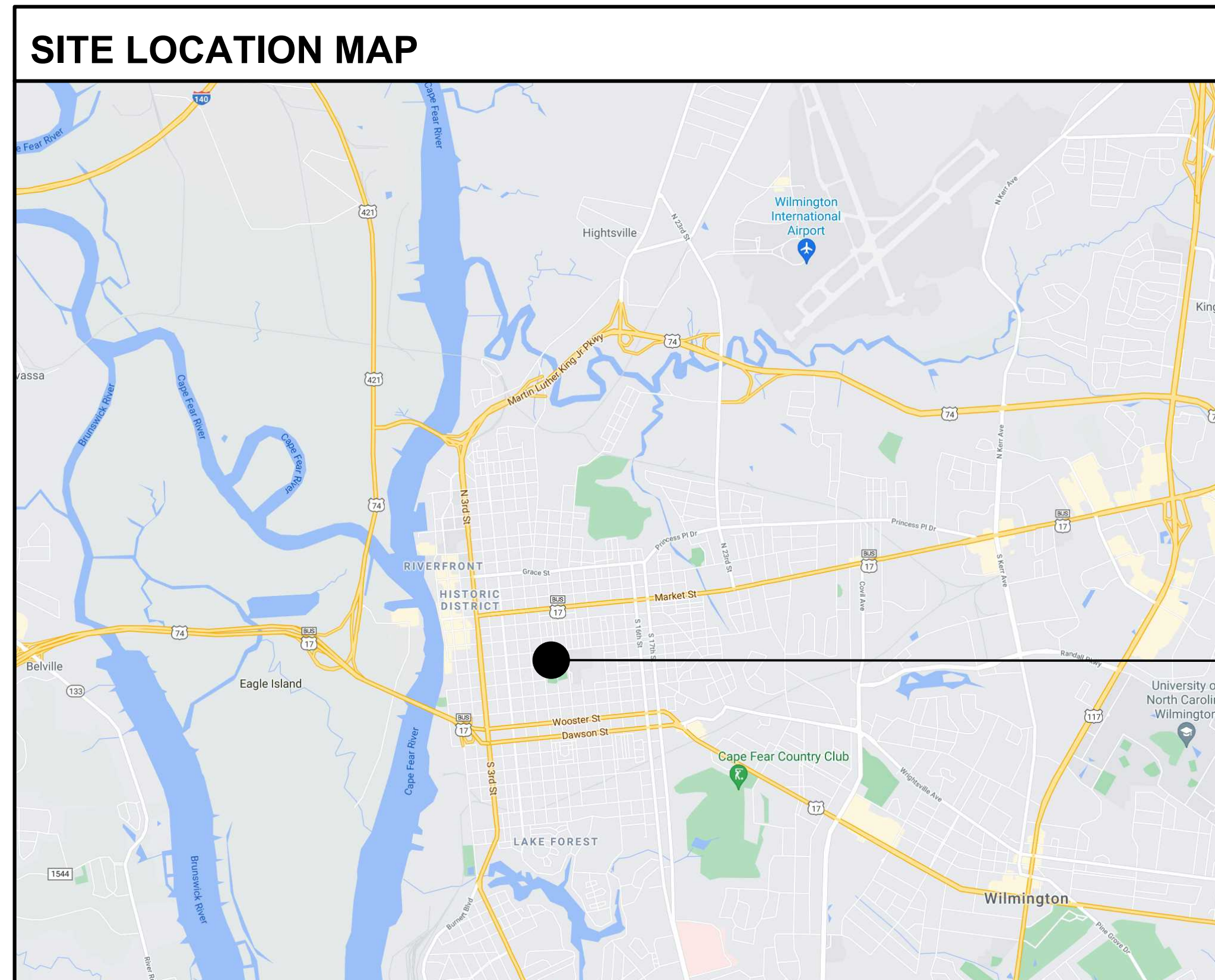


# MLK Center Addition & Renovation

401 S. 8th Street  
Wilmington, NC

## Construction Drawings

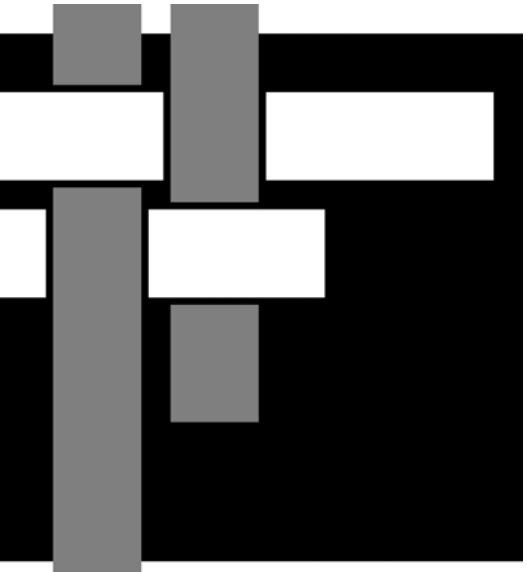
March 22, 2023



MLK Center

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Abbreviations	Symbols Legend
<p>A.C.T. - ACOUSTICAL CEILING TILE            ADJ. - ADJUSTABLE            A.F.F. - ABOVE FINISHED FLOOR            ALUM. - ALUMINUM            AHU - AIR HANDLING UNIT            BLDG. - BUILDING            B.O.S. - BOTTOM OF STEEL            B.R. - BACKER ROD            C.J. - CONTROL JOINT            C.M.U. - CONCRETE MASONRY UNIT            CONC. - CONCRETE            C.O. - CLEAN OUT            CONT. - CONTINUOUS            CP - CONCRETE PIPE            C.L. - CENTER LINE            DIA. - DIAMETER            DIM. - DIMENSION            D.S. - DOWN SPOUT            E.C. - ELECTRICAL CONTRACTOR            E.J. - EXPANSION JOINT            ELEV. - ELEVATION            EQ. - EQUAL            EQUIP. - EQUIPMENT            EXIST. - EXISTING            EXP. JT. - EXPANSION JOINT            F.F.E. - FINISH FLOOR ELEVATION            GALV. - GALVANIZED            GA. - GAUGE            G.C. - GENERAL CONTRACTOR            GWB - GYPSUM WALL BOARD            HT. - HEIGHT            INSUL. - INSULATION            INV. - INVERT            JT. - JOINT            MAS. - MASONRY            MAX. - MAXIMUM            MECH. - MECHANICAL            MFG. - MANUFACTURER            MIN. - MINIMUM            NOM. - NOMINAL            O.C. - ON CENTER            PERF. - PERFORATED            PEMB - PRE-ENGINEERED METAL BUILDING            HPL - HIGH PRESSURE LAMINATE            PLYWD. - PLYWOOD            P.S.I. - POUNDS PER SQUARE INCH            R. - RADIUS            R/A - RETURN AIR            R.A.G. - RETURN AIR GRILL            R.C.P. - REINFORCED CONCRETE PIPE            RD. - ROOF DRAIN            REINF. - REINFORCEMENT            REQ'D. - REQUIRED            R.O. - ROUGH OPENING            S/A - SUPPLY AIR            S.S. - STAINLESS STEEL            T.O.M. - TOP OF MASONRY            STRUCT. - STRUCTURAL            T.O.S. - TOP OF STEEL            TRTD - TREATED            TYP. - TYPICAL            V.B. - VAPOR BARRIER            V.C.T. - VINYL COMPOSITE TILE            VERT. - VERTICAL            W/ - WITH            @ - AT, AROUND, REGARDING</p>	<p><b>DRAWING TITLE</b></p> <p>INDICATES DRAWING #</p> <p>2 A1 Scale</p> <p>INDICATES SHEET WHERE DRAWING IS SHOWN</p> <p><b>BUILDING SECTION REFERENCE</b></p> <p>INDICATES SECTION #</p> <p>1 A1.0</p> <p>INDICATES SHEET WHERE DRAWING IS SHOWN</p> <p><b>WALL SECTION REFERENCE</b></p> <p>INDICATES SHEET WHERE SECTION IS SHOWN</p> <p>3-A4.0</p> <p>INDICATES SECTION #</p> <p><b>ELEVATION REFERENCE</b></p> <p>INDICATES SHEET WHERE ELEVATION IS SHOWN</p> <p>2-A1.4</p> <p>INDICATES ELEVATION #</p> <p><b>PLAN DETAIL REFERENCE</b></p> <p>INDICATES ENLARGED DETAIL</p> <p>3-A4.0</p> <p><b>DOOR #</b>      <b>ROOM #</b></p> <p>100      100</p> <p><b>WINDOW TYPE</b></p> <p>A</p> <p><b>VERTICAL ELEVATION ABOVE REFERENCE POINT</b></p> <p>+</p>



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PE: C-105

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NC LICENSE# C-1073



**MLK Center  
Addition &  
Renovation**  
401 S. 8th Street  
Wilmington, NC

Construction Drawings  
March 22, 2023

Revisions:

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Cover

**G1.0**  
01 of 06

**2018 APPENDIX B  
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS  
(EXCEPT 1 AND 2-FAMILY DWELLINGS AND TOWNHOUSES)**  
(Reproduce the following data on the building plans sheet 1 or 2)

Name of Project: MLK Center Gymnasium Addition  
Address: 401 S 8<sup>th</sup> Street, Wilmington, NC Zip Code: 28401  
Owner/Authorized Agent: John R. Sawyer Phone # (910)762-0892 E-Mail: john@s2a3.com  
Owned By: City  
Code Enforcement Jurisdiction: City

DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE #	E-MAIL
Architectural	Sawyer Sherwood & Associate, PC	John R. Sawyer	3428	(910) 762-0892	john@s2a3.com
Civil	CLH Design, PA	Steve Miller	22625	(919) 319-6716	smiller@clhdesign.com
Electrical	Cheatham & Associates	Mark Ciarracca	17593	(910) 452-4210	mcarracca@cheatham.com
Fire Alarm	Cheatham & Associates	Mark Ciarracca	17593	(910) 452-4210	mcarracca@cheatham.com
Plumbing	Cheatham & Associates	Casey D. Gilman	043164	(910) 452-4210	cgilman@cheatham.com
Mechanical	Cheatham & Associates	Kenneth Lynch	17655	(910) 452-4210	klynch@cheatham.com
Sprinkler-Standpipe	Cheatham & Assoc.	Casey D Gilman	043164	(910) 452-4210	cgilman@cheatham.com
Structural	Woods Engineering	Don Woods	19475	(910) 243-8007	dwoods@woodseng.com
Retaining Walls >5' High					
Other					

2018 NC BUILDING CODE: New Building  
2018 NC EXISTING BUILDING CODE: N/A  
CONSTRUCTED: (date) \_\_\_\_\_ CURRENT OCCUPANCY(S) (Ch. 3): \_\_\_\_\_  
RENOVATED: (date) \_\_\_\_\_ PROPOSED OCCUPANCY(S) (Ch. 3): Assembly A-3  
RISK CATEGORY (Table 1604.5): Current: N/A Proposed: III

BASIC BUILDING DATA  
Construction Type: II-B  
Sprinklers: Yes NFPA 13  
Standpipes: No  
Primary Fire District: No Flood Hazard Area: No  
Special Inspections Required: Yes - See Structural Drawings for Schedule of Special Inspections

FLOOR	Gross Building Area Table		SUB-TOTAL
	EXISTING (SQ FT)	NEW (SQ FT)	
3 <sup>rd</sup> Floor			
2 <sup>nd</sup> Floor			
Mezzanine			
1 <sup>st</sup> Floor		10,122 sf	10,122 sf
Basement			
TOTAL			10,122 sf

2018 NC Administrative Code and Policies

**FIRE PROTECTION REQUIREMENTS**

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	RATING REQ'D	PROVIDED (W/ REDUCTION)	DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY	SHEET # FOR RATED PENETRATION	SHEET # FOR RATED JOINTS
Structural Frame, including columns, girders, mases	>30'	0HR					
Bearing Walls							
Exterior							
North	>30'	0HR					
East	>30'	0HR					
West	0	2HR	G2.0	U905			
South	>30'	0HR					
Interior							
Nonbearing Walls and Partitions							
Exterior walls							
North	N/A	0HR					
East	N/A	0HR					
West	N/A	0HR					
South	N/A	0HR					
Interior walls and partitions							
Floor Construction including supporting beams and joists		N/A					
Floor Ceiling Assembly		N/A					
Column Supporting Floors		N/A					
Roof Construction, including supporting beams and joists		0HR					
Roof Ceiling Assembly		0HR					
Column Supporting Roof		N/A					
Shaft Enclosures - Exit		N/A					
Shaft Enclosures - Other		N/A					
Corridor Separation		N/A					
Occupancy Fire Barrier Separation		N/A					
Party Fire Wall Separation	3HR	2HR; Exception (a)	G2.0	U905			
Smoke Barrier Separation		N/A					
Smoke Partition		N/A					
Tenant Dwelling Unit/ Sleeping Unit Separation		N/A					
Incidental Use Separation		N/A					

\* Indicate section number permitting reduction

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**ACCESSIBLE DWELLING UNITS  
(SECTION 1107)**

TOTAL UNITS	ACCESSIBLE UNITS REQUIRED	ACCESSIBLE UNITS PROVIDED	TYPE A UNITS REQUIRED	TYPE A UNITS PROVIDED	TYPE B UNITS REQUIRED	TYPE B UNITS PROVIDED	TOTAL ACCESSIBLE UNITS PROVIDED
N/A							

**ACCESSIBLE PARKING  
SEE CIVIL DRAWINGS  
(SECTION 1106)**

LOT OR PARKING AREA	TOTAL # OF PARKING SPACES REQUIRED	TOTAL # OF PARKING SPACES PROVIDED	# OF ACCESSIBLE SPACES PROVIDED			TOTAL # ACCESSIBLE PROVIDED
			REGULAR WITH 5' ACCESS AISLE	132" ACCESS AISLE	8' ACCESS AISLE	
TOTAL						

**PLUMBING FIXTURE REQUIREMENTS  
(TABLE 2902.1)**

SPACE	USE	WATER CLOSETS			URINALS			LAVATORIES			SINKS / TUBS	DRINKING FOUNTAINS	
		MALE	FEMALE	UNSEX.	MALE	FEMALE	UNSEX.	MALE	FEMALE	UNSEX.		REGULAR	ACCESSIBLE
REQ'D	NEW	1	3	1	2	2	2	1				1	1
	REQ'D	1	2			1	1						1

**SPECIAL APPROVALS**

Special approval: (Local Jurisdiction, Department of Insurance, OSC, DPI, DHHS, etc., describe below)

2018 NC Administrative Code and Policies

Walls below grade (each assembly)  
Description of assembly: N/A

Floors above grade (each assembly)  
Description of assembly: N/A

Floors slab on grade  
Description of assembly: 4" concrete slab over vapor barrier  
U-Value of total assembly: 0.24  
R-Value of insulation: NR  
Horizontal/vertical requirement: NR  
slab heated: N/A

**2018 APPENDIX B  
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS  
STRUCTURAL DESIGN  
(PROVIDE ON THE STRUCTURAL SHEETS IF APPLICABLE)  
SUMMARY PROVIDED ON STRUCTURAL DRAWING SHEETS**

**2018 APPENDIX B  
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS  
MECHANICAL DESIGN  
(PROVIDE ON THE MECHANICAL SHEETS IF APPLICABLE)  
SUMMARY PROVIDED ON MECHANICAL DRAWING SHEETS**

**2018 APPENDIX B  
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS  
ELECTRICAL DESIGN  
(PROVIDE ON THE ELECTRICAL SHEETS IF APPLICABLE)  
SUMMARY PROVIDED ON ELECTRICAL DRAWING SHEETS**

2018 NC Administrative Code and Policies

**ALLOWABLE AREA**

Primary Occupancy Classification(s): Assembly - A-3  
Accessory Occupancy Classification(s): S-1 & Business  
Incidental Uses (Table 509): \_\_\_\_\_  
Special Uses (Chapter 4 - List Code Sections): \_\_\_\_\_  
Special Provisions: (Chapter 5 - List Code Sections): \_\_\_\_\_  
Mixed Occupancy: No Separation: Select one Exception: \_\_\_\_\_  
Select one  
$$\frac{\text{Actual Area of Occupancy A}}{\text{Allowable Area of Occupancy A}} + \frac{\text{Actual Area of Occupancy B}}{\text{Allowable Area of Occupancy B}} \leq 1$$
  
$$+ \dots + \dots = \dots \leq 1.00$$

STORY NO.	DESCRIPTION AND USE	(A) BLDG. AREA PER STORY (ACTUAL)	(B) TABLE 506.2, AREA	(C) AREA FOR FRONTAGE INCREASE <sup>1,2</sup>	(D) ALLOWABLE AREA PER STORY OR UNLIMITED <sup>3</sup>
1	A-3	10,122	38,000		

<sup>1</sup> Frontage area increases from Section 506.3 are computed thus:  
a. Perimeter which fronts a public way or open space having 20 feet minimum width = \_\_\_\_ (F)  
b. Total Building Perimeter = \_\_\_\_ (P)  
c. Ratio (F/P) = \_\_\_\_ (F/P)  
d. W = Minimum width of public way =  $\frac{30}{W}$  (W)  
e. Percent of frontage increase  $I_f = 100(F/P - 0.25) \times W/30 = \underline{\quad}$  (%)  
<sup>2</sup> Unlimited area applicable under conditions of Section 507.  
<sup>3</sup> Maximum Building Area = total number of stories in the building x D (maximum 3 stories) (506.2).  
<sup>4</sup> The maximum area of open parking garages must comply with Table 406.5.4.  
<sup>5</sup> Frontage increase is based on the un sprinklered area value in Table 506.2.

**ALLOWABLE HEIGHT**

	ALLOWABLE	SHOWN ON PLANS	CODE REFERENCE <sup>1</sup>
Building Height in Feet (Table 504.3) <sup>2</sup>	75	34'-10"	
Building Height in Stories (Table 504.4) <sup>3</sup>	3	1	

<sup>1</sup> Provide code reference if the "Shown on Plans" quantity is not based on Table 504.3 or 504.4.  
<sup>2</sup> The maximum height of air traffic control towers must comply with Table 412.3.1.  
<sup>3</sup> The maximum height of open parking garages must comply with Table 406.5.4.

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**PERCENTAGE OF WALL OPENING CALCULATIONS**

FIRE SEPARATION DISTANCE (FEET) FROM PROPERTY LINES	DEGREE OF OPENINGS PROTECTION (TABLE 705.8)	ALLOWABLE AREA (%)	ACTUAL SHOWN ON PLANS (%)
>30'	0HR	No Limit	N/A

**LIFE SAFETY SYSTEM REQUIREMENTS**

Emergency Lighting: Yes  
Exit Signs: Yes  
Fire Alarm: Yes  
Smoke Detection Systems: No  
Carbon Monoxide Detection: No

**LIFE SAFETY PLAN REQUIREMENTS**

Life Safety Plan Sheet #: G2.0  
 Fire and/or smoke rated wall locations (Chapter 7)  
 Assumed and real property line locations (if not on the site plan)  
 Exterior wall opening area with respect to distance to assumed property lines (705.8)  
 Occupancy Use for each area as it relates to occupant load calculation (Table 1004.1.2)  
 Occupant loads for each area  
 Exit access travel distances (1017)  
 Common path of travel distances (Tables 1006.2.1 & 1006.3.2(1))  
 Dead end lengths (1020.4)  
 Clear exit widths for each exit door  
 Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.3)  
 Actual occupant load for each exit door  
 A separate schematic plan indicating where fire rated floor/ceiling and/or roof structure is provided for purposes of occupancy separation  
 Location of doors with panic hardware (1010.1.10)  
 Location of doors with delayed egress locks and the amount of delay (1010.1.9.7)  
 Location of doors with electromagnetic egress locks (1010.1.9.9)  
 Location of doors equipped with hold-open devices  
 Location of emergency escape windows (1030)  
 The square footage of each fire area (202)  
 The square footage of each smoke compartment for Occupancy Classification 1-2 (407.5)  
 Note any code exceptions or table notes that may have been utilized regarding the items above

2018 NC Administrative Code and Policies

**ENERGY SUMMARY**

**ENERGY REQUIREMENTS:**  
The following data shall be considered minimum and any special attribute required to meet the energy code shall also be provided. Each Designer shall furnish the required portions of the project information for the plan data sheet. If performance method, state the annual energy cost for the standard reference design vs annual energy cost for the proposed design.

Existing building envelope complies with code: No

Exempt Building: No Provide code or statutory reference: NC Existing Building Code Chapter 4 Prescriptive Compliance Method, allows materials already in use and in compliance with requirements in effect at the time of their installation shall be permitted to remain in use (401.2.1 Existing Materials); and additions to any building shall comply with the requirements of the code for New Construction. Alterations to the existing building shall be made to ensure the existing building together with the addition are no less conforming to the code than the existing building was prior to the addition (402.1).

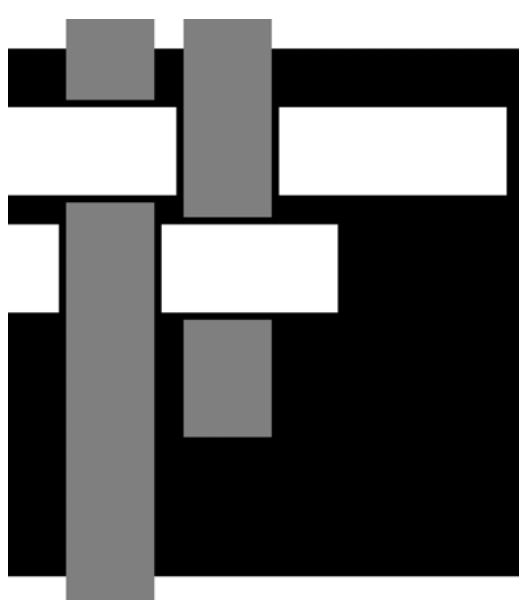
Climate Zone: 3A

Method of Compliance: Energy Code - Prescriptive  
(If "Other" specify source here) \_\_\_\_\_

**THERMAL ENVELOPE** (Prescriptive method only)

**Roof/Ceiling Assembly** (each assembly)  
Description of assembly: Metal roofing, Thermal blocks at structure, 8" insulation liner system  
U-Value of total assembly: 0.027 provided - 0.041 required  
R-Value of insulation: Liner System - R19 + R11  
Description of assembly: Single Ply Membrane, cover board, 4 1/2" polyiso insulation, metal deck  
U-Value of total assembly: 0.038 provided - 0.039 required  
R-Value of insulation: R26.8ci  
Skylights in each assembly: N/A  
U-Value of skylight: N/A  
Total square footage of skylights in each assembly: N/A  
**Exterior Walls** (each assembly)  
Description of assembly: Metal wall panel, 8" insulation liner system  
U-Value of total assembly: 0.038 provided - 0.094 required  
R-Value of insulation: R25  
Description of assembly: Brick, air space, metal wall panel, 8" insulation liner system, 1/2" plywood  
U-Value of total assembly: 0.036 provided - 0.094 required  
R-Value of insulation: R25  
Description of assembly: Brick, air space, 2" mineral wool insulation board, 8" CMU  
U-Value of total assembly: 0.088 provided - 0.094 required  
R-Value of insulation: Mineral Wool Insulation Board = R8ci  
Openings (windows or doors with glazing)  
U-Value of assembly: 0.29  
Solar heat gain coefficient: 0.22  
Projection factor: N/A  
Door R-Values: 0.68

2018 NC Administrative Code and Policies



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NC LICENSE# C-1073



**MLK Center  
Addition &  
Renovation**  
401 S. 8th Street  
Wilmington, NC

Construction Drawings  
March 22, 2023

Revisions:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Appendix B:  
Gymnasium  
Addition

**G1.1**  
02 of 06

**2018 APPENDIX B  
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS  
(EXCEPT 1 AND 2-FAMILY DWELLINGS AND TOWNHOUSES)**  
(Reproduce the following data on the building plans sheet 1 or 2)

Name of Project: MLK Center Lobby Addition & Kitchen Addition & Renovation  
Address: 401 S 8<sup>th</sup> Street, Wilmington, NC Zip Code: 28401  
Owner/Authorized Agent: John R. Sawyer Phone # (910)762-0892 E-Mail: john@s2a3.com  
Owned By: City  
Code Enforcement Jurisdiction: City

DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE #	E-MAIL
Architectural	Sawyer Sherwood & Associate, PC	John R. Sawyer	3428	(910) 762-0892	john@s2a3.com
Civil	CLH Design, PA	Steve Miller	22625	(919) 319-6716	smiller@clhdesign.com
Electrical	Cheatham & Associates	Mark Chiarocca	17593	(910) 452-4210	mchiaroc@cheatham.com
Fire Alarm	Cheatham & Associates	Mark Chiarocca	17593	(910) 452-4210	mchiaroc@cheatham.com
Plumbing	Cheatham & Associates	Casey D. Gilman	043164	(910) 452-4210	cgilman@cheatham.com
Mechanical	Cheatham & Associates	Kenneth Lynch	17655	(910) 452-4210	klynch@cheatham.com
Sprinkler-Standpipe	N/A				
Structural	Woods Engineering	Don Woods	19475	(910) 343-8007	dwoods@woodseng.com
Retaining Walls >5' High	N/A				
Other					

"Other" should include firms and individuals such as truss, precast, pre-engineered, interior designers, etc.)

**2018 NC BUILDING CODE:** Addition

**2018 NC EXISTING BUILDING CODE:** Alteration Level II Select one Select one

**CONSTRUCTED:** (date) 1972 **CURRENT OCCUPANCY(S)** (Ch. 3): Assembly A-3

**RENOVATED:** (date) 2007 **PROPOSED OCCUPANCY(S)** (Ch. 3): Assembly A-3

**RISK CATEGORY** (Table 1604.5): Current: N/A Proposed: III

**BASIC BUILDING DATA**  
Construction Type: II-B  
Sprinklers: No N/A  
Standpipes: No  
Primary Fire District: No **Flood Hazard Area:** No  
Special Inspections Required: Yes - See Structural drawings for Schedule of Special Inspections

Gross Building Area Table			
FLOOR	EXISTING (SQ FT)	NEW (SQ FT)	SUB-TOTAL
3 <sup>rd</sup> Floor			
2 <sup>nd</sup> Floor			
Mezzanine			
1 <sup>st</sup> Floor	11,585 sf	740 sf	12,325 sf
Basement			
<b>TOTAL</b>			<b>12,325 sf</b>

2018 NC Administrative Code and Policies

**FIRE PROTECTION REQUIREMENTS**

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	RATING REQ'D	RATING PROVIDED (W/ REDUCTION)	DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY	SHEET # FOR RATED PENETRATION	SHEET # FOR RATED JOINTS
Structural Frame, including columns, girders, mases	>30'	0HR					
Bearing Walls							
Exterior							
North	>30'	0HR					
East	0	2HR	G2.0	U905			
West	>30'	0HR					
South	>30'	0HR					
Interior							
Nonbearing Walls and Partitions							
Exterior walls							
North	N/A	0HR					
East	N/A	0HR					
West	N/A	0HR					
South	N/A	0HR					
Interior walls and partitions							
Floor Construction							
Including supporting beams and joists							
Floor Ceiling Assembly							
Columns Supporting Floors							
Roof Construction, including supporting beams and joists							
Roof Ceiling Assembly							
Columns Supporting Roof							
Shaft Enclosures - Esc							
Shaft Enclosures - Other							
Corridor Separation							
Occupancy Fire Barrier Separation							
Party Fire Wall Separation							
Smoke Barrier Separation							
Smoke Partition							
Tenant/Dwelling Unit/ Sleeping Unit Separation							
Incidental Use Separation							

\* Indicate section number permitting reduction

2018 NC Administrative Code and Policies

**ACCESSIBLE DWELLING UNITS  
(SECTION 1107)**

TOTAL UNITS	ACCESSIBLE UNITS REQUIRED	ACCESSIBLE UNITS PROVIDED	TYPE A UNITS REQUIRED	TYPE A UNITS PROVIDED	TYPE B UNITS REQUIRED	TYPE B UNITS PROVIDED	TOTAL ACCESSIBLE UNITS PROVIDED
N/A							

**ACCESSIBLE PARKING  
SEE CIVIL DRAWINGS  
(SECTION 1106)**

LOT OR PARKING AREA	TOTAL # OF PARKING SPACES		# OF ACCESSIBLE SPACES PROVIDED			TOTAL # ACCESSIBLE PROVIDED
	REQUIRED	PROVIDED	REGULAR WITH 5' ACCESS AISLE	132" ACCESS AISLE	8' ACCESS AISLE	
TOTAL						

**PLUMBING FIXTURE REQUIREMENTS  
(TABLE 2902.1)**

USE	SPACE	WATER CLOSETS		URINALS	LAVATORIES		SINKS	DRINKING FOUNTAINS	
		MALE	FEMALE		MALE	FEMALE		REGULAR	ACCESSIBLE
EXIST'G	1	5		2	3	4		2	1
NEW									
REQ'D	2	2			1	1			1

**SPECIAL APPROVALS**

Special approval: (Local Jurisdiction, Department of Insurance, OSC, DPI, DHHS, etc., describe below)

2018 NC Administrative Code and Policies

**2018 APPENDIX B  
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS  
STRUCTURAL DESIGN  
(PROVIDE ON THE STRUCTURAL SHEETS IF APPLICABLE)**

SUMMARY PROVIDED ON STRUCTURAL DRAWING SHEETS

**2018 APPENDIX B  
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS  
MECHANICAL DESIGN  
(PROVIDE ON THE MECHANICAL SHEETS IF APPLICABLE)**

SUMMARY PROVIDED ON MECHANICAL DRAWING SHEETS

**2018 APPENDIX B  
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS  
ELECTRICAL DESIGN  
(PROVIDE ON THE ELECTRICAL SHEETS IF APPLICABLE)**

SUMMARY PROVIDED ON ELECTRICAL DRAWING SHEETS

2018 NC Administrative Code and Policies

**ALLOWABLE AREA**

Primary Occupancy Classification(s): Assembly - A-3  
Accessory Occupancy Classification(s): S-1 & Business  
Incidental Uses (Table 509): \_\_\_\_\_  
Special Uses (Chapter 4 - List Code Sections): \_\_\_\_\_  
Special Provisions: (Chapter 5 - List Code Sections): \_\_\_\_\_  
Mixed Occupancy: No Separation: Select one Exception: \_\_\_\_\_  
Select one  
$$\frac{\text{Actual Area of Occupancy A}}{\text{Allowable Area of Occupancy A}} + \frac{\text{Actual Area of Occupancy B}}{\text{Allowable Area of Occupancy B}} \leq 1.00$$

STORY NO.	DESCRIPTION AND USE	(A) BLDG. AREA PER STORY (ACTUAL)	(B) TABLE 506.2.1 AREA	(C) AREA FOR FRONTAGE INCREASE <sup>1,2</sup>	(D) ALLOWABLE AREA PER STORY OR UNLIMITED <sup>3</sup>
1	A-3	12,325	9,500	5,700	15,200

<sup>1</sup> Frontage area increases from Section 506.3 are computed thus:  
a. Perimeter which fronts a public way or open space having 20 feet minimum width = 423 (F)  
b. Total Building Perimeter 492 = (P)  
c. Ratio (F/P) = 0.85 (F/P)  
d. W = Minimum width of public way = 30' (W)  
e. Percent of frontage increase  $I_f = 100(F/P - 0.25) \times W/30 = 60$  (%)  
<sup>2</sup> Unlimited area applicable under conditions of Section 507.  
<sup>3</sup> Maximum Building Area = total number of stories in the building x D (maximum 3 stories) (506.2).  
<sup>4</sup> The maximum area of open parking garages must comply with Table 406.5.4.  
<sup>5</sup> Frontage increase is based on the unsprinklered area value in Table 506.2.

**ALLOWABLE HEIGHT**

	ALLOWABLE	SHOWN ON PLANS	CODE REFERENCE <sup>1</sup>
Building Height in Feet (Table 504.3) <sup>2</sup>	55	26'-0"	
Building Height in Stories (Table 504.4) <sup>3</sup>	2	1	

<sup>1</sup> Provide code reference if the "Shown on Plans" quantity is not based on Table 504.3 or 504.4.  
<sup>2</sup> The maximum height of air traffic control towers must comply with Table 412.3.1.  
<sup>3</sup> The maximum height of open parking garages must comply with Table 406.5.4.

2018 NC Administrative Code and Policies

**PERCENTAGE OF WALL OPENING CALCULATIONS**

FIRE SEPARATION DISTANCE (FEET) FROM PROPERTY LINES	DEGREE OF OPENINGS PROTECTION (TABLE 705.8)	ALLOWABLE AREA (%)	ACTUAL SHOWN ON PLANS (%)
>30'	0HR	No Limit	N/A

**LIFE SAFETY SYSTEM REQUIREMENTS**

Emergency Lighting: Yes  
Exit Signs: Yes  
Fire Alarm: Yes  
Smoke Detection Systems: No  
Carbon Monoxide Detection: No

**LIFE SAFETY PLAN REQUIREMENTS**

Life Safety Plan Sheet #: G2.0

Fire and/or smoke rated wall locations (Chapter 7)  
 Assumed and real property line locations (if not on the site plan)  
 Exterior wall opening area with respect to distance to assumed property lines (705.8)  
 Occupancy Use for each area as it relates to occupant load calculation (Table 1004.1.2)  
 Occupant loads for each area  
 Exit access travel distances (1017)  
 Common path of travel distances (Tables 1006.2.1 & 1006.3.2(1))  
 Dead end lengths (1020.4)  
 Clear exit widths for each exit door  
 Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.3)  
 Actual occupant load for each exit door  
 A separate schematic plan indicating where fire rated floor/ceiling and/or roof structure is provided for purposes of occupancy separation  
 Location of doors with panic hardware (1010.1.10)  
 Location of doors with delayed egress locks and the amount of delay (1010.1.9.7)  
 Location of doors with electromagnetic egress locks (1010.1.9.9)  
 Location of doors equipped with hold-open devices  
 Location of emergency escape windows (1030)  
 The square footage of each fire area (202)  
 The square footage of each smoke compartment for Occupancy Classification I-2 (407.5)  
 Note any code exceptions or table notes that may have been utilized regarding the items above

2018 NC Administrative Code and Policies

**ENERGY SUMMARY**

**ENERGY REQUIREMENTS:**  
The following data shall be considered minimum and any special attribute required to meet the energy code shall also be provided. Each Designer shall furnish the required portions of the project information for the plan data sheet. If performance method, state the annual energy cost for the standard reference design vs annual energy cost for the proposed design.

Existing building envelope complies with code: No

Exempt Building: No Provide code or statutory reference: NC Existing Building Code Chapter 4 Prescriptive Compliance Method, allows materials already in use and in compliance with requirements in effect at the time of their installation shall be permitted to remain in use (401.2.1 Existing Materials), and additions to any building shall comply with the requirements of the code for New Construction. Alterations to the existing building shall be made to ensure the existing building together with the addition are no less conforming to the code than the existing building was prior to the addition (402.1).

Climate Zone: 3A

Method of Compliance: Energy Code - Prescriptive  
(If "Other" specify source here)

**THERMAL ENVELOPE** (Prescriptive method only)

**Roof/Ceiling Assembly** (each assembly)  
Description of assembly: Single Ply Membrane roof, cover board, 4 1/2" polyiso insulation, metal deck  
U-Value of total assembly: 0.038  
R-Value of insulation: R26.8ci  
Skylights in each assembly: N/A  
U-Value of skylight: N/A  
Total square footage of skylights in each assembly: N/A

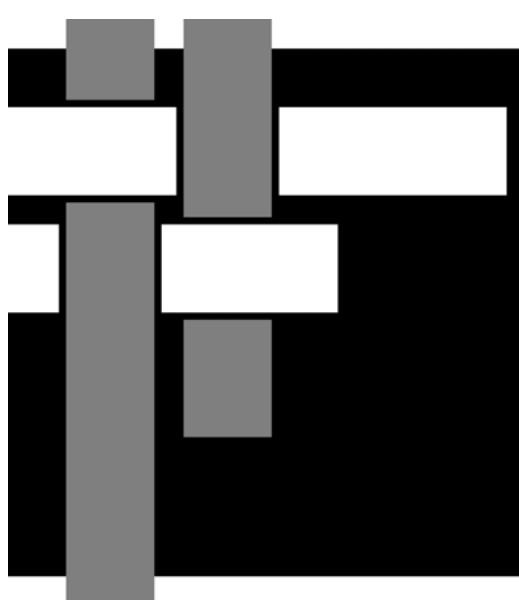
**Exterior Walls** (each assembly)  
Description of assembly: Brick, air space, 2" ci, 8" CMU  
U-Value of total assembly: 0.088  
R-Value of insulation: R8ci  
Openings (windows or doors with glazing)  
U-Value of assembly: 0.29  
Solar heat gain coefficient: 0.22  
Projection factor: Back Lobby window 0.4  
Door R-Values: 0.68

**Walls below grade** (each assembly)  
Description of assembly: N/A

**Floors over unconditioned space** (each assembly)  
Description of assembly: N/A

**Floors slab on grade**  
Description of assembly: 4" concrete slab over vapor barrier  
U-Value of total assembly: 0.24  
R-Value of insulation: NR  
Horizontal/vertical requirements: NR  
slab heated: N/A

2018 NC Administrative Code and Policies

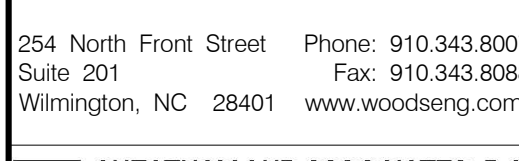


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& ASSOCIATE  
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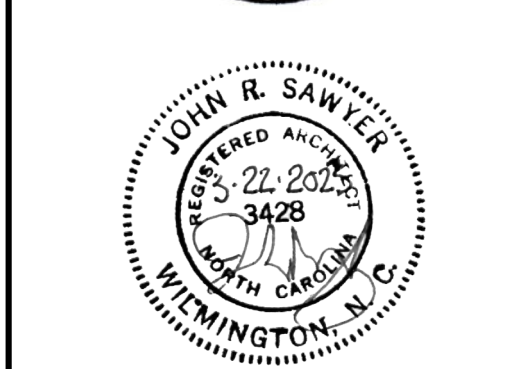
**CLH DESIGN, P.A.**  
400 Highway 101 East One  
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NC LICENSE# C-1073



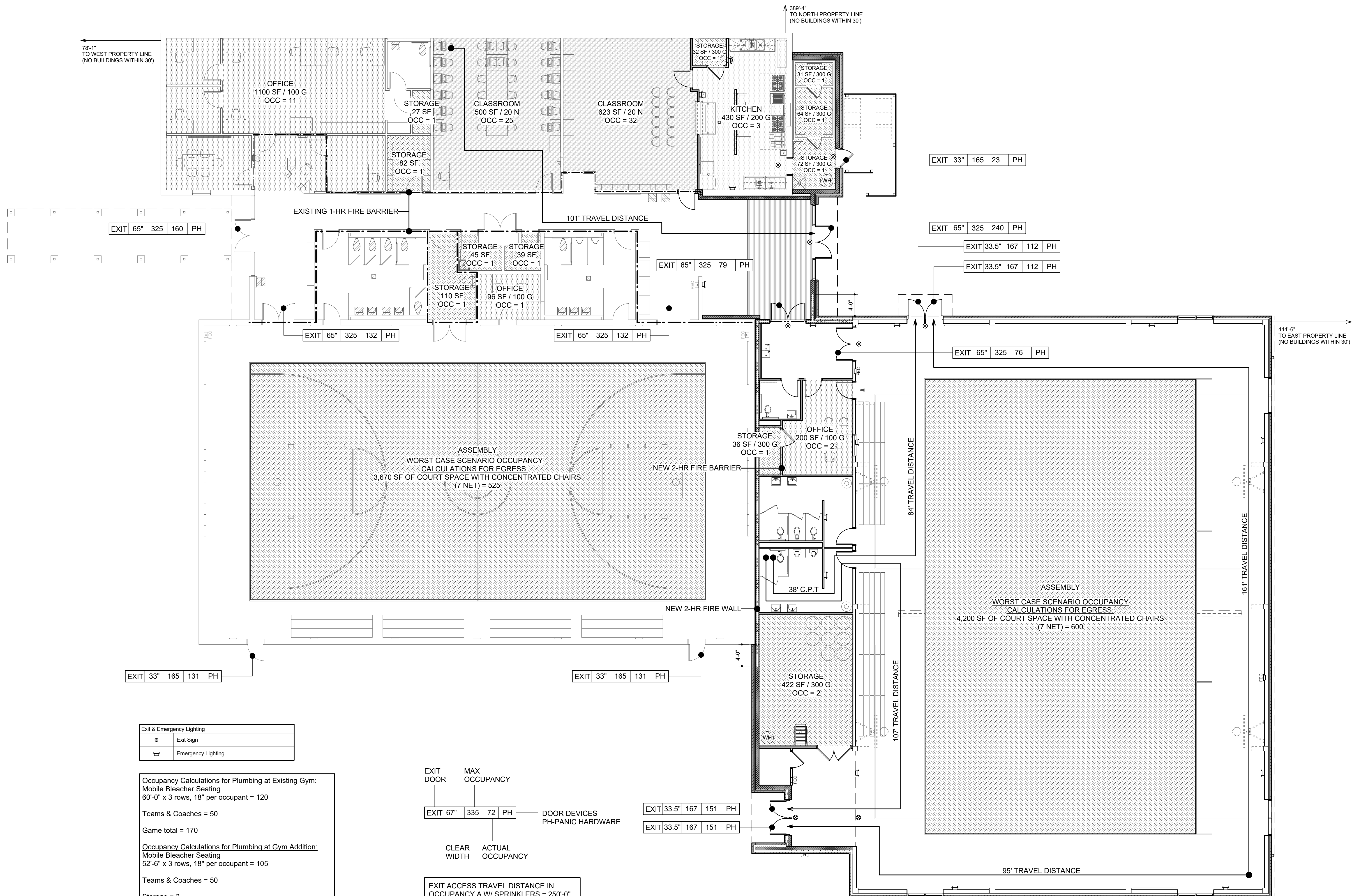
**MLK Center  
Addition &  
Renovation**  
401 S. 8th Street  
Wilmington, NC

Construction Drawings  
March 22, 2023

Revisions:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Appendix B:  
Lobby/Kitchen  
Addition &  
Renovation

**G1.2**  
03 of 06



Exit & Emergency Lighting	
⊙	Exit Sign
⌂	Emergency Lighting

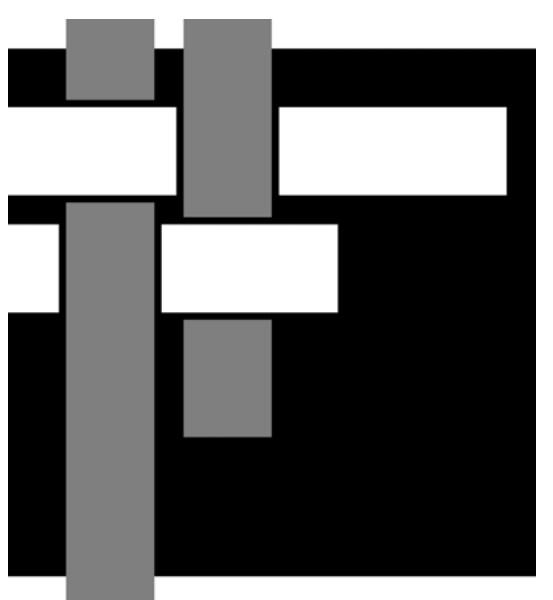
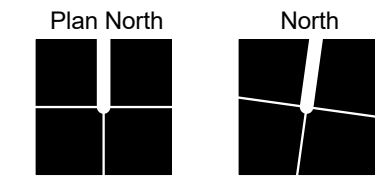
**Occupancy Calculations for Plumbing at Existing Gym:**  
 Mobile Bleacher Seating  
 60'-0" x 3 rows, 18" per occupant = 120  
 Teams & Coaches = 50  
 Game total = 170

**Occupancy Calculations for Plumbing at Gym Addition:**  
 Mobile Bleacher Seating  
 52'-6" x 3 rows, 18" per occupant = 105  
 Teams & Coaches = 50  
 Storage = 3  
 Office = 2  
 Game total = 160

EXIT DOOR	MAX OCCUPANCY	CLEAR WIDTH	ACTUAL OCCUPANCY	DOOR DEVICES
EXIT 67"	335	72"	PH	PH-PANIC HARDWARE

EXIT ACCESS TRAVEL DISTANCE IN OCCUPANCY A W/ SPRINKLERS = 250'-0"  
 EXIT ACCESS TRAVEL DISTANCE IN OCCUPANCY A W/O SPRINKLERS = 200'-0"  
 COMMON PATH OF TRAVEL = 75'-0"  
 DEAD END = 20 FOR ASSEMBLY

**1** Life Safety Plan  
 Scale: 1/8" = 1'-0"



**SAWYER SHERWOOD & ASSOCIATE ARCHITECTURE**  
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 400 Regency Forest Drive  
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 PE: C-1055

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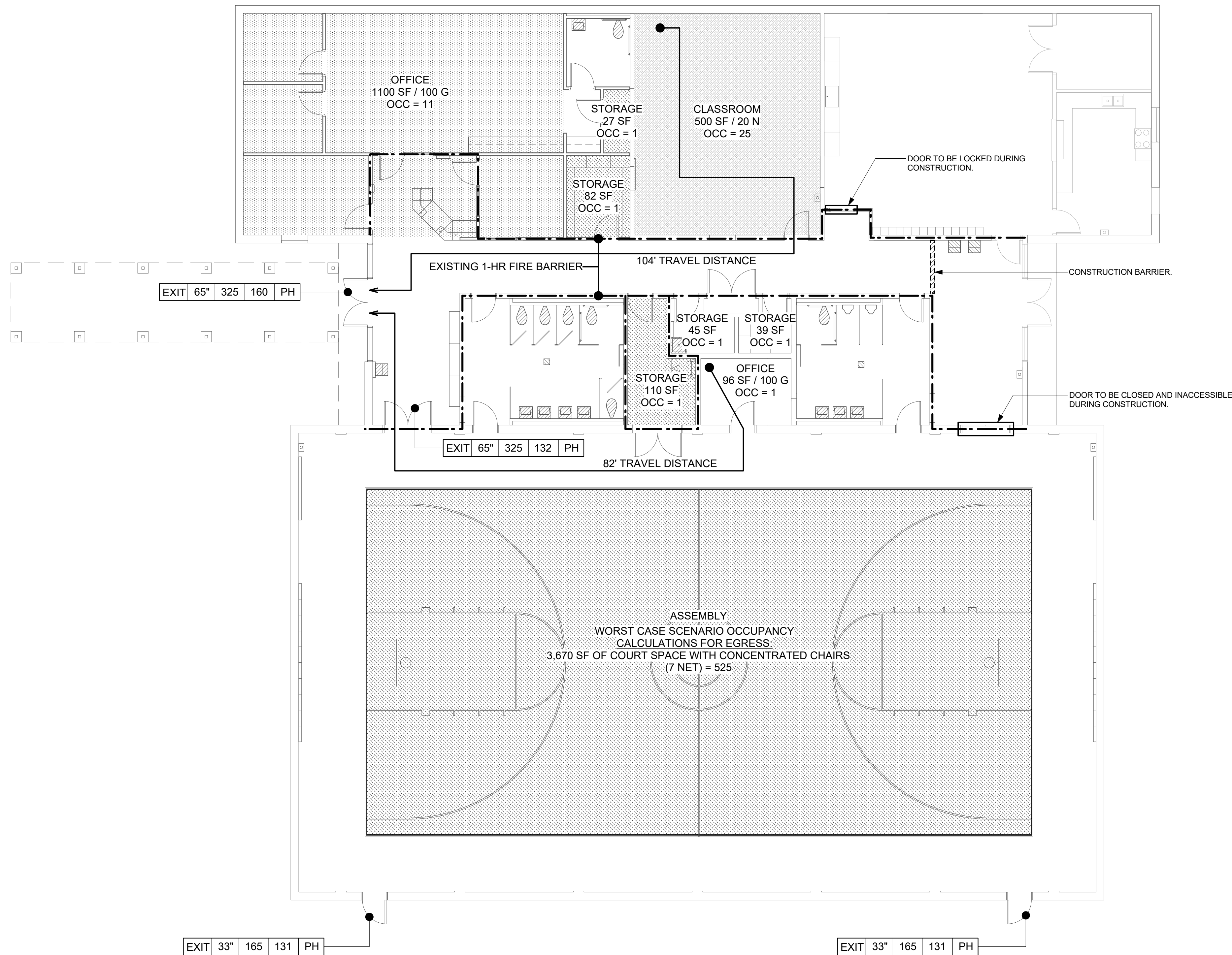
**MLK Center Addition & Renovation**  
 401 S. 8th Street  
 Wilmington, NC

Construction Drawings  
 March 22, 2023

Revisions:  
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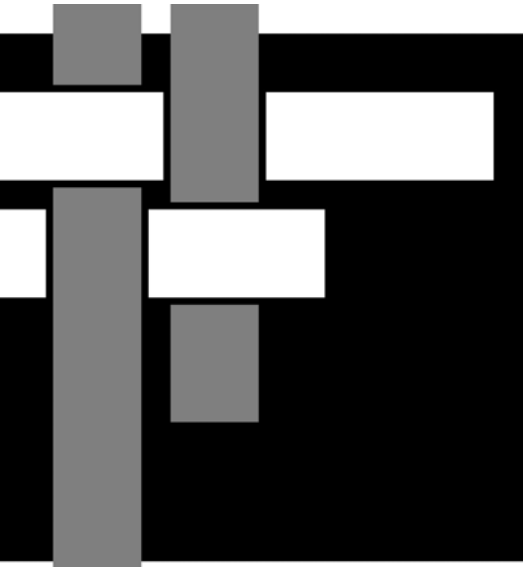
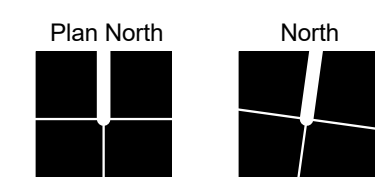
Life Safety Plan

**G2.0**  
 04 of 06



EXIT DOOR	CLEAR WIDTH	MAX OCCUPANCY	ACTUAL OCCUPANCY	DOOR DEVICES
EXIT 67"	335	72	PH	PH-PANIC HARDWARE

EXIT ACCESS TRAVEL DISTANCE IN OCCUPANCY A W/O SPRINKLERS = 200'-0"  
COMMON PATH OF TRAVEL = 75'-0"  
DEAD END = 20 FOR ASSEMBLY



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March 22, 2023

Revisions:  
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\_\_\_\_\_

Construction  
Life Safety Plan

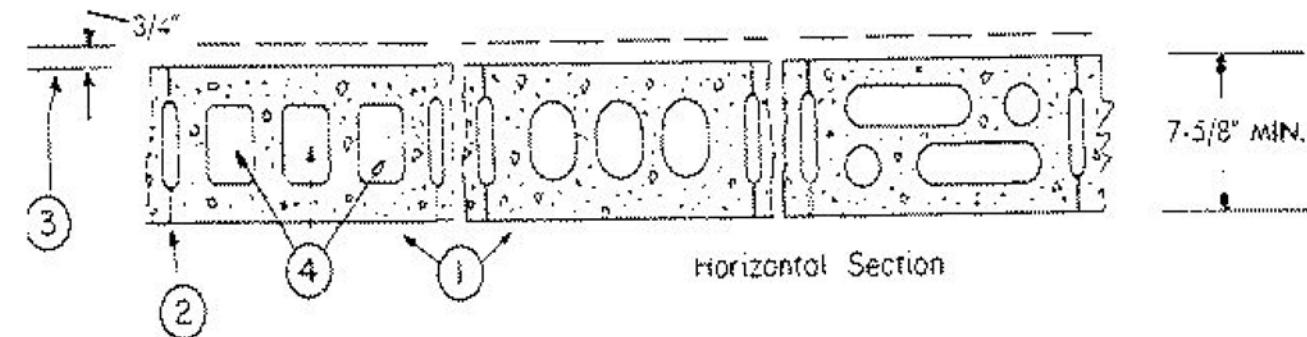
**G2.1**  
05 of 06

Design No. U905

June 6, 2022

**Bearing Wall Rating — 2 HR.**  
**Nonbearing Wall Rating — 2 HR.**  
 This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide BXUV or BXUV7

\* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



- Concrete Blocks\*** — Various designs. Classification D-2 (2 hr). See **Concrete Blocks** category for list of eligible manufacturers.
- Mortar** — Blocks laid in full bed of mortar, nom. 3/8 in. thick, of not less than 2-1/4 and not more than 3-1/2 parts of clean sharp sand to 1 part Portland cement (proportioned by volume) and not more than 50 percent hydrated lime (by cement volume). Vertical joints staggered.
- Portland Cement Stucco or Gypsum Plaster** — Add 1/2 hr to classification if used. Where combustible members are framed in wall, plaster or stucco must be applied on the face opposite framing to achieve a max. Classification of 1-1/2 hr. Attached to concrete blocks (Item 1).
- Loose Masonry Fill** — If all core spaces are filled with loose dry expanded slag, expanded clay or shale (Rotary Kiln Process), water repellent vermiculite masonry fill insulation, or silicone treated perlite loose fill insulation add 2 hr to classification.
- Foamed Plastic\*** — (Optional-Not Shown) — 1-1/2 in. thick max, 4 ft wide sheathing attached to concrete blocks (Item 1). **ATLAS ROOFING CORP** — "EnergyShield Pro Wall Insulation", "EnergyShield Pro 2 Wall Insulation", "EnergyShield CGF Pro and EnergyShield Ply Pro

**DUPONT DE NEMOURS, INC.** — Types Thermax Sheathing, Thermax Light Duty Insulation, Thermax Heavy Duty Insulation, Thermax Metal Building Board, Thermax White Finish Insulation, Thermax ci Exterior Insulation, Thermax XARMOR ci Exterior Insulation, Thermax IH Insulation, Thermax Plus Liner Panel, Thermax Heavy Duty Plus (HDP), TUFF-R™ ci Insulation, Thermax Butler Stylwall Insulation Board and Thermax Morton Heavy Duty Insulation Board

**FIRESTONE BUILDING PRODUCTS CO L L C** — "Enverge™ CI Foil Exterior Wall Insulation" and "Enverge™ CI Glass Exterior Wall Insulation"

**HUNTER PANELS, A DIVISION OF CARLISLE CONSTRUCTION MATERIALS, LLC** — Types "Xci-Class A", "Xci Foil (Class A)", "Xci 286"

**RMAX, A BUSINESS UNIT OF SIKA CORPORATION** — Types "TSX-8500", "ECOMAXci FR", "TSX-8510", "ECOMAX xi FR White", "ECOMAXci", "ECOMAXci FR Air Barrier", "Thermasheath-XP", "Thermasheath", "Durasheath", "Thermasheath-3", "Durasheath-3".

**JOHNS MANVILLE** — Type "AP Foil-Faced Foam Sheathing"

**5A. Building Units\*** — As an alternate to Items 5, min. 1-in thick polyisocyanurate composite foamed plastic insulation boards, nom. 48 by 48 or 96 in.

**HUNTER PANELS, A DIVISION OF CARLISLE CONSTRUCTION MATERIALS, LLC** — "Xci NB", "Xci Ply"

**RMAX, A BUSINESS UNIT OF SIKA CORPORATION** — "Thermasheath-SI", "ECOBASci", "ThermaBase-CI", "ECOMAXci FR Ply", "ECOMAXci Ply".

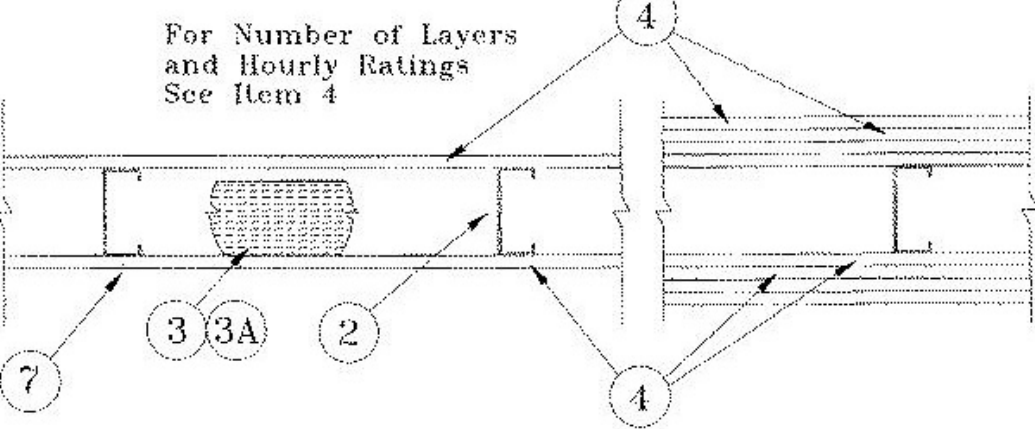
\* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

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Design No. U419

October 27, 2005  
 Nonbearing Wall Ratings 1, 2, 3 or 4 Hr (See Items 3 & 4)



- Floor and Ceiling Runners** (Not shown) Channel shaped, fabricated from min 25 MSG corrosion-protected steel, min width to accommodate stud size, with min 1 in. long legs, attached to floor and ceiling with fasteners 24 in. OC max.
- Steel Studs** Channel shaped, fabricated from min 25 MSG corrosion-protected steel, min width as indicated under Item 4, min 1-1/4 in. flanges and 1/4 in. return, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.
- Batts and Blankets\*** (Required as indicated under Item 4) Mineral wool batts, friction fitted between studs and runners. Min nom thickness as indicated under Item 4. See **Batts and Blankets (BKNV or BZIJ) Categories** for names of Classified companies.
- Batts and Blankets\*** (Optional) Placed in stud cavities, any glass fiber or mineral wool insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance. See **Batts and Blankets (BKNV or BZIJ) Categories** for names of Classified companies.
- Gypsum Board\*** Gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Vertical joints in adjacent layers (multilayer systems) staggered one stud cavity. Horizontal joints need not be backed by steel framing. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered. Horizontal edge joints and horizontal butt joints in adjacent layers (multilayer systems) staggered a min of 12 in. The thickness and number of layers for the 1 hr, 2 hr, 3 hr and 4 hr ratings are as follows:

Rating	Min Stud Depth	No. of Layers & Thkns of Panel	Min Thkns of Insulation (Item 3)
1	3 1/2	1 layer, 5/8 in. thick	Optional
1	2 1/2	1 layer, 1/2 in. thick	1 1/2 in.
1	1 5/8	1 layer, 3/4 in. thick	Optional
2	1 5/8	2 layer, 1/2 in. thick	Optional
2	1 5/8	2 layers, 5/8 in. thick	Optional
2	3 1/2	1 layer, 3/4 in. thick	3 in.
3	1 5/8	3 layer, 1/2 in. thick	Optional
3	1 5/8	2 layers, 3/4 in. thick	Optional
3	1 5/8	3 layers, 5/8 in. thick	Optional
4	1 5/8	4 layers, 5/8 in. thick	Optional
4	1 5/8	4 layers, 1/2 in. thick	Optional
4	2 1/2	2 layer, 3/4 in. thick	2 in.

**CANADIAN GYPSUM COMPANY** 1/2 in. thick Type C, IP-X2 or IPC-AR; WRC, 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRX or WRC; 3/4 in. thick Types IP-X3 or ULTRACODE

**UNITED STATES GYPSUM CO** 1/2 in. thick Type C, IP-X2, IPC-AR or WRC; 5/8 in. thick Type SCX, SHX, WRX, IP-X1, AR, C, WRC, FRX-G, IP-AR, IP-X2, IPC-AR ; 3/4 in. thick Types IP-X3 or ULTRACODE

**USG MEXICO S A DE C V** 1/2 in. thick Type C, IP-X2, IPC-AR or WRC; 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRX, WRC or ; 3/4 in. thick Types IP-X3 or ULTRACODE

When Item 6B, Steel Framing Members\*, is used, Nonbearing Wall Rating is limited to 1 Hr. Min. stud depth is 3-1/2 in., min. thickness of insulation (Item 3) is 3 in., and two layers of gypsum board panels (1/2 in. or 5/8 in. thick) shall be attached to furring channels as described in Item 5. One layer of gypsum board panels (1/2 in. or 5/8 in. thick) attached to opposite side of stud without furring channels as described in Item 5. **4A. Gypsum Board\*** (As an alternate to Item 4) 5/8 in. thick, 2 ft. wide, tongue and groove edge, applied horizontally as the outer layer to one side of the assembly. Secured as described in Item 5. Joint covering (Item 7) not required.

**CANADIAN GYPSUM COMPANY** Type SHX.  
**UNITED STATES GYPSUM CO** Type SHX.  
**USG MEXICO S A DE C V** Type SHX.

**5. Fasteners** (Not shown) Type S or S-12 steel screws used to attach panels to studs (Item 2) or furring channels (Item 6). **Single layer systems:** 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 8 in. OC when panels are applied horizontally, or 8 in. OC along vertical and bottom edges and 12 in. Ovvc in the field when panels are applied vertically. **Two layer systems:** First layer- 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels or 2-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC with screws offset 8 in. from first layer. **Three-layer systems:** First layer- 1 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Third layer- 2-1/4 in. long for 1/2 in., 5/8 in. thick panels or 2-5/8 in. long for 5/8 in. thick panels, spaced 12 in. OC. Screws offset min 6 in. from layer below. **Four-layer systems:** First layer- 1 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Third layer- 2-1/4 in. long for 1/2 in. thick panels or 2-5/8 in. long for 5/8 in. thick panels, spaced 24 in. OC. Fourth layer- 2-5/8 in. long for 1/2 in. thick panels or 3 in. long for 5/8 in. thick panels, spaced 12 in. OC. Screws offset min 6 in. from layer below.

**6. Furring Channels** (Optional, not shown, for single or double layer systems) Resilient furring channels fabricated from min 25 MSG corrosion-protected steel, spaced vertically a max of 24 in. OC. Flange portion attached to each intersecting stud with 1/2 in. long Type S-12 steel screws. Not for use with Item 4A.

**6A. Steel Framing Members (Not Shown)\*** (Optional on one or both sides, not shown, for single or double layer systems) As an alternate to Item 6, furring channels and Steel Framing Members as described below:

a. **Furring Channels** Formed of No. 25 MSG galv steel, 2-3/8 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board attached to furring channels as described in Item 5. Not for use with Item 4A.

b. **Steel Framing Members\*** Used to attach furring channels (Item 6Aa) to studs (Item 2). Clips spaced max. 48 in. OC., and secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. Furring channels are friction fitted into clips.

**PAC INTERNATIONAL INC** Type RSIC-1.

**6B. Steel Framing Members (Optional, Not Shown)\*** As an alternate to Item 6, furring channels and Steel Framing Members on only one side of studs as described below:  
 a. **Furring Channels** Formed of No. 25 MSG galv steel, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Batts and Blankets placed in stud cavity as described in Item 4. Two layers of gypsum board attached to furring channels as described in Item 4. Not for use with Item 4A.

b. **Steel Framing Members\*** Used to attach furring channels (Item 6Ba) to one side of studs (Item 2) only. Clips spaced 48 in. OC., and secured to studs with two No. 8 x 2-1/2 in. coarse drywall screws, one through the hole at each end of the clip. Furring channels are friction fitted into clips.

**KINETICS NOISE CONTROL INC** Type Isomax

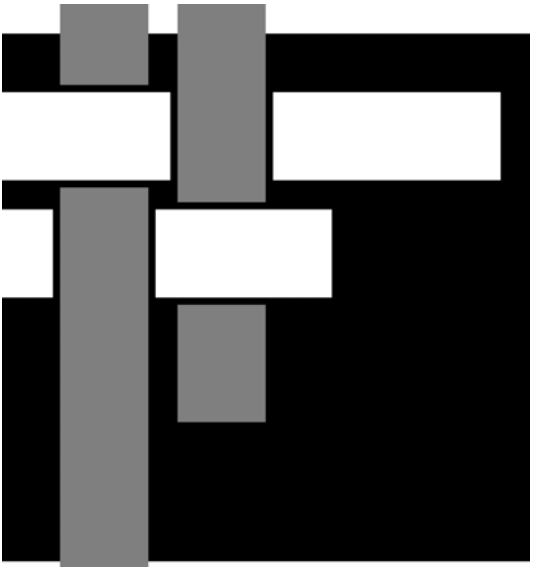
**7. Joint Tape and Compound** Vinyl or casein, dry or premixed joint compound applied in two coats to joints and screw heads of outer layers. Paper tape, nom 2 in. wide, embedded in first layer of compound over all joints of outer layer panels. Paper tape and joint compound may be omitted when gypsum panels are supplied with a square edge.

**8. Siding, Brick or Stucco** (Optional, not shown) Aluminum, vinyl or steel siding, brick veneer or stucco, meeting the requirements of local code agencies, installed over gypsum panels. Brick veneer attached to studs with corrugated metal wall ties attached to each stud with steel screws, not more than each sixth course of brick.

**9. Caulking and Sealants\*** (Optional, not shown) A bead of acoustical sealant applied around the partition perimeter for sound control.

**UNITED STATES GYPSUM CO** Type AS  
 \*Bearing the UL Classification Mark

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**SAWYER SHERWOOD & ASSOCIATE ARCHITECTURE**

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 LA: C-1505  
 PE: C-1505

**WOODS ENGINEERING**  
 Consulting Structural Engineers

254 North Front Street Phone: 910.343.8007  
 Suite 201 Fax: 910.343.8098  
 Wilmington, NC 28401 www.woodseng.com

**CHEATHAM AND ASSOCIATES, P.A. CONSULTING ENGINEERS**  
 3412 ENTERPRISE DRIVE  
 WILMINGTON, NORTH CAROLINA 28405  
 PHONE: (910) 452-4210  
 FAX: (910) 452-4211  
 OFFICE@CHEATHAMPA.COM  
 WWW.CHEATHAMPA.COM  
 NC LICENSE# C-1073



**MLK Center Addition & Renovation**  
 401 S. 8th Street  
 Wilmington, NC

Construction Drawings  
 March 22, 2023

Revisions:  
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UL Assemblies

**G3.0**

06 of 06

# MLK CENTER ADDITION & RENOVATION

401 S. 8TH STREET  
WILMINGTON, NORTH CAROLINA  
CITY OF WILMINGTON

100% CONSTRUCTION DRAWINGS

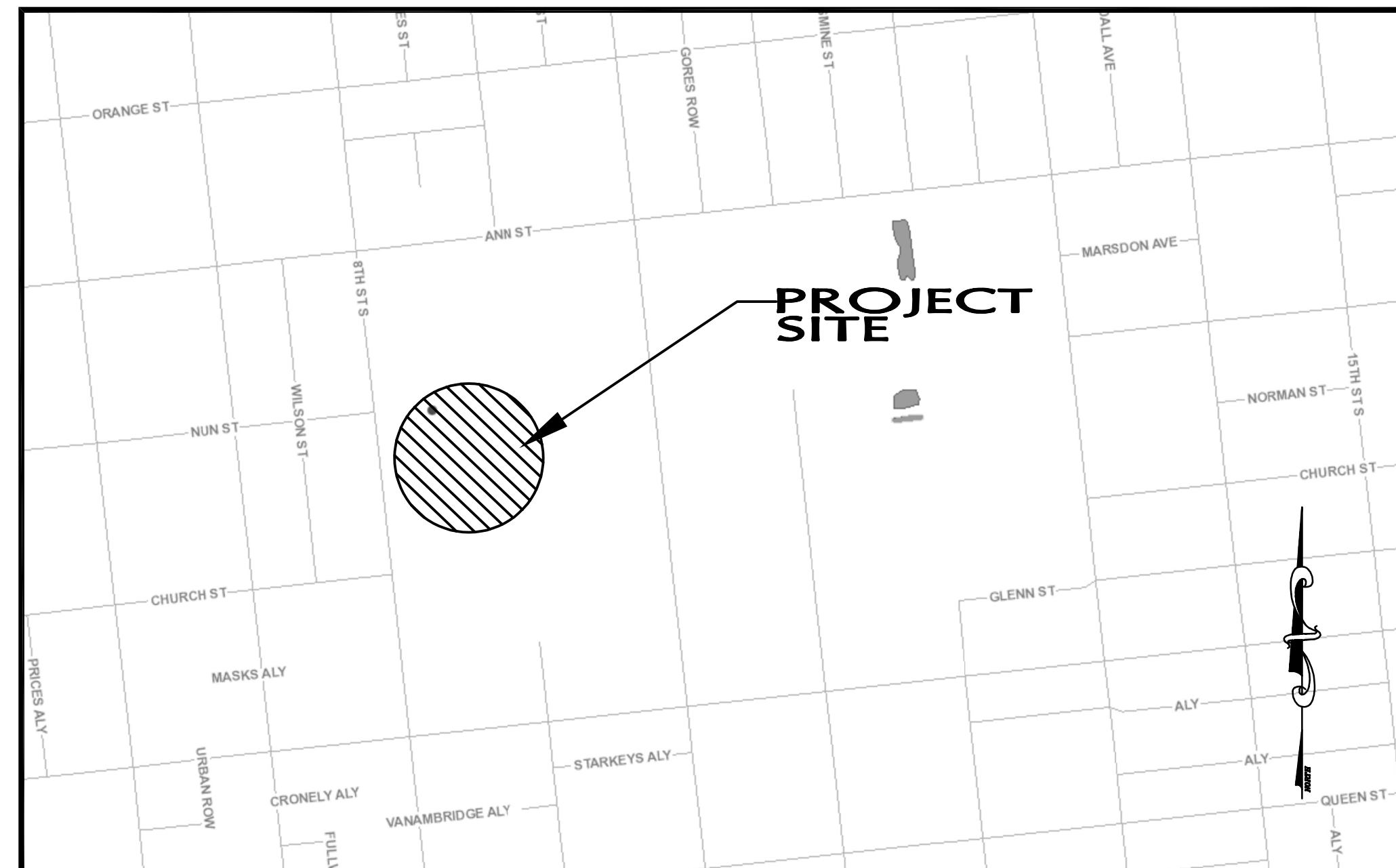
## PROJECT TEAM

OWNER: CITY OF WILMINGTON  
OWNER REP: TONY CAUDLE, CITY MANAGER  
910-341-7810  
102 N. THIRD STREET, PO BOX 1810  
WILMINGTON, NC 28402  
TONY.CAUDLE@WILMINGTONNC.GOV

LANDSCAPE ARCHITECT: CLH DESIGN, PA - ZAK PIERCE, PLA  
919-319-6716  
400 REGENCY FOREST DRIVE, STE. 120  
CARY, NC 27518  
ZPIERCE@CLHDESIGNPA.COM

CIVIL ENGINEER: CLH DESIGN, PA - KENNETH LORING, PE  
919-319-6716  
400 REGENCY FOREST DRIVE, STE. 120  
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KLORING@CLHDESIGNPA.COM

ARCHITECT: SAWYER SHERWOOD & ASSOCIATE  
ARCHITECTURE  
JENNY WILLIAMS  
910-762-0892  
124 MARKET STREET  
WILMINGTON, NC 28401  
JENNY@S2A3.COM



VICINITY MAP - NTS

## INDEX OF DRAWINGS:

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C1.2	FIRE APPARATUS ACCESS EXHIBIT
C2.0	EXISTING CONDITIONS & DEMO PLAN
C2.1	TREE DEMO SITE PLAN
C3.0	SITE GRADING PLAN
C3.1	PRE-DEV. IMPERVIOUS COVER
C3.2	POST-DEV. IMPERVIOUS COVER
C4.0	EROSION CONTROL PLAN - INITIAL INSTALL
C4.1	EROSION CONTROL PLAN
C5.0	SITE UTILITY PLAN
C6.0	LANDSCAPE PLAN
C7.1	EROSION CONTROL DETAILS
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C7.3	EROSION CONTROL DETAILS
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C8.1	UTILITY & STORM DETAILS
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C9.1	SITE DETAILS
C9.2	SITE DETAILS

### ARCHITECTURAL

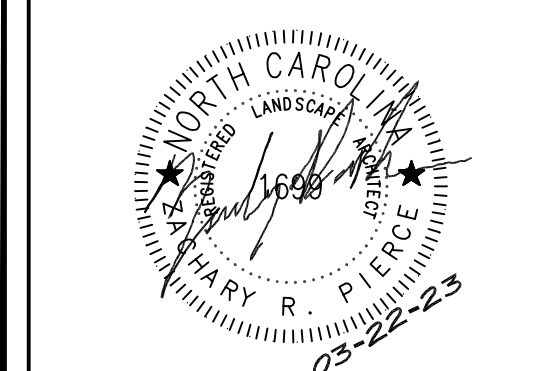
C2.0	BUILDING ELEVATIONS
C2.1	BUILDING ELEVATIONS
AC1.0	ARCHITECTURAL SITE PLAN

### FIRE & LIFE SAFETY NOTES

- CONTRACTOR SHALL MAINTAIN AN ALL-WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION
- NEW HYDRANTS MUST BE BROUGHT INTO SERVICE PRIOR TO COMBUSTIBLE MATERIALS DELIVERED TO THE JOB SITE
- A HYDRANT MUST BE WITHIN 150' OF THE FDC (MEASURED AS THE TRUCK DRIVES FOR PRACTICAL USE)
- FDC MUST BE WITHIN 40' OF FIRE APPARATUS PLACEMENT
- LANDSCAPING OR PARKING CANNOT BLOCK OR IMPEDE FDC'S OR FIRE HYDRANTS. A 3-FOOT CLEAR SPACE SHALL ALWAYS BE MAINTAINED AROUND THE CIRCUMFERENCE OF HYDRANTS AND FDC'S.
- ADDITIONAL FIRE PROTECTION AND/OR ACCESSIBILITY REQUIREMENTS MAY BE REQUIRED DUE TO ANY SPECIAL CIRCUMSTANCES CONCERNING THE PROJECT.
- PRIVATE UNDERGROUND FIRE LINES REQUIRE A SEPARATE UNDERGROUND FIRE LINE PERMIT FROM THE WILMINGTON FIRE AND LIFE SAFETY DIVISION 910-343-0896
- CONTRACTOR SHALL SUBMIT A RADIO SIGNAL STRENGTH STUDY FOR ALL MULTI-STORY COMMERCIAL BUILDINGS AND ALL SINGLE-STORY COMMERCIAL BUILDINGS EXCEEDING 7500 SQ/FT THAT DEMONSTRATES THAT EXISTING EMERGENCY RESPONDER RADIO SIGNAL LEVELS MEET THE REQUIREMENTS OF SECTION 510 OF THE 2018 NC FIRE CODE.
- ALL ISOLATION VALVES WITHIN THE "HOT BOX" AND BETWEEN THE "HOT BOX" AND THE RISER ROOM, MUST BE ELECTRICALLY SUPERVISED.



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910.762-0892 s2a3.com

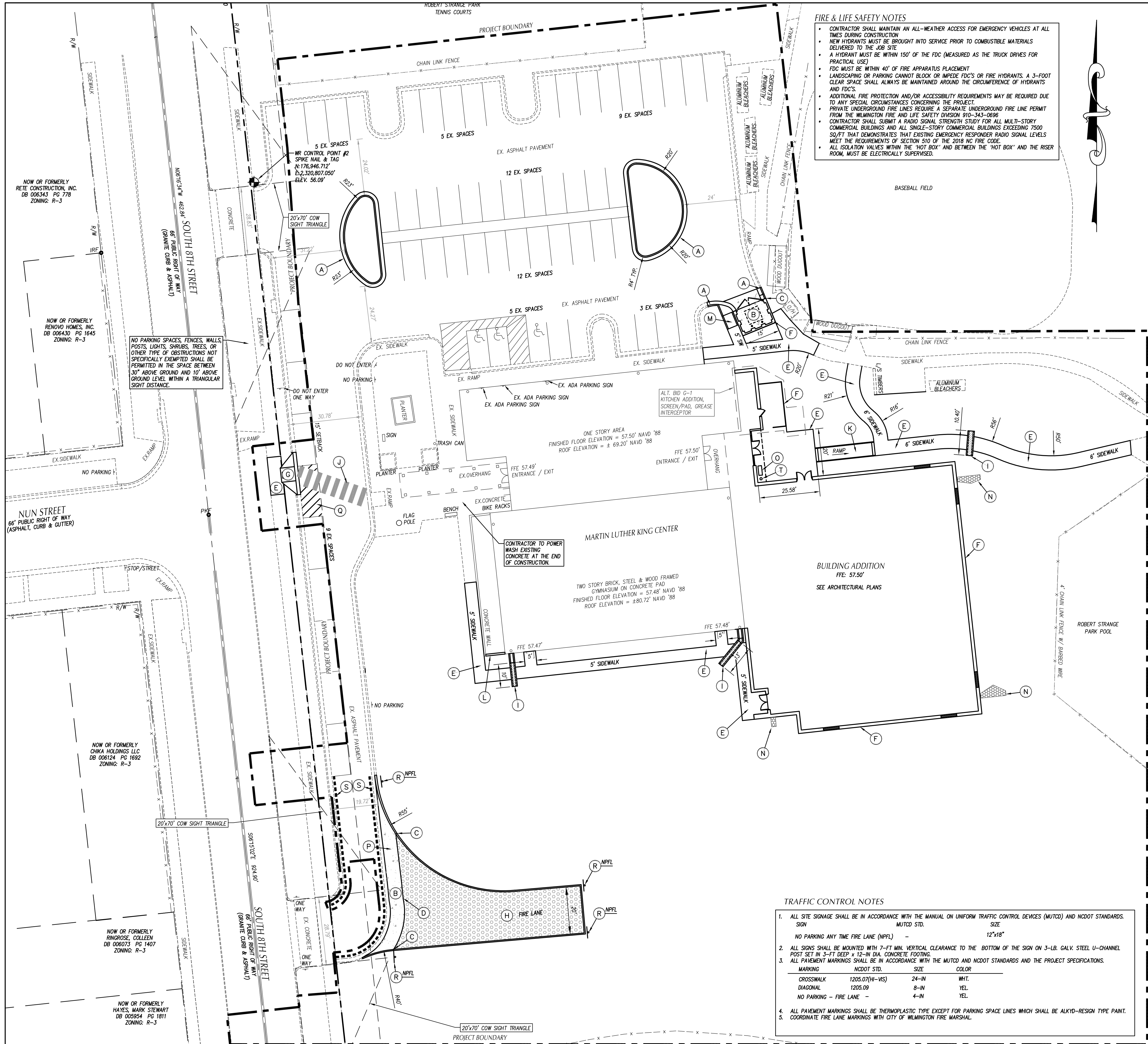


**MLK CENTER  
ADDITION &  
RENOVATION**  
401 S. 8TH STREET  
Wilmington, NC

100% Construction Drawings  
March 22, 2023

Revisions:  
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COVER  
  
C0.0



**FIRE & LIFE SAFETY NOTES**

- CONTRACTOR SHALL MAINTAIN AN ALL-WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION
- NEW HYDRANTS MUST BE BROUGHT INTO SERVICE PRIOR TO COMBUSTIBLE MATERIALS DELIVERED TO THE JOB SITE
- A HYDRANT MUST BE WITHIN 150' OF THE FDC (MEASURED AS THE TRUCK DRIVES FOR PRACTICAL USES)
- FDC MUST BE WITHIN 40' OF FIRE APPARATUS PLACEMENT
- LANDSCAPING OR PARKING CANNOT BLOCK OR IMPEDE FDC'S OR FIRE HYDRANTS. A 3-FOOT CLEAR SPACE SHALL ALWAYS BE MAINTAINED AROUND THE CIRCUMFERENCE OF HYDRANTS AND FDC'S
- ADDITIONAL FIRE PROTECTION AND/OR ACCESSIBILITY REQUIREMENTS MAY BE REQUIRED DUE TO ANY SPECIAL CIRCUMSTANCES CONCERNING THE PROJECT.
- PRIVATE UNDERGROUND FIRE LINES REQUIRE A SEPARATE UNDERGROUND FIRE LINE PERMIT FROM THE WILMINGTON FIRE AND LIFE SAFETY DIVISION 910-343-0686
- CONTRACTOR SHALL SUBMIT A RADIO SIGNAL STRENGTH STUDY FOR ALL MULTI-STORY COMMERCIAL BUILDINGS AND ALL SINGLE-STORY COMMERCIAL BUILDINGS EXCEEDING 7500 SQ.FT THAT DEMONSTRATES THAT EXISTING EMERGENCY RESPONDER RADIO SIGNAL LEVELS MEET THE REQUIREMENTS OF SECTION 910 OF THE 2018 NC FIRE CODE.
- ALL ISOLATION VALVES WITHIN THE "HOT BOX" AND BETWEEN THE "HOT BOX" AND THE RISER ROOM, MUST BE ELECTRICALLY SUPERVISED.

- KEY NOTES**
- (A) 24" CURB & GUTTER, SEE DETAIL SHEET C9.1.
  - (B) HEAVY DUTY CONCRETE PAVEMENT, SEE DETAIL SHEET C9.2.
  - (C) STANDARD CURB & GUTTER TERMINUS, SEE DETAIL SHEET C9.2.
  - (D) CONCRETE FLUSH WITH PAVEMENT.
  - (E) CONCRETE SIDEWALK, SEE DETAIL SHEET C9.1.
  - (F) SEE ARCHITECTURAL PLANS FOR CANOPY, SCREEN AND STRUCTURAL WALLS, BUILDING COLUMNS, AND DUMPSTER ENCLOSURE.
  - (G) FLARED CURB RAMP, SEE DETAIL SHEET C9.1.
  - (H) GEO-GRID REINFORCED GRASS SURFACE PAVING, SEE DETAIL SHEET C9.2.
  - (I) CONCRETE FLUME WITH CAST IRON COVER, SEE DETAIL SHEET C9.2.
  - (J) HIGH VISIBILITY CROSSWALK, SEE TRAFFIC CONTROL NOTES THIS SHEET.
  - (K) ACCESSIBLE RAMP WITH RAILS, SEE DETAIL SHEET C9.2.
  - (L) CONCRETE RAISED CURB, SEE DETAIL SHEET C9.2.
  - (M) CURB RAMP WITH CURB RETURN, SEE DETAIL SHEET C9.1.
  - (N) SPLASH PAD, SEE DETAIL SHEET C9.2.
  - (O) EXISTING BENCH, RELOCATED TO NEW LOCATION.
  - (P) FIRE LANE ACCESS CURB RAMP, SEE DETAIL SHEET C9.2.
  - (Q) DIAGONAL PAVEMENT MARKING, SEE TRAFFIC CONTROL NOTES THIS SHEET.
  - (R) SITE SIGNAGE, SEE TRAFFIC CONTROL NOTES THIS SHEET.
  - (S) NO PARKING - FIRE LANE PAVEMENT MARKING, SEE TRAFFIC CONTROL NOTES THIS SHEET.
  - (T) EXISTING TRASH CAN, RELOCATED TO NEW LOCATION.

- GENERAL NOTES**
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL CITY OF WILMINGTON AND NCDOT STANDARDS AND SPECIFICATIONS.
  - ALL DIMENSIONS SHOWN ARE TO FACE OF CURB AND FACE OF BUILDING WALL, UNLESS OTHERWISE SHOWN.
  - CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF ALL DIMENSIONS SHOWN AND CONTACT THE ARCHITECT IF ANY DISCREPANCIES OCCUR.
  - CONSTRUCTION STAKE OUT IS THE RESPONSIBILITY OF THE CONTRACTOR.
  - ALL PAVEMENT MARKINGS AND SIGNAGE SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".
  - ALL FACE OF RADIUS' ARE 4 FT UNLESS OTHERWISE SHOWN.
  - ALL PARKING SPACES SHALL BE 9' WIDE X 18 FT DEEP MIN.
  - (AC) DENOTES ACCESSIBLE PARKING SPACE.
  - (VAC) DENOTES VAN ACCESSIBLE PARKING SPACE.
  - ANY AND ALL LANDSCAPING, EXISTING TREES OR SHRUBS TO REMAIN WHICH ARE DAMAGED DURING DEMOLITION OR CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR UTILIZING A LICENSED LANDSCAPE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
  - CONTRACTOR SHALL SUBMIT SCALED PLANS OF ALL SCORING/JOINTS FOR APPROVAL BY ARCHITECT 30 DAYS MINIMUM PRIOR TO INSTALLATION.
  - THE CROSS-SLOPE ON ALL SIDEWALKS SHALL BE A MAXIMUM OF 2.0%.
  - NO WORK SHALL BE PERFORMED ON RIGHT-OF-WAYS OR ADJACENT PROPERTIES UNTIL THE OWNER NOTIFIES CONTRACTOR IN WRITING OF PROCUREMENT OF APPROPRIATE PERMITS, EASEMENTS, AGREEMENTS, OR RIGHTS-OF-WAY.
  - RELOCATE EXISTING DUMPSTER TO DUMPSTER ENCLOSURE.

- CITY OF WILMINGTON NOTES**
- ALL PAVEMENT MARKINGS IN PUBLIC RIGHTS-OF-WAY AND FOR DRIVEWAYS ARE TO BE THERMOPLASTIC AND MEET CITY AND/OR NCDOT STANDARDS.
  - ALL SIGNS AND PAVEMENT MARKINGS IN AREAS OPEN TO PUBLIC TRAFFIC ARE TO MEET MUTCD STANDARDS.
  - ALL TRAFFIC CONTROL SIGNS AND MARKINGS OFF THE RIGHT-OF-WAY ARE TO BE MAINTAINED BY THE PROPERTY OWNER IN ACCORDANCE WITH MUTCD STANDARDS.
  - ALL PARKING STALL PARKINGS AND LANE ARROWS WITHIN THE PARKING AREAS SHALL BE WHITE.
  - ANY BROKEN OR MISSING SIDEWALK PANELS AND CURBING WILL BE REPLACED.
  - CONTACT 811 PRIOR TO CONTACTING CITY OF WILMINGTON, TRAFFIC ENGINEERING REGARDING THE UTILITIES IN RIGHT-OF-WAY.
  - CONTACT TRAFFIC ENGINEERING AT (910)341-7888 TO DISCUSS STREET LIGHTING OPTIONS.

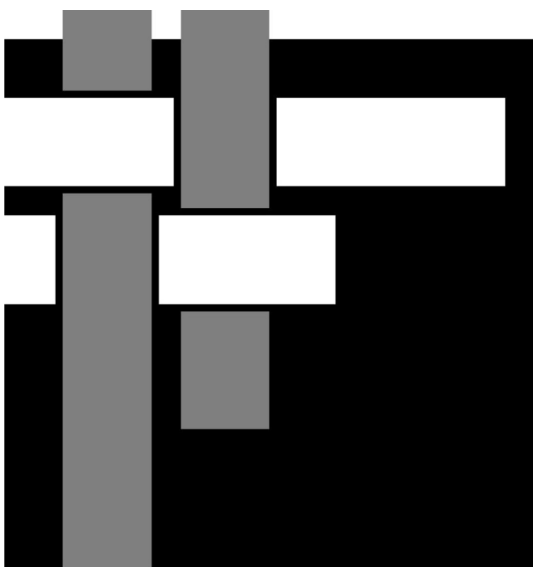
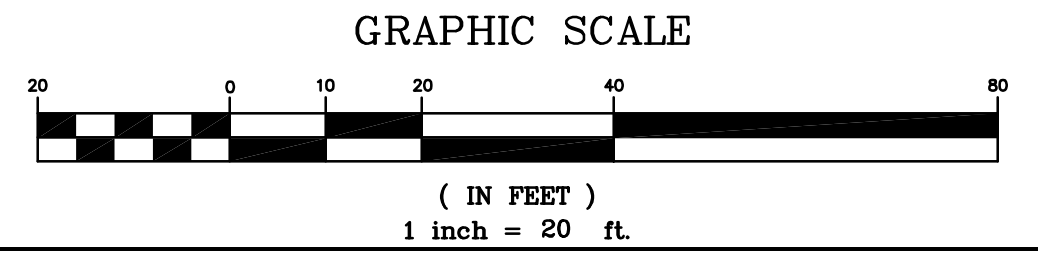
**SITE DATA TABLE**

PARCEL ID	R05406-021-010-000
PROJECT BOUNDARY SIZE	133,428 SF / 3.06 AC.
PARCEL OWNERSHIP	CITY OF WILMINGTON
CURRENT ZONING	RESIDENTIAL R-3 (TO REMAIN THE SAME)
PROPOSED USE(S)	GOVERNMENT FACILITY EXCLUDING RIGHT-OF-WAY. (ALL SUCH FACILITIES IN RESIDENTIAL DISTRICTS SHALL COMPLY WITH THE STANDARDS OF THE O&I DISTRICT.)
# OF BUILDINGS	1
CAMA LAND USE CLASSIFICATION	URBAN
BUILDING CONSTRUCTION TYPE	11-B
BUILDING LOT COVERAGE %	BUILDING: 0.51 AC. / 2.7% OF TOTAL ACREAGE
BUILDING HEIGHT	32'-4" (MAXIMUM BUILDING HEIGHT IS 35')
BUILDING SETBACKS (FOR O&I DISTRICT)	REQUIRED: 20' FRONT & CORNER SETBACKS, 0' INTERIOR SIDE SETBACK, 25' REAR SETBACK. PROPOSED: >20' FRONT SETBACK, >25' REAR SETBACK
BUILDING SQUARE FOOTAGE PER FLOOR	EXISTING BUILDING: 11,592 SF, PROPOSED EXPANSION (BASE BID): 10,570 SF (BUILDING IS SINGLE STORY)
PARKING REQUIREMENTS: RECREATION FACILITY (PUBLIC)	1 PER 200 SF OF GFA USED BY PUBLIC (9,779 SF) PLUS 1 PER 400 SF NOT USED BY PUBLIC (291 SF) = 49 + 2 = 51 SPACES REQUIRED 40% OF PARKING IS REQUIRED ON SITE. MAX. PARKING REQUIREMENT: 108 SPACES PARKING PROVIDED: 60 SPACES
ACCESSIBLE PARKING SPACES	2 REQUIRED / 3 PROVIDED
BICYCLE PARKING	USE: ASSEMBLY (RELIGIOUS OR CIVIC) = 1 SPACE PER 5,000 GFA 2 REQUIRED / 6 PROVIDED
IMPERVIOUS COVERAGE	EXISTING: 205,288 SF / 4.71 AC. PROPOSED: 215,076 SF / 4.94 AC.
AMOUNT OF DISTURBED AREA	58,809 SF
METHOD OF HANDLING SOLID WASTE	DUMPSTER PROVIDED. SEE ARCHITECTURAL PLANS FOR MORE INFORMATION.

**ESTIMATED TRIP GENERATION**

Land Use (FE Code)	Intensity (sf)	Avg Daily 3-hrs weekday trips	AM Peak Trips		PM Peak Trips		Saturday Peak Hour of Generator
			Entering	Exiting	Entering	Exiting	
Existing Recreational Community Center (495)	11.0 sf	334 veh	13	7	13	14	12 total
Recreational Community Center expansion (495)	9.9 sf	285 veh	11	6	11	12	11 total
Totals	21.5 sf	620 veh	25	13	23	27	23 total

- TRAFFIC CONTROL NOTES**
- ALL SITE SIGNAGE SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND NCDOT STANDARDS.
  - ALL SIGNS SHALL BE MOUNTED WITH 7'-FT MIN. VERTICAL CLEARANCE TO THE BOTTOM OF THE SIGN ON 3-LR. GALV. STEEL U-CHANNEL POST SET IN 3'-FT DEEP X 12-IN DIA. CONCRETE FOOTING.
  - ALL PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE MUTCD AND NCDOT STANDARDS AND THE PROJECT SPECIFICATIONS.
  - ALL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC TYPE EXCEPT FOR PARKING SPACE LINES WHICH SHALL BE ALKYO-RESIN TYPE PAINT.
  - COORDINATE FIRE LANE MARKINGS WITH CITY OF WILMINGTON FIRE MARSHAL.
- | MARKING                | NCDOT STD.     | SIZE  | COLOR |
|------------------------|----------------|-------|-------|
| CROSSWALK              | 1205.07(H-VIS) | 24-IN | WHT.  |
| DIAGONAL               | 1205.09        | 8-IN  | YEL.  |
| NO PARKING - FIRE LANE | -              | 4-IN  | YEL.  |

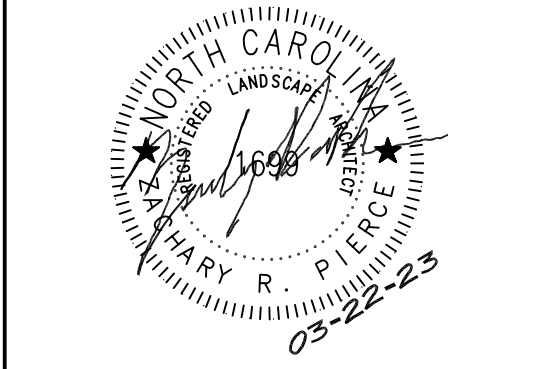


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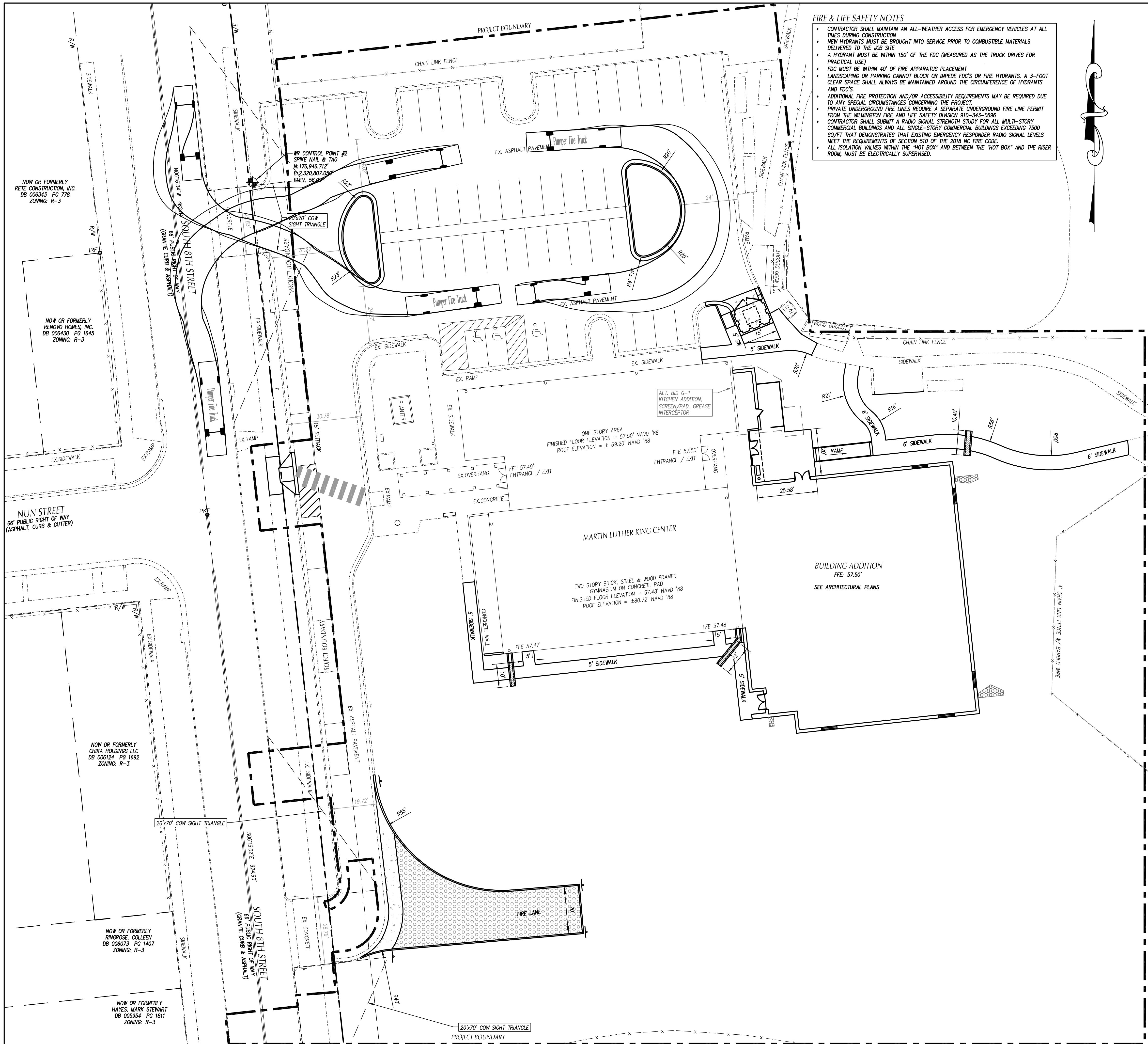
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March 22, 2023

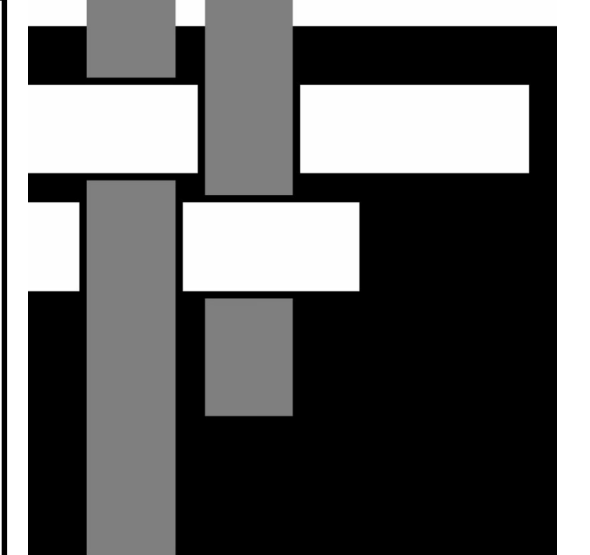
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**SITE STAKING  
PLAN  
C1.0**





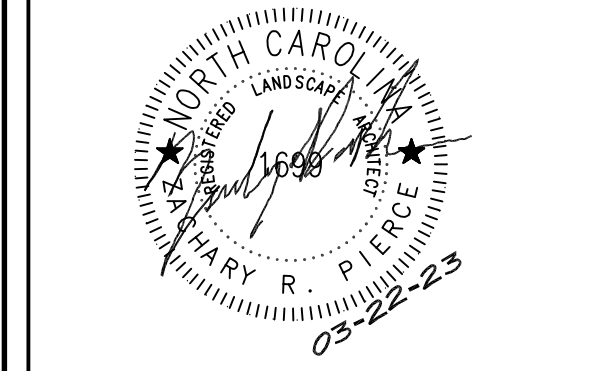
- FIRE & LIFE SAFETY NOTES**
- CONTRACTOR SHALL MAINTAIN AN ALL-WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION
  - NEW HYDRANTS MUST BE BROUGHT INTO SERVICE PRIOR TO COMBUSTIBLE MATERIALS DELIVERED TO THE JOB SITE
  - A HYDRANT MUST BE WITHIN 150' OF THE FDC (MEASURED AS THE TRUCK DRIVES FOR PRACTICAL USE)
  - FDC MUST BE WITHIN 40' OF FIRE APPARATUS PLACEMENT
  - LANDSCAPING OR PARKING CANNOT BLOCK OR IMPEDE FDC'S OR FIRE HYDRANTS. A 3-FOOT CLEAR SPACE SHALL ALWAYS BE MAINTAINED AROUND THE CIRCUMFERENCE OF HYDRANTS AND FDC'S
  - ADDITIONAL FIRE PROTECTION AND/OR ACCESSIBILITY REQUIREMENTS MAY BE REQUIRED DUE TO ANY SPECIAL CIRCUMSTANCES CONCERNING THE PROJECT
  - PRIVATE UNDERGROUND FIRE LINES REQUIRE A SEPARATE UNDERGROUND FIRE LINE PERMIT FROM THE WILMINGTON FIRE AND LIFE SAFETY DIVISION 910-343-0886
  - CONTRACTOR SHALL SUBMIT A RADIO SIGNAL STRENGTH STUDY FOR ALL MULTI-STORY COMMERCIAL BUILDINGS AND ALL SINGLE-STORY COMMERCIAL BUILDINGS EXCEEDING 7500 SQ/FT THAT DEMONSTRATES THAT EXISTING EMERGENCY RESPONDER RADIO SIGNAL LEVELS MEET THE REQUIREMENTS OF SECTION 510 OF THE 2018 NC FIRE CODE
  - ALL ISOLATION VALVES WITHIN THE "HOT BOX" AND BETWEEN THE "HOT BOX" AND THE RISER ROOM, MUST BE ELECTRICALLY SUPERVISED.



**SAWYER  
SHERWOOD  
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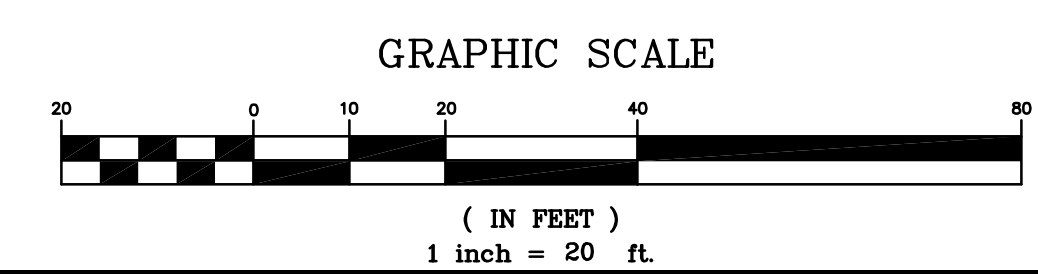


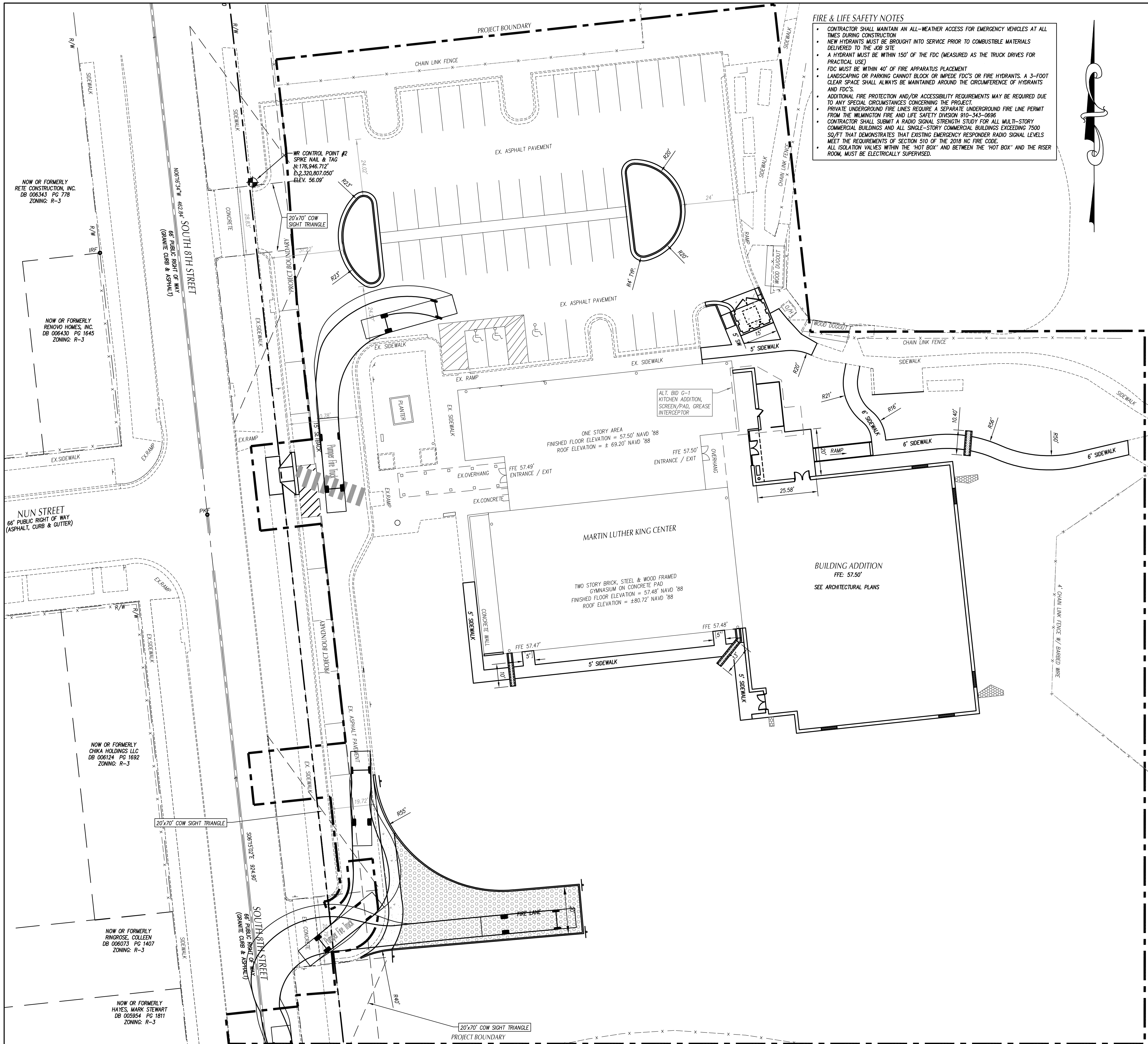
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401 S. 8TH STREET  
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100% Construction Drawings  
March 22, 2023

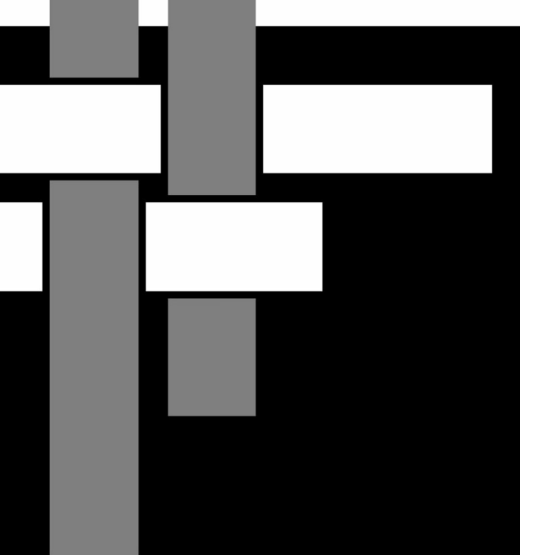
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FIRE APPARATUS  
ACCESS EXHIBIT  
**C1.1**





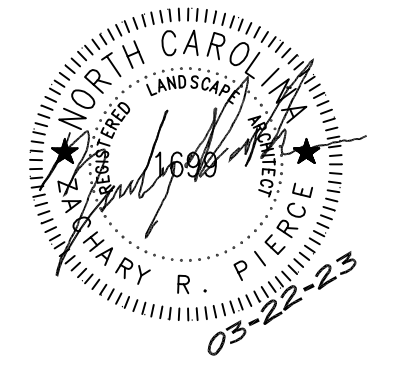
- FIRE & LIFE SAFETY NOTES**
- CONTRACTOR SHALL MAINTAIN AN ALL-WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION
  - NEW HYDRANTS MUST BE BROUGHT INTO SERVICE PRIOR TO COMBUSTIBLE MATERIALS DELIVERED TO THE JOB SITE
  - A HYDRANT MUST BE WITHIN 150' OF THE FDC (MEASURED AS THE TRUCK DRIVES FOR PRACTICAL USE)
  - FDC MUST BE WITHIN 40' OF FIRE APPARATUS PLACEMENT
  - LANDSCAPING OR PARKING CANNOT BLOCK OR IMPEDE FDC'S OR FIRE HYDRANTS. A 3-FOOT CLEAR SPACE SHALL ALWAYS BE MAINTAINED AROUND THE CIRCUMFERENCE OF HYDRANTS AND FDC'S
  - ADDITIONAL FIRE PROTECTION AND/OR ACCESSIBILITY REQUIREMENTS MAY BE REQUIRED DUE TO ANY SPECIAL CIRCUMSTANCES CONCERNING THE PROJECT
  - PRIVATE UNDERGROUND FIRE LINES REQUIRE A SEPARATE UNDERGROUND FIRE LINE PERMIT FROM THE WILMINGTON FIRE AND LIFE SAFETY DIVISION 910-343-0886
  - CONTRACTOR SHALL SUBMIT A RADIO SIGNAL STRENGTH STUDY FOR ALL MULTI-STORY COMMERCIAL BUILDINGS AND ALL SINGLE-STORY COMMERCIAL BUILDINGS EXCEEDING 7500 SQ/FT THAT DEMONSTRATES THAT EXISTING EMERGENCY RESPONDER RADIO SIGNAL LEVELS MEET THE REQUIREMENTS OF SECTION 510 OF THE 2018 NC FIRE CODE
  - ALL ISOLATION VALVES WITHIN THE "HOT BOX" AND BETWEEN THE "HOT BOX" AND THE RISER ROOM, MUST BE ELECTRICALLY SUPERVISED.



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LA: C-106 PE: C-1295

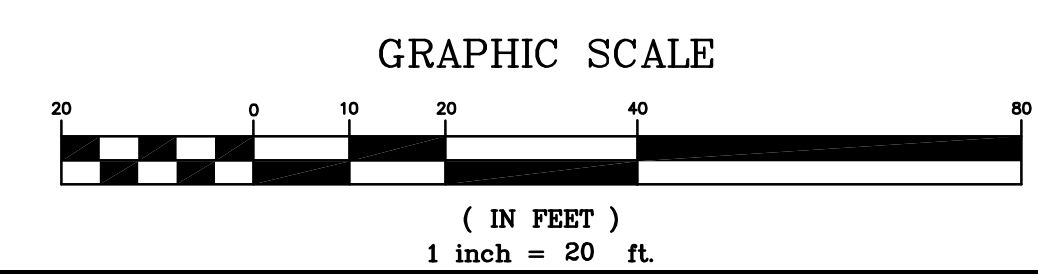


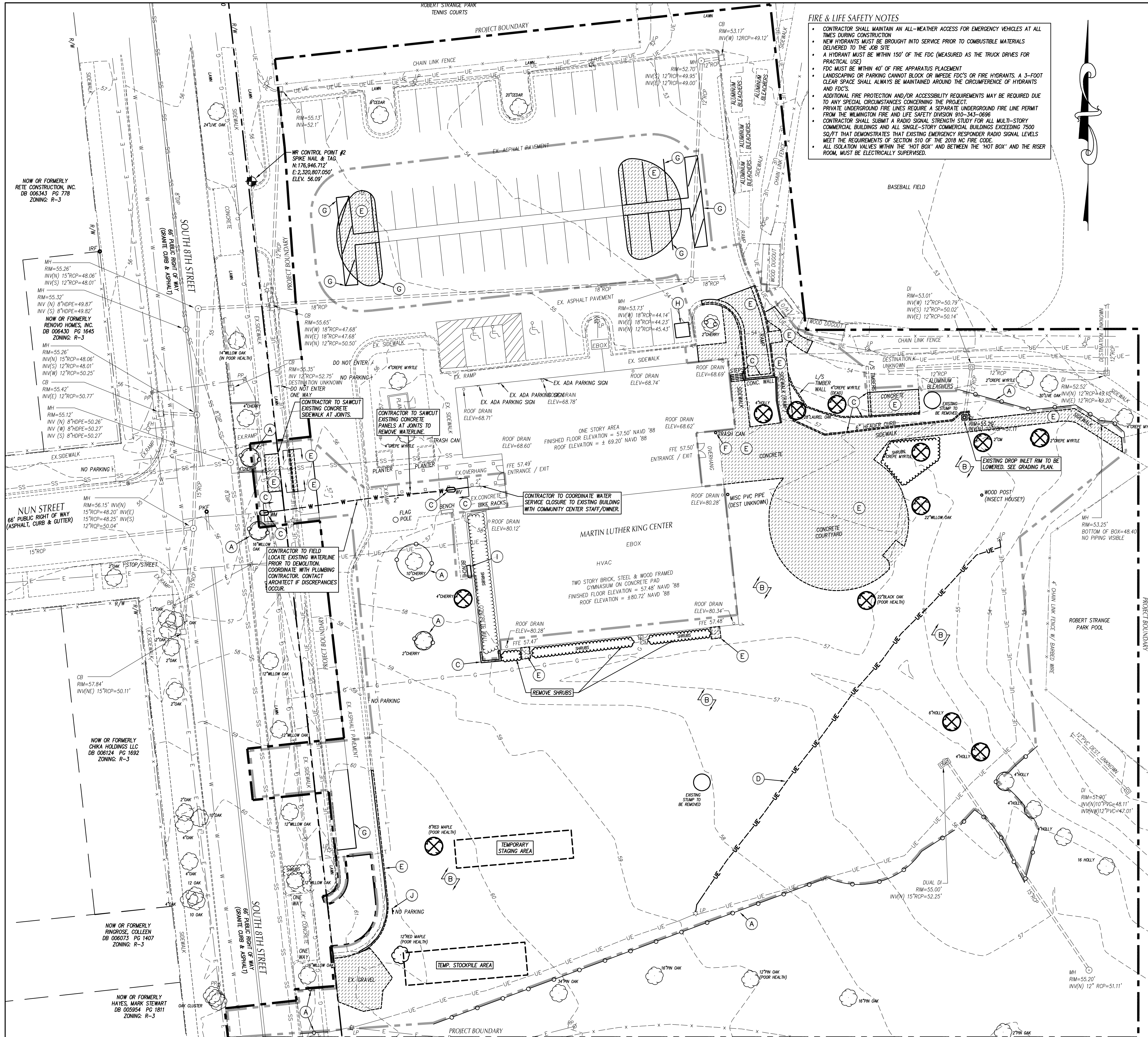
**MLK CENTER  
ADDITION &  
RENOVATION**  
401 S. 8TH STREET  
Wilmington, NC

100% Construction Drawings  
March 22, 2023

Revisions:  
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FIRE APPARATUS  
ACCESS EXHIBIT  
**C1.2**





**FIRE & LIFE SAFETY NOTES**

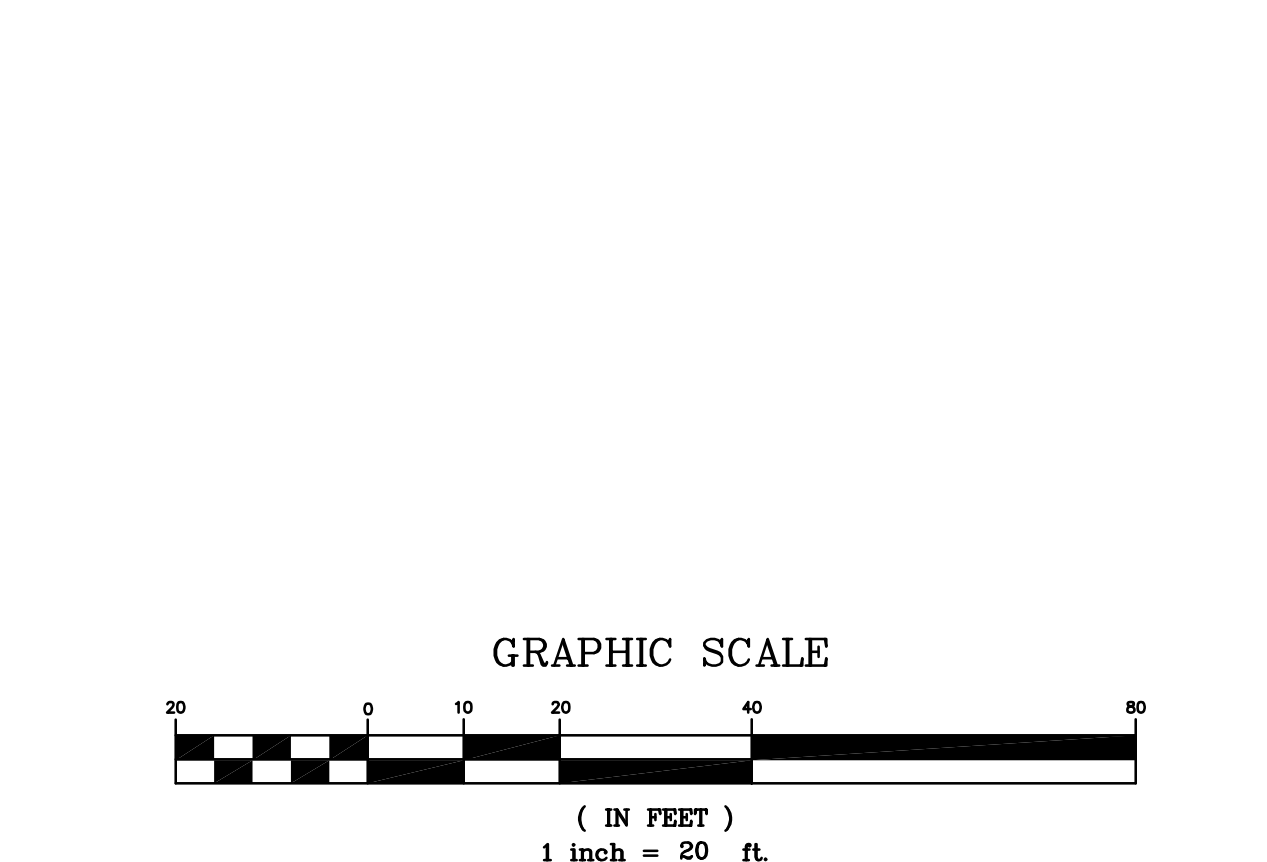
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- A HYDRANT MUST BE WITHIN 150' OF THE FDC (MEASURED AS THE TRUCK DRIVES FOR PRACTICAL USES).
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- LANDSCAPING OR PARKING CANNOT BLOCK OR IMPEDE FDC'S OR FIRE HYDRANTS. A 3-FOOT CLEAR SPACE SHALL ALWAYS BE MAINTAINED AROUND THE CIRCUMFERENCE OF HYDRANTS AND FDC'S.
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- CONTRACTOR SHALL SUBMIT A RADIO SIGNAL STRENGTH STUDY FOR ALL MULTI-STORY COMMERCIAL BUILDINGS AND ALL SINGLE-STORY COMMERCIAL BUILDINGS EXCEEDING 7500 SQ.FT THAT DEMONSTRATES THAT EXISTING EMERGENCY RESPONDER RADIO SIGNAL LEVELS MEET THE REQUIREMENTS OF SECTION 910 OF THE 2018 NC FIRE CODE.
- ALL ISOLATION VALVES WITHIN THE "HOT BOX" AND BETWEEN THE "HOT BOX" AND THE RISER ROOM, MUST BE ELECTRICALLY SUPERVISED.

**LEGEND**

STRUCTURES/UTILITIES TO BE REMOVED	STRUCTURES/UTILITIES TO REMAIN
OVERHEAD ELECTRICAL	OVERHEAD ELECTRICAL
UNDERGROUND ELECTRICAL	UNDERGROUND ELECTRICAL
FIRE PROTECTION	FIRE PROTECTION
GAS	GAS
SANITARY SEWER	SANITARY SEWER
TELEPHONE	TELEPHONE
UNDERGROUND TELEPHONE	UNDERGROUND TELEPHONE
FIBER OPTIC	FIBER OPTIC
WATER	WATER
FORCE MAIN	FORCE MAIN
STORM DRAIN	STORM DRAIN
INDIVIDUAL TREE TO BE REMOVED	INDIVIDUAL TREE TO REMAIN
LIGHT POLE	LIGHT POLE
UTILITY POLE	UTILITY POLE
MANHOLE	MANHOLE
CLEAN OUT	CLEAN OUT
DROP INLET/CATCH BASIN	DROP INLET/CATCH BASIN
FIRE HYDRANT	FIRE HYDRANT
WATER VALVE	WATER VALVE
CONSTR./CLEARING LIMITS	PAVEMENT, S/W, C&G TO BE REMOVED.
TREE PROTECTION FENCE	BUILDING/STRUCTURE TO BE REMOVED. SEE ARCHITECTURAL PLANS.

- KEY NOTES**
- TEMPORARY TREE PROTECTION FENCE, SEE DETAIL SHEET C7.3.
  - CLEAR AND GRUB, STRIP TOPSOIL WITHIN CONSTRUCTION LIMITS.
  - REMOVE STRUCTURE/UTILITY/SIGN.
  - EXISTING UTILITY LINE/STRUCTURE TO BE REMOVED/RELOCATED BY LOCAL UTILITY COMPANY. LOCAL UTILITY COMPANY SHALL DETERMINE THE LIMITS AND EXTENT OF REMOVAL/RELOCATION OF UTILITIES REQUIRED FOR NEW CONSTRUCTION. COORDINATE SCHEDULE AND WORK WITH LOCAL UTILITY COMPANY AND ARCHITECT/OWNER.
  - SAWCUT AND REMOVE EXISTING SIDEWALK/PAVEMENT/CURB AND GUTTER.
  - EXISTING TRASH CAN TO BE REMOVED, STORED DURING CONSTRUCTION, AND RELOCATED. REFER TO STAKING PLAN.
  - EXISTING PAVEMENT MARKINGS TO BE REMOVED.
  - EXISTING DUMPSTER TO BE RELOCATED. CONTRACTOR TO COORDINATE RELOCATION WITH CENTER STAFF/OWNER.
  - EXISTING BENCH TO BE REMOVED, STORED DURING CONSTRUCTION, AND RELOCATED.
  - EXISTING SIGN TO BE REMOVED, STORED DURING CONSTRUCTION, AND RELOCATED. REFER TO STAKING PLAN.

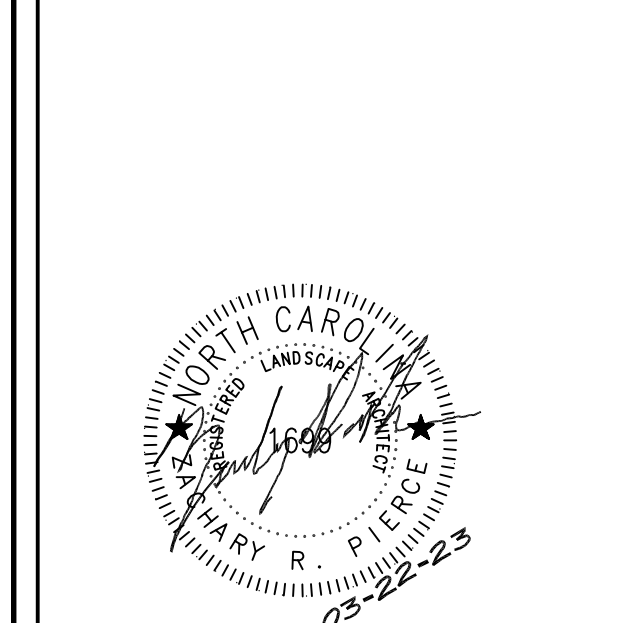
- GENERAL NOTES**
- ALL EXISTING STRUCTURES AND UTILITIES SHALL BE REMOVED AS NEEDED TO ALLOW NEW CONSTRUCTION. IN GENERAL, FEATURES INDICATED IN BOLD ON THIS PLAN SHALL BE REMOVED.
  - ALL PAVEMENT OR CONCRETE TO BE REMOVED SHALL BE SAW CUT TO PROVIDE A STRAIGHT AND UNIFORM JOINT FOR NEW PAVEMENT, SIDEWALK, OR CURB AND GUTTER, ETC. ANY EXISTING PAVEMENT, SIDEWALK, CURB AND GUTTER, ETC. THAT MUST BE REMOVED TO ALLOW NEW CONSTRUCTION SHALL BE REMOVED AND REPAIRED PER THE SPECIFICATIONS AND DETAILS OR TO MATCH PRE-CONSTRUCTION CONDITIONS (WHETHER OR NOT SHOWN ON THE DRAWINGS) TO BE REMOVED.
  - ALL UTILITIES OR STRUCTURES NOT INDICATED FOR REMOVAL OR MODIFICATION ARE TO REMAIN AND BE PROTECTED FROM DAMAGE.
  - ALL WASTE MATERIAL GENERATED FROM DEMOLITION ACTIVITIES SHALL BE DISPOSED OF OFF-SITE IN ACCORDANCE WITH ALL APPLICABLE RULES AND REGULATIONS.
  - EXISTING SITE BOUNDARY AND TOPOGRAPHIC SURVEY INFORMATION WAS TAKEN FROM SURVEY BY WITHERS RAVENEL, PERFORMED 04/28/2021. THESE PLANS DO NOT ASSUME ANY LIABILITY FOR ANY EXISTING INFORMATION BOTH SHOWN AND NOT SHOWN ON THE SURVEY AND ANY CHANGES TO THE EXISTING CONDITIONS THAT MAY HAVE OCCURRED AFTER THE SURVEY WAS ISSUED. CONTRACTOR SHALL VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION.
  - INSTALL TREE PROTECTION FENCING PRIOR TO BEGINNING CLEARING OPERATIONS. CLEAR AND GRUB ALL AREAS AS SHOWN AND REQUIRED TO PERMIT INSTALLATION OF NEW CONSTRUCTION PER SPECIFICATIONS AND DRAWINGS. EXISTING TREES, SHRUBS OR OTHER LANDSCAPE MATERIAL WHICH WILL CONFLICT WITH NEW CONSTRUCTION SHALL BE REMOVED (WHETHER OR NOT SHOWN ON THE DRAWINGS). ALL CONTRACTORS SHALL VISIT THE SITE AND OBSERVE EXISTING CONDITIONS PRIOR TO BIDDING.
  - MINIMIZE DAMAGE TO EXISTING TREES NEAR THE INTERIOR EDGE OF CLEARING LIMITS. THE CONTRACTOR SHALL CUT 2'-2" DEEP TRENCHES ALONG THE LIMITS OF DISTURBANCE, SO AS TO CUT, RATHER THAN TEAR ROOTS.
  - PRIOR TO DEMOLISHING EXISTING STRUCTURES, MAKE AN INSPECTION FOR ANY HAZARDOUS MATERIALS. CONTACT ARCHITECT IMMEDIATELY IF ANY HAZARDOUS MATERIALS ARE DISCOVERED. CAP AND REMOVE UTILITY SERVICES, FUEL TANKS AND SEPTIC SYSTEMS. ALL WORK TO BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS.
  - VERIFY ALL ILLUSTRATED UNDERGROUND ELEMENTS/UTILITIES. EXERCISE REASONABLE EFFORTS TO PROTECT ANY UNKNOWN UNDERGROUND ELEMENTS/UTILITIES. NOTIFY THE ARCHITECT IMMEDIATELY IF UNKNOWN ELEMENTS/UTILITIES ARE DISCOVERED THAT WOULD NECESSITATE MODIFICATION TO THE PROPOSED DESIGN.
  - CONTACT UTILITY LOCATING SERVICE AT LEAST 48-HRS PRIOR TO EXCAVATION.
  - PROTECT ALL ADJACENT PROPERTIES, THE GENERAL PUBLIC AND ALL OF THE OWNER'S FACILITIES. SHOULD DAMAGES OCCUR, REPAIR IMMEDIATELY AS DIRECTED BY THE ARCHITECT.
  - ALL CONSTRUCTION TO BE IN ACCORDANCE WITH ALL CITY OF WILMINGTON AND/OR NDOT STANDARDS AND SPECIFICATIONS.
  - ALL EXISTING VAULTS, MANHOLES, STORM DRAIN STRUCTURES, CLEANOUTS, ETC. SHALL BE ADJUSTED AS NEEDED TO MATCH FINISH GRADE.
  - DEMOLITION AND PATCHING OF PAVEMENT, SIDEWALK, CURB AND OTHER EXISTING PAVED SURFACES IN ADDITION TO THAT INDICATED ON THIS PLAN SHALL BE PERFORMED AS REQUIRED TO CONSTRUCT AND INSTALL NEW UTILITIES. ALL SUCH DEMOLITION AND PATCHING SHALL BE INCLUDED IN THE BASE BID SCOPE OF WORK. SEE SHEET C-9.1 FOR PAVEMENT REPAIR DETAILS.
  - THIS SITE IS NOT LOCATED WITHIN SPECIAL FLOOD HAZARD AREAS AS DETERMINED BY FEMA AND DEPICTED ON F.I.R.M. MAP #3720312700K, DATED 08/28/2018 AS BEING WITHIN ZONE "X-OTHER AREA".
  - NO WORK SHALL BE PERFORMED ON RIGHT-OF-WAYS OR ADJACENT PROPERTIES UNTIL THE OWNER NOTIFIES CONTRACTOR IN WRITING OF PROCUREMENT OF APPROPRIATE PERMITS, EASEMENTS, AGREEMENTS, OR RIGHTS-OF-WAY.



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**MLK CENTER ADDITION & RENOVATION**  
401 S. 8TH STREET  
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100% Construction Drawings  
March 22, 2023

Revisions:

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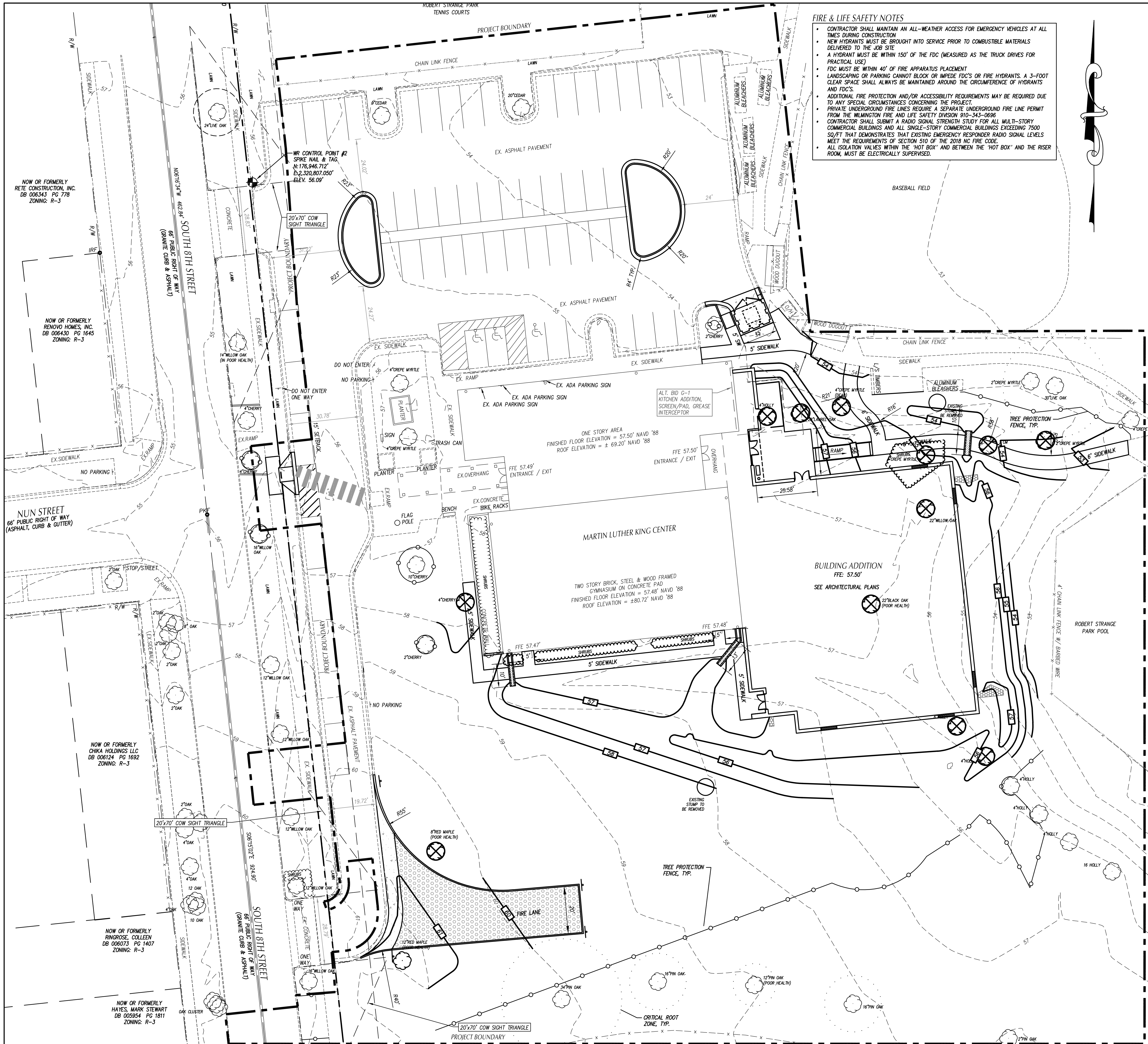
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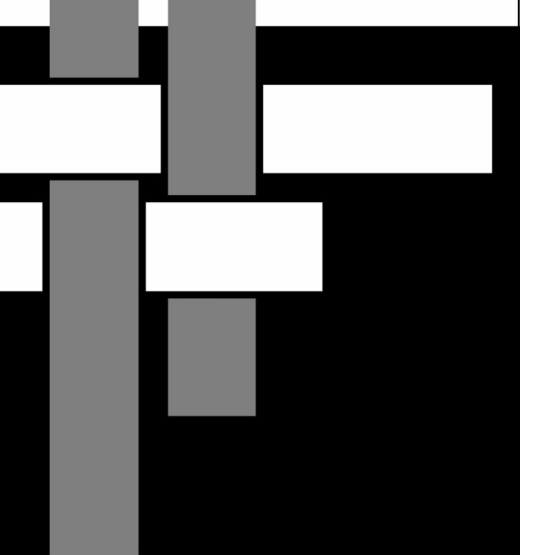
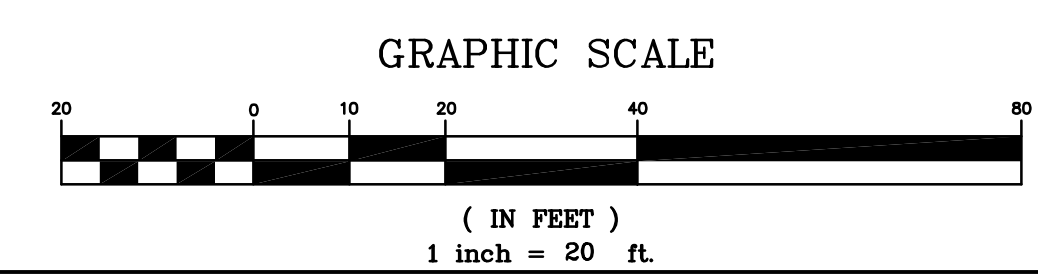
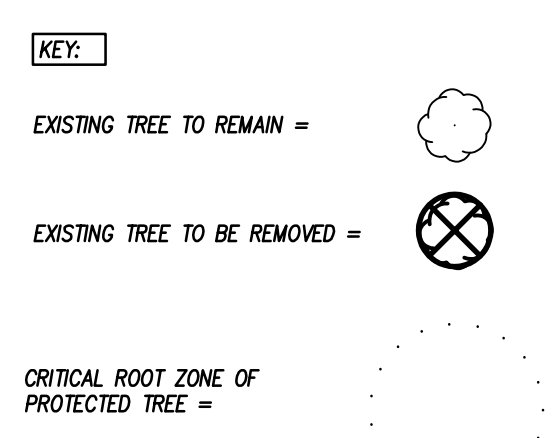
EXISTING CONDITIONS & DEMO PLAN  
**C2.0**

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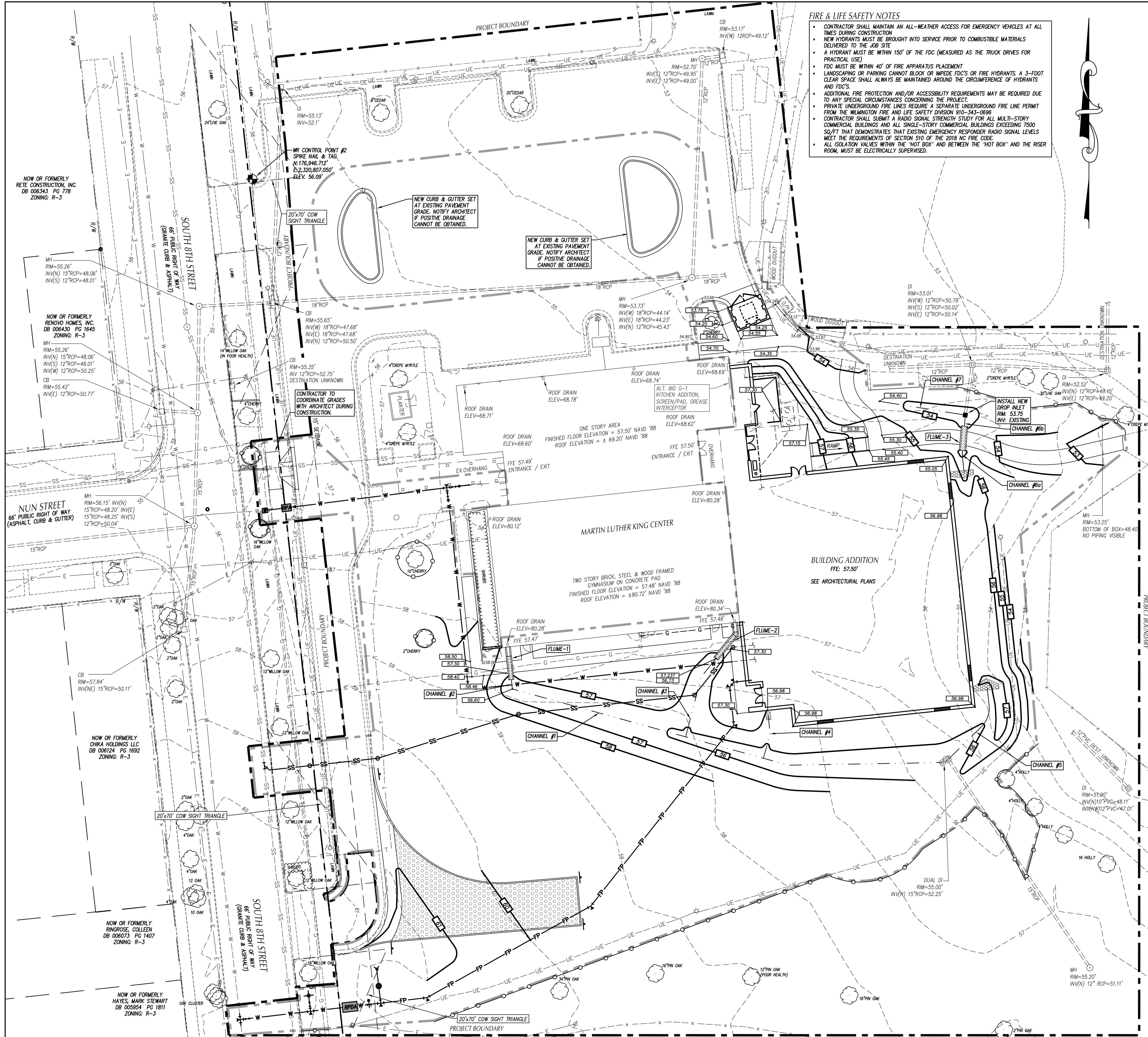


**MLK CENTER  
ADDITION &  
RENOVATION**  
401 S. 8TH STREET  
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100% Construction Drawings  
March 22, 2023

Revisions:


TREE DEMO SITE  
PLAN  
**C2.1**



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**GRADING LEGEND**

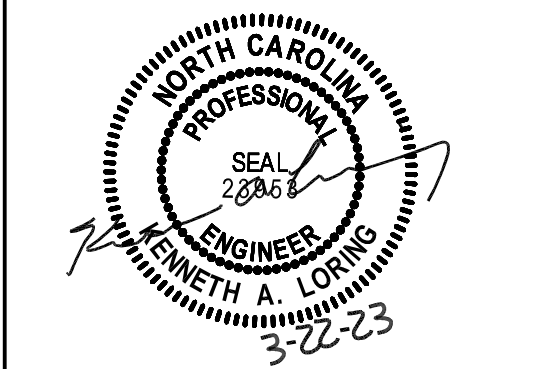
	EXISTING CONTOURS
	FINAL CONTOURS
	EXISTING SURVEY SPOT ELEVATION
	PROPOSED TOP OF CURB SPOT ELEVATION
	PROPOSED GROUND/PAVEMENT ELEVATION
	STORM STRUCTURE NUMBER
	EXISTING STORM DRAIN PIPE
	PROPOSED STORM DRAIN PIPE
	PROPOSED FOUNDATION DRAIN DISCHARGE LINE. SEE ARCH. PLANS FOR DRAIN PIPE LOCATIONS ALONG BUILDING WALLS.
	PROPOSED ROOF DRAIN
	TREE PROTECTION FENCE

- GENERAL NOTES**
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL CITY OF WILMINGTON AND NCDOT STANDARDS AND SPECIFICATIONS.
  - ALL SPOT ELEVATIONS INDICATED AT CURB AND GUTTER AND ARE DENOTED TO TOP OF CURB, UNLESS OTHERWISE SHOWN.
  - TOTAL DENUDE AREA = 1.6 AC
  - CONTRACTOR SHALL ADJUST ALL EXISTING VAULTS, MANHOLES, STORM DRAIN STRUCTURES, CLEANOUTS, ETC. AS NEEDED TO MATCH FINISH GRADE.
  - ALL BACKFILL, COMPACTION, SOILS TESTING, ETC. SHALL BE PERFORMED BY THE OWNERS INDEPENDENT TESTING LABORATORY. (SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION)
  - ALL STORM DRAIN PIPES SHALL BE PROTECTED WITH STONE FILTER PROTECTION AFTER STOPPAGE OF WORK EACH DAY. SEE DETAIL ON SHEET C7.1.
  - EXISTING VEGETATION WITHIN TREE PROTECTION AREAS SHALL REMAIN UNDISTURBED, UNLESS NOTED OTHERWISE.
  - ANY AND ALL LANDSCAPING AND EXISTING TREES & SHRUBS TO REMAIN WHICH ARE DAMAGED DURING DEMOLITION OR CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR UTILIZING A LICENSED LANDSCAPE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
  - THE GRADING CONTRACTOR SHALL COMPLY WITH ALL STATE CODES IN OBSERVING EROSION CONTROL MEASURES BOTH ON AND OFF-SITE.
  - THE GRADING CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL DEVICES AFTER EACH RAINFALL EVENT OR AS DIRECTED BY STATE AUTHORITIES OR THE ARCHITECT.
  - THE GRADING CONTRACTOR SHALL BE RESPONSIBLE FOR OFF-SITE DISPOSAL OF ALL CLEARING AND GRADING WASTE MATERIALS GENERATED DURING CONSTRUCTION AND FOR OBTAINING ALL APPLICABLE PERMITS FOR OFF-SITE STOCKPILES AND/OR WASTE AREAS.
  - THE CROSS-SLOPE ON ALL SIDEWALKS SHALL BE A MAXIMUM OF 2.0%.
  - CONTRACTOR SHALL VERIFY ALL EXISTING ELEVATIONS WHERE NEW CONSTRUCTION JOIN OR CONNECT TO EXISTING PAVEMENT, CURB AND OTHER RIGID STRUCTURES. NOTIFY ARCHITECT IF DISCREPANCIES OCCUR.
  - MAXIMUM LONGITUDINAL SLOPE FOR SIDEWALKS WITHOUT HANDRAILS IS 5%.

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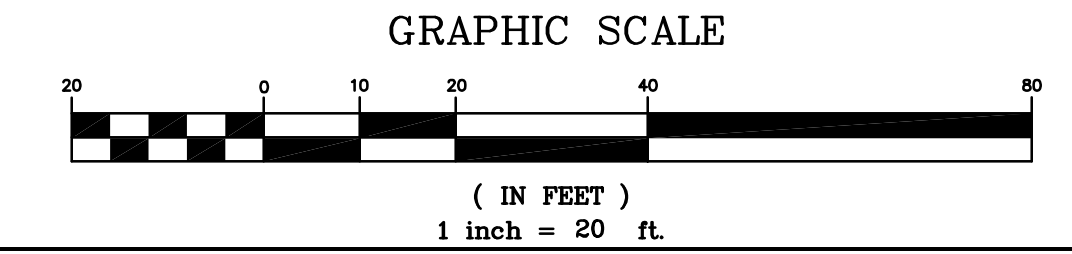


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**SITE GRADING PLAN**  
**C3.0**





NOW OR FORMERLY  
RETE CONSTRUCTION, INC.  
DB 006343 PG 778  
ZONING: R-3

NOW OR FORMERLY  
RENOVO HOMES, INC.  
DB 006530 PG 1645  
ZONING: R-3

NUN STREET

NOW OR FORMERLY  
CHIKA HOLDINGS LLC.  
DB 006124 PG 1692  
ZONING: R-3

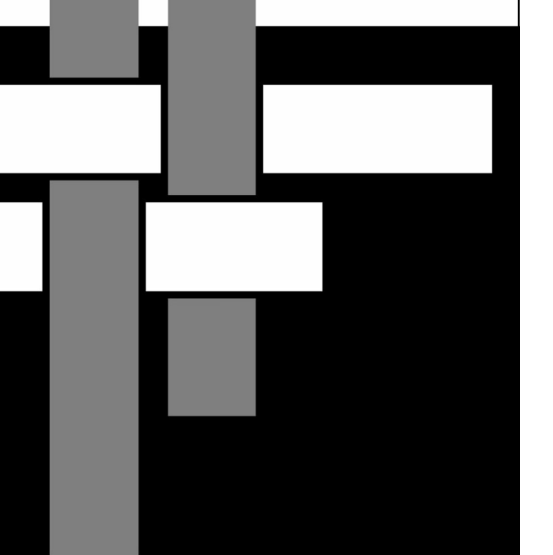
NOW OR FORMERLY  
RINGROSE, COLLEEN  
DB 006073 PG 1407  
ZONING: R-3

NOW OR FORMERLY  
HAYES, MARK STEWART  
DB 005954 PG 1811  
ZONING: R-3

IMPERVIOUS COVER LEGEND

	TOTAL EXISTING BUA	210,530-SF
	EXISTING BUA TO BE DEMOLISHED	7,280-SF
	EXISTING BUA TO REMAIN	203,250-SF

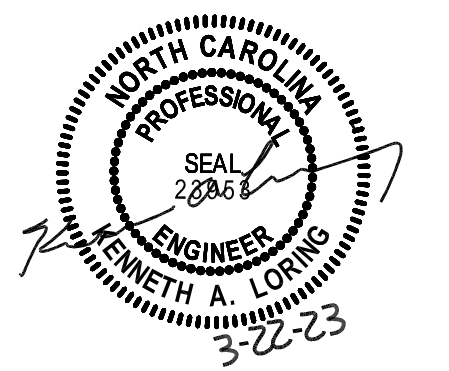
SHEET FOR REFERENCE ONLY



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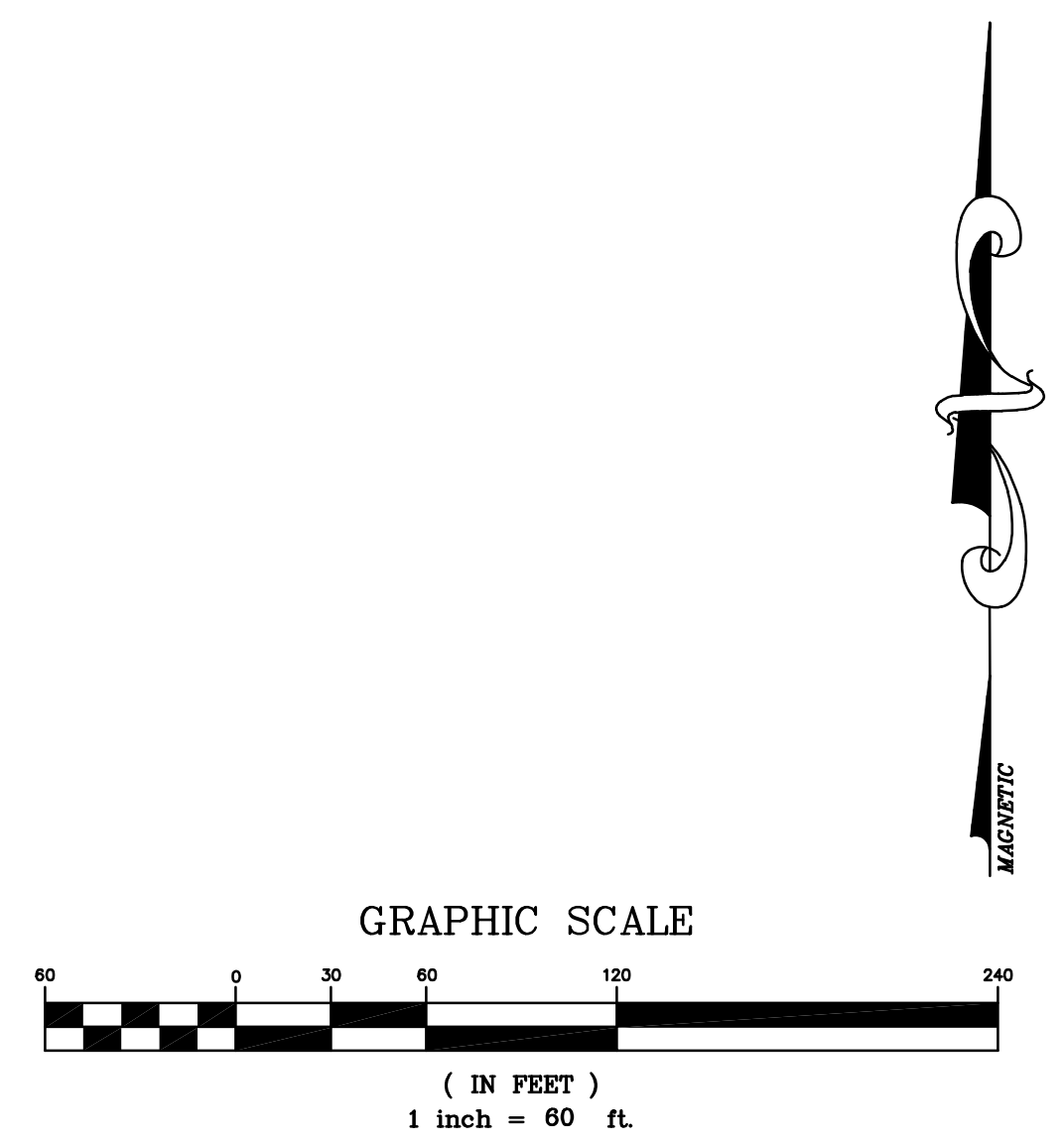


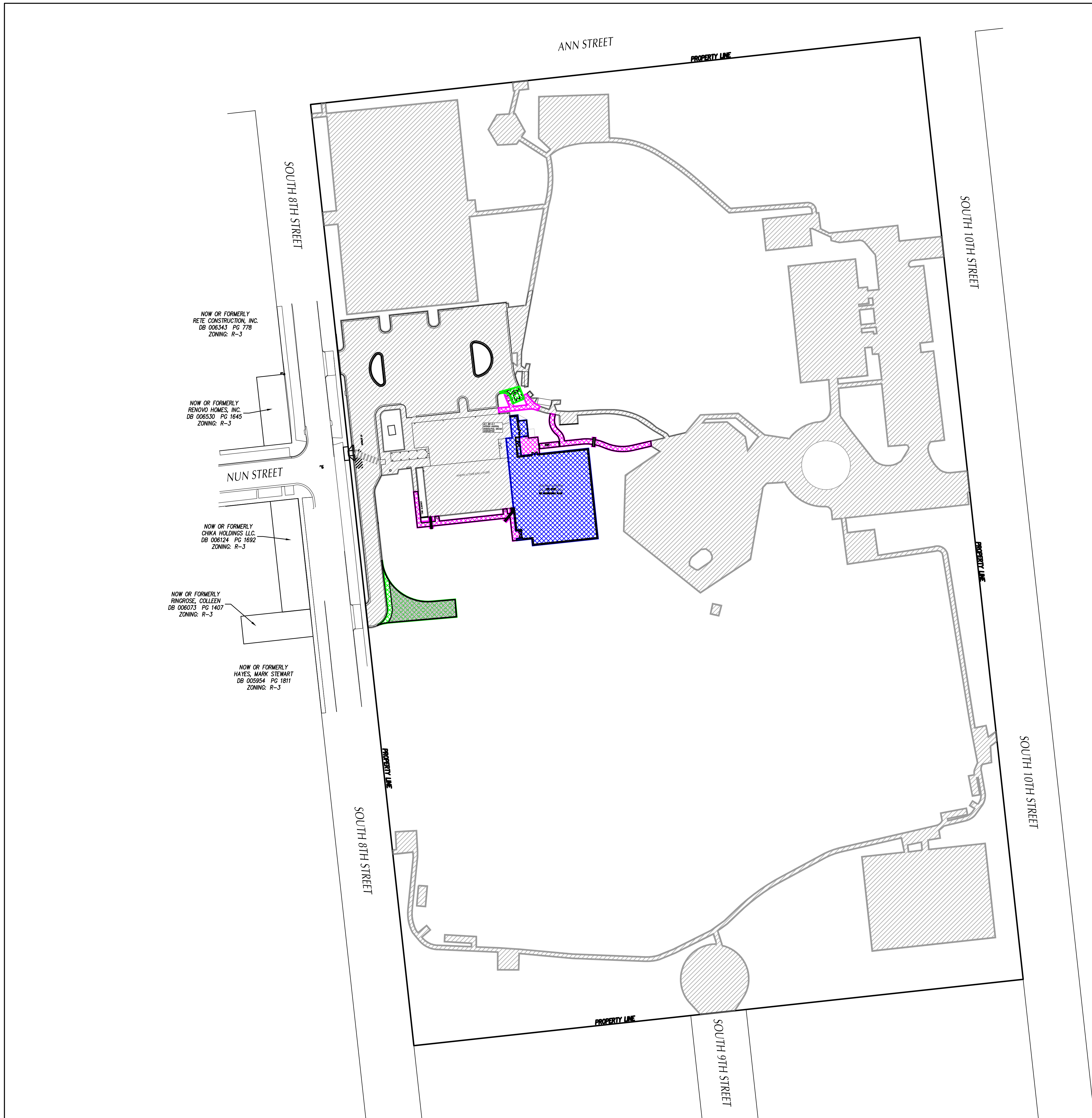
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PRE-DEV  
IMPERVIOUS  
PLAN  
**C3.1**





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DB 006343 PG 778  
ZONING: R-3

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DB 006330 PG 1645  
ZONING: R-3

NUN STREET

NOW OR FORMERLY  
CHIKA HOLDINGS LLC.  
DB 006124 PG 1692  
ZONING: R-3

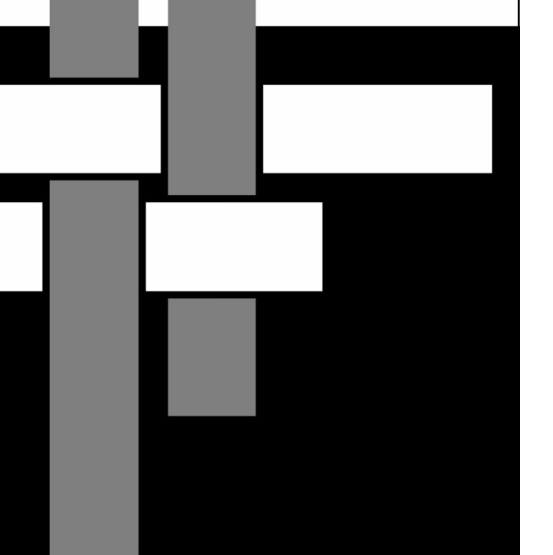
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DB 006073 PG 1407  
ZONING: R-3

NOW OR FORMERLY  
HAYES, MARK STEWART  
DB 005954 PG 1811  
ZONING: R-3

IMPERVIOUS COVER LEGEND

	ON-SITE BUILDING	10,875-SF
	ON-SITE PARKING	1,985-SF
	ON-SITE SIDEWALKS	3,100-SF
	EXISTING BUA	203,250-SF
	FUTURE	26,110-SF

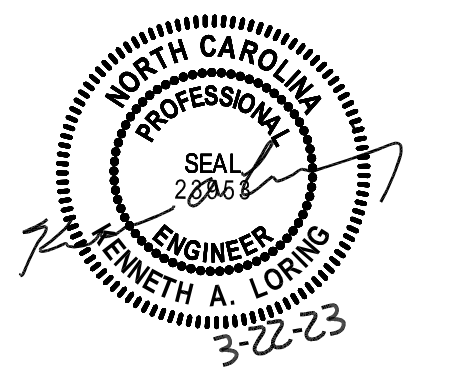
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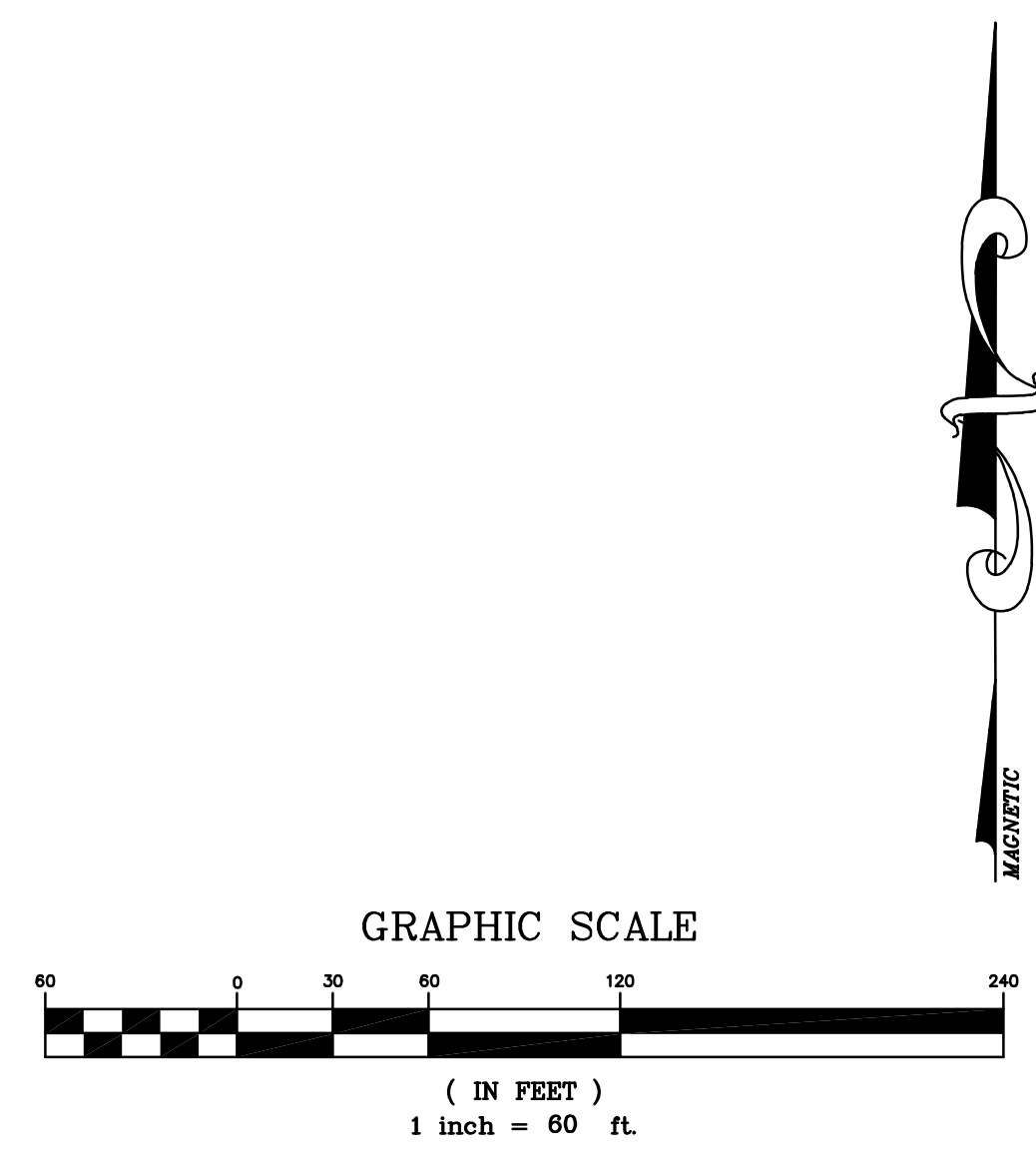


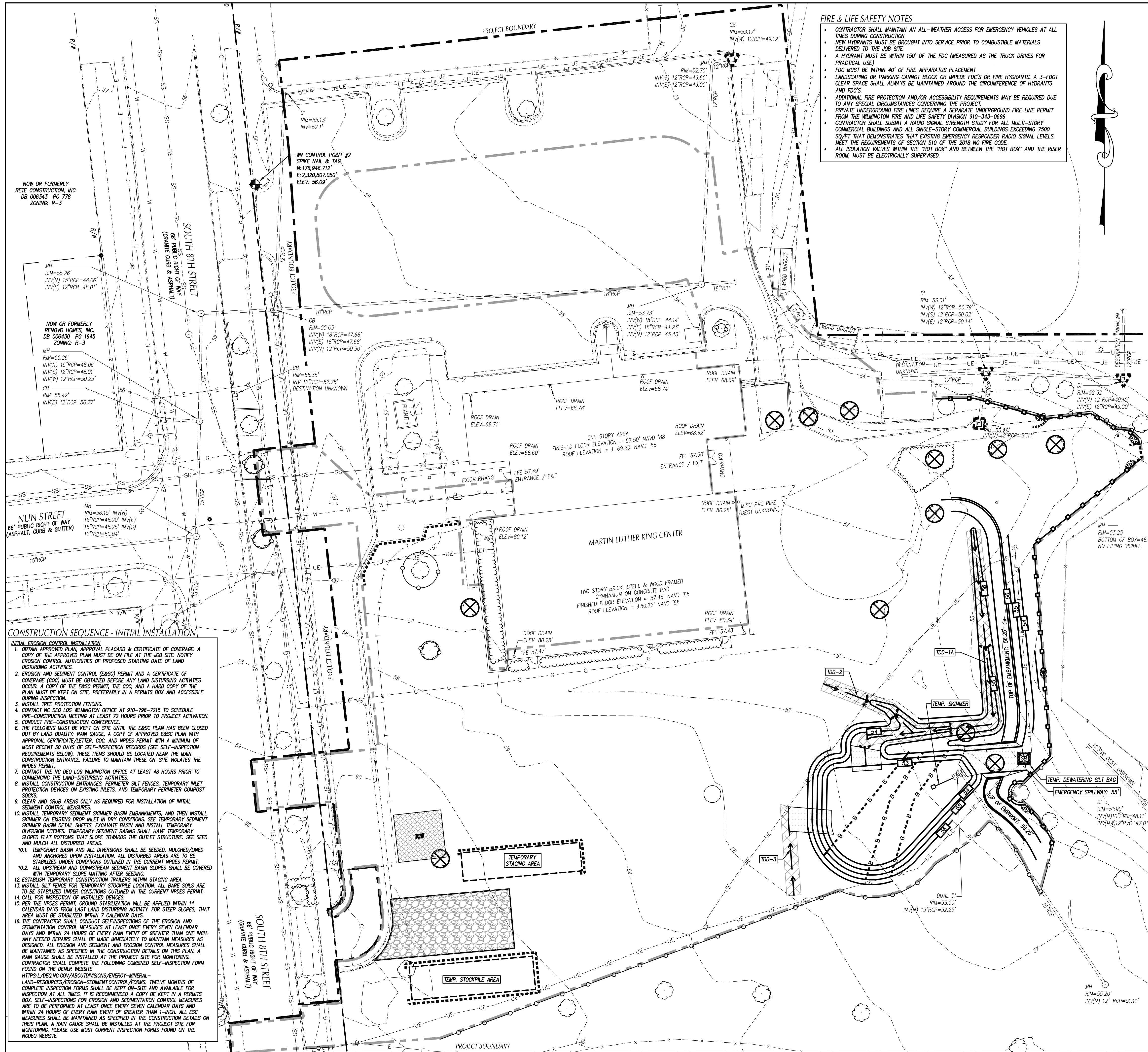
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ADDITION &  
RENOVATION**  
401 S. 8TH STREET  
Wilmington, NC

100% Construction Drawings  
March 22, 2023

Revisions:  
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POST  
DEVELOPMENT  
IMPERVIOUS  
PLAN  
**C3.2**





**FIRE & LIFE SAFETY NOTES**

- CONTRACTOR SHALL MAINTAIN AN ALL-WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION.
- NEW HYDRANTS MUST BE BROUGHT INTO SERVICE PRIOR TO COMBUSTIBLE MATERIALS DELIVERED TO THE JOB SITE.
- A HYDRANT MUST BE WITHIN 150' OF THE FDC (MEASURED AS THE TRUCK DRIVES FOR PRACTICAL USE).
- FDC MUST BE WITHIN 40' OF FIRE APPARATUS PLACEMENT.
- LANDSCAPING OR PARKING CANNOT BLOCK OR IMPED FDC'S OR FIRE HYDRANTS. A 3-FOOT CLEAR SPACE SHALL ALWAYS BE MAINTAINED AROUND THE CIRCUMFERENCE OF HYDRANTS AND FDC'S.
- ADDITIONAL FIRE PROTECTION AND/OR ACCESSIBILITY REQUIREMENTS MAY BE REQUIRED DUE TO ANY SPECIAL CIRCUMSTANCES CONCERNING THE PROJECT.
- PRIVATE UNDERGROUND FIRE LINES REQUIRE A SEPARATE UNDERGROUND FIRE LINE PERMIT FROM THE WILMINGTON FIRE AND LIFE SAFETY DIVISION 910-343-0686.
- CONTRACTOR SHALL SUBMIT A RADIO SIGNAL STRENGTH STUDY FOR ALL MULTI-STORY COMMERCIAL BUILDINGS AND ALL SINGLE-STORY COMMERCIAL BUILDINGS EXCEEDING 7500 SQ/FT THAT DEMONSTRATES THAT EXISTING EMERGENCY RESPONDER RADIO SIGNAL LEVELS MEET THE REQUIREMENTS OF SECTION 910 OF THE 2016 NC FIRE CODE.
- ALL ISOLATION VALVES WITHIN THE "HOT BOX" AND BETWEEN THE "HOT BOX" AND THE RISER ROOM, MUST BE ELECTRICALLY SUPERVISED.

**LEGEND**

	TEMP. GRAVEL CONSTR. ENTRANCE SEE DETAIL SHEET C7.1		TEMP. SKIMMER SEDIMENT BASIN SEE DETAIL SHEET C7.4
	TEMP. INLET PROTECTION DEVICE SEE DETAIL SHEET C7.2		TEMP. BAFFLES SEE DETAIL SHEET C7.4
	TEMP. SILT BAG INLET PROTECTION SEE DETAIL SHEET C7.2		TEMP. PLASTIC LINING; SEE TEMP. BASIN BAFFLES ON DETAIL SHEET C7.4
	TEMP. DIVERSION DITCH / BERM SEE DETAIL SHEET C7.4		EXISTING CONTOUR
	TEMP. SILT FENCE SEE DETAIL SHEET C7.1		FINISHED CONTOUR
	TEMP. REINFORCED SILT FENCE OUTLET; SEE DETAIL SHEET C7.1		TEMP. CONTOUR (TEMP. GRADES DURING CONSTR.)
	TEMP. J-HOOK PROTECTION SEE DETAIL SHEET C7.1		CHANNEL LINING; SEE DETAIL SHEET C7.3 FOR CHANNELS & C7.4 FOR DIVERSIONS
	TEMP. CONCRETE WASHOUT AREA SEE DETAIL SHEET C7.2		TREE PROTECTION FENCE SEE DETAIL SHEET C7.3
	TEMP. DEWATERING SILT BAG SEE DETAIL SHEET C7.2		TEMP. COMPOST SOCK SEE DETAIL SHEET C7.2
	TEMP. EXCAVATED INLET SEE DETAIL SHEET C7.4		TEMP. COMPOST SOCK IN CHANNEL SEE DETAIL SHEET C7.2
			EXISTING STORM SEWER PIPES
			CONSTRUCTION LIMITS UNLESS OTHERWISE NOTED.

- GENERAL NOTES**
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL CITY OF WILMINGTON AND NCDOT STANDARDS, SPECIFICATIONS AND DETAILS.
  - THE CONTRACTOR SHALL COMPLY WITH ALL STATE AND LOCAL CODES IN OBSERVING EROSION CONTROL MEASURES BOTH ON AND OFF SITE. ALL OFF-SITE SOIL BORROW AND WASTE SITES SHALL BE PROPERLY PERMITTED FOR SUCH ACTIVITIES. CONTRACTOR SHALL PROVIDE WRITTEN DOCUMENTATION OF SEDIMENT & EROSION CONTROL PERMIT FOR ANY OFF-SITE SITES TO OWNER PRIOR TO RELOCATING ANY STOCKPILE MATERIALS.
  - THE CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL DEVICES AFTER EACH RAINFALL EVENT OR AS DIRECTED BY LOCAL AUTHORITIES OR ARCHITECT.
  - TOTAL DISTURBED AREA: 1.6 AC.
  - ALL OPEN STORM PIPES SHALL BE PROTECTED WITH STONE FILTER PROTECTION AFTER WORK STOPPAGE EACH DAY. SEE DETAIL SHEET C7.1.
  - ALL STORM DRAINAGE PIPES SHALL BE THOROUGHLY FLUSHED OF ALL SEDIMENT FOLLOWING SITE STABILIZATION. INTERIOR FLUSHING OF SYSTEM SHALL BE PERFORMED AS NEEDED TO MAINTAIN PROPER FUNCTIONING OF THE DRAINAGE SYSTEM. CLEANING SHALL BE PERFORMED IN A MANNER WHICH PREVENTS SEDIMENT FROM BEING FLUSHED THROUGH PIPES TO THE EXISTING DRAINAGE SYSTEM.
  - THE INDICATED STAGING AREA IS INTENDED FOR VEHICLES AND NON-ERODIBLE MATERIALS ONLY. NO SOIL, SAND OR OTHER ERODIBLE, FINE GRAINED MATERIAL SHALL BE STORED OUTSIDE OF THE LIMITS OF THE SITE PROTECTED BY SEDIMENT AND EROSION CONTROL DEVICES AND MEASURES.
  - SOIL AND OTHER MATERIALS SHALL ONLY BE TEMPORARILY STOCKPILED WITHIN THE CONSTRUCTION LIMITS PROTECTED BY SEDIMENT AND EROSION CONTROL DEVICES AND MEASURES. STOCKPILES SHALL BE STABILIZED AS REQUIRED AS INDICATED IN THE SLOPE & SURFACE STABILIZATION NOTES ON THIS PLAN.
  - THE TREE PROTECTION FENCE SHALL BE MAINTAINED ON THE SITE UNTIL ALL SITE WORK IS COMPLETED AND THE FINAL SITE INSPECTION IS SCHEDULED PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY (CO). THE FENCING SHALL BE REMOVED IMMEDIATELY PRIOR TO THE FINAL SITE INSPECTION FOR THE SITE.
  - PROTECTION FENCING SHALL NOT BE MOVED AND THERE SHALL BE NO ENCROACHMENT INTO SUCH PROTECTED AREA(S) WITHOUT WRITTEN AUTHORIZATION OF THE COUNTY ZONING COMPLIANCE STAFF. ANY ACTIVITY (LANDSCAPING, FENCING, OR UTILITY INSTALLATION) SHOWN ON THE APPROVED PLANS IN A TREE PROTECTION AREA SHALL ALSO NOT OCCUR WITHOUT WRITTEN AUTHORIZATION FROM THE COUNTY ZONING COMPLIANCE STAFF. ANY UNAUTHORIZED ENCROACHMENT OR DISTURBANCE WITHIN THE BOUNDARIES OF A TREE PROTECTION AREA SHALL AUTOMATICALLY RESULT IN FINES AND THE REPLACEMENT OF ANY DAMAGED VEGETATION IN ACCORDANCE WITH THE LAND DEVELOPMENT ORDINANCE.
  - ROADSIDE DITCHES AND CHANNELS SHALL BE STABILIZED DAILY UNTIL PERMANENT GROUND COVER IS ESTABLISHED.
  - INSTALL TEMPORARY MATTING TO TOP OF ALL SIDE SLOPES ON CHANNELS AND TEMPORARY SEDIMENT BASINS. SEE DETAIL SHEET C7.02 (PERMANENT CHANNEL) AND C7.02 (TEMPORARY DIVERSION DITCH) FOR TYPE OF MATTING TO USE.
  - ANY DEWATERING OF SEDIMENT CONTAINMENT DEVICES FOR MAINTENANCE, REMOVAL OR CONVERSION PURPOSES IS TO BE DONE THROUGH A SILT BAG.
  - ANY DEWATERING OF STORM/UTILITY TRENCHES IS TO BE DONE THROUGH A SILT BAG.
  - GROUND COVER IS TO BE APPLIED PER CONDITIONS OF THE NPDES PERMIT OR AT THE END OF THE DAY IN CRITICAL AREAS.
  - CONTRACTOR SHALL USE TIRE WASH STATION TO PREVENT SEDIMENT FROM TRACKING ONTO THE ROAD IF CONSTRUCTION ENTRANCE IS FOUND INSUFFICIENT AT NO ADDITIONAL COST TO OWNER.
  - CONTRACTOR SHALL UTILIZE PAM FLOCCULANTS TO REDUCE RUN-OFF TURBIDITY. SEE SPECS.

- MAINTENANCE PLAN**
- DURING ALL PHASES OF CONSTRUCTION, GROUND COVER ON EXPOSED SLOPES SHALL BE PROVIDED ACCORDING TO GROUND STABILIZATION TABLE (C7.1) FOLLOWING COMPLETION OF ANY PHASE OF GRADING.
  - FINAL PERMANENT GROUND COVER FOR ALL DISTURBED AREAS SHALL BE PROVIDED ON ALL DISTURBED AREAS ACCORDING TO GROUND STABILIZATION TABLE (C7.1) FOLLOWING COMPLETION OF CONSTRUCTION OR DEVELOPMENT.
  - THE ABOVE REQUIREMENTS ARE THE MINIMUM NECESSARY TO MEET EROSION AND SEDIMENT CONTROL REGULATIONS. THE CONTRACT DOCUMENTS INCLUDE ADDITIONAL SEEDING AND STABILIZATION REQUIREMENTS AND SCHEDULES WHICH MAY EXCEED THOSE ABOVE.
  - SLOPE EROSION CONTROL MATTING SHALL BE INSTALLED FOR TEMPORARY STABILIZATION DURING THE ESTABLISHMENT OF VEGETATIVE COVER ON ALL STEEP SLOPES (6:1 OR STEEPER). REFER TO MATERIAL SPECIFICATIONS. INSTALL MATTING PER MANUFACTURER'S INSTRUCTIONS.
  - ALL OTHER SEEDED AREAS SHALL BE MULCHED WITH STRAW AND TACKED WITH ASPHALT.

**SELF-INSPECTION RULES**

SEE SHEET C7.1 FOR SELF-INSPECTION REQUIREMENTS.

THE FINANCIALLY RESPONSIBLE PERSON AND/OR HIS AGENT WILL BE PERFORM SELF INSPECTIONS OF THE EROSION AND SEDIMENTATION CONTROL MEASURES USING WCDMRL'S SELF INSPECTION REPORT (WORKSHEET) AND THIS WILL BE KEPT ON-SITE.

**SLOPE & SURFACE STABILIZATION**

GROUND STABILIZATION SHALL BE PROVIDED ON ALL DISTURBED AREAS ACCORDING TO GROUND STABILIZATION TABLE. SEE SHEET C7.1.

EXTENSIONS OF TIME MAY BE APPROVED BY THE PERMITTING AUTHORITY BASED ON WEATHER OR OTHER SITE-SPECIFIC CONDITIONS THAT MAKE COMPLIANCE IMPRACTICABLE (SECTION I1B(2) (b)).

THE REQUIREMENTS ON SHEET C7.05 ARE THE MINIMUM NECESSARY TO MEET EROSION AND SEDIMENT CONTROL REGULATIONS. THE CONTRACT DOCUMENTS INCLUDE ADDITIONAL SEEDING AND STABILIZATION REQUIREMENTS AND SCHEDULES WHICH MAY EXCEED MINIMUM REQUIREMENTS.

INSTALL TEMPORARY EXCELISOR MATTING FOR STABILIZATION DURING THE ESTABLISHMENT OF VEGETATIVE COVER ON ALL STEEP SLOPES (6:1 OR STEEPER) AND AREAS OF CONCENTRATED FLOW (CHANNELS, DITCHES, SWALES, ETC.) UTILIZE TEMPORARY COCONUT MAT IN AREAS IDENTIFIED ON PLAN. REFER TO SPECIFICATION SECTION 312500 FOR MATERIAL SPECIFICATIONS. INSTALL MATTING PER MANUFACTURER'S INSTRUCTIONS.

REFER TO SHEET C4.0 FOR CONSTRUCTION SEQUENCE INITIAL INSTALL & SHEET C4.1 FOR CONSTRUCTION SEQUENCE.

**CONSTRUCTION SEQUENCE - INITIAL INSTALLATION**

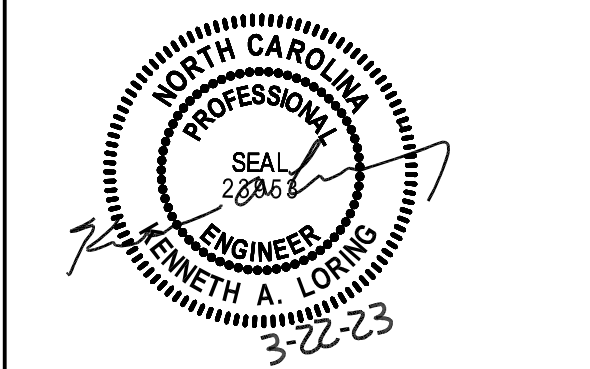
- INITIAL EROSION CONTROL INSTALLATION**
- OBTAIN APPROVED PLAN, APPROVAL PLACARD & CERTIFICATE OF COVERAGE. A COPY OF THE APPROVED PLAN MUST BE ON FILE AT THE JOB SITE. NOTIFY EROSION CONTROL AUTHORITIES OF PROPOSED STARTING DATE OF LAND DISTURBING ACTIVITIES.
  - EROSION AND SEDIMENT CONTROL (EASC) PERMIT AND A CERTIFICATE OF COVERAGE (COC) MUST BE OBTAINED BEFORE ANY LAND DISTURBING ACTIVITIES OCCUR. A COPY OF THE EASC PERMIT, THE COC, AND A HARD COPY OF THE PLAN MUST BE KEPT ON SITE, PREFERABLY IN A PERMITS BOX AND ACCESSIBLE DURING INSPECTION.
  - INSTALL TREE PROTECTION FENCING.
  - CONTACT NC DEQ LOS WILMINGTON OFFICE AT 910-796-7215 TO SCHEDULE PRE-CONSTRUCTION MEETING AT LEAST 72 HOURS PRIOR TO PROJECT ACTIVATION.
  - CONDUCT PRE-CONSTRUCTION MEETING.
  - THE FOLLOWING MUST BE KEPT ON SITE UNTIL THE EASC PLAN HAS BEEN CLOSED OUT BY LAND QUALITY RAIN GAUGE. A COPY OF APPROVED EASC PLAN WITH APPROVAL CERTIFICATE/LETTER, COC AND NPDES PERMIT WITH A MINIMUM OF MOST RECENT 30 DAYS OF SELF-INSPECTION RECORDS (SEE SELF-INSPECTION REQUIREMENTS BELOW). THESE ITEMS SHOULD BE LOCATED NEAR THE MAIN CONSTRUCTION ENTRANCE. FAILURE TO MAINTAIN THESE ON-SITE VIOLATES THE NPDES PERMIT.
  - CONTACT THE NC DEQ LOS WILMINGTON OFFICE AT LEAST 48 HOURS PRIOR TO COMMENCING THE LAND-DISTURBING ACTIVITIES.
  - INSTALL CONSTRUCTION ENTRANCES, PERIMETER SILT FENCES, TEMPORARY INLET PROTECTION DEVICES ON EXISTING INLETS, AND TEMPORARY PERIMETER COMPOST SOCKS.
  - CLEAR AND GRUB AREAS ONLY AS REQUIRED FOR INSTALLATION OF INITIAL SEDIMENT CONTROL MEASURES.
  - INSTALL TEMPORARY SEDIMENT SKIMMER BASIN EMBANKMENTS, AND THEN INSTALL SKIMMER ON EXISTING DROP INLET IN DRY CONDITIONS. SEE TEMPORARY SEDIMENT SKIMMER BASIN DETAIL SHEETS. EXCAVATE BASIN AND INSTALL TEMPORARY DIVERSION DITCHES. TEMPORARY SEDIMENT BASINS SHALL BE TEMPORARILY SLOPED FLAT BOTTOMS THAT SLOPE TOWARDS THE OUTLET STRUCTURE. SEE SEED AND MULCH ALL DISTURBED AREAS.
  - TEMPORARY BASIN AND ALL DIVERSIONS SHALL BE SEED, MULCHED, AND ANCHORED UPON INSTALLATION. ALL DISTURBED AREAS ARE TO BE STABILIZED UNDER CONDITIONS OUTLINED IN THE CURRENT NPDES PERMIT.
  - ALL UPSTREAM AND DOWNSTREAM SEDIMENT BASIN SLOPES SHALL BE COVERED WITH TEMPORARY SLOPE MATTING AFTER SEEDING.
  - ESTABLISH TEMPORARY CONSTRUCTION TRAILERS WITHIN STAGING AREA.
  - INSTALL SILT FENCE FOR TEMPORARY STOCKPILE LOCATION. ALL BARE SOILS ARE TO BE STABILIZED UNDER CONDITIONS OUTLINED IN THE CURRENT NPDES PERMIT.
  - CALL FOR INSPECTION OF INSTALLED DEVICES.
  - PER THE NPDES PERMIT, GROUND STABILIZATION WILL BE APPLIED WITHIN 14 CALENDAR DAYS FROM LAST LAND DISTURBING ACTIVITY. FOR STEEP SLOPES, THAT AREA MUST BE STABILIZED WITHIN 7 CALENDAR DAYS.
  - THE CONTRACTOR SHALL CONDUCT SELF-INSPECTIONS OF THE EROSION AND SEDIMENTATION CONTROL MEASURES AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF EVERY RAIN EVENT OF GREATER THAN ONE INCH. ANY NEEDED REPAIRS SHALL BE MADE IMMEDIATELY TO MAINTAIN MEASURES AS DESIGNED. ALL EROSION AND SEDIMENT AND EROSION CONTROL MEASURES SHALL BE MAINTAINED AS SPECIFIED IN THE CONSTRUCTION DETAILS ON THIS PLAN. A RAIN GAUGE SHALL BE INSTALLED AT THE PROJECT SITE FOR MONITORING. CONTRACTOR SHALL COMPLETE THE FOLLOWING COMBINED SELF-INSPECTION FORM FOUND ON THE DCMRL WEBSITE: <https://deq.nc.gov/about/dms/energy-mineral-land-resources/erosion-sediment-control-forms> TWELVE MONTHS OF COMPLETE INSPECTION FORMS SHALL BE KEPT ON-SITE AND AVAILABLE FOR INSPECTION AT ALL TIMES. IT IS RECOMMENDED A COPY BE KEPT IN A PERMITS BOX. SELF-INSPECTIONS FOR EROSION AND SEDIMENTATION CONTROL MEASURES ARE TO BE PERFORMED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF EVERY RAIN EVENT OF GREATER THAN 1-INCH. ALL ESC MEASURES SHALL BE MAINTAINED AS SPECIFIED IN THE CONSTRUCTION DETAILS ON THIS PLAN. A RAIN GAUGE SHALL BE INSTALLED AT THE PROJECT SITE FOR MONITORING. PLEASE USE MOST CURRENT INSPECTION FORMS FOUND ON THE NPDES WEBSITE.

**SAWYER SHERWOOD & ASSOCIATE ARCHITECTURE**

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LA: C-106 PE: C-1595



**MLK CENTER ADDITION & RENOVATION**

401 S. 8TH STREET  
Wilmington, NC

100% Construction Drawings  
March 22, 2023

Revisions:

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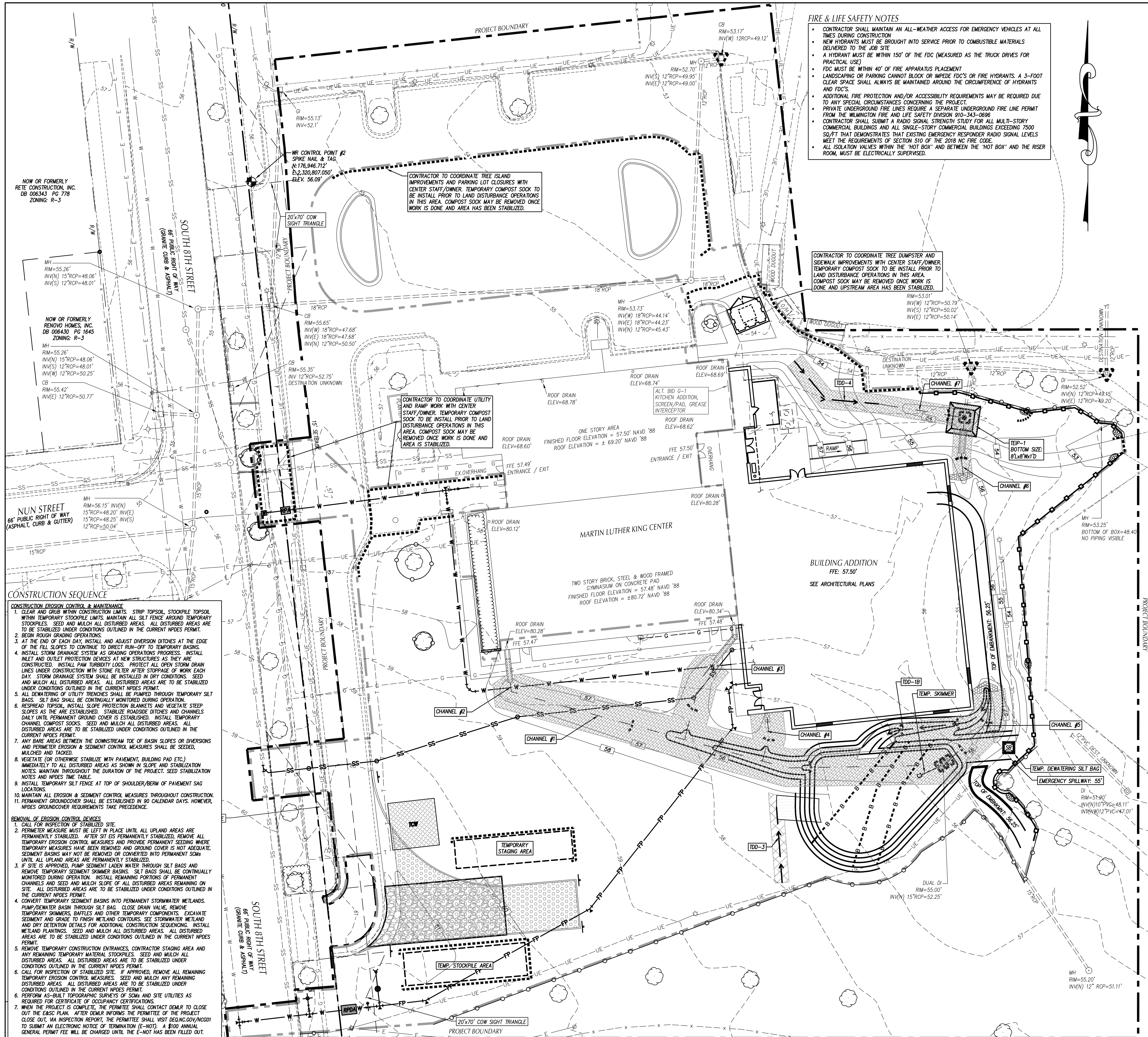
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EC PLAN - INITIAL INSTALL

**C4.0**





**FIRE & LIFE SAFETY NOTES**

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- FDC MUST BE WITHIN 40' OF FIRE APPARATUS PLACEMENT.
- LANDSCAPING OR PARKING CANNOT BLOCK OR IMPED FDC'S OR FIRE HYDRANTS. A 3-FOOT CLEAR SPACE SHALL ALWAYS BE MAINTAINED AROUND THE CIRCUMFERENCE OF HYDRANTS AND FDC'S.
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- ALL ISOLATION VALVES WITHIN THE "HOT BOX" AND BETWEEN THE "HOT BOX" AND THE RISER ROOM, MUST BE ELECTRICALLY SUPERVISED.

**LEGEND**

	TEMP. GRAVEL CONSTR. ENTRANCE SEE DETAIL SHEET C7.1		TEMP. SKIMMER SEDIMENT BASIN SEE DETAIL SHEET C7.4
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			EXISTING STORM SEWER PIPES
			CONSTRUCTION LIMITS UNLESS OTHERWISE NOTED.

**GENERAL NOTES**

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- THE CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL DEVICES AFTER EACH RAINFALL EVENT OR AS DIRECTED BY LOCAL AUTHORITIES OR ARCHITECT.
- TOTAL DISTURBED AREA: 1.6 AC.
- ALL OPEN STORM PIPES SHALL BE PROTECTED WITH STONE FILTER PROTECTION AFTER WORK STOPPAGE EACH DAY. SEE DETAIL SHEET C7.1.
- ALL STORM DRAINAGE PIPES SHALL BE THOROUGHLY FLUSHED OF ALL SEDIMENT FOLLOWING SITE STABILIZATION. INTERIOR FLUSHING OF SYSTEM SHALL BE PERFORMED AS NEEDED TO MAINTAIN PROPER FUNCTIONING OF THE DRAINAGE SYSTEM. CLEANING SHALL BE PERFORMED IN A MANNER WHICH PREVENTS SEDIMENT FROM BEING FLUSHED THROUGH PIPES TO THE EXISTING DRAINAGE SYSTEM.
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- SOIL AND OTHER MATERIALS STOCKPILED WITHIN THE CONSTRUCTION LIMITS SHALL BE STABILIZED AS REQUIRED AS INDICATED IN THE SLOPE & SURFACE STABILIZATION NOTES ON THIS PLAN.
- THE TREE PROTECTION FENCE SHALL BE MAINTAINED ON THE SITE UNTIL ALL SITE WORK IS COMPLETED AND THE FINAL SITE INSPECTION IS SCHEDULED PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY (CO). THE FENCING SHALL BE REMOVED IMMEDIATELY PRIOR TO THE FINAL SITE INSPECTION FOR THE SITE.
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- CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL DEVICES AFTER EACH RAINFALL EVENT OR AS DIRECTED BY LOCAL AUTHORITIES OR ARCHITECT.
- ROADSIDE DITCHES AND CHANNELS SHALL BE STABILIZED DAILY UNTIL PERMANENT GROUND COVER IS ESTABLISHED.
- INSTALL TEMPORARY MATTING TO TOP OF ALL SIDE SLOPES ON CHANNELS AND TEMPORARY SEDIMENT BASINS. SEE DETAIL SHEET C7.2 (PERMANENT CHANNEL) AND C7.2 (TEMPORARY DIVERSION DITCH) FOR TYPE OF MATTING TO USE.
- ANY DEWATERING OF SEDIMENT CONTAINMENT DEVICES FOR MAINTENANCE, REMOVAL OR CONVERSION PURPOSES IS TO BE DONE THROUGH A SILT BAG.
- ANY DEWATERING OF STORM/UTILITY TRENCHES IS TO BE DONE THROUGH A SILT BAG.
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- CONTRACTOR SHALL USE TIRE WASH STATION TO PREVENT SEDIMENT FROM TRACKING ONTO THE ROAD IF CONSTRUCTION ENTRANCE IS FOUND INSUFFICIENT AT NO ADDITIONAL COST TO OWNER.
- CONTRACTOR SHALL UTILIZE PAM FLOCCULANTS TO REDUCE RUN-OFF TURBIDITY. SEE SPECS.

**MAINTENANCE PLAN**

- DURING ALL PHASES OF CONSTRUCTION, GROUND COVER ON EXPOSED SLOPES SHALL BE PROVIDED ACCORDING TO GROUND STABILIZATION TABLE (C7.1) FOLLOWING COMPLETION OF ANY PHASE OF GRADING.
- FINAL PERMANENT GROUND COVER FOR ALL DISTURBED AREAS SHALL BE PROVIDED ON ALL DISTURBED AREAS ACCORDING TO GROUND STABILIZATION TABLE (C7.1) FOLLOWING COMPLETION OF CONSTRUCTION OR DEVELOPMENT.
- THE ABOVE REQUIREMENTS ARE THE MINIMUM NECESSARY TO MEET EROSION AND SEDIMENT CONTROL REGULATIONS. THE CONTRACT DOCUMENTS INCLUDE ADDITIONAL SEEDING AND STABILIZATION REQUIREMENTS AND SCHEDULES WHICH MAY EXCEED THOSE ABOVE.
- SLOPE EROSION CONTROL MATTING SHALL BE INSTALLED FOR TEMPORARY STABILIZATION DURING THE ESTABLISHMENT OF VEGETATIVE COVER ON ALL STEEP SLOPES (6:1 OR STEEPER). REFER TO MATERIAL SPECIFICATIONS. INSTALL MATTING PER MANUFACTURER'S INSTRUCTIONS.
- ALL OTHER SEEDING AREAS SHALL BE MULCHED WITH STRAW AND TACKED WITH ASPHALT.

**SELF-INSPECTION RULES**

SEE SHEET C7.1 FOR SELF-INSPECTION REQUIREMENTS.

THE FINANCIALLY RESPONSIBLE PERSON AND/OR HIS AGENT WILL BE PERFORM SELF INSPECTIONS OF THE EROSION AND SEDIMENTATION CONTROL MEASURES USING WCDM'S SELF INSPECTION REPORT (WORKSHEET) AND THIS WILL BE KEPT ON SITE.

**SLOPE & SURFACE STABILIZATION**

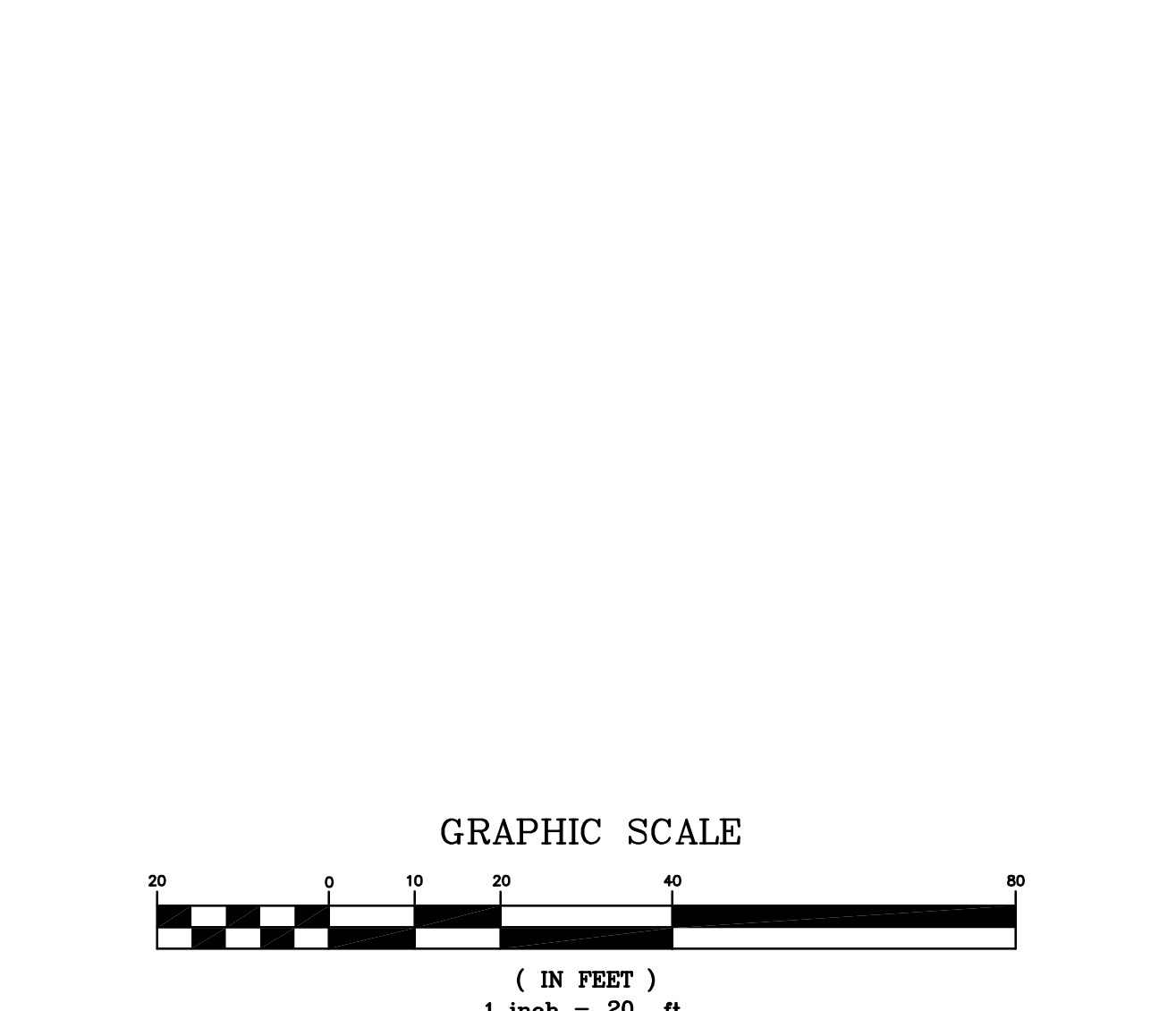
GROUND STABILIZATION SHALL BE PROVIDED ON ALL DISTURBED AREAS ACCORDING TO GROUND STABILIZATION NOTES. SEE SHEET C7.1.

EXTENSIONS OF TIME MAY BE APPROVED BY THE PERMITTING AUTHORITY BASED ON WEATHER OR OTHER SITE-SPECIFIC CONDITIONS THAT MAKE COMPLIANCE IMPRACTICABLE (SECTION 11B.2) (b.)

THE REQUIREMENTS ON SHEET C7.05 ARE THE MINIMUM NECESSARY TO MEET EROSION AND SEDIMENT CONTROL REGULATIONS. THE CONTRACT DOCUMENTS INCLUDE ADDITIONAL SEEDING AND STABILIZATION REQUIREMENTS AND SCHEDULES WHICH MAY EXCEED MINIMUM REQUIREMENTS.

INSTALL TEMPORARY EXCELISOR MATTING FOR STABILIZATION DURING THE ESTABLISHMENT OF VEGETATIVE COVER ON ALL STEEP SLOPES (6:1 OR STEEPER) AND AREAS OF CONCENTRATED FLOW (CHANNELS, DITCHES, SWALES, ETC.). UTILIZE TEMPORARY COCONUT MAT IN AREAS IDENTIFIED ON PLAN. REFER TO SPECIFICATION SECTION 312500 FOR MATERIAL SPECIFICATIONS. INSTALL MATTING PER MANUFACTURER'S INSTRUCTIONS.

REFER TO SHEET C4.0 FOR CONSTRUCTION SEQUENCE INITIAL INSTALL & SHEET C4.1 FOR CONSTRUCTION SEQUENCE.



**CONSTRUCTION SEQUENCE**

**CONSTRUCTION EROSION CONTROL & MAINTENANCE**

- CLEAR AND GRUB WITHIN CONSTRUCTION LIMITS. STRIP TOPSOIL, STOCKPILE TOPSOIL WITHIN TEMPORARY STOCKPILE LIMITS. MAINTAIN ALL SILT FENCE AROUND TEMPORARY STOCKPILES. SEED AND MULCH ALL DISTURBED AREAS. ALL DISTURBED AREAS ARE TO BE STABILIZED UNDER CONDITIONS OUTLINED IN THE CURRENT NPDES PERMIT.
- BEGIN ROUGH GRADING OPERATIONS.
- AT THE END OF EACH DAY, INSTALL AND ADJUST DIVERSION DITCHES AT THE EDGE OF THE FILL SLOPES TO CONTINUE TO DIRECT RUN-OFF TO TEMPORARY BASINS.
- INSTALL STORM DRAINAGE SYSTEM AS GRADING OPERATIONS PROGRESS. INSTALL INLET AND OUTLET PROTECTION DEVICES AT NEW STRUCTURES AS THEY ARE CONSTRUCTED. INSTALL PAM TURBIDITY LOSS. PROTECT ALL OPEN STORM DRAIN LINES UNDER CONSTRUCTION WITH STONE FILTER AFTER STOPPAGE OF WORK EACH DAY. STORM DRAINAGE SYSTEM SHALL BE INSTALLED IN DRY CONDITIONS. SEED AND MULCH ALL DISTURBED AREAS. ALL DISTURBED AREAS ARE TO BE STABILIZED UNDER CONDITIONS OUTLINED IN THE CURRENT NPDES PERMIT.
- ALL DEWATERING OF UTILITY TRENCHES SHALL BE PERFORMED THROUGH TEMPORARY SILT BAGS. SILT BAG SHALL BE CONTINUALLY MONITORED DURING OPERATION.
- RESHAPE TOPSOIL. INSTALL SLOPE PROTECTION BLANKETS AND VEGETATE STEEP SLOPES AS ARE ESTABLISHED. STABILIZE DITCHES AND CHANNELS DAILY UNTIL PERMANENT GROUND COVER IS ESTABLISHED. INSTALL TEMPORARY CHANNEL COMPOST SOCKS. SEED AND MULCH ALL DISTURBED AREAS. ALL DISTURBED AREAS ARE TO BE STABILIZED UNDER CONDITIONS OUTLINED IN THE CURRENT NPDES PERMIT.
- ANY BARE AREAS BETWEEN THE DOWNSTREAM TOE OF BASIN SLOPES OR DIVERSIONS AND PERMITTED EROSION & SEDIMENT CONTROL MEASURES SHALL BE SEED, MULCHED AND TACKED.
- VEGETATE (OR OTHERWISE STABILIZE WITH PAVEMENT, BUILDING PAD ETC.) IMMEDIATELY TO ALL DISTURBED AREAS AS SHOWN IN SLOPE AND STABILIZATION NOTES. MAINTAIN THROUGHOUT THE DURATION OF THE PROJECT. SEED STABILIZATION NOTES AND NPDES TIME TABLE.
- INSTALL TEMPORARY SILT FENCE AT TOP OF SHOULDER/BERM OF PAVEMENT SAG LOCATIONS.
- MAINTAIN ALL EROSION & SEDIMENT CONTROL MEASURES THROUGHOUT CONSTRUCTION.
- PERMANENT GROUND COVER SHALL BE ESTABLISHED BY 90 CALENDAR DAYS; HOWEVER, NPDES GROUND COVER REQUIREMENTS TAKE PRECEDENCE.

**REMOVAL OF EROSION CONTROL DEVICES**

- CALL FOR INSPECTION OF STABILIZED SITE.
- PERMETER MEASURE MUST BE LEFT IN PLACE UNTIL ALL UPLAND AREAS ARE PERMANENTLY STABILIZED. AFTER SITE IS PERMANENTLY STABILIZED, REMOVE ALL TEMPORARY EROSION CONTROL MEASURES AND PROVIDE PERMANENT SEEDING WHERE TEMPORARY MEASURES HAVE BEEN REMOVED AND GROUND COVER IS NOT ADEQUATE. SEDIMENT BASINS MAY NOT BE REMOVED OR CONVERTED INTO PERMANENT SOAKS UNTIL ALL UPLAND AREAS ARE PERMANENTLY STABILIZED.
- IF SITE IS APPROVED, PUMP SEDIMENT LADEN WATER THROUGH SILT BAGS AND REMOVE TEMPORARY SEDIMENT SKIMMER BASINS. SILT BAGS SHALL BE CONTINUALLY MONITORED DURING OPERATION. INSTALL REMAINING PORTIONS OF PERMANENT CHANNELS AND SEED AND MULCH SLOPE OF ALL DISTURBED AREAS REMAINING ON SITE. ALL DISTURBED AREAS ARE TO BE STABILIZED UNDER CONDITIONS OUTLINED IN THE CURRENT NPDES PERMIT.
- CONVERT TEMPORARY SEDIMENT BASINS INTO PERMANENT STORMWATER WETLANDS. PUMP DRAINER BASIN THROUGH SILT BAG. CLOSE DRAIN VALVE. REMOVE TEMPORARY SKIMMERS, BAFFLES AND OTHER TEMPORARY COMPONENTS. EXCAVATE SEDIMENT AND GRADE TO FINISH WETLAND CONTOURS. SEE STORMWATER WETLAND AND DRY DETENTION DETAILS FOR ADDITIONAL CONSTRUCTION SEQUENCING. INSTALL WETLAND PLANTINGS. SEED AND MULCH ALL DISTURBED AREAS. ALL DISTURBED AREAS ARE TO BE STABILIZED UNDER CONDITIONS OUTLINED IN THE CURRENT NPDES PERMIT.
- REMOVE TEMPORARY CONSTRUCTION ENTRANCES, CONTRACTOR STAGING AREA AND ANY REMAINING TEMPORARY MATERIAL STOCKPILES. SEED AND MULCH ALL DISTURBED AREAS. ALL DISTURBED AREAS ARE TO BE STABILIZED UNDER CONDITIONS OUTLINED IN THE CURRENT NPDES PERMIT.
- CALL FOR INSPECTION OF STABILIZED SITE. IF APPROVED, REMOVE ALL REMAINING TEMPORARY EROSION CONTROL MEASURES. SEED AND MULCH ANY REMAINING DISTURBED AREAS. ALL DISTURBED AREAS ARE TO BE STABILIZED UNDER CONDITIONS OUTLINED IN THE CURRENT NPDES PERMIT.
- PERFORM AS-BUILT TOPOGRAPHIC SURVEYS OF SOAK AND SITE UTILITIES AS REQUIRED FOR CERTIFICATE OF OCCUPANCY CERTIFICATIONS.
- WHEN THE PROJECT IS COMPLETE, THE PERMITTEE SHALL CONTACT DEMAR TO CLOSE OUT THE BASIC PLAN. AFTER DEMAR INFORMS THE PERMITTEE OF THE PROJECT CLOSE OUT, WA INSPECTION REPORT, THE PERMITTEE SHALL VISIT DEQ.NC.GOV/NCDOI TO SUBMIT AN ELECTRONIC NOTICE OF TERMINATION (E-NOT). A \$100 ANNUAL GENERAL PERMIT FEE WILL BE CHARGED UNTIL THE E-NOT HAS BEEN FILLED OUT.

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**NORTH CAROLINA PROFESSIONAL ENGINEER**

SEAL 2086  
JENNETH LORING  
3-22-23

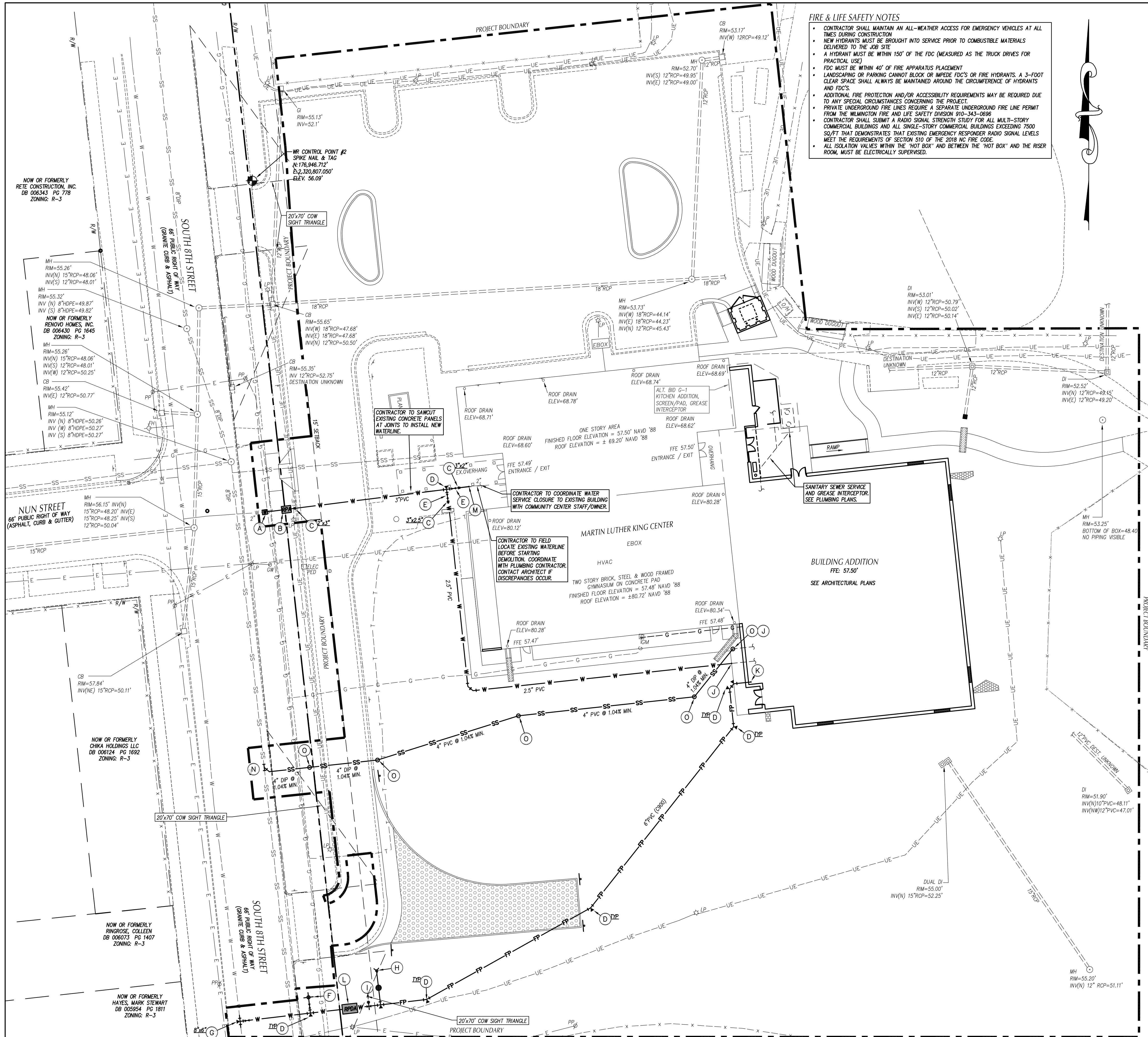
**MLK CENTER ADDITION & RENOVATION**

401 S. 8TH STREET  
Wilmington, NC

100% Construction Drawings  
March 22, 2023

Revisions:

**EROSION CONTROL PLAN C4.1**



**FIRE & LIFE SAFETY NOTES**

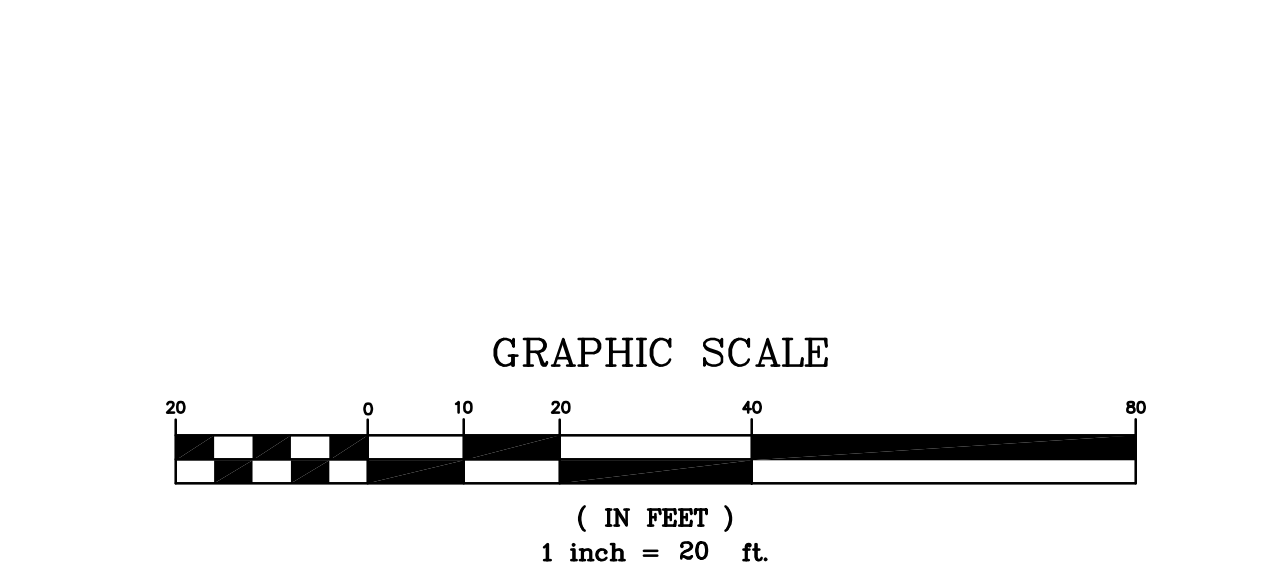
- CONTRACTOR SHALL MAINTAIN AN ALL-WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION.
- NEW HYDRANTS MUST BE BROUGHT INTO SERVICE PRIOR TO COMBUSTIBLE MATERIALS DELIVERED TO THE JOB SITE.
- A HYDRANT MUST BE WITHIN 150' OF THE FDC (MEASURED AS THE TRUCK DRIVES FOR PRACTICAL USES).
- FDC MUST BE WITHIN 40' OF FIRE APPARATUS PLACEMENT.
- LANDSCAPING OR PARKING CANNOT BLOCK OR IMPEDE FDC'S OR FIRE HYDRANTS. A 3-FOOT CLEAR SPACE SHALL ALWAYS BE MAINTAINED AROUND THE CIRCUMFERENCE OF HYDRANTS AND FDC'S.
- ADDITIONAL FIRE PROTECTION AND/OR ACCESSIBILITY REQUIREMENTS MAY BE REQUIRED DUE TO ANY SPECIAL CIRCUMSTANCES CONCERNING THE PROJECT.
- PRIVATE UNDERGROUND FIRE LINES REQUIRE A SEPARATE UNDERGROUND FIRE LINE PERMIT FROM THE WILMINGTON FIRE AND LIFE SAFETY DIVISION 910-343-0886.
- CONTRACTOR SHALL SUBMIT A RADIO SIGNAL STRENGTH STUDY FOR ALL MULTI-STORY COMMERCIAL BUILDINGS AND ALL SINGLE-STORY COMMERCIAL BUILDINGS EXCEEDING 7500 SQ/FT THAT DEMONSTRATES THAT EXISTING EMERGENCY RESPONDER RADIO SIGNAL LEVELS MEET THE REQUIREMENTS OF SECTION 910 OF THE 2018 NC FIRE CODE.
- ALL ISOLATION VALVES WITHIN THE "HOT BOX" AND BETWEEN THE "HOT BOX" AND THE RISER ROOM, MUST BE ELECTRICALLY SUPERVISED.

**UTILITY LEGEND**

	EXISTING	PROPOSED
CHILLED WATER	--- CW ---	--- CW ---
ELECTRICAL (OVERHEAD)	--- E ---	--- E ---
ELECTRICAL (UNDERGROUND)	--- UE ---	--- UE ---
FOUNDATION DRAIN	--- FD ---	--- FD ---
GAS	--- G ---	--- G ---
SANITARY SEWER	--- SS ---	--- SS ---
TELEPHONE (OVERHEAD)	--- T ---	--- T ---
TELEPHONE (UNDERGROUND)	--- UT ---	--- UT ---
WATER	--- W ---	--- W ---
ROOF DRAIN	--- RD ---	--- RD ---
FIRE PROTECTION	--- FP ---	--- FP ---
STORM DRAIN	--- SD ---	--- SD ---
TREE PROTECTION FENCING, SEE EROSION CONTROL PLANS	--- TP ---	--- TP ---
LIGHT POLE	☆ LP	☆
UTILITY POLE	PP	PP
MANHOLE	MH	MH
CLEAN OUT	CO	CO
DROP INLET/CATCH BASIN	DI, CB	DI, CB
FIRE HYDRANT	FH	FH
WATER VALVE	WV	WV
POST INDICATOR VALVE (PIV)	PIV	PIV
FIRE DEPARTMENT CONNECTION (FDC)	FDC	FDC
THRUST BLOCKING	TB	TB
SANITARY SEWER STRUCTURE IDENTIFICATION	SS ID	SS ID

- GENERAL NOTES-UTILITY**
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL CITY OF WILMINGTON AND NCDOT STANDARDS, SPECIFICATIONS AND DETAILS.
  - INSTALL WATERMANS WITH A COVER OF NO LESS THAN 3'-FT.
  - INSTALL SEWER MAINS WITH A COVER OF NO LESS THAN 3'-FT TO FINISH GRADE IN NON-TRAFFIC AREAS, 4'-FT TO FINISH GRADE IN TRAFFIC AREAS.
  - INSTALL ALL UTILITIES TO PROVIDE REQUIRED CLEARANCES AS INDICATED IN THE SPECIFICATIONS.
  - WATERLINES AND SEWER MAINS SHALL BE INSTALLED WITH A MINIMUM HORIZONTAL CLEARANCE OF 10'-FT.
  - SEWER MAINS SHALL BE INSTALLED WITH A MINIMUM VERTICAL CLEARANCE OF 24"-IN TO STORM DRAINAGE PIPES.
  - COORDINATE AND SCHEDULE INSTALLATION OF ALL UTILITIES WITH OTHER PRIME CONTRACTORS, UTILITY COMPANIES AND OTHER TRADES INCLUDING BUT NOT LIMITED TO: NATURAL GAS, ELECTRICITY, TELEPHONE AND CATV.
  - VERIFY EXISTING CONDITIONS AND CONNECTIONS TO EXISTING UTILITIES PRIOR TO CONSTRUCTION. NOTIFY ARCHITECT IF ANY DISCREPANCIES ARE DISCOVERED.
  - CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGES DURING CONSTRUCTION AND SHALL MAKE REPAIRS AT NO EXPENSE TO THE OWNER.
  - ALL CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE NCSBC AND OSHA REQUIREMENTS.
  - THE CONTRACTOR SHALL PROVIDE AN AS-BUILT SURVEY OF ALL UTILITY AND STORM DRAINAGE IMPROVEMENTS FOLLOWING CONSTRUCTION.
  - CONTRACTOR SHALL PHASE DEMOLITION AND NEW CONSTRUCTION TO ENSURE UNINTERRUPTED ACCESS AND UTILITY SERVICE TO ADJACENT FACILITIES. COORDINATE SHORT-TERM, OFF-HOUR, TEMPORARY SHUT-DOWNS WITH THE OWNER.
  - SEE GENERAL NOTES ON EXISTING CONDITIONS AND DEMOLITION PLAN FOR REQUIREMENTS FOR REMOVAL AND PATCHING OF PAVEMENT FOR UTILITY INSTALLATION.
  - ALL SANITARY SEWER SERVICES SHALL BE 4" PVC (SCH 40) @ 0.04% MIN. SLOPE UNLESS INDICATED OTHERWISE. USE DUCTILE IRON WHEN COVER IS LESS THAN 24"-IN.
  - ALL CONDENSATE LINES SHALL BE CONNECTED TO STORM DRAINAGE SYSTEM.
  - NO WORK SHALL BE PERFORMED ON RIGHT-OF-WAYS OR ADJACENT PROPERTIES UNTIL THE OWNER NOTIFIES CONTRACTOR IN WRITING OF APPROPRIATE PERMITS, EASEMENTS, AGREEMENTS, OR RIGHTS-OF-WAY.

- KEY NOTES**
- (A) 2" DOMESTIC WATER METER, SEE DETAIL SHEET CB.2
  - (B) 2-IN WATTS LF909 REDUCED PRESSURE BACKFLOW ASSEMBLY (RPA) OR APPROVED EQUAL WITHIN HEATED ENCLOSURE. SEE ELECTRICAL PLANS FOR ADDITIONAL INFORMATION.
  - (C) REDUCER/INCREASER, TYP. SEE SPECIFICATIONS.
  - (D) THRUST BLOCKING, TYP. SEE DETAIL SHEET CB.2
  - (E) GATE VALVE AND VALVE BOX, SEE DETAIL SHEET CB.2
  - (F) FIRE HYDRANT ASSEMBLY, SEE DETAIL SHEET CB.2
  - (G) TAPPING SLEEVE, VALVE AND BLOCKING ASSEMBLY SEE SPECIFICATIONS AND DETAIL SHEET CB.2
  - (H) FIRE DEPARTMENT CONNECTION, SEE DETAIL SHEET CB.1
  - (I) POST INDICATOR VALVE W/ TAMPER SWITCH, SEE DETAIL SHEET CB.1 AND SPECS.
  - (J) EXTEND UTILITY TO WITHIN 5'-0" OF BUILDING WALL OR AS INDICATED ON PLUMBING PLANS. REFER TO PLUMBING PLANS FOR LOCATION AND INVERTS.
  - (K) EXTEND WATER MAIN TO 12-IN ABOVE FINISH FLOOR FOR FIRE PROTECTION/PLUMBING CONNECTION. SEE DETAIL SHEET C-8.1. REFER TO FIRE PROTECTION/PLUMBING PLANS FOR EXACT LOCATION.
  - (L) 8" FERRO MASTER SERIES LF850V REDUCED PRESSURE ZONE DETECTOR ASSEMBLY (RPDA) OR APPROVED EQUAL WITHIN HEATED ENCLOSURE. PROVIDE TAMPER SWITCHES ON ABOVE GRADE VALVES. SEE ELECTRICAL PLANS FOR ADDITIONAL INFO.
  - (M) CONNECT TO EXISTING WATERLINE.
  - (N) SANITARY SEWER LATERAL CONNECTION. SEE DETAIL SHEET CB.3
  - (O) SANITARY SEWER CLEANOUT, SEE DETAIL SHEET CB.3
  - (P) WATER CHECK VALVE WITH BALL DRIP IN 24"x24" PRECAST CONCRETE VAULT, SEE FIRE DEPARTMENT CONNECTION DETAIL SHEET CB.1

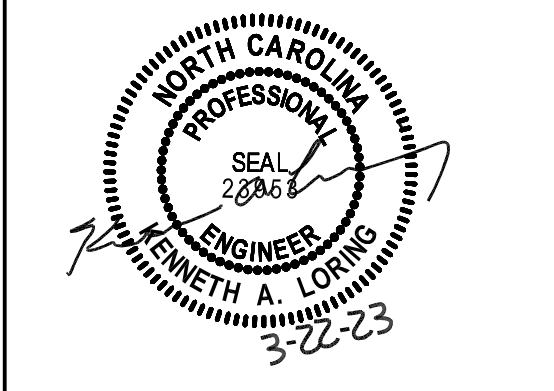


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**MLK CENTER ADDITION & RENOVATION**

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Revisions:

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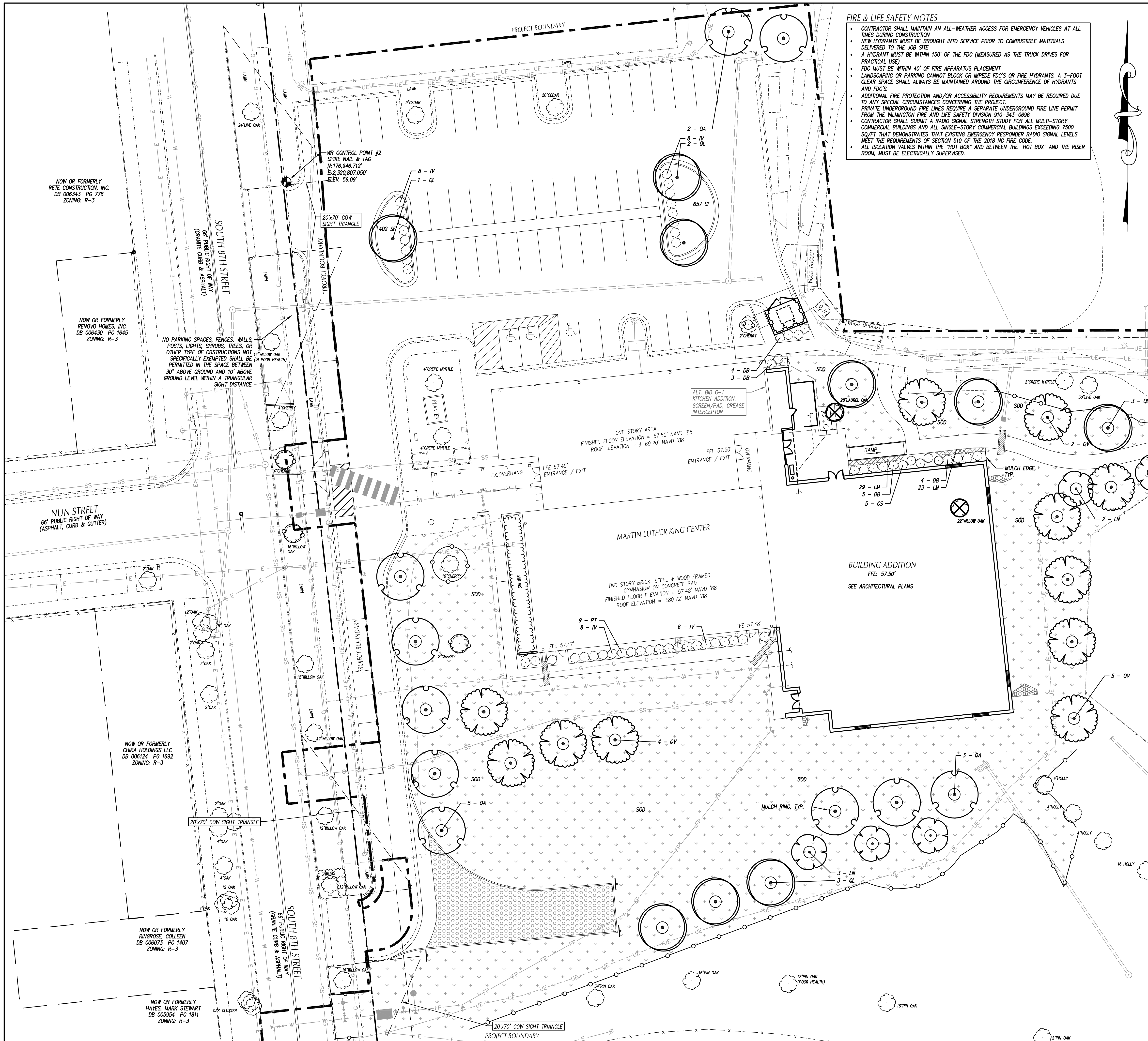
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**SITE UTILITY PLAN**

**C5.0**



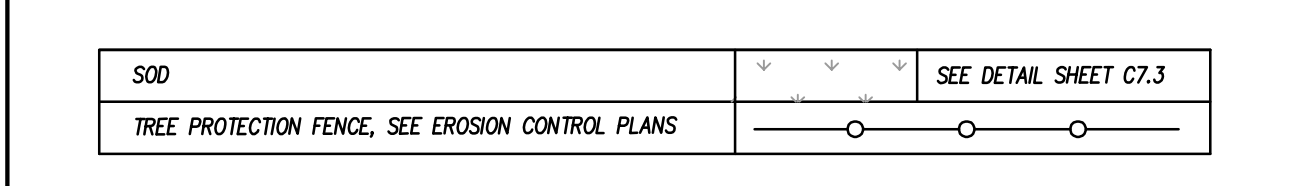
**FIRE & LIFE SAFETY NOTES**

- CONTRACTOR SHALL MAINTAIN AN ALL-WEATHER ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES DURING CONSTRUCTION.
- NEW HYDRANTS MUST BE BROUGHT INTO SERVICE PRIOR TO COMBUSTIBLE MATERIALS DELIVERED TO THE JOB SITE.
- A HYDRANT MUST BE WITHIN 150' OF THE FDC (MEASURED AS THE TRUCK DRIVES FOR PRACTICAL USE).
- FDC MUST BE WITHIN 40' OF FIRE APPARATUS PLACEMENT.
- LANDSCAPING OR PARKING CANNOT BLOCK OR IMPED FDC'S OR FIRE HYDRANTS. A 3-FOOT CLEAR SPACE SHALL ALWAYS BE MAINTAINED AROUND THE CIRCUMFERENCE OF HYDRANTS AND FDC'S.
- ADDITIONAL FIRE PROTECTION AND/OR ACCESSIBILITY REQUIREMENTS MAY BE REQUIRED DUE TO ANY SPECIAL CIRCUMSTANCES CONCERNING THE PROJECT.
- PRIVATE UNDERGROUND FIRE LINES REQUIRE A SEPARATE UNDERGROUND FIRE LINE PERMIT FROM THE WILMINGTON FIRE AND LIFE SAFETY DIVISION 910-343-0696.
- CONTRACTOR SHALL SUBMIT A RADIO SIGNAL STRENGTH STUDY FOR ALL MULTI-STORY COMMERCIAL BUILDINGS AND ALL SINGLE-STORY COMMERCIAL BUILDINGS EXCEEDING 7500 SQ.FT THAT DEMONSTRATES THAT EXISTING EMERGENCY RESPONDER RADIO SIGNAL LEVELS MEET THE REQUIREMENTS OF SECTION 510 OF THE 2018 NC FIRE CODE.
- ALL ISOLATION VALVES WITHIN THE "HOT BOX" AND BETWEEN THE "HOT BOX" AND THE RISER ROOM, MUST BE ELECTRICALLY SUPERVISED.

- GENERAL NOTES-LANDSCAPING**
- LOCATE ALL EXISTING UTILITIES PRIOR TO INSTALLATION OF PLANT MATERIAL. NOTIFY OWNER OF ANY DISCREPANCIES.
  - VERIFICATION OF TOTAL QUANTITIES AS SHOWN ON THE PLAN SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND THE TOTAL QUANTITIES SHALL BE AS SHOWN ON THE PLAN.
  - ALL PLANT MATERIAL SHALL CONFORM WITH THE STANDARDS SET FORTH BY THE AMERICAN ASSOCIATION OF NURSERYMEN AND THE WRITTEN SPECIFICATIONS.
  - ALL PLANT MATERIAL (SHRUBS/TREES) SHALL BE A MINIMUM DISTANCE OF 4 1/2 FEET FROM BACK OF CURB, EXCEPT ALONG ANY NEW WALLS ADJACENT TO PARKING WHERE CURB STOPS WILL BE USED. ALL PLANTING BEDS TO BE MULCHED WITH A MINIMUM OF 3" OF MULCH.
  - ALL PLANT GROUPINGS SHALL BE MULCHED AS ONE BED. 3" OF DYED BROWN TRIPLE SHREDED HARDWOOD MULCH SHALL BE USED AROUND ALL PLANTINGS WITH THE EXCEPTION OF BUFFER PLANTINGS.
  - APPLY PRE-EMERGENT HERBICIDE TO ALL NEW PLANTING BEDS AT MANUFACTURER'S RECOMMENDED RATE PRIOR TO INSTALLATION OF MULCH.
  - ESTABLISH POSITIVE DRAINAGE IN ALL PLANTING BEDS AND AWAY FROM BUILDINGS.
  - DO NOT INSTALL PLANT MATERIAL IN IMPERVIOUS SOILS. (i.e. HOLES WHICH, WHEN FILLED WITH WATER, DO NOT COMPLETELY DRAIN WITHIN TWO HOURS.) SEE SPECIFICATIONS FOR TOPSOIL REQUIREMENTS.
  - LAWN AREAS SHALL BE SEEDED WITH RIVERA OR SUNSTAR BERMUDA GRASS 95% COVERAGE (BASED ON A PER SQUARE YARD SAMPLE) SHALL BE ATTAINED PRIOR TO FINAL INSPECTION. SEE DETAIL SHEET FOR RATES AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
  - CONTACT THE LANDSCAPE ARCHITECT FOR INSPECTION 48 HOURS IN ADVANCE OF THE SCHEDULED SITE VISIT AND AT THE FOLLOWING INTERVALS:
    - REVIEW OF GRADING PRIOR TO PLANT AND LAWN INSTALLATION
    - REVIEW OF PLANT MATERIAL PRIOR TO INSTALLATION.
    - ONE SUBSTANTIAL COMPLETION MEETING FOR PLANT INSTALLATION.
    - ONE FINAL INSPECTION FOR ALL SEEDING/PLANTING OPERATIONS.
  - THE TREE PROTECTION FENCE SHALL BE MAINTAINED ON THE SITE UNTIL ALL SITE WORK IS COMPLETED AND THE FINAL SITE INSPECTION PRIOR TO THE CERTIFICATE OF OCCUPANCY (CO) IS SCHEDULED. THE FENCING SHALL BE REMOVED PRIOR TO FINAL SITE INSPECTION FOR THE CO.
  - LANDSCAPE SUB-CONTRACTOR (UNDER GO CONTRACT) SHALL BE RESPONSIBLE FOR WATERING ALL PLANTS AND LAWN AREAS AT HIS COST FROM HIS OWN WATER SOURCE INCLUDING DURING PERIODS OF DROUGHT UNTIL THE PLANTS AND LAWN MEET FINAL COMPLETION MATERIALS OR AREAS OF GRASS WHICH PERISH SHALL BE RE-ESTABLISHED BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER.
  - GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ALL EQUIPMENT & SUBCONTRACTORS AWAY FROM SEEDED AREAS. IF DAMAGE OCCURS, THROUGH NO FAULT OF THE OWNER, AREAS SHALL BE REGRADED AND RESEED IMMEDIATELY AT NO ADDITIONAL COST TO THE OWNER. CONTRACTOR SHALL WATER AND MAINTAIN THOSE AREAS UNTIL THEY ARE AT 95% COVERAGE AT FINAL COMPLETION.
  - SUBSTITUTIONS OF PLANT MATERIAL SHALL ONLY BE ACCEPTED 60 DAYS PRIOR TO COMMENCEMENT OF PLANTING OPERATIONS. SUBSTITUTION REQUESTS MUST BE IN WRITING AND WILL ONLY BE ACCEPTED FOR LACK OF AVAILABILITY REASONS WHICH CAN BE SUBSTANTIATED OR FOR SUPERIOR STOCK SUBSTITUTIONS.
  - LANDSCAPE CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT TO REVIEW GRADING ONE WEEK PRIOR TO SEEDING. IF THE LANDSCAPE CONTRACTOR AND LANDSCAPE ARCHITECT FIND GRADING UNACCEPTABLE FOR FINAL SEEDING, LANDSCAPE CONTRACTOR SHALL BRING IT TO THE ATTENTION OF THE GENERAL CONTRACTOR. LANDSCAPE CONTRACTOR SHALL NOT PROCEED WITHOUT APPROVAL BY LANDSCAPE ARCHITECT.
  - IF CONFLICTS OCCUR BETWEEN WRITTEN SPECIFICATIONS AND THE DRAWINGS, THE WRITTEN SPECIFICATIONS SHALL PREVAIL.
  - GENERAL LAWN AREAS SHALL BE SEEDED WITH RIVERA OR SUNSTAR BERMUDA.
  - ALL 3:1 SLOPES SHALL BE STABILIZED WITH NO-NOW NATURALIZED SEED MIX AND EROSION CONTROL MATTING.
  - ALL FOUNDATION SHRUBS AND TREES TO BE PLANTED A MINIMUM OF 5-FT FROM BUILDING WALL. NOTIFY LANDSCAPE ARCHITECT FOR ANY DISCREPANCIES.
  - INSTALL PERMANENT SEEDING ALONG ALL ROADSIDE DITCHES AND CHANNELS WITHIN CONSTRUCTION LIMITS OF PROJECT. SEE EROSION CONTROL PLANS FOR ADDITIONAL INFORMATION.

**PLANT LIST**

TREES	QTY	BOTANICAL / COMMON NAME	CONT	CAL	SIZE
LN	5	Lagerstroemia indica x laurii 'Natchez', Tree Form Natchez Grape Myrtle	B&B	2"	2" CAL MIN. 10' HT MIN.
QA	10	Quercus acutissima Sawtooth Oak	B&B	3"	3" CAL MIN. 10' HT MIN.
QL	9	Quercus lyrata Overcup Oak	B&B	3"	3" CAL MIN. 10' HT MIN.
QV	11	Quercus virginiana Southern Live Oak	B&B	3"	3" CAL MIN. 10' HT MIN.
SHRUBS	QTY	BOTANICAL / COMMON NAME	CONT	SIZE	
CS	5	Camellia sasanqua 'Green 99-012' TM October Magic Dwarf Camellia	#3 CONT., FULL SPACE AS SHOWN	18" HT MIN.	
DB	16	Distylium x 'FIDIST-II' TM Blue Cascade Distylium	#3 CONT., FULL SPACE AS SHOWN	18" HT MIN.	
IV	30	Ilex vomitoria 'Nana' Dwarf Yaupon Holly	#3 CONT., FULL SPACE AS SHOWN	18" HT MIN.	
PT	9	Pittosporum tobira 'Wheeler's Dwarf' Wheeler's Dwarf Pittosporum	#3 CONT., FULL SPACE AS SHOWN	18" HT MIN.	
GROUND COVERS	CODE	QTY	BOTANICAL / COMMON NAME	SPACING	
	LM	52	Liriope muscari 'Big Blue' Big Blue Lilyturf	15" o.c.	



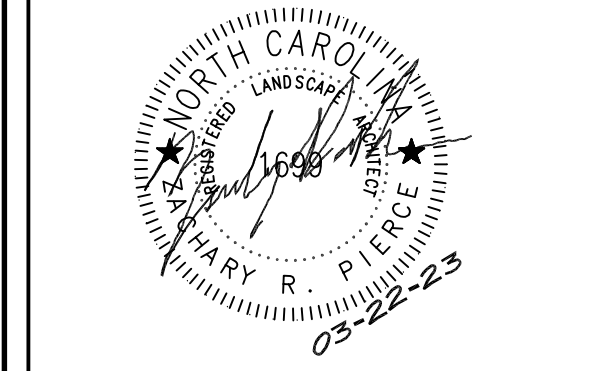
**LANDSCAPE CALCULATIONS**

TREE REPLACEMENT REQUIREMENT		FOUNDATION PLANTING REQUIREMENTS
EXISTING TREE TO BE REMOVED (SIGNIFICANT TREE AS DEFINED BY THE LAND DEVELOPMENT CODE)	REPLACEMENT REQUIREMENT (2" OF MITIGATION TREES FOR EVERY 1" DBH OF TREES REMOVED)	FOR ALL PORTIONS OF BUILDINGS ADJACENT TO PARKING LOTS AND INTERNAL DRIVE AISLES, FOUNDATION PLANTINGS SHALL BE REQUIRED BETWEEN THE BUILDING WALL AND THE PARKING OR DRIVE AISLE CURB.
22" WILLOW OAK	22 TREES, 2" CAL	
28" LAUREL OAK	28 TREES, 2" CAL	
TOTAL: 50 TREES (2" CAL.)		
PROVIDED: 5 TREES (2" CAL.), 30 TREES (3" CAL.)		
NOTE: OTHER TREES PROPOSED TO BE REMOVED THAT FIT THE DEFINITION OF A SPECIMEN OR SIGNIFICANT TREE ARE IN POOR HEALTH AND DO NOT MEET THE PARAMETERS OF A HEALTHY TREE TO BE RETAINED.		
EXISTING SIGNIFICANT TREE TO BE REMOVED / REPLACED =		
EXISTING TREE TO REMAIN =		
TREES REQUIRED BY DISTURBED AREA		PARKING LOT PLANTING REQUIREMENTS
A MINIMUM OF 15 TREES, AT LEAST 2" DBH, SHALL BE RETAINED OR PLANTED ON THE SITE OF EACH ACRE DISTURBED BY DEVELOPMENT.		ONE LANDSCAPE ISLAND REQUIRED PER 12 PARKING SPACES
- 1.3 ACRES DISTURBED		
- 20 TREES REQUIRED / 20+ EXISTING, 13 PROVIDED		

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100% Construction Drawings  
March 22, 2023

Revisions:

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LANDSCAPE PLAN  
**C6.0**

**GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 CONSTRUCTION GENERAL PERMIT**

Implementing the details and specifications on this plan sheet will result in the construction activity being considered compliant with the Ground Stabilization and Materials Handling sections of the NCG01 Construction General Permit (Sections E and F, respectively). The permittee shall comply with the Erosion and Sediment Control plan approved by the delegated authority having jurisdiction. All details and specifications shown on this sheet may not apply depending on site conditions and the delegated authority having jurisdiction.

**SECTION E: GROUND STABILIZATION**

Site Area Description	Stabilize within this many calendar days after ceasing land disturbance	Timeframe variations
(a) Perimeter dikes, swales, ditches, and perimeter slopes	7	None
(b) High Quality Water (HQW) Zones	7	None
(c) Slopes steeper than 3:1	7	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed. -7 days for slopes greater than 50' in length and with slopes steeper than 4:1 -7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed
(d) Slopes 3:1 to 4:1	14	
(e) Areas with slopes flatter than 4:1	14	-7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed unless there is zero slope

**Note:** After the permanent cessation of construction activities, any areas with temporary ground stabilization shall be covered to permanent ground stabilization as soon as practicable but in no case longer than 90 calendar days after the last land disturbing activity. Temporary ground stabilization shall be maintained in a manner to render the surface stable against accelerated erosion until permanent ground stabilization is achieved.

**GROUND STABILIZATION SPECIFICATION**

Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the techniques in the table below:

Temporary Stabilization	Permanent Stabilization
<ul style="list-style-type: none"> <li>Temporary grass seed covered with straw or other mulches and tackifiers</li> <li>Hydroseeding</li> <li>Roll-on erosion control products with or without temporary grass seed</li> <li>Appropriately applied straw or other mulch</li> <li>Plastic sheeting</li> </ul>	<ul style="list-style-type: none"> <li>Permanent grass seed covered with straw or other mulches and tackifiers</li> <li>Geotextile fabrics such as permanent soil reinforcement matting</li> <li>Hydroseeding</li> <li>Shrubs or other permanent plantings covered with mulch</li> <li>Uniform and evenly distributed ground cover sufficient to restrain erosion</li> <li>Structural methods such as concrete, asphalt or retaining walls</li> <li>Roll-on erosion control products with grass seed</li> </ul>

**POLYACRYLAMIDES (PAMS) AND FLOCCULANTS**

- Select flocculants that are appropriate for the soils being exposed during construction, selecting from the NC DWR List of Approved PAMS/Flocculants.
- Apply flocculants at or before the inlets to Erosion and Sediment Control Measures.
- Apply flocculants at the concentrations specified in the NC DWR List of Approved PAMS/Flocculants and in accordance with the manufacturer's instructions.
- Provide ponding area for containment of treated Stormwater before discharging offsite.
- Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.

**EQUIPMENT AND VEHICLE MAINTENANCE**

- Maintain vehicles and equipment to prevent discharge of fluids.
- Provide drip pans under any stored equipment.
- Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
- Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
- Remove leaking vehicles and construction equipment from service until the problem has been corrected.
- Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.

**LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE**

- Never bury or burn waste. Place litter and debris in approved waste containers.
- Provide a sufficient number and size of waste containers (e.g. dumpster, trash receptacle) on site to contain construction and domestic wastes.
- Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
- Locate waste containers on areas that do not receive substantial amounts of runoff from upland areas and does not drain directly to a storm drain, stream or wetland.
- Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
- Anchor all lightweight items in waste containers during times of high winds.
- Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
- Dispose waste off-site at an approved disposal facility.
- On business days, clean up and dispose of waste in designated waste containers.

**PAINT AND OTHER LIQUID WASTE**

- Do not dump paint and other liquid waste into storm drains, streams or wetlands.
- Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
- Contain liquid wastes in a controlled area. Soil stabilization is defined as vegetative, physical or chemical coverage techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control needs.
- Containment must be labeled, sized and placed appropriately for the needs of site.
- Prevent the discharge of soaps, solvents, detergents and other liquid wastes from construction sites.

**PORTABLE TOILETS**

- Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot offset is not attainable, provide relocation of portable toilet behind silt fence or place on a gravel pad and surround with sand bags.
- Provide staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas.
- Monitor portable toilets for leaking and properly dispose of any leaked material. Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace with properly operating unit.

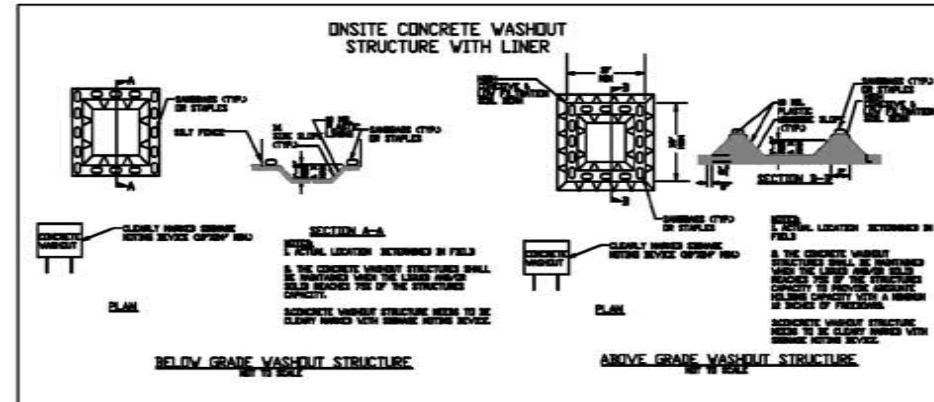
**EARTHEN STOCKPILE MANAGEMENT**

- Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably available.
- Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
- Provide stable stone access point when feasible.
- Stabilize stockpile within the timeframes provided on this sheet and in accordance with the approved plan and any additional requirements. Soil stabilization is defined as vegetative, physical or chemical coverage techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control needs.



**NCG01 GROUND STABILIZATION AND MATERIALS HANDLING**

EFFECTIVE: 04/01/19



**CONCRETE WASHOUTS**

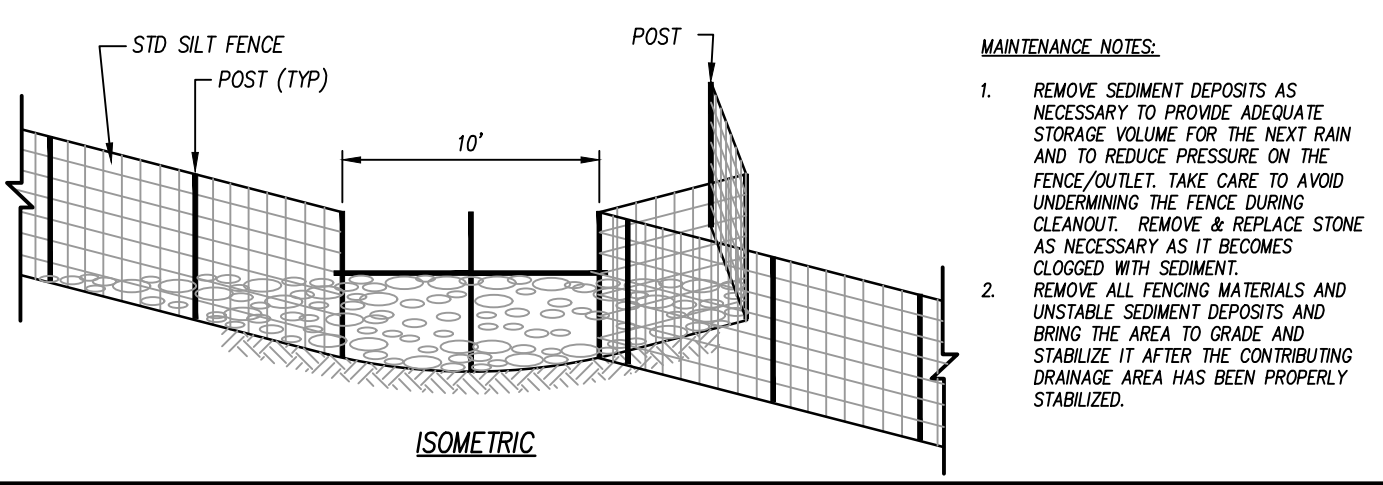
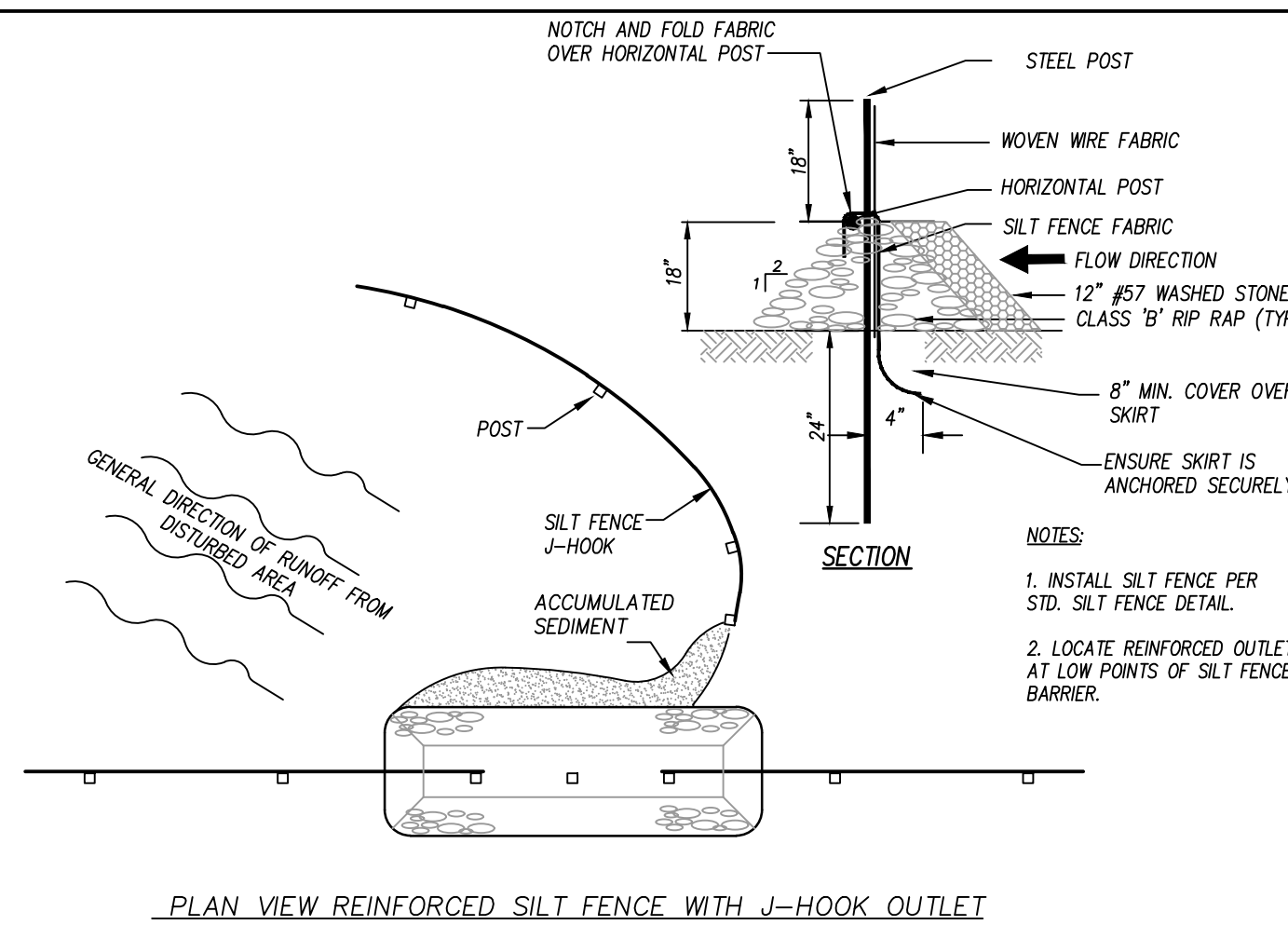
- Do not discharge concrete or cement slurry from the site.
- Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and an approved facility.
- Manage washout from mortar mixers in accordance with the above item and in addition place the mixer and associated materials on impervious barrier and within lot perimeter silt fence.
- Install temporary concrete washouts per local requirements, where applicable. If an alternate method or product is to be used, contact your approval authority for review and approval. If local standard details are not available, use one of the two types of temporary concrete washouts provided on this detail.
- Do not use concrete washouts for dewatering or storing defective curb or sidewalk sections. Stormwater accumulated within the washout may not be pumped into or discharged to the storm drain system or receiving surface waters. Liquid waste must be pumped out and removed from project.
- Locate washouts at least 50 feet from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available. At a minimum, install protection of storm drain inlets closest to the washout which could receive spill or overflow.
- Locate washouts in an easily accessible area, on level ground and install a stone entrance pad in front of the washout. Additional controls may be required by the approving authority.
- Install at least one sign directing concrete trucks to the washout within the project limits. Post signage on the washout itself to identify this location.
- Remove leavings from the washout when at approximately 75% capacity to limit overflow events. Replace the tarp, and other temporary structural components when no longer functional. When utilizing alternative or proprietary products, follow manufacturer's instructions.
- At the completion of the concrete work, remove remaining leavings and dispose of in an approved disposal facility. Fill pit, if applicable, and stabilize any disturbance caused by removal of washout.

**HERBICIDES, PESTICIDES AND RODENTICIDES**

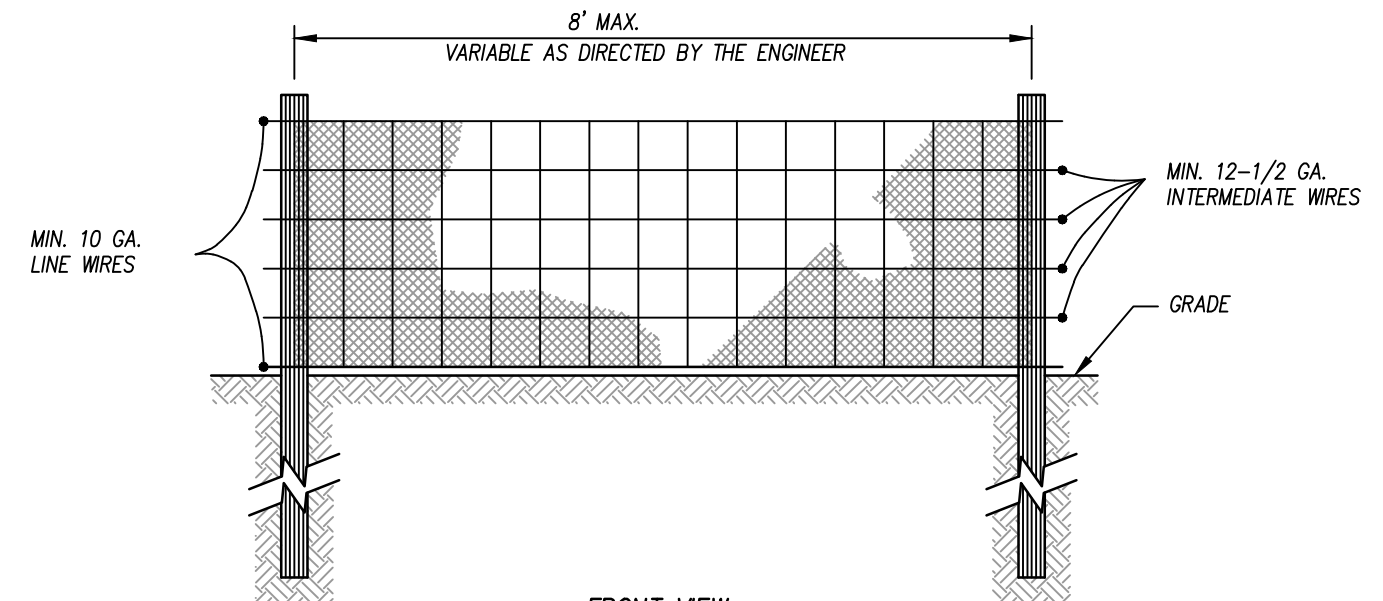
- Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.
- Store herbicides, pesticides and rodenticides in their original containers with the label, which lists directions for use, ingredients and first aid steps in case of accidental poisoning.
- Do not store herbicides, pesticides and rodenticides in areas where flooding is possible or where they may spill or leak into wells, stormwater drains, ground water or surface water. If a spill occurs, clean area immediately.
- Do not stockpile these materials onsite.

**HAZARDOUS AND TOXIC WASTE**

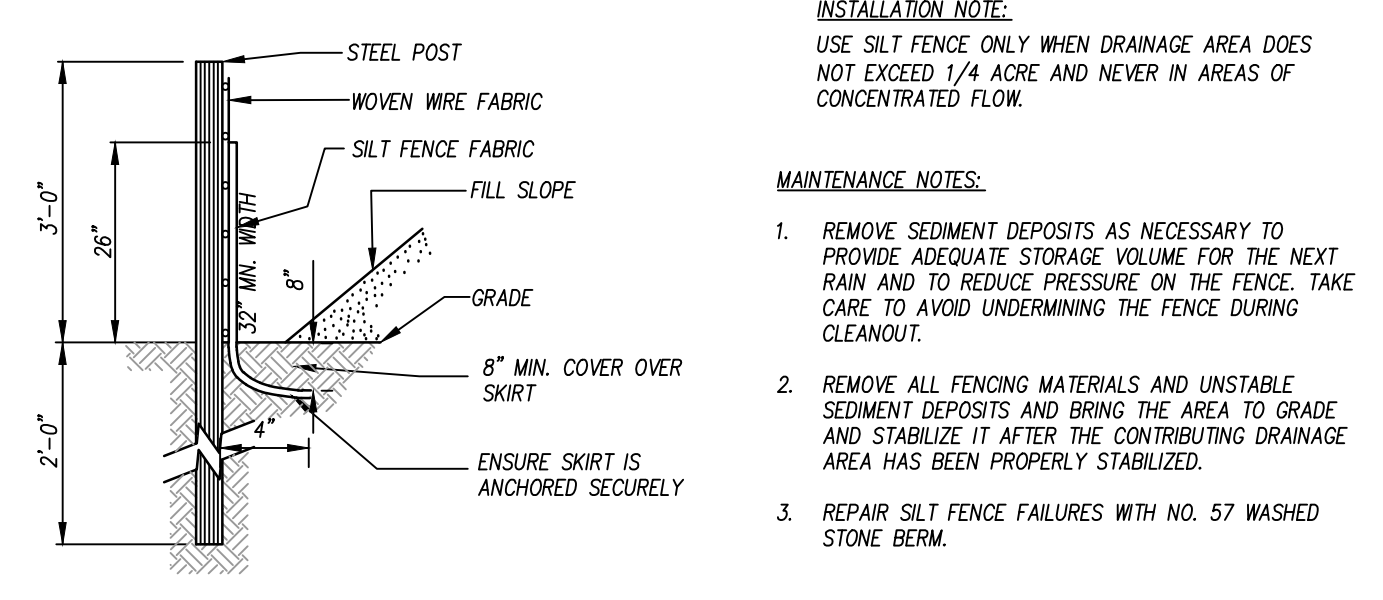
- Create designated hazardous waste collection areas on-site.
- Place hazardous waste containers under cover or in secondary containment.
- Do not store hazardous chemicals, drums or bagged materials directly on the ground.



TEMPORARY REINFORCED SILT FENCE J-HOOK INSTALLATION N.T.S.

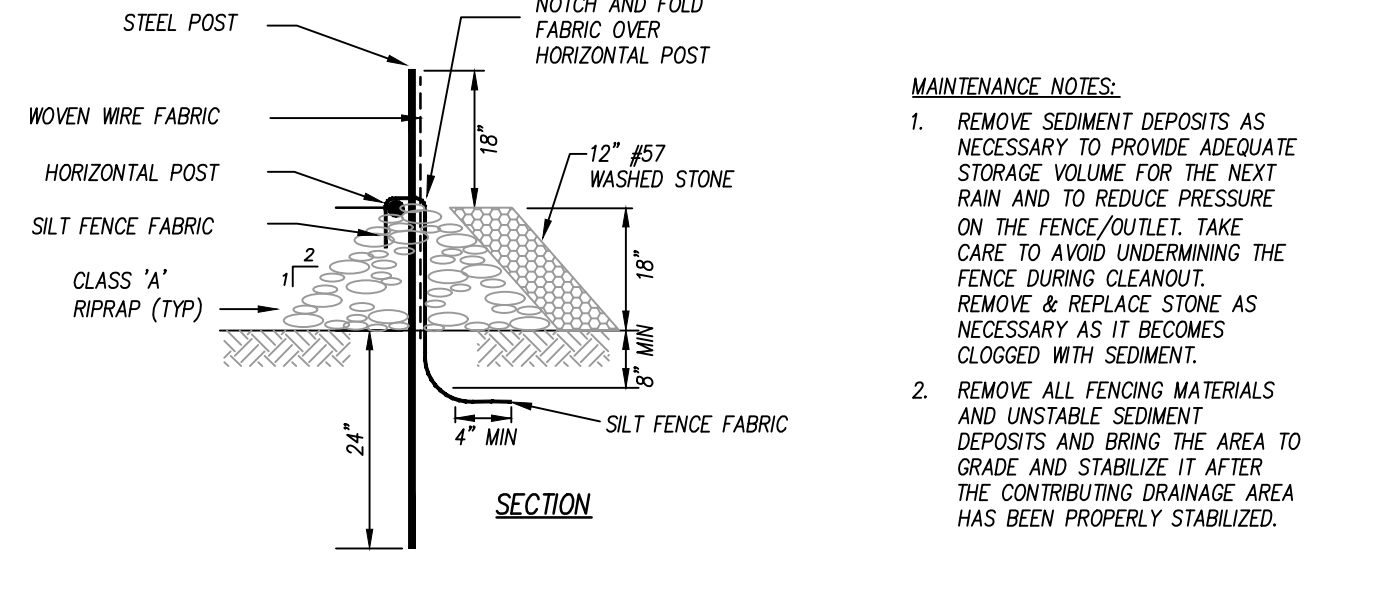


FRONT VIEW

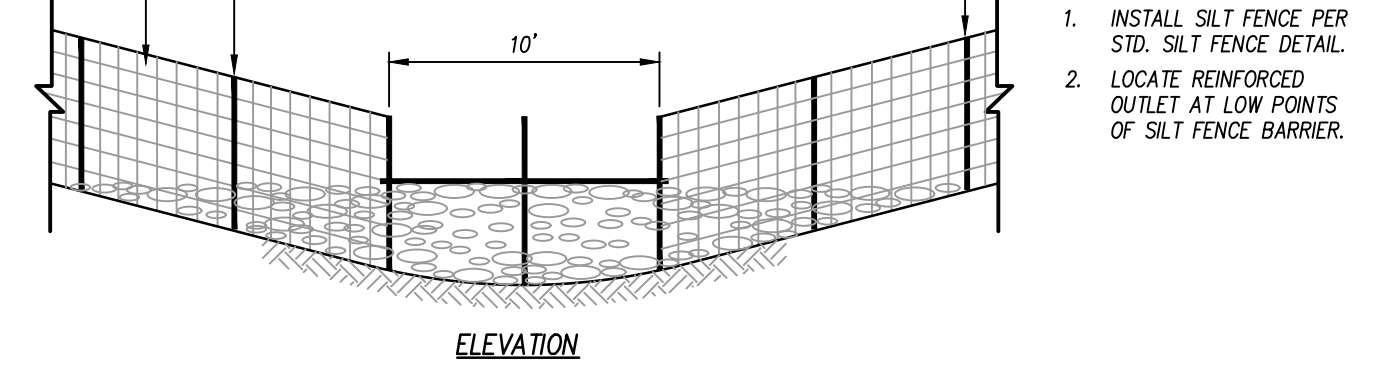


SIDE VIEW

STANDARD TEMPORARY SILT FENCE N.T.S.

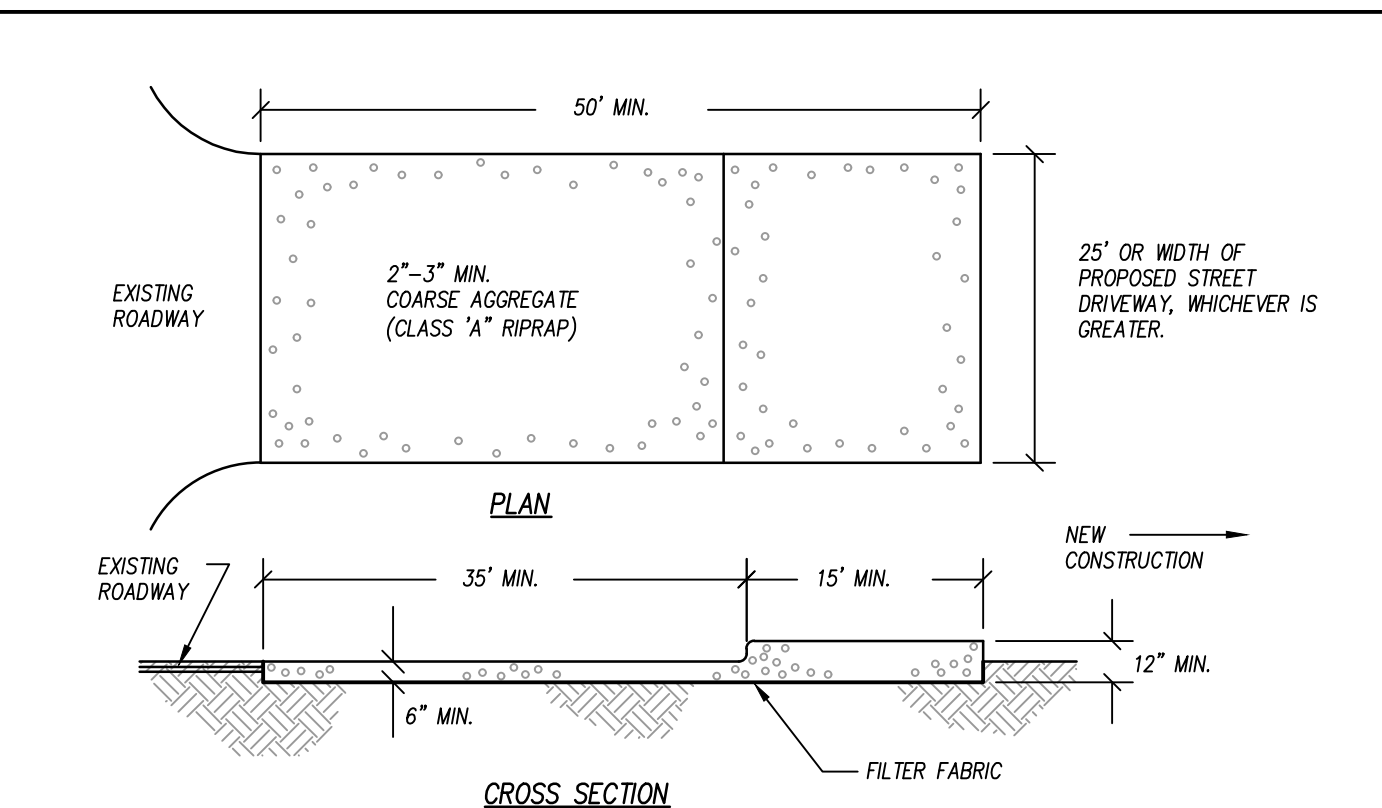


SECTION



ELEVATION

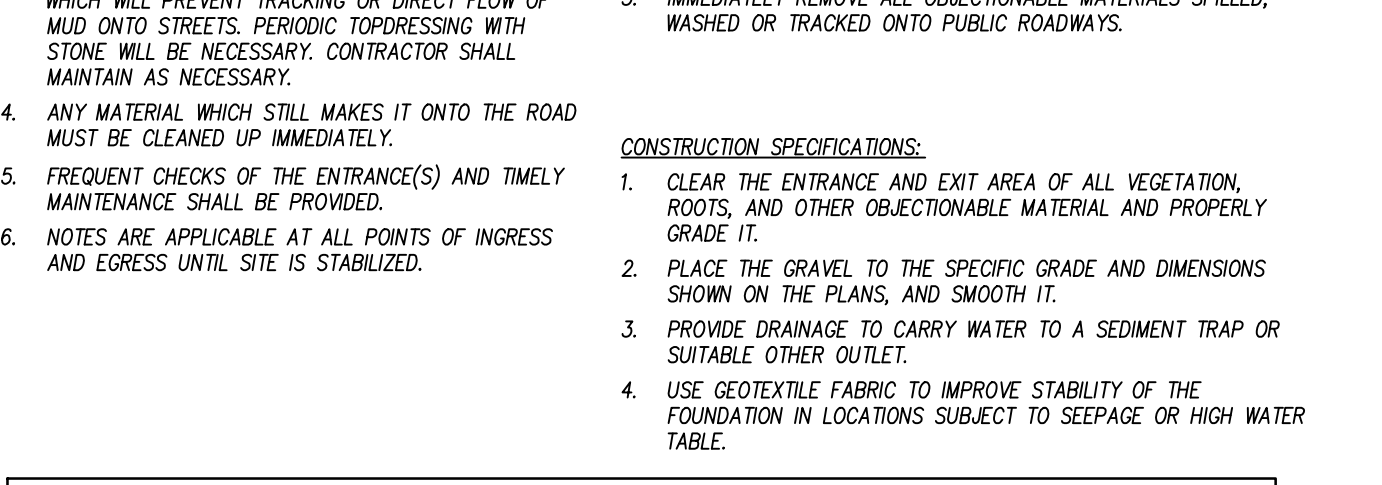
REINFORCED SILT FENCE OUTLET N.T.S.



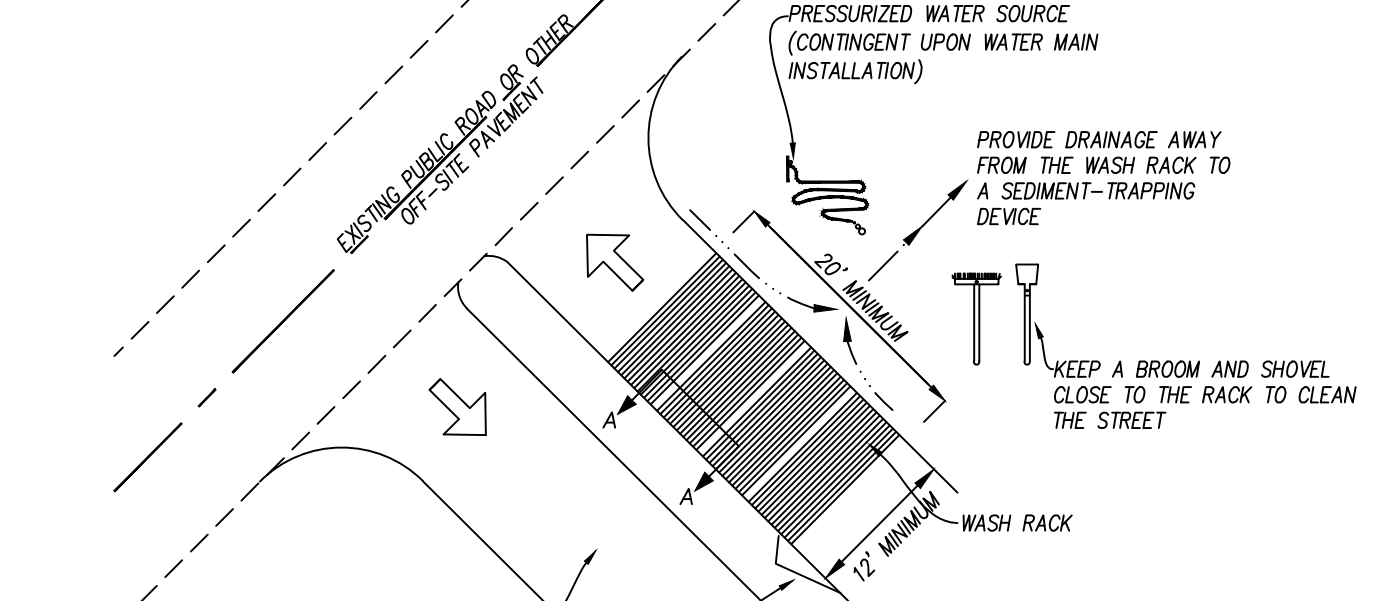
PLAN

CROSS SECTION

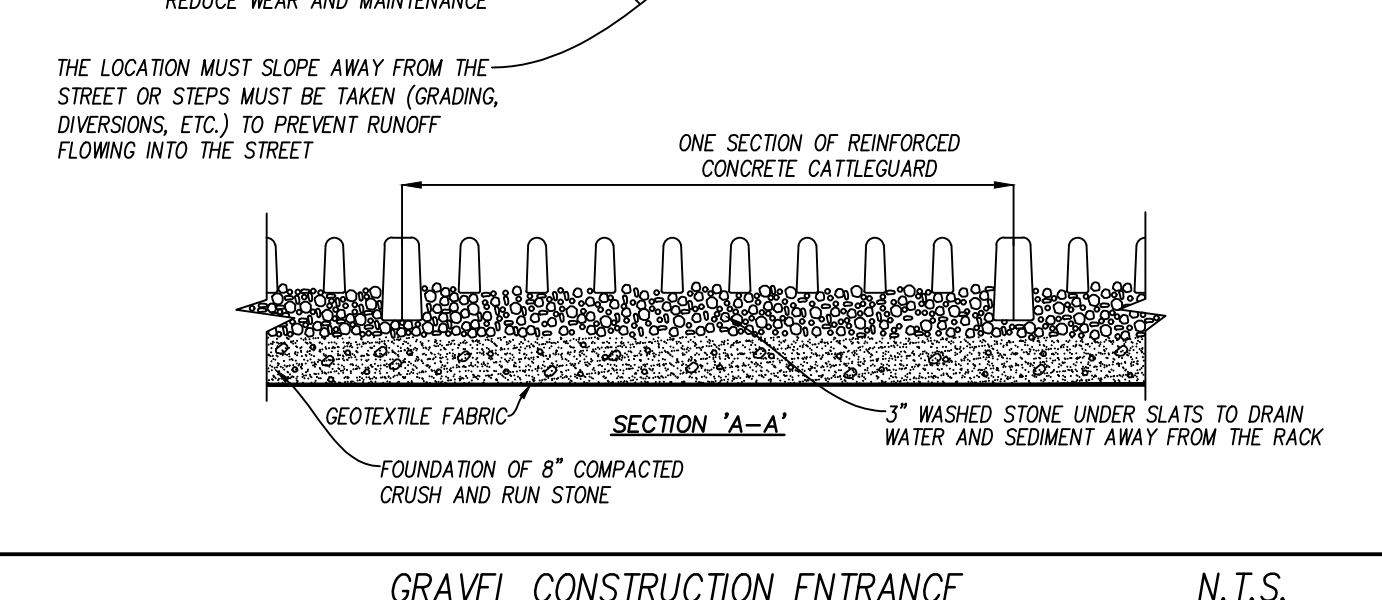
CONTRACTOR SHALL USE TIRE WASH STATION TO PREVENT SEDIMENT FROM TRACKING ONTO THE ROAD IF CONSTRUCTION ENTRANCE IS FOUND INSUFFICIENT AT NO ADDITIONAL COST TO OWNER.



TIRE WASH STATION DETAIL



GRAVEL CONSTRUCTION ENTRANCE N.T.S.



PROTECTION OF STORM DRAIN UNDER CONSTRUCTION N.T.S.

**PART III SELF-INSPECTION, RECORDKEEPING AND REPORTING**

**SECTION A: SELF-INSPECTION**

Self-inspections are required during normal business hours in accordance with the table below. When adverse weather or site conditions would cause the safety of the inspection personnel to be in jeopardy, the inspection may be delayed until the next business day on which it is safe to perform the inspection. In addition, when a storm event of equal to or greater than 1.0 inch occurs outside of normal business hours, the self-inspection shall be performed upon the commencement of the next business day. Any time when inspections were delayed shall be noted in the inspection Record.

Inspect	Frequency (during normal business hours)	Inspection records must include:
(1) Rain gauge maintained in good working order	Daily	Daily rainfall amounts. If no daily rain gauge observations are made during weekend or holiday periods, and no individual day rainfall information is available, record the cumulative rain measurement for those unattended days (and this will determine if a site inspection is needed). Days on which no rainfall occurred shall be recorded as "zero." The permittee may use another rain-measuring device approved by the Division.
(2) E&S Measures	At least once per 7 calendar days and within 24 hours of a rain event $\geq 1.0$ inch in 24 hours	1. Identification of the measures inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Indication of whether the measures were operating properly, 5. Description of maintenance needs for the measure, 6. Description, evidence, and date of corrective actions taken.
(3) Stormwater discharge outlets (SDOs)	At least once per 7 calendar days and within 24 hours of a rain event $\geq 1.0$ inch in 24 hours	1. Identification of the discharge outlets inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Evidence of indicators of stormwater pollution such as oil sheens, floating or suspended solids or discoloration, 5. Indication of visible sediment leaving the site, 6. Description, evidence, and date of corrective actions taken.
(4) Perimeter of site	At least once per 7 calendar days and within 24 hours of a rain event $\geq 1.0$ inch in 24 hours	1. If visible sedimentation is found outside site limits, then a record of the following shall be made: 1. Actions taken to clean up or stabilize the sediment that has left the site limits, 2. Description, evidence, and date of corrective actions taken, and 3. An explanation as to the actions taken to control future releases.
(5) Streams or wetlands onsite or offsite (where accessible)	At least once per 7 calendar days and within 24 hours of a rain event $\geq 1.0$ inch in 24 hours	1. If the stream or wetland has increased visible sedimentation or a stream has visible increased turbidity from the construction activity, then a record of the following shall be made: 1. Description, evidence and date of corrective actions taken, and 2. Records of the required reports to the appropriate Division Regional Office per Part B, Section C, Item 2(a) of this permit.
(6) Ground stabilization measures	After each phase of grading	1. The phase of grading (installation of perimeter E&S measures, clearing and grubbing, installation of storm drainage facilities, completion of all land-disturbing activity, construction or redevelopment, permanent ground cover). 2. Documentation that the required ground stabilization measures have been provided within the required timeframe or an assurance that they will be provided as soon as possible.

**NOTE:** The rain inspection resets the required 7 calendar day inspection requirement.



**NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING**

EFFECTIVE: 04/01/19

**PART III SELF-INSPECTION, RECORDKEEPING AND REPORTING**

**SECTION B: RECORDKEEPING**

**1. E&S Plan Documentation**  
The approved E&S plan as well as any approved deviation shall be kept on the site. The approved E&S plan must be kept up-to-date throughout the coverage under this permit. The following items pertaining to the E&S plan shall be documented in the manner described:

Item to Document	Documentation Requirements
(a) Each E&S Measure has been installed and does not significantly deviate from the locations, dimensions and relative elevations shown on the approved E&S Plan.	Initial and date each E&S Measure on a copy of the approved E&S Plan or complete, date and sign an inspection report that lists each E&S Measure shown on the approved E&S Plan. This documentation is required upon the initial installation of the E&S Measures or if the E&S Measures are modified after initial installation.
(b) A phase of grading has been completed.	Initial and date a copy of the approved E&S Plan or complete, date and sign an inspection report to indicate completion of the construction phase.
(c) Ground cover is located and installed in accordance with the approved E&S Plan.	Initial and date a copy of the approved E&S Plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications.
(d) The maintenance and repair requirements for all E&S Measures have been performed.	Complete, date and sign an inspection report.
(e) Corrective actions have been taken to E&S Measures.	Initial and date a copy of the approved E&S Plan or complete, date and sign an inspection report to indicate the completion of the corrective action.

**2. Additional Documentation**

- In addition to the E&S Plan documents above, the following items shall be kept on the site and available for agency inspectors at all times during normal business hours, unless the Division provides a site-specific exemption based on unique site conditions that make this requirement not practical:
- This general permit as well as the certificate of coverage, after it is received.
  - Records of inspections made during the previous 30 days. The permittee shall record the required observations on the Inspection Record Form provided by the Division or a similar inspection form that includes all the required elements. Use of electronically-available records in lieu of the required paper copies will be allowed if shown to provide equal access and utility as the hard-copy records.
  - All data used to complete the Notice of Intent and older inspection records shall be maintained for a period of three years after project completion and made available upon request. [40 CFR 122.41]

**PART III SELF-INSPECTION, RECORDKEEPING AND REPORTING**

**SECTION C: REPORTING**

**1. Occurrences that must be reported**  
Permittees shall report the following occurrences:

- Visible sediment deposition in a stream or wetland.
- Oil spills if:
  - They are 25 gallons or more,
  - They are less than 25 gallons but cannot be cleaned up within 24 hours,
  - They cause sheen on surface waters (regardless of volume), or
  - They are within 100 feet of surface waters (regardless of volume).
- Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 143-215.85.
- Anticipated bypasses and unanticipated bypasses.
- Noncompliance with the conditions of this permit that may endanger health or the environment.

**2. Reporting Timeframes and Other Requirements**

After a permittee becomes aware of an occurrence that must be reported, he shall contact the appropriate Division regional office within the timeframes and in accordance with the other requirements listed below. Occurrences outside normal business hours may also be reported to the Division's Emergency Response personnel at (800) 662-7955, (800) 858-0368 or (919) 733-3300.

Occurrence	Reporting Timeframes (After Discovery) and Other Requirements
(a) Visible sediment deposition in a stream or wetland	<ul style="list-style-type: none"> <li>Within 24 hours, an oral or electronic notification.</li> <li>Within 7 calendar days, a report that contains a description of the sediment and actions taken to address the cause of the deposition. Division staff may waive the requirement for a written report on a case-by-case basis.</li> <li>If the stream is named on the NC 303(d) list as impaired for sediment-related causes, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if staff determine that additional requirements are needed to assure compliance with the federal or state impaired-waters conditions.</li> </ul>
(b) Oil spills and release of hazardous substances per item 1(b)-(c) above	<ul style="list-style-type: none"> <li>Within 24 hours, an oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the spill or release.</li> </ul>
(c) Anticipated bypasses [40 CFR 122.41(m)(3)]	<ul style="list-style-type: none"> <li>A report at least ten days before the date of the bypass, if possible. The report shall include an evaluation of the anticipated quality and effect of the bypass.</li> </ul>
(d) Unanticipated bypasses [40 CFR 122.41(m)(3)]	<ul style="list-style-type: none"> <li>Within 24 hours, an oral or electronic notification.</li> <li>Within 7 calendar days, a report that includes an evaluation of the quality and effect of the bypass.</li> </ul>
(e) Noncompliance with the conditions of this permit that may endanger health or the environment [40 CFR 122.41(n)(7)]	<ul style="list-style-type: none"> <li>Within 24 hours, an oral or electronic notification.</li> <li>Within 7 calendar days, a report that contains a description of the noncompliance, and its causes; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. [40 CFR 122.41(e)(6)].</li> <li>Division staff may waive the requirement for a written report on a case-by-case basis.</li> </ul>

**SAWYER SHERWOOD & ASSOCIATE ARCHITECTURE**  
124 Market St, Wilmington, NC 28401  
910 762-0892 sa2a.com

**CLH DESIGN, PA**  
400 Regency Forest Dr.  
Suite 120  
Cary, NC 27518  
Phone: 919.319.6716  
Fax: 919.319.7516  
LA: C-106 PE: C-1595

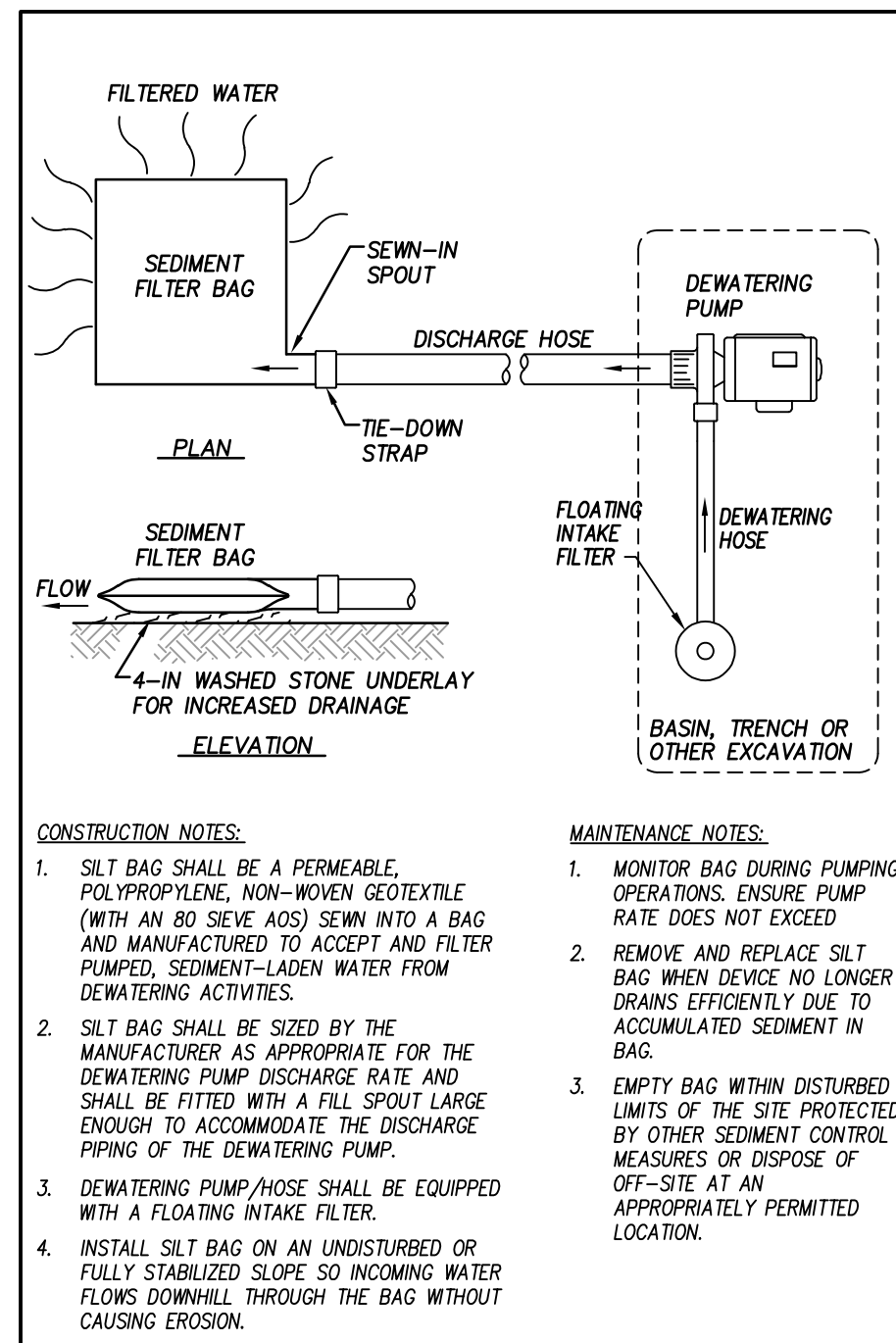
**NORTH CAROLINA PROFESSIONAL SEAL**  
3-22-23  
3-22-23

**MLK CENTER ADDITION & RENOVATION**  
401 S. 8TH STREET  
Wilmington, NC

100% Construction Drawings  
March 22, 2023

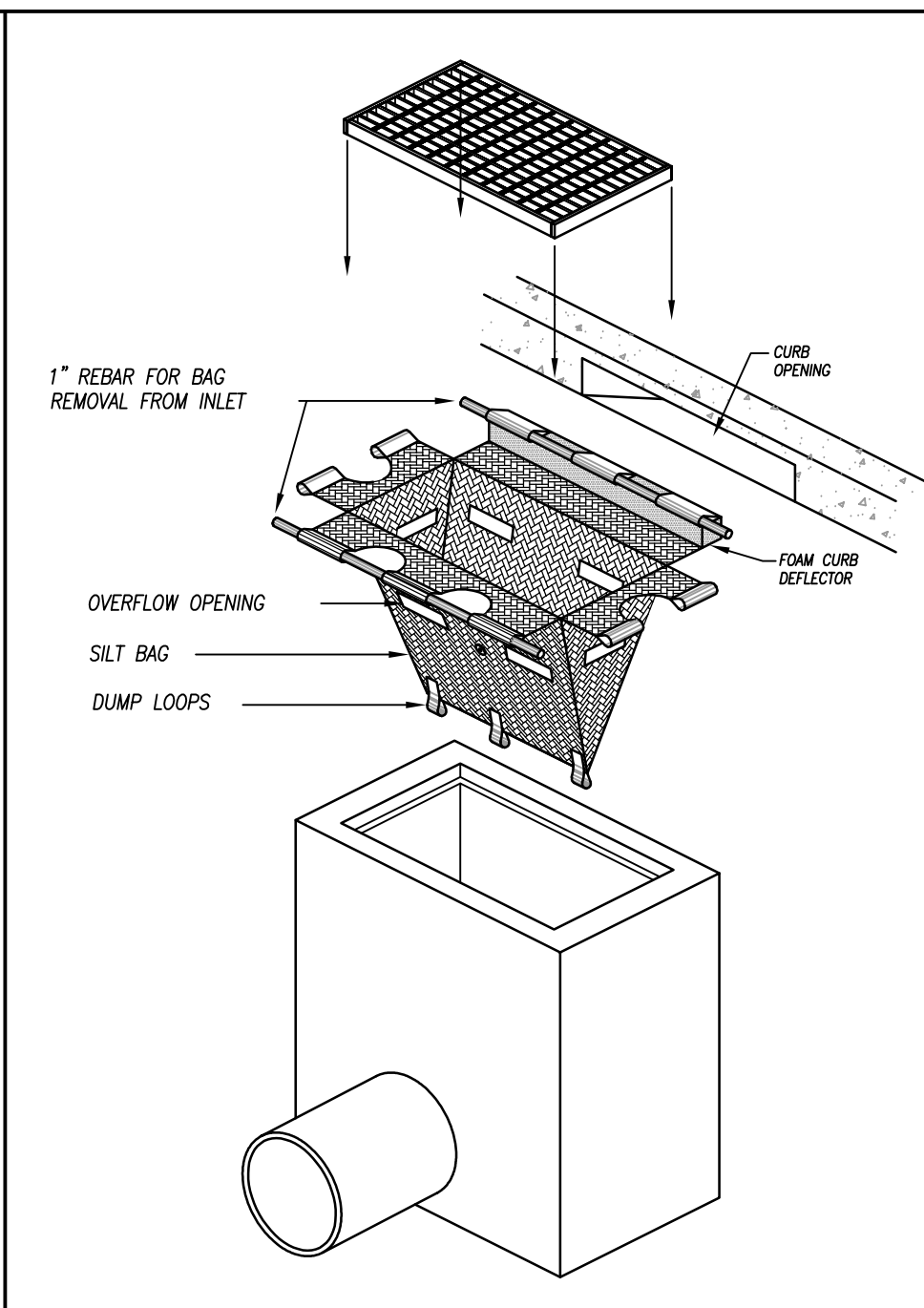
Revisions:  
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**EROSION CONTROL DETAILS C7.1**



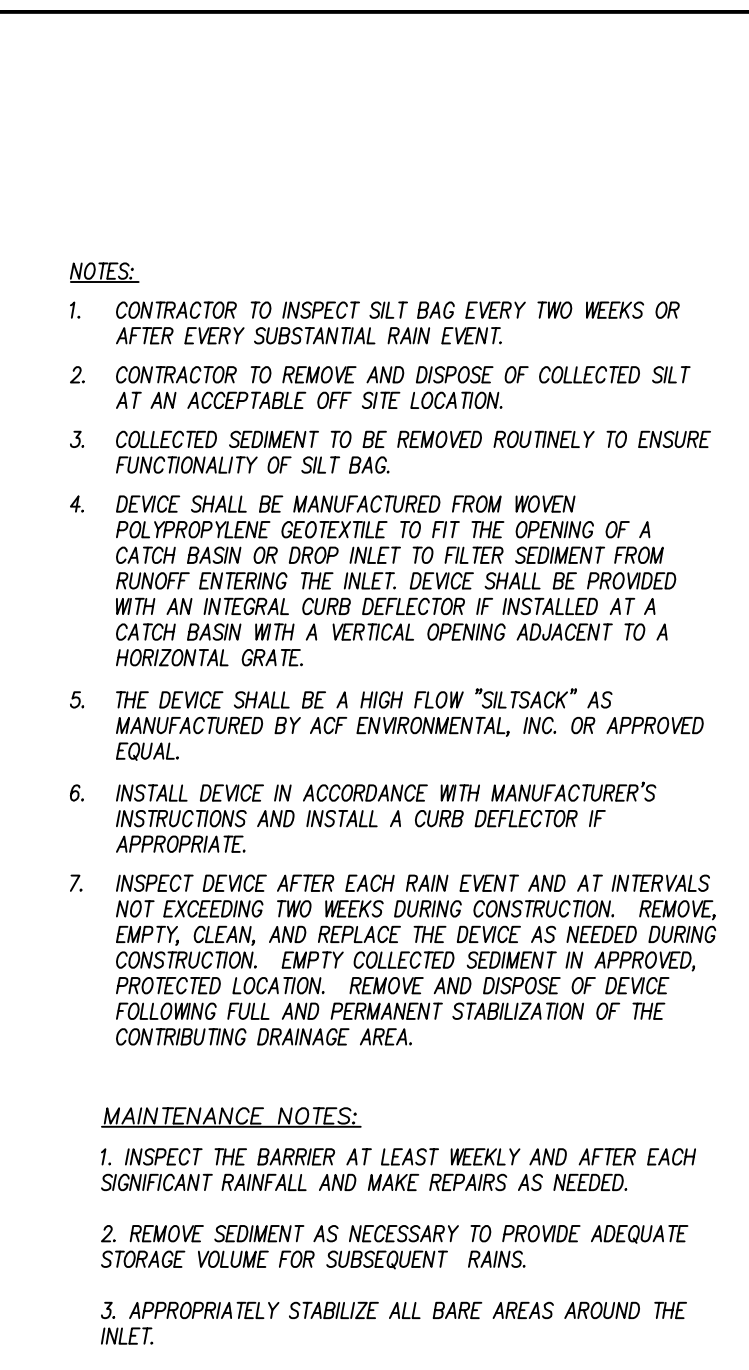
DEWATERING SEDIMENT FILTER BAG N.T.S.

- CONSTRUCTION NOTES:**
- SILT BAG SHALL BE A PERMEABLE, POLYPROPYLENE, NON-WOVEN GEOTEXTILE (WITH AN 80 SEVE ADS) SEWN INTO A BAG AND MANUFACTURED TO ACCEPT AND FILTER PUMPED, SEDIMENT-LADEN WATER FROM DEWATERING ACTIVITIES.
  - SILT BAG SHALL BE SIZED BY THE MANUFACTURER AS APPROPRIATE FOR THE DEWATERING PUMP DISCHARGE RATE AND SHALL BE FITTED WITH A FILL SPOUT LARGE ENOUGH TO ACCOMMODATE THE DISCHARGE PIPING OF THE DEWATERING PUMP.
  - DEWATERING PUMP/HOSE SHALL BE EQUIPPED WITH A FLOATING INTAKE FILTER.
  - INSTALL SILT BAG ON AN UNDISTURBED OR FULLY STABILIZED SLOPE SO INCOMING WATER FLOWS DOWNHILL THROUGH THE BAG WITHOUT CAUSING EROSION.
- MAINTENANCE NOTES:**
- MONITOR BAG DURING PUMPING OPERATIONS. ENSURE PUMP RATE DOES NOT EXCEED.
  - REMOVE AND REPLACE SILT BAG WHEN DEVICE NO LONGER DRAINS EFFICIENTLY DUE TO ACCUMULATED SEDIMENT IN BAG.
  - EMPTY BAG WITHIN DISTURBED LIMITS OF THE SITE PROTECTED BY OTHER SEDIMENT CONTROL MEASURES OR DISPOSE OF OFF-SITE AT AN APPROPRIATELY PERMITTED LOCATION.



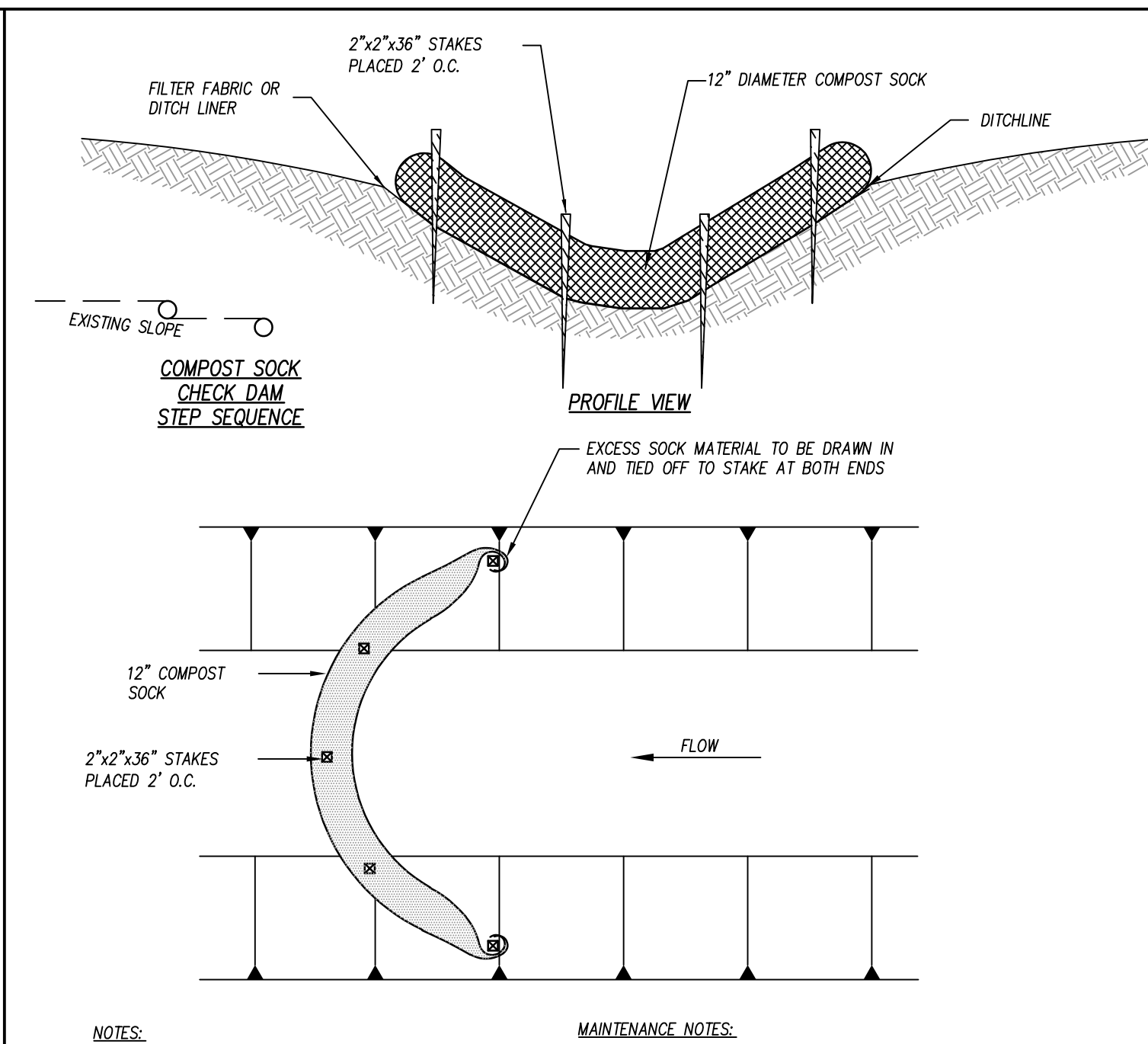
SILT BAG INLET PROTECTION N.T.S.

- CONSTRUCTION NOTES:**
- CONTRACTOR TO INSPECT SILT BAG EVERY TWO WEEKS OR AFTER EVERY SUBSTANTIAL RAIN EVENT.
  - CONTRACTOR TO REMOVE AND DISPOSE OF COLLECTED SILT AT AN ACCEPTABLE OFF SITE LOCATION.
  - COLLECTED SEDIMENT TO BE REMOVED ROUTINELY TO ENSURE FUNCTIONALITY OF SILT BAG.
  - DEVICE SHALL BE MANUFACTURED FROM WOVEN POLYPROPYLENE GEOTEXTILE TO FIT THE OPENING OF A CATCH BASIN OR DROP INLET TO FILTER SEDIMENT FROM RUNOFF ENTERING THE INLET. DEVICE SHALL BE PROVIDED WITH AN INTEGRAL CURB DEFLECTOR IF INSTALLED AT A CATCH BASIN WITH A VERTICAL OPENING ADJACENT TO A HORIZONTAL GRATE.
  - THE DEVICE SHALL BE A HIGH FLOW "SILTSACK" AS MANUFACTURED BY ACI ENVIRONMENTAL, INC. OR APPROVED EQUAL.
  - INSTALL DEVICE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND INSTALL A CURB DEFLECTOR IF APPROPRIATE.
  - INSPECT DEVICE AFTER EACH RAIN EVENT AND AT INTERVALS NOT EXCEEDING TWO WEEKS DURING CONSTRUCTION. REMOVE, EMPTY, CLEAN, AND REPLACE THE DEVICE AS NEEDED DURING CONSTRUCTION. EMPTY COLLECTED SEDIMENT IN APPROVED, PROTECTED LOCATION. REMOVE AND DISPOSE OF DEVICE FOLLOWING FULL AND PERMANENT STABILIZATION OF THE CONTRIBUTING DRAINAGE AREA.
- MAINTENANCE NOTES:**
- INSPECT THE BARRIER AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT RAINFALL AND MAKE REPAIRS AS NEEDED.
  - REMOVE SEDIMENT AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR SUBSEQUENT RAINS.
  - APPROPRIATELY STABILIZE ALL BARE AREAS AROUND THE INLET.



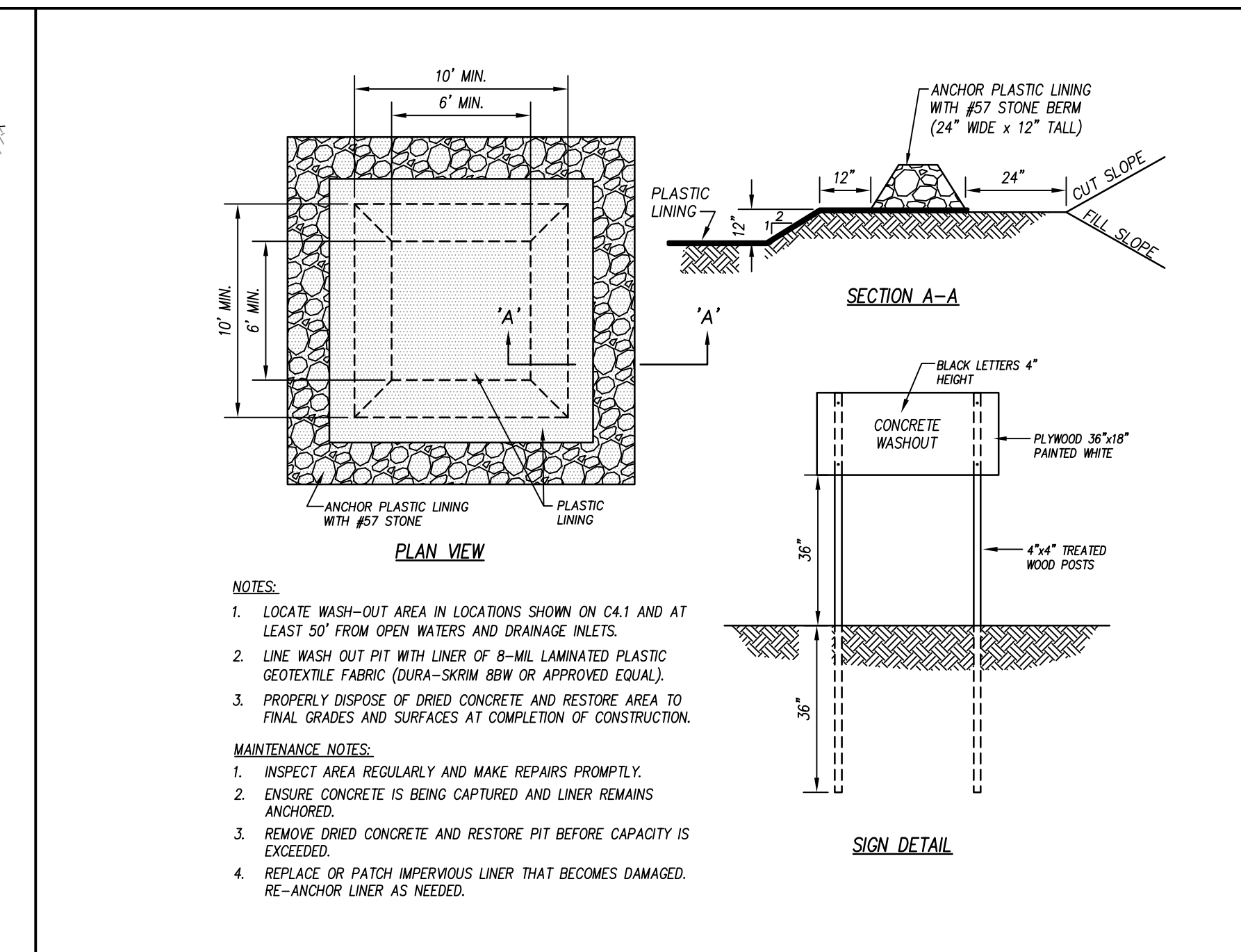
TEMPORARY COMPOST SOCK CHECK DAM N.T.S.

- CONSTRUCTION NOTES:**
- MATERIALS TO BE FILTREXX OR APPROVED EQUAL.
  - ALL MATERIAL AND INSTALLATION TO MEET STATE AND LOCAL SPECIFICATIONS.
  - COMPOST SOCK MAY BE USED AS CHECK DAMS IN DITCHES NOT EXCEEDING 3 FEET IN DEPTH.
  - PRIOR TO SOCK INSTALLATION, CLEAR ALL OBSTRUCTIONS INCLUDING ROCKS, CLODS, AND OTHER DEBRIS GREATER THAN ONE INCH THAT MAY INTERFERE WITH PROPER FUNCTION.
  - 2"x2" OAK OR OTHER DURABLE HARDWOOD STAKES SHALL BE USED. STAKES SHALL BE PLACED AT A MAXIMUM INTERVAL OF 2 FEET. STAKES SHALL BE DRIVEN TO A MINIMUM DEPTH OF 12 INCHES, WITH A MINIMUM OF 3 INCHES PROTRUDING ABOVE THE COMPOST SOCKS.
  - THE ENDS OF THE SOCKS SHOULD BE TURNED SLIGHTLY UP SLOPE TO PREVENT RUNOFF FROM GOING AROUND THE END OF THE SOCKS.
  - CHECK DAM SHOULD BE USED IN AREAS THAT DRAIN 10 ACRES OR LESS.
  - CHECK DAM CAN BE DIRECT SEEDED AT THE TIME OF INSTALLATION.
- MAINTENANCE NOTES:**
- INSPECT COMPOST SOCKS WEEKLY AND AFTER EACH SIGNIFICANT RAINFALL EVENT (1/2 INCH OR GREATER).
  - SEDIMENT SHOULD BE REMOVED FROM BEHIND CHECK DAM ONCE THE ACCUMULATED HEIGHT HAS REACHED 1/2 THE HEIGHT OF THE CHECK DAM.
  - IF PONDING BECOMES EXCESSIVE, THE SOCK MAY NEED TO BE REPLACED WITH A LARGER DIAMETER OR A DIFFERENT MEASURE.
  - THE SOCK NEEDS TO BE REINSTALLED IF UNDERMINED OR DISLODGED.
  - THE COMPOST SOCK SHALL BE INSPECTED UNTIL LAND DISTURBANCE IS COMPLETE AND THE AREA ABOVE THE MEASURE HAS BEEN PERMANENTLY STABILIZED.



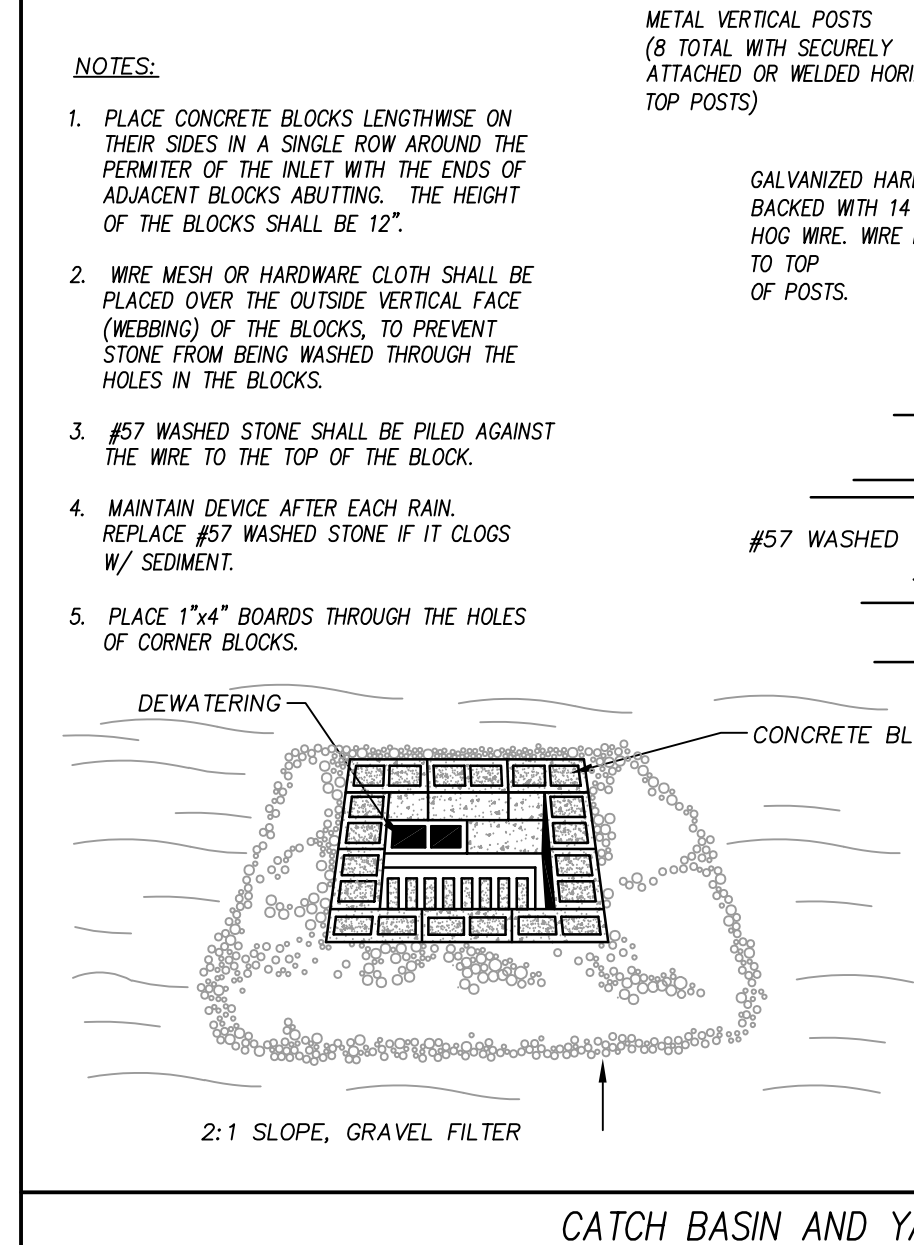
TEMPORARY COMPOST SOCK INLET PROTECTION N.T.S.

- CONSTRUCTION NOTES:**
- MATERIALS TO BE FILTREXX OR APPROVED EQUAL.
  - ALL MATERIAL AND INSTALLATION TO MEET STATE AND LOCAL SPECIFICATIONS.
  - 2"x2" OAK OR OTHER DURABLE HARDWOOD STAKES SHALL BE USED. STAKES SHALL BE DRIVEN TO A MINIMUM DEPTH OF 12 INCHES, WITH A MINIMUM OF 3 INCHES PROTRUDING ABOVE THE COMPOST SOCKS.
  - IN THE EVENT STAKING IS NOT POSSIBLE (I.E., WHEN SOCKS ARE USED ON PAVEMENT) HEAVY CONCRETE BLOCKS OR SAND BAGS SHALL BE USED BEHIND THE SOCK TO HOLD IT IN PLACE DURING RUNOFF EVENTS.
  - THE ENDS OF THE SOCKS SHOULD BE TURNED SLIGHTLY UP SLOPE TO PREVENT RUNOFF FROM GOING AROUND THE END OF THE SOCKS.
  - THE COMPOST SOCK SHALL BE INSPECTED UNTIL LAND DISTURBANCE IS COMPLETE AND THE AREA ABOVE THE MEASURE HAS BEEN PERMANENTLY STABILIZED.
- MAINTENANCE NOTES:**
- INSPECT COMPOST SOCKS WEEKLY AND AFTER EACH SIGNIFICANT RAINFALL EVENT (1/2 INCH OR GREATER).
  - SEDIMENT SHOULD BE REMOVED FROM BEHIND CHECK DAM ONCE THE ACCUMULATED HEIGHT HAS REACHED 1/2 THE HEIGHT OF THE CHECK DAM.
  - IF PONDING BECOMES EXCESSIVE, THE SOCK MAY NEED TO BE REPLACED WITH A LARGER DIAMETER OR A DIFFERENT MEASURE.
  - THE SOCK NEEDS TO BE REINSTALLED IF UNDERMINED OR DISLODGED.
  - THE COMPOST SOCK SHALL BE INSPECTED UNTIL LAND DISTURBANCE IS COMPLETE AND THE AREA ABOVE THE MEASURE HAS BEEN PERMANENTLY STABILIZED.



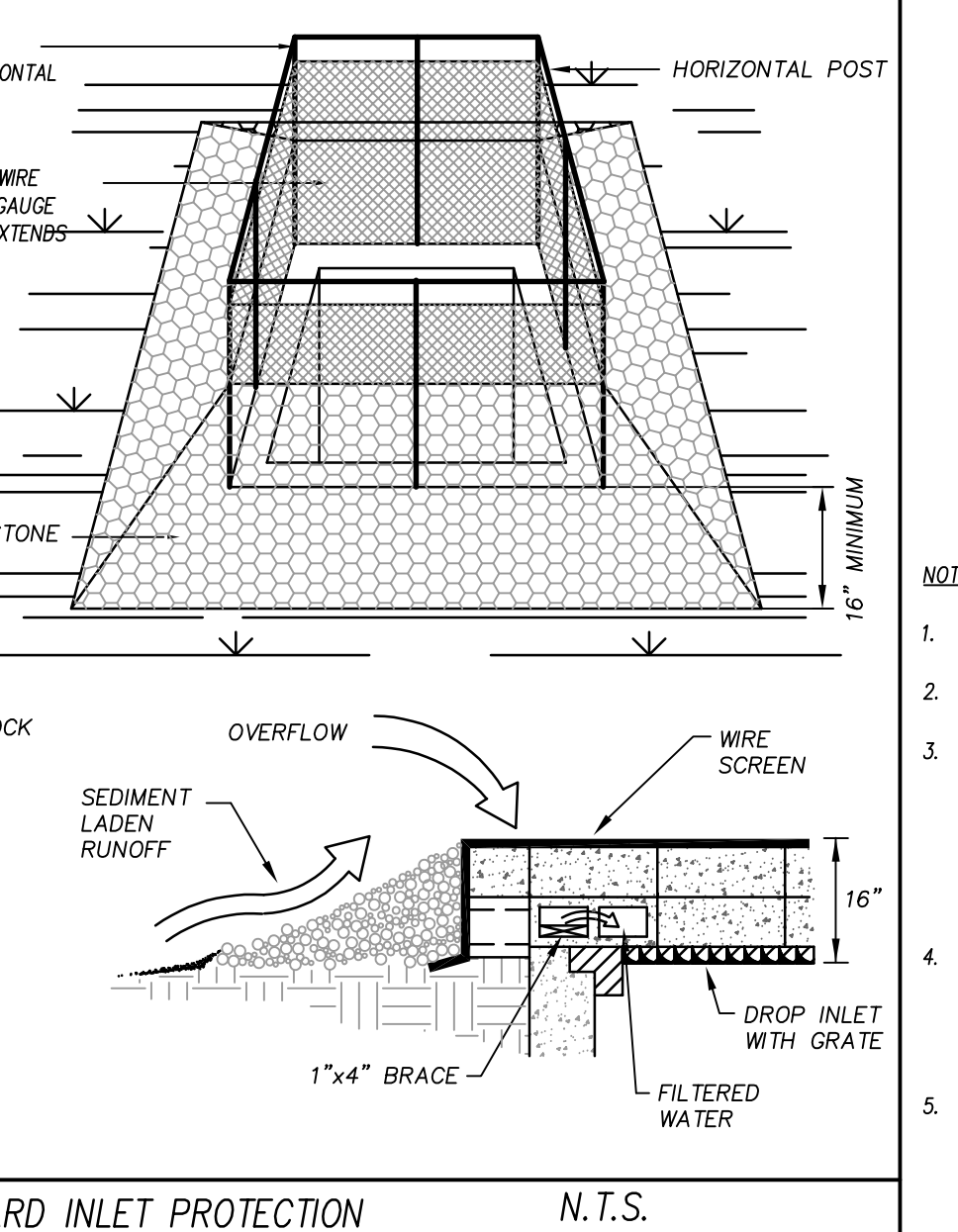
CONCRETE WASHOUT AREA N.T.S.

- CONSTRUCTION NOTES:**
- LOCATE WASH-OUT AREA IN LOCATIONS SHOWN ON CA.1 AND AT LEAST 50' FROM OPEN WATERS AND DRAINAGE INLETS.
  - LIME WASH OUT PIT WITH LINER OF 8-MIL LAMINATED PLASTIC GEOTEXTILE FABRIC (DURA-SHEM BERM OR APPROVED EQUAL).
  - PROPERLY DISPOSE OF DRIED CONCRETE AND RESTORE AREA TO FINAL GRADES AND SURFACES AT COMPLETION OF CONSTRUCTION.
- MAINTENANCE NOTES:**
- INSPECT AREA REGULARLY AND MAKE REPAIRS PROMPTLY.
  - ENSURE CONCRETE IS BEING CAPTURED AND LINER REMAINS ANCHORED.
  - REMOVE DRIED CONCRETE AND RESTORE PIT BEFORE CAPACITY IS EXCEEDED.
  - REPLACE OR PATCH IMPERVIOUS LINER THAT BECOMES DAMAGED. RE-ANCHOR LINER AS NEEDED.



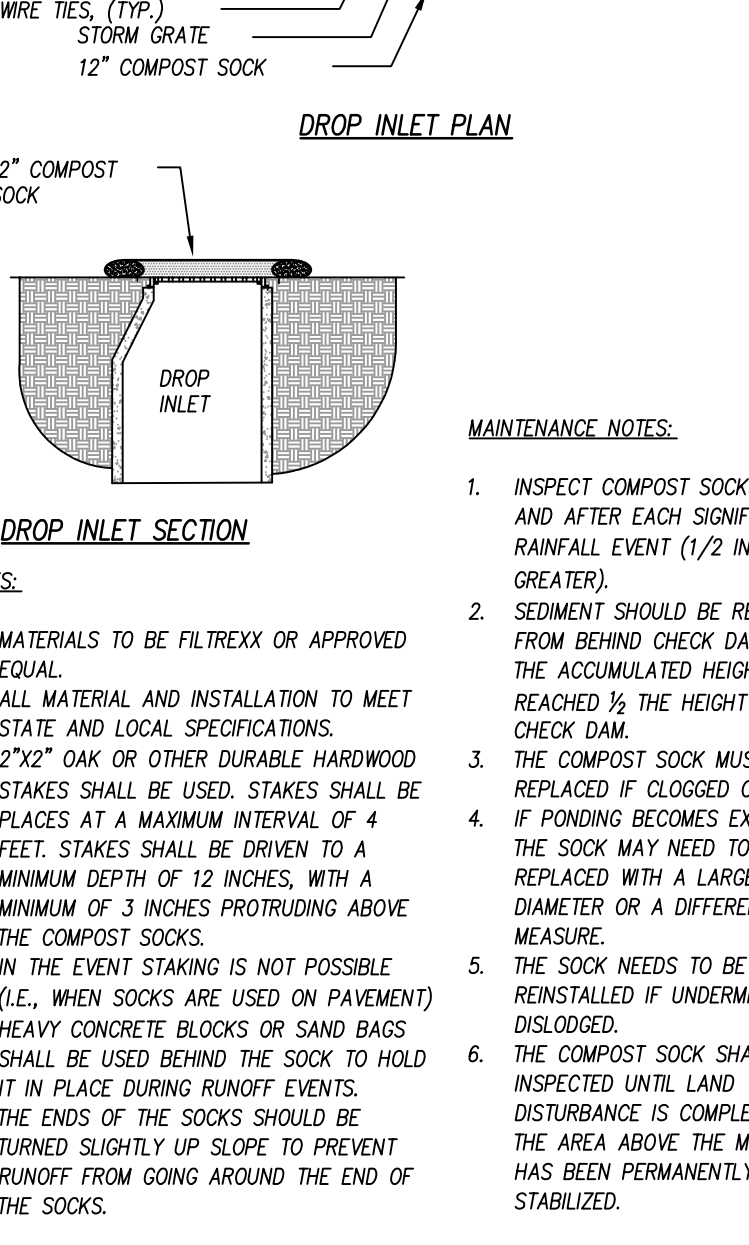
CATCH BASIN AND YARD INLET PROTECTION N.T.S.

- CONSTRUCTION NOTES:**
- PLACE CONCRETE BLOCKS LENGTHWISE ON THEIR SIDES IN A SINGLE ROW AROUND THE PERIMETER OF THE INLET WITH THE ENDS OF ADJACENT BLOCKS ABUTTING. THE HEIGHT OF THE BLOCKS SHALL BE 12".
  - WIRE MESH OR HARDWARE CLOTH SHALL BE PLACED OVER THE OUTSIDE VERTICAL FACE (WEBS) OF THE BLOCKS TO PREVENT STONE FROM BEING WASHED THROUGH THE HOLES IN THE BLOCKS.
  - #57 WASHED STONE SHALL BE PILED AGAINST THE WIRE TO THE TOP OF THE BLOCK.
  - MAINTAIN DEVICE AFTER EACH RAIN. REPLACE #57 WASHED STONE IF IT CLOWS W/ SEDIMENT.
  - PLACE 1"x4" BOARDS THROUGH THE HOLES OF CORNER BLOCKS.
- MAINTENANCE NOTES:**
- INSPECT THE BARRIER AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT RAINFALL AND MAKE REPAIRS AS NEEDED.
  - REMOVE SEDIMENT AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR SUBSEQUENT RAINS.
  - APPROPRIATELY STABILIZE ALL BARE AREAS AROUND THE INLET.



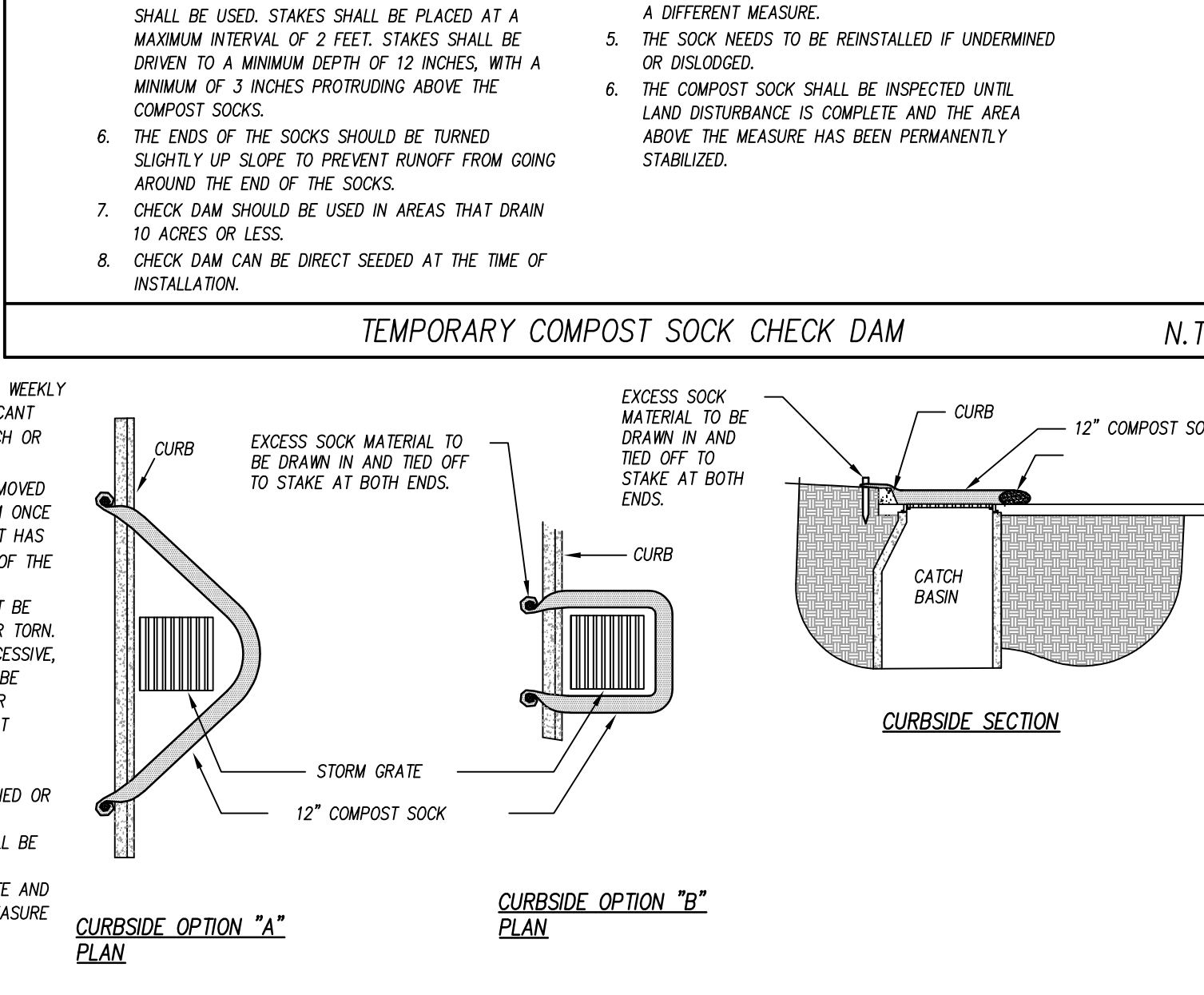
TEMPORARY COMPOST SOCK PERIMETER FENCE N.T.S.

- CONSTRUCTION NOTES:**
- MATERIALS TO BE FILTREXX OR APPROVED EQUAL.
  - ALL MATERIAL AND INSTALLATION TO MEET STATE AND LOCAL SPECIFICATIONS.
  - COMPOST SOCKS SHALL BE INSTALLED PARALLEL TO THE BASE OF THE SLOPE OR OTHER AFFECTED AREAS, PERPENDICULAR TO SHEET FLOW. COMPOST SOCKS ARE EFFECTIVE IN AREAS WHERE SEDIMENT ACCUMULATION OF LESS THAN SIX INCHES IS EXPECTED.
  - COMPOST SOCKS CAN BE APPLIED ON SLOPES UP TO A 2:1 GRADE WITH A MAXIMUM HEIGHT OF 10 FEET. COMPOST SOCK SHOULD BE USED ALONE BELOW GRADED SLOPES GREATER THAN 10 FEET IN HEIGHT.
  - 2"x2" OAK OR OTHER DURABLE HARDWOOD STAKES SHALL BE USED. STAKES SHALL BE PLACED AT A MAXIMUM INTERVAL OF 4 FEET, OR A MAXIMUM INTERVAL OF 8 FEET IF THE SOCK IS PLACER IN A 4 INCH TRENCH. STAKES SHALL BE DRIVEN TO A MINIMUM DEPTH OF 12 INCHES, WITH A MINIMUM OF 3 INCHES PROTRUDING ABOVE THE COMPOST SOCKS.
  - COMPOST SOCKS SHALL BE SLEEVED WHEN SECTIONS LONGER THAN 200'-LF ARE REQUIRED. STAKES SHALL BE PLACED ON SLEEVED AREAS TO KEEP SECTIONS TOGETHER.
  - IN THE EVENT STAKING IS NOT POSSIBLE (I.E., WHEN SOCKS ARE USED ON PAVEMENT) HEAVY CONCRETE BLOCKS OR SAND BAGS SHALL BE USED BEHIND THE SOCK TO HOLD IT IN PLACE DURING RUNOFF EVENTS.
  - COMPOST SOCK SHOULD BE PLACED AT A 10 FOOT MINIMUM DISTANCE FROM THE TOE OF THE SLOPE TO ALLOW FOR A PROPER RUNOFF ACCUMULATION AND MAXIMUM SEDIMENT STORAGE. ON FLAT AREAS, COMPOST SOCK SHALL BE PLACED AT THE EDGE OF DISTURBED AREAS.
  - THE ENDS OF THE SOCKS SHOULD BE TURNED SLIGHTLY UP SLOPE TO PREVENT RUNOFF FROM GOING AROUND THE END OF THE SOCKS.
- MAINTENANCE NOTES:**
- INSPECT COMPOST SOCKS WEEKLY AND AFTER EACH SIGNIFICANT RAINFALL EVENT (1/2 INCH OR GREATER).
  - SEDIMENT SHOULD BE REMOVED FROM BEHIND CHECK DAM ONCE THE ACCUMULATED HEIGHT HAS REACHED 1/2 THE HEIGHT OF THE CHECK DAM.
  - THE COMPOST SOCK MUST BE REPLACED IF CLOGGED OR TORN.
  - IF PONDING BECOMES EXCESSIVE, THE SOCK MAY NEED TO BE REPLACED WITH A LARGER DIAMETER OR A DIFFERENT MEASURE.
  - THE SOCK NEEDS TO BE REINSTALLED IF UNDERMINED OR DISLODGED.
  - THE COMPOST SOCK SHALL BE INSPECTED UNTIL LAND DISTURBANCE IS COMPLETE AND THE AREA ABOVE THE MEASURE HAS BEEN PERMANENTLY STABILIZED.



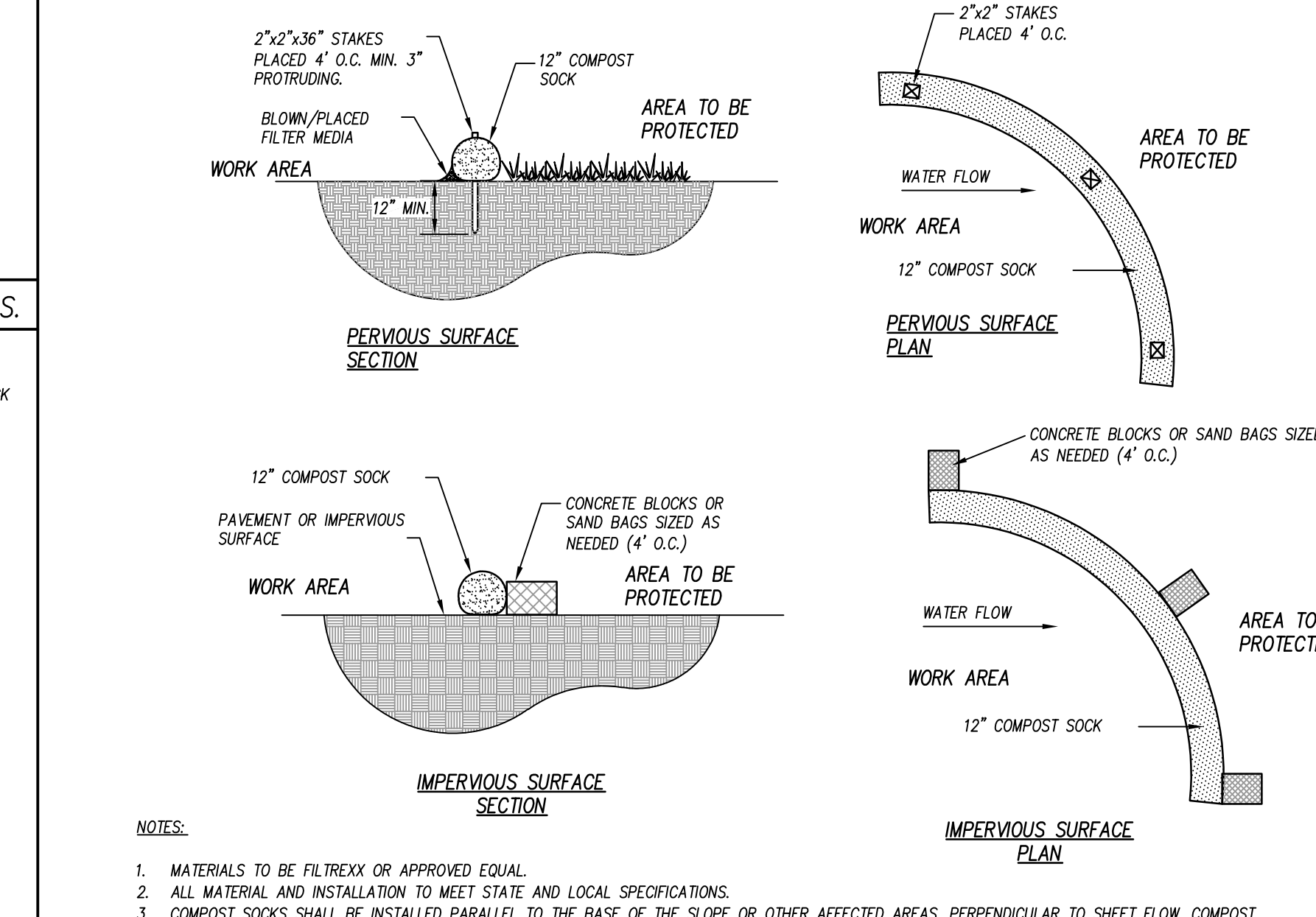
SLOPE PROTECTION MATTING N.T.S.

- CONSTRUCTION NOTES:**
- SLOPE SURFACE SHALL BE SMOOTH PRIOR TO PLACEMENT OF MATTING TO ENSURE PROPER SOIL CONTACT.
  - LIME, FERTILIZER, AND SEED PRIOR TO PLACING MATTING. PLANT SHRUBS, TREES, ETC. FOLLOWING PLACEMENT OF MATTING.
  - ON SLOPES FLATTER THAN 4:1, ROLLS MAY BE PLACED IN HORIZONTAL STRIPS.
  - DO NOT STRETCH MATTING TIGHT. ALLOW ROLLS TO CONFORM TO ANY IRREGULARITIES.
  - INSTALL STAPLES IN PATTERNS AS RECOMMENDED BY MATTING MANUFACTURER.
- MAINTENANCE NOTES:**
- INSPECT MATTING AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1/2-IN OR GREATER) RAINFALL AND REPAIR IMMEDIATELY AS NEEDED.
  - ENSURE GOOD CONTACT WITH SOIL SURFACE IS MAINTAINED AND EROSION DOES NOT OCCUR BENEATH MATTING.
  - AREAS OF MATTING THAT ARE DAMAGED OR WHERE NOT IN CLOSE CONTACT WITH THE SOIL SHALL BE REPAIRED AND STAPLED.
  - IF EROSION OCCURS DUE TO POORLY CONTROLLED DAMAGE, THE PROBLEM SHALL BE FIXED AND THE ERODED AREAS PROTECTED.
  - MONITOR AND REPAIR MATTING AS NECESSARY UNTIL GROUND COVER IS ESTABLISHED.



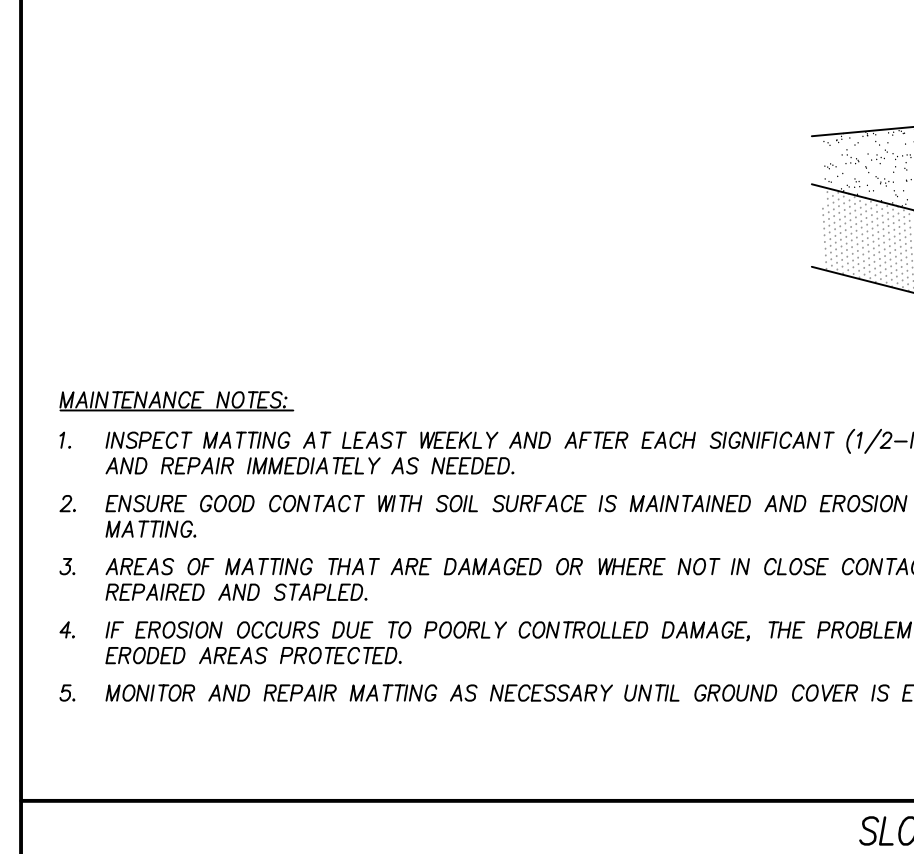
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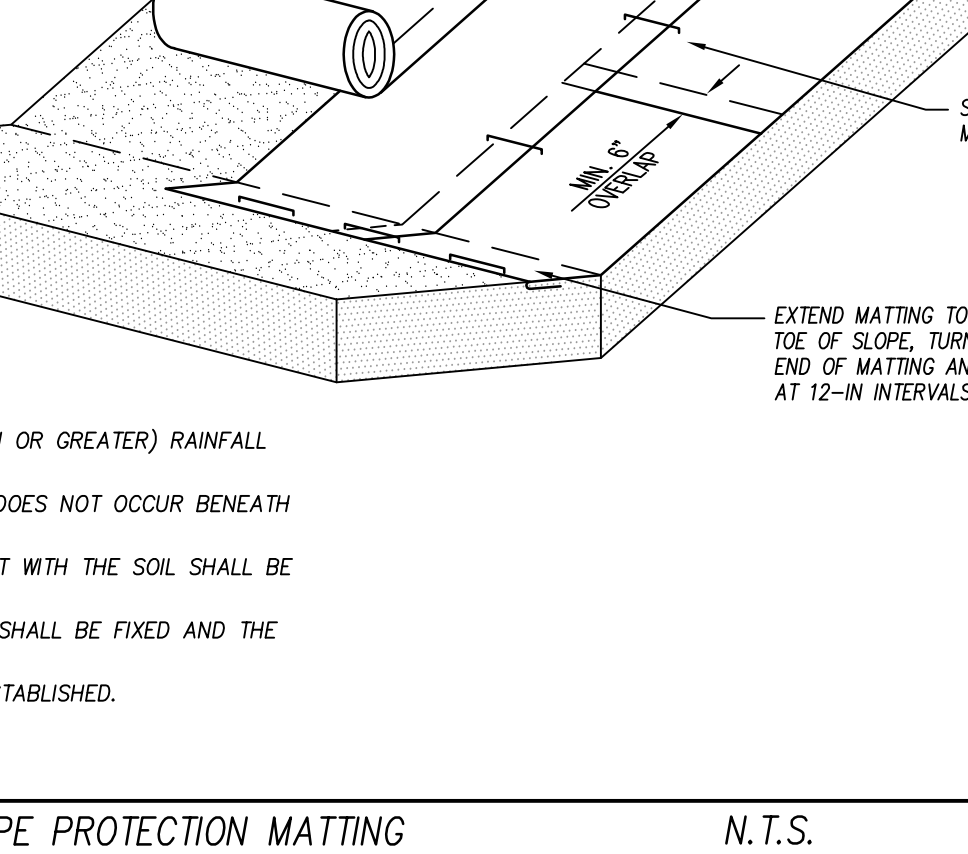
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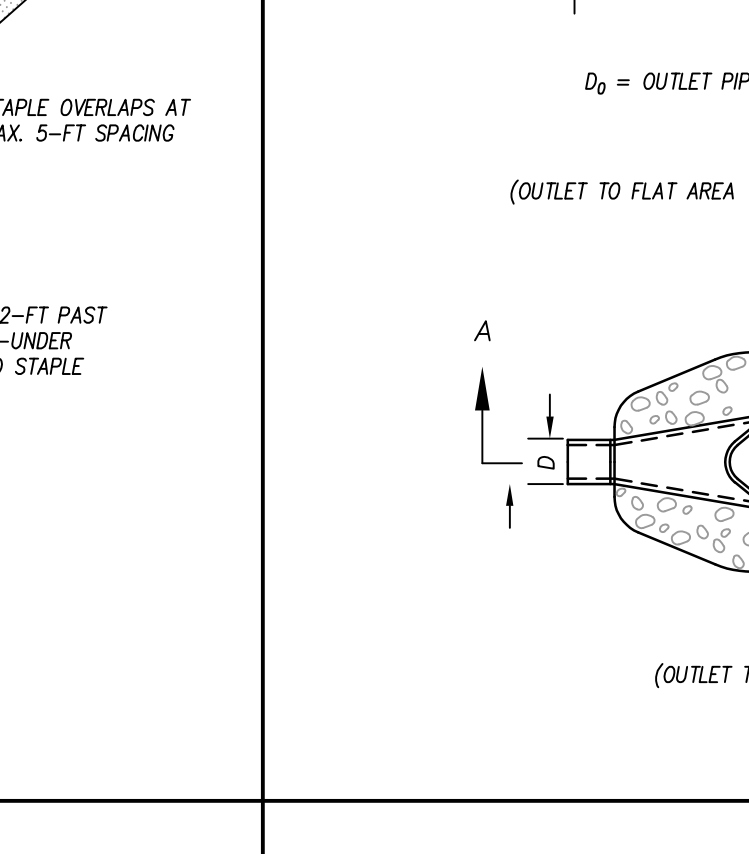
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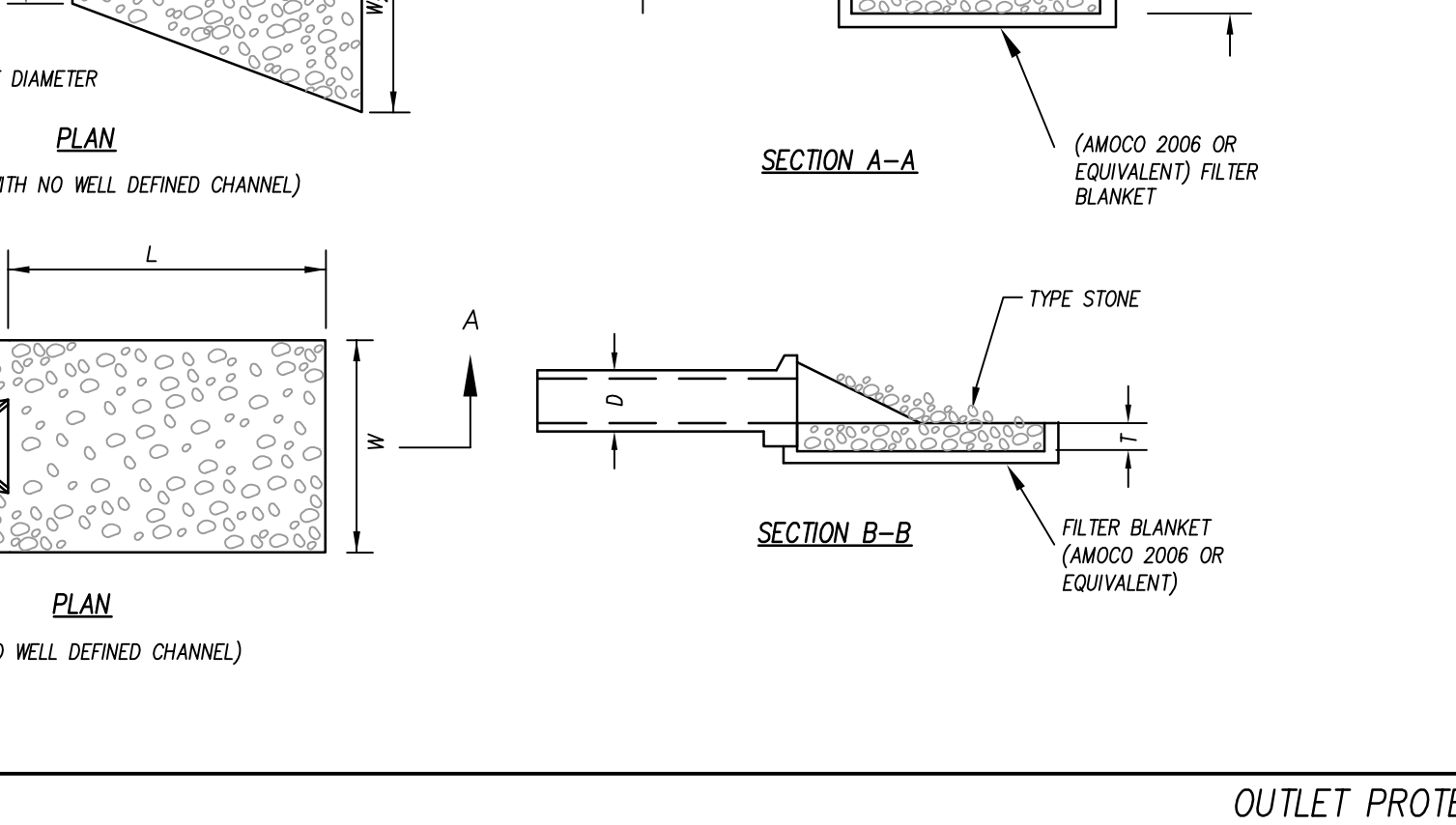
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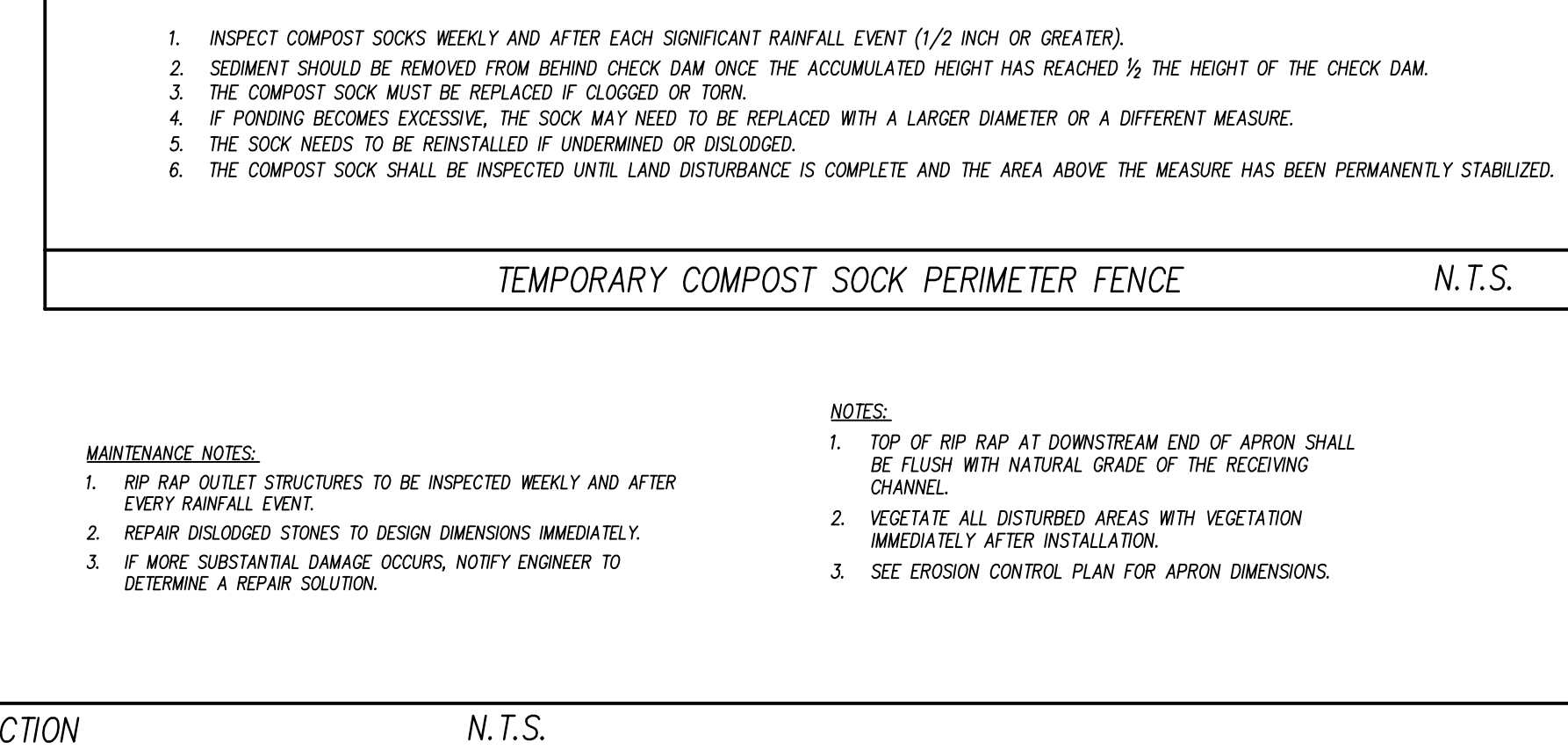
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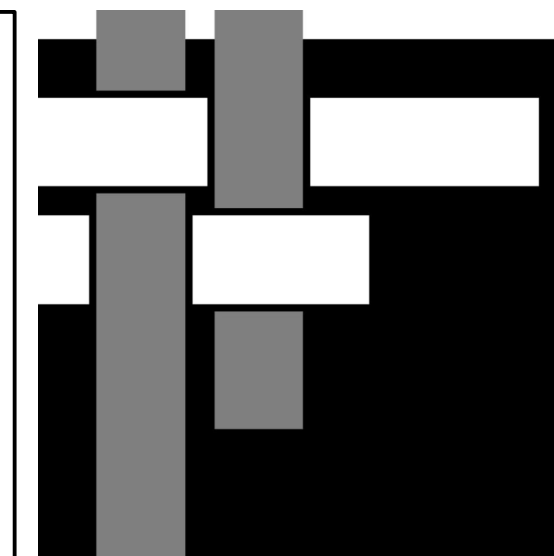
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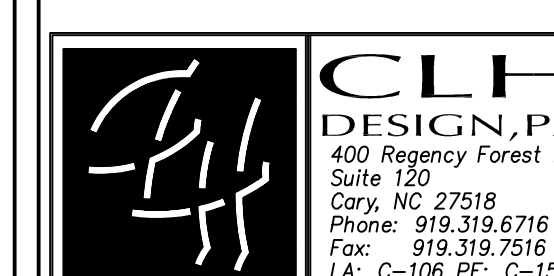
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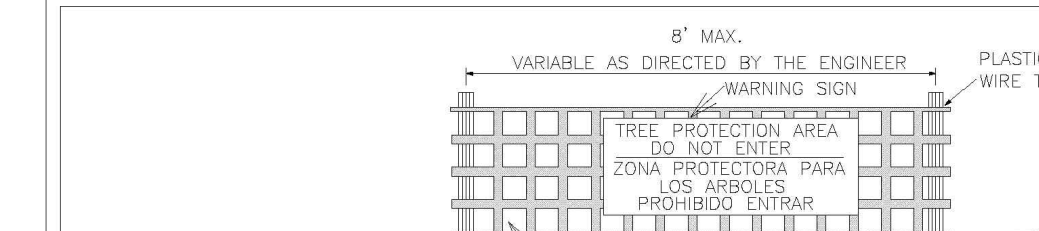
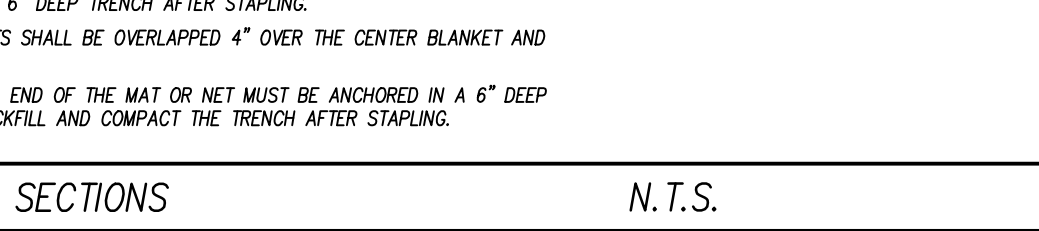
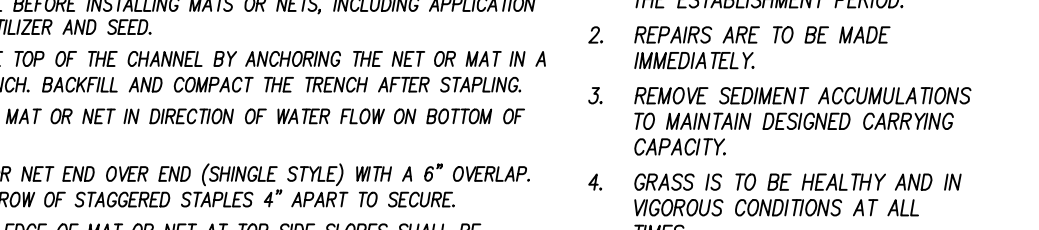
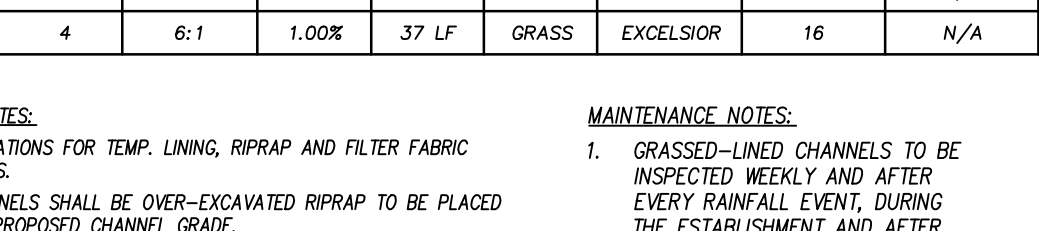
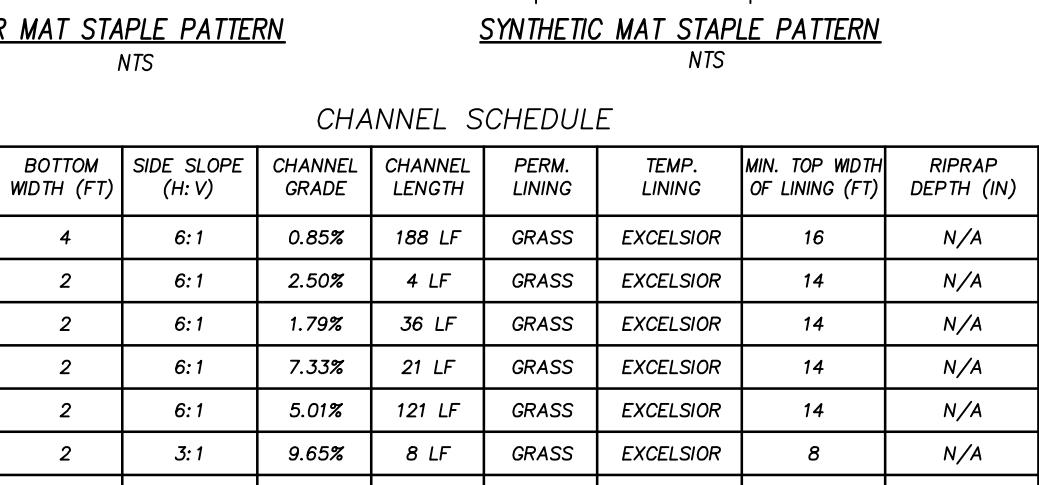
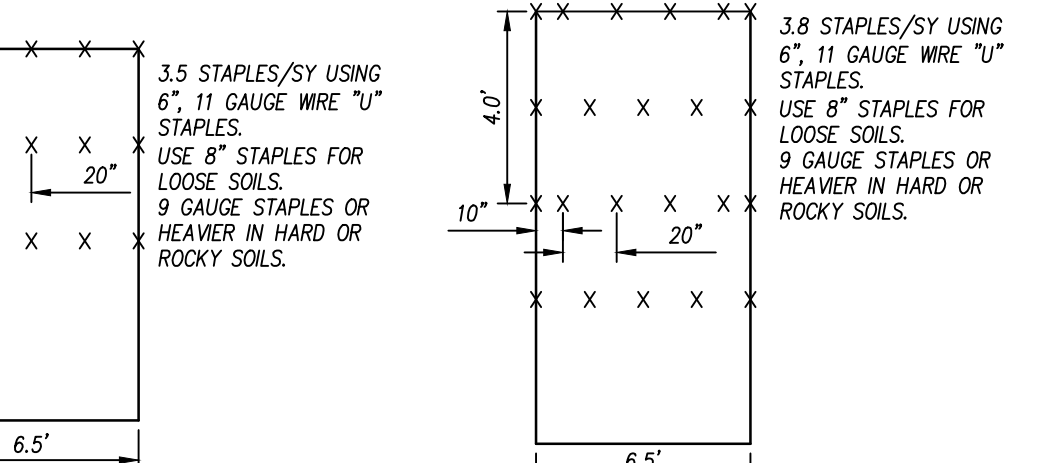
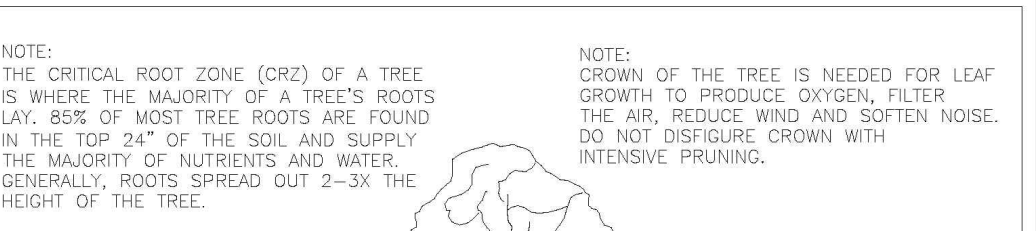
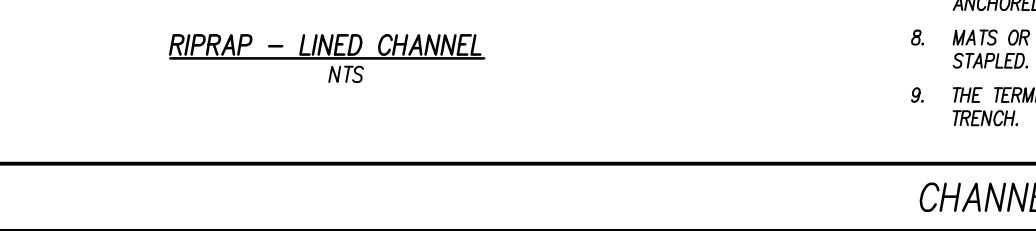
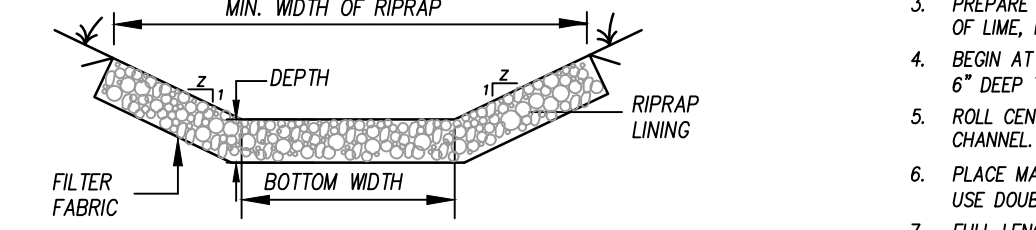
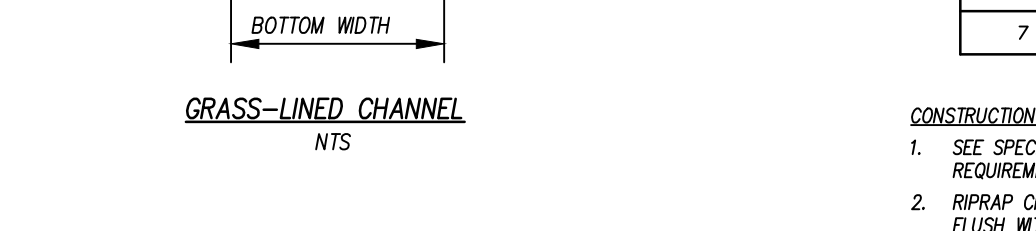
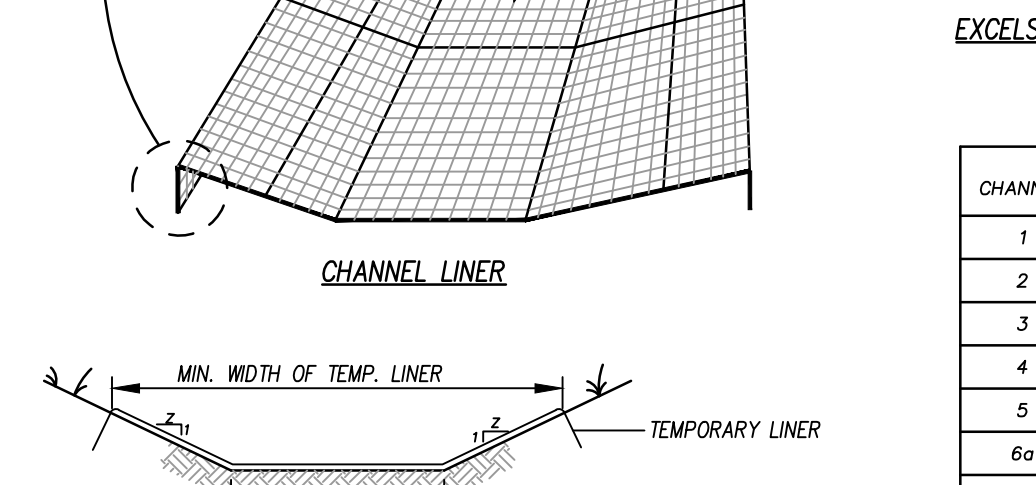
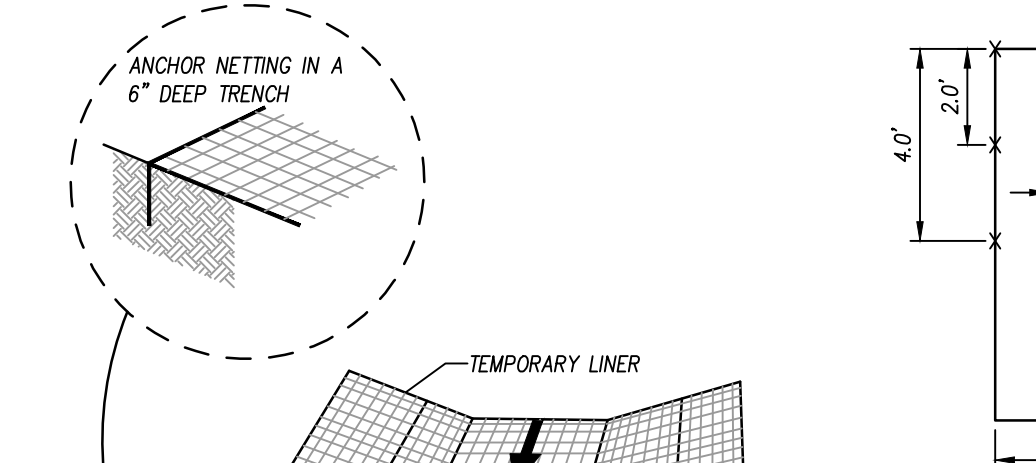
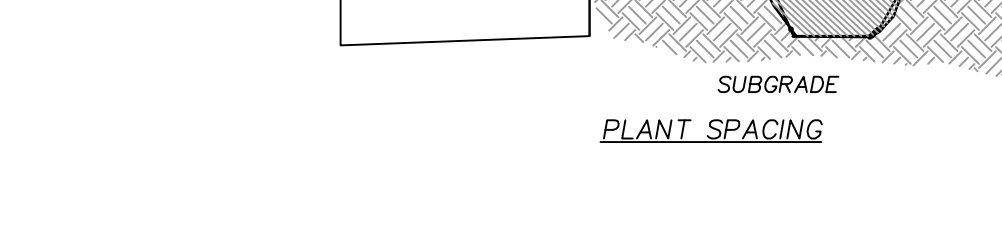
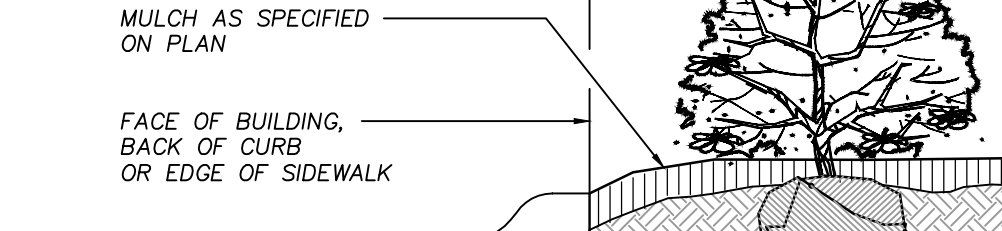
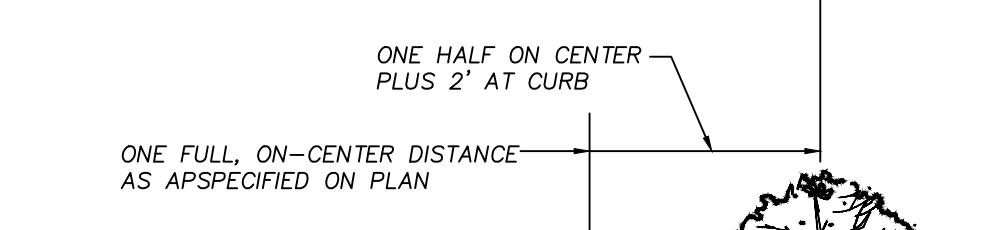
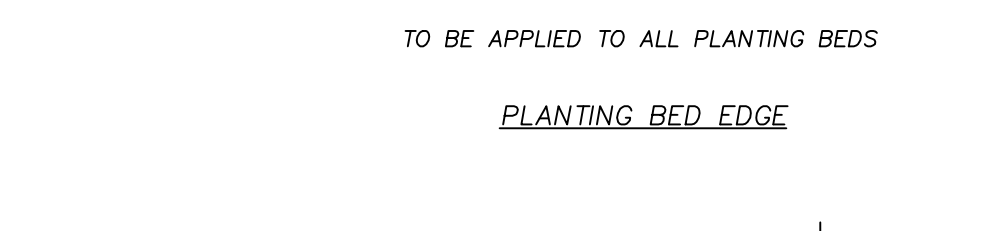
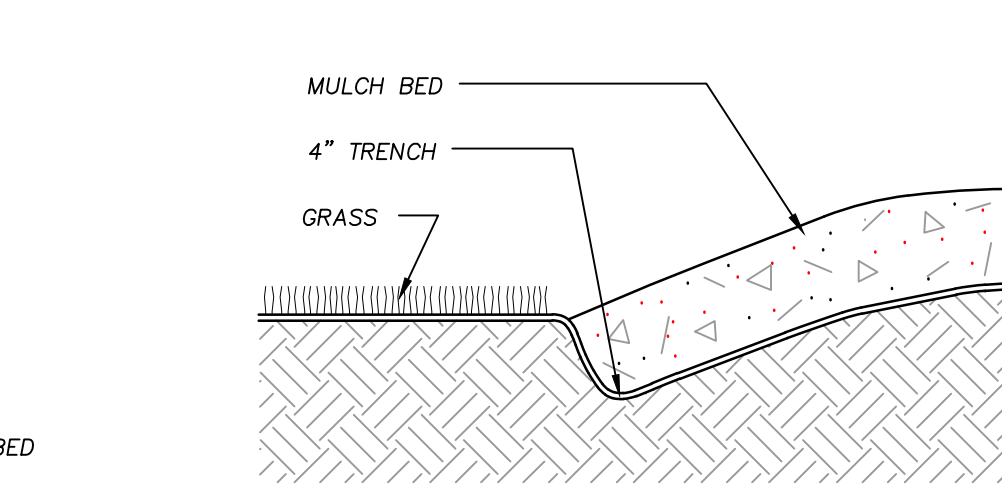
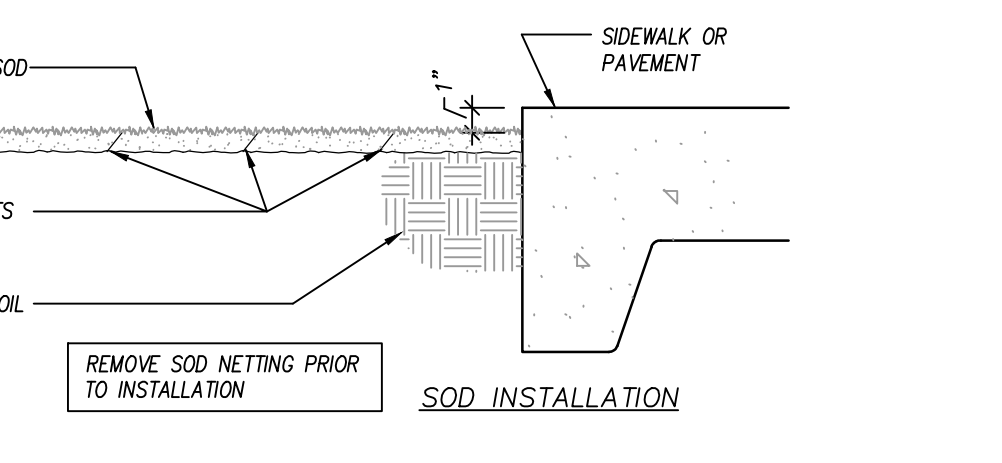
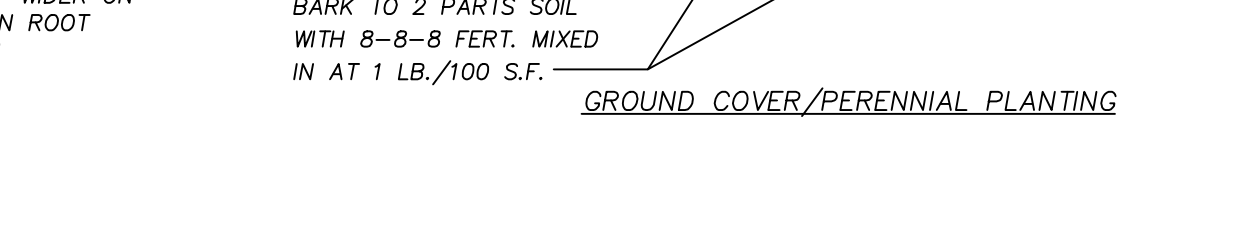
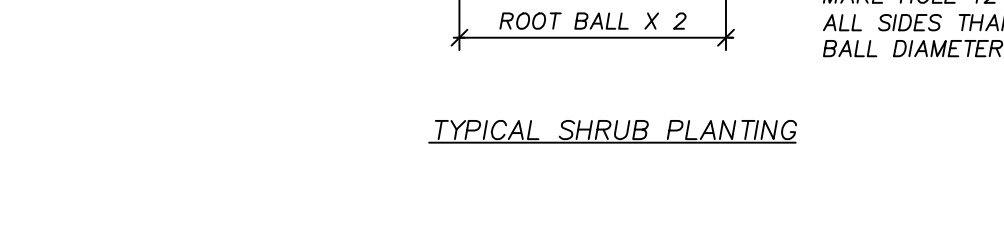
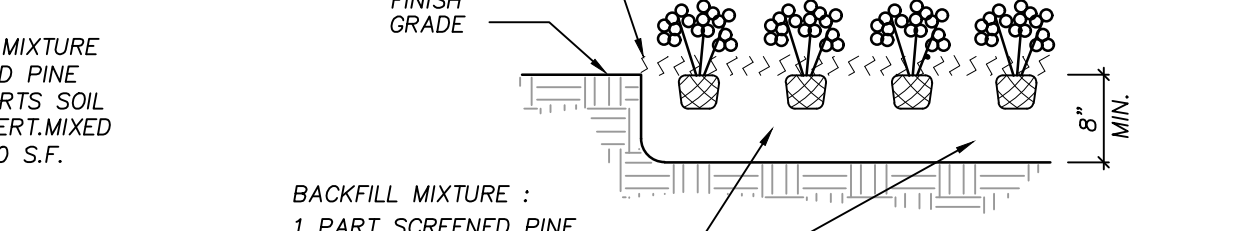
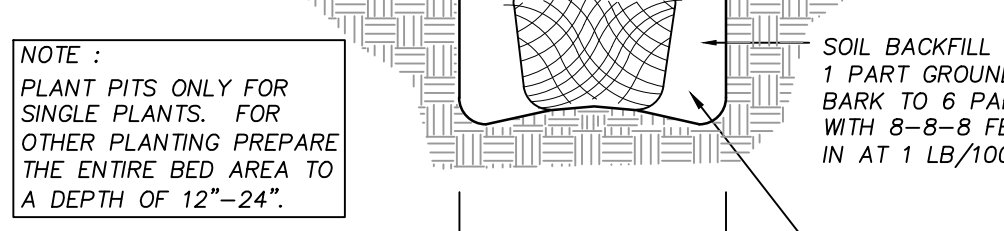
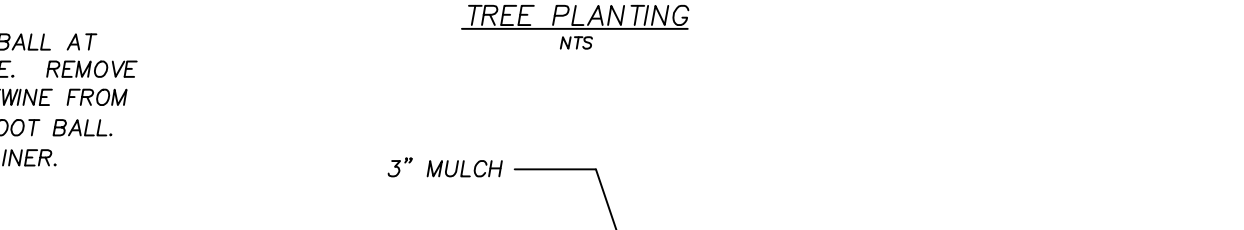
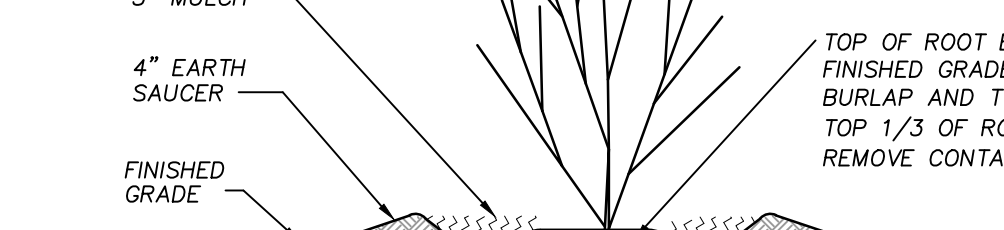
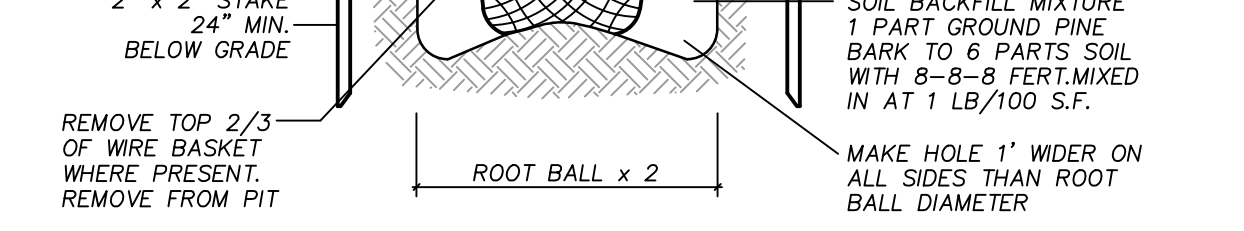
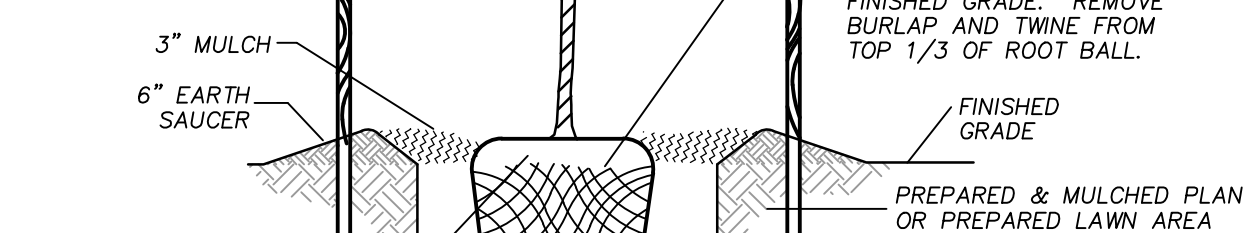
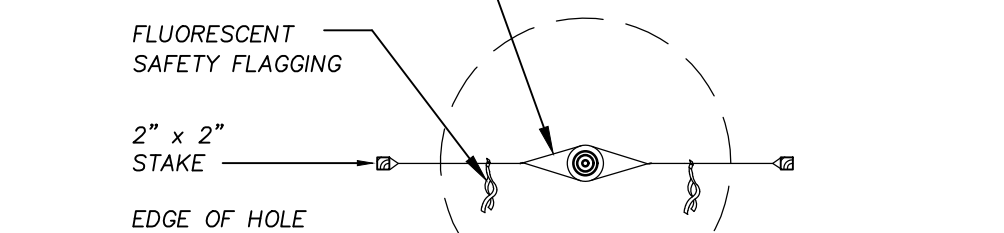
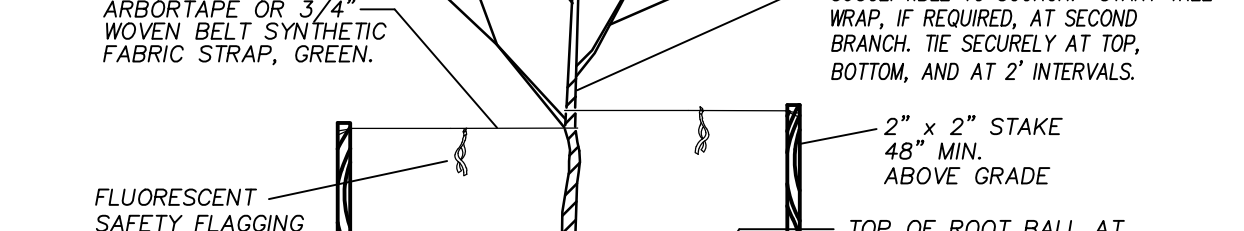
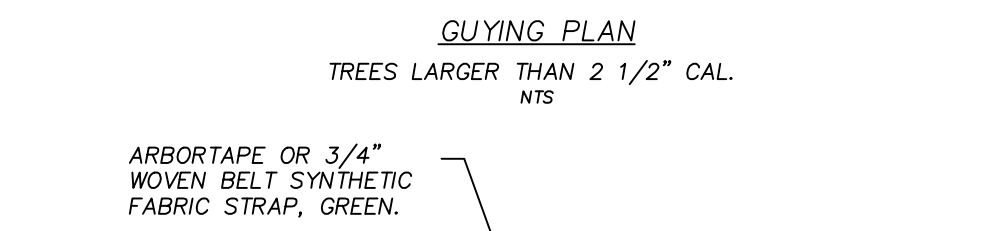
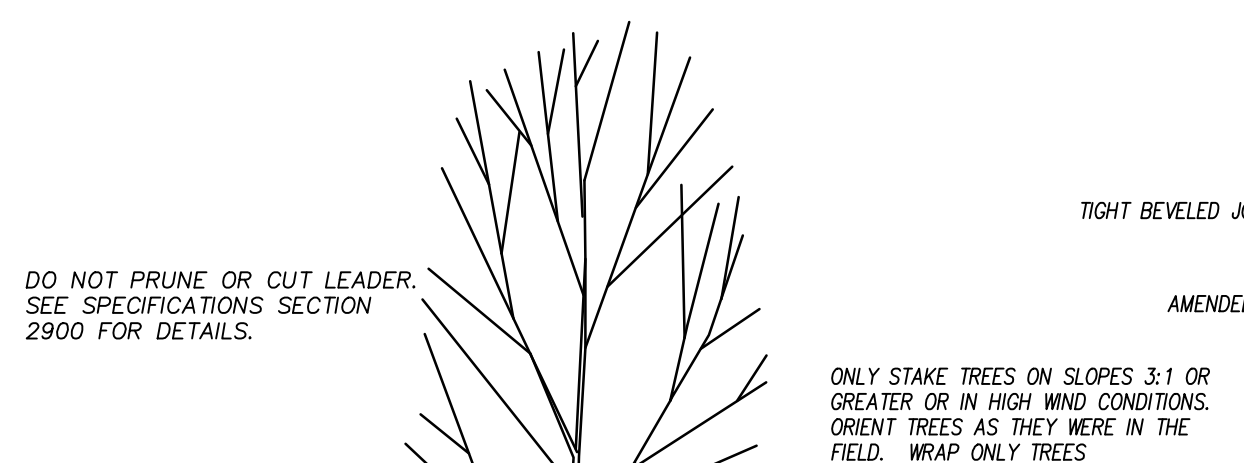
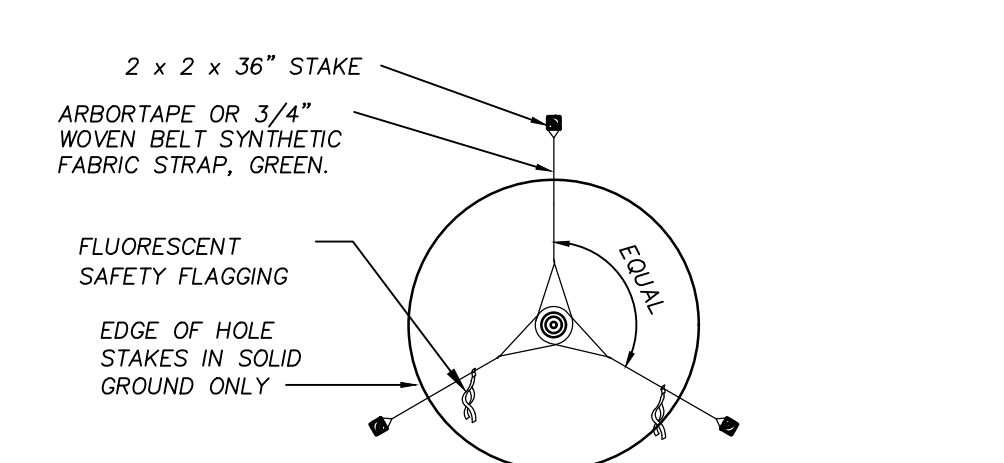


**MLK CENTER  
ADDITION &  
RENOVATION**  
401 S. 8TH STREET  
Wilmington, NC

100% Construction Drawings  
March 22, 2023

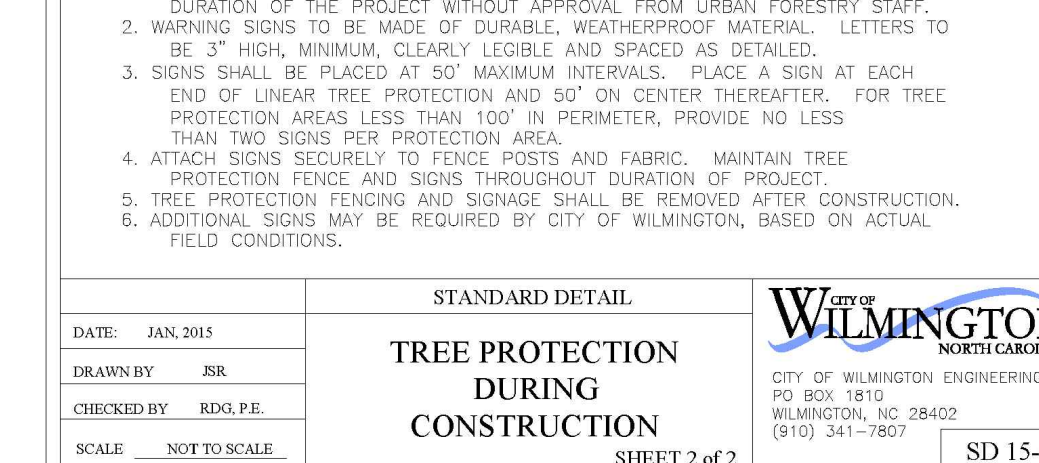
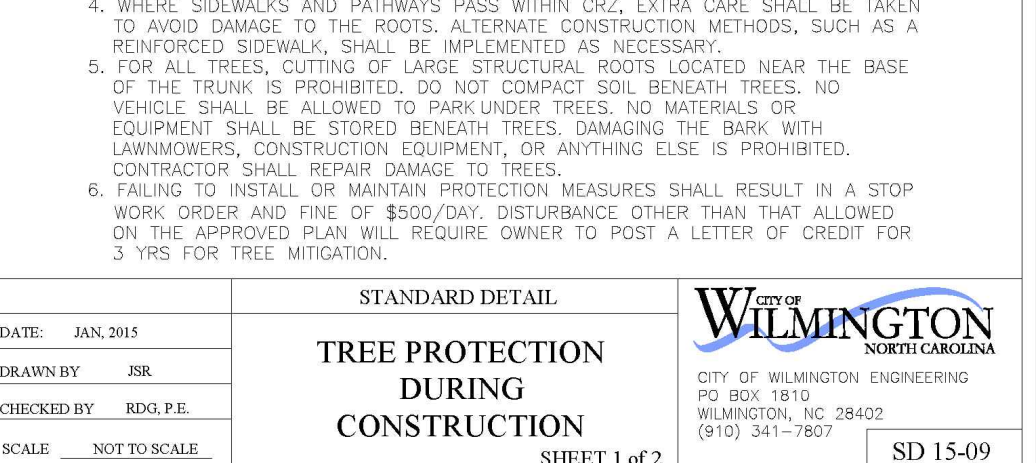
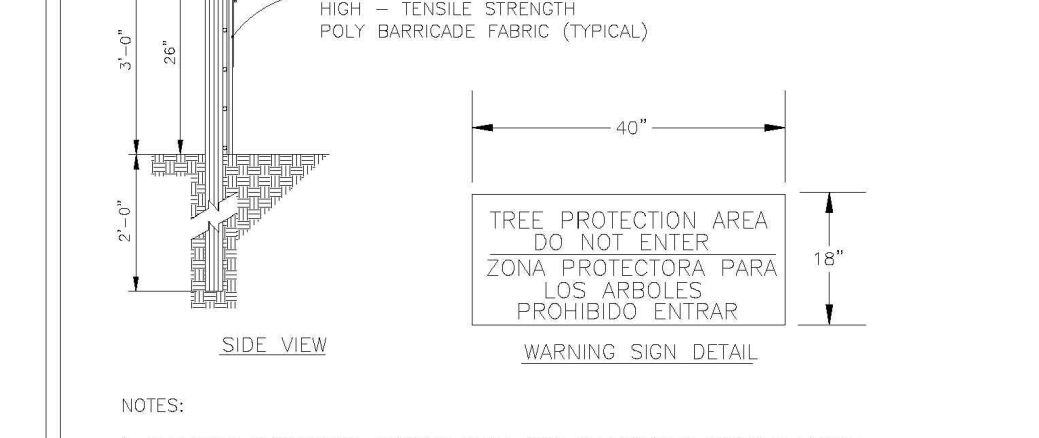
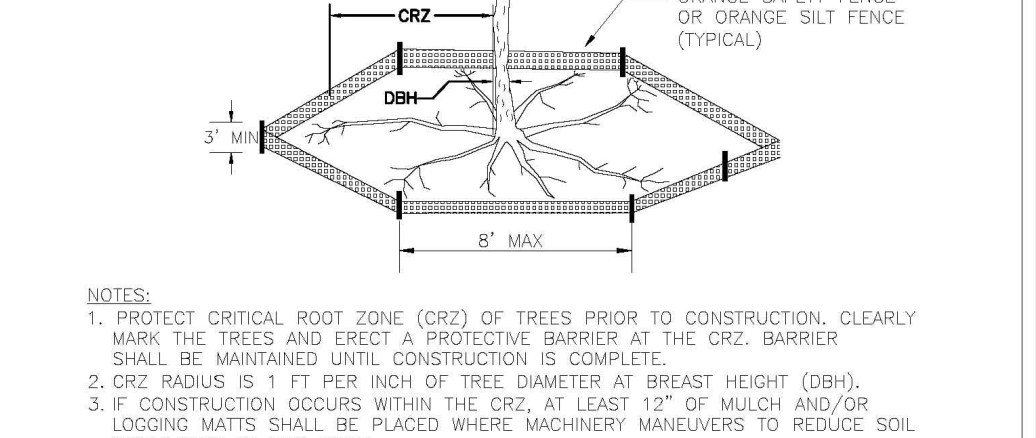
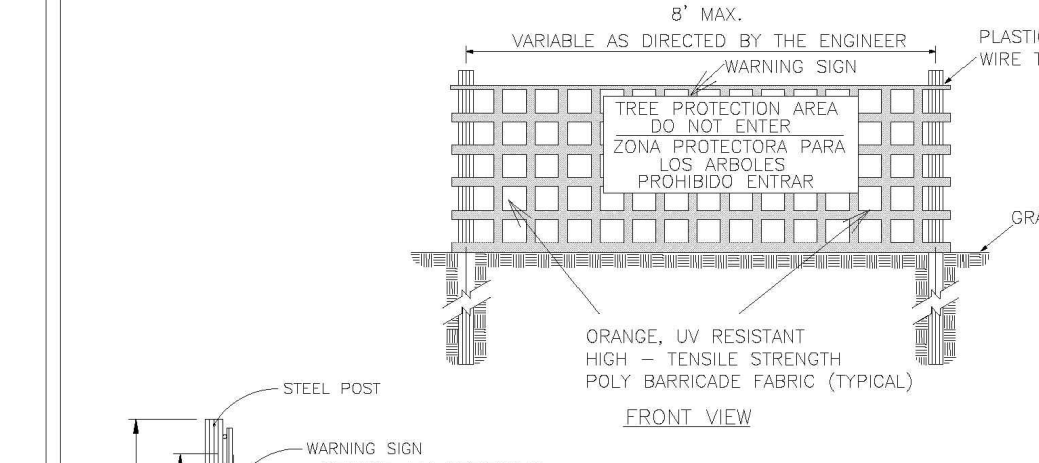
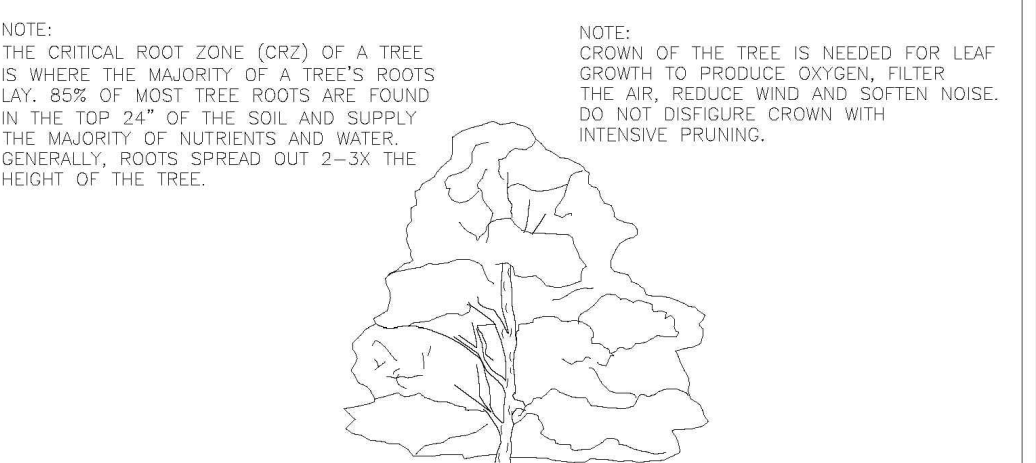
Revisions:  
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\_\_\_\_\_  
\_\_\_\_\_

**EROSION  
CONTROL  
DETAILS  
C7.2**



CHANNEL	BOTTOM WIDTH (FT)	SIDE SLOPE (H:V)	CHANNEL GRADE	CHANNEL LENGTH	PERM. LINING	TEMP. LINING	MIN. TOP WIDTH OF LINING (FT)	RIPRAP DEPTH (IN)
1	4	6:1	0.85%	188 LF	GRASS	EXCELSIOR	16	N/A
2	2	6:1	2.50%	4 LF	GRASS	EXCELSIOR	14	N/A
3	2	6:1	1.79%	36 LF	GRASS	EXCELSIOR	14	N/A
4	2	6:1	7.33%	21 LF	GRASS	EXCELSIOR	14	N/A
5	2	6:1	5.01%	121 LF	GRASS	EXCELSIOR	14	N/A
6a	2	3:1	9.65%	8 LF	GRASS	EXCELSIOR	8	N/A
6b	2	3:1	2.00%	5 LF	GRASS	EXCELSIOR	8	N/A
7	4	6:1	1.00%	37 LF	GRASS	EXCELSIOR	16	N/A

- CONSTRUCTION NOTES:**
- SEE SPECIFICATIONS FOR TEMP. LINING, RIPRAP AND FILTER FABRIC REQUIREMENTS.
  - RIPRAP CHANNELS SHALL BE OVER-EXCAVATED RIPRAP TO BE PLACED FLUSH WITH PROPOSED CHANNEL GRADE.
  - PREPARE SOIL BEFORE INSTALLING MATS OR NETS, INCLUDING APPLICATION OF LIME, FERTILIZER AND SEED.
  - BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE NET OR MAT IN A 6" DEEP TRENCH BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
  - ROLL CENTER MAT OR NET IN DIRECTION OF WATER FLOW ON BOTTOM OF CHANNEL.
  - PLACE MAT OR NET END OVER END (SHINGLE STYLE) WITH A 6" OVERLAP. USE DOUBLE ROW OF STAGGERED STAPLES 4" APART TO SECURE.
  - FULL LENGTH EDGE OF MAT OR NET AT TOP SIDE SLOPES SHALL BE ANCHORED IN 6" DEEP TRENCH AFTER STAPLING.
  - MATS OR NETS SHALL BE OVERLAPPED 4" OVER THE CENTER BLANKET AND STAPLED.
  - THE TERMINAL END OF THE MAT OR NET MUST BE ANCHORED IN A 6" DEEP TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
- MAINTENANCE NOTES:**
- GRASSED-LINED CHANNELS TO BE INSPECTED WEEKLY AND AFTER EVERY RAINFALL EVENT, DURING THE ESTABLISHMENT AND AFTER THE ESTABLISHMENT PERIOD.
  - REPAIRS ARE TO BE MADE IMMEDIATELY.
  - REMOVE SEDIMENT ACCUMULATIONS TO MAINTAIN DESIGNED CARRYING CAPACITY.
  - GRASS IS TO BE HEALTHY AND IN VIGOROUS CONDITIONS AT ALL TIMES.



DATE	DRAWN BY	CHECKED BY	SCALE
JAN 2015	JR	RDL/PE	NOT TO SCALE

DATE	DRAWN BY	CHECKED BY	SCALE
JAN 2015	JR	RDL/PE	NOT TO SCALE

**SEEDBED PREPARATION**

- CHISEL ALL CUT GRADED OR COMPACTED AREAS TO A MINIMUM DEPTH OF 8"
- DISC ALL AREAS TO RECEIVE GRASS TO A MINIMUM OF 8 INCHES, MIX AND AMEND WITH 3 INCHES OF IMPORTED TOPSOIL. REFER TO SPECIFICATIONS FOR TOPSOIL REQUIREMENTS.
- REMOVE ALL LOOSE ROCK, ROOTS, AND OTHER OBSTRUCTIONS LEAVING SURFACE REASONABLY SMOOTH AND UNIFORM. CONSTRUCTION EQUIPMENT & TRAFFIC SHALL BE REMOVED PRIOR TO SEEDING.
- APPLY AGRICULTURAL LIME, FERTILIZER, AND PHOSPHATE UNIFORMLY AS PER SPECIFICATIONS AND MIX WELL WITH SOIL.
- CONTINUE TILLAGE UNTIL A WELL-PULVERIZED, FIRM, REASONABLY UNIFORM SEEDBED IS PREPARED TO A 6 INCHES DEPTH.
- SEED AT RATE SPECIFIED. ACHIEVE AND MAINTAIN MINIMUM 95% COVERAGE PRIOR TO FINAL ACCEPTANCE, AS DETERMINED ON A PER SQUARE YARD SAMPLE BASIS.
- MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH. BEGIN THOROUGH WATERING OF GRASSED AREAS IMMEDIATELY UPON INSTALLATION. DO NOT ALLOW GRASSED AREAS TO BECOME EXCESSIVELY DRY.
- INSPECT ALL SEEDING AREAS AND MAKE NECESSARY REPAIRS OR RESEEDINGS WITHIN THE PLANTING SEASON, IF POSSIBLE. IF STAND SHOULD BE OVER 60% DAMAGED, REESTABLISH FOLLOWING ORIGINAL LIME, FERTILIZER AND SEEDING RATES.
- REFER TO WRITTEN SPECIFICATIONS FOR WARRANTY AND MAINTENANCE OF LAWNS PRIOR TO OWNER'S FINAL ACCEPTANCE.
- IF CONFLICTS OCCUR BETWEEN WRITTEN SPECIFICATIONS AND THE DRAWINGS, THE WRITTEN SPECIFICATIONS SHALL PREVAIL.

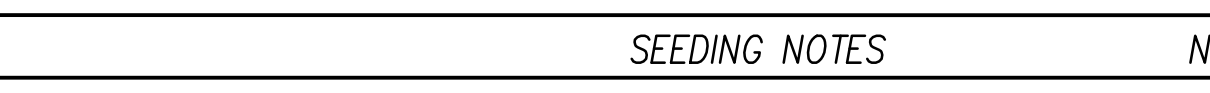
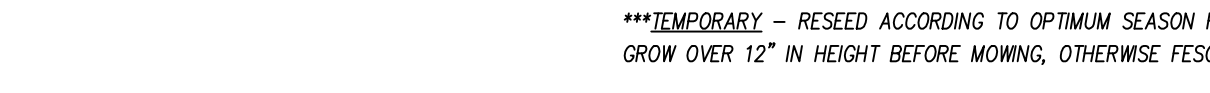
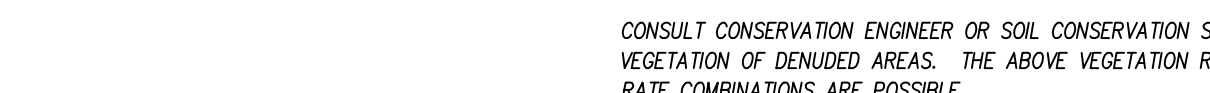
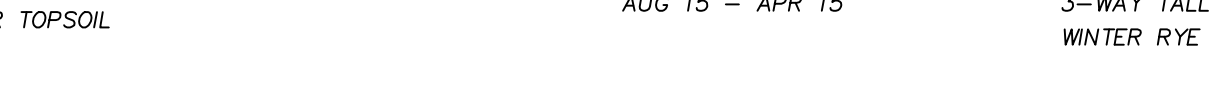
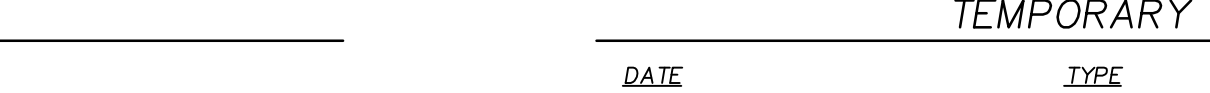
**LIME & FERTILIZATION SCHEDULE**

APPLY LIME AND FERTILIZER ACCORDING TO SOIL TESTS, OR APPLY A MINIMUM 3 TONS/ACRE GROUND AGRICULTURAL LIMESTONE AND A MINIMUM 500 LB/ACRE 10-10-10 FERTILIZER, AS NEEDED TO ESTABLISH 95% COVERAGE (AS DETERMINED ON A PER SQUARE YARD BASIS) PRIOR TO SUBSTANTIAL COMPLETION. CONTRACTOR TO SUBMIT A COPY OF ALL SOIL REPORTS TO OWNER UPON RECEIPT.

**SURFACE STABILIZATION REQUIREMENTS**

PERMANENT OR TEMPORARY GROUND COVER SHALL BE PROVIDED OVER ALL DISTURBED AREAS OF THE SITE PER NPDES PERMIT. GROUND STABILIZATION WILL BE APPLIED WITHIN 14 DAYS FROM LAST LAND DISTURBING ACTIVITY. FOR STEEP SLOPES, SWALES, DITCHES, AND CHANNELS THAT AREA MUST BE STABILIZED WITHIN 7 DAYS. PERMANENT GROUND COVER SHALL BE ESTABLISHED IN 14 WORKING DAYS OR 90 CALENDAR DAYS, WHICHEVER IS SHORTER. USE EXCELSIOR MATTING OR OTHER APPROVED CHANNEL LINING MATERIAL TO COVER THE BOTTOM OF CHANNELS. APPLY 4000 LB/ACRE GRAIN STRAW AND ANCHOR STRAW WITH ASPHALT TACKING AT A RATE OF 400 GALLONS/ACRE. MULCH AND ANCHORING MATERIALS MUST NOT BE ALLOWED TO WASH DOWN SLOPES AND CLOG DRAINAGE DEVICES.

**PLANTING DETAILS**



**TEMPORARY SEEDING SCHEDULE**

DATE	TYPE	PLANTING RATE
AUG 15 - APR 15	3-WAY TALL FESCUE BLEND AND WINTER RYE (GRAIN)	240 LBS/ACRE 40 LBS/ACRE
APR 15 - AUG 15	3-WAY TALL FESCUE BLEND AND GERMAN MILLET *** (SMALL-STEMMED VAR.) ***	240 LBS/ACRE 10 LBS/ACRE

CONSULT CONSTRUCTION ENGINEER OR SOIL CONSERVATION SERVICE FOR ADDITIONAL INFORMATION CONCERNING OTHER ALTERNATIVES FOR VEGETATION OF DENuded AREAS. THE ABOVE VEGETATION RATES ARE THOSE WHICH DO WELL UNDER LOCAL CONDITIONS; OTHER SEEDING RATE COMBINATIONS ARE POSSIBLE. \*\*\*TEMPORARY - RESEED ACCORDING TO OPTIMUM SEASON FOR DESIRED PERMANENT VEGETATION. DO NOT ALLOW TEMPORARY COVER TO GROW OVER 12" IN HEIGHT BEFORE MOWING, OTHERWISE FESCUE MAY BE SHADED OUT.

**PERMANENT SEEDING SCHEDULE - LAWN AREAS**

DATE	TYPE	PLANTING RATE
APR 15 - JULY 15**	HULLED SUNSTAR BERMUDA	85 LBS/ACRE*
JULY 15 - AUG 15	SUNSTAR BERMUDA SPRIGS (WATERING AT CONTRACTORS EXPENSE)	
AUG 15 - APR 15	TEMPORARY SEEDING APPLIES**	5 BUSHELS/1,000 SF

\* OR AS REQUIRED TO ACHIEVE 95% COVERAGE AS DETERMINED ON A PER SQUARE YARD BASIS PRIOR TO SUBSTANTIAL COMPLETION. \*\* WHEN SEEDING MUST TAKE PLACE OUT-OF-SEASON FOR PERMANENT GRASS, APPROPRIATE TEMPORARY SEEDING SHALL BE DONE AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR PERMANENT SEEDING AS SPECIFIED IN SEASON AT NO ADDITIONAL COST TO OWNER.

**LAWN MAINTENANCE**

CONTRACTOR SHALL BE RESPONSIBLE FOR LAWN MAINTENANCE UNTIL FINAL COMPLETION. SEE SPEC SECTION 329000 FOR LAWN MAINTENANCE REQUIREMENTS. LAWN MUST BE AT 95% COVERAGE AT SUBSTANTIAL COMPLETION REVIEW TO BE ACCEPTED. IF NOT AT 95% SUBSTANTIAL COMPLETION WILL BE DELAYED UNTIL THE FOLLOWING GROWING SEASON. NURSE GRASS: ADD ANNUAL RYE (LOLIUM MULTIFLORUM) TO MIXTURE ABOVE AT A RATE 5-8 LBS. PER ACRE.

**SEEDING NOTES**

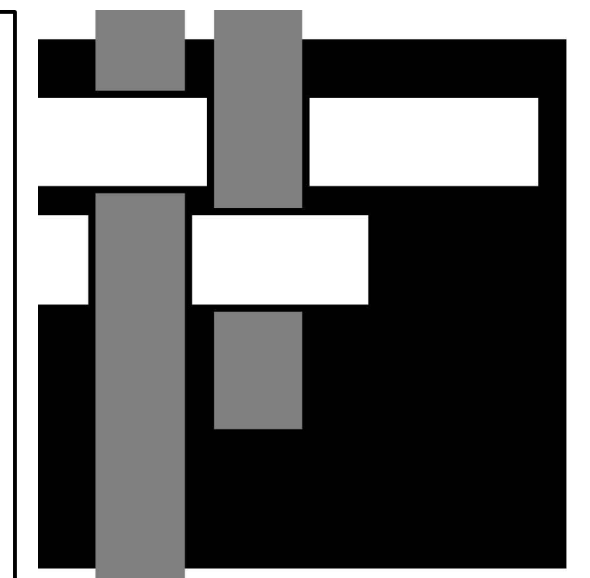
N.T.S.

**CITY OF WILMINGTON STANDARD DETAIL**

SHEET 1 of 2

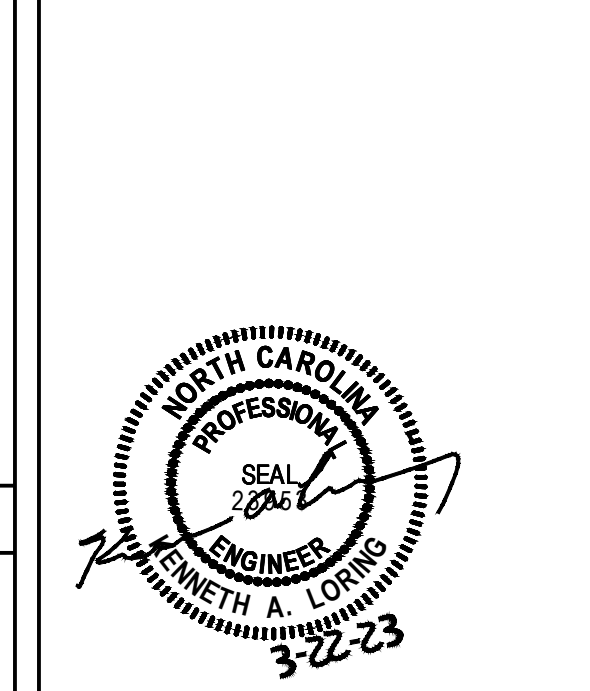
**CITY OF WILMINGTON STANDARD DETAIL**

SHEET 2 of 2



**SAWYER SHERWOOD & ASSOCIATE ARCHITECTURE**

124 Market St, Wilmington, NC 28401  
910 762-0892      nca3.com



**MLK CENTER ADDITION & RENOVATION**  
401 S. 8TH STREET  
Wilmington, NC

100% Construction Drawings  
March 22, 2023

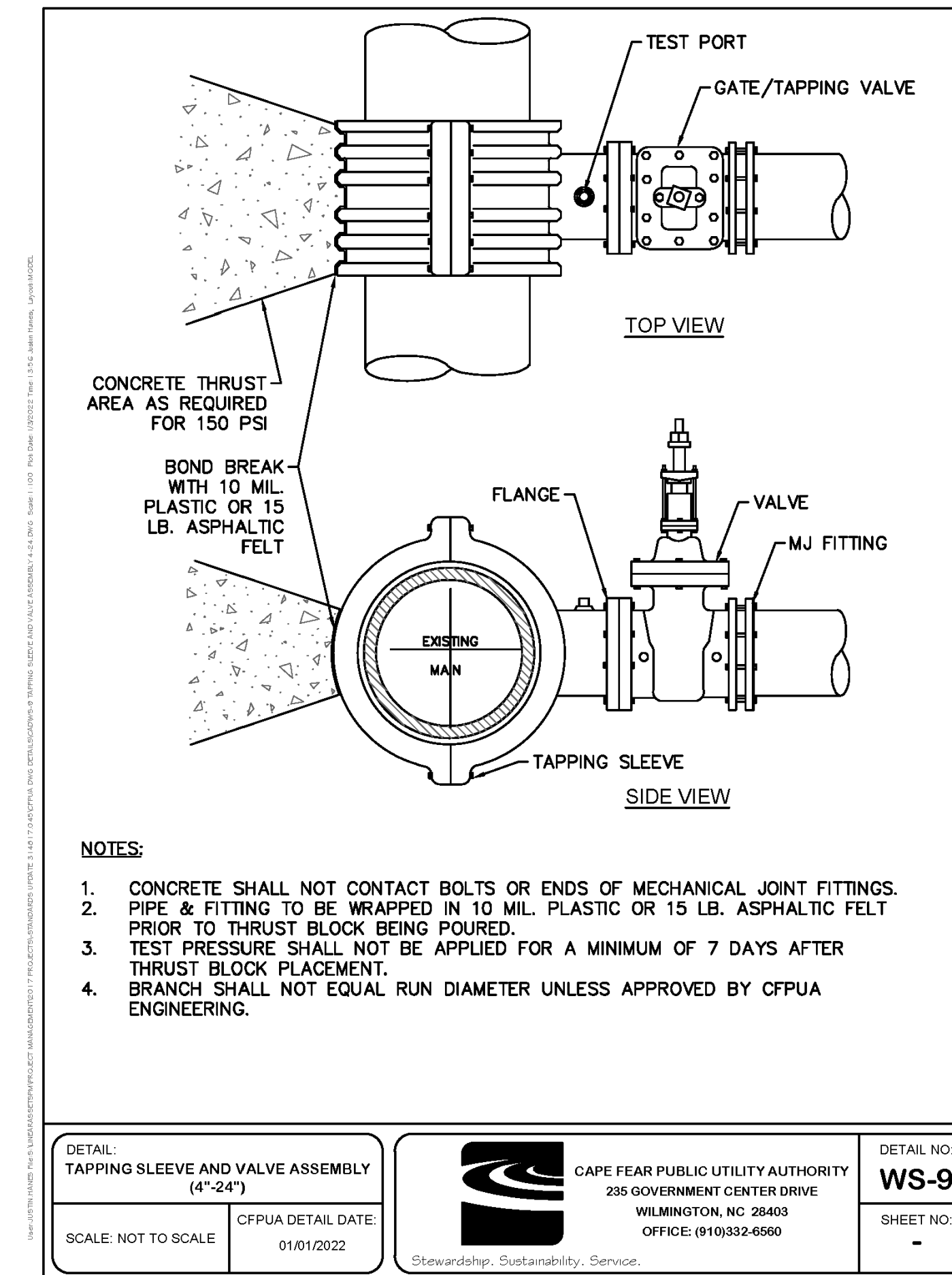
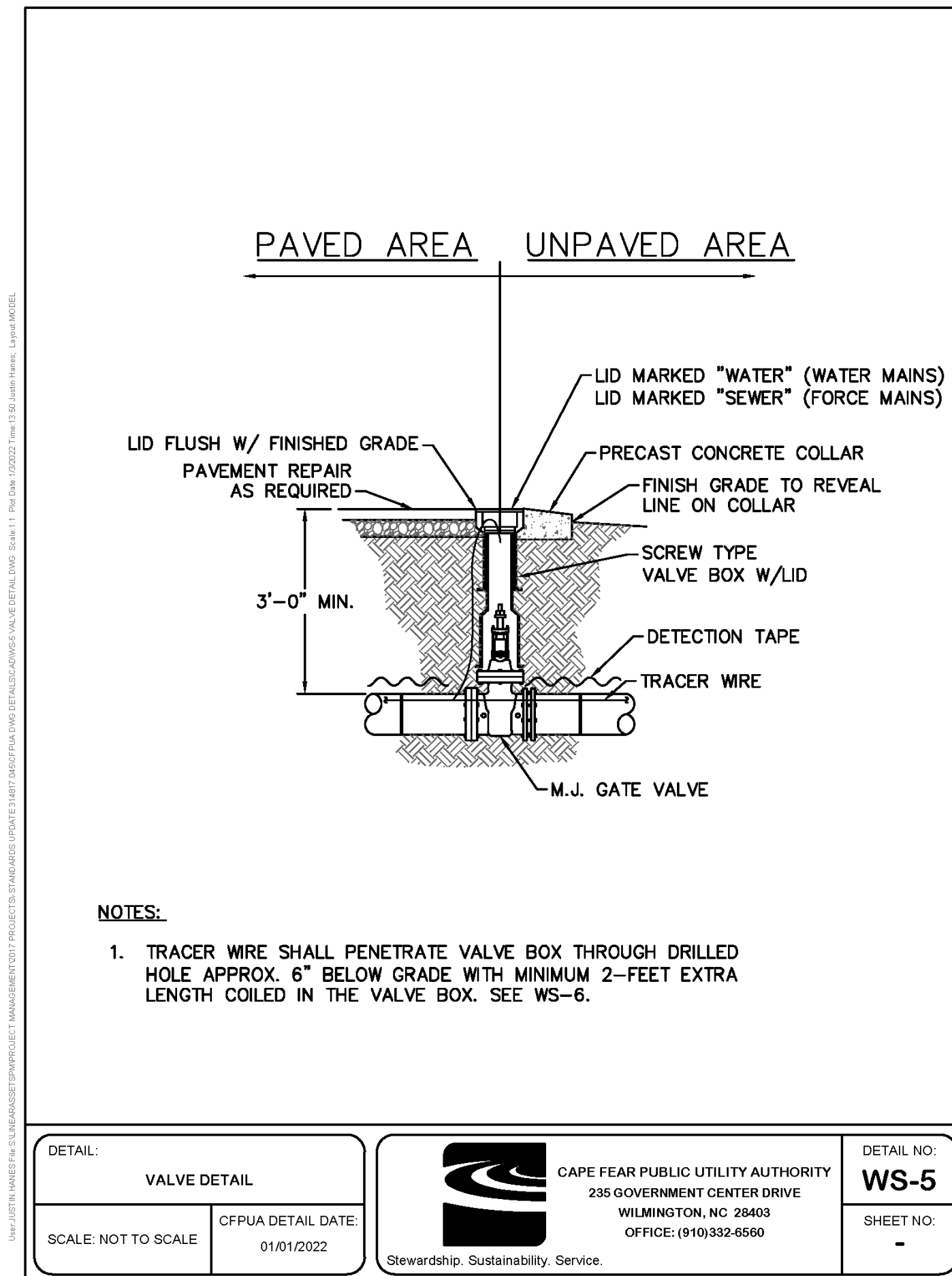
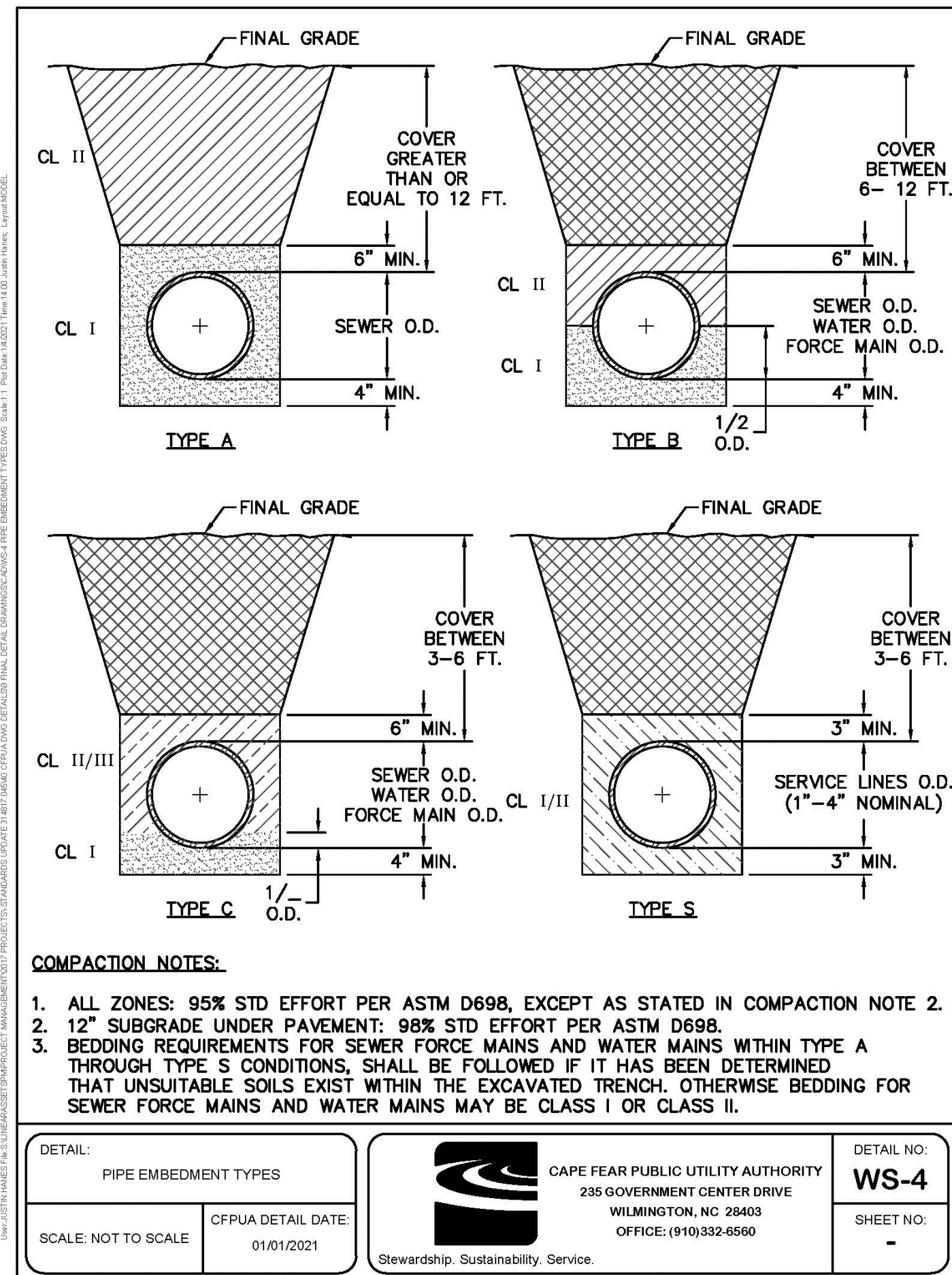
Revisions:

**EROSION CONTROL DETAILS**  
**C7.3**





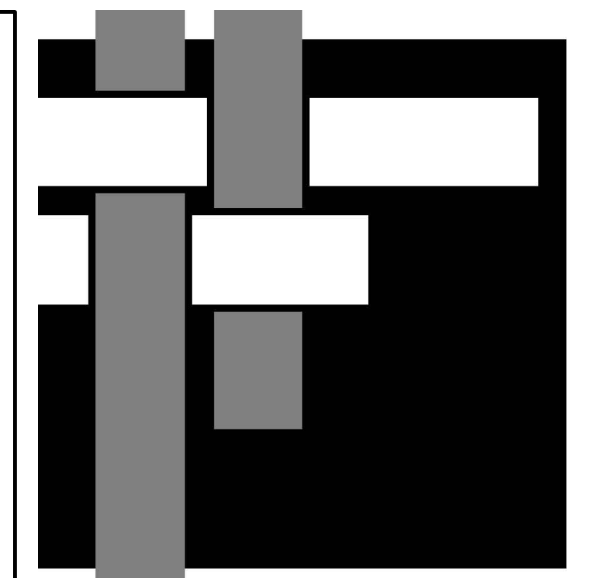
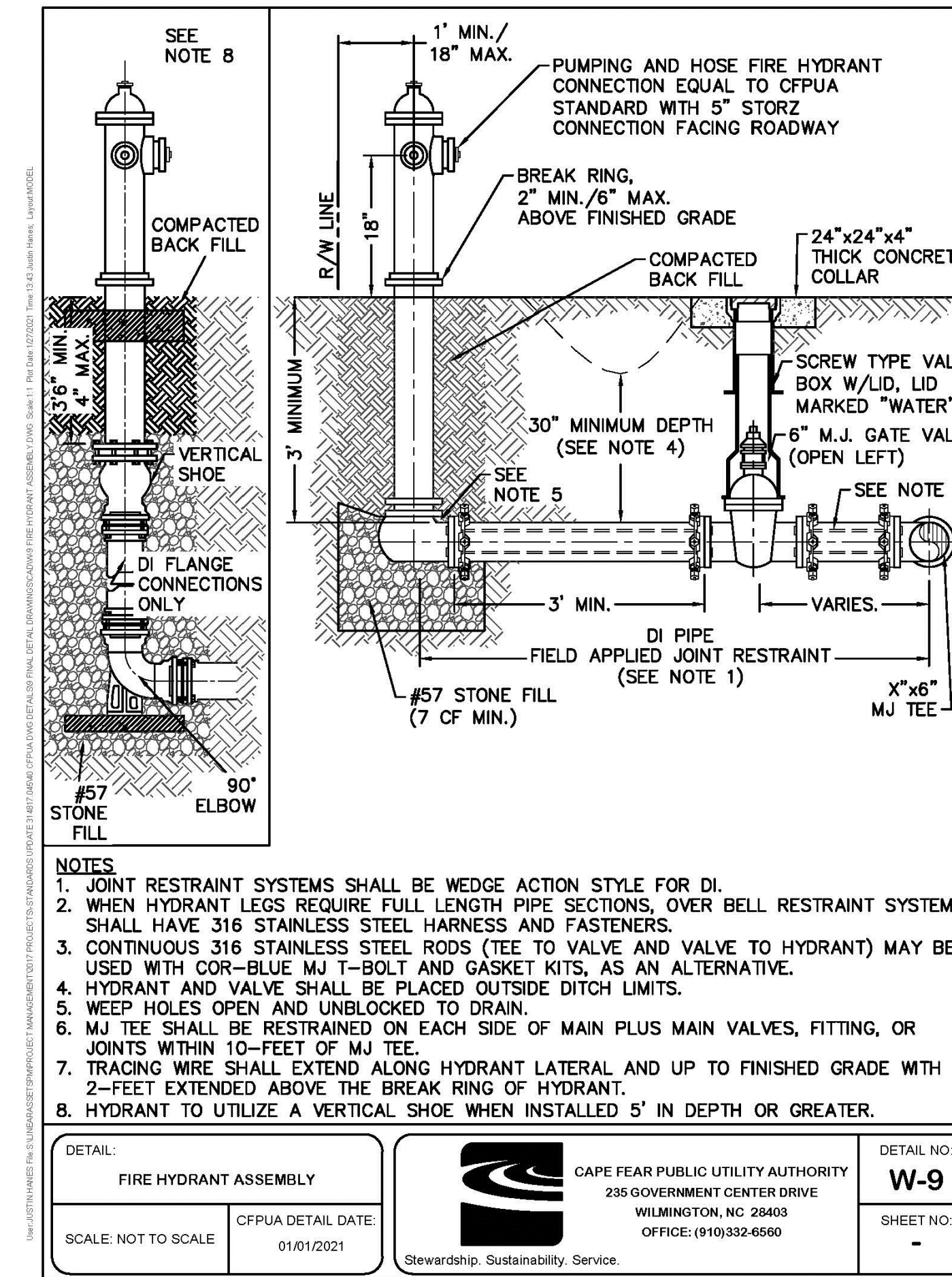
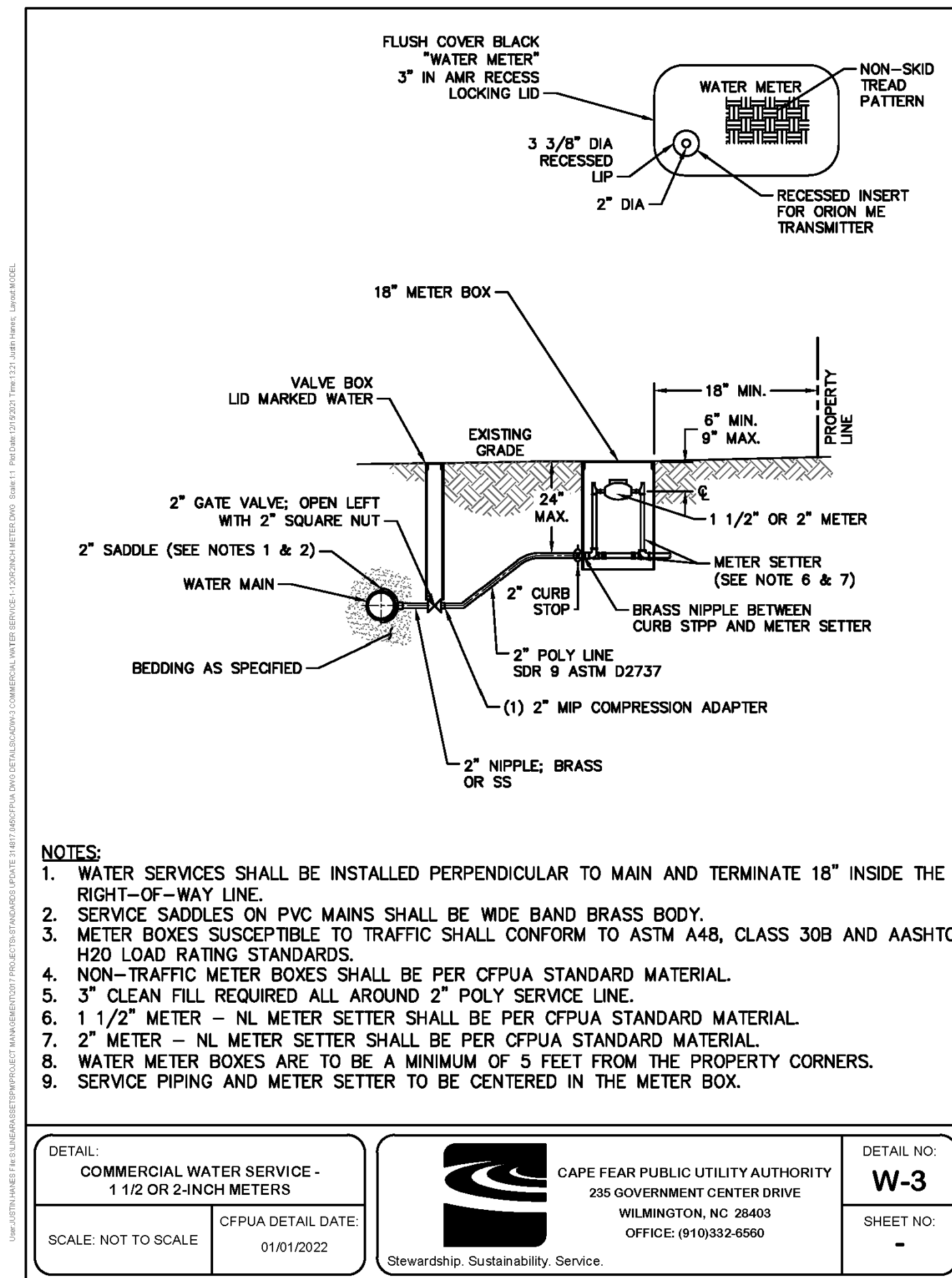
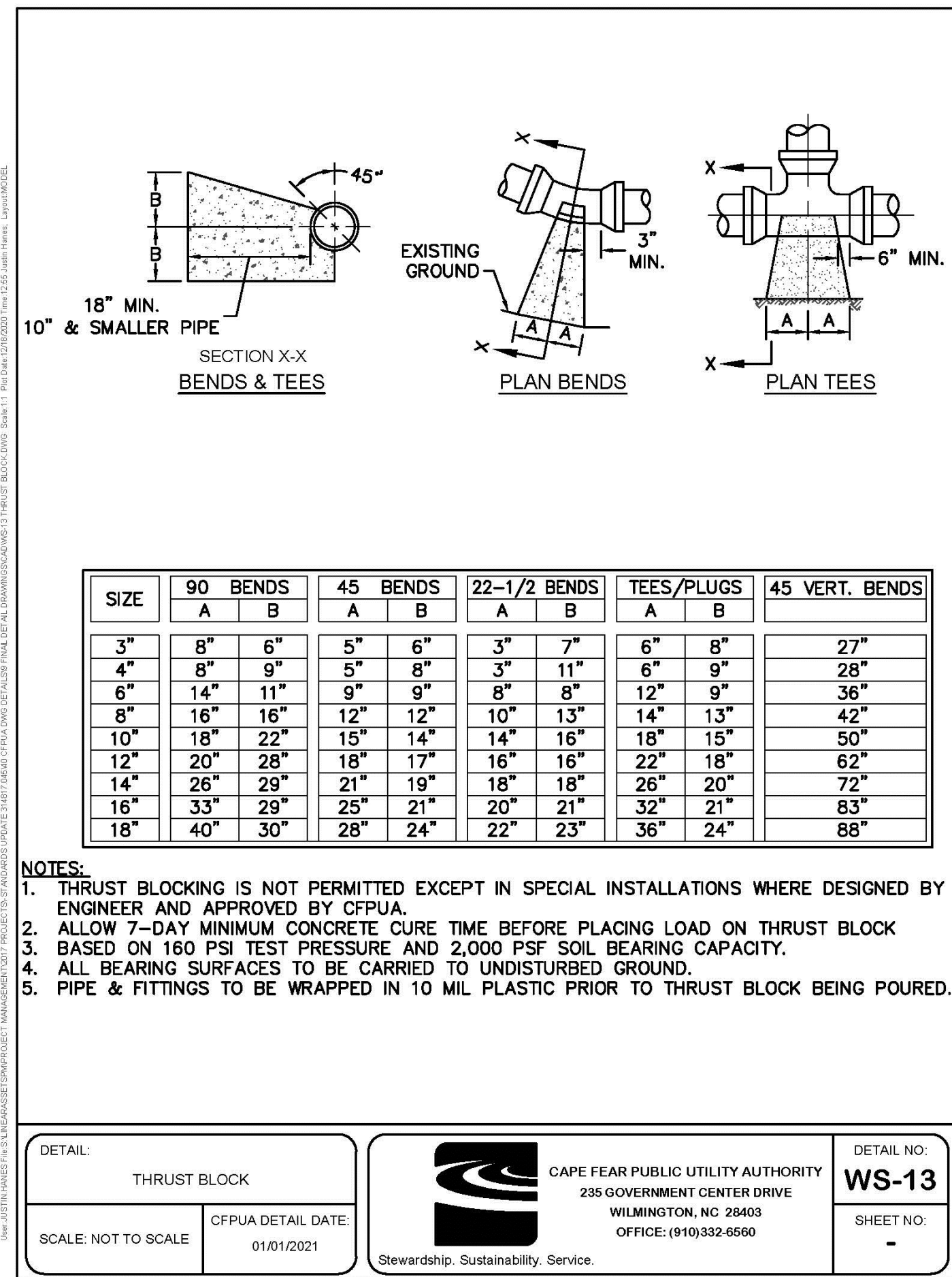




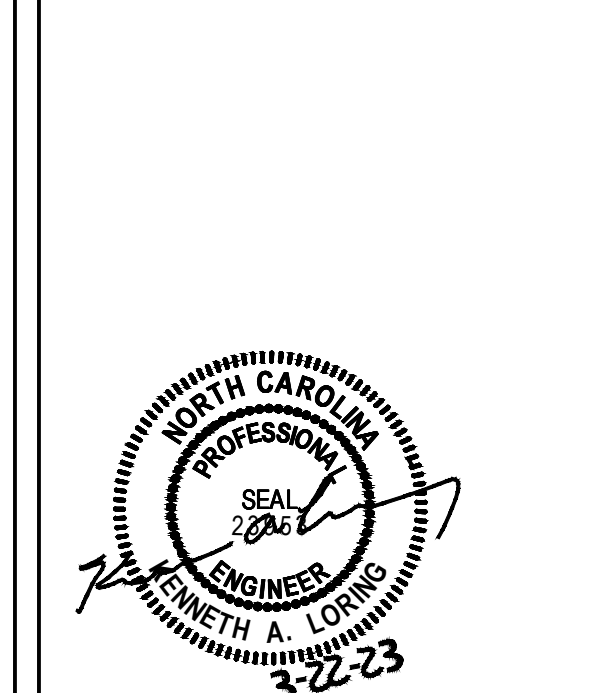
**CAPE FEAR PUBLIC UTILITY AUTHORITY STANDARD NOTES:**

1. ALL PROPOSED ADDITIONS TO THE CAPE FEAR PUBLIC UTILITY AUTHORITY (CFPUA) WATER DISTRIBUTION AND SANITARY SEWER COLLECTION SYSTEMS, AS SHOWN AND SPECIFIED HEREIN, SHALL BE DESIGNED AND CONSTRUCTED TO CONFORM TO STATE RULES AND THE CFPWA'S MINIMUM TECHNICAL STANDARDS. THE CFPWA MINIMUM TECHNICAL STANDARDS ARE CONTAINED IN THE CURRENT DESIGN GUIDANCE MANUAL, MATERIAL SPECIFICATION MANUAL, TECHNICAL SPECIFICATIONS FOR CONSTRUCTION, AND STANDARD DRAWING DETAILS.
2. SEWER GUARDS REQUIRED AT ALL MANHOLES. STAINLESS STEEL SEWER GUARDS REQUIRED AT MANHOLES LOCATED IN TRAFFIC AREAS.
3. WATER AND SEWER SERVICES SHALL BE PERPENDICULAR TO MAIN AND TERMINATE 18" INSIDE RIGHT-OF-WAY LINE. SEWER SERVICES IN CUL-DE-SACS ARE REQUIRED TO BE PERPENDICULAR, OR MUST ORIGINATE IN END OF LINE MANHOLE AND TERMINATE 18" INSIDE RIGHT-OF-WAY LINE.
4. ALL SEWER SERVICES CONNECTING INTO DUCTILE IRON MAINS SHALL ALSO BE CONSTRUCTED OF DIP.
5. MINIMUM 10' UTILITIES EASEMENT PROVIDED ALONG THE FRONTAGE OF ALL LOTS AND AS SHOWN FOR NEW DEVELOPMENTS.
6. NO FLEXIBLE COUPLINGS SHALL BE USED.
7. ALL STAINLESS STEEL FASTENERS SHALL BE TYPE 316.
8. CLEANOUTS SHALL BE LOCATED A MINIMUM OF 6 FEET FROM ALL PROPERTY CORNERS.
9. WATER METER BOXES ARE TO BE A MINIMUM OF 5 FEET FROM THE PROPERTY CORNER.
10. UNUSED SERVICES SHALL BE ABANDONED. ABANDONED WATER SERVICES SHALL BE DISCONNECTED FROM MAIN.
11. A MINIMUM OF 10' OF MAIN LINE, 5' UPSTREAM AND 5' DOWNSTREAM SHALL BE REPLACED FOR NEW SEWER SERVICE CONNECTIONS TO EXISTING CLAY GRAVITY SEWER MAINS.
12. A MINIMUM OF 20' OF MAIN LINE, 10' UPSTREAM AND 10' DOWNSTREAM SHALL BE REPLACED FOR NEW CUT IN MANHOLES ON EXISTING CLAY GRAVITY SEWER MAINS.
13. PROVIDE A MINIMUM DISTANCE OF SIX (6) INCHES BETWEEN EDGE OF MANHOLE CORE HOLES AND MANHOLE BARREL JOINTS. PROVIDE A MINIMUM DISTANCE OF SIX (6) INCHES BETWEEN EDGES OF CORE HOLES. CORING THE MANHOLE CONE IS NOT PERMITTED.
14. WATER MAIN AND FORCE MAIN PIPE INSTALLED BY OPEN CUT SHALL BE BURIED AT A MINIMUM OF THREE (3) FEET AND A MAXIMUM OF FIVE (5) FEET BELOW FINISHED GRADE. DEPTHS GREATER THAN FIVE (5) FEET MUST BE APPROVED BY CFPWA.
15. ALL MANHOLE MAIN LINE AND SERVICE PIPING TO BE INSTALLED AT A MINIMUM OF CROWN TO CROWN OF THE LARGEST DIAMETER PIPE.

DETAIL: STANDARD NOTES (REQUIRED ON ALL PLAN AND PROFILE SHEETS)	CAPE FEAR PUBLIC UTILITY AUTHORITY 235 GOVERNMENT CENTER DRIVE WILMINGTON, NC 28403 OFFICE: (910)332-6560	DETAIL NO: WS-14
SCALE: NOT TO SCALE	CFPUA DETAIL DATE: 01/01/2021	SHEET NO: -



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910 762-0892 s2a3.com



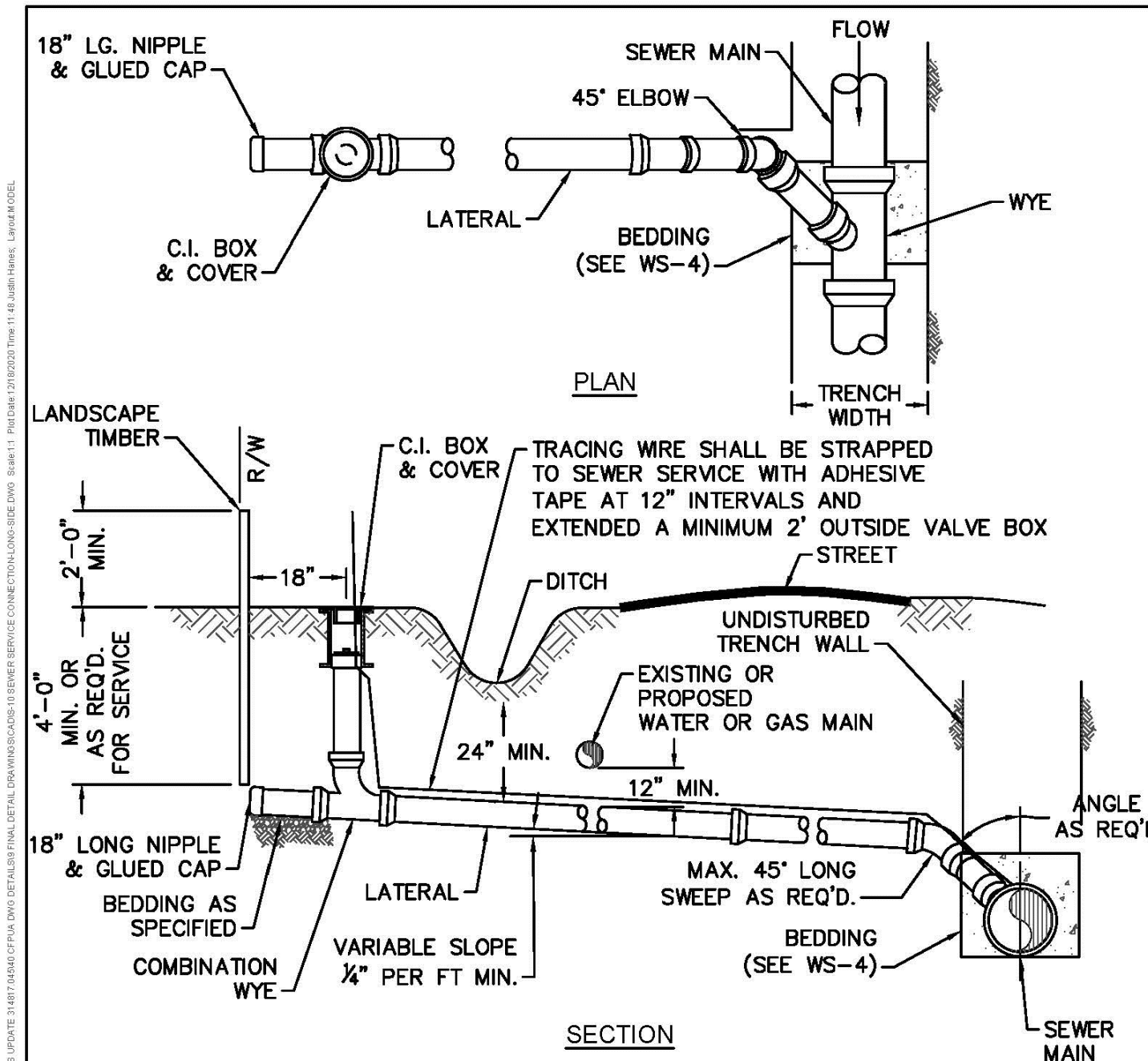
**MLK CENTER ADDITION & RENOVATION**  
401 S. 8TH STREET  
Wilmington, NC

100% Construction Drawings  
March 22, 2023

Revisions:  
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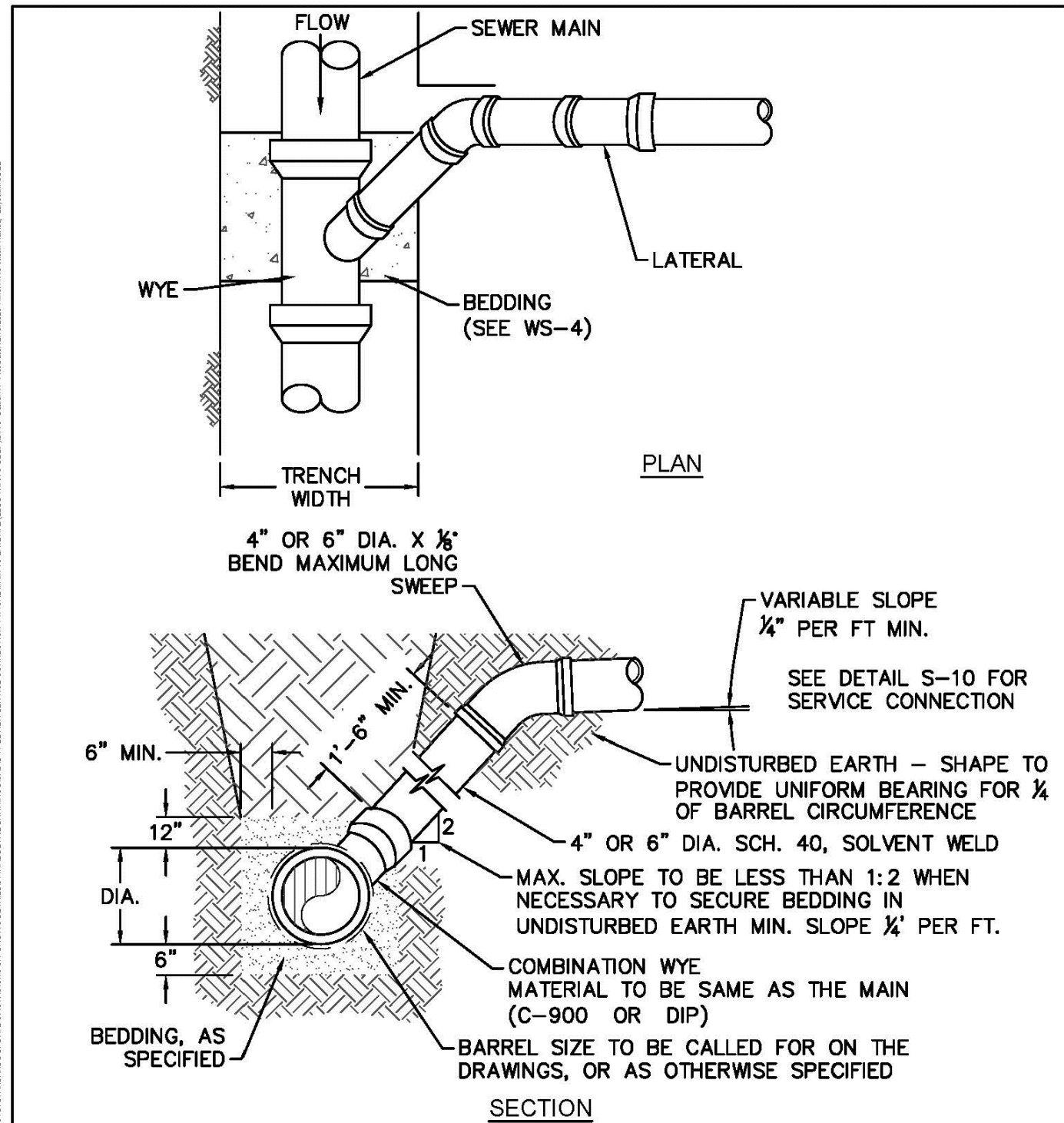
UTILITY DETAILS

C8.2



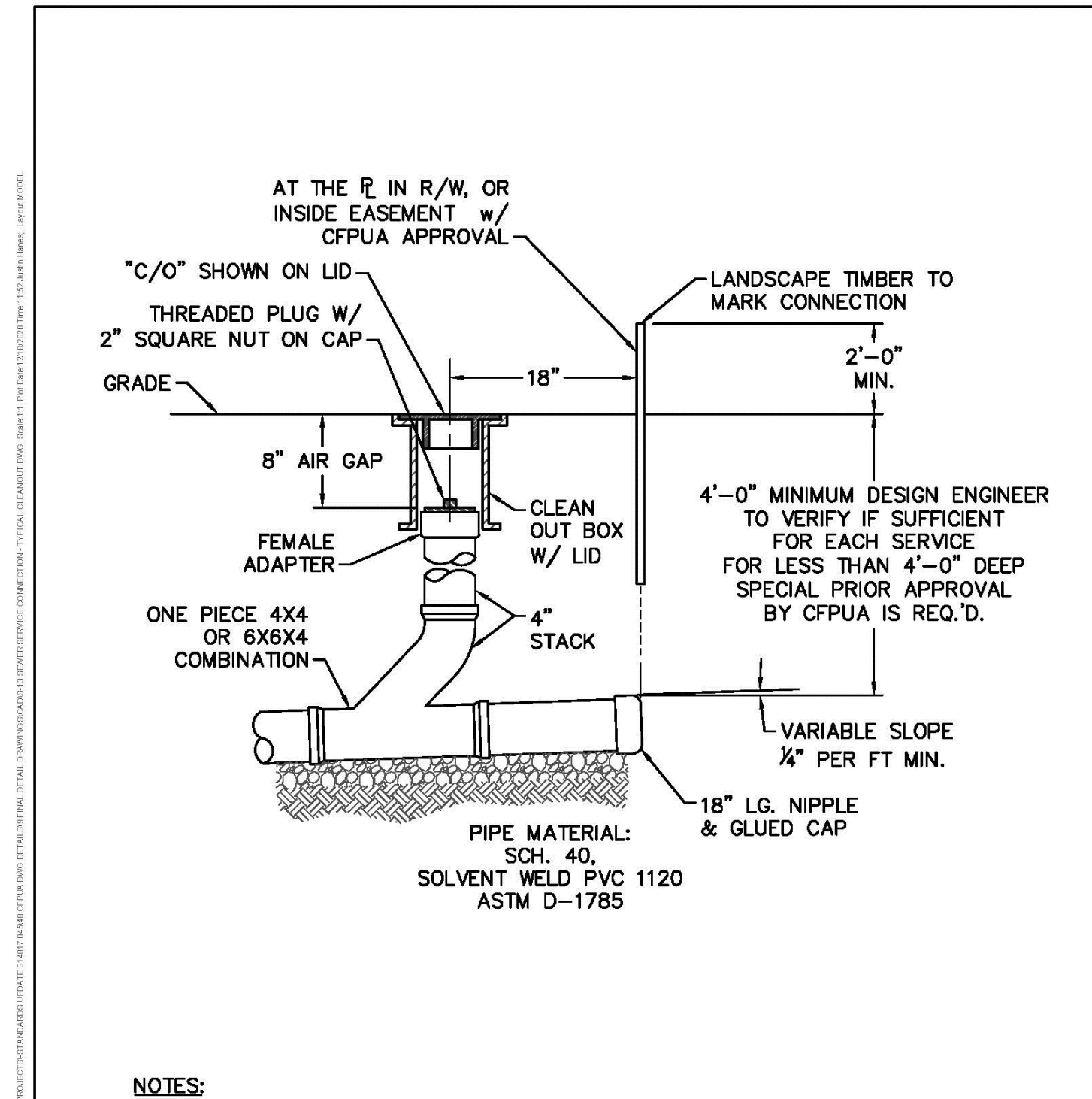
- NOTES:**
- SEWER SERVICES SHALL BE PERPENDICULAR TO MAIN. SEWER SERVICES IN CUL-DE-SACS ARE REQUIRED TO BE PERPENDICULAR, OR MUST ORIGINATE IN END OF LINE MANHOLE AND TERMINATE AT RIGHT-OF-WAY LINE.
  - ALL SERVICES CONNECTING INTO DUCTILE IRON MAINS SHALL BE CONSTRUCTED OF DIP, WITH PROTECTIVE LINING.
  - CLEANOUTS SHALL BE LOCATED A MINIMUM OF 12 FEET FROM ALL PROPERTY CORNERS.
  - MINIMUM 1'-6" NIPPLE SPACING BETWEEN FITTINGS.
  - FOR PRIVATE 8" SERVICES, MANHOLES ARE REQUIRED FOR CONNECTION TO MAIN.

DETAIL: SEWER SERVICE CONNECTION - LONG-SIDE		CAPE FEAR PUBLIC UTILITY AUTHORITY 235 GOVERNMENT CENTER DRIVE WILMINGTON, NC 28403 OFFICE: (910)332-6560 Stewardship, Sustainability, Service.	DETAIL NO: <b>S-10</b>
SCALE: NOT TO SCALE	CFPUA DETAIL DATE: 01/01/2021		SHEET NO: -



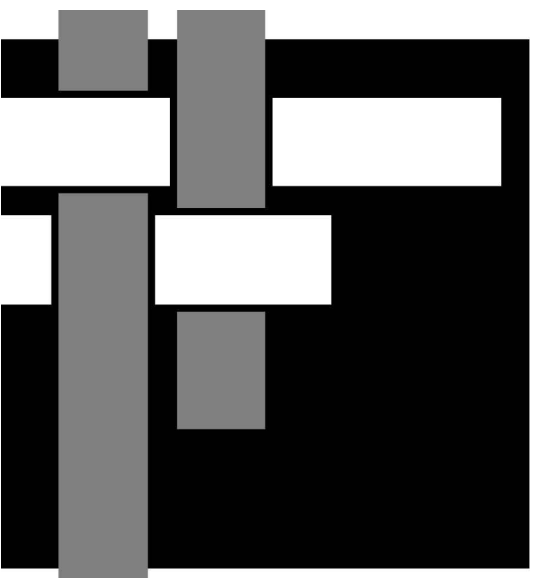
- NOTES:**
- FOR PRIVATE 8" SERVICES, MANHOLES ARE REQUIRED FOR CONNECTION TO SYSTEM AND AT THE PROPERTY LINE, WITH REQUIRED EASEMENT.
  - ALL SERVICES CONNECTING INTO DUCTILE IRON MAINS SHALL BE CONSTRUCTED OF DIP, WITH PROTECTIVE LINING.

DETAIL: SEWER SERVICE CONNECTION - MAIN TO LATERAL (LESS THAN 8' DEEP)		CAPE FEAR PUBLIC UTILITY AUTHORITY 235 GOVERNMENT CENTER DRIVE WILMINGTON, NC 28403 OFFICE: (910)332-6560 Stewardship, Sustainability, Service.	DETAIL NO: <b>S-11</b>
SCALE: NOT TO SCALE	CFPUA DETAIL DATE: 01/01/2021		SHEET NO: -



- NOTES:**
- FOR PRIVATE 8" SERVICES, MANHOLES ARE REQUIRED FOR CONNECTION TO SYSTEM AND AT THE PROPERTY LINE, WITH REQUIRED EASEMENT.
  - CLEANOUTS SHALL BE LOCATED A MINIMUM OF 12 FEET FROM ALL PROPERTY CORNERS.

DETAIL: SEWER SERVICE CONNECTION - TYPICAL CLEAN-OUT		CAPE FEAR PUBLIC UTILITY AUTHORITY 235 GOVERNMENT CENTER DRIVE WILMINGTON, NC 28403 OFFICE: (910)332-6560 Stewardship, Sustainability, Service.	DETAIL NO: <b>S-13</b>
SCALE: NOT TO SCALE	CFPUA DETAIL DATE: 01/01/2021		SHEET NO: -

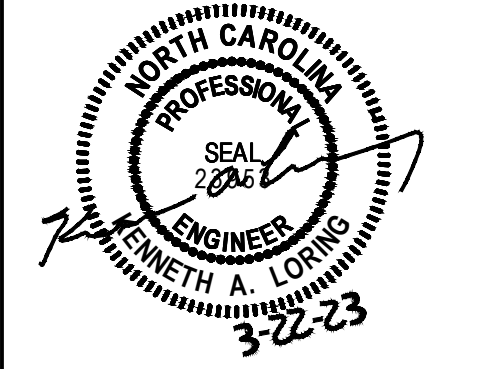


**SAWYER SHERWOOD & ASSOCIATE ARCHITECTURE**

124 Market St. Wilmington, NC 28401  
910 762-0892 s2a3.com



**CLH DESIGN, P.A.**  
 400 Regency Forest Dr.  
 Suite 120  
 Cary, NC 27518  
 Phone: 919.319.6716  
 Fax: 919.319.7316  
 LA: C-106 PE: C-1595



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 401 S. 8TH STREET  
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Revisions:

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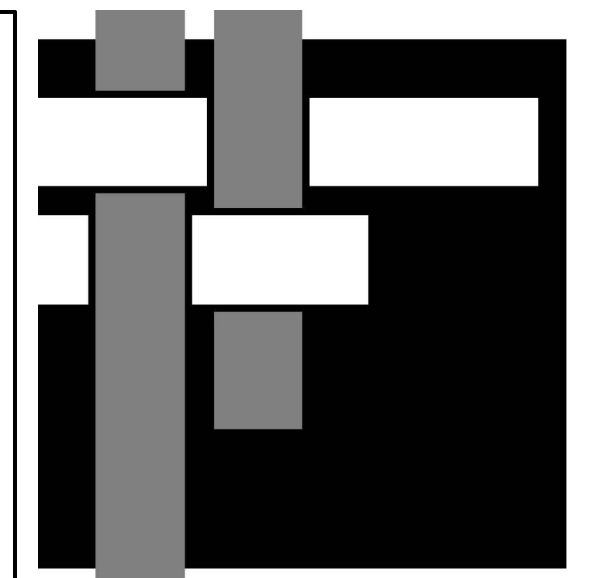
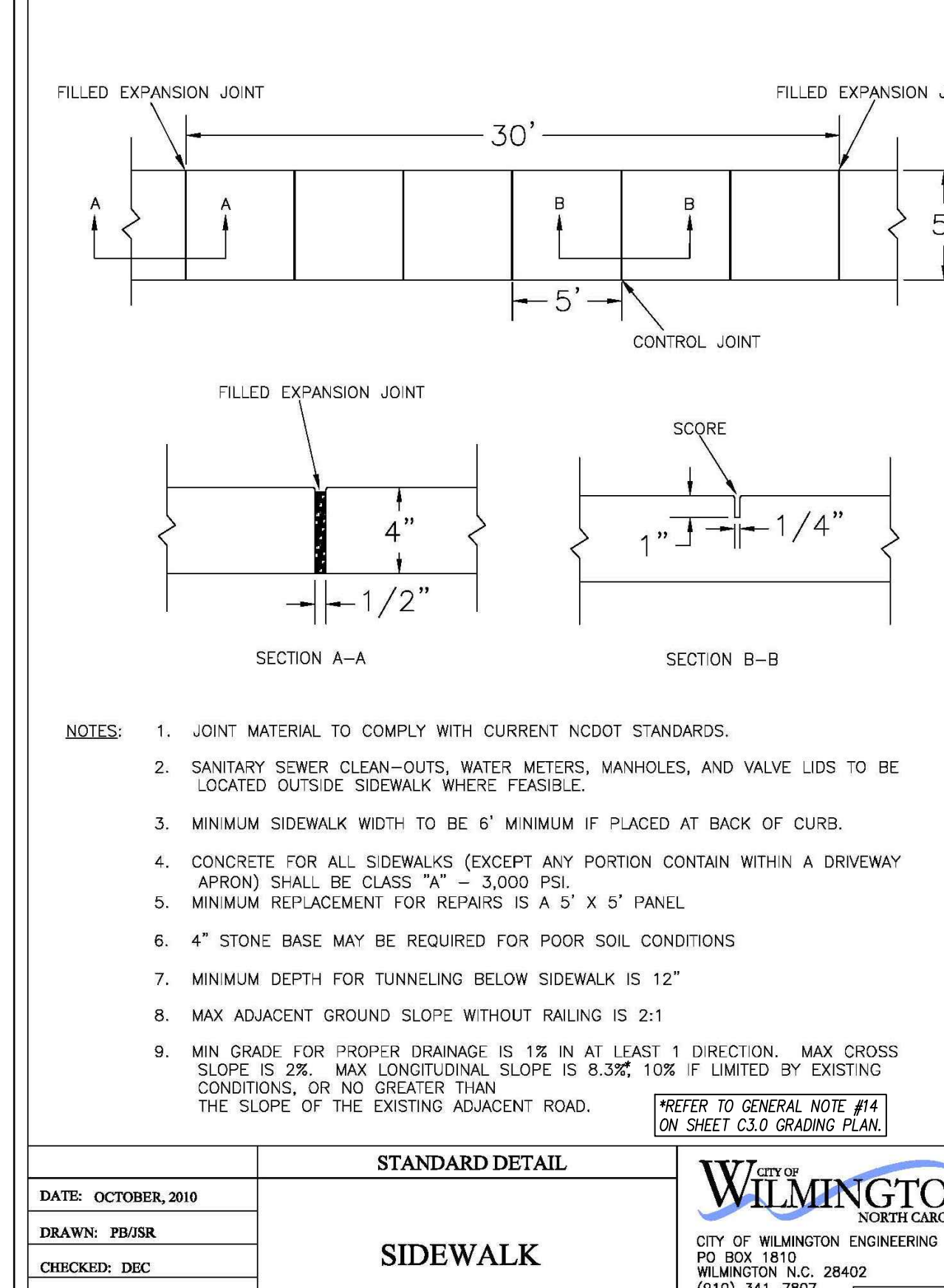
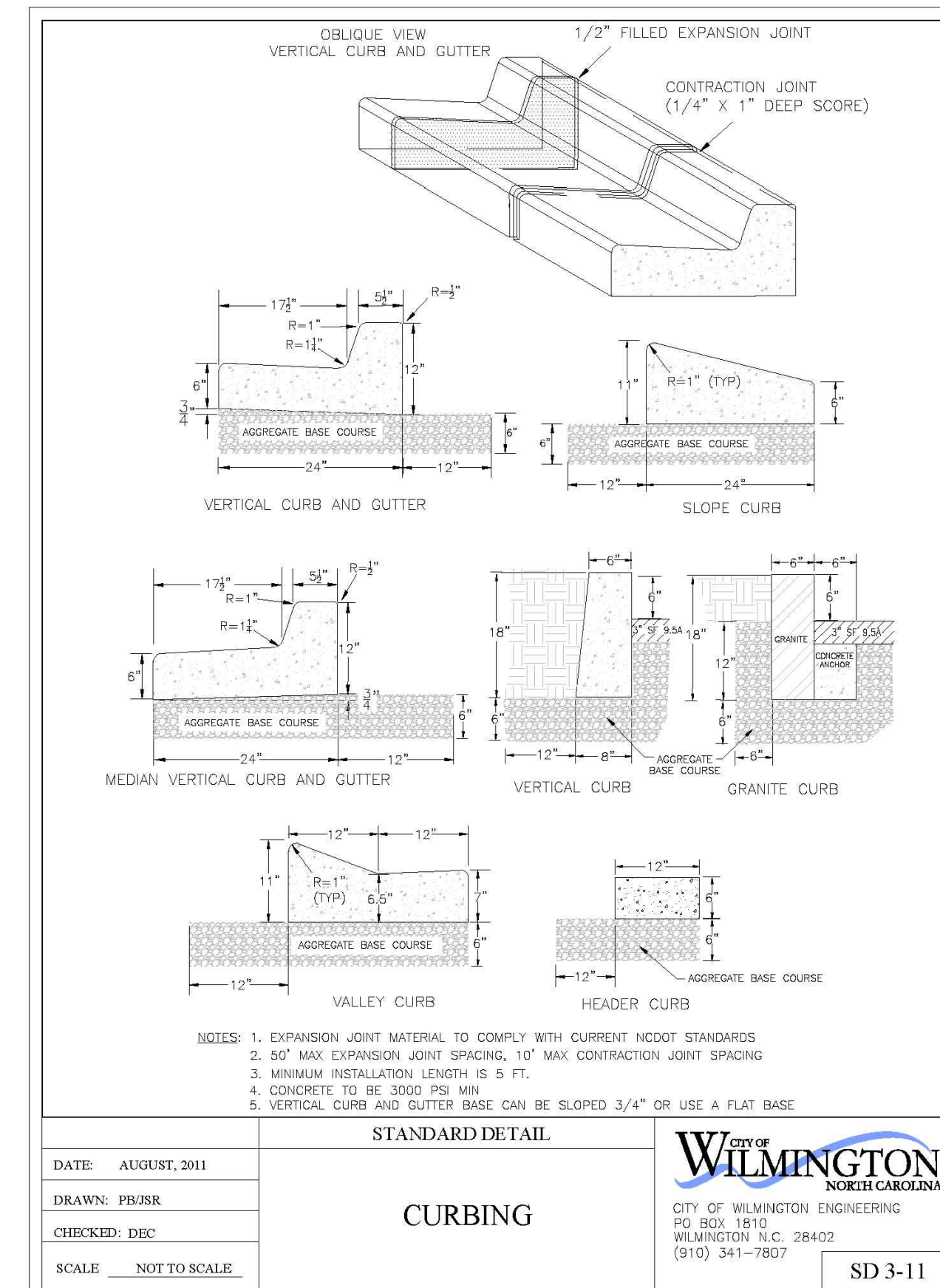
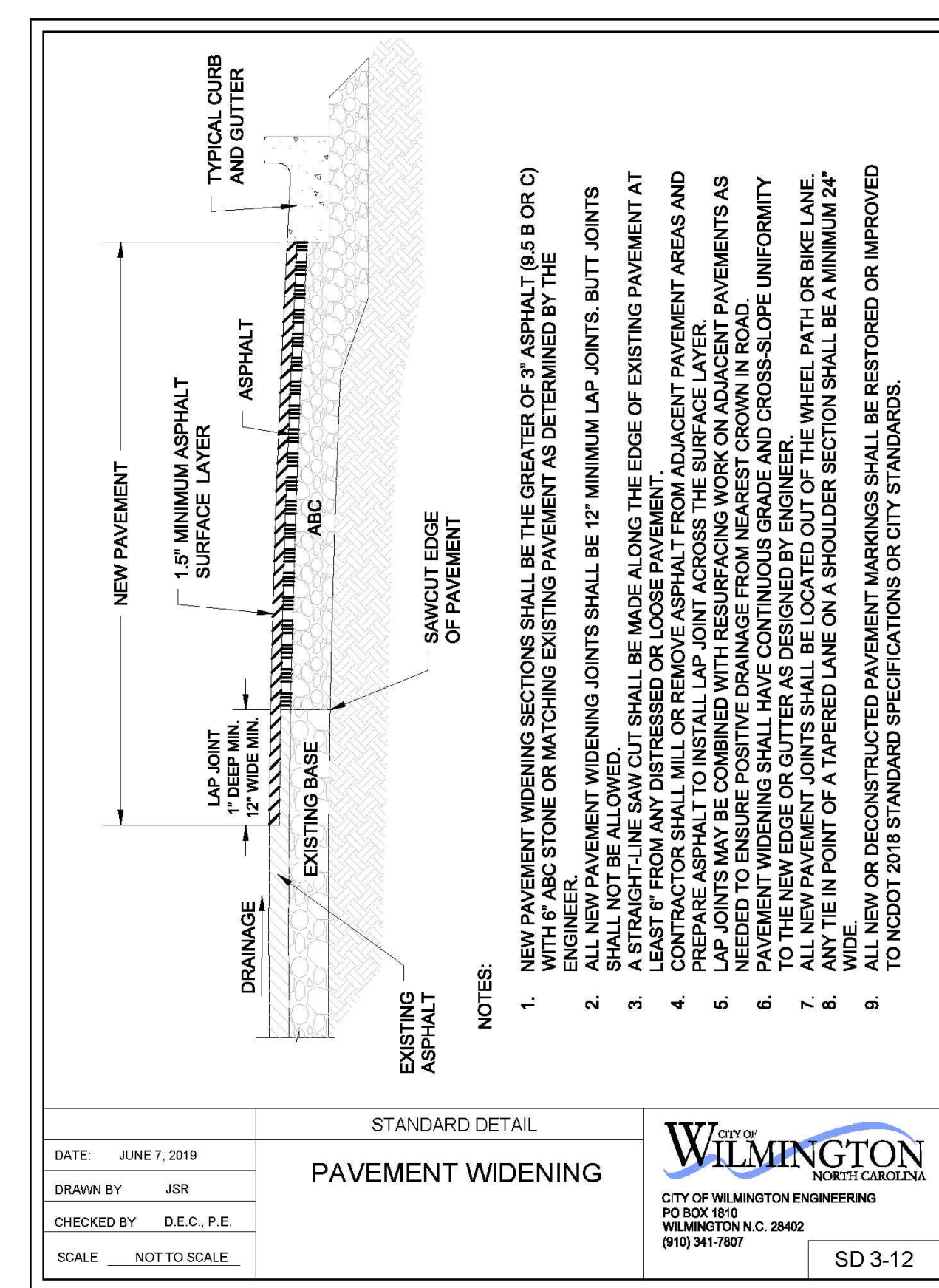
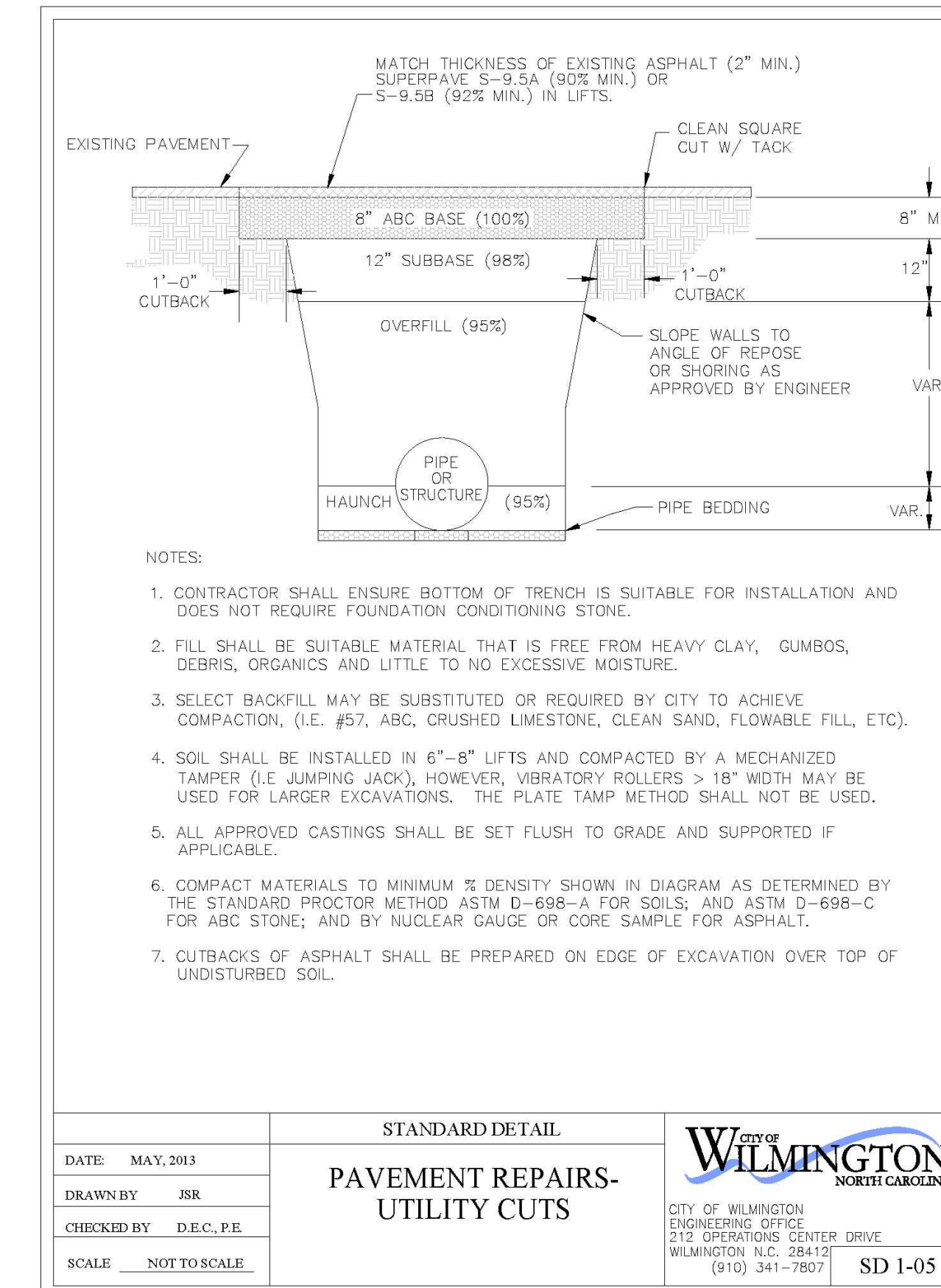
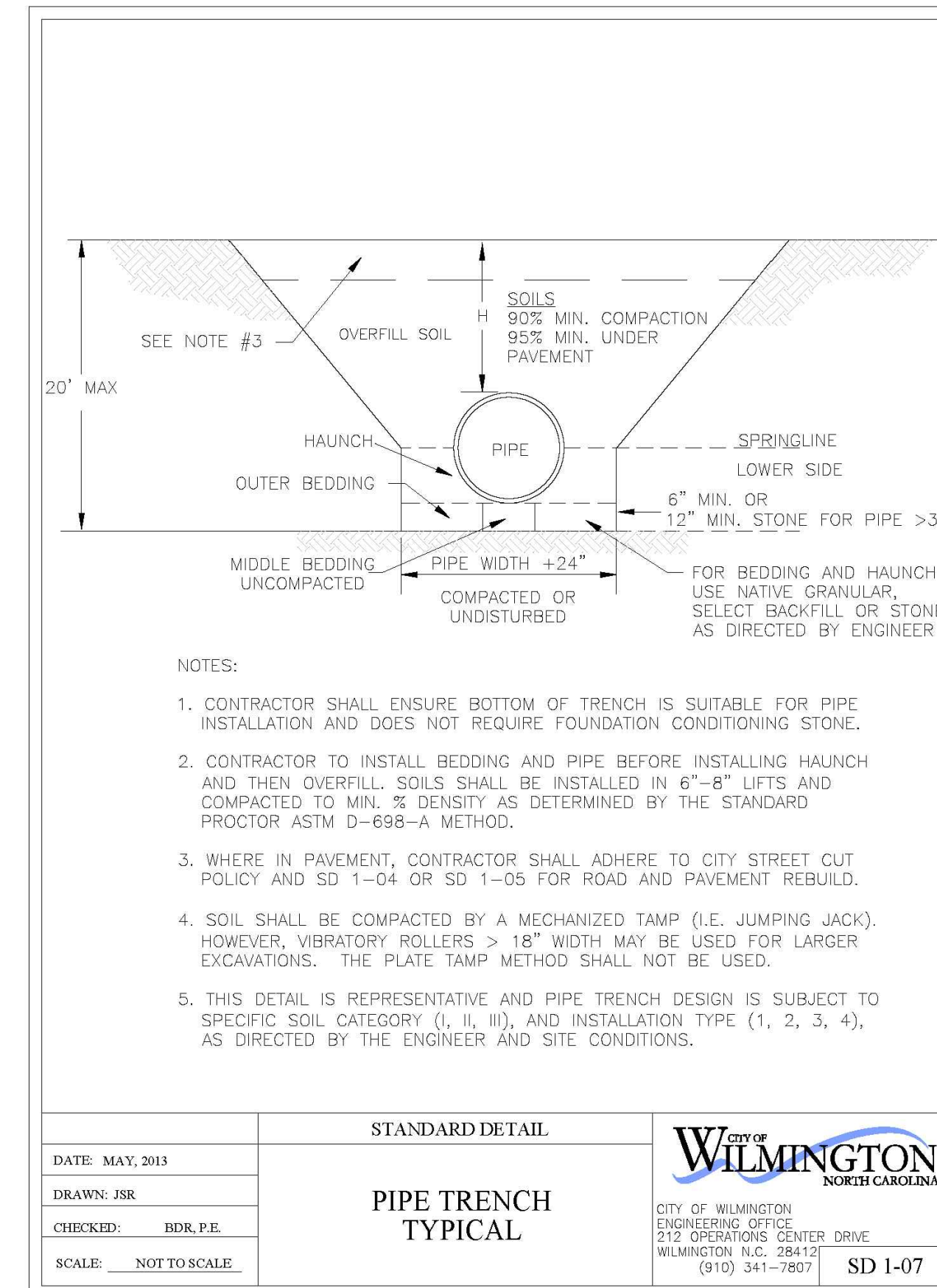
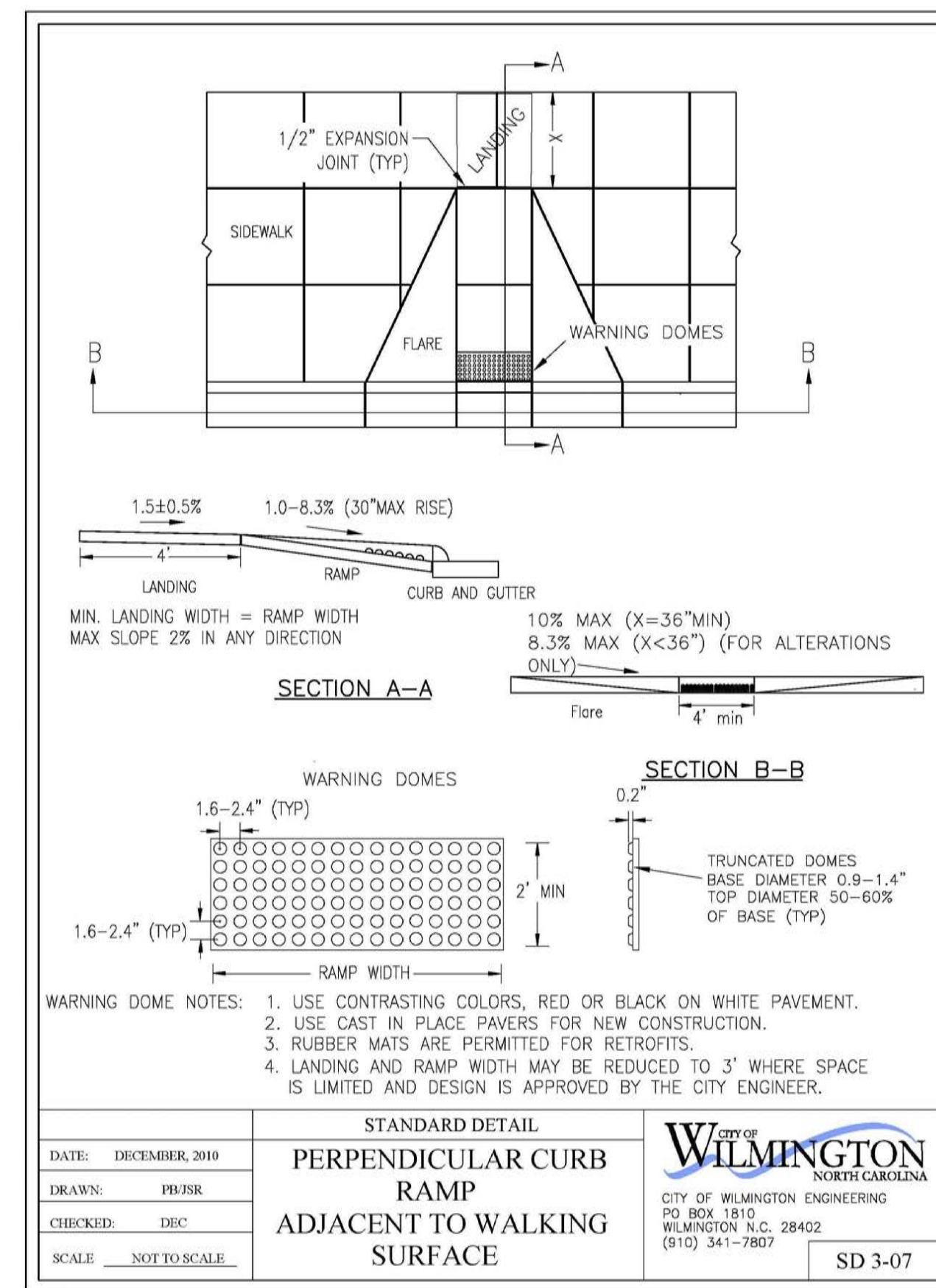
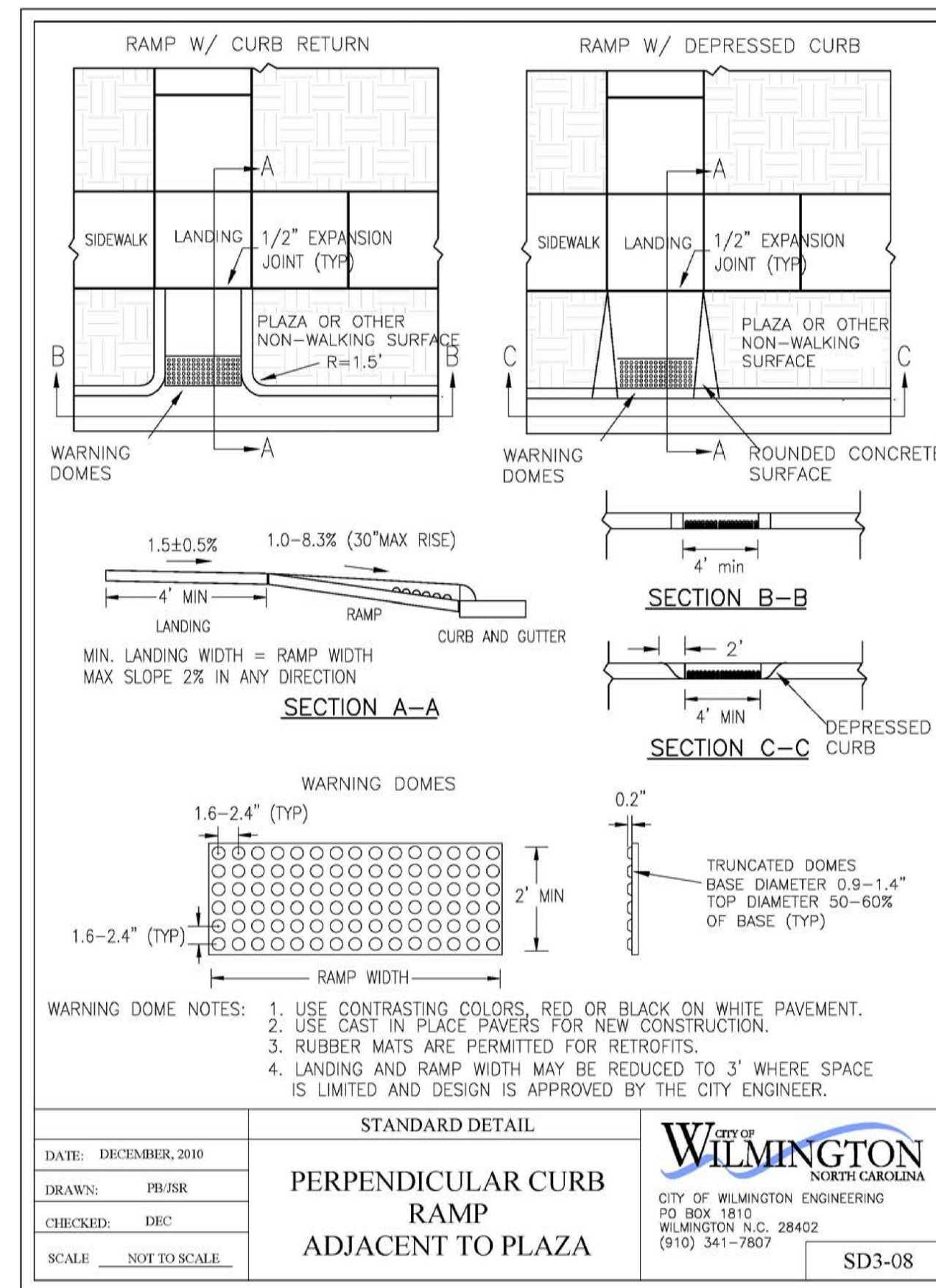
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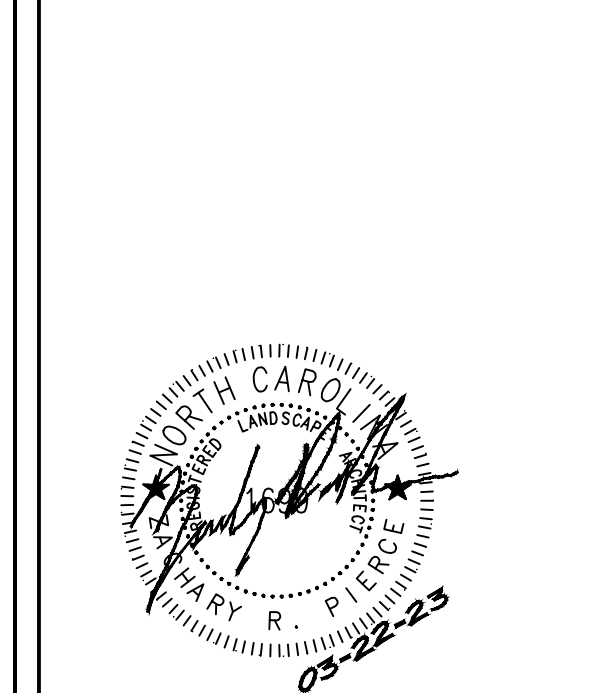
UTILITY & STORM DETAILS

**C8.3**



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 & ASSOCIATE  
 ARCHITECTURE**

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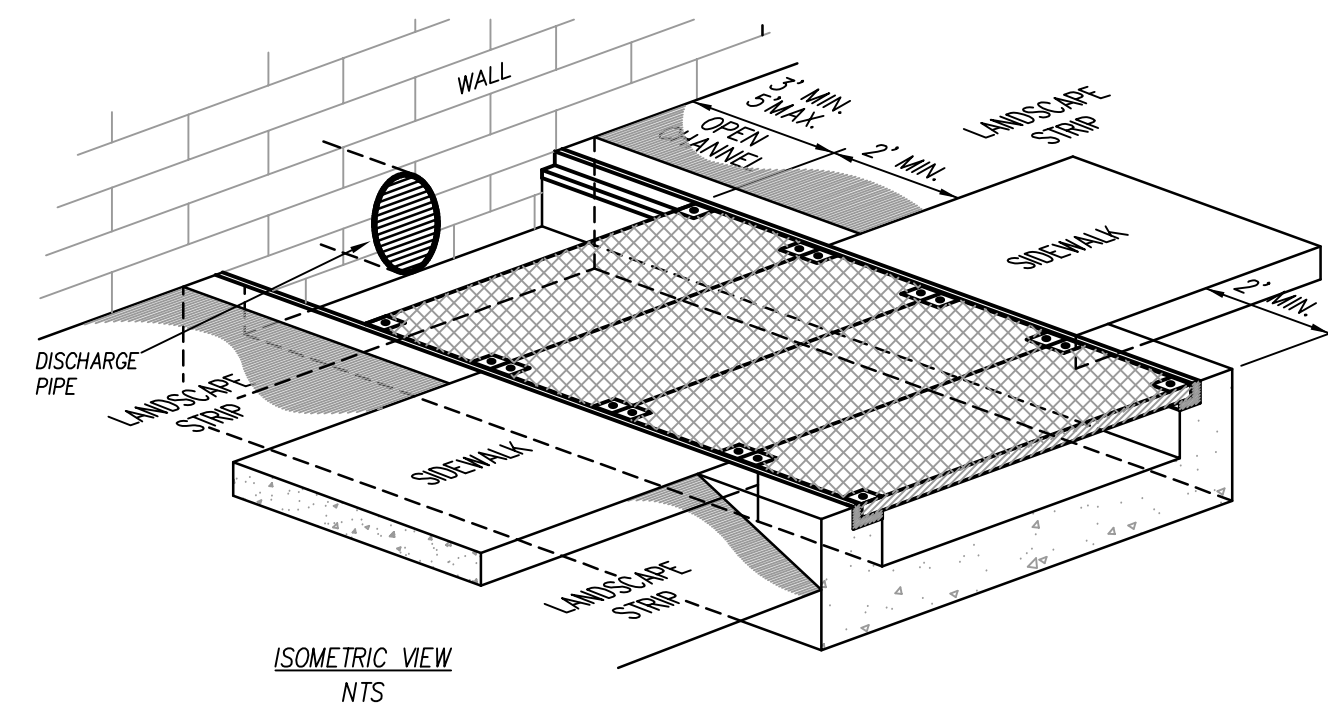
**MLK CENTER  
 ADDITION &  
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 401 S. 8TH STREET  
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100% Construction Drawings  
 March 22, 2023

Revisions:  
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SITE DETAILS

C9.1

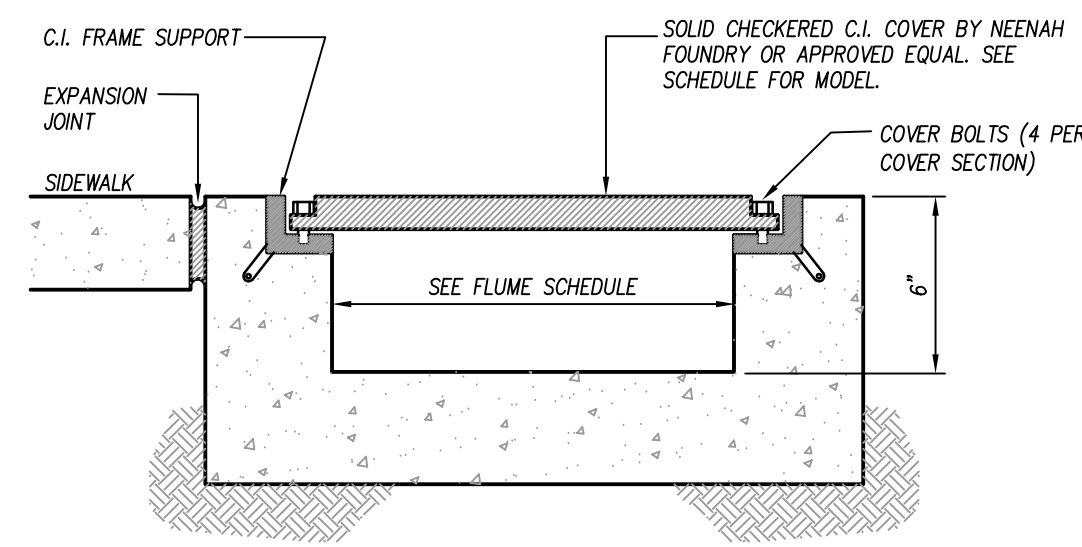


ISOMETRIC VIEW  
NTS

FLUME SCHEDULE

FLUME	INTERNAL WIDTH (IN)	CHANNEL GRADE	CHANNEL LENGTH	PERM. LINING	COVER MODEL
1	15	0.85%	188 LF	GRASS	R-1999-EX TYPE-D
2	15	2.50%	4 LF	GRASS	R-1999-EX TYPE-D
3	21	1.79%	36 LF	GRASS	R-1999-OK TYPE-D

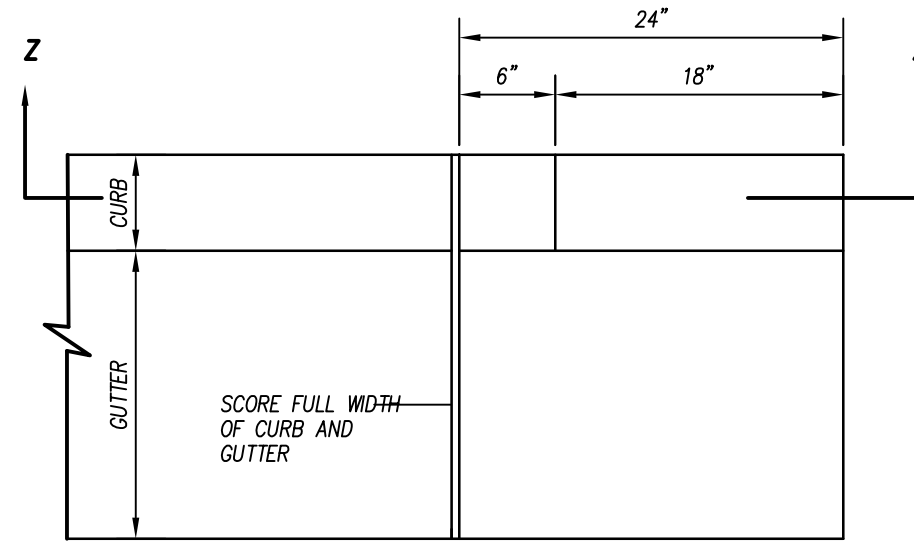
NOTES:  
1. INSTALL COVER BY MANUFACTURER'S RECOMMENDATIONS.



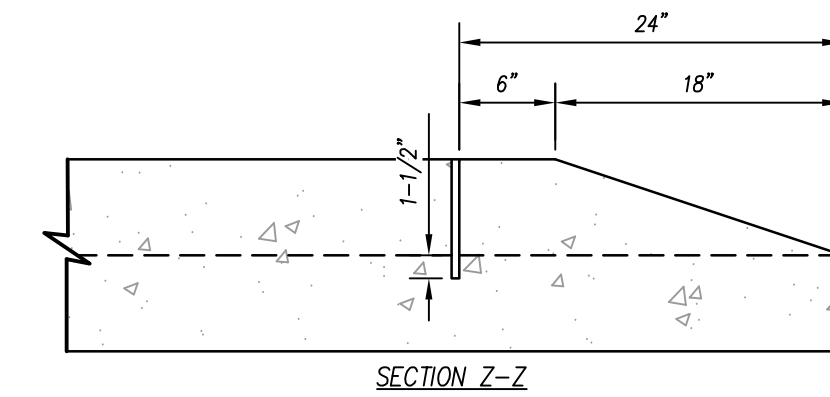
SECTION VIEW  
NTS

CONCRETE FLUME WITH CAST IRON COVER

N.T.S.



PLAN VIEW  
NTS

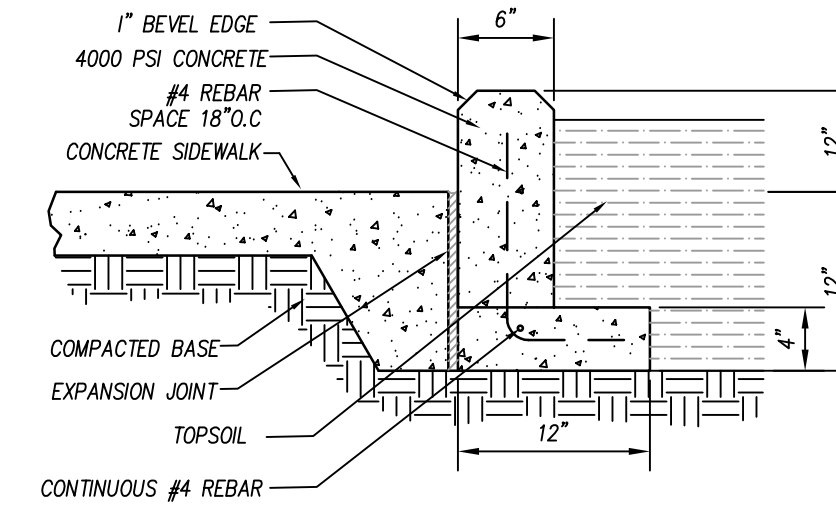


SECTION Z-Z  
NTS

STANDARD CURB & GUTTER TERMINUS

N.T.S.

- NOTES:
- ALL CONCRETE SHALL BE 4,000 P.S.I.
  - CONTRACTION JOINTS SHALL BE PLACED AT ALL CORNERS.
  - CONTRACTION JOINTS SHALL BE INSTALLED BY THE USE OF TEMPLATES OR FORMED BY OTHER APPROVED METHODS, WHERE SUCH JOINTS ARE NOT FORMED BY TEMPLATES, A MINIMUM DEPTH OF 1-1/2" SHALL BE OBTAINED.
  - EXPANSION JOINTS SHALL BE SPACED AT 90' MAX INTERVALS, AND ADJACENT TO ALL RIGID OBJECTS.
  - ALL REBAR SHALL BE #4.
  - CONCRETE SHALL BE A SMOOTH FINISH.
  - CONTRACTOR TO RUB SMOOTH AND FILL AND SURFACE VOIDS UPON REMOVAL OF FORMS.

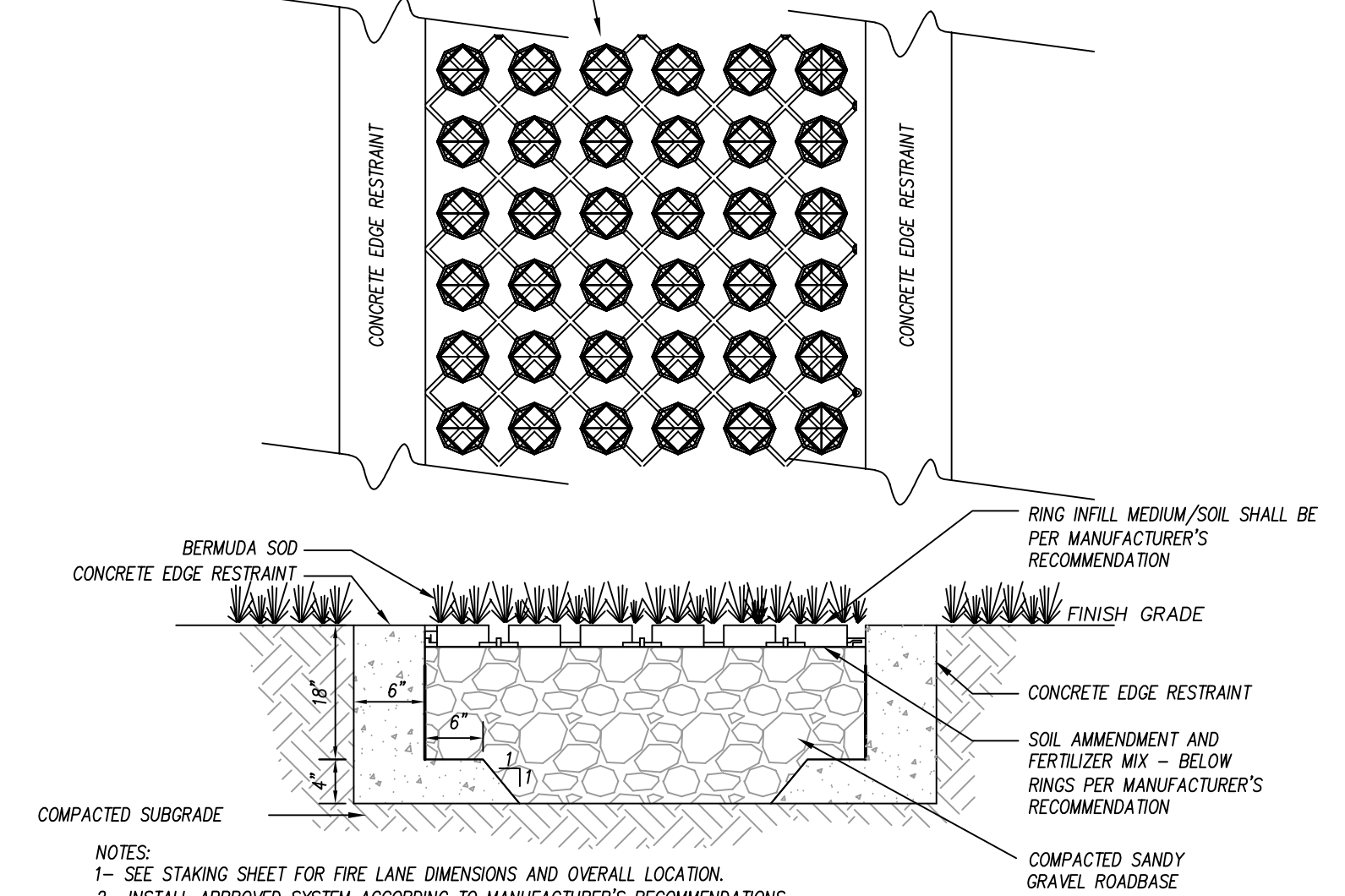


SECTION  
NTS

CONCRETE RAISED CURB

N.T.S.

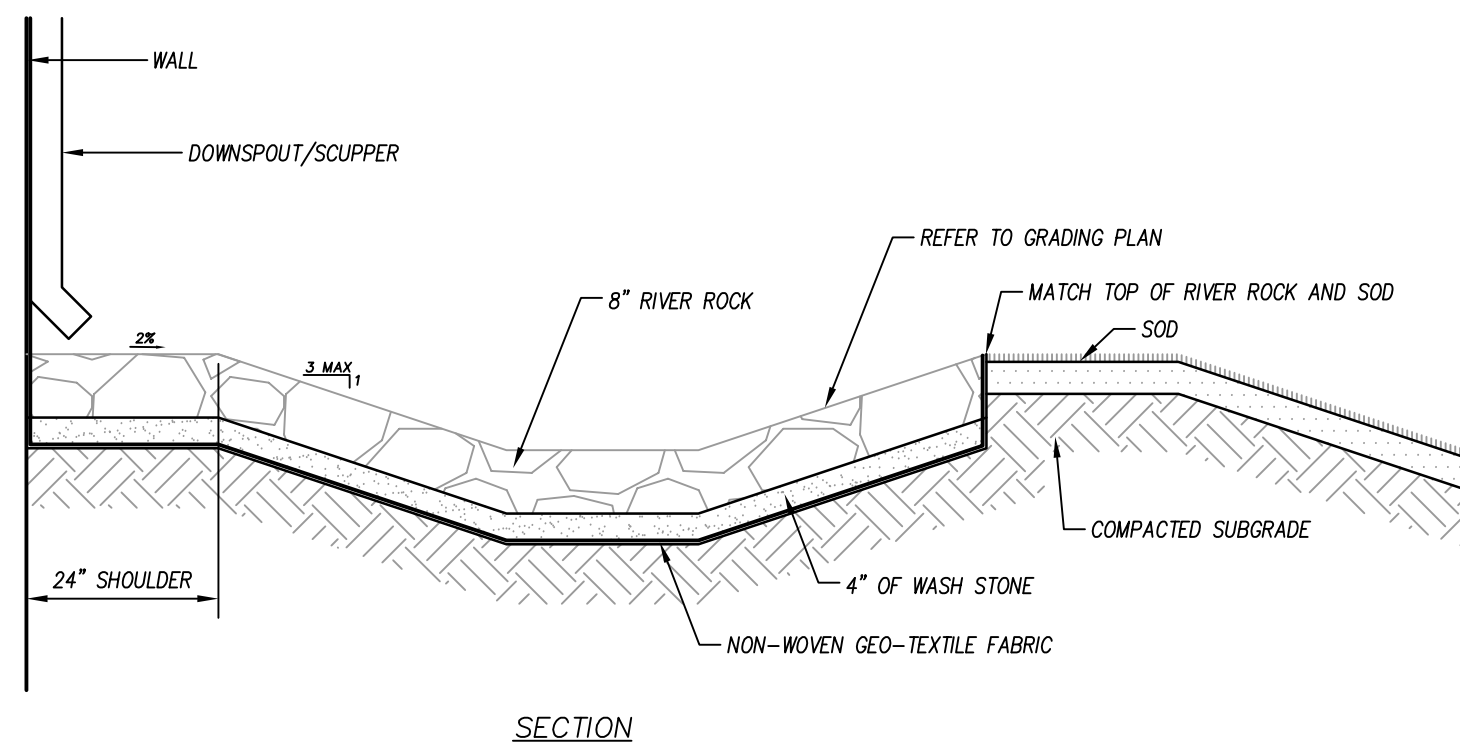
- FIRELANE- POROUS PAVING SYSTEM PROVIDE ONE (1) OF THREE PRODUCTS LISTED OR AN APPROVED EQUAL.
- GRASS PAVE 2 BY INVISIBLE STRUCTURES, INC. (1-800-233-1510)
  - HASTINGS CHECKER BLOCK BY HASTINGS PAVERS (1-800-669-9284)
  - GRASSCRETE BY BOMANITE CORPORATION (1-559-673-2411)



- NOTES:
- SEE STAKING SHEET FOR FIRE LANE DIMENSIONS AND OVERALL LOCATION.
  - INSTALL APPROVED SYSTEM ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
  - CONCRETE SHALL HAVE A 28-DAY COMPRESSIVE STRENGTH OF 4000 PSI (ASTM 39)

GEO-GRID REINFORCED GRASS SURFACE PAVING

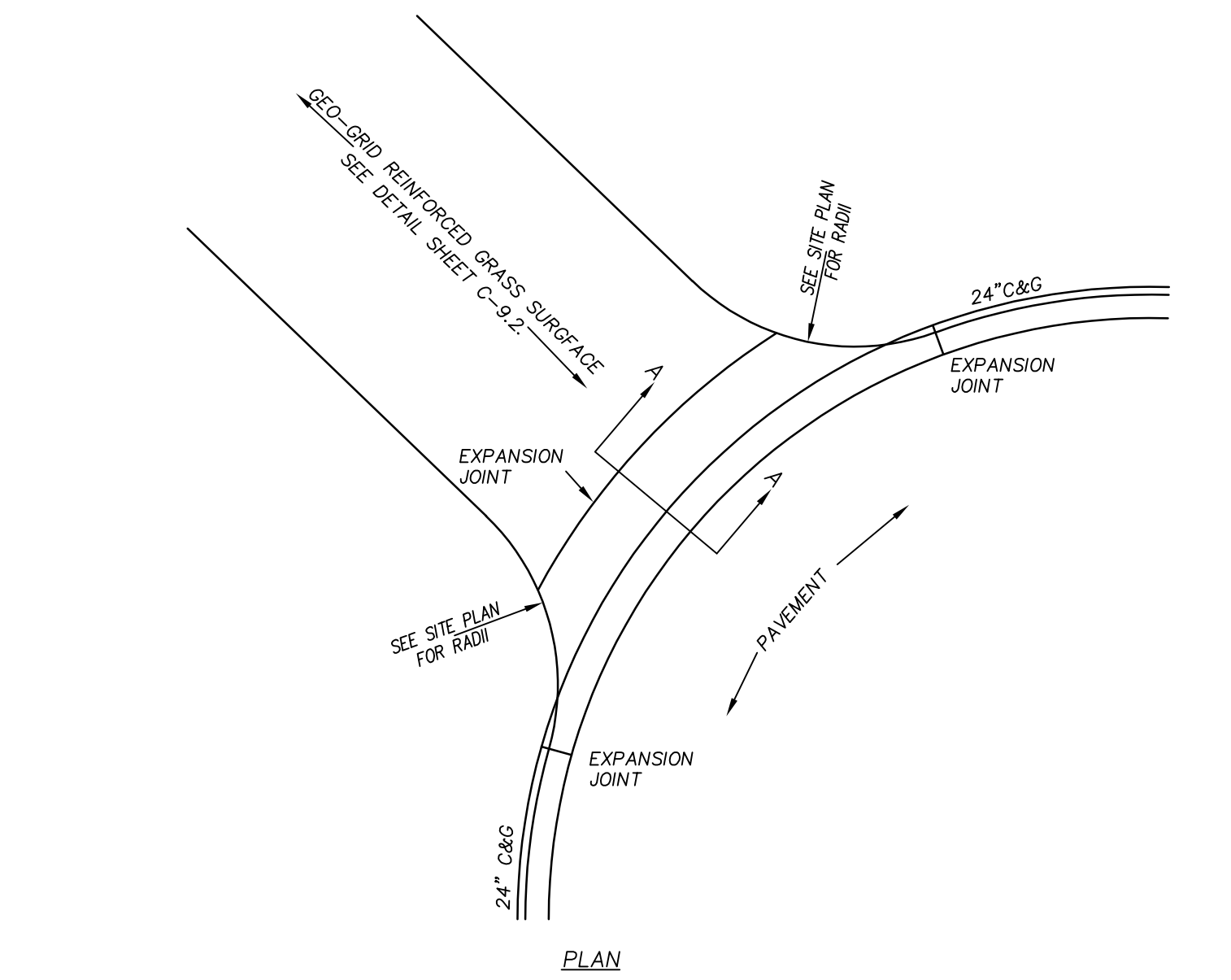
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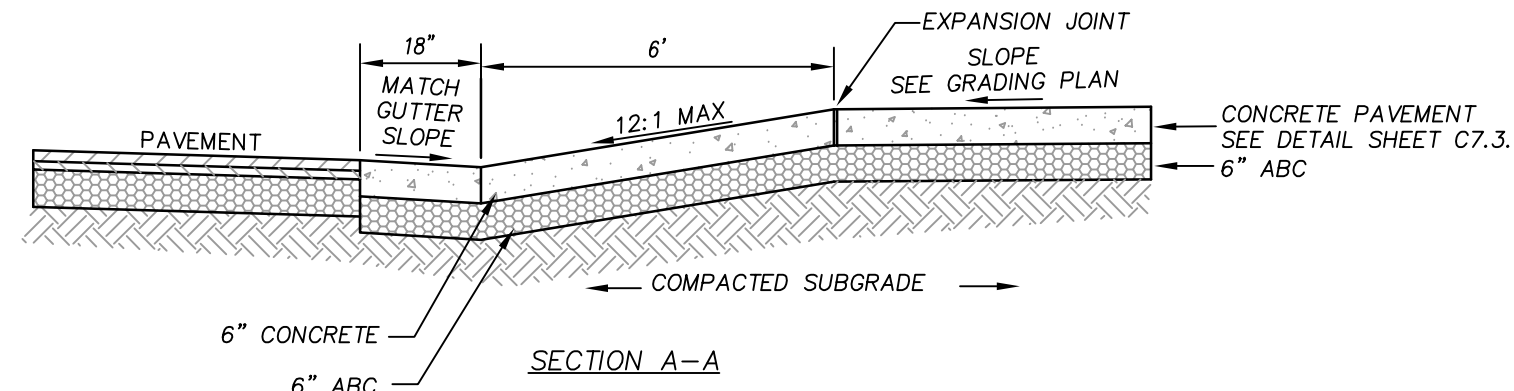
SECTION

SPLASH PAD

N.T.S.



PLAN

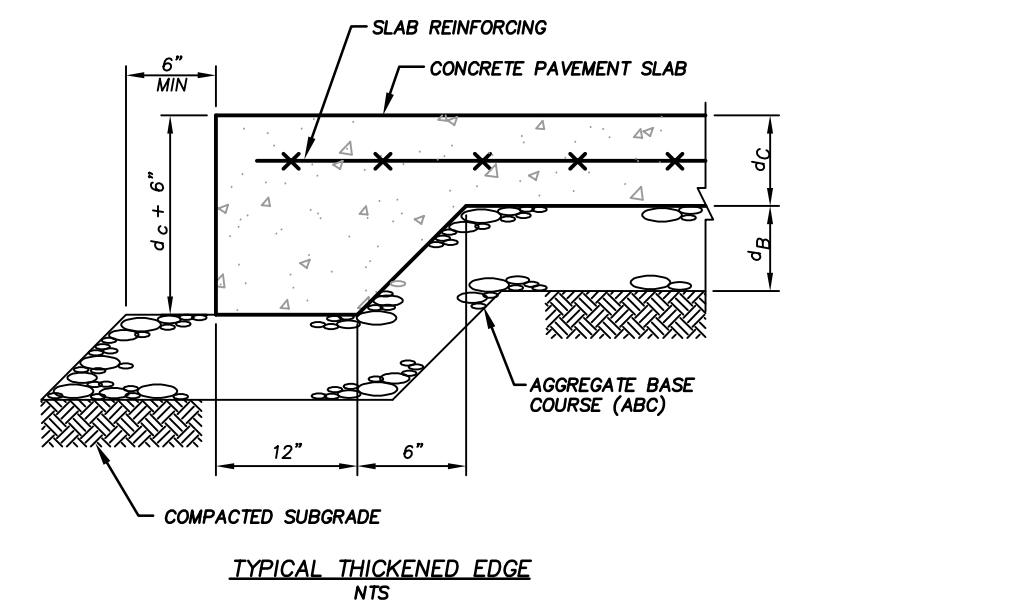


SECTION A-A

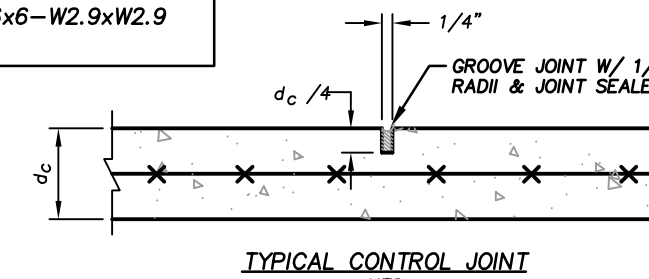
- NOTES:
- ALL CONCRETE SHALL BE 3,000 P.S.I.
  - CONTRACTION JOINTS SHALL BE SPACED AT 10' INTERVALS, SPACING MAY BE INCREASED TO 15' IF MACHINE IS USED.
  - CONTRACTION JOINTS SHALL BE INSTALLED BY THE USE OF TEMPLATES OR FORMED BY OTHER APPROVED METHODS, WHERE SUCH JOINTS ARE NOT FORMED BY TEMPLATES, A MINIMUM DEPTH OF 1-1/2" SHALL BE OBTAINED.
  - EXPANSION JOINTS SHALL BE SPACED AT 90' MAX INTERVALS, AND ADJACENT TO ALL RIGID OBJECTS.
  - ALL JOINTS SHALL BE FILLED WITH JOINT FILLER AND SEALER.

FIRE LANE ACCESS CURB RAMP

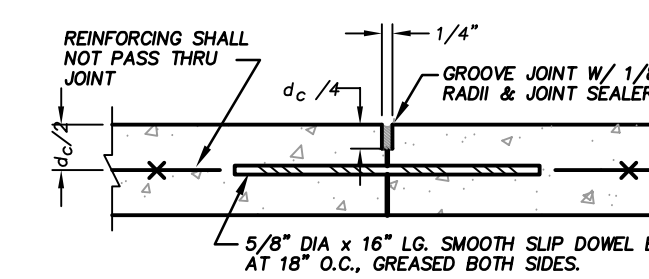
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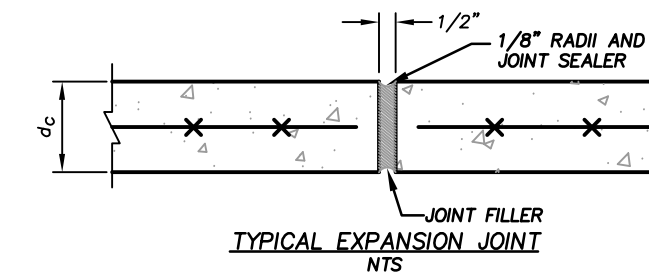
CONCRETE PAVEMENT DIMENSIONS  
CONC SLAB THICKNESS,  $d_c = 6"$   
ABC THICKNESS,  $d_B = 6"$   
REINFORCEMENT = 6x6-W2.9xW2.9



TYPICAL CONTROL JOINT  
NTS



TYPICAL CONSTRUCTION JOINT  
NTS

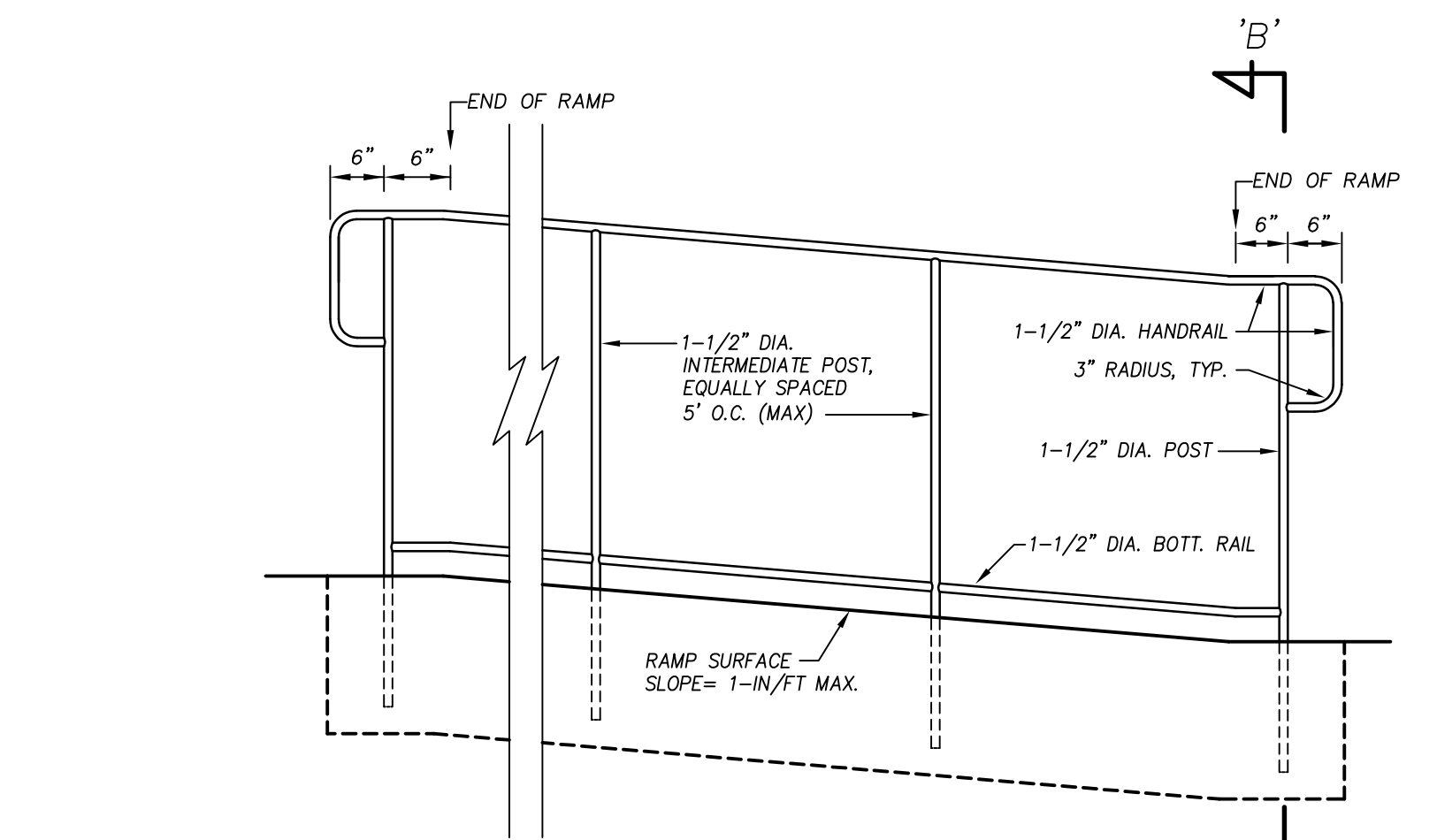


TYPICAL EXPANSION JOINT  
NTS

- NOTES:
- ALL CONCRETE SHALL HAVE A 28-DAY COMPRESSIVE STRENGTH OF 4000 PSI (ASTM C39).
  - CONTRACTION JOINTS SHALL BE SPACED AT 12 FT O.C.E.W. MAX. OR AS INDICATED ON THE PLAN.
  - EXPANSION JOINTS SHALL BE SPACED AT 50 FT O.C.E.W. MAX. OR AS INDICATED ON THE PLAN AND WHERE CONCRETE PAVEMENT ABUTS ANY RIGID OBJECT.
  - INSTALL THICKENED EDGE AT ALL EDGES OF CONCRETE PAVEMENT.

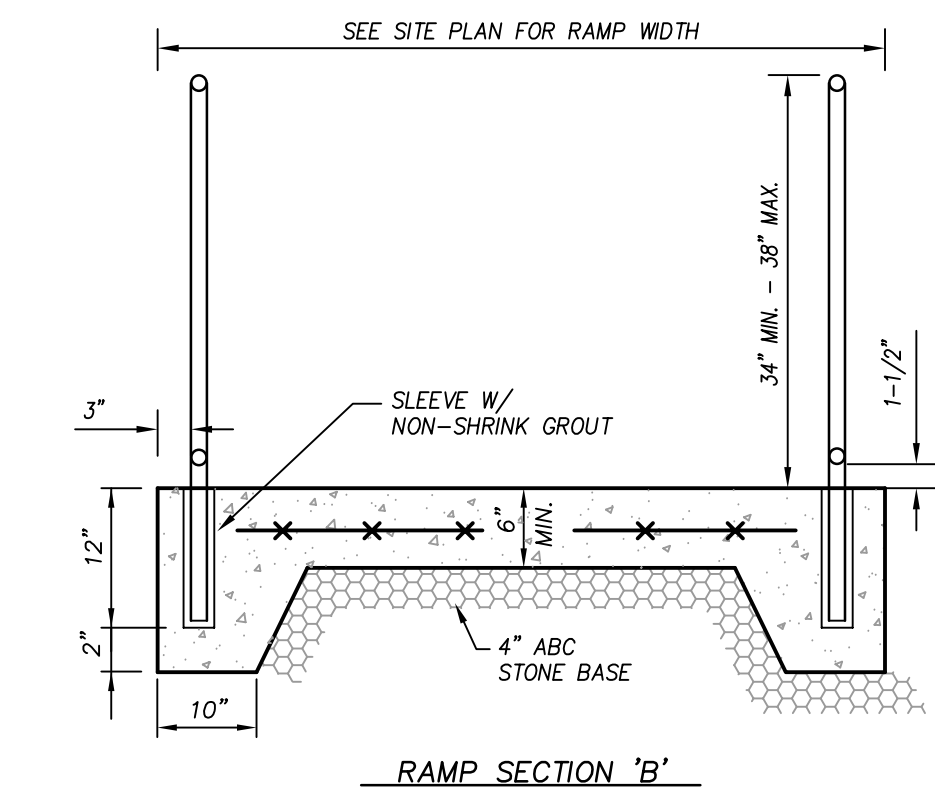
HEAVY DUTY CONCRETE PAVEMENT

N.T.S.



ELEVATION

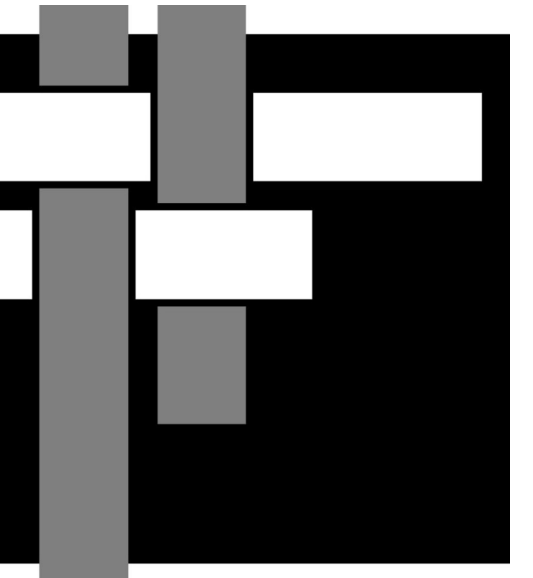
- NOTES:
- CONCRETE SHALL BE 3,000-PSI @ 28 DAYS.
  - PROVIDE NO-SLIP BROOM FINISH PERPENDICULAR TO DIRECTION OF TRAVEL.
  - HANDRAILS SHALL BE CONSTRUCTED IN ACCORDANCE WITH NC BUILDING CODE VOLUME 1-C, CHAPTER 5.4.2.
  - HANDRAILS SHALL BE SOD-40, HOT-DIP GALVANIZED STEEL (ASTM A53).
  - 12 IN. SLEEVES SHALL BE HOT-DIP GALVANIZED STEEL PIPE (ASTM A53) NOT LESS THAN 1/2 IN. MORE THAN OUTSIDE DIMENSION OF POST AND FLAT STEEL PLATE FORMING BOTTOM CLOSURE.
  - FILL VOIDS BETWEEN POST AND SLEEVE WITH NON-SHRINK ANCHORING CEMENT MIXED AND PLACED TO COMPLY WITH MANUFACTURER'S RECOMMENDATIONS.



RAMP SECTION 'B'

ACCESSIBLE RAMP WITH HANDRAILS

N.T.S.

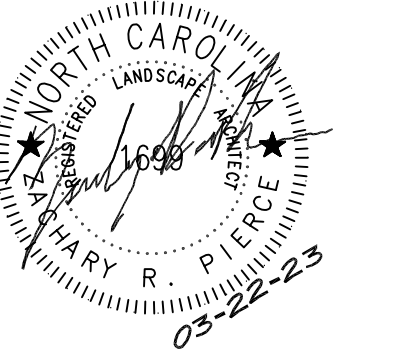


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**MLK CENTER  
ADDITION &  
RENOVATION**  
401 S. 8TH STREET  
Wilmington, NC

100% Construction Drawings  
March 22, 2023

Revisions:

SITE DETAILS

C9.2

SOUTH 8TH STREET

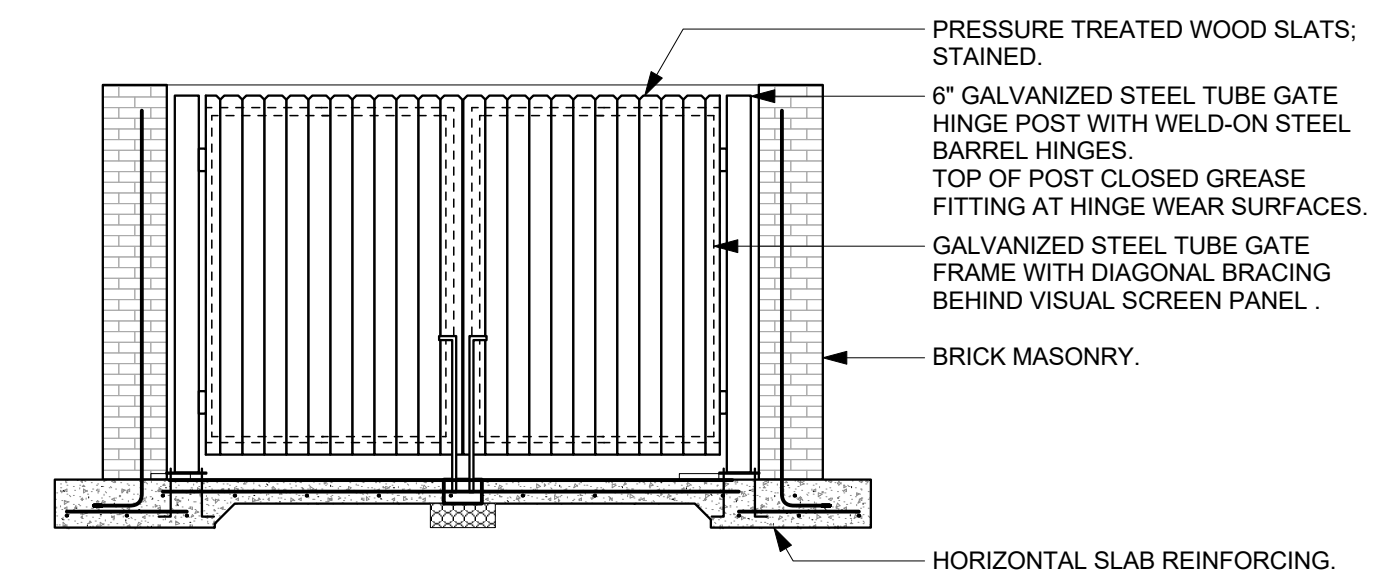
N06°15'37"W 123.71'  
FROM I.P.F. AT NW CORNER OF PLO #R0400-008-001-000  
TO SE RW INTERSECTION OF ANN & 8TH STREETS

CONSTRUCT NEW SIDEWALK PRIOR TO SEALING THE EXITS AT THE EAST SIDE OF THE EXISTING BUILDING.  
MAINTAIN PUBLIC ACCESS TO SIDEWALK AND EGRESS PATH FROM EXISTING BUILDING CLEAR DURING CONSTRUCTION.  
15'-0" FRONT SETBACK

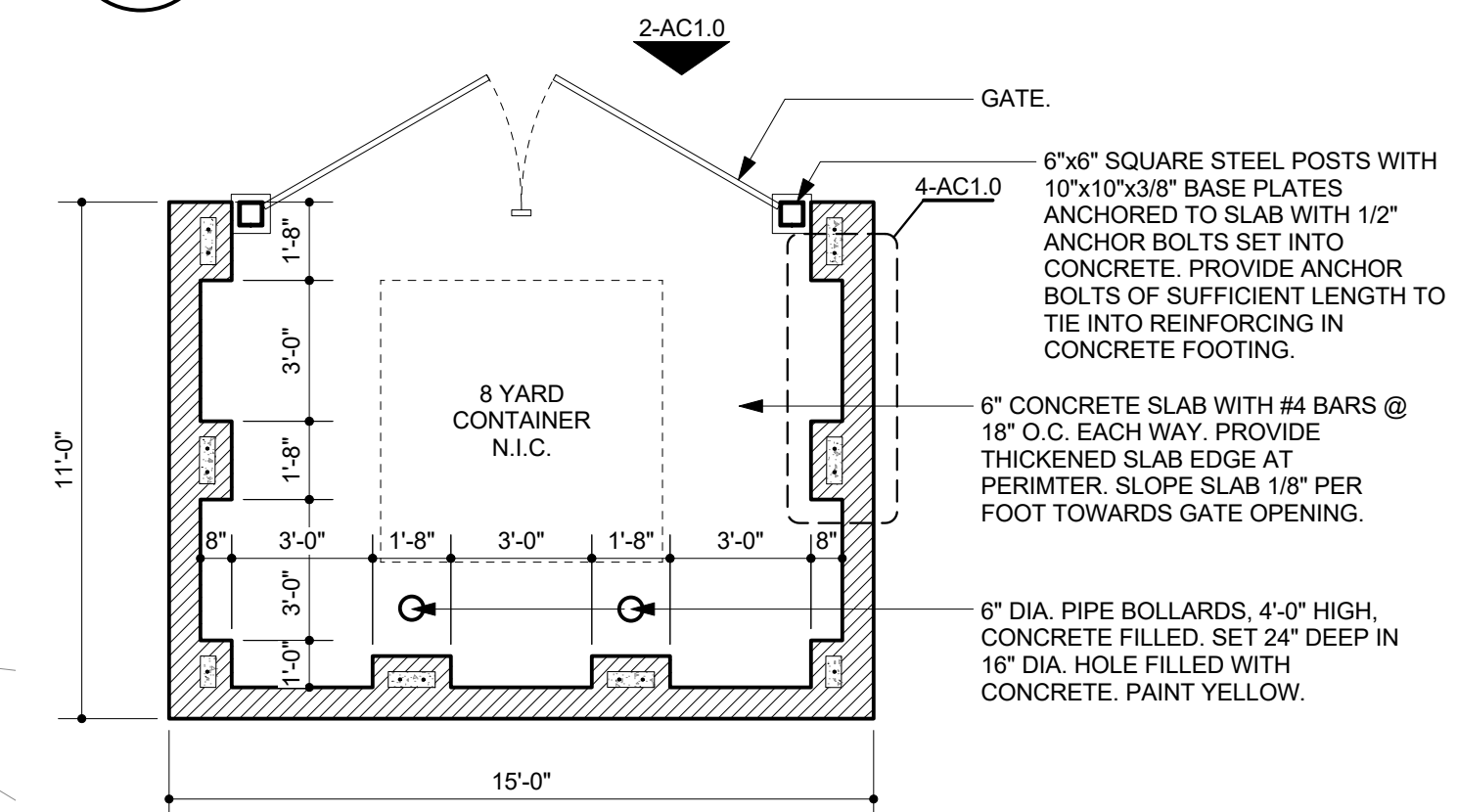
CONSTRUCTION ENTRANCE

**1** Architectural Site Plan  
AC1.0 Scale: 1" = 20'-0"

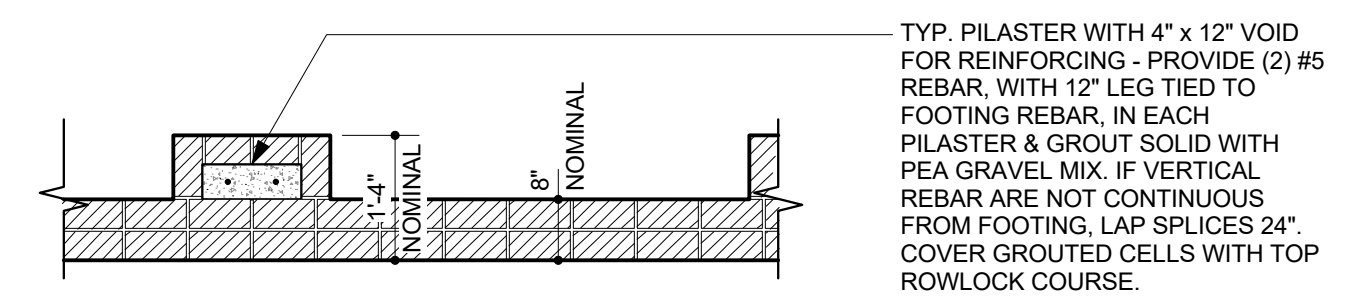
**Dumpster Enclosure Notes:**  
-Demolish asphalt paving, concrete curb and remove parking stripes to accommodate new work. Remove demolished materials and legally dispose of materials off site.  
-Steel gates and posts shall be hot dip galvanized (HDG) after fabrication. Provide HDG anchor bolts, nuts & washers for posts. Set posts plumb using leveling nuts and pack under base plates with non-shrink grout. Set top of posts one brick course down from top of walls.  
-Provide gate and post shop drawings for Architect review. Work ordered/fabricated prior to review is at contractor's risk.  
-Provide (1) 3/8" HDG cane bolt on each gate leaf. Drill holes into paving to hold gates securely in the open and closed positions.  
-Provide (2) weld-on steel barrel hinges with grease fitting on each gate leaf, similar to Item 782000 available from www.hardwareusa.com. Grease hinges after installation.  
-Paint gates, hinges, posts and bollards. Follow manufacturer's instructions for surface prep.



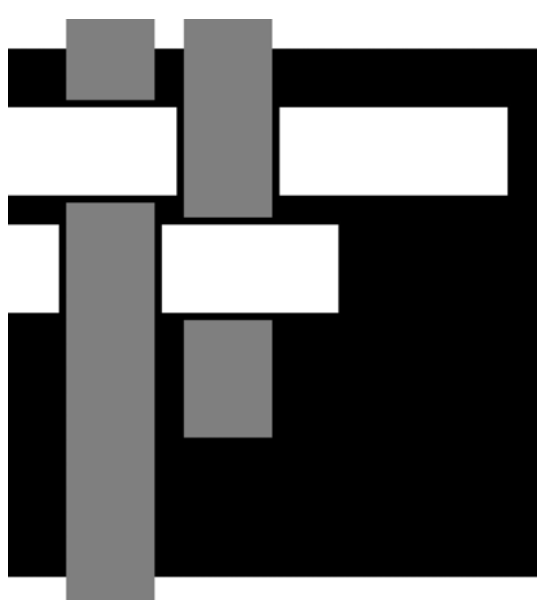
**2** Dumpster Enclosure Elevation  
AC1.0 Scale: 1/4" = 1'-0"



**3** Dumpster Enclosure Plan  
AC1.0 Scale: 1/4" = 1'-0"



**4** Dumpster Enclosure Pilaster Detail  
AC1.0 Scale: 1/2" = 1'-0"



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**MLK Community Center Addition & Renovation**  
401 S. 8th Street  
Wilmington, NC

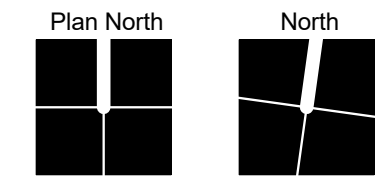
Construction Drawings  
March 22, 2023

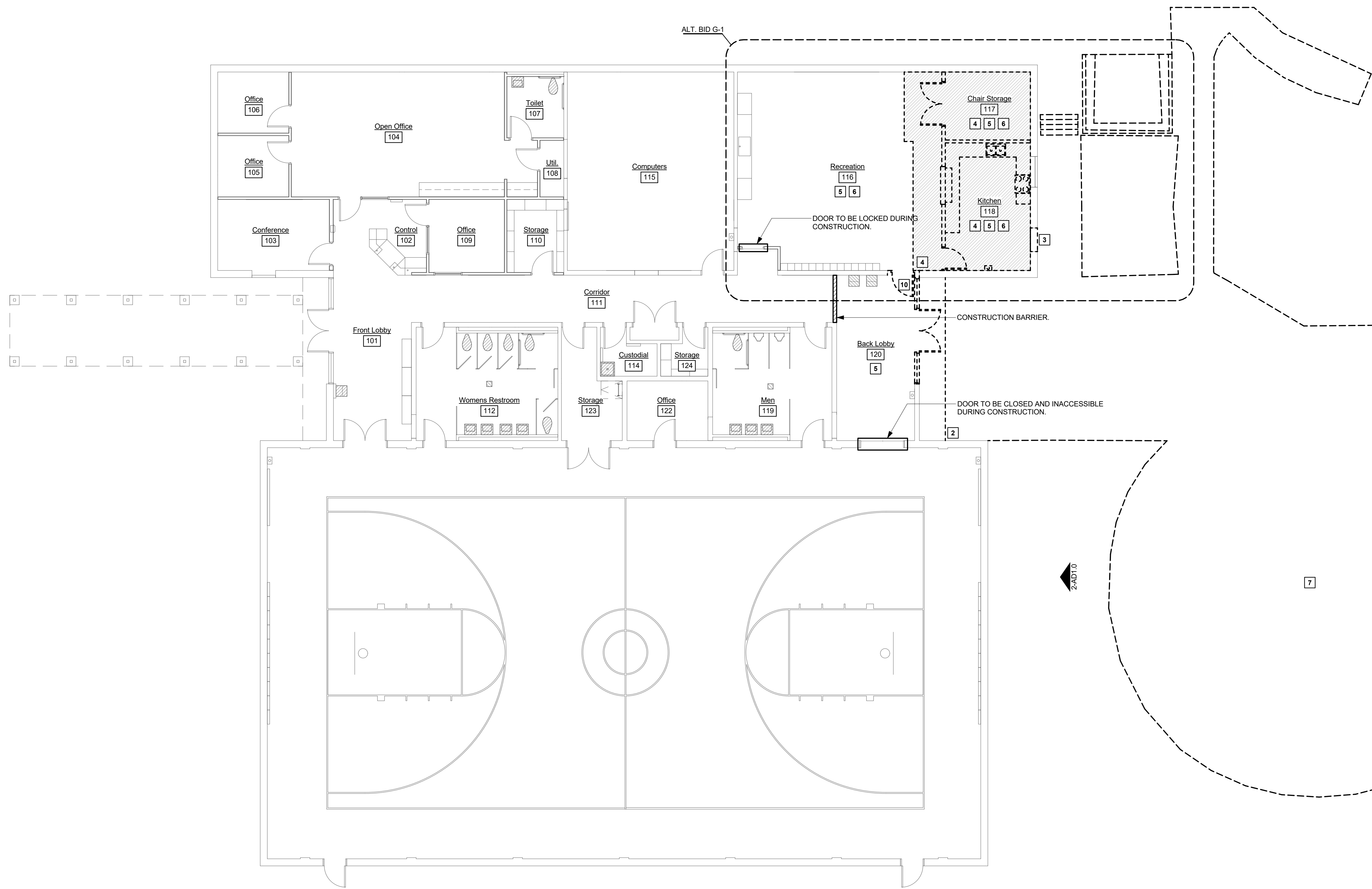
Revisions:  
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Architectural  
Site Plan

**AC1.0**  
01 of 01

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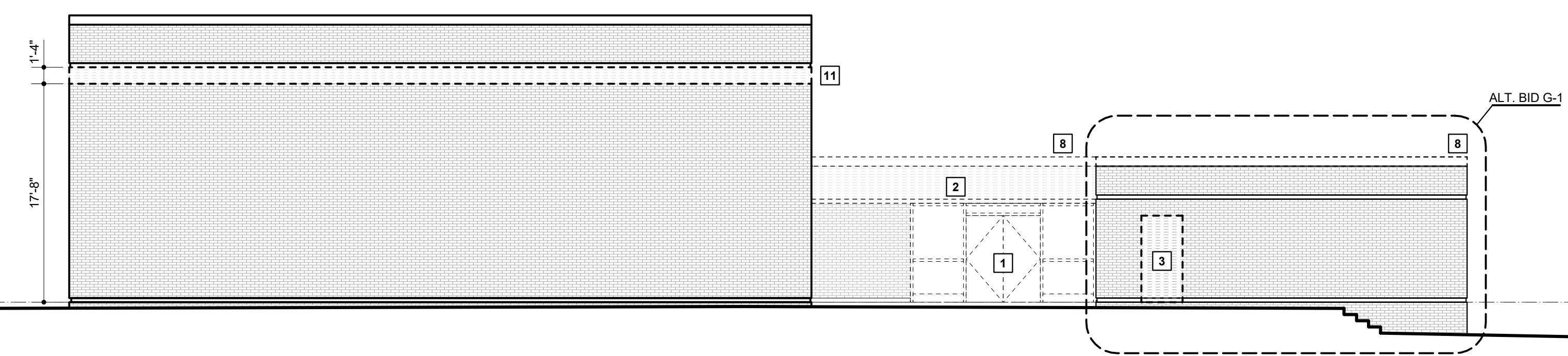




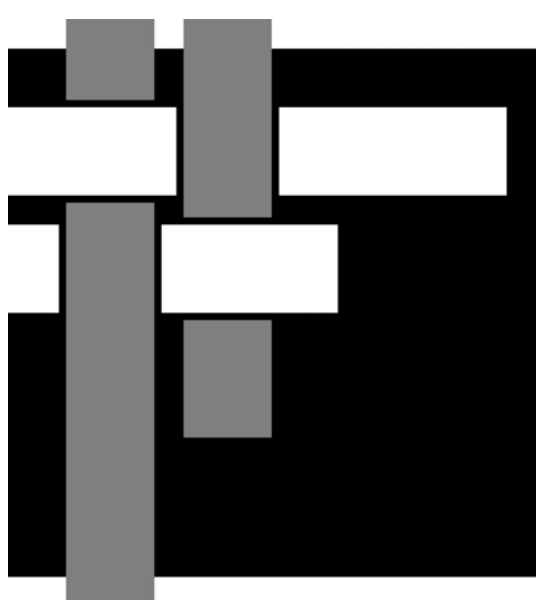
Demolition Legend	
	Existing wall to remain
	Remove wall
	Remove door, frame & hardware
	Remove/Salvage or Demolish

- Demolition Key Notes**
- Demolish existing entrance door, frame, and glazing.
  - Demolish roof overhang to face of exterior wall; including soffit, structure, brick, fascia, and roofing.
  - Cut opening for new door and door frame.
  - Demolish concrete slab as needed to install new waste piping; coordinate with PD1.0 Plumbing Demolition Plan and P1.0 Plumbing Floor Plan
  - Demolish flooring and wall base
  - Demolish ceiling grid and ceiling tile
  - Demolish site elements; see C2.0 Existing Conditions & Demo Plan for extent.
  - Demolish roof fascia.
  - Demolish brick masonry facade; interior CMU wall to remain.
  - Remove and salvage existing door for re-use.
  - Remove existing brick masonry & support brick above while new weather barrier, flashing, and brick masonry is installed.

**1** Demolition Plan  
AD1.0 Scale: 1/8" = 1'-0"



**2** East Demolition Building Elevation  
AD1.0 Scale: 1/8" = 1'-0"



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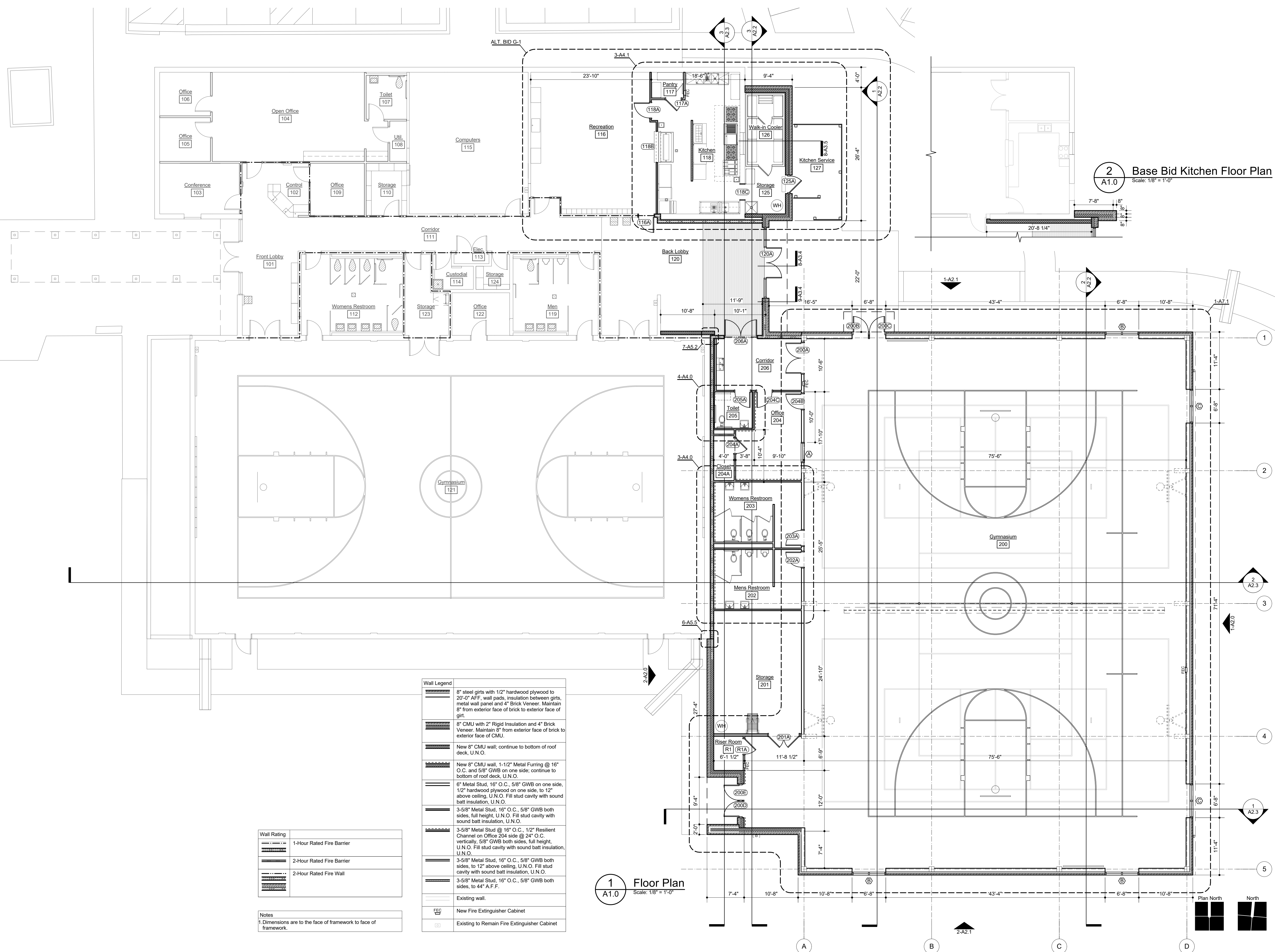
**MLK Center  
Addition &  
Renovation**  
401 S. 8th Street  
Wilmington, NC

Construction Drawings  
March 22, 2023

Revisions:  
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Demolition Plan  
& Elevation

**AD1.0**  
01 of 01



**2**  
A1.0 Base Bid Kitchen Floor Plan  
Scale: 1/8" = 1'-0"

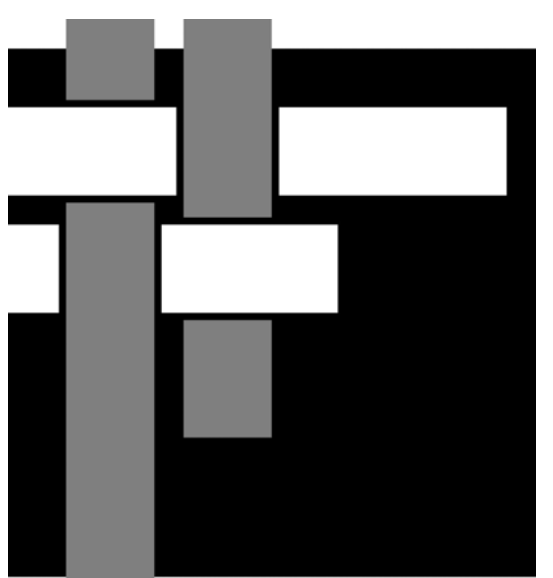
**1**  
A1.0 Floor Plan  
Scale: 1/8" = 1'-0"

Wall Rating	Description
[Symbol]	1-Hour Rated Fire Barrier
[Symbol]	2-Hour Rated Fire Barrier
[Symbol]	2-Hour Rated Fire Wall

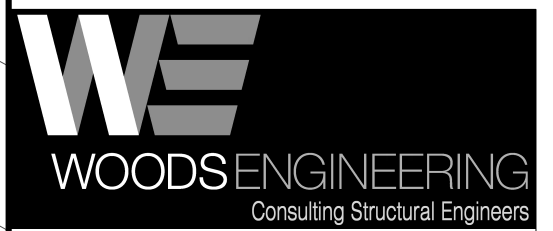
Wall Legend	Description
[Symbol]	8" steel girts with 1/2" hardwood plywood to 20'-0" A.F.F. wall pads; insulation between girts, metal wall panel and 4" Brick Veneer. Maintain 8" from exterior face of brick to exterior face of girt.
[Symbol]	8" CMU with 2" Rigid Insulation and 4" Brick Veneer. Maintain 8" from exterior face of brick to exterior face of CMU.
[Symbol]	New 8" CMU wall; continue to bottom of roof deck, U.N.O.
[Symbol]	New 8" CMU wall, 1-1/2" Metal Furring @ 16" O.C. and 5/8" GWB on one side; continue to bottom of roof deck, U.N.O.
[Symbol]	6" Metal Stud, 16" O.C., 5/8" GWB on one side, 1/2" hardwood plywood on one side, to 12" above ceiling, U.N.O. Fill stud cavity with sound batt insulation, U.N.O.
[Symbol]	3-5/8" Metal Stud, 16" O.C., 5/8" GWB both sides, full height, U.N.O. Fill stud cavity with sound batt insulation, U.N.O.
[Symbol]	3-5/8" Metal Stud @ 16" O.C., 1/2" Resilient Channel on Office 204 side @ 24" O.C. vertically; 5/8" GWB both sides, full height, U.N.O. Fill stud cavity with sound batt insulation, U.N.O.
[Symbol]	3-5/8" Metal Stud, 16" O.C., 5/8" GWB both sides, to 12" above ceiling, U.N.O. Fill stud cavity with sound batt insulation, U.N.O.
[Symbol]	3-5/8" Metal Stud, 16" O.C., 5/8" GWB both sides, to 44" A.F.F.
[Symbol]	Existing wall.
[Symbol]	New Fire Extinguisher Cabinet
[Symbol]	Existing to Remain Fire Extinguisher Cabinet

**Notes**  
1. Dimensions are to the face of framework to face of framework.



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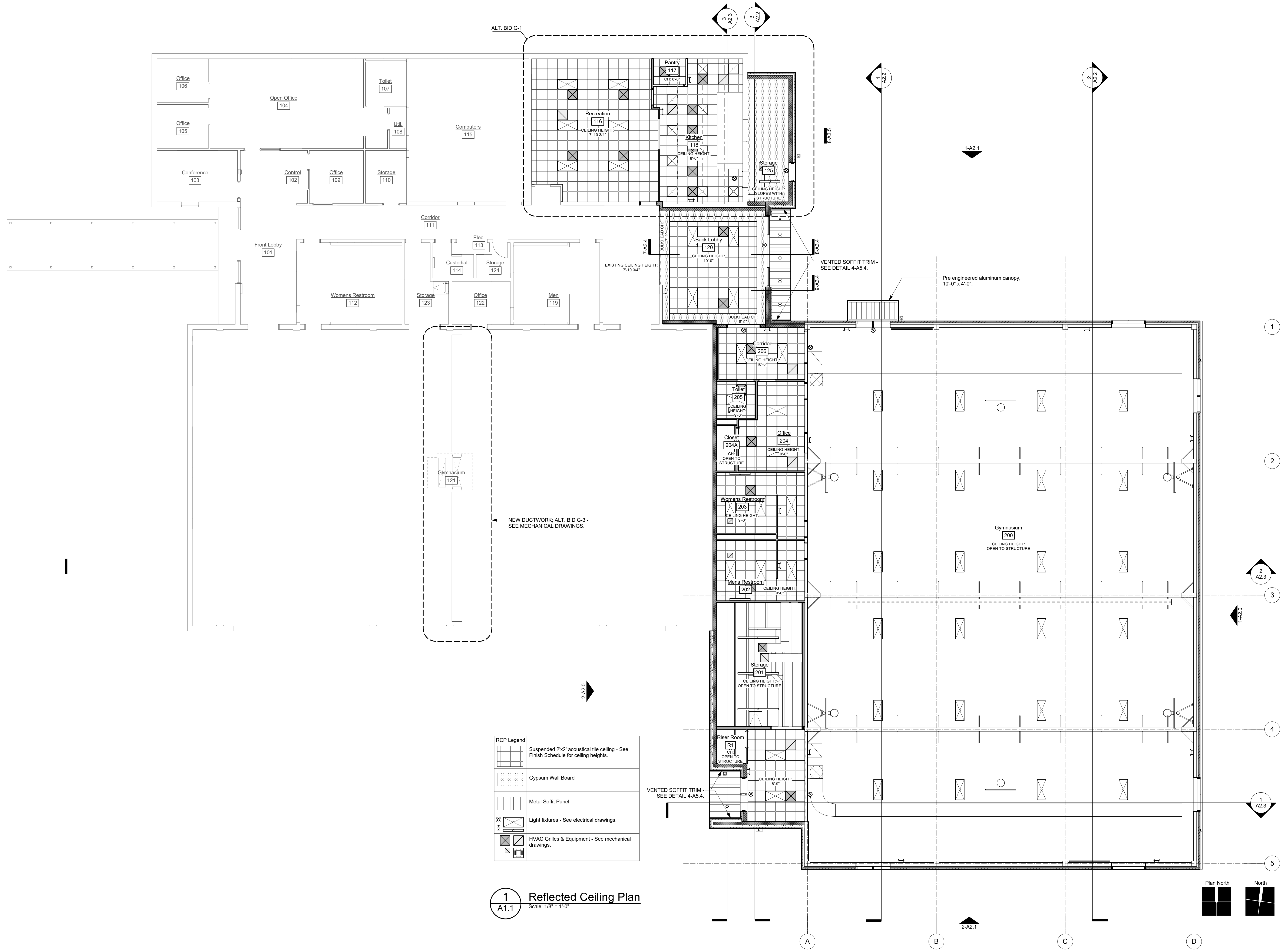
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401 S. 8th Street  
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Construction Drawings  
March 22, 2023

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Floor Plan

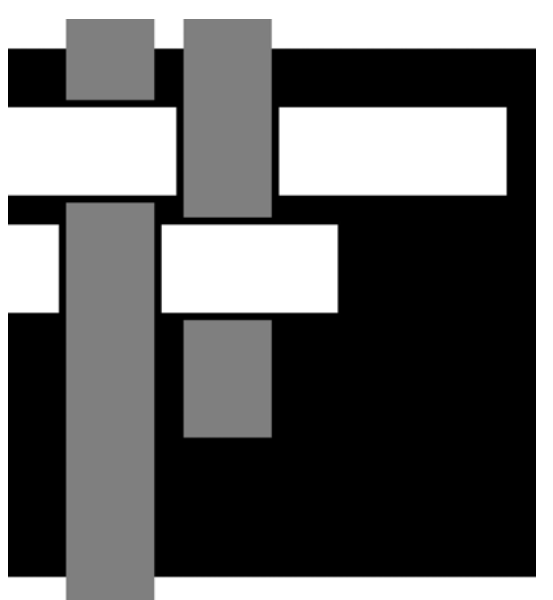
**A1.0**  
01 of 25



**RCP Legend**

	Suspended 2'x2' acoustical tile ceiling - See Finish Schedule for ceiling heights.
	Gypsum Wall Board
	Metal Soffit Panel
	Light fixtures - See electrical drawings.
	HVAC Grilles & Equipment - See mechanical drawings.

**1 Reflected Ceiling Plan**  
 Scale: 1/8" = 1'-0"



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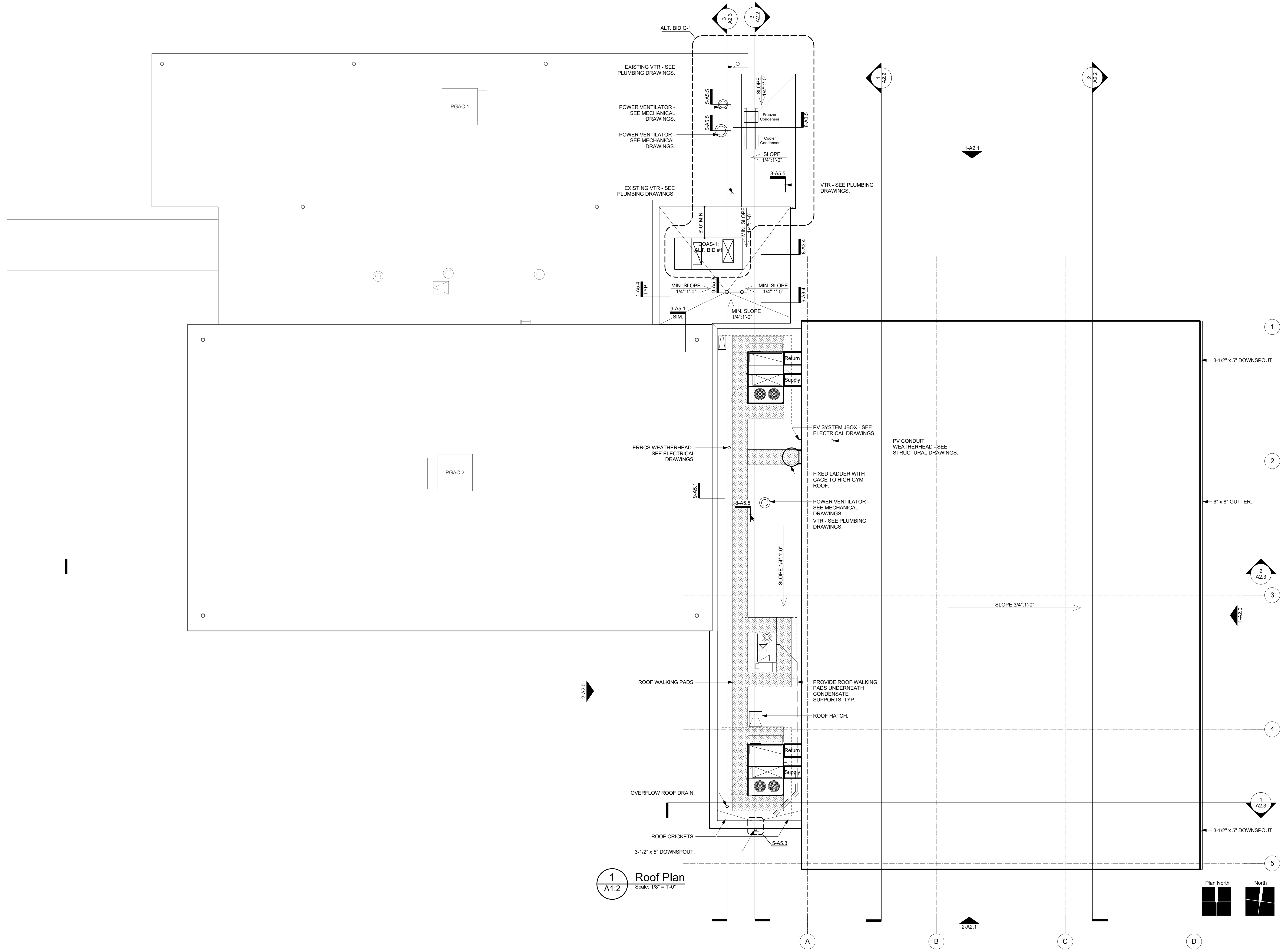
Construction Drawings  
 March 22, 2023

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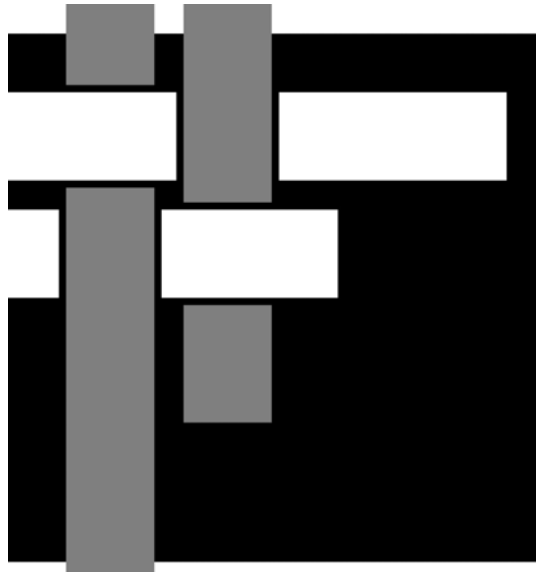
Reflected Ceiling Plan

**A1.1**  
 02 of 25  
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**1**  
A1.2  
Roof Plan  
Scale: 1/8" = 1'-0"



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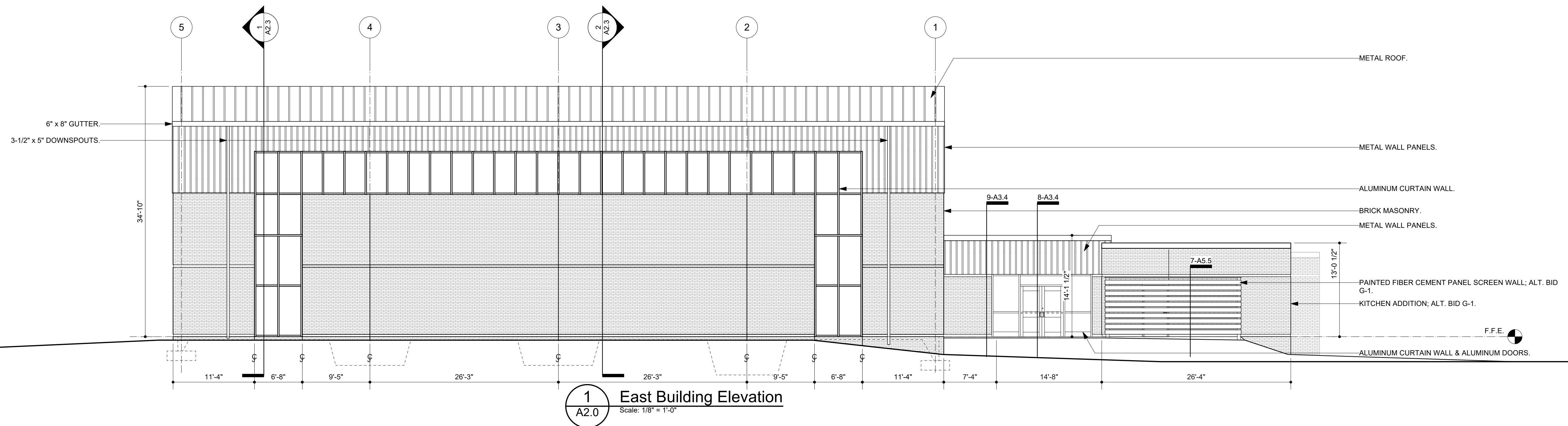
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March 22, 2023

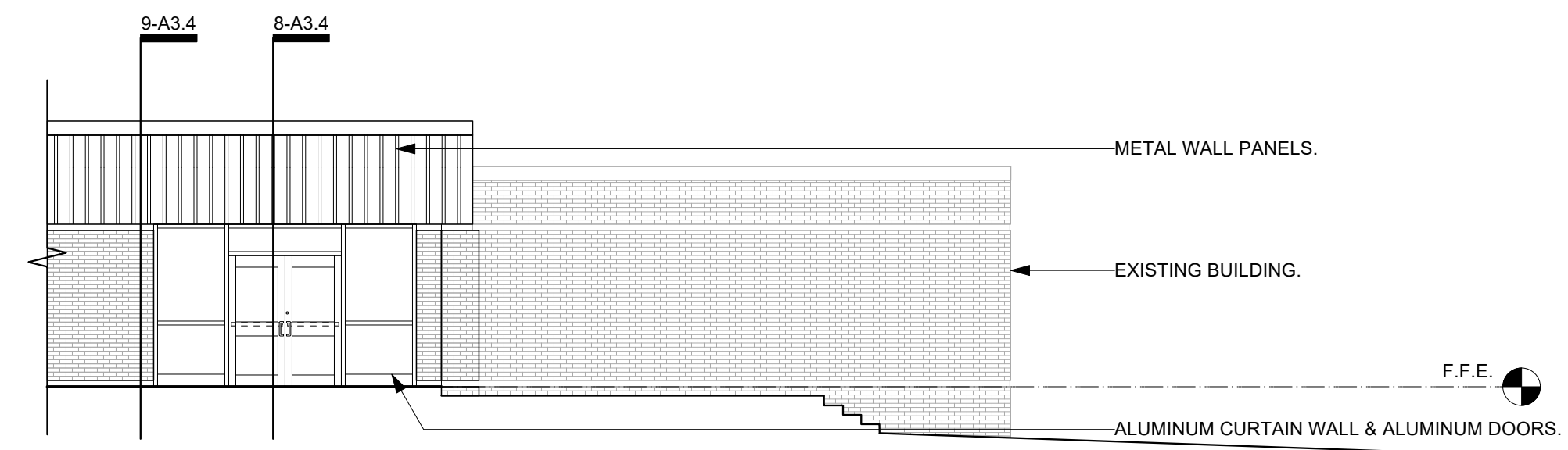
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Roof Plan

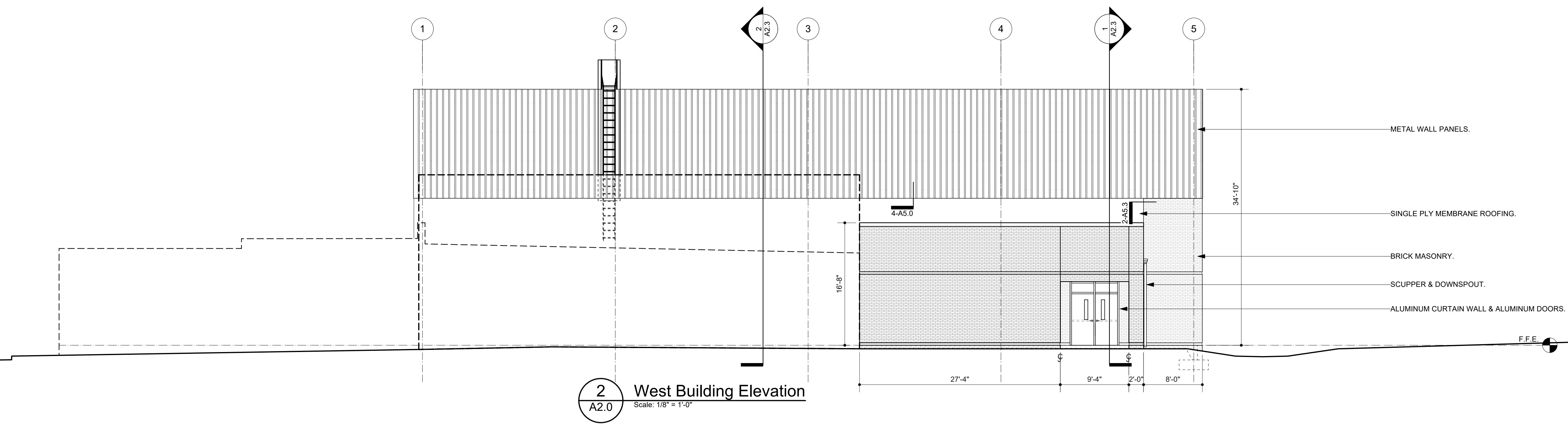
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03 of 25



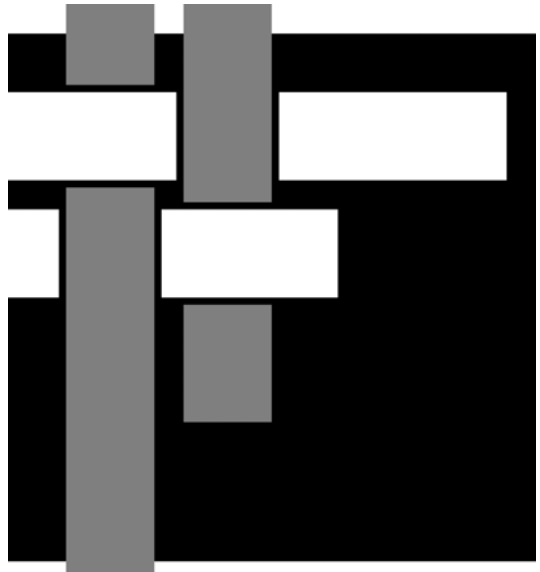
**1 East Building Elevation**  
 A2.0 Scale: 1/8" = 1'-0"



**1A Partial East Building Elevation - Base Bid**  
 A2.0 Scale: 1/8" = 1'-0"



**2 West Building Elevation**  
 A2.0 Scale: 1/8" = 1'-0"



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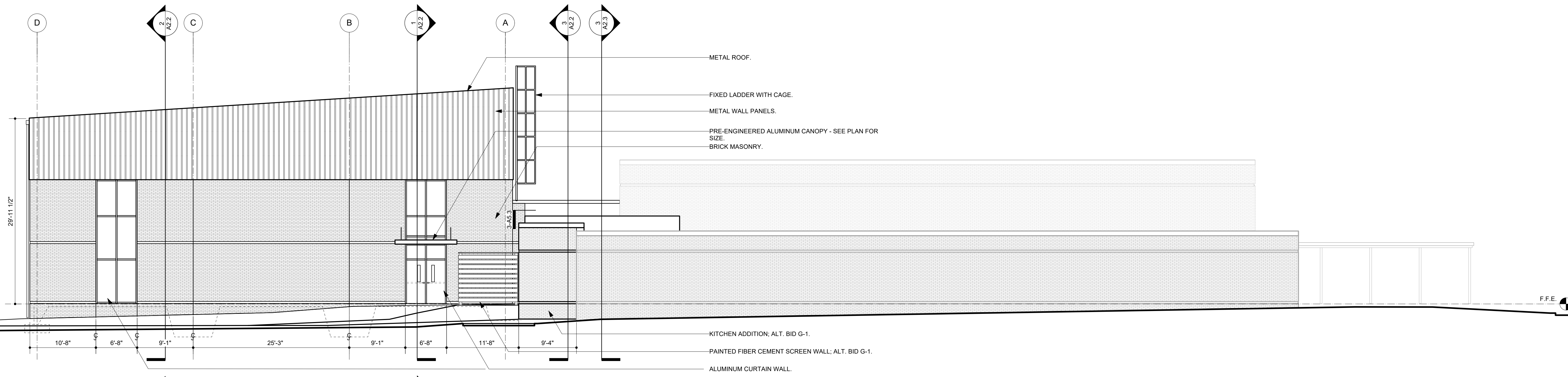
**MLK Center  
 Addition &  
 Renovation**  
 401 S. 8th Street  
 Wilmington, NC

Construction Drawings  
 March 22, 2023

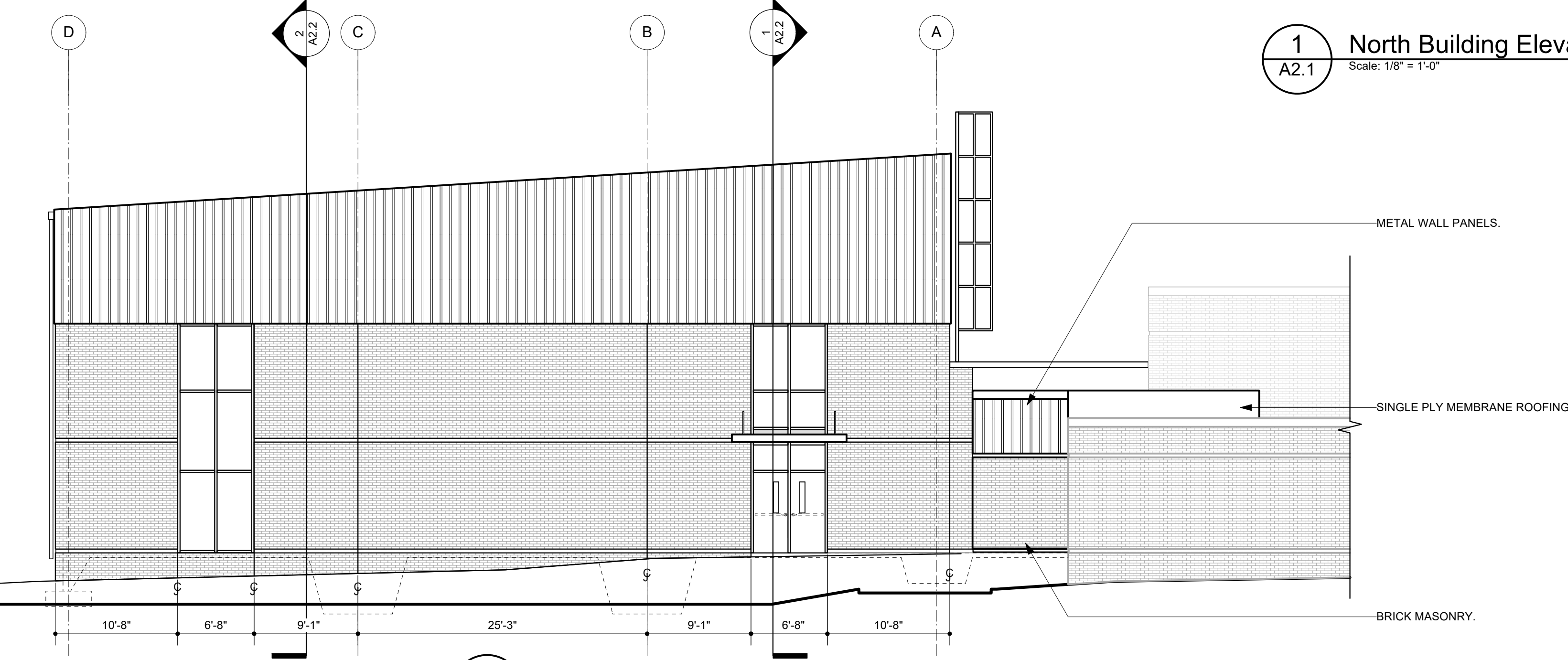
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Building  
 Elevations

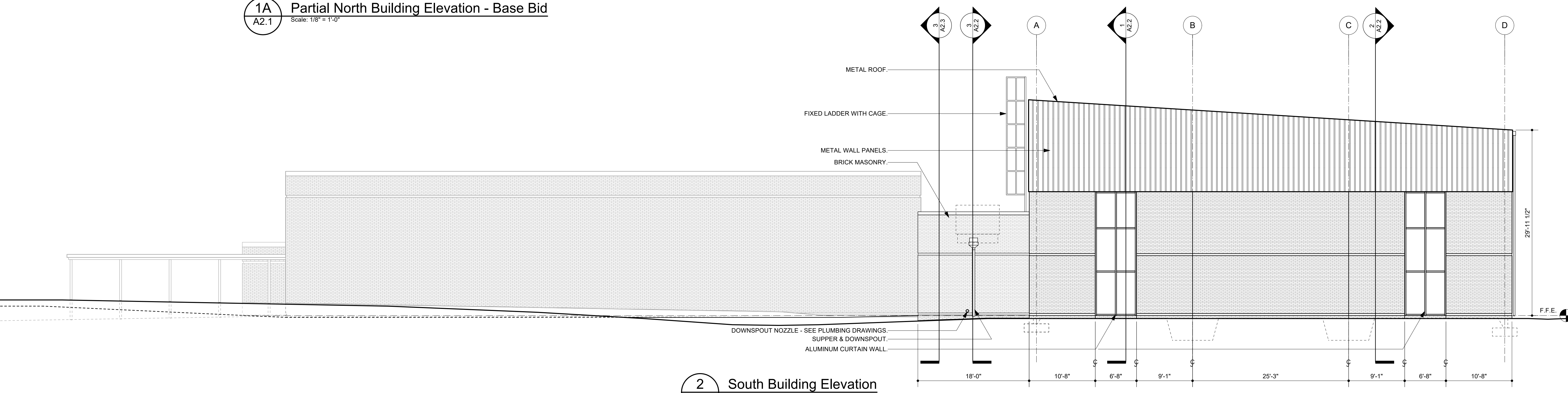
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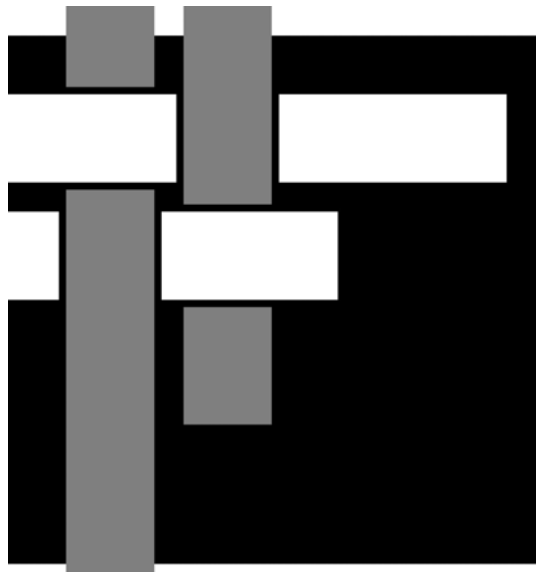
**1 North Building Elevation**  
Scale: 1/8" = 1'-0"



**1A Partial North Building Elevation - Base Bid**  
Scale: 1/8" = 1'-0"



**2 South Building Elevation**  
Scale: 1/8" = 1'-0"



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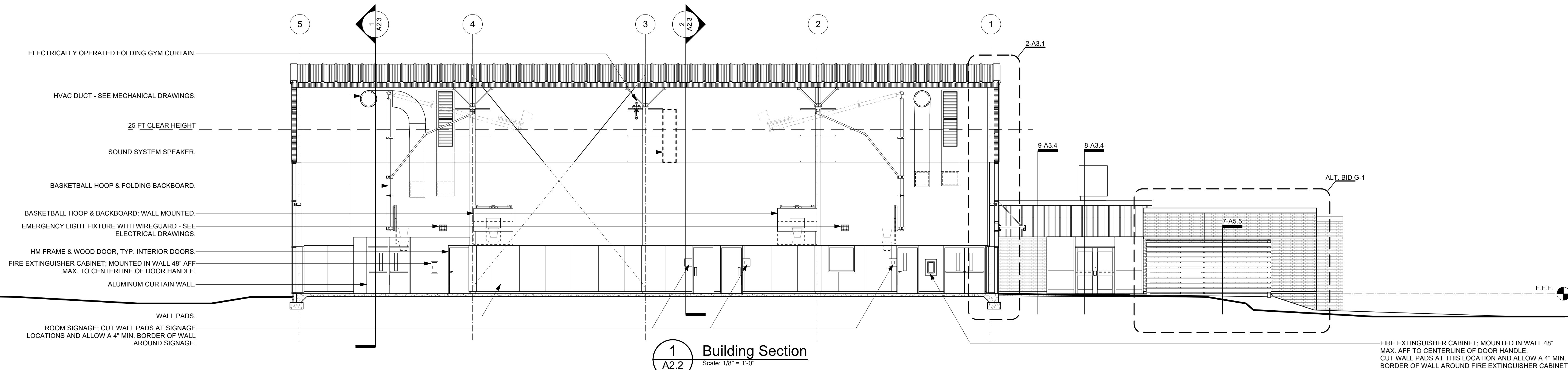
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March 22, 2023

Revisions:  
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Building  
Elevations

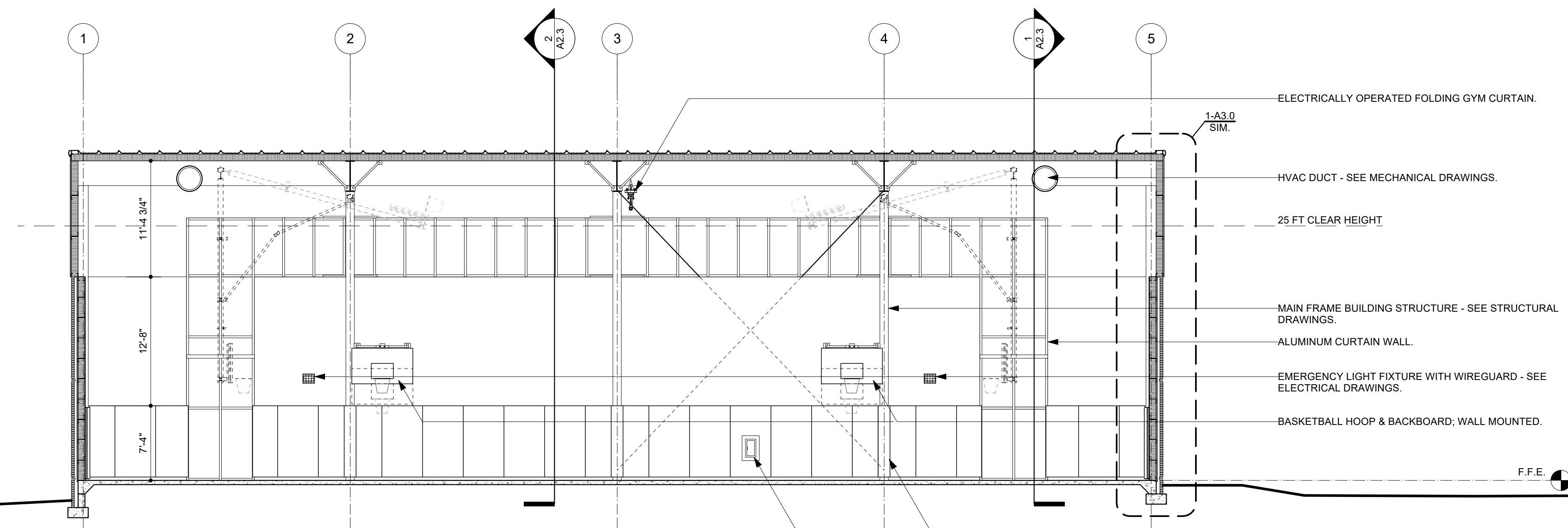
**A2.1**  
05 of 25

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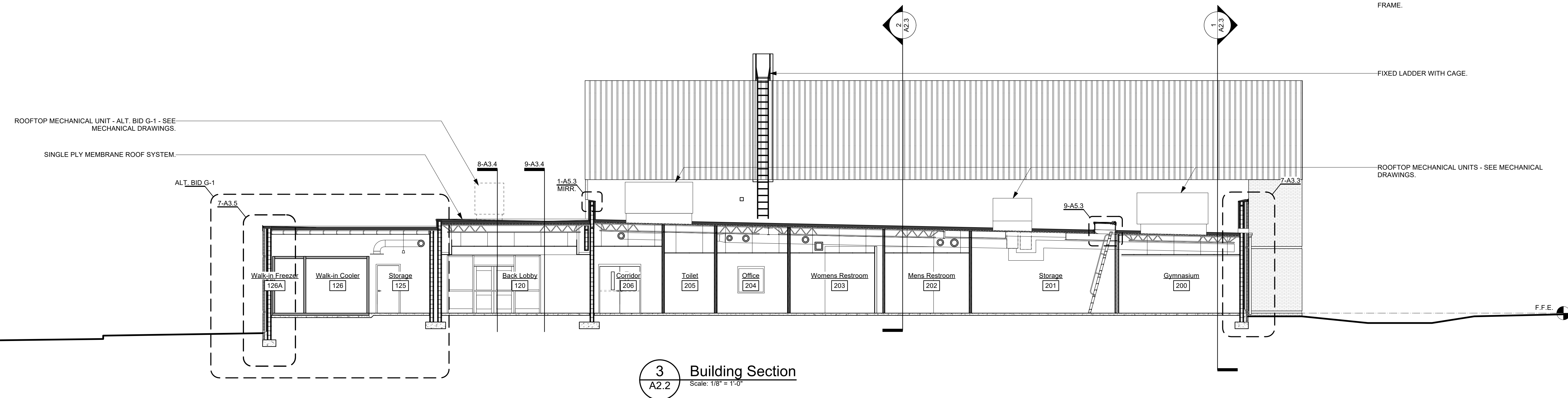
**1 Building Section**  
A2.2 Scale: 1/8" = 1'-0"

FIRE EXTINGUISHER CABINET; MOUNTED IN WALL 48" MAX. AFF TO CENTERLINE OF DOOR HANDLE. CUT WALL PADS AT THIS LOCATION AND ALLOW A 4" MIN. BORDER OF WALL AROUND FIRE EXTINGUISHER CABINET FRAME.

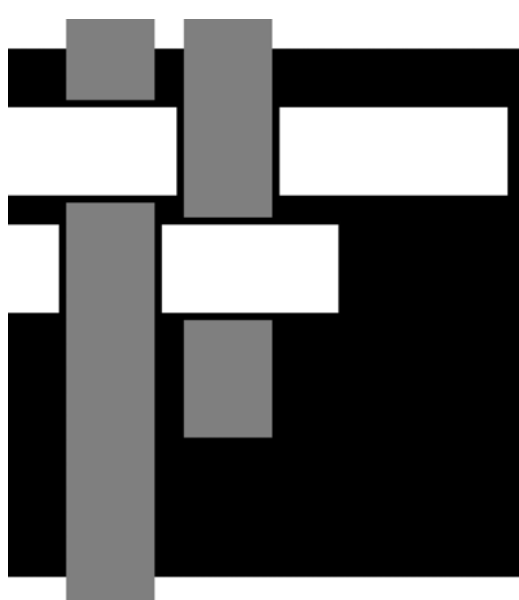


**2 Building Section**  
A2.2 Scale: 1/8" = 1'-0"

FIRE EXTINGUISHER CABINET; MOUNTED IN WALL 48" MAX. AFF TO CENTERLINE OF DOOR HANDLE. CUT WALL PADS AT THIS LOCATION AND ALLOW A 4" MIN. BORDER OF WALL AROUND FIRE EXTINGUISHER CABINET FRAME.



**3 Building Section**  
A2.2 Scale: 1/8" = 1'-0"



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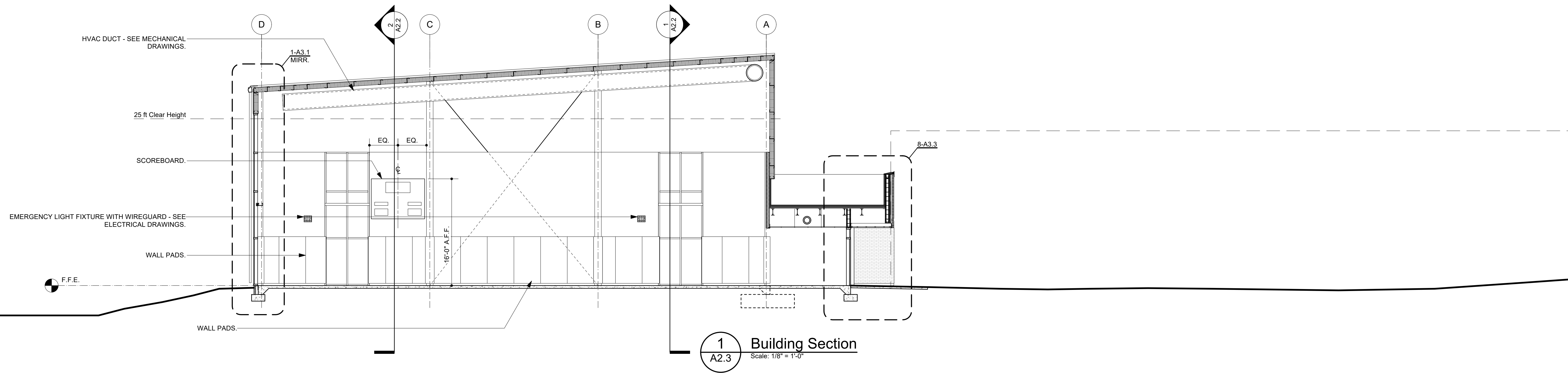
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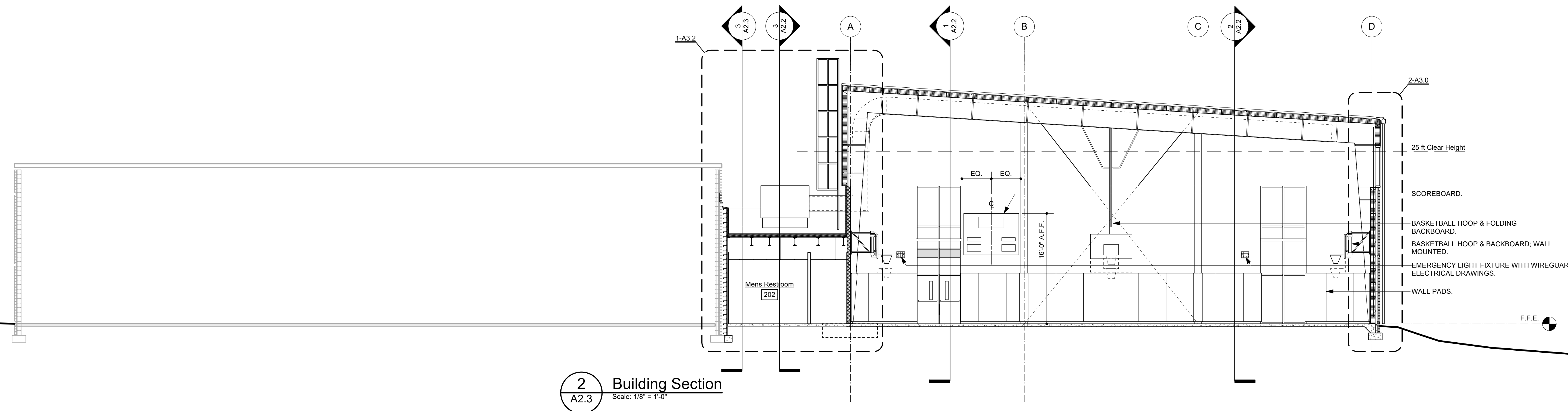
Building  
Sections

**A2.2**

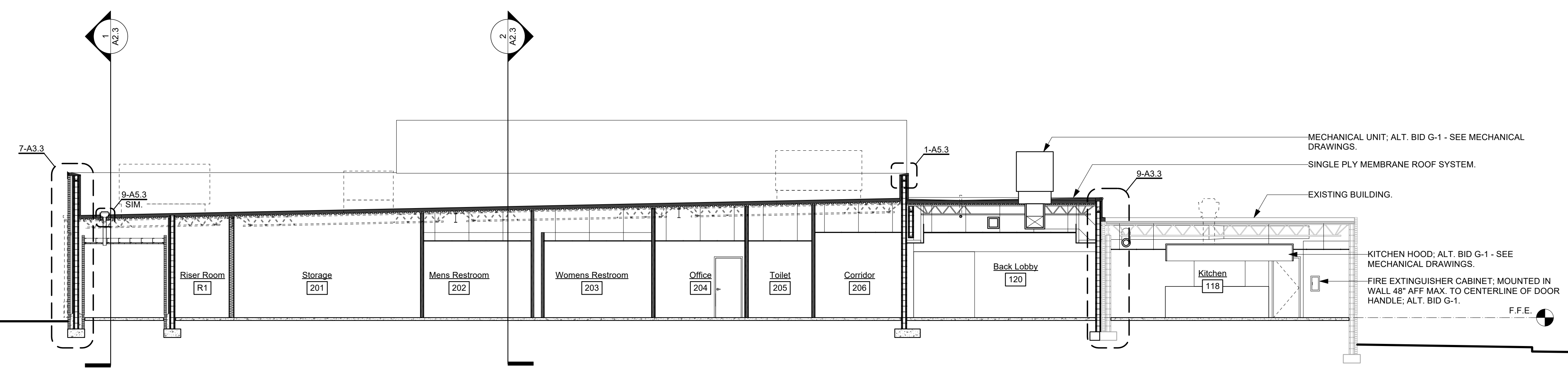
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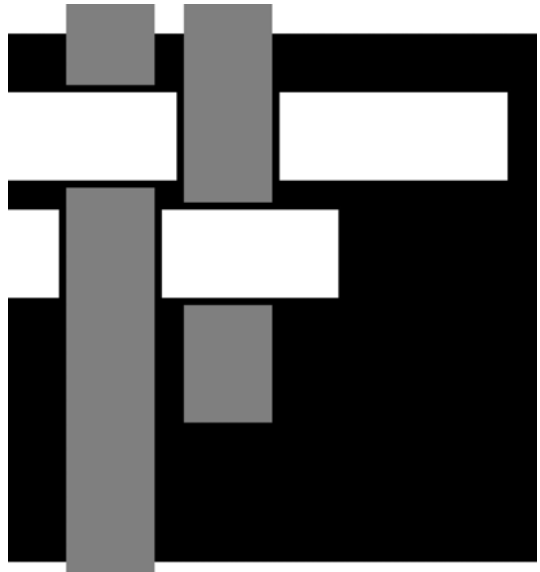
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Scale: 1/8" = 1'-0"



**2 Building Section**  
Scale: 1/8" = 1'-0"



**3 Building Section**  
Scale: 1/8" = 1'-0"



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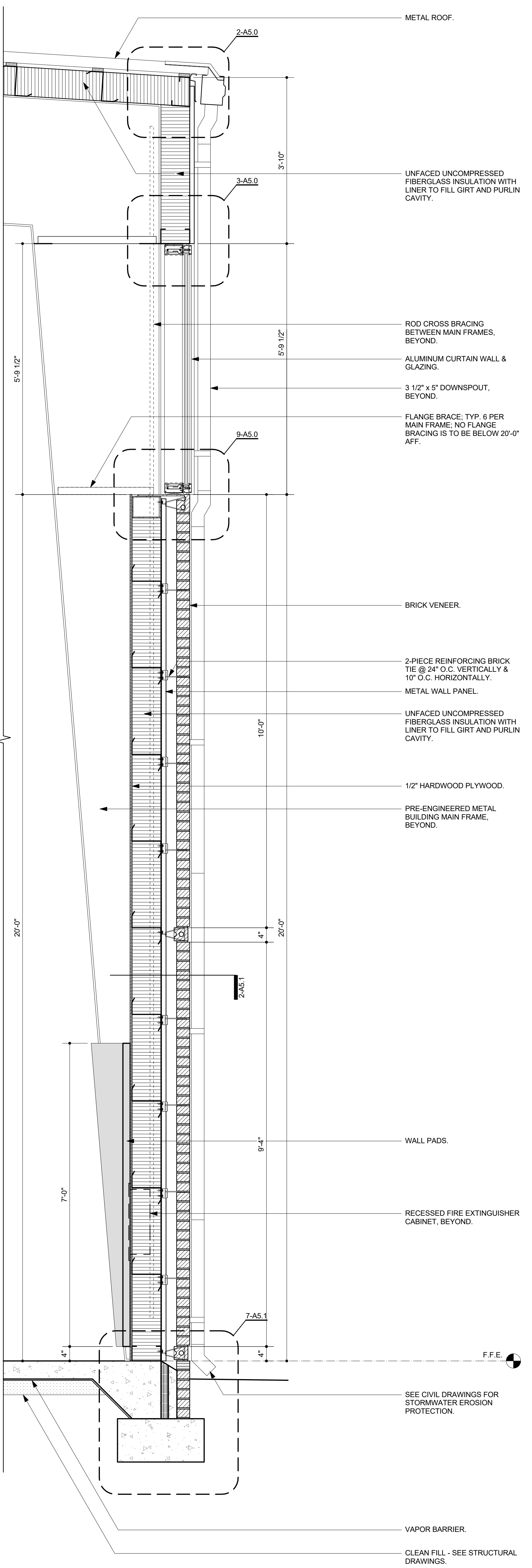
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Building  
Sections

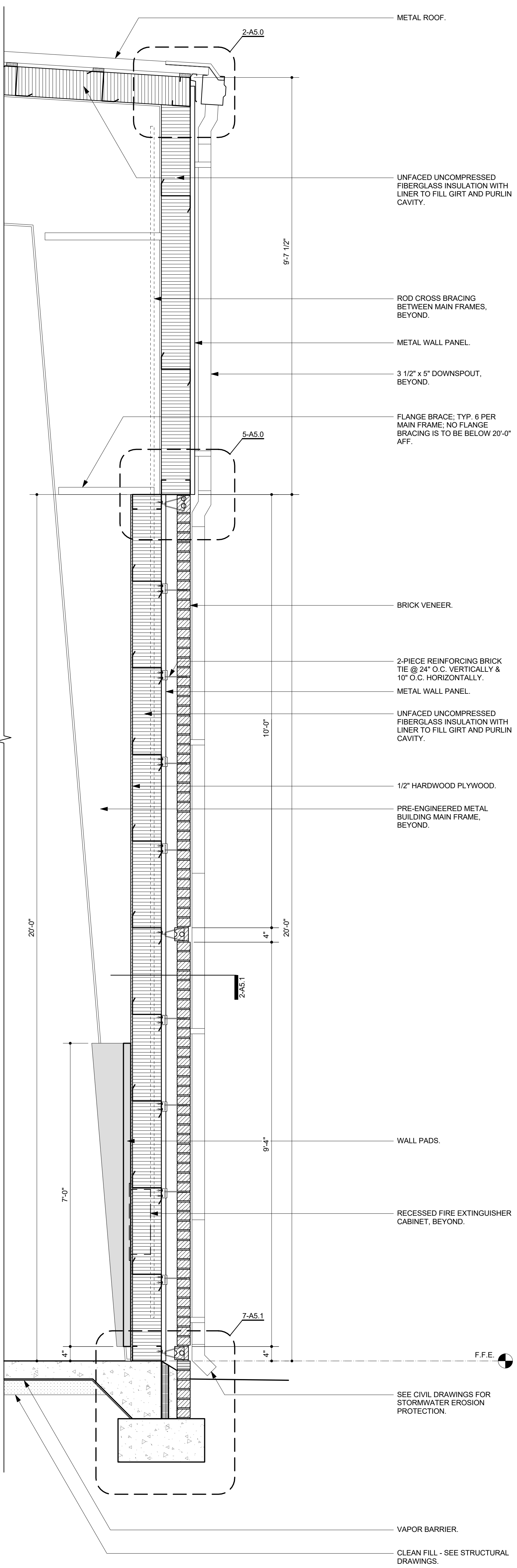
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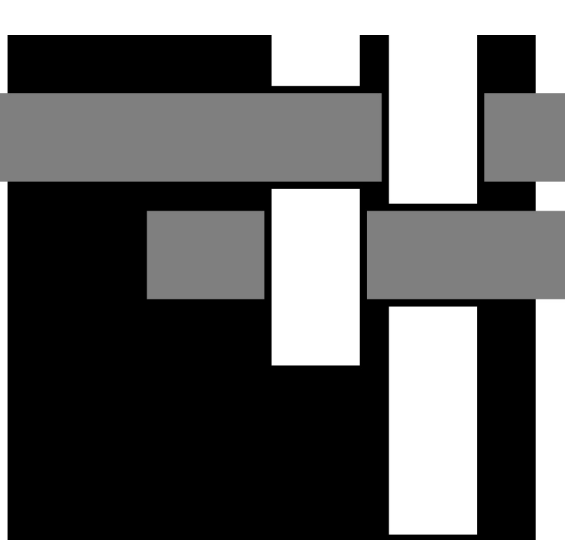
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2 Wall Section  
A3.0 Scale: 3/4" = 1'-0"

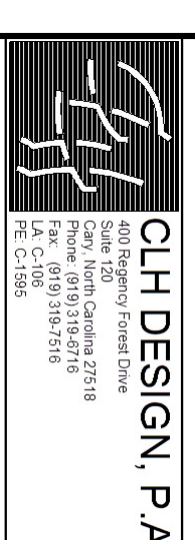


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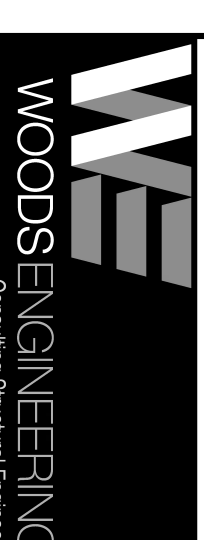
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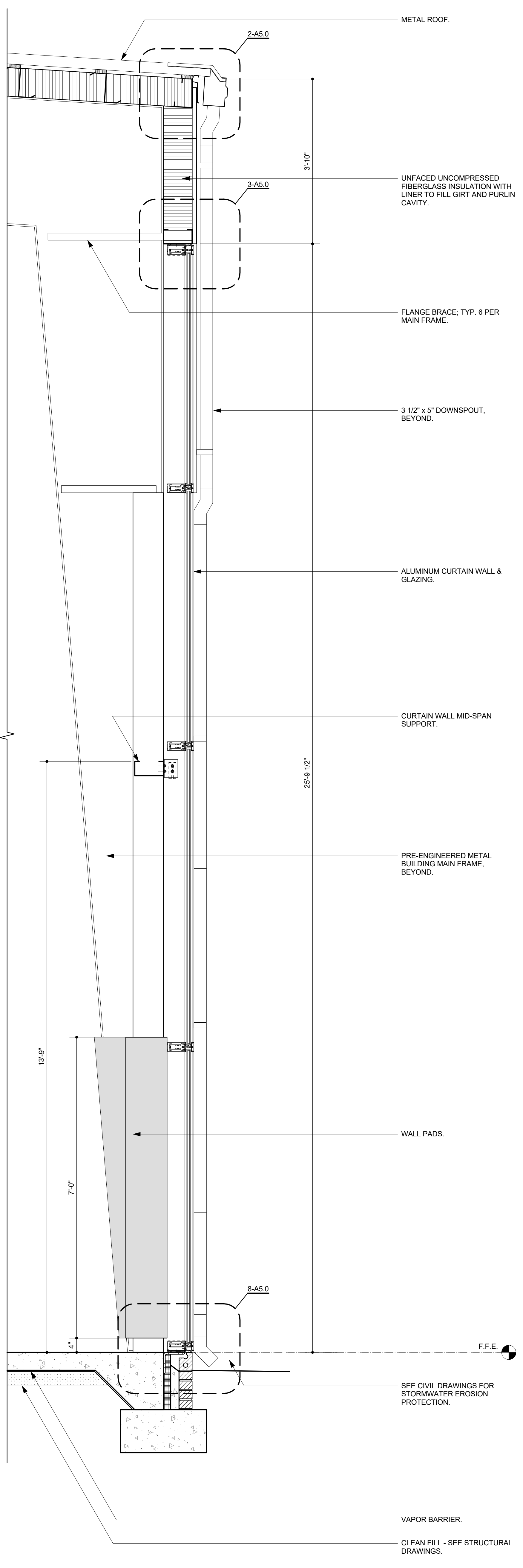
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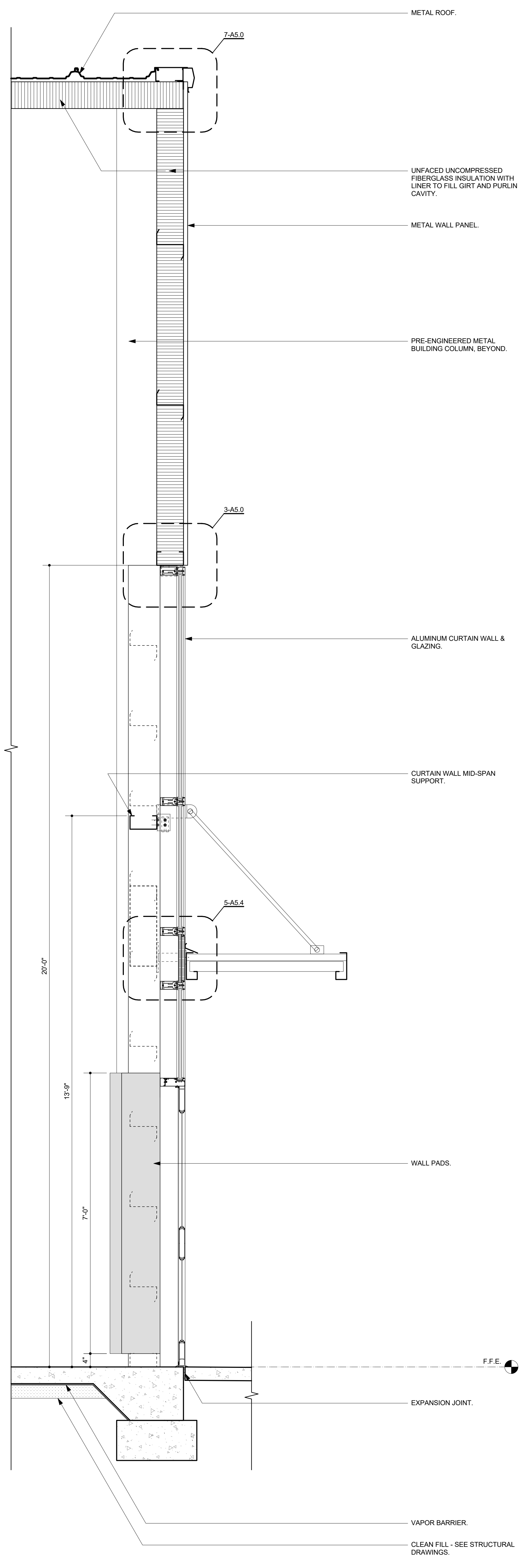
Wall Sections

**A3.0**

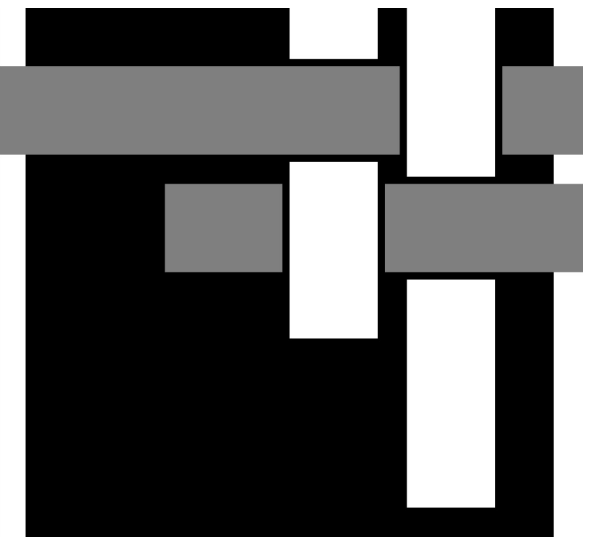
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**1** Wall Section  
A3.1 Scale: 3/4" = 1'-0"

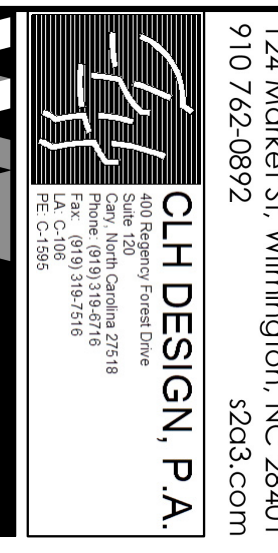


**2** Wall Section  
A3.1 Scale: 3/4" = 1'-0"



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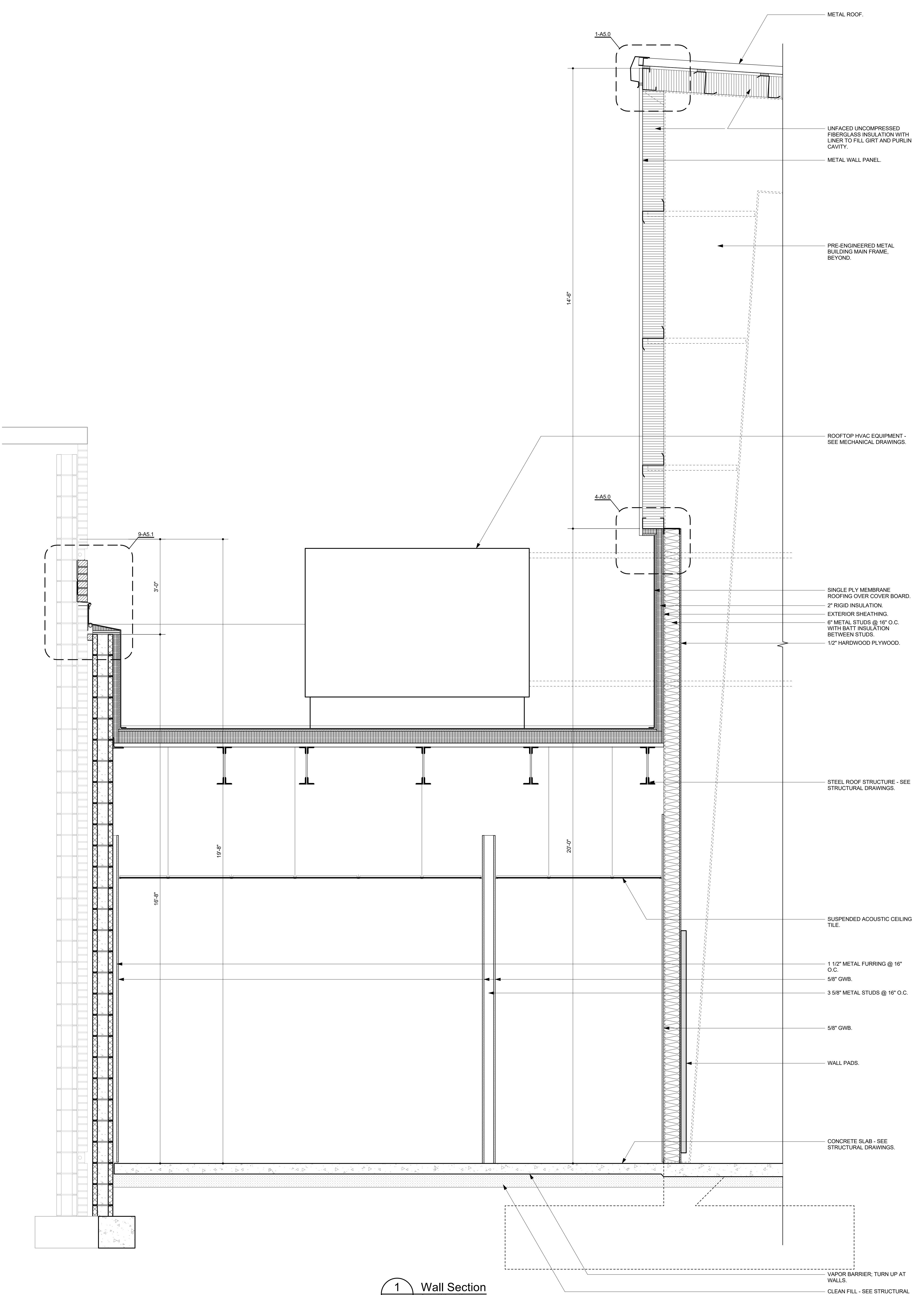
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March 22, 2023

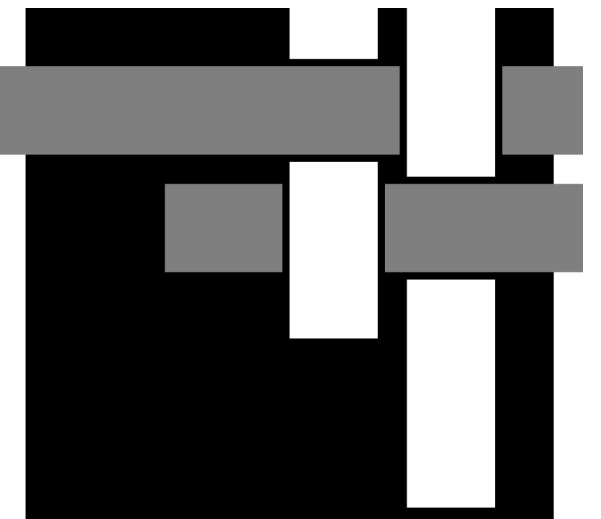
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Wall Sections

**A3.1**

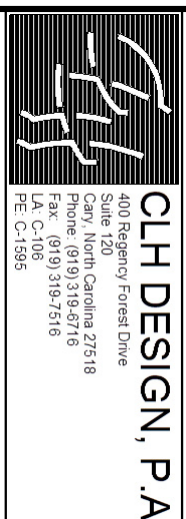


1 Wall Section  
 A3.2 Scale: 3/4" = 1'-0"



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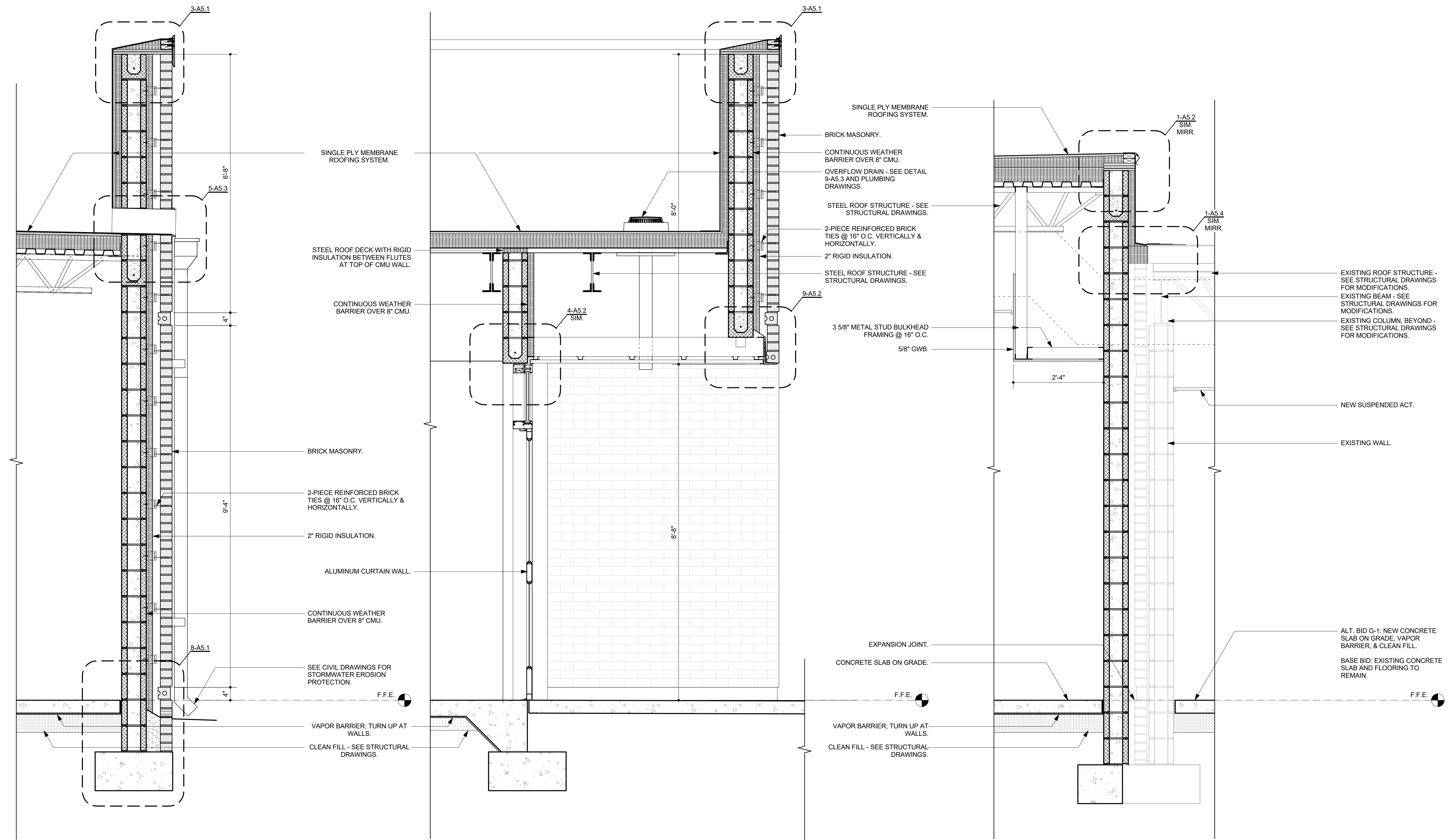

Wall Sections

**A3.2**

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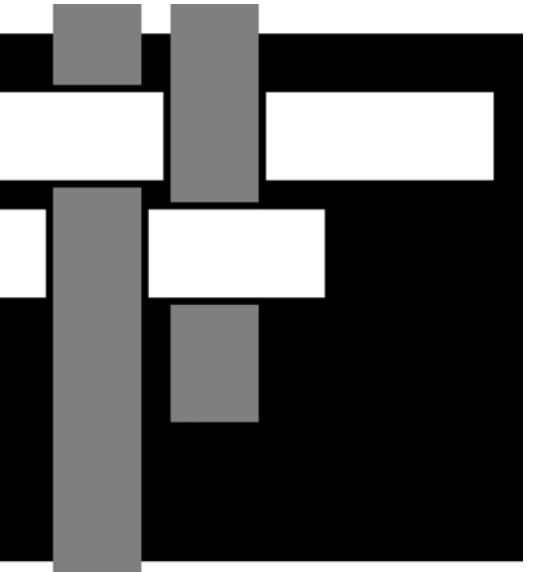




7 Wall Section  
A3.3 Scale: 3/4" = 1'-0"

8 Wall Section  
A3.3 Scale: 3/4" = 1'-0"

9 Wall Section  
A3.3 Scale: 3/4" = 1'-0"



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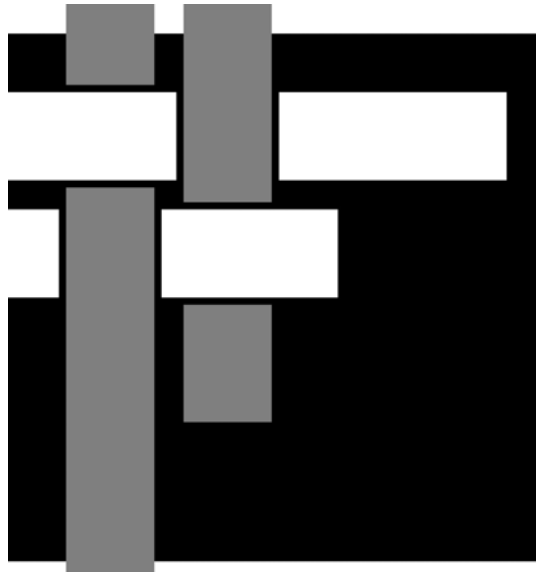
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Wall Sections

**A3.3**

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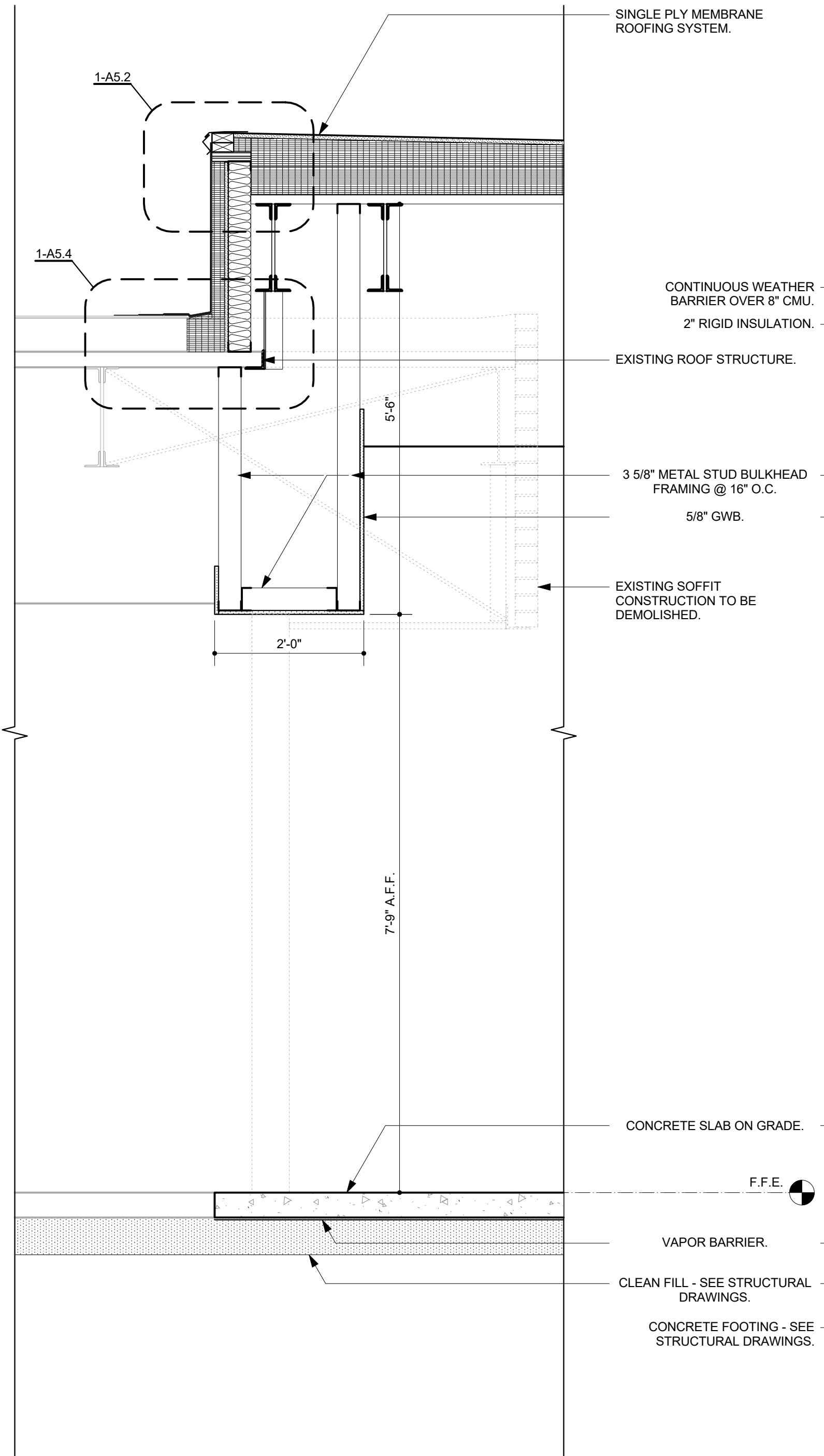
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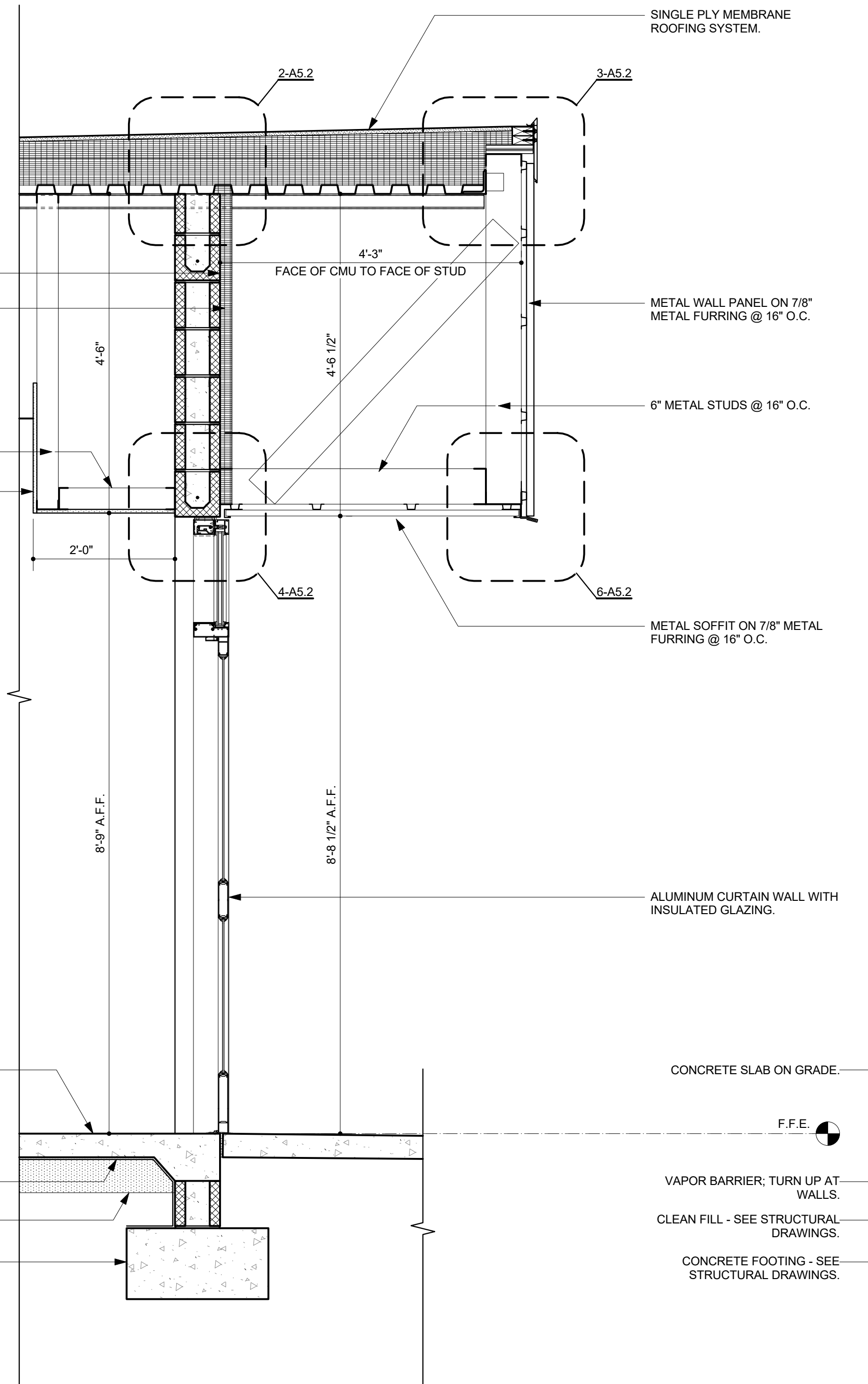
Wall Sections

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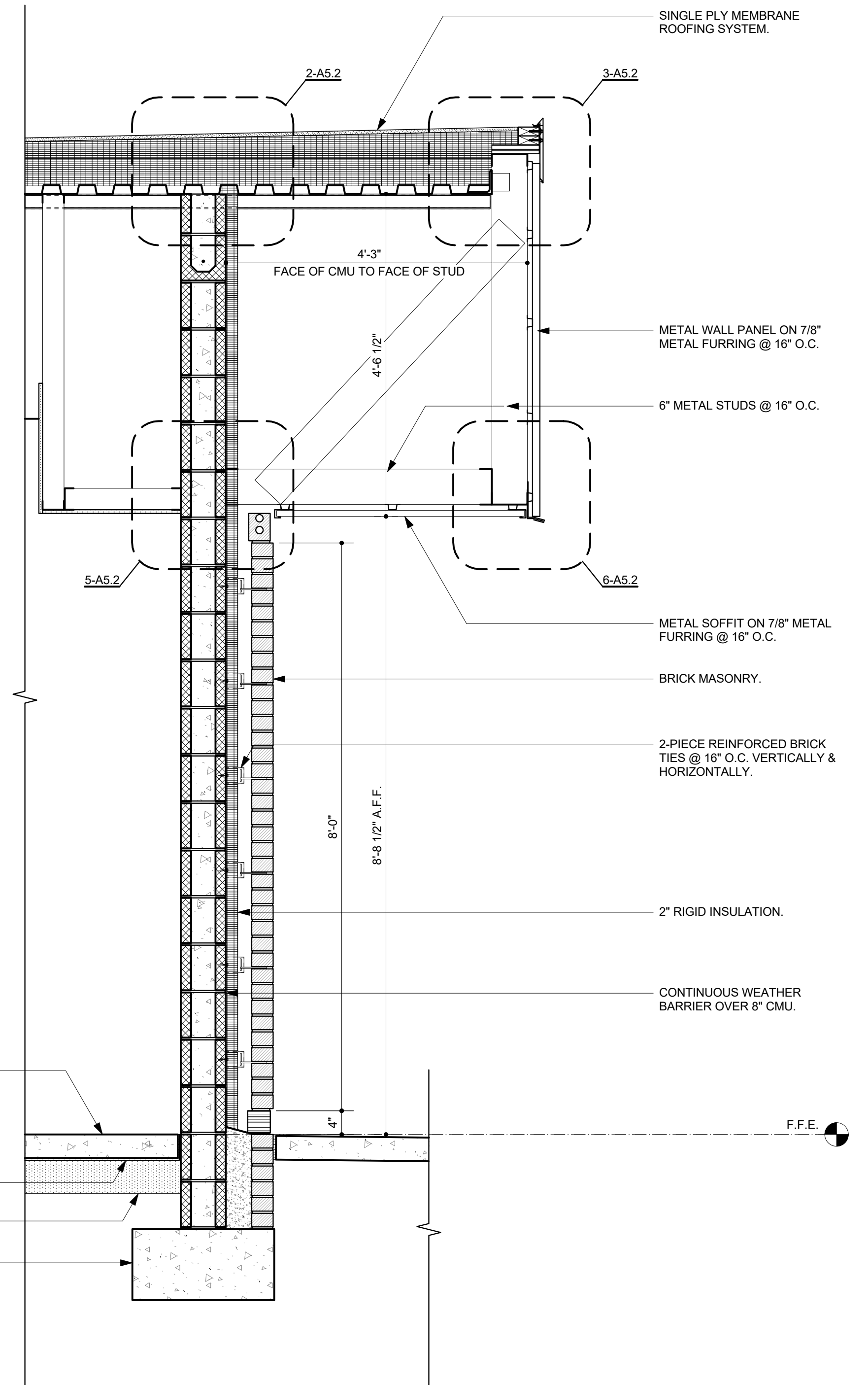
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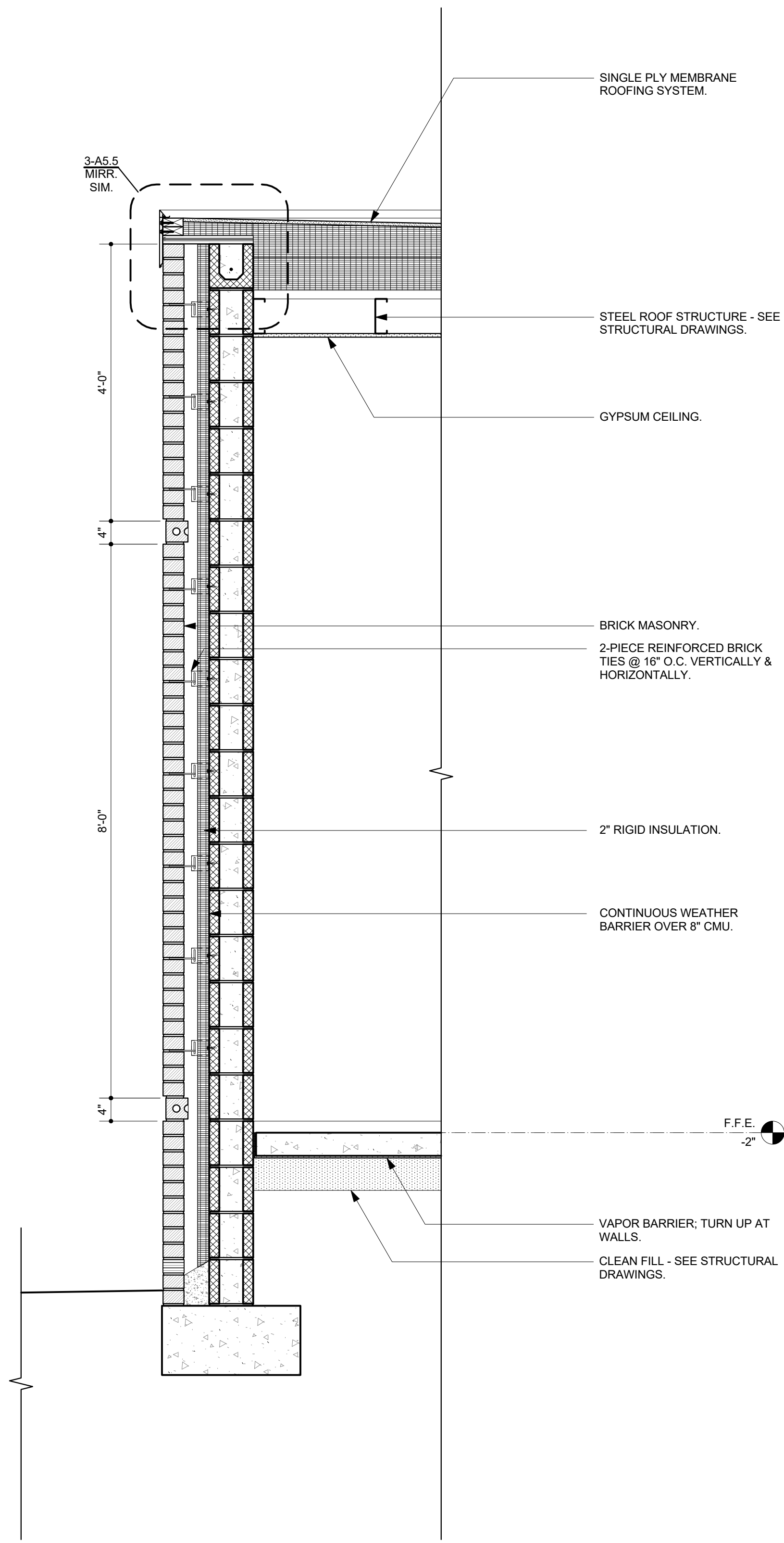
**7** Wall Section  
A3.4 Scale: 3/4" = 1'-0"



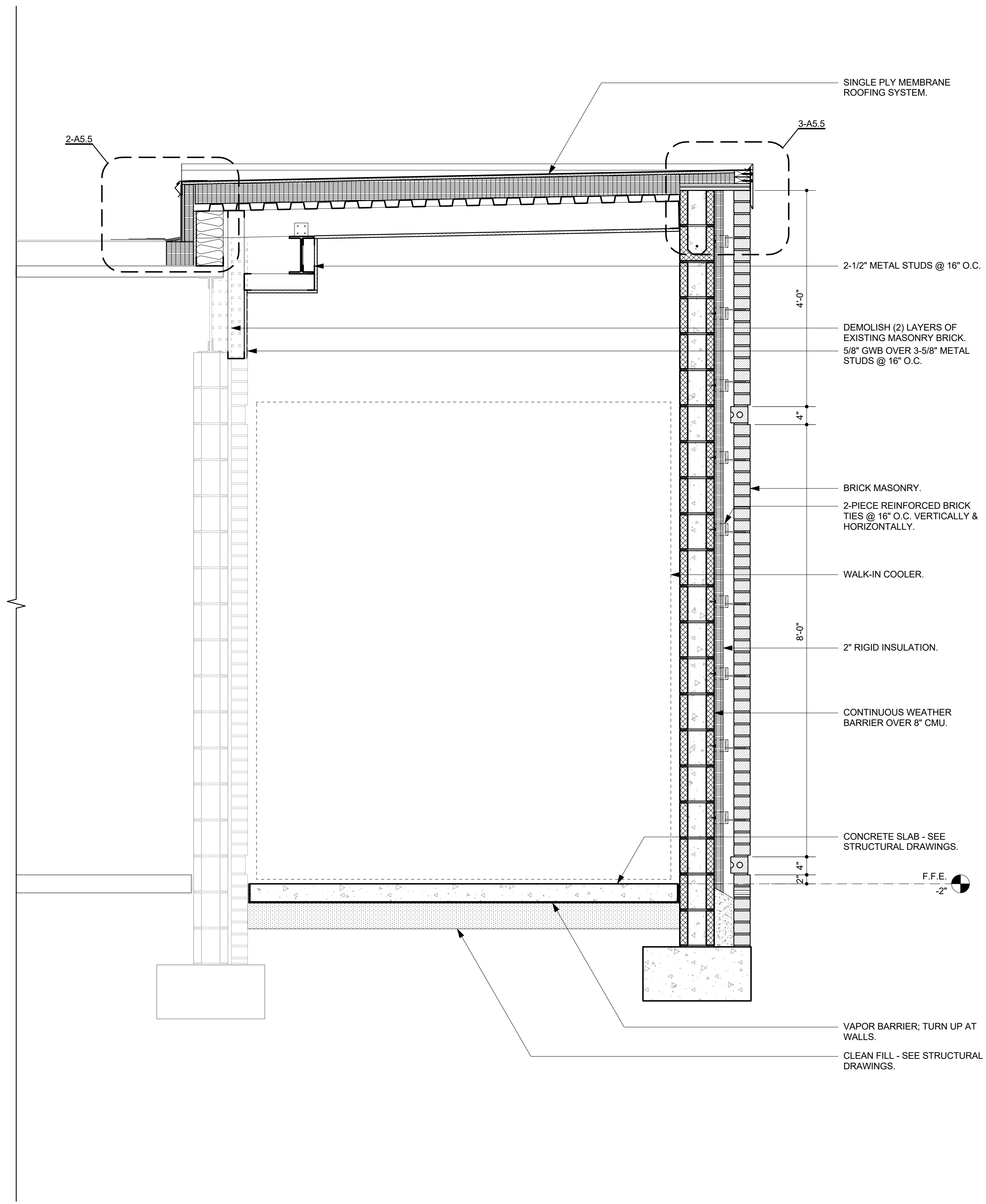
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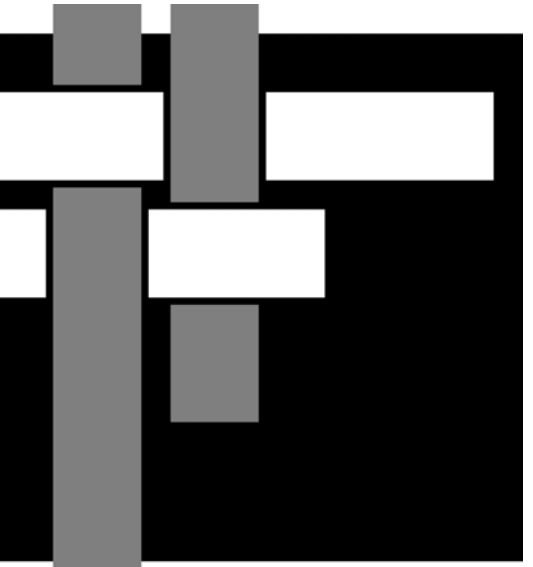
**9** Wall Section  
A3.4 Scale: 3/4" = 1'-0"



**7** Wall Section  
A3.5 Scale: 3/4" = 1'-0"



**8** Wall Section  
A3.5 Scale: 3/4" = 1'-0"



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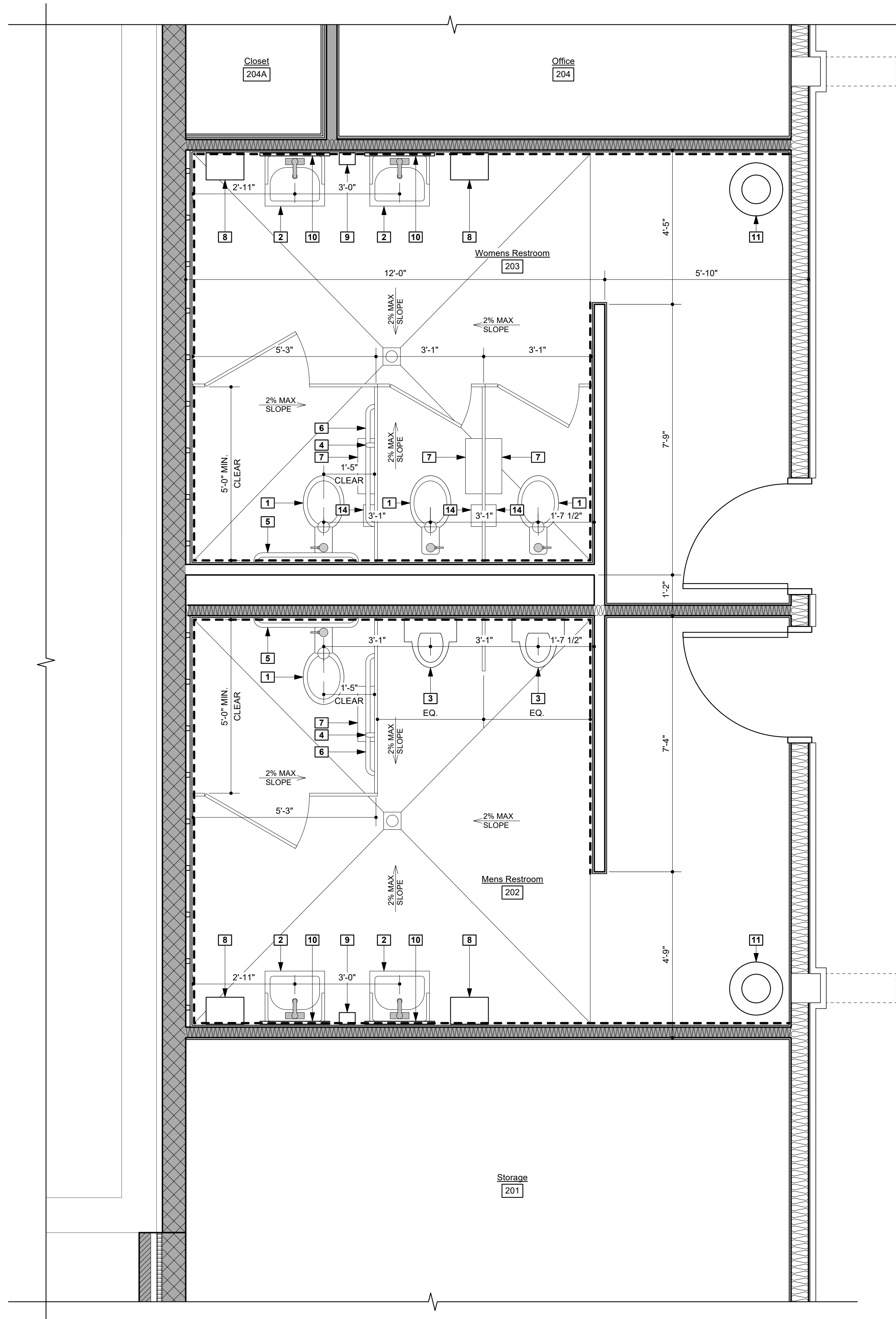
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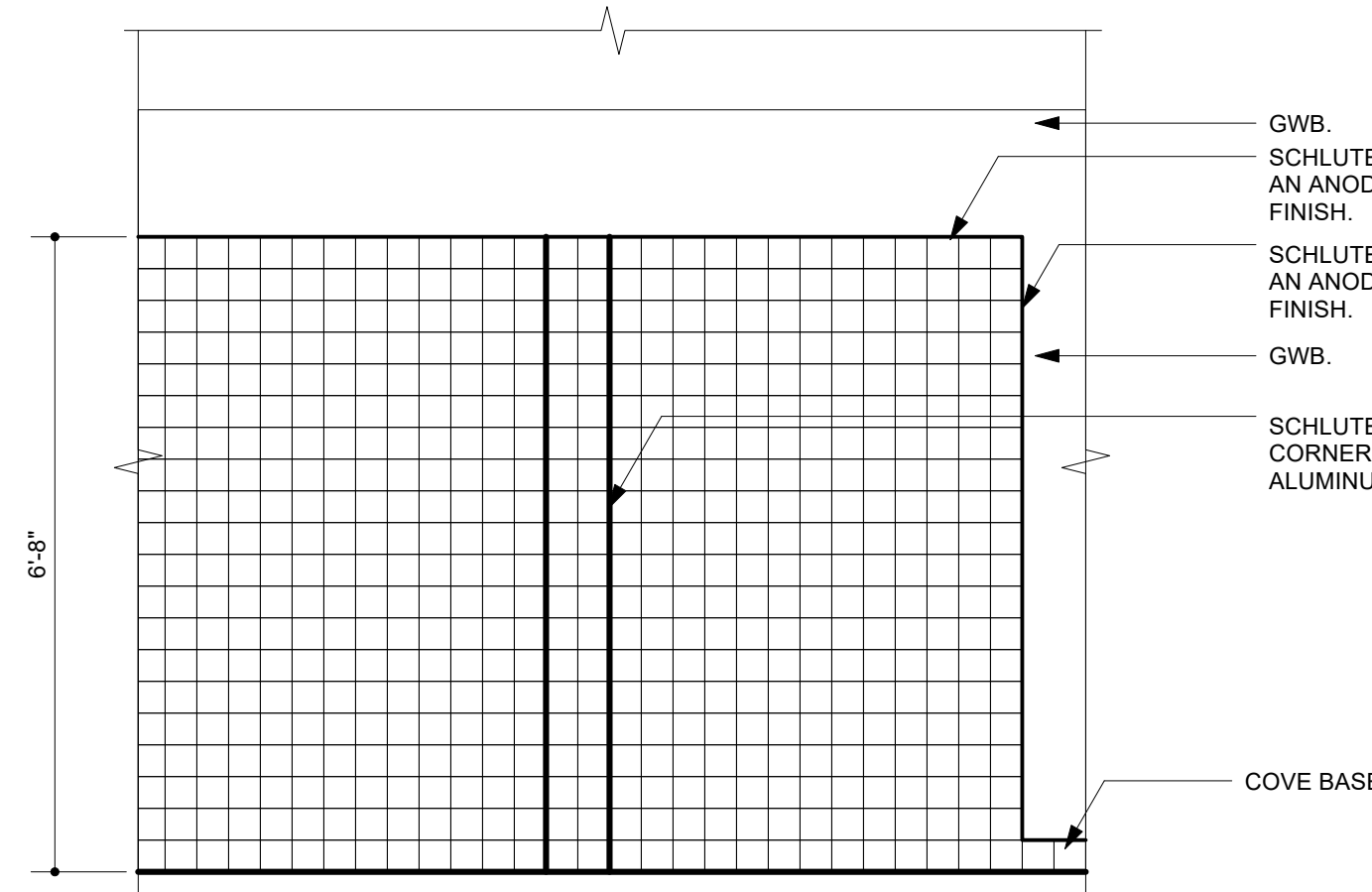
Wall Sections  
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**A3.5**

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**3**  
A4.0 Enlarged Group Restroom Plan  
Scale: 1/2" = 1'-0"



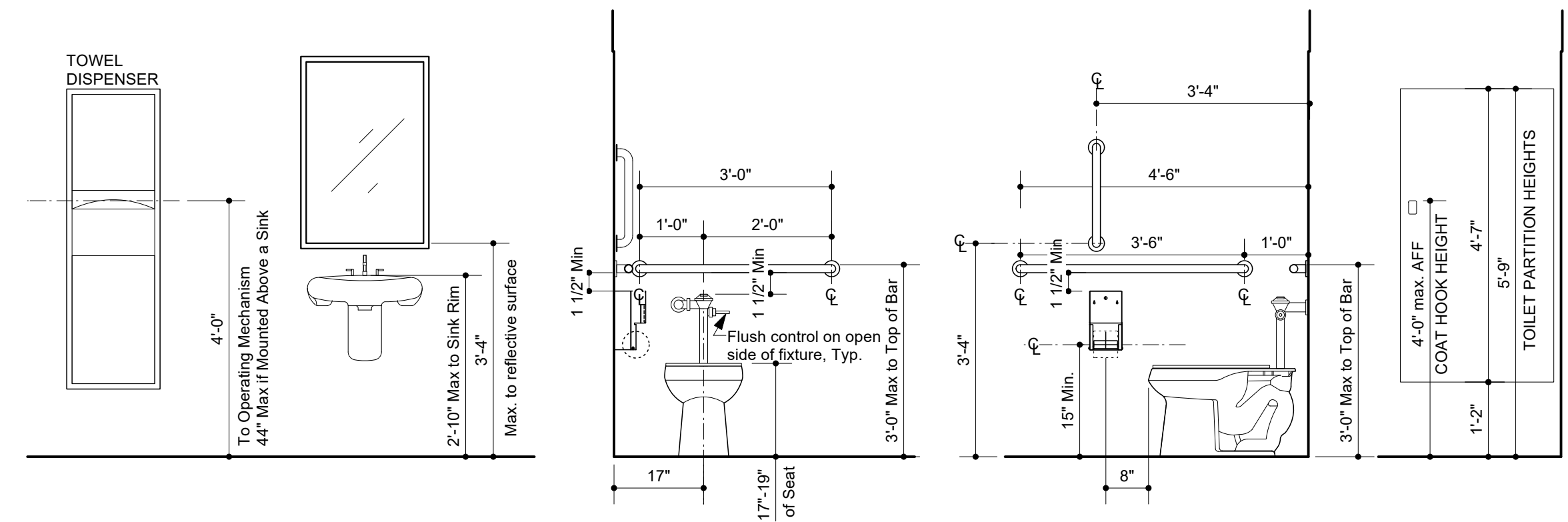
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A4.0 Tile Wainscot Typical Elevation & Trim  
Scale: 1/2" = 1'-0"

**Accessory Key Notes**

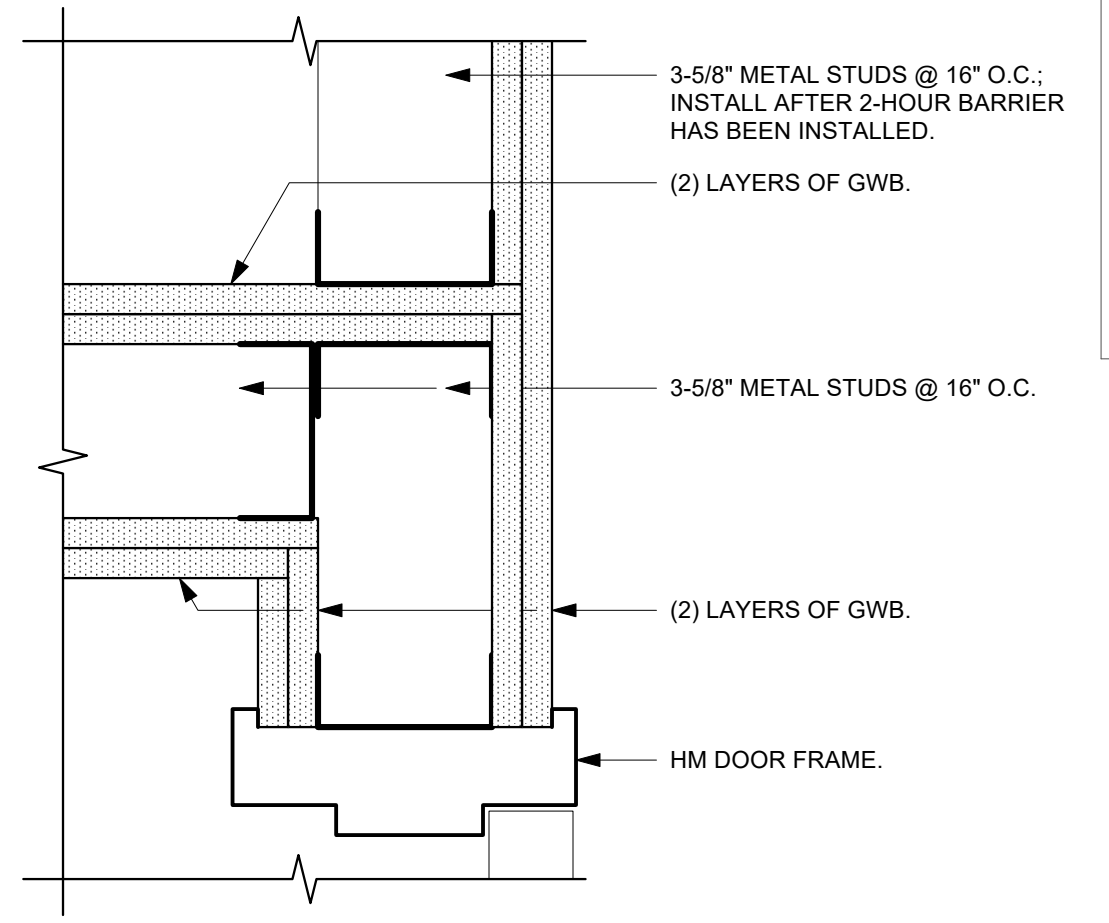
- 1 Accessible Toilet Fixture
- 2 Accessible Sink
- 3 Accessible Urinal Fixture
- 4 Grab Bar 18"
- 5 Grab Bar 36"
- 6 Grab Bar 42"
- 7 Toilet Tissue Dispenser - Furnished by Owner, Installed by GC
- 8 Paper Towel Dispenser - Furnished by Owner, Installed by GC
- 9 Soap Dispenser - Furnished by Owner, Installed by GC
- 10 Mirror
- 11 Waste Receptacle
- 12 Changing Table
- 13 Hi/Lo Water Cooler
- 14 Sanitary Napkin Disposal

**NOTES:**

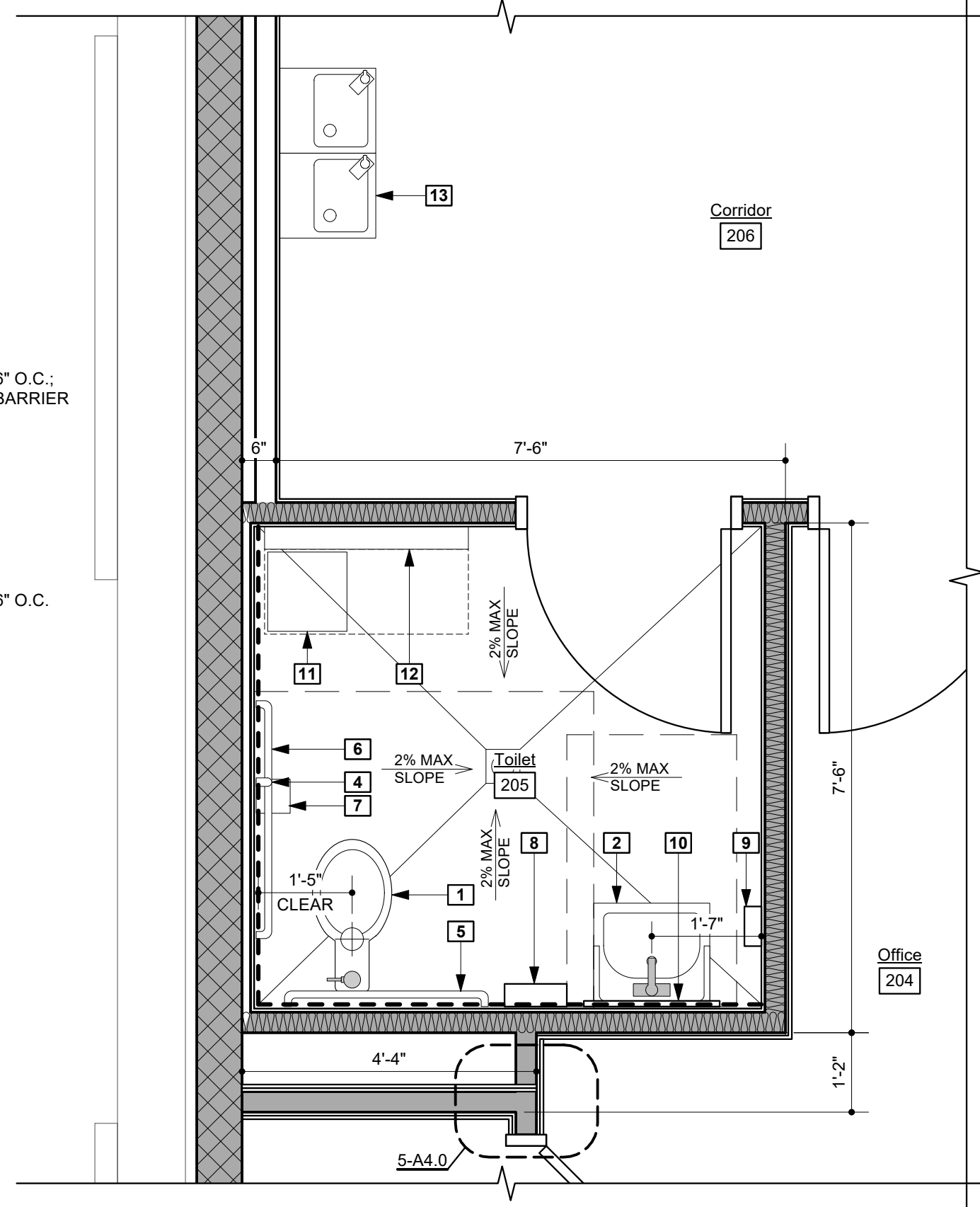
- See Specifications for manufacturers and model #s on all toilet accessories.
- See Plumbing Specifications for manufacturers and model #s on all fixtures.
- Grab bars shall support a 250lb load applied in any direction, along entire length.
- Grab bars shall not rotate in their fittings.
- Grab bar edges shall be min. 1/8" radius & free of sharp elements.
- Toilet Seat shall not spring back automatically to a lifted position.
- Flush control shall be operable w/ one hand w/out requiring tight grasping, twisting of wrist or force greater than 5 lbs.
- Control shall be located on the wide side of accessible stalls.
- Toilet paper dispenser shall allow continuous paper delivery.
- Supply & drain lines shall be covered w/ pipe insulation or non-heat conducting baffle where exposed & shall not intrude on required knee space.



**2**  
A4.0 Restroom Fixture & Accessory Details  
Scale: 1/2" = 1'-0"



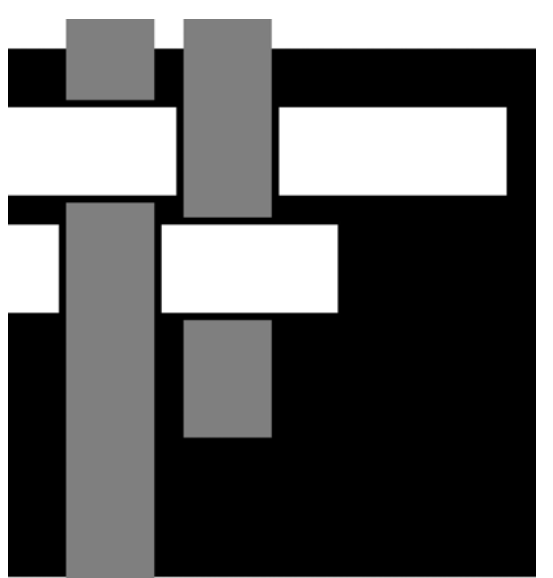
**5**  
A4.0 2-HR Wall Barrier Corner Detail  
Scale: 3" = 1'-0"



**4**  
A4.0 Enlarged Single-Use Toilet Plan  
Scale: 1/2" = 1'-0"

--- EXTENT OF WAINSCOT TILE - SEE DETAIL 1-A4.0.

--- EXTENT OF WAINSCOT TILE - SEE DETAIL 1-A4.0.



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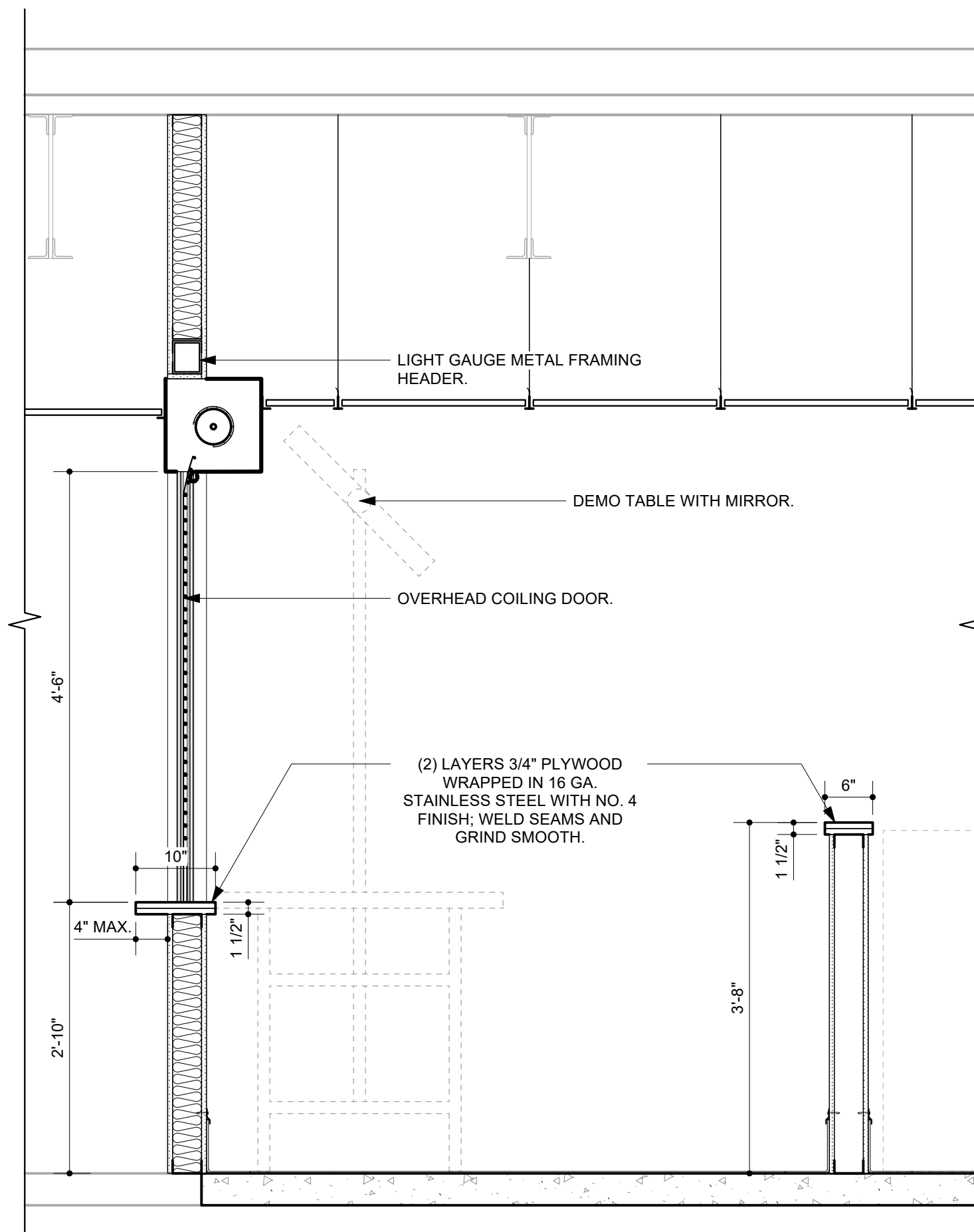
**MLK Center  
Addition &  
Renovation**  
401 S. 8th Street  
Wilmington, NC

Construction Drawings  
March 22, 2023

Revisions:  
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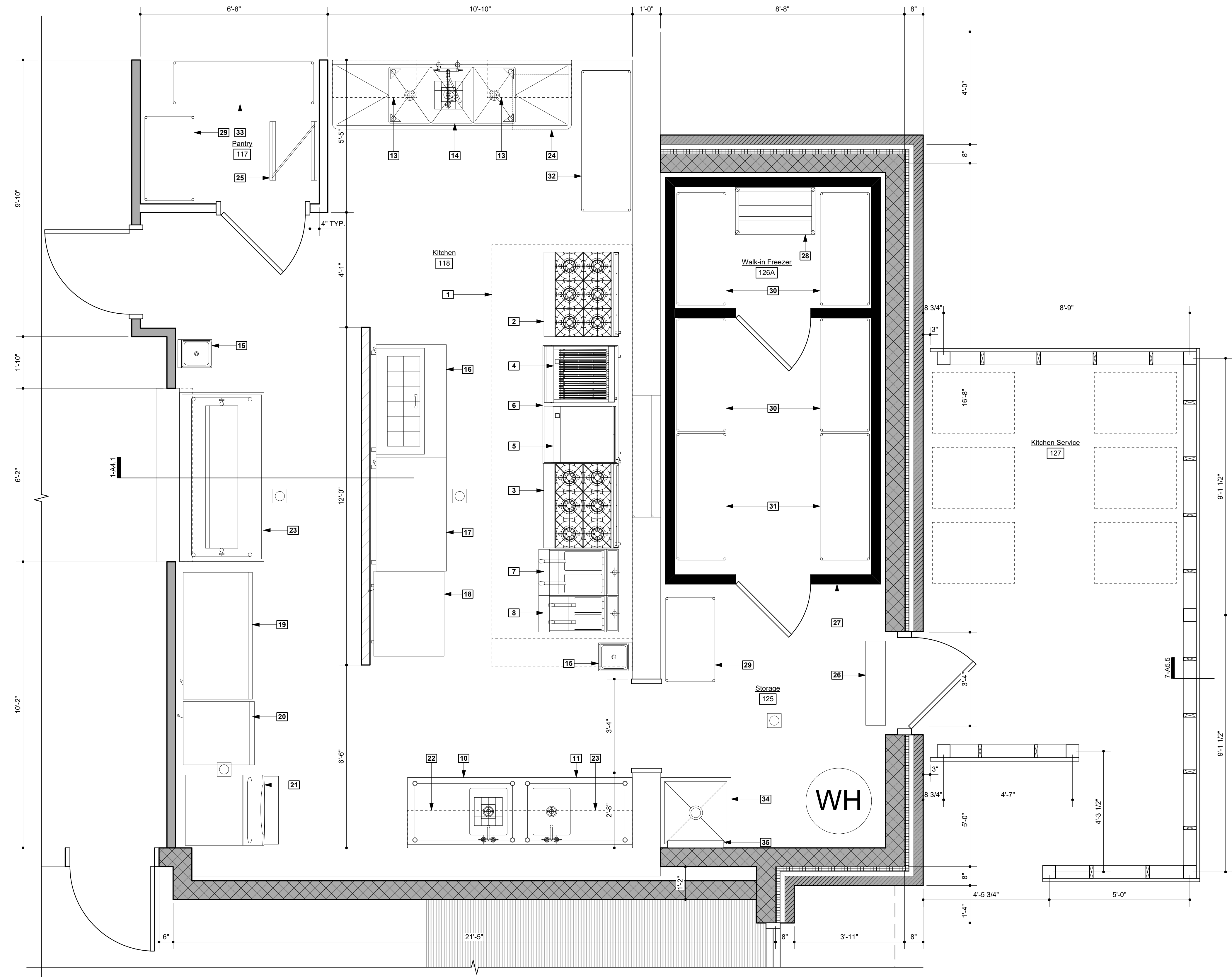
Enlarged  
Restroom Plans

**A4.0**

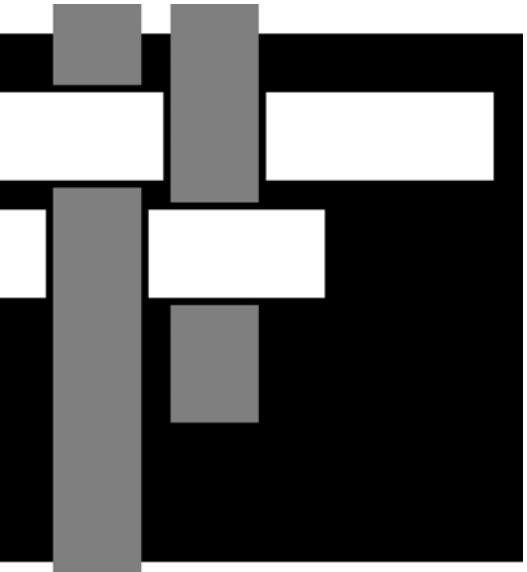


**1** Kitchen Interior Wall Section  
 A4.1 Scale: 3/4" = 1'-0"

Accessory Key Notes		
1 Exhaust Hood	14 3-Compartment Sink	27 Walk-in Cooler/Freezer
2 Range with Convection Oven	15 Hand Sink	28 Dunnage Rack
3 Range with Standard Oven	16 Refrigerated Sandwich Unit	29 36"W x 21"D Wire Shelving
4 Char Grille	17 Worktop Refrigerator	30 48"W x 21"D Wire Shelving
5 Flat Grille	18 Worktop Freezer	31 54"W x 21"D Wire Shelving
6 Refrigerated Equipment Stand	19 Reach-in Freezer	32 60"W x 21"D Wire Shelving
7 70-90 lb Fryer	20 Reach-in Refrigerator	33 60"W x 18"D Wire Shelving
8 40-50 lb Fryer	21 Ice Maker	34 Mop Sink
9 NUMBER NOT USED	22 48"W x 16"D Wall Mounted Shelf	35 Mop Holder
10 Prep Table with Left Sink	23 Demo Table with Mirror	
11 Prep Table with Right Sink	24 Dishwasher	
12 NUMBER NOT USED	25 Pan Rack	
13 Tubular Shelving	26 Air Curtain	



**3** Enlarged Kitchen Floor Plan Alt. Bid G-1  
 A4.1 Scale: 1/2" = 1'-0"



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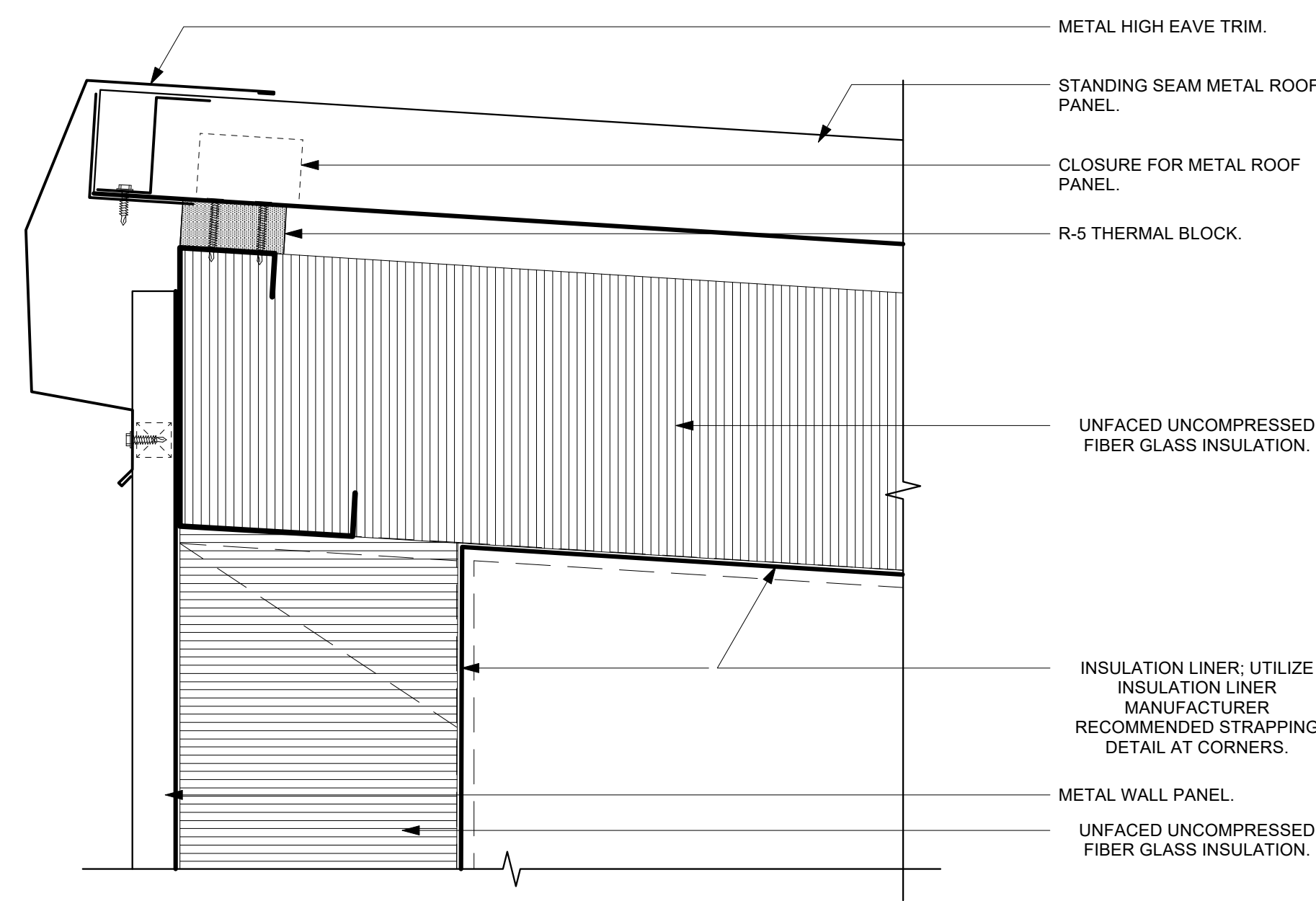
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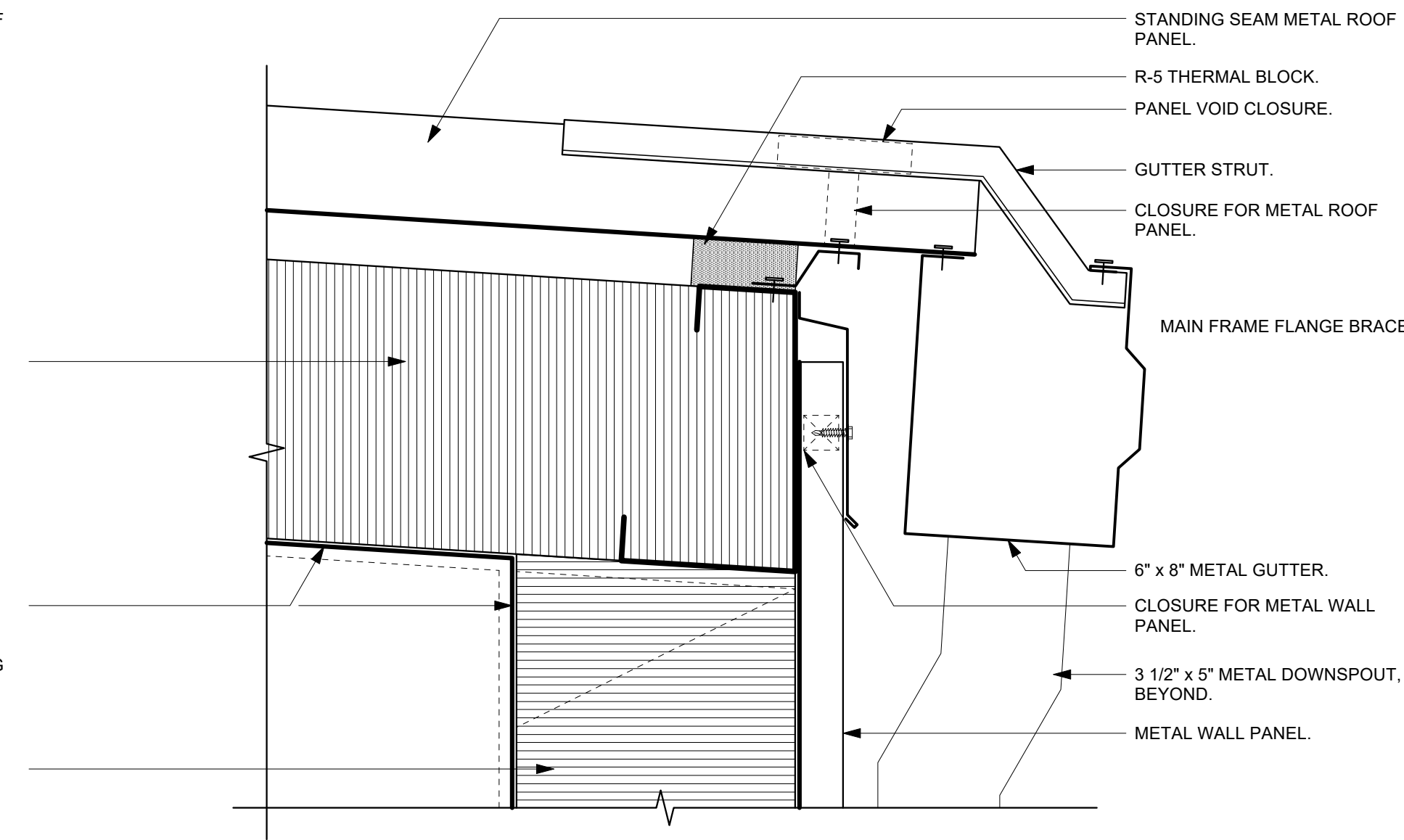
Enlarged  
 Kitchen Plan  
 Alt. Bid G-1

**A4.1**

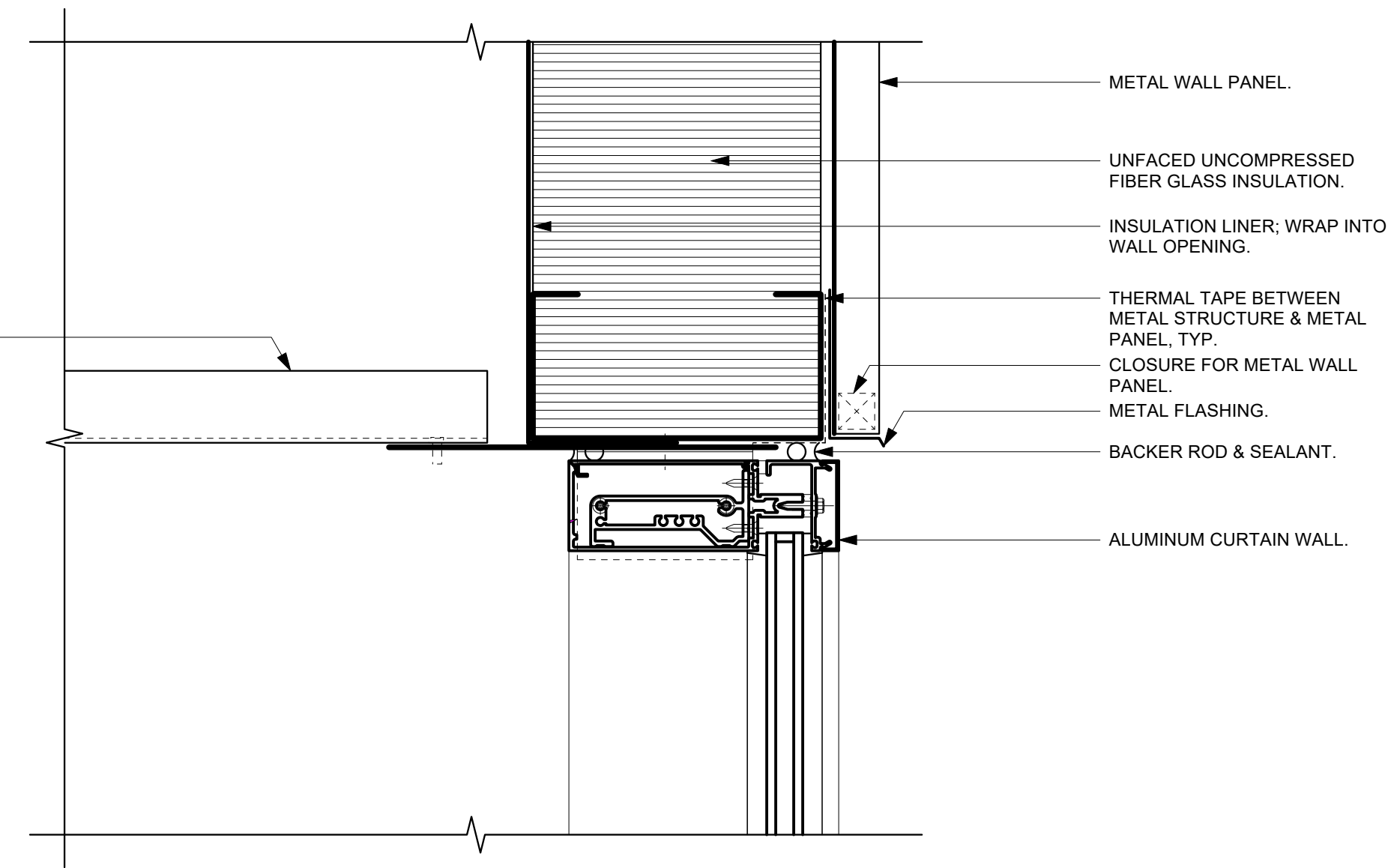
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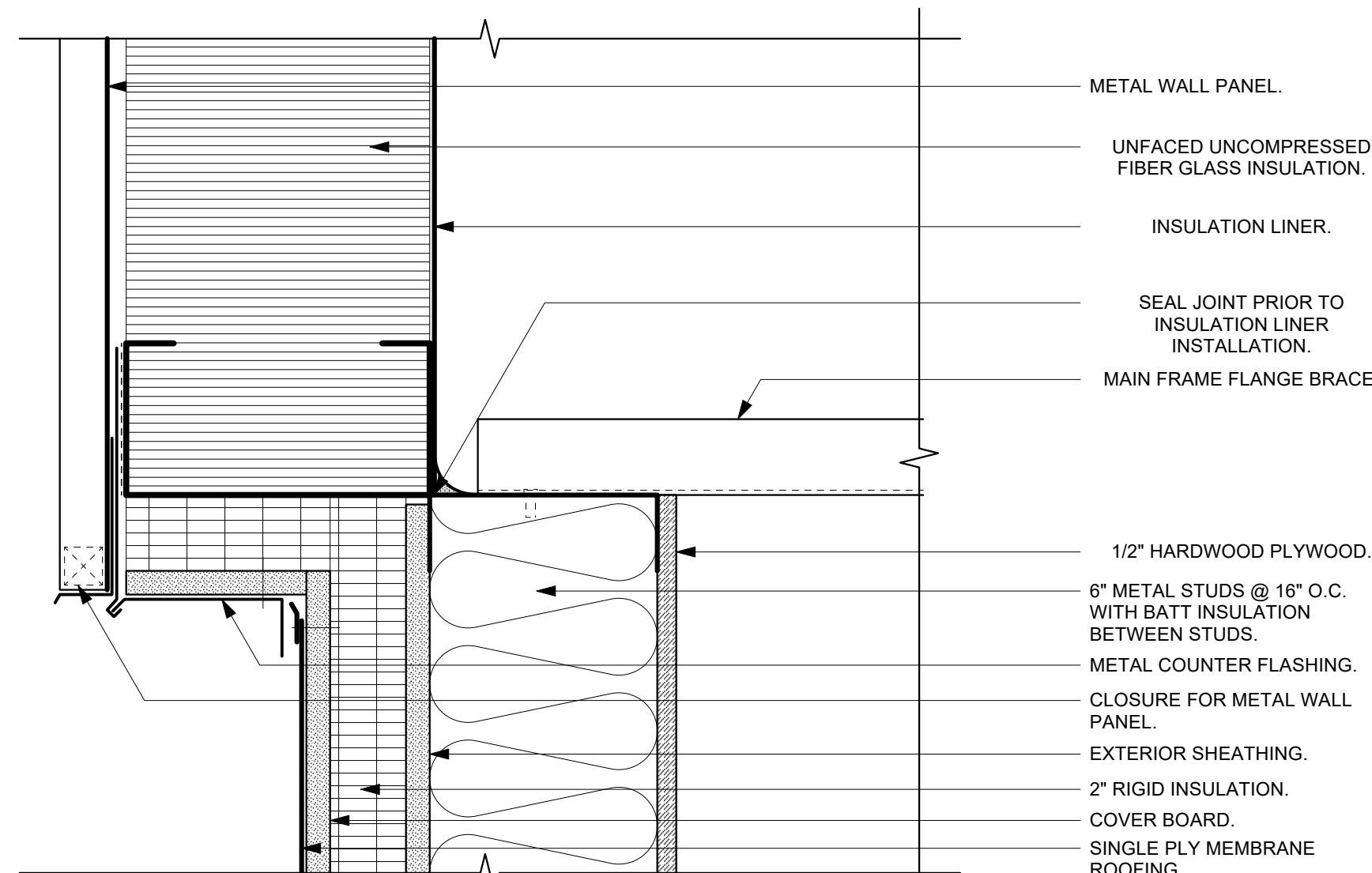
1 High Eave Detail  
 Scale: 3" = 1'-0"



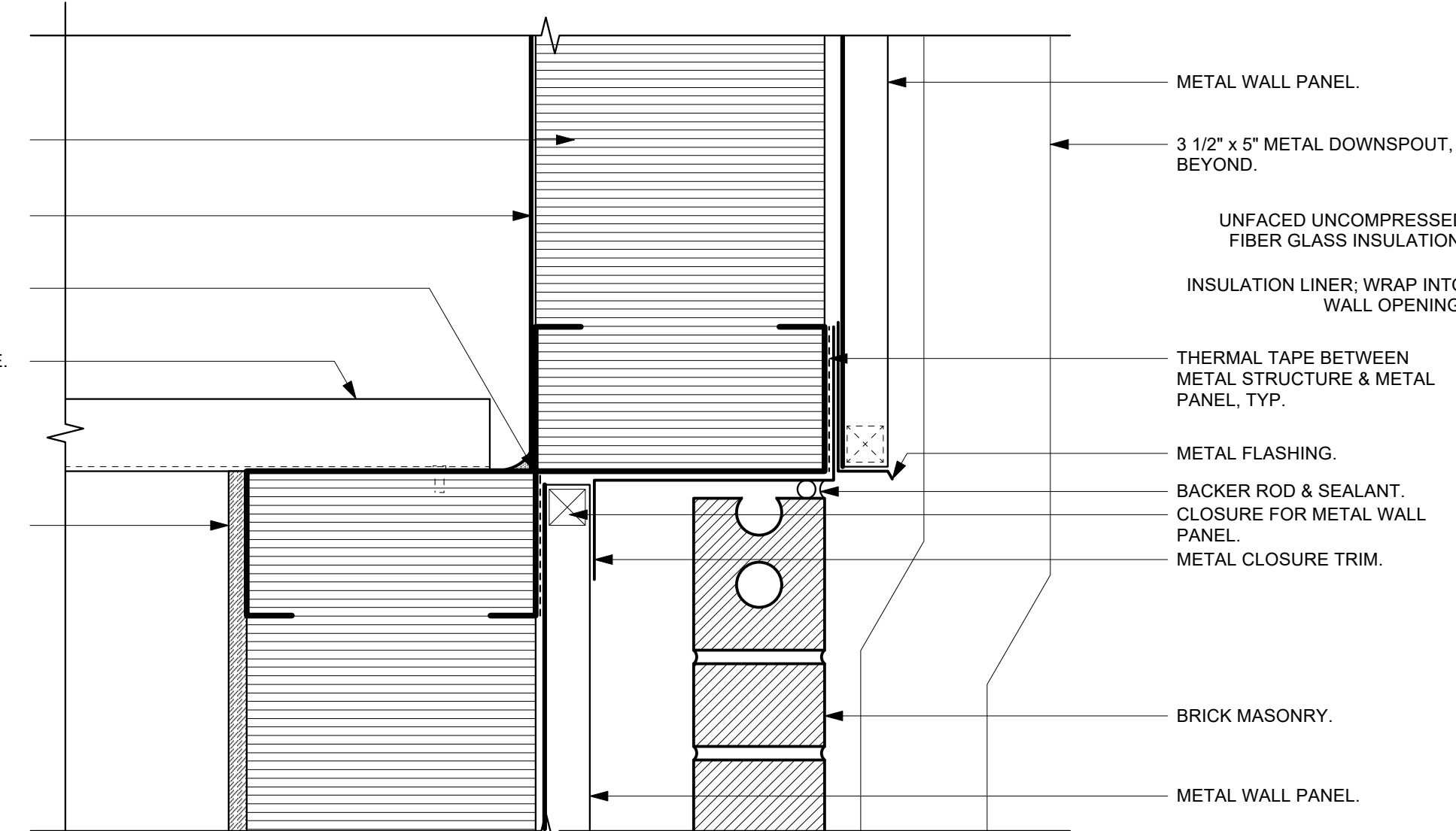
2 Low Eave Detail  
 Scale: 3" = 1'-0"



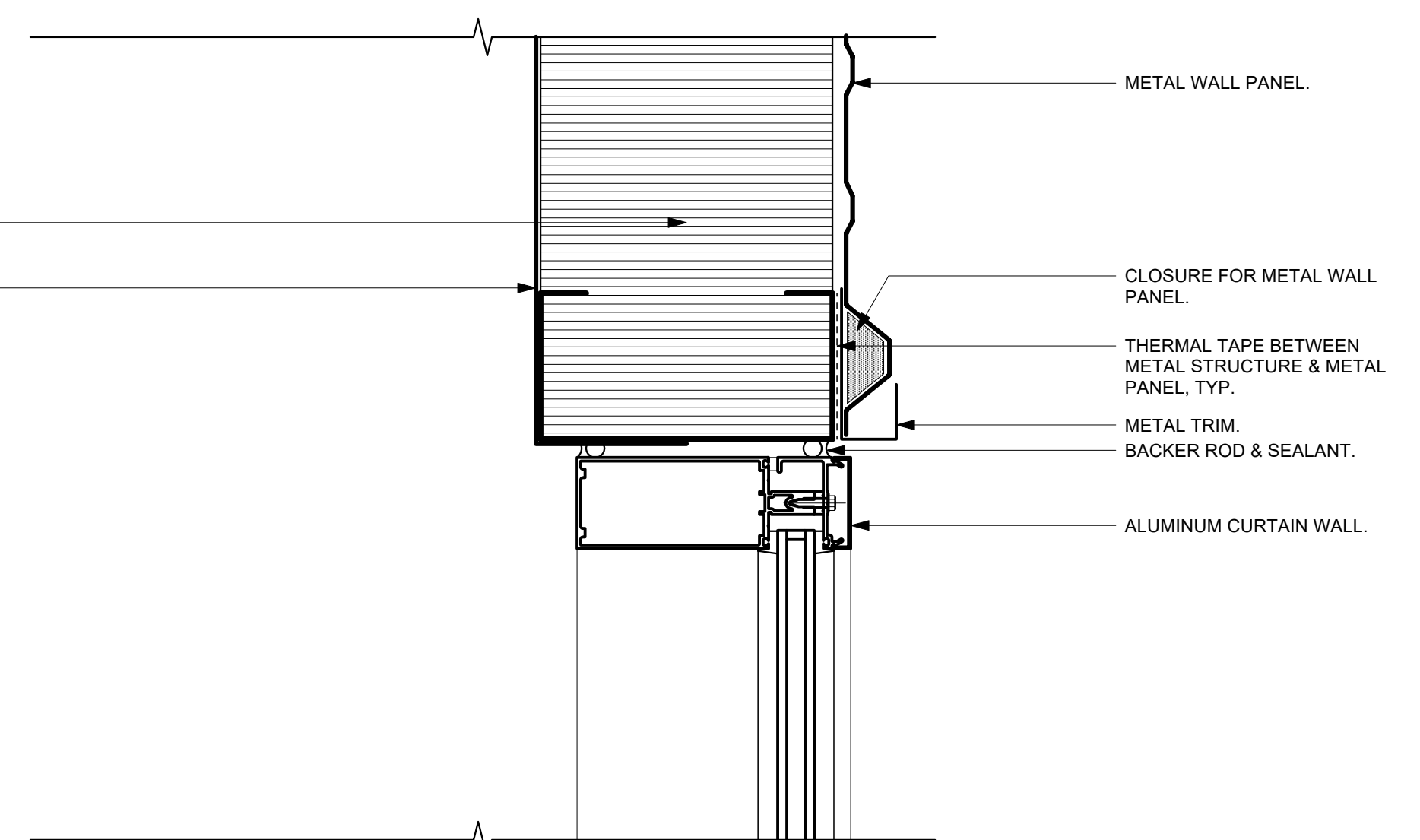
3 Curtain Wall Head Detail  
 Scale: 3" = 1'-0"



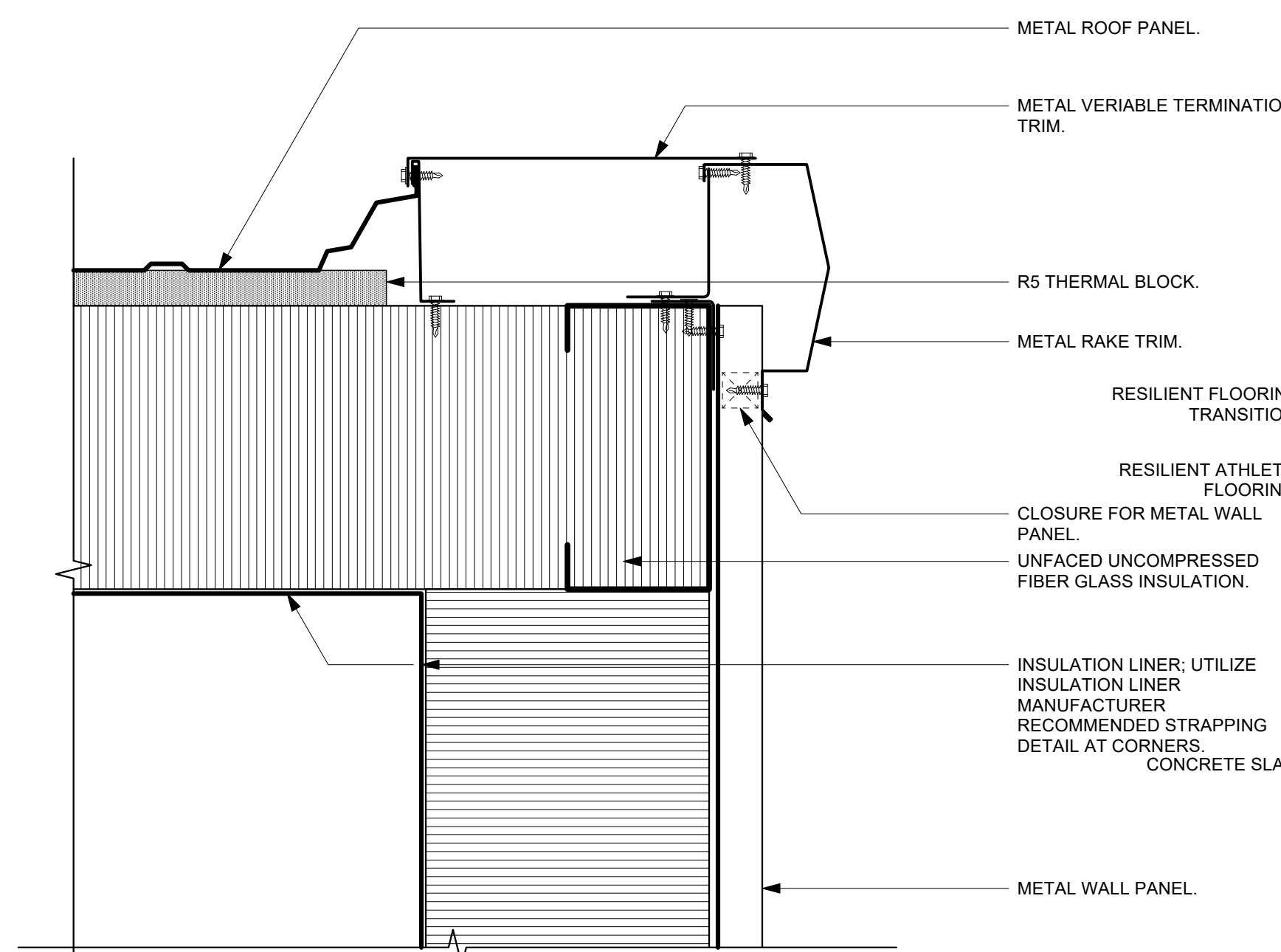
4 Metal Wall Panel to Single Ply Membrane Detail  
 Scale: 3" = 1'-0"



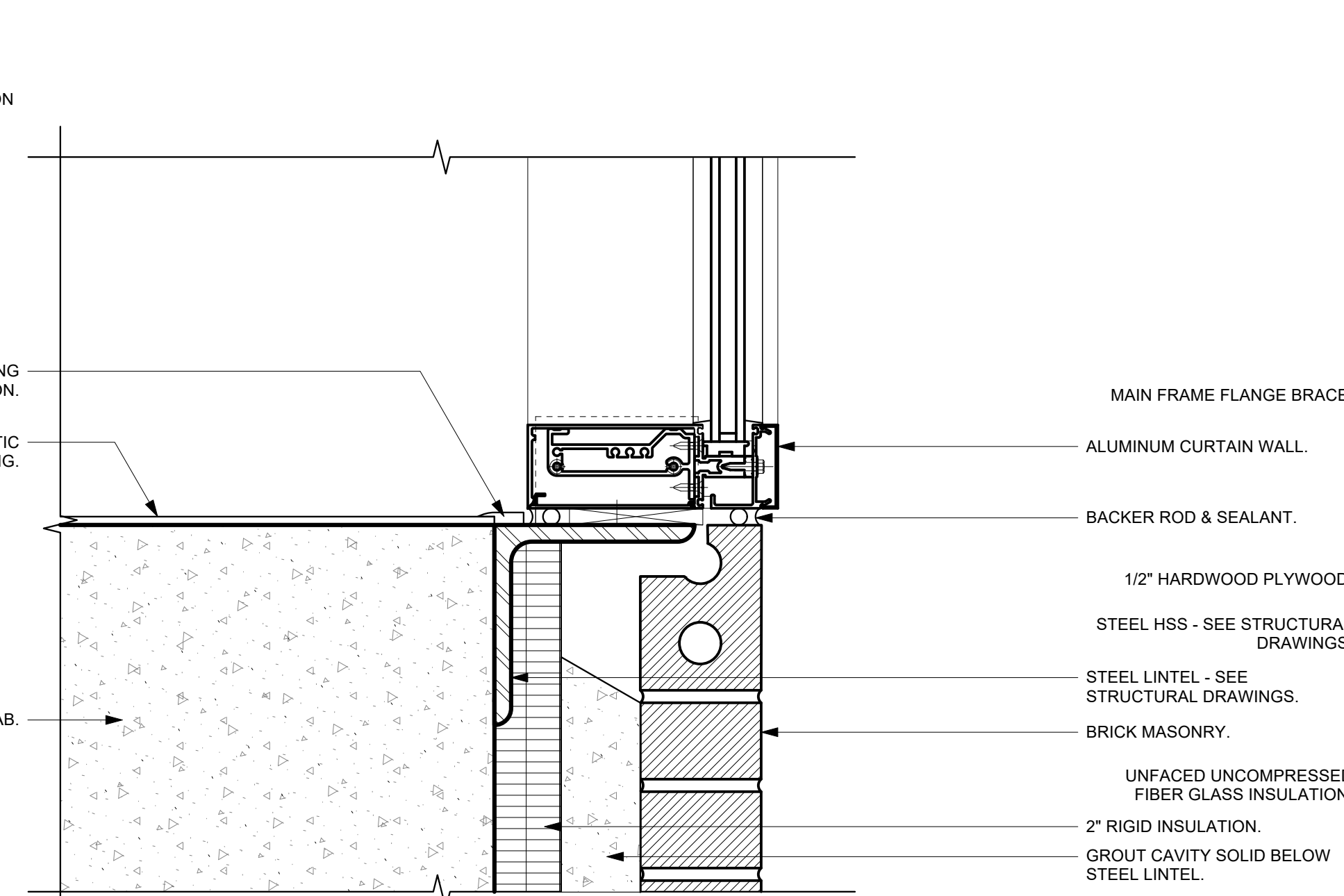
5 Metal Wall Panel to Brick Detail  
 Scale: 3" = 1'-0"



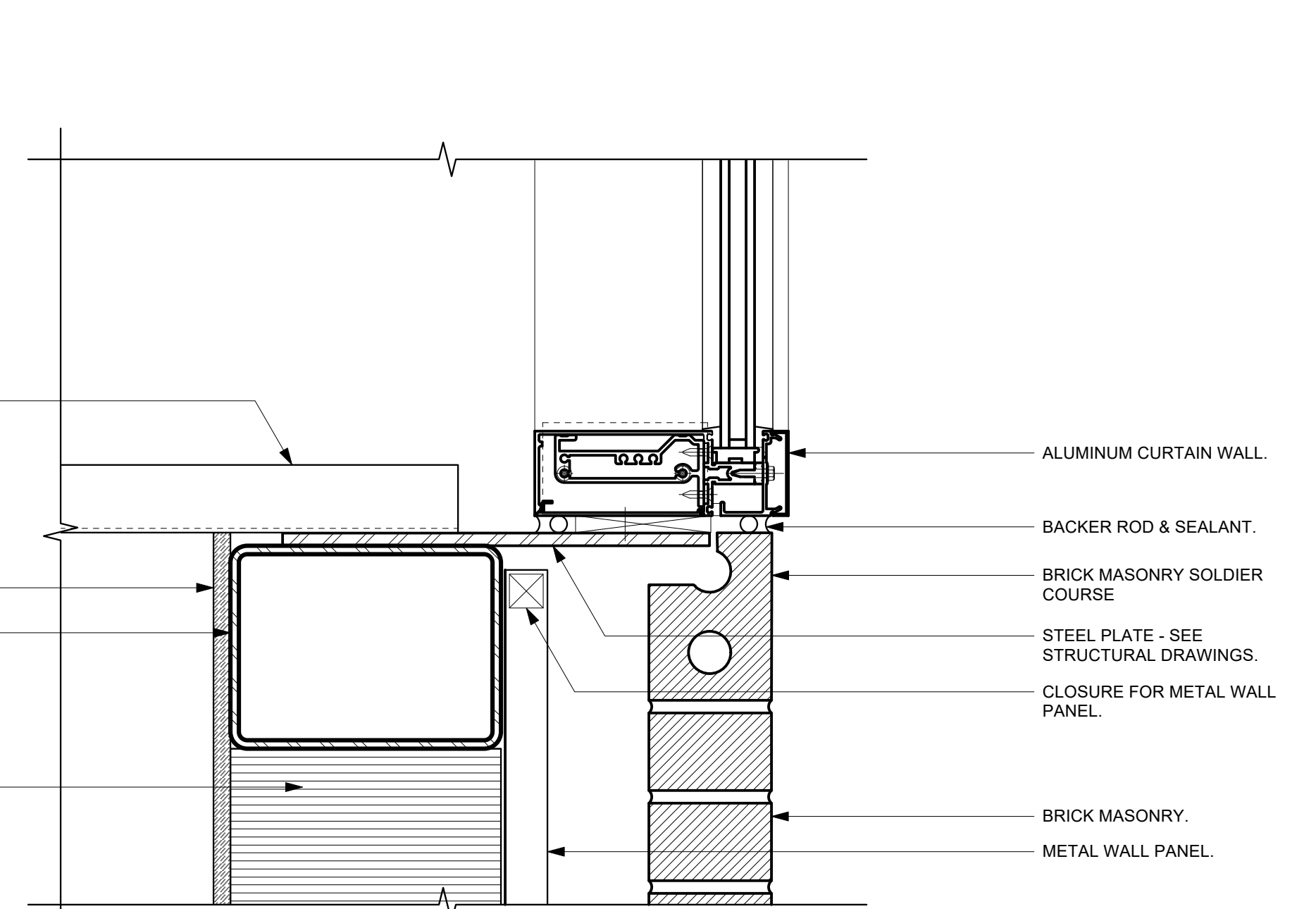
6 Curtain Wall Jamb Detail  
 Scale: 3" = 1'-0"



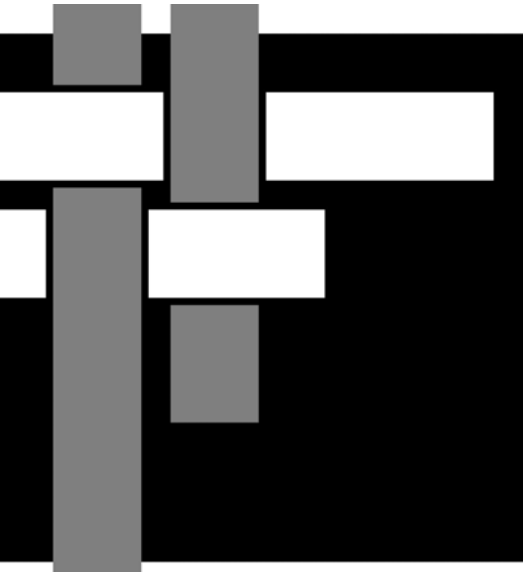
7 Rake Detail  
 Scale: 3" = 1'-0"



8 Curtain Wall Sill Detail at Floor  
 Scale: 3" = 1'-0"



9 Curtain Wall Sill Detail at Purlin  
 Scale: 3" = 1'-0"



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 Gymnasium  
 Addition**  
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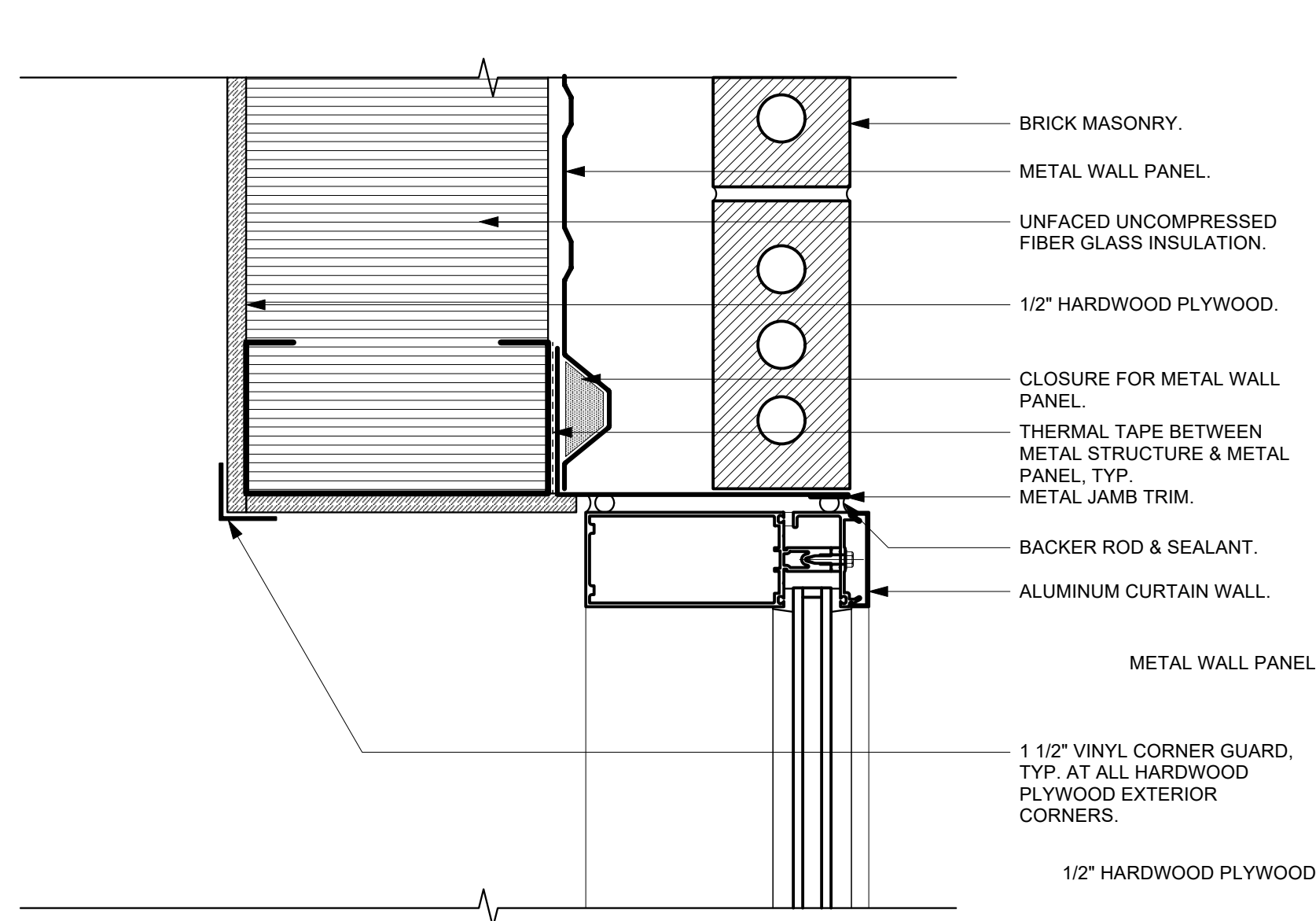
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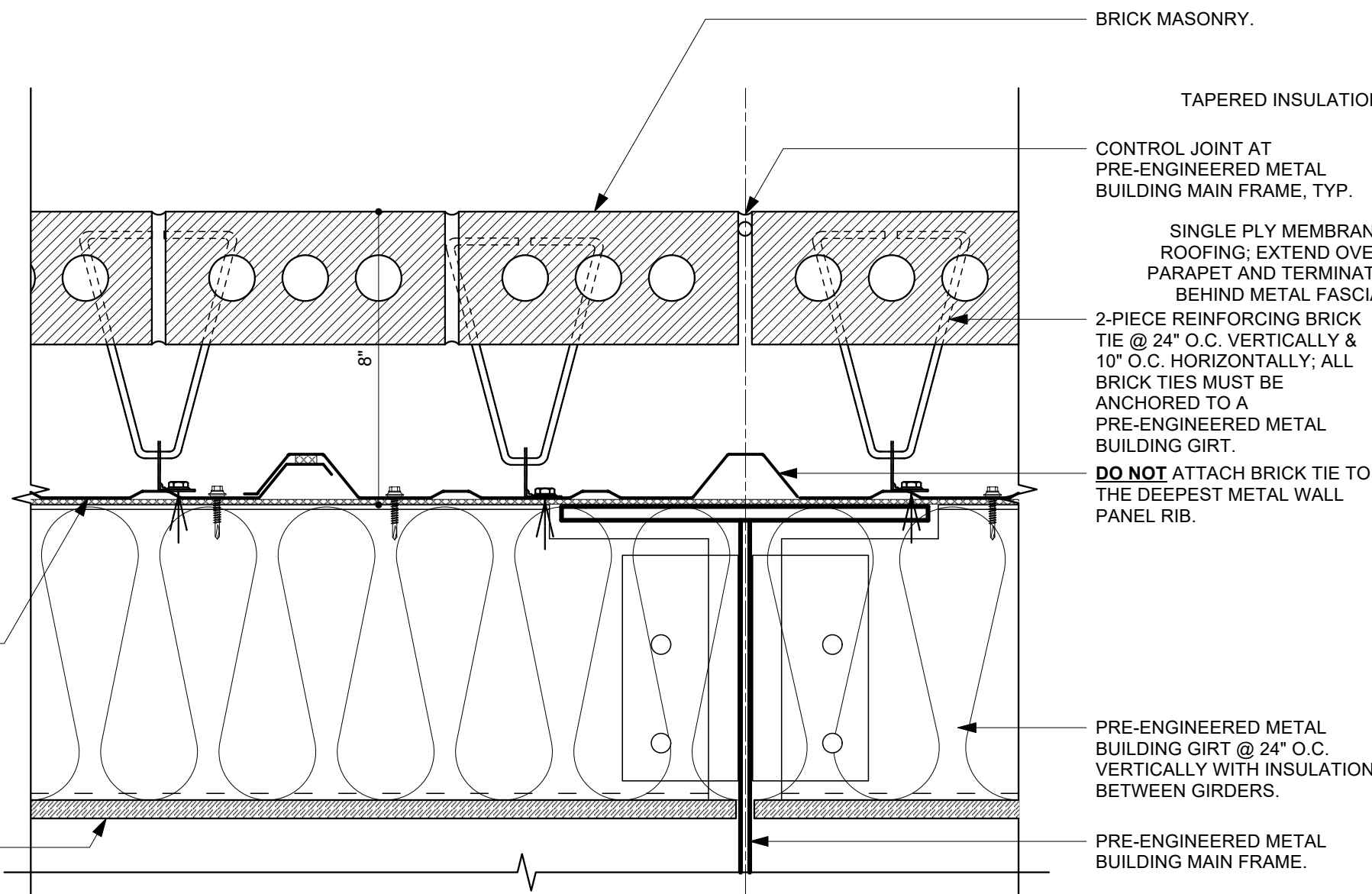
Details

**A5.0**

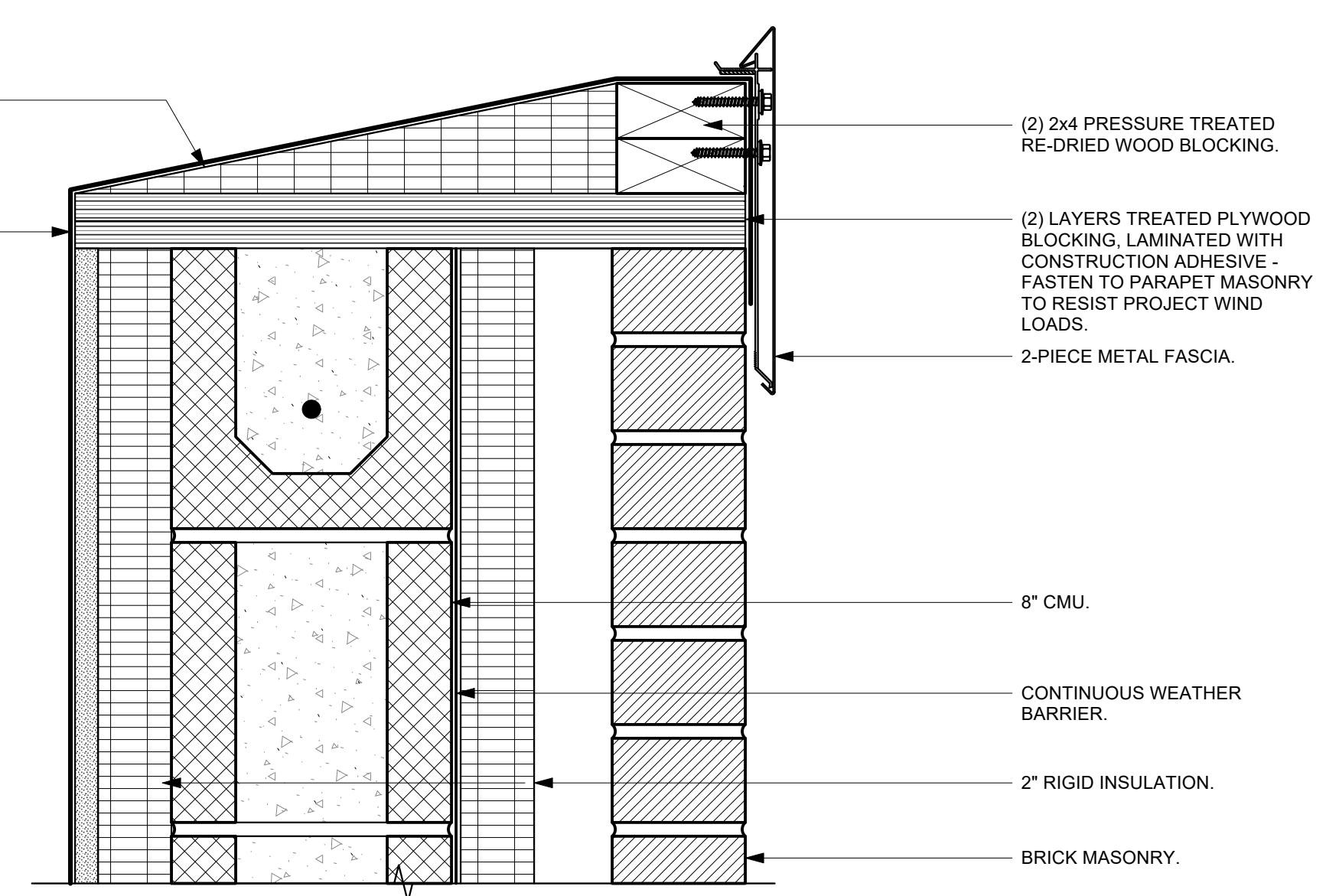
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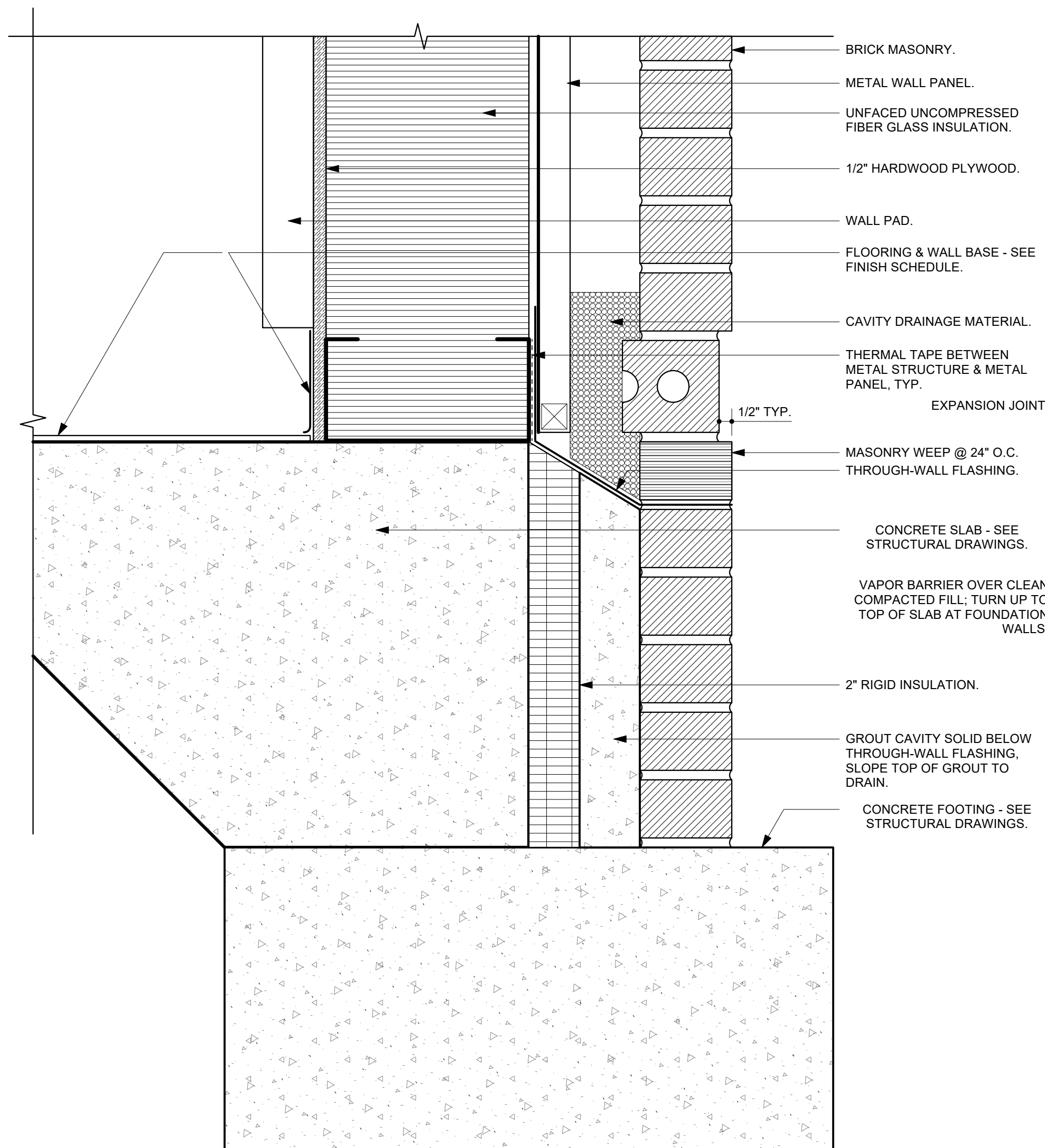
**1**  
A5.1 **Curtain Wall Jamb @ Brick Detail**  
Scale: 3" = 1'-0"



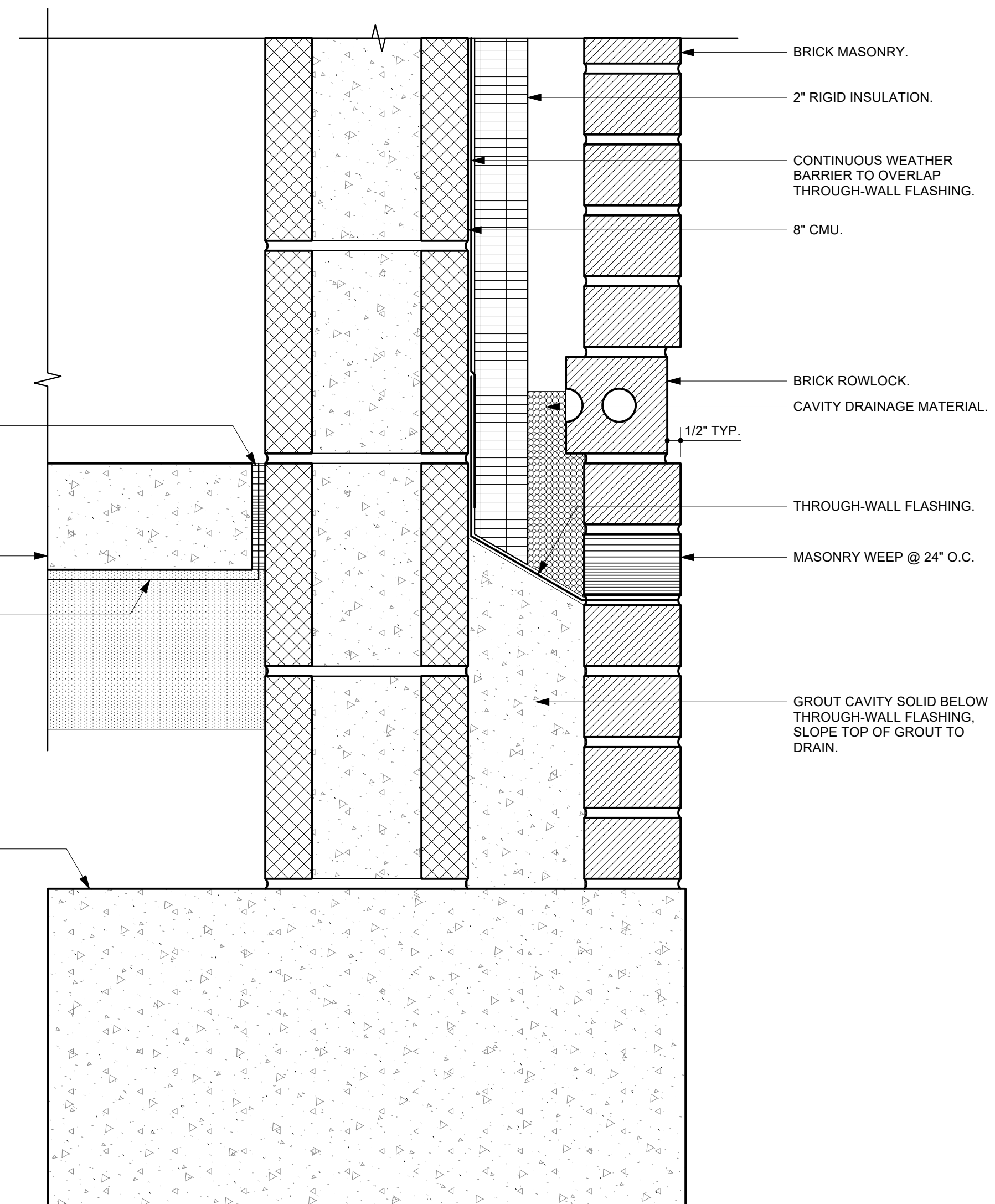
**2**  
A5.1 **Gymnasium Brick Tie Plan**  
Scale: 3" = 1'-0"



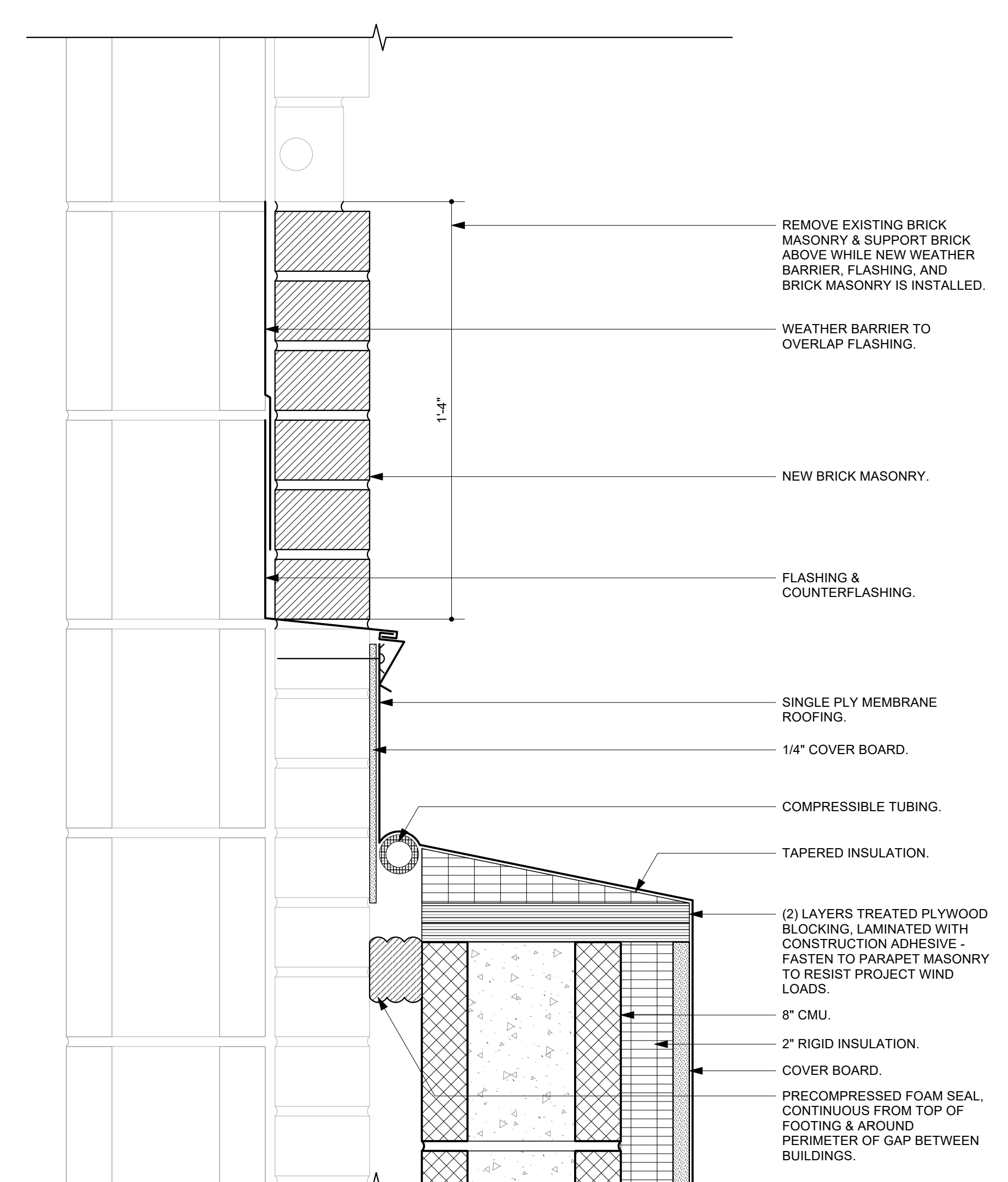
**3**  
A5.1 **Parapet Detail**  
Scale: 3" = 1'-0"



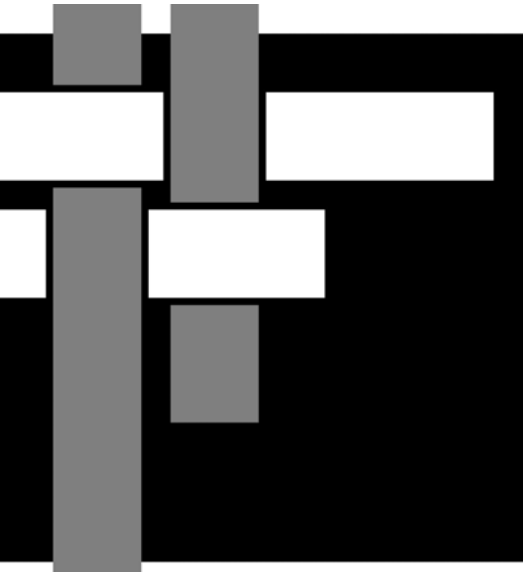
**7**  
A5.1 **Foundation Detail**  
Scale: 3" = 1'-0"



**8**  
A5.1 **Foundation Detail**  
Scale: 3" = 1'-0"



**9**  
A5.1 **Expansion Joint Detail**  
Scale: 3" = 1'-0"



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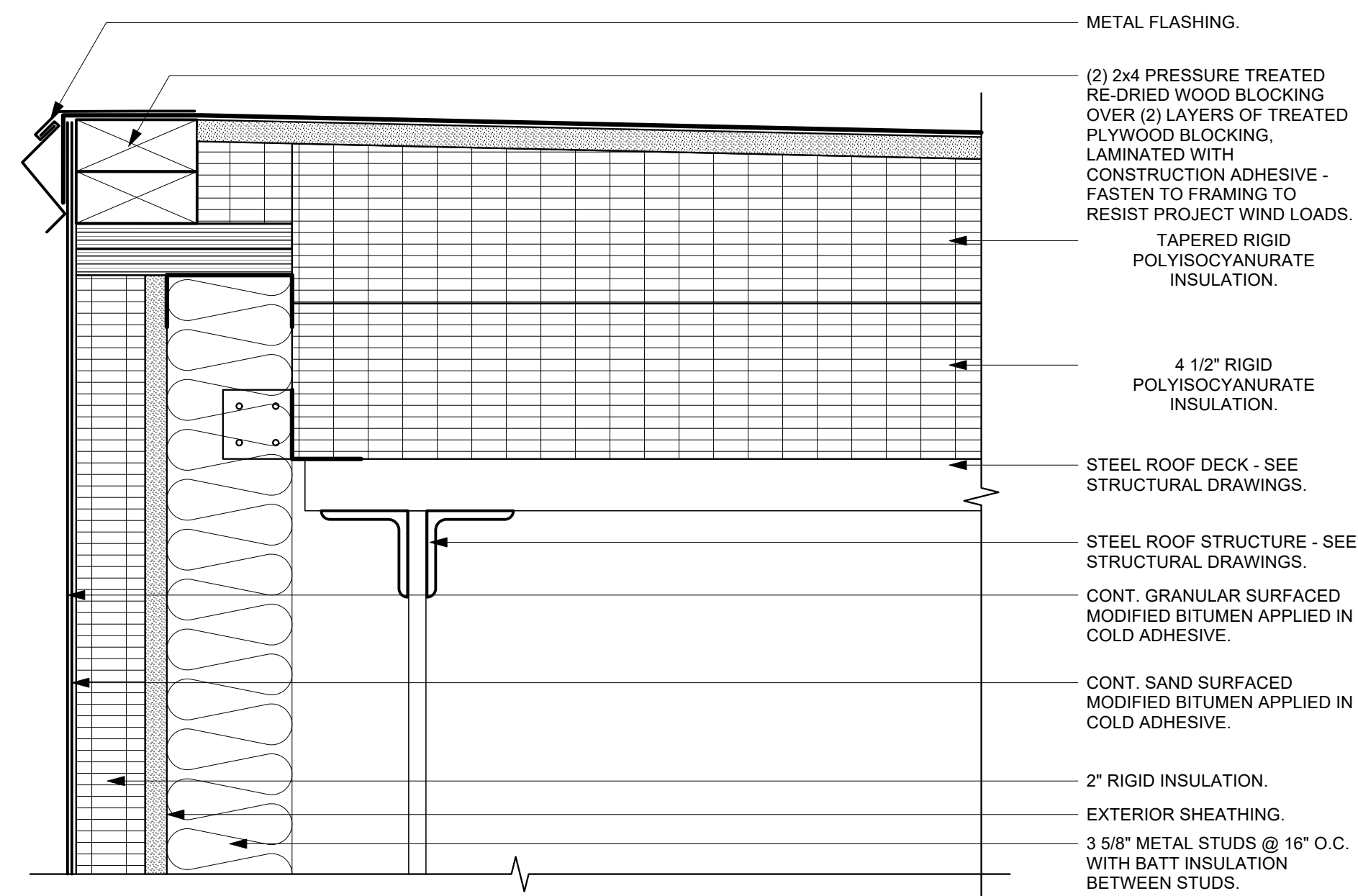
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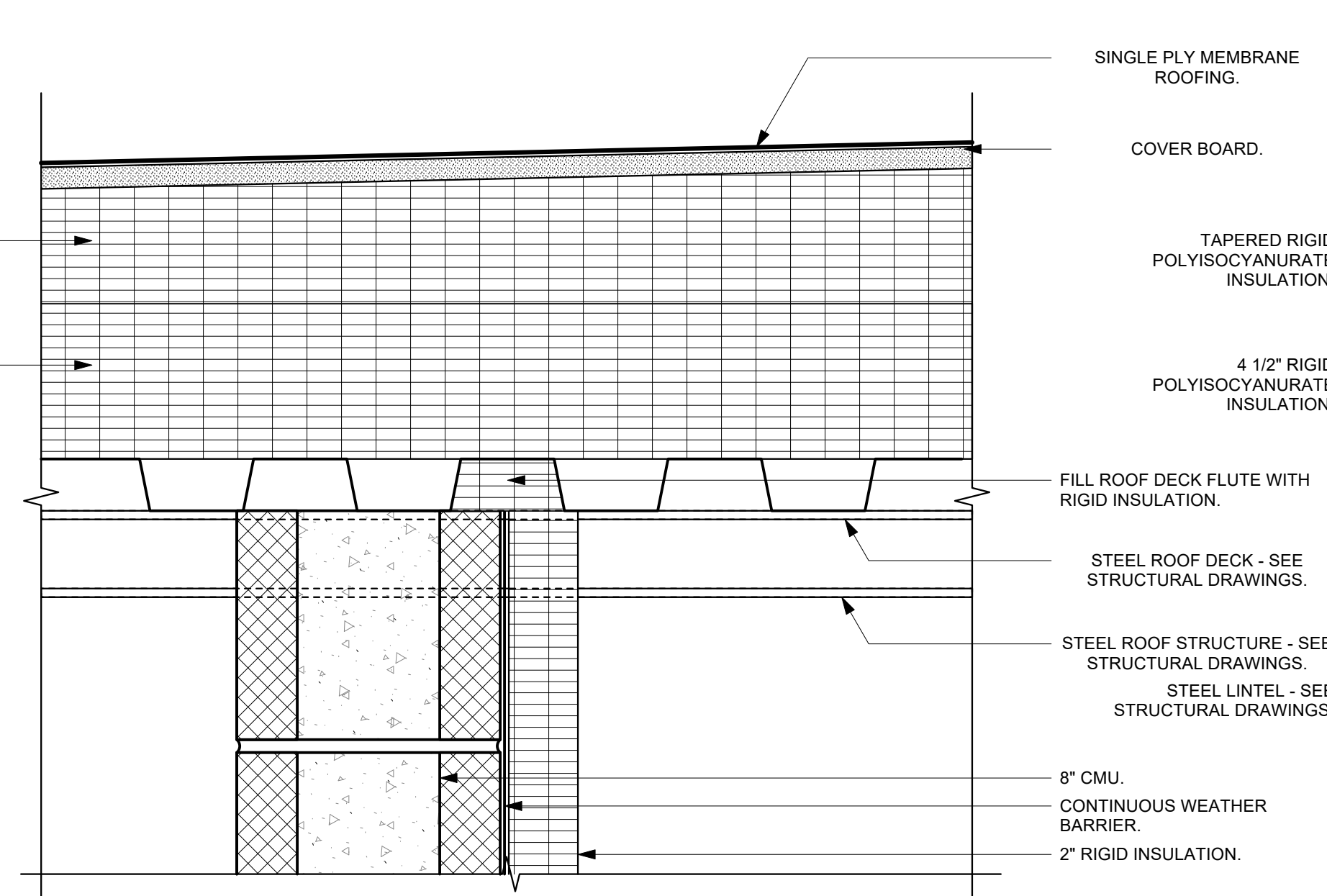
**A5.1**

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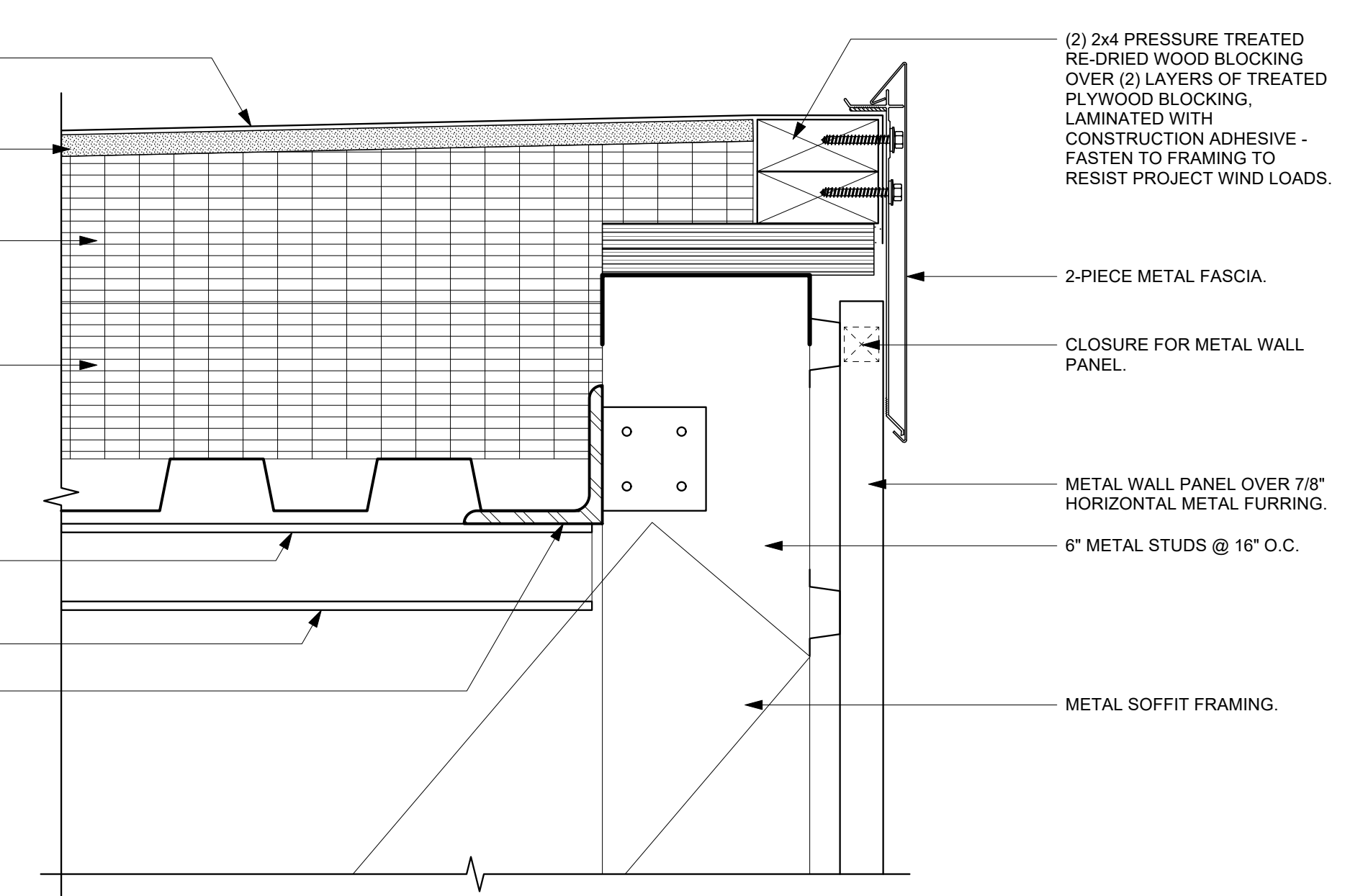
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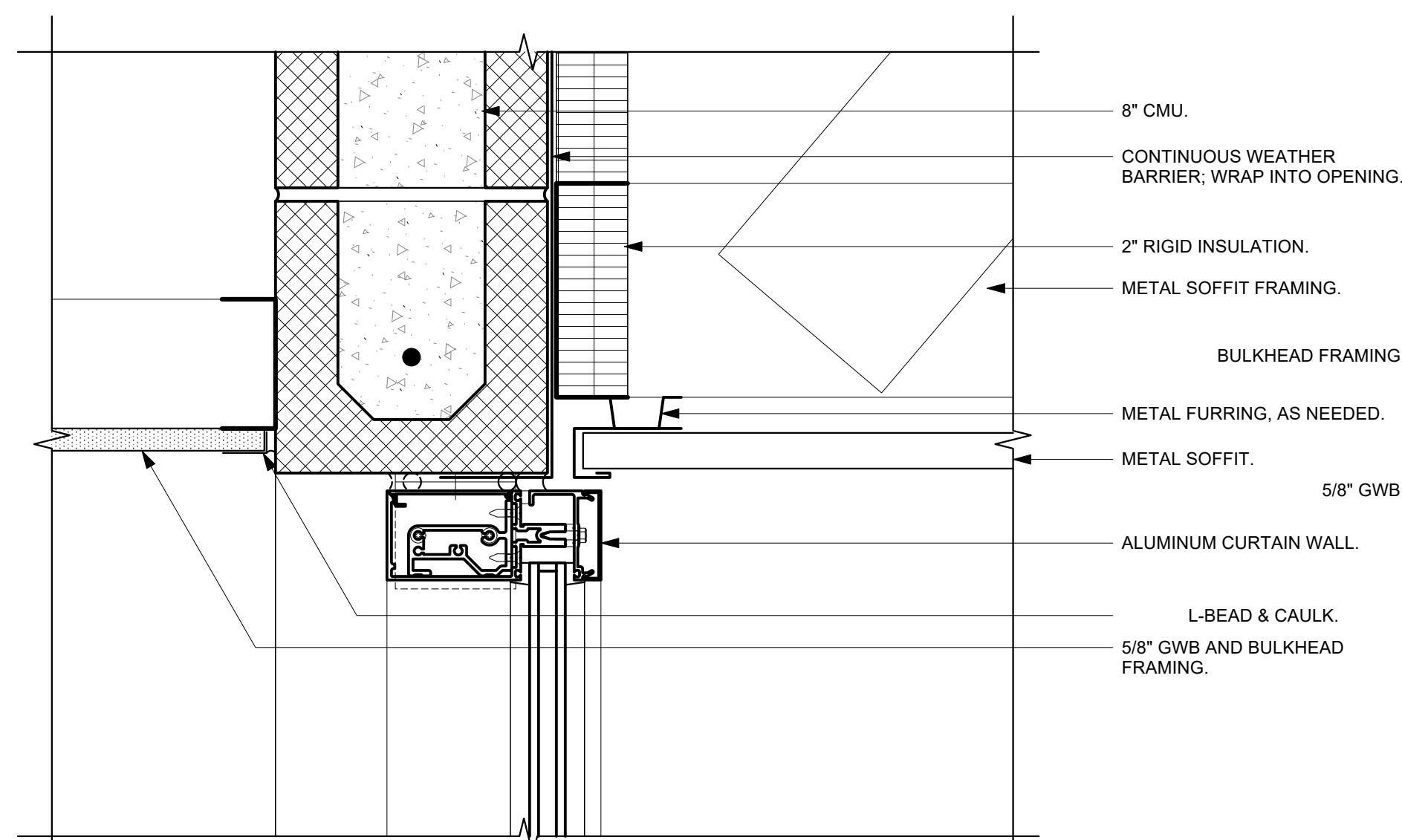
1 Eave Detail at Lobby Detail  
A5.2 Scale: 3" = 1'-0"



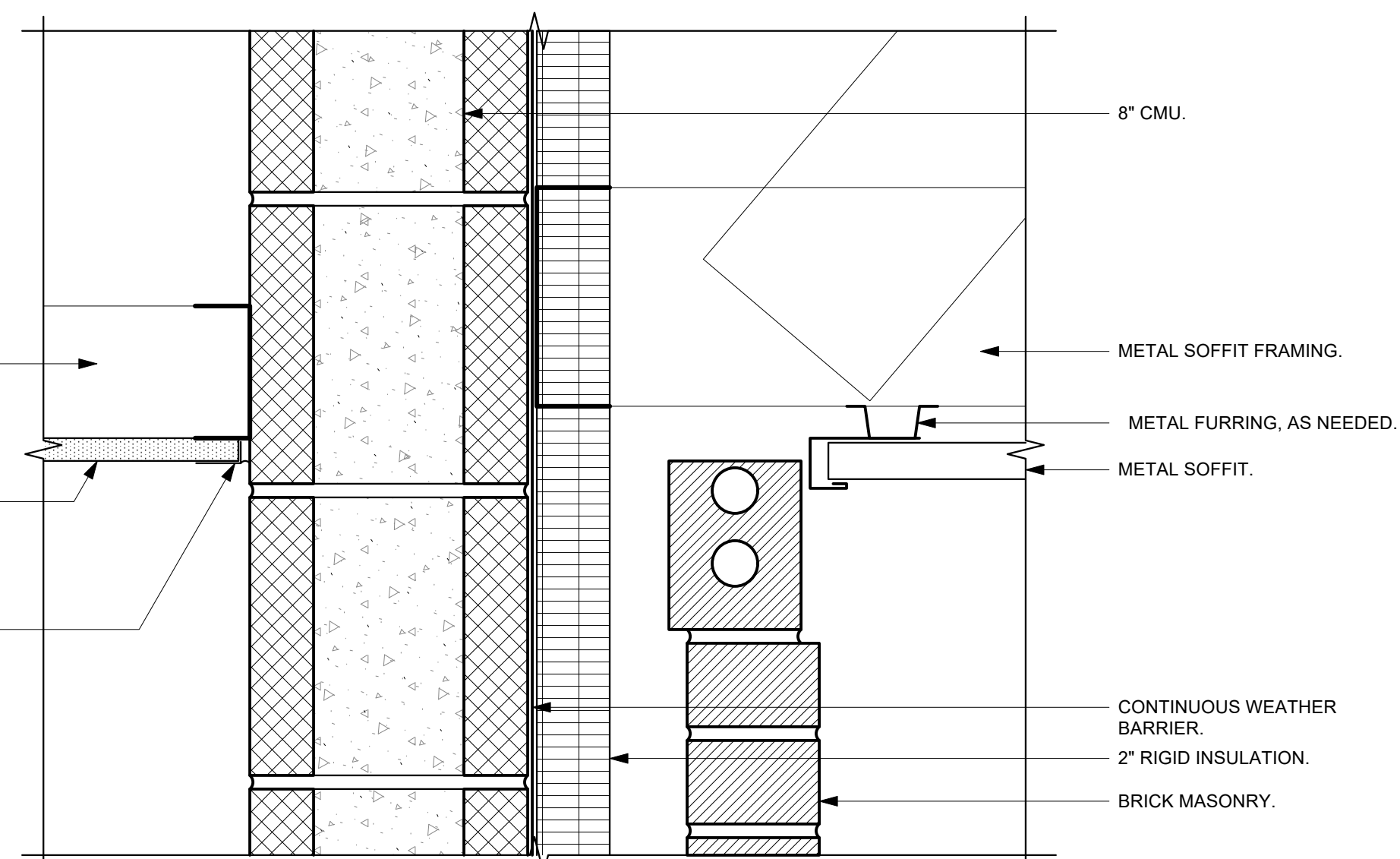
2 Top of Wall Detail at Lobby Detail  
A5.2 Scale: 3" = 1'-0"



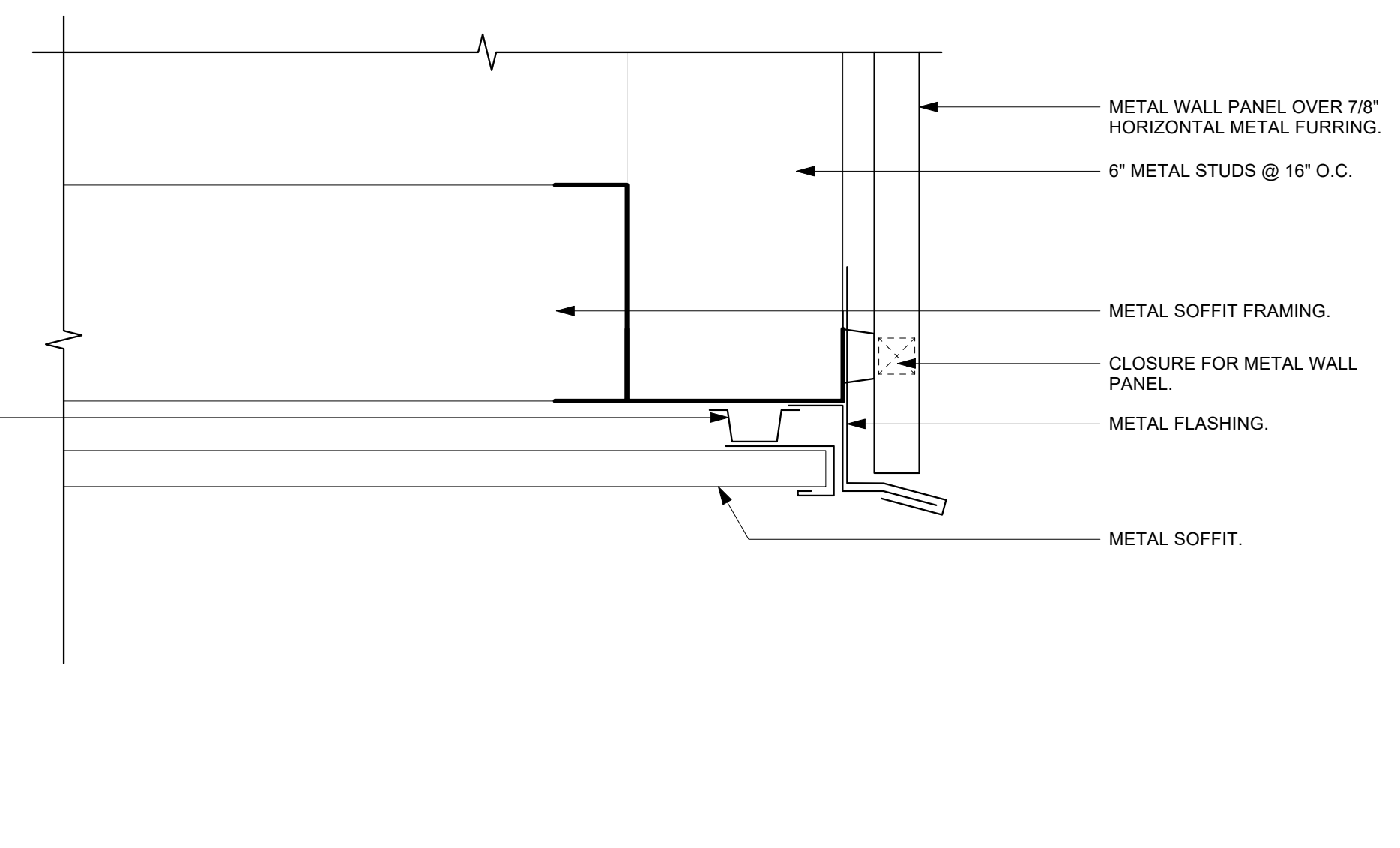
3 Eave Detail at Lobby Soffit Detail  
A5.2 Scale: 3" = 1'-0"



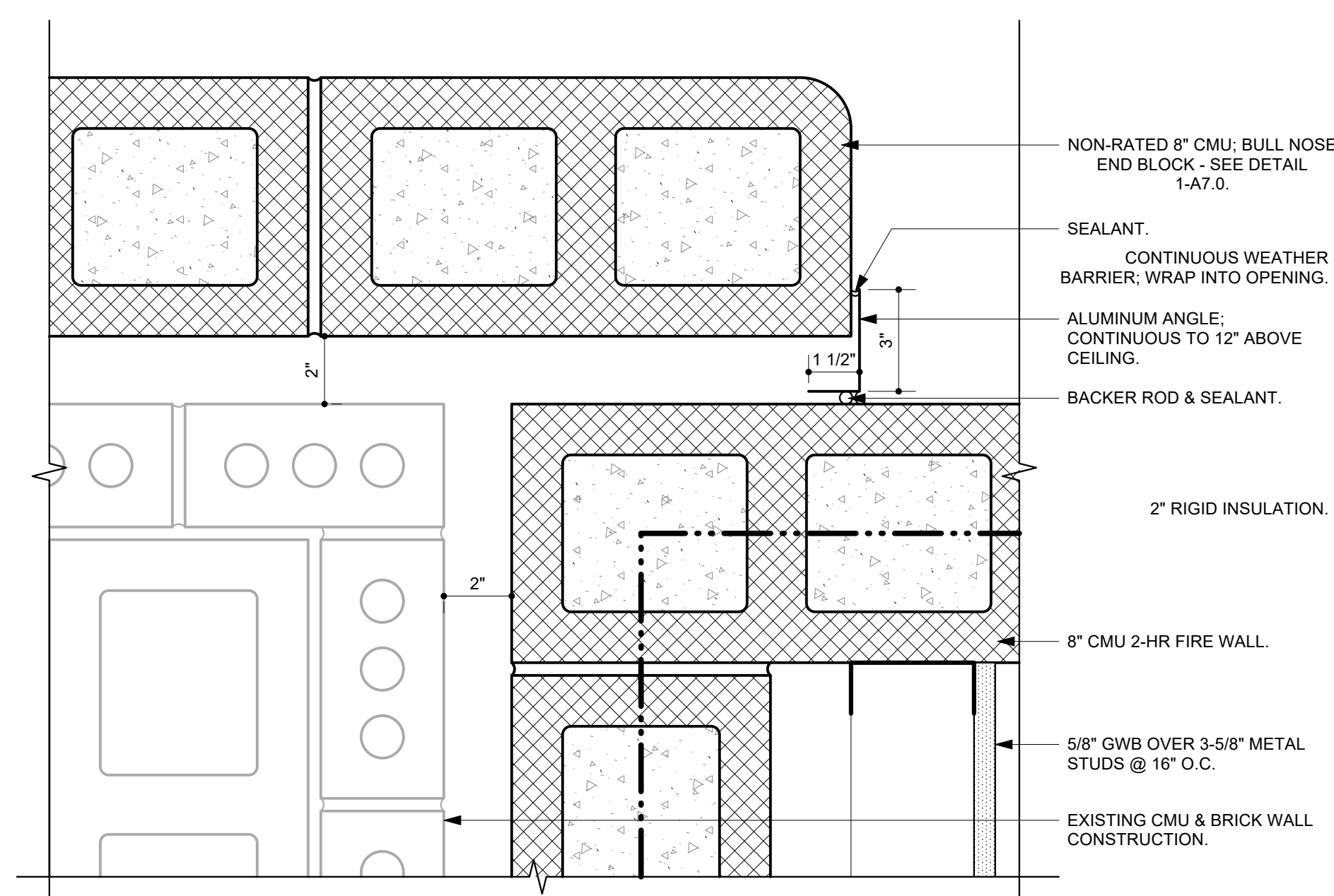
4 Curtain Wall Head at Soffit Detail  
A5.2 Scale: 3" = 1'-0"



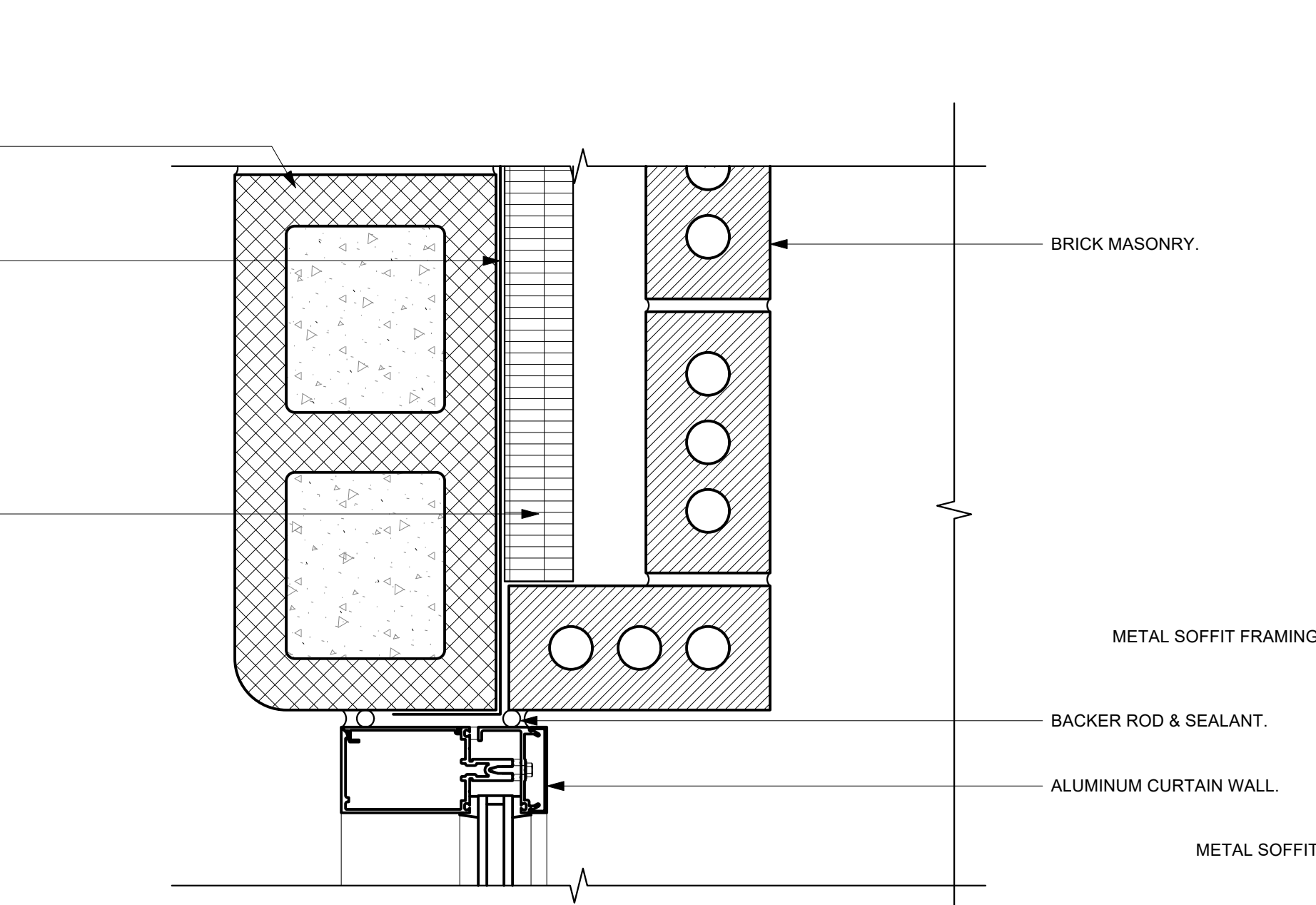
5 Soffit to Masonry Wall Detail  
A5.2 Scale: 3" = 1'-0"



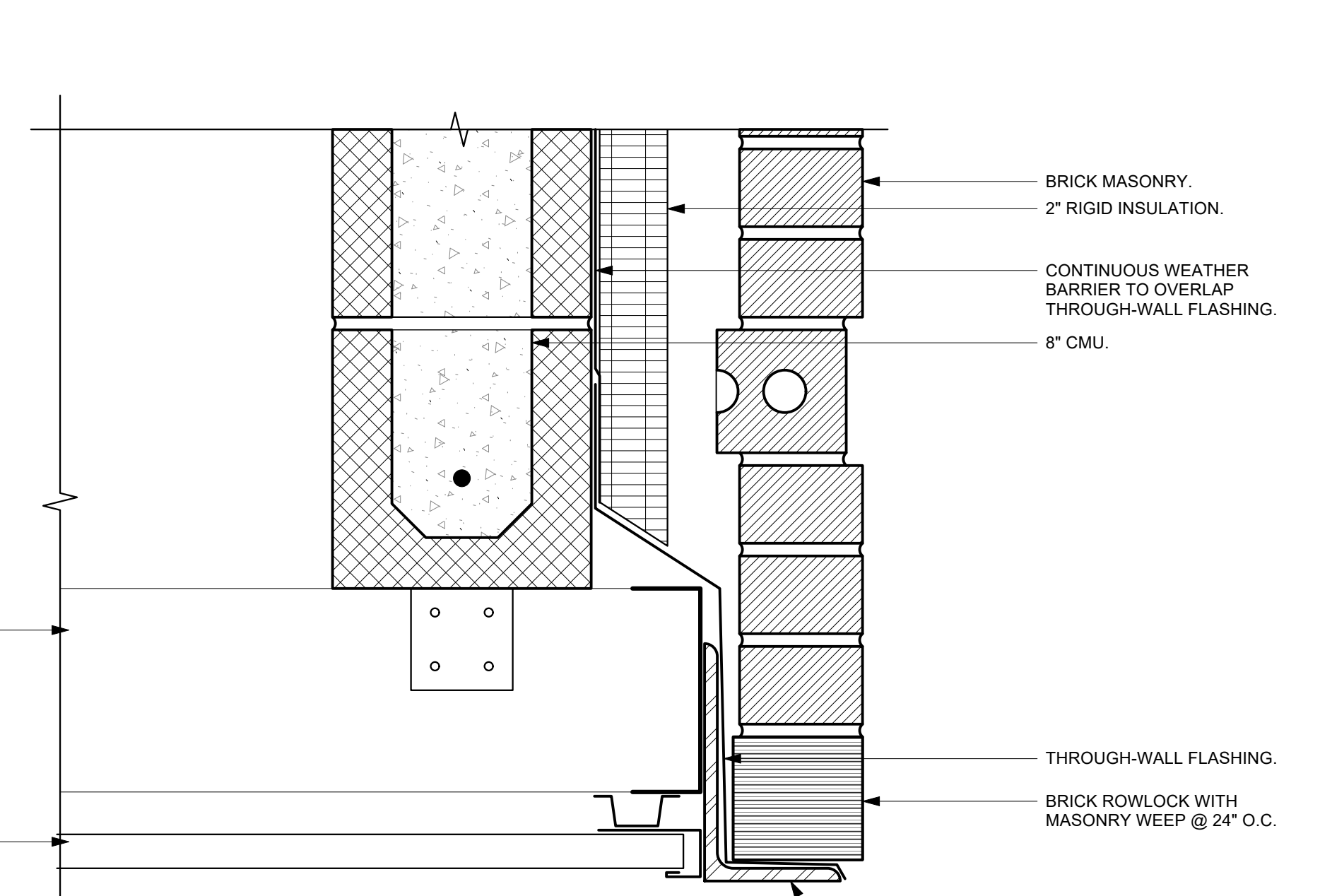
6 Metal Wall Panel to Soffit Detail  
A5.2 Scale: 3" = 1'-0"



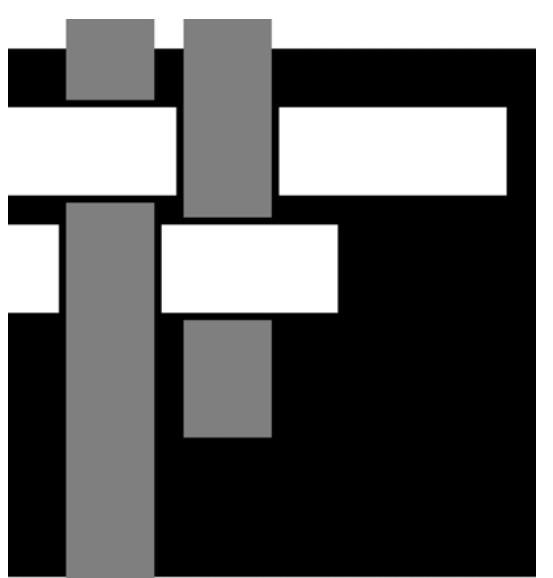
7 CMU to 2-HR Fire Wall Detail  
A5.2 Scale: 3" = 1'-0"



8 Curtain Wall Jamb at CMU Detail  
A5.2 Scale: 3" = 1'-0"



9 Masonry Wall to Soffit Detail  
A5.2 Scale: 3" = 1'-0"



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**MLK Center Gymnasium Addition**  
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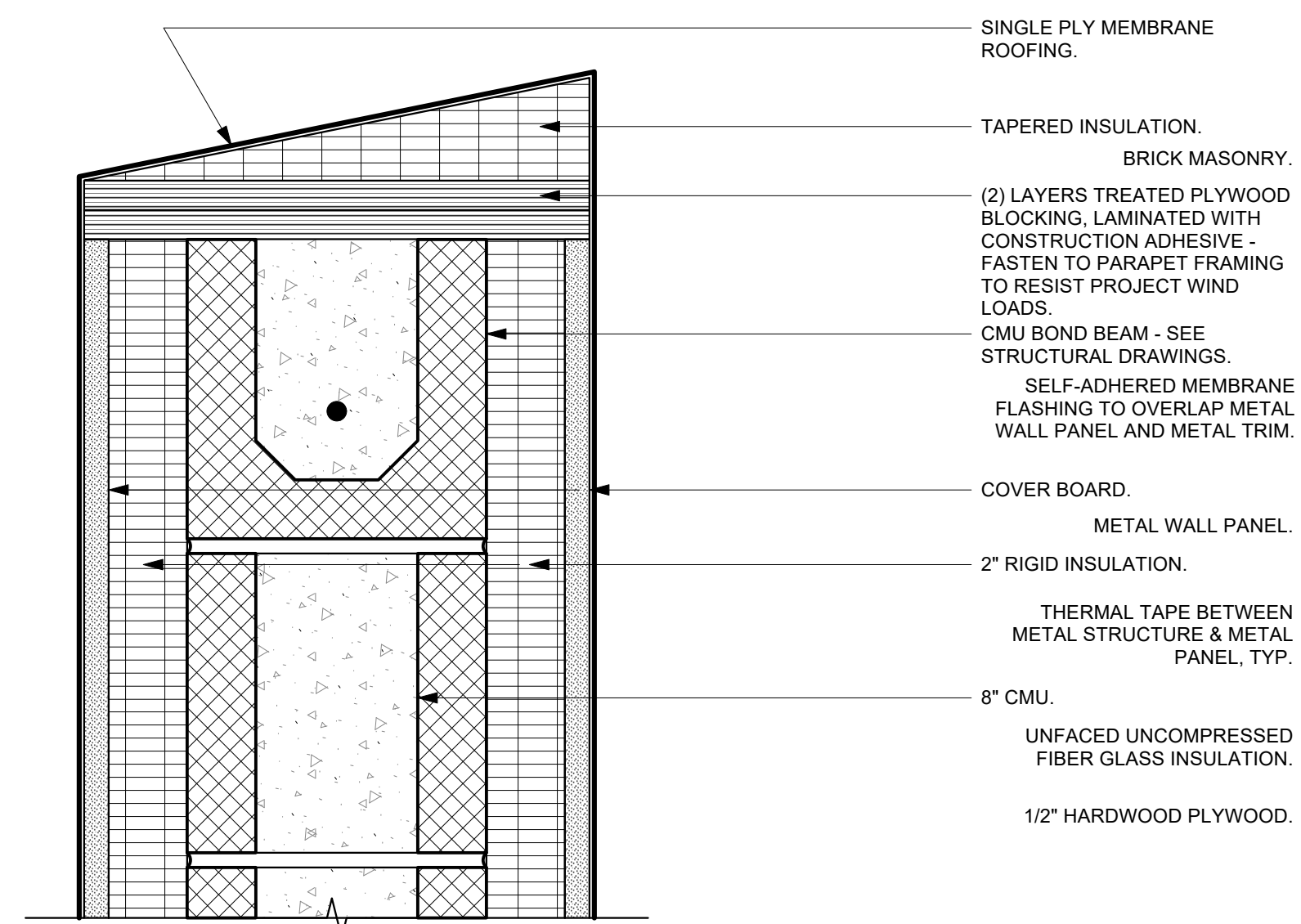
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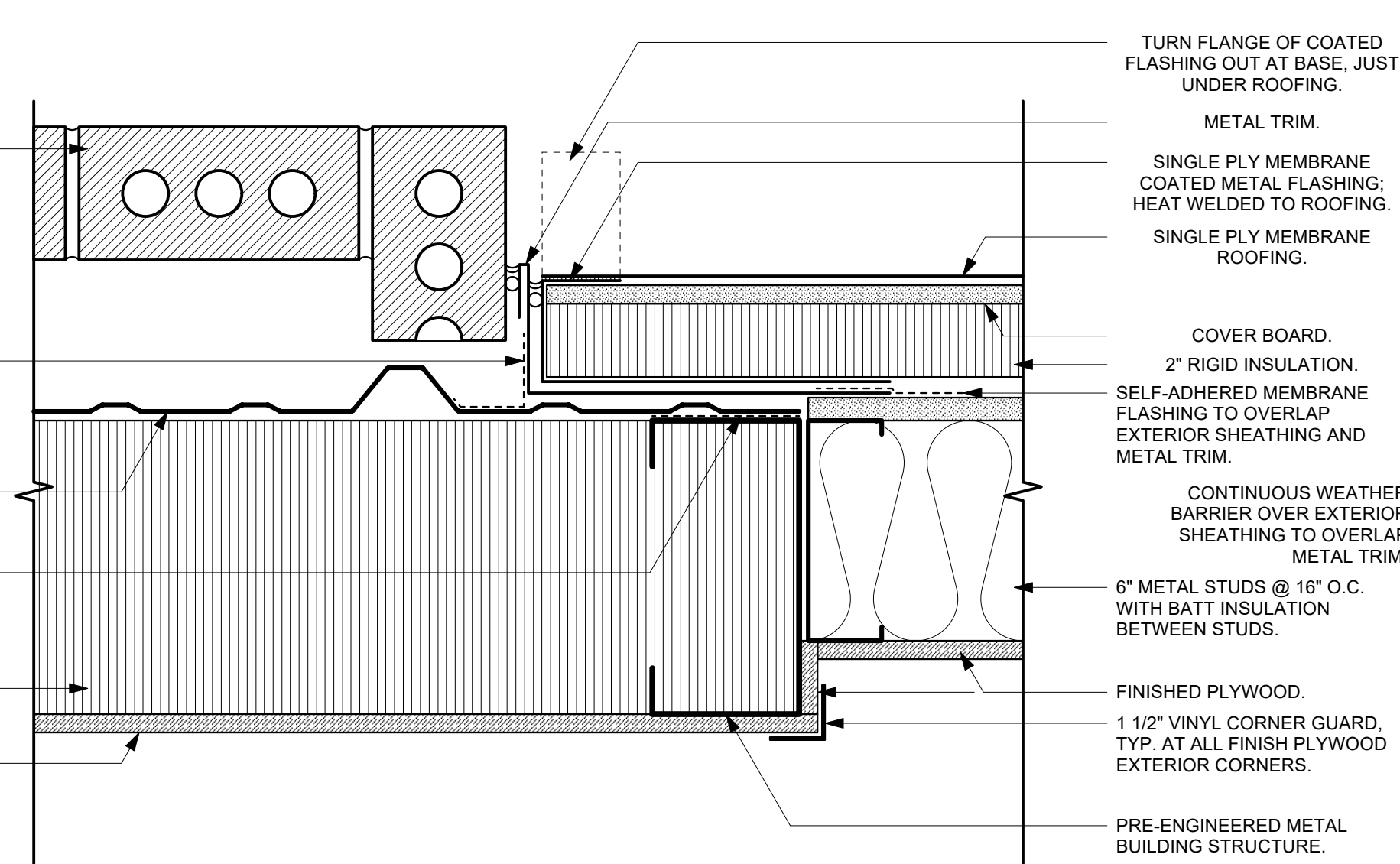
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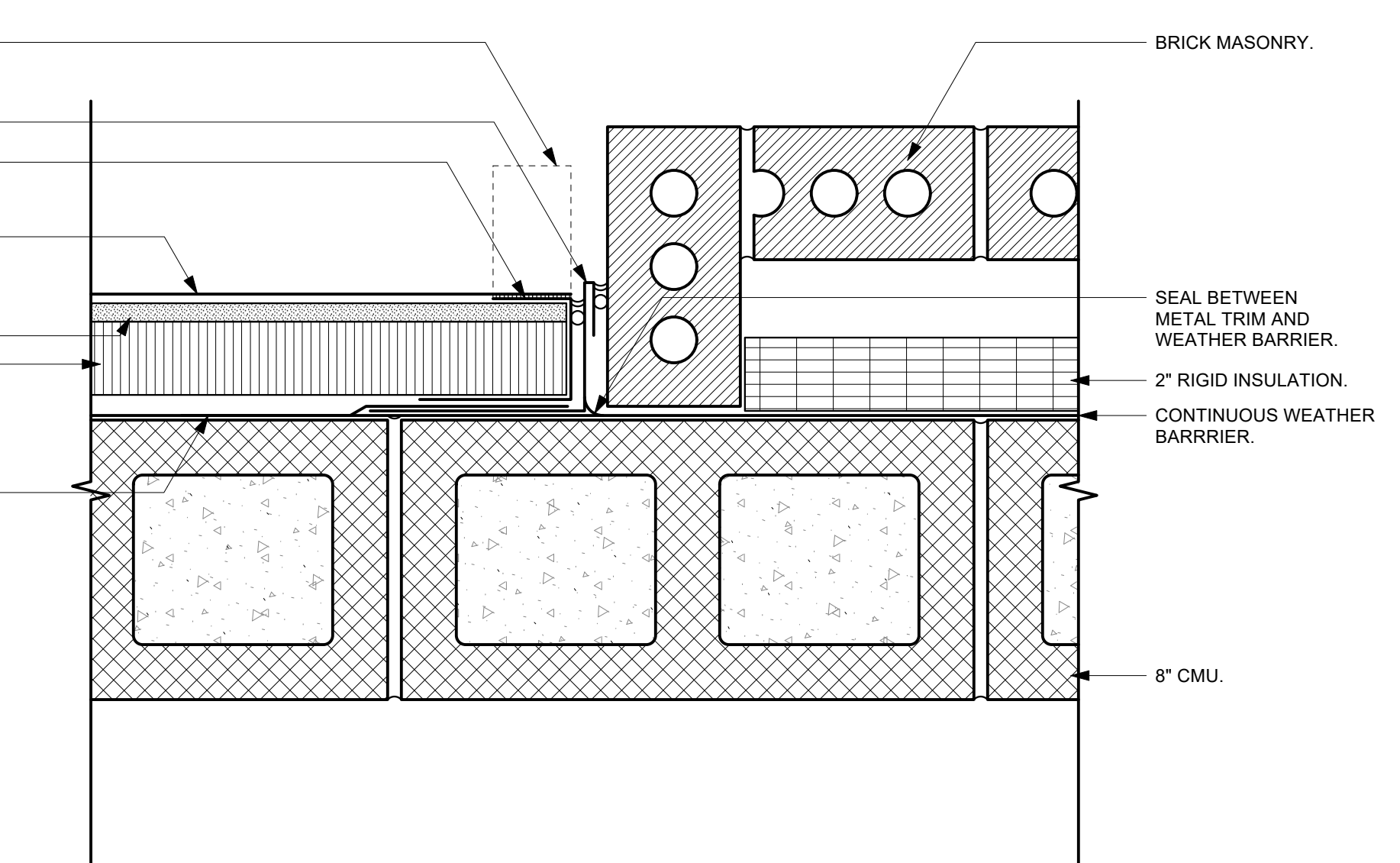




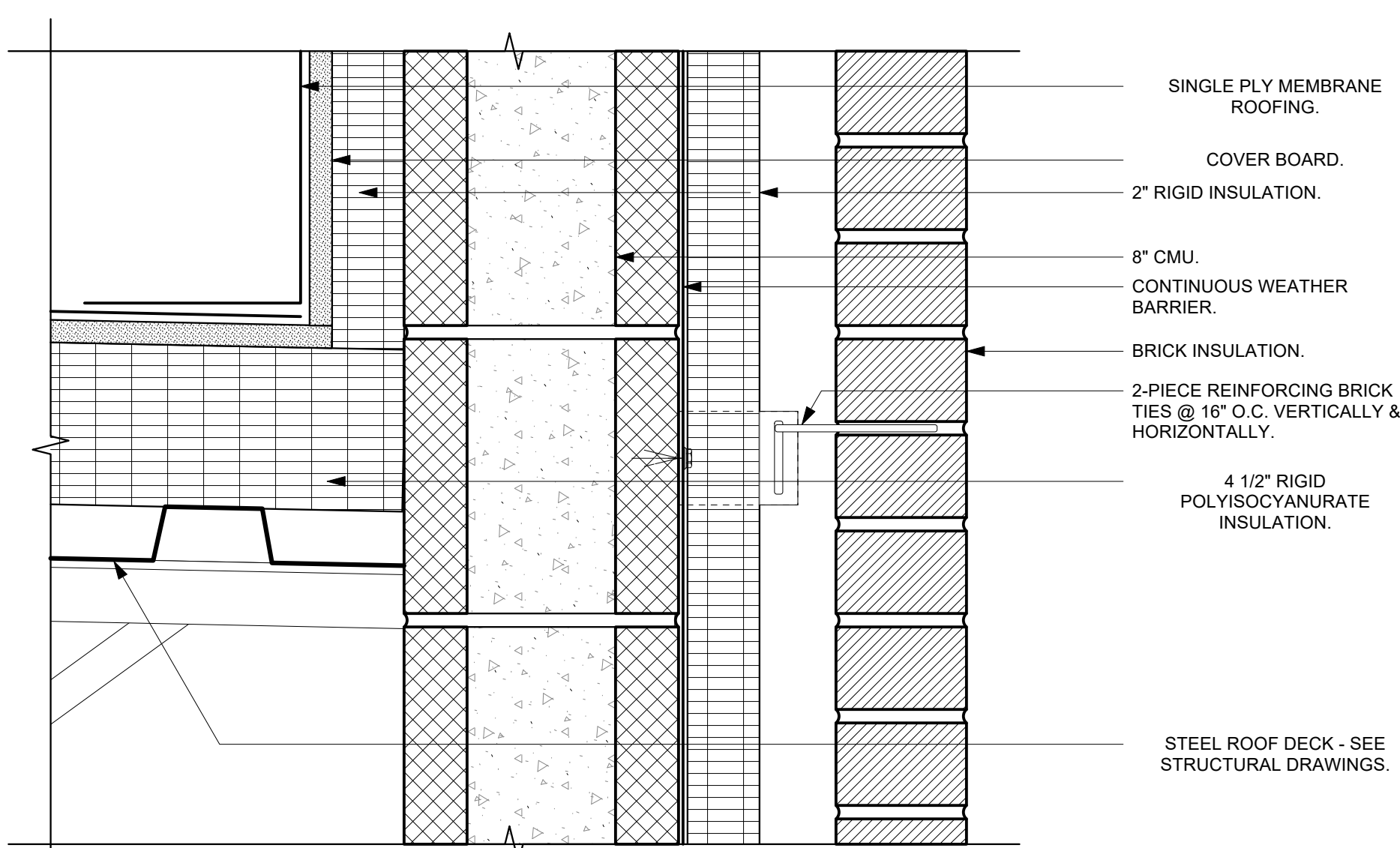
**1**  
A5.3 Fire Wall Parapet Detail  
Scale: 3" = 1'-0"



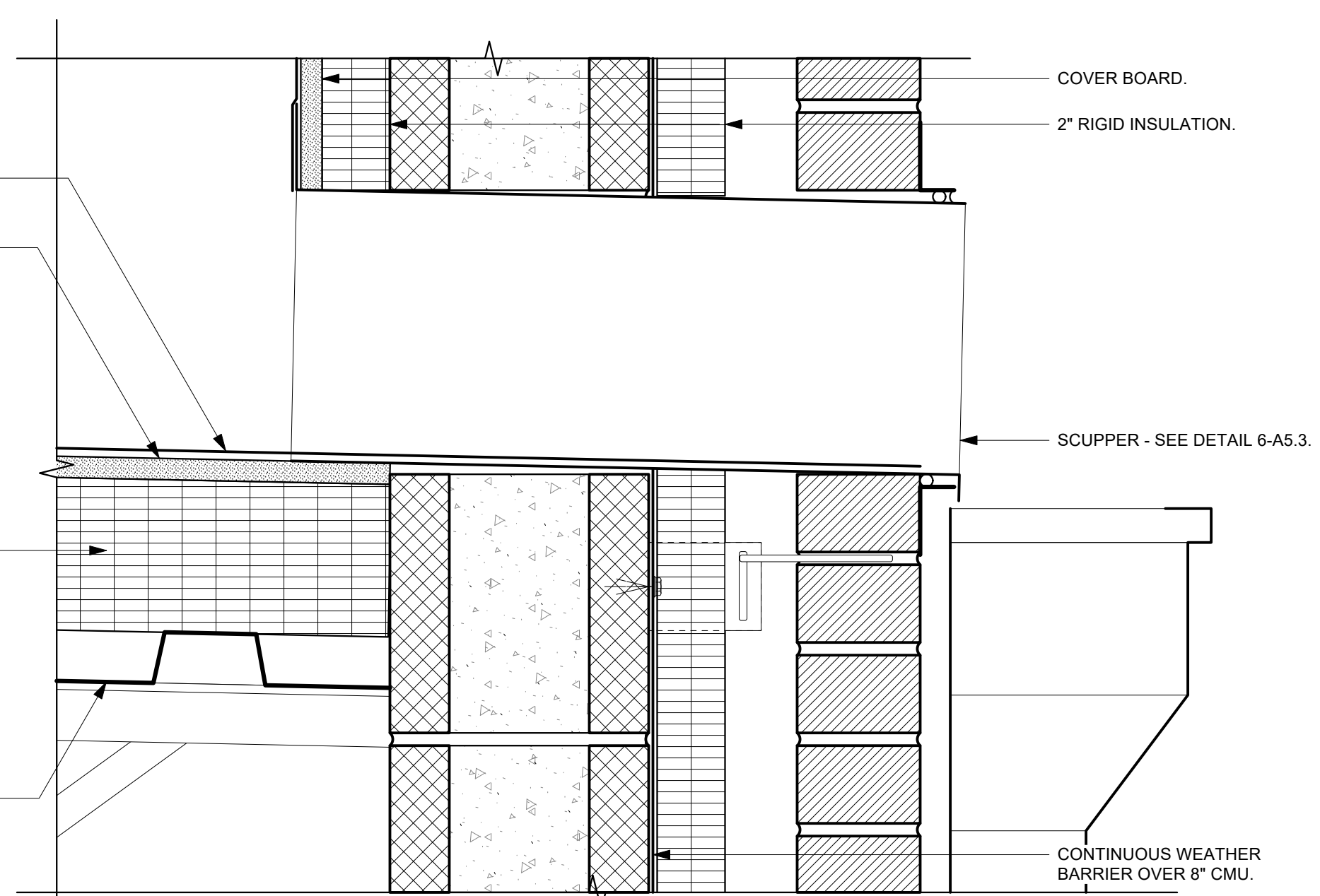
**2**  
A5.3 Single-Ply Membrane Roof to Brick Detail @ PEMB  
Scale: 3" = 1'-0"



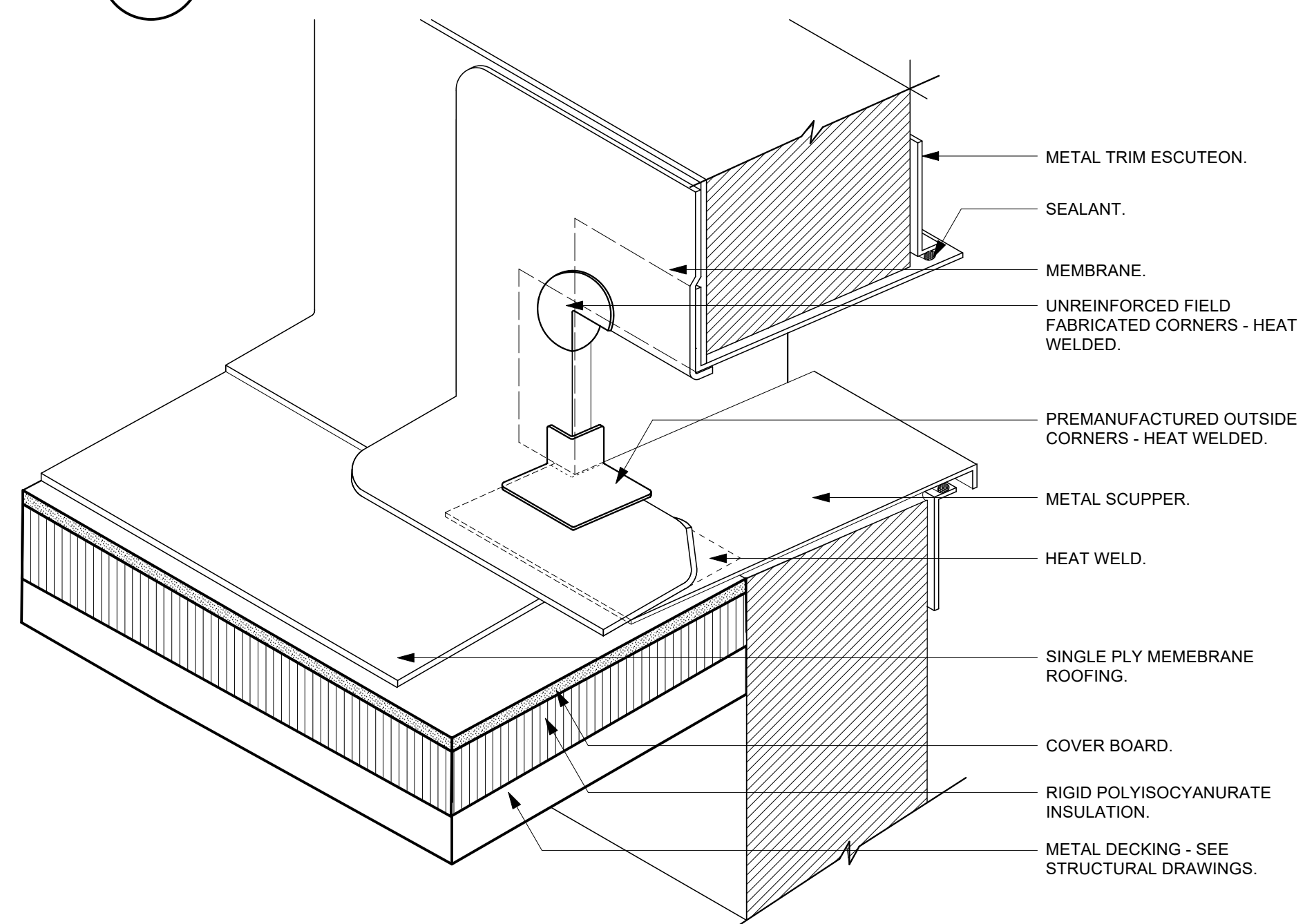
**3**  
A5.3 Single-Ply Membrane Roof to Brick Detail @ CMU  
Scale: 3" = 1'-0"



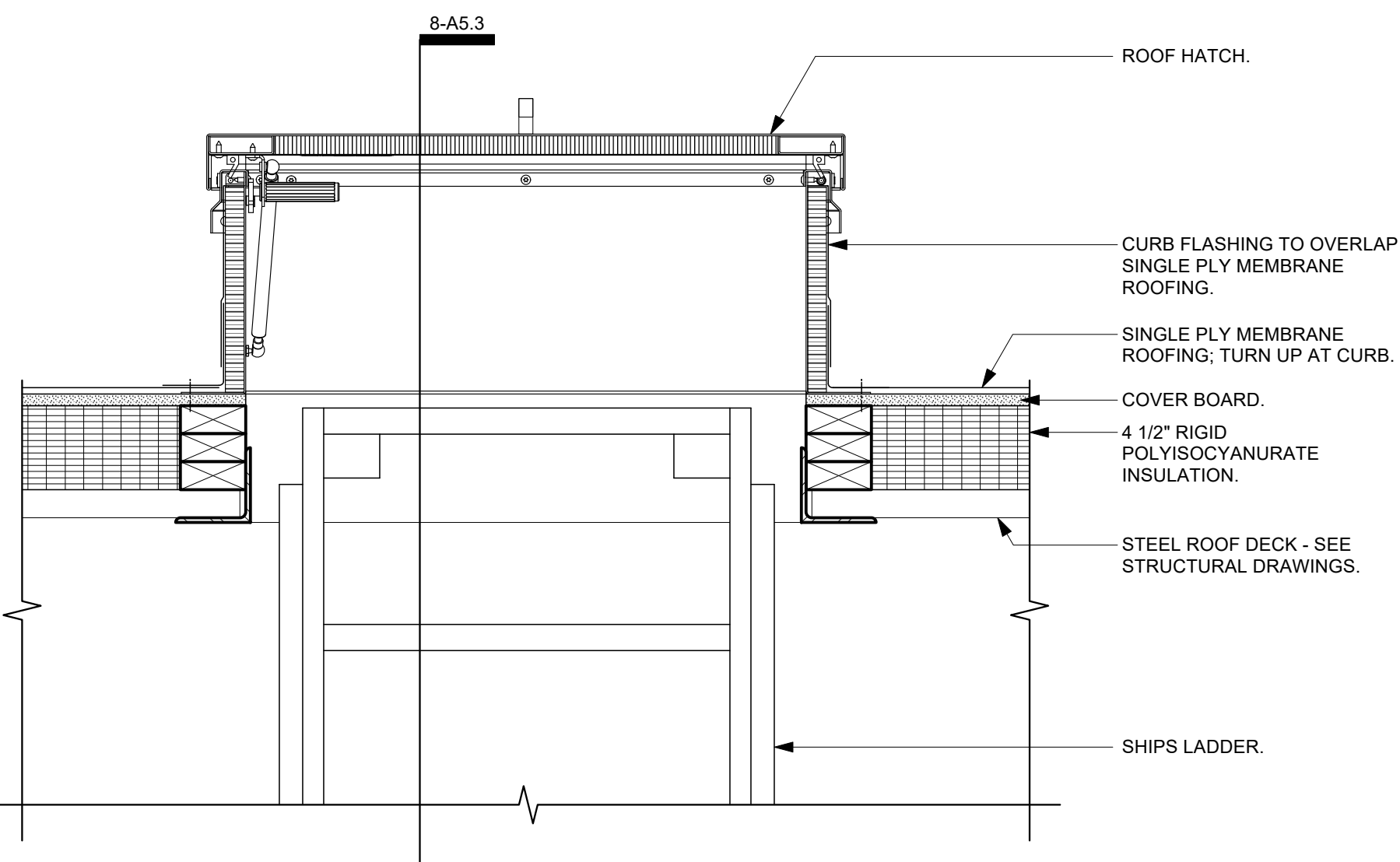
**4**  
A5.3 Parapet to Roof Detail  
Scale: 3" = 1'-0"



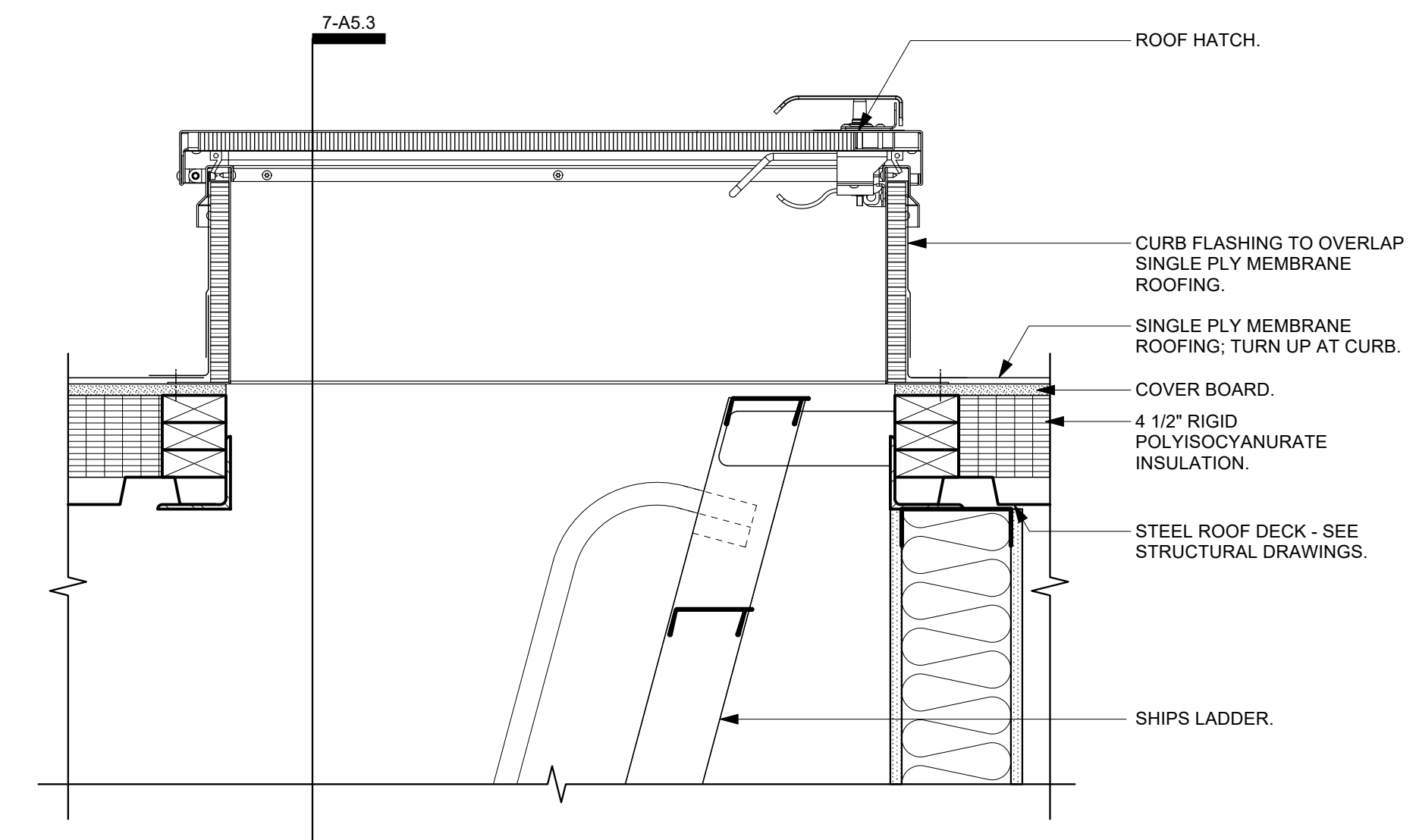
**5**  
A5.3 Scupper Detail  
Scale: 3" = 1'-0"



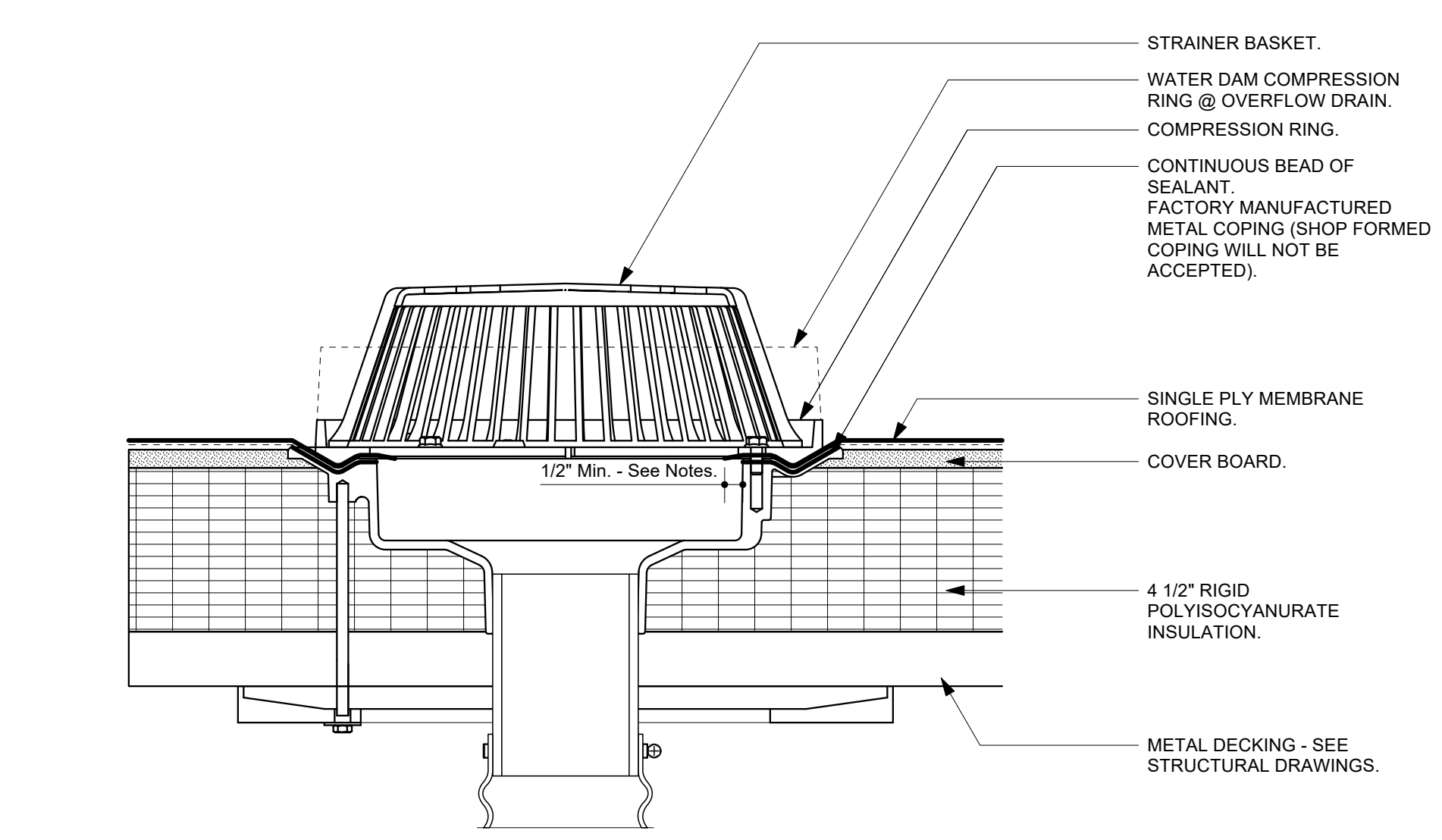
**6**  
A5.3 Isometric Scupper Detail  
N.T.S.



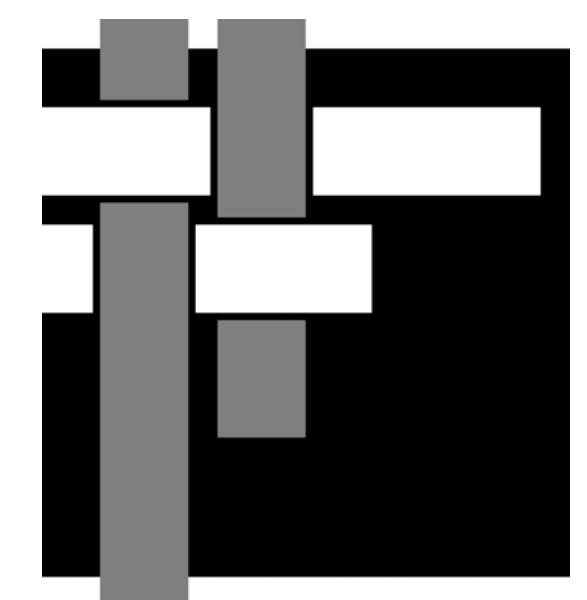
**7**  
A5.3 Roof Hatch Section  
Scale: 1 1/2" = 1'-0"



**8**  
A5.3 Roof Hatch Section  
Scale: 1 1/2" = 1'-0"



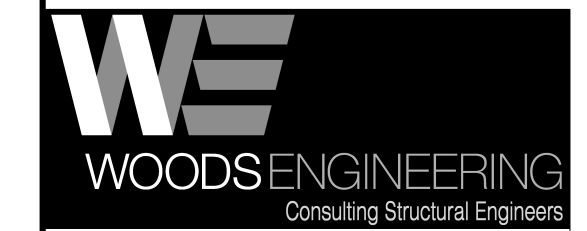
**9**  
A5.3 Roof Drain Detail  
Scale: 3" = 1'-0"



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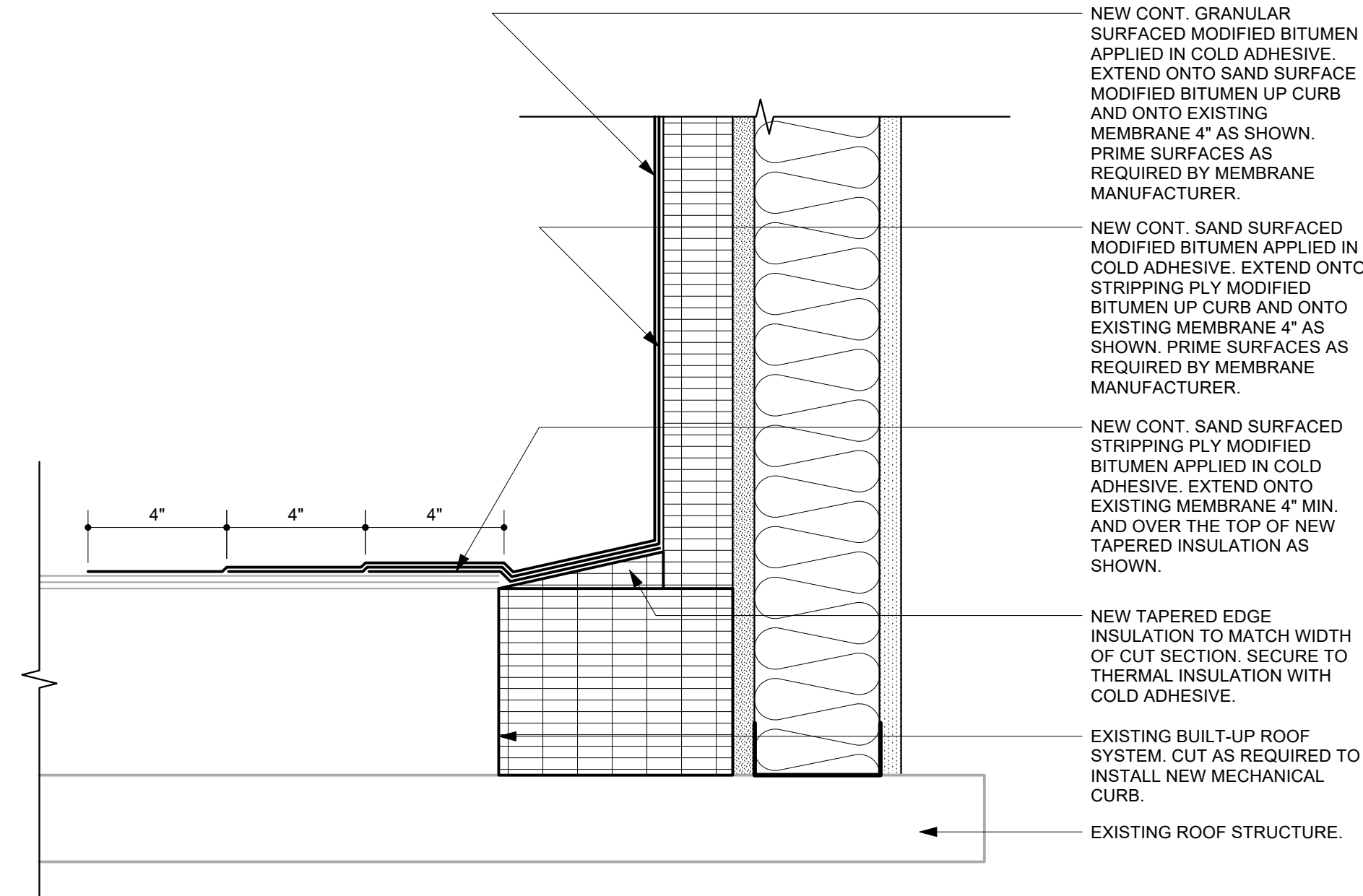
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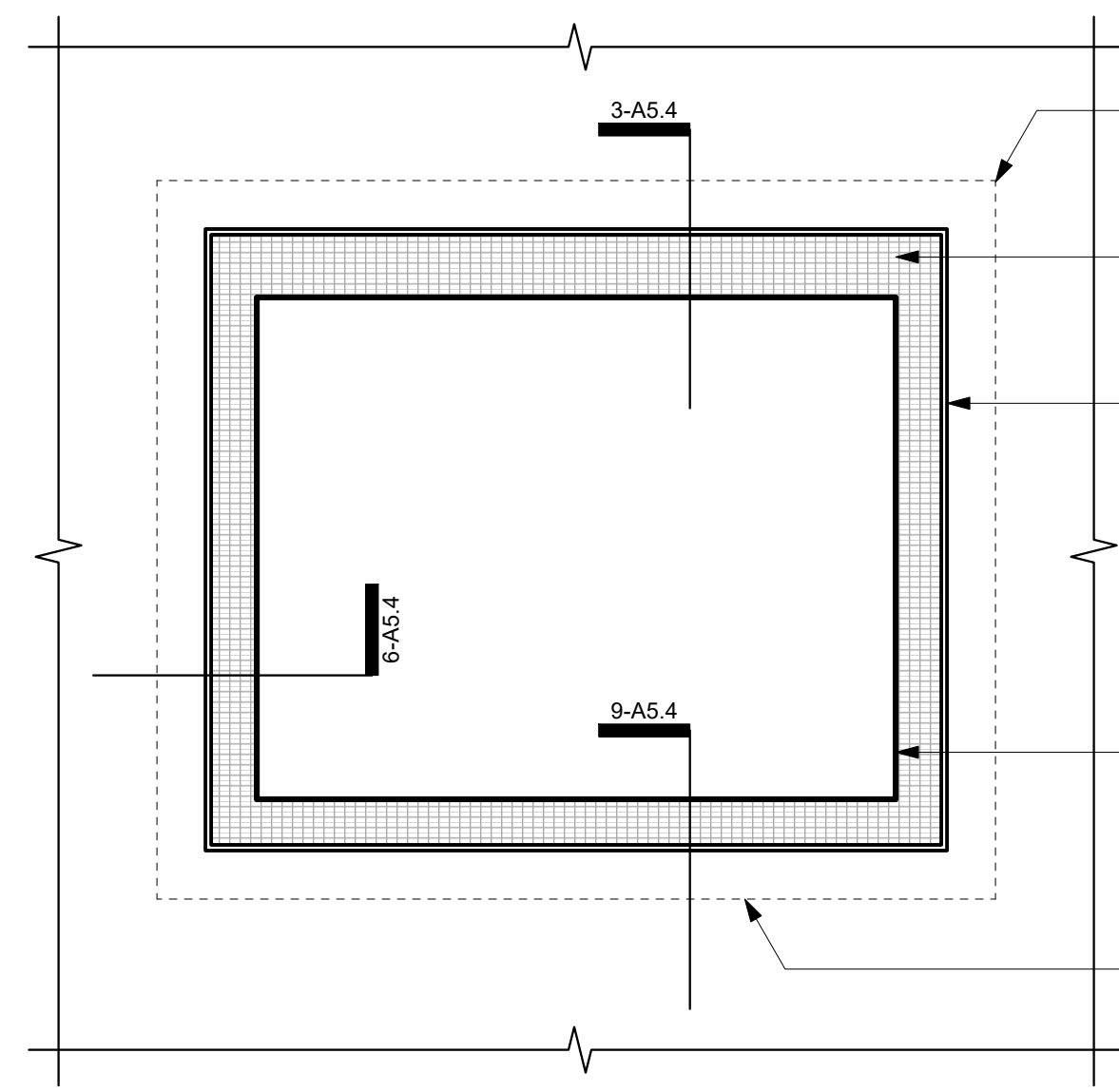
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**A5.3**

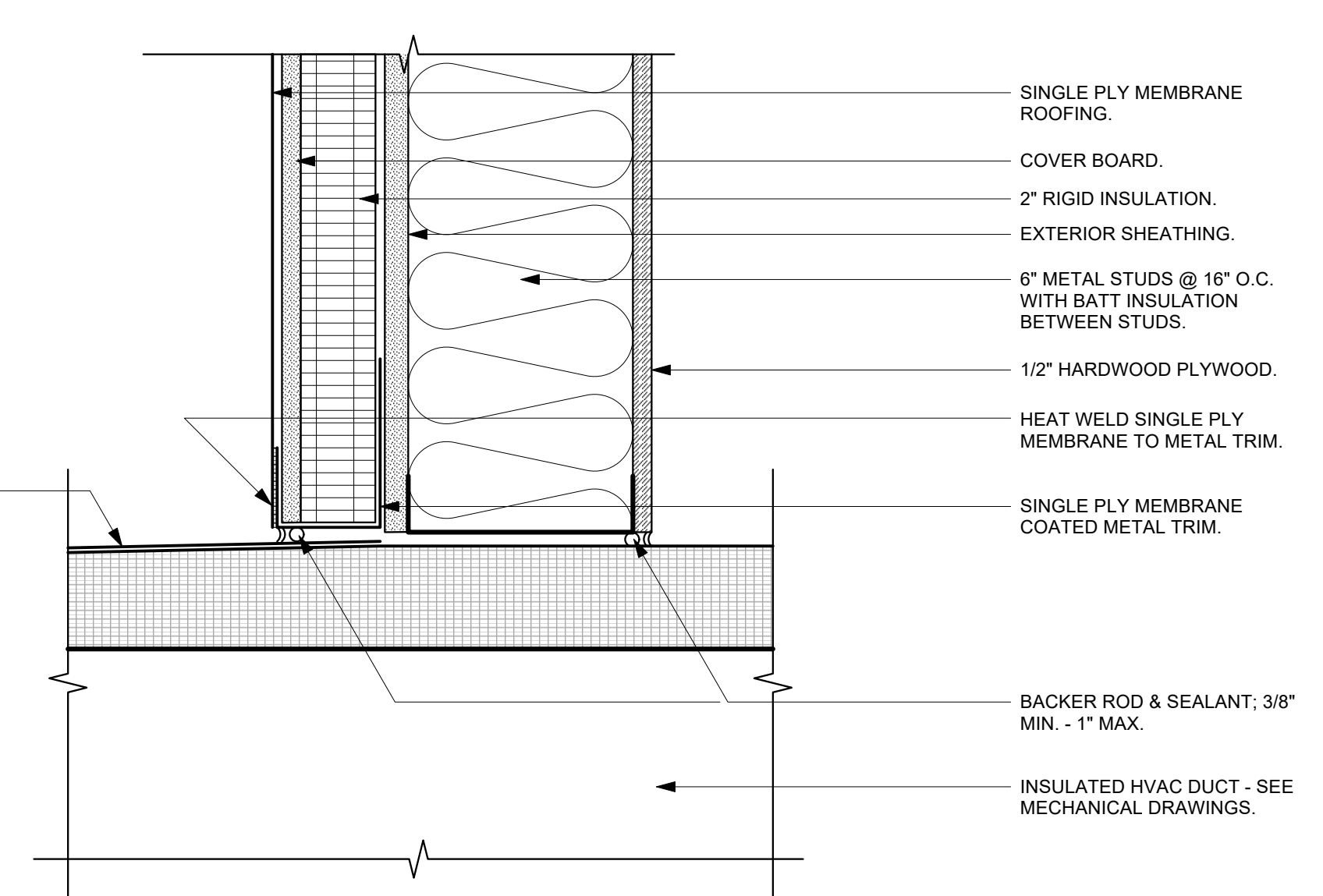
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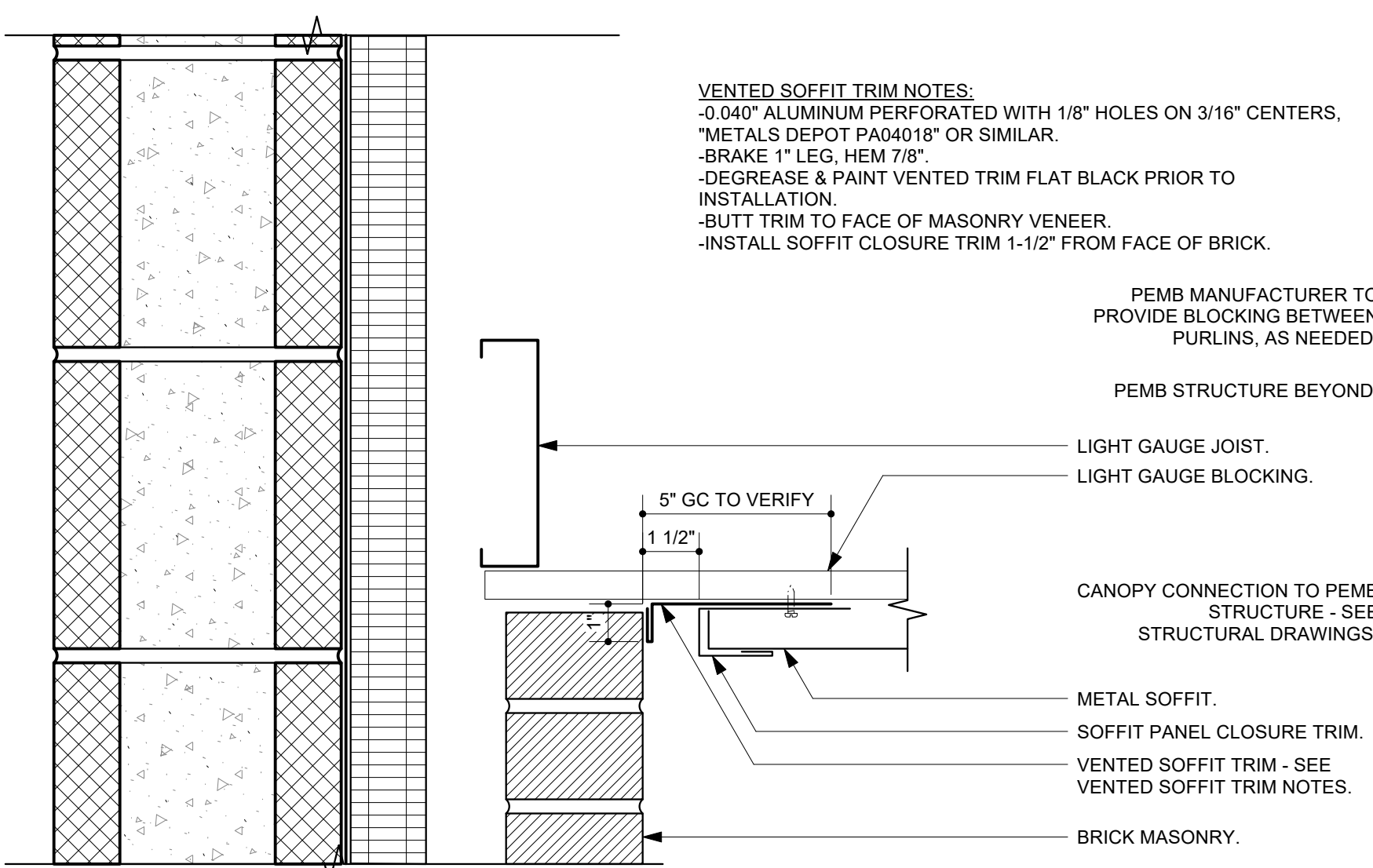
**1** Addition to Existing Roof Detail  
 Scale: 3" = 1'-0"



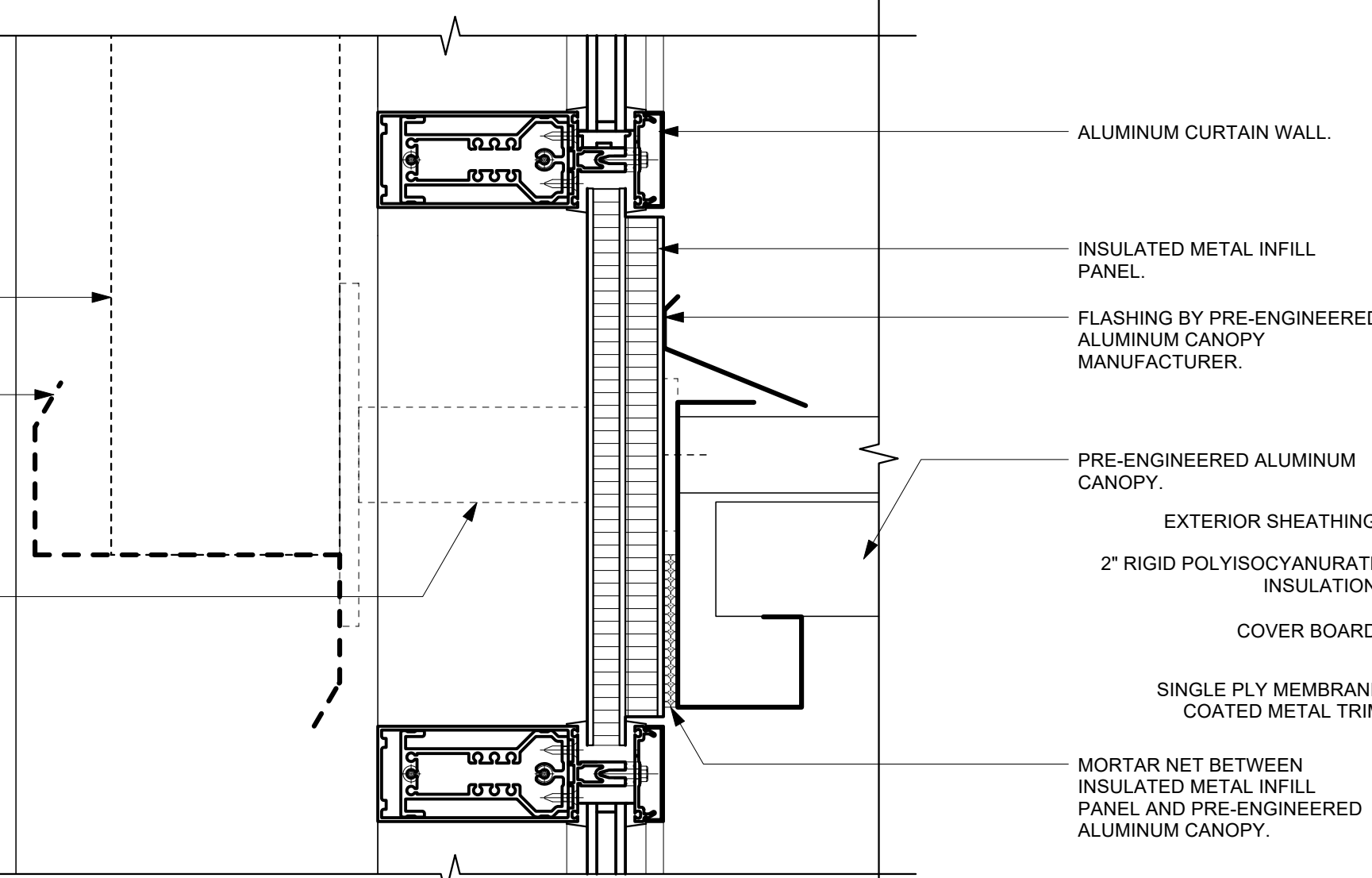
**2** Typical Exterior HVAC Duct Elevation  
 Scale: 1 1/2" = 1'-0"



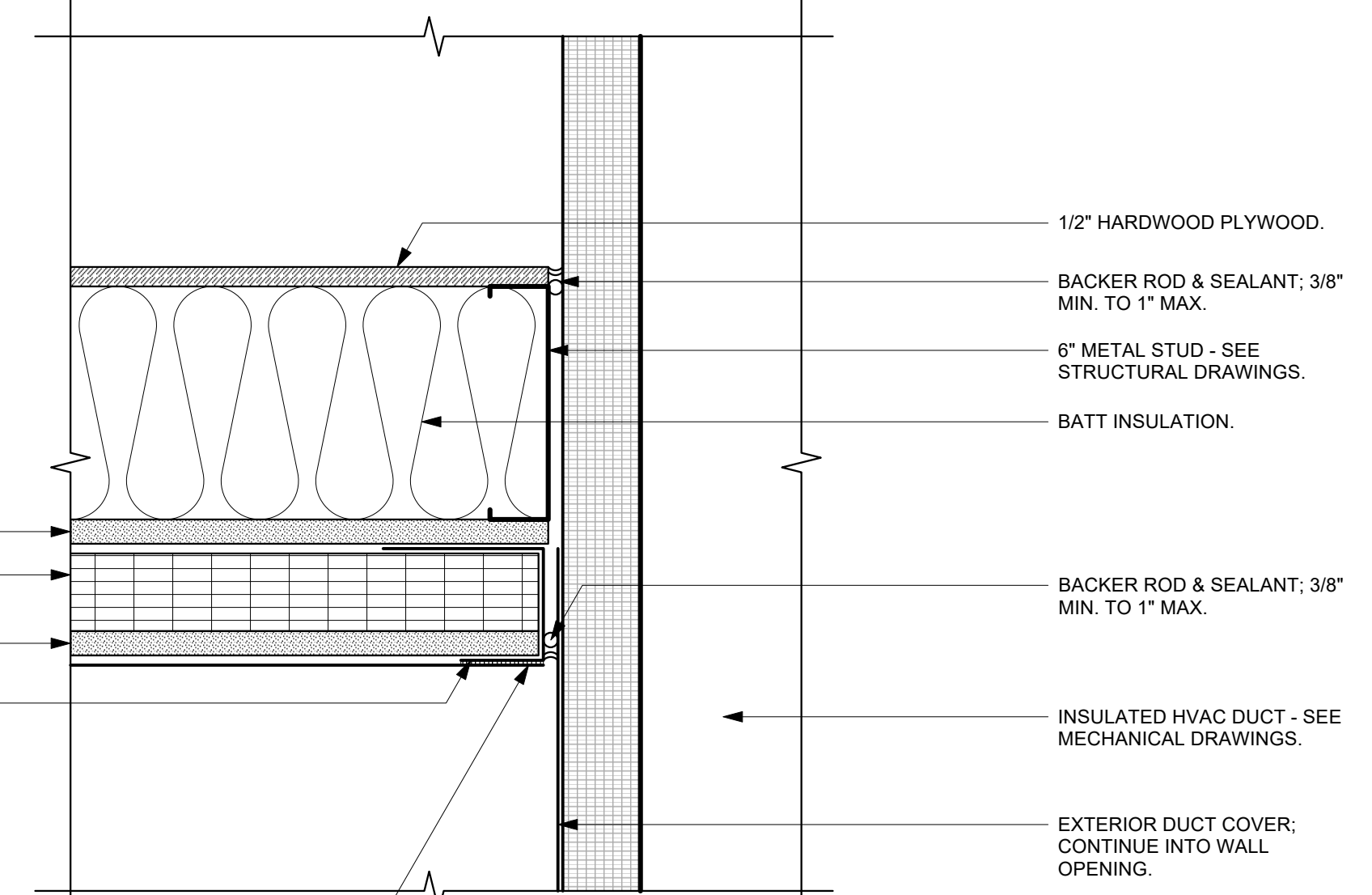
**3** Single Ply Membrane to HVAC Duct Head Detail  
 Scale: 3" = 1'-0"



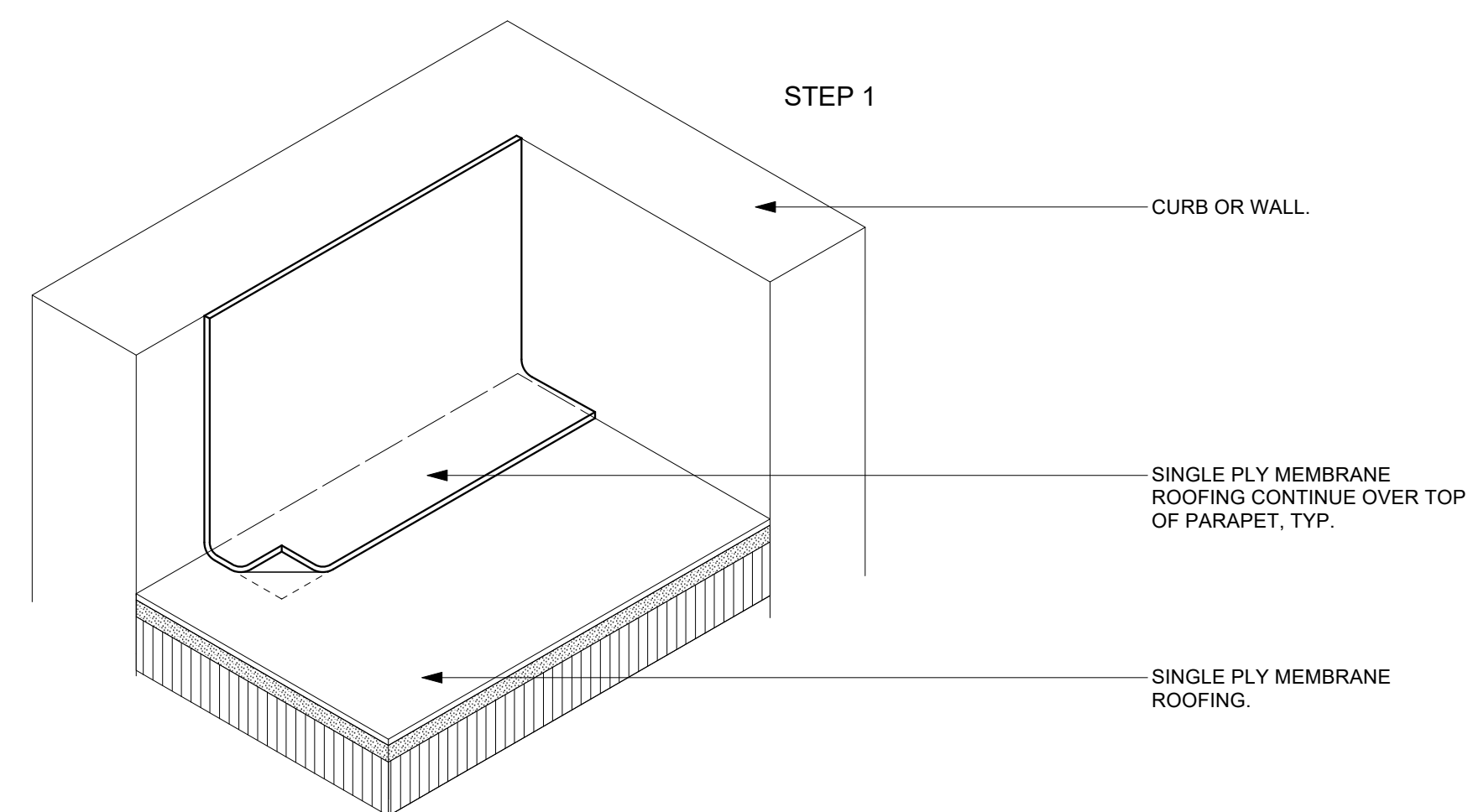
**4** Vented Soffit Trim Detail  
 Scale: 3" = 1'-0"



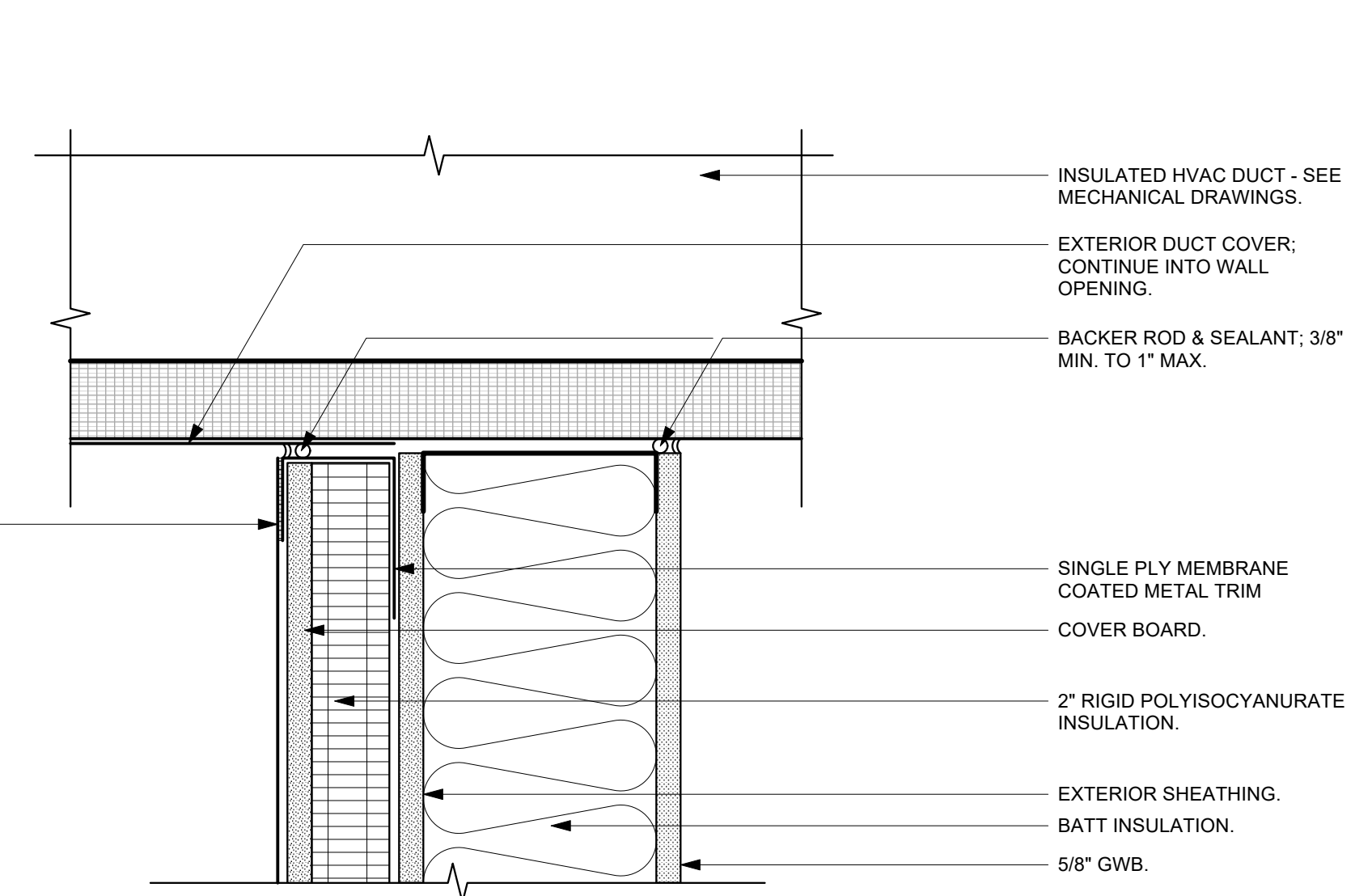
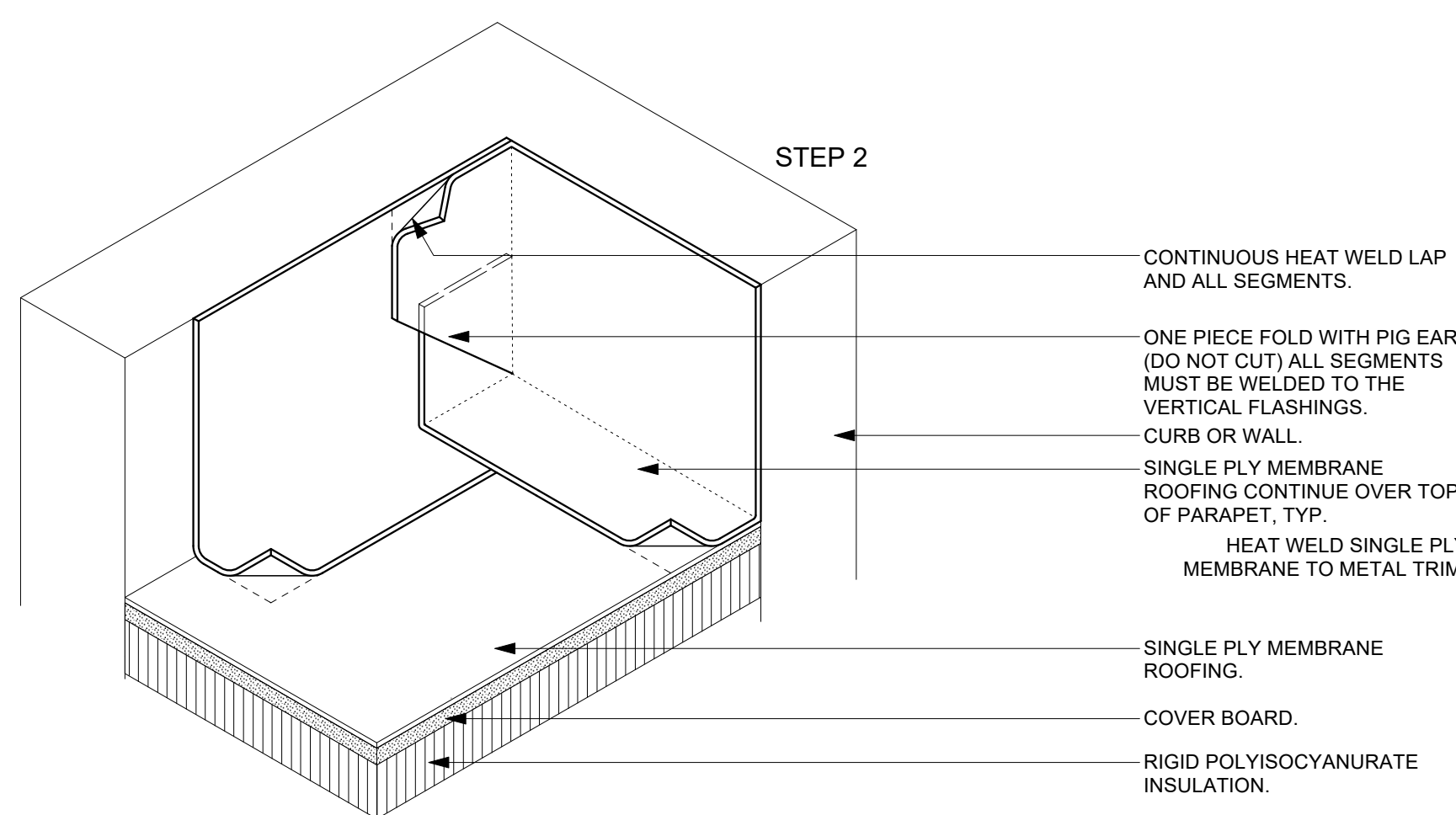
**5** Canopy to Curtain Wall Detail  
 Scale: 3" = 1'-0"



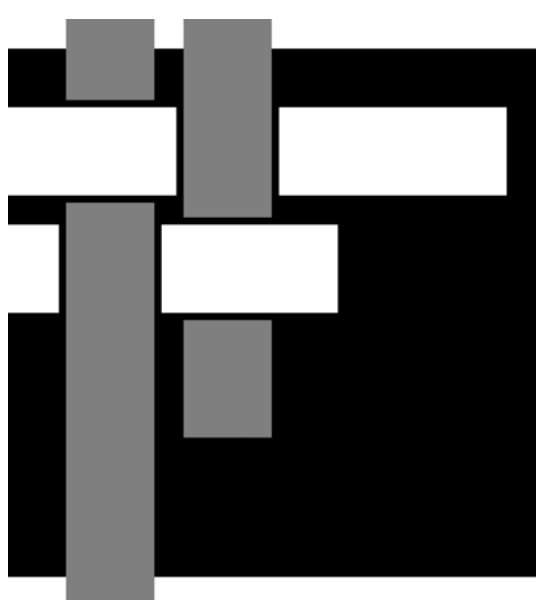
**6** Single Ply Membrane to HVAC Duct Jamb Detail  
 Scale: 3" = 1'-0"



**7** Inside Single-Ply Membrane Roof Corner Detail  
 Scale: N.T.S.



**9** HVAC Duct to Single Ply Membrane Sill Detail  
 Scale: 3" = 1'-0"



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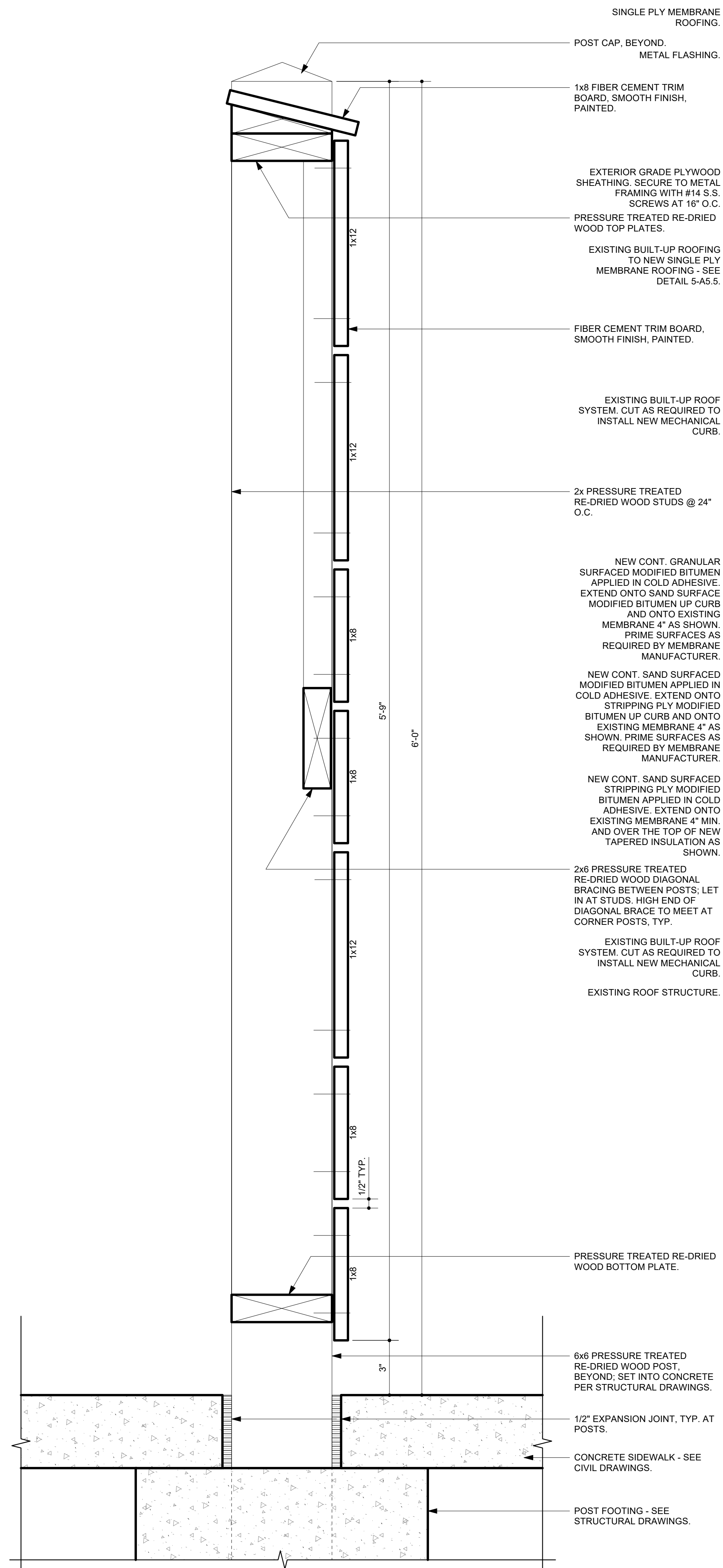


**MLK Center  
 Gymnasium  
 Addition**  
 401 S. 8th Street  
 Wilmington, NC

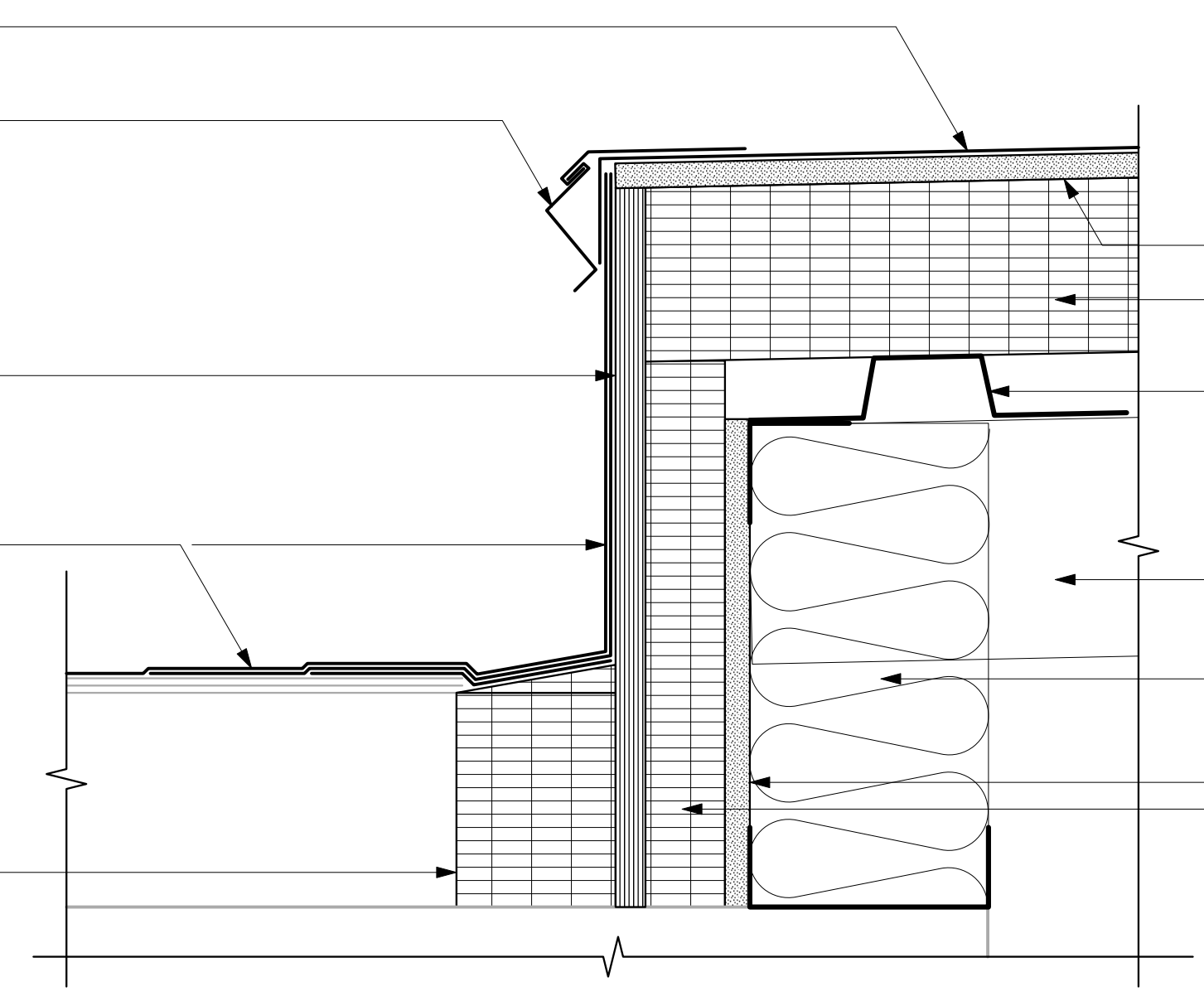
Construction Drawings  
 March 22, 2023

Revisions:  
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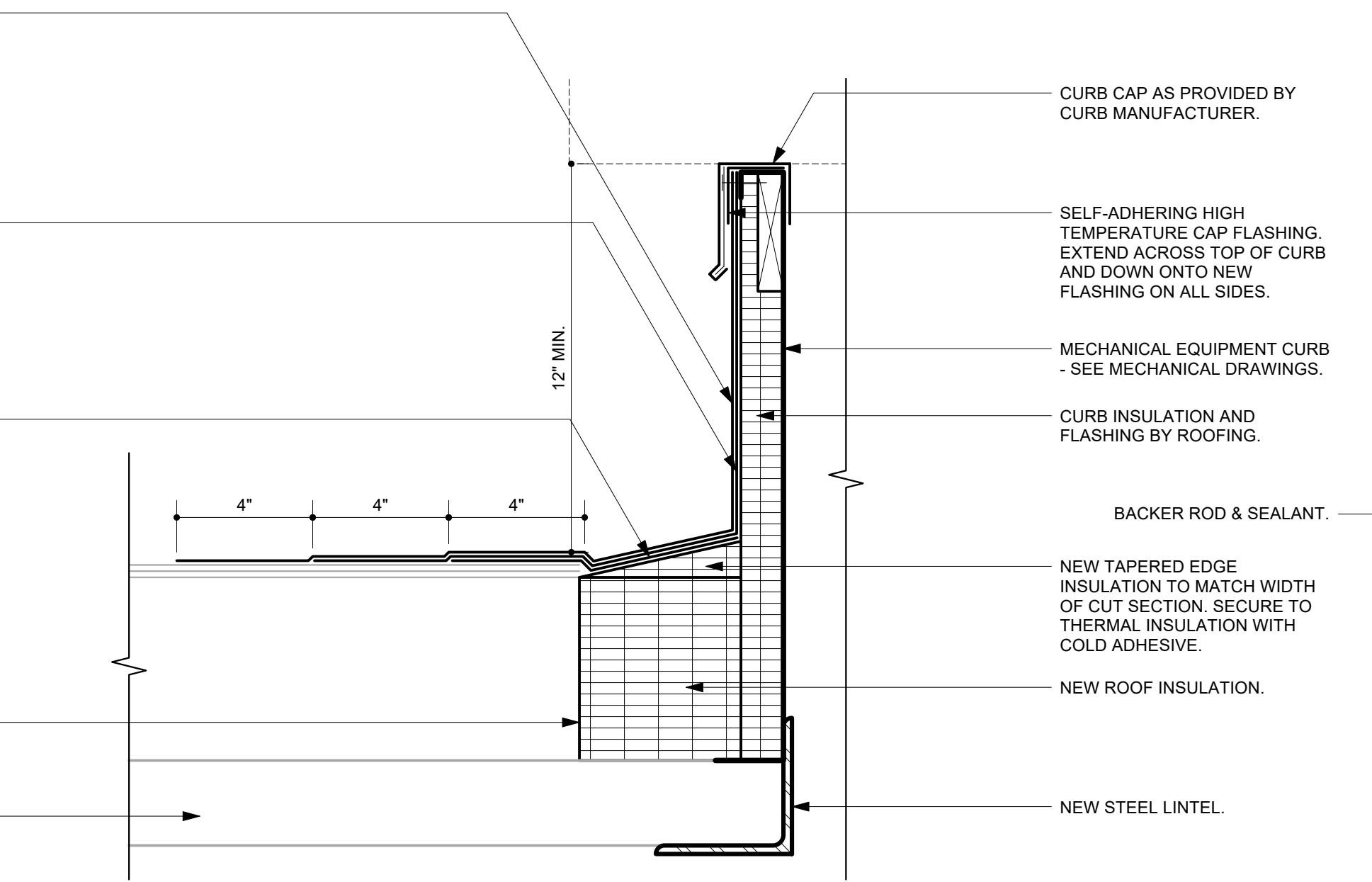
Details  
**A5.4**  
 20 of 25



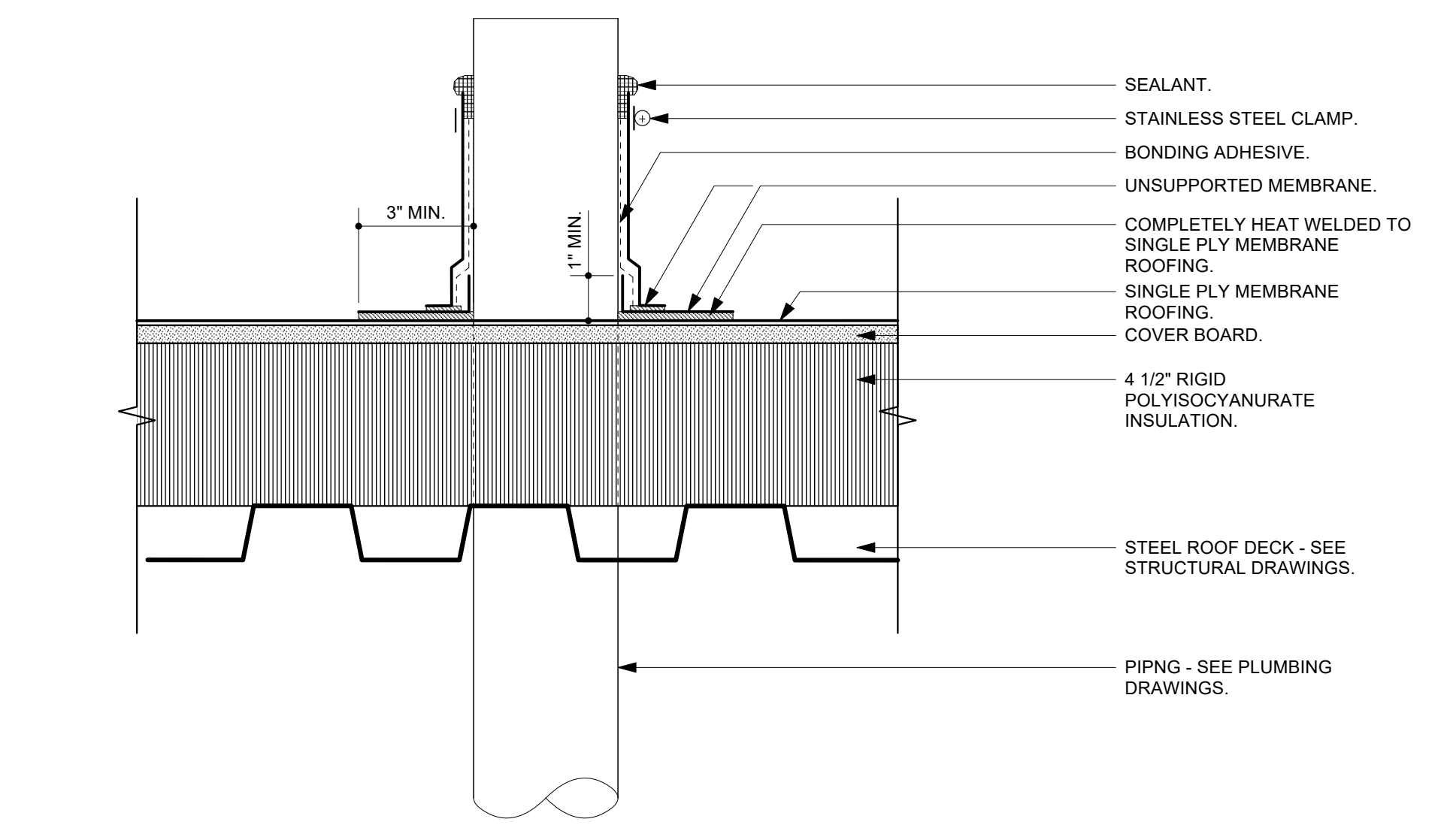
**7**  
A5.5 Alt. Bid G-1: Screen Wall Section  
Scale: 3" = 1'-0"



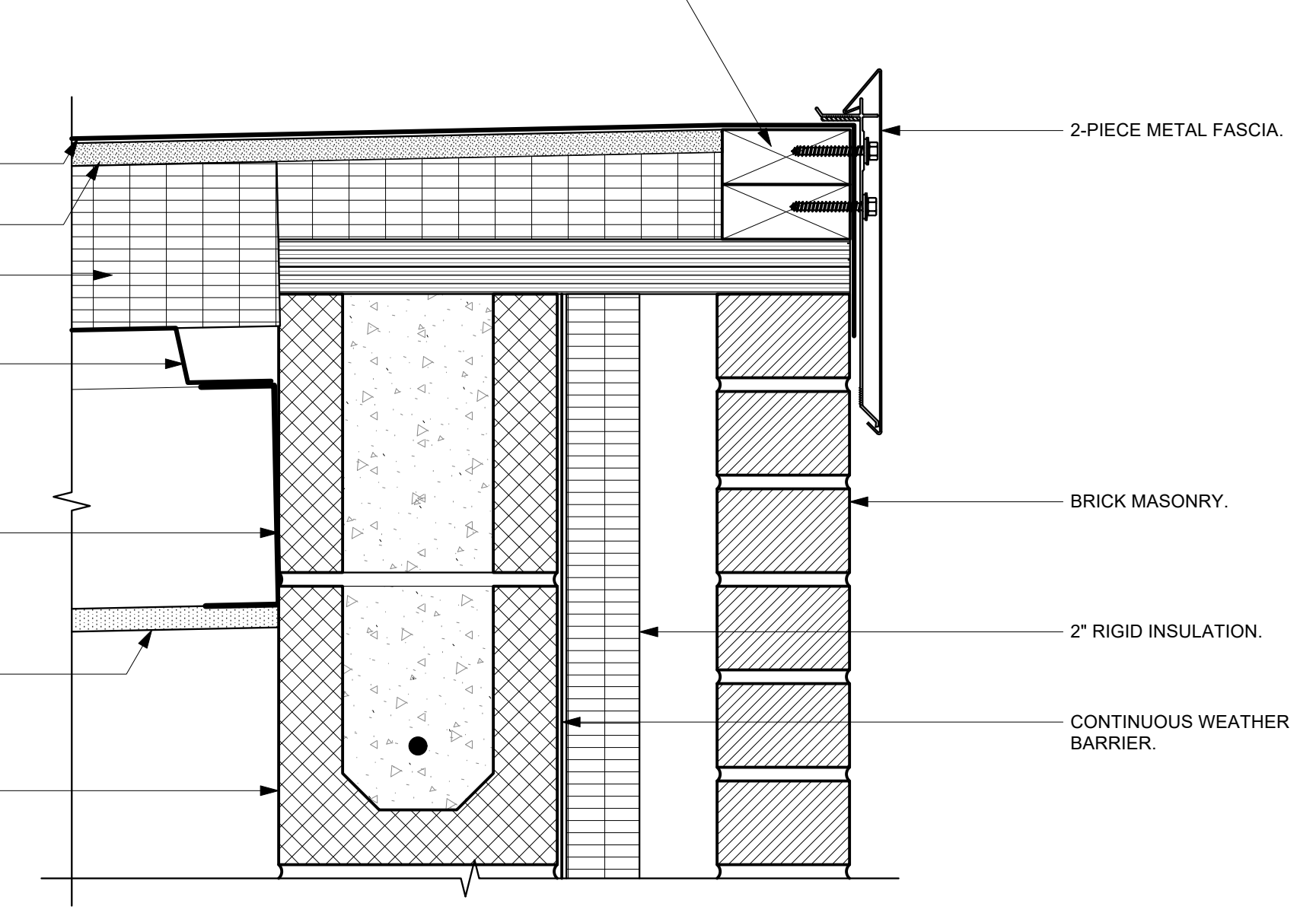
**2**  
A5.5 Alt. Bid G-1: Kitchen Addition Roof to Existing Roof Detail  
Scale: 3" = 1'-0"



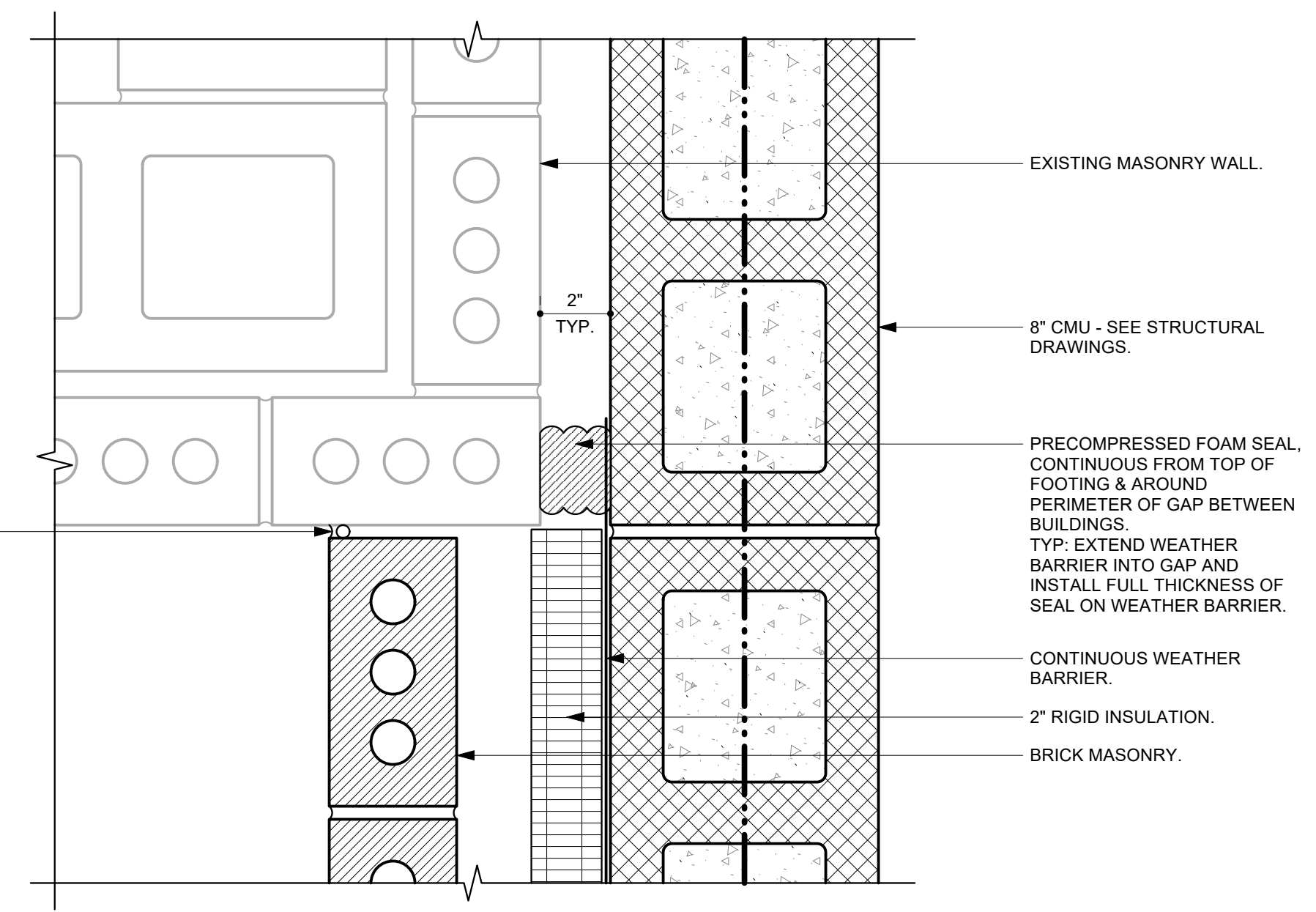
**5**  
A5.5 Alt. Bid G-1: Equipment Curb @ Existing Roof Detail  
Scale: 3" = 1'-0"



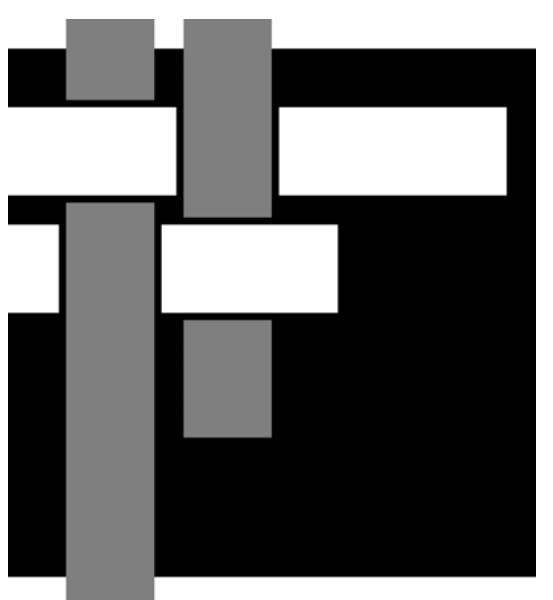
**8**  
A5.5 Pipe Through Roof Detail  
Scale: 3" = 1'-0"



**3**  
A5.5 Alt. Bid G-1: Kitchen Addition Top of Wall Detail  
Scale: 3" = 1'-0"



**6**  
A5.5 Existing Building to Gym Addition Detail  
Scale: 3" = 1'-0"



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**MLK Center  
Gymnasium  
Addition**  
401 S. 8th Street  
Wilmington, NC

Construction Drawings  
March 22, 2023

Revisions:  
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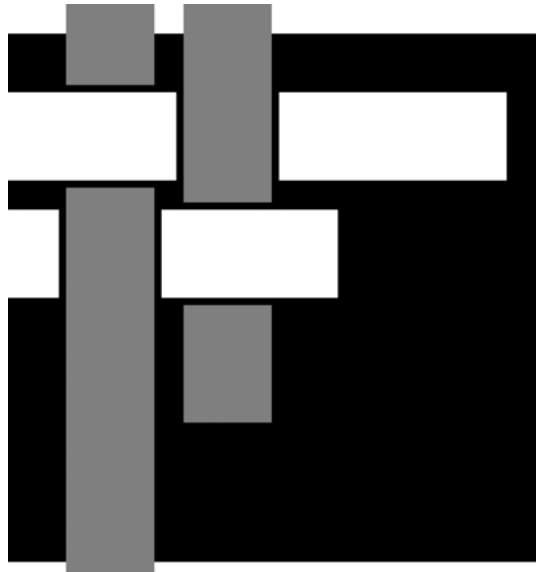
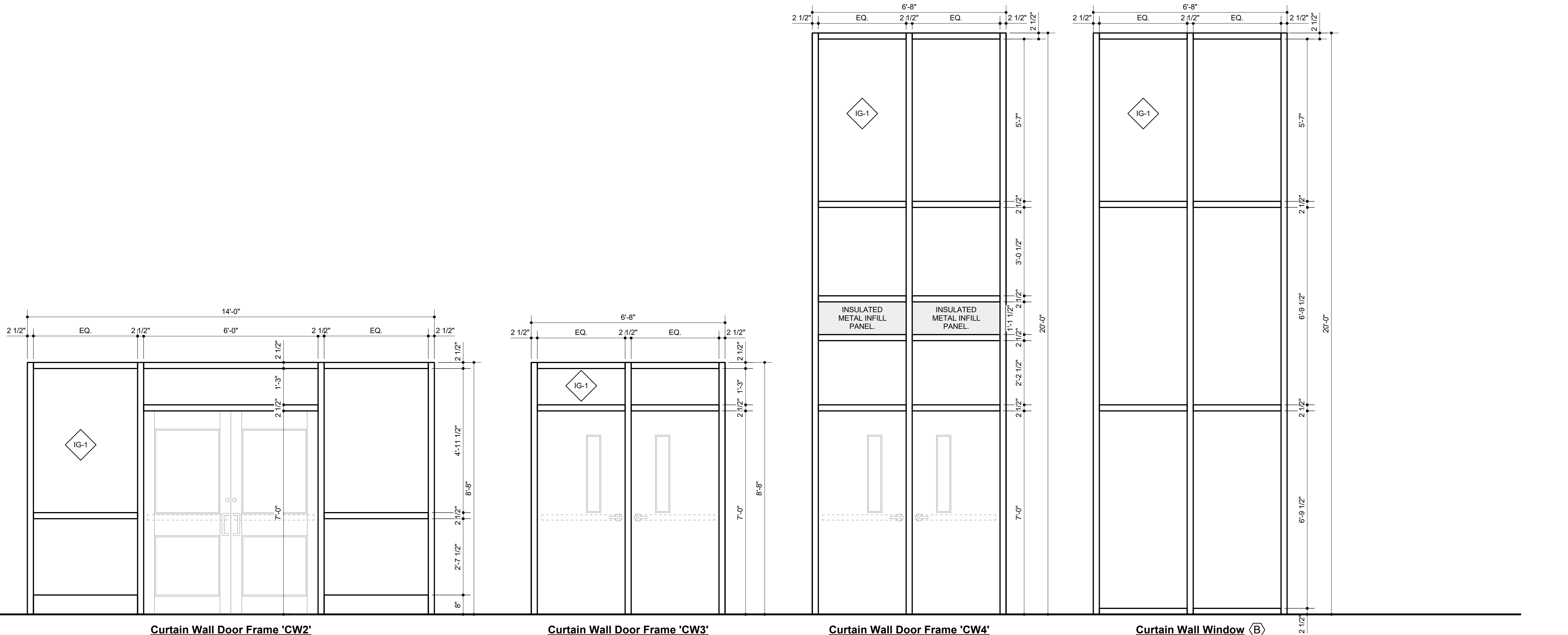
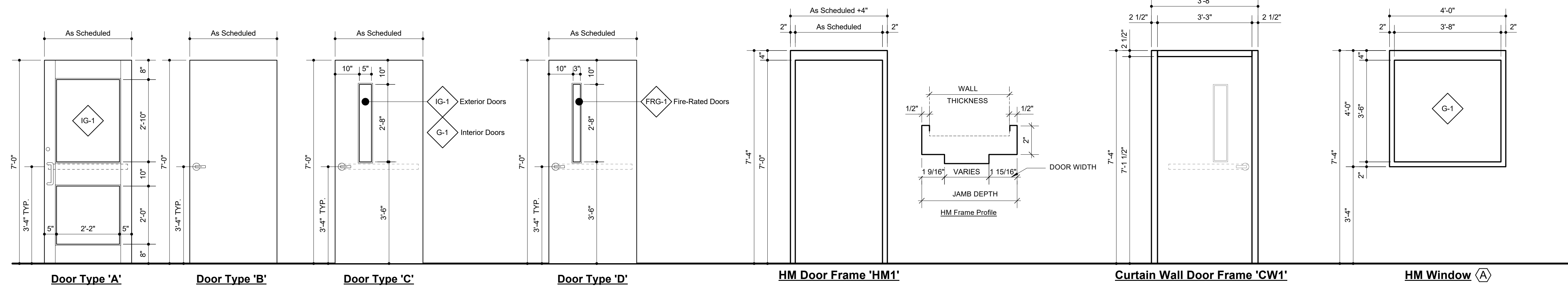
Details  
**A5.5**

Finish Schedule										
ID	ROOM NAME	FLOOR FINISH	BASE MATERIAL	NORTH WALL FINISH	EAST WALL FINISH	SOUTH WALL FINISH	WEST WALL FINISH	CEILING	CEILING HT	REMARKS
116	Recreation	ETR & VCT	ETR & RB	ETR	GWB PTD	ETR	ETR	ACT-1	See A1.1	Alt. Bid G-1
117	Pantry	Slip-resistant Sheet Flooring	Slip-resistant Sheet Flooring	CMU EPOXY PTD	GWB EPOXY PTD	GWB EPOXY PTD	GWB EPOXY PTD	ACT-2	See A1.1	Alt. Bid G-1
118	Kitchen	Slip-resistant Sheet Flooring	Slip-resistant Sheet Flooring	GWB & CMU EPOXY PTD	GWB EPOXY PTD	CMU EPOXY PTD	CMU EPOXY PTD	ACT-2	See A1.1	Alt. Bid G-1
120	Back Lobby	Entrance Mat & VCT	RB	ETR PTD & Brick	GWB PTD & CMU PTD	ETR PTD & CMU PTD	ETR PTD & CMU PTD	ETR, ACT-1, & GWB PTD	See A1.1	
125	Storage	Slip-resistant Sheet Flooring	Slip-resistant Sheet Flooring	ETR Brick EPOXY PTD	CMU EPOXY PTD	CMU EPOXY PTD	ETR Brick EPOXY PTD	GWB PTD	See A1.1	Alt. Bid G-1
126	Walk-in Cooler	-	-	-	-	-	-	-	See A1.1	Alt. Bid G-1
200	Gymnasium	Resilient Athletic Flooring	RB	Wall Pads, Plywood PTD	Wall Pads, Plywood PTD	Wall Pads, Plywood PTD	Vinyl Wall Covering, Wall Pads, Plywood PTD	ACT-1, Open to Structure	See A1.1	Insulation Liner, and Acoustic Wall & Ceiling Panels
201	Storage	Concrete	RB	GWB PTD	GWB PTD	GWB PTD	CMU PTD	Open to Structure	See A1.1	
202	Mens Restroom	PT	PT	GWB EPOXY PTD	GWB EPOXY PTD	GWB EPOXY PTD	GWB EPOXY PTD	ACT-1	See A1.1	
203	Womens Restroom	PT	PT	GWB EPOXY PTD	GWB EPOXY PTD	GWB EPOXY PTD	GWB EPOXY PTD	ACT-1	See A1.1	
204	Office	VCT	RB	GWB PTD	GWB PTD	GWB PTD	CMU PTD	ACT-1	See A1.1	
204A	Closet	VCT	RB	GWB PTD	GWB PTD	GWB PTD	GWB PTD	Open to Structure	See A1.1	2-HR Fire Rated
205	Toilet	PT	PT	GWB EPOXY PTD	GWB EPOXY PTD	GWB EPOXY PTD	GWB EPOXY PTD	ACT-1	See A1.1	
206	Corridor	VCT	RB	GWB PTD	GWB PTD	GWB PTD	GWB PTD	ACT-1	See A1.1	
R1	Riser Room	Concrete	RB	GWB PTD	GWB PTD	Plywood PTD	Plywood PTD	Open to Structure	See A1.1	

GWB - Gypsum Wall Board  
 CMU - Concrete Masonry Unit  
 ACT-1 - Acoustical Ceiling Tile - See Acoustic Ceilings Spec  
 ACT-2 - Acoustical Ceiling Tile - See Acoustic Ceilings Spec  
 VCT - Vinyl Composite Tile  
 PT - Porcelain Tile  
 RB - Rubber Base  
 PTD - Painted  
 ETR - Existing to Remain

**Notes:**  
 - See Sheet A7.0 for Floor Transition Details  
 - See Sheet A7.0 for sign details.  
 - Provide ADA signage at door to restrooms/toilet.  
 - Provide ADA signage at exit doors.  
 - Final Room Names to be determined at a later date.

Door Schedule										
Door						Frame				
ID #	Size WxH	Type	Material	Hardware Group		Type	Material	Remarks		
116A	ETR	ETR	ETR	09		HM1	HM	Alt. Bid G-1; 20 Min. Fire Rated Frame; Reuse Existing Door		
117A	3-0 x 7-0	B	Wood	07		HM1	HM	Alt. Bid G-1		
118A	3-0 x 7-0	B	Wood	08		HM1	HM	Alt. Bid G-1		
118B	6-6 x 4-0	-	-	06		-	-	Alt. Bid G-1; Rolling Counter Door		
118C	3-0 x 8-0	-	-	05		HM1	HM	Alt. Bid G-1; Casework Opening		
120A	3-0 x 7-0 PR	A	Alum.	01		CW2	Alum.	Removable mullion - see spec section 081213 & 087100		
125A	3-3 x 7-1 1/2	C	Alum.	04		CW1	Alum.	Alt. Bid G-1		
200A	3-0 x 7-0 PR	C	Wood	18		HM1	HM	Removable mullion - see spec section 081213 & 087100		
200B	3-1/4 x 7-0	C	Alum.	03		CW4	Alum.			
200C	3-1/4 x 7-0	C	Alum.	02		CW4	Alum.			
200D	3-1/4 x 7-0	C	Alum.	03		CW3	Alum.			
200E	3-1/4 x 7-0	C	Alum.	02		CW3	Alum.			
201A	3-0 x 7-0 PR	B	Wood	14		HM1	HM	Removable mullion - see spec section 081213 & 087100		
202A	3-0 x 7-0	B	Wood	16		HM1	HM			
203A	3-0 x 7-0	B	Wood	16		HM1	HM			
204A	3-0 x 7-0	B	Wood	09		HM1	HM	90 Min. Fire Rated Door & Frame		
204B	3-0 x 7-0	C	Wood	13		HM1	HM			
204C	3-0 x 7-0	C	Wood	11		HM1	HM			
205A	3-0 x 7-0	B	Wood	10		HM1	HM			
206A	3-0 x 7-0 PR	D	Wood	12		HM1	HM	90 Min. Fire Rated Door & Frame; Removable mullion - see spec section 081213 & 087100		
R1A	3-0 x 7-0	B	Wood	17		HM1	HM			



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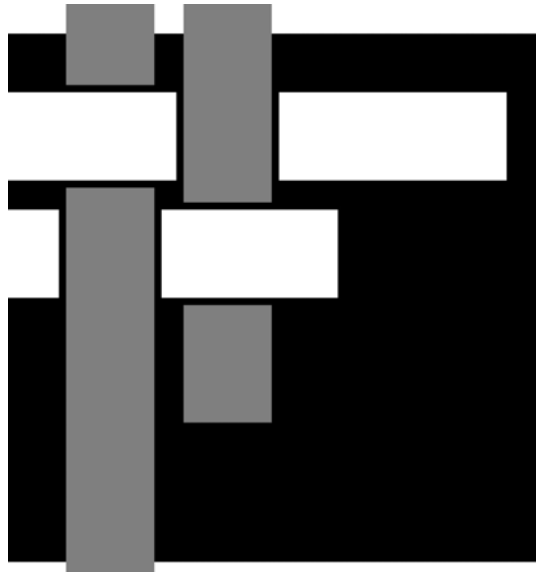
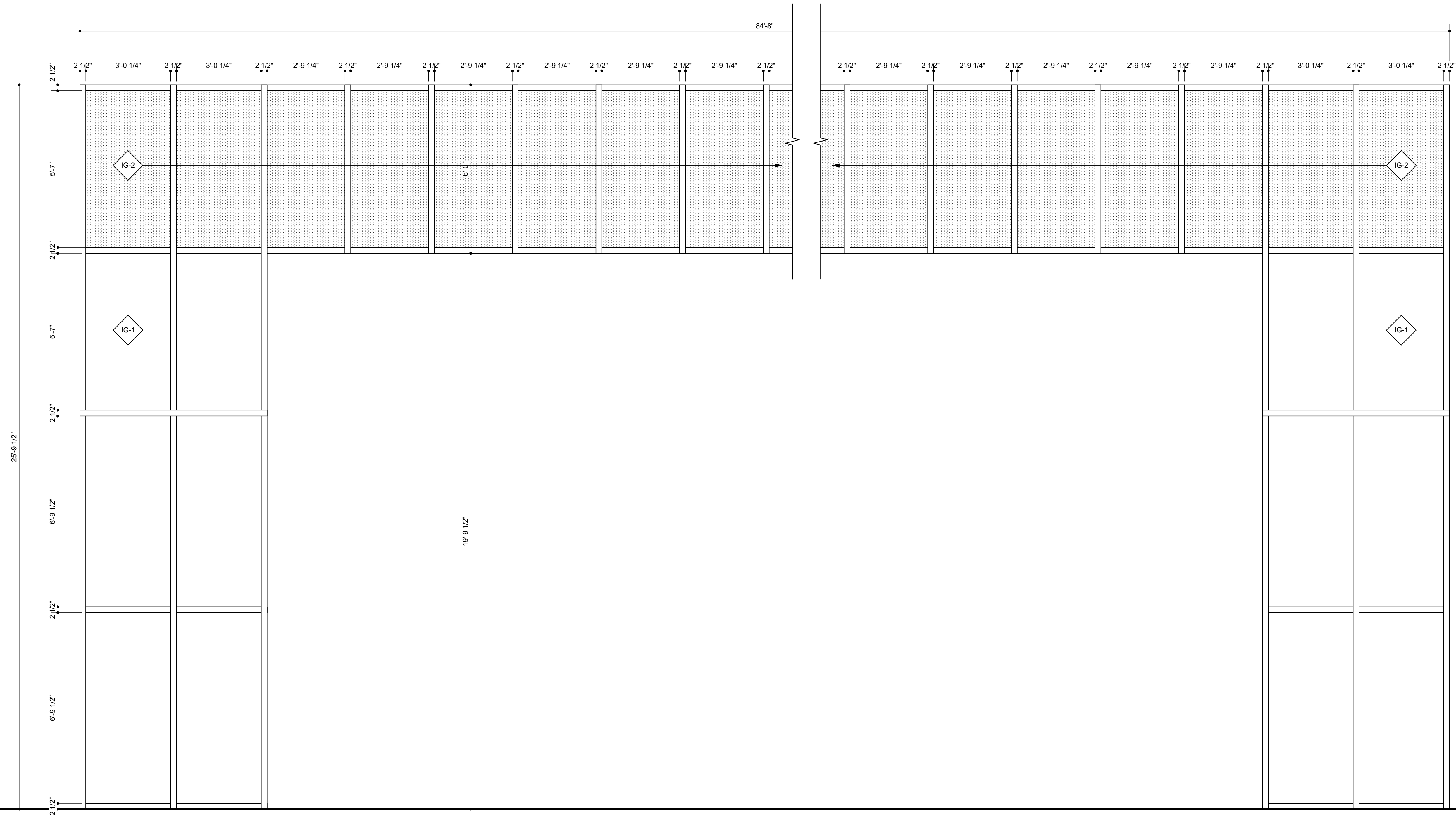
**MLK Center  
 Addition &  
 Renovation**  
 401 S. 8th Street  
 Wilmington, NC

Construction Drawings  
 March 22, 2023

Revisions:  
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Schedules &  
 Door & Window  
 Elevations

**A6.0**



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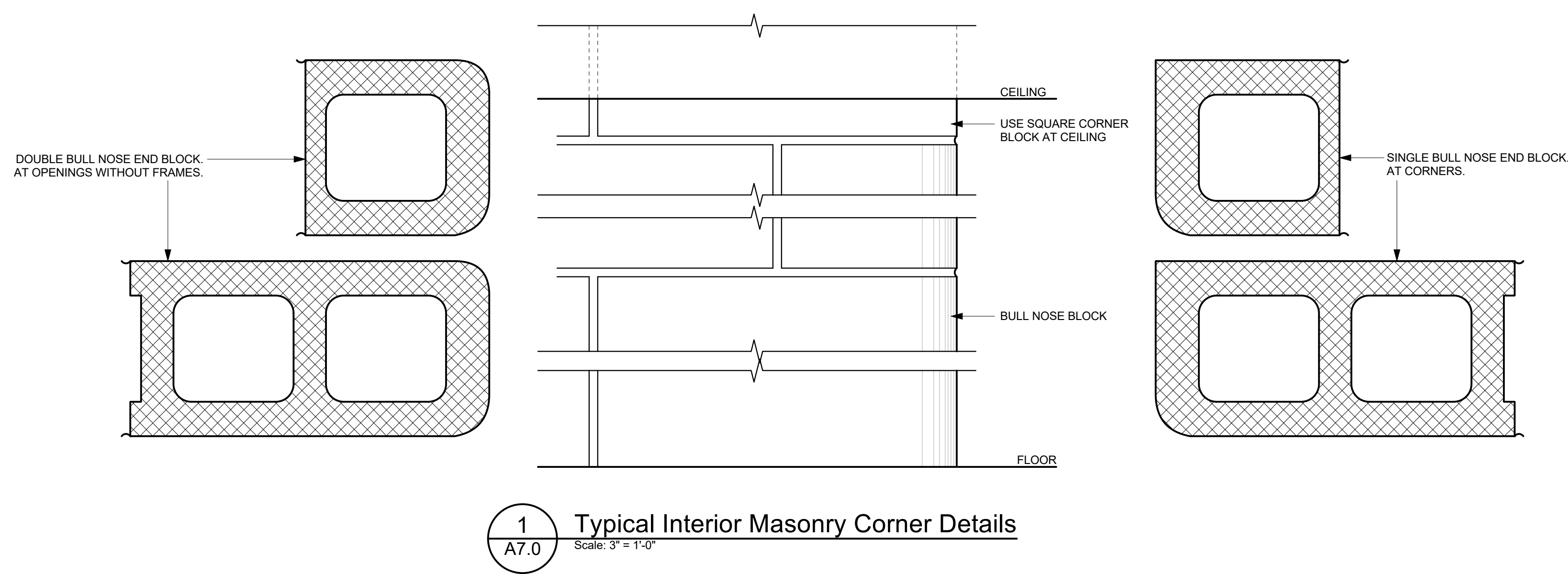
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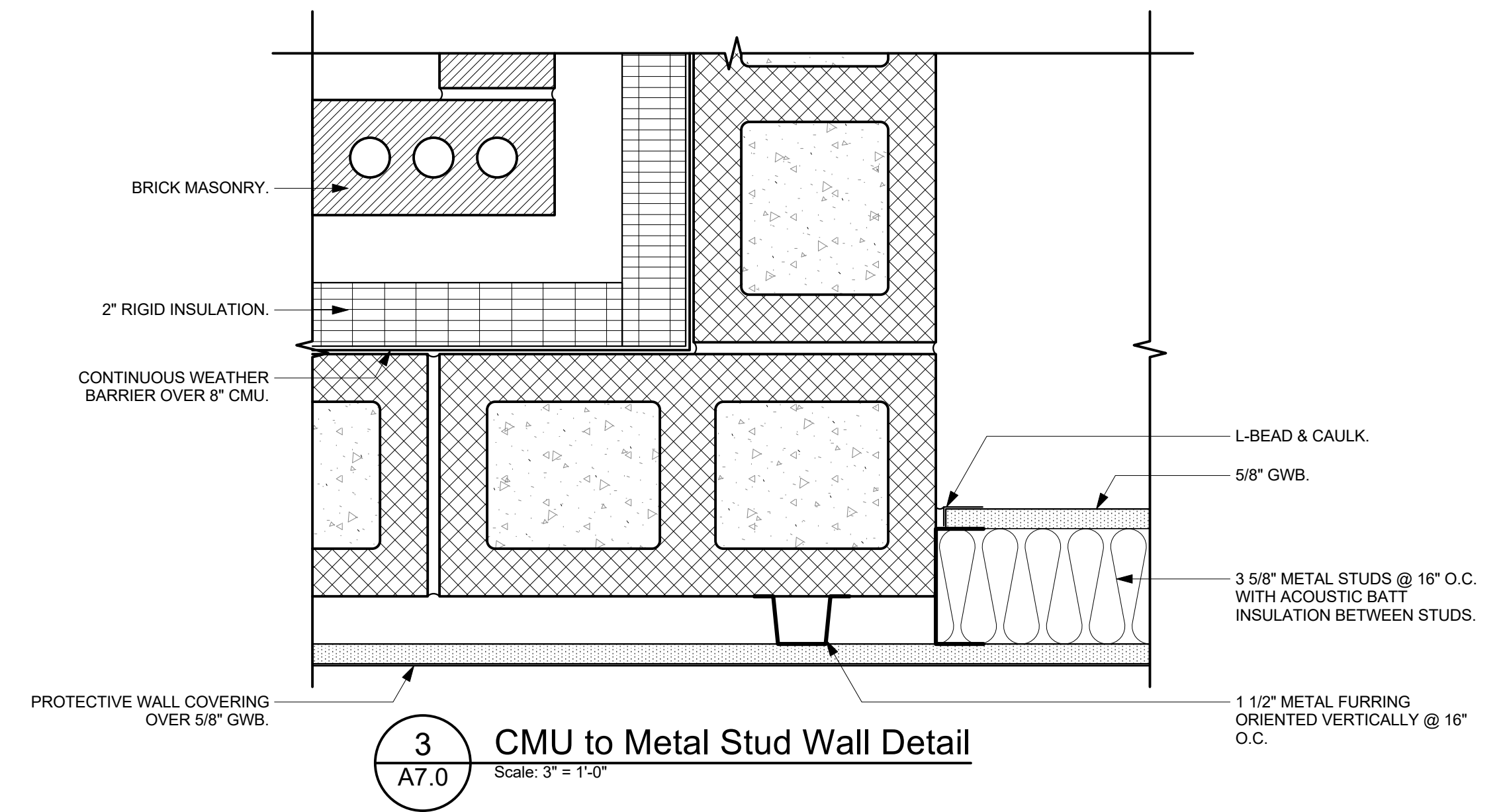
Revisions:  
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Window  
Elevations

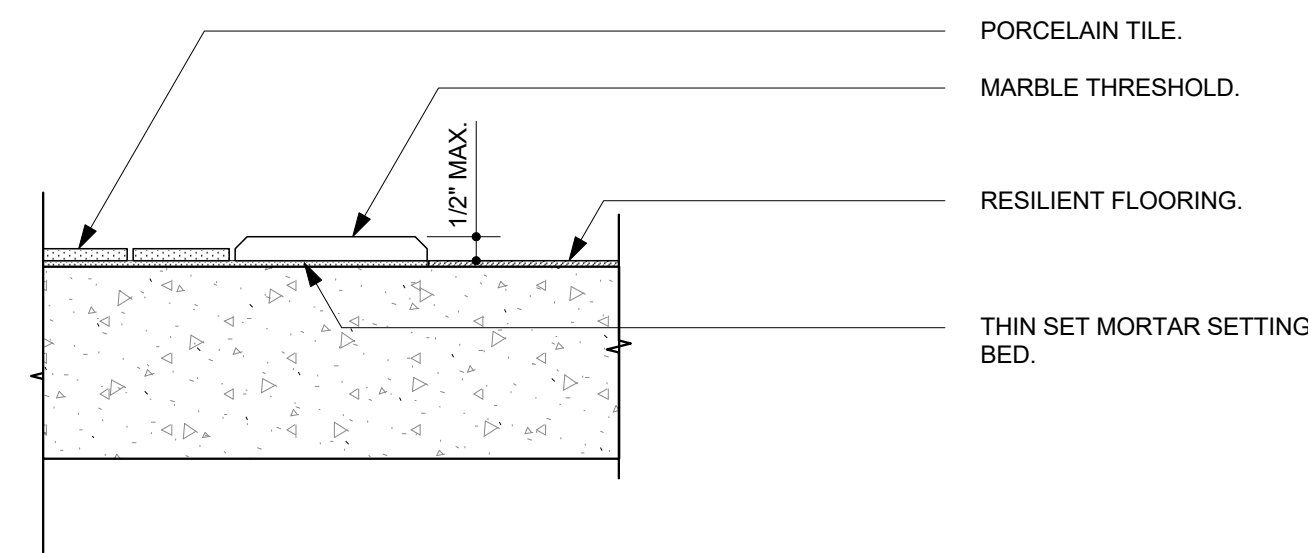
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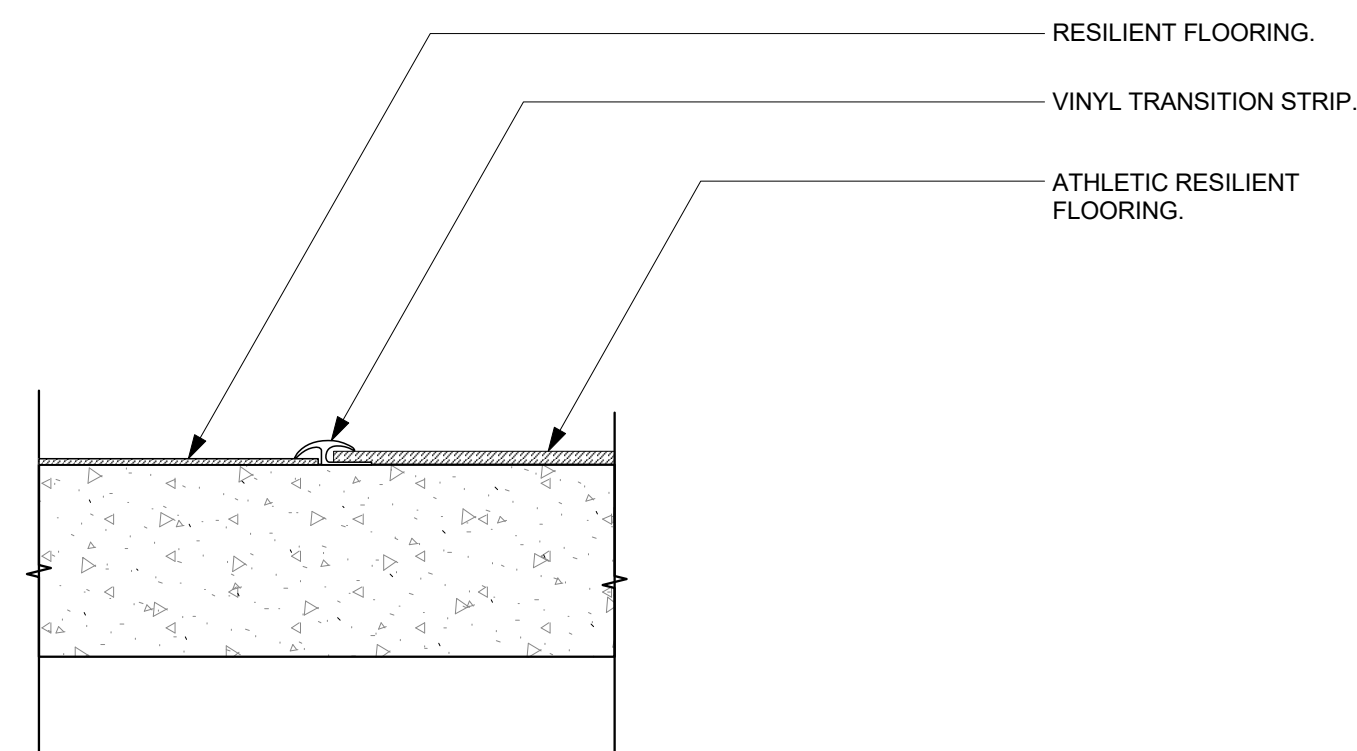
**1**  
A7.0  
Typical Interior Masonry Corner Details  
Scale: 3" = 1'-0"



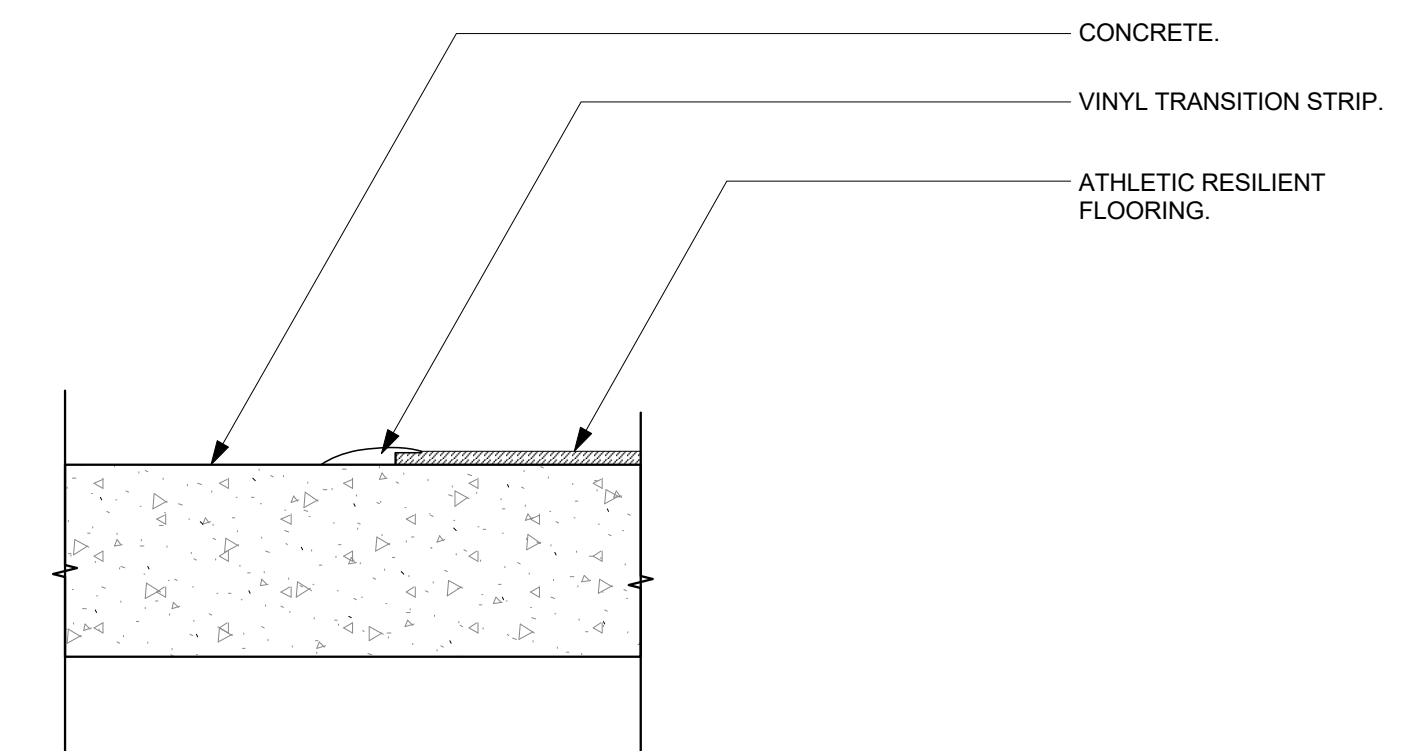
**3**  
A7.0  
CMU to Metal Stud Wall Detail  
Scale: 3" = 1'-0"



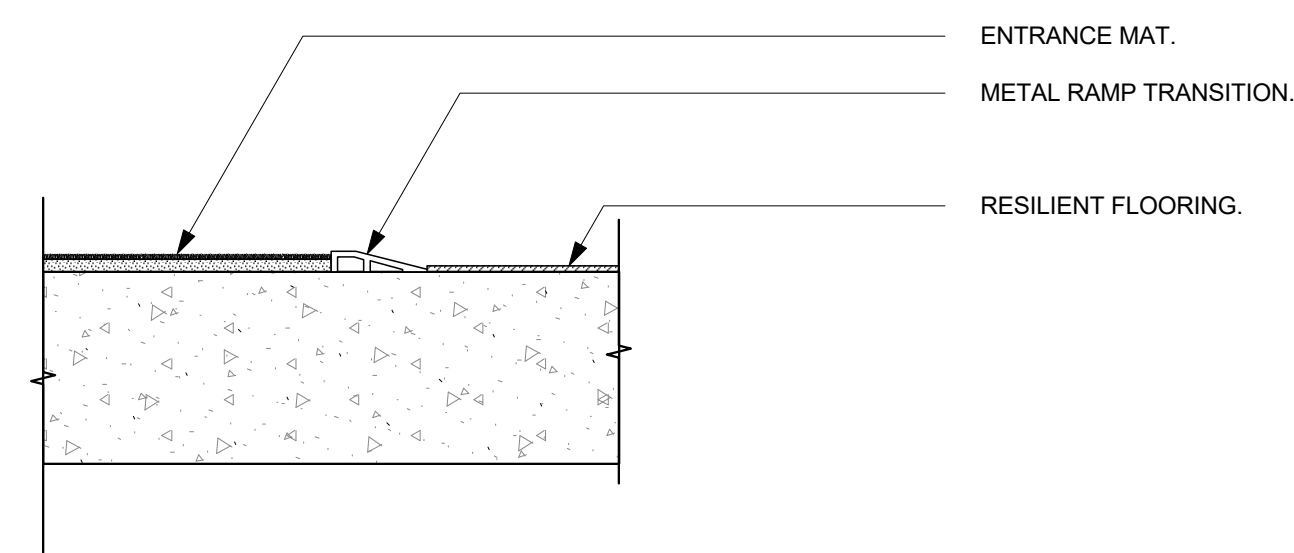
**4**  
A7.0  
Porcelain Tile to Resilient Flooring Transition  
Scale: 3" = 1'-0"



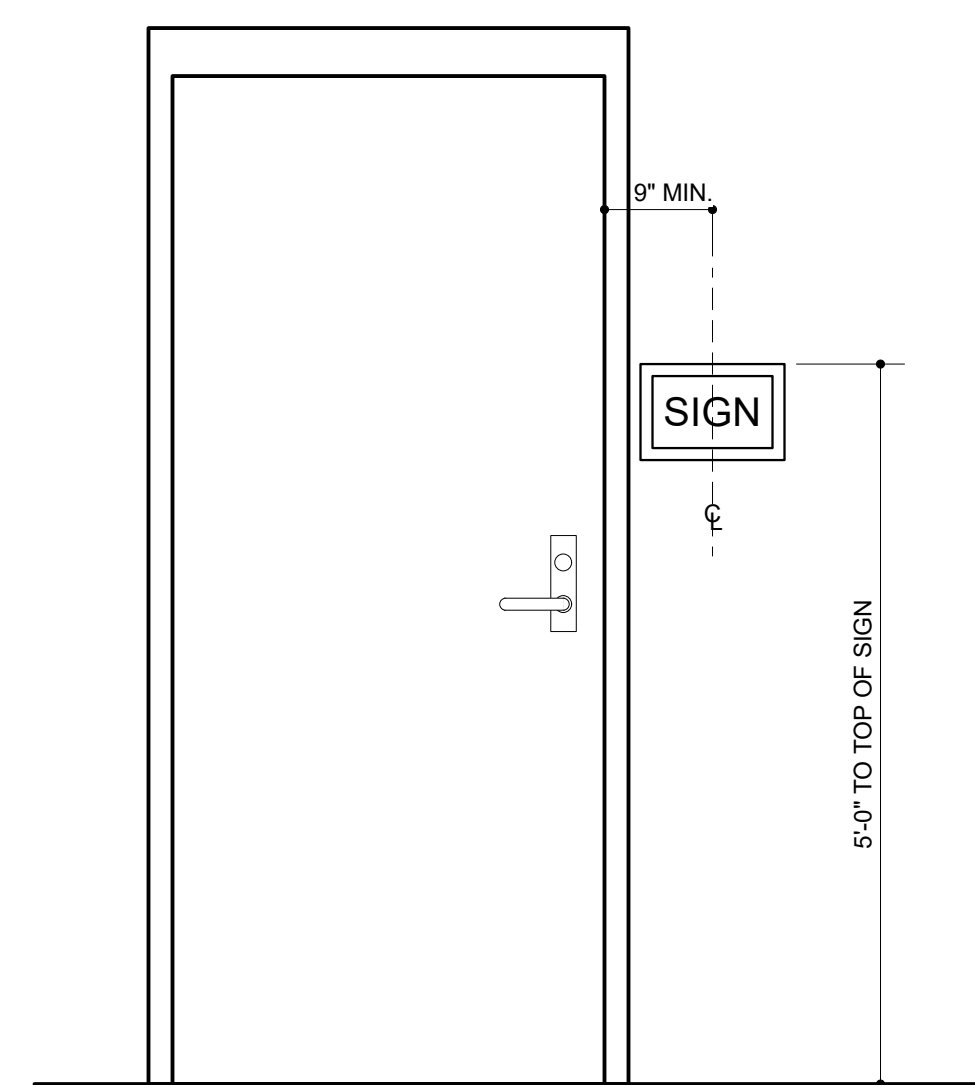
**5**  
A7.0  
Resilient Flooring to Athletic Resilient Flooring Transition  
Scale: 3" = 1'-0"



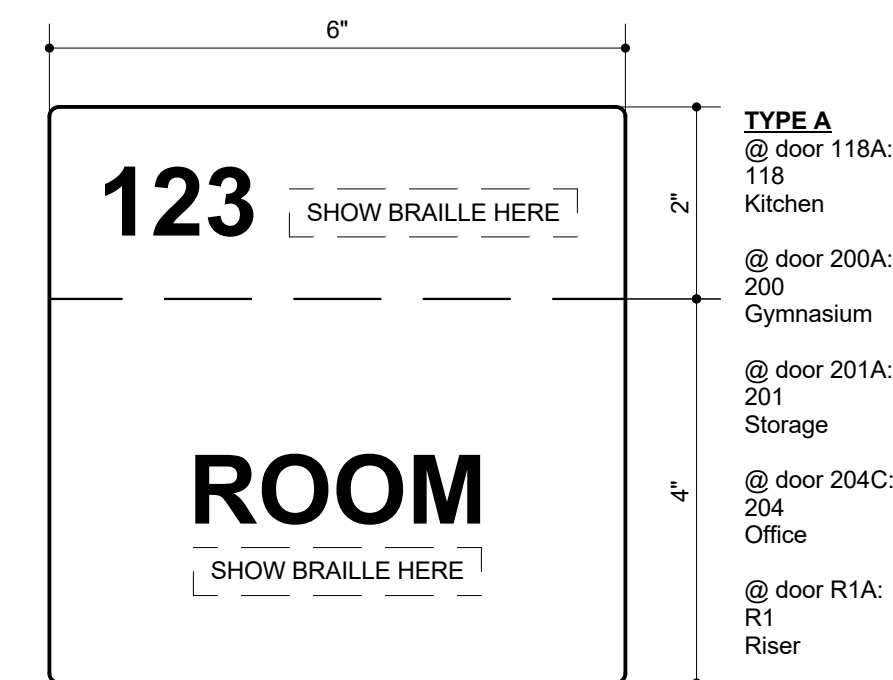
**6**  
A7.0  
Concrete to Athletic Resilient Flooring Transition  
Scale: 3" = 1'-0"



**7**  
A7.0  
Entrance Mat to Resilient Flooring Transition  
Scale: 3" = 1'-0"

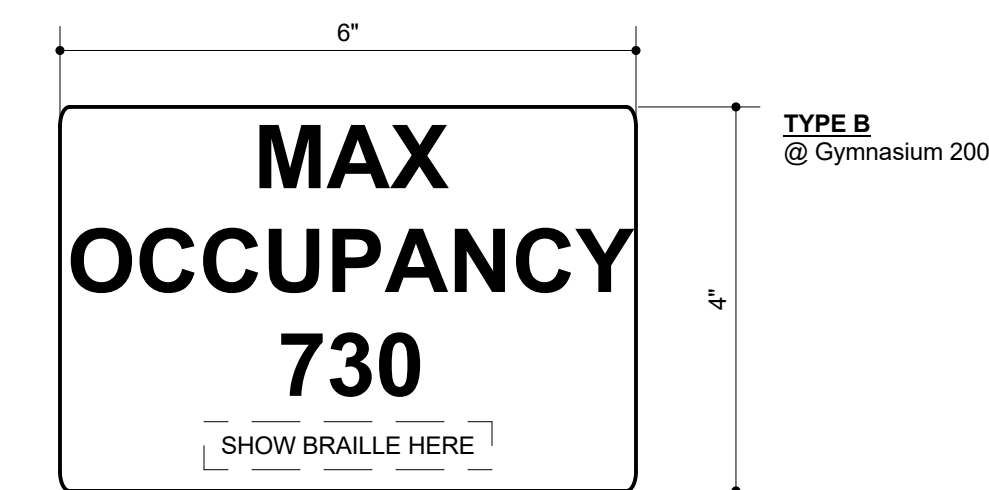


**8**  
A7.0  
Typical Signage Detail  
Scale: 3/4" = 1'-0"

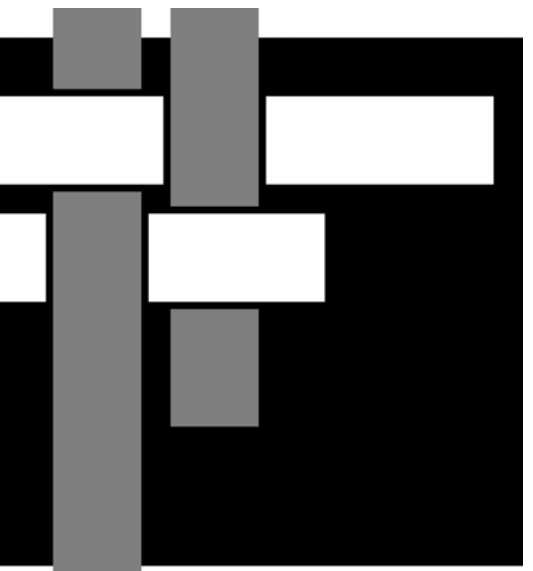


- TYPE A**
- @ door 118A: 118 Kitchen
- @ door 200A: 200 Gymnasium
- @ door 201A: 201 Storage
- @ door 204C: 204 Office
- @ door R1A: R1 Riser

**9**  
A7.0  
Signage Detail  
Scale: Half Actual Size



- TYPE B**
  - @ Gymnasium 200
- NOTES:**
- Final room names and numbers to be determined during submittal review.
  - Where located at walls with wall pads, cut wall pads large enough to allow a 4" wall border around sign. Finish wall pad edges per manufacturer's recommendations.



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Gymnasium  
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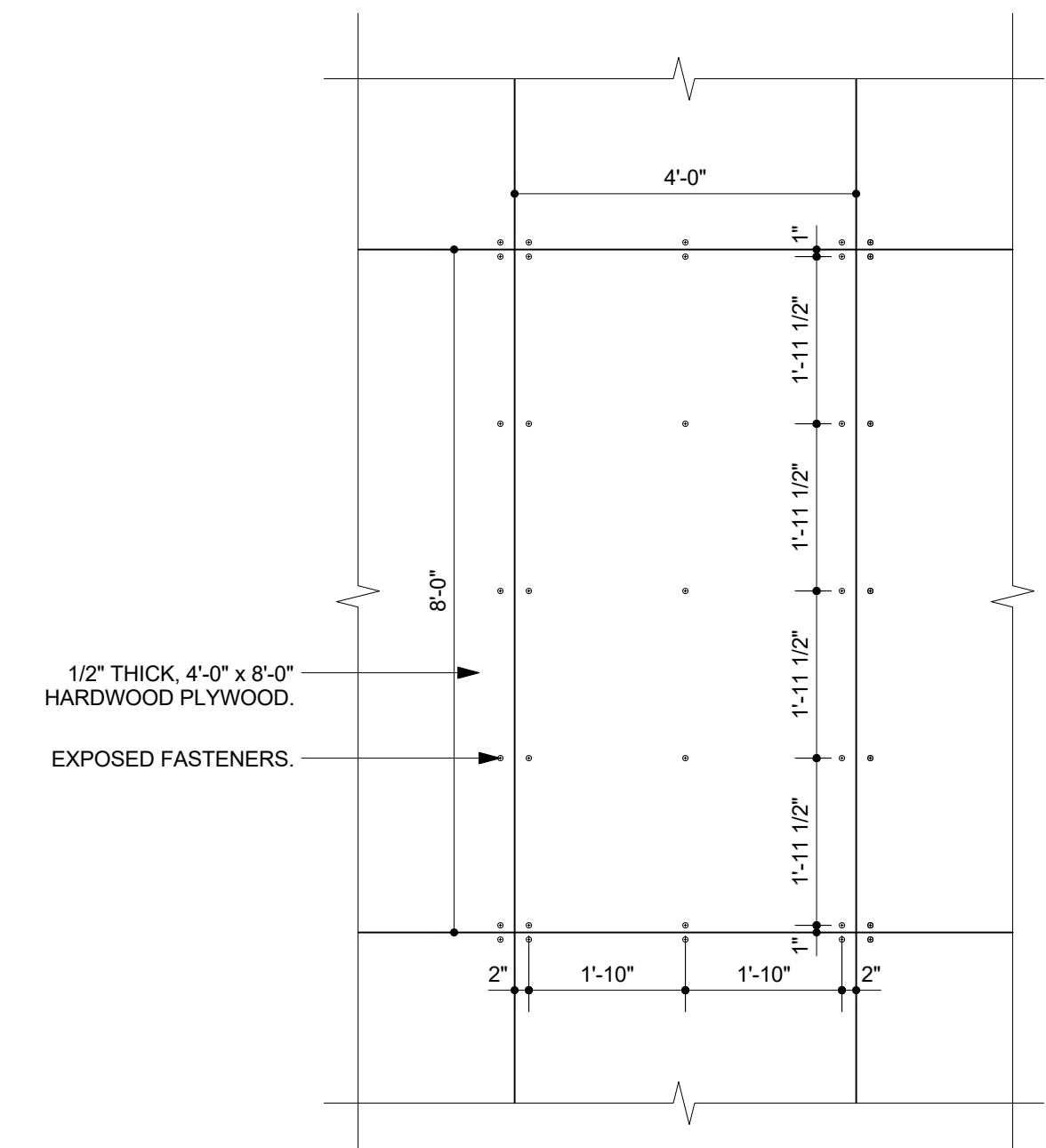
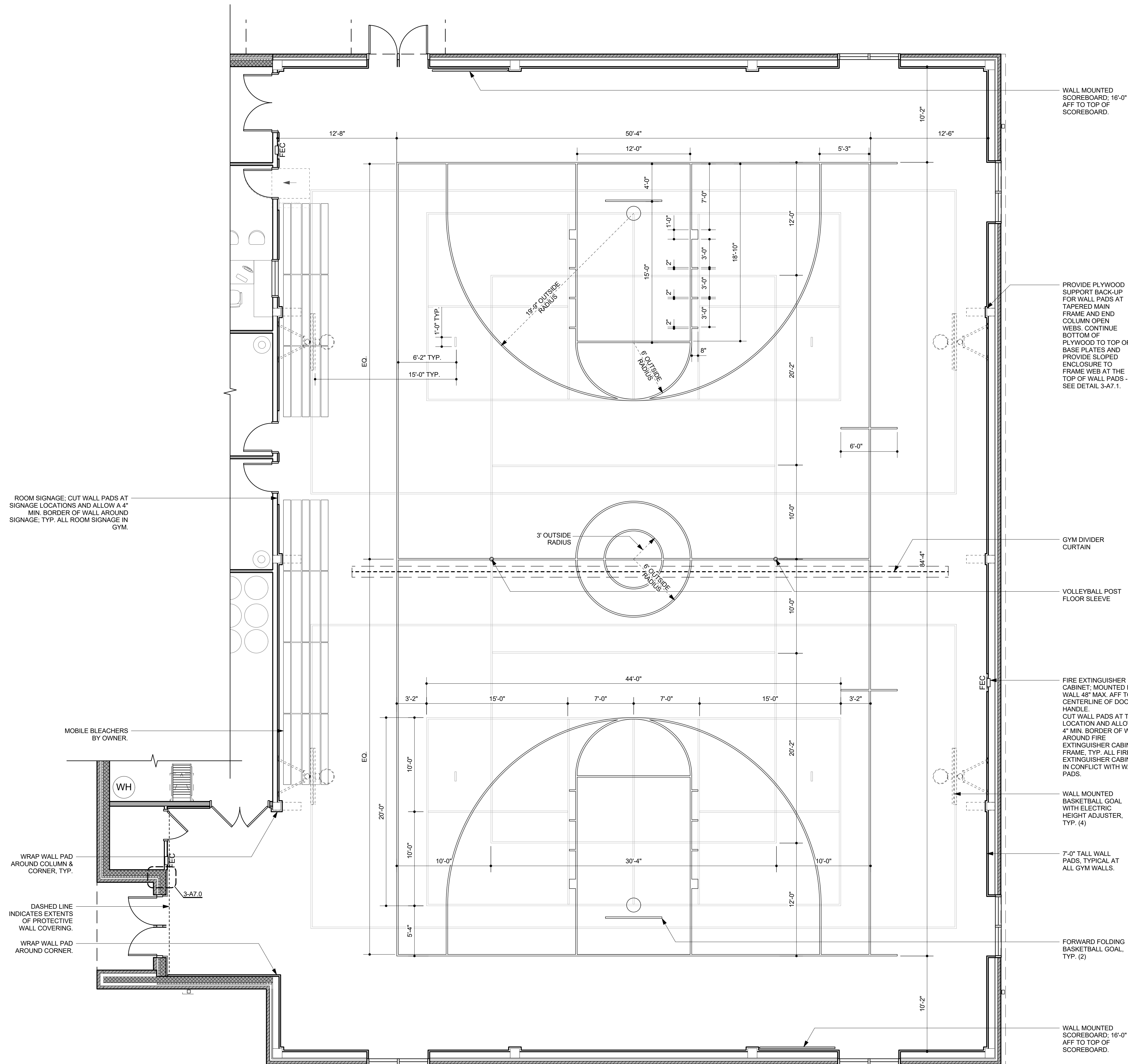
Revisions:

Interior Details

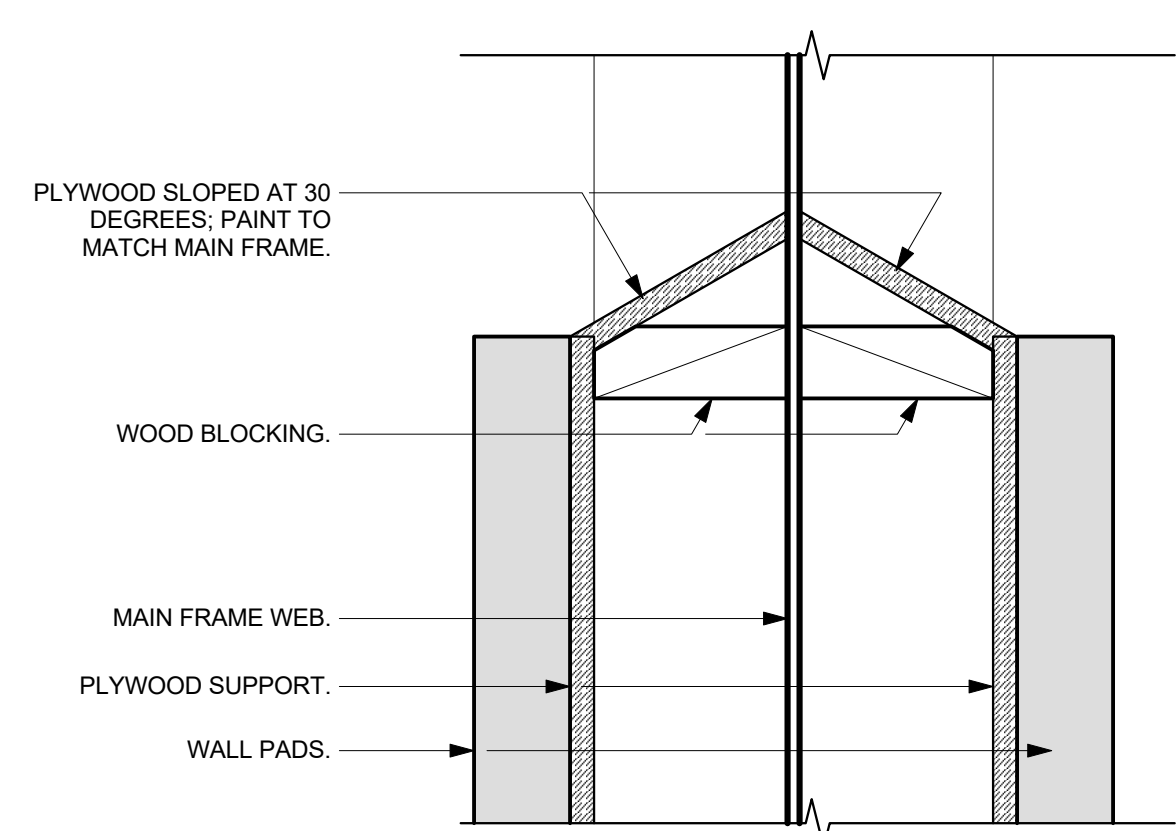
**A7.0**

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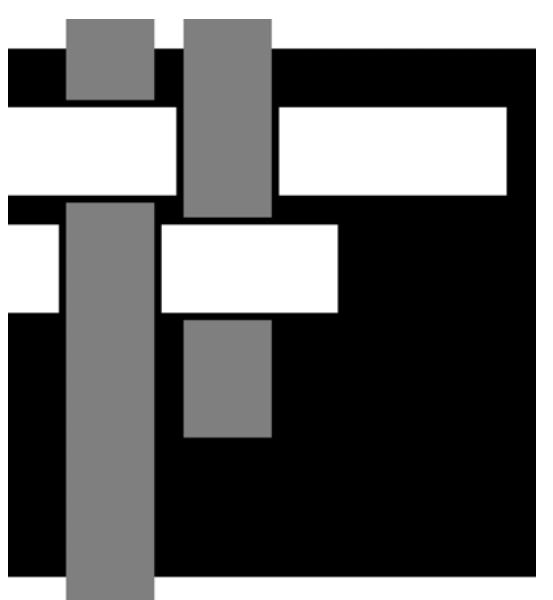


2 Hardwood Plywood Fastener Layout  
 A7.1 Scale: 1/2" = 1'-0"



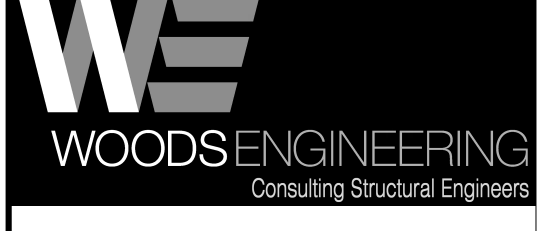
3 Top of Wall Pads @ Main Frame Detail  
 A7.1 Scale: 3" = 1'-0"

1 Gymnasium Court Layout  
 A7.1 Scale: 3/16" = 1'-0"



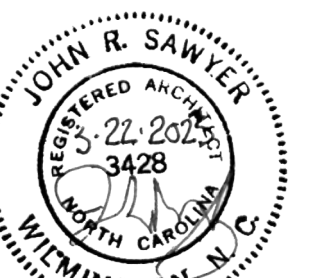
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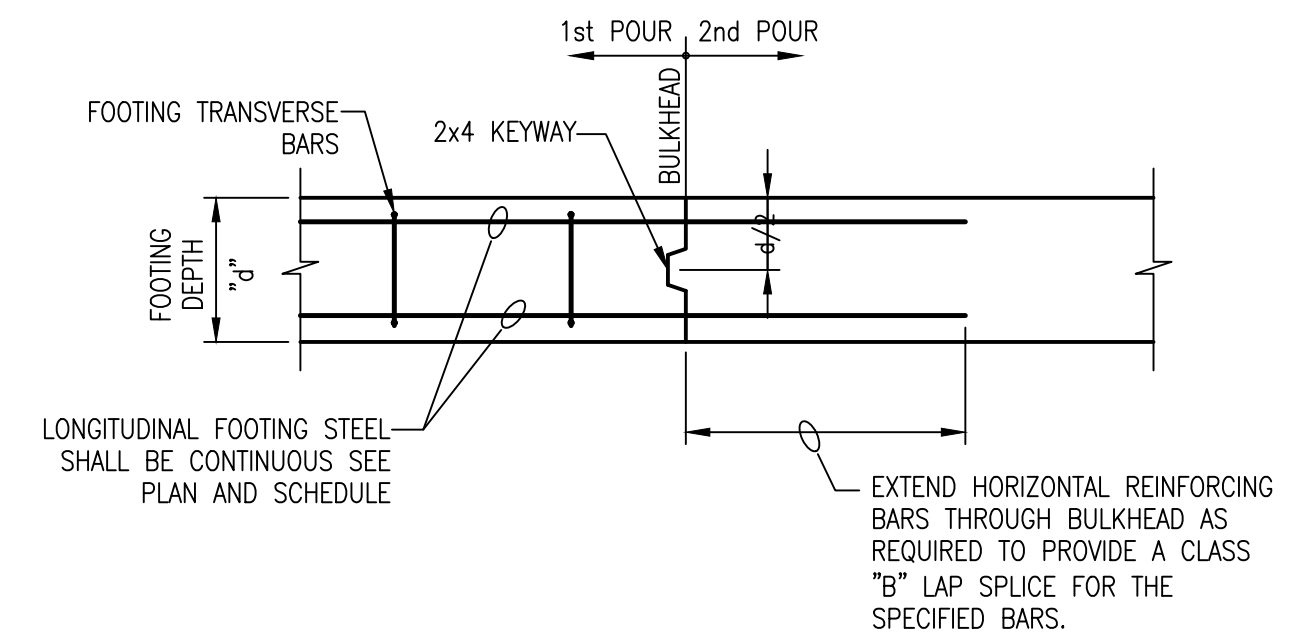
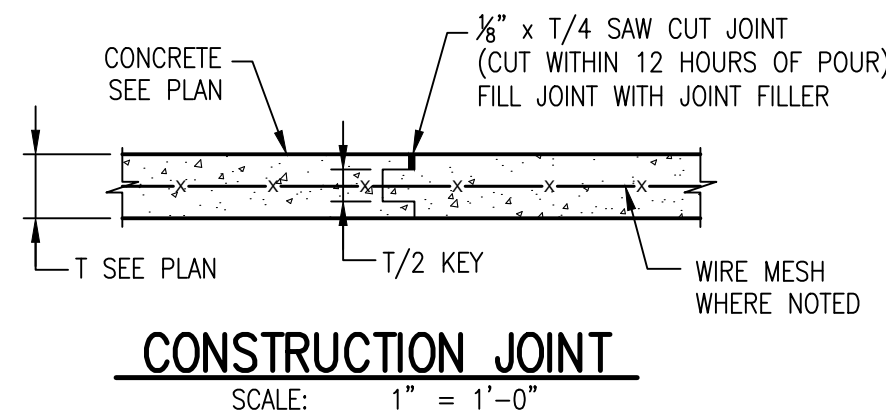
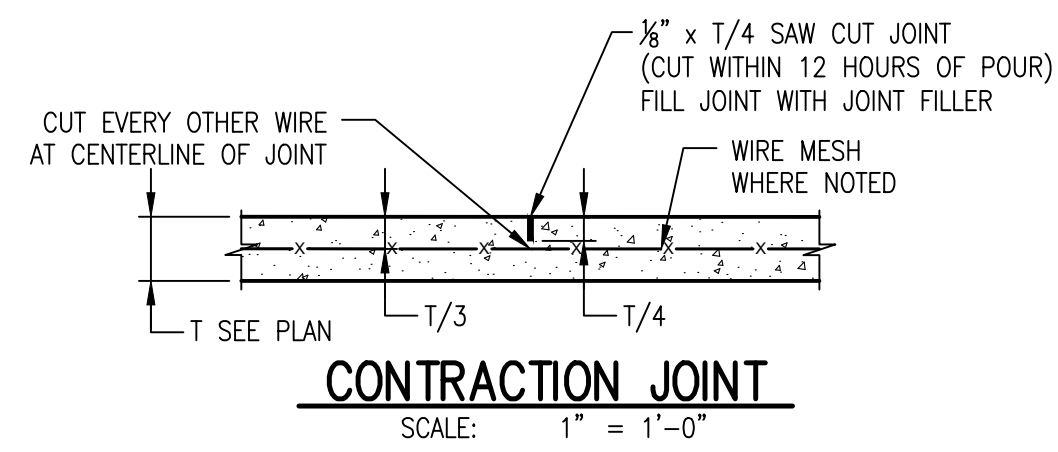
Gymnasium Court Layout

**A7.1**

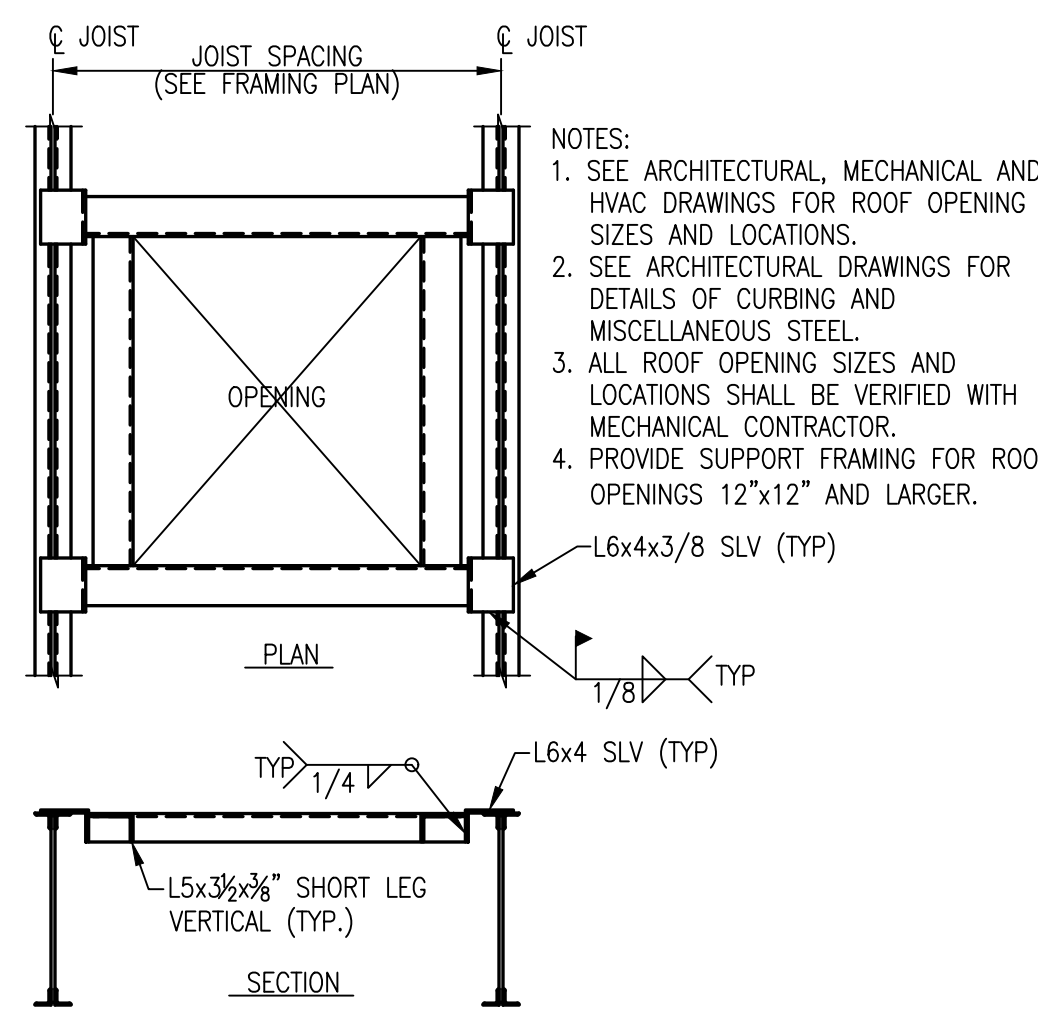






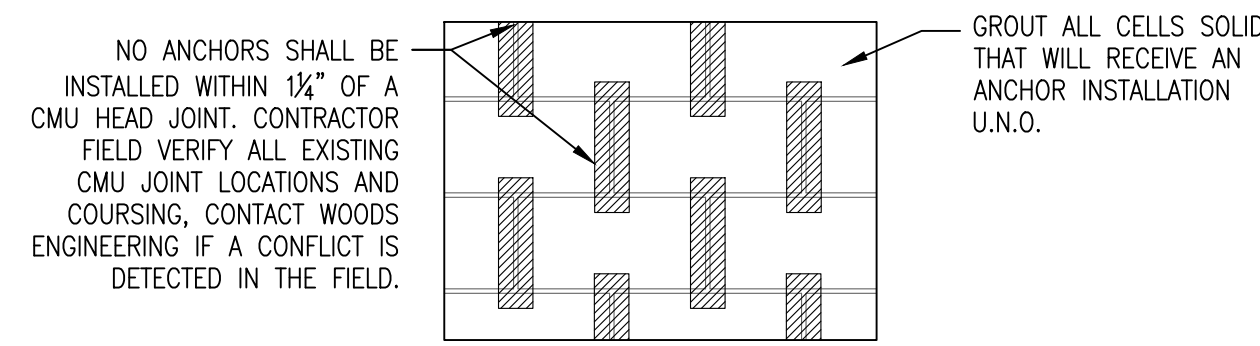


TYPICAL FOOTING CONSTRUCTION JOINT SECTION  
SCALE: 3/4" = 1'-0"

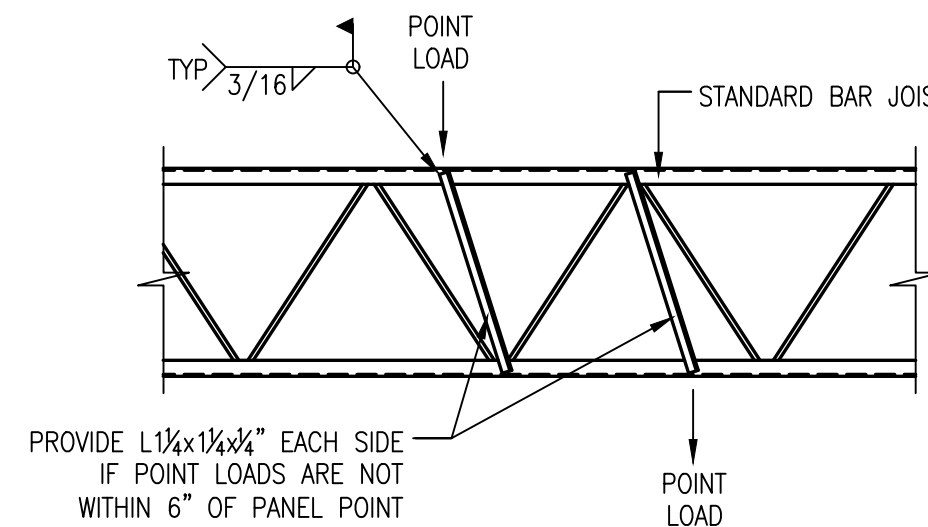


DETAIL OF TYPICAL ROOF OPENING  
NOT TO SCALE

AT CONTRACTOR'S OPTION:  
USE QUICKFRAMES  
WWW.QUICKFRAMES.US



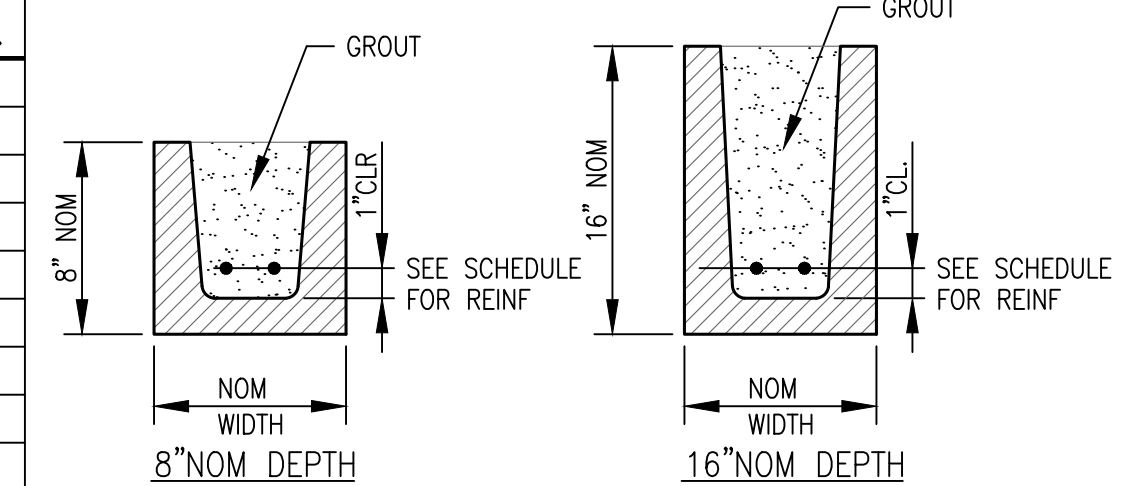
ANCHOR INSTALLATION DIAGRAM  
SCALE: 3/4" = 1'-0"



DETAIL OF TYPICAL JOIST REINFORCEMENT  
NOT TO SCALE

NON LOAD BEARING CMU LINTEL SCHEDULE

CLEAR OPENING	DEPTH	REINFORCING			MIN. BRG.
		6" CMU	8" CMU	12" CMU	
0'-8" TO 3'-4"	8"	1#4	1#4	2#5	8"
3'-4" TO 4'-8"	8"	1#4	1#4	2#5	8"
4'-8" TO 6'-0"	8"	1#4	1#5	2#5	8"
6'-0" TO 8'-0"	8"	1#4	2#5	2#5	8"
8'-0" TO 10'-0"	16"	1#4	2#5	2#5	12"
10'-0" TO 12'-0"	16"	-	-	2#5	12"

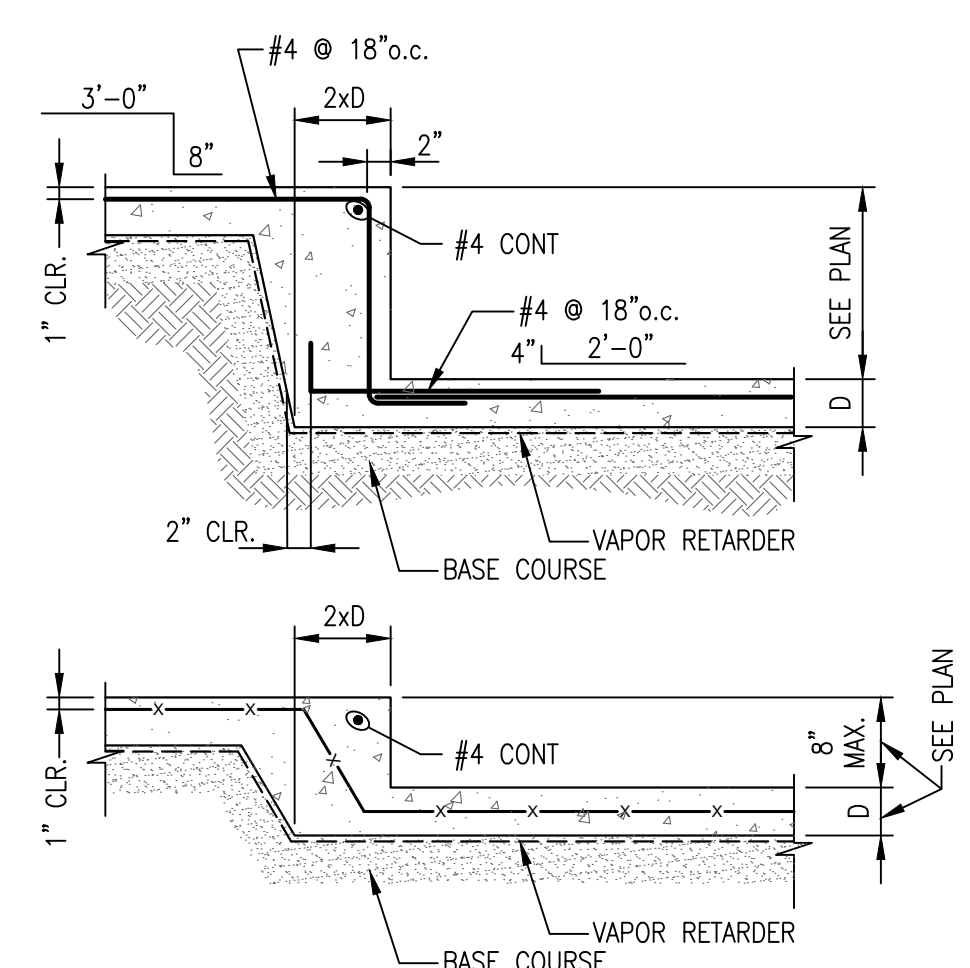


- NOTES:
- BEAR REINFORCING 4" (MIN) EACH END.
  - FILL BLOCK CORES WITH GROUT TO A DEPTH OF 48"(MIN) BELOW LINTEL BEARING.
  - SEE BEAM SCHEDULE FOR LINTELS FOR CLEAR SPANS OVER 12' AND LINTELS SUPPORTING FLOOR OR ROOF LOADS.
  - THESE LINTELS ARE NOT DESIGNED FOR MASONRY WALLS THAT CARRY FLOOR OR ROOF LOAD.

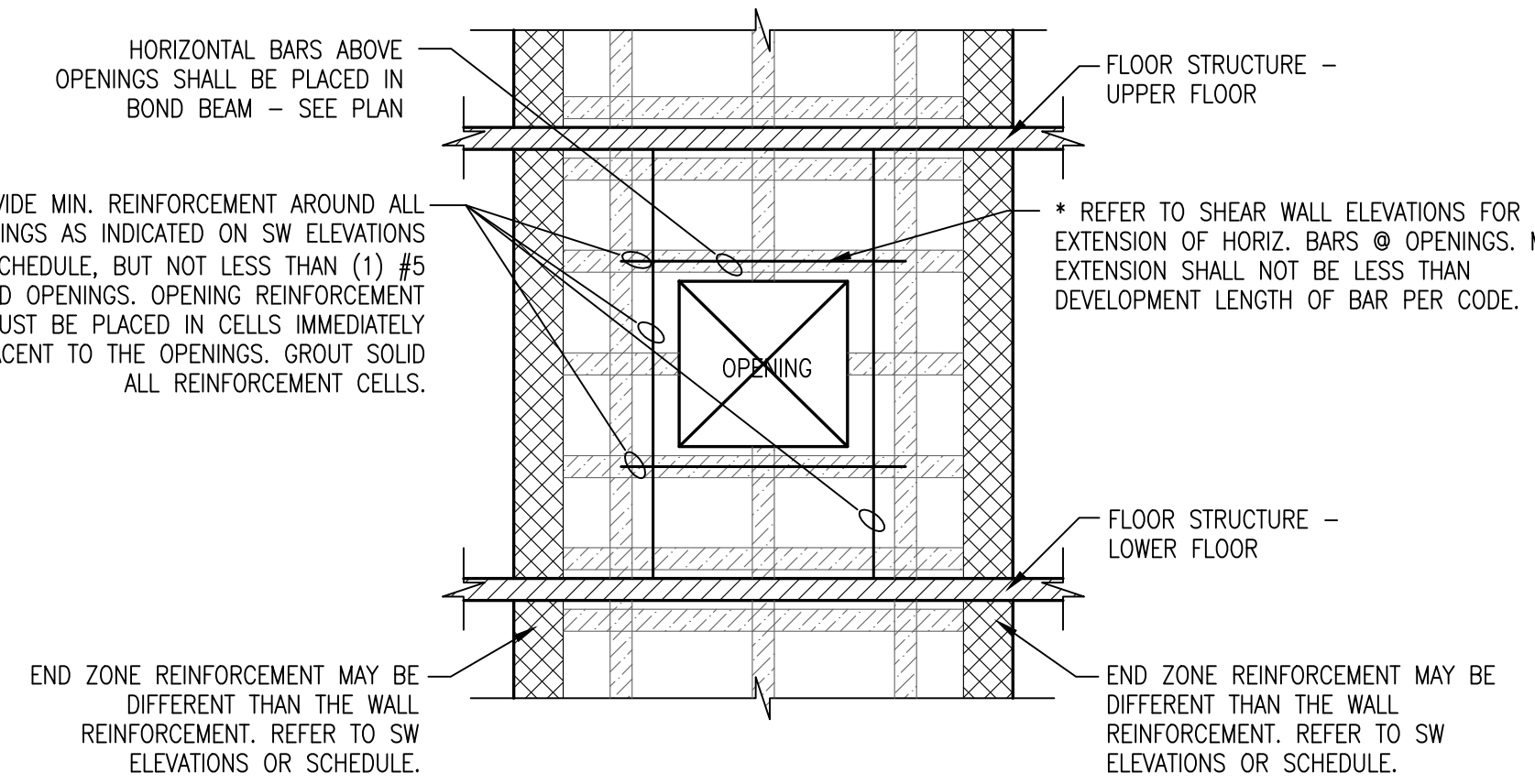
STEEL LINTEL SCHEDULE

CLEAR OPENING	ONE ANGLE FOR EA. 4"WYTHE	MIN BRG	MAX. HEIGHT OF BRICK
0'-8" TO 6'-0"	L7" x 4" x 3/8" LLH	8"	9'-0"
6'-0" TO 8'-0"	7"x5"x7/16" BENT PLATE LLH	8"	9'-0"
8'-0" TO 10'-0"	7"x7"x7/16" BENT PLATE	8"	9'-0"
10'-0" TO 12'-0"	9"x7"x7/16" BENT PLATE LLV	8"	9'-0"

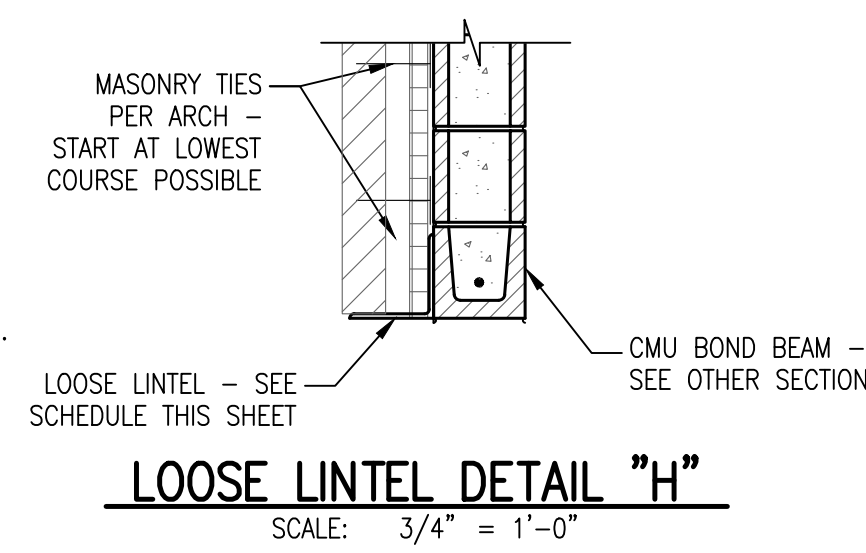
- NOTES:
- WHERE LINTELS BEAR ON HOLLOW MASONRY UNITS FILL ALL CORES UNDER BEARING WITH GROUT FROM BOTTOM OF LINTEL TO 16" MINIMUM BELOW.
  - THESE LINTELS ARE NOT DESIGNED FOR MASONRY WALLS THAT CARRY FLOOR OR ROOF LOAD.
  - LINTELS ARE DESIGNED TO CARRY THE MAXIMUM HEIGHT OF BRICK LISTED IN SCHEDULE. IF STACKED BRICK HEIGHT EXCEEDS LISTED VALUE, THEN CONTACT STRUCTURAL ENGINEER FOR ALTERNATE DESIGN.
  - ALL STEEL LINTELS SHALL BE HOT DIP GALVANIZED.
  - SEE DETAIL BELOW FOR REQUIREMENTS



TYPICAL SLAB STEP  
SCALE: 3/4" = 1'-0"

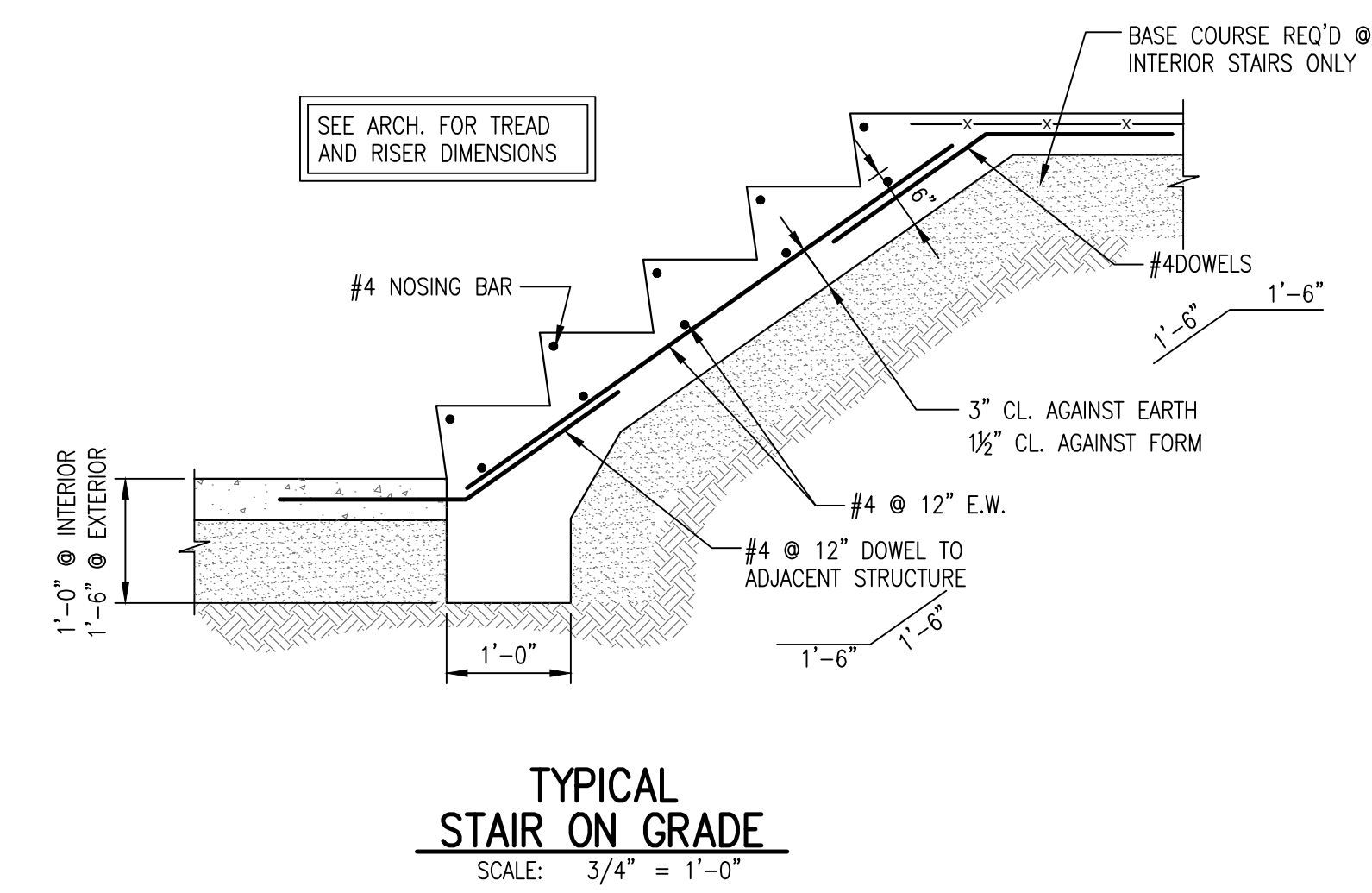


TYPICAL CMU OPENING ELEVATION  
NOT TO SCALE

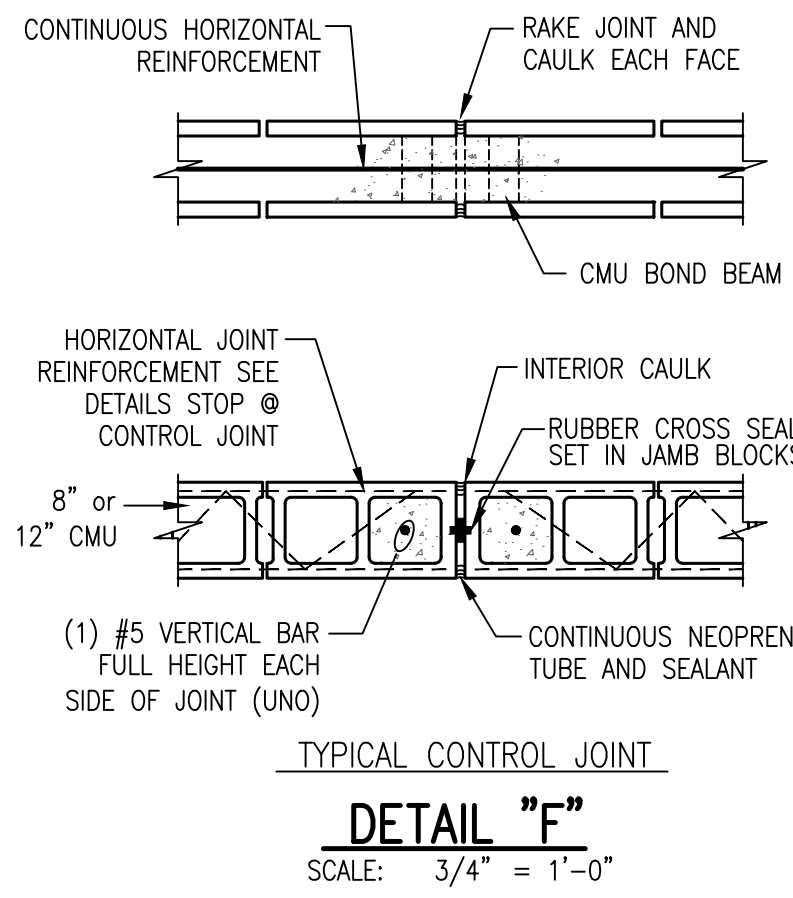


LOOSE LINTEL DETAIL "H"  
SCALE: 3/4" = 1'-0"

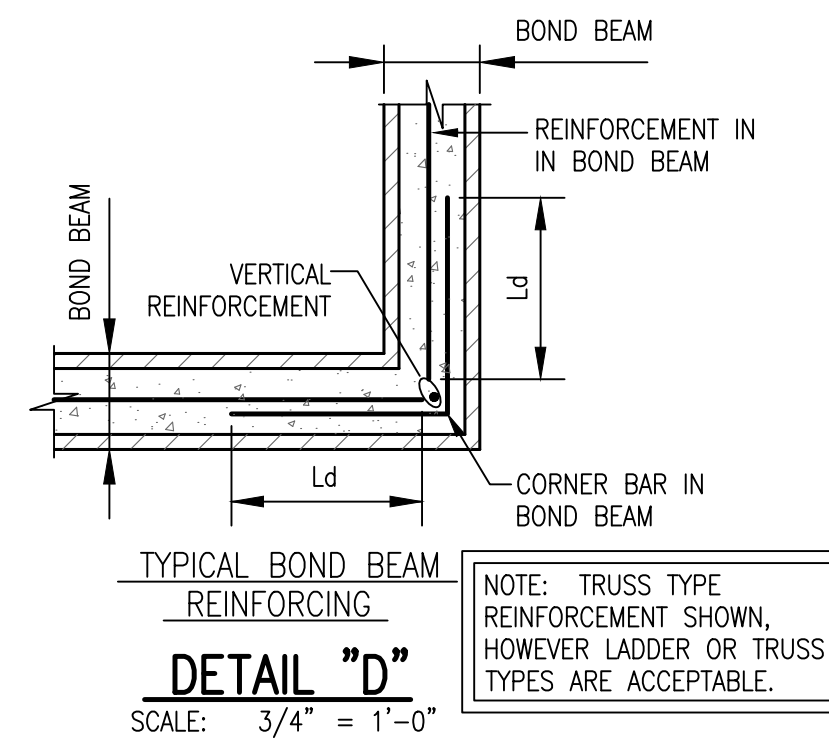
- LOCATE CMU CONTROL JOINTS AS FOLLOWS:
- AT MAXIMUM SPACING OF 25' OR 3 TIMES THE WALL HEIGHT. COORDINATE CONTROL JOINT LOCATIONS W/ ARCHITECTURAL PLANS.
  - AT ALL ABRUPT CHANGES IN WALL HEIGHT.
  - AT ALL CHANGES IN WALL THICKNESS, SUCH AS AT PIPE AND DUCT CHASES AND ADJACENT TO COLUMNS OR PILASTERS.
  - CENTERED OVER JOINTS IN FOUNDATIONS AND FLOORS.
  - CENTERED BELOW JOINTS IN ROOFS AND FLOORS THAT BEAR ON CMU WALLS.
  - AT A DISTANCE NOT OVER ONE-HALF THE REQUIRED JOINT SPACING FROM BONDED WALL INTERSECTIONS, CORNERS OR CHANGES IN WALL DIRECTION.
  - DO NOT PROVIDE CONTROL JOINTS IN CMU SHEAR WALLS.



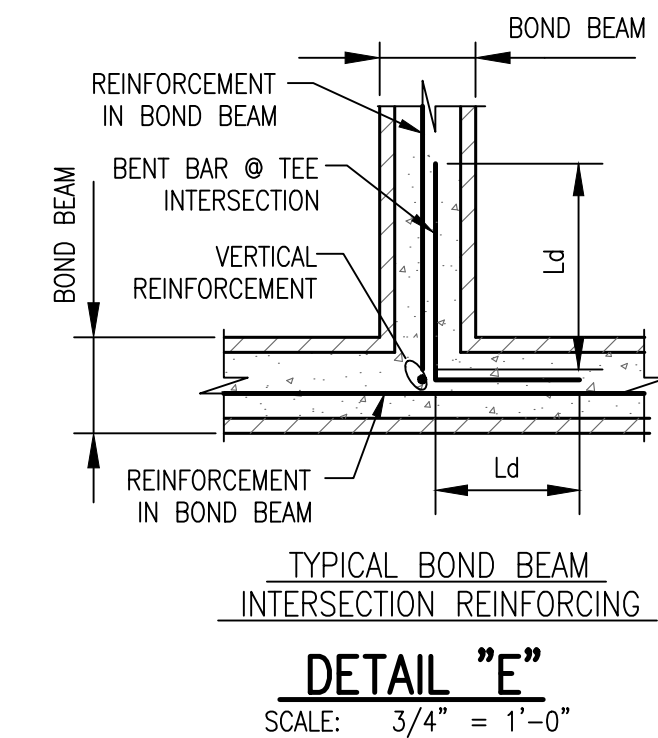
TYPICAL STAIR ON GRADE  
SCALE: 3/4" = 1'-0"



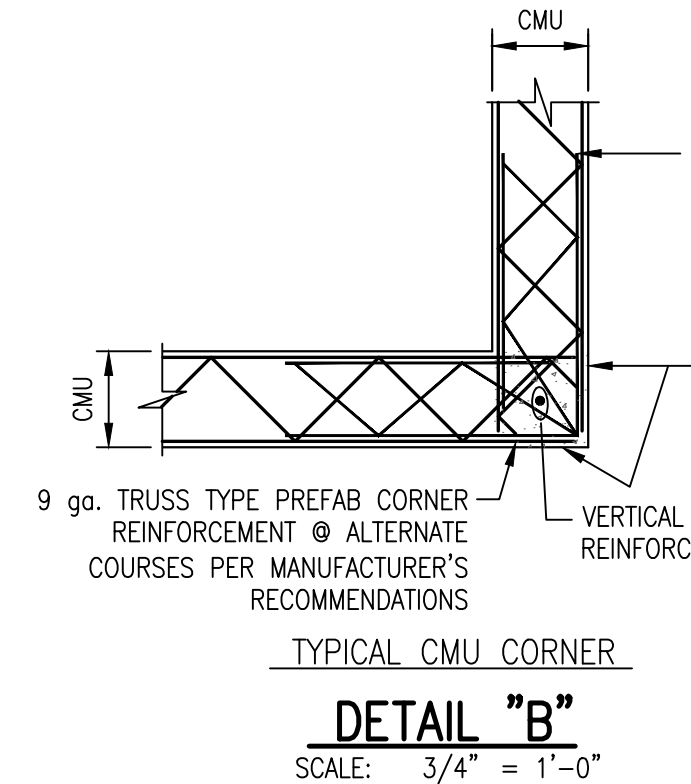
DETAIL "F"  
SCALE: 3/4" = 1'-0"



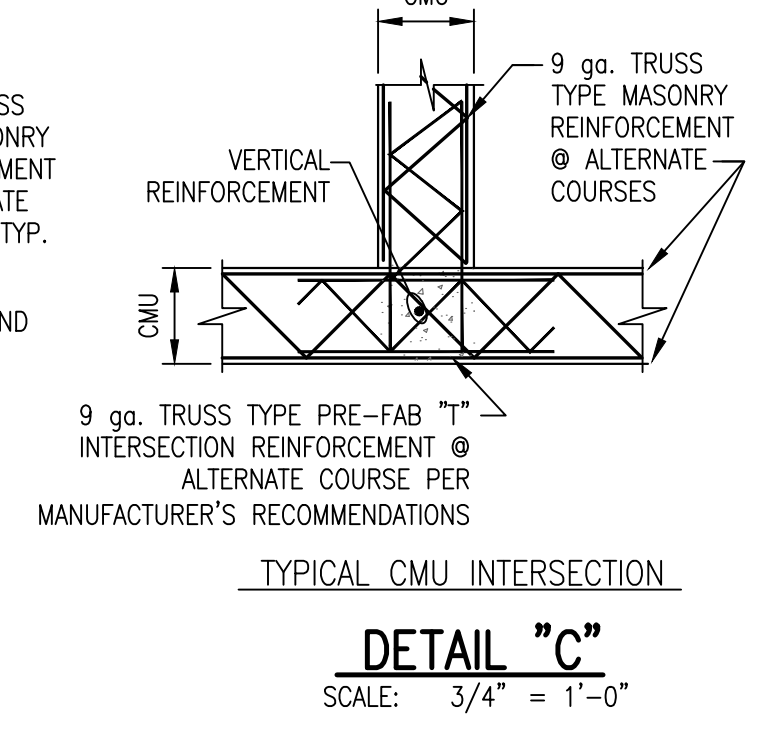
DETAIL "D"  
SCALE: 3/4" = 1'-0"



DETAIL "E"  
SCALE: 3/4" = 1'-0"



DETAIL "B"  
SCALE: 3/4" = 1'-0"



DETAIL "C"  
SCALE: 3/4" = 1'-0"

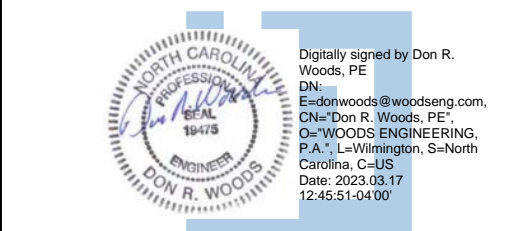
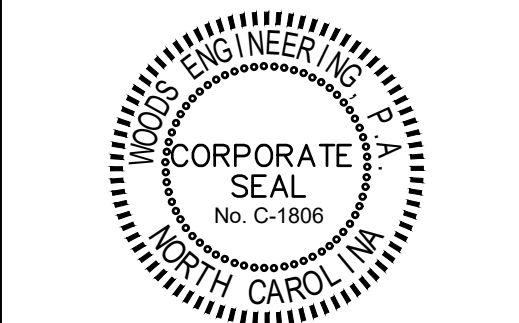


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MLK Community Center Addition & Renovation  
401 S. 8th Street  
Wilmington, NC

Construction Drawings  
March 22, 2023

Revisions:

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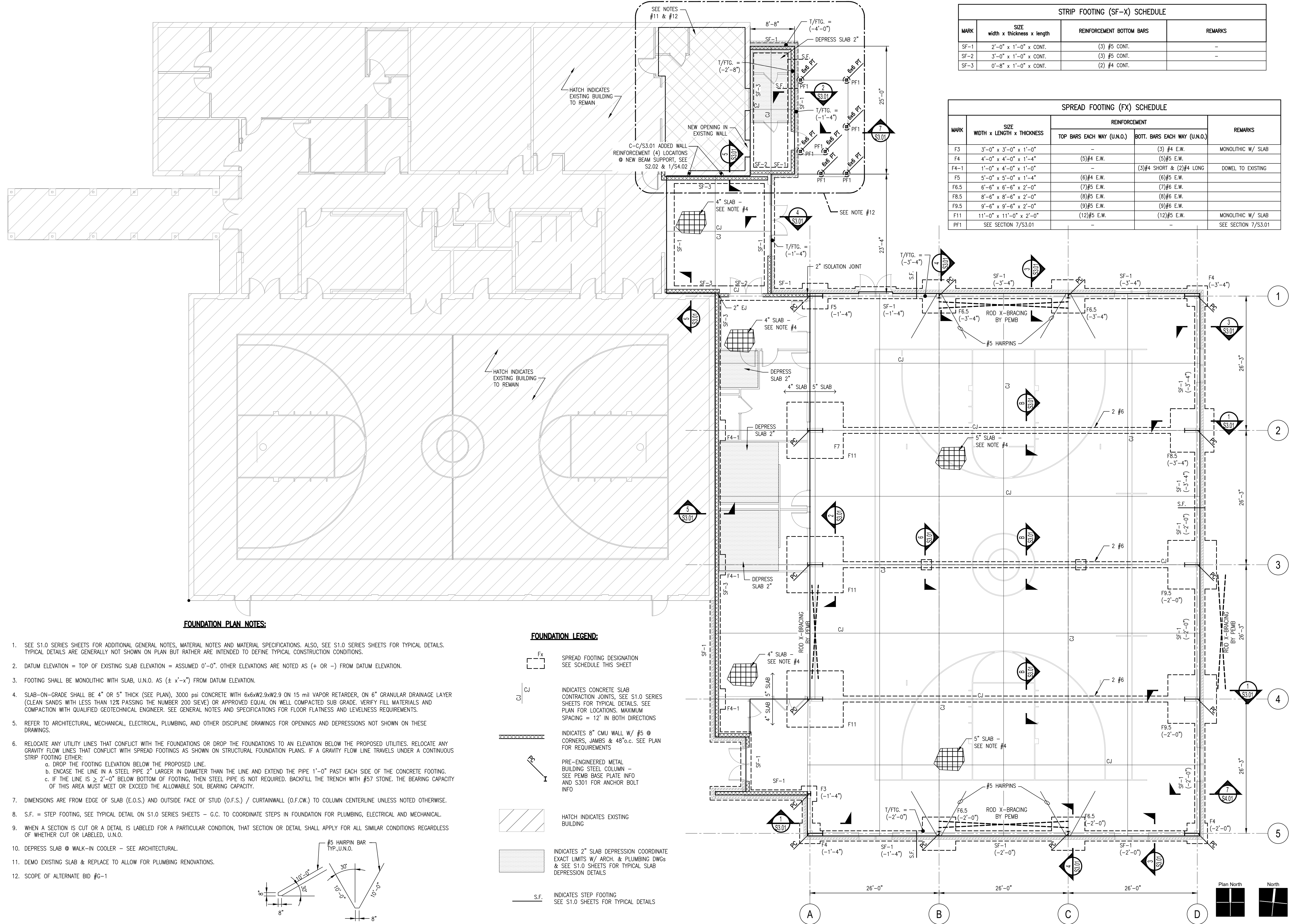
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TYPICAL DETAILS

S1.03



STRIP FOOTING (SF-X) SCHEDULE			
MARK	SIZE width x thickness x length	REINFORCEMENT BOTTOM BARS	REMARKS
SF-1	2'-0" x 1'-0" x CONT.	(3) #5 CONT.	-
SF-2	3'-0" x 1'-0" x CONT.	(3) #5 CONT.	-
SF-3	0'-8" x 1'-0" x CONT.	(2) #4 CONT.	-

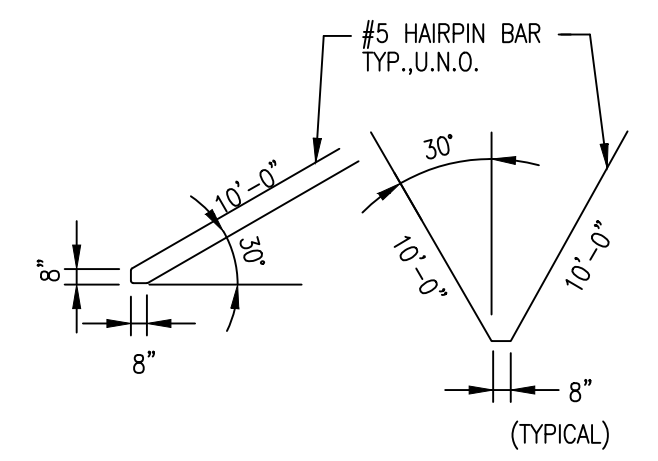
SPREAD FOOTING (FX) SCHEDULE				
MARK	WIDTH x LENGTH x THICKNESS	REINFORCEMENT		REMARKS
		TOP BARS EACH WAY (U.N.O.)	BOTT. BARS EACH WAY (U.N.O.)	
F3	3'-0" x 3'-0" x 1'-0"	-	(3) #4 E.W.	MONOLITHIC W/ SLAB
F4	4'-0" x 4'-0" x 1'-4"	(5) #4 E.W.	(5) #5 E.W.	-
F4-1	1'-0" x 4'-0" x 1'-0"	-	(3) #4 SHORT & (2) #4 LONG	DOWEL TO EXISTING
F5	5'-0" x 5'-0" x 1'-4"	(6) #4 E.W.	(6) #5 E.W.	-
F6.5	6'-6" x 6'-6" x 2'-0"	(7) #5 E.W.	(7) #6 E.W.	-
F8.5	8'-6" x 8'-6" x 2'-0"	(8) #5 E.W.	(8) #6 E.W.	-
F9.5	9'-6" x 9'-6" x 2'-0"	(9) #5 E.W.	(9) #6 E.W.	-
F11	11'-0" x 11'-0" x 2'-0"	(12) #5 E.W.	(12) #5 E.W.	MONOLITHIC W/ SLAB
PF1	SEE SECTION 7/S3.01	-	-	SEE SECTION 7/S3.01

**FOUNDATION PLAN NOTES:**

- SEE S1.0 SERIES SHEETS FOR ADDITIONAL GENERAL NOTES, MATERIAL NOTES AND MATERIAL SPECIFICATIONS. ALSO, SEE S1.0 SERIES SHEETS FOR TYPICAL DETAILS. TYPICAL DETAILS ARE GENERALLY NOT SHOWN ON PLAN BUT RATHER ARE INTENDED TO DEFINE TYPICAL CONSTRUCTION CONDITIONS.
- DATUM ELEVATION = TOP OF EXISTING SLAB ELEVATION = ASSUMED 0'-0". OTHER ELEVATIONS ARE NOTED AS (+ OR -) FROM DATUM ELEVATION.
- FOOTING SHALL BE MONOLITHIC WITH SLAB, U.N.O. AS (± x'-x") FROM DATUM ELEVATION.
- SLAB-ON-GRADE SHALL BE 4" OR 5" THICK (SEE PLAN), 3000 psi CONCRETE WITH 6x6x2.9x2.9 ON 15 mil VAPOR RETARDER, ON 6" GRANULAR DRAINAGE LAYER (CLEAN SANDS WITH LESS THAN 12% PASSING THE NUMBER 200 SIEVE) OR APPROVED EQUAL ON WELL COMPACTED SUB GRADE. VERIFY FILL MATERIALS AND COMPACTION WITH QUALIFIED GEOTECHNICAL ENGINEER. SEE GENERAL NOTES AND SPECIFICATIONS FOR FLOOR FLATNESS AND LEVELNESS REQUIREMENTS.
- REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND OTHER DISCIPLINE DRAWINGS FOR OPENINGS AND DEPRESSIONS NOT SHOWN ON THESE DRAWINGS.
- RELOCATE ANY UTILITY LINES THAT CONFLICT WITH THE FOUNDATIONS OR DROP THE FOUNDATIONS TO AN ELEVATION BELOW THE PROPOSED UTILITIES. RELOCATE ANY GRAVITY FLOW LINES THAT CONFLICT WITH SPREAD FOOTINGS AS SHOWN ON STRUCTURAL FOUNDATION PLANS. IF A GRAVITY FLOW LINE TRAVELS UNDER A CONTINUOUS STRIP FOOTING EITHER:
  - DROP THE FOOTING ELEVATION BELOW THE PROPOSED LINE.
  - ENCASE THE LINE IN A STEEL PIPE 2" LARGER IN DIAMETER THAN THE LINE AND EXTEND THE PIPE 1'-0" PAST EACH SIDE OF THE CONCRETE FOOTING.
  - IF THE LINE IS ≥ 2'-0" BELOW BOTTOM OF FOOTING, THEN STEEL PIPE IS NOT REQUIRED. BACKFILL THE TRENCH WITH #57 STONE. THE BEARING CAPACITY OF THIS AREA MUST MEET OR EXCEED THE ALLOWABLE SOIL BEARING CAPACITY.
- DIMENSIONS ARE FROM EDGE OF SLAB (E.O.S.) AND OUTSIDE FACE OF STUD / CURTAINWALL (O.F.C.W.) TO COLUMN CENTERLINE UNLESS NOTED OTHERWISE.
- S.F. = STEP FOOTING, SEE TYPICAL DETAIL ON S1.0 SERIES SHEETS - G.C. TO COORDINATE STEPS IN FOUNDATION FOR PLUMBING, ELECTRICAL AND MECHANICAL.
- WHEN A SECTION IS CUT OR A DETAIL IS LABELED FOR A PARTICULAR CONDITION, THAT SECTION OR DETAIL SHALL APPLY FOR ALL SIMILAR CONDITIONS REGARDLESS OF WHETHER CUT OR LABELED, U.N.O.
- DEPRESS SLAB @ WALK-IN COOLER - SEE ARCHITECTURAL.
- DEMO EXISTING SLAB & REPLACE TO ALLOW FOR PLUMBING RENOVATIONS.
- SCOPE OF ALTERNATE BID #0-1

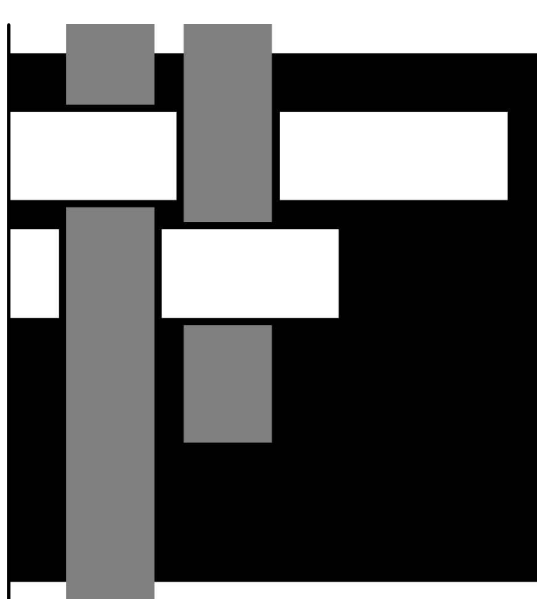
**FOUNDATION LEGEND:**

- SPREAD FOOTING DESIGNATION SEE SCHEDULE THIS SHEET
- INDICATES CONCRETE SLAB CONTRACTION JOINTS, SEE S1.0 SERIES SHEETS FOR TYPICAL DETAILS. SEE PLAN FOR LOCATIONS. MAXIMUM SPACING = 12' IN BOTH DIRECTIONS
- INDICATES 8" CMU WALL W/ #5 @ CORNERS, JAMBS & 48" o.c. SEE PLAN FOR REQUIREMENTS
- PRE-ENGINEERED METAL BUILDING STEEL COLUMN - SEE PEMB BASE PLATE INFO AND S3.01 FOR ANCHOR BOLT INFO
- HATCH INDICATES EXISTING BUILDING
- INDICATES 2" SLAB DEPRESSION COORDINATE EXACT LIMITS W/ ARCH. & PLUMBING DWGS & SEE S1.0 SHEETS FOR TYPICAL SLAB DEPRESSION DETAILS
- INDICATES STEP FOOTING SEE S1.0 SHEETS FOR TYPICAL DETAILS



**TYPICAL HAIRPIN DETAIL**  
SCALE: 1/8" = 1'-0"

**FOUNDATION PLAN**  
SCALE: 1/8" = 1'-0"

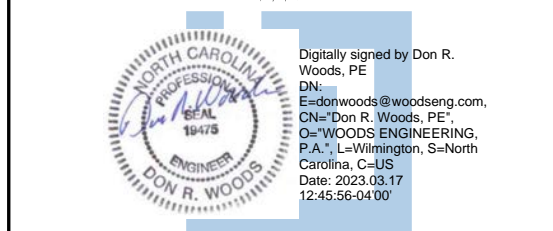
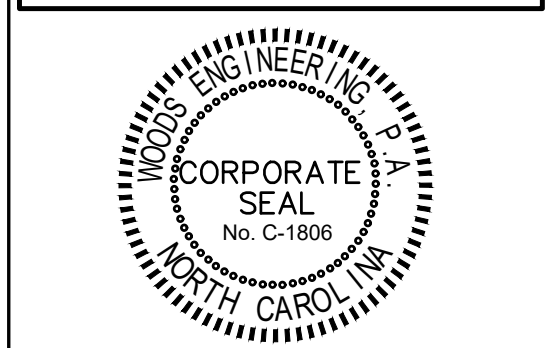


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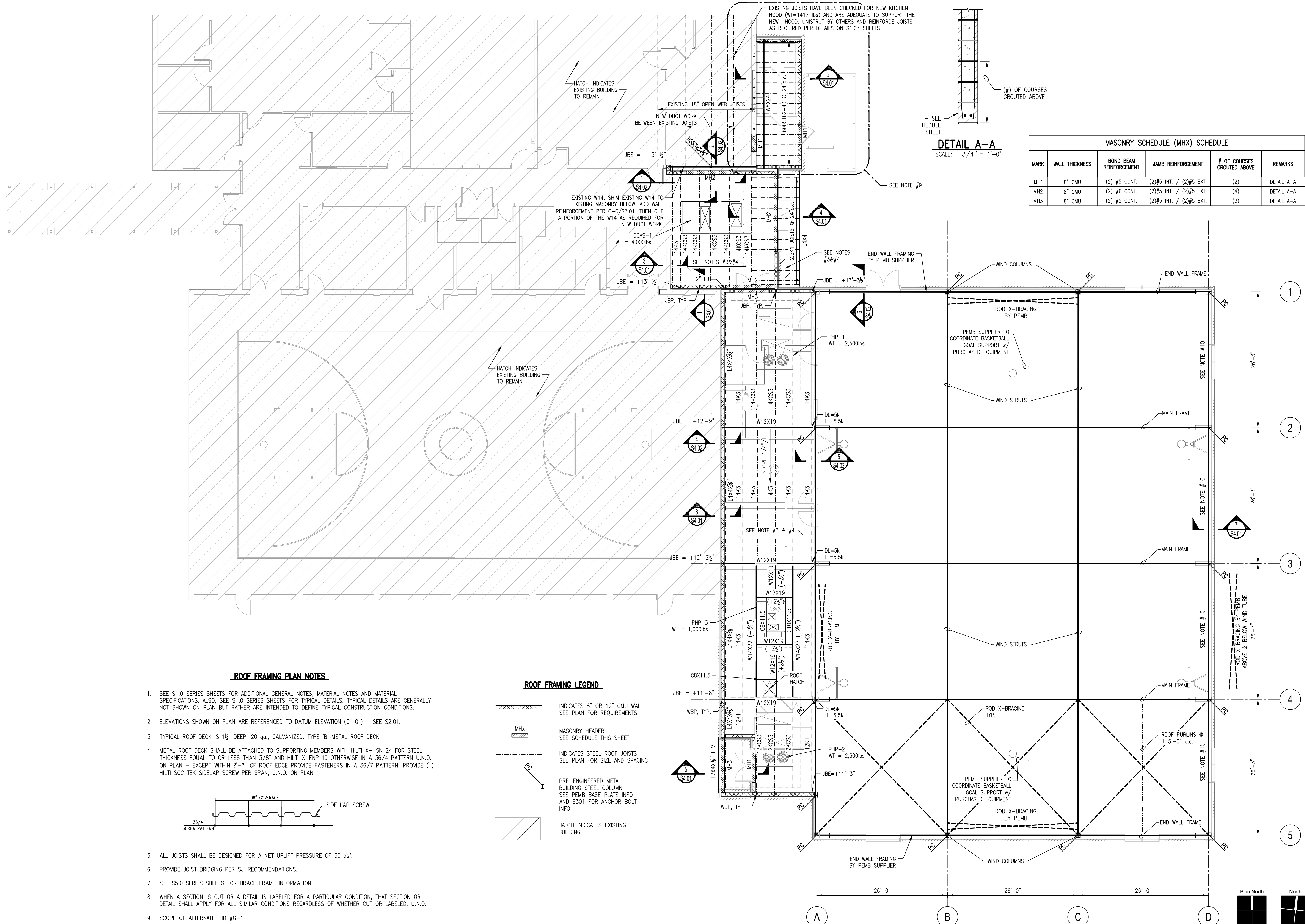
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Revisions:  
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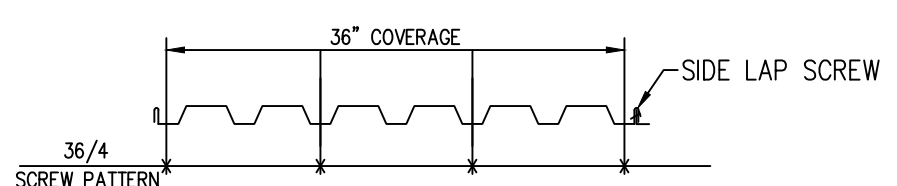
**FOUNDATION PLAN**

**S2.01**



**ROOF FRAMING PLAN NOTES**

- SEE S1.0 SERIES SHEETS FOR ADDITIONAL GENERAL NOTES, MATERIAL NOTES AND MATERIAL SPECIFICATIONS. ALSO, SEE S1.0 SERIES SHEETS FOR TYPICAL DETAILS. TYPICAL DETAILS ARE GENERALLY NOT SHOWN ON PLAN BUT RATHER ARE INTENDED TO DEFINE TYPICAL CONSTRUCTION CONDITIONS.
- ELEVATIONS SHOWN ON PLAN ARE REFERENCED TO DATUM ELEVATION (0'-0") - SEE S2.01.
- TYPICAL ROOF DECK IS 1/2" DEEP, 20 ga., GALVANIZED, TYPE 'B' METAL ROOF DECK.
- METAL ROOF DECK SHALL BE ATTACHED TO SUPPORTING MEMBERS WITH HILTI X-HSN 24 FOR STEEL THICKNESS EQUAL TO OR LESS THAN 3/8" AND HILTI X-ENP 19 OTHERWISE IN A 36/4 PATTERN U.N.O. ON PLAN - EXCEPT WITHIN 2'-0" OF ROOF EDGE PROVIDE FASTENERS IN A 36/7 PATTERN. PROVIDE (1) HILTI SOC TEK SIDELAP SCREW PER SPAN, U.N.O. ON PLAN.
- ALL JOISTS SHALL BE DESIGNED FOR A NET UPLIFT PRESSURE OF 30 psf.
- PROVIDE JOIST BRIDGING PER SJI RECOMMENDATIONS.
- SEE S5.0 SERIES SHEETS FOR BRACE FRAME INFORMATION.
- WHEN A SECTION IS CUT OR A DETAIL IS LABELED FOR A PARTICULAR CONDITION, THAT SECTION OR DETAIL SHALL APPLY FOR ALL SIMILAR CONDITIONS REGARDLESS OF WHETHER CUT OR LABELED, U.N.O.
- SCOPE OF ALTERNATE BID #G-1
- HSS8X4 1/4" OR C10X15.3 HIGH AND HSS8X6 1/4" WITH 3/8" PLATE LOW



**ROOF FRAMING LEGEND**

- INDICATES 8" OR 12" CMU WALL SEE PLAN FOR REQUIREMENTS
- MHx MASONRY HEADER SEE SCHEDULE THIS SHEET
- INDICATES STEEL ROOF JOISTS SEE PLAN FOR SIZE AND SPACING
- PRE-ENGINEERED METAL BUILDING STEEL COLUMN - SEE PEMB BASE PLATE INFO AND S301 FOR ANCHOR BOLT INFO
- HATCH INDICATES EXISTING BUILDING

**ROOF FRAMING PLAN**  
SCALE: 1/8" = 1'-0"

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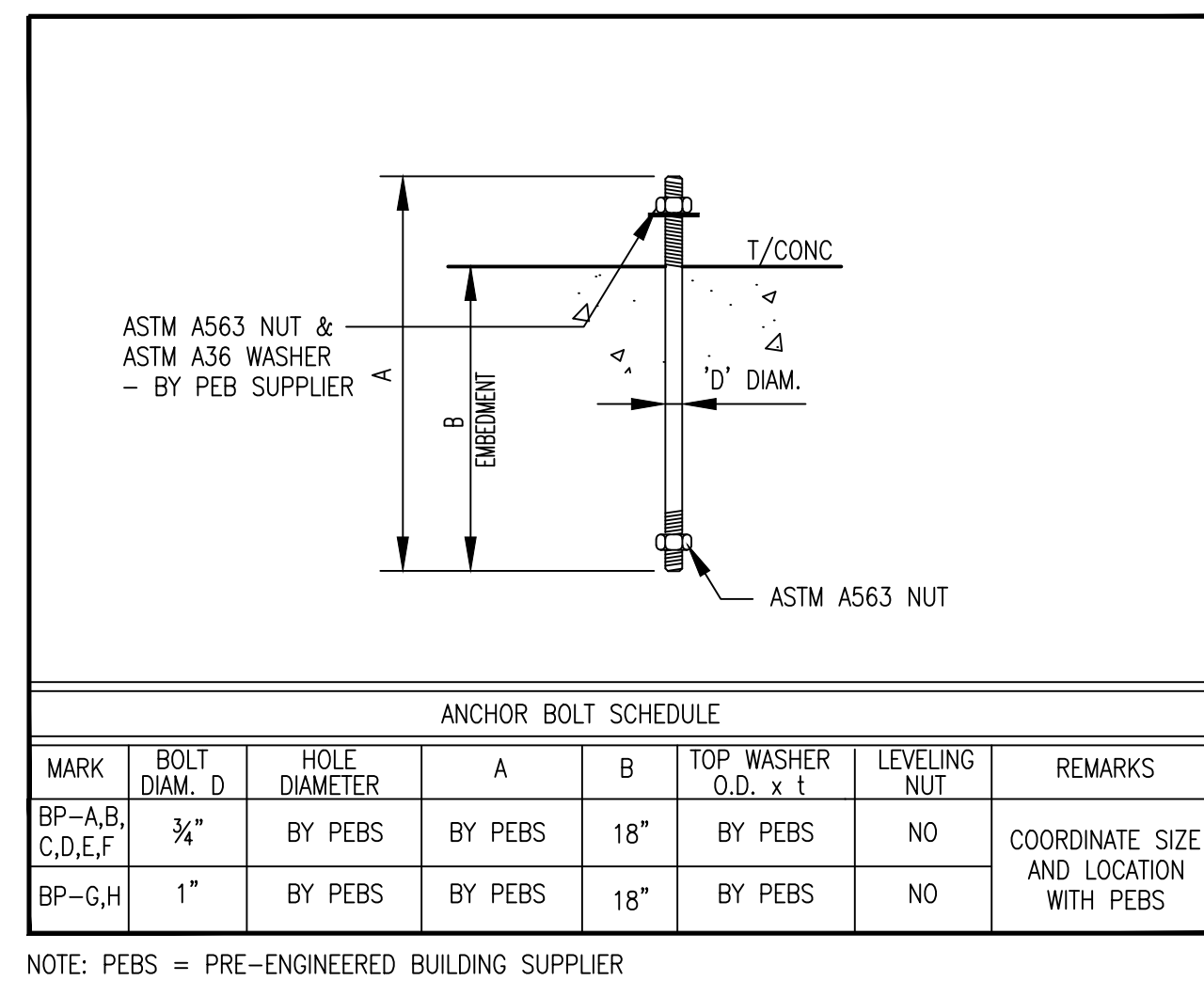
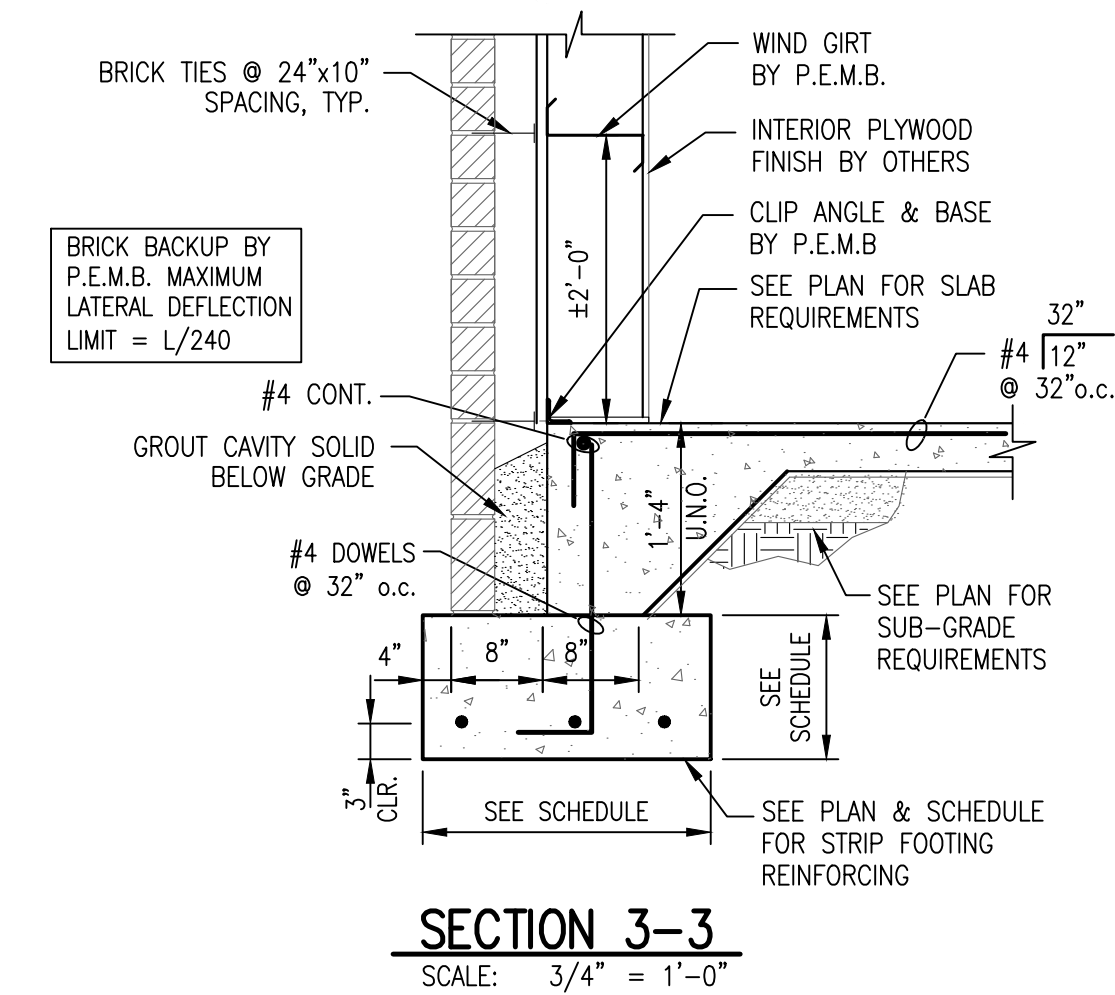
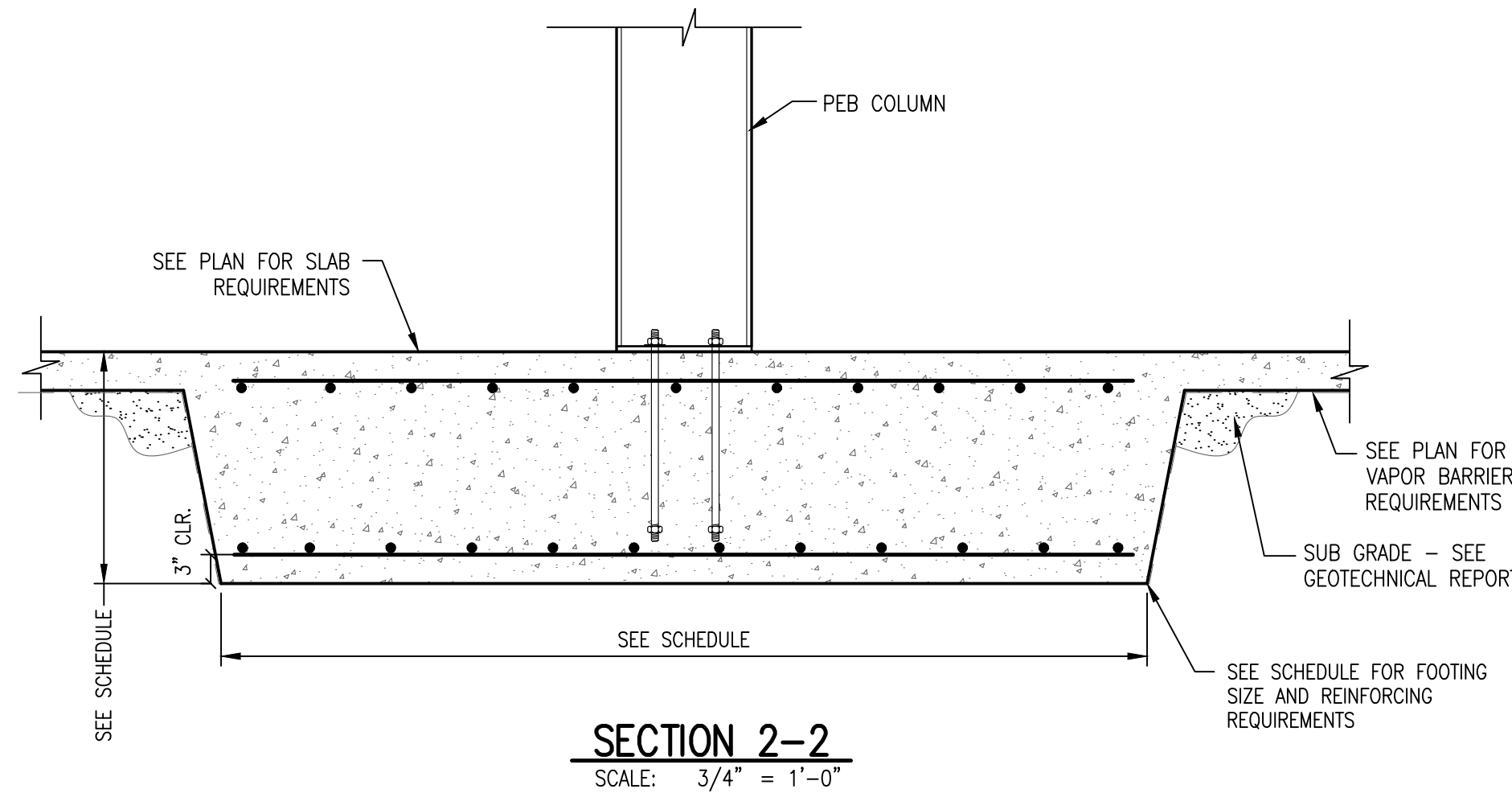
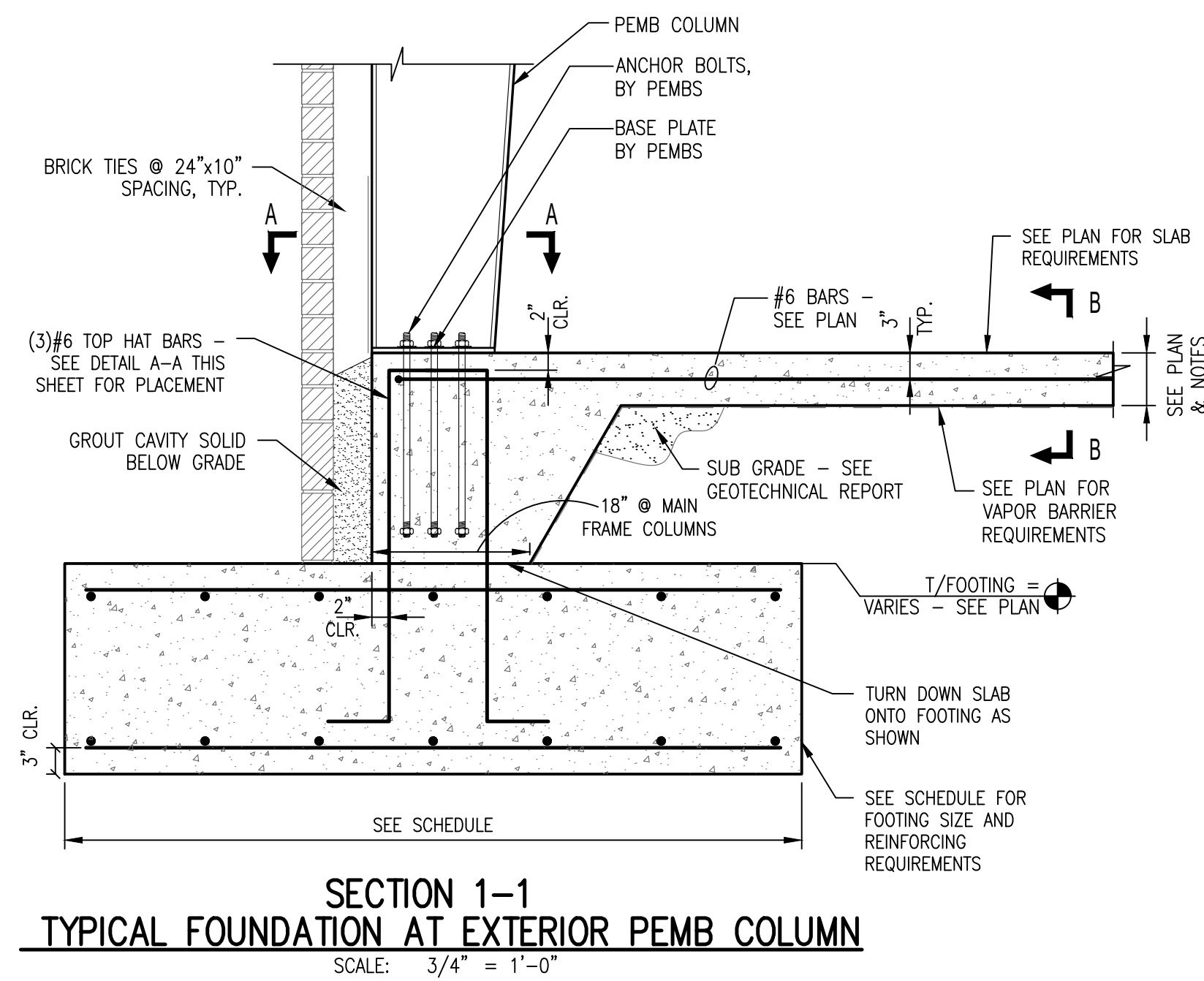
**WOODS ENGINEERING, P.A.**  
PROFESSOR'S SEAL 19475 ENGINEER DON R. WOODS

Digitally signed by Don R. Woods, PE  
DN: cn=Don R. Woods, o=WOODS ENGINEERING, ou=WOODS ENGINEERING, c=US  
Date: 2023.03.17 12:46:01 -0400

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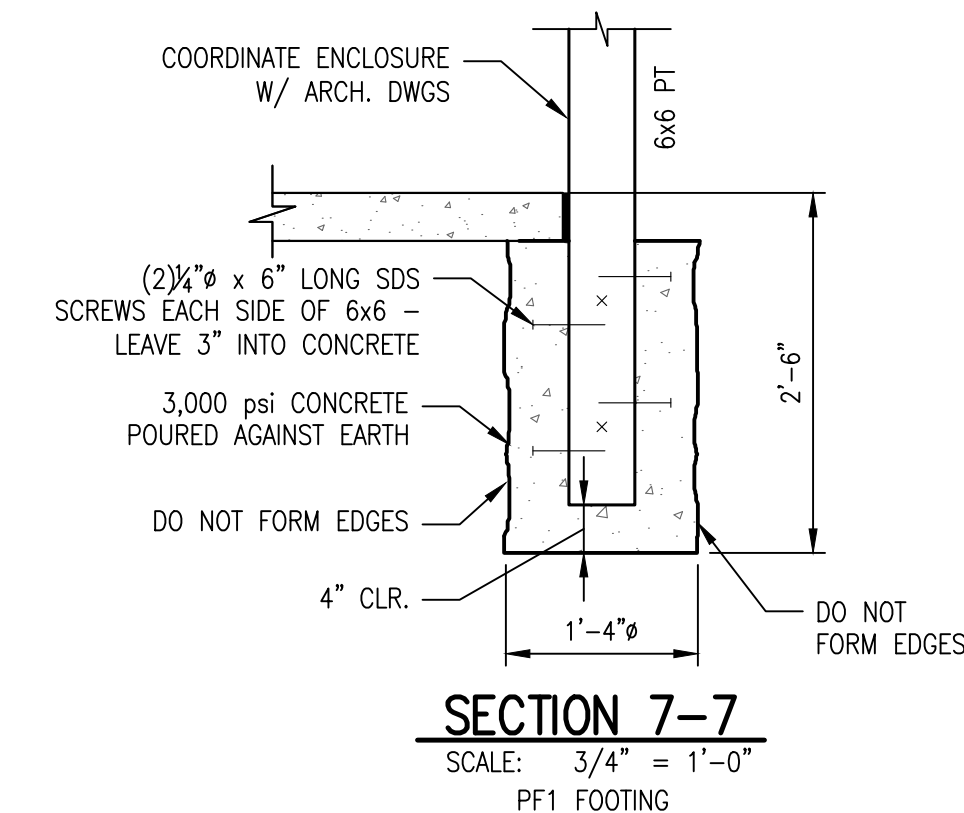
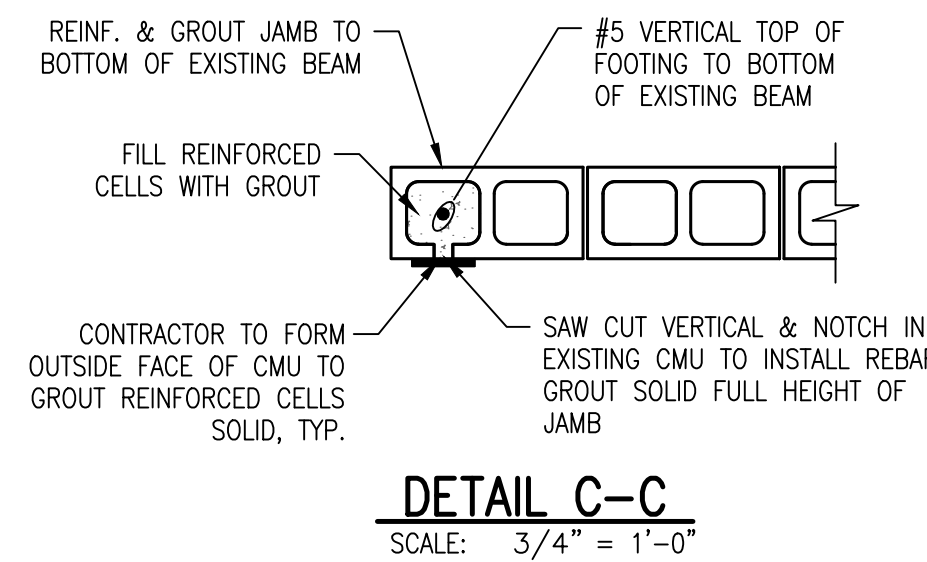
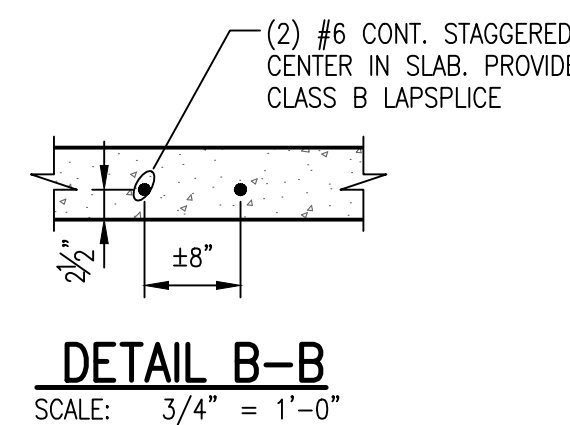
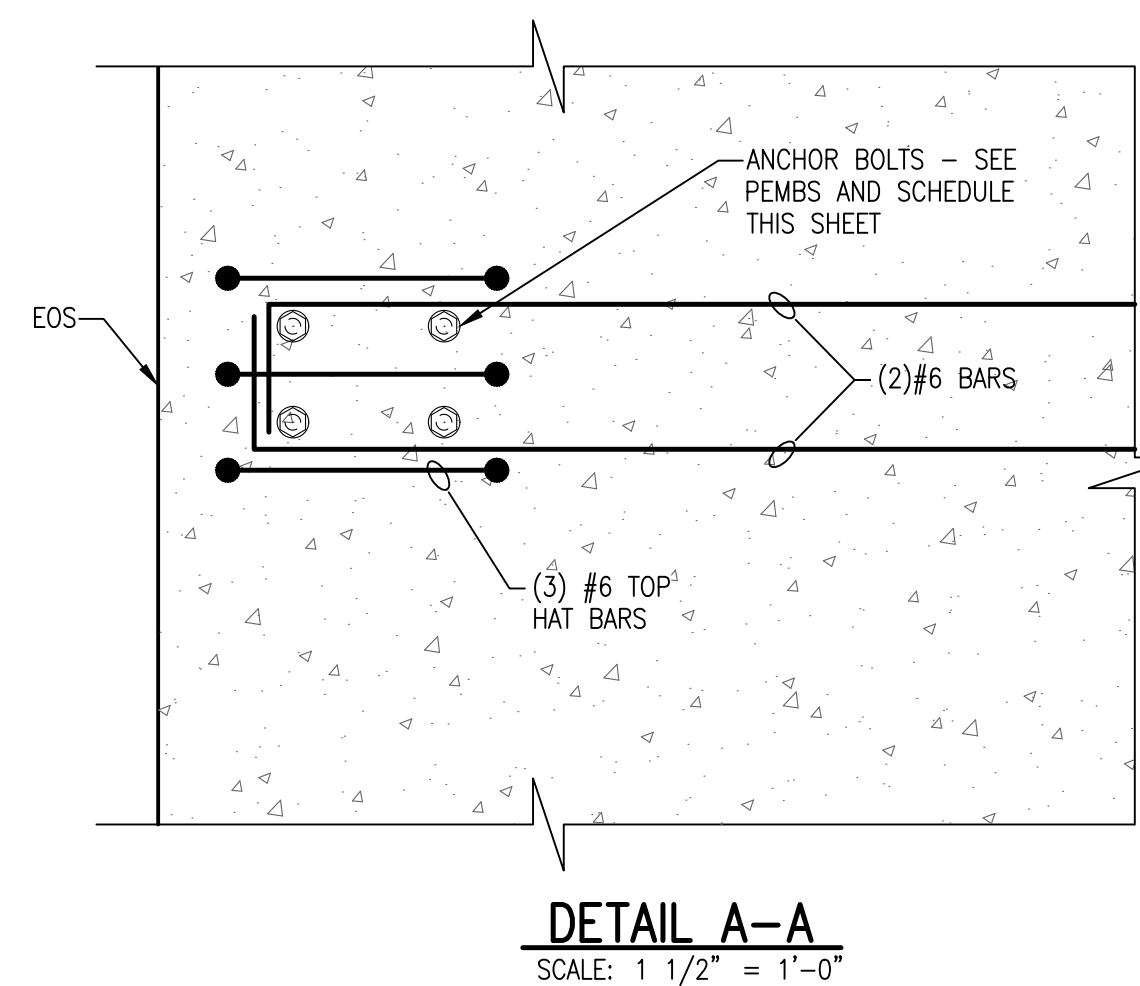
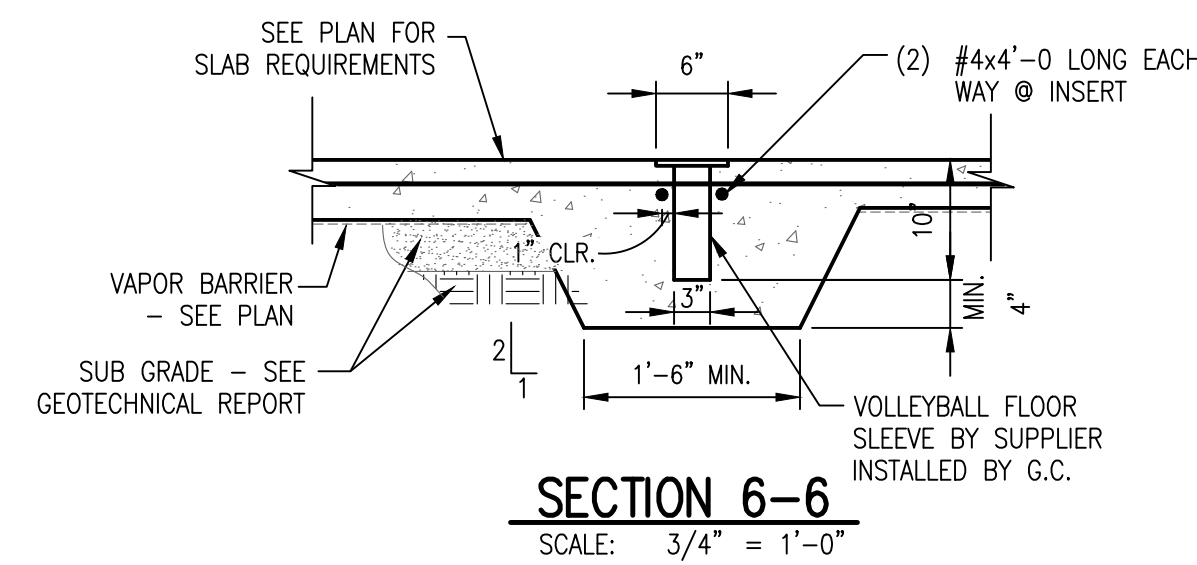
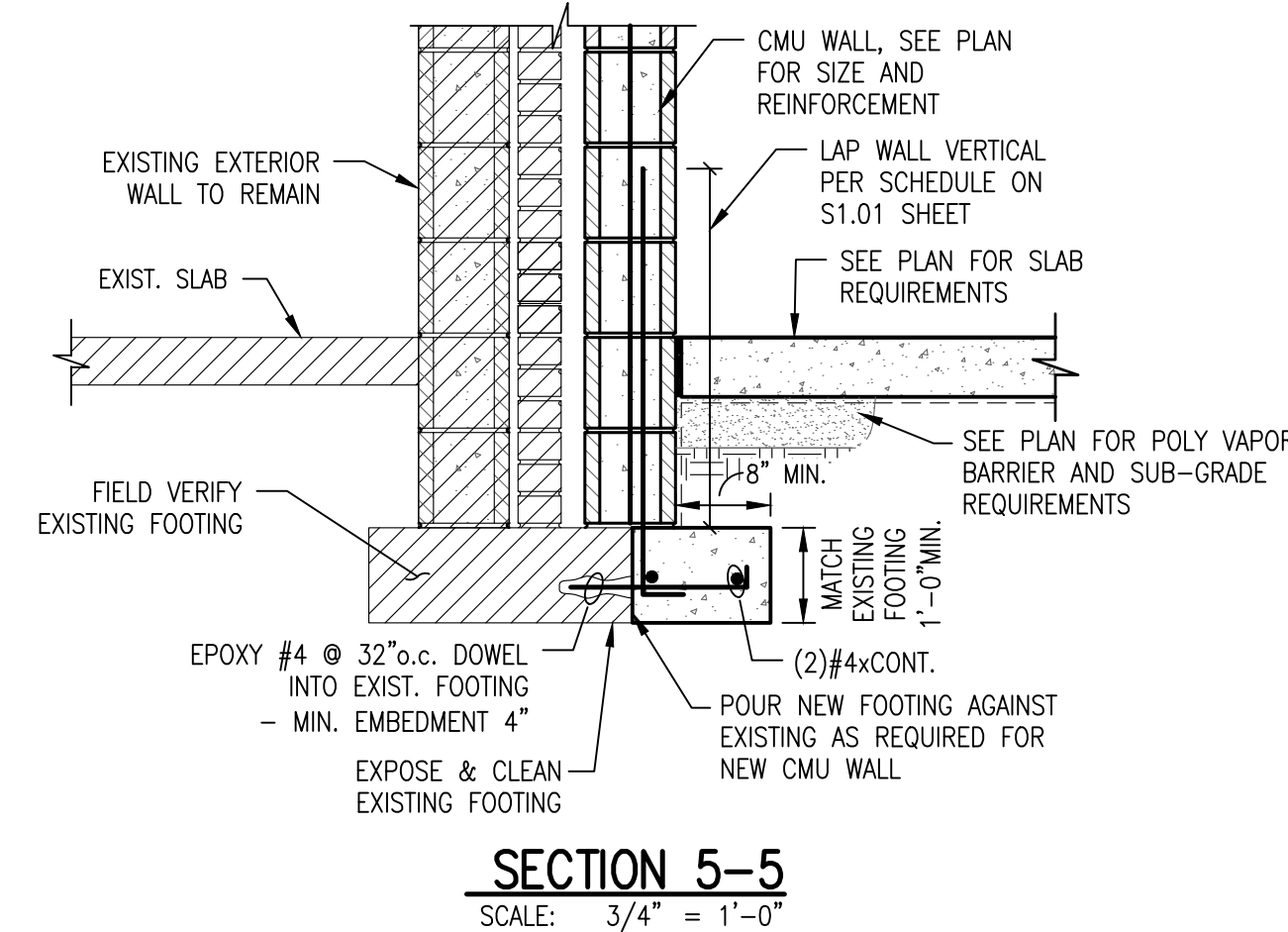
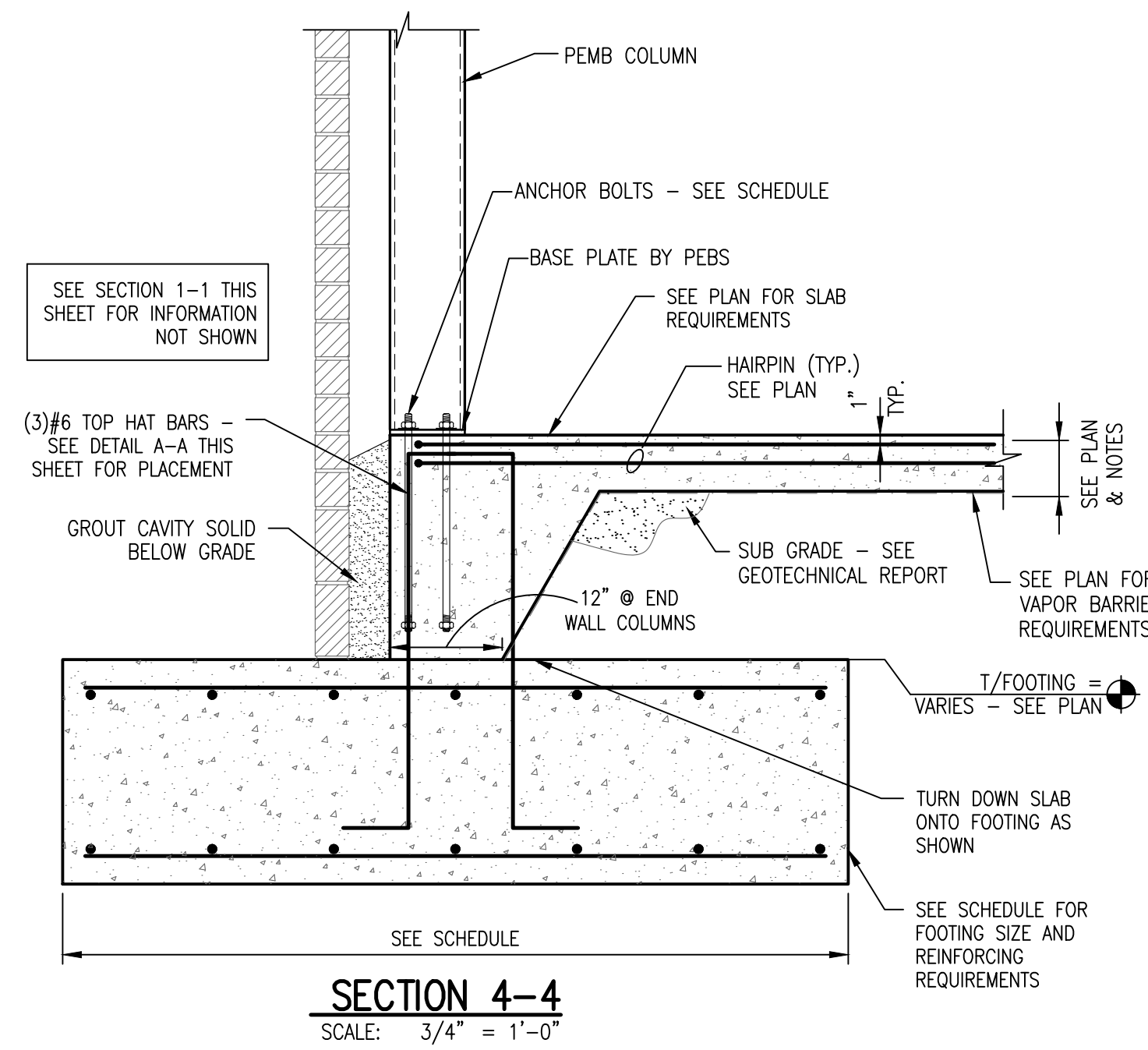
Revisions:  
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**ROOF FRAMING PLAN**  
**S2.02**



ANCHOR BOLT SCHEDULE							
MARK	BOLT DIAM. D	HOLE DIAMETER	A	B	TOP WASHER O.D. x T	LEVELING NUT	REMARKS
BP-A,B,C,D,E,F	3/4"	BY PEBS	BY PEBS	18"	BY PEBS	NO	COORDINATE SIZE AND LOCATION WITH PEBS
BP-G,H	1"	BY PEBS	BY PEBS	18"	BY PEBS	NO	

NOTE: PEBS = PRE-ENGINEERED BUILDING SUPPLIER



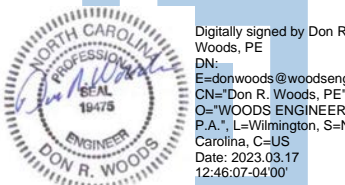
- SECTION NOTES**
- DO NOT SCALE SECTIONS. SEE PLANS AND SCHEDULES FOR SIZES NOT SHOWN.
  - REBAR IS SHOWN FOR REFERENCE ONLY. SEE PLANS AND SCHEDULES FOR REINFORCEMENT REQUIREMENTS. WHERE REINFORCEMENT IS SPECIFIED IN SECTIONS IT IS IN ADDITION TO SCHEDULES.
  - IF A HOOK IS SHOWN ON REINFORCEMENT A STANDARD HOOK PER ACI IS REQUIRED U.N.O.
  - IF A DISCREPANCY EXISTS BETWEEN THE SECTIONS AND PLAN THE MORE STRINGENT REQUIREMENTS SHALL APPLY



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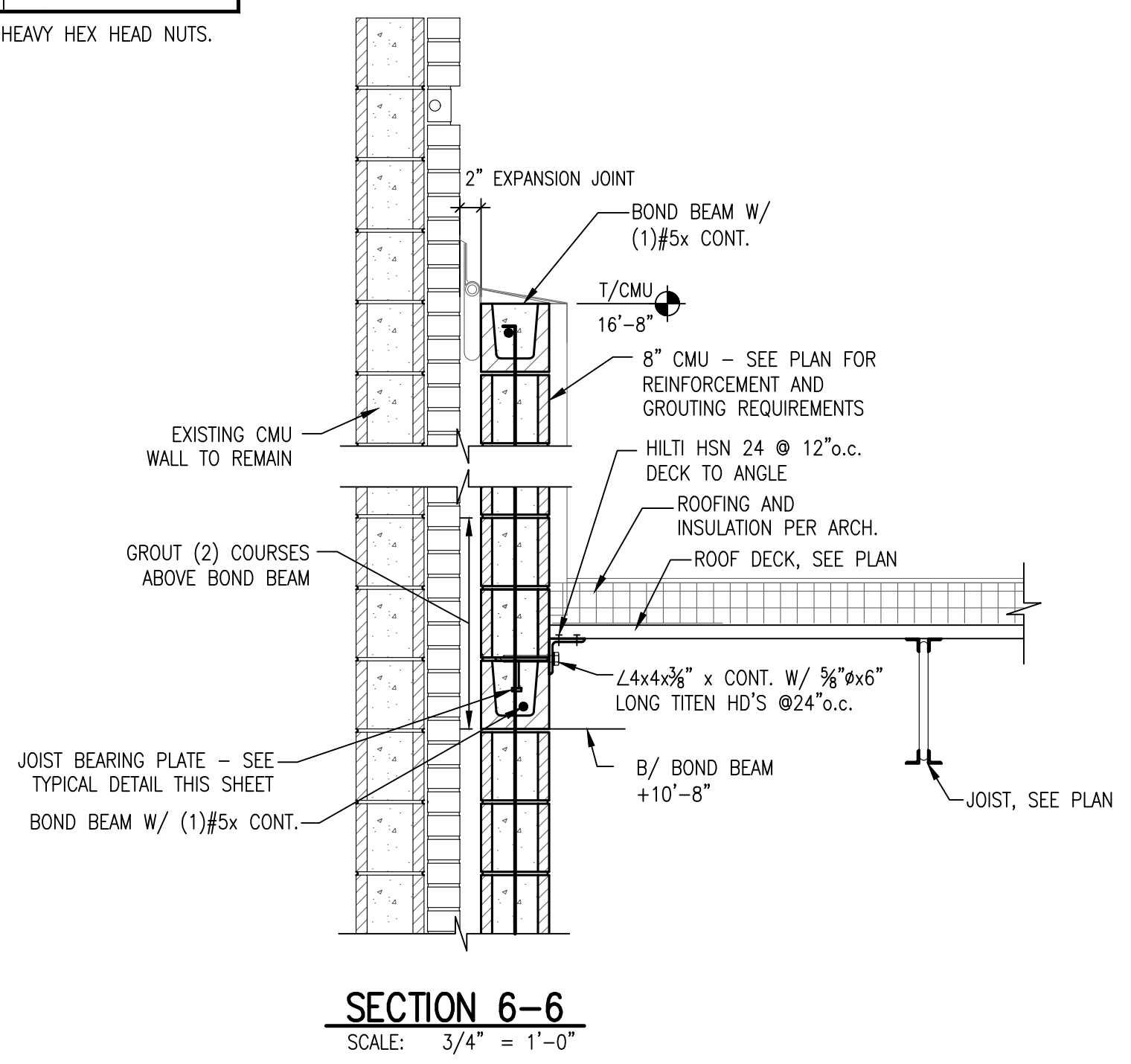
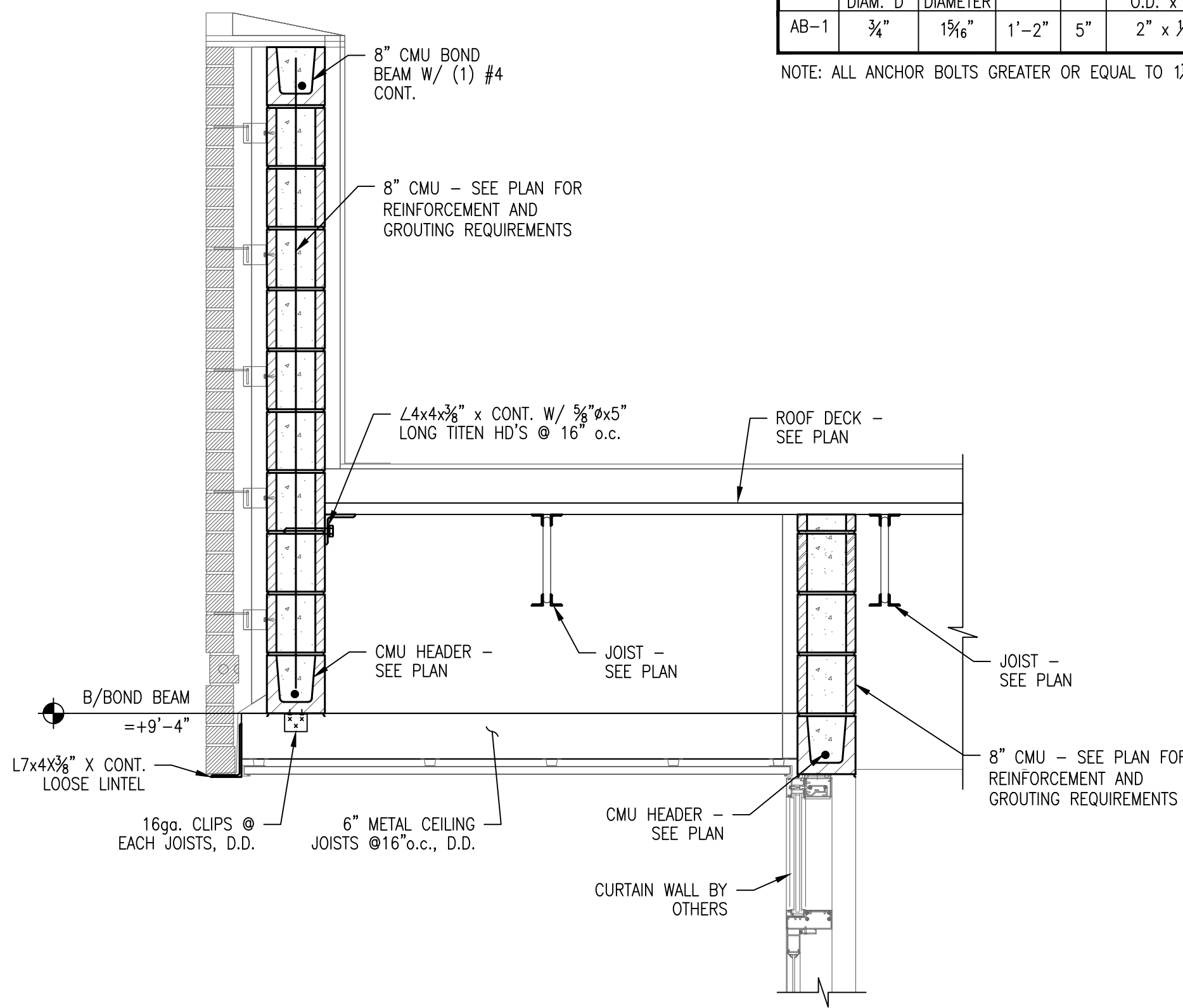
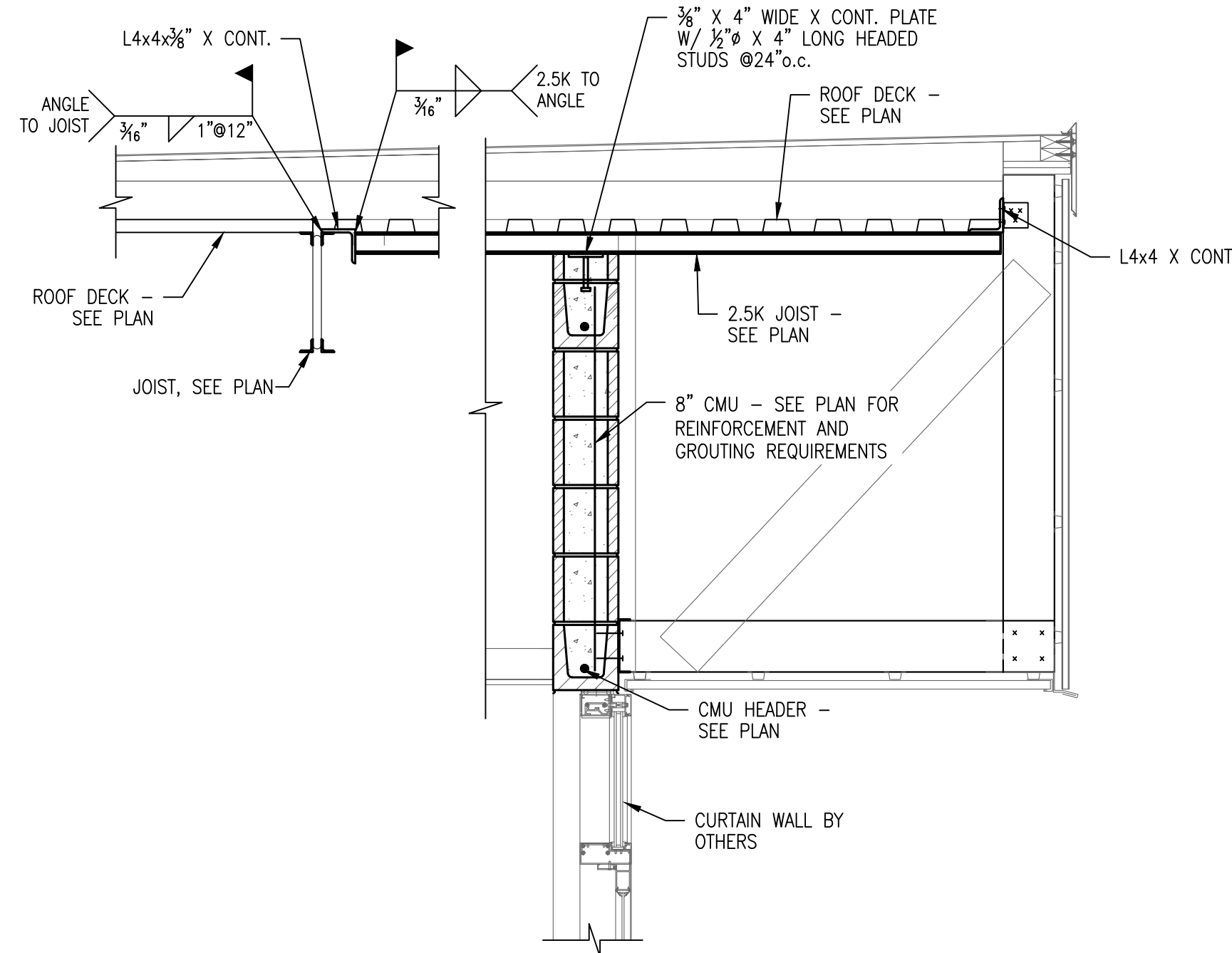
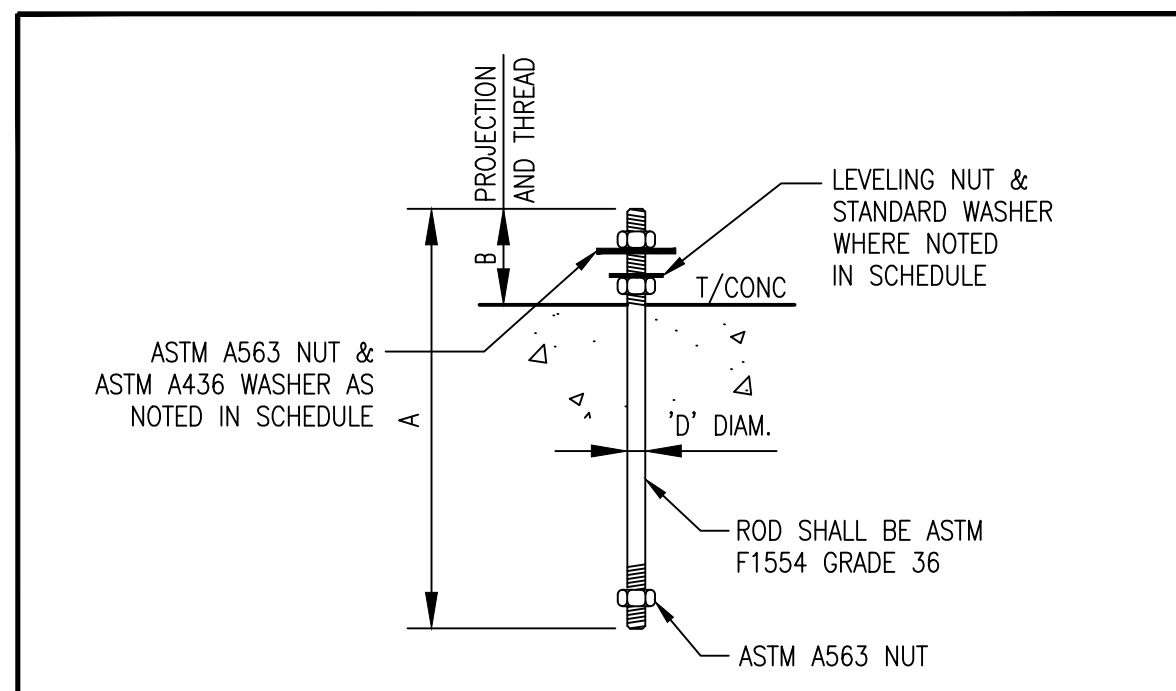
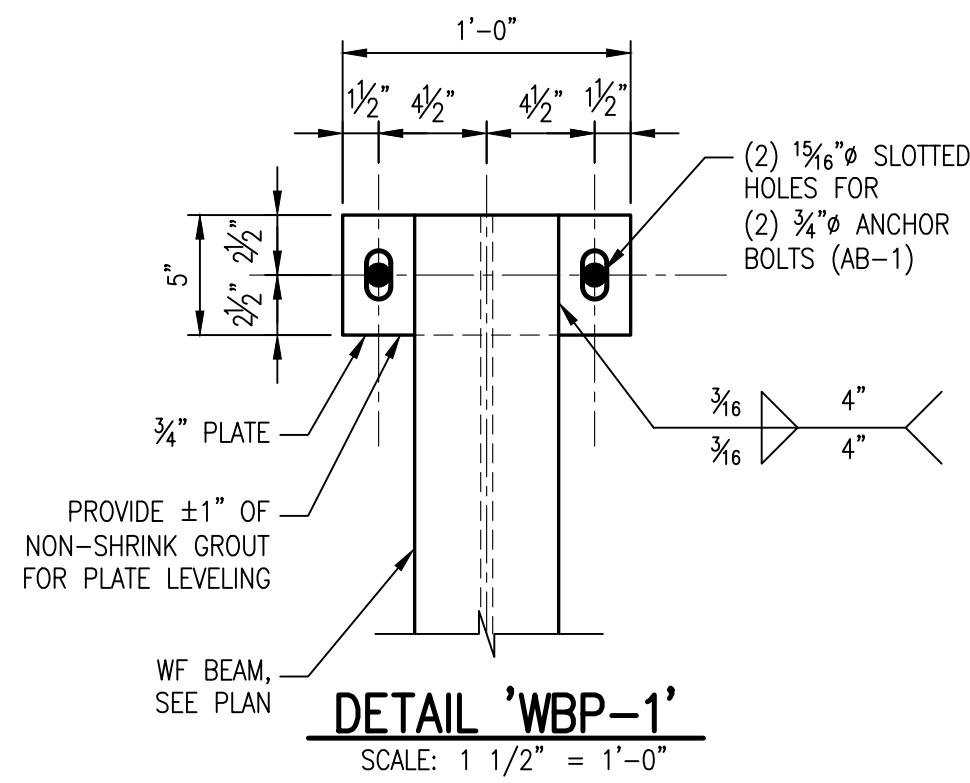
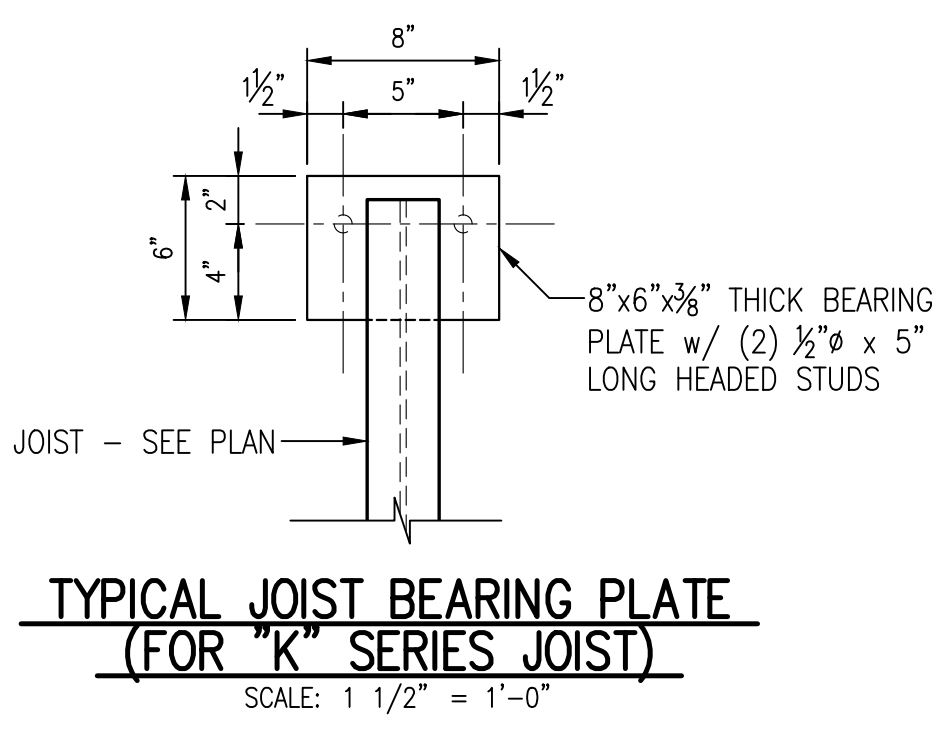
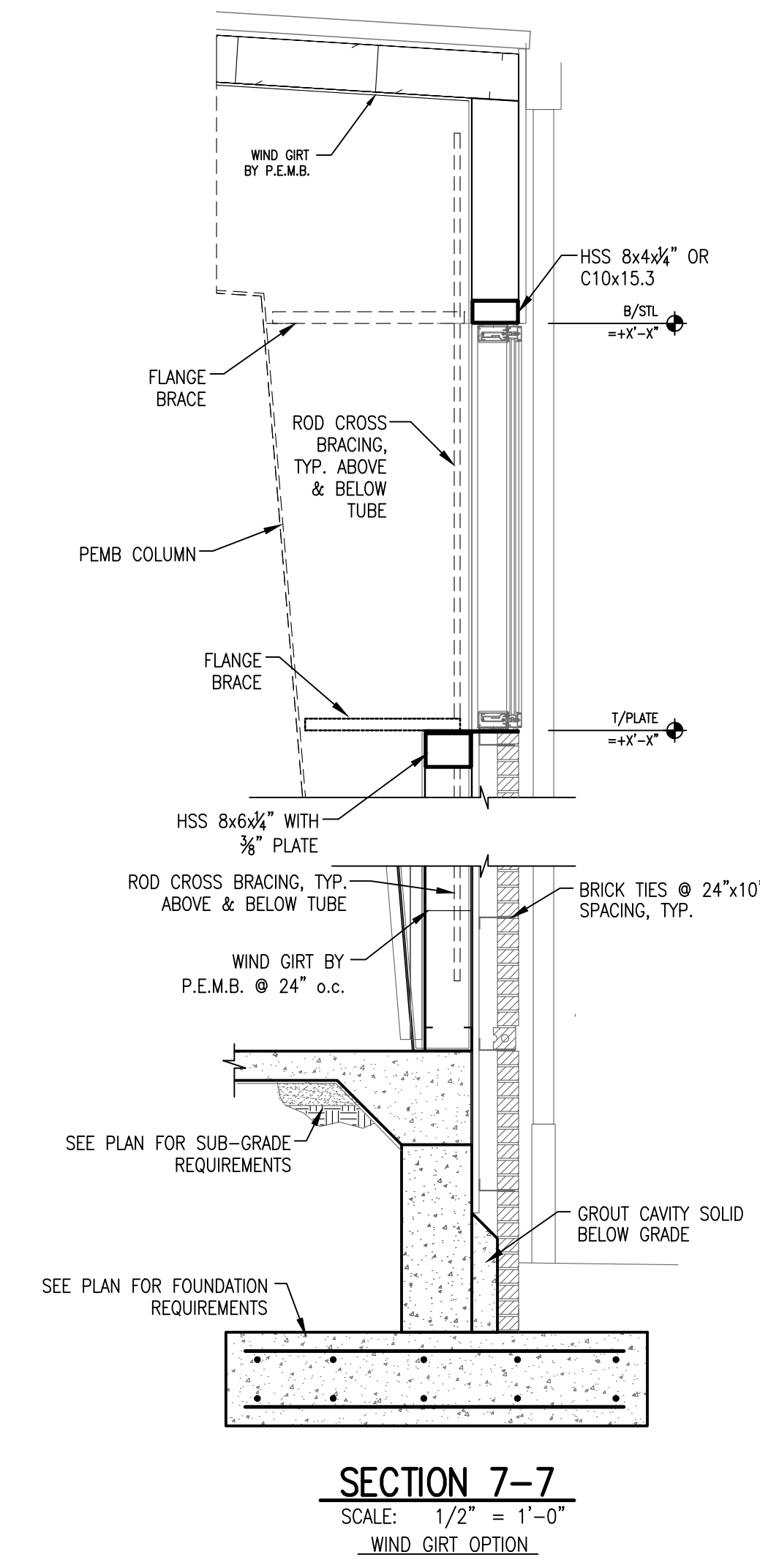
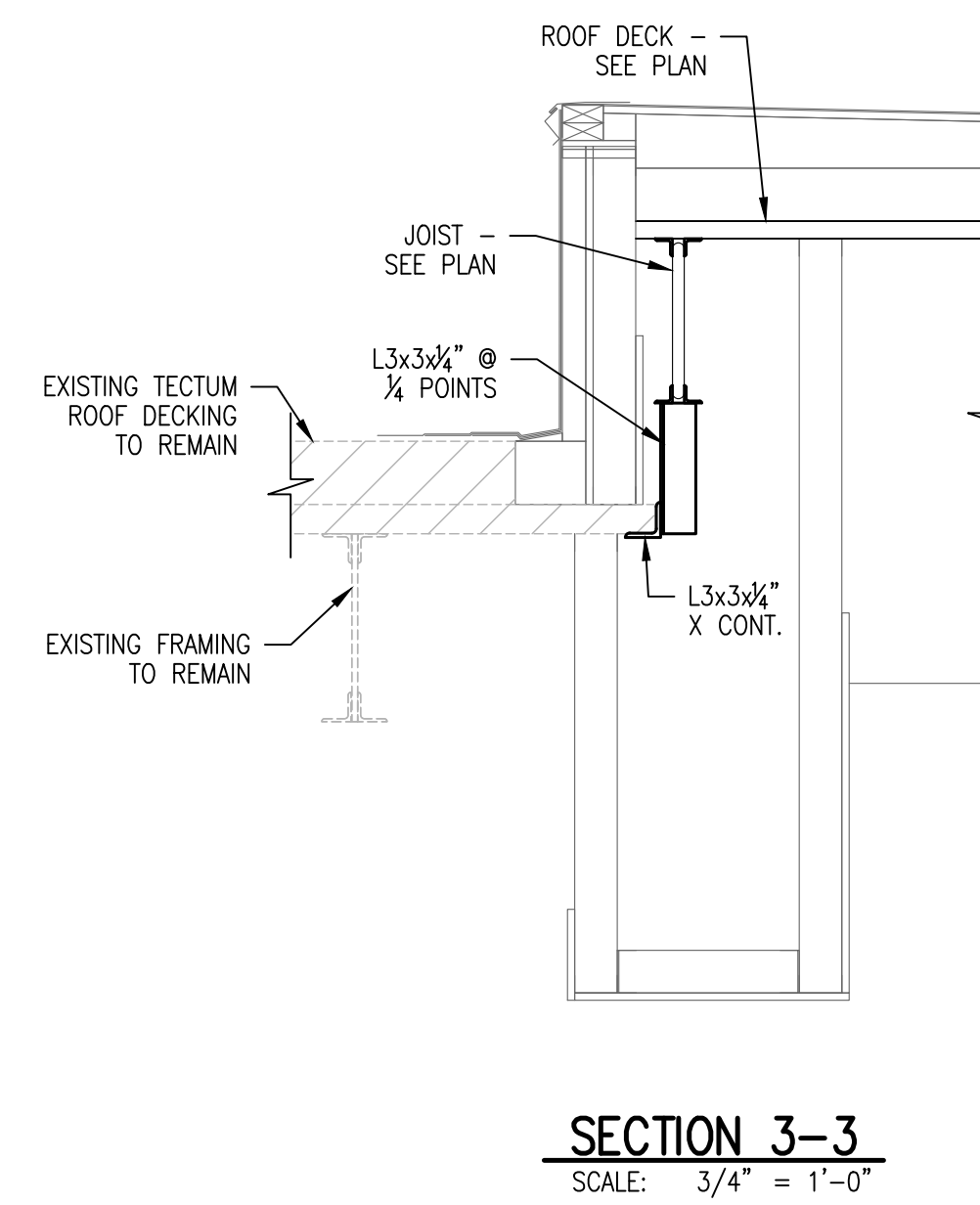
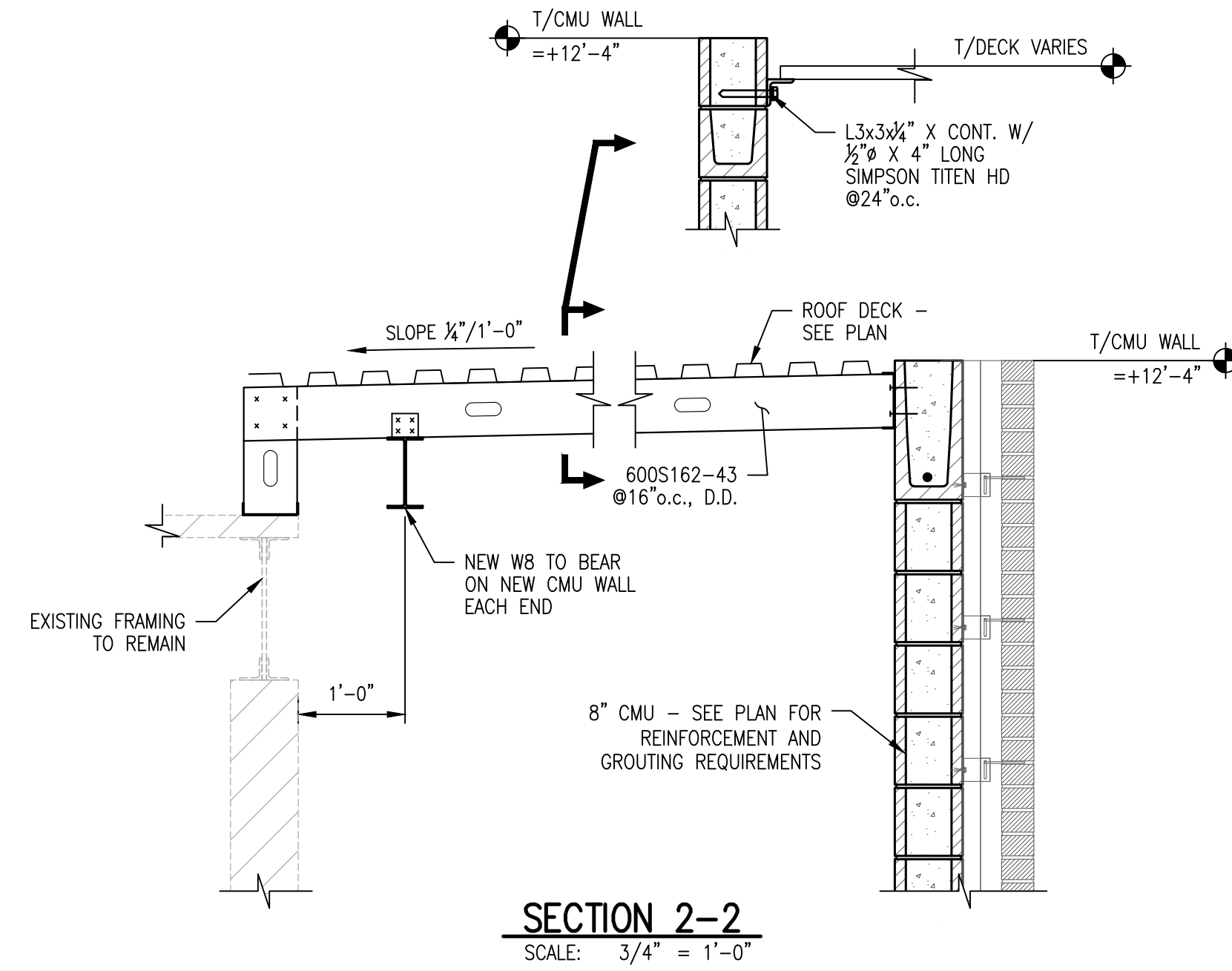
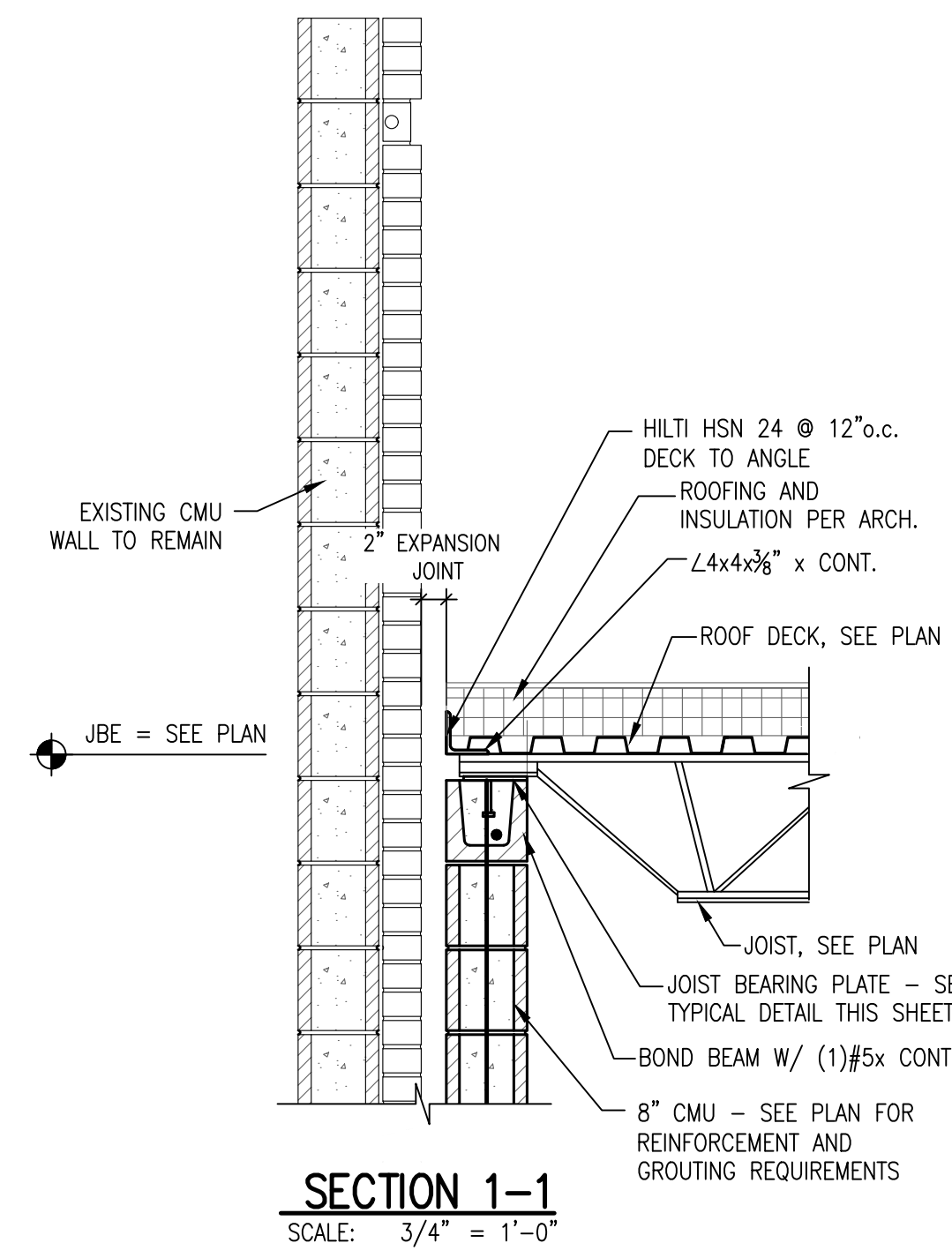
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**MLK Community Center Addition & Renovation**  
 401 S. 8th Street  
 Wilmington, NC  
 Construction Drawings  
 March 22, 2023

Revisions:  
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FOUNDATION SECTIONS & DETAILS  
**S3.01**

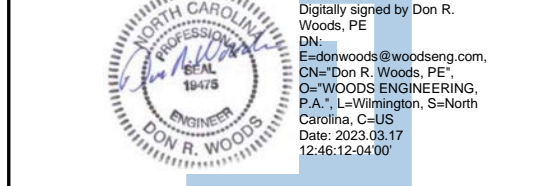


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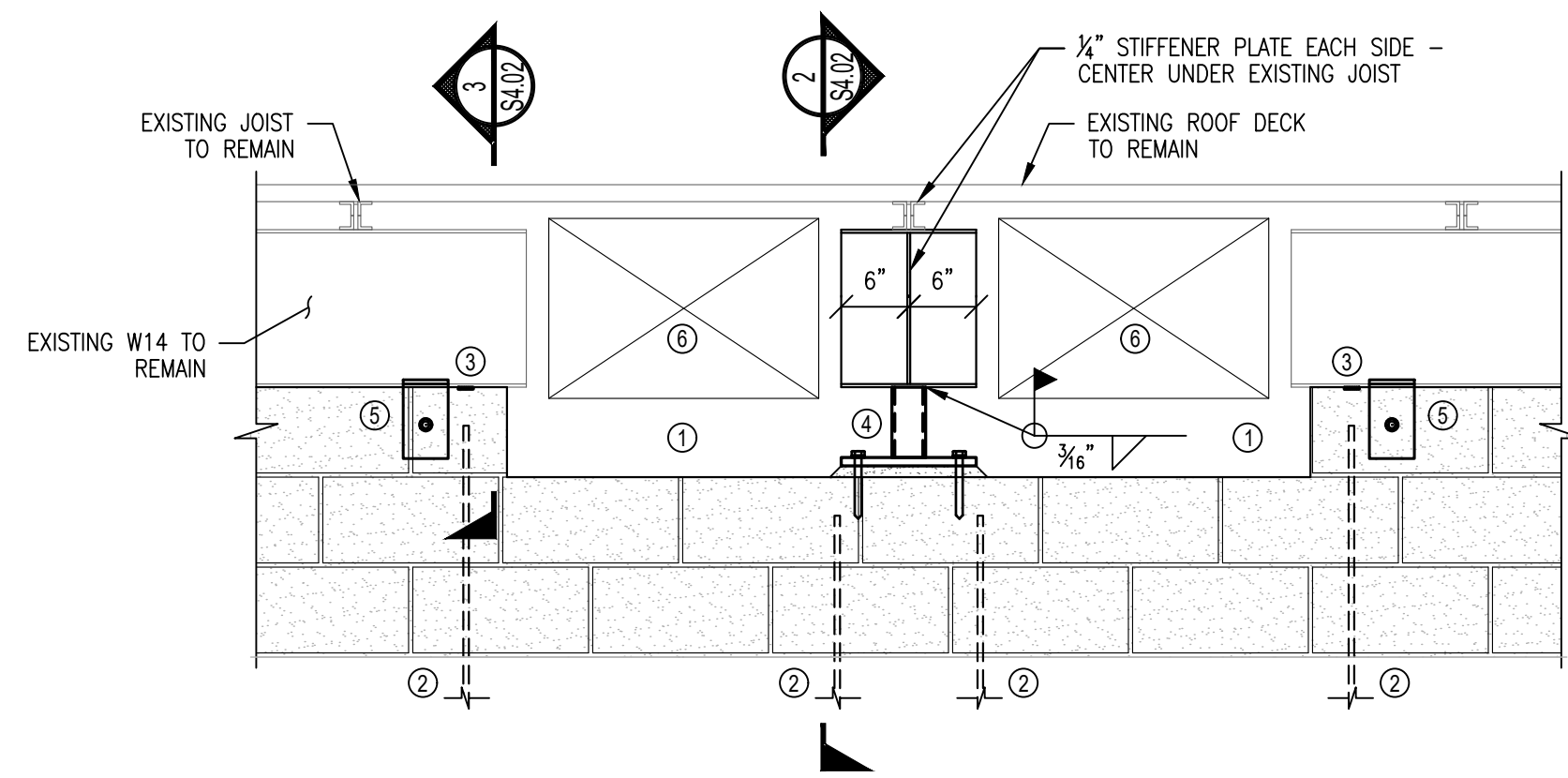
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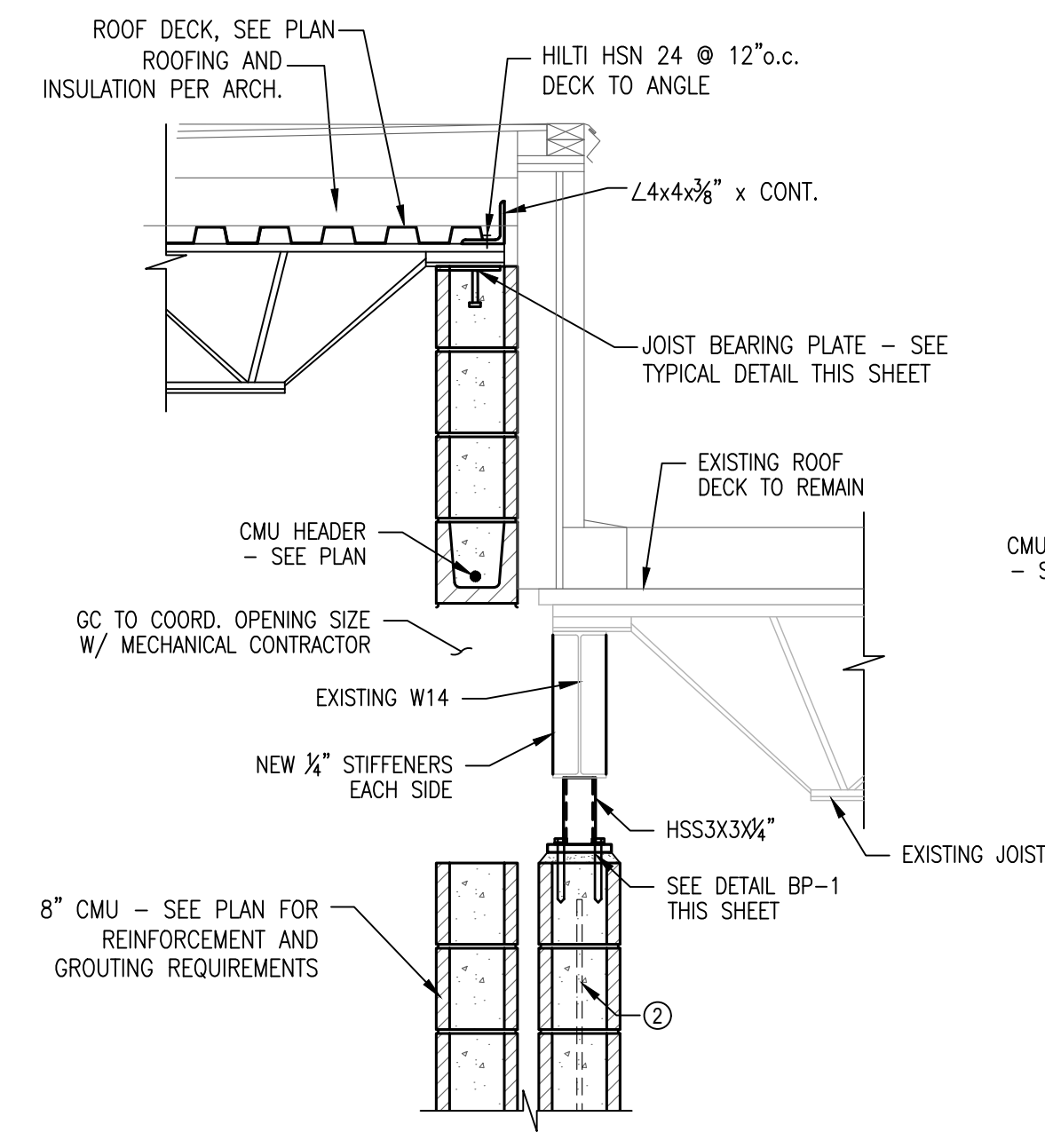
FRAMING SECTIONS & DETAILS

S4.01

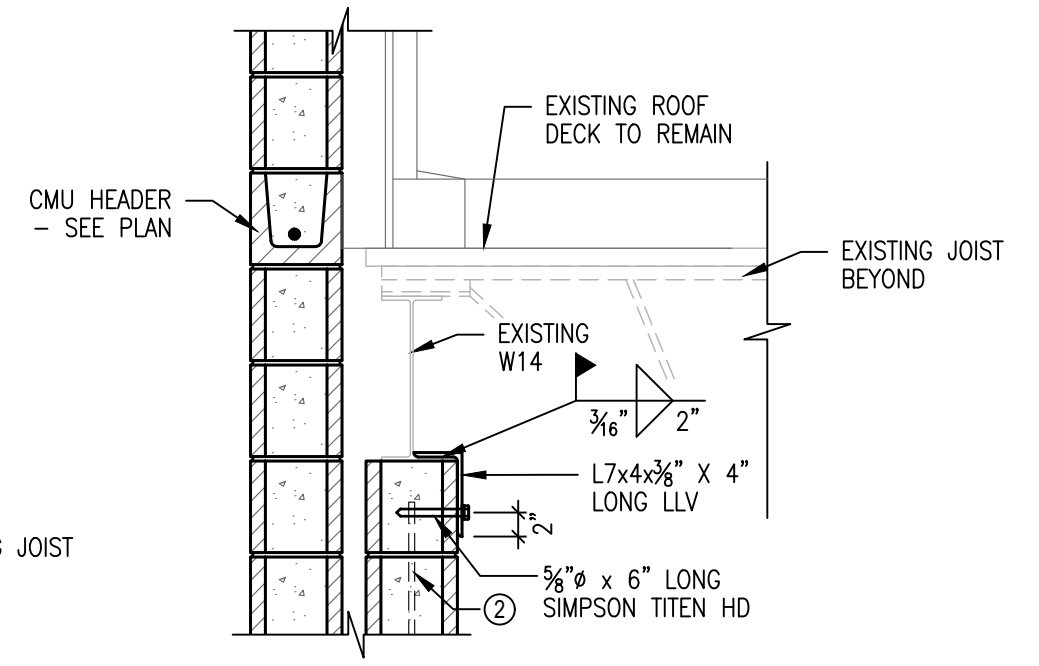


**SECTION 1-1**  
SCALE: 3/4" = 1'-0"  
ALT. BID G-1

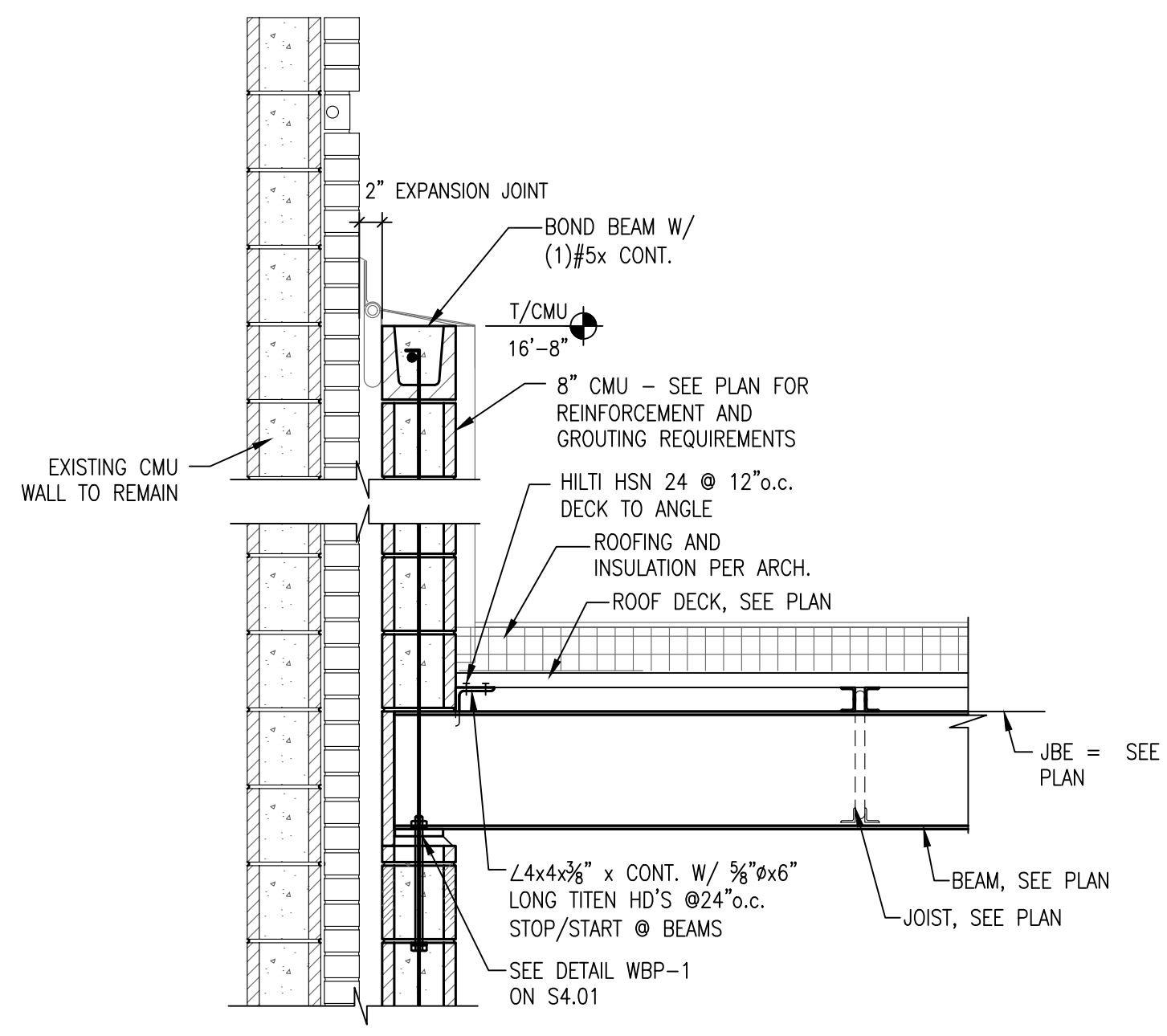
- NOTES:
- 1 REMOVE TOP COURSE OF EXISTING CMU AS SHOWN
  - 2 INSTALL REINFORCEMENT IN EXISTING CMU PER DETAIL C-C/S3.01
  - 3 INSTALL SHIM PLATE FOR SOLID BEARING @ REMAINING W14 & EXISTING CMU
  - 4 INSTALL STIFFENER, WELD POST TO W14 & BOLT TO CMU & GROUT, SEE DETAIL BP-1 THIS SHEET
  - 5 INSTALL 7x4x3/8" X 4" LONG LLV ANGLE, SEE SECTION 3-3 THIS SHEET
  - 6 CUT (2) SECTIONS OF EXISTING W14 AS SHOWN TO ALLOW FOR NEW DUCT WORK



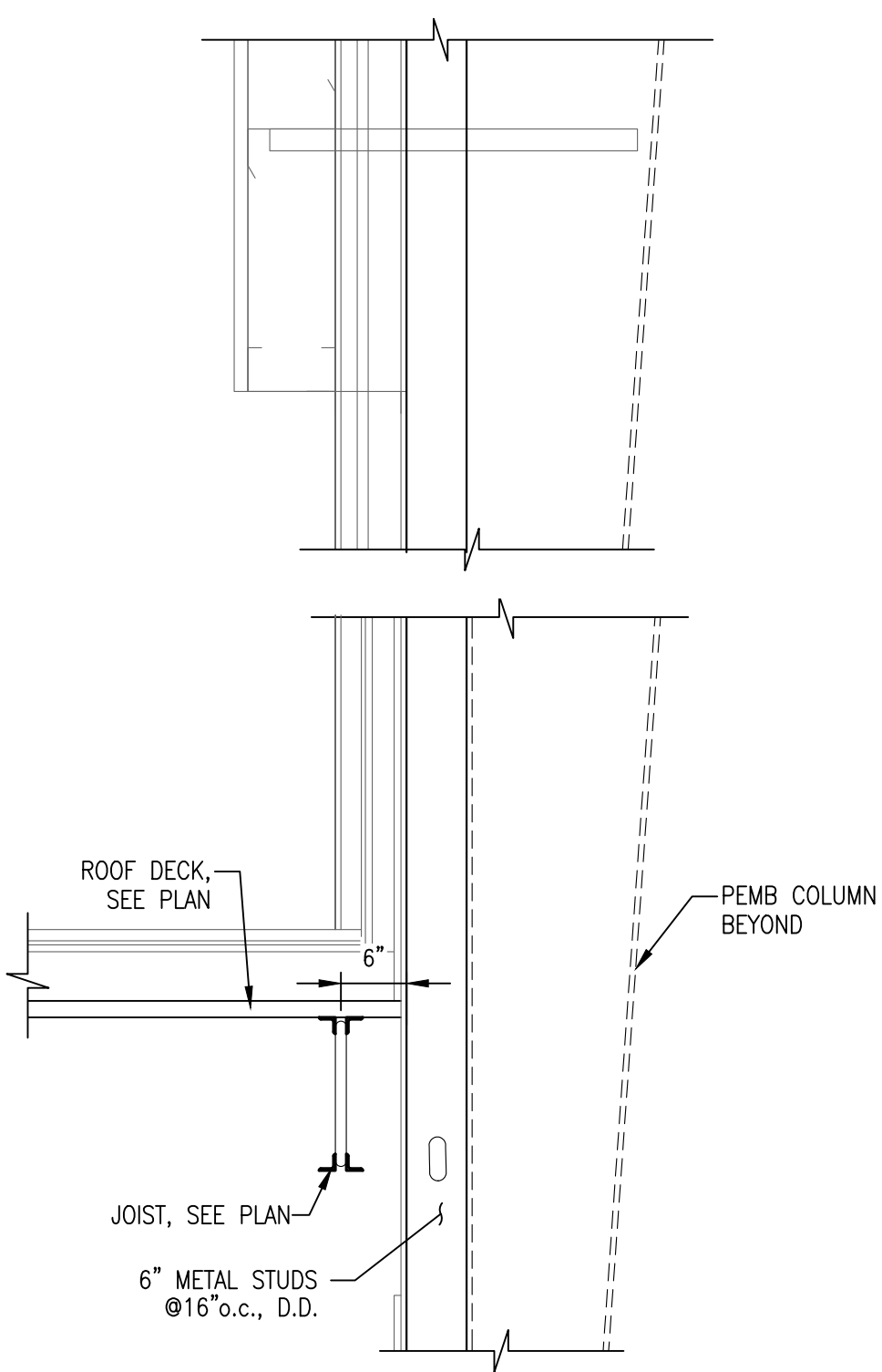
**SECTION 2-2**  
SCALE: 3/4" = 1'-0"  
ALT. BID G-1



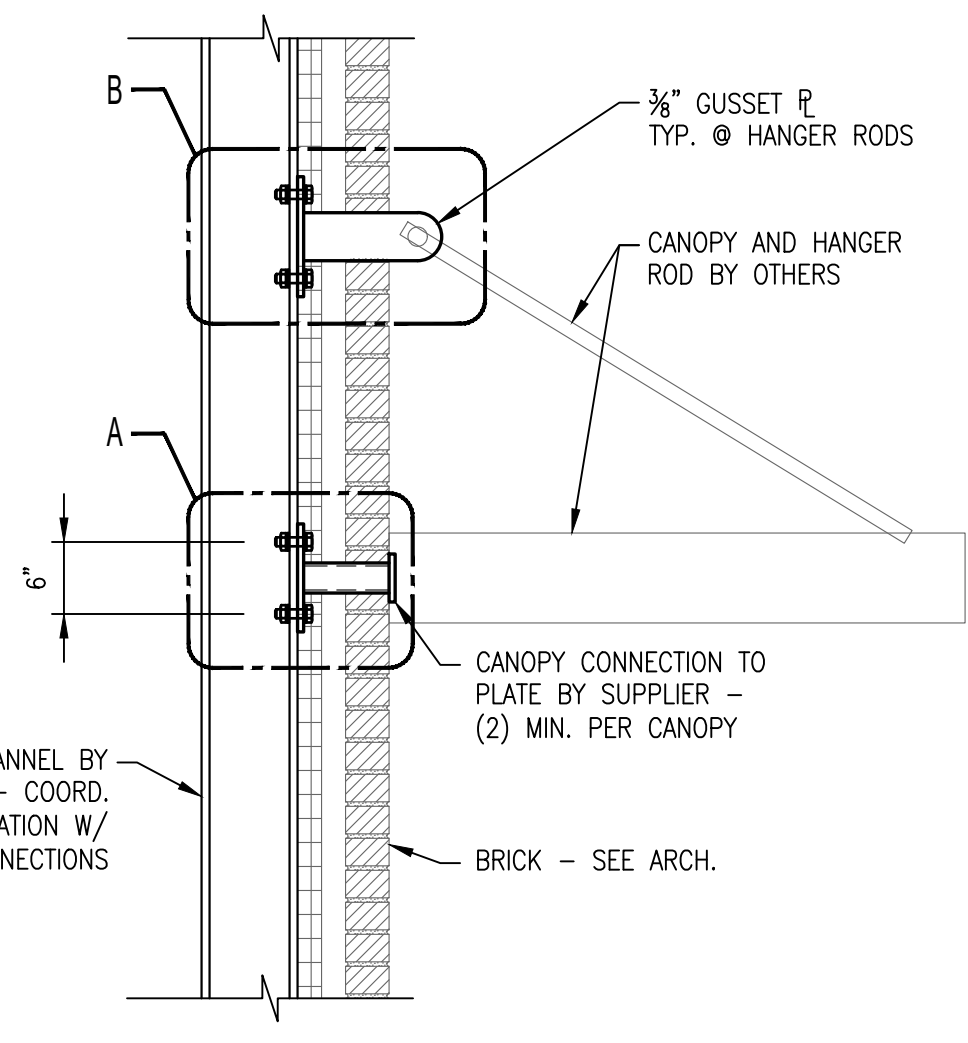
**SECTION 3-3**  
SCALE: 3/4" = 1'-0"  
ALT. BID G-1



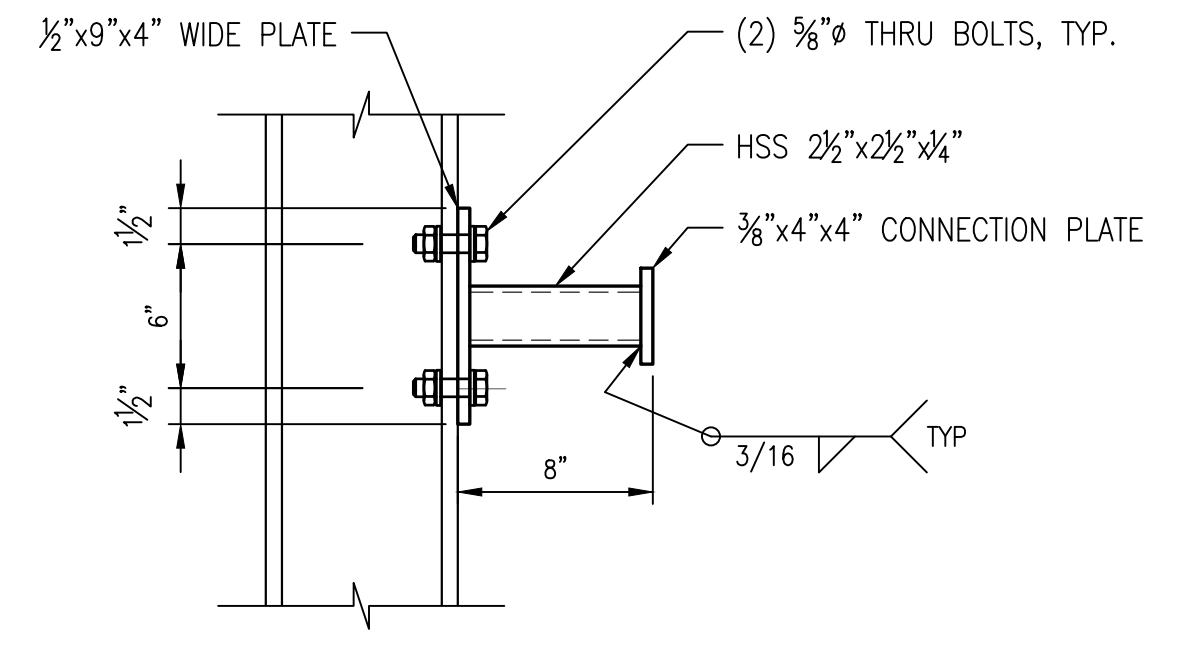
**SECTION 4-4**  
SCALE: 3/4" = 1'-0"



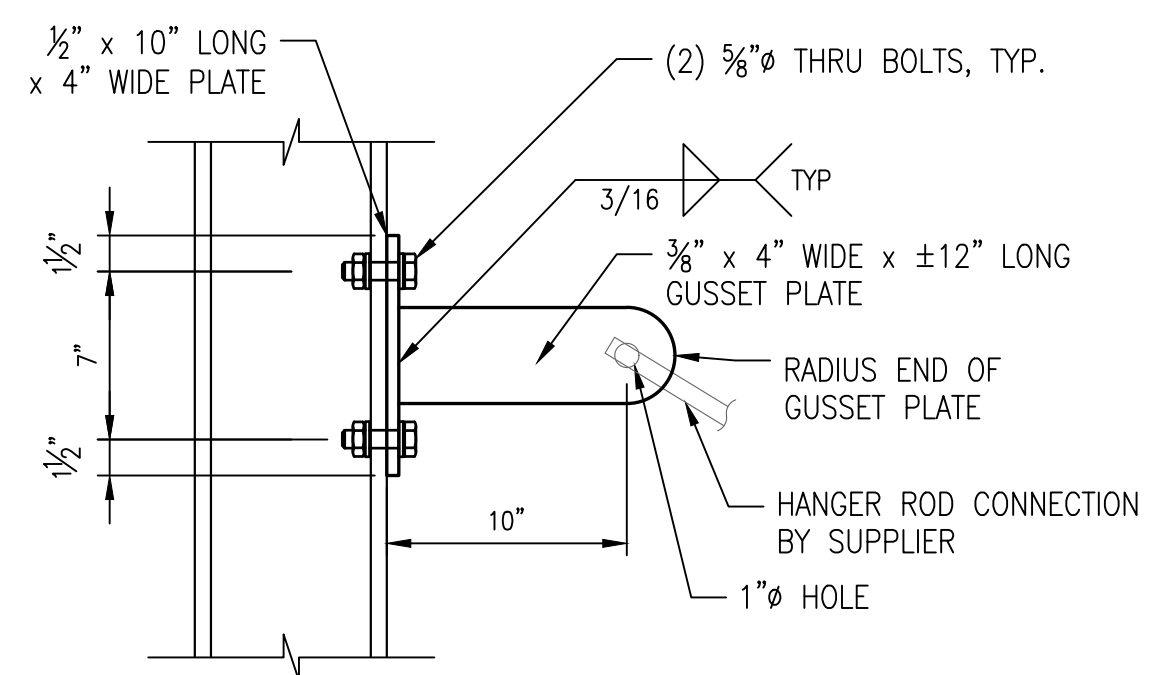
**SECTION 5-5**  
SCALE: 3/4" = 1'-0"



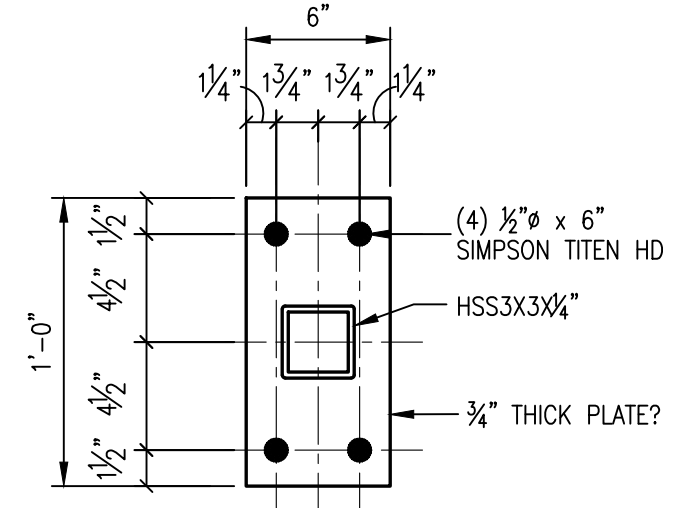
**SECTION 6-6**  
SCALE: 3/4" = 1'-0"



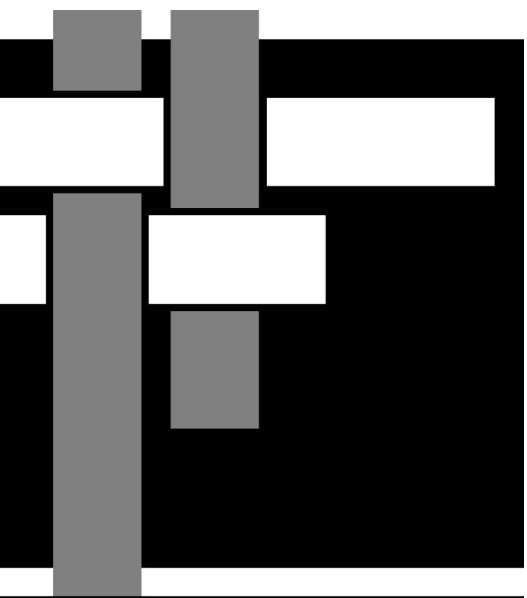
**DETAIL A-A**  
SCALE: 1 1/2" = 1'-0"



**DETAIL B-B**  
SCALE: 1 1/2" = 1'-0"



**DETAIL 'BP-1'**  
SCALE: 1 1/2" = 1'-0"



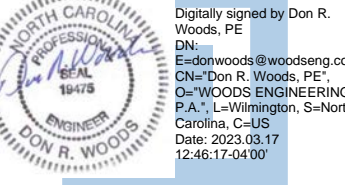
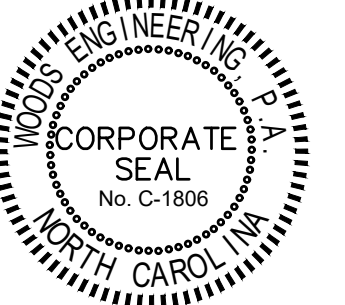
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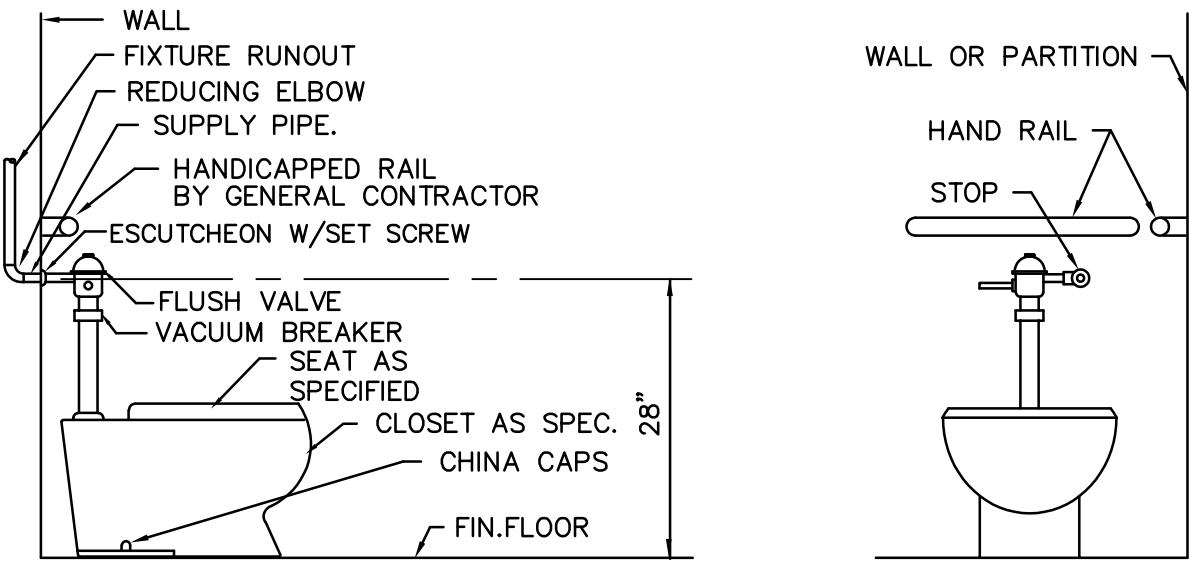
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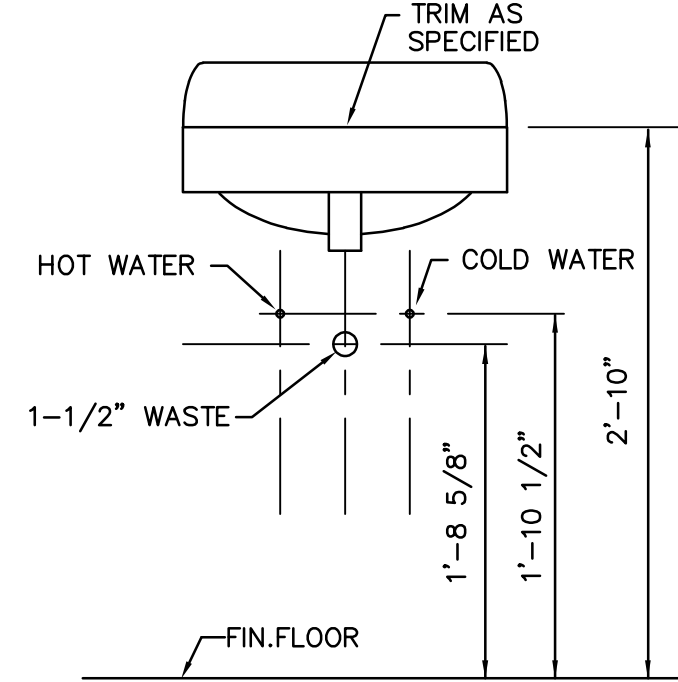
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FRAMING SECTIONS & DETAILS

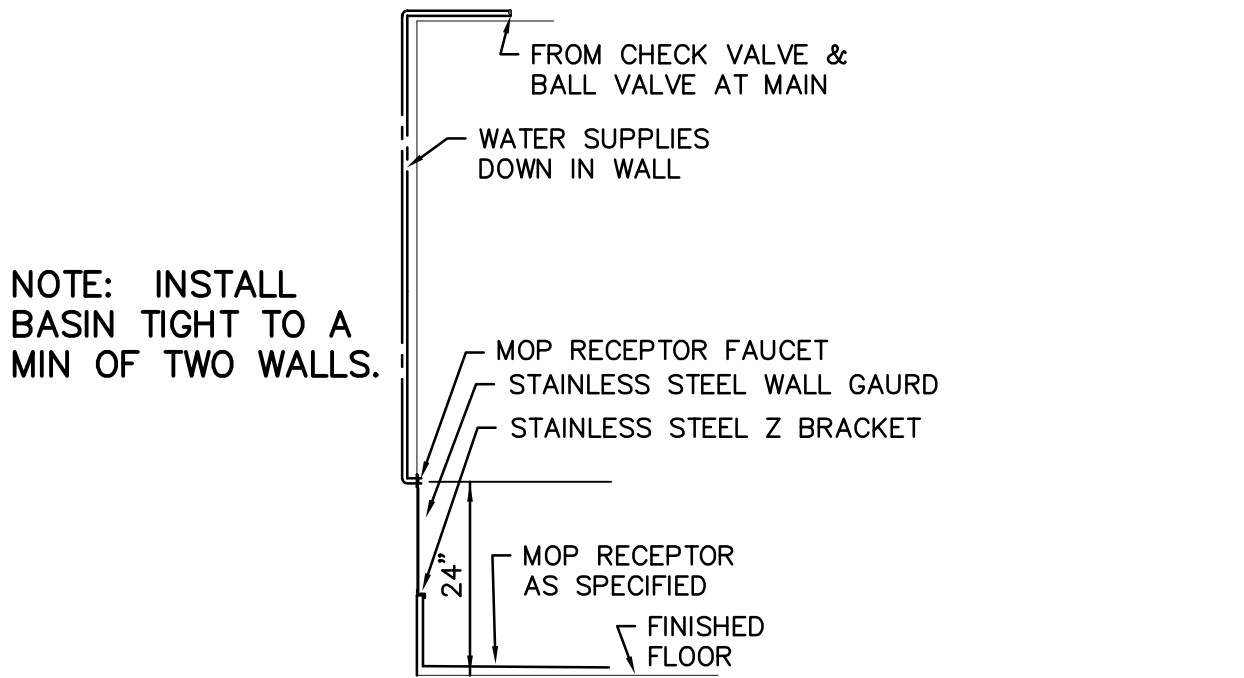
**S4.02**



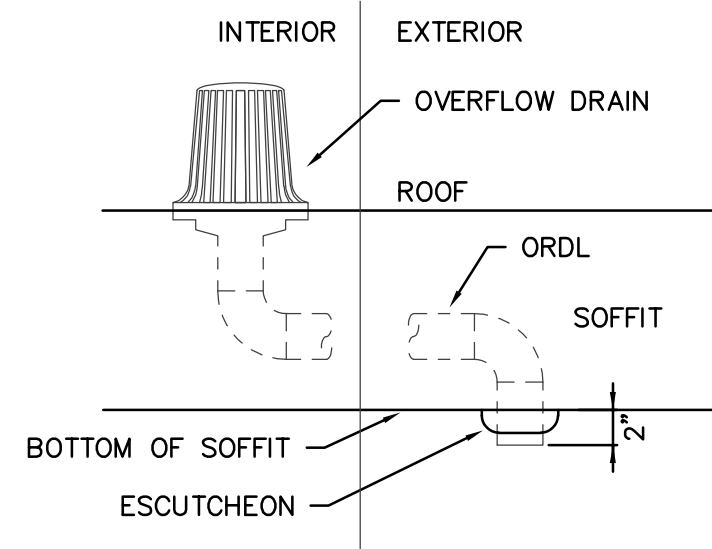
**A** ADULT ADA WATER CLOSET (WC-1) DETAIL  
NO SCALE



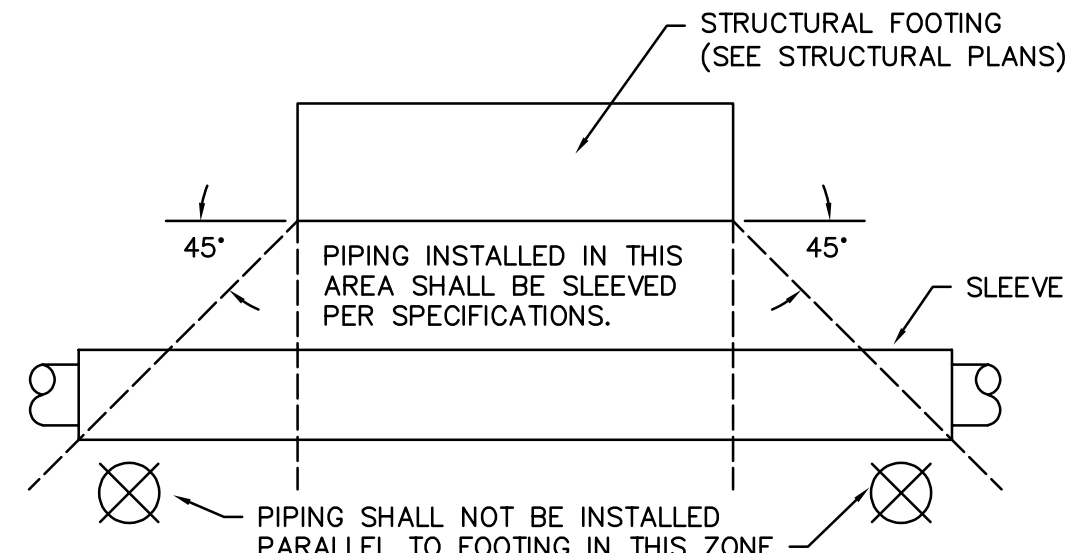
**B** ADULT ADA LAVATORY (L-1) ROUGH-IN ELEVATION  
NO SCALE



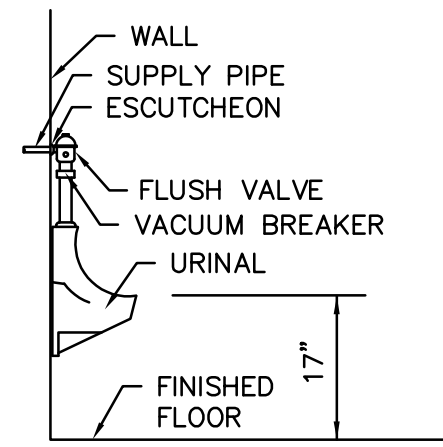
**C** MOP RECEPTOR (MR-1) DETAIL  
NO SCALE



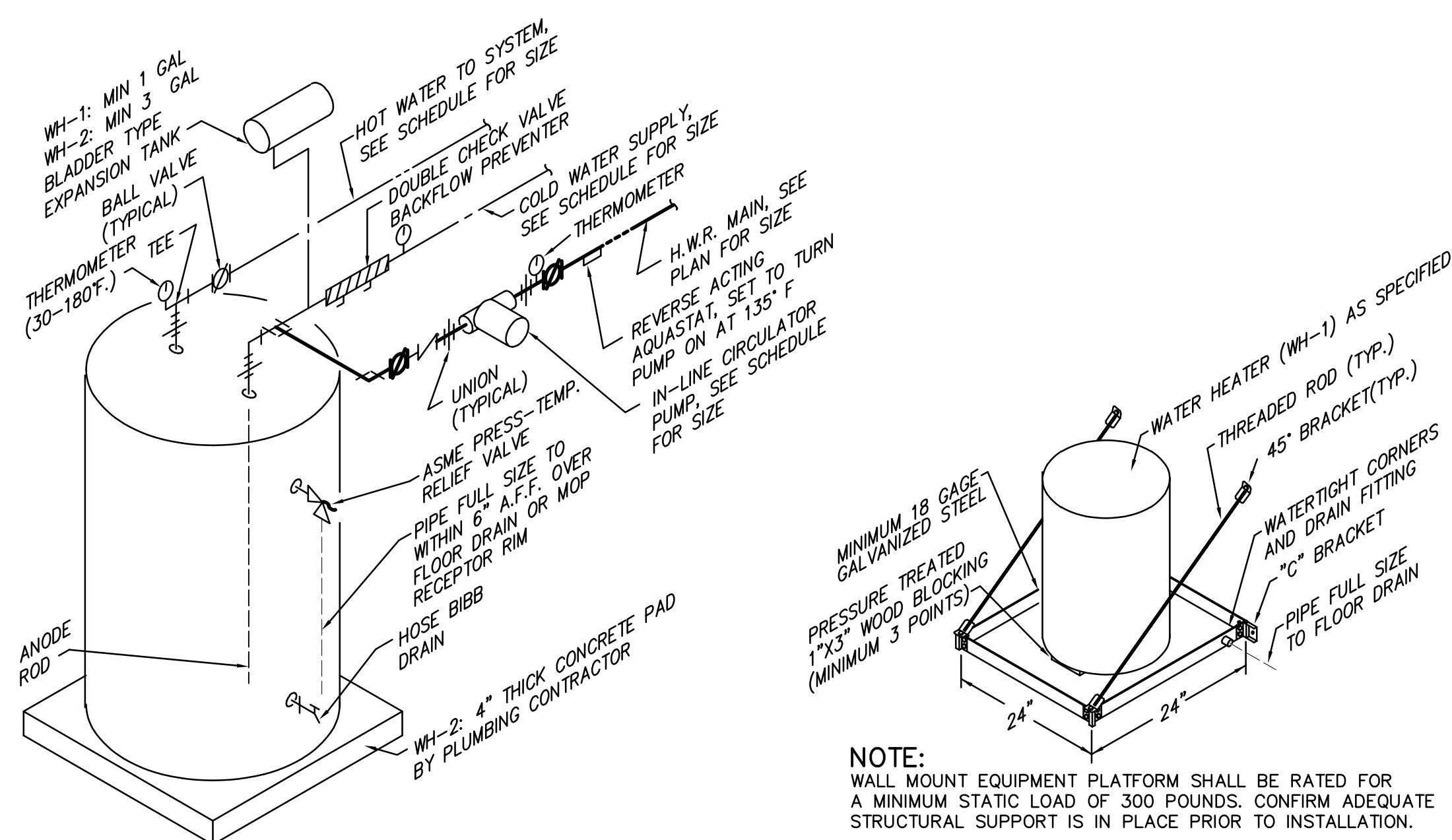
**D** ORDL DETAIL  
NO SCALE



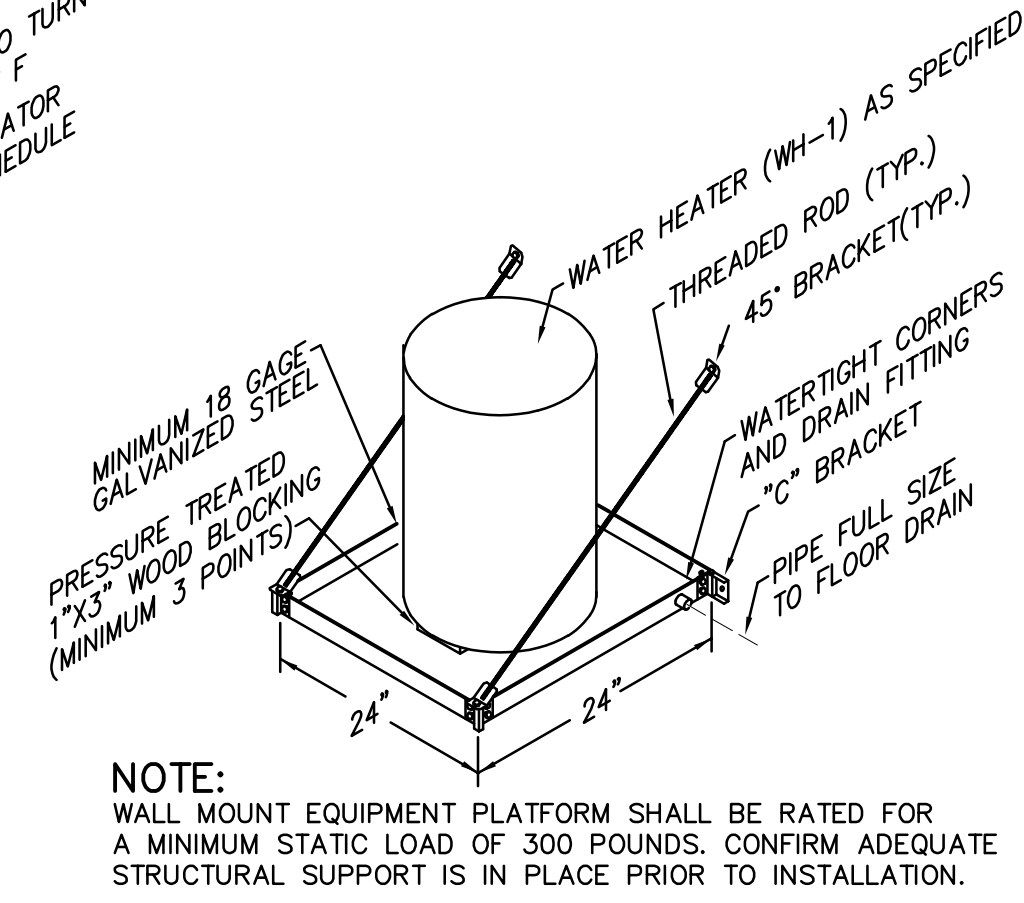
**E** PIPING UNDER FOOTINGS  
NO SCALE



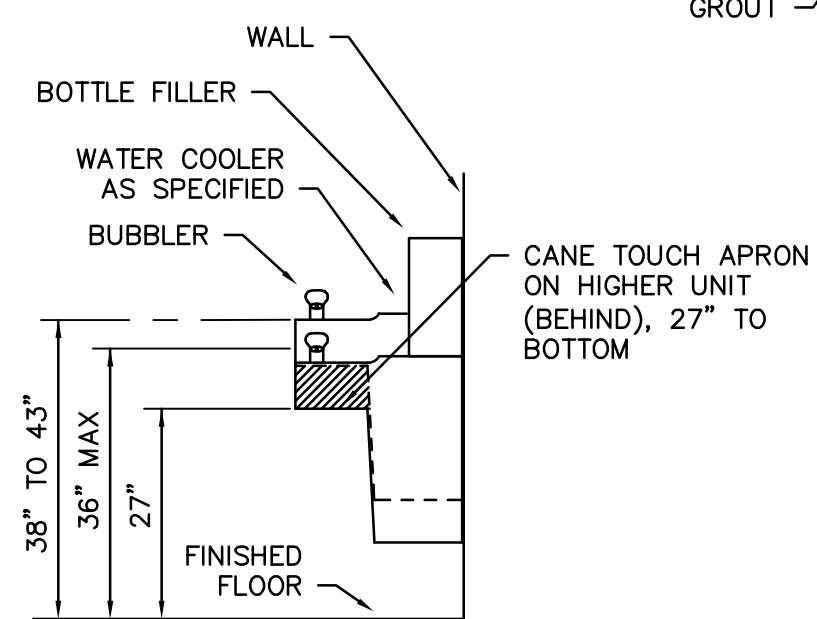
**F** ADULT ADA URINAL (U-1) ROUGH-IN DETAIL  
NO SCALE



**G** WATER HEATER PIPING DETAIL (WH-1 & 2)  
NO SCALE



**H** WATER HEATER (WH-1) WALL MOUNTING BRACKET  
NO SCALE



**J** ADULT'S ELECTRIC WATER COOLER (EWC-1)  
NO SCALE

SYMBOL	DESCRIPTION	ROUGH-IN SIZES			REMARKS
		WASTE	C.W.	H.W.	
WC-1	WATER CLOSET	4"	1-1/4"	-	ADA/DETAIL A/P0.1
U-1	URINAL	2"	3/4"	-	ADA/DETAIL F/P0.1
L-1	LAVATORY	1-1/2"	1/2"	1/2"	ADA HEIGHT/B/P0.1
EW-1	ELECTRIC WATER COOLER	1-1/2"	1/2"	-	ADA HEIGHT/J/P0.1
MR-1	MOP RECEPTOR	3"	1/2"	1/2"	DETAIL C/P0.1, ALT BID G-1
HB-1	HOSE BIBB	-	1/2"	-	
HB-2	WALL HYDRANT	-	3/4"	-	MOUNT 24" AFG
FD-1	FLOOR DRAIN	4"	-	-	
FD-2	FLOOR DRAIN	2"	-	-	
FS-1	FLOOR SINK	3"	-	-	1/2 GRATE
CB-1	ICE MAKER CONNECTION BOX	-	1/2"	-	

SYMBOL	LOCATION	SERVING	CAPACITY	REMARKS
REG 1*	KITCHEN 118	KITCHEN EQUIPMENT	850	5 PSIG 7" W.C. LIMITED VENTING
REG 2*	ROOF	PGAC#1	230	5 PSIG 7" W.C. LIMITED VENTING
REG 3*	ROOF	PGAC#2	275	5 PSIG 7" W.C. LIMITED VENTING

\* ALTERNATE BID G-1

SYMBOL	DESCRIPTION	ROUGH-IN SIZES		TEMP. SETTING	STORAGE CAPACITY	RECOVERY	FUEL	LOAD	ELEC.	LOCATION
		CW	HW							
WH-1	TANK TYPE-ELECTRIC	3/4"	3/4"	140F	15 GAL	12 GPH	ELECTRIC	3 KW	208V, 1Ø	STORAGE 201
WH-2*	TANK TYPE-ELECTRIC	1-1/4"	1-1/4"	140F	80 GAL	74 GPH	ELECTRIC	18 KW	208V, 3Ø	STORAGE 125

\* ALTERNATE BID G-1

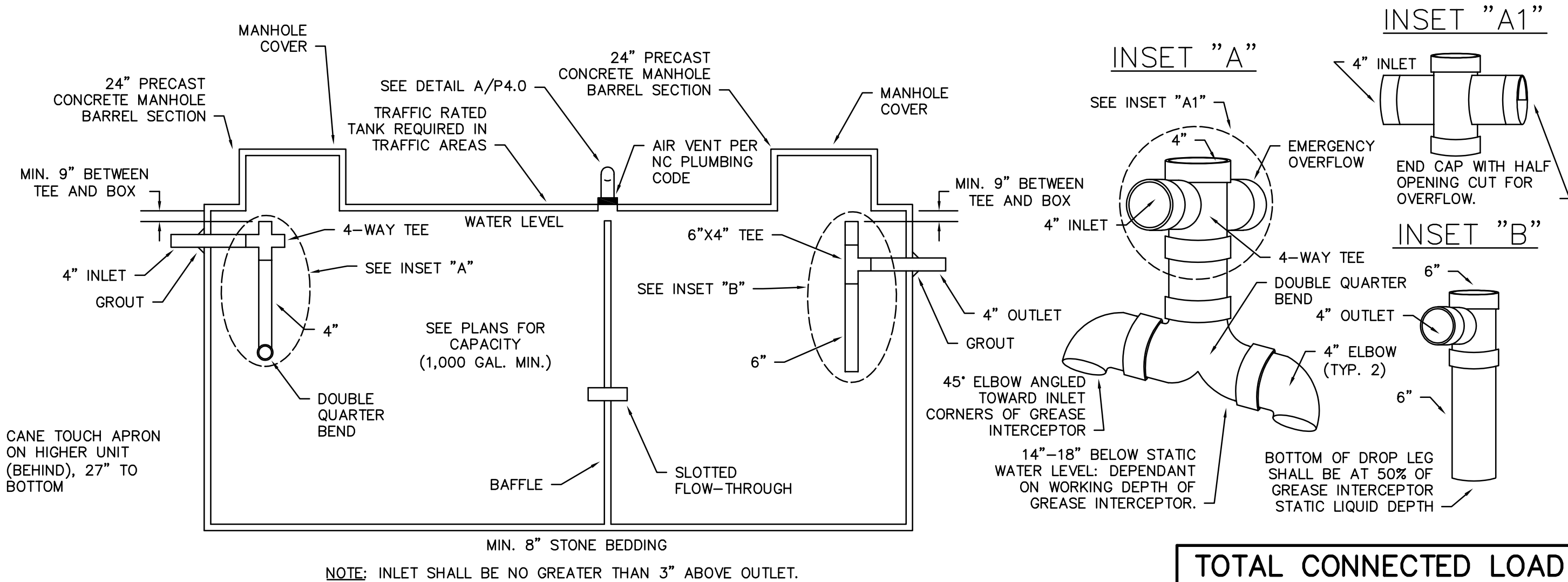
SYMBOL	GPM	THD	ELECTRICAL		LOCATION	SERVICE	CONTROL
			HP	VOLTAGE			
CP-1	1	6	1/40	115 V., 1Ø	STORAGE 201	H.W. RETURN	AQUASTAT, TIME CLOCK
CP-2*	1	6	1/40	115 V., 1Ø	STORAGE 125	H.W. RETURN	AQUASTAT, TIME CLOCK

\* ALTERNATE BID G-1

SYMBOL	DESCRIPTION	ROUGH-IN SIZES						REMARKS
		DIRECT WASTE	INDIRECT WASTE	C.W.	H.W.	NATURAL GAS (MBTU)	GAS	
K-2	36" RANGE, GAS, STANDARD OVEN	-	-	-	-	236	3/4"*	
K-3	36" RANGE, GAS, CONVECTION OVEN	-	-	-	-	236	3/4"*	
K-4	24" CHAR GRILLE, GAS, COUNTER UNIT	-	-	-	-	72	3/4"*	
K-5	24" FLAT GRILLE, GAS, COUNTER UNIT	-	-	-	-	56	3/4"*	
K-7	FRYER, GAS, 70-90LB.	-	-	-	-	140	3/4"*	
K-8	FRYER, GAS, 40-50LB.	-	-	-	-	110	3/4"*	
K-10	48" S/S PREP TABLE W/SINK (ON LEFT)	-	2"	-	-	-	-	3-1/2" DRAIN OPENING
K-11	48" S/S PREP TABLE W/SINK (ON RIGHT)	-	2"	-	-	-	-	3-1/2" DRAIN OPENING
K-12	FAUCET	-	-	(2) 1/2"	(2) 1/2"	-	-	QTY 2 FAUCETS
K-13	3-COMPARTMENT SINK (18"x24" BOWLS)	-	2"	-	-	-	-	(3)3-1/2" DRAIN OPENINGS
K-13.1	PRE-RINSE SPRAYER W/ADDED FAUCET	-	-	1/2"	1/2"	-	-	
K-14	HAND SINK W/SPLASH GUARDS	1-1/2"	-	1/2"	1/2"	-	-	
K-20	ICE MAKER W/BIN	-	1/2", 3/4"	3/8"	-	-	-	
K-25	DISHWASHER, UNDER COUNTER	-	1-1/4"	-	3/4"	-	-	

\* GAS CONNECTOR KIT WITH 3/4" INSIDE DIA., 48" LONG, BRAIDED STAINLESS STEEL WITH PVC COATING, SNAPFAST QD, FULL PORT VALVE, (2) ELBOWS AND RESTRAINING CABLE PROVIDED BY KITCHEN EQUIPMENT CONTRACTOR. FINAL CONNECTIONS BY PLUMBING CONTRACTOR.

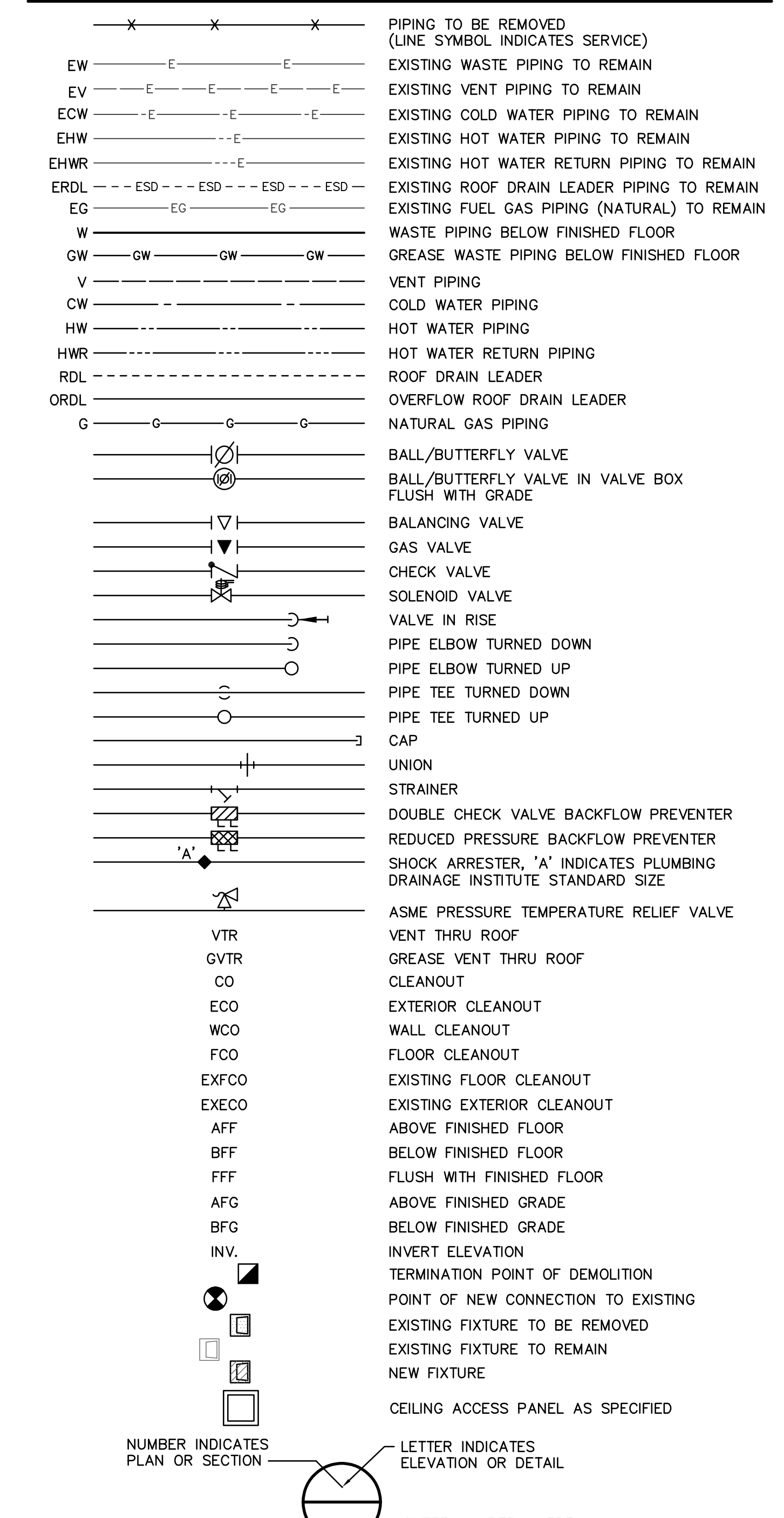
NOTE: KITCHEN EQUIPMENT SHALL BE PROVIDED BY KITCHEN EQUIPMENT CONTRACTOR, OUTSIDE OF DIVISION 22. PLUMBING CONTRACTOR SHALL PROVIDE ROUGH-INS FOR EQUIPMENT. KITCHEN EQUIPMENT LOCATIONS SHOWN ON PLANS AND SCHEDULE ARE FOR COORDINATION OF ROUGH-IN SIZES AND LOCATIONS.



**K** GREASE INTERCEPTOR DETAIL  
NO SCALE

TOTAL CONNECTED LOAD	
WASTE FIXTURE UNITS =	58 F.U.
GREASE WASTE FIXTURE UNITS =	10 F.U.
TOTAL WASTE FIXTURE UNITS =	68 F.U.
COLD WATER DEMAND =	81 GPM
HOT WATER DEMAND =	26.3 GPM
GAS LOADS	
COOKING DEMAND =	850 MBH
EXISTING MECHANICAL DEMAND =	505 MBH
TOTAL CONNECTED LOAD =	1,355 MBH

**LEGEND**



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CASEY D. GILMAN  
ENGINEER

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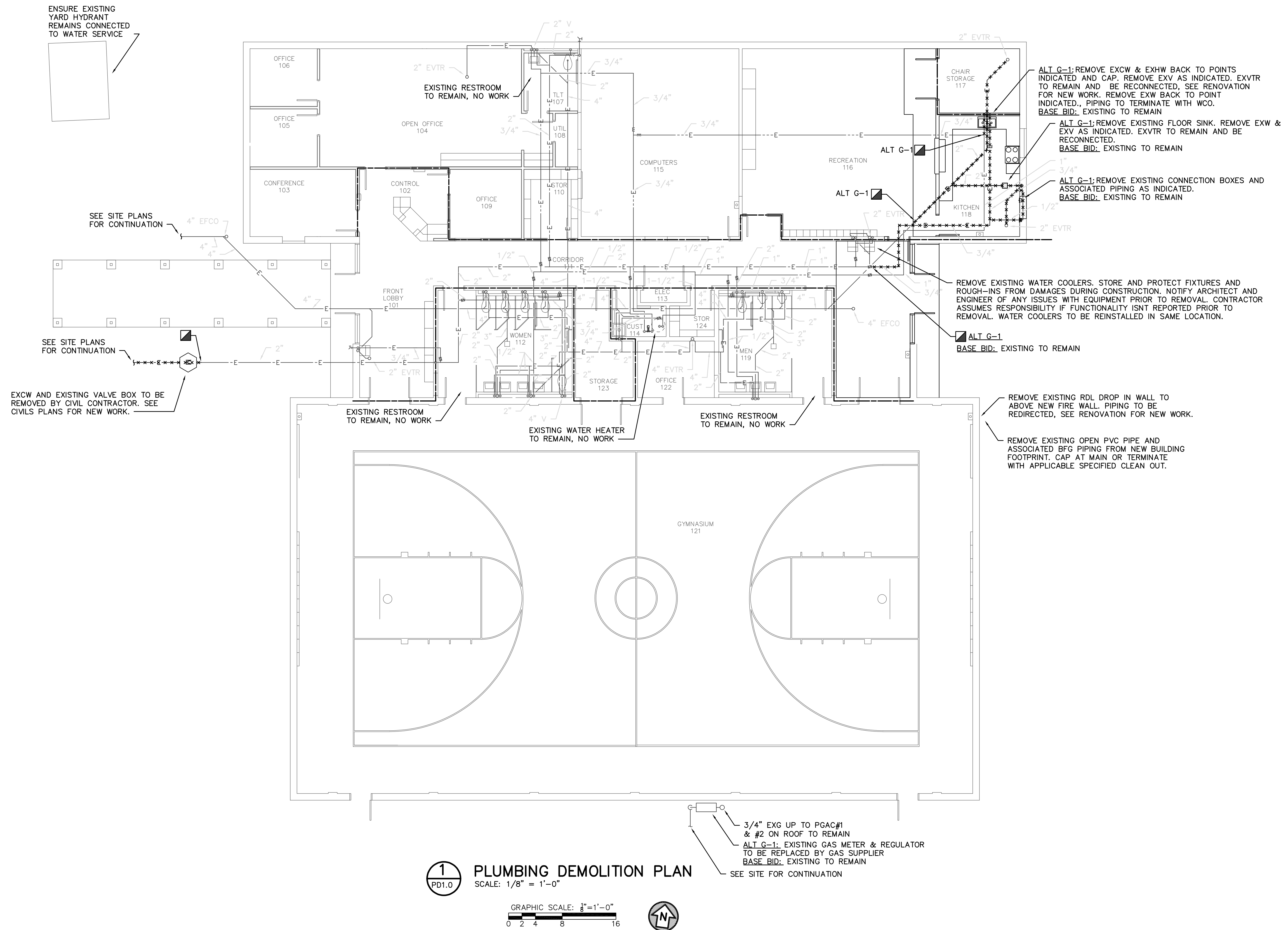
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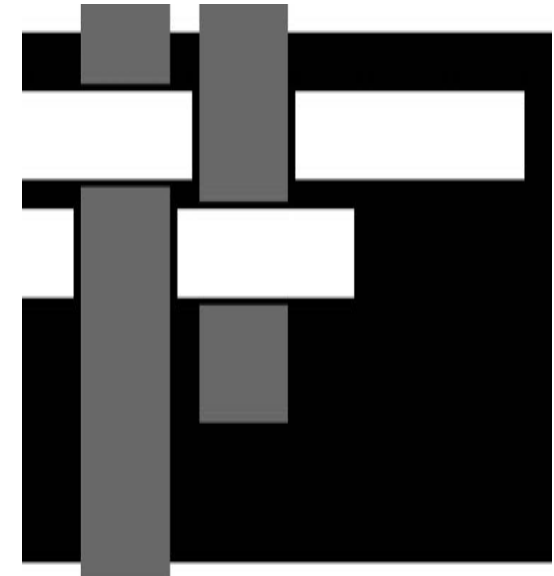
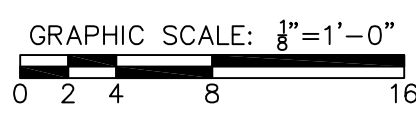
**PLUMBING LEGEND, SCHEDULE AND DETAILS**

**P0.1**  
1 OF 5  
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**1** PLUMBING DEMOLITION PLAN  
 PD1.0 SCALE: 1/8" = 1'-0"



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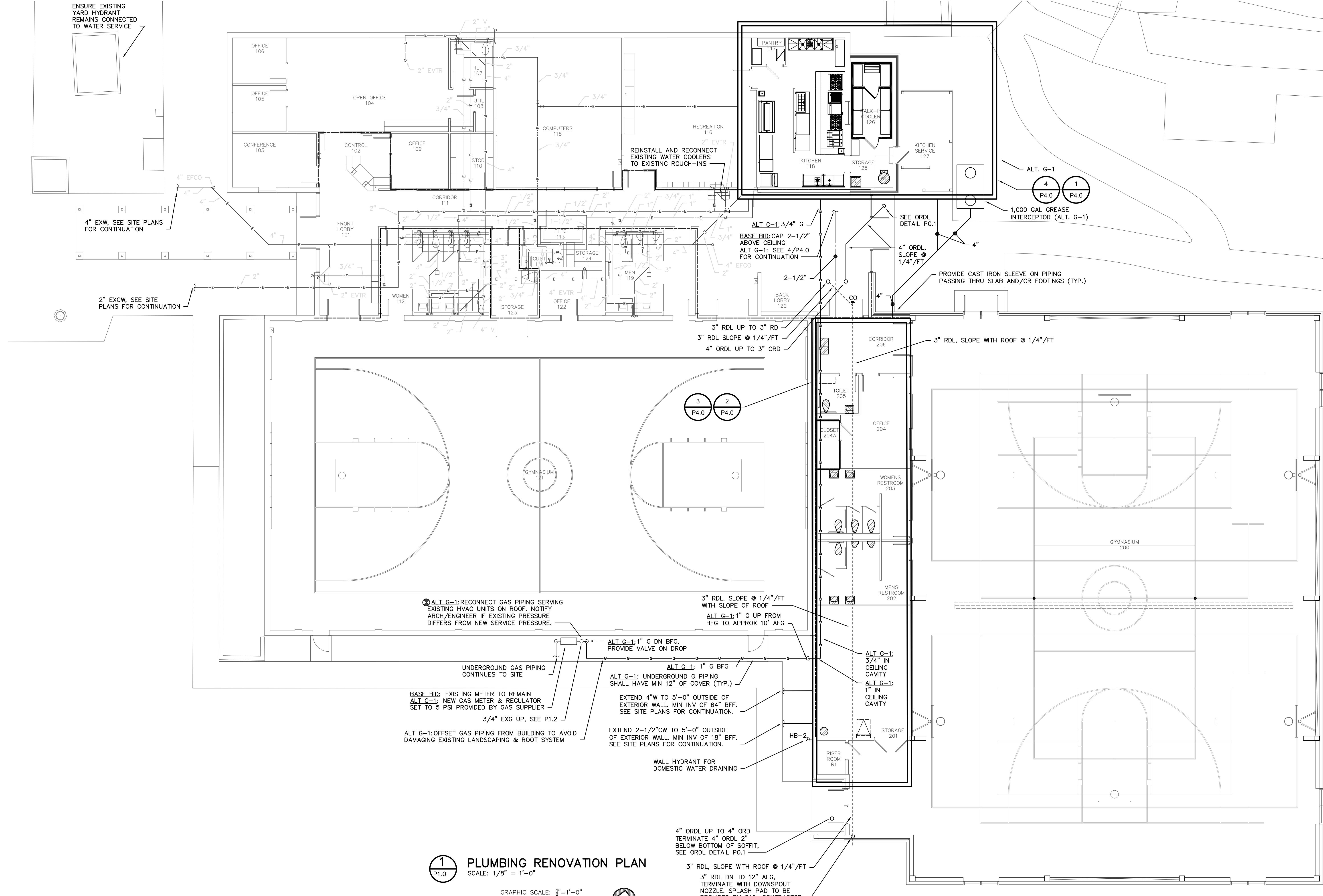
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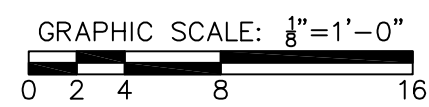
PLUMBING  
 DEMOLITION PLAN

**PD1.0**  
 2 of 5  
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ENSURE EXISTING YARD HYDRANT REMAINS CONNECTED TO WATER SERVICE



**1** PLUMBING RENOVATION PLAN  
SCALE: 1/8" = 1'-0"



FIRE WALL LEGEND	
---	1-HOUR RATED FIRE BARRIER
---	2-HOUR RATED FIRE WALL
---	2-HOUR RATED FIRE BARRIER

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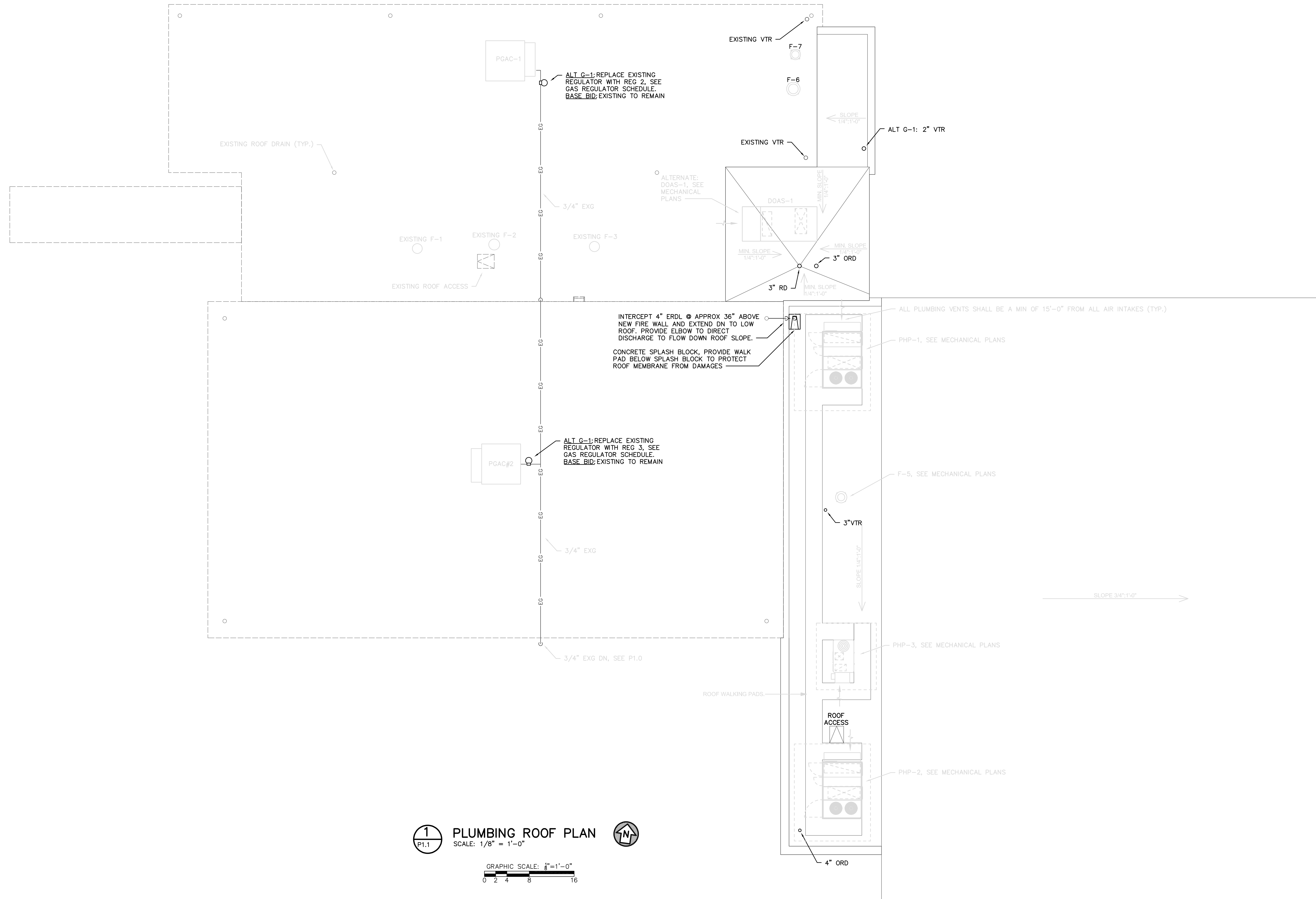
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PLUMBING FLOOR PLAN



**1** PLUMBING ROOF PLAN  
 P1.1 SCALE: 1/8" = 1'-0"



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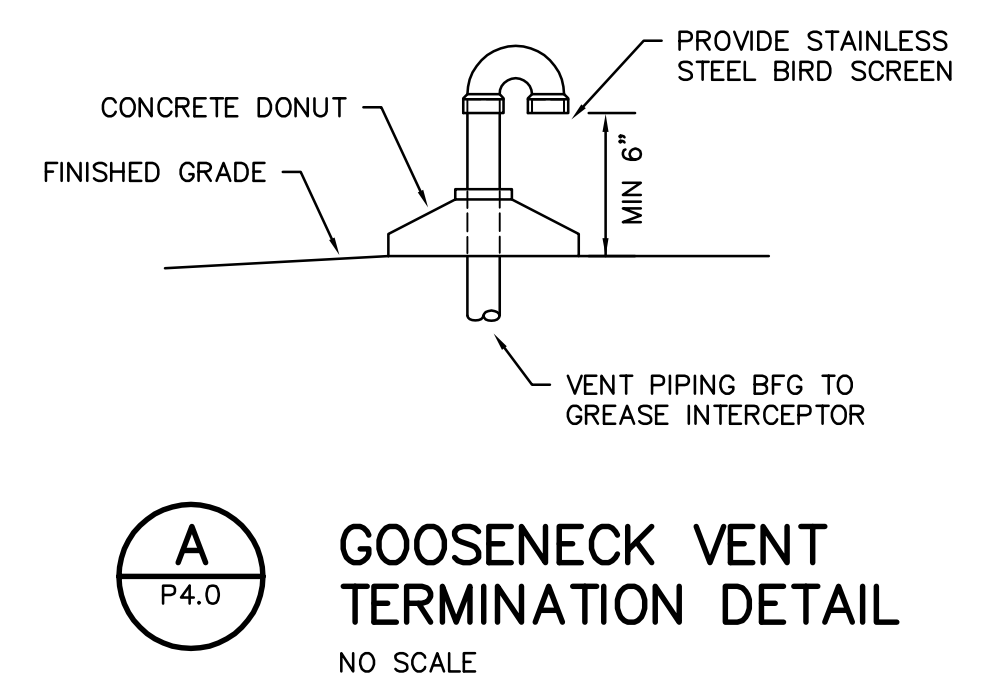
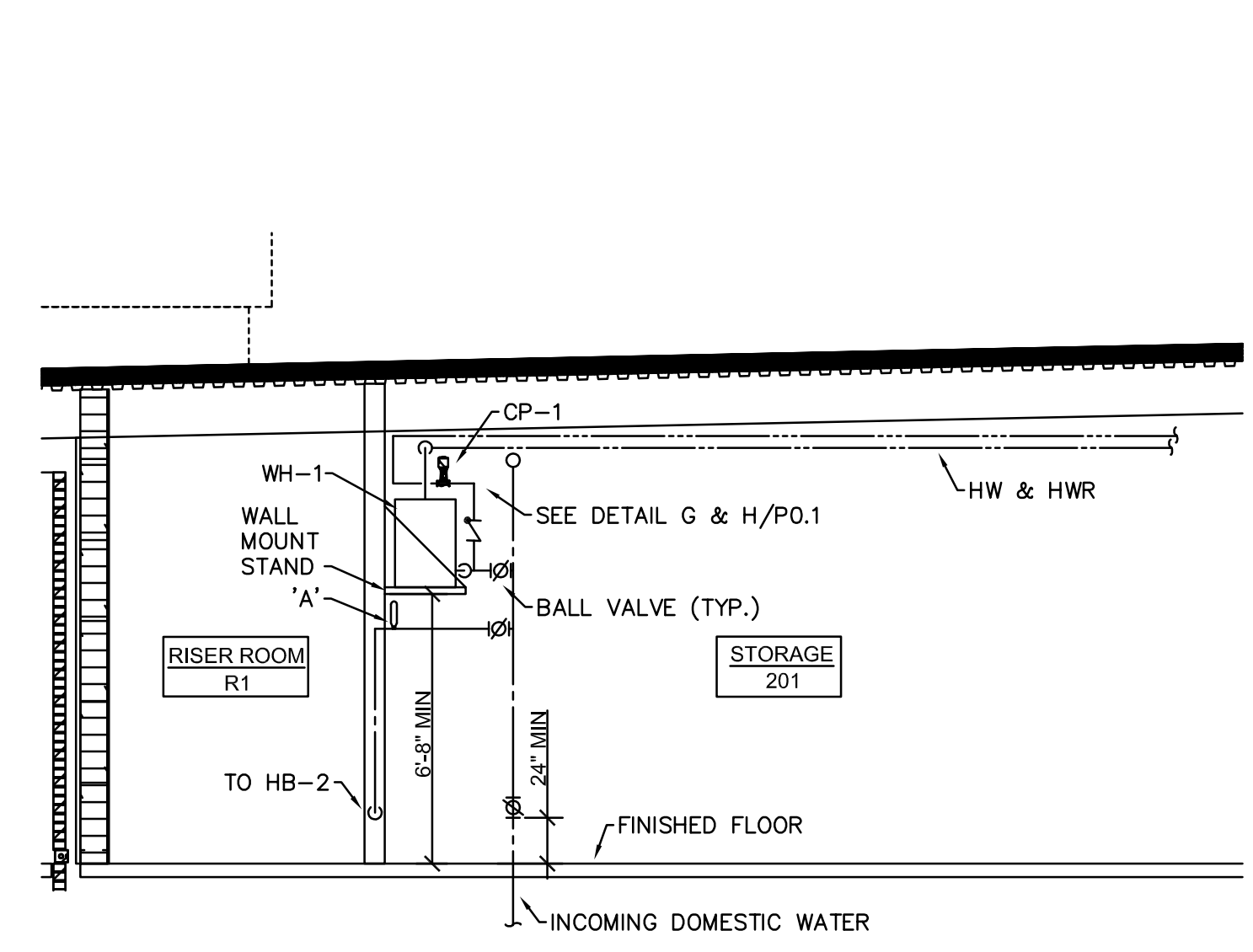
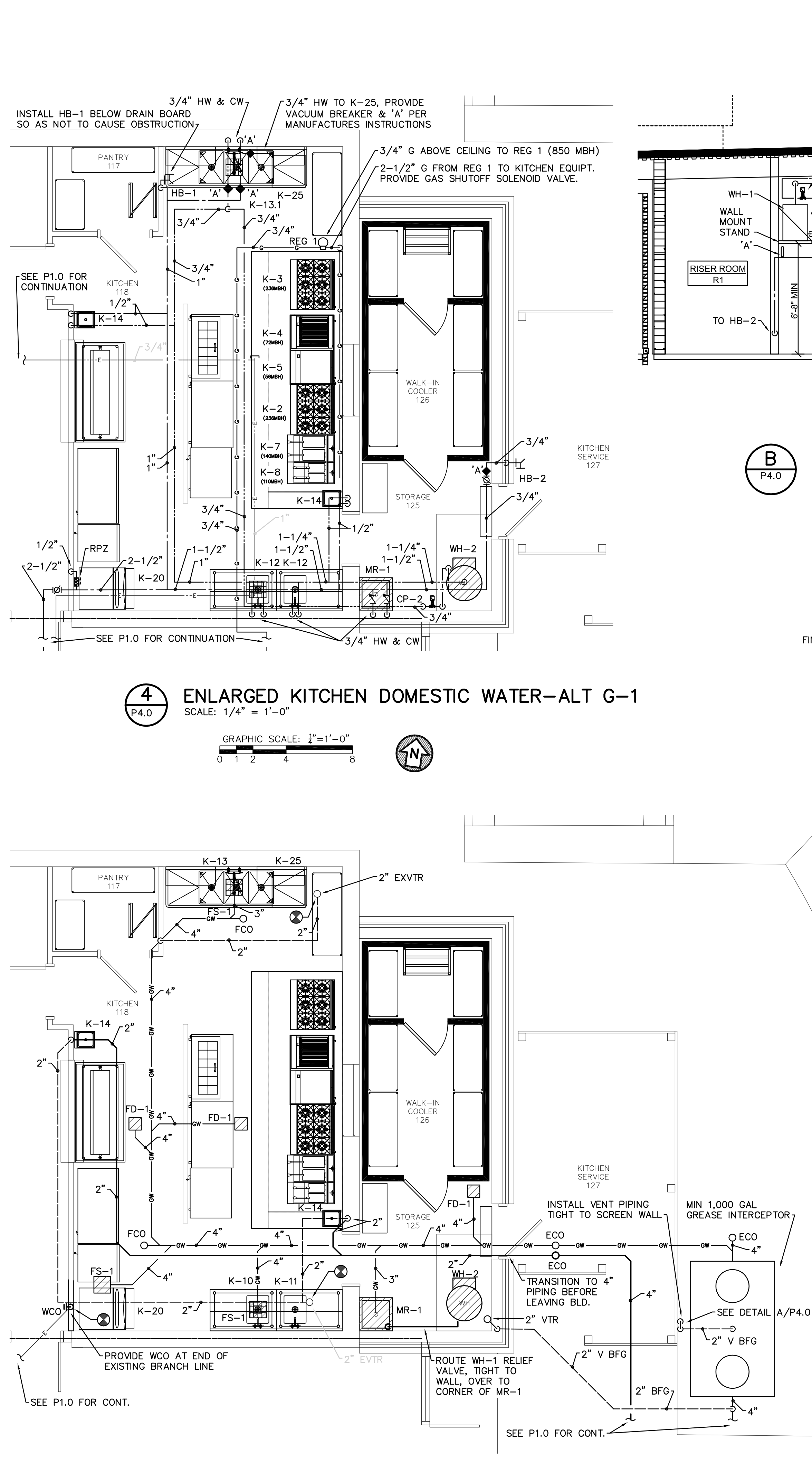
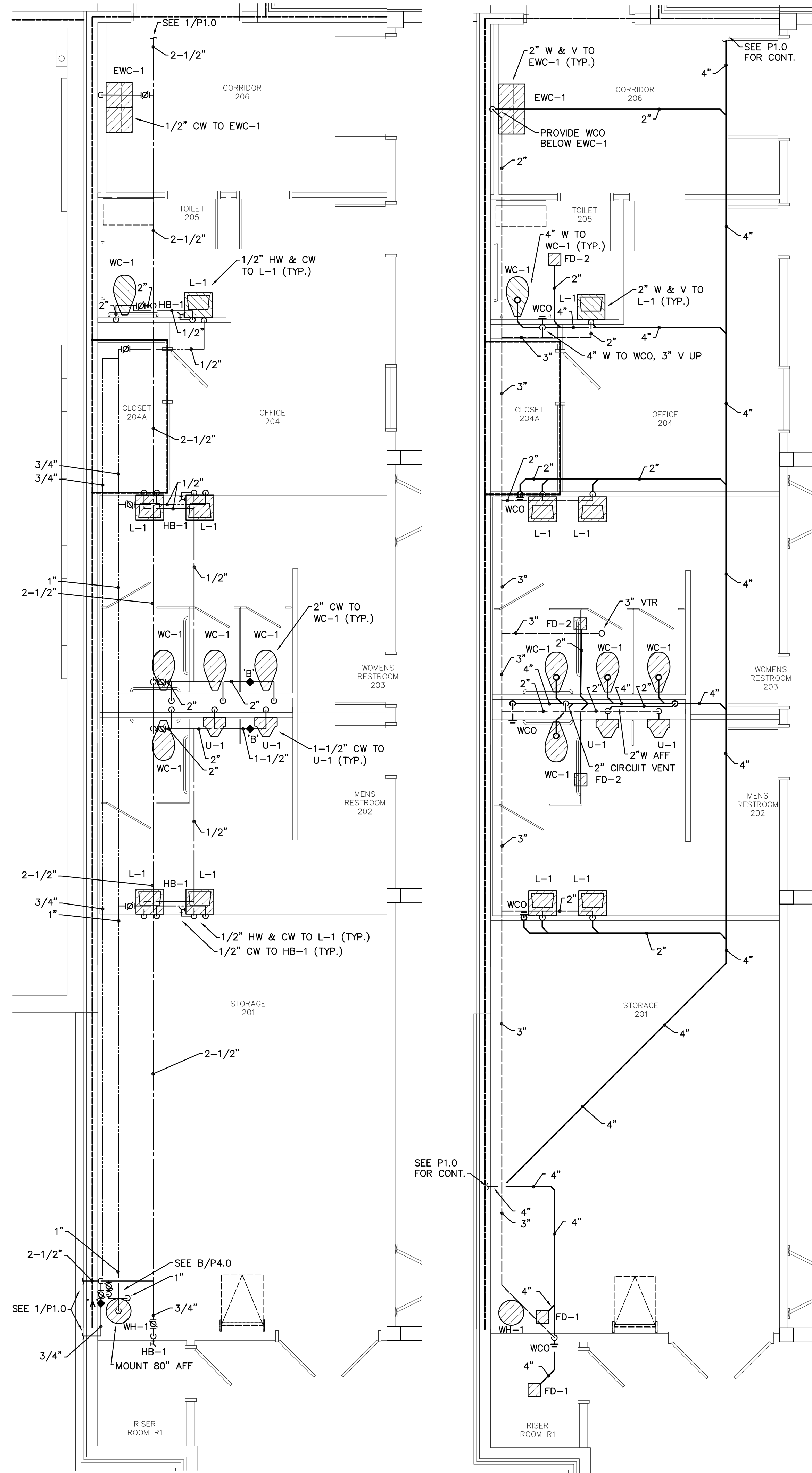
**MLK Center Addition & Renovation**  
 401 S. 8th Street  
 Wilmington, NC 28405

Construction Drawings  
 March 22, 2023

Revisions:


**PLUMBING ROOF PLAN**

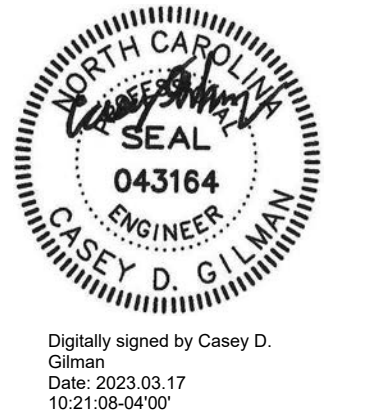
**P1.1**



**GENERAL NOTES: (THIS SHEET ONLY)**

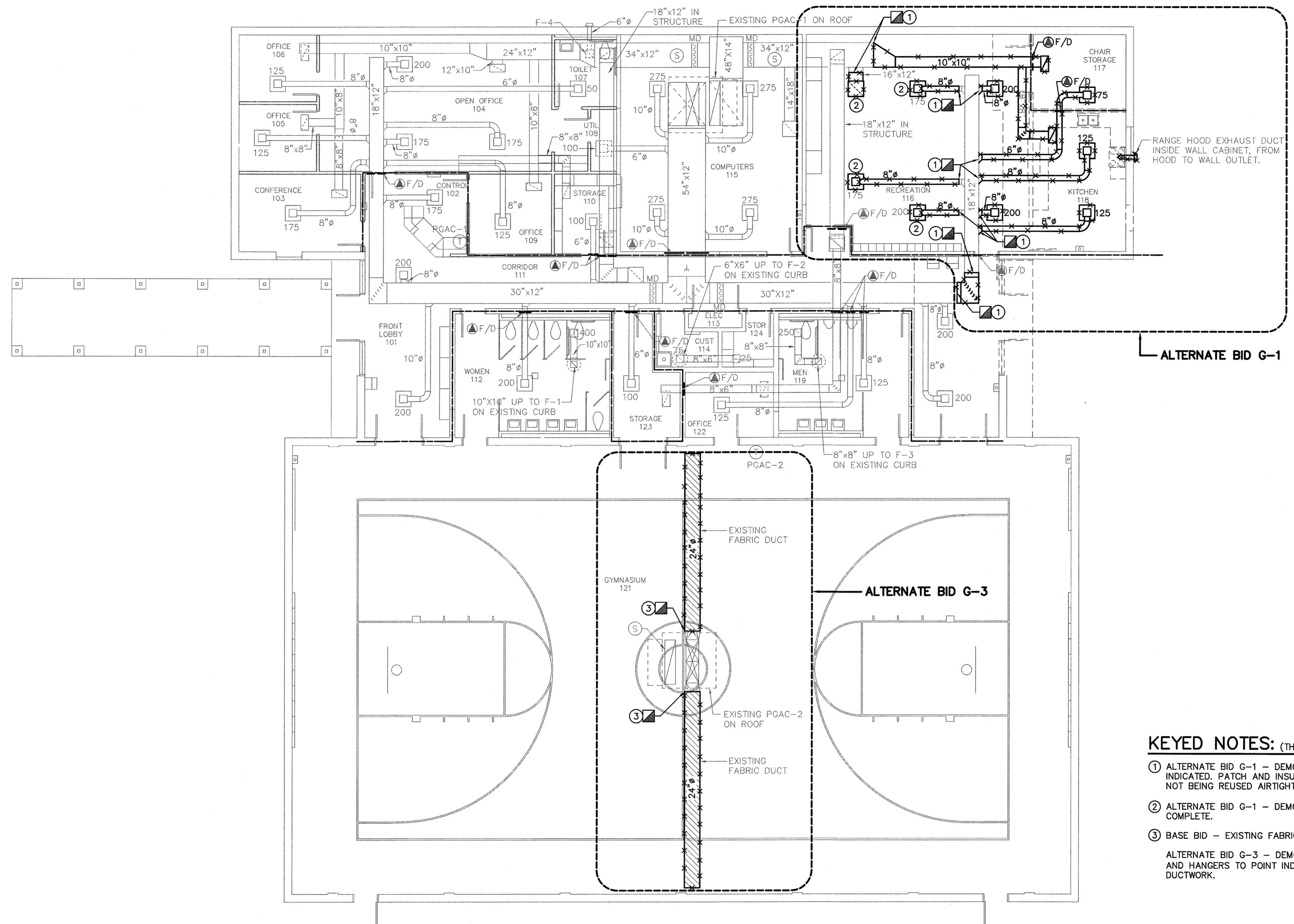
- PLUMBING PIPING MAY BE SHOWN AS INSTALLED IN EXISTING CMU WALLS. UNLESS OTHERWISE NOTED, IT IS THE INTENT OF THE DRAWINGS FOR ALL PLUMBING PIPING TO BE CONCEALED ABOVE CEILING AND WITHIN WALL CAVITIES. OPENINGS OF EXISTING WALLS SHALL BE PATCHED TO MATCH EXISTING PER 017000 EXECUTION AND CLOSEOUT REQUIREMENTS OF THE SPECIFICATIONS.

FIRE WALL LEGEND	
---	1-HOUR RATED FIRE BARRIER
---	2-HOUR RATED FIRE WALL
---	2-HOUR RATED FIRE BARRIER



Revisions:

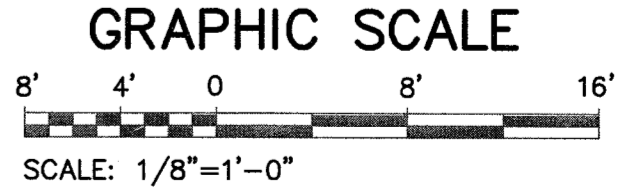


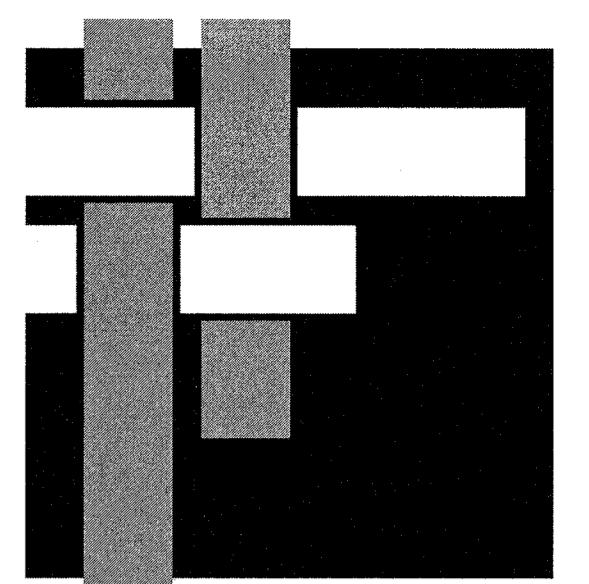
**1** MECHANICAL PLAN - DEMOLITION  
 SCALE: 1/8" = 1'-0"

**KEYED NOTES: (THIS SHEET ONLY)**

- ① ALTERNATE BID G-1 - DEMOLITION DUCTWORK TO POINT INDICATED. PATCH AND INSULATE EXISTING TRUNK DUCTWORK NOT BEING REUSED AIRTIGHT.
- ② ALTERNATE BID G-1 - DEMOLITION EXISTING GRILLE/DIFFUSER COMPLETE.
- ③ BASE BID - EXISTING FABRIC DUCTWORK TO REMAIN - NO WORK.  
 ALTERNATE BID G-3 - DEMOLITION EXISTING FABRIC DUCTWORK AND HANGERS TO POINT INDICATED. SEE 1/M1.1 FOR NEW SPIRAL DUCTWORK.



FIRE WALL LEGEND	
-----	1-HOUR RATED FIRE BARRIER
-----	2-HOUR RATED FIRE WALL
-----	2-HOUR RATED FIRE BARRIER



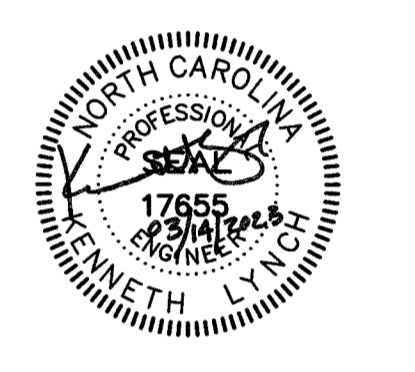
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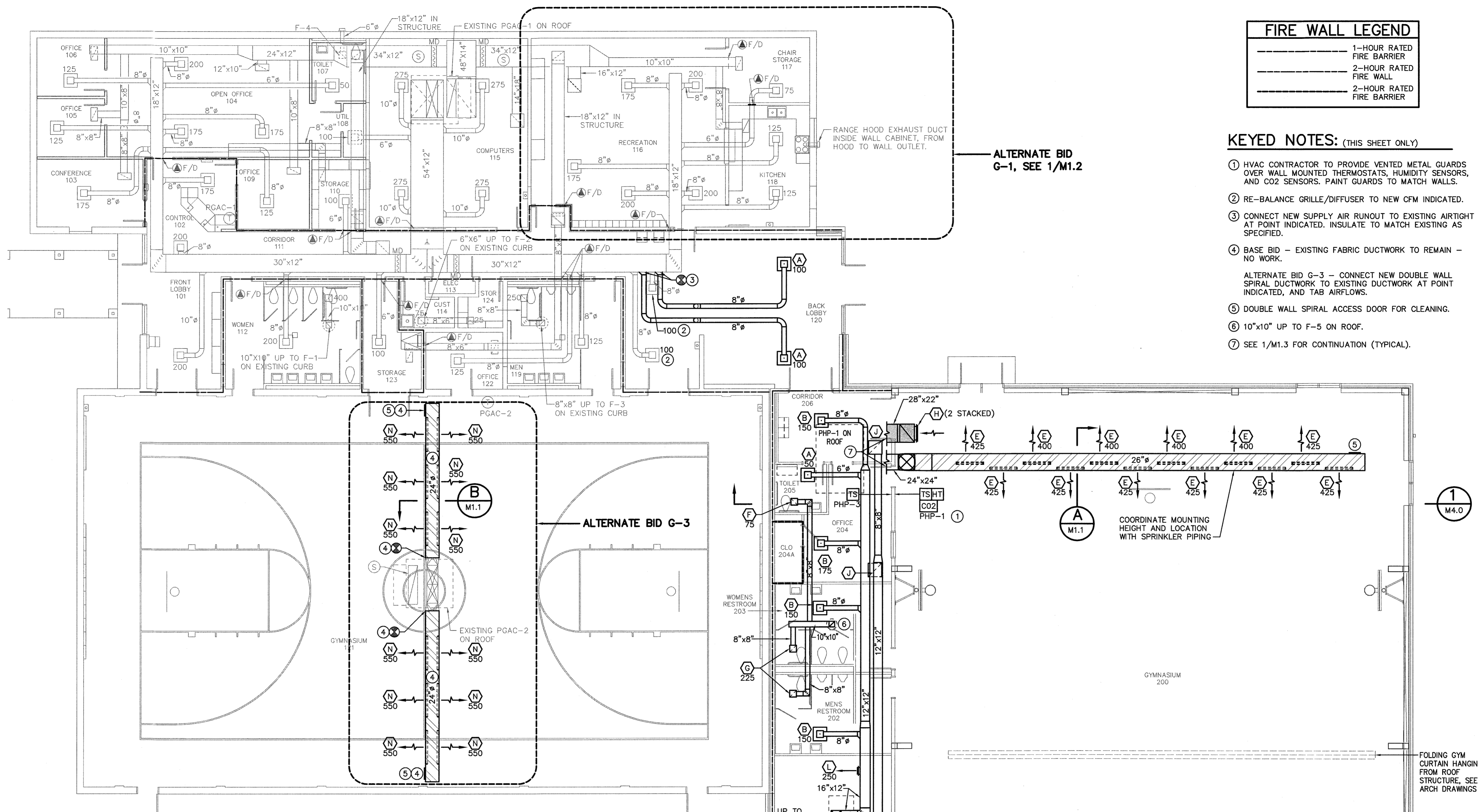
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MECHANICAL PLAN - DEMOLITION

**M1.0**

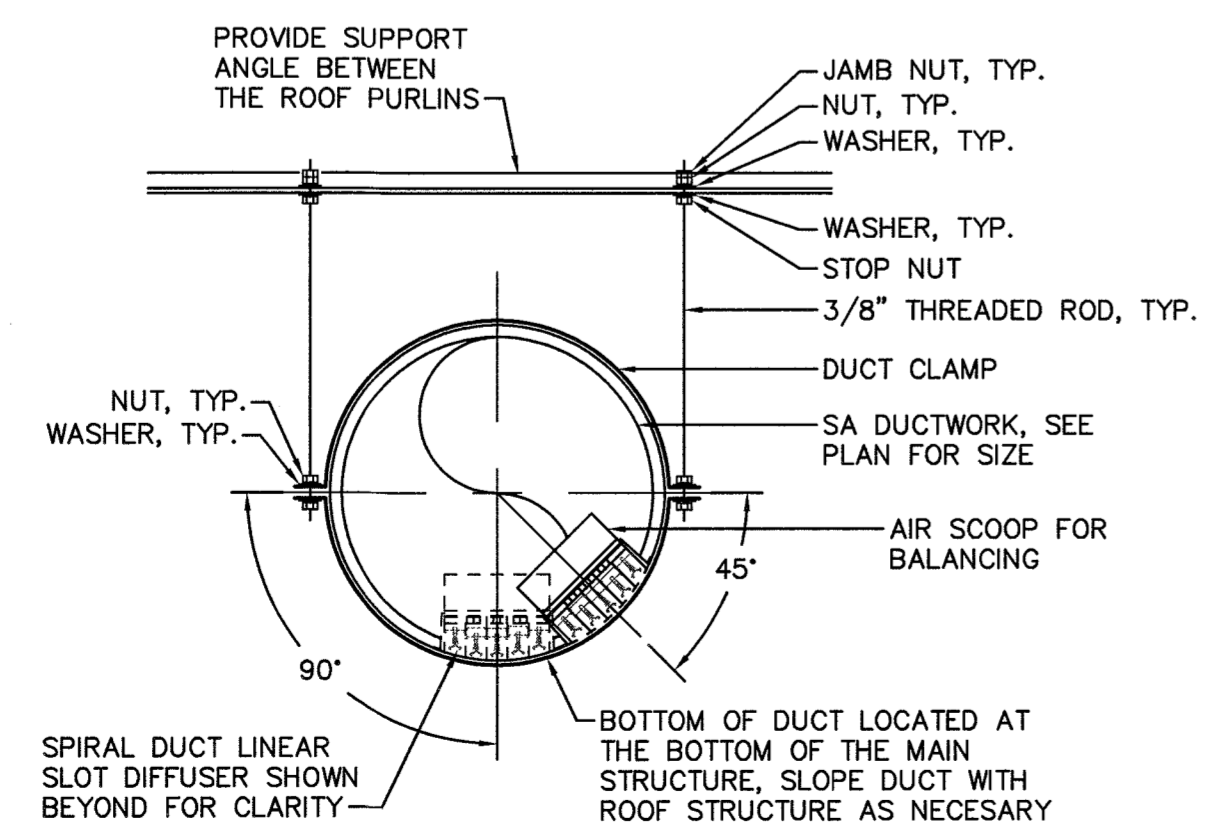


FIRE WALL LEGEND	
---	1-HOUR RATED FIRE BARRIER
---	2-HOUR RATED FIRE WALL
---	2-HOUR RATED FIRE BARRIER

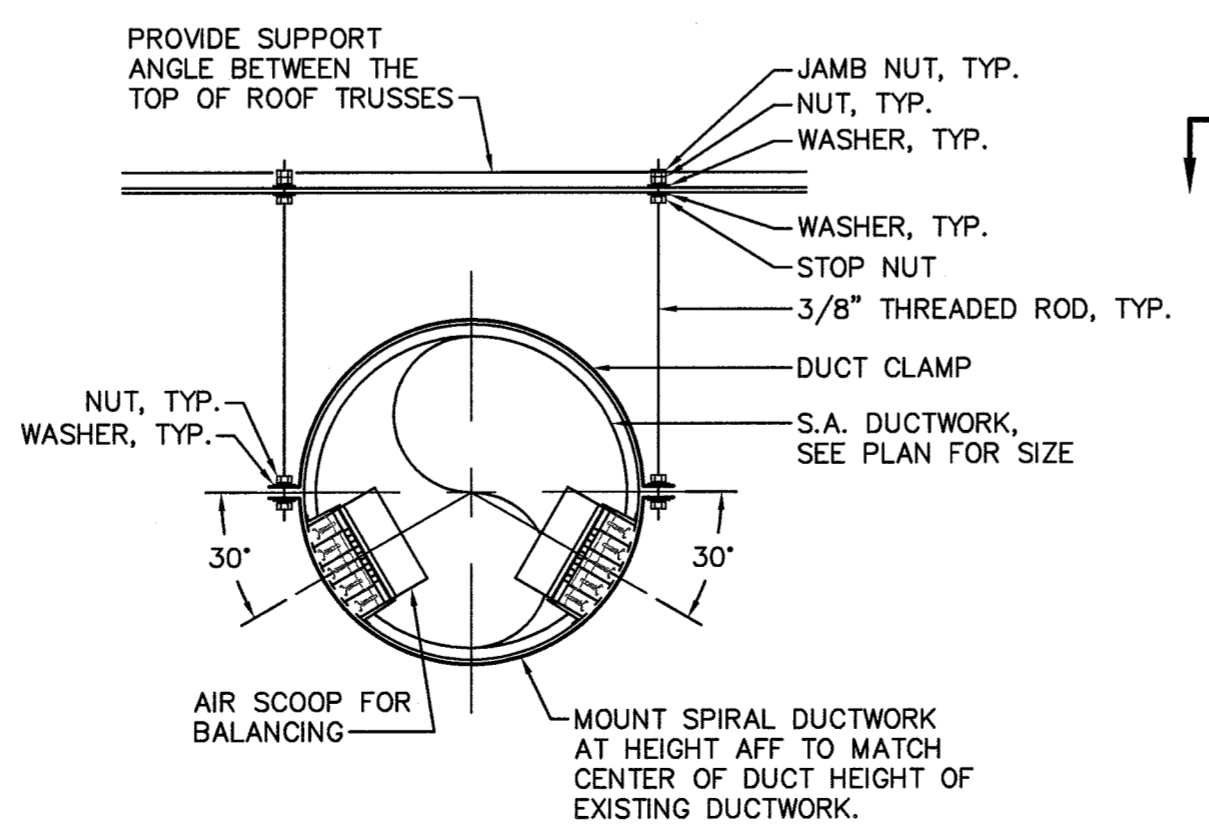
**KEYED NOTES: (THIS SHEET ONLY)**

- HVAC CONTRACTOR TO PROVIDE VENTED METAL GUARDS OVER WALL MOUNTED THERMOSTATS, HUMIDITY SENSORS, AND CO2 SENSORS. PAINT GUARDS TO MATCH WALLS.
- RE-BALANCE GRILLE/DIFFUSER TO NEW CFM INDICATED.
- CONNECT NEW SUPPLY AIR RUNOUT TO EXISTING AIRTIGHT AT POINT INDICATED. INSULATE TO MATCH EXISTING AS SPECIFIED.
- BASE BID - EXISTING FABRIC DUCTWORK TO REMAIN - NO WORK.  
ALTERNATE BID G-3 - CONNECT NEW DOUBLE WALL SPIRAL DUCTWORK TO EXISTING DUCTWORK AT POINT INDICATED, AND TAB AIRFLOWS.
- DOUBLE WALL SPIRAL ACCESS DOOR FOR CLEANING.
- 10"x10" UP TO F-5 ON ROOF.
- SEE 1/M1.3 FOR CONTINUATION (TYPICAL).

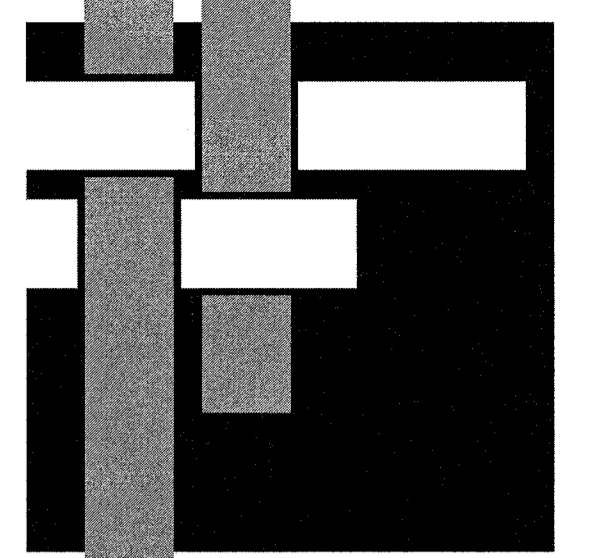
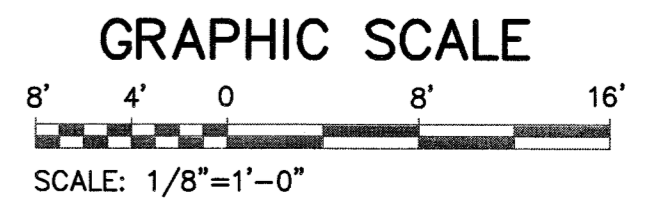
**1** MECHANICAL PLAN  
M1.1  
SCALE: 1/8" = 1'-0"



**A** SECTION  
M1.1  
NO SCALE



**B** SECTION  
M1.1  
NO SCALE



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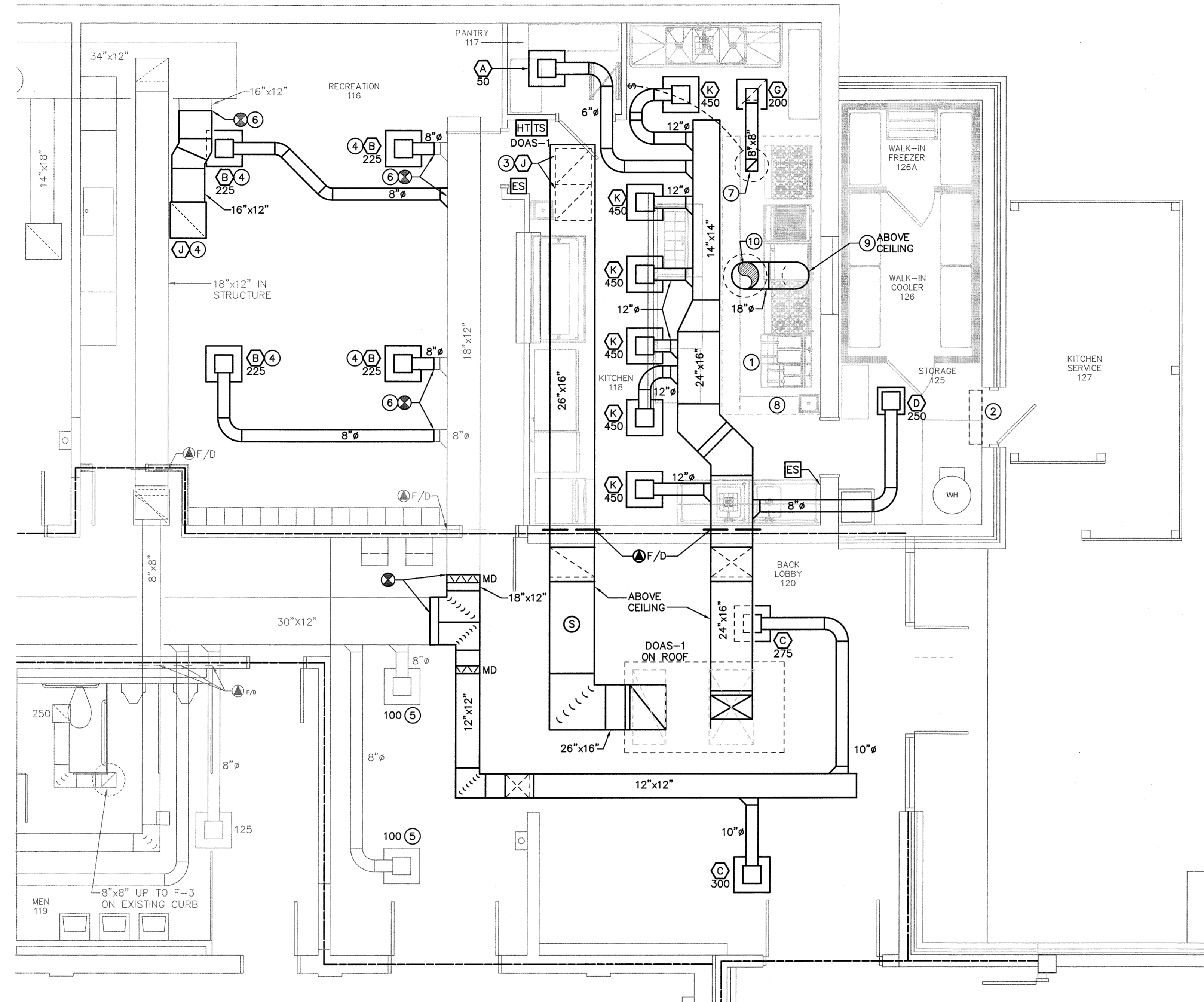
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MECHANICAL FLOOR PLAN

**M1.1**



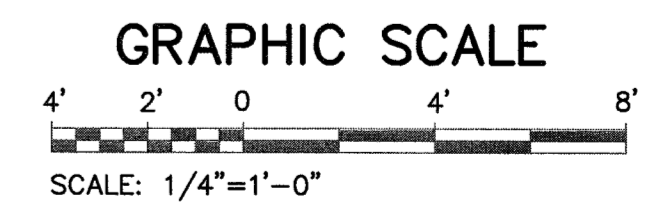
**1**  
M1.2

**MECHANICAL PLAN – ALTERNATE BID G-1**  
SCALE: 1/4" = 1'-0"

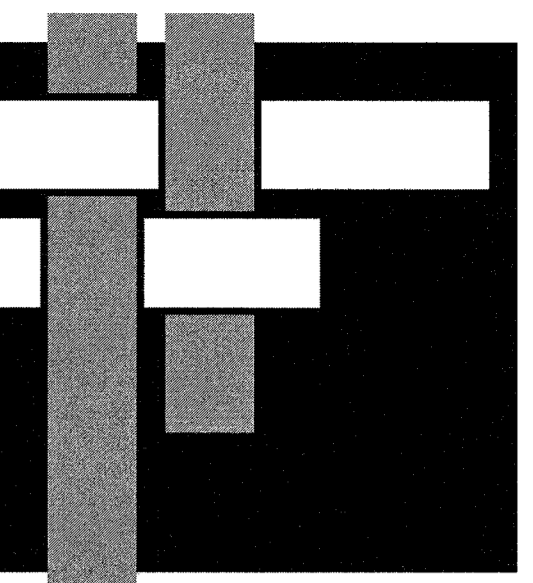


**KEYED NOTES: (THIS SHEET ONLY)**

- ① KITCHEN HOOD BY GENERAL CONTRACTOR.
- ② AIR CURTAIN BY GENERAL CONTRACTOR.
- ③ PROVIDE REMOVABLE FACE OF GRILLE FOR CLEANING.
- ④ NEW GRILLE/DIFFUSER. EXTEND RUNOUT AS NECESSARY TO LOCATE IN NEW CEILING GRID.
- ⑤ RE-BALANCE GRILLE/DIFFUSER TO NEW CFM INDICATED.
- ⑥ CONNECT NEW DUCTWORK TO EXISTING AT POINT INDICATED.
- ⑦ 8"x8" UP TO F-7 ON ROOF.
- ⑧ KITCHEN HOOD FIRE SUPPRESSION SYSTEM BY GENERAL CONTRACTOR.
- ⑨ GREASE DUCTWORK SHALL BE AS SPECIFIED. DUCT FITTINGS SHALL BE NO MORE THAN 45°. PROVIDE TRANSITION AS REQUIRED FOR FINAL CONNECTION TO HOOD.
- ⑩ 16"Ø UP TO F-6 ON ROOF.



FIRE WALL LEGEND	
-----	1-HOUR RATED FIRE BARRIER
-----	2-HOUR RATED FIRE WALL
-----	2-HOUR RATED FIRE BARRIER



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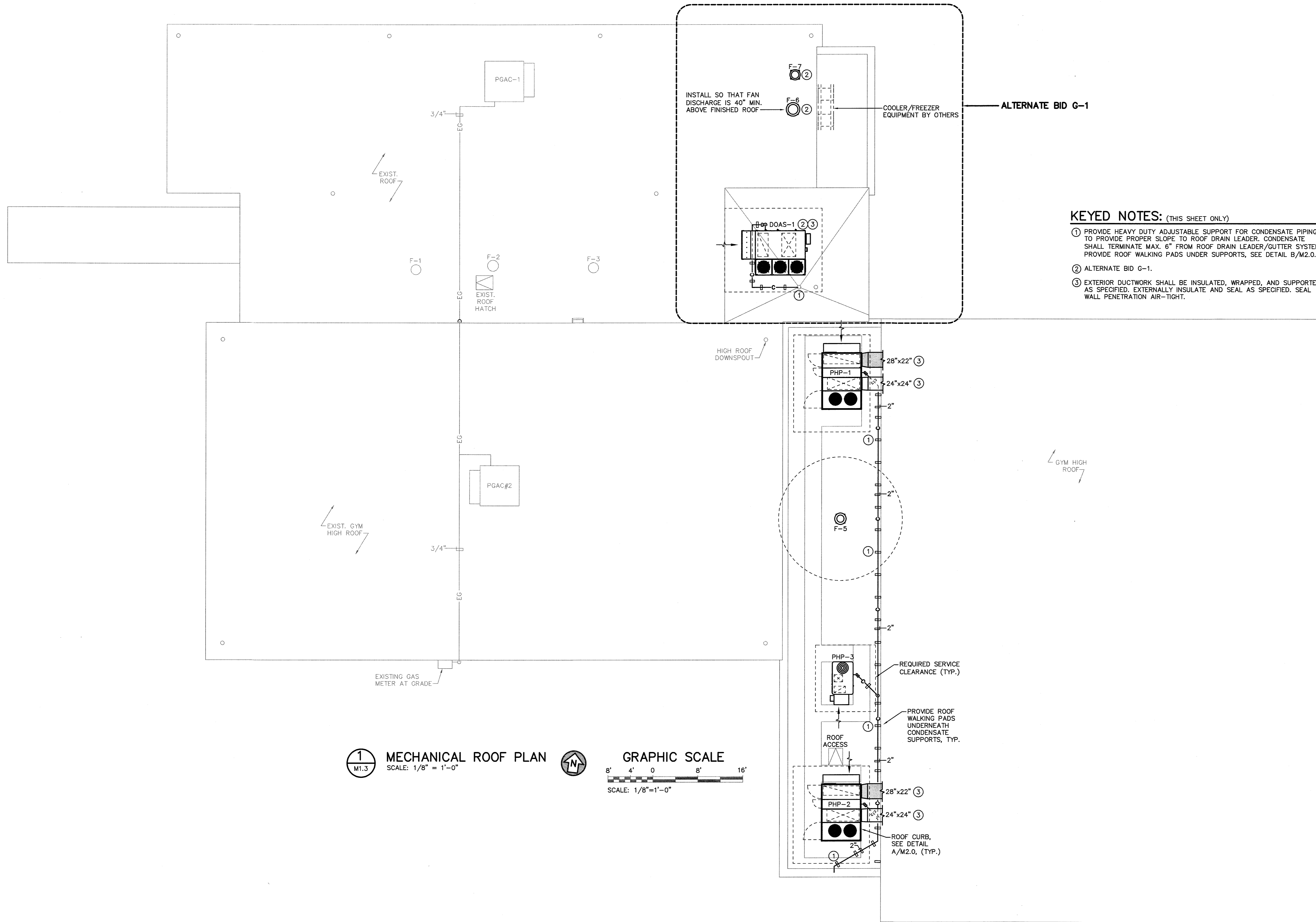
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MECHANICAL  
PLAN - ALTERNATE  
BID G-1

**M1.2**  
4 of 9  
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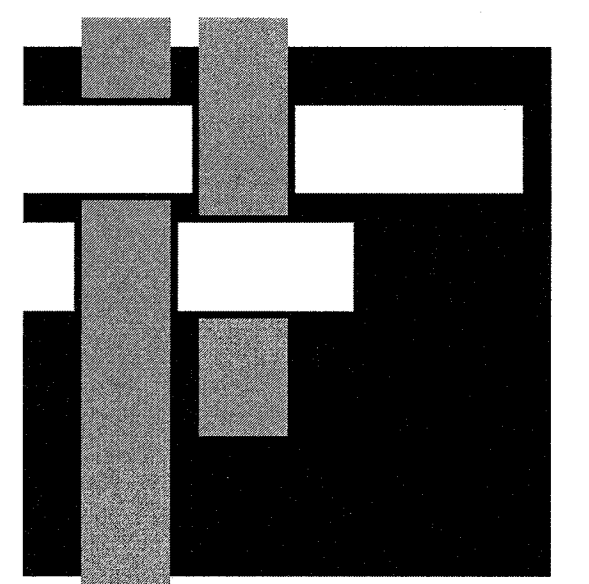




- KEYED NOTES: (THIS SHEET ONLY)**
- ① PROVIDE HEAVY DUTY ADJUSTABLE SUPPORT FOR CONDENSATE PIPING TO PROVIDE PROPER SLOPE TO ROOF DRAIN LEADER. CONDENSATE SHALL TERMINATE MAX. 6" FROM ROOF DRAIN LEADER/GUTTER SYSTEM. PROVIDE ROOF WALKING PADS UNDER SUPPORTS, SEE DETAIL B/M2.0.
  - ② ALTERNATE BID G-1.
  - ③ EXTERIOR DUCTWORK SHALL BE INSULATED, WRAPPED, AND SUPPORTED AS SPECIFIED. EXTERNALLY INSULATE AND SEAL AS SPECIFIED. SEAL WALL PENETRATION AIR-TIGHT.

① M1.3 MECHANICAL ROOF PLAN  
SCALE: 1/8" = 1'-0"

GRAPHIC SCALE  
8' 4' 0' 8' 16'  
SCALE: 1/8" = 1'-0"



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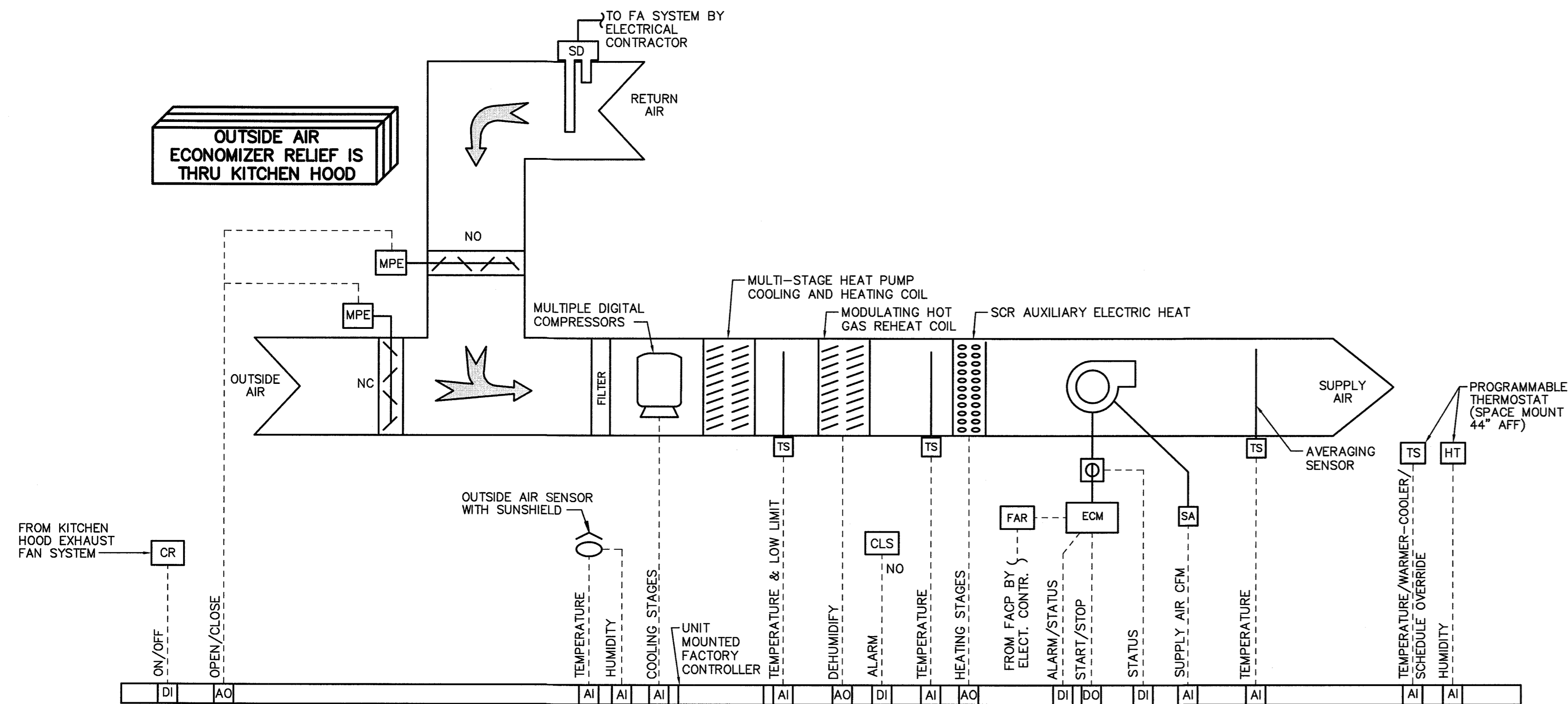
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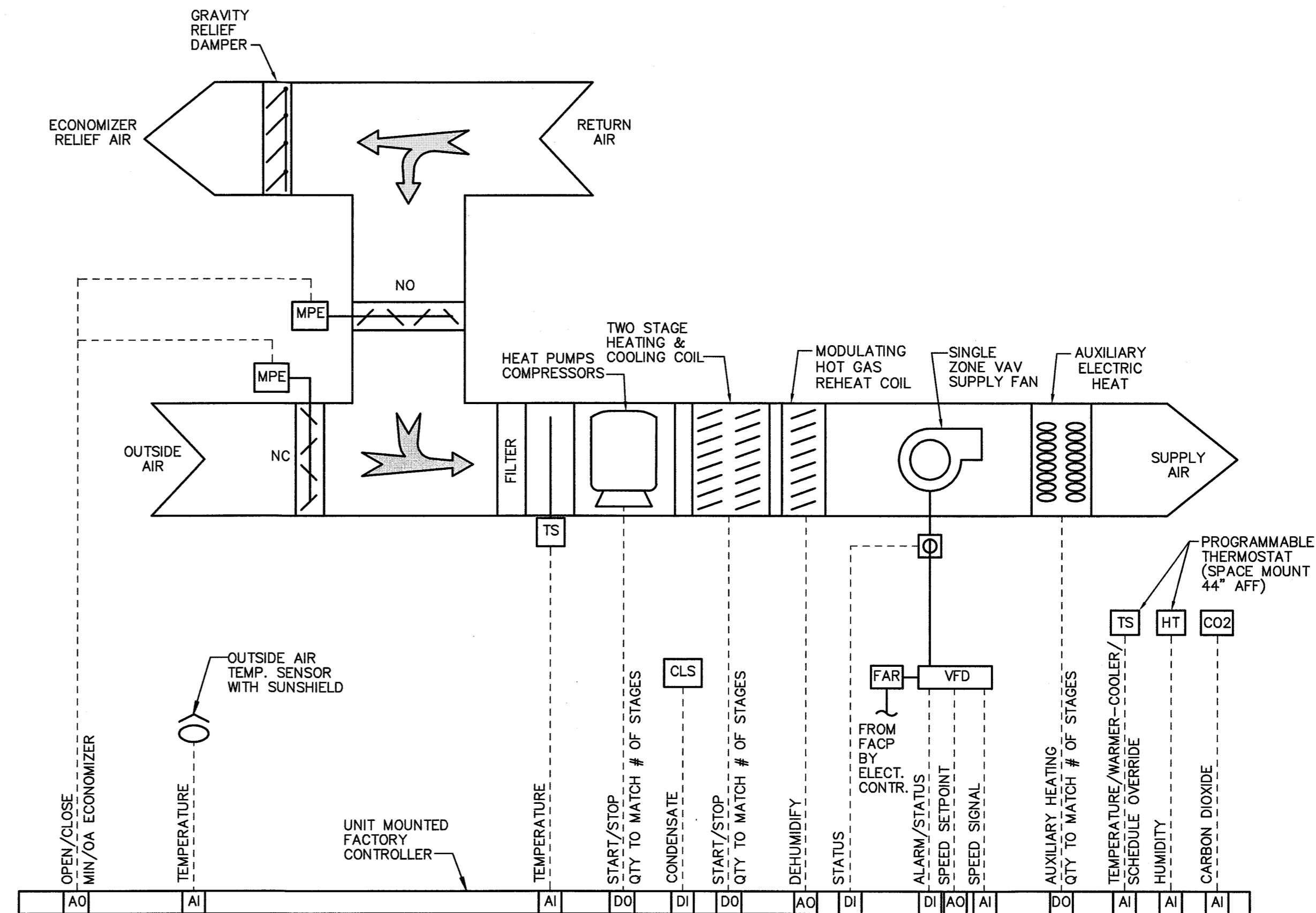
MECHANICAL  
ROOF PLAN





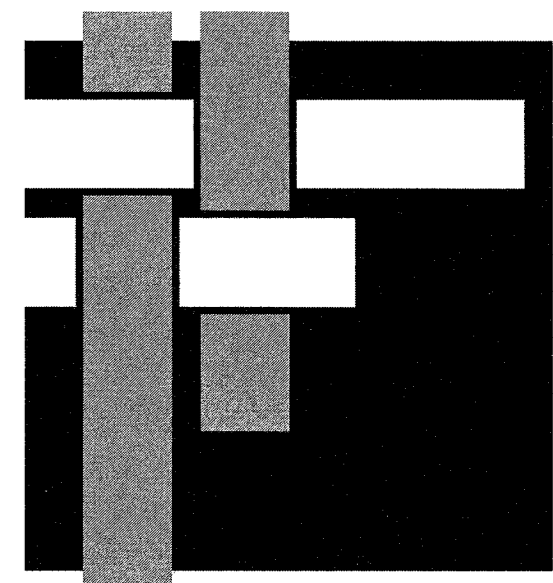
**DOAS-1 (ALTERNATE BID G-1)  
SEQUENCE OF OPERATION**

- A. OCCUPIED:**
- THE SUPPLY FAN SHALL OPERATE CONTINUOUSLY.
  - VENTILATION:
    - IF KITCHEN HOOD EXHAUST IS OFF, DOAS OUTSIDE AIR DAMPER AND RETURN AIR DAMPER SHALL OPEN TO POSITIONS FOR MINIMUM OUTSIDE AIR AIRFLOW.
    - IF KITCHEN HOOD EXHAUST FAN IS ON, DOAS OUTSIDE AIR DAMPER SHALL BE 100% OPEN, AND RETURN AIR DAMPER SHALL BE 100% CLOSED FOR DOAS TO BE 100% OUTSIDE AIR.
  - WHEN THE SPACE TEMPERATURE RISES ABOVE THE COOLING SETPOINT, THE COMPRESSORS SHALL OPERATE COOLING IN STAGES TO MAINTAIN SPACE TEMPERATURE SETPOINT.
  - WHEN THE SPACE TEMPERATURE FALLS BELOW THE HEATING SETPOINT, THE COMPRESSORS AND AUXILIARY ELECTRIC HEAT SHALL OPERATE HEATING IN STAGES AS NECESSARY TO MAINTAIN THE SPECIFIED SPACE TEMPERATURE SETPOINT.
- B. UNOCCUPIED:** DURING THE UNOCCUPIED MODE, THE UNIT SHALL BE ENERGIZED WHEN NEEDED TO MAINTAIN THE UNOCCUPIED OR NIGHT SETBACK SPACE TEMPERATURE SETPOINTS AND UNIT SUPPLY FAN SHALL BE ON TO OPERATE THE SAME AS IN OCCUPIED MODE. OUTDOOR AIR DAMPERS SHALL BE CLOSED, RETURN AIR DAMPER SHALL BE OPEN FULL FAN SPEED, COMPRESSORS AND AUXILIARY ELECTRIC HEAT SHALL OPERATE IN COOLING AND HEATING TO MAINTAIN SPACE TEMPERATURE SETPOINTS. UNIT AND FAN SHALL BE OFF WHEN THE SETPOINTS ARE SATISFIED. THE UNIT MAY BE RESET TO THE OCCUPIED MODE FOR A PREDETERMINED TIME PERIOD UPON A SIGNAL FROM THE THERMOSTAT.
- C. DE-HUMIDIFICATION:** IF THE SPACE RELATIVE HUMIDITY RISES ABOVE A LIMIT OF 65% RH (ADJUSTABLE), SYSTEM COOLING SHALL BE ENERGIZED AND SUPPLY AIR FAN SHALL BE AT FULL SPEED. MODULATING HOT GAS REHEAT SHALL OPERATE AS NECESSARY TO MAINTAIN THE SPACE TEMPERATURE AT COOLING SET POINT. WHEN THE HUMIDITY FALLS TO 50% RH (ADJUSTABLE), THE SYSTEM SHALL REVERT TO NORMAL MODE OF OPERATION.
- D. ECONOMIZER CYCLES:**
- DURING THE OCCUPIED PERIOD WHEN THERE IS A CALL FOR COOLING BASED ON SPACE TEMPERATURE AND OUTSIDE AIR DRY BULB TEMPERATURE IS 55° (ADJUSTABLE) OR LESS, ECONOMIZER MODE SHALL BE ENABLED. UNIT SHALL USE OUTDOOR AIR DAMPERS MODULATING OPEN OPEN TO 100%, AND RETURN AIR DAMPERS MODULATING CLOSED TO 100% TO SATISFY SPACE COOLING SETPOINT. IF OUTDOOR AIR DAMPERS ARE 100% OPEN AND SPACE TEMPERATURE RISES ABOVE THE COOLING SETPOINT, THE COMPRESSORS SHALL OPERATE IN COOLING.
- E. SAFETIES:**
- UPON LOW MIXED AIR TEMP DETECTION, ALL ACTIVE COOLING AND ECONOMIZING MODES SHALL BE DEENERGIZED IMMEDIATELY, THE OUTDOOR AIR DAMPERS SHALL CLOSE, RETURN AIR DAMPERS SHALL BE 100% OPEN, AND AN ALARM SHALL BE GENERATED.
  - UPON HIGH LEVELS OF CONDENSATE IN PAN, COOLING SHALL BE DEENERGIZED
  - UNITS SHALL DEENERGIZE IMMEDIATELY ON SIGNAL FROM FIRE ALARM SYSTEM.



**PACKAGED HEAT PUMP UNIT- SINGLE ZONE VAV, OA ECONOMIZER,  
DEMAND CONTROL VENTILATION - PHP-1 & PHP-2  
SEQUENCE OF OPERATION**

- A. OCCUPIED:**
- THE SUPPLY FAN SHALL OPERATE CONTINUOUSLY.
  - OUTSIDE AIR DAMPER AND RETURN AIR DAMPER SHALL OPEN TO POSITIONS FOR MINIMUM OUTSIDE AIR AIRFLOW.
  - WHEN THE SPACE TEMPERATURE RISES ABOVE THE COOLING SETPOINT, THE COMPRESSORS SHALL OPERATE COOLING IN STAGES AND SUPPLY AIR FAN SHALL ADJUST SPEED TO MAINTAIN SPACE TEMPERATURE SETPOINT.
  - WHEN THE SPACE TEMPERATURE FALLS BELOW THE HEATING SETPOINT, THE COMPRESSORS AND AUXILIARY ELECTRIC HEAT SHALL OPERATE HEATING IN STAGES AS NECESSARY TO MAINTAIN THE SPECIFIED SPACE TEMPERATURE SETPOINT AND SUPPLY AIR FAN SHALL BE AT FULL SPEED.
- B. UNOCCUPIED:** DURING THE UNOCCUPIED MODE, THE UNIT SHALL BE ENERGIZED WHEN NEEDED TO MAINTAIN THE UNOCCUPIED OR NIGHT SETBACK SPACE TEMPERATURE SETPOINTS AND UNIT SUPPLY FAN SHALL BE ON TO OPERATE THE SAME AS IN OCCUPIED MODE. OUTDOOR AIR DAMPERS SHALL BE CLOSED, RETURN AIR DAMPER SHALL BE OPEN FULL FAN SPEED, COMPRESSORS AND AUXILIARY ELECTRIC HEAT SHALL OPERATE IN COOLING AND HEATING TO MAINTAIN SPACE TEMPERATURE SETPOINTS. UNIT AND FAN SHALL BE OFF WHEN THE SETPOINTS ARE SATISFIED. THE UNIT MAY BE RESET TO THE OCCUPIED MODE FOR A PREDETERMINED TIME PERIOD UPON A SIGNAL FROM THE THERMOSTAT.
- C. DE-HUMIDIFICATION:** IF THE SPACE RELATIVE HUMIDITY RISES ABOVE A LIMIT OF 65% RH (ADJUSTABLE), SYSTEM COOLING SHALL BE ENERGIZED AND SUPPLY AIR FAN SHALL BE AT FULL SPEED. HOT GAS REHEAT SHALL MODULATE AS NECESSARY TO MAINTAIN THE SPACE TEMPERATURE AT COOLING SET POINT. WHEN THE HUMIDITY FALLS TO 50% RH (ADJUSTABLE), THE SYSTEM SHALL REVERT TO NORMAL MODE OF OPERATION.
- D. ECONOMIZER, DEMAND CONTROL VENTILATION, AND VENTILATION CYCLES:**
- DURING THE OCCUPIED PERIOD THE DAMPERS SHALL MAINTAIN MINIMUM VENTILATION RATE. RELIEF AIR DAMPER SHALL BE CLOSED. MINIMUM VENTILATION RATE IS INDICATED IN PACKAGED UNIT SCHEDULE ON THE DRAWINGS. THE OUTDOOR AIR DAMPER SHALL REMAIN CLOSED DURING UNOCCUPIED PERIODS AND UNOCCUPIED LOW/HIGH LIMIT CONDITIONS. DURING THE OCCUPIED PERIOD AND UPON SIGNAL FROM CO2 SENSOR RELATIVE TO ITS SETPOINT AS PART OF DEMAND CONTROL VENTILATION (DCV) SEQUENCE, THE DAMPERS SHALL BE REPOSITIONED TO MAINTAIN A GREATER VENTILATION RATE AT MINIMUM AND MAXIMUM SUPPLY FAN SPEED. DCV VENTILATION RATE IS INDICATED IN PACKAGED UNIT SCHEDULE ON THE DRAWINGS.
  - DURING THE OCCUPIED PERIOD WHEN THERE IS A CALL FOR COOLING BASED ON SPACE TEMPERATURE AND OUTSIDE AIR DRY BULB TEMPERATURE IS 55° (ADJUSTABLE) OR LESS, ECONOMIZER MODE SHALL BE ENABLED. UNIT SHALL USE OUTDOOR AIR DAMPERS AND RELIEF AIR DAMPERS MODULATING OPEN TO 100%, AND RETURN AIR DAMPERS MODULATING CLOSED TO 100% TO SATISFY SPACE COOLING SETPOINT. IF OUTDOOR AIR DAMPERS ARE 100% OPEN AND SPACE TEMPERATURE RISES ABOVE THE COOLING SETPOINT, THE COMPRESSORS SHALL OPERATE IN COOLING.
- E. SAFETIES:**
- UPON LOW MIXED AIR TEMP DETECTION, ALL ACTIVE COOLING, ECONOMIZING AND DEMAND CONTROL VENTILATION MODES SHALL BE DEENERGIZED IMMEDIATELY, THE OUTDOOR AIR DAMPERS SHALL CLOSE, RETURN AIR DAMPERS SHALL BE 100% OPEN, AND AN ALARM SHALL BE GENERATED.
  - UPON HIGH LEVELS OF CONDENSATE IN PAN, COOLING SHALL BE DEENERGIZED.
  - UNITS SHALL DEENERGIZE IMMEDIATELY ON SIGNAL FROM FIRE ALARM SYSTEM.



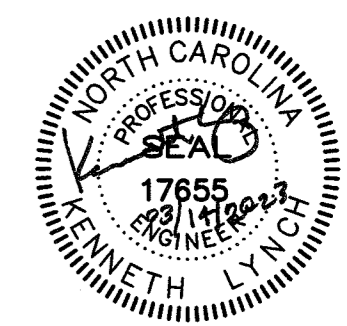
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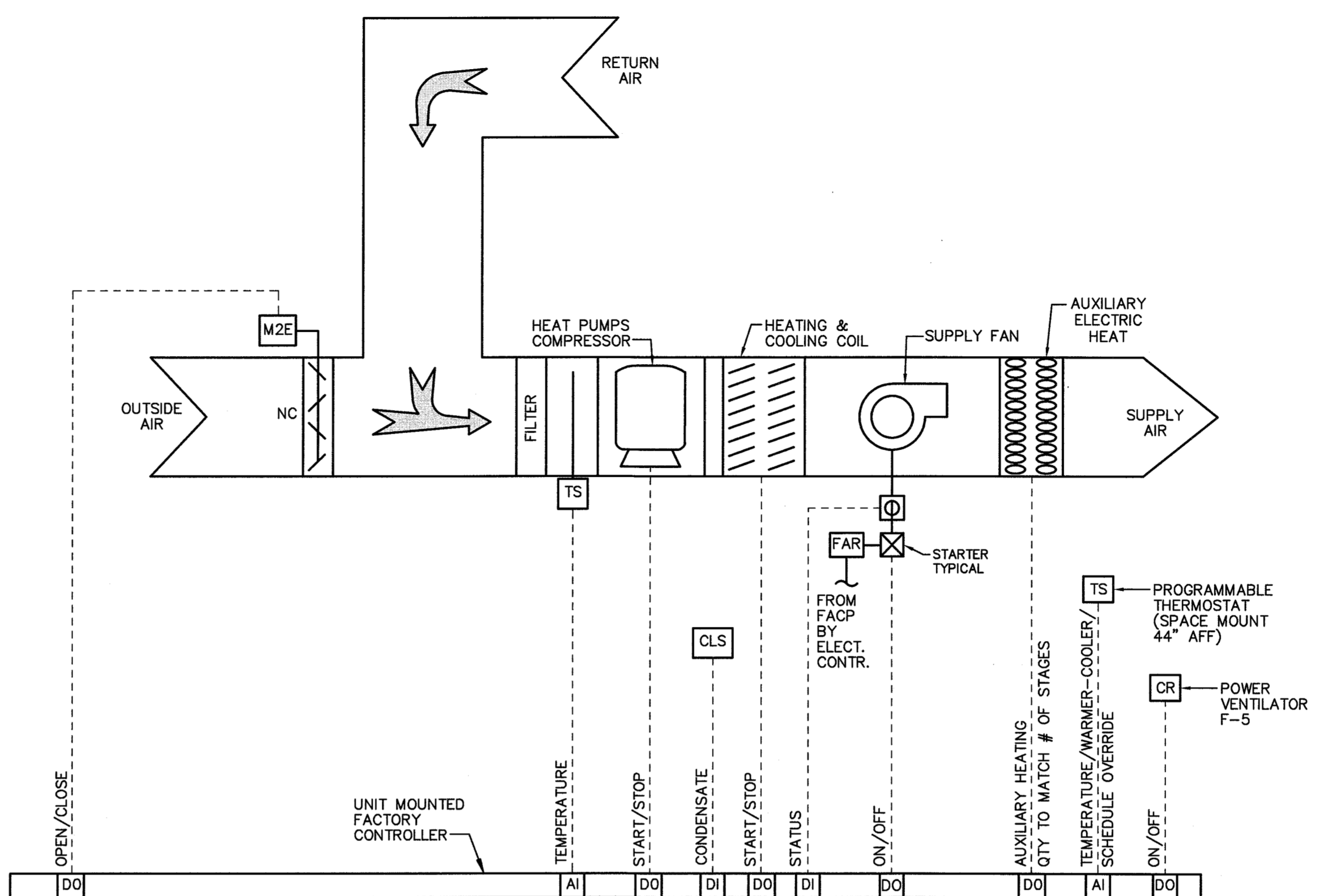
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MECHANICAL  
CONTROL  
DIAGRAMS

**M3.0**

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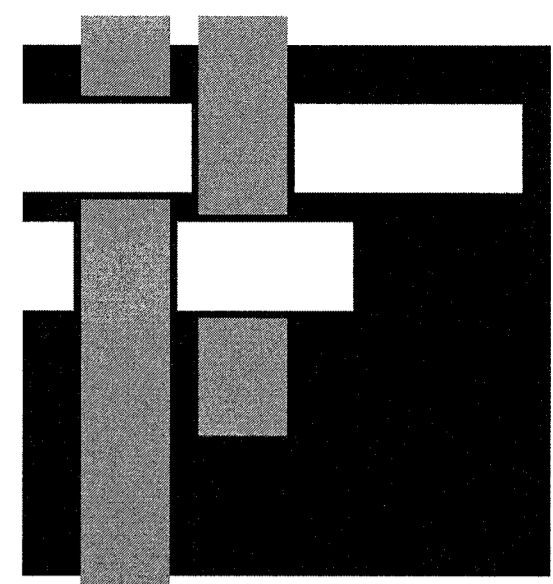
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PACKAGED HEAT PUMP UNIT – PHP-3

SEQUENCE OF OPERATION

- A. OCCUPIED:
1. THE SUPPLY FAN SHALL OPERATE CONTINUOUSLY.
  2. OUTSIDE AIR DAMPER SHALL OPEN TO POSITION FOR MINIMUM OUTSIDE AIR AIRFLOW.
  3. WHEN THE SPACE TEMPERATURE RISES ABOVE THE COOLING SETPOINT, THE COMPRESSOR SHALL OPERATE COOLING IN STAGES TO MAINTAIN SPACE TEMPERATURE SETPOINT.
  4. WHEN THE SPACE TEMPERATURE FALLS BELOW THE HEATING SETPOINT, THE COMPRESSORS AND AUXILIARY ELECTRIC HEAT SHALL OPERATE HEATING IN STAGES AS NECESSARY TO MAINTAIN THE SPECIFIED SPACE TEMPERATURE SETPOINT.
- B. UNOCCUPIED: DURING THE UNOCCUPIED MODE, THE UNIT SHALL BE ENERGIZED WHEN NEEDED TO MAINTAIN THE UNOCCUPIED OR NIGHT SETBACK SPACE TEMPERATURE SETPOINTS AND UNIT SUPPLY FAN SHALL BE ON TO OPERATE THE SAME AS IN OCCUPIED MODE. OUTDOOR AIR DAMPERS SHALL BE CLOSED, RETURN AIR DAMPER SHALL BE OPEN FULL FAN SPEED, COMPRESSORS AND AUXILIARY ELECTRIC HEAT SHALL OPERATE IN COOLING AND HEATING TO MAINTAIN SPACE TEMPERATURE SETPOINTS. UNIT AND FAN SHALL BE OFF WHEN THE SETPOINTS ARE SATISFIED. THE UNIT MAY BE RESET TO THE OCCUPIED MODE FOR A PREDETERMINED TIME PERIOD UPON A SIGNAL FROM THE THERMOSTAT.
- C. DE-HUMIDIFICATION: IF THE SPACE RELATIVE HUMIDITY RISES ABOVE A LIMIT OF 65% RH (ADJUSTABLE), SYSTEM COOLING SHALL BE ENERGIZED AND SUPPLY AIR FAN SHALL BE ON. AUXILIARY ELECTRIC HEAT SHALL OPERATE IN STAGES AS NECESSARY TO MAINTAIN THE SPACE TEMPERATURE AT COOLING SET POINT. WHEN THE HUMIDITY FALLS TO 50% RH (ADJUSTABLE), THE SYSTEM SHALL REVERT TO NORMAL MODE OF OPERATION.
- D. SAFETIES:
1. UPON LOW MIXED AIR TEMP DETECTION, ALL ACTIVE COOLING AND MODES SHALL BE DEENERGIZED IMMEDIATELY, THE OUTDOOR AIR DAMPERS SHALL CLOSE, AND AN ALARM SHALL BE GENERATED.
  2. UPON HIGH LEVELS OF CONDENSATE IN PAN, COOLING SHALL BE DEENERGIZED.
  3. UNITS SHALL DEENERGIZE IMMEDIATELY ON SIGNAL FROM FIRE ALARM SYSTEM.
- E. WHEN UNIT IS ON IN OCCUPIED MODE, POWER VENTILATOR F-5 SHALL ALSO BE ON. IF UNIT OPERATES IN UNOCCUPIED MODE, POWER VENTILATOR SHALL REMAIN OFF.



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JOB # 18044



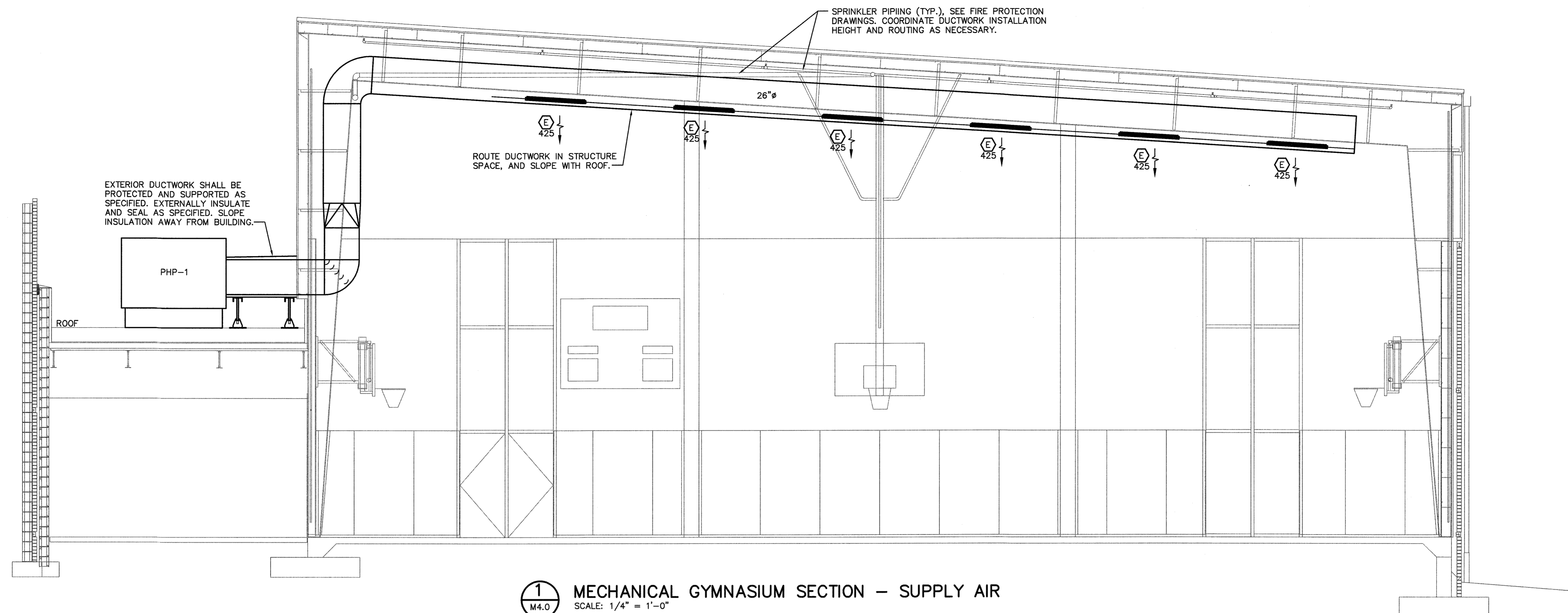
**MLK Center  
Addition &  
Renovation**  
401 S. 8th Street  
Wilmington, NC 28405

Construction Drawings  
March 22, 2023

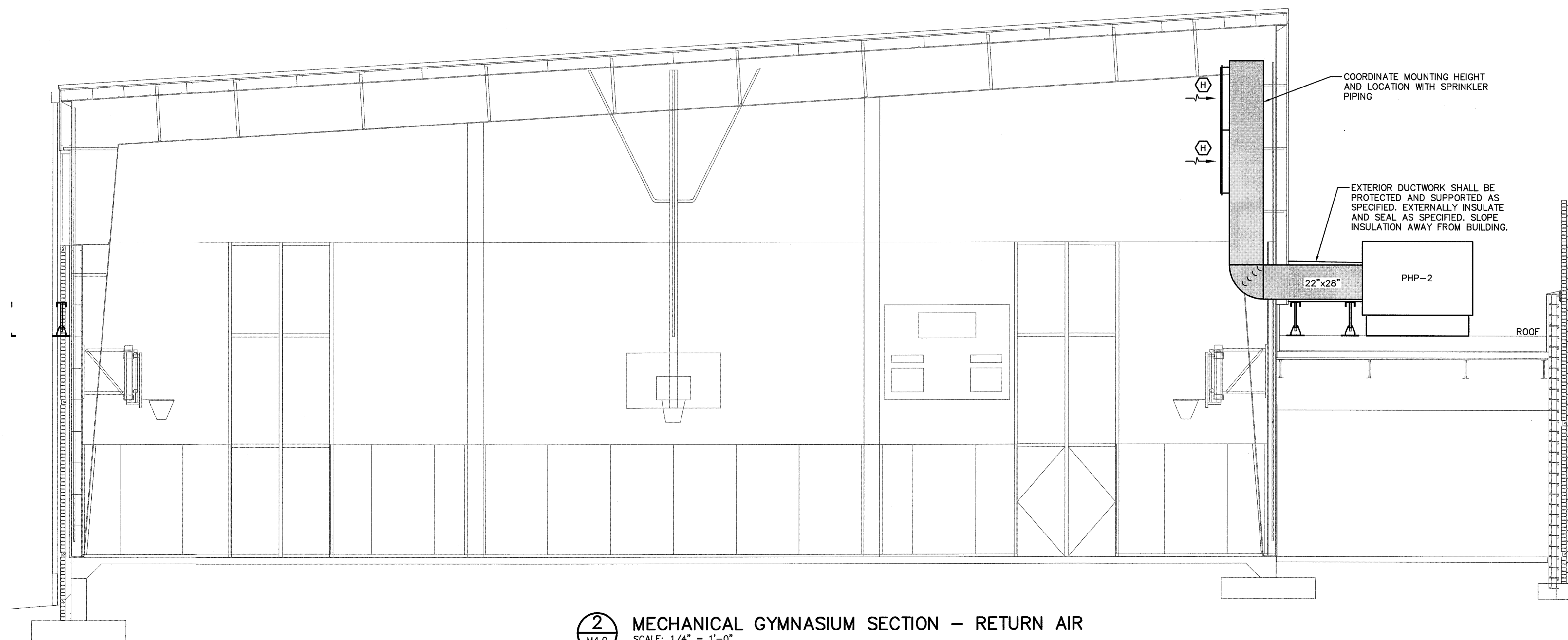
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MECHANICAL  
CONTROL  
DIAGRAMS

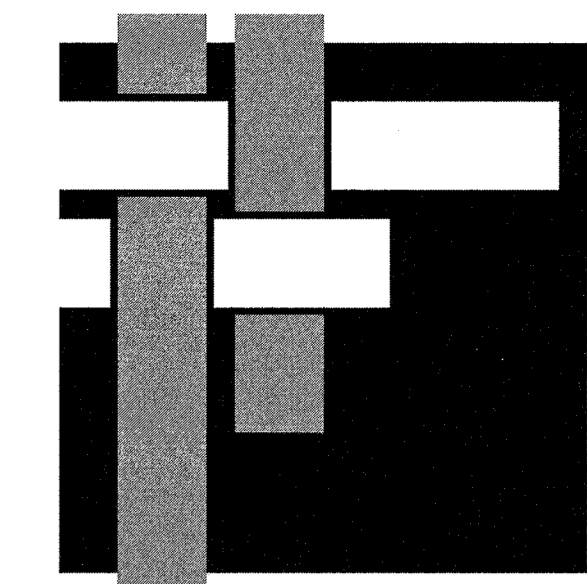
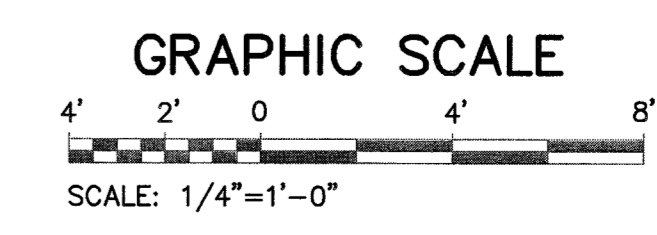
**M3.1**



**1** MECHANICAL GYMNASIUM SECTION – SUPPLY AIR  
 SCALE: 1/4" = 1'-0"



**2** MECHANICAL GYMNASIUM SECTION – RETURN AIR  
 SCALE: 1/4" = 1'-0"



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MECHANICAL  
 GYMNASIUM  
 SECTIONS

**M4.0**

9 of 9  
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ELECTRICAL NOTES

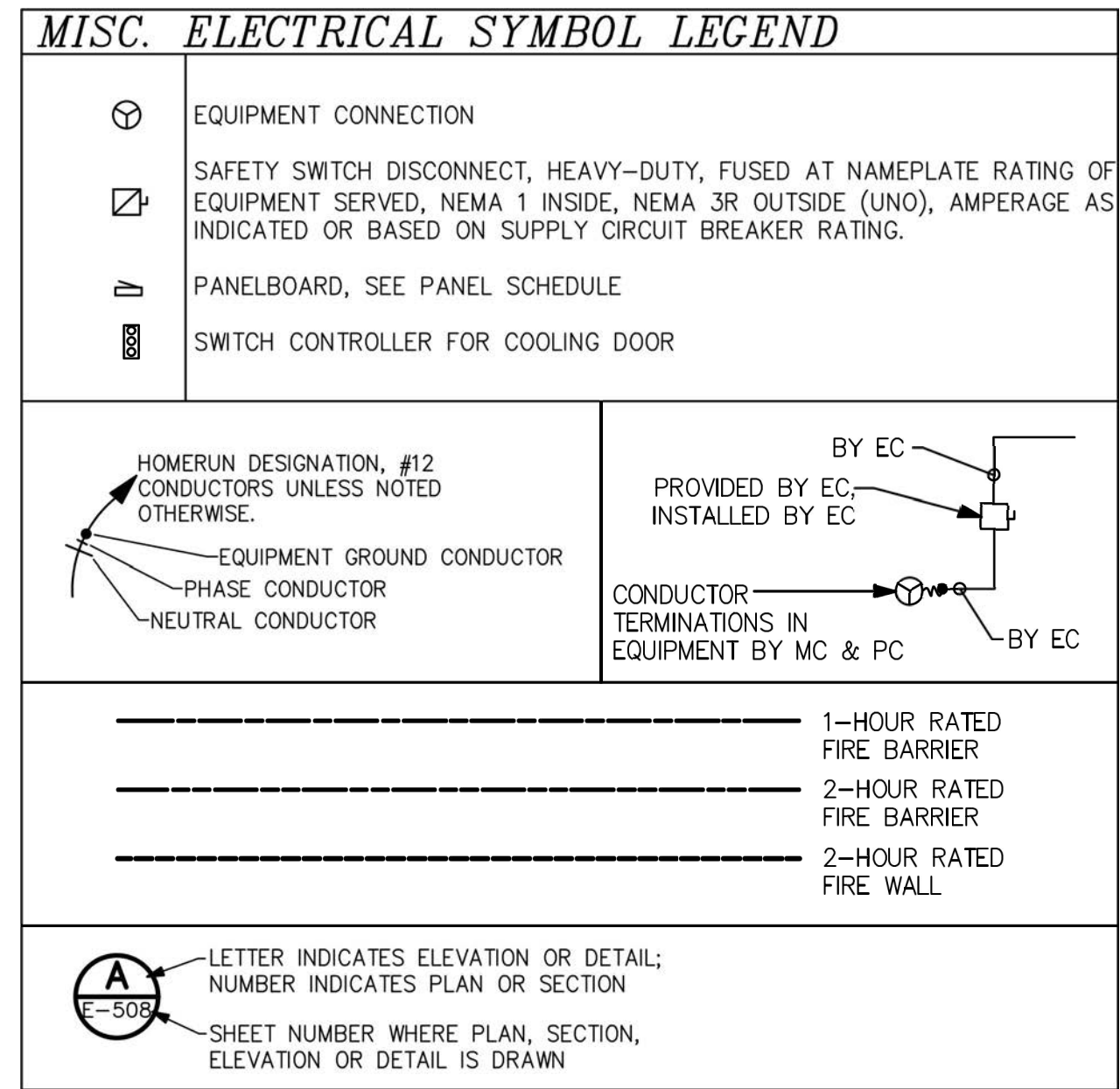
- ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND REQUIREMENTS OF THE LOCAL AUTHORITY HAVING JURISDICTION.
- PERMITS FOR ELECTRICAL WORK SHALL BE OBTAINED BY AND PAID BY THE ELECTRICAL CONTRACTOR. THE ELECTRICAL CONTRACTOR SHALL PAY FOR ANY ADDITIONAL FEES FOR INSPECTIONS, TESTS, AND OTHER SERVICES AS REQUIRED FOR THE COMPLETION OF THE WORK.
- THE ELECTRICAL CONTRACTOR AND ANY OF HIS SUBCONTRACTORS SHALL VISIT THE PROJECT SITE TO WITNESS EXISTING CONDITIONS AND BECOME FAMILIAR WITH THE SCOPE OF THE WORK REQUIRED PRIOR TO SUBMITTING PROPOSALS. WORK REQUIRED BY EXISTING JOB CONDITIONS NOT INDICATED ON DRAWINGS SHALL BE INCLUDED IN THE PROPOSALS.
- THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO RESULT IN THE PRODUCTION OF A COMPLETE AND FUNCTIONAL ELECTRICAL SYSTEM. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL MATERIAL, LABOR, EQUIPMENT, AND OTHER SERVICES AS NECESSARY TO COMPLETE THE WORK.
- DISCREPANCIES IN THE DRAWINGS AND SPECIFICATIONS THAT WILL AFFECT THE WORK SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER PRIOR TO SUBMITTING PROPOSALS.
- UNLESS NOTED OTHERWISE, ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND INCLUDE A 3RD PARTY LABEL (I.E.: UL, CSA, ETL, ETC.) LISTING APPROVAL FOR ITS INSTALLED APPLICATION.
- REVIEW PLANS OF OTHER TRADES FOR COORDINATION OF WORK AND FOR RELATED AND ADJOINING WORK.
- REVIEW COMPLETE PLAN SET FOR CONSTRUCTION TYPE, FINISHES, HEADROOM, ROOF FINISHES, CEILINGS, ETC. REVIEW COMPLETE PLAN SET FOR PROJECT PHASING AND STAGING. REVIEW COMPLETE PLAN SET FOR WORK COVERED BY ALTERNATE BID ITEMS.
- COORDINATE DEVICE AND EQUIPMENT MOUNTING HEIGHTS WITH OTHER DISCIPLINE DRAWINGS, CASEWORK DETAILS & SUBMITTALS, EQUIPMENT DETAILS & SUBMITTALS, ETC.
- PENETRATIONS OF FIRE-RATED WALLS, FLOORS, CEILINGS, AND PARTITIONS SHALL BE FIRE STOPPED IN ACCORDANCE WITH REQUIREMENTS OF THE STATE BUILDING CODE. COORDINATE WORK TO INSURE THAT FIRE STOPPING IS COMPLETED.
- PENETRATIONS OF EXTERIOR BUILDING WALLS, FLOORS, OR ROOFS SHALL BE SEALED WATERTIGHT. INTERIORS OF RACEWAY PENETRATIONS THROUGH EXTERIOR WALLS SHALL BE SEALED WITH NON-HARDENING ELECTRICAL PUTTY.
- CUTTING AND PATCHING TO INSTALL DEVICES AND EQUIPMENT SHALL BE PERFORMED WITH FINISHES RESTORED TO THEIR ORIGINAL CONDITION. SUCH WORK SHALL BE COMPLETED TO A DEGREE THAT IS ACCEPTABLE TO THE ARCHITECT, ENGINEER, AND/OR OWNER.
- COORDINATE PRECISE LOCATION OF HVAC EQUIPMENT WITH THE MECHANICAL CONTRACTOR.
- FOR HVAC EQUIPMENT, VERIFY CIRCUIT BREAKER RATINGS, FUSE RATINGS, AND WIRE SIZES. IF RATINGS DIFFER FROM THOSE INDICATED ON THE DRAWINGS, NOTIFY THE ARCHITECT, ENGINEER, AND OWNER FOR DIRECTION. PROVIDE OVERCURRENT PROTECTION IN ACCORDANCE WITH EQUIPMENT MANUFACTURER NAMEPLATE DATA. IF THE EQUIPMENT LISTING LABEL REQUIRES FUSED PROTECTION, ENSURE THAT FUSES IN A FUSED DISCONNECT SWITCH AT THE EQUIPMENT ARE SIZED AS INDICATED ON THE EQUIPMENT LABEL.
- VERIFY PROPER SIZING OF OVERLOAD DEVICES IN STARTERS BASED ON EQUIPMENT NAMEPLATE DATA.
- IF HORSEPOWER OR LOAD RATINGS OF EQUIPMENT DIFFER FROM THOSE INDICATED ON THE DRAWINGS, NOTIFY THE ARCHITECT, ENGINEER, AND OWNER FOR DIRECTION.
- PROVIDE NATIONAL ELECTRICAL CODE REQUIRED CLEARANCES FOR ALL ELECTRICAL EQUIPMENT. COORDINATE RESOLUTION OF CONFLICTS WITH OTHER TRADES.
- RECEPTACLE, SWITCH, DATA/TELEPHONE OUTLETS SHALL BE FLUSH MOUNTED IN FINISHED SPACES UNLESS OTHERWISE NOTED.
- PRIOR TO ORDERING LIGHT FIXTURES, CONTRACTOR SHALL VERIFY TYPE OF CEILING OR WALL BY REVIEW OF ARCHITECTURAL FINISH SCHEDULES AND PROVIDE SUITABLE TRIM AND APPURTENANCES TO MOUNT FIXTURES IN TYPE OF CEILING OR WALL INDICATED.
- RECESSED LIGHT FIXTURES INSTALLED IN CEILINGS WITH INSULATION (AS INDICATED IN ARCHITECTURAL PLANS, OR FOUND AS EXISTING CONDITIONS) SHALL BE U.L. RATED FOR DIRECT CONTACT WITH INSULATION.
- EXIT AND EMERGENCY LIGHTS SHALL BE CONNECTED TO THE NEAREST UNSWITCHED CIRCUIT THAT SERVES LIGHT FIXTURES WITHIN THE SAME SPACE.
- NO MOUNTING HARDWARE SHALL BE ATTACHED TO ROOF DECKS. ATTACHMENTS SHALL BE MADE TO THE ROOF SUPPORTING STRUCTURE.
- WHERE WORKING IN EXISTING BUILDINGS, FACILITIES, OR STRUCTURES; PROTECT AND MAINTAIN IN OPERATION EXISTING LIFE SAFETY SYSTEMS, PUBLIC ADDRESS SYSTEMS, ELECTRICAL SYSTEMS, ETC. IF SHUTDOWNS ARE REQUIRED, NOTIFY THE ARCHITECT, ENGINEER, AND OWNER FOR COORDINATION WELL IN ADVANCE OF ANY SYSTEM SHUTDOWN. WHERE AN OUTAGE OF EXTENDED DURATION IS NOT ACCEPTABLE TO THE OWNER, PROVIDE TEMPORARY CONNECTIONS AS REQUIRED TO MAINTAIN SERVICE.
- WHERE WORKING IN EXISTING BUILDINGS, FACILITIES, OR STRUCTURES; WORK MAY BE REQUIRED TO BE PERFORMED WHILE REMAINING OCCUPIED BY OWNER STAFF. WORK SHALL BE COORDINATED WITH THE OWNER TO MINIMIZE DISRUPTION TO THE OWNER.
- WHERE WORKING IN EXISTING BUILDINGS, FACILITIES, OR STRUCTURES; EXISTING ABANDONED CIRCUITS USED TO CONNECT NEW LOADS IN THE SAME AREA SHALL BE CLEARLY IDENTIFIED ON AS-BUILT MARK-UP DRAWINGS WITH REGARD TO PANEL-CIRCUIT AND CIRCUITRY ROUTING CONFIGURATION.
- ABANDONED CIRCUITRY (RACEWAY & CONDUCTORS) SHALL BE REMOVED IN ITS ENTIRETY FROM ITS SOURCE. ABANDONED LOW VOLTAGE CABLING SHALL BE REMOVED IN ITS ENTIRETY UNLESS OTHERWISE NOTED.
- PANEL BUS MATERIAL: COPPER.
- SHARED NEUTRAL CONDUCTORS SHALL NOT BE USED UNLESS SPECIFICALLY INDICATED SO ON HOMERUN CIRCUITRY DESIGNATIONS.
- PANEL BREAKER CONFIGURATIONS SHALL BE INSTALLED AS INDICATED ON THE PANEL SCHEDULES OR AS NOTED. BREAKER POSITION REVISIONS WILL NOT BE ACCEPTED UNLESS APPROVED IN WRITING BY THE ENGINEER.
- LOAD CIRCUITS SHALL BE INSTALLED AS INDICATED ON THE DRAWINGS. CIRCUITRY REVISIONS WILL NOT BE ACCEPTED UNLESS APPROVED IN WRITING BY THE ENGINEER.

ABBREVIATIONS

ADA	AMERICAN DISABILITIES ACT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIC	AMPS INTERRUPTING CAPABILITY
BKR	BREAKER
C	CONDUIT
C/B	CIRCUIT BREAKER
CLG	CEILING
CKT	CIRCUIT
CU	COPPER
DAHU	DUCTLESS AIR HANDLING UNIT
DHP	DUCTLESS HEAT PUMP
DIA	DIAMETER
DWG	DRAWING
EC	ELECTRICAL CONTRACTOR
EMT	ELECTRICAL METALLIC TUBING
ENCL	ENCLOSED
EXISTG	EXISTING
G	EQUIPMENT GROUND
GEC	GROUNDING ELECTRODE CONDUCTOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFEP	GROUND FAULT EQUIPMENT PROTECTION
GF	GROUND FAULT INTERRUPTER
HP	HEAT PUMP
HP	HORSEPOWER
K	KILO (THOUSAND)
LED	LIGHT EMITTING DIODE
LTC	LIGHTING
LTS	LIGHTS
MC	MECHANICAL CONTRACTOR
MCB	MAIN CIRCUIT BREAKER
MFR	MANUFACTURER
MLO	MAIN LUG ONLY
MSB	MAIN SWITCHBOARD
N/A	NOT APPLICABLE
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOC.
NTS	NOT TO SCALE
P	PHASE OR POLE
PC	PLUMBING CONTRACTOR
PH	PHASE
PHP	PACKAGED HEAT PUMP
PNL	PANEL
PV	PHOTOVOLTAIC
REC	RECEPTACLE
REQ.	REQUIRED
PRDA	REDUCED PRESSURE DETECTOR ASSEMBLY
SYS	SYSTEM
S/N	SOLID NEUTRAL
TYP	TYPICAL
UL	UNDERWRITERS LABORATORY
UNO	UNLESS NOTED OTHERWISE
UON	UNLESS OTHERWISE NOTED
V	VOLTS
VA	VOLT-AMPS
W	WATTS
W	WIRE
W/	WITH
WP	WEATHERPROOF

LOAD SUMMARY	EXISTING SERVICE	
	MLK CENTER	
12 Month Recorded Peak Demand (kW)	50.0	kW
25% Additional Load (NEC 220.87)	12.5	
Total (kW)	62.5	kW
Estimated Power Factor	85%	
kVA	73.5	kVA
Additional Connected Load (kVA)	346.1	kVA
Total Load (kVA)	419.6	kVA
Service Voltage	208	Volts
Amps @ Service Voltage	1164.8	Amps

EXISTING MSB IS RATED 1600 AMPS



APPENDIX B, BUILDING CODE SUMMARY ELECTRICAL SUMMARY

METHOD OF COMPLIANCE  
 -ENERGY CODE:  PRESORPTIVE  PERFORMANCE  
 -ASHRAE 90.1:  PRESORPTIVE  PERFORMANCE

LIGHTING SCHEDULE  
 Lamp Type Required in Fixtures  
 Number of Lamps in Fixtures  
 Ballast Types Used in Fixtures  
 Number of Ballasts Used in Fixtures  
 Total Wattage per Fixture  
 SEE LIGHT FIXTURE / LUMINAIRE SCHEDULE

TOTAL WATTAGE SPECIFIED VERSUS ALLOWED  
 Interior Specified: 5815 Watts Alternate Specified: 805 Watts Exterior Specified: 140 Watts  
 Interior Allowed: 8704 Watts Alternate Allowed: 1240 Watts Exterior Allowed: 420 Watts

ADDITIONAL METHOD OF COMPLIANCE:  
 C406.2 More Efficient HVAC Equipment Performance  
 C406.3 Reduced Lighting Power Density  
 C406.4 Enhanced Digital Lighting Controls  
 C406.5 On-Site Renewable Energy  
 C406.6 Dedicated Outdoor Air System  
 C406.7 Reduced Energy Use in Service Water Heating

DESIGNER STATEMENT  
 To the best of my knowledge and belief, the design of this building complies with the electrical systems and equipment requirements of the North Carolina State Building Code, Section 406 of the North Carolina Energy Conservation Code.

SIGNED: *Mark A. Ciarracca*  
 NAME: Mark A. Ciarracca, P.E.  
 TITLE: Engineer

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Digitally signed by  
 Mark A. Ciarracca  
 Date: 2023.03.22  
 15:49:48-04'00'

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 401 S. 8th Street  
 Wilmington, NC 28405

Construction Drawings  
 March 22, 2023

Revisions:  
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ELECTRICAL  
 NOTES, LEGEND,  
 LOAD SUMMARY

EO.1

<i>DATA &amp; TELEPHONE INFRASTRUCTURE OUTLET LEGEND</i>			
<i>SYMBOL</i>	<i>DESCRIPTION</i>	<i>MOUNTING</i>	<i>NOTES</i>
◁ SSI	SOUND SYSTEM INPUT JACK INFRASTRUCTURE	WALL, MTD 18" AFF	STUB 1" C TO SOUND SYSTEM OUTLET INDICATED
◁ SSS	SOUND SYSTEM SPEAKER INFRASTRUCTURE	WALL, COORDINATE MOUNTING HEIGHT WITH ARCHITECT	STUB 1" C TO SOUND SYSTEM OUTLET INDICATED
◁	DATA / TELEPHONE OUTLET	WALL, 18" AFF UNO; 5" SQUARE, 2.875" DEEP BOX, 64 CUBIC INCHES, WITH CABLE MANAGEMENT POSTS. DESIGN BASIS: STEEL CITY #82181T SERIES	STUB 1" C TO 6" ABOVE CEILING
⚡	DATA / TELEPHONE OUTLET	FLOOR, INTEGRAL TO POWER FLOOR BOX WITH DIVIDER SEPARATING POWER & COMMUNICATIONS	ROUTE (2) 1" C UNDERGROUND, TURN UP INTO STORAGE 201.

SEE MOUNTING HEIGHT DETAIL A/ES.1

<i>PA &amp; SECURITY LEGEND</i>			
<i>SYMBOL</i>	<i>DESCRIPTION</i>	<i>MOUNTING</i>	<i>NOTES</i>
📹	SECURITY CAMERA	4" SQUARE BOX RECESSED; STUB 3/4" C TO UTILITY 108	
📵	KEYPAD	SINGLE GANG BOX RECESSED; STUB 3/4" C TO 6" ABOVE ACCESSIBLE CEILING. INSTALL CABLE & INTEGRATE WITH EXSTG HONEYWELL VISTA SECURITY PANEL.	
👁️➔	MOTION DETECTOR, CORRIDOR COVERAGE	FOR WALL MOUNT, PROVIDE 4" SQUARE BOX RECESSED; STUB 3/4" C TO INDICATED LOCATION OR NEAREST ACCESSIBLE CEILING SPACE. INSTALL CABLE & INTEGRATE WITH EXSTG HONEYWELL VISTA SECURITY PANEL.	
🚒		EXISTING HONEYWELL VISTA 128-FBP SECURITY/FIRE ALARM PANEL	

<i>FIRE ALARM LEGEND</i>			
<i>SYMBOL</i>	<i>DESCRIPTION</i>	<i>MOUNTING</i>	
🔔	24V ELECTRIC ALARM BELL	WALL	
🔌	CONTROL / RELAY MODULE	WALL / CEILING	
🚪	DOOR HOLDER, MAGNETIC		
🔍	DUCT DETECTOR - PROVIDED BY FIRE ALARM VENDOR	BY MECH CONTRACTOR	
📻	EMERGENCY RESPONDER RADIO COMMUNICATION SYSTEM	WALL	
📻	EMERGENCY RESPONDER RADIO COMMUNICATION SYSTEM REMOTE ANNUNCIATOR	WALL	
🔌	FIRE ALARM CONTROL PANEL		
🔥	HEAT DETECTOR	CEILING	
📡	MONITOR MODULE FOR FLOW SWITCH	WALL	
📡	MONITOR MODULE FOR COOKING EXHAUST HOOD FIRE SUPPRESSION SYSTEM	WALL / CEILING	
📡	MONITOR MODULE FOR TAMPER SWITCH	WALL	
📡	MONITOR MODULE WITH SURGE SUPPRESSOR FOR CONNECTION OF EXTERNAL CIRCUITRY	WALL	
📡	MONITOR MODULE FOR MONITORING A DRY CONTACT CLOSURE DEVICE	WALL/CEILING	
📡	MONITOR MODULE FOR MONITORING SHUNT TRIP CONTROL POWER	WALL / CEILING	
🔌	POST INDICATOR VALVE TAMPER SWITCH		
🚪	PULL STATION	WALL	
🔌	FIRE ALARM SYSTEM REMOTE ANNUNCIATOR	WALL	
🔍	REMOTE INDICATOR WITH TEST SWITCH FOR DUCT DETECTOR	CEILING / WALL	
🔥	SMOKE DETECTOR	CEILING	
🔌	SURGE SUPPRESSOR		
🔌	TAMPER SWITCH		

<i>FIRE ALARM NOTIFICATION LEGEND</i>			
<i>SYMBOL</i>	<i>DESCRIPTION</i>	<i>MOUNTING</i>	
🔔 <sub>15</sub>	HORN/STROBE, 15 CANDELA	CEILING	
🔔 <sub>30</sub>	HORN/STROBE, 30 CANDELA	CEILING	
🔔 <sub>75</sub>	HORN/STROBE, 75 CANDELA	CEILING	
🔔 <sub>115</sub>	HORN/STROBE, 115 CANDELA	CEILING	
🔔 <sub>15</sub>	STROBE, 15 CANDELA	CEILING	
🔔 <sub>115</sub>	HORN/STROBE, 115 CANDELA	WALL	
🔔 <sub>15</sub>	STROBE, 15 CANDELA	WALL	
🔔 <sub>30</sub>	STROBE, 30 CANDELA	WALL	

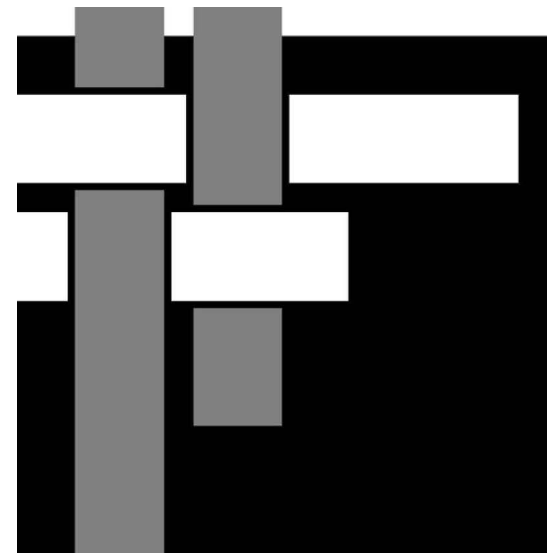
<i>KITCHEN RECEPTACLE LEGEND</i>				
<i>SYMBOL</i>	<i>NEMA</i>	<i>VOLTS</i>	<i>DESCRIPTION</i>	
🔌	5-15P	120V 1P 2W	DUPLEX FOR PREPARATION REFRIGERATOR, MTD 18" AFF, SUPPLY FROM GFCI TYPE C/B	
🔌	5-15P	120V 1P 2W	DUPLEX FOR RANGE, MTD 18" AFF, PROVIDE DEAD FRONT GFCI DEVICE BESIDE PANEL PP3 FOR GFCI PROTECTION FOR CIRCUIT. SUPPLY FROM SHUNT TRIP TYPE C/B	
🔌	5-15P	120V 1P 2W	DUPLEX FOR REACH-IN FREEZER, MTD 18" AFF, SUPPLY FROM GFCI TYPE C/B	
🔌	5-15P	120V 1P 2W	DUPLEX FOR HEAVY-DUTY REFRIGERATED CHEF BASE, MTD 18" AFF, SUPPLY FROM GFCI TYPE C/B	
🔌	5-15P	120V 1P 2W	DUPLEX FOR UNDERCOUNTER FREEZER, MTD 18" AFF, SUPPLY FROM GFCI TYPE C/B	
🔌	5-15P	120V 1P 2W	DUPLEX FOR UNDERCOUNTER REFRIGERATOR, MTD 18" AFF, SUPPLY FROM GFCI TYPE C/B	
🔌		120V 1P 2W	POWER FOR COOLER LTG	
🔌		120V 1P 2W	POWER FOR FREEZER LTG	
🔌		120V 1P 2W	POWER FOR ICE MAKER	
🔌		208V 2P 2W	POWER FOR UNDERCOUNTER DISHWASHER	

<i>RECEPTACLE LEGEND</i>				
<i>SYMBOL</i>	<i>NEMA</i>	<i>VOLTS</i>	<i>DESCRIPTION</i>	
🔌	5-20R	120V 1P 2W	DUPLEX, MTD 18" AFF UNO	
🔌	5-20R	120V 1P 2W	DUPLEX GFCI, MTD 6" ABOVE COUNTER OR 6" ABOVE BACKSPASH IF APPLICABLE. CONTRACTOR TO COORDINATE WITH ARCHITECTURAL BACKSPASH DETAILS.	
🔌	5-20R	120V 1P 2W	DUPLEX; SUPPLY FROM GFCI TYPE C/B, MTD 6" ABOVE COUNTER OR 6" ABOVE BACKSPASH IF APPLICABLE. CONTRACTOR TO COORDINATE WITH ARCHITECTURAL BACKSPASH DETAILS.	
🔌	5-20R	120V 1P 2W	DUPLEX GFCI, MTD 18" AFG UNO; LISTED WEATHER-RESISTANT TYPE; PROVIDE CAST ALUMINUM WEATHERPROOF IN-USE COVER WITH CAST ALUMINUM FD WEATHERPROOF BOX	
🔌	5-20R	120V 1P 2W	DUPLEX GFCI, MTD 18" AFF UNO	
🔌	5-20R	120V 1P 2W	DUPLEX FOR HOT BOX HEATER; LISTED WEATHER-RESISTANT TYPE; PROVIDE CAST ALUMINUM WEATHERPROOF IN-USE COVER WITH CAST ALUMINUM FD WEATHERPROOF BOX. COORDINATE MTG HEIGHT WITH ENCLOSURE PROVIDED; SUPPLY FROM GFEP C/B (30mA).	
🔌	5-20R	120V 1P 2W	DUPLEX GFCI, MTD 18" ABOVE ROOF LEVEL (UNO) FOR EQUIPMENT MAINTENANCE USE; LISTED WEATHER-RESISTANT TYPE; PROVIDE CAST ALUMINUM WEATHERPROOF IN-USE COVER WITH CAST ALUMINUM FD WEATHERPROOF BOX	
🔌		120V 1P 2W	120V FOR SCOREBOARD, FLUSH MOUNTED SINGLE GANG BOX. MTD 16"-4" AFF. COORDINATE LOCATION WITH ARCHITECT.	
📻		120V 1P 2W	POWER FOR EMERGENCY RESPONDER RADIO COVERAGE SYSTEM	
🔌		120V 1P 2W	POWER FOR FIRE ALARM CONTROL PANEL	
🔌		120V 1P 2W	120V FOR EXH HOOD CONTROL POWER; COORDINATE CONNECTION LOCATION WITH HOOD VENDOR/INSTALLER	
🔌		120V 1P 2W	POWER FOR SHUNT TRIP CIRCUITRY	
🔌	5-20R	120V 1P 2W	QUAD FOR ELECTRIC WATER COOLER OUTLET; COORDINATE MTG LOCATION TO CONCEAL OUTLET WHEN COOLER IS INSTALLED; SUPPLY FROM GFCI TYPE C/B.	
🔌	5-20R	120V 1P 2W	QUAD, MTD IN FLUSH FLOOR BOX; SEE AUX SYS PLANS FOR SHARED BOX; PROVIDE DIVIDER FOR POWER SEPARATION FROM VOICE/DATA	

SEE MOUNTING HEIGHT DETAIL A/ES.1

<i>SWITCH LEGEND</i>		
<i>SYMBOL</i>	<i>DESCRIPTION</i>	<i>NOTES</i>
🔌	DIMMER SWITCH	RATED FOR VOLTAGE WHERE APPLIED, 1200W; MTD 42" AFF UNO
🔌	KEYED SWITCH FOR UP/DOWN CONTROL	RATED FOR VOLTAGE AND AMPERAGE WHERE APPLIED; MTD 42" AFF UNO COVER DESIGN BASIS: BELL#5128-0 SINGLE GANG, BELL #5125-0 DOUBLE GANG OR BELL #5126-0 3-GANG
🔌	KEYED SWITCH	RATED FOR VOLTAGE AND AMPERAGE WHERE APPLIED; MTD 42" AFF UNO. SECOND POLE IS TO SWITCH THE NEUTRAL CONDUCTOR. COVER DESIGN BASIS: BELL#5128-0 SINGLE GANG, BELL #5125-0 DOUBLE GANG OR BELL #5126-0 3-GANG
🔌	OCCUPANCY SENSOR WALL SWITCH, SINGLE CKT, DUAL TECHNOLOGY	RATED FOR VOLTAGE WHERE APPLIED, 20A; MTD 42" AFF UNO
🔌	OCCUPANCY SENSOR, LOW VOLTAGE, DUAL TECHNOLOGY; CEILING MTD	INCORPORATE POWER PACK FOR CIRCUITRY SWITCHING, SEE WIRING DIAGRAMS
🔌	PHOTOCELL, EXTERIOR	MOUNT ON NORTH FACE OF BLDG, FACING NORTH
🔌	TOGGLE SWITCH, SINGLE POLE	RATED FOR VOLTAGE WHERE APPLIED, 20A; MTD 42" AFF UNO; WHERE USED AS AN EQUIPMENT DISCONNECT, PROVIDE LOCKABLE TYPE COVER.
🔌	TOGGLE SWITCH, SINGLE POLE	RATED FOR VOLTAGE WHERE APPLIED, 20A; MTD 42" AFF UNO; PROVIDE 3-GANG COVER FOR 3 SWITCHES, DESIGN BASIS: BELL OUTDOOR #5126-0
🔌	3-WAY SWITCH	RATED FOR VOLTAGE WHERE APPLIED, 20A; MTD 42" AFF UNO

SEE MOUNTING HEIGHT DETAIL A/ES.1



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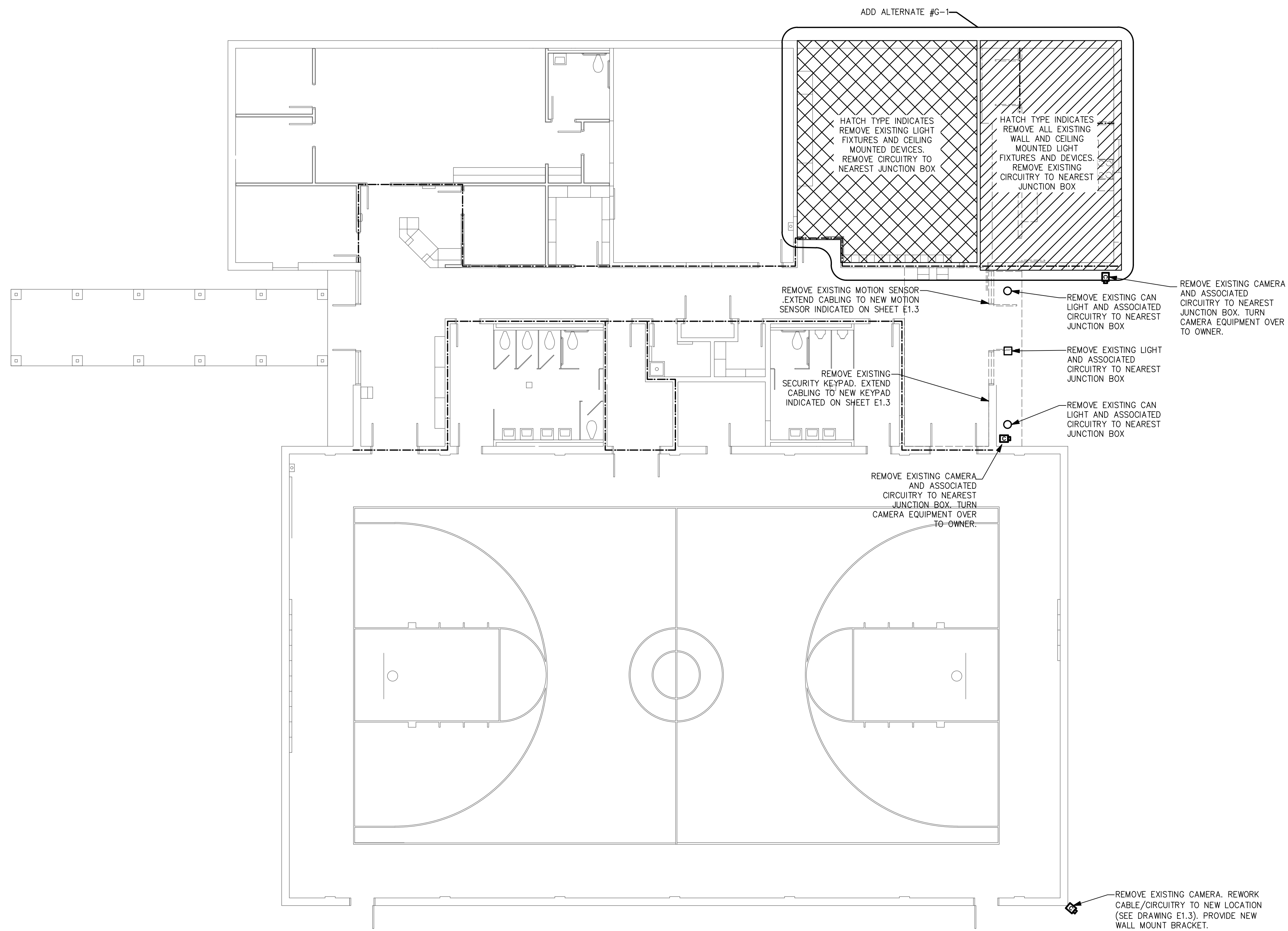
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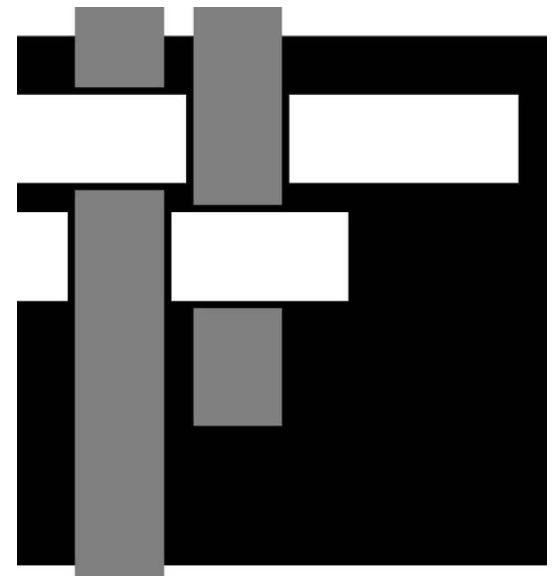
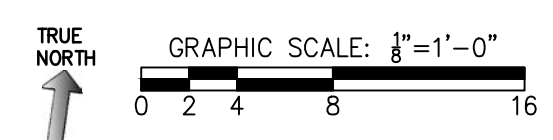
Revisions:  
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**ELECTRICAL LEGENDS**

**E0.2**



**1** ELECTRICAL DEMOLITION PLAN  
 ED1.0  
 SCALE: 1/8" = 1'-0"



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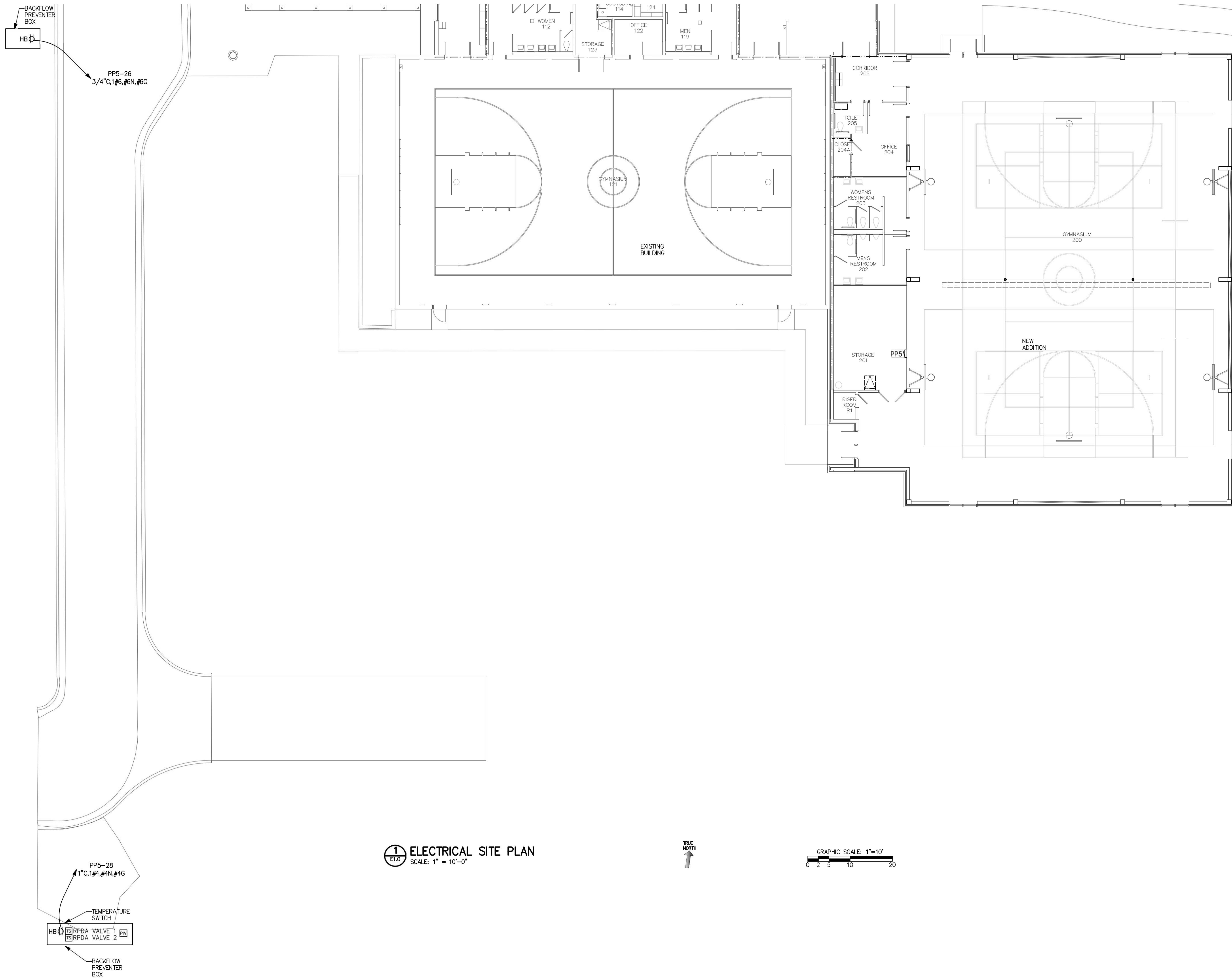
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 DEMOLITION PLAN

**ED1.0**

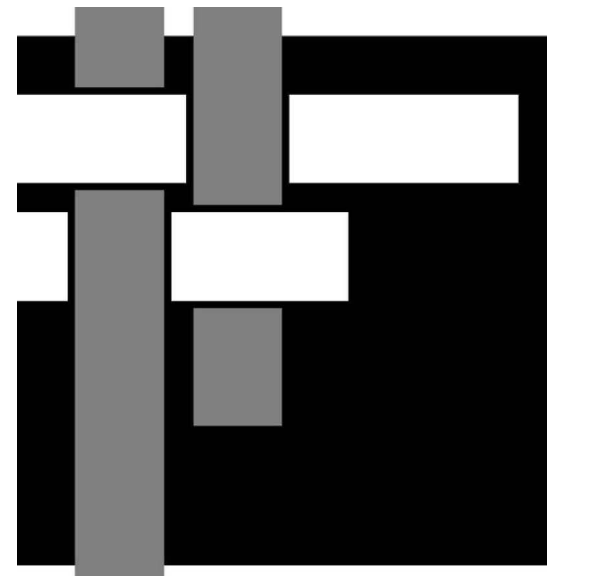
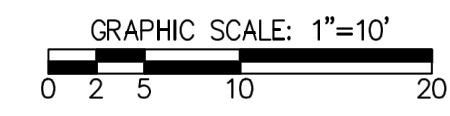
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I:\BIM\Comm\MLK Center\Gymnasium\Address\MLK2023\304401 ELEC DEMO PLAN.dwg





**1** ELECTRICAL SITE PLAN  
SCALE: 1" = 10'-0"



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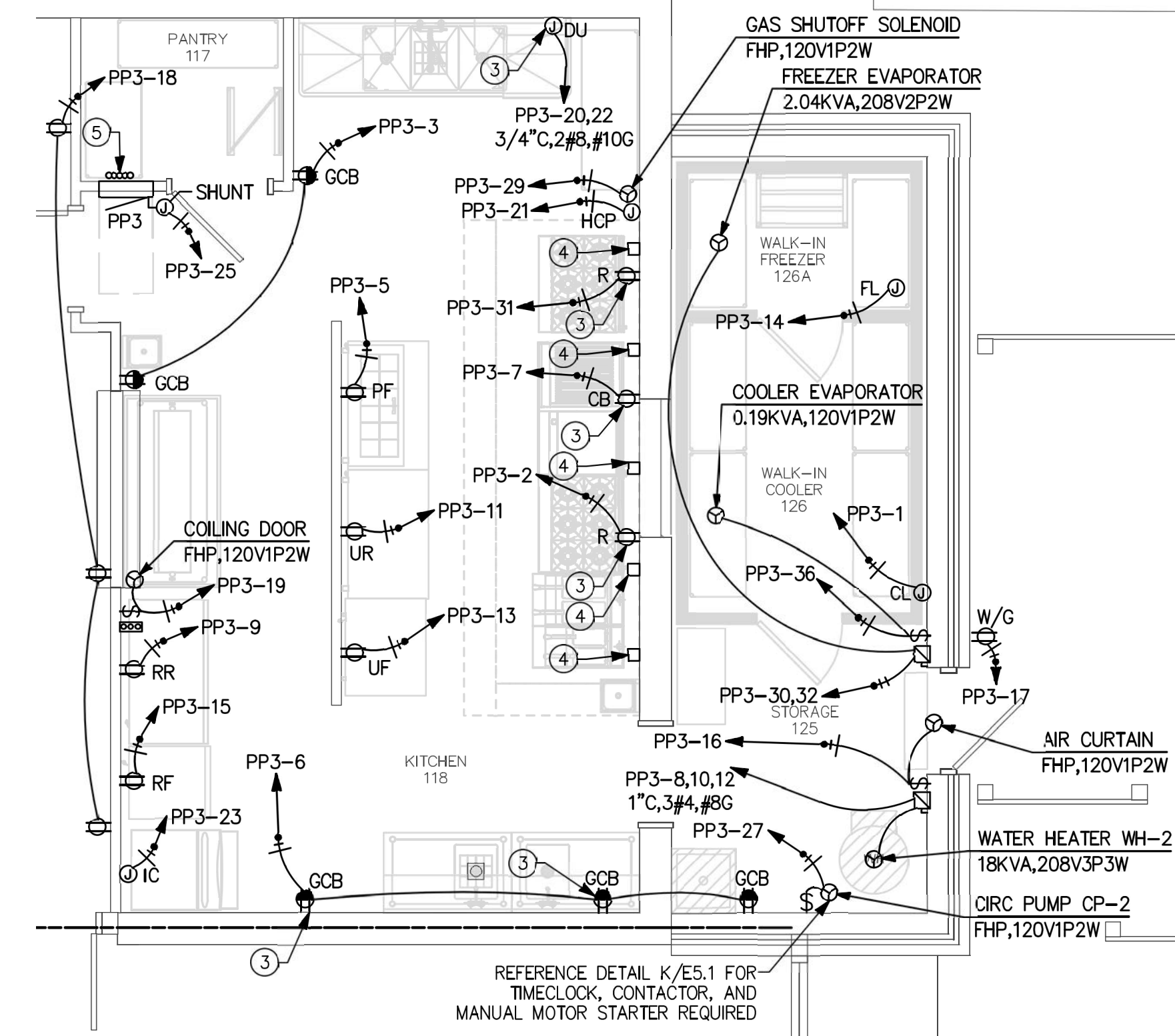
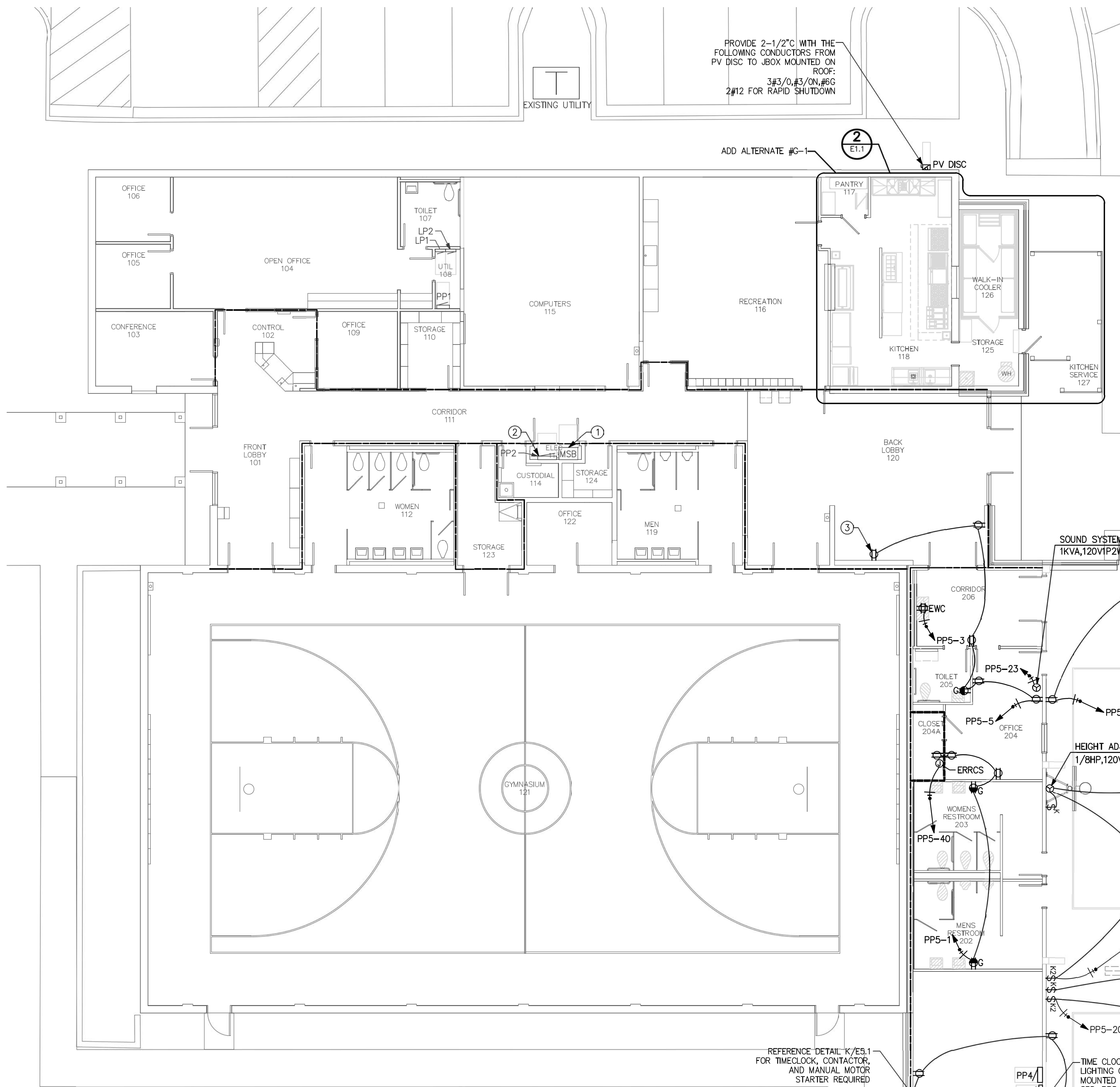
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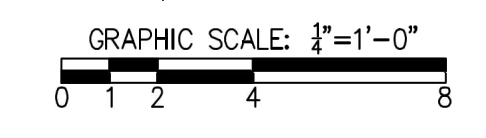
Revisions:


**ELECTRICAL  
SITE PLAN**

**E1.0**

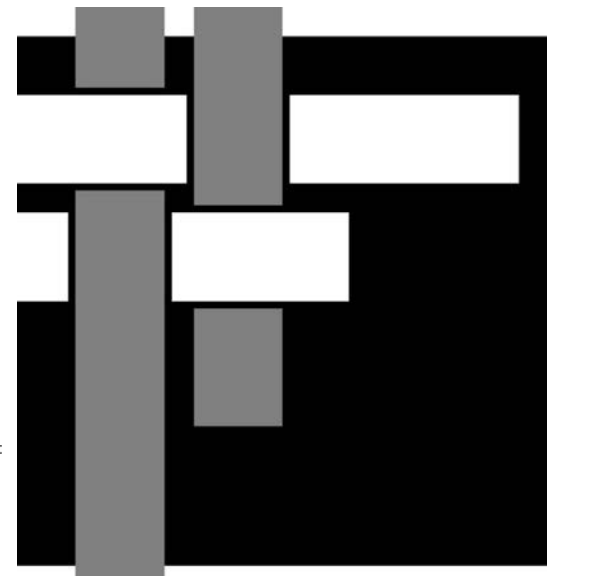


**2 ELECTRICAL ALTERNATE #G-1 PLAN**  
SCALE: 1/4" = 1'-0"



- KEYED NOTES:**
- EXISTING SWITCHBOARD "MSB"; SQUARE D I LINE TYPE, 120/208V 3P4W. PROVIDE THE FOLLOWING BREAKERS:
    - 3P 800AMP BREAKER IN SPACE 4 TO SUPPLY NEW PANEL "PP4".
    - 3P 200AMP BREAKER IN SPACE 1 TO CONNECT NEW PV FEEDER.
  - EXISTING PANEL "PP2"; SQUARE D I LINE TYPE, 120/208V 3P4W. PROVIDE NEW 3P 225AMP BREAKER IN SPACES 24,26,28 TO SUPPLY NEW PANEL "PP3". - ADD ALTERNATE #G-1
  - EXISTING CMU WALL. CUT AND PATCH WALL AS REQUIRED TO RECESS CONDUIT AND BOX IN WALL.
  - PROVIDE SPARE JUNCTION BOX MOUNTED 18" AFF IN EXISTING CMU WALL. CUT AND PATCH WALL AS REQUIRED TO RECESS CONDUIT AND BOX IN WALL. PROVIDE BLANK COVER. CUT AND PATCH CONCRETE SLAB AS REQUIRED TO ROUTE (1) 1-1/4" UNDERGROUND FROM BOX TO STUB UP LOCATION INDICATED IN PANTRY 117. - ADD ALTERNATE #G-1
  - LOCATION FOR (5) CONDUIT STUB UPS INDICATED BY KEYED NOTE 4. CAP CONDUITS 6" AFF. ADD ALTERNATE #G-1

**1 ELECTRICAL POWER PLAN**  
SCALE: 1/8" = 1'-0"



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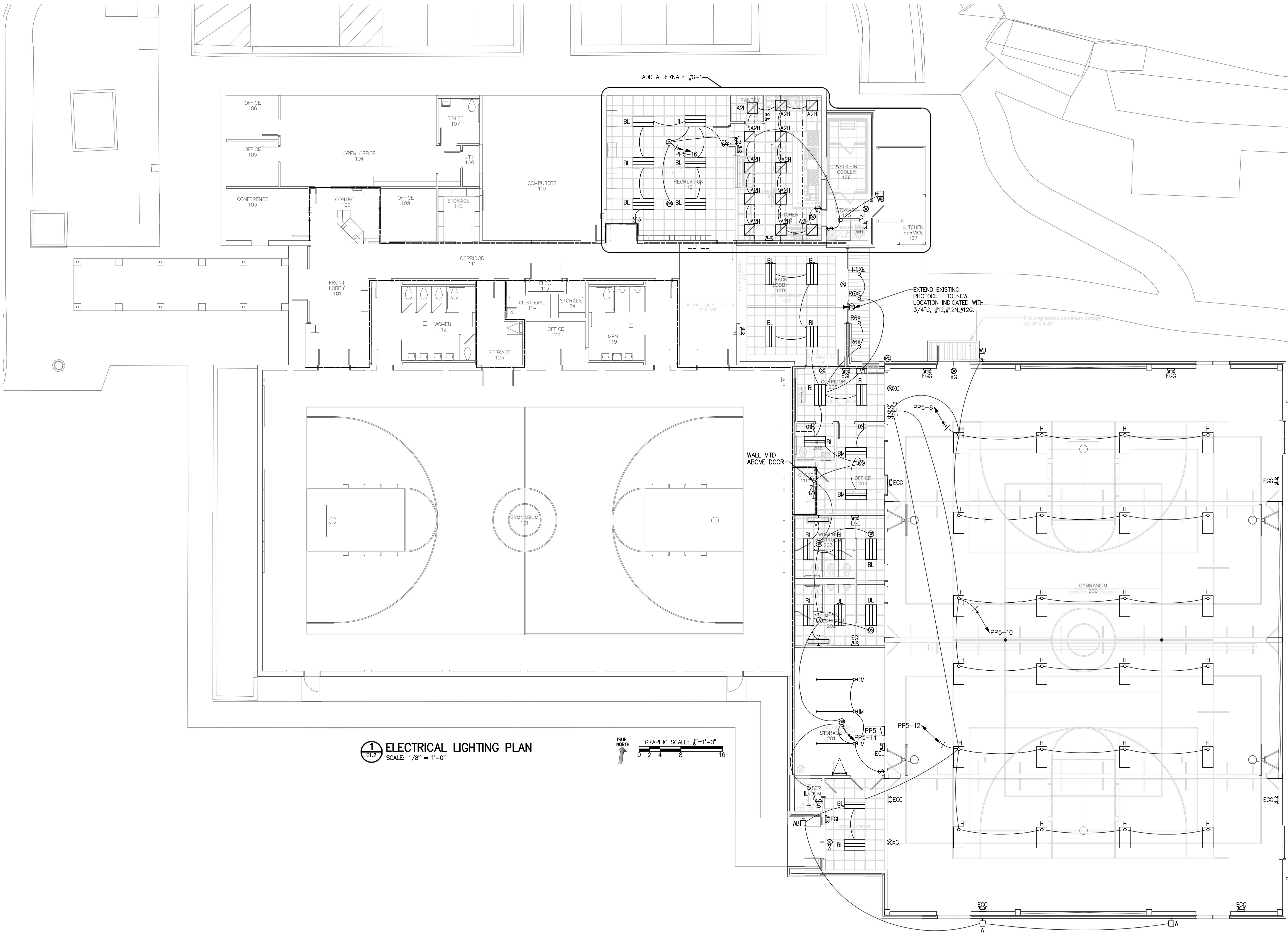
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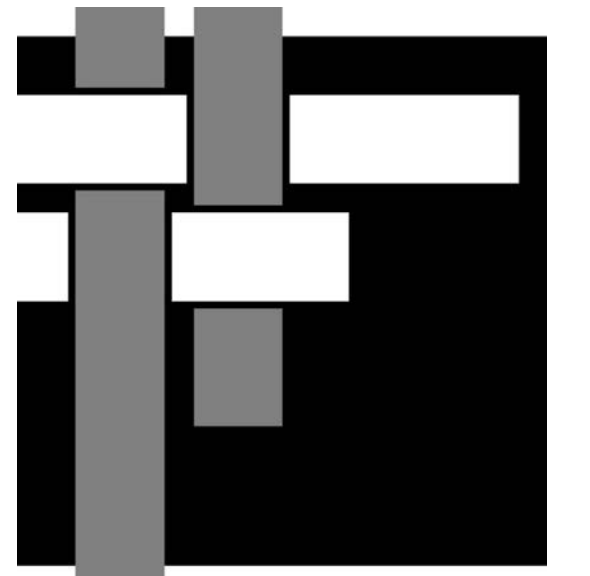
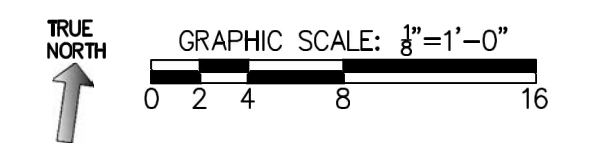
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**ELECTRICAL  
POWER PLAN**

**E1.1**



**1** ELECTRICAL LIGHTING PLAN  
 SCALE: 1/8" = 1'-0"



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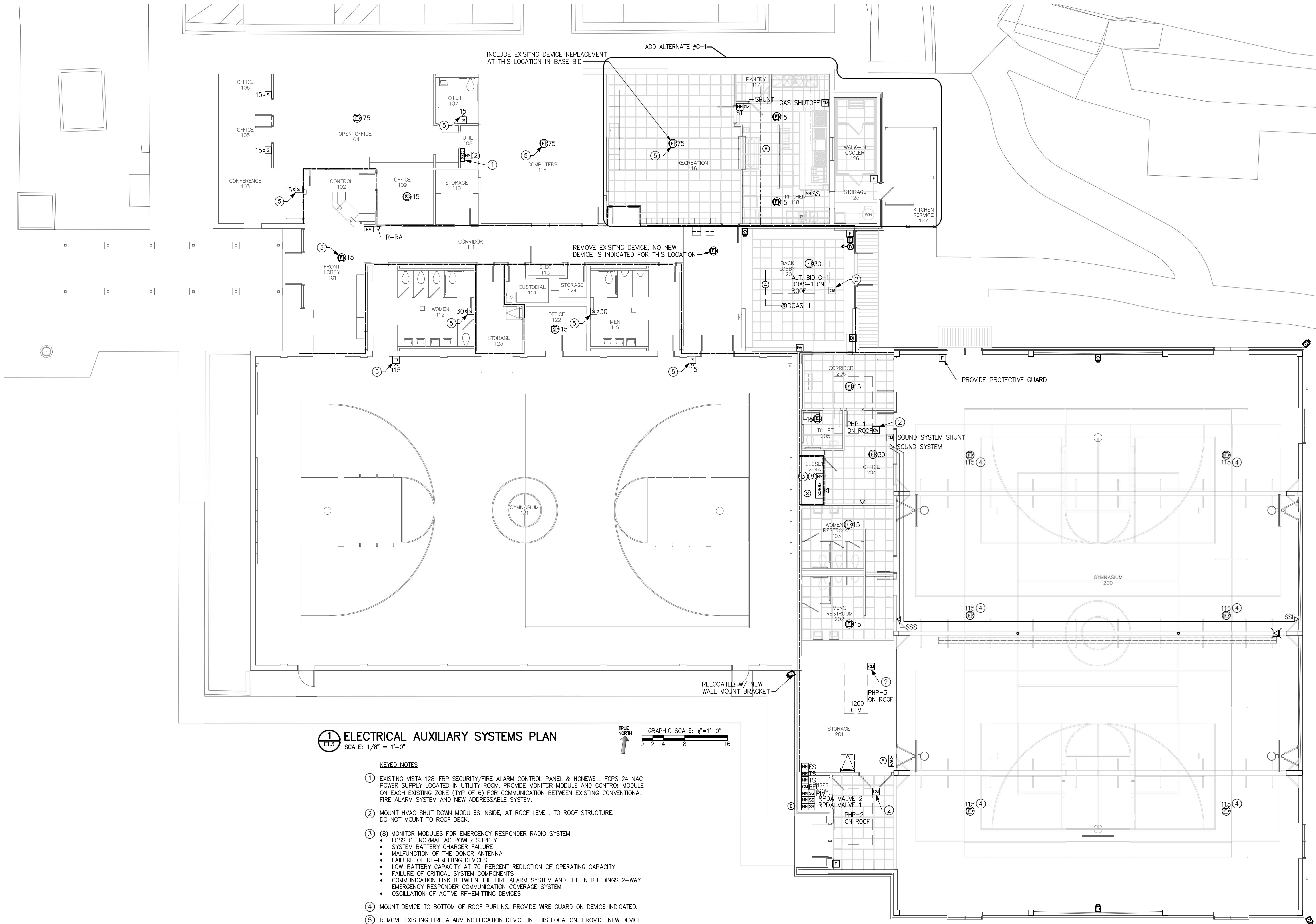
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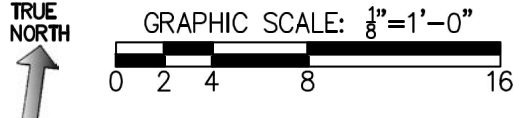
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**ELECTRICAL  
 LIGHTING PLAN**

**E1.2**



**1**  
E1.3  
**ELECTRICAL AUXILIARY SYSTEMS PLAN**  
SCALE: 1/8" = 1'-0"



**KEYED NOTES**

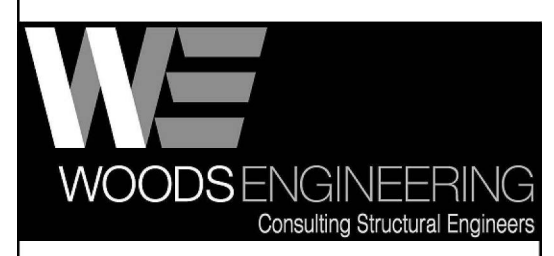
- 1 EXISTING VISTA 128-FBP SECURITY/FIRE ALARM CONTROL PANEL & HONEWELL FCPS 24 NAC POWER SUPPLY LOCATED IN UTILITY ROOM. PROVIDE MONITOR MODULE AND CONTROL; MODULE ON EACH EXISTING ZONE (TYP OF 6) FOR COMMUNICATION BETWEEN EXISTING CONVENTIONAL FIRE ALARM SYSTEM AND NEW ADDRESSABLE SYSTEM.
- 2 MOUNT HVAC SHUT DOWN MODULES INSIDE, AT ROOF LEVEL, TO ROOF STRUCTURE. DO NOT MOUNT TO ROOF DECK.
- 3 (8) MONITOR MODULES FOR EMERGENCY RESPONDER RADIO SYSTEM:
  - LOSS OF NORMAL AC POWER SUPPLY
  - SYSTEM BATTERY CHARGER FAILURE
  - MALFUNCTION OF THE DONOR ANTENNA
  - FAILURE OF RF-EMITTING DEVICES
  - LOW-BATTERY CAPACITY AT 70-PERCENT REDUCTION OF OPERATING CAPACITY
  - FAILURE OF CRITICAL SYSTEM COMPONENTS
  - COMMUNICATION LINK BETWEEN THE FIRE ALARM SYSTEM AND THE IN BUILDINGS 2-WAY EMERGENCY RESPONDER COMMUNICATION COVERAGE SYSTEM
  - OSCILLATION OF ACTIVE RF-EMITTING DEVICES
- 4 MOUNT DEVICE TO BOTTOM OF ROOF PURLINS. PROVIDE WIRE GUARD ON DEVICE INDICATED.
- 5 REMOVE EXISTING FIRE ALARM NOTIFICATION DEVICE IN THIS LOCATION. PROVIDE NEW DEVICE INDICATED IN EXISTING LOCATION AND CONNECT TO NEW FIRE ALARM SYSTEM

**NOTES**

1. DUCT MOUNTED SMOKE DETECTORS AT PHP-1 AND PHP-2 HAVE BEEN INTENTIONALLY OMITTED IN ACCORDANCE WITH THE 2018 NORTH CAROLINA MECHANICAL CODE 606.2.2 EXCEPTION 1.
2. UNLESS NOTED OTHERWISE BY KEYED NOTE, ALL FIRE ALARM NOTIFICATION DEVICES INDICATED IN EXISTING BUILDING ARE NEW DEVICES TO BE ADDED AND CONNECTED TO NEW FIRE ALARM PANEL.



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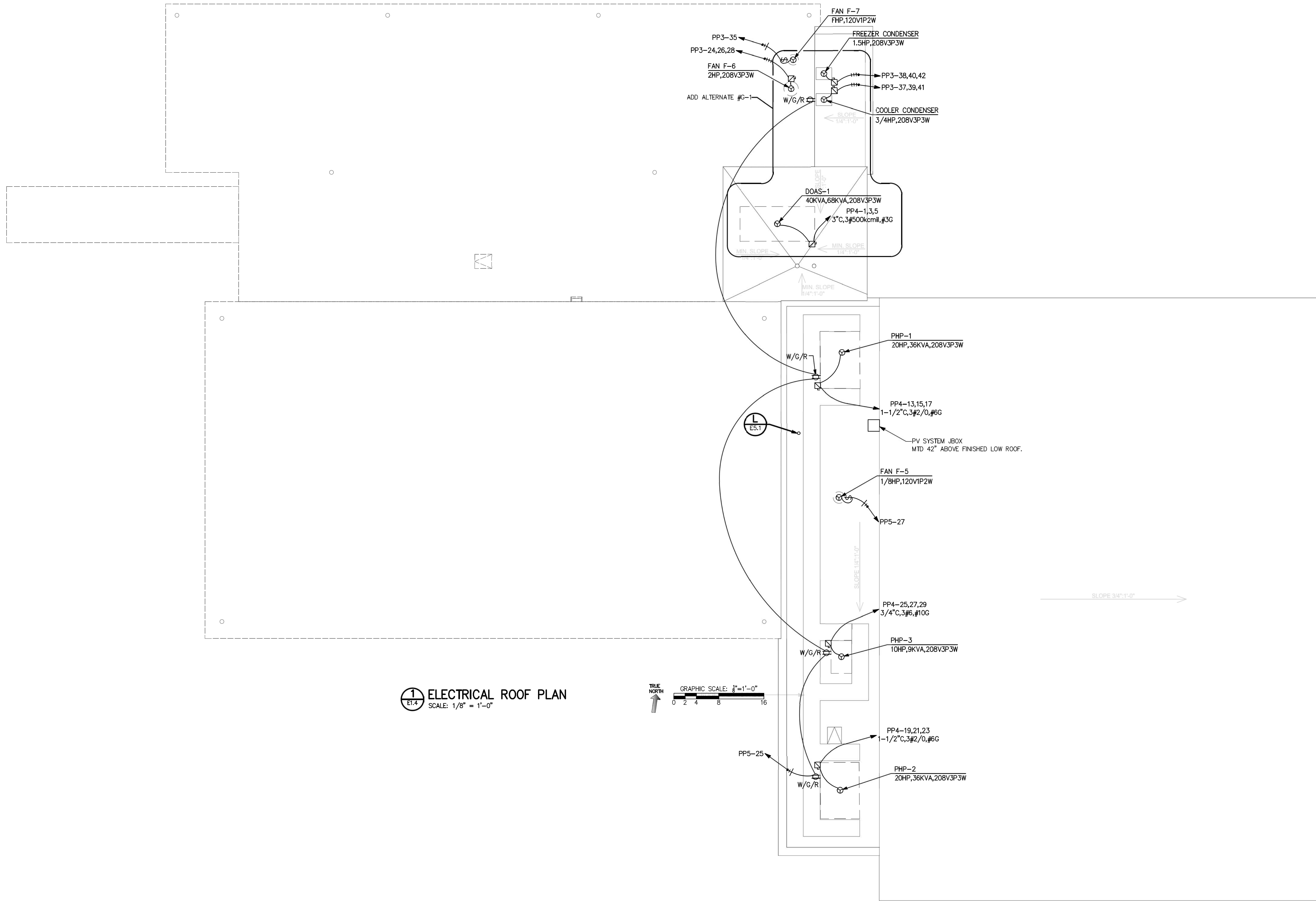
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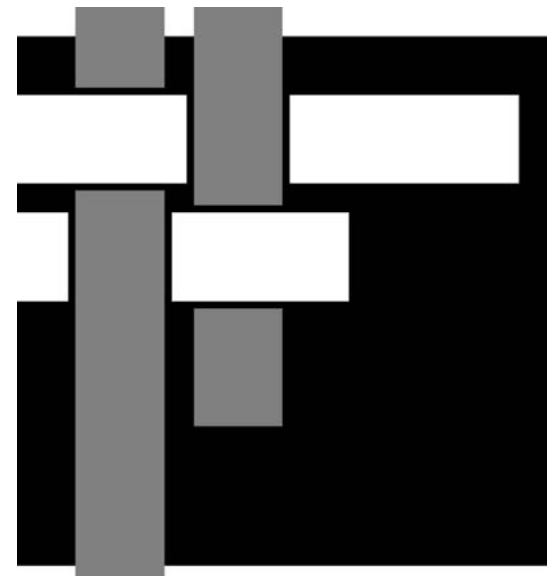
Revisions:


**ELECTRICAL  
AUXILIARY  
SYSTEMS PLAN**

**E1.3**



**E1.4** ELECTRICAL ROOF PLAN  
SCALE: 1/8" = 1'-0"

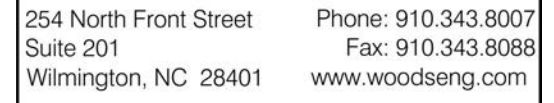


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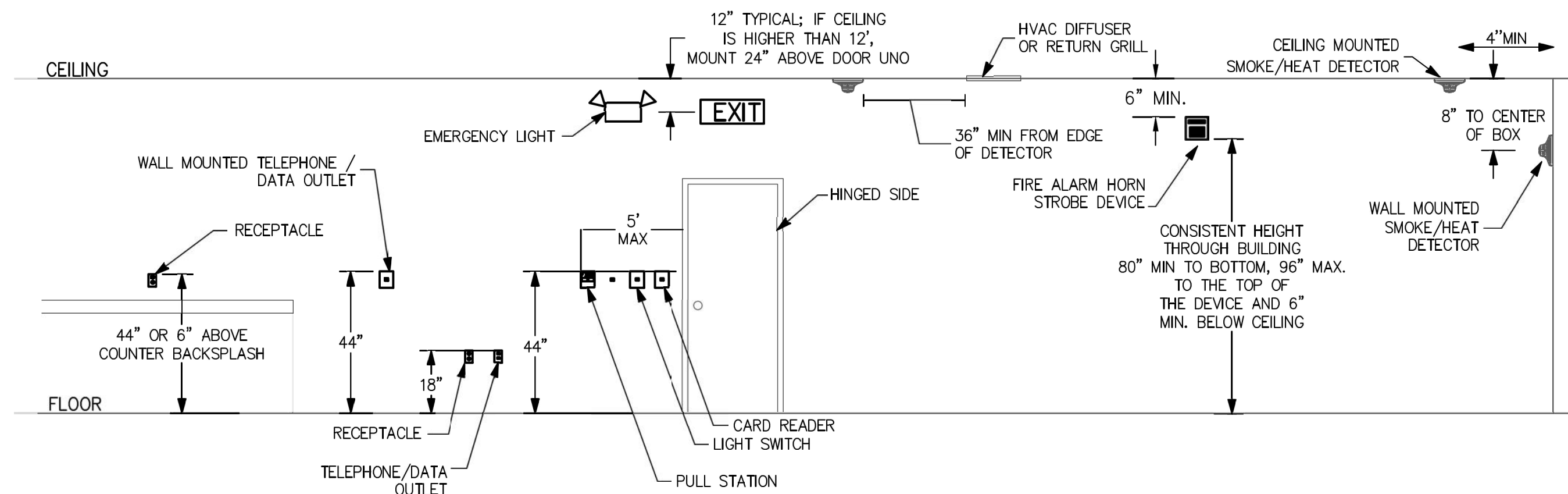
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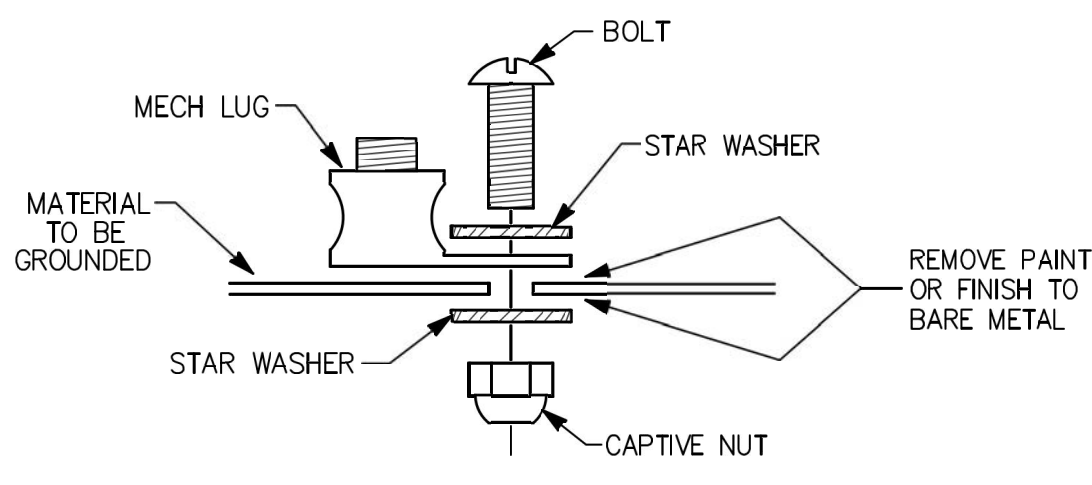
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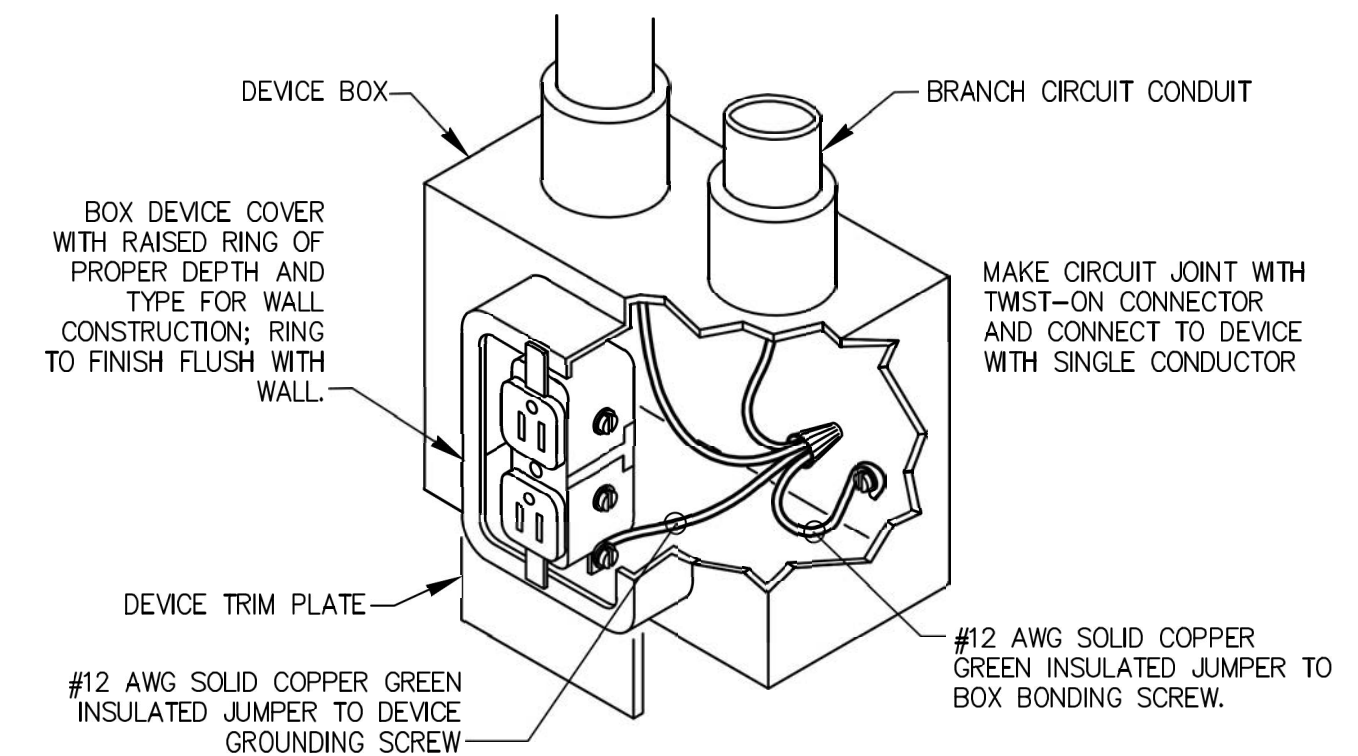
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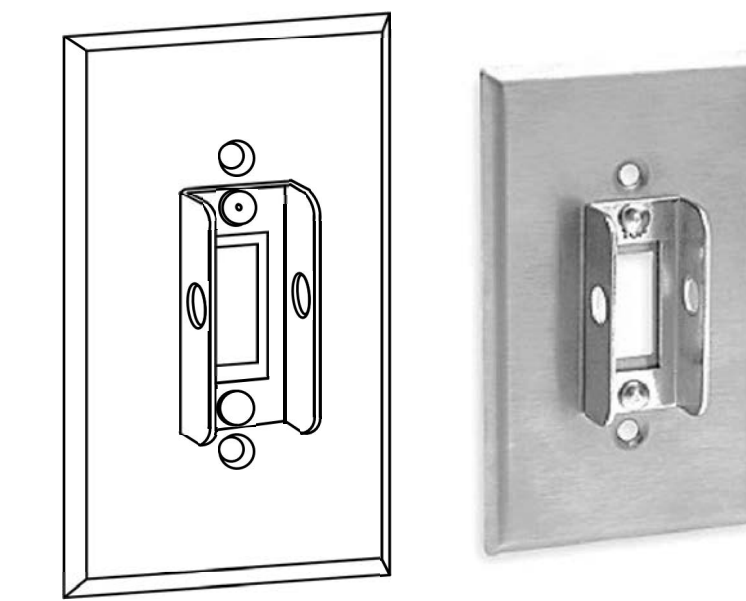
**A** MOUNTING HEIGHTS OF DEVICES  
ES.1 NO SCALE



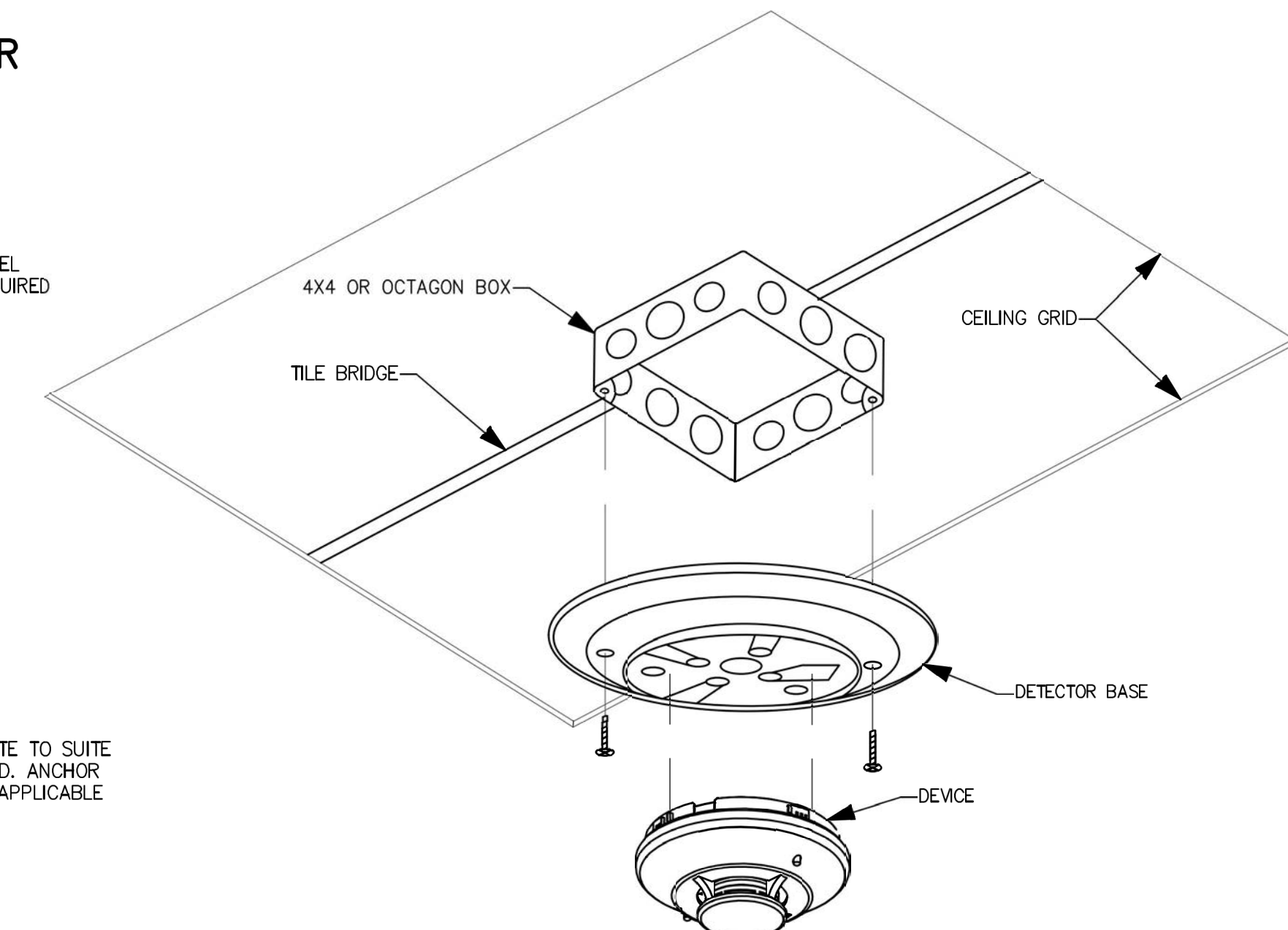
**B** GROUNDING LUG DETAIL  
ES.1 NO SCALE



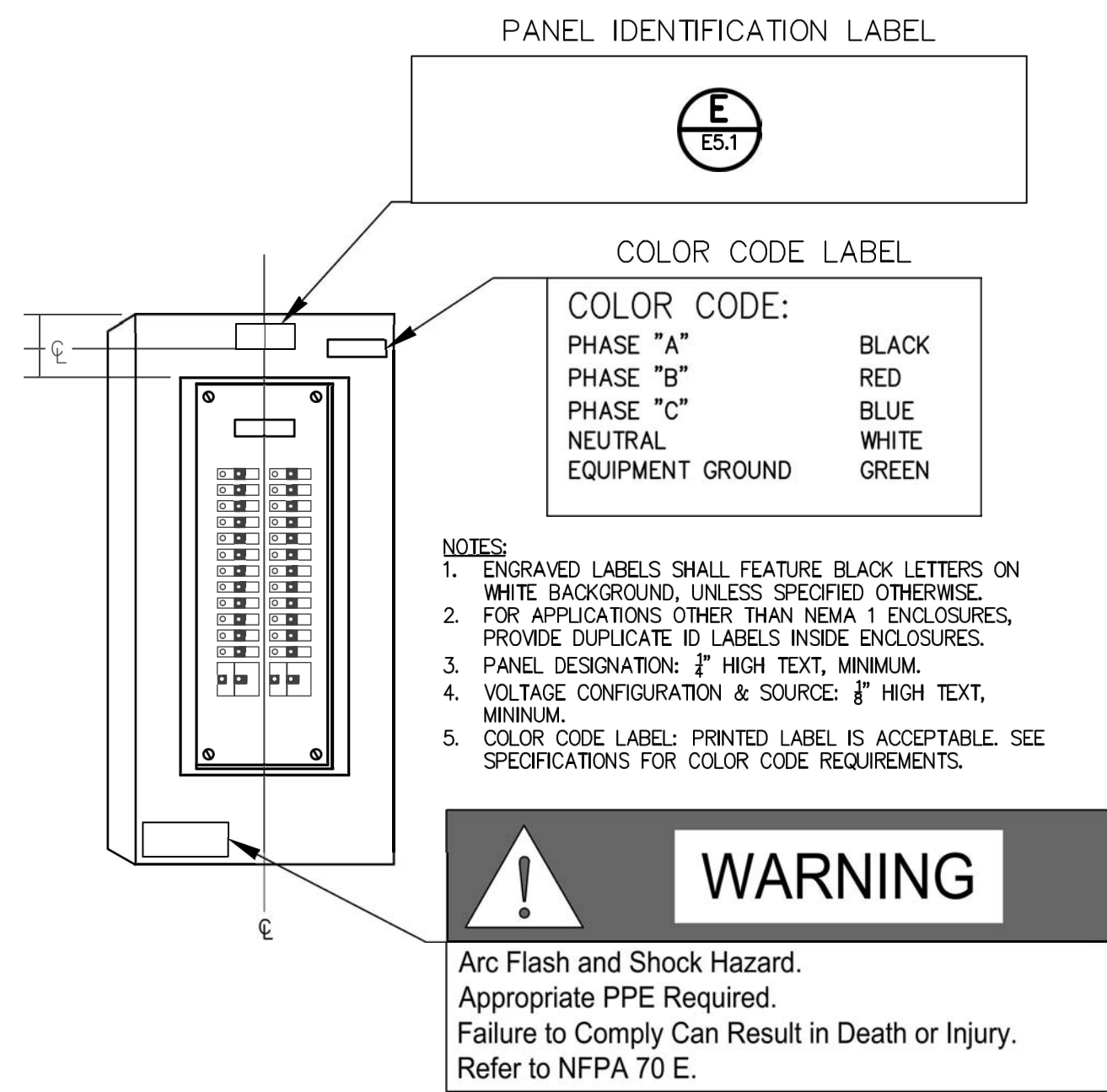
**C** OUTLET GROUNDING DETAIL  
ES.1 SCALE: N/A



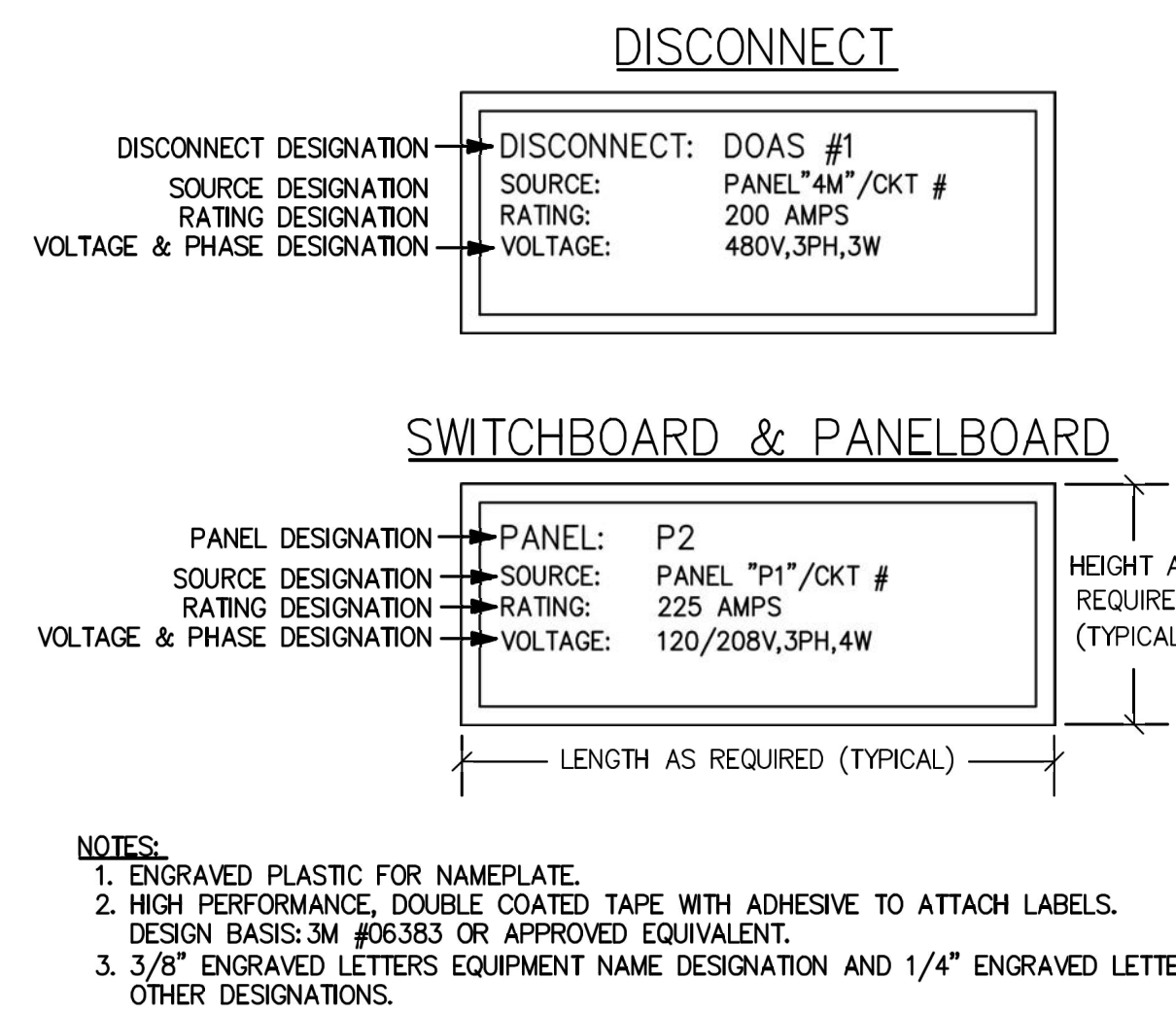
**F** LOCKABLE TOGGLE SWITCH COVER  
ES.1 NO SCALE



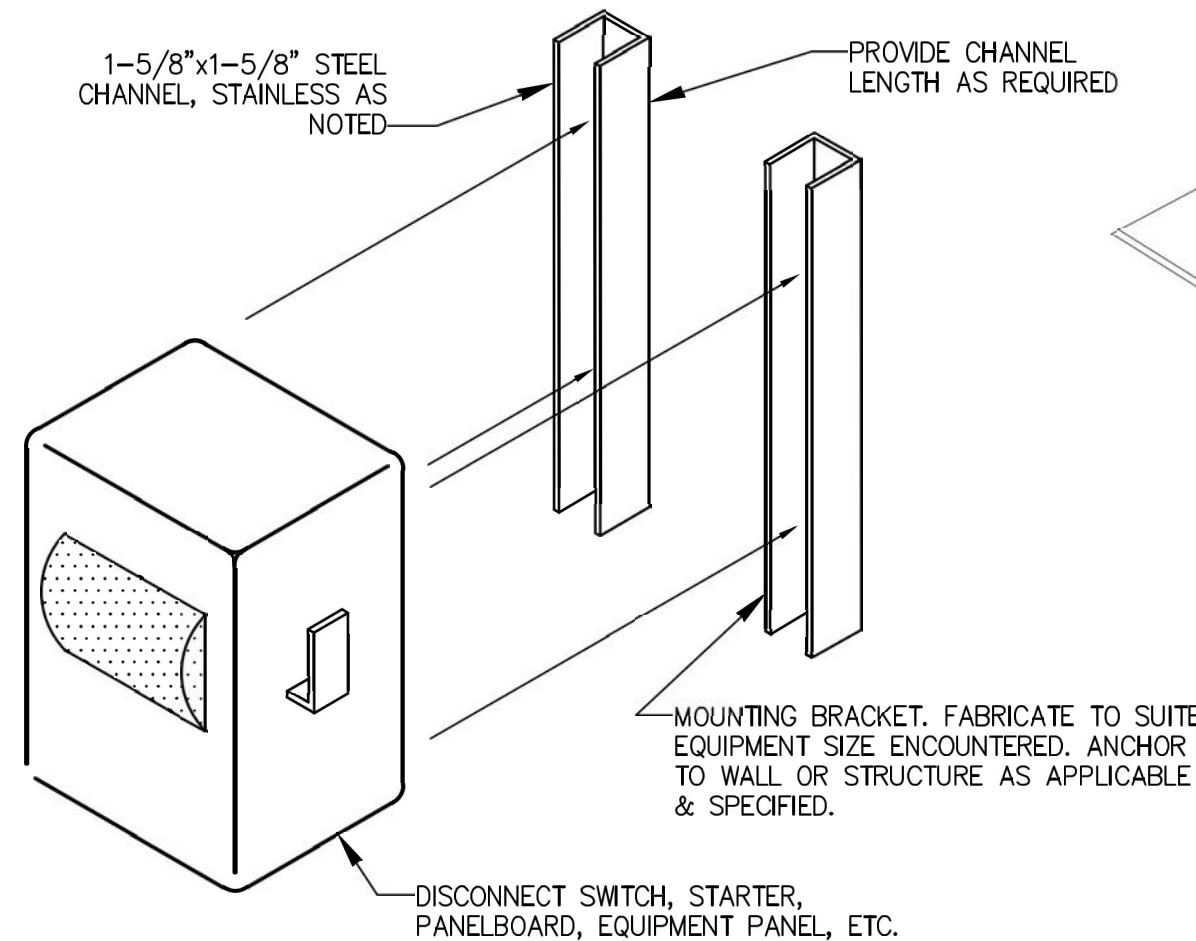
**G** DEVICE MOUNTING DETAIL  
ES.2 NO SCALE



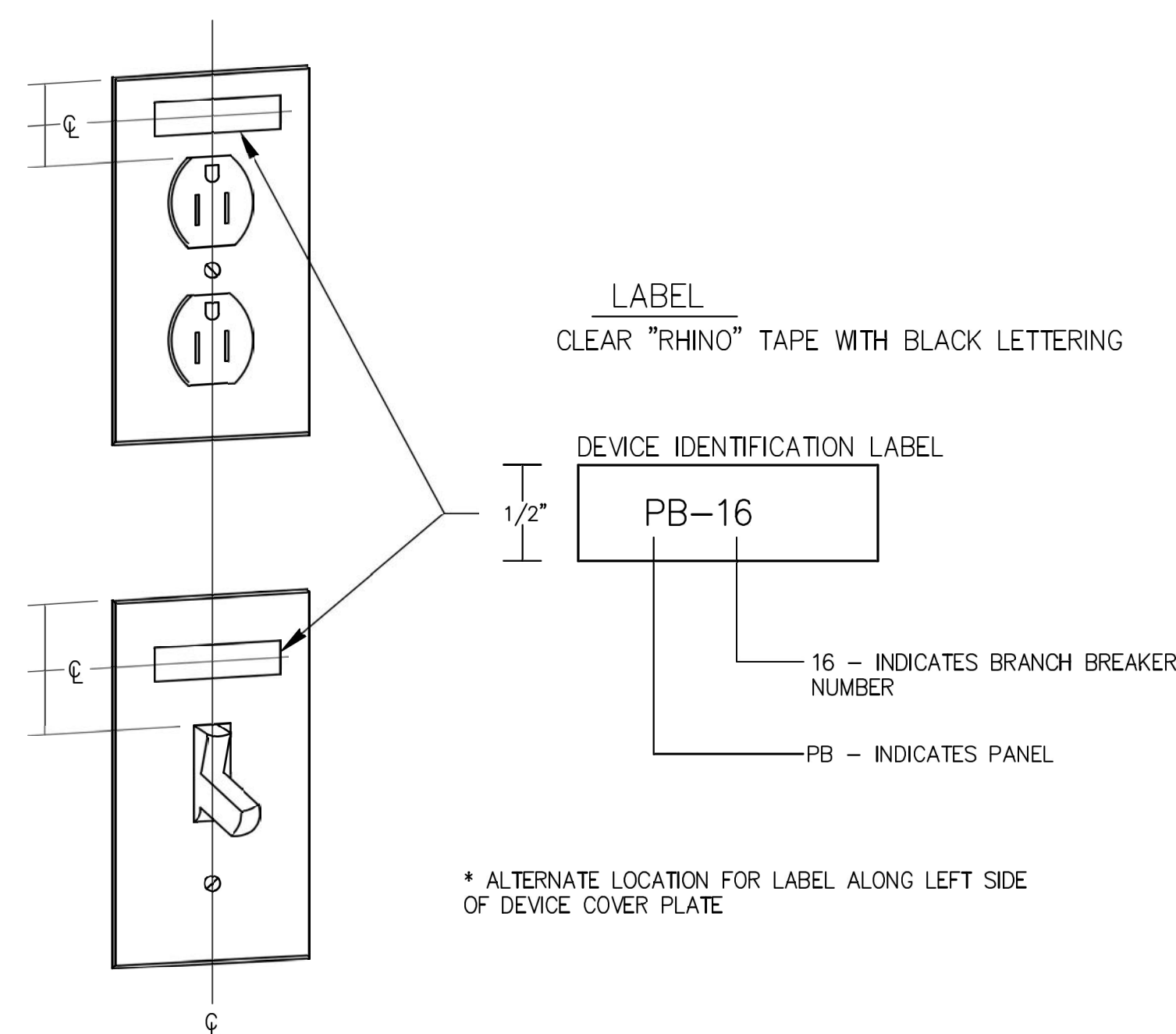
**D** TYPICAL PANELBOARD IDENTIFICATION  
ES.1 NO SCALE



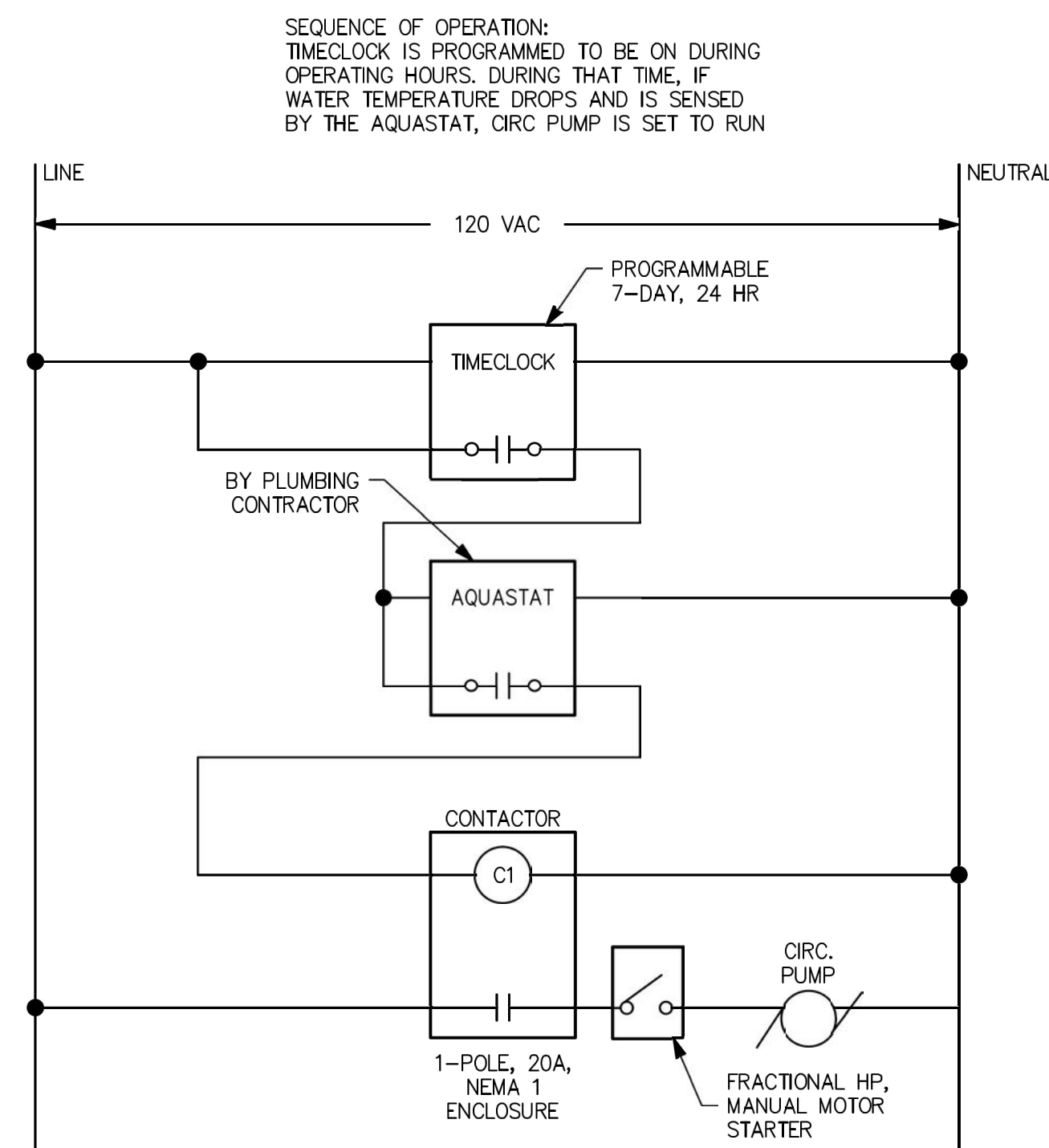
**E** TYPICAL NAMEPLATE DETAILS  
ES.2 NO SCALE



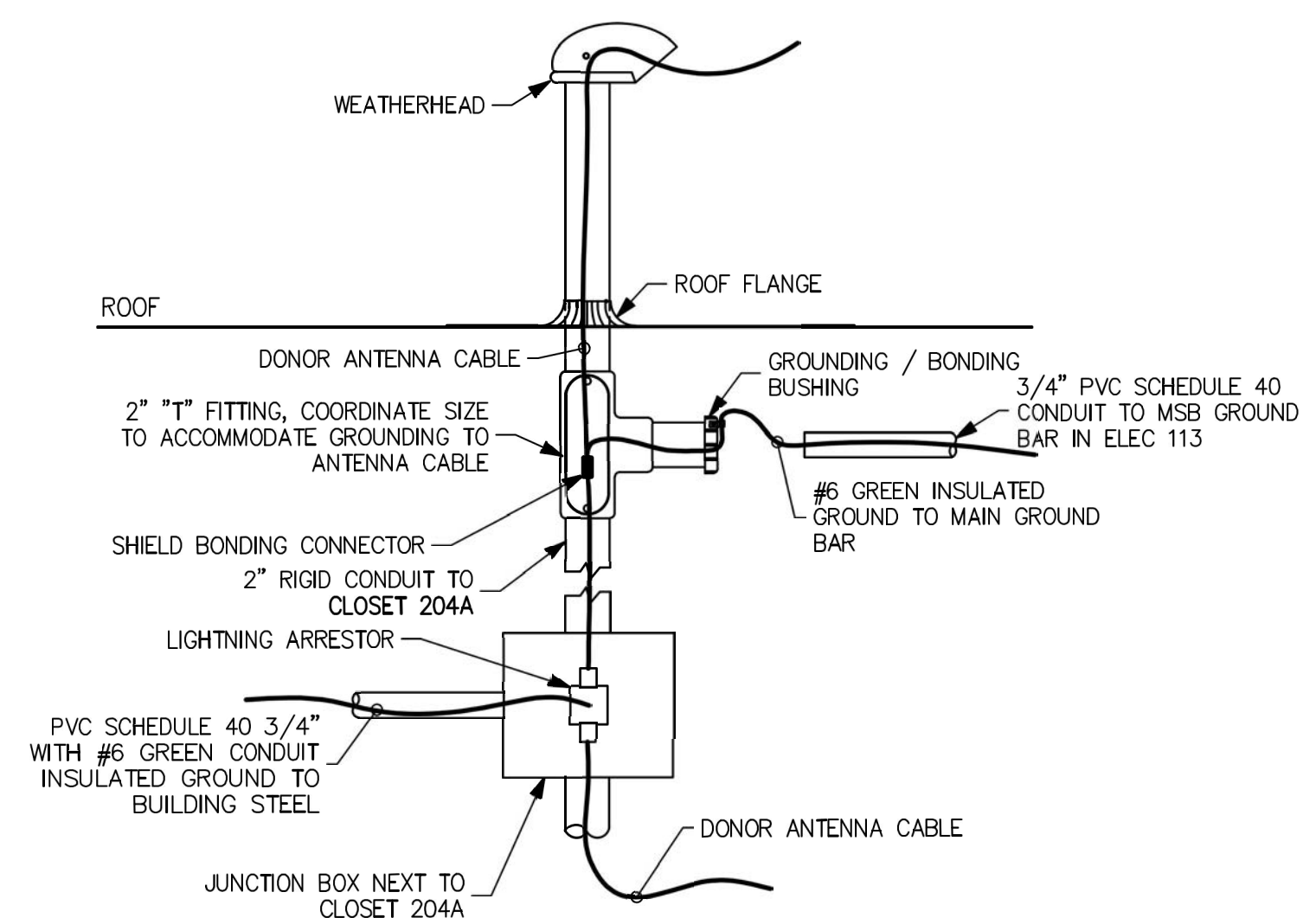
**J** EQUIPMENT MOUNTING DETAIL  
ES.1 NO SCALE



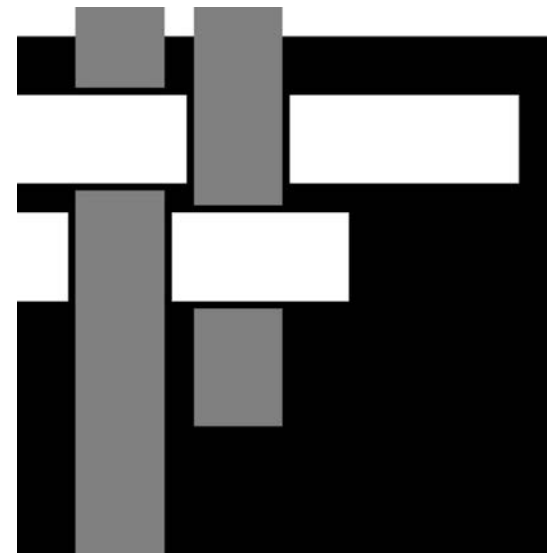
**H** WIRING DEVICE IDENTIFICATION LABEL  
ES.1



**K** CIRCULATION PUMP CONTROL SCHEMATIC  
ES.1 NO SCALE



**L** ERRCs WEATHERHEAD DETAIL  
ES.1 NO SCALE



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NC LICENSE# C-1073  
JOB # 18044



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Mark A. Ciarrappa  
Date: 2023.03.22  
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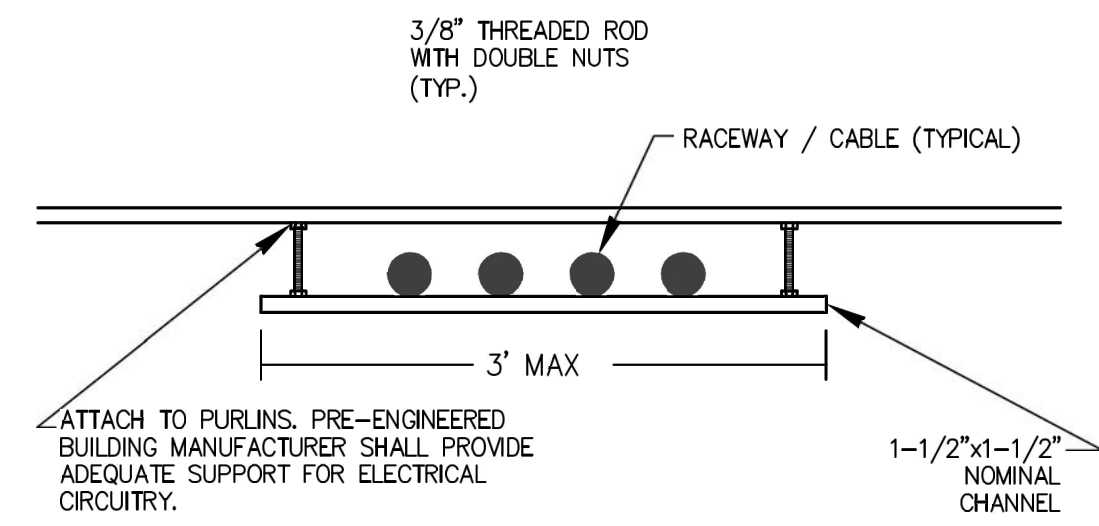
**MLK Center  
Addition &  
Renovation**  
401 S. 8th Street  
Wilmington, NC 28405

Construction Drawings  
March 22, 2023

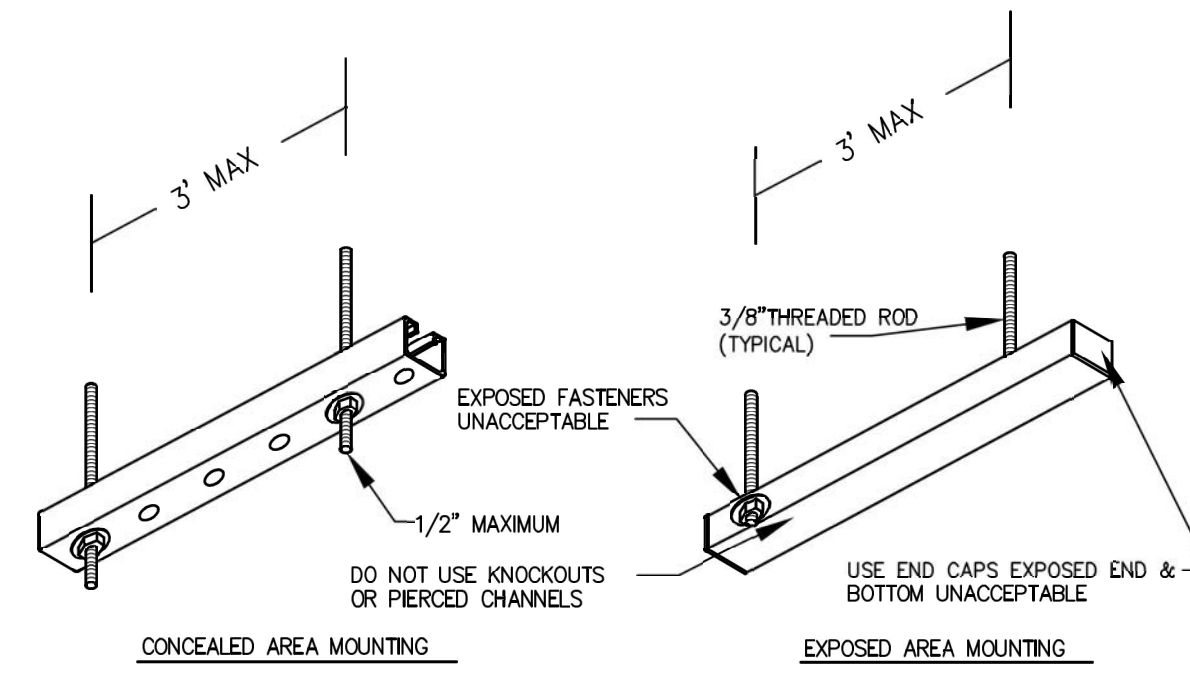
Revisions:  
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**ELECTRICAL  
DETAILS**

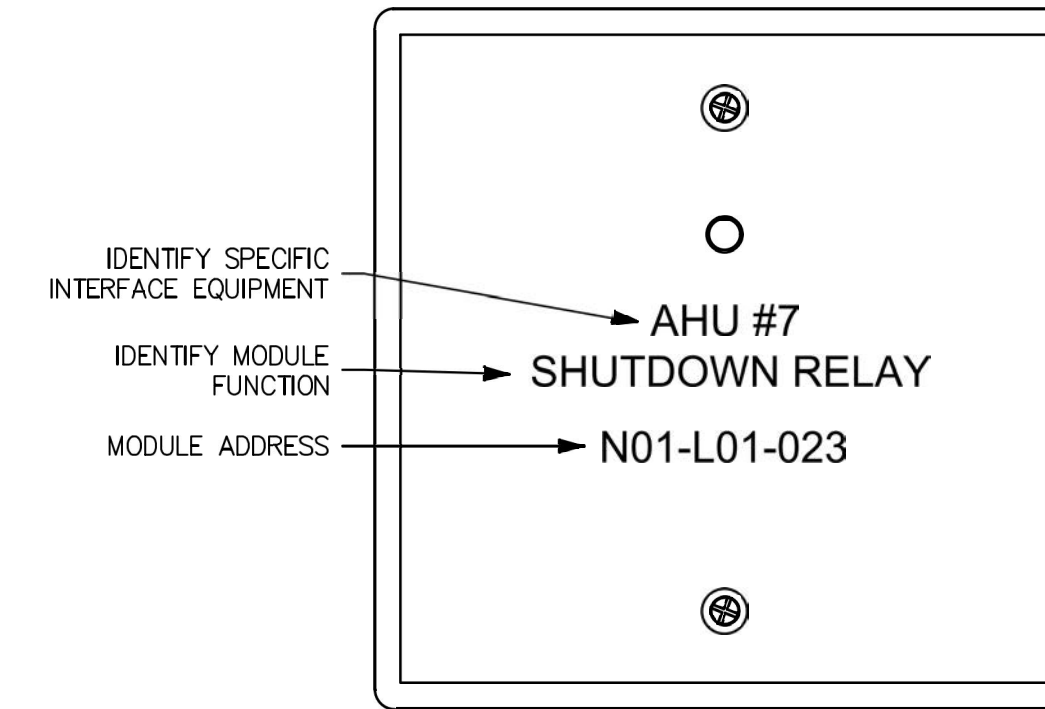
**E5.1**



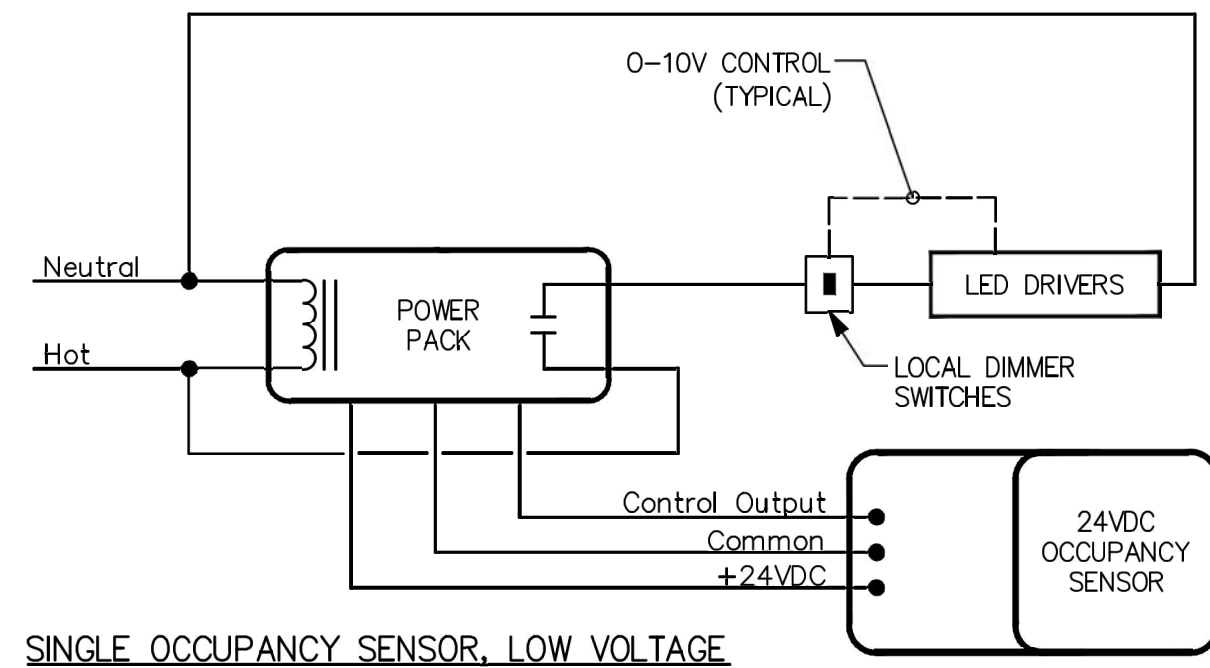
**A** CHANNEL SUPPORT DETAIL  
NO SCALE



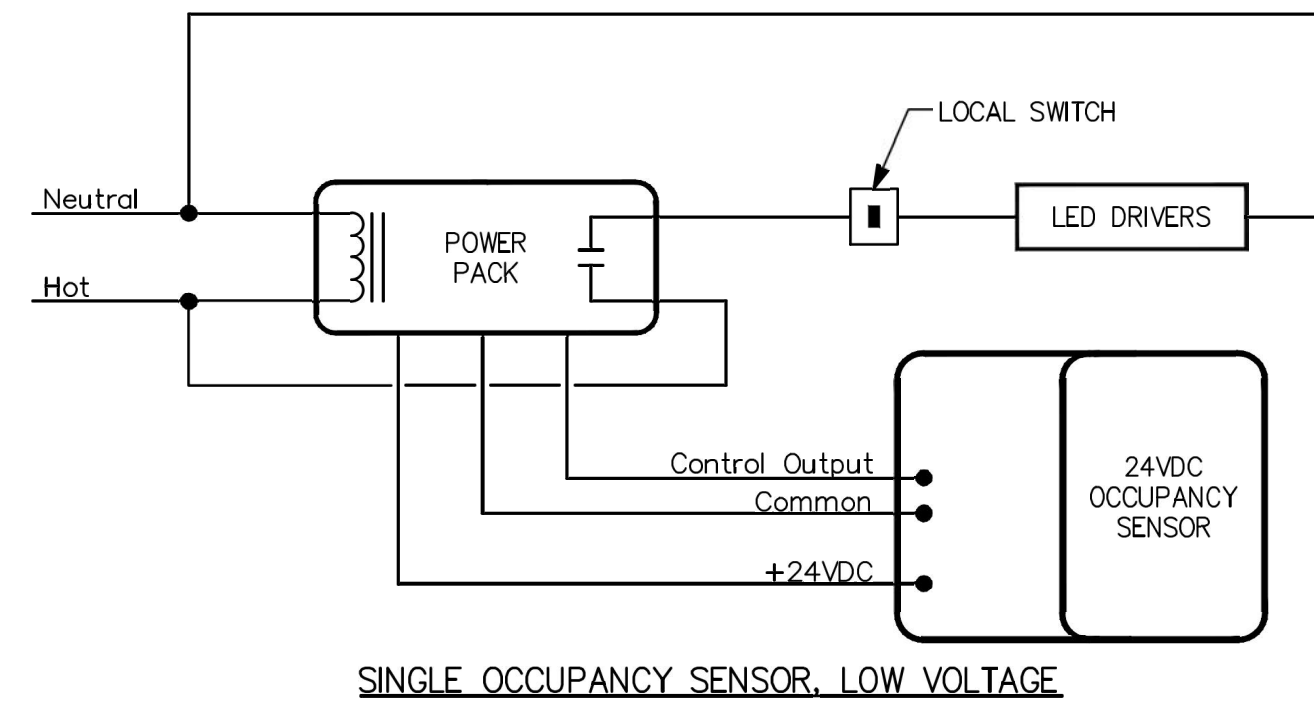
**B** CHANNEL MOUNTING DETAILS  
NO SCALE



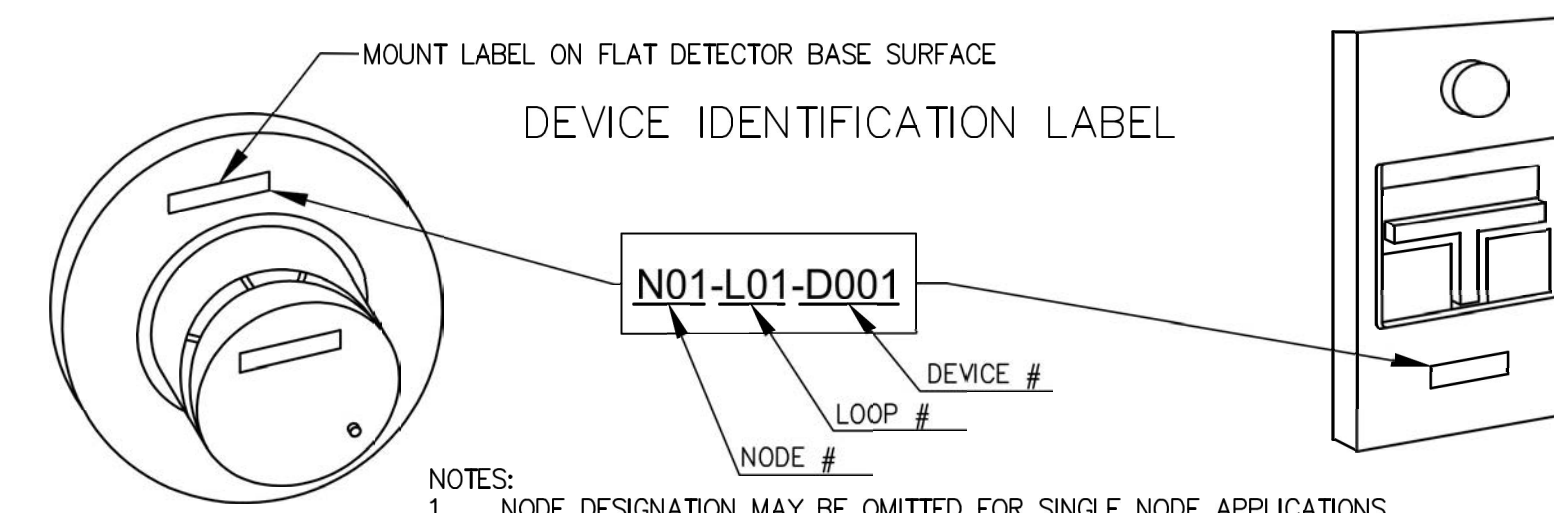
**D** CONTROL/RELAY MODULE LABELING DETAIL  
NO SCALE



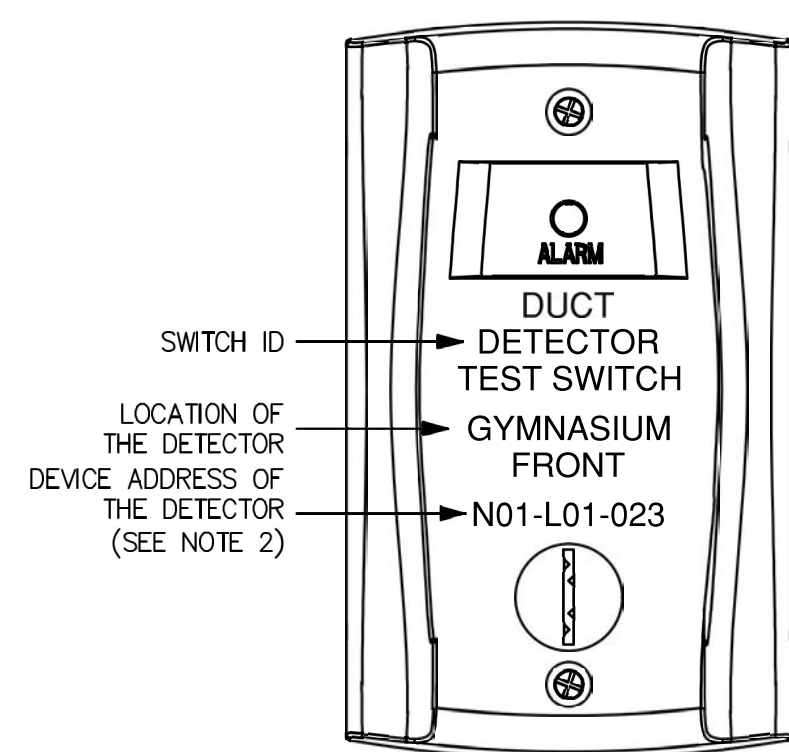
**E** OCCUPANCY SENSOR WIRING FOR DIMMING LEVEL LIGHTING CONTROL  
NO SCALE



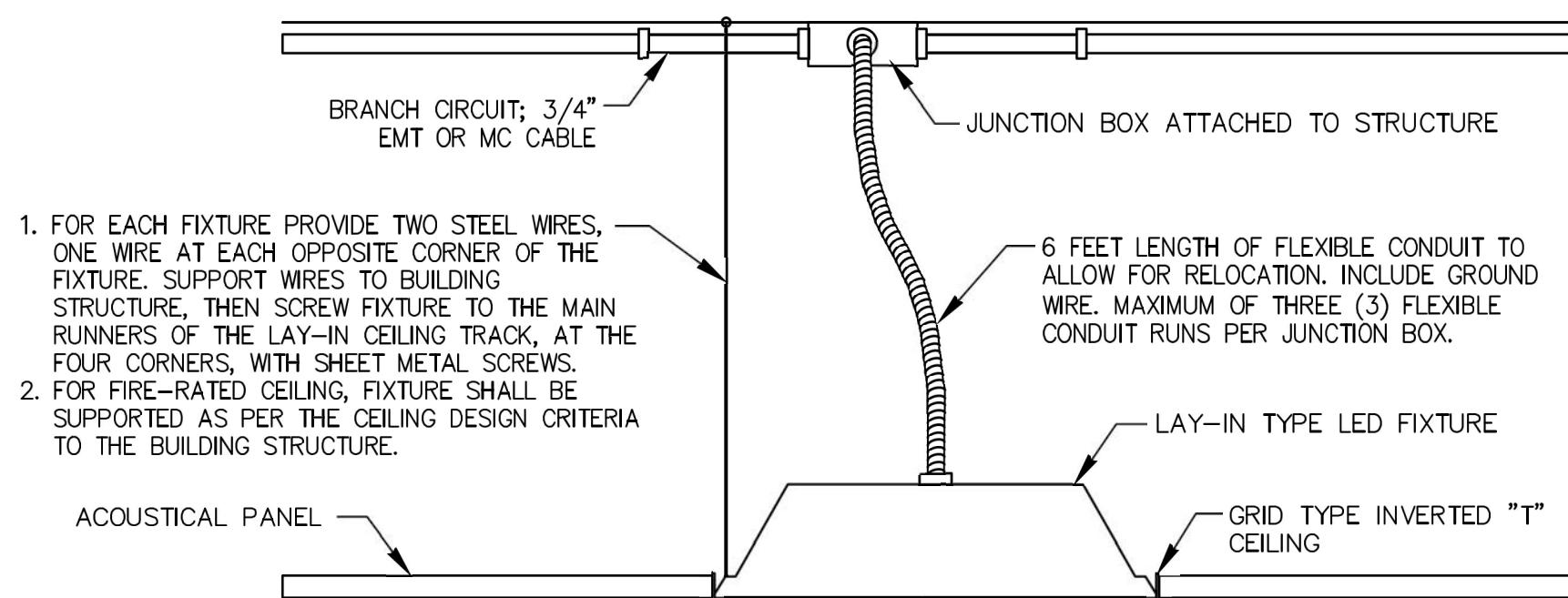
**F** OCCUPANCY SENSOR WIRING LIGHTING CONTROL  
NO SCALE



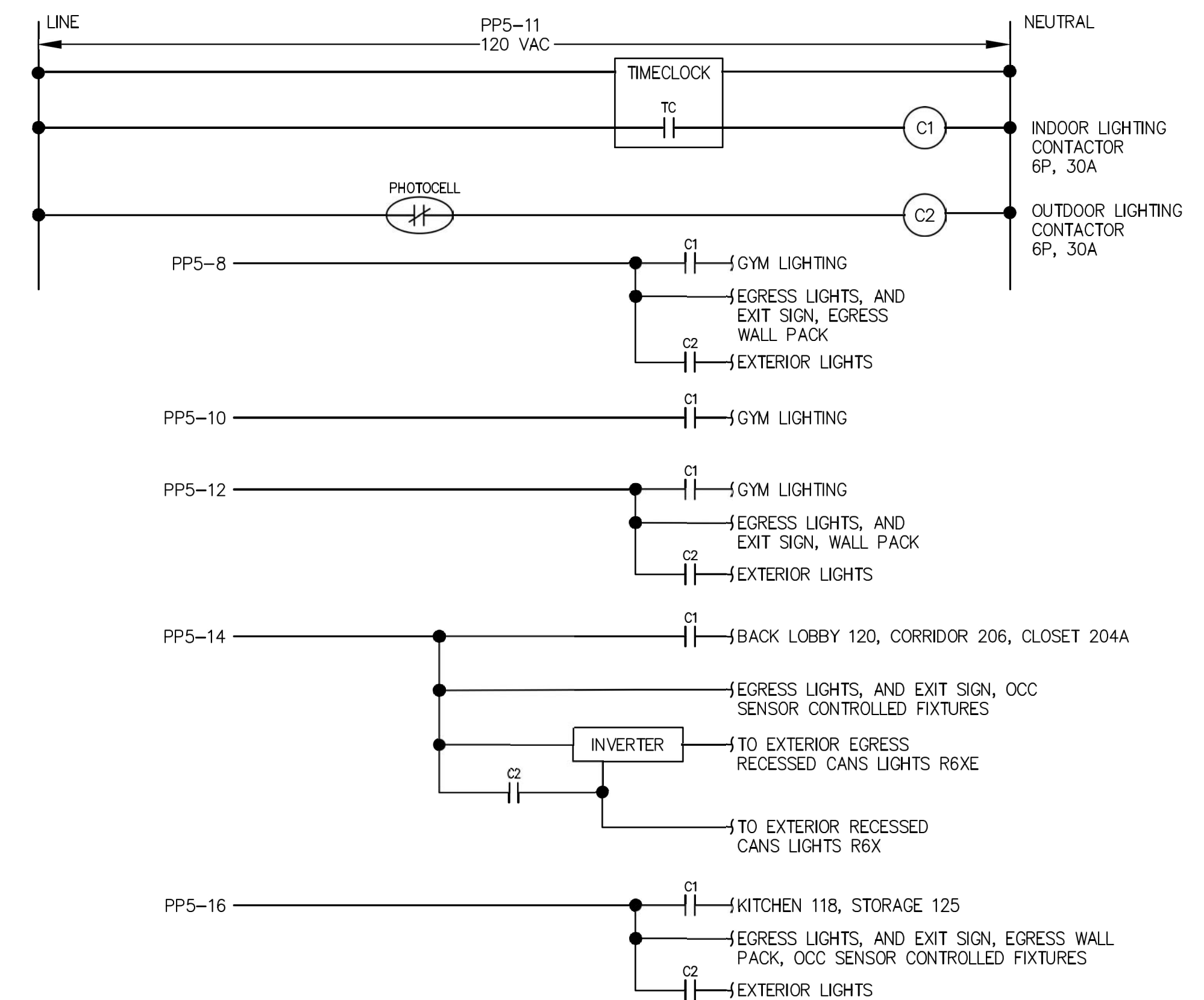
**G** TYPICAL FIRE ALARM DEVICE IDENTIFICATION  
NO SCALE



**H** REMOTE TEST SWITCH LABELING DETAIL  
NO SCALE



**J** RECESSED LIGHT FIXTURE MOUNTING DETAIL  
SCALE: N/A



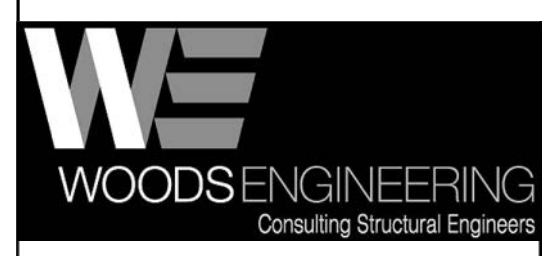
- AUTO MODE CONTROL SCHEME**
- INTERIOR LIGHTS THAT ARE NOT UNDER OCCUPANCY SENSOR CONTROL SHALL TURN ON/OFF VIA TIMECLOCK.
  - EXTERIOR WB LIGHTS TURN ON/OFF VIA INTEGRAL PHOTOCELL.
  - EXTERIOR WB EGRESS LIGHTS SHALL REMAIN ENERGIZED DURING POWER OUTAGES THROUGH INTEGRAL BATTERY BACKUP AFTER DARK.
  - EXTERIOR EGRESS LIGHTS SHALL REMAIN ENERGIZED DURING POWER OUTAGES THROUGH THE INVERTERS AFTER DARK. THE SWITCHED INPUT TO THE INVERTER FROM THE CONTACTORS PREVENTS OPERATION OF THE INVERTER DURING DAYLIGHT.

**K** TIMECLOCK & PHOTOCELL CONTROL SCHEMATIC  
NO SCALE



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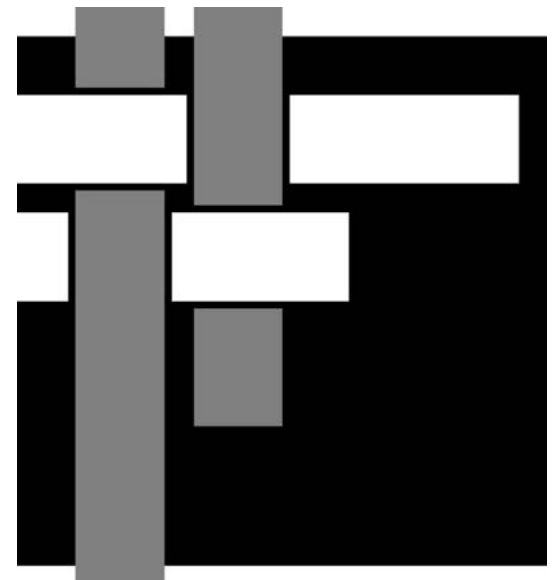
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Revisions:  
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**ELECTRICAL  
DETAILS**

**E5.2**

LUMINAIRE SCHEDULE									
CALLOUT	SYMBOL	DESCRIPTION	LAMP	BALLAST	VOLTS	MOUNTING	MANUFACTURER / MODEL	NOTES	CALLOUT
A2H		2x2, PRISMATIC LENS	(1) 46W LED	LED DIMMABLE DRIVER	120V 1P 2W	RECESSED	COLUMBIA #LJT22 SERIES DAYBRITE #2LT LED SERIES METALUX #22GR LED SERIES	3750-4000 NOMINAL LUMENS. 4000K COLOR TEMPERATURE. 0.156" NOMINAL LENS. ALT. BID G-1.	A2H
A2L		2x2, PRISMATIC LENS	(1) 26W LED	LED DIMMABLE DRIVER	120V 1P 2W	RECESSED	COLUMBIA #LJT22 SERIES DAYBRITE #2LT LED SERIES METALUX #22GR LED SERIES	2500 NOMINAL LUMENS. 4000K COLOR TEMPERATURE. 0.156" NOMINAL LENS. ALT. BID G-1	A2L
BL		2x4, ARCHITECTURAL LENSED, INDIRECT	(1) 40W LED	LED DIMMABLE DRIVER	120V 1P 2W	RECESSED	COLUMBIA #LCAT SERIES DAYBRITE #2EV SERIES METALUX #24CZ SERIES	4300 NOMINAL LUMENS. 4000K COLOR TEMPERATURE.	BL
BM		2x4, ARCHITECTURAL LENSED, INDIRECT	(1) 47W LED	LED DIMMABLE DRIVER	120V 1P 2W	RECESSED	COLUMBIA #LCAT SERIES DAYBRITE #2EV SERIES METALUX #24CZ SERIES	5300 NOMINAL LUMENS. 4000K COLOR TEMPERATURE.	BM
EG		EMERGENCY EGRESS, BATTERY	(2) 7W MR 16 LED	BATTERY	120V 1P 2W	WALL; MTD 8'-0" AFF	EMERGLITE #COMPACT PREMIER SERIES BEHELLI #ECCO LUNA LED SERIES LIGHTALARMS #COMPACT GRANDE SERIES	CONNECT TO NEAREST UNSWITCHED LIGHT CIRCUIT IN SAME SPACE. THESE FIXTURES ARE NOT TAGGED WITH "EG" ON THE DRAWINGS; ONLY THE SYMBOL IS USED. DESIGN CRITERIA: 70 FT SPACING, UTILIZING 6 FT WIDE PATH, 80/50/20 REFLECTANCES, MAINTAINING 1 FC AVG AND 0.2 FC MINIMUM.	EG
EGG		EMERGENCY EGRESS, BATTERY, GYMNASIUM	(2) 7W MR 16 LED	BATTERY	120V 1P 2W	WALL; MTD 10'-0" AFF	EMERGLITE #COMPACT PREMIER SERIES BEHELLI #ECCO LUNA LED SERIES LIGHTALARMS #COMPACT GRANDE SERIES	WIREGUARD. CONNECT TO NEAREST UNSWITCHED LIGHT CIRCUIT IN SAME SPACE. DESIGN CRITERIA: 70 FT SPACING, UTILIZING 6 FT WIDE PATH, 80/50/20 REFLECTANCES, MAINTAINING 1 FC AVG AND 0.1 FC MINIMUM.	EGG
EGL		EMERGENCY EGRESS, BATTERY	(2) 4W MR 16 LED	BATTERY	120V 1P 2W	WALL; MTD 8'-0" AFF	EMERGLITE #COMPACT PREMIER SERIES BEHELLI #ECCO LUNA LED SERIES LIGHTALARMS #COMPACT GRANDE SERIES	CONNECT TO NEAREST UNSWITCHED LIGHT CIRCUIT IN SAME SPACE. DESIGN CRITERIA: 30 FT SPACING, UTILIZING 6 FT WIDE PATH, 80/50/20 REFLECTANCES, MAINTAINING 1 FC AVG AND 0.2 FC MINIMUM.	EGL
GL		4' GASKETED	(1) 40W LED	LED DRIVER	120V 1P 2W	PENDANT MTD 9'-0" AFF	WILLIAMS #96 SERIES ILP #AVT SERIES METALUX #4VT SERIES	4000 NOMINAL LUMENS. 4000K COLOR TEMPERATURE. STAINLESS STEEL MOUNTING HARDWARE & LENS CLAMPS.	GL
H		HIGH BAY	(1) 138W LED	LED DIMMABLE DRIVER	120V 1P 2W	PENDANT MTD, SEE NOTES COLUMN FOR ADDITIONAL MOUNTING INFO.	COLUMBIA #LLHV SERIES DAY-BRITE #FBX SERIES METALUX #BHLLED SERIES	15,000 LUMENS MINIMUM. 4000K COLOR TEMPERATURE. WIDE DISTRIBUTION. WIREGUARD. FROSTED POLYCARBONATE LENS. FIXTURE SHALL BE SUPPORTED TO ENSURE SWAYING DOES NOT OCCUR FROM CONTACT FROM SPORTS BALL. SUSPENDED FROM THREADED ROD; MTD SLIGHTLY ABOVE BOTTOM OF CHORD OF THE MAIN FRAMES; COORDINATE WITH ARCHITECT.	H
IL		4' INDUSTRIAL	(1) 30W LED	LED DRIVER	120V 1P 2W	PENDANT/SURFACE	COLUMBIA #LCL SERIES DAYBRITE #FSS SERIES METALUX #SNLED SERIES	3700 NOMINAL LUMENS. 4000K COLOR TEMPERATURE. WIRE GUARD. FROSTED LENS.	IL
IM		8' INDUSTRIAL	(1) 44W LED	LED DRIVER	120V 1P 2W	PENDANT; MTD 9'-0" AFF	COLUMBIA #LCL SERIES DAYBRITE #FSS SERIES METALUX #SNLED SERIES	5000 NOMINAL LUMENS. 4000K COLOR TEMPERATURE. WIRE GUARD. FROSTED LENS.	IM
IV1		INVERTER, EGRESS LIGHTING	N/A	BATTERY	120V 1P 2W	SURFACE	EMERGI-LITE #EMIU SERIES BODINE #ELI-S SERIES LIGHTALARMS #LMIU SERIES	INVERTER FOR BATTERY BACKUP OF EGRESS LIGHTING; 100W FOR 90 MINUTES (MINIMUM). INCLUDE SELF-DIAGNOSTIC OPTION. LOCATE ABOVE CEILING - PROVIDE "LIGHTING INVERTER" LABEL ON CEILING GRID BELOW INSTALLED LOCATION. STANDARD LIGHTING CONTROL OVERRIDE FOR 0-10V DIMMING SYSTEM.	IV1
R6X		6" RECESSED CAN, EXTERIOR	(1) 18W LED	LED DRIVER	120V 1P 2W	RECESSED	PHILIPS LIGHTQUIER #L6R SERIES PORTFOLIO #LD6B SERIES PRE-APPROVED EQUIVALENT	DAMP LOCATION, 2000 NOMINAL LUMENS. 4000K COLOR TEMP; SELF-FLANGED OPEN REFLECTOR TRIM, LOW IRIDESCENT CLEAR FINISH. IC RATED, AIRTIGHT CONSTRUCTION, GASKET BETWEEN FIXTURE & SOFFIT; SEE SPECIFICATIONS FOR ENERGY CODE REQUIREMENTS.	R6X
R6XE		6" RECESSED CAN, EXTERIOR, EGRESS	(1) 18W LED	LED DRIVER	120V 1P 2W	RECESSED	PHILIPS LIGHTQUIER #L6R SERIES PORTFOLIO #LD6B SERIES PRE-APPROVED EQUIVALENT	DAMP LOCATION, 2000 NOMINAL LUMENS. 4000K COLOR TEMP; SELF-FLANGED OPEN REFLECTOR TRIM, LOW IRIDESCENT CLEAR FINISH. IC RATED, AIRTIGHT CONSTRUCTION, GASKET BETWEEN FIXTURE & SOFFIT; SEE SPECIFICATIONS FOR ENERGY CODE REQUIREMENTS.	R6XE
V		4' LED, DIRECT	(1) 36W LED	LED DRIVER	120V 1P 2W	WALL	FINELITE #HP-2 SERIES WILLIAMS #MX2W SERIES AXIS LIGHTING #BEAM 2 SERIES	1600 NOMINAL LUMENS. 4000K COLOR TEMPERATURE. FINISH SELECTION BY ARCHITECT.	V
W		WALL PACK	(1) 30W LED	LED DRIVER	120V 1P 2W	WALL; 8'-0" AFF	HUBBELL #TRP2 SERIES GARDOO #101L SERIES MCGRAW-EDISON #ST SERIES	3100 NOMINAL LUMENS. 4000K COLOR TEMPERATURE. TYPE IV DISTRIBUTION. FINISH SELECTION BY ARCHITECT.	W
WB		WALL PACK, EGRESS, BATTERY BACKUP	(1) 20W LED (1) 20W LED	LED DRIVER LED DRIVER	120V 1P 2W	WALL; 8'-0" AFF	HUBBELL #TRP2 SERIES GARDOO #101L SERIES MCGRAW-EDISON #ST SERIES	3800 NOMINAL LUMENS. 4000K COLOR TEMPERATURE. INTEGRAL BATTERY BACKUP. TYPE IV DISTRIBUTION. DUAL LED DRIVERS AND DUAL LED ARRAYS FOR EGRESS REQUIREMENTS. DOWNLIGHT ONLY. FINISH SELECTION BY ARCHITECT.	WB
X		EXIT SIGN, BATTERY BACKUP	(2) 1W LED	BATTERY	120V 1P 2W	UNIVERSAL	EMERGLITE #PREMIER SERIES BEHELLI #PACO PX SERIES LIGHTALARMS #GRANDE SERIES	CONNECT TO NEAREST UNSWITCHED LIGHT CIRCUIT IN SAME SPACE. THESE FIXTURES ARE NOT TAGGED WITH "X" ON THE DRAWINGS; ONLY THE SYMBOL IS USED.	X
XG		EXIT SIGN, BATTERY BACKUP	(2) 1W LED	BATTERY	120V 1P 2W	UNIVERSAL	EMERGLITE #PREMIER SERIES BEHELLI #PACO PX SERIES LIGHTALARMS #GRANDE SERIES	WIREGUARD. CONNECT TO NEAREST UNSWITCHED LIGHT CIRCUIT IN SAME SPACE.	XG



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ELECTRICAL  
LUMINAIRE  
SCHEDULE

**E6.1**



PP3 (ALT. BID G-1)											
ROOM: KITCHEN 118			VOLTS: 208Y/120V 3P 4W			AIC: 14,000					
MOUNTING: FLUSH			BUS AMPS: 225			MAIN BKR: 225					
FED FROM: PP2			NEUTRAL: 100%			LUGS: STANDARD					
NOTE: STAINLESS STEEL HINGED TRIM											
CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA			CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA		
			A	B	C				A	B	C
1	20/1	COOLER LTG	0.05			2	20/1	(**) RANGE	0.408		
3	20/1	(*) REC		0.36		4	-/1	SHUNT TRIP SPACE		0	
5	20/1	(*) PREP FRIDGE			0.528	6	20/1	(*) REC			0.54
7	20/1	(*) REFRIDGERATED BASE	0.36			8	70/3	WATER HEATER WH-2	6		
9	20/1	(*) REACH IN FRIDGE		0.648		10				6	
11	20/1	(*) UNDERCOUNTER FRIDGE			0.3	12					6
13	20/1	(*) UNDERCOUNTER FREEZER	0.324			14	20/1	FREEZER LTG	0.05		
15	20/1	(*) REACH IN FREEZER		0.576		16	20/1	AIR CURTAIN		0.1	
17	20/1	REC-EXT GFCI			0.18	18	20/1	REC			0.54
19	15/1	COILING DOOR	0.1			20	40/2	(*) DISHWASHER	3.33		
21	20/1	EXH HOOD CONTROL		0.3		22				3.33	
23	20/1	(*) ICE MAKER			1.36	24	20/3	FAN F-6			0.942
25	20/1	SHUNT TRIP	0.1			26			0.942		
27	20/1	CIRC PUMP CP-2		0.1		28				0.942	
29	20/1	GAS SHUTOFF SOLENOID			0.1	30	20/2	FREEZER EVAPORATOR	1.02		1.02
31	20/1	(**) RANGE	0.408			32				0	
33	-/1	SHUNT TRIP SPACE		0		34	20/1	SPARE			0.192
35	15/1	FAN F-7			0.1	36	20/1	COOLER EVAPORATOR			
37	15/3	COOLER CONDENSER	0.443			38	15/3	FREEZER CONDENSER	0.831		
39				0.443		40				0.831	
41					0.443	42					0.831
43	20/1	SPARE	0			44	20/1	SPARE	0		
45	20/1	SPARE		0		46	20/1	SPARE		0	
47	20/1	SPARE			0	48	20/1	SPARE			0
49	20/1	SPARE	0			50	20/1	SPARE	0		
51	20/1	SPARE			0	52	20/1	SPARE			0
53	20/1	SPARE			0	54	20/1	SPARE			0
TOTAL CONNECTED KVA BY PHASE									14.4	13.6	13.1
TOTAL CONNECTED AMPS BY PHASE									120	115	109
			CONN KVA	CALC KVA	(%)				CONN KVA	CALC KVA	(%)
LIGHTING			0.1	0.125	(125%)	RECEPTACLES			1.62	1.62	(50%>10)
LARGEST MOTOR			2.83	0.707	(25%)	KITCHEN EQUIPMENT			17.6	11.4	(65%)
MOTORS			3.33	3.33	(100%)	CONTINUOUS			18	22.5	(125%)
						NONCONTINUOUS			0.4	0.4	(100%)
						TOTAL LOAD				40.1	
						BALANCED 3-PHASE LOAD				111 A	

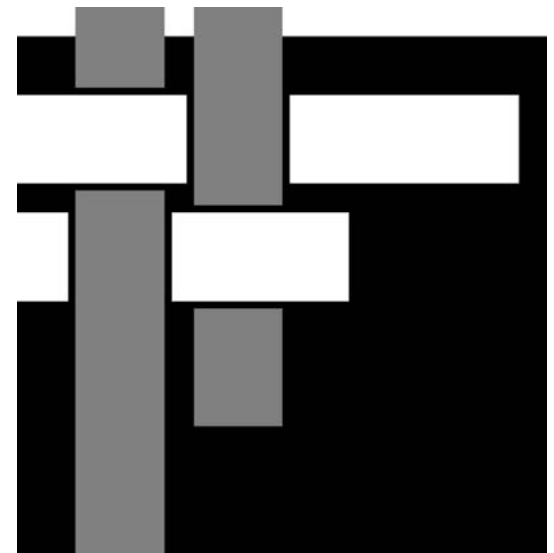
(\*) PROVIDE GFCI (5mA) BREAKER  
(\*\*) PROVIDE SHUNT TRIP BREAKER

PP5											
ROOM: STORAGE 201			VOLTS: 208Y/120V 3P 4W			AIC: 14,000					
MOUNTING: SURFACE			BUS AMPS: 225			MAIN BKR: MLO					
FED FROM: PP4			NEUTRAL: 100%			LUGS: STANDARD					
NOTE:											
CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA			CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA		
			A	B	C				A	B	C
1	20/1	REC	0.9			2	30/3	SPD-PP5	0		
3	20/1	(*) REC-EWC		0.8		4				0	
5	20/1	REC			1.08	6					0
7	20/1	REC, REC-EXT GFCI, REC-GFCI	0.9			8	20/1	EGRESS, EXIT, GYM LTG, LTG-WALLPACK	1.21		
9	20/1	REC, REC-FLOOR		1.08		10	20/1	GYM LTG		1.12	
11	20/1	LTG CONTROL			0.1	12	20/1	EGRESS, EXIT, GYM LTG, LTG, LTG-WALLPACK			1.36
13	20/1	SPARE	0			14	20/1	EGRESS, EXIT, INVERTER, LTG	1.05		
15	20/1	BASKETBALL GOAL #1		1.66		16	20/1	EGRESS, EXIT, LTG, LTG-WALLPACK		0.933	
17	20/1	SPARE			0	18	20/1	EBB-1			0.375
19	20/1	BASKETBALL GOAL #2	1.66			20	20/1	RECEPTACLE	0.3		
21	20/1	POWERED CURTAIN		1.66		22	20/1	RECEPTACLE		0.3	
23	20/1	SOUND SYSTEM AMPLIFIER			1	24	20/1	REC, REC-EXT GFCI			0.72
25	20/1	REC-ROOF	0.72			26	20/1	(**) REC-HOT BOX	1.2		
27	15/1	FAN F-5		0.468		28	20/1	(**) REC-HOT BOX		1.2	
29	20/1	CIRC PUMP CP-1			0.1	30	20/1	HEIGHT ADJUSTER			1.4
31	20/1	SPARE	0			32	20/1	HEIGHT ADJUSTER	1.4		
33	20/1	SPARE			0	34	20/2	WATER HEATER WH-1		1.5	
35	20/1	SPARE			0	36					1.5
37	20/1	SPARE	0			38	20/1	SPARE	0		
39	20/1	SPARE			0	40	20/1	(#) EMERGENCY RESPONDER RADIO			1
41	20/1	SPARE			0	42	20/1	(#) FIRE ALARM PANEL			1
TOTAL CONNECTED KVA BY PHASE									9.34	11.7	8.63
TOTAL CONNECTED AMPS BY PHASE									77.8	97.9	72.3
			CONN KVA	CALC KVA	(%)				CONN KVA	CALC KVA	(%)
LIGHTING			5.77	7.21	(125%)	CONTINUOUS			3	3.75	(125%)
LARGEST MOTOR			1.66	0.414	(25%)	NONCONTINUOUS			6.2	6.2	(100%)
MOTORS			6.47	6.47	(100%)	HEATING			0.375	0.375	(100%)
RECEPTACLES			6	6	(50%>10)	DIVERSE			1.87	0	(0%)
						TOTAL LOAD				30.4	
						BALANCED 3-PHASE LOAD				84.4 A	

(\*) PROVIDE GFCI (5mA) BREAKER  
(\*\*) PROVIDE GFEP (30mA) BREAKER  
(#) PROVIDE BREAKER LOCK

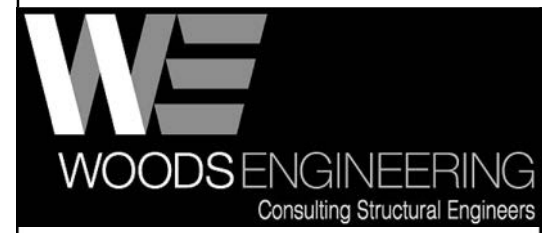
PP4											
ROOM: STORAGE 201			VOLTS: 208Y/120V 3P 4W			AIC: 18,000					
MOUNTING: SURFACE			BUS AMPS: 800			MAIN BKR: 800					
FED FROM: MSB			NEUTRAL: 100%			LUGS: STANDARD					
NOTE:											
CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA			CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA		
			A	B	C				A	B	C
1	400/3	(*) DOAS-1	36			2	-/3	SPACE	0		
3				36		4				0	
5					36	6					0
7	225/3	PANEL PP5	9.34			8	-/3	SPACE	0		
9				11.7		10				0	
11					8.63	12					0
13	175/3	PHP-1	19.5			14	-/3	SPACE	0		
15				19.5		16				0	
17					19.5	18					0
19	175/3	PHP-2	19.5			20	-/3	SPACE	0		
21				19.5		22				0	
23					19.5	24					0
25	60/3	PHP-3	6.88			26	-/3	SPACE	0		
27				6.88		28				0	
29					6.88	30					0
TOTAL CONNECTED KVA BY PHASE									91.2	93.6	90.5
TOTAL CONNECTED AMPS BY PHASE									759	779	754
			CONN KVA	CALC KVA	(%)				CONN KVA	CALC KVA	(%)
LIGHTING			5.77	7.21	(125%)	CONTINUOUS			3	3.75	(125%)
LARGEST MOTOR			40	10	(25%)	NONCONTINUOUS			6.2	6.2	(100%)
MOTORS			103	103	(100%)	HEATING			149	149	(100%)
RECEPTACLES			6	6	(50%>10)	DIVERSE			1.87	0	(0%)
						TOTAL LOAD				286	
						BALANCED 3-PHASE LOAD				793 A	

(\*) ADD ALTERNATE #G-1



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March 22, 2023

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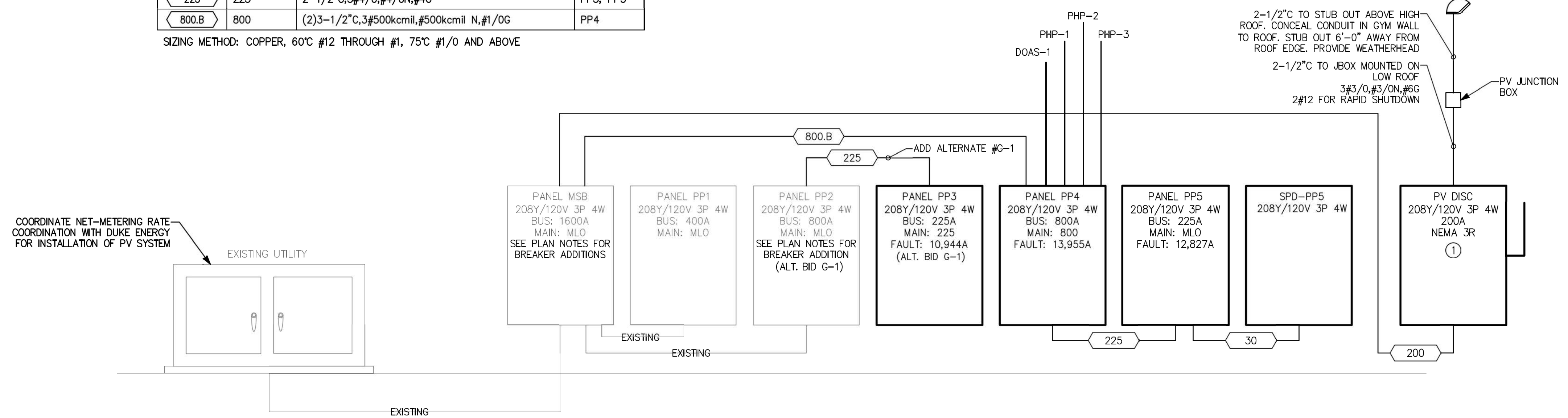
ELECTRICAL PANEL SCHEDULES

**E6.2**

### FEEDER SCHEDULE

ID	FEEDER AMPS	CONDUIT AND FEEDER	FEEDING THESE DEVICES
30	30	3/4" C, 3#10, #10N, #10G	SPD-PP5
200	200	2" C, 3#3/0, #3/0N, #6G	PV DISC
225	225	2-1/2" C, 3#4/0, #4/0N, #4G	PP3, PP5
800.B	800	(2) 3-1/2" C, 3#500kcmil, #500kcmil N, #1/0G	PP4

SIZING METHOD: COPPER, 60°C #12 THROUGH #1, 75°C #1/0 AND ABOVE

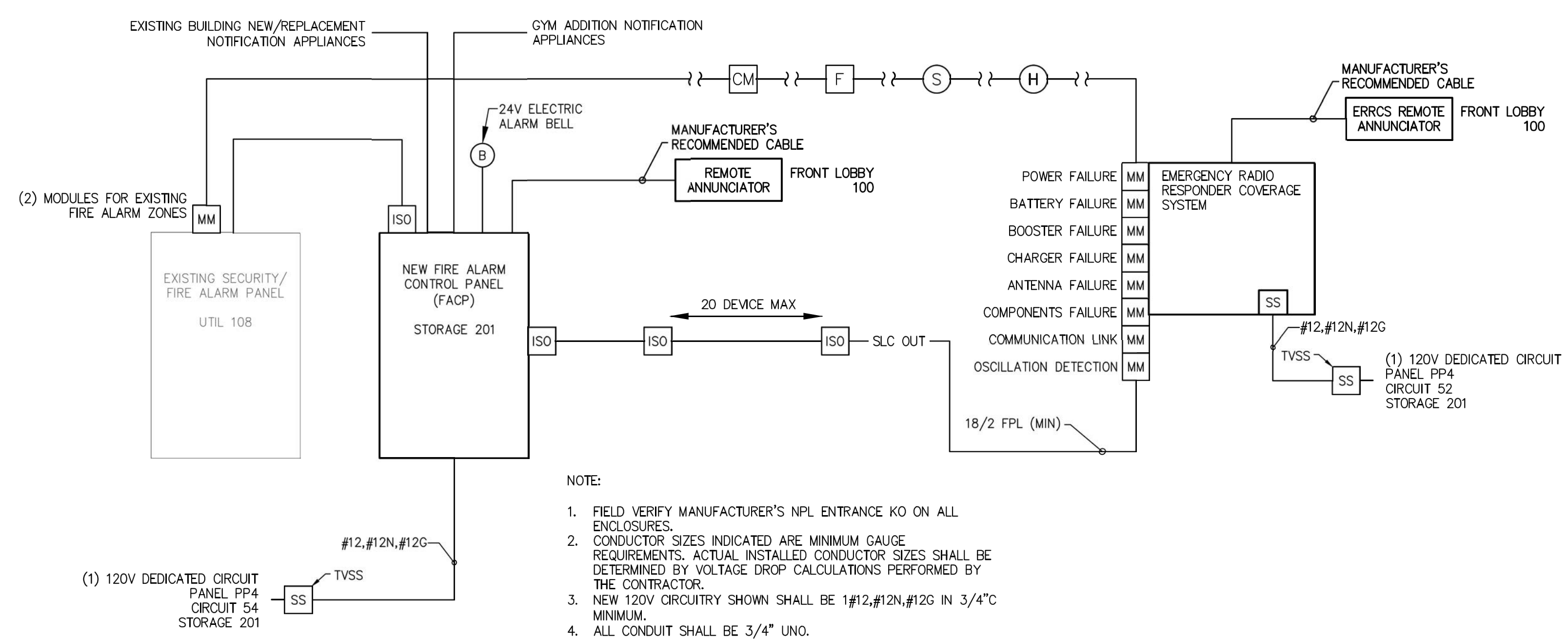


**A** ELECTRICAL POWER RISER DIAGRAM  
E7.1 NO SCALE

**KEYED NOTES:**

① PROVIDE DISCONNECT WITH AUXILIARY CONTACT TO ACCOMMODATE RAPID SHUTDOWN OF THE PV SYSTEM WHEN THE DISCONNECT IS SWITCHED OFF. PROVIDE MANUFACTURER REQUIRED CIRCUITRY FROM DISCONNECT TO ROOFTOP PV EQUIPMENT FOR SHUTDOWN CONTROL.

OPERATION MATRIX	FACP ANNUNCIATION			NOTIFICATION			CONTROL			
	A	B	C	D	E	F	G	H	I	J
1. MANUAL PULL STATION	X	X				X	X	X	X	X
2. DUCT SMOKE DETECTOR	X	X				X	X	X	X	X
3. HEAT DETECTOR	X	X				X	X	X	X	X
4. SPRINKLER SYSTEM FLOW SWITCH - WATERFLOW	X	X				X	X	X	X	X
5. EXISTING BUILDING ALARM ZONES MONITOR MODULES	X	X				X	X	X	X	X
6. SPRINKLER SYSTEM VALVES - TAMPER SWITCH				X	X					
7. BACKFLOW TAMPER SWITCH				X	X					
8. BACKFLOW LOW TEMPERATURE				X	X					
9. FIRE ALARM SYSTEM LOW BATTERY			X	X						
10. OPEN CIRCUIT			X	X						
11. NOTIFICATION CIRCUIT FAULT			X	X						
12. GROUND FAULT			X	X						
13. FIRE ALARM SYSTEM POWER FAILURE (60 MINUTES)			X	X						
14. HOOD SUPPRESSION SYSTEM ACTIVATION	X	X			X	X	X	X	X	X
15. EXISTING FIRE ALARM SYSTEM					X	X	X	X	X	X
16. ERRCS ANTENNA MALFUNCTION					X	X				
17. ERRCS BDA FAILURE					X	X				
18. ERRCS LOW BATTERY					X	X				
19. ERRCS AC POWER LOSS					X	X				
20. ERRCS SYSTEM COMPONENTS FAILURE					X	X				
21. ERRCS BATTERY CHARGER FAILURE					X	X				
22. ERRCS COMMUNICATION LINK TO FACP					X	X				
23. ERRCS OSCILLATION DETECTION					X	X				



**B** FIRE ALARM SYSTEM RISER DIAGRAM  
E7.1 NO SCALE

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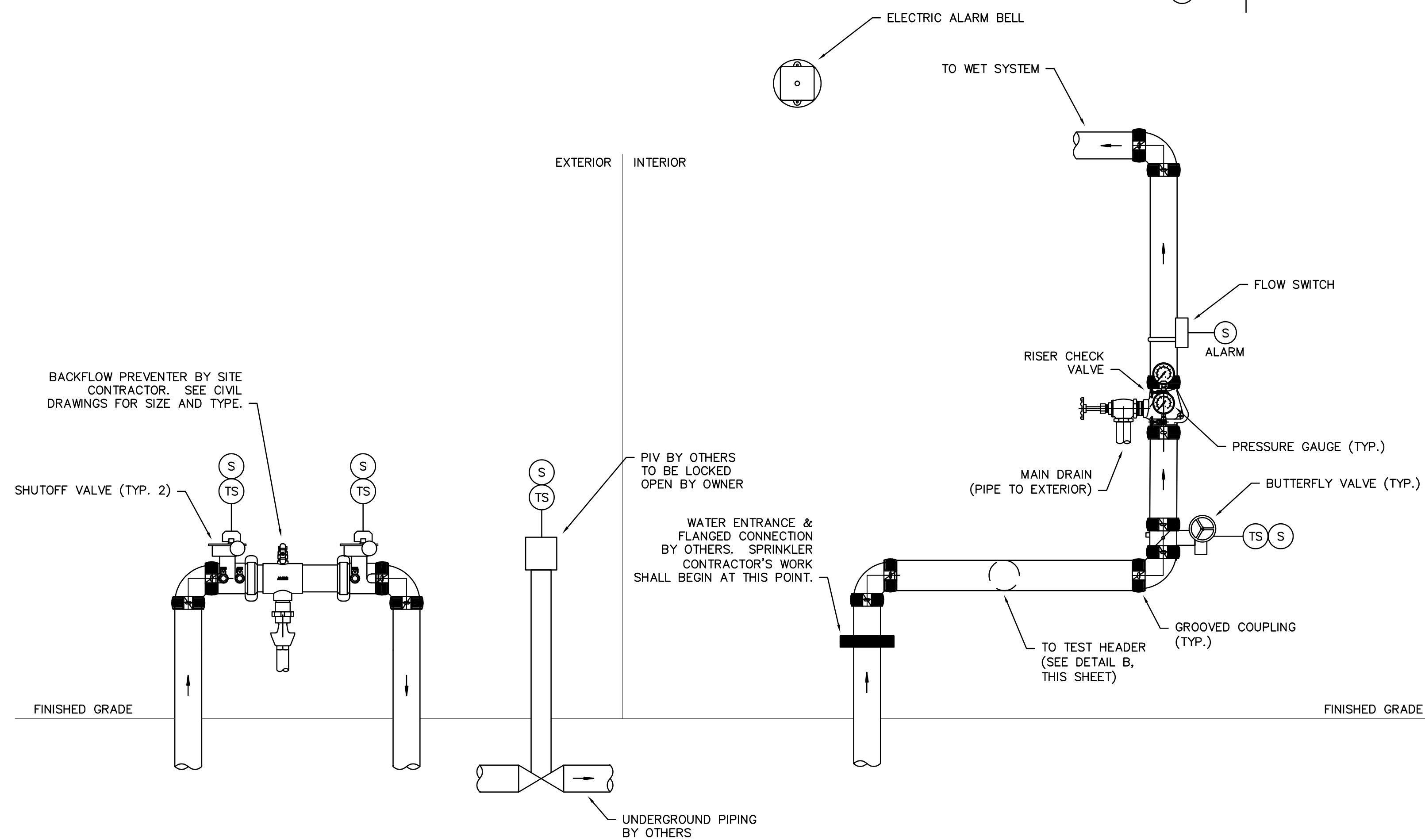
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ELECTRICAL RISER DIAGRAMS

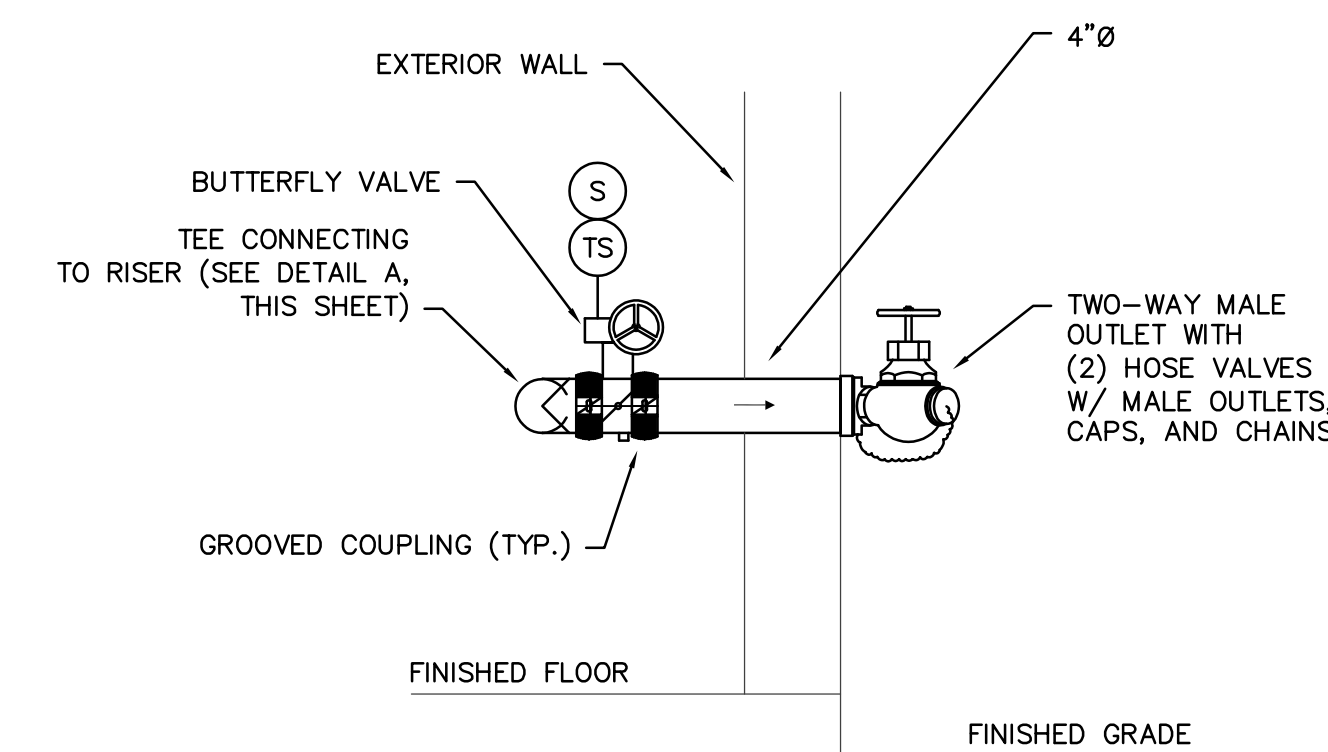
E7.1

LEGEND

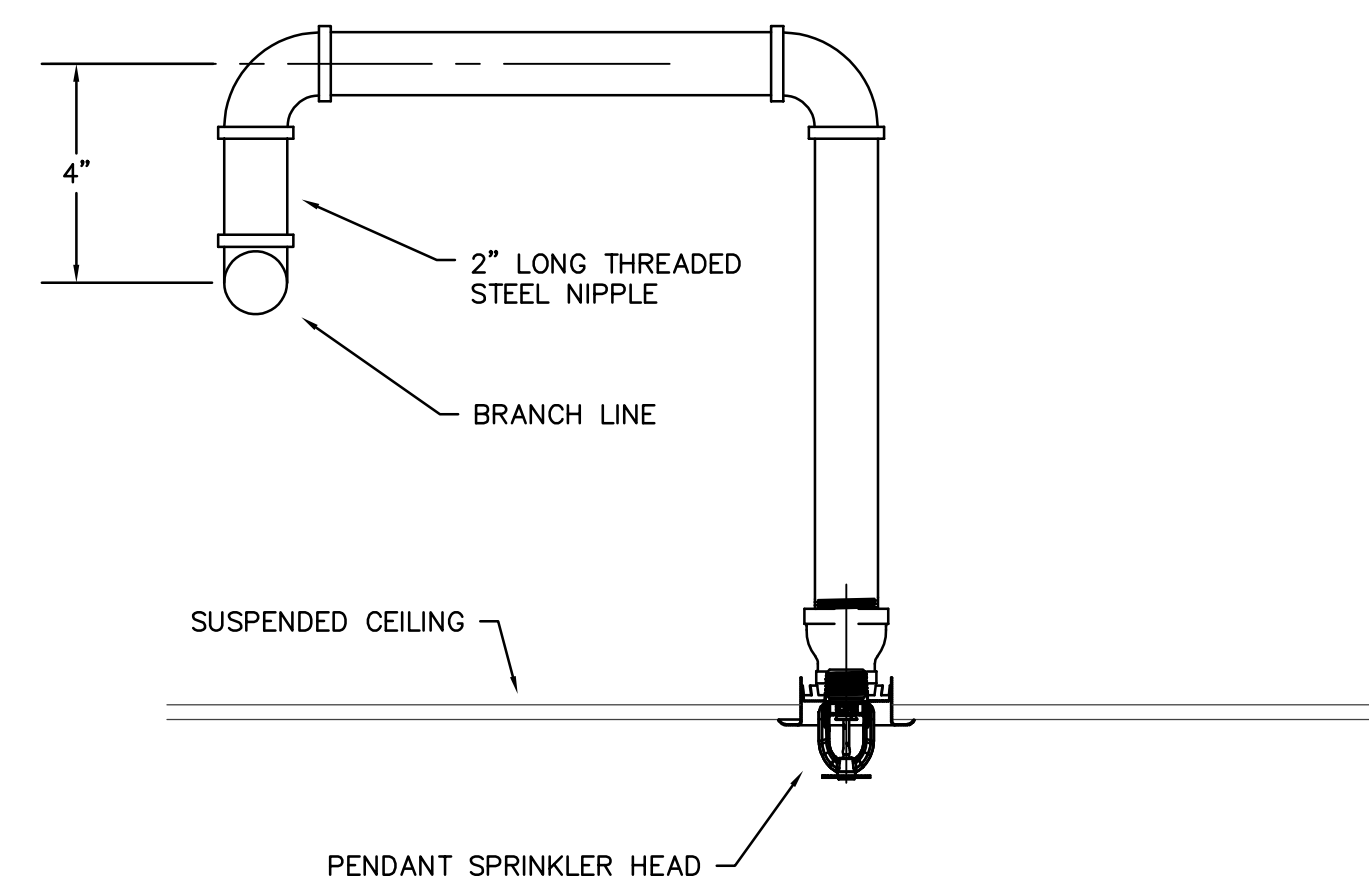
SYMBOL	DESCRIPTION
(TS)	TAMPER SWITCH
(S)	SIGNALING SYSTEM INTERFACE



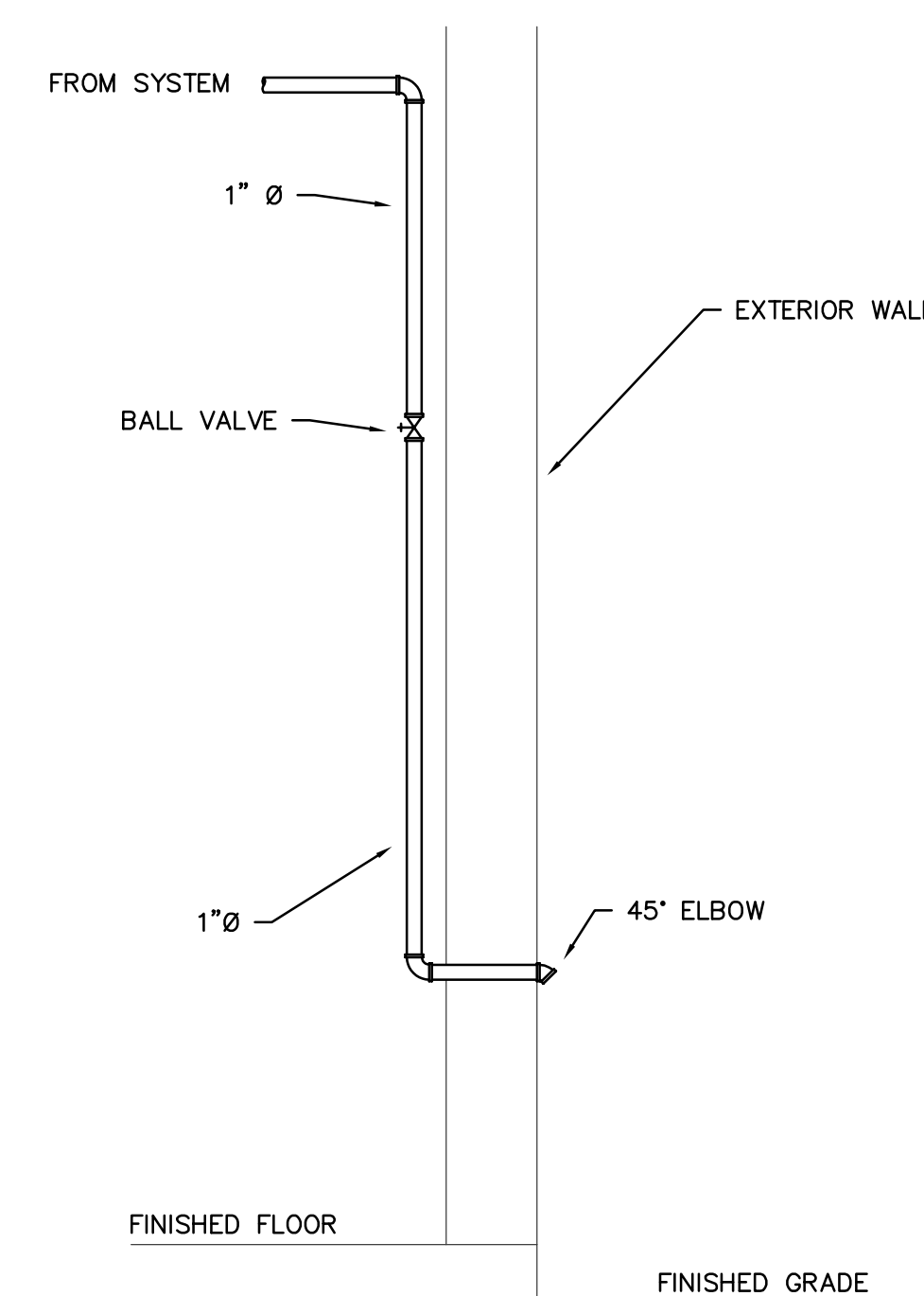
**A**  
F0.1  
NO SCALE  
SPRINKLER ENTRANCE DETAIL



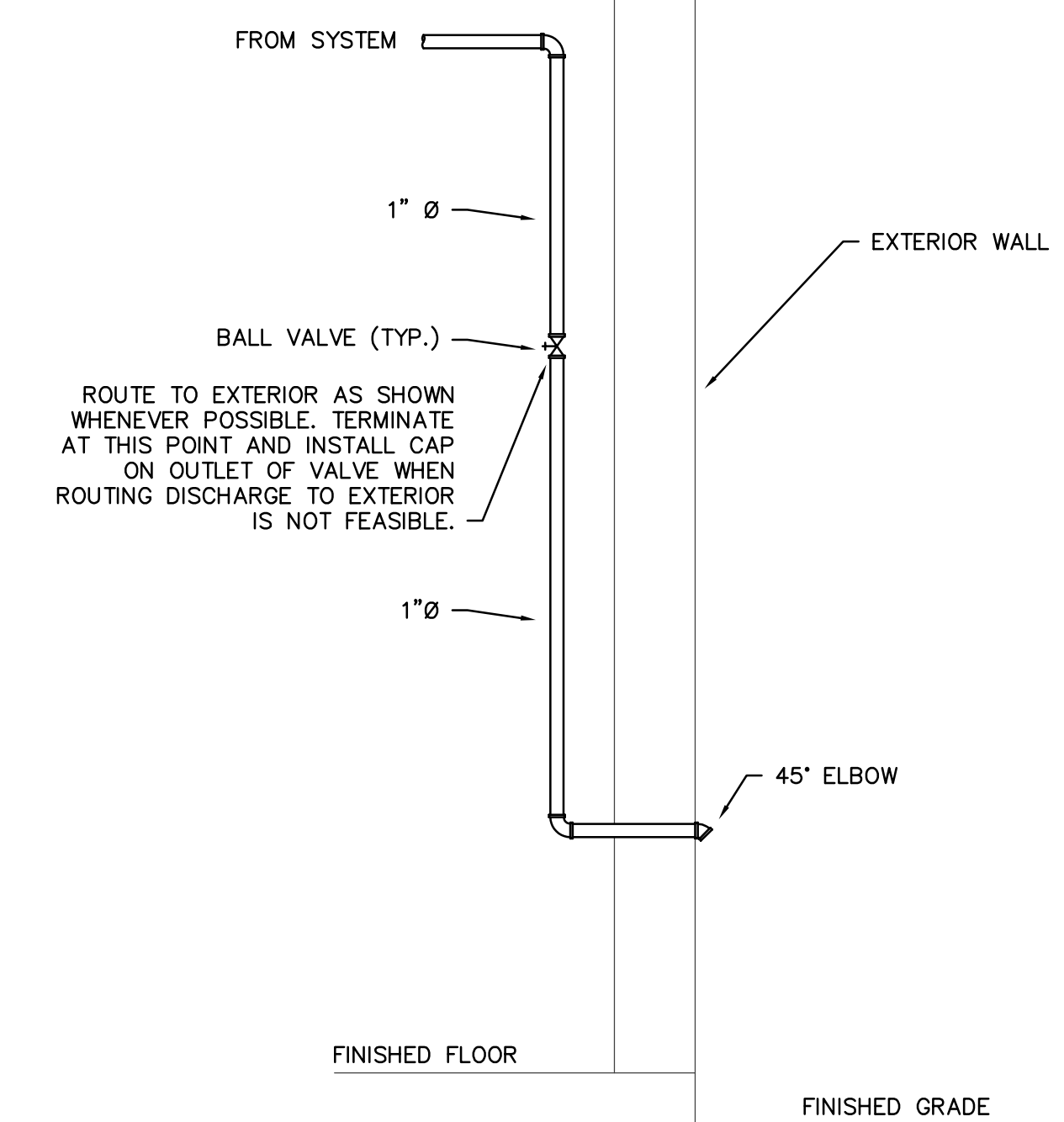
**B**  
F0.1  
NO SCALE  
BACKFLOW PREVENTER TEST HEADER DETAIL



**C**  
F0.1  
NO SCALE  
ARMOVER DETAIL



**D**  
F0.1  
NO SCALE  
INSPECTOR'S TEST CONNECTION (WET)



**E**  
F0.1  
NO SCALE  
AUXILIARY DRAIN DETAIL (WET)

GENERAL NOTES: (APPLIES TO ALL FIRE PROTECTION DRAWINGS)

1. SPRINKLER CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH BUILDING STRUCTURE AND SYSTEMS, AS WELL AS THE WORK OF OTHER TRADES IN ORDER TO ELIMINATE CONFLICTS.
2. SPRINKLER CONTRACTOR'S DESIGN SHALL BE PER NFPA 13 AND THE NC STATE FIRE CODE (LATEST EDITION APPROVED BY THE NC BUILDING CODE COUNCIL WITH NC AMENDMENTS).
3. PROVIDE AUXILIARY DRAINS WHEREVER WET SYSTEM PIPING IS ROUTED SUCH THAT WATER IS TRAPPED IN EXCESS OF 5 GALLONS.
4. LIGHT HAZARD OCCUPANCIES: PER NFPA 13, DESIGN DENSITY SHALL BE 0.1 GPM PER SQUARE FOOT OVER THE MOST REMOTE 1,500 SQUARE FEET. REMOTE AREA SHALL BE INCREASED BY 30% WHERE SPRINKLERS ARE LOCATED BELOW SLOPED CEILING OR ROOFS WITH SLOPE GREATER THAN 2:12 PER NFPA 13. REMOTE AREA MAY BE DECREASED WHEN CEILING ARE LESS THAN 20'-0" ABOVE FINISHED FLOOR DUE TO THE USE OF QUICK RESPONSE HEADS PER NFPA 13. HOSE ALLOWANCE FOR LIGHT HAZARD SHALL BE 100 GPM PER NFPA 13.
5. ORDINARY HAZARD I OCCUPANCIES: PER NFPA 13, DESIGN DENSITY SHALL BE 0.15 GPM PER SQUARE FOOT OVER THE MOST REMOTE 1,500 SQUARE FEET. REMOTE AREA SHALL BE INCREASED BY 30% WHERE SPRINKLER ARE LOCATED BELOW SLOPED CEILING OR ROOFS WITH SLOPE GREATER THAN 2:12 PER NFPA 13. REMOTE AREA MAY BE DECREASED WHEN CEILING ARE LESS THAN 20'-0" ABOVE FINISHED FLOOR DUE TO THE USE OF QUICK RESPONSE HEADS PER NFPA 13. HOSE ALLOWANCE FOR ORDINARY HAZARD I SHALL BE 250 GPM PER NFPA 13.
6. LOCATE SPRINKLER HEADS IN THE CENTER OF CEILING TILES AND IN-LINE WITH LIGHTS AND OTHER CEILING MOUNTED ITEMS.



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FIRE PROTECTION  
GENERAL NOTES AND  
DETAILS

F0.1



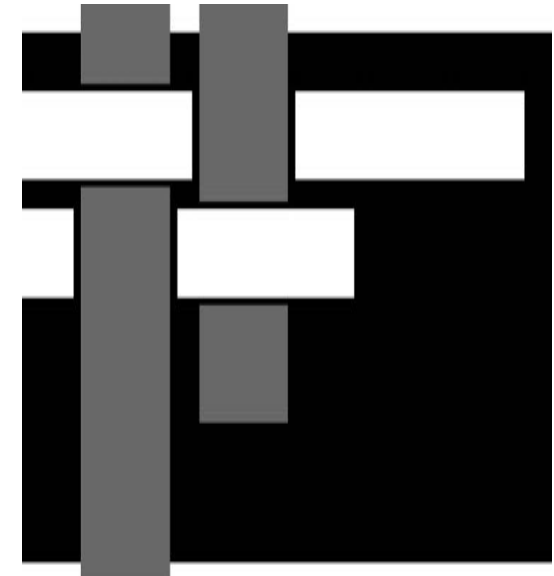
TEST HYDRANT:  
 STATIC PRESSURE: 53 PSI  
 RESIDUAL PRESSURE: 51 PSI  
 FLOW TEST PERFORMED BFPE ON 6/23/22  
 AT 2:00 PM.

PROJECT SITE

FLOW HYDRANT:  
 FLOW: 950 GPMI

**A** FIRE PROTECTION SITE DIAGRAM **N**  
 F0.2 NO SCALE

NOTE: SEE CIVIL SITE PLANS FOR WATER PIPING, AND TO SCALE DRAWINGS.



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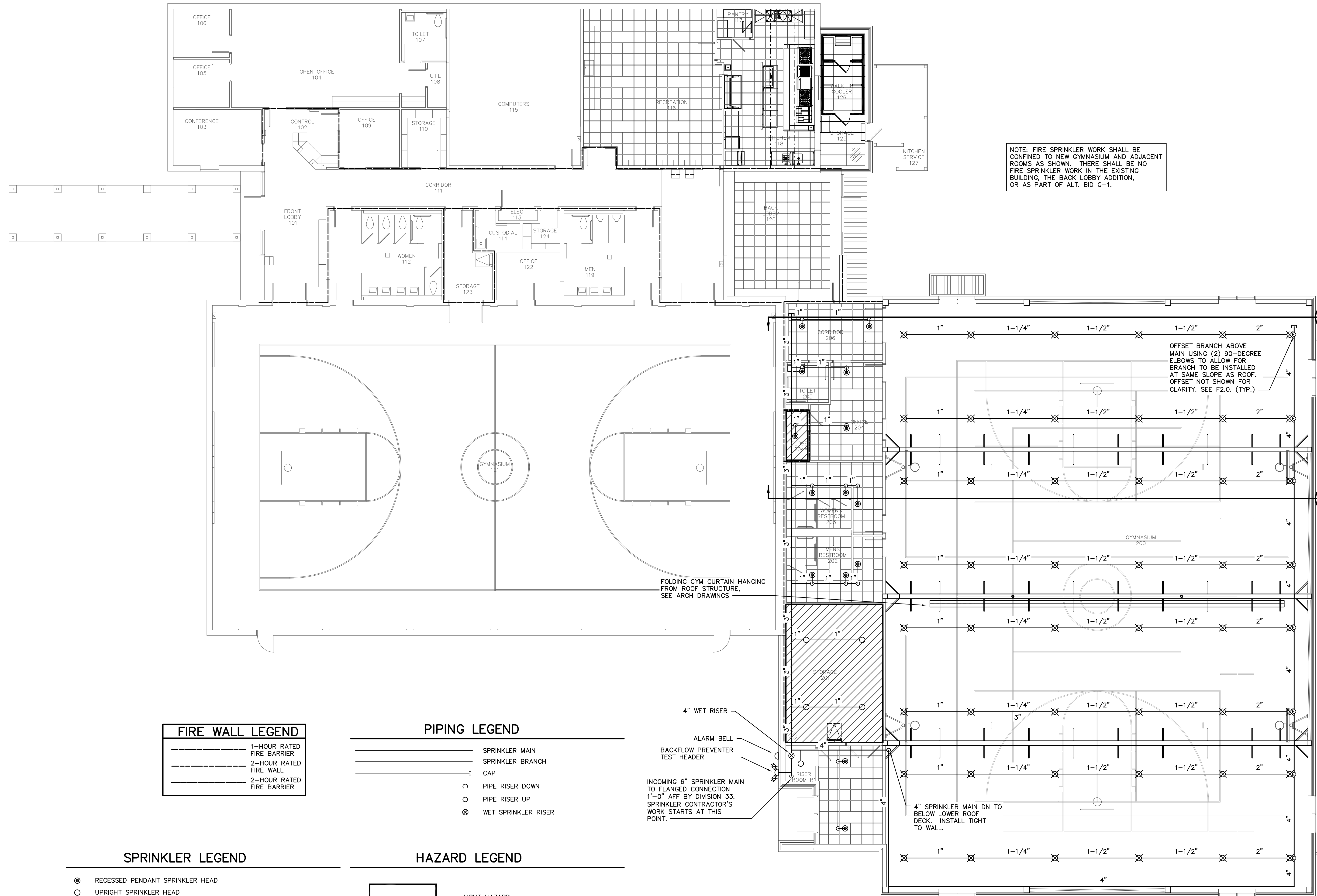
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**FIRE PROTECTION  
 SITE DIAGRAM**



NOTE: FIRE SPRINKLER WORK SHALL BE CONFINED TO NEW GYMNASIUM AND ADJACENT ROOMS AS SHOWN. THERE SHALL BE NO FIRE SPRINKLER WORK IN THE EXISTING BUILDING, THE BACK LOBBY ADDITION, OR AS PART OF ALT. BID G-1.

FIRE WALL LEGEND	
	1-HOUR RATED FIRE BARRIER
	2-HOUR RATED FIRE WALL
	2-HOUR RATED FIRE BARRIER

PIPING LEGEND	
	SPRINKLER MAIN
	SPRINKLER BRANCH
	CAP
	PIPE RISER DOWN
	PIPE RISER UP
	WET SPRINKLER RISER

SPRINKLER LEGEND	
	RECESSED PENDANT SPRINKLER HEAD
	UPRIGHT SPRINKLER HEAD
	UPRIGHT SPRINKLER HEAD W/ GUARD

HAZARD LEGEND	
	LIGHT HAZARD
	ORDINARY HAZARD I

4" WET RISER  
ALARM BELL  
BACKFLOW PREVENTER  
TEST HEADER  
INCOMING 6" SPRINKLER MAIN TO FLANGED CONNECTION 1'-0" AFF BY DIVISION 33. SPRINKLER CONTRACTOR'S WORK STARTS AT THIS POINT.

4" SPRINKLER MAIN DN TO BELOW LOWER ROOF DECK. INSTALL TIGHT TO WALL.

OFFSET BRANCH ABOVE MAIN USING (2) 90-DEGREE ELBOWS TO ALLOW FOR BRANCH TO BE INSTALLED AT SAME SLOPE AS ROOF. OFFSET NOT SHOWN FOR CLARITY. SEE F2.0. (TYP.)

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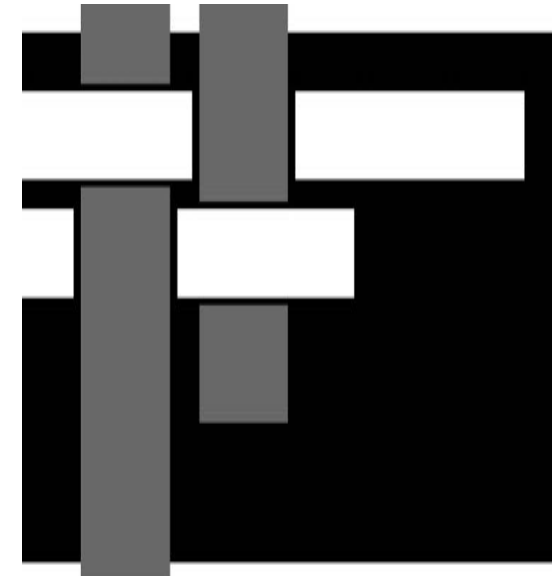
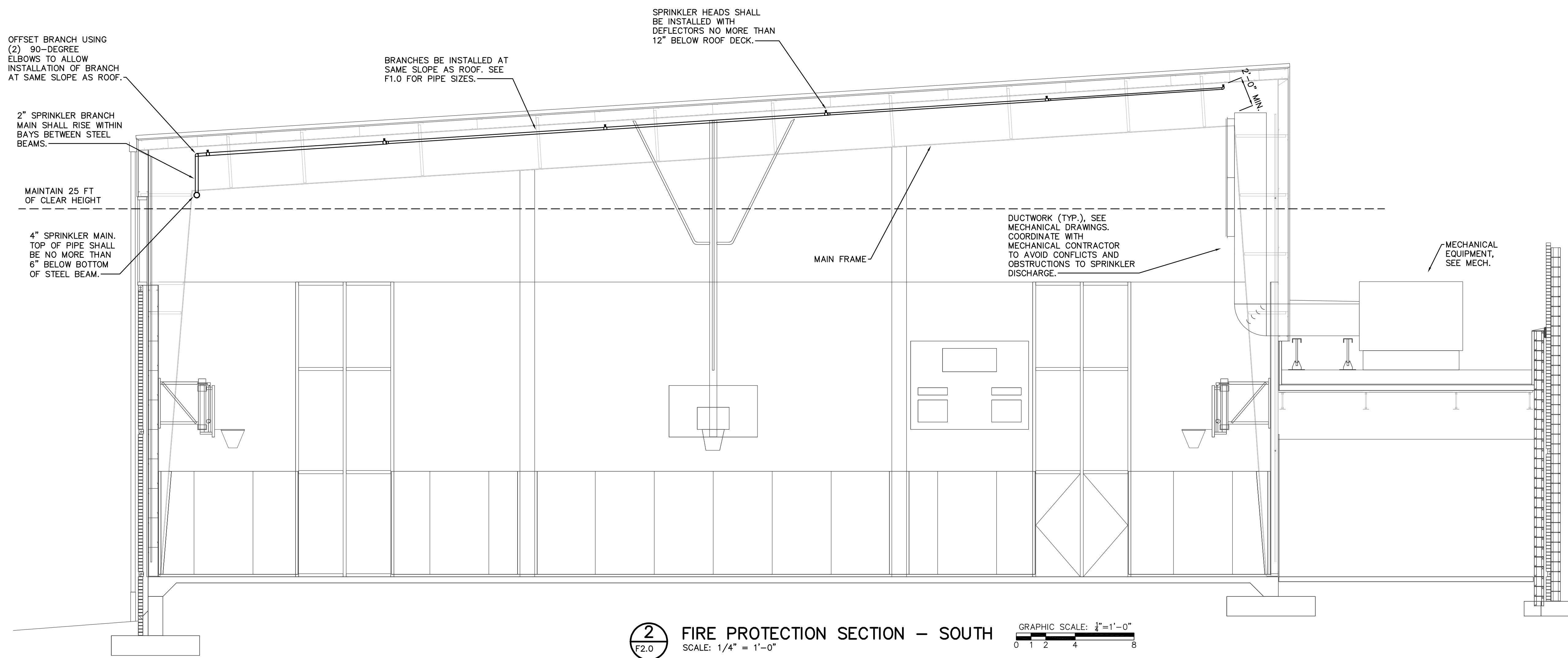
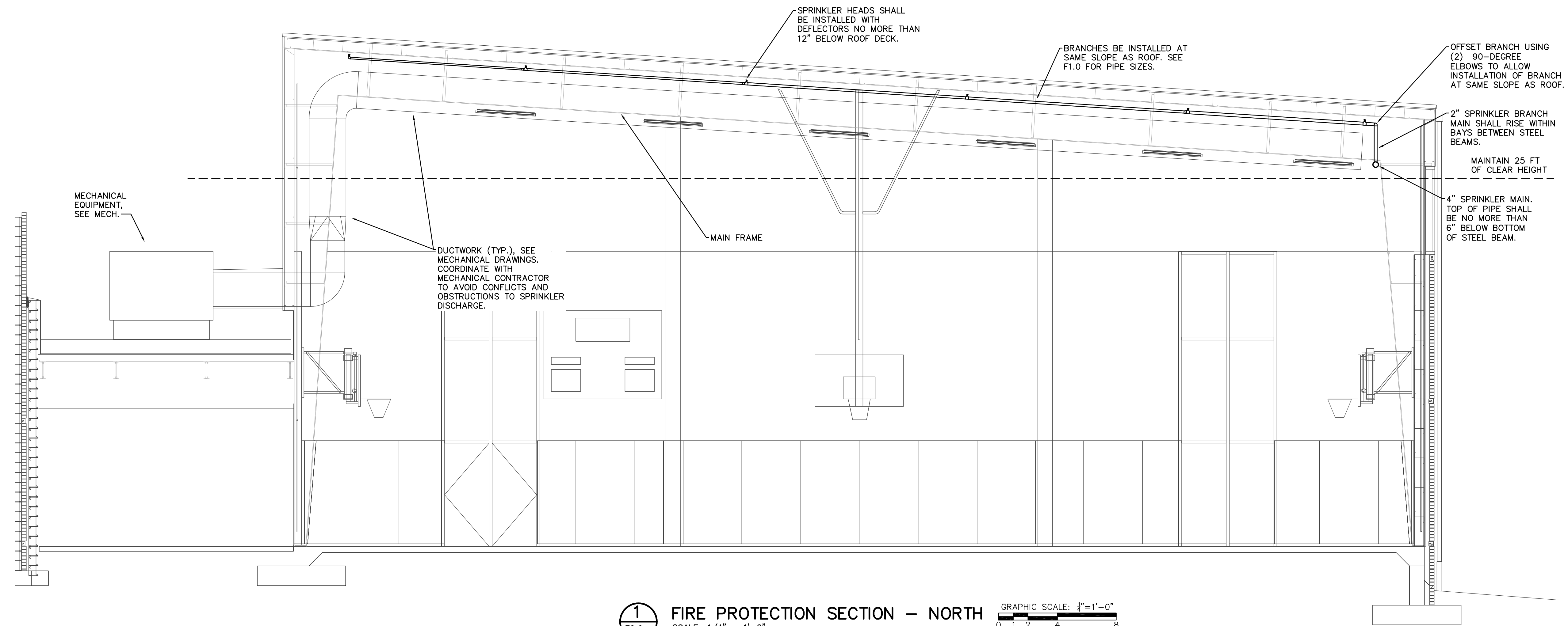
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FIRE PROTECTION PLANS



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**FIRE PROTECTION  
SECTIONS**

**F2.0**  
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