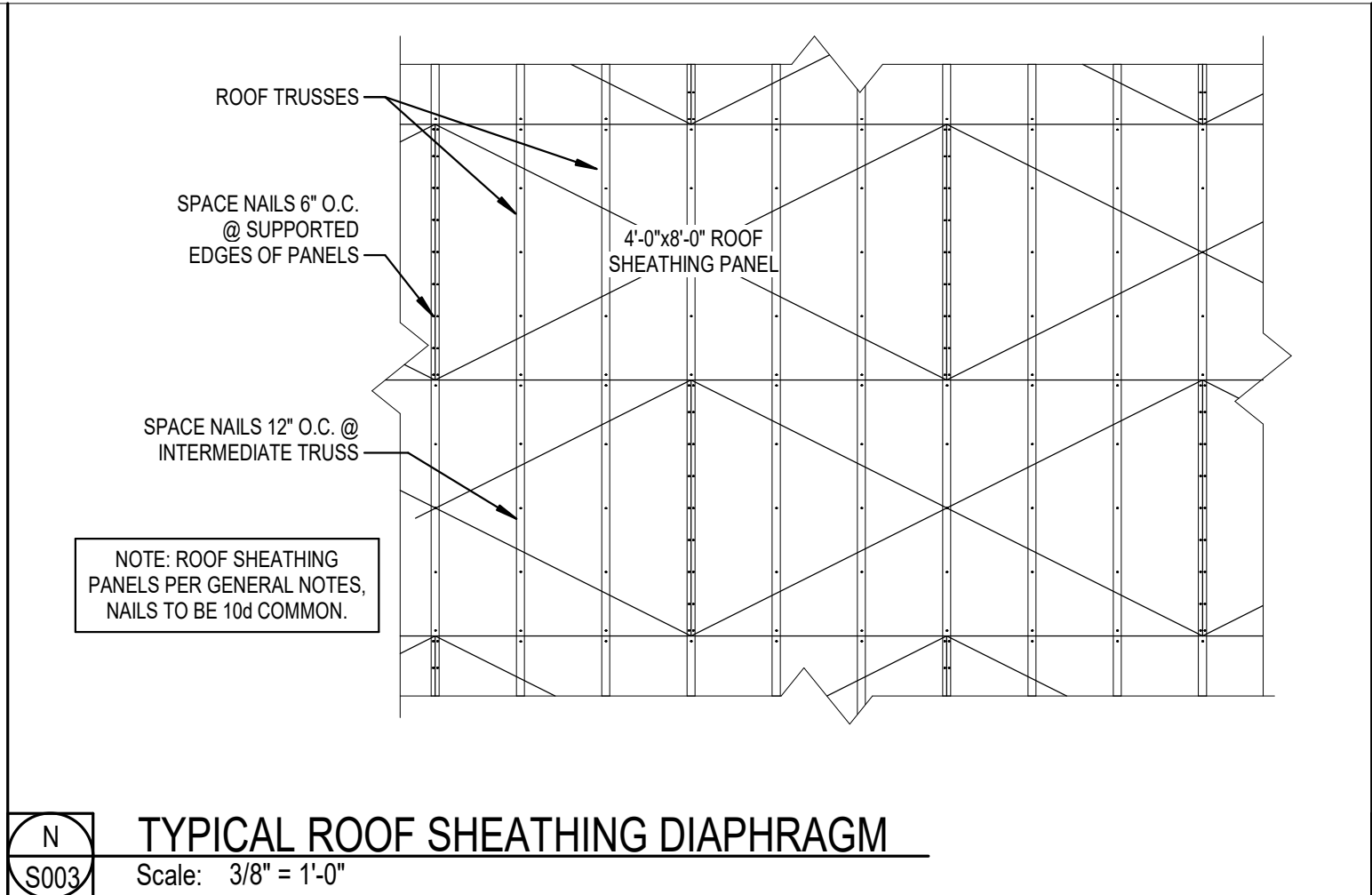
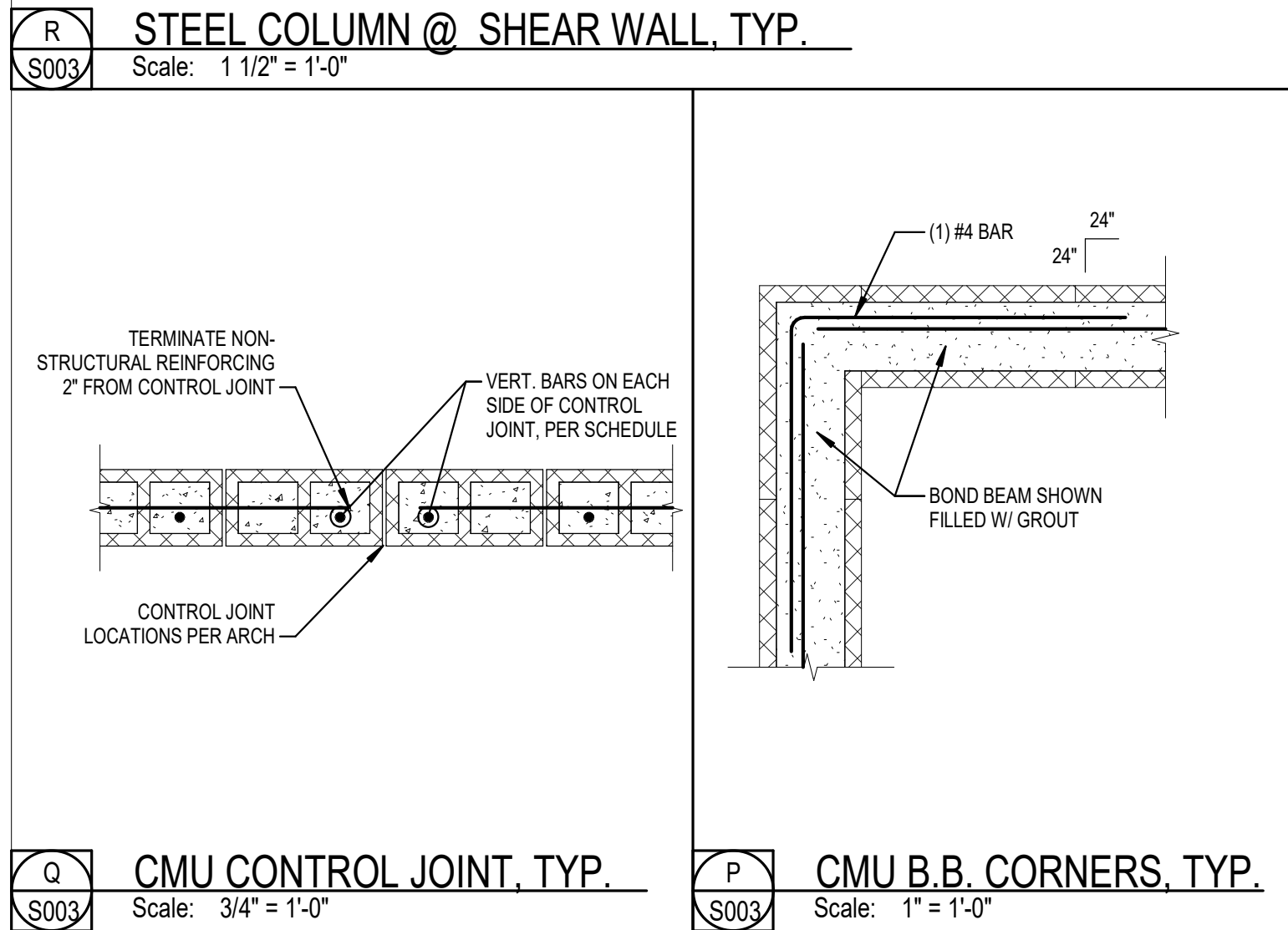
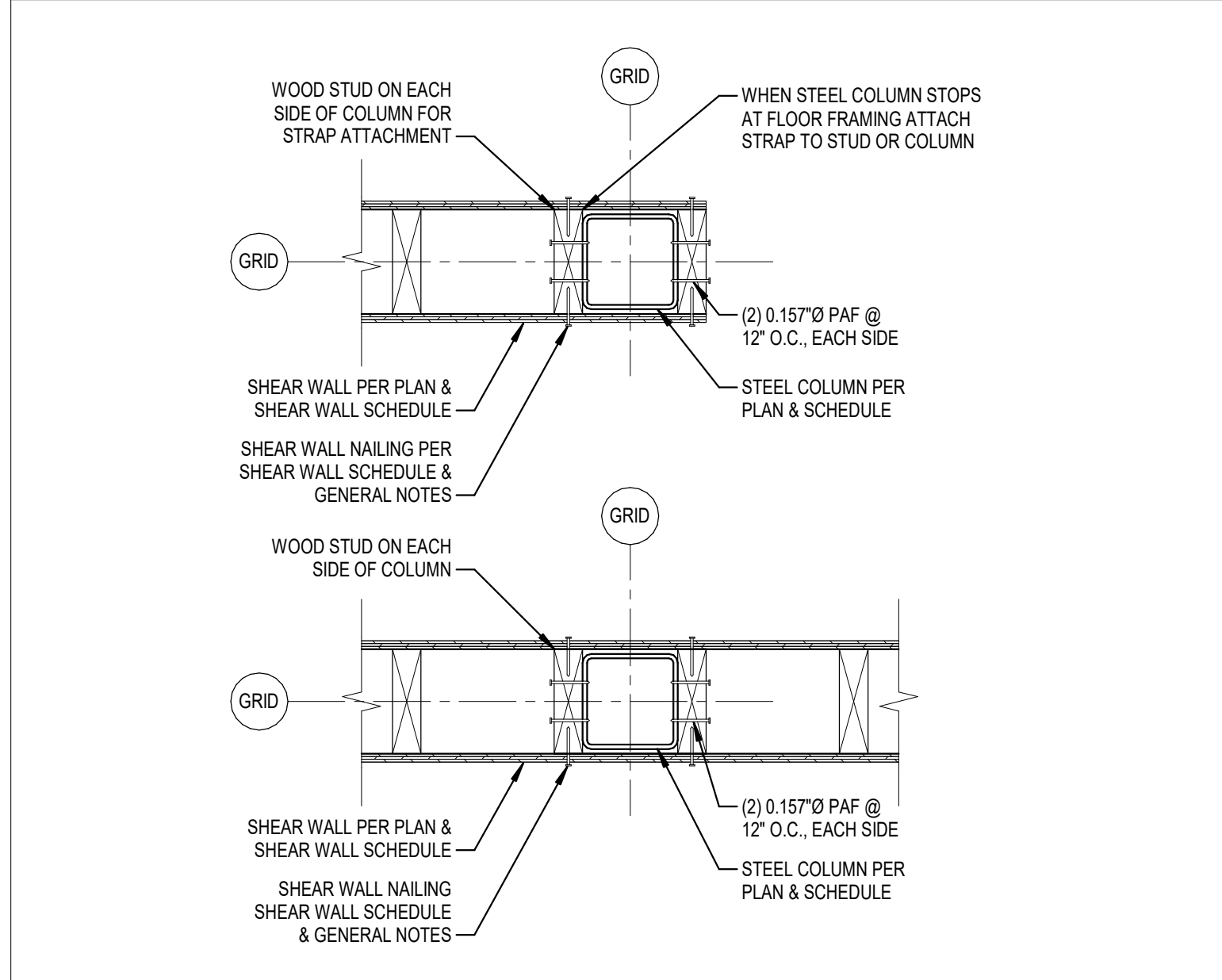
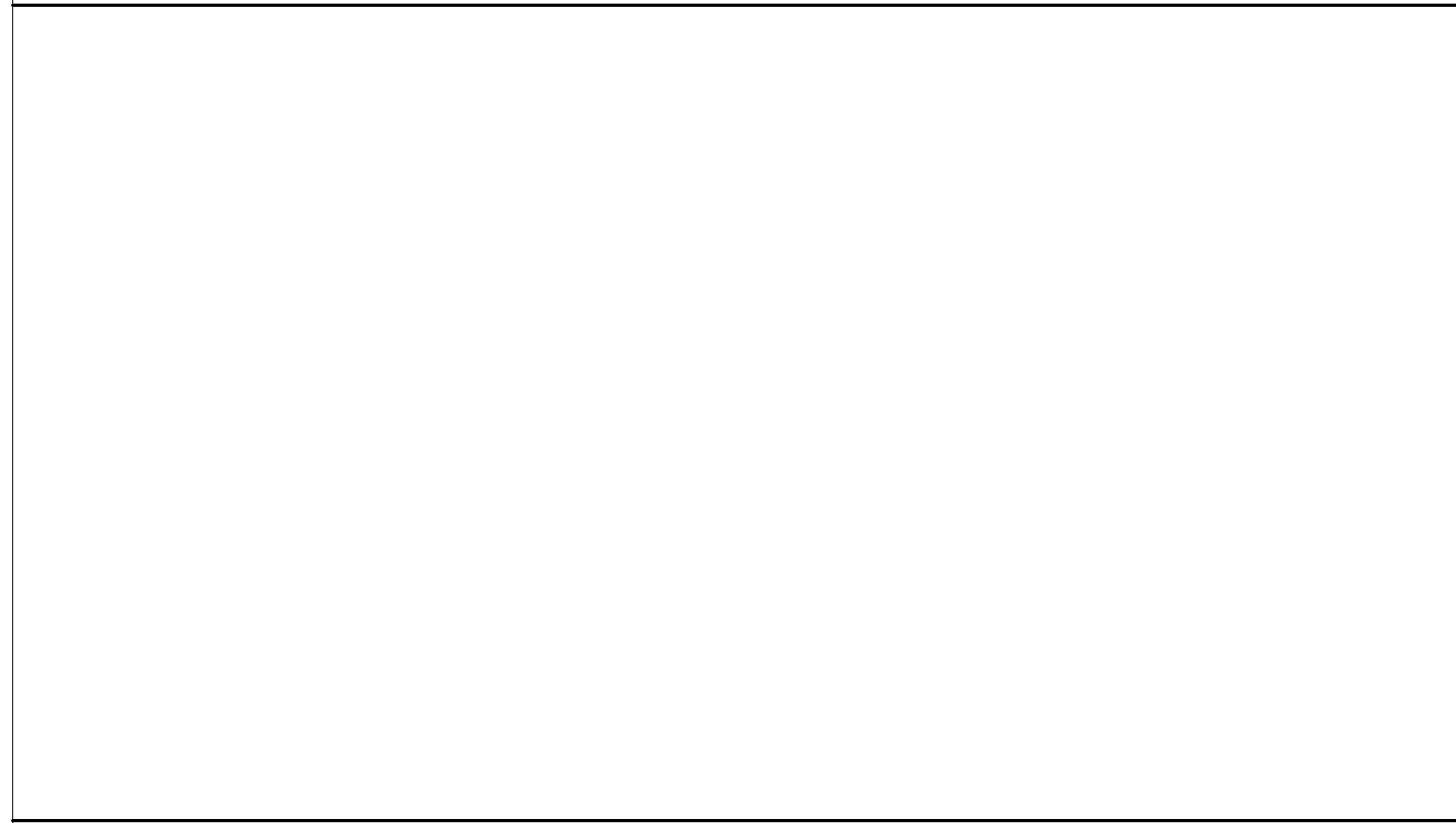
TYPICAL GROSS UPLIFT NOTES

1. ALL UPLIFT VALUES ARE EXPRESSED IN PSF AT SERVICE LEVEL.
2. NEGATIVE VALUE DENOTES PRESSURE AWAY FROM SURFACE.
3. POSITIVE VALUE DENOTES PRESSURE TOWARD SURFACE.
4. EFFECTIVE DEAD LOAD TO RESIST UPLIFT = 15 PSF U.N.O. FOR WOOD FRAMING
5. EFFECTIVE DEAD LOAD TO RESIST UPLIFT = 24 PSF U.N.O. FOR STEEL FRAMING.

CONCRETE CONSTRUCTION		
IBC TABLE 1705.3		
TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION
1. INSPECT REINFORCEMENT AND VERIFY PLACEMENT.	-	X
2. REINFORCING BAR WELDING:		
A. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706.	-	X
B. INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16".	-	X
C. INSPECT ALL OTHER WELDS.	X	-
3. INSPECT ANCHORS CAST IN CONCRETE.	-	X
4. INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS:		
A. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED	X	-
B. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4.A.	-	X
5. VERIFY USE OF REQUIRED DESIGN MIX.	-	X
6. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X	-
7. INSPECT CONCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X	-
8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	-	X
9. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	-	X

SOILS		
IBC TABLE 1705.6		
TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION
1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	-	X
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	-	X
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	-	X
4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESS DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	X	-
5. PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	-	X

S002



Hufft

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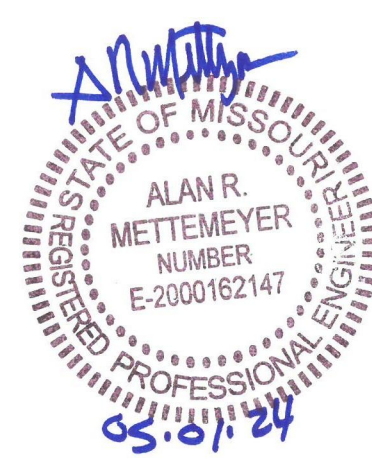
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REVISION SCHEDULE:

NO. DATE ISSUE

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License Number: MO# E-2000162147

Drawn By: JCF

Project Number: 24-0121

TYPICAL DETAILS

S003

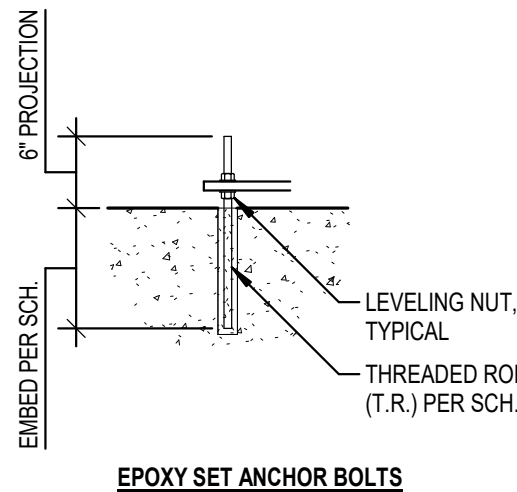
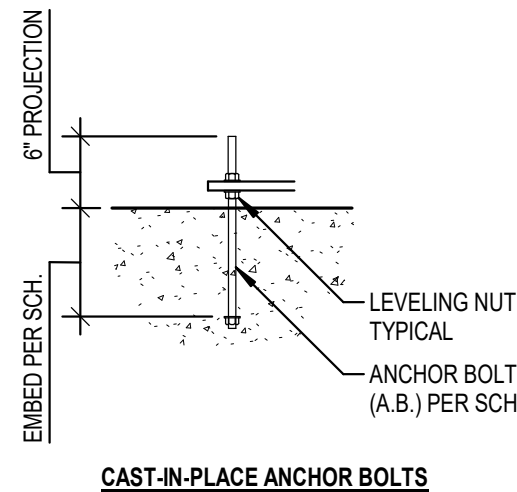
GENERAL PLAN NOTES

- 1 TYPICAL CONCRETE SLAB ON GRADE SHALL BE 4" THICK WITH 6x6 W1.4xW1.4 WWR ON CHAIRS OVER 10-MIL VAPOR BARRIER.
- 2 C.J. - CONTROL OR CONSTRUCTION JOINT IN FLOOR SLAB. SEE A/S002 & B/S002 RESPECTIVELY. REFER TO GENERAL NOTES AND TYPICAL DETAILS FOR SPACING AND ISOLATION REQUIREMENTS.
- 3 SEE ARCHITECTURAL AND PLUMBING SHEETS FOR WATER-PROOFING AND STORM WATER DRAINAGE REQUIREMENTS.
- 4 SEE SHEET S000 FOR GENERAL STRUCTURAL NOTES.
- 5 SLOPE SLABS TO FLOOR DRAINS.
- 6 CENTER ALL SPREAD FOOTINGS ON CENTERLINE OF STEEL COLUMNS. PROVIDE CONCRETE DIAMOND ISOLATION CHAMBER AT ALL STEEL COLUMN LOCATIONS.
- 7 PRIOR TO CASTING INTERIOR THICKENED SLAB SOIL COMPACTION REPORT MUST BE APPROVED BY THE ENGINEER OF RECORD.
- 8 NOT ALL MECHANICAL OPENINGS AND/OR PENETRATIONS MAY BE INDICATED. REFER TO MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.
- 9 THE BUILDING SHALL NOT BE LOCATED ON SITE OFF OF THE STRUCTURAL DOCUMENTS. REFER TO THE CIVIL SITE PLAN AND ARCHITECTURAL PLANS FOR BUILDING LOCATION & ORIENTATION INFORMATION.
- 10 PROVIDE (2) #4x4'-0" RE-ENTRANT CORNER BARS @ 4" THICK SLABS AND (2) #5x4'-0" RE-ENTRANT CORNER BARS @ 5" THICK OR THICKER SLABS, TYPICAL.
- 11 SEE SHEET S300 FOR SHEAR WALL SCHEDULE.

STEEL COLUMN SCHEDULE

COLUMN LOCATION	COLUMN SHAPE	BASE PLATE TYPE	PLATE THICKNESS	PLATE LENGTH	PLATE WIDTH	BOLT DIAM.	ANCHOR BOLT TYPE	ANCHOR BOLT TYPE
B-1	HSS5-12X5-12X3/8	B	3/4"	12"	12"	3/4"	9"	F1554-GR36
B-2	HSS5-12X5-12X3/8	B	3/4"	12"	12"	3/4"	9"	F1554-GR36
B-3	HSS5-12X5-12X3/8	C	3/4"	12"	12"	3/4"	9"	F1554-GR36
B-4	HSS5-12X5-12X3/8	C	3/4"	12"	12"	3/4"	9"	F1554-GR36
B-5	HSS5-12X5-12X3/8	B	3/4"	12"	12"	3/4"	9"	F1554-GR36
C-8	HSS5X5X3/8	A	1"	12"	12"	1"	12"	F1554-GR36
D-8	HSS5X5X3/8	A	1"	12"	12"	1"	12"	F1554-GR36
E-6	HSS10X10X1/2	A	1 1/4"	16"	16"	1 1/4"	12"	F1554-GR36
E-9	HSS10X10X1/2	A	1 1/4"	16"	16"	1 1/4"	12"	F1554-GR36
F-5	HSS5-12X5-12X3/8	A	3/4"	12"	12"	3/4"	9"	F1554-GR36
G-6	HSS10X10X1/2	A	1 1/4"	16"	16"	1 1/4"	12"	F1554-GR36
G-9	HSS10X10X1/2	A	1 1/4"	16"	16"	1 1/4"	12"	F1554-GR36

NOTES:
1. ANCHOR BOLT TYPE - A, B = CAST-IN-PLACE ANCHOR BOLT AND T, R = EPOXY SET THREADED ROD.
2. EPOXY SET THREADED RODS SHALL BE SET IN HILTI HIT-HY 200 EPOXY, TYP. U.N.O.



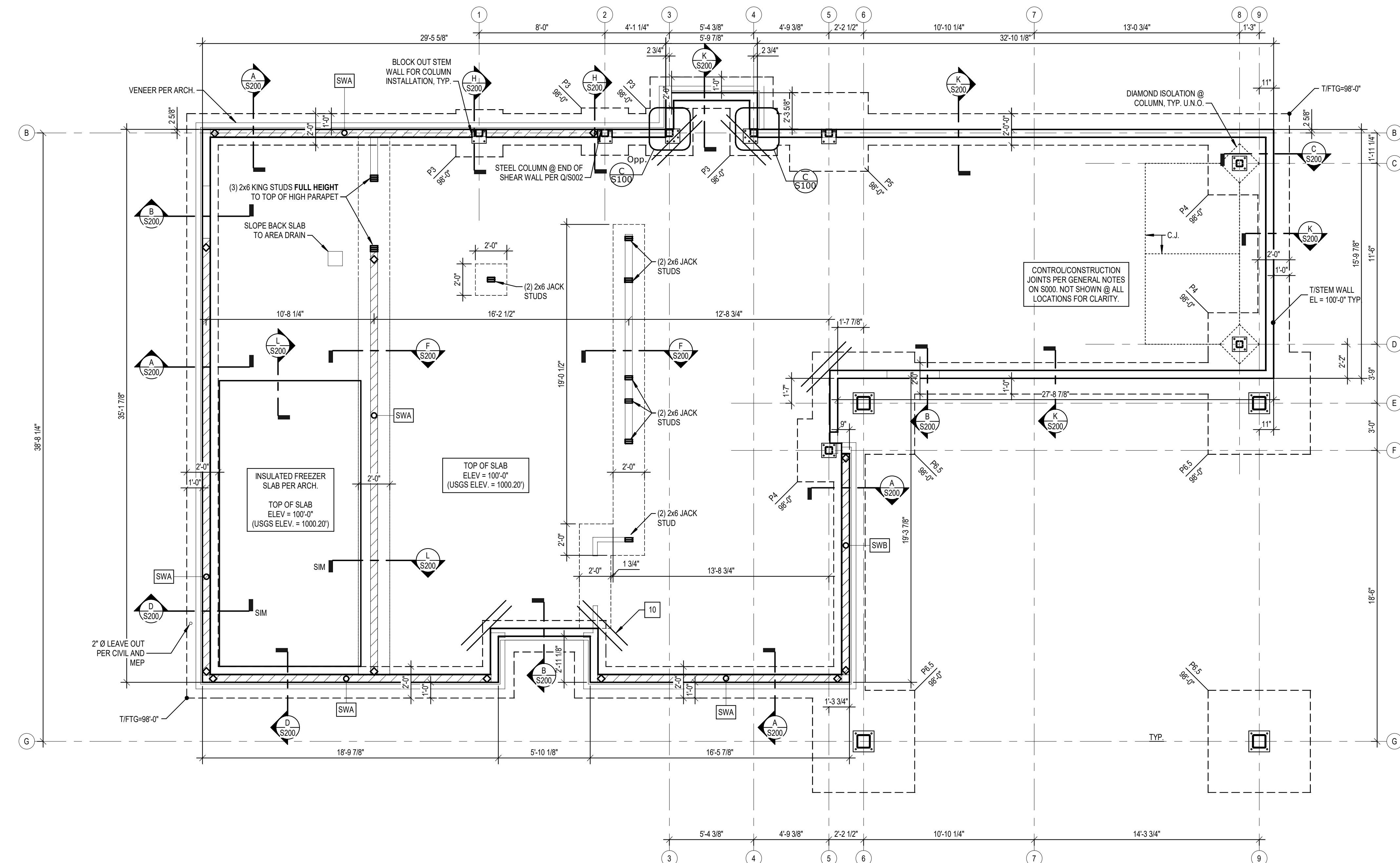
BASE PLATE TYPES
Scale: 1" = 1'-0"

FOUNDATION PLAN - COLUMN B-4 BLOWUP
Scale: 1" = 1'-0"

DUMPSTER FOUNDATION PLAN
Scale: 1/4" = 1'-0"

PAD FOOTING SCHEDULE

PAD MARK	LENGTH	WIDTH	THICKNESS	REINFORCEMENT
P3	3'-0"	3'-0"	1'-10"	(5) #5 BARS EA WAY, TOP & BOTTOM
P4	4'-0"	4'-0"	1'-10"	(7) #5 BARS EA WAY, TOP & BOTTOM
P5	5'-0"	5'-0"	1'-10"	(6) #6 BARS EA WAY, TOP & BOTTOM
P6.5	6'-6"	6'-6"	1'-10"	(8) #6 BARS EA WAY, TOP & BOTTOM



FOUNDATION PLAN
Scale: 1/4" = 1'-0"

Hufft

PROJECT INFORMATION:

Andy's Frozen Custard #204

630 NW Chipman Road
Lee's Summit, Missouri

OWNER:

ANDY'S FROZEN CUSTARD

211 E. Water Street
Springfield, MO 65806

www.estandys.com

ARCHITECT:

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3612 Karnes Boulevard
Kansas City, MO 64111

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MEP:

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LANDSCAPE ARCHITECT:

OLSSON

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Springfield, MO 65806

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ISSUE:

CONSTRUCTION DOCUMENTS

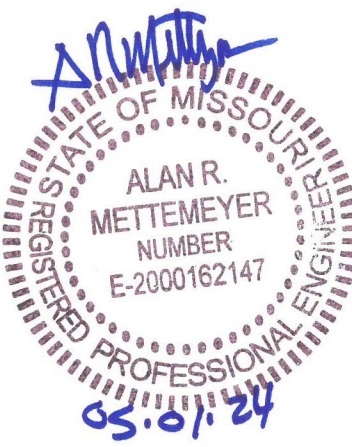
05/01/2024

REVISION SCHEDULE:

NO. DATE ISSUE

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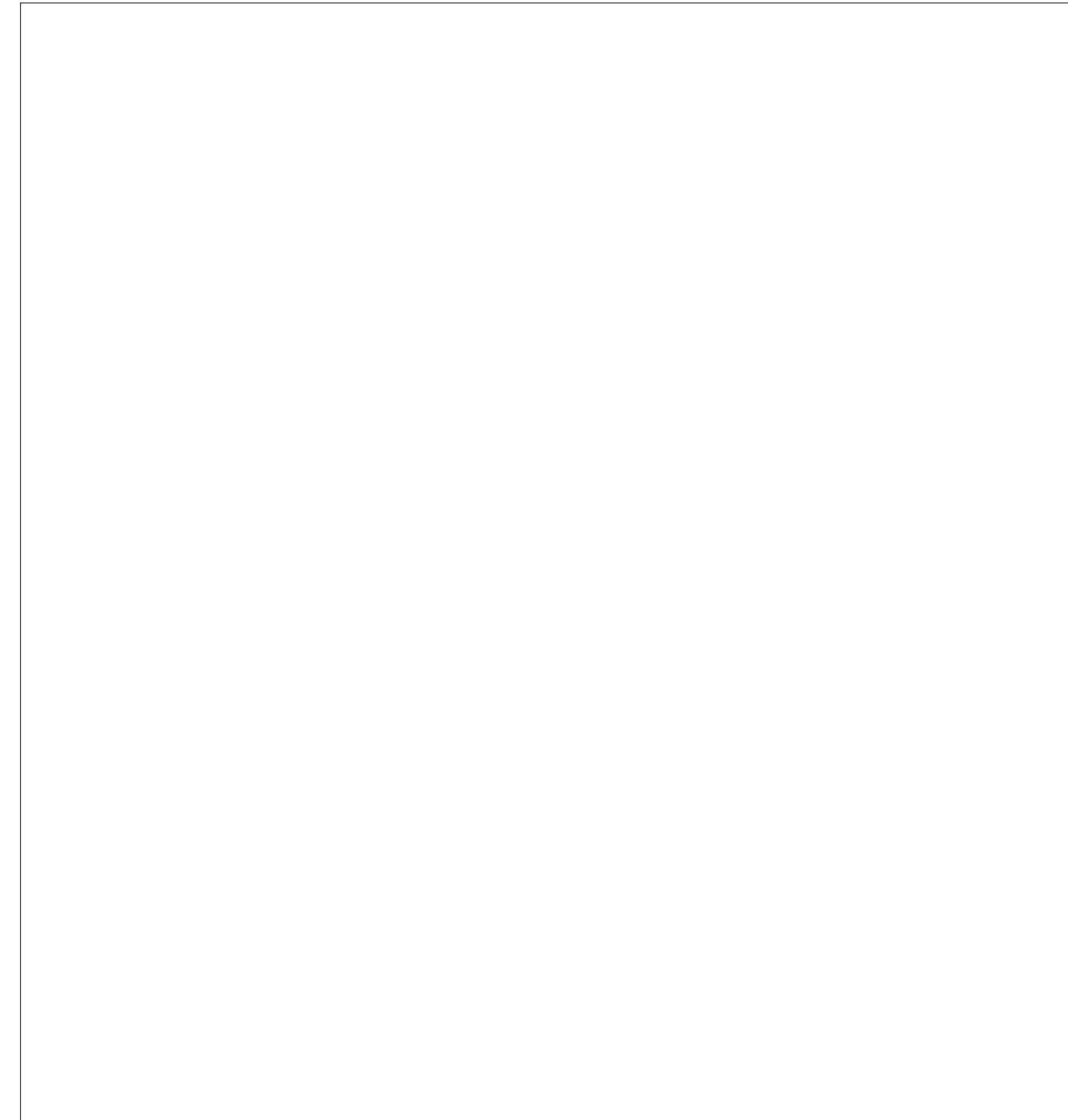
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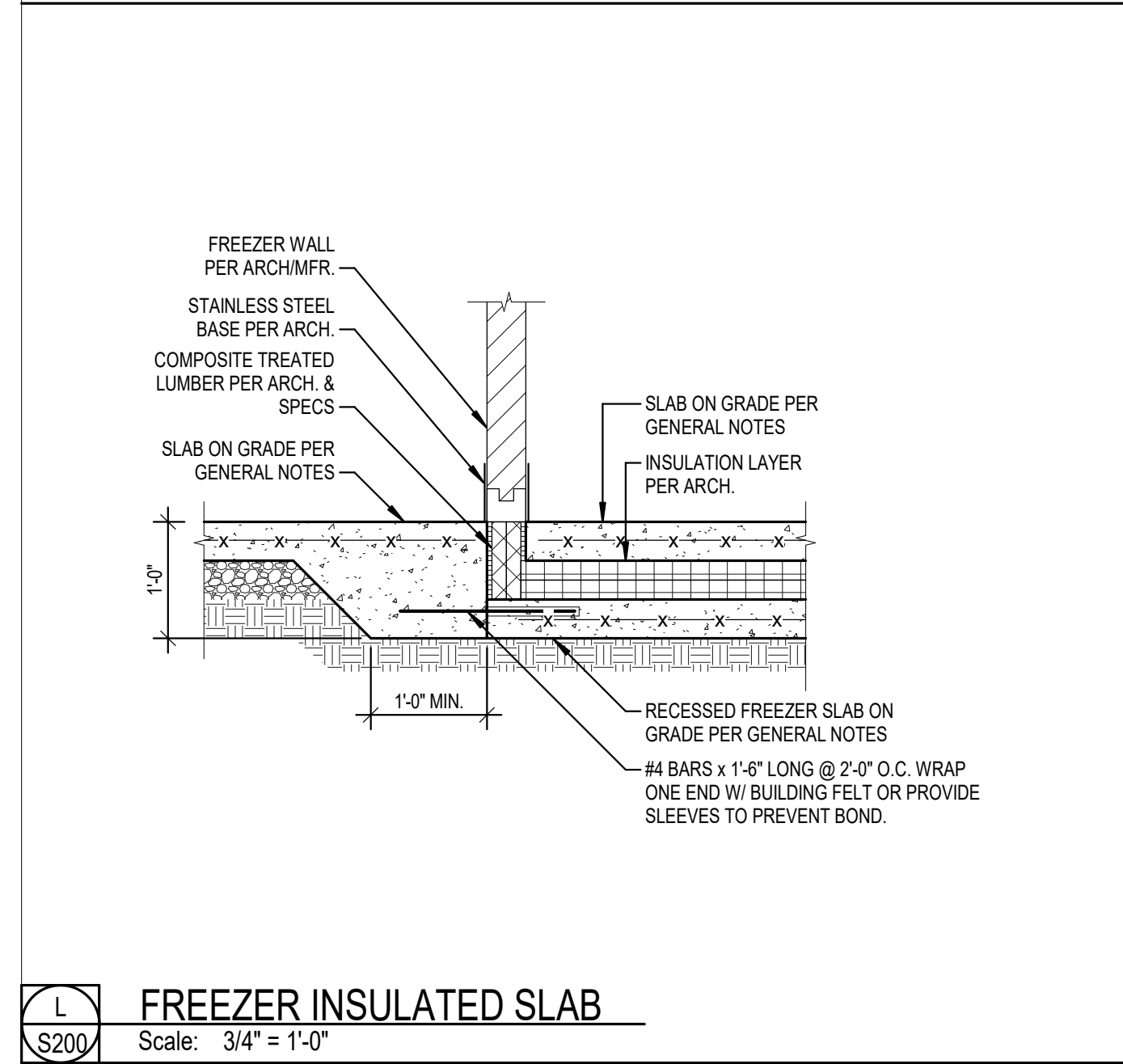
Engineer: Alan R. Mettemeyer
License Number: IL# 081-006428
Drawn By: JCF
Project Number: 24-0121

FOUNDATION PLAN

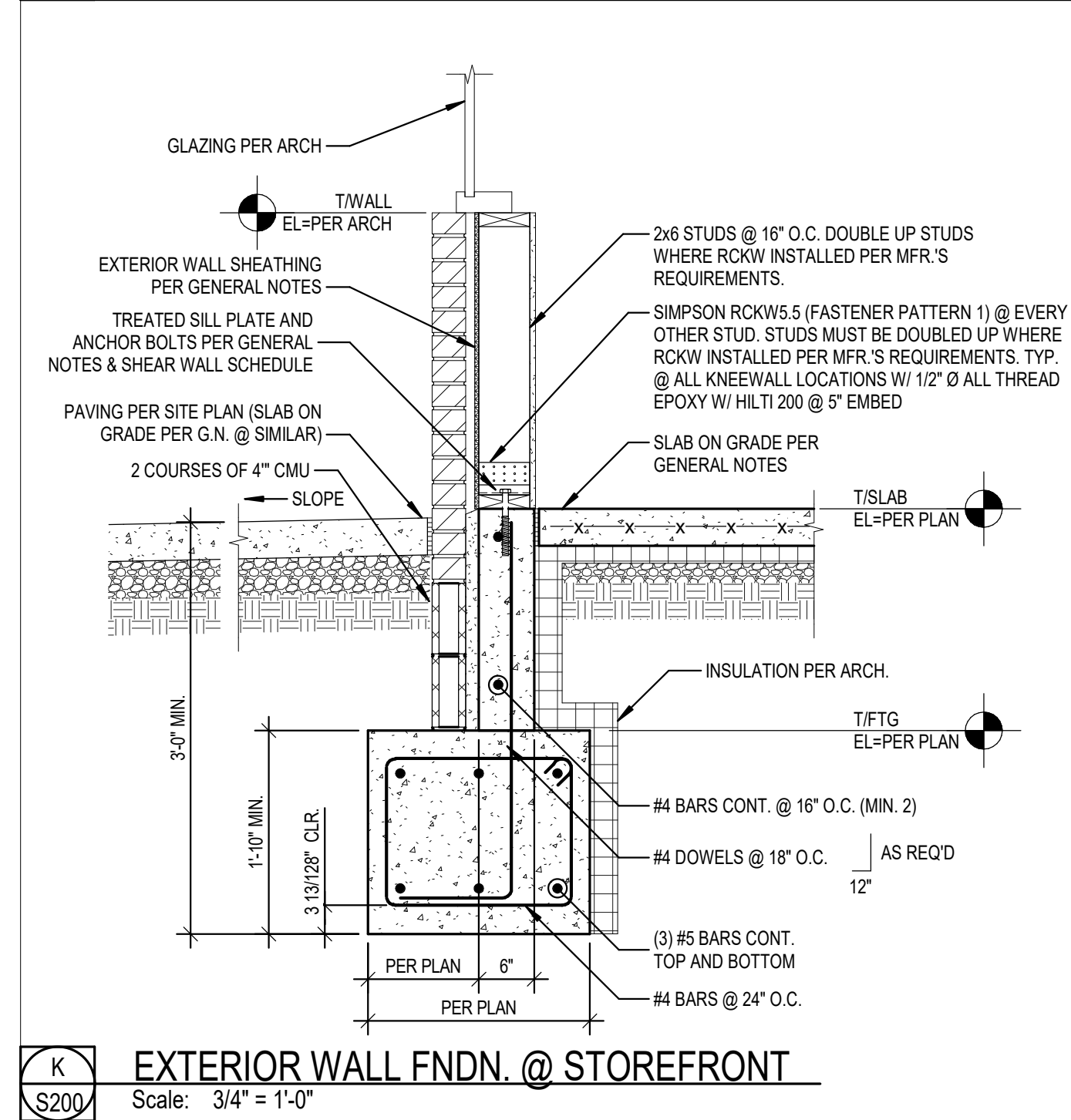
S100



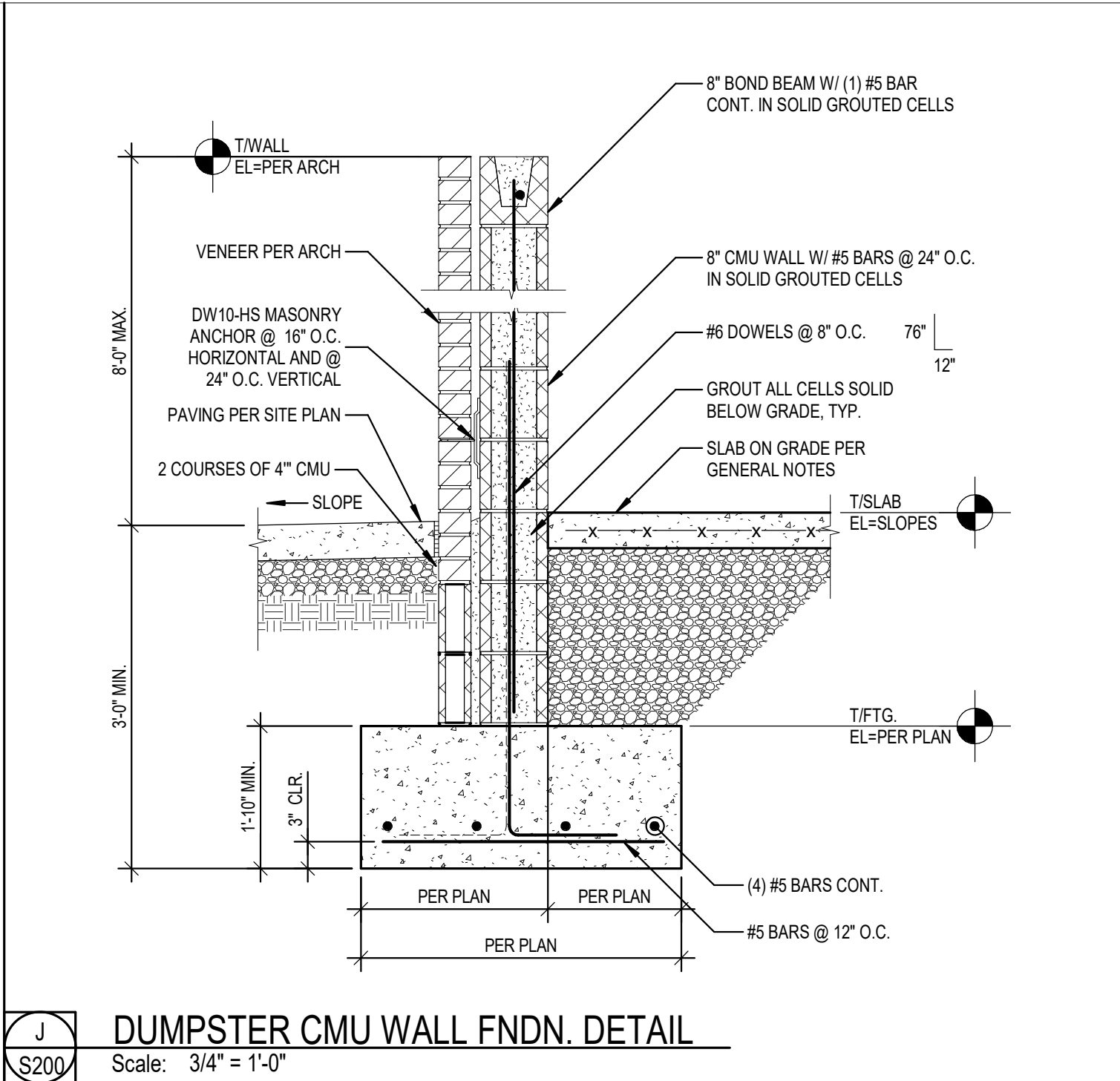
J DUMPSTER CMU WALL FNDN. DETAIL
Scale: 3/4" = 1'-0"



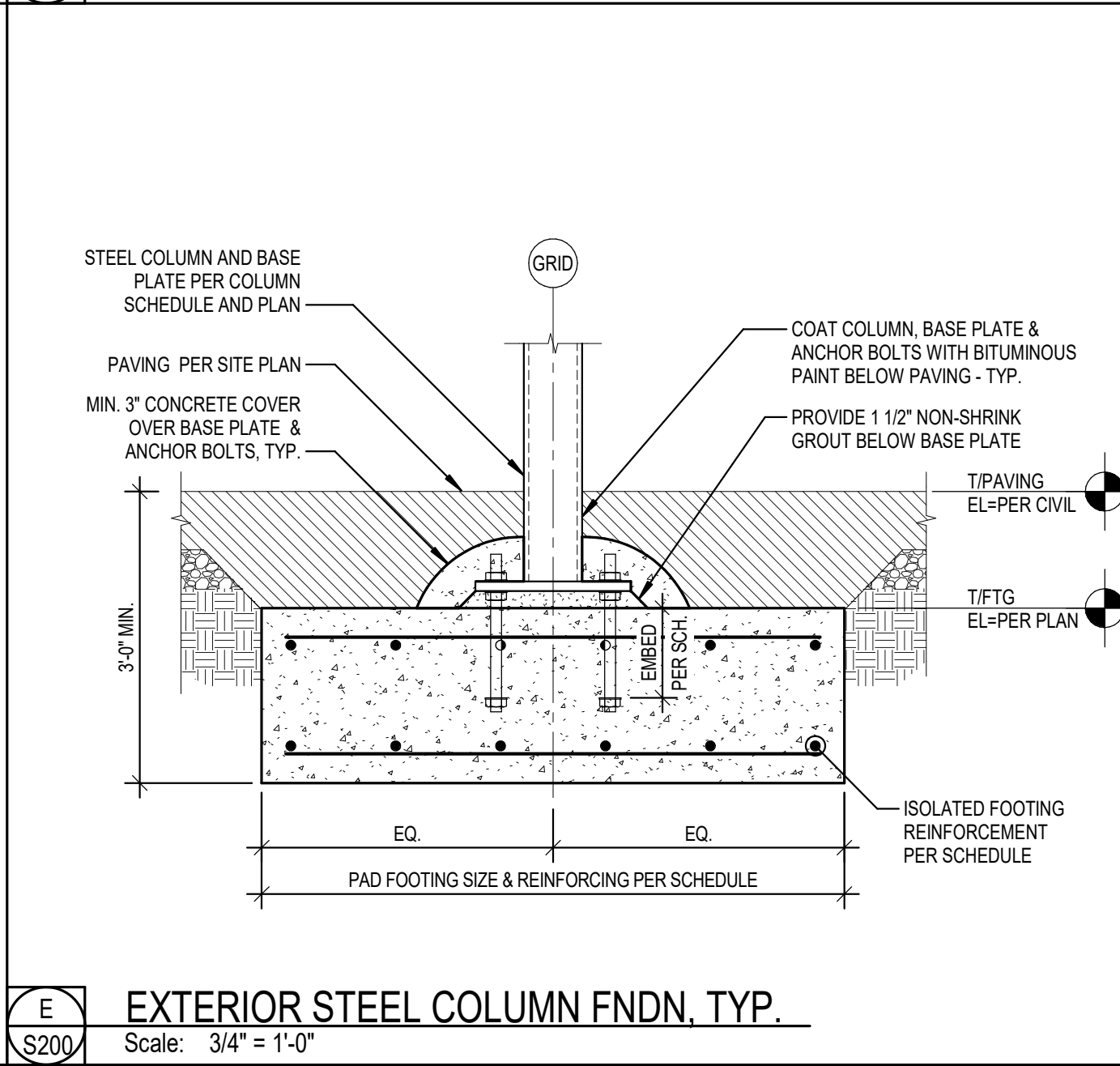
L FREEZER INSULATED SLAB
Scale: 3/4" = 1'-0"



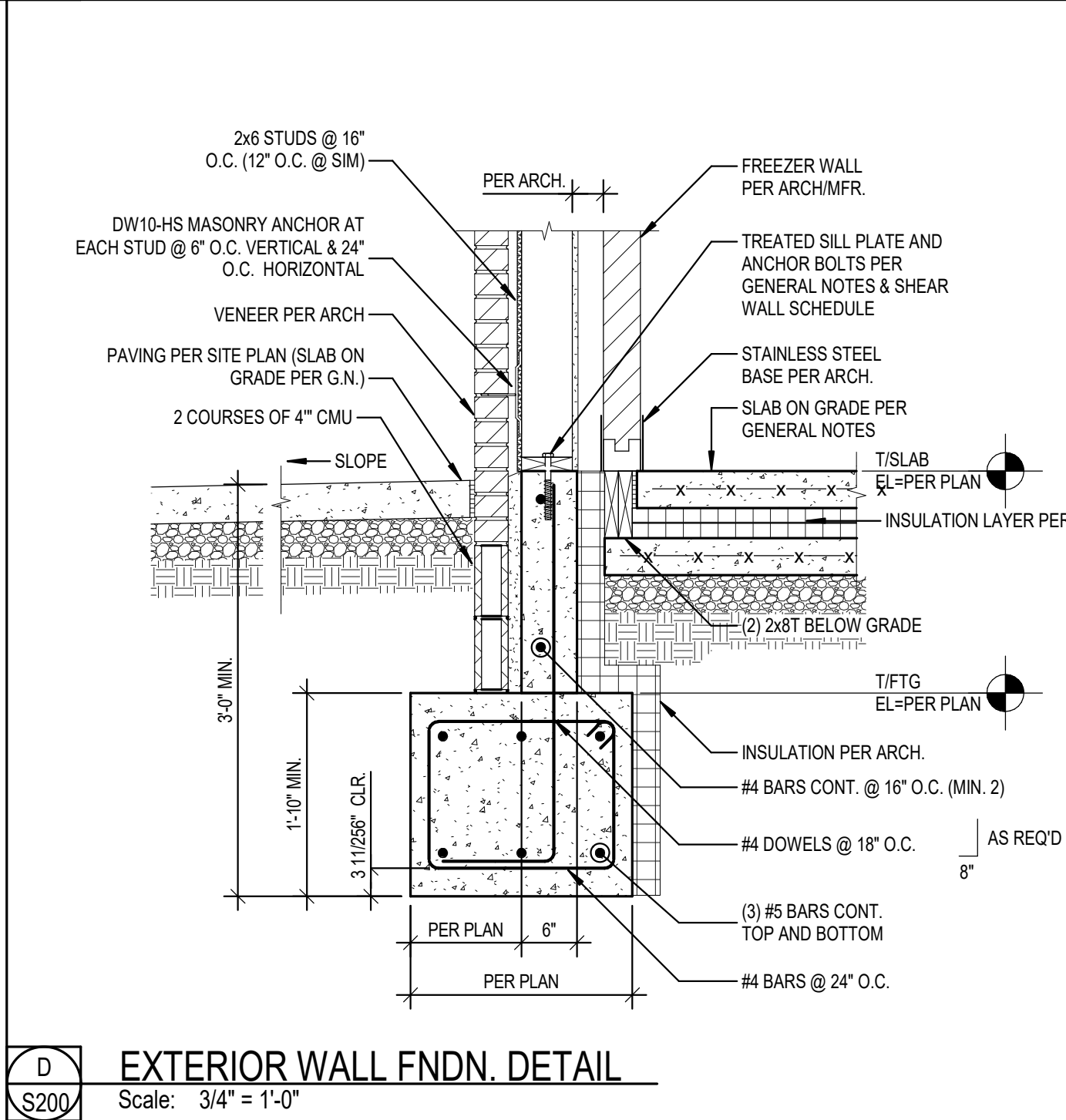
K EXTERIOR WALL FNDN. @ STOREFRONT
Scale: 3/4" = 1'-0"



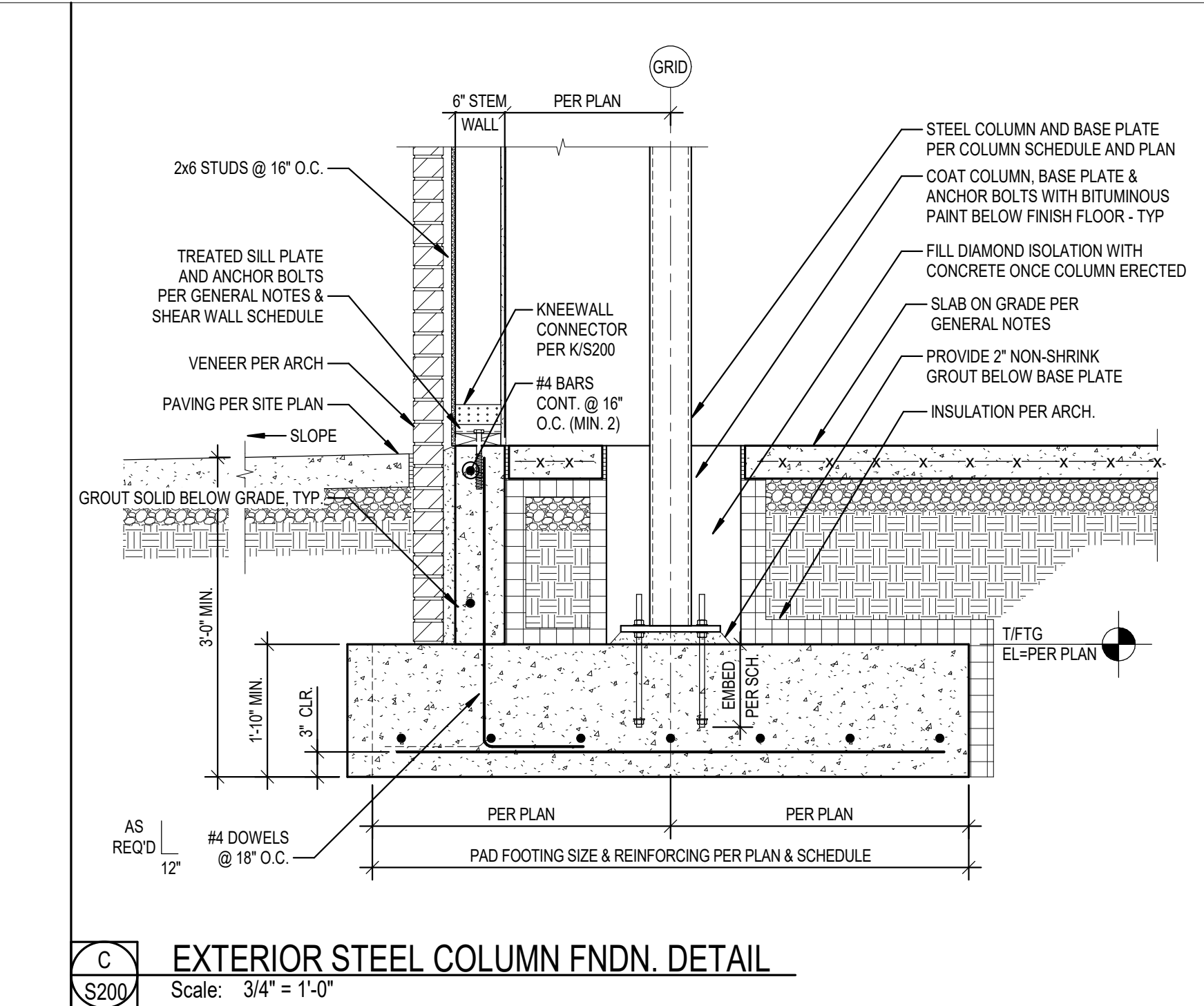
F THICKENED SLAB @ INTERIOR WALLS, TYP.
Scale: 3/4" = 1'-0"



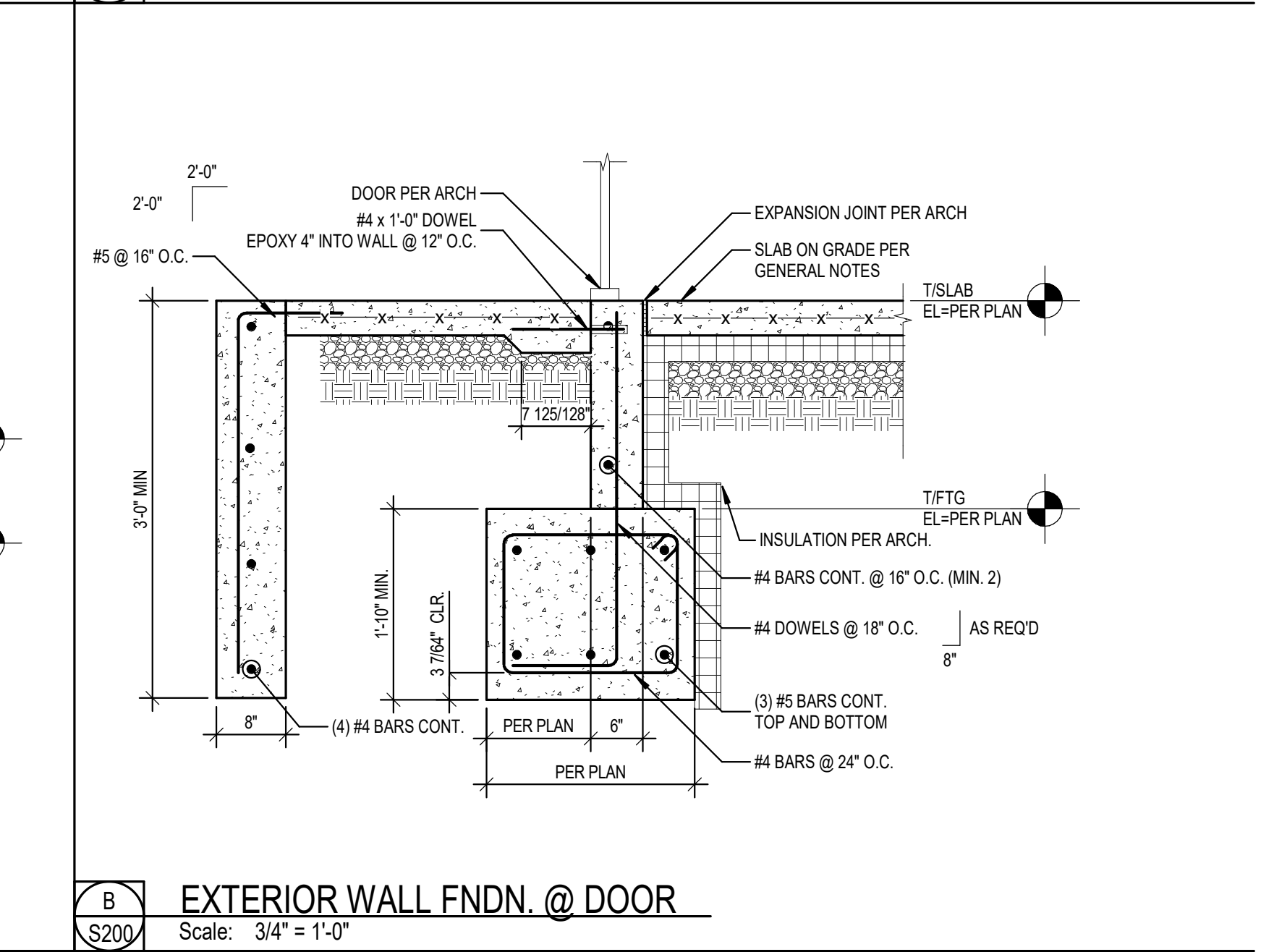
E EXTERIOR STEEL COLUMN FNDN. TYP.
Scale: 3/4" = 1'-0"



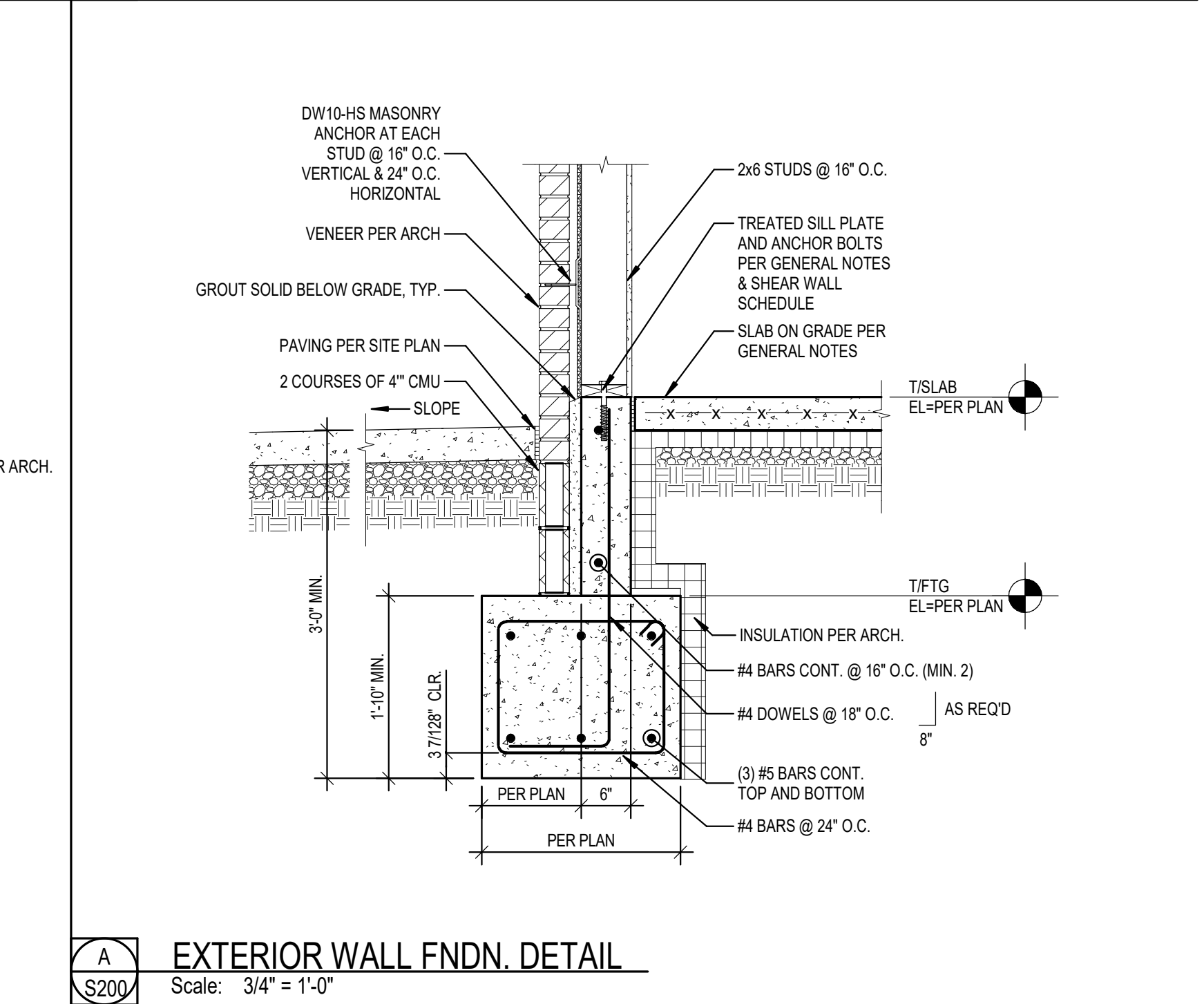
D EXTERIOR WALL FNDN. DETAIL
Scale: 3/4" = 1'-0"



C EXTERIOR STEEL COLUMN FNDN. DETAIL
Scale: 3/4" = 1'-0"



B EXTERIOR WALL FNDN. @ DOOR
Scale: 3/4" = 1'-0"



A EXTERIOR WALL FNDN. DETAIL
Scale: 3/4" = 1'-0"

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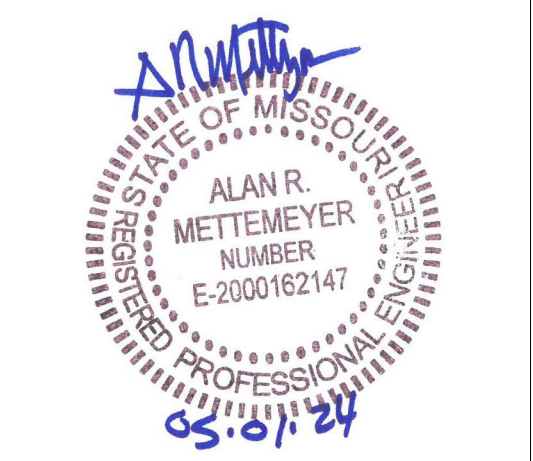
METTEMMEYER ENGINEERING

1500 NW VIVIAN ROAD, STE D, KANSAS CITY MO
816-587-0101 • www.mett-engr.com • MO C-0-A-2002022445
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SECONDARY CONTACT:
ISSUE:
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Engineer: Alan R. Mettemeyer
License Number: MO# E-2000162147
Drawn By: JCF
Project Number: 24-0121

FOUNDATION DETAILS

S200

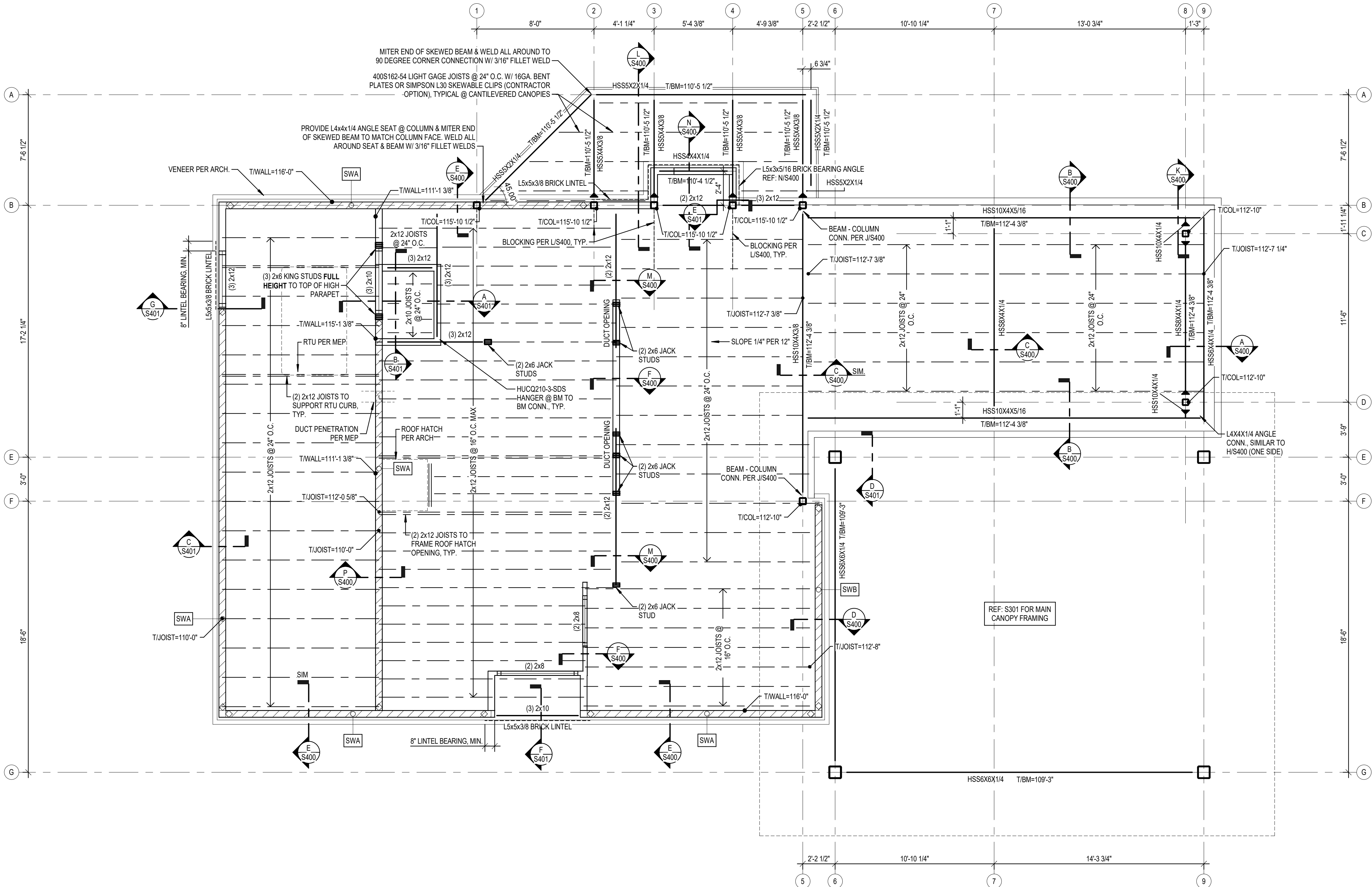
GENERAL PLAN NOTES

- 1
- SEE SHEET S000 FOR GENERAL NOTES.
- 2
- PROVIDE SIMPSON SJC8.25 AT EACH ROOF JOIST LOCATION.
- 3
- FOR SHEAR WALL FRAMING, FRAME DETAIL AT OPENINGS, AND ROOF DIAPHRAGM SEE DETAILS L, M, AND N/S002.
- 4
- REFER TO R/S002 FOR BOND BEAM DETAIL.
- 5
- SHEAR WALLS DENOTED W/ HATCH AND DIAMONDS ON PLANS. DIAMONDS INDICATE HOLDDOWNS AT THE END OF THE SHEAR WALL. REFER TO THE PLANS FOR SHEAR WALL TYPE, SHEET S200 FOR SHEAR WALL SCHEDULE AND HOLD DOWN SCHEDULE, AND TYPICAL DETAILS SHEET S002 FOR ADDITIONAL INFORMATION.
- 6
- SHEAR WALLS =
- 7
- SEE GENERAL NOTES FOR STEEL LINTEL REQUIREMENTS.
- 8
- = MOMENT CONNECTION PER G/S400 TYPICAL.
- 9
- T/PARAPET WALLS = 116'-0".

WOOD BEAM/HEADER SCHEDULE		
BEAM TYPE	JACK STUDS	KING STUDS
(2) 2x8	(1) 2x4	(2) 2x4
(3) 2x10	(2) 2x6	(2) 2x6
(3) 2x12	(2) 2x6	(2) 2x6

NOTES:
1. BUILT UP DOUBLE STUDS MUST BE NAILED TOGETHER WITH 16d NAILS @ 24" O.C. FACE NAILED.
2. BUILT UP TRIPLE STUDS MUST BE NAILED TOGETHER WITH 16d NAILS @ 24" O.C. FACE NAILED FROM EACH FACE, STAGGER NAILING PATTERN.
3. BUILT UP POSTS W/ MORE THAN (3) STUDS MUST BE NAILED TOGETHER WITH 16d NAILS @ 24" O.C. FACE NAILED EACH PLY, STAGGER NAILING PATTERNS.
4. WOOD BEAMS UPSET INTO TRUSS CAVITY SHALL HAVE ENOUGH BEARING STUDS BELOW BEAM TO EQUAL FULL WIDTH OF BEAM.

SHEAR WALL SCHEDULE													
MARK	END POST (MIN. REQ'D)	END POST ANCHORS		BLOCK ALL EDGES	FACES OF WALL	WHICH FACE	SHEATHING MATERIAL & NOMINAL THICKNESS	SHEATHING ATTACHMENT			SILL BOLTS: 5/8"Øx5" TITEN HD O.C. SPACING	SILL SCREWS: SDWS2300DB O.C. SPACING	REMARKS
		HOLDOWN @ FOUNDATION	STRAP/HOL- DOWN @ FLOOR FRAMING					SIZE/TYPE	EDGES O.C. SPACING	FIELD O.C. SPACING			
LEVEL 1 WALLS													
SWA	(2) 2x6	HDU2-SDS2.5		YES	ONE	EXTERIOR	7/16" OSB	0.131"x3"	6"	12"	32"		5/8"Ø A.T. 8" INTO STEM WALL
SWB	(2) 2x6	HDU8-SDS2.5		YES	ONE	EXTERIOR	7/16" OSB	0.131"x3"	3"	12"	26"		5/8"Ø A.T. 8" INTO STEM WALL
NOTES:													
1. BUILT UP DOUBLE STUD END POST MUST BE NAILED TOGETHER WITH 16d NAILS @ 24" O.C. FACE NAILED.													
2. BUILT UP TRIPLE STUD END POST MUST BE NAILED TOGETHER WITH 16d NAILS @ 24" O.C. FACE NAILED FROM EACH FACE, STAGGER NAILING PATTERN.													
3. BUILT UP END POSTS W/ MORE THAN (3) STUDS MUST BE NAILED TOGETHER WITH 16d NAILS @ 24" O.C. FACE NAILED EACH PLY, STAGGER NAILING PATTERNS.													
4. OSB SHEATHING SHALL BE 32/16 EXPOSURE ONE SHEATHING, UNLESS NOTED OTHERWISE.													
5. CONNECTORS ARE SIMPSON STRONG-TIE, UNLESS NOTED OTHERWISE.													
6. REFER TO TYPICAL WOOD CONSTRUCTION DETAILS FOR ADDITIONAL REQUIREMENTS ON THE INSTALLATION OF HOLDOWNS AND STRAPS.													
7. "STRAPHOLDOWN @ END POST" REFERS TO THE CONNECTOR AT THE BOTTOM OF THE WALL FOR THE REFERENCED LEVEL.													
8. PROVIDE COMMON NAILS FOR ATTACHMENT OF WOOD SHEATHING AND COOLER NAILS FOR ATTACHMENT OF GYPSUM BOARD SHEATHING.													
9. HOLDOWN SHALL USE ALL THREAD (A.T.) EPOXY SET W/ SIMPSON SET-3G.													



ROOF FRAMING PLAN
Scale: 1/4" = 1'-0"

Hufft

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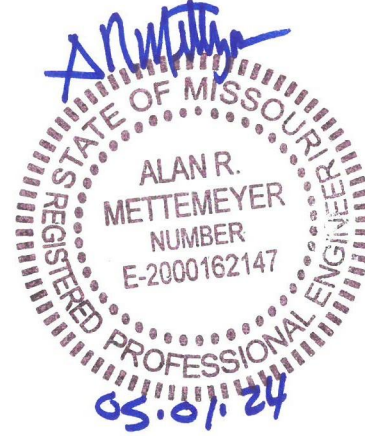
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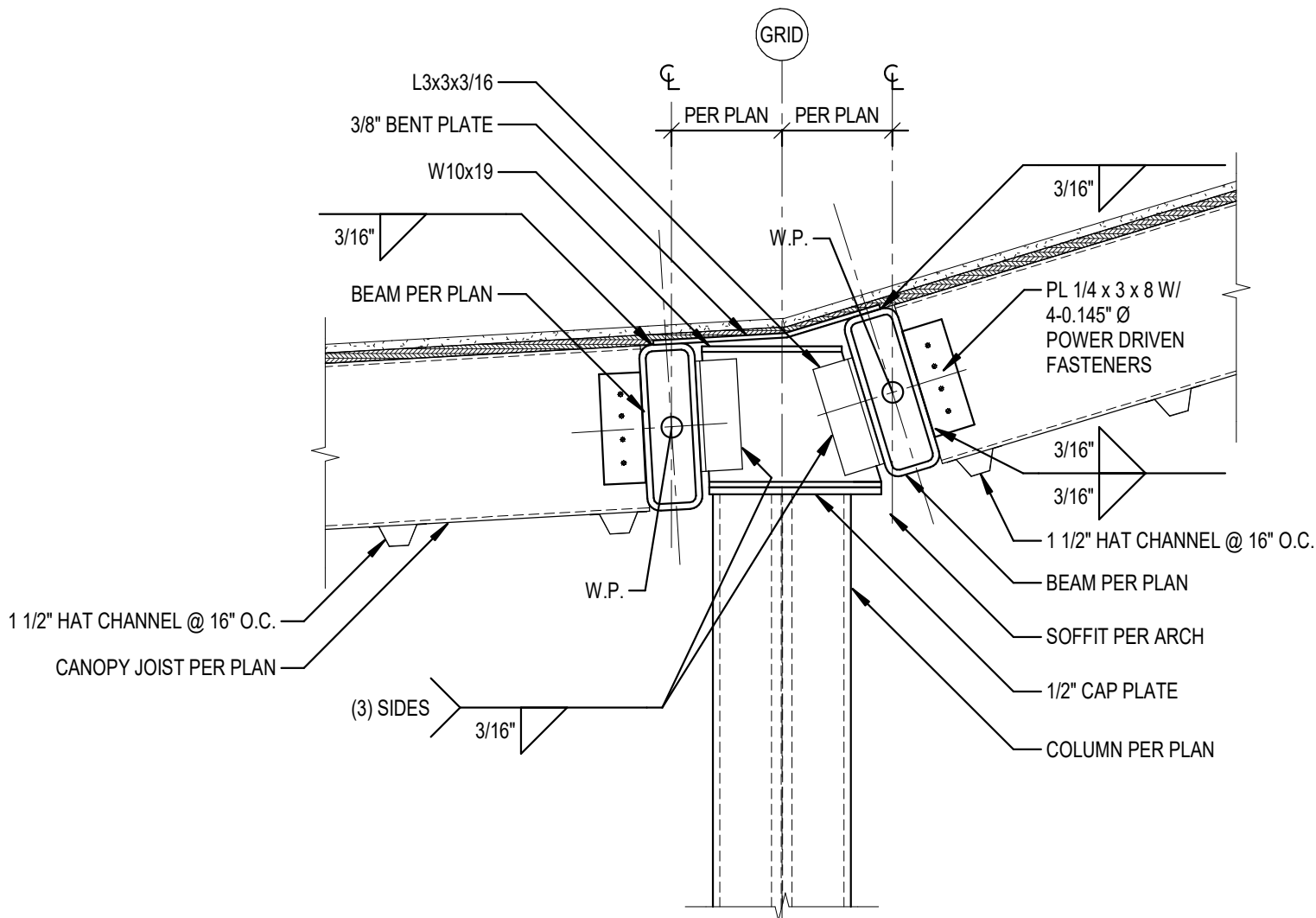
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License Number: IL# 081-006428
Drawn By: JCF
Project Number: 24-0121

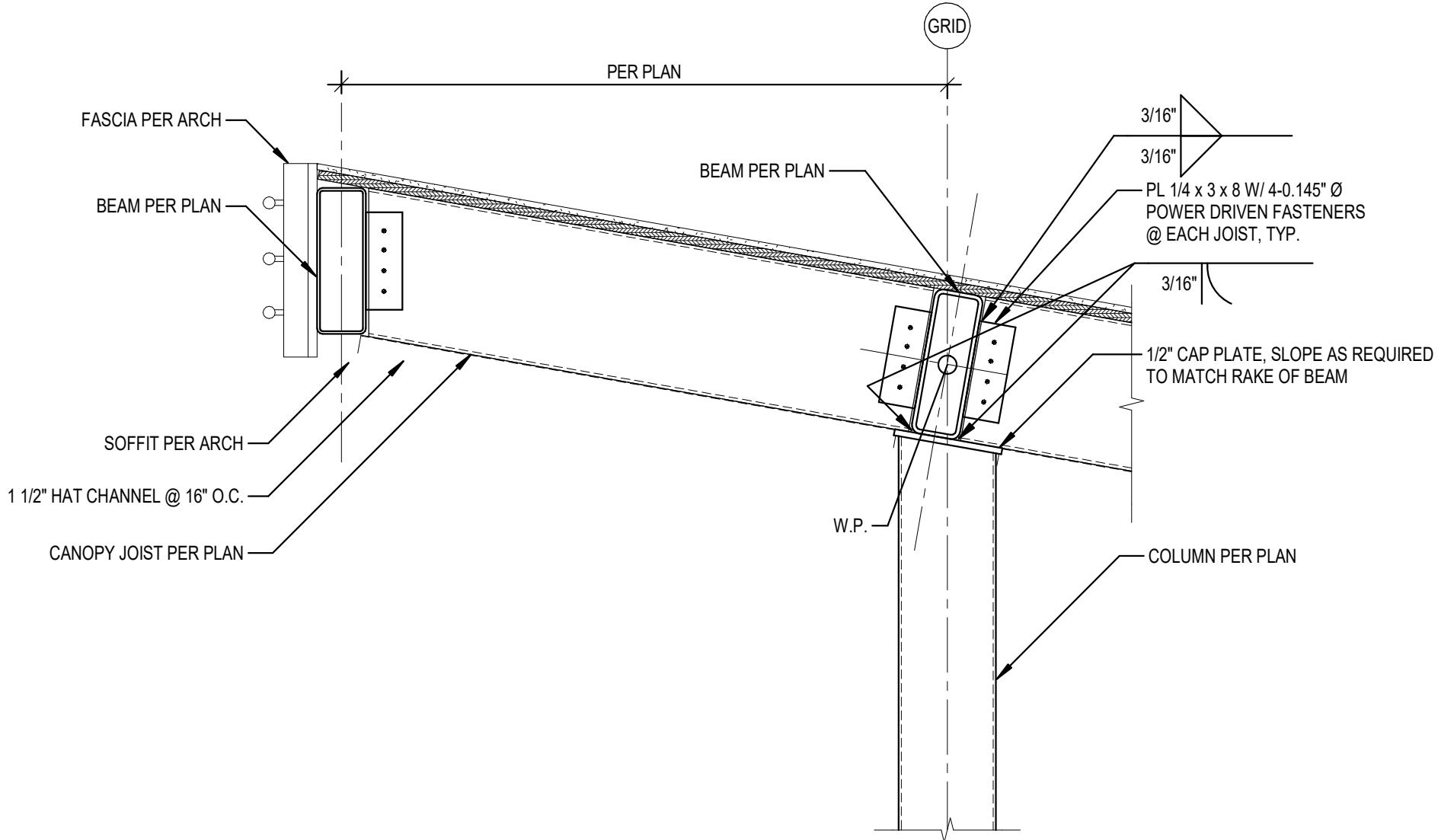
ROOF FRAMING PLAN

S300



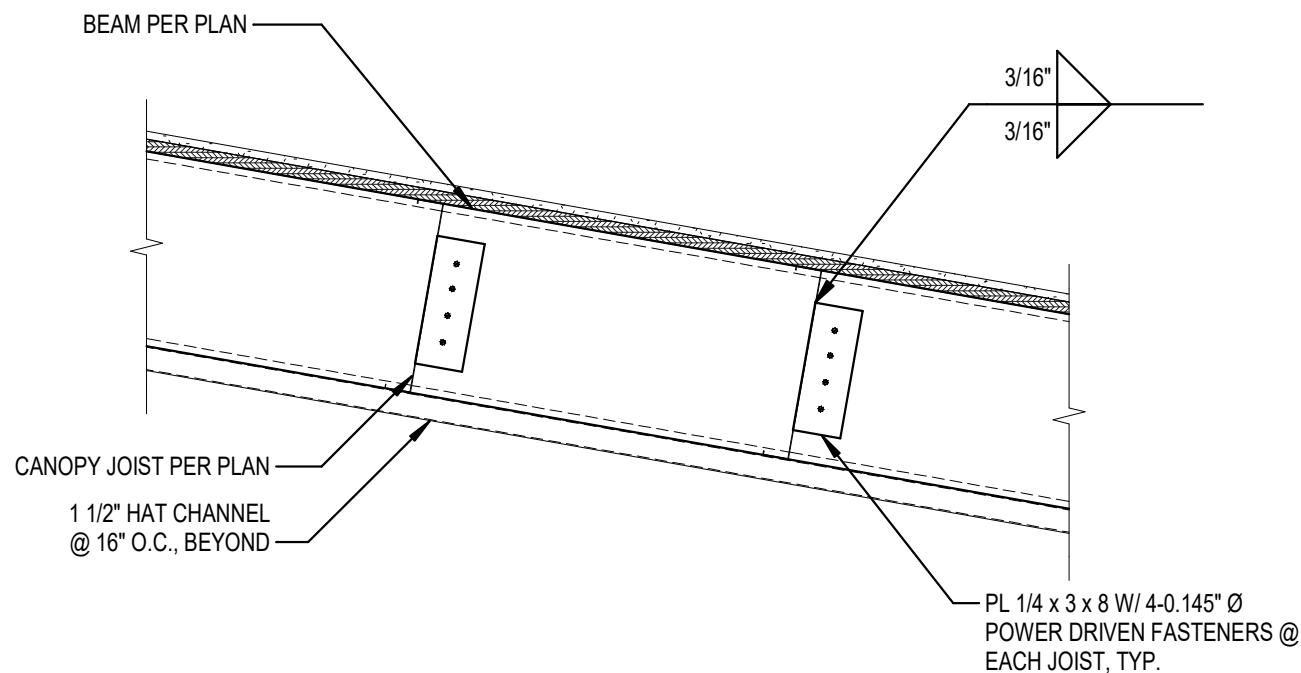
E STEEL BEAM @ CANOPY VALLEY

S301 Scale: 1" = 1'-0"



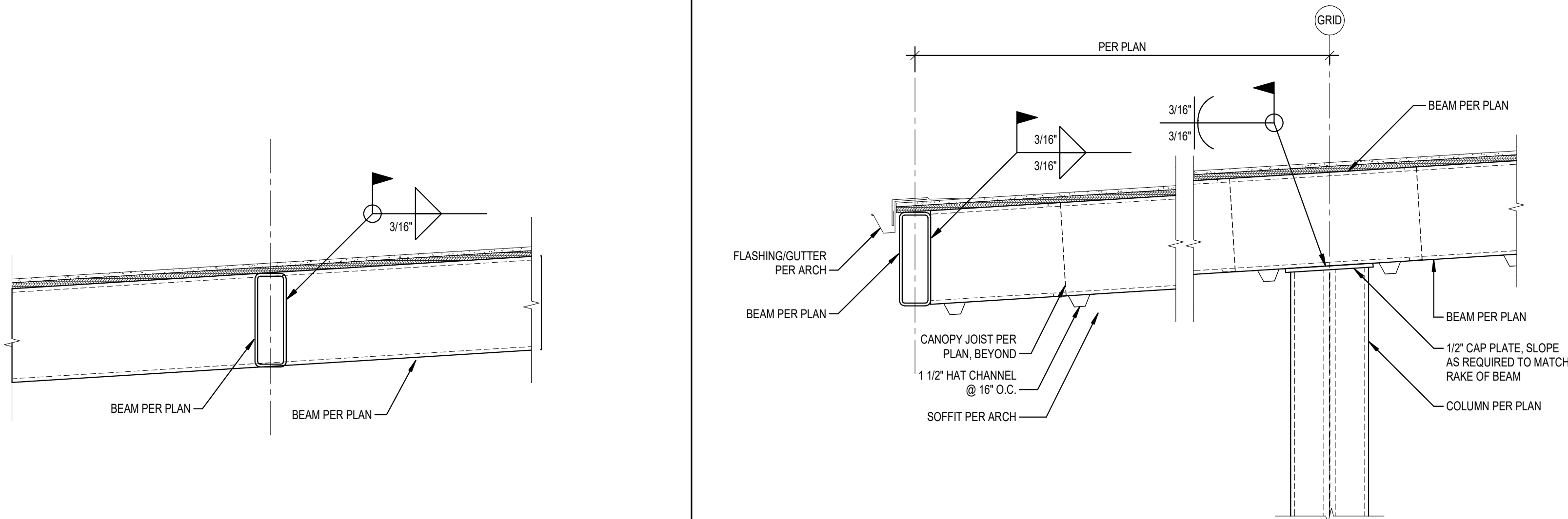
B STEEL BEAM @ CANOPY OVERHANG

S301 Scale: 1" = 1'-0"



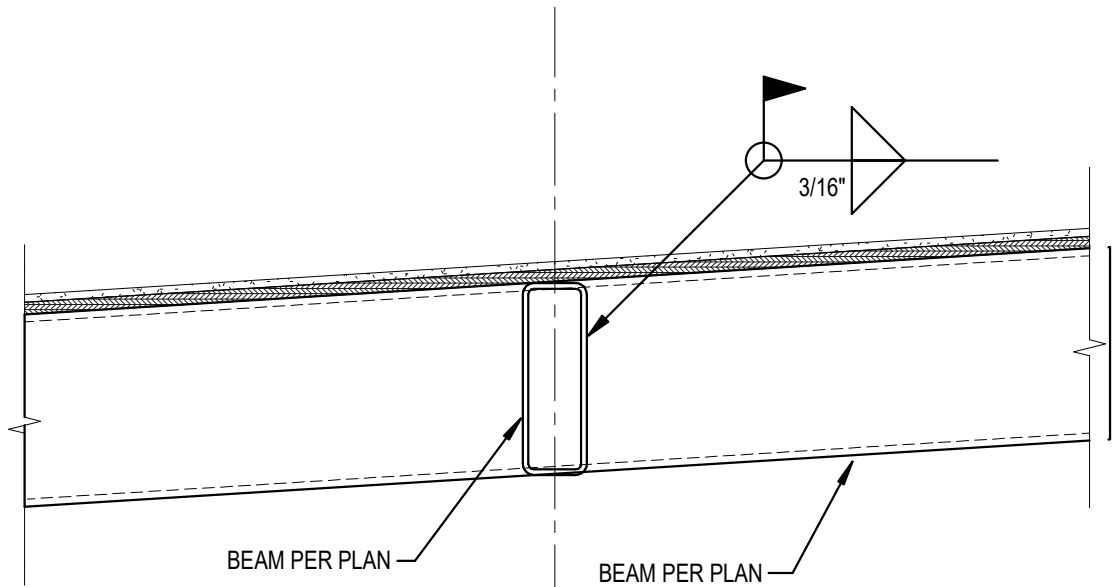
D SKEWED JOIST CONNECTION @ CANOPY

S301 Scale: 1" = 1'-0"



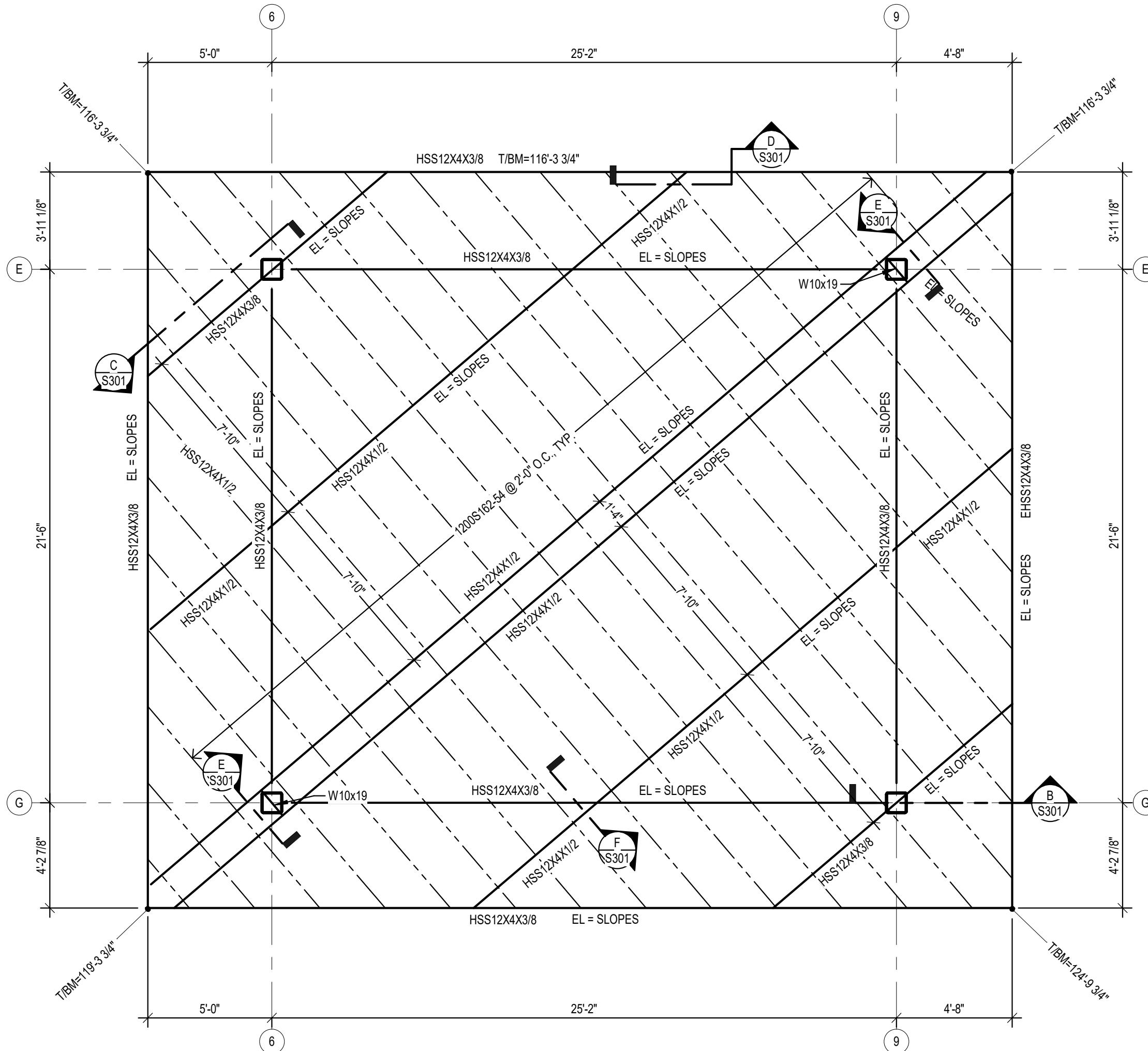
C CANOPY FRAMING CORNER DETAIL

S301 Scale: 1" = 1'-0"



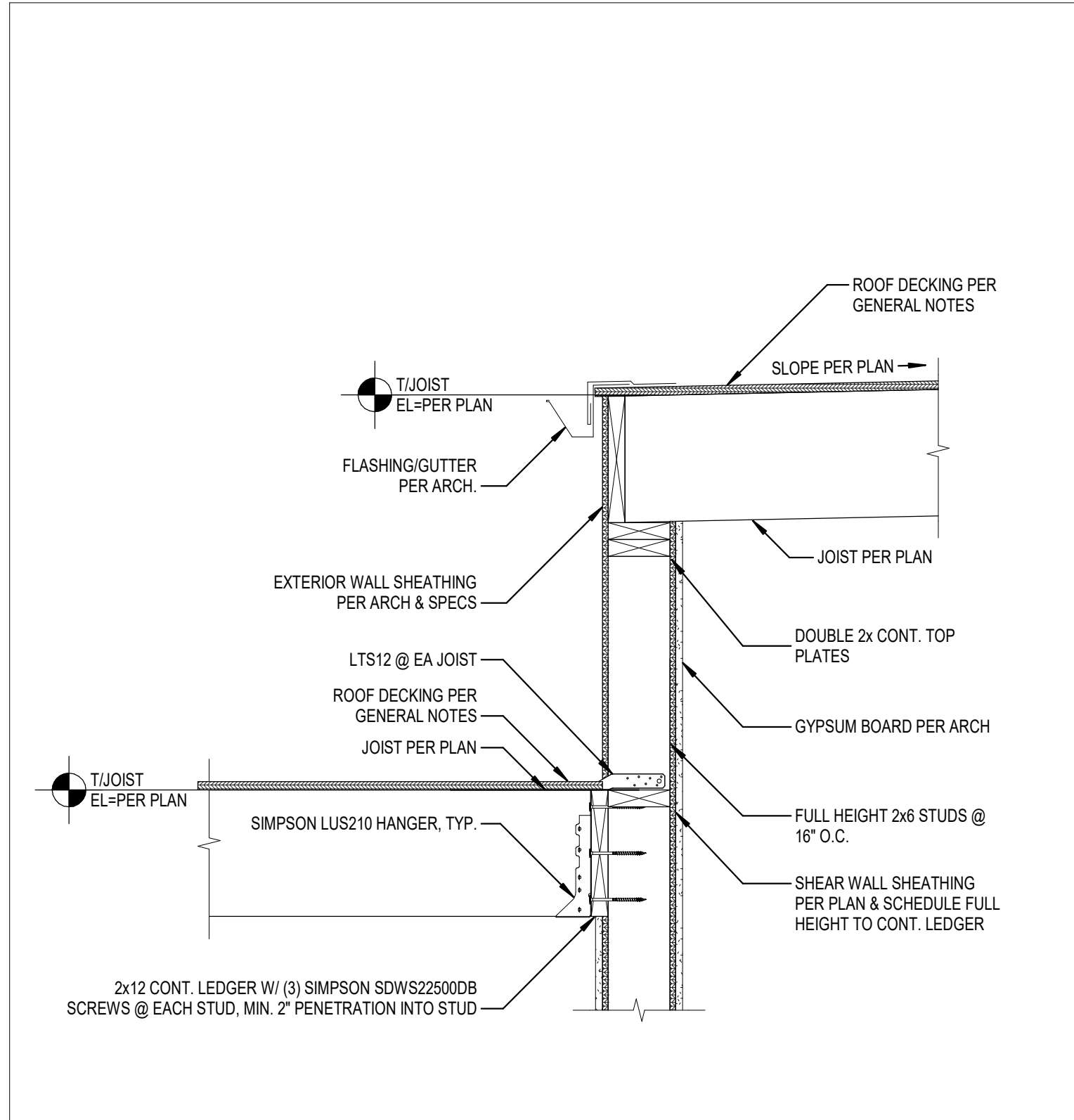
F CANOPY RING BEAM ATTACHMENT

S301 Scale: 1" = 1'-0"

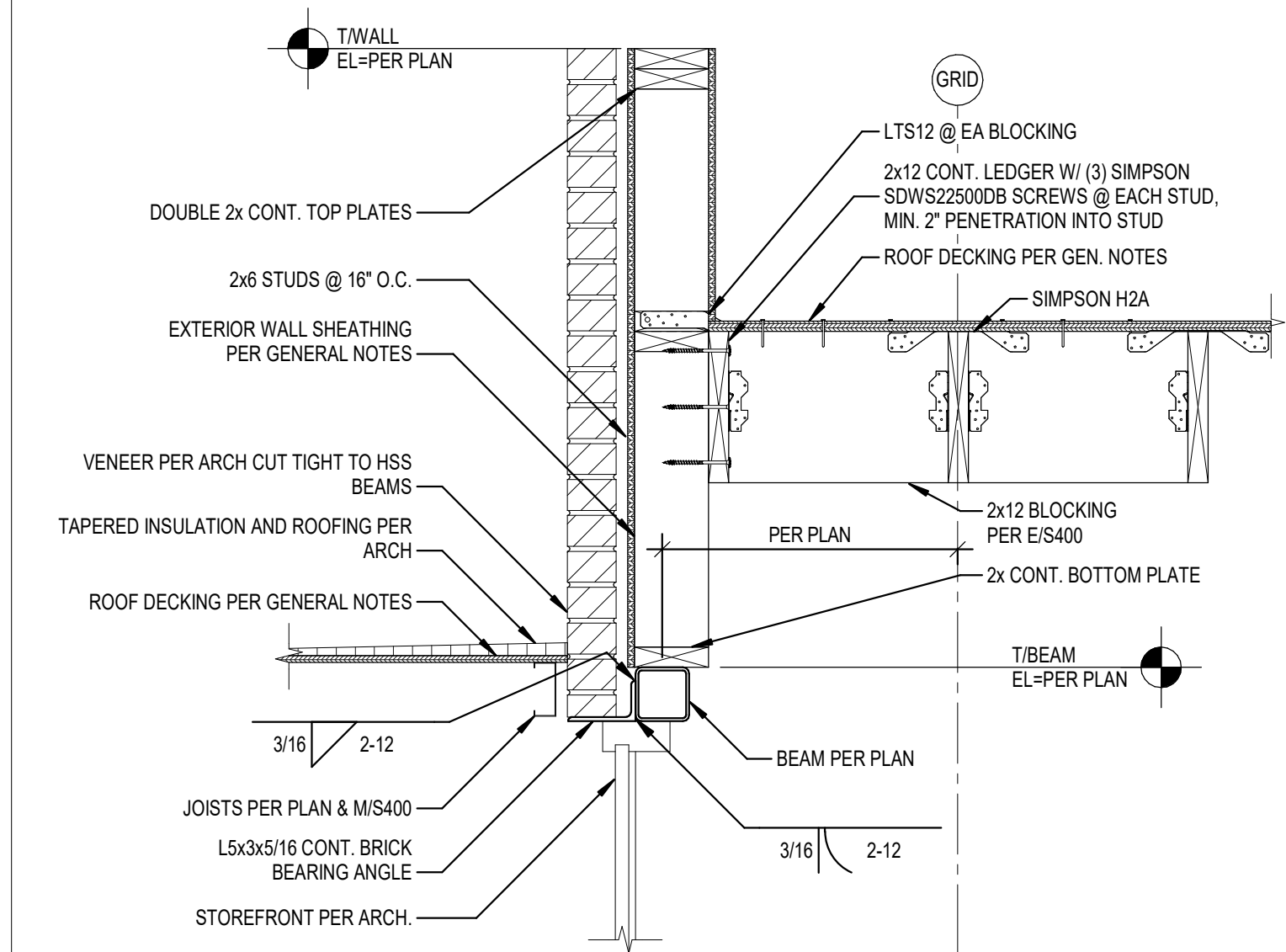


A CANOPY ROOF FRAMING PLAN

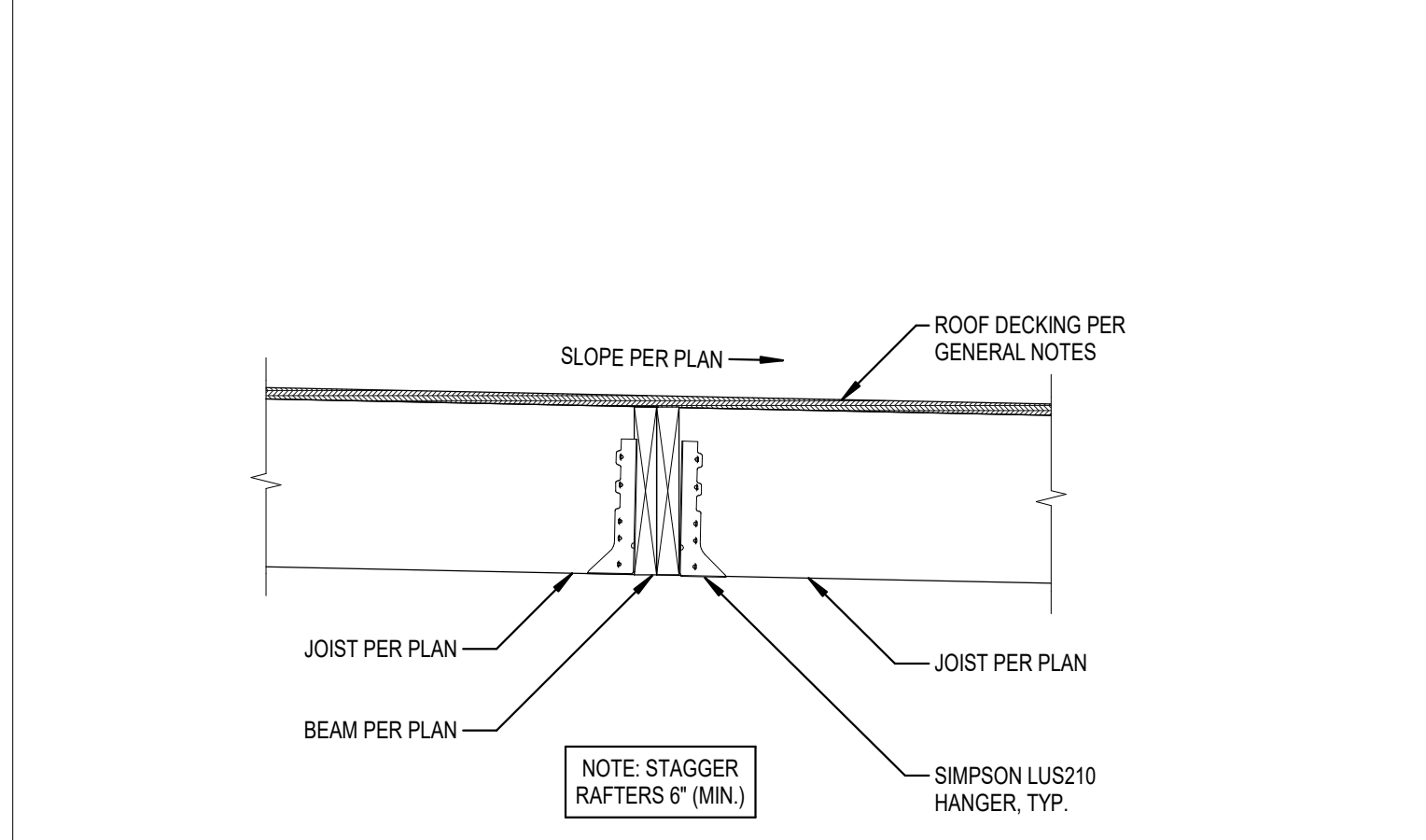
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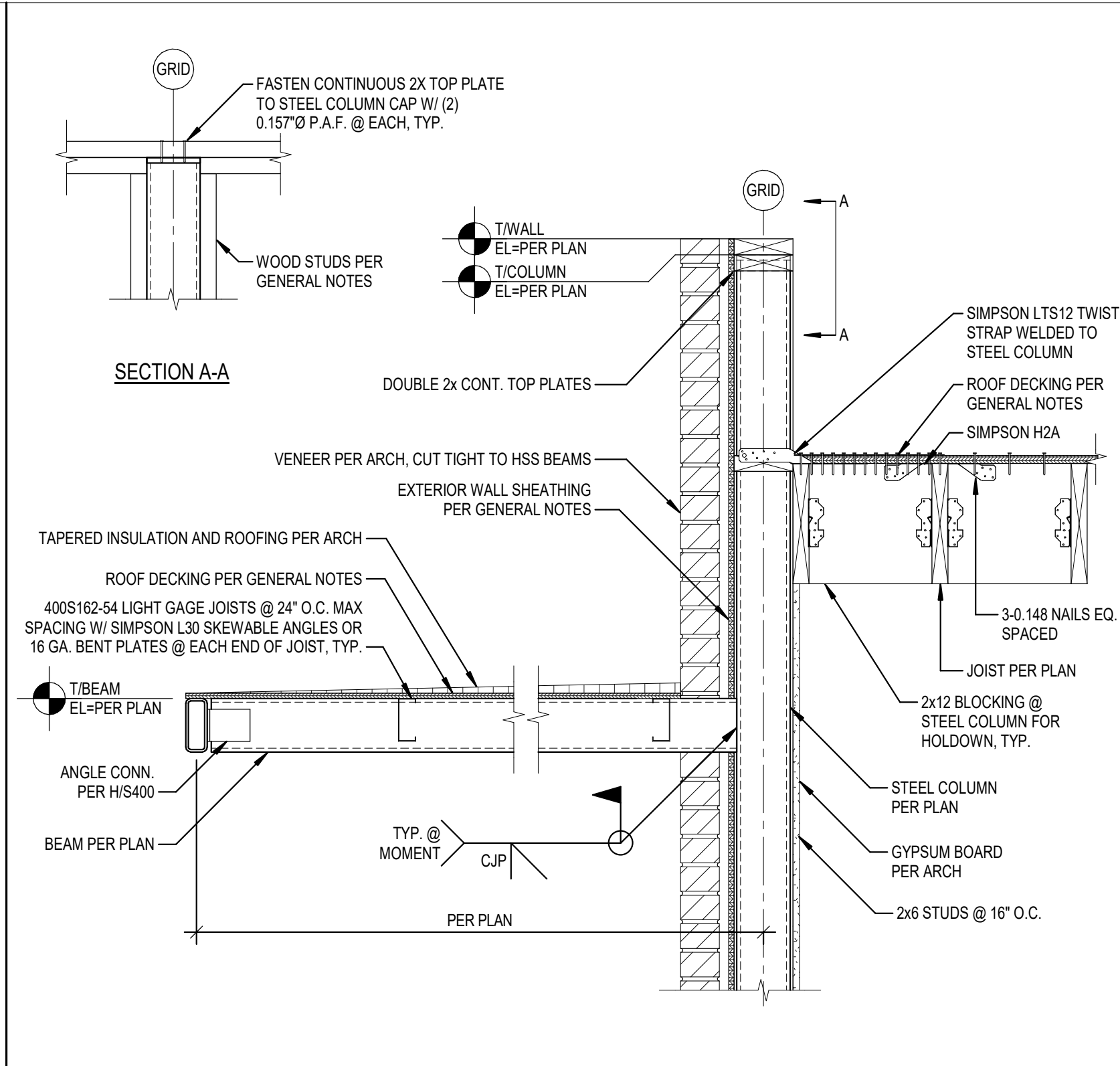
P ROOF JOISTS BRG. @ WALL
Scale: 1" = 1'-0"



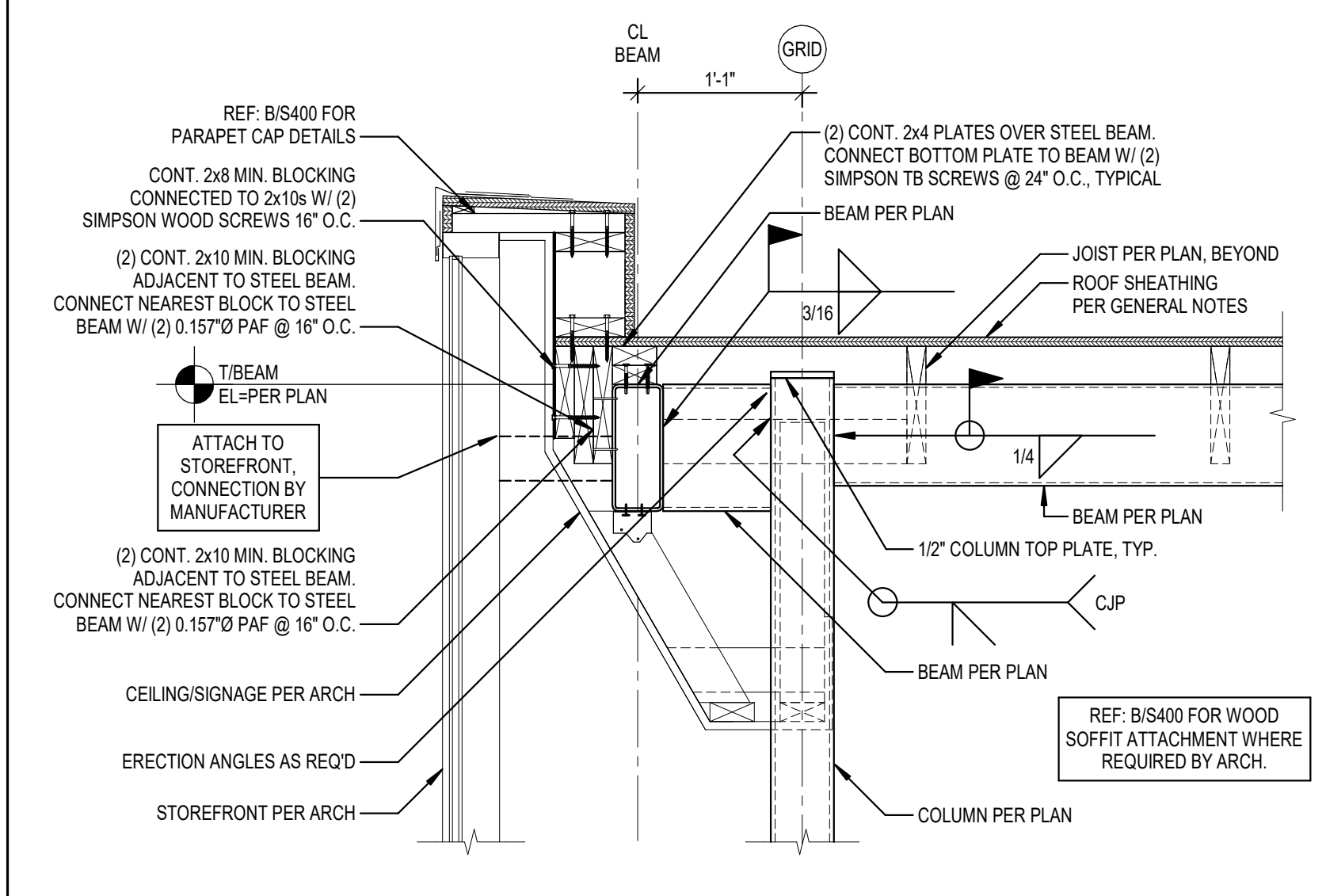
N BRICK BRG @ DRIVE-THROUGH CANOPY
Scale: 1" = 1'-0"



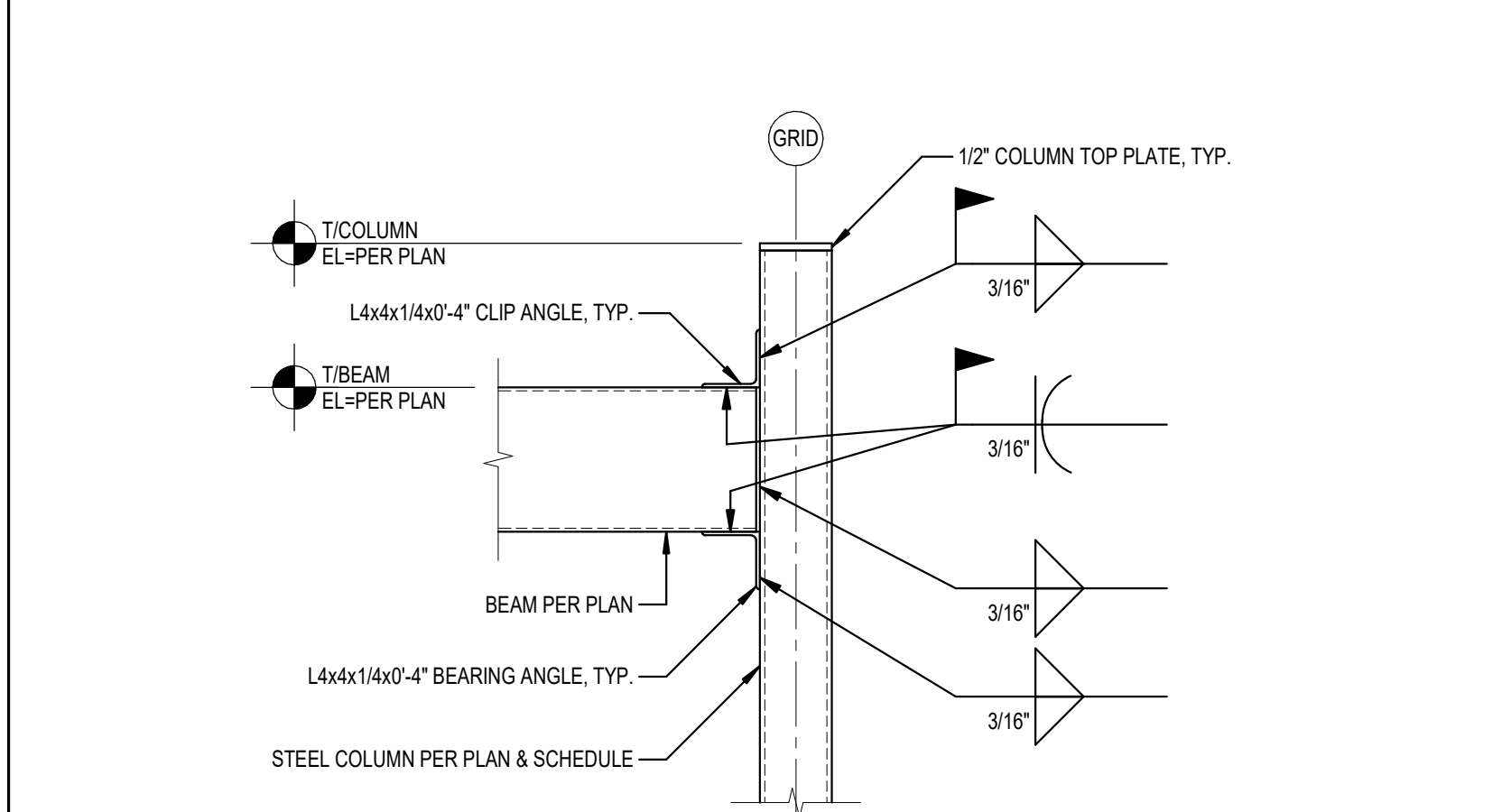
M ROOF JOISTS BRG. @ WOOD BEAM
Scale: 1" = 1'-0"



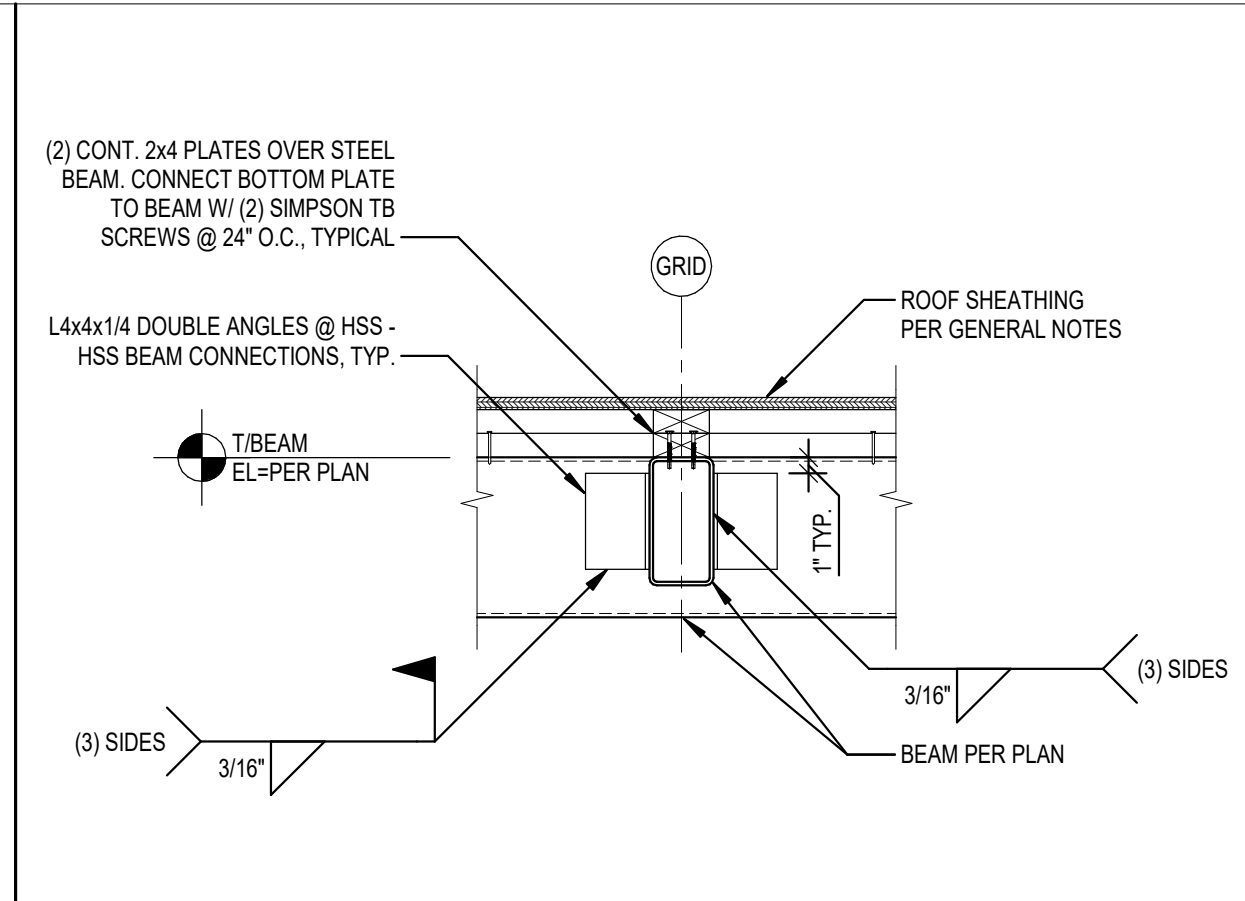
L CANOPY STL. BEAM TO STL. COLUMN CONNECTION, TYP.
Scale: 1" = 1'-0"



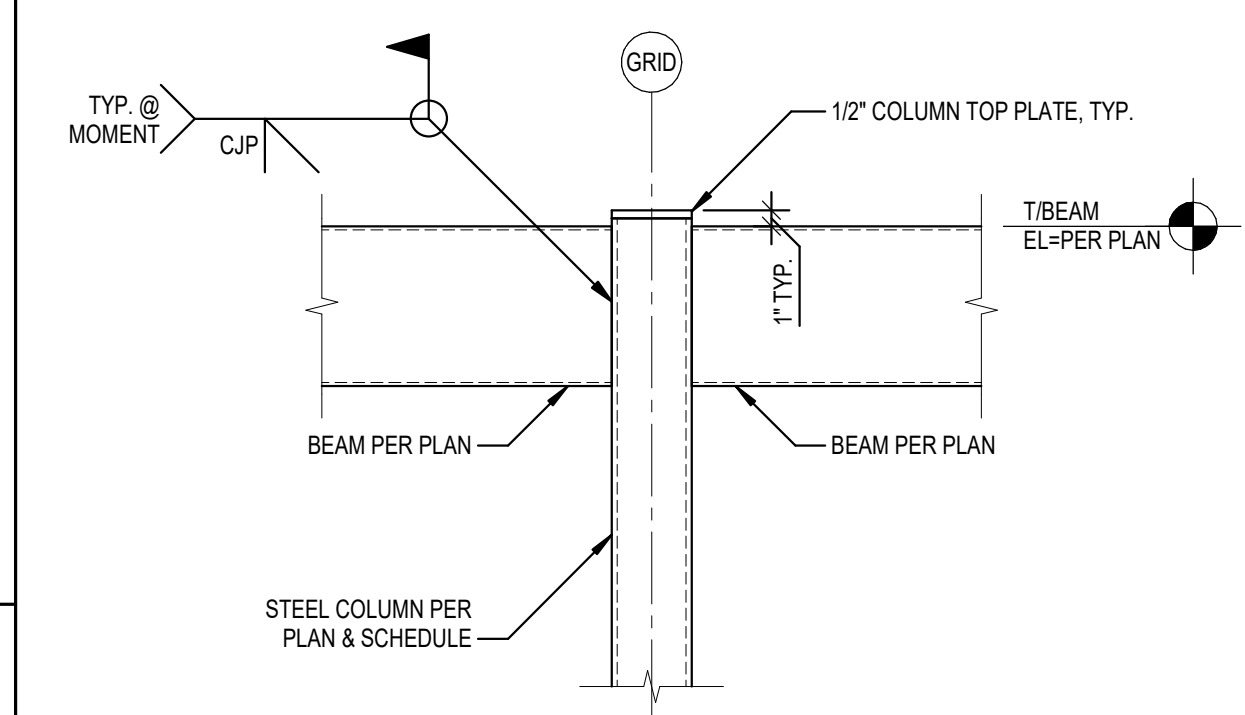
K DOUBLE MOMENT CONN. @ CURTAIN WALL PARAPET
Scale: 1" = 1'-0"



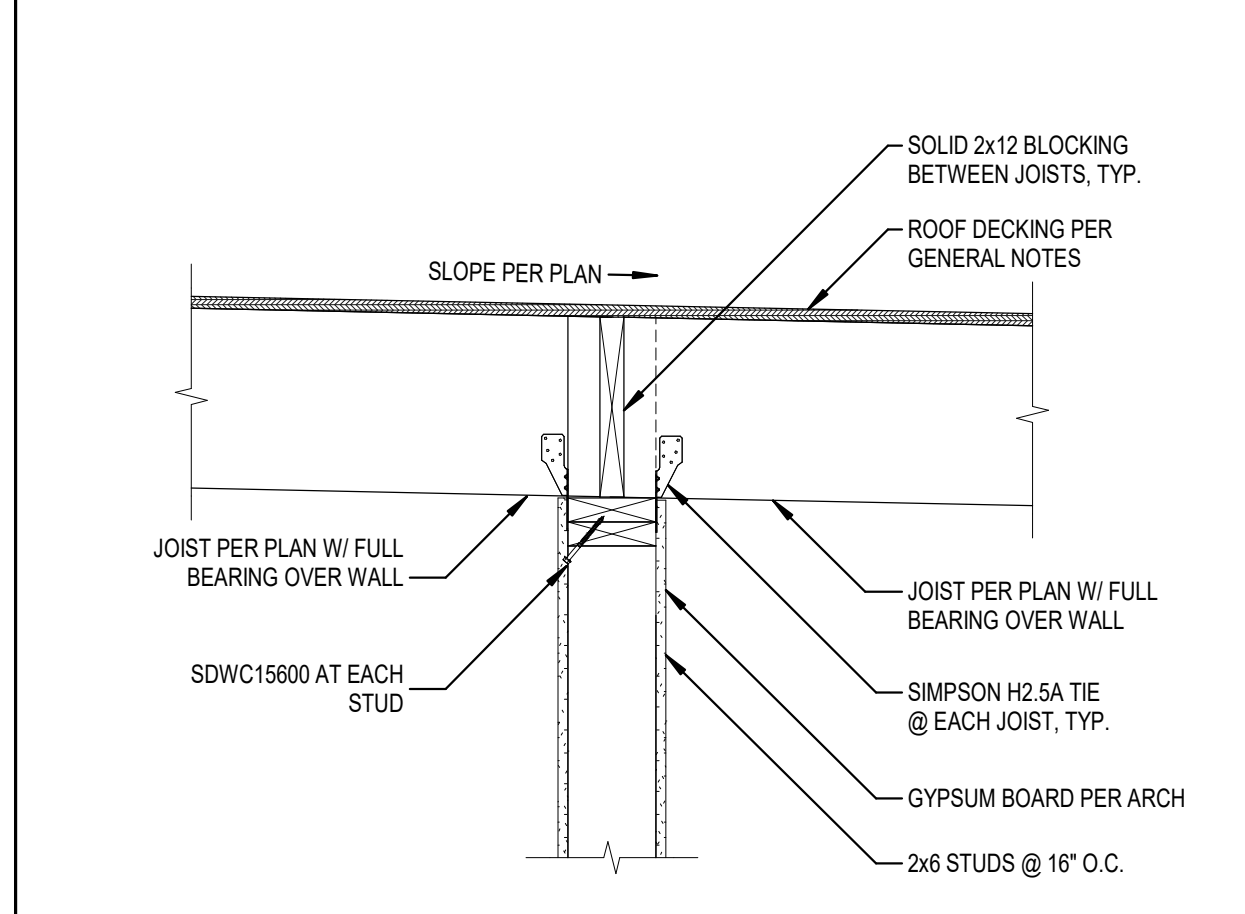
J STEEL BEAM TO STEEL COLUMN CONN., TYP.
Scale: 1" = 1'-0"



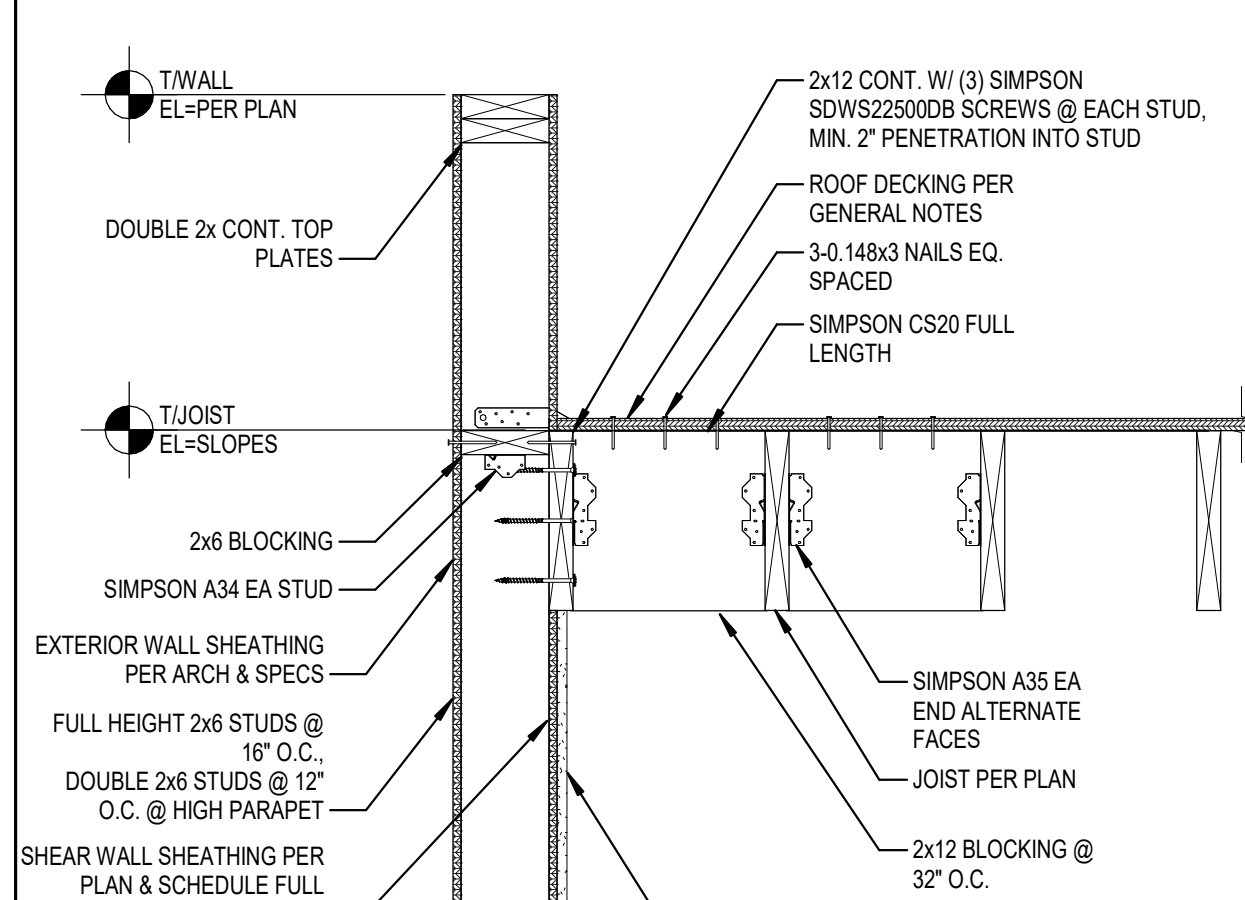
H STEEL BEAM TO STEEL BEAM CONN.
Scale: 1" = 1'-0"



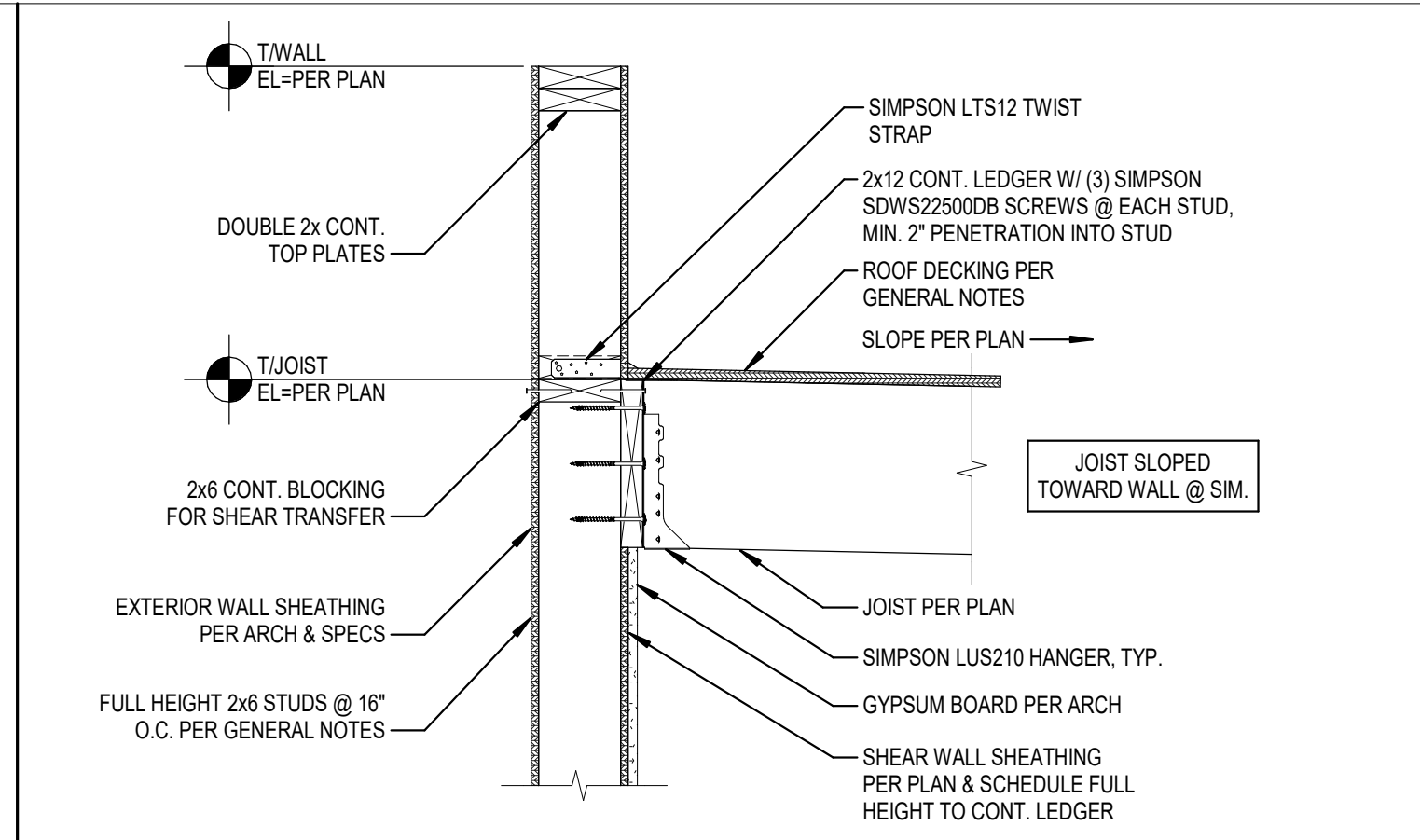
G STEEL BEAM TO COL. MOMENT CONN., TYP.
Scale: 1" = 1'-0"



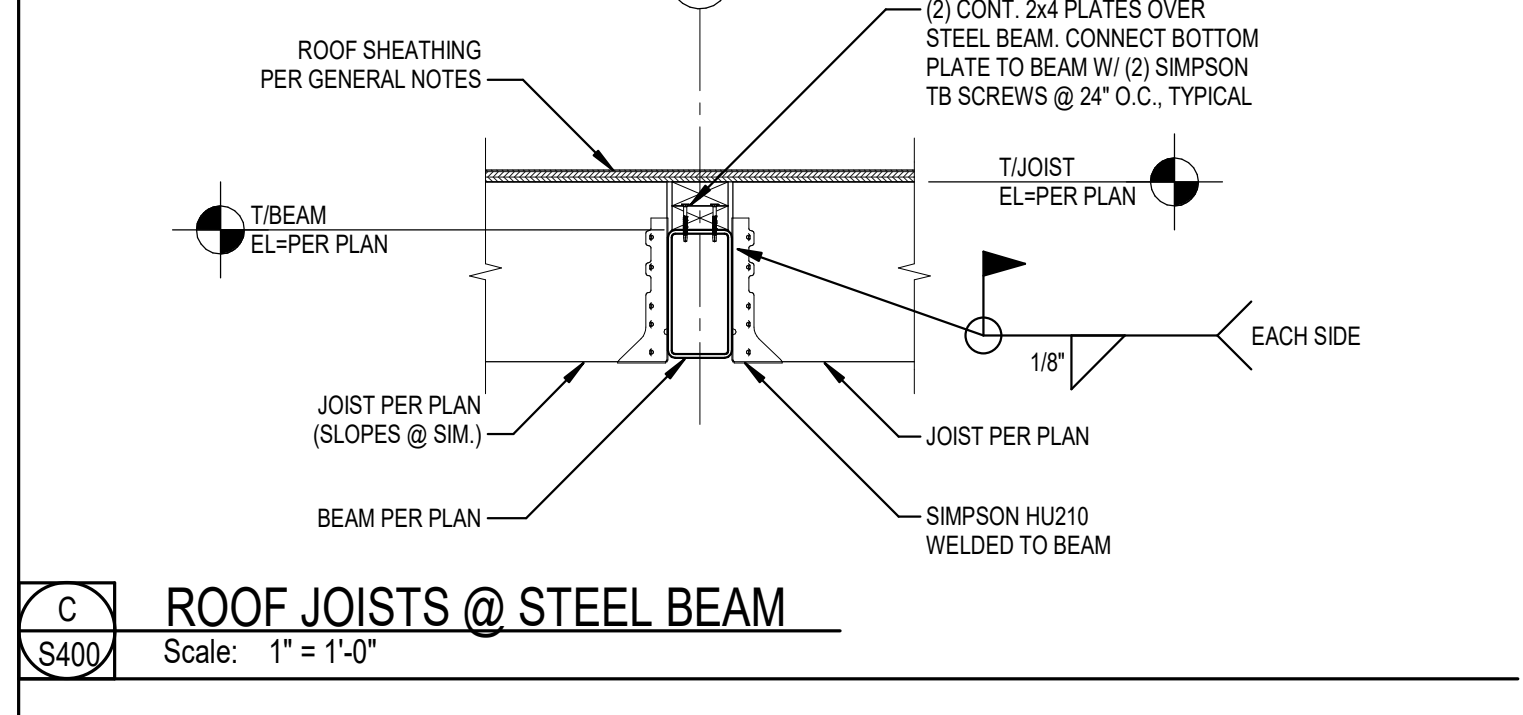
F ROOF JOISTS BRG. @ INTERIOR WALL
Scale: 1" = 1'-0"



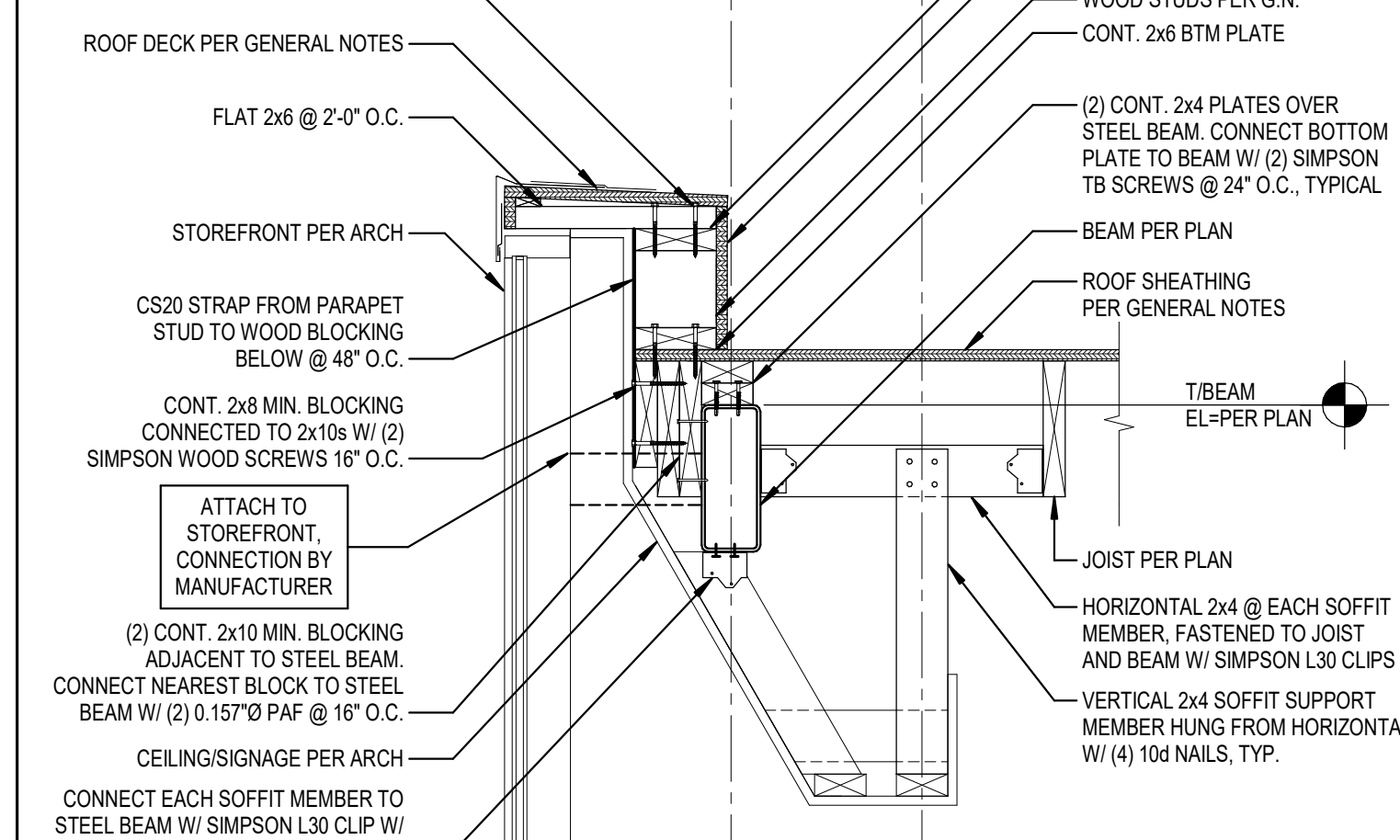
E ROOF JOISTS PARALLEL TO PARAPET WALL
Scale: 1" = 1'-0"



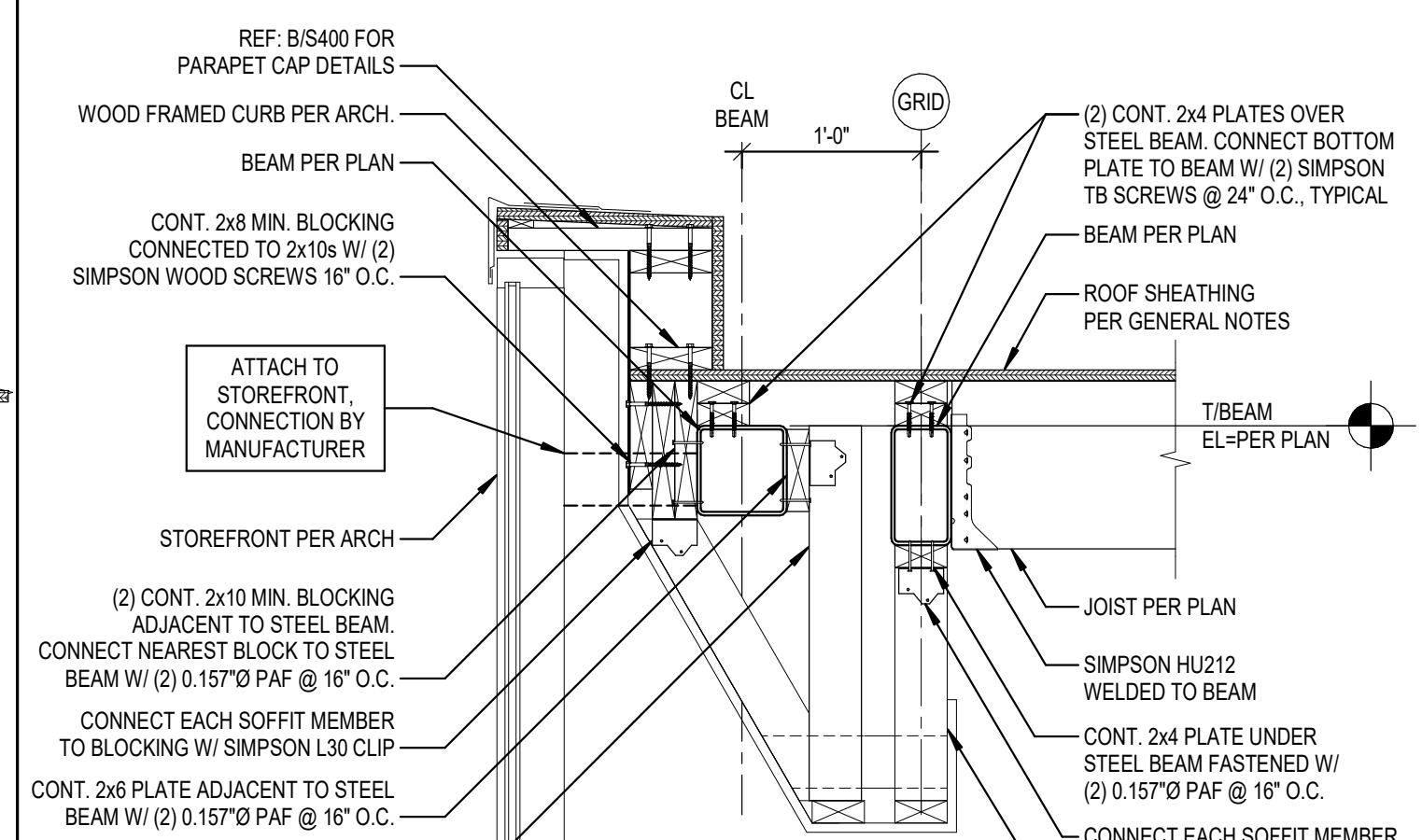
D ROOF JOISTS BRG. @ PARAPET WALL
Scale: 1" = 1'-0"



C ROOF JOISTS @ STEEL BEAM
Scale: 1" = 1'-0"



B STEEL BEAM @ CURTAIN WALL PARAPET
Scale: 1" = 1'-0"



A STEEL BEAM @ CURTAIN WALL PARAPET
Scale: 1" = 1'-0"

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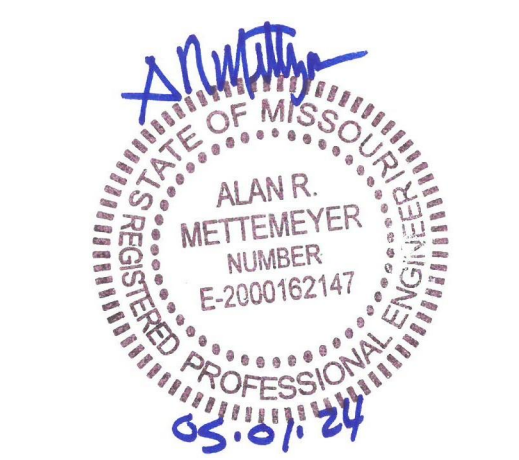
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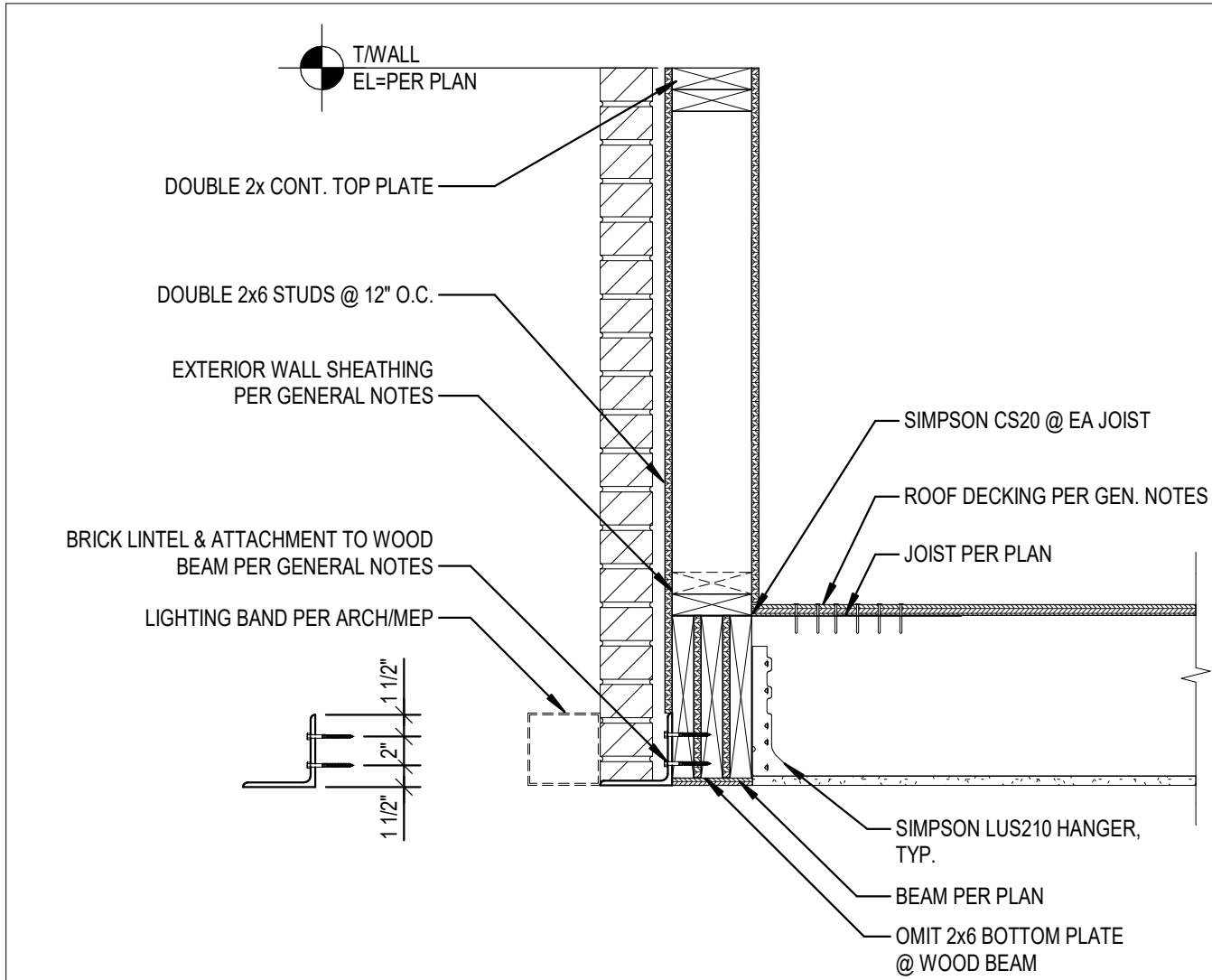
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License Number: MO# E-200016247
Drawn By: JCF
Project Number: 24-0121

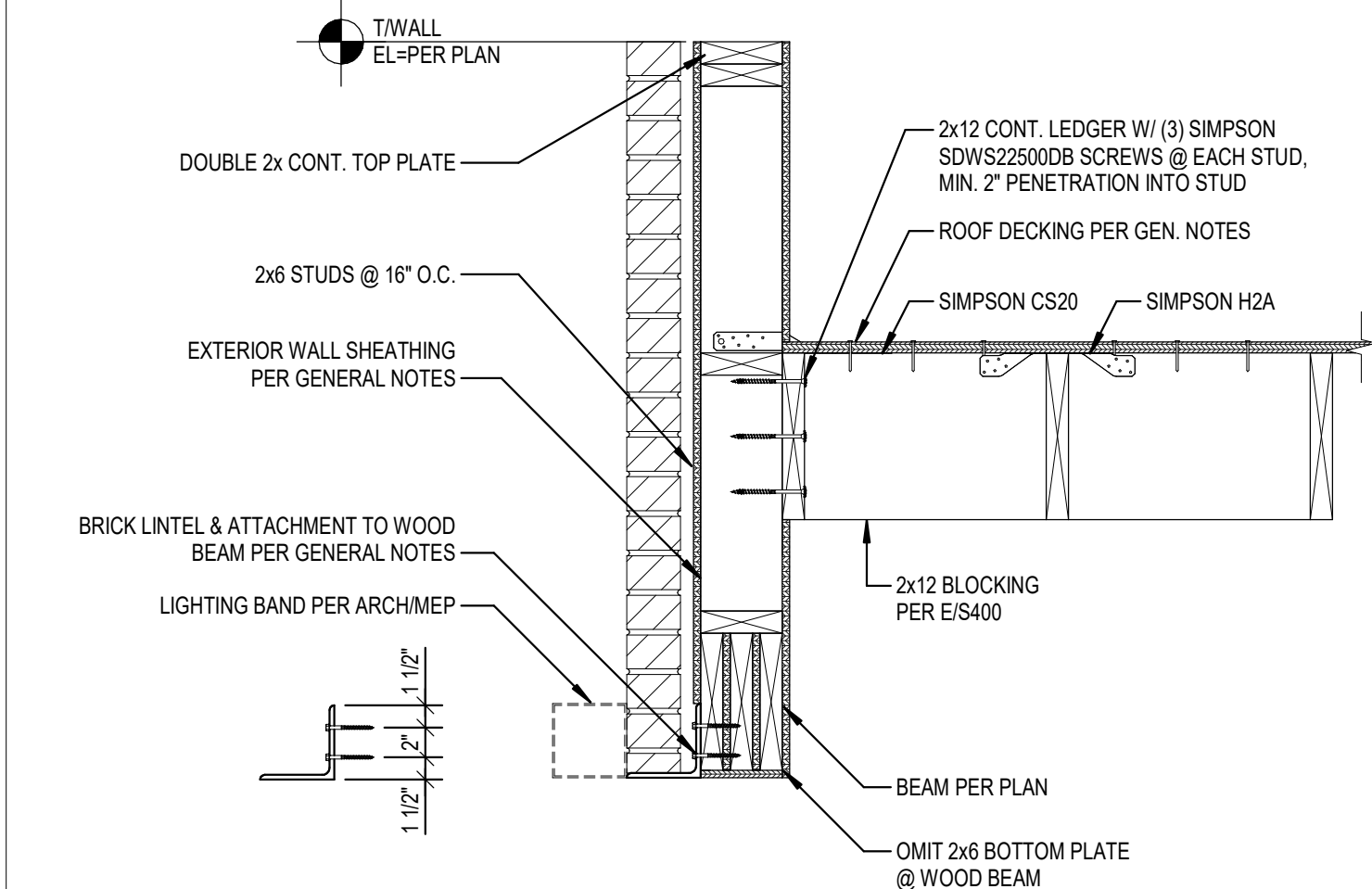
FRAMING DETAILS

S400



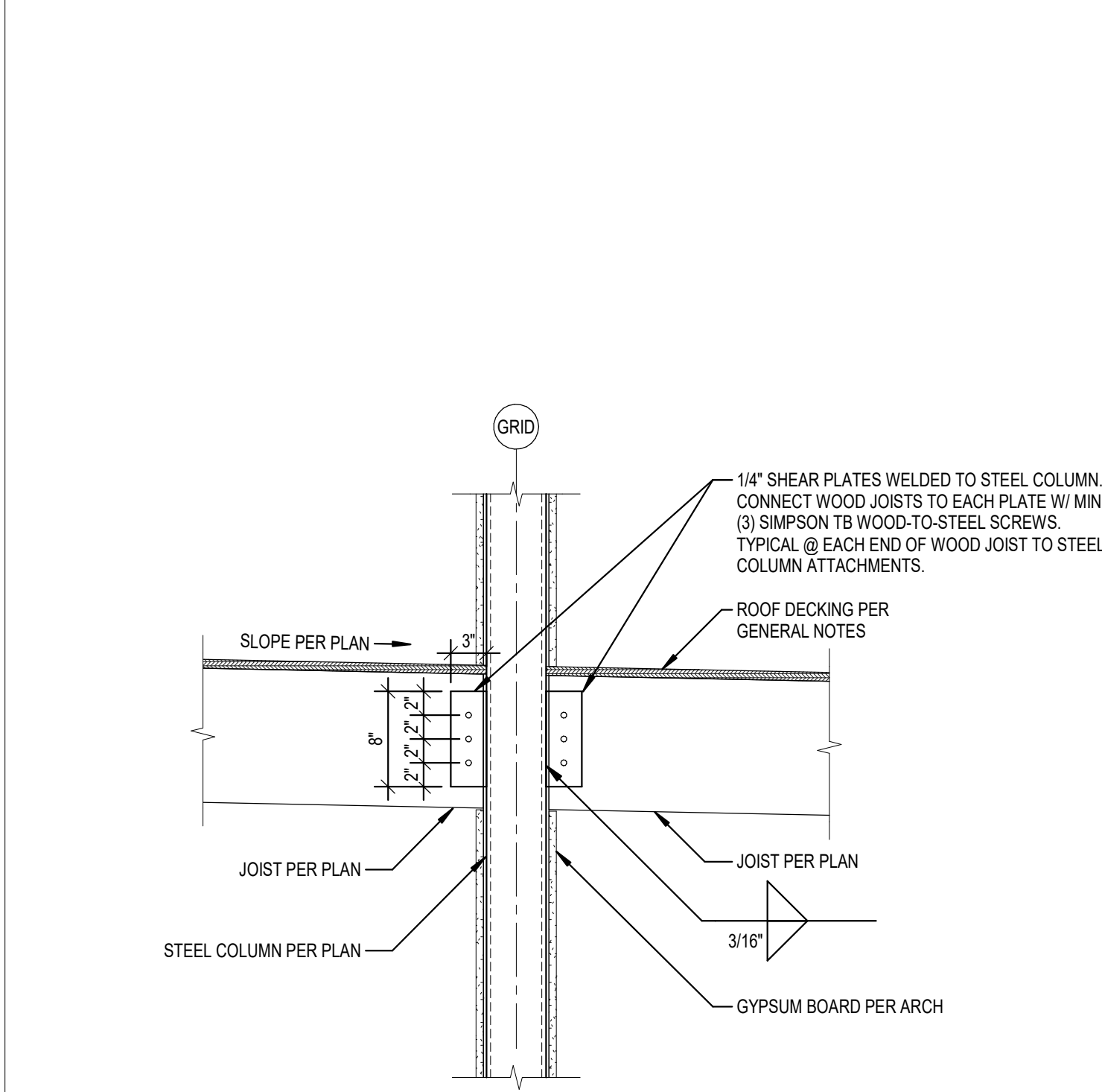
G BRICK BRG @ MASONRY WALL

Scale: 1" = 1'-0"



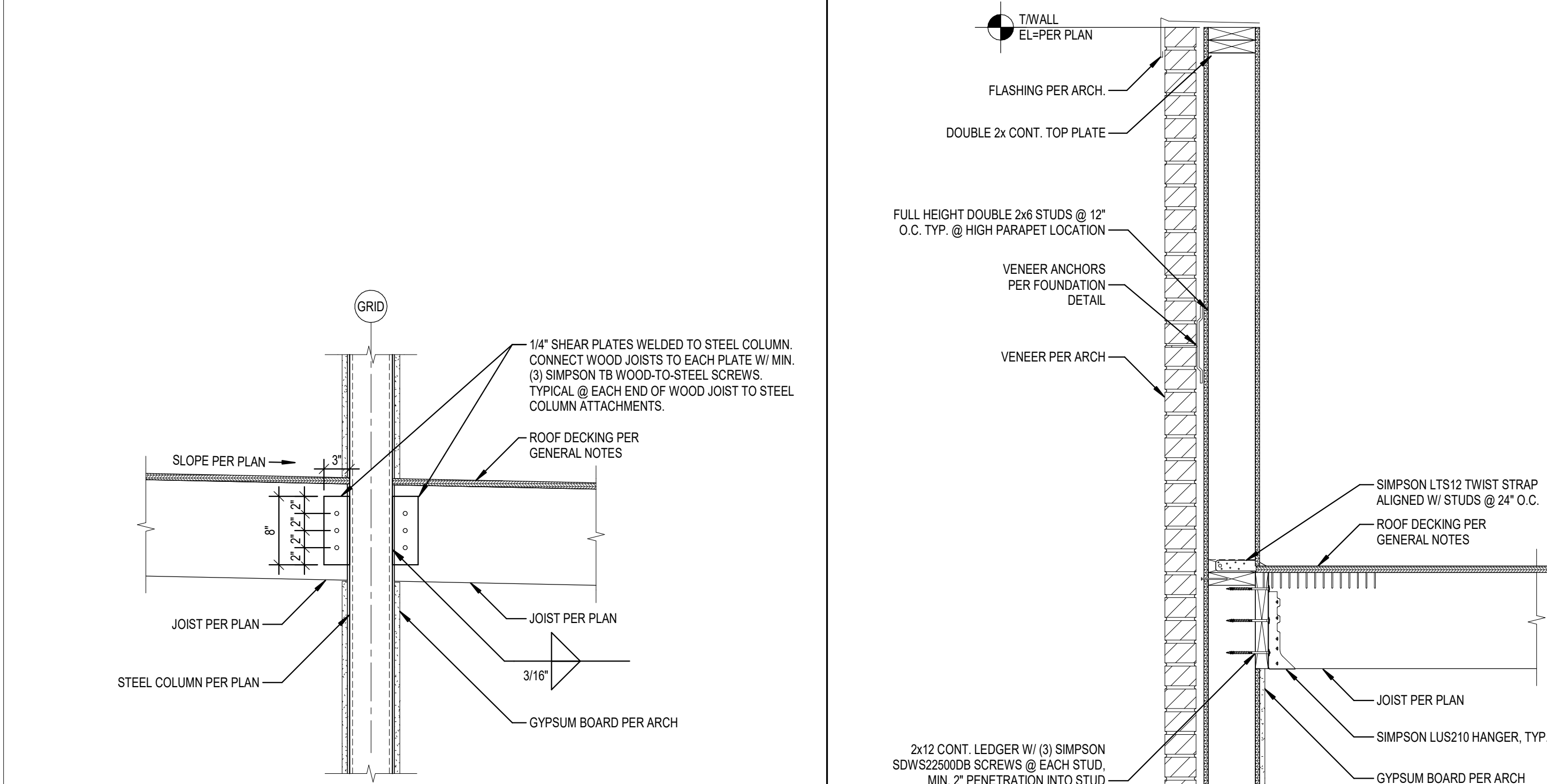
F BRICK BRG @ EXT. DOOR OPENING

Scale: 1" = 1'-0"



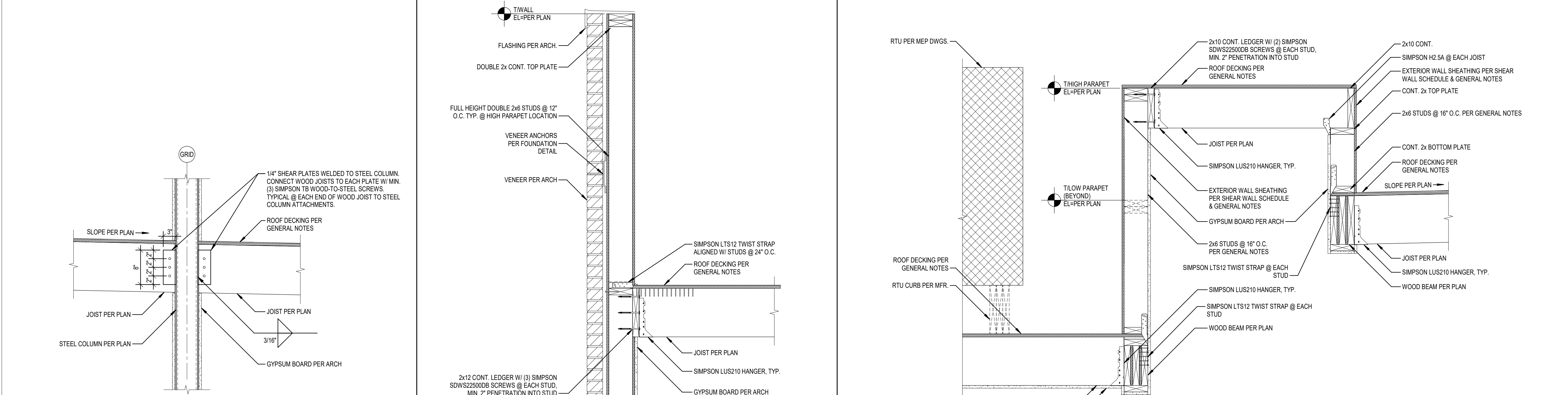
E ROOF JOISTS CONN. @ STEEL COLUMN

Scale: 1" = 1'-0"



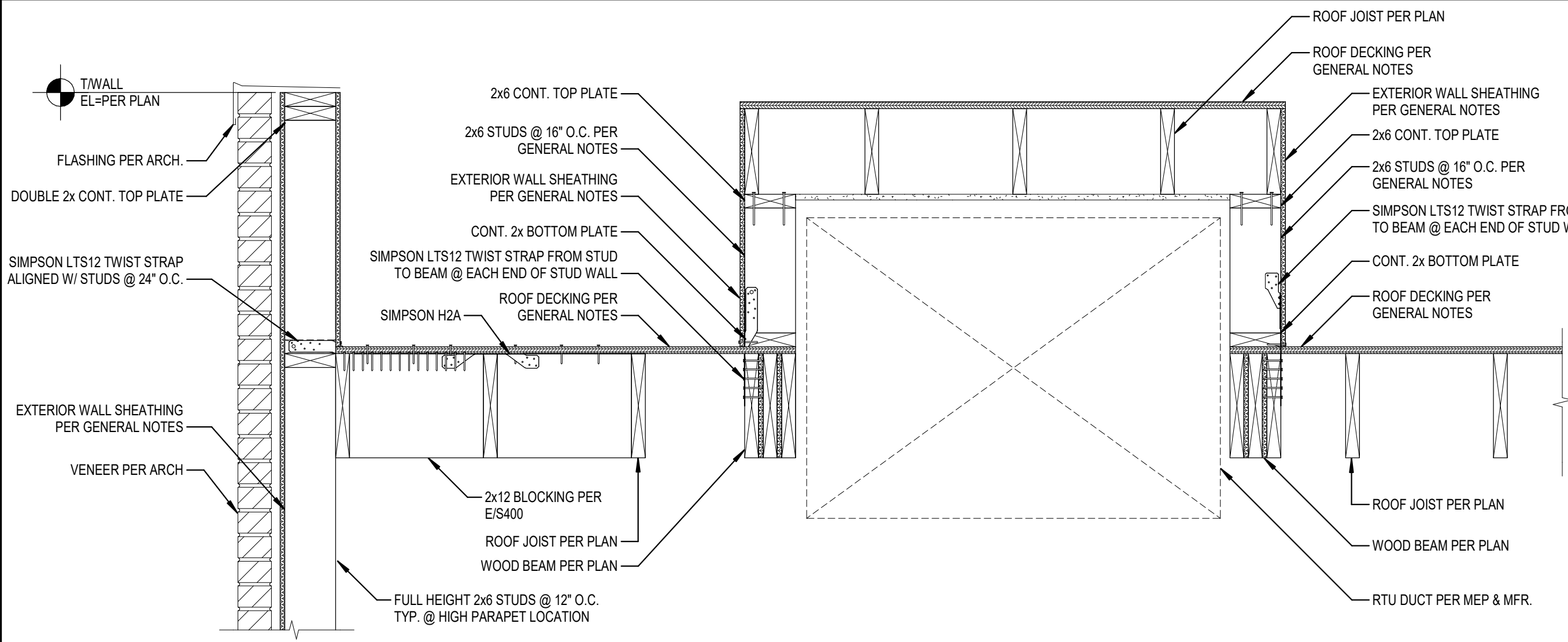
C ROOF JOISTS BRG. @ PARAPET

Scale: 1" = 1'-0"



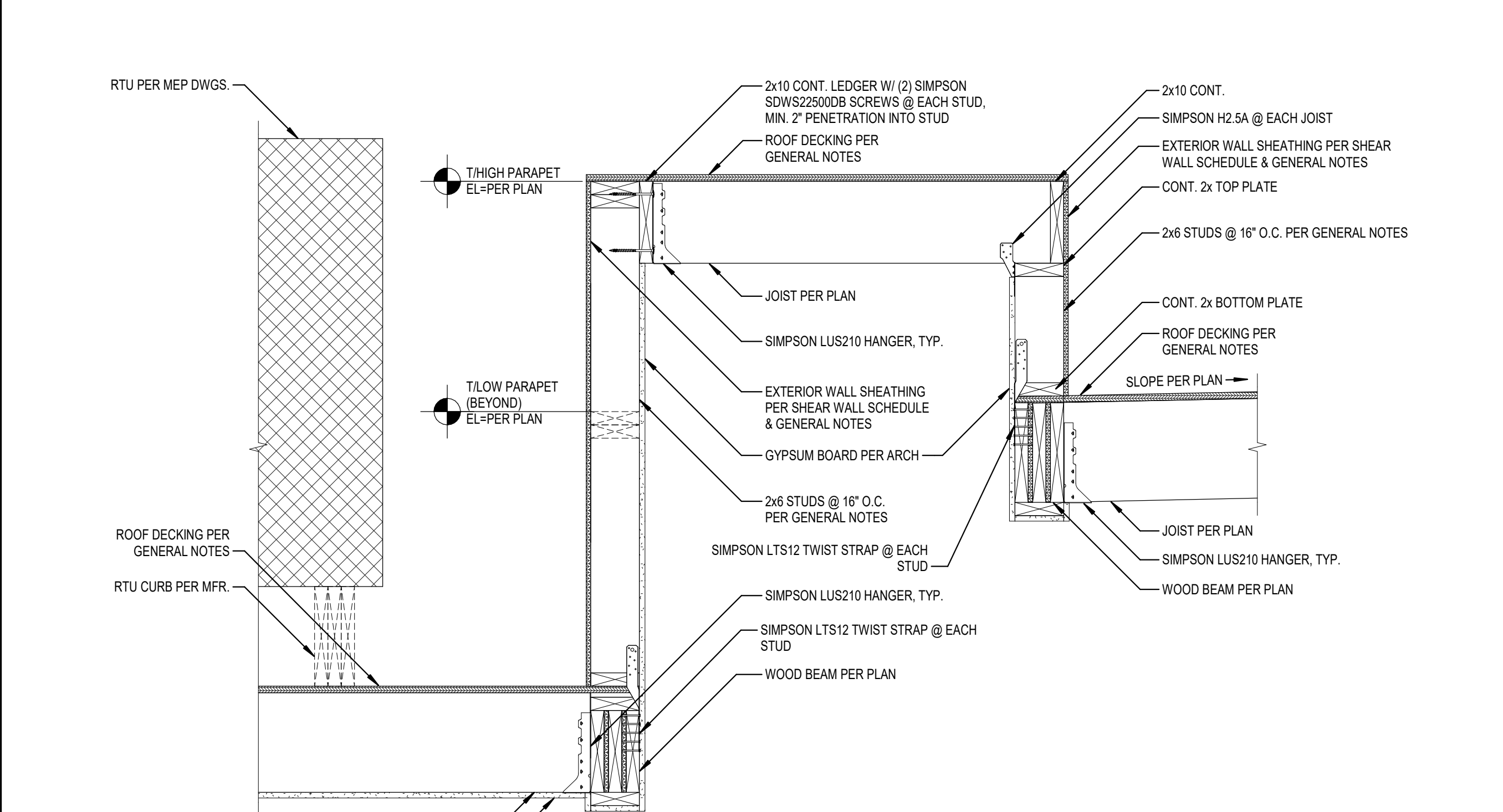
B ROOF FRAMING DETAIL @ RTU BUMP OUT

Scale: 1" = 1'-0"



B ROOF FRAMING DETAIL @ RTU BUMP OUT

Scale: 1" = 1'-0"



A ROOF FRAMING DETAIL @ RTU BUMP OUT

Scale: 1" = 1'-0"

	SYSTEM	PIPING					FITTINGS			MAX. WORKING PRESS.		FIELD TEST	
		SIZE	TYPE	SCHEDULE	GRD	ASTM	MATERIAL	TYPE	TEMP. (°F)	PRESS. (PSI)	TEMP. (°F)	PRESS. (PSI)	TIME
ROOF DRAIN ABOVE GRADE	ALL	DWV	40	-	2665	PVC	PVC	DRISW	10 FT	40-80	10 FT	1 HR	
ROOF DRAIN BELOW GRADE	ALL	DWV	40	-	2665	PVC	ALL	DRISW	10 FT	40-80	10 FT	1 HR	
DOMESTIC WATER SERVICE	0.75" - 3"	PVC	40	-	D1765	PVC	CPVC	SW	125	50-90	200	1 HR	
DOMESTIC WATER ABOVE GRADE	0.5" - 2"	CPVC	SDR11	-	D2846	CPVC	CPVC	SW	120	40-180	150	1 HR	
DOMESTIC WATER BELOW GRADE	ALL	PEX	SDR9	-	B86	PEX	--	--	100	40-180	150	1 HR	
TEMPERATURE & PRESSURE RELIEF DRAIN	ALL	M	-	-	F88	CP	DRIS	10	100	140-210	10 ft	1 HR	
WASTE & VENT BELOW GRADE	ALL	DWV	40	-	2665	PVC	PVC	DRISW	10 FT	50-180	10 ft	1 HR	
WASTE & VENT ABOVE GRADE (DUCTED RETURN)	ALL	DWV	40	-	2665	PVC	PVC	DRISW	10 FT	50-180	10 FT	1 HR	
GREASE WASTE & VENT BELOW GRADE	ALL	NG/BS	SS	-	A74	CI	CI	DRING	10 FT	50-180	10 FT	1 HR	
GREASE WASTE & VENT BELOW GRADE (CONTRACTOR OPTION)	ALL	DWV	40	-	F1794	CPVC	CPVC	DRISW	10 FT	50-180	10 FT	1 HR	
REFRIGERANT PIPING	ALL	ACR	-	-	B280	CP	CP	S	150	40-140	200	4 HR	
CONDENSATE DRAIN ABOVE GRADE	ALL	M	-	-	B88	CP	CP	DRIS	10 FT	40-70	10 FT	1 HR	
NATURAL GAS ABOVE GRADE	0.5" - 2.5"	CW	40	A	A53	CSBLK	MI	THRD	1	-	100	1 HR	
NATURAL GAS BELOW GRADE	0.5" - 2"	PEX	SDR11	3408	D2513	PEX	PEX	HF	80	-	100	1 HR	

Reference No: 67160		Project Name: Andy's Lee's Summit				
Step 1: Flow rate to grease interceptor						
Flow rate (flow in / min) = gal x 0.75 / 2 min = 2 min flow rate						
NAME	TYPE	DIMENSIONS	QTY	CU IN	FLOW RATE	
11	2 Compartment Sink	22" x 24" x 16" (3)	1	24.288	39.43	GPM
12	3 Compartment Sink	14" x 14" x 14"	1	5.880	9.35	GPM
3	Map Basin	24" x 24" x 16"	1	57.40	93.45	GPM
7	Ice Machine (with drain)	N/A	1	N/A	0.5	GPM
4	Food Drain	N/A	1	N/A	0	GPM
1	Custard Machine Drain	N/A	2	N/A	2	GPM
Floor Sinks - Front of House						0
Total						60.82 GPM

SCHIER MODEL	Description: GREASE INTERCEPTOR 50 GPM / 75 GPM, 4" PLAIN/FFT CONNECTIONS, H-20 RATED PICKABLE CAST IRON COVER
GB-50	Dimensions: Length: 37", Width: 32.25", Height: 28.5" Flow Rate/Grease Capacity: 75 GPM / 287 lbs Liquid Capacity: 65 gal



- 1 ROUTE THRU TIME CLOCK CONTROLLED LIGHTING CONDUCTOR TO "LCS".
- 2 PROVIDE SUB-UP FROM BELOW GRADE FOR DOUBLE SIDED MENU BOARD. COORDINATE ALL PUGH IN REQUIREMENTS AND LOCATION WITH EQUIPMENT SUPPLIER.
- 3 PROVIDE SUB-UP AND CIRCUITING FOR INTERNALLY LIT DIRECTIONAL SIGNAGE THROUGH SIGNAGE FOOTING. COORDINATE EXACT SUB-UP LOCATION WITH SIGNAGE SUPPLIER AND FOOTING CONSTRUCTION. PROVIDE WEATHERPROOF DISCONNECTING MEANS.
- 4 PROVIDE SUB-UP AND CIRCUITING FOR MENU BOARD FOOTING CLOSEST TO BUILDING COORDINATE EXACT SUB UP AND ALL ROUGH IN REQUIREMENTS WITH EQUIPMENT SUPPLIER AND WITH FOOTING CONSTRUCTION. PROVIDE WEATHERPROOF DISCONNECTING MEANS.

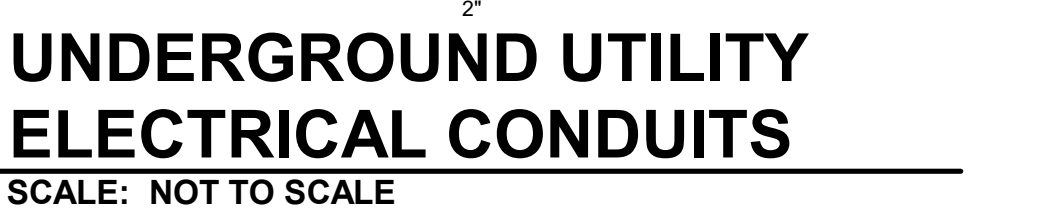
A.	ALL EXTERIOR J-BOXES SHALL BE WEATHERPROOF.
B.	COORDINATE ALL GAS, WATER, ELECTRICAL, AND SEWER SERVICES WITH CIVIL ENGINEERING PLANS. INCLUDE ALL FEES, COSTS, AND CHARGES INCURRED FROM THE UTILITY COMPANY IN THE BASE BID. ARRANGE FOR ALL SERVICES TO THE BUILDING.
C.	FOR ALL MEP QUESTIONS, CONTACT RTM ENGINEERING CONSULTANTS 417-881-0020. CONTACT PERSON: TYLER ENSERRO. tyler.enserro@rtmec.com

Springfield,
P: 417-890-

NO.	DATE	ISSUE
1	05-30-2024	AD 01

THIS DRAWING MAY BE PART of an integrated set of Construction Documents, including the Contract, the Conditions and the Specifications. The Contract Documents are complementary: what is required by one is as binding as if required by all. Application of a material or equipment item to Work installed by others constitutes acceptance of that Work. Calculate and measure dimensions – DO NOT SCALE DRAWINGS unless directed by the Architect to do so. Dimensions indicated are to the face of a material, unless noted otherwise.

VIEW 4



Hufft

PROJECT INFORMATION:

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LANDSCAPE ARCHITECT:

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ISSUE:

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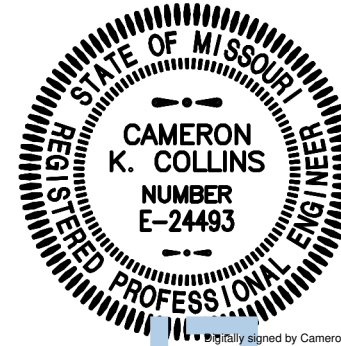
05-02-2024

REVISION SCHEDULE:

NO.	DATE	ISSUE
1	05-30-2024	AD 01

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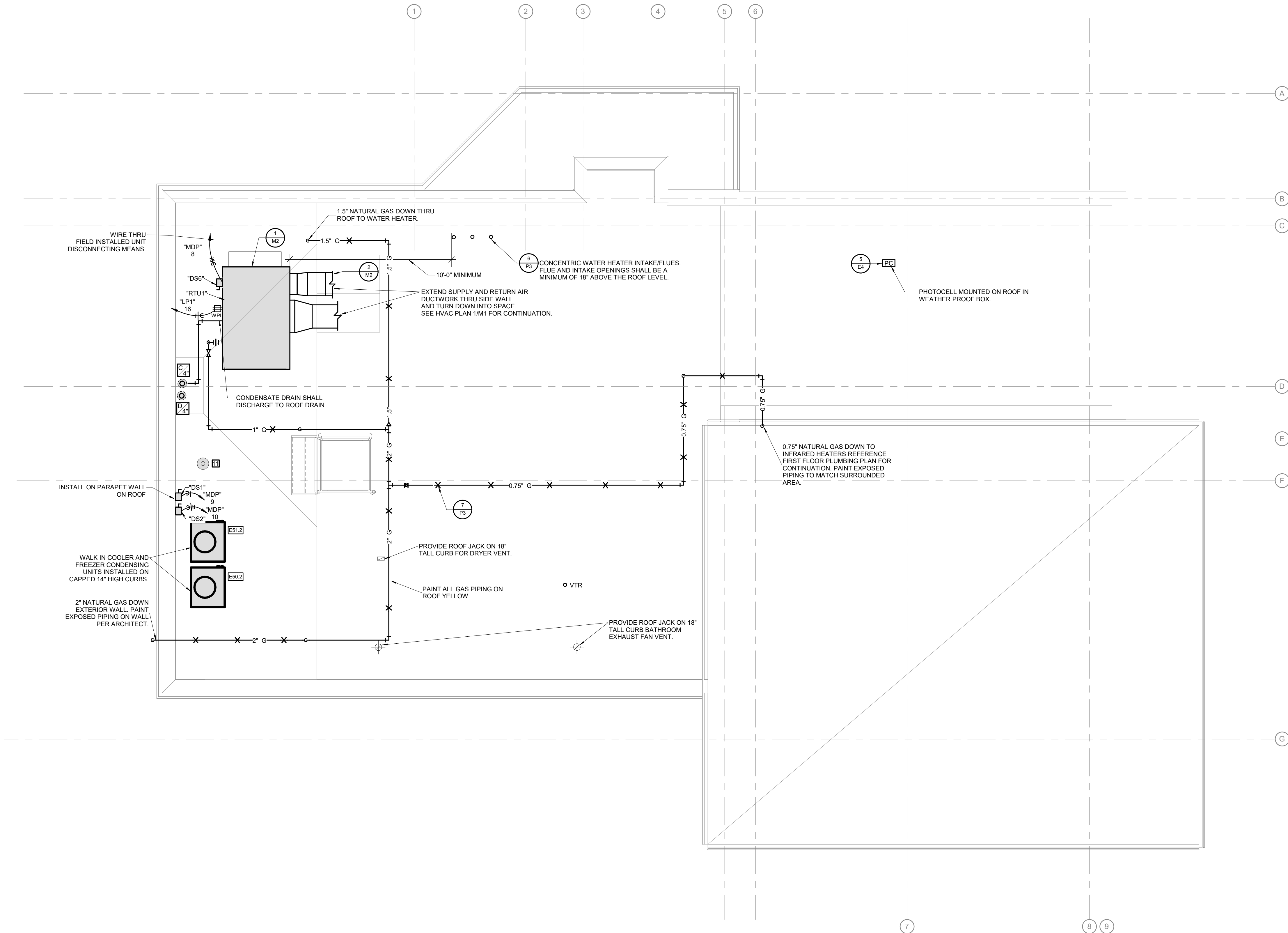


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Olathe, MO 66045

Architect: Matthew Hufft
License Number: MO#
Drawn: Author
Project Number: 736

MEP ROOF PLAN

ME3



1 MEP ROOF PLAN
ME3 SCALE: 1/4" = 1'-0" NORTH

ELECTRICAL

- UNDERGROUND POWER CIRCUITS AND FEEDERS: TYPE THHN/TWHN, 600 VOLT, 75 DEGREE C (167 DEGREES F) WET RATING AND 90 DEGREES C (194 DEGREES F) DRY RATED THERMOSETTING FILLED INSULATING CABLE.
- ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL CONDUIT, WIRE, BOXES, ETC. FOR THE INSTALLATION OF ALL FIRE ALARM DEVICES, DUCT DETECTORS, RELAYS, ETC. AS REQUIRED TO INSTALL A COMPLETE WORKING SYSTEM. COORDINATE ALL FIRE ALARM INSTALLATION REQUIREMENTS WITH EQUIPMENT MANUFACTURER.

- ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH 2017 NATIONAL ELECTRICAL CODE AS ADOPTED BY THE CITY OF LEE'S SUMMIT, MO.

- THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AT SITE PRIOR TO SUBMITTING HIS BID. NO EXTRAS WILL BE PAID DUE TO UNANTICIPATED EXISTING CONDITIONS.

- PLANS ARE DIAGRAMMATIC AND SHALL NOT BE SCALED. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS.

- PROVIDE CONDUCTORS FOR LISTED APPLICATIONS AS FOLLOWS:

LIGHTING AND RECEPTACLE CIRCUITS: TYPE THHN, 600 VOLT, 75 DEGREE C (194 DEGREES F) THERMOPLASTIC INSULATED BUILDING CONDUCTOR.

POWER CIRCUITS AND FEEDERS: TYPE THHN, 600 VOLT, 75 DEGREE C (194 DEGREES F) THERMOPLASTIC INSULATED BUILDING CONDUCTOR.

LOW VOLTAGE AND LINE VOLTAGE CONDUCTORS SIZES NO. 16 AND NO. 18 AWG: TYPE THHN, 600 VOLT, 75 DEGREE C (194 DEGREE F) THERMOPLASTIC INSULATED BUILDING CONDUCTOR.

UNDERGROUND POWER CIRCUITS AND FEEDERS: TYPE THHN/TWHN, 600 VOLT, 75 DEGREE C (167 DEGREES F) WET RATING AND 90 DEGREES C (194 DEGREES F) DRY RATED THERMOSETTING FILLED INSULATING CABLE.

- CONDUIT CONNECTORS AND COUPLINGS SHALL BE COMPRESSION TYPE. SET SCREW TYPE CONDUIT FITTINGS SHALL NOT BE ALLOWED.

- ALL POWER CIRCUITS SHALL HAVE A GROUNDING CONDUCTOR.

- ALL RECEPTACLES SHALL BE AT 18" AFF UNLESS NOTED OTHERWISE.

- DUPLEX RECEPTACLES SHALL BE HUBBELL MODEL 5352-GRY 20A, 125V, NEMA CONFIGURATION 5-20R GREY DUPLEX RECEPTACLE. WEATHER PROOF RECEPTACLES SHALL BE 6" TYPE MOUNTED IN APPROPRIATE WEATHERPROOF BOX WITH LIFT COVERPLATE.

- SWITCHES SHALL BE RATED FOR 20A, 120-277V, GREY IN COLOR AND SHALL BE AS FOLLOWS:

THREE WAY HUBBELL 1223
SINGLE POLE HUBBELL 1221

- ALL DEVICES AND COVERPLATES SHALL BE STEEL TYPE (REFER TO KEY NOTE FOR MODEL AND TYPE) CONCEALED SERVICE FLOOR BOX WITH CARPET PLATE AND DEVICE FACEPLATES AS REQUIRED FOR DEVICES TO BE INSTALLED AS SHOWN ON PLANS. EQUIVALENT FLOOR BOXES BY HUBBELL OR RACEWAY COMPONENTS.

- EQUIVALENT MANUFACTURERS OF LIGHTING CONTROL PANEL AND ASSOCIATED ACCESSORIES (PHOTOCELLS, LOW VOLTAGE SWITCHES ETC) SHALL BE DOUGLAS LIGHTING CONTROLS, WATTSTOPPER, AND HUBBELL CONTROLS.

- ELECTRICAL CONTRACTOR SHALL PROVIDE A TYPED CIRCUIT DIRECTORY FOR ALL PANELS. DIRECTORY INFORMATION SHALL INCLUDE CIRCUIT NUMBER AND EQUIPMENT SERVED.

- PROVIDE HEAVY DUTY AND GENERAL DUTY HORSEPOWER RATED SAFETY SWITCHES RATED IN ACCORDANCE WITH NEMA ENCLOSED SWITCH STANDARD KS-11957 AND UL 98 STANDARD AS SCHEDULED. ENCLOSURE SHALL BE NEMA TYPE REQUIRED BY SWITCH LOCATION AND ENVIRONMENT. SWITCHES SHALL HAVE LATCH WITH MEANS OF PADLOCKING. SWITCH SHALL HAVE AN EMBOSSED NAMEPLATE PERMANENTLY ATTACHED TO DOOR FRONT WITH SWITCH RATING, SHORT CIRCUIT INTERRUPTING CAPACITY AND APPLICATION INFORMATION. FUSE HOLDERS FOR 1-600 AMPERES SHALL BE HIGH PRESSURE TYPE FOR USE WITH CLASS R CURRENT LIMITING FUSES. FUSE HOLDERS SHALL BE COMPLETELY ACCESSIBLE FROM FRONT OF SWITCH. PROVIDE SWITCHES BY CUTLER-HAMMER, GENERAL ELECTRIC, ITE/SIEMENS, SQUARE D, OR WESTINGHOUSE.

- PROVIDE 600 VOLT MECHANICALLY OR ELECTRICALLY HELD LIGHTING CONTACTORS WITH PROPER NEMA ENCLOSURE REQUIRED BY CONTACTOR LOCATION AND ENVIRONMENT. CONTACTORS SHALL HAVE SILVER ALLOY, DOUBLE BREAK POWER CONTACTS REPLACEABLE WITHOUT REMOVING POWER WIRING OR CONTACTOR FROM ENCLOSURE. COILS SHALL BE MOLDED CASE CONSTRUCTION PERMANENTLY MARKED WITH COIL VOLTAGE AND FREQUENCY AND BE REPLACEABLE WITHOUT REMOVING CONTACTOR FROM ENCLOSURE. CONTACTOR SHALL BE SUITABLE FOR ADDITION OF AT LEAST TWO ELECTRICAL INTERLOCKS OF ANY ARRANGEMENT OF NORMALLY OPEN OR CLOSED CONTACTS. PROVIDE CONTACTORS WITH ACCESSORIES SUCH AS AUXILIARY CONTACTS, PILOT LIGHTS, ON-OFF OR H.O.A. SWITCHES REQUIRED TO OBTAIN CONTROL SEQUENCE SHOWN ON PLANS OR SPECIFIED. WHERE THREE OR MORE CONTACTORS ARE INSTALLED AT ONE LOCATION, CONTACTORS MAY BE INSTALLED IN GROUP CONTROL PANEL IN LIEU OF SEPARATE DEVICES. CONTACTORS BY ALLEN BRADLEY, CUTLER-HAMMER, ITE/SIEMENS, SQUARE D, OR GENERAL ELECTRIC.

- ALL ELECTRICAL BOXES SHALL BE GALVANIZED STEEL. BACK BOXES MOUNTED ON GALVANIZED STUDS AND SHALL HAVE BETWEEN-2" STUD MOUNTING BRACKETS EQUAL TO CADDY, PER18, OR RISE24. PROVIDE 3/4" MUD RINGS WHERE LOCATED IN WALLS WITH 5/8" THICK GYPSUM WALLBOARD. ALL MUDPLASTER RINGS SHALL BE FLUSH WITH FINISHED WALL.

- THE COVERS OF ALL BOXES SHALL BE LABELED WITH PERMANENT MARKER INDICATING THE PANELBOARD NAME AND CIRCUIT NUMBER(S) OF ALL INTERNAL WIRING.

- ALL CONDUIT STUBS SHALL BE TERMINATED WITH BUSHINGS.

- CONTRACTOR SHALL GUARANTEE ALL EQUIPMENT, ACCESSORIES, AND MATERIAL FURNISHED BY HIM FOR A PERIOD OF ONE YEAR FROM FINAL ACCEPTANCE AGAINST ALL DEFECTS.

- PANELBOARDS SHALL BE SQUARE D TYPE NODD PANELBOARDS WITH DEAD-FRONT CONSTRUCTION. TIN-PLATED COPPER BUS BARS, EQUIPMENT GROUND BUS AND 100-TON HEAVY DUTY QUICK-BREAK CIRCUIT BREAKERS EQUIVALENT BY GENERAL ELECTRIC, SIEMENS, CUTLER-HAMMER. PANELS SHALL BE LABELED WITH PERMANENTLY AFFIXED ARC-FAULT WARNING LABELS.

- PROVIDE TRANSFORMERS WITH RATINGS AND CAPACITIES AS LISTED IN SCHEDULE. MATERIALS AND PERFORMANCE SHALL COMPLY WITH APPLICABLE ANSI, NEMA AND UL-508 STANDARDS. EQUIVALENT TRANSFORMERS BY SQUARE D, GENERAL ELECTRIC, HEAVY-DUTY, SIEMENS, CHALLENGER.

- ALL WIRING SHALL BE IN CONDUIT AND SHALL BE CONCEALED.

- ALL LIGHTING FIXTURES SHALL BE PROVIDED WITH APPROPRIATE LAMPING.

- ALL ELECTRICAL EQUIPMENT INSTALLED IN AN EXTERIOR LOCATION SHALL BE PROVIDED WITH A NEMA 3R RATED ENCLOSURE.

- PROVIDE DISTRIBUTION PANELBOARDS AS MANUFACTURED BY SQUARE-D, I-LINE TYPE. PANELBOARDS SHALL BE EQUIPPED WITH THERMAL-MAGNETIC, MOLDED CASE CIRCUIT BREAKERS OF FRAME AND TRIP RATINGS AS SHOWN ON THE SCHEDULE. PANEL BUS STRUCTURE AND MAIN BREAKER SHALL HAVE CURRENT RATINGS AS SHOWN ON THE PANEL SCHEDULE. BRANCH CIRCUIT BREAKERS SHALL BE SQUARE D FA KA, LA, MA, NH, PA AND/OR PC ONE, TWO OR THREE POLE MOLDED CASE CIRCUIT BREAKERS RATED 15 THROUGH 2500 AMPERES (VOLTAGE AS SHOWN WITHIN SCHEDULE), AS SPECIFIED ON THE DRAWINGS, ALL BUS BREAKERS, ETC. TO BE UL AND CSA LISTED, IEC RATED, MEET NEMA STANDARDS. BREAKERS SHALL HAVE OVER CENTER TOGGLE-TYPE MECHANISMS, PROVIDING QUICK-MAKE, QUICK-BREAK ACTION. CIRCUIT BREAKERS WITH FRAMES GREATER THAN 100 AMPERES SHALL HAVE VARIABLE MAGNETIC TRIP ELEMENTS, UNLESS INDICATED OTHERWISE. BRANCH BREAKERS UP TO 100 AMPS SHALL HAVE 10,000 RMS SHORT CIRCUIT AMP SYMMETRICAL INTERRUPTING CAPACITY AND GREATER THAN 100 AMPS SHALL HAVE 42,000 RMS CAPACITY.

ELECTRICAL

PANELBOARD ASSEMBLY SHALL BE ENCLOSED IN STEEL CABINET. CABINET SHALL MEET UL STANDARD 50 AND 67. ALL LOCKS SHALL BE KEYS ALIKE. ENDWALLS SHALL BE REMOVABLE. FRONTS SHALL BE OF CODE GAUGE STEEL, GRAY BAKED ENAMEL FINISH. ELECTRO-DEPOSITED OVER CLEANED PHOSPHATIZED STEEL. INTERIOR SHALL BE DEAD FRONT WITH PANELBOARD FRONT REMOVED. MAIN LUGS OR MAIN BREAKERS SHALL HAVE BARRIERS ON FIVE SIDES. THE END OF THE BUS STRUCTURE OPPOSITE THE MAINS SHALL HAVE BARRIERS.

PROVIDE UL LISTED GROUND SENSOR RELAY (GSR) SYSTEM WITH GROUND-BREAK COMPONENTS FOR MAIN BREAKER. IF 1000-AMPS OR LARGER, EACH UNIT SHALL CONSIST OF A COORDINATED GROUND SENSOR (GT) WITH INTEGRAL TEST WINDING, SOLID STATE RELAY TO OPERATE SHUNT TRIP CIRCUIT ON CIRCUIT PROTECTIVE DEVICE AND MONITOR PANEL. RELAY SHALL BE OF THE ZONE SELECTIVE INTERLOCK TYPE AND HAVE CONTINUOUSLY ADJUSTED CURRENT PICKUP SETTINGS OF 100-1200 AMPERE AND CONTINUOUSLY ADJUSTABLE TIME DELAY SETTING FROM INST. (.03 SEC) TO 1 SECOND. RELAY SHALL PROVIDE TWO INDEPENDENT OUTPUT CONTACTS EACH RATED FIVE AMPERES CONTINUOUS AND 30 AMPERES INRUSH AT (24.36, 48, 125 V AC OR 120, 120/208, 120/240 V AC). RELAY SHALL INCLUDE A MEMORY FUNCTION TO RECOGNIZE AND INITIATE TRIPPING ON INTERMITTENT GROUND FAULTS. MONITOR PANELS SHALL INDICATE RELAY OPERATION AND PROVIDE MEANS FOR TESTING SYSTEM WITH OR WITHOUT INTERRUPTION OF SERVICE AND MUST NOT PERMIT GROUND FAULT SYSTEM TO BE INADVERTENTLY LEFT IN AN INACTIVE OR OFF STATE. GROUND SENSOR SHALL BE INSTALLED FOR GROUND RETURN OR ZERO SEQUENCE ARRANGEMENT AS REQUIRED ON MAIN SERVICE DEVICES, ON FEEDER AND BRANCH DEVICES, FURNISH ZERO SEQUENCE SENSOR ARRANGEMENTS, SYSTEM SHALL BE G.E. TYPE "GROUND-BREAK" OR EQUIVALENT BY SQUARE D" COMPANY.

THE PANELBOARD SHALL BE PROVIDED WITH SURGE SUPPRESSION AND TVSS PROTECTION INSTALLED IN THE PANEL BOARD OR DIRECTLY ADJACENT TO THE PANEL. SURGE ARRESTORS SHALL BE UL LISTED 3-PHASE, 4-WIRE, RATED FOR THE SYSTEM VOLTAGE AND SHORT CIRCUIT LEVELS AVAILABLE AND SHALL BE EQUIVALENT TO THE CURRENT TECHNOLOGY MODEL, CG-80 CURRENT GUARD-60 WITH DISCONNECT SWITCH AND PHASE PROTECTION RATING AS SUGGESTED BY E.M. SURGE ARRESTORS SHALL COME WITH ANSIIIEEE 62-11-1987 CERTIFICATION. TVSS SHALL MEET ALL THE REQUIREMENTS AND TEST PROCEDURES AS OUTLINED IN NEMA-13 STANDARDS "LOW VOLTAGE SURGE PROTECTIVE DEVICES". INSTALL PER MANUFACTURER AND N.E.C. REQUIREMENTS. EQUIVALENT BY NATIONAL LIGHTING PROTECTION, INNOVATIVE TECHNOLOGY.

PANELS SHALL BE PROVIDED WITH PERMANENTLY AFFIXED ARC FAULT WARNING LABELS.

EQUIVALENT MANUFACTURERS SHALL BE SQUARE D", GENERAL ELECTRIC, ITE/SIEMENS, CUTLER-HAMMER OR WESTINGHOUSE.

- PROVIDE TIME SWITCHES AS INDICATED ON DRAWINGS AND IN SCHEDULE. EQUIVALENT BY INTERMATIC, TORK, OR RAINBIRD. ALL INTERLOCK WIRING BETWEEN THE LIGHTING CONTROLS AND TIME SWITCHES AND PHOTOCELLS SHALL BE PROVIDED BY THE CONTRACTOR AS PART OF THE BASE BID.

- VOICE AND DATA CABLE SYSTEMS TO BE PROVIDED AND INSTALLED BY OWNER.

- SUBMIT A MINIMUM OF SIX (6) COPIES OF SHOP DRAWINGS ON ALL FIXTURES AND EQUIPMENT FURNISHED UNDER THIS CONTRACT.

- CONTACT THE VENDOR FOR THE DRIVE THRU LOOP AND TIMER AND INCLUDE ALL VENDOR COSTS ASSOCIATED WITH THIS WORK IN BASE BID. COORDINATE ALL RELATED WORK WITH VENDOR. CONTACT INFORMATION:

JOE DOBBINS
CSI OF OKLAHOMA, INC.
8455 E 590 RD
CATOOSA, OK 74015
918-266-1785, EMAIL: JOE.CSI@SBCGLOBAL.NET

- CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL SHORT-CIRCUIT CALCULATIONS FOR ALL ELECTRIC EQUIPMENT INCLUDING BUT NOT LIMITED TO ELECTRICAL PANELS AND ELECTRICAL DISCONNECT SWITCHES AND FOR ALL MOTORS AS NECESSARY TO ENSURE PROPER EQUIPMENT RATINGS AND AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION.

MECHANICAL

- ALL MECHANICAL WORK SHALL BE IN ACCORDANCE WITH THE 2018 MECHANICAL CODE AS ADOPTED BY LEE'S SUMMIT, MO.

- DUCT MATERIALS SHALL BE AS FOLLOWS:

RECTANGULAR SUPPLY AIR DUCT - 1" PRESSURE CLASS OR LESS: GALVANIZED SHEET METAL WITH 1/2" THICK, 3 LB. DENSITY DUCT LINER.

ROUND SUPPLY AIR DUCT - 1" PRESSURE CLASS OR LESS: GALVANIZED SNAPLOCK PIPE WITH TRANSVERSE JOINTS TAPED. WRAP WITH 1.5", 1.0 LB DENSITY FIBERGLASS DUCT WRAP WITH FOL-SCRM-KRAFT FACING.

RECTANGULAR EXHAUST DUCT: GALVANIZED SHEET METAL WITH 1/2", 3 LB. DENSITY DUCT LINER.

ROUND EXHAUST DUCT: GALVANIZED SNAP-LOCK PIPE WITH TRANSVERSE JOINTS TAPED.

ROUND FLEXIBLE DUCT: UL LISTED CLASS 1 PRE-INSULATED FLEX DUCT. RUNS OF FLEXIBLE DUCT SHALL NOT EXCEED 5' LINEAR FEET. FLEXIBLE DUCT SHALL NOT BE USED ON SYSTEMS WITH PRESSURE CLASS GREATER THAN 1".

AT CONTRACTOR'S OPTION DUCTWORK MAY BE JOINED WITH PREFABRICATED GALVANIZED "DUCTMATE" SECTIONS. THE JOINT PACKING MATERIAL AND JOINT FASTENING DETAILS USING THIS METHOD SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW.

ALL DUCT PRESSURE CLASSES SHALL BE THE SAME AS THE EXTERNAL STATIC PRESSURE (ESP) OF THE EQUIPMENT SUPPLYING THE DUCT. THE EQUIPMENT ESP SHALL BE THE PRESSURE CLASS FOR THE ENTIRE SUPPLY DUCT SYSTEM.

- TURNING VANES SHALL BE EQUAL TO AERO-DYNE OR EQUAL, 26 GAUGE H-E-P HIGH EFFICIENCY PROFILE AIR FOIL VANES MOUNTED 2-1/8 INCHES ON CENTER ON 24 GAUGE RUNNERS. AIR FURNISHED BY BARBER COLEMAN WILL BE ACCEPTABLE ON LOW PRESSURE ONLY.

- VOLUME DAMPERS (ROUND - VELOCITIES OVER 1500 FPM) SHALL BE EQUAL TO RUSKIN MODEL CDR25. DAMPERS SHALL BE BUTTERFLY TYPE, CONSISTING OF CIRCULAR BLADE MOUNTED TO AXLE. VOLUME DAMPERS (ROUND - VELOCITIES 1500 FPM AND LESS) SHALL BE EQUAL TO RUSKIN MODEL MDR33. VOLUME DAMPERS (RECTANGULAR - OVER 1500 FPM) SHALL BE EQUAL TO RUSKIN MODEL CDR01 LOW LEAKAGE DAMPERS. VOLUME DAMPERS (RECTANGULAR - 1500 FPM AND LESS) SHALL BE EQUAL TO RUSKIN MODEL CDR35.

- COUNTERBALANCED BACKDRAFT DAMPERS SHALL BE EQUAL TO RUSKIN MODEL CBST, BACKDRAFT DAMPERS SHALL BE EQUAL TO RUSKIN MODEL BDZ42.

- FLEXIBLE CONNECTIONS SHALL BE EQUAL TO METALEDGE VENTGLAS PREFABRICATED FLEXIBLE CONNECTION OF 3-1/4 INCH WIDE HEAT AND FIRE RESISTANT NEOPRENE COATED GLASS FABRIC WITH TWO 3-INCH WIDE 24 GAUGE METAL STRIPS ATTACHED TO EACH EDGE. EQUAL BY VENT FABRICS INC OR DURO-DYNE CORP.

- ACCESS DOORS SHALL BE CONCEALED FRAME, ACCESS DOORS IN CEILINGS, WALLS, OR FLOORS FOR ACCESS TO DUCTWORK, VALVES, CONTROLS, PIPING, ETC. INSTALLED UNDER THIS CONTRACT. DOORS SHALL NOT BE FORMED OF NOT LIGHTER THAN USS #14 GAUGE AND FRAMES SHALL NOT BE LESS THAN #16 GAUGE STEEL. HINGES SHALL BE CONCEALED LOOSE PIN SPRING TYPE. LOCKS SHALL BE FLUSH. SCREWDRIVER, CAM ACTION TYPE. DOORS AND FRAMES SHALL BE FURNISHED IN PRIME COAT OF GRAY RUST INHIBITIVE PAINT. EQUAL BY CESCO, NALOR, HIGGINS, MILCOR, DONLEY.

- ALL DUCTWORK SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH SMACNA STANDARDS, MANUAL 156. ALL SUPPLY AIR DUCT PRESSURE CLASSES SHALL BE THE SAME AS THE EXTERNAL STATIC PRESSURE (ESP) OF THE EQUIPMENT SUPPLYING THE DUCT. THE EQUIPMENT ESP SHALL BE THE PRESSURE CLASS FOR THE ENTIRE SUPPLY DUCT SYSTEM.

- ALL METAL DUCTWORK SPECIFIED TO RECEIVE INTERIOR THERMAL AND ACoustical LINER IS NOT SIZED ON PLANS TO INCLUDE THE PROPER THICKNESS OF INSULATION. ADD 1" OR 2" IN HEIGHT AND WIDTH OF DUCTWORK TO ACCOMMODATE THICKNESS OF INSULATION.

- BRANCH DUCTS SHALL BE THE SAME SIZE AS DIFFUSER NECK UNLESS NOTED OTHERWISE.

- ROUND TAKE-OFF FITTINGS FROM RECTANGULAR DUCTWORK SHALL BE MADE WITH WESCO BELL MOUTH FITTINGS, OR APPROVED EQUAL.

- PROVIDE TURNING VANES IN ALL ELBOWS.

- ALL THERMOSTATS SHALL BE SUPPLIED BY THE HVAC CONTRACTOR. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL THE NECESSARY CONDUIT, WIRE, BOXES, ETC. FOR THE INSTALLATION OF THERMOSTATS. THE HVAC CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND CONNECTION OF THERMOSTATS. THERMOSTAT SHALL HAVE AUTOMATIC SET BACK CONTROLS, 5 DEG F DEADBAND, AND SETPOINT OVERLAP RESTRICTIONS, PROGRAM THERMOSTAT TO MEET ALL 2018 IECC REQUIREMENTS.

- EQUIVALENT MANUFACTURERS OF GRILLES, REGISTERS AND DIFFUSERS SHALL BE CARNES, TITUS, KRUEGER, OR ANEMOSTAT.

- EQUIVALENT MANUFACTURERS OF EXHAUST FANS SHALL BE CARNES, LOREN COOK, PENN VENTILATOR, JENN INDUSTRIES, ACME, OR GREENHOK.

- EQUIVALENT MANUFACTURERS OF ROOFTOP UNITS SHALL BE YORK OR TRANE.

- EQUIVALENT MANUFACTURERS OF ELECTRIC UNIT HEATERS SHALL BE TRANE, REZNOR, LENNOX, OR MODINE.

- BEFORE ANY PIPING, DUCTWORK CONDUIT, ETC. IS INSTALLED, IT SHALL BE COORDINATED CAREFULLY BETWEEN ALL TRADES.

- ALL REFRIGERANT LINES SHALL EITHER BE TYPE ACR COPPER OR PRE-CHARGED LINES. PRE-CHARGED LINES SHALL BE SUPPLIED BY REFRIGERATION EQUIPMENT MANUFACTURER. SIZING AND INSTALLATION OF REFRIGERANT LINES SHALL BE AS RECOMMENDED BY E.M. ALL ACCESSORIES REQUIRED DUE TO EXCESSIVE LENGTHS OR HEIGHTS SHALL BE PROVIDED BY M/C. ALL SHALL BE TESTED. CONTRACTOR SHALL EVACUATE PIPING SYSTEM WITH VACUUM PUMP. CHARGE WITH REFRIGERANT PRESSURE OF 10 PSIG. AFTER SYSTEM IS FOUND TO BE LEAK FREE, DOUBLE EVACUATE SYSTEM, LEAVING FINAL EVACUATION ON SYSTEM A MINIMUM OF 12 HOURS PRIOR TO CHARGING. PRE-CHARGED LINES NEED NOT BE TESTED EXCEPT WHERE LEAKS ARE SUSPECTED.

- COORDINATE DIFFUSER AND GRILLE LOCATIONS WITH REFLECTED CEILING PLANS.

- PROVIDE MANUAL VOLUME DAMPERS ON ALL SUPPLY AND EXHAUST BRANCH DUCTS.

- CONTRACTOR SHALL GUARANTEE ALL EQUIPMENT, ACCESSORIES, AND MATERIAL FURNISHED BY HIM FOR A PERIOD OF ONE YEAR FROM FINAL ACCEPTANCE AGAINST ALL DEFECTS.

- THE MECHANICAL CONTRACTOR SHALL OBTAIN THE SERVICES OF AN INDEPENDENT FIRM TO PERFORM THE HVAC SYSTEM TESTING AND BALANCING. THE TESTING AND BALANCING FIRM SHALL BE A CERTIFIED MEMBER OF THE ASSOCIATED AIR BALANCING COUNCIL OR NEBB AND ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE ASHRAE NATIONAL STANDARDS. BALANCING AND TEST REPORTS SHALL BE SUBMITTED ON STANDARD AABC FORMS OR EQUIVALENT FORMS BY NEBB OR SMACNA.

THE MIC SHALL PREPARE THE SYSTEM FOR TEST AND BALANCE AS FOLLOWS:

INSTALL, START-UP, CHECK OUT, AND ADJUST ALL HVAC SYSTEM PER DRAWINGS, AND SPECIFICATIONS AND HAVE FULLY OPERATIONAL WITH ALL DEFICIENCIES CORRECTED OR OR BEFORE OWNER'S SUBSTANTIAL COMPLETION DATE.

VERIFY THAT MECHANICAL CONTRACTOR HAS INSTALLED NEW FILTERS NO MORE THAN ONE DAY PRIOR TO STARTING TEST AND BALANCE PROCEDURE.

MECHANICAL

VERIFY ALL DUCTWORK IS CLEAN AND SEALED TIGHT AGAINST LEAKS.

VERIFY THAT ALL CONTROLS, DAMPERS AND ACTUATORS ARE INSTALLED, ADJUSTED AND CALIBRATED.

SECURE CONTROL DAMPERS AFTER TEST AND BALANCE.

THE TEST AND BALANCE CONTRACTOR SHALL TEST AND BALANCE OF ALL AIR DISTRIBUTION SUPPLY, AND RETURN DUCT SYSTEMS, AND EXHAUST SYSTEMS TO THE DESIGN CONDITIONS IN ACCORDANCE WITH THE FOLLOWING:

AIR HANDLING SYSTEMS: CLEAR SYSTEM OF ALL FOREIGN OBJECTS AND CLEAN SYSTEM, VERIFY FAN ROTATION, CHECK BEARING CONDITION AND LUBRICATION, CHECK FAN WHEEL CLEARANCES AND ALIGNMENT, CHECK MOTOR SECURITY, TO MOUNTING BASE, ALIGNMENT OF DRIVE, VIBRATION ISOLATOR ADJUSTMENT, PROPER FILTER MEDIA IS INSTALLED, CONFIRM ALL FIRE AND VOL UME DAMPERS ARE INSTALLED AND IN FULL OPEN POSITION, ALL AIR TERMINAL UNITS ARE INSTALLED, CHECK FOR LEAKS IN DUCT SYSTEMS, AT EQUIPMENT CONNECTIONS AND AT COILS.

MAKE ADJUSTMENTS TO IN PULLEYS, BELTS, DAMPERS, ETC AS REQUIRED BY THE BALANCE CONTRACTOR.

MAKE ADJUSTMENTS IN TERMINAL AND DAMPER SETTINGS AS REQUIRED TO OBTAIN DESIGN SUPPLY, EXHAUST, AND RETURN CFM AS INDICATED ON DRAWINGS.

MEASURE AND ADJUST ALL OUTLETS (OR INLETS) TO OBTAIN DESIGN CFM.

MEASURE AND ADJUST ALL BRANCH DUCTS TO OBTAIN DESIGN CFM.

ADJUST OUTLET DEFLECTION VANES TO MINIMIZE DRAFTS.

IT IS THE MECHANICAL CONTRACTOR'S RESPONSIBILITY UPON FINDING ANY DEFICIENCIES IN CAPACITIES TO IMMEDIATELY CALL TO ENGINEER'S ATTENTION FOR DIRECTION. NEW AIR QUANTITIES MAY BE ASSIGNED.

PLUMBING

- ALL PLUMBING WORK SHALL BE IN ACCORDANCE WITH THE 2018 INTERNATIONAL PLUMBING CODE AS ADOPTED BY THE CITY OF LEE'S SUMMIT, MO.

- COOPERATE CLOSELY WITH ALL OTHER TRADES TO EXPEDITE CONSTRUCTION AND AVOID INTERFERENCES AND CONFLICTS. BEFORE ANY PIPING, DUCTWORK, CONDUIT, ETC. IS INSTALLED, IT SHALL BE COORDINATED CAREFULLY BETWEEN ALL TRADES.

- INSULATE ALL DOMESTIC COLD WATER, ROOF DRAIN, AND HVAC CONDENSATE DRAIN PIPING WITH 1/2" AP ARMAFLEX. ALL INSULATION MATERIALS SHALL HAVE A FLAME SPREAD RATING NO GREATER THAN 25 AND A SMOKE DEVELOPED RATING NO GREATER THAN 50.

INSULATE ALL DOMESTIC HOT WATER AND HOT WATER RECIRCULATION PIPING 1 1/2" AND LESS WITH 1" AP ARMAFLEX ELASTOMERIC INSULATION. ALL DOMESTIC HOT WATER AND HOT WATER RECIRCULATION PIPING 1 1/2" AND GREATER SHALL BE INSULATED WITH 1.5" AP ARMAFLEX ELASTOMERIC INSULATION.

- HOSE BIBBS SHALL BE WOODFORD MODEL 24P-3/4 OR EQUAL ANGLE HOSE BIBB WITH MODEL 34HF VACUUM BREAKER AND LOOSE TEE HANDLE. EQUIVALENT BY WADE, ZURN, J.R. SMITH.

CONDENSATE DRAIN PIPING WITH 1/2" AP ARMAFLEX. ALL INSULATION MATERIALS SHALL HAVE A FLAME SPREAD RATING NO GREATER THAN 25 AND A SMOKE DEVELOPED RATING NO GREATER THAN 50.

- FINISHED FLOOR CLEANOUTS SHALL BE J.R. SMITH MODEL 4031 CAST IRON CLEANOUT WITH ROUND NICKEL BRONZE SCORIATED COVER, PROVIDE CARPET MARKERS IN AREAS SCHEDULED TO RECEIVE CARPETING. EQUIVALENT FINISHED FLOOR CLEANOUTS BY WADE, OR ZURN.

- FINISHED WALL CLEANOUTS SHALL BE J.R. SMITH SERIES 4710 STAINLESS STEEL WALL CLEANOUT COVER WITH CENTER SCREW AND PVC CLEANOUT TEE WITH THREADED PLUG. EQUIVALENT BY WADE, OR ZURN.

- FLOOR DRAIN TYPE "A" SHALL BE J.R. SMITH MODEL 4031 INSIDE CAULK CAST IRON BODY FLOOR DRAIN WITH INTEGRAL FLASHING COLLER AND ADJUSTABLE ROUND NICKEL BRONZE STRAINER HEAD. NEOPRENE FLUSH ON GASKET MAY BE USED IN LIEU OF INSIDE CAULK AT CONTRACTOR'S OPTION. PROVIDE A P-TRAP FOR ALL FLOOR DRAINS. EQUIVALENT FLOOR DRAINS BY WADE, OR ZURN. PROVIDE TRAP SEAL PRIMER PRESSURE DROP TYPE MI-FAB MODEL M2-500 PRESSURE DROP ACTIVATED BRASS TRAP SEAL. PRIMER OR EQUAL. TRAP PRIMER SHALL SERVE UP TO 3 FLOOR DRAIN TRAPS AND REQUIRES NO ADJUSTMENTS AND NO AIR PEE-CHARGE. PRIMER VALVES SHALL BE LOCATED BENEATH NEAREST SINK OR LAVATORY AND SHALL BE CONNECTED TO TRAP PRIMERS WITH COPPER TUBING ROUTED BELOW GRADE FROM PRIMER TO FLOOR DRAIN TRAP.

- FLOOR SINK TYPE "A" SHALL BE J.R. SMITH, ACD. RESISTANT COATED, MODEL 3161Y-NB-F-C WITH REMOVABLE STRAINER AND SEEPAGE CONTROL FLANGE. SEE ARCHITECTURAL PLANS FOR SINK TOP ELEVATIONS AND FLOOR DRAINAGE. EQUIVALENT FLOOR SINKS BY JOSAM, WADE, OR ZURN.

- FLOOR SINK TYPE "B" SHALL BE J.R. SMITH, ACD. RESISTANT COATED, MODEL 3162Y-NB-F-C WITH REMOVABLE STRAINER AND SEEPAGE CONTROL FLANGE. SEE ARCHITECTURAL PLANS FOR SINK TOP ELEVATIONS AND FLOOR DRAINAGE. EQUIVALENT FLOOR SINKS BY JOSAM, WADE, OR ZURN.

- ALL SHUTOFF VALVES ON DOMESTIC WATER SHALL BE APOLLO SERIES 70-100 BRONZE FULL PORT BALL VALVE 600 PSIWOG WITH TEFLON SEATS, BRONZE BALL, SILICON BRONZE STEM INSULATED HANDLE, LEAD FREE, AND SCREWED OR SOLDER ENDS. EQUIVALENT VALVES BY NIBCO-SCOTT, CRANE, FAIRBANKS, HALE, MUESCO, STOCKHAM, KENNEDY, KEYSTONE, OR POWELL.

- STOPS AND SUPPLIES SHALL BE 1/2" THREADED BY 3/8" COMPRESSION ANGLE STOP VALVES WITH 3/8" O.D. FLEXIBLE RISER WITH CHROME PLATED WALL FLANGE.

- PROVIDE JOSAM ABSORBTRON SHOCK ABSORBERS ON ALL PLUMBING FIXTURE BATTERIES WHERE SHOWN N PLANS. SIZED IN ACCORDANCE WITH PLUMBING AND DRAINAGE INSTITUTE STANDARD P.D.I. WH201. EQUIVALENT SHOCK ABSORBERS BY WADE, SIOUX CHIEF, OR J.R. SMITH.

- EQUIVALENT PLUMBING FIXTURES BY AMERICAN STANDARD, TOTO, KOHLER, ELJER, OR CRANE.

- EQUIVALENT FAUCETS AND FITTINGS BY AMERICAN STANDARD, KOHLER, ELJER, CRANE, MOEN, TOTO OR DELTA.

- EQUIVALENT WATER HEATERS BY RHEEM, NATIONAL, BRADFORD-WHITE, LOCHINVAR, AND PVI.

- ALL WATER HEATERS SHALL BE PROVIDED WITH AN EXPANSION TANK. EQUAL TANKS BY WADE, AMTROL.

- CONTRACTOR SHALL GUARANTEE ALL EQUIPMENT, ACCESSORIES AND MATERIAL FURNISHED BY HIM FOR A PERIOD OF ONE YEAR FROM FINAL ACCEPTANCE AGAINST ALL DEFECTS.

- PROVIDE A MINIMUM OF SIX (6) COPIES OF SHOP DRAWINGS FOR ALL FIXTURES AND EQUIPMENT FURNISHED UNDER THIS CONTRACT.

- ROOF DRAIN TYPE "A" SHALL BE J.R. SMITH MODEL 1010-C-R-A-J WITH DECK CLAMP, DRAIN RECEIVER, AND ALUMINUM VANDAL PROOF DOME. PROVIDE EXTENSIONS AS REQUIRED FOR ROOF INSULATION THICKNESS. ROOF DRAIN SUMP TO BE INSULATED. ROOF DRAINS SHALL BE AS MANUFACTURED BY WADE, WATTS, OR ZURN.

- GREASE INTERCEPTOR SHALL BE SCHIER GB-75 SEAMLESS MOLDED POLYETHYLENE TANK WITH HIGHWAY RATED ACCESS COVERS. CONTRACTOR TO BE PROVIDE ADDITIONAL RISERS, AS REQUIRED, TO INSTALL COVERS. FLUSH WITH GRADE AND THE INTERCEPTOR AT THE REQUIRED INVERT. MAX GREASE CAPACITY SHALL EXCEED 1000 LBS WITH A LIQUID CAPACITY OF AT LEAST 250 GALLONS AND SOLIDS CAPACITY OF AT LEAST 100 GALLONS. FLOW RATE SHALL BE RATED FOR 100 GPM. EQUAL INTERCEPTORS BY JOSAM AND ZURN.

NATURAL GAS

- ALL NATURAL GAS WORK SHALL BE IN ACCORDANCE WITH THE 2018 INTERNATIONAL FUEL GAS CODE AS ADOPTED BY THE CITY OF LEE'S SUMMIT, MO.

- CONTRACTOR SHALL ARRANGE FOR GAS SERVICE WITH TAPS, PIT AND METER WITH LOCAL ENERGY COMPANY. CONTRACTOR SHALL INCLUDE ALL FEES, COSTS AND CHARGES INCURRED BY THE UTILITY IN THE BASE BID.

- PAINT ALL EXTERIOR NATURAL GAS PIPING WITH ONE (1) PRIMER COAT AND TWO (2) FINISH COATS. EQUIPMENT AND MATERIALS EXPOSED TO INTERIOR DRY ENVIRONMENT SHALL HAVE A MINIMUM OF ONE (1) PRIMER AND ONE (1) FINISH COAT.

- WHERE MATERIALS OR EQUIPMENT ARE DESCRIBED BUT NOT NAMED, PROVIDE REQUIRED ITEMS OF FIRST QUALITY, ADEQUATE IN EVERY RESPECT FOR INTENDED USE. SUCH ITEMS SHALL BE SUBMITTED TO A/E FOR REVIEW PRIOR TO PROCUREMENT.

- ALL NATURAL GAS VALVES ON GAS PIPING SIZED UP TO 1" SHALL BE EITHER:

- APOLLO SERIES 77C-10X-UL, BRONZE (MSS SP-110, UL-258 LISTED VGOU) FULL PORT BALL VALVE 600 PSI-WOG, PTFE SEATS AND SEALS, CHROME-PLATE BALL, STEM WITH INSULATED HANDLE WITH SCREWED ENDS.

- ALL NATURAL GAS VALVES 1 1/2" TO 2 1/2" SHALL BE HOMESTEAD FIG. 651, SEMI-SEMI LUBRICATED PLUG VALVE, 200 PSI-WOG, COATED PLUG, SHORT PATTERN SCREWED ENDS. PROVIDE COMPLETE WITH STANDARD PATTERN CAST HANDLE.

- ALL NATURAL GAS PRESSURE GAUGES SHALL BE MARCH/MARCHAL TOWN WUALITY GAUGES AND SHALL HAVE A BRASS CASE WITH A CHROME PLATED FINISH. ALL NATURAL GAS PRESSURE GAUGE BOURDON TUBES SHALL BE COPPER ALLOY WITH BRASS TIP. EQUIVALENTS ARE MUELLER, ROCHESTER, TAYLOR, TRERICE, WEKSLER, WEISS, OR WESTON.

- ALL NATURAL GAS PRESSURE GAUGES SHALL BE COPPER ALLOY WITH BRASS TIP.

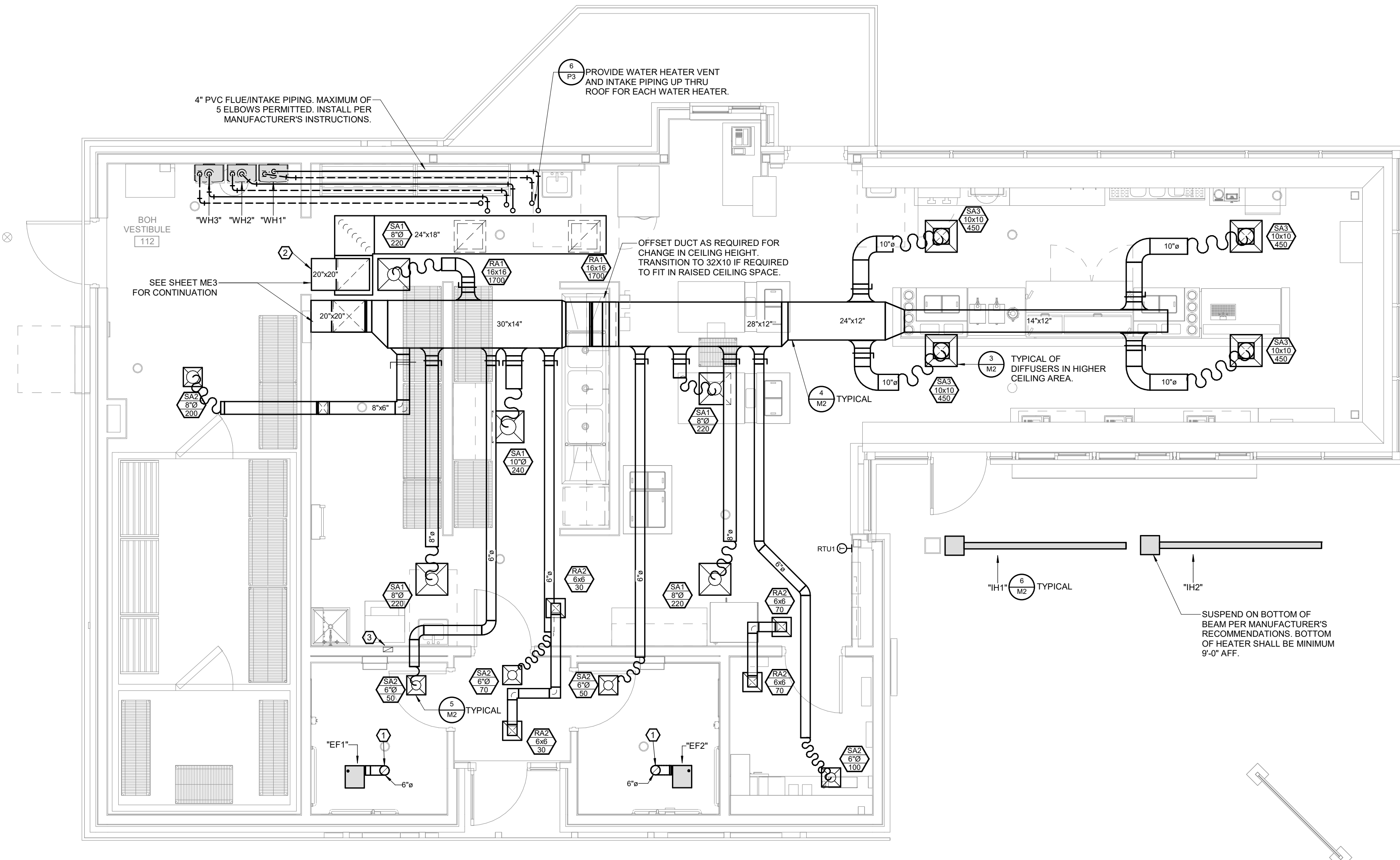
- WITH REGARDS TO CARBON STEEL PIPE:

PROVIDE CONTINUOUS WELD OR ELECTRIC RESISTANCE WELDED CARBON STEEL PIPE CONFORMING TO ASTM A100 OR A43, AS SCHEDULED.

PIPE JOINTS SHALL BE THREADED CONFORMING TO ANSI B2.1, BEVELED FOR WELDING, OR GROOVED FOR USE WITH VICTAULIC COUPLINGS.

PIPE BY AMCO, YOUNGSTOWN, UNITED STATES STEEL, OR EQUAL.

- ALL GAS LINES DOWNSTREAM OF THE METER WITH PRESSURE ABOVE 7" WC SHALL BE CLEARLY MARKED WITH A LABEL THAT READS "ELEVATED PRESSURE". PROVIDE LABEL THAT MEETS UTILITY COMPANY STANDARDS



1 FIRST FLOOR HVAC PLAN
SCALE: 1/4" = 1'-0" NORTH

PLAN HEX NOTES:

1

6" EXHAUST DUCT UP TO ROOF CAP.

2

SUPPLY AND RETURN DUCTS SHALL PENETRATE EXTERIOR WALL ABOVE LAY-IN CEILING.

3

GALVANIZED STEEL DRYER VENT UP THROUGH ROOF. TERMINATE WITH CAP/RAIN SHIELD.

GENERAL NOTES:

A.

ALL MECHANICAL WORK SHALL BE IN ACCORDANCE WITH THE 2018 MECHANICAL CODE AS ADOPTED BY LEE'S SUMMIT, MO.

B.

PLANS ARE DIAGRAMMATIC AND SHALL NOT BE SCALED. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS.

C.

ALL DUCTWORK SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH SMACNA STANDARDS, MANUAL 15d. ALL SUPPLY AIR DUCT PRESSURE CLASSES SHALL BE THE SAME AS THE EXTERNAL STATIC PRESSURE (ESP) OF THE EQUIPMENT SUPPLYING THE DUCT. THE EQUIPMENT ESP SHALL BE THE SAME PRESSURE CLASS FOR THE ENTIRE SUPPLY DUCT SYSTEM.

D.

ALL METAL DUCTWORK SPECIFIED TO RECEIVE INTERIOR THERMAL AND ACOUSTICAL LINER IS NOT SIZED ON PLANS TO INCLUDE THE PROPER THICKNESS OF INSULATION. ADD 1" OR 2" IN HEIGHT AND WIDTH OF DUCTWORK TO ACCOMMODATE THICKNESS OF INSULATION.

E.

BRANCH DUCTS SHALL BE THE SAME SIZE AS DIFFUSER NECK UNLESS NOTED OTHERWISE.

F.

ROUND TAKE-OFF FITTINGS FROM RECTANGULAR DUCTWORK SHALL BE MADE WITH BUCKLEY BELLMOUTH FITTINGS, OR APPROVED EQUAL.

G.

PROVIDE TURNING VANES IN ALL ELBOWS.

H.

THERMOSTATS SHALL BE SUPPLIED BY THE HVAC CONTRACTOR. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL THE NECESSARY CONDUIT, WIRING, BOXES, ETC. FOR THE INSTALLATION OF THERMOSTATS. THE HVAC CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND CONNECTION OF THERMOSTATS.

I.

MECHANICAL SYSTEM SHALL BE TESTED AND BALANCED PRIOR TO FINAL CITY INSPECTION. FILE COMPLETED REPORT WITH CITY PRIOR TO FINAL CITY INSPECTION.

J.

CLOSELY COORDINATE WITH ALL OTHER TRADES.

GENERAL NOTES:

A.

FOR ALL HVAC QUESTIONS CONTACT RTM ENGINEERING CONSULTANTS, 417-881-0020. CONTACT PERSON: TYLER ENSERRO, tyler.enserro@rtmec.com

Hufft

PROJECT INFORMATION:

Andy's Frozen Custard #204

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Lee's Summit, MO 64806

OWNED BY

ANDY'S FROZEN CUSTARD

211 E. Water Street
Springfield, MO 65806

www.andyfcs.com

ARCHITECT:

HUFFT

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www.hufft.com

STRUCTURAL:

METTEMMEYER ENGINEERING,

110 W. Chesterfield Blvd., Suite B105
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P: 417-881-0020

CIVIL:

PHELPS ENGINEERING INC

1270 N Winchester St #5878
Olathe, KS 66061

P: 913-383-1155

MEP:

RTM ENGINEERING CONSULTANTS

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LANDSCAPE ARCHITECT:

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1270 N Winchester St #5878
Olathe, KS 66061

P: 913-383-1155

ISSUE:

100% CDs

05-02-2024

REVISION SCHEDULE:

NO.	DATE	ISSUE
1	05-30-2024	AD 01

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STATE OF MISSOURI
REGISTERED PROFESSIONAL ENGINEER
CAMERON K. COLLINS
NUMBER E-24493
EXPIRATION DATE 06/30/2025

Cameron Collins
Engineer with Cameron Collins
3341 S. Jefferson Ave.
Olathe, Kansas 66045
Date: 2024-05-31 08:25:01-0500

Architect: Matthew Hufft
License Number: MO#
Drawn: TSE
Project Number: 736

FIRST FLOOR HVAC PLAN

M1

PLAN MARK	MANUFACTURER	MODEL	SUPPLY AIR FLOW (CFM)	EST. ESP. (IN WG)	OUTDOOR AIR FLOW		COOLING CAPACITY					GAS HEATING			ELECTRICAL DATA					
					MAX (CFM)	MIN (CFM)	E.A.T. DB (°F)	E.A.T. WB (°F)	MIN. SH. (BTU/H)	MIN. TH. (BTU/H)	MIN. EER	AMBIENT TEMPERATURE (°F)	GAS LOAD (BTU/H)	OUTPUT (BTU/H)	EFFICIENCY (%)	VOLTAGE	PHASE	MCA	MOPC (A)	MIN. SCRR (A)
RTU1	TRANE	YHC102	3,400	1	3,400	350	78	63	74	88	12.4	105	200,000	160,000	80	208	3	42	50	5000

PLAN MARK	MANUFACTURER	MODEL	APPLICATION	FINISH	FRAME TYPE	VOLUME DAMPER	MAXIMUM NC	MINIMUM THROW (FT)	MAXIMUM THROW (FT)	MAXIMUM ΔP (IN WG)	NOTES
RA1	TITUS	PAR-24 x 24	RETURN	PER ARCHITECT	LAY-IN	No	30	0	0	0.10	24X24 SQUARE PERFORATED FACE WITH SQUARE DUCT CONNECTION. FIELD PAINT PER ARCHITECT
RA2	TITUS	PAR-12 x 12	RETURN	PER ARCHITECT	SURFACE	No	30	0	0	0.10	12X12 SQUARE PERFORATED FACE WITH SQUARE DUCT CONNECTION. FIELD PAINT PER ARCHITECT
SA1	TITUS	TDC4-24 x 24	SUPPLY	PER ARCHITECT	LAY-IN	No	30	0	0	0.10	24x24 SQUARE LOUVER FACE WITH ROUND DUCT CONNECTION. FIELD PAINT PER ARCHITECT
SA2	TITUS	TDC4-12 x 12	SUPPLY	PER ARCHITECT	SURFACE	No	30	0	0	0.10	12x12 SQUARE LOUVER FACE WITH ROUND DUCT CONNECTION. FIELD PAINT PER ARCHITECT
SA3	TITUS	TDC4-12 x 12	SUPPLY	PER ARCHITECT	LAY-IN	No	30	0	0	0.10	24x24 SQUARE LOUVER FACE WITH SQUARE DUCT CONNECTION. FIELD PAINT PER ARCHITECT

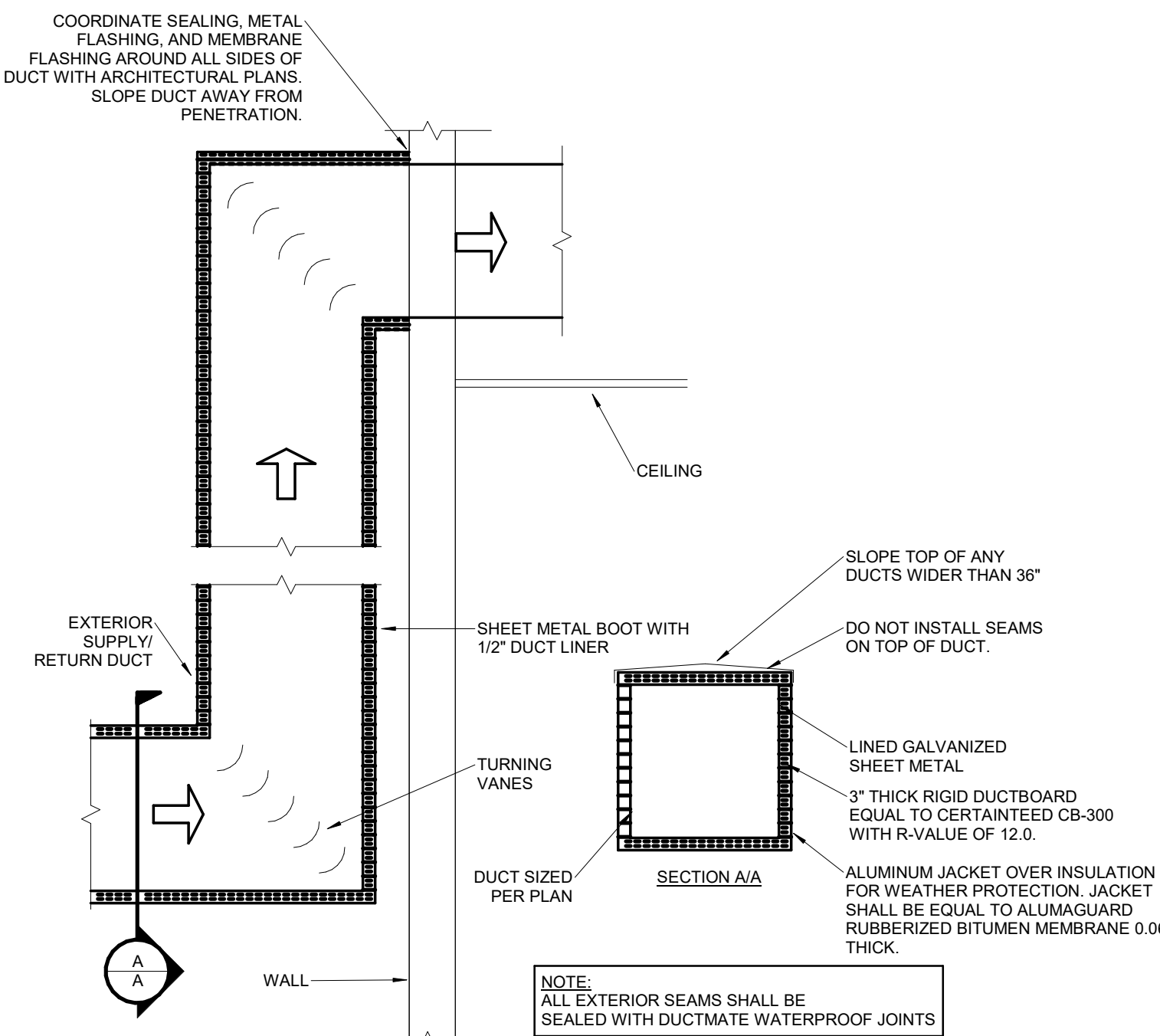
PLAN MARK	MANUFACTURER	MODEL	AIR FLOW (CFM)	EST. ESP (IN WG)	VOLTAGE	PHASE	MOTOR (HP)	NOTES
EF1	COOK	GC	75	0.25	120	1	0.17	DS, GBD, RC
EF2	COOK	GC	75	0.25	120	1	0.17	DS, GBD, RC

PLAN MARK	MANUFACTURER	MODEL	TYPE	GAS HEATING		ELECTRICAL DATA				NOTES
				GAS LOAD (BTU/H)	MIN. OUTPUT (BTU/H)	VOLTAGE	PHASE	MCA	MOPP (A)	
IH1	REVERBERRY	DSRS	GAS	50,000	40,000	120	1	1	15	MB, DS, BF
IH2	REVERBERRY	DSRS	GAS	50,000	40,000	120	1	1	15	MB, DS, BF

3
M2

CEILING DIFFUSER DETAIL - PLENUM

SCALE: NOT TO SCALE



ABBREVIATED SCHEDULE HEADINGS	
A	AMPS
CAP	CAPACITY
CFM	CUBIC FEET PER MINUTE
DB	DRY BULB
E.A.T.	ENTERING AIR TEMPERATURE
E.S.P.	EXTERNAL STATIC PRESSURE INCLUDES ALL WORK EXTERNAL TO UNIT
E.W.T.	ENTERING WATER TEMPERATURE
EER	ENERGY EFFICIENCY RATIO
EST.	ESTIMATED
FLA	FULL LOAD AMPS
FFM	FEET PER MINUTE
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GRLB	GRAINS OF MOISTURE PER POUND OF DRY AIR
HP	HORSEPOWER
IN	INCH
ISP	INLET STATIC PRESSURE
L.A.T.	LEAVING AIR TEMPERATURE
L.W.T.	LEAVING WATER TEMPERATURE
LBS	POUNDS
LOAD	NOMINAL CONNECTED GAS LOAD TO UNIT, USED TO SIZE GAS PIPING
MCA	MINIMUM CIRCUIT AMPACITY
MIN.	MINIMUM
MOCOP	MAXIMUM OVERCURRENT PROTECTION
KC	MAXIMUM MOSE CRITERIA RATING
NPSH	NET PRESSURE SUCTION HEAD
OA	OUTSIDE AIR
OUTPUT	MINIMUM REQUIRED OUTPUT TO SATIFY SCHEDULED LOADING REQUIREMENTS
PPH	POUNDS PER HOUR
PSI	POUNDS PER SQUARE INCH
RPM	REVOLUTIONS PER MINUTE
SEER	SEASONAL ENERGY EFFICIENCY RATIO
SHC	SENSIBLE HEAT CAPACITY
TEMP.	TEMPERATURE
THC	TOTAL HEAT CAPACITY
WB	WET BULB
WPD	WATER PRESSURE DROP

AF	ALUMINUM FINISH
BD	BELT DRIVE MOTOR
DD	DIRECT DRIVE MOTOR
DM	DISCONNECT MEANS
GBD	GRAVITY BACKDRAFT DAMPER
RC	ROOF CAP TERMINATION
SC	SPEED CONTROLLER

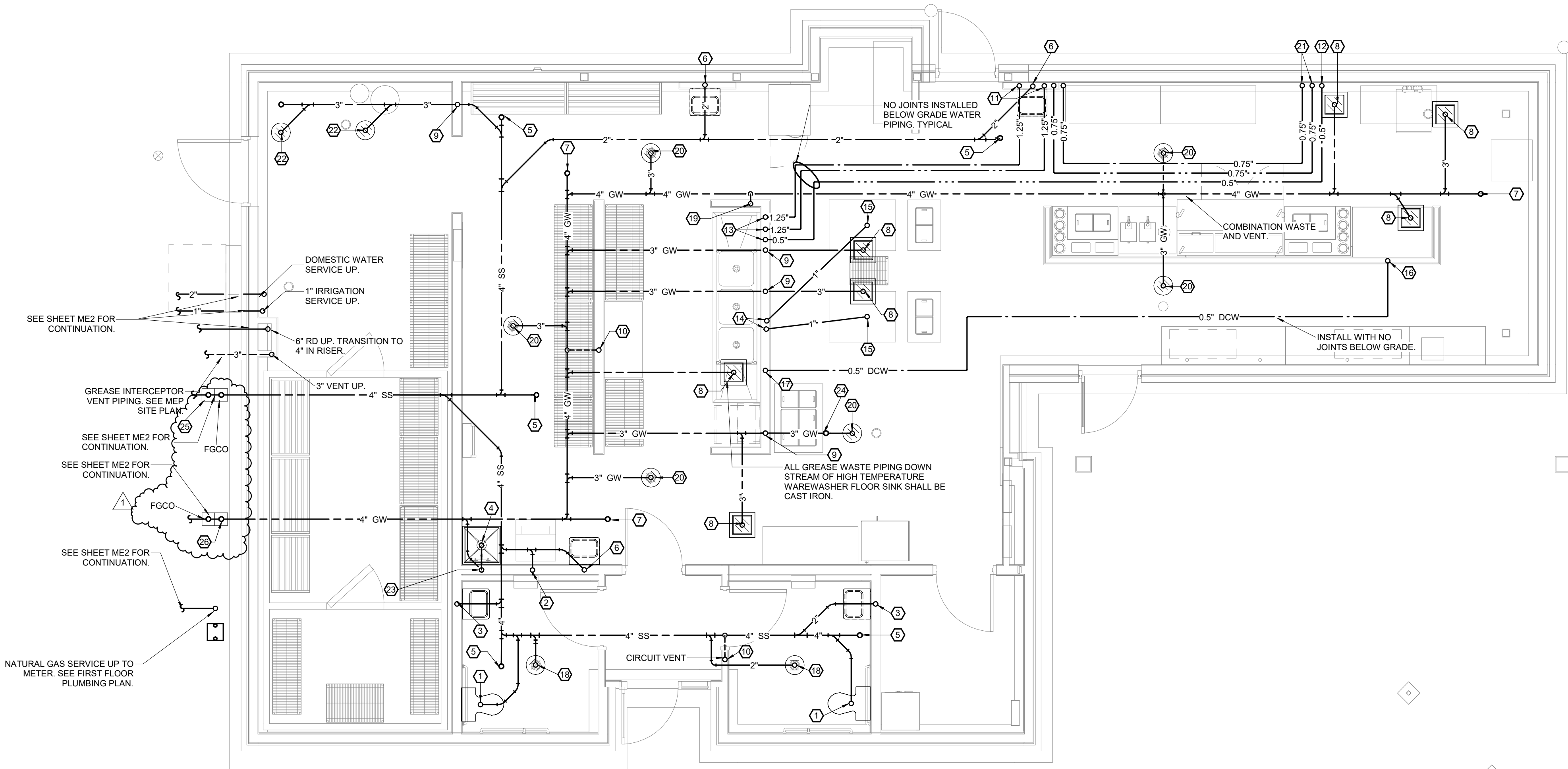
AR	ALUMINUM REFLECTORS
BF	BLACK FINISH
CAK	COMBUSTION AIR KIT
DS	DISCONNECT MEANS
MB	ANGLED MOUNTING BRACKET
ST	STRAIGHT TUBE
T	MODULATING, HEATING ONLY THERMOSTATS WITH INFRARED SHIELD - REFER TO PLANS FOR EXACT QUANTITY
UT	U TUBE

2SH	2-STAGE NATURAL GAS HEATING
BRD	BAROMETRIC RELIEF DAMPER WITH HOOD
CR	CRANKCASE HEATER
CR	FILTER FACTORY INSTALLED 120V CONVENIENCE RECEPTACLE
CURB	INSULATED GROUND MOUNT CURB (MINIMUM 18" HEIGHT CURB MOUNTED ON CAPPED 3" CONCRETE PAD
DS	FUSED ELECTRICAL DISCONNECTING MEANS FURNISHED AND INSTALLED BY CONTRACTOR
F	PROVIDE 2" MERV 13 PLATED FILTER WITH HOLDING FRAME
H	SPACE MOUNTED HUMIDISTAT
HG	CONDENSER HAIL GUARDS
MOAE	0-100% MODULATING OUTDOOR AIR ECONOMIZER WITH BAROMETRIC RELIEF AND ECONOMIZER FAULT DETECTION CONTROLS
MSF	MULTI SPEED FAN
R410A	PROVIDE UNIT WITH R410 REFRIGERANT
SIS/CT	OPTIMAL START/STOP CONTROL WITH SC- CONTROLLER
SZ/VY	SINGLE ZONE VAV CONTROL
	DAY PROGRAMMABLE THERMOSTAT PER SPECIFICATIONS
	THERMOSTAT SHALL INDEPENDENTLY CONTROL 2 POSITION ON/OFF OF AIR INTAKE DAMPER BASED ON THE TIME OF DAY AND UNIT ON/OFF STATUS
VVE	VERTICAL VENT EXTENSION KIT

AB	ALL BRONZE
AI	ALL IRON
BF	BRONZE FITTED
BACCESS	BASE MOUNTED CLOSED COUPLED END SUCTION
BMES	BASE MOUNTED END SUCTION
BMHSC	BASE MOUNTED HORIZONTAL SPLIT CASE
BMVSC	BASE MOUNTED VERTICAL SPLIT CASE
C	CONDENSER WATER
CH	CHILLED/HOT WATER
CW	CHILLED WATER
CDW	DOMESTIC COLD WATER
DHW	DOMESTIC HOT WATER
HW	HEATING HOT WATER
IL	IN-LINE



M2



1 UNDERGROUND PLUMBING PLAN
P1 SCALE: 1/4" = 1'-0" NORTH

PLAN HEX NOTES:

- 4" WASTE UP TO WATER CLOSET.
- 2" WASTE UP TO WASHER DRAIN BOX.
- 2" WASTE UP TO LAVATORY.
- 3" TRAPPED GREASE WASTE UP TO MOP SINK.
- 4" WASTE UP TO FINISH FLOOR CLEANOUT.
- 2" WASTE UP TO HAND SINK.
- 4" GREASE WASTE UP TO FINISH FLOOR CLEANOUT.
- 3" TRAPPED GREASE WASTE UP TO FLOOR SINK.
- 1.5" VENT UP IN WALL.
- 2" VENT UP IN WALL. OFFSET AT MINIMUM 45 DEGREE ANGLE TO WASTE PIPE AS SHOWN.
- 1.25" HOT AND COLD WATER UP IN WALL. PROVIDE 0.75" HOT AND COLD WATER TAPS OFF LINES ABOVE GRADE AND ROUTE BELOW GRADE TO ADJACENT 3-COMP SINK FAUCET AS SHOWN. PROVIDE 0.5" HOT AND COLD WATER CONNECTIONS TO HAND SINK FAUCET.
- 0.5" RECIRC LINE UP IN WALL. CONNECT TO HOT WATER LINE ABOVE GRADE.
- 1.25" HOT AND COLD WATER AND 0.5" RECIRC LINE UP IN WALL.
- 1" COLD WATER UP IN WALL.
- 1" COLD WATER SUPPLY UP THRU SLAB FOR CUSTARD MACHINE.
- 0.5" COLD WATER UP IN WALL TO DRAFT BEER DISPENSER.
- 0.5" COLD WATER UP IN WALL.
- 2" TRAPPED WASTE UP TO FLOOR DRAIN WITH TRAP GUARD INSERT.
- 3" VENT UP. OFFSET FROM COMBO WASTE AND VENT AT MINIMUM 45 DEGREES.
- 3" GREASE TRAPPED GREASE WASTE UP TO FLOOR DRAIN WITH TRAP GUARD INSERT.
- 0.75" COLD WATER AND 0.75" HOT WATER UP IN WALL TO 3-COMP SINK FAUCET. TAP OFF OF COLD WATER LINE AND ROUTE 0.5" COLD WATER BELOW GRADE AS SHOWN TO ICE MAKER.
- 3" TRAPPED WASTE UP TO FLOOR DRAIN WITH TRAP GUARD INSERT.
- 3" GREASE WASTE UP. OFFSET TO MOP SINK DRAIN CONNECTION AND PROVIDE TRAPPED CONNECTION TO MOP SINK AS SHOWN. EXTEND 3" VENT UP IN WALL AND PROVIDE WALL CLEANOUT IN ACCESSIBLE LOCATION AT BASE OF RISER. AFTER CLEANOUT, EXTEND 1.5" VENT UP IN WALL.
- 3" GREASE WASTE UP TO FINISH FLOOR CLEANOUT.
- 4" WASTE LINES UP TO 2-WAY FINISH GRADE CLEANOUT.
- 4" GREASE WASTE LINES UP TO 2-WAY FINISH GRADE CLEANOUT.

GENERAL NOTES:

- PLANS ARE DIAGRAMMATIC AND SHALL NOT BE SCALED. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS.
- SLEEVE ALL FOUNDATION WALL PENETRATIONS OR WHERE PASSING BELOW FOOTINGS.
- ALL WATER CONNECTIONS TO KITCHEN EQUIPMENT REQUIRE A WATTS SD-3 DUAL CHECK VALVE WITH ATMOSPHERIC VENT AND DRAIN ROUTED TO NEAREST FLOOR SINK.
- WASTE LINES FROM STORAGE SECTION OF ICE MAKERS AND DISPENSERS MUST BE ROUTED SEPARATELY FROM THE DUMP OVERFLOW AND/OR CONDENSER LINES. ALL LINES ARE REQUIRED TO BE INDIRECTLY DISCHARGED INTO AN APPROVED RECEPTOR AND MAINTAIN PROPER AIR GAP.
- CONDENSATE LINES IN WALK-IN REFRIGERATOR AND FREEZER SHALL BE PROVIDED WITH A DETACHABLE UNION NEAR THE EVAPORATOR PAN. SECURE WASTE LINES TO WALL WITH SPACING BRACKETS AND PROVIDE AIR GAP TO FLOOR DRAIN.
- DO NOT INSTALL JOINTS IN UNDERGROUND WATER OR GAS PIPING.
- ALL HORIZONTAL PIPING PENETRATIONS THROUGH GRADE BEAMS SHALL BE SLEEVED AND LOCATED IN THE CENTER THIRD OF THE GRADE BEAM.
- ALL VERTICAL PIPING PENETRATIONS THROUGH THE GRADE BEAMS SHALL BE THROUGH THE CENTER OF THE GRADE BEAM VERTICALLY WITH A SLEEVE BELOW AND THROUGH THE GRADE BEAM. USE OVERSIZED WASTE FITTINGS WITH BOTTOM HALF REMOVED OVER WASTE FITTINGS WITH VERTICAL RISE THROUGH GRADE BEAM.
- ALL PIPING 2" AND SMALLER ELBOWING INTO THE GRADE BEAMS SHALL BE SLEEVED AND ENTER THE MIDDLE THIRD OF THE GRADE BEAM BEFORE TURNING VERTICALLY THROUGH THE CENTER OF THE GRADE BEAM.
- BRANCH PIPING SHALL BE OFFSET UP TO ANY TRAPPED FIXTURE TO LIMIT DISTANCE ABOVE THE TRAP WEIR TO THE FIXTURE OUTLET TO 24" OR LESS.
- ALL SANITARY PIPING OUTSIDE THE BUILDING FOUNDATION IS SHOWN ON THE CIVIL SITE PLAN. THIS PIPING SHALL MEET THE JOHNSON COUNTY WASTEWATER STANDARDS AND SHALL BE INSPECTED BY JOHNSON COUNTY WASTEWATER.

GENERAL NOTES:

- FOR ALL PLUMBING QUESTIONS CONTACT RTM ENGINEERING CONSULTANTS, 417-881-0020. CONTACT PERSON: TYLER ENSERRO, tyler.enserro@rtmec.com

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ISSUE:

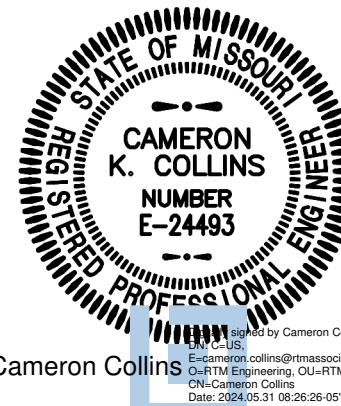
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05-02-2024

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NO.	DATE	ISSUE
1	05-30-2024	AD 01

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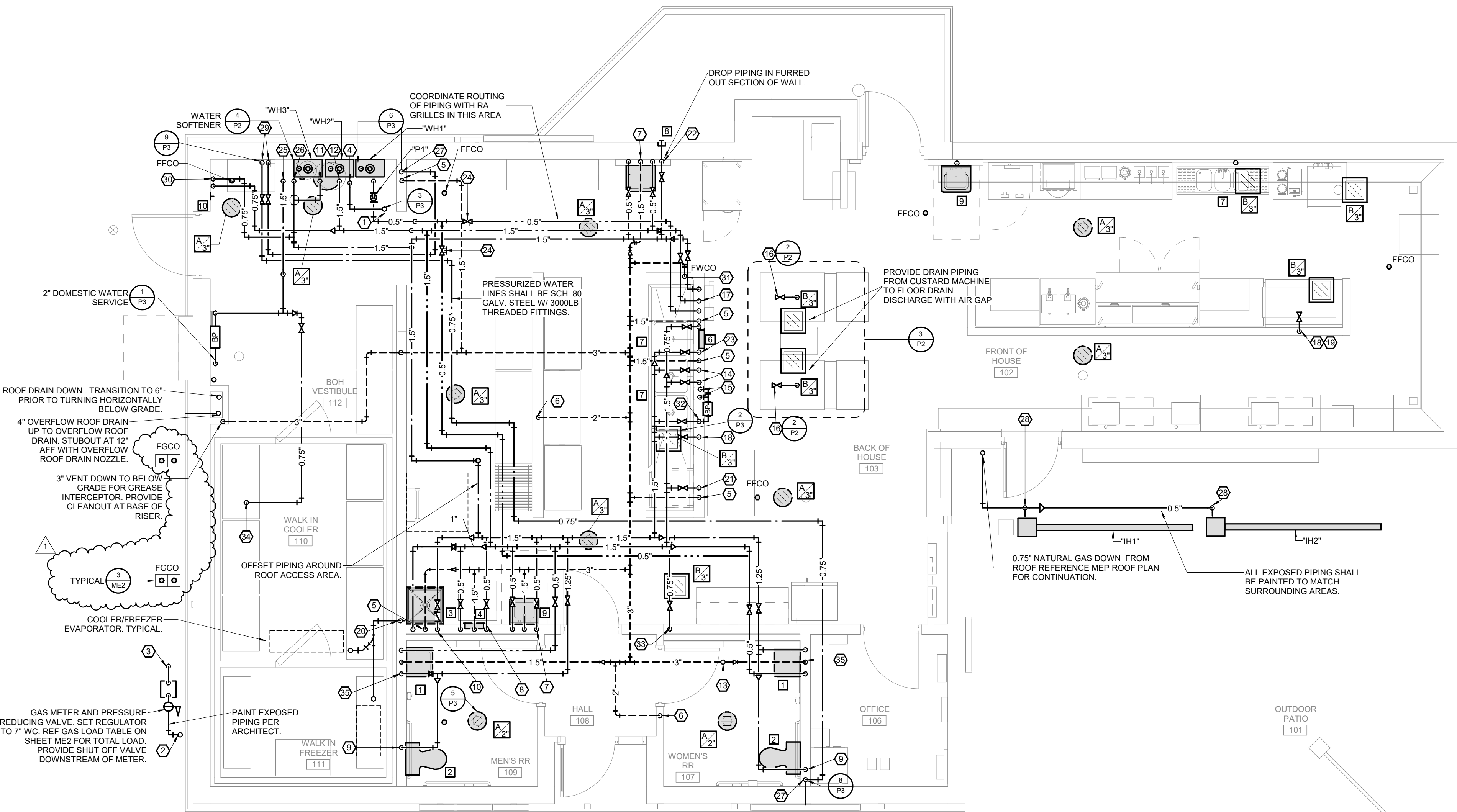
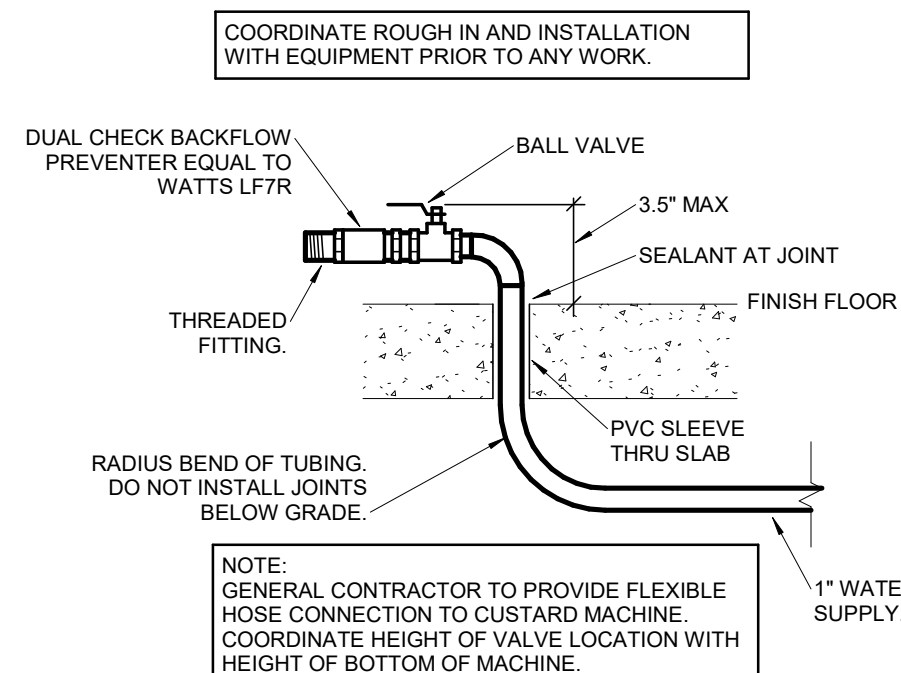
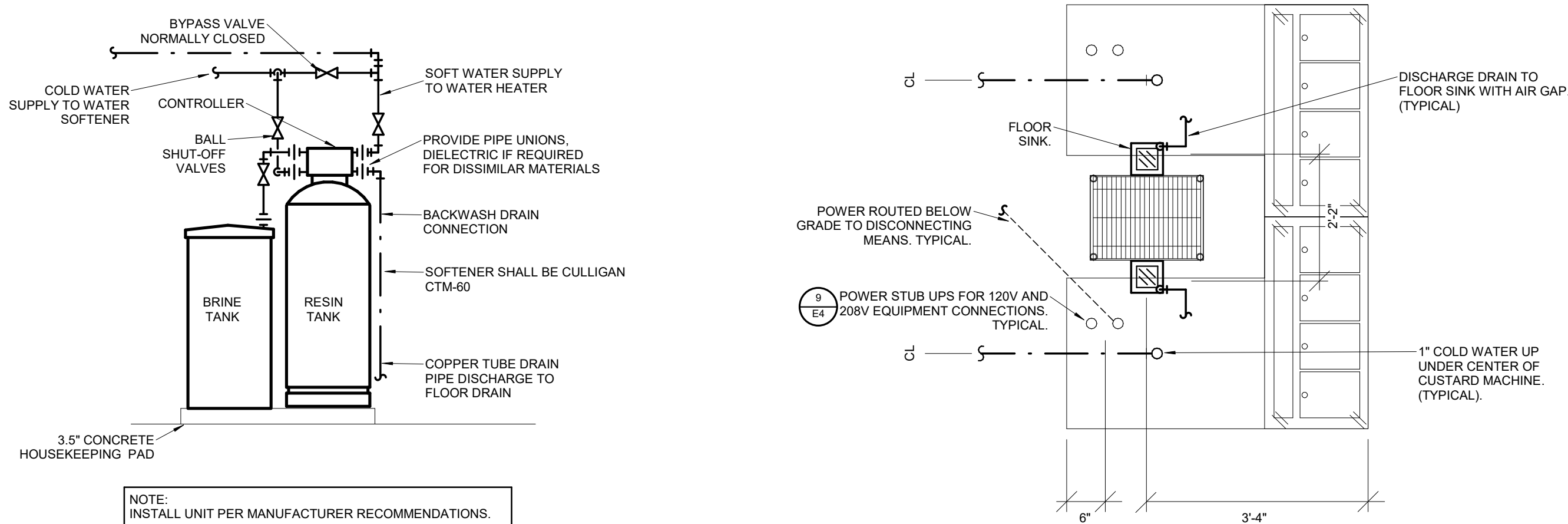


Cameron Collins
Professional Engineer
Mechanical Engineering
Date: 05/30/2024

Architect: Matthew Hufft
License Number: MO#
Drawn: TSE
Project Number: 736

UNDERGROUND PLUMBING
PLAN

P1



WATER HEATER SCHEDULE

PLAN MARK	MANUFACTURER	MODEL	TYPE	GPM @ 90F	GAS HEATING			ELECTRICAL DATA				MOCP (A)	NOTES
					INPUT (BTU/H)	OUTPUT (BTU/H)	EFFICIENCY (%)	VOLTAGE	PHASE	MCA			
WH1	STATE	SCT-199H-N	TANKLESS	4.2	199000	191000	96	120	1	1	15	15	PTRV, CRTK
WH2	STATE	SCT-199H-N	TANKLESS	4.2	199000	191000	96	120	1	1	15	15	PTRV, CRTK
WH3	STATE	SCT-199H-N	TANKLESS	4.2	199000	191000	96	120	1	1	15	15	PTRV, CRTK

PUMP SCHEDULE

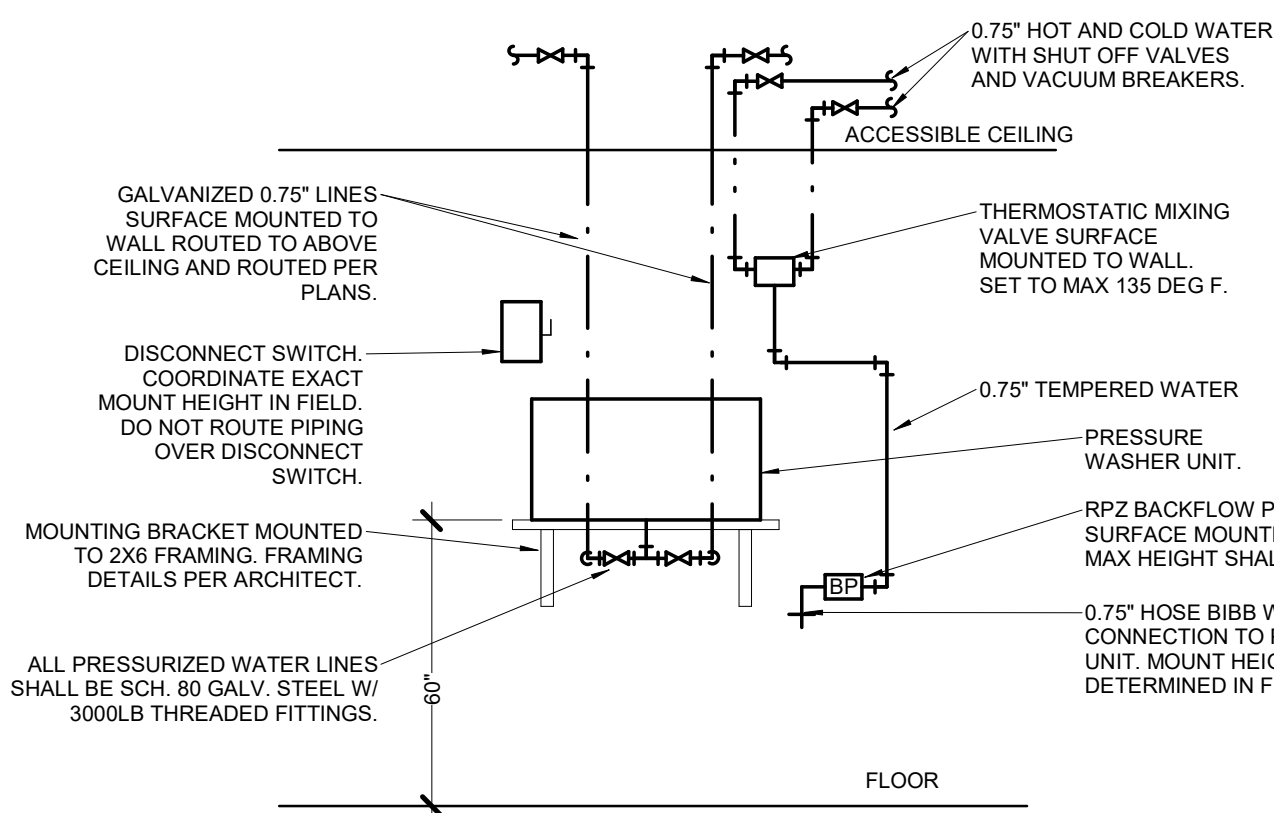
PLAN MARK	MANUFACTURER	SERIES	SIZE	INLET (IN)	FLOW (GPM)	TOTAL HEAD (FT HD)	TYPE	ELECTRICAL DATA				BODY CONSTRUCTION	FLUID PUMPED	FLUID TEMPERATURE (°F)	NOTES
								WORK CLASS (PSI)	MOTOR (HP)	RPM	VOLTAGE	PHASE			
P1	BELL & GOSSETT	PL	30	0.5"	2	10	IL	150	0.06	2650	120	1	1	140	IAB, ATC

PLUMBING FIXTURE SCHEDULE

PLAN MARK	DESCRIPTION	MANUFACTURER	MODEL	TRIM	CONNECTION SIZES				NOTES
					CW (IN)	HW (IN)	W (IN)	V (IN)	
1	20 X 18 WALL HUNG LAVATORY	AMERICAN STANDARD	LUCERINE 0355.012	FAUCET- AMERICAN STANDARD 5400.172, CONCEALED ARM CARRIER, PROVIDE ASSE 1070 MIXING VALVE SET TO 105°F IF NOT INTEGRAL TO FAUCET.	0.5	0.5	1.5	1.5	FAUCET HOLES TO MATCH FAUCET SPECIFIED. PROVIDE INSULATION KIT ON ALL ADA FIXTURES WITH EXPOSED TRAP AND SUPPLIES.
2	ADA FLOOR MOUNTED, FLUSH TANK, BOTTOM OUTLET WATER CLOSET	GERBER	DF-21-318	CLOSE-COUPLED, 1.28 GALLONS PER FLUSH, CHURCH #9500C OPEN FRONT WHITE SEAT LESS COVER	0.5	-	4	2	FIXTURE ASSEMBLY MUST BE APPROVED AND INSTALLED PER ADA. PROVIDE ALTERNATIVE TANKS AS NECESSARY FOR TRIP LEVER TO BE INSTALLED ON OPPOSITE SIDE WALL GRAB BAR.
3	FLOOR MOUNT, 24X24X10, JANITOR'S BASIN	FIAT	MSB-2424	FAUCET, FIAT MODEL 830AA, 832-AA HOSE AND HOSE BRACKET, 889-CC MOP HANGER, QDC-3SN QUICK DRAIN CONNECTOR, 3" GRID DRAIN, MOLDED STONE BASIN.	0.5	0.5	3	1.5	MOP BASIN WITH CONTINUOUS STAINLESS STEEL CAPS ON ALL CURBS.
4	OUTLET BOX WASHING MACHINE, NON-RATED WALL INSTALL TOP VALVES	GUY GRAY	T200	ACCESSORIES: 2" SLIPNUT DRAIN KIT, PROVIDE PDI X HOT AND COLD WATER HAMMER ARRESTORS, WHITE POWDER COAT FINISH.	0.5	0.5	2	1.5	
6	HOSE BOX	ACORN	8145-SSLF	LEAD FREE VALVE AND STOPS, VACUUM BREAKER, WASTE OUTLET, LESS LOCKABLE COVER.	0.75	0.75	-	-	PROVIDE WITHOUT LOCKABLE COVER
7	3-COMP SINK FAUCET	CHICAGO FAUCET	322-CP	SINGLE HOLE CAST SWING SPOUT, 3/8" INDEXED LEVER HANDLE, 2.2 GPM PRESSUREIZED COMPENSATING SOFT FLOW AERATOR, INTEGRAL WALL FLANGE	0.75	0.75	-	-	MEETS ADA, ASME A112.18.1 AND NSF 61 CODES AND STANDARDS.
8	FREEZE LESS WALL HYDRANT	WOODFORD	MODEL 67	LOOSE TEE HANDLE, MODEL 50H DOUBLE CHECK BACKFLOW PREVENTER, CHROME EXTERIOR FINISH.	0.75	-	-	-	PROVIDE OPERATING ROD ASSEMBLY PER MANUFACTURER'S RECOMMENDATIONS BASED ON WALL THICKNESS
9	HAND SINK BY KES.	--	--	--	0.5	0.5	1.5	1.5	HAND SINK, TRAP, SUPPLIES, FAUCET, ETC. BY KITCHEN EQUIPMENT SUPPLIER. PVC SHALL PROVIDE TRUEBRO LAVA GUARD 2 UNDERSINK ADA TRAP AND SUPPLY COVERS AND ASSE 1070 MIXING VALVE FOR EACH HAND SINK LOCATION.
10	CHROME HOSE BIBB	WOODFORD	MODEL 24P-34	LOOSE TEE KEY, MODEL 34HF VACUUM BREAKER, CHROME EXTERIOR FINISH.	0.75	-	-	-	
11	ROOF HYDRANT	MAPA	MPH-24FP	--	-	-	-	-	COORDINATE ROOF DETAILS WITH ARCHITECT AND STRUCTURAL ENGINEER.

DRAINAGE PIPE SPECIALTY SCHEDULE

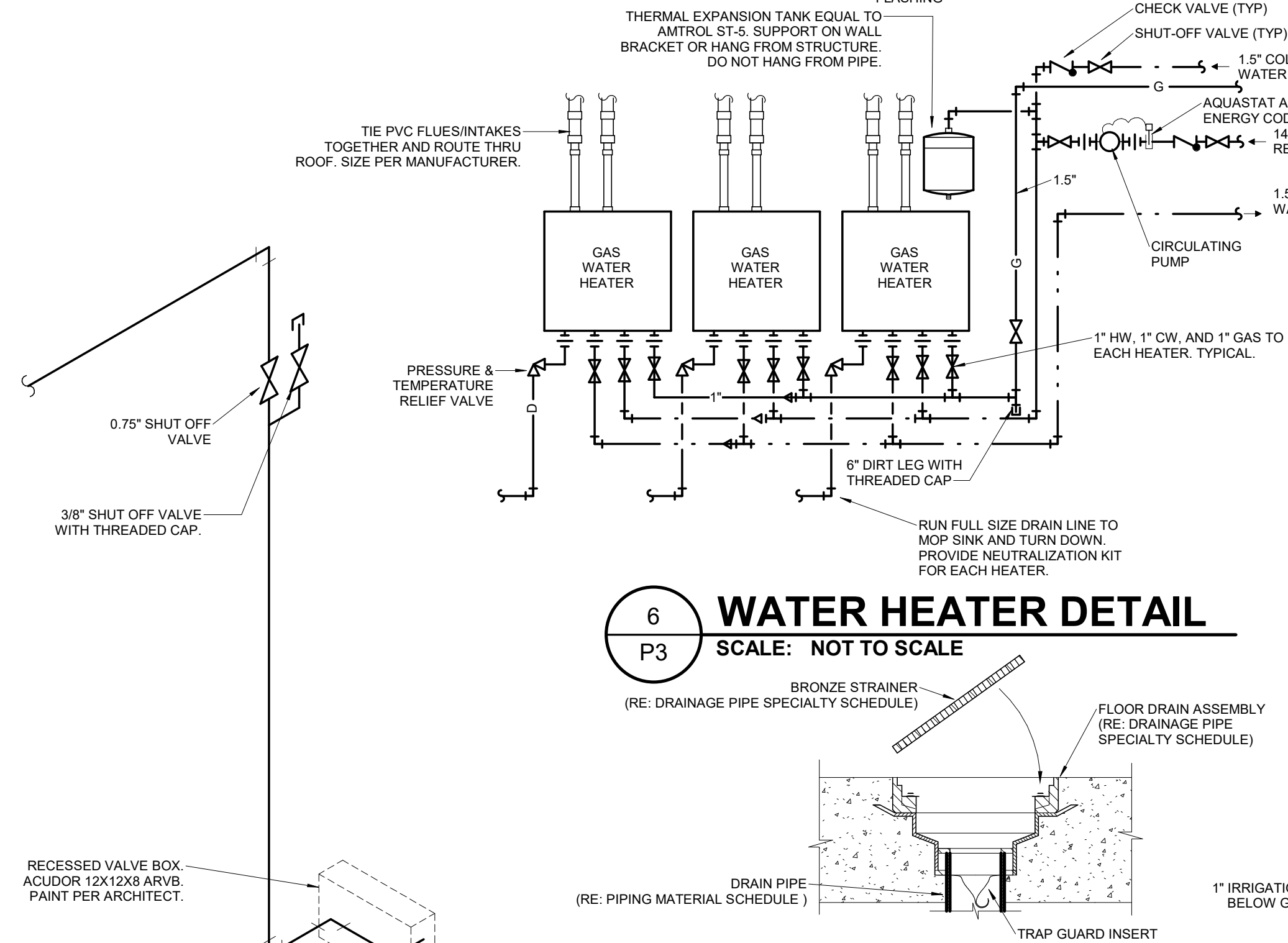
PLAN MARK	DESCRIPTION	MANUFACTURER	MODEL	TRIM	NOTES
A	7" ROUND FLOOR DRAIN	J.R. SMITH	2010-A	NICKEL BRONZE STRAINER, DEEP SEAL TRAP, SURE SEAL, WATERLESS TRAP PRIMER.	DRAIN SIZE SHALL MATCH SANITARY BRANCH SERVING DRAIN. REFERENCE PLANS FOR SIZE.
B	FLOOR SINK	J.R. SMITH	305-F-15	12" SQUARE, USDA ACCEPTED, IAPMO LISTED, PVC BODY RATED TO 200-DEGREES WITH ANCHOR FLANGE, SEDIMENT TRAY, AND 1/2" PVC GRATE.	DRAIN SIZE SHALL MATCH SANITARY BRANCH SERVING DRAIN. REFERENCE PLANS FOR SIZE. PROVIDE WITH TRAP GUARD INSERT.
C	CAST IRON ROOF DRAIN AND DOME	J.R. SMITH	1010-C-R-A-U	UNDERDECK CLAMP, SUMP RECEIVER, ALUMINUM DOME, VANDAL PROOF DOME.	ROOF DRAIN TO BE FULL SIZE OF STORM DRAIN LEADER.
D	CAST IRON OVERFLOW DRAIN WITH WATER DAM AND DOME	J.R. SMITH	1080-C-R-A-U	UNDERDECK CLAMP, SUMP RECEIVER, ALUMINUM DOME, VANDAL PROOF DOME, WATER DAM	ROOF DRAIN TO BE FULL SIZE OF STORM DRAIN LEADER.
FFCO	FINISHED FLOOR CLEANOUT	J.R. SMITH	4023	HARD FLOOR: ROUND CHROME PLATED SCORRIATED COVER, CARPET AREAS: NICKEL BRONZE TOP AND CARPET CLAMP OR CARPET MARKER.	VERIFY FLOOR MATERIALS USED FROM ARCHITECTURAL PLANS. CLEANOUT TO BE FULL SIZE OF SOIL PIPE UP TO AND INCLUDING 4-INCH ID. REFERENCE PLANS FOR SOIL PIPE SIZE.
FGCO	FINISHED GRADE CLEANOUT	J.R. SMITH	4223-U	EXTRA HEAVY DUTY CAST IRON VANDAL PROOF TOP.	IF NOT LOCATED IN CONCRETE, PROVIDE 18"x18"x7" CONCRETE PAD AROUND CLEANOUT WITH #3 REBAR AND CHAMFERED EDGES. CLEANOUT TO BE FULL SIZE OF SOIL PIPE UP TO AND INCLUDING 4-INCH ID. REFERENCE PLANS FOR SOIL PIPE SIZE.
FWCO	WALL CLEANOUT	J.R. SMITH	4532 WITH CLEANOUT PLUG OR 4512 WITH COUNTERSINK PLUG	PROVIDE CLEANOUT PLUG AND STAINLESS STEEL ACCESS COVER IN FINISHED AREAS. PROVIDE COUNTER SINK PLUG IN UNFINISHED AREAS.	CLEANOUT TO BE FULL SIZE OF SOIL PIPE UP TO AND INCLUDING 4-INCH ID. REFERENCE PLANS FOR SOIL PIPE SIZE.



9
P3
PRESSURE WASHER ELEVATION
SCALE: NOT TO SCALE

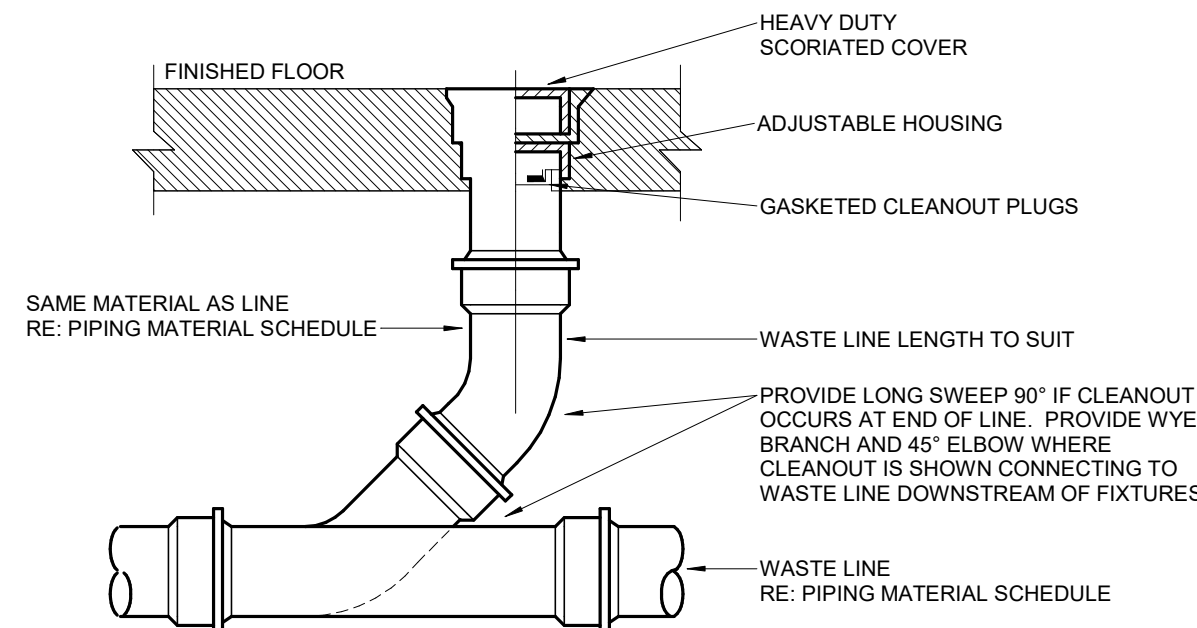
SCHEDULE LEGEND

ABBREVIATED SCHEDULE HEADINGS	
EFFICIENCY	MINIMUM EFFICIENCY OF WATER HEATER
GPH	GALLONS PER HOUR
HP	HORSEPOWER
LOAD	NOMINAL CONNECTED GAS LOAD TO UNIT, USED TO SIZE GAS PIPING.
NPSH	NET POSITIVE SECTION HEAD
OUTPUT	MINIMUM REQUIRED OUTPUT TO MEET GPH RISE AS SCHEDULED
RPM	REVOLUTIONS PER MINUTE
PIPE MATERIAL SCHEDULE	
ATP	ARMCO TRUSS PIPE
BLK	BLACK
BS	BELL & SPIGOT
CF	CRIMPED FITTING
CI	CAST IRON
CP	COPPER
CS	CARBON STEEL
CTD	PIPE LINE SERVICE COMPANY X-TRU-COAT HIGH DENSITY POLYETHYLENE COATING EXTRUDED OVER PIPE
CW	CONTINUOUS WELD
DI	DUCTILE IRON
DR	DRAINAGE FITTING
GLV	GALVANIZED
HF	HEAT FUSED
LC	LEAD CAILKING
MI	MALLEABLE IRON
MJ	MECHANICAL JOINT
NG	NEOPRENE GASKET
NH	NO-HUB
PE	POLYETHYLENE
PVC	POLYVINYL CHLORIDE
SJ	SPOLDER JOINT 95-5 TIN-ANTIMONY
SS	SEAMLESS STEEL
SS	STANDARD STRENGTH - SERVICE WEIGHT
SW	SOLVENT WELD
THRD	THREADED
TS	TY-SEAL
VCP	VITRIFIED CLAY PIPE
WELD	WELDED
XH	EXTRA HEAVY
PUMP SCHEDULE	
AB	AL BRONZE
ATC	AUTOMATIC TEMP CONTROL WITH AQUASTAT
BF	BRONZE FITTED
BMCES	BASE MOUNTED CLOSED COUPLED END SUCTION
BMES	BASE MOUNTED END SUCTION
BMSHC	BASE MOUNTED HORIZONTAL SPLIT CASE
BMSVC	BASE MOUNTED VERTICAL SPLIT CASE
C	CONDENSER WATER
CH	CHILLED/HOT WATER
CW	CHILLED WATER
DCW	DOMESTIC COLD WATER
DHW	DOMESTIC HOT WATER
HW	HEATING HOT WATER
IL	IN-LINE
WATER HEATER SCHEDULE	
CNK	CONDENSATE NEUTRALIZATION KIT
CRTK	CONCENTRIC ROOF TERMINATION KIT
PTRV	PRESSURE & TEMPERATURE RELIEF VALVE
SS	STAINLESS STEEL STAND

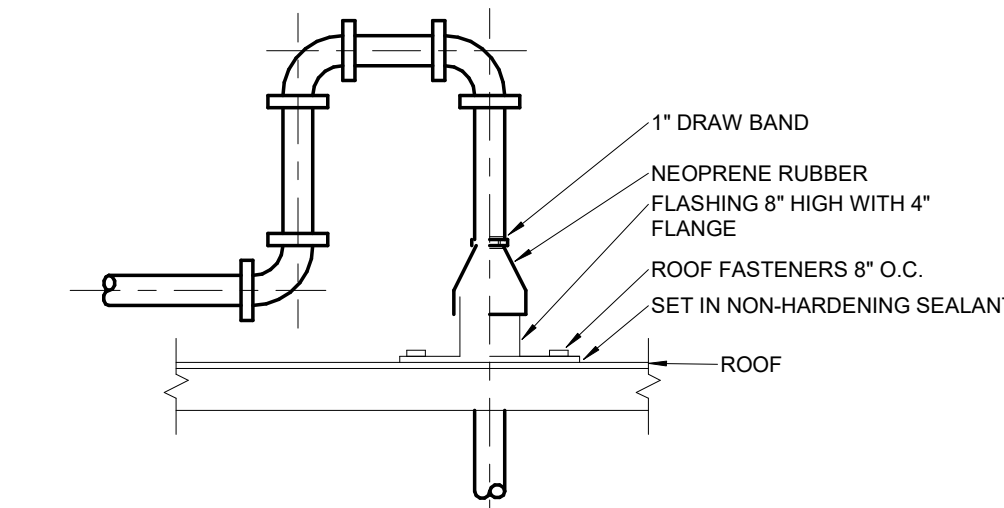


6
P3
WATER HEATER DETAIL
SCALE: NOT TO SCALE

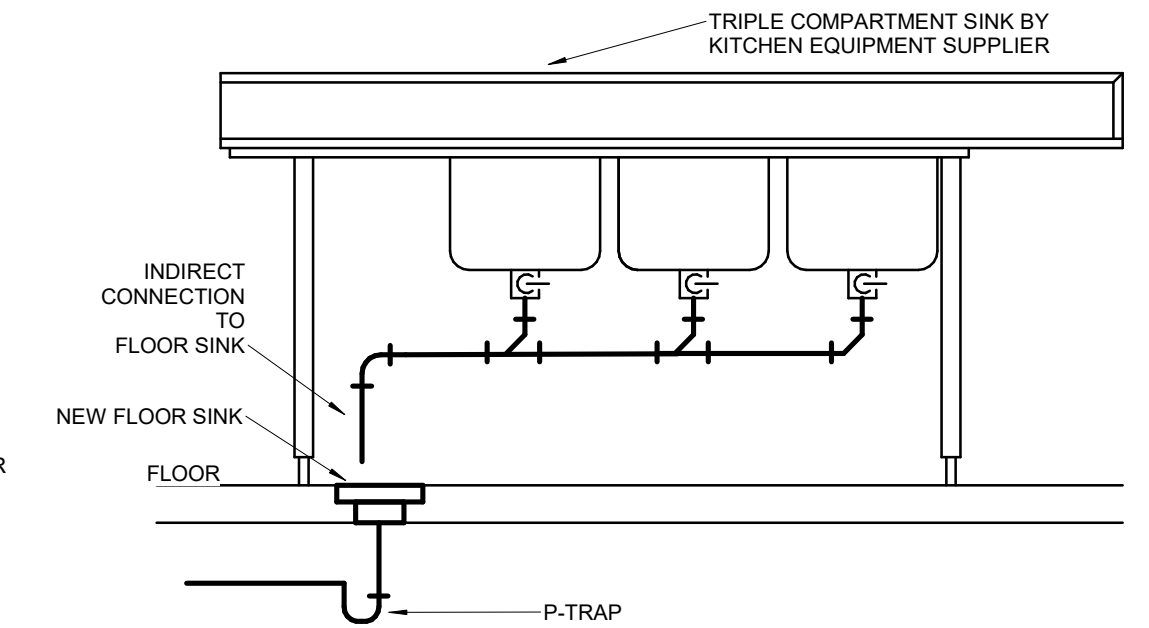
5
P3
FLOOR DRAIN DETAIL
SCALE: NOT TO SCALE



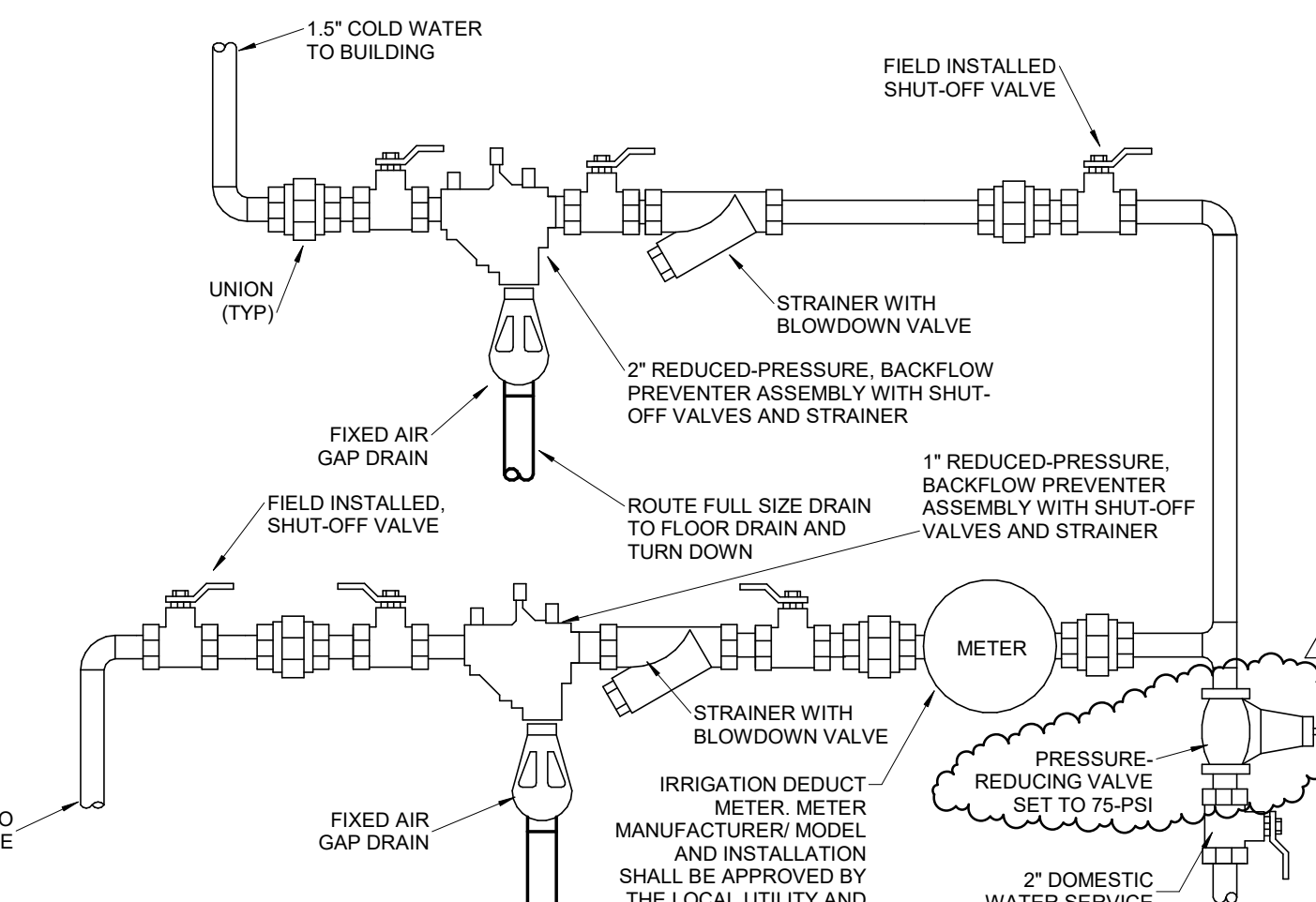
4
P3
FLOOR CLEANOUT DETAIL
SCALE: NOT TO SCALE



3
P3
GAS PIPE THRU ROOF DETAIL
SCALE: NOT TO SCALE



2
P3
THREE-COMPARTMENT SINK DETAIL
SCALE: NOT TO SCALE



1
P3
DOMESTIC WATER SERVICE DETAIL
SCALE: NOT TO SCALE

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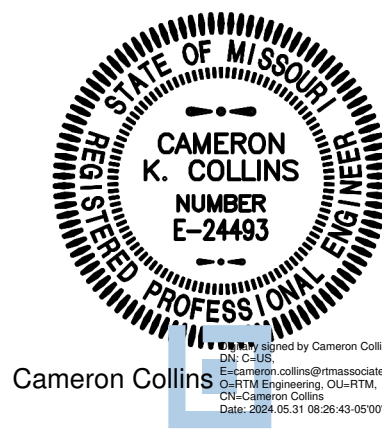
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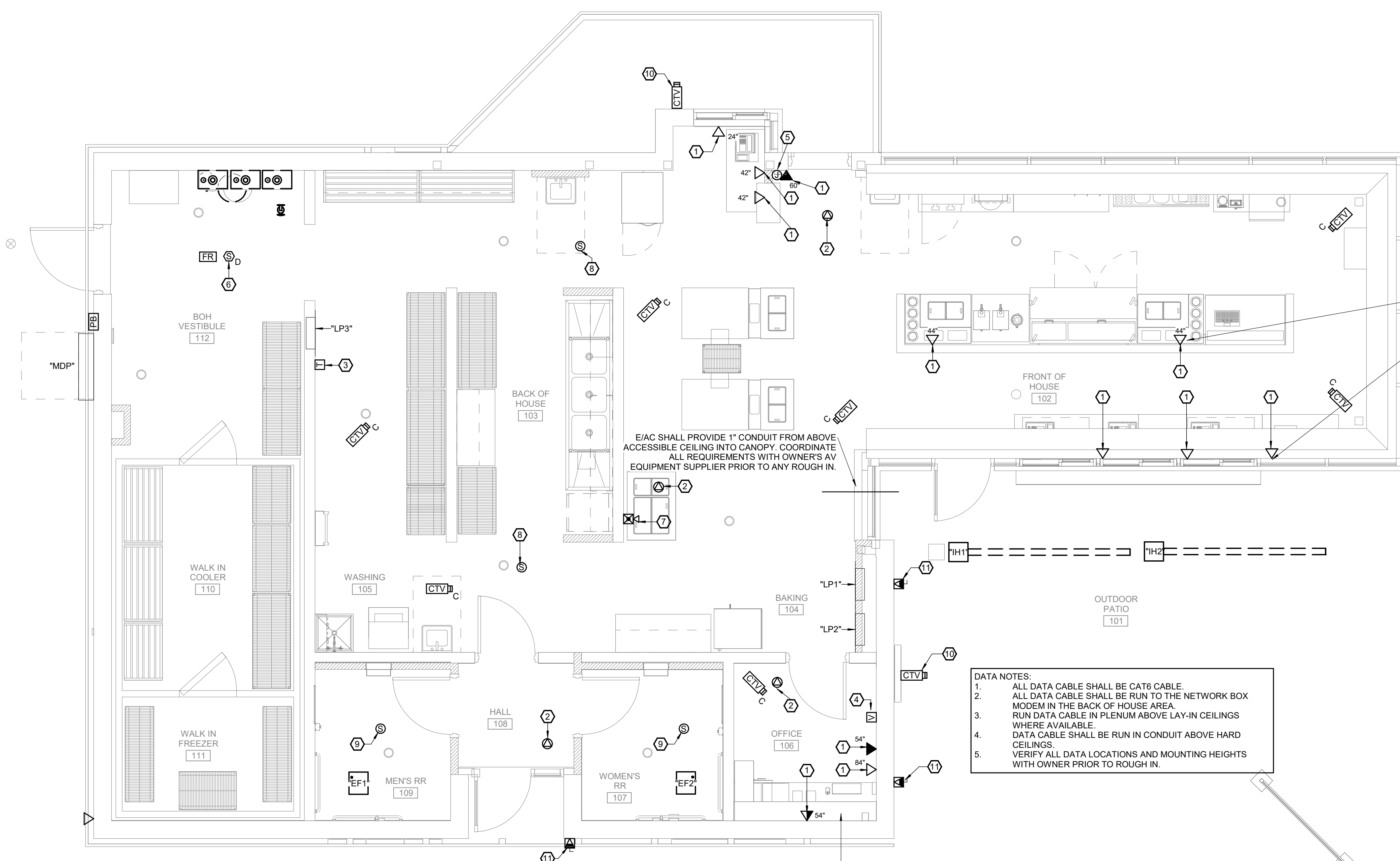
Architect: Matthew Hufft
License Number: MO#

Drawn: TSE

Project Number: 736

PLUMBING DETAILS AND SCHEDULES

P3



- PLAN HEX NOTES:**
- ROUTE (2) CAT6 CABLES TO NETWORK BOX MODEM LOCATED IN OFFICE. CABLES ROUTED ABOVE HARD CEILINGS SHALL BE IN 0.75" CONDUIT. CABLE ABOVE LAY-IN CEILINGS IS NOT REQUIRED TO BE IN CONDUIT.
 - ROUTE (2) CAT6 CABLES FROM CEILING JUNCTION BOX TO NETWORK BOX MODEM LOCATED IN OFFICE. CABLE ROUTED ABOVE HARD CEILINGS SHALL BE IN 0.75" CONDUIT. CABLE ABOVE LAY-IN CEILINGS IS NOT REQUIRED TO BE IN CONDUIT.
 - REMOTE TEST STATION AND INDICATOR FOR DUCT SMOKE DETECTOR INSTALLED LOW ON WALL IN A LOCATION APPROVED BY THE AUTHORITY HAVING JURISDICTION.
 - PROVIDE BACK BOX WITH 0.75" CONDUIT ROUTED IN WALL TO ABOVE ACCESSIBLE CEILING FOR MUZAK SYSTEM VOLUME CONTROL. COORDINATE EXACT LOCATION AND ROUGH IN REQUIREMENTS WITH MUZAK SYSTEM VENDOR PRIOR TO ROUGH IN.
 - PROVIDE ROUGH IN AND FINAL CONNECTIONS TO SECURITY SYSTEM KEYPAD AT 60" AFF. EXTEND CONDUIT IN WALL UP TO ABOVE CEILING. COORDINATE LOCATION AND MOUNTING HEIGHT WITH OWNER PRIOR TO ROUGH IN.
 - DUCT SMOKE DETECTOR (EQUAL TO NOTIFIER DH100LP) SHALL BE INSTALLED IN RETURN AIR DUCT. COORDINATE WITH M/C FOR DUCTWORK SIZE AND ADDITIONAL LENGTH AS REQUIRED FOR DETECTOR INSTALLATION. UPON DETECTION OF SMOKE IN THE RETURN AIR DUCT ALL UNIT OPERATION SHALL BE SHUT OFF. PROVIDE FAN SHUTDOWN RELAYS AND ACCESSORIES AS REQUIRED FOR UNIT SHUTDOWN. PROVIDE RTS-451 REMOTE KEYED TEST STATION AND INDICATOR IN BOX ON WALL CLOSE TO THE FLOOR WHERE SHOWN ON THE PLANS.
 - REMOTE SOUNDER/LED ANNUNCIATOR, NOTIFIER MODEL APA-451 TO SIGNAL RTU-1" DUCT SMOKE DETECTOR ACTIVATION. LABEL COVERPLATE "RTU-1" DETECTOR".
 - OWNER PROVIDED CEILING SPEAKER IN LAY-IN CEILING. SHOWN FOR REFERENCE ONLY.
 - OWNER PROVIDED CEILING SPEAKER IN GYP CEILING. E/C SHALL PROVIDE BOX AND 0.75" CONDUIT ROUTED TO ACCESSIBLE CEILING IN OFFICE. COORDINATE ALL REQUIREMENTS WITH OWNER'S AV EQUIPMENT SUPPLIER PRIOR TO ANY ROUGH IN.
 - OWNER PROVIDED WALL CAMERA. E/C SHALL PROVIDE WP BOX AND 0.75" CONDUIT ROUTED TO ACCESSIBLE CEILING IN BUILDING. COORDINATE ALL REQUIREMENTS INCLUDING MOUNT HEIGHT AND LOCATION WITH OWNER'S AV EQUIPMENT SUPPLIER PRIOR TO ANY ROUGH IN.
 - OWNER PROVIDED WALL SPEAKER. E/C SHALL PROVIDE WP BOX AND 0.75" CONDUIT ROUTED TO ACCESSIBLE CEILING IN BUILDING. COORDINATE ALL REQUIREMENTS INCLUDING MOUNT HEIGHT AND LOCATION WITH OWNER'S AV EQUIPMENT SUPPLIER PRIOR TO ANY ROUGH IN.

WIRING FOR DEVICES IN FRONT OF HOUSE AREA SHALL BE ROUTED IN CONDUIT BELOW GRADE FROM NEAREST FULL HEIGHT WALL.

- DATA NOTES:**
- ALL DATA CABLE SHALL BE CAT6 CABLE.
 - ALL DATA CABLE SHALL BE RUN TO THE NETWORK BOX MODEM IN THE BACK OF HOUSE AREA.
 - RUN DATA CABLE IN PLENUM ABOVE LAY-IN CEILINGS WHERE AVAILABLE.
 - DATA CABLE SHALL BE RUN IN CONDUIT ABOVE HARD CEILINGS.
 - VERIFY ALL DATA LOCATIONS AND MOUNTING HEIGHTS WITH OWNER PRIOR TO ROUGH IN.

REFERENCE SHEET E2 FOR ADDITIONAL INFORMATION ON DATA REQUIREMENTS AND ROUGH-IN IN OFFICE.

- GENERAL NOTES:**
- A. THESE GENERAL NOTES APPLY TO ALL ELECTRICAL AND SPECIAL SYSTEMS DRAWINGS. REFER TO DIVISION 26 SPECIFICATIONS FOR ADDITIONAL ELECTRICAL AND SPECIAL SYSTEMS SPECIFICATIONS AND REQUIREMENTS.
- B. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE 2017 NATIONAL ELECTRICAL CODE AS ADOPTED BY THE CITY OF LEE'S SUMMIT, MO.
- C. PROVIDE PULL BOXES AS REQUIRED TO PROPERLY INSTALL THE RACEWAYS AND CIRCUITS INDICATED.
- D. REFER TO ARCHITECTURAL DRAWINGS FOR TYPICAL ROOM INTERIOR ELEVATIONS. COORDINATE EXACT DEVICE LOCATIONS AND MOUNTING HEIGHTS WITH ARCHITECT PRIOR TO ROUGH-IN.
- E. ALL EMPTY CONDUITS SHALL BE PROVIDED WITH ROT-PROOF PULL TAPE, LABELED AT EACH END. ALL CONDUITS SHALL BE PROVIDED WITH PLASTIC BUSHINGS WHERE TERMINATED OPEN-ENDED.
- F. COORDINATE ALL WIRING DEVICE LOCATIONS SHOWN AT MILLWORK LOCATIONS WITH THE MILLWORK CONTRACTOR AND GENERAL CONTRACTOR PRIOR TO ANY ROUGH-IN OR INSTALLATION. ALL WIRING DEVICES SHALL BE INSTALLED IN ACCESSIBLE LOCATIONS AND SHALL NOT BE CONCEALED.
- G. SEAL ALL PENETRATIONS THROUGH FIRE-RATED ASSEMBLIES AS NECESSARY TO RESTORE FIRE-RESISTANCE RATING OF ASSEMBLY. REFER TO ARCHITECTURAL PLANS AND SPECIFICATIONS FOR RATED ASSEMBLIES, FIRE STOPPING MATERIALS, AND REQUIREMENTS.
- H. EACH CONTRACTOR AND SUB-CONTRACTOR OR TRADE IS REQUIRED TO REVIEW THE CONSTRUCTION DOCUMENTS AS A WHOLE, INCLUDING ALL OTHER TRADES DRAWINGS AND PROVIDE ANY MISC. ITEMS, MATERIALS, WORK, ETC. REQUIRED TO COMPLETE THE WORK AS SHOWN ON ALL DOCUMENTS. THIS REQUIREMENT APPLIES TO ALL TRADES. STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING, EQUIPMENT VENDORS, ETC. REQUIREMENTS AND RELATED WORK ARE INDICATED THROUGHOUT THE DOCUMENTS AND SHOULD BE REVIEWED WITH THE SPECIFIC MEP, STRUCTURAL, ARCHITECTURAL, AND EQUIPMENT DRAWINGS FOR OVERALL SCOPE OF WORK.
- I. REFER TO THE MECHANICAL DRAWINGS FOR EXACT LOCATIONS AND QUANTITY OF ALL MECHANICAL EQUIPMENT AND FIRE SMOKE AND/OR SMOKE DAMPERS. LOCATIONS AND QUANTITY SHOWN ON THE ELECTRICAL DRAWINGS ARE APPROXIMATE AND MAY NOT REFLECT FINAL POSITION OR QUANTITY.
- J. ELECTRICAL CONTRACTOR SHALL PROVIDE FINAL CONNECTION TO ALL MECHANICAL EQUIPMENT, WHERE EQUIPMENT IS SHOWN ON THE MECHANICAL PLANS, BUT NOT SHOWN ON THE ELECTRICAL PLANS. ELECTRICAL CONTRACTOR SHALL PROVIDE POWER TO THE EQUIPMENT BASED ON EQUIPMENT REQUIREMENTS AND INCLUDE ALL COSTS IN THE BASE BID.
- K. LOCATION SHOWN OF ELECTRICAL CONNECTION TO MECHANICAL EQUIPMENT IS SCHEMATIC AND MAY NOT REFLECT ACTUAL CONNECTION POINTS. ROUGH-IN AND CONNECTION TO EQUIPMENT SHALL BE PER THE EQUIPMENT MANUFACTURER'S REQUIREMENTS AND THE NATIONAL ELECTRICAL CODE. PROVIDE STRUCTURAL SUPPORTS AS REQUIRED FOR MOUNTING OF DISCONNECTING MEANS. VERIFY ALL ROUGH-IN REQUIREMENTS WITH THE MECHANICAL CONTRACTOR AND EQUIPMENT MANUFACTURER PRIOR TO ANY ROUGH-IN.
- L. PROVIDE FINAL CONNECTION TO ALL EQUIPMENT, INCLUDING ANY CORD AND PLUG SETS FOR EQUIPMENT NOT PROVIDED WITH IT (WHETHER SPECIFICALLY NOTED OR NOT). COORDINATE ALL WORK WITH THE EQUIPMENT SUPPLIER AND OWNER, AND VERIFY ALL ROUGH-IN LOCATIONS AND REQUIREMENTS PRIOR TO ANY ROUGH-IN.
- M. THERMOSTATS AND ALL ASSOCIATED LOW VOLTAGE CONTROL WIRING SHALL BE SUPPLIED AND INSTALLED BY THE HVAC CONTRACTOR. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL THE NECESSARY CONDUIT, BOXES, ETC. FOR THE INSTALLATION OF THERMOSTATS. THE HVAC CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND CONNECTION OF THE THERMOSTATS AND ALL CONTROL WIRING. REFER TO MECHANICAL PLANS FOR THERMOSTAT LOCATIONS.
- N. PROVIDE UNSWITCHED HOT FROM NEAREST CIRCUIT TO EXIT SIGNS AND EMERGENCY FIXTURES.
- O. CONTRACTOR SHALL CONTACT THE LOCAL ELECTRIC UTILITY COMPANY AND ARRANGE FOR ELECTRICAL SERVICE AS INDICATED ON DRAWINGS. INCLUDE ALL COSTS, CHARGES, FEES, ETC. INCURRED BY UTILITY COMPANY INTO BID. PROVIDE ALL MATERIALS AS REQUIRED BY LOCAL AUTHORITIES FOR ELECTRIC SERVICE INSTALLATION. ALL WORK SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF LOCAL AUTHORITIES.

- GENERAL NOTES:**
- A. FOR ALL ELECTRICAL QUESTIONS CONTACT RTM ENGINEERING CONSULTANTS, 417-881-0020. CONTACT PERSON: TYLER ENSERRO, tyler.enserro@rtmec.com

Hufft

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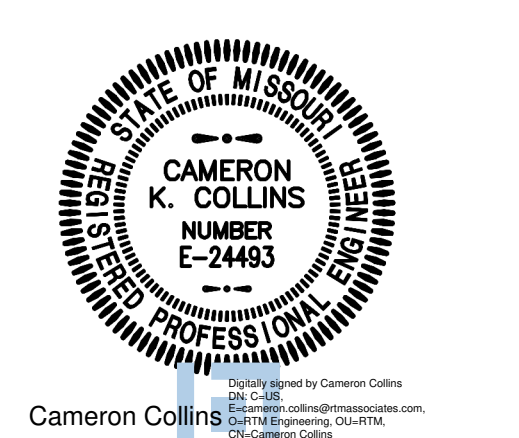
05-02-2024

REVISION SCHEDULE:

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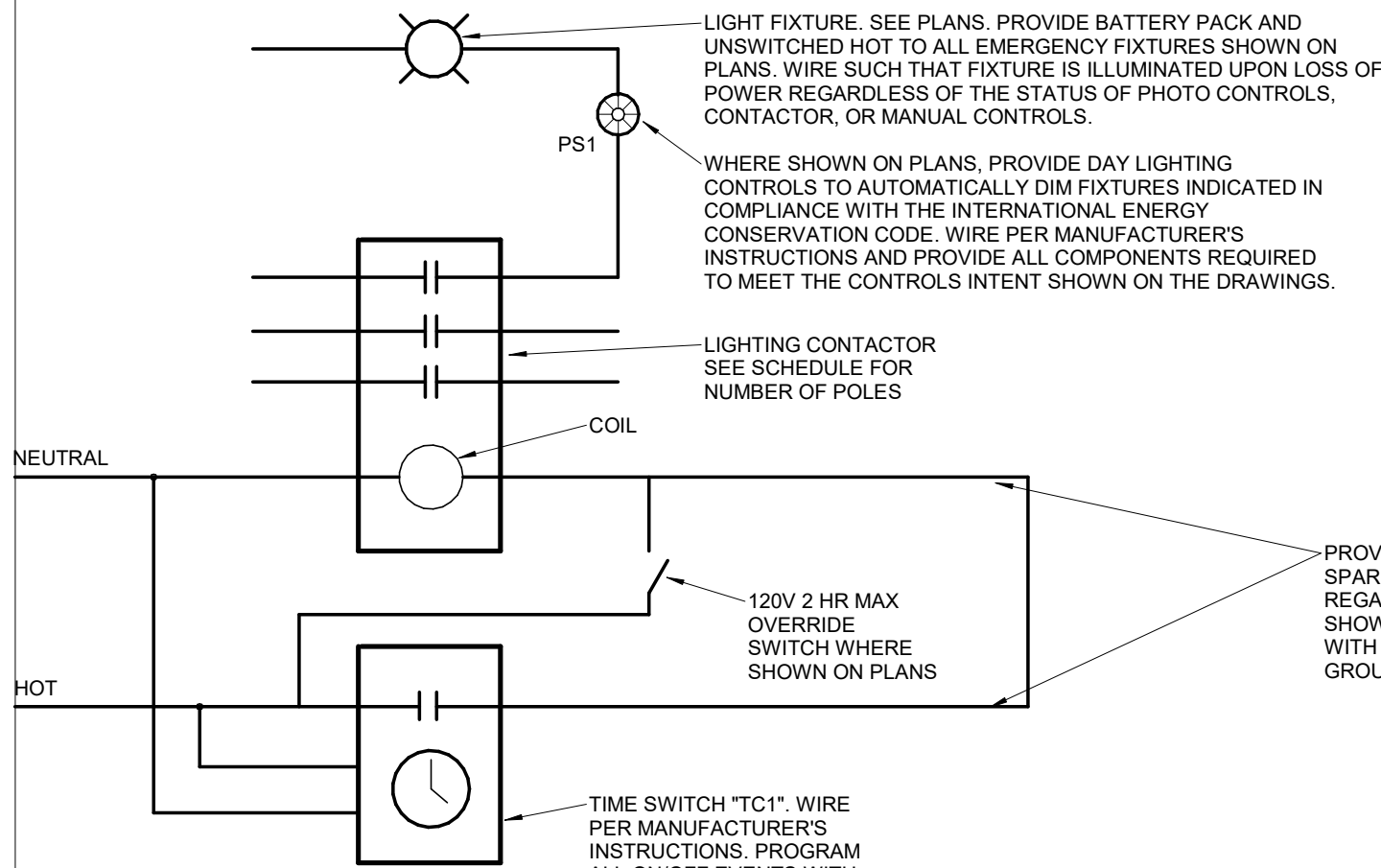
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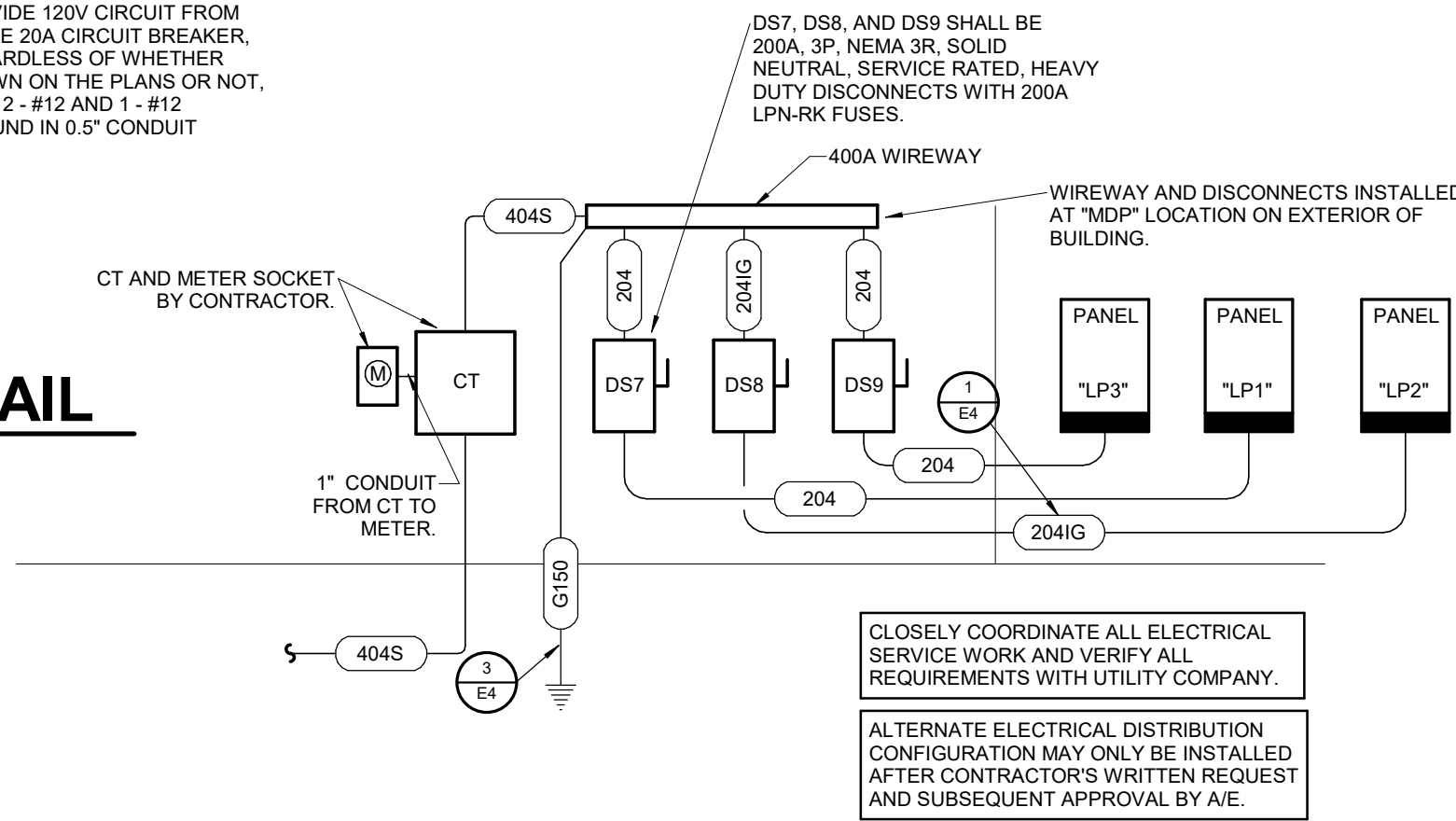
Architect: Matthew Hufft
License Number: MO#
Drawn: Author
Project Number: 738

SPECIAL SYSTEMS PLAN

E3

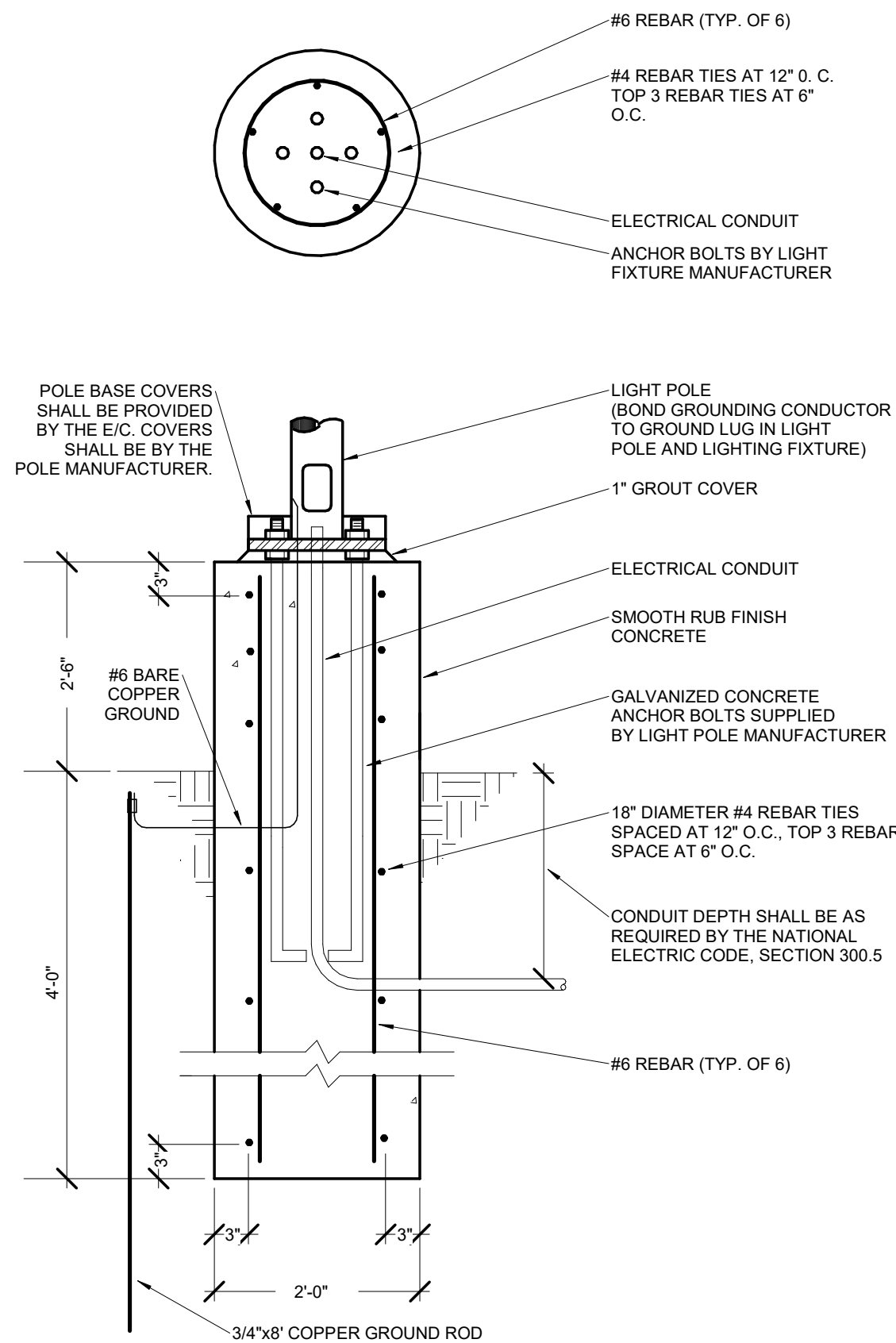


10 INDOOR LIGHTING CONTROL DETAIL
SCALE: NOT TO SCALE

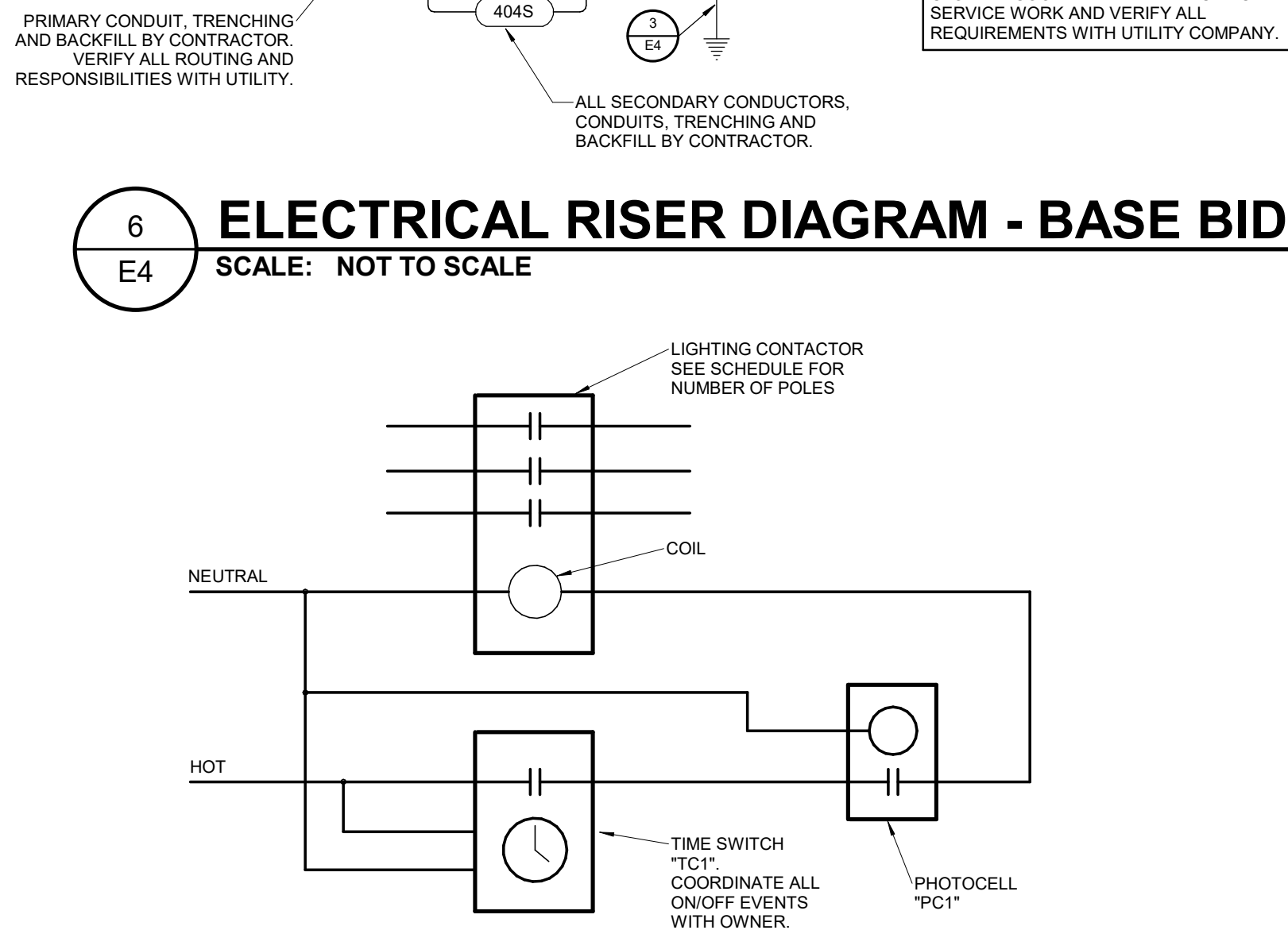


7 ELECTRICAL RISER DIAGRAM - ALTERNATE
SCALE: NOT TO SCALE

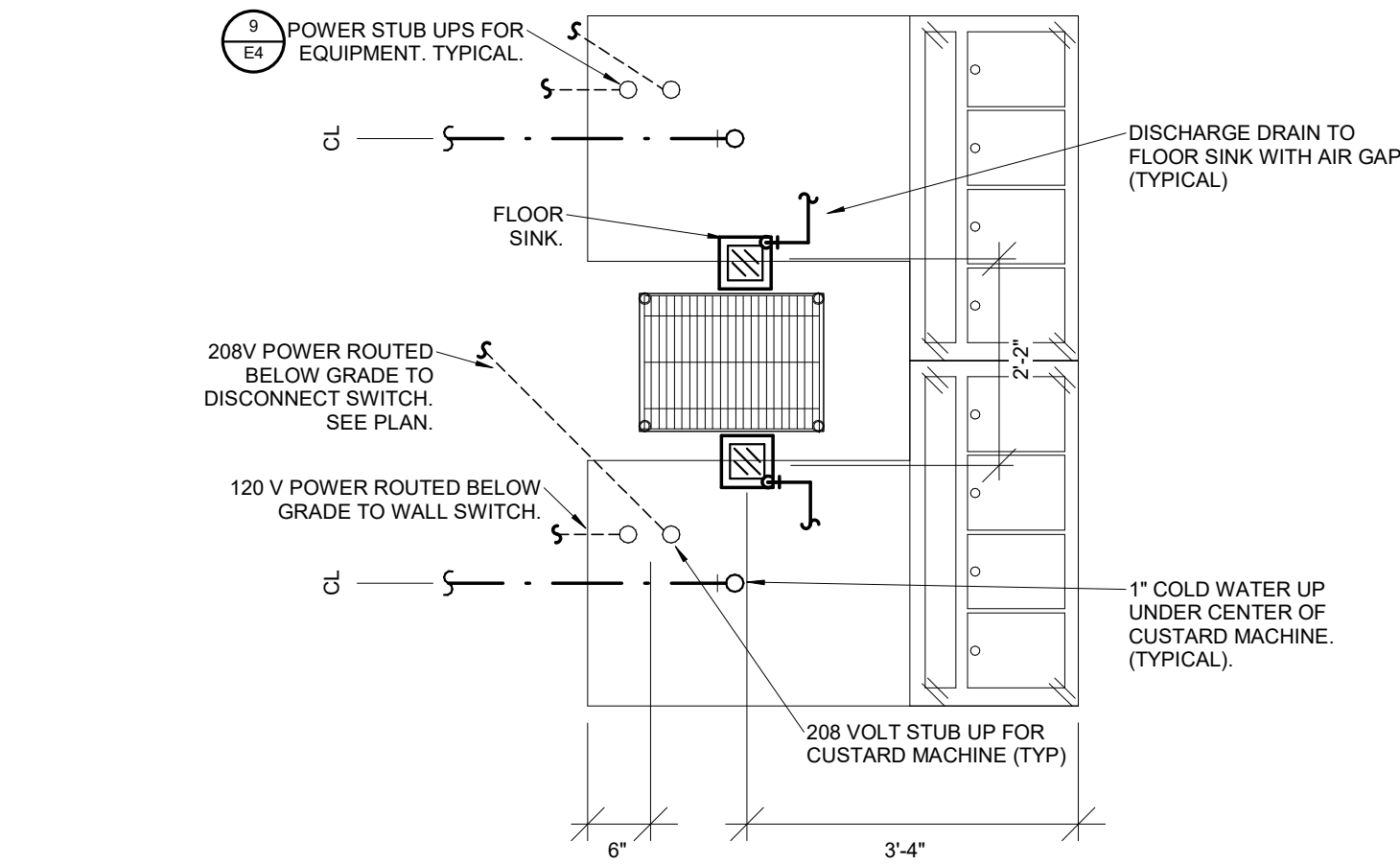
9 CUSTARD MACHINE STUB-UP DETAIL
SCALE: NOT TO SCALE



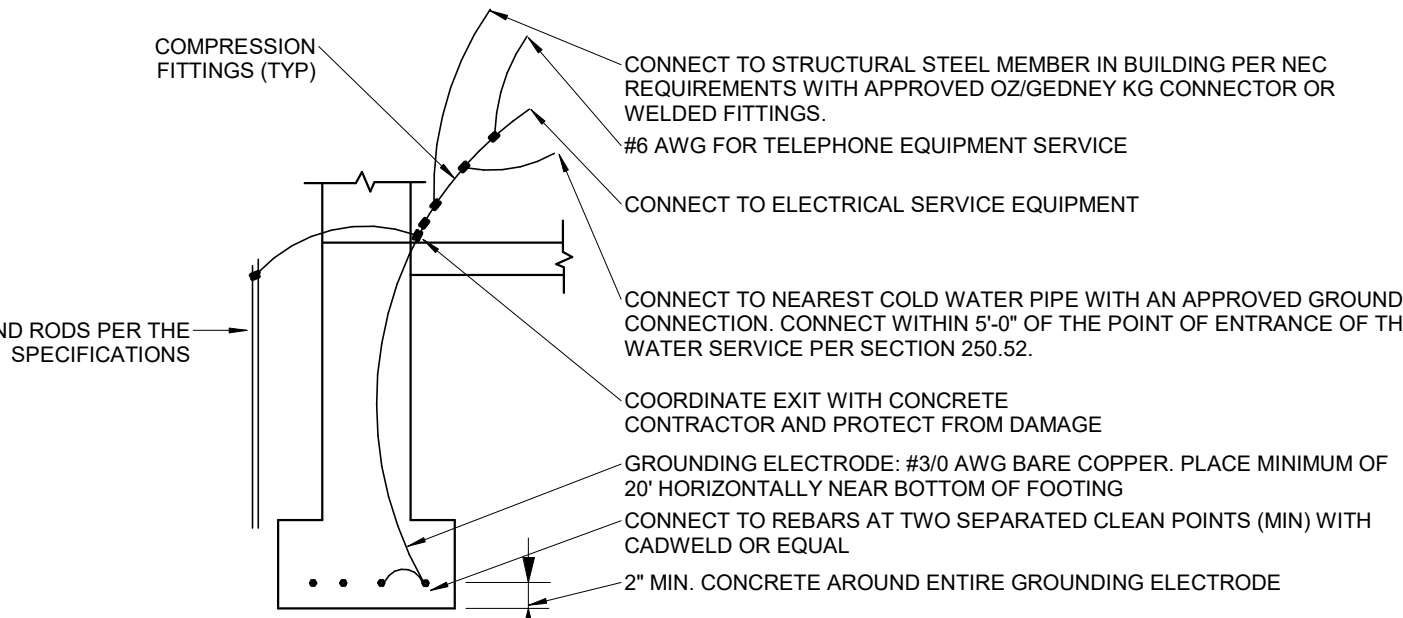
8 LIGHT POLE BASE DETAIL
SCALE: NOT TO SCALE



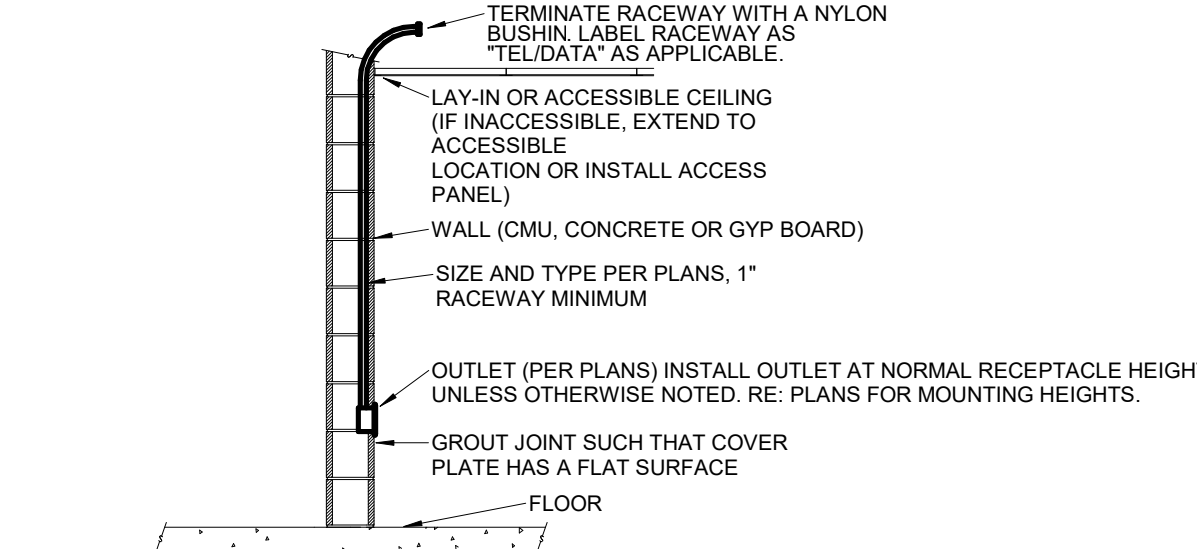
5 OUTDOOR LIGHTING CONTROL DETAIL
SCALE: NOT TO SCALE



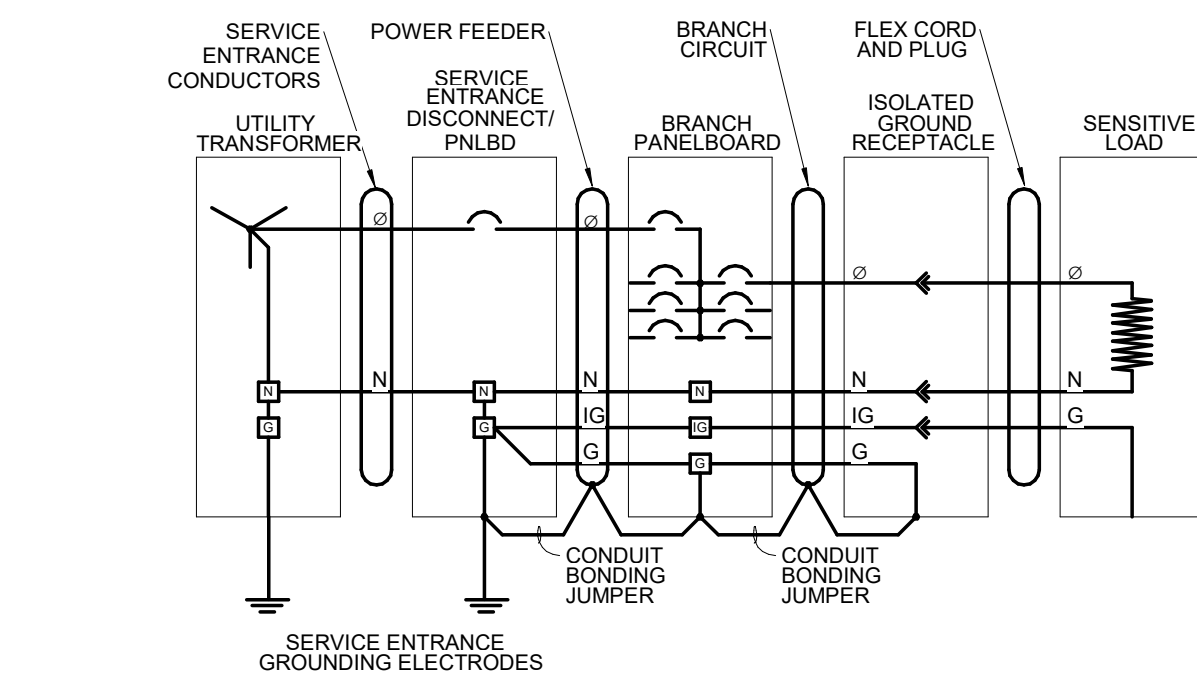
4 CUSTARD MACHINE POWER/WATER DETAIL
SCALE: NOT TO SCALE



3 GROUNDING ELECTRODE DETAIL
SCALE: NOT TO SCALE



2 LOW VOLTAGE CONDUIT STUB UP IN ACCESSIBLE CEILING
SCALE: NOT TO SCALE



1 ISOLATED GROUND CONDUCTOR WIRING TO SERVICE ENTRANCE DETAIL
SCALE: NOT TO SCALE

DISCONNECT SCHEDULE										
PLAN MARK	LOAD	VOLTAGE	DUTY	AMP	POLES	AMP	FUSE	TYPE	ENCLOSURE NEMA TYPE	NOTES
DS1	WALK IN FREEZER	208	GD	30	2	30	LPN-RK	NEMA 3R		
DS2	WALK IN COOLER	208	GD	60	2	35	LPN-RK	NEMA 3R		
DS3	CUSTARD MACHINE	208	GD	60	3	60	LPN-RK	NEMA 1		
DS4	CUSTARD MACHINE	208	GD	60	3	60	LPN-RK	NEMA 1		
DS5	PRESSURE WASHER	208	HD	60	3	50	LPN-RK	NEMA 3R		
DS6	"RTU1"	208	HD	60	3	50	LPN-RK	NEMA 3R		

REFER TO ALTERNATE RISER DIAGRAM FOR DISCONNECT SWITCHES PROVIDED UNDER ALTERNATE ELECTRICAL DISTRIBUTION CONFIGURATION.

LIGHTING DEVICE SCHEDULE										
PLAN MARK	MOUNTING TYPE	MANUFACTURER	MODEL	FINISH	NOTES					
OC1	CEILING	WATTSTOPPER	DT-305	(WHITE)	(LOW VOLTAGE DUAL TECH CEILING OCCUPANCY SENSOR PROGRAMMED TO AUTO ON/AUTO OFF.)					
PS1	CEILING	LEVITON	PC02D-00W	WHITE	LINE VOLTAGE 0-10V DIMMING 2-ZONE DAYLIGHT SENSOR.					
VA1	CEILING	WATTSTOPPER	DT-305	WHITE	DUAL TECHNOLOGY VACANCY SENSOR					
PP1	PLENUM	WATTSTOPPER	BZ-200	WHITE	LIGHTING AND PLUG LOAD CONTROLLER. INSTALL IN ACCESSIBLE CEILING AREA.					
OC1	WALL	WATTSTOPPER	DW-100	(WHITE)	(LINE VOLTAGE DUAL TECH OCCUPANCY SWITCH PROGRAMMED TO AUTO ON/AUTO OFF.)					

LUMINAIRE SCHEDULE											
PLAN MARK	MANUFACTURER	MODEL	MOUNTING TYPE	FINISH	LUMINAIRE SOURCE				ELECTRICAL		NOTES
					SOURCE TYPE	LUMENS	COLOR TEMP (K)	CRI	VOLTAGE	LOAD (VA)	
EMR	H.E. WILLIAMS	WETDRHL-T-BLK	SURFACE	WHITE	LED				120	5	REMOTE EGRESS FIXTURE POWERED THRU EXIT SIGN "X2"
L1	H.E. WILLIAMS	MX2S-4-L8/850-F-L6-DIM-UNV	SURFACE	WHITE	LED	2400	5000	80	120	26	PROVIDE WITH CUSTOM LUMEN PACKAGE AS SHOWN
L1E	H.E. WILLIAMS	MX2S-4-L8/850-F-L6-EM10WLP-DIM-UNV	SURFACE	WHITE	LED	2400	5000	80	120	26	PROVIDE WITH CUSTOM LUMEN PACKAGE AS SHOWN. PROVIDE WITH INTEGRAL 90 MIN EMERGENCY BATTERY BACKUP.
L2	H.E. WILLIAMS	MX4IP-4-L7/850-S-F-L6-DIM-UNV	SURFACE	WHITE	LED	2400	5000	80	120	23	PROVIDE WITH CUSTOM LUMEN PACKAGE AS SHOWN
L3	H.E. WILLIAMS	96-4-L40/840-PCFR-DIM-UNV	SURFACE	WHITE	LED	4000	4000	80	120	30	INSTALL IN WALK-IN COOLER/FREEZER IN A MANNER APPROVED BY REFRIGERATION EQUIPMENT MANUFACTURER.
RF14	H.E. WILLIAMS	LPT-24-L7/850-SAF12095-(LS0)-INVERTED LENSE-DIM-UNV	RECESSED	WHITE	LED	5000	5000	80	120	40	CUSTOM LUMEN PACKAGE. PROVIDE WITH DRYWALL TRIM KIT IN LOCATIONS WHERE INSTALLED IN GYP CEILINGS
RF14E	H.E. WILLIAMS	LPT-24-L7/850-SAF12095-EM10W-(LS0)-INVERTED LENSE-DIM-UNV	RECESSED	WHITE	LED	5000	5000	80	120	40	CUSTOM LUMEN PACKAGE. PROVIDE WITH INTEGRAL 90 MIN EMERGENCY BATTERY PACK.
RH09	H.E. WILLIAMS	6DR-TL-L20/840-DIM1-UNV-OW-OF-CS-N-F1	RECESSED	WHITE	LED	2000	4000	80	120	19	
RH09E	H.E. WILLIAMS	6DR-TL-L20/840-EM7W-DIM1-UNV-OW-OF-CS-N-F1	RECESSED	WHITE	LED	2000	4000	80	120	19	PROVIDE WITH INTEGRAL 90 MIN EMERGENCY BATTERY PACK.
RH10	HALO	SLD612840WHUNVJB	RECESSED	WHITE	LED	1215	4000	80	120	14	
SL1	VISTA PROFESSIONAL	1188-GT-NS-40-B-MV-CX-010	IN GRADE	STAINLESS STEEL	LED	2000	4000	80	120	31	RECESSED IN GRADE FLAG POLE FIXTURE.
SP3	US ARCHITECTURAL	RZRM-PLD-III-48LED-700MA-50K-120-1-RAL-8019-T-HS-PLD	POLE	DARK BRONZE	LED	14000	5000	80	120	105	PROVIDE WITH 16" (16'-6" TOTAL HEIGHT INCLUDING CONCRETE BASE) POLE BY FIXTURE MANUFACTURER.
SP4	US ARCHITECTURAL	RZRM-PLD-IV-48LED-700MA-50K-120-1-RAL-8019-T-HS-PLD	POLE	DARK BRONZE	LED	14000	5000	80	120	105	PROVIDE WITH 16" (16'-6" TOTAL HEIGHT INCLUDING CONCRETE BASE) POLE BY FIXTURE MANUFACTURER.
WFO8	H.E. WILLIAMS	75S-2-L42/940-EM10WRM-DIM-UNV	WALL	WHITE	LED	4000	4000	80	120	32	PROVIDE WITH 16" (16'-6" TOTAL HEIGHT INCLUDING CONCRETE BASE) POLE BY FIXTURE MANUFACTURER.
X	H.E. WILLIAMS	EXIT-R-EM-WHT-SOT-D	UNIVERSAL	WHITE	LED				120	5	
X2	H.E. WILLIAMS	EXIT/REMOTE-R-WHT-D-WETDRHL-T-BLK	UNIVERSAL	WHITE	LED				120	5	PROVIDE WITH FIXTURE TYPE "EMR" WHERE SHOWN ON PLANS. PROVIDE WALL OR CEILING MOUNT AS REQUIRED BY THE PLANS.

NOTE: LIGHTING FIXTURE PACKAGE SHALL BE FURNISHED THROUGH MERCER-ZIMMERMAN. CONTACT MARY COOPER AT marycooper@mztlg.com, (613) 438-4546 FOR PRICING AND ORDERING INFORMATION.

Hufft

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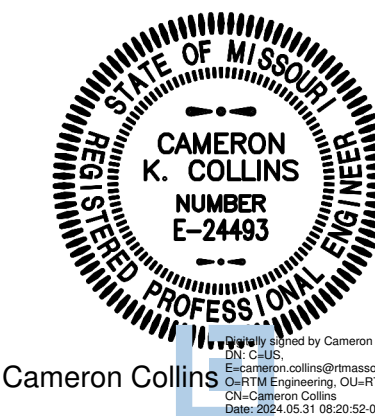
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Cameron Collins

Architect: Matthew Hufft

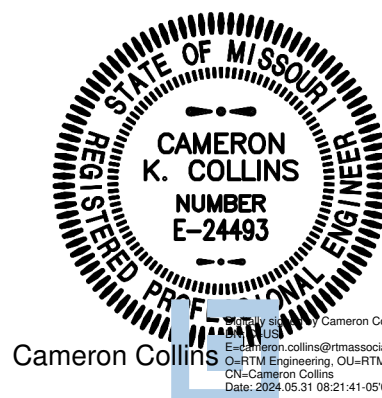
License Number: MO#

Drawn: TSE

Project Number: 736

ELECTRICAL SCHEDULES AND DETAILS

E4



PANELBOARD NOTES

GENERAL NOTES	
1	PROVIDE 20 AMP 1-POLE SPARE BREAKERS FOR ALL UNUSED POLES UNLESS NOTED OTHERWISE.
2	
3	
CIRCUIT BREAKER ACCESSORY ABBREVIATION	
AC	AUXILIARY CONTACTS
AF	ARC-FAULT INTERRUPTING
AT	ALARM TRIP
EPO	EQUIPMENT PROTECTION DEVICE
EX	EXISTING CIRCUIT BREAKER
GF	GROUND FAULT CIRCUIT INTERRUPTING BREAKER
HACR	HACR RATING
HLF	HANDLE LOCK-OFF
HLN	HANDLE LOCK-ON
SR	SWITCH RATING
ST	SHUNT TRIP BREAKER
PANELBOARD ACCESSORY ABBREVIATION	
CH	CONCEALED HINGE
CL	COMPRESSION LUGS
CW	COLUMN WIDTH PANEL
DD	HINGED DOOR WITHIN A DOOR
EGB	EXTENDED GUTTER BOTTOM
EGL	EXTENDED GUTTER LEFT
EGR	EXTENDED GUTTER RIGHT
EGT	EXTENDED GUTTER TOP
FL	FLUSH LOCK(S)
FTL	FEED-THRU LUGS
GB	EQUIPMENT GROUND BAR
GBI	GROUND BAR INSULATOR
NBK	NEUTRAL BOND KIT
SER	SERVICE ENTRANCE RATING
SFB	SUB-FEED CIRCUIT BREAKER
SRL	SUB-FEED LUGS
SCB	SECOND GROUND BAR KIT
SPD	SURGE PROTECTION DEVICE
TRN	200% RATED NEUTRAL BAR

CIRCUIT BREAKER PANELBOARD SCHEDULE

PANEL NAME: "LP2"		LOCATION: BAKING 104 FED BY: "MDP" MOUNTING: RECESSED								VOLTAGE: 120/208V, 3Ph, 4W ENCLOSURE: NEMA 1 MANUFACTURER: SQUARE D PANEL TYPE: NQ				MAIN TYPE: MLO BUS RATING (A): 225 A MCB RATING (A): MLO MIN. AIC RATING (A): 22000							
CKT	LOAD DESCRIPTION	C	W	G	CB	P	TYPE	A	B	C	TYPE	P	CB	G	W	C	LOAD DESCRIPTION	CKT			
1	DOOR CHIME	0.75"	#12	#12	20	1		100	200				1	15	#12	#12	0.75"	RECIRC PUMP	2		
3	LTG - SITE	0.75"	#10	#10	20	1			210	200			1	20	#12	#12	0.75"	FASCIA LIGHTING ANIMATOR	4		
5	REC - BOH	0.75"	#12	#12	20	1				180	240	GF	1	20	#12	#12	0.75"	INTERIOR SIGNAGE	6		
7	FASCIA LIGHTING	0.75"	#12	#12	20	1		330	500				1	20	#10	#10	0.75"	MENU SIGNAGE	8		
9	FASCIA LIGHTING	0.75"	#12	#12	20	1			330	765			1	20	#12	#12	0.75"	LTG - CANOPY	10		
11	REC - MANAGER'S OFFICE	0.75"	#12	#12	20	1	IG				360	500	1	20	#12	#12	0.75"	DIRECTIONAL SIGNAGE	12		
13	INFRARED HEATERS	0.75"	#12	#12	15	1		0	240				1	20	#12	#12	0.75"	POSTER AND LOGO SIGNS	14		
15	FASCIA LIGHTING	0.75"	#12	#12	20	1			990	1400			1	20	#12	#12	0.75"	LTG - INTERIOR	16		
17	REC - EXTERIOR	0.75"	#12	#12	20	1					720	1220	1	20	#12	#12	0.75"	REC - MANGER'S OFFICE	18		
19	REC - DRIVE THRU POS	0.75"	#12	#12	20	1	IG,GF	1080	180				1	20	#12	#12	0.75"	VEGAS SIGN	20		
21	WATER HEATERS	0.75"	#12	#12	20	1			360	360			1	20	#12	#12	0.75"	REC - RESTROOMS	22		
23	POSTER AND LOGO SIGNS	0.75"	#12	#12	20	1					240	180	1	20	#12	#12	0.75"	WATER SOFTENER	24		
25	REC - MANAGER'S OFFICE	0.75"	#12	#12	20	1	IG	360	1200				1	20	#10	#10	0.75"	MONUMENT SIGNAGE	26		
27	PERIMETER COVE LIGHTS	0.75"	#12	#12	20	1			500	180			1	20	#12	#12	0.75"	NEON SIGN CONTROLLER	28		
29	REC - TELE/ATA	0.75"	#12	#12	20	1					360	500	1	20	#12	#12	0.75"	PERIMETER COVE LIGHTS	30		
31	IRRIGATION CONTROLLER	0.75"	#12	#12	20	1		180	1200				1	20	#12	#12	0.75"	REC - TELE/ATA	32		
33	REC - MANAGER'S OFFICE	0.75"	#12	#12	20	1	IG			540	330		1	20	#12	#12	0.75"	DRIVE THRU SIGN	34		
35	PATIO SIGNAGE	0.75"	#12	#12	20	1						500	540	IG,GF	1	20	#12	#12	0.75"	REC - POS	36
37	REC - MANAGER'S OFFICE	0.75"	#12	#12	20	1	IG	540	62				1	20	#12	#12	0.75"	FLAG POLE LIGHTS	38		
39	FASCIA LIGHTING	0.75"	#12	#12	20	1			1320	720			IG,GF	1	20	#12	#12	0.75"	REC - MONITORS	40	
41	MENU BOARD	0.75"	#10	#10	20	1					500	500		1	20	#10	#10	0.75"	DIRECTIONAL SIGNAGE	42	
43	FASCIA LIGHTING	0.75"	#12	#12	20	1		1320	250				1	20	#12	#12	0.75"	ANDYS BEAM SIGN	44		
45	SECURITY SYSTEM	0.75"	#12	#12	20	1			400	0			--	1	20	--	--	--	SPARE	46	
47	FASCIA LIGHTING	0.75"	#12	#12	20	1				1320	0		--	1	20	--	--	--	SPARE	48	
49	SPARE	--	--	--	20	1	--	0	0				--	1	20	--	--	--	SPARE	50	
51	SPARE	--	--	--	20	1	--		0	0			--	1	20	--	--	--	SPARE	52	
53	SPARE	--	--	--	20	1	--				0	0	--	1	20	--	--	--	SPARE	54	
CONNECTED PHASE LOAD									7742 VA	8605 VA	7860 VA	CALCULATED PANEL AMPS: 93 A									
*PHASE DIVERSIFIED LOAD									8048 VA	8945 VA	8170 VA										
*PHASE DIVERSIFIED AMPS									67 A	75 A	68 A										
NOTES/ACCESSORIES: 1. PROVIDE SPARE 20A, SINGLE-POLE BREAKERS IN ALL UNUSED SPACES. 2. ISOLATED GROUND KIT												PANEL TOTALS									
												TOTAL CONNECTED LOAD: 24207 VA									
												TOTAL DIVERSIFIED LOAD: 25163 VA									
												CONTROLLING LOAD: N/A									
(DIVERSIFIED LOADS CALCULATED PER THE NATIONAL ELECTRIC CODE.)																					

TIME SWITCH SCHEDULE

PLAN MARK	LOAD	VOLTAGE	MANUFACTURER	MODEL	SWITCH TYPE	AMP	POLES	ENCLOSURE	NOTES
TC1	EQUIPMENT SERVED CONTACTORS "LC1", "LC2", "LC3", AND "LC4"	120	ITNERMATIC	ET2145C	SPST	20	4	NEMA 1	--

LIGHTING CONTACTOR SCHEDULE

PLAN MARK	LOAD	VOLTAGE	TYPE	AMPERAGE	POLES	NEMA RATING	NOTES	CONTROL TYPE	INTERLOCK
LC1	INTERIOR LIGHTING	120	NORMALLY OPEN ELECTRICALLY HELD	20	4	NEMA 1	--	120V Coil	"TC1"
LC2	EXTERIOR LIGHTS/SIGNS	120	NORMALLY OPEN ELECTRICALLY HELD	20	12	NEMA 1	--	120V Coil	"TC1"
LC3	SIGNAGE	120	NORMALLY OPEN ELECTRICALLY HELD	20	20	NEMA 1	--	120V Coil	"TC1"
LC4	SITE LIGHTING	120	NORMALLY OPEN ELECTRICALLY HELD	20	4	NEMA 1	--	120V Coil	"TC1"

NOTES:
PROVIDE ALL CONTACTORS IN A SINGLE NEMA 1 ENCLOSURE. PROVIDE QUANTITY OF CONTACTORS REQUIRED TO MEET THE NUMBER OF POLES LISTED IN THE SCHEDULE.

CIRCUIT BREAKER SWITCHBOARD SCHEDULE

PANEL NAME: "MDP"		VOLTAGE: 120/208V, 3Ph, 4W FED BY: SERVICE LOCATION: EXTERIOR ENCLOSURE: NEMA 3R MOUNTING: SURFACE BREAKER MOUNTING SPACE: 66 in					MAINS TYPE: MCB BUS RATING (A): 400 A MCB RATING(A): 400 A MIN. AIC RATING (A): 22000 A MANUFACTURER / TYPE: SQUARE D / I-LINE								
		CKT	LOAD DESCRIPTION				TYPE	C	W	G	P	CB	A	B	C
		1	PANEL "LP1"								3	200 A	12883 VA	13754 VA	13125 VA
		2	PANEL "LP2"								3	200 A	7742 VA	8605 VA	7860 VA
		3	PRESSURE WASHER				0.75"	#8	#10		3	40 A	3759 VA	3759 VA	3759 VA
4	WALK IN COOLER COIL				0.75"	#12	#12	1	20 A			300 VA			
5	WALK IN FREEZER COIL				0.75"	#12	#12	2	20 A		620 VA			620 VA	
6	CUSTARD MACHINE				1.25"	#4	#8	3	60 A		3603 VA	3603 VA	3603 VA	3603 VA	
7	CUSTARD MACHINE				1.25"	#4	#8	3	60 A		3603 VA	3603 VA	3603 VA	3603 VA	
8	"RTU1"				1"	#6	#8	3	50 A		5044 VA	5044 VA	5044 VA	5044 VA	
9	E51.2 - WALK IN FREEZER				0.75"	#10	#10	2	30 A		2495 VA	2495 VA			
10	E50.2 - WALK IN COOLER				0.75"	#8	#10	2	35 A		2900 VA			2900 VA	
11															
12															
13															
14															
15															
NOTES/ACCESSORIES:						CONNECTED PHASE LOAD:						42648 VA	41162 VA	40513 VA	
REFERENCE ELECTRICAL RISER DIAGRAM FOR FEEDER SIZES BETWEEN PANELS.						PHASE DIVERSIFIED LOAD:						36225 VA	34963 VA	34412 VA	
						PHASE DIVERSIFIED AMPS:						303 A	292 A	292 A	
						CALCULATED PANEL AMPS:						378 A			
						CONTROLLING LOAD:						N/A			

UNDER ALTERNATE ELECTRICAL DISTRIBUTION CONFIGURATION, ALL BRANCH CIRCUITS FED FROM PANEL "MDP" SHALL BE FED FROM PANEL "LP1". PANEL "LP1" SHALL BE EQUAL TO SQUARE D MODEL NQ, 120/208V, 3PH, 4W, 225A MLO, 42 CKT, 22KA AIC, WITH RECESSED MOUNTING KIT. PROVIDE SPARE 20A, 1P BREAKERS IN ALL UNUSED SPACES.