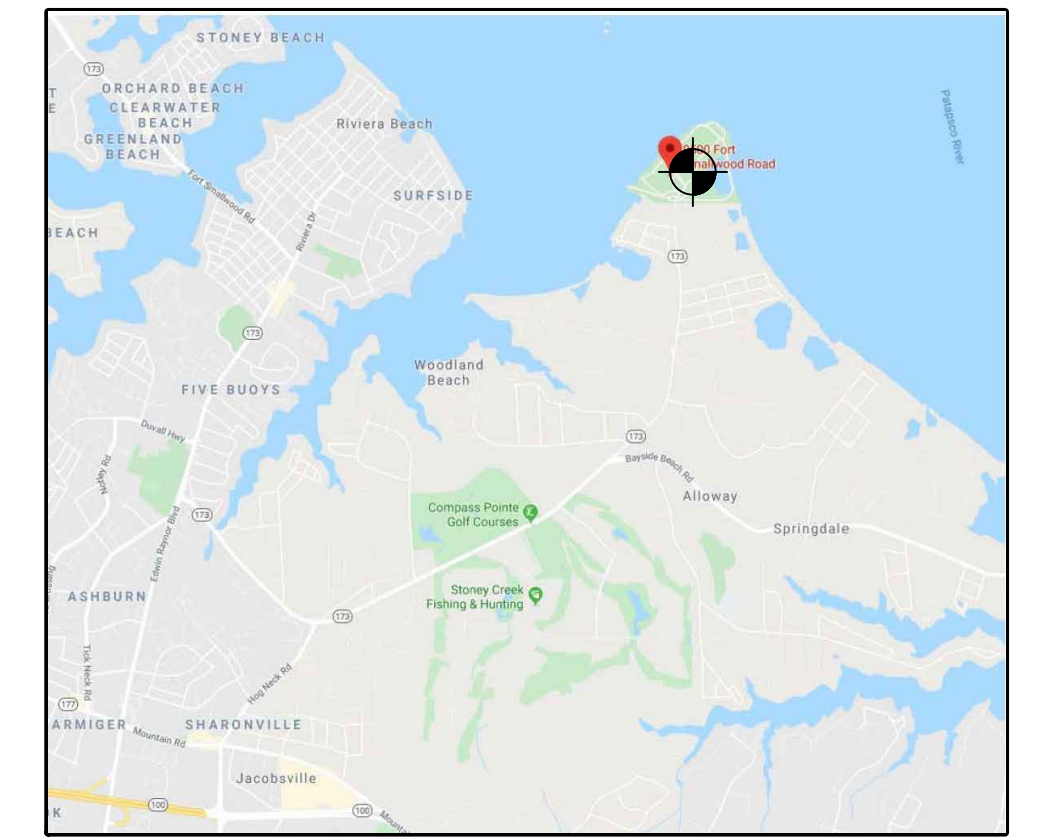


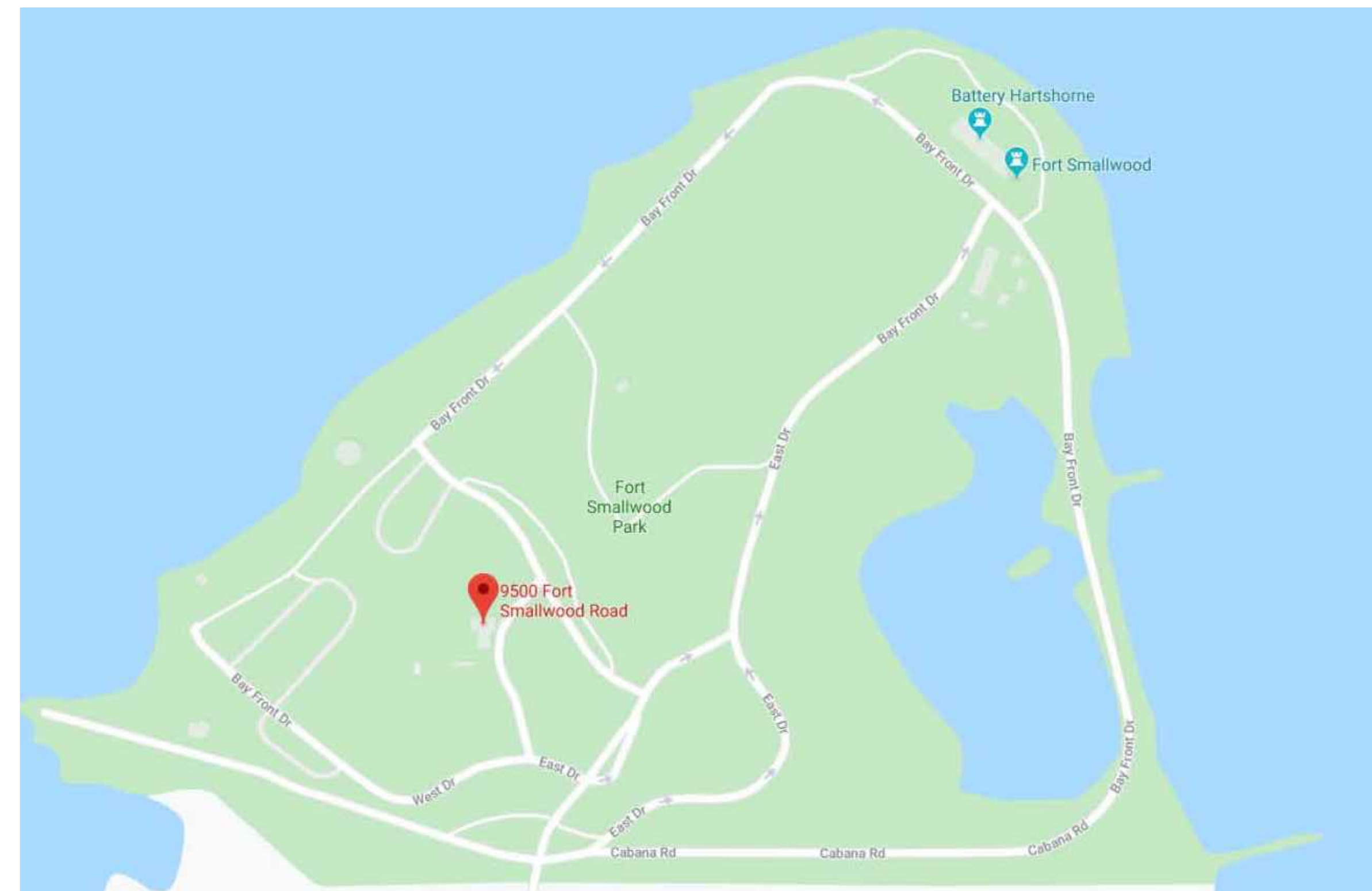
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	C103 SITE IMPROVEMENT DETAILS	
	C104 GEOTECHNICAL DATA	
	C200 OVERALL EXISTING CONDITIONS PLAN	
	C201 MAINTENANCE AREA EXISTING CONDITIONS	
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ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS FORT SMALLWOOD PARK PROJECT NO. P535900 CONTRACT NO. P535907



AREA MAP



VICINITY MAP

BID DOCUMENTS

Statement of Accessibility Review I hereby certify that these plans have been designed in conformance with the 2010 ADA Standards for Accessible Design, County Code, Maryland Accessibility Code and Accessible and Useable Buildings and Facilities - ICC A117.1- 2009 standard.

Print name: _____ Signature: _____ Date: _____

SYMBOL LEGEND

	SECTION MARK
	ELEVATION MARK
	DOOR NUMBER TAG
	WINDOW TYPE TAG
	WALL TYPE TAG
	DETAIL MARK
	ROOM TAG
	EXIT AND OCCUPANT LOAD
	1 HOUR FIRE SEPARATION
	2 HOUR FIRE SEPARATION
	SMOKE PARTITION
	DEAD END LENGTH
	COMMON PATH OF TRAVEL LENGTH
	FENCE
	PROPERTY LINE
	SLOPE UP
	SLOPE DOWN
	EXIT SIGN AND DIRECTION
	COLUMN REFERENCE GRID
	FLOOR ELEVATION
	EXISTING WALLS AND DOORS
	DEMOLISH EXISTING WALLS AND DOORS
	NEW DOORS AND WALLS

6" UNLESS OTHERWISE NOTED

gba
gant-brunnett
ARCHITECTS
15 West Mulberry Street
Baltimore, Maryland 21201-4406
Telephone Number: 410-234-8444

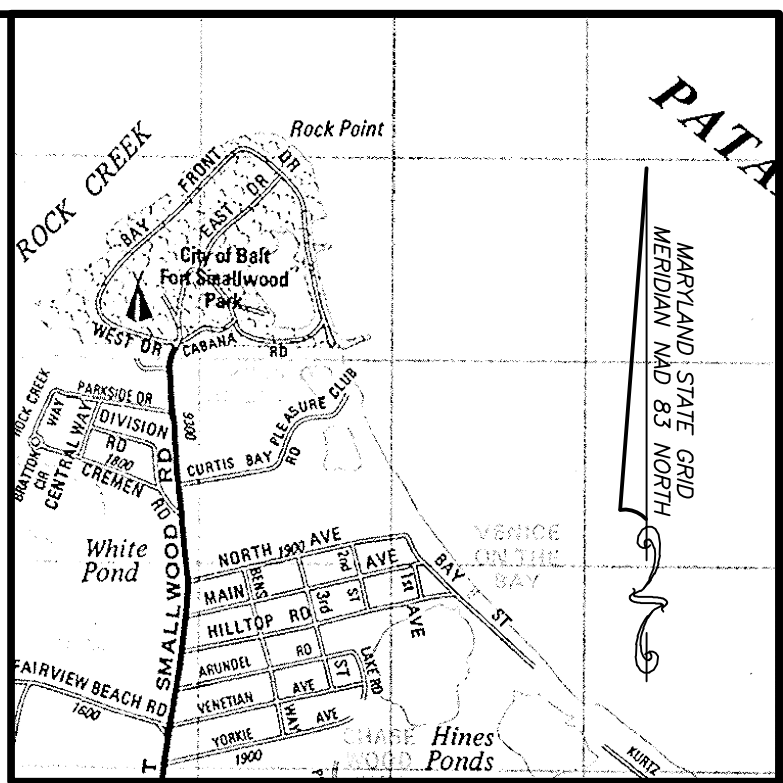
*PROFESSIONAL CERTIFICATION
I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NUMBER 000, EXPIRATION DATE 05/23/2013.*

(C) GANT BRUNETT ARCHITECTS
ALL REPRODUCTION IS PROHIBITED

NO.	DESCRIPTION	BY	DATE
△			

ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS				DATE: 4-28-2021
APPROVED	DATE	APPROVED	DATE	SCALE: AS NOTED
CHIEF ENGINEER		PROJECT MANAGER		DRAWN BY: JG
APPROVED	DATE	APPROVED	DATE	CHECKED BY: JB
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY		SHEET NO. OF
				PROJECT NO. P535900
				PROPOSAL NO. P535907
				FORT SMALLWOOD PARK 9500 FORT SMALLWOOD ROAD PASADENA, MD 21122
				COVER SHEET
				A100

Department of Public Works
Anne Arundel County, Maryland
FORT SMALLWOOD PHASE II
Project No. P535900 / Contract No. P535907



GENERAL NOTES

- Notify the Anne Arundel County Department of Planning and Code Enforcement, Inspection Division, (410) 222-7784 (48) forty-eight hours before beginning the work shown on these plans.
- The existing utilities and obstructions shown are from the best available records and shall be verified by the contractor prior to construction. Necessary precautions shall be taken by the contractor to protect existing services and mains, and any damage to them shall be repaired immediately at his own expense.
- It shall be distinctly understood that failure to mention specifically any work which would normally be required to complete the project shall not relieve the Contractor of his responsibility to complete such work.
- Temporary sediment control measures shall be maintained until all contributing areas are graded and stabilized.
- The topographic information shown herein in the areas of proposed work is based on field surveys performed by Boyd & Dowgiallo, P.A. Other topographic and improvement information is based on Anne Arundel County as-built drawings and GIS records.
- The contractor shall notify "Miss Utility" at 1-800-257-7777 five (5) working days before starting work shown on these plans.
- All disturbed areas shall be seeded or better as per plans.
- The user is responsible to verify all information shown on these plans.
- The Contractor shall note that in case of a discrepancy between the scaled and the computed dimensions shown on these plans; the computed dimensions shall govern. The Engineer shall be notified immediately of any discrepancies perceived by the contractor.
- File dirt on the high side of the trench during utility construction.
- The grading quantities shown herein are for permit purposes only and should not be used for bidding purposes.
- All utility poles within the limits of disturbance shall be braced as necessary at contractor's expense. In cases where utility poles will interfere with construction, those poles shall be relocated at the owner's expense.
- All construction shall be in conformance with the "2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control," and with the Anne Arundel County "Standard Details and Specifications for Construction" dated January, 2001, and revisions thereafter.
- This project is located within the Patapsco Tidal watershed.
- The coordinates and elevations shown in these plans are checked against Anne Arundel County GIS records against benchmark 90-C, N: 545,637.892, E: 1,459,586.185, Elev. 14.29, being a 5/8" metal rod.
- Spot elevations are at flowline.
- Proposed curb is concrete, 6" high.
- Property is in Rural water and sewer service area.
- The entire property is in greenway.
- The proposed work is subject to MDE permit # _____, approved _____.
- The existing historic structure identified in the area of work on these plans. Treatment on this structure should comply with the Secretary of the Interior's Standards and Guidelines for the Treatment of Historic Properties.
- The Cultural Resources Section shall be informed at 410-222-7432 or 222-7466 when utility work is scheduled within site 18 AN 1494.

VICINITY MAP
SCALE: 1" = 2000'

LEGEND

Existing Contour	---51---
Existing Wire Fence	--- --- ---
Existing Woods Line	--- --- ---
Existing Sewer Manhole	---S---
Existing Wall	--- --- ---
Traffic Directional Arrow	--->---
Existing Guy Wire	---R-2---
Existing Zoning Line	---MB---
Existing Soils Line	---R1B---
Proposed Contour	---10---
Proposed Limit of Disturbance	---D---
Proposed Pavement	---P---
Proposed Sidewalk/Concrete	---C---
Proposed Paver Walk	---P---
Proposed Mill & Overlay	---M---
Proposed SWM Planting Bed	---S---
Proposed Utility Duct	---U---
Geotechnical Boring (B) / Percolation Test (P)	---B/P---
Proposed Tree Protection Fence	---T---
Proposed SWM Gravel Wetland	---G---
Stabilized Construction Entrance	---S.C.E.---
Proposed Super Silt Fence	---S.S.F.---
Proposed Reinforced Silt Fence	---R.S.F.---
Inlet Protection	---I.P.---
Earth Dike	---E.D.---
Wetland Limit with Point Number	---W.L.---D2---
Wetland Buffer	---W.B.---
Flow Direction Arrows	--->---

CLEARING TABULATION

Clearing Subtotal from Sheet 15	23,500 Sq.Ft.±
Clearing Subtotal from Sheet 17	7,900 Sq.Ft.±
Clearing Subtotal from Sheet 11	4,800 Sq.Ft.±
Total Clearing	36,200 Sq.Ft.±

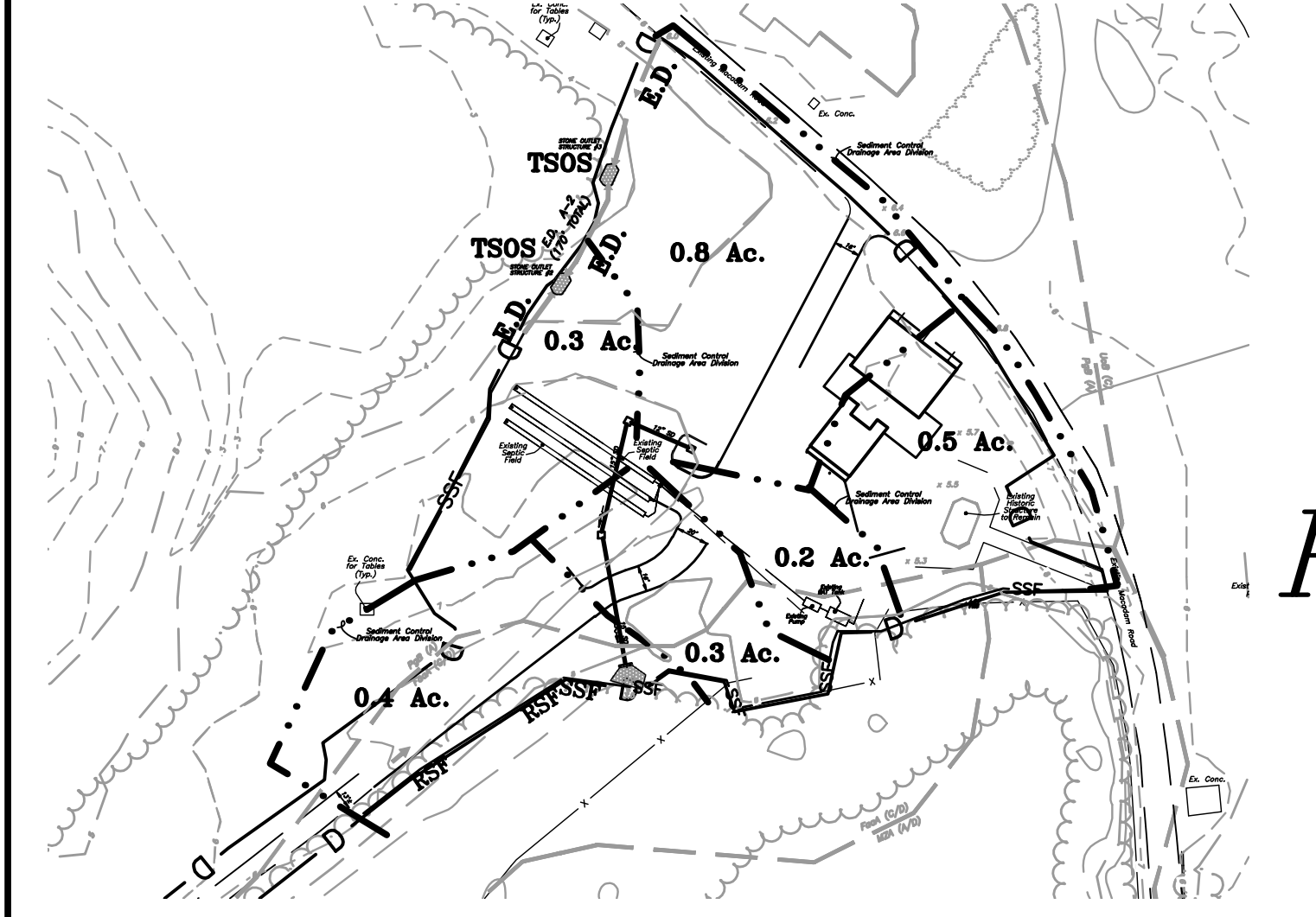
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Site Improvement Details	3	C103		
Geotechnical Data	4	C104		
Overall Existing Conditions Plan	5	C200		
Maintenance Area Existing Conditions	6	C201		
Barracks Area Existing Conditions	7	C202		
Central Area Existing Conditions	8	C203		
Beach Area Existing Conditions	9	C204		
Overall Proposed Improvement Plan	10	C300		
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Barracks Area Proposed Conditions	14	C304		
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Central Area Utility Construction	17	C307		
Beach Area Improvements	18	C308		
Beach Area Finished Conditions	19	C309		3
Stormwater Management Notes	20	C400		
Existing Drainage Area Map	21	C401		
Proposed Drainage Area Map	22	C402		
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Maintenance Area Septic Plan	26	C500		
Beach Area Septic Notes & Details	27	C501		
Beach Area Septic Plan & Profiles	28	C502		
Landscape Plans	29-37			

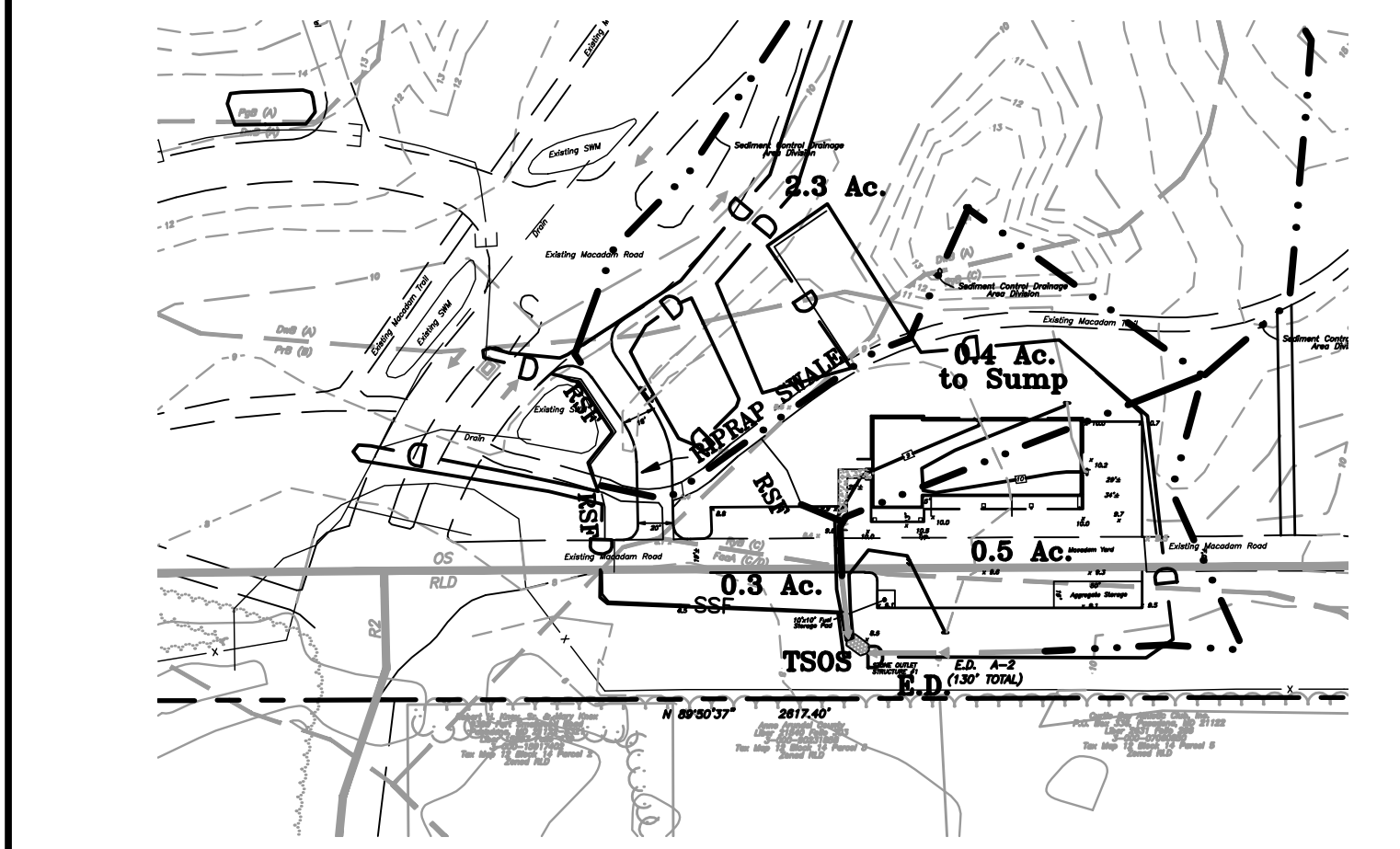
SITE ANALYSIS

Zoning	OS/RLD
Critical Area Classification	RCA
Total Site Area	4,018,355 Sq.Ft.± (92.25 Ac.±)
Existing Wetland Forest Cover	169,900 Sq.Ft.± (3.90 Ac.±)
Existing Other Forest Cover	646,796 Sq.Ft.± (15.03 Ac.±)
Total Existing Forest Cover	816,696 Sq.Ft.± (18.93 Ac.±) (20.5%)
Total Existing Wetland	948,456 Sq.Ft.± (21.77 Ac.±)
Existing Impervious Area	449,400 Sq.Ft.± (10.32 Ac.±) (11.2%)
Proposed Impervious Area	516,877 Sq.Ft.± (11.87 Ac.±) (12.9%)
Allowable Clearing	803,671 Sq.Ft.± (18.45 Ac.±) (20%)
Proposed Clearing	36,200 Sq.Ft.±
Proposed Limit of Disturbance	218,600 Sq.Ft.± (5.02 Ac.±)
Projected Cut	500 Cu.Yds.±
Projected Fill	3,500 Cu.Yds.±
Proposed Public Parking	120 Spaces (8 accessible)
Proposed Maintenance Parking	8 Spaces
Maintenance Building Area	5,258 Sq.Ft.±
Concession Wing Area	1,941 Sq.Ft.±
Restroom Wing Area	1,012 Sq.Ft.±
Total Comfort Station	2,953 Sq.Ft.±

BUILDING PERMIT SITE PLAN SHEET 1
GRADING PLAN SHEET 1 OF 37
BNDEPA PROJ. NO. 16-811



SEDIMENT CONTROL DRAINAGE AREA MAP: BEACH
SCALE: 1" = 100'



SEDIMENT CONTROL DA MAP - MAINTENANCE
SCALE: 1" = 100'

STANDARD RESPONSIBILITY NOTES

- I (we) certify that:
- All development and construction will be done in accordance with this sediment and erosion control plan, and further, authorize the right of entry for periodic on-site evaluation by the Anne Arundel Soil Conservation District Board of Supervisors or their authorized agents.
 - Any responsible personnel involved in the construction project will have a certificate of attendance from the Maryland Department of the Environment's approved training program for the control of sediment and erosion before beginning the project.
- Responsible personnel on site:
- _____
- _____
- If applicable, the appropriate enclosure will be constructed and maintained on sediment basin(s) included in this plan. Such structure(s) will be in compliance with the Anne Arundel County Code.
 - The developer is responsible for the acquisition of all easements, rights, and/or rights-of-way that may be required for the sediment and erosion control practices, stormwater management practices and the discharge of stormwater onto or across adjacent or downstream properties included in this plan.
 - For initial soil disturbance or re-disturbance, permanent and/or temporary stabilization per the AASCD Vegetative Establishment specifications shall be completed within three (3) calendar days for the surface of all controls, dikes, swales, ditches, perimeter slopes, and all slopes greater than 3 horizontal to 1 vertical (3:1); and seven (7) days for all other disturbed or graded areas on the project site.
 - The grading and sediment control approval on this plan extends only to those areas within the limits of disturbance.
 - The approval of this plan for sediment and erosion control does not relieve the developer/consultant from complying with any Federal, State or County requirements pertaining to environmental issues.
 - The developer must request that the Sediment Control Inspector approve work completed in accordance with approved erosion control plan, the grading or building permit, and the ordinance.
 - All material shall be to a site with an approved sediment and erosion control plan.
 - First phase inspection and approval of the sediment and erosion control inspector shall be required upon completion of the installation of perimeter erosion and sediment controls prior to proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until the initial approval by the sediment and erosion control inspector is given. Inspections and Permits may also require that an inspection and certification of the installation of sediment control also be performed by a design professional prior to construction commencing.
 - Approval from the inspector must be requested on final stabilization of all sites prior to removal of sediment and erosion controls.
 - Existing topography must be field verified by responsible personnel to the satisfaction of the sediment control inspector prior to commencing work.

BY: Daniel C. Brown 4/28/16
Signature of Developer Date

PRINT: Name: Daniel C. Brown
Title: Assistant Design Director

Affiliation: Anne Arundel Co. DPW
Address: 2467 River Road
Annapolis, MD 21401

Telephone: 410-222-7544

OUTFALL STATEMENT

The subject property is located on a peninsula at the mouth of the Patapsco River at the Chesapeake Bay. There are no concentrated outfalls from the subject property or within the areas of proposed work. Twenty-two (22) drainage areas have been identified in the overall property. Areas A, F, G, H, K, I, and U are directly to tidal water, and areas B-E drain to a tidal wetland. Large interior areas drain via unconsolidated paths to interior wetlands in areas N and P-S. Since all property outfalls are to tidal water, there is no downstream point of investigation for the property or for the proposed work.

Within the property, the proposed design for the new improvements limits the depth of flow at the end of concentrated flow paths to less than the height of established vegetation.

STATEMENT OF ACCESSIBILITY REVIEW

I hereby certify that these plans have been designed in conformance with the 2010 ADA Standards for Accessible Design, County Code, Maryland Accessibility Code and Accessible and Useable Buildings and Facilities - ICC A117.1- 2009 standard.

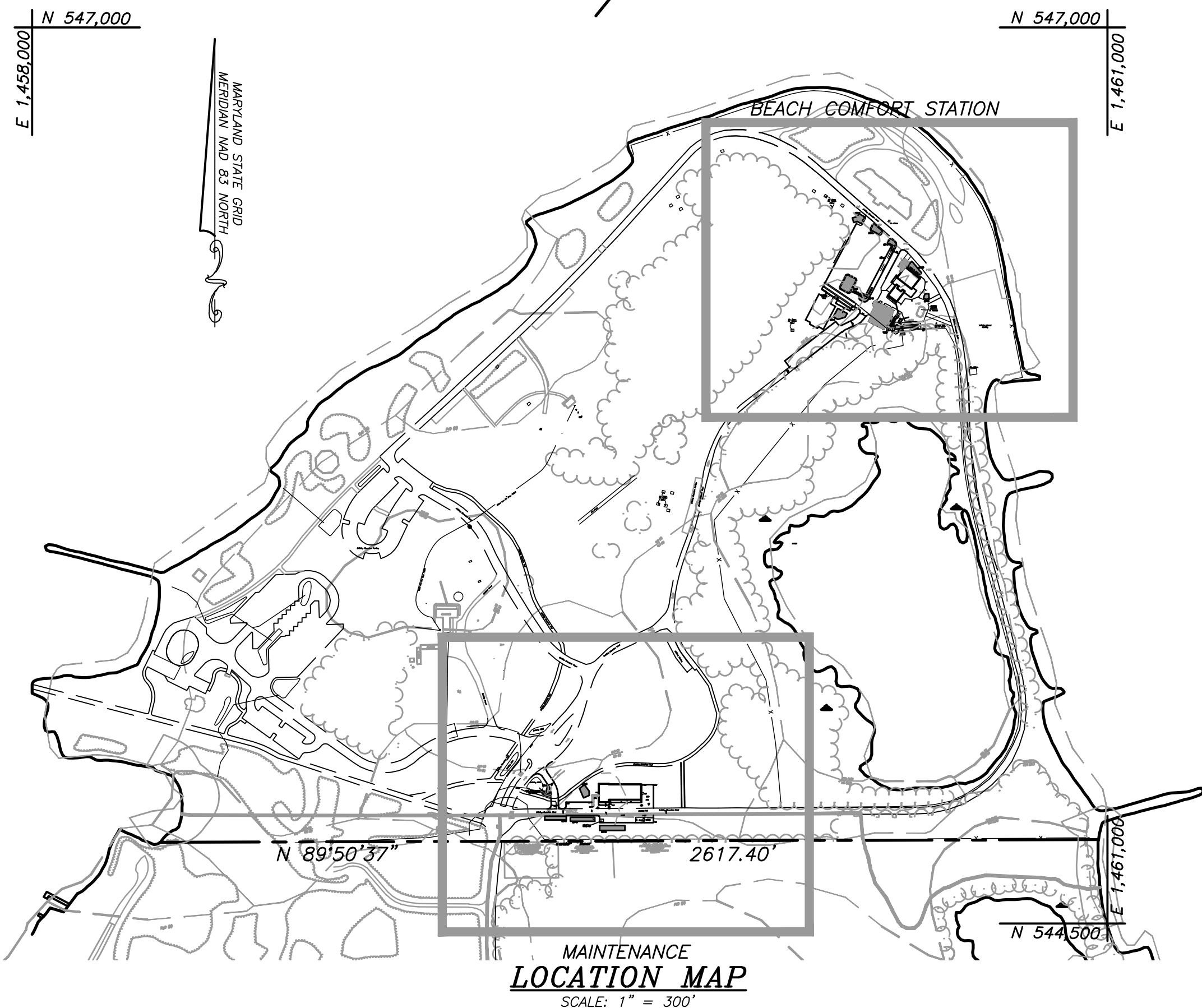
Danny G. Boyd P.E. #8640 Date _____

CONSULTANT'S CERTIFICATION

The developer's plan to control silt and erosion is adequate to contain the silt and erosion of the property covered by the plan. I certify that this plan of erosion and sediment control represents a practical and workable plan based on my personal knowledge of this site, and was prepared in accordance with the requirements of the Anne Arundel Soil Conservation District Plan Submittal Guidelines and the current Maryland Standards and Specifications for Sediment and Erosion Control.

I have reviewed this erosion and sediment control plan with the owner / developer.

Danny G. Boyd P.E. #8640 Date _____
Boyd & Dowgiallo, P.A.
412 Headquarters Drive, Suite 5, Millersville, MD 21108



SEQUENCE OF CONSTRUCTION

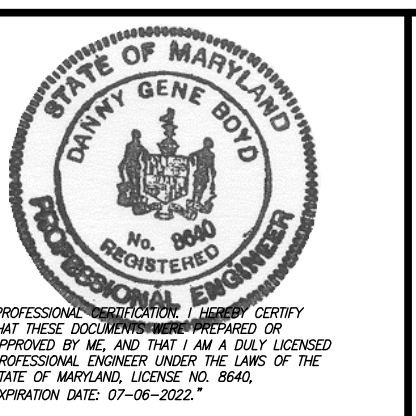
- NOTE: WORK IS PROPOSED IN TWO DIFFERENT AREAS OF THE PROPERTY ("MAINTENANCE" AND "BEACH"). THIS SEQUENCE IS INTENDED TO ALLOW WORK TO PROCEED AT BOTH LOCATIONS SIMULTANEOUSLY.**
- Phase I:**
- Notify Anne Arundel County Department of Inspections and Permits (410-222-7780) at least 48 hours prior to starting construction. Work may not begin until permittee or responsible personnel have met on site with the sediment and erosion control inspector for a pre-construction meeting. 2 Days
 - Install tree protection fence (T/PF) as shown on Sheet 11 of these plans. Clear and grub for earth dike (ED) as shown on sheet 11. Install Stabilized Construction Entrance (SCE), reinforced silt fence (RSF), earth dike, asphalt berms, and temporary stone outlet structure (TSOS) as shown on sheet 11. 1 Week
 - Install tree protection fence (T/PF) as shown on Sheet 15 of these plans. Clear and grub for earth dike (ED) as shown on sheet 15. Install Stabilized Construction Entrance (SCE), super silt fence (SSF), reinforced silt fence (RSF), earth dike, and temporary stone outlet structures (TSOS) as shown on sheet 15. 1 Week
 - Obtain sediment control installation inspection approval by Inspector. Inspections and Permits may require that an inspection and certification of the sediment controls be performed by a design professional prior to continuing work. 2 Days
- Phase II:**
- (Maintenance) Demolish existing roadway to be removed as shown on sheet 11 of these plans. 1 Week
 - (Maintenance) Construct base course of new driveway as shown on sheet 11. 1 Week
 - (Maintenance) Mass grade as shown on sheet 11. Remove all spoils to an approved landfill. 2 Weeks
 - (Beach) Demolish existing maintenance building, sewer treatment facility, restrooms, and septic system as shown on sheet 15 of these plans. Clear and grub as shown on sheet 15. Remove all spoils to an approved landfill. 2 Months
- Phase III:**
- (Maintenance) Construct new yard, utilities, and building foundation as shown on sheet 12 of these plans. 1 Month
 - (Beach) Demolish existing roadway to be re-graded as shown on sheet 16 of these plans. Mass grade and install storm drain as shown on sheet 16. Inlets are to be installed with inlet protection (IP). Install septic BAT tank, pump, force main, and trench as shown on sheets 16-17. Install other utilities in and between both work areas as shown on sheets 12, 14, and 16. 1 Month
 - (Beach) Install base course of new roadway. 1 Week
 - (Beach) Grade for and install base course of remaining new pavement and walk in beach area insofar as sediment controls permit as shown on sheet 15. 2 Weeks
 - (Beach) Install retaining wall at location of earth dike as shown on sheet 18. Replace earth dike with silt fence as directed by Inspector. 1 Week
 - (Beach) Grade for and install foundation of restroom and concession buildings as shown on sheet 18. 6 Weeks
- Phase IV:**
- In each work area, temporarily stabilize all disturbed areas outside pavement, heavy use areas protected with stone, and stockpiles protected by silt fence. With approval of Inspector, and with the issuance of an Anne Arundel County building permit, commence framing of building(s). Building construction may not proceed past the ground floor until all remaining disturbed areas have been permanently or temporarily stabilized. Stabilization of the Maintenance area will be required for framing of the Maintenance building as shown on sheet 13 of these plans. Stabilization of the Beach area will be required for framing of the Beach buildings as shown on sheet 18 of these plans. During building construction beyond the ground floor, all disturbed areas must be stabilized at the end of each business day. A certificate must be provided to the inspector verifying the grades and drainage patterns shown on the approved erosion and sediment control plan have been obtained. 3 Months
 - Install stormwater management as shown on sheets 13 and 18 of these plans. 1 Month
- Phase V:**
- Fine grade areas within limit of disturbance. Complete surface paving. Install remaining sidewalks. 2 Weeks
 - Install landscaping. 2 Weeks
 - Upon completion of grading, and with the approval of the Anne Arundel County Grading Inspector, remove remaining sediment controls and stabilize all affected areas. 1 Week

COVERAGE ANALYSIS

Structures to Remain	Sq.Ft.±
Barracks	2,318 Sq.Ft.±
Fort	6,716 Sq.Ft.±
Pavilion	3,116 Sq.Ft.±
Shed	655 Sq.Ft.±
Boat Ramp Concession	1,763 Sq.Ft.±
Office Trailers (2)	1,110 Sq.Ft.± (Total)
Gatehouse	23 Sq.Ft.±
Beach Concession	449 Sq.Ft.±
Existing Impervious Area	449,400 Sq.Ft.±
Proposed Impervious Area	516,877 Sq.Ft.±
Structures to be Removed	
Maintenance Shed	3,429 Sq.Ft.±
Restroom Buildings (2)	1,152 Sq.Ft.± (Total)
Proposed Structures	
Maintenance Building Area	5,258 Sq.Ft.±
Concession Wing Area	1,941 Sq.Ft.±
Restroom Wing Area	1,012 Sq.Ft.±
Total Comfort Station	2,953 Sq.Ft.±
Totals	
Total Existing Structures	22,731 Sq.Ft.±
Total Proposed Structures	26,361 Sq.Ft.±
Existing Impervious Area	449,400 Sq.Ft.±
Existing Pavement/Gravel	423,039 Sq.Ft.±
Net Proposed Impervious Area	516,877 Sq.Ft.±
Net Proposed Pavement/Gravel	490,516 Sq.Ft.±
New Proposed Pavement/Gravel	67,477 Sq.Ft.±

NOTE: PROPERTY IS IN THIRD DISTRICT, TAX MAP 12, BLOCK 13, PARCEL 14.

gba Maryland Professional Engineering Firm License No. 47570
BOYD & DOWGIALLO, P.A.
ENGINEERS*SURVEYORS*PLANNERS
412 Headquarters Drive, Suite 5
Millersville, Maryland 21108
Phone: (410) 729-1234
Fax: (410) 729-1243
Email: elene@bdpa.com www.bdpa.com



REVISIONS			
NO.	DESCRIPTION	BY	DATE
	100% SET		

ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS
FORT SMALLWOOD PARK PHASE II
9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122

DATE: 4-28-21

APPROVED	DATE	APPROVED	DATE	SCALE: AS SHOWN
CHIEF ENGINEER		PROJECT MANAGER		DRAWN BY: JMF
APPROVED	DATE	APPROVED	DATE	CHECKED BY: DGB
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY		SHEET NO. 1 OF 37
				PROJECT NO. P535900
				PROPOSAL NO. P535907

COVER SHEET C101

BORING LOG **GEOLAB INC.**

Report No.:		Date:		Project No.:	
Client: GBA, Architects		10/25/2019		119-134	
Project: Fort Smallwood Park		Location: See Boring Location Plan		Boring No. B-20 (1 of 1)	
Type of Boring: Hand Auger		Started: 8/21/2019		Completed: 8/21/2019	
Elevation		Depth		Remarks	
5.2	0.0	Grass with topsoil and root matter			
5.25	0.25	Brown fine to medium SAND with little silt, moist (USCS: SM, USDA: Sandy Loam)			Groundwater was encountered at 4.5 feet.
3.5	2.0		2.0	13.1	
3.0	2.5		2.5		
1.5	4.0	Gray-brown fine to medium SAND with trace silt, moist to saturated (USCS: SP, USDA: Sand)	4.0	15.6	
0.5	4.5		4.5		
0.5	5.0	End of Boring			

BORING LOG **GEOLAB INC.**

Report No.:		Date:		Project No.:	
Client: GBA, Architects		10/25/2019		119-134	
Project: Fort Smallwood Park		Location: See Boring Location Plan		Boring No. B-21 (1 of 1)	
Type of Boring: Hand Auger		Started: 8/21/2019		Completed: 8/21/2019	
Elevation		Depth		Remarks	
5.2	0.0	Grass with topsoil and root matter			
5.25	0.25	Gray-brown to yellow-brown fine to medium SAND with trace to little silt, damp (USCS: SM, USDA: Loamy Sand)			Groundwater was encountered at 8.5 feet.
3.5	2.0		2.0	14.2	Infiltration pipe set at 4.5 feet
3.0	2.5		2.5		
1.5	4.0	Red & off-white clayey SILT with trace fine sand, moist (USCS: ML, USDA: Silt Loam / Silty Clay Loam)	4.0	14.3	
0.5	4.5		4.5		
-1.5	7.0		7.0	17.4	
-2.0	8.0		8.0		
-3.0	8.5	Yellow-brown fine to medium SAND with trace silt, saturated (USCS: SP-SM, USDA: Sand)	8.5	15.2	
-3.5	9.0	End of Boring			

BORING LOG **GEOLAB INC.**

Report No.:		Date:		Project No.:	
Client: GBA, Architects		10/25/2019		119-134	
Project: Fort Smallwood Park		Location: See Boring Location Plan		Boring No. B-22 (1 of 1)	
Type of Boring: Hand Auger		Started: 8/21/2019		Completed: 8/21/2019	
Elevation		Depth		Remarks	
5.2	0.0	Grass with topsoil and root matter			
5.25	0.25	Yellow-brown fine to medium SAND with little silt, moist to saturated (USCS: SM, USDA: Sand)			Groundwater was encountered at 3.25 feet
3.0	2.0		2.0	14.2	
3.0	2.5		2.5		
0.5	4.5		4.5	24.7	
0.5	5.0	End of Boring			

BORING LOG **GEOLAB INC.**

Report No.:		Date:		Project No.:	
Client: GBA, Architects		10/25/2019		119-134	
Project: Fort Smallwood Park		Location: See Boring Location Plan		Boring No. B-23 (1 of 1)	
Type of Boring: Hand Auger		Started: 8/21/2019		Completed: 8/21/2019	
Elevation		Depth		Remarks	
11.4	0.0	Grass with topsoil and root matter			
11.35	0.25	Light brown fine to medium SAND with little silt, moist (USCS: SM, USDA: Loamy Sand)			Groundwater was encountered at 9.5 feet. At the end of the day, the water was at 8.7 feet.
9.4	2.0		2.0	5.4	
9.4	2.5		2.5		
7.4	4.0	Orange-brown silty fine SAND with little to some clay, moist (USCS: SM-SC, USDA: Silty Clay Loam)	4.0		
7.4	4.5		4.5		
5.45	5.4	Light brown fine to medium SAND with little silt, moist (USCS: SM, USDA: Sandy Loam)	5.4	12.7	
5.4	5.9		5.9		
4.5	7.3	Off-white SILT with sand and some clay, moist (USCS: ML, USDA: Silt Loam)	7.3		
4.4	8.0	Light brown fine to medium SAND with little silt, moist to saturated (USCS: SM, USDA: Sandy Loam)	8.0		
4.4	8.5		8.5		
2.1	9.5		9.5	34.0	
1.4	10.0	End of Boring			

BORING LOG **GEOLAB INC.**

Report No.:		Date:		Project No.:	
Client: GBA, Architects		10/25/2019		119-134	
Project: Fort Smallwood Park		Location: See Boring Location Plan		Boring No. B-24 (1 of 1)	
Type of Boring: Hand Auger		Started: 8/21/2019		Completed: 8/21/2019	
Elevation		Depth		Remarks	
12.4	0.0	Grass with topsoil and root matter			
11.95	0.25	Light brown fine to medium SAND with little silt, damp (USCS: SM, USDA: Loamy Sand)			Groundwater was not encountered during drilling or at completion.
9.2	3.0		3.0		
9.2	3.5		3.5		
7.1	4.5		4.5	6.3	
7.1	5.0		5.0		
4.2	6.0	Light gray-brown fine to medium SAND with some clay and little silt, moist (USCS: SM, USDA: Sandy Loam)	6.0		
4.2	6.5		6.5	11.0	
3.7	7.0		7.0		
4.2	8.0	Light gray clayey SAND with some silt, moist (USCS: SC, USDA: Sandy Clay Loam)	8.0		
4.2	8.5		8.5	8.6	
2.1	9.5		9.5		
2.1	10.0	End of Boring			

BORING LOG **GEOLAB INC.**

Report No.:		Date:		Project No.:	
Client: GBA, Architects		10/25/2019		119-134	
Project: Fort Smallwood Park		Location: See Boring Location Plan		Boring No. B-25 (1 of 1)	
Type of Boring: Hand Auger		Started: 8/21/2019		Completed: 8/21/2019	
Elevation		Depth		Remarks	
7.4	0.0	Grass with topsoil and root matter			
7.35	0.25	Light brown fine to medium SAND with little to some silt, moist (USCS: SM, USDA: Sandy Loam)			Groundwater was encountered at 4.2 feet
5.4	2.0		2.0	10.2	
5.4	2.5		2.5		
4.4	3.0	Orange-brown SILT with sand and some clay, moist (USCS: ML, USDA: Silty Clay Loam)	3.0		
4.4	3.5		3.5		
3.4	4.0	Light brown fine SAND with little clay and trace silt, moist to saturated (USCS: SM, USDA: Sandy Loam)	4.0	18.8	
3.4	4.5		4.5		
2.9	4.5	End of Boring			

BORING LOG **GEOLAB INC.**

Report No.:		Date:		Project No.:	
Client: GBA, Architects		10/25/2019		119-134	
Project: Fort Smallwood Park		Location: See Boring Location Plan		Boring No. B-26 (1 of 1)	
Type of Boring: Hand Auger		Started: 8/21/2019		Completed: 8/21/2019	
Elevation		Depth		Remarks	
14.3	0.0	Grass with topsoil and root matter			
14.2	0.25	Light brown fine to medium SAND with little silt and little to some clay, moist (USCS: SM, USDA: Sandy Loam)			Groundwater was not encountered during drilling or at completion.
11.5	3.0		3.0		
11.5	3.5		3.5		
9.5	5.0		5.0	10.3	
9.5	5.5		5.5		
6.5	7.0	Off-white and orange-brown clayey SILT with some sand, moist (USCS: ML, USDA: Silty Clay Loam)	7.0		
6.5	7.5		7.5	13.3	
5.5	9.0		9.0		
5.5	9.5		9.5		
4.5	10.0	Orange-brown fine to medium SAND with trace silt, moist (USCS: SM, USDA: Sandy Loam)	10.0	15.2	
4.5	10.6	End of Boring			

BORING LOG **GEOLAB INC.**

Report No.:		Date:		Project No.:	
Client: GBA, Architects		10/25/2019		119-134	
Project: Fort Smallwood Park		Location: See Boring Location Plan		Boring No. B-27 (1 of 1)	
Type of Boring: Hand Auger		Started: 8/21/2019		Completed: 8/21/2019	
Elevation		Depth		Remarks	
31.5	0.0	Grass with topsoil and root matter			
31.5	0.25	Brown fine to medium SAND with little silt, dry to moist (USCS: SM, USDA: Loamy Sand)			Groundwater was not encountered during drilling or at completion.
21.5	2.0		2.0		
21.5	2.5	Brown silty and clayey fine to medium SAND, moist (USCS: SM-SC, USDA: Sandy Clay Loam)	2.5		
14.5	5.0		5.0	13.7	
14.5	5.5		5.5		
13.5	6.5	Dark brown topsoil with root matter			
13.5	7.0	Light brown fine to medium SAND with little silt, moist (USCS: SM, USDA: Loamy Sand)	7.0		
13.5	7.5		7.5		
13.5	8.0		8.0		
10.5	9.5	Light brown fine SAND with trace silt, damp (USCS: SP-SM, USDA: Sand)	9.5	8.1	
10.5	10.0		10.0		
8.5	11.5	Off-white and red-brown SILT with little to some clay and some sand, moist (USCS: ML, USDA: Silt Loam)	11.5		
8.5	12.0		12.0		
4.5	13.0		13.0		
4.5	13.5		13.5		
4.5	14.5		14.5	14.8	
4.5	15.0	End of Boring			

BORING LOG **GEOLAB INC.**

Report No.:		Date:		Project No.:	
Client: GBA, Architects		10/25/2019		119-134	
Project: Fort Smallwood Park		Location: See Boring Location Plan		Boring No. B-28 (1 of 1)	
Type of Boring: Hand Auger		Started: 8/21/2019		Completed: 8/21/2019	
Elevation		Depth		Remarks	
24.5	0.0	Grass with topsoil and root matter			
24.5	0.25	Light brown and gray fine to medium SAND with trace silt, dry to damp moist (USCS: SP, USDA: Sand)			Groundwater was not encountered during drilling or at completion.
24.5	2.5		2.5		Infiltration pipe set at 11 feet
24.5	3.0		3.0		
22.0	5.0		5.0		
22.0	5.5		5.5		
19.0	8.0		8.0	4.1	
18.5	8.5	Gray brown SILT and clay with some sand, moist (USCS: ML, USDA: Silty Clay Loam)	8.5		
18.5	9.0		9.0		
17.0	9.5	Brown fine to medium SAND with little silt and little clay, moist (USCS: SM, USDA: Sandy Loam)	9.5		
17.0	10.0		10.0		
16.0	11.0		11.0	6.2	
16.0	11.5		11.5		
13.5	14.5		14.5	6.9	
13.5	15.0	End of Boring			

BORING LOG **GEOLAB INC.**

Report No.:		Date:		Project No.:	
Client: GBA, Architects		10/25/2019		119-134	
Project: Fort Smallwood Park		Location: See Boring Location Plan		Boring No. B-29 (1 of 1)	
Type of Boring: Hand Auger		Started: 8/21/2019		Completed: 8/21/2019	
Elevation		Depth		Remarks	
20.0	0.0	Grass with topsoil and root matter			
20.0	0.25	Light brown fine to medium SAND with little to trace silt, dry (USCS: SP, USDA: Sand)			Groundwater was not encountered during drilling or at completion.
19.5	1.5		1.5		
16.5	4.0		4.0	3.7	
16.5	4.5	Off-white silty SAND with some to little clay, moist (USCS: SM-SC, USDA: Sandy Loam)	4.5		
15.0	6.0		6.0		
15.0	6.5		6.5		
14.0	7.0	Tan fine SAND with little silt, damp (USCS: SP, USDA: Sand)	7.0		
14.0	7.5		7.5		
13.0	9.0		9.0	5.0	
13.0	9.5		9.5		
11.0	11.0	End of Boring			

BORING LOG **GEOLAB INC.**

Report No.:		Date:		Project No.:	
Client: GBA, Architects		10/25/2019		119-134	
Project: Fort Smallwood Park		Location: See Boring Location Plan		Boring No. B-30 (1 of 1)	
Type of Boring: Hollow-stem Auger		Started: 10/15/2019		Completed: 10/15/2019	
Elevation		Depth		Remarks	
6.3	0.0	Grass with topsoil and root matter			
6.3	0.5	Orange-brown fine to medium SAND with little gravel and little silt, moist to saturated, dense (USCS: SM)	7 8 23	2.3	Groundwater was encountered at a depth of 5 feet.
4.3	2.0		3.0		
3.3	3.0	Orange-brown fine to medium SAND with little silt, moist to saturated, medium dense (USCS: SM)	5 5 10	12.2	
1.3	4.5		4.5		
1.3	5.0		5.0		
0.0	7		7		
-0.7	7 11 11		7 11 11	17.9	
-0.7	10.5		10.5		
-6.7	13.4	Light brown and off-white silty CLAY with little fine sand, moist, hard (USCS: CL)	15 25 31	17.0	
-6.7	14.0		14.0		
-6.7	15.5		15.5		
-13.7	19.0		19.0		
-13.7	19.5	Orange-brown fine to medium SAND with little silt, saturated, dense (USCS: SM)	9 15 31	23.7	
-14.2	20.5	End of Boring	20.5		

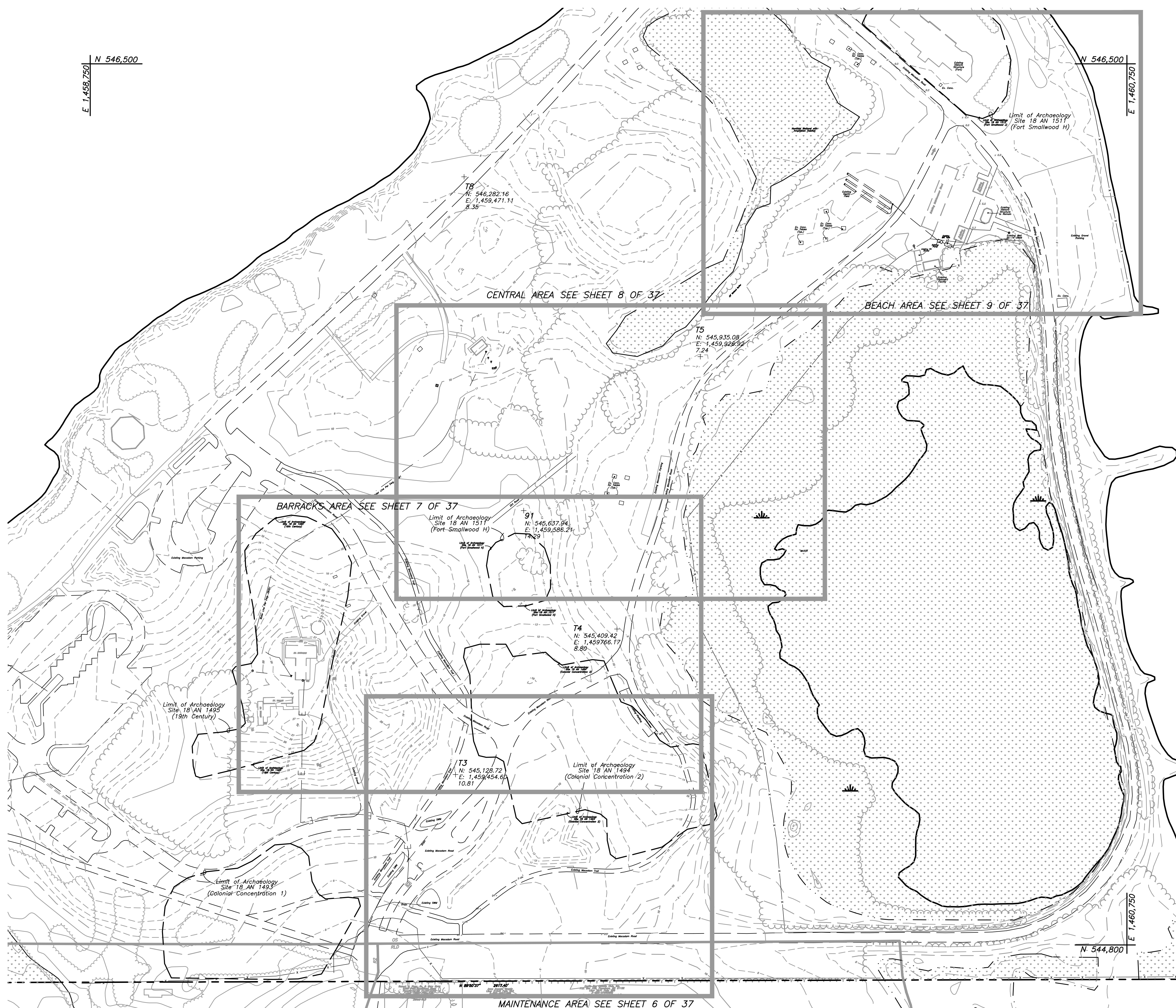
BORING LOG **GEOLAB INC.**

Report No.:		Date:		Project No.:	
Client: GBA, Architects		10/25/2019		119-134	
Project: Fort Smallwood Park		Location: See Boring Location Plan		Boring No. B-31 (1 of 1)	
Type of Boring: Hollow-stem Auger		Started: 10/15/2019		Completed: 10/15/2019	
Elevation		Depth		Remarks	
5.3	0.0	Asphalt millings and gravel			
4.5	1.0	Light brown fine to medium SAND with little to trace silt, damp to saturated, medium dense to loose to medium dense (USCS: SM to SP)	1.5		Groundwater was encountered at a depth of 4.4 feet.
4.7	1.5				

N 546,500
E 1,458,750

N 546,500
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ANNE ARUNDEL COUNTY
 DEPARTMENT OF PUBLIC WORKS
 9500 FORT SMALLWOOD ROAD
 PASADENA, MD 21122



OVERALL PHASE II EXISTING CONDITIONS PLAN
SCALE: 1" = 100'

CERTIFICATION NOTE

The existing site conditions as shown on the Resource Map have been verified by field investigation.

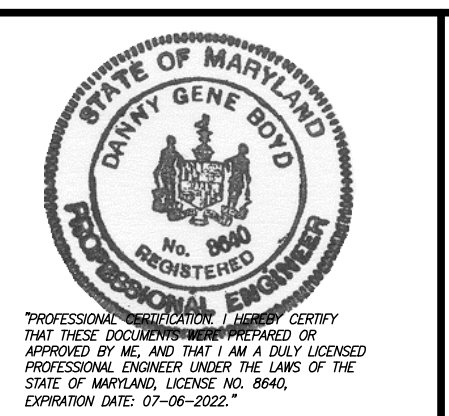


PROFESSIONAL ENGINEER I CERTIFY THAT THESE DOCUMENTS PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 9960, EXPIRATION DATE 01-01-2022.

GRADING PLAN SHEET 5 OF 37
BNDPA PROJ NO. 16-811

DATE: 4-28-21

gba
Maryland Professional Engineering Firm License No. 47570
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PROFESSIONAL ENGINEER I CERTIFY THAT THESE DOCUMENTS PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 9960, EXPIRATION DATE 01-01-2022.

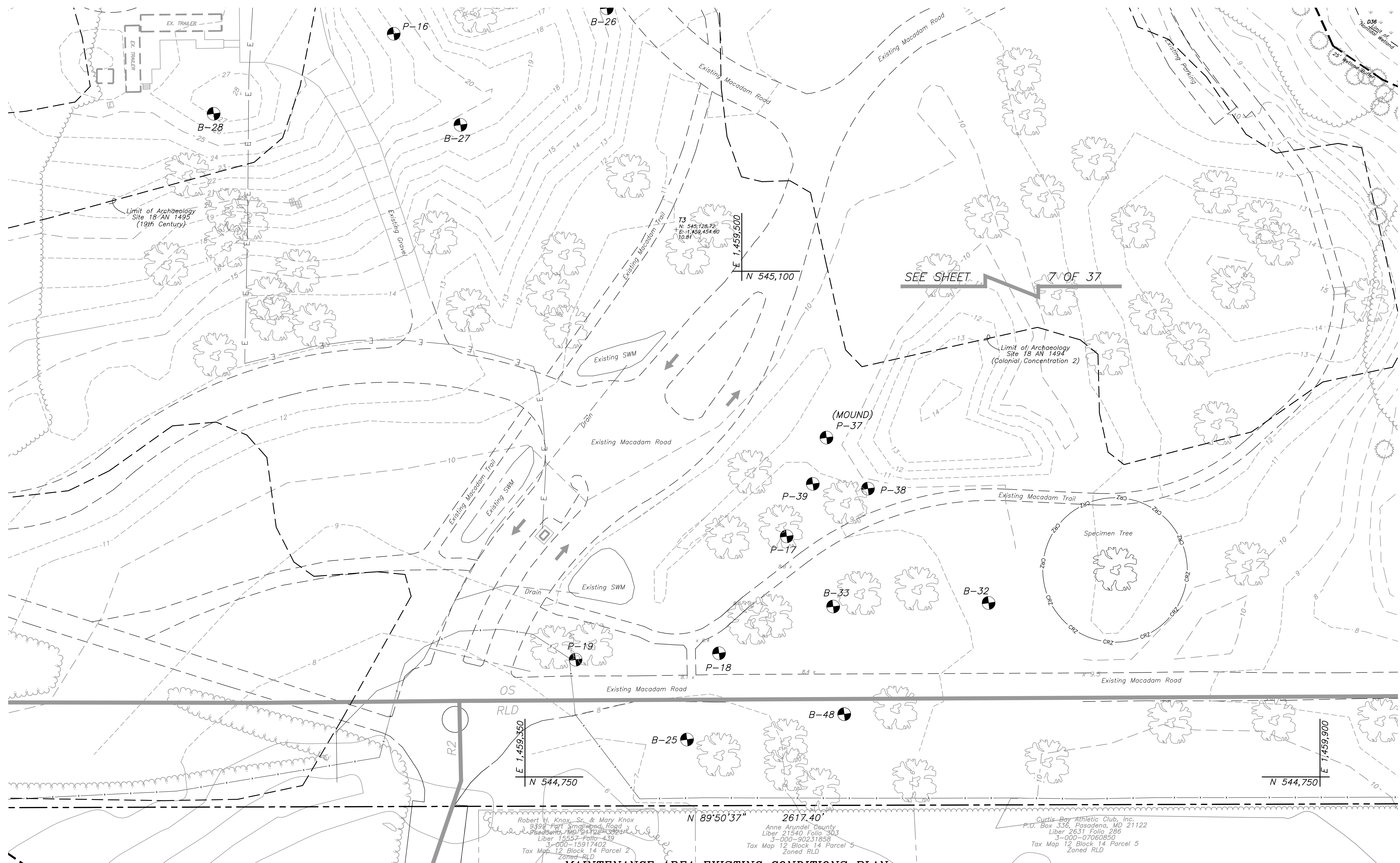
REVISIONS				
NO.	DESCRIPTION	BY	DATE	
	100% SET			

APPROVED	DATE	APPROVED	DATE
CHIEF ENGINEER		PROJECT MANAGER	
APPROVED	DATE	APPROVED	DATE
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY	

ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS
FORT SMALLWOOD PARK PHASE II
9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122
OVERALL EXISTING CONDITIONS PLAN
C200

SCALE: 1" = 100'
DRAWN BY: JMF
CHECKED BY: DGB
SHEET NO. 5 OF 37
PROJECT NO. P535900
PROPOSAL NO. P535907

MARYLAND STATE BOARD OF PROFESSIONAL ENGINEERS AND SURVEYORS



Robert H. Knox, Sr. & Mary Knox
 9398 Fort Smallwood Road
 Pasadena, MD 21122
 Liber 15557 Folio 439
 3-000-15917402
 Tax Map 12 Block 14 Parcel 2
 Zoned RLD

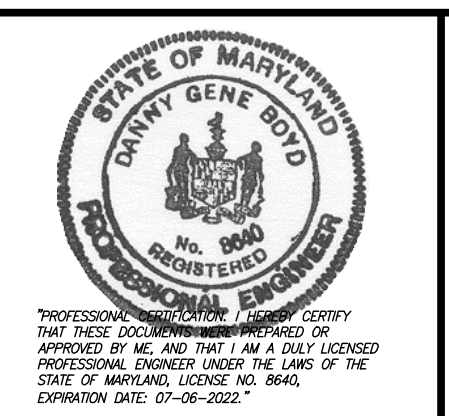
Anne Arundel County
 Liber 21540 Folio 303
 3-000-90231858
 Tax Map 12 Block 14 Parcel 5
 Zoned RLD

Curtis-Boy Athletic Club, Inc.
 P.O. Box 336, Pasadena, MD 21122
 Liber 2631 Folio 296
 3-000-07060850
 Tax Map 12 Block 14 Parcel 5
 Zoned RLD

MAINTENANCE AREA EXISTING CONDITIONS PLAN
 SCALE: 1" = 30'

GRADING PLAN SHEET 6 OF 37
 BNDPA PROJ NO. 16-811

gba
 Maryland Professional Engineering Firm License No. 47570
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 Email: ellene@bndpa.com www.bndpa.com



REVISIONS			
NO.	DESCRIPTION	BY	DATE
	100% SET		

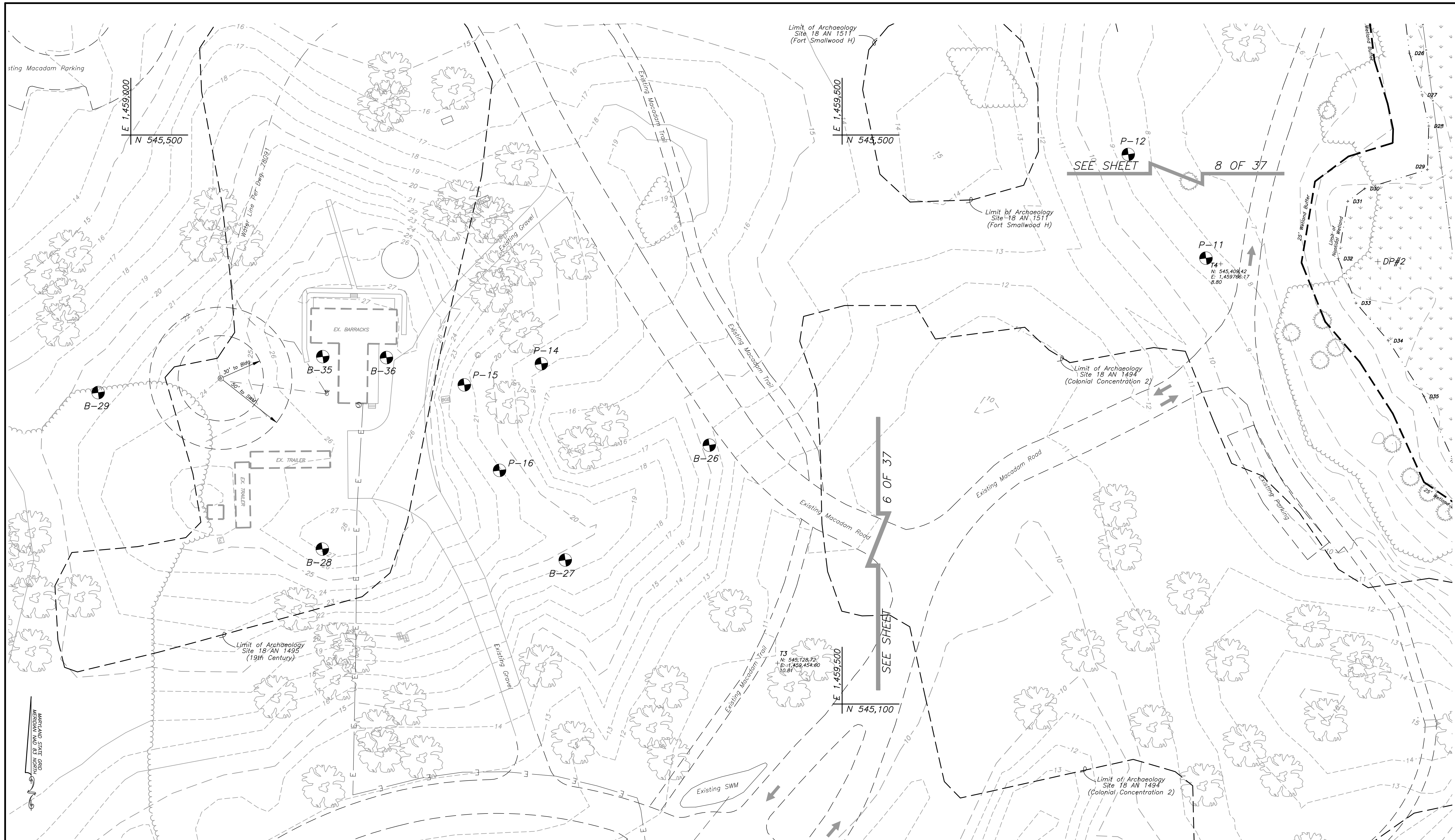
ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS
 DATE: 4-28-21

APPROVED	DATE	APPROVED	DATE
CHIEF ENGINEER		PROJECT MANAGER	
APPROVED	DATE	APPROVED	DATE
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY	

SCALE: 1" = 30'
 DRAWN BY: JMF
 CHECKED BY: DGB
 SHEET NO. 6 OF 37
 PROJECT NO. P535900
 PROPOSAL NO. P535907

FORT SMALLWOOD PARK PHASE II
 9500 FORT SMALLWOOD ROAD
 PASADENA, MD 21122

MAINTENANCE AREA EXISTING CONDITIONS **C201**

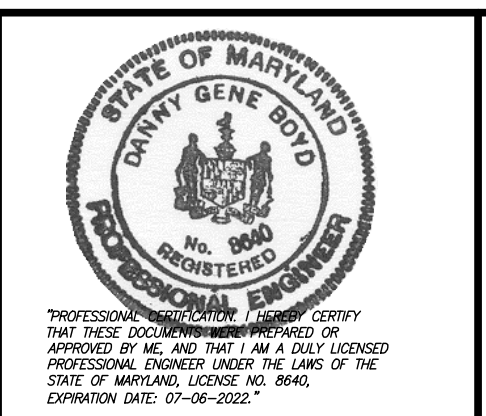


BARRACKS AREA EXISTING CONDITIONS PLAN

SCALE: 1" = 30'

GRADING PLAN SHEET 7 OF 37
BNDPA PROJ NO. 16-811

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Maryland Professional Engineering Firm License No. 47570
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Email: ellene@bndpa.com www.bndpa.com



REVISIONS			
NO.	DESCRIPTION	BY	DATE
	100% SET		

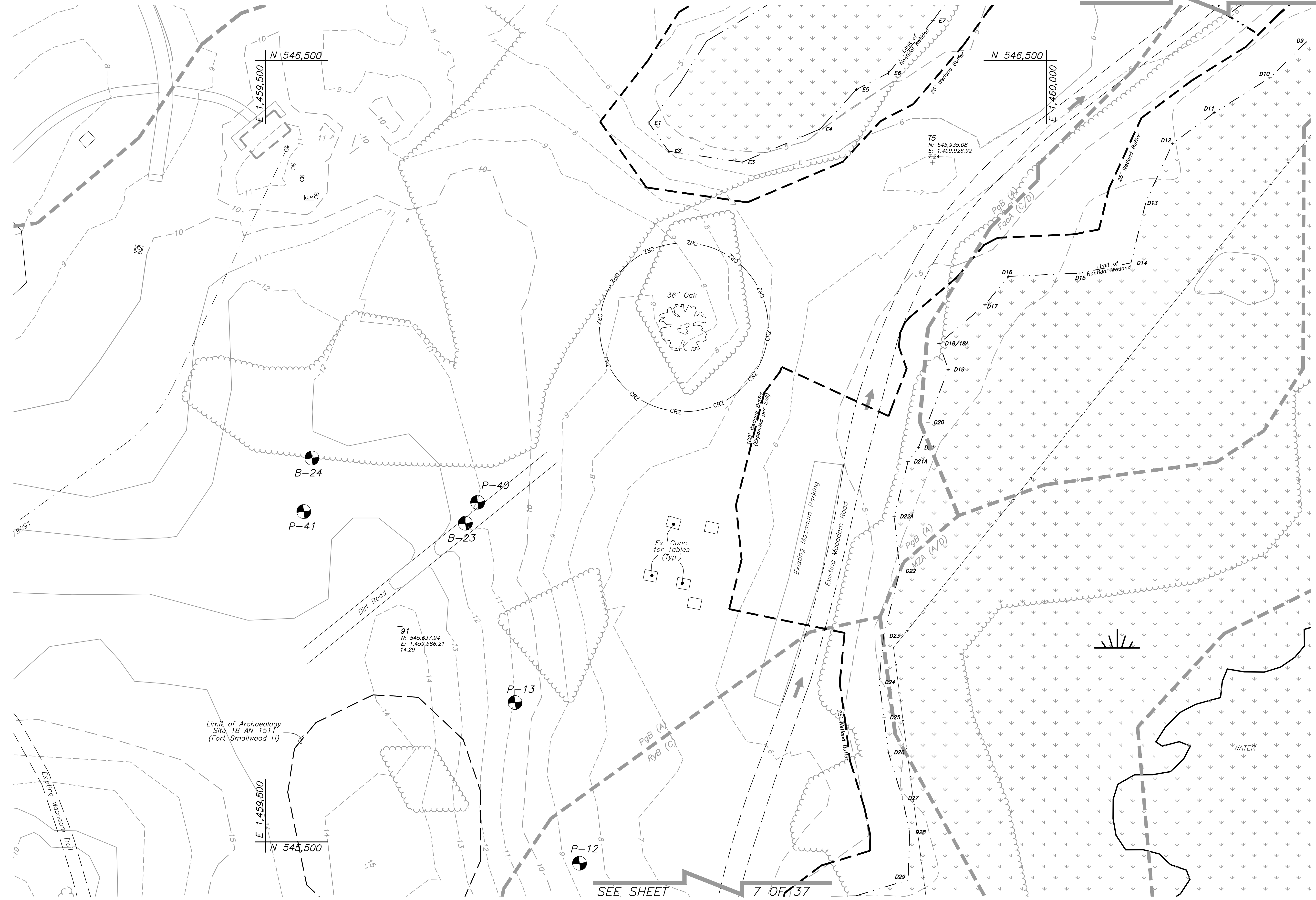
ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS

APPROVED	DATE	APPROVED	DATE	SCALE: 1" = 30'
CHIEF ENGINEER		PROJECT MANAGER		FORT SMALLWOOD PARK PHASE II
APPROVED	DATE	APPROVED	DATE	9500 FORT SMALLWOOD ROAD
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY		PASADENA, MD 21122

DATE: 4-28-21
SHEET NO. 7 OF 37
PROJECT NO. P535900
PROPOSAL NO. P535907

BARRACKS AREA EXISTING CONDITIONS **C202**

HAZARDOUS MATERIALS
 INVESTIGATION
 REPORT
 8/20/08

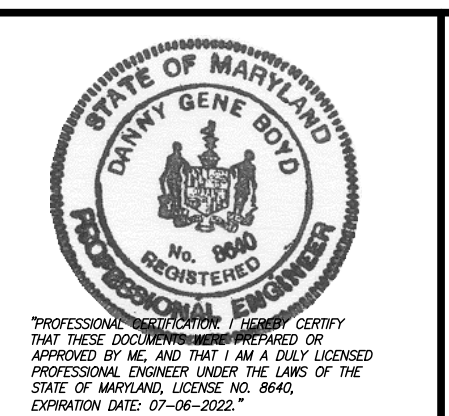


CENTRAL AREA EXISTING CONDITIONS PLAN

SCALE: 1" = 30'

gba
gant-brunnett
ARCHITECTS

Maryland Professional Engineering Firm License No. 47570
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REVISIONS			
NO.	DESCRIPTION	BY	DATE
	100% SET		

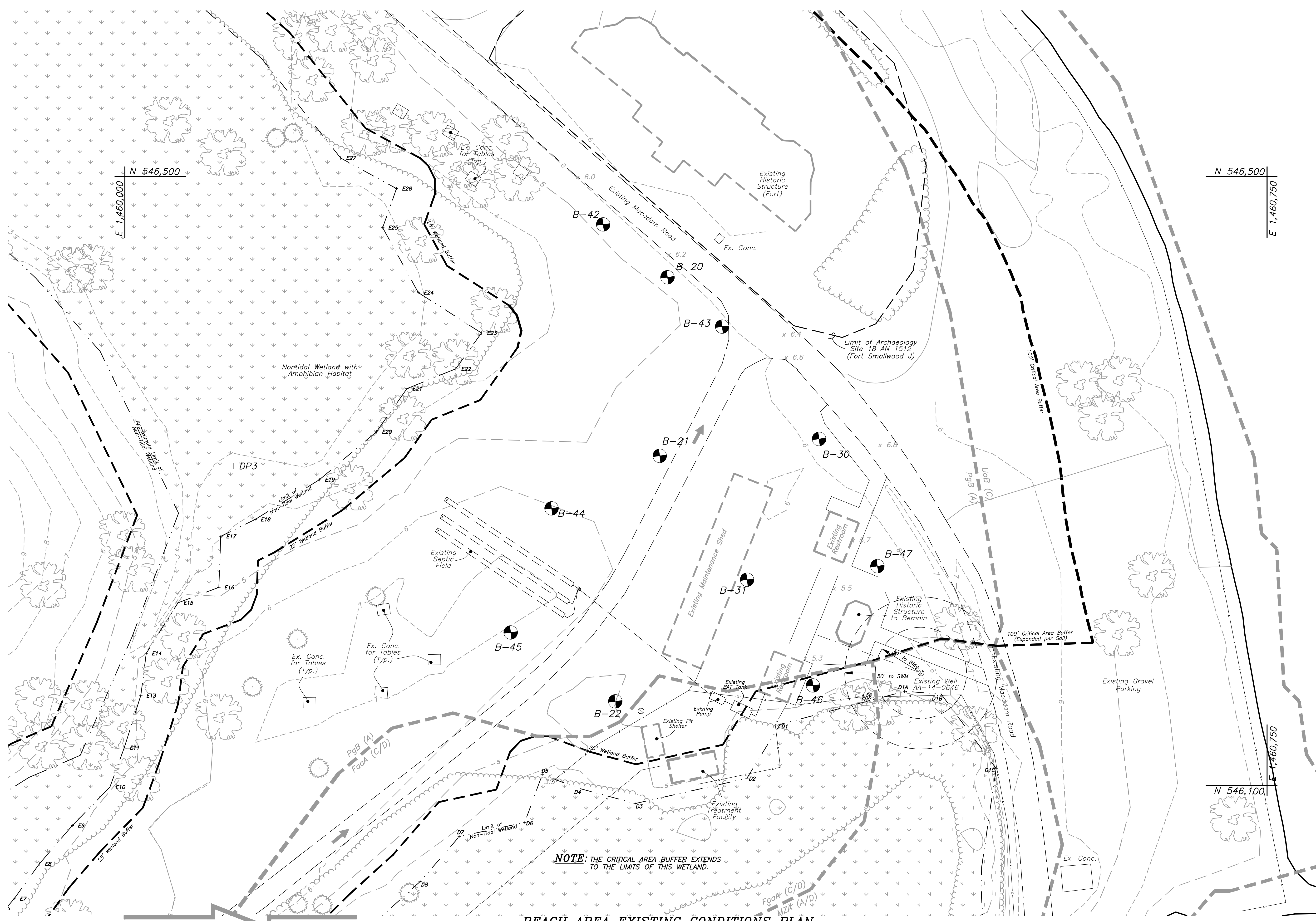
ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS

DATE: 4-28-21

APPROVED	DATE	APPROVED	DATE	SCALE: 1" = 30'
CHIEF ENGINEER		PROJECT MANAGER		DRAWN BY: JMF CHECKED BY: DGB
APPROVED	DATE	APPROVED	DATE	
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY		SHEET NO. 8 OF 37
				PROJECT NO. P535900
				PROPOSAL NO. P535907

FORT SMALLWOOD PARK PHASE II
 9500 FORT SMALLWOOD ROAD
 PASADENA, MD 21122

CENTRAL AREA EXISTING CONDITIONS **C203**



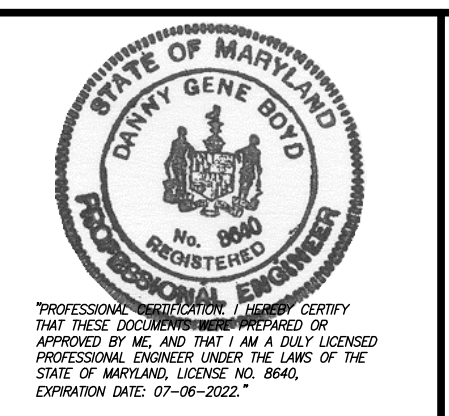
SEE SHEET 8 OF 37

BEACH AREA EXISTING CONDITIONS PLAN

SCALE: 1" = 30'

GRADING PLAN SHEET 9 OF 37
BNDPA PROJ NO. 16-811

gba
Maryland Professional Engineering Firm License No. 47570
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Email: ellene@bndpa.com www.bndpa.com



REVISIONS			
NO.	DESCRIPTION	BY	DATE
	100% SET		

ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS

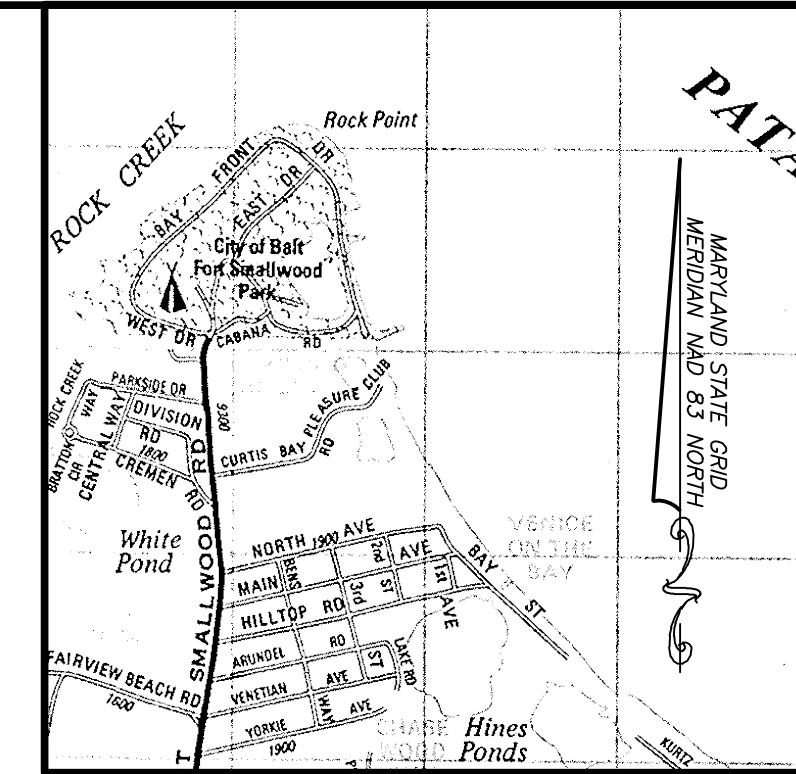
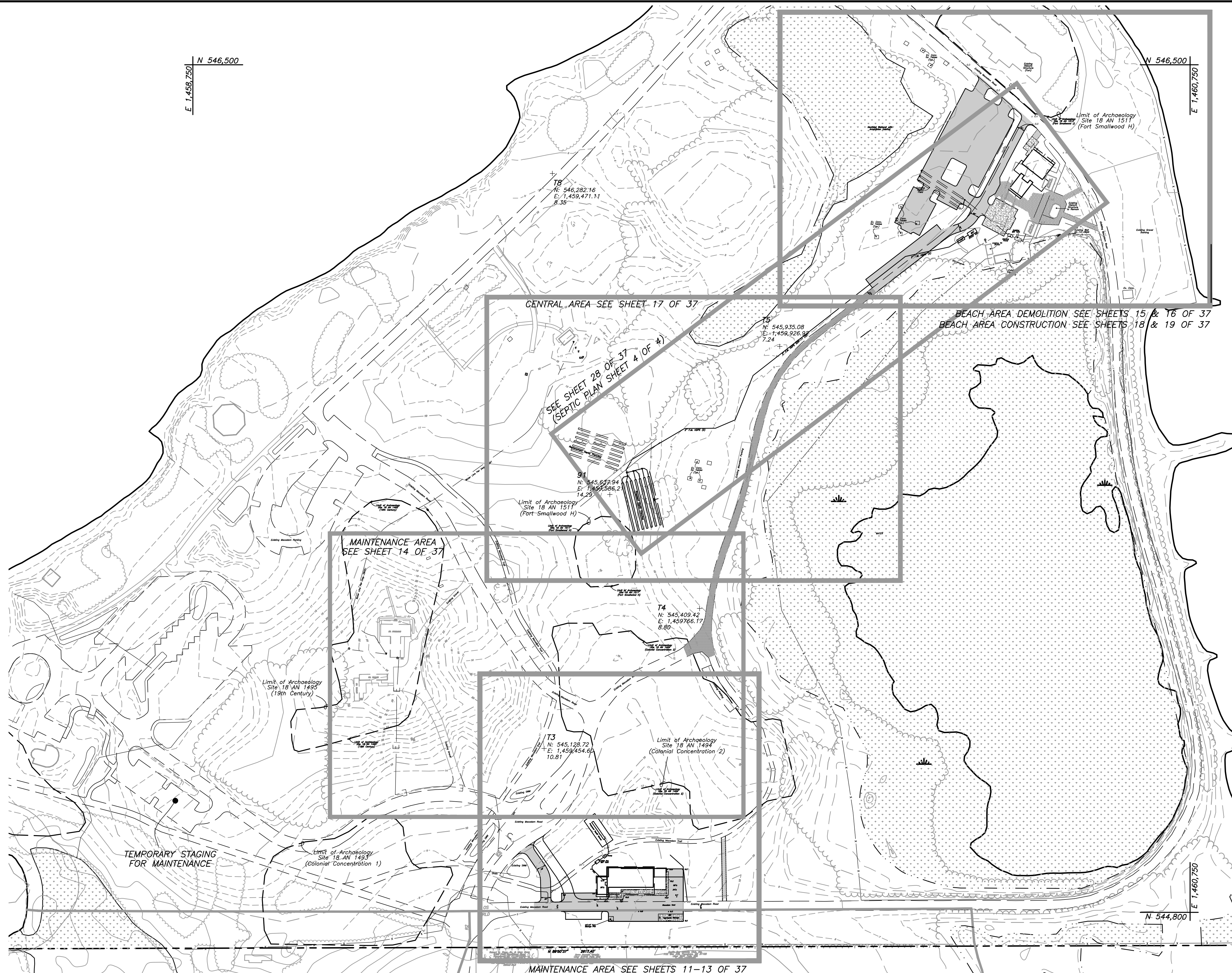
APPROVED	DATE	APPROVED	DATE
CHIEF ENGINEER		PROJECT MANAGER	
APPROVED	DATE	APPROVED	DATE
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY	

SCALE: 1" = 30'
DRAWN BY: JMF
CHECKED BY: DGB
SHEET NO. 9 OF 37
PROJECT NO. P535900
PROPOSAL NO. P535907

FORT SMALLWOOD PARK PHASE II
9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122
BEACH AREA
EXISTING CONDITIONS

C204

DATE: 4-28-21



VICINITY MAP
SCALE: 1" = 2000'

LEGEND

- Existing Contour
- Existing Wire Fence
- Existing Woods Line
- Existing Sewer Manhole
- Existing Well
- Traffic Directional Arrow
- Existing Guy Wire
- Existing Zoning Line
- Existing Sails Line
- Proposed Contour
- Proposed Limit of Disturbance
- Proposed Pavement
- Proposed Sidewalk/Concrete
- Proposed Paver Walk
- Proposed Mill & Overlay
- Proposed SWM Planting Bed
- Proposed Utility Duct
- Geotechnical Boring
- Proposed Tree Protection Fence
- Proposed SWM Gravel Wetland
- Stabilized Construction Entrance
- Proposed Super Silt Fence
- Proposed Reinforced Silt Fence
- Inlet Protection
- Earth Dike
- Wetland Limit with Point Number
- Wetland Buffer
- Flow Direction Arrows

GENERAL NOTES

1. Notify the Anne Arundel County Department of Planning and Code Enforcement, Inspection Division, (410) 222-7784 (48) forty-eight hours before beginning the work shown on these plans.
2. The existing utilities and obstructions shown are from the best available records and shall be verified by the contractor prior to construction. Necessary precautions shall be taken by the contractor to protect existing services and mains, and any damage to them shall be repaired immediately at his own expense.
3. It shall be distinctly understood that failure to mention specifically any work which would normally be required to complete the project shall not relieve the Contractor of his responsibility to complete such work.
4. Temporary sediment control measures shall be maintained until all contributing areas are graded and stabilized.
5. The topographic information shown hereon in the areas of proposed work is based on field run surveys performed by Boyd & Dowgiallo, P.A. Other topographic and improvement information is based on Anne Arundel County as-built drawings and GIS records.
6. The contractor shall notify "Miss Utility" at 1-800-257-7777 five (5) working days before starting work shown on these plans.
7. All disturbed areas shall be seeded or better as per plans.
8. The user is responsible to verify all information shown on these plans.
9. The Contractor shall note that in case of a discrepancy between the scaled and the computed dimensions shown on these plans, the computed dimensions shall govern. The Engineer shall be notified immediately of any discrepancies perceived by the contractor.
10. Pile dirt on the high side of the trench during utility construction.
11. The grading quantities shown hereon are for permit purposes only and should not be used for bidding purposes.
12. All utility poles within the limits of disturbance shall be braced as necessary at contractor's expense in cases where utility poles will interfere with construction, those poles shall be relocated at the owner's expense.
13. All construction shall be in conformance with the "2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control," and with the Anne Arundel County "Standard Details and Specifications for Construction" dated January, 2001, and revisions thereafter.
14. This project is located within the Patuxent Tidal watershed.
15. The coordinates and elevations shown in these plans are checked against Anne Arundel County GIS records and against benchmark 90-C, N: 545,637.892, E: 1,458,586.185, Elev. 14.25, being a 5/8" metal rod.
16. Spot elevations are at flowline.
17. Proposed curb is concrete, 6" high.
18. Property is in Rural water and sewer service area.
19. The entire property is in greenway.
20. The proposed work is subject to MDE permit # _____, approved _____.

SEPTIC PLAN INDEX		
Title	No.	Set
Overall Proposed Improvement Plan	1	C300
Maintenance Area Septic Plan	2	C500
Beach Area Septic Notes & Details	3	C501
Beach Area Septic Plan & Profiles	4	C502

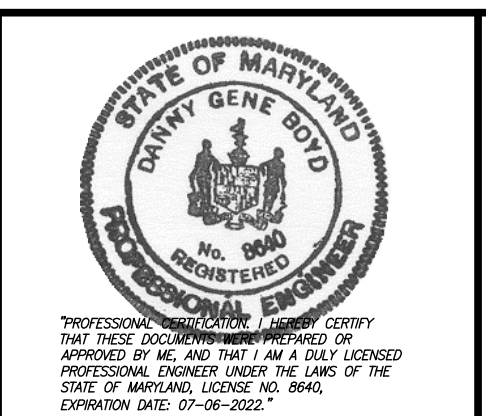
OVERALL PROPOSED CONDITIONS PLAN
SCALE: 1" = 100'

NOTE: PROPERTY IS IN THIRD DISTRICT, TAX MAP 12, BLOCK 13, PARCEL 14.

SEPTIC PLAN SHEET 1 OF 4 (T02046584)
GRADING PLAN SHEET 10 OF 37
BNDPA PROJ NO. 16-811

DATE: 4-28-21

gba
Maryland Professional Engineering Firm License No. 47570
BOYD & DOWGIALLO, P.A.
ENGINEERS*SURVEYORS*PLANNERS
412 Headquarters Drive, Suite 5
Millersville, Maryland 21108
Phone: (410) 729-1234
Fax: (410) 729-1243
Email: ellene@bndpa.com www.bndpa.com



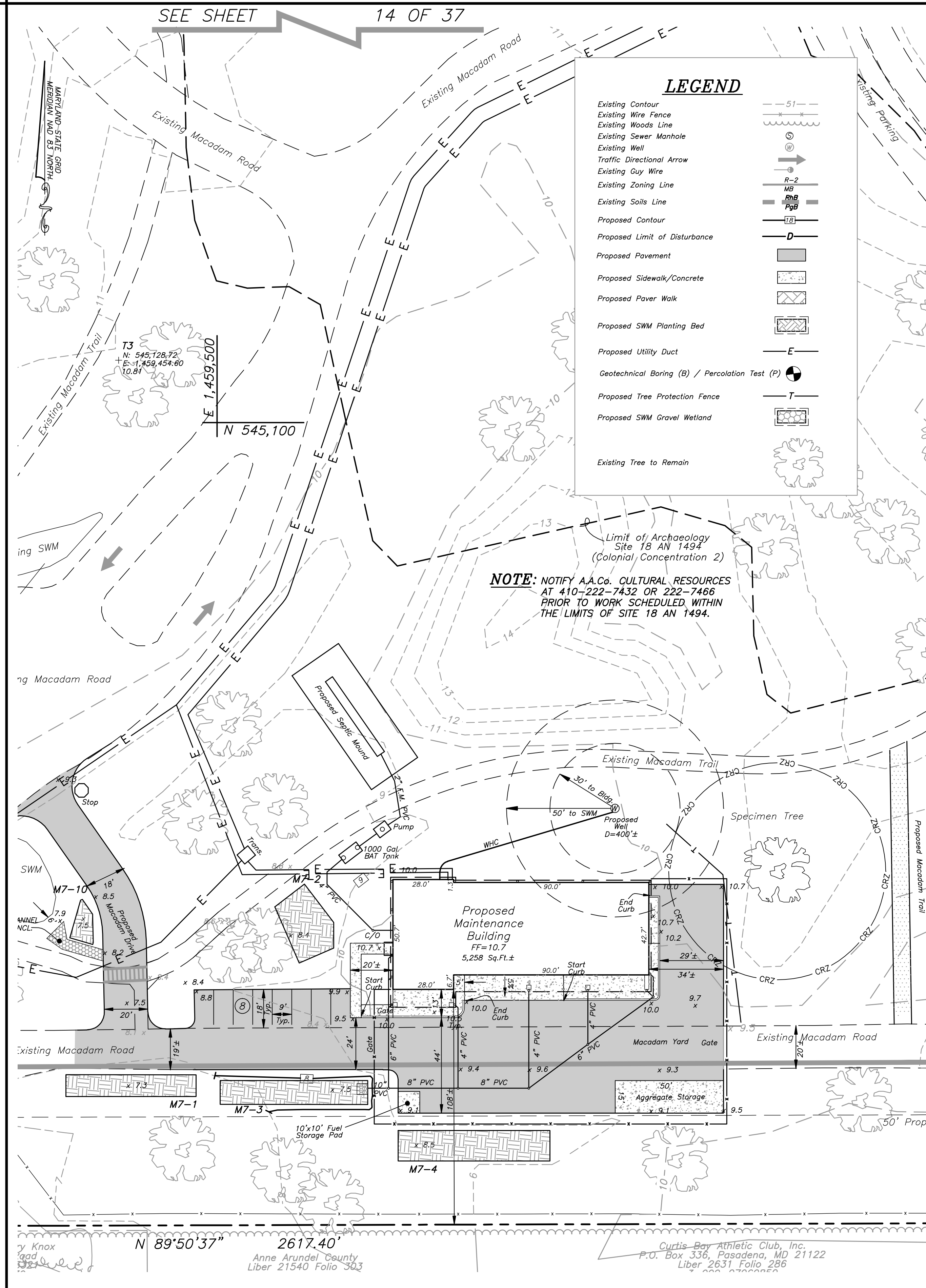
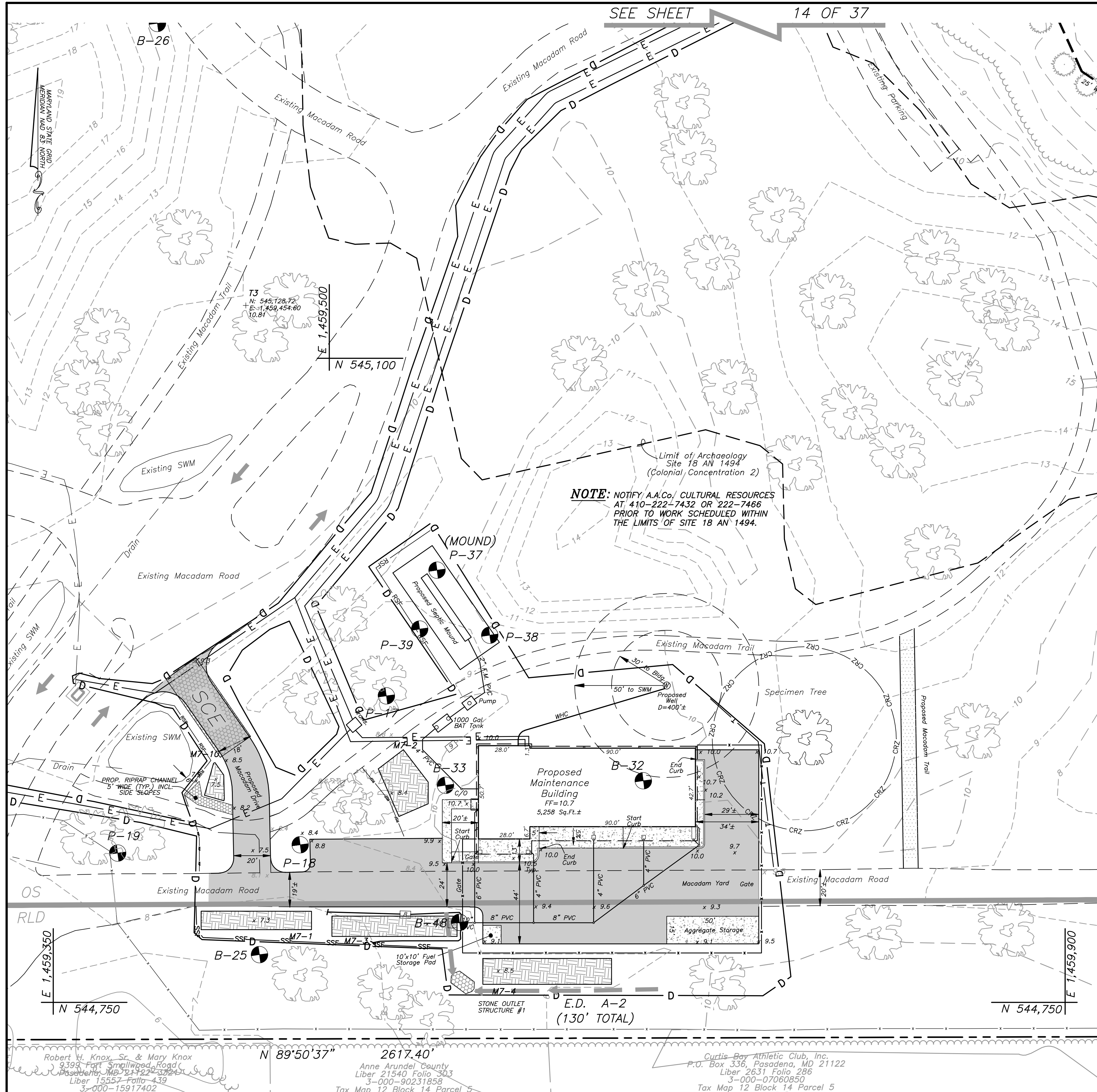
REVISIONS			
NO.	DESCRIPTION	BY	DATE
	100% SET		

ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS

APPROVED	DATE	APPROVED	DATE	SCALE: 1" = 100'
CHIEF ENGINEER		PROJECT MANAGER		DRAWN BY: JMF CHECKED BY: DGB
APPROVED	DATE	APPROVED	DATE	
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY		SHEET NO. 10 OF 37
				PROJECT NO. P535900
				PROPOSAL NO. P535907

FORT SMALLWOOD PARK PHASE II
9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122

OVERALL PROPOSED IMPROVEMENT PLAN **C300**



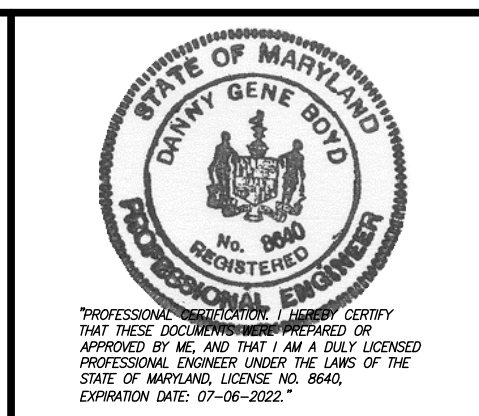
MAINTENANCE AREA PHASE IV PLAN VIEW

MAINTENANCE AREA FINISHED CONDITIONS

SCALE: 1" = 30'
BUILDING PERMIT SITE PLAN SHEET 2 OF 2
GRADING PLAN SHEET 13 OF 37

BNDPA PROJ NO. 16-811

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Email: ellene@bndpa.com www.bndpa.com



Curtis-Boy Athletic Club, Inc.
P.O. Box 336, Pasadena, MD 21122
Liber 2631 Folio 286
3-000-07060850
Tax Map 12 Block 14 Parcel 5

REVISIONS			
NO.	DESCRIPTION	BY	DATE
	100% SET		

ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS

APPROVED	DATE	APPROVED	DATE
CHIEF ENGINEER		PROJECT MANAGER	
APPROVED	DATE	APPROVED	DATE
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY	

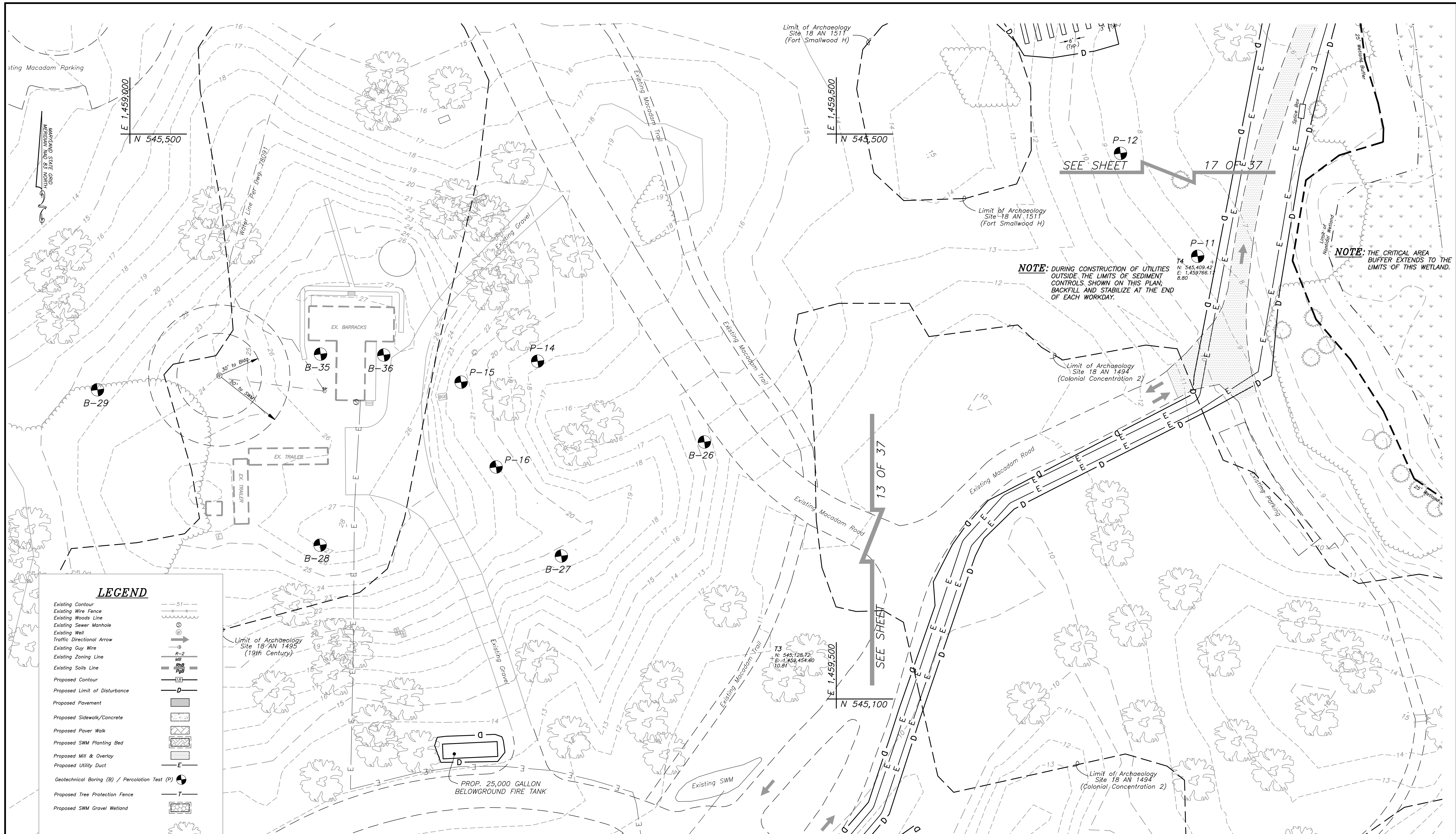
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DRAWN BY: JMF
CHECKED BY: DGB
SHEET NO. 13 OF 37
PROJECT NO. P535900
PROPOSAL NO. P535907

FORT SMALLWOOD PARK PHASE II
9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122

MAINTENANCE AREA FINISHED CONDITIONS

C303

DATE: 4-28-21



NOTE: DURING CONSTRUCTION OF UTILITIES OUTSIDE THE LIMITS OF SEDIMENT CONTROLS SHOWN ON THIS PLAN, BACKFILL AND STABILIZE AT THE END OF EACH WORKDAY.

NOTE: THE CRITICAL AREA BUFFER EXTENDS TO THE LIMITS OF THIS WETLAND.

NOTE: NOTIFY A.A.Co. CULTURAL RESOURCES AT 410-222-7432 OR 222-7466 PRIOR TO WORK SCHEDULED WITHIN THE LIMITS OF SITE 18 AN 1494.

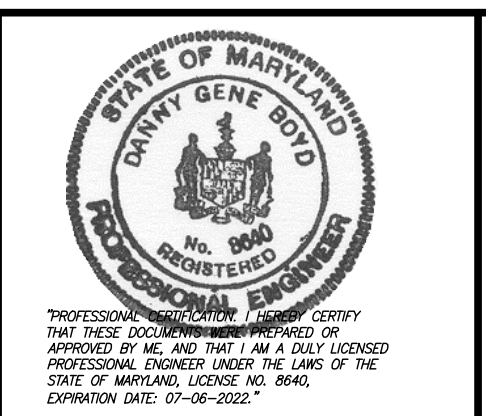
LEGEND

- Existing Contour
- Existing Wire Fence
- Existing Woods Line
- Existing Sewer Manhole
- Existing Well
- Traffic Directional Arrow
- Existing Guy Wire
- Existing Zoning Line
- Existing Soils Line
- Proposed Contour
- Proposed Limit of Disturbance
- Proposed Pavement
- Proposed Sidewalk/Concrete
- Proposed Paver Walk
- Proposed SWM Planting Bed
- Proposed Mill & Overlay
- Proposed Utility Duct
- Geotechnical Boring (B) / Percolation Test (P)
- Proposed Tree Protection Fence
- Proposed SWM Gravel Wetland
- Existing Tree to Remain

BARRACKS AREA PROPOSED CONDITIONS PLAN
SCALE: 1" = 30'

GRADING PLAN SHEET 14 OF 37
BNDPA PROJ NO. 16-811

gba
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ENGINEERS*SURVEYORS*PLANNERS
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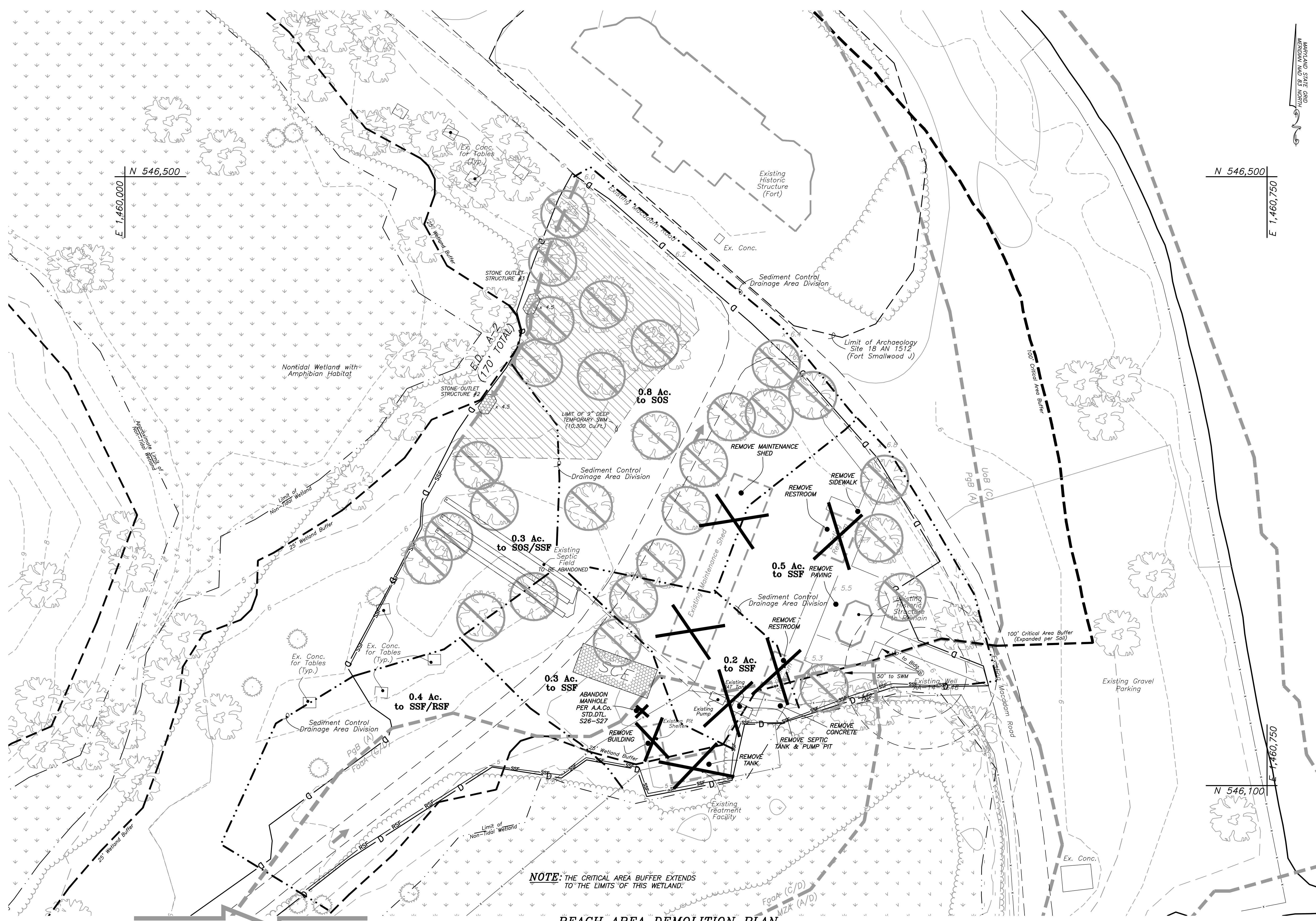
ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS

APPROVED	DATE	APPROVED	DATE	SCALE: 1" = 30'
CHIEF ENGINEER		PROJECT MANAGER		DRAWN BY: JMF
APPROVED	DATE	APPROVED	DATE	CHECKED BY: DGB
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY		SHEET NO. 14 OF 37
				PROJECT NO. P535900
				PROPOSAL NO. P535907

FORT SMALLWOOD PARK PHASE II
9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122

BARRACKS AREA
PROPOSED CONDITIONS

C304



LEGEND

- Existing Contour
- Existing Wire Fence
- Existing Woods Line
- Existing Sewer Manhole
- Existing Well
- Traffic Directional Arrow
- Existing Guy Wire
- Existing Zoning Line
- Existing Soils Line
- Proposed Contour
- Proposed Limit of Disturbance
- Proposed Pavement
- Proposed Sidewalk/Concrete
- Proposed Paver Walk
- Proposed SWM Planting Bed
- Proposed Utility Duct
- Geotechnical Boring (B) / Percolation Test (P)
- Proposed Tree Protection Fence
- Proposed SWM Gravel Wetland
- Existing Tree to Remain
- Existing Tree to Be Removed
- Temporary SWM Volume

CLEARING SUBTOTAL	
Standalone Trees Removed	24
Standalone Clearing	19,200 Sq.Ft.±
Clearing Group A	1,100 Sq.Ft.±
Clearing Group B	1,100 Sq.Ft.±
Clearing Group C	2,100 Sq.Ft.±
Total Clearing This Sheet	23,500 Sq.Ft.±

NOTE: THE CRITICAL AREA BUFFER EXTENDS TO THE LIMITS OF THIS WETLAND.

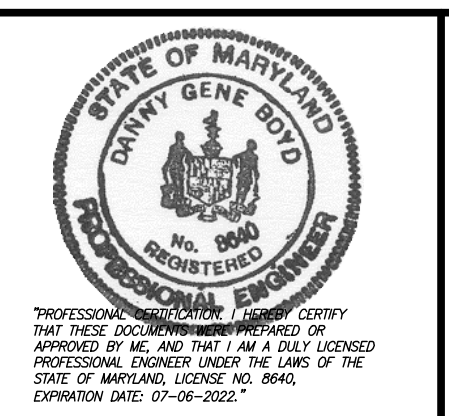
BEACH AREA DEMOLITION PLAN

SCALE: 1" = 30'

SEE SHEET 17 OF 37

BUILDING PERMIT SITE PLAN SHEET 2 OF 3
 GRADING PLAN SHEET 15 OF 37
 BNDPA PROJ NO. 16-811

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ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS

APPROVED	DATE	APPROVED	DATE
CHIEF ENGINEER		PROJECT MANAGER	
APPROVED	DATE	APPROVED	DATE
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY	

SCALE: 1" = 30'
 DRAWN BY: JMF
 CHECKED BY: DGB
 SHEET NO. 15 OF 37
 PROJECT NO. P535900
 PROPOSAL NO. P535907

FORT SMALLWOOD PARK PHASE II
 9500 FORT SMALLWOOD ROAD
 PASADENA, MD 21122

BEACH AREA DEMOLITION PLAN

C305

DATE: 4-28-21



LEGEND

- Existing Contour
- Existing Wire Fence
- Existing Woods Line
- Existing Sewer Manhole
- Existing Well
- Traffic Directional Arrow
- Existing Guy Wire
- Existing Zoning Line
- Existing Soils Line
- Proposed Contour
- Proposed Limit of Disturbance
- Proposed Pavement
- Proposed Sidewalk/Concrete
- Proposed Paver Walk
- Proposed SWM Planting Bed
- Proposed Utility Duct
- Geotechnical Boring (B) / Percolation Test (P)
- Proposed Tree Protection Fence
- Proposed SWM Gravel Wetland
- Existing Tree to Remain
- Temporary SWM Volume

N 546,500
E 1,460,000

N 546,500
E 1,460,750

NOTE: DURING CONSTRUCTION OF UTILITIES OUTSIDE THE LIMITS OF SEDIMENT CONTROLS SHOWN ON THIS PLAN, BACKFILL AND STABILIZE AT THE END OF EACH WORKDAY.

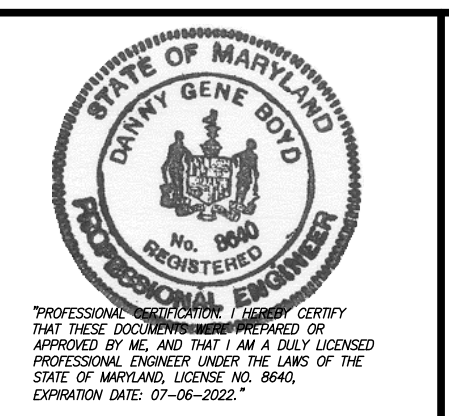
NOTE: THE CRITICAL AREA BUFFER EXTENDS TO THE LIMITS OF THIS WETLAND.

SEE SHEET 17 OF 37

BEACH AREA UTILITY CONSTRUCTION
SCALE: 1" = 30'

GRADING PLAN SHEET 16 OF 37
BNDPA PROJ NO. 16-811

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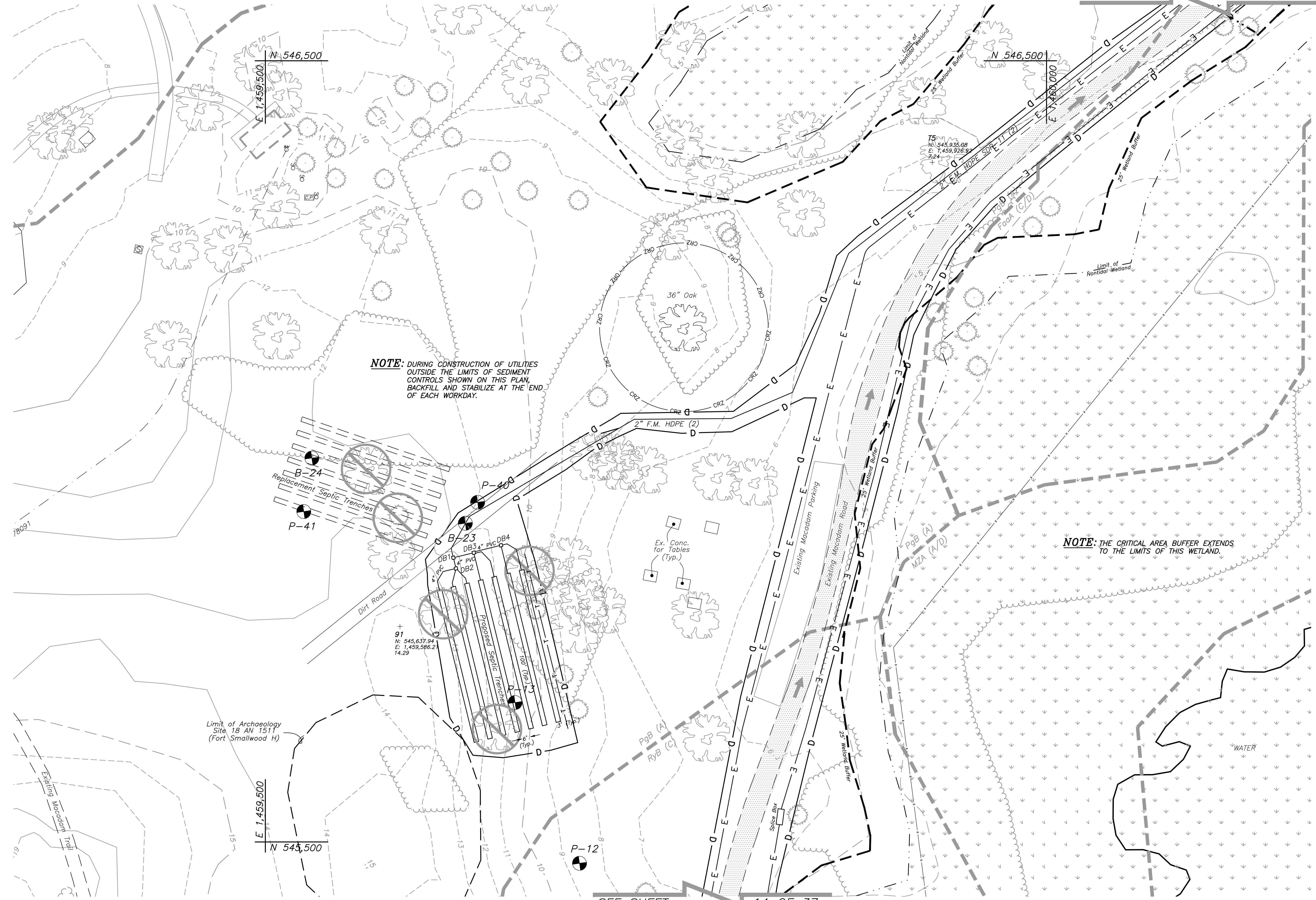


REVISIONS			
NO.	DESCRIPTION	BY	DATE
	100% SET		

ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS

APPROVED	DATE	APPROVED	DATE	SCALE: 1" = 30'
CHIEF ENGINEER		PROJECT MANAGER		FORT SMALLWOOD PARK PHASE II
APPROVED	DATE	APPROVED	DATE	9500 FORT SMALLWOOD ROAD
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY		PASADENA, MD 21122

BEACH AREA UTILITY CONSTRUCTION **C306**



NOTE: DURING CONSTRUCTION OF UTILITIES OUTSIDE THE LIMITS OF SEDIMENT CONTROLS SHOWN ON THIS PLAN, BACKFILL AND STABILIZE AT THE END OF EACH WORKDAY.

NOTE: THE CRITICAL AREA BUFFER EXTENDS TO THE LIMITS OF THIS WETLAND.

LEGEND

Existing Contour	-51-
Existing Wire Fence	— — —
Existing Woods Line	— — —
Existing Sewer Manhole	⊙
Existing Well	⊙
Traffic Directional Arrow	→
Existing Guy Wire	— — —
Existing Zoning Line	MB
Existing Soils Line	PgB
Proposed Contour	-10-
Proposed Limit of Disturbance	D
Proposed Pavement	[Pattern]
Proposed Sidewalk/Concrete	[Pattern]
Proposed Paver Walk	[Pattern]
Proposed SWM Planting Bed	[Pattern]
Proposed Mill & Overlay	[Pattern]
Proposed Utility Duct	E
Geotechnical Boring (B) / Percolation Test (P)	⊙
Proposed Tree Protection Fence	T
Proposed SWM Gravel Wetland	[Pattern]
Existing Tree to Remain	[Tree Symbol]

CLEARING SUBTOTAL

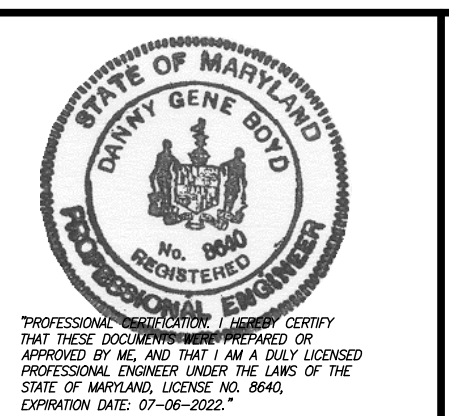
Standalone Trees Removed	4
Standalone Clearing	3,200 Sq.Ft.±
Clearing Group E	4,200 Sq.Ft.±
Clearing Group F	500 Sq.Ft.±
Total Clearing This Sheet	7,900 Sq.Ft.±

CENTRAL AREA PROPOSED IMPROVEMENTS PLAN

SCALE: 1" = 30'

GRADING PLAN SHEET 17 OF 37
BNDPA PROJ NO. 16-811

gba
Maryland Professional Engineering Firm License No. 47570
BOYD & DOWGIALLO, P.A.
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REVISIONS			
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ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS
DATE: 4-28-21

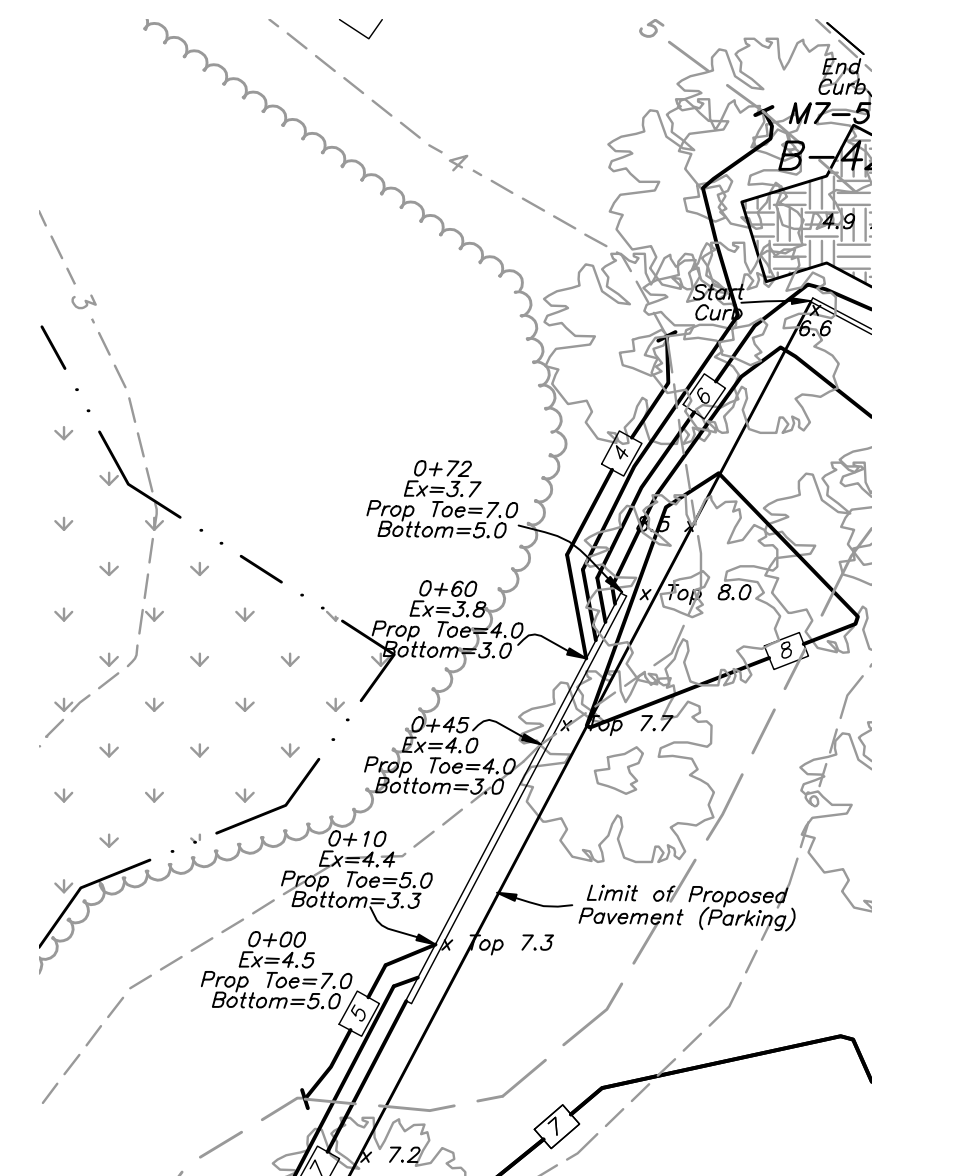
APPROVED	DATE	APPROVED	DATE
CHIEF ENGINEER		PROJECT MANAGER	
APPROVED	DATE	APPROVED	DATE
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY	

SCALE: 1" = 30'
DRAWN BY: JMF
CHECKED BY: DGB
SHEET NO. 17 OF 37
PROJECT NO. P535900
PROPOSAL NO. P535907

FORT SMALLWOOD PARK PHASE II
9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122

CENTRAL AREA
UTILITY CONSTRUCTION

C307



- LEGEND**
- Existing Contour
 - Existing Wire Fence
 - Existing Woods Line
 - Existing Sewer Manhole
 - Existing Well
 - Traffic Directional Arrow
 - Existing Guy Wire
 - Existing Zoning Line
 - Existing Soils Line
 - Proposed Contour
 - Proposed Limit of Disturbance
 - Proposed Pavement
 - Proposed Sidewalk/Concrete
 - Proposed Paver Walk
 - Proposed SWM Planting Bed
 - Proposed Mill & Overlay
 - Proposed Utility Duct
 - Geotechnical Boring (B) / Percolation Test (P)
 - Proposed Tree Protection Fence
 - Proposed SWM Gravel Wetland
 - Existing Tree to Remain

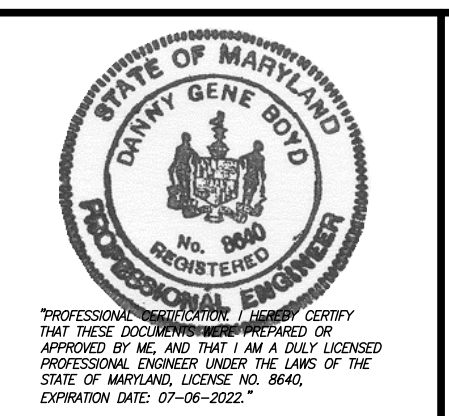
SEE SHEET 17 OF 37

BEACH AREA IMPROVEMENTS PLAN VIEW
SCALE: 1" = 30'

NOTE: SEE SHEET 24 OF 37 FOR ADDITIONAL DRAINAGE PATTERN ARROWS AND SPOT ELEVATIONS.

GRADING PLAN SHEET 18 OF 37
BNDPA PROJ NO. 16-811

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BOYD & DOWGIALLO, P.A.
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ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS

DATE: 4-28-21

APPROVED	DATE	APPROVED	DATE	SCALE: 1" = 30'
CHIEF ENGINEER		PROJECT MANAGER		FORT SMALLWOOD PARK PHASE II
APPROVED	DATE	APPROVED	DATE	9500 FORT SMALLWOOD ROAD
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY		PASADENA, MD 21122

BEACH AREA IMPROVEMENTS

C308

LEGEND

- Existing Contour
- Existing Wire Fence
- Existing Woods Line
- Existing Sewer Manhole
- Existing Well
- Traffic Directional Arrow
- Existing Guy Wire
- Existing Zoning Line
- Existing Soils Line
- Proposed Contour
- Proposed Limit of Disturbance
- Proposed Pavement
- Proposed Sidewalk/Concrete
- Proposed Paver Walk
- Proposed SWM Planting Bed
- Proposed Mill & Overlay
- Proposed Utility Duct
- Geotechnical Boring (B) / Percolation Test (P)
- Proposed Tree Protection Fence
- Proposed SWM Gravel Wetland
- Existing Tree to Remain



NOTE: THE CRITICAL AREA BUFFER EXTENDS TO THE LIMITS OF THIS WETLAND.

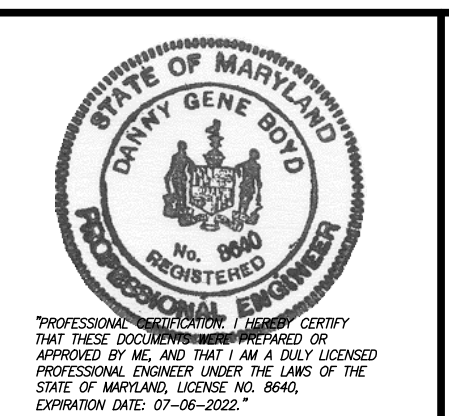
SEE SHEET 17 OF 37

BEACH AREA FINISHED CONDITIONS PLAN VIEW

SCALE: 1" = 30'

BUILDING PERMIT SITE PLAN SHEET 3 OF 3
 GRADING PLAN SHEET 19 OF 37
 BNDPA PROJ NO. 16-811

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 Maryland Professional Engineering Firm License No. 47570
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ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS

APPROVED	DATE	APPROVED	DATE	SCALE: 1" = 30'
CHIEF ENGINEER		PROJECT MANAGER		FORT SMALLWOOD PARK PHASE II
APPROVED	DATE	APPROVED	DATE	9500 FORT SMALLWOOD ROAD
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY		PASADENA, MD 21122

BEACH AREA FINISHED CONDITIONS **C309**

MICRO-BIORETENTION NOTES

The following conditions should be considered when designing micro-bioretenion practices:

A. Conveyance: Micro-bioretenion systems should be designed off-line whenever possible. A flow splitter should be used to divert excess runoff away from the filter media to a stable downstream conveyance system. If bypassing a micro-bioretenion practice is impractical, an internal overflow device (e.g. elevated yard inlet) may be used.

Runoff shall enter, flow through, and exit micro-bioretenion practices in a safe and non-erosive manner. Inflow may be through depressed curbs with wheel stops or through curb cuts, or conveyed directly using downspouts, covered drains, or catch basins. Depending on the site layout and the size and shape of the impervious area being treated, overflow structures should be located to maximize internal flow paths through the filter media. An underdrain system may be necessary to discharge treated stormwater safely downstream. Underdrains may be interconnected to other micro-scale practices as part of a sequential treatment system, or connected directly to the storm drain.

B. Treatment: Micro-bioretenion practices shall meet the following design criteria:
 • The drainage to any individual practice shall be 20,000 sq ft or less.
 • Micro-bioretenion practices shall capture and store at least 75% of the ESDv.
 • The surface area of micro-bioretenion practices shall be at least 2% of the contributing drainage area. The PE value, in inches, of a landscape infiltration area will be approximately equal to 15 times the ratio of bottom area to contributing area. Temporary storage of ESDv may be provided above the facility with a surface ponding depth of 12" or fewer.
 • Filter beds shall be between 24" and 48" deep.
 • Filter beds shall not intersect groundwater. If designed as infiltration practices, filter bed inverts shall be separated at least 4 ft vertically (2 ft on the lower Eastern Shore) from the seasonal high water table.
 • A mulch layer 2" to 3" deep shall be applied to the planting soil to maintain soil moisture, enhance plant survival, prevent premature clogging, and inhibit weed growth.
 • The filtering media or planting soil, mulch, and underdrain systems shall conform to the specifications found in Appendix B.4.

C. Setbacks:
 • Micro-bioretenion practices should be located down-gradient from and be set back at least 10 ft from structures. Micro-bioretenion variants, e.g. planter boxes, that must be located adjacent to structures should include an impermeable liner.
 • Micro-bioretenion practices shall be located at least 30 ft from water supply wells and 25 ft from septic systems. If designed to infiltrate, then the practice shall be located at least 50 ft from confined water supply wells and 100 ft from unconfined water supply wells.
 • Micro-bioretenion practices shall be size and located to meet minimum local requirements for clearance from underground utilities.
 • Any trees planted in micro-bioretenion practices shall be located to avoid future problems with overhead electrical and telecommunication lines.

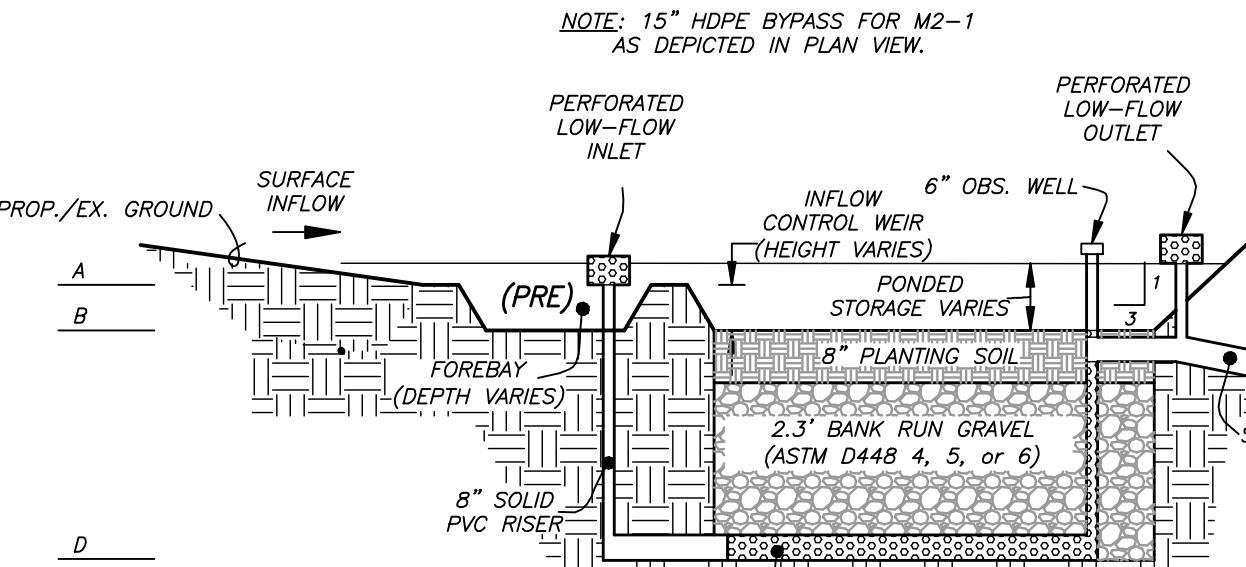
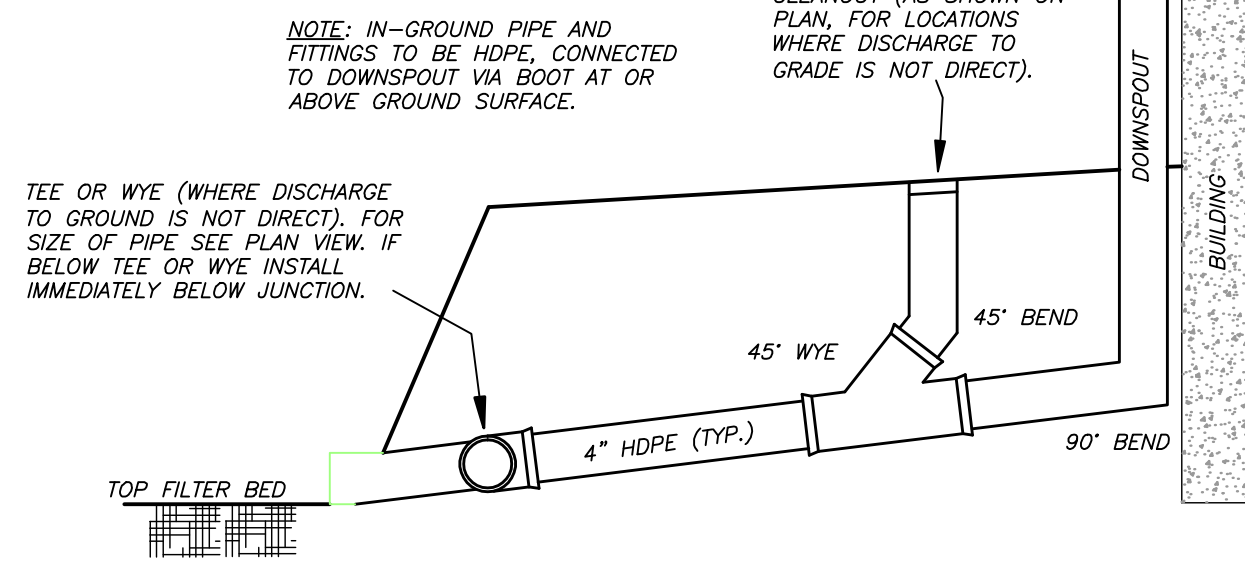
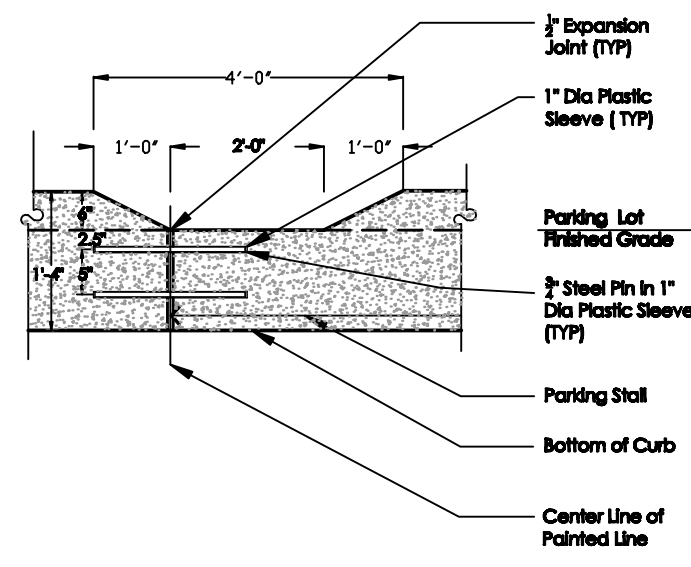
D. Landscaping: Landscaping plans shall be provided according to the guidance in Appendix A of the MDE Manual. Vegetation is critical to the function and appearance of any micro-bioretenion system. Native and adapted plants are preferred, hardier, and usually require minimal nutrient or pesticide application. Aesthetically pleasing landscape designs generally enhance property value and community acceptance.

E. Construction Criteria: The following should be addressed during construction of projects with micro-bioretenion:

- Erosion and Sediment Control: Micro-bioretenion practices should not be constructed until the contributing area is stabilized. During construction, runoff should be diverted away from the practice, and no sediment control practices shall be used near the proposed location.
 - Soil Compaction: Excavation should be conducted in dry conditions with equipment located outside of the practice to minimize bottom and sidewall compaction. Only lightweight, low-ground-contact equipment should be used within micro-bioretenion practices, and the bottom shall be scarified before installing underdrains and filtering media. Compacted soil may be remediated using tilling (soil ripping) or addition of organic matter.
 - Underdrain Installation: Gravel for the underdrain system should be clean, washed, and free of fines. Underdrain pipes should be checked to ensure that both the material and the perforations meet specifications. The upstream ends of the underdrain pipe should be capped prior to installation.
 - Filter Media Installation: Bioretention soils may be mixed onsite before placement. Soils should not be placed under saturated conditions. The filter media should be placed and graded using excavators or backhoes operating adjacent to and not in the practice, and should be placed in horizontal layers (12" maximum per lift). Proper compaction of the media will occur naturally. Spraying or sprinkling water on each lift until saturated may quicken setting times.
 - Landscape Installation: The optimum planting time is during the fall. Spring planting is also acceptable, but may require watering.
- F. Inspection:** Regular inspections shall be made during the following stages of construction:
- During excavation to subgrade and placement and backfill of underdrain systems
 - During placement of filter media
 - During construction of appurtenant conveyance structures.
 - Upon completion of final grading and establishment of permanent stabilization.

G. Maintenance: The following items should be addressed to ensure proper maintenance and long-term performance of micro-bioretenion:

- Privately owned practices shall have a maintenance plan and shall be protected by easement, deed restriction, ordinance, or other legal measures preventing its neglect, adverse alteration, and removal.
- The top few inches of the planting soil should be removed and replaced when water ponds for more than 24 hours after a rainfall event. Silt or sediment should be removed from the surface of the bed when accumulation exceeds 1".
- Where practices are used to treat areas with higher concentrations of heavy metals (e.g. parking lots or roads), mulch should be replaced annually. Otherwise, the top 2" to 3" should be replaced as necessary.
- Occasional pruning and replacement of dead vegetation is necessary. If specific plants are not surviving, they should be replaced by species appropriate to the actual conditions. Watering may be required during prolonged dry periods.



DOWNSPOUT CONNECTION DETAIL

NOT TO SCALE

TYPICAL SUBMERGED GRAVEL WETLAND (M-2) CROSS SECTION

NOT TO SCALE

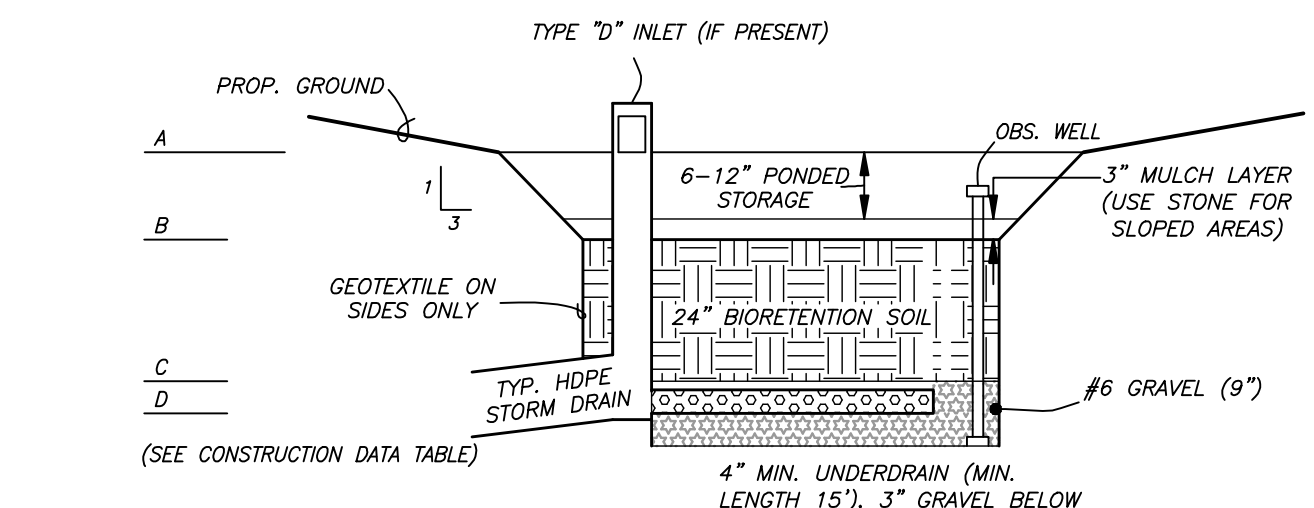
VOLUME REQUIRED

Outfall	DA	Area (sf)	Impervious (sf)	Area (ac)	Share of Imp.	Outfall ESDv	DA ESDv	WQv
1	B (1)*	12,030	5,770	0.28	.035	784	560	
	C (1)*	2,728	1,092	0.06	.007	148	106	
	C (2)*	9,919	8,153	0.23	.049	1,108	791	
	C (3)*	27,167	3,590	0.62	.022	488	348	
	D old		14,075		.097	19,002	2,014	
	D new		15,990		.083	2,173		
	D net					159	114	
	E (1)	7,464	4,755	0.17	.029	646	461	
	E (2)	15,920	4,777	0.37	.029	649	464	
	E (3)	6,825	6,025	0.16	.036	819	585	
	E (4)	12,280	7,913	0.28	.048	1,075	768	
	All 1		165,471			22,482		
2	F (1)*	8,325	4,677	0.19	.083	669	418	
	All 2		56,427			8,068		
7	N (1)	4,428	2,905	0.10	0.126	443	443	
	N (2)	4,944	3,507	0.12	0.152	534	534	
	N (3)	3,103	2,482	0.07	0.107	378	378	
	N (4)	2,800	1,934	0.07	0.084	295	295	
	N (5)	4,444	3,334	0.10	0.144	508	508	
	All 7		23,113			3,521		
9	Q (1)	11,416	6,928	0.26	.078	798	798	
	Q (2)	18,307	16,769	0.42	.189	1,932	1,932	
	Q (3)	3,787	2,279	0.09	.026	262	262	
	Q (4)	9,666	4,368	0.22	.049	503	503	
	Q (5)	2,109	2,109	0.05	.024	243	243	
	Q (6)	6,120	3,585	0.14	.040	413	413	
	Q (7)	10,631	5,521	0.24	.062	636	636	
	Q (8)	3,830	1,691	0.09	.019	195	195	
	Q (9)		5,526		.062	637	637	
	All 9		88,765			10,228	10,619	

* NOT PART OF THIS PERMIT.

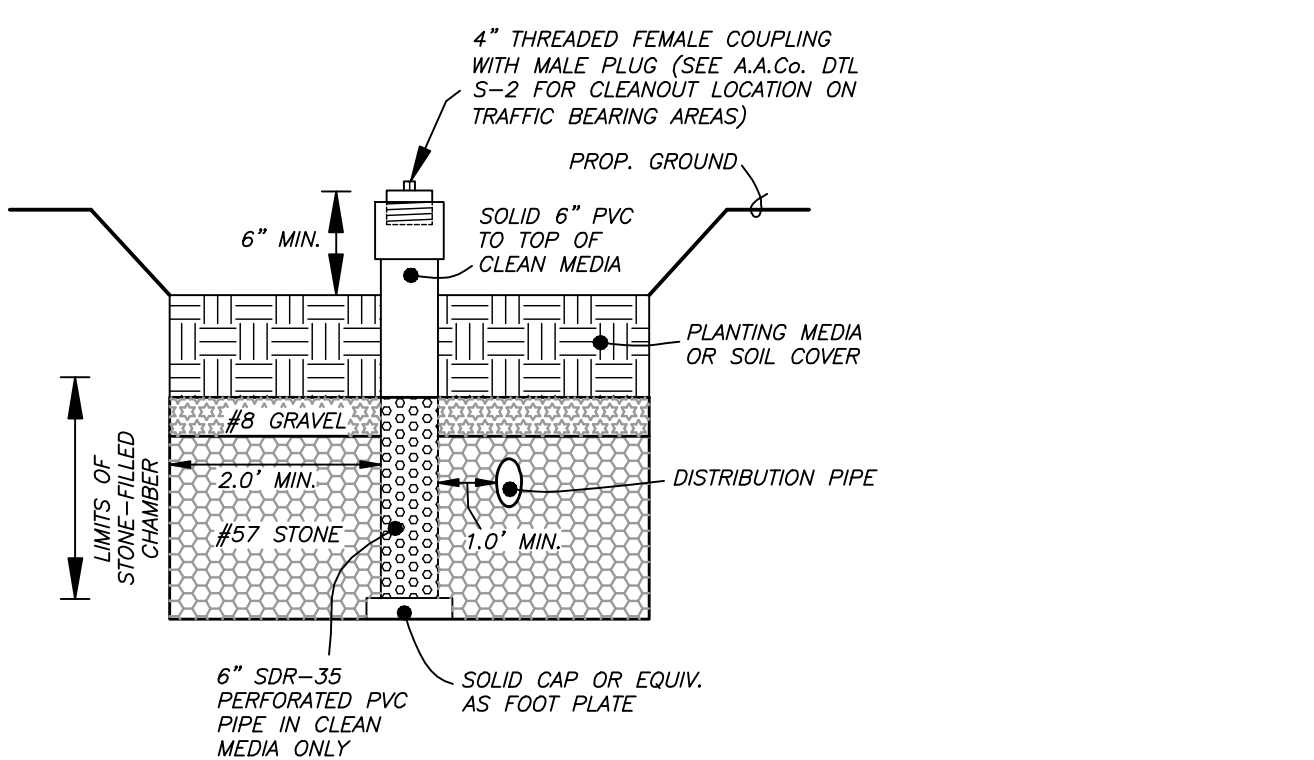
TYPICAL RAINGARDEN CROSS SECTION (M-7)

NOT TO SCALE



MICRO-BIORETENTION CROSS SECTION (M-6)

NOT TO SCALE



OBSERVATION WELL DETAIL

NOT TO SCALE

STORMWATER MANAGEMENT NOTE

1. Environmental Site Design volume, ESDv, is required for the new development in the total amount of 11,125 cu ft (1.4" PE for Outfall 1 and 1.0" for other outfalls). 11,937 cu ft will be provided through the use of three (3) micro-bioretenion areas (M-6), ten (10) raingardens (M-7), one (1) submerged gravel wetland (M-2), one (1) grass swale (M-9), and non-rooftop disconnection (N-2).
2. Water quality volume, WQv, is required in the amount of 10,619 cu ft, and will be provided by the ESD practices.
3. Recharge volume, Rev, is required in the amount of 4,271 cu ft, and will be provided by the raingardens.
4. Channel protection volume, CpV, is provided by meeting the PE requirement with ESD practices.
5. Overbank flood protection volume, Op10, is not required because the property has a direct tidal outfall.
6. Extreme flood protection volume, Of, is not required because the property has a direct tidal outfall.

VOLUME PROVIDED

DA	Practice No.	Bottom Area	Top Area	Avg. Depth	Pond Volume	Surface Volume	Side Volume	Media Depth	Void Vol.	ESDv Req'd.	ESDv Prov.	PE	
D	M7-10	144	144	0.50	72		1.5	87	159	159	1.40"		
E (1)	M7-1	600	600	0.50	300		1.5	360	646	660	1.43"		
E (2)	M7-2	595	595	0.50	297		1.5	357	649	654	1.41"		
E (3)	M7-3	748	748	0.50	374		1.5	449	819	823	1.41"		
E (4)	M7-4	980	980	0.50	490		1.5	588	1,075	1,078	1.40"		
D-E	All 4										[3,348]	[3,374]	1.41"
N (1)	M7-5	515	515	0.50	257		1.0	206	443	463	1.04"		
N (2)	M7-6	494	494	0.50	247		1.5	296	534	541	1.01"		
N (3)	M7-7	345	345	0.50	172		1.5	207	378	379	1.00"		
N (4)	M8-g1	240						n/a	295	303	1.37"		
N (5)	M7-8	465	465	0.50	232		1.5	279	508	511	1.00"		
N	All										[2,158]	[2,298]	1.06"
Q (1)	M6-4	696	696	0.50	348		2.5	696	798	1,044	1.31"		
Q (2)	M6-5	1,290	1,290	0.50	645		2.5	1,290	1,932	1,935	1.00"		
Q (3)	M6-6	181	181	0.50	90		2.5	181	262	271	1.03"		
Q (4)	All 3										503		
Q (5)	All 3										243		
Q (6)	All 3										413		
Q (7)	All 3										636		
Q (8)	All 3										195		
Q (9)	All 3										637		
Q	All 9										[5,619]	[6,303]	1.12"
Total											11,125	11,937	

Note: Figures in [brackets] are subtotals for areas or for outfalls with multiple practices.

CONSTRUCTION DATA

DA	Practice No.	Bottom Dimensions	Top Elev.	Bed Elev.	Bottom Soil	Bottom Gravel (Drain)	Boring/Invert or WS	Depth to Water
D	M7-10	irregular	8.0	7.5	6.0	NA	P-19/3.2	2.8
E (1)	M7-1	60' x 10'	7.8	7.3	5.8	NA	B-25/3.2	2.6
E (2)	M7-2	irregular	8.9	8.4	6.9	NA	P-18/B-33/3.6	2.4
E (3)	M7-3	68' x 11'	8.0	7.5	6.0	NA	P-18/B-33/3.6	2.9
E (4)	M7-4	70' x 14'	9.0	8.5	7.0	NA	B-48/4.9	2.1
N (1)	M7-5	21' x 19' x 14' x 12'	5.4	4.9	3.9	NA	B-42/1.9	2.0
N (2)	M7-6	28' x 16' m/l	6.3	5.8	4.3	NA	B-20/1.0 (1.6)	2.7
N (3)	M7-7	20' x 20' truncated	6.0	5.5	4.0	NA	B-43/1.3	2.7
N (4)	M8-g1	60' x 4'	6.8	6.3	4.8	NA	B-21/1.5 ML	3.3
N (5)	M7-9	43' x 15' truncated	6.8	6.3	4.8	NA	B-30/1.3	3.5
Q (1)	M6-4	33' x 30'	6.8	6.3	4.3	3.8	B-45/1.6	2.0
Q (2)	M6-5	44' x 30' truncated	6.5	6.0	4.0	3.5	B-44/NA	NA
Q (3)	M6-6	irregular	6.7	6.2	4.2	3.7	B-21/1.5 ML	2.2
Q5-7	pre	20' x 6' (bottom)	5.25	4.5	NA	NA	B-22/1.8	2.7
M2-1	irregular		3.8	1.8	NA	-1.2	B-22/1.8	NA
Q (8)	M7-9	13' x 13' m/l	5.7	5.2	3.7	NA	B-47/0.8	2.6

NOTE: BOTTOM OF GRAVEL DOES NOT INCLUDE 3" UNDER THE UNDERDRAIN.

MATERIALS FOR BIORETENTION/LANDSCAPE INFILTRATION/SWALES

Material	Specification	Size/Value	Notes (Per MDE Manual Appendix B.4)
Plantings	See App. A, Table A.4		See landscape plans.
Planting Soil	Loamy Sand or Sandy Loam; Organic 10% minimum by weight; Clay less than 5%		Analysis per ASTM D 2974. Typical mixes are 60-65% loamy sand & 35-40% compost, or 30% sandy loam, 30% coarse sand, and 40% compost.
Mulch	Double shredded hardwood		Aged 6 months OR recycled from site clearing.
Pea Gravel (pretreatment)	ASTM D-448; clean, bank-run	No. 6	Ornamental stone is optional; to be washed, 2" to 5".
Geotextile	Class C; opening size ASTM-D-4751; grab tensile strength ASTM-D-4632; puncture resistance ASTM D-4833		For use as necessary beneath underdrains only.
Underdrain stone	AASHTO M-43	No. 6	3" gravel over underdrain; not necessary under pipes.
Bridge layer for M-9	AASHTO M-43	No. 8	6" typical depth.
Underdrain piping	AASHTO M-278 or F 758, Type FS 28	4"-6"	Schedule 40 PVC or SDR 35; typ. 3/8" perforations 6" o.c., 4 per row (see plans).
Poured-in-Place Concrete	SHA Mix No. 3, normal weight, air-entrained	3500 psi at 28 days	Onsite testing of poured-in-place concrete required (strength and slump). Reinforcing to meet ASTM-615-60.
Sand	AASHTO M-6 or ASTM-C-33	0.02-0.04"	
Check Dam (treated wood)	AWSA Standard C6	6"x6" min.	Do not coat with creosote; embed 3" into side slopes. Notch as necessary.
Check Dam (natural wood)	Black Locust, Red Mulberry, Cedar, Catalpa, White Oak, Chestnut Oak, Black Walnut	6"-12" dia.	Use only the species specified, and specifically not woods prone to water rot; embed 3" into side slopes. Notch as necessary.
Check Dam/Lining (riprap)	Per County, or SHA Section 905	Per 10-yf design flow	

STORMWATER MANAGEMENT SUMMARY TABLE

Sizing Criteria	Symbol	Volume Required (cf)	Volume Provided (cf)	SWM Practice	Notes
Environmental Site Design Volume	ESDv	11,125	11,937	Micro-Bioretenion (M-6) Raingarden (M-7) Swale (M-8) Submerged Gravel Wetland (M-2)	Grass swale (M-9). Also one area of non-rooftop disconnection (N-2).
Water-Quality Volume	WQv	10,619	11,937	Micro-Bioretenion (M-6) Raingarden (M-7) Swale (M-8) Submerged Gravel Wetland (M-2)	The portion not exceeding one-year runoff (RCNs are low) is 9,101 Cu.Ft.
Recharge Volume	Rev	4,271	11,937	Raingarden (M-7) Swale (M-8) Submerged Gravel Wetland (M-2) Non-Rooftop Disconnection (N-2)	Provided in all ESD practices. Micro-bioretenion has an underdrain.
Channel Protection Volume	CpV	N/A	N/A	Micro-Bioretenion (M-6) Raingarden (M-7) Swale (M-8) Submerged Gravel Wetland (M-2)	Reduced by providing PE, per SWM Manual
Overbank Flood Protection Volume	Op10	N/A	N/A		Not required; all outfalls are to tidal water
Extreme Flood Protection Volume	Of	N/A	N/A		Not required; all outfalls are to tidal water

GRADING PLAN SHEET 20 OF 37
BNDPA PROJ NO. 16-811

gba Maryland Professional Engineering Firm License No. 47570
BOYD & DOWGIALLO, P.A.
 ENGINEERS*SURVEYORS*PLANNERS
 412 Headquarters Drive, Suite 5

--- Identification Data ---
 User: JMF
 Project: Ft Smallwood
 Subtitle: Existing w/LOD
 State: Maryland
 County: Anne Arundel
 Filename: C:\Users\joe\Documents\Engineering\16-81116-811ex.w55

Hydrograph Peak/Peak Time Table
 Sub-Area Peak Flow and Peak Time (hr) by Rainfall Return Period
 or Reach 10-Yr 100-Yr 1-Yr
 Identifier (cfs) (cfs) (cfs)
 (hr) (hr) (hr)

Sub-Area	10-Yr	100-Yr	1-Yr
A-E	13.29	40.52	0.09
F	12.10	12.10	15.36
G	4.67	11.93	0.08
H-J	12.10	12.07	12.51
K	2.22	6.29	.00
L	12.03	12.01	n/a
M-N	4.10	15.31	.00
O	12.13	12.10	n/a
P-S	10.38	23.50	0.48
T	12.03	12.02	12.09
U	0.17	3.62	.00
V	13.50	12.21	n/a
W	21.77	48.02	1.73
X	12.19	12.18	12.30
Y	6.52	10.60	2.18
Z	12.00	12.00	12.01
AA	8.93	14.95	2.70
AB	12.17	12.16	12.19
AC	6.08	10.90	1.44
AD	12.02	12.01	12.05

Sub-Area Summary Table

Sub-Area Identifier	Drainage Area (ac)	Time of Concentration (hr)	Curve Number	Receiving Reach	Sub-Area Description
A-E	19.91	0.287	50	Outlet	
F	4.66	0.287	54	Outlet	
G	2.48	0.149	50	Outlet	
H-J	9.61	0.308	47	Outlet	
K	6.76	0.177	57	Outlet	
L	10.69	0.374	36	Outlet	
M-N	18.83	0.478	60	Outlet	
O	1.58	0.188	80	Outlet	
P-S	3.41	0.478	78	Outlet	
T	2.00	0.194	71	Outlet	

Total Area: 79.93 (ac)

Sub-Area Land Use and Curve Number Details

Sub-Area Identifier	Land Use	Hydrologic Soil Group	Sub-Area Area (ac)	Curve Number	
A-E	Open space; grass cover > 75%	(good) A	12.22	39	
	Open space; grass cover > 75%	(good) B	1.08	61	
	Open space; grass cover > 75%	(good) D	3.05	98	
	Paved parking lots, roofs, driveways	(good) A	2.67	30	
	Woods	(good) D	.2	77	
Total Area / Weighted Curve Number					
19.91 / 50					
F	Open space; grass cover > 75%	(good) A	3.28	39	
	Paved parking lots, roofs, driveways	(good) A	1.24	98	
	Woods	(good) A	.14	30	
	Total Area / Weighted Curve Number				
4.66 / 54					
G	Open space; grass cover > 75%	(good) A	2.02	39	
	Paved parking lots, roofs, driveways	(good) A	.46	98	
	Total Area / Weighted Curve Number				
	2.48 / 50				
H-J	Open space; grass cover > 75%	(good) A	8.16	39	
	Paved parking lots, roofs, driveways	(good) A	1.39	98	
	Woods	(good) A	.06	30	
	Total Area / Weighted Curve Number				
9.61 / 47					
K	Open space; grass cover > 75%	(good) A	4.3	39	
	Open space; grass cover > 75%	(good) C	.97	74	
	Paved parking lots, roofs, driveways	(good) A	1.49	98	
	Total Area / Weighted Curve Number				
	6.76 / 57				
M-N	Open space; grass cover > 75%	(good) A	4.82	39	
	Paved parking lots, roofs, driveways	(good) A	.37	98	
	Woods	(good) A	5.5	30	
	Total Area / Weighted Curve Number				
	10.69 / 36				
P-S	Open space; grass cover > 75%	(good) A	6.16	39	
	Open space; grass cover > 75%	(good) B	.46	61	
	Open space; grass cover > 75%	(good) C	.19	74	
	Open space; grass cover > 75%	(good) D	3.981	80	
	Paved parking lots, roofs, driveways	(good) A	1.88	98	
	Woods	(good) A	2.35	30	
	Woods	(good) D	4.61	77	
Total Area / Weighted Curve Number					
18.83 / 60					
T	Open space; grass cover > 75%	(good) A	.12	39	
	Open space; grass cover > 75%	(good) C	.86	74	
	Open space; grass cover > 75%	(good) D	.08	80	
	Paved parking lots, roofs, driveways	(good) A	.52	98	
	Total Area / Weighted Curve Number				
1.58 / 80					
U	Open space; grass cover > 75%	(good) C	1.83	74	
	Open space; grass cover > 75%	(good) D	.28	80	
	Paved parking lots, roofs, driveways	(good) A	.35	98	
	Woods	(good) D	.95	77	
	Total Area / Weighted Curve Number				
3.41 / 78					
V	Open space; grass cover > 75%	(good) A	.44	39	
	Open space; grass cover > 75%	(good) B	.09	61	
	Open space; grass cover > 75%	(good) D	.53	80	
	Paved parking lots, roofs, driveways	(good) A	.23	98	
	Woods	(good) D	.71	77	
Total Area / Weighted Curve Number					
2 / 71					

Sub-Area Time of Concentration Details

Sub-Area Identifier	Flow Length (ft)	Slope (ft/ft)	Manning's n	End Area (sq ft)	Wetted Perimeter (ft)	Velocity (ft/sec)	Travel Time (hr)
A-E	100	0.0200	0.150				0.161
	460	0.0050	0.050				0.112
	150						0.014
Time of Concentration							
.287							
F	100	0.0500	0.400				0.244
	500	0.0400	0.050				0.043
Time of Concentration							
.287							
G	100	0.0600	0.150				0.104
	410	0.0250	0.050				0.045
Time of Concentration							
.149							
H-J	100	0.0080	0.150				0.232
	440	0.0100	0.050				0.076
Time of Concentration							
.308							
K	80	0.0100	0.150				0.177
Time of Concentration							
.177							
M-N	100	0.0200	0.400				0.352
	170	0.0180	0.050				0.022
Time of Concentration							
.374							
P-S	100	0.0150	0.400				0.395
	590	0.0150	0.050				0.083
Time of Concentration							
.478							
T	100	0.0150	0.150				0.180
	100	0.0500	0.050				0.008
Time of Concentration							
.188							
U	100	0.0100	0.400				0.465
	120	0.0250	0.050				0.013
Time of Concentration							
.478							
V	100	0.0250	0.150				0.147
	310	0.0130	0.050				0.047
Time of Concentration							
.194							

COVERAGE TABULATION

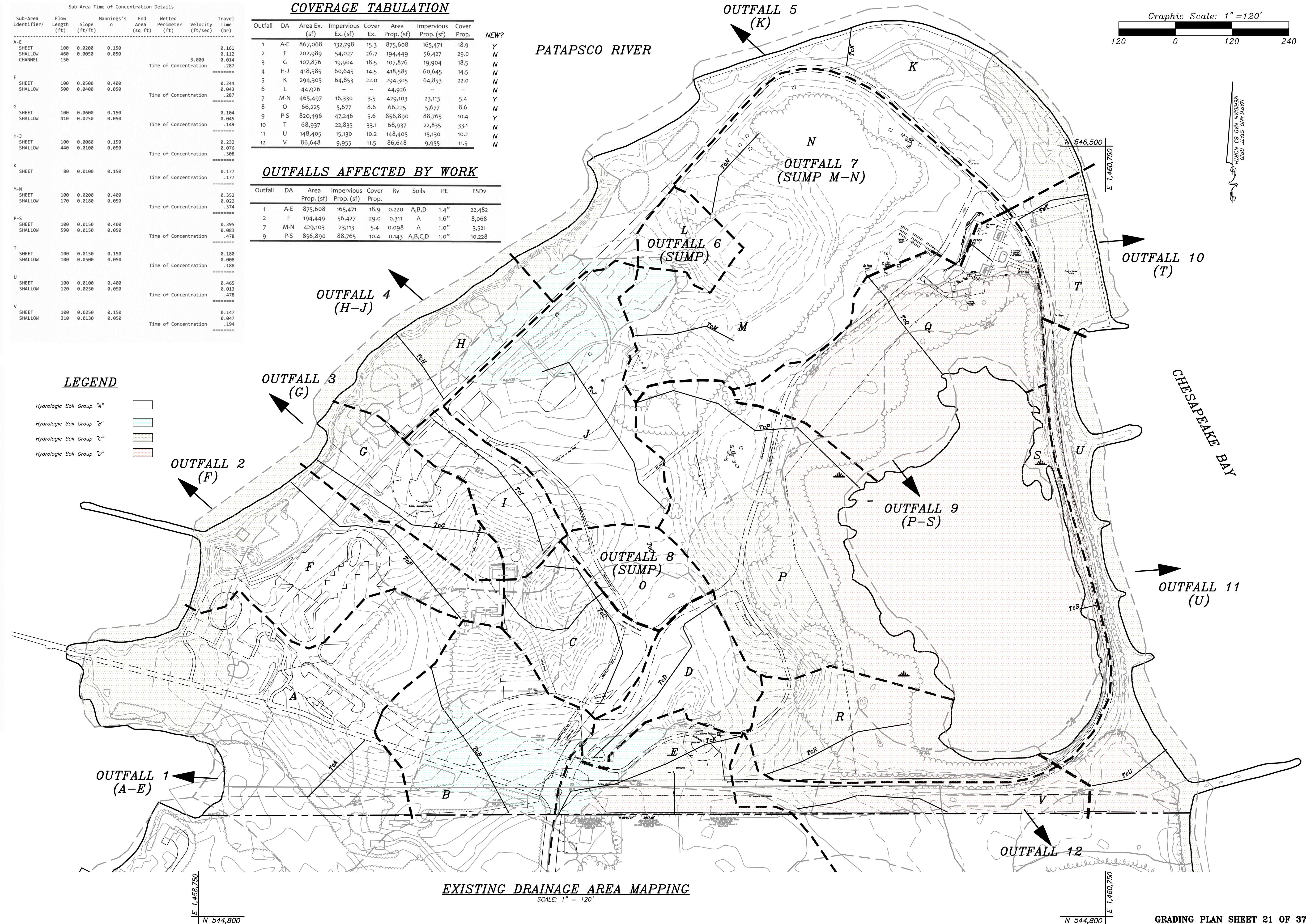
Outfall	DA	Area Ex. (sf)	Impervious Ex. (sf)	Cover Ex.	Area Prop. (sf)	Impervious Prop. (sf)	Cover Prop.	NEW?
1	A-E	867,068	132,798	15.3	875,608	165,471	18.9	Y
2	F	202,989	54,027	26.7	194,449	56,427	29.0	N
3	G	107,876	19,904	18.5	107,876	19,904	18.5	N
4	H-J	418,585	60,645	14.5	418,585	60,645	14.5	N
5	K	294,305	64,853	22.0	294,305	64,853	22.0	N
6	L	44,926	-	-	44,926	-	-	N
7	M-N	465,497	16,330	3.5	429,103	23,113	5.4	Y
8	O	66,225	5,677	8.6	66,225	5,677	8.6	N
9	P-S	820,496	47,246	5.6	856,890	88,765	10.4	Y
10	T	68,937	22,835	33.1	68,937	22,835	33.1	N
11	U	148,405	15,130	10.2	148,405	15,130	10.2	N
12	V	86,648	9,955	11.5	86,648	9,955	11.5	N

OUTFALLS AFFECTED BY WORK

Outfall	DA	Area Prop. (sf)	Impervious Prop. (sf)	Cover Rv	Soils	PE	ESDv	
1	A-E	875,608	165,471	18.9	0.220	A,B,D	1.4"	22,482
2	F	194,449	56,427	29.0	0.311	A	1.6"	8,068
7	M-N	429,103	23,113	5.4	0.098	A	1.0"	3,521
9	P-S	856,890	88,765	10.4	0.143	A,B,C,D	1.0"	10,228

LEGEND

Hydrologic Soil Group	Color
Hydrologic Soil Group "A"	Light Green
Hydrologic Soil Group "B"	Light Blue
Hydrologic Soil Group "C"	Light Yellow
Hydrologic Soil Group "D"	Light Orange



EXISTING DRAINAGE AREA MAPPING
 SCALE: 1" = 120'

gba
 Maryland Professional Engineering Firm License No. 47570
BOYD & DOWGIALLO, P.A.
 ENGINEERS*SURVEYORS*PLANNERS
 412 Headquarters Drive, Suite 5
 Millersville, Maryland 21108
 Phone: (410) 729-1234
 Fax: (410) 729-1243
 Email: ellene@bndpa.com www.bndpa.com

REVISIONS

NO.	DESCRIPTION	BY	DATE
1	100% SET		

ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS
 DATE: 4-28-21

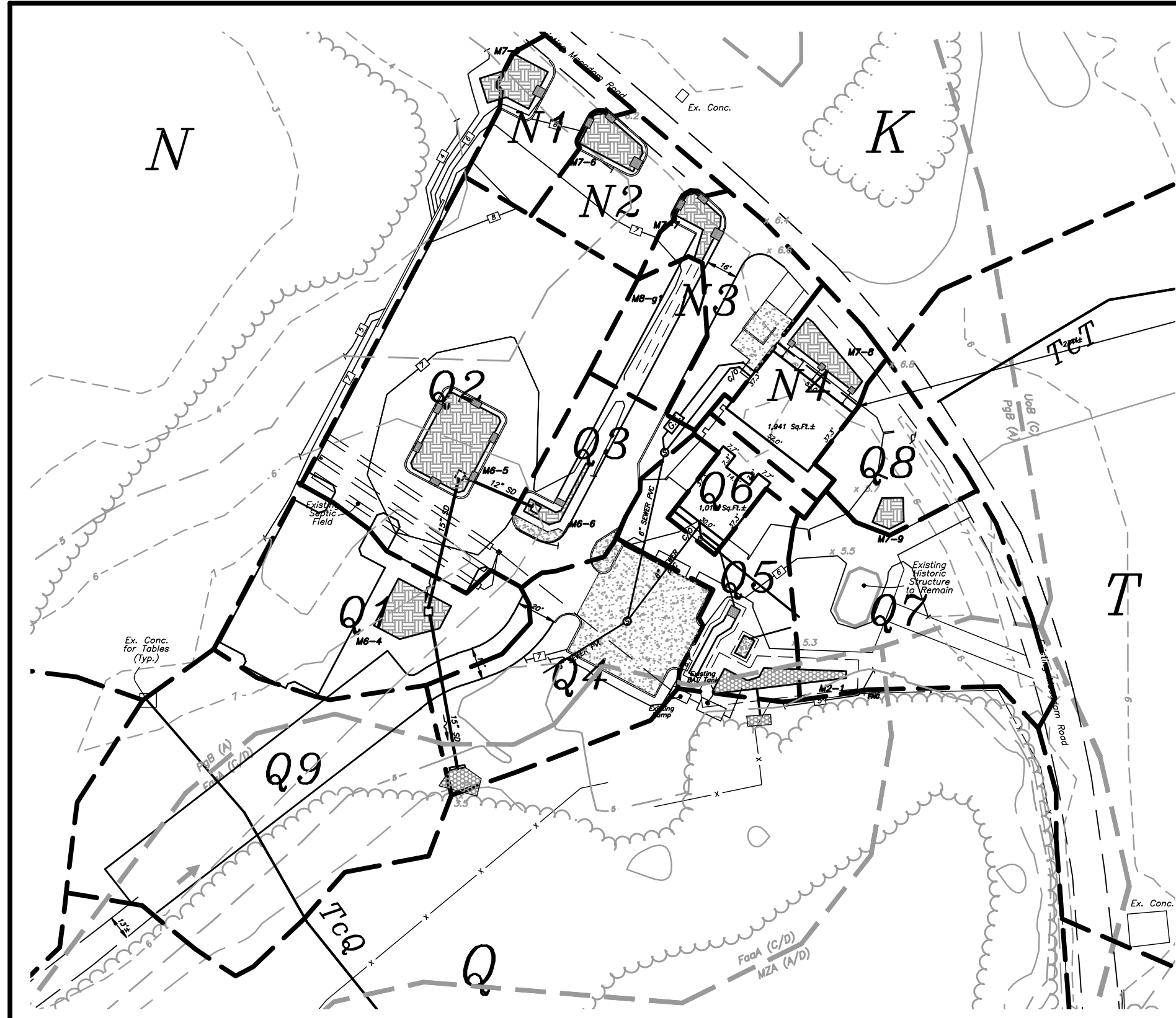
APPROVED	DATE	APPROVED	DATE
CHIEF ENGINEER		PROJECT MANAGER	
APPROVED	DATE	APPROVED	DATE
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY	

SCALE: 1" = 120'
 DRAWN BY: JMF
 CHECKED BY: DGB
 SHEET NO. 21 OF 37
 PROJECT NO. P535900
 PROPOSAL NO. P535907

FORT SMALLWOOD PARK PHASE II
 9500 FORT SMALLWOOD ROAD
 PASADENA, MD 21122

EXISTING DRAINAGE AREA MAP

C401



COVERAGE TABULATION

Outfall	DA	Area Ex. (sf)	Impervious Ex. (sf)	Cover Ex.	Area Prop. (sf)	Impervious Prop. (sf)	Cover Prop.	NEW?
1	A-E	867,068	132,798	15.3	875,608	165,471	18.9	Y
2	F	202,989	54,027	26.7	194,449	56,427	29.0	N
3	G	107,876	19,904	18.5	107,876	19,904	18.5	N
4	H-J	418,585	60,645	14.5	418,585	60,645	14.5	N
5	K	294,305	64,853	22.0	294,305	64,853	22.0	N
6	L	44,926	-	-	44,926	-	-	N
7	M-N	465,497	16,330	3.5	429,103	23,113	5.4	Y
8	O	66,225	5,677	8.6	66,225	5,677	8.6	N
9	P-S	820,496	47,246	5.6	856,890	88,765	10.4	Y
10	T	68,937	22,835	33.1	68,937	22,835	33.1	N
11	U	148,405	15,130	10.2	148,405	15,130	10.2	N
12	V	86,648	9,955	11.5	86,648	9,955	11.5	N

DISCHARGE SUMMARY

DA	1-year Existing	1-year Proposed	10-year Existing	10-year Proposed
A-E	0.09	0.17	13.29	16.54
F	0.08	0.11	4.67	5.08
G	0.00	0.00	2.22	2.22
H-J	0.00	0.00	4.10	4.10
K	0.48	0.48	10.38	10.38
M-N	0.00	0.00	0.17	0.22
P-S	1.73	2.14	21.77	25.74
T	2.18	2.18	6.52	6.52
U	2.70	2.70	8.93	8.93
V	1.44	1.44	6.08	6.08

OUTFALLS AFFECTED BY WORK

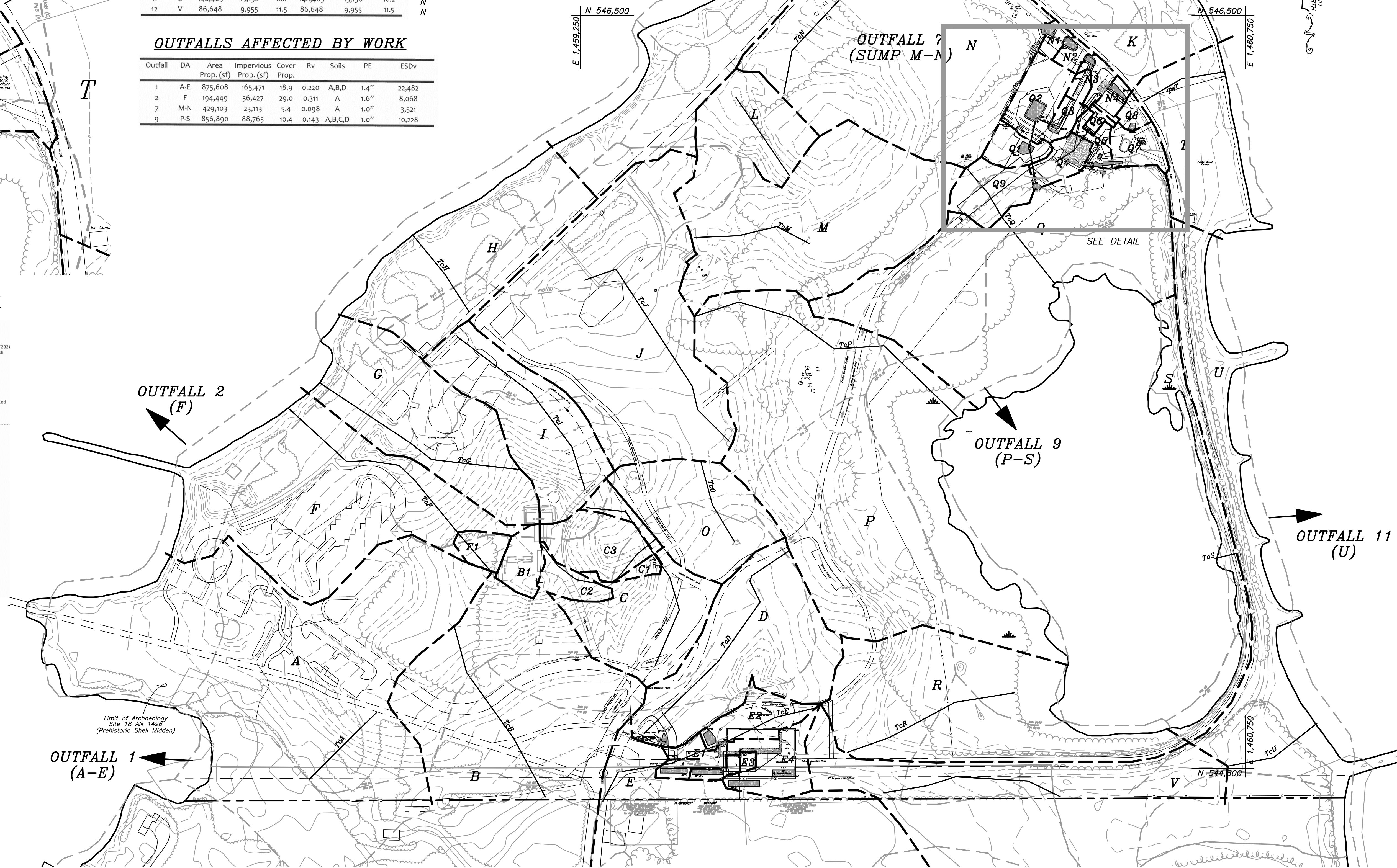
Outfall	DA	Area Prop. (sf)	Impervious Prop. (sf)	Cover Prop.	Rv	Soils	PE	ESDv
1	A-E	875,608	165,471	18.9	0.220	A,B,D	1.4"	22,482
2	F	194,449	56,427	29.0	0.311	A	1.6"	8,068
7	M-N	429,103	23,113	5.4	0.098	A	1.0"	3,521
9	P-S	856,890	88,765	10.4	0.143	A,B,C,D	1.0"	10,228

DETAIL: BEACH AREA DRAINAGE

SCALE: 1" = 60'

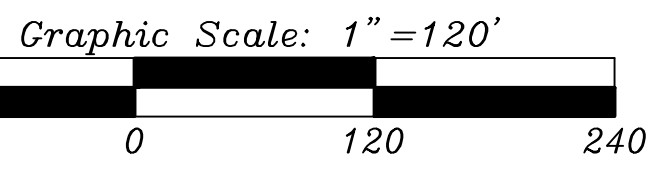
Sub-Area Identifier	Drainage Area (ac)	Time of Concentration (hr)	Curve Number	Receiving Reach	Sub-Area Description
A-E	19.91	0.287	52	Outlet	Outlet
F	4.66	0.287	55	Outlet	Outlet
G	2.48	0.149	58	Outlet	Outlet
H-J	9.61	0.388	47	Outlet	Outlet
K	6.76	0.177	52	Outlet	Outlet
M-N	9.86	0.374	37	Outlet	Outlet
P-S	29.67	0.478	62	Outlet	Outlet
T	1.58	0.188	88	Outlet	Outlet
U	3.41	0.478	78	Outlet	Outlet
V	2.80	0.194	71	Outlet	Outlet
Total Area: 79.94 (ac)					

Sub-Area Identifier	Land Use	Hydrologic Soil Group	Sub-Area Area (ac)	Curve Number
A-E	Open space; grass cover > 75%	(good) A	11.47	39
A-E	Open space; grass cover > 75%	(good) B	6.89	61
A-E	Open space; grass cover > 75%	(good) D	1.88	88
A-E	Paved parking lots, roofs, driveways	(good) A	3.18	98
A-E	Woods	(good) A	2.67	38
A-E	Woods	(good) D	1.2	77
Total Area / Weighted Curve Number				
19.91 / 52				
F	Open space; grass cover > 75%	(good) A	3.22	39
F	Paved parking lots, roofs, driveways	(good) A	1.3	98
F	Woods	(good) A	1.4	38
Total Area / Weighted Curve Number				
4.66 / 55				
G	Open space; grass cover > 75%	(good) A	2.82	39
G	Paved parking lots, roofs, driveways	(good) A	0.46	98
Total Area / Weighted Curve Number				
2.48 / 58				
H-J	Open space; grass cover > 75%	(good) A	8.16	39
H-J	Paved parking lots, roofs, driveways	(good) A	1.39	98
H-J	Woods	(good) A	0.86	38
Total Area / Weighted Curve Number				
9.61 / 47				
K	Open space; grass cover > 75%	(good) A	4.3	39
K	Open space; grass cover > 75%	(good) C	0.97	74
K	Paved parking lots, roofs, driveways	(good) A	1.49	98
Total Area / Weighted Curve Number				
6.76 / 57				
M-N	Open space; grass cover > 75%	(good) A	3.84	39
M-N	Paved parking lots, roofs, driveways	(good) A	0.52	98
Total Area / Weighted Curve Number				
9.86 / 37				
P-S	Open space; grass cover > 75%	(good) A	6.84	39
P-S	Open space; grass cover > 75%	(good) B	0.46	61
P-S	Open space; grass cover > 75%	(good) C	1.19	74
P-S	Open space; grass cover > 75%	(good) D	3.981	88
P-S	Paved parking lots, roofs, driveways	(good) A	2.86	98
P-S	Woods	(good) A	2.35	38
P-S	Woods	(good) D	4.61	77
Total Area / Weighted Curve Number				
29.67 / 62				
T	Open space; grass cover > 75%	(good) A	1.12	39
T	Open space; grass cover > 75%	(good) C	0.86	74
T	Open space; grass cover > 75%	(good) D	0.88	88
T	Paved parking lots, roofs, driveways	(good) A	0.52	98
Total Area / Weighted Curve Number				
1.58 / 88				
U	Open space; grass cover > 75%	(good) C	1.81	74
U	Open space; grass cover > 75%	(good) D	0.28	88
U	Paved parking lots, roofs, driveways	(good) A	0.31	98
U	Woods	(good) D	0.95	77
Total Area / Weighted Curve Number				
3.41 / 78				
V	Open space; grass cover > 75%	(good) A	0.44	39
V	Open space; grass cover > 75%	(good) B	0.49	61
V	Open space; grass cover > 75%	(good) D	0.53	88
V	Paved parking lots, roofs, driveways	(good) A	0.21	98
V	Woods	(good) D	0.71	77
Total Area / Weighted Curve Number				
2 / 71				



PROPOSED DRAINAGE AREA MAPPING

SCALE: 1" = 120'



GRADING PLAN SHEET 22 OF 37
BNDPA PROJ NO. 16-811

gba Maryland Professional Engineering Firm License No. 47570
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Phone: (410) 729-1234
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REVISIONS			
NO.	DESCRIPTION	BY	DATE
	100% SET		

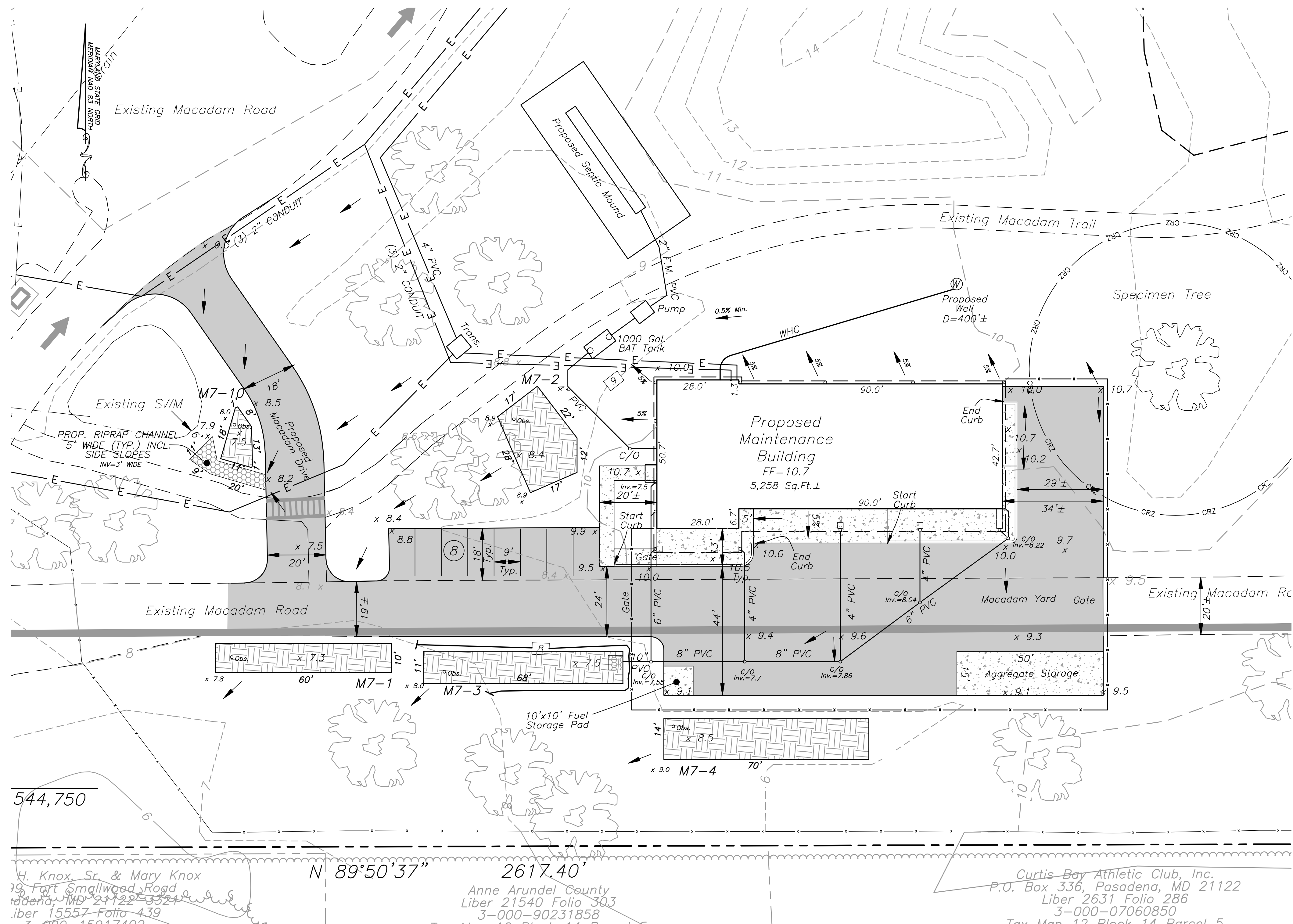
ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS
DATE: 4-28-21

APPROVED	DATE	APPROVED	DATE
CHIEF ENGINEER		PROJECT MANAGER	
APPROVED	DATE	APPROVED	DATE
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY	

SCALE: 1" = 120'
DRAWN BY: JMF
CHECKED BY: DGB
SHEET NO. 22 OF 37
PROJECT NO. P535900
PROPOSAL NO. P535907

FORT SMALLWOOD PARK PHASE II
9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122

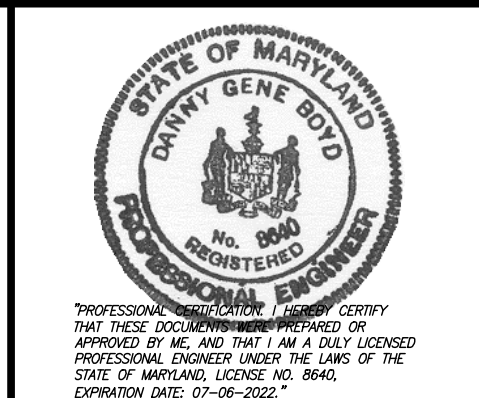
PROPOSED DRAINAGE AREA MAP **C402**



MAINTENANCE AREA SWM PLAN VIEW

SCALE: 1" = 20'

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REVISIONS			
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	100% SET		

ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS

APPROVED	DATE	APPROVED	DATE	SCALE: 1" = 30'
CHIEF ENGINEER		PROJECT MANAGER		FORT SMALLWOOD PARK PHASE II
APPROVED	DATE	APPROVED	DATE	9500 FORT SMALLWOOD ROAD
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY		PASADENA, MD 21122

DATE: 4-28-21
SHEET NO. 23 OF 37
PROJECT NO. P535900
PROPOSAL NO. P535907

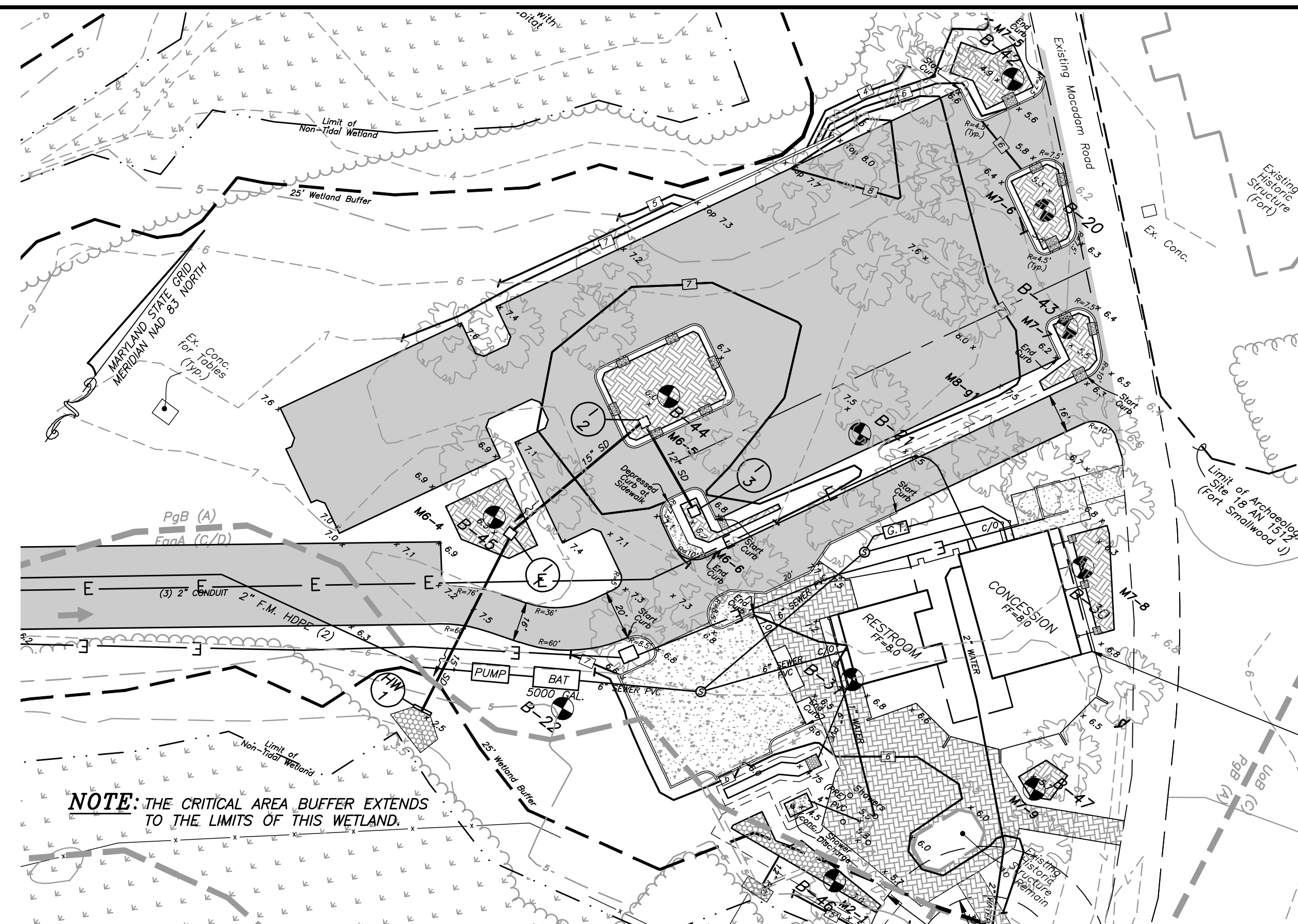
MAINTENANCE AREA SWM PLAN **C403**

RUNOFF COEFFICIENTS

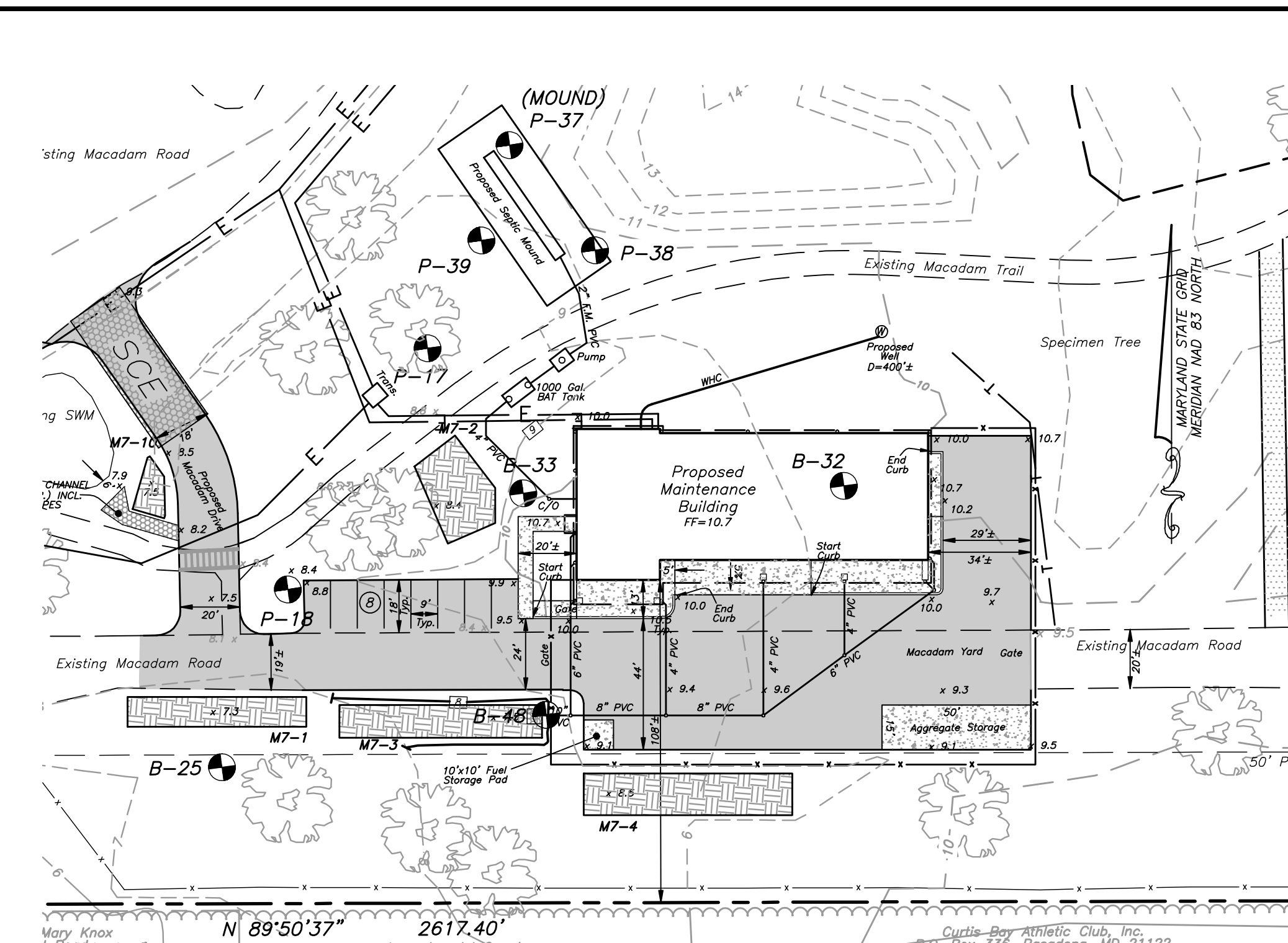
DA	Area (sf)	Area (ac)	Impervious (C=0.90)	HSG A/B Lawn	C	HSG C Lawn	C	Avg C	CA
D	100,188	2,300	15,990	84,198	0.20			0.312	0.717
E4	12,280	0.282	7,913	4,367	0.20			0.651	0.184
E3	6,825	0.157	6,025	800	0.20			0.818	0.128
E2	15,920	0.365	4,777	11,143	0.20			0.410	0.150
E1	7,464	0.171	4,755	2,709	0.20			0.646	0.111
N5	4,444	0.102	3,334	1,110	0.20			0.725	0.074
N4	2,800	0.064	1,934	866	0.20			0.684	0.044
N3	3,103	0.071	2,482	621	0.20			0.760	0.054
N2	4,944	0.113	3,507	1,437	0.20			0.697	0.079
N1	4,428	0.102	2,905	1,523	0.20			0.659	0.067
Q8	3,830	0.088	1,691	2,139	0.20			0.509	0.045
Q7	10,631	0.244	5,521	2,239	0.20	2,871	0.30	0.591	0.144
Q6	2,109	0.048	2,109		0.20			0.900	0.043
Q5	6,130	0.140	3,585	2,335	0.20	300	0.30	0.615	0.086
Q4	9,666	0.222	4,368		0.20	5,298	0.30	0.571	0.127
Q3	3,787	0.087	3,279	1,508	0.20			0.621	0.054
Q2	18,307	0.420	16,769	1,538	0.20			0.841	0.353
Q1	11,416	0.262	6,928	4,488	0.20			0.625	0.164

STORM DRAIN COMPUTATIONS

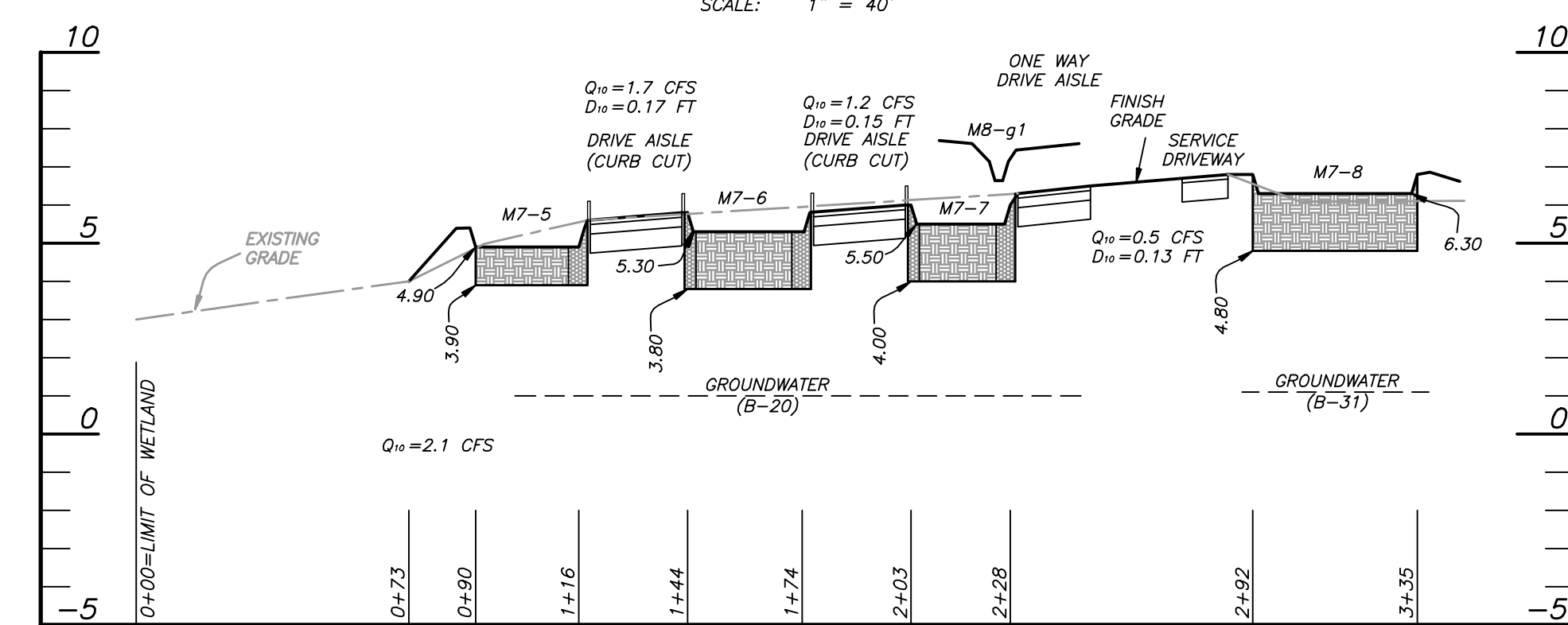
From	To	CA	Sum	T	Trav	Net	I	Q	Type/Note	Slope	D	Vel.	L
D		0.717	15.0	15.0	5.05	3.62			see below				
E4	E4	0.184	5.0	5.0	7.00	1.26			17' wide	Bank	0.09		
E3	E3	0.128	5.0	5.0	7.00	0.90			see below				
E2	E2	0.150	5.0	5.0	7.00	1.05			broad				
E2	E1	5.0	5.0	10.0	5.86	0.88			12' min.	0.5%	0.25	0.25	75
E1	E1	0.111	5.0	5.0	7.00	0.78			broad				
E1	all	0.261	10.0	10.0	5.86	1.53			broad				
N5	N5	0.074	5.0	5.0	7.00	0.52							
N5	N3	0.074	5.0	1.0	6.0	6.77	0.50		3% side slope	1.0%	0.13	0.96	60
N4	N4	0.044	5.0	5.0	7.00	0.31			4' swale				
N3	N3	0.054	5.0	5.0	7.00	0.38							
N3	N2	0.172	6.0	0.4	6.4	6.68	1.15		3' wide - 3%	1.0%	0.15	1.17	30
N2	N2	0.079	5.0	5.0	7.00	0.55							
N2	N1	0.251	6.4	0.4	6.8	6.59	1.65		4' wide - 3%	1.0%	0.17	1.26	30
N1	N1	0.067	5.0	5.0	7.00	0.44							
N1	wet	0.318	6.8	6.8	6.59	2.10			33' wide	Bank	0.08		
Q8	Q8	0.045	5.0	5.0	7.00	0.31							
Q8	Q7	0.045	5.0	1.2	6.2	6.72	0.30		2' wide - 3%	2.0%	0.08	0.82	60
Q7	Q7	0.144	5.0	5.0	7.00	1.01			broad				
Q6	Q6	0.043	5.0	5.0	7.00	0.30			6" / Sf 0.68%	2.0%	0.29	2.59	
Q5	Q5	0.086	5.0	5.0	7.00	0.60			broad				
Q4	Q4	0.127	5.0	5.0	7.00	0.89			3' curb cut		0.21		
All	Q4-8	0.445	6.2	6.2	6.72	2.99			12' stone		0.16		
Q3	I-3	0.054	5.0	5.0	8.00	0.43			sumped				
I-3	I-2	0.062	5.0	0.4	5.4	6.91	0.43		12" / Sf 0.03%	0.50%	0.36	1.69	41
Q2	I-2	0.353	5.0	5.0	8.00	2.82			sumped				
I-2	I-1	0.403	0.465	5.4	0.4	5.8	6.81	3.17	15" / Sf 0.57%	0.50%	1.25	2.65	70
Q1	I-1	0.164	5.0	5.0	8.00	1.31			sumped				
I-1	ES-1	0.187	0.652	5.8	0.4	6.2	6.72	4.38	15" / Sf 1.09%	0.50%	1.11	3.66	84
ES-1	S-1	0.652	6.2	6.2	6.72	4.38			20' stone		0.19		



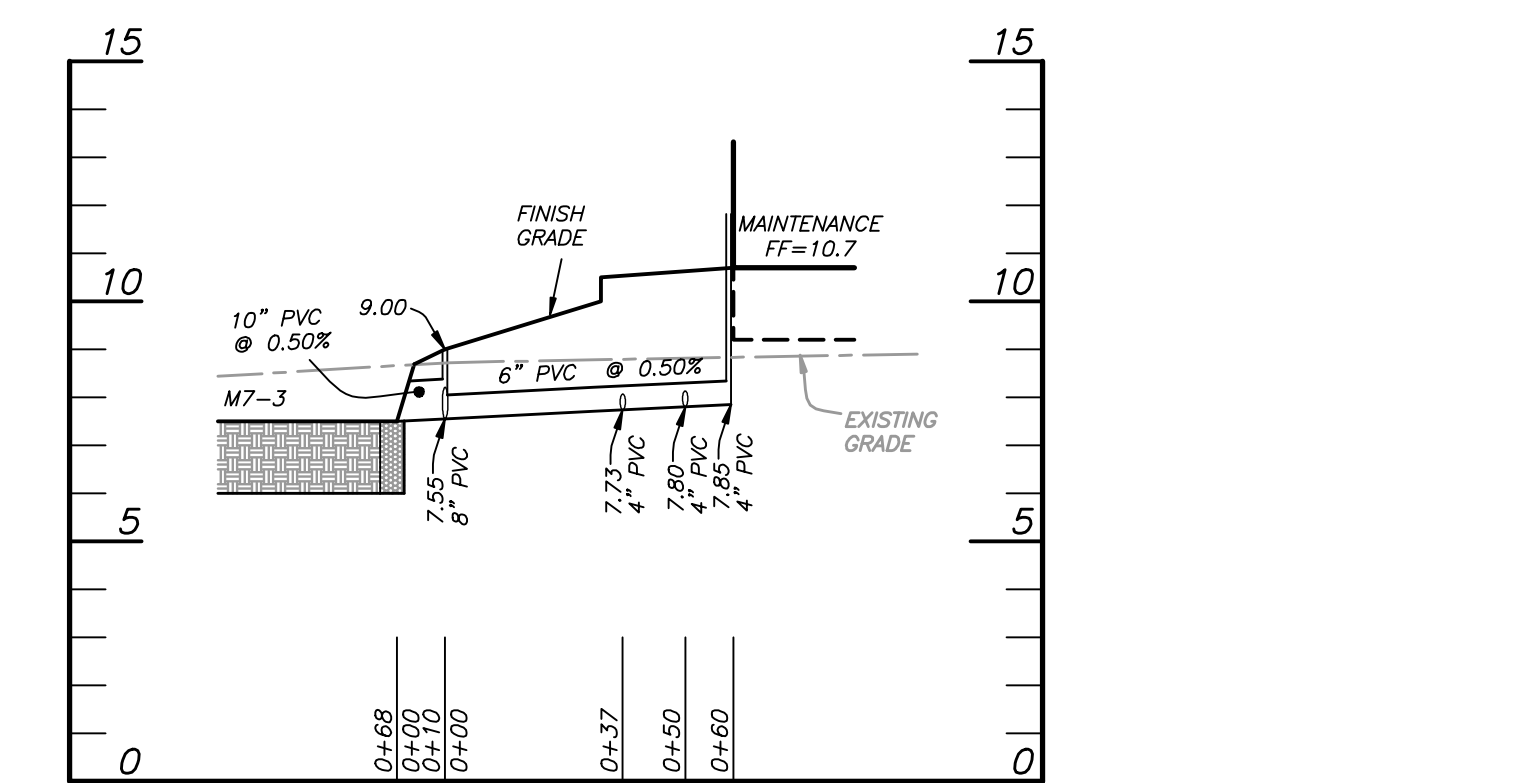
STORM DRAIN PLAN VIEW: BEACH AREA



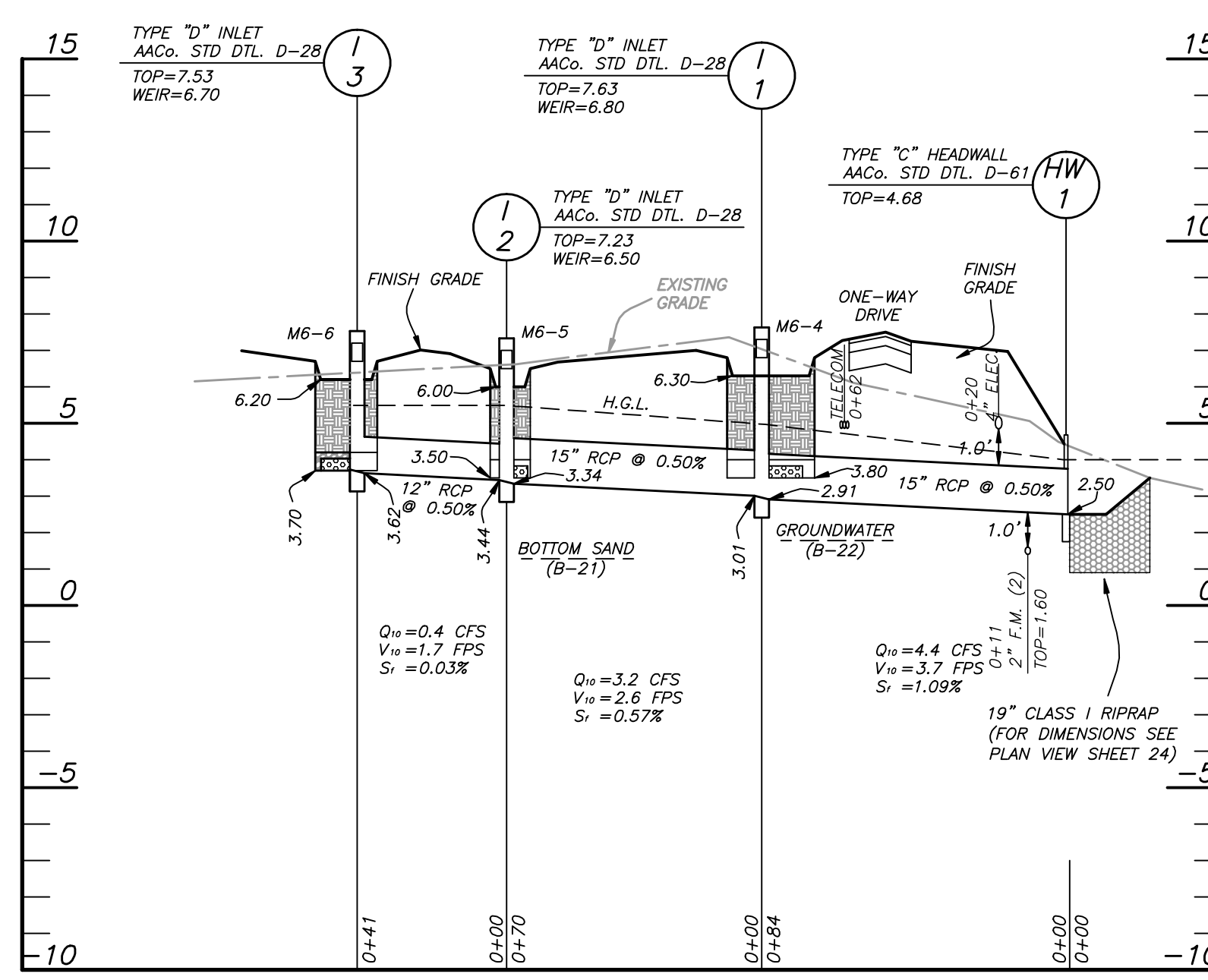
STORM DRAIN PLAN VIEW: MAINTENANCE AREA



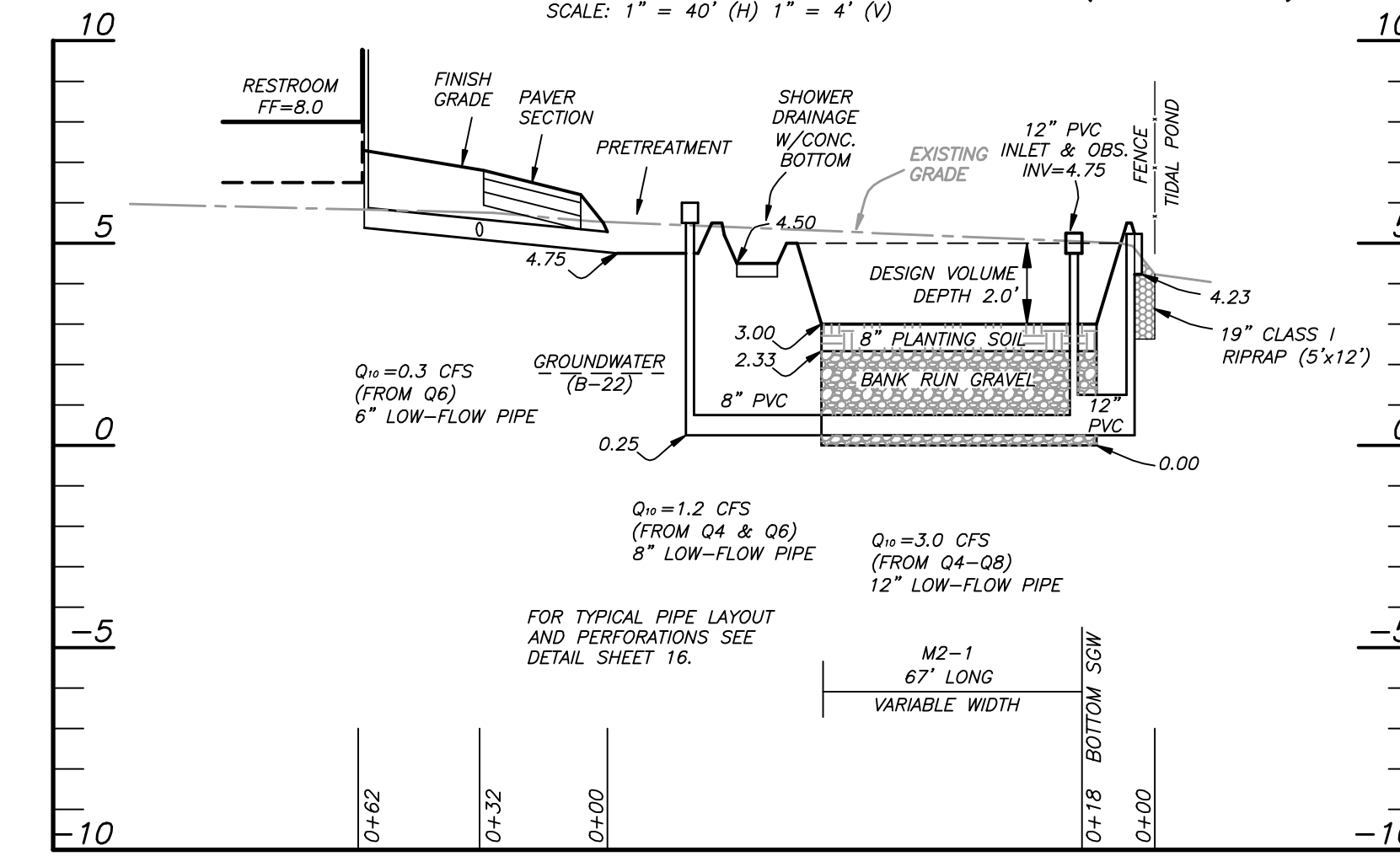
PROFILE VIEWS: SWALE TO WETLAND (AREA N)



PROFILE VIEWS: MAINTENANCE BUILDING DOWNSPOUTS



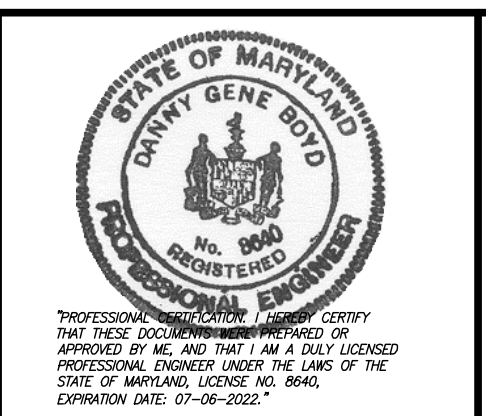
PROFILE VIEWS: STORM DRAIN



SCHEMATIC PROFILE: SUBMERGED GRAVEL WETLAND M2-1

GRADING PLAN SHEET 25 OF 37
BNDPA PROJ NO. 16-811

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Maryland Professional Engineering Firm License No. 47570
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REVISIONS			
NO.	DESCRIPTION	BY	DATE
	100% SET		

ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS
DATE: 4-28-21

APPROVED	DATE	APPROVED	DATE
CHIEF ENGINEER		PROJECT MANAGER	
APPROVED	DATE	APPROVED	DATE
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY	

SCALE: AS SHOWN
DRAWN BY: JMF
CHECKED BY: DGB
SHEET NO. 25 OF 37
PROJECT NO. P535900
PROPOSAL NO. P535907

FORT SMALLWOOD PARK PHASE II
9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122

STORM DRAINAGE PROFILES

C405

GENERAL NOTES

- All construction shall be in accordance with the Anne Arundel County "Standard Details and Specifications for Construction," dated January, 2001, and other revisions thereof.
- The existing utilities and obstructions shown are from the best available records and shall be verified by the contractor to his satisfaction prior to construction. Necessary precautions shall be taken by the contractor to protect existing services and mains, and any damage to them shall be repaired immediately at his own expense.
- It shall be distinctly understood that failure to mention specifically any work which would normally be required to complete the project shall not relieve the contractor of his responsibility to perform such work.
- All work shall comply with all applicable provisions of the Maryland Standards and Specifications for soil erosion and sediment control in developing areas issued by the U.S. Department of Agriculture Soil Conservation Services.
- Existing well and septic locations plotted from descriptions in A.A. County records.
- The contractor shall notify Miss Utility at 1-800-257-7777, five (5) working days before starting work shown on these drawings.
- The contractor shall notify the Anne Arundel County Health Department at (410) 222-7218, five (5) working days before starting work shown on these drawings.
- Unless otherwise noted, sanitary sewer elevations refer to the invert of the pipe.
- Tamped fill to be compacted to at least 95% of the maximum dry density determined by A.A.S.H.T.O. designation T-180, method C.
- Where utility pipes are to be placed on compacted fill, the following shall apply:
 - Prior to placement of compacted fill, any soft or otherwise unsuitable soils encountered at or below the pipe invert shall be undercut and removed from the construction area.
 - Acceptable compacted fill shall be placed in six-inch thick loose lifts and compacted to at least 98 percent of the maximum dry density determined by A.A.S.H.T.O. designation T-180, method C. Compaction test results conducted by an independent testing lab and sealed by a registered engineer are to be submitted to the county prior to pipe installation.
 - Compacted fill shall be benched into existing virgin slopes, with each lift placed to allow a smooth transition from virgin to fill soils.
- Unless otherwise noted, all sewer pipe shall be PVC, SDR-35 conforming to the requirements of A.S.T.M. Specification D-3034, type FCM. Pipe fittings shall be manufactured with integrally formed bell and spigot type joints in accordance with A.S.T.M. Specification D-3212.
- Unless otherwise noted, all water pipe shall be Schedule 40 PVC (ASTM D1785).
- The property and topographic information shown hereon is based on field surveys by Boyd & Dowgiallo, P.A.
- Edges of open trench on bituminous asphalt roadway to be saw cut.
- Contractor shall cap and stake the ends of all building service connections. Stakes shall all be referenced to two permanent objects and the referenced dimensions shall be included in the red-line as-built prints.
- The contractor is to maintain a minimum of 1' outside to outside clearance between proposed sewer main and water connections. If a crossing of sewer above water must occur, sewer line shall be encased a minimum of 10' on either side of the water crossing.
- Repair of pavement cuts must be in accordance with Anne Arundel County standard P-8.
- Disturbance within existing travel lanes must be stabilized immediately using cold-patch bituminous material. Permanent pavement patching with hot-mix bituminous material must be completed to match the existing section within 14-30 days, in accordance with Anne Arundel County standard details.

PERCOLATION TEST RESULTS

ANNE ARUNDEL COUNTY DEPARTMENT OF HEALTH
DIVISION OF ENVIRONMENTAL HEALTH
COMMERCIAL PERC TEST RESULTS

Perc Application #: T02046584

Property: 9500 Ft. Smallwood Rd. Pasadena, MD 21122
Sanitarian: Chris Owens Perc Date: May 1, 2019

PERC NO.	TIME (MIN)	DEPTH	SOIL LOG	WATER TABLE
11	30	2	0 - 2 Tan Sandy Clay; 2 - 10 White Sand; Clay	10
12			0 - 1 Topsoil; 1 - 10 White Sandy Clay	10
13	4	2	0 - 5 Tan Sand; 5 - 11 White Sandy Clay	11
14	4	2	0 - 5 Tan Sand; 5 - 10 White Sandy Clay	10
15	4	6	0 - 6 Fill; 6 - 13 Tan Sand; 13 White Clay	13
16	4	5	0 - 5 Fill; 5 - 13 Tan Sand; 13 White Clay	13
17			0 - 1 Topsoil; 1 - 4 Tan Orange Sand	4
18			0 - 3 Tan Orange Sand	3
19			0 - 4 Tan Orange Sand	4

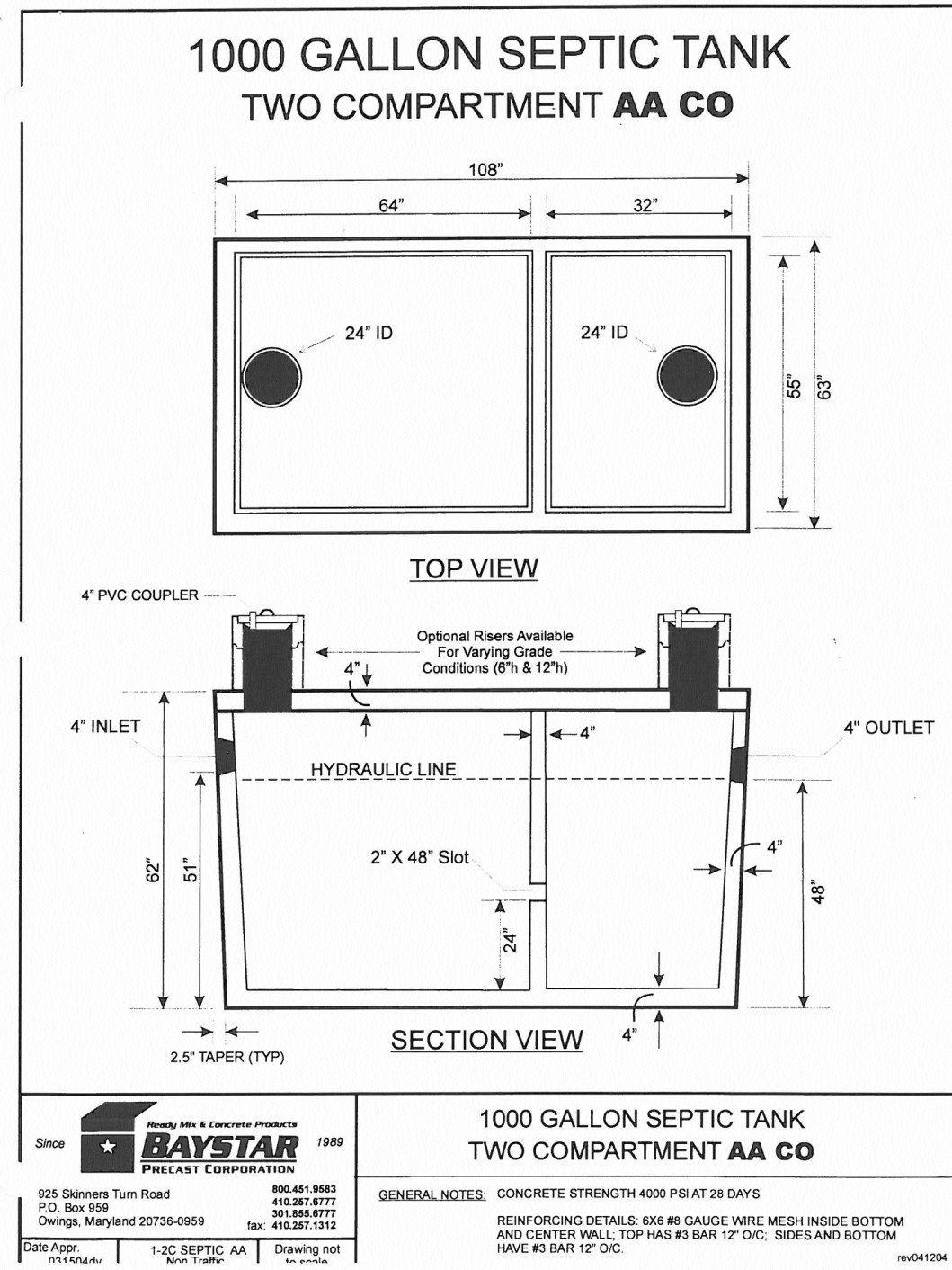
COMMENTS: Bat Unit required.

ANNE ARUNDEL COUNTY DEPARTMENT OF HEALTH
DIVISION OF ENVIRONMENTAL HEALTH
COMMERCIAL PERC TEST RESULTS

Perc Application #: T02046584
Property: 9500 Ft. Smallwood Rd. Pasadena MD 21122
Sanitarian: Chris Owens Perc Date: February 9, 2021

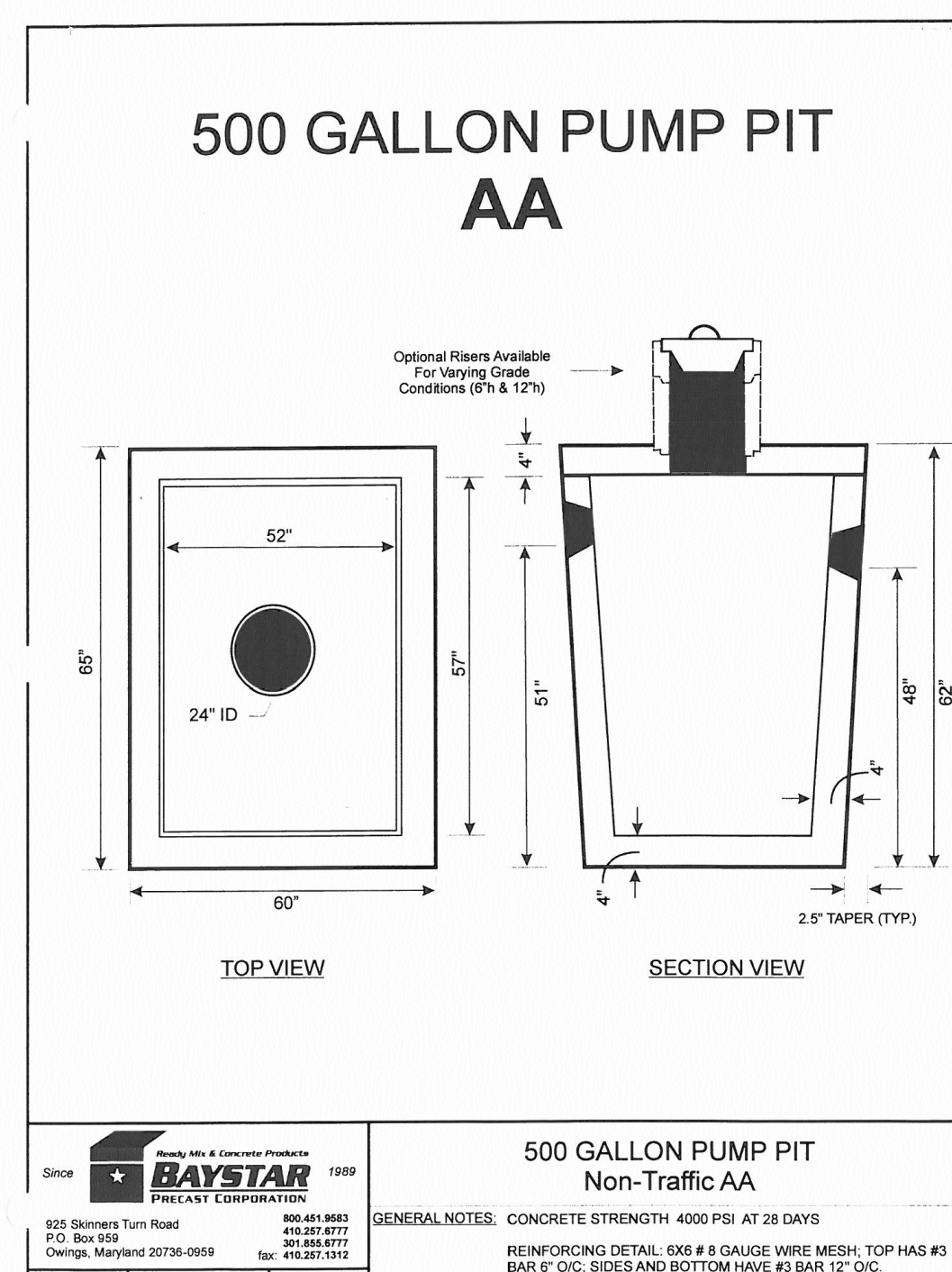
PERC NO.	TIME (MIN)	DEPTH	SOIL LOG	WATER TABLE
P-37 (infill)	29 mins	1'	0 - 5 Topsoil; 5 - 3 Sand	3.5'
P-38 (infill)	29 mins	1'	0 - 5 Topsoil; 5 - 3 Sand	3.5'
P-39 (infill)	29 mins	1'	0 - 5 Topsoil; 5 - 2.5 Sand	2.5'
P-40	5 mins	2'	0 - 5.5 Sand; 5.5 - 8.5 Sandy Silt	8.5'
P-41	5 mins	2'	0 - 5.5 Sand; 5.5 - 7.5 Sandy Silt	7.5'

COMMENTS: All perc must be field located.



1000 GALLON SEPTIC TANK TWO COMPARTMENT AA CO

GENERAL NOTES: CONCRETE STRENGTH 4000 PSI AT 28 DAYS
REINFORCING DETAILS: 6M #8 GAUGE WIRE MESH INSIDE BOTTOM AND CENTER WALLS. TOP HAS #8 BAR 12" O.C. SIDES AND BOTTOM HAVE #8 BAR 12" O.C.



500 GALLON PUMP PIT Non-Traffic AA

GENERAL NOTES: CONCRETE STRENGTH 4000 PSI AT 28 DAYS
REINFORCING DETAILS: 6M #8 GAUGE WIRE MESH. TOP HAS #8 BAR 6" O.C. SIDES AND BOTTOM HAVE #8 BAR 12" O.C.

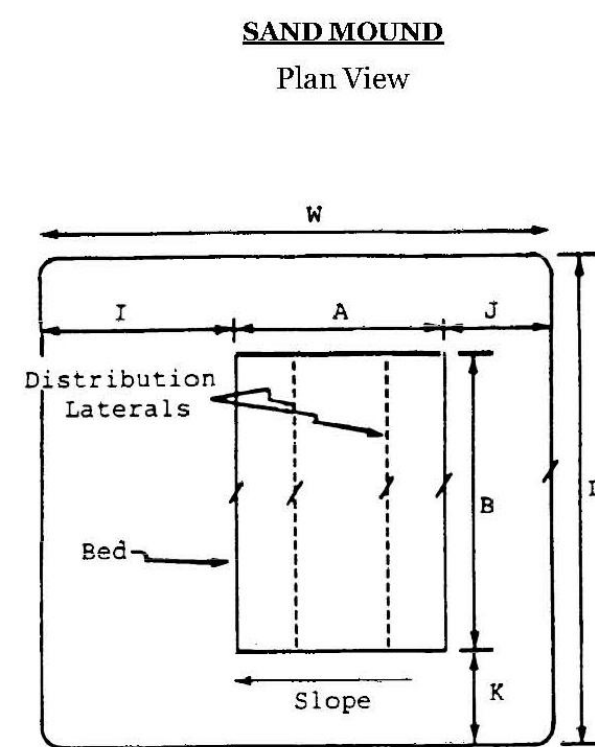
SEPTIC TANK DETAIL

(NOT TO SCALE)

NOTE: BAT REQUIRED.

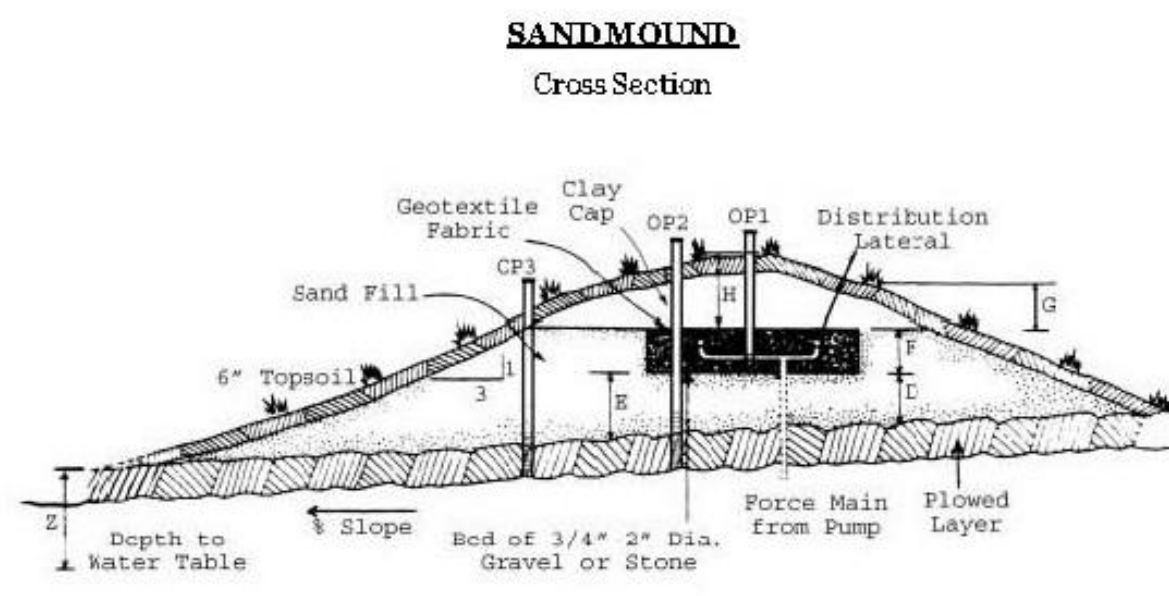
PUMP PIT DETAIL

(NOT TO SCALE)



SAND MOUND Plan View

- A = Bed Width (ft.)
- B = Bed Length (ft.)
- K = Sideslope Setback (ft.)
- J = Upslope Setback (ft.)
- I = Downslope Setback (ft.)
- W = Total Width of Mound (ft.)
- L = Total Length of Mound (ft.)



SAND MOUND Cross Section

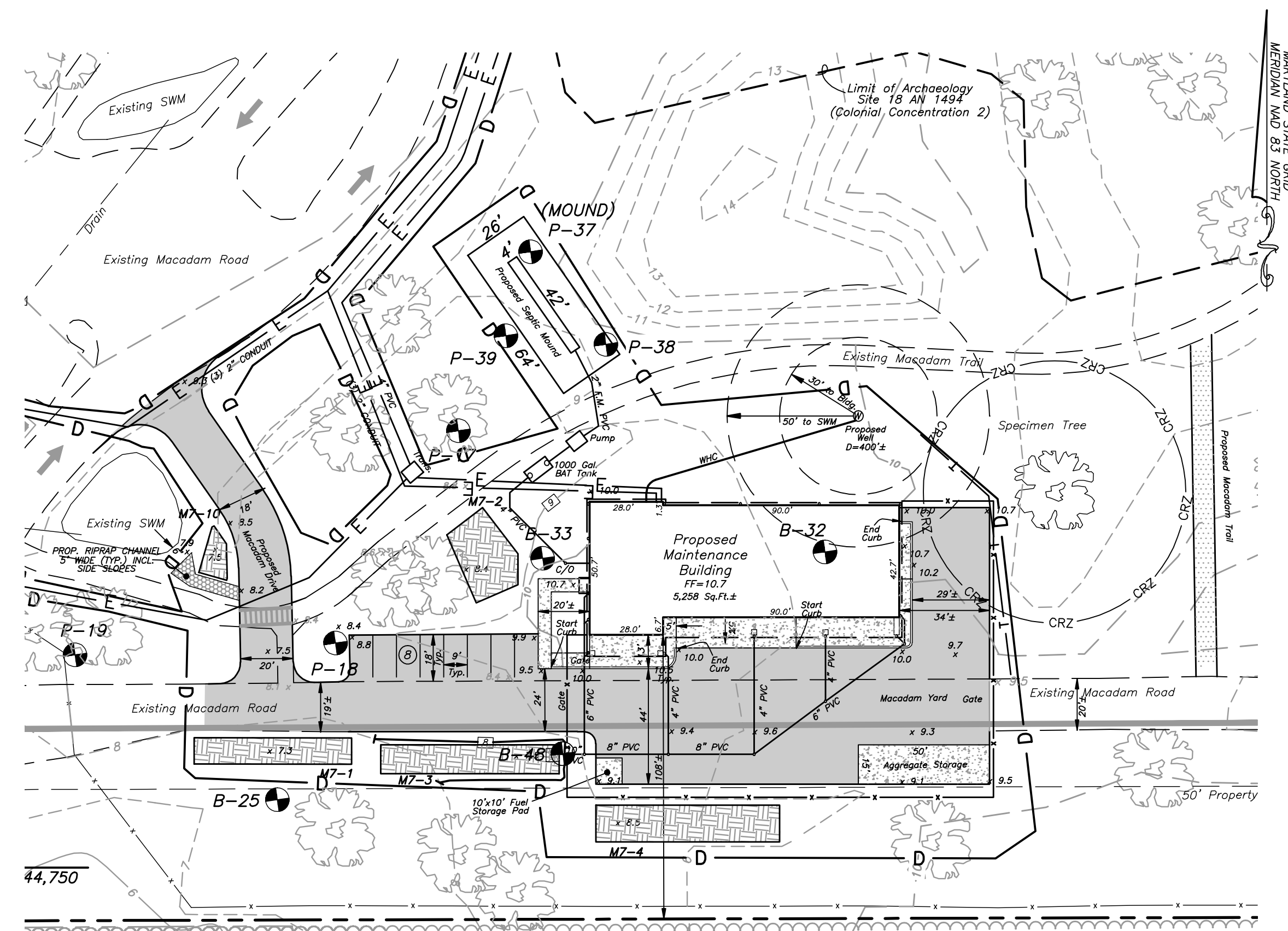
- D = Upslope Sand Fill Depth (in.)
- E = Downslope Sand Fill Depth (in.)
- F = Bed Depth (in.)
- G = Cap and Topsoil Height at Bed Edges (in.)
- H = Cap and Topsoil Height at Bed Center (in.)
- Z = Depth to Water Table (in.)
- OP = Observation Ports (required)

FIGURE 3.1 - DESIGN WORKSHEET CROSS SECTION

FIGURE 3.2 - DESIGN WORKSHEET, PLAN VIEW

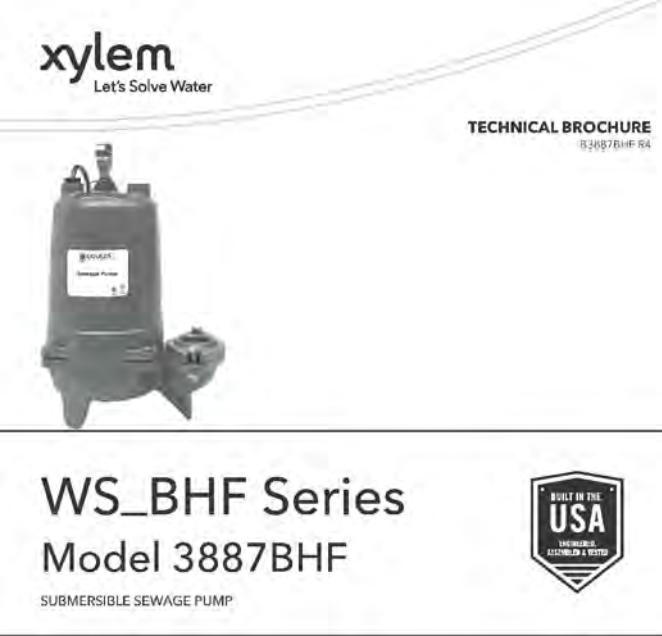
MAINTENANCE SEPTIC CALCULATIONS

8 EMPLOYEES @ 15 GAL./DAY EACH = 120 GAL.
ALTERNATE:
200 SQ FT OFFICE @ 0.09 GAL./DAY/SQ FT = 18 GAL./DAY
360 SQ FT (8 SEATS) BREAKROOM (ASSEMBLY) @ 3 GAL./DAY/SEAT = 24 GAL./DAY
3,787 SQ FT SHOP & STORAGE SPACE (WAREHOUSE) @ 0.03 GAL./DAY/SQ FT = 114 GAL./DAY
TOTAL FOR DESIGN = 156 GAL./DAY
PROVIDE 1,000 GALLON BAT SEPTIC TANK
PROVIDE 500 GALLON PUMP PIT
BUILDING ELEVATION 10.2 FT = INVERT 8.7 (8.2 AT BUILDING)
GROUNDWATER FOUND ~ 5.0 FT - PUMP OR MOUND NEEDED
MOUND CALCULATION:
BASE SIZE AT 1.2 GPD/SQ FT = 130 SQ FT
AT MINIMUM LENGTH OF 42 FT WIDTH = 4 FT
UPSLOPE FILL = 12"
ASSUME DOWNSLOPE FILL = 18"
SIDE SLOPE = (12+18)/2 + 28 * 3 = 129" = 11 FT±
APPROXIMATE MOUND = 26' WIDE X 64' LONG



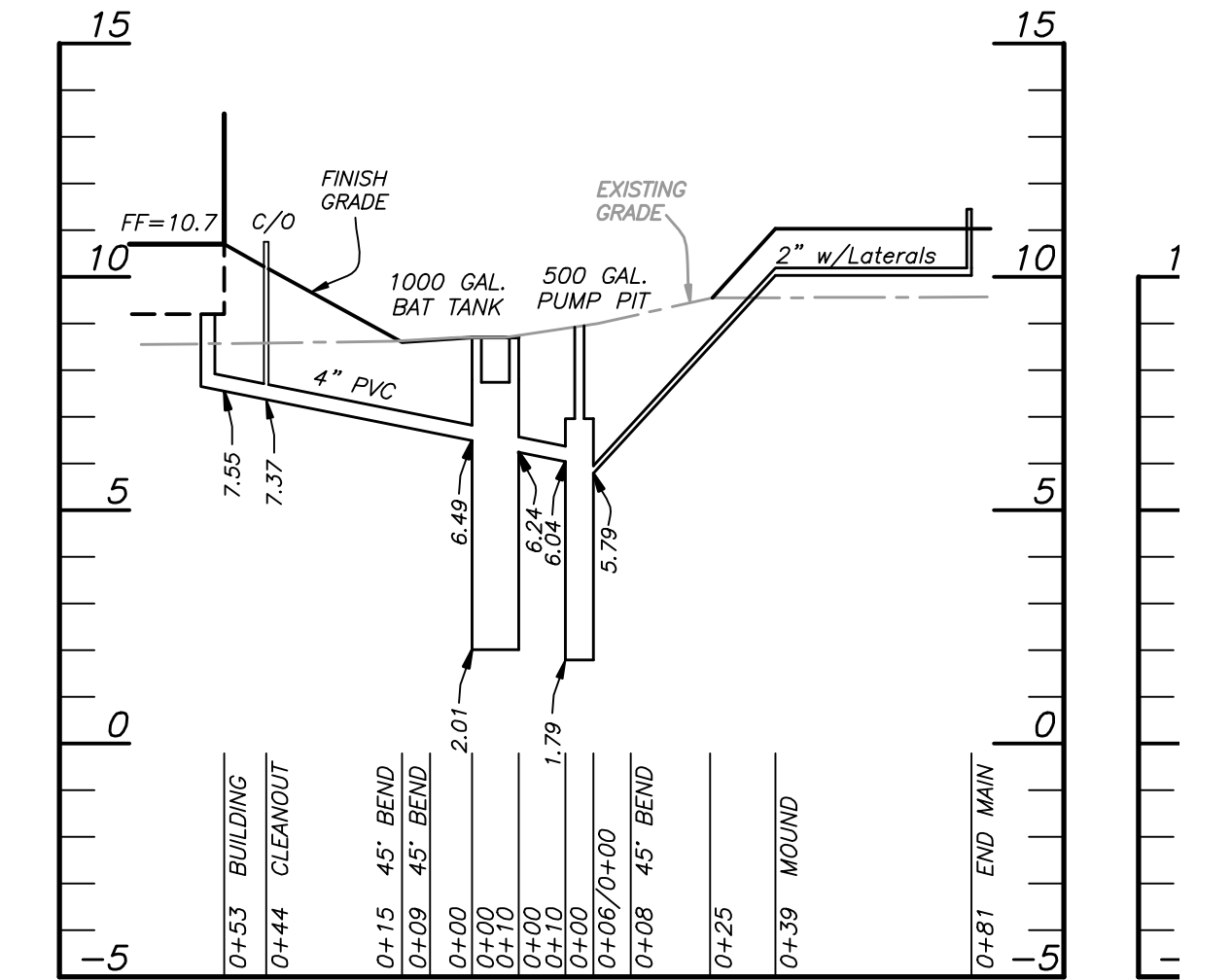
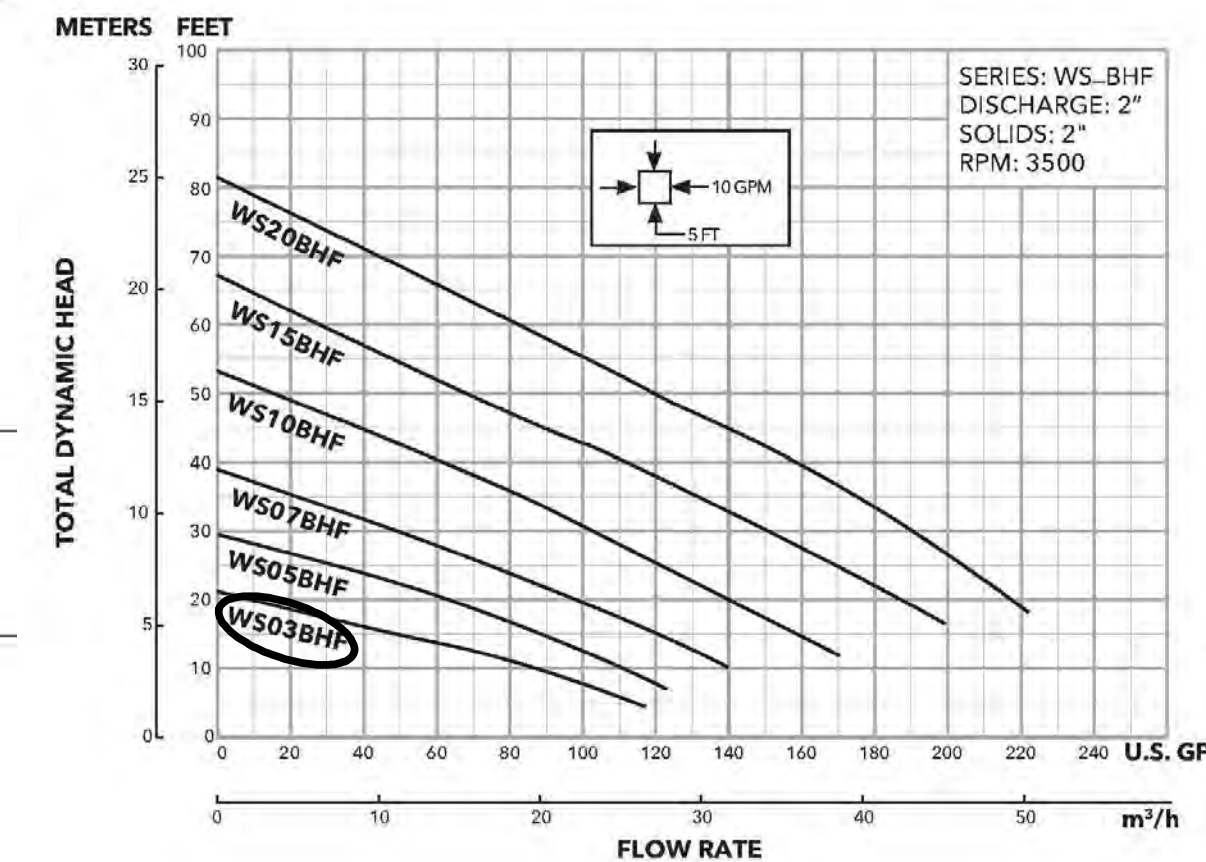
MAINTENANCE AREA SEPTIC PLAN VIEW

SCALE: 1" = 40'



WS_BHF Series Model 3887BHF

SUBMERSIBLE SEWAGE PUMP



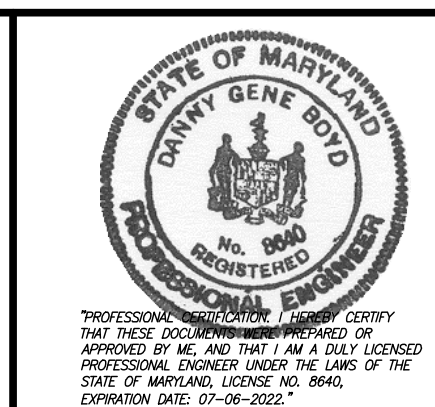
MAINTENANCE AREA SEPTIC PROFILE

SCALE: 1" = 40' (H) 1" = 4' (V)

NOTE: SEPTIC DESIGN MAY BE REVISED AT THE DIRECTION OF THE HEALTH DEPARTMENT.

SEPTIC PLAN SHEET 2 OF 4 (T02046584)
GRADING PLAN SHEET 26 OF 37
BNDPA PROJ NO. 18-111

gba Maryland Professional Engineering Firm License No. 47570
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REVISIONS			
NO.	DESCRIPTION	BY	DATE

ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS DATE: 4-28-21

APPROVED	DATE	APPROVED	DATE
CHIEF ENGINEER		PROJECT MANAGER	
APPROVED	DATE	APPROVED	DATE
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY	

SCALE: AS SHOWN
DRAWN BY: JMF
CHECKED BY: DGB
SHEET NO. 26 OF 37
PROJECT NO. P535900
PROPOSAL NO. P535907

FORT SMALLWOOD PARK PHASE II
9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122

MAINTENANCE AREA SEPTIC PLAN **C500**

NOTE: FOR GENERAL NOTES AND PERC RESULTS, SEE SHEET 26 OF 37 (SEPTIC PLAN SHEET 2 OF 4).

BEACH AREA SEPTIC CALCULATIONS

FIXTURE COUNT ~ 1,000 GAL./DAY
 USE 3X MARGIN OF SAFETY/UNCERTAINTY = 3,000 GAL./DAY
 FOOD SERVICE = 600 GAL./DAY
 TOTAL FOR DESIGN = 3,600 GAL./DAY EACH
 SEPTIC TANK VOLUME REQUIREMENT = (3,600 GAL./DAY) x 1.5 = 5,400 GAL.
 PROVIDE A 5,000 GALLON SEPTIC (BAT) TANK (SEE TYP. DETAIL, THIS SHEET)

****LIFT PUMP REQUIRED****
 BUILDING ELEVATION 8.0 FT
 PUMP INLET = 1.65
 PUMP PIT INVERT = -4.1± (OUTSIDE)
 MAX. HEAD = 10.8 - (-4.1) = 14.9 FT (NOT INCLUDING PIPE LOSS)
 REQUIRED CAPACITY = 400% OF FIXTURE CAPACITY + FOOD SERVICE = 4 * 1,600 = 6,400 GAL./DAY
 AT SAFETY FACTOR OF 1.5 = 9,600 GAL./DAY = 6.7 GAL./MIN.

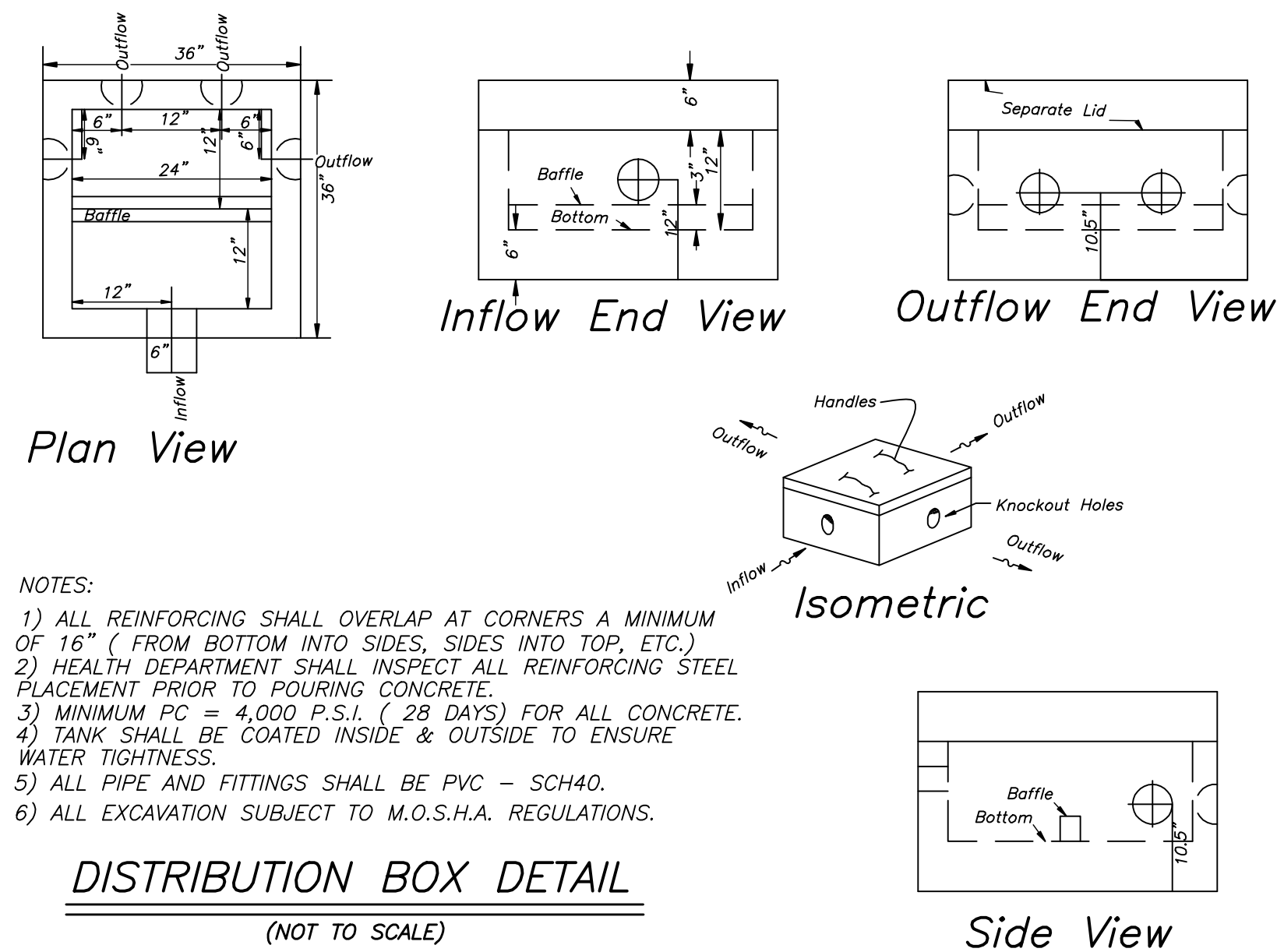
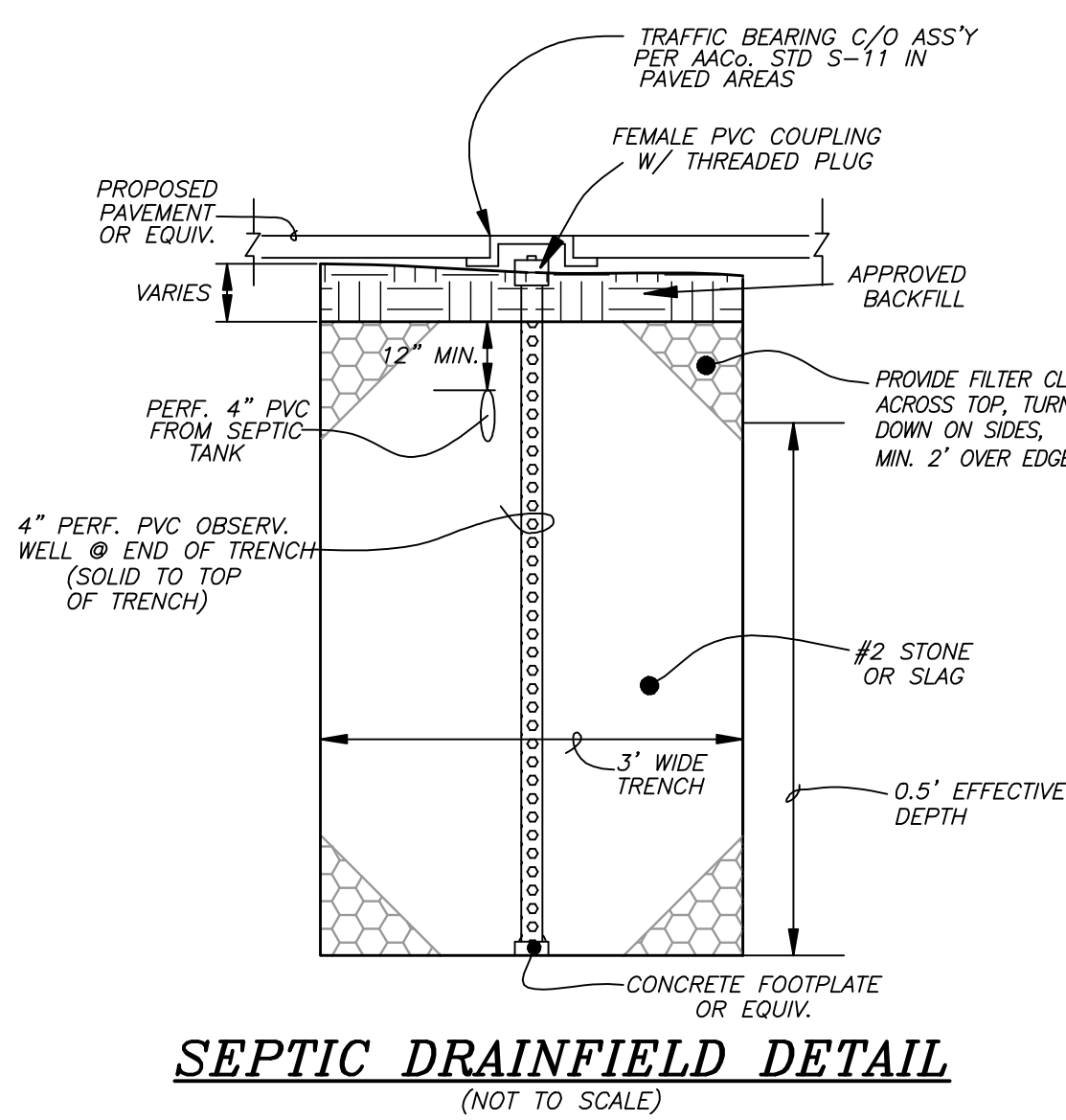
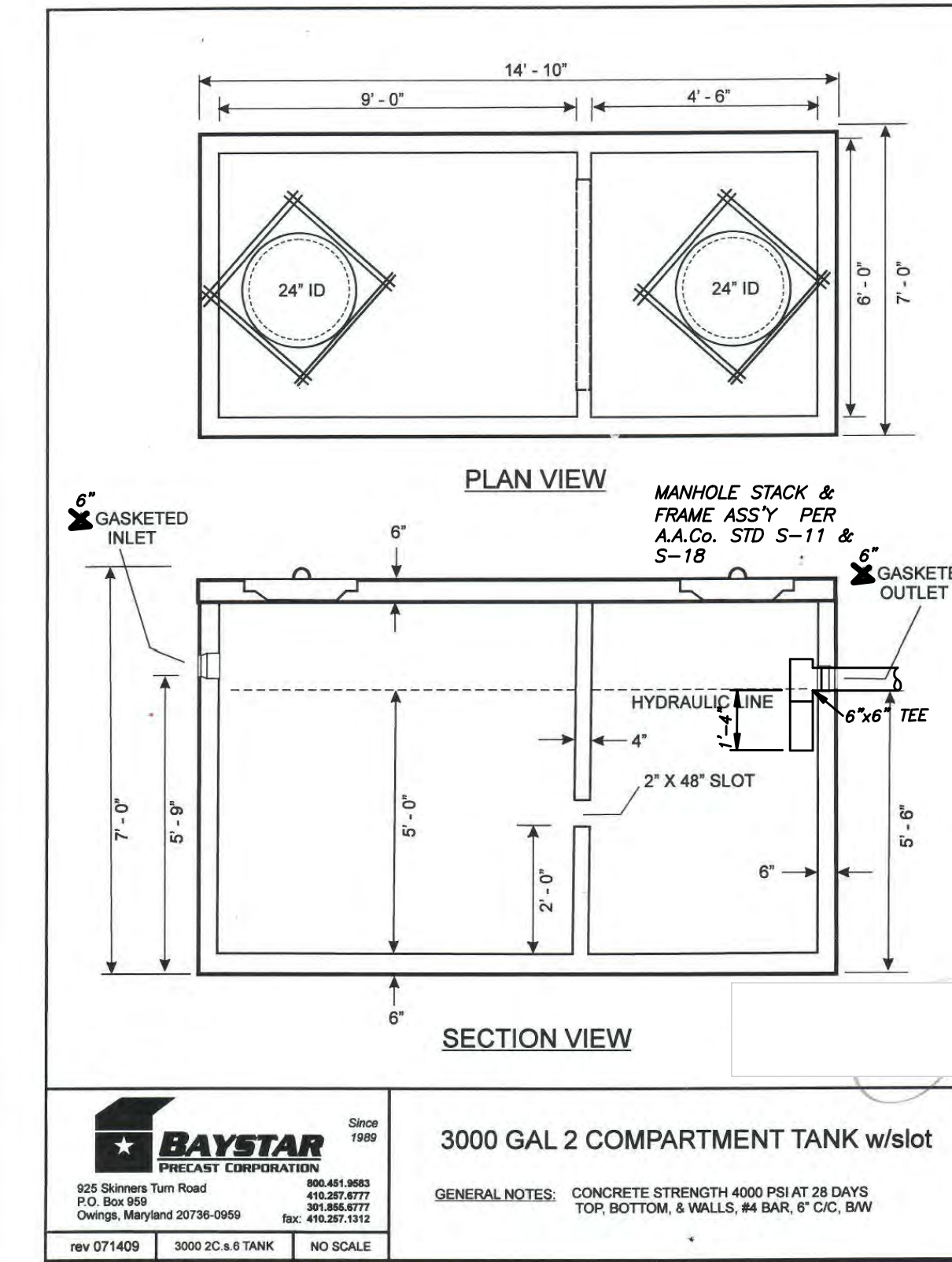
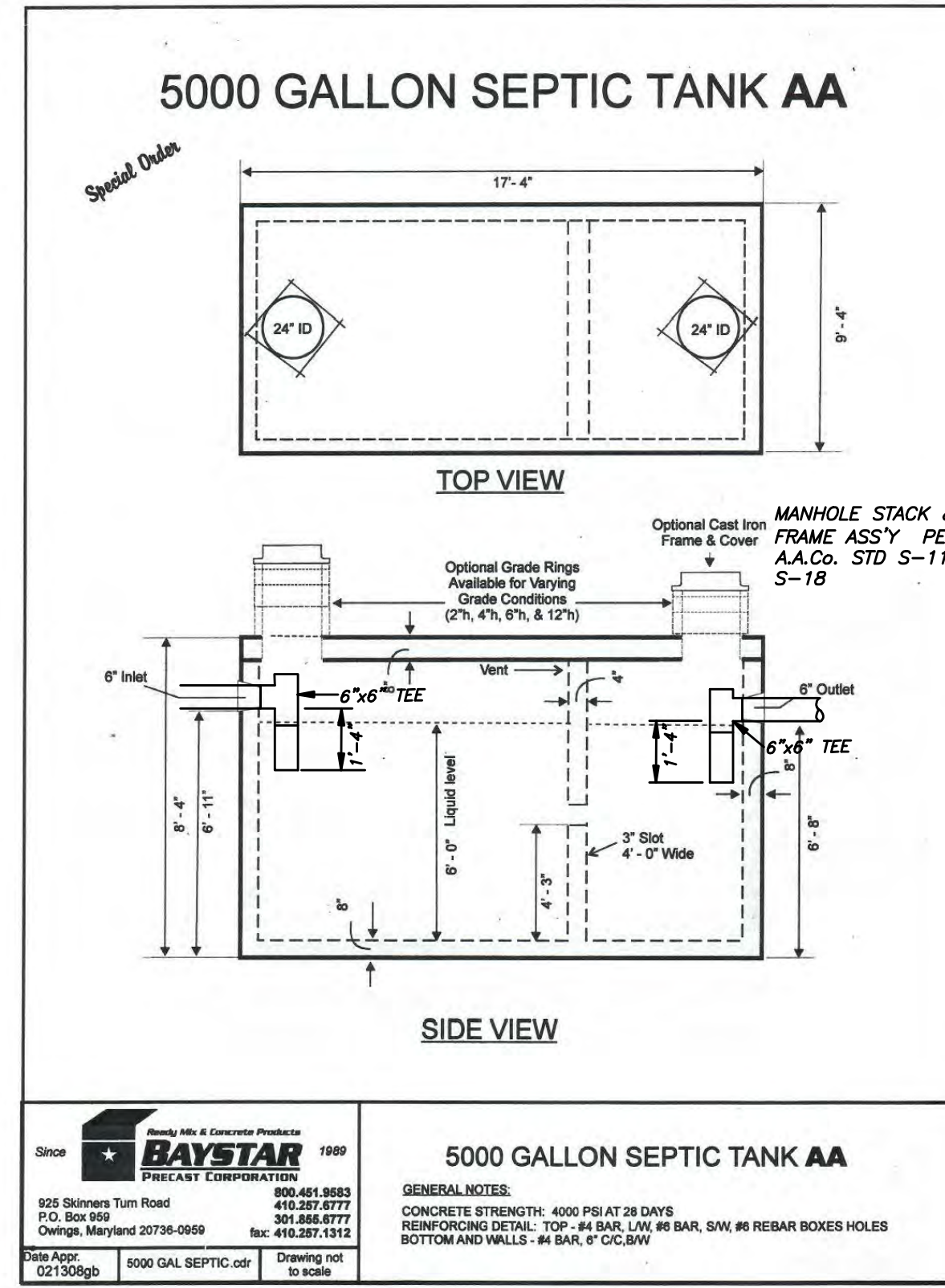
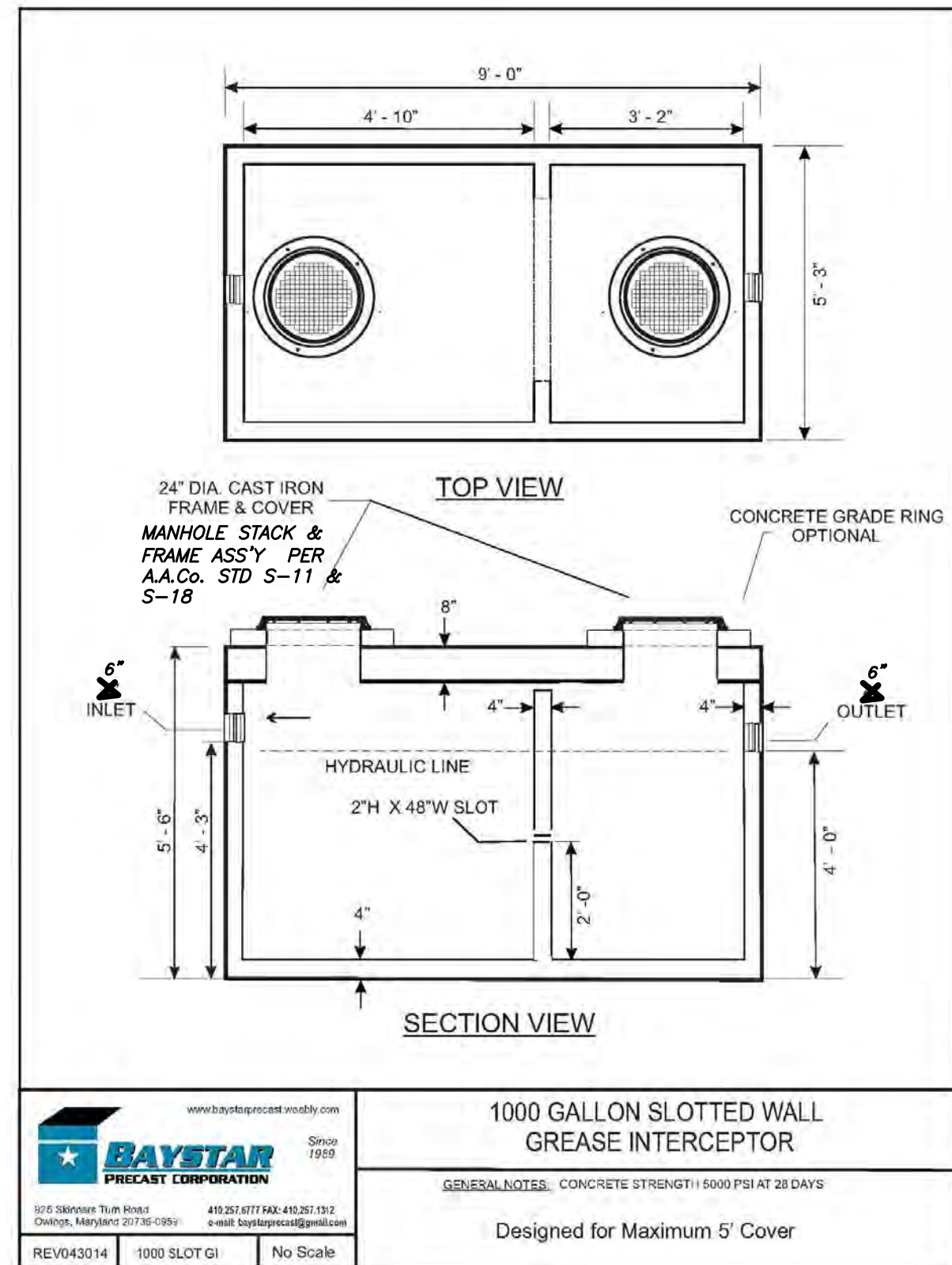
PUMP PIT TO PROVIDE 24 HR HOLDING CAPACITY (3,000 GAL.)
****PROVIDE 3,000 GALLON PUMP PIT WITH DUPLEX PUMP.**
 HIGH WATER ALARM AT REMAINING STORAGE VOLUME OF 12 HR CAPACITY (998 GAL.)
 AREA OF PUMP PIT = 70.2 SQ FT; 1 CU FT = 7.48 GAL.
 VOLUME OF PUMP PIT = 525 GAL/FT; 998 GAL/(525 GAL/FT) = 1.90 FT.
****PROVIDE HIGH WATER ALARM AT LEAST 1.9' BELOW OUTLET (DEPTH NO GREATER THAN 2.4 FT).**

FOR INITIAL SYSTEM AND REPLACEMENT SYSTEMS*

PERC RATE FOR T02046584 = 4 MIN. (P-13)
 USE 4 MIN. (APPLICATION RATE = 1.46 GAL/SF)

MAX. EFFECTIVE DEPTH = 1.0' (CLAY AT 5')
 TRENCH AREA REQUIRED = 3,600/1.46 = 2,466 S.F.
 USING 3' WIDE TRENCH YIELDS TOTAL LENGTH AT 2466/3 = 821.9 LIN. FT.
 FOR A 1.0' EFFECTIVE DEPTH TRENCH FACTOR = 0.83 * LENGTH = 821.9 * 0.83 = 683 FT.
 PROVIDE 7 TRENCHES @ 100 FT. LONG x 3' WIDE x 1.0' EFFECTIVE DEPTH
 TRENCH SEPARATION = 6' (MINIMUM ALLOWABLE)

ONE REPLACEMENT SYSTEM SHOWN.



- NOTES:
- 1) ALL REINFORCING SHALL OVERLAP AT CORNERS A MINIMUM OF 16" (FROM BOTTOM INTO SIDES, SIDES INTO TOP, ETC.)
 - 2) HEALTH DEPARTMENT SHALL INSPECT ALL REINFORCING STEEL PLACEMENT PRIOR TO POURING CONCRETE.
 - 3) MINIMUM PC = 4,000 P.S.I. (28 DAYS) FOR ALL CONCRETE.
 - 4) TANK SHALL BE COATED INSIDE & OUTSIDE TO ENSURE WATER TIGHTNESS.
 - 5) ALL PIPE AND FITTINGS SHALL BE PVC - SCH40.
 - 6) ALL EXCAVATION SUBJECT TO M.O.S.H.A. REGULATIONS.

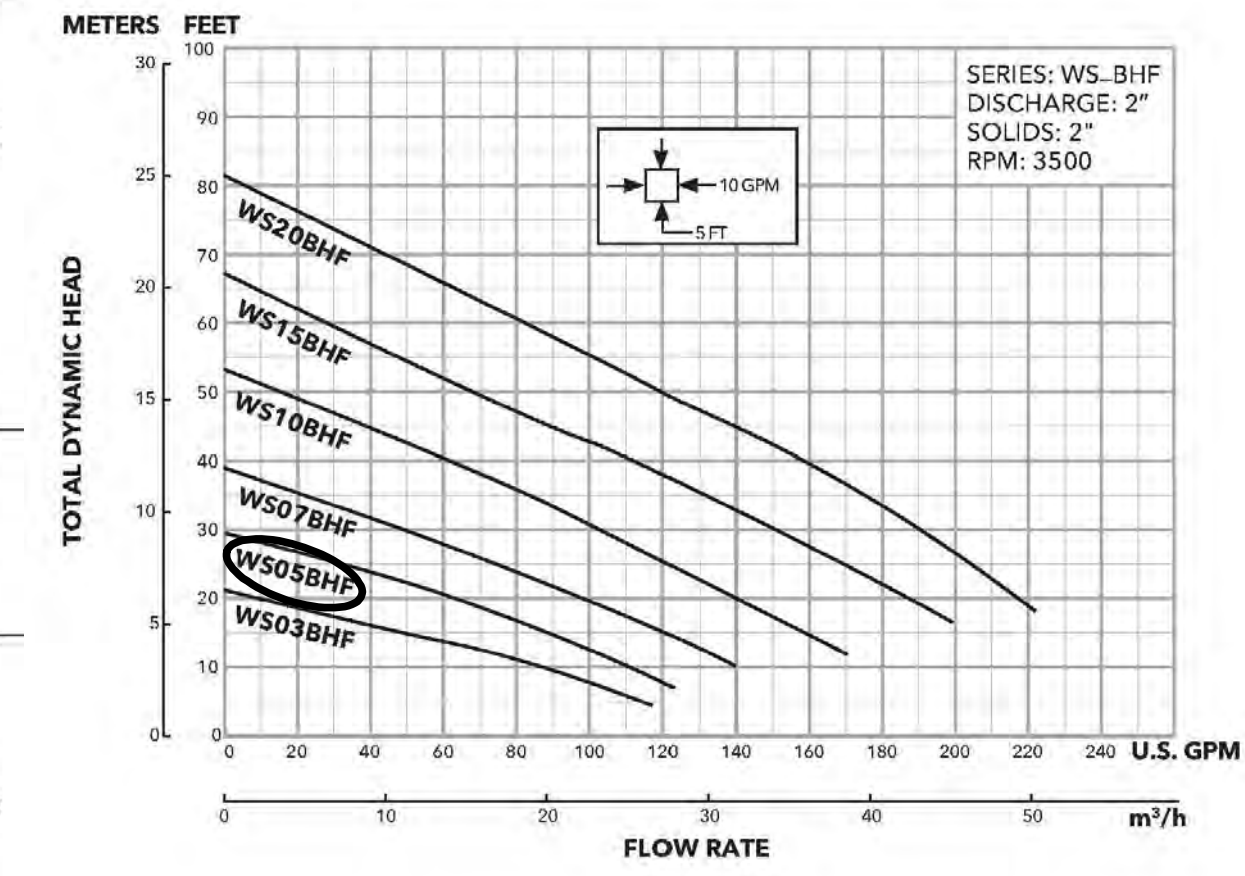
xylem
 Let's Save Water

TECHNICAL BROCHURE

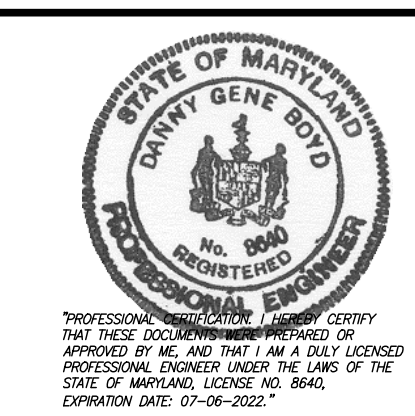
WS_BHF Series
 Model 3887BHF
 SUBMERSIBLE SEWAGE PUMP

USA
 MADE IN THE USA

GOULDS
 WATER TECHNOLOGIES
 a xylem brand



gba
 Maryland Professional Engineering Firm License No. 47570
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 Email: ellene@bndpa.com www.bndpa.com



REVISIONS			
NO.	DESCRIPTION	BY	DATE

SEPTIC PLAN SHEET 3 OF 4 (T02046584)
 GRADING PLAN SHEET 27 OF 37
 BNDPA PROJ NO. 16-811

NOTE: SEPTIC DESIGN MAY BE REVISED AT THE DIRECTION OF THE HEALTH DEPARTMENT.

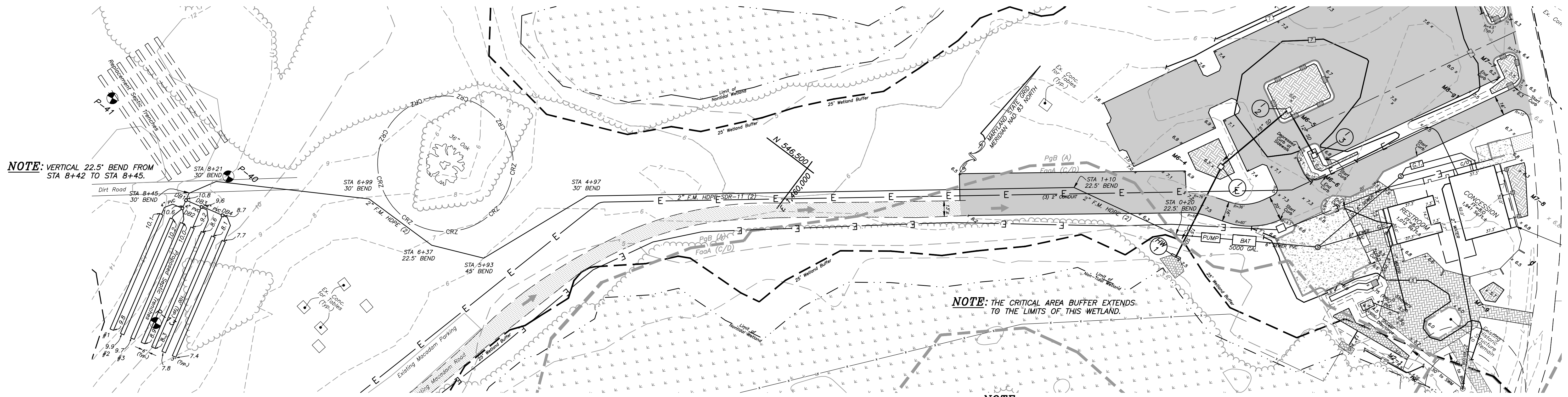
ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS

DATE: 4-28-21

APPROVED	DATE	APPROVED	DATE	SCALE: AS SHOWN
CHIEF ENGINEER		PROJECT MANAGER		FORT SMALLWOOD PARK PHASE II
APPROVED	DATE	APPROVED	DATE	CHECKED BY: DGB
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY		SHEET NO. 27 OF 37
				PROJECT NO. P535900
				PROPOSAL NO. P535907

BEACH AREA SEPTIC NOTES & DETAILS

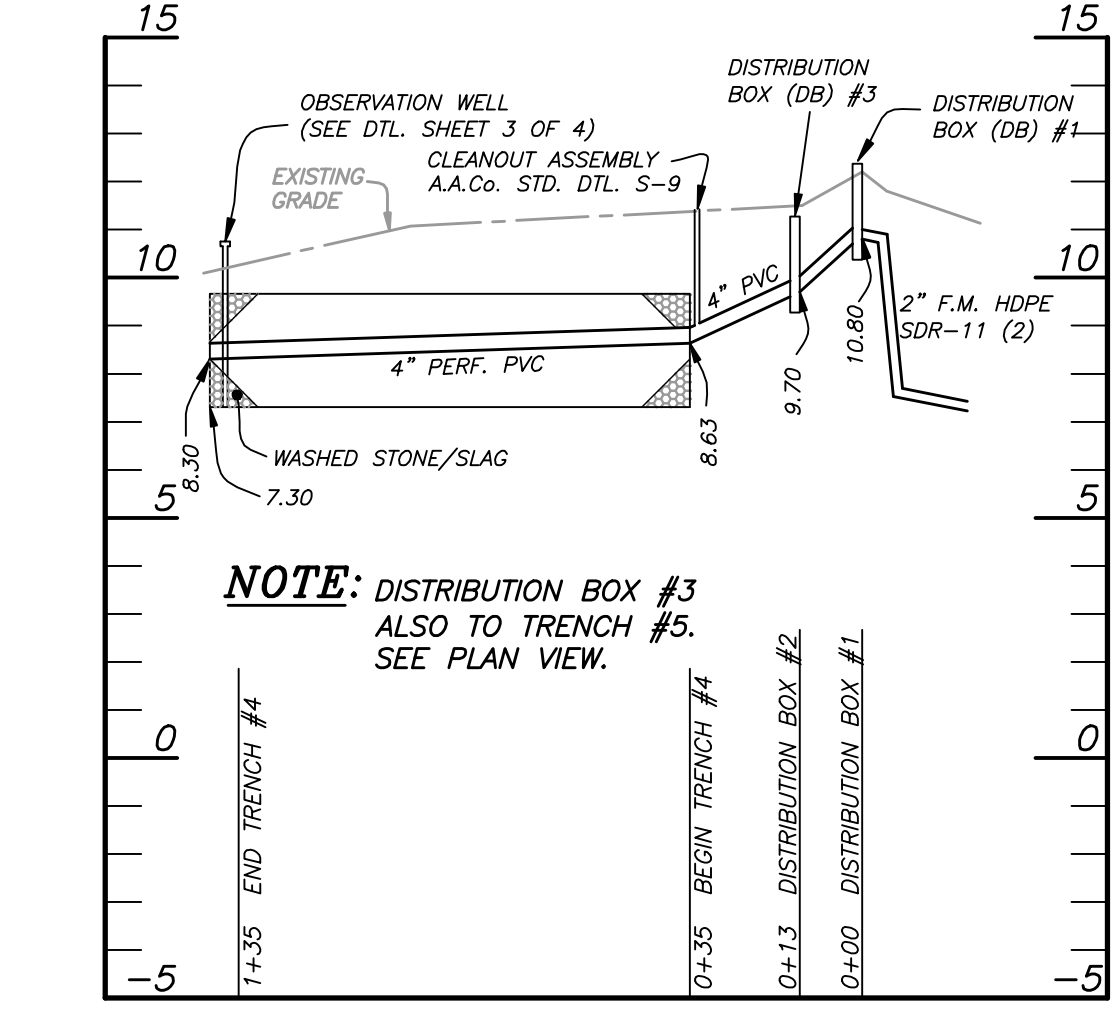
C501



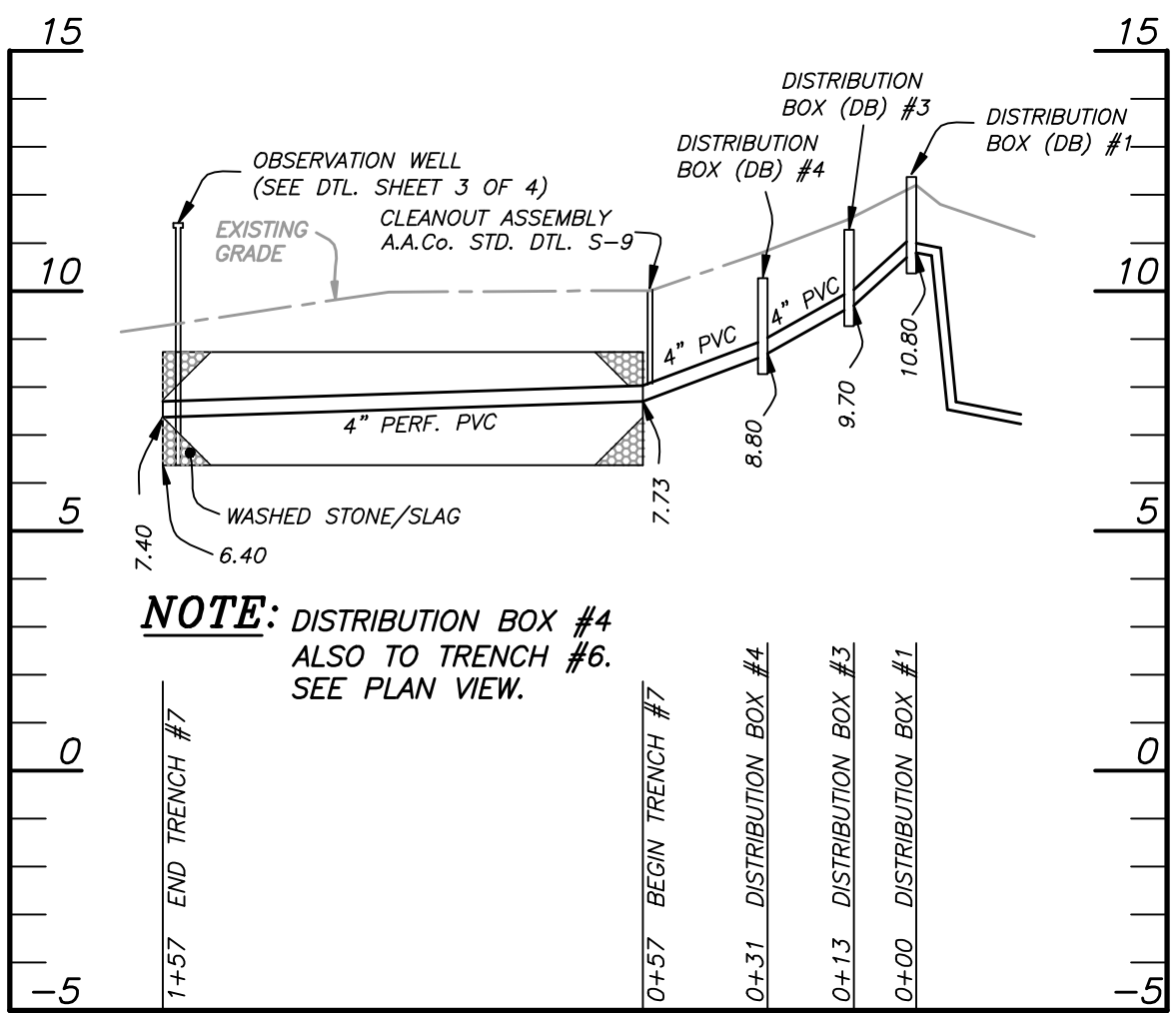
NOTE: VERTICAL 22.5° BEND FROM STA 8+42 TO STA 8+45.

NOTE: THE CRITICAL AREA BUFFER EXTENDS TO THE LIMITS OF THIS WETLAND.

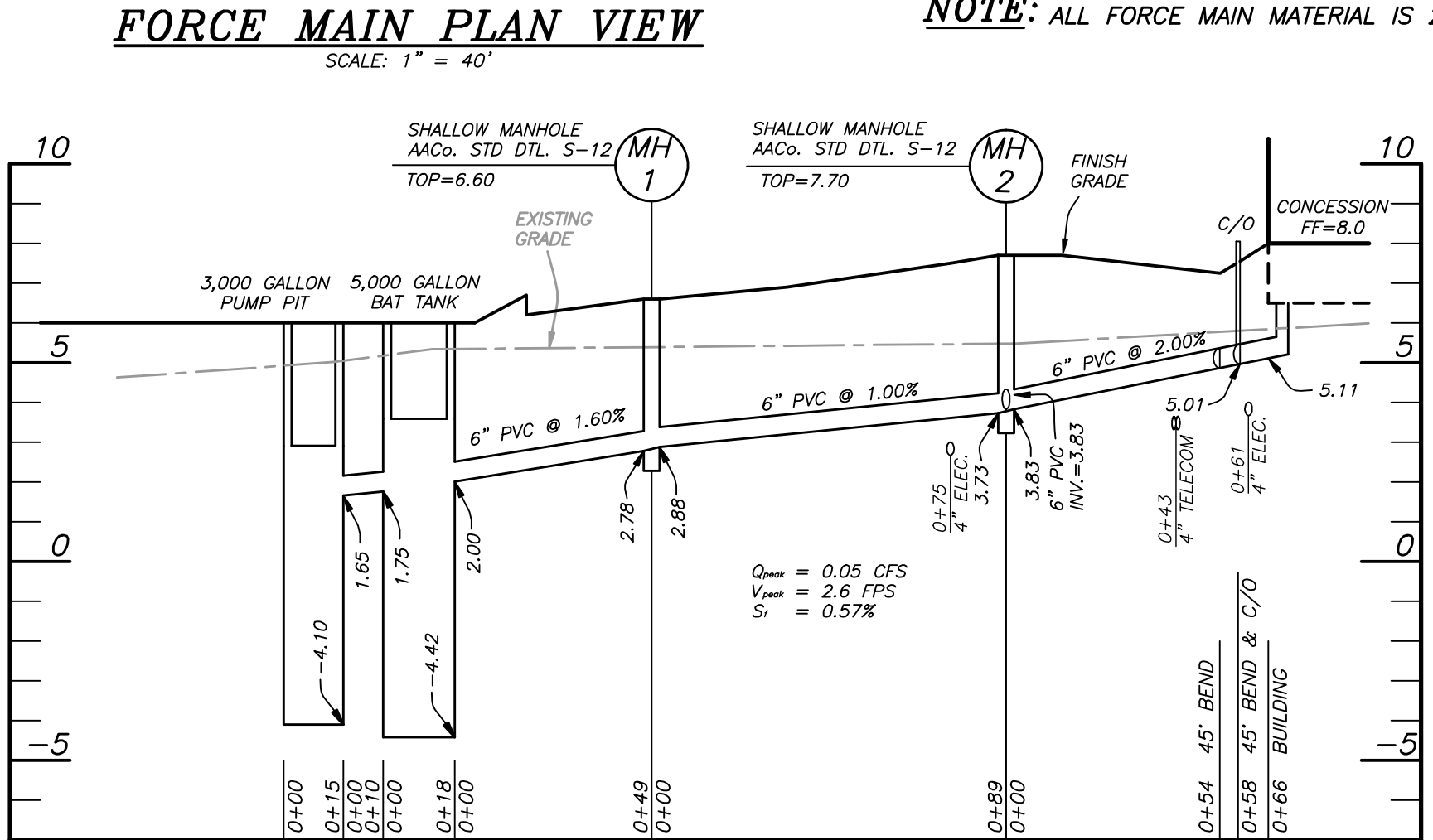
NOTE: ALL FORCE MAIN MATERIAL IS 2" HDPE SDR-11.



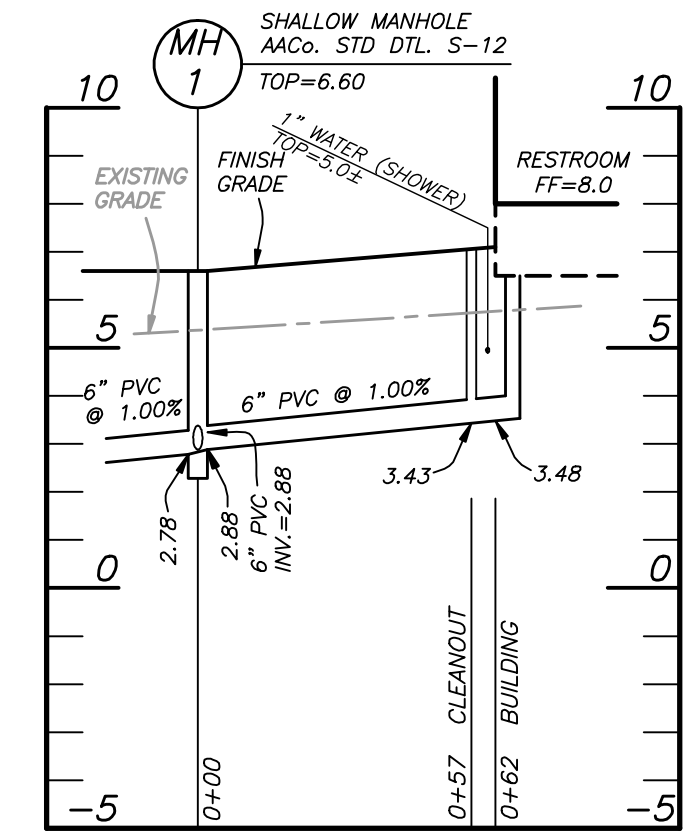
NOTE: DISTRIBUTION BOX #3 ALSO TO TRENCH #5. SEE PLAN VIEW.



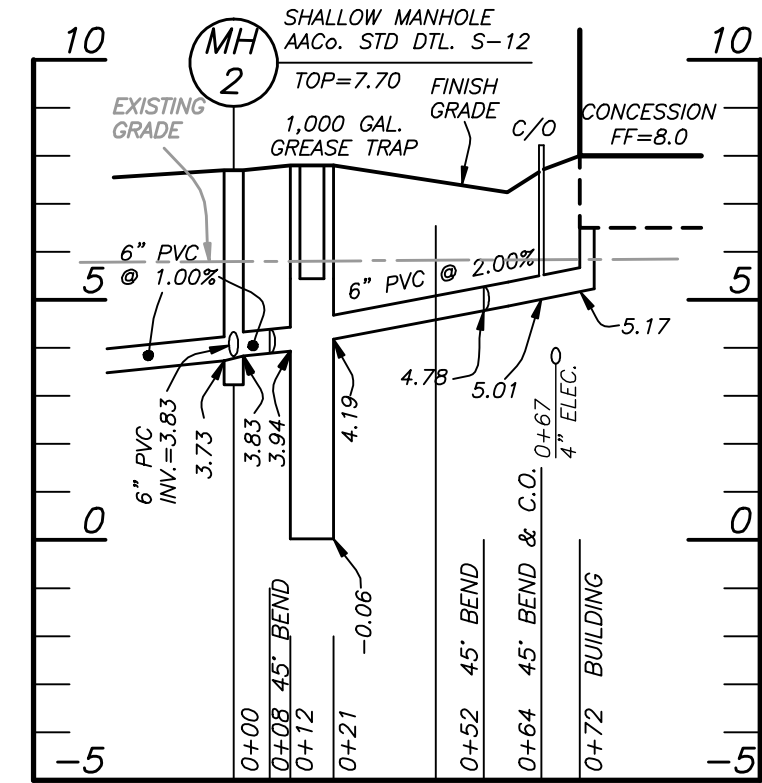
NOTE: DISTRIBUTION BOX #4 ALSO TO TRENCH #6. SEE PLAN VIEW.



CONCESSION SANITARY PROFILE
SCALE: 1" = 40' (H) 1" = 4' (V)



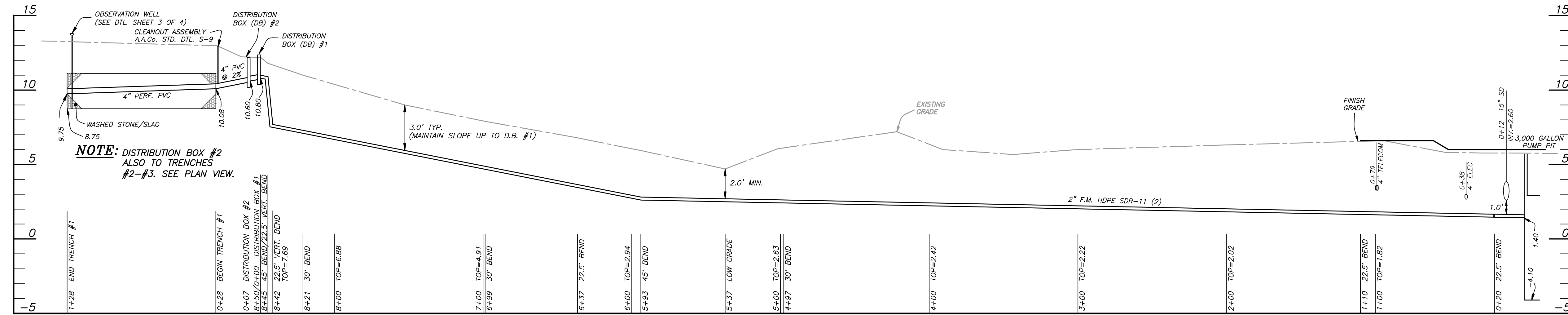
RESTROOM SANITARY PROFILE
SCALE: 1" = 40' (H) 1" = 4' (V)



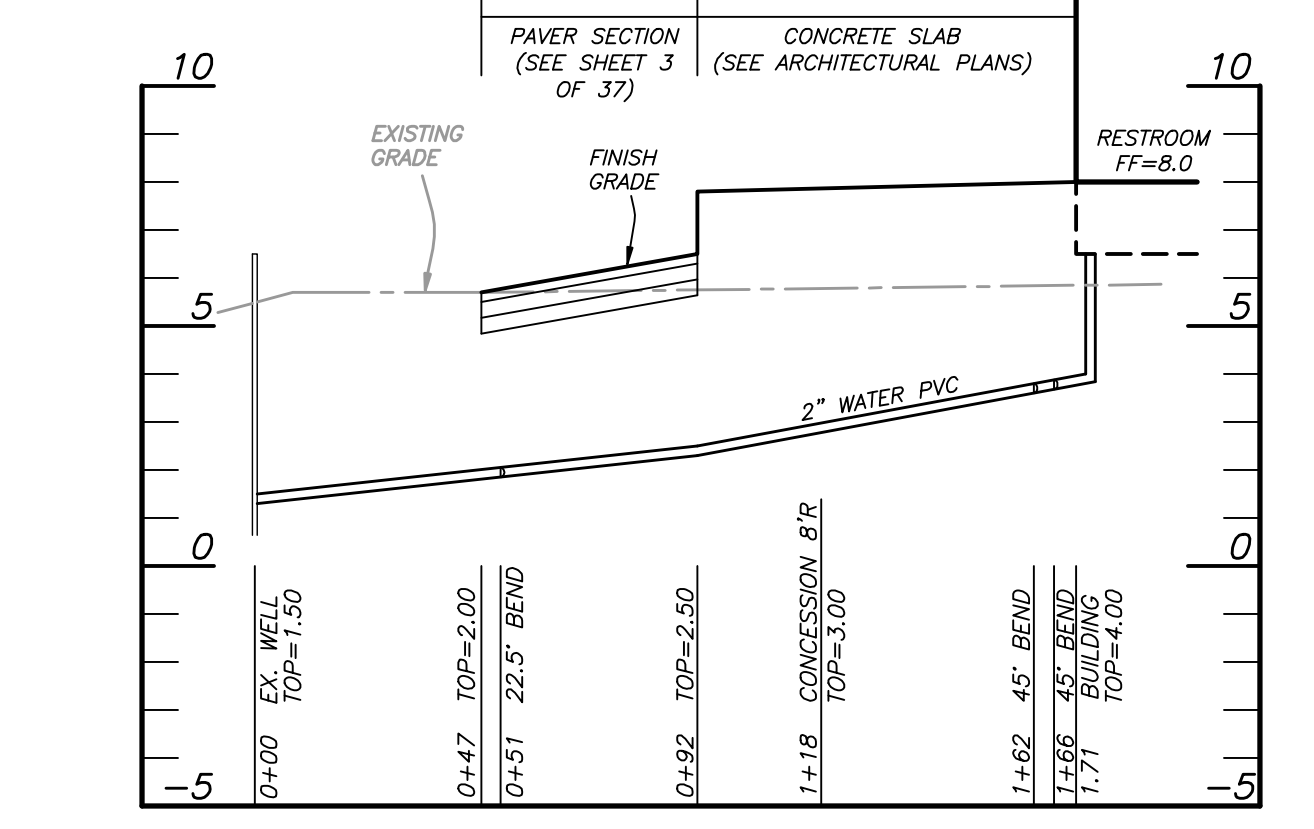
GREASE TRAP PROFILE
SCALE: 1" = 40' (H) 1" = 4' (V)

DISTRIBUTION BOX #3 PROFILE
SCALE: 1" = 40' (H) 1" = 4' (V)

DISTRIBUTION BOX #4 PROFILE
SCALE: 1" = 40' (H) 1" = 4' (V)



FORCE MAIN PROFILE
SCALE: 1" = 40' (H) 1" = 4' (V)



WATER SERVICE PROFILE
SCALE: 1" = 40' (H) 1" = 4' (V)

gba
Maryland Professional Engineering Firm License No. 47570
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STATE OF MARYLAND
DANNY GENE BOND
REGISTERED PROFESSIONAL ENGINEER
No. 9040
Baltimore, Maryland

REVISIONS			
NO.	DESCRIPTION	BY	DATE

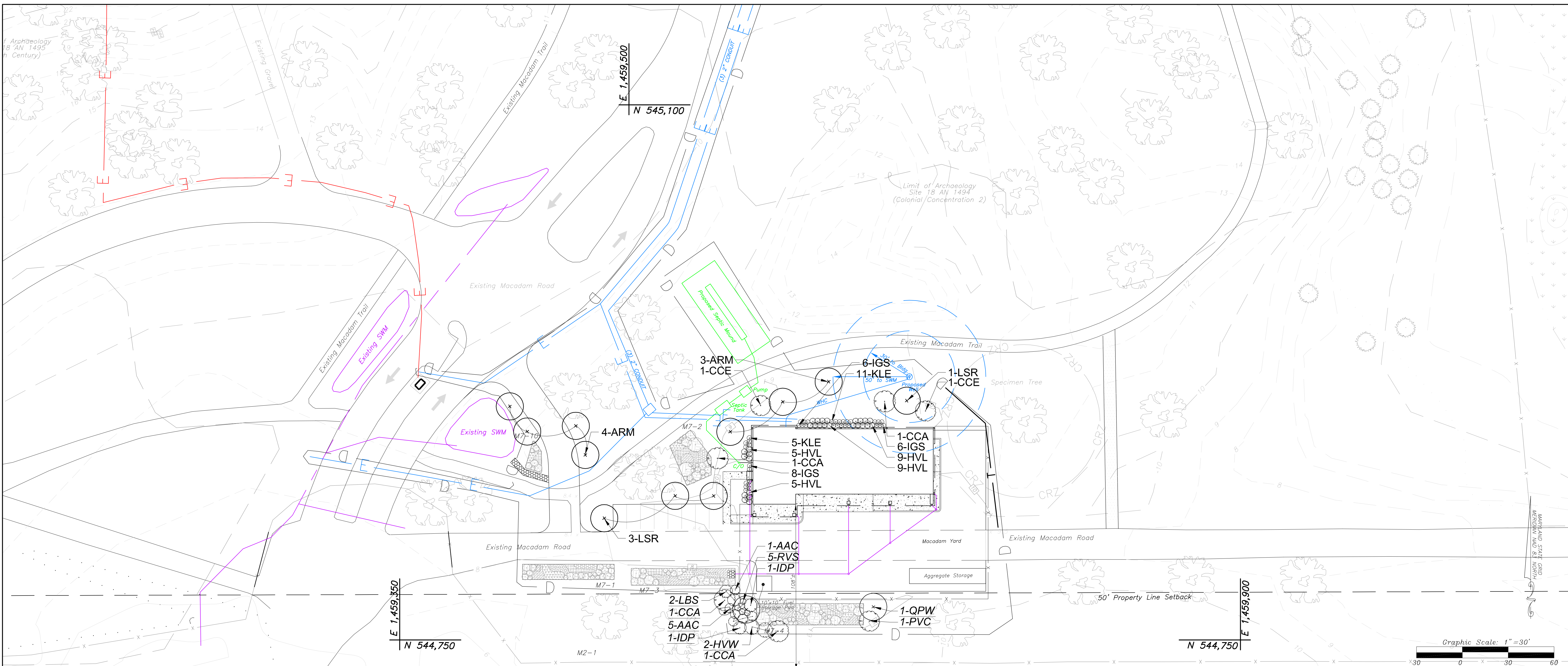
ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS
DATE: 4-28-21

APPROVED	DATE	APPROVED	DATE
CHIEF ENGINEER		PROJECT MANAGER	
APPROVED	DATE	APPROVED	DATE
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY	

SCALE: AS SHOWN
DRAWN BY: JMF
CHECKED BY: DGB
SHEET NO. 28 OF 37
PROJECT NO. P535900
PROPOSAL NO. P535907

FORT SMALLWOOD PARK PHASE II
9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122

BEACH AREA SEPTIC PLAN & PROFILES
C502



Robert H. Knox, Sr. & Mary Knox
 9399 Fort Smallwood Road
 Pasadena, MD 21122-3321
 Liber 15557 Folio 439
 3-000-15917402
 Tax Map 12 Block 14 Parcel 2
 Zoned RLD

Anne Arundel County
 Liber 21540 Folio 303
 3-000-90231858
 Tax Map 12 Block 14 Parcel 5
 Zoned RLD

Curtis Bay Athletic Club, Inc.
 P.O. Box 336, Pasadena, MD 21122
 Liber 2631 Folio 286
 3-000-07060850
 Tax Map 12 Block 14 Parcel 5
 Zoned RLD

- NOTES:
1. PROPOSED PLANTINGS BEING SHOWN IN GREY ARE USED TO MEET STORMWATER MANAGEMENT PLANTING PLAN REQUIREMENTS (SEE SHEET SWMP.103).
 2. ITALICIZED AND UNDERLINED PLANTINGS (#-XXX) ARE SMALLER SIZE PLANTINGS AS LISTED IN THE CODE AND EXISTING TREE REPLACEMENT SCHEDULE ON SHEET LP.103.
 3. FACADE PLANTS SHOWN CAN BE ADJUSTED TO AVOID CONFLICTS WITH WINDOWS, HOWEVER PLANTS MUST REMAIN ALONG THE BUILDING FOR CODE COMPLIANCE.

LANDSCAPE PLAN
 SCALE: 1" = 30'



CHARLOTTESVILLE, VA ■ STERLING, VA
 21515 RIDGETOP CIRCLE, SUITE 310
 STERLING, VIRGINIA 20166
 703-437-7907 ■ www.lpda.net
 LANDSCAPE PLAN SHEET 3 OF 5
 BNDPA PROJ NO. 16-811

gant•brunnett
 ARCHITECTS
 15 West Mulberry Street
 Baltimore, Maryland 21201-4406
 Telephone Number: 410-234-8444

Maryland Professional Engineering Firm License No. 47570
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REVISIONS			
NO.	DESCRIPTION	BY	DATE

ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS

APPROVED	DATE	APPROVED	DATE	SCALE: 1" = 30'
				DRAWN BY: RB, QC
CHIEF ENGINEER		PROJECT MANAGER		CHECKED BY: AS
APPROVED	DATE	APPROVED	DATE	SHEET NO. 31 OF 37
				PROJECT NO. P535900
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY		PROPOSAL NO. P535007

FORT SMALLWOOD PARK PHASE II
 9500 FORT SMALLWOOD ROAD
 PASADENA, MD 21122

LANDSCAPE PLAN LP.102

GENERAL LANDSCAPE NOTES:

- THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING DEPTHS AND AVOIDING CONFLICT WHEN TRENCHING OVER OR ACROSS AREAS WHERE UTILITIES EXIST.
- THE CONTRACTOR IS REQUIRED TO CONTACT 'MISS UTILITY' (1-800-552-7001) 48 HOURS PRIOR TO THE COMMENCEMENT OF WORK ON THE SITE. NO WORK IS TO BEGIN UNTIL ALL UTILITIES ARE MARKED. IF UTILITY LINE/TREE CONFLICTS ARE EVIDENT, PLEASE CONTACT LANDSCAPE ARCHITECT.
- VERIFICATION OF THE ACCURACY OF THE TOTAL QUANTITIES SHOWN IN THE MASTER PLANT SCHEDULE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. IN THE EVENT OF DISCREPANCY, THE PLANTING PLAN SHALL GOVERN. ANY PLANT SUBSTITUTIONS PROPOSED REQUIRE THE APPROVAL OF THE OWNER OR LANDSCAPE ARCHITECT.
- ALL PLANTS SHALL BE NURSERY GROWN, WELL BRANCHES, TRUE TO TYPE SPECIMEN MATERIAL, FREE OF INSECT INFESTATION, INJURY, DISEASE OR OTHER DEFECTS. PLANTS ARE TO CONFORM TO STANDARDS SET IN AMERICAN STANDARD FOR NURSERY STOCK AND SHALL MEET OR EXCEED MEASUREMENTS SPECIFIED IN THE PLANT SCHEDULE.
- THE CONTRACTOR SHALL WARRANT ALL NEW PLANTINGS FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE. ALL REPLACEMENT PLANTS SHALL CONFORM TO ORIGINAL SPECIFICATIONS. WHEN PLANTING OPERATIONS MUST BE PERFORMED OUTSIDE THE NORMAL PLANTING SEASON FOR THE LOCALITY, THIS WARRANTY MAY BE RENEGOTIATED WITH THE OWNER PRIOR TO PLANTING.
- PLANTING AND BED PREPARATION ARE TO BE CONDUCTED UNDER FAVORABLE WEATHER CONDITIONS. UNDER NO CIRCUMSTANCES SHALL SOIL BE WORKED, DRIVEN OVER, OR WALKED UPON WHILE IN A WET CONDITION.
- THE CONTRACTOR IS RESPONSIBLE FOR REPORTING TO THE OWNER CONDITIONS ON SITE THAT VARY FROM THE PLANS AND THAT EFFECT INSTALLATION.
- PRUNE ONLY BROKEN OR CROSSING BRANCHES. DO NOT THIN TREE CANOPIES.
- CONTRACTOR IS RESPONSIBLE FOR WATERING AND INSECT CONTROL UNTIL THE DATE OF FINAL INSPECTION. REPLANTING, WHEN RESULTING FROM SITE DISTURBANCE BY OTHERS, SHALL BE AT ADDITIONAL AN CHARGE.
- THE WORK AREA IS TO BE KEPT REASONABLY NEAT AND CLEAN AND ALL DEBRIS HAULED AWAY AND DISPOSED OF LEGALLY, OFF SITE, IN A TIMELY MANNER.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PERFORM ALL WORK IN A MANNER THAT PROTECTS COMPLETED WORK BY OTHERS, SUCH AS CURBS, UTILITIES, STORM DRAINAGE, FENCES, DRIVEWAY APRONS, DRIVES, VEGETATION, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF SATISFACTORY REPAIR OF ALL DAMAGE IN KIND RESULTING FROM HIS FAILURE TO COMPLY.

LANDSCAPE SPECIFICATIONS:

- PLANT MATERIAL SHALL CONFORM IN SIZE AND GRADE TO AMERICAN STANDARDS FOR NURSERY STOCK. PLANT MATERIALS SHALL BE OF STANDARD QUALITY OF THEIR SPECIES OR VARIETY. PLANTS SHALL BE CAREFULLY LABELED AND SIZES NOTED. RIGHT IS RESERVED TO REJECT PLANTS CONSIDERED AS UNSATISFACTORY. REJECTED PLANTS SHALL BE REMOVED FROM SITE. PLANTS SHOULD NOT BE PRUNED PRIOR TO DELIVERY. HEADING- BACK PLANTS TO MEET SIZES INDICATED IN DRAWING SCHEDULE WILL NOT BE PERMITTED.

LANDSCAPE SPECIFICATIONS (CONT.):

- PLANT PIT SOIL MIX
 - POTTING SOIL
 - FERTILIZER
- TOP SOIL 10-6-4 AT 5 POUNDS PER 100 S.F. OF BED AREA
- NATIVE SOIL
- PEAT MOSS

*CONTRACTOR SHALL UTILIZE ON-SITE TOPSOIL TO THE EXTEND POSSIBLE. CONTRACTOR TO TEST THE ON-SITE SOIL TO ENSURE NO AMENDMENTS ARE NEEDED. OFF-SITE TOPSOIL WILL NOT BE NEEDED OR ACCEPTED UNLESS AUTHORIZED BY THE OWNER.
- PLANTS AND TREES
 - CONTRACTOR SHALL STAKE THE LOCATION OF EACH TREE AND SHRUB IN ACCORDANCE WITH THE LOCATIONS SHOWN ON THE DRAWING. STAKING AND LAYOUT SHALL BE DONE SUFFICIENTLY IN ADVANCE OF PLANTING OPERATION TO PERMIT THE CONTRACTING OFFICER TO CHECK, REVISE IF DESIRED, AND APPROVE THE LOCATIONS BEFORE DIGGING OPERATIONS BEGIN.
 - EXCAVATE PLANTING BEDS AND POCKETS TO A DEPTH REQUIRED FOR PLANTING. AT LEAST 2/3 OF BALL BELOW FINISHED GRADE
 - REMOVE THE BURLAP, TWINE, AND WIRE BASKETS FROM THE TOP 1/2 OF ALL B&B ROOT BALLS. NO PLASTIC TWINE OR BURLAP SHALL BE PERMITTED ON B&B PLANTS. PLANTING PITS SHALL BE THE SAME DEPTH AS ROOT BALLS.
 - ANY ROCK OR OTHER UNDERGROUND OBSTRUCTION SHALL BE REMOVED TO DEPTH NECESSARY TO PERMIT PLANTING ACCORDING TO SPECIFICATION.
 - PLANTS SHALL BE TREATED AT THE TIME OF PLANTING WITH ANTI-DESICCANT AS SPECIFIED IN FULL ACCORDANCE WITH THE DIRECTIONS FURNISHED BY THE MANUFACTURER.
 - IN GENERAL, CONTRACTOR SHALL THOROUGHLY WATER ALL PLANTED AREAS AFTER PLANTING AND IN DRY WEATHER. USE ENOUGH WATER TO THOROUGHLY SOAK ALL TREE PITS BEFORE PLANTING. CONTRACTOR SHALL MAKE NECESSARY ARRANGEMENTS IN ADVANCE OF START OF WORK TO INSURE THAT AN ADEQUATE SUPPLY OF WATER AND WATERING EQUIPMENT ARE AVAILABLE WHEN REQUIRED.
- PLANT MAINTENANCE
 - MAINTENANCE SHALL BEGIN IMMEDIATELY AFTER EACH PLANT IS PLANTED AND SHALL CONTINUE FOR 12 MONTHS AFTER THE LAST PLANT HAS BEEN INSTALLED.
 - ALL PLANTS SHALL BE KEPT IN A GROWING, HEALTHY CONDITION BY WATERING, PRUNING, SHEARING, SPRAYING, TIGHTENING OF GUYS, STRAIGHTENING OF PLANTS WHICH LEAN OR SAG, LIFTING PLANTS WHICH DEVELOP MORE THAN NORMAL SETTLEMENT, WEEDING, AND BY ANY OTHER NECESSARY OPERATION OF MAINTENANCE. KEEP ALL PLANTING AREAS FREE OF WEEDS AND UNDESIRABLE GRASSES.
 - DURING THE MAINTENANCE PERIOD, PLANTS IN AN UNHEALTHY OR BADLY IMPAIRED CONDITION SHALL BE REMOVED AND REPLACED IMMEDIATELY USING SPECIFIED MATERIAL
 - WATERING - ALL PLANTS SHALL BE WATERED IMMEDIATELY AFTER PLANTING UNTIL THE SOIL IS SATURATED. PLANTS SHALL BE WATERED A MINIMUM OF EVERY TWO WEEKS, SHOULD THE SOILS DRY, UNTIL ACCEPTANCE BY THE OWNER. DURING DRY CONDITIONS WATER AS REQUIRED TO MAINTAIN PLANTS IN A WILT FREE CONDITION.
- ACCEPTANCE AND GUARANTEE
 - ANY PLANT REQUIRED UNDER THIS CONTRACT THAT IS DEAD OR WITHOUT SATISFACTORY GROWTH, AS DETERMINED BY THE CONTRACTING OFFICER, SHALL BE REMOVED AND REPLACED BY THE NEXT SPECIFIED PLANTING SEASON. ANY REPLACEMENTS SHALL BE PLANTS OF THE SAME KIND AND SIZE AS SPECIFIED AND REPLANTED IN THE SAME LOCATION FROM WHICH THE DEAD PLANT WAS REMOVED AND SHALL BE REPLACED AT NO ADDITIONAL COST.

TOTAL LF		CODE	REQUIRED	PROVIDED
412.53	1 PU per 40 l.f.		412.53 / 40 = 10.31	11 Planting Units
NUMBER OF PLANTS PROVIDED				
			Canopy	11
			Understory	0
			Shrubs	33
			Evergreen	0
PLANTING UNITS 11				
TOTAL SF		CODE	REQUIRED	PROVIDED
10%	of 30,332.25 =	3,033.23 sf	1 Planting Unit per 250 sf	3,033.23 / 250 = 12.13
NUMBER OF PLANTS PROVIDED				
			Canopy	11
			Understory	4
			Shrubs	43
			Evergreen	0
PLANTING UNITS 13				
TOTAL LF		CODE	REQUIRED	PROVIDED
328.00	50% of façade to to include foundation planting coverage		328.00 x 50% = 164.00 LF	164.00 LF
NUMBER OF PLANTS PROVIDED				
			Canopy	0
			Understory	0
			Shrubs	3
			Evergreen	0
TOTAL PLANTS 3				
TOTAL LF		CODE	REQUIRED	PROVIDED
350.58	50% of façade to to include foundation planting coverage		358.58 x 50% = 179.29 LF	179.29 LF
NUMBER OF PLANTS PROVIDED				
			Canopy	3
			Understory	4
			Shrubs	64
			Evergreen	0
TOTAL PLANTS 71				

LANDSCAPE PLAN
SCALE: NTS

REPLACEMENT REQUIREMENT	MIN. SIZE	INDIVIDUAL CREDIT (SF)	PLANT QUANTITY	MAX. PERCENT OF CREDIT	MAX. ALLOWABLE CREDIT (SF)	TOTAL CREDIT (SF)
Canopy Tree	2" cal.	200	40	No maximum	No Maximum	8,000
Understory Tree	0.75" cal.	75	8	No maximum	No Maximum	600
Small Shrub	18" height	25	545	20%	8,220	8,220
Herb. Perennial	1 qt.	2	1,374	10%	4,110	2,748
VEGETATION TYPE	MIN. SIZE	CLUSTER CREDIT (SF)	CLUSTER QUANTITY	MAX. PERCENT OF CREDIT	MAX. ALLOWABLE CREDIT (SF)	TOTAL CREDIT (SF)
Planting Cluster 1			300	43	Not applicable	12,900
1 Canopy Tree	0.75" cal.		43			
6 Small Shrubs	18" height		258			
Planting Cluster 2			350	11	Not applicable	3,850
2 Understory Trees	0.75 cal.		22			
6 Small Shrubs	18" height		66			
TOTAL CREDIT						36,318

NOTE: All proposed plantings including code plantings, SWM plantings, and existing tree replacement plantings are calculated in the able above as credits for the replacement of existing trees.

KEY	QTY	Botanical Name	Common Name	Size	Root	Spacing
CANOPY TREES (MAJOR DECIDUOUS SHADE TREES)						
ARA	3	Acer rubrum 'Armstrong'	Armstrong' Red Maple	2.0"-2.5" cal.	B&B	As Shown
ARM	9	Acer rubrum	Red Maple	2.0"-2.5" cal.	B&B	As Shown
LSR	16	Liquidambar styraciflua 'Rotundiloba'	Rotundiloba' Sweetgum	2.0"-2.5" cal.	B&B	As Shown
TTL	12	Tilia tomentosa	Silver Linden	2.0"-2.5" cal.	B&B	As Shown
40 CANOPY TREE SUBTOTAL						
CANOPY TREES (MINOR DECIDUOUS SHADE TREES: 3/4-inch Caliper)						
ARM	9	Acer rubrum	Red Maple	0.75" cal. min.	B&B	As Shown
NSB	13	Nyssa sylvatica	Black Gum	0.75" cal. min.	B&B	As Shown
QPP	11	Quercus palustris	Pin Oak	0.75" cal. min.	B&B	As Shown
QPV	10	Quercus phellos	Willow Oak	0.75" cal. min.	B&B	As Shown
43 CANOPY TREE SUBTOTAL						
UNDERSTORY TREES (MINOR DECIDUOUS SHADE TREES)						
CCA	5	Carpinus caroliniana 'Native Flame'	Native Flame' American Hornbeam	1.5"-2.0" cal.	B&B	As Shown
CCE	3	Cercis canadensis	Eastern Redbud	1.5"-2.0" cal.	B&B	As Shown
8 UNDERSTORY TREES SUBTOTAL						
UNDERSTORY TREES (MINOR DECIDUOUS SHADE TREES: 3/4-inch Caliper)						
CCA	10	Carpinus caroliniana 'Native Flame'	Native Flame' American Hornbeam	0.75" cal. min.	B&B	As Shown
CCE	3	Cercis canadensis	Eastern Redbud	0.75" cal. min.	B&B	As Shown
PVC	9	Prunus virginiana	Choke Cherry	0.75" cal. min.	B&B	As Shown
22 UNDERSTORY TREES SUBTOTAL						
SHRUBS						
HVL	42	Hamamelis virginiana 'Little Suzie'	Little Suzie' Witch Hazel	24"-36"	Cont.	As Shown
IGS	31	Ilex glabra 'Shamrock'	Shamrock' Inkberry	24"-36"	Cont.	As Shown
KLE	44	Kalmia latifolia 'Elf'	Elf' Dwarf Mountain Laurel	24"-36"	Cont.	As Shown
MPB	9	Myrica pensylvanica	Bayberry	24"-36"	Cont.	As Shown
RAG	67	Rhus aromatica	Gro-Low Sumac	24"-36"	Cont.	As Shown
193 SHRUBS SUBTOTAL						
SHRUBS (SMALL: 18 inches High)						
AAC	56	Aronia arbutifolia	Chokeberry	18" min.	Cont.	As Shown
COB	104	Cephalanthus occidentalis	Button Bush	18" min.	Cont.	As Shown
HVW	11	Hamamelis virginiana	Witch Hazel	18" min.	Cont.	As Shown
IDP	31	Ilex decidua	Possunhaw	18" min.	Cont.	As Shown
LBS	23	Lindera benzoin	Spice Bush	18" min.	Cont.	As Shown
RVS	99	Rhododendron viscosum	Swamp Azalea	18" min.	Cont.	As Shown
324 SHRUBS SUBTOTAL						
HERBACEOUS / PERENNIAL PLANTS & ORNAMENTAL GRASSES						
ECO	45	Echinacea 'Orange You Awesome'	Orange You Awesome' Coneflower	1 qt.	Cont.	18" T.O.C.
HGO	15	Geranium 'Orion'	Orion' Hardy Geranium	1 qt.	Cont.	36" T.O.C.
PAD	112	Pennisetum alopecuroides 'Hameln'	Hameln' Fountain Grass	1 qt.	Cont.	30" O.C.*
PVN	5	Panicum virgatum 'Northwind'	Northwind' Switch Grass	1 qt.	Cont.	30" T.O.C.
SOB	102	Stachys officinalis 'Hummelo'	Hummelo' Betony	1 qt.	Cont.	12" T.O.C.
279 HERBACEOUS / PERENNIAL PLANTS, & ORNAMENTAL GRASSES SUBTOTAL						
909 TOTAL PLANTS						

*Pennisetum alopecuroides 'Hameln' to be planted in a single row except for location adjacent to dumpster pad near concession building.

Landscaping	Unit	Quantity	Cost	Total
Major Deciduous Tree	EA	40	\$400.00	\$16,000.00
Major Deciduous Tree (0.75" cal.)	EA	43	\$200.00	\$8,600.00
Minor Deciduous Tree	EA	8	\$200.00	\$1,600.00
Minor Deciduous Tree (0.75" cal.)	EA	22	\$100.00	\$2,200.00
Shrub	EA	193	\$50.00	\$9,650.00
Shrub (18")	EA	324	\$30.00	\$9,720.00
Herbaceous/Perennial	EA	279	\$9.00	\$2,511.00
Code Planting Total				\$50,281.00

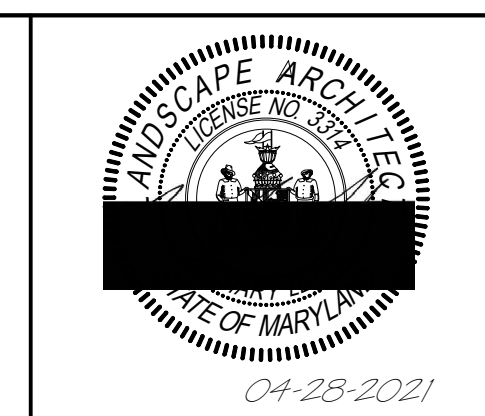
NOTE: THE CODE AND EXISTING TREE REPLACEMENT PLANTING SCHEDULE AND COST ESTIMATE SHOWN ABOVE DO NOT INCLUDE SWM PLANTINGS. SEE SHEET SWMP.104 FOR THE SWM PLANTING SCHEDULE AND COST ESTIMATE.



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LANDSCAPE PLAN SHEET 4 OF 5
BNDPA PROJ NO. 16-811

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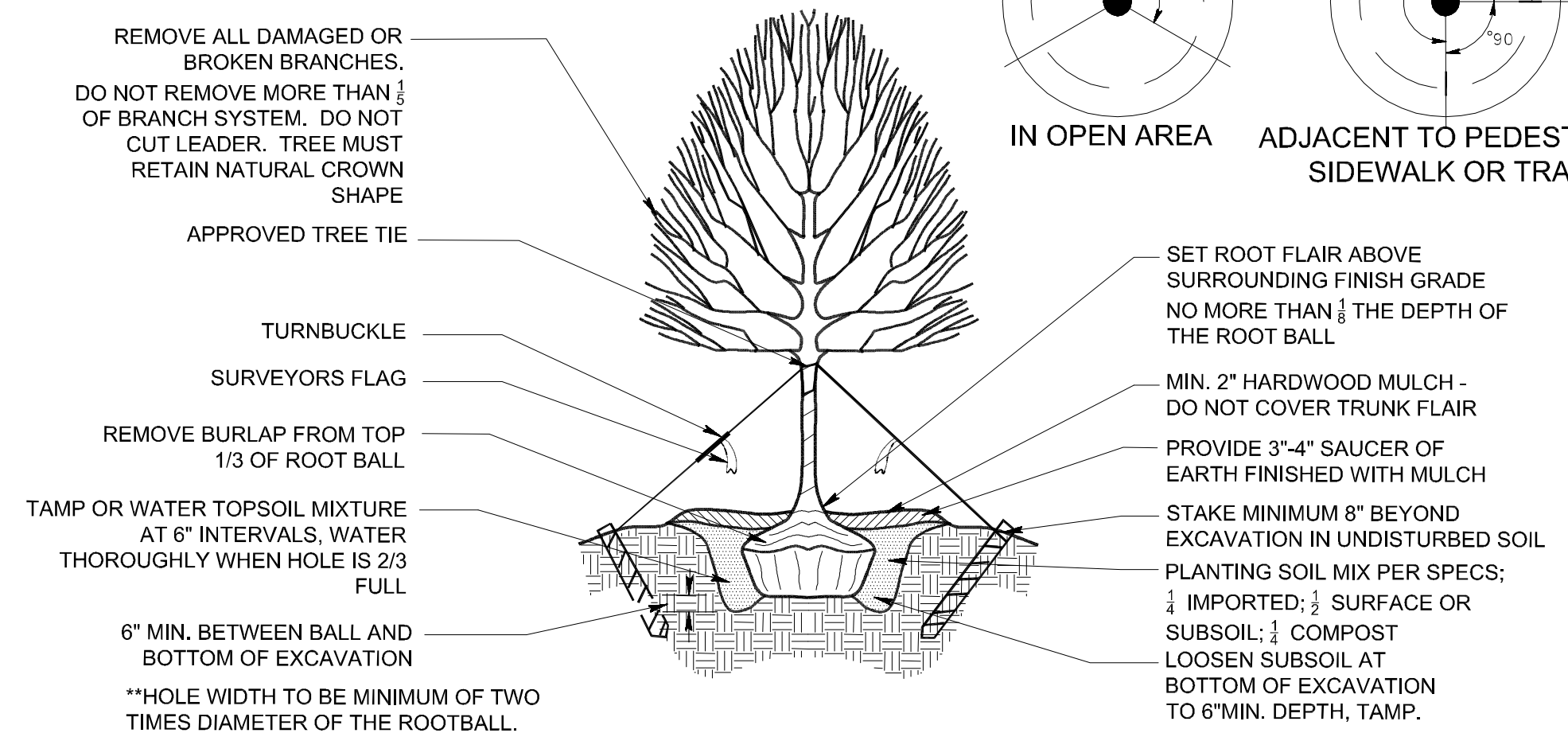
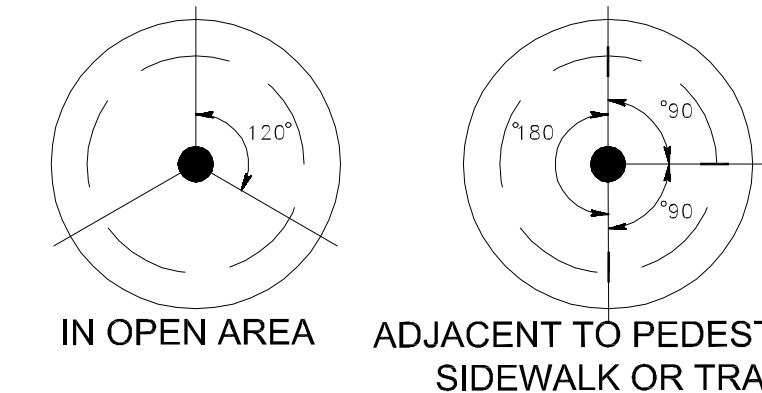
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		PROJECT NO. P535900
		PROPOSAL NO. P535007

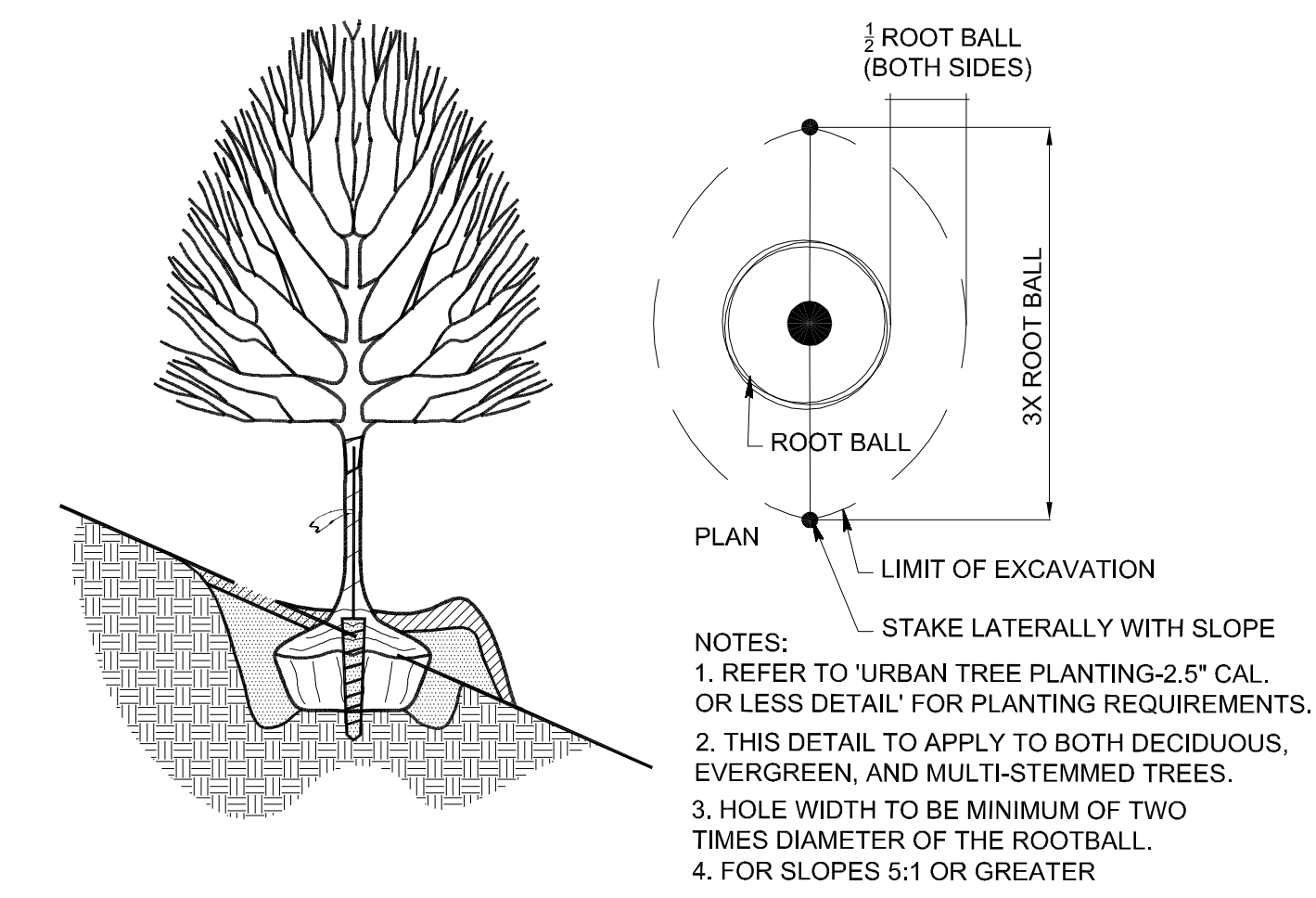
FORT SMALLWOOD PARK PHASE II
9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122

LANDSCAPE PLAN LP.103

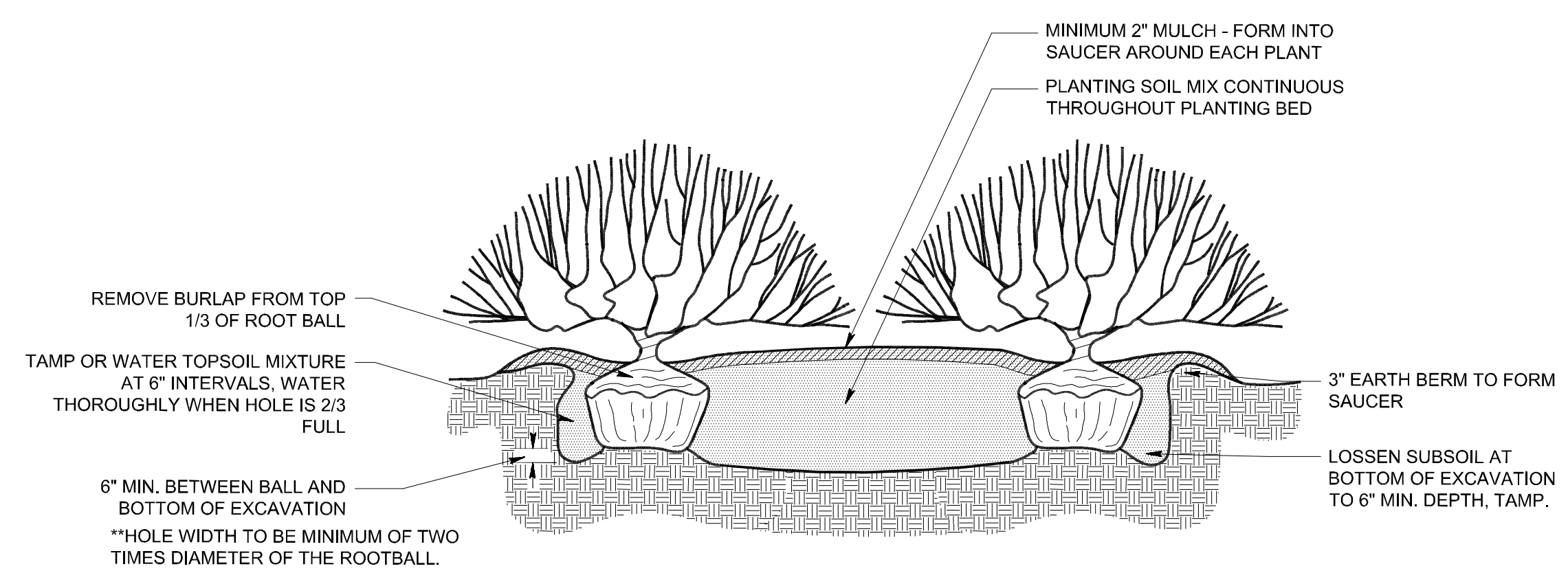
STAKING LAYOUTS



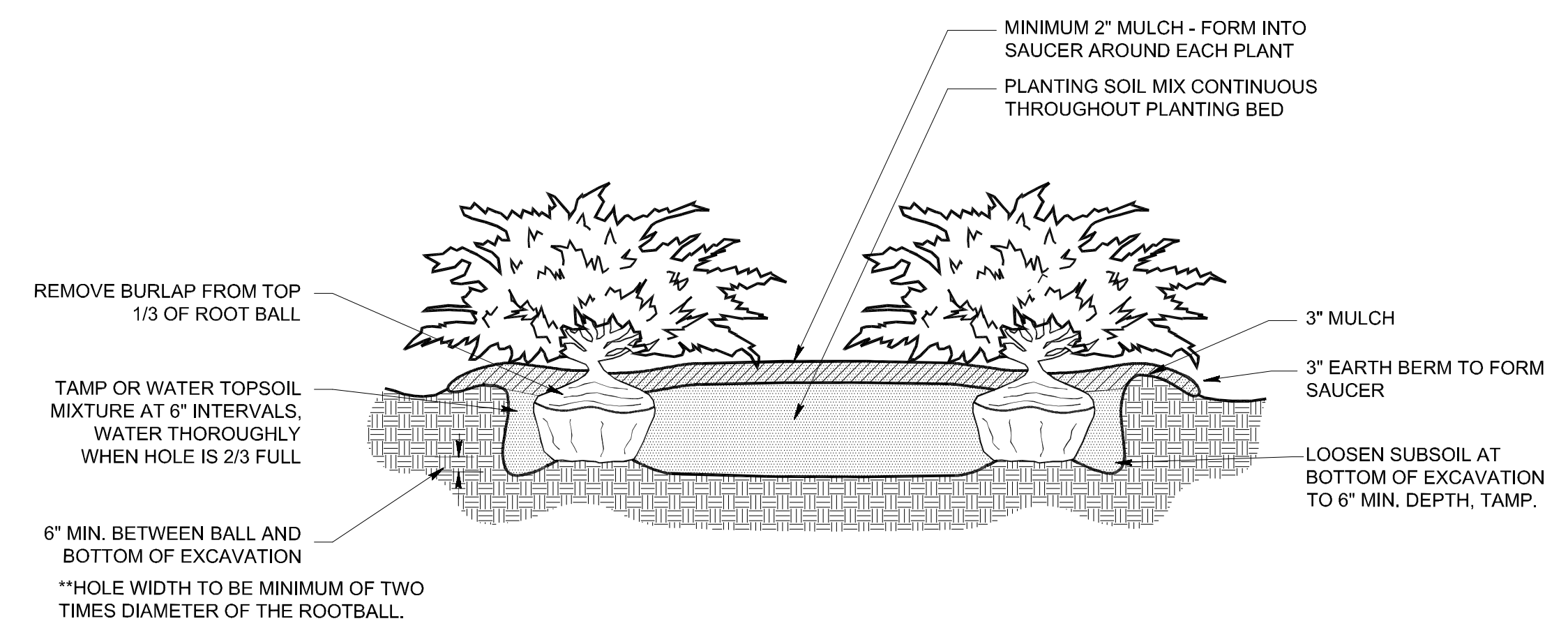
1 LAWN/OPEN SPACE TREE PLANTING DETAIL
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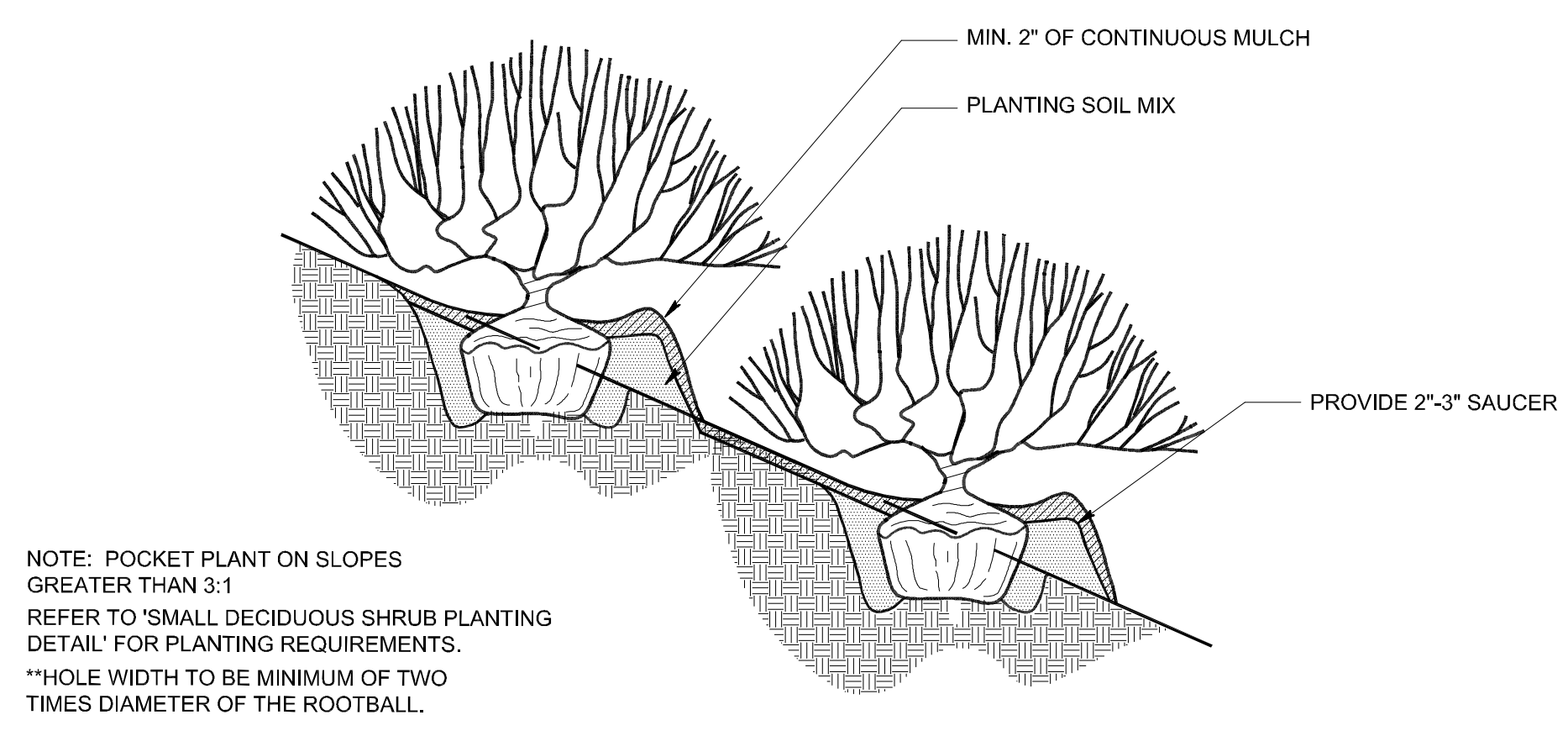
2 TREE PLANTING ON SLOPE
SCALE: NTS



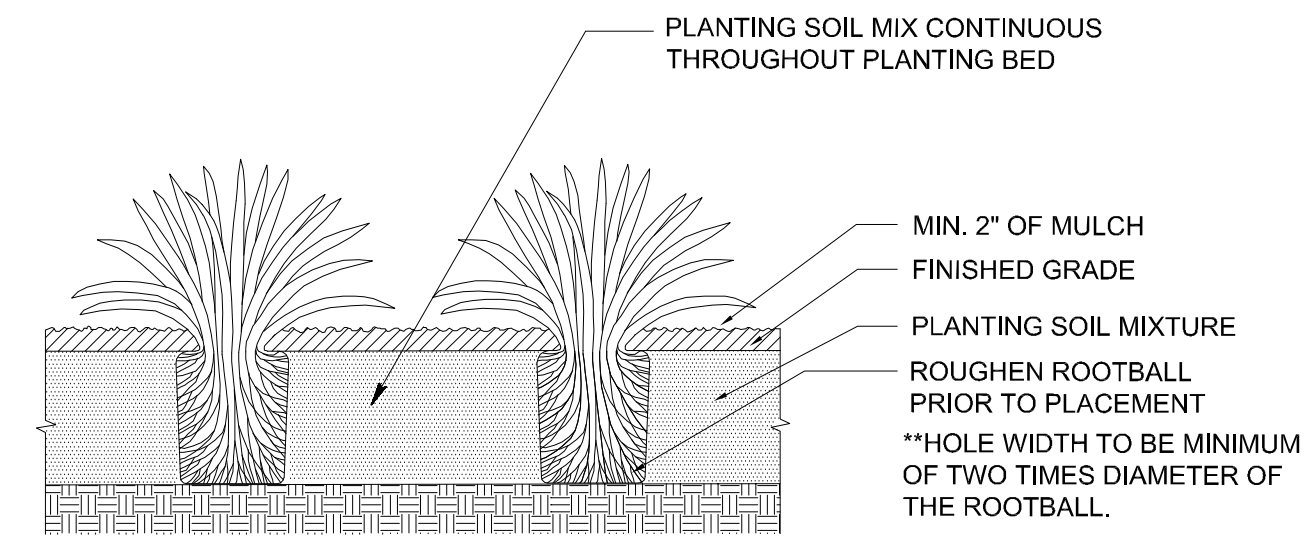
3 SMALL DECIDUOUS SHRUB PLANTING
SCALE: NTS



4 SMALL EVERGREEN SHRUB PLANTING
SCALE: NTS



5 SMALL SHRUB PLANTING ON SLOPE
SCALE: NTS



6 PERENNIAL PLANTING
SCALE: NTS

LANDSCAPE PLAN
SCALE: NTS



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LANDSCAPE PLAN SHEET 5 OF 5
BNDPA PROJ NO. 16-811

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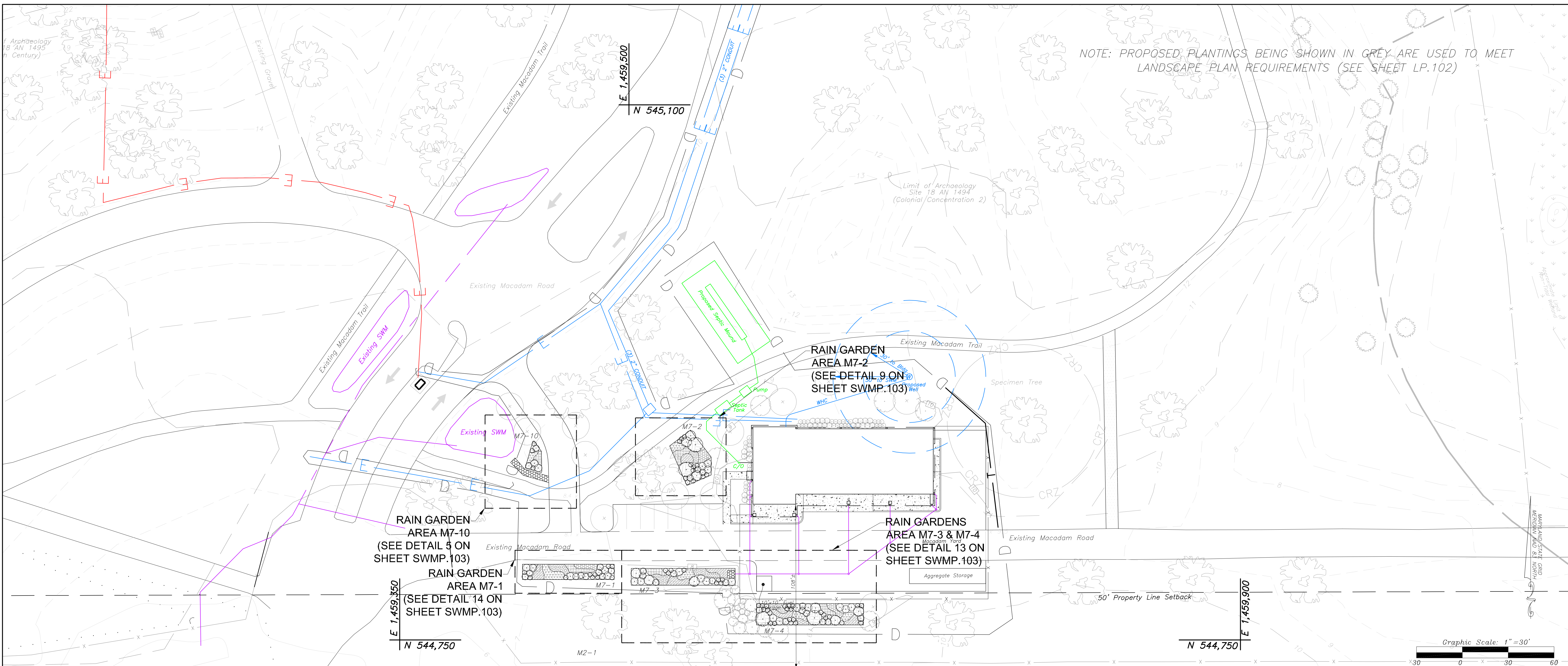
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APPROVED	DATE	APPROVED	DATE	SCALE: NTS
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APPROVED	DATE	APPROVED	DATE	CHECKED BY: AS
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY		SHEET NO. 33 OF 37
				PROJECT NO. P535900
				PROPOSAL NO. P535007

FORT SMALLWOOD PARK PHASE II
9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122

LANDSCAPE PLAN LP.104

DATE: 04-28-21



NOTE: PROPOSED PLANTINGS BEING SHOWN IN GREY ARE USED TO MEET LANDSCAPE PLAN REQUIREMENTS (SEE SHEET LP.102)

RAIN GARDEN AREA M7-10
(SEE DETAIL 5 ON SHEET SWMP.103)

RAIN GARDEN AREA M7-1
(SEE DETAIL 14 ON SHEET SWMP.103)

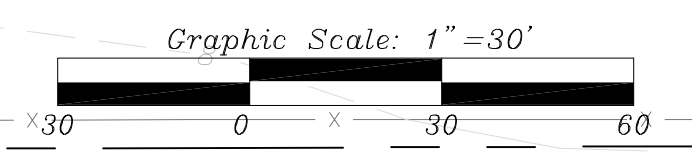
RAIN GARDEN AREA M7-2
(SEE DETAIL 9 ON SHEET SWMP.103)

RAIN GARDENS AREA M7-3 & M7-4
(SEE DETAIL 13 ON SHEET SWMP.103)

Robert H. Knox, Sr. & Mary Knox
9399 Fort Smallwood Road
Pasadena, MD 21122-3321
Liber 15557 Folio 439
3-000-15917402
Tax Map 12 Block 14 Parcel 2
Zoned RLD

Anne Arundel County
Liber 21540 Folio 303
3-000-90231858
Tax Map 12 Block 14 Parcel 5
Zoned RLD

Curtis Bay Athletic Club, Inc.
P.O. Box 336, Pasadena, MD 21122
Liber 2631 Folio 286
3-000-07060850
Tax Map 12 Block 14 Parcel 5
Zoned RLD



STORMWATER MANAGEMENT PLANTING PLAN
SCALE: 1" = 30'

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STORMWATER MANAGEMENT PLANTING PLAN SHEET 2 OF 4
BNDPA PROJ NO. 16-811

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APPROVED	DATE	APPROVED	DATE
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APPROVED	DATE	APPROVED	DATE
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY	

ANNE ARUNDEL COUNTY
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FORT SMALLWOOD PARK PHASE II
9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122

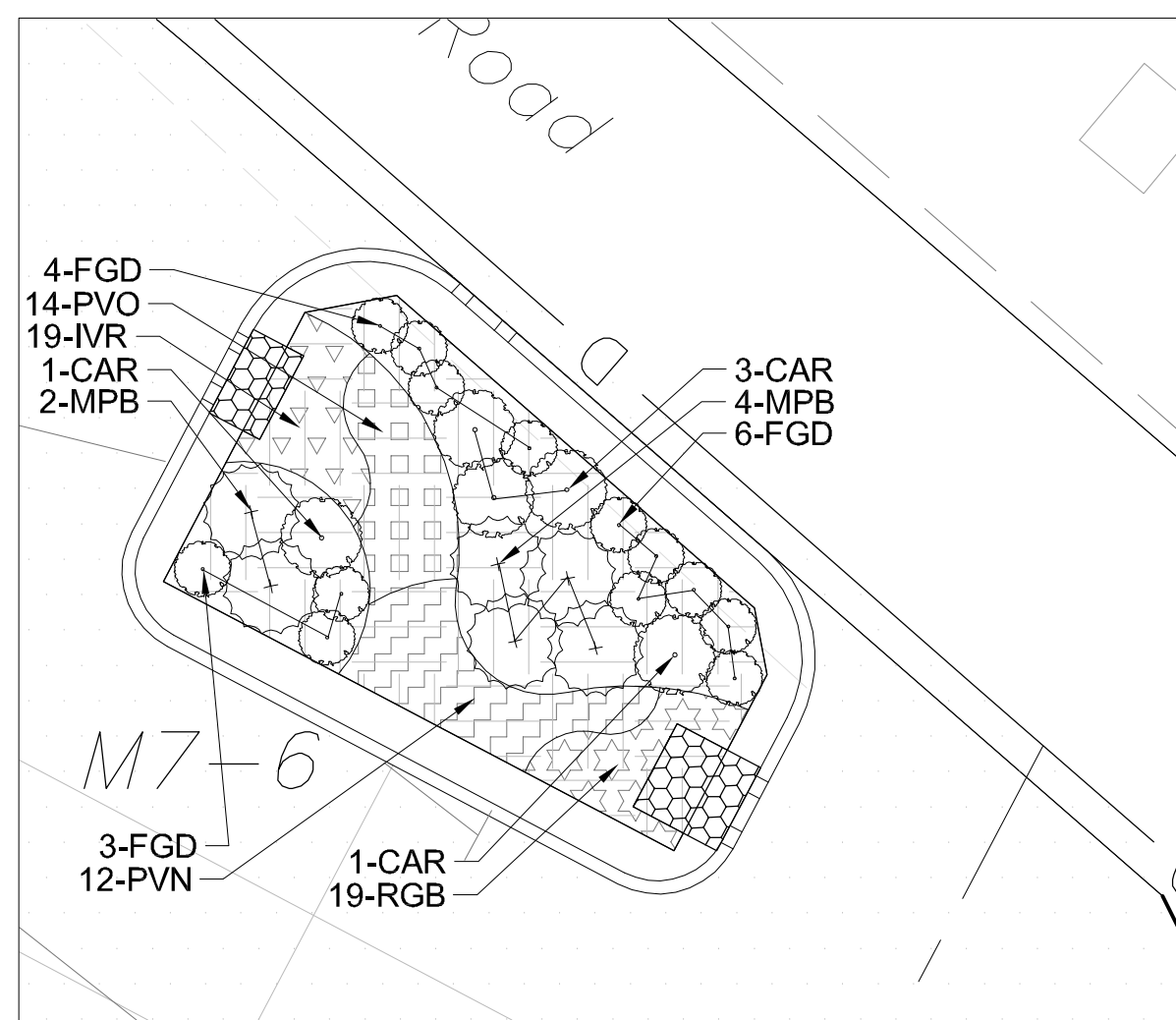
STORMWATER MANAGEMENT PLANTING PLAN SWMP.102

DATE: 04-28-21

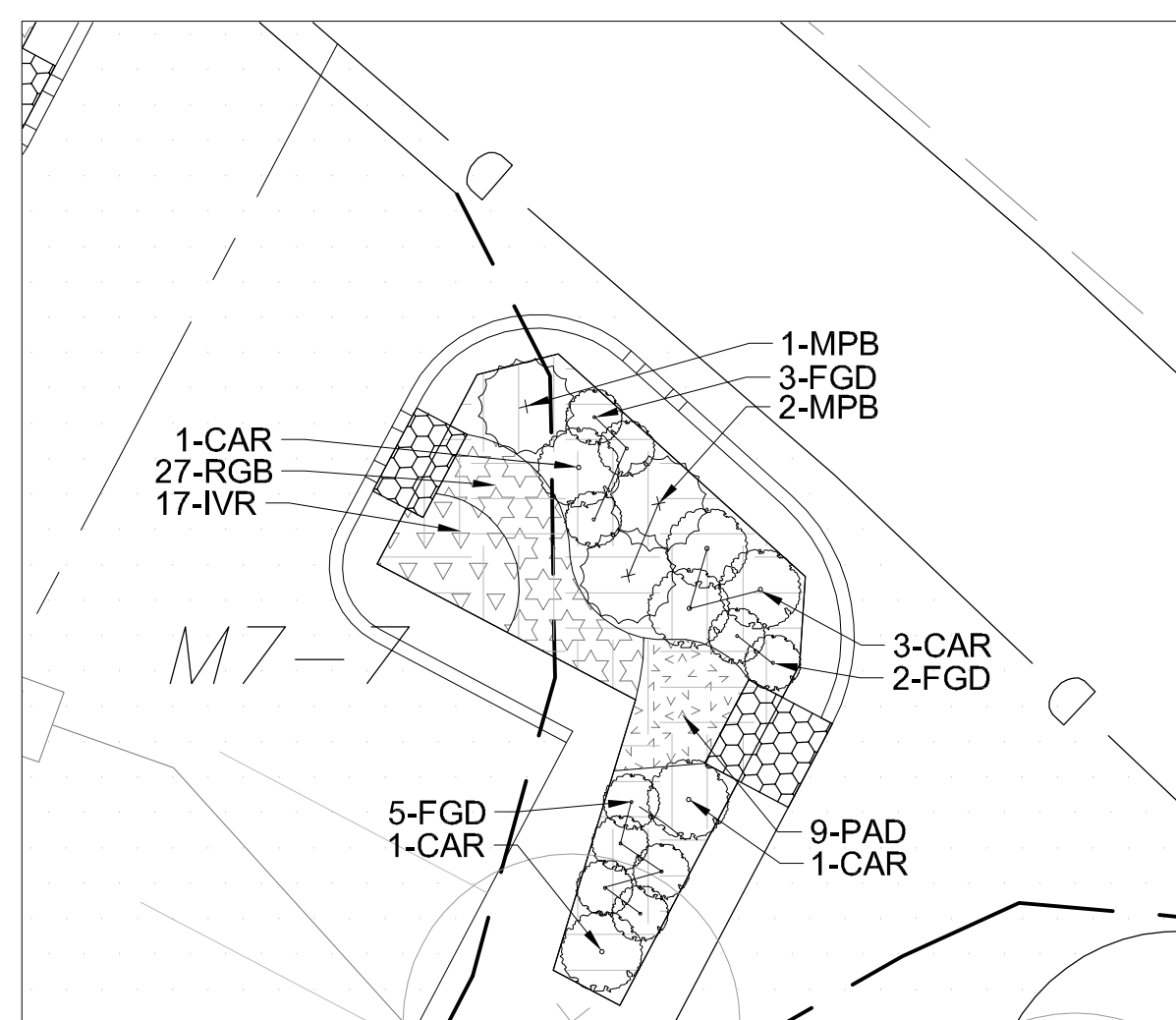
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CHECKED BY: AS
SHEET NO. 35 OF 37
PROJECT NO. P535900
PROPOSAL NO. P535007



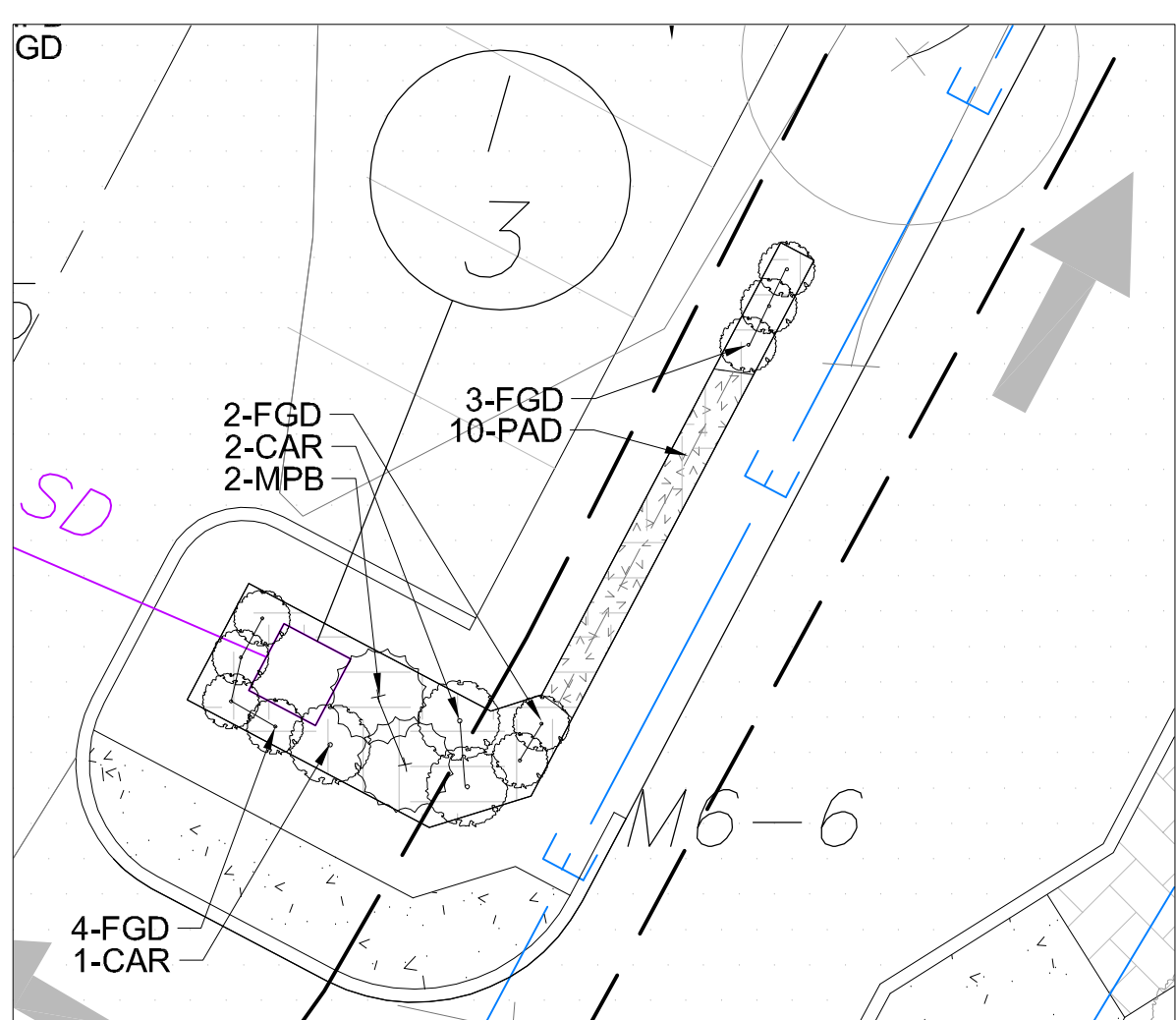
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SCALE: 1:10



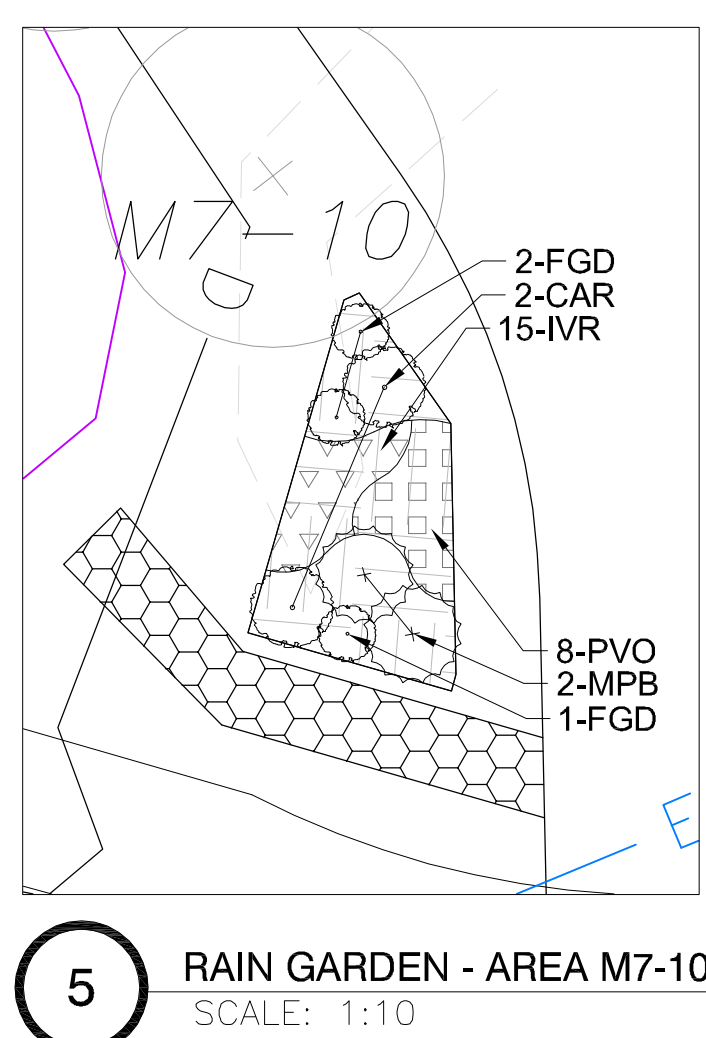
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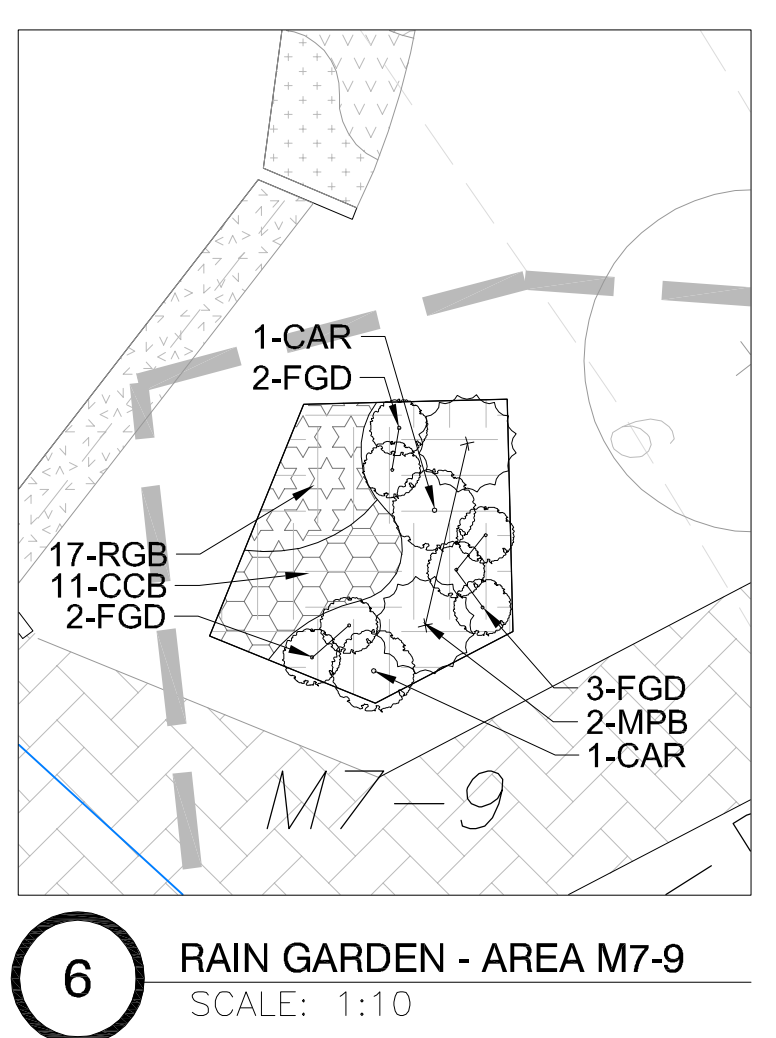
3 RAIN GARDEN - AREA M7-7
SCALE: 1:10



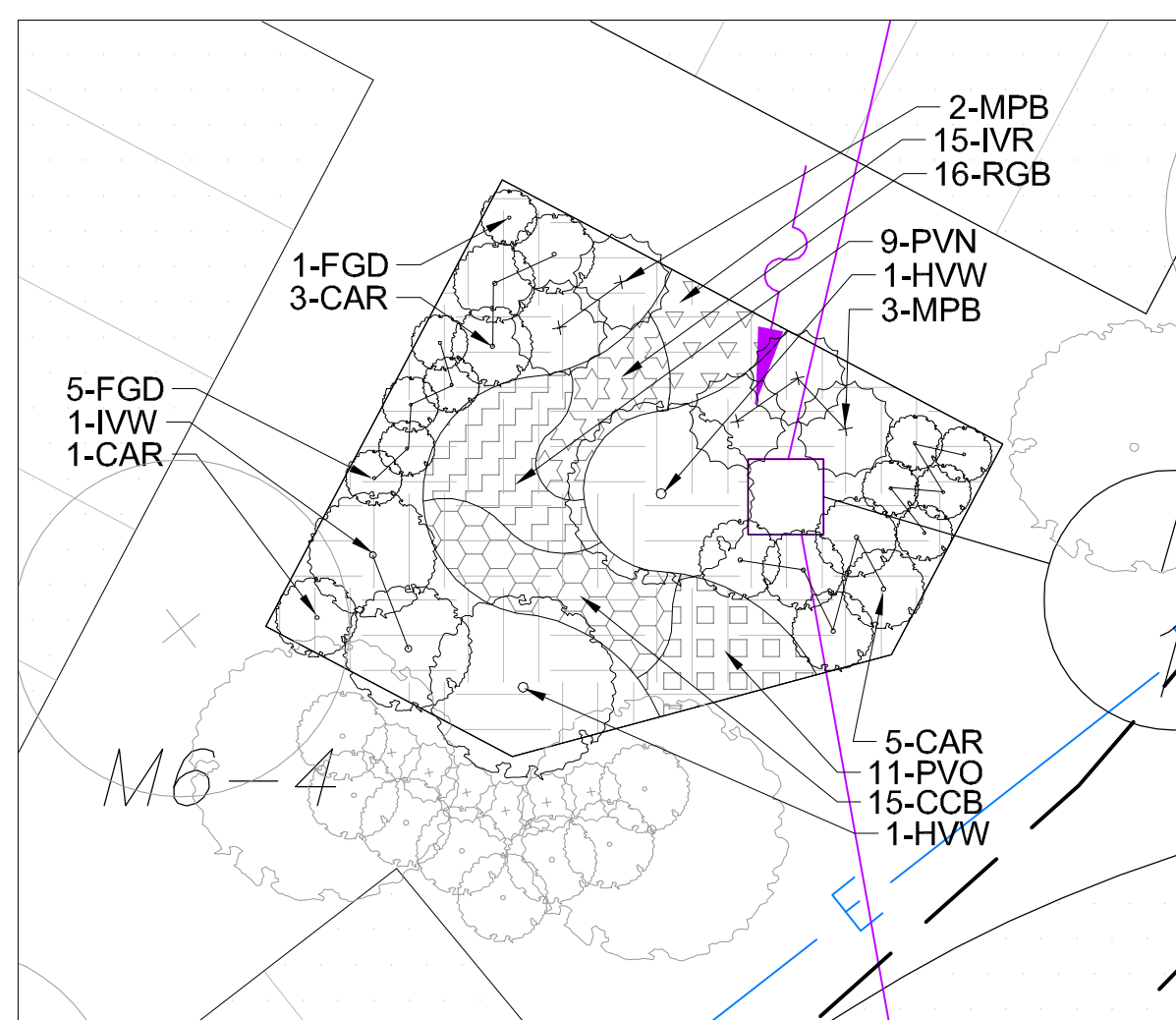
4 MICRO-BIORETENTION - AREA M6-6
SCALE: 1:10



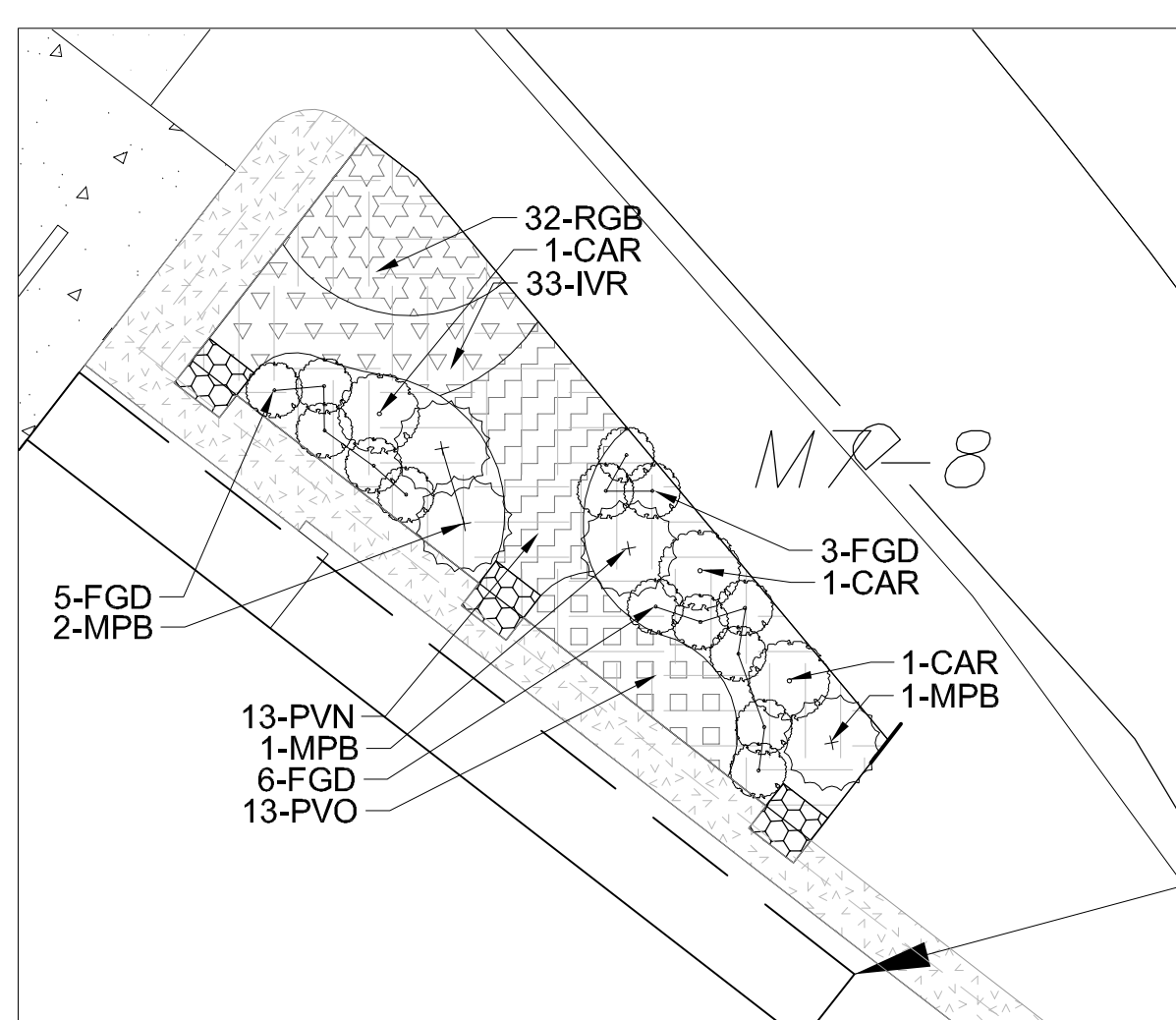
5 RAIN GARDEN - AREA M7-10
SCALE: 1:10



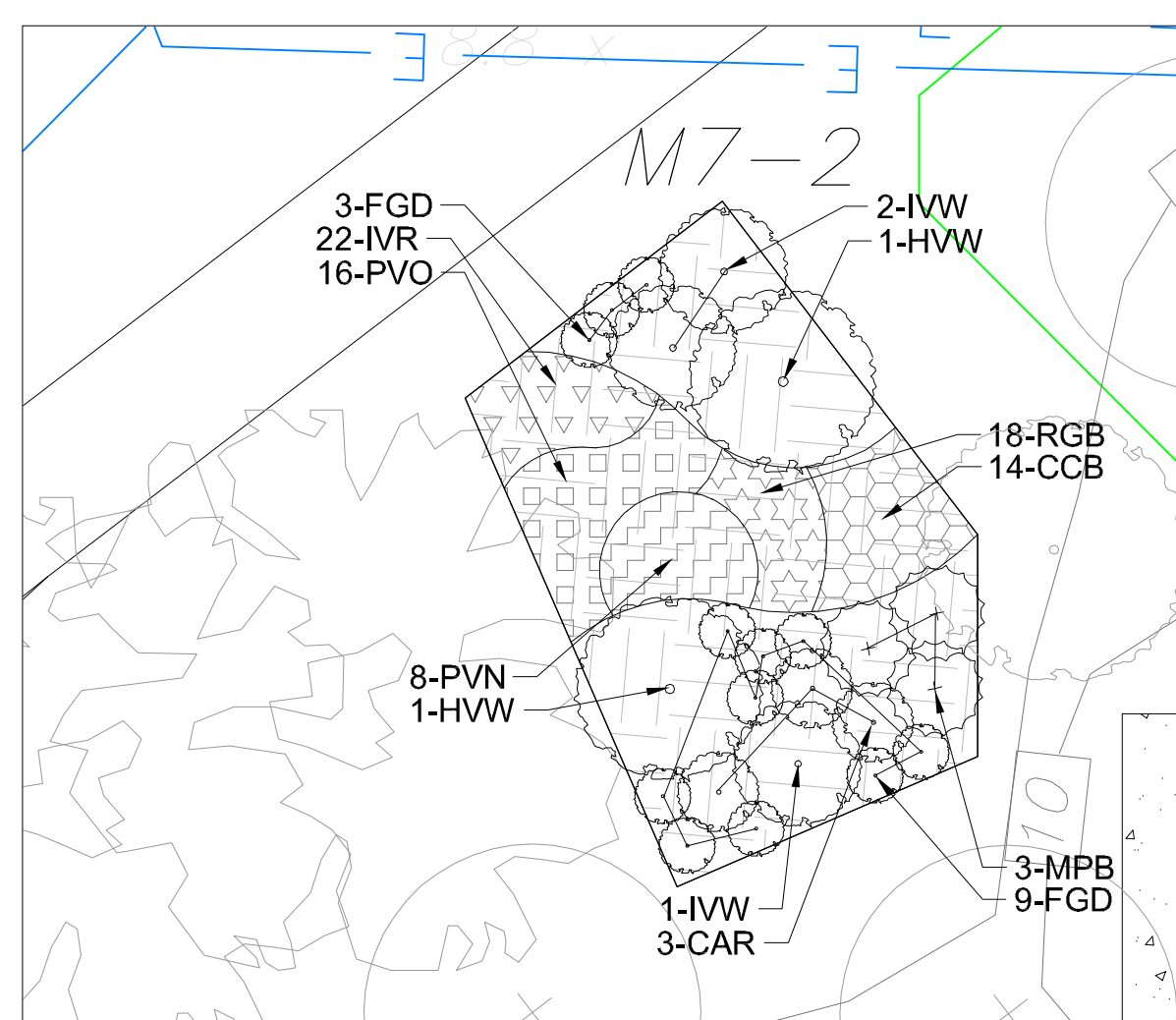
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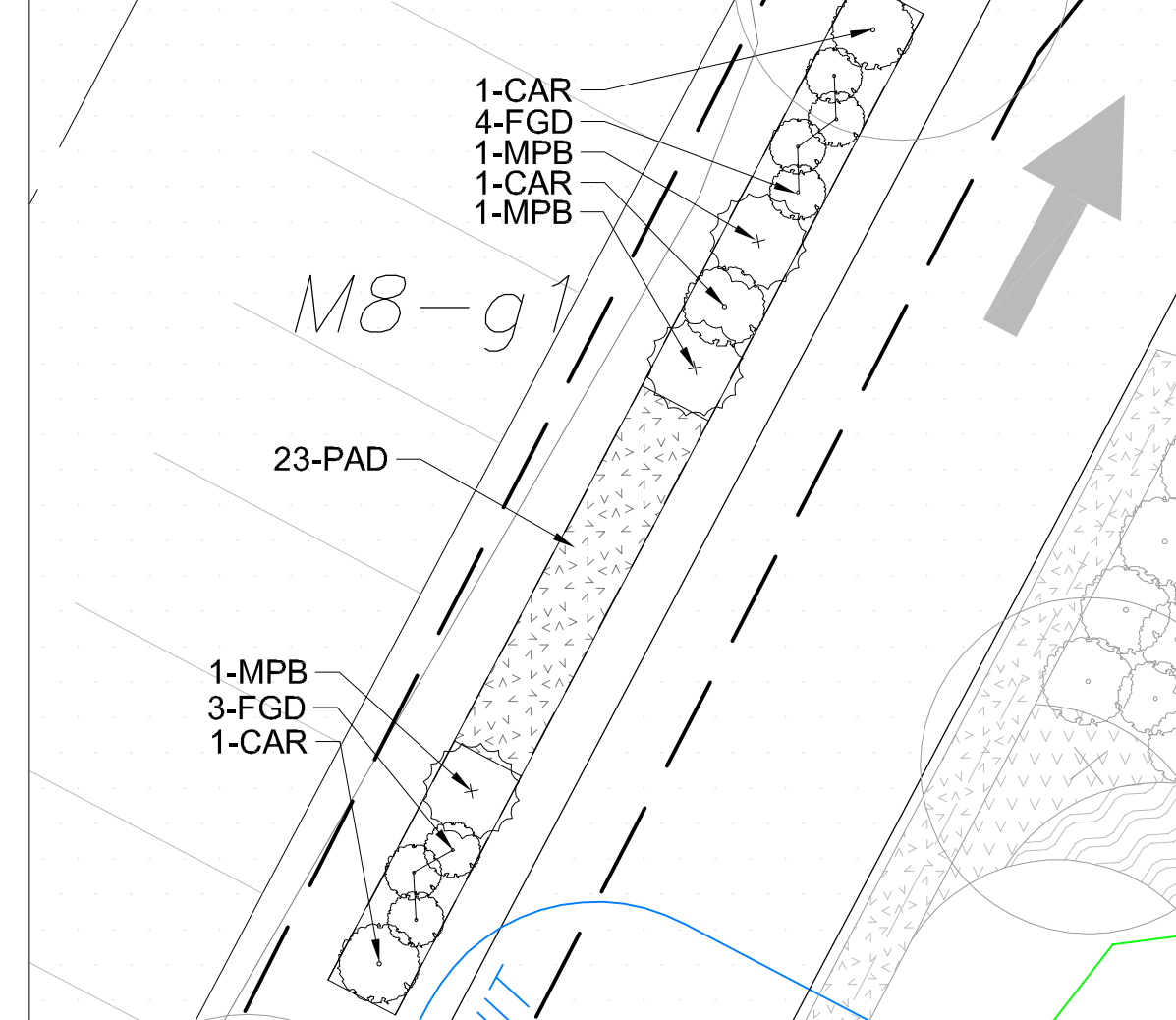
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SCALE: 1:10



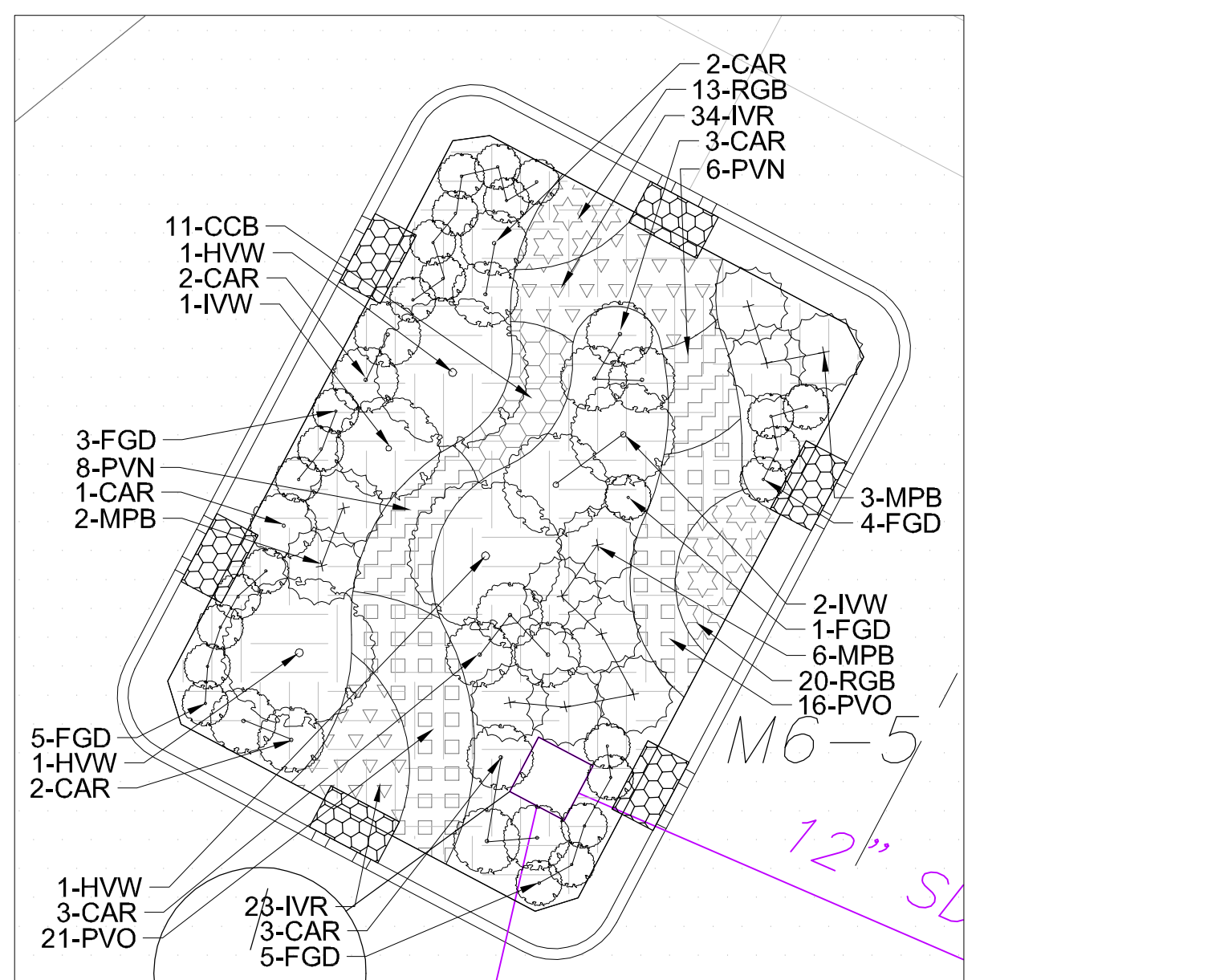
8 RAIN GARDEN - AREA M7-8
SCALE: 1:10



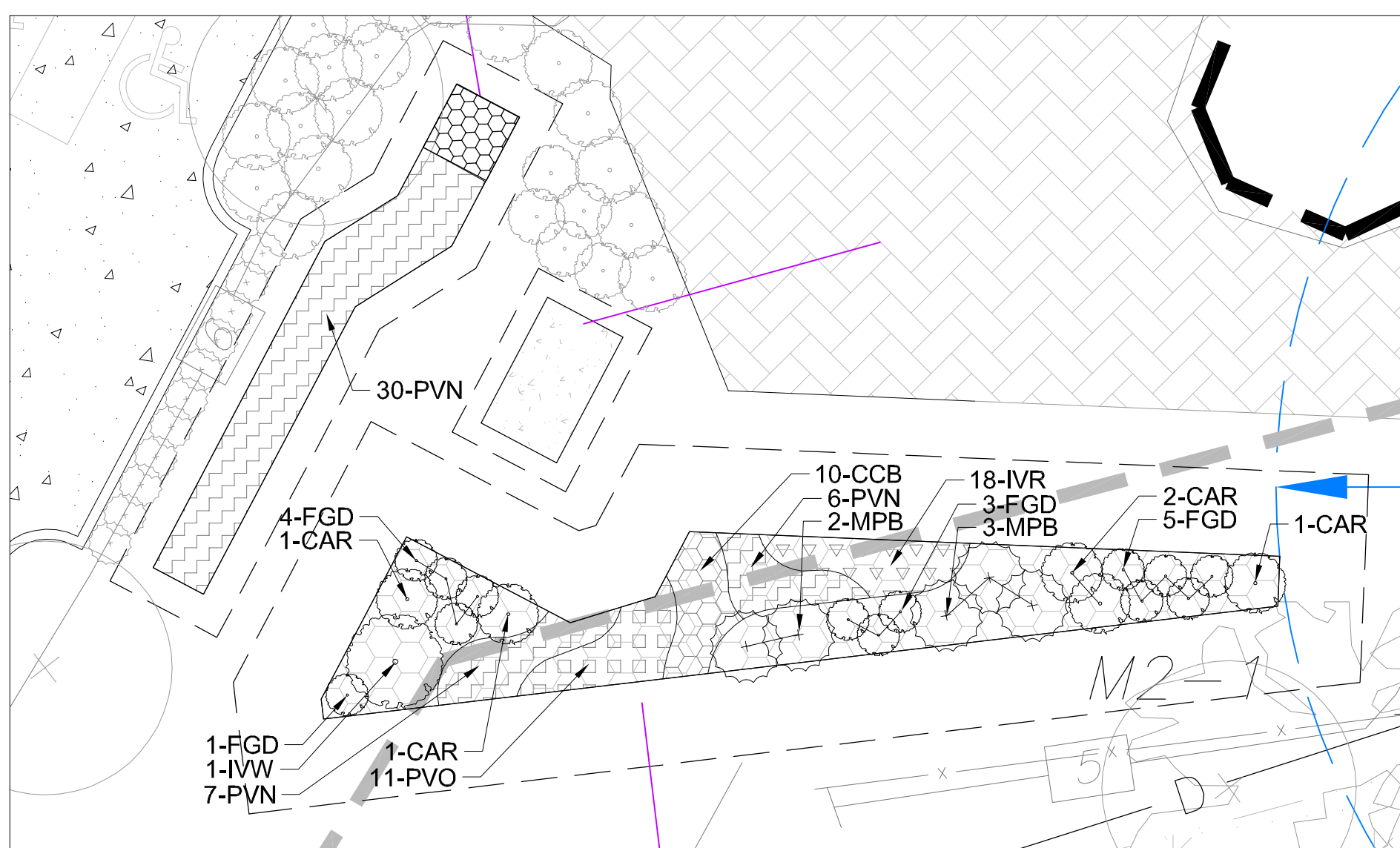
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SCALE: 1:10



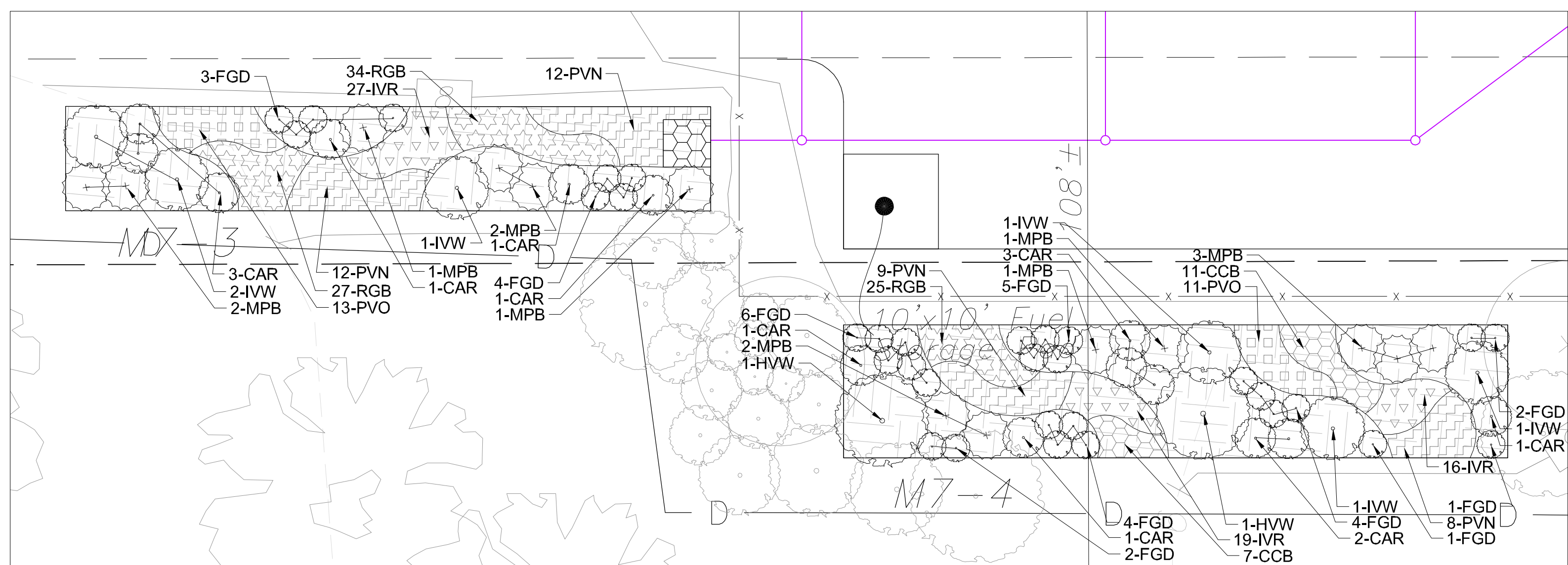
10 BIO-SWALE - AREA M8-g1
SCALE: 1:10



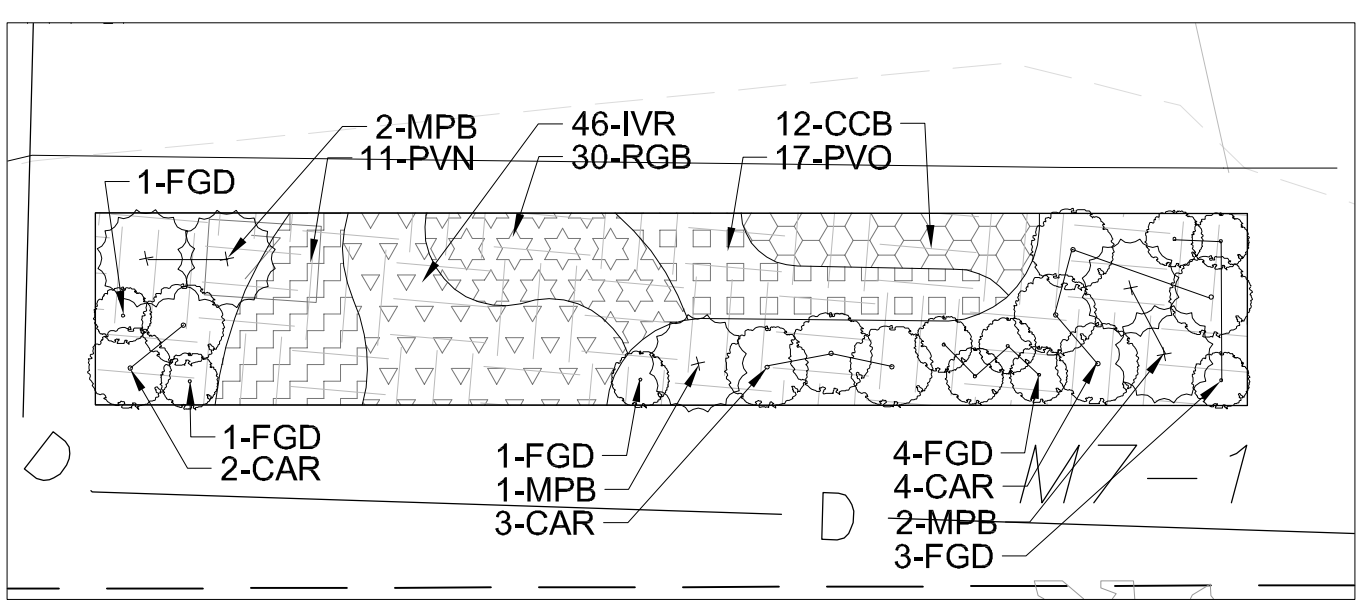
11 MICRO-BIORETENTION - AREA M6-5
SCALE: 1:10



12 SUBMERGED GRAVEL WETLAND - AREA M2-1
SCALE: 1:10



13 RAIN GARDEN - AREA M7-3 & M7-4
SCALE: 1:10



14 RAIN GARDEN - AREA M7-1
SCALE: 1:10

STORMWATER MANAGEMENT PLANTING PLAN
SCALE: 1" = 10'

NOTE: PROPOSED PLANTINGS BEING SHOWN IN GREY ARE USED TO MEET LANDSCAPE PLAN REQUIREMENTS.

STORMWATER MANAGEMENT PLANTING PLAN SHEET 3 OF 4
BNDPA PROJ NO. 16-811

Graphic Scale: 1" = 10'

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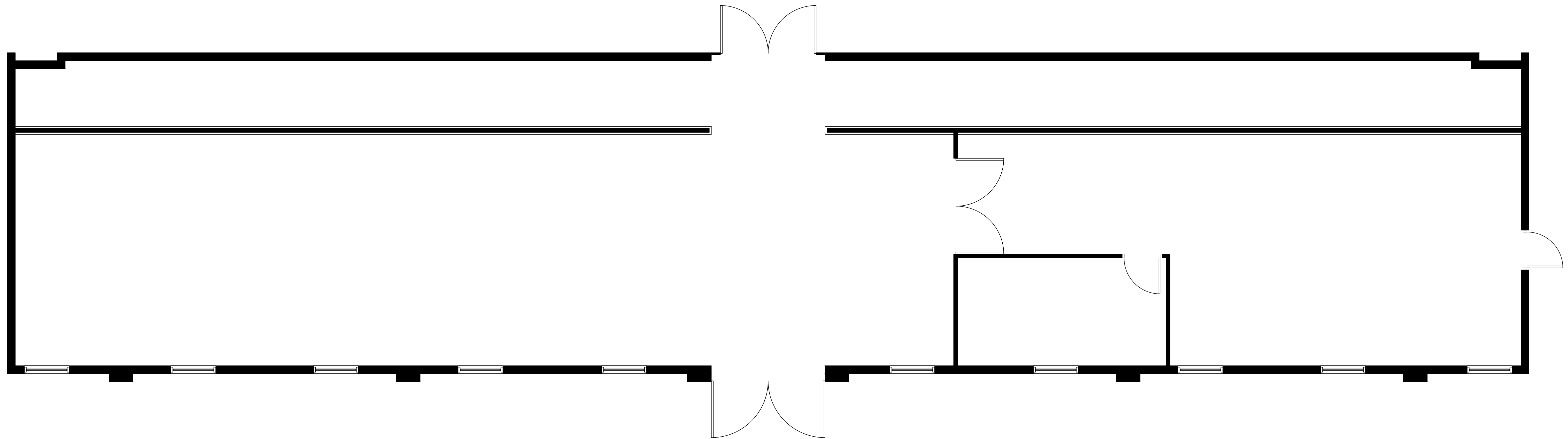
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Maryland Professional Engineering Firm License No. 47570
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APPROVED			
DATE	DATE	DATE	DATE

ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS
DATE: 04-28-21
SCALE: 1" = 10'
DRAWN BY: RB, QC
CHECKED BY: AS
SHEET NO. 36 OF 37
PROJECT NO. P535900
PROPOSAL NO. P535007
FORT SMALLWOOD PARK PHASE II
9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122
STORMWATER MANAGEMENT PLANTING PLAN
SWMP.103



ASBESTOS CONTAINING MATERIALS

1. TRANSITE WALL PANNELS
2. TRANSITE LOUVERS
3. TRANSITE ROOF PANELS

LEAD BASE PAINT

1. WHITE INTERIOR CMU WALLS
2. WHITE EXTERIOR TRANSITE LOUVERS
3. WHITE EXTERIOR WINDOW SYSTEMS
4. WHITE FASCIA BOARD

MERCURY VAPOR LAMPS

1. MVL'S
2. NON-PCB BALLASTS

MAINTENANCE BUILDING HAZMAT FLOOR PLAN

SCALE: 1/4"=1'-0"

NOTES: FT SMALLWOOD PARK MAINTENANCE BUILDING.

1. CONTRACTOR RESPONSIBLE FOR THE TOTAL REMOVAL AND DISPOSAL OF THE IDENTIFIED ASBESTOS CONTAINING MATERIALS IDENTIFIED ON THE HAZARDOUS MATERIAL DRAWINGS, AND REFERENCED WITHIN SPECIFICATION SECTION 02 82 00. CONTRACTOR IS RESPONSIBLE FOR THE VERIFICATION OF ALL QUANTITIES AND CONDITIONS PRIOR TO THE SUBMITTAL OF THEIR BID. TOTAL ASBESTOS REMOVAL IS REQUIRED TO ALLOW FOR THE DEMOLITION OF THE FT SMALLWOOD PARK MAINTENANCE BUILDING. ALL ASBESTOS WORK MUST BE CONDUCTED AT A MINIMUM IN ACCORDANCE WITH THE EPA 40 CFR PART 61 (NESHAP), OSHA 29 CFR 1926.1101 (ASBESTOS IN CONSTRUCTION), COMAR 26.11.21 (CONTROL OF ASBESTOS), AND SPECIFICATION SECTION 02 82 00.
2. LEAD WAS IDENTIFIED ON INTERIOR CMU WALLS, EXTERIOR TRANSITE LOUVERS/WINDOW SYSTEMS AND FASCIA BOARD. CONTRACTOR SHALL REMOVE, HANDLE AND DISPOSE OF PAINTED SURFACES AS REQUIRED BY DEMOLITION, IN ACCORDANCE WITH OSHA 29 CFR 1926.62 WITH MARYLAND AMENDMENTS (LEAD IN CONSTRUCTION) AND EPA 40 CFR PART 261 (WASTE CHARACTERIZATION AND DISPOSAL) AND SPECIFICATION SECTION 02 83 13. LEAD PAINT ABATEMENT IS NOT REQUIRED FOR DEMOLITION OF THE FT SMALLWOOD PARK MAINTENANCE BUILDING.
3. MERCURY VAPOR LAMPS (MVL) AND LIGHT BALLASTS (NON-PCB) ARE PRESENT AT THE FT SMALLWOOD PARK MAINTENANCE BUILDING IN THE FLUORESCENT FIXTURES. CONTRACTOR MUST DISMANTLE, PACKAGE AND DISPOSE IN ACCORDANCE WITH EPA 40 CFR 260-273, EPA 40 CFR 761 AND SPECIFICATION SECTION 02 84 14 . APPROXIMATELY, 52 MV LAMPS AND 26 BALLASTS WERE OBSERVED, CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF QUANTITIES AND CONDITIONS.

gba
gant-brunnett
ARCHITECTS
15 West Mulberry Street
Baltimore, Maryland 21201-4406
Telephone Number: 410-234-8444

AEROSOL MONITORING
& ANALYSIS, INC.
1351 AUSTON ROAD, P.O. BOX 646
HANOVER, MARYLAND 21076
WEBSITE: WWW.AMACONSULTING.COM
PHONE: 410-684-3327
FAX: 410-684-3384

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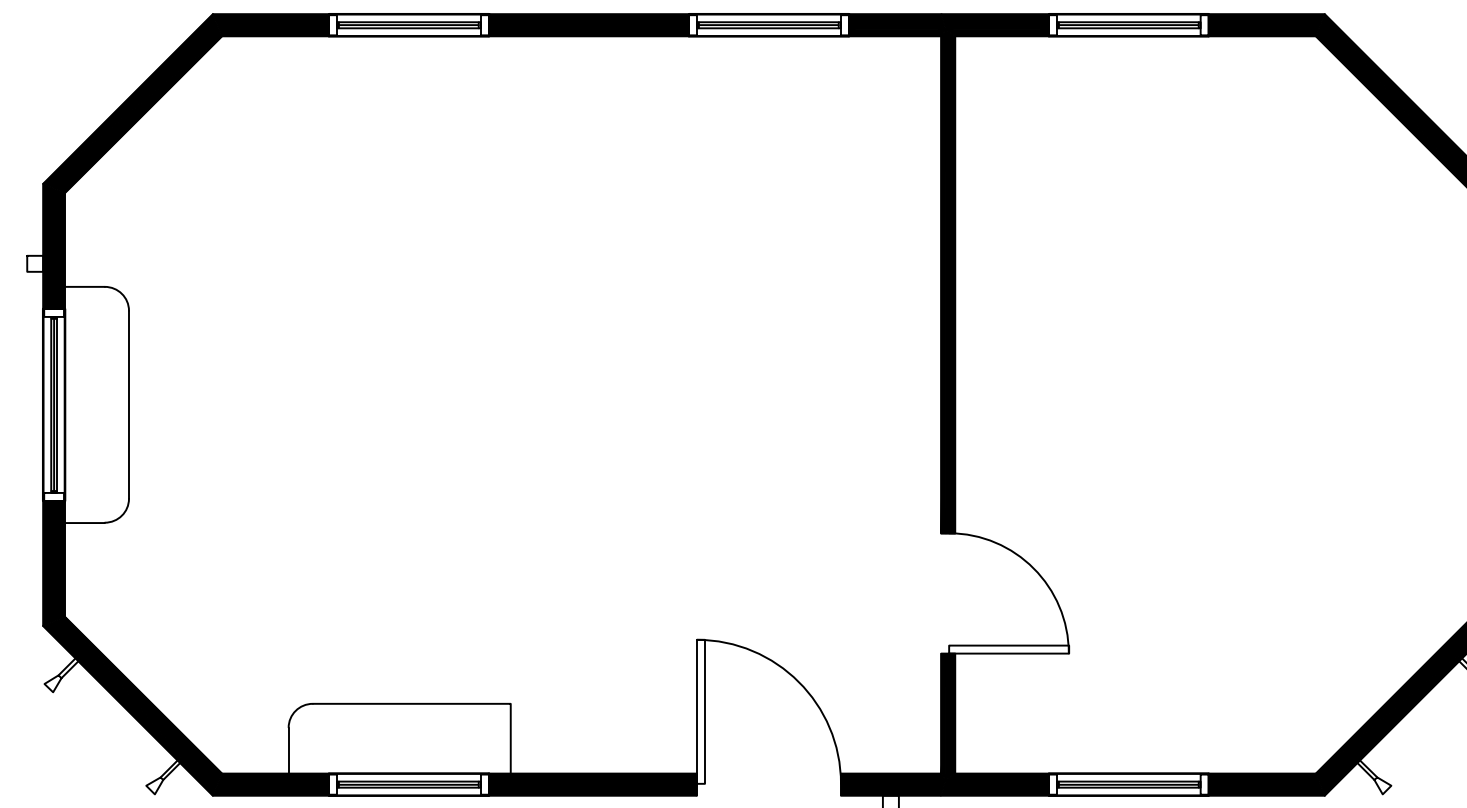
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FORT SMALLWOOD PARK
9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122

HAZMAT MAINTENANCE
BUILDING FLOOR PLAN

H101



CONCESSION STAND HAZMAT PLAN

ASBESTOS CONTAINING MATERIALS

1. NO ACM IDENTIFIED

LEAD BASE PAINT

1. WHITE/GRAY WOOD WALL PANELS
2. GRAY WOOD BASEBOARD
3. WHITE WOOD CROWN MOLDING
4. WHITE WOOD CEILING
5. WHITE WOOD CHAIR RAIL
6. BLUE WOOD BASEBOARD
7. WHITE WOOD SIDING
8. WHITE WOOD SOFFIT
9. WHITE WOOD FASCIA BOARD
10. WHITE DOOR SYSTEMS
11. WHITE METAL WINDOW SYSTEMS


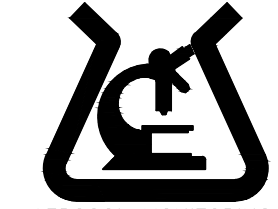
MERCURY VAPOR LAMPS

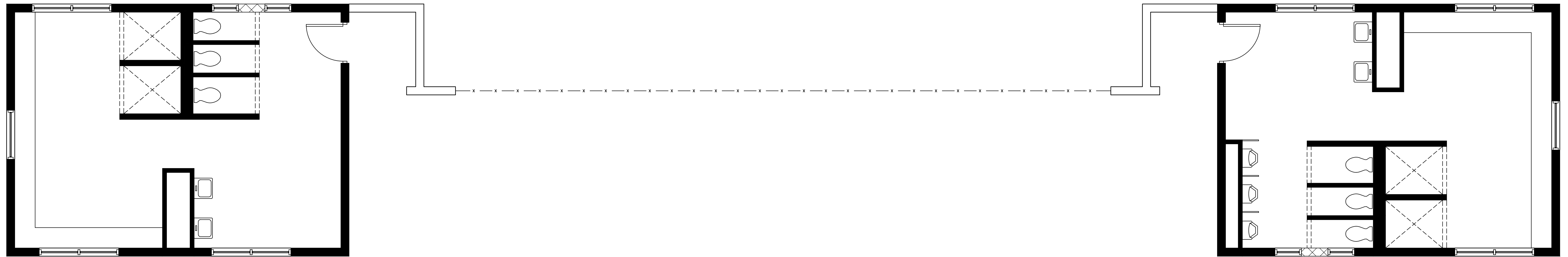
1. MVL'S
2. NON-PCB BALLASTS

NOTES:

FT SMALLWOOD PARK CONCESSION STAND.

1. LEAD WAS IDENTIFIED ON ALL PAINTED SURFACES OF THE INTERIOR AND EXTERIOR AREAS OF THE FT SMALLWOOD PARK CONCESSION STAND. AS A PART OF THE RESTORATION EFFORT TO THE CONCESSION STAND, CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL OF ALL PAINT ON THE STRUCTURE WITHOUT DAMAGE TO THE EXISTING SUBSTRATE. PLEASE REFER TO THE ARCHITECTURAL/HISTORICAL SPECIFICATIONS FOR ADDITIONAL LIMITATIONS REQUIRED TO PERFORM THE LEAD REMOVAL. THE INTENT IS TO REMOVE ALL ACCESSIBLE PAINT FROM THE EXISTING SURFACES TO ALLOW FOR RESTORATION. CONTRACTOR MUST REMOVE, HANDLE AND DISPOSE OF PAINT FROM ALL SURFACES AS REQUIRED FOR RESTORATION, IN ACCORDANCE WITH OSHA 29 CFR 1926.62 WITH MARYLAND AMENDMENTS (LEAD IN CONSTRUCTION) AND EPA 40 CFR PART 261 (WASTE CHARACTERIZATION AND DISPOSAL) AND SPECIFICATION SECTION 02 83 13. ALL LEAD PAINT ABATEMENT METHODS MUST BE APPROVED BY THE OWNERS REPRESENTATIVE PRIOR TO THE INITIATION OF THE WORK AND BE COMPLIANT WITH HISTORICAL RESTORATION REQUIREMENTS, AND BE PROTECTIVE OF VISITORS, STAFF AND THE ENVIRONMENT.
2. MERCURY VAPOR LAMPS (MVL) AND LIGHT BALLASTS (NON-PCB) ARE PRESENT AT THE FT SMALLWOOD PARK CONCESSION STAND IN THE FLUORESCENT FIXTURES. CONTRACTOR MUST DISMANTLE, PACKAGE AND DISPOSE IN ACCORDANCE WITH EPA 40 CFR 260-273, EPA 40 CFR 761 AND SPECIFICATION SECTION 02 84 14 . APPROXIMATELY, 4 MV LAMPS AND 2 BALLASTS WERE OBSERVED, CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF QUANTITIES AND CONDITIONS.

 gant-brunnett ARCHITECTS <small>15 West Mulberry Street Baltimore, Maryland 21201-4406 Telephone Number: 410-234-8444</small>	 <small>AEROSOL MONITORING & ANALYSIS, INC. 1351 ASHTON ROAD, P.O. BOX 646 HANOVER, MARYLAND 21076 WEBSITE: WWW.AMACONSULTING.COM PHONE: 410-684-3327 FAX: 410-684-3384</small>	<small>*PROFESSIONAL CERTIFICATION I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NUMBER 0000, EXPIRATION DATE 05/23/2013.*</small> <small>(C) GANT BRUNNETT ARCHITECTS ALL REPRODUCTION IS PROHIBITED</small>	ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS				DATE: 4-28-2021																															
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WOMEN'S & MEN'S RESTROOMS HAZMAT FLOOR PLAN

SCALE: 1/4"=1'-0"

ASBESTOS CONTAINING MATERIALS

- 1. TRANSITE ROOF PANELS

LEAD BASE PAINT

- 1. WHITE INTERIOR CMU WALLS

MERCURY VAPOR LAMPS

- 1. MVL'S
- 2. NON-PCB BALLASTS

NOTES: FT SMALLWOOD PARK - WOMEN'S & MEN'S RESTROOMS

1. CONTRACTOR RESPONSIBLE FOR THE TOTAL REMOVAL AND DISPOSAL OF THE IDENTIFIED ASBESTOS CONTAINING MATERIALS IDENTIFIED ON THE HAZARDOUS MATERIAL DRAWINGS, AND REFERENCED WITHIN SPECIFICATION SECTION 02 82 00. CONTRACTOR IS RESPONSIBLE FOR THE VERIFICATION OF ALL QUANTITIES AND CONDITIONS PRIOR TO THE SUBMITTAL OF THEIR BID. TOTAL ASBESTOS REMOVAL IS REQUIRED TO ALLOW FOR THE DEMOLITION OF THE FT SMALLWOOD PARK WOMEN'S RESTROOM AND MEN'S RESTROOM BUILDINGS. ALL ASBESTOS WORK MUST BE CONDUCTED AT A MINIMUM IN ACCORDANCE WITH THE EPA 40 CFR PART 61 (NESHAP), OSHA 29 CFR 1926.1101 (ASBESTOS IN CONSTRUCTION), COMAR 26.11.21 (CONTROL OF ASBESTOS), AND SPECIFICATION SECTION 02 82 00.
2. LEAD WAS IDENTIFIED ON INTERIOR CMU WALLS. CONTRACTOR SHALL REMOVE, HANDLE AND DISPOSE OF PAINTED SURFACES AS REQUIRED BY DEMOLITION, IN ACCORDANCE WITH OSHA 29 CFR 1926.62 WITH MARYLAND AMENDMENTS (LEAD IN CONSTRUCTION) AND EPA 40 CFR PART 261 (WASTE CHARACTERIZATION AND DISPOSAL) AND SPECIFICATION SECTION 02 83 13. LEAD PAINT ABATEMENT IS NOT REQUIRED FOR DEMOLITION OF THE FT SMALLWOOD PARK WOMEN'S RESTROOM AND MEN'S RESTROOM BUILDINGS.
3. MERCURY VAPOR LAMPS (MVL) AND LIGHT BALLASTS (NON-PCB) ARE PRESENT AT THE FT SMALLWOOD PARK WOMEN'S RESTROOM AND MEN'S RESTROOM BUILDINGS IN THE FLUORESCENT FIXTURES. CONTRACTOR MUST DISMANTLE, PACKAGE AND DISPOSE IN ACCORDANCE WITH EPA 40 CFR 260-273, EPA 40 CFR 761 AND SPECIFICATION SECTION 02 84 14 . APPROXIMATELY, 16 MERCURY VAPOR LAMPS AND 8 BALLASTS WERE OBSERVED, CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF QUANTITIES AND CONDITIONS.

gba
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AMAC
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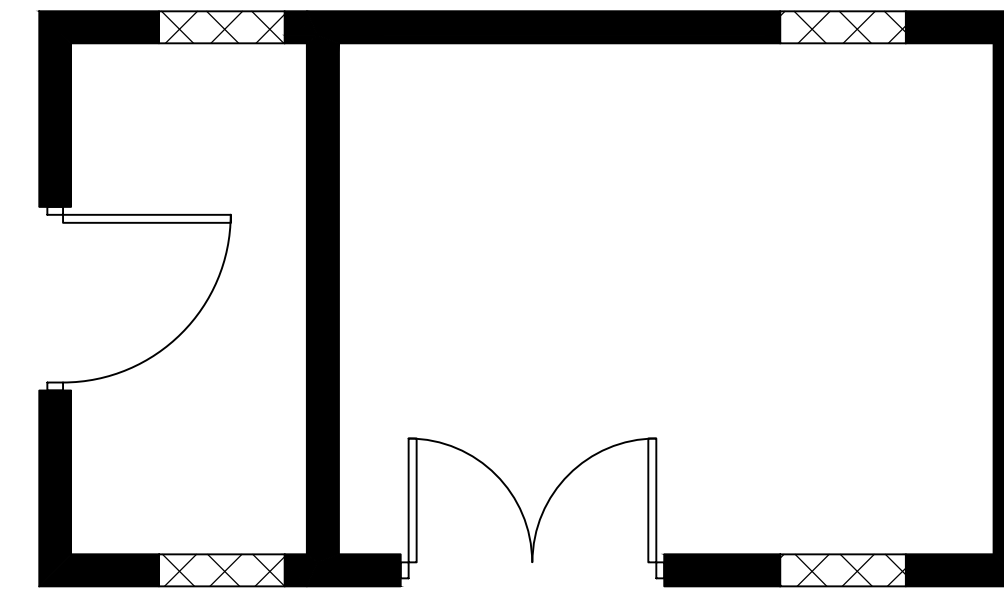
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FORT SMALLWOOD PARK
9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122
**HAZMAT WOMEN'S/MEN'S
RESTROOMS FLOOR PLAN**
H103



WATER TREATMENT BUILDING HAZMAT FLOOR PLAN

SCALE: 1/4"=1'-0"

ASBESTOS CONTAINING MATERIALS
*NO ACM IDENTIFIED IN BUILDING

- LEAD BASE PAINT**
1. PAINTED WOOD DOOR SYSTEM
 2. GREEN WOOD SOFFIT BOARD
 3. GREEN WOOD FASCIA BOARD
 4. GREEN WOOD CROWN/MOLDING
 5. GREEN METAL DOOR LINTEL

- FLUORESCENT LIGHT FIXTURES**
1. HIGH INTENSITY DISCHARGE LAMPS (HID)

NOTES: FT SMALLWOOD PARK - WATER TREATMENT BUILDING

1. LEAD WAS IDENTIFIED ON BUILDING COMPONENTS LISTED ABOVE. CONTRACTOR SHALL REMOVE, HANDLE AND DISPOSE OF PAINTED SURFACES AS REQUIRED BY DEMOLITION, IN ACCORDANCE WITH OSHA 29 CFR 1926.62 WITH MARYLAND AMENDMENTS (LEAD IN CONSTRUCTION) AND EPA 40 CFR PART 261 (WASTE CHARACTERIZATION AND DISPOSAL) AND SPECIFICATION SECTION 02 83 13. LEAD PAINT ABATEMENT IS NOT REQUIRED FOR DEMOLITION OF THE FT SMALLWOOD PARK WATER TREATMENT BUILDING.
2. HIGH INTENSITY DISCHARGE LAMPS (HID) ARE PRESENT AT THE FT SMALLWOOD PARK WATER TREATMENT BUILDING IN THE FLUORESCENT FIXTURES. CONTRACTOR MUST DISMANTLE, PACKAGE AND DISPOSE IN ACCORDANCE WITH EPA 40 CFR 260-273, EPA 40 CFR 761 AND SPECIFICATION SECTION 02 84 14. APPROXIMATELY, 3 HIGH INTENSITY DISCHARGE LAMPS WERE OBSERVED, CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF QUANTITIES AND CONDITIONS.

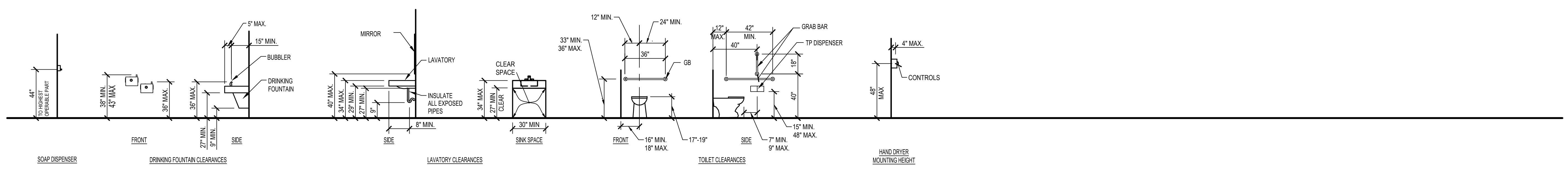
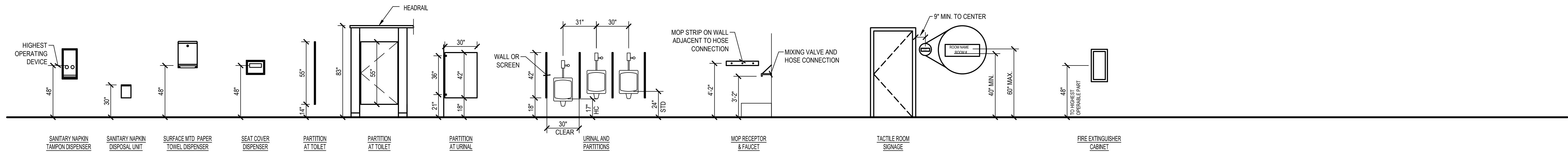
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						PROPOSAL NO. P535907	
						HAZMAT WATER TREATMENT BUILDING FLOOR PLAN	
						H104	

GENERAL NOTES

- CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS. RESOLVE ALL DISCREPANCIES PRIOR TO COMMENCING WORK.
- CONTRACTOR SHALL PROVIDE OPENINGS IN FLOORS, WALLS, CEILING AND ROOF TO PROVIDE FOR THE ROUTING OF ALL NEW WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION, SIZE AND CONSTRUCTION OF ALL PENETRATIONS.
- WALLS NOT INDICATED WITH A WALL CONSTRUCTION SCHEDULE SYMBOL SHALL BE CONSTRUCTED THE SAME AS THE ADJACENT WALL.
- THE CONTRACTOR SHALL NOT RELY ON MEASUREMENTS SCALED FROM THESE DRAWINGS.
- DIMENSIONS SHOWN ARE TO THE FACE OF FINISH SURFACE UNLESS OTHERWISE NOTED.
- ALL GLAZING SHALL BE IN ACCORDANCE WITH CONSUMER PRODUCT SAFETY COMMISSION 16 CFR PART 1201 (1977) SAFETY STANDARD FOR ARCHITECTURAL GLAZING MATERIALS.
- FIRE RATED WALLS SHALL EXTEND TIGHT TO THE UNDERSIDE OF THE DECK ABOVE. SEAL ALL GAPS.
- THE CONTRACTOR SHALL SEAL THE ANNULAR SPACE AT ALL PENETRATIONS THROUGH HORIZONTAL AND CEILING/ROOF NON-FIRE RATED ASSEMBLIES WITH A NON-COMBUSTIBLE APPROVED MATERIAL.
- PENETRATIONS THROUGH ANY FIRE RATED ASSEMBLIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE UL DESIGN DESIGNATION AND THE ANNULAR SPACE AT ALL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES SHALL BE FIRESTOPPED WITH AN APPROVED MATERIAL TESTED AND LABELED BY UL.
- ALL CONSTRUCTION OF FIRE RATED ASSEMBLIES SHALL COMPLY WITH THE UNDERWRITERS LABORATORIES FIRE RESISTANCE DIRECTORY DESIGN AS DESIGNATED ON THESE DRAWINGS. THE CONTRACTOR SHALL PROVIDE MATERIALS & CONSTRUCTION STRICTLY IN ACCORDANCE WITH THE UL DESIGN DESIGNATIONS.
- PLUMBING CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH ANNE ARUNDEL COUNTY PLUMBING CODE AND SUBJECT TO FIELD INSPECTION BY THE AGENCIES HAVING JURISDICTION.
- ELECTRICAL CONSTRUCTION SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST EDITIONS AND REVISIONS OF THE NATIONAL ELECTRICAL CODE.
- MECHANICAL CONSTRUCTION SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST ADOPTED EDITION OF INTERNATIONAL MECHANICAL CODE.
- THE CONTRACTOR SHALL NOTIFY THE FOLLOWING AGENCIES (5) FIVE DAYS PRIOR TO THE START OF WORK ON-SITE:
MISS UTILITIES
ANNE ARUNDEL COUNTY INSPECTIONS AND PERMITS
- CONTRACTOR SHALL PROPERLY PREPARE ALL SURFACES INDICATED TO BE PAINTED, INCLUDING, BUT NOT LIMITED TO CLEANING AND SANDING BEFORE PRIMING AND BETWEEN COATS. UNLESS OTHERWISE NOTED WALL FINISHES SHALL BE APPLIED FROM FINISHED FLOOR TO FINISHED CEILING.
- INTERIOR FINISHES FOR WALLS AND CEILINGS SHALL MEET:
- ASTM E84 AND IBC 2018 TABLE 803.1.3
- ALL FLOOR FINISHES SHALL MEET DOC FF-1 AND NFPA
- UNLESS OTHERWISE INDICATED, TRANSITION OF FINISHES SHALL OCCUR UNDER DOOR BETWEEN ROOMS.
- SURFACES NOT INDICATED WITH A FINISH SHALL RECEIVE THE SAME FINISH AS THE ADJACENT INDICATED SPACE.
- COAT ALL EXPOSED SURFACES OF GYPSUM WALLBOARD, PLASTER, UNFINISHED WOOD AND UNFINISHED STEEL WITH PRIMER AND TWO COATS OF PAINT UNLESS OTHERWISE NOTED.
- PROVIDE TRANSITION STRIPS WHERE TWO DIFFERENT FLOOR FINISHES MEET. (TYPICAL)
- PROVIDE 2 LAYERS 5/8" FIRE CODE GYPSUM AROUND PENETRATIONS FOR FIRE EXTINGUISHER CABINETS IN RATED WALLS.
- SEE PARTITION SCHEDULE FOR EXTENT OF SOUND ATTENUATION INSULATION. CALK PERIMETER OF ALL SOUND RATED PARTITIONS.
- EXTEND GYPSUM WALLBOARD FULL LENGTH AND HEIGHT OF WALL BEHIND CABINETS. (TYPICAL)
- INSTALL THRU WALL FLASHING ABOVE OPENINGS IN EXTERIOR MASONRY WALLS WITH WEEP HOLES AT 16" O.C.
- A CHAIN LINK CONSTRUCTION FENCE AROUND THE ENTIRE L.O.D. AND SHALL BE PROVIDED UNDER THE GENERAL CONSTRUCTION CONTRACT. THE FENCE SHALL BE REMOVED AT THE END OF THE CONSTRUCTION PHASE UNDER GENERAL CONSTRUCTION CONTRACT.
- CALK PERIMETER OF ALL FLOOR AND WALL MOUNTED PLUMBING FIXTURES AND COUNTER TOPS.
- PROVIDE SOLID WOOD FIRE RETARDANT TREATED BLOCKING BEHIND WALL MOUNTED HARDWARE, CABINETS, EQUIPMENT AND HANDRAILS, MINIMUM SIZE TO BE 2x6 LUMBER.
- DO NOT CUT STUDS FOR HORIZONTAL PIPE RUNS. FEED PIPE FROM OVER HEAD BETWEEN STUDS.

ABBREVIATIONS

- | | | | |
|---------|---|--------|-----------------------------|
| ACT | ACOUSTICAL TILE | MFR | MANUFACTURER |
| ADA | AMERICANS WITH DISABILITIES ACT | MH | MANHOLE |
| AFF | ABOVE FINISH FLOOR | MIN | MINIMUM |
| ALI | ACOUSTICAL LAY-IN PANEL | MTD | MOUNTED |
| ALUM | ALUMINUM | MTL | METAL |
| ANL | ANODIZED ALUMINUM | NIC | NOT IN CONTRACT |
| BDC | BOTTOM OF CURB | OC | ON CENTER |
| BTC | BITUMINOUS CONCRETE | PCC | PORTLAND CEMENT CONCRETE |
| CG | CORNER GUARD | PLM | PLASTIC LAMINATE |
| CJ | CONTROL JOINT | PT | PRESERVATIVE TREATED |
| CL | CLEAR | PTD | PAPER TOWEL DISPENSER |
| CLT | CLOSET | S | SEWER |
| CMFB | CEMENT FIBER BOARD | SS | STAINLESS STEEL |
| CONC | CONCRETE | SD | SOAP DISPENSER |
| CONT | CONTINUOUS | SIM | SIMILAR |
| CMU | CONCRETE MASONRY UNIT | SND | SANITARY NAPKIN DISPENSER |
| DB | DIRECT BURIAL | TOC | TOP OF CURB |
| DS | DOWNSPOUT | TOF | TOP OF FOOTING |
| EDB | EDGE BAND | TPD | TOILET PAPER DISPENSER |
| ELEV | ELEVATION | TS | TRANSITION STRIP |
| EXIST | EXISTING | TSCD | TOILET SEAT COVER DISPENSER |
| FEC | FIRE EXTINGUISHER CABINET | TYP | TYPICAL |
| FBGL | FIBERGLASS | UL | UNDERWRITERS LABORATORIES |
| FRT | FIRE RESISTANT TREATED | U.O.N. | UNLESS OTHERWISE NOTED |
| FRT-MDF | FIRE RESISTANT TREATED MEDIUM DENSITY FIBER | VCT | VINYL COMPOSITION TILE |
| GWB | GYPSUM WALLBOARD | WLCVR | WALL COVERING |
| GB | GRAB BAR | W/ | WITH |
| GALV | GALVANIZED | W | WATER |
| HM | HOLLOW METAL | WD | WOOD |
| INSUL | INSULATION | WR | WATER RESISTANT |
| INC | INCLUDED | WDVN | WOOD VENEER |
| | | WWF | WELDED WIRE FABRIC |



MOUNTING HEIGHTS
SCALE: 1/4"=1'-0"

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COMFORT STATION BUILDING CODE ANALYSIS

BUILDING CODE DATA

PROPERTY ADDRESS:
9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122

BUILDING KNOWN AS: COMFORT STATION

FIRE DISTRICT: ANNE ARUNDEL COUNTY

LAND ZONING DESIGNATION: OS

GENERAL DESCRIPTIONS OF BUILDING USE: PUBLIC RESTROOMS AND CONCESSIONS

APPLICABLE BUILDING CODES

INTERNATIONAL BUILDING CODE 2018
INTERNATIONAL MECHANICAL CODE 2018
INTERNATIONAL PLUMBING CODE 2018
INTERNATIONAL ENERGY CONSERVATION CODE 2018
INTERNATIONAL FUEL GAS CODE 2018
NATIONAL ELECTRIC CODE 2017
NFPA 101 LIFE SAFETY CODE 2018
NFPA 1 FIRE PROTECTION CODE 2018
NFPA 13 AUTOMATIC SPRINKLER SYSTEMS CODE 2016
NFPA 72 FIRE ALARM CODE 2016
INTERNATIONAL CODE COUNCIL ICC A117.1-2009 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES

CLASSIFICATION OF WORK

USE GROUP: B (BUSINESS)
CONSTRUCTION TYPE VB PER IBC 2018

FIRE PROTECTION

AUTOMATIC SPRINKLER SYSTEMS: NOT REQUIRED, HOWEVER, DESIGN INCLUDES AUTOMATIC FIRE SUPPRESSION IN ACCORDANCE WITH NFPA 13.

FIRE ALARM: NOT REQUIRED

FIRE RESISTANCE RATING FOR BUILDING COMPONENTS:

PRIMARY STRUCTURAL FRAME	-0-
BEARING WALLS	-0-
EXTERIOR	-0-
INTERIOR	-0-
NONBEARING WALLS	-0-
EXTERIOR LESS THAN 10' SEPARATION	-0-
EXTERIOR GREATER THAN 10' SEPARATION	-0-
INTERIOR	-0-
FLOOR CONSTRUCTION	-0-
ROOF CONSTRUCTION	-0-

INTERIOR FINISHES

2015 IBC TABLE 803.1.1
GROUP: B (BUSINESS)
AUTOMATIC SPRINKLER SYSTEMS: (NONSPRINKLERED)

INTERIOR EXIT STAIRWAYS, INTERIOR EXIST RAMPS AND EXIT PASSAGeways:
RATING: (A)

CORRIDORS AND ENCLOSURE FOR EXIT ACCESS STAIRWAYS AND EXIT ACCESS RAMPS:
RATING: (B)

ROOMS AND ENCLOSED SPACES:
RATING: (C)

AREA LIMITATIONS

ALLOWABLE AREA PER FLOOR: 9000
ACTUAL BUILDING AREA: 3987 GSF

HEIGHT LIMITATIONS:
ALLOWABLE HEIGHT: 2 STORIES
ACTUAL BUILDING HEIGHT: 1 STORY

OCCUPANT LOAD PER FLOOR

TOTAL OCCUPANT LOAD = 90

EXIT CAPACITY

DOOR CLEAR WIDTH REQUIRED: 90 OCCUPANTS x 0.2" = 18"
TOTAL DOOR CLEAR WIDTH PROVIDED: 36" x 6 = 216"
NUMBER OF EXITS = 6

PLUMBING FIXTURE COUNT REQUIRED

BUSINESS CLASSIFICATION: 90 OCCUPANTS	MALE	FEMALE
WATER CLOSETS	5	5
LAVATORIES	5	5

DRINKING FOUNTAIN REQUIRED = 1
DRINKING FOUNTAIN PROVIDED = 2

SERVICE SINK REQUIRED = 1
SERVICE SINK PROVIDED = 1

EXISTING HISTORIC CONCESSION BUILDING

BUILDING CODE DATA

BUILDING KNOWN AS: EXISTING HISTORIC CONCESSION (STORAGE)

BUILDING USE: GENERAL STORAGE

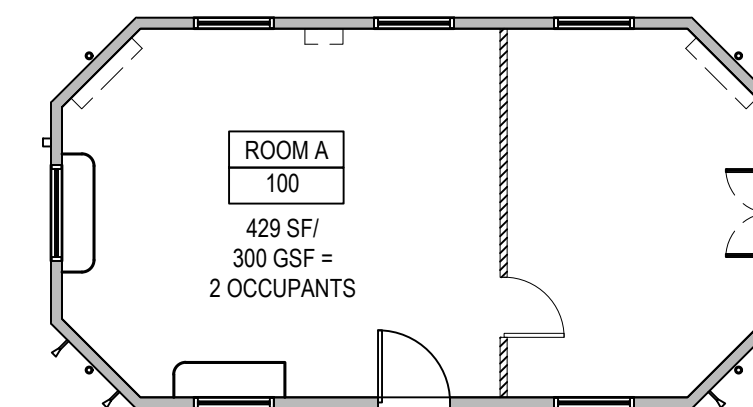
CLASSIFICATION OF WORK

USE GROUP: S-2 (ACCESSORY STORAGE)
CONSTRUCTION TYPE VB PER IBC 2018

AREA LIMITATIONS

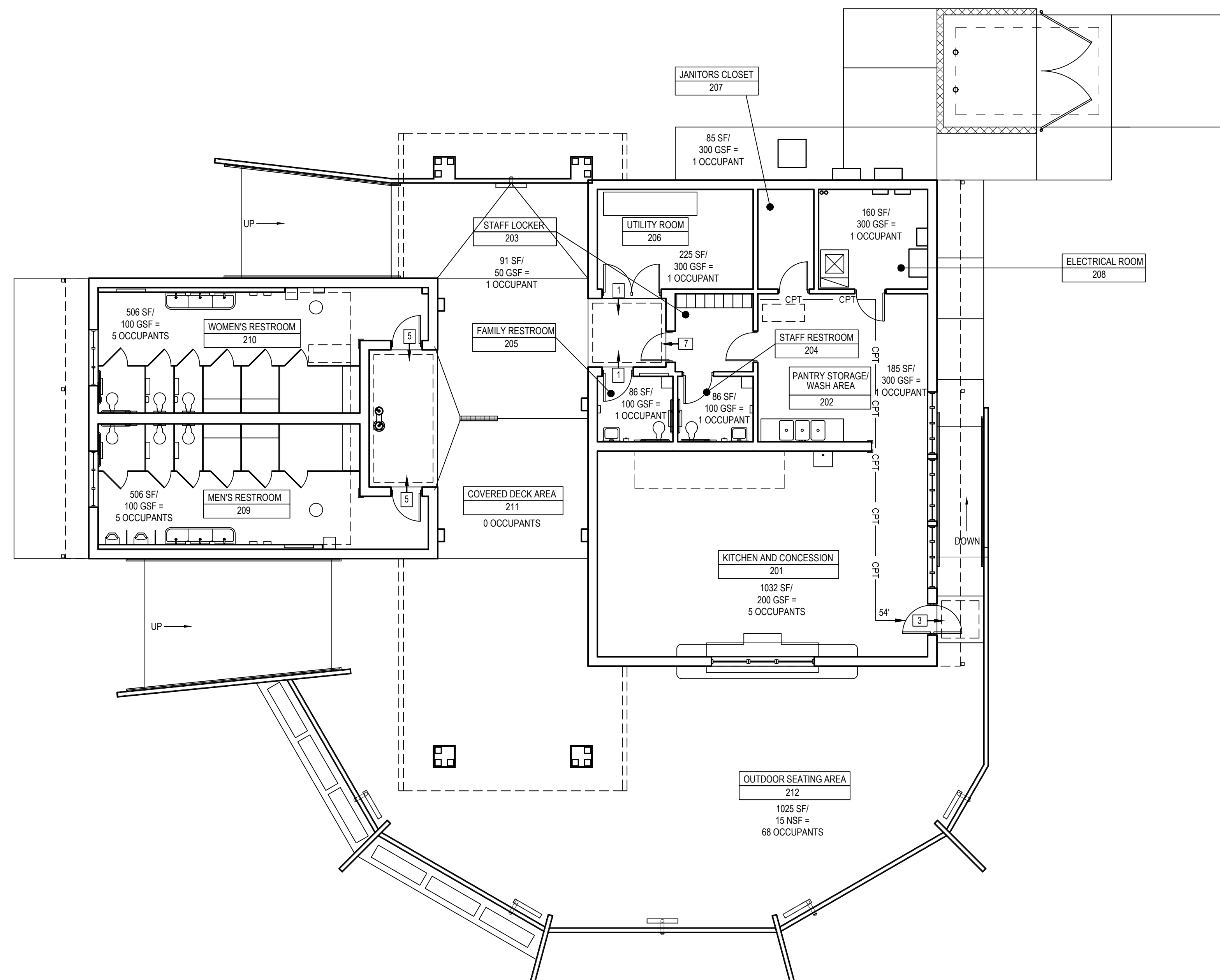
ALLOWABLE AREA PER FLOOR: 13,500 SF
ACTUAL BUILDING AREA: 429 GSF

HEIGHT LIMITATIONS:
ALLOWABLE HEIGHT: 1 STORY
ACTUAL BUILDING HEIGHT: 1 STORY



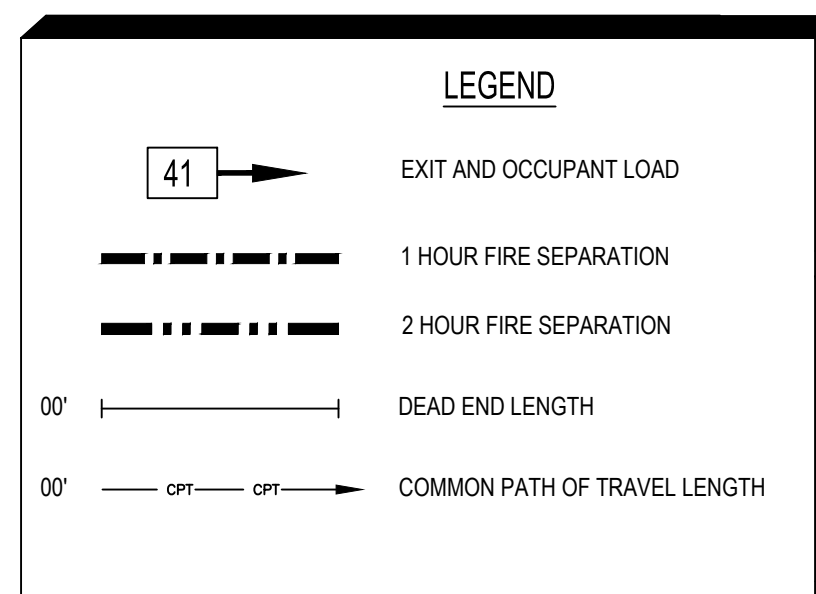
EXISTING HISTORIC CONCESSION BUILDING FLOOR PLAN

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



BUILDING CODE ANALYSIS COMFORT STATION FLOOR PLAN

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



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ARCHITECTS
15 West Mulberry Street
Baltimore, Maryland 21201-4406
Telephone Number: 410-234-8444

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05/23/2021."

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NO.	DESCRIPTION	BY	DATE
△			

APPROVED	DATE	APPROVED	DATE
CHIEF ENGINEER		PROJECT MANAGER	
APPROVED		APPROVED	
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY	

ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS
DATE: 4-28-2021

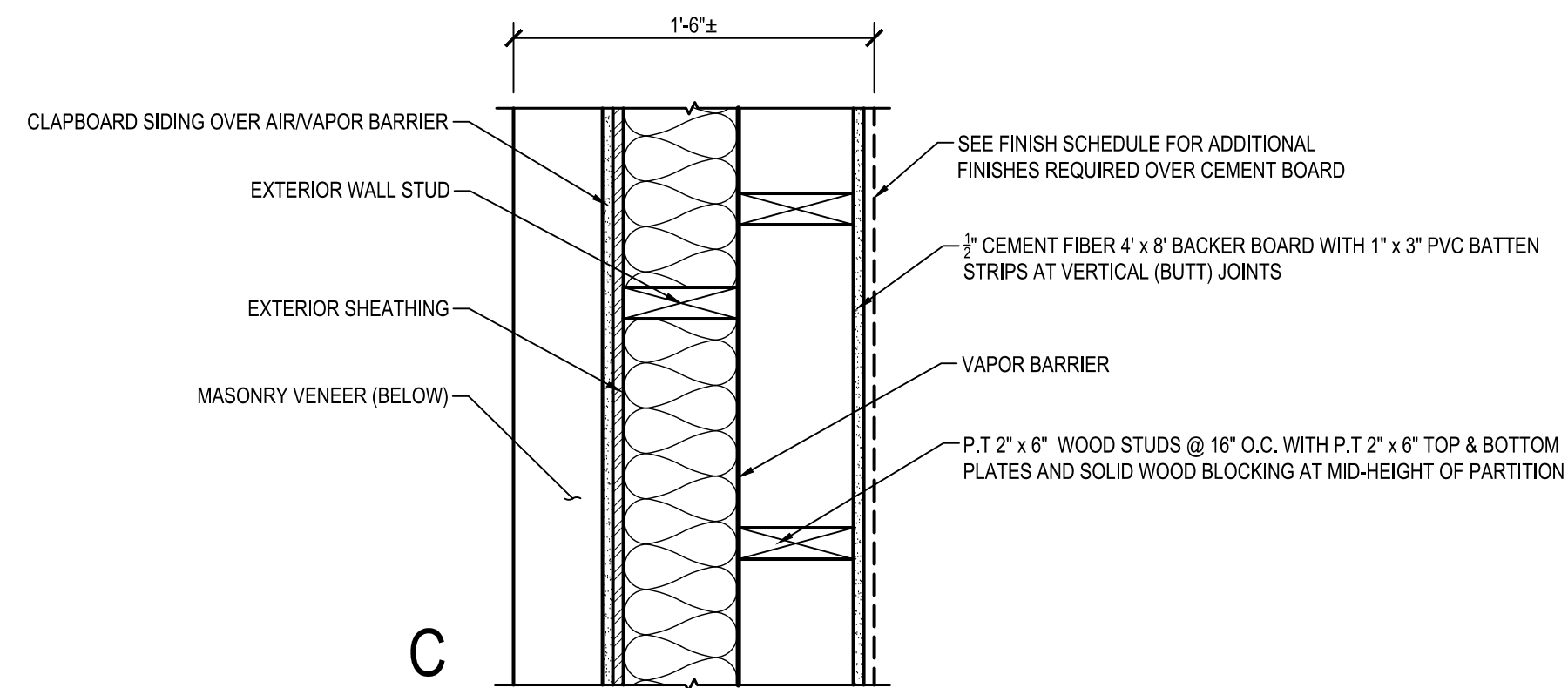
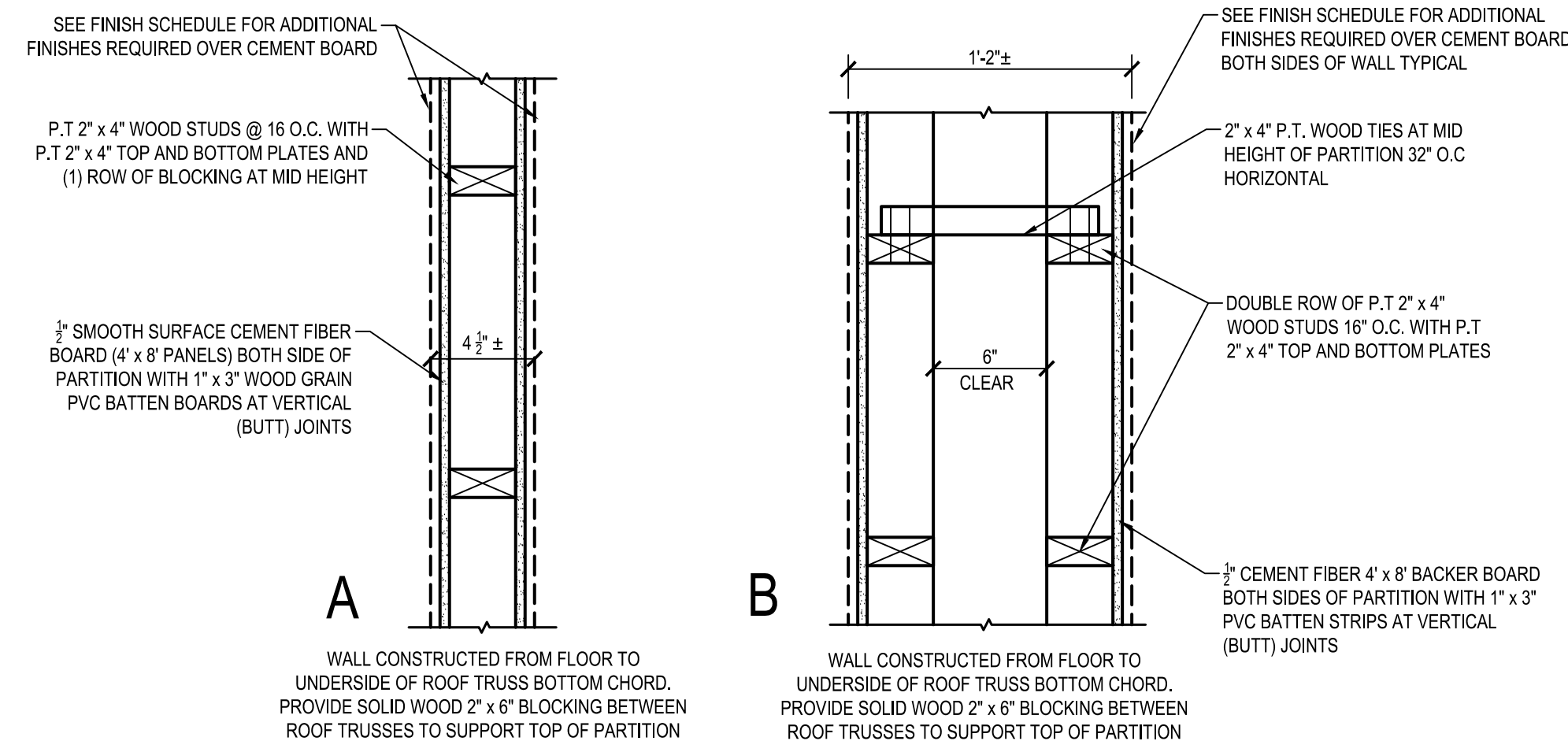
SCALE: AS NOTED
DRAWN BY: JG
CHECKED BY: JB
SHEET NO. OF
PROJECT NO. P535900
PROPOSAL NO. P535907

FORT SMALLWOOD PARK
9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122

COMFORT STATION
CODE ANALYSIS PLAN CA101C

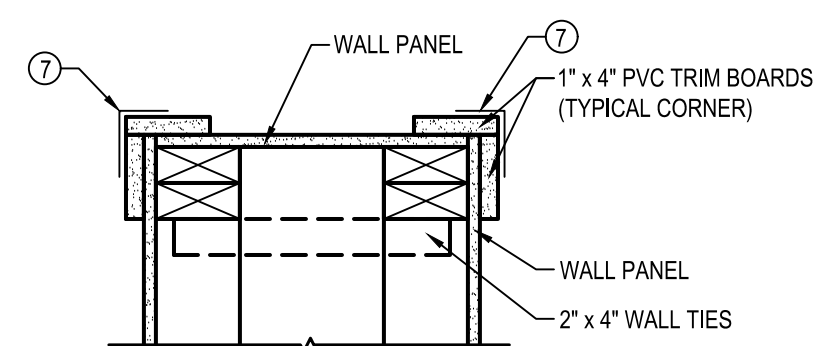
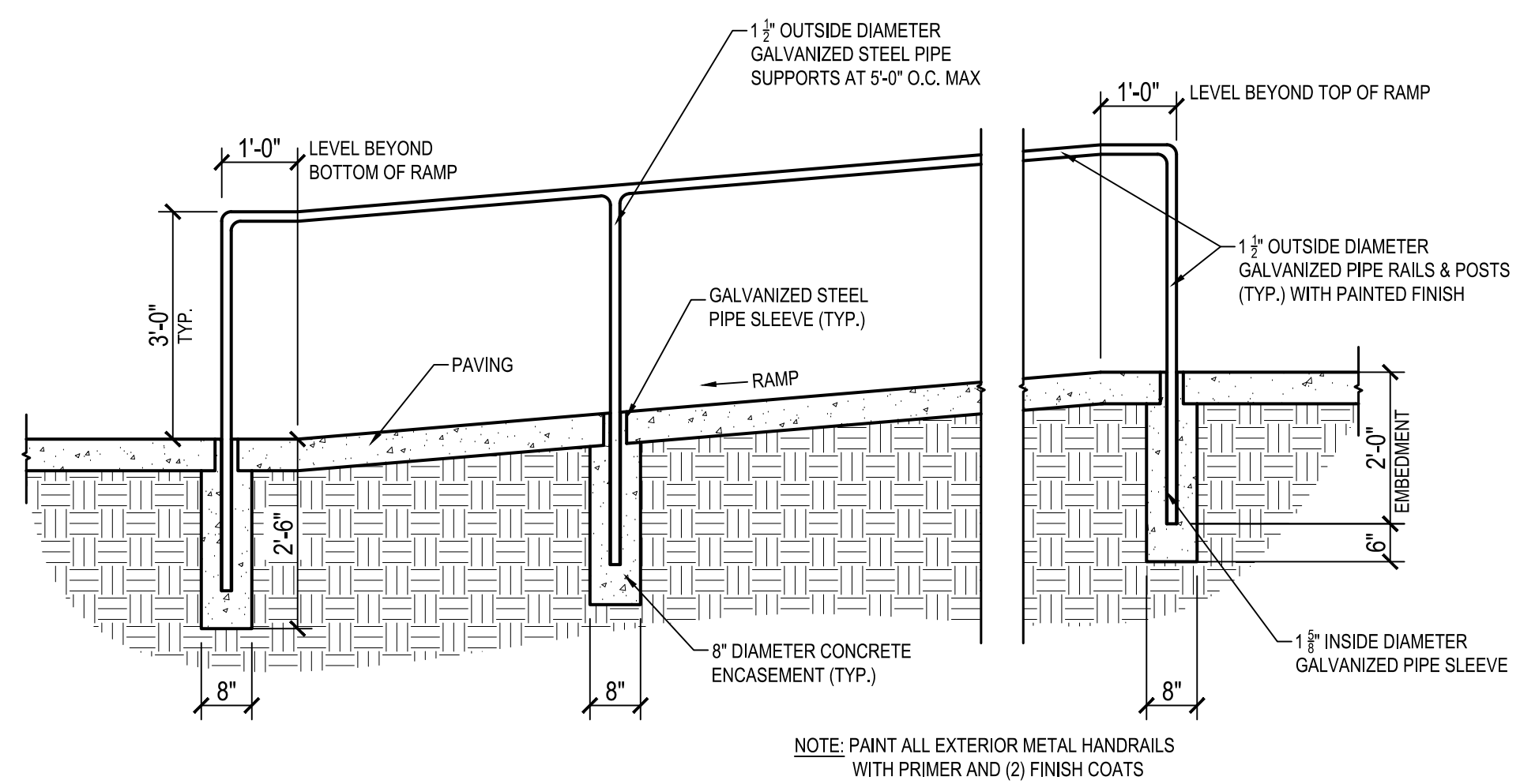
WALL TYPES

SCALE: 1-1/2"=1'-0"



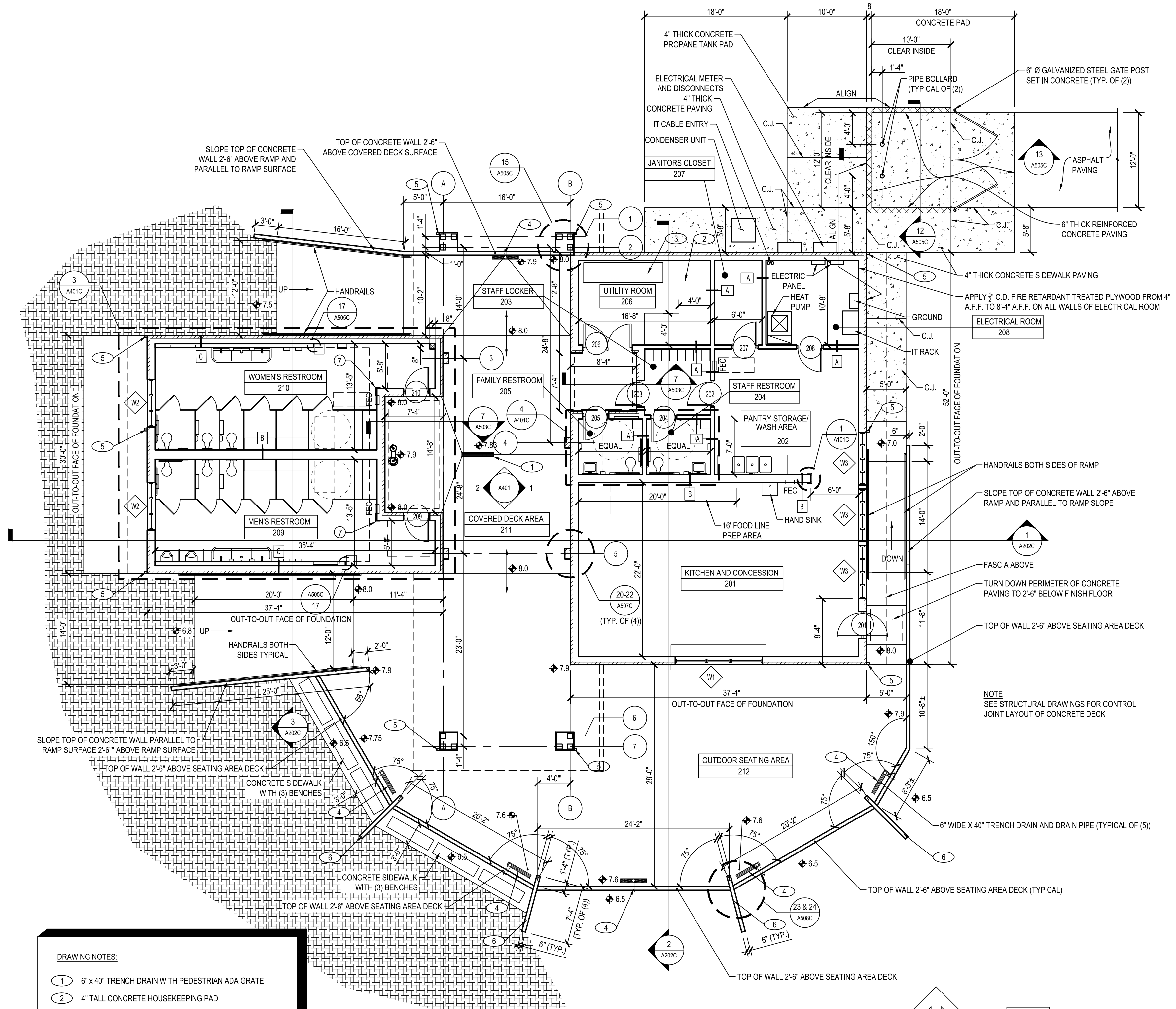
HAND RAIL ELEVATION (TYPICAL)

SCALE: 1/2"=1'-0"



PARTITION END CAP DETAIL

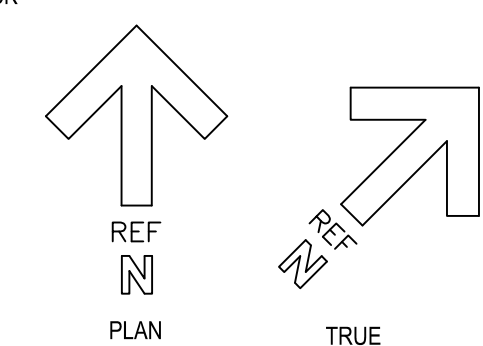
SCALE: 1/2"=1'-0"



- DRAWING NOTES:**
- 1 6" x 40" TRENCH DRAIN WITH PEDESTRIAN ADA GRATE
 - 2 4" TALL CONCRETE HOUSEKEEPING PAD
 - 3 2'-6" x 10'-0" x 4" TALL CONCRETE HOUSEKEEPING PAD
 - 4 6" x 40" TRENCH DRAIN SEE DETAIL 25 ON A508C
 - 5 DOWNSPOUT WITH BOOT SEE DETAIL 10 ON A504C
 - 6 SLOPE OF CONCRETE WALL SEE DETAIL 23 ON A508C
 - 7 STAINLESS STEEL CORNER GUARD

COMFORT STATION FLOOR PLAN

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



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ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS

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FORT SMALLWOOD PARK
9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122

COMFORT STATION FLOOR PLAN

APPROVED _____ DATE _____

CHIEF ENGINEER _____

APPROVED _____ DATE _____

ASSISTANT CHIEF ENGINEER _____

APPROVED _____ DATE _____

PROJECT MANAGER _____

APPROVED _____ DATE _____

CHIEF, RIGHT OF WAY _____

SCALE: AS NOTED

DRAWN BY: JG

CHECKED BY: JB

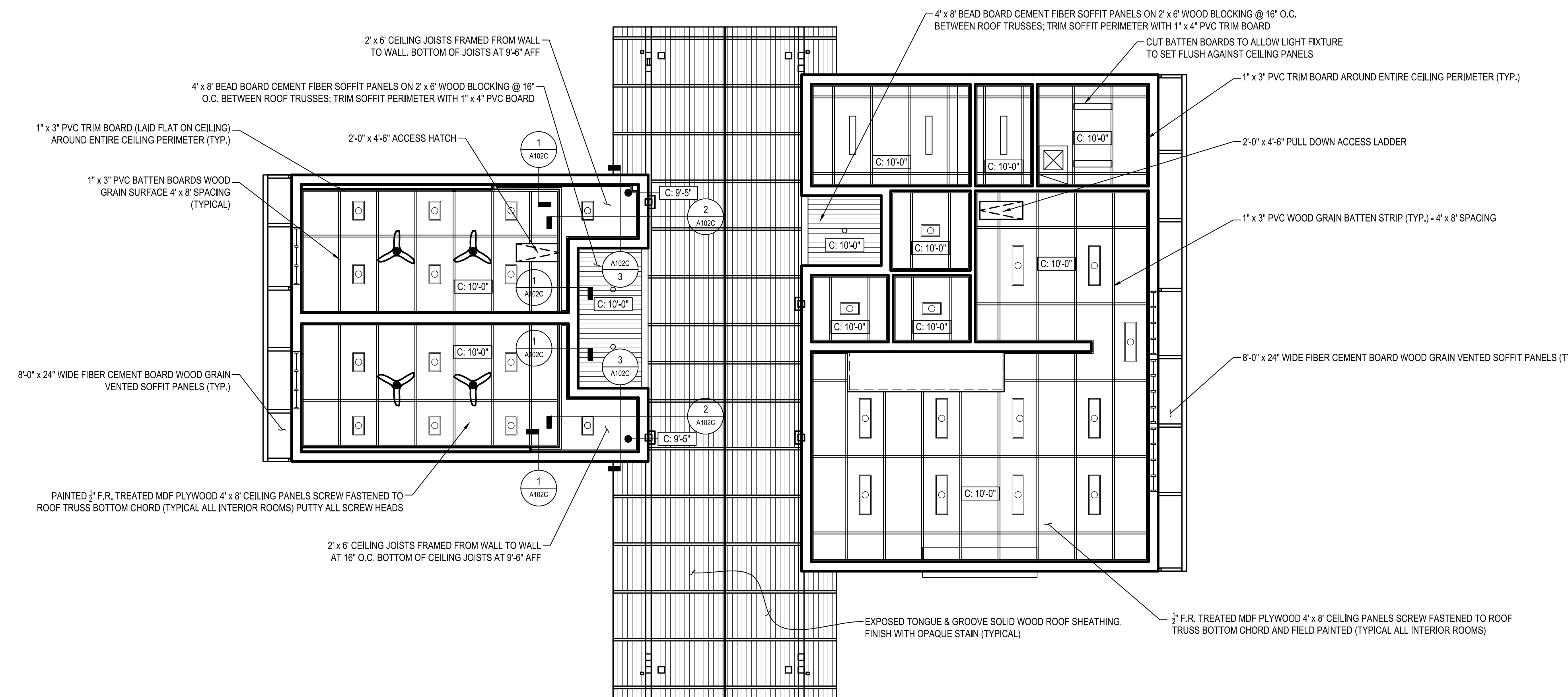
SHEET NO. OF _____

PROJECT NO. P535900

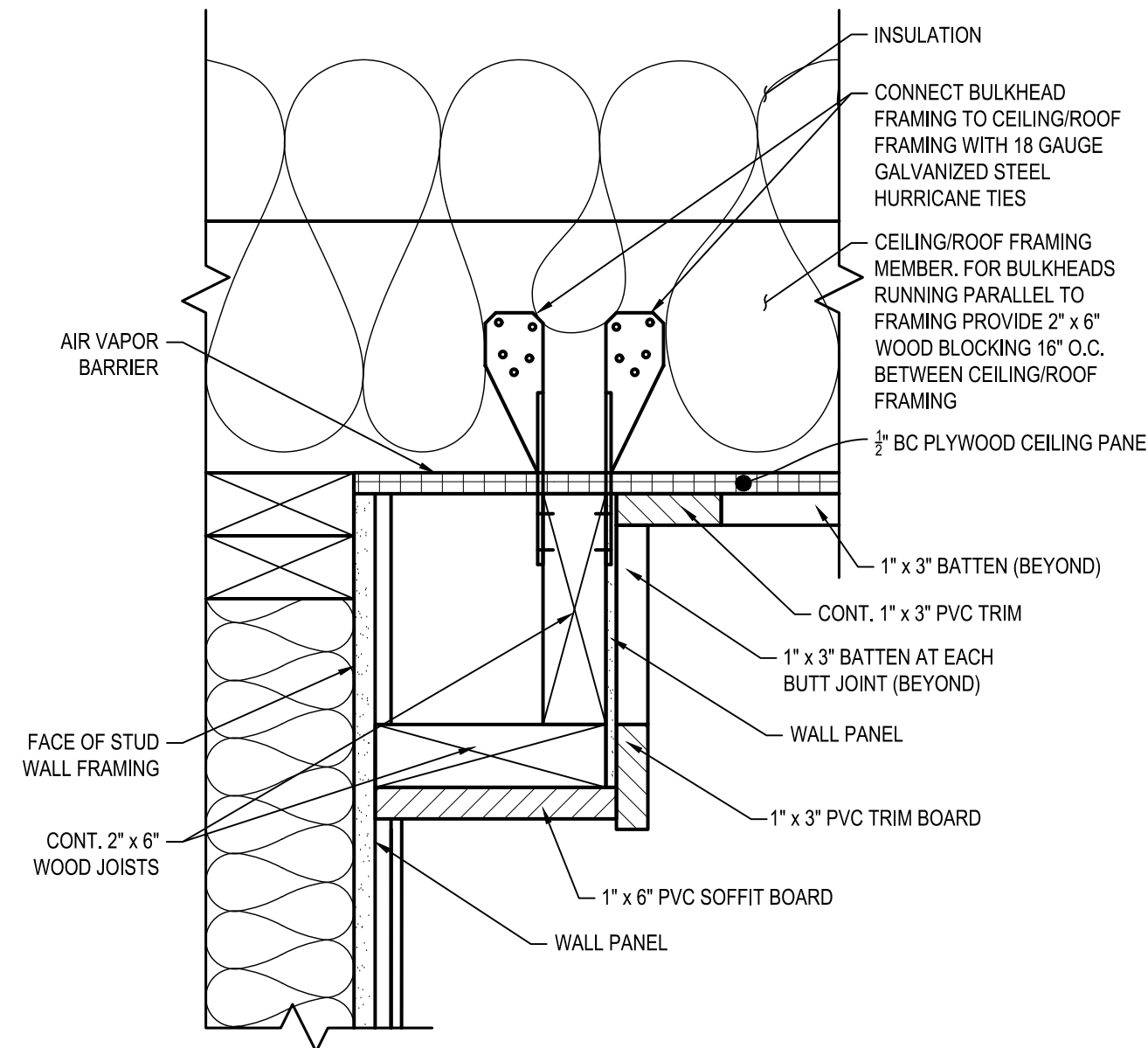
PROPOSAL NO. P535907

A101C

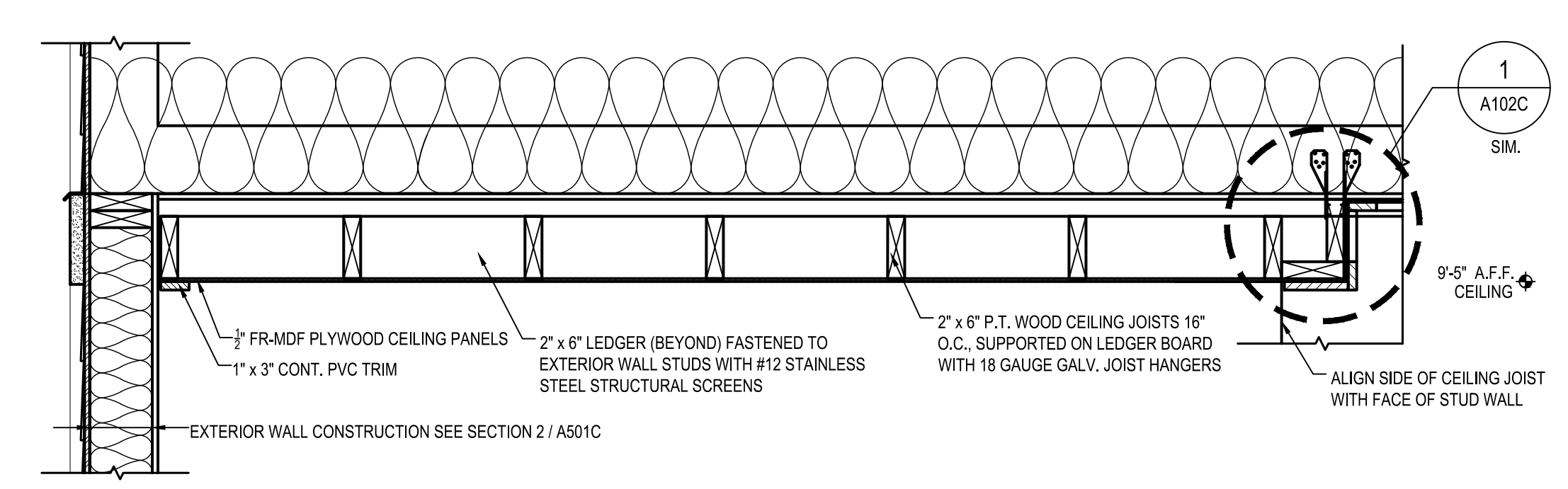
SYMBOL LEGEND	
	FACTORY PAINTED 3/8" CEMENT FIBER CEILING PANELS - SMOOTH SURFACE WITH WOOD GRAIN TEXTURE AND 2 1/2" x 3 1/2" PVC BATTEN BOARDS
	FACTORY PAINTED CEMENT FIBER BEAD BOARD SOFFIT PANELS
	15' x 24' SURFACE MOUNTED LED FIXTURE
	15' x 50' SURFACE MOUNTED LED FIXTURE
	7' x 8' SURFACE MOUNTED LED FIXTURE
	RECESSED 6" DIA. LED FIXTURE
	2' x 4'-6" PULL DOWN ATTIC ACCESS STAIR
	53" SURFACE MOUNTED CEILING FAN
	SUPPLY DIFFUSER
	RETURN DIFFUSER
	C. 9'-0" CEILING HEIGHT



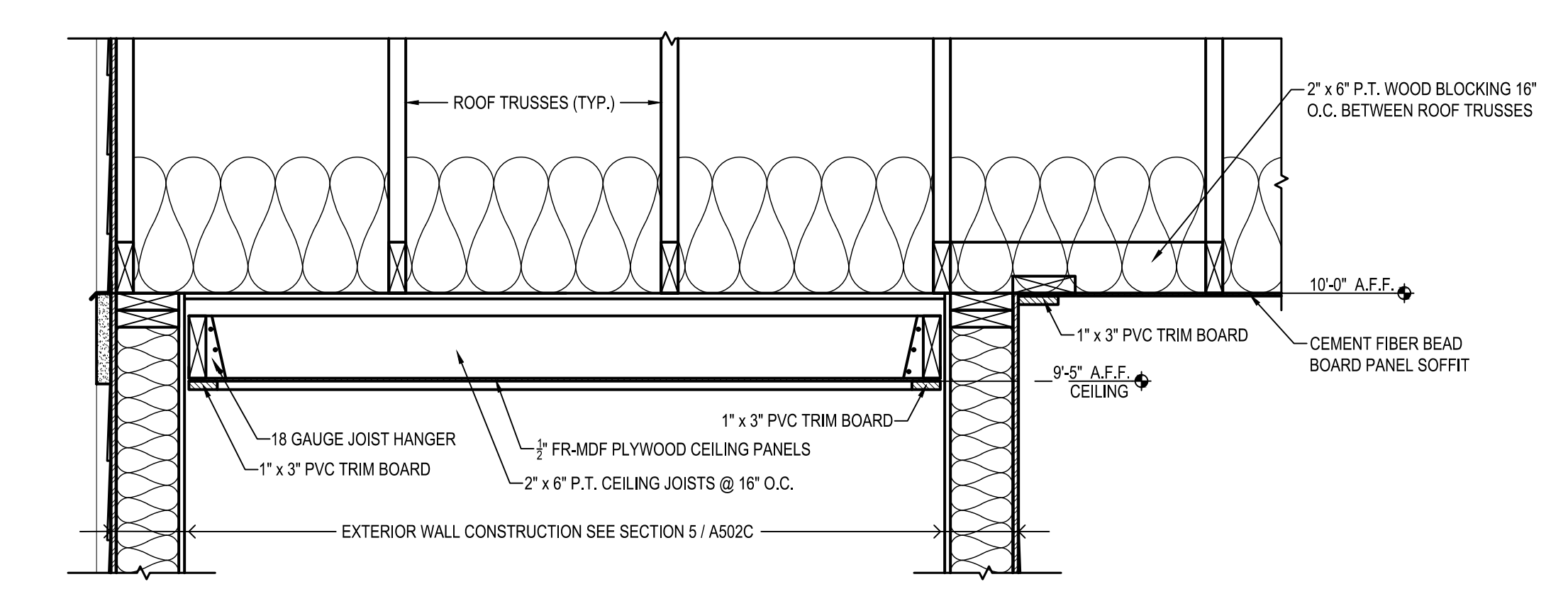
COMFORT STATION REFLECTED CEILING PLAN
SCALE: 1/8"=1'-0"



BULKHEAD TYPICAL SECTION
SCALE: 3/8"=1'-0"



SECTION THRU CEILING
SCALE: 1"=1'-0"



SECTION THRU CEILING
SCALE: 1"=1'-0"

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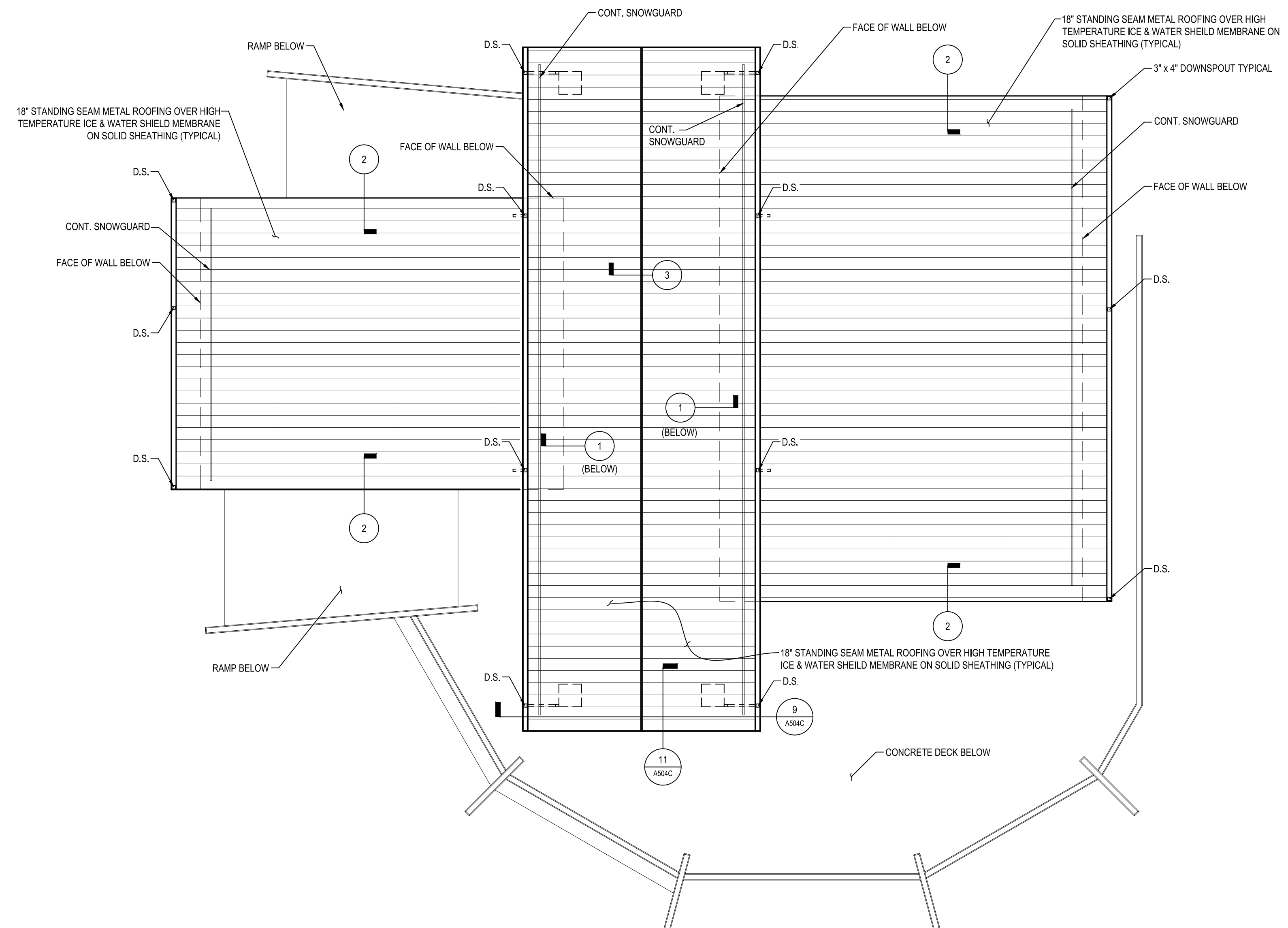
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△			

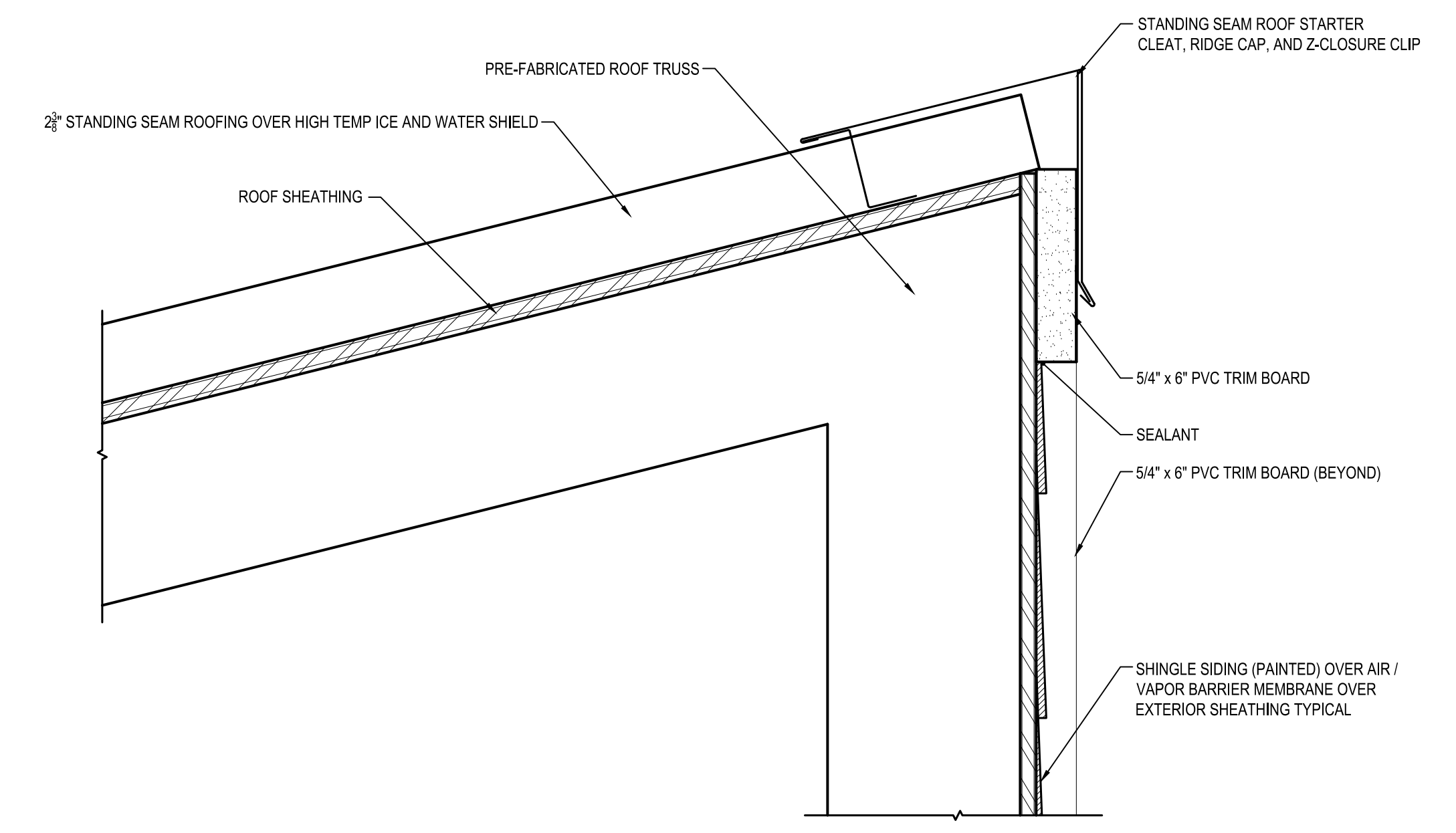
APPROVED	DATE	APPROVED	DATE
CHIEF ENGINEER		PROJECT MANAGER	
APPROVED		APPROVED	
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY	

**ANNE ARUNDEL COUNTY
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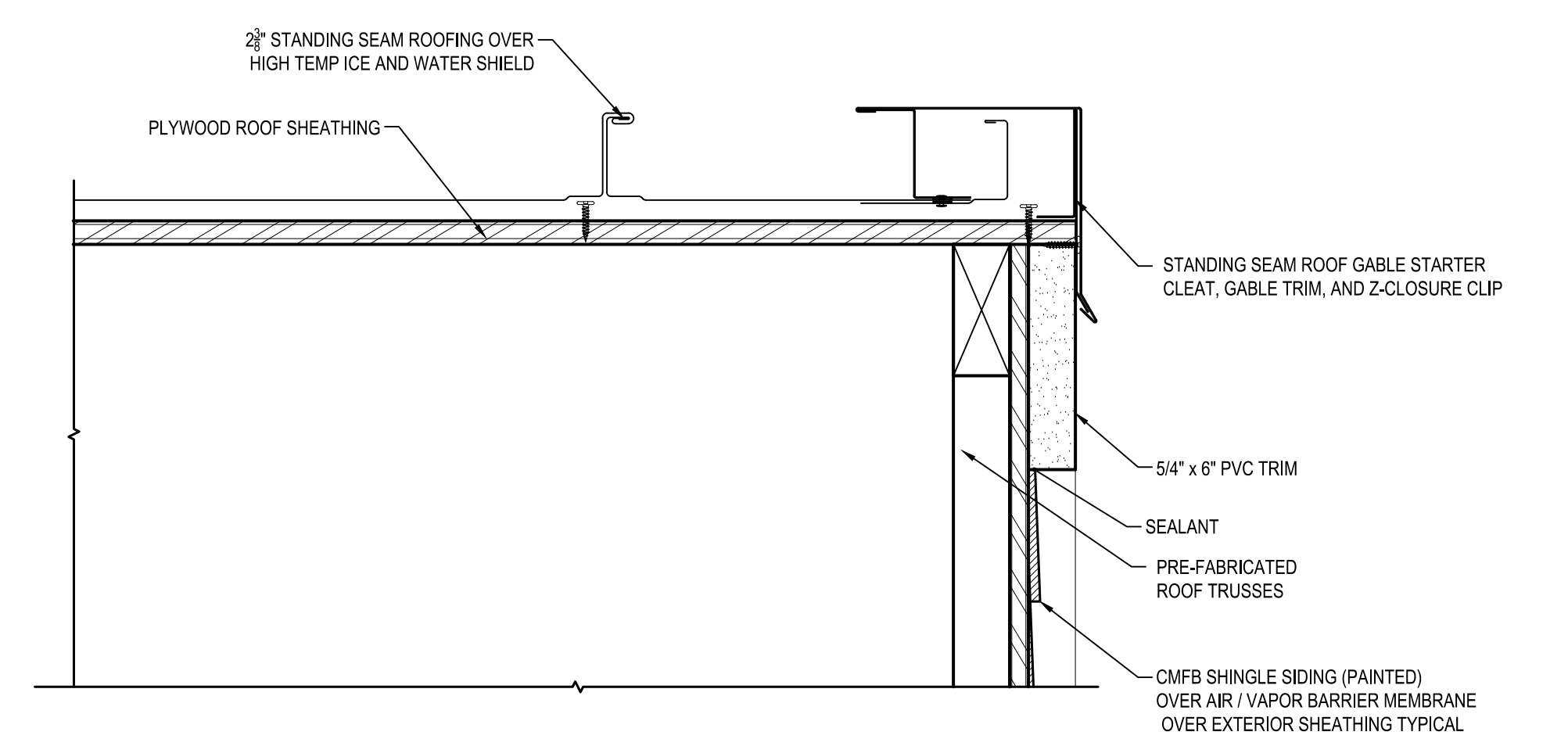
DATE: 4-28-2021
FORT SMALLWOOD PARK
9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122
**COMFORT STATION
REFLECTED CEILING PLAN** A102C
SCALE: AS NOTED
DRAWN BY: JG
CHECKED BY: JB
SHEET NO. OF
PROJECT NO. P535900
PROPOSAL NO. P535907



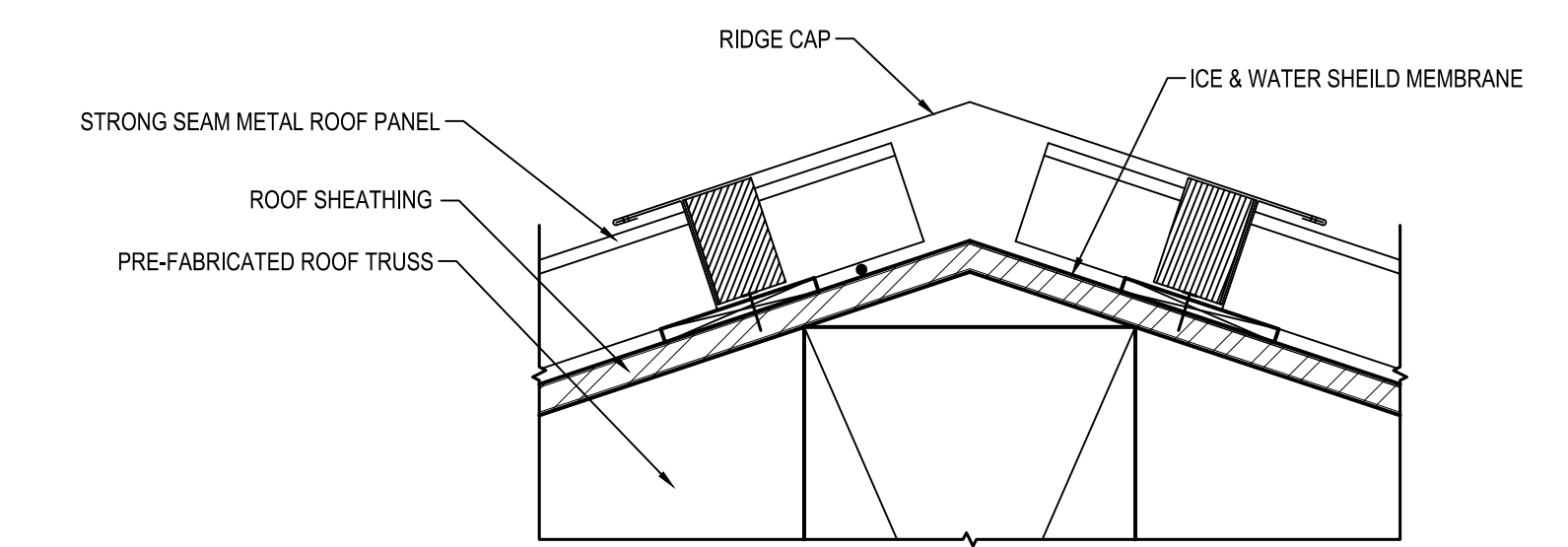
COMFORT STATION ROOF PLAN
SCALE: 1/8"=1'-0"



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



ROOF DETAIL 2
SCALE: 3/4"=1'-0"



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

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△			

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DEPARTMENT OF PUBLIC WORKS**

DATE: 4-28-2021

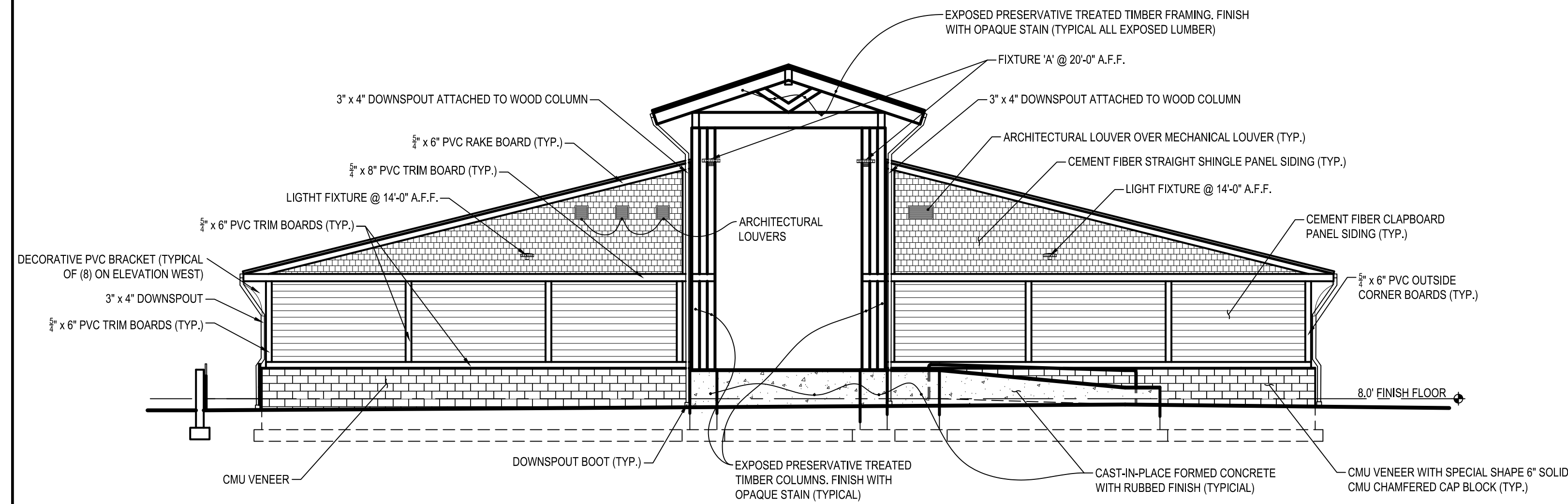
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CHIEF ENGINEER		PROJECT MANAGER		DRAWN BY: JG
APPROVED	DATE	APPROVED	DATE	CHECKED BY: JB
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY		SHEET NO. OF
				PROJECT NO. P535900
				PROPOSAL NO. P535907

**FORT SMALLWOOD PARK
9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122**

**COMFORT STATION
ROOF PLAN**

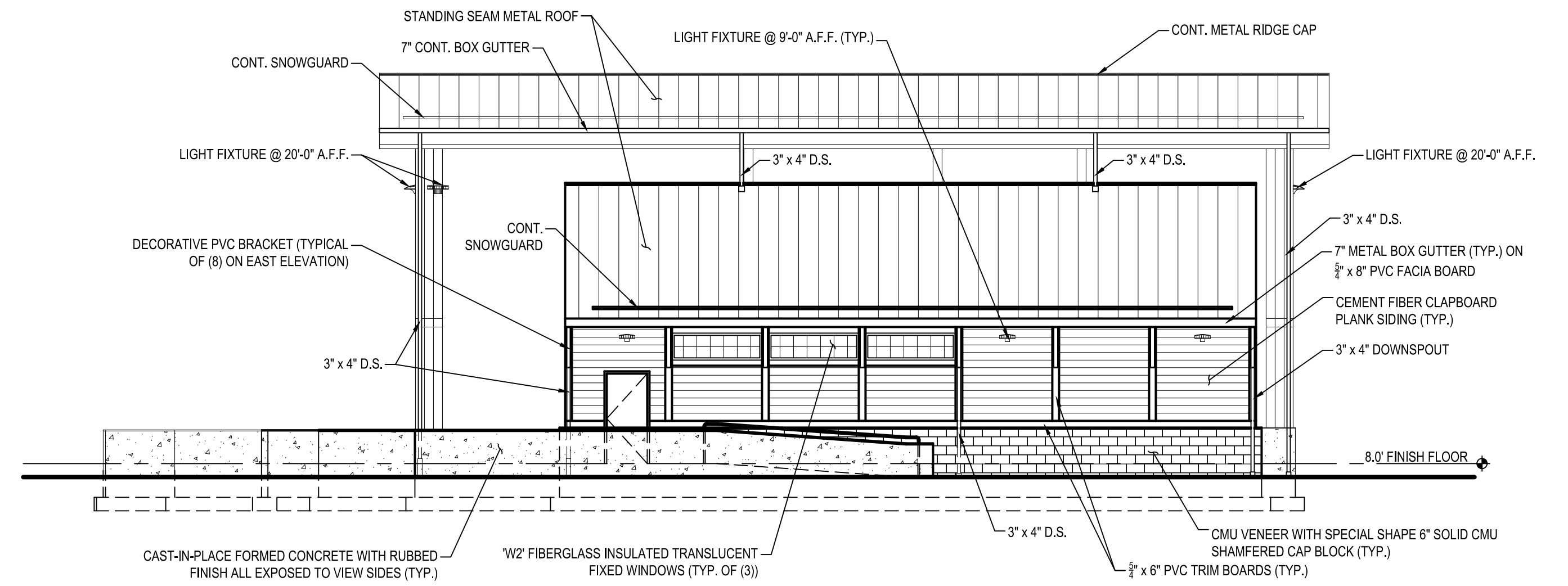
A103C

NOTE: ALL CABINET FIBER BOARD EXTERIOR SIDING, AND SOFFITS SHALL BE FACED & FINISHED WITH PRIMER COAT, AND FIELD PAINTED WITH (2) FINISH COATS



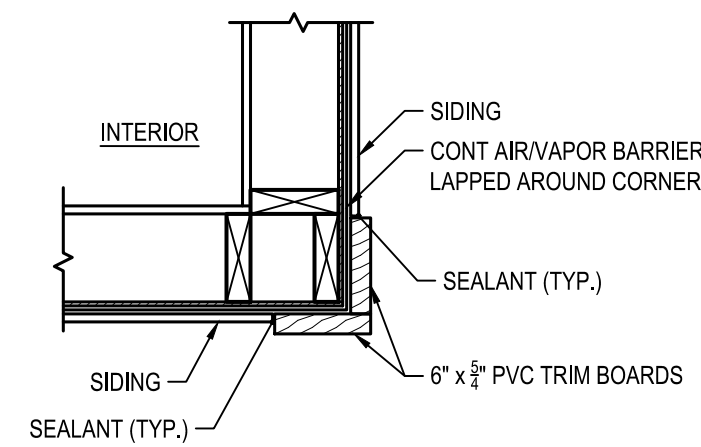
COMFORT STATION NORTH ELEVATION

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



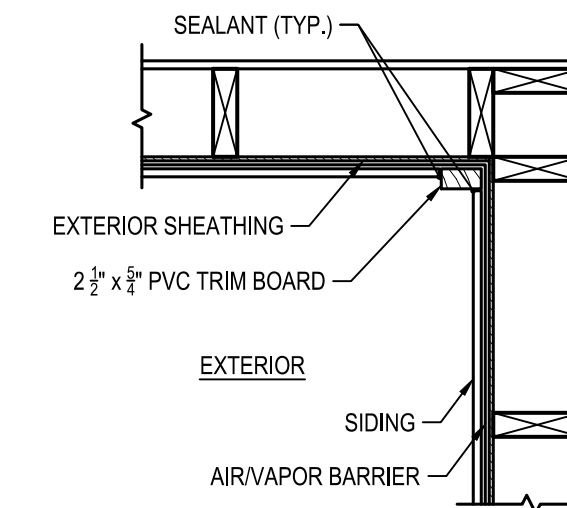
COMFORT STATION EAST ELEVATION

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



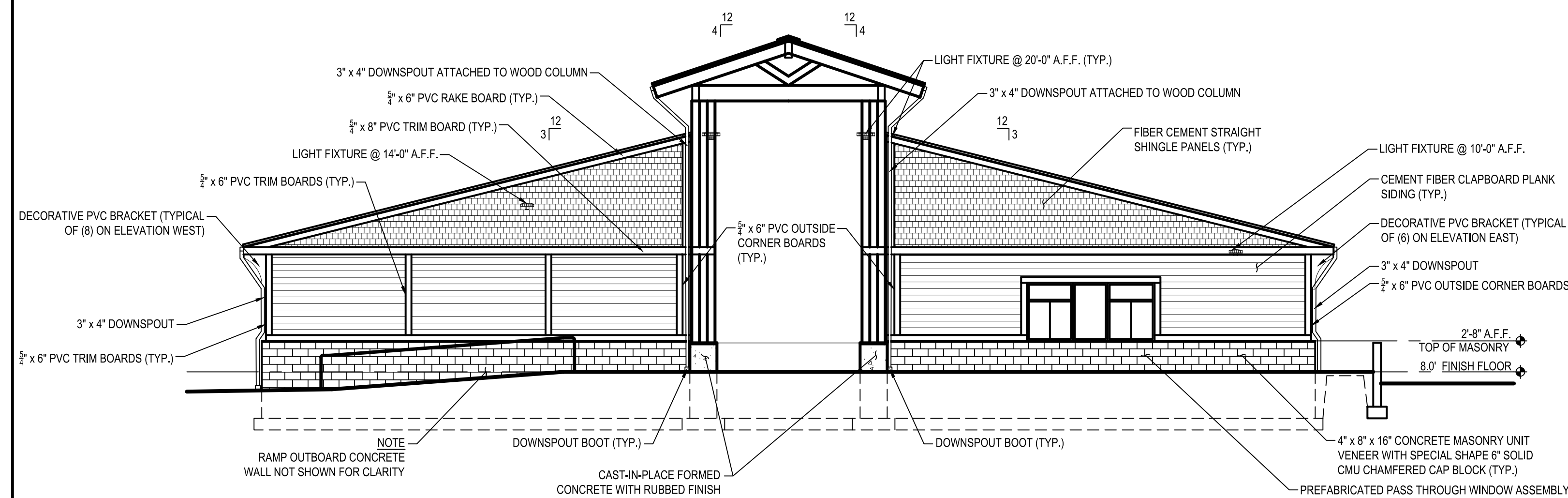
TYPICAL OUTSIDE CORNER-SIDING DETAIL

SCALE: 1"=1'-0"



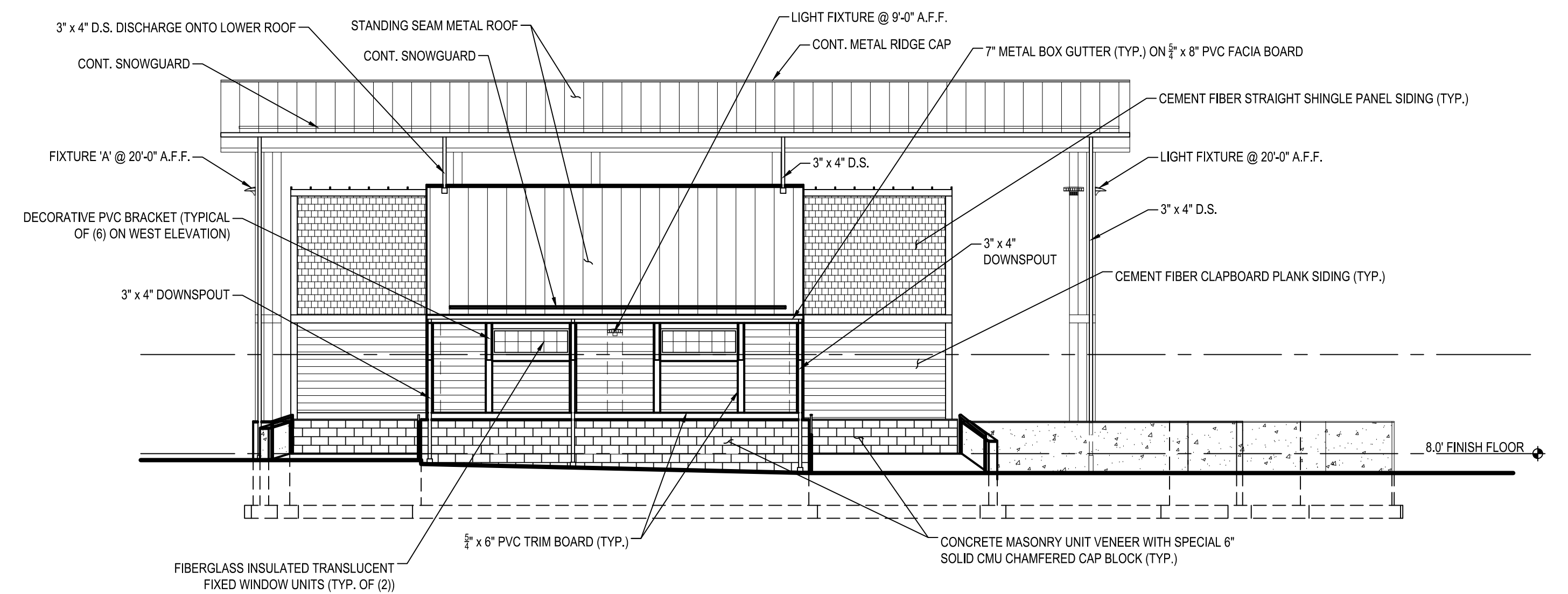
TYPICAL INSIDE CORNER-SIDING DETAIL

SCALE: 1"=1'-0"



COMFORT STATION SOUTH ELEVATION

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



COMFORT STATION WEST ELEVATION

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

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DATE: 4-28-2021

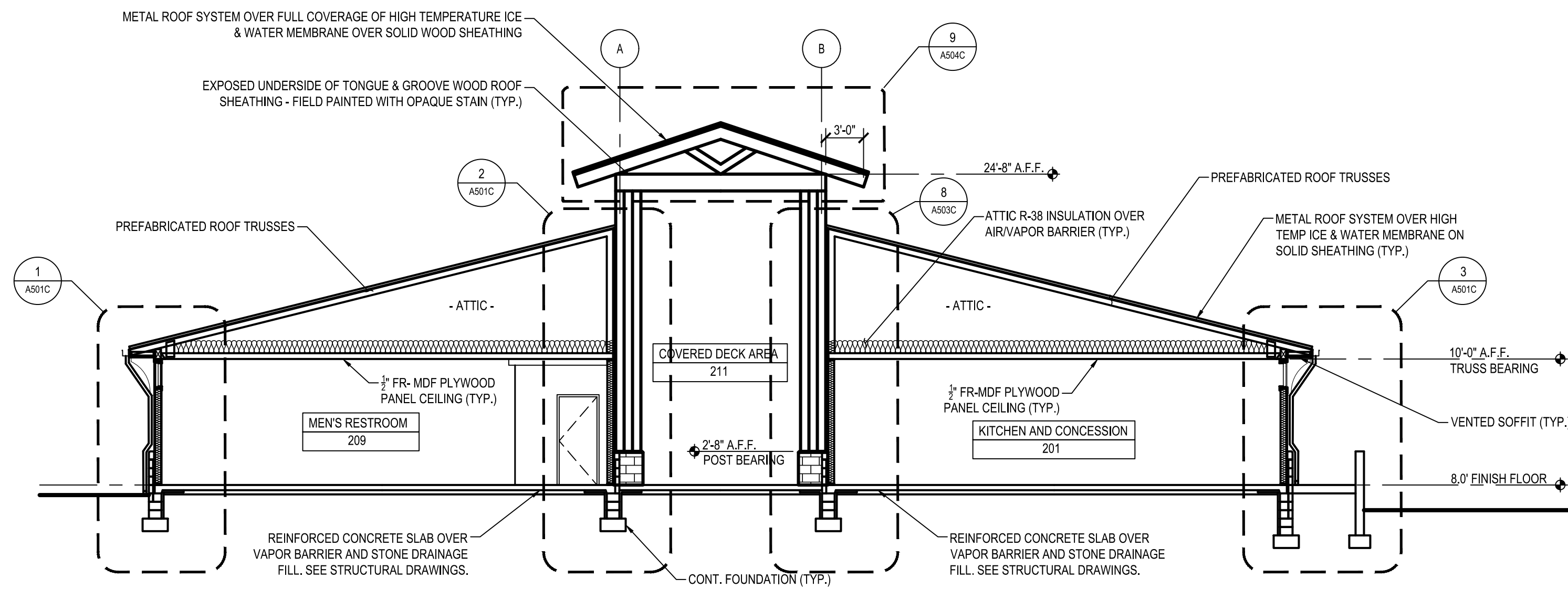
APPROVED	DATE	APPROVED	DATE
CHIEF ENGINEER		PROJECT MANAGER	
APPROVED	DATE	APPROVED	DATE
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY	

SCALE: AS NOTED
DRAWN BY: JG
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SHEET NO. OF
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FORT SMALLWOOD PARK
9500 FORT SMALLWOOD PARK
PASADENA, MD 21122

COMFORT STATION
ELEVATIONS

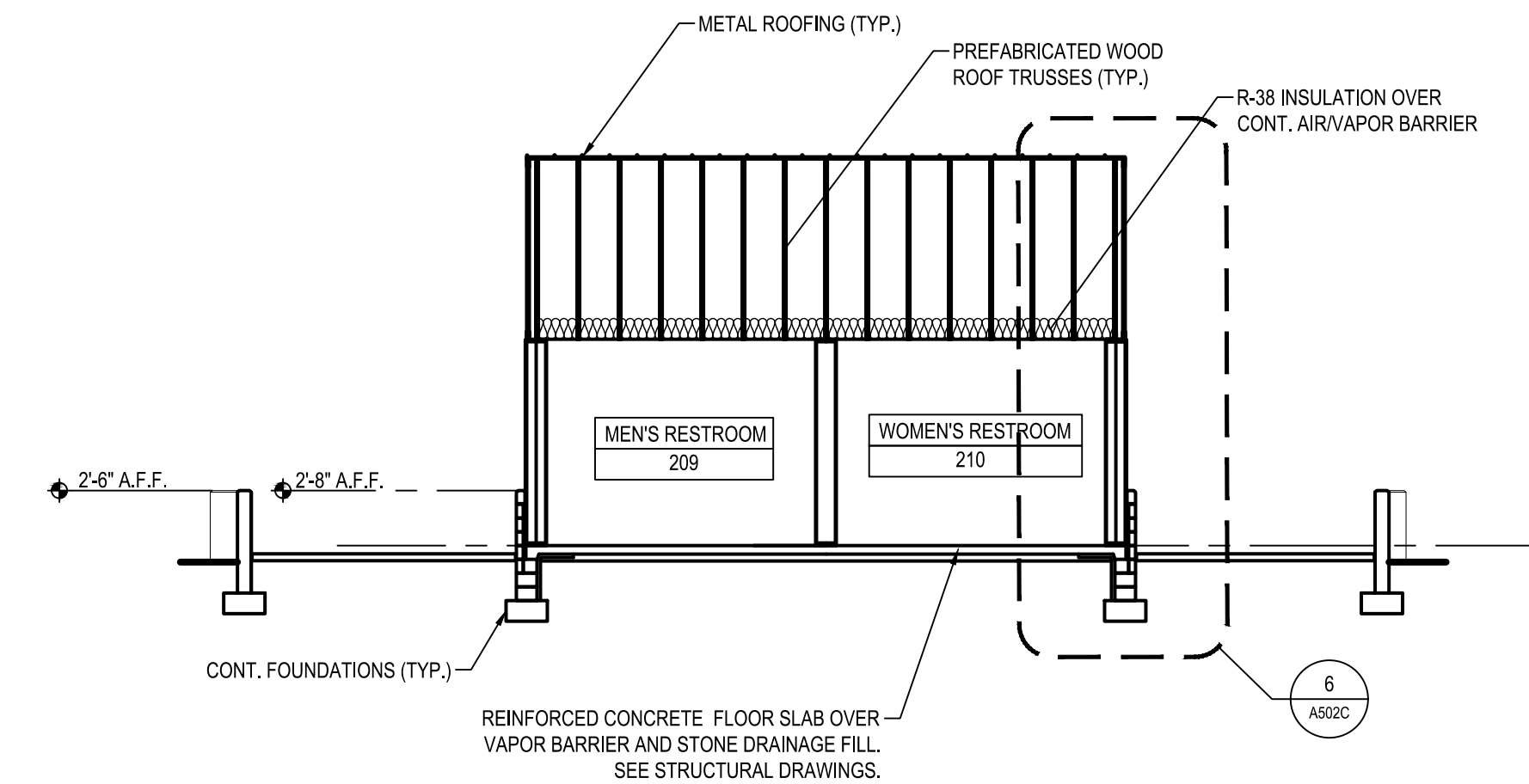
A201C



BUILDING SECTION

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

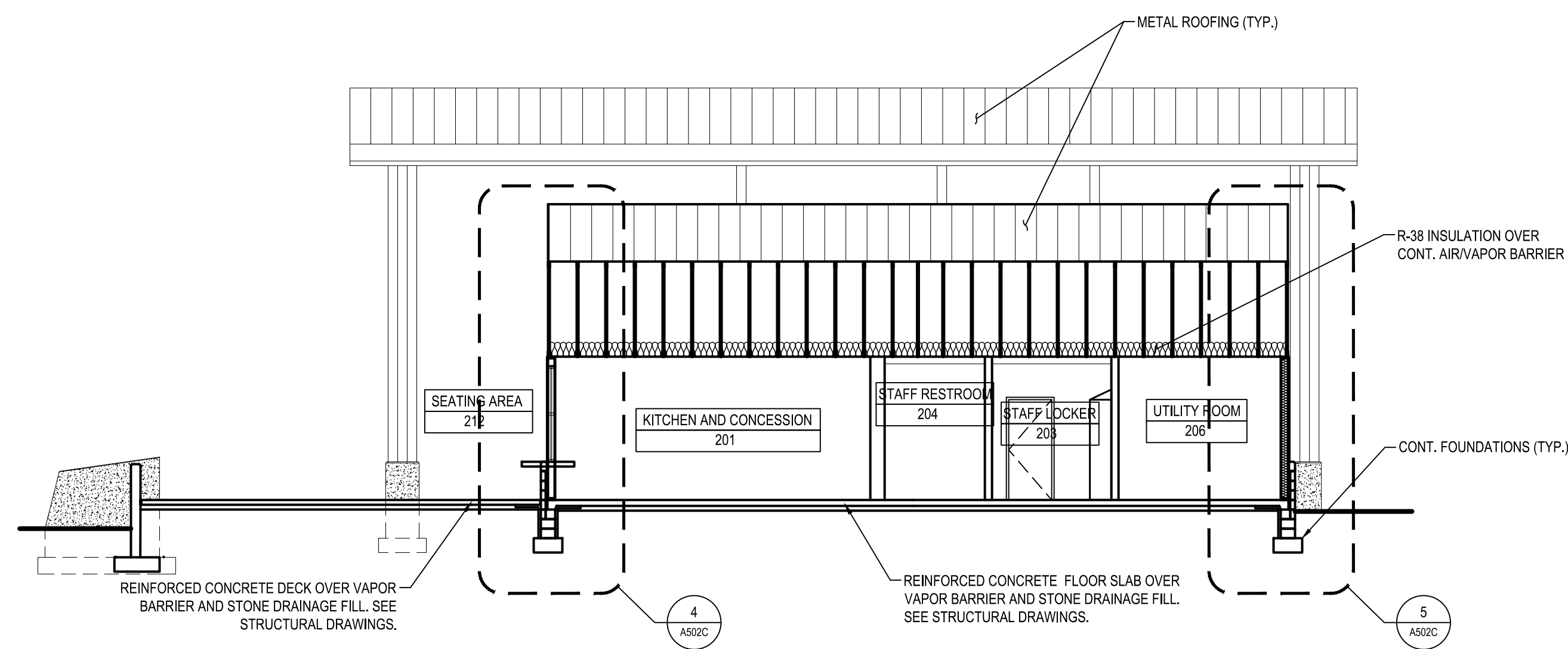
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BUILDING SECTION

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

3



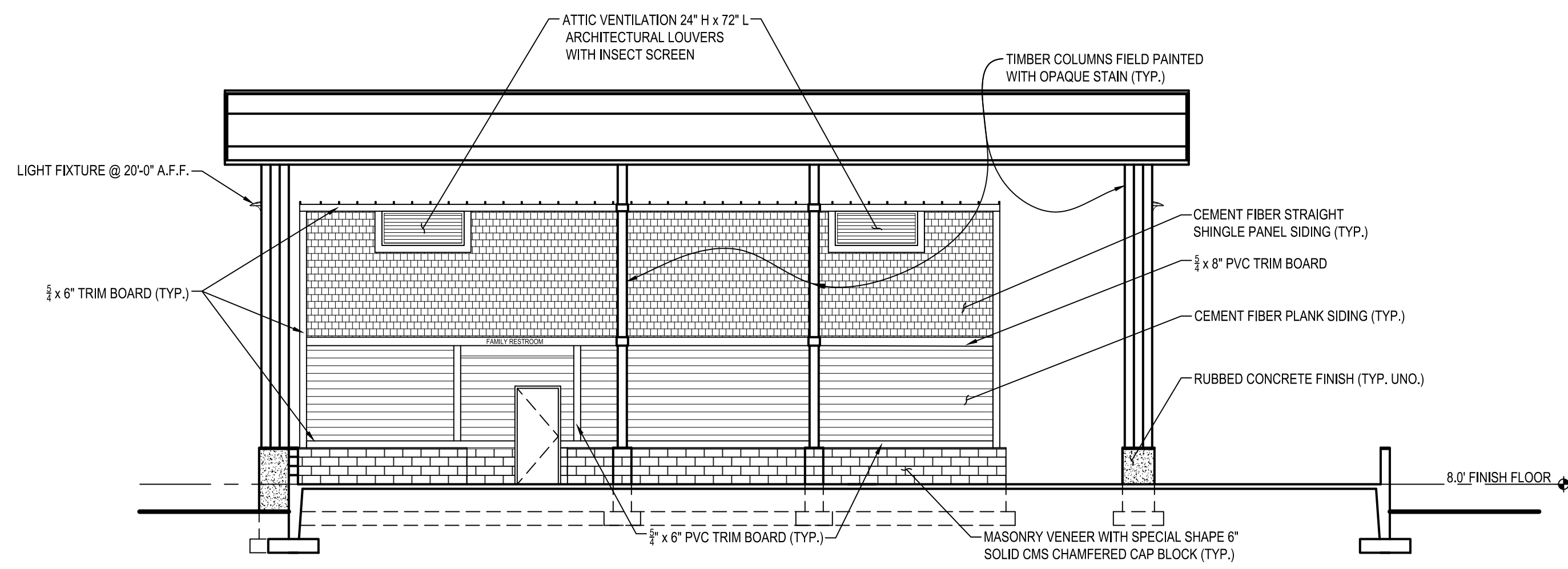
BUILDING SECTION

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

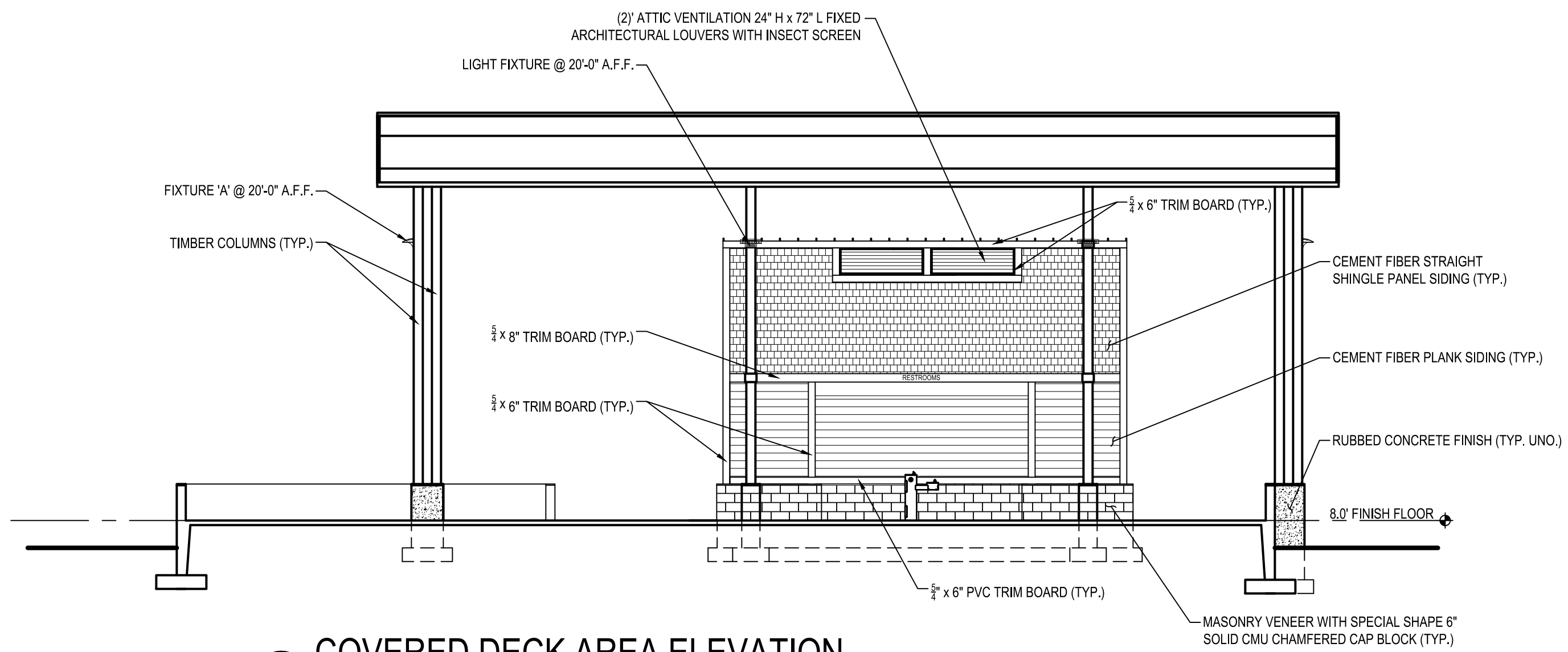
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NO.	DESCRIPTION	BY	DATE
△			

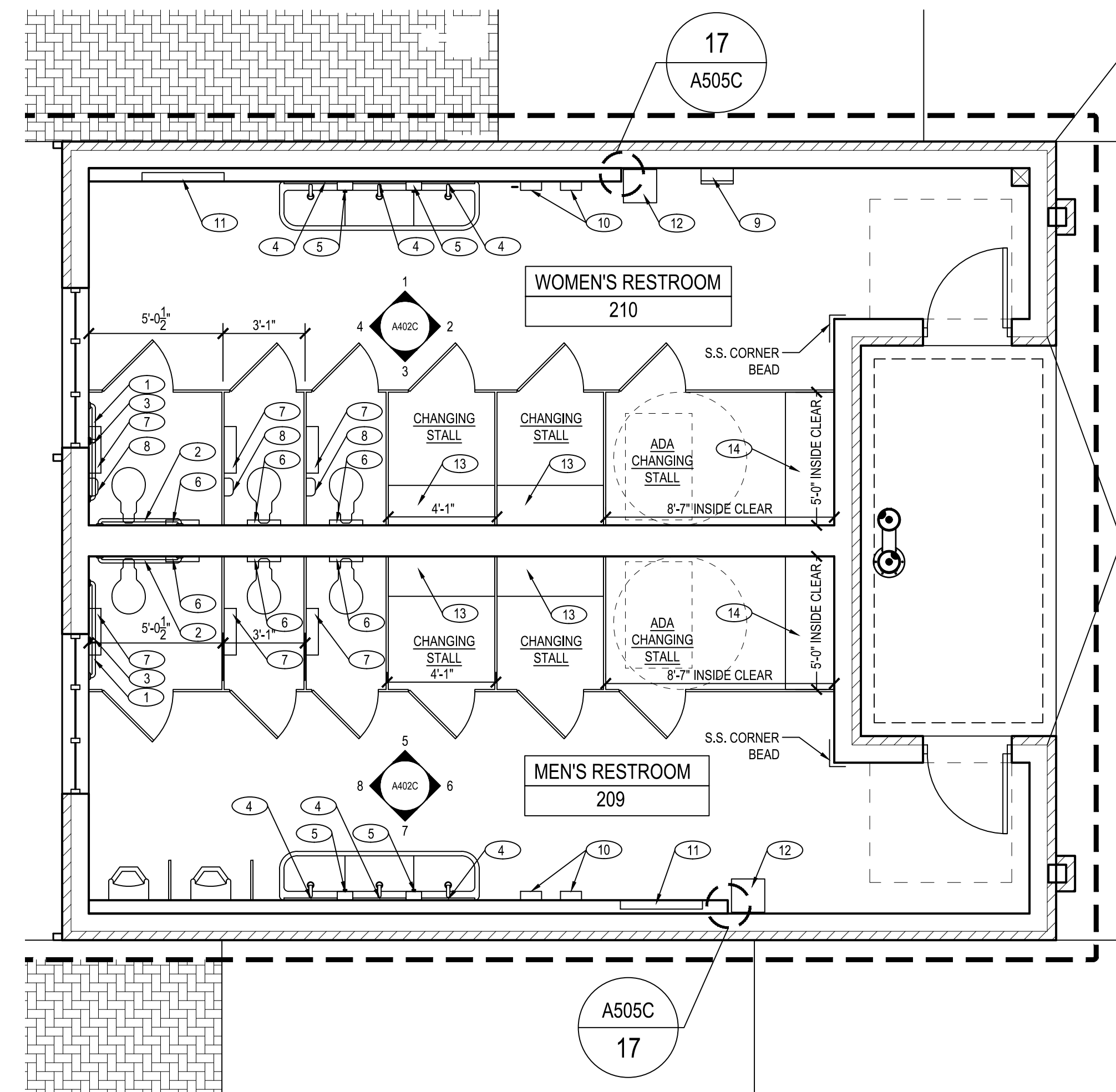
ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS				DATE: 4-28-2021
APPROVED	DATE	APPROVED	DATE	SCALE: AS NOTED
CHIEF ENGINEER		PROJECT MANAGER		DRAWN BY: JG
APPROVED	DATE	APPROVED	DATE	CHECKED BY: JB
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY		SHEET NO. OF
				PROJECT NO. P535900
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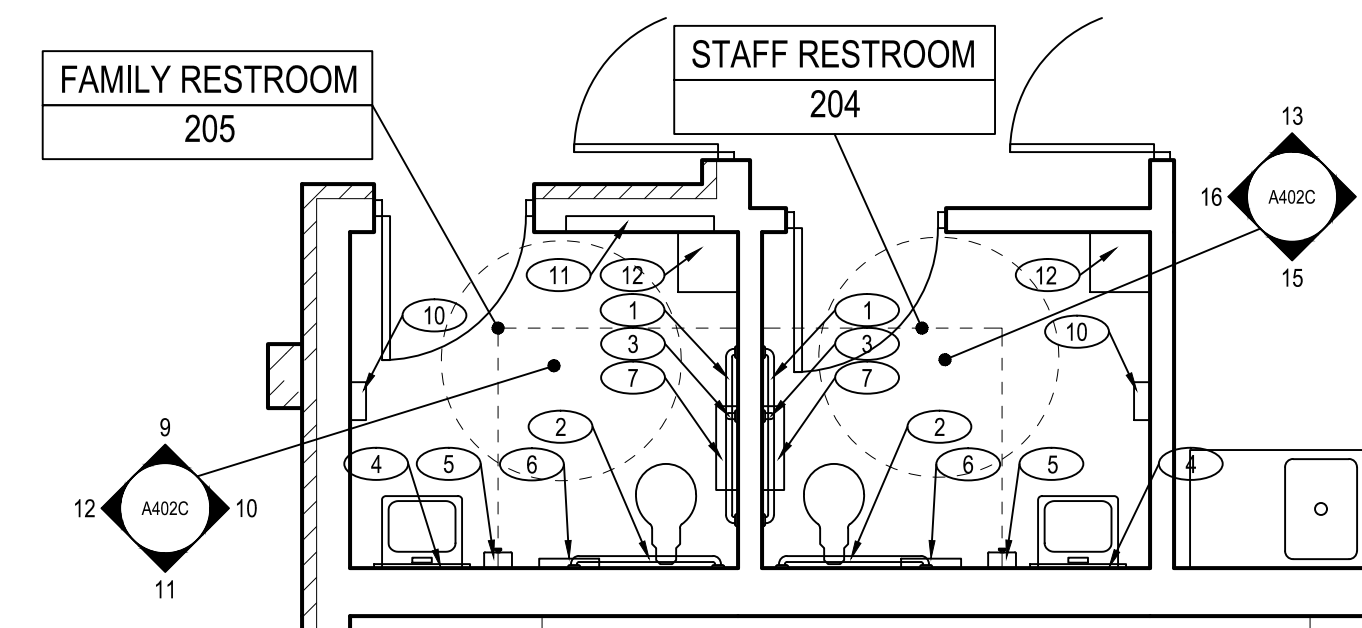
1 COVERED DECK AREA ELEVATION
SCALE: 1/8"=1'-0"



2 COVERED DECK AREA ELEVATION
SCALE: 1/8"=1'-0"



3 LARGE SCALE RESTROOM ACCESSORIES PLAN
SCALE: 1/4"=1'-0"



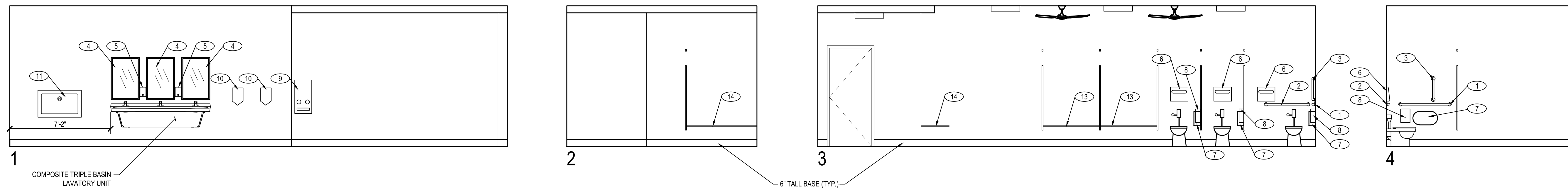
4 LARGE SCALE RESTROOM ACCESSORIES PLAN
SCALE: 1/4"=1'-0"

GENERAL DRAWING NOTES:

- 1 42" STAINLESS STEEL GRAB BAR
- 2 36" STAINLESS STEEL GRAB BAR
- 3 18" STAINLESS STEEL VERTICAL GRAB BAR
- 4 24"x36" MIRROR
- 5 SOAP DISPENSER
- 6 TOILET SEAT COVER DISPENSER
- 7 TOILET PAPER DISPENSER
- 8 SANITARY NAPKIN DISPOSAL
- 9 SANITARY NAPKIN DISPENSER
- 10 HAND DRYER
- 11 RECESSED BABY CHANGING STATION
- 12 FLOOR STANDING WASTE RECEPTACLES
- 13 18" DEEP CHANGING STATION BENCH SEAT
- 14 22" ADA DEEP CHANGING STATION BENCH SEAT

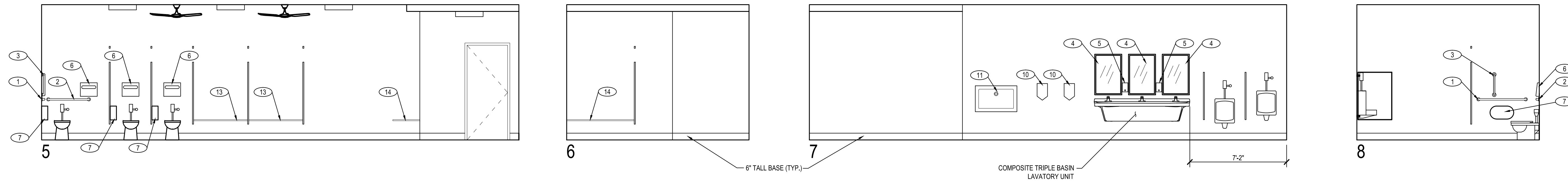
NO.	DESCRIPTION	BY	DATE
△			

ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS				DATE: 4-28-2021
APPROVED	DATE	APPROVED	DATE	SCALE: AS NOTED
CHIEF ENGINEER		PROJECT MANAGER		DRAWN BY: JG
APPROVED	DATE	APPROVED	DATE	CHECKED BY: JB
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY		SHEET NO. OF
				PROJECT NO. P535900
				PROPOSAL NO. P535907



210 WOMEN'S RESTROOM ELEVATIONS

SCALE: 1/4"=1'-0"

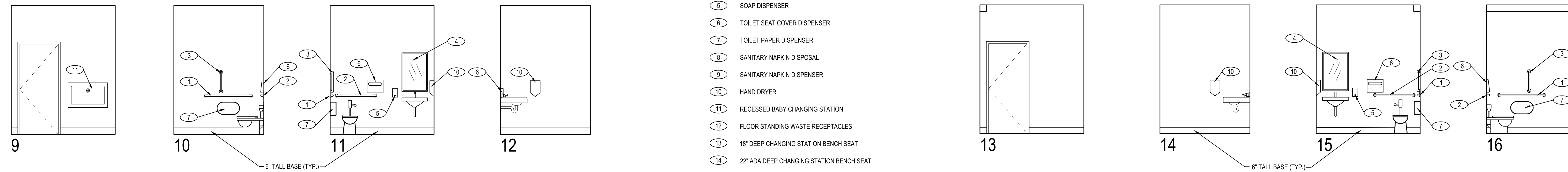


209 MEN'S RESTROOM ELEVATIONS

SCALE: 1/4"=1'-0"

GENERAL DRAWING NOTES:

- 1 42" STAINLESS STEEL GRAB BAR
- 2 36" STAINLESS STEEL GRAB BAR
- 3 18" STAINLESS STEEL VERTICAL GRAB BAR
- 4 24"x36" MIRROR
- 5 SOAP DISPENSER
- 6 TOILET SEAT COVER DISPENSER
- 7 TOILET PAPER DISPENSER
- 8 SANITARY NAPKIN DISPOSAL
- 9 SANITARY NAPKIN DISPENSER
- 10 HAND DRYER
- 11 RECESSED BABY CHANGING STATION
- 12 FLOOR STANDING WASTE RECEPTACLES
- 13 18" DEEP CHANGING STATION BENCH SEAT
- 14 22" ADA DEEP CHANGING STATION BENCH SEAT



205 FAMILY RESTROOM ELEVATIONS

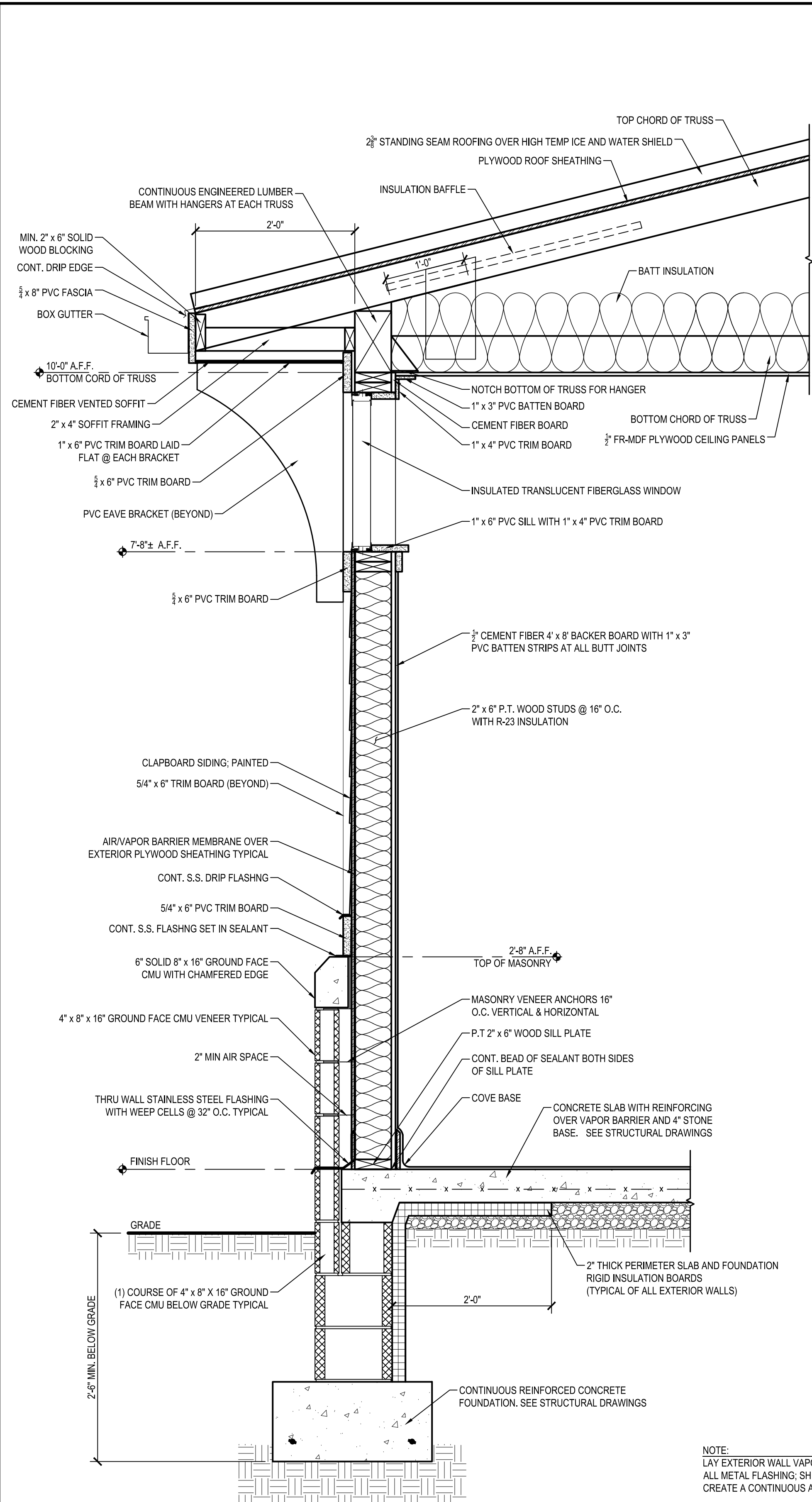
SCALE: 1/4"=1'-0"

204 STAFF RESTROOM ELEVATIONS

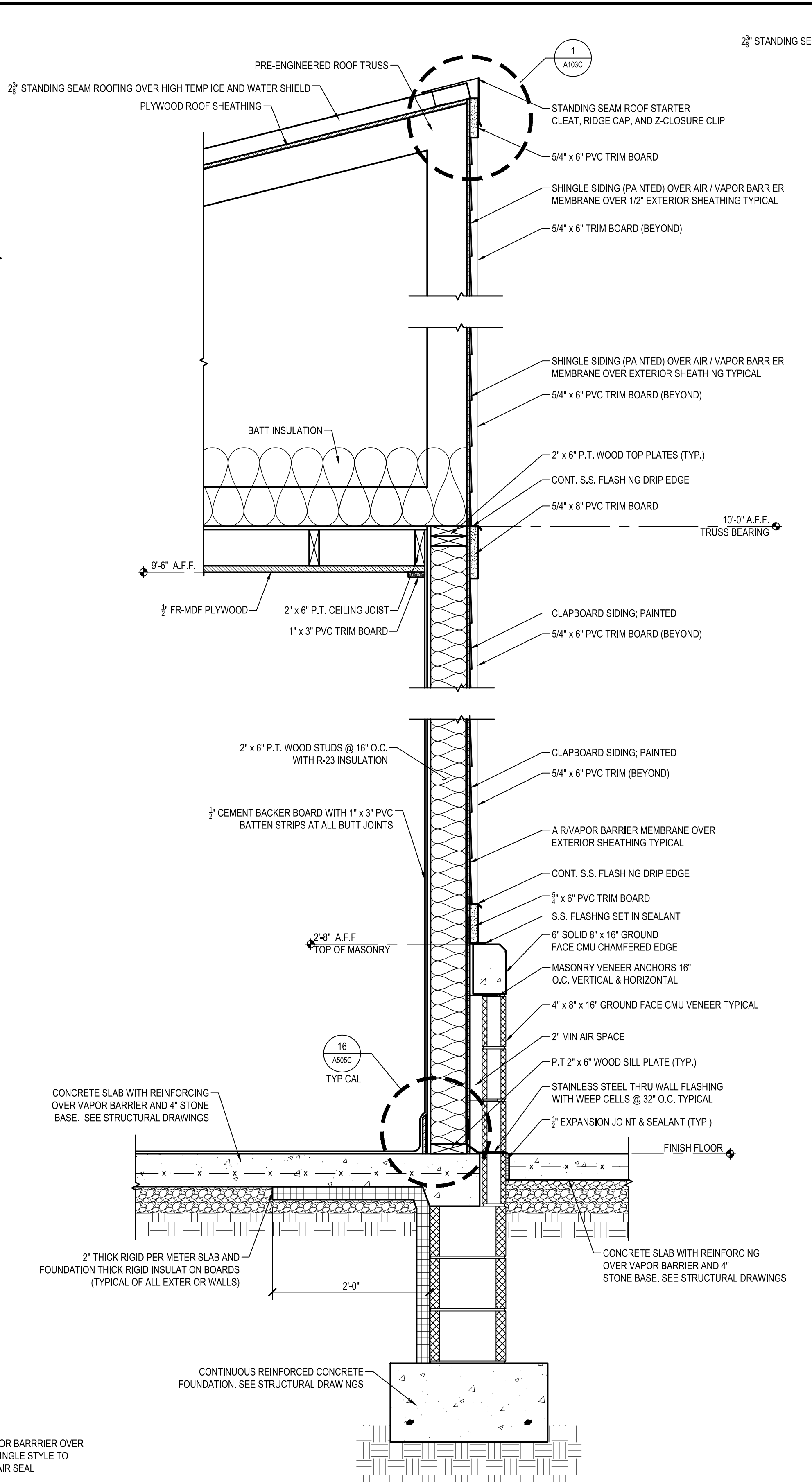
SCALE: 1/4"=1'-0"

NO.	DESCRIPTION	BY	DATE
△			

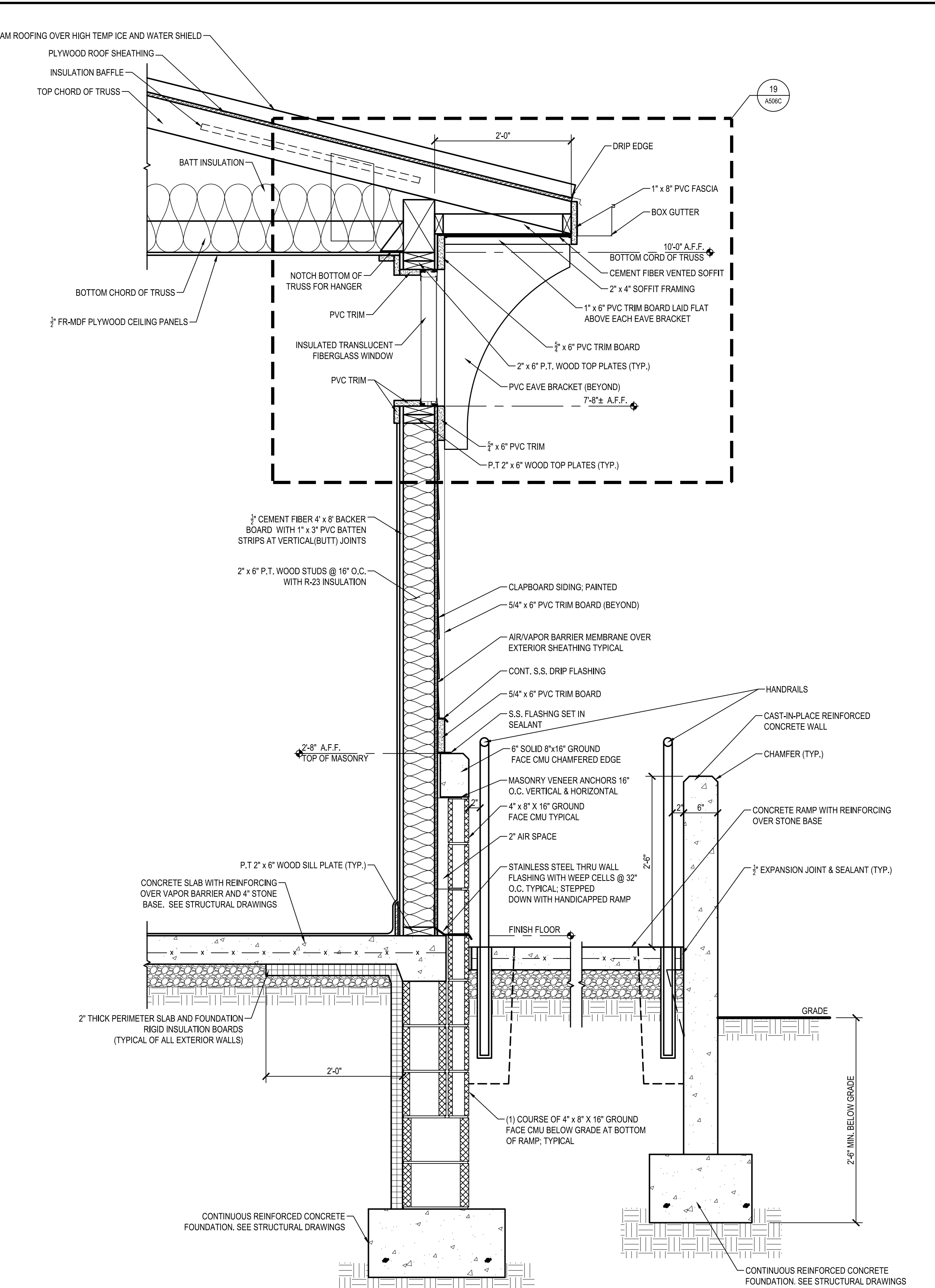
APPROVED				APPROVED				DATE: 4-28-2021	
APPROVED	DATE	APPROVED	DATE	SCALE: AS NOTED					
CHIEF ENGINEER		PROJECT MANAGER		DRAWN BY: JG					
APPROVED	DATE	APPROVED	DATE	CHECKED BY: JB					
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY		SHEET NO. OF					
				PROJECT NO. P535900					
				PROPOSAL NO. P535907					



WALL SECTION 1
SCALE: 1"=1'-0"



WALL SECTION 2
SCALE: 1"=1'-0"



WALL SECTION 3
SCALE: 1"=1'-0"

NOTE:
LAY EXTERIOR WALL VAPOR BARRIER OVER ALL METAL FLASHING, SHINGLE STYLE TO CREATE A CONTINUOUS AIR SEAL

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(C) GANT BRUNETT ARCHITECTS
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NO.	DESCRIPTION	BY	DATE

**ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS**

DATE: 4-28-2021

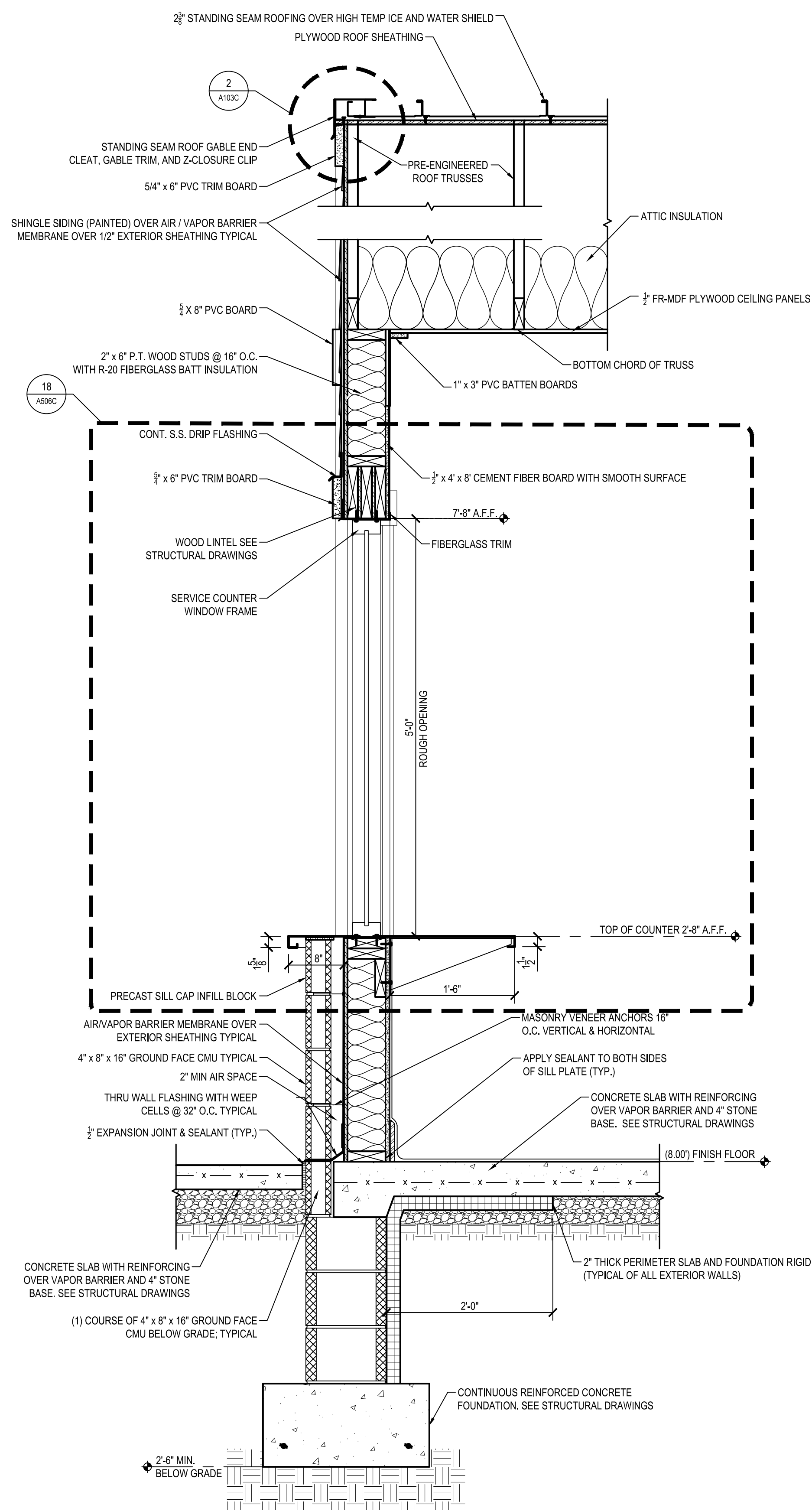
APPROVED	DATE	APPROVED	DATE
CHIEF ENGINEER		PROJECT MANAGER	
APPROVED	DATE	APPROVED	DATE
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY	

SCALE: AS NOTED
DRAWN BY: JG
CHECKED BY: JB
SHEET NO. OF
PROJECT NO. P535900
PROPOSAL NO. P535907

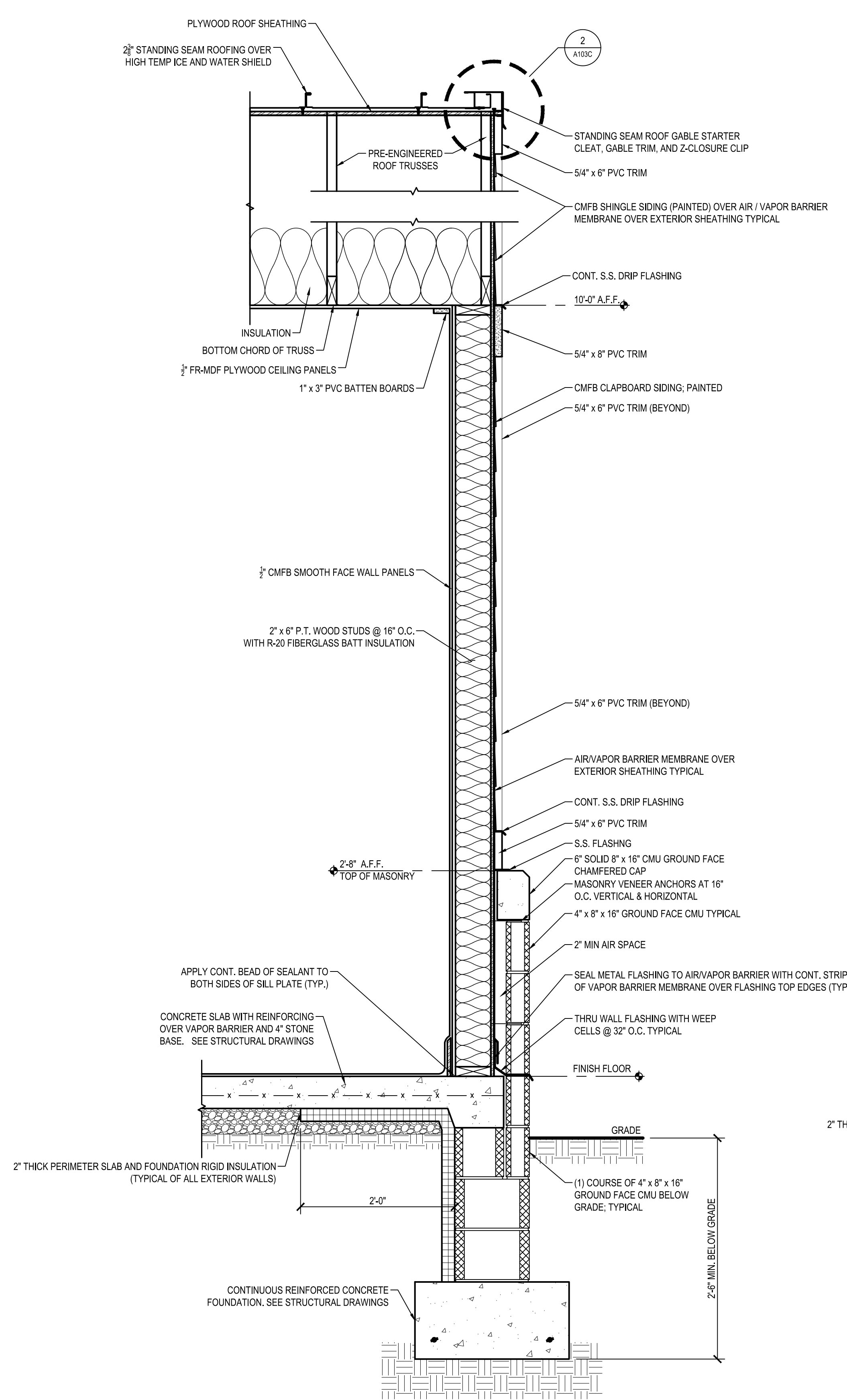
**FORT SMALLWOOD PARK
9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122**

**COMFORT STATION
WALL SECTIONS**

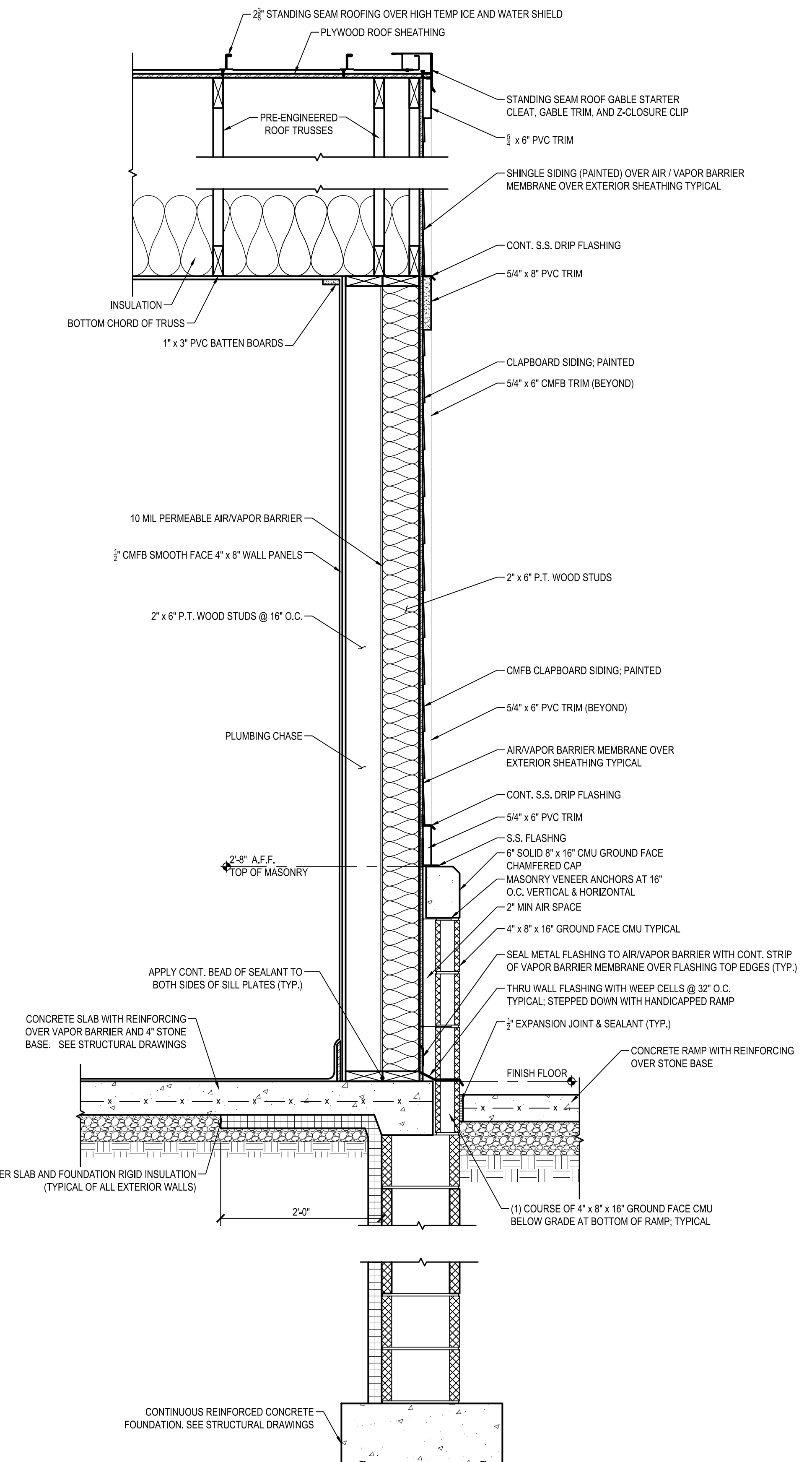
A501C



WALL SECTION 4
SCALE: 1"=1'-0"



WALL SECTION 5
SCALE: 1"=1'-0"



WALL SECTION 6
SCALE: 1"=1'-0"

NO.	DESCRIPTION	BY	DATE
△			

**ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS**

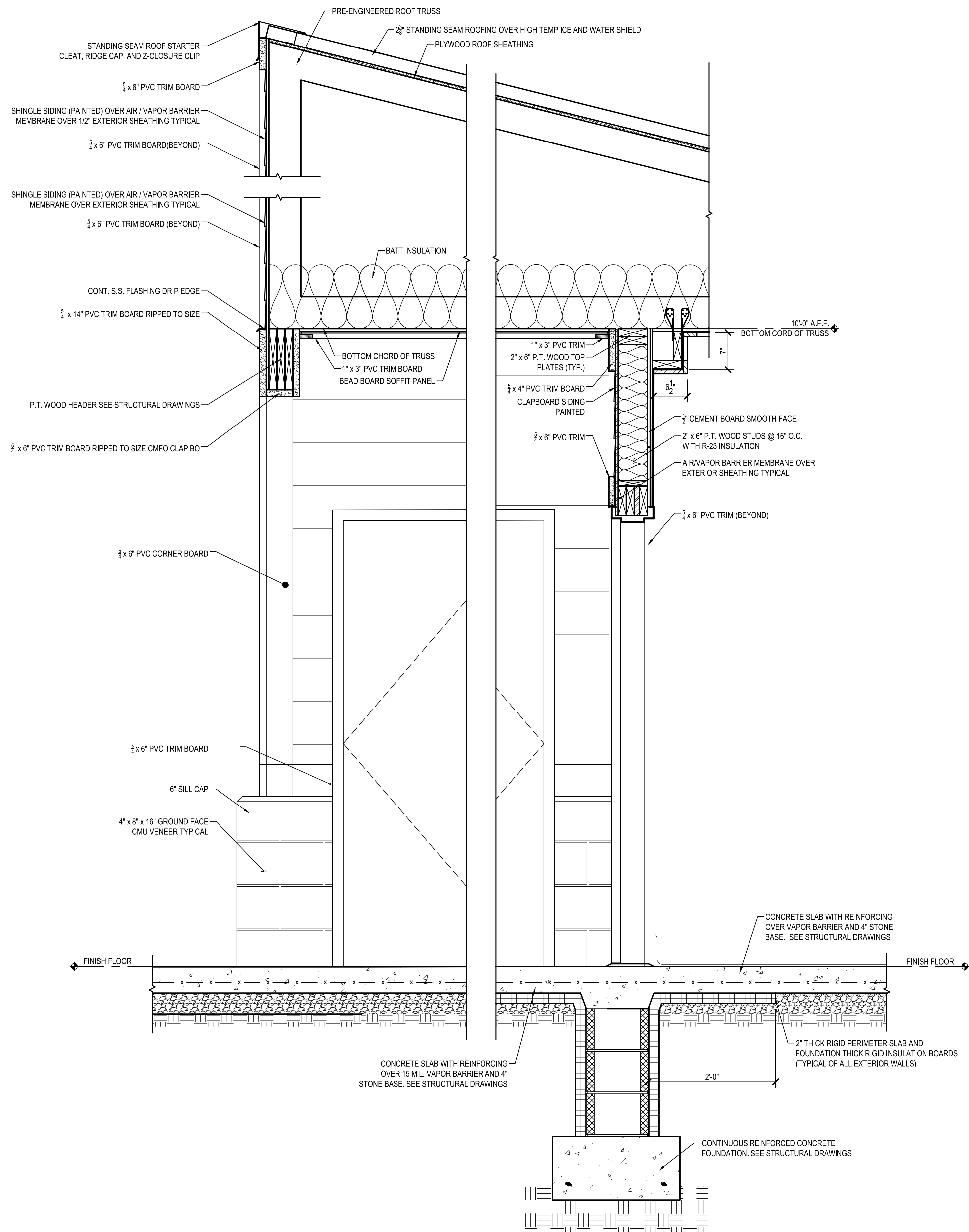
DATE: 4-28-2021

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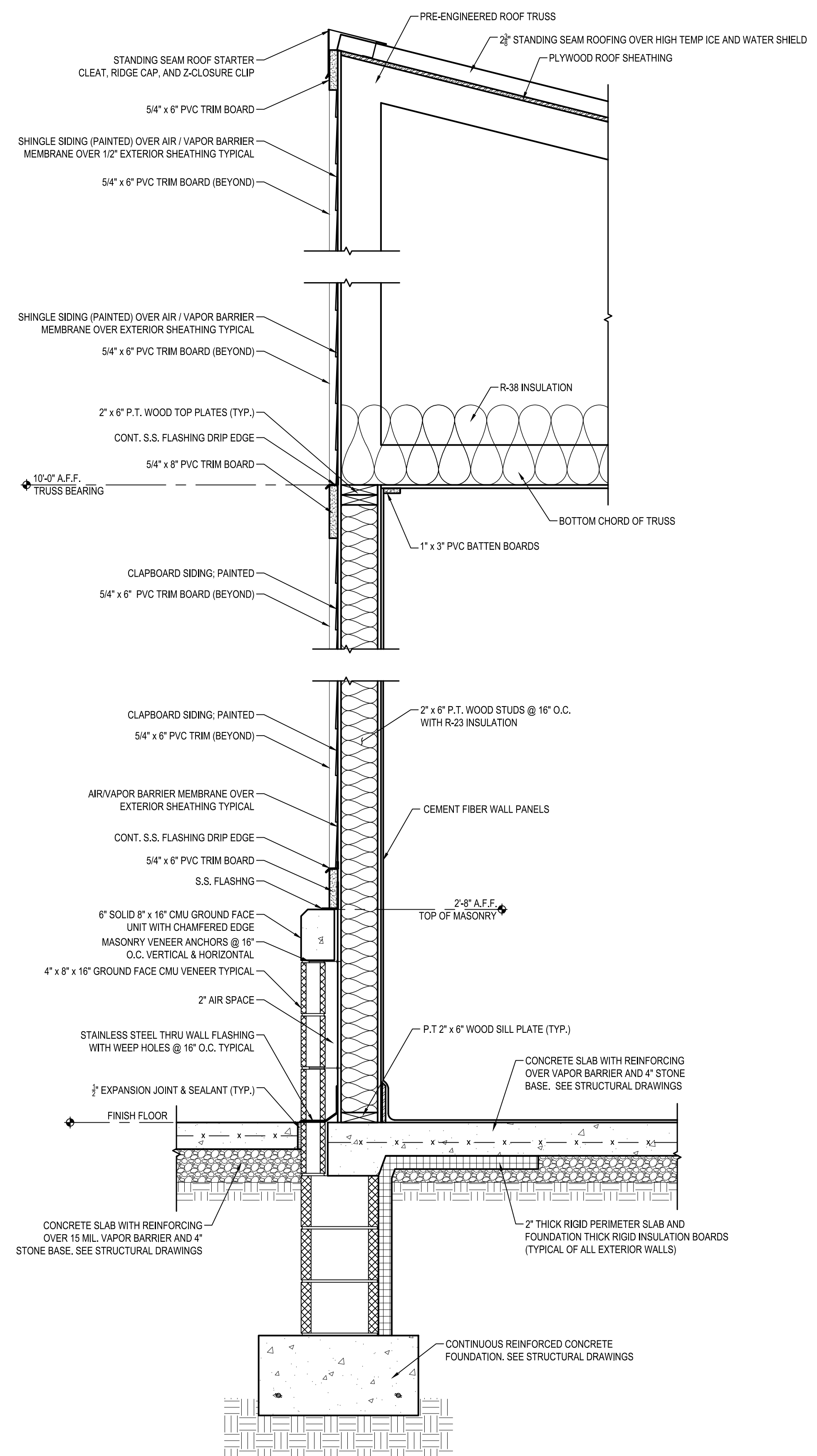
**FORT SMALLWOOD PARK
9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122**

**COMFORT STATION
WALL SECTIONS**

A502C



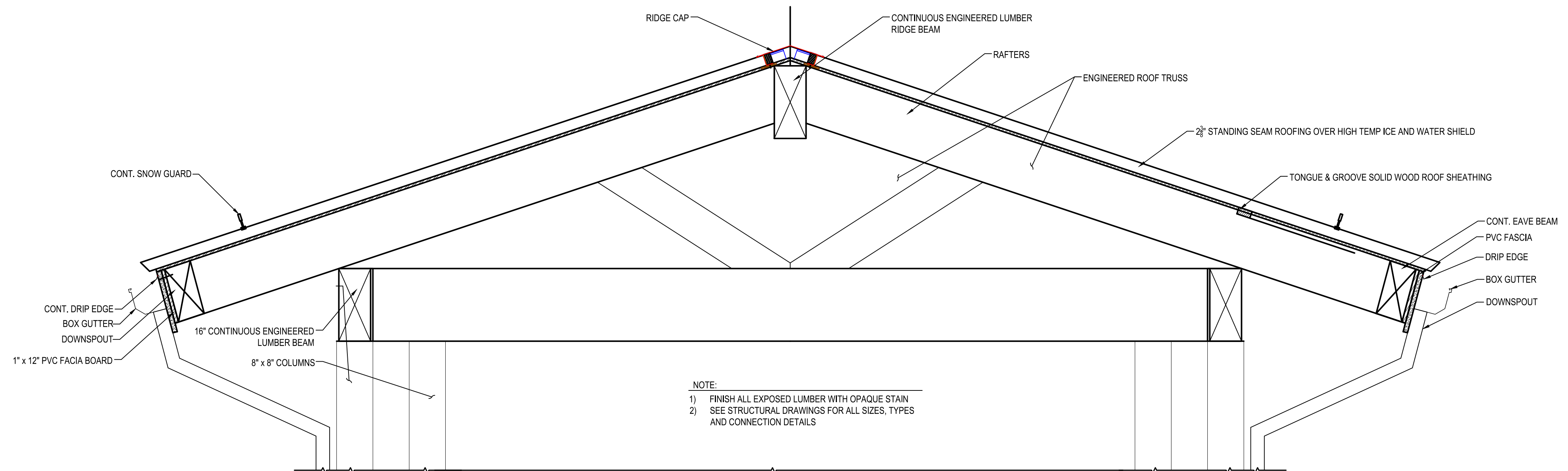
WALL SECTION 7
SCALE: 1"=1'-0"



WALL SECTION 8
SCALE: 1"=1'-0"

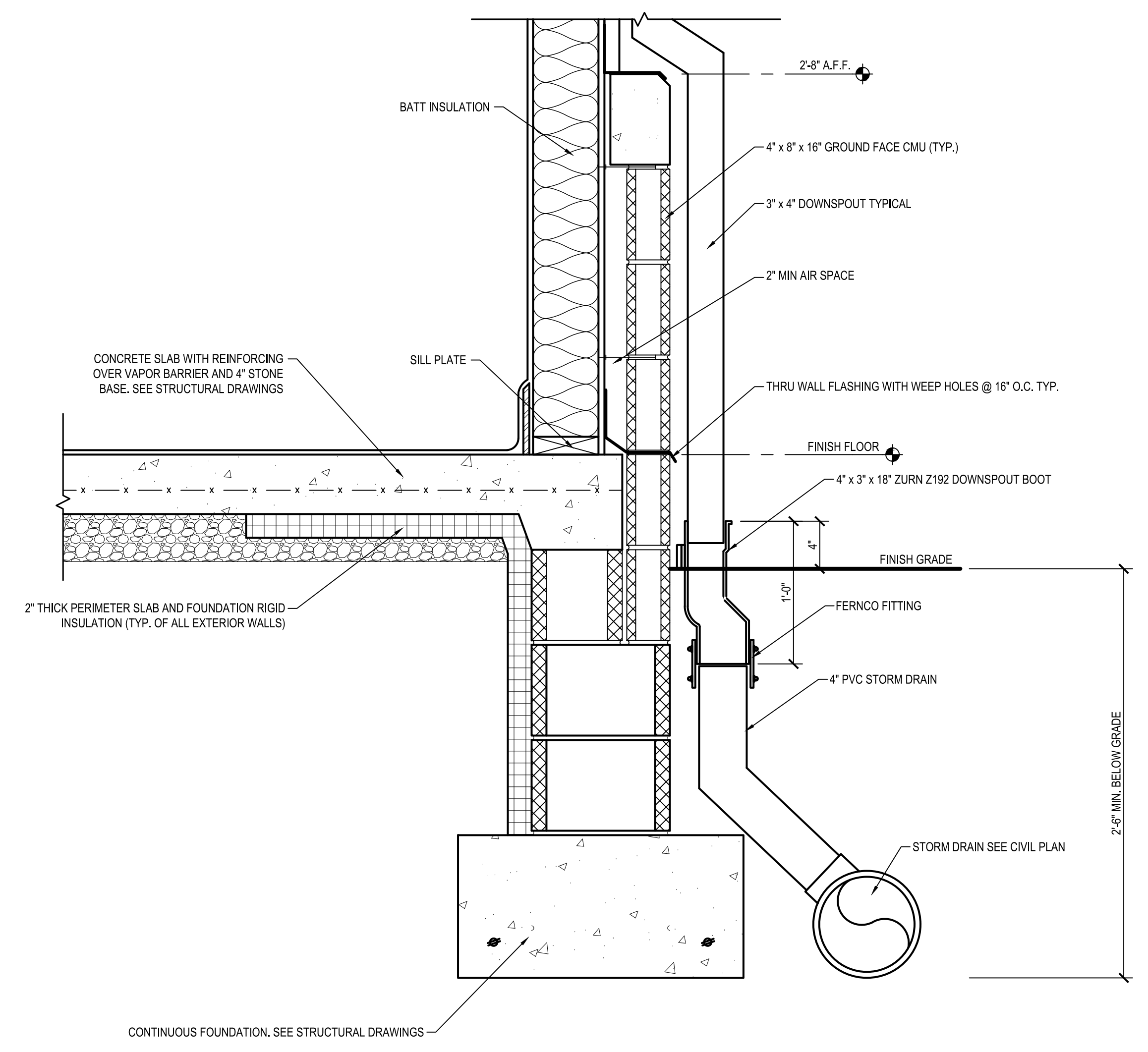
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				PROPOSAL NO. P535907



NOTE:
 1) FINISH ALL EXPOSED LUMBER WITH OPAQUE STAIN
 2) SEE STRUCTURAL DRAWINGS FOR ALL SIZES, TYPES AND CONNECTION DETAILS

DETAIL 9
 SCALE: 3/4"=1'-0"



DOWNSPOUT BOOT DETAIL 10
 SCALE: 1-1/2"=1'-0"

gba
gant-brunnett
 ARCHITECTS
 15 West Mulberry Street
 Baltimore, Maryland 21201-4406
 Telephone Number: 410-234-8444

*PROFESSIONAL CERTIFICATION
 I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NUMBER 0000, EXPIRATION DATE 05/23/2021.*
 (C) GANT BRUNETT ARCHITECTS
 ALL REPRODUCTION IS PROHIBITED

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APPROVED	DATE	APPROVED	DATE
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY	

ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS

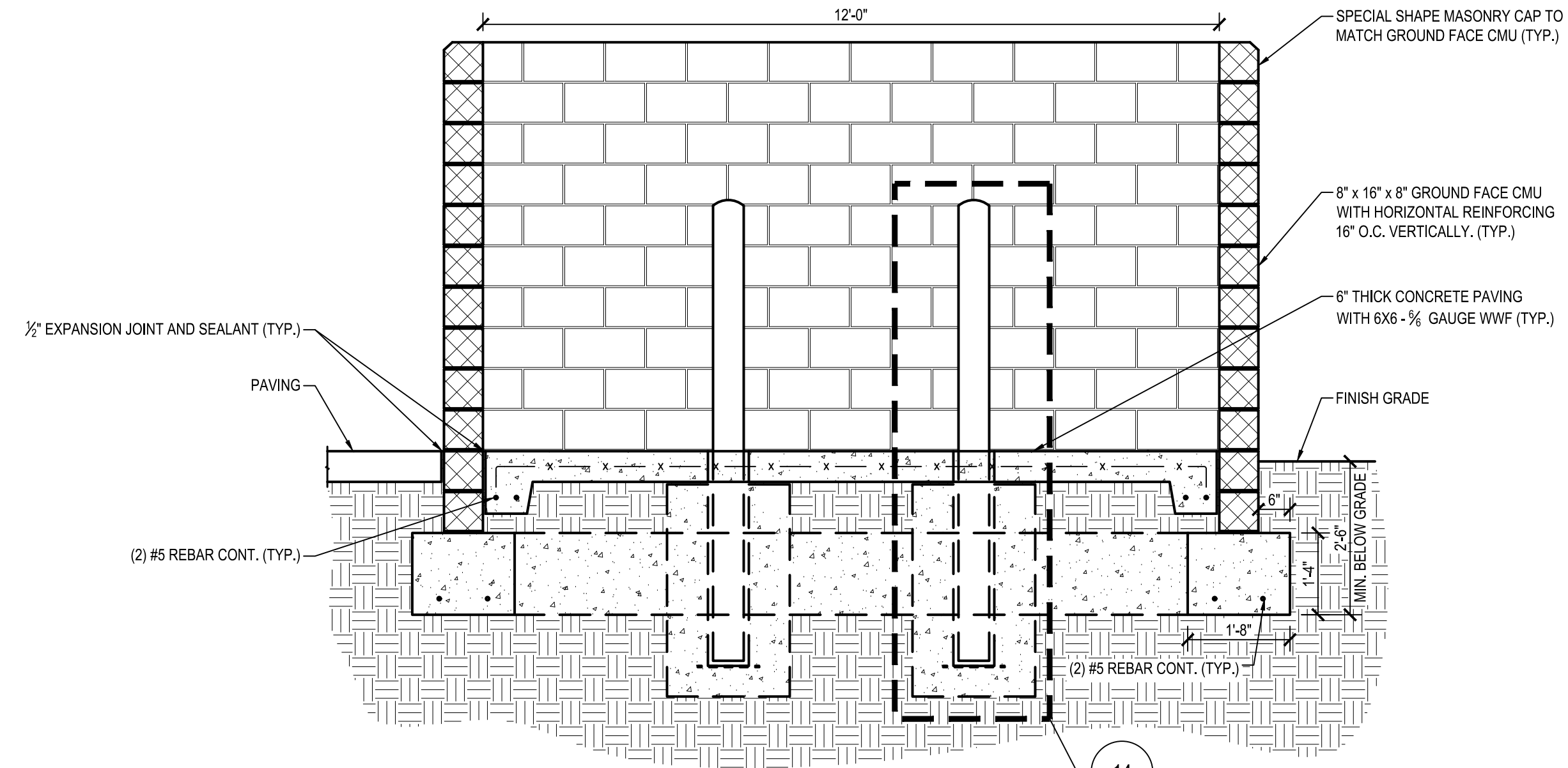
DATE: 4-28-2021

FORT SMALLWOOD PARK
 9500 FORT SMALLWOOD ROAD
 PASADENA, MD 21122

COMFORT STATION
DETAILS

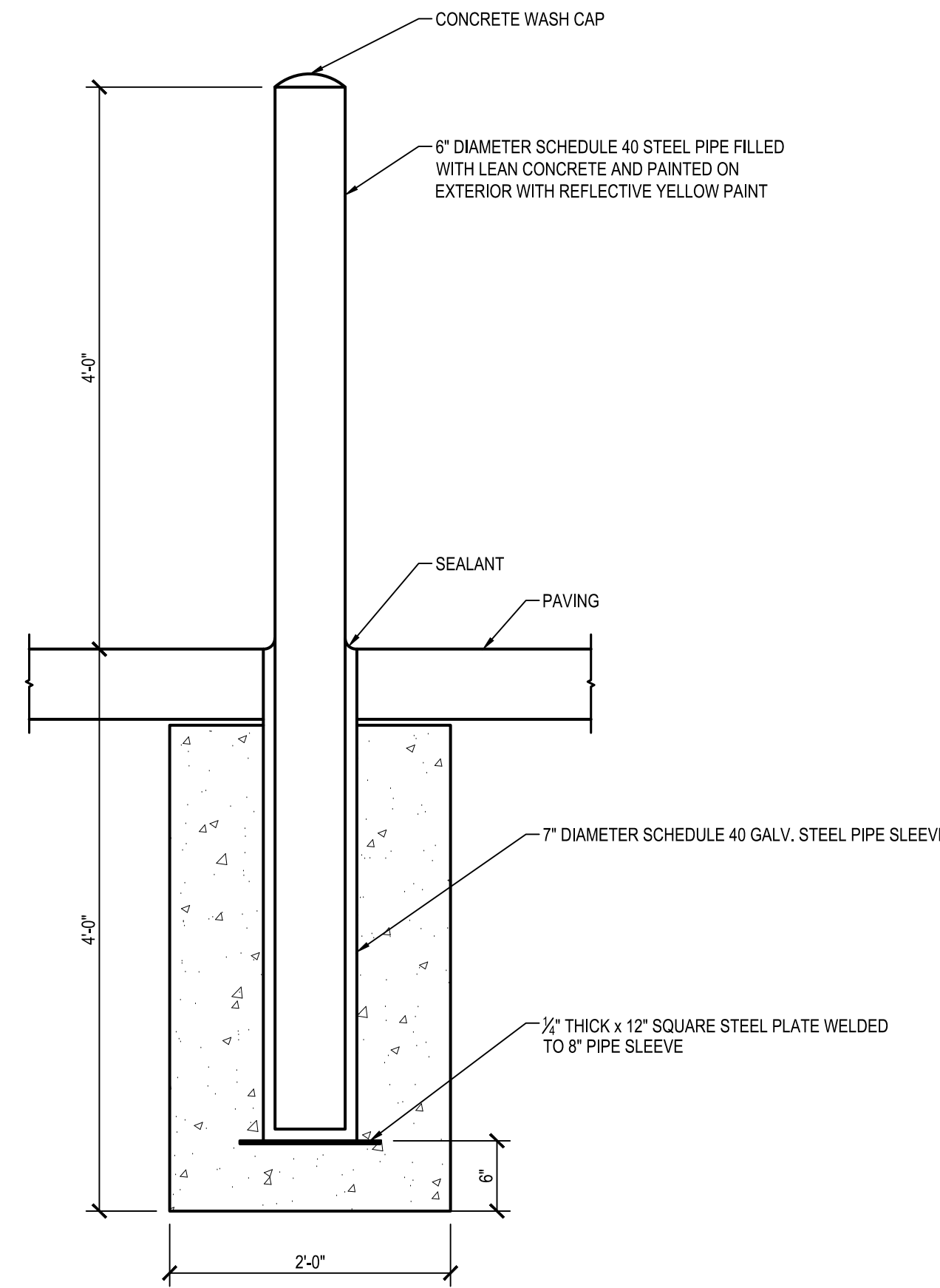
A504C

SCALE: AS NOTED
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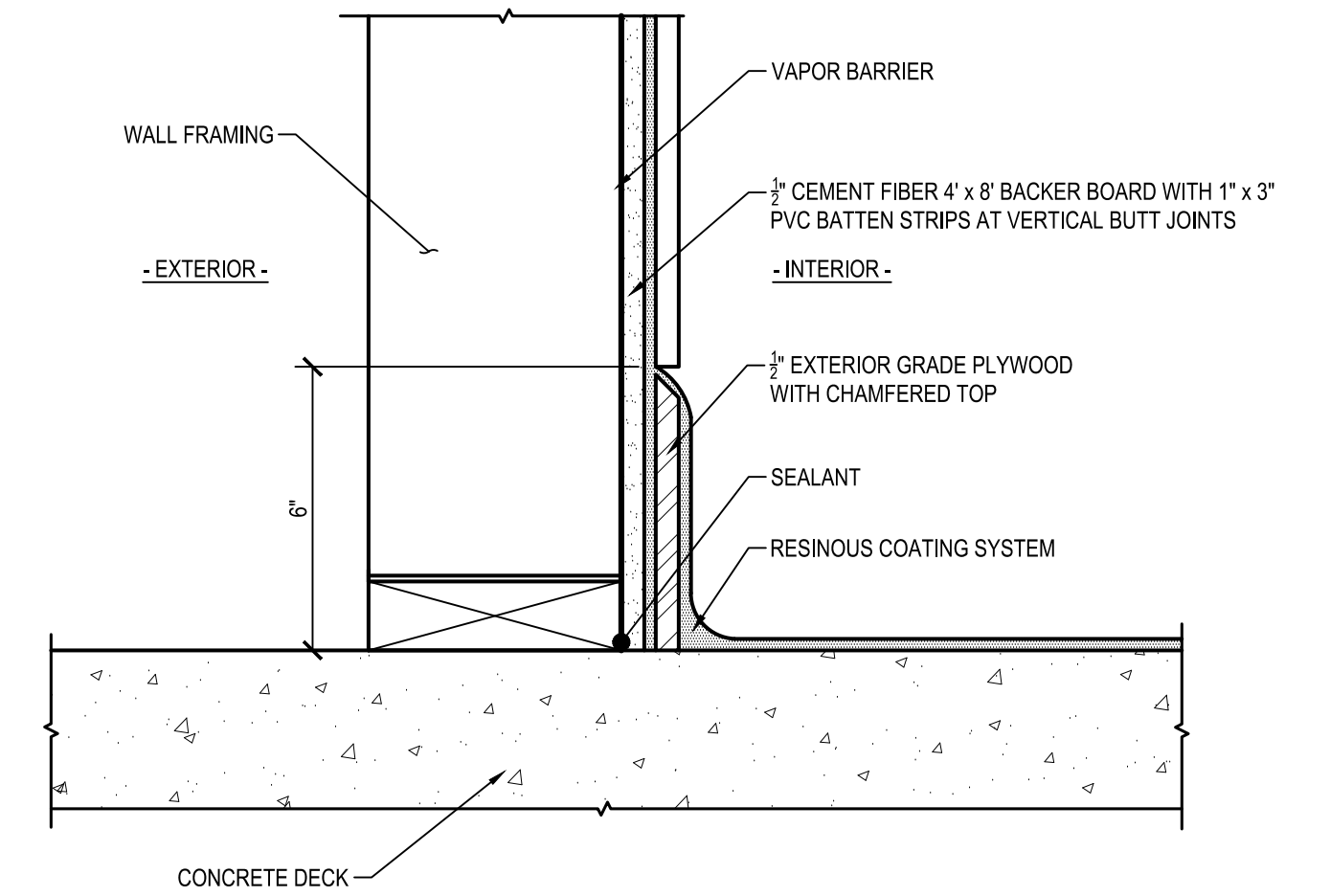
DUMPSTER ENCLOSURE SECTION
SCALE: 1/2"=1'-0"

12



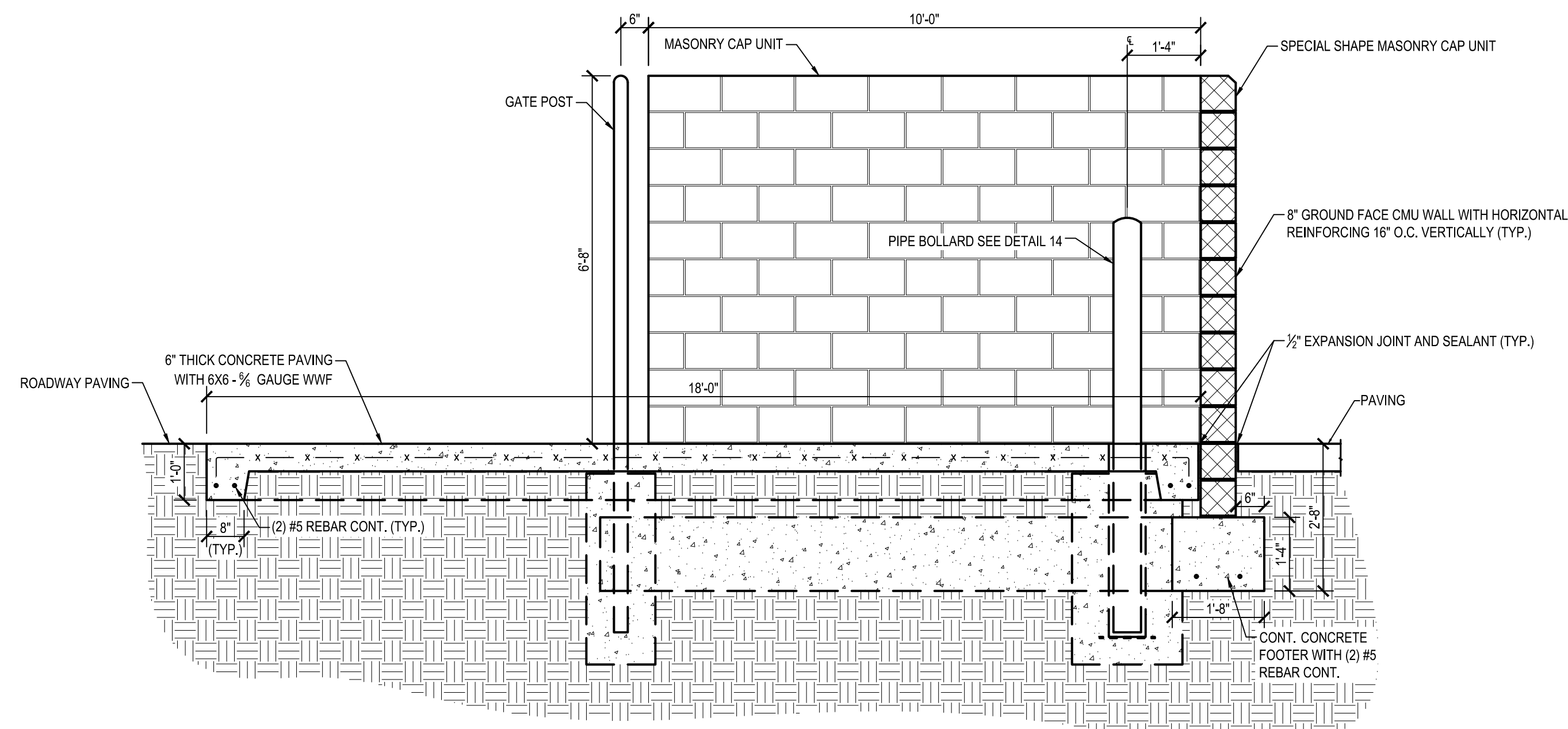
BOLLARD DETAIL
SCALE: 1"=1'-0"

15



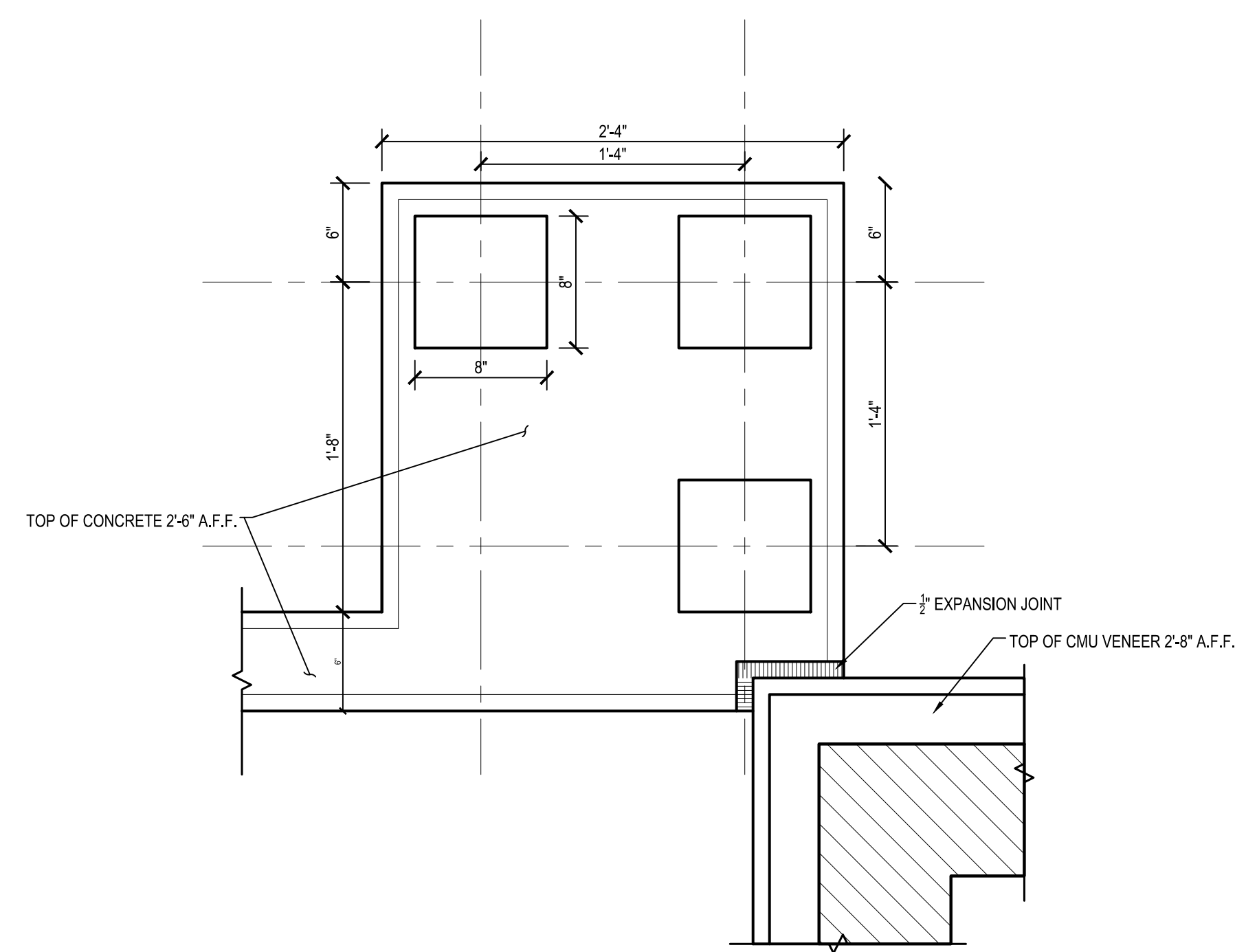
COVE BASE DETAIL
SCALE: 3"=1'-0"

16



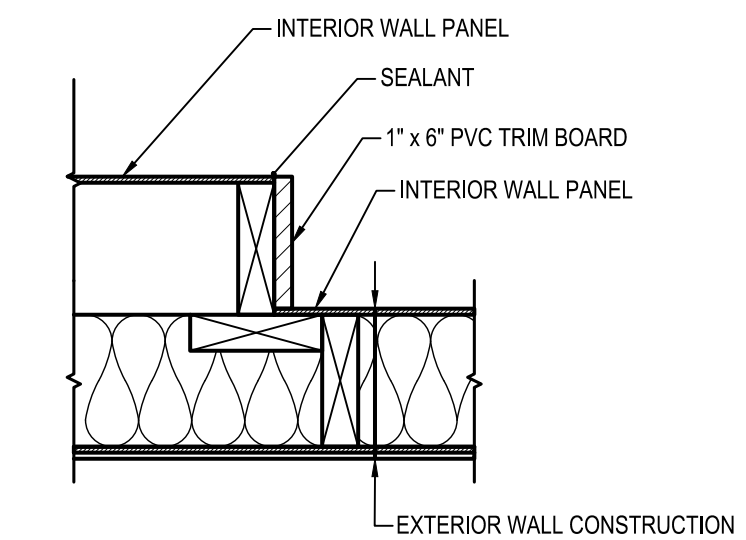
DUMPSTER ENCLOSURE SECTION
SCALE: 1/2"=1'-0"

14



COLUMN BASE DETAIL
SCALE: 1-1/2"=1'-0"

15

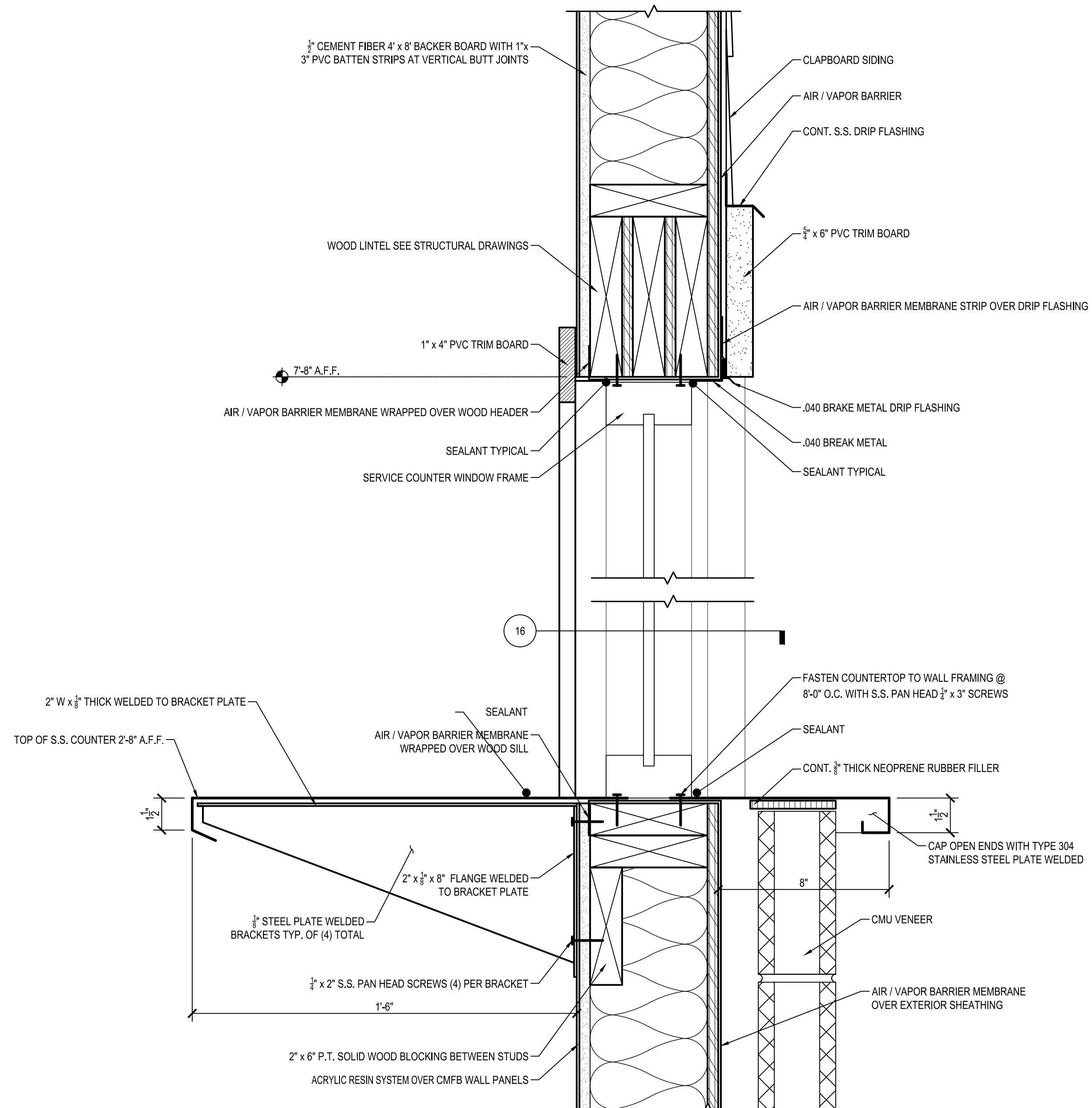


PLAN DETAIL
SCALE: 1 1/2"=1'-0"

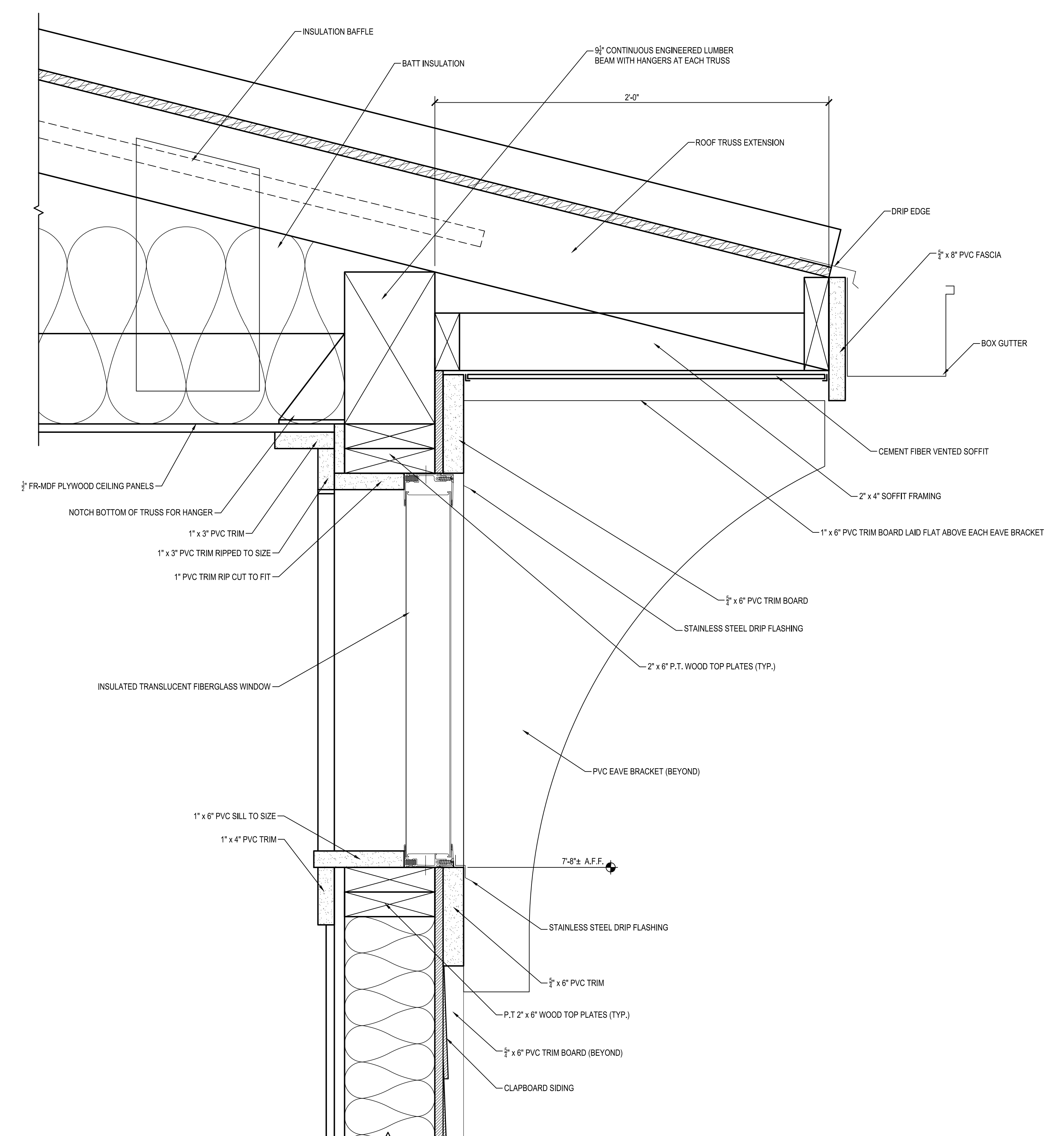
17

NO.	DESCRIPTION	BY	DATE
△			

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				PROPOSAL NO. P535907



SERVICE COUNTER DETAIL
SCALE: 3"=1'-0" (18)



DETAIL
SCALE: 3"=1'-0" (19)

gba
gant-brunnett
ARCHITECTS
15 West Mulberry Street
Baltimore, Maryland 21201-4406
Telephone Number: 410-234-8444

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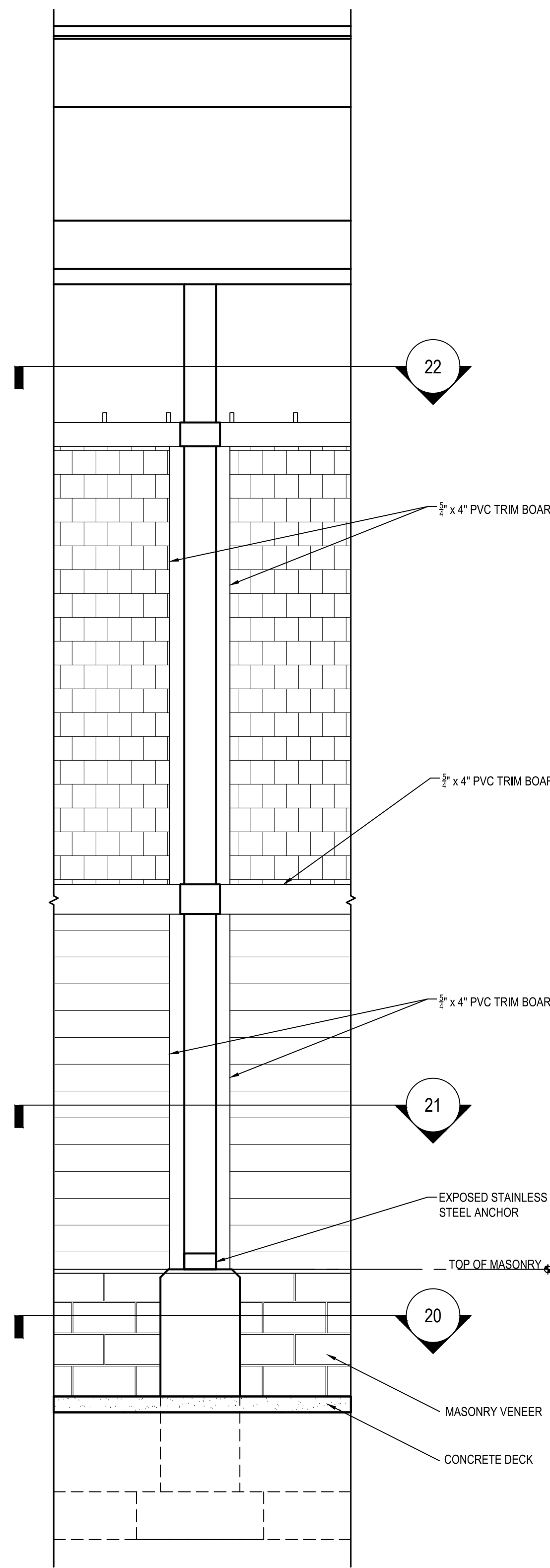
ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS

DATE: 4-28-2021

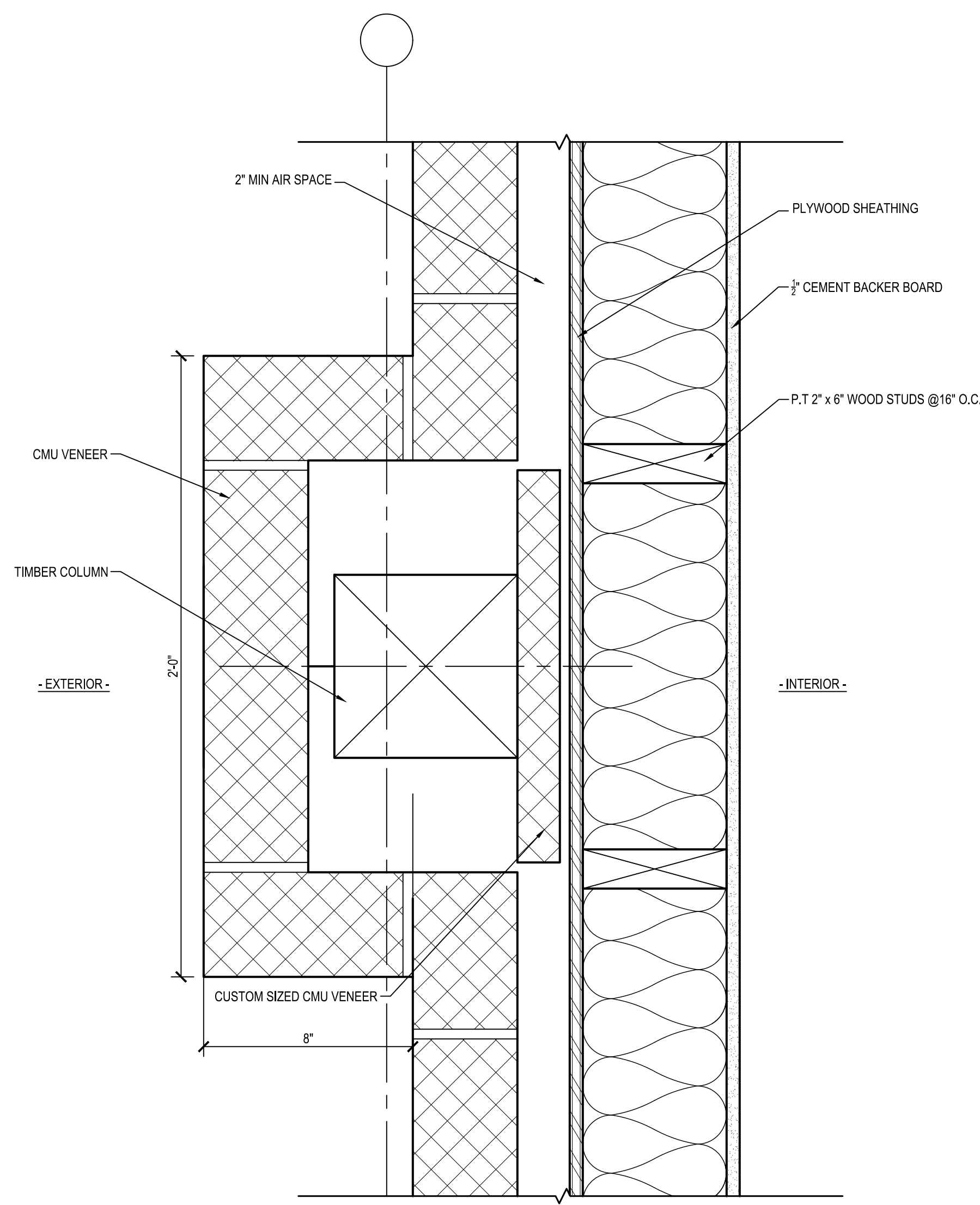
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FORT SMALLWOOD PARK
9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122
COMFORT STATION
DETAILS

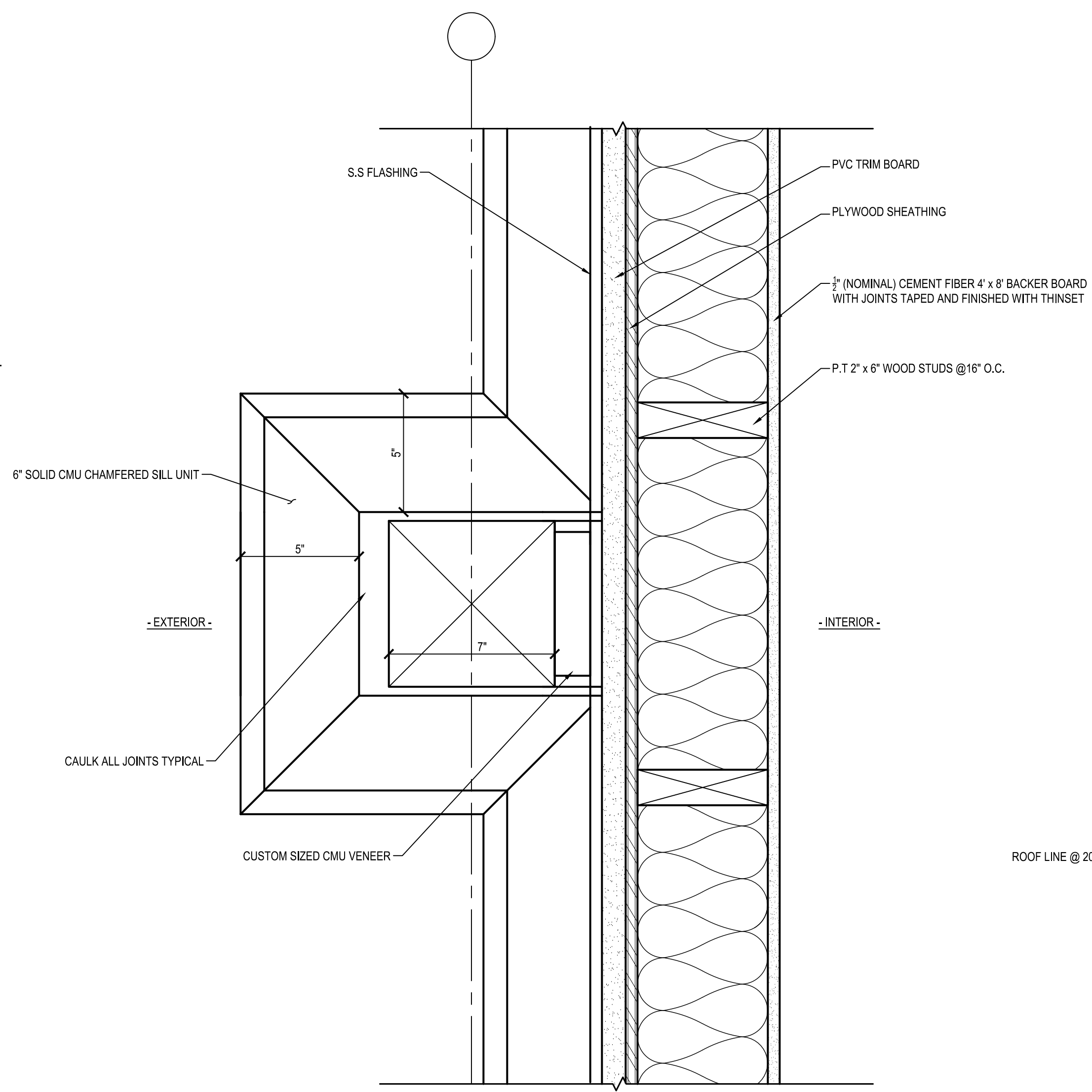
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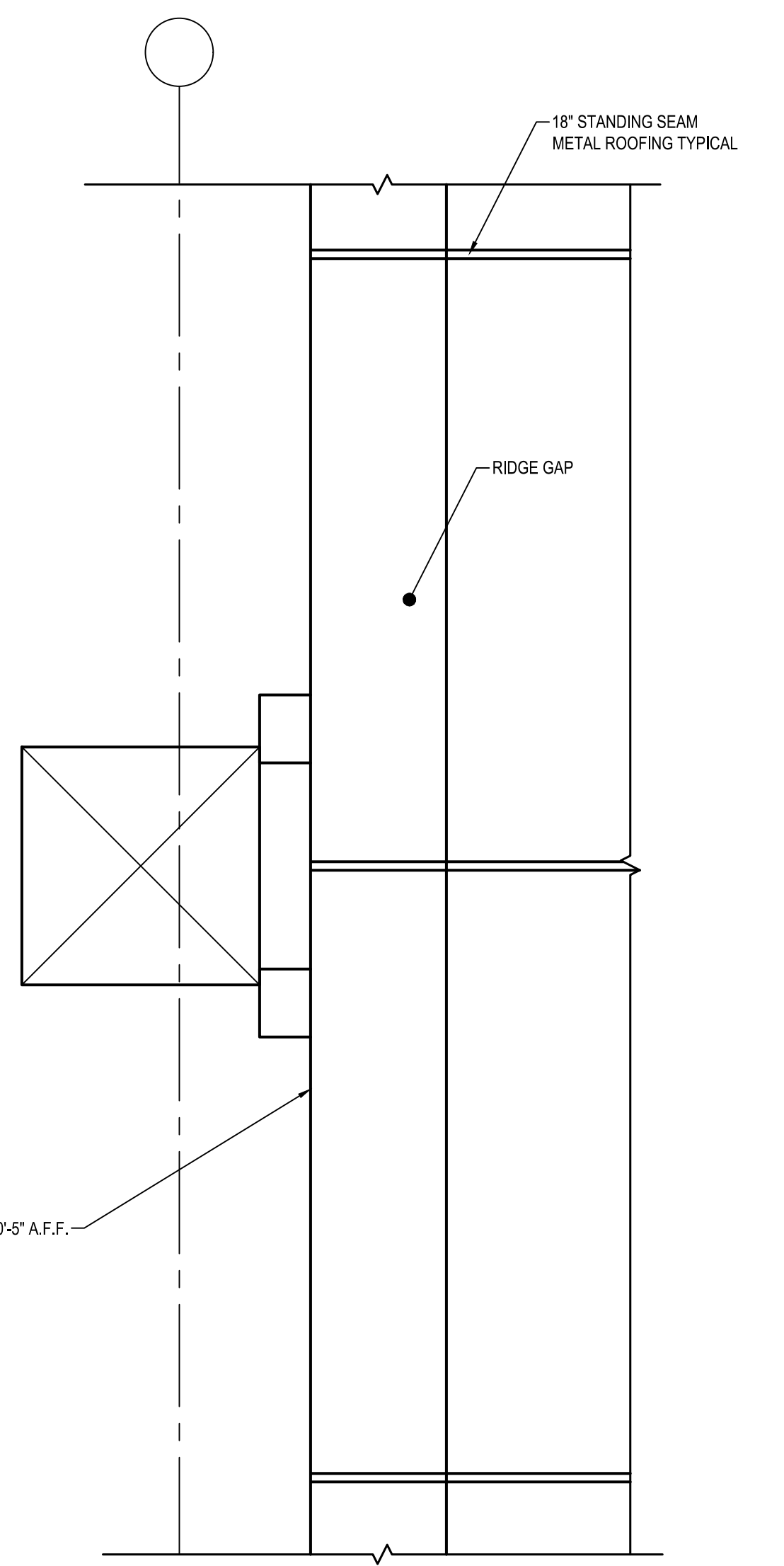
COLUMN ELEVATION
SCALE: 1/2"=1'-0"



COLUMN DETAIL LOW
SCALE: 3"=1'-0" (20)



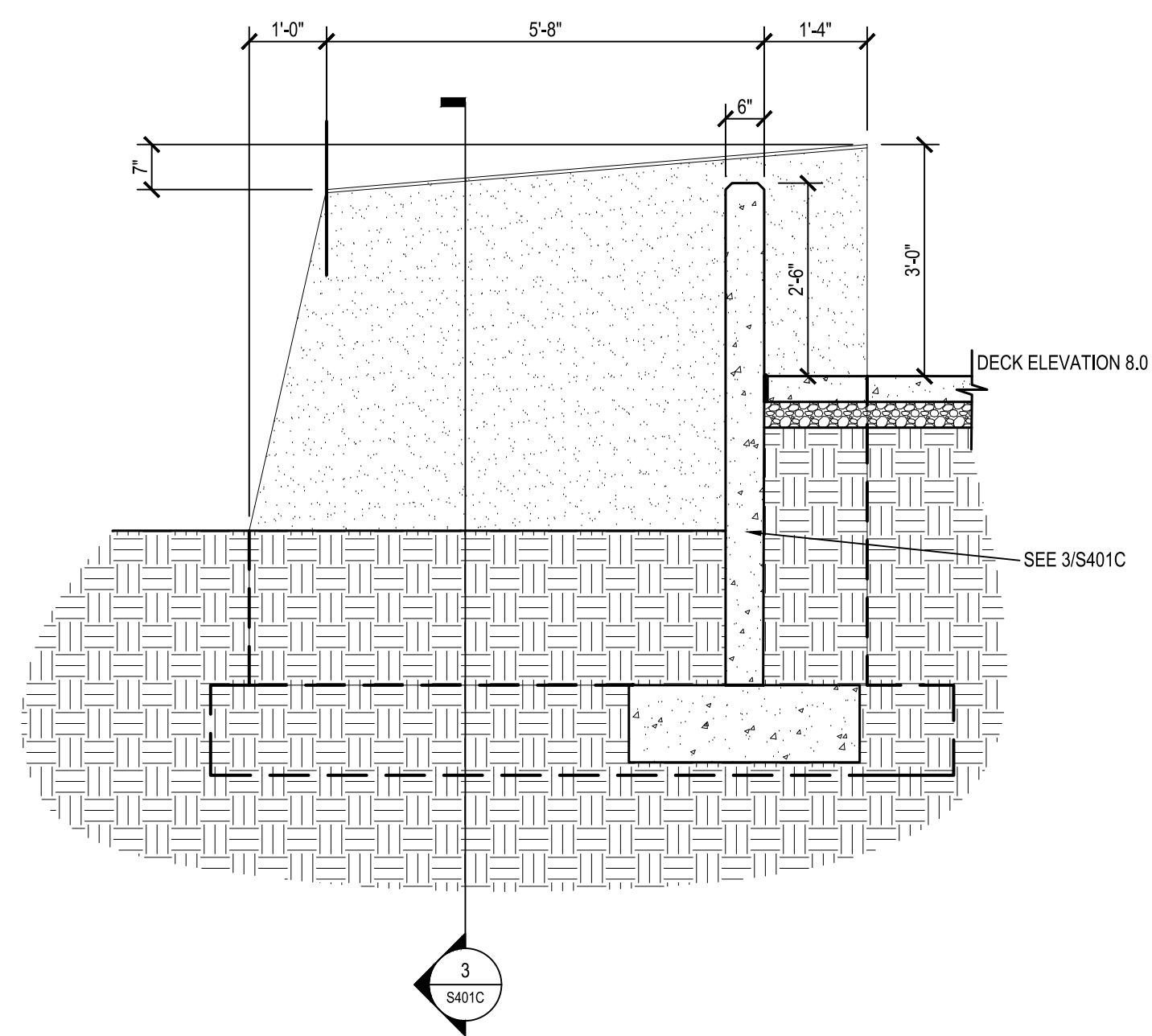
COLUMN DETAIL MIDDLE
SCALE: 3"=1'-0" (21)



COLUMN DETAIL HIGH
SCALE: 3"=1'-0" (22)

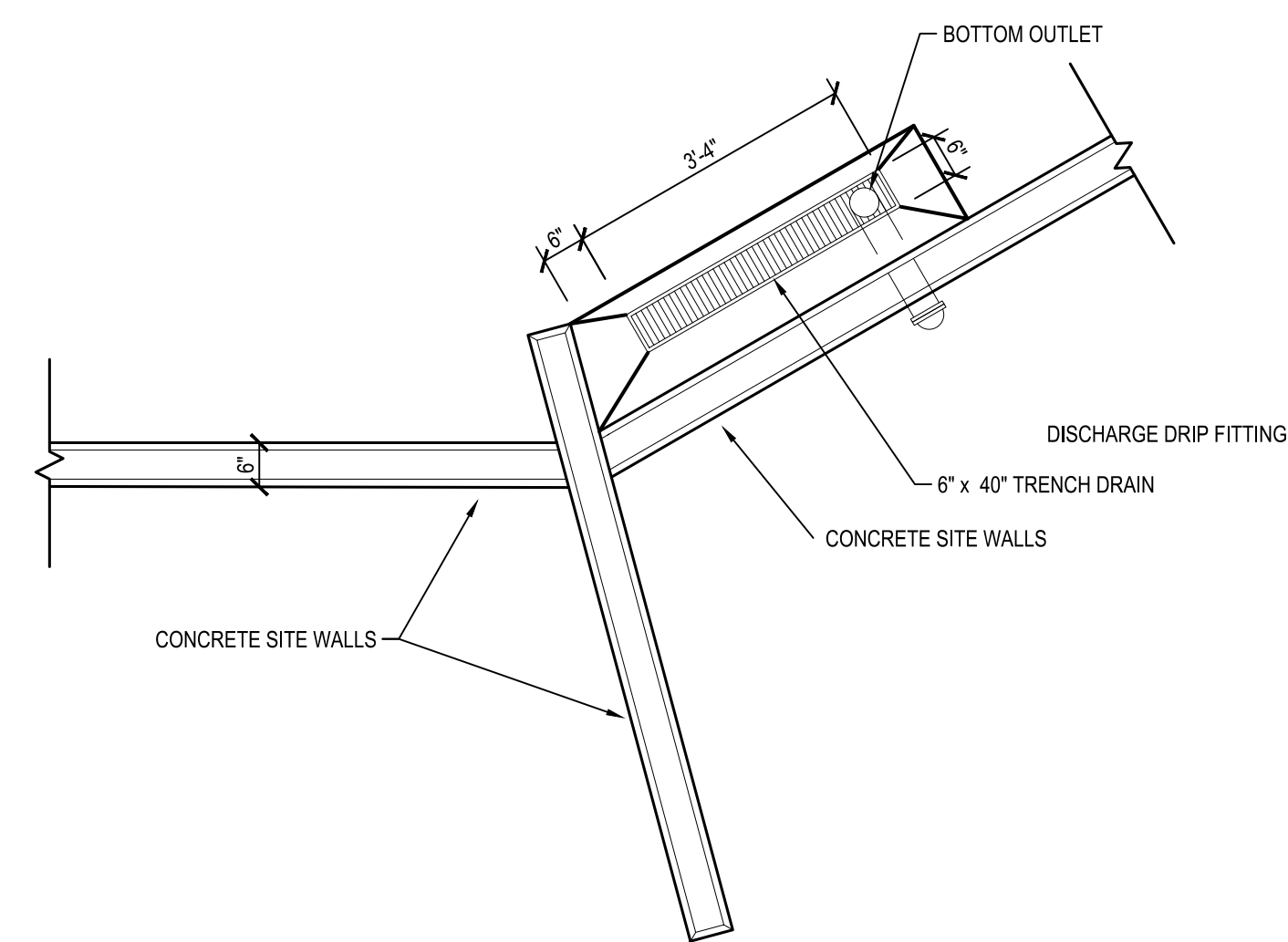
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APPROVED		APPROVED	
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY	



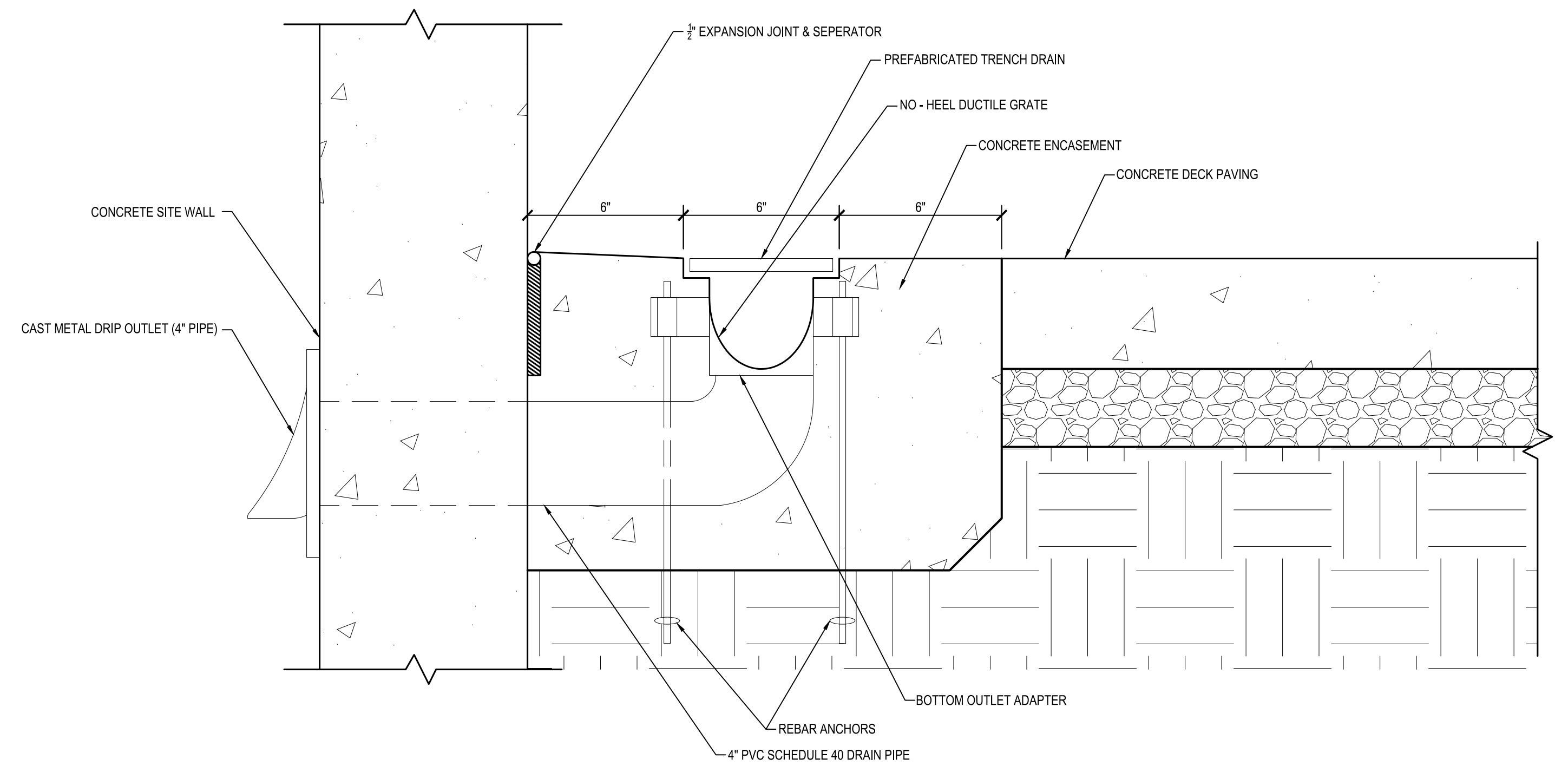
ELEVATION
SCALE: 1/2"=1'-0"

23



ENLARGED PLAN
SCALE: 1/2"=1'-0"

24



DECK TRENCH DRAIN
SCALE: 3/8"=1'-0"

25

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FINISH SCHEDULE						
ROOM NO.	ROOM NAME	FLOOR	BASE	WALLS	CEILING	ADDITIONAL REMARKS
FIRST FLOOR						
201	KITCHEN AND CONCESSIONS	ACRYLIC RESIN SYSTEM	6" ACRYLIC COVE	ACRYLIC RESIN SYSTEM	PAINTED - SATN	
202	PANTRY STORAGE / WASH AREA	ACRYLIC RESIN SYSTEM	6" ACRYLIC COVE	ACRYLIC RESIN SYSTEM	PAINTED - SATN	
203	STAFF LOCKER	ACRYLIC RESIN SYSTEM	6" ACRYLIC COVE	ACRYLIC RESIN SYSTEM	PAINTED - SATN	
204	STAFF RESTROOM	ACRYLIC RESIN SYSTEM	6" ACRYLIC COVE	ACRYLIC RESIN SYSTEM	PAINTED - SATN	
205	FAMILY RESTROOM	ACRYLIC RESIN SYSTEM	6" ACRYLIC COVE	ACRYLIC RESIN SYSTEM	PAINTED - SATN	
206	UTILITY ROOM	ACRYLIC RESIN SYSTEM	6" ACRYLIC COVE	ACRYLIC RESIN SYSTEM	PAINTED - SATN	
207	JANITORS CLOSET	ACRYLIC RESIN SYSTEM	6" ACRYLIC COVE	ACRYLIC RESIN SYSTEM	PAINTED - SATN	
208	ELECTRICAL ROOM	ACRYLIC RESIN SYSTEM	6" ACRYLIC COVE	2" FIRE RETARDANT PLYWOOD	PAINTED - SATN	
209	MEN'S RESTROOM	ACRYLIC RESIN SYSTEM	6" ACRYLIC COVE	ACRYLIC RESIN SYSTEM	PAINTED - SATN	
210	WOMEN'S RESTROOM	ACRYLIC RESIN SYSTEM	6" ACRYLIC COVE	ACRYLIC RESIN SYSTEM	PAINTED - SATN	
211	COVERED DECK	SEALED CONCRETE	NONE	NONE	NONE	
212	SEATING AREA	SEALED CONCRETE	NONE	NONE	NONE	

DOOR SCHEDULE									
DOOR NO.	WIDTH	HEIGHT	DOOR TYPE	DOOR FINISH	FRAME TYPE	FRAME FINISH	HARDWARE SET	ADDITIONAL REMARKS	
FIRST FLOOR									
201	3'-0"	7'-0"	D2 / D3	FACTORY	F1 - A	FACTORY	HW - 5 - C + SD	DOOR D3 ON EXTERIOR SIDE	
202	3'-0"	7'-0"	D2	FACTORY	F2	FACTORY	HW - 1 - C		
203	3'-0"	7'-0"	D1	FACTORY	F1	FACTORY	HW - 1 - C		
204	3'-0"	7'-0"	D1	FACTORY	F2	FACTORY	HW - 2 - C		
205	3'-0"	7'-0"	D1	FACTORY	F1	FACTORY	HW - 2 - C - D		
206	(2) 3'-0"	7'-0"	D1	FACTORY	F3	FACTORY	HW - 4 - C	DOUBLE DOOR	
207	3'-0"	7'-0"	D1	FACTORY	F2	FACTORY	HW - 3 - C		
208	3'-0"	7'-0"	D1	FACTORY	F2	FACTORY	HW - 3 - C		
209	3'-0"	7'-0"	D1	FACTORY	F1	FACTORY	HW - 6 - C		
210	3'-0"	7'-0"	D1	FACTORY	F1	FACTORY	HW - 6 - C		

HW - 1 - C
CONTINUOUS HINGE
RIM EXIT DEVICE NIGHT LATCH FUNCTION WITH LEVER LOCKSET EXTERIOR TRIM
SURFACE MTD CLOSER
ALUMINUM ADA THRESHOLD
KICK PLATE
WEATHER STRIP SET HEAD, JAMB AND BOTTOM SWEEP

HW - 2 - C
CONTINUOUS HINGE
PRIVACY FUNCTION LEVER LATCH SET WITH OCCUPANCY INDICATOR

HW - 2 - C - D
CONTINUOUS HINGE
PRIVACY FUNCTION LEVER LATCH SET WITH OCCUPANCY INDICATOR
SURFACE CLOSER
ADA ALUMINUM THRESHOLD
WEATHER STRIP SET HEAD, JAMB AND BOTTOM SWEEP

HW - 3 - C
CONTINUOUS HINGE
PASSAGE FUNCTION LEVER LATCH SET

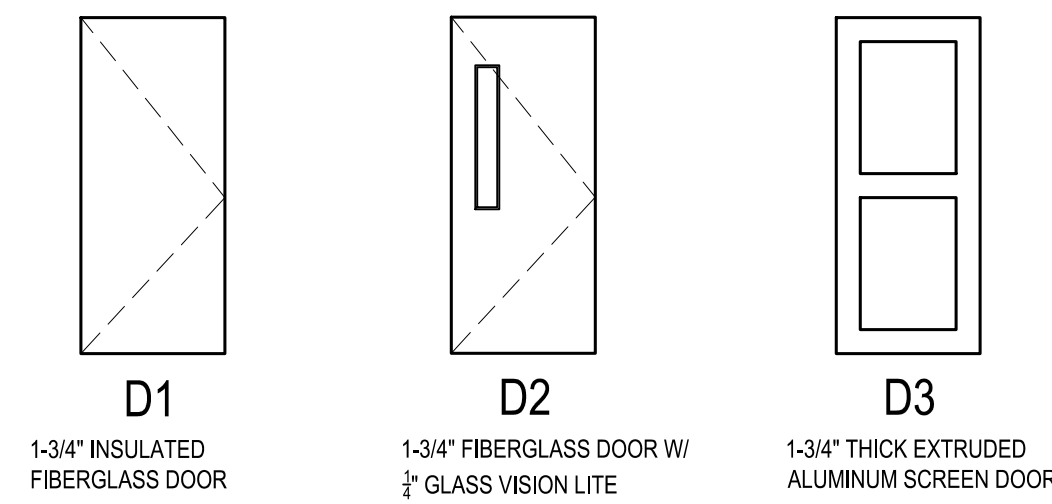
HW - 4 - C
(2) CONTINUOUS HINGES
(1) REMOVABLE LOCKED MULLION
ACTIVE LEAF - STOREROOM FUNCTION LEVER LOCK SET
INACTIVE LEAF - TOP & BOTTOM SURFACE MTD SLIDER BAR
ALUMINUM THRESHOLD
WEATHER STRIP SET HEAD, JAMB AND BOTTOM SWEEP

HW - 5 - C + SD
CONTINUOUS HINGE
CLASSROOM FUNCTION LEVER LOCKSET
WEATHERSTRIP SET HEAD, JAMB AND BOTTOM SWEEP
SCREEN DOOR CONTINUOUS HINGE
SCREEN DOOR PASSAGE FUNCTION LEVER LATCH SET
SCREEN DOOR CLOSER

HW - 6 - C
CONTINUOUS HINGE
PUSH BAR AND PULL BAR
SINGLE SIDE DEADBOLT LOCKSET
SURFACE CLOSER
ADA ALUMINUM THRESHOLD
WEATHER STRIP SET HEAD, JAMB AND BOTTOM SWEEP
KICK PLATE ON PUSH SIDE

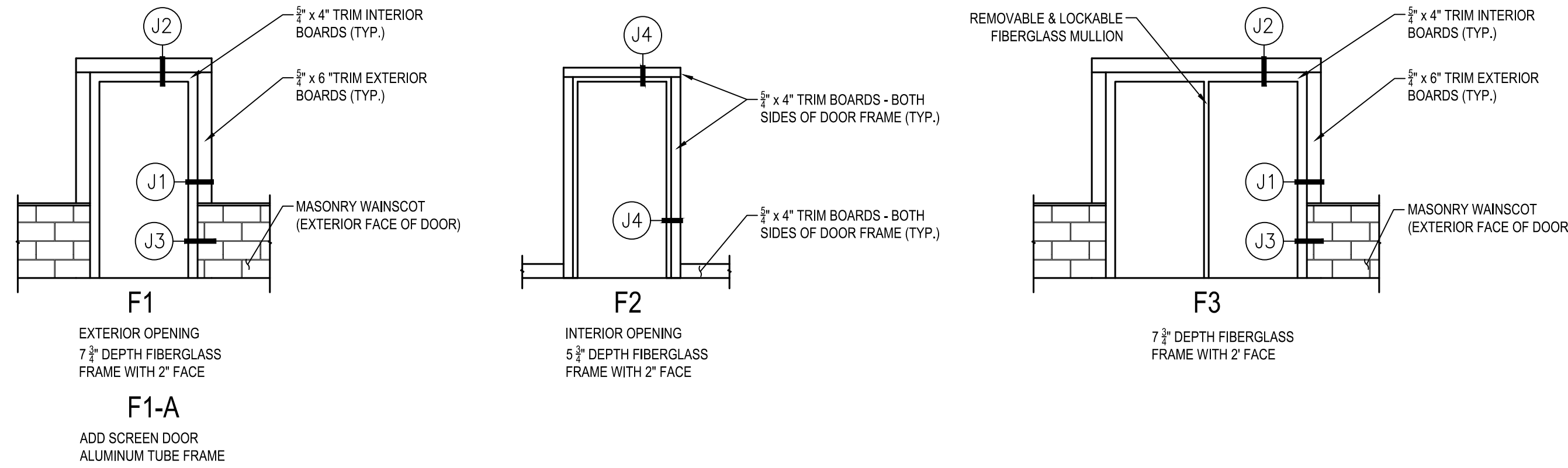
DOOR TYPES

SCALE: 1/4"=1'-0"



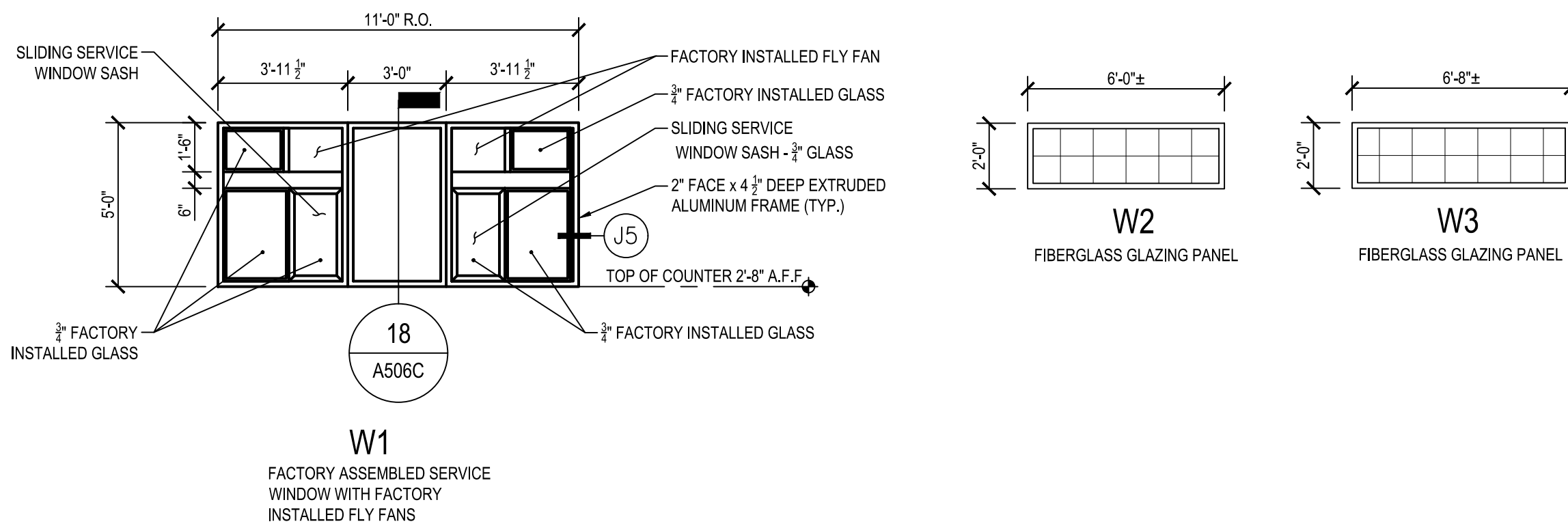
FRAME TYPES

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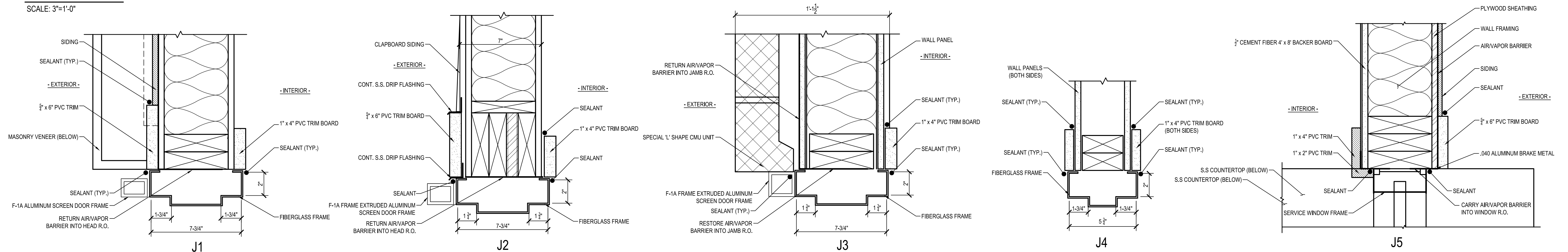
WINDOW TYPES

SCALE: 1/4"=1'-0"



JAMB DETAILS

SCALE: 3"=1'-0"



gba
gant-brunnett
ARCHITECTS
15 West Mulberry Street
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FORT SMALLWOOD PARK
9500 FORT SMALLWOOD PARK
PASADENA, MD 21122
**COMFORT STATION
SCHEDULES**

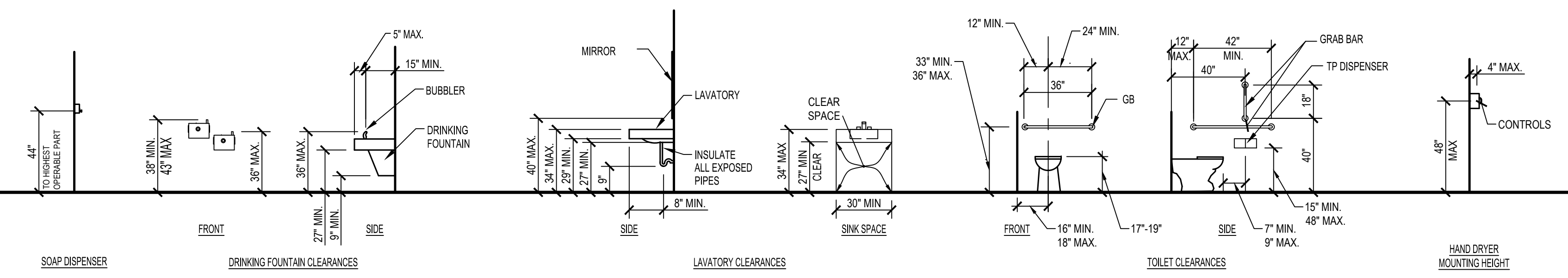
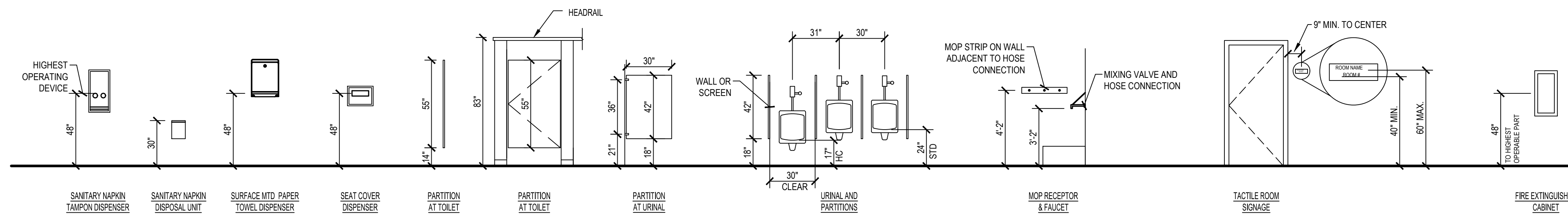
A601C

GENERAL NOTES

ABBREVIATIONS

- CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS. RESOLVE ALL DISCREPANCIES PRIOR TO COMMENCING WORK.
- CONTRACTOR SHALL PROVIDE OPENINGS IN FLOORS, WALLS, CEILING AND ROOF TO PROVIDE FOR THE ROUTING OF ALL NEW WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION, SIZE AND CONSTRUCTION OF ALL PENETRATIONS.
- WALLS NOT INDICATED WITH A WALL CONSTRUCTION SCHEDULE SYMBOL SHALL BE CONSTRUCTED THE SAME AS THE ADJACENT WALL.
- THE CONTRACTOR SHALL NOT RELY ON MEASUREMENTS SCALED FROM THESE DRAWINGS.
- DIMENSIONS SHOWN ARE TO THE FACE OF FINISH SURFACE UNLESS OTHERWISE NOTED.
- ALL GLAZING SHALL BE IN ACCORDANCE WITH CONSUMER PRODUCT SAFETY COMMISSION 16 CFR PART 1201 (1977) SAFETY STANDARD FOR ARCHITECTURAL GLAZING MATERIALS.
- FIRE RATED WALLS SHALL EXTEND TIGHT TO THE UNDERSIDE OF THE DECK ABOVE. SEAL ALL GAPS.
- THE CONTRACTOR SHALL SEAL THE ANNULAR SPACE AT ALL PENETRATIONS THROUGH HORIZONTAL AND CEILING/ROOF NON-FIRE RATED ASSEMBLIES WITH A NON-COMBUSTIBLE APPROVED MATERIAL.
- PENETRATIONS THROUGH ANY FIRE RATED ASSEMBLIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE UL DESIGN DESIGNATION AND THE ANNULAR SPACE AT ALL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES SHALL BE FIRESTOPPED WITH AN APPROVED MATERIAL TESTED AND LABELED BY UL.
- ALL CONSTRUCTION OF FIRE RATED ASSEMBLIES SHALL COMPLY WITH THE UNDERWRITERS LABORATORIES FIRE RESISTANCE DIRECTORY DESIGN AS DESIGNATED ON THESE DRAWINGS. THE CONTRACTOR SHALL PROVIDE MATERIALS & CONSTRUCTION STRICTLY IN ACCORDANCE WITH THE UL DESIGN DESIGNATIONS.
- PLUMBING CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH ANNE ARUNDEL COUNTY PLUMBING CODE AND SUBJECT TO FIELD INSPECTION BY THE AGENCIES HAVING JURISDICTION.
- ELECTRICAL CONSTRUCTION SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST EDITIONS AND REVISIONS OF THE NATIONAL ELECTRICAL CODE.
- MECHANICAL CONSTRUCTION SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST ADOPTED EDITION OF INTERNATIONAL MECHANICAL CODE.
- THE CONTRACTOR SHALL NOTIFY THE FOLLOWING AGENCIES (5) FIVE DAYS PRIOR TO THE START OF WORK ON-SITE:
MISL UTILITIES
ANNE ARUNDEL COUNTY INSPECTIONS AND PERMITS
- CONTRACTOR SHALL PROPERLY PREPARE ALL SURFACES INDICATED TO BE PAINTED, INCLUDING, BUT NOT LIMITED TO CLEANING AND SANDING BEFORE PRIMING AND BETWEEN COATS. UNLESS OTHERWISE NOTED WALL FINISHES SHALL BE APPLIED FROM FINISHED FLOOR TO FINISHED CEILING.
- INTERIOR FINISHES FOR WALLS AND CEILINGS SHALL MEET:
-ASTM E84 AND IBC 2018 TABLE 803.1.3
-ALL FLOOR FINISHES SHALL MEET DOC FF-1 AND NFPA
- UNLESS OTHERWISE INDICATED, TRANSITION OF FINISHES SHALL OCCUR UNDER DOOR BETWEEN ROOMS.
- SURFACES NOT INDICATED WITH A FINISH SHALL RECEIVE THE SAME FINISH AS THE ADJACENT INDICATED SPACE.
- COAT ALL EXPOSED SURFACES OF GYPSUM WALLBOARD, PLASTER, UNFINISHED WOOD AND UNFINISHED STEEL WITH PRIMER AND TWO COATS OF PAINT UNLESS OTHERWISE NOTED.
- PROVIDE TRANSITION STRIPS WHERE TWO DIFFERENT FLOOR FINISHES MEET. (TYPICAL)
- PROVIDE 2 LAYERS 5/8" FIRE CODE GYPSUM AROUND PENETRATIONS FOR FIRE EXTINGUISHER CABINETS IN RATED WALLS.
- SEE PARTITION SCHEDULE FOR EXTENT OF SOUND ATTENUATION INSULATION. CAULK PERIMETER OF ALL SOUND RATED PARTITIONS.
- EXTEND GYPSUM WALLBOARD FULL LENGTH AND HEIGHT OF WALL BEHIND CABINETS. (TYPICAL)
- INSTALL THRU WALL FLASHING ABOVE OPENINGS IN EXTERIOR MASONRY WALLS WITH WEEP HOLES AT 16" O.C.
- A CHAIN LINK CONSTRUCTION FENCE AROUND THE ENTIRE L.O.D. AND SHALL BE PROVIDED UNDER THE GENERAL CONSTRUCTION CONTRACT. THE FENCE SHALL BE REMOVED AT THE END OF THE CONSTRUCTION PHASE UNDER GENERAL CONSTRUCTION CONTRACT.
- CAULK PERIMETER OF ALL FLOOR AND WALL MOUNTED PLUMBING FIXTURES AND COUNTER TOPS.
- PROVIDE SOLID WOOD FIRE RETARDANT TREATED BLOCKING BEHIND WALL MOUNTED HARDWARE, CABINETS, EQUIPMENT AND HANDRAILS, MINIMUM SIZE TO BE 2x6 LUMBER. DO NOT CUT STUDS FOR HORIZONTAL PIPE RUNS. FEED PIPE FROM OVER HEAD BETWEEN STUDS.

- | | |
|-------------------------------------|----------------------------------|
| ACT ACOUSTICAL TILE | MH MANHOLE |
| ADA AMERICANS WITH DISABILITIES ACT | MIN MINIMUM |
| AFF ABOVE FINISH FLOOR | MTD MOUNTED |
| ALI ACOUSTICAL LAY-IN PANEL | MTL METAL |
| ALUM ALUMINUM | NIC NOT IN CONTRACT |
| ANL ANODIZED ALUMINUM | OC ON CENTER |
| BOC BOTTOM OF CURB | PCC PORTLAND CEMENT CONCRETE |
| BTC BITUMINOUS CONCRETE | PLM PLASTIC LAMINATE |
| CRPT CARPET | PT PRESERVATIVE TREATED |
| CJ CERAMIC TILE | PTD PAPER TOWEL DISPENSER |
| CL CONTROL JOINT | S SEWER |
| CL CLEAR | SS STAINLESS STEEL |
| CLT CLOSET | SD SOAP DISPENSER |
| CONC CONCRETE | SIM SIMILAR |
| CONT CONTINUOUS | SND SANITARY NAPKIN DISPENSER |
| CMU CONCRETE MASONRY UNIT | TOC TOP OF CURB |
| DB DIRECT BURIAL | TOF TOP OF FOOTING |
| DS DOWNSPOUT | TPD TOILET PAPER DISPENSER |
| EDB EDGE BAND | TS TRANSITION STRIP |
| ELEV ELEVATION | TSCD TOILET SEAT COVER DISPENSER |
| EXIST EXISTING | TYP TYPICAL |
| FEC FIRE EXTINGUISHER CABINET | UL UNDERWRITER'S LABORATORIES |
| FBGL FIBERGLASS | U.O.N. UNLESS OTHERWISE NOTED |
| GWB GYPSUM WALLBOARD | VCT VINYL COMPOSITION TILE |
| GB GRAB BAR | WLCVR WALL COVERING |
| GA GAUGE | W/ WITH |
| GALV GALVANIZED | W WATER |
| HM HOLLOW METAL | WD WOOD |
| INSUL INSULATION | WR WATER RESISTANT |
| INC INCLUDED | WDVN WOOD VENEER |
| MFR MANUFACTURER | WWF WELDED WIRE FABRIC |



MOUNTING HEIGHTS

SCALE: 1/4"=1'-0"

NO.	DESCRIPTION	BY	DATE
△			

ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS				DATE: 4-28-2021
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ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY		SHEET NO. OF
				PROJECT NO. P535900
				PROPOSAL NO. P535907

BUILDING CODE ANALYSIS

BUILDING CODE DATA

PROPERTY ADDRESS:
9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122

BUILDING KNOWN AS: MAINTENANCE BUILDING

FIRE DISTRICT: ANNE ARUNDEL COUNTY

LAND ZONING DESIGNATION: OS

GENERAL DESCRIPTIONS OF BUILDING USE: STORGE AND REPAIR SHOP

APPLICABLE BUILDING CODES

INTERNATIONAL BUILDING CODE 2018
INTERNATIONAL MECHANICAL CODE 2018
INTERNATIONAL PLUMBING CODE 2018
INTERNATIONAL ENERGY CONSERVATION CODE 2018
INTERNATIONAL FUEL GAS CODE 2018
NATIONAL ELECTRICAL CODE 2017
NFPA 101 LIFE SAFETY CODE 2018
NFPA 1 FIRE PROTECTION CODE 2018
NFPA 13 AUTOMATIC SPRINKLER SYSTEMS CODE 2016
NFPA 72 FIRE ALARM CODE 2016
INTERNATIONAL CODE COUNCIL ICC A117.1-2009 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES

CLASSIFICATION OF WORK

OCCUPANCY CLASSIFICATION: S-1 (STORAGE)
NFPA 101 CLASSIFICATION 'STORAGE' ORDINARY HAZARD
CONSTRUCTION TYPE 5B PER IBC 2018

AREA LIMITATIONS

ALLOWABLE AREA PER FLOOR: 9000 SF
ACTUAL BUILDING AREA: 5183 SF

HEIGHT LIMITATIONS:
ALLOWABLE HEIGHT: 1 STORIES
ACTUAL BUILDING HEIGHT: 1 STORY

OCCUPANT LOAD PER FLOOR

TOTAL OCCUPANT LOAD = 57

EXIT CAPACITY

DOOR CLEAR WIDTH REQUIRED: 57 OCCUPANTS x 2' = 114"
TOTAL DOOR CLEAR WIDTH PROVIDED: 36" x 5 = 180"
NUMBER OF EXITS = 5

FIRE PROTECTION

AUTOMATIC SPRINKLER SYSTEMS: NOT REQUIRED

FIRE ALARM: NOT REQUIRED

FIRE RESISTANCE RATING FOR BUILDING COMPONENTS:

PRIMARY STRUCTURAL FRAME	-0-
BEARING WALLS	-0-
EXTERIOR	-0-
INTERIOR	-0-
NONBEARING WALLS	-0-
EXTERIOR LESS THAN 10' SEPARATION	-0-
EXTERIOR GREATER THAN 10' SEPARATION	-0-
INTERIOR	-0-
FLOOR CONSTRUCTION	-0-
ROOF CONSTRUCTION	-0-

INTERIOR FINISHES

2018 IBC TABLE 803.1.1
GROUP: S-1 (STORAGE)
AUTOMATIC SPRINKLER SYSTEMS: (NONSPRINKLERED)

INTERIOR EXIT STAIRWAYS, INTERIOR EXIST RAMPS AND EXIT PASSAGEWAYS:
RATING: (B)

CORRIDORS AND ENCLOSURE FOR EXIT ACCESS STAIRWAYS AND EXIT ACCESS RAMPS:
RATING: (B)

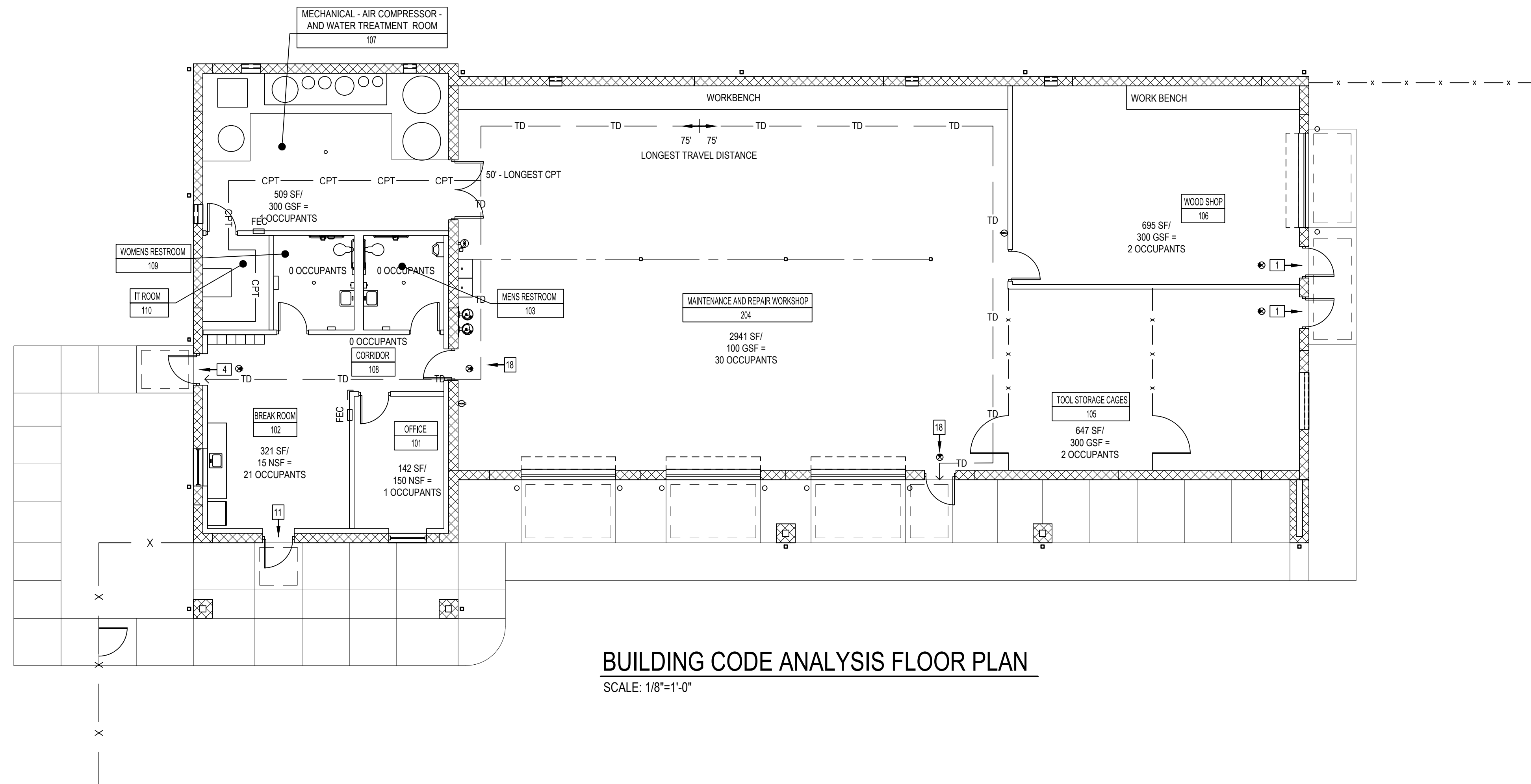
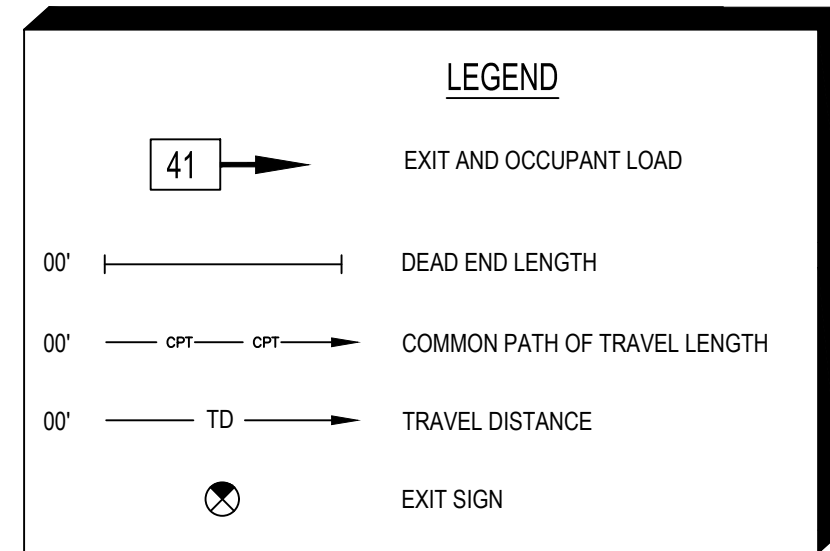
ROOMS AND ENCLOSED SPACES:
RATING: (C)

PLUMBING FIXTURE COUNT REQUIRED

S-1 STORAGE CLASSIFICATION:	57 OCCUPANTS	MALE	FEMALE
		29	29
		1	1
		1	1

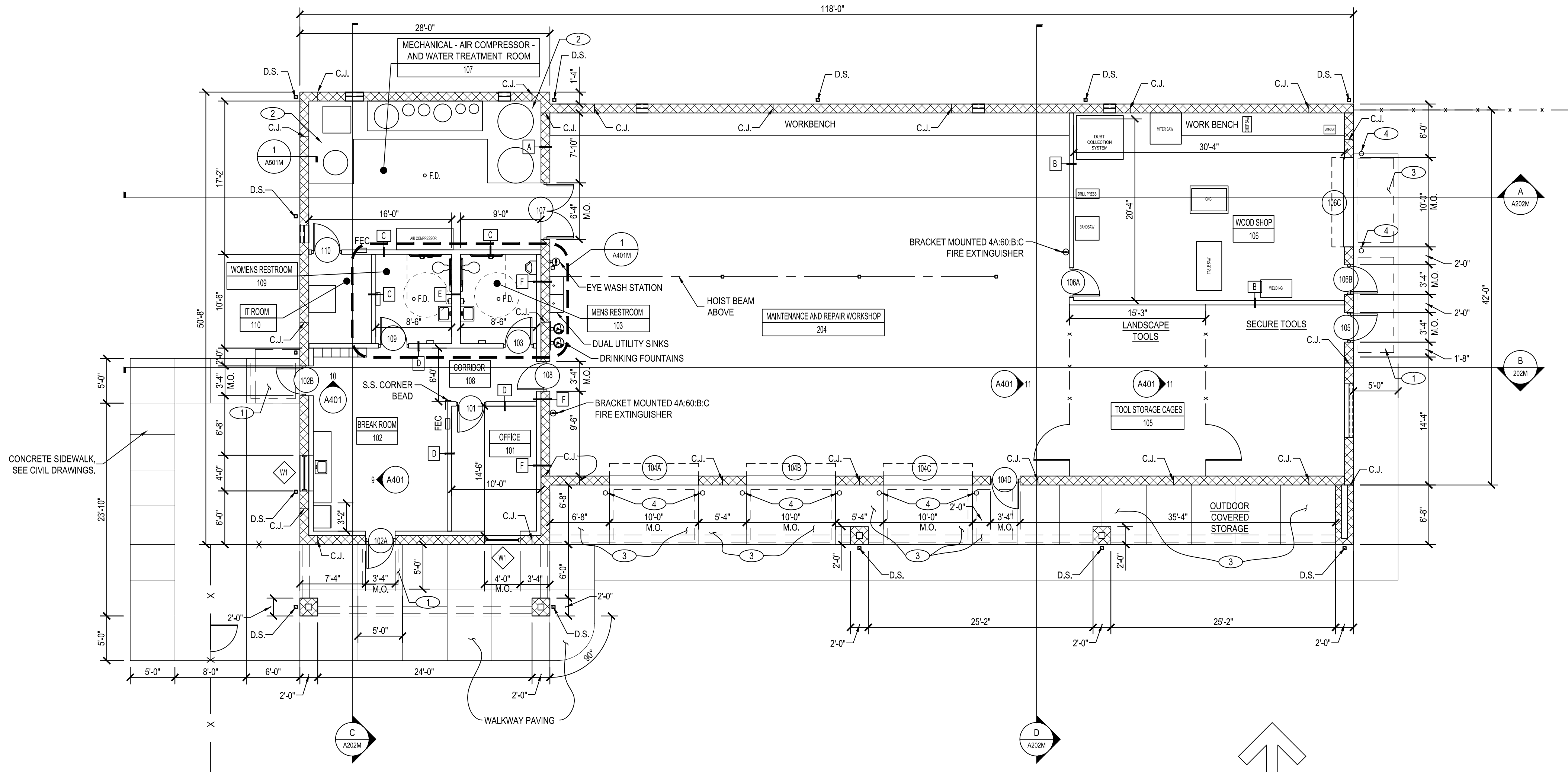
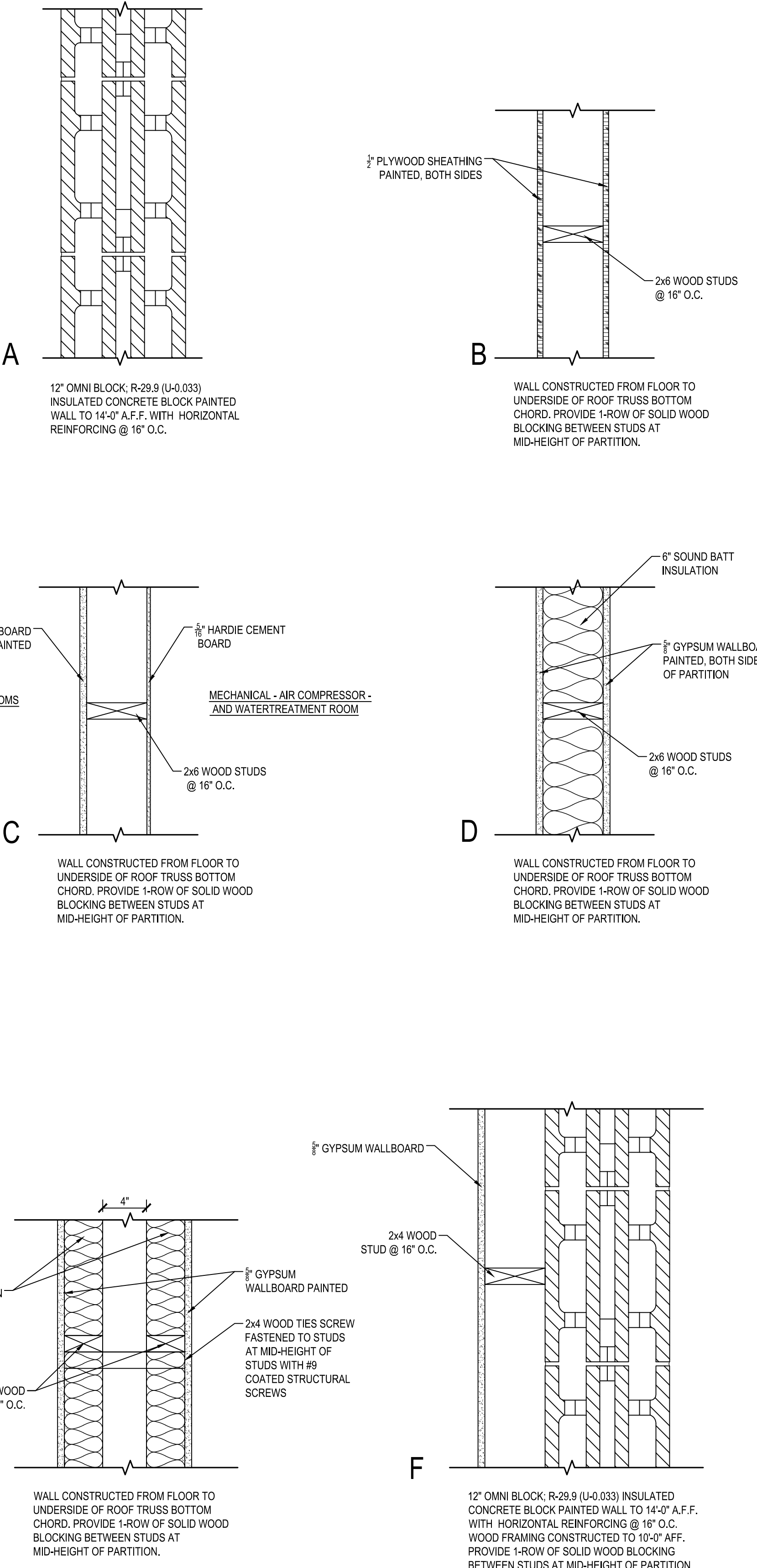
DRINKING FOUNTAIN REQUIRED = 1
DRINKING FOUNTAIN PROVIDED = 2

SERVICE SINK REQUIRED = 1
SERVICE SINK PROVIDED = 2



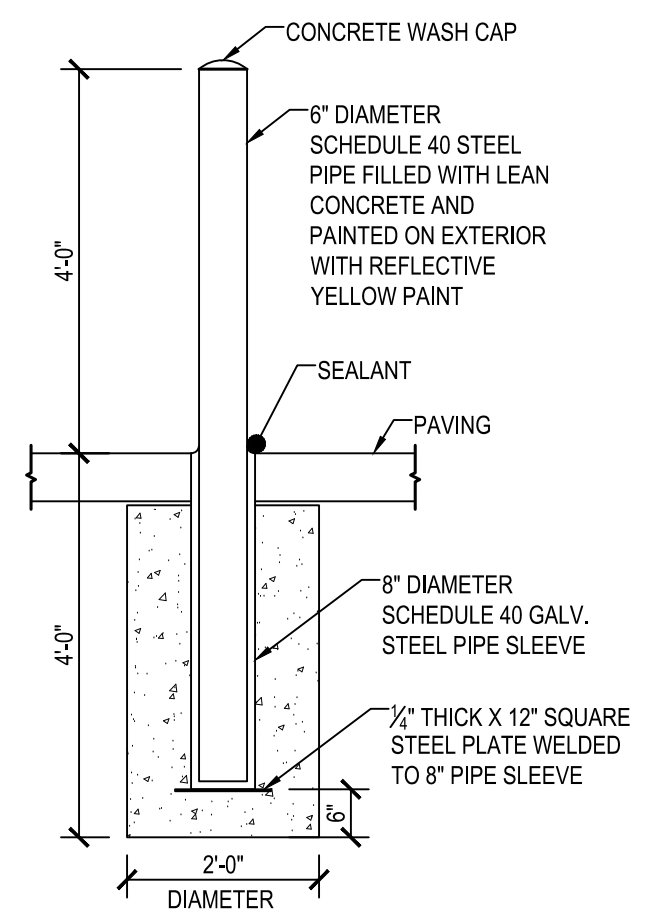
 15 West Mulberry Street Baltimore, Maryland 21201-4406 Telephone Number: 410-234-8444	*PROFESSIONAL CERTIFICATION I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NUMBER 000, EXPIRATION DATE 05/23/2021.* (C) GANT BRUNETT ARCHITECTS ALL REPRODUCTION IS PROHIBITED	NO.	DESCRIPTION	BY	DATE	ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS DATE: 4-28-2021				
		△		APPROVED	DATE	APPROVED	DATE	SCALE: AS NOTED	FORT SMALLWOOD PARK 9500 FORT SMALLWOOD ROAD PASADENA, MD 21122	
				CHIEF ENGINEER		PROJECT MANAGER		CHECKED BY: JB	MAINTENANCE BUILDING CODE ANALYSIS PLAN	
				APPROVED	DATE	APPROVED	DATE	SHEET NO. OF	PROJECT NO. P535900	PROPOSAL NO. P535907

WALL TYPES



MAINTENANCE BUILDING FLOOR PLAN
SCALE: 1/8"=1'-0"

- GENERAL DRAWING NOTES:**
- 1 4" THICK P.C.C. CONCRETE PAD WITH 6"x6"x1/4" WWF AND TURN DOWN FOUNDATIONS AT PERIMETER. TOP OF PADS TO BE LEVEL WITH F.F.
 - 2 4" TALL CONCRETE HOUSEKEEPING PADS. COORDINATE WITH MEP EQUIPMENT.
 - 3 6" THICK P.C.C. CONCRETE PAD WITH 6"x6"x1/4" WWF AND TURN DOWN FOUNDATIONS AT PERIMETER. TOP OF PADS TO BE LEVEL WITH F.F.
 - 4 6" CONCRETE BOLLARD TYPICAL OF (8). SEE BOLLARD DETAIL THIS SHEET.

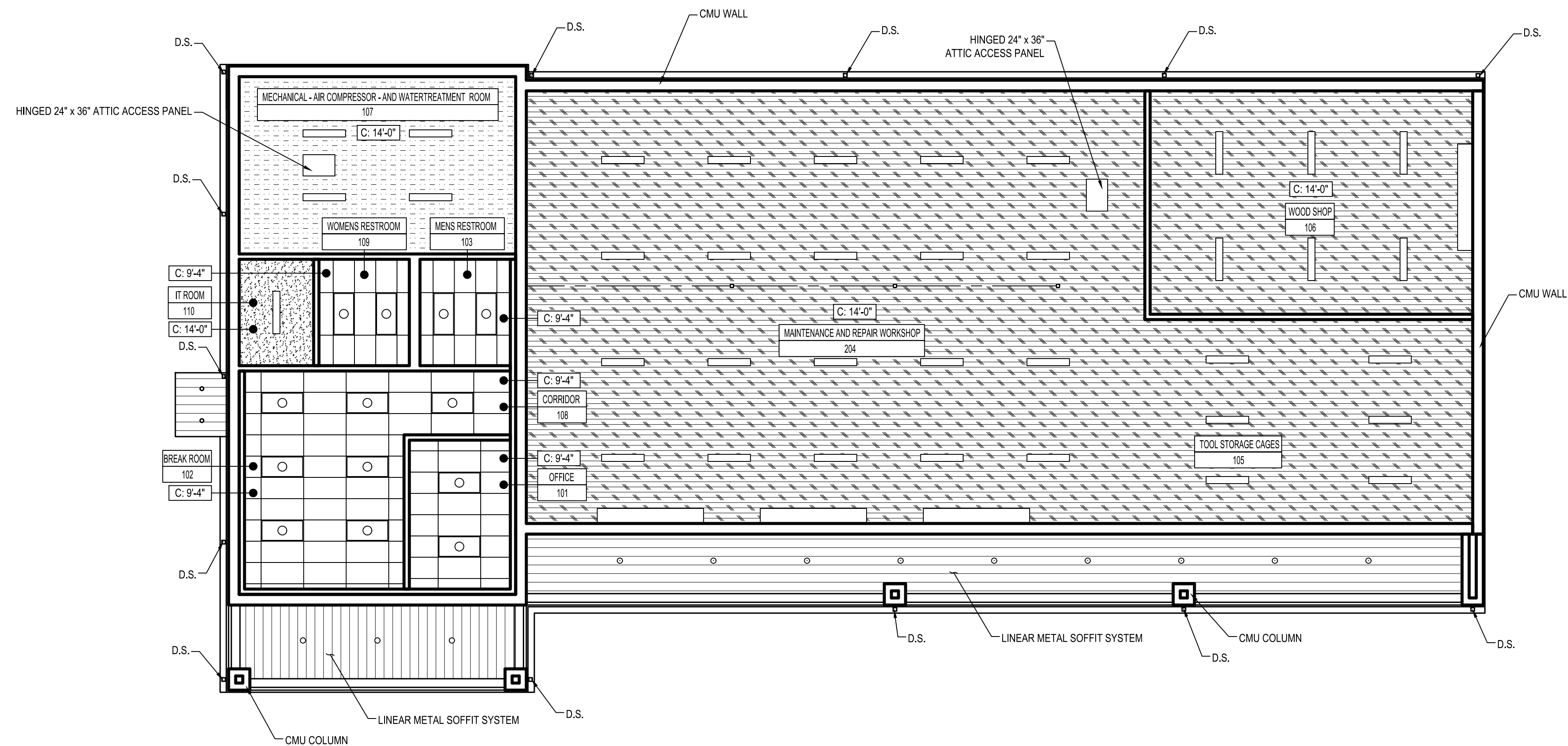


BOLLARD DETAIL
SCALE: 1/2"=1'-0"

<p>gant-brunnett ARCHITECTS 15 West Mulberry Street Baltimore, Maryland 21201-4406 Telephone Number: 410-234-8444</p>	<p>PROFESSIONAL CERTIFICATION I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NUMBER 000, EXPIRATION DATE 05/23/2021.</p> <p>(C) GANT BRUNNETT ARCHITECTS ALL REPRODUCTION IS PROHIBITED</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>NO.</th> <th>DESCRIPTION</th> <th>BY</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	NO.	DESCRIPTION	BY	DATE													<p>ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS</p> <p>DATE: 4-28-2021</p>		<p>SCALE: AS NOTED DRAWN BY: JG CHECKED BY: JB SHEET NO. OF PROJECT NO. P535900 PROPOSAL NO. P535907</p>	<p>FORT SMALLWOOD PARK 9500 FORT SMALLWOOD ROAD PASADENA, MD 21122 MAINTENANCE BUILDING FLOOR PLAN</p>
			NO.	DESCRIPTION	BY	DATE																
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>APPROVED</td> <td>DATE</td> <td>APPROVED</td> <td>DATE</td> </tr> <tr> <td>CHIEF ENGINEER</td> <td> </td> <td>PROJECT MANAGER</td> <td> </td> </tr> <tr> <td>APPROVED</td> <td>DATE</td> <td>APPROVED</td> <td>DATE</td> </tr> <tr> <td>ASSISTANT CHIEF ENGINEER</td> <td> </td> <td>CHIEF, RIGHT OF WAY</td> <td> </td> </tr> </table>	APPROVED	DATE	APPROVED	DATE	CHIEF ENGINEER		PROJECT MANAGER		APPROVED	DATE	APPROVED	DATE	ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY		<p>A101M</p>					
APPROVED	DATE	APPROVED	DATE																			
CHIEF ENGINEER		PROJECT MANAGER																				
APPROVED	DATE	APPROVED	DATE																			
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY																				

SYMBOL LEGEND

	HARDIE CEMENT BOARD CEILING PAINTED
	2" F.R. TREATED MDF PLYWOOD CEILING PAINTED
	SUSPENDED LINEAR METAL SOFFIT SYSTEM
	SUSPENDED 1/2" GYPSUM WALLBOARD CEILING PAINTED 9'-4" A.F.F.
	SUSPENDED 2"x4" ACOUSTICAL LAY-IN CEILING
	2"x4" LAY-IN LIGHT FIXTURE
	7" x 8" SURFACE MOUNTED LED FIXTURE
	RECESSED 6" DIA. LED FIXTURE
	C: 0'-0" CEILING HEIGHT



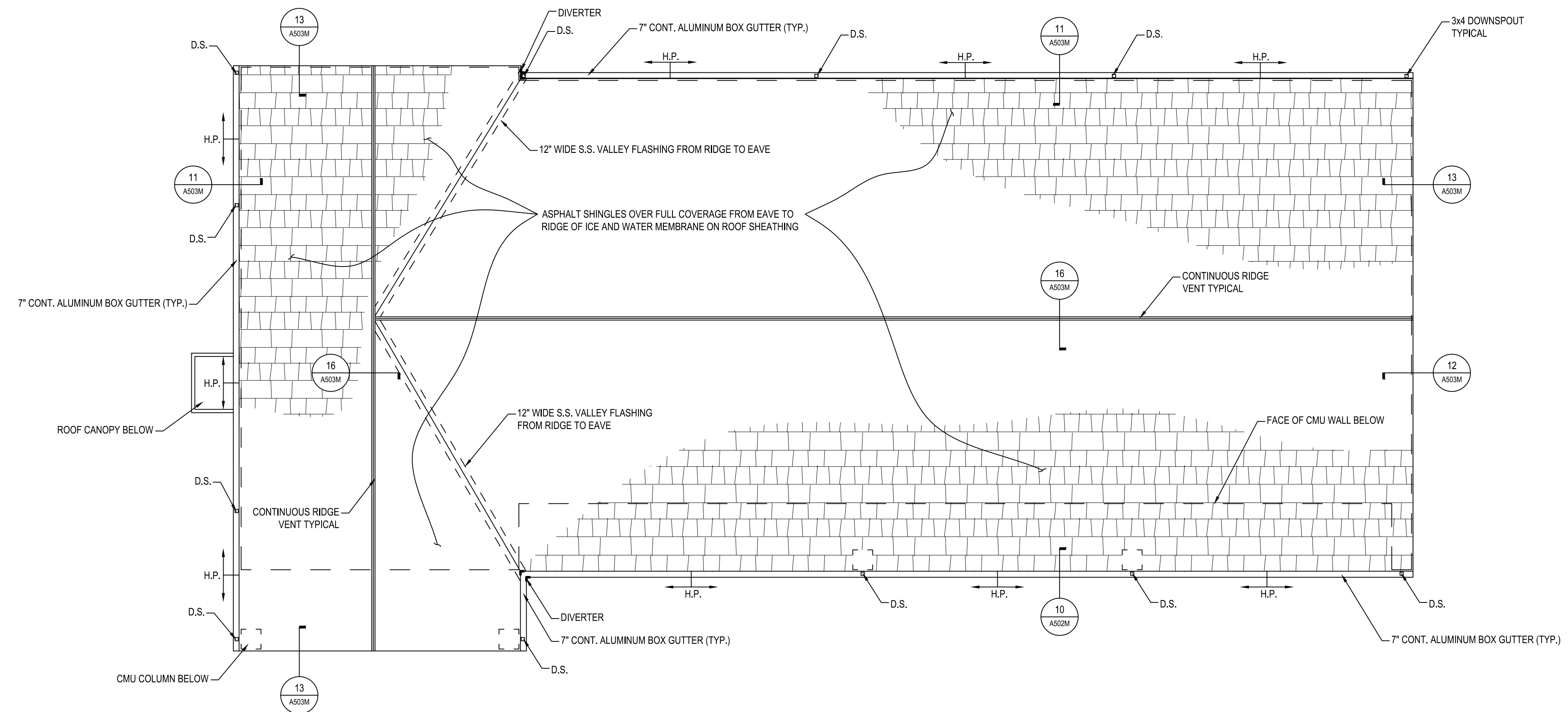
MAINTENANCE BUILDING REFLECTED CEILING PLAN

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

"PROFESSIONAL CERTIFICATION
 I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR
 APPROVED BY ME AND THAT I AM A DULY LICENSED
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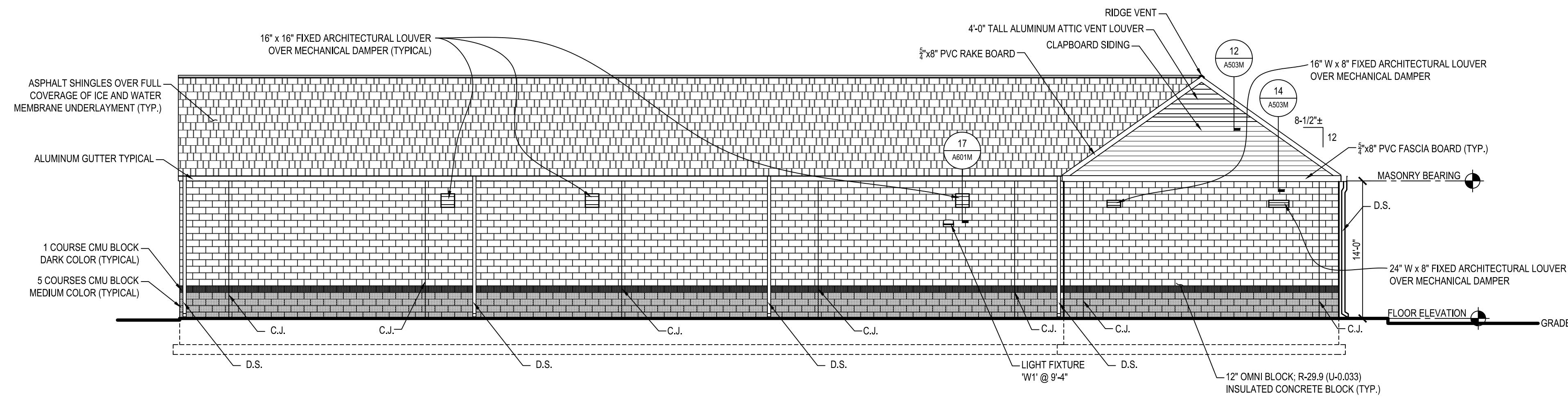
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				PROJECT NO. P535900
				PROPOSAL NO. P535907



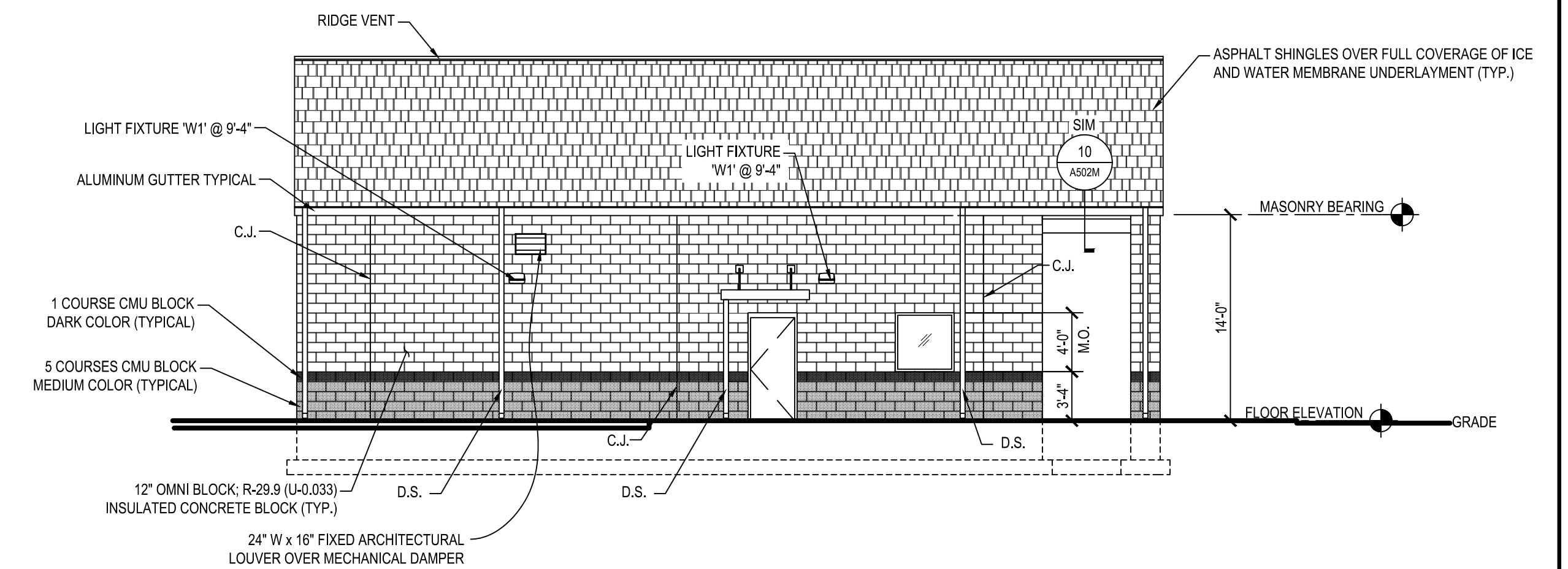
MAINTENANCE BUILDING ROOF PLAN
SCALE: 1/8"=1'-0"

NO.	DESCRIPTION	BY	DATE
△			

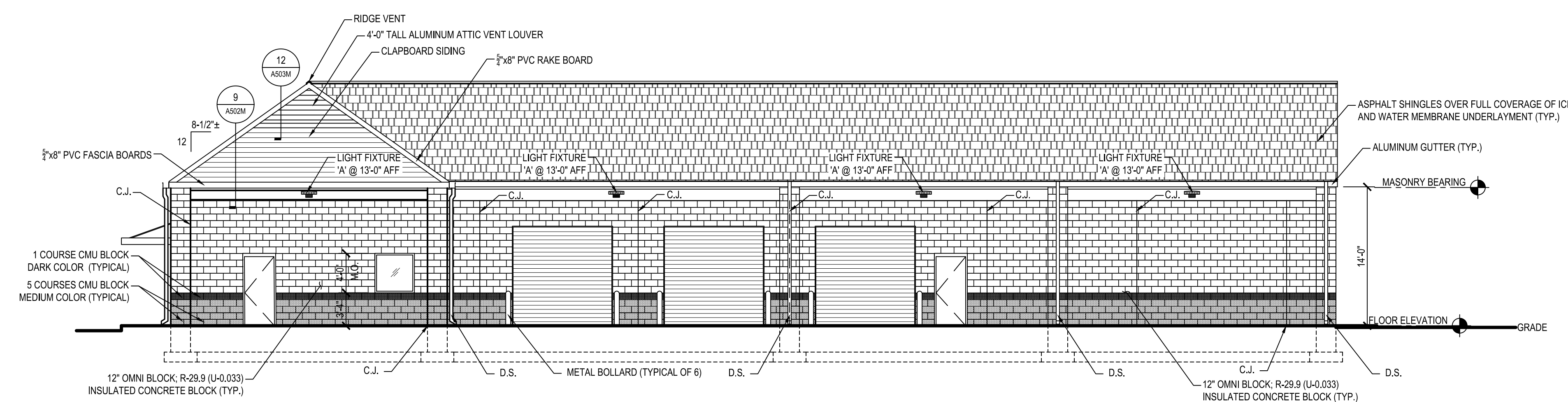
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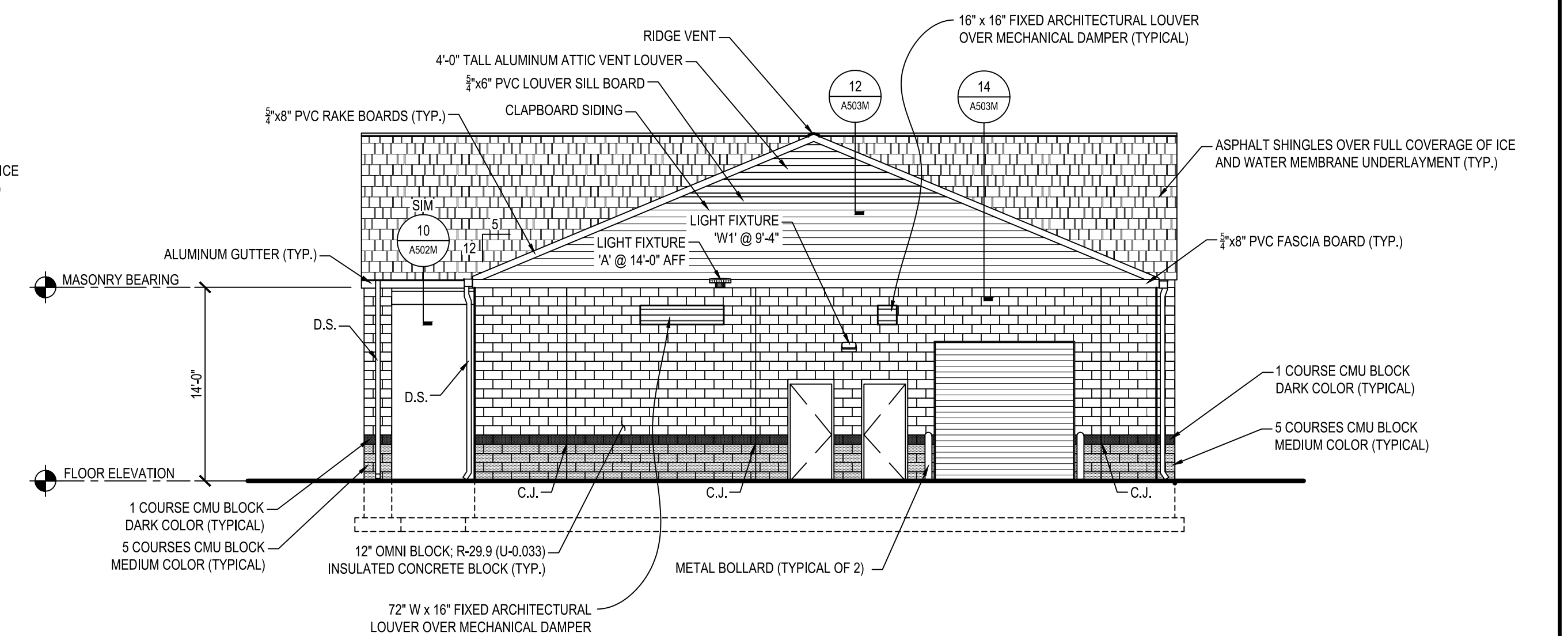
MAINTENANCE BUILDING NORTH ELEVATION
SCALE: 1/8"=1'-0"



MAINTENANCE BUILDING WEST ELEVATION
SCALE: 1/8"=1'-0"



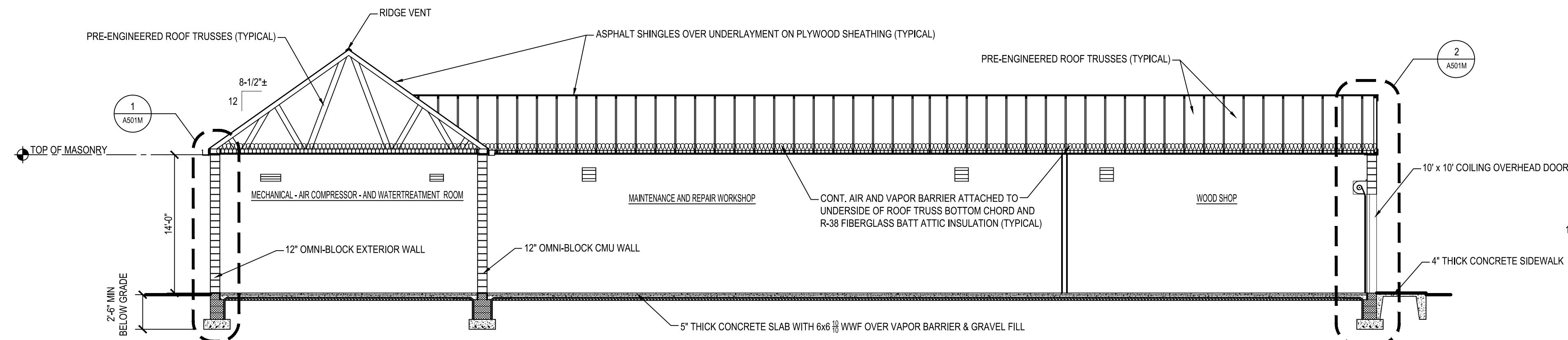
MAINTENANCE BUILDING SOUTH ELEVATION
SCALE: 1/8"=1'-0"



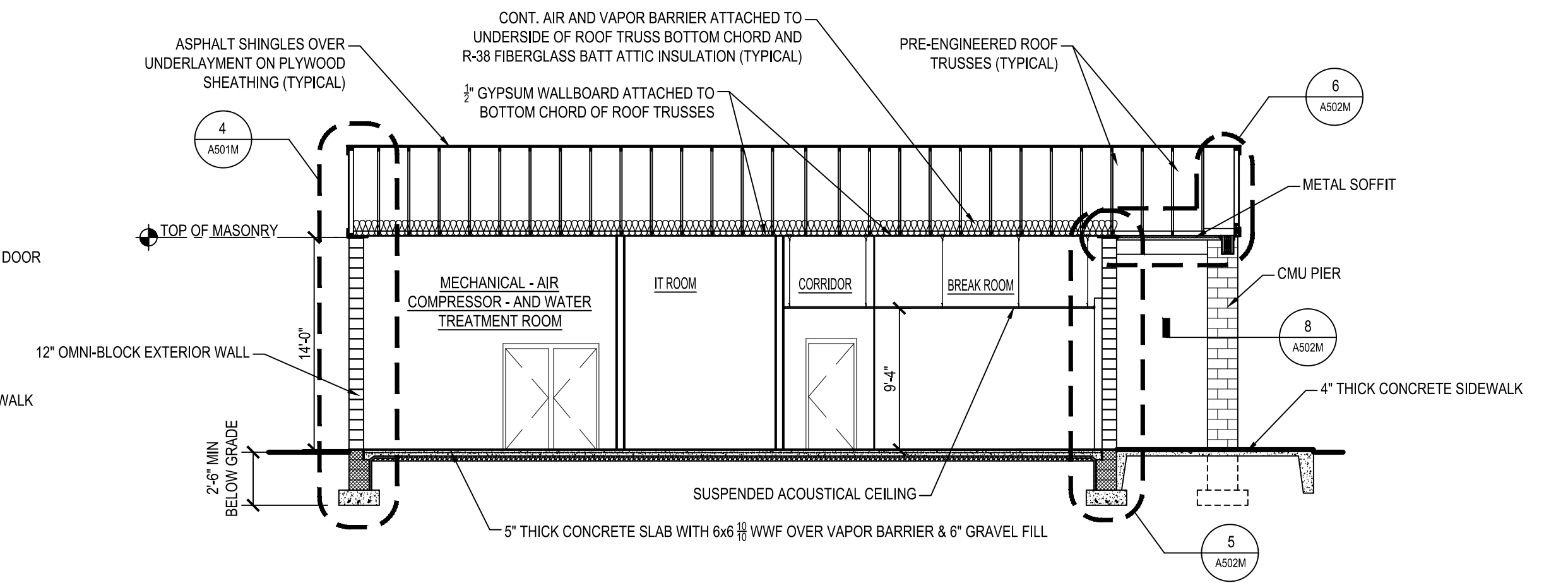
MAINTENANCE BUILDING EAST ELEVATION
SCALE: 1/8"=1'-0"

NO.	DESCRIPTION	BY	DATE
△			

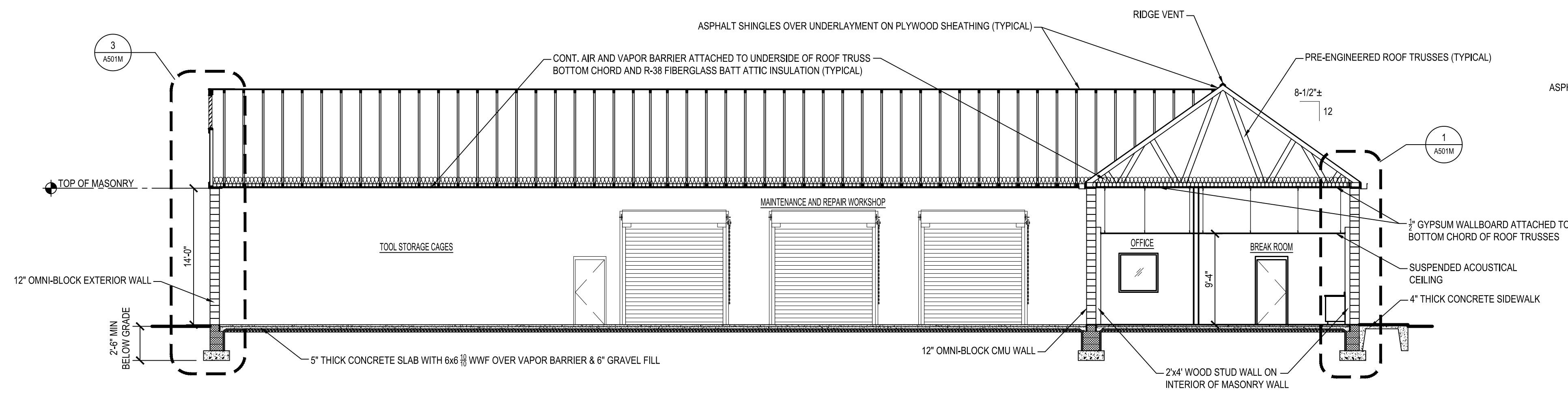
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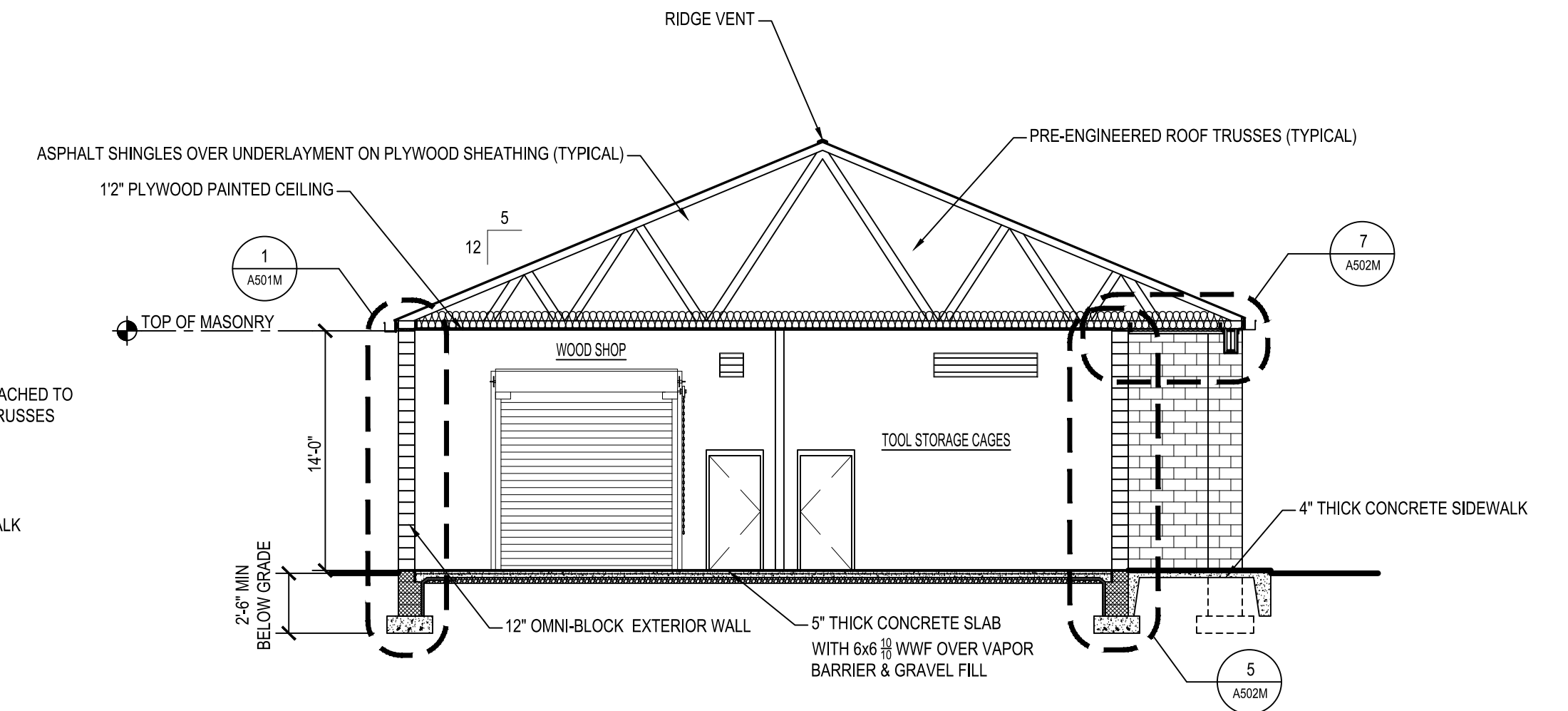
MAINTENANCE BUILDING SECTION 'A'
SCALE: 1/8"=1'-0"



MAINTENANCE BUILDING SECTION 'C'
SCALE: 1/8"=1'-0"



MAINTENANCE BUILDING SECTION 'B'
SCALE: 1/8"=1'-0"



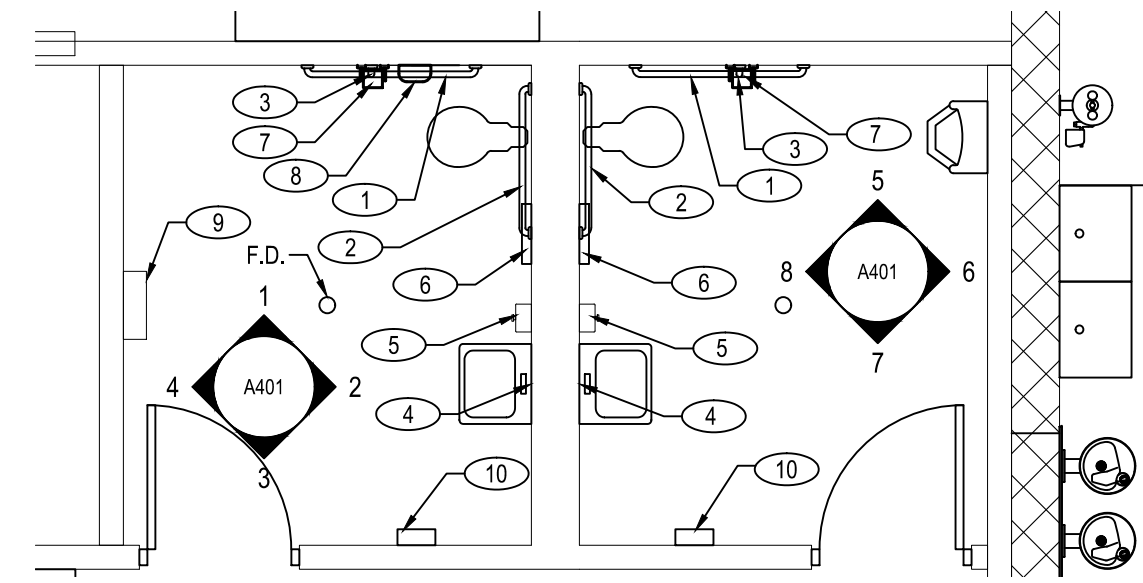
MAINTENANCE BUILDING SECTION 'D'
SCALE: 1/8"=1'-0"

NO.	DESCRIPTION	BY	DATE
△			

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GENERAL DRAWING NOTES:

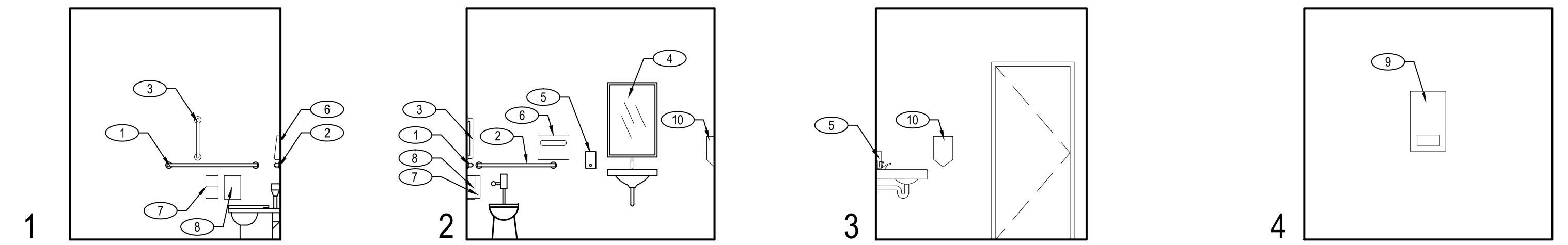
- ① 42" STAINLESS STEEL GRAB BAR
- ② 36" STAINLESS STEEL GRAB BAR
- ③ 18" STAINLESS STEEL VERTICAL GRAB BAR
- ④ 24"x36" MIRROR
- ⑤ SOAP DISPENSER
- ⑥ TOILET SEAT COVER DISPENSER
- ⑦ TOILET PAPER DISPENSER
- ⑧ SANITARY NAPKIN DISPOSAL
- ⑨ SANITARY NAPKIN DISPENSER
- ⑩ HAND DRYER



LARGE SCALE RESTROOM PLAN

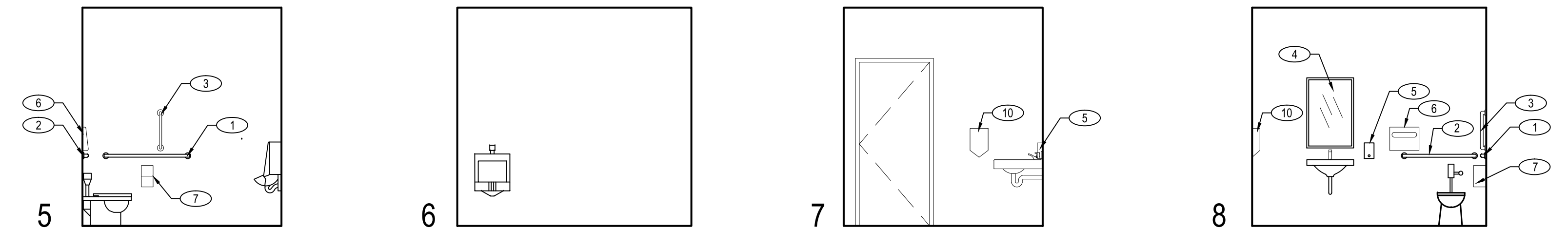
SCALE: 1/4"=1'-0"

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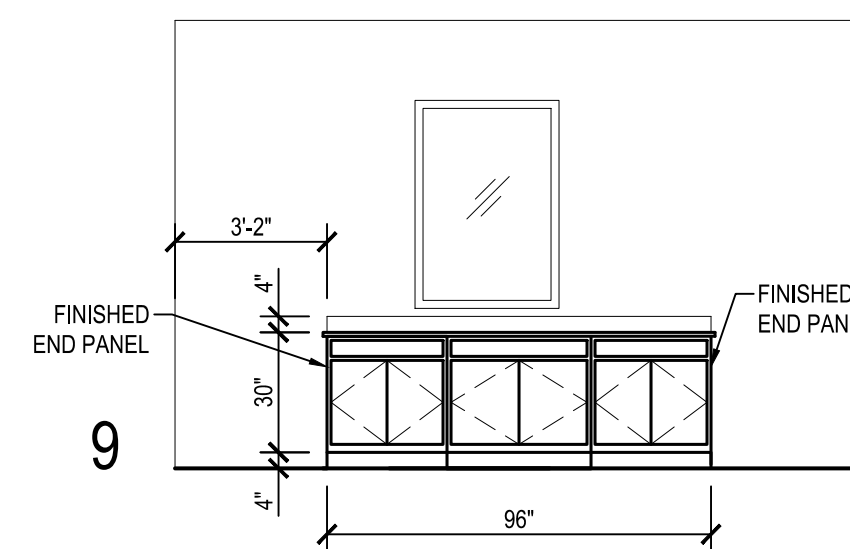
WOMEN'S RESTROOM ELEVATIONS

SCALE: 1/4"=1'-0"



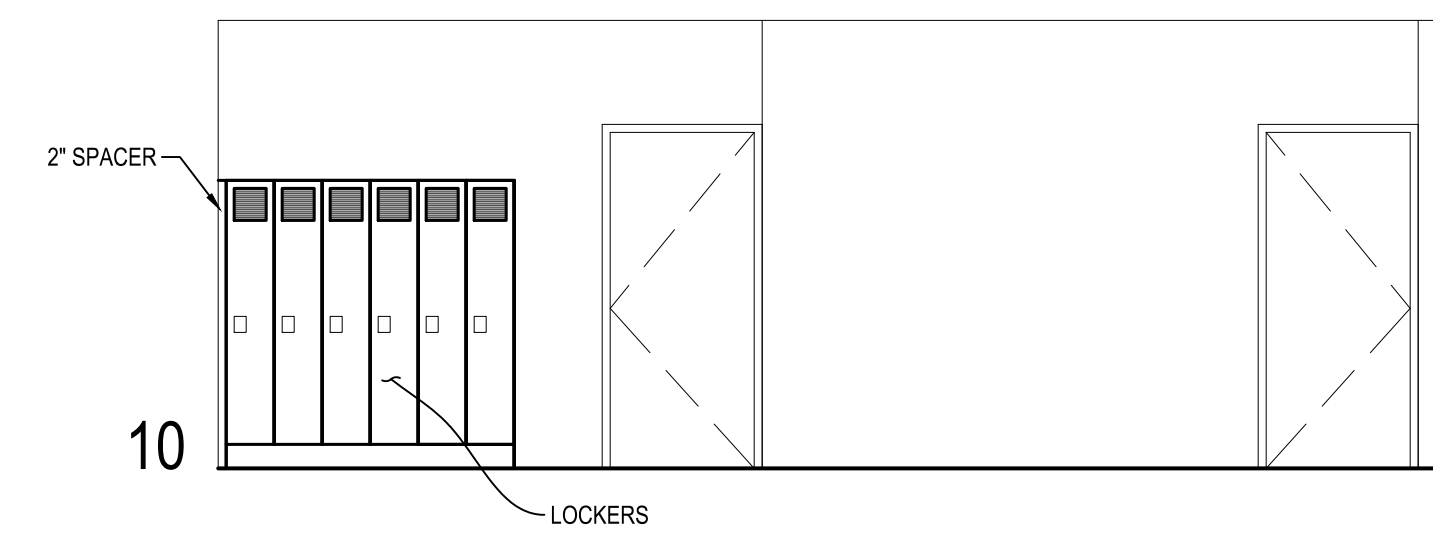
MEN'S RSTROOM ELEVATIONS

SCALE: 1/4"=1'-0"



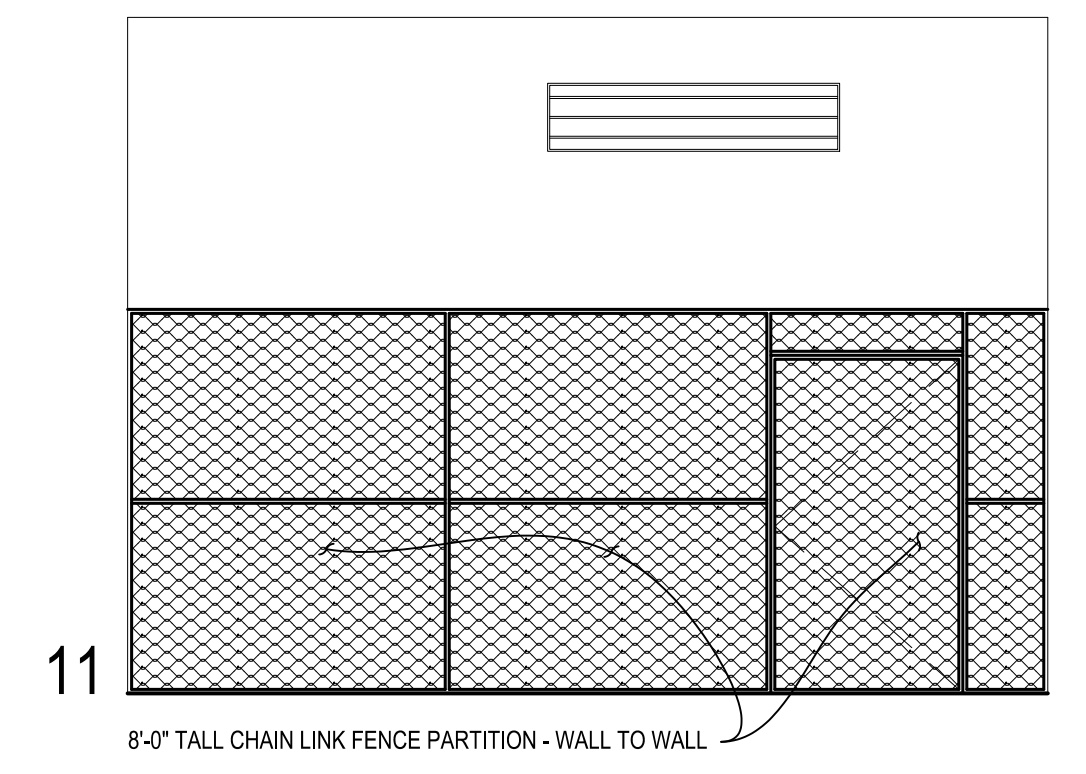
BREAKROOM / KITCHEN ELEVATION

SCALE: 1/4"=1'-0"



STAFF LOCKER ELEVATION

SCALE: 1/4"=1'-0"

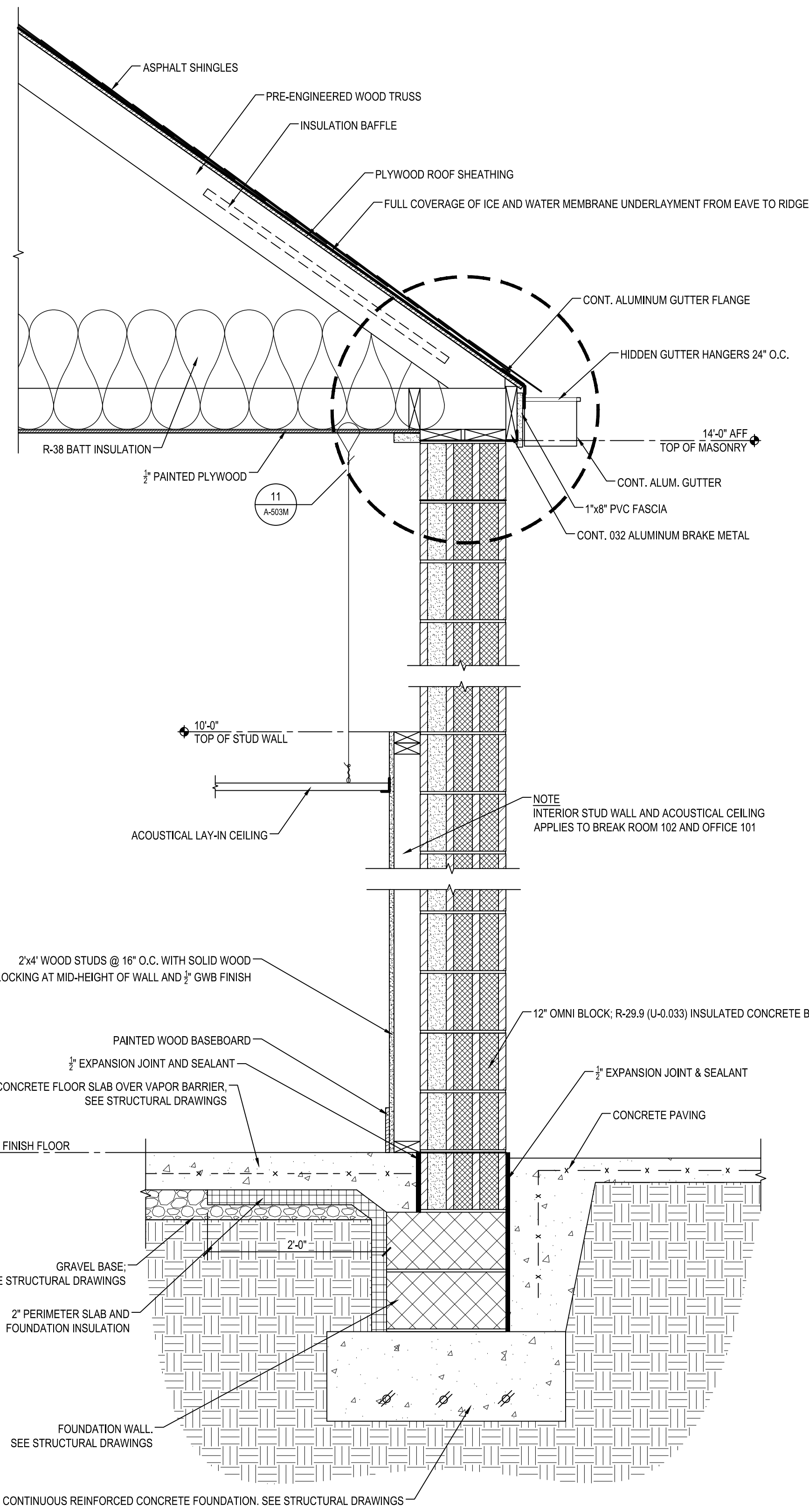


TOOL STORAGE CAGE ELEVATION

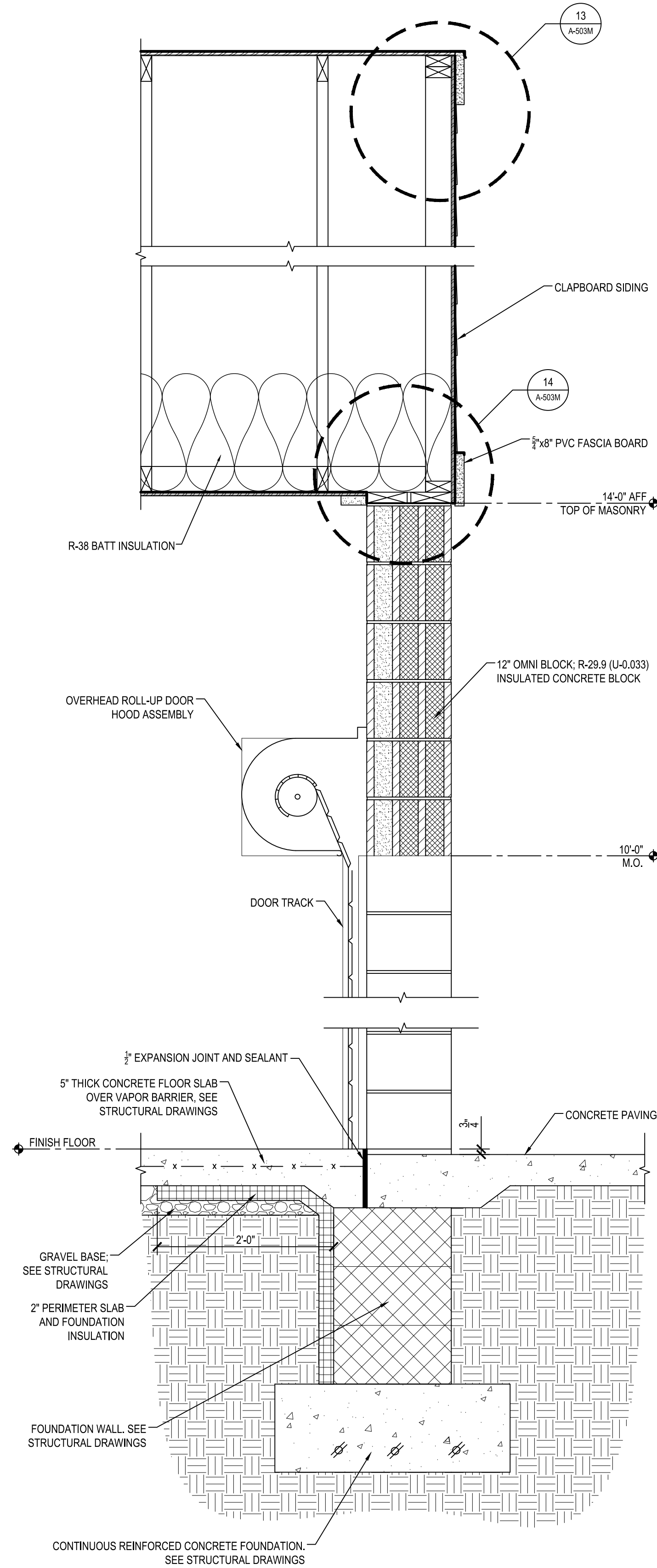
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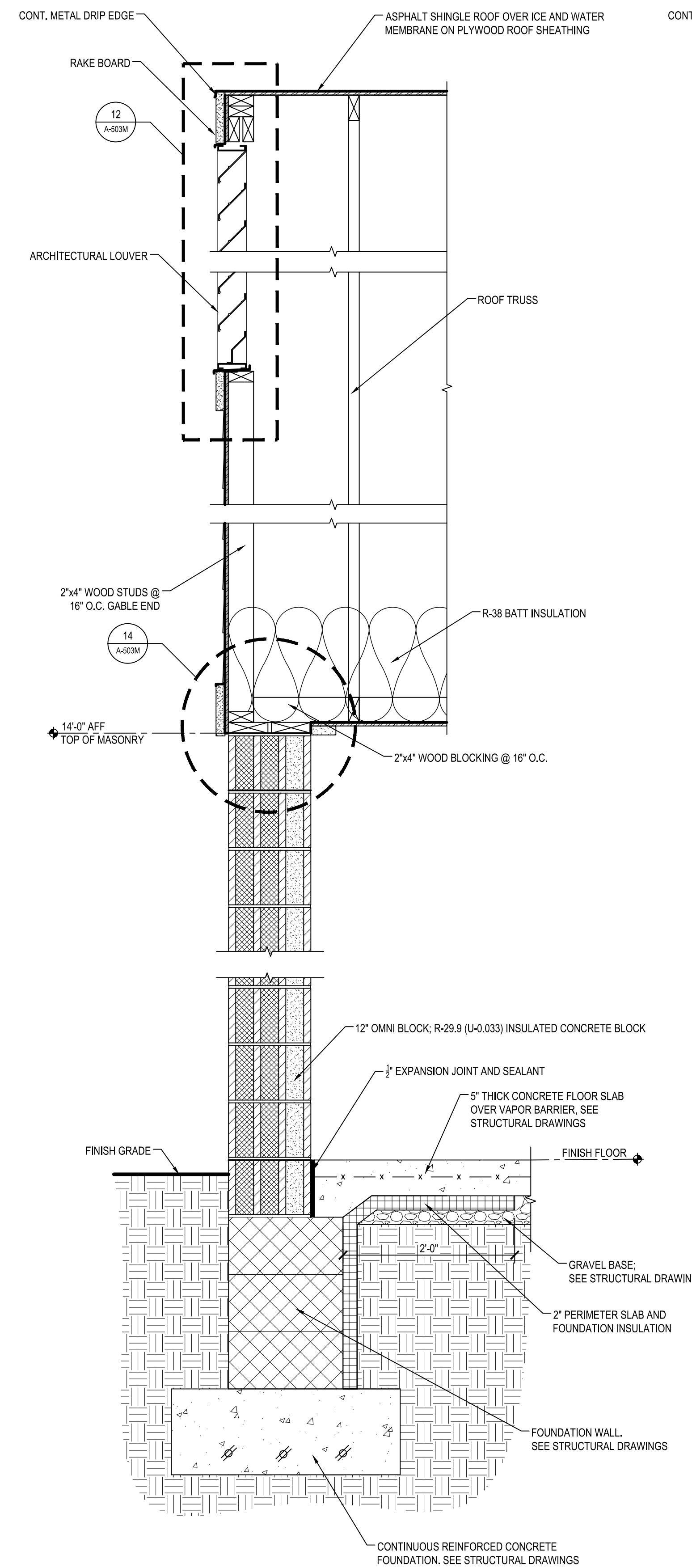
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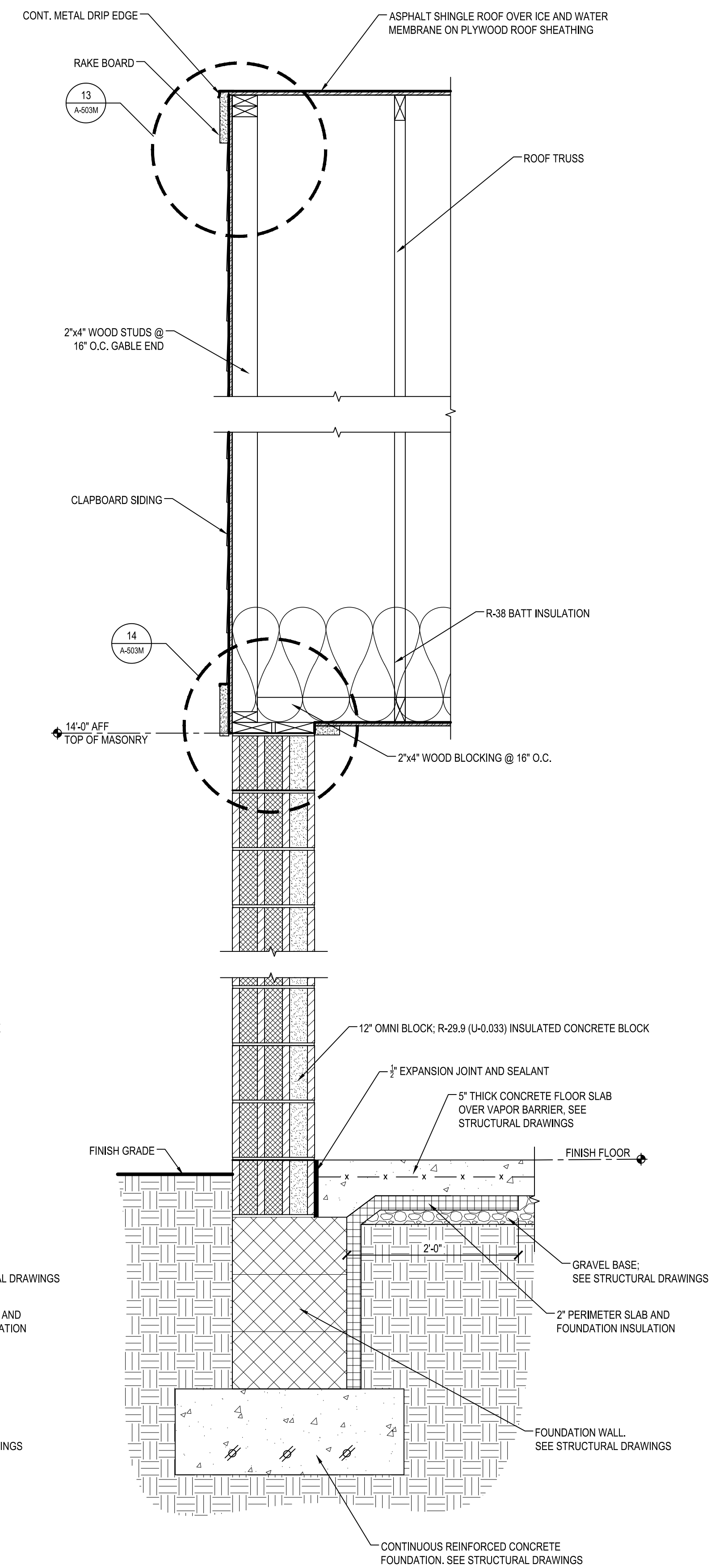
WALL SECTION 1
SCALE: 1"=1'-0"



WALL SECTION 2
SCALE: 1"=1'-0"



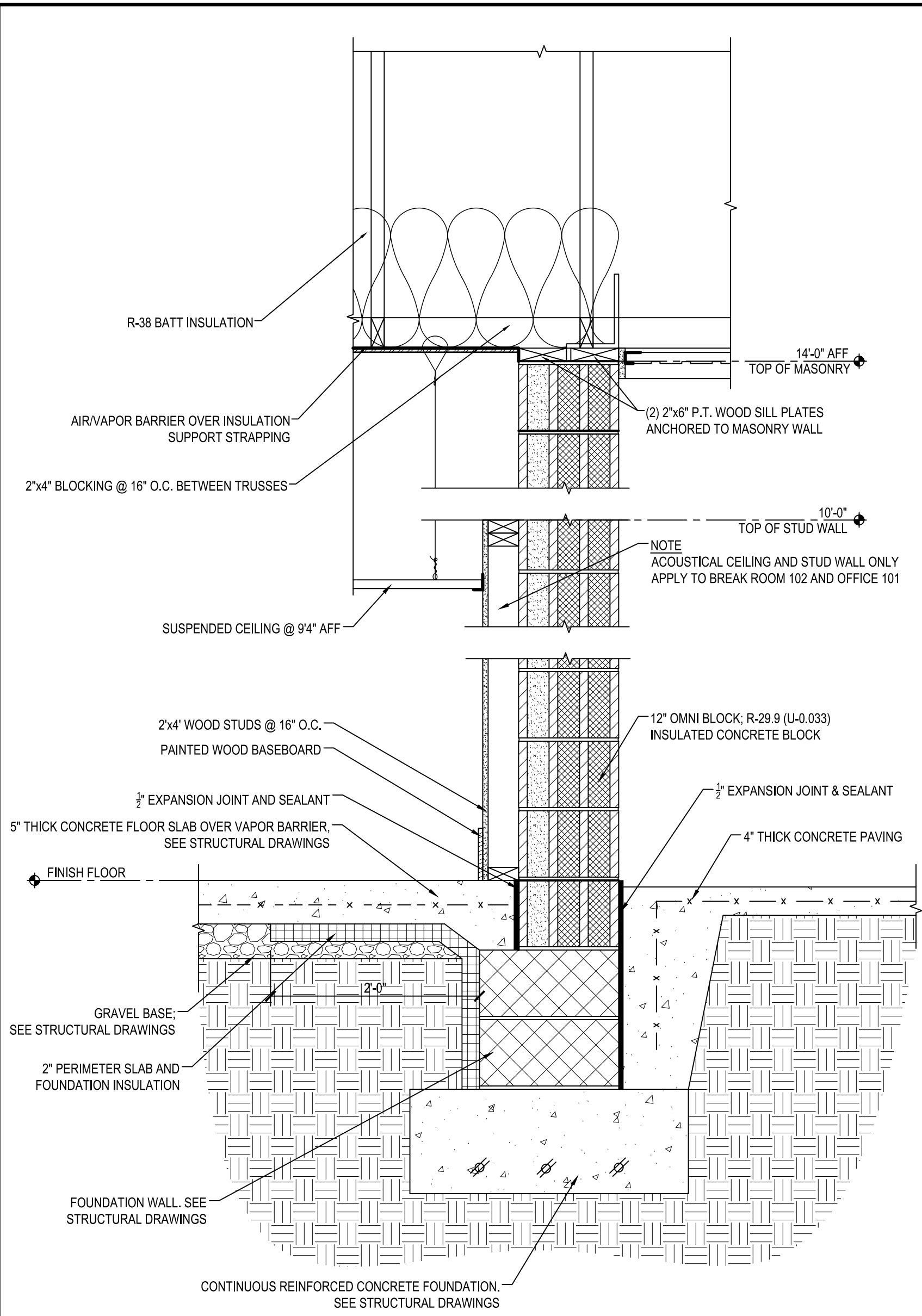
WALL SECTION 3
SCALE: 1"=1'-0"



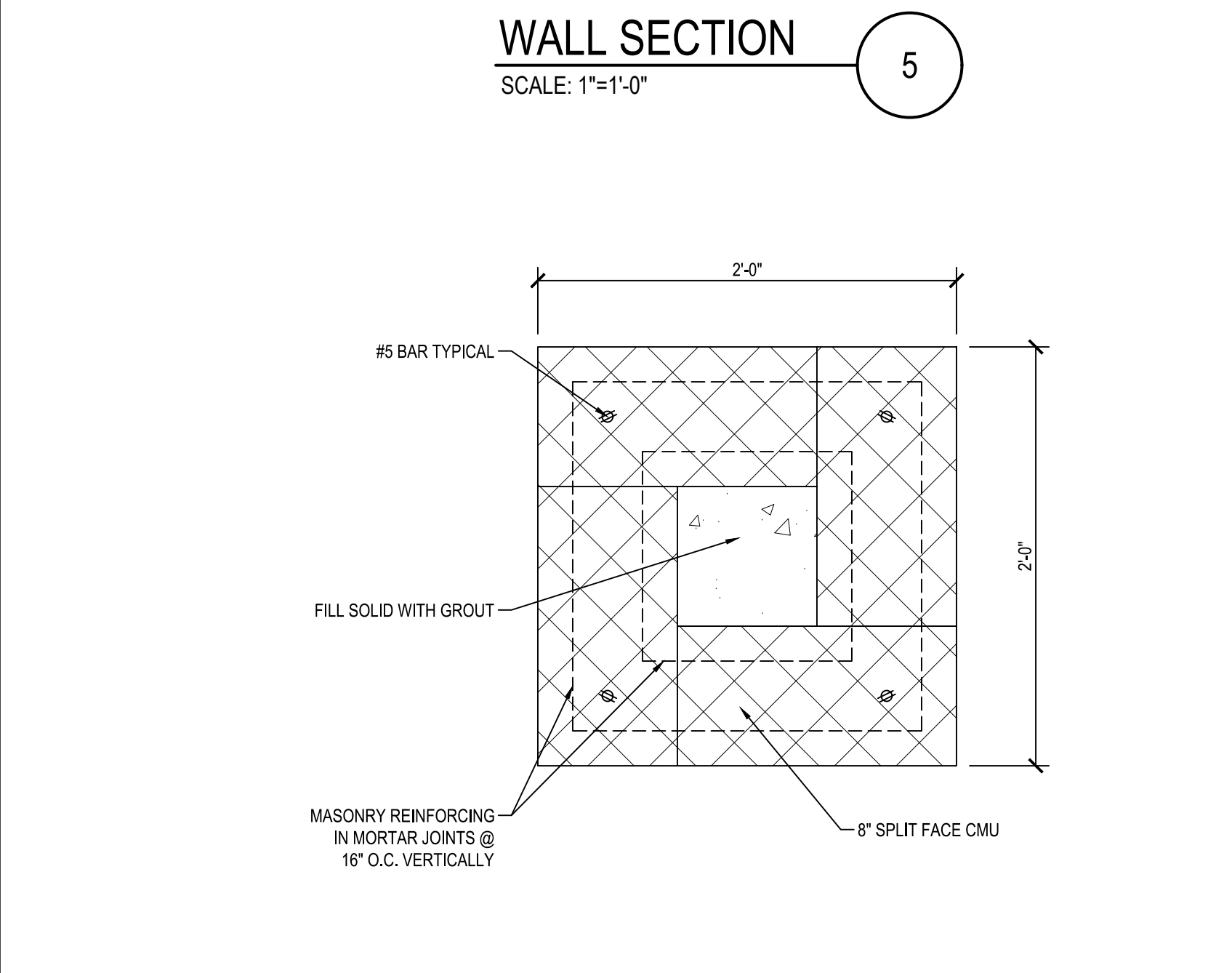
WALL SECTION 4
SCALE: 1"=1'-0"

NO.	DESCRIPTION	BY	DATE
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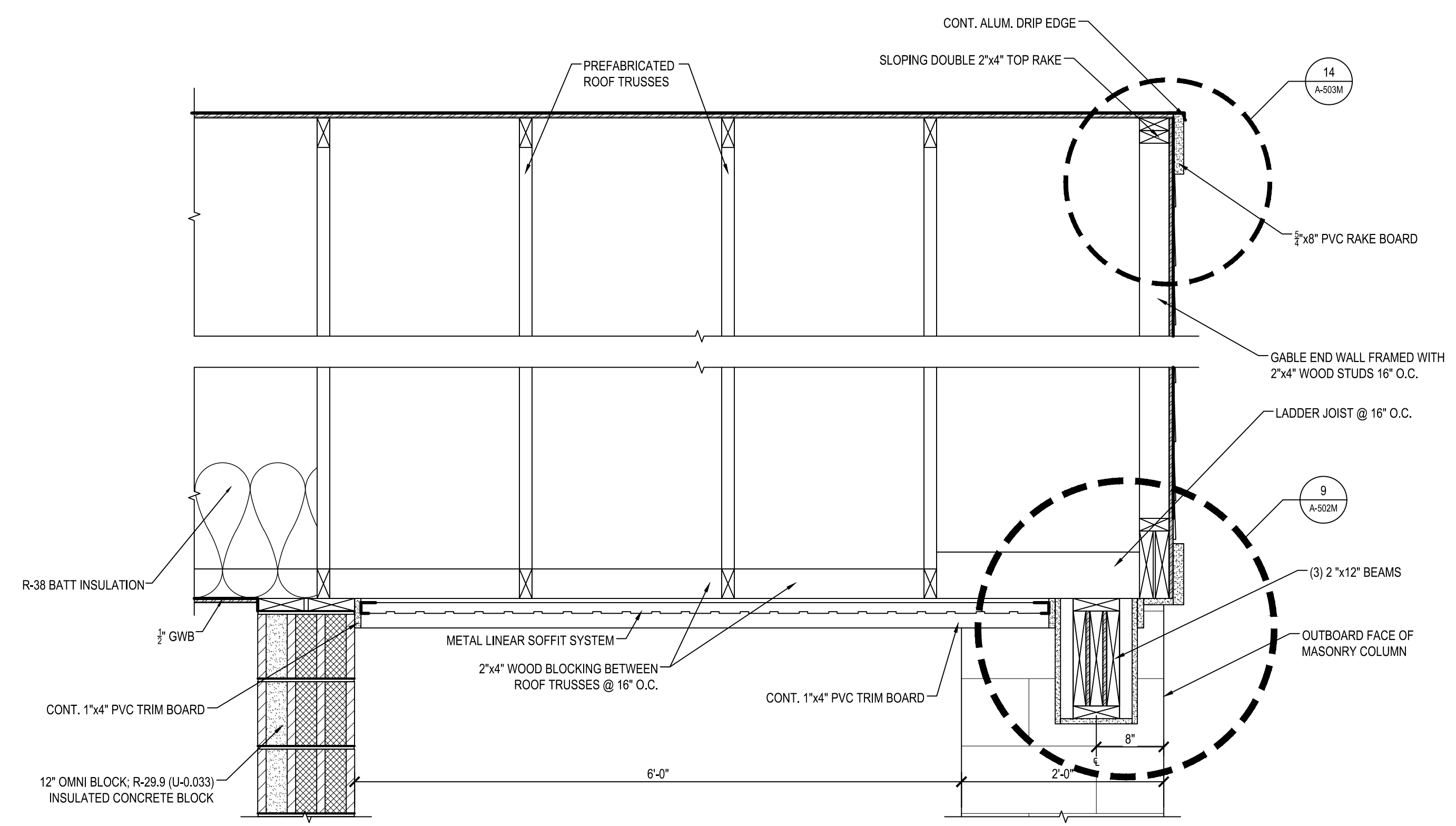
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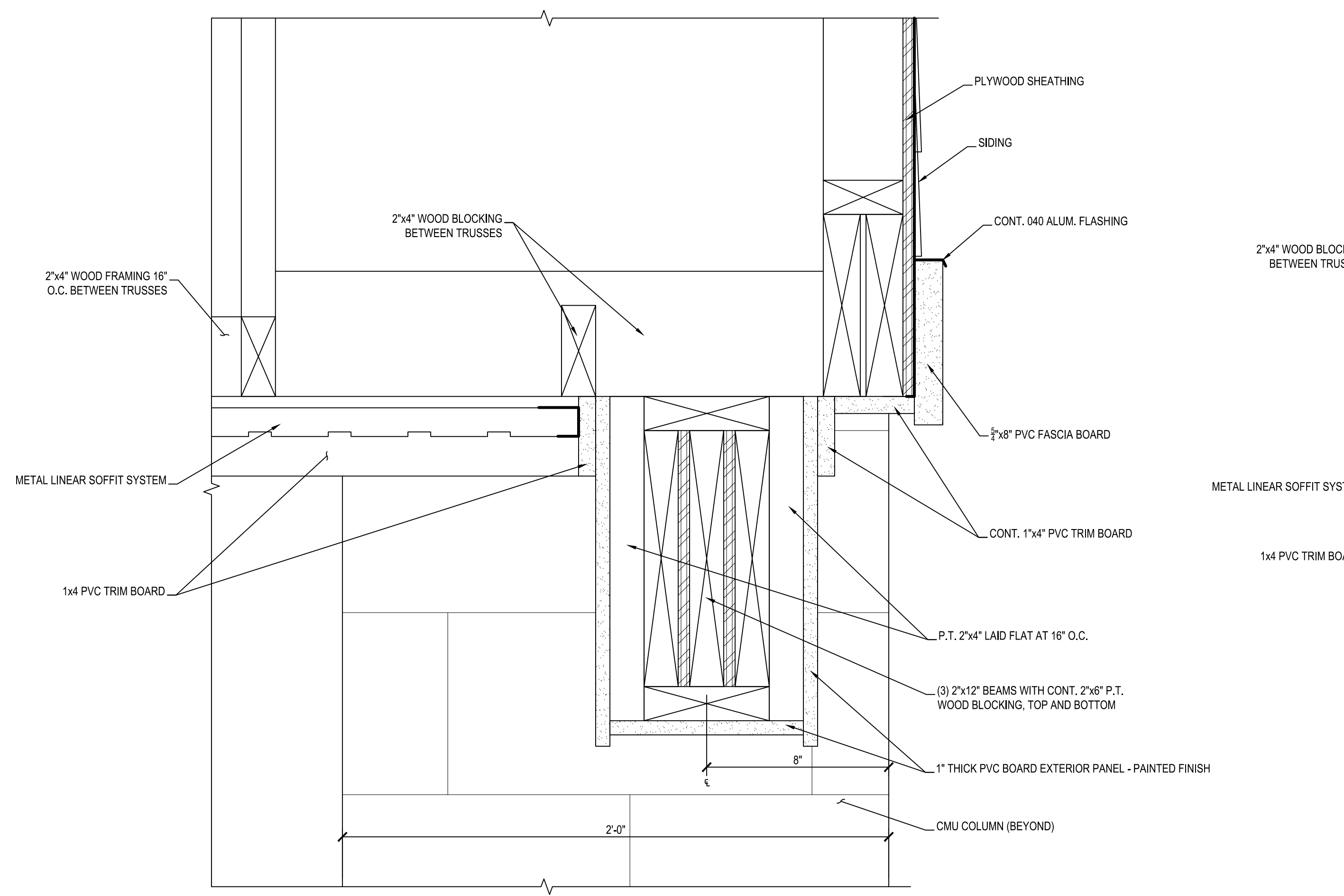
WALL SECTION
SCALE: 1"=1'-0" 5



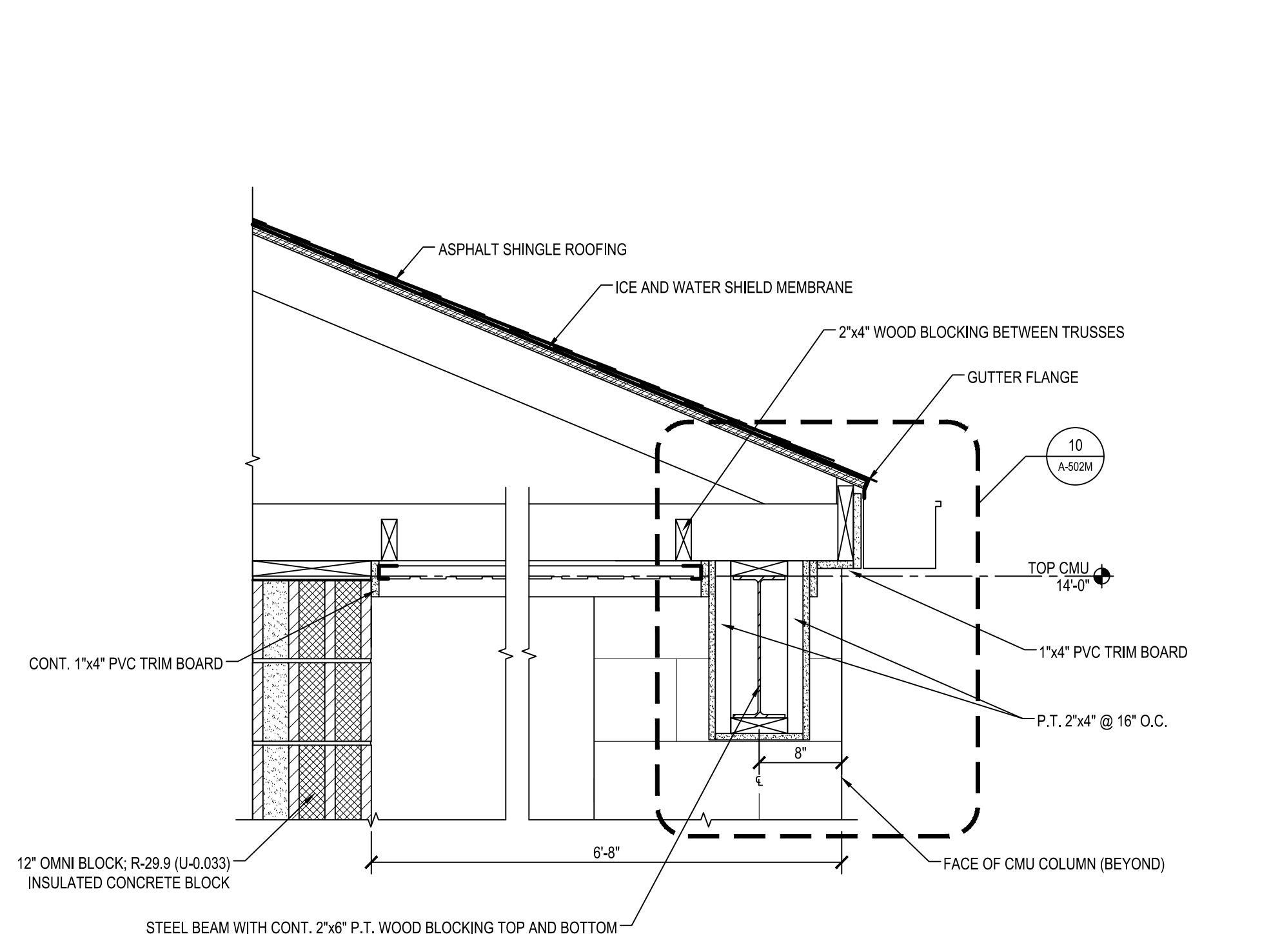
COLUMN SECTION DETAIL
SCALE: 1"=1'-0" 8



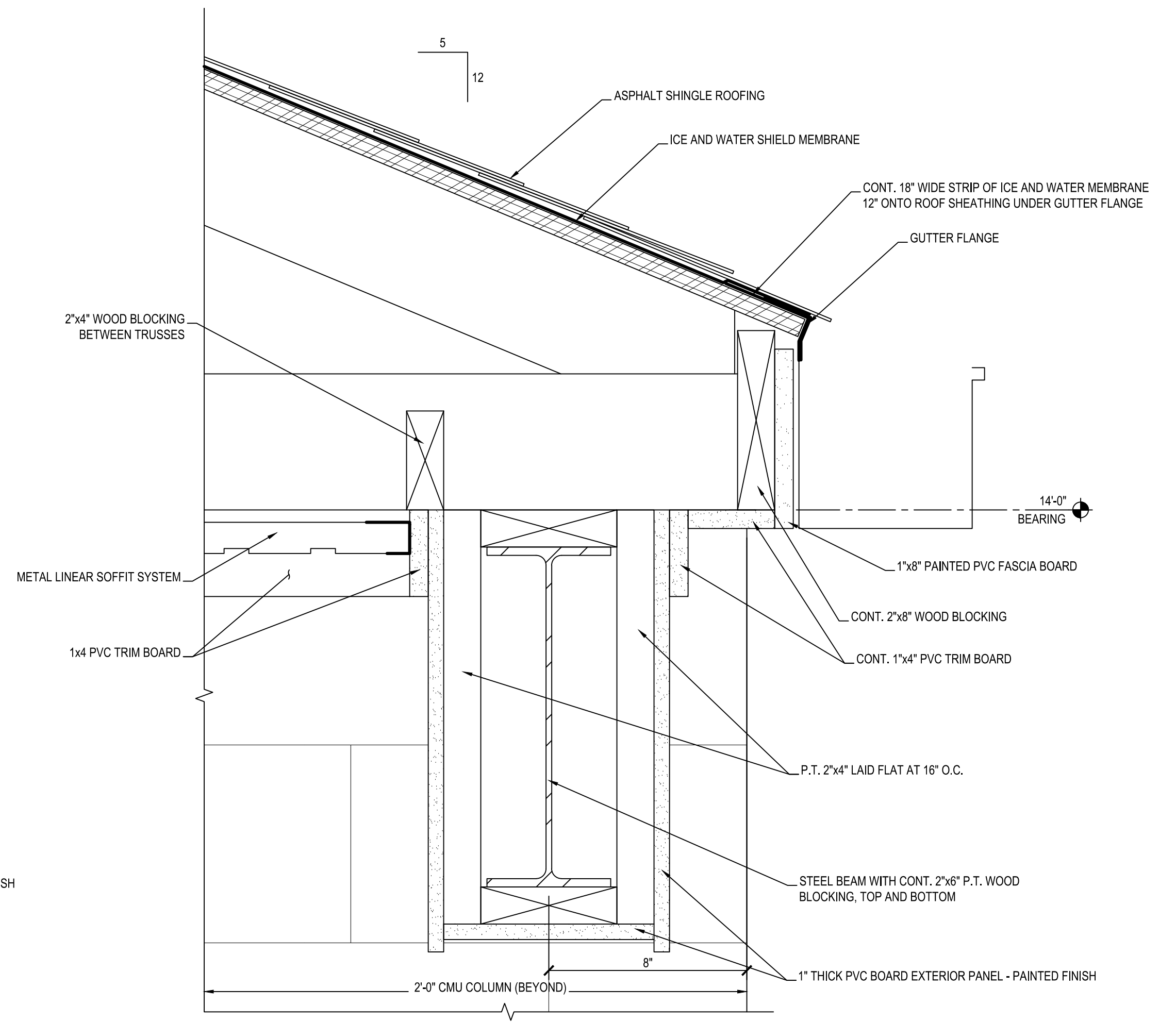
SOFFIT WALL SECTION
SCALE: 1"=1'-0" 6



SOFFIT DETAIL
SCALE: 3"=1'-0" 9



SOFFIT WALL SECTION
SCALE: 1"=1'-0" 7



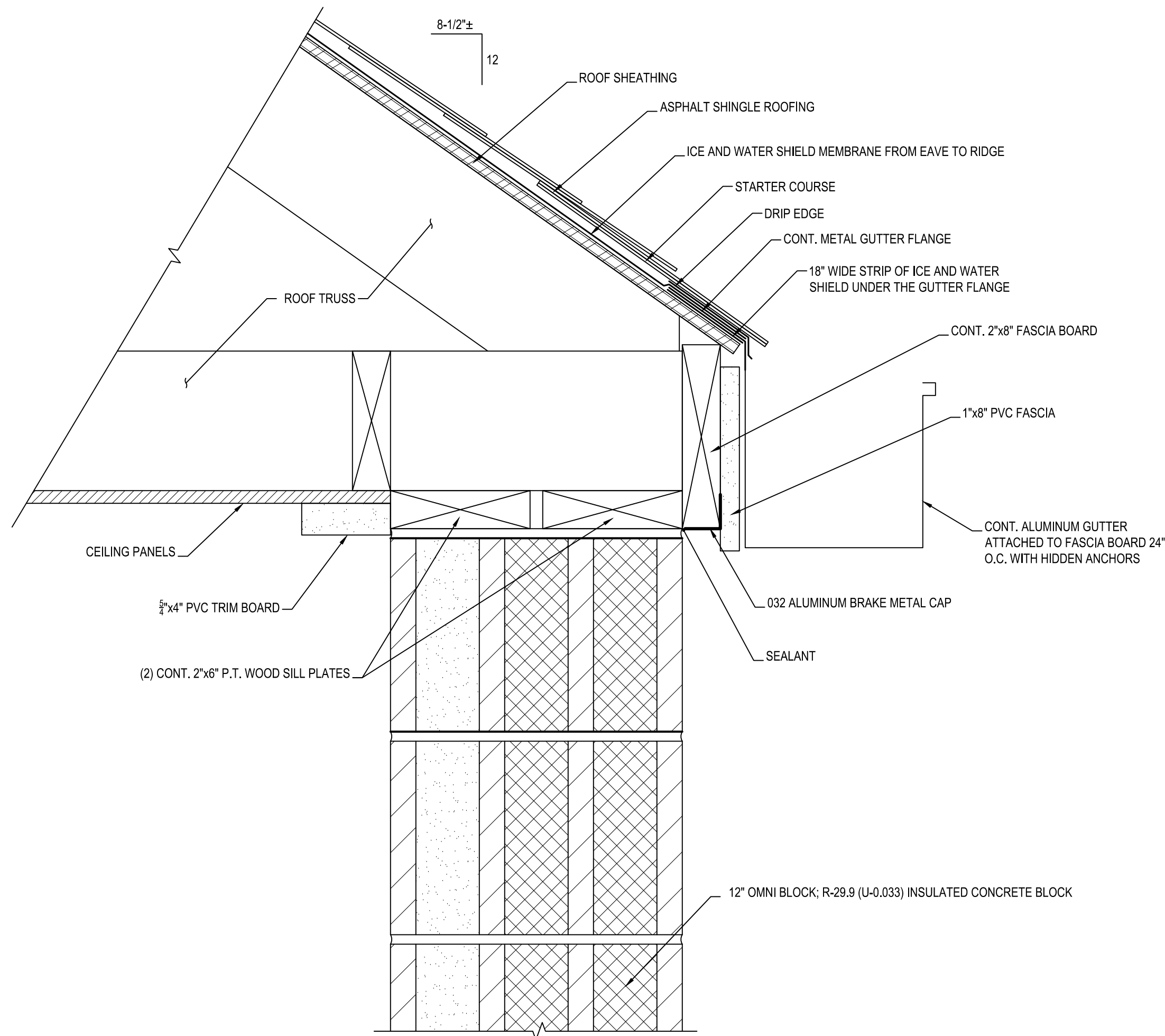
SOFFIT DETAIL
SCALE: 3"=1'-0" 10

<p>15 West Mulberry Street Baltimore, Maryland 21201-4406 Telephone Number: 410-234-8444</p>	<p><small>*PROFESSIONAL CERTIFICATION I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NUMBER 0001, EXPIRATION DATE 05/23/2021.*</small></p> <p><small>(C) GANT BRUNETT ARCHITECTS ALL REPRODUCTION IS PROHIBITED</small></p>				ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS				DATE: 4-28-2021	

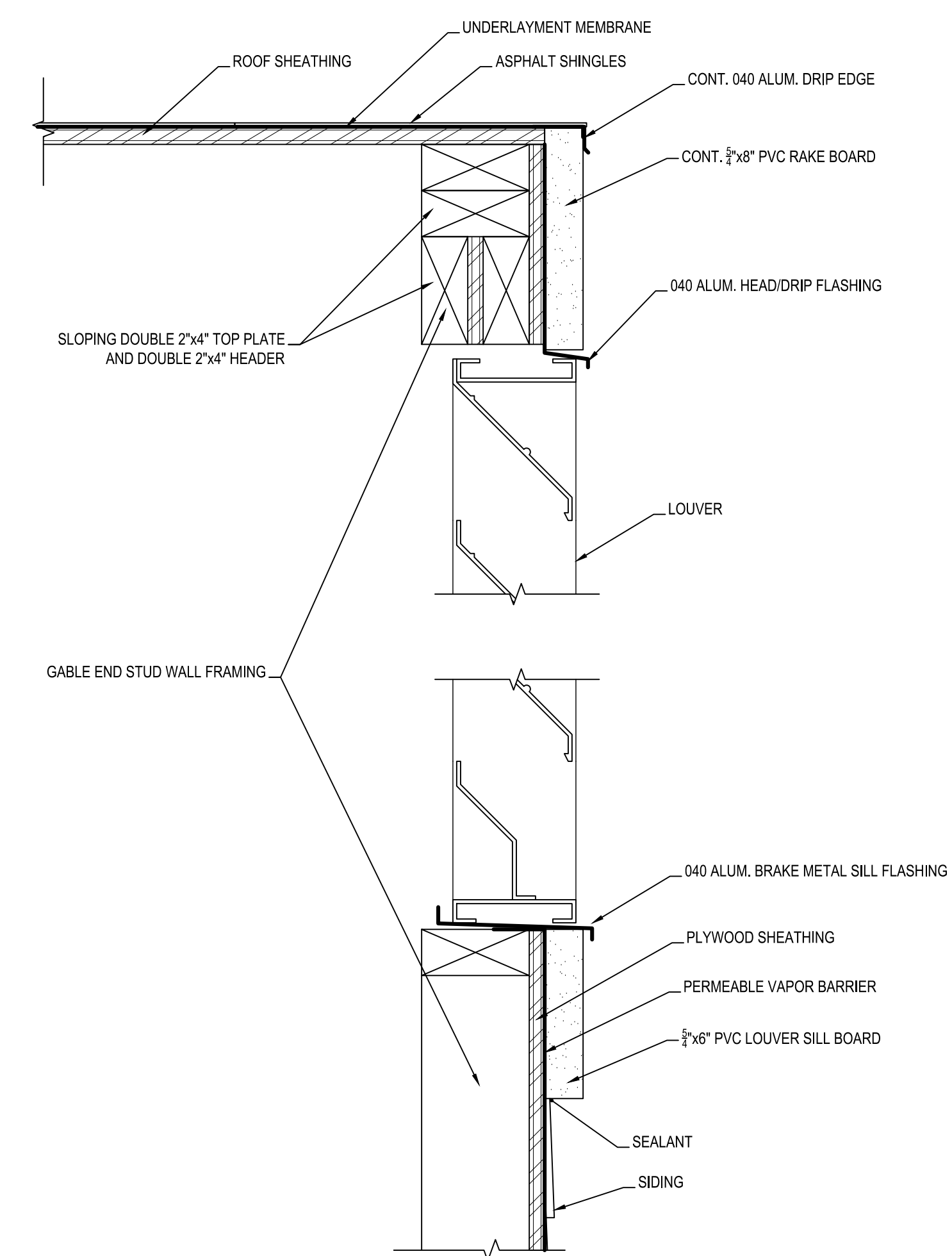
FORT SMALLWOOD PARK
9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122

MAINTENANCE BUILDING
WALL SECTIONS, DETAILS

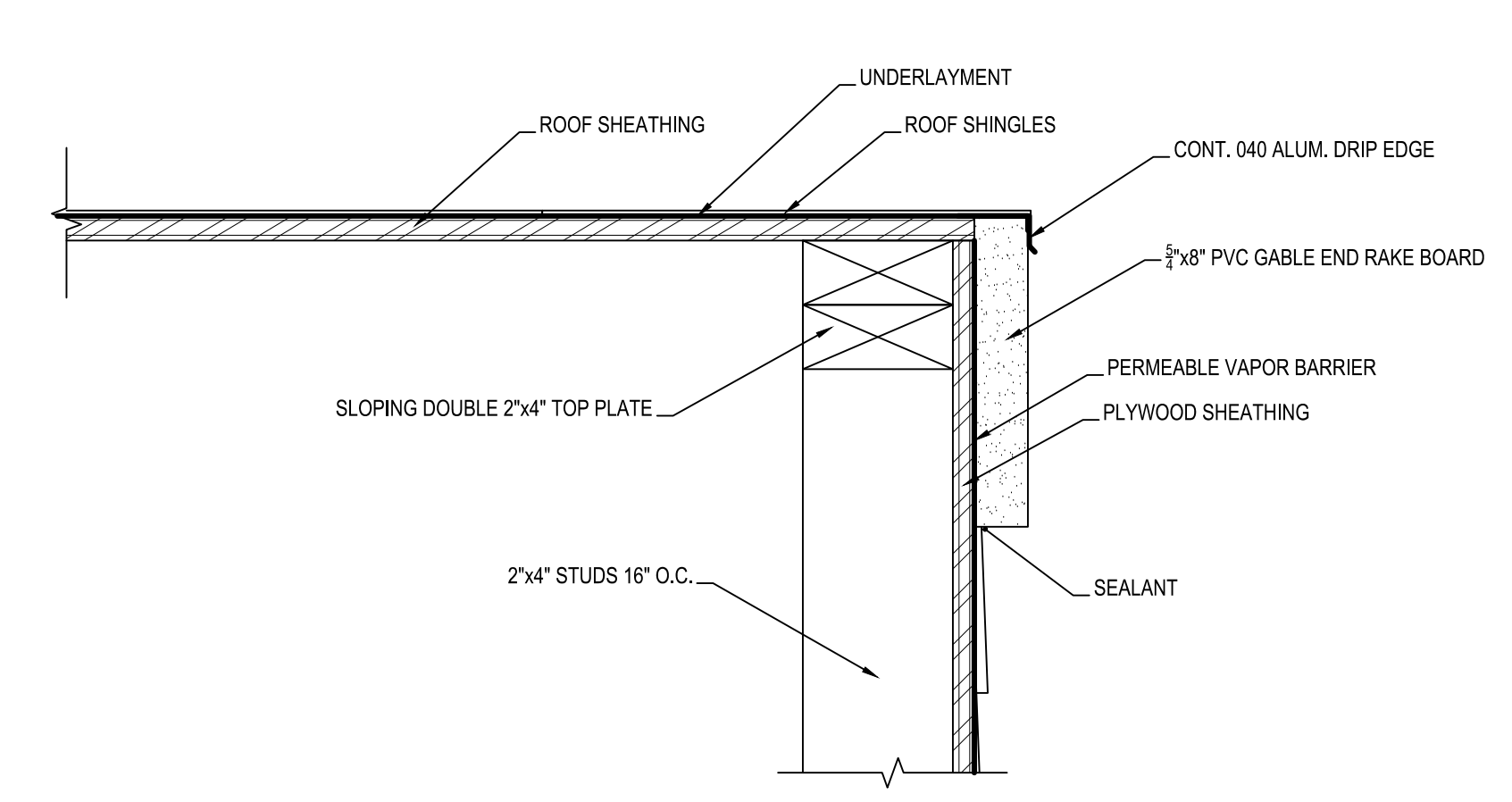
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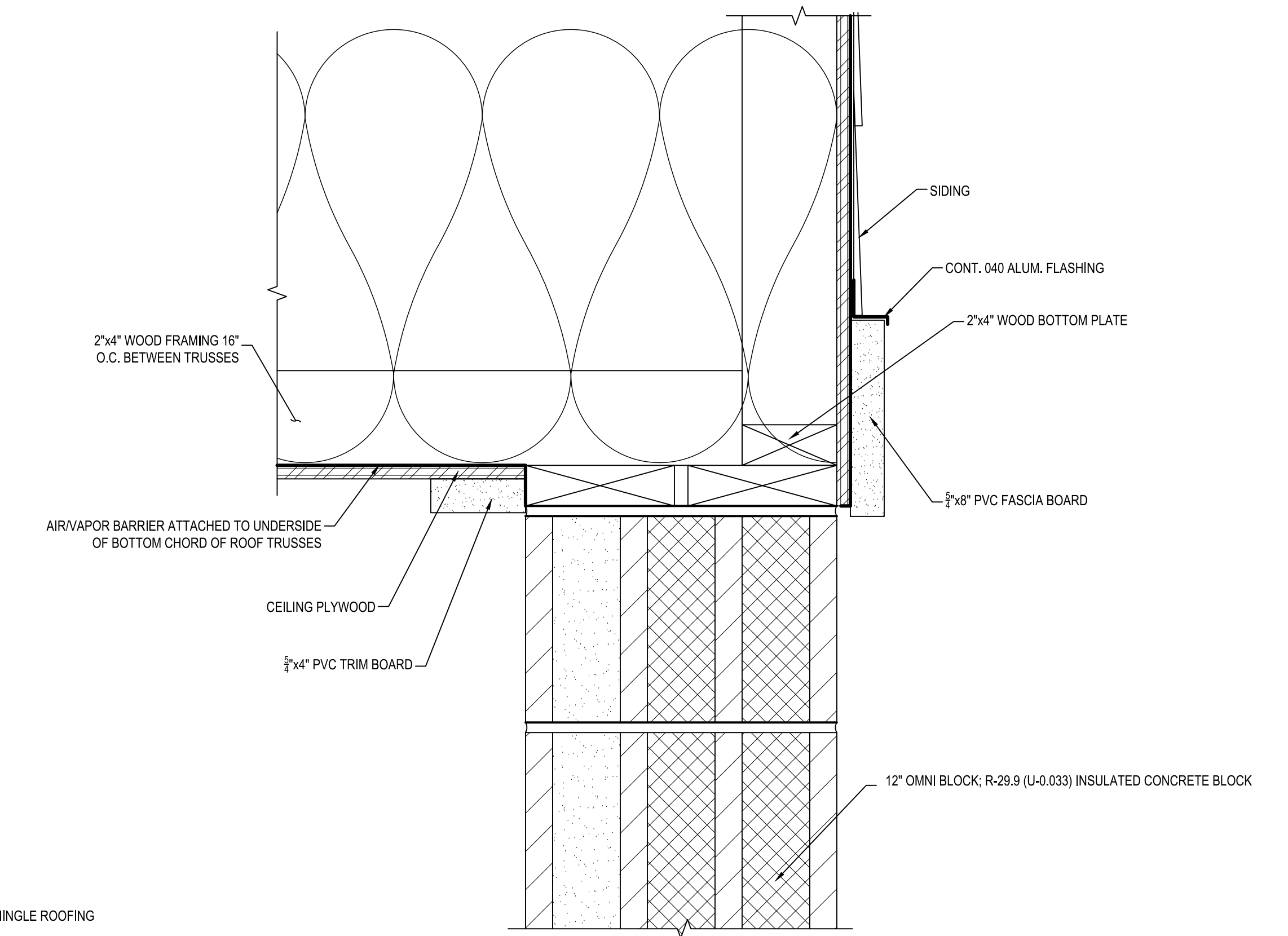
ROOF DETAIL
SCALE: 3"=1'-0"
11



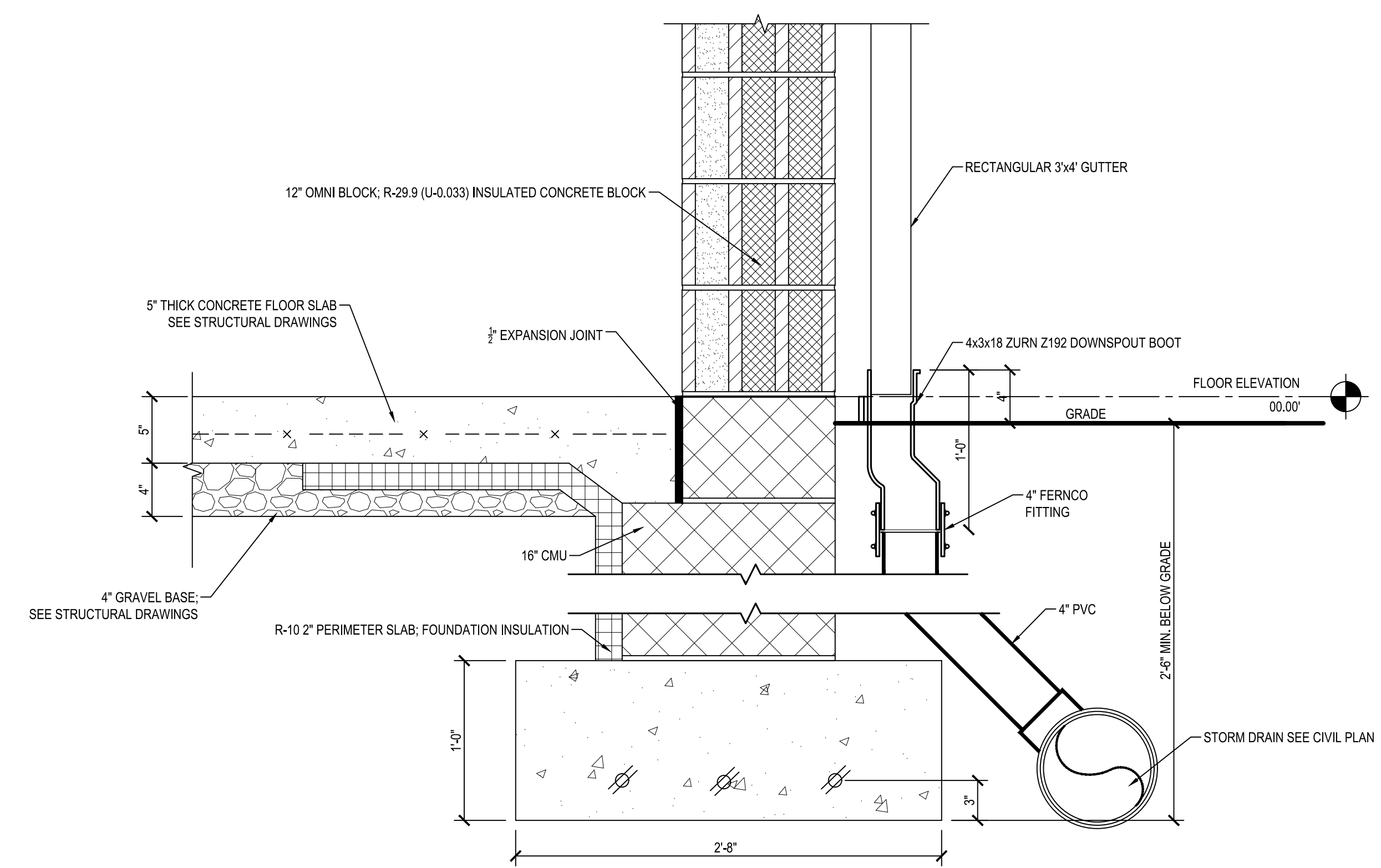
ATTIC VENT-GABLE LOUVER DETAIL (TYPICAL)
SCALE: 3"=1'-0"
12



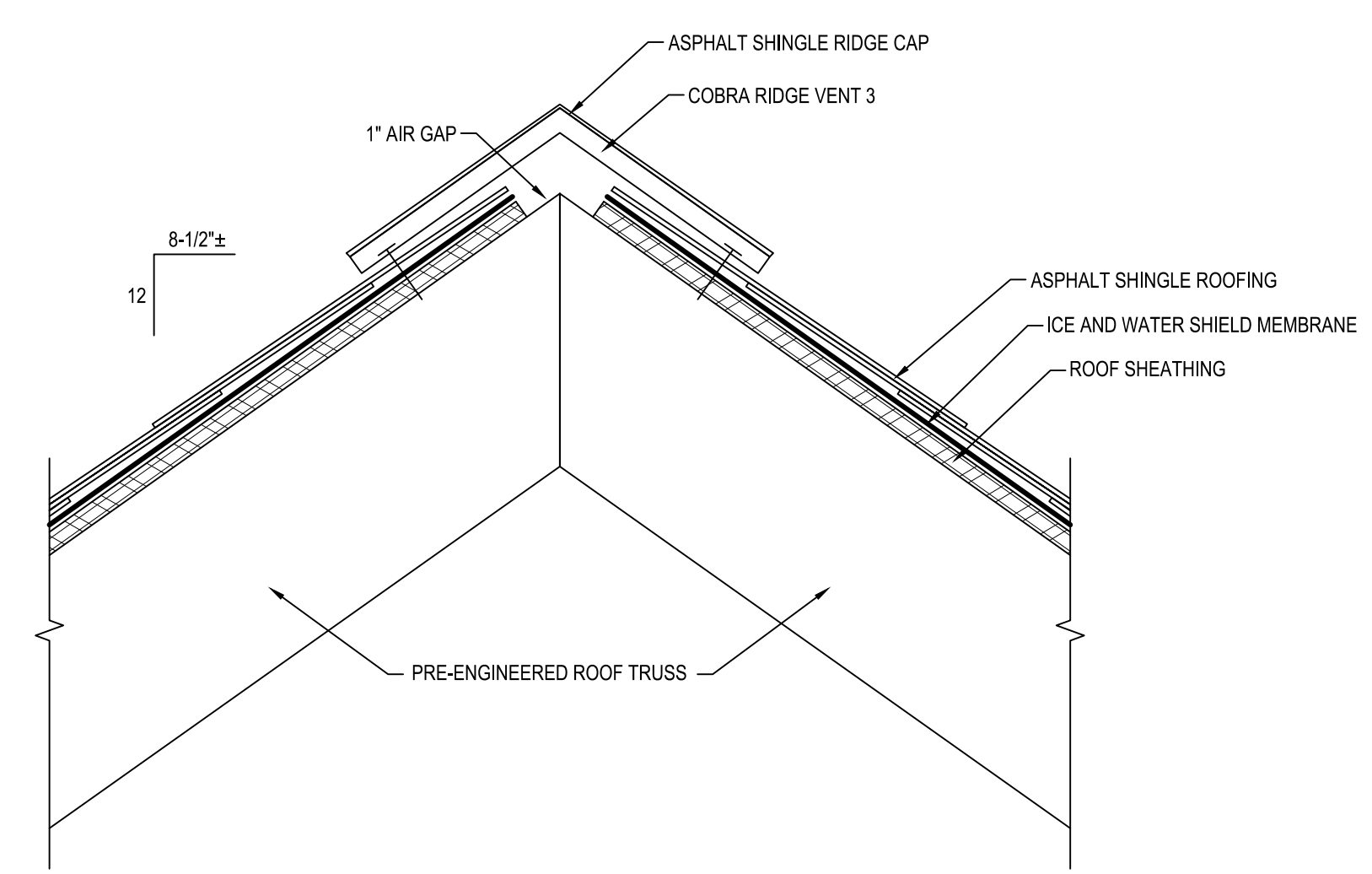
TYPICAL GABLE END WALL SECTION HIGH DETAIL
SCALE: 3"=1'-0"
13



TYPICAL GABLE END WALL SECTION LOW DETAIL
SCALE: 3"=1'-0"
14



DOWNSPOUT BOOT DETAIL
SCALE: 1-1/2"=1'-0"
15



RIDGE VENT DETAIL
SCALE: 3"=1'-0"
16

gba
gant-brunnett
ARCHITECTS
15 West Mulberry Street
Baltimore, Maryland 21201-4406
Telephone Number: 410-234-8444

PROFESSIONAL CERTIFICATION
I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NUMBER 000, EXPIRATION DATE 05/23/2021.

(C) GANT BRUNETT ARCHITECTS
ALL REPRODUCTION IS PROHIBITED

NO.	DESCRIPTION	BY	DATE
△			

APPROVED				APPROVED			
DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE
CHIEF ENGINEER	PROJECT MANAGER	CHIEF ENGINEER	PROJECT MANAGER	CHIEF ENGINEER	PROJECT MANAGER	CHIEF ENGINEER	PROJECT MANAGER
ASSISTANT CHIEF ENGINEER	CHIEF, RIGHT OF WAY	ASSISTANT CHIEF ENGINEER	CHIEF, RIGHT OF WAY	ASSISTANT CHIEF ENGINEER	CHIEF, RIGHT OF WAY	ASSISTANT CHIEF ENGINEER	CHIEF, RIGHT OF WAY

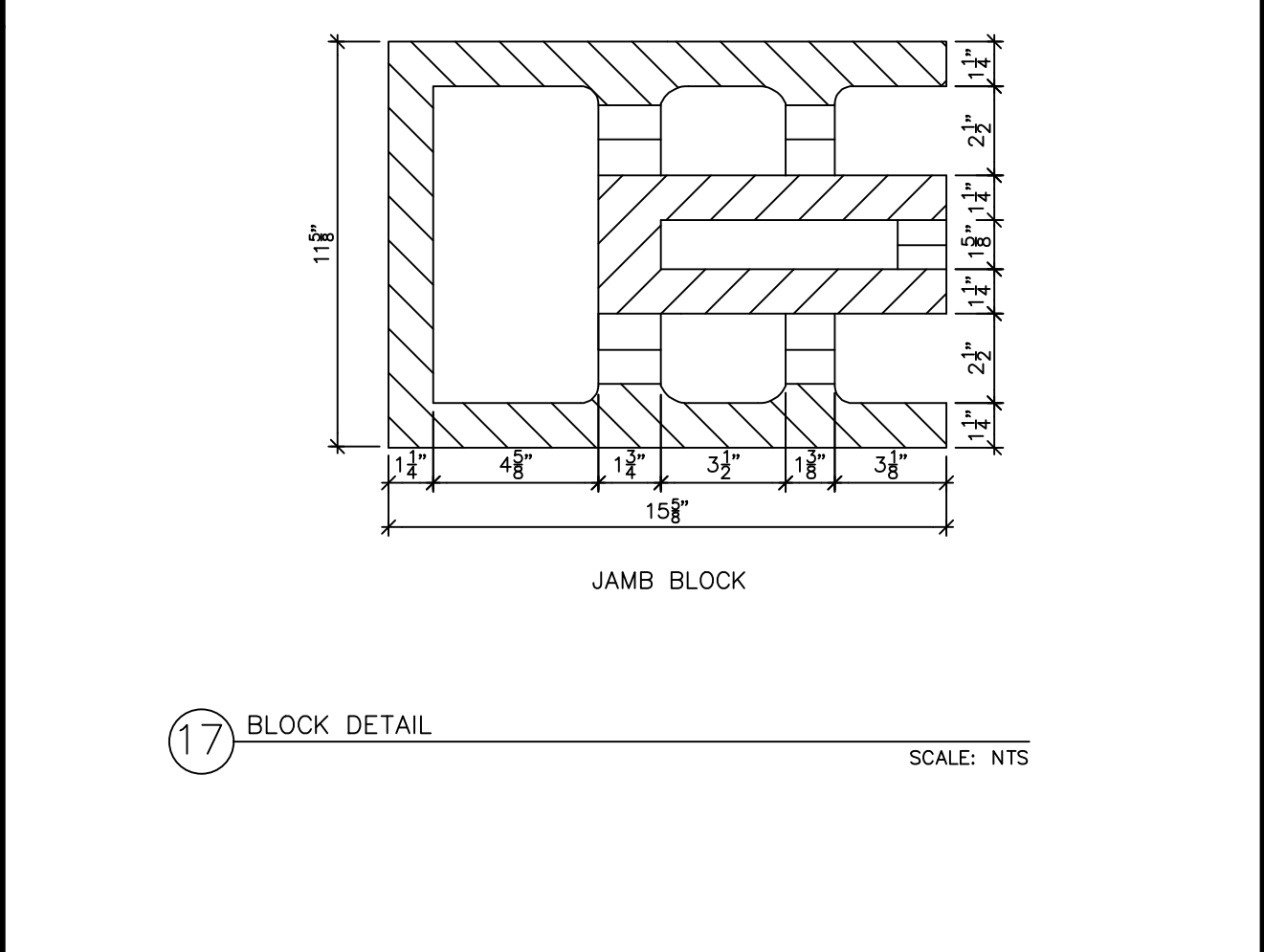
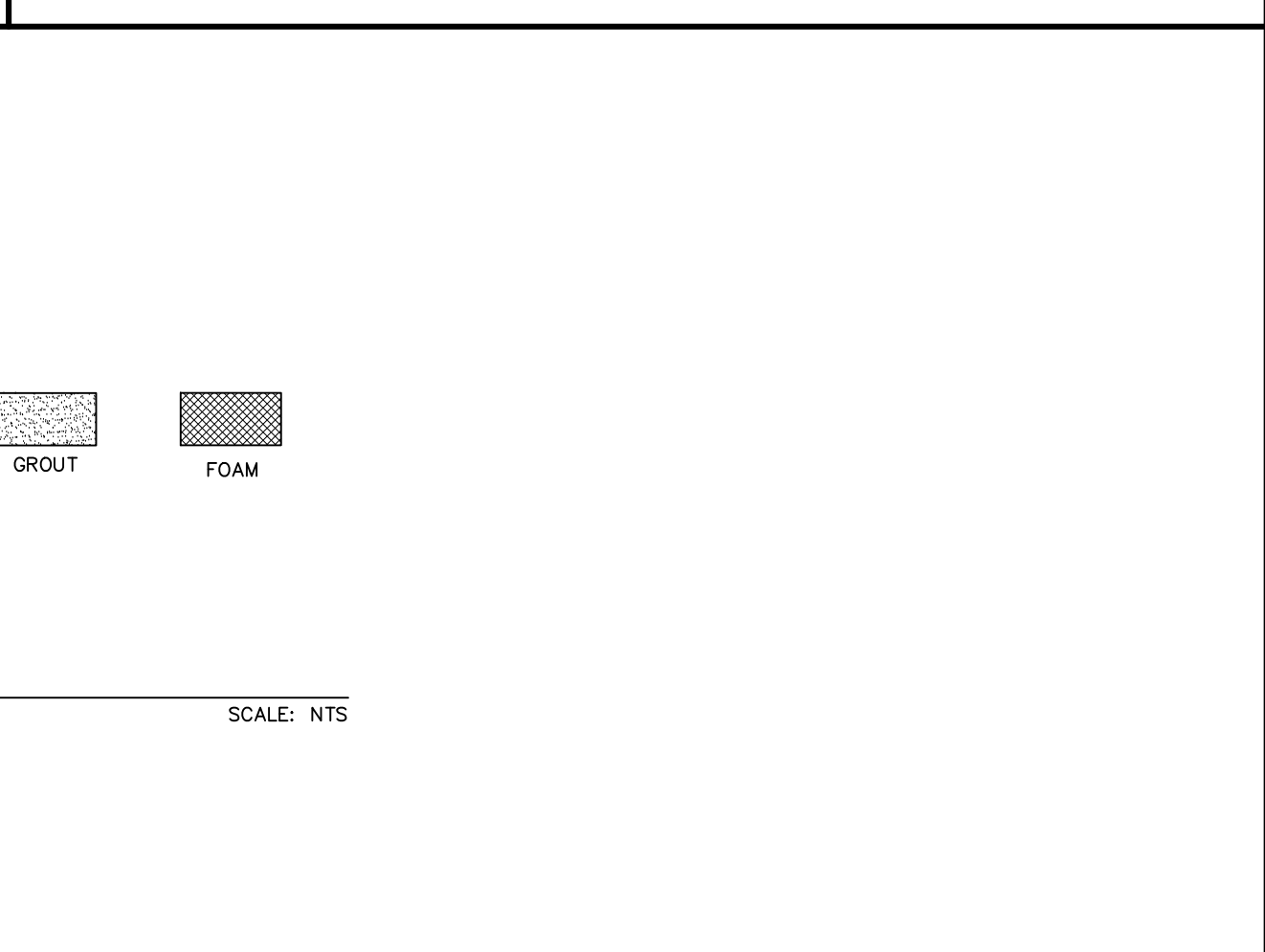
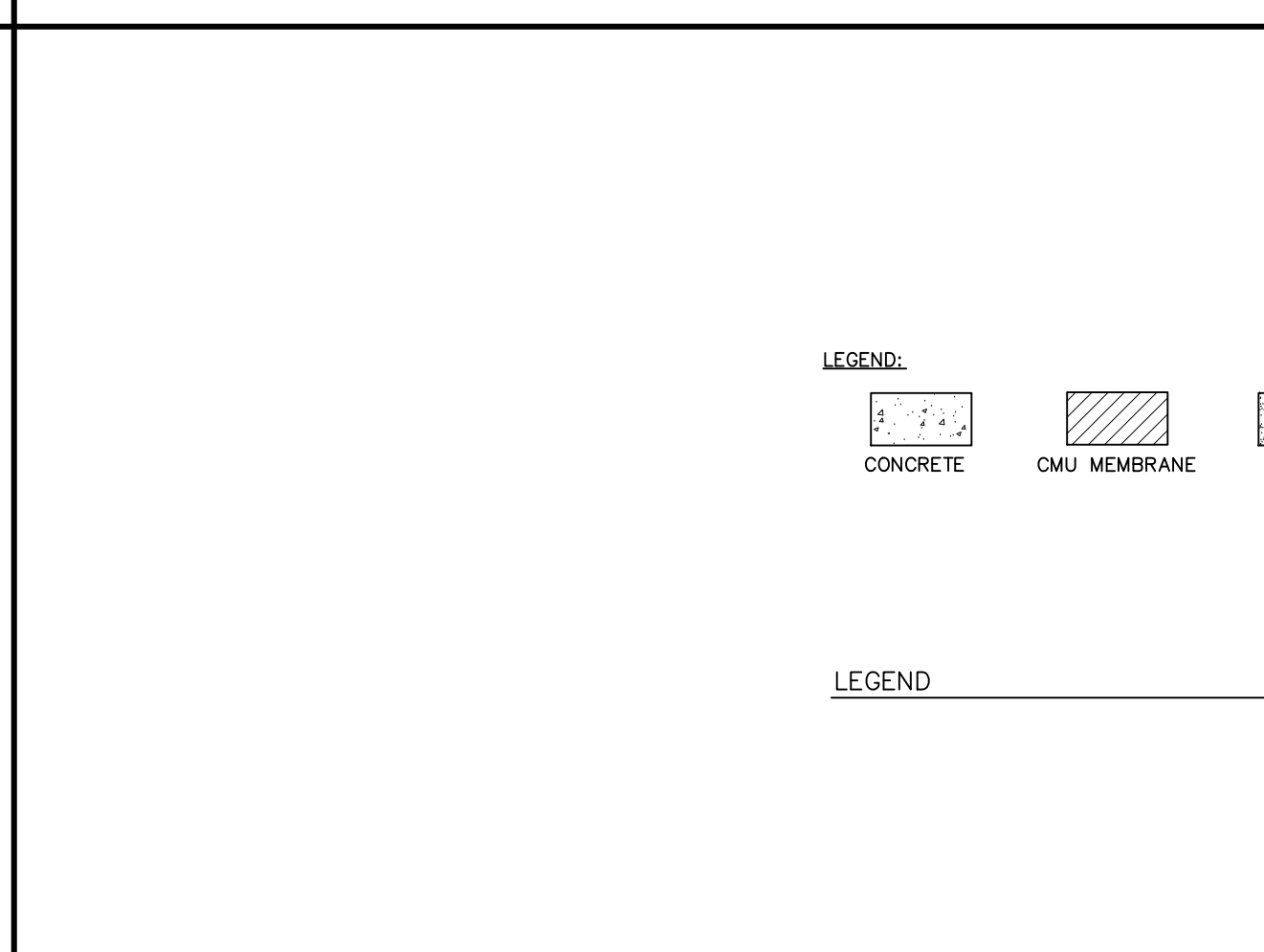
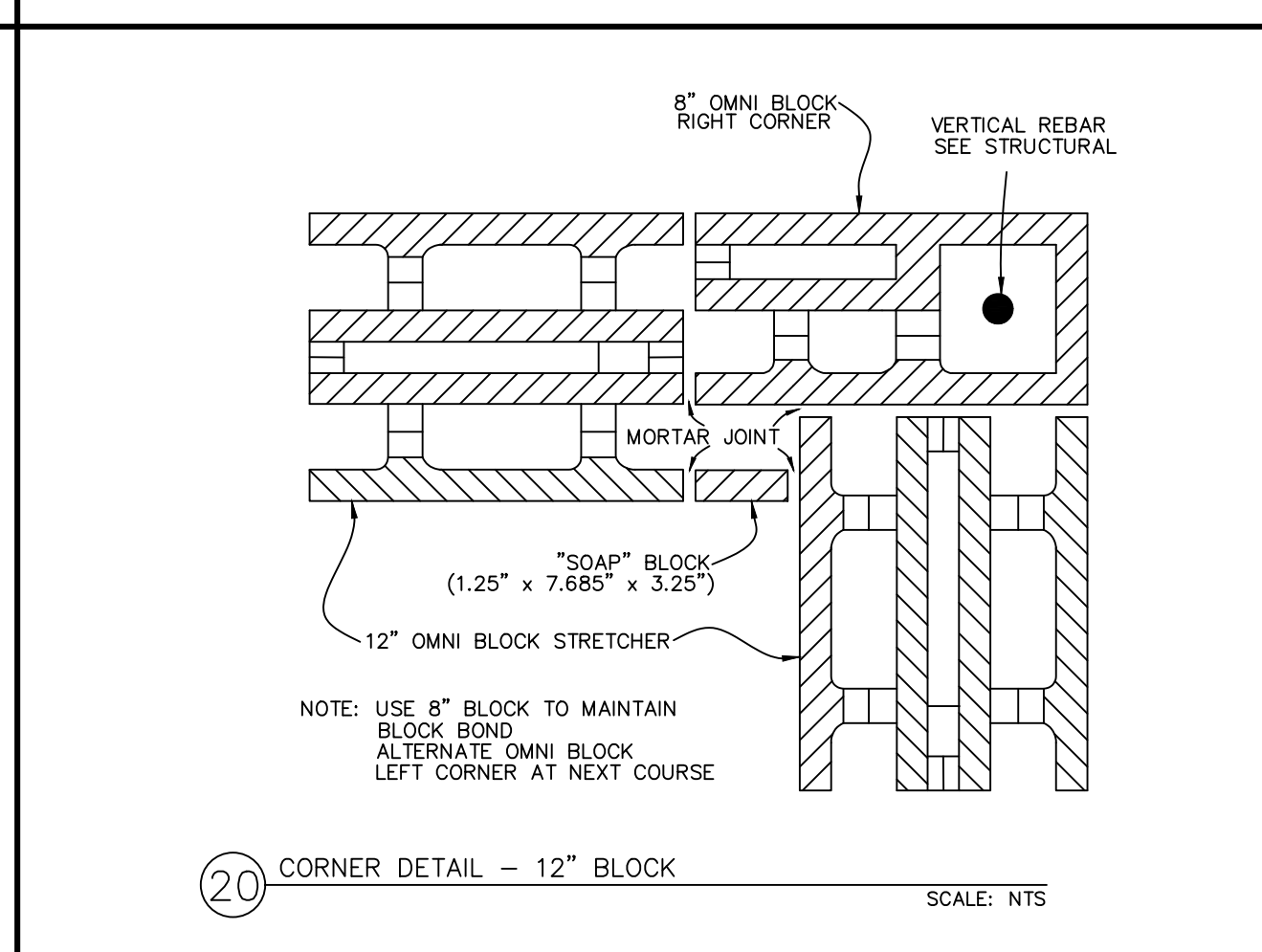
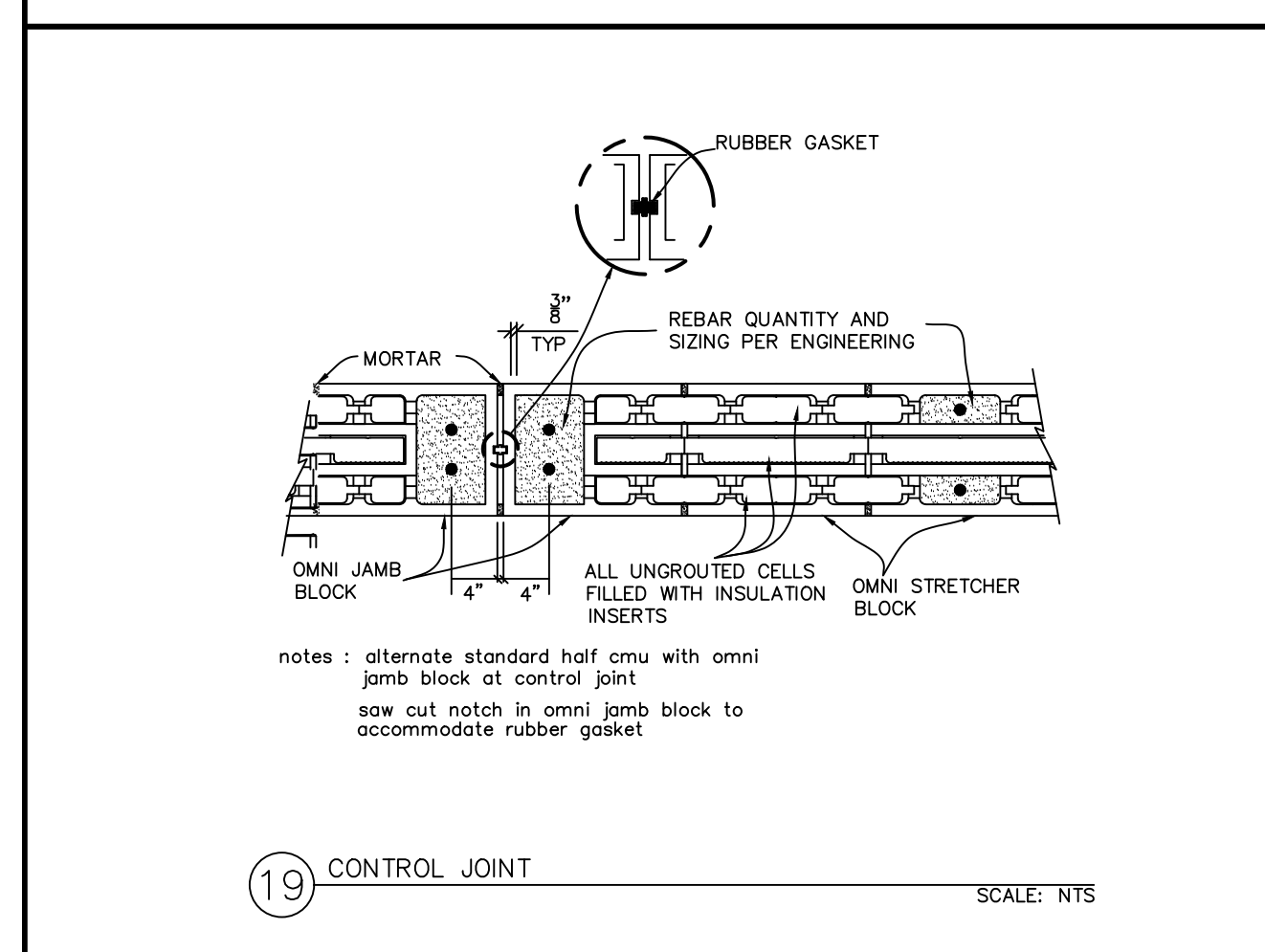
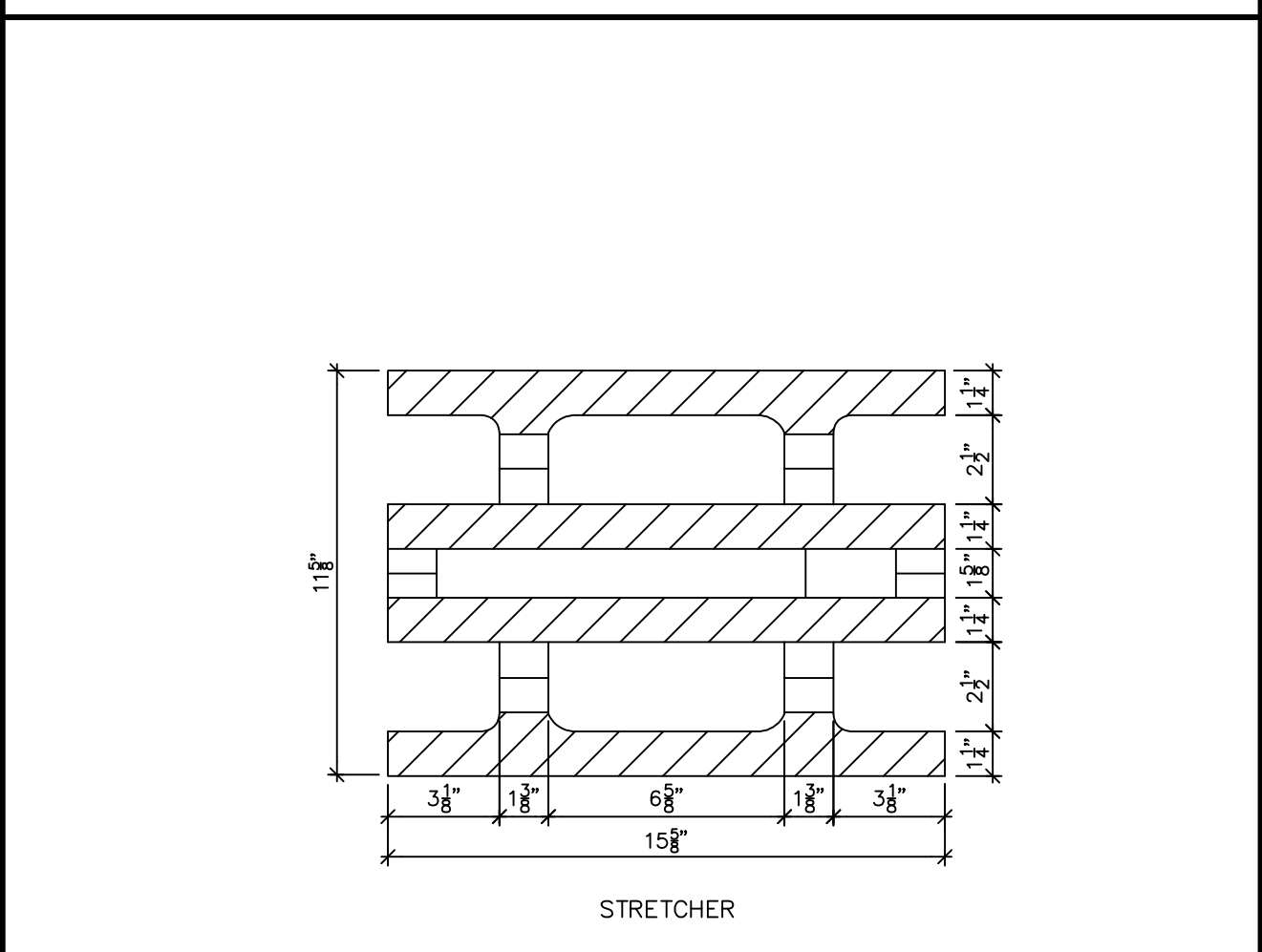
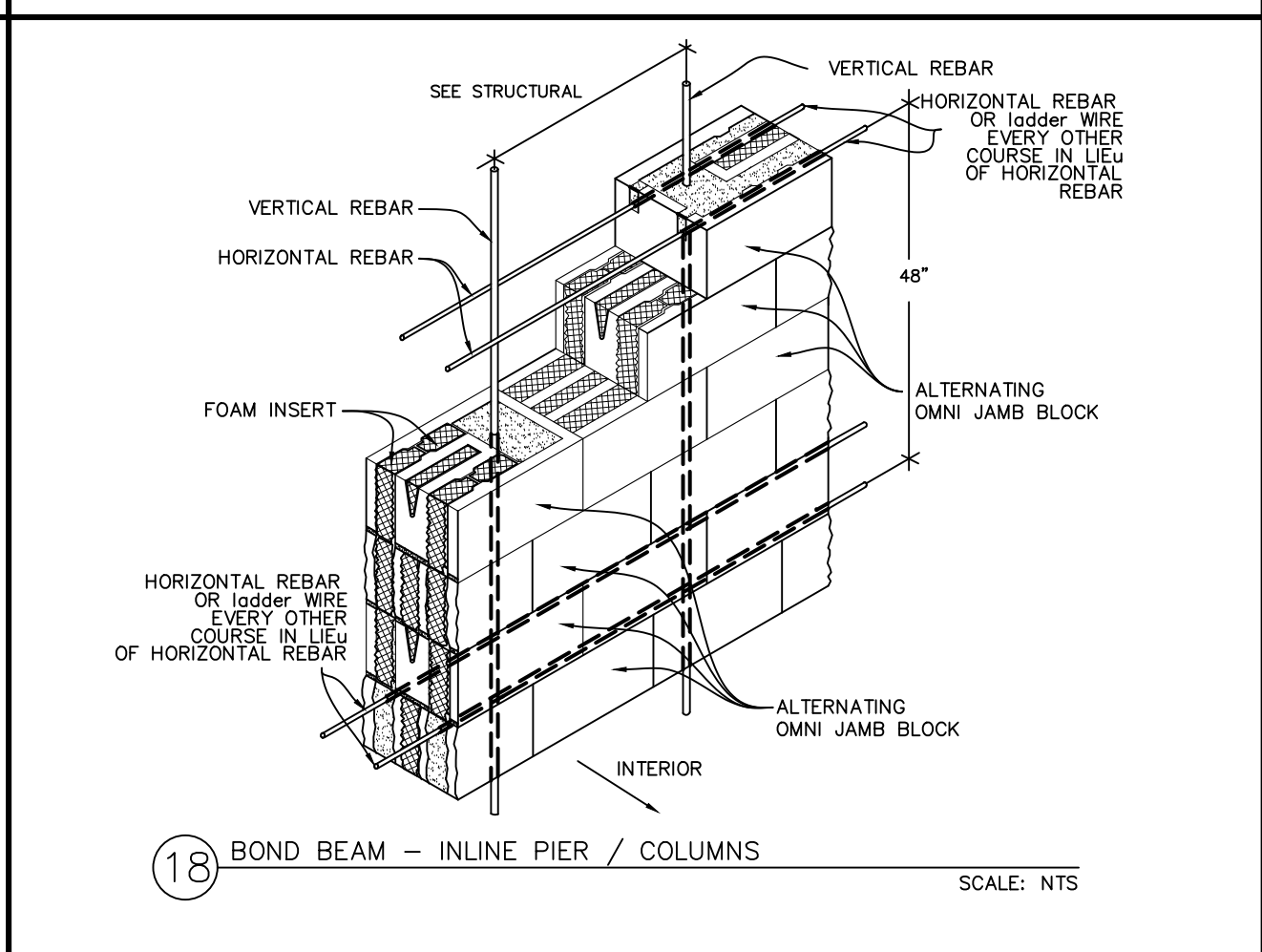
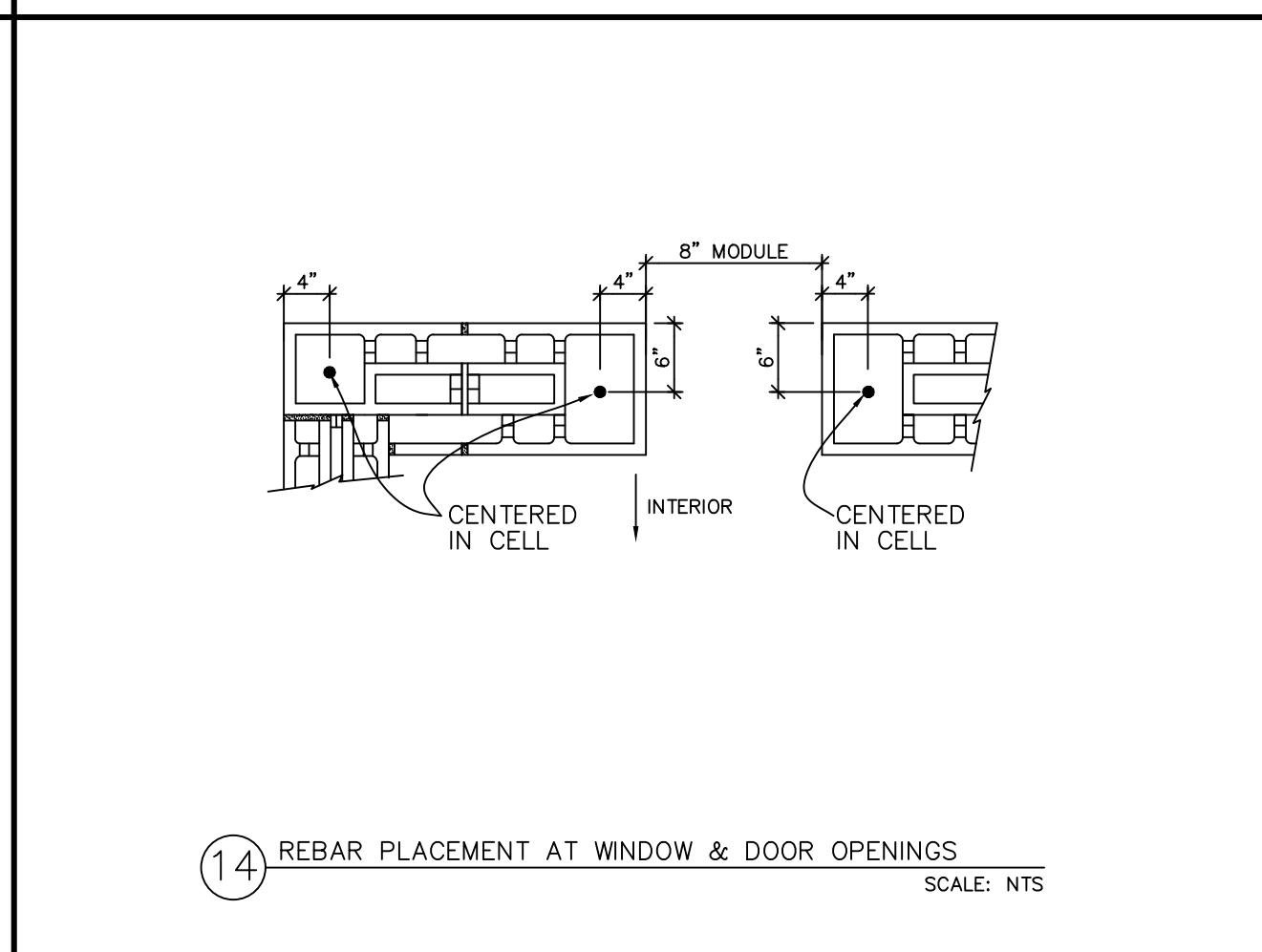
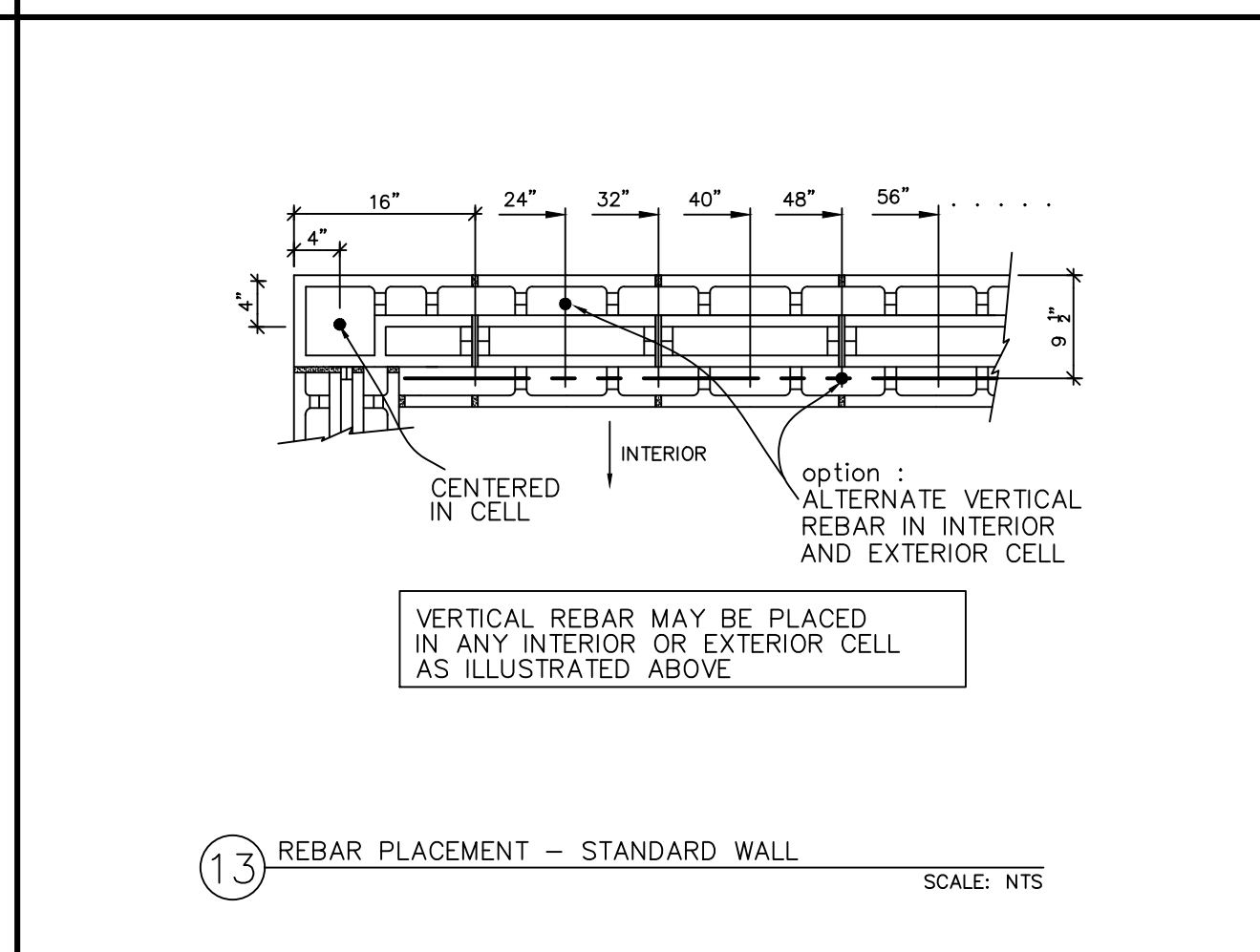
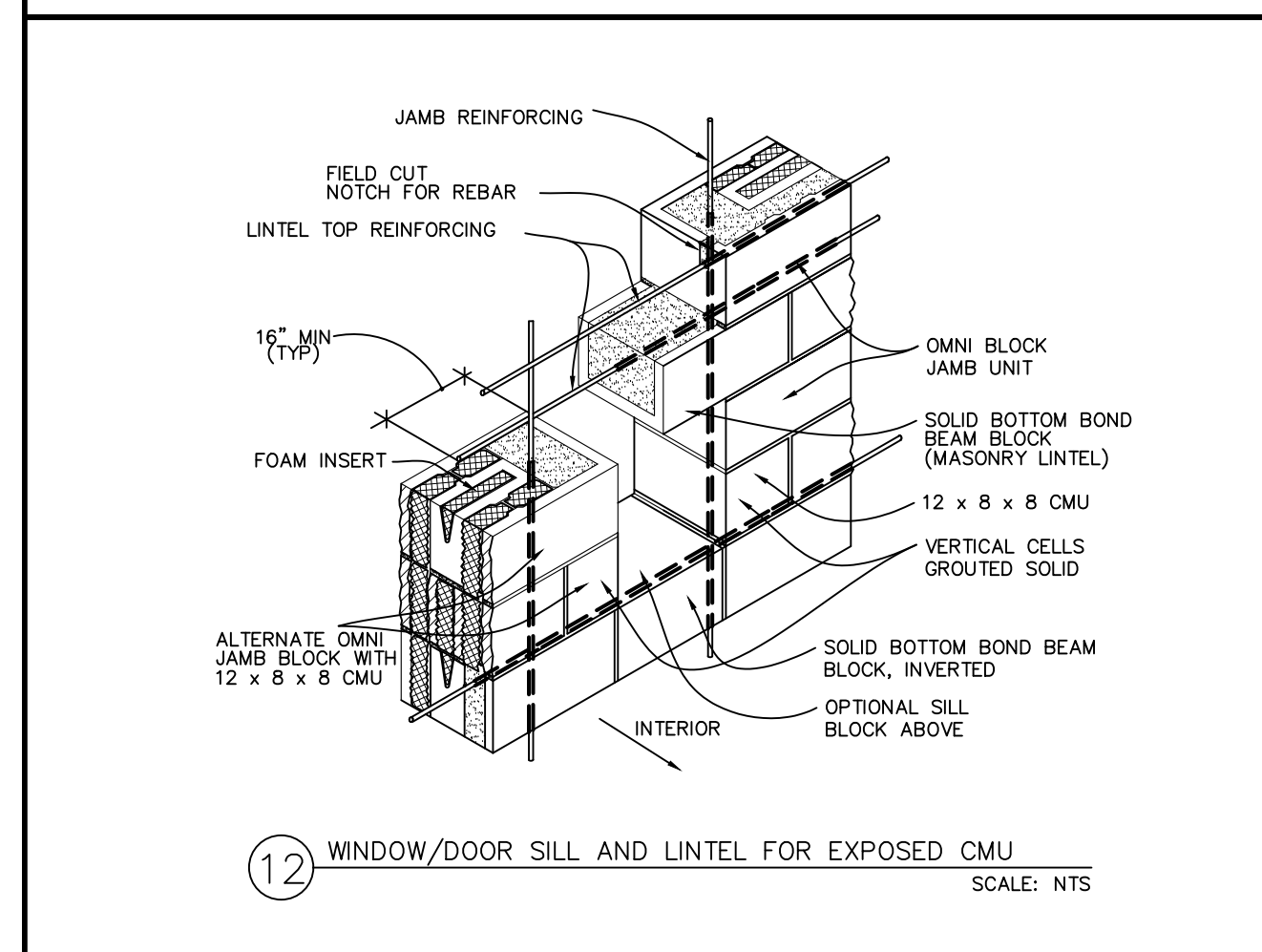
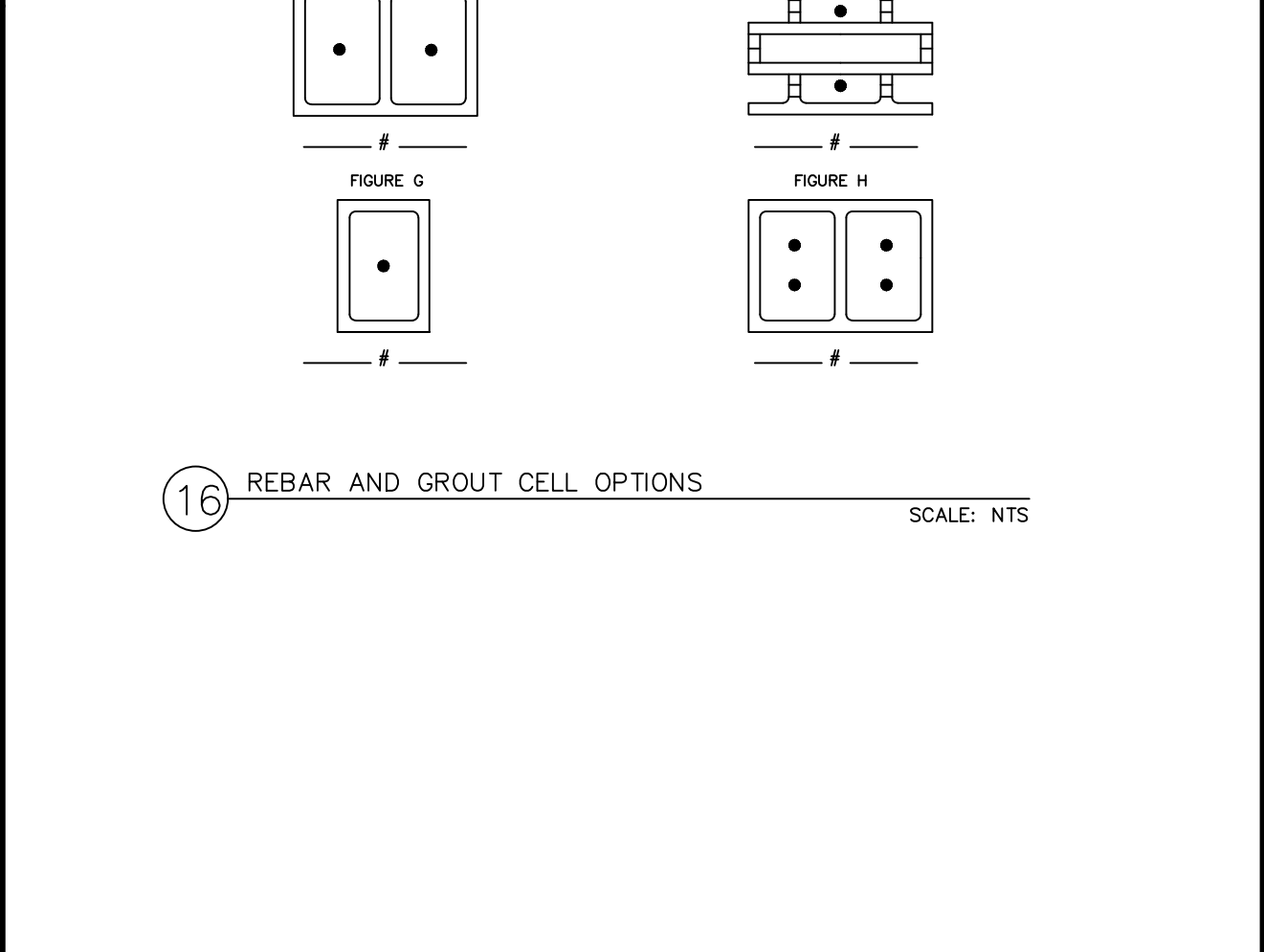
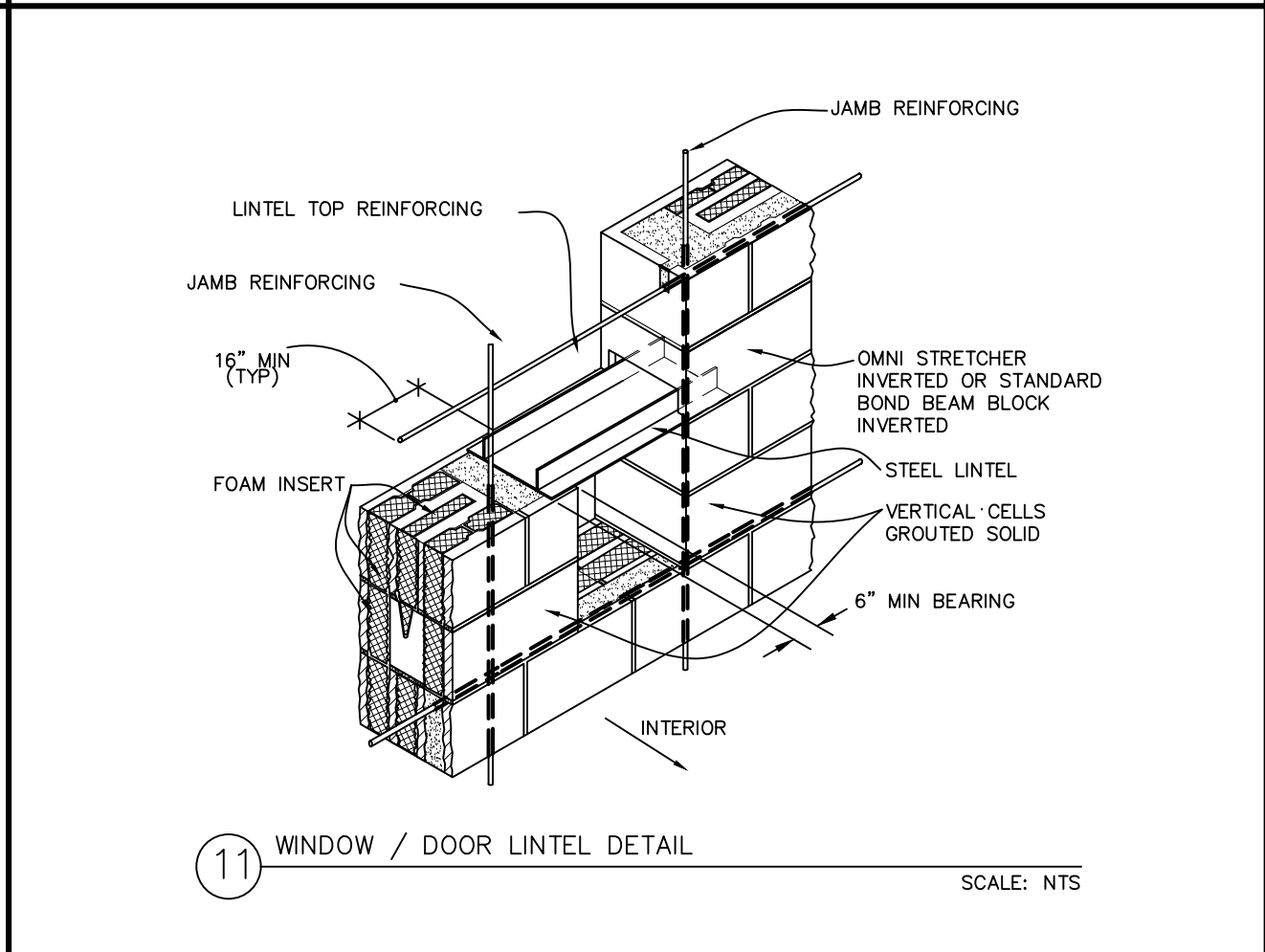
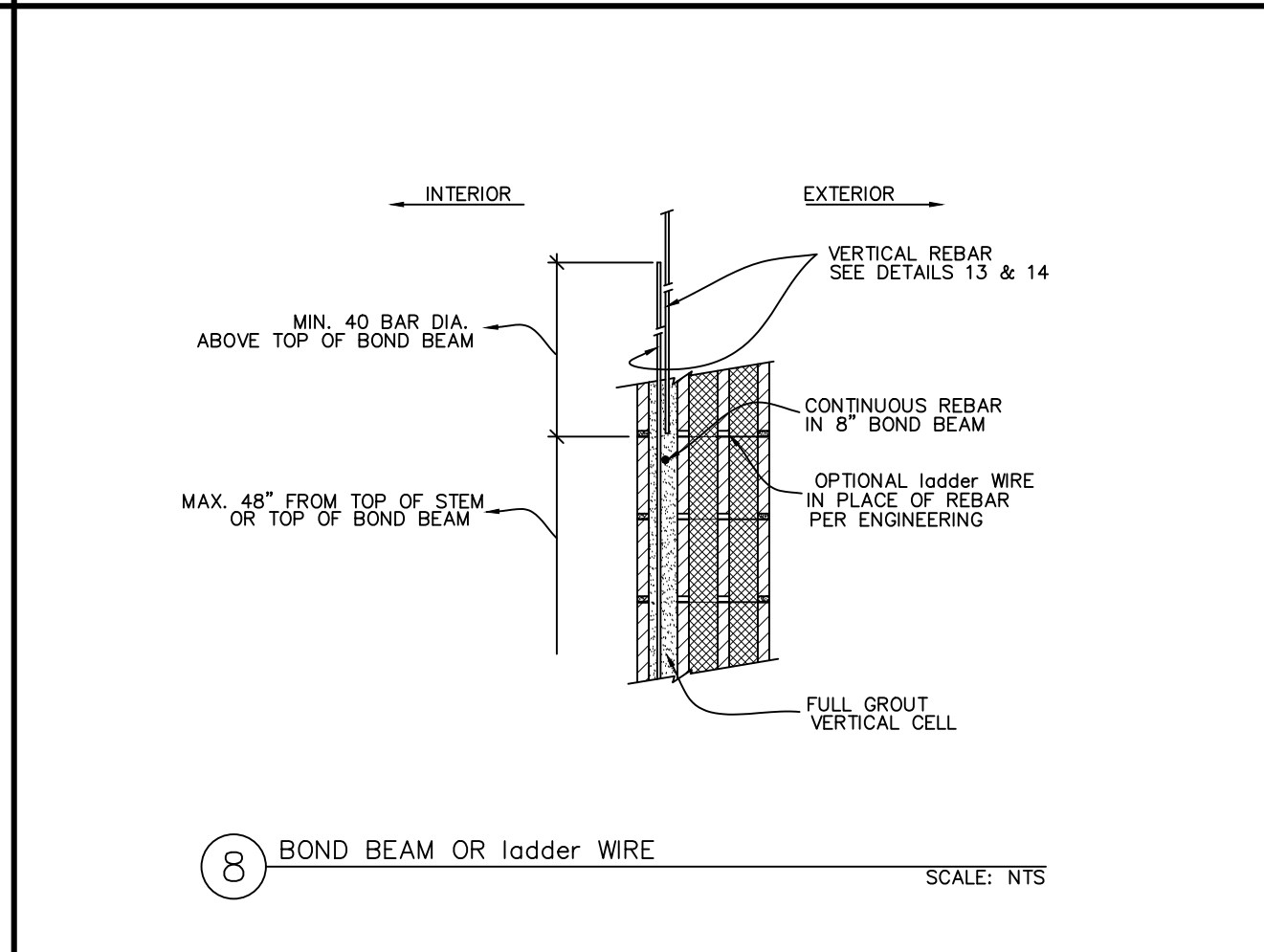
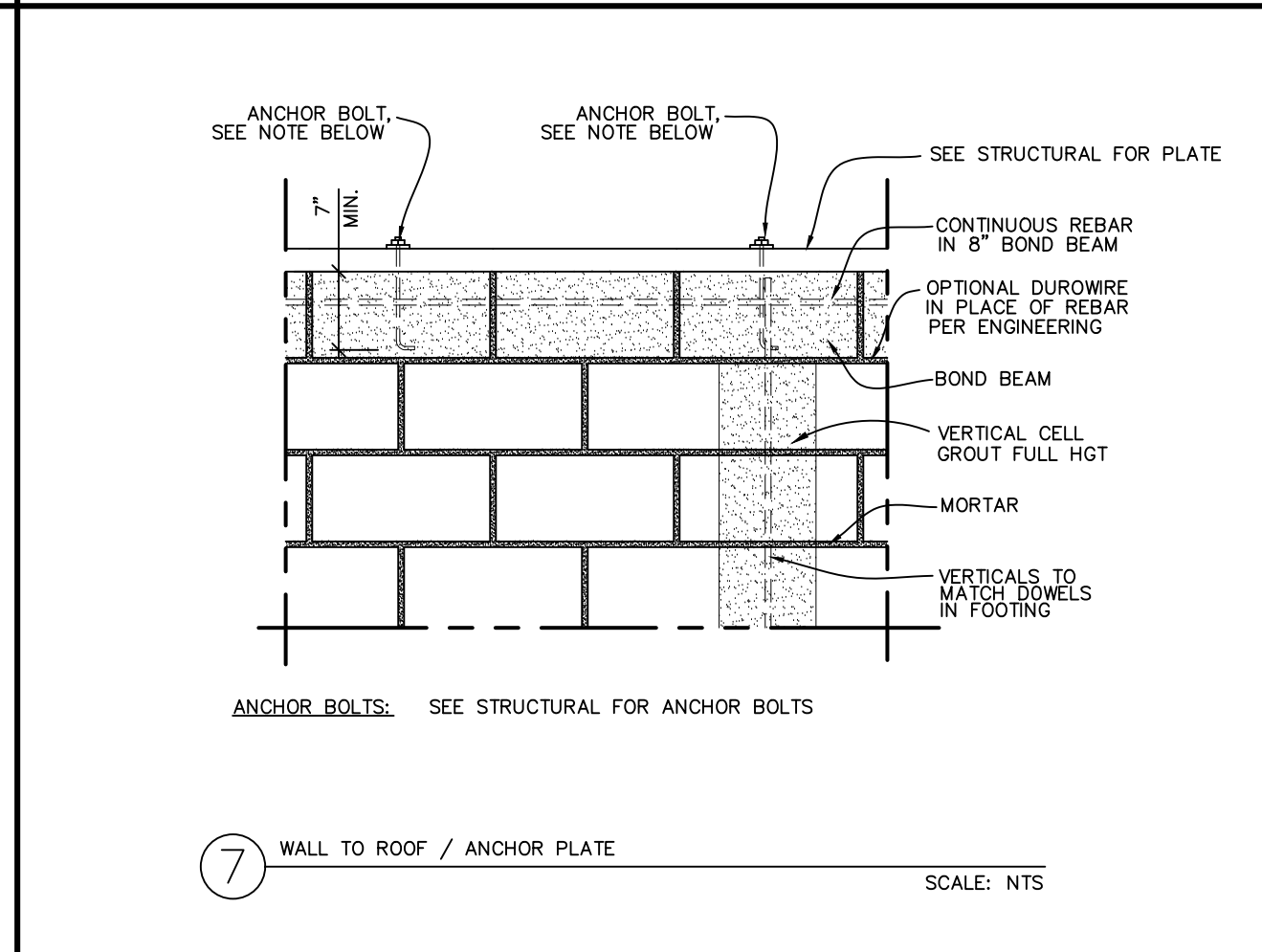
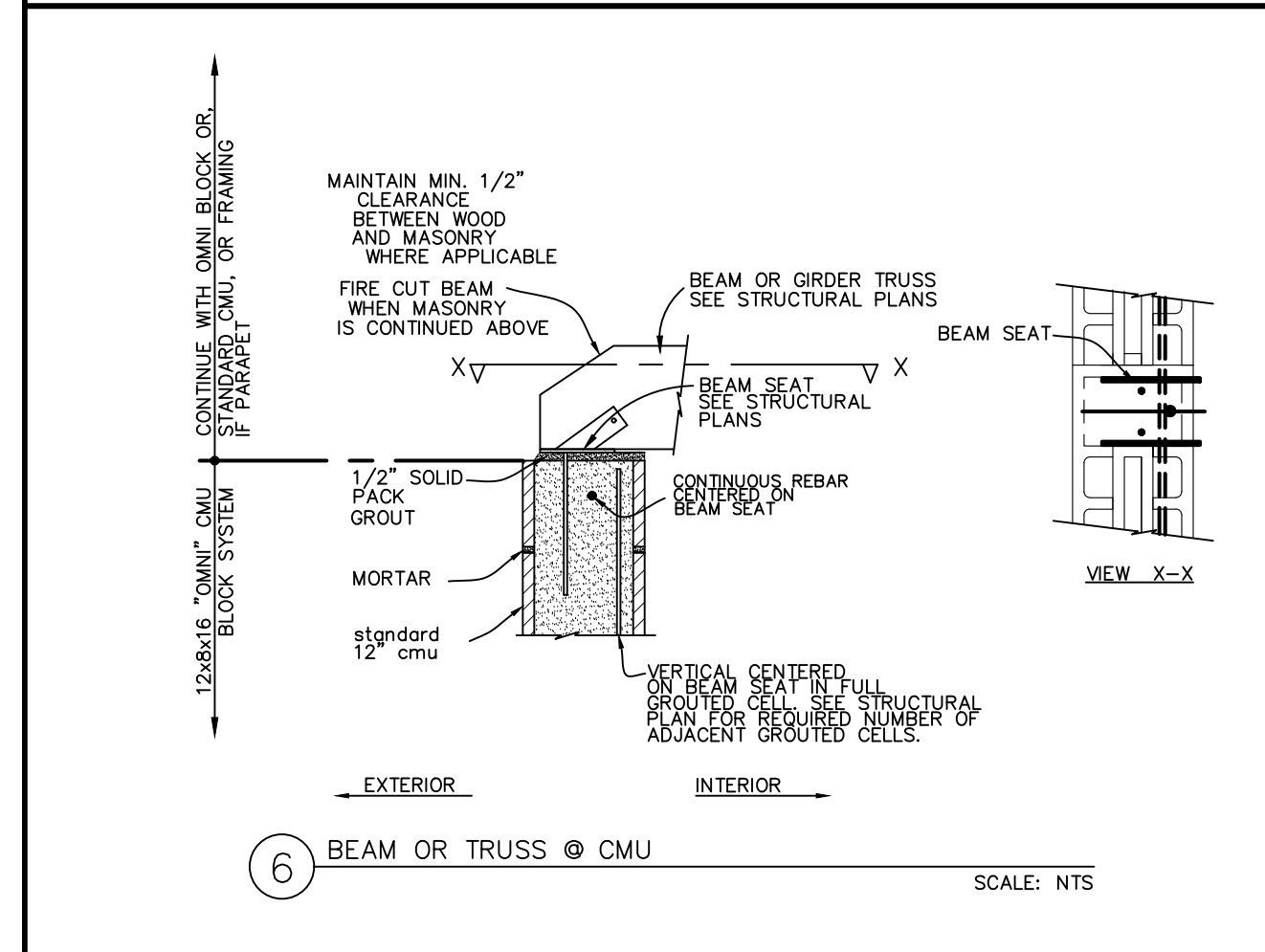
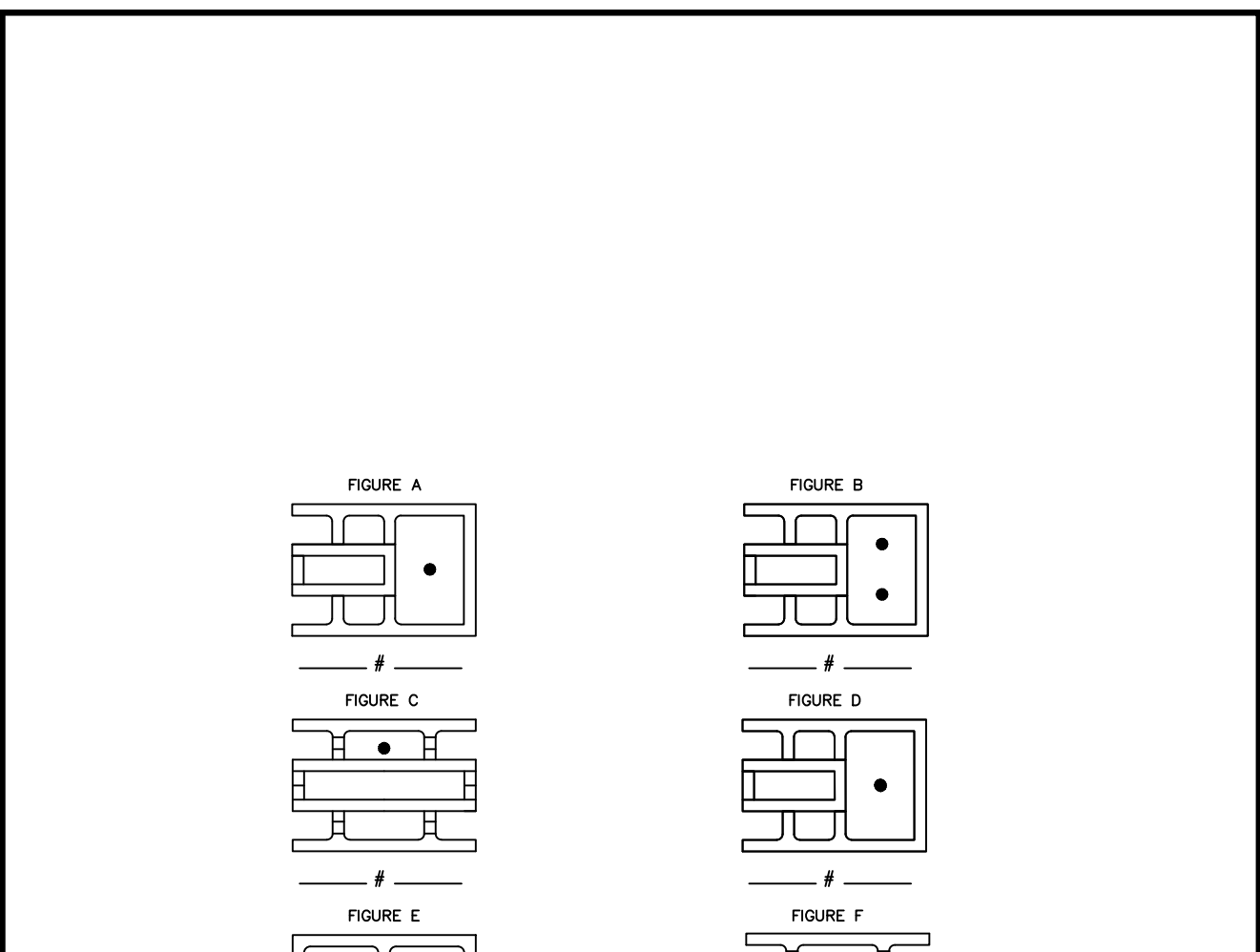
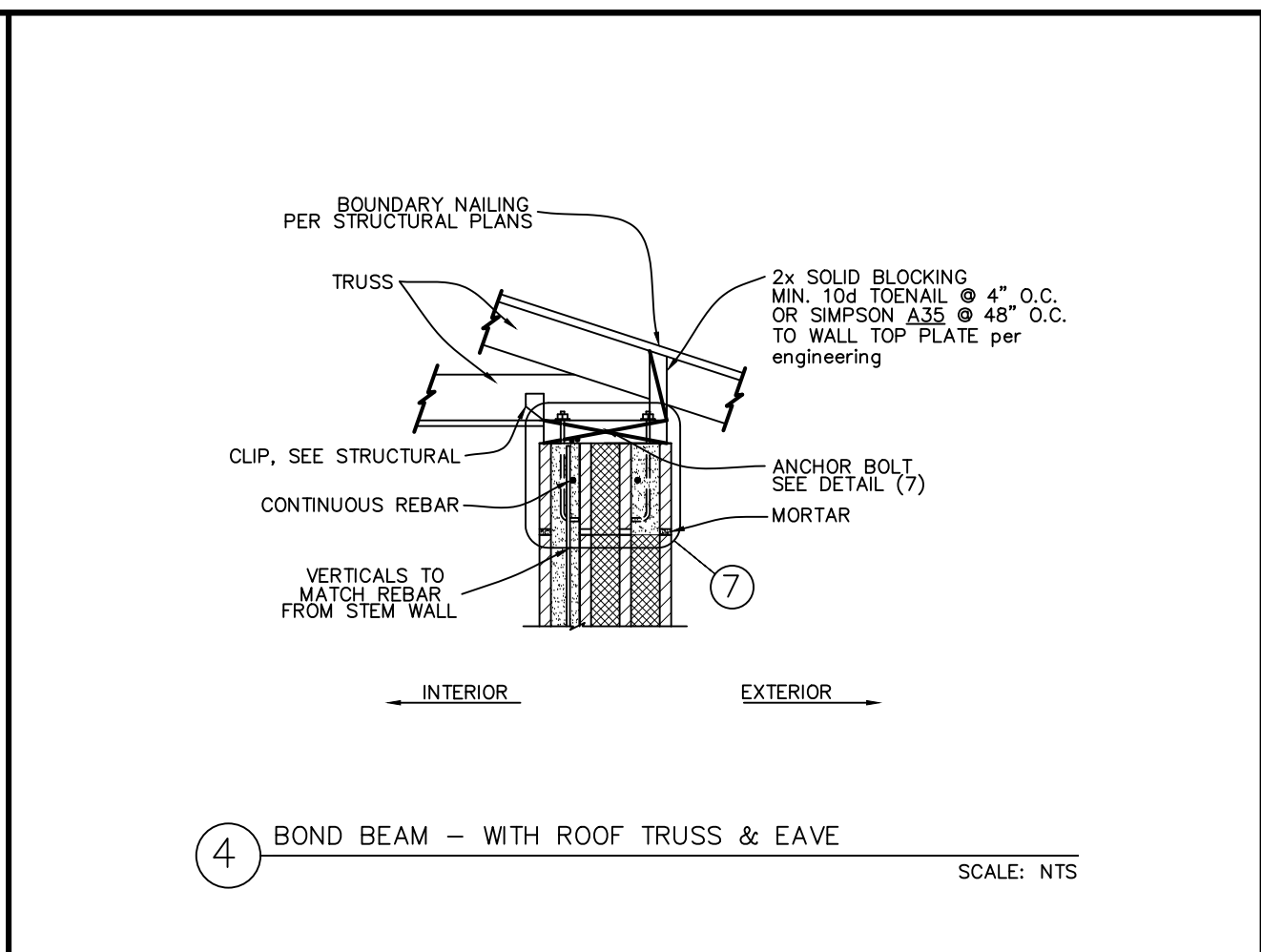
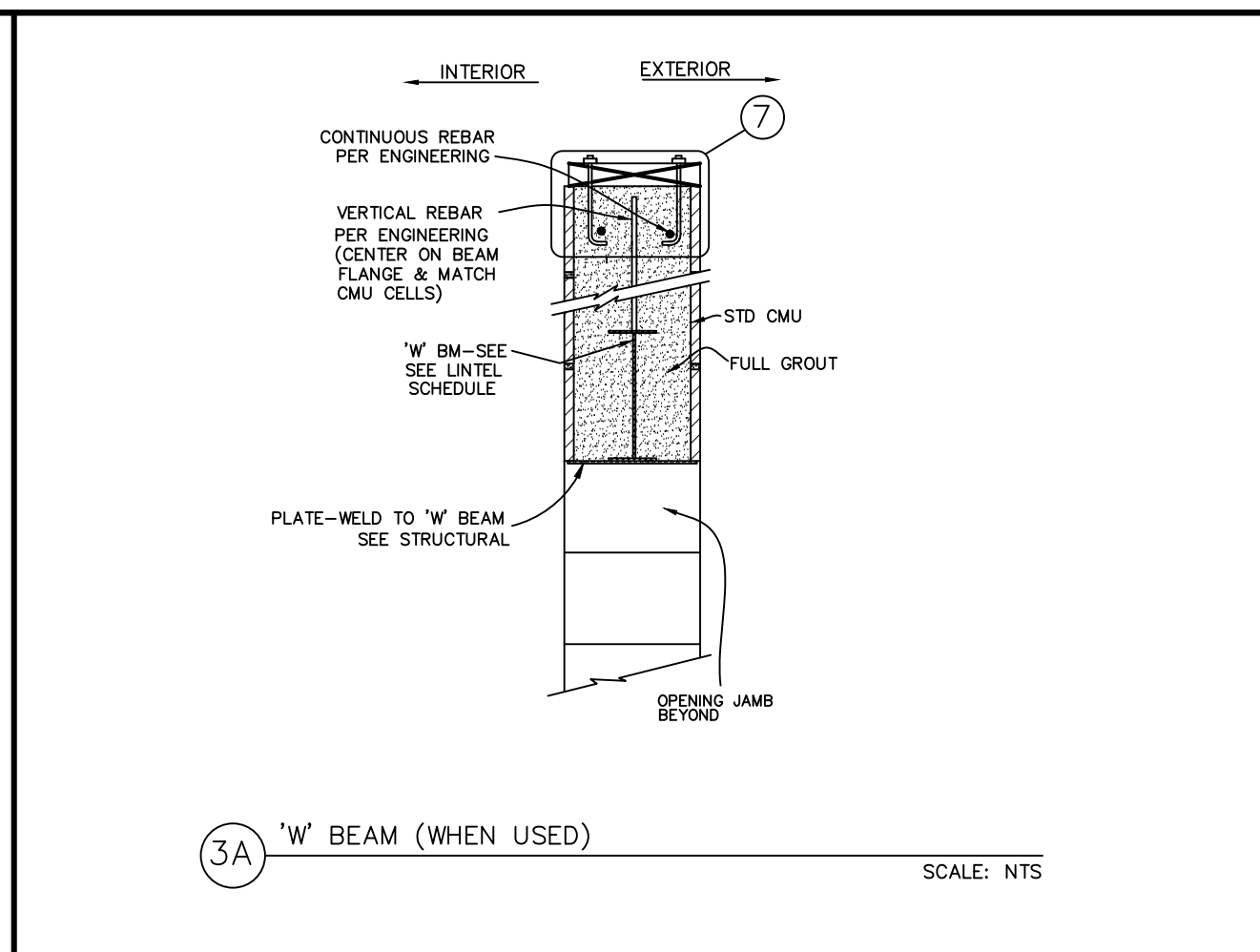
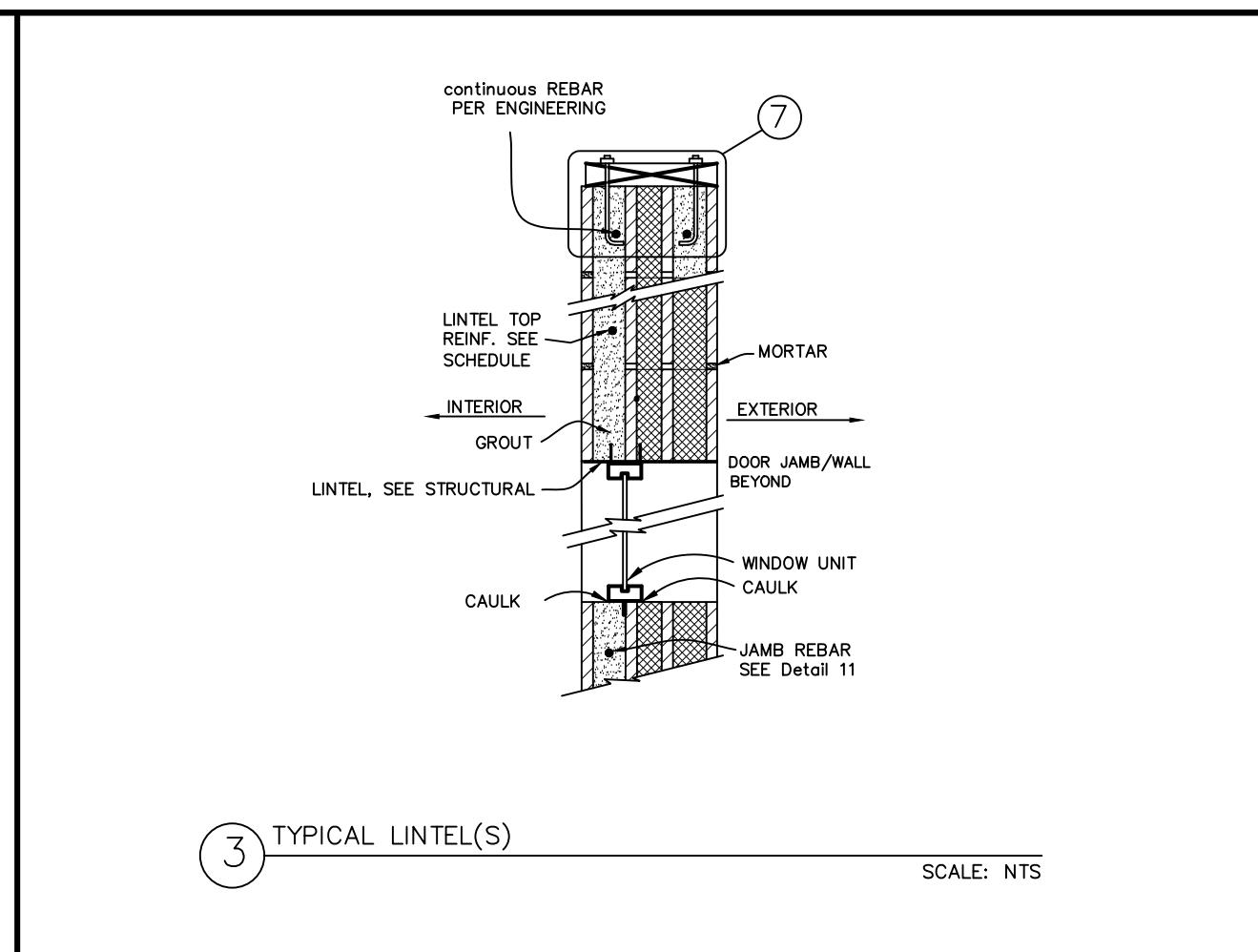
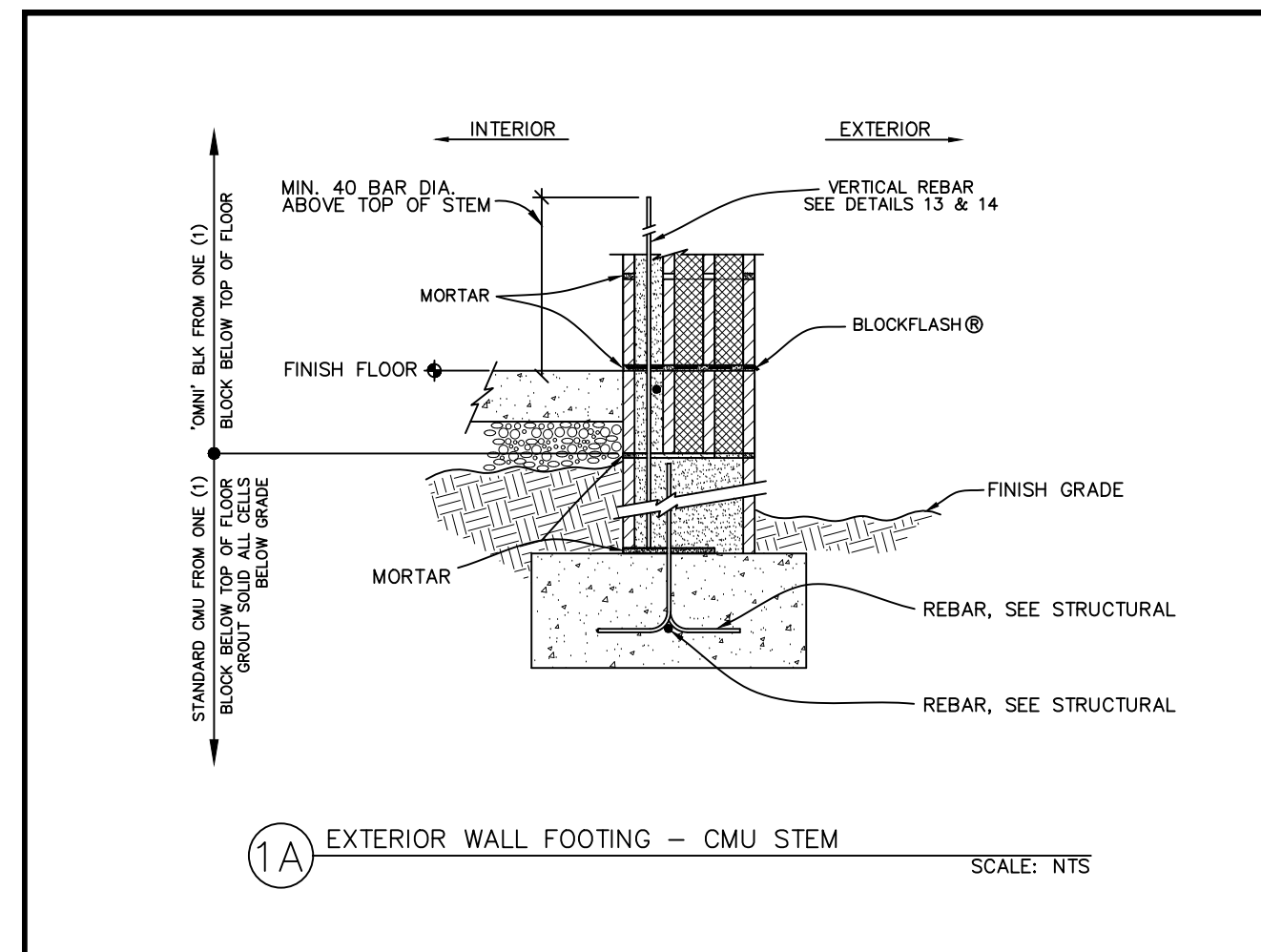
DATE: 4-28-2021

ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS

FORT SMALLWOOD PARK
9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122

MAINTENANCE BUILDING
DETAILS

A503M

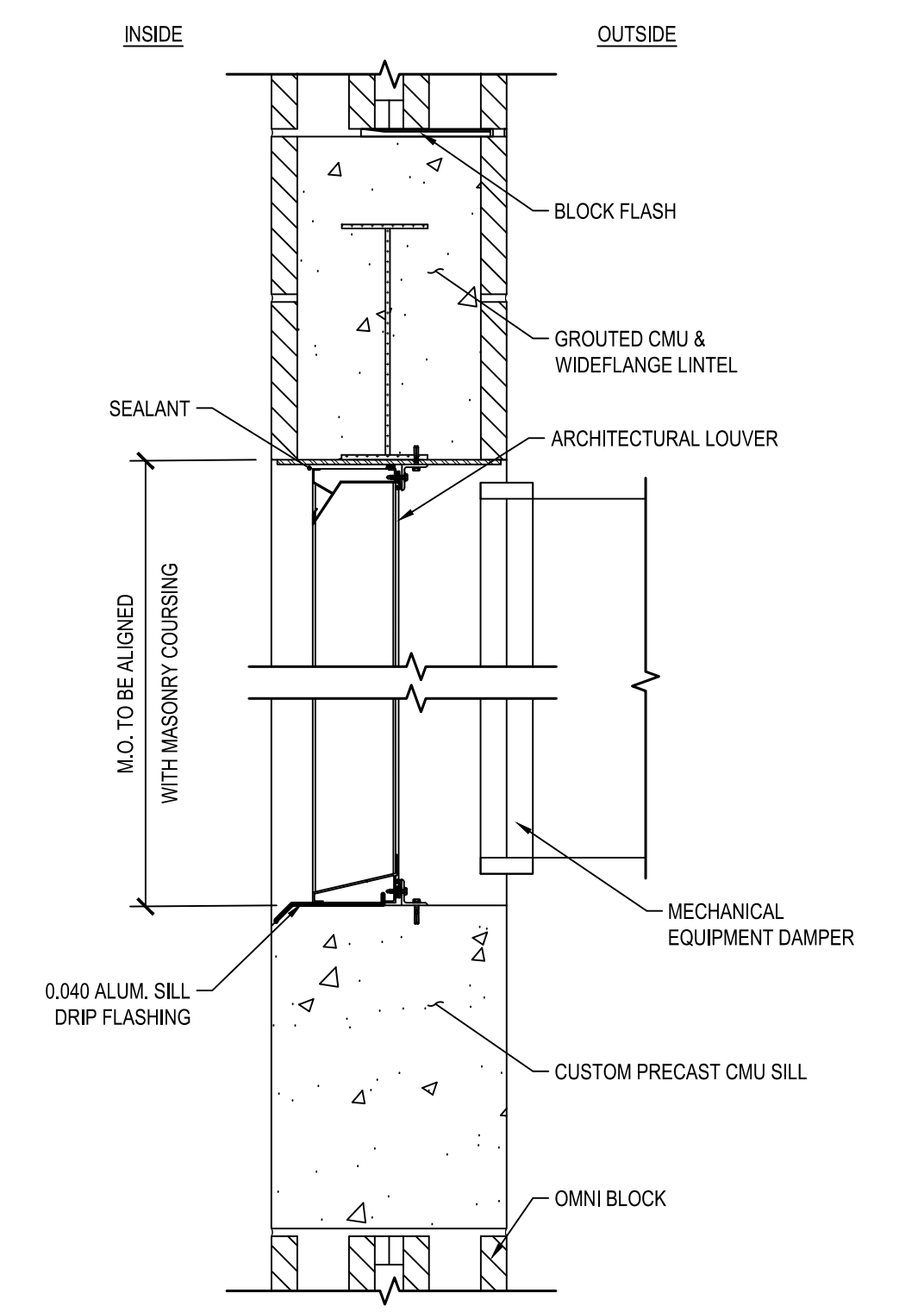


NO.	DESCRIPTION	BY	DATE
△			

FINISH SCHEDULE						
ROOM NO.	ROOM NAME	FLOOR	BASE	WALLS	CEILING	ADDITIONAL REMARKS
FIRST FLOOR						
101	OFFICE	ACRYLIC RESIN SYSTEM	4" VINYL	PAINTED	SUSPENDED ACOUSTICAL LAY-IN	UN-FINISHED GWB ABOVE
102	BREAKROOM	ACRYLIC RESIN SYSTEM	4" VINYL	PAINTED	SUSPENDED ACOUSTICAL LAY-IN	UN-FINISHED GWB ABOVE
103	MEN'S RESTROOM	ACRYLIC RESIN SYSTEM	4" VINYL	PAINTED	SUSPENDED ACOUSTICAL LAY-IN	UN-FINISHED GWB ABOVE
104	MAINTENANCE AND REPAIR WORKSHOP	SEALED CONCRETE	NONE	PAINTED	1/2" PLYWOOD PAINTED	
105	TOOL STORAGE CAGES	SEALED CONCRETE	NONE	PAINTED	1/2" PLYWOOD PAINTED	
106	WOOD SHOP	SEALED CONCRETE	NONE	PAINTED	1/2" PLYWOOD PAINTED	
107	MECHANICAL AND COMPRESSOR ROOM	SEALED CONCRETE	NONE	PAINTED	PAINTED CEMENT BOARD PANEL	
108	CORRIDOR	ACRYLIC RESIN SYSTEM	4" VINYL	PAINTED	SUSPENDED ACOUSTICAL LAY-IN	UN-FINISHED GWB ABOVE
109	WOMEN'S RESTROOM	ACRYLIC RESIN SYSTEM	4" VINYL	PAINTED	SUSPENDED ACOUSTICAL LAY-IN	UN-FINISHED GWB ABOVE
110	IT ROOM	STATIC DISSIPATIVE TILE	4" VINYL	PAINTED	PAINTED	

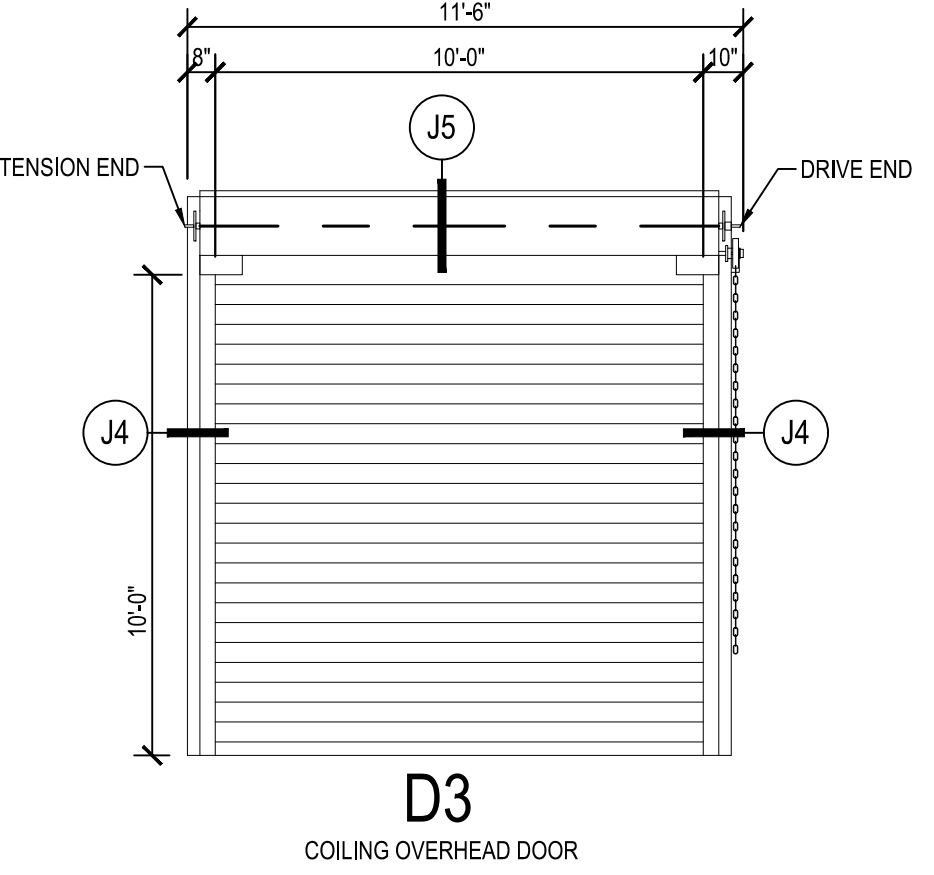
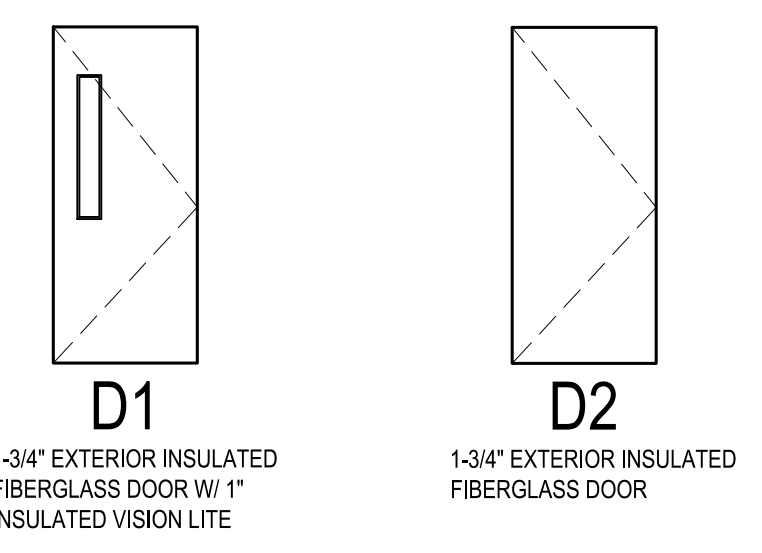
DOOR SCHEDULE								
DOOR NO.	WIDTH	HEIGHT	DOOR TYPE	DOOR FINISH	FRAME TYPE	FRAME FINISH	HARDWARE SET	ADDITIONAL REMARKS
FIRST FLOOR								
101	3'-0"	7'-0"	D1	FACTORY	F3	ALUMINUM	HW - 5M	
102A	3'-0"	7'-0"	D1	FACTORY	F1	ALUMINUM	HW - 1M	
102B	3'-0"	7'-0"	D1	FACTORY	F1	ALUMINUM	HW - 1M	
103	3'-0"	7'-0"	D2	FACTORY	F3	ALUMINUM	HW - 2M	
104A	10'-0"	10'-0"	D3	FACTORY	-	FACTORY	-	OVERHEAD ROLL-UP
104B	10'-0"	10'-0"	D3	FACTORY	-	FACTORY	-	OVERHEAD ROLL-UP
104C	10'-0"	10'-0"	D3	FACTORY	-	FACTORY	-	OVERHEAD ROLL-UP
104D	3'-0"	7'-0"	D1	FACTORY	F2	ALUMINUM	HW - 1M	
105	3'-0"	7'-0"	D1	FACTORY	F2	ALUMINUM	HW - 1M	
106A	3'-0"	7'-0"	D1	FACTORY	F3	ALUMINUM	HW - 3M	
106B	3'-0"	7'-0"	D1	FACTORY	F2	ALUMINUM	HW - 1M	
106C	10'-0"	10'-0"	D3	FACTORY	-	FACTORY	-	OVERHEAD ROLL-UP
107	(2) 3'-0"	7'-0"	D2	FACTORY	F2	ALUMINUM	HW - 4M	(2) 24"x24" LOUVERS
108	3'-0"	7'-0"	D1	FACTORY	F1	ALUMINUM	HW - 6M	
109	3'-0"	7'-0"	D2	FACTORY	F3	ALUMINUM	HW - 2M	
110	3'-0"	7'-0"	D2	FACTORY	F3	ALUMINUM	HW - 5M	

- HW - 1M CONTINUOUS HINGE RIM EXIT DEVICE NIGHT LATCH FUNCTION WITH LEVER LOCKSET EXTERIOR TRIM SURFACE CLOSER ALUMINUM ADA THRESHOLD WEATHERSTRIP SET HEAD, JAMB, AND SWEEP
- HW - 2M CONTINUOUS HINGE PRIVACY FUNCTION LEVER LATCH SET WITH OCCUPANCY INDICATOR
- HW - 3M CONTINUOUS HINGE PASSAGE FUNCTION LEVER LATCH SET
- HW - 4M (2) CONTINUOUS HINGES (1) REMOVABLE MULLION ACTIVE LEAF - PASSAGE FUNCTION LEVER LATCHSET INACTIVE LEAF - TOP AND BOTTOM SURFACE MTD. SLIDE BOLTS
- HW - 5M CONTINUOUS HINGE CLASSROOM FUNCTION LEVER LOCKSET
- HW - 6M CONTINUOUS HINGE PASSAGE FUNCTION RIM EXIT DEVICE SURFACE CLOSER WEATHER STRIP SET HEAD, JAMB, AND SWEEP

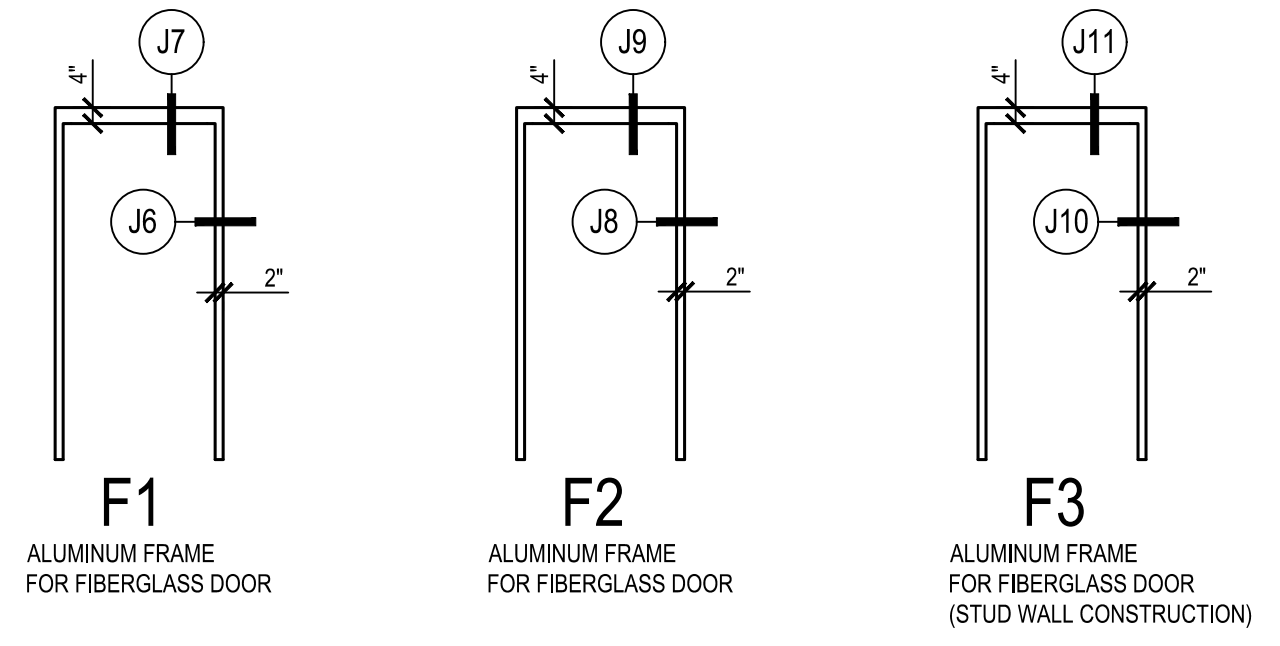


TYPICAL LOUVER DETAIL
SCALE: 1-1/2"=1'-0"

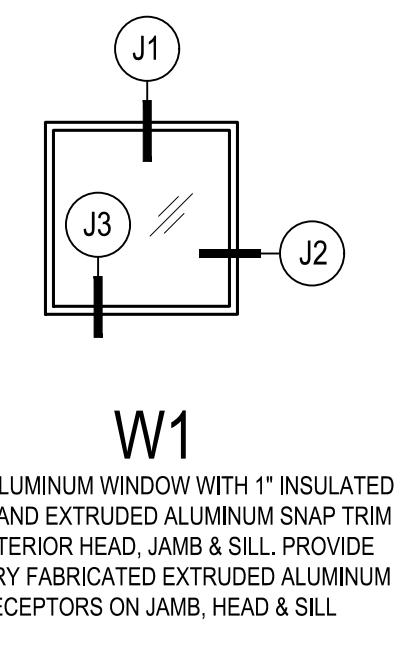
DOOR TYPES
SCALE: 1/4"=1'-0"



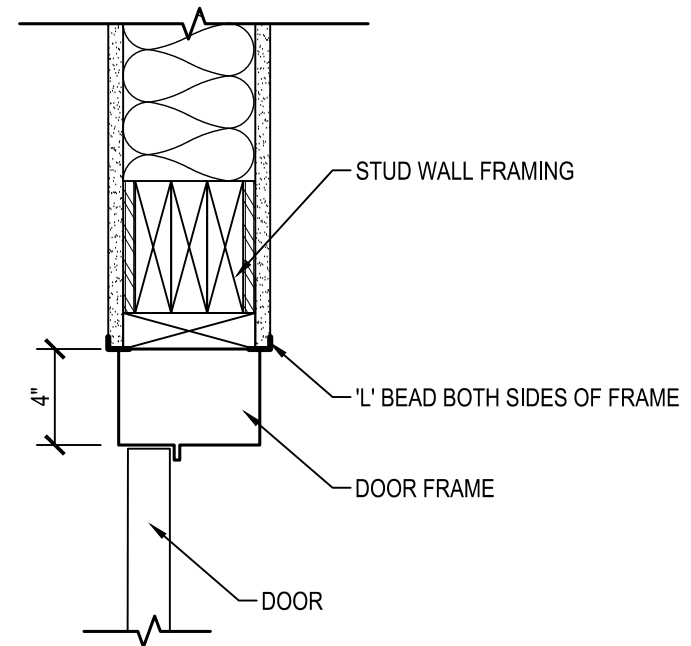
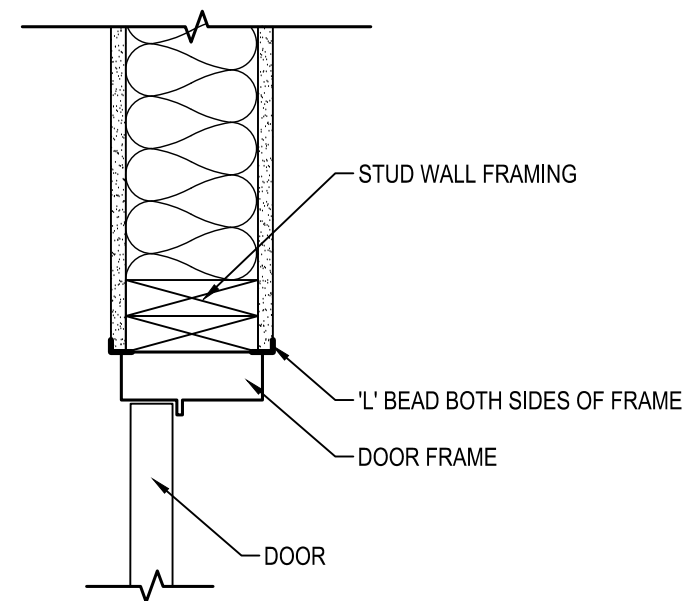
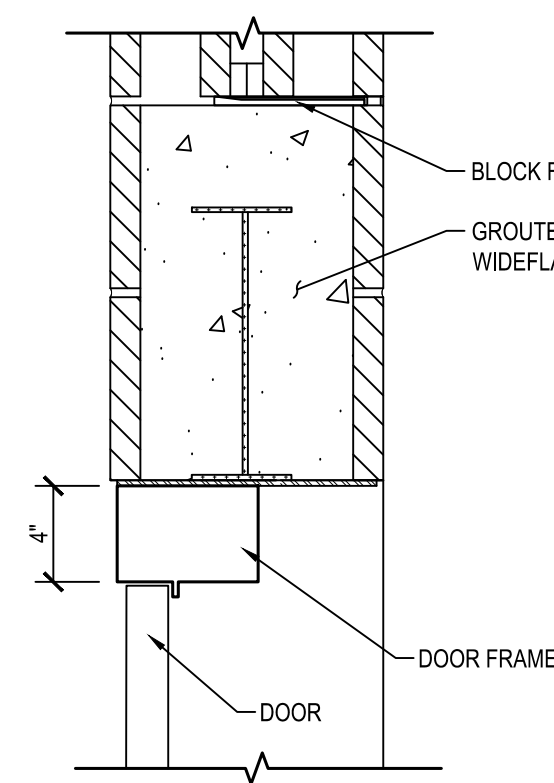
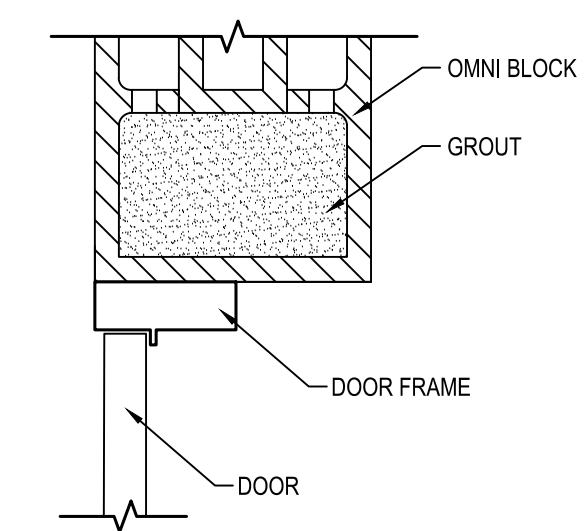
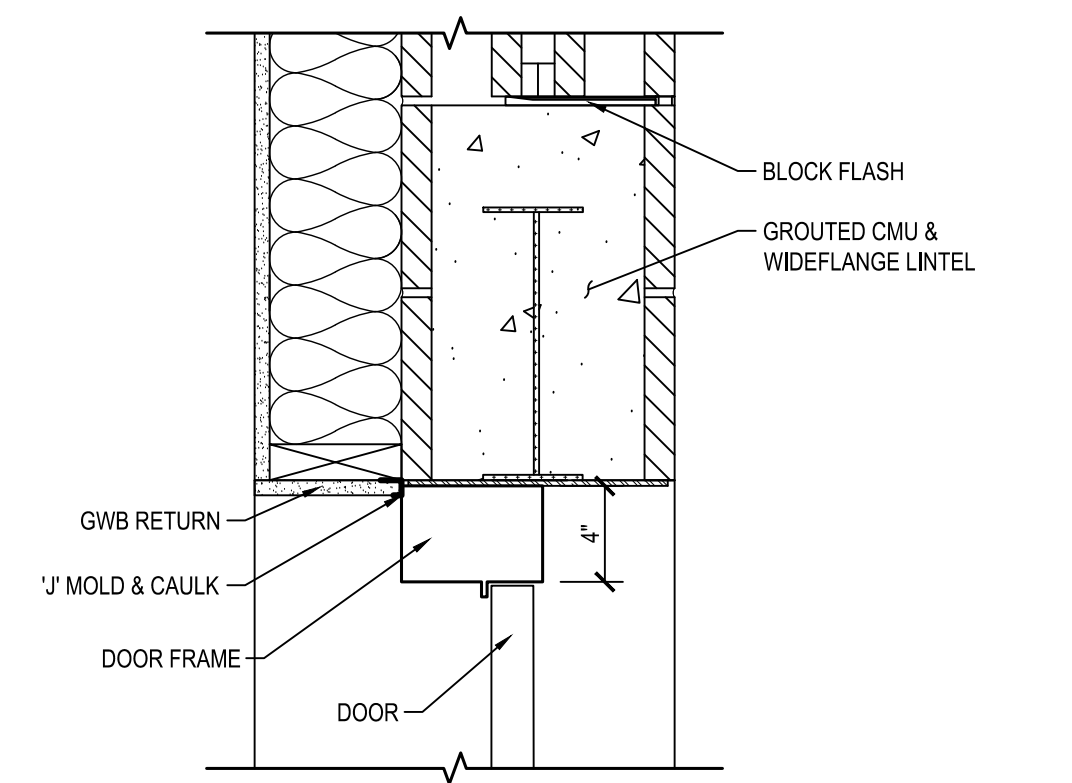
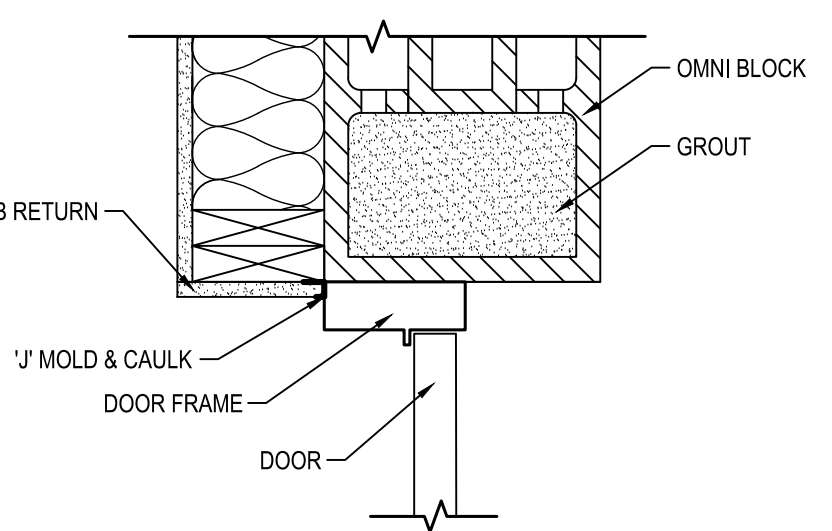
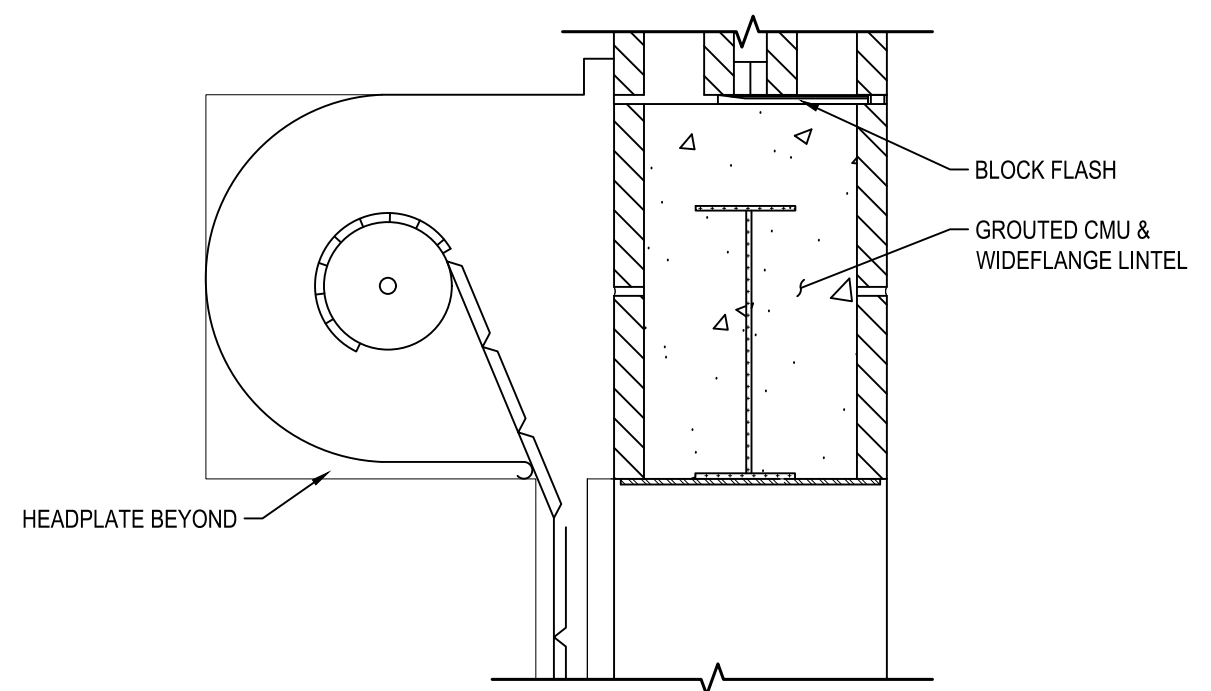
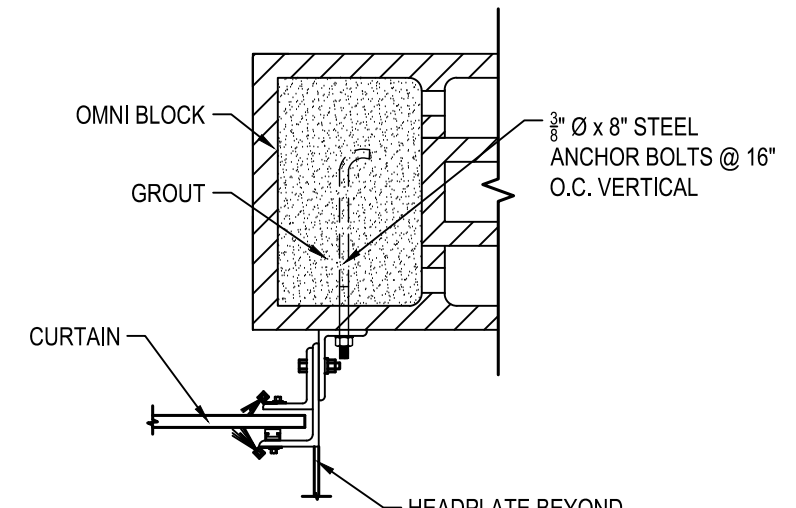
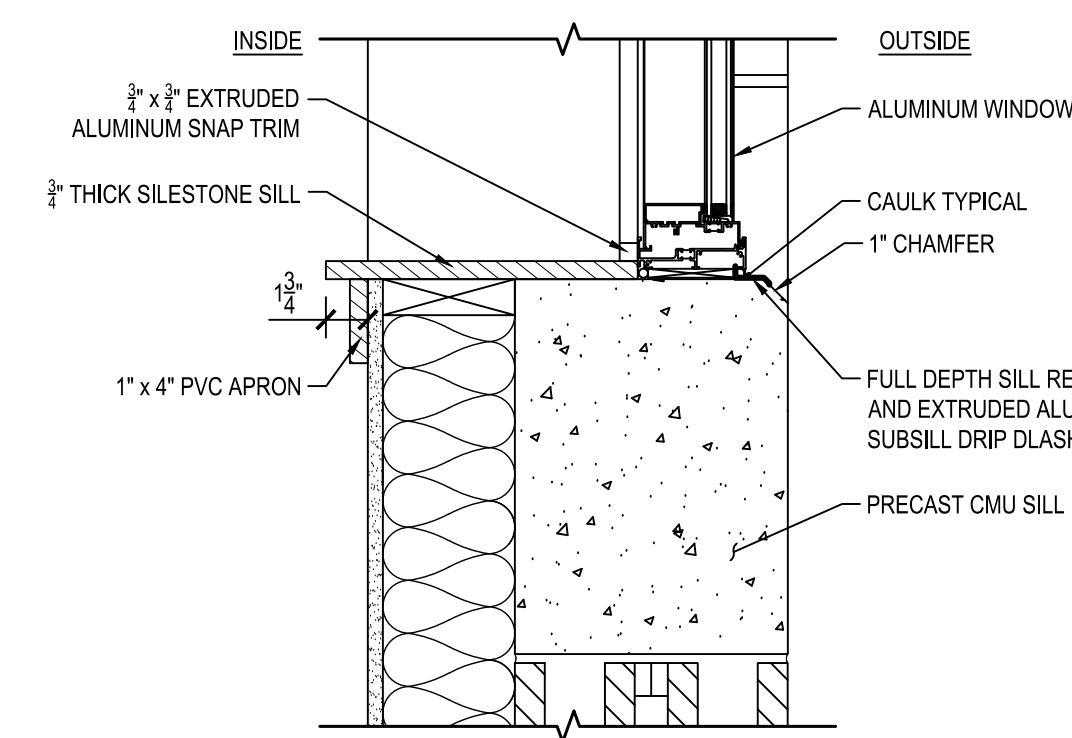
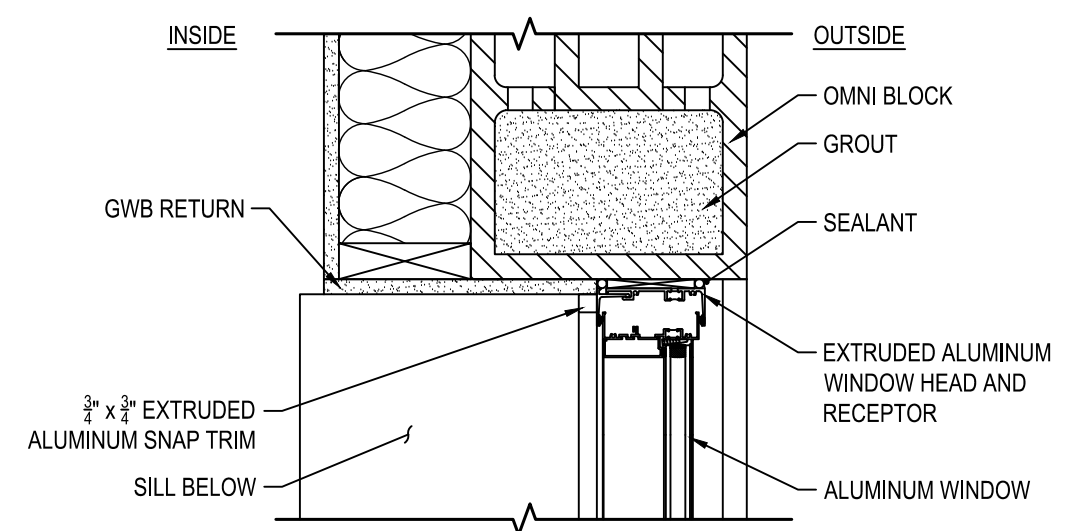
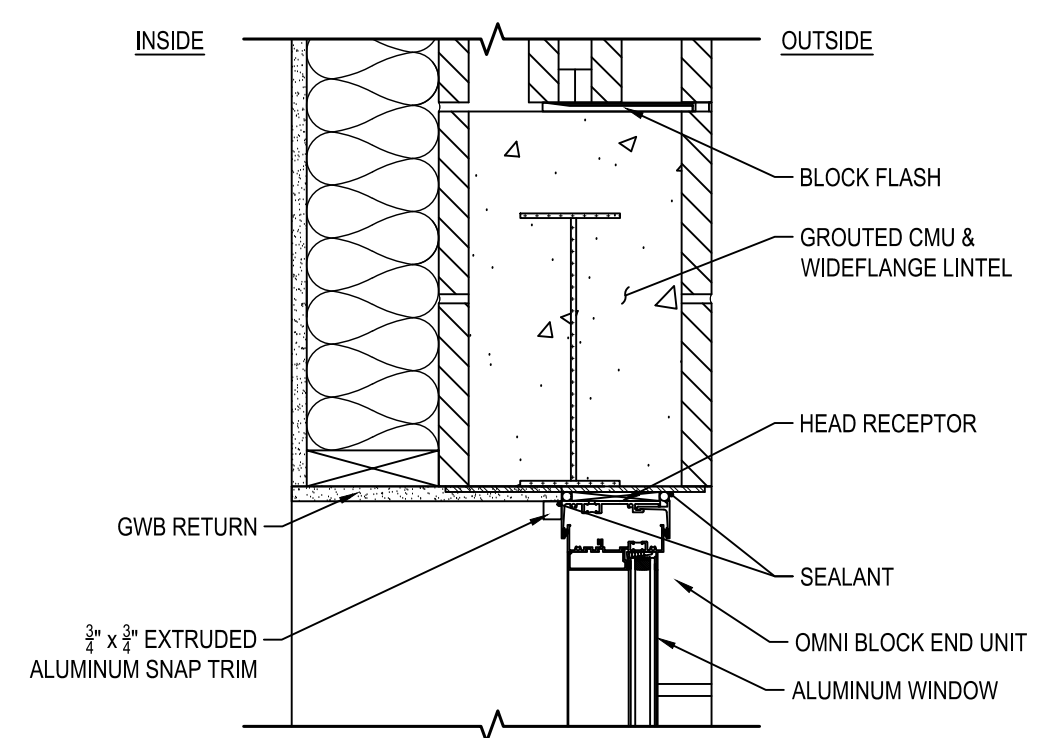
FRAME TYPES
SCALE: 1/4"=1'-0"



WINDOW TYPES
SCALE: 1/4"=1'-0"



SILL, HEAD & JAMB DETAILS
SCALE: 1-1/2"=1'-0"



gba
gant-brunnett
ARCHITECTS
15 West Mulberry Street
Baltimore, Maryland 21201-4406
Telephone Number: 410-234-8444

PROFESSIONAL CERTIFICATION
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(C) GANT BRUNETT ARCHITECTS
ALL REPRODUCTION IS PROHIBITED

NO.	DESCRIPTION	BY	DATE
△			

ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS

DATE: 4-28-2021

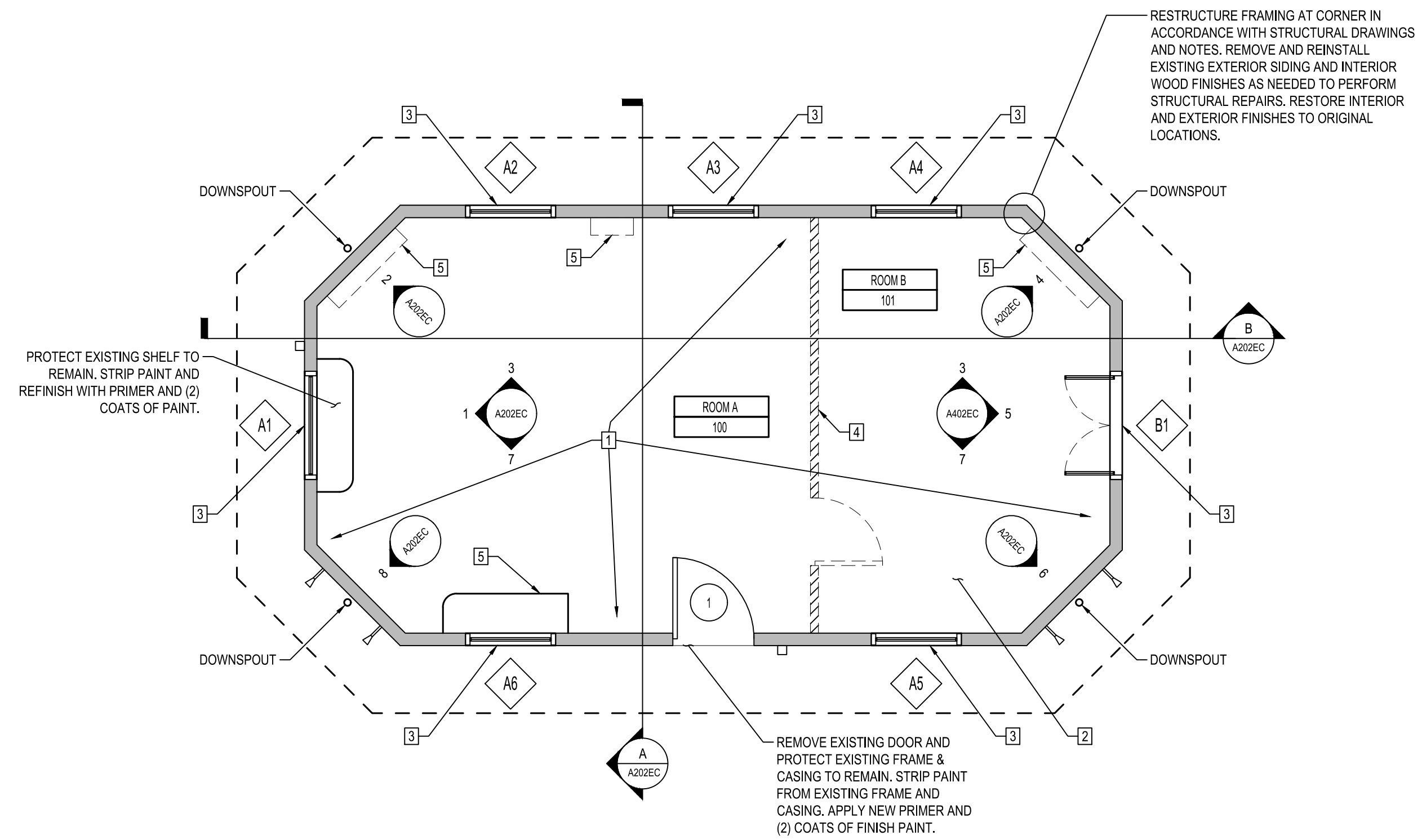
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CHIEF ENGINEER		PROJECT MANAGER	
APPROVED	DATE	APPROVED	DATE
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY	

SCALE: AS NOTED
DRAWN BY: JG
CHECKED BY: JB
SHEET NO. OF
PROJECT NO. P535900
PROPOSAL NO. P535907

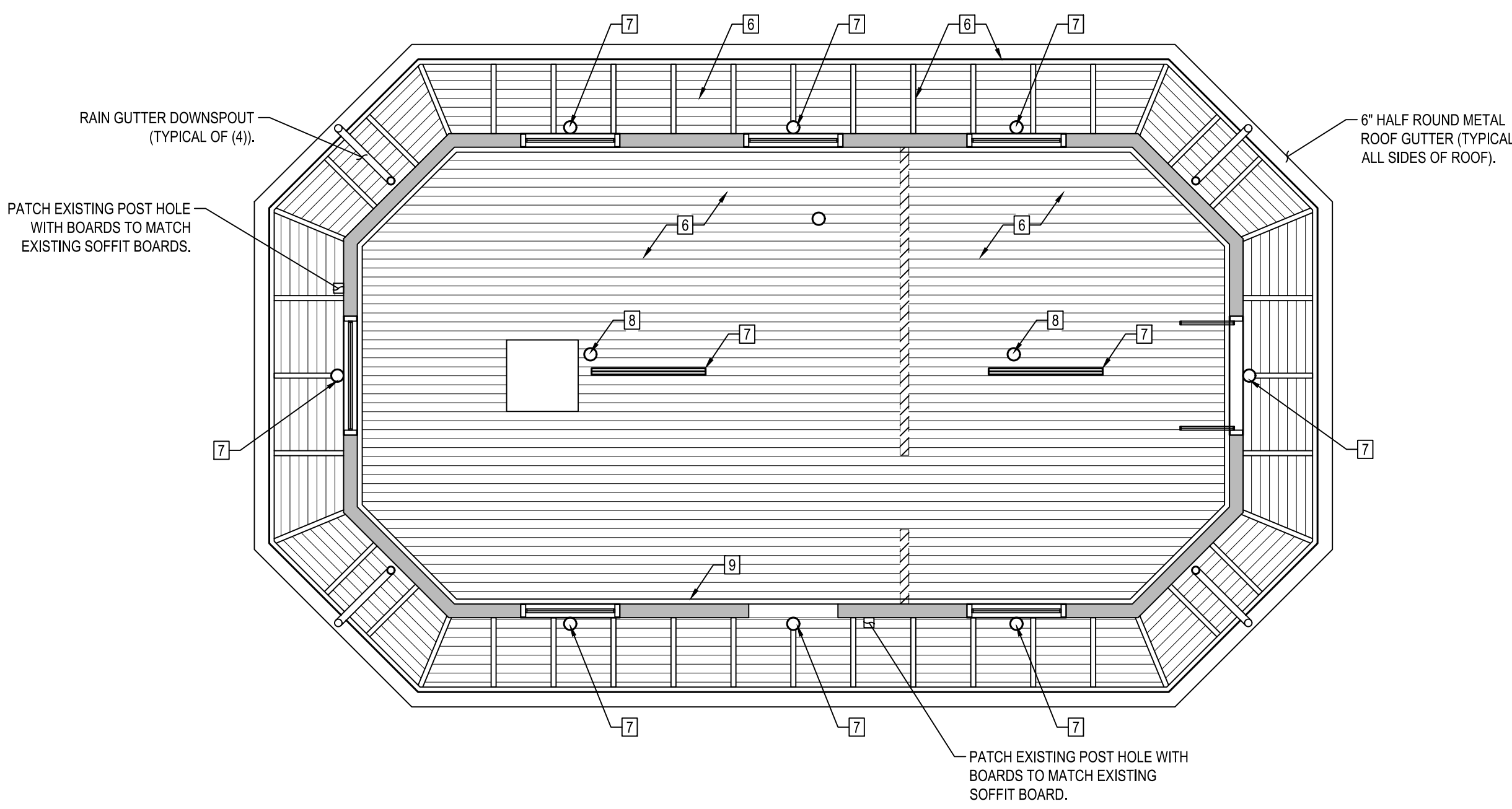
FORT SMALLWOOD PARK
9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122

MAINTENANCE BUILDING SCHEDULES

A601M

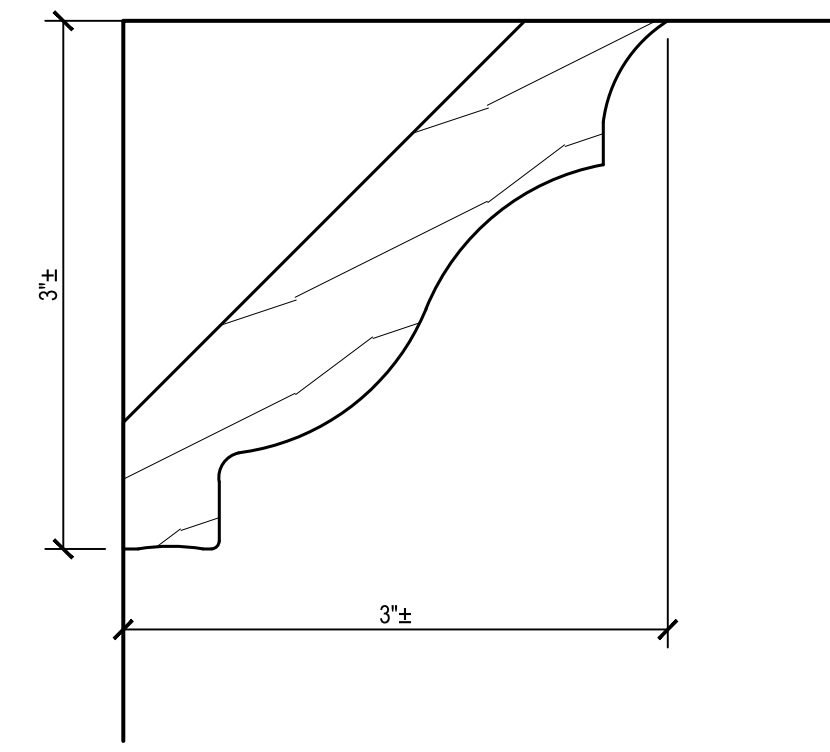


CONCESSION STAND FLOOR PLAN
SCALE: 1/4"=1'-0"

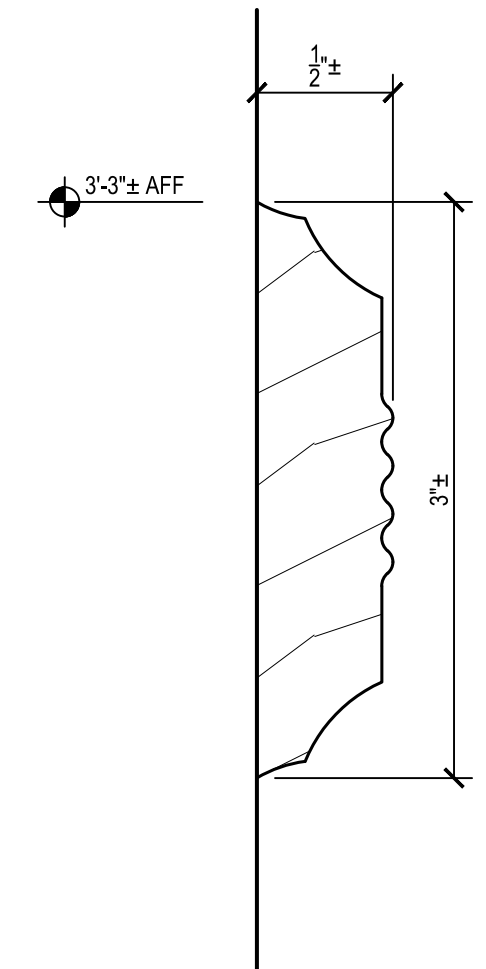


CONCESSION STAND REFLECTED CEILING PLAN
SCALE: 1/4"=1'-0"

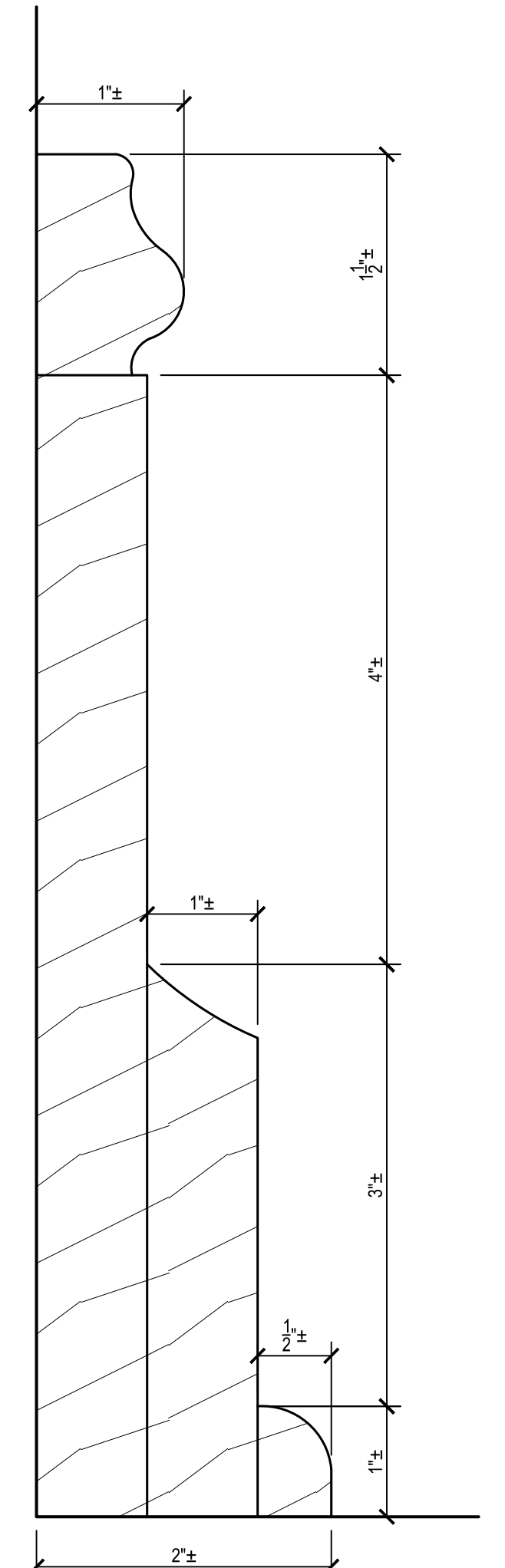
- GENERAL DRAWING NOTES:**
- TEMPORARILY RAISE AND SUPPORT EXISTING FRAME STRUCTURE. DEMOLISH EXISTING PAVING, CONSTRUCT NEW FOUNDATIONS AND FLOOR SLAB. ANCHOR EXISTING BUILDING FRAMING TO NEW FOUNDATION. PROVIDE STEEL TROWEL AND SEALER FINISH ON FLOOR SLAB. SEE STRUCTURAL DRAWINGS FOR FOUNDATION & FLOOR SLAB DETAILS.
 - REMOVE ALL WATER TREATMENT EQUIPMENT AND ASSOCIATED PIPEWORK FROM ROOM B-101.
 - REHABILITATE EXISTING WOOD WINDOW IN ACCORDANCE WITH SPECIFICATION SECTION 08 52 91. REMOVE EXISTING METAL SECURITY GRATE FROM EXTERIOR FACE OF WINDOW, AND PLYWOOD FROM INTERIOR WINDOW.
 - DEMOLISH EXISTING PARTITION - FULL HEIGHT AND LENGTH.
 - REMOVE SURFACE MOUNTED SHELVING AND SUPPORTS.
 - STRIP PAINT FROM EXTERIOR SOFFIT BOARDS, RAFTER TAILS EXPOSED IN THE EXTERIOR SOFFIT, ALL EXPOSED SURFACES OF THE ROOF FASCIA BOARD, AND ALL INTERIOR CEILING BOARDS. APPLY PRIMER AND (2) COATS OF FINISH PAINT. (TYPICAL OF THE ENTIRE HISTORIC CONCESSION BUILDING.)
 - REMOVE ALL LIGHT FIXTURES, BOTH INTERIOR AND EXTERIOR, UNLESS OTHERWISE NOTED.
 - REMOVE EXISTING HISTORIC LIGHT FIXTURE, RESTORE ORIGINAL BRASS PLATE FINISH, RE-WIRE TO MEET UL LISTING REQUIREMENTS, PROVIDE NEW GLASS "SCHOOL HOUSE" GLOBE.
 - STRIP PAINT FROM CEILING CROWN MOLDING THROUGHOUT THE ENTIRE BUILDING. INFILL ANY MISSING ON DAMAGED SECTIONS OF THE WOOD CROWN WITH NEW WOOD IN MATCHING PROFILE TO EXISTING. PRIME AND PAINT ALL CROWN WITH (2) FINISH COATS.



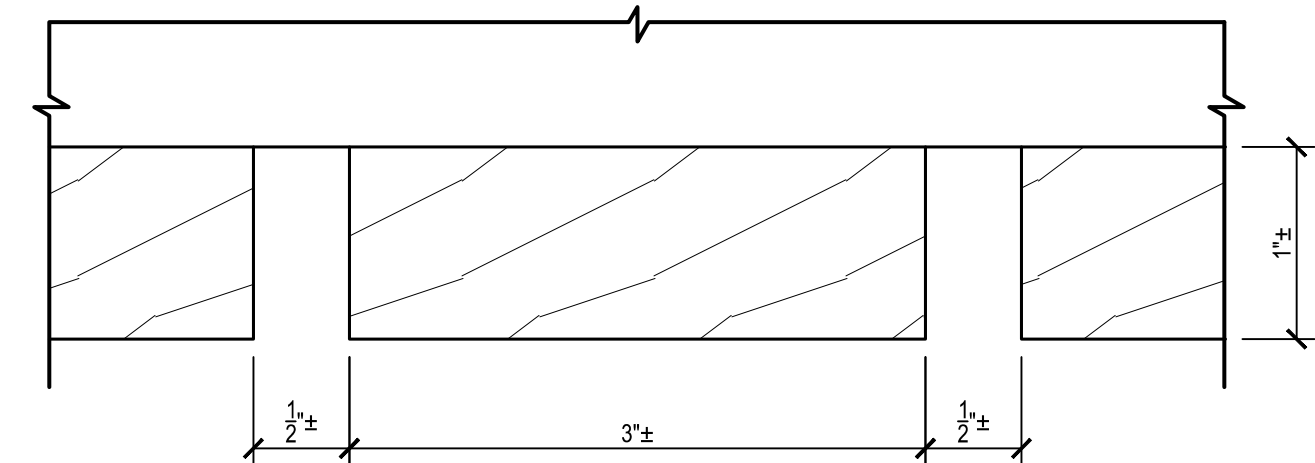
CROWN PROFILE
SCALE: 1'-0"=1'-0"



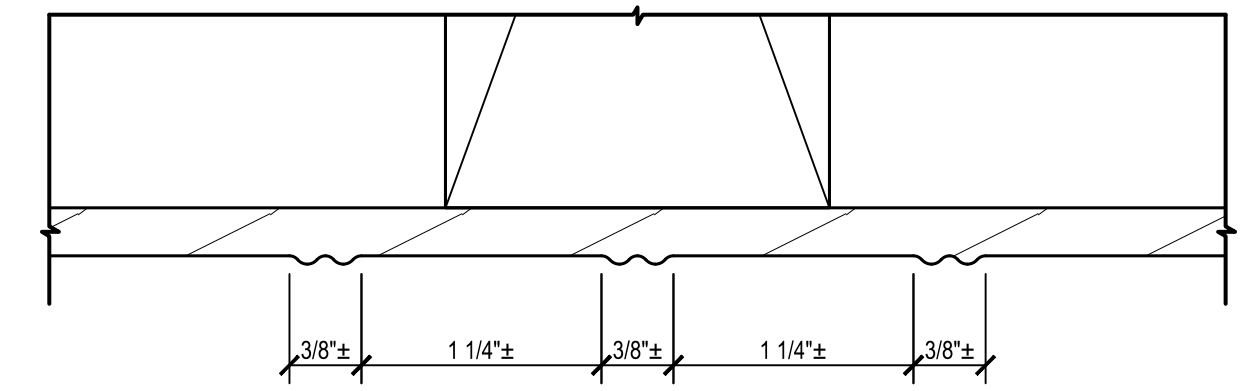
CHAIR RAIL PROFILE
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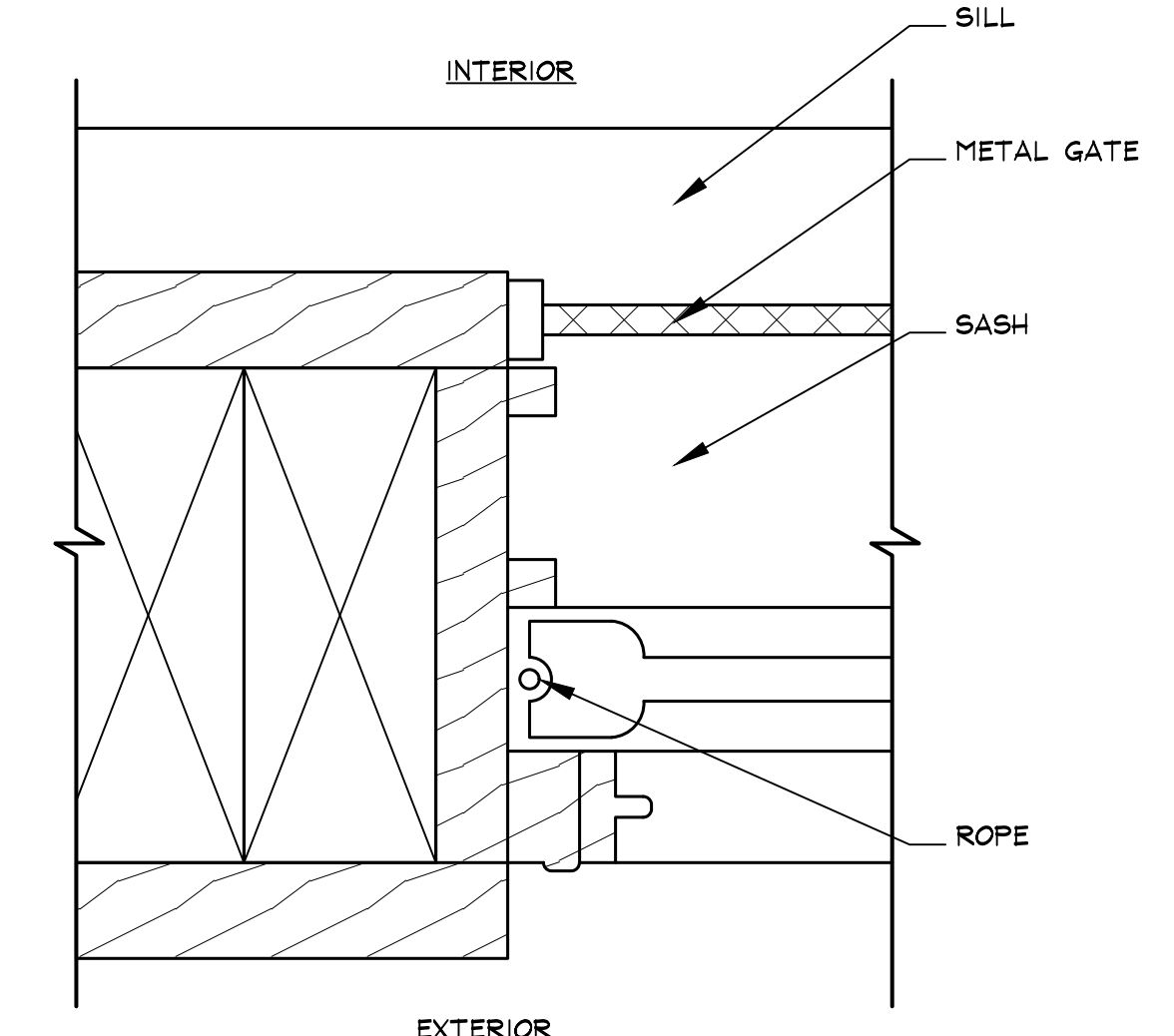
BASEBOARD PROFILE
SCALE: 1'-0"=1'-0"



CEILING BATTEN LAYOUT
SCALE: 1'-0"=1'-0"

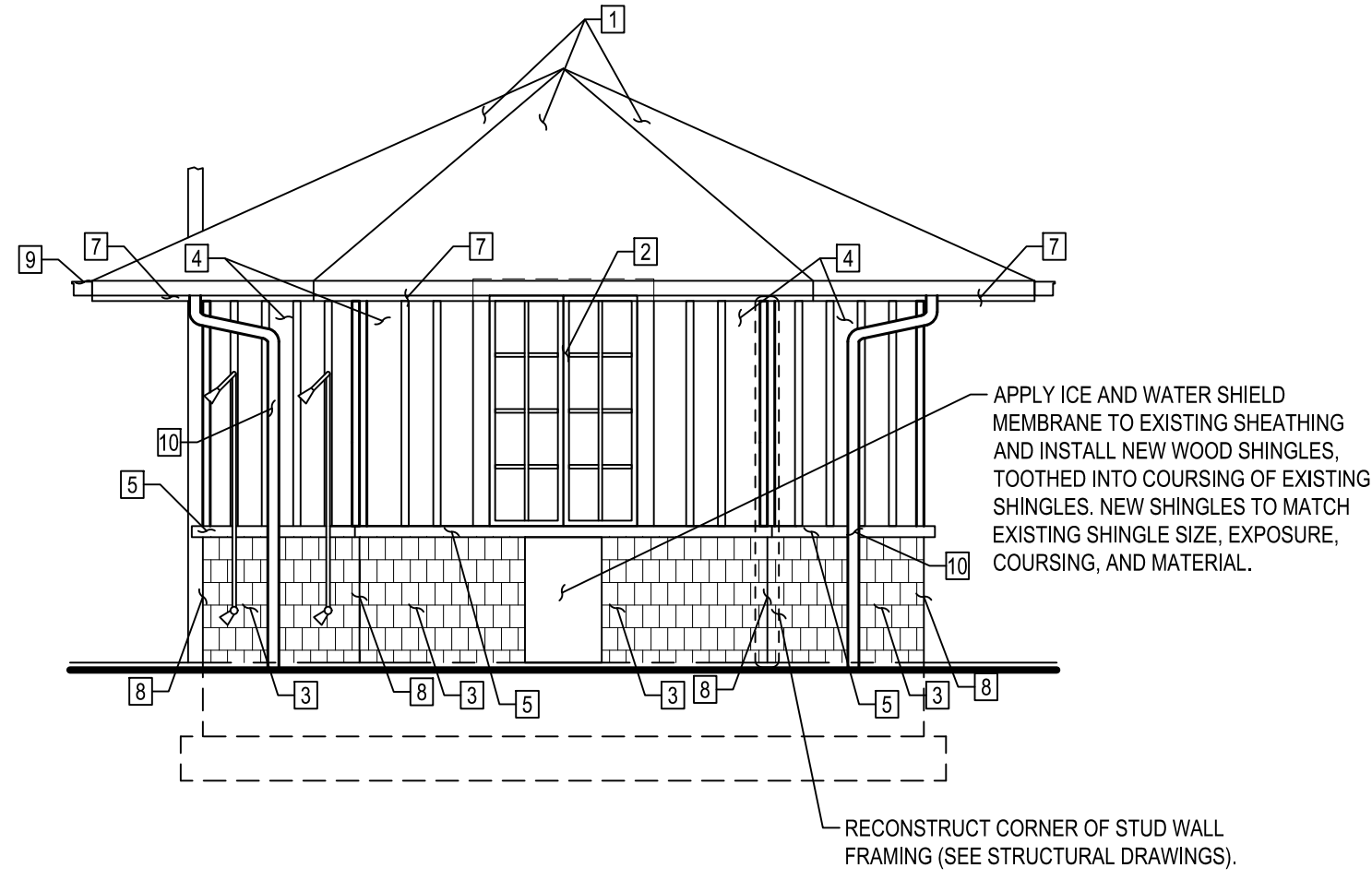


BEAD BOARD WALL PROFILE
SCALE: 1'-0"=1'-0"



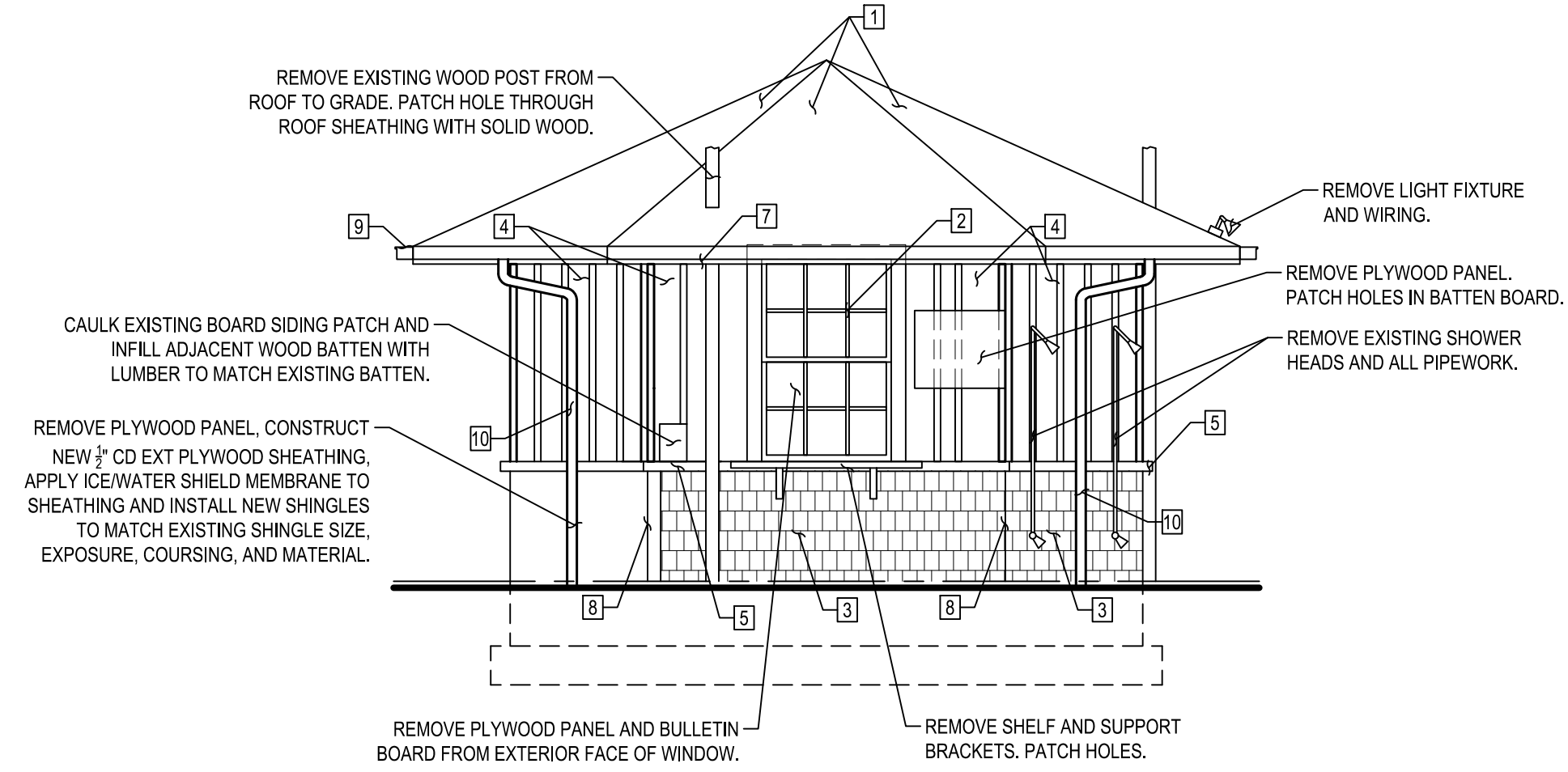
JAMB/HEAD DETAIL
SCALE: 6"=1'-0"

<p>15 West Mulberry Street Baltimore, Maryland 21201-4406 Telephone Number: 410-234-8444</p>	<p>PROFESSIONAL CERTIFICATION I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NUMBER 000, EXPIRATION DATE 05/23/2021.</p> <p>(C) GANT BRUNETT ARCHITECTS ALL REPRODUCTION IS PROHIBITED</p>	<p>NO. DESCRIPTION BY DATE</p>		<p>ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS DATE: 4-28-2021</p>			
		<p>APPROVED DATE</p>		<p>APPROVED DATE</p>		<p>SCALE: AS NOTED</p>	
		<p>CHIEF ENGINEER</p>		<p>PROJECT MANAGER</p>		<p>DRAWN BY: JG</p>	
		<p>APPROVED DATE</p>		<p>APPROVED DATE</p>		<p>CHECKED BY: JB</p>	
<p>ASSISTANT CHIEF ENGINEER</p>		<p>CHIEF, RIGHT OF WAY</p>		<p>SHEET NO. OF</p>		<p>PROJECT NO. P535900</p>	
				<p>PROPOSAL NO. P535907</p>		<p>EXISTING CONCESSION BUILDING PLANS A101EC</p>	



CONCESSION STAND SOUTH ELEVATION

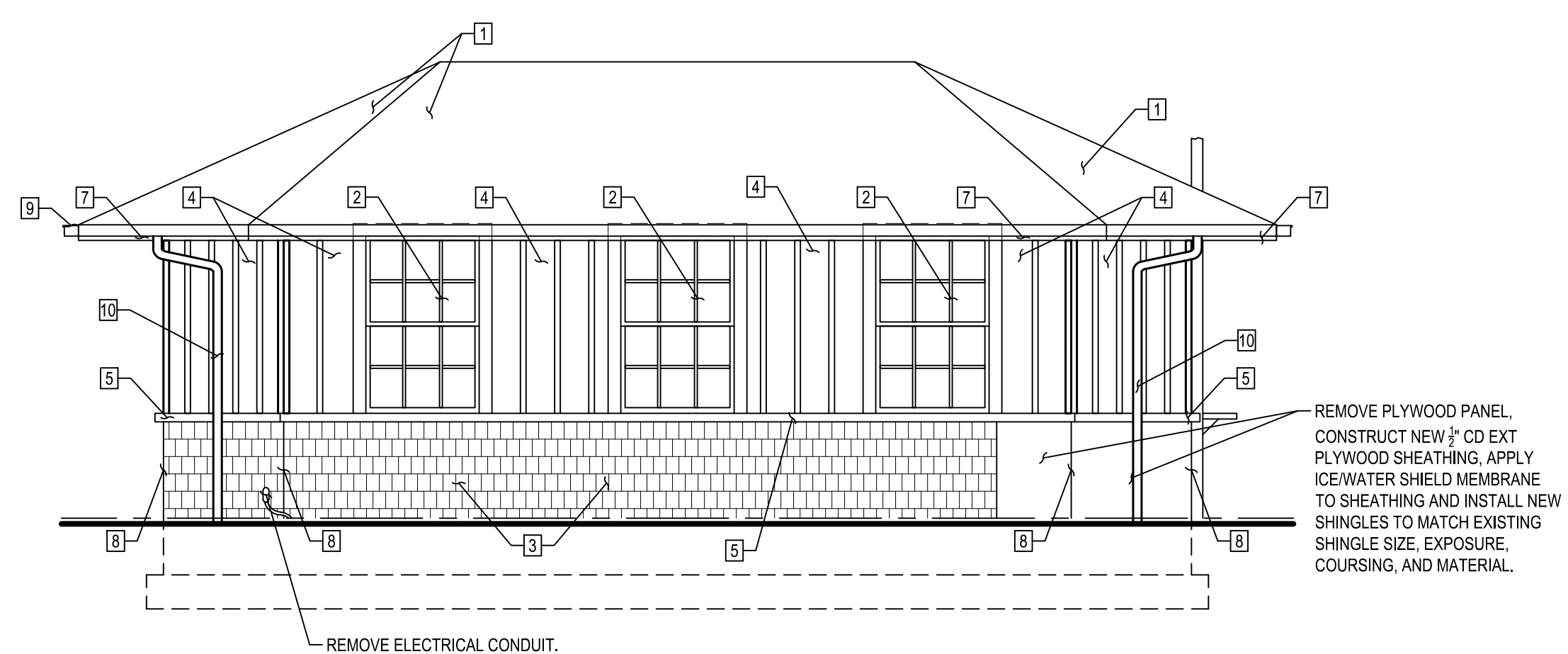
SCALE: 1/4"=1'-0"



CONCESSION STAND NORTH ELEVATION

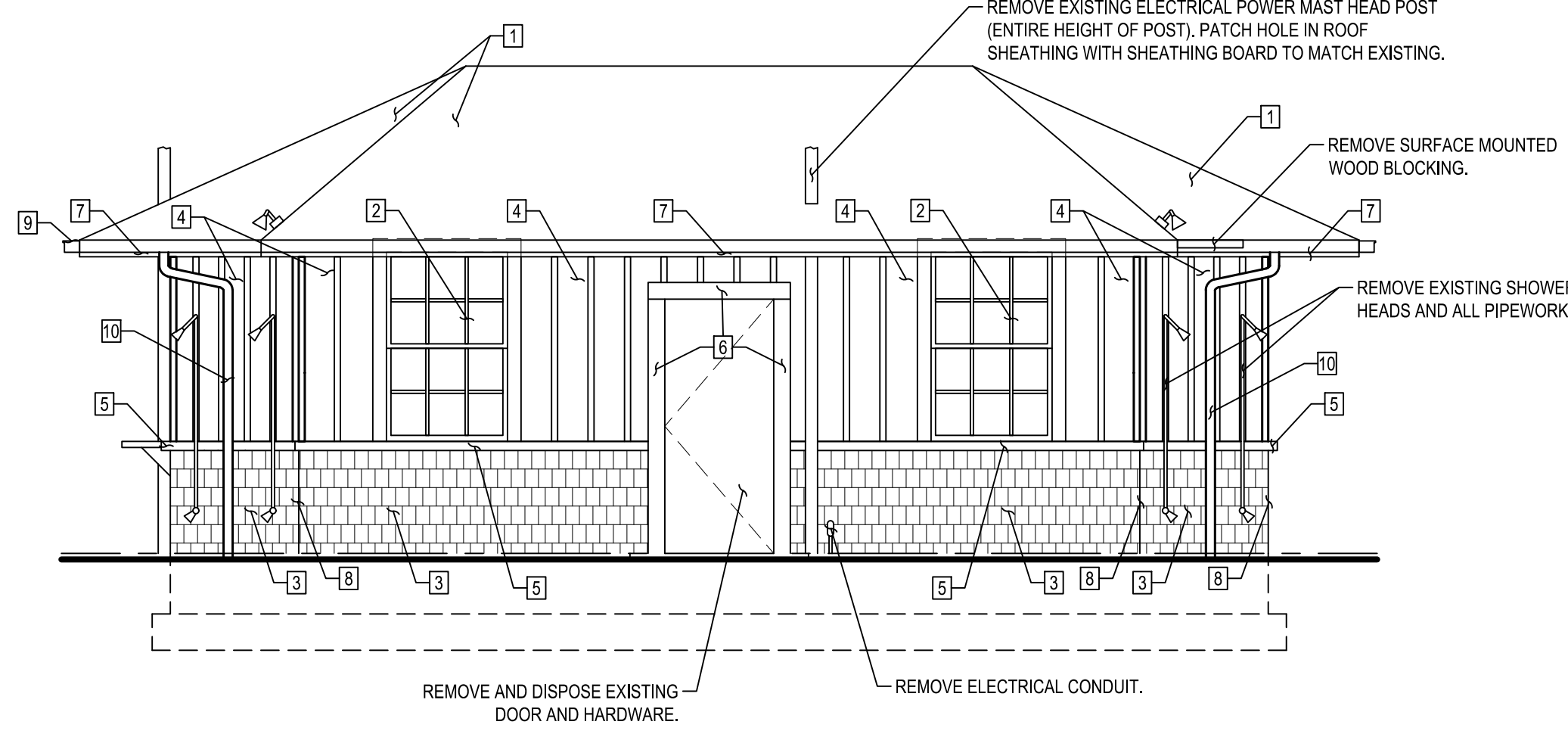
SCALE: 1/4"=1'-0"

- GENERAL DRAWING NOTES:**
- 1 REMOVE ASPHALT SHINGLE ROOFING AND UNDERLAYMENT DOWN TO ROOF SHEATHING. CONSTRUCT NEW STANDING SEAM METAL ROOFING OVER FULL COVERAGE OF HIGH TEMPERATURE RATED, SELF-STICK WEATHER ROOF MEMBRANE. (APPLIES TO ENTIRE BUILDING).
 - 2 REMOVE EXISTING WINDOW SECURITY GRILLE. STRIP EXISTING WINDOW FRAME, CASING AND TRIM OF EXISTING PAINT. REMOVE EXISTING WINDOW WINDOW SASHES, REHABILITATE SASHES OFF. SITE BY PROFESSIONAL WINDOW RESTORATION COMPANY AND RE-INSTALL IN ORIGINAL LOCATION, ALL IN ACCORDANCE WITH SPECIFICATION SECTION 08 01 52. 91. PRIME AND APPLY (2) FINISH COATS OF PAINT TO FRAME, CASING, TRIM AND SASHES.
 - 3 STRIP EXISTING PAINT FROM EXISTING WOOD SHINGLES. REPAIR, PATCH AND PLUG BLEMMISHES AND NAIL HOLES. PRIME AND PAINT (2) FINISH COATS. (NOTE APPLIES TO ENTIRE BUILDING).
 - 4 STRIP EXISTING PAINT FROM WOOD SIDING BOARDS AND BATTENS DOWN TO BARE WOOD. REPAIR, PATCH AND PLUG BLEMMISHES AND NAIL HOLES. PRIME AND PAINT (2) FINISH COATS. (APPLIES TO ENTIRE BUILDING).
 - 5 STRIP EXISTING PAINT FROM WOOD WATER TABLE/CAP PIECE DOWN TO BARE WOOD. REPAIR, PATCH AND PLUG BLEMMISHES, NAIL HOLES, AND FILL GAPS WITH SOLID WOOD DUTCHMEN. PRIME AND PAINT (2) FINISH COATS. (NOTE APPLIES TO ENTIRE BUILDING).
 - 6 STRIP EXISTING PAINT FROM DOOR FRAME AND CASING DOWN TO BARE WOOD. REPAIR, PATCH AND PLUG BLEMMISHES, NAIL HOLES AND OTHER DAMAGE. PRIME AND PAINT (2) FINISH COATS.
 - 7 STRIP PAINT FROM FASCIA BOARD (ALL EXPOSED SIDES), RAFTER TRAILS, AND SOFFIT BOARDS DOWN TO BARE WOOD. REPAIR, PATCH AND PLUG ALL DAMAGED WOOD, HOLES, AND SPLITS. PRIME AND PAINT (2) FINISH COATS. (NOTE APPLIES TO ENTIRE BUILDING).
 - 8 REPAIR AND REBUILD SHINGLE SIDING AT OUTSIDE CORNER, FULL HEIGHT FROM GRADE UP TO WATERTABLE BOARD BY INSERTING 8" WIDE STAINLESS STEEL FLASHING FULL HEIGHT OF THE JOINT (BEHIND SHINGLES) AND REPLACE MISSING AND/OR DAMAGED SHINGLES WITH MATERIAL TO MATCH EXISTING.
 - 9 CONSTRUCT 6" HALF ROUND GUTTER ATTACH TO FASCIA BOARD WITH #10 CIRCLE PLATE ANCHOR AT 18" O.C.
 - 10 CONSTRUCT 3" ROUND DOWNSPOUT TO GRADE. ATTACH TO THE WALL WITH MINIMUM (2) CONCEALED ANCHORS.



CONCESSION STAND EAST ELEVATION

SCALE: 1/4"=1'-0"

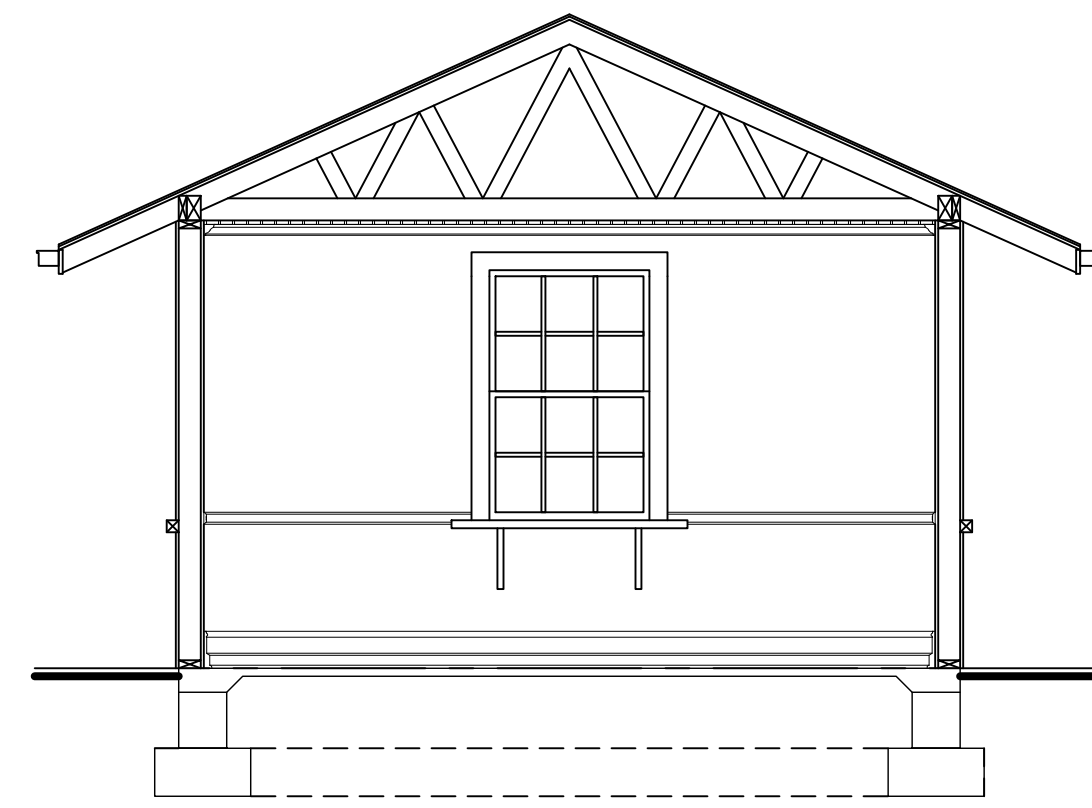


CONCESSION STAND WEST ELEVATION

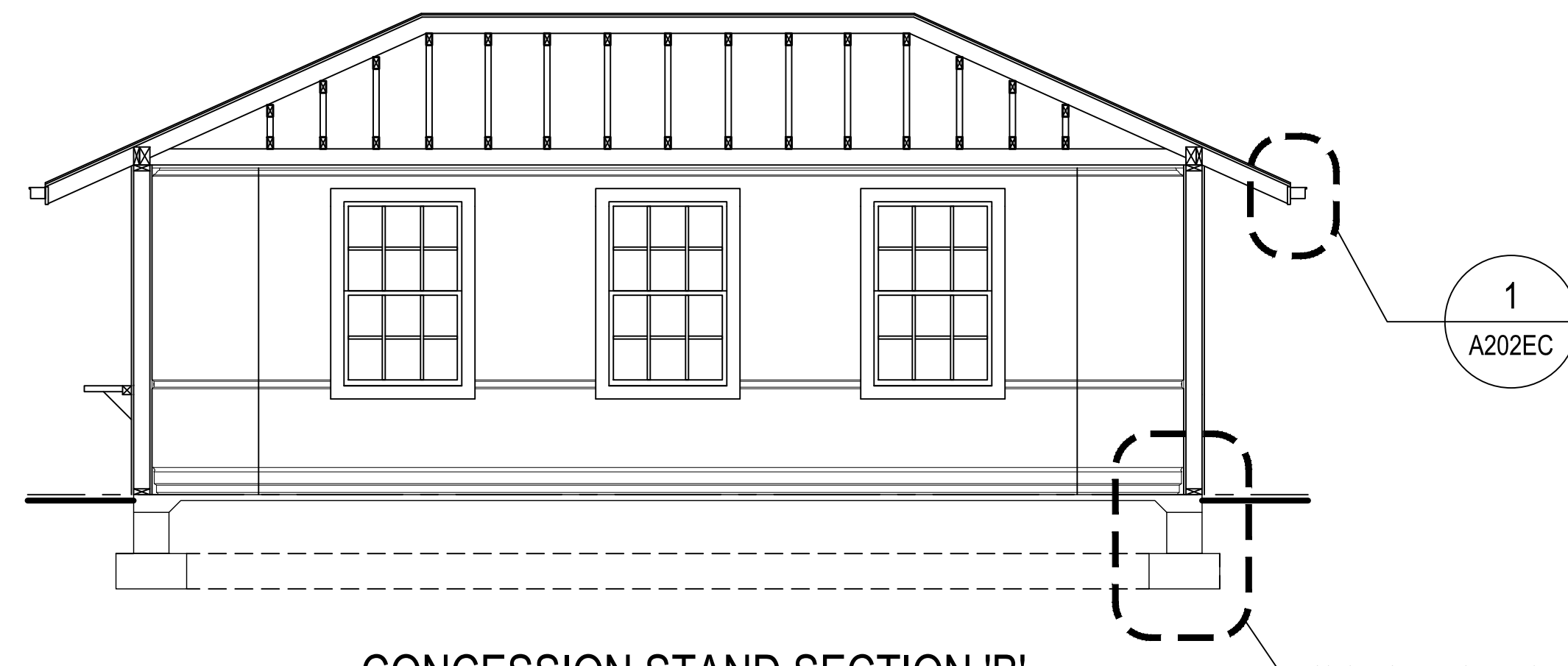
SCALE: 1/4"=1'-0"

NO.	DESCRIPTION	BY	DATE
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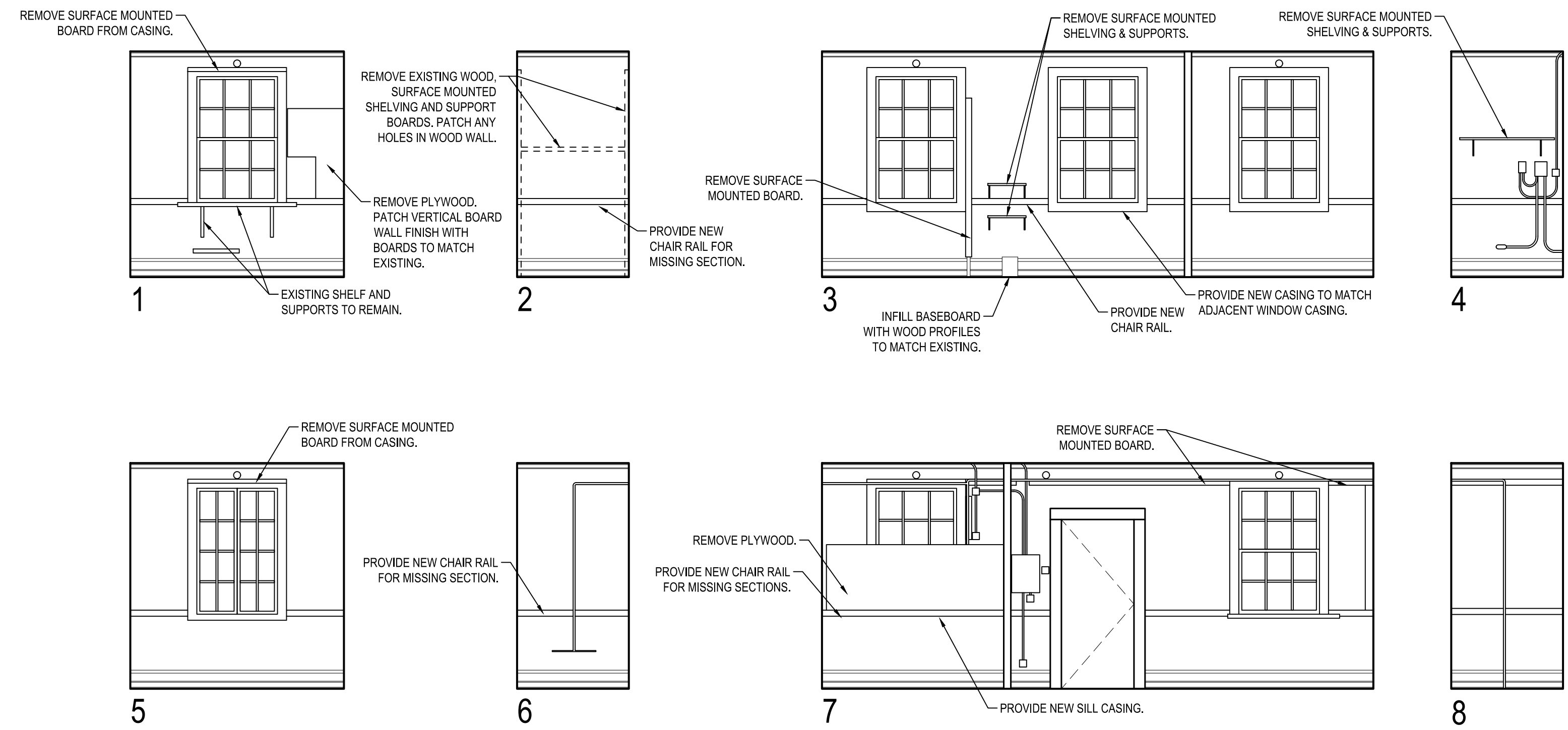
ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS				DATE: 4-28-2021
APPROVED	DATE	APPROVED	DATE	SCALE: AS NOTED
CHIEF ENGINEER		PROJECT MANAGER		DRAWN BY: JG
APPROVED	DATE	APPROVED	DATE	CHECKED BY: JB
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY		SHEET NO. OF
				PROJECT NO. P535900
				PROPOSAL NO. P535907



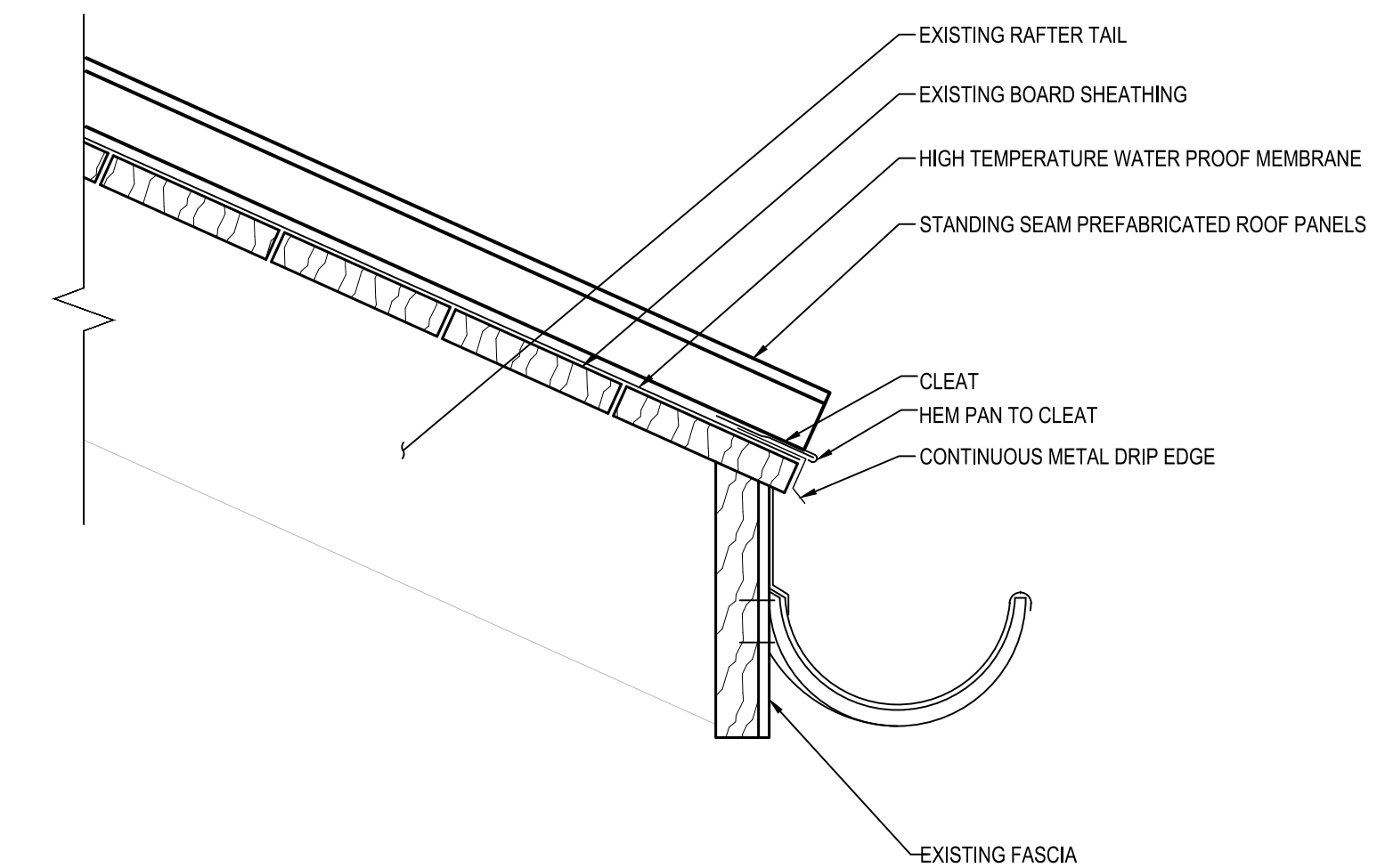
CONCESSION STAND SECTION 'A'
SCALE: 1/4"=1'-0"



CONCESSION STAND SECTION 'B'
SCALE: 1/4"=1'-0"
CONSTRUCT NEW FOUNDATION AND FLOOR SLAB. SEE STRUCTURAL DRAWINGS.



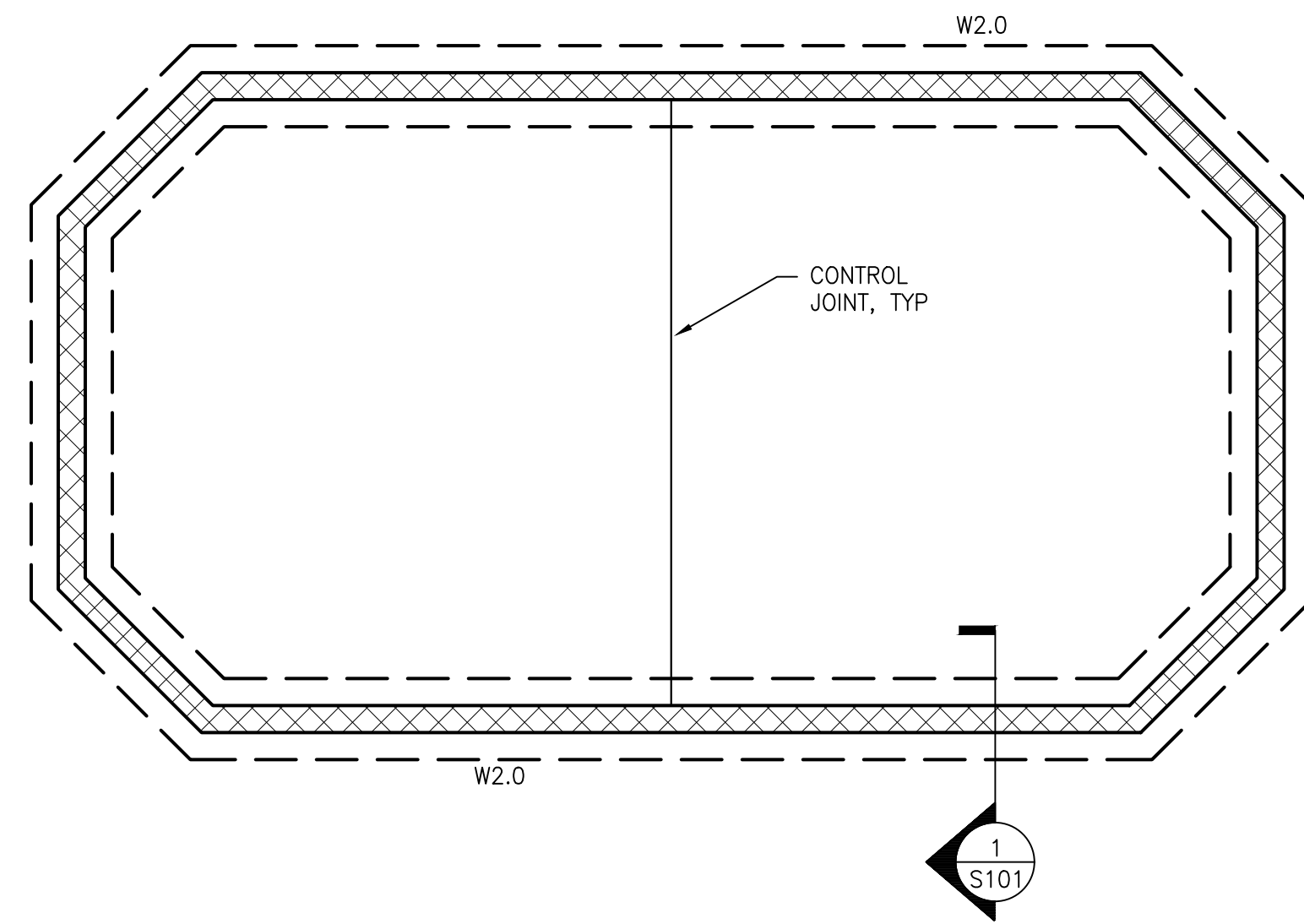
INTERIOR ELEVATIONS
SCALE: 1/4"=1'-0"



EAVE DETAIL
SCALE: 3"=1'-0"

NO.	DESCRIPTION	BY	DATE
△			

ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS				DATE: 4-28-2021
APPROVED	DATE	APPROVED	DATE	SCALE: AS NOTED
CHIEF ENGINEER		PROJECT MANAGER		DRAWN BY: JG
APPROVED	DATE	APPROVED	DATE	CHECKED BY: JB
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY		SHEET NO. OF
				PROJECT NO. P535900
				PROPOSAL NO. P535907



CONCESSION STAND FOUNDATION PLAN

SCALE: 1/4" = 1'-0"

FOUNDATION PLAN NOTES:

- SLAB ON GRADE SHALL CONSIST OF 5" CONCRETE SLAB REINFORCED W/ 6"x6"-W2.1xW2.1 WWF OVER 15 MIL VAPOR RETARDER AND 6" MINIMUM COMPACTED STONE BASE.
- TOP OF NEW SLAB-ON-GRADE ELEVATION = 6.2 U.N.O. AND IS THE REFERENCE DATUM (0'-0") FOR THIS PROJECT
- CONTINUOUS WALL FOOTING SIZES SHOWN THUS: WX.X, SEE SCHEDULE. TYPICAL TOP OF EXTERIOR FOOTINGS SHALL BE AT -2'-0" U.N.O.
- SLAB-ON-GRADE CONTROL JOINTS SHALL BE SAWCUT AFTER CONCRETE HAS TAKEN INITIAL SET AND BEFORE CONCRETE SHRINKAGE STRESSES OCCUR.
- THE CONTRACTOR SHALL COORDINATE THE LOCATION OF ALL SLAB EDGES, OPENINGS, PENETRATIONS, SLOPES, RAISED OR DEPRESSED AREAS, CURBS, ETC., WITH THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS, UNO.
- THE CONTRACTOR SHALL COORDINATE ALL UNDERSLAB UTILITIES WITH MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS. LOWER OR STEP TOP OF FOOTING ELEVATIONS AS REQUIRED TO MAINTAIN 2H:1V SLOPE FROM BOTTOM OF FOOTINGS TO BOTTOM OF UTILITY EXCAVATIONS. SEE TYPICAL DETAILS FOR ADDITIONAL INFORMATION.
- FOR ADDITIONAL INFORMATION AND REQUIREMENTS REFER TO THE GENERAL NOTES, TYPICAL DETAILS, AND SCHEDULES.

FOOTING SCHEDULE			
MARK	SIZE	DEPTH	REINF.
W2.0 (TYP.)	2'-0" CONT.	1'-0"	(3) #5 CONT. #4@48"o/c CROSSBARS

DESIGN CRITERIA:

- DEAD, LIVE, SNOW, WIND, AND SEISMIC DESIGN LOADS ARE IN ACCORDANCE WITH THE ANNE ARUNDEL COUNTY BUILDING CODE WHICH INCORPORATES THE INTERNATIONAL BUILDING CODE - IBC 2018.
 - DESIGN DEAD LOADS HAVE BEEN ACCOUNTED FOR BASED UPON THE ACTUAL WEIGHT OF MATERIALS OF CONSTRUCTION INCORPORATED INTO THE BUILDING, INCLUDING BUT NOT LIMITED TO FLOORS, ROOFS, WALLS, CEILINGS, FINISHES, CLADDING, AND OTHER SIMILARLY INCORPORATED ARCHITECTURAL, STRUCTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING ITEMS. SEE THE APPROPRIATE DISCIPLINES PLANS AND SECTIONS FOR ADDITIONAL INFORMATION. DESIGN LIVE LOADS ARE AS FOLLOWS:
- | AREA | LIVE LOAD |
|---------------|-----------|
| SLAB-ON-GRADE | 100 PSF |
- SLABS-ON-GRADE HAVE BEEN DESIGNED USING A MODULUS OF SUBGRADE REACTION (k) OF 100 PCI.
 - DESIGN REACTIONS AND SUPPORT DETAILS FOR ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING EQUIPMENT IS BASED UPON AVAILABLE MANUFACTURER INFORMATION. SUPPORT CONDITIONS MAY NEED TO BE REVISED BASED UPON ACTUAL SUPPLIED EQUIPMENT AND SUPPORT DETAILS. ANY MECHANICAL EQUIPMENT NOT SHOWN ON THE STRUCTURAL DRAWINGS AND HAVING A WEIGHT IN EXCESS OF 500 POUNDS SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER PRIOR TO INSTALLATION.
 - CONSTRUCTION LOADS IMPOSED BY EQUIPMENT OR OTHER CONSTRUCTION ACTIVITY THAT EXCEED THE DESIGN LIVE LOAD SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER FOR APPROVAL.

SUBMITTALS:

- BEFORE SUBMISSION OF SHOP DRAWINGS, THE CONTRACTOR SHALL HAVE DETERMINED AND VERIFIED ALL QUANTITIES, DIMENSIONS, SPECIFIED PERFORMANCE CRITERIA, INSTALLATION REQUIREMENTS, MATERIALS, CATALOG NUMBERS AND SIMILAR DATA AND SHALL HAVE COORDINATED EACH SHOP DRAWING WITH OTHER SHOP DRAWINGS AND THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.
- PRIOR TO SUBMISSIONS, THE CONTRACTOR SHALL STAMP OR PROVIDE A SIMILAR WRITTEN INDICATION THAT THE CONTRACTOR HAS REVIEWED THE SUBMISSION AND IS SATISFIED THE CONTENTS ARE IN COMPLIANCE WITH THE CONTRACT DOCUMENTS.
- REPRINTS OF THE CONTRACT DOCUMENTS WILL NOT BE ACCEPTED.
- NO DIMENSIONAL INFORMATION MAY BE OBTAINED BY DIRECT SCALING OF THE DRAWINGS.
- ELECTRONIC OR ADEQUATE NUMBER OF PAPER SETS SHALL BE SUBMITTED SO THAT THE ARCHITECT/ENGINEER CAN MAINTAIN ONE RECORD SET AT ALL TIMES.
- ALL SUBMITTALS USED FOR CONSTRUCTION SHALL BEAR THE STAMP OF THE ARCHITECT/ENGINEER AND SHALL BE MARKED "APPROVED" OR "APPROVED AS NOTED".

FOUNDATIONS:

- ALL SPREAD FOOTINGS SHALL BEAR ON UNDISTURBED SOIL OR CONTROLLED STRUCTURAL FILL, HAVING A MINIMUM ALLOWABLE SOIL BEARING CAPACITY OF 1,500 PSF. ALL SPREAD FOOTINGS SHALL PROJECT AT LEAST 1'-0" INTO SOIL HAVING SUCH MINIMUM BEARING VALUE.
- CONTRACTOR SHALL RETAIN THE SERVICES OF A REGISTERED GEOTECHNICAL ENGINEER, APPROVED BY THE ARCHITECT/ENGINEER AND PAID FOR BY THE CONTRACTOR, TO VERIFY SOIL BEARING CAPACITY AT EACH FOOTING PRIOR TO INSTALLATION. NOTIFY ARCHITECT/ENGINEER OF ANY VARIATION FROM ANTICIPATED BEARING CAPACITY FOR APPROPRIATE REDESIGN OR LOWERING OF FOOTINGS.
- EXCAVATION, SUBGRADE PREPARATION, AND FOOTING CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER.
- ALL SUBGRADE PREPARATION, FILL, AND BACKFILL OPERATIONS SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF THE GEOTECHNICAL ENGINEER.
- ALL ORGANIC MATERIALS, UNSUITABLE FILL, AND CONSTRUCTION DEBRIS SHALL BE REMOVED IN REGIONS OF ALL FOUNDATIONS.
- THE BOTTOMS OF ALL EXTERIOR FOOTINGS SHALL BE 2'-6" MINIMUM BELOW FINISHED GRADE.
- EDGES OF FOOTINGS SHALL NOT BE PLACED AT A GREATER THAN 1 (VERTICAL) TO 2 (HORIZONTAL) SLOPE WITH RESPECT TO ANY ADJACENT FOOTING OR EXCAVATION.
- THE CONTRACTOR SHALL SAFEGUARD AND PROTECT ALL EXCAVATIONS, AND ALL EXCAVATIONS SHALL BE KEPT FREE OF WATER.
- NO HORIZONTAL JOINTS SHALL BE PLACED IN WALLS EXCEPT AS SHOWN ON THE DRAWINGS WITHOUT APPROVAL OF THE ARCHITECT/ENGINEER.
- THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL, PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS FOR ALL LOCATIONS OF TRENCHES, PITS, CONDUITS, ETC. NOT SHOWN ON THE STRUCTURAL DRAWINGS.
- BACKFILLING AGAINST WALLS SHALL NOT BE DONE UNTIL CONCRETE AND/OR MASONRY GROUT HAS BEEN CURED TO ATTAIN SUFFICIENT STRENGTH (7 DAYS MINIMUM) AND WALLS ARE PROPERLY SHORED AND/OR BRACED. BACKFILL FOUNDATION WALLS WITH EARTH ON BOTH SIDES OF THE WALL BY ALTERNATELY PLACING BACKFILL ON EACH SIDE SO THAT HEIGHT OF BACKFILL DOES NOT DIFFER BY MORE THAN 1'-6" FROM OTHER SIDE.

FOUNDATION CONCRETE:

- ALL CONCRETE SHALL CONFORM TO THE PROVISIONS OF ACI BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE, (ACI 318-LATEST EDITION) AND ACI SPECIFICATIONS FOR STRUCTURAL CONCRETE IN BUILDINGS, (ACI 301-LATEST EDITION).
 - ALL FOUNDATION CONCRETE SHALL BE IN ACCORDANCE WITH THE FOLLOWING:
- | STRUCTURAL ELEMENT | f'c@28 DAYS | DRY WEIGHT | MAX W/C | AGGREGATE SIZE | AIR CONTENT |
|--------------------|-------------|------------|---------|----------------|--------------|
| A. SLAB-ON-GRADE | 3,500 PSI | 150 PCF | 0.50 | 3/8" TO 1" | NA |
| B. FOOTINGS | 3,500 PSI | 150 PCF | 0.50 | 3/8" TO 1" | 4.5% +/-1.5% |
- NO CONCRETE SHALL BE PLACED UNTIL CONCRETE DESIGN MIXES HAVE BEEN SUBMITTED FOR EACH CLASS OF CONCRETE NOTED ABOVE AND HAVE BEEN REVIEWED BY THE ARCHITECT/ENGINEER.
 - USE A WATER REDUCING ADMIXTURE IN ALL CONCRETE.
 - SLUMP AND MINIMUM CEMENTITIOUS MATERIALS CONTENT SHALL BE AS REQUIRED BY ACI 301-LATEST EDITION.
 - NO CALCIUM CHLORIDE IN ANY FORM WILL BE PERMITTED IN CONCRETE.
 - ALL STRUCTURAL MEMBERS SHALL BE POURED FOR THEIR FULL DEPTHS IN ONE OPERATION.
 - EXCAVATIONS SHALL BE KEPT FREE OF WATER. NO CONCRETE SHALL BE PLACED IN WATER.
 - ALL SLABS ON GRADE SHALL HAVE THICKENINGS, DEPRESSIONS, OPENINGS, ETC. AS SHOWN OR AS REQUIRED BY VARIOUS TRADES.
 - RETAIN THE SERVICES OF AN INDEPENDENT TESTING AGENCY APPROVED BY THE ARCHITECT/ENGINEER AND PAID FOR BY THE CONTRACTOR TO PERFORM TESTS OF CONCRETE. TAKE A MINIMUM OF 6 CYLINDER SAMPLES PER 50 CUBIC YARDS OF EACH CLASS OF CONCRETE POURED IN ANY ONE DAY. PERFORM SLUMP, AIR CONTENT, AND TEMPERATURE TESTING AT THE TIME OF EACH SAMPLING.

REINFORCEMENT:

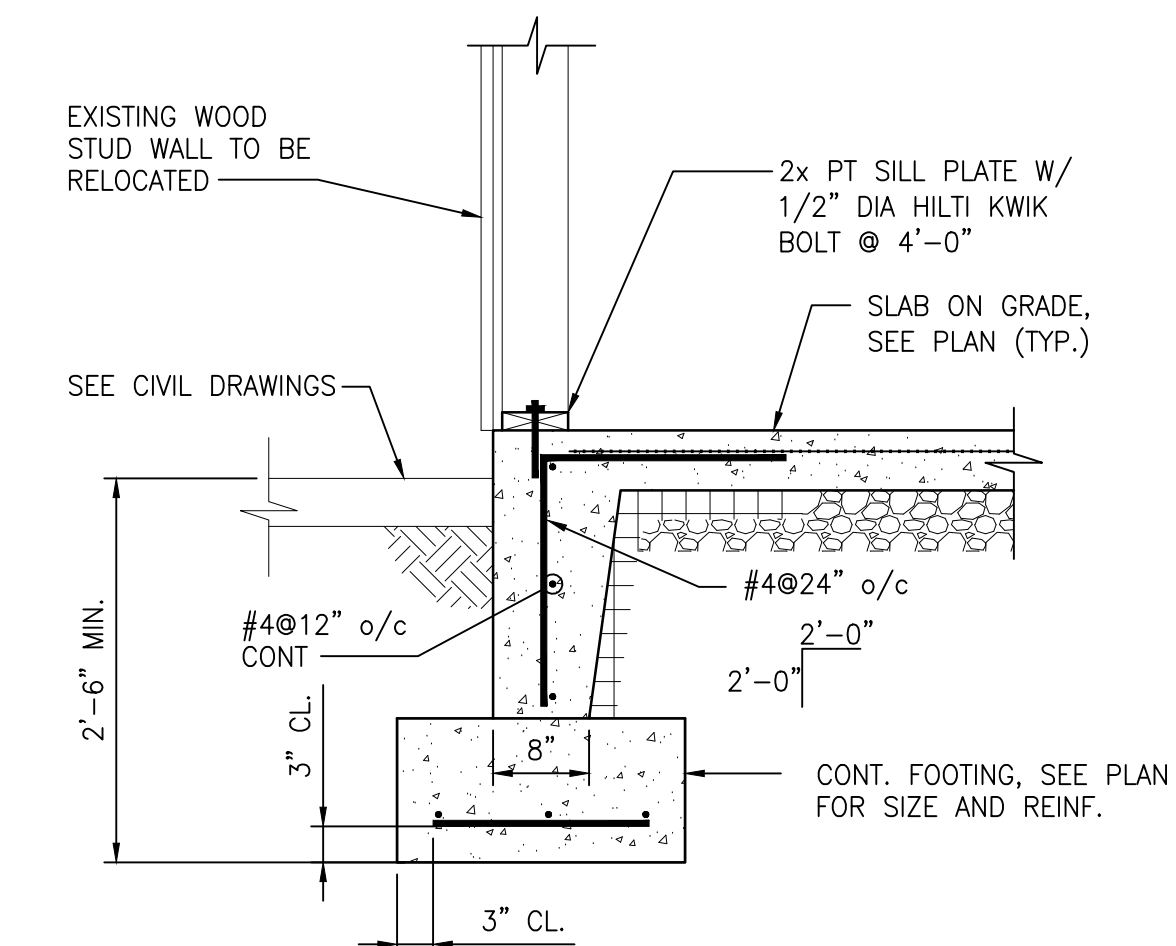
- ALL DEVELOPMENT AND SPLICES OF REINFORCEMENT SHALL CONFORM TO THE PROVISIONS OF ACI BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE, (ACI 318-LATEST EDITION).
- REINFORCING STEEL SHALL BE DEFORMED BARS OF INTERMEDIATE GRADE NEW BILLET STEEL CONFORMING TO CURRENT REQUIREMENTS OF ASTM A615, GRADE 60, UNLESS NOTED OTHERWISE. WELDABLE DEFORMED BARS SHALL CONFORM TO ASTM A706. ALL HOOKS SHALL BE STANDARD HOOKS, UNLESS OTHERWISE NOTED.
- WELDED WIRE FABRIC (W.W.F.) SHALL CONFORM TO ASTM A1064 AND BE SPLICED SO THAT THE OVERLAP OF THE OUTERMOST CROSS WIRES OF EACH ADJOINING SHEET IS NOT LESS THAN THE SPACING OF THE CROSS WIRES PLUS 2 INCHES, UNO.
- REINFORCING BAR SUPPORTS AND SPACERS SHALL CONFORM TO (ACI 315-LATEST EDITION) DETAILS AND DETAILING OF CONCRETE REINFORCEMENT.
- MINIMUM REBAR COVER FOR CONCRETE SHALL BE AS SHOWN IN THE FOLLOWING TABLE, UNO:

EXPOSURE CONDITION	CONCRETE COVER	TOLERANCE (+/-)
A. CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3"	3/8"
B. EXPOSED TO EARTH OR WEATHER		
#5 AND SMALLER BARS AND WWF	1-1/2"	3/8"
#6 AND LARGER BARS	2"	3/8"
C. NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND		
SLABS, WALLS, & JOISTS	3/4"	1/4"
BEAMS & COLUMNS (PRIMARY REBAR, TIES, STIRRUPS, & SPIRALS)	1-1/2"	3/8"

- ALL OTHER REINFORCEMENT TOLERANCES SHALL CONFORM TO THE PROVISIONS OF ACI STANDARD SPECIFICATIONS FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS, (ACI 117-LATEST EDITION).
- SHEAR STUD RAIL ASSEMBLIES SHALL CONSIST OF HEADED STUDS WELDED TO A STEEL BASE RAIL IN ACCORDANCE WITH ACI 421.1R AND ASTM A1044. SHEAR STUD RAIL ASSEMBLIES SHALL BE OF SIZE, SPACING, AND ARRANGEMENT SHOWN ON THE DRAWINGS. SHEAR STUDS SHALL BE STUD WELDED TO THE RAILS IN COMPLIANCE WITH THE AMERICAN WELDING SOCIETY AWS D1.1 STRUCTURAL WELDING CODE.
- SHOP DRAWINGS SHOWING ALL REINFORCING STEEL AND NECESSARY SECTIONS AND DETAILS FOR THE PROPER POSITIONING SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER FOR REVIEW AND COMMENT BEFORE FABRICATION OR PLACEMENT OF THE STEEL.

EXISTING CONSTRUCTION:

- ALL MEMBER SIZES, DIMENSIONS AND ELEVATIONS OF EXISTING STRUCTURES SHOWN ON THE DRAWINGS ARE OBTAINED FROM AVAILABLE SOURCES, AND ARE NOT GUARANTEED TO BE TRUE AND EXACT. THE CONTRACTOR SHALL VERIFY THESE MEMBER SIZES, DIMENSIONS AND ELEVATIONS BY ACTUAL FIELD MEASUREMENTS PRIOR TO FABRICATION OF ANY MATERIALS AND START OF WORK, AND REPORT ANY DISCREPANCIES TO THE ARCHITECT/ENGINEER.
- FOR ADDITIONAL INFORMATION ON THE EXISTING CONSTRUCTION, THE CONTRACTOR SHALL REFER TO DRAWINGS OF THE EXISTING STRUCTURES AND PROVIDE ADDITIONAL EXISTING BUILDING SURVEYS AS NECESSARY.
- THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY SUPPORTS AND PERMANENT UNDERPINNING AS REQUIRED TO SUPPORT THE EXISTING STRUCTURES. THE CONTRACTOR SHALL EXAMINE THE EXISTING STRUCTURES TO DETERMINE THE EXTENT OF TEMPORARY SUPPORTS AND PERMANENT UNDERPINNING NECESSARY. THE CAPACITY AND METHOD USED FOR THE TEMPORARY SUPPORTS AND PERMANENT UNDERPINNING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.



SECTION 1
3/4"=1'-0" S101

EXISTING CONCESSION STAND BUILDING SUPERSTRUCTURE TO BE RELOCATED TO NEW SLAB ON GRADE AND FOUNDATION. GC SHALL BE RESPONSIBLE FOR THE MEANS AND METHOD OF RELOCATING AND MAINTAINING THE STRUCTURAL INTEGRITY OF THE EXISTING BUILDING. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO EXAMINE THE EXISTING BUILDING PRIOR TO RELOCATION FOR ANY DISTRESS OR FAILURE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SATISFY HIMSELF AS TO THE LOCATION OF ANY EXISTING SYSTEMS IN THE IMMEDIATE VICINITY OF CONSTRUCTION SO AS TO PREVENT DAMAGE TO THEM. SHOULD ANY DAMAGE TO SUCH SYSTEMS OCCUR THE CONTRACTOR SHALL BE REQUIRED TO REPAIR SUCH DAMAGE AT HIS OWN EXPENSE AND TO THE SATISFACTION OF THE OWNER.

gba
gant-brunnett ARCHITECTS
15 West Mulberry Street
Baltimore, Maryland 21201-4406
Telephone Number: 410-234-8444

CARROLLENGINEERING, INC.
215 SCHILLING CIRCLE, SUITE 102
HUNT VALLEY, MD 21031
410-785-7423 PHONE 410-771-1313 FAX

PROFESSIONAL CERTIFICATION
I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NUMBER: 9299. EXPIRATION DATE: 06/16/2021.

(C) GANT BRUNETT ARCHITECTS
ALL REPRODUCTION IS PROHIBITED

NO.	DESCRIPTION	BY	DATE
△			

APPROVED	DATE	APPROVED	DATE
CHIEF ENGINEER		PROJECT MANAGER	
APPROVED		APPROVED	
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY	

ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS
DATE: 4-28-2021

FORT SMALLWOOD PARK
9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122

EXISTING CONCESSIONS
FOUNDATION & ROOF FRAMING PLAN

S101

SCALE: AS NOTED
DRAWN BY: JG
CHECKED BY: JB
SHEET NO. OF
PROJECT NO. P535900
PROPOSAL NO. P535907

DESIGN CRITERIA:

- 1. DEAD, LIVE, SNOW, WIND, AND SEISMIC DESIGN LOADS ARE IN ACCORDANCE WITH THE ANNE ARUNDEL COUNTY BUILDING CODE WHICH INCORPORATES THE INTERNATIONAL BUILDING CODE - IBC 2015.
2. DESIGN DEAD LOADS HAVE BEEN ACCOUNTED FOR BASED UPON THE ACTUAL WEIGHT OF MATERIALS OF CONSTRUCTION INCORPORATED INTO THE BUILDING, INCLUDING BUT NOT LIMITED TO FLOORS, ROOFS, WALLS, CEILINGS, FINISHES, CLADDING, AND OTHER SIMILARLY INCORPORATED ARCHITECTURAL, STRUCTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING ITEMS. SEE THE APPROPRIATE DISCIPLINES PLANS AND SECTIONS FOR ADDITIONAL INFORMATION. DESIGN LIVE LOADS ARE AS FOLLOWS:

Table with 2 columns: AREA, LIVE LOAD. Rows include SLAB-ON-GRADE (100 PSF), ROOFS (30 PSF), GROUND SNOW LOAD (30 PSF), FLAT-ROOF SNOW LOAD (21 PSF), RISK CATEGORY (II), SURFACE ROUGHNESS CATEGORY (D), EXPOSURE CATEGORY (D), EXPOSURE FACTOR (1.00), IMPORTANCE FACTOR (1.00), THERMAL FACTOR (1.00).

- 4. WIND LOADING IS BASED ON THE FOLLOWING:

Table with 2 columns: Parameter, Value. Includes ULTIMATE DESIGN WIND SPEED (115 MPH), NOMINAL DESIGN WIND SPEED (89.1 MPH), RISK CATEGORY (II), SURFACE ROUGHNESS CATEGORY (C), EXPOSURE CATEGORY (D), INTERNAL PRESSURE COEFFICIENT (+/-0.18), TOPOGRAPHIC FACTOR (1.00), DIRECTIONALITY FACTOR (0.85).

COMPONENTS & CLADDING ULTIMATE DESIGN PRESSURES, (10 SQ FT TRIBUTARY AREA):

Table with 2 columns: Zone, Pressure. Includes ROOF ZONE 1 (+16/-38 PSF), WALL ZONE 4 (+37/-37 PSF), ROOF ZONE 2 (+16/-63 PSF), WALL ZONE 5 (+37/-46 PSF), ROOF ZONE 3 (+16/-95 PSF).

[IT IS THE RESPONSIBILITY OF THE COMPONENT & CLADDING ENGINEER TO CALCULATE WIND LOADS FOR COMPONENTS AND CLADDING BASED ON EACH COMPONENT'S TRIBUTARY AREA AND LOCATION ON THE BUILDING.]

- 5. SEISMIC LOADING IS BASED ON THE FOLLOWING:

Table with 2 columns: Parameter, Value. Includes MAPPED SPECTRAL RESPONSE ACCELERATION, Ss (0.135 G), MAPPED SPECTRAL RESPONSE ACCELERATION, S1 (0.042 G), LONG-PERIOD TRANSITION PERIOD, TL (8), RISK CATEGORY (II), IMPORTANCE FACTOR (1.00), SITE CLASS (D), DESIGN SPECTRAL RESPONSE ACCELERATION, SDS (0.144 G), DESIGN SPECTRAL RESPONSE ACCELERATION, SD1 (0.067 G), SEISMIC DESIGN CATEGORY (B), RESPONSE MODIFICATION COEFFICIENT, R (1.00), DEFLECTION AMPLIFICATION FACTOR, Cd (4), BUILDING PERIOD COEFFICIENT, Ct (0.020), SEISMIC RESPONSE COEFFICIENT, Cs (0.022), DESIGN BASE SHEAR (8 KIPS).

Table with 2 columns: ANALYSIS PROCEDURE, EQUIVALENT LATERAL FORCE; BASIC SEISMIC FORCE RESISTING SYSTEM, LIGHT FRAME WOOD SHEAR WALLS.

- 6. LATERAL EARTH PRESSURES ON RETAINING WALLS ARE BASED ON THE FOLLOWING:

Table with 2 columns: Parameter, Value. Includes EQUIVALENT AT-REST FLUID PRESSURE (60 PCF), EQUIVALENT ACTIVE FLUID PRESSURE (40 PCF), EQUIVALENT PASSIVE FLUID PRESSURE (360 PCF), LATERAL AT-REST EARTH PRESSURE COEFFICIENT, Ko (0.50), LATERAL ACTIVE EARTH PRESSURE COEFFICIENT, Ka (0.33), LATERAL PASSIVE EARTH PRESSURE COEFFICIENT, Kp (3.00), COEFFICIENT OF SLIDING FRICTION (CONC./SOIL) (0.35).

- 7. SLABS-ON-GRADE HAVE BEEN DESIGNED USING A MODULUS OF SUBGRADE REACTION (k) OF 100 PCI.
8. DESIGN REACTIONS AND SUPPORT DETAILS FOR ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING EQUIPMENT IS BASED UPON AVAILABLE MANUFACTURER INFORMATION. SUPPORT CONDITIONS MAY NEED TO BE REVISED BASED UPON ACTUAL SUPPLIED EQUIPMENT AND SUPPORT DETAILS. ANY MECHANICAL EQUIPMENT NOT SHOWN ON THE STRUCTURAL DRAWINGS AND HAVING A WEIGHT IN EXCESS OF 500 POUNDS SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER PRIOR TO INSTALLATION.
9. CONSTRUCTION LOADS IMPOSED BY EQUIPMENT OR OTHER CONSTRUCTION ACTIVITY THAT EXCEED THE DESIGN LIVE LOAD SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER FOR APPROVAL.
10. ALL MASONRY VENEER SHALL BE CONNECTED TO THE STRUCTURE WITH TIES AT A MAXIMUM SPACING OF 16" o/c HORIZONTALLY, AND 16" o/c VERTICALLY UNLESS OTHERWISE INDICATED. ALL VENEER ANCHORS SHALL BE SELECTED BASED ON ABOVE STATED LATERAL DESIGN CRITERIA AND ARCHITECTURAL REQUIREMENTS.

SUBMITTALS:

- 1. BEFORE SUBMISSION OF SHOP DRAWINGS, THE CONTRACTOR SHALL HAVE DETERMINED AND VERIFIED ALL QUANTITIES, DIMENSIONS, SPECIFIED PERFORMANCE CRITERIA, INSTALLATION REQUIREMENTS, MATERIALS, CATALOG NUMBERS AND SIMILAR DATA AND SHALL HAVE COORDINATED EACH SHOP DRAWING WITH OTHER SHOP DRAWINGS AND THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.
2. PRIOR TO SUBMISSIONS, THE CONTRACTOR SHALL STAMP OR PROVIDE A SIMILAR WRITTEN INDICATION THAT THE CONTRACTOR HAS REVIEWED THE SUBMISSION AND IS SATISFIED THE CONTENTS ARE IN COMPLIANCE WITH THE CONTRACT DOCUMENTS.
3. REPRINTS OF THE CONTRACT DOCUMENTS WILL NOT BE ACCEPTED.
4. NO DIMENSIONAL INFORMATION MAY BE OBTAINED BY DIRECT SCALING OF THE DRAWINGS.
5. ELECTRONIC SETS SHALL BE SUBMITTED SO THAT THE ARCHITECT/ENGINEER CAN MAINTAIN ONE RECORD SET AT ALL TIMES.
6. ALL SUBMITTALS USED FOR CONSTRUCTION SHALL BEAR THE STAMP OF THE ARCHITECT/ENGINEER AND SHALL BE MARKED "NO EXCEPTIONS TAKEN" OR "MAKE CORRECTIONS NOTED".

FOUNDATIONS:

- 1. ALL SPREAD FOOTINGS SHALL BEAR ON UNDISTURBED SOIL OR CONTROLLED STRUCTURAL FILL, HAVING A MINIMUM ALLOWABLE SOIL BEARING CAPACITY OF 1500 PSF. ALL SPREAD FOOTINGS SHALL PROJECT AT LEAST 1'-0" INTO SOIL HAVING SUCH MINIMUM BEARING VALUE.
2. THE CONTRACTOR SHALL RETAIN THE SERVICES OF A REGISTERED GEOTECHNICAL ENGINEER, APPROVED BY THE ARCHITECT/ENGINEER AND PAID FOR BY THE CONTRACTOR, TO VERIFY SOIL BEARING CAPACITY AT EACH FOOTING PRIOR TO INSTALLATION. NOTIFY ARCHITECT/ENGINEER OF ANY VARIATION FROM ANTICIPATED BEARING CAPACITY FOR APPROPRIATE REDESIGN OR LOWERING OF FOOTINGS.
3. EXCAVATION, SUBGRADE PREPARATION, AND FOOTING CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER.
4. ALL SUBGRADE PREPARATION, FILL, AND BACKFILL OPERATIONS SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF THE GEOTECHNICAL ENGINEER.
5. ALL ORGANIC MATERIALS, UNSUITABLE FILL, AND CONSTRUCTION DEBRIS SHALL BE REMOVED IN REGIONS OF ALL FOUNDATIONS.
6. THE BOTTOMS OF ALL EXTERIOR FOOTINGS SHALL BE 2'-6" MINIMUM BELOW FINISHED GRADE.
7. EDGES OF FOOTINGS SHALL NOT BE PLACED AT A GREATER THAN 1 (VERTICAL) TO 2 (HORIZONTAL) SLOPE WITH RESPECT TO ANY ADJACENT FOOTING OR EXCAVATION.
8. THE CONTRACTOR SHALL SAFEGUARD AND PROTECT ALL EXCAVATIONS, AND ALL EXCAVATIONS SHALL BE KEPT FREE OF WATER.
9. NO HORIZONTAL JOINTS SHALL BE PLACED IN WALLS EXCEPT AS SHOWN ON THE DRAWINGS WITHOUT APPROVAL OF THE ARCHITECT/ENGINEER.
10. THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL, PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS FOR ALL LOCATIONS OF TRENCHES, PITS, CONDUITS, ETC. NOT SHOWN ON THE STRUCTURAL DRAWINGS.
11. BACKFILLING AGAINST WALLS SHALL NOT BE DONE UNTIL CONCRETE AND/OR MASONRY GROUT HAS BEEN CURED, TO ATTAIN SUFFICIENT STRENGTH (7 DAYS MINIMUM) AND WALLS ARE PROPERLY SHORED AND/OR BRACED. BACKFILLING AGAINST WALLS SHALL NOT BE DONE UNTIL THE FLOOR SLABS AT TOP AND BOTTOM OF WALLS HAVE BEEN PLACED AND HAVE CURED. BACKFILL FOUNDATION WALLS WITH EARTH ON BOTH SIDES OF THE WALL BY ALTERNATELY PLACING BACKFILL ON EACH SIDE SO THAT HEIGHT OF BACKFILL DOES NOT DIFFER BY MORE THAN 1'-6" FROM OTHER SIDE.
12. ALL ADJACENT COLUMN FOOTINGS THAT ABOUT SHALL BE SEPARATED BY A PAPER JOINT.

FOUNDATION CONCRETE:

- 1. ALL CONCRETE SHALL CONFORM TO THE PROVISIONS OF ACI BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE, (ACI 318-LATEST EDITION) AND ACI SPECIFICATIONS FOR STRUCTURAL CONCRETE IN BUILDINGS, (ACI 301-LATEST EDITION).
2. ALL FOUNDATION CONCRETE SHALL BE IN ACCORDANCE WITH THE FOLLOWING:

Table with 5 columns: STRUCTURAL ELEMENT, f'c @ 28 DAYS, DRY WEIGHT, MAX W/C, AGGREGATE SIZE, AIR CONTENT. Rows include A. SLAB-ON-GRADE, B. FOOTINGS, C. PIERS.

- 3. NO CONCRETE SHALL BE PLACED UNTIL CONCRETE DESIGN MIXES HAVE BEEN SUBMITTED FOR EACH CLASS OF CONCRETE NOTED ABOVE AND HAVE BEEN REVIEWED BY THE ARCHITECT/ENGINEER.
4. USE A WATER REDUCING ADMIXTURE IN ALL CONCRETE.
5. SLUMP AND MINIMUM CEMENTITIOUS MATERIALS CONTENT SHALL BE AS REQUIRED BY ACI 301-LATEST EDITION.
6. NO CALCIUM CHLORIDE IN ANY FORM WILL BE PERMITTED IN CONCRETE.
7. ALL STRUCTURAL MEMBERS SHALL BE POURED FOR THEIR FULL DEPTHS IN ONE OPERATION.
8. EXCAVATIONS SHALL BE KEPT FREE OF WATER. NO CONCRETE SHALL BE PLACED IN WATER.
9. ALL SLABS ON GRADE SHALL HAVE THICKENINGS, DEPRESSIONS, OPENINGS, ETC. AS SHOWN OR AS REQUIRED BY VARIOUS TRADES.
10. CONTRACTOR SHALL RETAIN THE SERVICES OF AN INDEPENDENT TESTING AGENCY APPROVED BY THE ARCHITECT/ENGINEER AND PAID FOR BY THE CONTRACTOR TO PERFORM TESTS OF CONCRETE. TAKE A MINIMUM OF 6 CYLINDER SAMPLES PER 50 CUBIC YARDS OF EACH CLASS OF CONCRETE POURED IN ANY ONE DAY. PERFORM SLUMP, AIR CONTENT, AND TEMPERATURE TESTING AT THE TIME OF EACH SAMPLING.

CONCRETE MASONRY:

- 1. CONCRETE MASONRY SHALL CONFORM TO THE BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES, (ACI 530-LATEST EDITION) AND SPECIFICATION FOR MASONRY STRUCTURES, (ACI 530.1-LATEST EDITION).
2. CONCRETE MASONRY SHALL HAVE A MINIMUM SPECIFIED COMPRESSIVE STRENGTH OF MASONRY, f'm = 2,000 PSI.
3. CONCRETE MASONRY UNITS (CMU) SHALL CONFORM TO THE REQUIREMENTS OF THE MOST RECENT EDITIONS OF THE FOLLOWING STANDARDS:
HOLLOW LOAD-BEARING UNITS ASTM C90
SOLID LOAD-BEARING UNITS ASTM C145
HOLLOW NON-LOAD-BEARING UNITS ASTM C129
CONCRETE BUILDING BRICK ASTM C159
4. ALL CONCRETE MASONRY SHALL BE NORMAL WEIGHT.
5. MORTAR FOR REINFORCED AND UNREINFORCED MASONRY SHALL CONFORM TO THE REQUIREMENTS OF ASTM C270, TYPE S, UNO.
6. GROUT FOR REINFORCED OR UNREINFORCED MASONRY SHALL CONFORM TO THE REQUIREMENTS OF ASTM C476 AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2,000 PSI.
7. MASONRY REINFORCING SHALL BE DEFORMED BARS CONFORMING TO ASTM A615, GRADE 60, UNO. ALL CMU CELLS CONTAINING REINFORCEMENT SHALL BE GROUTED SOLID. SEE TYPICAL MASONRY REBAR DEVELOPMENT AND LAP SCHEDULE FOR ADDITIONAL INFORMATION.
8. ALL REINFORCEMENT SHOWN IN WALLS SHALL BE CENTERED IN MASONRY UNITS UNLESS NOTED OTHERWISE.
9. WHERE DRAWINGS INDICATE CMU CELLS TO BE FILLED SOLID, CELLS OF CMU SHALL BE FILLED WITH GROUT IN 5'-4" MAXIMUM LIFTS FOLLOWING LOW-LIFT GROUTING PROCEDURES OR 12"-8" MAXIMUM LIFTS FOLLOWING HIGH-LIFT GROUTING PROCEDURES, UNO.
10. ALL CONCRETE MASONRY SHALL HAVE GALVANIZED, TRUSS OR LADDER TYPE, HORIZONTAL JOINT REINFORCEMENT SPACED VERTICALLY AT 16" o/c MAXIMUM WITH PREFABRICATED CORNER AND "T" PIECES UNLESS NOTED OTHERWISE. LAP ALL SPLICES 6" MINIMUM. PROVIDE AN ADDITIONAL ROW ABOVE AND BELOW ALL OPENINGS AND EXTEND TWO FEET BEYOND JAMBS. STOP HORIZONTAL REINFORCING EACH SIDE OF CONTROL JOINTS.
11. WHERE MASONRY WALLS OF HOLLOW UNITS OR MASONRY BONDED WALLS CHANGE IN THICKNESS, THE WALL SHALL BE FILLED SOLID WITH GROUT OR OTHERWISE CONSTRUCTED SOLID FOR AT LEAST ONE COURSE (8" MIN) IMMEDIATELY BELOW SUCH LEVEL WHERE THE THICKNESS CHANGES.
12. EXCEPT AS OTHERWISE SHOWN, CELLS IN MASONRY UNDER BEARING AREAS FOR BEAMS, LINTELS, AND SLABS SHALL BE FILLED SOLID WITH CONCRETE FOR AT LEAST THREE COURSES (24" MIN) IMMEDIATELY BELOW SUCH BEARING.
13. ALL MASONRY WALLS SHALL HAVE TEMPORARY BRACING INSTALLED UNTIL ALL FLOOR AND/OR ROOF SYSTEMS HAVE BEEN COMPLETELY INSTALLED AND ATTACHED TO MASONRY WALLS. CONTRACTOR IS SOLELY RESPONSIBLE FOR TEMPORARY BRACING.
14. AT NON BEARING WALLS A 1" GAP SHALL BE PROVIDED BETWEEN THE TOP OF THE WALL AND THE UNDERSIDE OF THE STRUCTURAL FLOOR OR ROOF FRAMING. SEE TYPICAL TOP OF NON BEARING MASONRY WALL DETAIL FOR ADDITIONAL INFORMATION.
15. PROVIDE VERTICAL CONTROL JOINTS WHERE INDICATED ON ARCHITECTURAL DRAWINGS, BUT NOT TO EXCEED 1.5 TIMES THE WALL HEIGHT OR 25 FEET, WITHIN ONE HALF THE TYPICAL CONTROL JOINT SPACING FROM BUILDING CORNERS, AT INTERIOR WALL INTERSECTIONS, AT CHANGES IN WALL HEIGHT, AT PLASTERS AND CHANGES IN WALL THICKNESS, AND A MINIMUM OF 2 FEET FROM WALL OPENINGS, UNO.
16. PROVIDE MASONRY ANCHORS ALONG SPANDREL MEMBERS AND AT ALL STEEL COLUMNS, BEAMS, AND LINTELS EMBEDDED IN MASONRY WALLS. ANCHORS TO BE INSTALLED AT 16" o/c EACH FACE, UNO. ANCHORS SHALL CONSIST OF CHANNEL SLOTS MADE OF 11 GA. GALVANIZED STEEL WELDED TO STEEL MEMBER (BY STEEL FABRICATOR) AND CORRUGATED ANCHORS SHALL BE MADE OF 16 GA. x 1-1/4" GALVANIZED CORRUGATED STEEL (BY MASONRY CONTRACTOR).

REINFORCEMENT:

- 1. ALL DEVELOPMENT AND SPLICES OF REINFORCEMENT SHALL CONFORM TO THE PROVISIONS OF ACI BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE, (ACI 318-LATEST EDITION).
2. REINFORCING STEEL SHALL BE DEFORMED BARS OF INTERMEDIATE GRADE NINE BILLET STEEL CONFORMING TO CURRENT REQUIREMENTS OF ASTM A615, GRADE 60, UNLESS NOTED OTHERWISE. WELDABLE DEFORMED BARS SHALL CONFORM TO ASTM A706. ALL HOOKS SHALL BE STANDARD HOOKS, UNLESS OTHERWISE NOTED.
3. WELDED WIRE FABRIC (W.W.F.) SHALL CONFORM TO ASTM A1064 AND BE SPLICED SO THAT THE OVERLAP OF THE OUTERMOST CROSS WIRES OF EACH ADJOINING SHEET IS NOT LESS THAN THE SPACING OF THE CROSS WIRES PLUS 2 INCHES, UNO.
4. REINFORCING BAR SUPPORTS AND SPACERS SHALL CONFORM TO (ACI 318-LATEST EDITION) DETAILS AND DETAILING OF CONCRETE REINFORCEMENT.
5. MINIMUM REBAR COVER FOR CONCRETE SHALL BE AS SHOWN IN THE FOLLOWING TABLE, UNO:

Table with 3 columns: EXPOSURE CONDITION, CONCRETE COVER, TOLERANCE (+/-). Rows include A. CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH, B. EXPOSED TO EARTH OR WEATHER, C. NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND.

- 6. ALL OTHER REINFORCEMENT TOLERANCES SHALL CONFORM TO THE PROVISIONS OF ACI STANDARD SPECIFICATIONS FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS, (ACI 117-LATEST EDITION).
7. SHEAR STUD RAIL ASSEMBLIES SHALL CONSIST OF HEADED STUDS WELDED TO A STEEL BASE RAIL IN ACCORDANCE WITH ACI 421.1R AND ASTM A1044. SHEAR STUD RAIL ASSEMBLIES SHALL BE OF SIZE, SPACING, AND ARRANGEMENT SHOWN ON THE DRAWINGS. SHEAR STUDS SHALL BE STUD WELDED TO THE RAILS IN COMPLIANCE WITH THE AMERICAN WELDING SOCIETY AWS D1.1 STRUCTURAL WELDING CODE.
8. SHOP DRAWINGS SHOWING ALL REINFORCING STEEL AND NECESSARY SECTIONS AND DETAILS FOR THE PROPER POSITIONING SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER FOR REVIEW AND COMMENT BEFORE FABRICATION OR PLACEMENT OF THE STEEL.

STRUCTURAL STEEL:

- 1. ALL STRUCTURAL STEEL SHALL CONFORM TO THE LATEST EDITIONS OF AISC SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS, SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS, AND THE CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES.
2. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING DESIGNATIONS, UNO:

Table with 2 columns: Designation, Specification. Includes A. W & WT SHAPES, B. CHANNELS & ANGLES, C. SQUARE & RECTANGULAR HSS, D. ROUND HSS, E. ROUND PIPE, F. PLATES & BARS.

- 3. STRUCTURAL FASTENERS SHALL CONFORM TO THE FOLLOWING DESIGNATIONS, UNO:

Table with 2 columns: Designation, Specification. Includes A. HIGH STRENGTH BOLTS, B. COMMON BOLTS, C. THREADED RODS, D. HEADED STUDS, E. ANCHOR RODS.

- 4. ALL BOLTS SHALL BE 3/4" DIAMETER MINIMUM, STANDARD HOLES, UNLESS NOTED OTHERWISE.
5. WELDING SHALL BE IN ACCORDANCE WITH AWS CODE FOR WELDING IN BUILDING CONSTRUCTION (AWS D1.1) AND SHALL BE PERFORMED BY CERTIFIED WELDERS. ALL WELDS SHALL BE MADE WITH AWS A5.1 E-70XX ELECTRODES.
6. STEEL STUD SHEAR CONNECTORS SHALL CONFORM TO ASTM A108, GRADES 1010 THROUGH 1020, AND SHALL CONFORM TO THE REQUIREMENTS OF STRUCTURAL WELDING CODE - STEEL, AWS D1.1. STUDS SHALL BE WELDED BY AUTOMATIC EQUIPMENT TO STRUCTURAL STEEL.
7. ALL SHOP CONNECTIONS SHALL BE HIGH STRENGTH BOLTED OR WELDED.
8. ALL FIELD CONNECTIONS SHALL BE HIGH STRENGTH BOLTED EXCEPT WHERE DETAILS INDICATE WELDING.
9. CONNECTIONS FOR NON-COMPOSITE BEAMS SHALL BE DESIGNED PER AISC ASD TO SUPPORT HALF OF THE FULL CAPACITY OF THE UNIFORMLY LOADED MEMBER AT EACH BEAM END, UNLESS A LARGER REACTION IS NOTED ON PLAN OR ON THE COMPOSITE BEAM REACTION SCHEDULE. ALL BOLTED CONNECTIONS SHALL HAVE A MINIMUM OF TWO BOLTS.
10. HIGH STRENGTH BOLTED CONNECTIONS SHALL BE SLIP-CRITICAL FOR OVERSIZED HOLES, SLOTTED HOLES WHERE THE FORCE IS ACTING IN THE SAME DIRECTION AS THE SLOT, KICKERS, BRACED FRAMES, MOMENT CONNECTIONS, BEAM SPLICES, HANGERS, AND ALL CONNECTIONS UNDER TENSION OR COMPRESSION, UNO. CONNECTIONS TO COLUMNS SHALL HAVE A MAXIMUM ECCENTRICITY OF 3 INCHES, WITH RESPECT TO THE FLANGE OR WEB AS APPLICABLE, UNO.
11. NO PENETRATIONS ARE PERMITTED THROUGH STRUCTURAL STEEL MEMBERS UNLESS INDICATED ON STRUCTURAL DRAWINGS OR APPROVED BY THE STRUCTURAL ENGINEER.
12. APPROVAL OF THE STRUCTURAL ENGINEER SHALL BE MANDATORY FOR THE USE OF CUTTING TORCH IN THE FIELD.
13. DURING ERECTION, STRUCTURAL STEEL FRAME SHALL BE ADEQUATELY BRACED IN ALL LINES, TWO WAYS, TO BRACE AND HOLD THE STEEL FRAME IN ALIGNMENT UNTIL ALL APPLICABLE SHEAR WALLS, BRACED FRAMES, MOMENT FRAMES, FLOOR AND ROOF DIAPHRAGMS, ETC. ARE IN PLACE. SUCH BRACING SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
14. ALL GROUT UNDER STEEL PLATES SHALL BE NON-SHRINK "PRE-MIX" TYPE AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 5,000 PSI.
15. FOR ALL MISCELLANEOUS STEEL CONSTRUCTION NOT SHOWN ON STRUCTURAL DRAWINGS, SEE THE ARCHITECTURAL AND MECHANICAL DRAWINGS.
16. ALL STRUCTURAL STEEL, CONNECTIONS, AND FASTENERS SHALL RECEIVE THE FOLLOWING FINISHES, UNO, IN ACCORDANCE WITH THE APPLICABLE AISC AND SSPC GUIDELINES:

Table with 2 columns: Designation, Finish. Includes A. INTERIOR STEEL, B. FIREPROOFED INTERIOR STEEL, C. EXTERIOR STEEL, D. ARCHITECTURALLY EXPOSED STEEL.

- 18. STRUCTURAL STEEL SHALL BE INSPECTED IN THE FIELD BY AN INDEPENDENT TESTING AGENCY APPROVED BY THE ARCHITECT/ENGINEER AND PAID FOR BY THE OWNER.
19. SHOP DRAWINGS SHOWING ALL PLANS, SECTIONS, AND DETAILS NECESSARY FOR THE PROPER PLACEMENT AND CONNECTION OF ALL STRUCTURAL STEEL, SHEAR STUDS, STEEL JOISTS, AND JOIST GIRDERS SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER FOR REVIEW AND COMMENT PRIOR TO FABRICATION AND ERECTION. ALL CONNECTIONS THAT ARE NOT TABULATED WITHIN THE AISC STEEL CONSTRUCTION MANUAL, INDICATED ON DRAWINGS TO COMPLY WITH DESIGN LOADS, OR ANY FIELD MODIFIED CONNECTION SHALL BE DESIGNED BY THE FABRICATOR AND INCLUDE CALCULATIONS SIGNED AND SEALED BY THE QUALIFIED PROFESSIONAL ENGINEER RESPONSIBLE FOR THEIR PREPARATION.
20. ALL CONNECTIONS SHALL BE DESIGNED BY THE FABRICATOR AND INCLUDE CALCULATIONS SIGNED AND SEALED BY THE QUALIFIED PROFESSIONAL ENGINEER RESPONSIBLE FOR THEIR PREPARATION.

WOOD FRAMING:

- 1. WOOD FRAMING AND FASTENERS SHALL COMPLY WITH THE RECOMMENDATIONS OF THE AMERICAN FOREST AND PAPER ASSOCIATION.
2. PLYWOOD - AMERICAN PLYWOOD ASSOC. (APA) GRADE TRADE MARKED MEETING THE REQUIREMENTS OF THE LATEST EDITION OF U.S. PRODUCT STANDARD PS-1.
3. CONSTRUCTION GLUE: PL400 HEAVY DUTY CONSTRUCTION ADHESIVE BY CONTECH OR EQUAL MEETING APA SPECIFICATION AFG-01. APPLY IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
4. UNLESS OTHERWISE NOTED ON DRAWINGS, NAIL PLYWOOD TO FRAMING AT 6" o/c ON EDGES OF SHEET AND 12" o/c ON EACH INTERIOR SUPPORT.
5. FOR PLYWOOD 1/2" IN THICKNESS AND LESS USE W CLIPS AT MIDPOINT FOR SPANS GREATER THAN 16" o/c. FOR PLYWOOD 5/8" AND THICKER USE T & G EDGES OR H CLIPS AT MIDPOINT FOR SPANS GREATER THAN 16" o/c.
6. STRUCTURAL SAWN LUMBER SHALL BE OF NOMINAL SIZE CROSS SECTIONS AS SHOWN ON THE PLANS, SECTIONS AND SCHEDULES WITH THE FOLLOWING MINIMUM STRUCTURAL PROPERTIES IN ACCORDANCE WITH THE AMERICAN FOREST & PAPER ASSOCIATION (AFPA):

Table with 7 columns: FRAMING MEMBER, WOOD SPECIES & GRADE, Fb (PSI), Ft (PSI), Fv (PSI), Fc(I) (PSI), Fc(II) (PSI), E (PSI), MOISTURE CONTENT. Rows include INTERIOR STUDS & BUILT-UP POSTS, EXTERIOR STUDS & BUILT-UP POSTS, COLUMNS (5"x5" & LARGER), PLATES, BEAMS & LINTELS.

- 7. PROVIDE PRESSURE TREATED LUMBER FOR ALL STUD WALLS, TOP AND BOTTOM PLATES, CONCRETE, OR MASONRY. PRESSURE TREATED LUMBER SHALL BE IN COMPLIANCE WITH AWPA CURRENT STANDARDS.
8. ALL CONNECTIONS AND FASTENERS USED AT PRESSURE TREATED AND FIRE RETARDANT TREATED LUMBER SHALL BE STAINLESS STEEL.
9. LAMINATED VENEER LUMBER (LVL) SHALL HAVE AN ALLOWABLE BENDING STRESS OF 2,600 PSI, AN ALLOWABLE MODULUS OF ELASTICITY OF 1,900 KSI, AN ALLOWABLE SHEAR STRESS OF 285 PSI, AND ALLOWABLE COMPRESSIVE STRESS PARALLEL TO THE GRAIN OF 2,510 PSI.
10. PARALLEL STRAND LUMBER (PSL) SHALL HAVE AN ALLOWABLE BENDING STRESS OF 2,900 PSI, AN ALLOWABLE MODULUS OF ELASTICITY OF 2,200 KSI, AN ALLOWABLE SHEAR STRESS OF 290 PSI, AND ALLOWABLE COMPRESSIVE STRESS PARALLEL TO THE GRAIN OF 2,900 PSI.
11. ALL LIGHT GAUGE METAL CONNECTORS SHALL BE EITHER SIMPSON STRONG-TIE OR USP STRUCTURAL CONNECTORS, UNO. ANY SUBSTITUTION MUST BE APPROVED BY THE ENGINEER.
12. WHERE CONNECTIONS OR OTHER DETAILS ARE NOT INDICATED, FOLLOW THE RECOMMENDATIONS IN THE MANUAL OF WOOD FRAME CONSTRUCTION, BY THE AFPA.
13. SHOP DRAWINGS SHOWING ALL SECTIONS, DETAILS, AND MATERIAL SPECIFICATIONS NECESSARY FOR THE PROPER INSTALLATION AND CONNECTION OF ALL MANUFACTURER'S WOOD PRODUCTS SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER FOR REVIEW PRIOR TO FABRICATION AND INSTALLATION.
14. ALL WOOD FRAMING, TIMBERS, AND ENGINEERED LUMBER THAT IS EXPOSED TO VIEW SHALL BE VOID OF ANY STAMPS OR MARKINGS. PROVIDE CERTIFICATIONS IN LIEU OF STAMPED LUMBER

PRE-ENGINEERED WOOD ROOF TRUSSES:

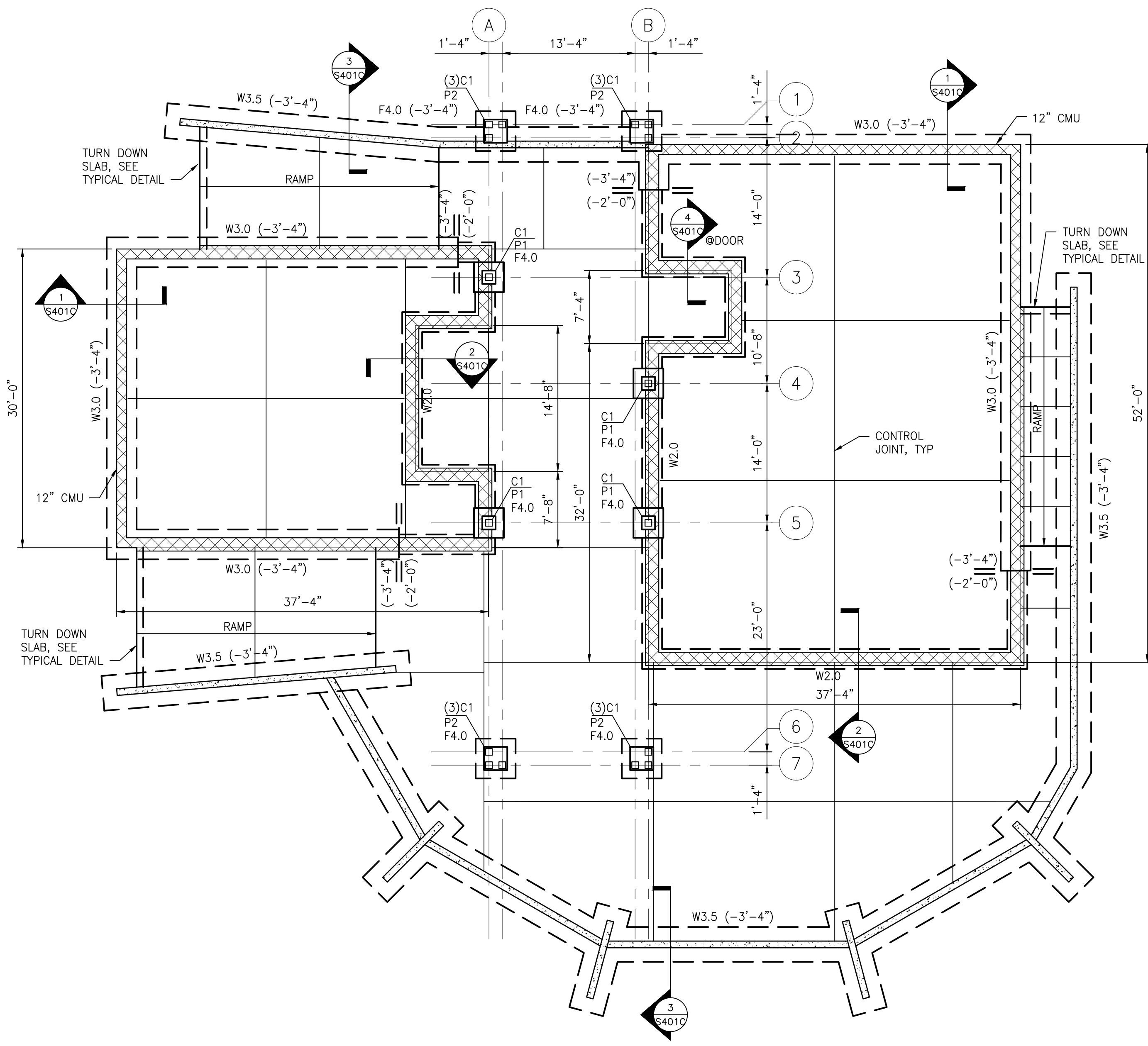
- 1. DESIGN AND INSTALL TRUSSES AND CONNECTORS IN ACCORDANCE WITH APPLICABLE BUILDING CODE REQUIREMENTS AS WELL AS ANSI/TPI 1-LATEST EDITION, AS PUBLISHED BY THE TRUSS PLATE INSTITUTE, INC.
2. INSTALL TEMPORARY AND PERMANENT BRACING OF WOOD TRUSSES IN ACCORDANCE WITH MANUFACTURERS DESIGN, BCSI 1, "BUILDING COMPONENT SAFETY INFORMATION", AND DSB-LATEST EDITION, PUBLISHED BY THE TRUSS PLATE INSTITUTE (TPI), INC AND THE WOOD TRUSS COUNCIL OF AMERICA (WTCOA).
3. ALL TRUSS MEMBERS SHALL BE DESIGNED AND SIZED (INCLUDING GRADE AND SPECIES) AS REQUIRED TO SUPPORT THE LOADS INDICATED ON THE DRAWINGS (INCLUDING DEAD, LIVE, WIND, UPLIFT, AND MECHANICAL LOADS SUCH AS SPRINKLERS AND ROOF TOP UNITS). (10% MAX MOISTURE CONTENT IN USE).
4. TRUSS TO TRUSS AND TRUSS TO HEADER CONNECTIONS AND HARDWARE SHALL BE DESIGNED AND PROVIDED BY THE TRUSS MANUFACTURER.
5. SUBMIT TO ARCHITECT/ENGINEER, PRIOR TO FABRICATION, COMPLETE SHOP DRAWINGS FOR ALL TRUSSES. SHOP DRAWINGS SHALL INCLUDE STRESS DIAGRAMS, MEMBER GRADES AND SIZES, SIZE AND LOCATION OF ALL CONNECTOR PLATES, SIZE AND LOCATION OF ALL TEMPORARY BRACING, PERMANENT TRUSS BRIDGING AND MEMBER BRACING, DATA RELATIVE TO PREFABRICATED HANGERS FOR TRUSS TO TRUSS AND TRUSS TO HEADER CONNECTIONS, DESIGN COMPUTATIONS AND ERECTION PLANS.
6. REPRINTS OF CONTRACT DRAWINGS ARE NOT ACCEPTABLE. DESIGN COMPUTATIONS AND SHOP DRAWINGS SHALL BE SIGNED BY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF THE PROJECT. ONLY SHOP DRAWINGS BEARING THE STAMP OF THE ARCHITECT SHALL BE USED FOR FABRICATION AND ERECTION.
7. TEMPORARY MEMBER BRACING, PERMANENT TRUSS BRIDGING, WEB COMPRESSION MEMBER BRACING ETC., SHALL BE AS REQUIRED BY THE TRUSS MANUFACTURER'S DESIGN, AND SHALL BE INSTALLED BY CONTRACTOR IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.
8. TEMPORARY BRACING SHALL REMAIN IN PLACE UNTIL THE TRUSSES ARE FULLY INSTALLED, PERMANENTLY BRACED AND SHEATHED AND ALL TRUSSES HAVE BEEN SECURELY ATTACHED TO THE SUPPORTS PER THE CONTRACT DOCUMENTS AND THE TRUSS MANUFACTURER'S RECOMMENDATIONS.
9. DO NOT PROCEED WITH ROOF CONSTRUCTION UNTIL ALL TEMPORARY BRACING IS SECURELY AND PROPERLY IN PLACE AND HAS BEEN REVIEWED BY THE CONSTRUCTION INSPECTOR.
10. PLACE PLYWOOD ROOF SHEATHING IN STACK HEIGHTS AND LOCATIONS ONLY AS DESCRIBED IN THE TRUSS MANUFACTURERS INSTALLATION LITERATURE AND PER THE TPI REFERENCES NOTED.
11. PROVIDE ALL TRUSS FASTENERS AND HURRICANE CLIPS PER THE CONTRACT DOCUMENTS AND THE TRUSS MANUFACTURER'S RECOMMENDATIONS.
12. OWNER SHALL EMPLOY AN INDEPENDENT INSPECTION AGENCY TO VISUALLY INSPECT TRUSSES BEFORE AND AFTER ERECTION. INSPECTION AGENCY SHALL CERTIFY THAT THE TRUSSES, CONNECTIONS AND BRACING HAVE BEEN INSTALLED IN COMPLIANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.

Logos for gba, gant-brunnett ARCHITECTS, and CARROLL ENGINEERING, INC. with contact information for both firms.

Professional certification text: "PROFESSIONAL CERTIFICATION (CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NUMBER: 08268. EXPIRATION DATE: 06/16/2021." and Gant Brunnett Architects logo.

Table with 4 columns: NO., DESCRIPTION, BY, DATE. Includes a row for APPROVED with a triangle symbol.

Project information header: ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS, DATE: 4-28-2021, FORT SMALLWOOD PARK, 9500 FORT SMALLWOOD ROAD PASADENA, MD 21122, COMFORT STATION GENERAL NOTES, S001C, and approval/signature lines for PROJECT MANAGER, SHEET NO., PROJECT NO., and PROPOSAL NO.



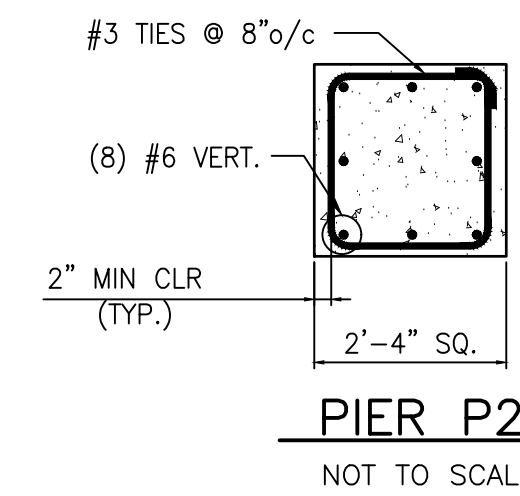
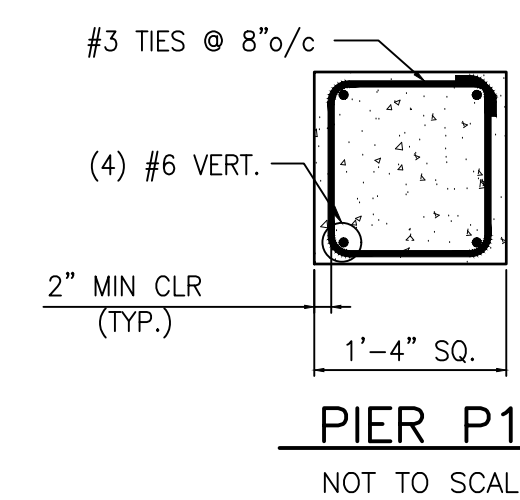
FOUNDATION / FIRST FLOOR PLAN
SCALE: 1/8" = 1'-0"

COLUMN SCHEDULE		
MARK	COLUMN	BASEPLATE
C1	7" SQ PSL PLUS	SIMPSON POST BASE CAST IN PLACE STAINLESS STEEL CB7 1/8-7

FOOTING SCHEDULE			
MARK	SIZE	DEPTH	REINF.
W2.0 (TYP.)	2'-0" CONT.	1'-0"	(3) #5 CONT. #4@48"o/c CROSSBARS
W3.0 (TYP.)	3'-0" CONT.	1'-0"	(4) #5 CONT. #4@24"o/c CROSSBARS
W3.5 (TYP.)	3'-6" CONT.	1'-0"	(4) #5 CONT. #4@24"o/c CROSSBARS
F4.0	4'-0" SQ.	1'-0"	(5) #5 E.W.B.

FOUNDATION PLAN NOTES:

- SLAB ON GRADE SHALL CONSIST OF 5" CONCRETE SLAB REINFORCED W/ 6"x6"-W2.1xW2.1 WWF OVER 15 MIL VAPOR RETARDER AND 6" MINIMUM COMPACTED STONE BASE.
- TOP OF NEW SLAB-ON-GRADE ELEVATION = 8.00 U.N.O. AND IS THE REFERENCE DATUM (0'-0") FOR THIS PROJECT
- SPREAD FOOTING SIZES SHOWN THUS: FX.0, CONTINUOUS WALL FOOTINGS SHOWN THUS WX.X, SEE SCHEDULE. TYPICAL TOP OF INTERIOR FOOTINGS = -0'-8" U.N.O. TYPICAL TOP OF EXTERIOR FOOTINGS SHALL BE AT -2'-0" U.N.O.
- WALL FOOTING SIZES SHOWN THUS: WX.0, CONTINUOUS WALL FOOTINGS SHOWN THUS WX.X, SEE SCHEDULE. TYPICAL TOP OF INTERIOR FOOTINGS = -0'-8" U.N.O. TYPICAL TOP OF EXTERIOR FOOTINGS SHALL BE AT -2'-0" U.N.O.
- CONCRETE PIERS SHOWN THUS: PX, SEE PIER DETAILS THIS SHEET. TYPICAL TOP OF CONCRETE PIERS = +2'-6" U.N.O.
- COLUMN SIZES SHOWN THUS: CX. SEE SCHEDULE FOR SIZE AND BASEPLATE INFORMATION.
- CMU WALL SHALL BE 16" BLOCK GROUTED SOLID.
- CONCRETE SITE WALLS SHALL BE 6" THICK W/ #4 @12" o/c EW.
- SLAB-ON-GRADE CONTROL JOINTS SHALL BE SAWCUT AFTER CONCRETE HAS TAKEN INITIAL SET AND BEFORE CONCRETE SHRINKAGE STRESSES OCCUR.
- THE CONTRACTOR SHALL COORDINATE THE LOCATION OF ALL SLAB EDGES, OPENINGS, PENETRATIONS, SLOPES, RAISED OR DEPRESSED AREAS, CURBS, ETC., WITH THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS, UNO.
- THE CONTRACTOR SHALL COORDINATE ALL UNDERSLAB UTILITIES WITH MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS. LOWER OR STEP TOP OF FOOTING ELEVATIONS AS REQUIRED TO MAINTAIN 2H:1V SLOPE FROM BOTTOM OF FOOTINGS TO BOTTOM OF UTILITY EXCAVATIONS. SEE TYPICAL DETAILS FOR ADDITIONAL INFORMATION.
- FOR ADDITIONAL INFORMATION AND REQUIREMENTS REFER TO THE GENERAL NOTES, TYPICAL DETAILS, AND SCHEDULES.
- ALL EXTERIOR WOOD TO BE PRESSURE TREATED.



gba
gant-brunnett ARCHITECTS
15 West Mulberry Street
Baltimore, Maryland 21201-4406
Telephone Number: 410-234-8444

CARROLLENGINEERING, INC.
215 SCHILLING CIRCLE, SUITE 102
HUNT VALLEY, MD 21031
410-785-7423 PHONE 410-771-1313 FAX

PROFESSIONAL CERTIFICATION
I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NUMBER 26269, EXPIRATION DATE 06/16/2021.

(C) GANT BRUNNETT ARCHITECTS
ALL REPRODUCTION IS PROHIBITED

NO.	DESCRIPTION	BY	DATE

APPROVED		APPROVED	
DATE	DATE	DATE	DATE

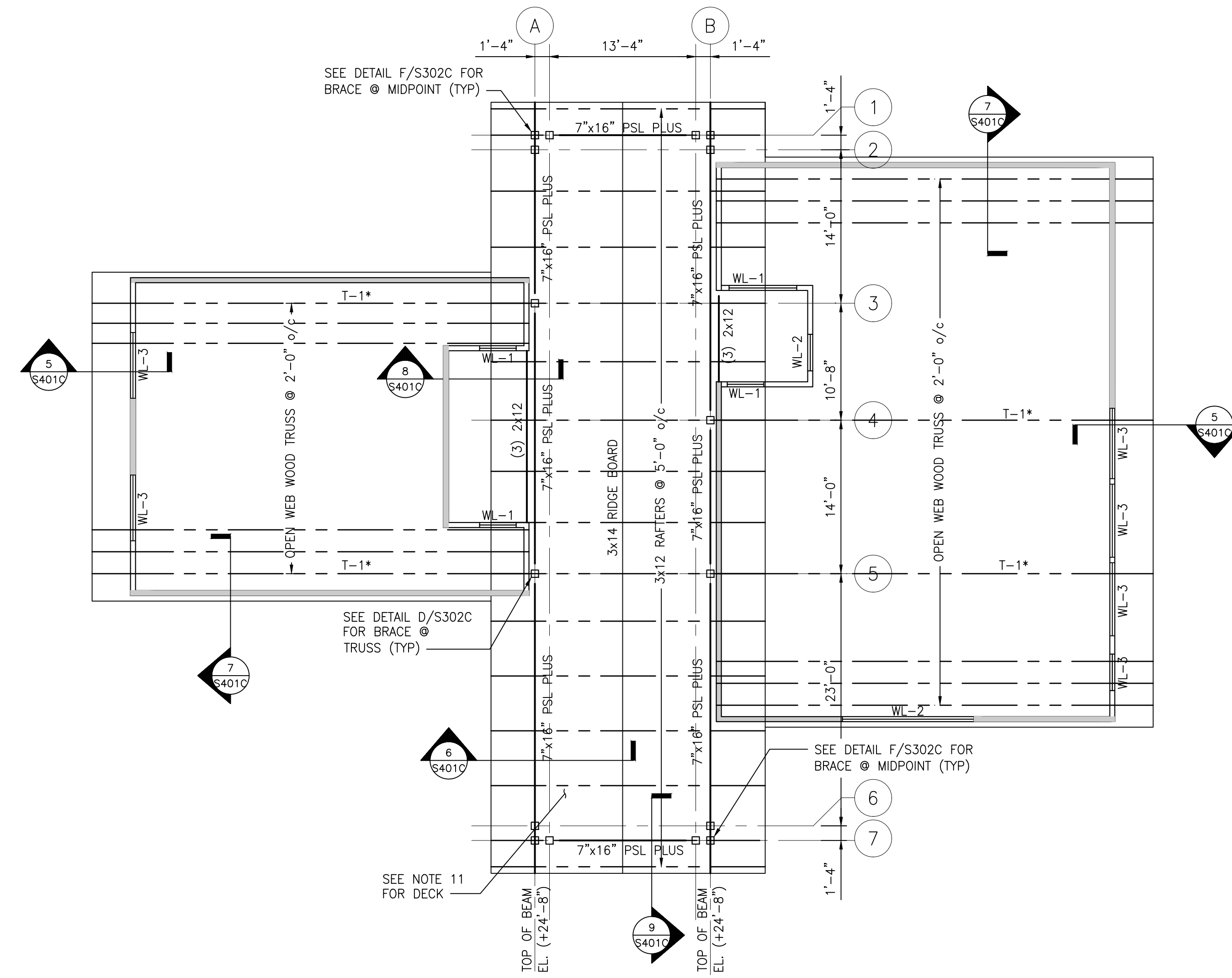
ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS
DATE: 4-28-2021

FORT SMALLWOOD PARK
9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122

COMFORT STATION
FOUNDATION & ROOF FRAMING PLAN

S101C

SCALE: AS NOTED
DRAWN BY: JG
CHECKED BY: JB
SHEET NO. OF
PROJECT NO. P535900
PROPOSAL NO. P535907



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

ROOF FRAMING PLAN NOTES:

- MEMBERS SHALL BE AT THE FOLLOWING ELEVATIONS, MEASURED FROM THE PROJECT DATUM, UNO:

ROOF TRUSS BEARING	(10'-0") UNO
--------------------	--------------
- TYPICAL ROOF SHEATHING OVER WOOD TRUSSES SHALL BE 3/4" APA RATED T&G PLYWOOD SHEATHING, GROUP I, EXTERIOR, PANEL ID 48/24. ATTACH SHEATHING TO FRAMING W/ 8d NAILS @ 6" OC AT PANEL EDGES AND 12" OC AT INTERIOR REGIONS.
- TYPICAL EXTERIOR WALLS SHALL BE SHEATHED WITH 1/2" APA RATED PLYWOOD SHEATHING, EXTERIOR I, STRUCTURAL I GRADE. ATTACH TO STUDS W/ 8d NAILS @ 6" OC AT PANEL EDGES AND 12" OC AT INTERIOR REGIONS.
- ALL BEARING WALLS TO BE PRESSURE TREATED 2x6 @ 1'-4" o/c UNO. PROVIDE CONTINUOUS PT, DOUBLE TOP PLATE AND SINGLE BOTTOM PLATE ON ALL BEARING WALLS. PROVIDE SOLID, CONTINUOUS WOOD BLOCKING AT THIRD POINTS OF HEIGHT IN ALL BEARING WALLS, 4'-0" o/c MAX.
- NOTATIONS SHOWN ON PLAN INDICATE THE FOLLOWING:

WL-X	LINTEL IMMEDIATELY BELOW OR WITHIN THIS LEVEL OF FRAMING, (SEE SCHEDULE THIS SHEET). SEE ARCHITECTURAL DRAWINGS FOR WALL OPENINGS NOT SHOWN
	WOOD SHEAR WALL SEGMENT WITH STRAP/HOLD DOWN AT EACH END. (SEE SCHEDULE ON S302C FOR SHEATHING, FASTENER, AND HOLD DOWN REQUIREMENTS)
- PROVIDE UPLIFT CONNECTORS AT ALL ROOF TRUSS BEARING POINTS CAPABLE OF RESISTING ALL TRIBUTARY UPLIFT FORCES.
- REFER TO THE ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS AND ELEVATIONS NOT SHOWN. THE CONTRACTOR SHALL COORDINATE THE LOCATION OF ALL ROOF EDGES, OPENINGS, PENETRATIONS, SLOPES, RAISED OR DEPRESSED AREAS, CURBS, ROOF EQUIPMENT, ETC., WITH THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS, UNO.
- FOR ADDITIONAL INFORMATION AND REQUIREMENTS REFER TO THE GENERAL NOTES, TYPICAL DETAILS, AND SCHEDULES.
- ALL EXTERIOR WOOD TO BE PRESSURE TREATED WITH NO STAMPS OR MARKINGS ON FACES EXPOSED TO VIEW.
- PROVIDE DOUBLE TRUSSES AND HEADERS AT VENT OPENINGS. CONNECT HEADERS TO TRUSSES WITH JOIST HANGERS.
- ROOF DECK TO BE FLAT PT 2x6 TONGUE AND GROOVE SCREWED TO FRAMING W/ 1/4"x3" SCREW. PROVIDE LUMBER WITH NO STAMPS OR MARKINGS ON EXPOSED UNDERSIDE.
- T-1* INDICATES PRE ENGINEERED TRUSS WITH ADDITIONAL LOADING, SEE DETAIL E/S302C.

WOOD LINTEL SCHEDULE		
MARK	SIZE	COMMENTS
WL-1	(3) 2x6	PROVIDE (2) KING STUDS + (1) JACK STUD EACH END
WL-2	(3) 2x8	PROVIDE (2) KING STUDS + (1) JACK STUD EACH END
WL-3	(3) 2x10	PROVIDE (2) KING STUDS + (1) JACK STUD EACH END

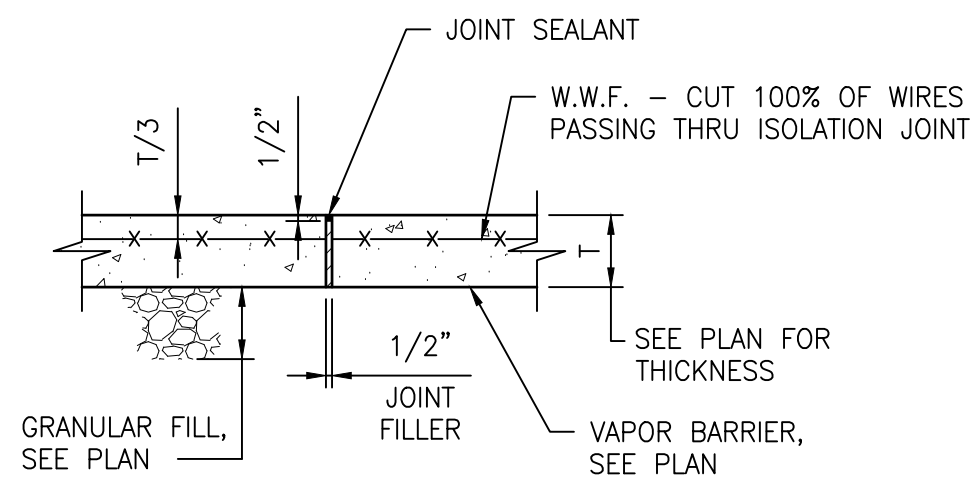
NO.	DESCRIPTION	BY	DATE
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ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS

DATE: 4-28-2021

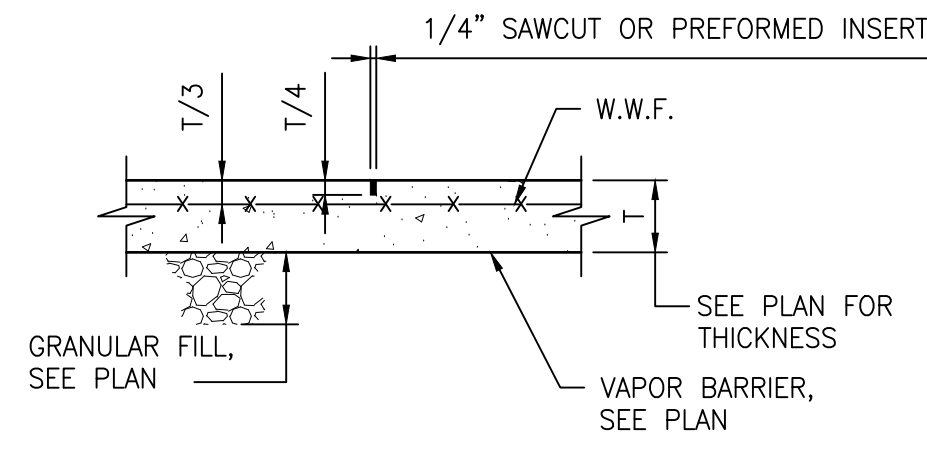
APPROVED _____ DATE _____	APPROVED _____ DATE _____	SCALE: AS NOTED	FORT SMALLWOOD PARK 9500 FORT SMALLWOOD ROAD PASADENA, MD 21122
CHIEF ENGINEER _____	PROJECT MANAGER _____	DRAWN BY: JG	
APPROVED _____ DATE _____	APPROVED _____ DATE _____	CHECKED BY: JB	COMFORT STATION FOUNDATION & ROOF FRAMING PLAN
ASSISTANT CHIEF ENGINEER _____	CHIEF, RIGHT OF WAY _____	SHEET NO. OF _____ PROJECT NO. P535900 PROPOSAL NO. P535907	

S102C



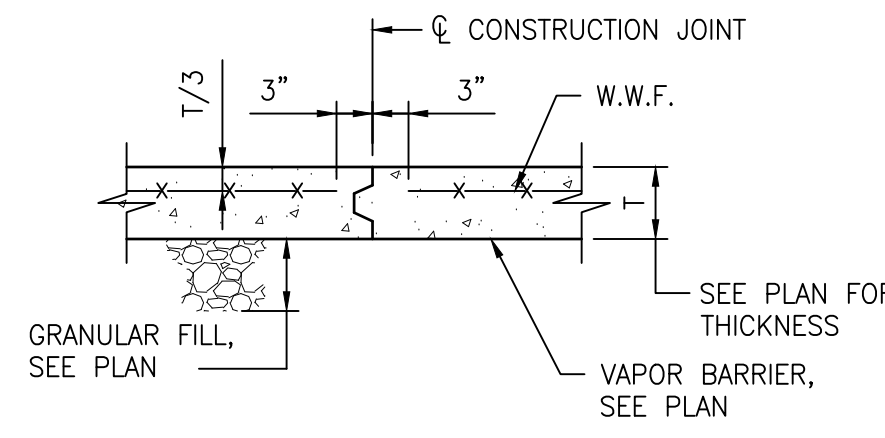
ISOLATION JOINT A
SCALE: 3/4" = 1'-0" S3010

NOTE:
1. ISOLATION JOINT SHALL CARRY THROUGH FULL DEPTH OF BASE SLAB AND TOPPING SLAB (IF REQUIRED).



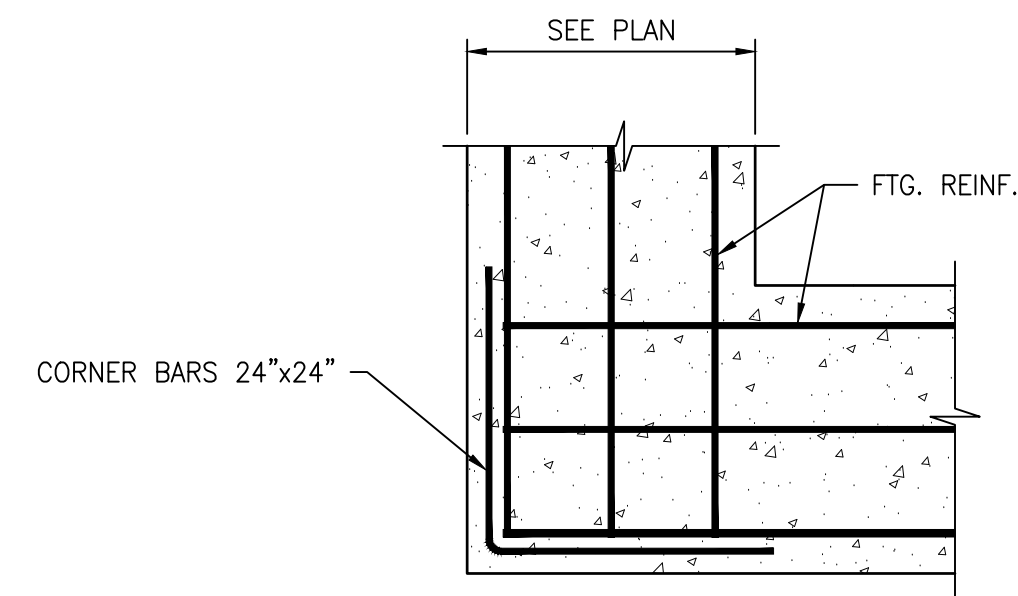
CONTROL JOINT B
SCALE: 3/4" = 1'-0" S3010

NOTES:
1. CUT ALTERNATE WIRES CROSSING JOINT.
2. SAW-CUT CONTROL JOINTS ARE LOCATED ON PLAN.
3. SAW-CUTTING SHALL BE STARTED AS SOON AS THE CONCRETE HAS HARDENED SUFFICIENTLY TO PREVENT AGGREGATE BEING DISLODGED BY THE SAW AND WHEN THE EDGES OF THE CUT DO NOT RAVEL.



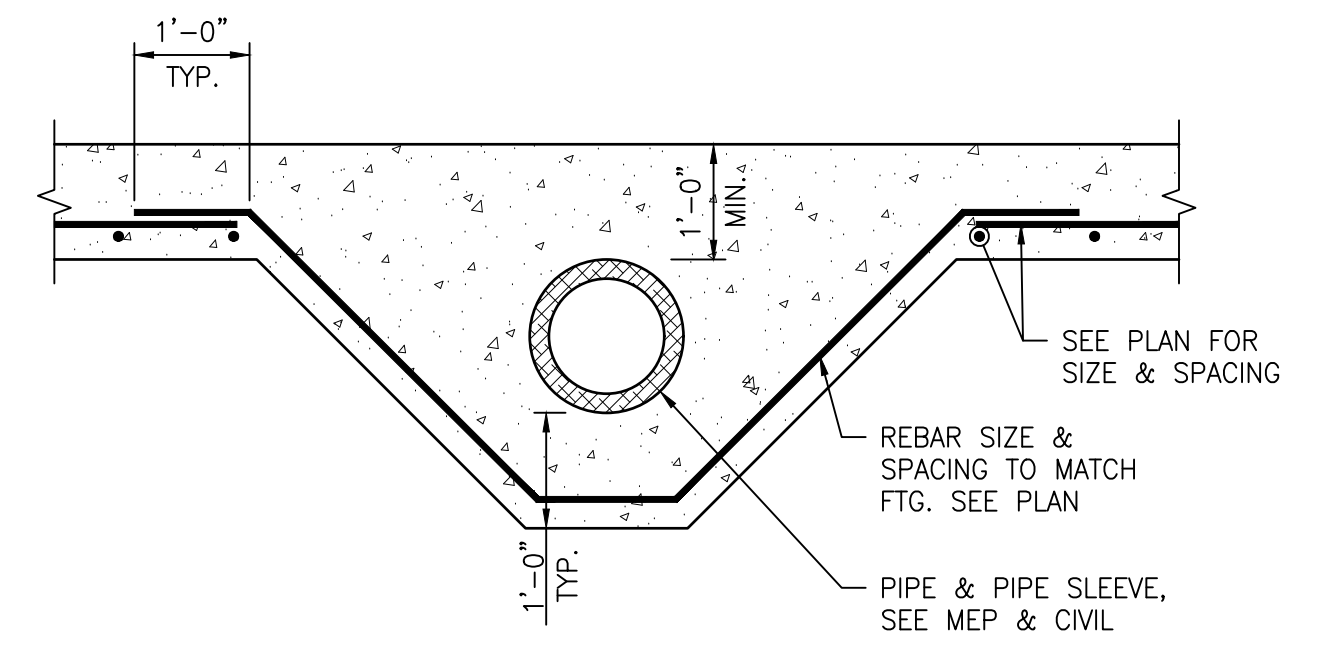
CONSTRUCTION JOINT C
SCALE: 3/4" = 1'-0" S3010

NOTE:
1. CONSTRUCTION JOINT AS NEEDED TO BE LOCATED IN LIEU OF CONTROL JOINTS AS INDICATED ON PLAN.

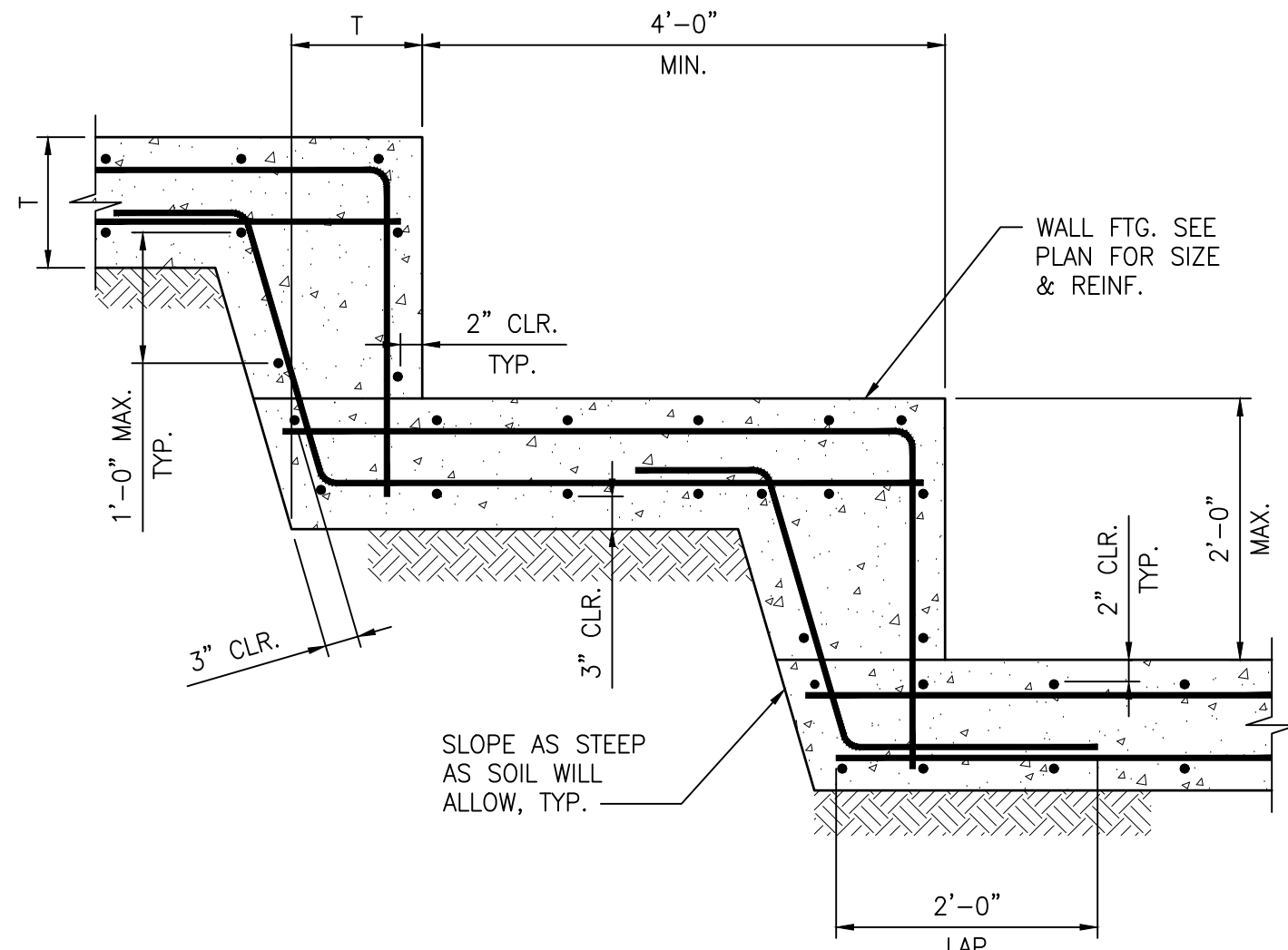


WALL FOOTING CORNER PLAN D
SCALE: 3/4" = 1'-0" S3010

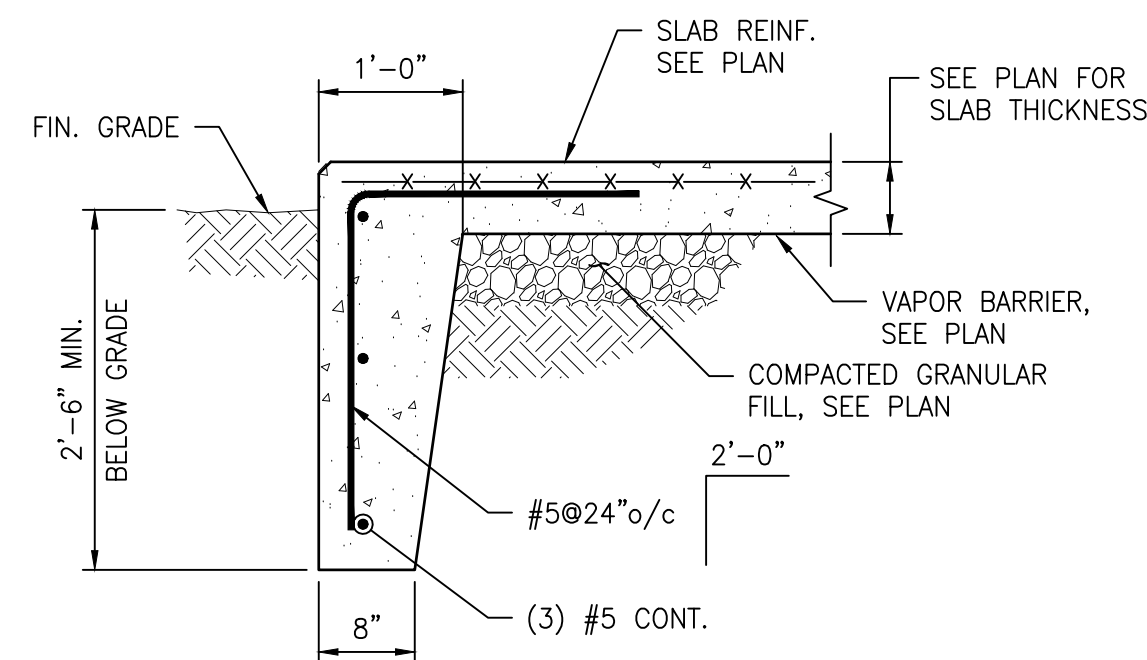
NOTE:
1. PROVIDE 24"x24" CORNER BARS AS SHOWN ABOVE OR BEND EACH INTERSECTING OUTSIDE BAR FOR A DISTANCE OF 20" AROUND CORNERS FOR EACH LAYER OF FOOTING REINFORCING. BAR TO BE SAME SIZE AS FOOTING REINFORCING. COLD BENDING IN THE FIELD IS ALLOWABLE.



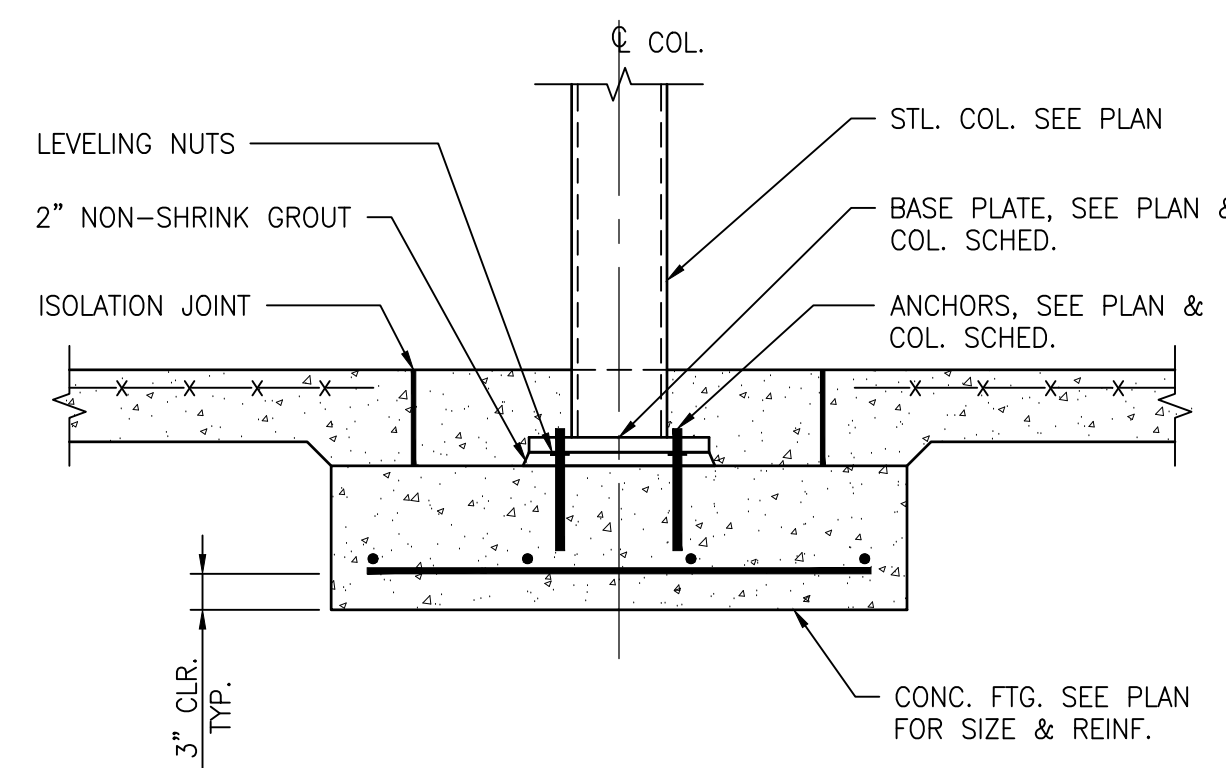
PIPE THROUGH FOOTING E
SCALE: 3/4" = 1'-0" S3010



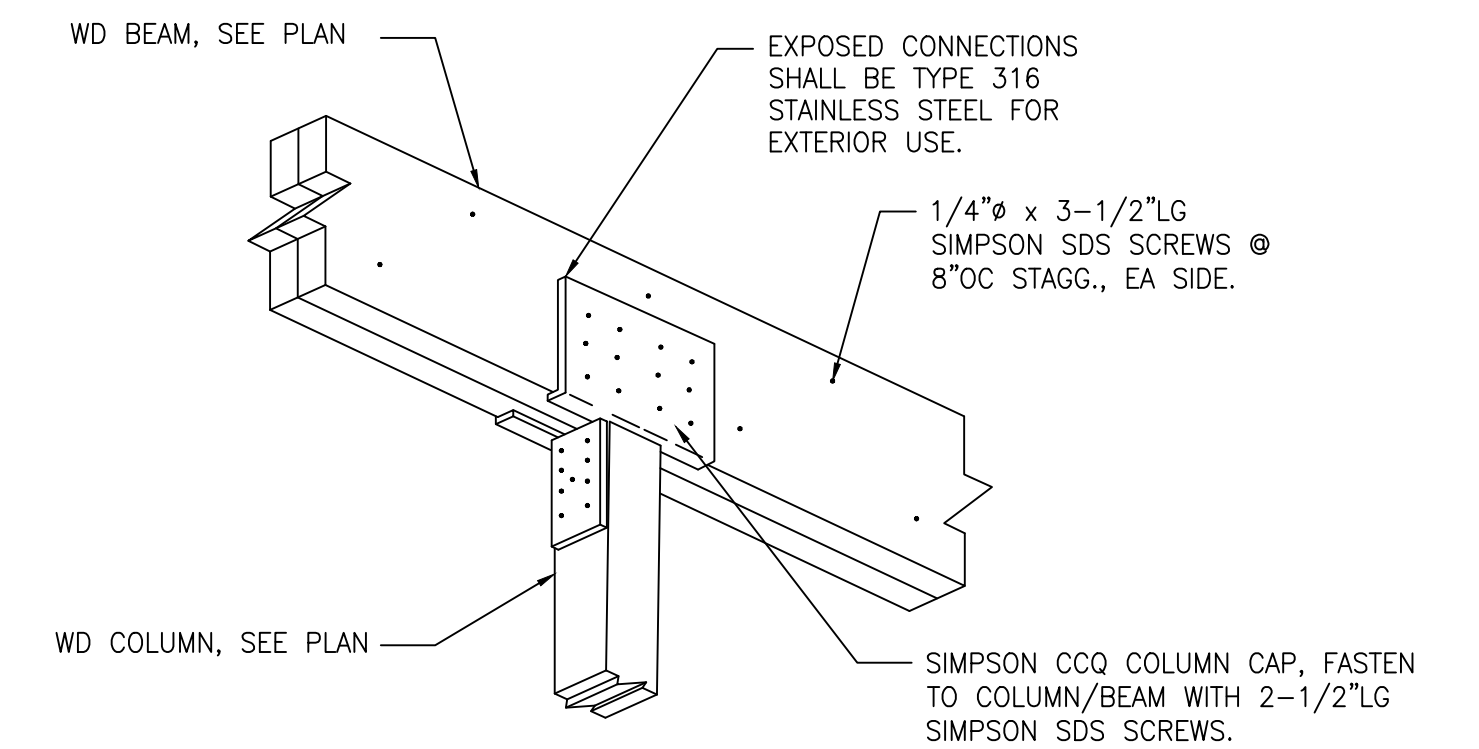
STEPPED WALL FOOTING F
SCALE: 3/4" = 1'-0" S3010



TURN-DOWN SLAB G
SCALE: 3/4" = 1'-0" S3010

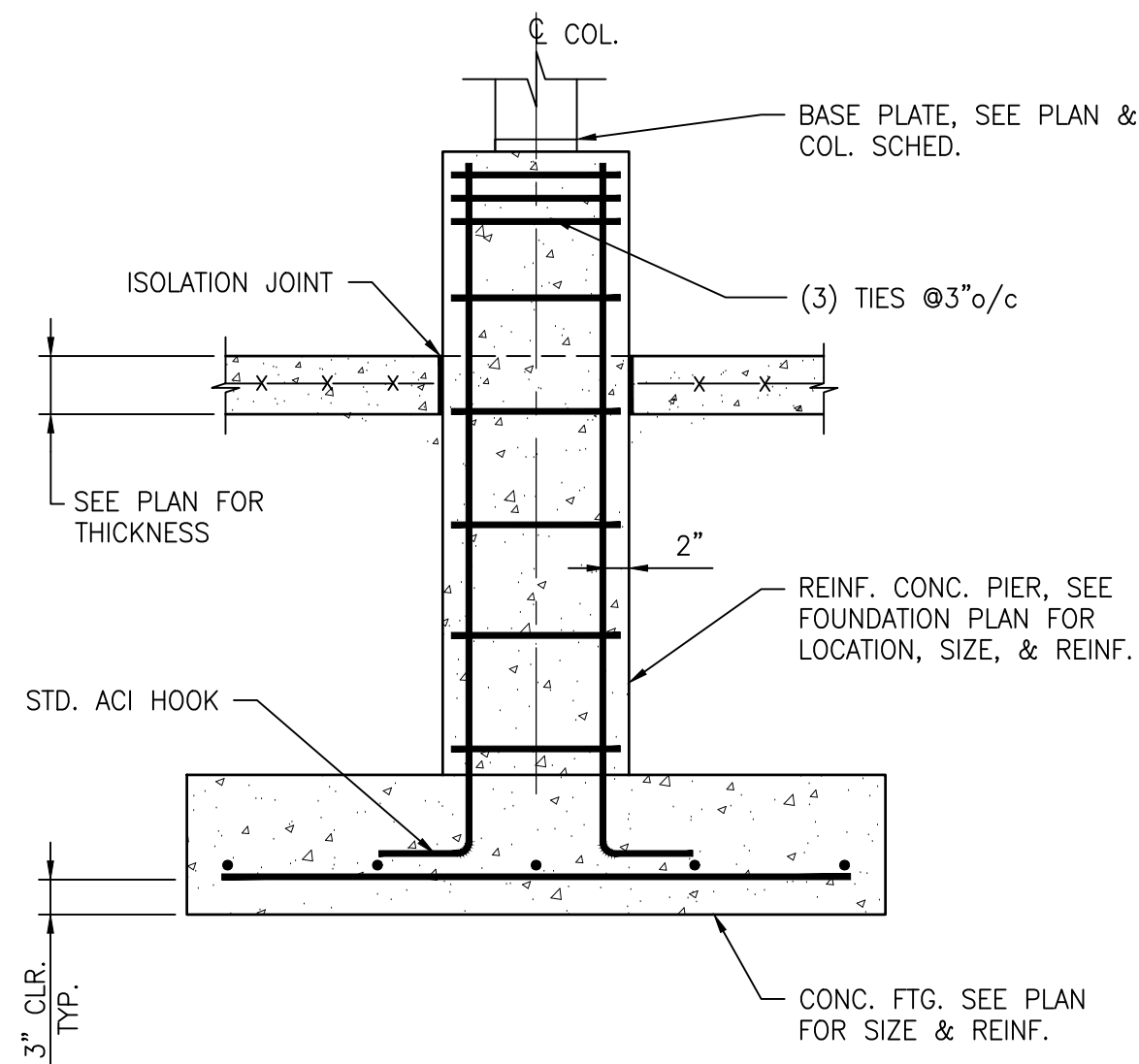


INTERIOR COLUMN FOOTING H
SCALE: 3/4" = 1'-0" S3010

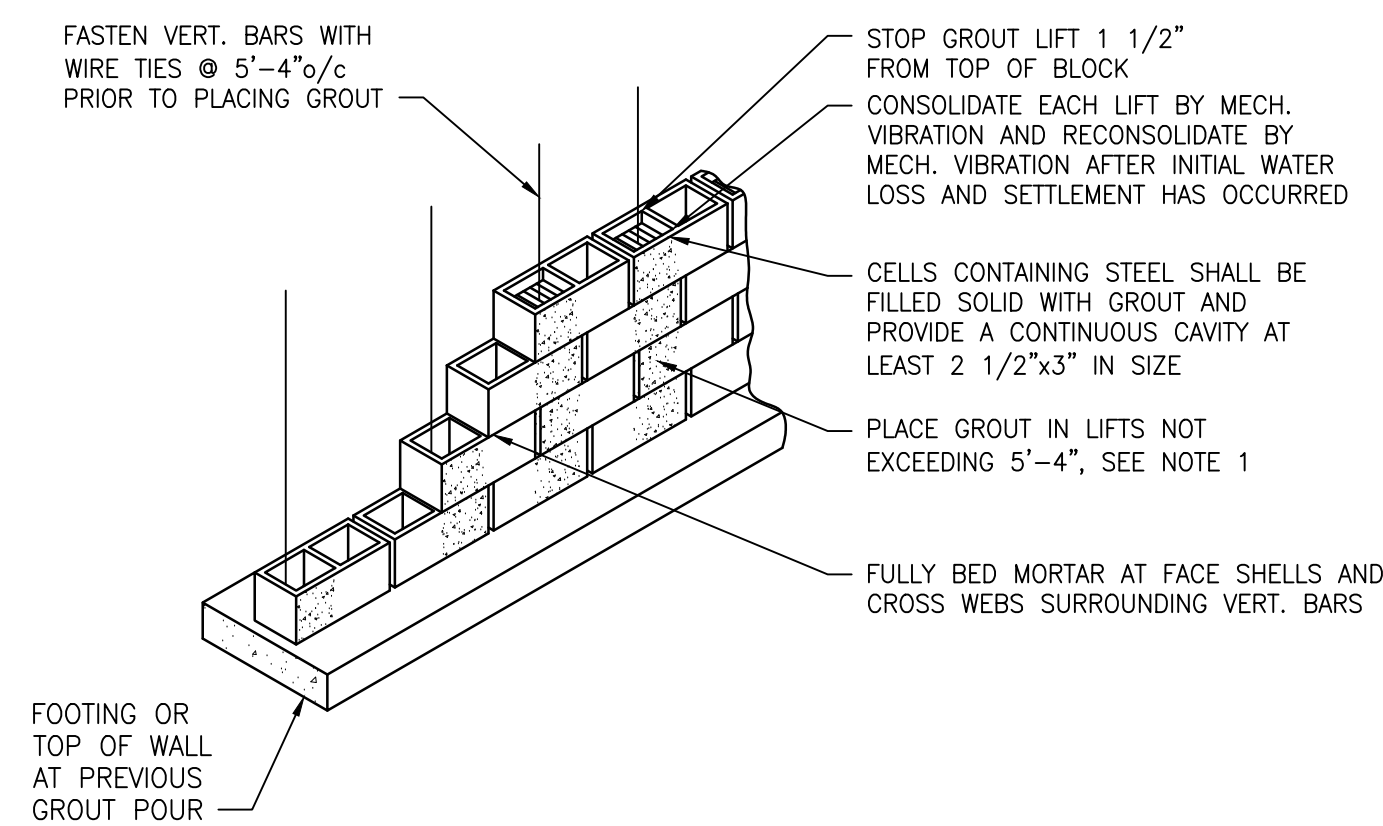


TYPICAL WOOD BEAM TO COLUMN K
SCALE: 3/4" = 1'-0" S3020

NOTE: EXPOSED CONNECTORS AND FASTENERS TO BE STAINLESS STEEL

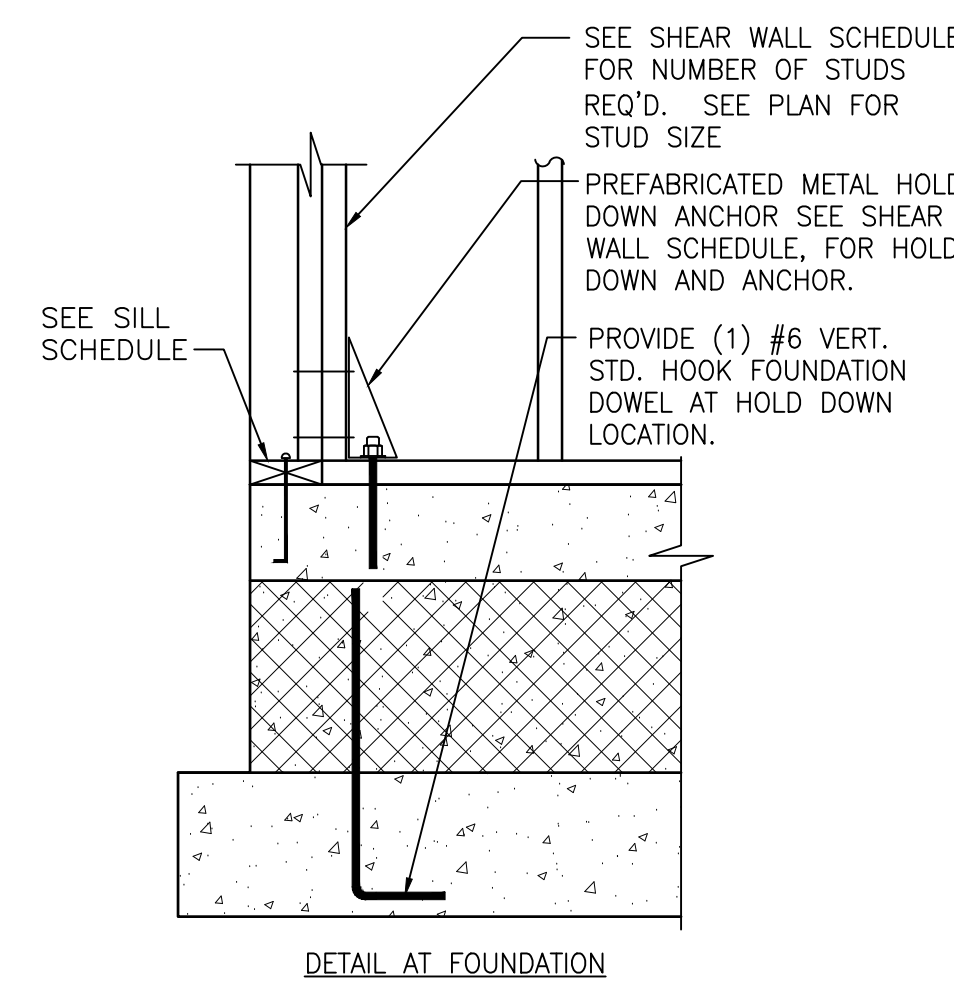


COLUMN FOOTING WITH PIER L
SCALE: 3/4" = 1'-0" S3010



TYPICAL REINFORCED MASONRY CONSTRUCTION VERTICAL REINFORCING ONLY M
SCALE: 3/4" = 1'-0" S3010

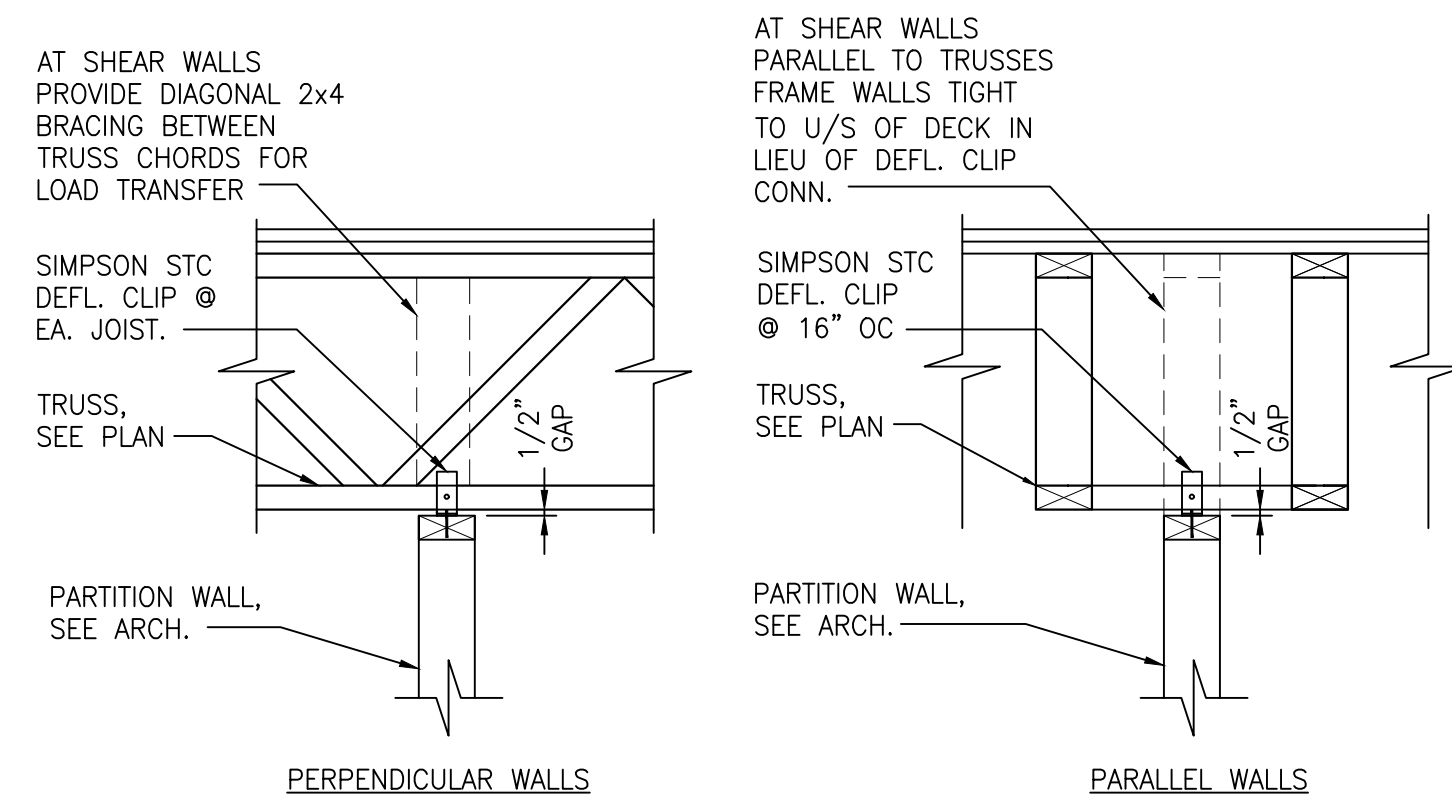
NOTE:
1. FOR POURS GREATER THAN 5'-4" SUBMIT FOR APPROVAL PROCEDURES FOR GROUT POURING PER THE REQUIREMENTS OF TMS 602 LATEST EDITION.



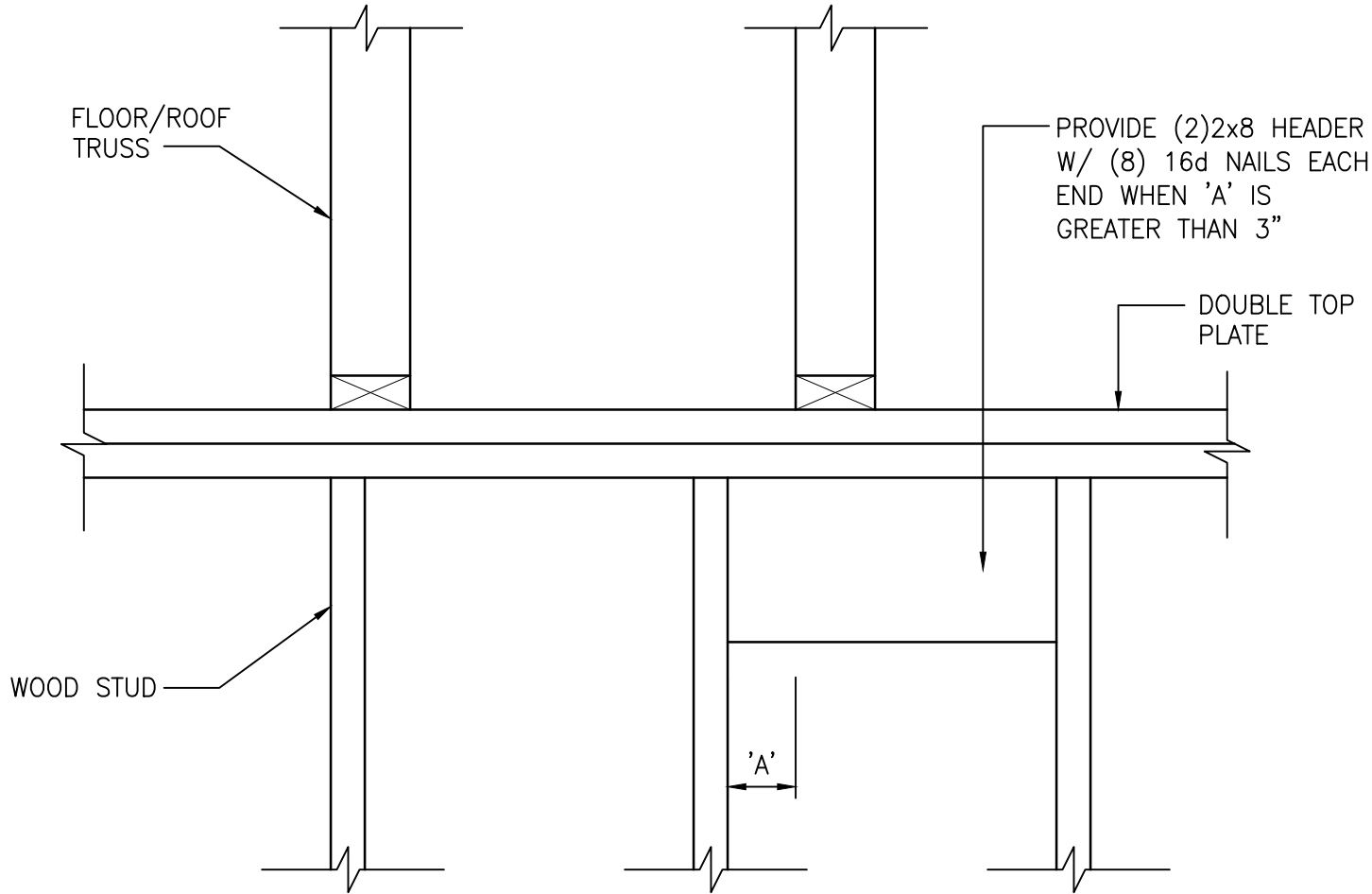
TYPICAL WOOD SHEARWALL (SW) DETAILS J
SCALE: 3/4" = 1'-0" S3010

NO.	DESCRIPTION	BY	DATE
△			

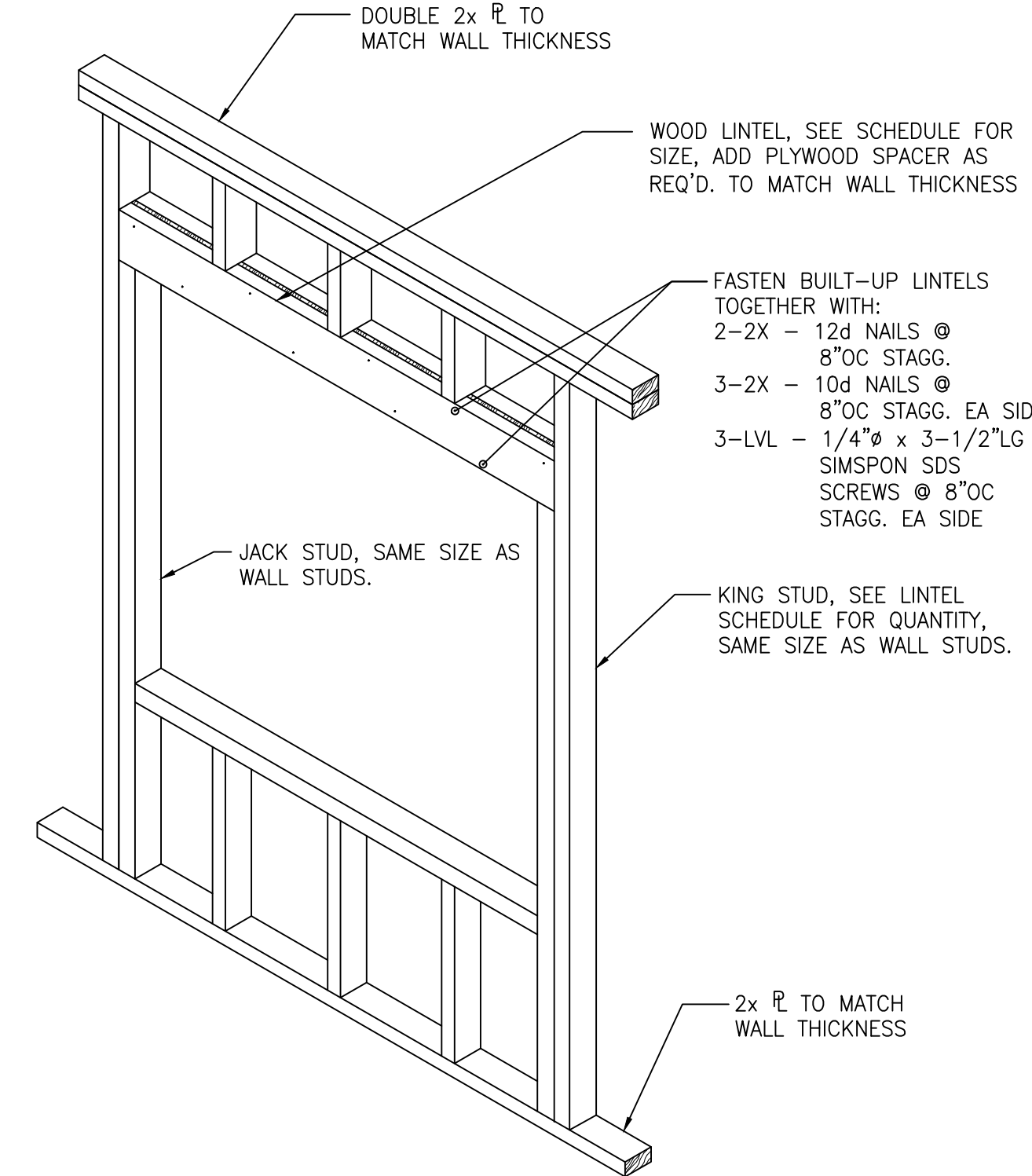
APPROVED	DATE	APPROVED	DATE
CHIEF ENGINEER		PROJECT MANAGER	
APPROVED		APPROVED	
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY	



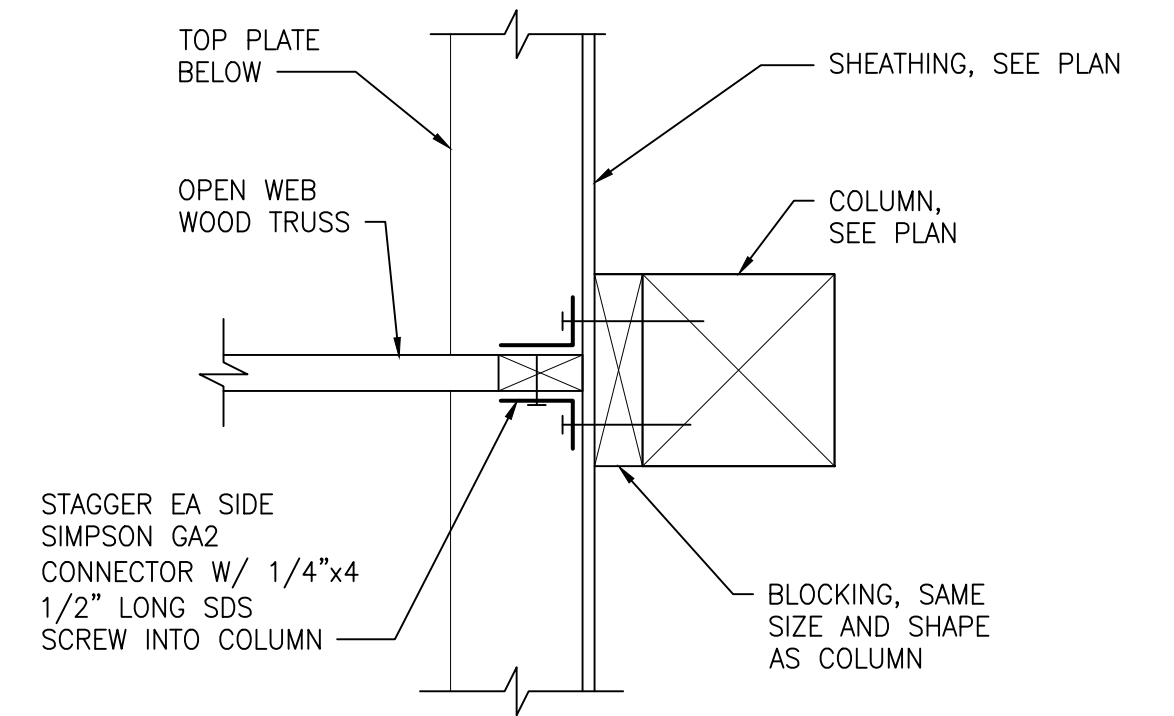
TYPICAL INTERIOR NON-LOAD BEARING WALL CONNECTION
N.T.S. S302C



TYPICAL FRAMING
N.T.S. S302C

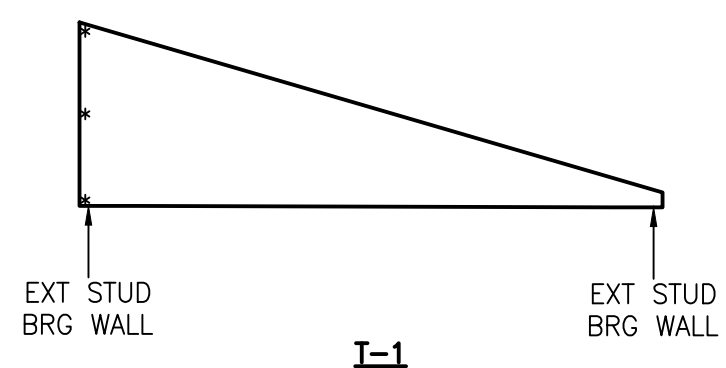


TYPICAL WOOD LINTEL DETAIL
3/4\"/>



TYPICAL COLUMN BRACE @ WALL
SCALE: 3/4\"/>

NOTE: BRACE COLUMN AT TOP, MIDDLE AND BOTTOM OF PRE ENGINEERED TRUSS.



* INDICATES ADDITIONAL 500 LB HORIZONTAL WIND LOAD @ BRACES INDICATED IN DETAIL X/S302C. APPLIES ONLY TO THOSE TRUSSES MARKED T-1* ON PLAN THAT ARE AT COLUMNS.

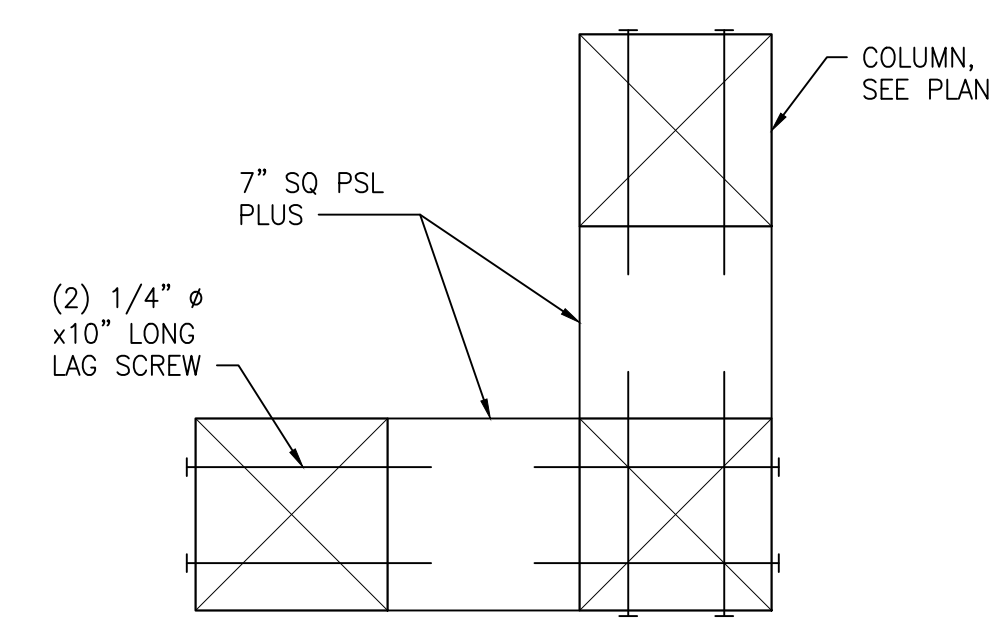
ROOF TRUSS LOADING DIAGRAMS
SCALE: NOT TO SCALE S302C

TRUSS LOADING

1. CHORD LIVE = 30 PSF
2. TOP CHORD DEAD = 12 PSF
3. BOTTOM CHORD DEAD = 8 PSF
4. WIND
DESIGN TRUSSES FOR ALL ASCE 7 WIND LOADS
5. SEE PLAN FOR ADDITIONAL MECHANICAL UNIT LOADING
6. L/360 LIVE LOAD DEFLECTION
L/240 TOTAL LOAD DEFLECTION

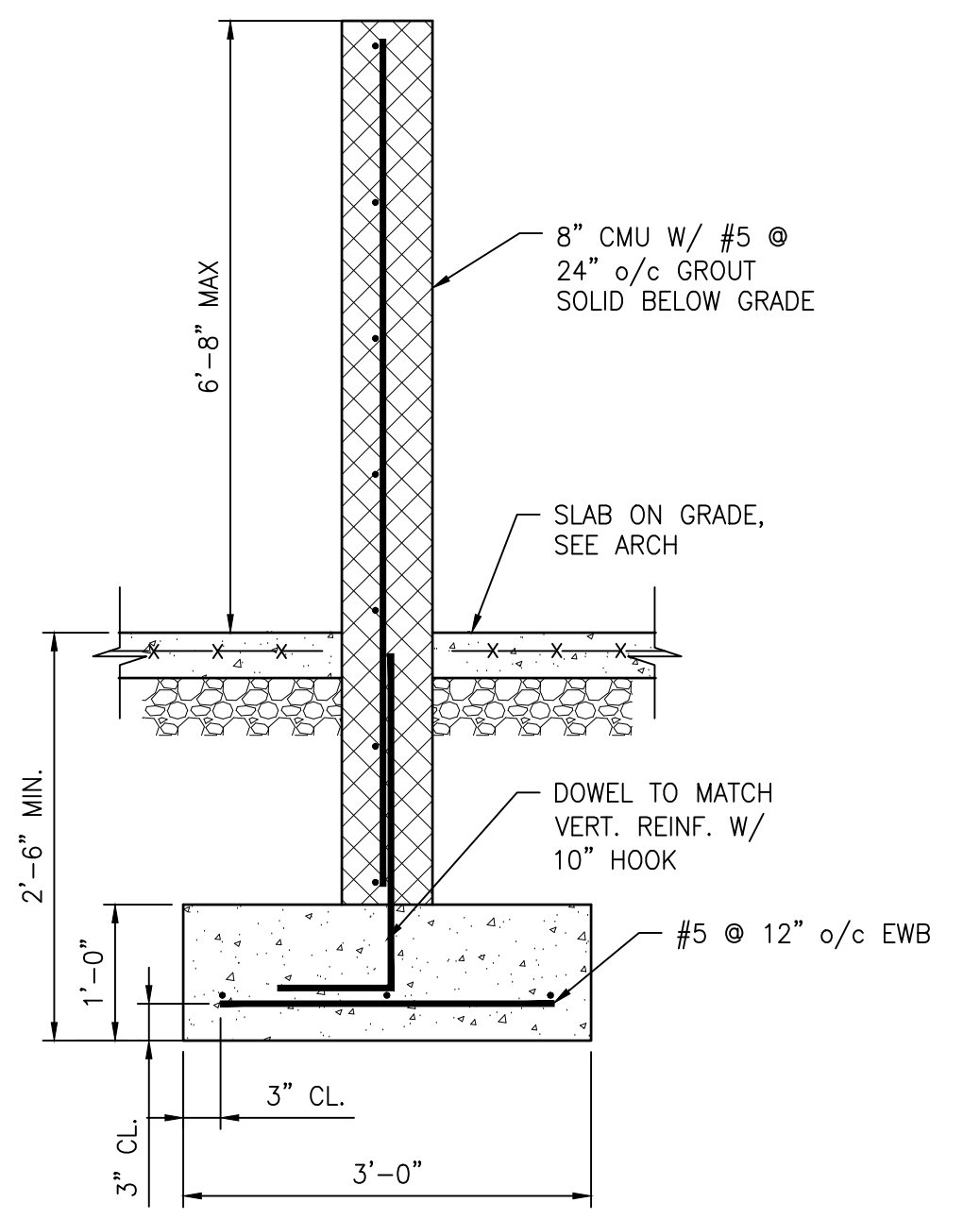
NOTES:

1. SEE GENERAL NOTES FOR ADDITIONAL WOOD TRUSS REQUIREMENTS. PRE-ENGINEERED WOOD TRUSSES SHALL BE DESIGNED FOR LOADS AND DIMENSIONS SPECIFIED ON THE DRAWINGS. ALL LOAD COMBINATIONS SHALL BE CONSIDERED BY THE TRUSS MANUFACTURER IN THE DESIGN OF THE TRUSSES.
2. THE TRUSS CONFIGURATIONS SHOWN ON THE DRAWINGS ARE SCHEMATIC IN NATURE. THEY ARE INTENDED TO SHOW SHAPES, DIMENSIONS AND LOADS. THE ACTUAL DESIGN OF THE TRUSS INCLUDING THE WEB CONFIGURATIONS AND LATERAL BRACING IS BY THE TRUSS MANUFACTURER.
4. SHOP DRAWINGS AND CALCULATIONS FOR ALL TRUSSES SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER FOR APPROVAL BEFORE FABRICATION BEGINS.
5. TRUSS MANUFACTURER TO COORDINATE FINAL ROOF DEAD LOADS WITH BUILDER PRIOR TO TRUSS FABRICATION.



TYPICAL COLUMN BRACE
SCALE: 3/4\"/>

NOTE: BRACE COLUMN AT MIDPOINT.



TYPICAL DUMPSTER ENCLOSURE
SCALE: 3/4\"/>

WOOD SHEAR WALL SCHEDULE	
MARK	EXTERIOR WALLS
ANCHOR AND POST AT EACH END OF SHEAR WALL	STUD POST HD5B HOLDDOWN w/ 5/8"Ø HILTI HAS ROD IN HIT-HY 200 EPOXY W/ 6 1/2" MIN EMBED.
WALL CONSTRUCTION	1/2" APA RATED PLYWOOD SHEATHING, EXTERIOR I, STRUCTURAL I GRADE. ATTACH TO STUDS W/ 8d NAILS @ 6" OC AT PANEL EDGES AND 12" OC AT INTERIOR REGIONS.

- NOTES:
1. HOLD DOWNS AND FLOOR STRAPS ARE REQUIRED AT EACH END OF ALL SHADED WALLS ON PLAN.
 2. ALL HOLDDOWN ANCHORS TO BE BY SIMPSON OR APPROVED EQUIVALENT.
 3. SEE ARCHITECTURAL DRAWINGS FOR NON-STRUCTURAL ACOUSTIC SHEET REQUIREMENTS AND ATTACHMENT. ALL SHEAR WALL SHEATHING TO BE NAILED TO THE STUDS PER THE SCHEDULE.
 4. NO PLUMBING RISERS IN SHEAR WALLS.
 5. PROVIDE 2 STUDS EACH END OF SHEAR WALL, U.N.O. IN HOLD DOWN SCHEDULE.
 6. PROVIDE SOLID CONTINUOUS BLOCKING AT ALL BLOCKED PANEL EDGES.

SILL PLATE ATTACHMENT SCHEDULE	
LOCATION	SILL PLATE
AT ALL SHEAR WALLS	1/2" DIAM. TITEN HD ANCHORS @ 1'-0" o/c (3" MIN. EMBEDMENT)
AT ALL OTHER LOAD BEARING WALLS AND EXTERIOR WALLS	1/2" DIAM. TITEN HD ANCHORS @ 4'-0" o/c (3" MIN. EMBEDMENT) OR SIMPSON MASB @ 4'-0" o/c
AT ALL NON LOAD BEARING WALLS	SIMPSON MASB ANCHORS @ 6'-0" o/c

1. BEGIN SPACING WITH FASTENER 6" FROM THE END OF THE PLATE.
2. ALL SILL PLATES TO BE PRESSURE TREATED (P.T.), CONTRACTOR TO ENSURE THAT P.T. WOOD HAS BEEN PROPERLY AIR-SEASONED OR KILN-DRIED.

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PROFESSIONAL CERTIFICATION
I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NUMBER 20209, EXPIRATION DATE 06/16/2021.*

(C) GANT BRUNNETT ARCHITECTS
ALL REPRODUCTION IS PROHIBITED

NO.	DESCRIPTION	BY	DATE
△			

ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS

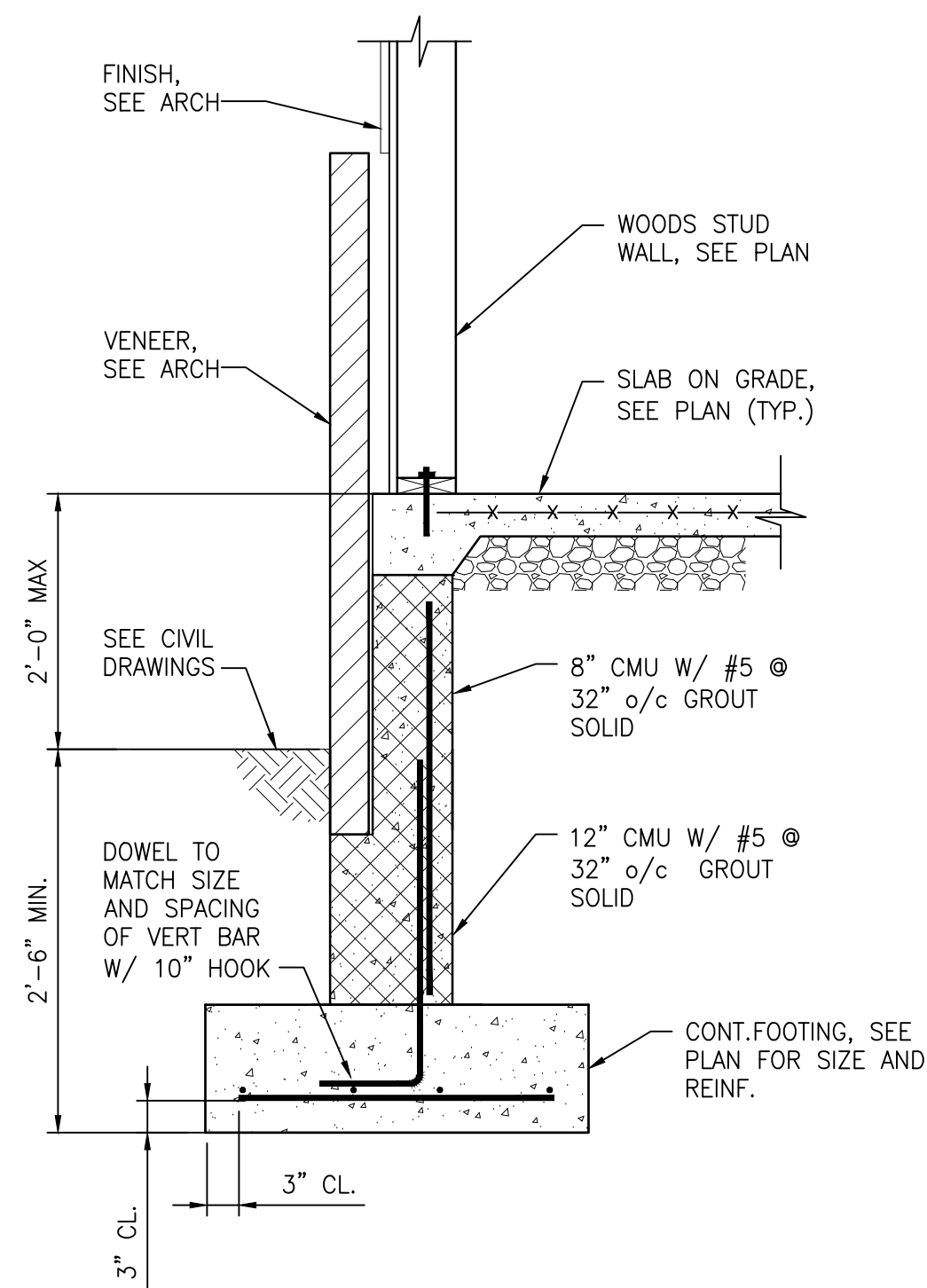
DATE: 4-28-2021

APPROVED	DATE	APPROVED	DATE	SCALE: AS NOTED
CHIEF ENGINEER		PROJECT MANAGER		DRAWN BY: JG
APPROVED	DATE	APPROVED	DATE	CHECKED BY: JB
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY		SHEET NO. OF
				PROJECT NO. P535900
				PROPOSAL NO. P535907

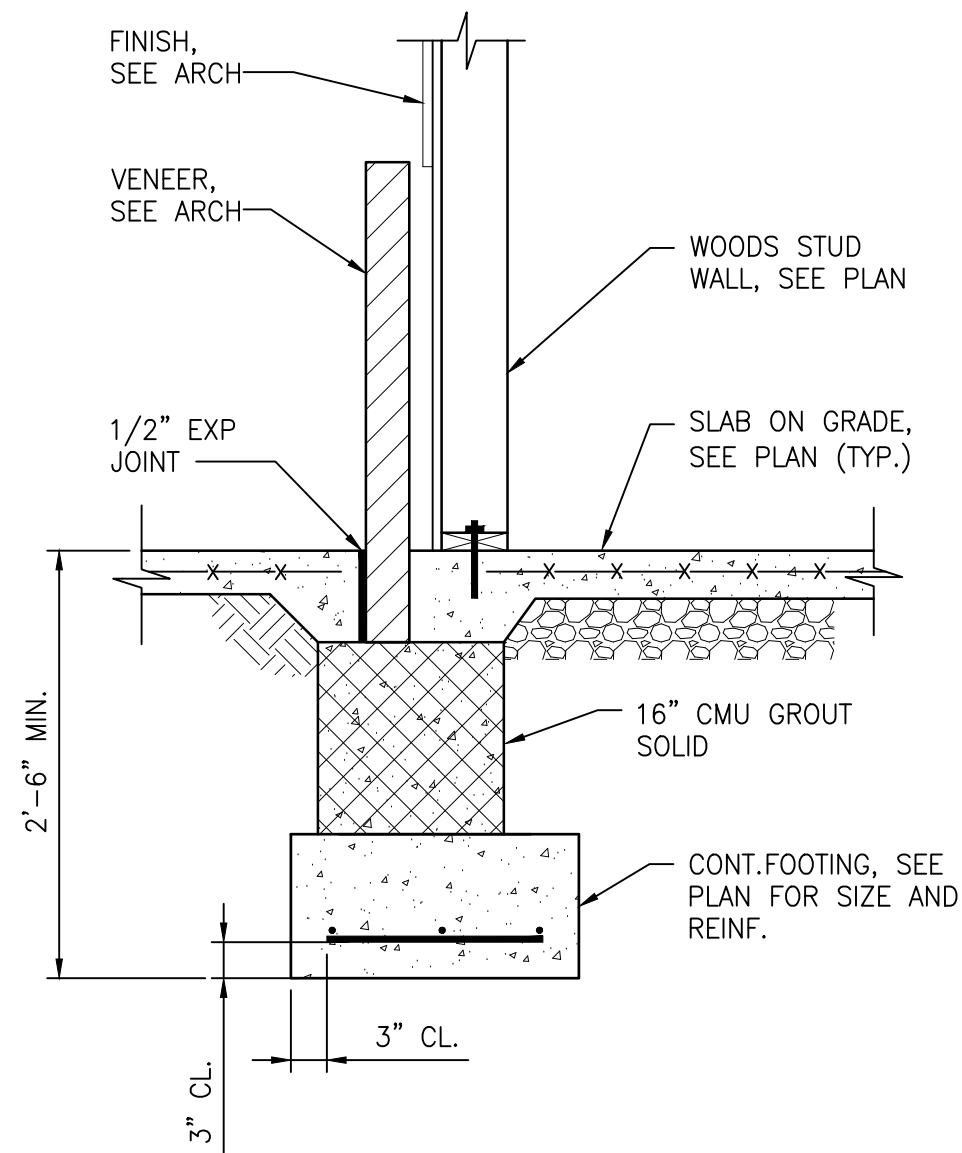
FORT SMALLWOOD PARK
9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122

COMFORT STATION TYPICAL DETAILS

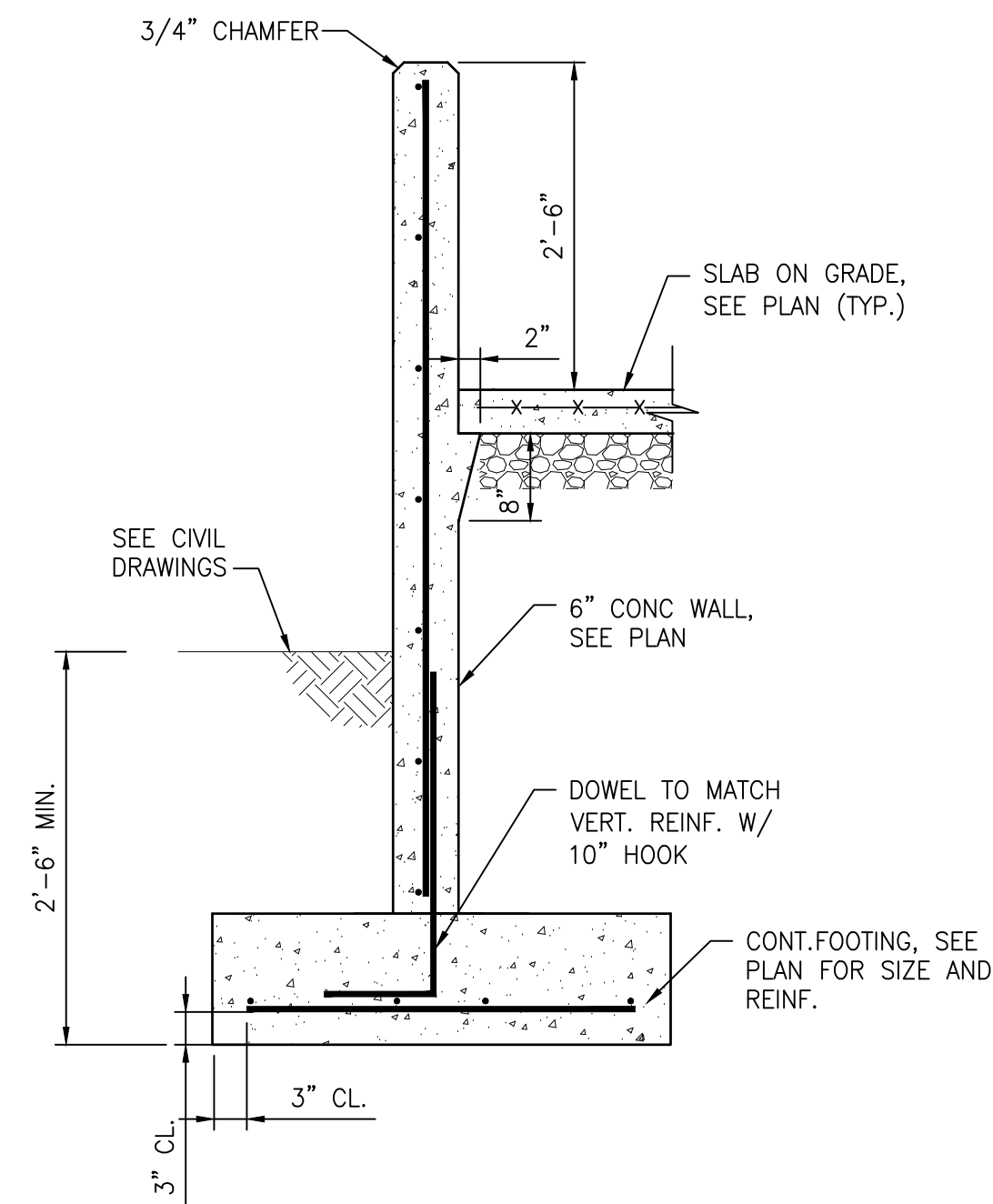
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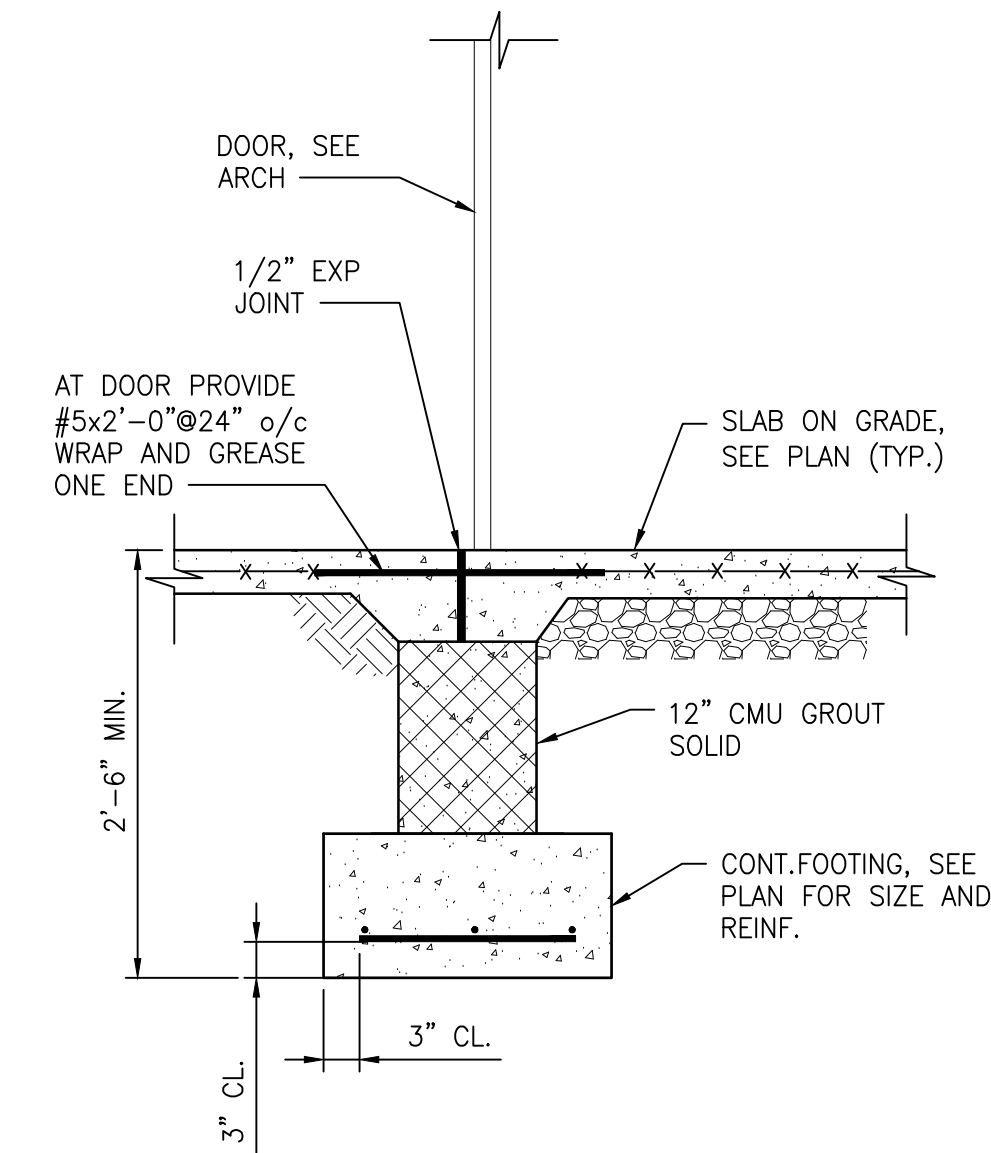
SECTION 1
3/4"=1'-0" S401C



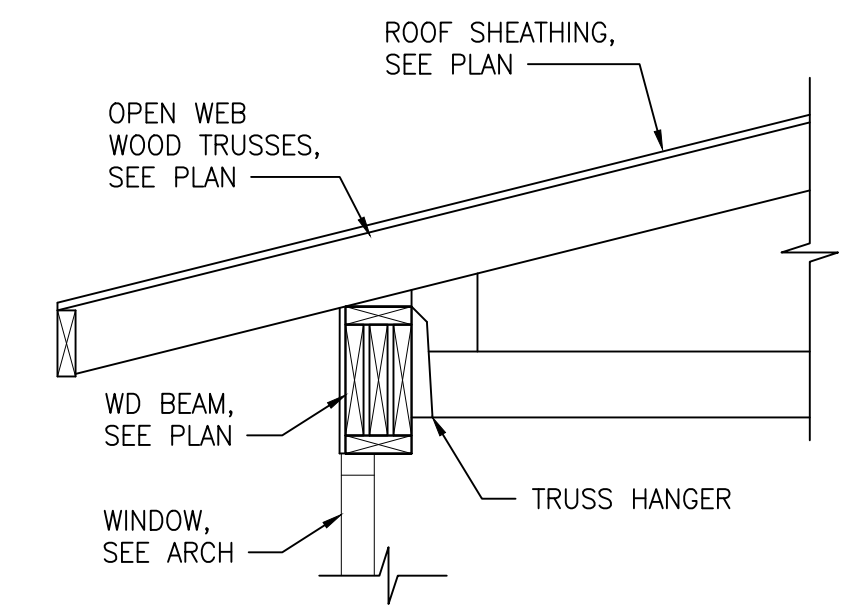
SECTION 2
3/4"=1'-0" S401C



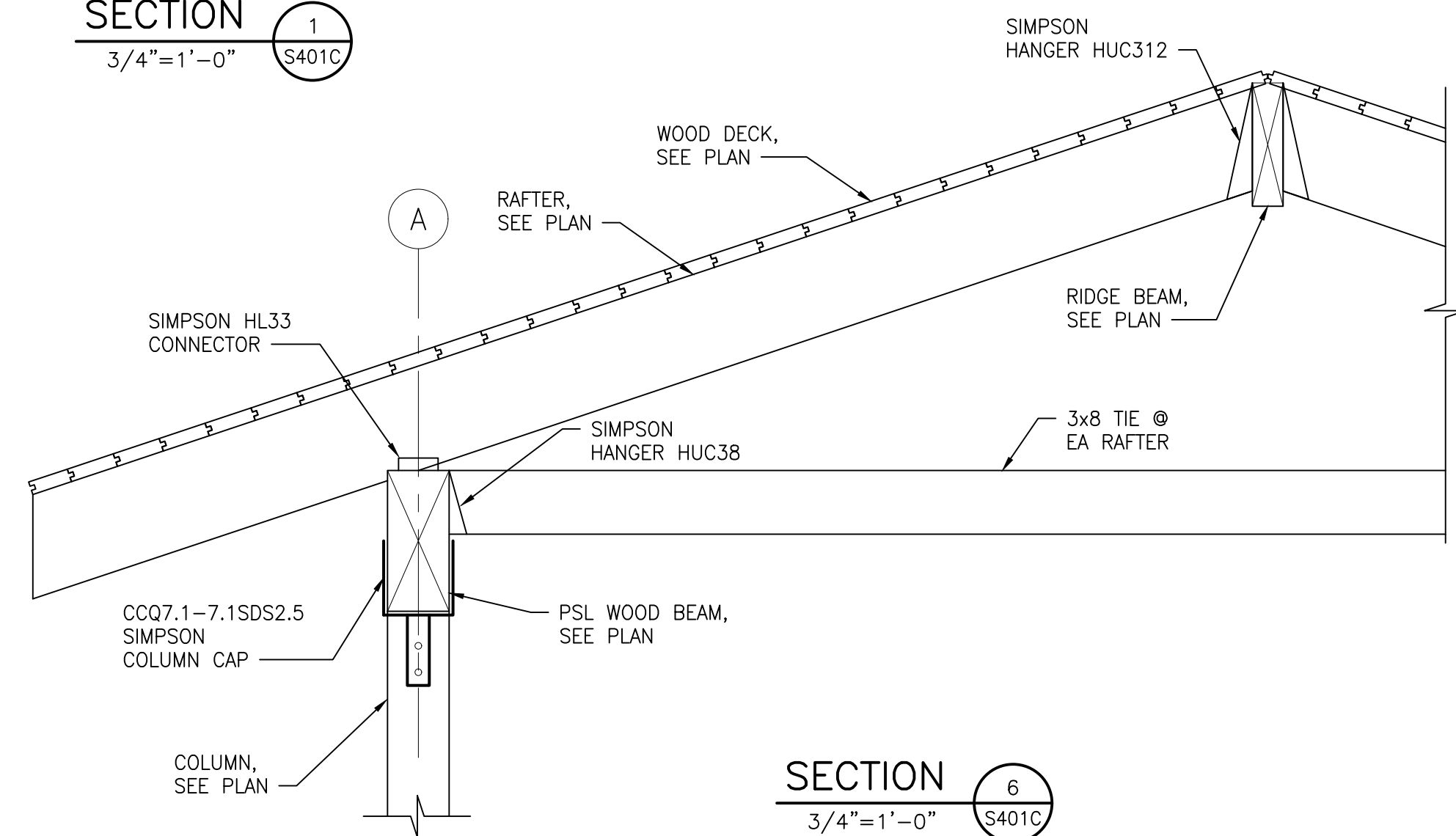
SECTION 3
3/4"=1'-0" S401C



SECTION 4
3/4"=1'-0" S401C

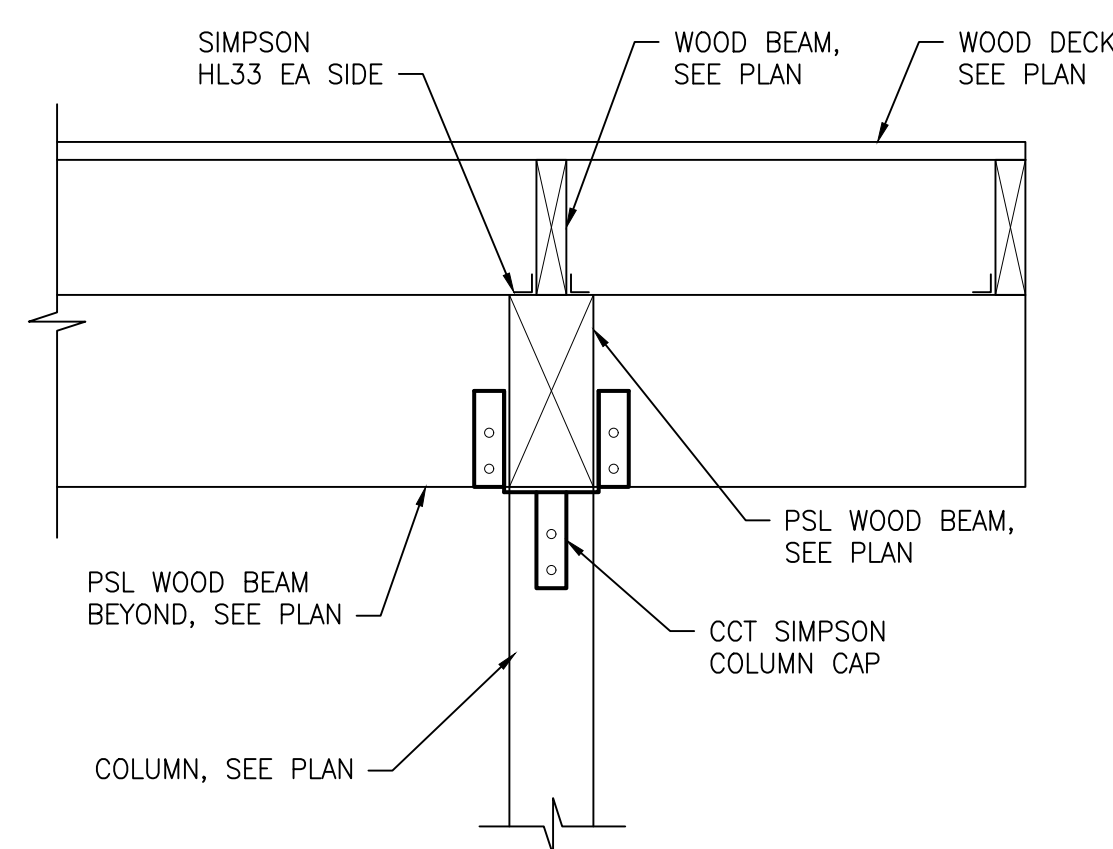


SECTION 5
3/4"=1'-0" S401C



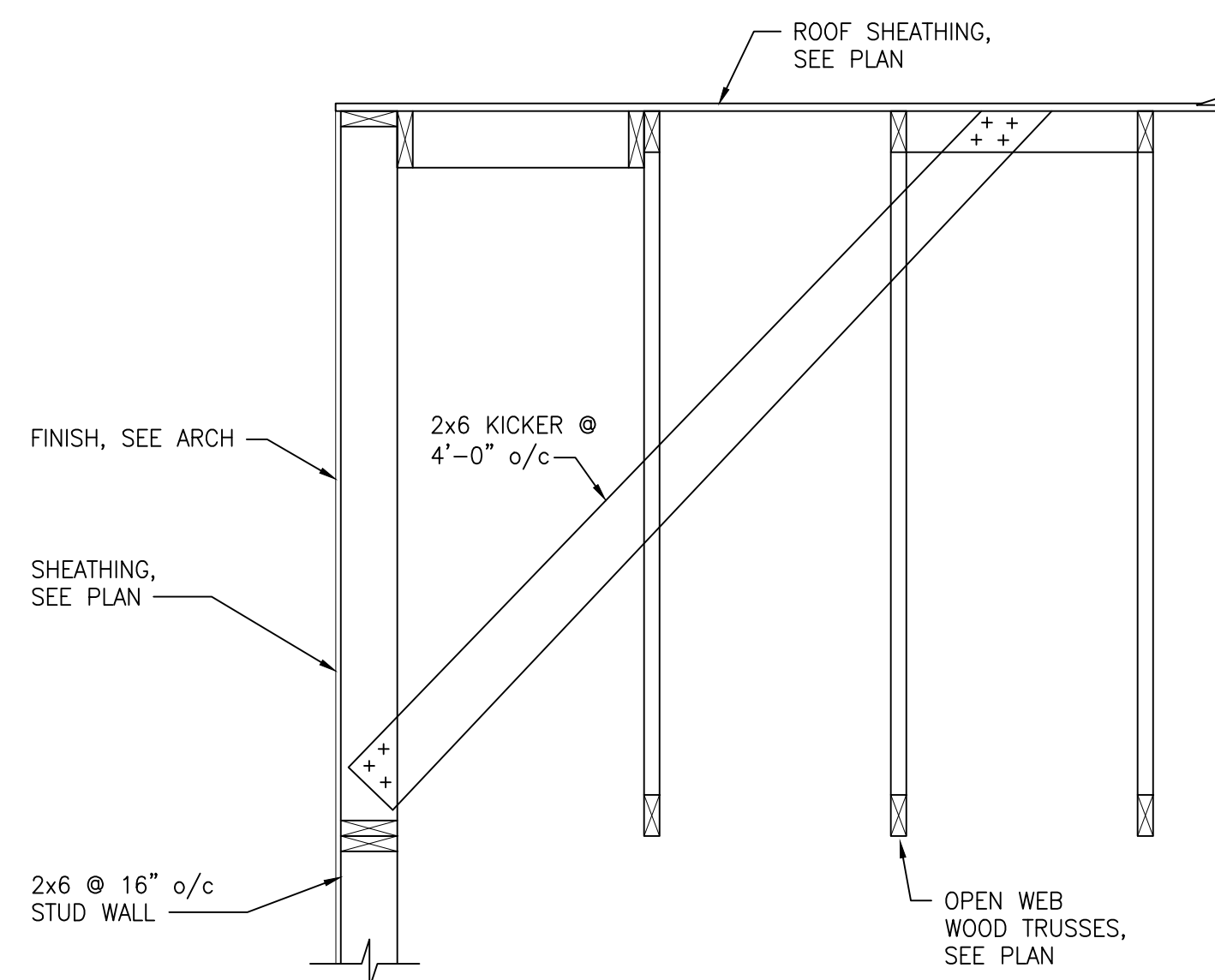
SECTION 6
3/4"=1'-0" S401C

NOTE: ALL EXTERIOR HANGERS TO BE STAINLESS STEEL.

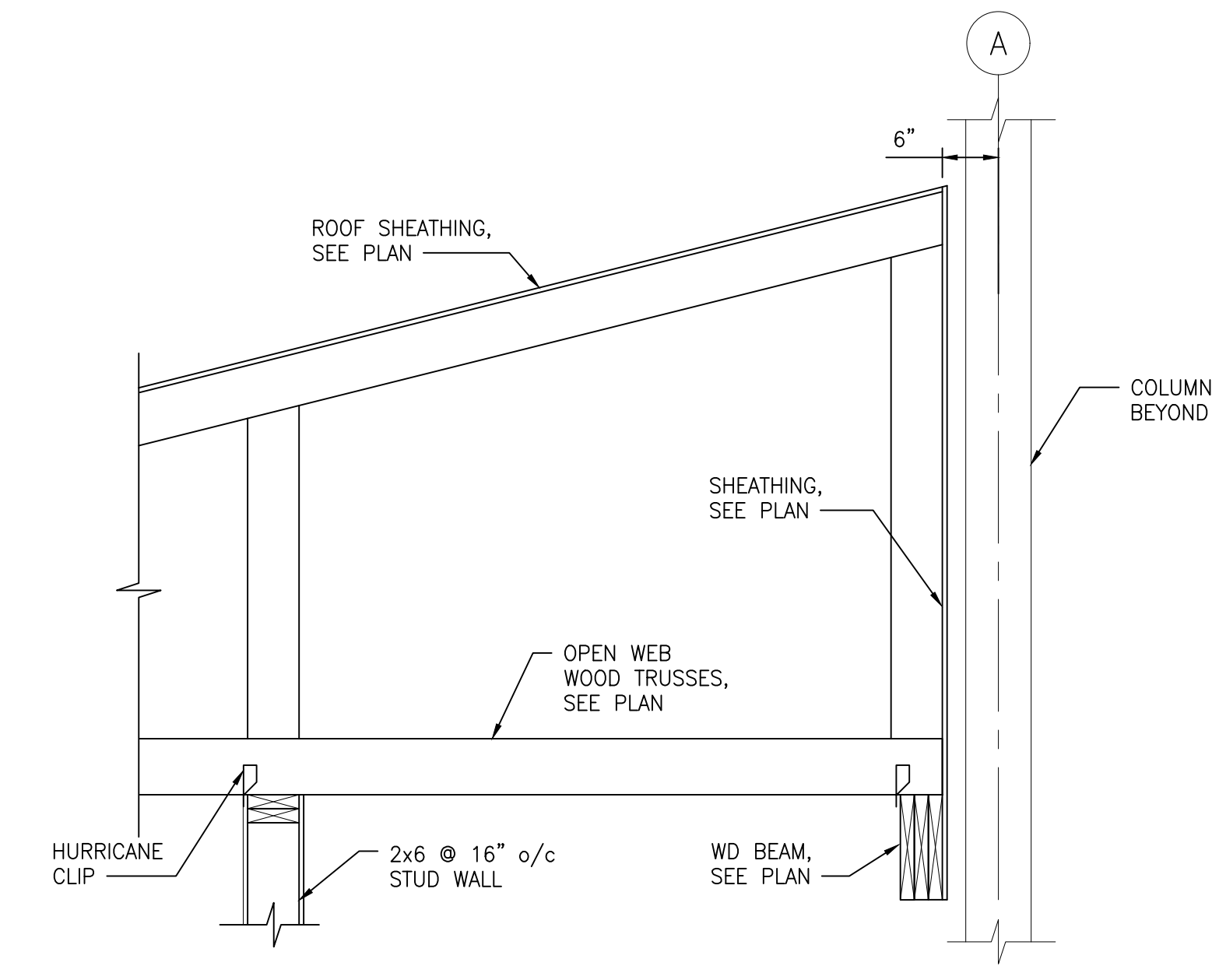


SECTION 7
3/4"=1'-0" S401C

NOTE: ALL EXTERIOR HANGERS TO BE STAINLESS STEEL.



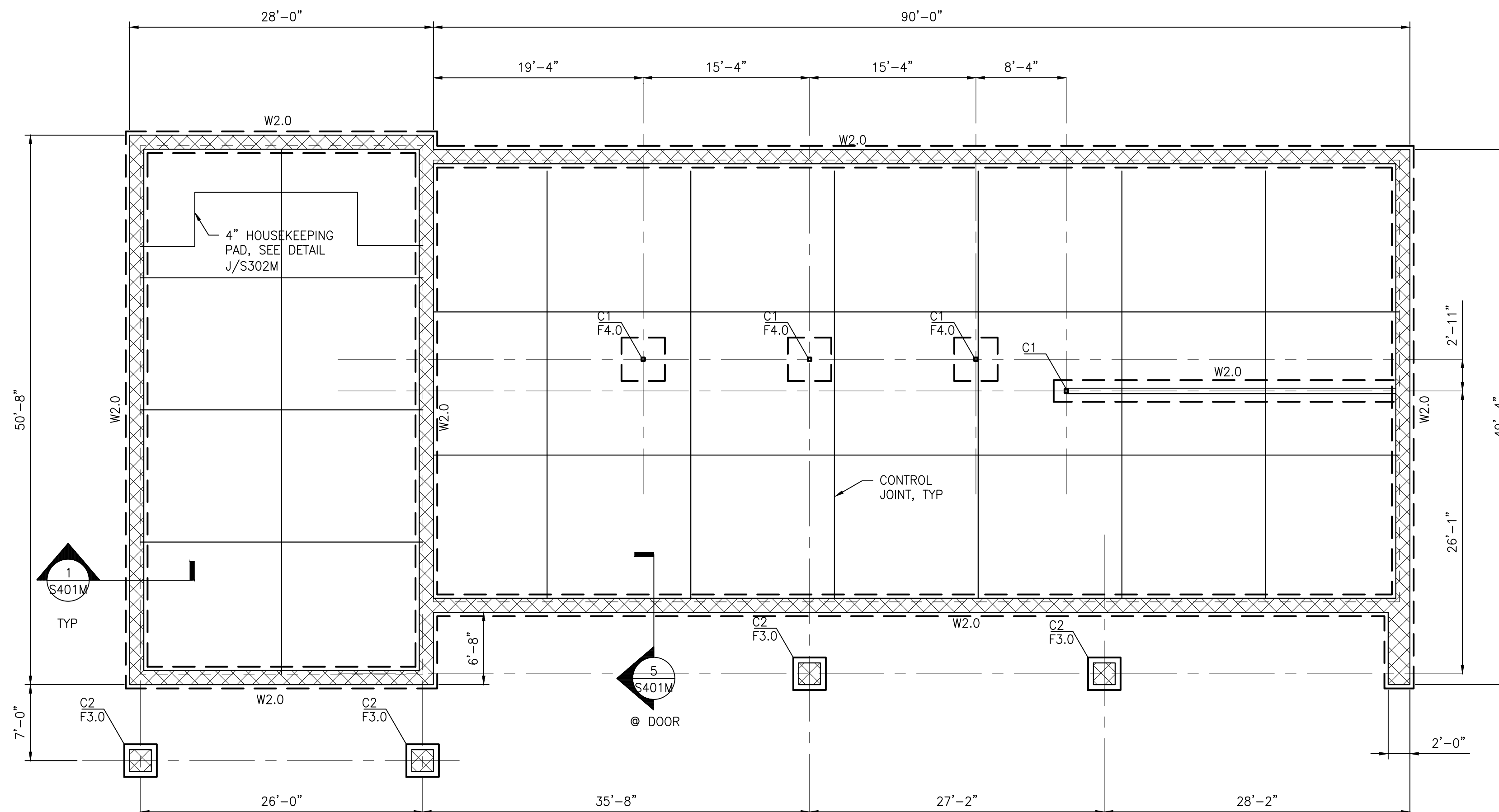
SECTION 8
3/4"=1'-0" S401C



SECTION 9
3/4"=1'-0" S401C

NO.	DESCRIPTION	BY	DATE
△			

ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS				DATE: 4-28-2021
APPROVED	DATE	APPROVED	DATE	SCALE: AS NOTED
CHIEF ENGINEER		PROJECT MANAGER		DRAWN BY: JG
APPROVED	DATE	APPROVED	DATE	CHECKED BY: JB
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY		SHEET NO. OF
				PROJECT NO. P535900
				PROPOSAL NO. P535907



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

COLUMN SCHEDULE		
MARK	COLUMN	BASEPLATE
C1	HSS4x4x5/16	3/4" x 10" x 10" w/ (4) 3/4"Ø ANCHOR BOLTS w/ 9" MIN. EMBED + 3" WASHER
C2	2'-0" SQ. CMU BLOCK W/#5 BAR EVERY CELL, GROUTED SOILD	NA

- FOUNDATION PLAN NOTES:**
- SLAB ON GRADE SHALL CONSIST OF 5" CONCRETE SLAB REINFORCED W/ 6"x6"-W2.1xW2.1 WWF OVER 15 MIL VAPOR RETARDER AND 6" MINIMUM COMPACTED STONE BASE.
 - TOP OF NEW SLAB-ON-GRADE ELEVATION = 10.7 U.N.O. AND IS THE REFERENCE DATUM (0'-0") FOR THIS PROJECT.
 - SPREAD FOOTING SIZES SHOWN THUS: FX.0, CONTINUOUS WALL FOOTINGS SHOWN THUS WX.X, SEE SCHEDULE. TYPICAL TOP OF INTERIOR FOOTINGS = -0'-8" U.N.O. TYPICAL TOP OF EXTERIOR FOOTINGS SHALL BE AT -2'-8" U.N.O.
 - WALL FOOTING SIZES SHOWN THUS: WX.0, CONTINUOUS WALL FOOTINGS SHOWN THUS WX.X, SEE SCHEDULE. TYPICAL TOP OF INTERIOR FOOTINGS = -0'-8" U.N.O. TYPICAL TOP OF EXTERIOR FOOTINGS SHALL BE AT -2'-8" U.N.O.
 - CONCRETE PIERS SHOWN THUS: PX, SEE PIER DETAILS THIS SHEET. TYPICAL TOP OF CONCRETE PIERS = -0'-8" U.N.O.
 - COLUMN SIZES SHOWN THUS: CX, SEE SCHEDULE FOR SIZE AND BASEPLATE INFORMATION.
 - CMU WALL SHALL BE 12" OMNI BLOCK W/#5 @ 48" o/c IN GROUTED CELLS FULL HEIGHT. PROVIDE 2-#5 FULL HT VERTICAL AT EA SIDE OF ALL WALL OPENINGS. GROUT WALL SOLID AT REINFORCING
 - SLAB-ON-GRADE CONTROL JOINTS SHALL BE SAWCUT AFTER CONCRETE HAS TAKEN INITIAL SET AND BEFORE CONCRETE SHRINKAGE STRESSES OCCUR.
 - THE CONTRACTOR SHALL COORDINATE THE LOCATION OF ALL SLAB EDGES, OPENINGS, PENETRATIONS, SLOPES, RAISED OR DEPRESSED AREAS, CURBS, ETC., WITH THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS, UNO.
 - THE CONTRACTOR SHALL COORDINATE ALL UNDERSLAB UTILITIES WITH MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS. LOWER OR STEP TOP OF FOOTING ELEVATIONS AS REQUIRED TO MAINTAIN 2H:1V SLOPE FROM BOTTOM OF FOOTINGS TO BOTTOM OF UTILITY EXCAVATIONS. SEE TYPICAL DETAILS FOR ADDITIONAL INFORMATION.
 - FOR ADDITIONAL INFORMATION AND REQUIREMENTS REFER TO THE GENERAL NOTES, TYPICAL DETAILS, AND SCHEDULES.
 - ALL EXTERIOR WOOD TO BE PRESSURE TREATED.

FOOTING SCHEDULE			
MARK	SIZE	DEPTH	REINF.
W2.0 (TYP.)	2'-0" CONT.	1'-0"	(3) #5 CONT. #4@48"o/c CROSSBARS
F3.0	3'-0" SQ.	1'-0"	(4) #5 E.W.B.
F4.0	4'-0" SQ.	1'-0"	(5) #5 E.W.B.



PROFESSIONAL CERTIFICATION
I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NUMBER 20209, EXPIRATION DATE 06/16/2021.

(C) GANT BRUNNETT ARCHITECTS
ALL REPRODUCTION IS PROHIBITED

NO.	DESCRIPTION	BY	DATE
△			

ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS

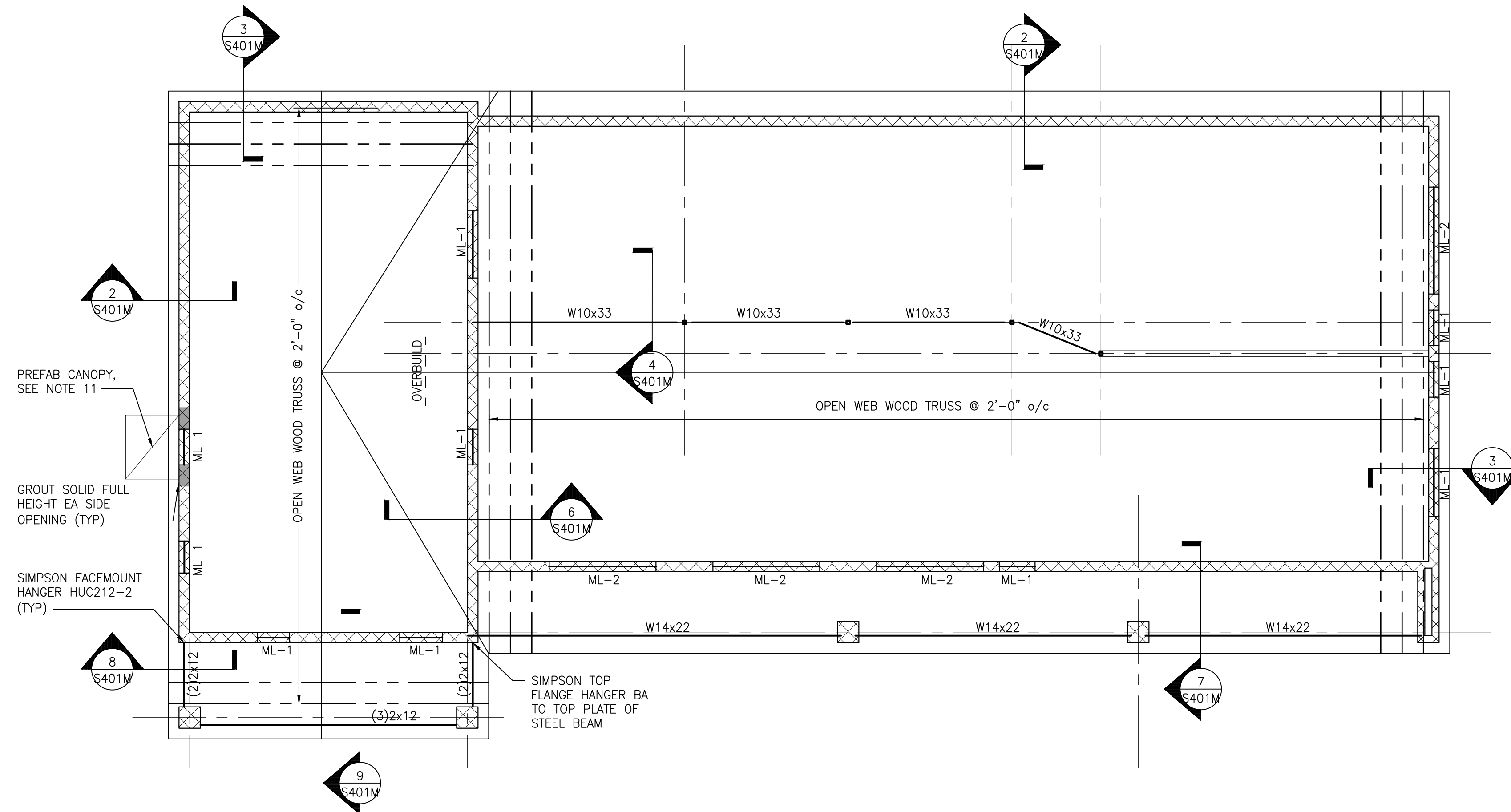
DATE: 4-28-2021

APPROVED _____ DATE _____	APPROVED _____ DATE _____	SCALE: AS NOTED
CHIEF ENGINEER	PROJECT MANAGER	DRAWN BY: JG
APPROVED _____ DATE _____	APPROVED _____ DATE _____	CHECKED BY: JB
ASSISTANT CHIEF ENGINEER	CHIEF, RIGHT OF WAY	SHEET NO. OF _____
		PROJECT NO. P535900
		PROPOSAL NO. P535907

FORT SMALLWOOD PARK
9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122

MAINTENANCE BUILDING FOUNDATION PLAN

S101M



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

ROOF FRAMING PLAN NOTES:

- OPEN WEB WOOD TRUSS BEARING ELEVATION SHOWN THUS = (+14'- 1 1/2") AND IS IN REFERENCE TO THE DATUM (0'-0").
- TYPICAL ROOF SHEATHING OVER WOOD TRUSSES SHALL BE 3/4" APA RATED T&G PLYWOOD SHEATHING, GROUP I, EXTERIOR, PANEL ID 48/24. ATTACH SHEATHING TO FRAMING W/ 8d NAILS @ 6" OC AT PANEL EDGES AND 12" OC AT INTERIOR REGIONS.
- CMU WALL SHALL BE 12" OMNI BLOCK W/#5 @ 48" o/c IN GROUTED CELLS FULL HEIGHT. PROVIDE 2-#5 FULL HT VERTICAL AT EA SIDE OF ALL WALL OPENINGS. GROUT WALL SOLID AT REINFORCING.
- NOTATIONS SHOWN ON PLAN INDICATE THE FOLLOWING:
ML-X LINTEL IMMEDIATELY BELOW OR WITHIN THIS LEVEL OF FRAMING, (SEE ARCHITECTURAL DRAWINGS AND SCHEDULE THIS SHEET FOR OPENINGS NOT SHOWN).
- PROVIDE UPLIFT CONNECTORS AT ALL ROOF TRUSS BEARING POINTS CAPABLE OF RESISTING ALL TRIBUTARY UPLIFT FORCES.
- REFER TO THE ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS AND ELEVATIONS NOT SHOWN. THE CONTRACTOR SHALL COORDINATE THE LOCATION OF ALL ROOF EDGES, OPENINGS, PENETRATIONS, SLOPES, RAISED OR DEPRESSED AREAS, CURBS, ROOF EQUIPMENT, ETC., WITH THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS, UNO.
- FOR ADDITIONAL INFORMATION AND REQUIREMENTS REFER TO THE GENERAL NOTES, TYPICAL DETAILS, AND SCHEDULES.
- SEE ARCH FOR INTERIOR BEARING WALL SHEATHING. ATTACH TO STUDS W/ 8d NAILS @ 6" OC AT PANEL EDGES AND 12" OC AT INTERIOR REGIONS.
- ALL EXTERIOR WOOD TO BE PRESSURE TREATED.
- PROVIDE DOUBLE TRUSSES AND HEADERS AT VENT OPENINGS. CONNECT HEADERS TO TRUSSES WITH JOIST HANGERS.
- PRE-ENGINEERED METAL CANOPY W/ SUPPORT HANGERS DESIGNED BY MANUFACTURER SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION AND REQUIREMENTS. CANOPY MANUFACTURER TO SUBMIT SIGNED AND SCALED CANOPY SHOP DRAWINGS AND CALCULATIONS INCLUDING ALL CONNECTION REQUIREMENT AND SUPPORT REACTIONS FOR REVIEW. REFER TO GENERAL NOTES FOR ADDITIONAL DESIGN REQUIREMENTS.
- ALL BEARING WALLS TO BE PRESSURE TREATED 2x6 @ 1'-4" o/c UNO. PROVIDE CONTINUOUS PT, DOUBLE TOP PLATE AND SINGLE BOTTOM PLATE ON ALL BEARING WALLS. PROVIDE SOLID, CONTINUOUS WOOD BLOCKING AT THIRD POINTS OF HEIGHT IN ALL BEARING WALLS, 5'-0" o/c MAX.

LINTEL SCHEDULE

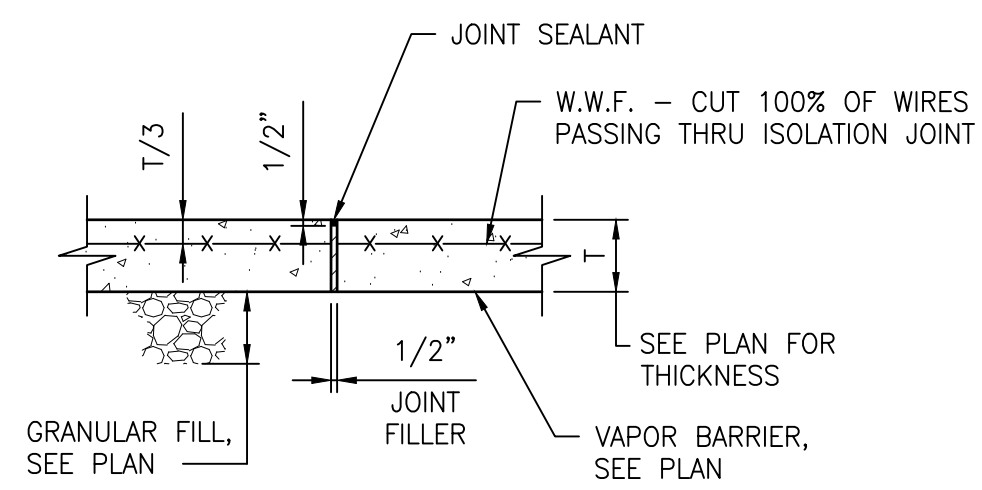
MARK	SIZE	COMMENTS	DETAILS
ML-1	12" CONT CMU BOND BEAM W/ (2) #5 BOTTOM BARS CONT. 2'-9" TO 6'-8" OPENINGS.		
ML-2	W8x18 WITH 5/16" CONTACT PLATE 8'-1" TO 10'-0" OPENINGS.	CONTACT PLATE SHALL BE 1" LESS THAN NOMINAL WALL THICKNESS. SEE LINTEL NOTES FOR WELDING REQUIREMENTS.	

NO.	DESCRIPTION	BY	DATE

ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS

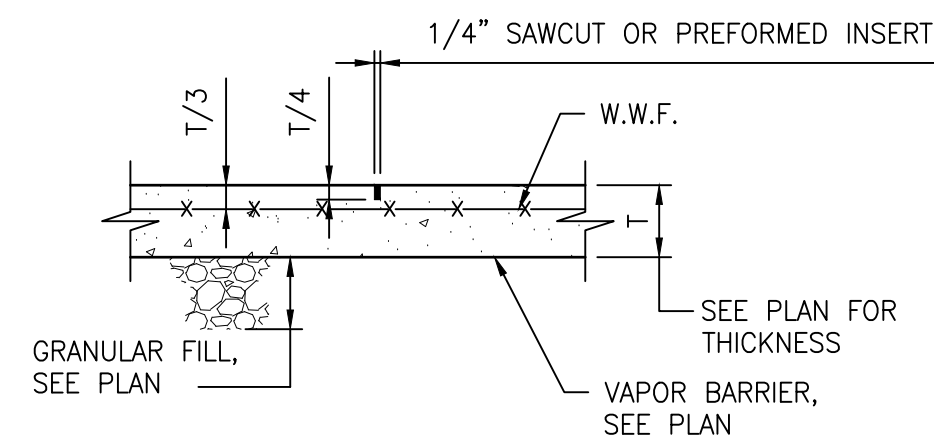
DATE: 4-28-2021

APPROVED _____ DATE _____	APPROVED _____ DATE _____	SCALE: AS NOTED	FORT SMALLWOOD PARK
CHIEF ENGINEER	PROJECT MANAGER	DRAWN BY: JG	9500 FORT SMALLWOOD ROAD PASADENA, MD 21122
APPROVED _____ DATE _____	APPROVED _____ DATE _____	CHECKED BY: JB	MAINTENANCE BUILDING
ASSISTANT CHIEF ENGINEER	CHIEF, RIGHT OF WAY	SHEET NO. OF _____	ROOF FRAMING PLAN
		PROJECT NO. P535900	S102M
		PROPOSAL NO. P535907	



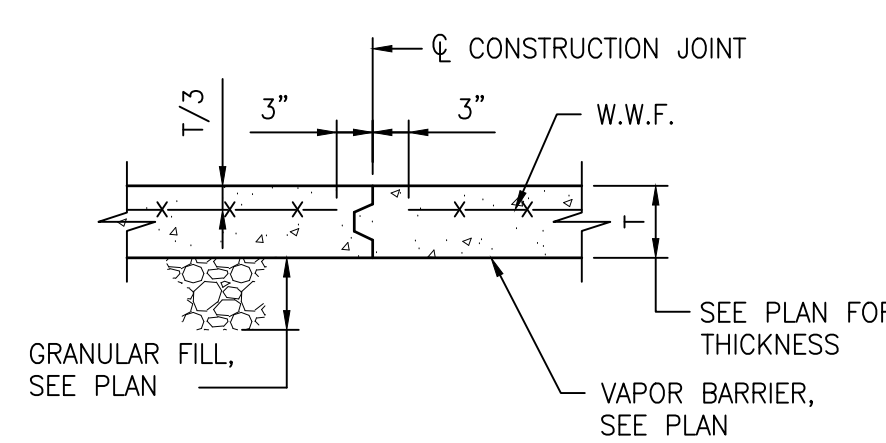
ISOLATION JOINT A
SCALE: 3/4" = 1'-0" S301M

NOTE:
1. ISOLATION JOINT SHALL CARRY THROUGH FULL DEPTH OF BASE SLAB AND TOPPING SLAB (IF REQUIRED).



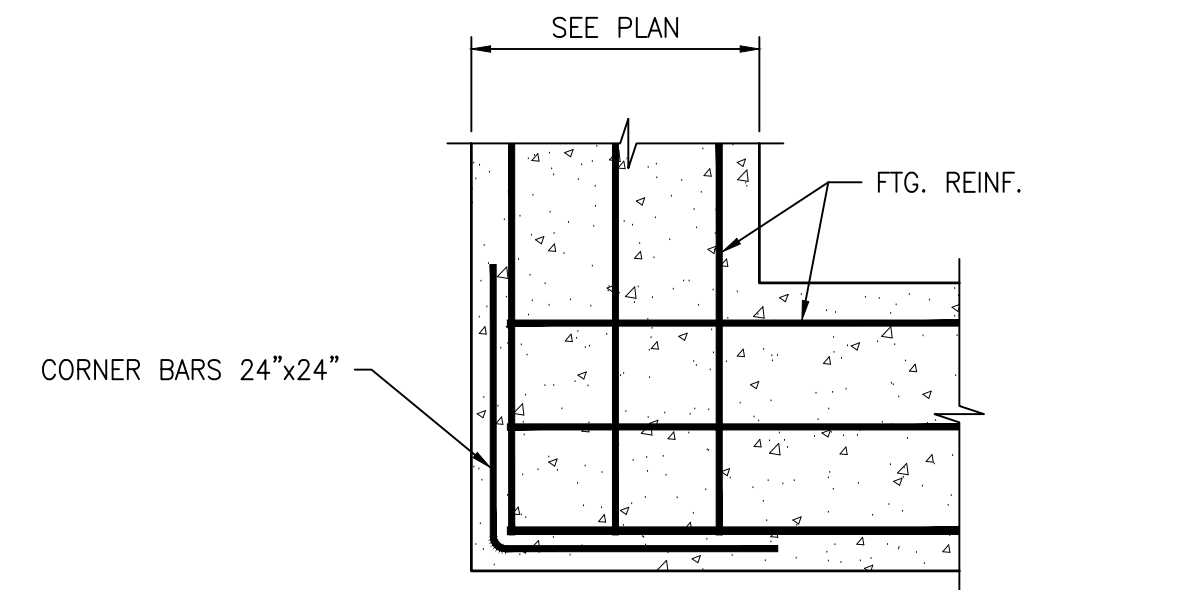
CONTROL JOINT B
SCALE: 3/4" = 1'-0" S301M

NOTES:
1. CUT ALTERNATE WIRES CROSSING JOINT.
2. SAW-CUT CONTROL JOINTS ARE LOCATED ON PLAN.
3. SAW-CUTTING SHALL BE STARTED AS SOON AS THE CONCRETE HAS HARDENED SUFFICIENTLY TO PREVENT AGGREGATE BEING DISLODGED BY THE SAW AND WHEN THE EDGES OF THE CUT DO NOT RAVEL.



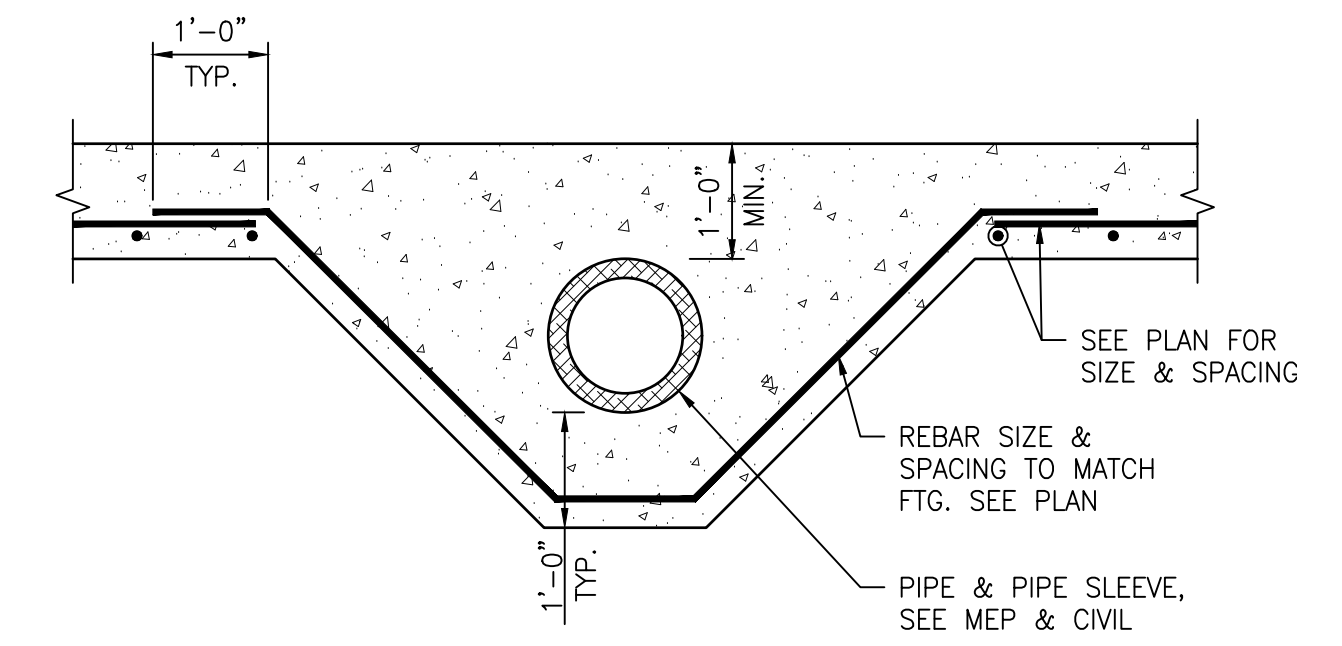
CONSTRUCTION JOINT C
SCALE: 3/4" = 1'-0" S301M

NOTE:
1. CONSTRUCTION JOINT AS NEEDED TO BE LOCATED IN LIEU OF CONTROL JOINTS AS INDICATED ON PLAN.

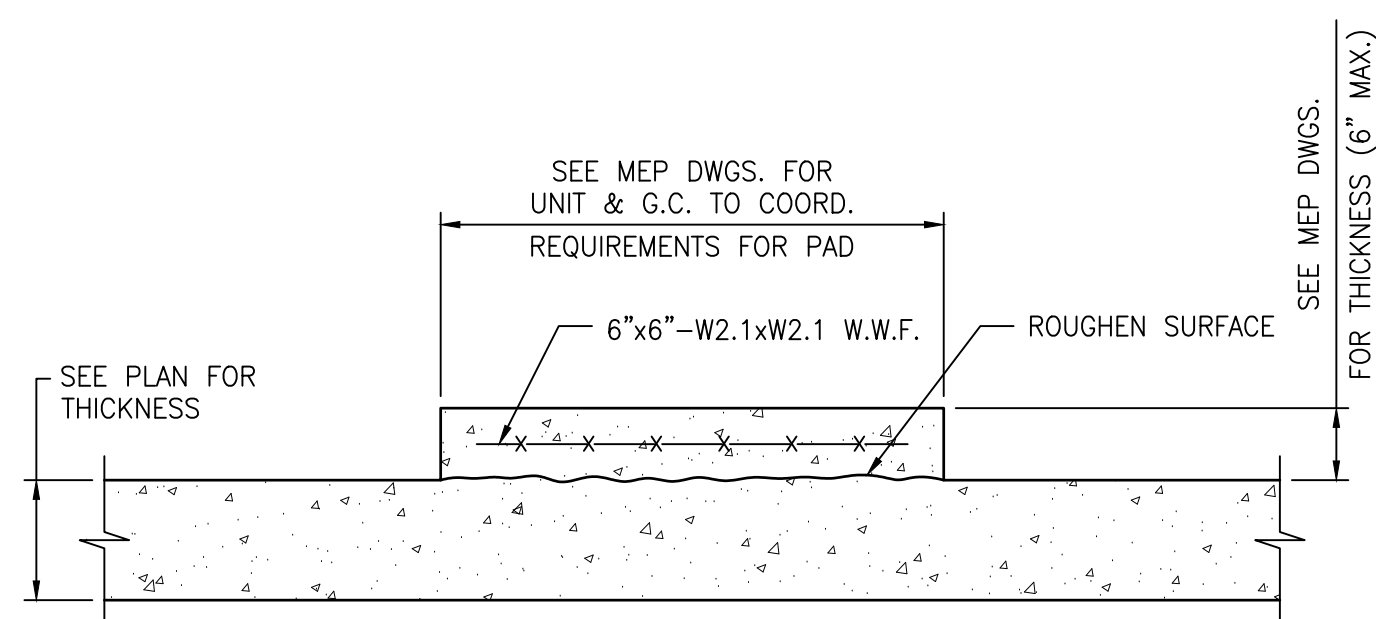


WALL FOOTING CORNER PLAN D
SCALE: 3/4" = 1'-0" S301M

NOTE:
1. PROVIDE 24"x24" CORNER BARS AS SHOWN ABOVE OR BEND EACH INTERSECTING OUTSIDE BAR FOR A DISTANCE OF 20" AROUND CORNERS FOR EACH LAYER OF FOOTING REINFORCING. BAR TO BE SAME SIZE AS FOOTING REINFORCING. COLD BENDING IN THE FIELD IS ALLOWABLE.

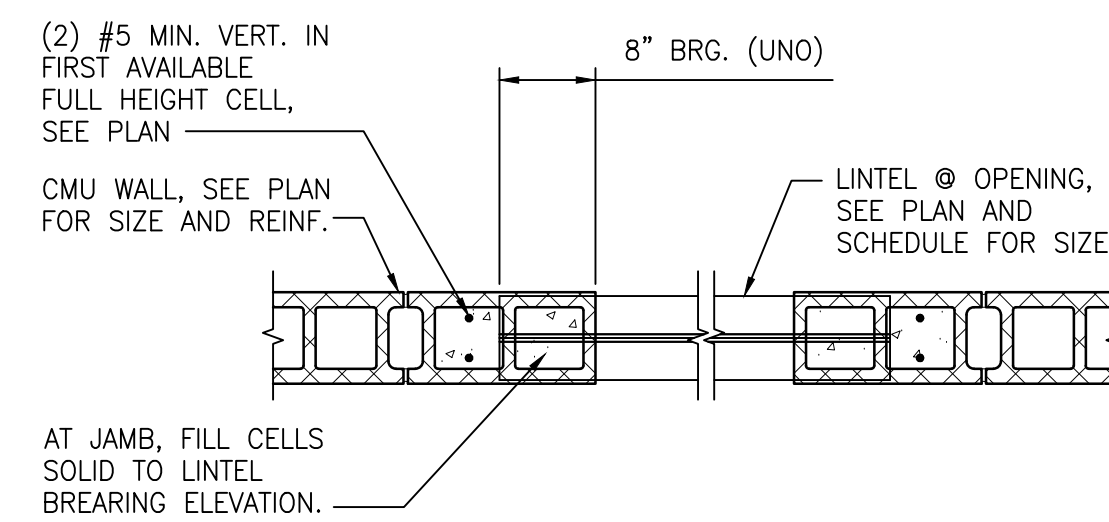


PIPE THROUGH FOOTING E
SCALE: 3/4" = 1'-0" S301M



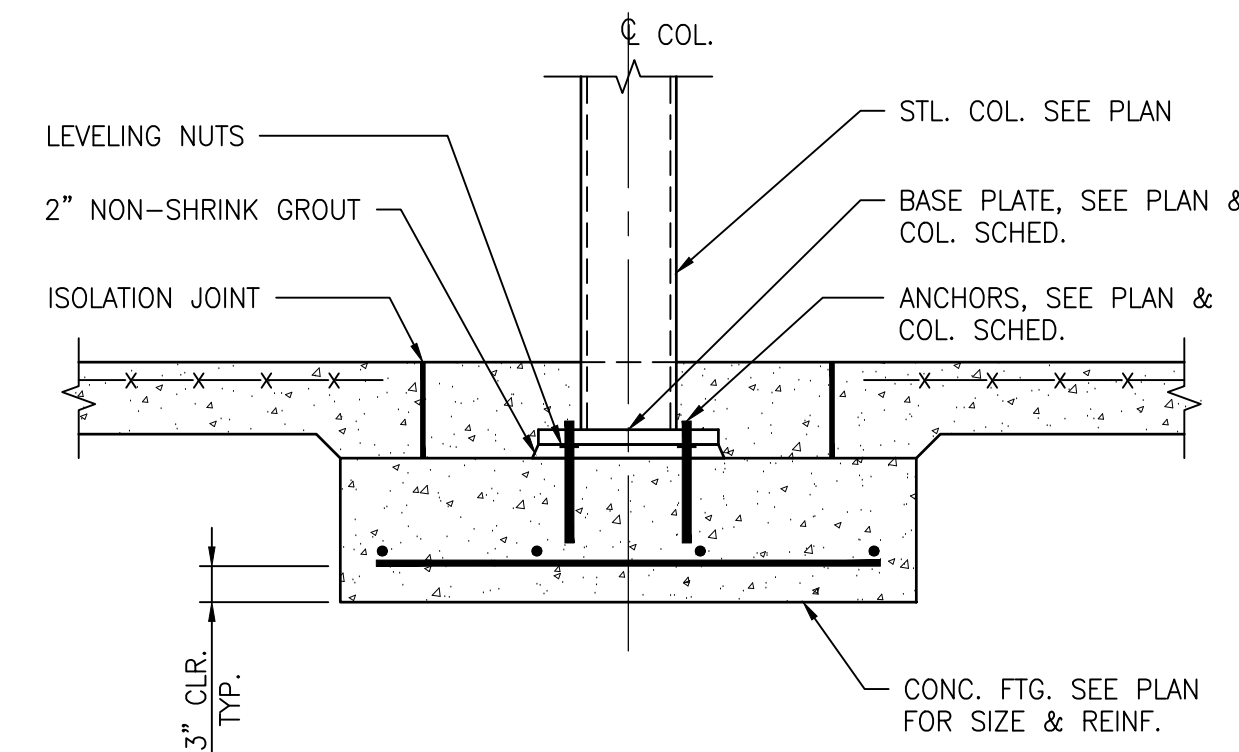
EQUIPMENT HOUSEKEEPING PAD F
SCALE: 3/4" = 1'-0" S301M

NOTE:
1. SEE MEP DRAWINGS FOR LOCATION.

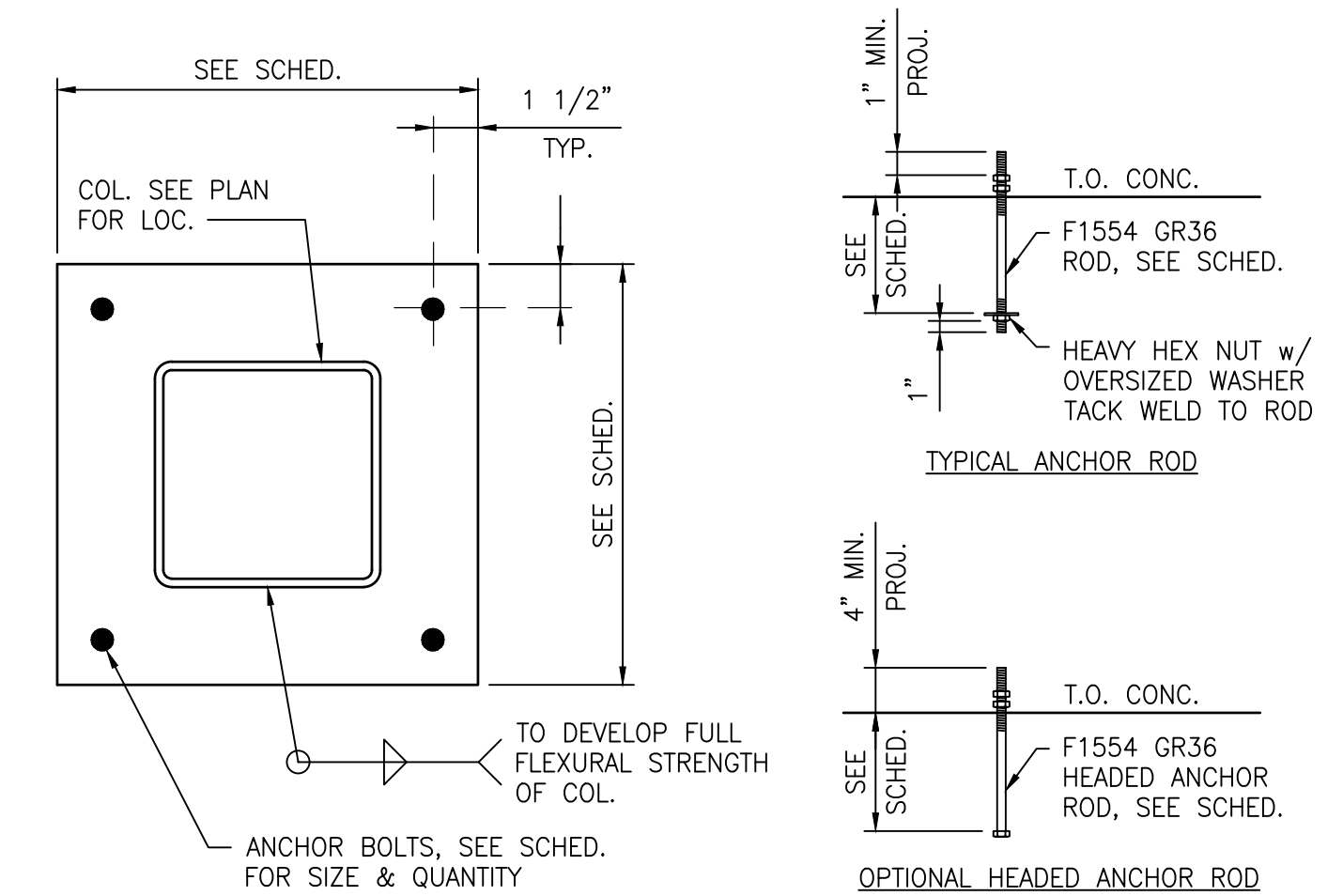


TYPICAL MASONRY WALL AT LINTEL G
SCALE: 3/4" = 1'-0" S301M

NOTES:
1. APPLIES TO ALL OPENINGS IN EXTERIOR AND/OR LOAD BEARING WALLS UNLESS OTHERWISE NOTED ON PLAN. REINFORCEMENT SHOWN ON PLAN SHALL SUPERCEDE THIS DETAIL WHERE REINFORCEMENT IS CALLED OUT ON PLAN. BARS ARE TO BE FULL HEIGHT EXCEPT BARS AT LINTEL BEARING CELLS TERMINATE ABOVE AND BELOW THE LINTEL.

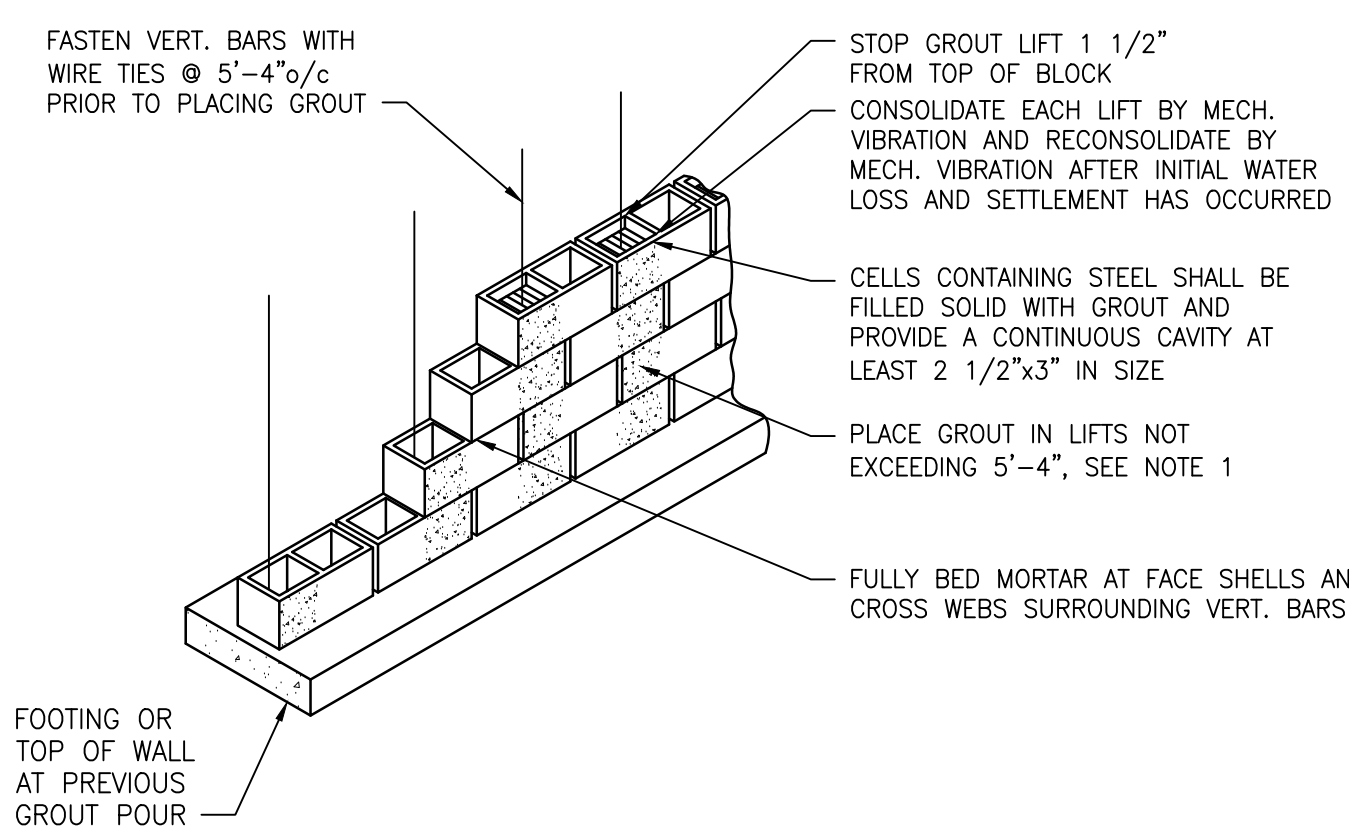


INTERIOR COLUMN FOOTING H
SCALE: 3/4" = 1'-0" S301M



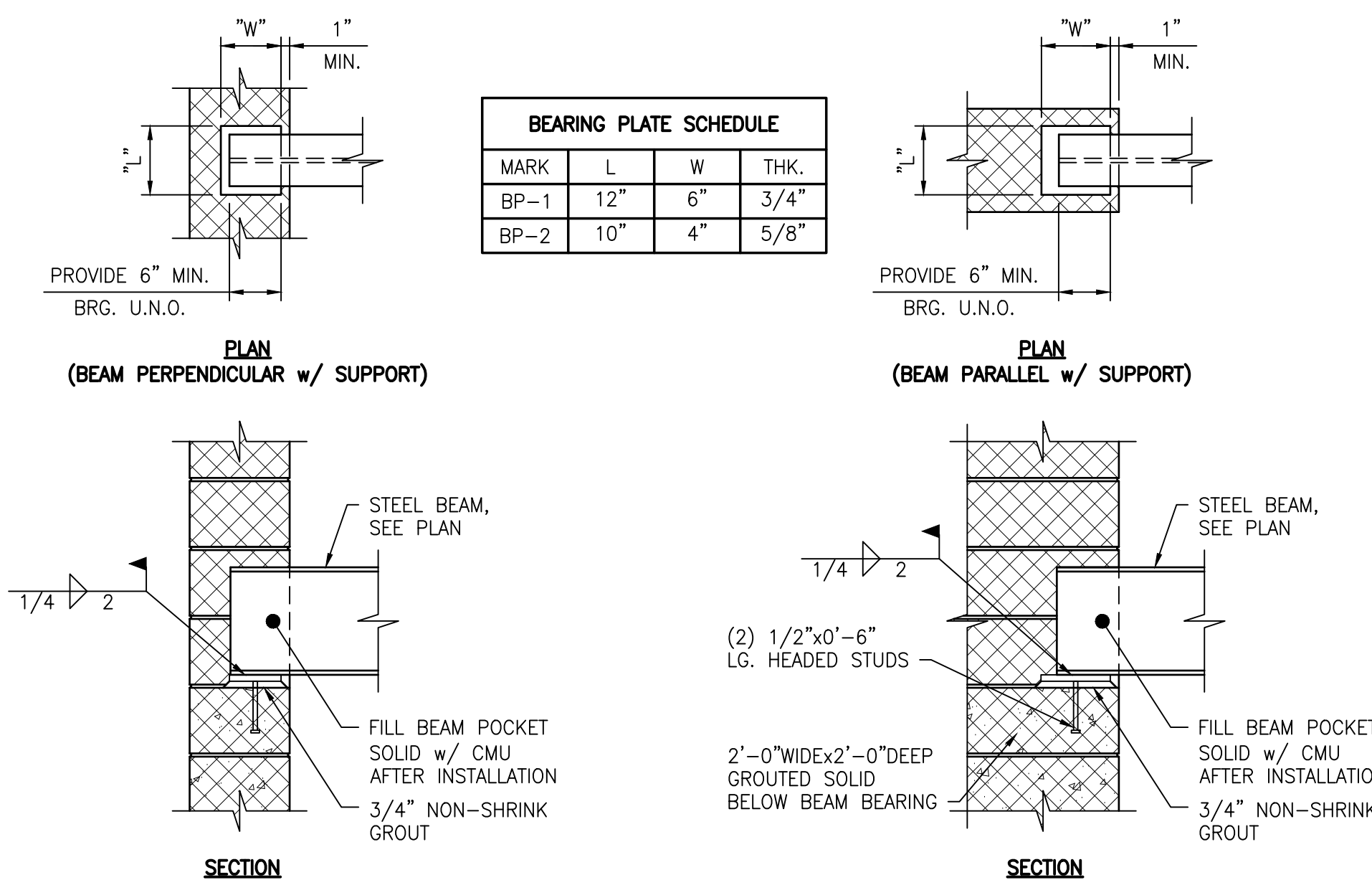
BASE PLATE - HSS OR PIPE J
SCALE: 3/4" = 1'-0" S301M

NOTE:
1. FOR USE OF OVERSIZED HOLES, MEET THE REQUIREMENTS OF AISC J.9



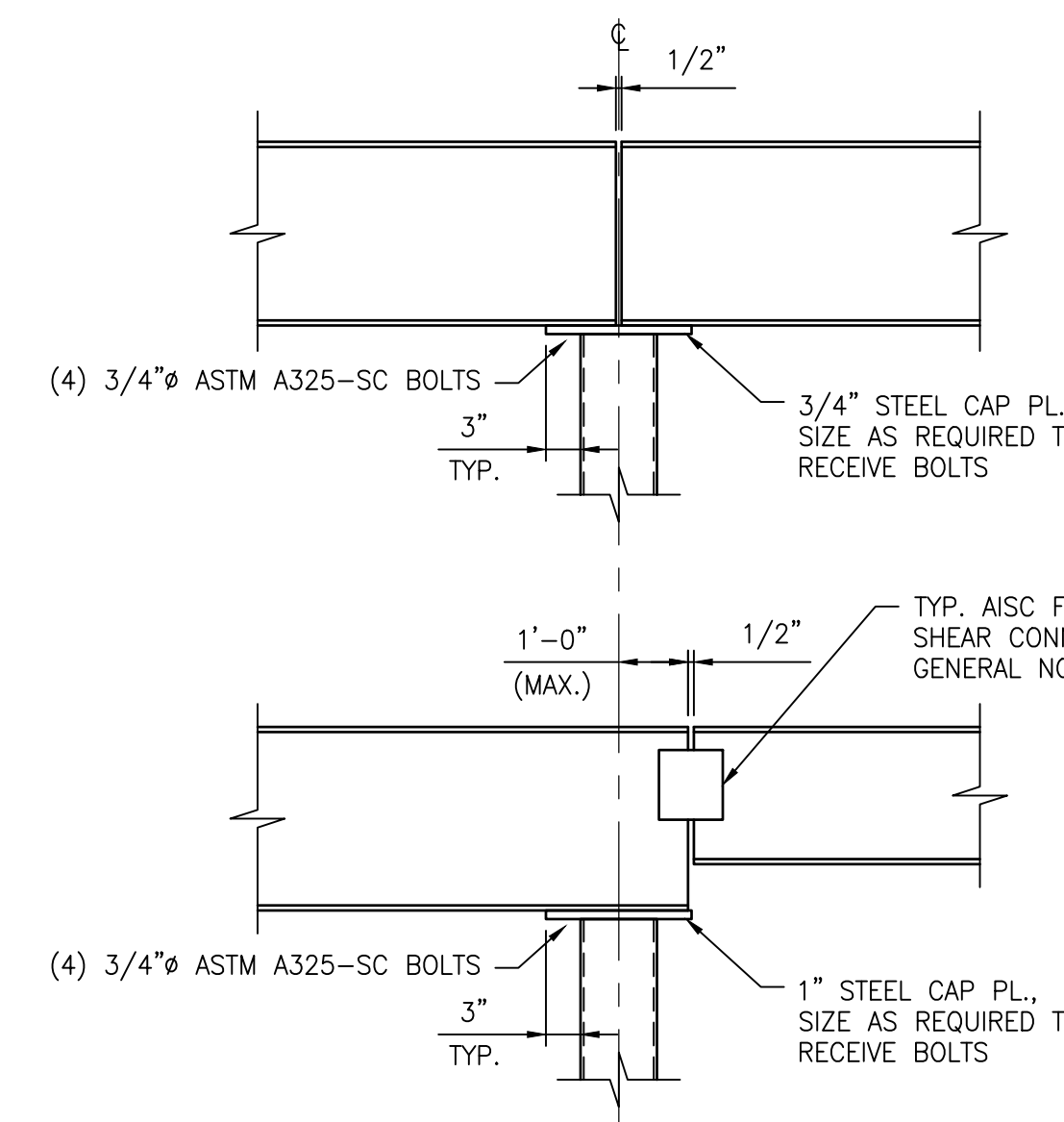
TYPICAL REINFORCED MASONRY CONSTRUCTION VERTICAL REINFORCING ONLY K
SCALE: 3/4" = 1'-0" S301M

NOTE:
1. FOR POURS GREATER THAN 5'-4" SUBMIT FOR APPROVAL PROCEDURES FOR GROUT POURING PER THE REQUIREMENTS OF TMS 602 LATEST EDITION.

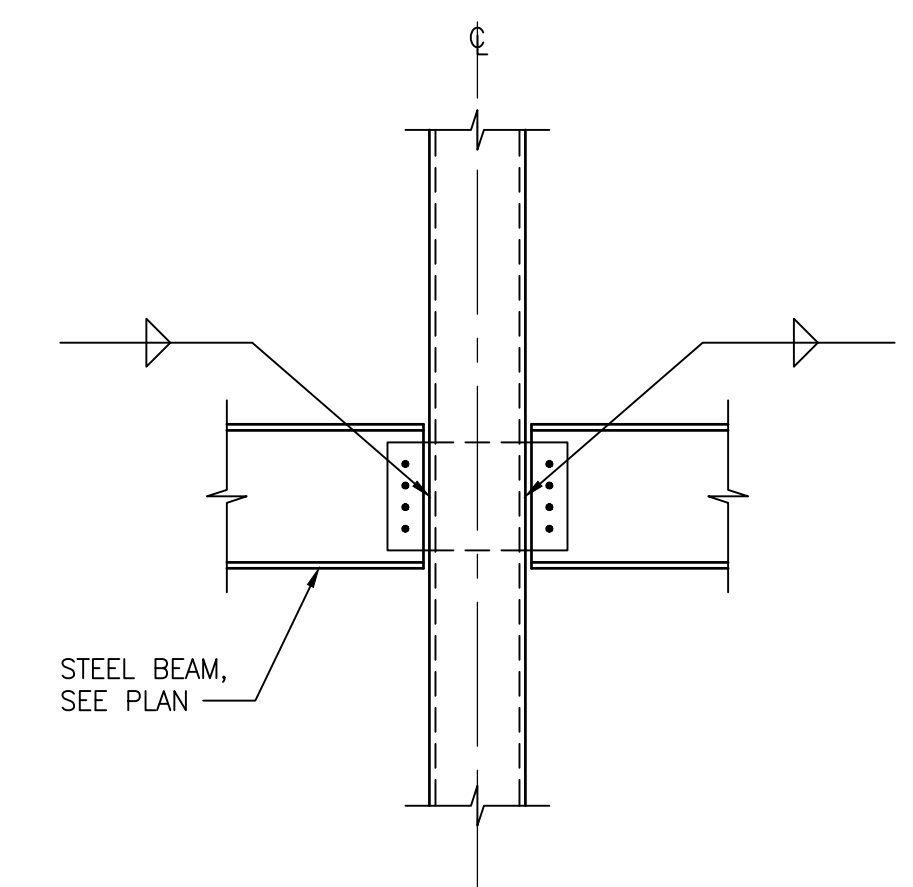


TYPICAL BEAM BEARING PLATE DETAIL L
SCALE: 3/4" = 1'-0" S301M

BEARING PLATE SCHEDULE			
MARK	L	W	THK.
BP-1	12"	6"	3/4"
BP-2	10"	4"	5/8"



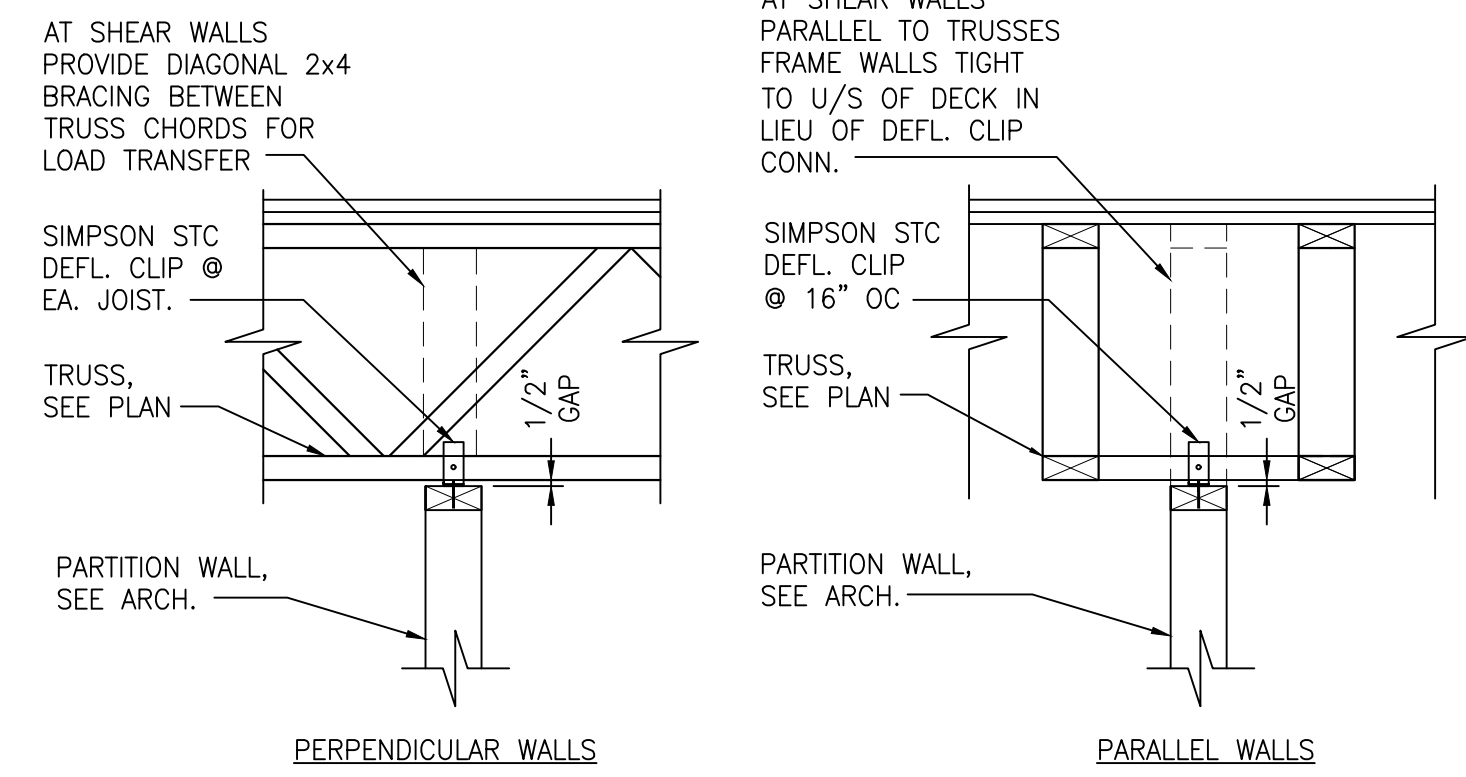
BEAMS BEARING AT COLUMN M
SCALE: 3/4" = 1'-0" S301M



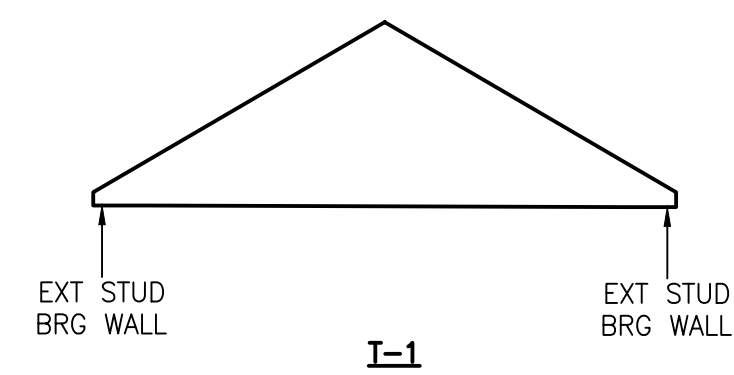
TUBE COLUMN CONNECTION N
SCALE: 3/4" = 1'-0" S301M

NOTES:
1. ONE SIDED THRU-PLATE CONNECTIONS. DESIGN FOR ECCENTRICITY. SUBMIT COMPUTATIONS FOR REVIEW.
2. PROVIDE FULL DEPTH BEAM WEB CONNECTION.
3. SEE GENERAL NOTES FOR WELDED AND BOLTED CONNECTIONS.

NO.	DESCRIPTION	BY	DATE
△			



TYPICAL INTERIOR
NON-LOAD BEARING WALL CONNECTION A
N.T.S. S302M



ROOF TRUSS LOADING DIAGRAMS B
SCALE: NOT TO SCALE S302M

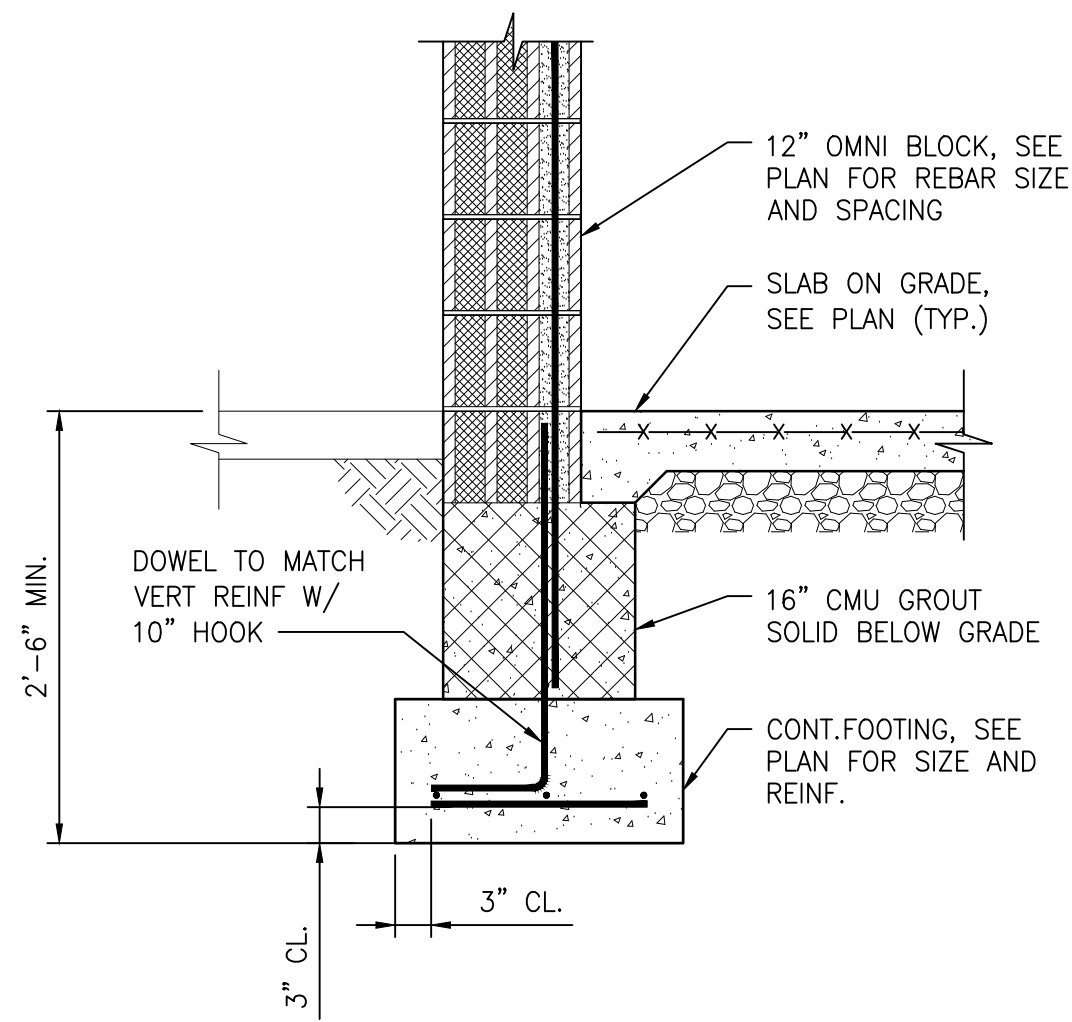
TRUSS LOADING

1. CHORD LIVE = 30 PSF
2. TOP CHORD DEAD = 12 PSF
3. BOTTOM CHORD DEAD = 8 PSF
4. WIND
DESIGN TRUSSES FOR ALL ASCE 7 WIND LOADS
5. SEE PLAN FOR ADDITIONAL MECHANICAL UNIT LOADING
6. L/360 LIVE LOAD DEFLECTION
L/240 TOTAL LOAD DEFLECTION

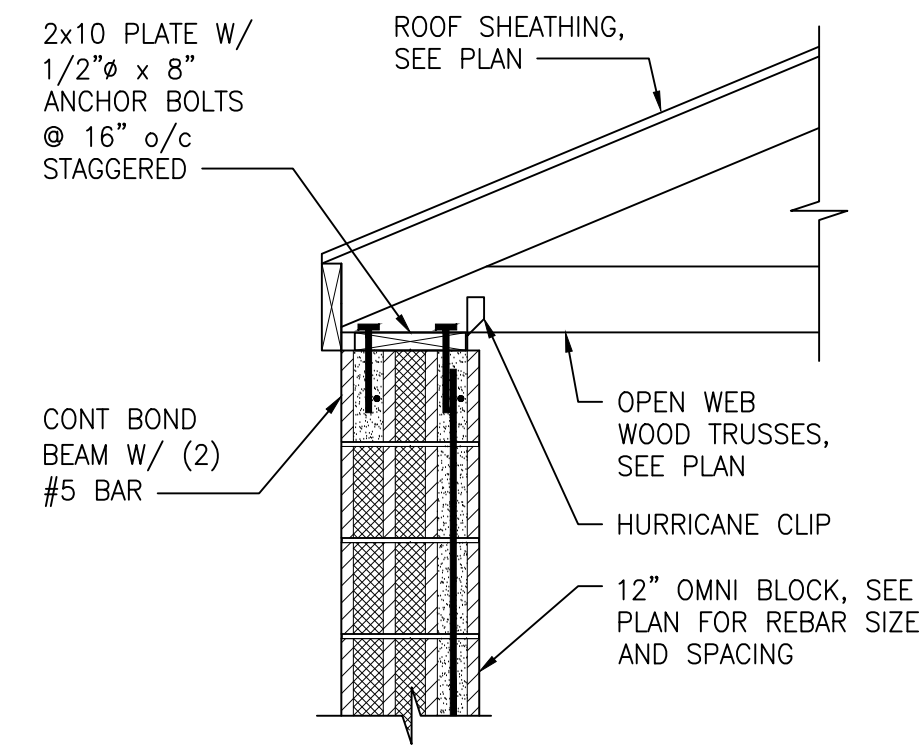
NOTES:

1. SEE GENERAL NOTES FOR ADDITIONAL WOOD TRUSS REQUIREMENTS.
2. PRE-ENGINEERED WOOD TRUSSES SHALL BE DESIGNED FOR LOADS AND DIMENSIONS SPECIFIED ON THE DRAWINGS. ALL LOAD COMBINATIONS SHALL BE CONSIDERED BY THE TRUSS MANUFACTURER IN THE DESIGN OF THE TRUSSES.
3. THE TRUSS CONFIGURATIONS SHOWN ON THE DRAWINGS ARE SCHEMATIC IN NATURE. THEY ARE INTENDED TO SHOW SHAPES, DIMENSIONS AND LOADS. THE ACTUAL DESIGN OF THE TRUSS INCLUDING THE WEB CONFIGURATIONS AND LATERAL BRACING IS BY THE TRUSS MANUFACTURER.
4. SHOP DRAWINGS AND CALCULATIONS FOR ALL TRUSSES SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER FOR APPROVAL BEFORE FABRICATION BEGINS.
5. TRUSS MANUFACTURER TO COORDINATE FINAL ROOF DEAD LOADS WITH BUILDER PRIOR TO TRUSS FABRICATION.

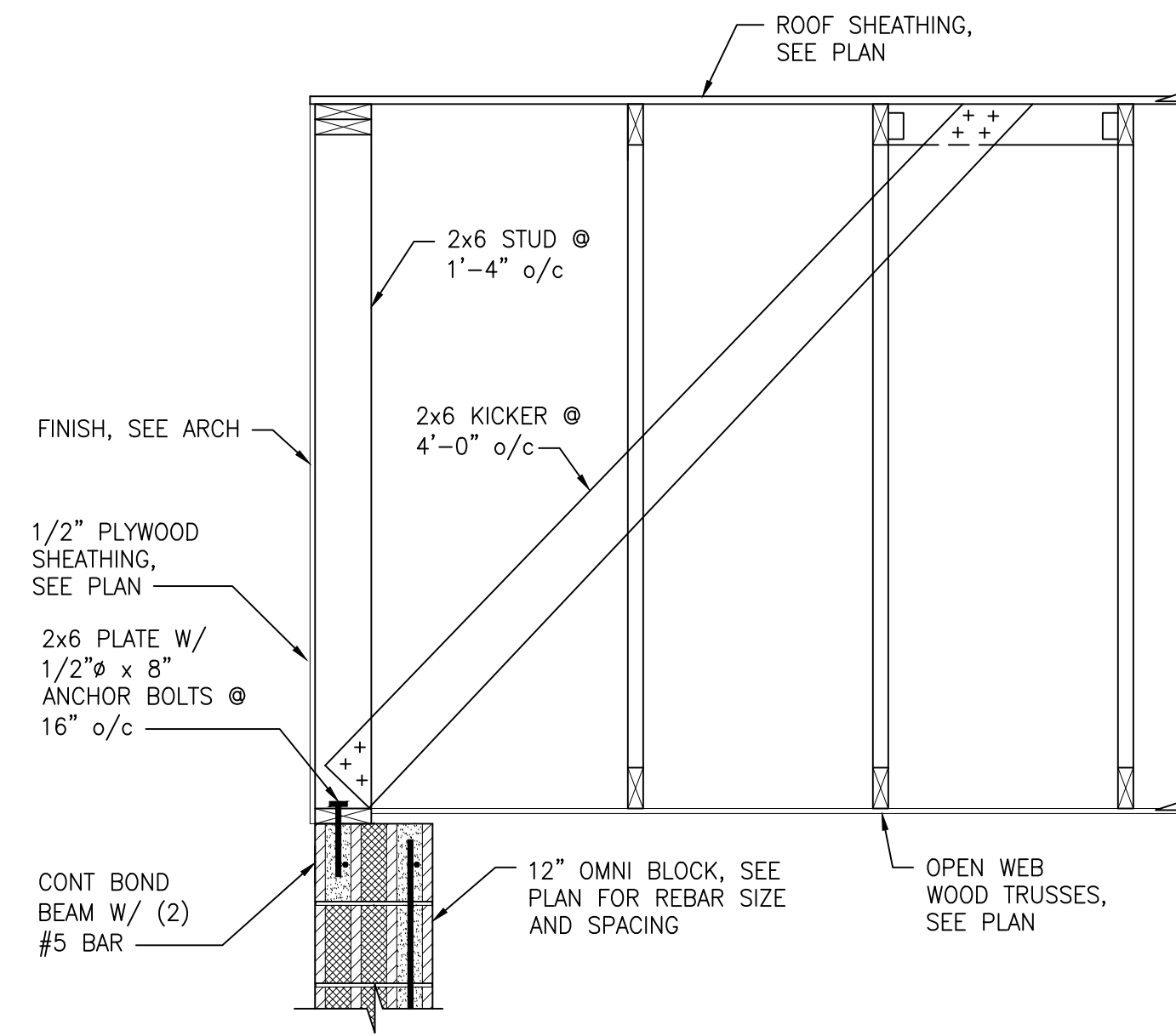
					ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS				DATE: 4-28-2021
NO.	DESCRIPTION	BY	DATE	APPROVED	DATE	APPROVED	DATE	SCALE: AS NOTED	
△								DRAWN BY: JG	
				CHIEF ENGINEER		PROJECT MANAGER		CHECKED BY: JB	
				APPROVED	DATE	APPROVED	DATE	SHEET NO. OF	
				ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY		PROJECT NO. P535900	
								PROPOSAL NO. P535907	



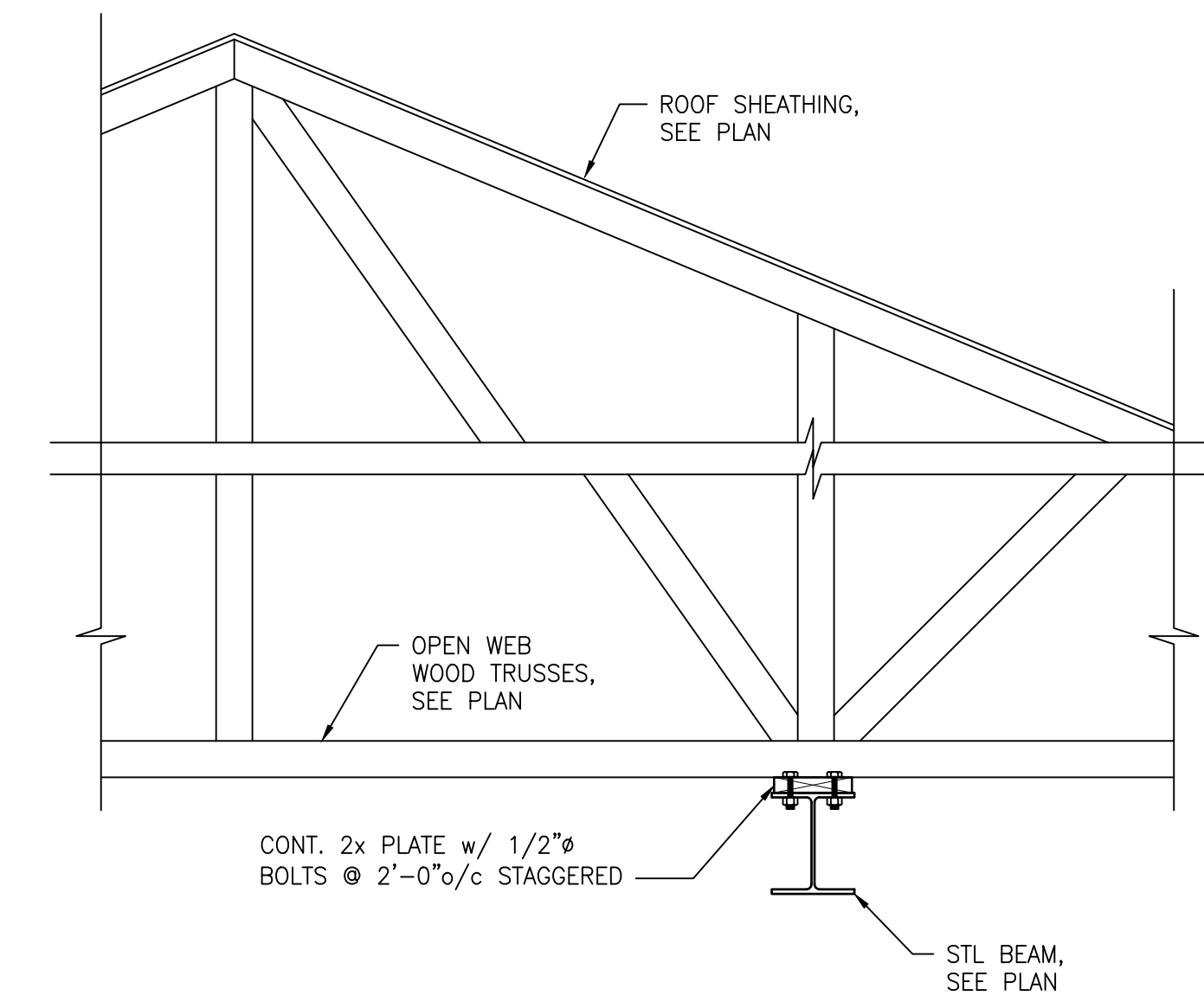
SECTION 1
3/4"=1'-0" S401M



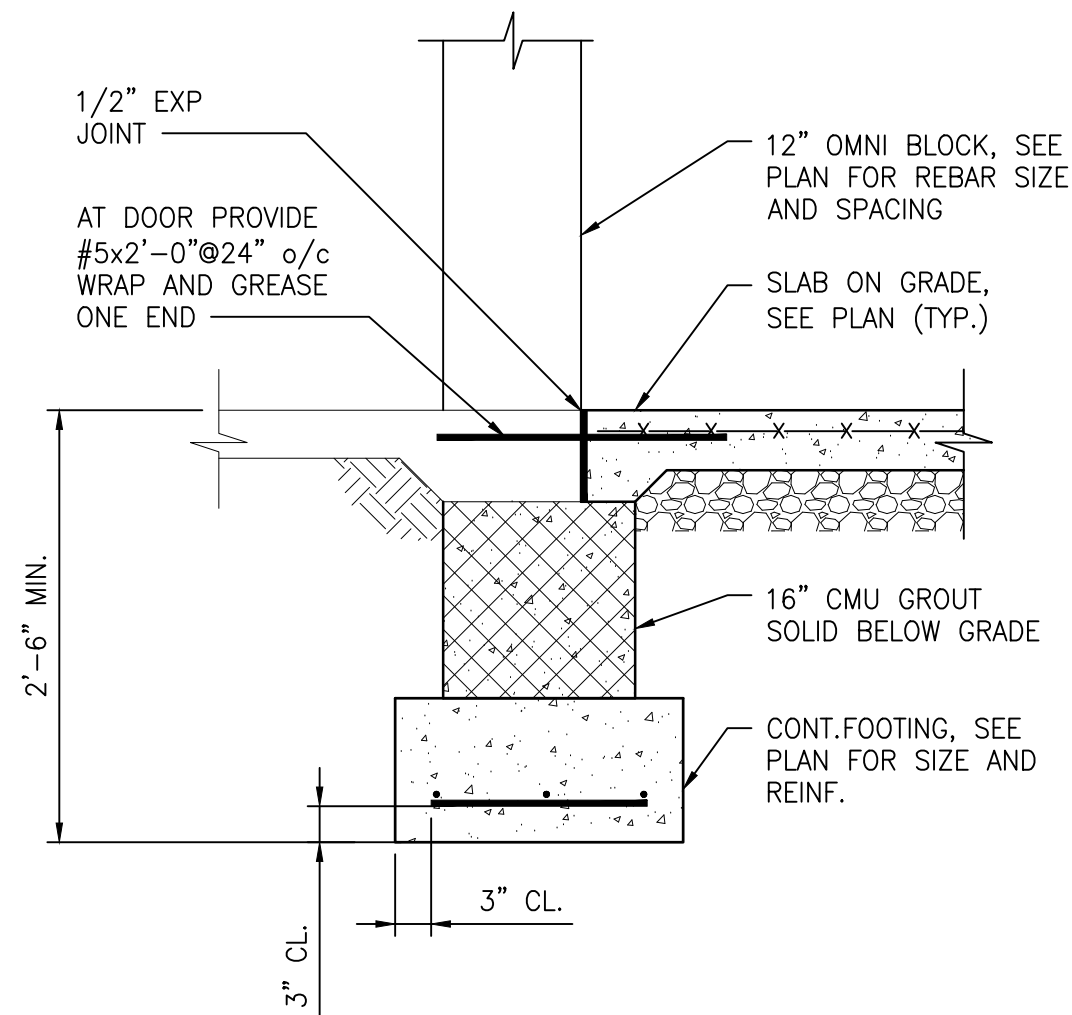
SECTION 2
3/4"=1'-0" S401M



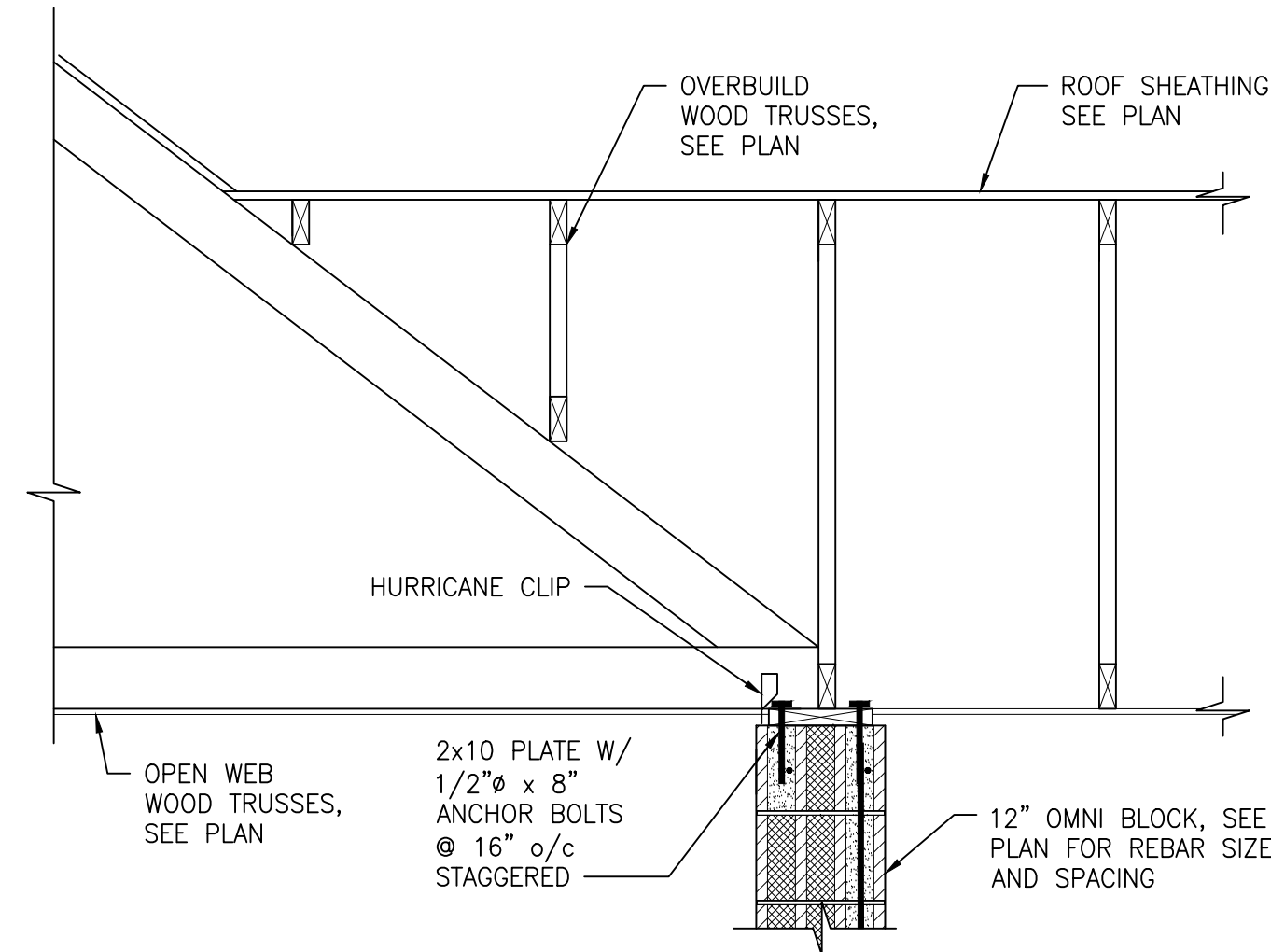
SECTION 3
3/4"=1'-0" S401M



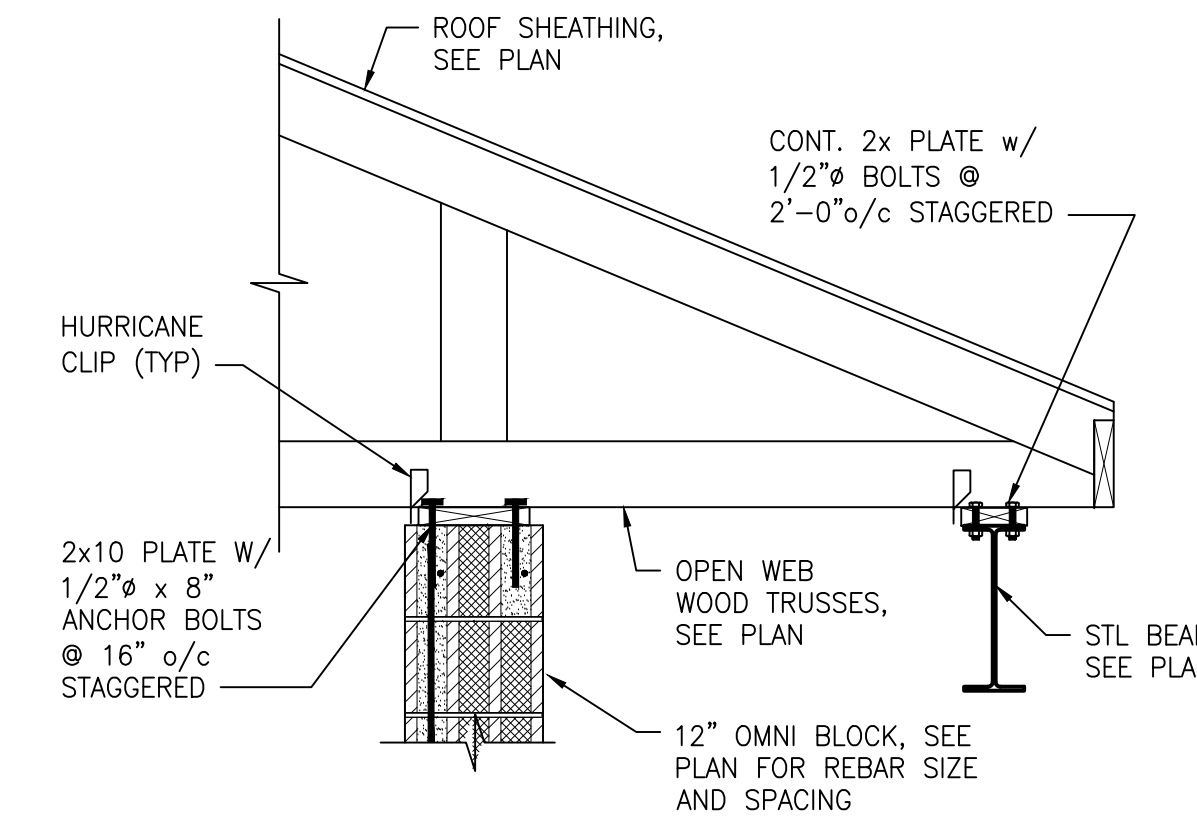
SECTION 4
3/4"=1'-0" S401M



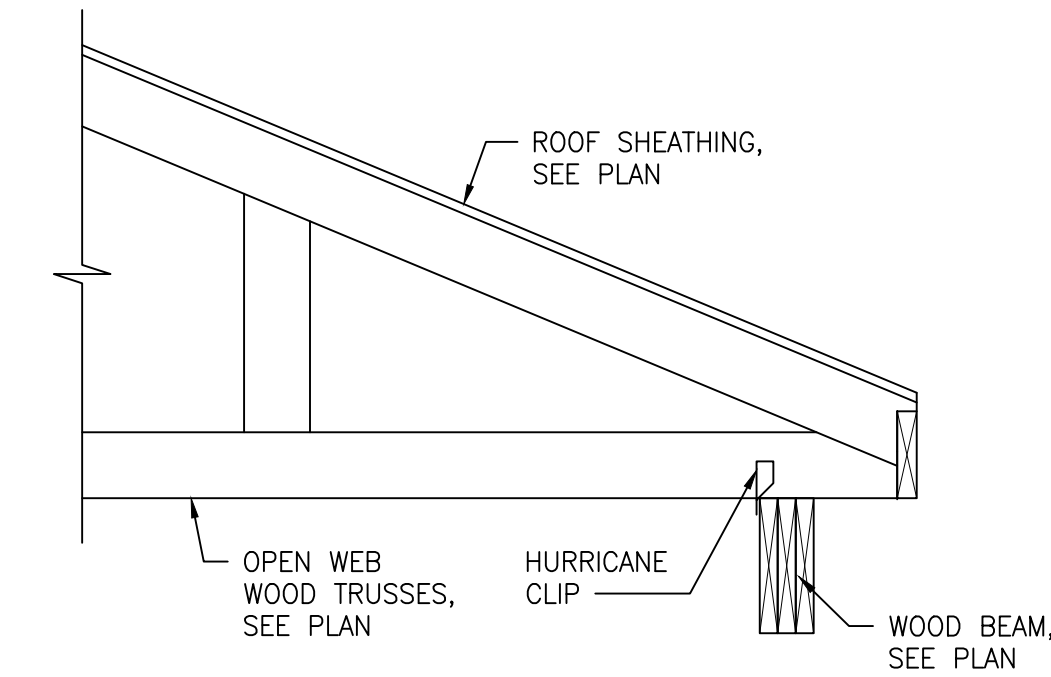
SECTION 5
3/4"=1'-0" S401M



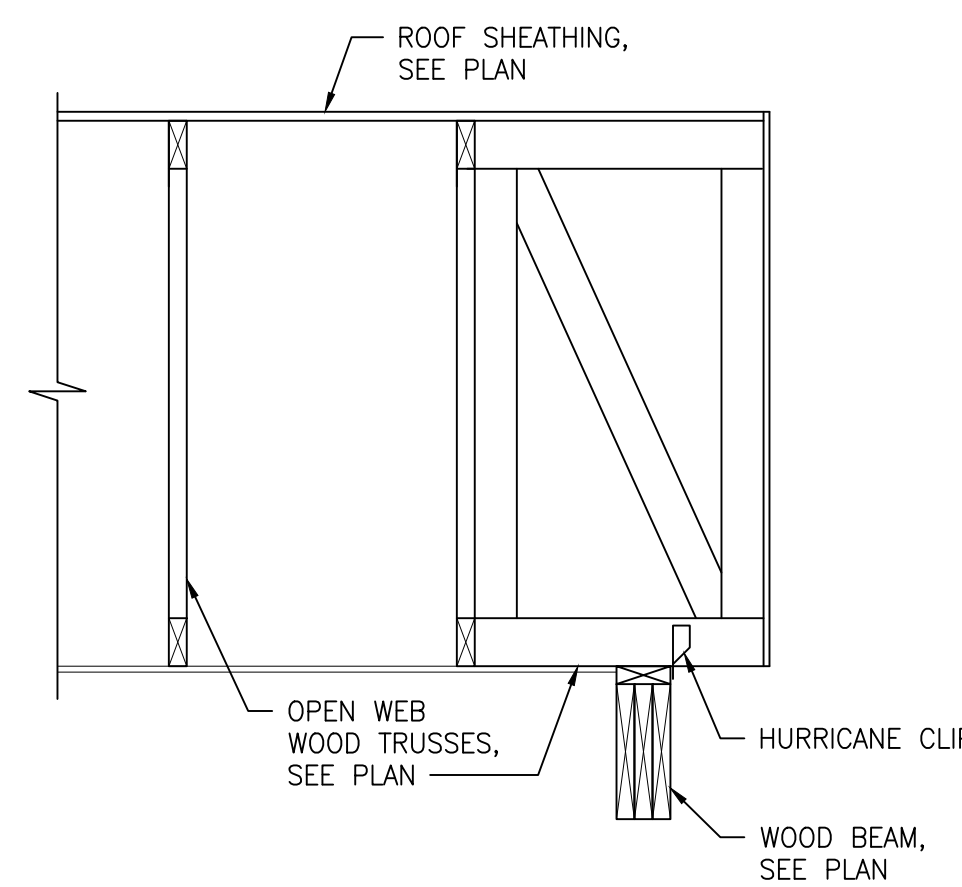
SECTION 6
3/4"=1'-0" S401M



SECTION 7
3/4"=1'-0" S401M



SECTION 8
3/4"=1'-0" S401M



SECTION 9
3/4"=1'-0" S401M

NO.	DESCRIPTION	BY	DATE
△			

ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS				DATE: 4-28-2021
APPROVED	DATE	APPROVED	DATE	SCALE: AS NOTED
CHIEF ENGINEER		PROJECT MANAGER		DRAWN BY: JG
APPROVED	DATE	APPROVED	DATE	CHECKED BY: JB
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY		SHEET NO. OF
				PROJECT NO. P535900
				PROPOSAL NO. P535907

ABBREVIATIONS

NOTE: THIS IS A STANDARD ABBREVIATION LIST.
SOME ABBREVIATIONS MAY NOT APPEAR ON THE
ACCOMPANYING DRAWINGS.

A AAV ACV AD AF AFF AR ATC	COMPRESSED AIR AUTOMATIC AIR VENT AUTOMATIC CONTROL VALVE ACCESS DOOR, AREA DRAIN ANTIFREEZE ABOVE FINISHED FLOOR ARGON GAS AUTOMATIC TEMPERATURE CONTROL	FOS FOT FOV FPM FPS FS FT FWR FWS	FUEL OIL SUPPLY FUEL OIL TRANSFER FUEL OIL VENT FEET PER MINUTE FEET PER SECOND FLOW SWITCH FOOT, FEET FEED WATER RETURN FEED WATER SUPPLY	OED OS&Y	OPEN ENDED DUCT OUTSIDE STEM AND YOKE
BAS BBD BCWR BCWS BDD BFP BHP BMS BO BTU BTUH	BUILDING AUTOMATION SYSTEM BOILER BLOWDOWN BEARING COOLING WATER RETURN BEARING COOLING WATER SUPPLY BACKDRAFT DAMPER BACKFLOW PREVENTER BRAKE HORSEPOWER BUILDING MANAGEMENT SYSTEM BLOW OFF BRITISH THERMAL UNIT BRITISH THERMAL UNIT PER HOUR	G GHR GHS GPH GPM GR	NATURAL GAS GLYCOL HEATING RETURN GLYCOL HEATING SUPPLY GALLONS PER HOUR GALLONS PER MINUTE AUTOMOTIVE LUBRICATION PIPING	PHR PHS PIV PPH PRV PSI PSIG	PROCESS AND INSTRUMENTATION DIAGRAM PLANT AIR PUMPED CONDENSATE PUMPED CONDENSATE RECIRCULATION PRIMARY CHILLED WATER RETURN PRIMARY CHILLED WATER SUPPLY PROCESS COOLING WATER RETURN PROCESS COOLING WATER SUPPLY PRESSURE DROP, PUMP DISCHARGE PROCESS GLYCOL WATER RETURN PROCESS GLYCOL WATER SUPPLY PHASE PRIMARY HEATING RETURN PRIMARY HEATING SUPPLY POST INDICATING VALVE POUNDS PER HOUR PRESSURE REDUCING VALVE, PRESSURE REGULATING VALVE POUNDS PER SQUARE INCH POUNDS PER SQUARE INCH GAUGE
*C CA CBD CC CCMS CD CF CFM CHR CHS CO CO2 CS CW CWR CWS	DEGREE(S) CELSIUS CONTROL AIR CONTINUOUS BLOWDOWN CAMPUS CONDENSATE CENTRAL CONTROL AND MONITORING SYSTEM CONDENSATE DRAIN CHEMICAL FEED CUBIC FEET PER MINUTE CHILLED WATER RETURN CHILLED WATER SUPPLY CLEANOUT CARBON DIOXIDE CLEAN STEAM COLD WATER, CITY WATER CONDENSER WATER RETURN CONDENSER WATER SUPPLY	H HB HED HP HPR HPS HR HRR HRS HS HT HTHR HTHS HW HWR HZ	HIGH HOSE BIBB HOSE END DRAIN VALVE HORSEPOWER HIGH PRESSURE STEAM RETURN HIGH PRESSURE STEAM SUPPLY HEATING WATER RETURN HEAT RECOVERY RETURN HEAT RECOVERY SUPPLY HEATING WATER SUPPLY HEIGHT HIGH TEMPERATURE HEATING WATER RETURN HIGH TEMPERATURE HEATING WATER SUPPLY HOT WATER HOT WATER RECIRCULATION HERTZ	RA RD RH RHR RHS RL ROR ROS RPM RS RV RX	RETURN AIR, RELIEF AIR REFRIGERANT DISCHARGE RELATIVE HUMIDITY REHEAT WATER RETURN REHEAT WATER SUPPLY REFRIGERANT LIQUID REVERSE OSMOSIS WATER RETURN REVERSE OSMOSIS WATER SUPPLY REVOLUTIONS PER MINUTE REFRIGERANT SUCTION RELIEF VENT, REFRIGERANT VENT REMOVE EXISTING
D DB DDC DHR DHS DIR DIS DL DN DSP DTR DTS DW	DEEP, DRAIN WATER DECIBEL, DRY BULB DIRECT DIGITAL CONTROL DISTRIBUTION HEATING WATER RETURN DISTRIBUTION HEATING WATER SUPPLY DEIONIZED WATER RETURN DEIONIZED WATER SUPPLY DOOR LOUVER DOWN DRY SPRINKLER PIPE DUAL TEMPERATURE RETURN DUAL TEMPERATURE SUPPLY DISTILLED WATER	IA ICW IHW IHR IN INV EL	INSTRUMENT AIR INDUSTRIAL COLD WATER INDUSTRIAL HOT WATER INDUSTRIAL HOT WATER RECIRCULATION INCH, INCHES INVERT ELEVATION	SA SAN SCHR SCHS SD SF SHR SHS SL SP SPR SS SQ FT SW	SUPPLY AIR SANITARY, SOIL, WASTE SECONDARY CHILLED WATER RETURN SECONDARY CHILLED WATER SUPPLY STORM DRAIN, SMOKE DETECTOR SQUARE FOOT SECONDARY HEATING WATER RETURN SECONDARY HEATING WATER SUPPLY SOUND LINING STATIC PRESSURE SPRINKLER LINE STAINLESS STEEL SQUARE FOOT SOFT WATER
EA EAT EJ EMS ESP ETC ETR EVAC EWT EX	EXHAUST AIR ENTERING AIR TEMPERATURE EXPANSION JOINT ENERGY MANAGEMENT SYSTEM EXTERNAL STATIC PRESSURE ETCETERA EXISTING TO REMAIN GAS EVACUATION ENTERING WATER TEMPERATURE EXISTING	IN KW L LA LAT LBS LBS/HR LN LP LPG LPR LPS LV LW LWT	KILOWATTS LONG, LENGTH LABORATORY AIR LEAVING AIR TEMPERATURE POUNDS POUNDS PER HOUR LIQUID NITROGEN LIQUID PROPANE LIQUID PETROLEUM GAS LOW PRESSURE STEAM RETURN LOW PRESSURE STEAM SUPPLY LABORATORY VENT, LABORATORY VACUUM LABORATORY WASTE LEAVING WATER TEMPERATURE	T ΔTS TSP TWR TWS TW TYP	TEMPERATURE DIFFERENCE TAMPER SWITCH TOTAL STATIC PRESSURE TEMPERED WATER RETURN TEMPERED WATER SUPPLY TREATED WATER TYPICAL
*F F FC FD FDV FF FFE FIN/FT FIN/INCH FM FMF FOF FOO FOR	DEGREE(S) FAHRENHEIT FIRE LINE FLEXIBLE CONNECTION FIRE DAMPER, FOUNDATION DRAIN FIRE DEPARTMENT VALVE FINISHED FLOOR FINISHED FLOOR ELEVATION FINS PER FOOT FINS PER INCH FLOWMETER FLOWMETER FITTING FUEL OIL FILL FUEL OIL OVERFLOW FUEL OIL RETURN	MA MAV MBH MCC MO MOD MPR MPS MV N NA NC NFPA NO NPSH	MEDICAL AIR MANUAL AIR VENT THOUSAND BRITISH THERMAL UNITS PER HOUR MOTOR CONTROL CENTER MOTOR OIL PIPING MOTOR OPERATED DAMPER MEDIUM PRESSURE STEAM RETURN MEDIUM PRESSURE STEAM SUPPLY MEDICAL VACUUM NITROGEN NOT APPLICABLE NOISE CRITERIA, NORMALLY CLOSED NATIONAL FIRE PROTECTION ASSOCIATION NORMALLY OPEN, NITROUS OXIDE NET POSITIVE SUCTION HEAD	UCD UL V VD VFD VPD VSD VTR	UNDERCUT DOOR UNDERWRITERS LABORATORIES VACUUM, VOLTS VOLUME DAMPER VARIABLE FREQUENCY DRIVE VACUUM PUMP DISCHARGE VARIABLE SPEED DRIVE VENT THROUGH ROOF
		O OA OD	OXYGEN OUTSIDE AIR OVERFLOW DRAIN	W WB WC WG WH WWF WWM	WATTS, WIDE WET BULB WATER COLUMN WATER GAUGE WALL HYDRANT WELDED WIRE FABRIC WELDED WIRE MESH

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Telephone Number: 410-234-8444

rmf
RMF ENGINEERING, INC.
5520 RESEARCH PARK DR, 3RD FLR
BALTIMORE, MD 21228
P: 410.576.0505

*PROFESSIONAL CERTIFICATION
I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR
APPROVED BY ME AND THAT I AM A DULY LICENSED
ENGINEER UNDER THE LAWS OF THE STATE OF
MARYLAND, LICENSE NUMBER 48185, EXPIRATION DATE
01/12/2022.*

(C) RMF ENGINEERING, INC.
ALL REPRODUCTION IS PROHIBITED

NO.	DESCRIPTION	BY	DATE	ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS				DATE: 04-28-2021
△				APPROVED	DATE	APPROVED	DATE	SCALE: NONE
				CHIEF ENGINEER		PROJECT MANAGER		DRAWN BY: DVC
				APPROVED	DATE	APPROVED	DATE	CHECKED BY: RK3
				ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY		SHEET NO. - OF -
								PROJECT NO. P535900
								PROPOSAL NO. P535907

FORT SMALLWOOD PARK
9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122

**MECHANICAL
ABBREVIATIONS**

M000

MECHANICAL LEGEND

NOTE: SEE CODE ANALYSIS DRAWINGS FOR FIRE RATED PARTITION LOCATIONS.

PIPING SYMBOLS

SYMBOL	DESCRIPTION
—A—	COMPRESSED AIR
—CD—	CONDENSATE DRAIN
—CA—	CONTROL AIR
---RL---	REFRIGERANT LIQUID LINE
---RS---	REFRIGERANT SUCTION LINE
---PC---	PUMPED CONDENSATE
---RV---	REFRIGERANT VENT

PIPING COMPONENTS AND SPECIALTIES

SYMBOL	DESCRIPTION
— —	PIPE GUIDE
—H—	PIPE HANGER
—S—	PIPE SLIDE
—X—	PIPE ANCHOR
—⊗—	FLOAT AND THERMOSTATIC STEAM TRAP
—⊠—	THERMODYNAMIC STEAM TRAP
—U—	BASKET STRAINER
—X—	FLEXIBLE PIPE
—FM—	FLOW METER
—M—	FLOW METER (WITH POSITIVE DISPLACEMENT)
—∩—	GOOSENECK VENT
— —	ORIFICE FITTING
—H—	SUCTION DIFFUSER
—P—	PUMP

EQUIPMENT DESIGNATIONS

SYMBOL	DESCRIPTION
AC-X	AIR COMPRESSOR DESIGNATION
ACCU-X	AIR COOLED CONDENSING UNIT DESIGNATION
ACU-X	AIR CONDITIONING UNIT DESIGNATION
C-X	CONVECTOR DESIGNATION
EF-X	EXHAUST FAN DESIGNATION
ET-X	EXPANSION TANK DESIGNATION
EUH-X	ELECTRIC UNIT HEATER DESIGNATION
EWUH-X	ELECTRIC WALL UNIT HEATER DESIGNATION
GEF-X	GENERAL EXHAUST FAN DESIGNATION
HPU-X	HEAT PUMP UNIT DESIGNATION
RF-X	RETURN FAN DESIGNATION
SF-X	SUPPLY FAN DESIGNATION
V-X	VALVE DESIGNATION

DUCTWORK SYMBOLS

SYMBOL	DESCRIPTION
⊙	THERMOSTAT
⊗	WALL MOUNTED CO2 SENSOR
—#—	AIR FLOW
⊠	SUPPLY AIR DIFFUSER
⊠	RETURN AIR GRILLE
⊠	EXHAUST AIR GRILLE
—FD—	FIRE DAMPER
—FSD—	COMBINATION FIRE/SMOKE DAMPER
—VD—	VOLUME DAMPER
—BDD—	BACK DRAFT DAMPER
—AID—	AUTOMATIC ISOLATION DAMPER
—AGTID—	AUTOMATIC GAS TIGHT ISOLATION DAMPER
—SD—	SMOKE DAMPER
—SD—	SMOKE DETECTOR
—FC—	FLEXIBLE CONNECTION
—HAD—	HORIZONTAL ACCESS DOOR
—VAD—	VERTICAL ACCESS DOOR
—E—	ELBOW WITH DOUBLE THICKNESS TURNING VANES
—RBT—	RECTANGULAR BRANCH TAKE-OFF
—BMBT—	BELL MOUTH BRANCH TAKE-OFF
—RBT—	ROUND BRANCH TAKE-OFF
—RDB—	ROUND DUCT DROP OFF BOTTOM
—DT—	DUCT TRANSITION
—SRT—	SQUARE TO ROUND TRANSITION
—UP/DN—	DUCTWORK CHANGE IN ELEVATION (UP OR DOWN)
—SAD—	SUPPLY/OUTSIDE AIR DUCT RISER
—RAD—	RETURN AIR DUCT RISER
—EAD—	EXHAUST/RELIEF AIR DUCT RISER
⊙	ROUND DUCT RISER (SMALLER THAN 12")
⊙	ROUND DUCT RISER (12" AND LARGER)
⊠	SUPPLY AIR VOLUME TERMINAL UNIT IDENTIFIER
⊠	AIR DEVICE IDENTIFIER

GENERAL SYMBOLS

PIPING SYMBOLS

SYMBOL	DESCRIPTION
—D—	PIPE DROP
—R—	PIPE RISE
—C—	PIPE CAP
—B—	BRANCH TAKE OFF
—DT—	PIPE DROP TEE
—RT—	PIPE RISE TEE
—S—	SHUTOFF VALVE (REFER TO SPECIFICATIONS FOR TYPE)
—A—	AUTOMATIC CONTROL VALVE (TWO-WAY)
—A—	AUTOMATIC CONTROL VALVE (THREE-WAY)
—B—	BUTTERFLY VALVE
—I—	ISOLATION VALVE
—A—	AUTOMATIC BUTTERFLY VALVE
—B—	BALANCING VALVE (WITH MEMORY STOP)
—A—	AUTOFLOW CONTROL VALVE
—C—	CHECK VALVE
—S—	OUTSIDE STEM AND YOKE VALVE
—S—	SAFETY RELIEF VALVE
—S—	STRAINER
—S—	STRAINER WITH BLOWDOWN VALVE
—P—	PRESSURE REDUCING VALVE
—P—	PRESSURE RELIEF VALVE
—B—	BALL VALVE
—G—	GLOBE VALVE
—A—	ANGLE VALVE (ELEVATION)
—A—	ANGLE VALVE (PLAN VIEW)
—U—	UNION
—F—	PIPE FLANGE
—E—	ECCENTRIC REDUCER (FLAT ON BOTTOM)
—E—	ECCENTRIC REDUCER (FLAT ON TOP)
—C—	CONCENTRIC REDUCER
—F—	FLOWMETER FITTING
—F—	FLOWMETER
—H—	HOSE END DRAIN VALVE
—P—	PRESSURE SENSOR
—T—	TEMPERATURE SENSOR
—A—	AUTOMATIC AIR VENT
—M—	MANUAL AIR VENT

PIPING SYMBOLS

SYMBOL	DESCRIPTION
—G—	PRESSURE GAUGE WITH BALL VALVE
—T—	THERMOMETER
—P—	PRESSURE/TEMPERATURE PLUG
—A—	FLOW ARROW

LINETYPE SYMBOLS

DESIGNATION	DESCRIPTION
—Dotted—	DEMOLITION WORK (SHOWN ON DEMOLITION PLANS)
—Dashed—	EXISTING WORK
—Dotted—	FUTURE WORK
—Dotted—	NEW WORK
—Dotted—	MATCHLINE
—Dotted—	PART PLAN DESIGNATION

REFERENCE SYMBOLS

DESIGNATION	DESCRIPTION
—XX—	FLOOR PLAN NUMBER
—XX—	PARTIAL FLOOR PLAN NUMBER
—XX—	ELEVATION = LETTER
—XX—	DETAIL = NUMBER
—XX—	SHEET NUMBER ON WHICH THE PARTIAL PLAN, ELEVATION OR DETAIL IS DRAWN
—XX—	SHEET NUMBER WHERE PARTIAL PLAN, ELEVATION OR DETAIL IS TAKEN FROM
—XX—	SECTION LETTER
—XX—	SHEET NUMBER ON WHICH THE SECTION IS DRAWN
—XX—	SHEET NUMBER WHERE THE SECTION IS TAKEN FROM
—N—	NORTH ARROW
—P—	POINT OF CONNECTION TO EXISTING
—D—	POINT OF DISCONNECTION

TEXT SYMBOLS

SYMBOL	DESCRIPTION
&	AND
@	AT
°F	DEGREE(S) FAHRENHEIT
°C	DEGREE(S) CELSIUS
∅	DIAMETER, PHASE
/	DIVIDE BY, PER
=	EQUALS, EQUAL TO
>	GREATER THAN
≥	GREATER THAN OR EQUAL TO
<	LESS THAN
≤	LESS THAN OR EQUAL TO
-	MINUS
x	MULTIPLY BY, BY
#	NUMBER, POUND
%	PERCENT
+	PLUS
±	PLUS OR MINUS

NO.	DESCRIPTION	BY	DATE
△			

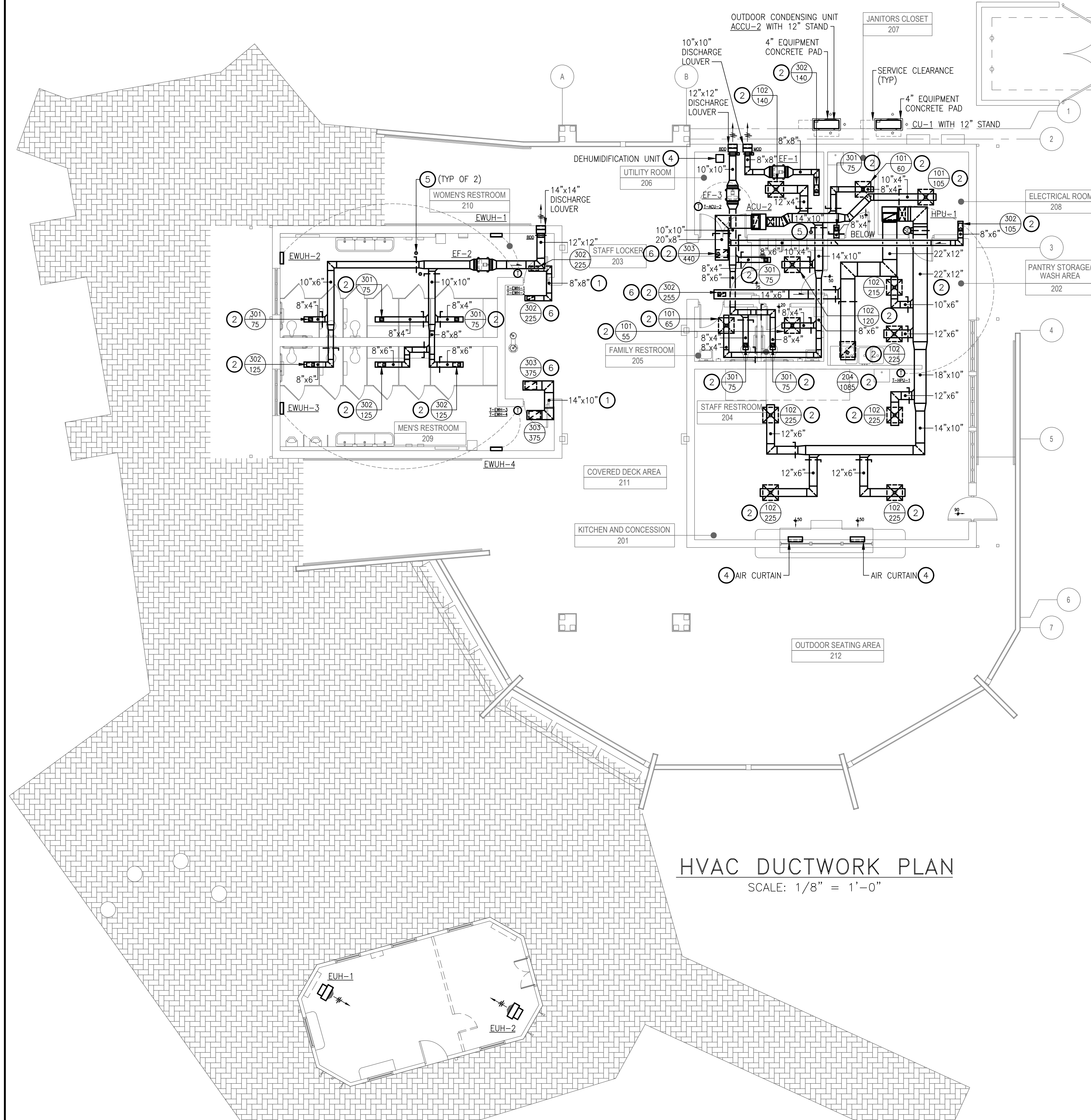
ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS				DATE: 04-28-2021
APPROVED	DATE	APPROVED	DATE	SCALE: NONE
CHIEF ENGINEER		PROJECT MANAGER		DRAWN BY: DVC
APPROVED	DATE	APPROVED	DATE	CHECKED BY: RK3
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY		SHEET NO. - OF -
				PROJECT NO. P535900
				PROPOSAL NO. P535907

DRAWING NOTES:

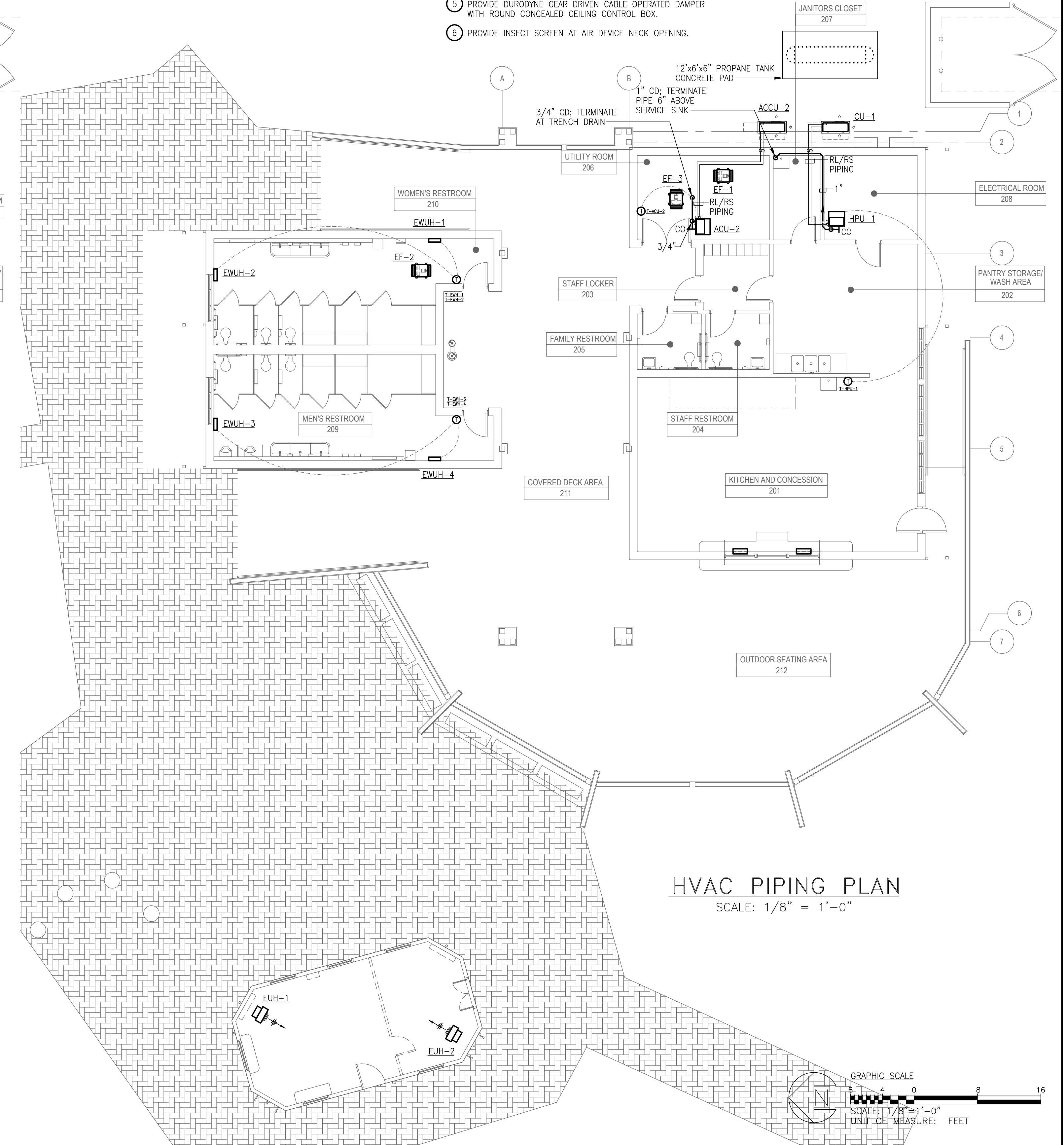
- 1 PROVIDE MAKE-UP AIR DUCT ABOVE CEILING
- 2 PROVIDE DURODYNE ROUND INTERNAL GEAR DRIVEN CABLE OPERATED DAMPER.
- 3 PROVIDE AIR CURTAIN EQUAL TO BERNER MODEL DTU03, 120V, 0.10KW PLUG-IN TYPE WITH WASHABLE FILTER AS AN INTEGRAL COMPONENT OF THE PREFABRICATED PASS-THROUGH WINDOW ASSEMBLY.
- 4 NON-HEATED FLY FAN AIR CURTAIN TO BE PROVIDED BY OTHERS.
- 5 PROVIDE DURODYNE GEAR DRIVEN CABLE OPERATED DAMPER WITH ROUND CONCEALED CEILING CONTROL BOX.
- 6 PROVIDE INSECT SCREEN AT AIR DEVICE NECK OPENING.

GENERAL NOTES:

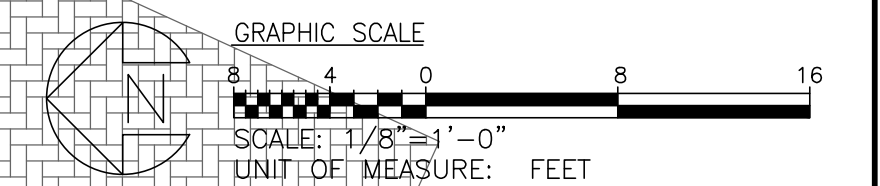
- 1. ALL DUCTWORK AND EF'S WITHIN THE PITCHED ROOF TO BE INSTALLED ABOVE THE HEIGHT OF THE BOTTOM CHORD OF THE STRUCTURAL ROOF TRUSSES AND ROUTED THROUGH TRUSS OPENINGS.
- 2. REFER TO AIR DEVICE SCHEDULE FOR DUCT SIZES TO AIR DEVICES.
- 3. REFRIGERANT PIPING RL/RS SHALL BE SIZED PER MANUFACTURERS RECOMMENDATION.



HVAC DUCTWORK PLAN
SCALE: 1/8" = 1'-0"



HVAC PIPING PLAN
SCALE: 1/8" = 1'-0"



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5520 RESEARCH PARK DR. 3RD FLR
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P: 410.576.0505

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**ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS**

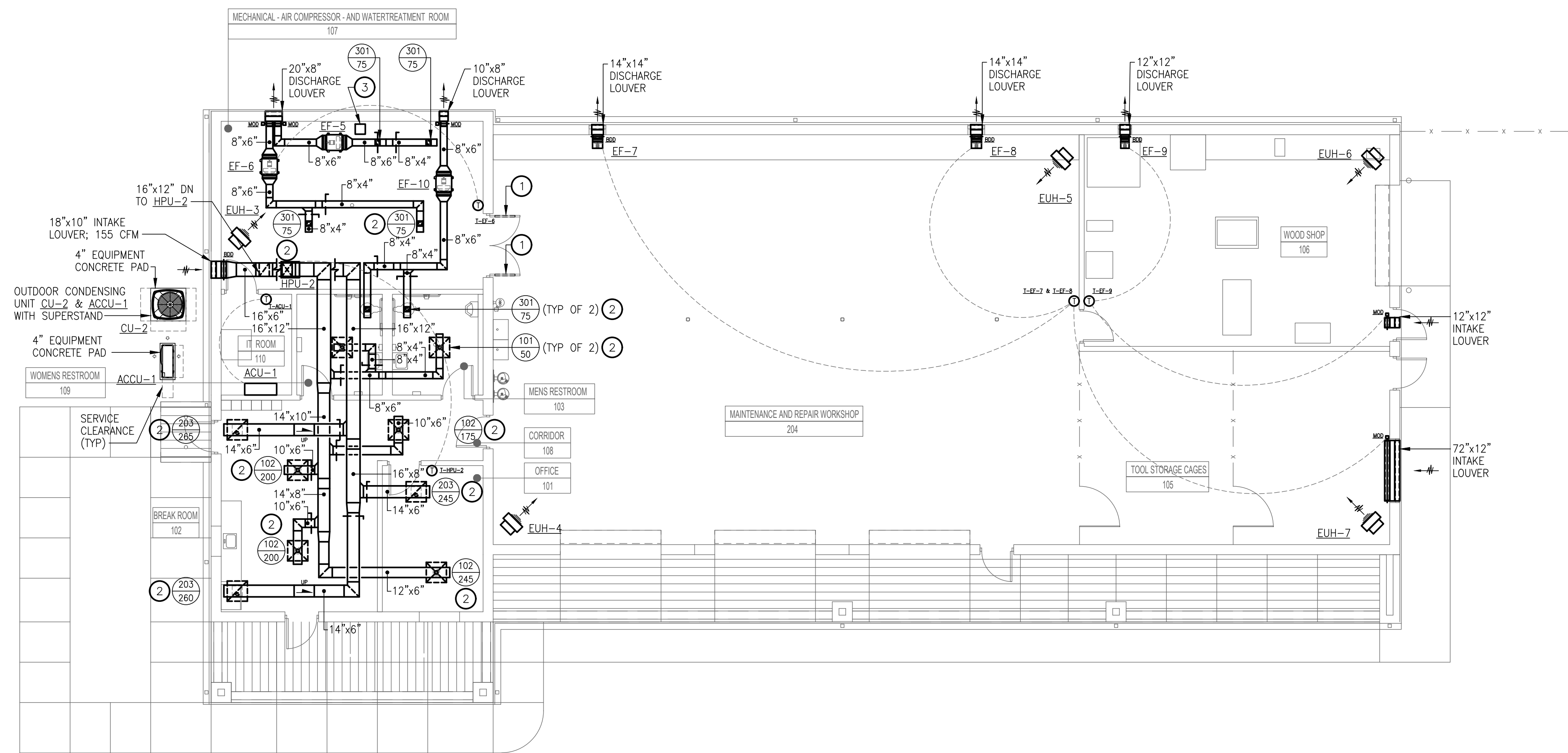
DATE: 04-28-2021

APPROVED	DATE	APPROVED	DATE	SCALE: 1/8"=1'-0"
CHIEF ENGINEER		PROJECT MANAGER		CHECKED BY: RK3
APPROVED	DATE	APPROVED	DATE	SHEET NO. - OF -
				PROJECT NO. P535900
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY		PROPOSAL NO. P535907

**FORT SMALLWOOD PARK
9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122**

**COMFORT STATION
DUCTWORK PLAN**

M100C

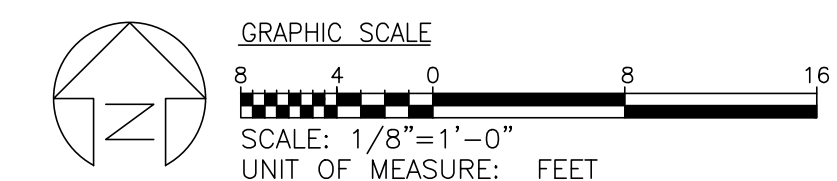
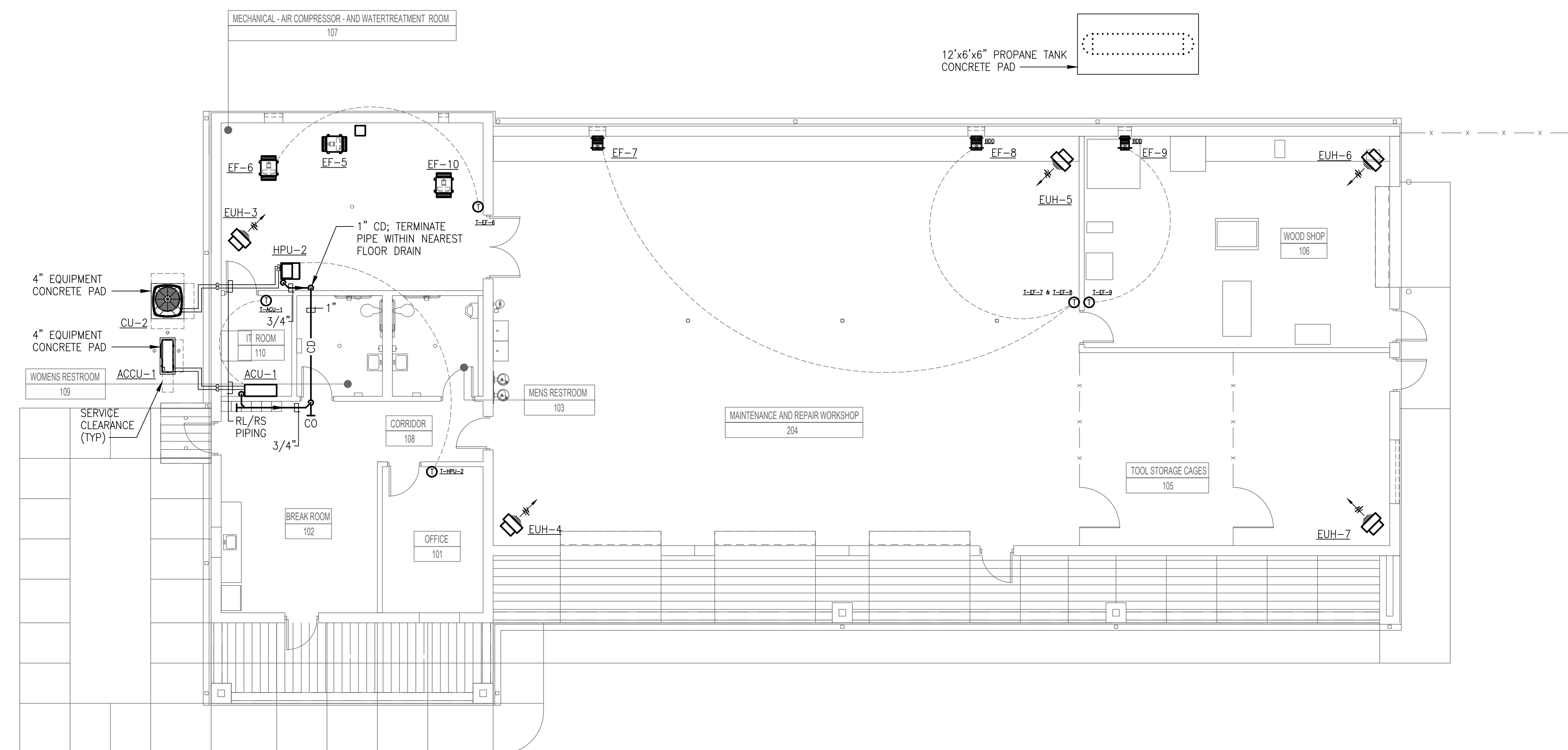


GENERAL NOTES:

1. ALL DUCTWORK AND EF'S WITHIN THE PITCHED ROOF TO BE INSTALLED ABOVE THE HEIGHT OF THE BOTTOM CHORD OF THE STRUCTURAL ROOF TRUSSES AND ROUTED BETWEEN TRUSS OPENINGS.
2. REFER TO AIR DEVICE SCHEDULE FOR DUCT SIZES TO AIR DEVICES.

DRAWING NOTES:

- 1 PROVIDE 24"x24" DOOR LOUVER.
- 2 PROVIDE DURODYNE ROUND INTERNAL GEAR DRIVEN CABLE OPERATED DAMPER.
- 3 PROVIDE QUEST 70 DEHUMIDIFIER MOUNTED BELOW CEILING, 120V, 680 WATTS. PROVIDE AN ACCESSORY DRAIN PAN UNDER UNIT WITH 3/4" DRAIN CONNECTION. PIPE ACCESSORY DRAIN PAN OUTLET AND ROUTE TO FLOOR DRAIN.



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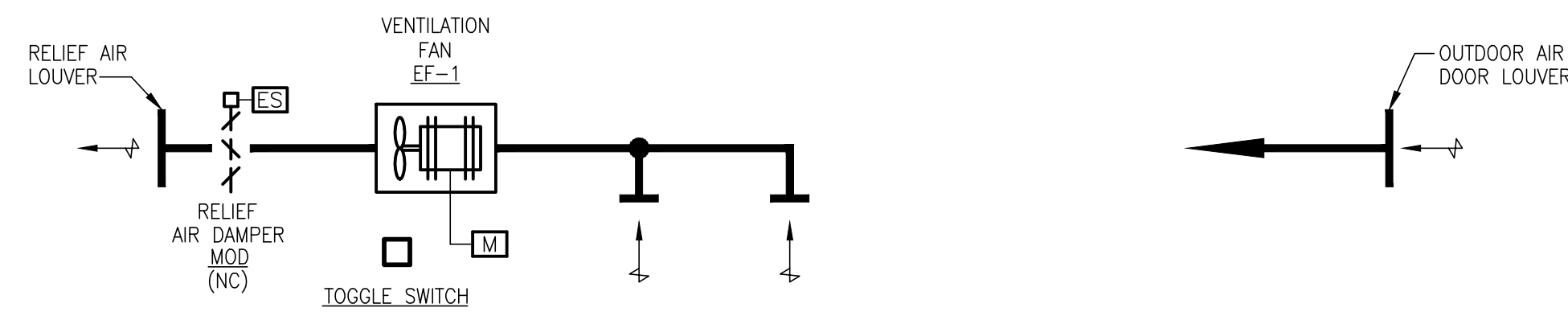
**ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS**

DATE: 04-28-2021

SCALE: 1/8"=1'-0"
DRAWN BY: DVC
CHECKED BY: RK3
SHEET NO. - OF -
PROJECT NO. P535900
PROPOSAL NO. P535907

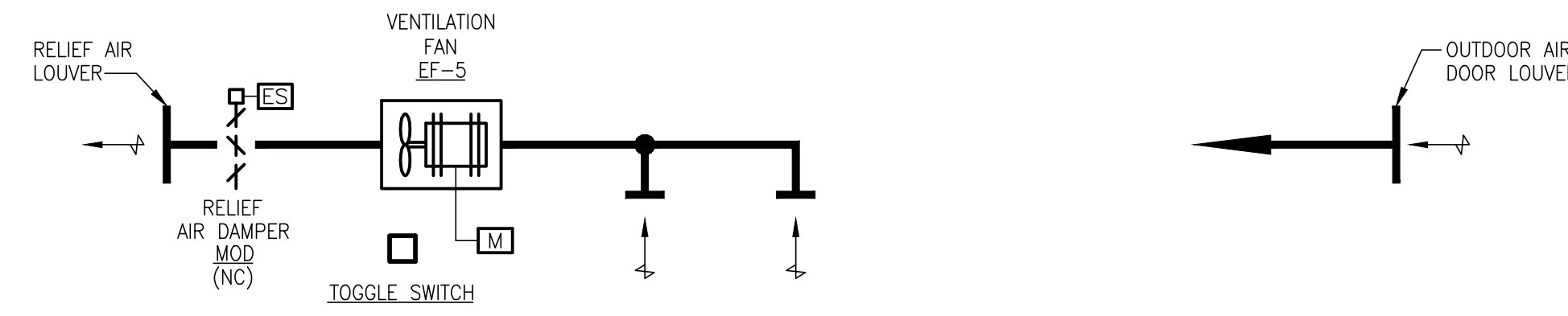
**FORT SMALLWOOD PARK
9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122
MAINTENANCE BLDG
DUCTWORK PLAN**

M101M



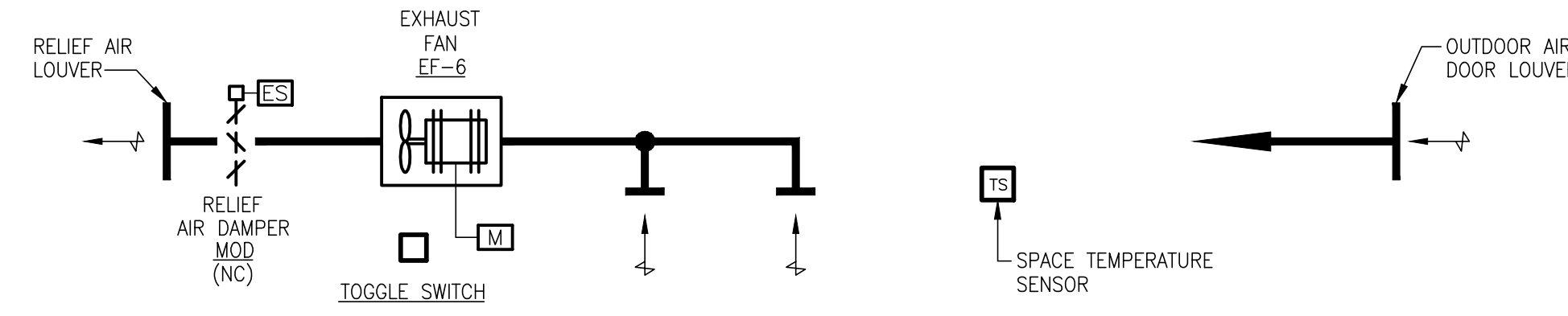
SEQUENCE OF OPERATION:

1. VENTILATION FAN EF-1 SHALL INITIALLY BE INDEXED VIA WALL MOUNTED TOGGLE SWITCH.
2. AFTER RELIEF DAMPER IS PROVEN OPEN BY ITS END SWITCH, VENTILATION FAN EF-1 SHALL BE ENERGIZED.



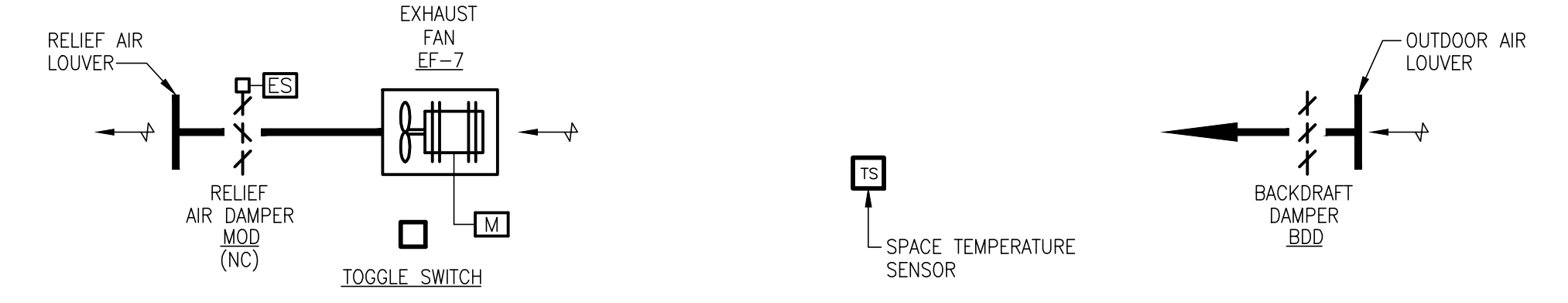
SEQUENCE OF OPERATION:

1. VENTILATION FAN EF-5 SHALL INITIALLY BE INDEXED VIA WALL MOUNTED TOGGLE SWITCH.
2. AFTER RELIEF DAMPER IS PROVEN OPEN BY ITS END SWITCH, VENTILATION FAN EF-5 SHALL BE ENERGIZED.



SEQUENCE OF OPERATION:

1. EXHAUST FAN EF-6 SHALL INITIALLY BE INDEXED VIA WALL MOUNTED TOGGLE SWITCH, EXHAUST FAN EF-6 SHALL PROVIDE SUMMER VENTILATION AND TEMPERATURE CONTROL.
2. ON A RISE IN SPACE TEMPERATURE ABOVE THE SETPOINT OF 85°F, RELIEF DAMPER SHALL OPEN, AFTER RELIEF DAMPER IS PROVEN OPEN BY ITS END SWITCH, EXHAUST FAN EF-6 SHALL BE ENERGIZED.
3. EXHAUST FAN EF-6 SHALL DE-ENERGIZED AND RELIEF DAMPER SHALL CLOSE WHEN SPACE TEMPERATURE DROPS BELOW THE SETPOINT OF 80°F (ADJUSTABLE).
4. UPON A FAILURE OF EXHAUST FAN EF-6, A HIGH OF 105°F AND LOW OF 40°F TEMPERATURE ALARM SHALL BE ANNUNCIATED AT LOCAL CONTROL PANEL.



SEQUENCE OF OPERATION:

1. VENTILATION FANS EF-7 AND EF-8 SHALL INITIALLY BE INDEXED TO THE AUTOMATIC MODE VIA ITS UNIT MOUNTED TOGGLE SWITCHES, VENTILATION FANS SHALL PROVIDE SUMMER VENTILATION AND TEMPERATURE CONTROL.
2. ON A RISE IN SPACE TEMPERATURE ABOVE THE SETPOINT OF 95°F (ADJUSTABLE), RELIEF AIR DAMPERS SHALL OPEN, AFTER RELIEF AIR DAMPERS ARE PROVEN OPEN BY ITS END SWITCHES, VENTILATION FANS EF-7 AND EF-8 SHALL BE ENERGIZED.
3. VENTILATION FANS EF-7 AND EF-8 SHALL BE DE-ENERGIZED AND RELIEF AIR DAMPERS SHALL CLOSE WHEN THE SPACE TEMPERATURE DROPS BELOW THE SETPOINT OF 80°F (ADJUSTABLE).
4. UPON A FAILURE OF EXHAUST FANS EF-7 AND EF-8 A HIGH OF 105°F AND LOW OF 40°F TEMPERATURE ALARM SHALL BE ANNUNCIATED AT THE LOCAL CONTROL PANEL.

WATER TREATMENT ROOM EXHAUST (COMFORT STATION)

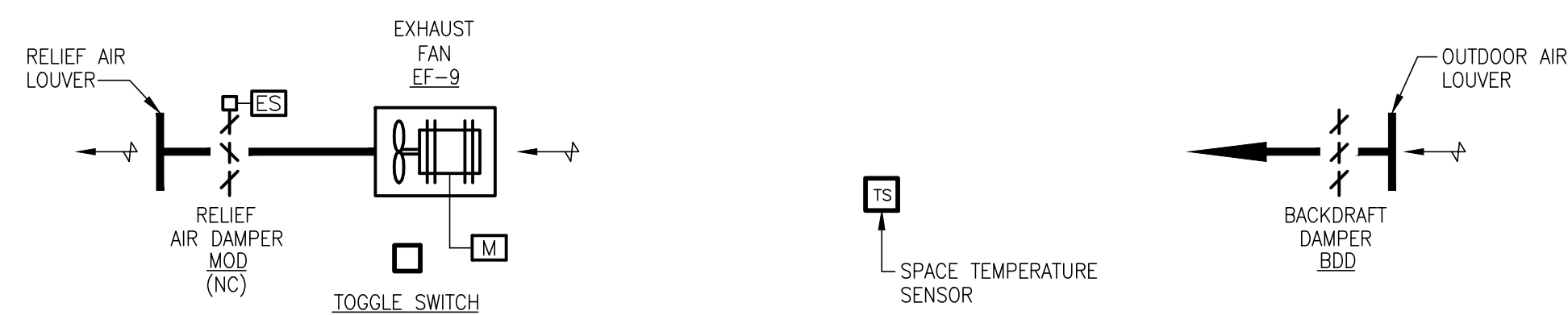
SCALE: NONE

WATER TREATMENT ROOM VENTILATION AND EXHAUST (MAINTENANCE)

SCALE: NONE

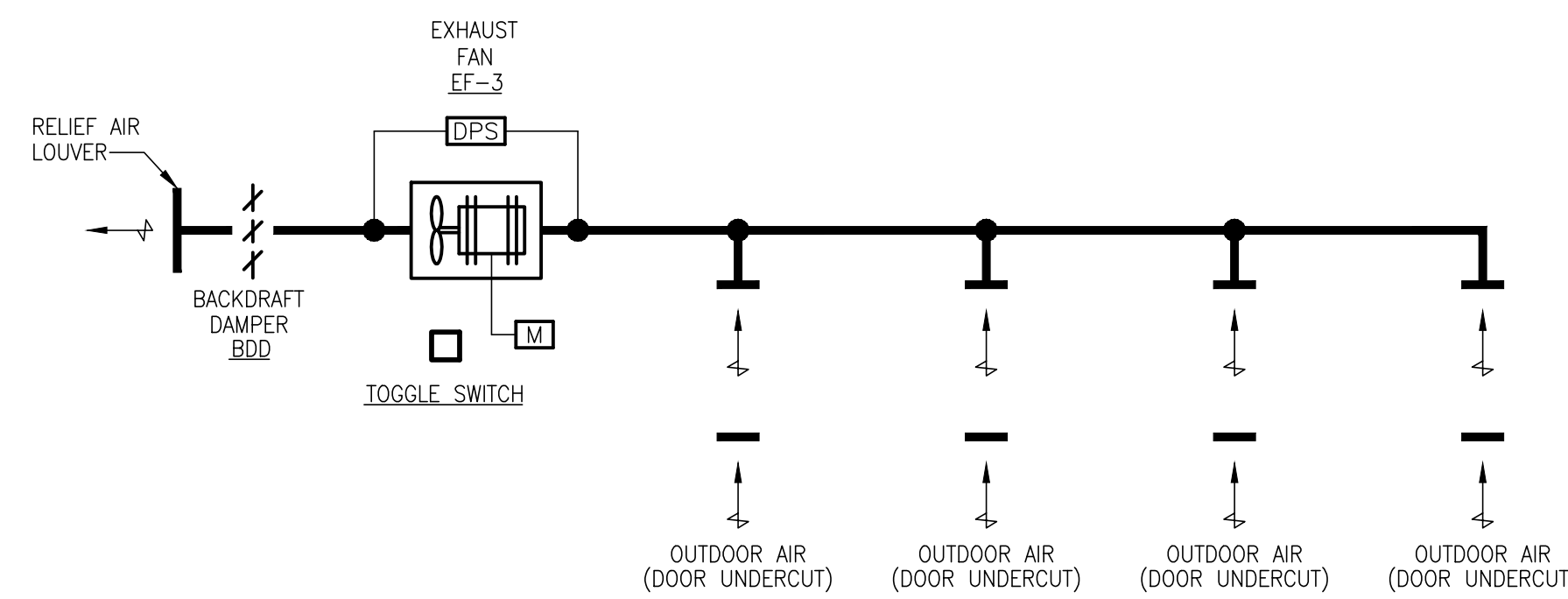
REPAIR WORKSHOP VENTILATION (MAINTENANCE)

SCALE: NONE



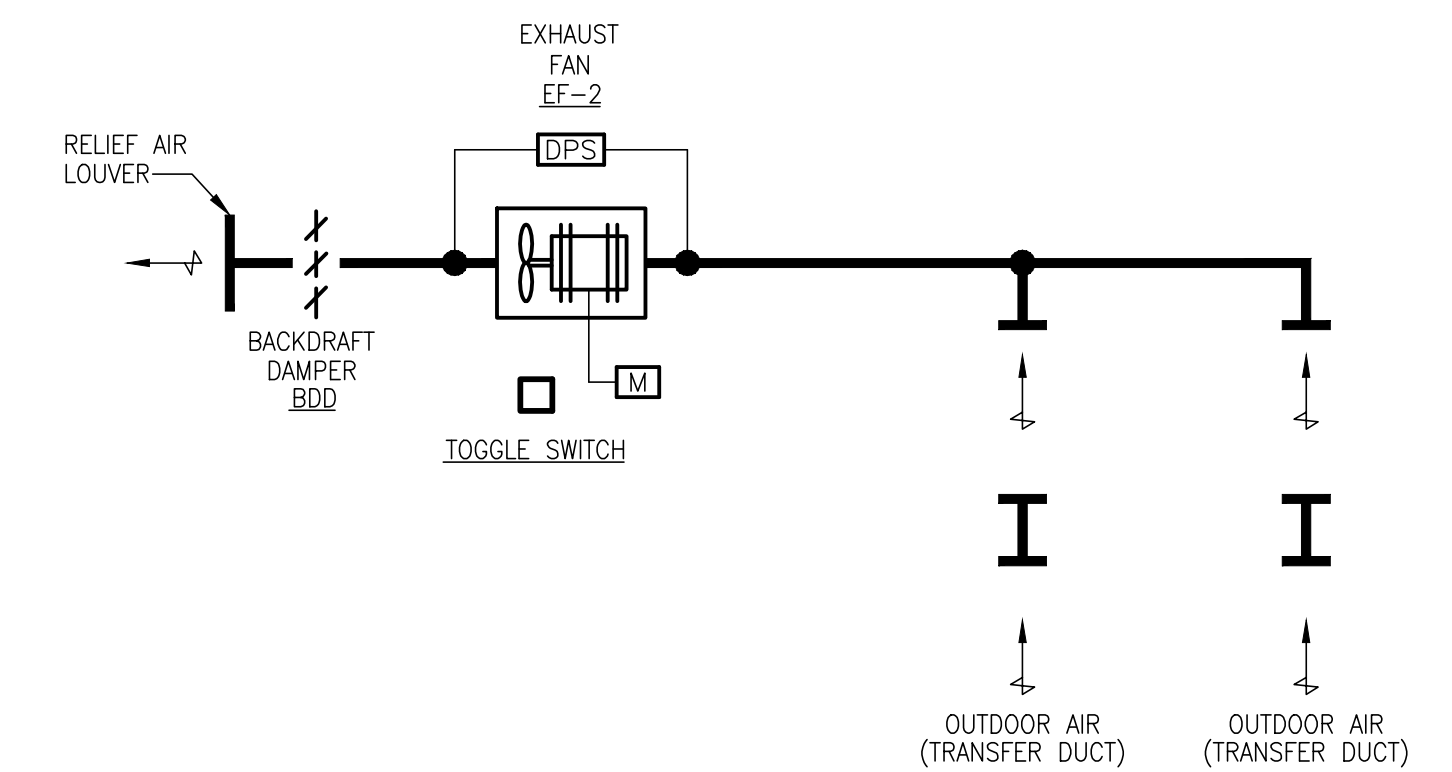
SEQUENCE OF OPERATION:

1. VENTILATION FAN EF-9 SHALL INITIALLY BE INDEXED TO THE AUTOMATIC MODE VIA ITS UNIT MOUNTED TOGGLE SWITCH, VENTILATION FAN SHALL PROVIDE SUMMER VENTILATION AND TEMPERATURE CONTROL.
2. ON A RISE IN SPACE TEMPERATURE ABOVE THE SETPOINT OF 95°F (ADJUSTABLE), RELIEF AIR DAMPER SHALL OPEN, AFTER RELIEF AIR DAMPER ARE PROVEN OPEN BY ITS END SWITCH, VENTILATION FAN EF-9 SHALL BE ENERGIZED.
3. VENTILATION FAN EF-9 SHALL BE DE-ENERGIZED AND RELIEF AIR DAMPER SHALL CLOSE WHEN THE SPACE TEMPERATURE DROPS BELOW THE SETPOINT OF 80°F (ADJUSTABLE).
4. UPON A FAILURE OF EXHAUST FAN EF-9 A HIGH OF 105°F AND LOW OF 40°F TEMPERATURE ALARM SHALL BE ANNUNCIATED AT THE LOCAL CONTROL PANEL.



SEQUENCE OF OPERATION:

1. LOCAL CONTROL PANEL SHALL ENERGIZE EXHAUST FAN EF-3 BASED ON TIME CLOCK OCCUPIED/UNOCCUPIED FUNCTION, EXHAUST FAN OCCUPIED/UNOCCUPIED TIME PERIODS SHALL BE INDIVIDUALLY PROGRAMMED, EXHAUST FAN SHALL RUN CONTINUOUSLY DURING OCCUPIED MODE.
2. A LOSS OF FLOW DURING THE OCCUPIED MODE AS SENSED BY THE FAN DIFFERENTIAL PRESSURE SWITCH SHALL ALARM LOCAL CONTROL PANEL.



SEQUENCE OF OPERATION:

1. LOCAL CONTROL PANEL SHALL ENERGIZE EXHAUST FAN EF-2 BASED ON TIME CLOCK OCCUPIED/UNOCCUPIED FUNCTION, EXHAUST FAN OCCUPIED/UNOCCUPIED TIME PERIODS SHALL BE INDIVIDUALLY PROGRAMMED, EXHAUST FAN SHALL RUN CONTINUOUSLY DURING OCCUPIED MODE.
2. A LOSS OF FLOW DURING THE OCCUPIED MODE AS SENSED BY THE FAN DIFFERENTIAL PRESSURE SWITCH SHALL ALARM LOCAL CONTROL PANEL.

WOOD SHOP VENTILATION (MAINTENANCE)

SCALE: NONE

FAMILY TOILET, STAFF TOILET, JANITOR'S CLOSET AND LOCKERS

SCALE: NONE

MEN'S AND WOMEN'S RESTROOMS (COMFORT STATION)

SCALE: NONE

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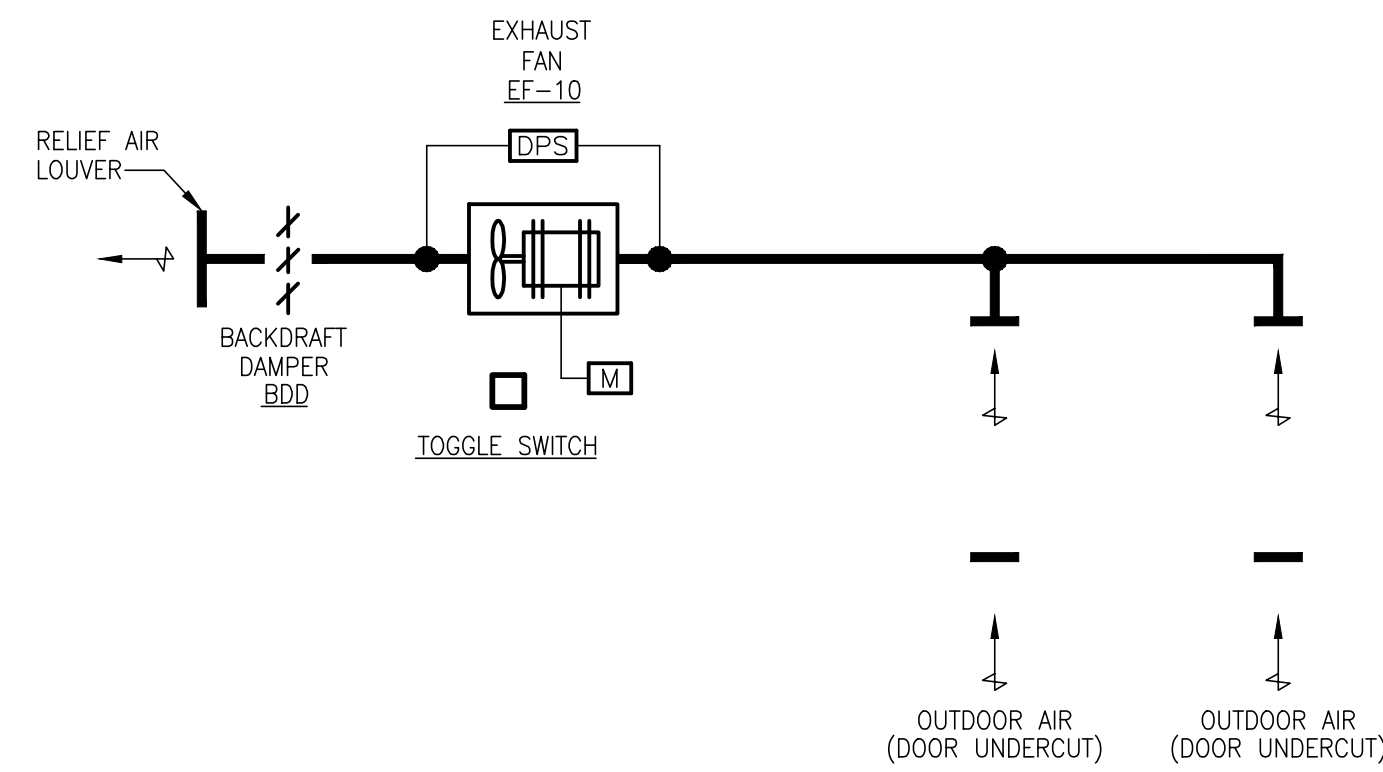
DATE: 04-28-2021

APPROVED	DATE	APPROVED	DATE	SCALE: NONE
CHIEF ENGINEER		PROJECT MANAGER		DRAWN BY: DVC
APPROVED	DATE	APPROVED	DATE	CHECKED BY: RK3
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY		SHEET NO. - OF -
				PROJECT NO. P535900
				PROPOSAL NO. P535907

FORT SMALLWOOD PARK
9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122

MECHANICAL SCHEMATICS

M300



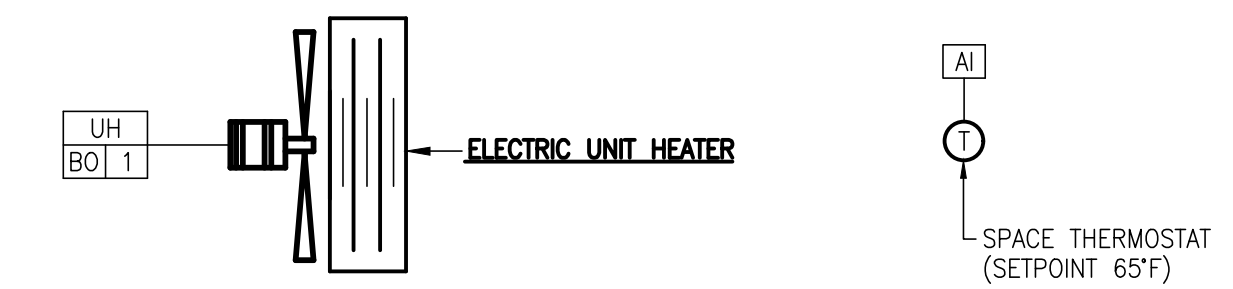
SEQUENCE OF OPERATION:

1. LOCAL CONTROL PANEL SHALL ENERGIZE EXHAUST FAN EE-10 BASED ON TIME CLOCK OCCUPIED/UNOCCUPIED FUNCTION. EXHAUST FAN OCCUPIED/UNOCCUPIED TIME PERIODS SHALL BE INDIVIDUALLY PROGRAMMED. EXHAUST FAN SHALL RUN CONTINUOUSLY DURING OCCUPIED MODE.
2. A LOSS OF FLOW DURING THE OCCUPIED MODE AS SENSED BY THE FAN DIFFERENTIAL PRESSURE SWITCH SHALL ALARM LOCAL CONTROL PANEL.



SEQUENCE OF OPERATION:

1. SPACE THERMOSTAT, WITH AN "OFF-AUTO" SUBBASE, SHALL CONTROL THE WALL HEATER. WHEN IN THE "AUTO" POSITION, THERMOSTAT SHALL CYCLE THE UNIT HEATER FAN AND ELECTRIC HEAT TO MAINTAIN SPACE SETPOINT OF 70°F (ADJUSTABLE).
2. IN THE "OFF" POSITION, FAN SHALL REMAIN OFF AND ELECTRIC HEAT SHALL BE DE-ENERGIZED.



SEQUENCE OF OPERATION:

1. SPACE THERMOSTAT, WITH AN "OFF-AUTO" SUBBASE, SHALL CONTROL THE UNIT HEATER. WHEN IN THE "AUTO" POSITION, THERMOSTAT SHALL CYCLE THE UNIT HEATER FAN AND ELECTRIC HEAT TO MAINTAIN SPACE SETPOINT OF 65°F (ADJUSTABLE).
2. IN THE "OFF" POSITION, FAN SHALL REMAIN OFF AND ELECTRIC HEAT SHALL BE DE-ENERGIZED.

MEN'S AND WOMEN'S RESTROOMS (MAINTENANCE)

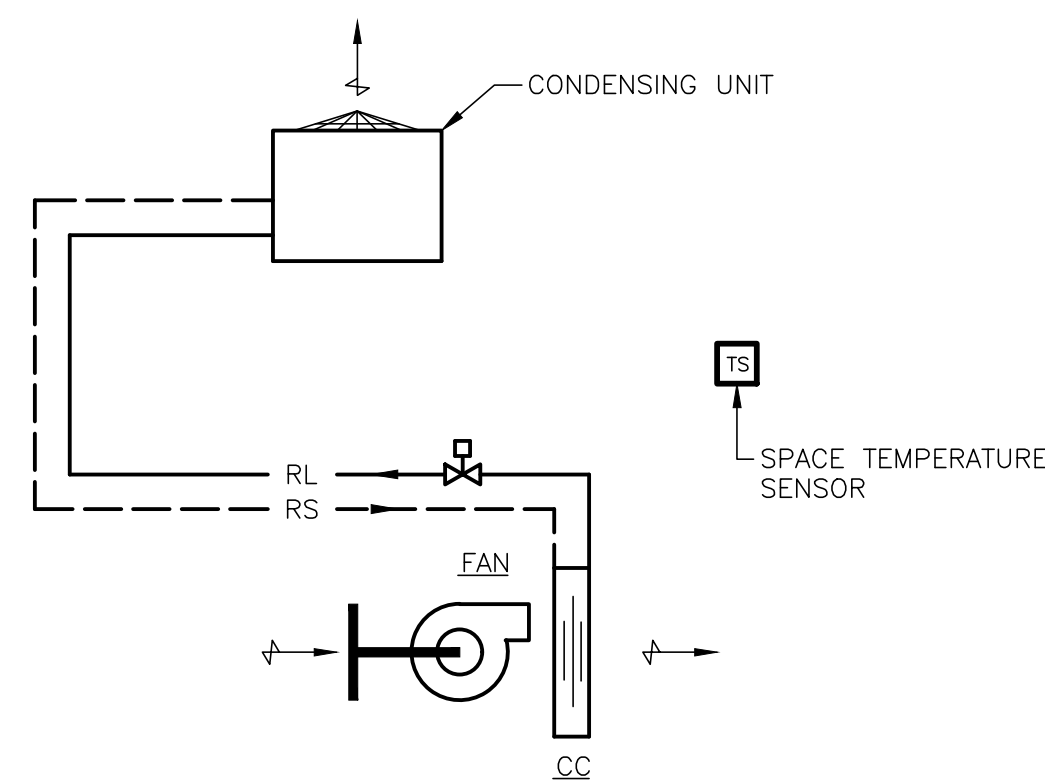
SCALE:
NONE

ELECTRIC WALL HEATER

SCALE:
NONE

ELECTRIC UNIT HEATER

SCALE:
NONE



SEQUENCE OF OPERATION:

- A. THE AIR CONDITIONING UNIT SHALL BE ENERGIZED VIA REMOTE SIGNAL BASED ON SPACE TEMPERATURE SET POINTS.
- B. WHEN THE UNIT IS ENERGIZED, THE FAN SHALL RUN CONTINUOUSLY. ON A RISE IN TEMPERATURE ABOVE THE SPACE TEMPERATURE SET POINT, THE COMPRESSOR SHALL ENERGIZE AND THE REFRIGERANT SOLENOID VALVE SHALL MODULATE OPEN. ON A DROP IN TEMPERATURE, THE REVERSE SHALL OCCUR.
- C. WHEN THE UNIT IS DE-ENERGIZED, ALL CONTROLS SHALL RETURN TO THEIR NORMAL POSITION READY FOR RESTARTING. FAN SHALL BE DE-ENERGIZED, COMPRESSOR SHALL BE DE-ENERGIZED AND THE REFRIGERANT SOLENOID VALVE SHALL CLOSE.

SPLIT SYSTEM AIR CONDITIONING UNIT

SCALE:
NONE

SCALE:
NONE

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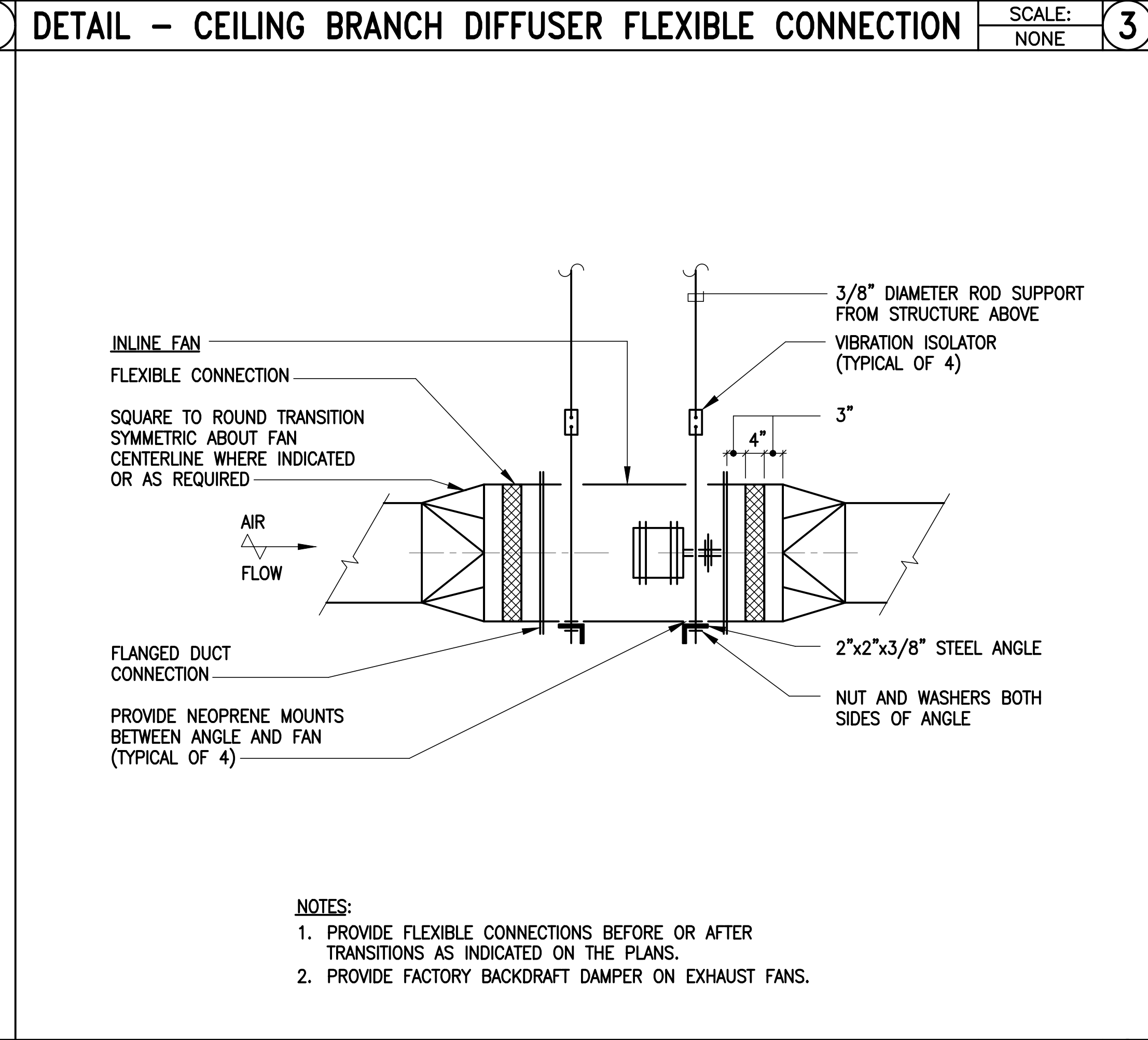
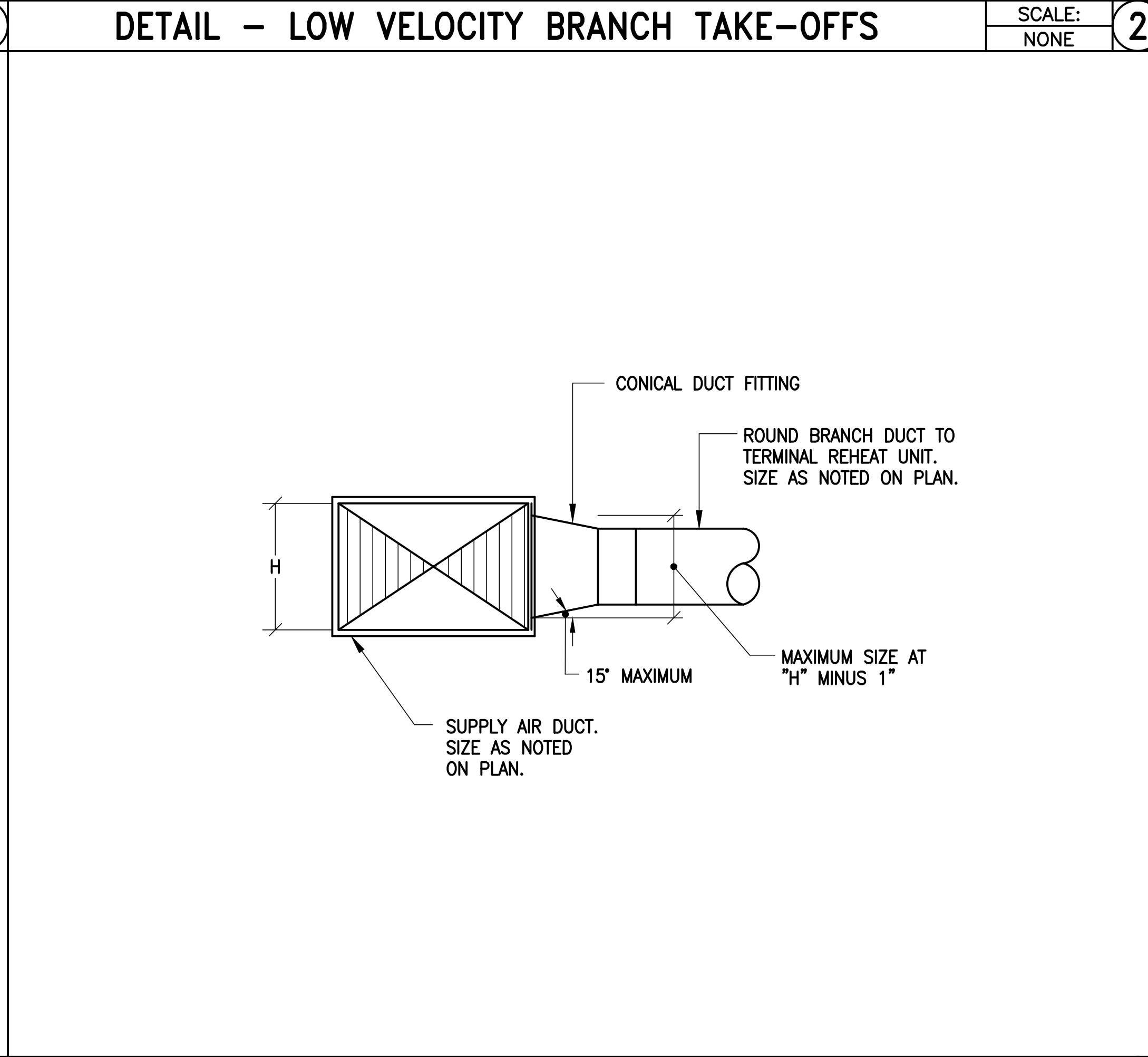
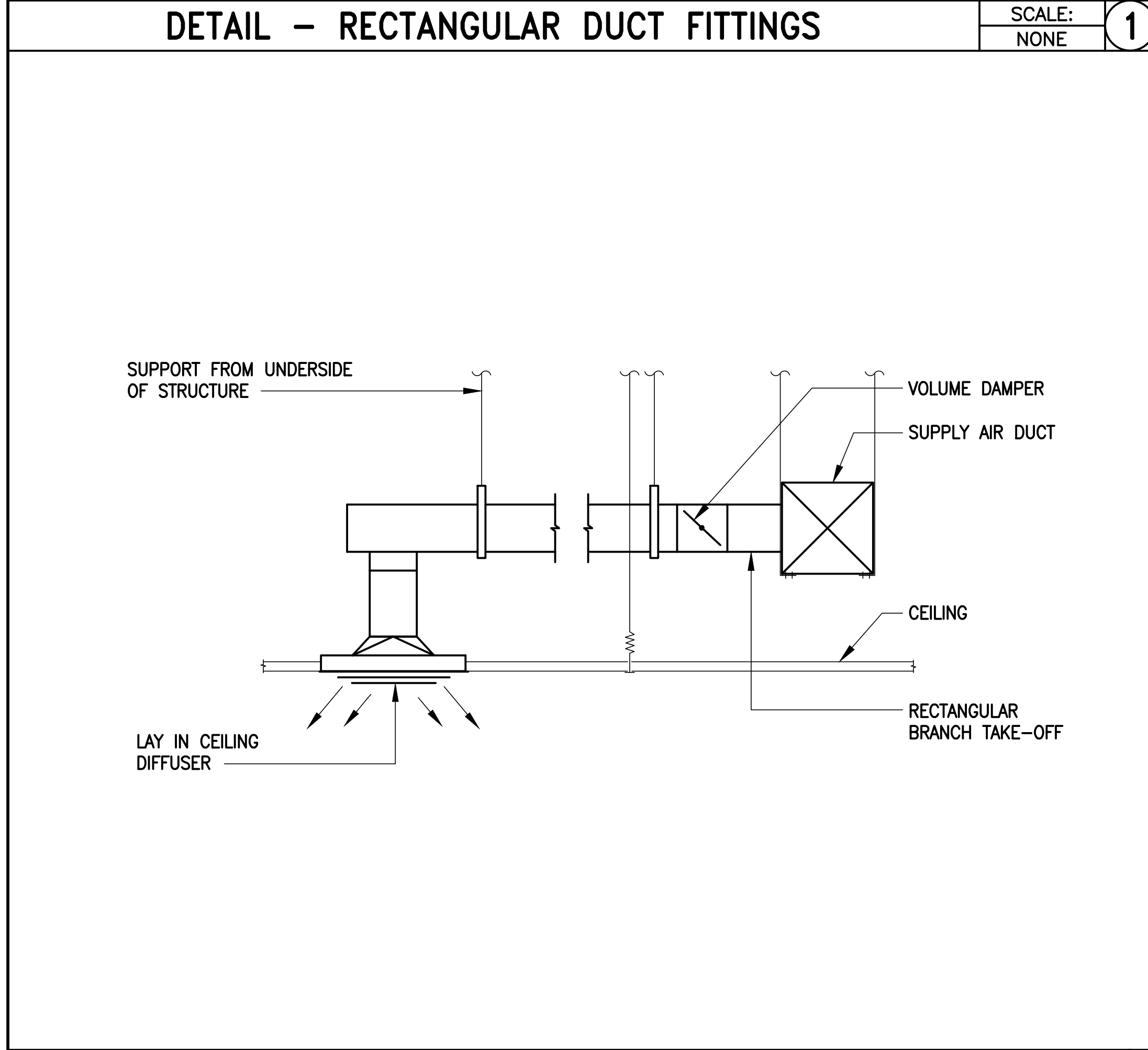
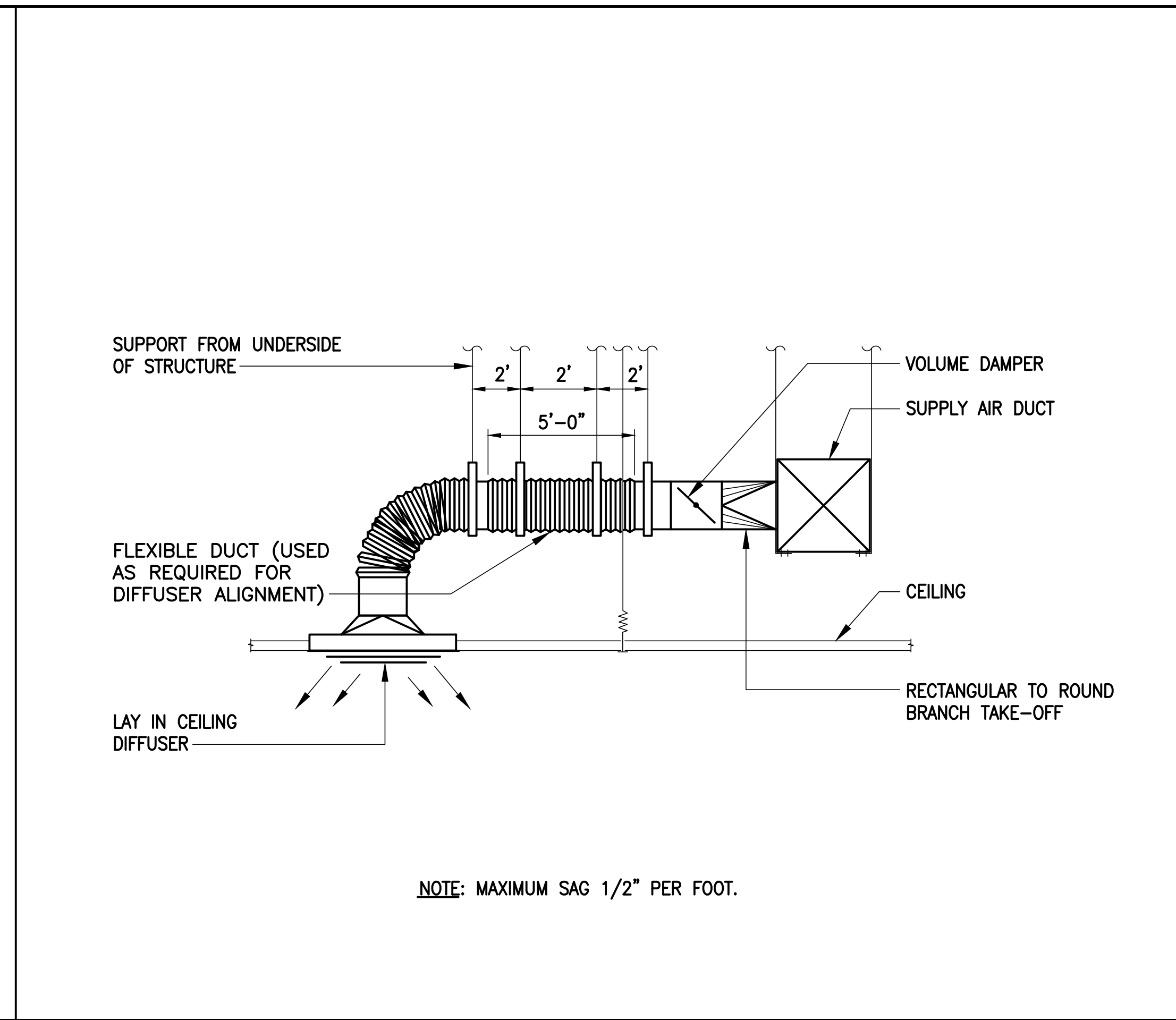
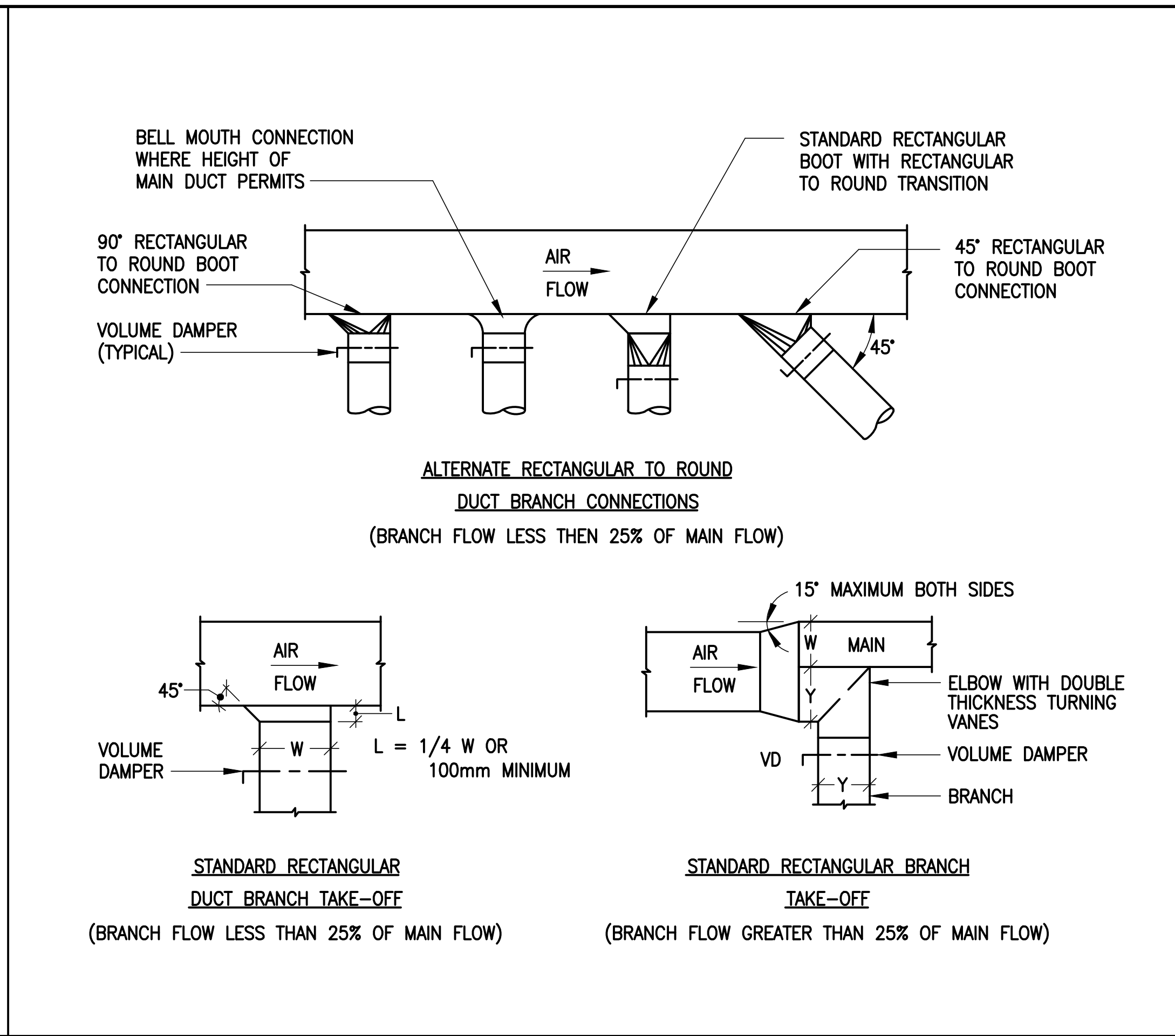
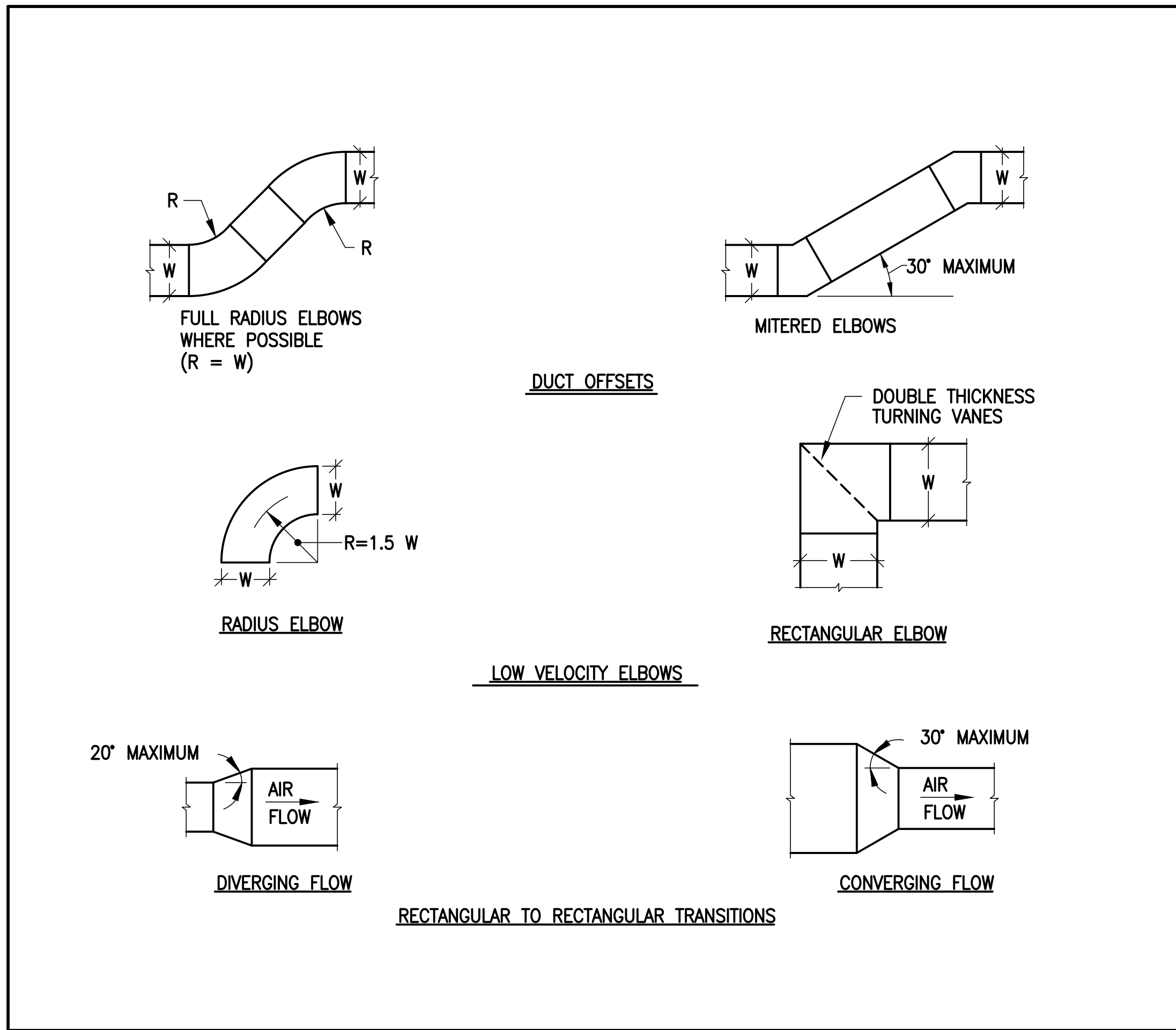
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ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS				DATE: 04-28-2021
APPROVED	DATE	APPROVED	DATE	SCALE: NONE
CHIEF ENGINEER		PROJECT MANAGER		DRAWN BY: DVC
APPROVED	DATE	APPROVED	DATE	CHECKED BY: RK3
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY		SHEET NO. - OF -
				PROJECT NO. P535900
				PROPOSAL NO. P535907

FORT SMALLWOOD PARK
9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122
**MECHANICAL
SCHEMATICS**

M301



gant-brunnett ARCHITECTS
15 West Mulberry Street
Baltimore, Maryland 21201-4406
Telephone Number: 410-234-8444

rmf
RMF ENGINEERING, INC.
5520 RESEARCH PARK DR. 3RD FLR
BALTIMORE, MD 21228
P: 410.576.0505

PROFESSIONAL CERTIFICATION
I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NUMBER 48186, EXPIRATION DATE 01/12/2022.

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NO.	DESCRIPTION	BY	DATE
△			

ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS

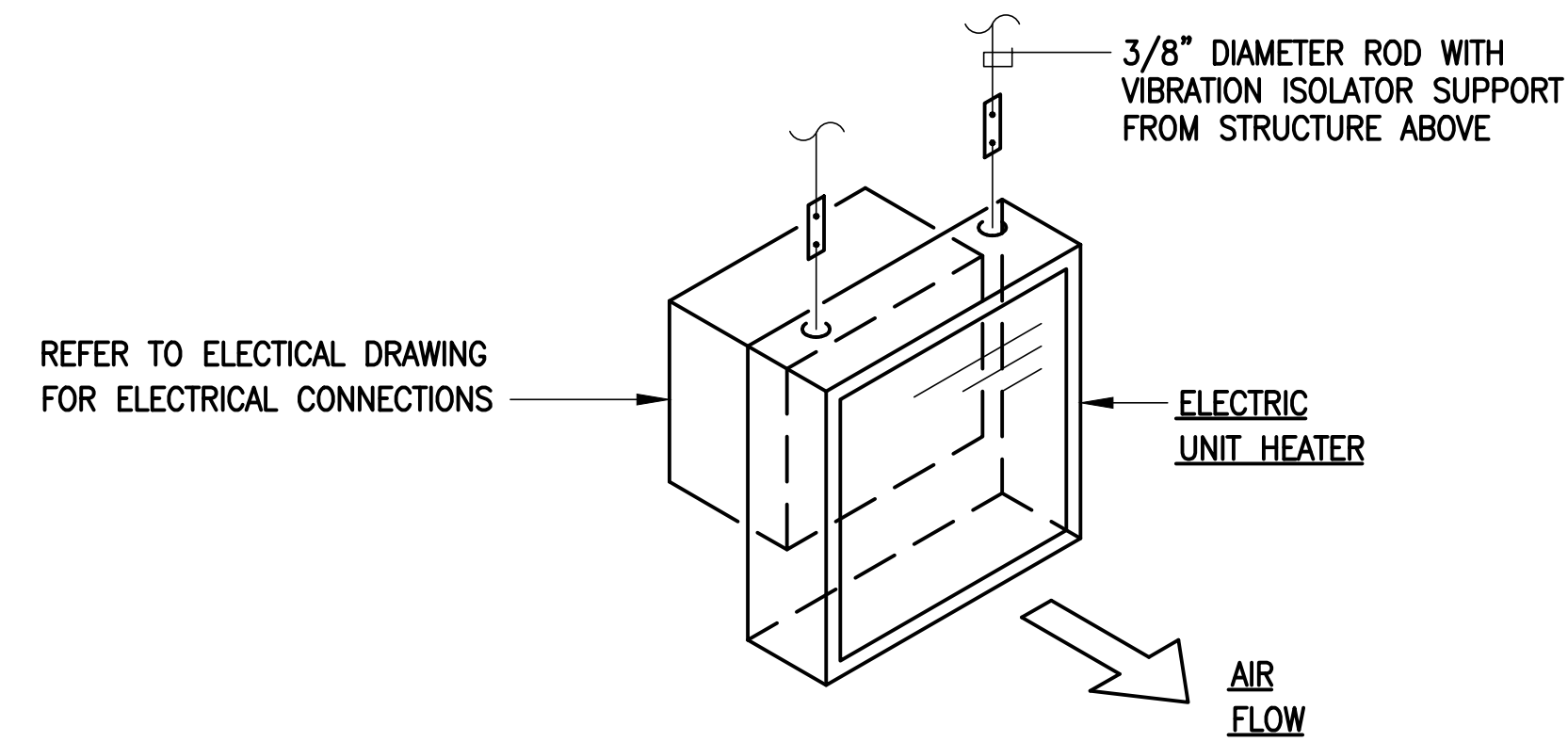
DATE: 04-28-2021

FORT SMALLWOOD PARK
9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122

MECHANICAL DETAILS M400

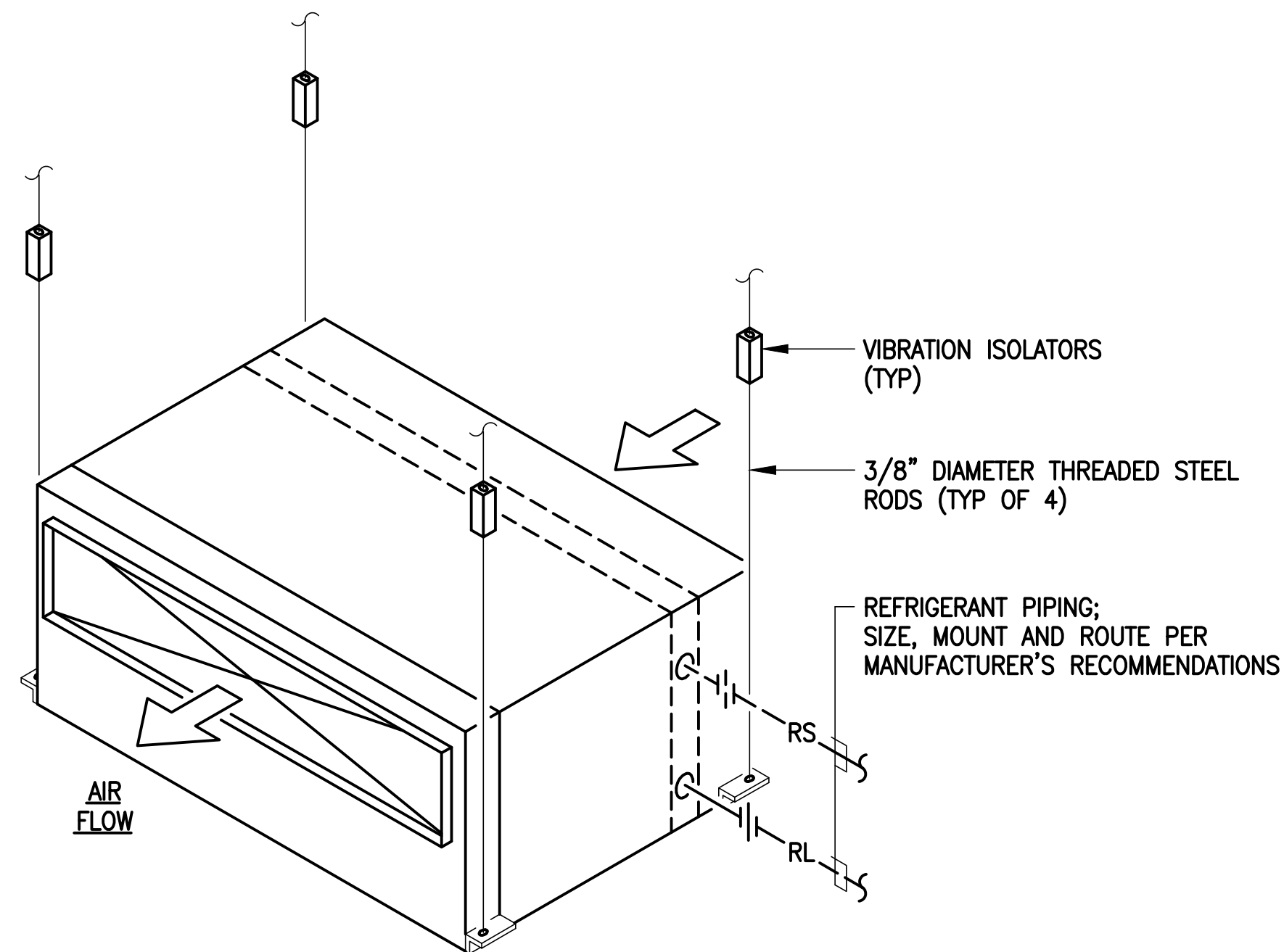
APPROVED	DATE	APPROVED	DATE
CHIEF ENGINEER		PROJECT MANAGER	
APPROVED	DATE	APPROVED	DATE
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY	

SCALE: NONE
DRAWN BY: DVC
CHECKED BY: RK3
SHEET NO. - OF -
PROJECT NO. P535900
PROPOSAL NO. P535907



DETAIL - ELECTRIC UNIT HEATER

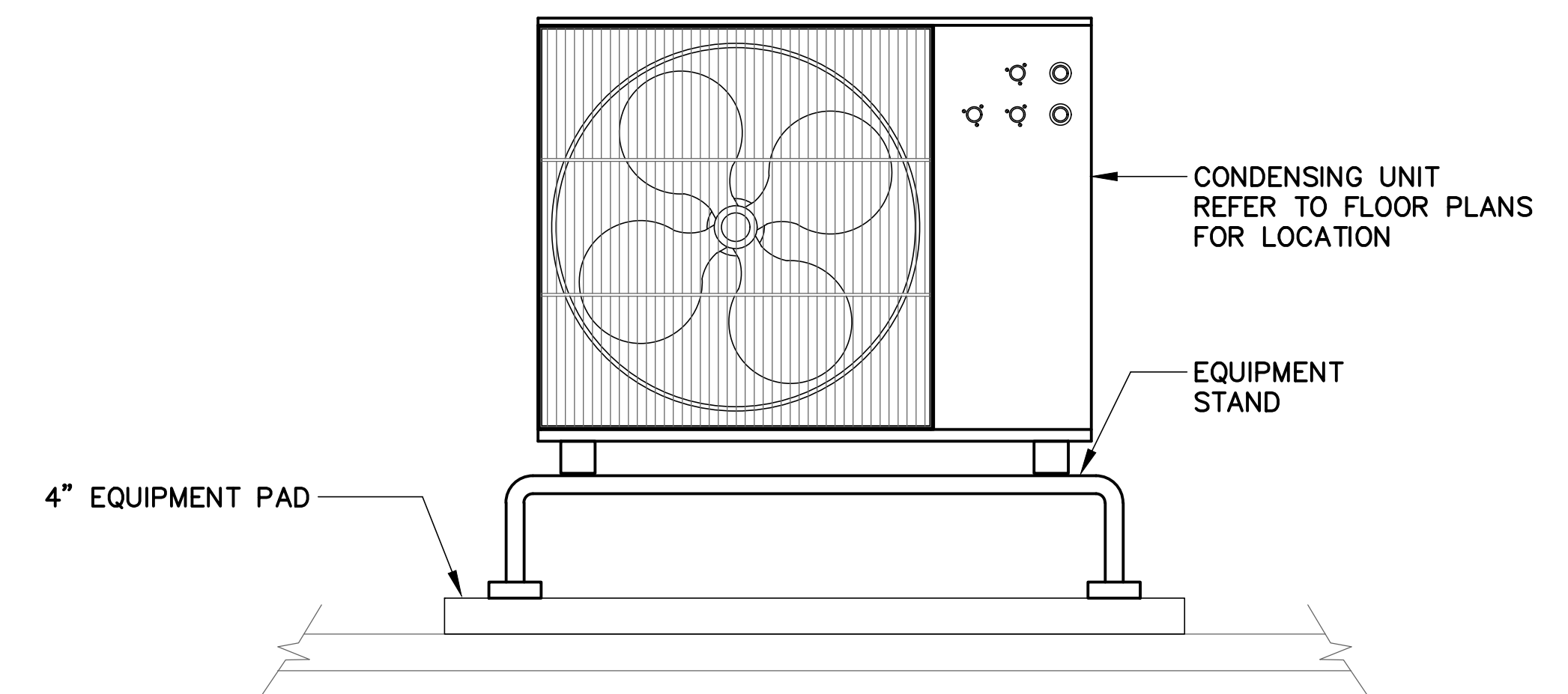
SCALE: NONE 7



- NOTES:
1. EXTENDED CHANNEL FOR CEILING SUSPENSION OF UNIT.
 2. PROVIDE MOUNTING BRACKETS ON CHANNEL WITH NEOPRENE MOUNTS AND LEVELING NUTS.
 3. MINIMUM 1" THREADED STEEL ROD. THREADED RODS, STEEL BOLTED SUPPORTS AND VIBRATION ISOLATORS SHALL BE SIZED FOR AND CAPABLE OF CARRYING A LOAD EQUAL TO OR GREATER THAN THE WEIGHT OF THE INDOOR UNIT

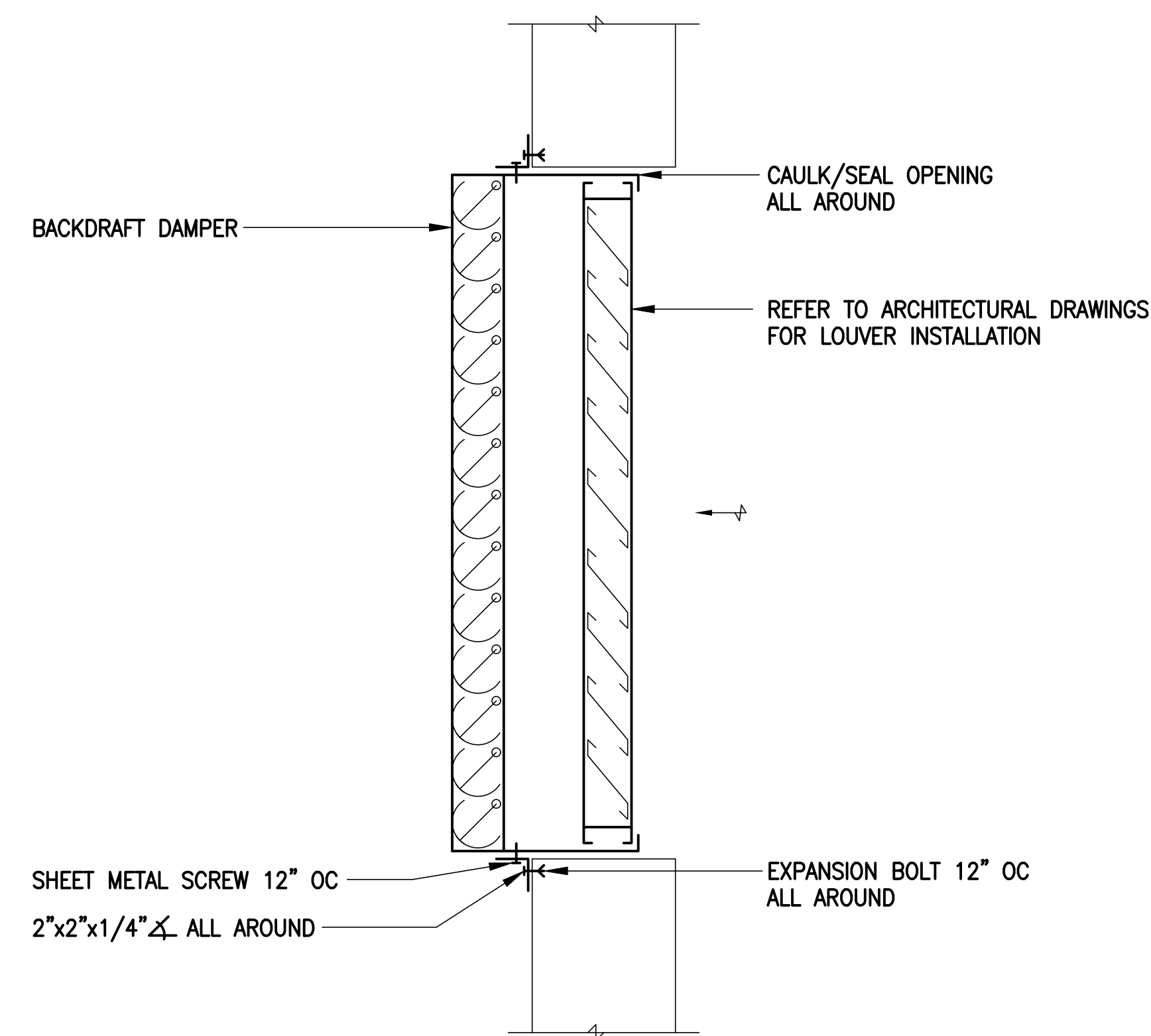
DETAIL - FAN COIL INDOOR UNIT

SCALE: NONE 8



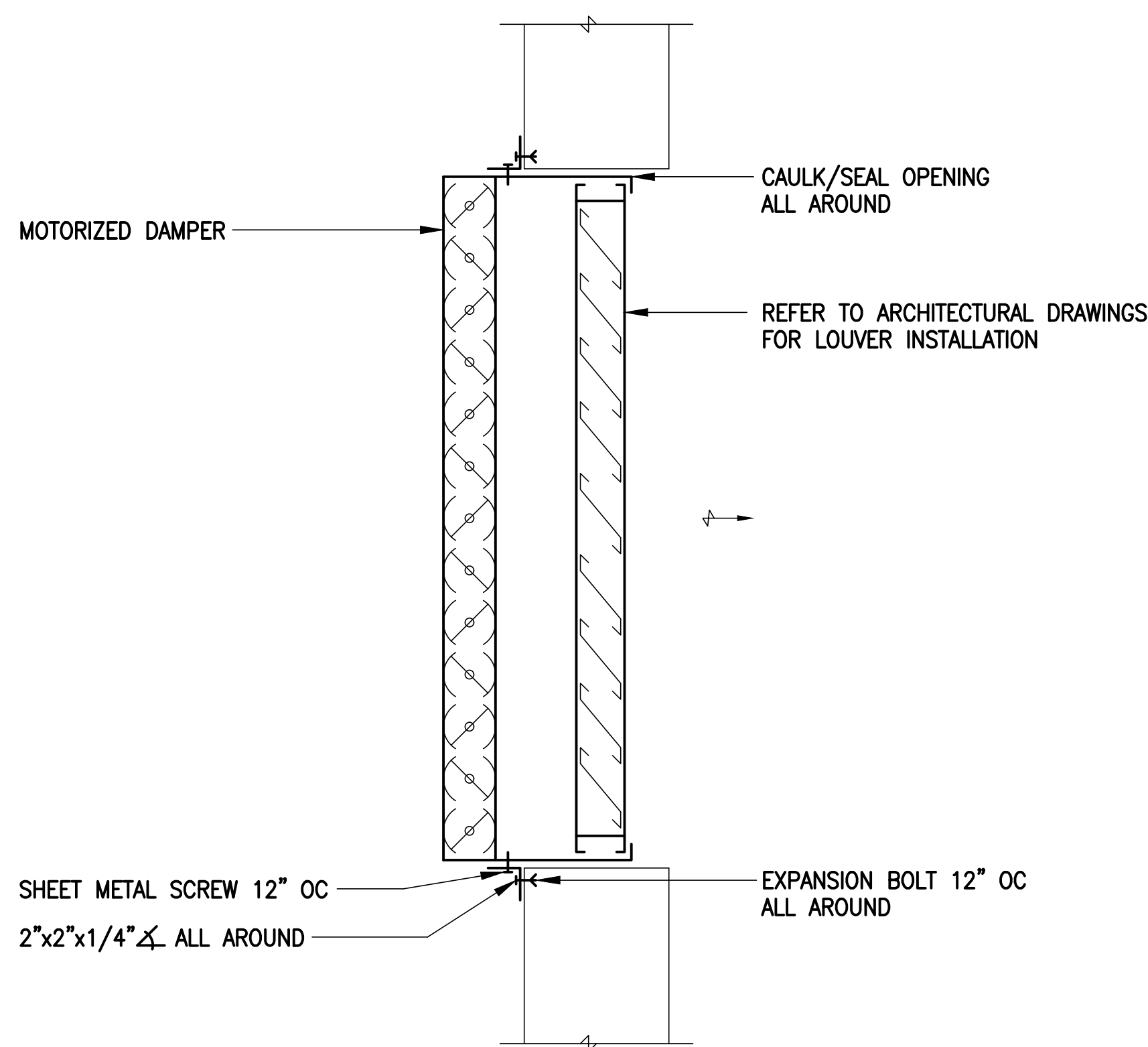
DETAIL - OUTDOOR UNIT

SCALE: NONE 9



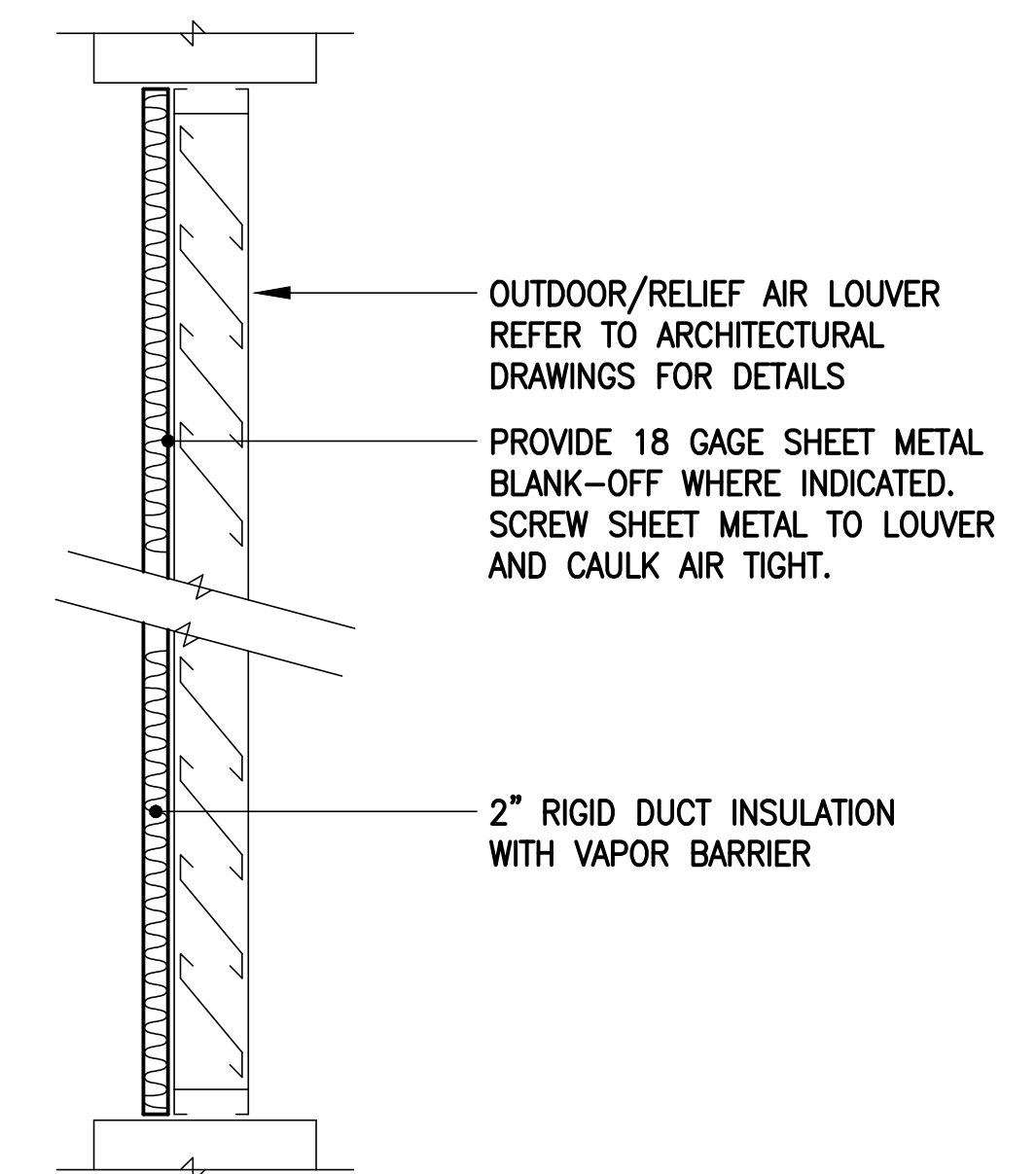
DETAIL - AIR INTAKE LOUVER

SCALE: NONE 10



DETAIL - RELIEF LOUVER

SCALE: NONE 11

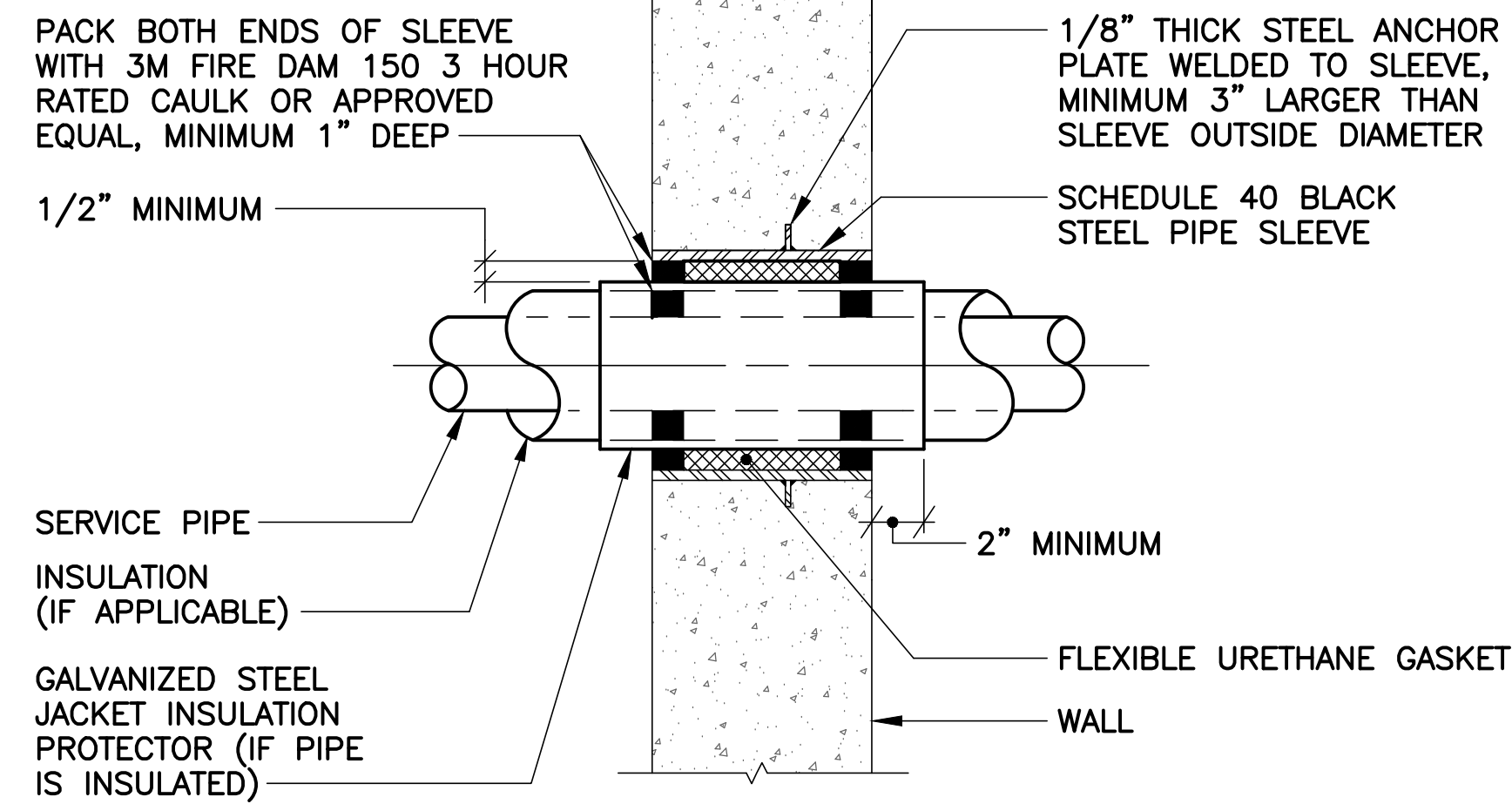


DETAIL - LOUVER BLANK-OFF

SCALE: NONE 12

NO.	DESCRIPTION	BY	DATE
△			

APPROVED	DATE	APPROVED	DATE
CHIEF ENGINEER		PROJECT MANAGER	
APPROVED		APPROVED	
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY	

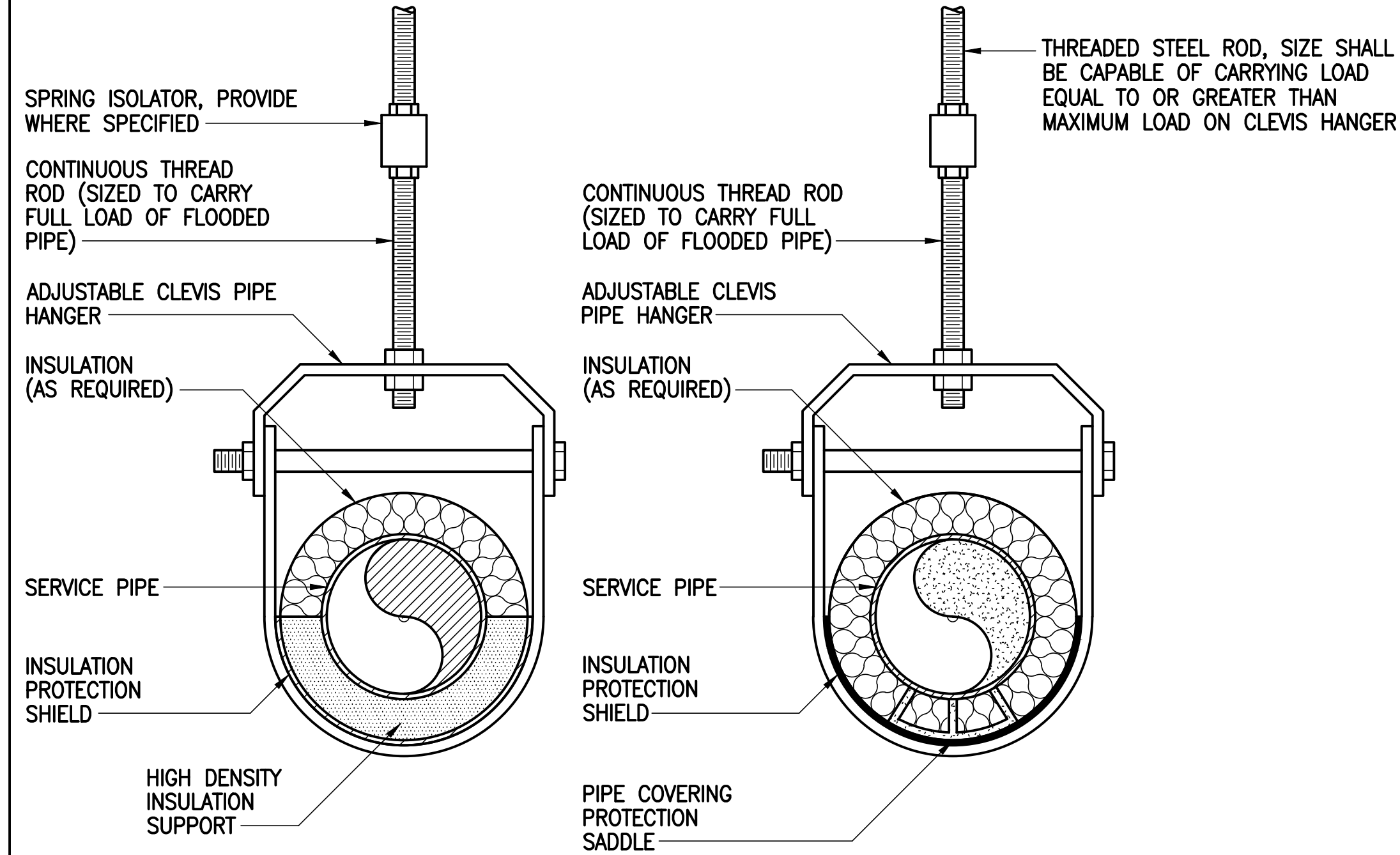


NOTE:
1. PROVIDE STAINLESS STEEL PIPE SLEEVE WHEN EMBEDDED IN SHIELDING CONCRETE.

DETAIL – PIPE SLEEVE

SCALE: NONE **13**

DETAIL – PIPE HANGER SUPPORT (10" OR SMALLER)



NOTES:
1. ATTACH HANGER TO BUILDING STRUCTURE IN ACCORDANCE WITH PROJECT SPECIFICATIONS.
2. DETERMINE HANGER ROD SIZE AND HANGER SPACING IN ACCORDANCE WITH HANGER MANUFACTURER'S RECOMMENDATIONS.
3. FOR NON-INSULATED SERVICE PIPE, PLACE PIPE DIRECTLY ON HANGER.
4. PIPE COVERING PROTECTION SADDLE SHALL NOT BE INSTALLED ON SERVICE PIPES REQUIRING VAPOR RETARDER.

SCALE: NONE **14**

SCALE: NONE **15**

SCALE: NONE **16**

SCALE: NONE **17**

SCALE: NONE **18**

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MARYLAND, LICENSE NUMBER 48186, EXPIRATION DATE
01/12/2022."

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△			

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ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS

DATE: 04-28-2021

FORT SMALLWOOD PARK
9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122

**MECHANICAL
DETAILS**

M402

SCALE: NONE
DRAWN BY: DVC
CHECKED BY: RK3
SHEET NO. – OF –
PROJECT NO. P535900
PROPOSAL NO. P535907

FAN SCHEDULE														
DESIG	SERVICE	TYPE	CFM	SP INCH WG	APPROXIMATE RPM	BHP	MOTOR HP	WHEEL DIAMETER INCH	DRIVE	AMCA CONSTRUCTION CLASS	ELECTRICAL V/φ/HZ	APPROX. WEIGHT LBS	REMARKS (BASIS OF DESIGN)	REMARKS
EF-1	UTILITY ROOM 206 (COMFORT STATION)	-	140	0.375	1725	0.07	1/4	-	BELT	I	115/1/60	-	GREENHECK BSQ-70	①
EF-2	MEN'S/WOMEN'S RESTROOM 209 & 210 (COMFORT STATION)	-	600	0.5	1725	0.14	1/4	-	BELT	I	115/1/60	-	GREENHECK BSQ-90	①
EF-3	FAMILY/STAFF RESTROOMS 204, 205, STAFF LOCKER 203 & JANITORS CLOSET 207 (COMFORT STATION)	-	300	0.5	1725	0.16	1/4	-	BELT	I	115/1/60	-	GREENHECK BSQ-80	①
EF-4	NOT USED													
EF-5	MECHANICAL WATER TREATMENT ROOM 107 (MAINTENANCE BUILDING)	-	150	0.375	1725	0.09	1/4	-	BELT	I	115/1/60	-	GREENHECK BSQ-70	①
EF-6	MECHANICAL WATER TREATMENT ROOM 107 (MAINTENANCE BUILDING)	-	150	0.375	1725	0.09	1/4	-	BELT	I	115/1/60	-	GREENHECK BSQ-70	①
EF-7	MAINTENANCE & REPAIR WORKSHOP 204 (MAINTENANCE BUILDING)	-	600	0.250	1350	0.10	1/12	-	DIRECT	I	115/1/60	-	GREENHECK SE1-12-432-G	①
EF-8	MAINTENANCE & REPAIR WORKSHOP 204 (MAINTENANCE BUILDING)	-	600	0.250	1350	0.10	1/12	-	DIRECT	I	115/1/60	-	GREENHECK SE1-12-432-G	①
EF-9	WOOD SHOP 106 (MAINTENANCE BUILDING)	-	250	0.250	1650	0.04	1/20	-	DIRECT	I	115/1/60	-	GREENHECK SE1-10-428-P	①
EF-10	RESTROOM 107 (MAINTENANCE BUILDING)	-	150	0.375	1725	0.09	1/4	-	BELT	I	115/1/60	-	GREENHECK BSQ-70	①

① PROVIDE DISCONNECT SWITCH TO BE INSTALLED BY THE ELECTRICAL CONTRACTOR.

AIR DEVICE SCHEDULE										
No.	DUTY	TYPE	CFM RANGE		FACE SIZE INCHES	NECK SIZE INCHES	BLOW	MAXIMUM PD INCH WG	BASIS OF DESIGN	REMARKS
			LOW	HIGH						
101	SUPPLY CEILING DIFFUSER	A	0	110	24x24	6φ	4-WAY	0.10	TITUS/TDCA-AA	①②
102	SUPPLY CEILING DIFFUSER	A	111	230	24x24	8φ	4-WAY	0.10	TITUS/TDCA-AA	①②
103	SUPPLY CEILING DIFFUSER	A	231	350	24x24	10φ	4-WAY	0.10	TITUS/TDCA-AA	①
201	RETURN/EXHAUST GRILLE	E	0	85	24x24	6x6	0'DEFL	0.05	TITUS/PAR-AA	①②
202	RETURN/EXHAUST GRILLE	E	86	160	24x24	8x8	0'DEFL	0.05	TITUS/PAR-AA	①
203	RETURN/EXHAUST GRILLE	E	161	400	24x24	12x12	0'DEFL	0.05	TITUS/PAR-AA	①②
204	RETURN/EXHAUST GRILLE	E	401	1090	24x24	18x18	0'DEFL	0.05	TITUS/PAR-AA	①
301	EXHAUST REGISTER	H	0	100	6x6	6x6	35'DEFL	0.05	TITUS/350 RL-SS	
302	EXHAUST REGISTER	H	101	275	12x6	12x6	35'DEFL	0.05	TITUS/350 RL-SS	
303	EXHAUST REGISTER	H	276	575	18x12	18x12	35'DEFL	0.05	TITUS/350 RL-SS	
304	EXHAUST REGISTER	H	576	775	24x12	24x12	35'DEFL	0.05	TITUS/350 RL-SS	
305	EXHAUST REGISTER	H	776	1000	28x28	28x28	35'DEFL	0.05	TITUS/350 RL-SS	

① FLEXIBLE DUCT RUNOUT AND PLENUM INLET DUCT CONNECTION SIZE SHALL BE EQUAL TO THE NECK SIZE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
 ② LAY-IN CEILING GRID TYPE FOR THE MAINTENANCE BUILDING

ELECTRIC UNIT/WALL HEATER SCHEDULE					
DESIG	SERVICE	HEATING CAPACITY kW	ELECTRICAL V/φ/HZ	BASIS OF DESIGN	REMARKS
EUH-1	HISTORIC CONCESSION BUILDING	3.3	240/1/60	TRANE UHEC	55°F SETPOINT ①
EUH-2	HISTORIC CONCESSION BUILDING	3.3	240/1/60	TRANE UHEC	55°F SETPOINT ①
EUH-3	MECHANICAL WATER TREATMENT ROOM 107 (MAINTENANCE BUILDING)	3.3	240/1/60	TRANE UHEC	①
EUH-4	MAINTENANCE & REPAIR WORKSHOP 204 (MAINTENANCE BUILDING)	3.3	240/1/60	TRANE UHEC	①
EUH-5	MAINTENANCE & REPAIR WORKSHOP 204 (MAINTENANCE BUILDING)	3.3	240/1/60	TRANE UHEC	①
EUH-6	WOOD SHOP 106 (MAINTENANCE BUILDING)	3.3	240/1/60	TRANE UHEC	①
EUH-7	TOOL STORAGE CAGES 105 (MAINTENANCE BUILDING)	3.3	240/1/60	TRANE UHEC	①
EUH-8					
EUH-9					
EUH-10					
EUH-11					
EUH-12					
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HEAT PUMP UNIT SCHEDULE																			
DESIG	SERVICE	CFM	SEER	REFRIGERANT	COMPRESSOR		REQ. COOLING			REQ. HEATING		ELEC HEAT KW	ELECTRICAL				BASIS OF DESIGN	REMARKS	
					TYPE	QUANTITY	EAT °F DB	WB	TOTAL MBH	SENS MBH	EAT °F DB		TOTAL MBH	V/PH/HZ	FLA	MCA			MCOP
HPU-1	KITCHEN AND CONCESSION (COMFORT STATION)	1,340	14	R410A	SCROLL	1	80.0	67.0	28.9	23.8	70.0	27.8	7.68	240/1/60	32.0	43.0	45.0	TRANE TE	①②
HPU-2	OFFICE AND BREAK ROOM (MAINTENANCE BUILDING)	1,075	14	R410A	SCROLL	1	80.0	67.0	35.0	25.6	70.0	34.4	7.68	240/1/60	32.0	43.0	45.0	TRANE TE	①②

① PROVIDE TOUCHSCREEN PROGRAMMABLE 4 HEAT/2 COOL CONTROLLER ② VERTICAL TYPE UNIT

AIR CONDITIONING UNIT SCHEDULE																		
DESIG	SERVICE	FAN DATA		DX COOLING COIL DATA			ELECTRICAL		BASIS OF DESIGN	AIR COOLED CONDENSING UNIT DATA						BASIS OF DESIGN	REMARKS	
		CFM	MOTOR HP	EAT °F DB	WB	TOTAL MBH	V/PH/HZ	MCA		DESIG	OUTDOOR FAN		OUTDOOR COIL		ELECTRICAL			
ACU-1	IT ROOM (MAINTENANCE BUILDING)	775	-	80	67	24.0	240/1/60	1.0	MITSUBISHI PKA	ACCU-1	1,940	0.75	R410A	17 SEER	240/1/60	18	MITSUBISHI PUY	①
ACU-2	LOCKER/ELEC CLOSET (COMFORT STATION)	545	-	80	67	15.0	240/1/60	3.0	TRANE TPVAA0181AA70A	ACCU-2	1,590	0.50	R410A	20.2 SEER	240/1/60	11	TRANE TRUZA0181KA70A	①

① PROVIDE WITH OPTIONAL CONDENSATE PUMP ② PROVIDE SINGLE POINT CONNECTION AT OUTDOOR UNIT

OUTDOOR CONDENSING UNITS																		
DESIG	SERVICE	CFM	SEER	COP	COOLING BTUH	HEATING BTUH	REFRIGERANT	COMPRESSOR		ELECTRICAL				BASIS OF DESIGN	REMARKS			
								TYPE	QUANTITY	V/PH/HZ	RLA	MCA	MCOP					
CU-1	KITCHEN AND CONCESSION (COMFORT STATION)	-	14.0	3.6	28,988	28,800	R410A	INVERTER	1	240/1/60	12.8	17.0	25.0	TRANE 4TWR4	①②③④⑤⑥			
CU-2	OFFICE AND BREAK ROOM (MAINTENANCE BUILDING)	-	14.0	3.5	35,000	34,400	R410A	INVERTER	1	240/1/60	14.1	19.0	30.0	TRANE 4TWR4	①②③④⑤⑥			

① CONTRACTOR SHALL REFER TO MANUFACTURER FOR MAXIMUM PIPING LENGTHS AND COORDINATE CONDENSING UNITS FINAL LOCATION. ⑥ PROVIDE TOUCH-SCREEN MASTER CONTROLLER WITH WEB BASED ACCESS.

② PROVIDE 12" EQUIPMENT EQUIPMENT STAND.

③ ALL EQUIPMENT MUST BE AHRI CERTIFIED.

④ PROVIDE TWINNING KIT FOR CONNECTION OF HEAT PUMP MODULES.

⑤ EFFICIENCY AT ARI CONDITIONS NON DUCTED UNITS. COP AT 17F.



PROFESSIONAL CERTIFICATION
I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NUMBER 48186, EXPIRATION DATE 01/12/2022.

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NO.	DESCRIPTION	BY	DATE
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ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS

DATE: 04-28-2021

APPROVED _____ DATE _____	APPROVED _____ DATE _____	SCALE: NONE
CHIEF ENGINEER _____	PROJECT MANAGER _____	DRAWN BY: DVC
APPROVED _____ DATE _____	APPROVED _____ DATE _____	CHECKED BY: RK3
ASSISTANT CHIEF ENGINEER _____	CHIEF, RIGHT OF WAY _____	SHEET NO. - OF -
		PROJECT NO. P535900
		PROPOSAL NO. P535907

FORT SMALLWOOD PARK
9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122

MECHANICAL SCHEDULES

M501

GENERAL DEMOLITION NOTES

- OUTAGES SHALL BE SCHEDULED THROUGH THE CONTRACTING OFFICER IN STRICT CONFORMANCE TO POLICIES AND PROCEDURES ESTABLISHED BY AACO. AT THE END OF EACH INTERRUPTION, SERVICES SHALL BE RESTORED SO THAT NORMAL USE OF THE BUILDING MAY CONTINUE. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE CAUSED BY FAILURE TO RESTORE SERVICES, AFTER COMPLETION OF THE OUTAGE. OUTAGES REQUIRED FOR CONSTRUCTION PURPOSES SHALL BE SCHEDULED FOR THE SHORTEST PRACTICAL PERIODS OF TIME, IN COORDINATION WITH THE CONTRACTING OFFICER FOR SPECIFIC, MUTUALLY AGREEABLE PERIODS OF TIME AFTER EACH OF WHICH THE INTERRUPTION SHALL CEASE AND SERVICE SHALL BE RESTORED. THIS PROCEDURE SHALL BE REPEATED TO SUIT AACO WORKING SCHEDULE AS MANY TIMES AS REQUIRED UNTIL WORK IS COMPLETED. THE FOLLOWING OUTAGES ARE TO BE COORDINATED:
 - A. CONNECTION TO EXISTING RAW WATER SYSTEM
 - B. CONNECTION TO EXISTING SANITARY AND VENT SYSTEM
- WHEN WORKING IN AND AROUND THE EXISTING BUILDING, EXTREME CARE SHALL BE EXERCISED WITH REGARD TO PROTECTION OF THE EXISTING STRUCTURE AND MECHANICAL AND ELECTRICAL SERVICES WHICH ARE TO REMAIN. REPAIR, REPLACE, OR RESTORE TO THE SATISFACTION OF THE ARCHITECT/ENGINEER ALL EXISTING WORK DAMAGED IN THE PERFORMANCE OF DEMOLITION AND/OR NEW WORK.
- ALL EXISTING PIPING, EQUIPMENT, DUCTWORK, AND MATERIALS NOT REQUIRED FOR RE-USE OR REINSTALLATION (SHOWN OR OTHERWISE) SHALL BE REMOVED. ALL EXISTING MATERIALS AND EQUIPMENT WHICH ARE REMOVED AND ARE DESIRED BY THE OWNER, SHALL BE DELIVERED TO HIM ON THE PREMISES BY THE CONTRACTOR WHERE DIRECTED BY THE ARCHITECT/ENGINEER. ALL OTHER MATERIALS AND EQUIPMENT WHICH ARE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED BY THE CONTRACTOR FROM THE PREMISES.
- EXISTING CONDITIONS, I.E., PRESENCE AND LOCATION OF PIPING, EQUIPMENT, AND MATERIALS, INDICATED ARE BASED ON INFORMATION OBTAINED FROM AVAILABLE RECORD DRAWINGS AND FIELD SURVEYS AND ARE NOT WARRANTED TO BE COMPLETE. CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION OF ALL PIPING, EQUIPMENT, AND MATERIALS IN THE FIELD PRIOR TO STARTING ALL WORK.
- EXISTING PIPE, AND EQUIPMENT SIZES NOTED ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY AND ARE NOT WARRANTED TO BE CORRECT. CONTRACTOR SHALL VERIFY ALL SIZES IN THE FIELD IF THEY EFFECT HIS WORK.
- WHEN EXISTING MECHANICAL AND ELECTRICAL WORK IS REMOVED, ALL PIPES, VALVES, DUCTS, AND MATERIALS SHALL BE REMOVED TO A POINT BELOW THE FINISHED FLOORS OR BEHIND FINISHED WALLS AND CAPPED. SUCH POINTS SHALL BE FAR ENOUGH BEHIND FINISHED SURFACES TO ALLOW FOR THE INSTALLATION OF THE NORMAL THICKNESS OF FINISHED MATERIAL.
- EXISTING PIPING NO LONGER REQUIRED TO REMAIN IN SERVICE (SHOWN OR OTHERWISE) SHALL BE DISCONNECTED AND REMOVED BACK TO SERVICE MAINS UNLESS OTHERWISE INDICATED OR NOTED ON THE PLANS. REMOVE EXISTING PIPE HANGERS, SUPPORTS, VALVES, ETC.. UNDERGROUND PIPING TO BE REMOVED SHALL BE LIMITED TO PIPING IN THE AREAS OCCUPIED BY THE NEW CONSTRUCTION AND FIVE FEET (5') BEYOND THE NEW CONSTRUCTION. EXISTING PIPING INDICATED OR REQUIRED TO REMAIN IN SERVICE OR IN PLACE SHALL BE CAPPED, PLUGGED, OTHERWISE SEALED. NO EXISTING PIPING SHALL BE LEFT OPEN END.
- EXISTING MECHANICAL AND ELECTRICAL EQUIPMENT, PIPING, AND MATERIALS AFFECTED BY DEMOLITION OR NEW WORK INSTALLATION AND REQUIRED TO REMAIN IN SERVICE SHALL BE REINSTALLED OR SUPPORTED AS REQUIRED IN ACCORDANCE WITH NEW WORK SPECIFICATION. ALL WORK SHALL BE COMPLETED TO THE SATISFACTION OF THE ARCHITECT/ENGINEER AND AT NO ADDITIONAL CONTRACT COST.
- PATCHING OF ALL NEW AND EXISTING OPENINGS IN WALLS, CEILINGS, ROOF, AND FLOOR SURFACES DAMAGED OR CREATED BY DEMOLITION WORK SHALL MATCH EXISTING ADJACENT SURFACES AS TO THICKNESS, TEXTURES, MATERIAL, AND COLOR. ALL PATCHING SHALL BE PERFORMED TO THE SATISFACTION OF THE ARCHITECT/ENGINEER AND AT NO ADDITIONAL CONTRACT COST.
- IN GENERAL ALL PIPING, EQUIPMENT, AND MATERIALS SHOWN "LIGHT" IS EXISTING TO REMAIN. ALL PIPING, CONDUITS, EQUIPMENT, DUCTWORK, AND MATERIALS SHOWN "HEAVY AND MARKED" IS EXISTING TO BE DEMOLISHED.

PLUMBING LEGEND

PIPING SYMBOLS		RISER DIAGRAM COMPONENTS AND SPECIALTIES	
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	DOMESTIC COLD WATER (POTABLE)		BACKFLOW PREVENTER
	DOMESTIC HOT WATER		EMERGENCY EYE WASH STATION
	DOMESTIC HOT WATER RECIRCULATION		EMERGENCY SHOWER
	COMPRESSED AIR		SHOCK ARRESTER
	DRAIN WATER, MISCELLANEOUS DRAINAGE		VACUUM BREAKER
	CONDENSATE DRAIN		VENT THROUGH ROOF
	FOUNDATION DRAIN		TRAP ARM
	OVERFLOW DRAIN		URINAL/WATER CLOSET (WALL MOUNTED)
	PUMP DISCHARGE		URINAL/WATER CLOSET (FLOOR MOUNTED)
	RELIEF VENT		FLOOR/ROOF DRAIN
	SANITARY BELOW FLOOR		WALL/PIPE CLEANOUT
	SOFT WATER		FLOOR CLEANOUT
	STORM DRAIN		SHOCK ARRESTOR
	TEMPERED WATER RETURN		
	TEMPERED WATER SUPPLY		
	VENT		

COMPONENTS AND SPECIALTIES		EQUIPMENT DESIGNATIONS	
SYMBOL	DESCRIPTION	DESIGNATION	DESCRIPTION
	BACKWATER VALVE	ADR-X	AREA DRAIN DESIGNATION
	BACKFLOW PREVENTER (DUAL CHECK TYPE)	ET-X	EXPANSION TANK DESIGNATION
	BACKFLOW PREVENTER (REDUCED PRESSURE TYPE)	EDWH-X	ELECTRIC DOMESTIC WATER HEATER DESIGNATION
	CLEAN OUT (WALL/PIPE)	EWX-X	ELECTRIC WATER HEATER DESIGNATION
	CLEAN OUT (FLOOR)	FDR-X	FLOOR DRAIN DESIGNATION
	COLD WATER INTERIOR HOSE BIBB	FS-X	FLOOR SINK DESIGNATION
	EXTERIOR WALL HYDRANT (FREEZE PROOF)	P-X	PLUMBING FIXTURE DESIGNATION
	HOSE END DRAIN VALVE	RD-X	ROOF/OVERFLOW DRAIN DESIGNATION
	AREA DRAIN	RP-X	RECIRCULATING PUMP DESIGNATION
	FLOOR DRAIN	SP-X	SUMP PUMP DESIGNATION
	FLOOR DRAIN WITH TRAP PRIMING LINE	WBP-X	WATER BOOSTER PUMP DESIGNATION
	FLOOR SINK	WM-X	WATER METER DESIGNATION
	ROOF DRAIN		
	ROOF OVERFLOW DRAIN		
	EMERGENCY EYEWASH (HANDHELD)		
	SHOCK ARRESTER WITH ACCESS DOOR		
	TEMPERING VALVE		
	WATER METER		

RISER DESIGNATIONS	
SYMBOL	DESCRIPTION
	DOMESTIC WATER RISER DESIGNATION (CW, HW, HWR) RISER NUMBER
	SANITARY RISER DESIGNATION (S, V) RISER NUMBER
	STORM WATER RISER DESIGNATION RISER NUMBER

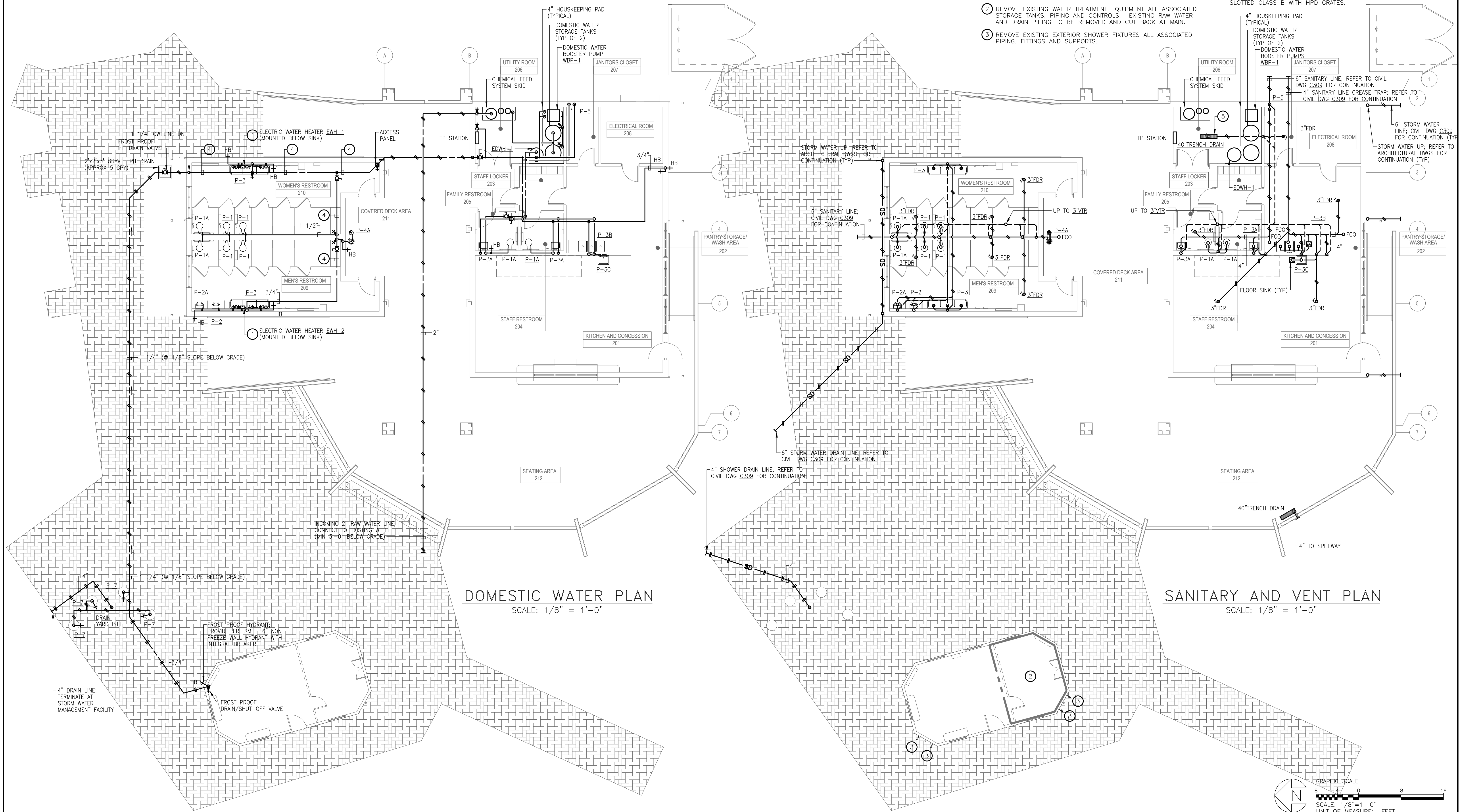
 gant-brunnett ARCHITECTS <small>15 West Mulberry Street Baltimore, Maryland 21201-4406 Telephone Number: 410-234-8444</small>	 rmf <small>RMF ENGINEERING, INC. 5520 RESEARCH PARK DR. 3RD FLR BALTIMORE, MD 21228 P: 410-576-0505</small>	*PROFESSIONAL CERTIFICATION I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NUMBER 48185, EXPIRATION DATE 01/12/2022.* © RMF ENGINEERING, INC. ALL REPRODUCTION IS PROHIBITED	NO.	DESCRIPTION	BY	DATE	ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS DATE: 04-28-2021					
			△			APPROVED	DATE	APPROVED	DATE	SCALE: NONE	FORT SMALLWOOD PARK 9500 FORT SMALLWOOD ROAD PASADENA, MD 21122	
							CHIEF ENGINEER	PROJECT MANAGER	CHECKED BY: RK3	PLUMBING LEGEND & ABBREVIATIONS		P000
							APPROVED	DATE	APPROVED	DATE	SHEET NO. - OF -	
							ASSISTANT CHIEF ENGINEER	CHIEF, RIGHT OF WAY	PROJECT NO. P535900	PROPOSAL NO. P535907		

GENERAL NOTE:

- OVERHEAD CW, HW AND HWR SERVICE LINES WITHIN THE PITCHED ROOF SHALL BE INSTALLED ABOVE THE HEIGHT OF THE BOTTOM CHORD OF THE STRUCTURAL ROOF TRUSSES AND ROUTED BETWEEN TRUSS OPENINGS.

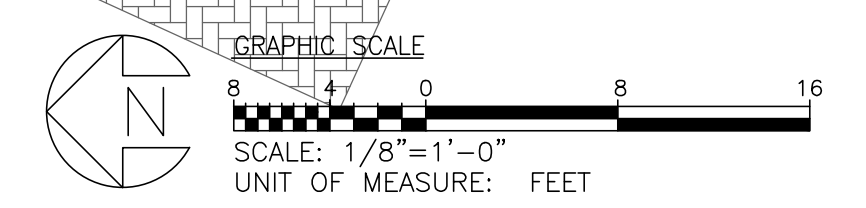
DRAWING NOTES:

- ELECTRIC WATER HEATER EWH-1 & EWH-2 TO BE MOUNTED UNDER SINK P-3. WATER HEATER SHALL BE CHROMOMITE MODEL SR-40, 240 VOLTS WITH 1/2" CONNECTION FITTINGS AND 2095-1 DISCONNECT SWITCH TO BE PROVIDED BY MECHANICAL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR.
- REMOVE EXISTING WATER TREATMENT EQUIPMENT ALL ASSOCIATED STORAGE TANKS, PIPING AND CONTROLS. EXISTING RAW WATER AND DRAIN PIPING TO BE REMOVED AND CUT BACK AT MAIN.
- REMOVE EXISTING EXTERIOR SHOWER FIXTURES ALL ASSOCIATED PIPING, FITTINGS AND SUPPORTS.
- DOMESTIC COLD WATER LINE SHALL BE INSTALLED WITHIN BULKHEAD BELOW CEILING.
- TRENCH DRAIN SHALL BE ZURN MODEL Z883, 6"W x 40"L MODULE WITH 4" BOTTOM OUTLET, CLOSED END ADAPTER, HEELPROOF DUCTILE SLOTTED CLASS B WITH HPD GRATES.



DOMESTIC WATER PLAN
SCALE: 1/8" = 1'-0"

SANITARY AND VENT PLAN
SCALE: 1/8" = 1'-0"



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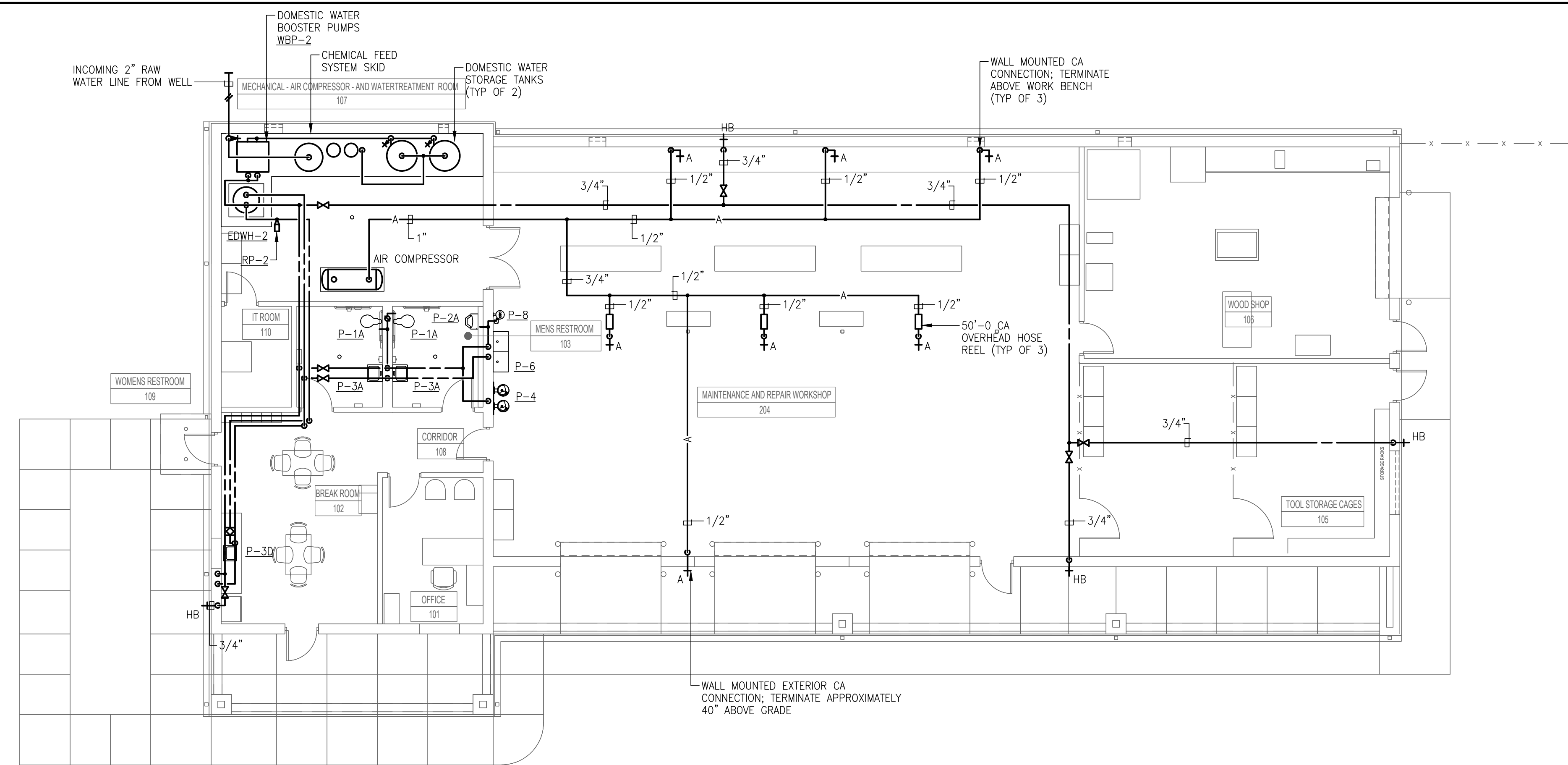
DATE: 04-28-2021

APPROVED	DATE	APPROVED	DATE	SCALE: 1/8"=1'-0"
CHIEF ENGINEER		PROJECT MANAGER		CHECKED BY: RK3
APPROVED	DATE	APPROVED	DATE	SHEET NO. - OF -
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY		PROJECT NO. P535900
				PROPOSAL NO. P535907

FORT SMALLWOOD PARK
9500 FORT SMALLWOOD PARK
PASADENA, MD 21122

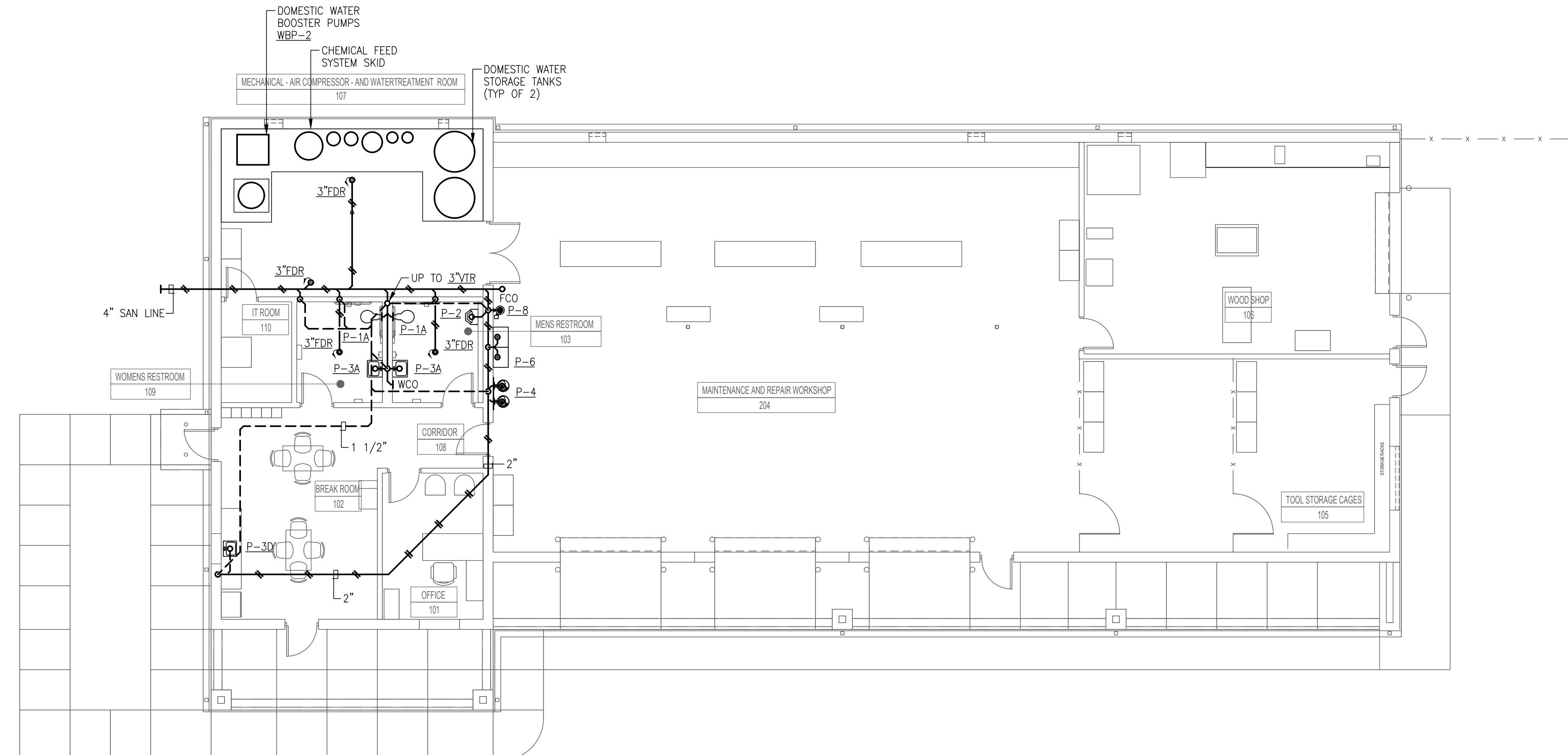
**COMFORT STATION
PLUMBING PLANS**

P100C

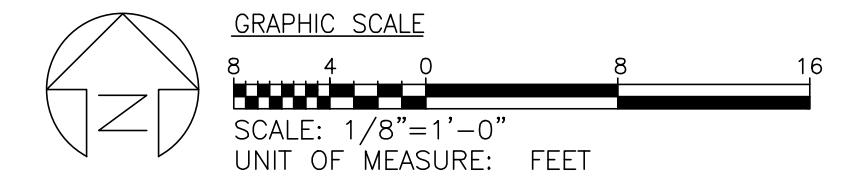


DOMESTIC WATER AND INDUSTRIAL AIR PLAN
SCALE: 1/8" = 1'-0"

GENERAL NOTE:
1. OVERHEAD CW, HW AND HWR SERVICE LINES WITHIN THE PITCHED ROOF SHALL BE INSTALLED ABOVE THE HEIGHT OF THE BOTTOM CHORD OF THE STRUCTURAL ROOF TRUSSES AND ROUTED BETWEEN TRUSS OPENINGS.



SANITARY AND VENT PLAN
SCALE: 1/8" = 1'-0"



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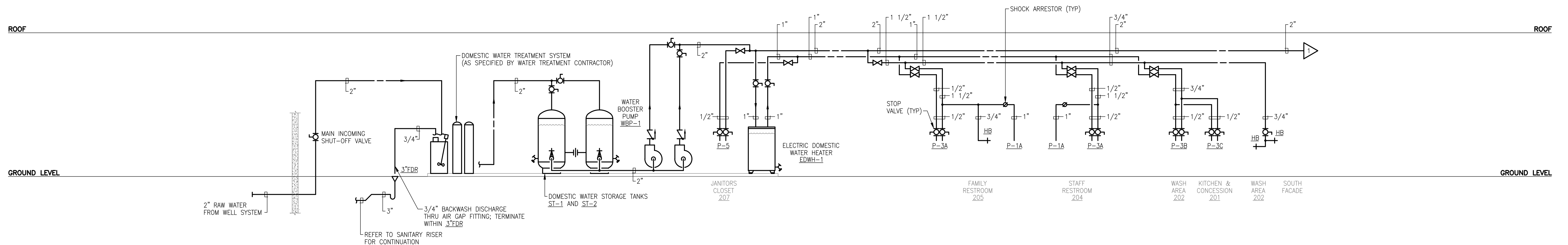
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APPROVED	DATE	APPROVED	DATE

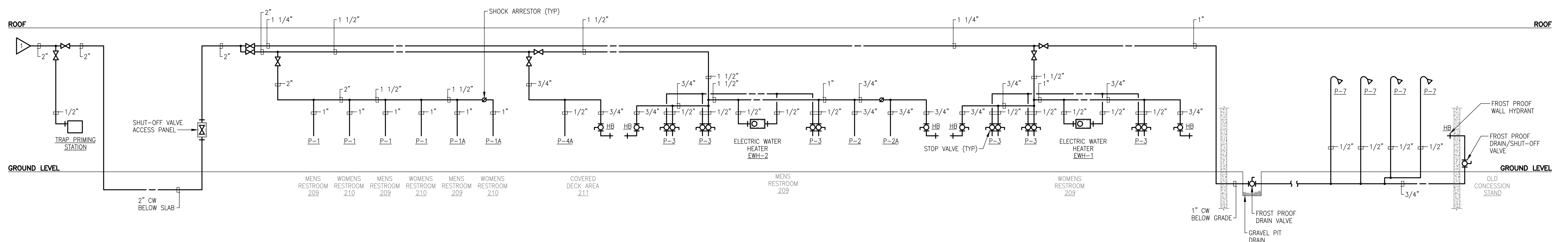
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DATE: 04-28-2021

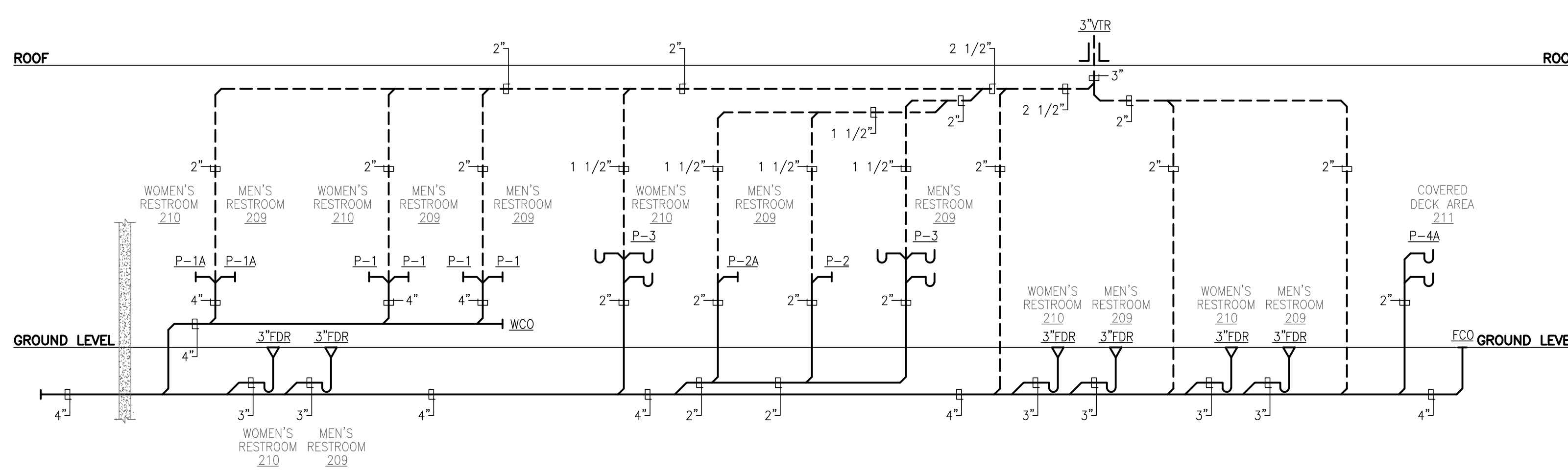
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9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122
MAINTENANCE BLDG
PLUMBING PLANS P101M
PROJECT NO. P535900
PROPOSAL NO. P535907



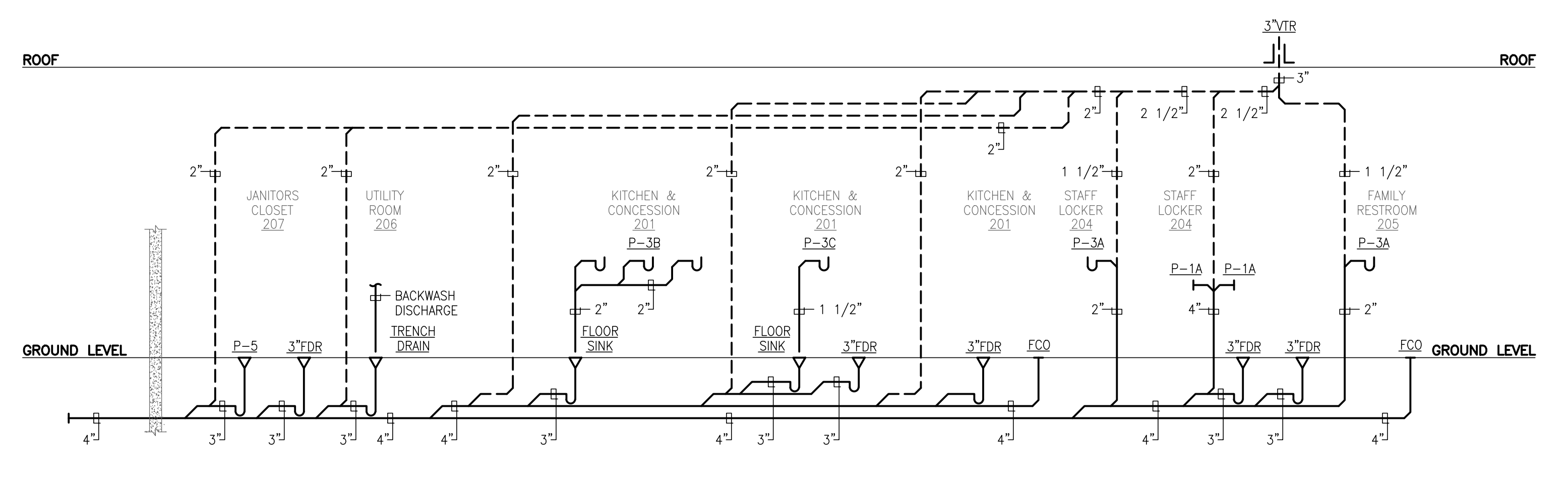
DOMESTIC WATER COMFORT STATION – CONCESSION
SCALE: NONE



DOMESTIC WATER COMFORT STATION – RESTROOM WING
SCALE: NONE



**SANITARY & VENT
COMFORT STATION – RESTROOM WING**
SCALE: NONE



**SANITARY & VENT
COMFORT STATION – CONCESSION WING**
SCALE: NONE

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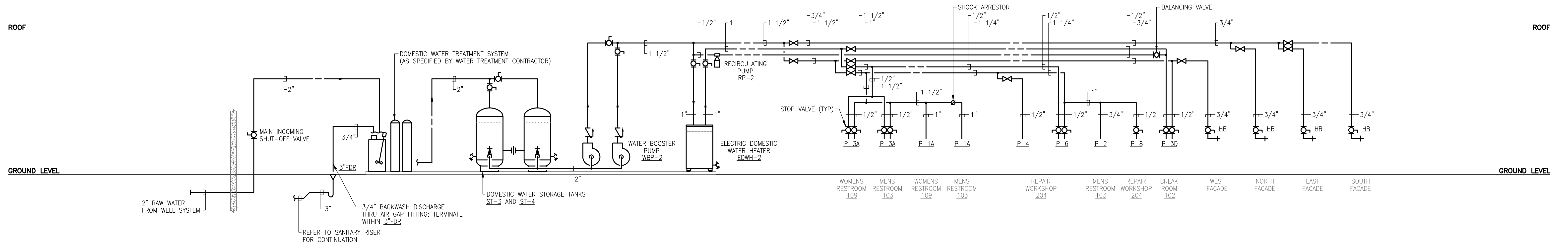
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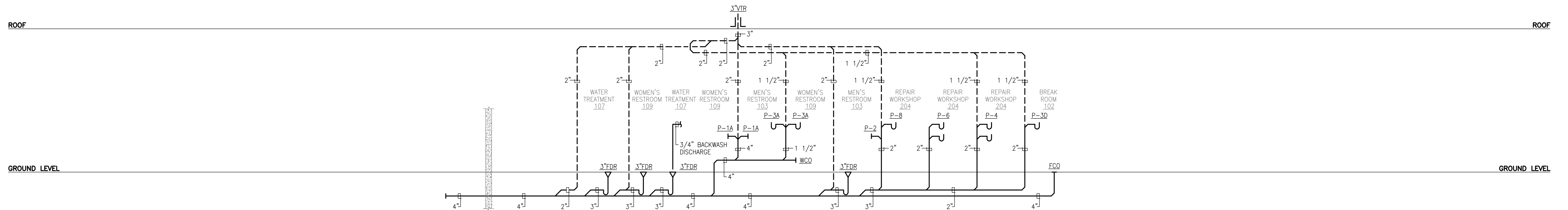
APPROVED				APPROVED			
DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE
CHIEF ENGINEER	PROJECT MANAGER						
ASSISTANT CHIEF ENGINEER	CHIEF, RIGHT OF WAY						

ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS
 DATE: 04-28-2021
FORT SMALLWOOD PARK
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PLUMBING RISERS
P200



DOMESTIC WATER – MAINTENANCE BUILDING

SCALE: NONE



SANITARY & VENT – MAINTENANCE BUILDING

SCALE: NONE

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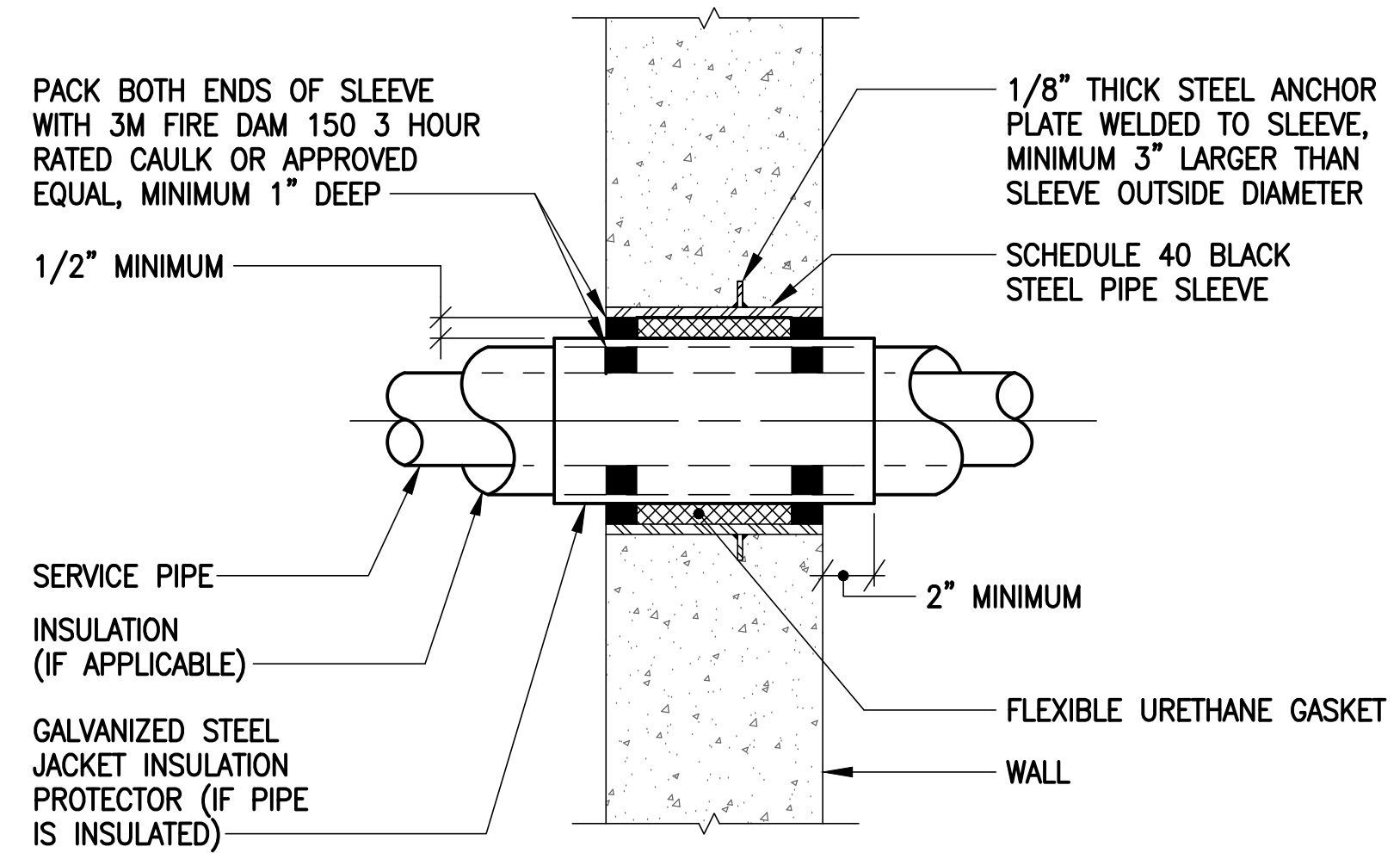
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ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS				DATE: 04-28-2021
APPROVED	DATE	APPROVED	DATE	SCALE: NONE
CHIEF ENGINEER		PROJECT MANAGER		DRAWN BY: DVC
APPROVED	DATE	APPROVED	DATE	CHECKED BY: RK3
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY		SHEET NO. – OF –
				PROJECT NO. P535900
				PROPOSAL NO. P535907

FORT SMALLWOOD PARK
 9500 FORT SMALLWOOD ROAD
 PASADENA, MD 21122
**PLUMBING
 RISERS**

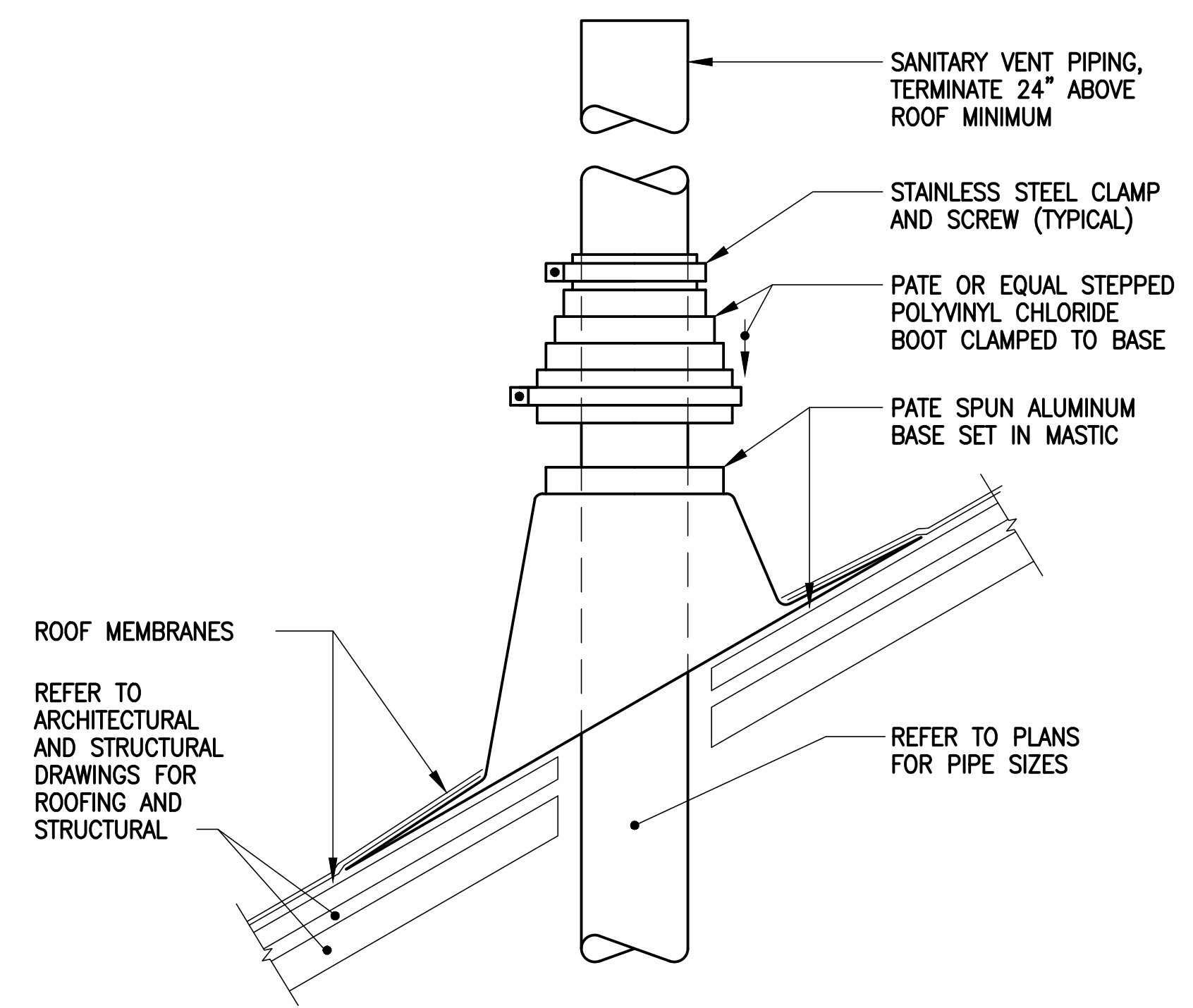
P201



NOTE:
1. PROVIDE STAINLESS STEEL PIPE SLEEVE WHEN EMBEDDED IN SHIELDING CONCRETE.

DETAIL – PIPE SLEEVE

SCALE: NONE **1**

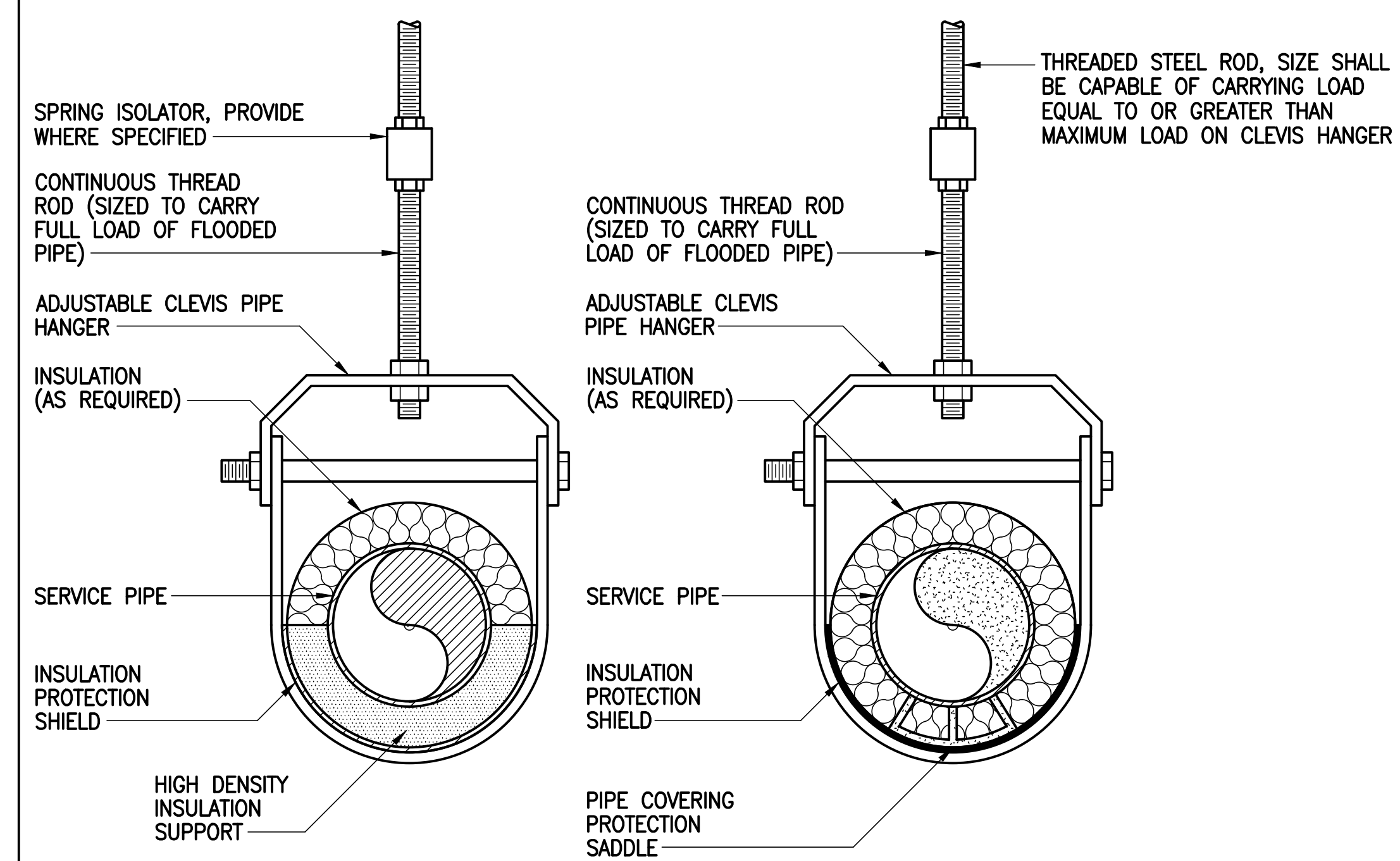


REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR ROOFING AND STRUCTURAL

REFER TO PLANS FOR PIPE SIZES

DETAIL – SANITARY VENT THRU ROOF

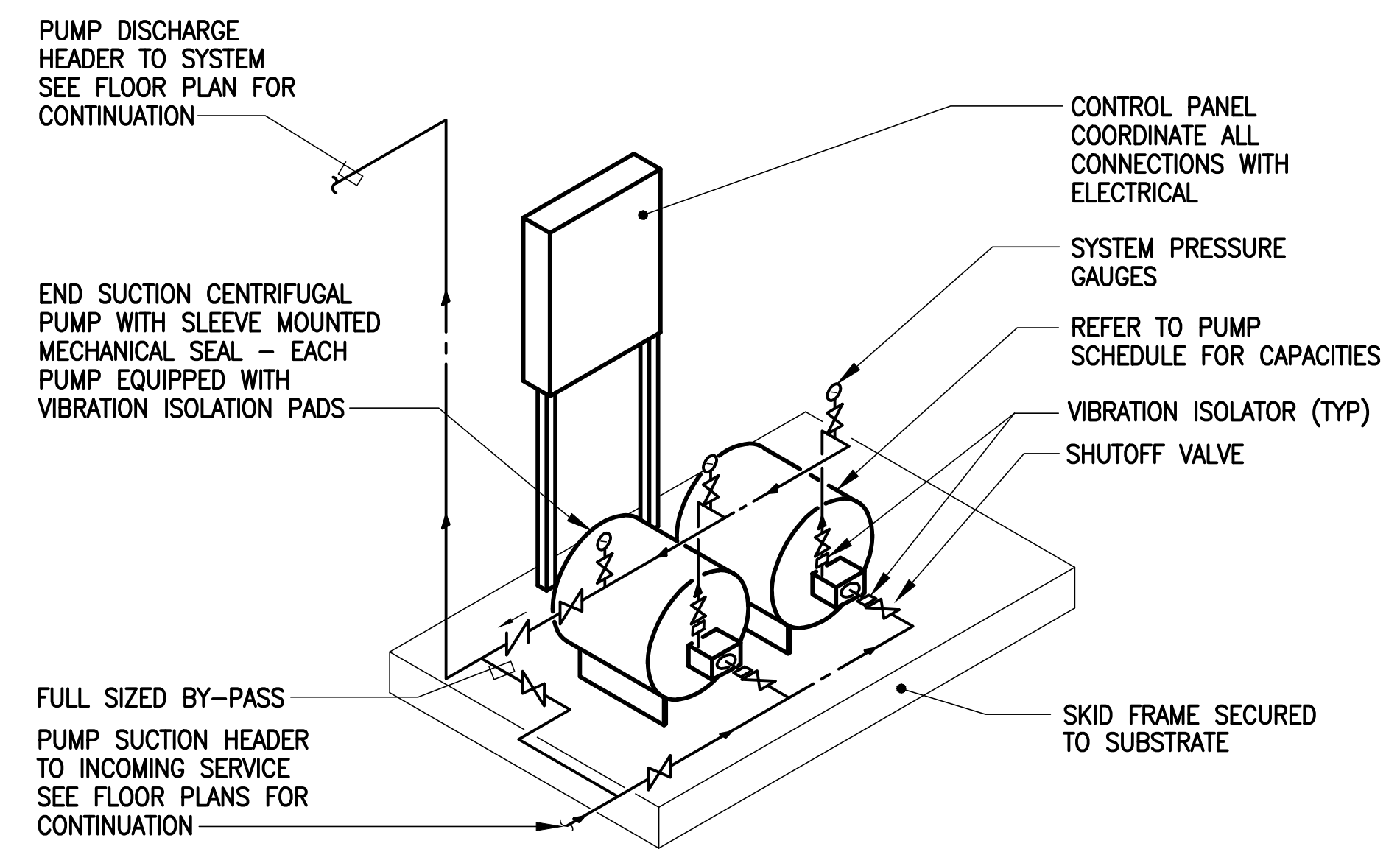
SCALE: NONE **2**



NOTES:
1. ATTACH HANGER TO BUILDING STRUCTURE IN ACCORDANCE WITH PROJECT SPECIFICATIONS.
2. DETERMINE HANGER ROD SIZE AND HANGER SPACING IN ACCORDANCE WITH HANGER MANUFACTURER'S RECOMMENDATIONS.
3. FOR NON-INSULATED SERVICE PIPE, PLACE PIPE DIRECTLY ON HANGER.
4. PIPE COVERING PROTECTION SADDLE SHALL NOT BE INSTALLED ON SERVICE PIPES REQUIRING VAPOR RETARDER.

DETAIL – PIPE HANGER SUPPORT (10" OR SMALLER)

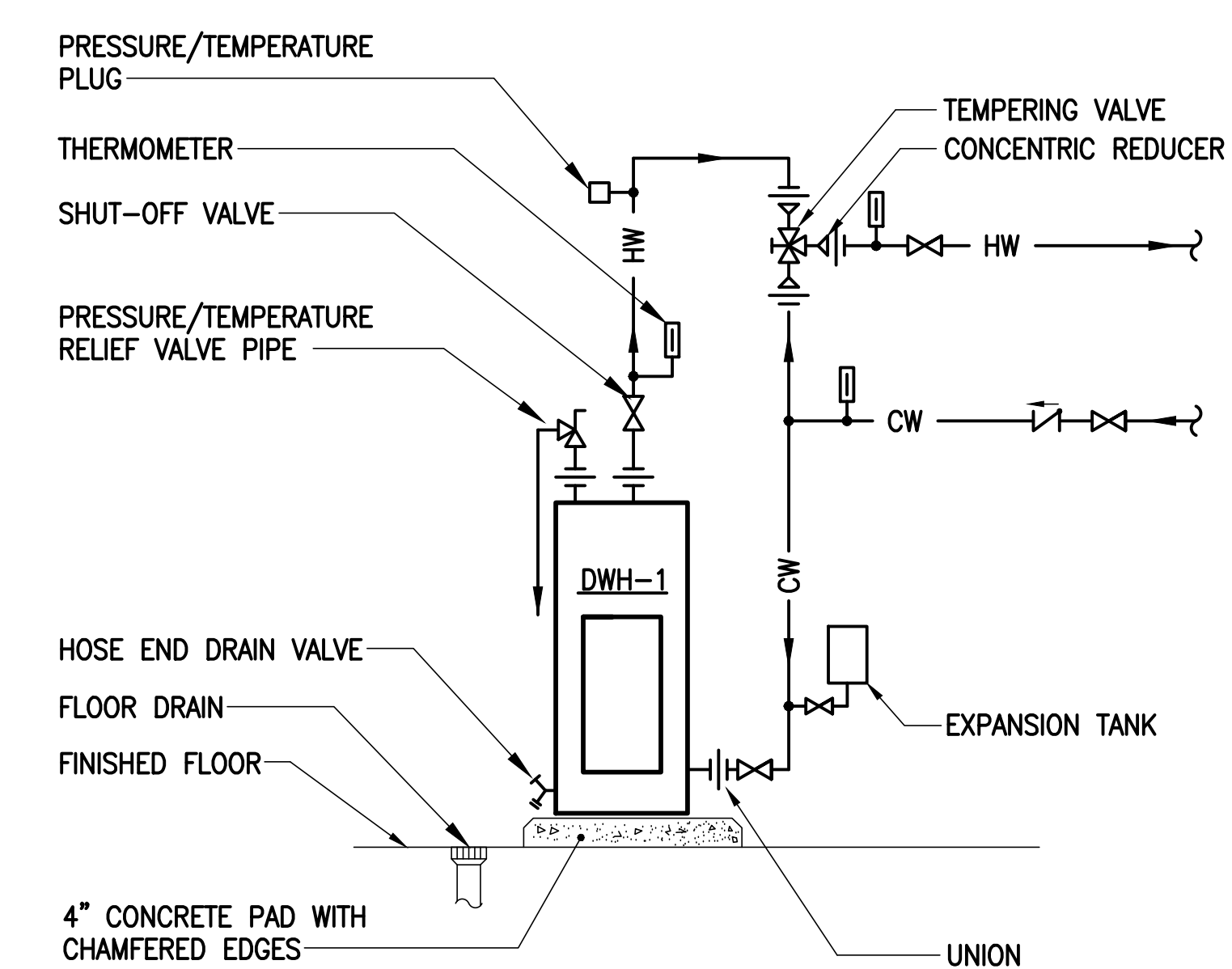
SCALE: NONE **3**



NOTE:
1. UNIT IS FACTORY ASSEMBLED. PROVISIONS MUST BE MADE TO PROPERLY SECURE PACKAGE TO HOUSEKEEPING PAD AND PER MANUFACTURER'S RECOMMENDATIONS.

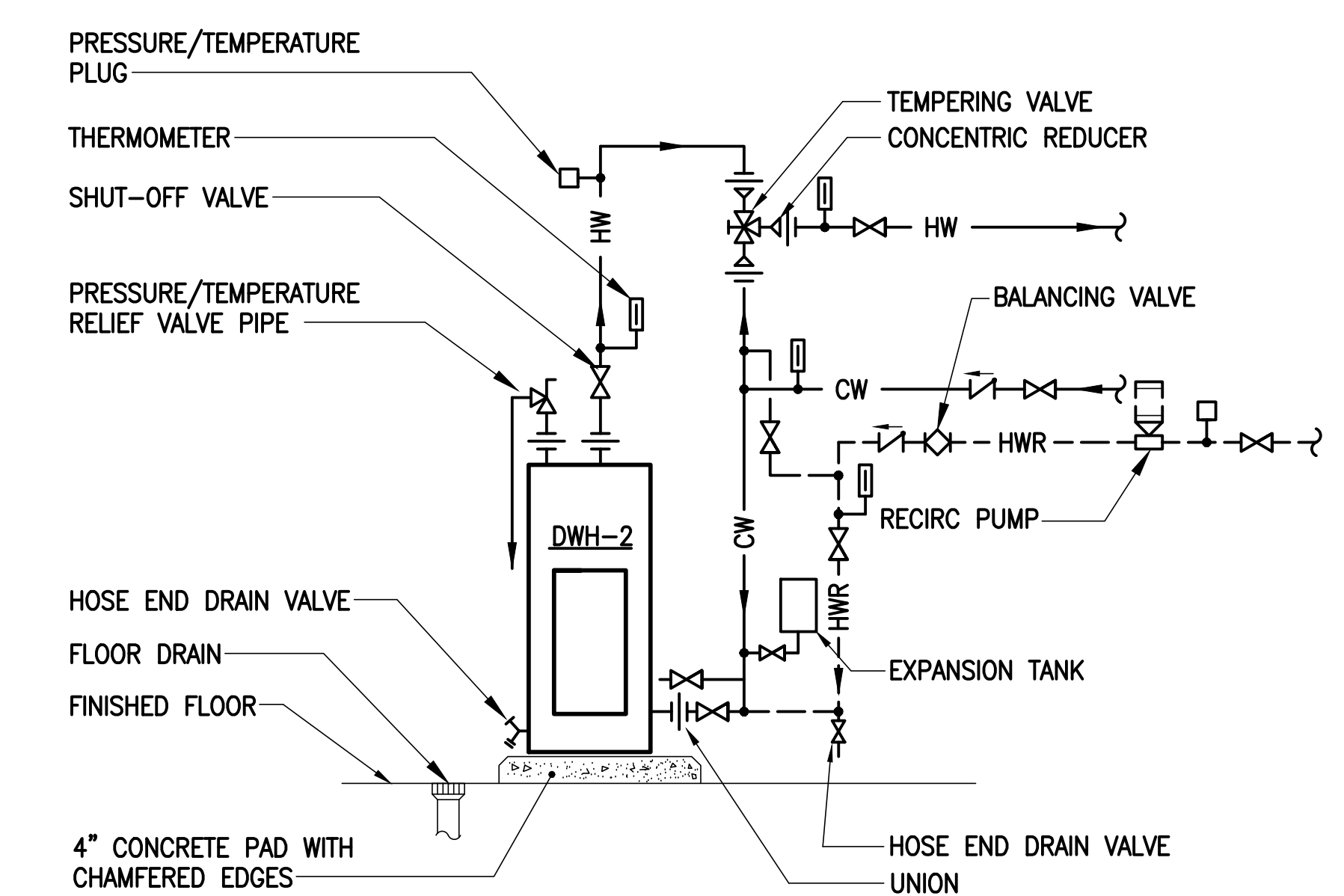
DETAIL – DUPLEX DOMESTIC WATER BOOSTER

SCALE: NONE **4**



DETAIL – DOMESTIC WATER HEATER PIPING (EDWH-1)

SCALE: NONE **5**



DETAIL – DOMESTIC WATER HEATER PIPING (EDWH-2)

SCALE: NONE **6**

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APPROVED		APPROVED	
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY	

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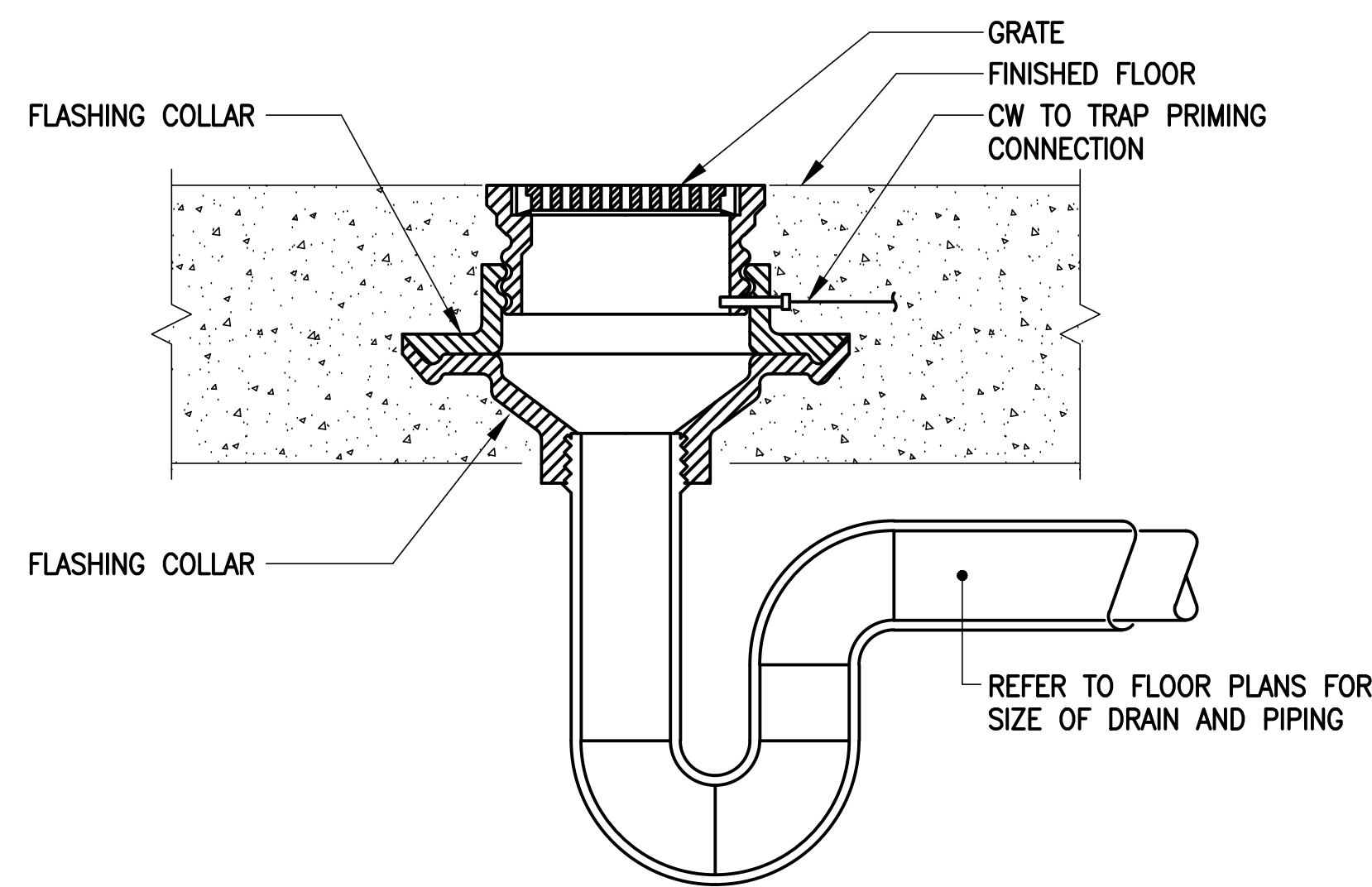
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PLUMBING DETAILS

P300

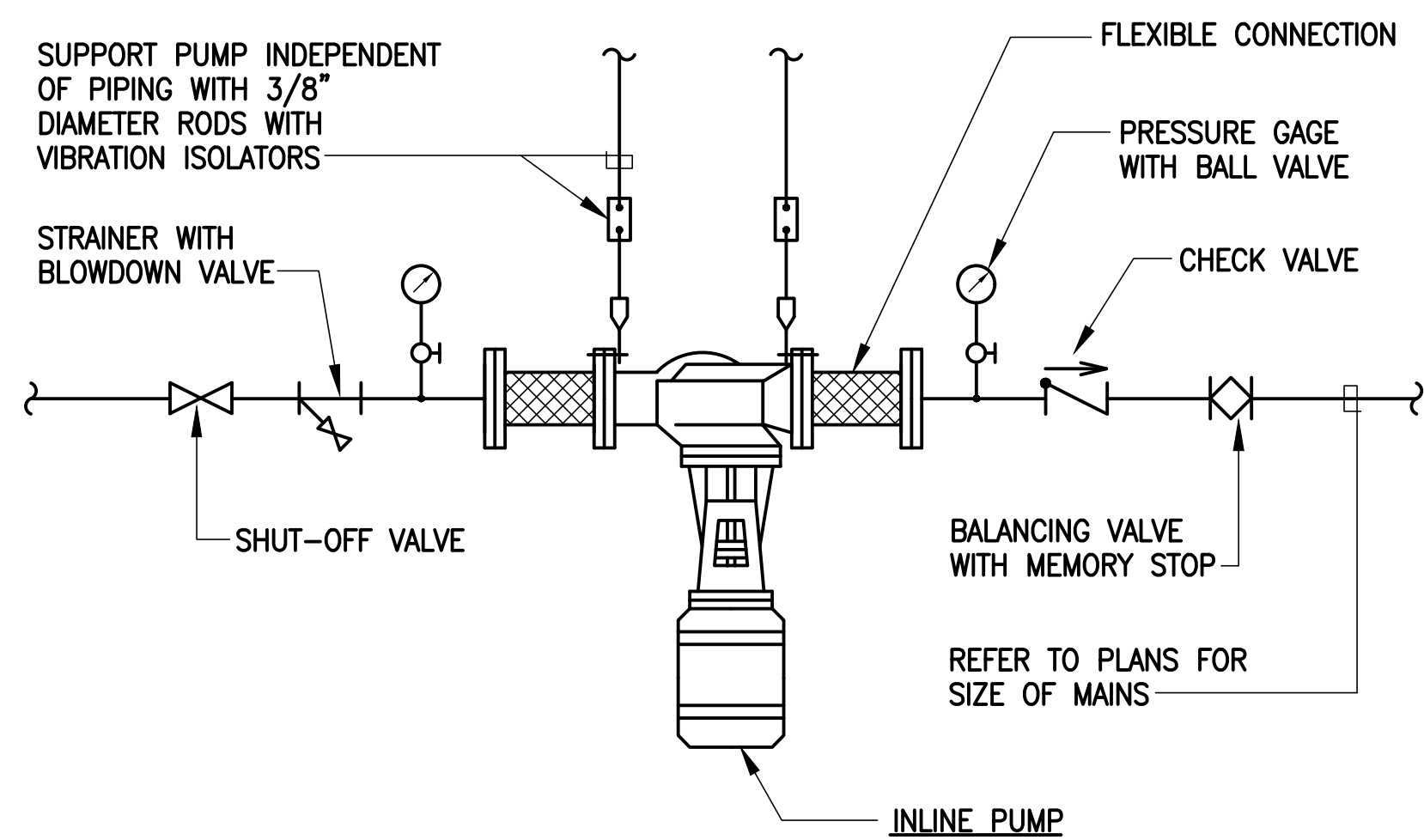
SCALE: NONE
DRAWN BY: DVC
CHECKED BY: RK3
SHEET NO. – OF –
PROJECT NO. P535900
PROPOSAL NO. P535907



NOTE:
 1. TRAP PRIMING LINES CONNECTED TO THE TOILET FLUSH VALVES IN BATHROOMS WILL BE 3/8". ALL OTHER LINES WILL BE 1/2".

DETAIL – FLOOR DRAIN

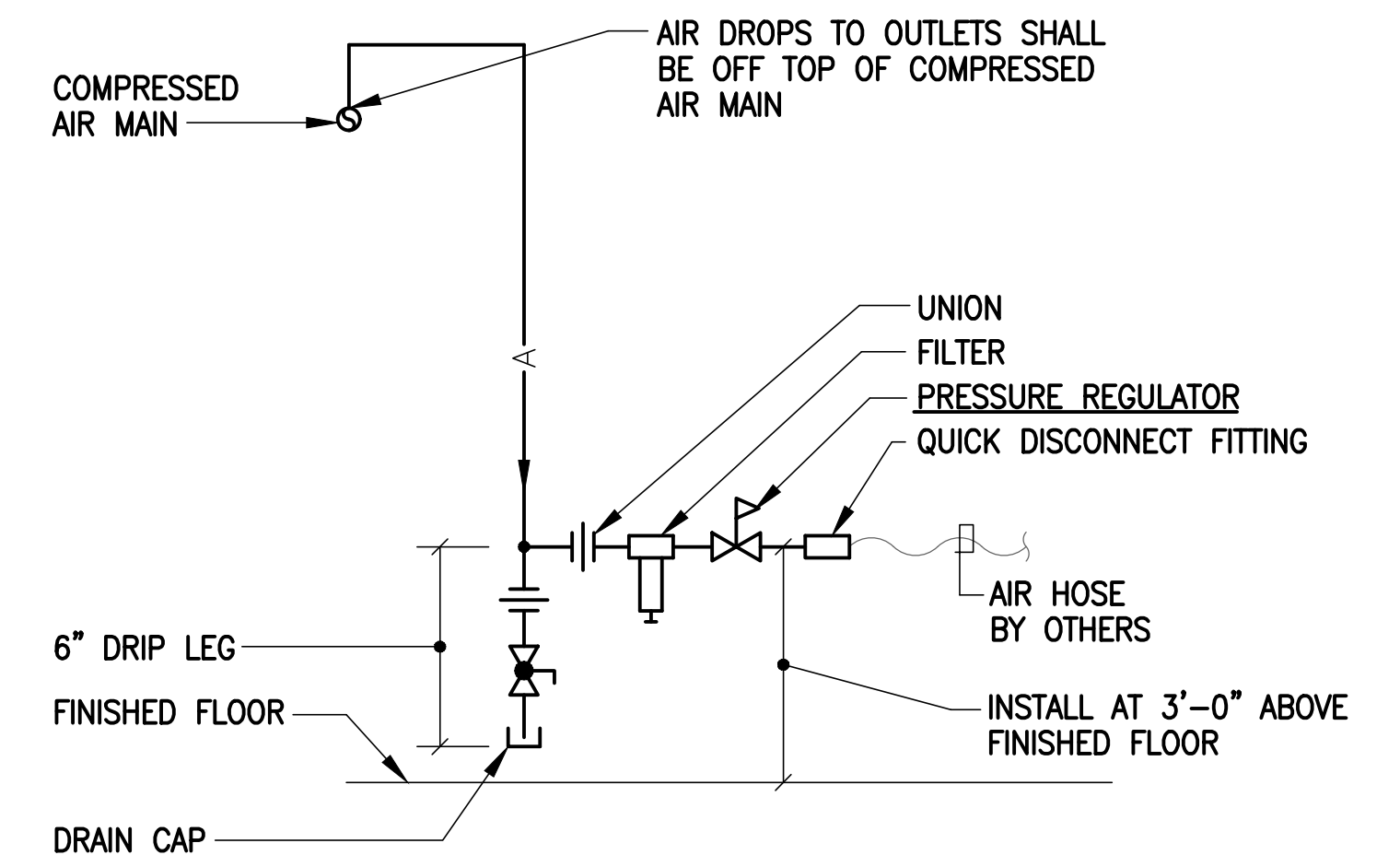
SCALE: NONE **7**



NOTE:
 1. PUMP SHALL BE INSTALLED HORIZONTAL OR VERTICAL AS REQUIRED BY PUMP MANUFACTURER.

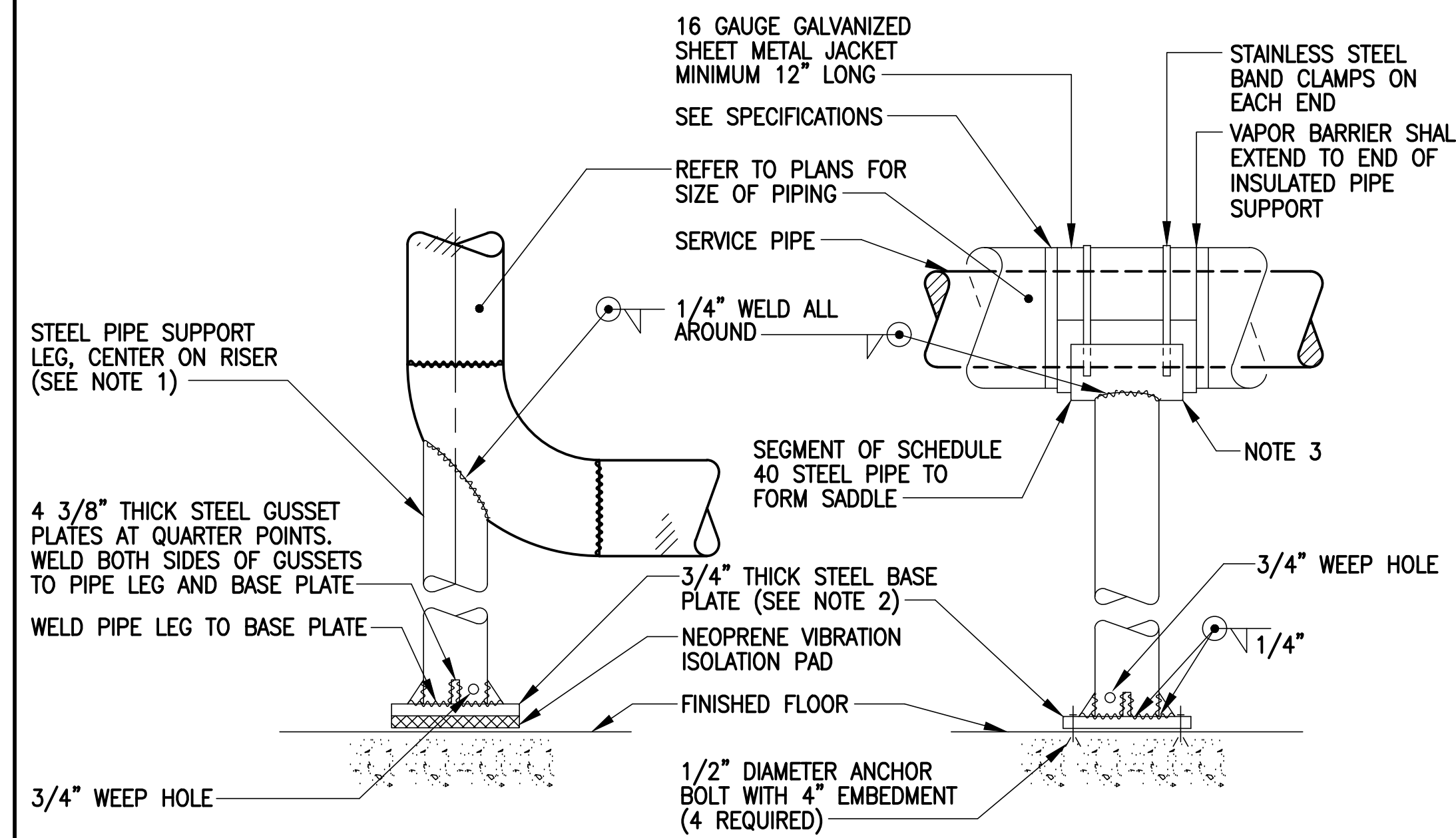
DETAIL – RECIRCULATING INLINE PUMP

SCALE: NONE **8**



DETAIL – COMPRESSED AIR WALL OUTLET

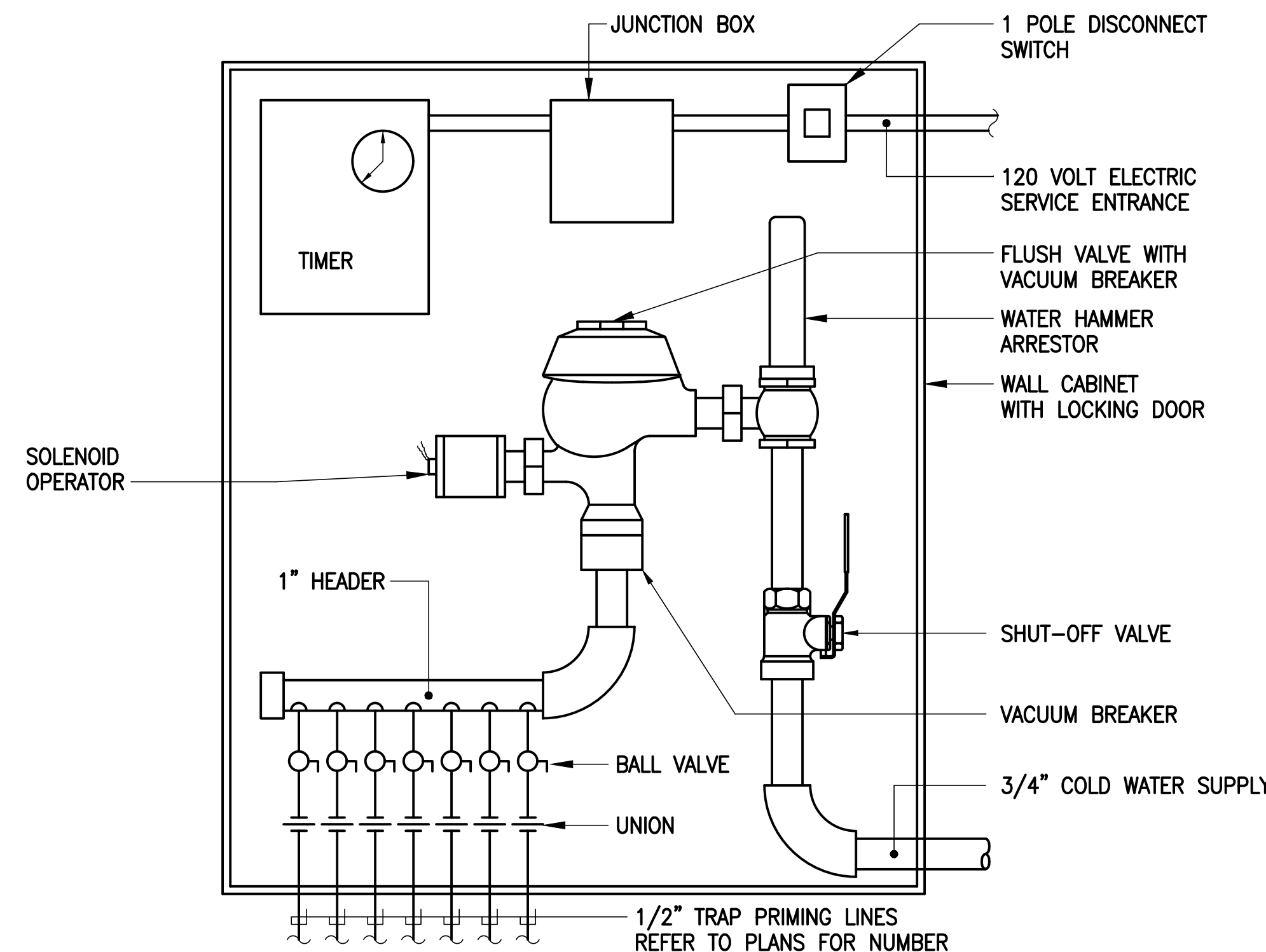
SCALE: NONE **9**



NOTES:
 1. SUPPORT LEG SHALL BE TWO PIPE SIZES SMALLER THAN PIPE BEING SUPPORTED (UNLESS OTHERWISE NOTED).
 2. STEEL PLATE SHALL EXTEND A MINIMUM OF THREE (3") INCHES BEYOND THE SUPPORT LEG PIPE WALL ON ALL SIDES (UNLESS OTHERWISE NOTED).
 3. NON-INSULATED PIPES SHALL REST DIRECTLY ON INNER SADDLE LEVEL.

DETAIL – PIPE SUPPORT LEG

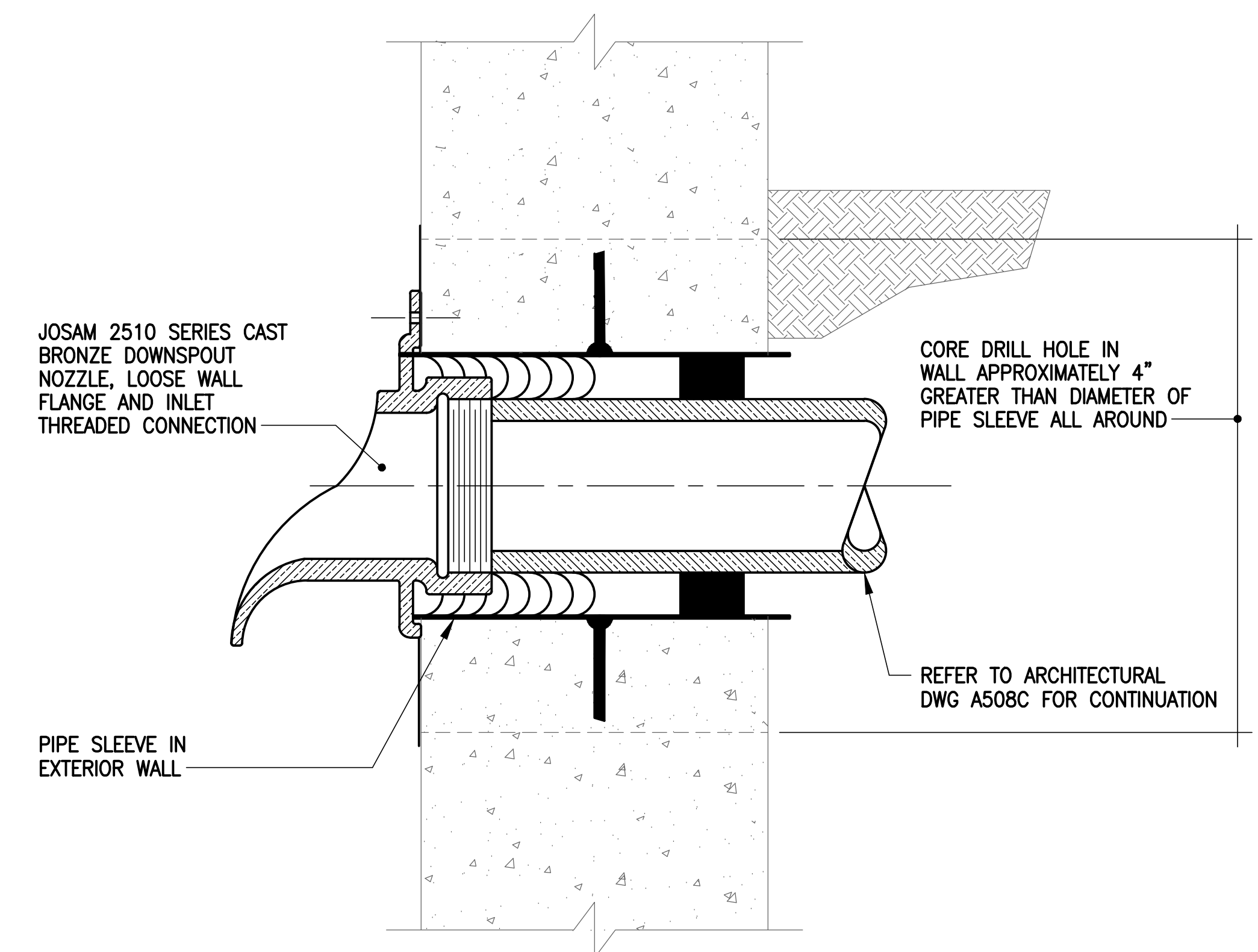
SCALE: NONE **10**



NOTE: ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF DIVISION 16000 AND SHALL BE UNDERWRITERS LABORATORY LISTED.

DETAIL – TRAP PRIMING STATION

SCALE: NONE **11**



DETAIL – OVERFLOW SPILLWAY

SCALE: NONE **12**

NO.	DESCRIPTION	BY	DATE
△			

APPROVED				DATE			
CHIEF ENGINEER		PROJECT MANAGER		APPROVED		APPROVED	
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY		APPROVED		APPROVED	

DATE: 04-28-2021

ANNE ARUNDEL COUNTY
 DEPARTMENT OF PUBLIC WORKS

FORT SMALLWOOD PARK
 9500 FORT SMALLWOOD ROAD
 PASADENA, MD 21122

PLUMBING
 DETAILS

P301

DOMESTIC WATER STORAGE TANK DUTY

DESIGNATION :	ST-1 & ST-2	ST-3 & ST-4
SERVICE :	COMFORT STATION	MAINTENANCE BLDG
TANK VOL. (GAL) :	528	250
CONSTRUCTION :	POLYPROPYLENE	POLYPROPYLENE
DIAMETER :	48"	36"
HEIGHT :	97"	54"
DRY WEIGHT (LB) :	-	-
BASIS OF DESIGN :	-	-
REMARKS :	DOMESTIC WATER WELL SYSTEM	

HW RECIRCULATION PUMP DUTY

DESIGNATION :	RP-1 (NOT USED) (COMFORT STATION)	RP-2 (MAINTENANCE BLDG)
SERVICE :	EDWH-1	EDWH-2
CAPACITY :	-	1
HEAD FT :	-	2.5
MOTOR HP :	-	0.025
ELECTRICAL (V/φ) :	-	120/1
BASIS OF DESIGN :	-	TACO ILO03B
REMARKS :	-	

PLUMBING FIXTURE SCHEDULE

DESIGNATION	FIXTURE	ROUGH-IN CONNECTION				FIXTURE UNITS			FLOW RATE		BASIS OF DESIGN	REMARKS
		CW	HW	SAN	VENT	CW	HW	SAN	GPM	GPF		
P-1	WATER CLOSET	1"	-	4"	2"	10	-	6	-	1.28	AS 2234.001	FLOOR MOUNTED; HARD WIRED FLUSH VALVE
P-1A	WATER CLOSET-ACCESSIBLE	1"	-	4"	2"	10	-	6	-	1.28	AS 3461.001	FLOOR MOUNTED; HARD WIRED FLUSH VALVE
P-2	URINAL	3/4"	-	2"	1 1/2"	4	-	4	-	0.125	AS 6002.001	WALL HUNG CARRIER; HARD WIRED TOUCHLESS FLUSH VALVE
P-2A	URINAL-ACCESSIBLE	3/4"	-	2"	1 1/2"	4	-	4	-	0.125	AS 6002.001	WALL HUNG CARRIER; HARD WIRED TOUCHLESS FLUSH VALVE
P-3	PUBLIC SINK-ACCESSIBLE	1/2"	1/2"	2"	1 1/2"	1.5	1.5	1	0.5	-	ZURN Z-5006.03	WALL HUNG; 3 BASIN COMPOSITE UNIT; TOUCHLESS WIRED FAUCETS
P-3A	LAVATORY-ACCESSIBLE	1/2"	1/2"	2"	1 1/2"	1.5	1.5	1	0.5	-	ZURN Z-5006.01	WALL HUNG CARRIER; HARD WIRED TOUCHLESS FAUCETS
P-3B	KITCHEN SINK	1/2"	1/2"	2"	1 1/2"	2	2	2	2.2	-	ELKAY 3C18X24-2-24X	3 COMPARTMENT SS UNIT WITH (2) ELKAY LKGT1041CR FAUCETS
P-3C	HAND SINK	1/2"	1/2"	2"	1 1/2"	1.5	1.5	1	0.5	-	ELKAY EHS-18X	WALL HUNG STAINLESS STEEL; HARD WIRED TOUCHLESS FAUCETS
P-3D	BREAKROOM SINK-ACCESSIBLE	1/2"	1/2"	2"	1 1/2"	1.5	1.5	1	0.5	-	ELKAY ELUHAD2115	COUNTERTOP DROP-IN; SS WITH SINGLE LEVER ADA FAUCET
P-4	DRINKING FOUNTAIN (INT)	1/2"	-	2"	1 1/2"	.5	-	1	-	-	ELKAY EDFPBM117FPK	WALL HUNG; ADA, NON-REFRIGERATED WITH BOTTLE FILLER
P-4A	DRINKING FOUNTAIN (EXT)	1/2"	-	2"	1 1/2"	.5	-	1	-	-	ELKAY LK4420	FLOOR MTD; ADA DUAL SPOUT, NON-REFRIGERATED, FROST PROOF
P-5	MOP SINK	1/2"	1/2"	3"	1 1/2"	2.25	2.25	3	1.5	-	FIAT MSBIDTG2424	
P-6	WORKSHOP UTILITY SINK	1/2"	1/2"	2"	1 1/2"	1.5	1.5	1	0.5	-	ELKAY SS 82422	DOUBLE BASIN SS SINK; FAUCET WITH PADDLE HANDLES
P-7	SHOWER	1/2"	-	-	-	1.5	-	-	0.5	-	SHOWER TOWER	OUTDOOR FREESTANDING SHOWER ASSEMBLY; 6 STATION UNIT
P-8	EMERGENCY EYEWASH	1/2"	-	2"	1 1/2"	1.5	-	-	0.5	-	BRADLEY S19224BPT	

DOMESTIC WATER BOOSTER PUMP SCHEDULE

DESIGNATION	SERVICE	HEAD FEET WG	NUMBER OF PUMPS	GPM EACH PUMP	BHP	MOTOR HP	RPM	ELECTRICAL V/φ/HZ	EFFICIENCY %	BASIS OF DESIGN	REMARKS
WBP-1	COMFORT STATION BUILDING	160	2	77	-	5	3600	240/1/60	-	SENCILLO "P" SERIES	VFD ON MOTORS
WBP-2	MAINTENANCE BUILDING	170	2	42	-	3	3600	240/1/60	-	SENCILLO "P" SERIES	VFD ON MOTORS

① PROVIDE DISCONNECT SWITCH TO BE INSTALLED BY THE ELECTRICAL CONTRACTOR.

DOMESTIC WATER HEATER SCHEDULE

DESIGNATION	SERVICE	EWT °F	LWT °F	STOR. GALS.	HEAT CAPACITY BTUH	RECOVERY GPH @ 100° RISE	ELECTRIC		BASIS OF DESIGN	REMARKS
							VOLT/PH	KW		
EDWH-1	COMFORT STATION BUILDING	40	140	50	-	37	240/1	9.0	STATE WATER HEATERS - CSB529SFE	①
EDWH-2	MAINTENANCE BUILDING	40	140	20	-	17	240/1	4.0	STATE WATER HEATERS - PCE201OMSA-4	①

① TIE INTO CONTROLLER FOR STATUS AND ALARM.

AIR COMPRESSOR SCHEDULE

DESIGNATION	SERVICE	QUANTITY	CAPACITY CFM @90	OPERATING PRESSURE PSIG	FLOW @ MAX PRESSURE	TYPE	MOTOR HP	GALLONS	ELECTRICAL V/φ/HZ	WEIGHT LBS	BASIS OF DESIGN	REMARKS
AC-1	MAINTENANCE BUILDING	1	38	175	37	HORIZONTAL	10	80	240/1/60	1035	INGERSOLL RAND 7100E10	



RMF ENGINEERING, INC.
5520 RESEARCH PARK DR, 3RD FLR
BALTIMORE, MD 21128
P: 410.576.0505

PROFESSIONAL CERTIFICATION
I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR
APPROVED BY ME AND THAT I AM A DULY LICENSED
ENGINEER UNDER THE LAWS OF THE STATE OF
MARYLAND, LICENSE NUMBER 48186, EXPIRATION DATE
01/12/2022.

(C) RMF ENGINEERING, INC.
ALL REPRODUCTION IS PROHIBITED

NO.	DESCRIPTION	BY	DATE	APPROVED	DATE	APPROVED	DATE	SCALE: NONE
△								DRAWN BY: DVC
				CHIEF ENGINEER		PROJECT MANAGER		CHECKED BY: RK3
				APPROVED		APPROVED		SHEET NO. - OF -
				ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY		PROJECT NO. P535900
								PROPOSAL NO. P535907

ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS

DATE: 04-28-2021

FORT SMALLWOOD PARK
9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122

PLUMBING
SCHEDULES

P400

LIGHTING FIXTURE SCHEDULE						
NOTE: VERIFY CEILING AND WALL CONSTRUCTION AND FINISHES WITH THE ARCHITECT'S DRAWINGS AND FINISH SCHEDULES FURNISH PROPER MOUNTING FRAMES, BRACKETS AND HARDWARE AS REQUIRED TO BE COMPATIBLE WITH ARCHITECTURAL FINISHES. MOUNTING HEIGHTS INDICATED ARE TO BOTTOM OF FIXTURE						
TYPE	DESCRIPTION	VOLTS	LAMP	CATALOG #	WATTS	MANUFACTURER (OR APPROVED EQUAL)
D1	6" ROUND LED	120	LED	DLM6-HA-L235AA-A-1-UN	29	RECESSED NEW STAR
P1	FULLY ENCLOSED & GASKETED INDUSTRIAL	120	LED	96-4-L62/835-HAFR-SSCB-DRV-UNV	48	SUSPENDED HUBBELL
P2	INDUSTRIAL STRIP	120	LED	LCS4-3SLW-E-U	23	SUSPENDED HUBBELL
PL1	POLE LIGHT	240	LED	ALT-3-96L4K240-SG-WH-M	105	POLE KIM
PL1	POLE FOR PL1 TYPE LIGHT FIXTURE	-	-	PR420-4188-SG	-	- KIM
S1	CONFINEMENT SERIES	120	LED	UMW2-A-L2-50-2-S-E-UN	25	SURFACE NEW STAR
W1	LED WALL LUMINAIRE	120	LED	DSXW1-LED-20C-350-40K-T4M-120-PE-BSW-DNAXD	23	WALL LITHONIA
W2	LED WALL LUMINAIRE	120	LED	DSXW2-LED-20C-350-40K-T4M-120-PE-BSW-DNAXD	25	WALL LITHONIA
XL	EXIT LIGHTING	120	LED	MMEX-1-6-R-DT-1	-	CEILING KENALL

- NOTES:
 1. ALL LIGHT FIXTURES SHALL BE UL LISTED.
 2. CONTRACTOR SHALL COORDINATE WITH CEILING TYPES TO ORDER APPROPRIATE TRIMS, FLANGES, AND ACCESSORIES FOR ALL LIGHT FIXTURE INSTALLATIONS.
 3. ALL LIGHTS WITH BATTERY BALLASTS SHALL HAVE BATTERY WIRED AHEAD OF LOCAL SWITCHES.

EQUIPMENT CONNECTION SCHEDULE									
DESC	LOAD	UNIT	VOLTS	PHASE	DISCONNECT		CIRCUIT	REMARKS	
					POLE	FRAME			
AC-1	10	HP	240	1	2	60	13.15 PP2(A)		
HPU-1	32	A	240	1	2	60	5.7 PP1(A)		
HPU-2	32	A	240	1	2	60	36.36 PP2(A)		
CU-1	14	A	240	1	2	30	17.19 PP1(A)	NOTE 4	
CU-2	15	A	240	1	2	30	14.16 PP2(A)	NOTE 4	
ACU-1	0.36	A	240	1			SWITCH	NOTE 2, 3	
ACU-2	1.35	A	240	1			SWITCH	NOTE 2, 3	
ACCU-1	10	A	240	1	2	30	18.20 PP1(A)	NOTE 4	
ACCU-2	10	A	240	1	2	30	36.40 PP2(A)	NOTE 4	
EF-1	1/4	HP	120	1			31 PP1(A)	NOTE 1	
EF-2	1/4	HP	120	1			31 PP1(A)	NOTE 1	
EF-3	1/4	HP	120	1			33 PP1(A)	NOTE 1	
EF-4	NOT USED								
EF-5	1/4	HP	120	1			37 PP2(A)	NOTE 1	
EF-6	1/4	HP	120	1			37 PP2(A)	NOTE 1	
EF-7	1/12	HP	120	1			39 PP2(A)	NOTE 1	
EF-8	1/12	HP	120	1			39 PP2(A)	NOTE 1	
EF-9	1/20	HP	120	1			39 PP2(A)	NOTE 1	
EF-10	1/4	HP	120	1			39 PP2(A)	NOTE 1	
EUH-1	3.3	KW	240	1			5.7 LE	NOTE 5	
EUH-2	3.3	KW	240	1			6.8 LE	NOTE 5	
EUH-3	3.3	KW	240	1			17.19 PP2(A)	NOTE 5	
EUH-4	3.3	KW	240	1			18.20 PP2(A)	NOTE 5	
EUH-5	3.3	KW	240	1			21.23 PP2(A)	NOTE 5	
EUH-6	3.3	KW	240	1			22.24 PP2(A)	NOTE 5	
EUH-7	3.3	KW	240	1			26.28 PP2(A)	NOTE 5	
EWJH-1	2	KW	240	1			9.11 PP1(A)	NOTE 5	
EWJH-2	2	KW	240	1			10.12 PP1(A)	NOTE 5	
EWJH-3	2	KW	240	1			13.15 PP1(A)	NOTE 5	
EWJH-4	2	KW	240	1			14.16 PP1(A)	NOTE 5	
RP-1	NOT USED								
RP-2	1/40	HP	120	1			SWITCH	NOTE 3	
MBP-1	205	HP	240	1			2.4 PP1(A)	NOTE 1	
MBP-2	205	HP	240	1			23.27 PP2(A)	NOTE 1	
EDWH-1	9	KW	240	1	2	60	1.3 PP1(A)	NOTE 1	
EDWH-2	4	KW	240	1	2	30	29.31 PP2(A)	NOTE 1	
EDW-1	40	A	240	1			21.23 PP1(A)	NOTE 1	
EDW-2	40	A	240	1			22.24 PP1(A)	NOTE 1	

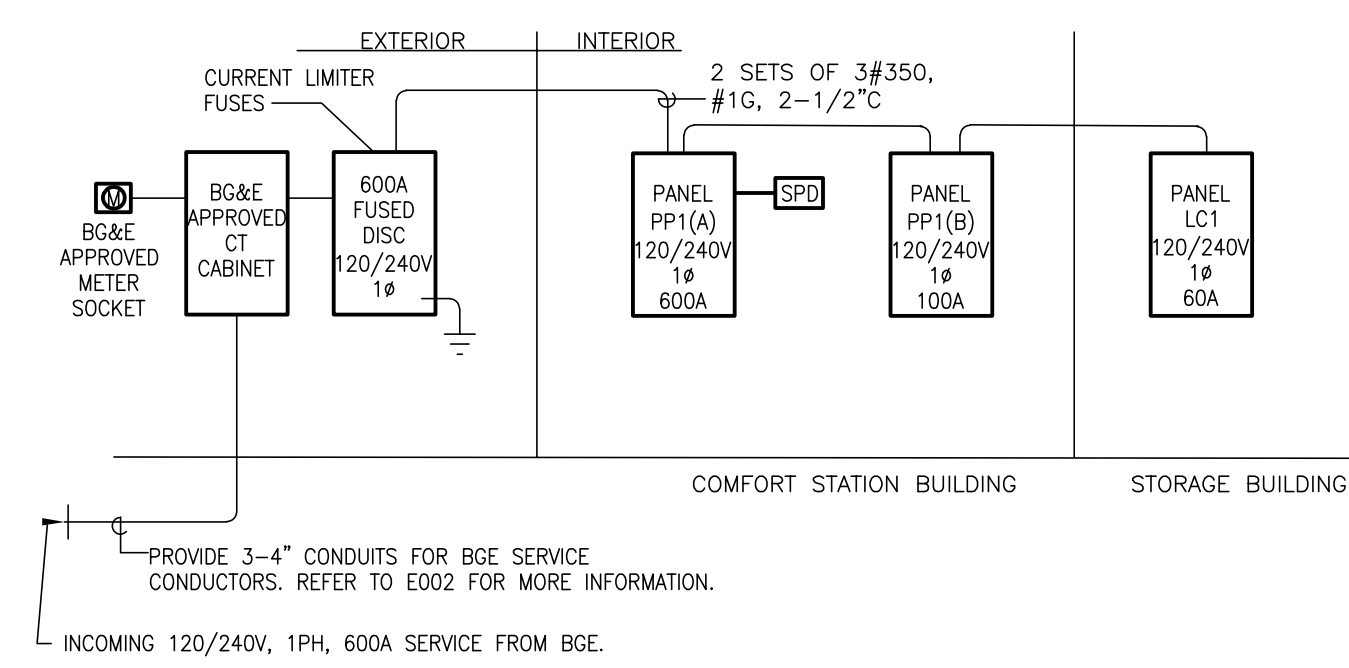
- NOTES:
 1. DISCONNECT SWITCH WITH THERMAL OVERLOADS SHALL BE PROVIDED BY MECHANICAL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR.
 2. CONTRACTOR SHALL PROVIDE POWER CONNECTION TO INDOOR UNIT POWERED FROM OUTDOOR UNIT. COORDINATE REQUIREMENTS WITH MANUFACTURER.
 3. DISCONNECT SWITCH SHALL BE MANUAL MOTOR STARTER WITH THERMAL OVERLOADS.
 4. DISCONNECT SHALL BE PROVIDED WITH NEMA 3R ENCLOSURE.
 5. DISCONNECT SWITCH WITH THERMAL OVERLOADS SHALL BE PROVIDED BY MANUFACTURER. ELECTRICAL CONTRACTOR TO MAKE FINAL CONNECTIONS.

ELECTRICAL ABBREVIATIONS

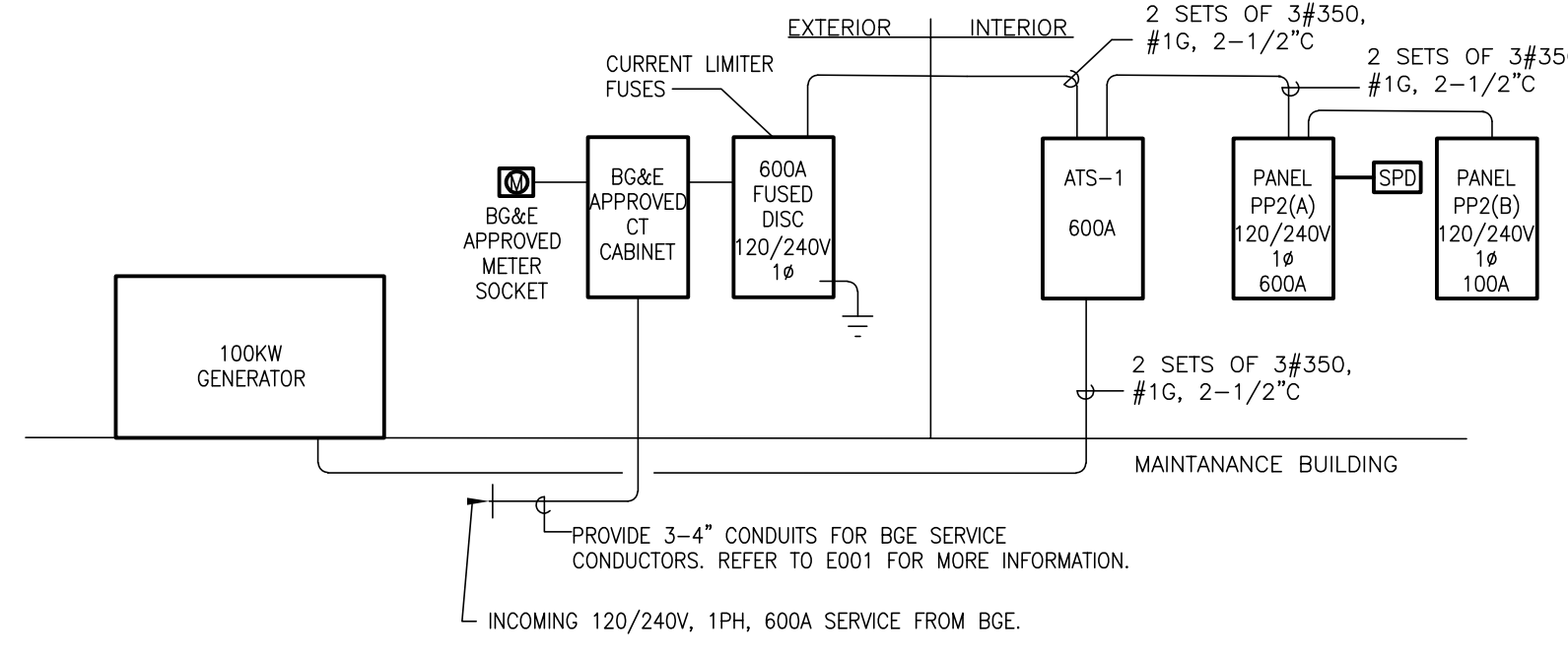
ABBREVIATION	DESCRIPTION
A	AMPERE
AFF	ABOVE FINISHED FLOOR
AIC	AMPS INTERRUPTING CURRENT
AWG	AMERICAN WIRE GAUGE
C	CONDUIT
CKT	CIRCUIT
CLG	CEILING
DC	DIRECT CURRENT
DE/TD	DUAL ELEMENT / TIME DELAY
E	EMERGENCY
EF	EXHAUST FAN
EMT	ELECTRIC METALLIC TUBING
F	FUSED OR FUSIBLE
FLA	FULL LOAD AMPS
FSS	FUSED SAFETY SWITCH
FT	FEET
G OR GRD	GROUND
GEN	GENERATOR
H.I.D.	HIGH INTENSITY DISCHARGE
H.O.A.	HAND-OFF-AUTOMATIC
HP	HORSEPOWER
KV	KILOVOLTS
KVA	KILO-VOLT-AMPERE
KW	KILOWATTS
M.H.	MOUNTING HEIGHT
MCB	MAIN CIRCUIT BREAKER
MH	METAL HALIDE
MLO	MAIN LUGS ONLY
MTD	MOUNTED
N.C.	NORMALLY CLOSED
NEC	NATIONAL ELECTRIC CODE
NFSS	NON FUSED SAFETY SWITCH
NL	NIGHT LIGHT
P	POLE
PH	PHASE
PVC	POLYVINYL CHLORIDE
PWR	POWER
REC	RECEPTACLE
RM	ROOM
SPD	SURGE PROTECTION DEVICE
TYP	TYPICAL
UL	UNDERWRITERS LAB
V	VOLTS
W	WATTS
W/	WITH
WH	WATER HEATER
WP	WEATHER-PROOF

ELECTRICAL LEGEND

- NOTES:
 1. MOUNTING HEIGHTS SHALL BE TO THE CENTER OF THE DEVICE ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED.
- SINGLE POLE SWITCH - M.H. 48" A.F.F.
 - ⊗ 3 DESIGNATES 3 WAY SWITCH
 - ⊕ 4 DESIGNATES 4 WAY SWITCH
 - ⊕⊕ DESIGNATES KEYED SWITCH
 - T DESIGNATES TIMER SWITCH
 - OS DESIGNATES OCCUPANCY SENSOR SWITCH
 - VS DESIGNATES VACANCY SENSOR SWITCH
 - LIGHTING FIXTURE - 2'x4' LED FIXTURE TYPE AS SPECIFIED
 - LIGHTING FIXTURE - TYPE AS SPECIFIED - FILLED CIRCLE DENOTES WITH EMERGENCY BALLAST. TYP.
 - LIGHTING FIXTURE - LED STRIP - TYPE AS SPECIFIED
 - LIGHTING FIXTURE - WALL MOUNTED - TYPE AS SPECIFIED
 - LIGHTING FIXTURE - 1'x4' LED - TYPE AS SPECIFIED
 - EXIT SIGN - UNIVERSAL MOUNTING. NUMBER OF SHADED AREAS INDICATE NUMBER OF FACES. ARROWS INDICATE DIRECTIONAL FACE.
 - WIRING IN OR ON CEILINGS AND WALLS. FOR BRANCH CIRCUITS, HASH MARKS INDICATE THE NUMBER OF CONDUCTORS IF MORE THAN THE DEFAULT OF 2 PLUS GROUND. SEE PANELBOARD SCHEDULE FOR WIRING METHOD, SIZES OF CONDUCTORS AND SIZES OF CONDUIT WHERE APPLICABLE.
 - WIRING IN OR UNDER FLOOR OR SLAB. FOR BRANCH CIRCUITS, HASH MARKS INDICATE THE NUMBER OF CONDUCTORS IF MORE THAN THE DEFAULT OF 2 PLUS GROUND. SEE PANELBOARD SCHEDULE FOR SIZES OF WIRING AND CONDUITS.
 - HOMERUN TO PANEL. HASH MARKS INDICATE THE NUMBER OF CONDUCTORS IF MORE THAN THE DEFAULT OF 2 PLUS GROUND. SEE PANELBOARD SCHEDULE FOR WIRING SIZES AND NUMBER OF CONDUCTORS.
 - DIAGONAL LINE DENOTES RECEPTACLE MOUNTED AT 42" A.F.F. OR 6" ABOVE COUNTER
 - DUPLEX RECEPTACLE - NEMA 5-20R CONFIGURATION - M.H. 18" A.F.F.
 - DUPLEX RECEPTACLE - 5-20R NEMA CONFIGURATION GROUND FAULT INTERRUPT - M.H. 18" A.F.F.
 - "WP" SUBSCRIPT INDICATES RECEPTACLE WITH WEATHERPROOF COVER PLATE.
 - SPECIAL RECEPTACLE NEMA 6-20R (20A, 2P, 3W, 240V)
 - SPECIAL RECEPTACLE NEMA 6-50R (50A, 2P, 3W, 240V)
 - NON-FUSED SAFETY DISCONNECT OR SWITCH. SIZE AS NOTED. M.H. 60" A.F.F.
 - PANELBOARD - SURFACE MOUNTED, RECESSED MOUNTED - M.H. 6'-6" TO TOP
 - GROUND - SUBSCRIPT DENOTES SIZE
 - OCCUPANCY SENSOR CEILING MOUNTED
 - ⊗ SITE POLE LIGHT FIXTURE

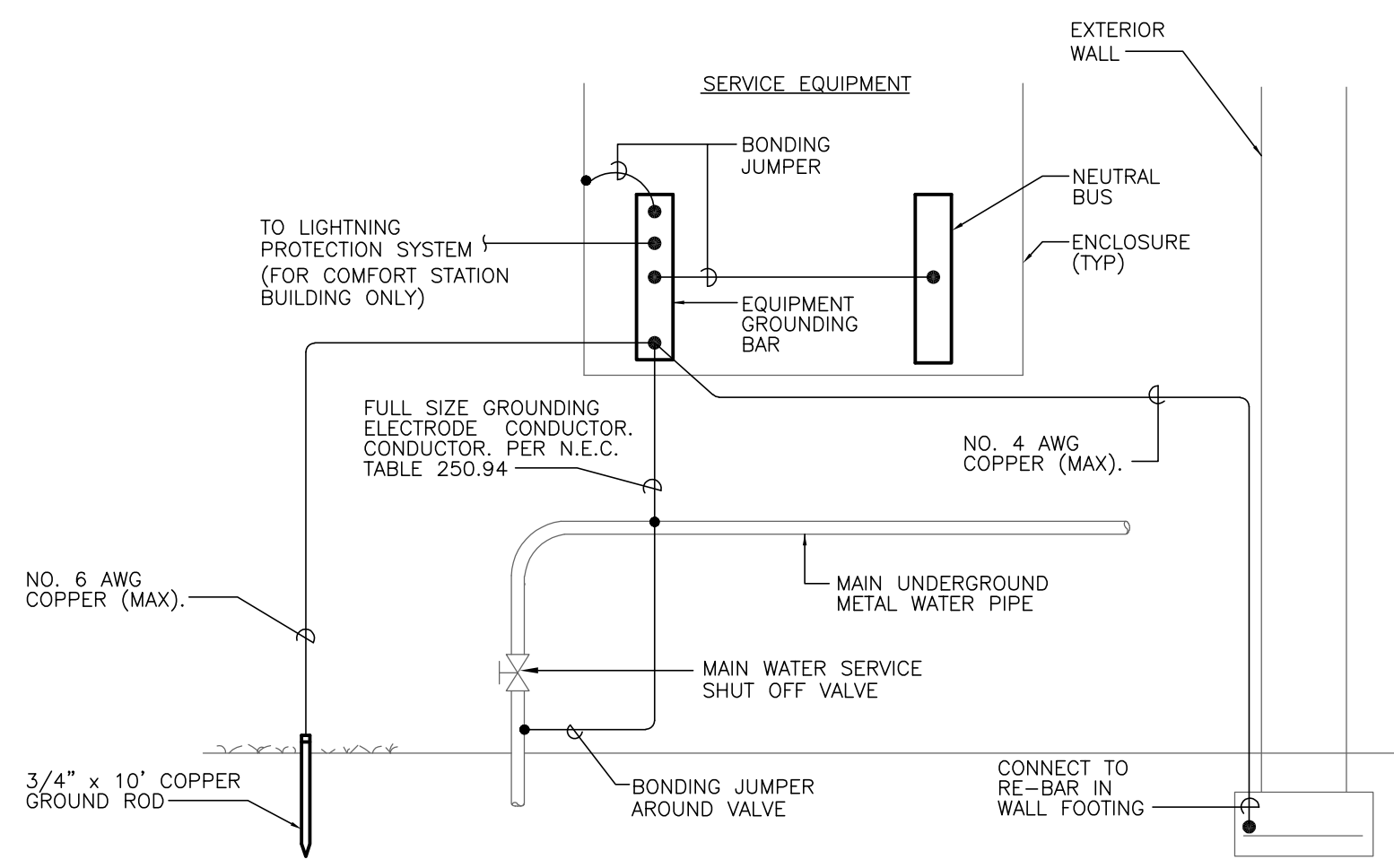


1 POWER DISTRIBUTION DIAGRAM - COMFORT BLDG NOT TO SCALE

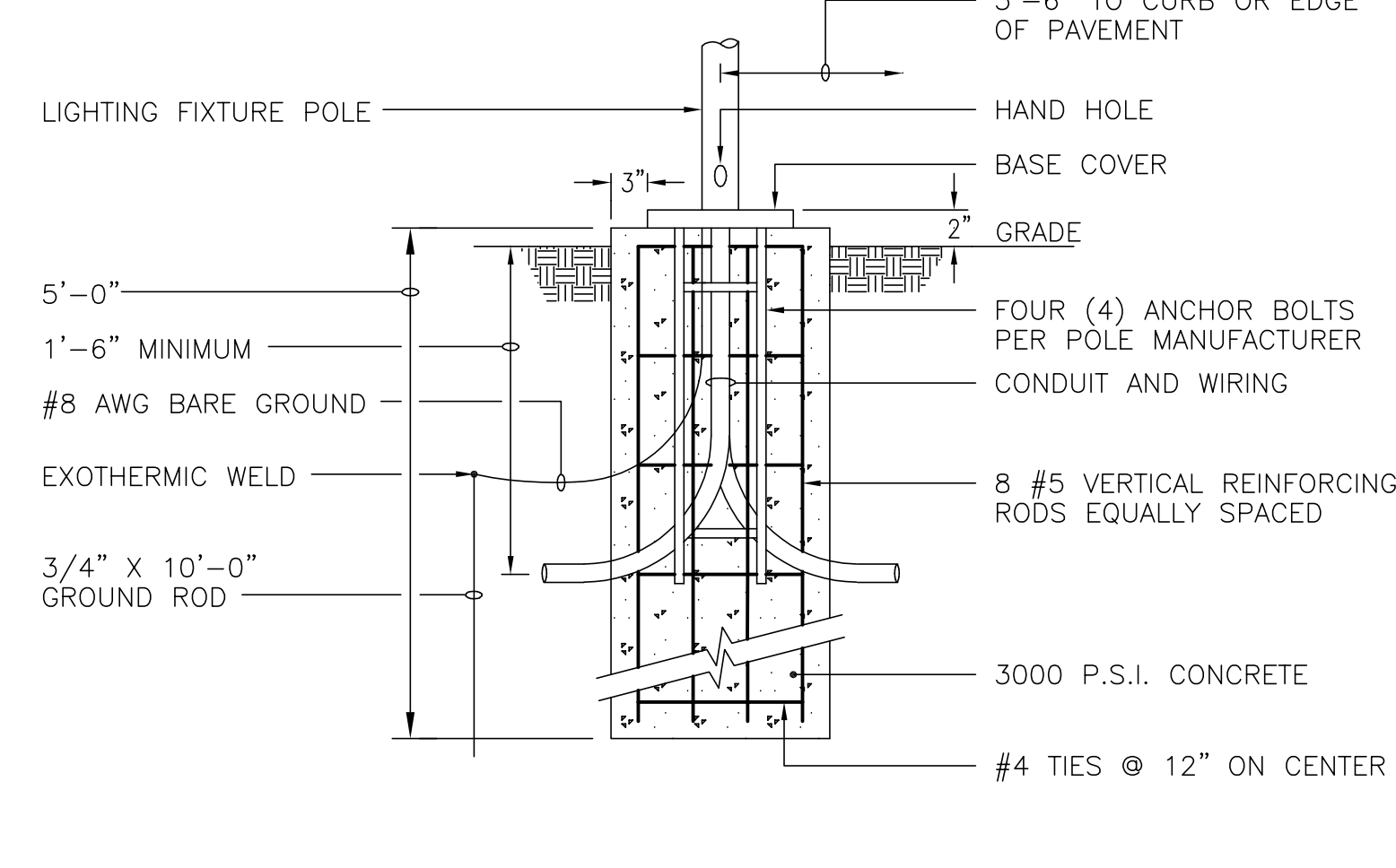


2 POWER DISTRIBUTION DIAGRAM - MAINTENANCE BLDG NOT TO SCALE

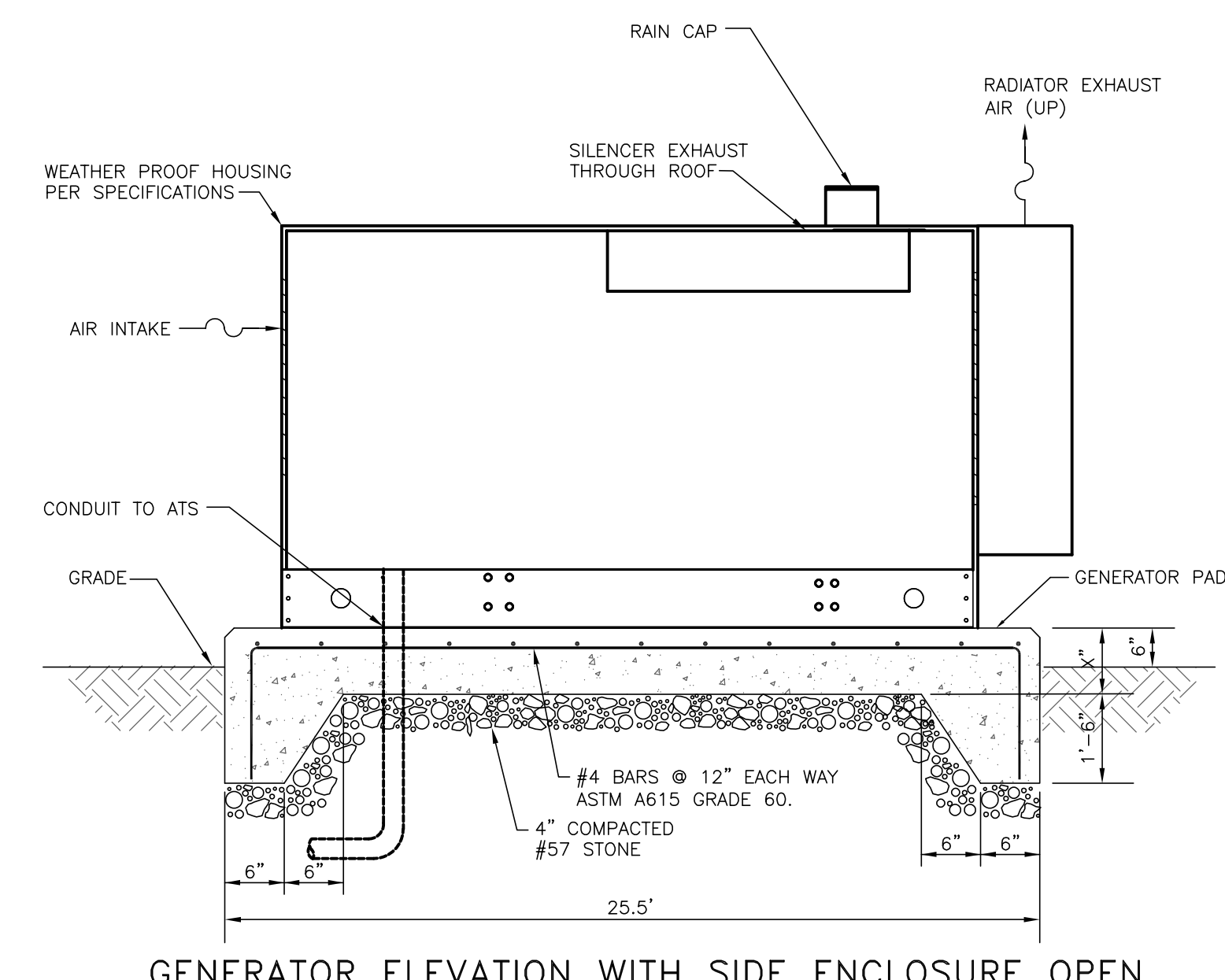
- NOTES:
 1. BASE TANK TO BE PROVIDED FOR GENERATOR FUEL STORAGE. REFER TO SPECIFICATIONS FOR STRUCTURES.
 2. VERIFY ACTUAL FOOTPRINT OF GENERATOR AND FUEL TANK PRIOR TO PAD CONSTRUCTION.
 3. REFER TO SPECIFICATIONS FOR MAINTENANCE FOR PLATFORM REQUIREMENTS AND EXTEND PAD WIDTH 6" BEYOND MAINTENANCE PAD WIDTH.



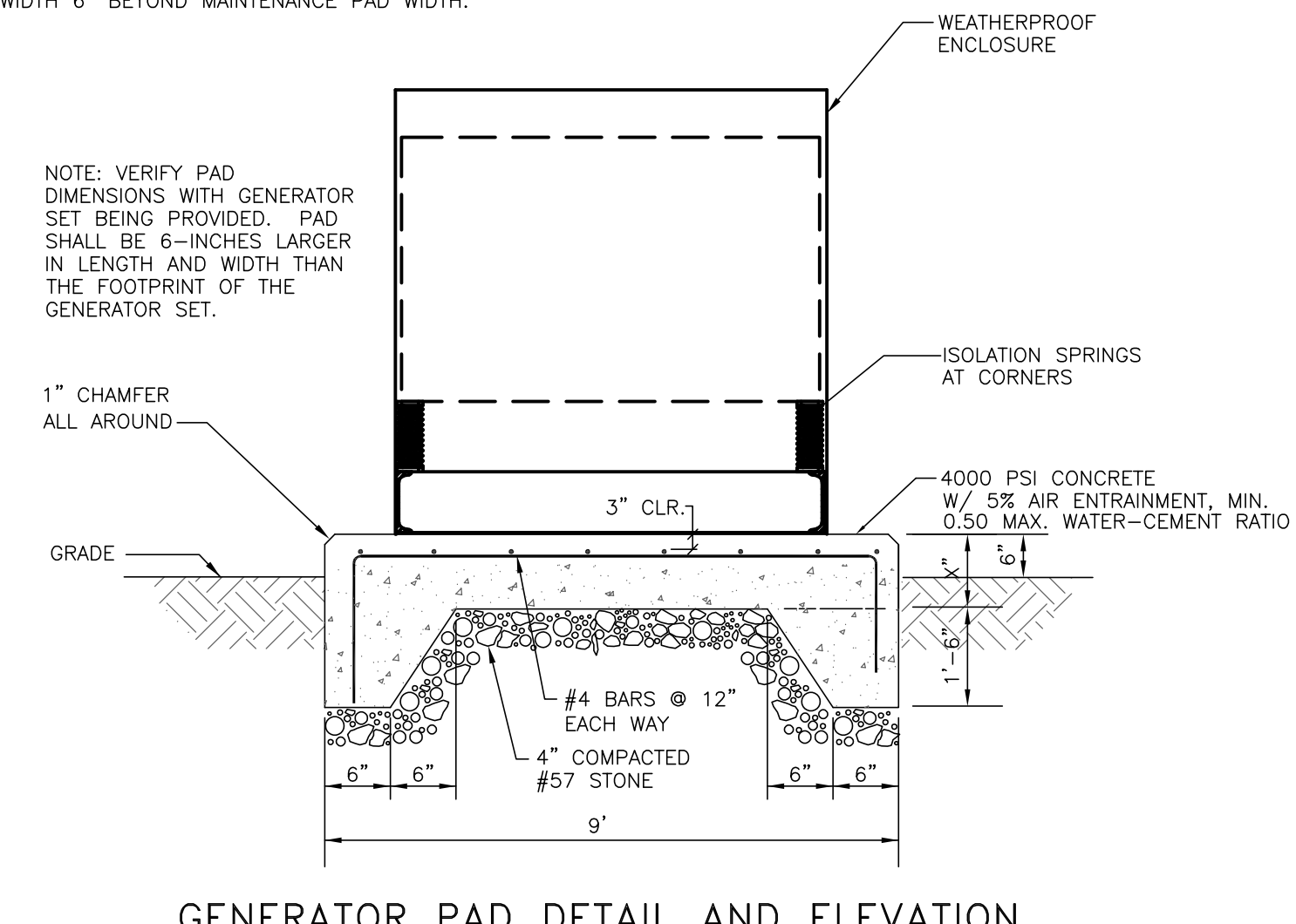
3 DETAIL - GROUNDING ELECTRODE SYSTEM NOT TO SCALE



4 DETAIL - SITE LIGHTING POLE CONCRETE BASE NOT TO SCALE



GENERATOR ELEVATION WITH SIDE ENCLOSURE OPEN



GENERATOR PAD DETAIL AND ELEVATION

gba
gant-brunnett
ARCHITECTS
15 West Mulberry Street
Baltimore, Maryland 21201-4406
Telephone Number: 410-234-8444

rmf
RMF ENGINEERING, INC.
5520 RESEARCH PARK DR. 3RD FLR
BALTIMORE, MD 21228
P: 410-576-0505

"PROFESSIONAL CERTIFICATION
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 ENGINEER UNDER THE LAWS OF THE STATE OF
 MARYLAND, LICENSE NUMBER 18961, EXPIRATION DATE
 06/14/2022."
 (C) RMF ENGINEERING, INC.
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NO.	DESCRIPTION	BY	DATE
△			

ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS

DATE: 04-28-2021

APPROVED	DATE	APPROVED	DATE
CHIEF ENGINEER		PROJECT MANAGER	
APPROVED	DATE	APPROVED	DATE
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY	

SCALE: NONE
 DRAWN BY: JMF
 CHECKED BY: SLD
 SHEET NO. - OF -
 PROJECT NO. P535900
 PROPOSAL NO. P535907

FORT SMALLWOOD PARK
9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122

ELECTRICAL LEGEND
AND ABBREVIATIONS

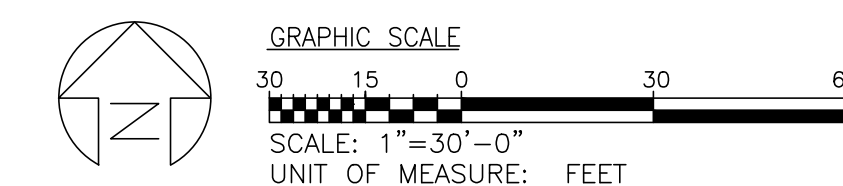
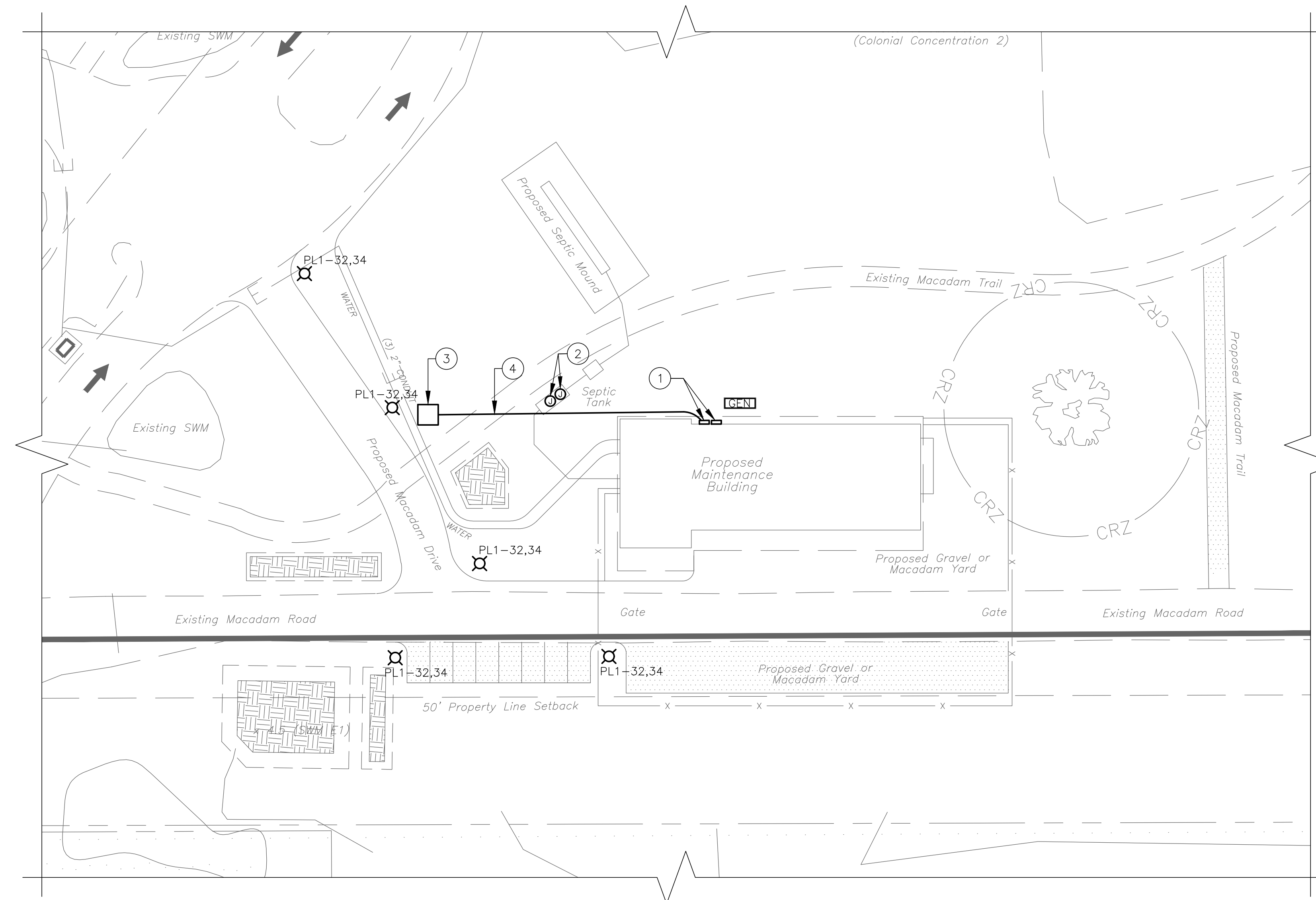
E000

GENERAL NOTE:

1. REFER TO E000 FOR LIGHT FIXTURE SCHEDULE.
2. ALL LIGHTING ON THIS PLAN SHALL BE CIRCUITED TO PANEL PP2(B) THROUGH TIMECLOCK LOCATED IN MAINTENANCE WORKSHOP 204.
3. ALL ELECTRICAL CIRCUITS ON THE SITE SHALL BE SCHEDULE 40 PVC CONDUIT BURIED A MINIMUM OF 30" BFG UNLESS OTHERWISE NOTED.

DRAWING NOTE:

1. PROVIDE METER SOCKET, CT CABINET, AND SERVICE DISCONNECT. REFER TO E000 FOR MORE INFORMATION.
2. POWER CONNECTION FOR SEPTIC SYSTEM PUMPS. COORDINATE EXACT LOCATION WITH EQUIPMENT INSTALLER. ELECTRICAL CONTRACTOR SHALL PROVIDE POWER FROM PP2(A) CIRCUITS #30,32 AND #42,44. PROVIDE DISCONNECT SWITCH FOR EACH PUMP.
3. PROPOSED BGE TRANSFORMER LOCATION. CONTRACTOR SHALL COORDINATE EXACT LOCATION WITH BGE. CONTRACTOR SHALL PROVIDE CONCRETE PAD FOR BGE TRANSFORMER. CONTRACTOR SHALL CONTACT BRETT WARNER (BGE INSPECTOR AT 410-470-6022) 2 WEEKS PRIOR TO ELECTRIC METER INSTALLATION. CONTRACTOR SHALL COORDINATE BGE REQUIREMENTS WITH LATEST HANDBOOK ONLINE AT BGE.COM FOR MORE INFORMATION. REFER TO E003 FOR TRANSFORMER PRIMARY CONDUIT INFORMATION.
4. ELECTRICAL CONTRACTOR SHALL PROVIDE 3-4" CONDUITS WITH PULL STRING. 2 CONDUITS ARE FOR ELECTRICAL SERVICE CABLES PROVIDED AND INSTALLED BY BGE AND THE OTHER CONDUIT IS SPARE. CONDUITS SHALL BE BURIED A MINIMUM OF 30" BFG. CONTRACTOR SHALL COORDINATE BGE REQUIREMENTS WITH LATEST HANDBOOK ONLINE AT BGE.COM FOR MORE INFORMATION.



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06/14/2022."

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NO.	DESCRIPTION	BY	DATE
△			

ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS				DATE: 04-28-2021
APPROVED	DATE	APPROVED	DATE	SCALE: 1"=30'-0"
CHIEF ENGINEER		PROJECT MANAGER		DRAWN BY: JMF
APPROVED	DATE	APPROVED	DATE	CHECKED BY: SLD
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY		SHEET NO. - OF -
				PROJECT NO. P535900
				PROPOSAL NO. P535907

FORT SMALLWOOD PARK
9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122
MAINTENANCE BLDG
SITE PLAN
E001

gba
gant-brunnett
 ARCHITECTS
 15 West Mulberry Street
 Baltimore, Maryland 21201-4406
 Telephone Number: 410-234-8444

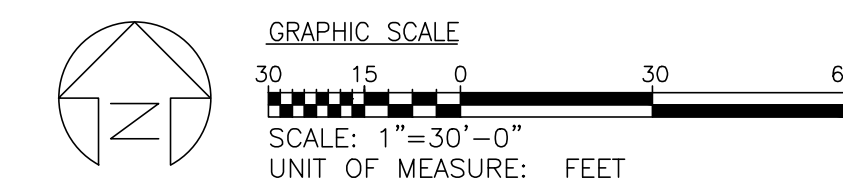
rmf
 RMF ENGINEERING, INC.
 5520 RESEARCH PARK DR, 3RD FLR
 BALTIMORE, MD 21128
 P: 410.576.0505

GENERAL NOTE:

1. ALL ELECTRICAL CIRCUITS ON THE SITE SHALL BE SCHEDULE 40 PVC CONDUIT BURIED A MINIMUM OF 30" BFG.

DRAWING NOTE:

1. PROVIDE METER SOCKET, CT CABINET, AND SERVICE DISCONNECT. REFER TO E000 FOR MORE INFORMATION.
2. POWER CONNECTION FOR SEPTIC SYSTEM PUMPS. COORDINATE EXACT LOCATION WITH EQUIPMENT INSTALLER. ELECTRICAL CONTRACTOR SHALL PROVIDE POWER FROM PP1(A) CIRCUIT #32,34 AND #35,37. PROVIDE DISCONNECT SWITCH FOR EACH PUMP.
3. POWER CONNECTION FOR STORAGE BUILDING FROM PANEL PP1(B) TO LC1. ELECTRICAL CONTRACTOR SHALL PROVIDE 3#4, #8G, IN 1-1/2" PVC CONDUIT DIRECT BURIED A MINIMUM OF 24" BFG.
4. PROPOSED BGE TRANSFORMER LOCATION. CONTRACTOR SHALL COORDINATE EXACT LOCATION WITH BGE. CONTRACTOR SHALL PROVIDE CONCRETE PAD FOR BGE TRANSFORMER. CONTRACTOR SHALL CONTACT BRETT WARNER (BGE INSPECTOR AT 410-470-6022) 2 WEEKS PRIOR TO ELECTRIC METER INSTALLATION. CONTRACTOR SHALL COORDINATE BGE REQUIREMENTS WITH LATEST HANDBOOK ONLINE AT BGE.COM FOR MORE INFORMATION. REFER TO E003 FOR TRANSFORMER PRIMARY CONDUIT INFORMATION.
5. ELECTRICAL CONTRACTOR SHALL PROVIDE 3-4" SCHEDULE 40 CONDUITS WITH PULL STRINGS. 2 CONDUITS ARE FOR ELECTRICAL SERVICE CABLES PROVIDED AND INSTALLED BY BGE AND THE OTHER CONDUIT IS SPARE. CONDUITS SHALL BE BURIED A MINIMUM OF 30" BFG. CONTRACTOR SHALL COORDINATE BGE REQUIREMENTS WITH LATEST HANDBOOK ONLINE AT BGE.COM FOR MORE INFORMATION.
6. CONTINUE TO ELECTRICAL PANELS IN ROOM 208. REFER TO E100C AND E200 FOR MORE INFORMATION.
7. PROVIDE POWER CONNECTION FOR FUTURE CAMERA LOCATION FROM PANEL PP1(B) CIRCUIT #25. CONTRACTOR SHALL PROVIDE 2#10, #10G, IN 2" PVC CONDUIT DIRECT BURIED A MINIMUM OF 24" BFG.
8. PROVIDE HANDHOLE LOCATION FOR PULLING CABLE.
9. PROVIDE POWER CONNECTION AND DISCONNECT FOR WELL PUMP FROM PANEL LC1. REFER TO E100S FOR MORE INFORMATION.



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NO.	DESCRIPTION	BY	DATE

APPROVED	DATE	APPROVED	DATE
CHIEF ENGINEER		PROJECT MANAGER	
APPROVED	DATE	APPROVED	DATE
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY	

ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS

DATE: 04-28-2021

SCALE: 1"=30'-0"
DRAWN BY: JMF
CHECKED BY: SLD
SHEET NO. - OF -
PROJECT NO. P535900
PROPOSAL NO. P535907

FORT SMALLWOOD PARK
9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122
COMFORT BLDG
SITE PLAN

E002

gba
gant-brunnett
ARCHITECTS
15 West Mulberry Street
Baltimore, Maryland 21201-4406
Telephone Number: 410-234-8444

rmf
RMF ENGINEERING, INC.
5520 RESEARCH PARK DR, 3RD FLR
BALTIMORE, MD 21128
P: 410.576.0505

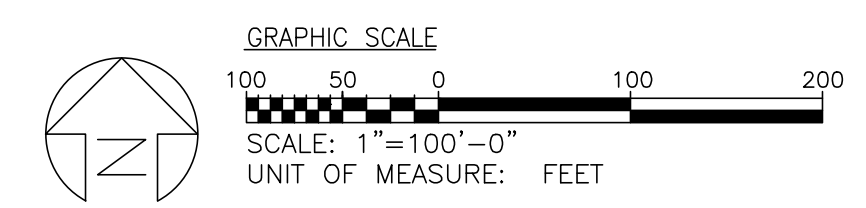


GENERAL NOTE:

1. CONTRACTOR SHALL CONTACT BRETT WARNER (BGE INSPECTOR AT 410-470-6022) 2 WEEKS PRIOR TO ELECTRIC METER INSTALLATION. CONTRACTOR SHALL COORDINATE BGE REQUIREMENTS WITH LATEST HANDBOOK ONLINE AT BGE.COM FOR MORE INFORMATION.

DRAWING NOTE:

- 1 PROPOSED BGE TRANSFORMER LOCATION. CONTRACTOR SHALL COORDINATE EXACT LOCATION WITH BGE. CONTRACTOR SHALL PROVIDE CONCRETE PAD FOR BGE TRANSFORMER.
- 2 ELECTRICAL CONTRACTOR SHALL PROVIDE 1-4" SCHEDULE 40 PVC CONDUIT WITH PULLING LINES FOR BGE CONDUCTORS. CONDUITS SHALL BE DIRECT BURIED WITH A MINIMUM OF 30" OF COVER. REFER TO CIVIL DRAWINGS FOR EXACT ROUTING OF CONDUITS. BGE SHALL TURN DUCT UP INTO UTILITY TRANSFORMER PAD LOCATIONS SHOWN.
- 3 CONTRACTOR SHALL PROVIDE AND INSTALL SPLICE BOX FOR BGE CONDUCTORS. REFER TO BGE CONDUIT CONSTRUCTION GUIDE FOR DETAILS.
- 4 REFER TO E001 AND E002 FOR MORE INFORMATION.



"PROFESSIONAL CERTIFICATION I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NUMBER 16961, EXPIRATION DATE 06/14/2022."
 (C) RMF ENGINEERING, INC. ALL REPRODUCTION IS PROHIBITED

NO.	DESCRIPTION	BY	DATE
△			

APPROVED	DATE	APPROVED	DATE
CHIEF ENGINEER		PROJECT MANAGER	
APPROVED	DATE	APPROVED	DATE
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY	

ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS DATE: 04-28-2021

FORT SMALLWOOD PARK
9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122

OVERALL
SITE PLAN **E003**

SCALE: 1"=100'-0"
 DRAWN BY: JMF
 CHECKED BY: SLD
 SHEET NO. - OF -
 PROJECT NO. P535900
 PROPOSAL NO. P535907

gba
gant-brunnett
 ARCHITECTS
 15 West Mulberry Street
 Baltimore, Maryland 21201-4406
 Telephone Number: 410-234-8444

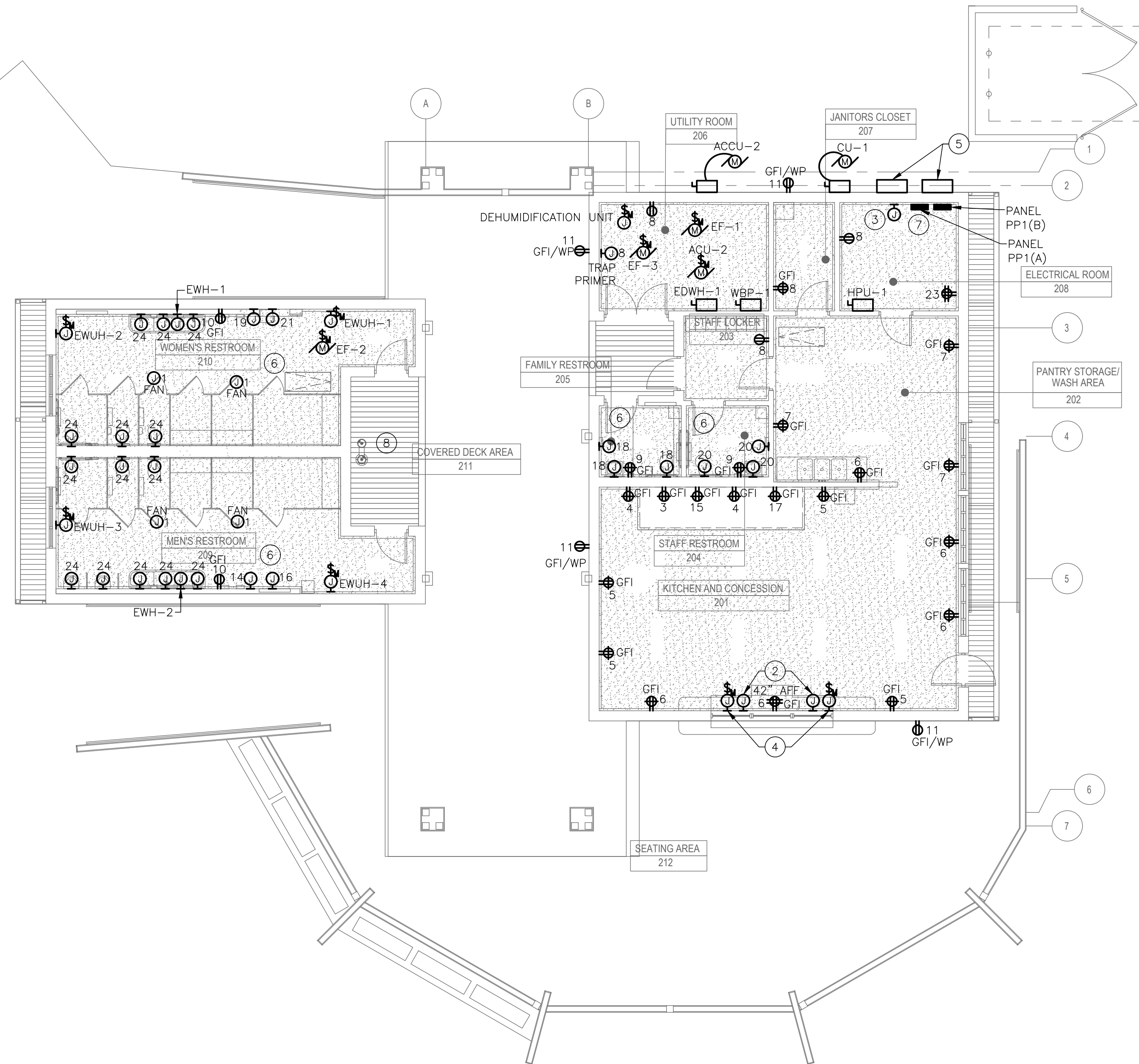
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GENERAL NOTE:

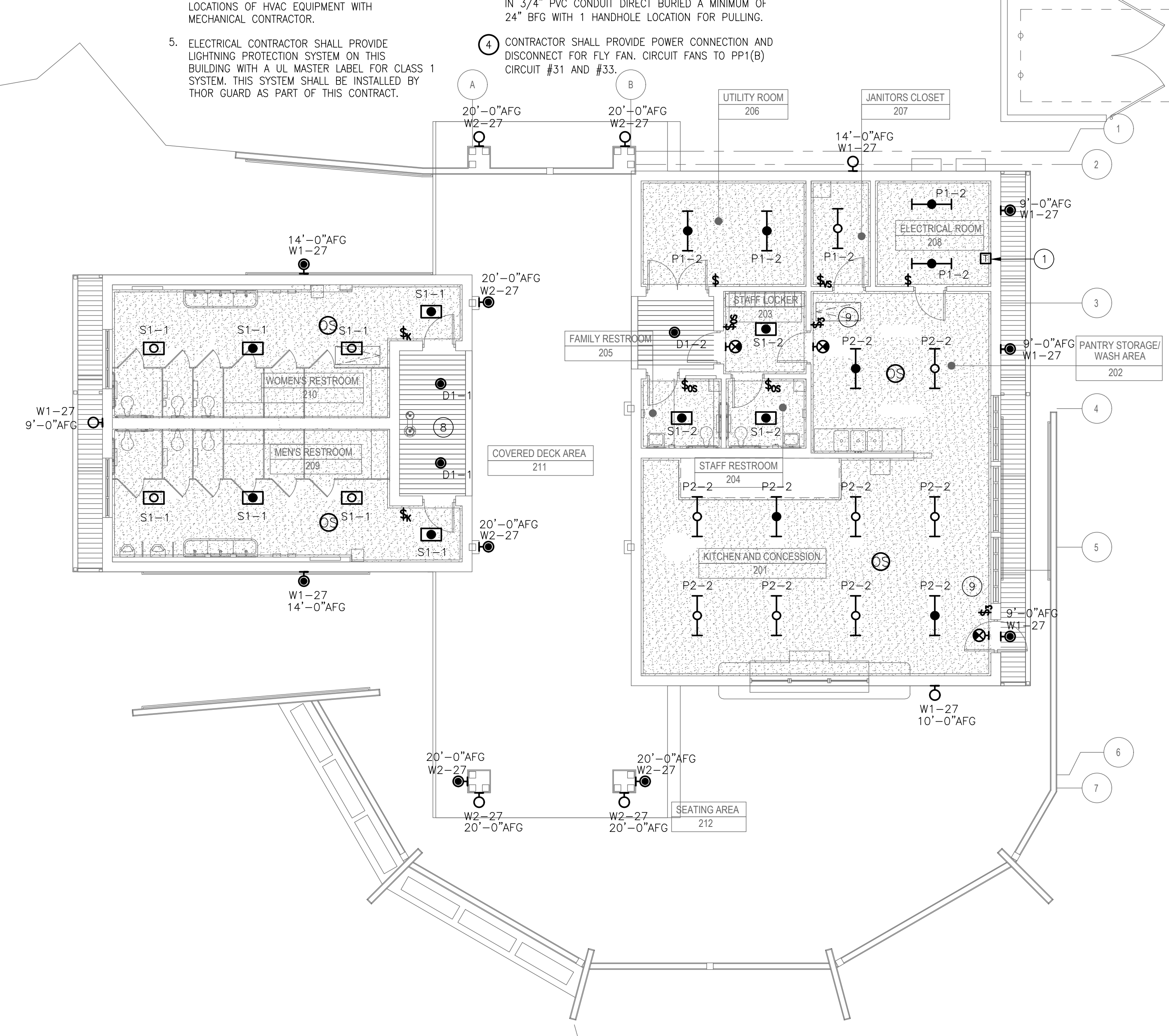
1. REFER TO E000 FOR LIGHT FIXTURE SCHEDULE.
2. ALL GFI OUTLET LOCATIONS SHALL BE COORDINATED WITH EQUIPMENT LOCATIONS SO THAT OUTLETS ARE READILY ACCESSIBLE PER NEC. WHERE GFI OUTLETS CANNOT BE LOCATED AS READILY ACCESSIBLE PER NEC, CONTRACTOR SHALL PROVIDE STANDARD OUTLET AND CIRCUIT TO GFI CIRCUIT BREAKER.
3. ALL EMERGENCY LIGHT FIXTURES SHALL BE PROVIDED WITH INTEGRAL BATTERY BALLAST. PROVIDE COLD WEATHER RATED BATTERY BALLAST FOR EXTERIOR LIGHT FIXTURES. ALL EMERGENCY LIGHTING BATTERY PACKS AND EXIT SIGNS SHALL BE WIRED AHEAD OF LOCAL CONTROL DEVICE.
4. ALL ELECTRICAL POWER AND LIGHTING ON THIS PLAN SHALL BE CIRCUITED TO PANEL PP1(B) UNLESS OTHERWISE NOTED. REFER TO E000 FOR HVAC EQUIPMENT CIRCUITS. COORDINATE EXACT LOCATIONS OF HVAC EQUIPMENT WITH MECHANICAL CONTRACTOR.
5. ELECTRICAL CONTRACTOR SHALL PROVIDE LIGHTNING PROTECTION SYSTEM ON THIS BUILDING WITH A UL MASTER LABEL FOR CLASS 1 SYSTEM. THIS SYSTEM SHALL BE INSTALLED BY THOR GUARD AS PART OF THIS CONTRACT.

DRAWING NOTE:

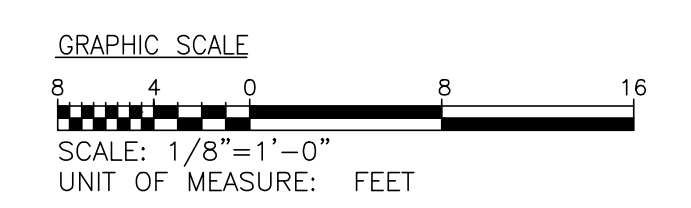
- 1 PROVIDE TIMECLOCK WITH AUXILIARY LIGHTING CONTACTOR AND MANUAL OVERRIDE SWITCH FOR EXTERIOR BUILDING LIGHTING AND D1 TYPE LIGHTS. CIRCUIT TO PP1(B) #29. PROVIDE PHOTOCELL MOUNTED ON NORTH SIDE OF THE BUILDING FOR INTEGRATION INTO TIMECLOCK.
- 2 CONTRACTOR SHALL PROVIDE POWER CONNECTION FOR ELECTRONIC WINDOW. CIRCUIT FANS TO PP1(B) CIRCUIT #32 AND #34.
- 3 PROVIDE SEVERE WEATHER ALERT ADVISORY SYSTEM FOR NEW COMFORT STATION BY THOR GUARD. CONTRACTOR SHALL PROVIDE ALL NECESSARY COMPONENTS FOR THIS SYSTEM. COORDINATE WITH OWNER. CIRCUIT TO PP1(B) CIRCUIT #22. CONTRACTOR SHALL INSTALL REMOTE REPEATER UNIT BY THE BOAT LOADING DOCK AND OBTAIN POWER FROM EXISTING CONCESSION STAND ABOUT 200FT AWAY FROM LOADING DOCK. COORDINATE WITH OWNER FOR EXACT LOCATION. CIRCUIT SHALL BE PROVIDED WITH 20A CIRCUIT BREAKER AND 2#10, #10G, IN 3/4" PVC CONDUIT DIRECT BURIED A MINIMUM OF 24" BFG WITH 1 HANDHOLE LOCATION FOR PULLING.
- 4 CONTRACTOR SHALL PROVIDE POWER CONNECTION AND DISCONNECT FOR FLY FAN. CIRCUIT FANS TO PP1(B) CIRCUIT #31 AND #33.
- 5 CT CABINET AND METER SOCKET. REFER TO E000 FOR MORE INFORMATION.
- 6 CONTRACTOR SHALL PROVIDE POWER CONNECTION FOR ALL TOUCHLESS TOILETS/URINALS/FAUCETS IN THIS ROOM.
- 7 CONTRACTOR SHALL PROVIDE SURGE PROTECTION DEVICE ON INCOMING SERVICE TO BE INSTALLED BESIDE PANEL PP1(A).
- 8 ALL POWER ON THIS SIDE OF THE BUILDING SHALL BE ROUTED BELOW GRADE FROM ELECTRICAL PANELS.
- 9 MANUAL LIGHT FIXTURE SWITCHES IN THIS ROOM SHALL BE LOW VOLTAGE TYPE.



COMFORT BUILDING – POWER
SCALE: 1/8"=1'-0"



COMFORT BUILDING – LIGHTING
SCALE: 1/8"=1'-0"



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06/14/2022."

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CHIEF ENGINEER		PROJECT MANAGER	
APPROVED	DATE	APPROVED	DATE
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY	

ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS

DATE: 04-28-2021

FORT SMALLWOOD PARK
9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122

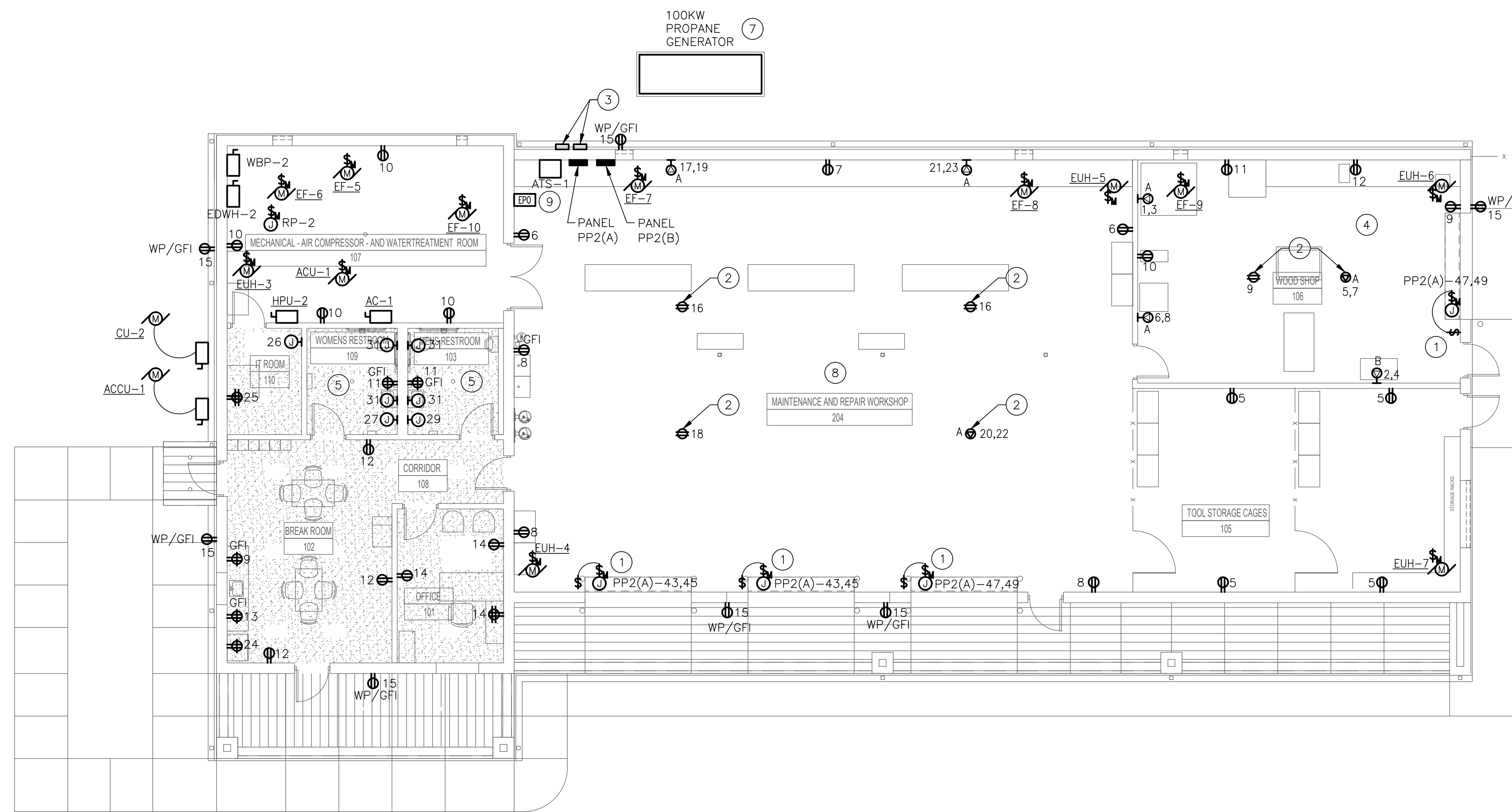
COMFORT STATION
POWER & LIGHTING PLAN

E100C

SCALE: 1/8"=1'-0"
DRAWN BY: JMF
CHECKED BY: SLJ
SHEET NO. - OF -
PROJECT NO. P535900
PROPOSAL NO. P535907

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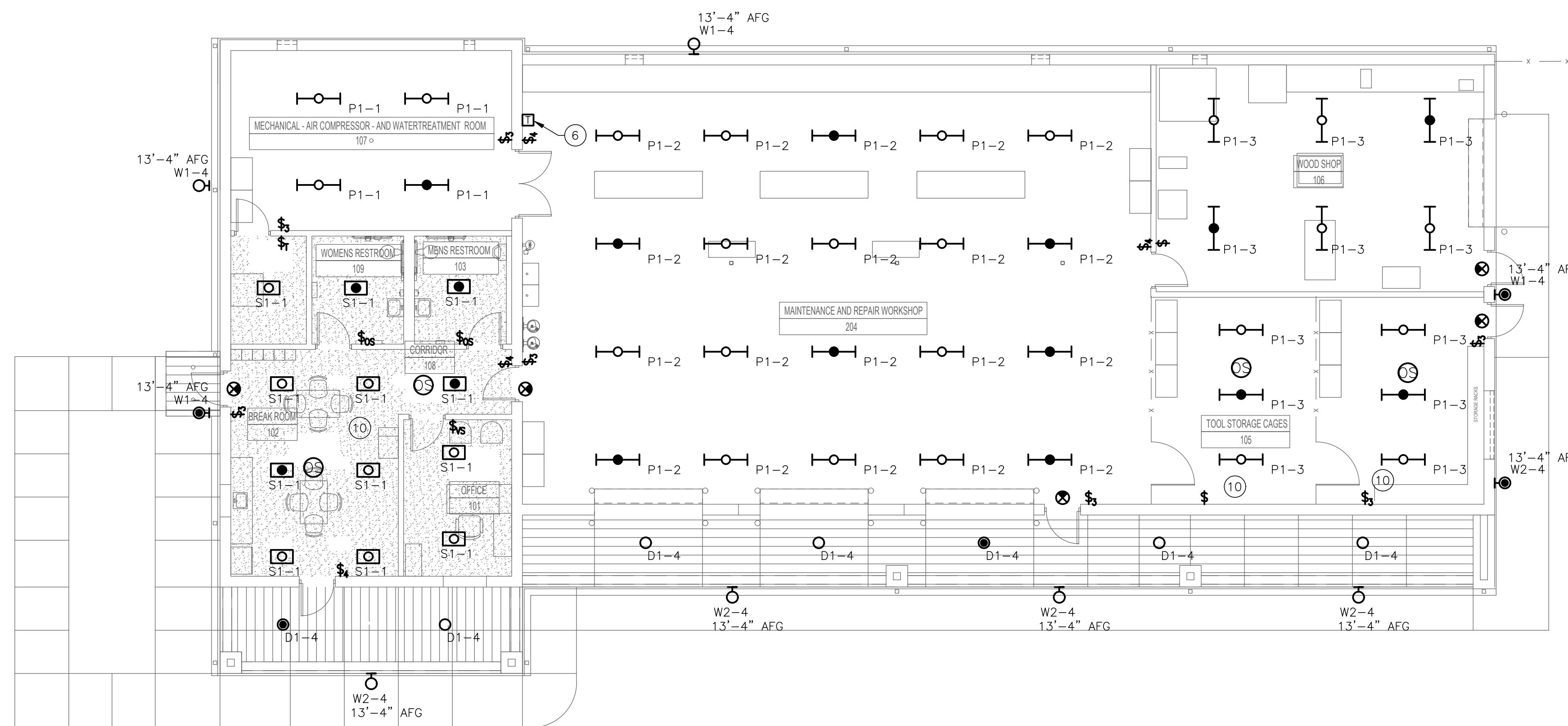
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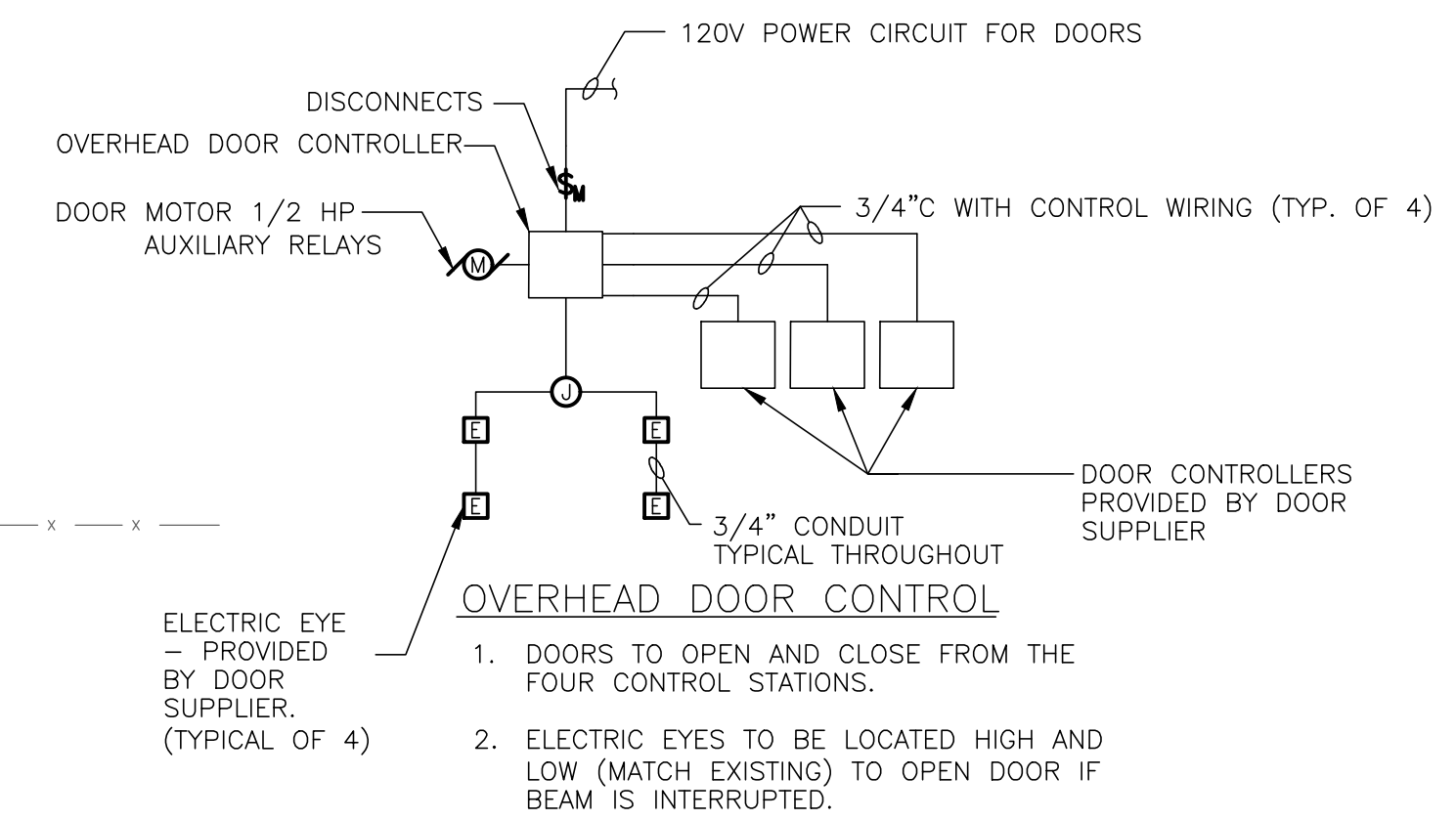
MAINTENANCE BUILDING - POWER
SCALE: 1/8"=1'-0"

- GENERAL NOTE:**
- REFER TO E001 FOR LIGHT FIXTURE SCHEDULE.
 - ALL GFI OUTLET LOCATIONS SHALL BE COORDINATED WITH EQUIPMENT LOCATIONS SO THAT OUTLETS ARE READILY ACCESSIBLE PER NEC. WHERE GFI OUTLETS CANNOT BE LOCATED AS READILY ACCESSIBLE PER NEC, CONTRACTOR SHALL PROVIDE STANDARD OUTLET AND CIRCUIT TO GFI CIRCUIT BREAKER.
 - ALL EMERGENCY LIGHT FIXTURES SHALL BE PROVIDED WITH INTEGRAL BATTERY BALLAST. PROVIDED COLD WEATHER RATED BATTERY BALLAST FOR EXTERIOR LIGHT FIXTURES. ALL EMERGENCY LIGHTING BATTERY PACKS AND EXIT SIGNS SHALL BE WIRED AHEAD OF LOCAL CONTROL DEVICE.
 - ALL ELECTRICAL POWER AND LIGHTING ON THIS PLAN SHALL BE CIRCUITED TO PANEL PP2(B) UNLESS OTHERWISE NOTED. REFER TO E000 FOR HVAC EQUIPMENT CIRCUITS. COORDINATE EXACT LOCATIONS OF HVAC EQUIPMENT WITH MECHANICAL CONTRACTOR.
 - ALL EMERGENCY LIGHTING IN THIS BUILDING SHALL BE PROVIDED WITH UL924 RELAY DEVICE TO OVERRIDE LOCAL SWITCHES DURING EMERGENCY SITUATION.

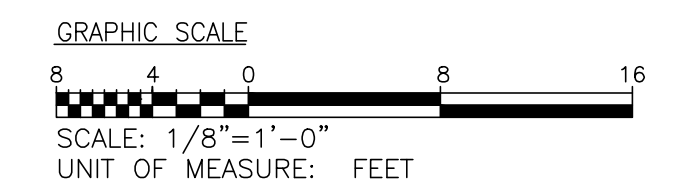
- DRAWING NOTE:**
- DOOR SUPPLIER SHALL PROVIDE UP/DOWN CONTROLS FOR ROLL-UP DOOR MOTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE FINAL CONNECTIONS BETWEEN ALL DOOR ASSOCIATED COMPONENTS.
 - PROVIDE HEAVY DUTY CORD REEL WITH 20' ELECTRICAL CORD AND NEMA PLUG CONFIGURATION AS SHOWN. CORD REEL SHALL BE MOUNTED TO BOTTOM CHORD OF ROOF TRUSS FRAMING AND SOLID BLOCKING.
 - CT CABINET AND METER SOCKET. REFER TO E000 FOR MORE INFORMATION.
 - ALL POWER CIRCUITS IN THIS ROOM SHALL BE CIRCUITED TO PANEL PP2(A).
 - CONTRACTOR SHALL PROVIDE POWER CONNECTION FOR ALL TOILETS/URINALS AND SINKS IN THIS ROOM. POWER SHALL BE CIRCUITED TO PANEL PP2(B), CIRCUIT #31.
 - PROVIDE TIMECLOCK WITH AUXILIARY LIGHTING CONTACTOR AND MANUAL OVERRIDE SWITCH FOR ALL EXTERIOR LIGHTING. CIRCUIT TO PP2(B) #36,38. PROVIDE PHOTOCELL MOUNTED ON NORTH SIDE OF THE BUILDING FOR INTEGRATION INTO TIMECLOCK.
 - ELECTRICAL CONTRACTOR SHALL PROVIDE CIRCUITS TO GENERATOR BATTERY CHARGER AND JACKET WATER HEATER FROM PANEL PP2(B) CIRCUIT #28 AND #30. ELECTRICAL CONTRACTOR SHALL PROVIDE CONCRETE PAD FOR GENERATOR. REFER TO E000 FOR MORE INFORMATION. CONTRACTOR SHALL PROVIDE 2-1" CONDUITS FOR CONTROLS TO ATS-1.
 - ALL WALL MOUNTED RECEPTACLES IN THIS ROOM SHALL BE MOUNTED AT 24" AFF UNLESS OTHERWISE NOTED.
 - PROVIDE EMERGENCY POWER OFF BUTTON FOR STANDBY GENERATOR.
 - MANUAL LIGHT FIXTURE SWITCHES IN THIS ROOM SHALL BE LOW VOLTAGE TYPE.



MAINTENANCE BUILDING - LIGHTING
SCALE: 1/8"=1'-0"



OVERHEAD DOOR CONTROL
SCALE: NONE



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NO.	DESCRIPTION	BY	DATE

**ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS**

DATE: 04-28-2021

APPROVED	DATE	APPROVED	DATE
CHIEF ENGINEER		PROJECT MANAGER	
APPROVED	DATE	APPROVED	DATE
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY	

SCALE: 1/8"=1'-0"
DRAWN BY: JMF
CHECKED BY: SLD
SHEET NO. - OF -
PROJECT NO. P535900
PROPOSAL NO. P535907

**FORT SMALLWOOD PARK
9500 FORT SMALLWOOD PARK
PASADENA, MD 21122**

**MAINTENANCE BLDG
POWER & LIGHTING PLAN**

E101M

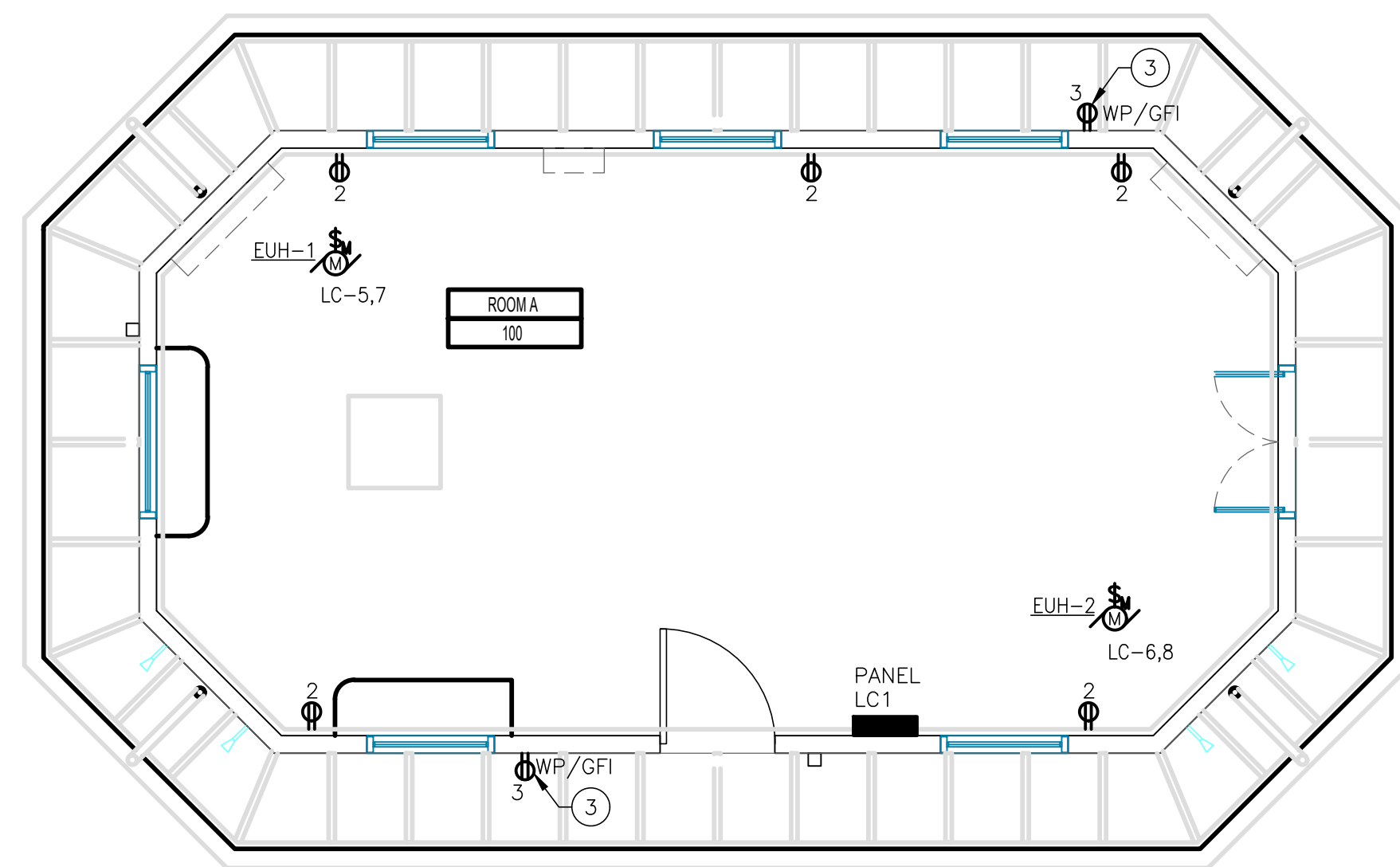
PANEL NO.:	LC1	PROJECT:	FORT SMALLWOOD PARK
USAGES:	BRANCH	CLIENT:	ANNE ARUNDEL COUNTY
LOCATION:	STORAGE BUILDING	MOUNTING:	SURFACE
PHASES:	1	PANEL TYPE:	LIGHTING AND APPLIANCE
L-L VOLTS:	240V	ENGINEER:	JMF
L-G VOLTS:	120V	RMF PROJECT NO.:	118316.80
BUS AMPS:	60A	FED FROM:	PANEL PP1(B)
MAIN CB AMPS:	50A		
AIC RATING:	10K AIC MINIMUM		

SETS	CIRCUIT					LOAD AMPS	DESCRIPTION	LOAD AMPS	CIRCUIT				
	WIRE	NEUT.	GND.	COND.	COND.				SETS	WIRE	NEUT.	GND.	COND.
1	#12	#12	#12	3/4"	1.7	LTS - STORAGE BUILDING	7.5	1	#12	#12	#12	3/4"	
1	#12	#12	#12	3/4"	3.0	REC - EXT STORAGE BUILDING	8.3	1	#12	#12	#12	3/4"	
1	#12	#12	#12	3/4"	13.9	EUH-1	13.8	1	#12	#12	#12	3/4"	
					0.0	SPARE	0.0						
					0.0	SPARE	0.0						

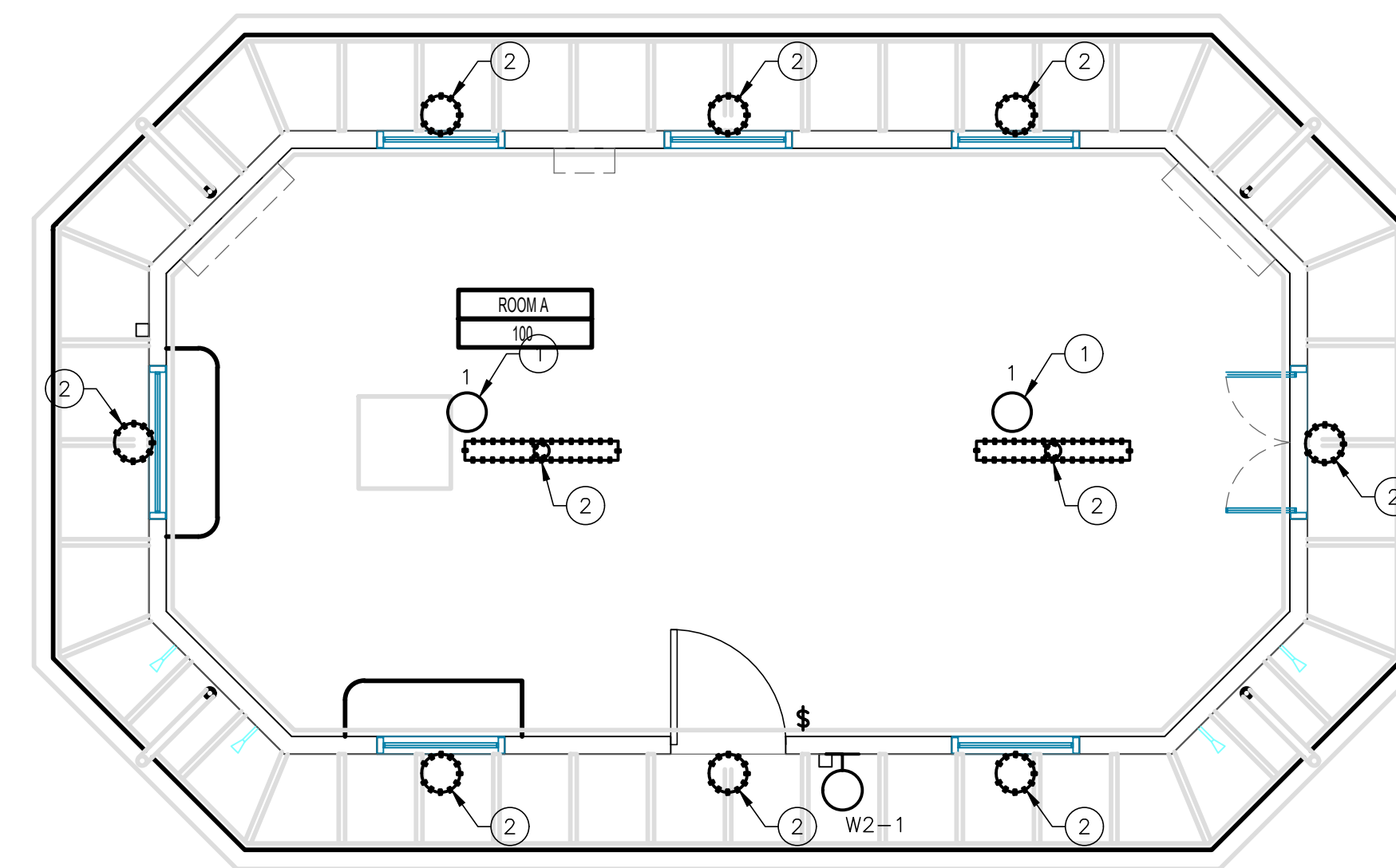
LOAD SUMMARY	CON. KVA	%	DEM. KVA
RECEPTACLES	8.86	code	8.86
MOTORS	0	100%	0
LIGHTS (INT.)	0.2	100%	0.2
SHOP EQUIPMENT	0	70%	0
HVAC (HEAT)	0	100%	0
HVAC (COOL)	0	100%	0
VENTILATION	0	100%	0
KITCHEN	0	65%	0
EMERGENCY	0	100%	0
MISC.	0	100%	0
FUTURE	0	100%	0
OTHER	0	100%	0
TRACK	0	100%	0
LARGEST MTR	0	25%	0
TOTAL KVA	9 KVA		9 KVA
TOTAL AMPS	38 AMPS		38 AMPS

PANEL NOTES:

- PROVIDE GROUND BUS
- PROVIDE FULL SIZE NEUTRAL BUS UNLESS NOTED OTHERWISE
- LO - INDICATES C.B. EQUIPPED WITH "LOCK-ON" DEVICE
- GFI - INDICATES C.B. IS GFI TYPE (30 mA FOR PERSONNEL)
- ST- INDICATES C.B. EQUIPPED WITH SHUNT TRIP DEVICE
- IG - INDICATES CIRCUIT SHALL INCLUDE ADDITIONAL ISOLATED GROUND CONDUCTOR



STORAGE BUILDING – POWER
SCALE: 1/4"=1'-0"



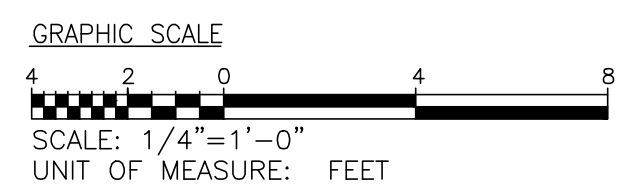
STORAGE BUILDING – LIGHTING
SCALE: 1/4"=1'-0"

DRAWING NOTE:

- CONTRACTOR SHALL PROVIDE NEW GLASS GLOBE FOR EXISTING LIGHT FIXTURE TO REMAIN. LIGHT FIXTURE BASE SHALL BE REPLACED AND REWIRED WITH A-LAMP SOCKET AND LED LAMP. MODIFICATIONS SHALL MEET ALL UL REQUIREMENTS. REFER TO SPECIFICATION FOR MORE INFORMATION.
- DEMOLISH EXISTING LIGHT FIXTURES AND PROVIDE COVERS/PATCHING OVER OPENINGS AND ELECTRICAL BOXES.
- PROVIDE LOCKABLE, WEATHERPROOF ENCLOSURE FOR GFI TYPE RECEPTACLE.

GENERAL NOTE:

- COORDINATE ALL ELECTRICAL OUTAGES WITH THE OWNER AT LEAST FOURTEEN (14) WORKING DAYS IN ADVANCE OF THE REQUIRED OUTAGE. PERFORM ALL OUTAGES IN ACCORDANCE WITH THE OWNERS SCHEDULE.
- PRIOR TO THE COMMENCEMENT OF DEMOLITION, COORDINATE ALL ITEMS TO BE DEMOLISHED WITH THE OWNER. ALL ELECTRICAL EQUIPMENT REQUESTED TO BE RETAINED BY THE OWNER SHALL BE REMOVED IN ITS ENTIRETY AND PLACED IN OWNERS ON-SITE STORAGE WHERE DIRECTED BY THE OWNER. ALL OTHER ELECTRICAL EQUIPMENT SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE EXPEDITIOUSLY REMOVED FROM THE PROJECT SITE.
- ALL ELECTRICAL POWER AND LIGHTING ON THIS PLAN SHALL BE CIRCUITED TO PANEL LC1 UNLESS OTHERWISE NOTED.



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NO.	DESCRIPTION	BY	DATE
△			

**ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS**

DATE: 04-28-2021

APPROVED _____ DATE _____	APPROVED _____ DATE _____	SCALE: 1/4"=1'-0"
CHIEF ENGINEER _____	PROJECT MANAGER _____	DRAWN BY: JMF
APPROVED _____ DATE _____	APPROVED _____ DATE _____	CHECKED BY: SLD
ASSISTANT CHIEF ENGINEER _____	CHIEF, RIGHT OF WAY _____	SHEET NO. - OF -
		PROJECT NO. P535900
		PROPOSAL NO. P535907

**FORT SMALLWOOD PARK
9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122**

**STORAGE BUILDING
POWER & LIGHTING PLAN**

E100S

PANEL NO.: PP1 (A)
 USAGE: BRANCH
 LOCATION: ELECTRICAL ROOM 208 (COMFORT STATION)
 PHASES: 1
 L-L VOLTS: 240V
 L-G VOLTS: 120V
 BUS AMPS: 600A
 MAIN CB AMPS: MLO
 AIC RATING: 22K AIC MINIMUM

PROJECT: FORT SMALLWOOD PARK
 CLIENT: ANNE ARUNDEL COUNTY
 MOUNTING: RECESSED
 PANEL TYPE: LIGHTING AND APPLIANCE
 ENGINEER: JMF
 RMF PROJECT NO.: 118316.B0
 FED FROM: UTILITY TRANSFORMER

SETS	WIRE	NEUT.	GND.	COND.	LOAD AMPS	DESCRIPTION	NOTES	BREAKER POLE	AMP.	CKT. #	CKT. #	BREAKER AMP.	POLE	NOTES	DESCRIPTION	LOAD AMPS	SETS	WIRE	NEUT.	GND.	COND.
1	#6	#6	#10	3/4"	37.5	EDWH-1		2	50	1	A	2	100	2	WBP-1	53.3	1	#1	-	#8	1-1/4"
1	#6	#6	#10	3/4"	32.0	HPU-1		2	45	5	A	6	20	2	SPARE	0.0					
1	#12	#12	#12	3/4"	8.3	EWUH-1		2	20	9	A	10	20	2	EWUH-2	8.3	1	#12	#12	#12	3/4"
1	#12	#12	#12	3/4"	8.3	EWUH-3		2	20	13	A	14	20	2	EWUH-4	8.3	1	#12	#12	#12	3/4"
1	#10	#10	#10	3/4"	14.0	CU-1		2	25	17	A	18	20	2	ACCU-1 (POWER FOR ACU-1)	10.0	1	#12	#12	#12	3/4"
1	#6	#6	#10	3/4"	40.0	EWH-1		2	50	23	B	24	50	2	EWH-2	40.0	1	#6	#6	#10	3/4"
					0.0	SPARE		2	20	25	A	26	20	2	SPARE	0.0					
					0.0	SPARE		1	20	29	A	30	20	1	SPARE	0.0					
1	#12	#12	#12	3/4"	13.0	EF - 1, EF-2		1	20	31	B	32	30	2	SITE PUMP	16.7	1	#10	-	#10	3/4"
1	#12	#12	#12	3/4"	5.8	EF - 3		1	20	33	A	34				0.0					
1	#12	#12	#12	3/4"	0.0	SITE PUMP		2	20	35	B	36	15	1	RP-1/DEHUMIDIFICATION UNIT	1.7	1	#12	#12	#12	3/4"
					0.0	SPARE		1	20	37	A	38	20	1	SPARE	0.0					
					0.0	SPARE		1	20	39	B	40	225	2	PANEL PP1 (B)	107.1	1	#4/0	#4/0	#4	2"
					0.0	SPARE		1	20	41	A	42			SPARE	0.0					
					0.0	SPARE		1	20	43	B	44	20	1	SPARE	0.0					
					0.0	SPARE		1	20	45	A	46	20	1	SPARE	0.0					
					0.0	SPARE		1	20	47	B	48	30	2	SURGE PROTECTION DEVICE	0.0	1	#10	#10	#10	3/4"
					0.0	SPARE		1	20	49	A	50			SPARE	0.0					

LOAD SUMMARY	CON. KVA	%	DEM. KVA
RECEPTACLES	33.52	code	21.76
MOTORS	19.26	100%	19.26
LIGHTS (INT.)	3.94	100%	3.94
SHOP EQUIPMENT	0	70%	0
HVAC (HEAT)	21.44	100%	21.44
HVAC (COOL)	0	100%	0
VENTILATION	0	100%	0
KITCHEN	0	65%	0
EMERGENCY	0	100%	0
MISC.	28.2	100%	28.2
FUTURE	0	100%	0
OTHER	0	100%	0
TRACK	0	100%	0
LARGEST MTR	0	25%	0
TOTAL KVA	106 KVA		95 KVA
TOTAL AMPS	443 AMPS		394 AMPS

- PANEL NOTES:
1. PROVIDE GROUND BUS
 2. PROVIDE FULL SIZE NEUTRAL BUS UNLESS NOTED OTHERWISE
 3. LO - INDICATES C.B. EQUIPPED WITH "LOCK-ON" DEVICE
 4. GFI - INDICATES C.B. IS GFI TYPE (30 mA FOR EQUIPMENT, 5 mA FOR PERSONNEL)
 5. ST - INDICATES C.B. EQUIPPED WITH SHUNT TRIP DEVICE
 6. IG - INDICATES CIRCUIT SHALL INCLUDE ADDITIONAL ISOLATED GROUND CONDUCTOR

PANEL NO.: PP1 (B)
 USAGE: BRANCH
 LOCATION: ELECTRICAL ROOM 208 (COMFORT STATION)
 PHASES: 1
 L-L VOLTS: 240V
 L-G VOLTS: 120V
 BUS AMPS: 225A
 MAIN CB AMPS: MLO
 AIC RATING: 22K AIC MINIMUM

PROJECT: FORT SMALLWOOD PARK
 CLIENT: ANNE ARUNDEL COUNTY
 MOUNTING: RECESSED
 PANEL TYPE: LIGHTING AND APPLIANCE
 ENGINEER: JMF
 RMF PROJECT NO.: 118316.B0
 FED FROM: PANEL PP1(A)

SETS	WIRE	NEUT.	GND.	COND.	LOAD AMPS	DESCRIPTION	NOTES	BREAKER POLE	AMP.	CKT. #	CKT. #	BREAKER AMP.	POLE	NOTES	DESCRIPTION	LOAD AMPS	SETS	WIRE	NEUT.	GND.	COND.
1	#12	#12	#12	3/4"	5.3	LTS - RESTROOMS / COVER AREA		1	20	1	A	2	20	1	LTS - KITCHEN / STAFF AREA	6.8	1	#12	#12	#12	3/4"
1	#12	#12	#12	3/4"	8.3	REC - KITCHEN 201		1	20	3	B	4	20	1	REC - KITCHEN 201	8.3	1	#12	#12	#12	3/4"
1	#12	#12	#12	3/4"	8.3	REC - KITCHEN 201		1	20	5	A	6	20	1	REC - KITCHEN 201	8.3	1	#12	#12	#12	3/4"
1	#12	#12	#12	3/4"	9.0	REC - PANTRY 202		1	20	7	B	8	20	1	REC - UTILITY ROOMS	9.0	1	#12	#12	#12	3/4"
1	#12	#12	#12	3/4"	9.0	REC - RESTROOMS 204/205		1	20	9	A	10	20	1	REC - RESTROOMS 209/210	9.0	1	#12	#12	#12	3/4"
1	#12	#12	#12	3/4"	4.5	REC - EXTERIOR		1	20	11	B	12	20	1	LTS - OUTDOOR POLE LIGHTS	15.8	1	#12	#12	#12	3/4"
1	#12	#12	#12	3/4"	1.7	AIR CURTAINS		1	20	13	A	14	20	1	HAND DRYER - MENS 209	8.3	1	#12	#12	#12	3/4"
1	#12	#12	#12	3/4"	8.3	REC - KITCHEN 201		1	20	15	B	16	20	1	HAND DRYER - MENS 209	8.3	1	#12	#12	#12	3/4"
1	#12	#12	#12	3/4"	8.3	REC - KITCHEN 201		1	20	17	A	18	20	1	HAND DRYER - FAMILY 205	8.3	1	#12	#12	#12	3/4"
1	#12	#12	#12	3/4"	8.3	HAND DRYER - WOMENS 210		1	20	19	B	20	20	1	HAND DRYER - STAFF 204	8.3	1	#12	#12	#12	3/4"
1	#12	#12	#12	3/4"	8.3	HAND DRYER - WOMENS 210		1	20	21	A	22	20	1	SEVERE WEATHER SYSTEM	5.0	1	#12	#12	#12	3/4"
1	#12	#12	#12	3/4"	10.0	REC IT - ELECTRICAL 208		1	20	23	B	24	20	1	AUTO FLUSH VALVES	5.0	1	#12	#12	#12	3/4"
1	#8	#8	#8	2"	3.3	FUTURE CAMERA		1	20	25	A	26	50	2	PANEL LCL	37.8	1	#6	#6	#10	3/4"
1	#12	#12	#12	3/4"	3.3	LTS - EXTERIOR		1	20	27	B	28				37.8					
1	#12	#12	#12	3/4"	0.0	TIMECLOCK		1	20	29	A	30	20	1	ELECTRONIC WINDOW	15.0	1	#12	#12	#12	3/4"
1	#12	#12	#12	3/4"	5.0	FLY FAN		1	20	31	B	32	20	1	ELECTRONIC WINDOW	15.0	1	#12	#12	#12	3/4"
1	#12	#12	#12	3/4"	5.0	SPARE		1	20	33	A	34	20	1	SPARE	0.0					
1	#12	#12	#12	3/4"	0.0	SPARE		1	20	35	B	36	20	1	SPARE	0.0					
					0.0	SPARE		1	20	37	A	38	20	1	SPARE	0.0					
					0.0	SPARE		1	20	39	B	40	20	1	SPARE	0.0					
					0.0	SPARE		1	20	41	A	42	20	1	SPARE	0.0					

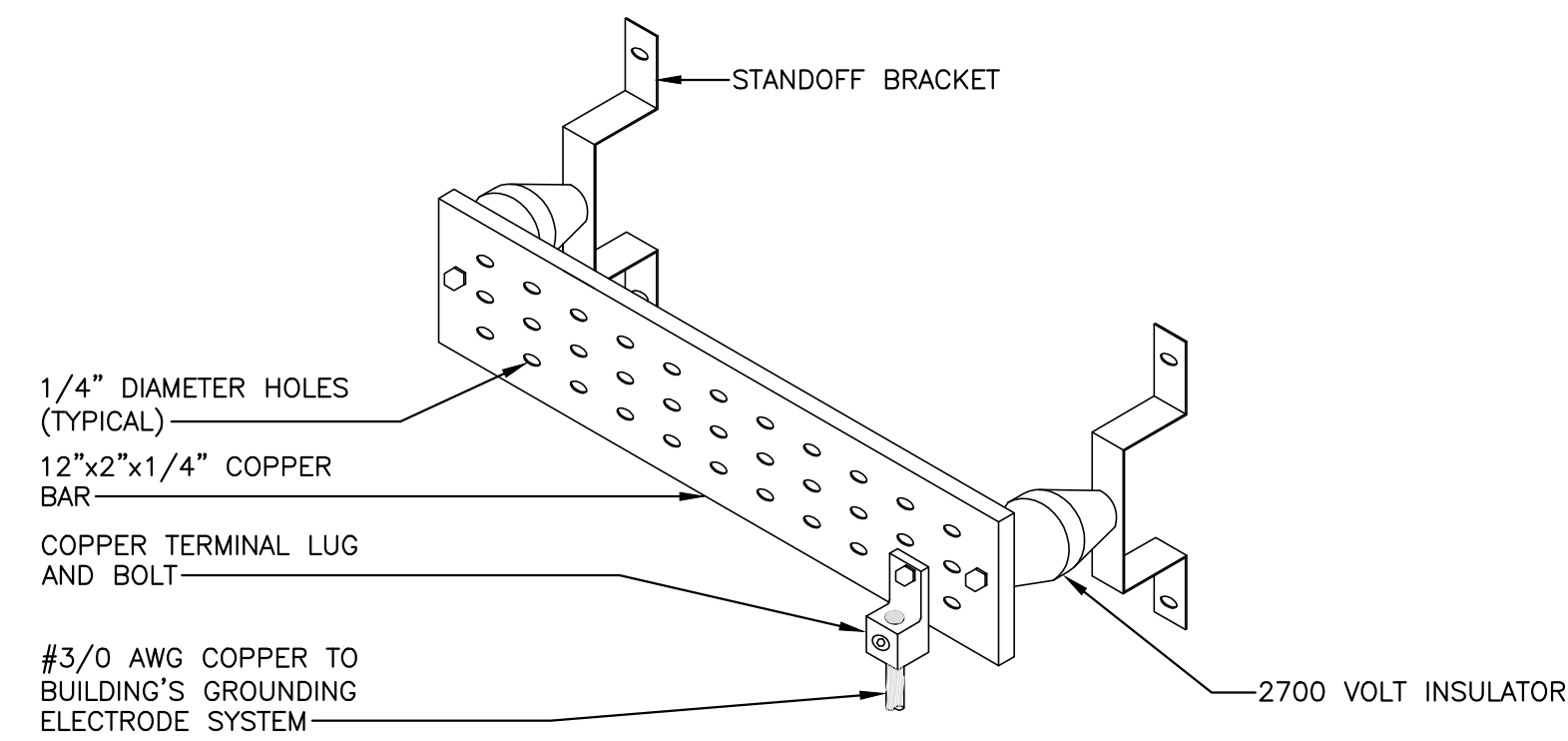
LOAD SUMMARY	CON. KVA	%	DEM. KVA
RECEPTACLES	33.52	code	21.76
MOTORS	0	100%	0
LIGHTS (INT.)	3.94	100%	3.94
SHOP EQUIPMENT	0	70%	0
HVAC (HEAT)	0	100%	0
HVAC (COOL)	0	100%	0
VENTILATION	0	100%	0
KITCHEN	0	65%	0
EMERGENCY	0	100%	0
MISC.	0	100%	0
FUTURE	0	100%	0
OTHER	0	100%	0
TRACK	0	100%	0
LARGEST MTR	0	25%	0
TOTAL KVA	37 KVA		26 KVA
TOTAL AMPS	156 AMPS		107 AMPS

- PANEL NOTES:
1. PROVIDE GROUND BUS
 2. PROVIDE FULL SIZE NEUTRAL BUS UNLESS NOTED OTHERWISE
 3. LO - INDICATES C.B. EQUIPPED WITH "LOCK-ON" DEVICE
 4. ST - INDICATES C.B. IS GFI TYPE (30 mA FOR EQUIPMENT, 5 mA FOR PERSONNEL)
 5. GFI - INDICATES C.B. IS GFI TYPE (30 mA FOR EQUIPMENT, 5 mA FOR PERSONNEL)
 6. IG - INDICATES CIRCUIT SHALL INCLUDE ADDITIONAL ISOLATED GROUND CONDUCTOR

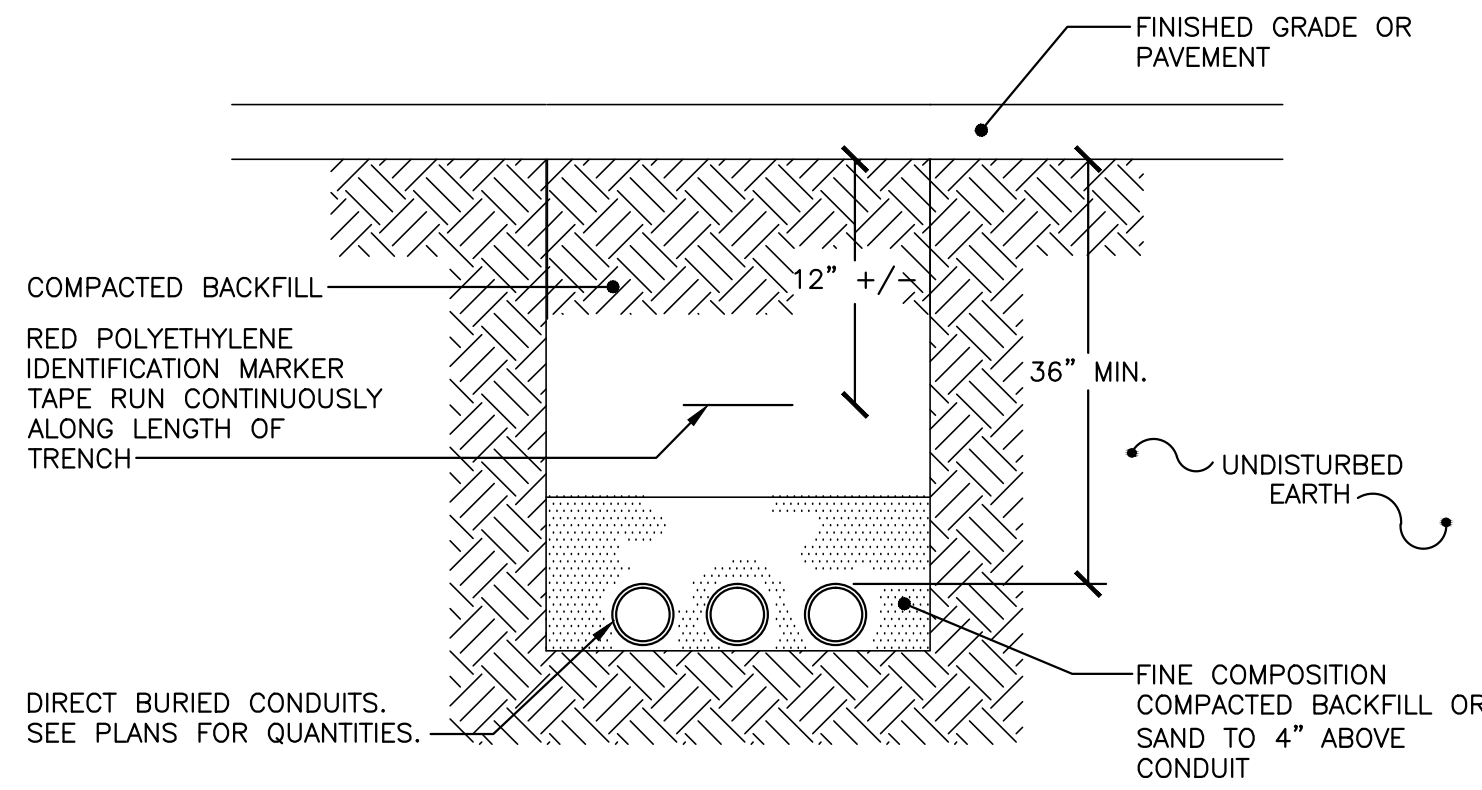
PANEL NO.: PP2 (A)
 USAGE: BRANCH
 LOCATION: MAINTENANCE AND REPAIR WORKSHOP 204
 PHASES: 1
 L-L VOLTS: 240V
 L-G VOLTS: 120V
 BUS AMPS: 600A
 MAIN CB AMPS: MLO
 AIC RATING: 22K AIC MINIMUM

PROJECT: FORT SMALLWOOD PARK
 CLIENT: ANNE ARUNDEL COUNTY
 MOUNTING: SURFACE
 PANEL TYPE: LIGHTING AND APPLIANCE
 ENGINEER: JMF
 RMF PROJECT NO.: 118316.B0
 FED FROM: UTILITY TRANSFORMER

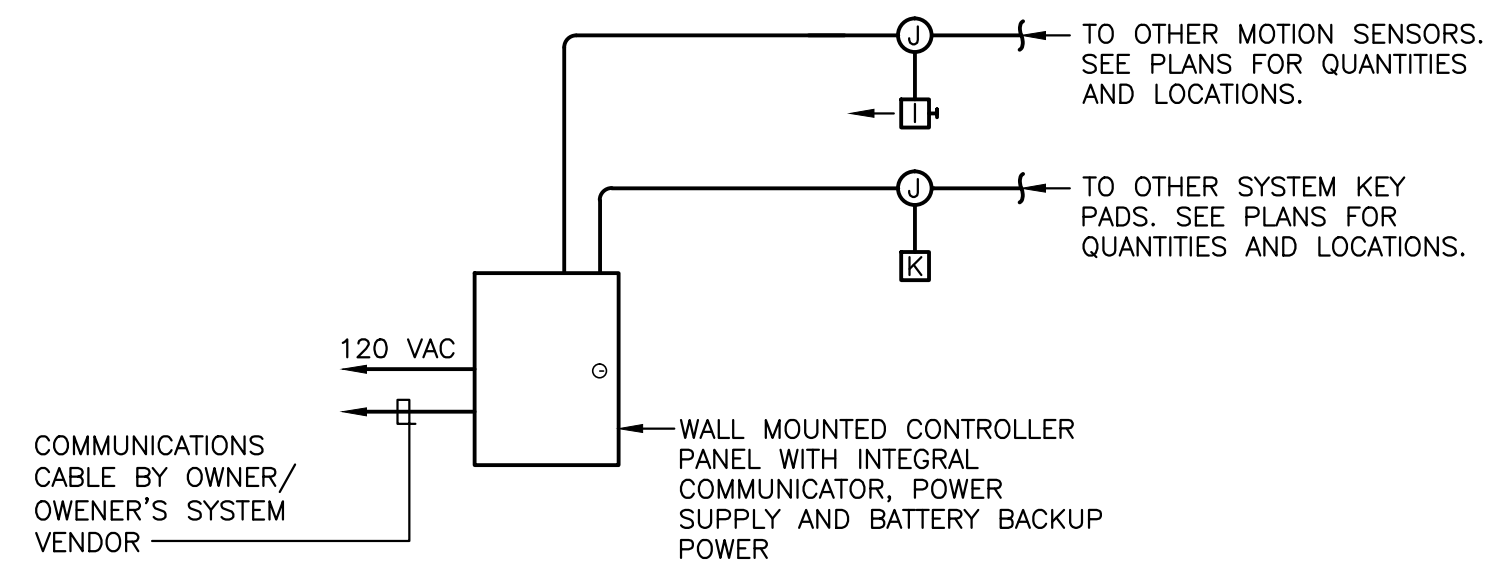
SETS	WIRE	NEUT.	GND.	COND.	LOAD AMPS	DESCRIPTION	NOTES	BREAKER POLE	AMP.	CKT. #	CKT. #	BREAKER AMP.	POLE	NOTES	DESCRIPTION	LOAD AMPS	SETS	WIRE	NEUT.	GND.	COND.
1	#10	#10	#10	3/4"	19.2	DUST COLLECTOR		2	25	1	A	2	30	2	WELDER	23.3	1	#10	#10	#10	3/4"
1	#10	#10	#10	3/4"	8.3	CNC MACHINE		2	20	5	A	6	20	2	BAND SAW	8.3	1	#12	#12	#12	3/4"
1	#10	#10	#10	3/4"	15.0	TABLE SAW		1	20	9	A	10	20	1	DRILL PRESS	13.3	1	#12	#12	#12	3/4"
1	#12	#12	#12	3/4"	15.0	MITER SAW		1	20	11	B	12	20	1	CHOP SAW	15.0	1	#12	#12	#12	3/4"
1	#4	#4	#10	1"	47.9	RC-1		2	60	13	A	14	30	2	CU-2	15.0	1	#10	#10	#10	3/4"
1	#12	#12	#12	3/4"	13.8	EUH-3		2	20	17	A	18	20	2	EUH-4	13.8	1	#12	#12	#12	3/4"
1	#12	#12	#12	3/4"	13.8	EUH-5		2	20	21	A	22	20	2	EUH-6	13.8	1	#12	#12	#12	3/4"
1	#4	-	#10	1"	32.5	WBP-2		2	60	23	B	24	20	2	EUH-7	13.8	1	#12	#12	#12	3/4"
1	#10	#10	#10	3/4"	16.7	EDWH-2		2	25	27	B	28	15	2	SITE PUMP	8.3	1	#12	-	#12	3/4"
1	#1	#1	#8	1-1/4"	72.0	PANEL PP2(B)		2	100	33	A	34	45	2	HPU-2	32.0	1	#6	#6	#10	3/4"
1	#12	#12	#12	3/4"	13.0	EF-5, EF-6		1	20	37	A	38	15	2	ACCU-2 (POWER FOR ACU-2)	10.0	1	#12	#12	#12	3/4"
1	#12	#12	#12	3/4"	17.0	EF-7, 8, 9, 10		1	20	39	B	40			SITE PUMP	10.0	1	#12	#12	#12	3/4"
1	#12	#12	#12	3/4"	8.3	RP-2/DEHUMIDIFICATION UNIT		2	15	41	A	42	15	2	SITE PUMP	0.0	1	#12	#12		



DETAIL - GROUND BUS BAR
NO SCALE



DETAIL - TRENCH
NO SCALE



NOTES:

1. INSTALLATION OF SYSTEM COMPONENTS SHALL BE IN ACCORDANCE WITH ALL APPLICABLE CODES AND RECOMMENDATIONS OF THE SYSTEM VENDOR.
2. UNLESS NOTED OTHERWISE, SYSTEM WIRING SHALL BE INSTALLED IN A DEDICATED RACEWAY INFRASTRUCTURE. 3/4" MINIMUM CONDUIT SIZE.
3. MINIMUM CONDUCTOR QUANTITIES AND SIZES SHALL BE PER THE RECOMMENDATIONS OF THE SYSTEM VENDOR.

INTRUSION DETECTION SYSTEM RISER DIAGRAM

NO SCALE

GENERAL NEW WORK NOTES:

1. UNLESS OTHERWISE SPECIFICALLY NOTED/SHOWN, ALL CONDUITS SHALL BE INSTALLED CONCEALED WHERE POSSIBLE IN WALL OR ABOVE CEILINGS.
2. UNLESS SPECIFICALLY NOTED/SHOWN, MINIMUM CONDUIT SIZE FOR ROUTING OF COMMUNICATION CABLE/WIRING SHALL BE 1 1/4". UNLESS OTHERWISE INDICATED, INTERIOR CONDUIT SHALL BE EMT WITH SET SCREW COMPRESSION FITTINGS. UNLESS OTHERWISE INDICATED, EXTERIOR CONDUITS ABOVE GRADE SHALL BE RIGID STEEL WITH THREADED FITTINGS. CONDUITS NOT TERMINATING IN/AT AN ENCLOSURE SHALL BE TERMINATED USING END BUSHINGS. INSTALL PULL BOXES IN CONDUIT RUNS WHERE BENDS WILL EXCEED 180 DEGREES. UNDERGROUND CONDUITS AND FITTING SHALL BE SCHEDULE 40 PVC. ALL CONDUITS ARE TO BE EQUIPPED WITH PULL STRINGS.
3. ITEMS SHOWN AND NOT SPECIFICALLY CALLED FOR, OR ITEMS SPECIFIED AND NOT SPECIFICALLY INDICATED OR DETAILED ON THE DRAWINGS, OR ITEMS NEITHER SPECIFIED NOR SHOWN, BUT WHICH ARE REASONABLY INCIDENTAL TO AND ARE COMMONLY REQUIRED TO MAKE A COMPLETE JOB, SHALL BE PROVIDED.
4. WHERE APPLICABLE, CONTRACTOR TO DIRECTIONALLY BORE CONDUITS BELOW EXISTING PAVING.
5. CONTRACTOR SHALL USE CAUTION WHEN EXCAVATING WITHIN ARCHEOLOGICAL BOUNDARY AREAS.

LEGEND

- ① DENOTES REFERENCE TO DRAWING NOTE.
- RACEWAY/CABLE UNDERGROUND.
- ▼ WALL MOUNTED COMMUNICATIONS/SECURITY SYSTEM OUTLET BOX WITH BLANK COVER PLATE AND 1 1/4" CONDUIT TO EQUIPMENT RACK. CABLING BY OWNER/OWNER'S SYSTEM VENDOR. MOUNT AT 18" ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED.
- ▼ CLG CEILING MOUNTED COMMUNICATIONS/SECURITY SYSTEM OUTLET BOX WITH BLANK COVER PLATE AND 1 1/4" CONDUIT TO EQUIPMENT RACK. CABLING BY OWNER/OWNER'S SYSTEM VENDOR.
- HAND HOLE
- □ WALL MOUNTED INTRUSION DETECTION SYSTEM MOTION SENSOR AT 10' AFF.
- KEY WALL MOUNTED INTRUSION DETECTION SYSTEM KEY PAD AT 48" AFF.
- GB GROUND BUS BAR.

ABBREVIATIONS

- AFF ABOVE FINISHED FLOOR
- AWG AMERICAN WIRE GAUGE
- BAS BUILDING AUTOMATION SYSTEM
- EMT ELECTRICAL METALLIC TUBING
- ETC ET CETERA
- MIN MINIMUM
- # NUMBER
- NEC NATIONAL ELECTRICAL CODE
- NEMA NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
- PVC POLYVINYL CHLORIDE
- UON UNLESS OTHERWISE NOTED
- VAC VOLTS ALTERNATING CURRENT

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NO.	DESCRIPTION	BY	DATE
△			

APPROVED	DATE	APPROVED	DATE
CHIEF ENGINEER		PROJECT MANAGER	
APPROVED	DATE	APPROVED	DATE
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY	

ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS

DATE: 04-28-2021

FORT SMALLWOOD PARK
9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122

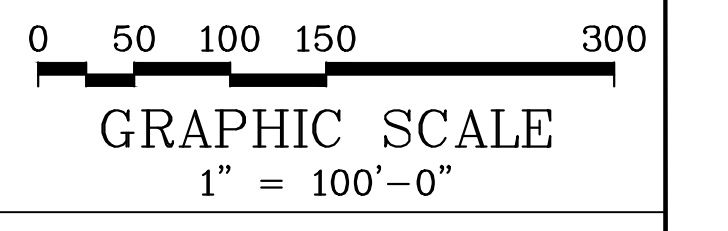
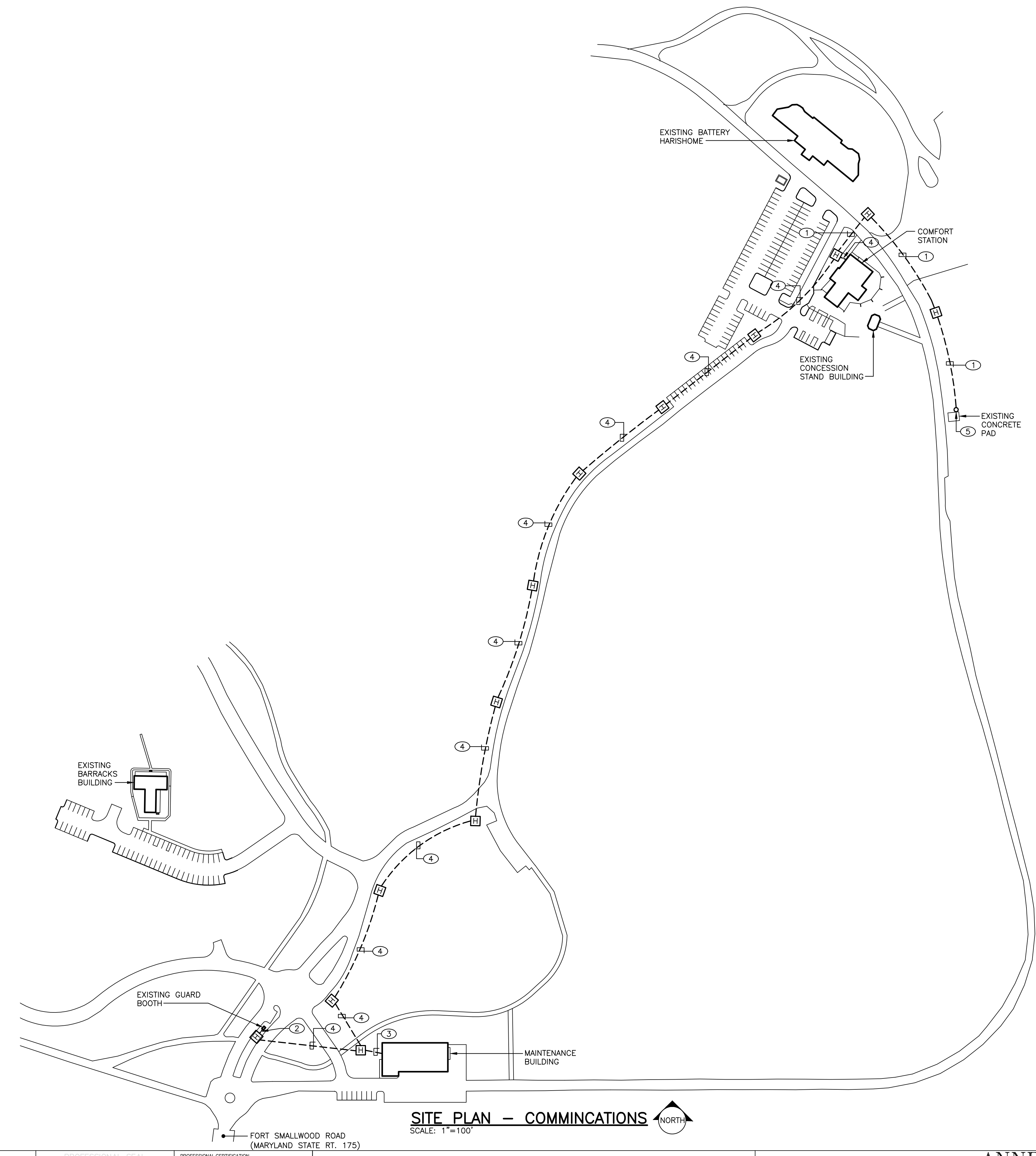
**LEGEND, ABBREVIATIONS,
NOTES AND DETAILS**

T000

SCALE: AS NOTED
DRAWN BY: RCA
CHECKED BY: RCA
SHEET NO. OF
PROJECT NO. P535900
PROPOSAL NO. P535907

DRAWING NOTES (APPLY TO DRAWING TS101):

- ① 1-2" SCHEDULE 40 PVC CONDUIT FOR INSTALLATION OF SURVEILLANCE CAMERA CABLING BY OWNER/OWNER'S SYSTEM VENDOR.
- ② 2-4" SCHEDULE 40 PVC CONDUITS FOR INSTALLATION OF OUTSIDE PLANT CABLES BY OWNER/OWNER'S SYSTEM VENDOR. TERMINATE CONDUITS IN/AT GUARD BOOTH WHERE/HOW DIRECTED BY OWNER.
- ③ 4-4" SCHEDULE 40 PVC CONDUITS FOR INSTALLATION OF OUTSIDE PLANT CABLES BY OWNER/OWNER'S SYSTEM VENDOR.
- ④ 2-4" SCHEDULE 40 PVC CONDUITS FOR INSTALLATION OF OUTSIDE PLANT CABLES BY OWNER/OWNER'S SYSTEM VENDOR.
- ⑤ STUB-UP CONDUIT 6" ABOVE GRADE AND CAP ADJACENT TO EXISTING CONCRETE PAD WHERE DIRECTED BY OWNER.



SITE PLAN - COMMUNICATIONS
SCALE: 1"=100'

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NO.	DESCRIPTION	BY	DATE
△			

APPROVED	DATE	APPROVED	DATE
CHIEF ENGINEER		PROJECT MANAGER	
APPROVED	DATE	APPROVED	DATE
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY	

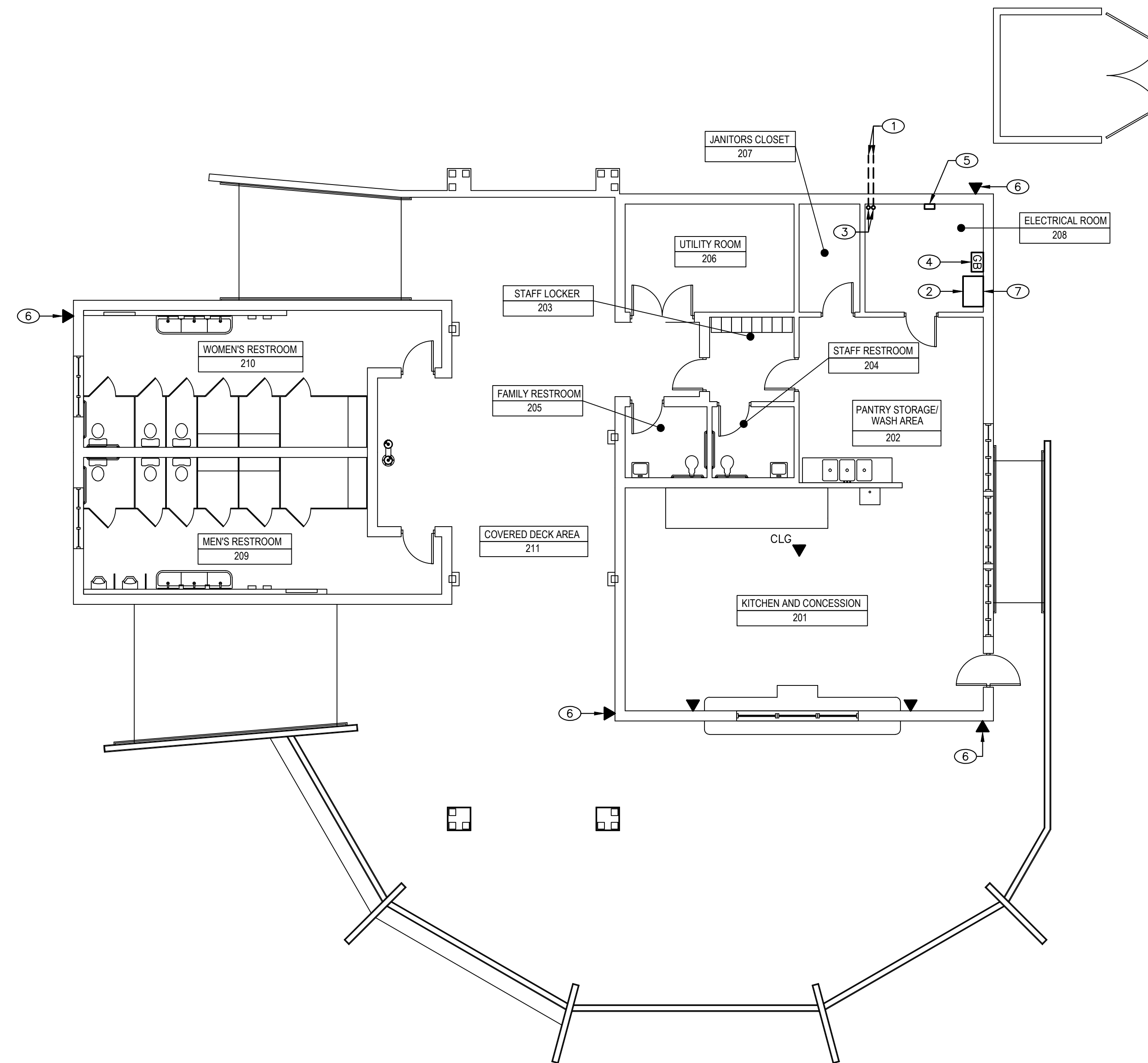
ANNE ARUNDEL COUNTY
DEPARTMENT OF PUBLIC WORKS
DATE: 04-28-2021

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9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122

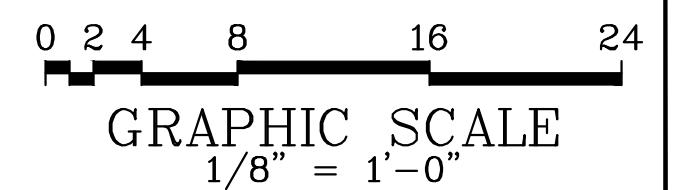
SITE PLAN - COMMUNICATIONS
TS101

DRAWING NOTES (APPLY TO DRAWING T101C):

- ① 2-4" SCHEDULE 40 PVC CONDUITS, FOR INSTALLATION OF OUTSIDE PLANT CABLES TO MAINTENANCE BUILDING BY OWNER/OWNER'S SYSTEM VENDOR. SEE DRAWING TS101 FOR CONTINUATION.
- ② WALL MOUNTED EQUIPMENT RACK BY OWNER/OWNER'S SYSTEM VENDOR.
- ③ STUB-UP CONDUITS 4" ABOVE FINISHED FLOOR. PROVIDE PULL STRINGS AND CAPS FOR SPARES.
- ④ GROUND BUS BAR WITH BOTTOM AT 12" ABOVE FINISHED FLOOR. SEE DETAIL ON DRAWING T000.
- ⑤ WALL MOUNTED "THOR-GUARD" LIGHTING DETECTION AND WARNING SYSTEM ROUTER/CONTROL EQUIPMENT BY OWNER/OWNER'S SYSTEM VENDOR. PROVIDE 1" CONDUIT OVER AND UP TO ROOFTOP MOUNTED ANTENNA (ANTENNA BY OWNER/OWNER'S SYSTEM VENDOR). ROUTING/INSTALLATION OF CONDUIT OVER AND UP TO ANTENNA TO BE FIELD VERIFIED/COORDINATED WITH OWNER/OWNER'S SYSTEM VENDOR. SYSTEM WIRING TO BE FURNISHED AND INSTALLED BY OWNER/OWNER'S SYSTEM VENDOR.
- ⑥ FOR PoE CAMERA AND WIRING BY OWNER/OWNER'S SYSTEM VENDOR. EXACT LOCATION TO BE FIELD VERIFIED/CORRINATED WITH OWNER/OWNER'S SYSTEM VENDOR.
- ⑦ PROVIDE 3/4"x4'x8' AC GRADE PLYWOOD FOR MOUNTING EQUIPMENT RACK TO.



FLOOR PLAN - COMFORT STATION NORTH
SCALE: 1/8" = 1'-0"



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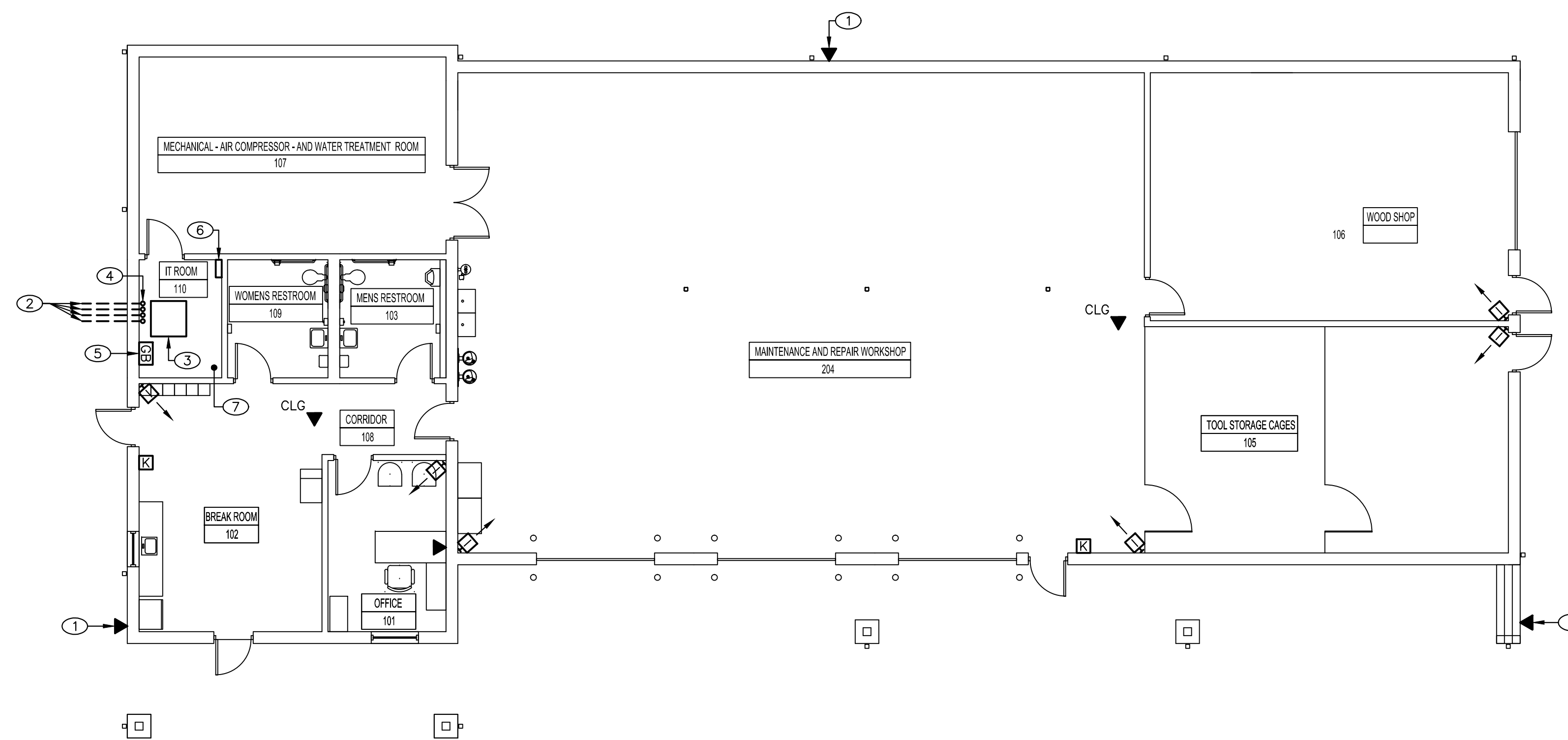
NO.	DESCRIPTION	BY	DATE
△			

ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS				DATE: 04-28-2021
APPROVED	DATE	APPROVED	DATE	SCALE: AS NOTED
CHIEF ENGINEER		PROJECT MANAGER		DRAWN BY: RCA
APPROVED	DATE	APPROVED	DATE	CHECKED BY: RCA
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY		SHEET NO. OF
				PROJECT NO. P535900
				PROPOSAL NO. P535907

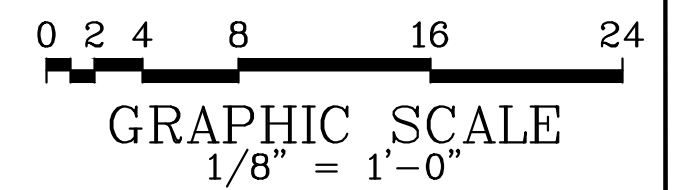
FORT SMALLWOOD PARK
9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122
COMFORT STATION
FLOOR PLAN **T101C**

DRAWING NOTES (APPLY TO DRAWING T101M):

- ① FOR PoE CAMERA AND WIRING BY OWNER/OWNER'S SYSTEM VENDOR. EXACT LOCATION TO BE FIELD VERIFIED/CORRORINATED WITH OWNER/OWNER'S SYSTEM VENDOR.
- ② 4-4" SCHEDULE 40 PVC CONDUITS. FOR INSTALLATION OF OUTSIDE PLANT CABLES TO EXISTING GUARD BOOTH AND COMFORT STATION BY OWNER/OWNER'S SYSTEM VENDOR. SEE DRAWING TS101 FOR CONTINUATION.
- ③ FREESTANDING EQUIPMENT RACK BY OWNER/OWNER'S SYSTEM VENDOR.
- ④ STUB-UP CONDUITS 4" ABOVE FINISHED FLOOR. PROVIDE PULL STRINGS AND CAPS FOR SPARES.
- ⑤ GROUND BUS BAR WITH BOTTOM AT 12" ABOVE FINISHED FLOOR. SEE DETAIL ON DRAWING T000.
- ⑥ INTRUSION DETECTION CONTROL PANEL WITH TOP AT 6' ABOVE FINISHED FLOOR.
- ⑦ FINISH ALL WALLS WITHIN ROOM WITH 3/4"x8' AC GRADE PLYWOOD.



FLOOR PLAN – MAINTENANCE BUILDING NORTH
SCALE: 1/8"=1'-0"



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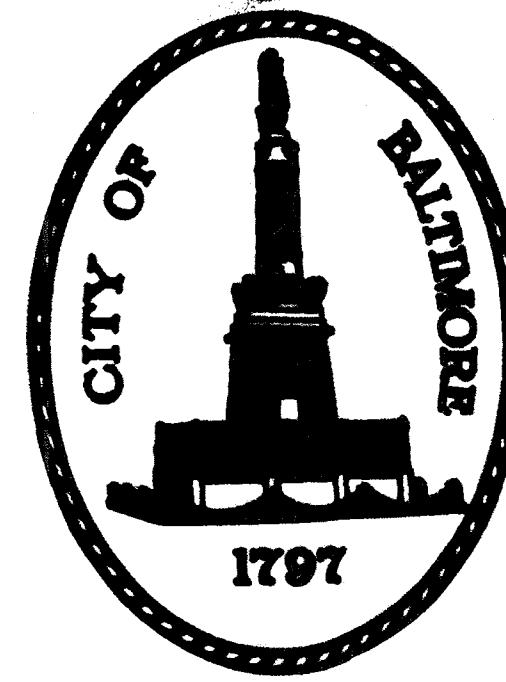
NO.	DESCRIPTION	BY	DATE
△			

ANNE ARUNDEL COUNTY DEPARTMENT OF PUBLIC WORKS				DATE: 04-28-2021
APPROVED	DATE	APPROVED	DATE	SCALE: AS NOTED
CHIEF ENGINEER		PROJECT MANAGER		DRAWN BY: RCA
APPROVED	DATE	APPROVED	DATE	CHECKED BY: RCA
ASSISTANT CHIEF ENGINEER		CHIEF, RIGHT OF WAY		SHEET NO. OF
				PROJECT NO. P535900
				PROPOSAL NO. P535907

FORT SMALLWOOD PARK
9500 FORT SMALLWOOD ROAD
PASADENA, MD 21122
MAINTENANCE BUILDING
FLOOR PLAN
T101M

CITY OF BALTIMORE
 DEPARTMENT OF RECREATION AND PARKS
 KIMBERLEY AMPREY - INTERIM DIRECTOR

FOR REFERENCE ONLY

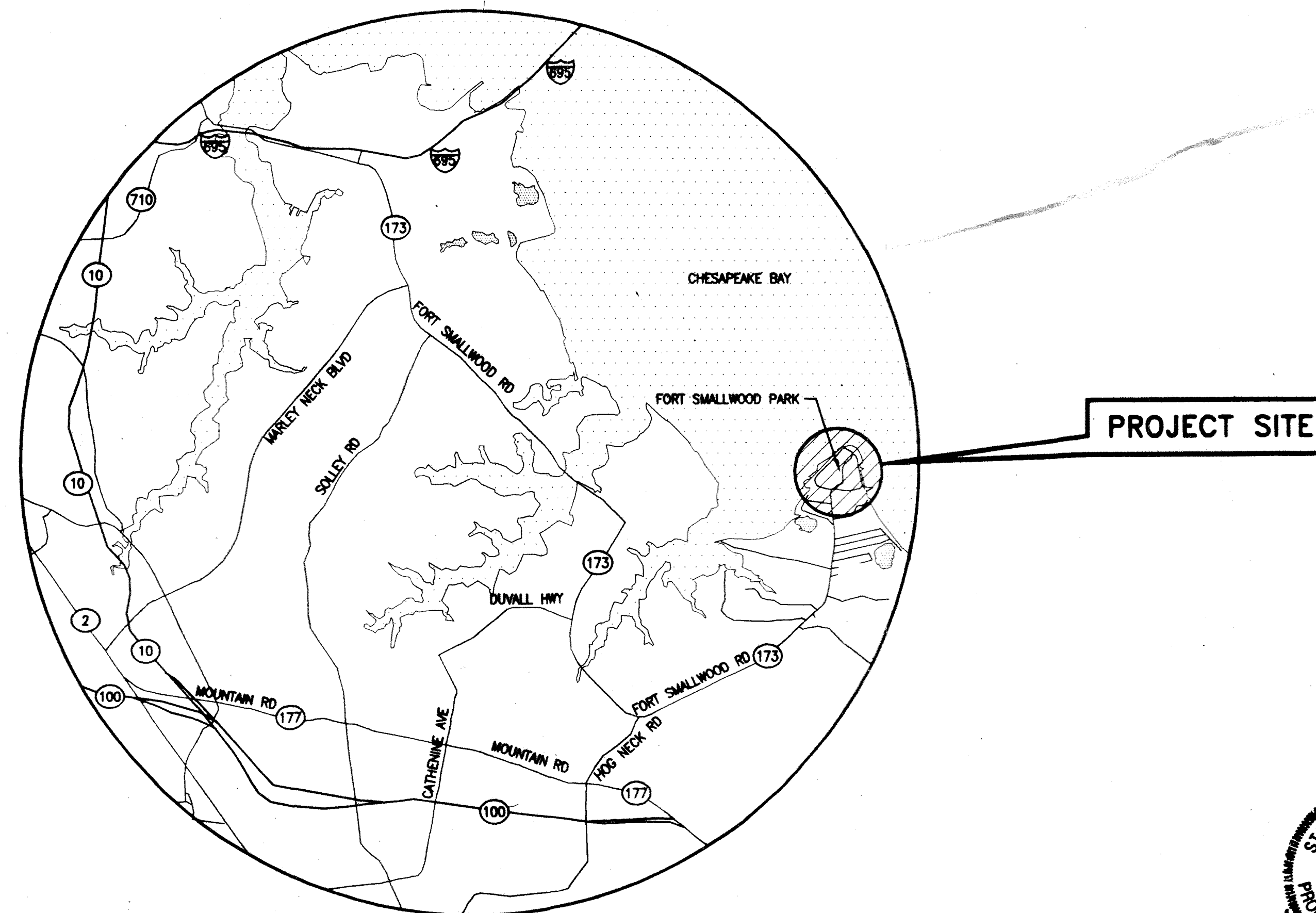


FORT SMALLWOOD PARK WASTEWATER TREATMENT PLANT
 REPLACEMENT AND COLLECTION SYSTEM IMPROVEMENTS
 FOR
 THE MAYOR AND CITY COUNCIL OF BALTIMORE
 MARTIN O'MALLEY, MAYOR

GENERAL NOTES

1. THE SPECIFICATIONS FOR THIS PROJECT WILL BE THE CITY OF BALTIMORE DEPARTMENT OF PUBLIC WORKS SPECIFICATIONS FOR MATERIAL, HIGHWAYS, BRIDGES, UTILITIES, AND INCIDENTAL STRUCTURES, 1979 EDITION AND ALL AMENDMENTS THERETO. UNLESS OTHERWISE NOTED, WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY STANDARD SPECIFICATIONS.
2. PROJECT SPECIFIC DETAILED SPECIFICATIONS ARE ALSO PROVIDED AS PART OF THIS CONTRACT. THEY ARE PROVIDED AS SUPPLEMENT TO THE CITY SPECIFICATION, NOT REPLACEMENT OF.
3. IF SIGNIFICANT DISCREPANCIES EXIST BETWEEN THE CONTRACT DRAWINGS AND CONTRACT SPECIFICATIONS, THE CONTRACT SPECIFICATIONS SHALL GOVERN ONLY TO THE EXTENT OF SUCH CONFLICT.
4. UTILITIES SHOWN ON THESE DRAWINGS ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY, AND THE CITY DOES NOT WARRANT NOR GUARANTEE THE CORRECTNESS, OR THE COMPLETENESS OF THE INFORMATION GIVEN. THE CONTRACTOR MUST VERIFY ALL SUCH INFORMATION BY CONTACTING THE INDIVIDUAL UTILITY COMPANY, THE DEPARTMENT OF PUBLIC WORKS, OR THE DEPARTMENT OF WATER AND WASTE WATER, TO DETERMINE THE EXACT LOCATION OF ITS RESPECTIVE STRUCTURES.
5. BEFORE BEGINNING ANY EXCAVATION, THE CONTRACTOR SHALL CONTACT "MISS UTILITY" AT 1-800-257-777 AT LEAST 3 WORKING DAYS PRIOR TO STARTING WORK SO THEY CAN ARRANGE TO MARK THE HORIZONTAL LOCATION OF THEIR UNDERGROUND FACILITIES. ANY PERMITS OR COST ASSOCIATED WITH "MISS UTILITY" ARE THE RESPONSIBILITY OF THE CONTRACTOR.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING, AT HIS OWN EXPENSE, AND TO THE SATISFACTION OF THE UTILITY OWNER, DAMAGE TO ANY UTILITY CAUSED BY HIS WORK. HE SHALL IMMEDIATELY NOTIFY THE ENGINEER AND THE UTILITY OWNER OF ANY DAMAGE TO THE UTILITY BY REASON OF HIS OPERATION.
7. SOIL EROSION AND SEDIMENT CONTROL PROCEDURES, AS DEFINED IN BALTIMORE CITY SOIL EROSION AND SEDIMENT CONTROL MANUAL (REVISED FEBRUARY 8, 1989) AND THE "MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" SHALL BE STRICTLY ADHERED TO. CONTRACTOR SHALL EXERCISE CAUTION TO AVOID DAMAGE TO ALL INLETS.
8. ALL WORK SPECIFIED HEREIN IS TO TAKE PLACE, WITHIN THE BOUNDARY OF A RECREATIONAL PARK OWNED AND OPERATED BY THE CITY OF BALTIMORE. THE CONTRACTOR SHALL COORDINATE WITH THE CITY FOR PROPERTY ACCESS AND TIMING OF WORK ACTIVITIES.
9. THE SANITARY SYSTEM IS CURRENTLY NOT OPERATIONAL AND WILL NOT BE RECEIVING SANITARY WASTE (WASTEWATER) DURING THE COURSE OF WORK.
10. START-UP REQUIREMENTS AS DEFINED IN THE CONTRACT DOCUMENTS MUST BE COORDINATED WITH CITY PERSONNEL TO ENSURE AVAILABILITY OF WASTEWATER FLOW.
11. GROUNDWATER INFILTRATION MAY OCCUR IN BELOW GRADE STRUCTURES. THE CONTRACTOR IS RESPONSIBLE FOR MANAGING THE GROUNDWATER INFILTRATION TO THE EXTENT REQUIRED TO PERFORM THE WORK.
12. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF EXISTING STRUCTURES (BELOW GRADE AND ABOVE GRADE) DURING THE COURSE OF THE WORK.
13. THE CONTRACTOR SHALL FIELD VERIFY TO HIS OWN SATISFACTION ALL DIMENSIONS PERTINENT TO THE WORK.
14. EXISTING SITE CONDITIONS, WHERE SHOWN, ARE BASED ON CONTRACT DRAWINGS DATED 1979. ALL DIMENSIONS, SITE LOCATIONS, AND EXISTING EQUIPMENT LOCATIONS SHALL BE USED AS A GUIDE ONLY.
15. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING ALL WORK IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL SAFETY REGULATIONS AS REQUIRED. (I.E. CONFINED SPACE ENTRY OR THE NEED FOR EXPLOSION PROOF TOOLS).
16. THE CONTRACTOR IS RESPONSIBLE FOR KEEPING ALL WORK AREAS SECURE AT ALL TIMES.
17. CLEARING AND GRUBBING WITHIN LIMITS OF THE NEW WORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
18. RESTORATION OF SURFACES IS REQUIRED IN ALL DISTURBED AREAS.
19. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SUPPLY, INSTALL, AND MAINTAIN ALL TEMPORARY TRAFFIC CONTROL EQUIPMENT FOR THE DURATION OF THE WORK.
20. PREPARE SOIL AND SEED ALL LAWN AREAS DISTURBED BY CONTRACTORS, VEHICULAR MOVEMENT OR STORAGE IN ACCORDANCE WITH SPECIFICATIONS DUE TO INCIDENTAL ACTIVITIES NOT SHOWN ON THE DRAWINGS BUT ASSOCIATED WITH WORK.
21. INSTALL TREE PROTECTION FENCE AS DIRECTED BY THE ENGINEER. MINIMIZE EQUIPMENT ACTIVITY WITHIN THE DRIFLINE OF EXISTING TREES. THERE SHALL BE NO STORAGE OF MATERIALS OR EQUIPMENT PERMITTED WITHIN THE DRIFLINE OF EXISTING TREES. MAINTAIN TREE PROTECTION FENCE UNTIL DIRECTED BY THE ENGINEER TO REMOVE.

INDEX OF SHEETS	
No.	DESCRIPTION
1 OF 16	TITLE SHEET
2 OF 16	SITE PLAN
3 OF 16	PUMPING STATION DEMOLITION AND SECTIONS
4 OF 16	WASTEWATER TREATMENT PLANT DEMOLITION PLAN AND SECTIONS
5 OF 16	WASTEWATER TREATMENT PLANT SITE PLAN AND PROCESS FLOW DIAGRAM
6 OF 16	WASTEWATER TREATMENT PLANT AND PUMPING STATION PLAN AND SECTIONS
7 OF 16	PARTIAL SITE PLAN AND DETAILS
8 OF 16	BERM IMPROVEMENT GRADING PLAN
9 OF 16	BERM IMPROVEMENT PROFILES
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12 OF 16	ELECTRICAL SITE PLAN
13 OF 16	ELECTRICAL PLANS, SECTIONS AND DETAILS
14 OF 16	SEDIMENT CONTROL PLAN
15 OF 16	SEDIMENT CONTROL DETAILS
16 OF 16	SEDIMENT CONTROL NOTES



Anne Arnsdel Soil Conservation District
 Sediment and Erosion Control Approval

Jeffrey F Ouellet 2/10/03
 District Engineer Date

AASCD # 485-05 SMALL POND (S) #

Reviewed for technical adequacy by
 USDA, Natural Resources Conservation Service



CITY OF BALTIMORE DEPARTMENT OF RECREATION AND PARKS

APPROVED: *Kimberley Amprey*
 DIRECTOR, DEPARTMENT OF RECREATION AND PARKS 11-11-02 DATE

APPROVED: *Clayton S. Jones*
 CHIEF OF CAPITAL DEVELOPMENT 11-11-02 DATE

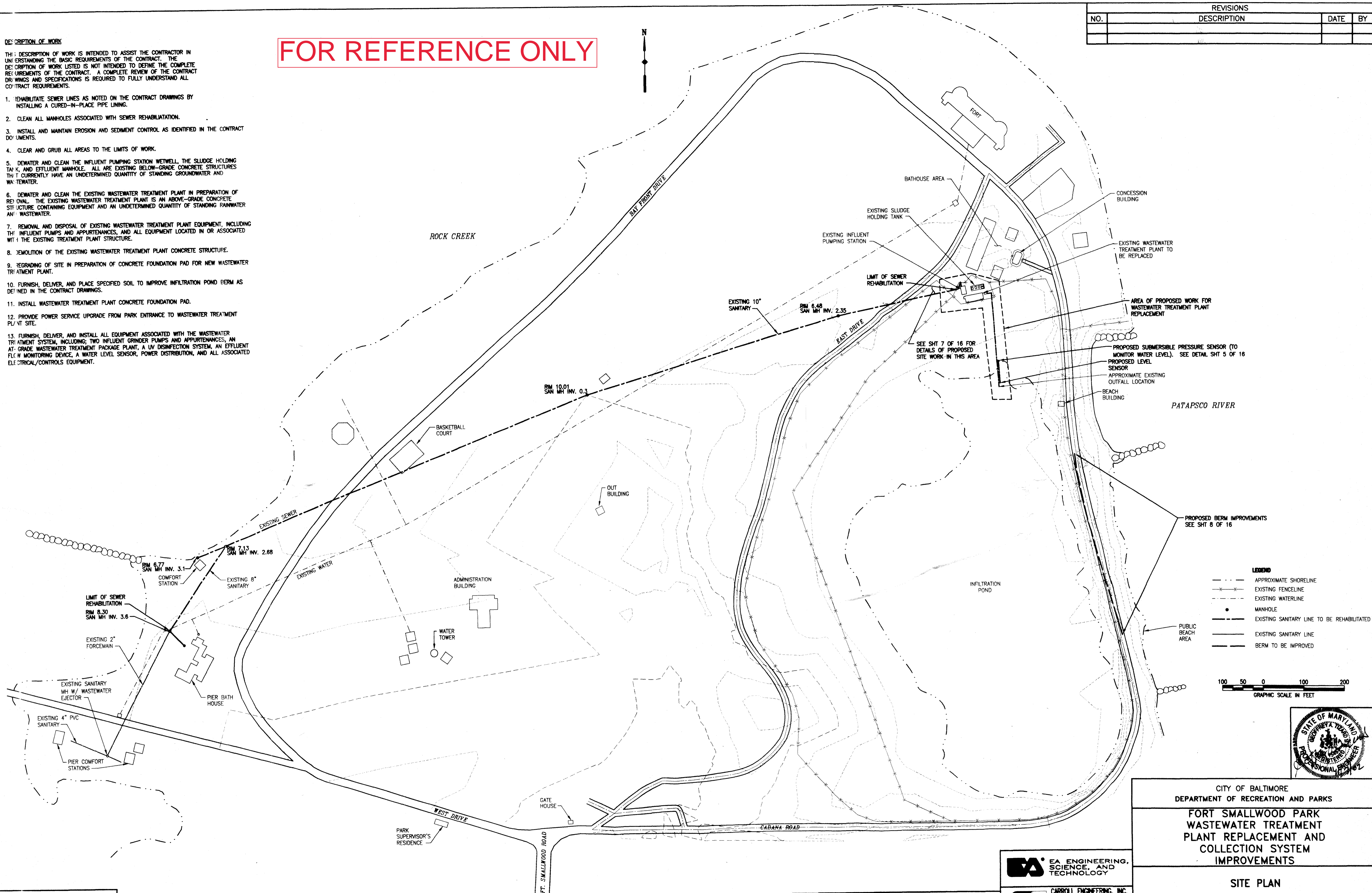
REVISIONS			
NO.	DESCRIPTION	DATE	BY

FOR REFERENCE ONLY

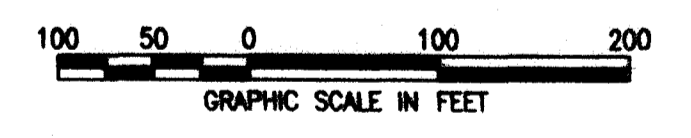
DESCRIPTION OF WORK

THIS DESCRIPTION OF WORK IS INTENDED TO ASSIST THE CONTRACTOR IN UNDERSTANDING THE BASIC REQUIREMENTS OF THE CONTRACT. THE DESCRIPTION OF WORK LISTED IS NOT INTENDED TO DEFINE THE COMPLETE REQUIREMENTS OF THE CONTRACT. A COMPLETE REVIEW OF THE CONTRACT DRAWINGS AND SPECIFICATIONS IS REQUIRED TO FULLY UNDERSTAND ALL CONTRACT REQUIREMENTS.

1. REHABILITATE SEWER LINES AS NOTED ON THE CONTRACT DRAWINGS BY INSTALLING A CURED-IN-PLACE PIPE LINING.
2. CLEAN ALL MANHOLES ASSOCIATED WITH SEWER REHABILITATION.
3. INSTALL AND MAINTAIN EROSION AND SEDIMENT CONTROL AS IDENTIFIED IN THE CONTRACT DOCUMENTS.
4. CLEAR AND GRUB ALL AREAS TO THE LIMITS OF WORK.
5. DEWATER AND CLEAN THE INFLUENT PUMPING STATION WETWELL, THE SLUDGE HOLDING TANK, AND EFFLUENT MANHOLE. ALL ARE EXISTING BELOW-GRADE CONCRETE STRUCTURES THAT CURRENTLY HAVE AN UNDETERMINED QUANTITY OF STANDING GROUNDWATER AND WASTEWATER.
6. DEWATER AND CLEAN THE EXISTING WASTEWATER TREATMENT PLANT IN PREPARATION OF REMOVAL. THE EXISTING WASTEWATER TREATMENT PLANT IS AN ABOVE-GRADE CONCRETE STRUCTURE CONTAINING EQUIPMENT AND AN UNDETERMINED QUANTITY OF STANDING RAINWATER AND WASTEWATER.
7. REMOVAL AND DISPOSAL OF EXISTING WASTEWATER TREATMENT PLANT EQUIPMENT, INCLUDING THE INFLUENT PUMPS AND APPURTENANCES, AND ALL EQUIPMENT LOCATED IN OR ASSOCIATED WITH THE EXISTING TREATMENT PLANT STRUCTURE.
8. DEMOLITION OF THE EXISTING WASTEWATER TREATMENT PLANT CONCRETE STRUCTURE.
9. REGRADING OF SITE IN PREPARATION OF CONCRETE FOUNDATION PAD FOR NEW WASTEWATER TREATMENT PLANT.
10. FURNISH, DELIVER, AND PLACE SPECIFIED SOIL TO IMPROVE INFILTRATION POND BERM AS DEFINED IN THE CONTRACT DRAWINGS.
11. INSTALL WASTEWATER TREATMENT PLANT CONCRETE FOUNDATION PAD.
12. PROVIDE POWER SERVICE UPGRADE FROM PARK ENTRANCE TO WASTEWATER TREATMENT PLANT SITE.
13. FURNISH, DELIVER, AND INSTALL ALL EQUIPMENT ASSOCIATED WITH THE WASTEWATER TREATMENT SYSTEM, INCLUDING: TWO INFLUENT GRINDER PUMPS AND APPURTENANCES, AN AT-GRADE WASTEWATER TREATMENT PACKAGE PLANT, A UV DISINFECTION SYSTEM, AN EFFLUENT FLOW MONITORING DEVICE, A WATER LEVEL SENSOR, POWER DISTRIBUTION, AND ALL ASSOCIATED ELECTRICAL/CONTROLS EQUIPMENT.



- LEGEND**
- - - - - APPROXIMATE SHORELINE
 - - - - - EXISTING FENCELINE
 - - - - - EXISTING WATERLINE
 - MANHOLE
 - - - - - EXISTING SANITARY LINE TO BE REHABILITATED
 - EXISTING SANITARY LINE
 - - - - - BERM TO BE IMPROVED



DRAWN BY DWM/JAP
 EXAMINED BY SJR

EA ENGINEERING, SCIENCE, AND TECHNOLOGY
CE CARROLL ENGINEERING, INC.
 61 PADONIA RD., EAST
 TIMONUM, MD 21093
 (410) 252-6211

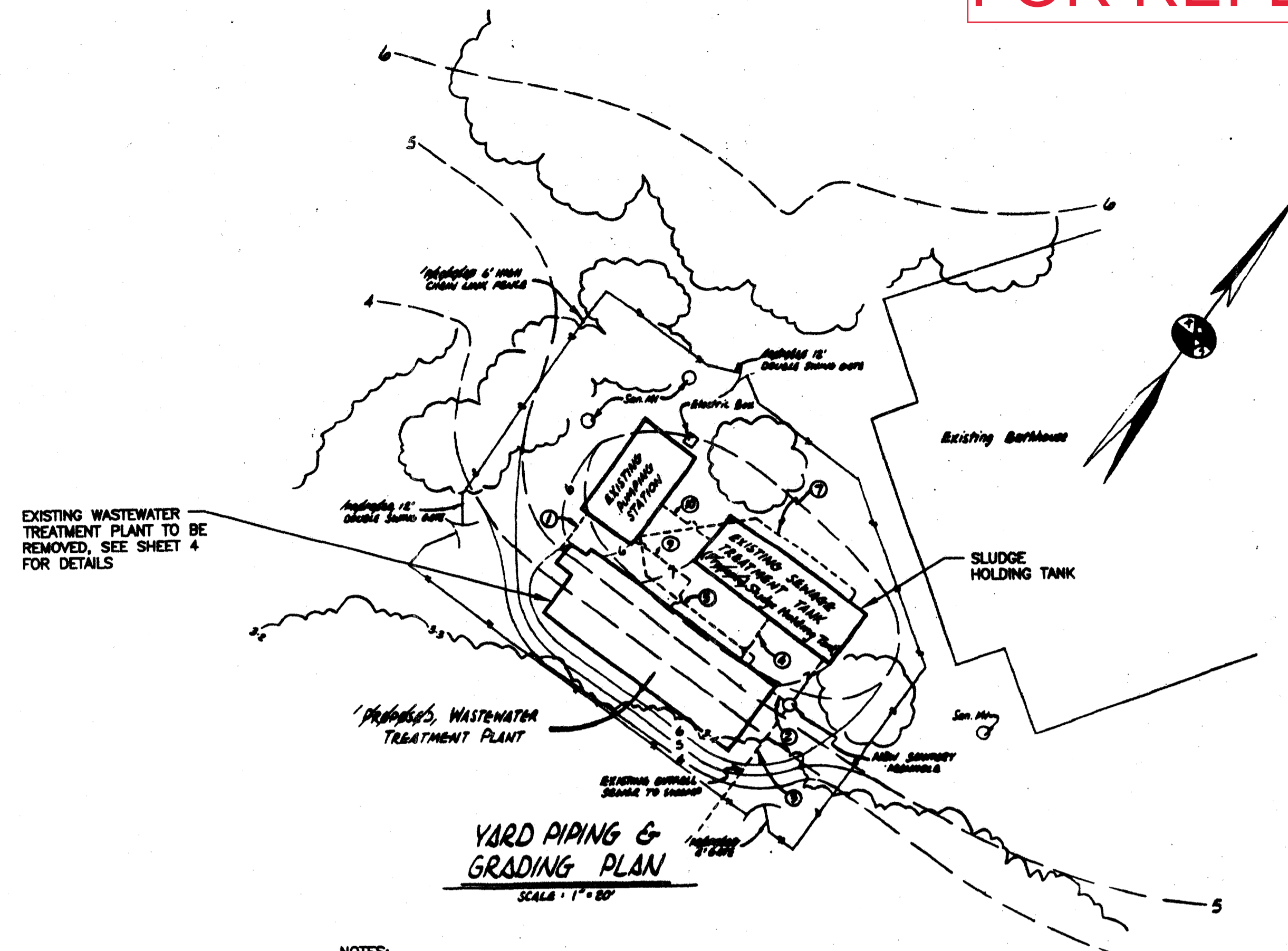
CITY OF BALTIMORE
 DEPARTMENT OF RECREATION AND PARKS

**FORT SMALLWOOD PARK
 WASTEWATER TREATMENT
 PLANT REPLACEMENT AND
 COLLECTION SYSTEM
 IMPROVEMENTS**

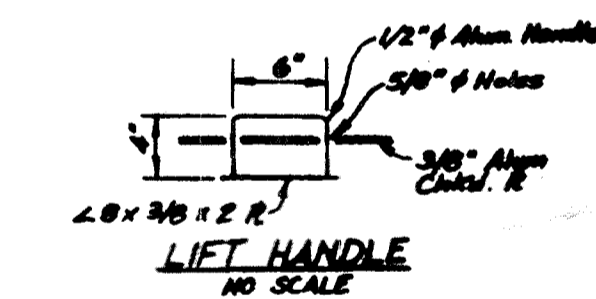
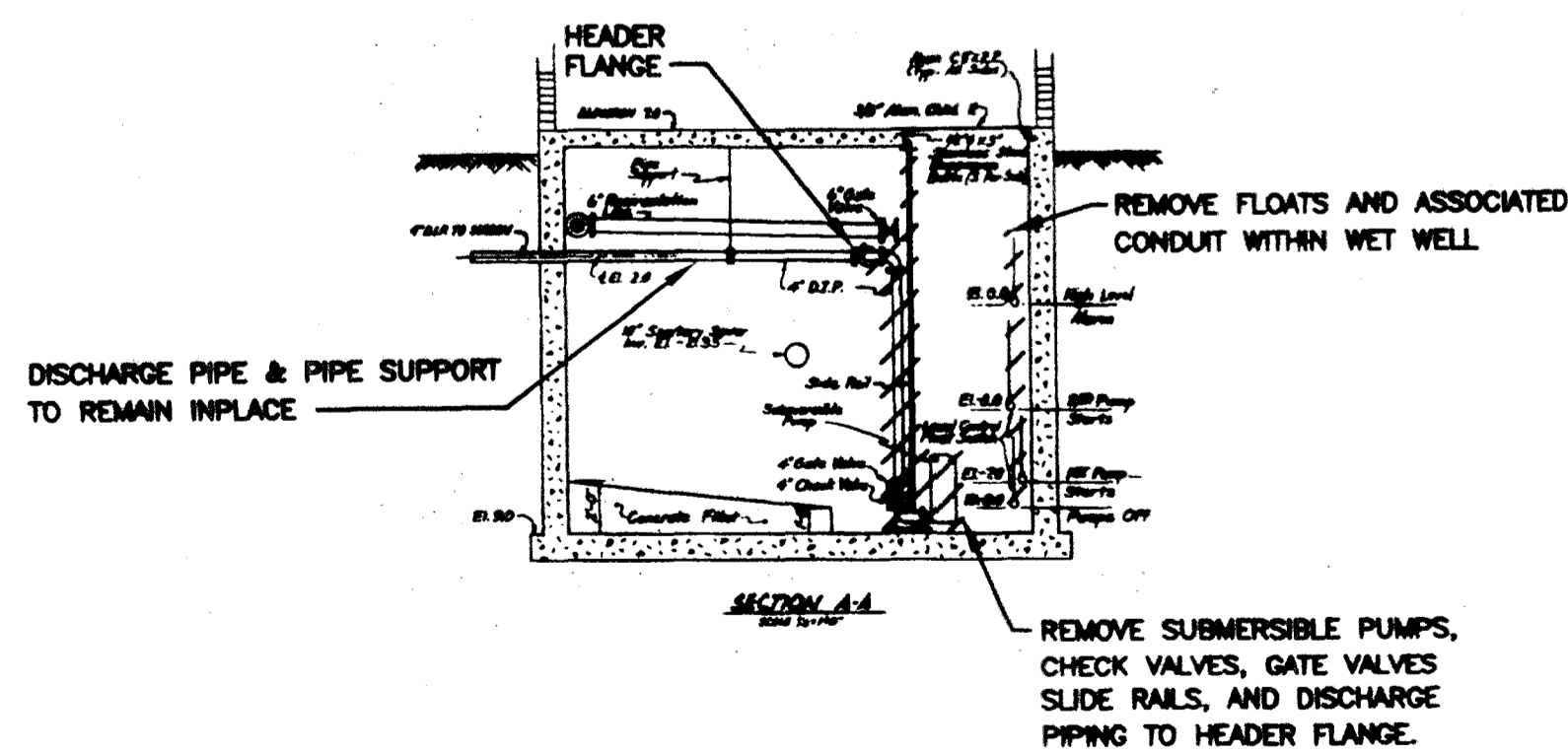
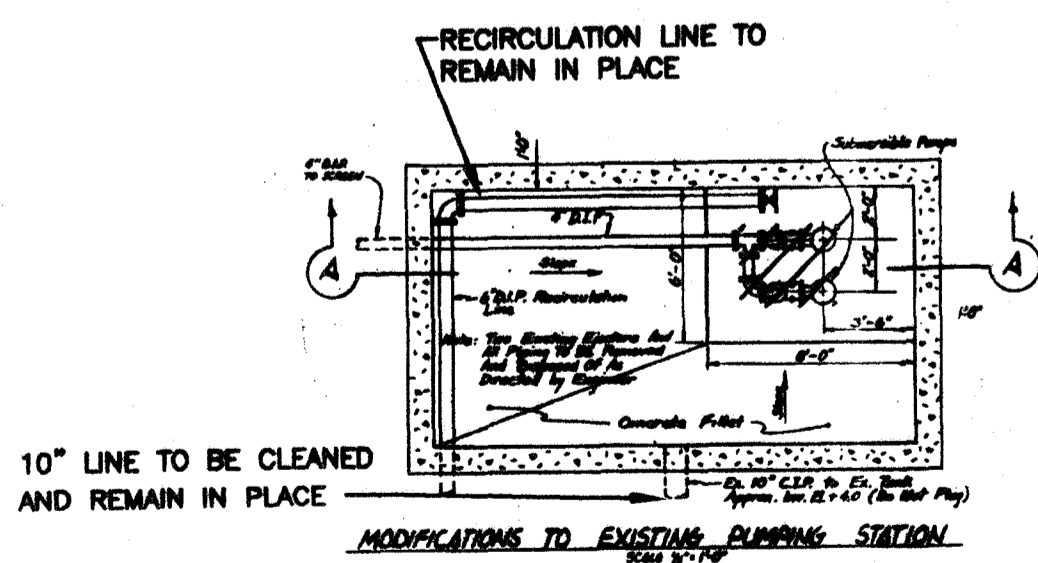
SITE PLAN

SCALE: 1"=100' DATE: NOVEMBER 4, 2002
 DRAWING: C1 SHEET 2 OF 16

FOR REFERENCE ONLY



- NOTES:**
- EXISTING SITE LAYOUT PROVIDED FOR REFERENCE ONLY.
 - CONTRACTOR TO VERIFY ALL DIMENSIONS.



- NOTES:**
- COVER DETAIL PROVIDED FOR REFERENCE ONLY.
 - COVER IS NOT CURRENTLY IN USE. THE CONTRACTOR SHALL PROVIDE A NEW COVER OF SIMILAR MATERIAL AND DIMENSIONS, SEE DETAIL, SHEET 6 OF 16.

DEMOLITION NOTES

DEMOLITION NOTES, GENERAL

- EXISTING SITE CONDITIONS SHOWN ARE BASED ON CONTRACT DRAWINGS DATED 1979. ALL DIMENSIONS AND EQUIPMENT LOCATIONS SHALL BE USED AS A GUIDE ONLY AND SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING MISS UTILITY PRIOR TO THE COMMENCEMENT OF ANY EXCAVATION TO ASCERTAIN THE LOCATION OF NEARBY UNDERGROUND UTILITIES.
- THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS CONCERNING SAFETY AND PRESERVATION OF EXISTING UTILITIES ADJACENT TO ANY WORK.
- THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF EXISTING STRUCTURES (BELOW GRADE AND ABOVE GRADE) DURING THE COURSE OF DEMOLITION AND NEW CONSTRUCTION.
- DISPOSAL OF ALL ITEMS TO BE REMOVED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- ALL STRUCTURES AND EQUIPMENT ON SITE HAVE BEEN USED FOR THE STORAGE AND TREATMENT OF SANITARY WASTEWATER. APPROPRIATE MEASURES SHOULD BE TAKEN TO ENSURE THE SAFETY OF THE WORKERS WHILE CLEANING AND REMOVING THE ITEMS AND TO ENSURE THE PROPER DISPOSAL OF REMOVED ITEMS.
- THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING WORK IN ACCORDANCE WITH CITY, STATE, AND FEDERAL REGULATIONS AS REQUIRED (I.E. CONFINED SPACE ENTRY, OR THE NEED FOR EXPLOSION PROOF TOOLS).
- CONTRACTOR IS RESPONSIBLE FOR KEEPING ITEMS AND STRUCTURES BEING REMOVED AND ASSOCIATED CONSTRUCTION EQUIPMENT IN A SECURE LOCATION AT ALL TIMES.
- NO WASTEWATER FLOW WILL BE DIRECTED TOWARD THE WASTEWATER TREATMENT PLANT DURING CONSTRUCTION.
- DEPENDENT ON CONSTRUCTION SEQUENCE, THERE IS POTENTIAL FOR GROUNDWATER INFILTRATION TO ENTER THE INFLUENT PUMPING STATION WET WELL. CONTRACTOR IS RESPONSIBLE FOR TEMPORARILY PLUGGING INFLUENT LINE TO THE WET WELL DURING THE COURSE OF DEMOLITION AND CONSTRUCTION, AND PROVIDING FOR DEWATERING AND CONTAINMENT MEASURES, AS NECESSARY.

DEMOLITION NOTES, SLUDGE HOLDING TANK

- EMPTY AND CLEAN EXISTING SLUDGE HOLDING TANK.
- EMPTY AND CLEAN EXISTING 10" OVERFLOW LINE THAT CONNECTS THE INFLUENT PUMPING STATION TO THE SLUDGE HOLDING TANK.

DEMOLITION NOTES, INFLUENT PUMP STATION

- EMPTY AND CLEAN INFLUENT PUMPING STATION WET WELL.
- REMOVE BOTH SUBMERSIBLE PUMPS AND ASSOCIATED CHECK VALVES, GATE VALVES, SLIDE RAILS, AND DISCHARGE PIPING TO HEADER FLANGE AS SHOWN ON CONTRACT DRAWINGS.
- REMOVE FLOATS, CONDUIT, AND CONTROL PANEL ASSOCIATED WITH THE FLOATS AND THE SUBMERSIBLE PUMPS.
- VERIFY CONDITION OF EXISTING PIPE SUPPORTS AND REPLACE AS NECESSARY.

DEMOLITION NOTES, EXISTING WASTEWATER TREATMENT PLANT

- EMPTY AND CLEAN EXISTING WASTEWATER TREATMENT PLANT.
- REMOVE ALL RAILING, EQUIPMENT, AND ELECTRICAL CONDUIT ASSOCIATED WITH THE EXISTING WASTEWATER TREATMENT PLANT.
- REMOVE ABOVE GRADE INFLUENT PIPING ABOVE GATE VALVE AS SHOWN ON THE CONTRACT DRAWINGS.
- REMOVE EFFLUENT PIPING ABOVE FLANGE AS NOTED ON THE CONTRACT DRAWINGS.
- CUT AND CAP EXISTING BELOW GRADE SLUDGE LINE AS SHOWN ON THE CONTRACT DRAWINGS.
- REMOVE CONCRETE STRUCTURE AS NOTED ON THE CONTRACT DRAWINGS. SEE SHEET 4 OF 16.

DRAWN BY JAP
EXAMINED BY SJR/GAT



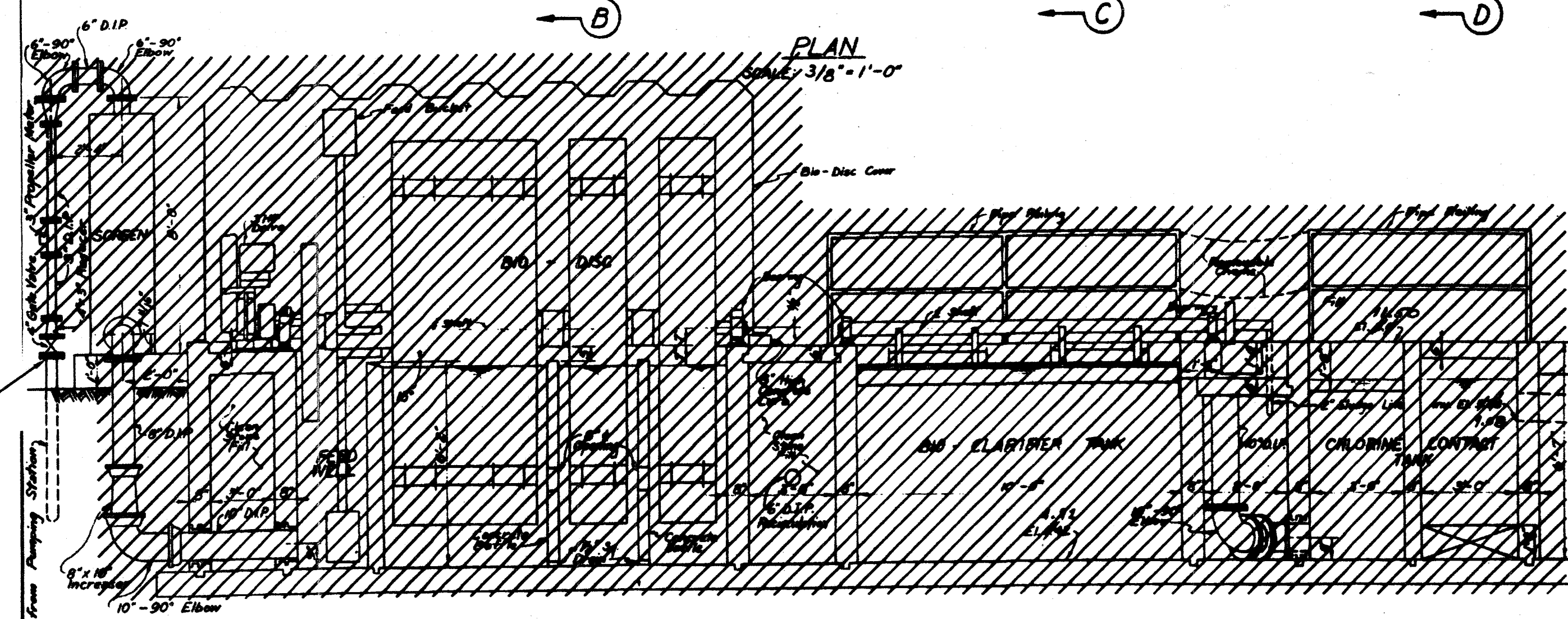
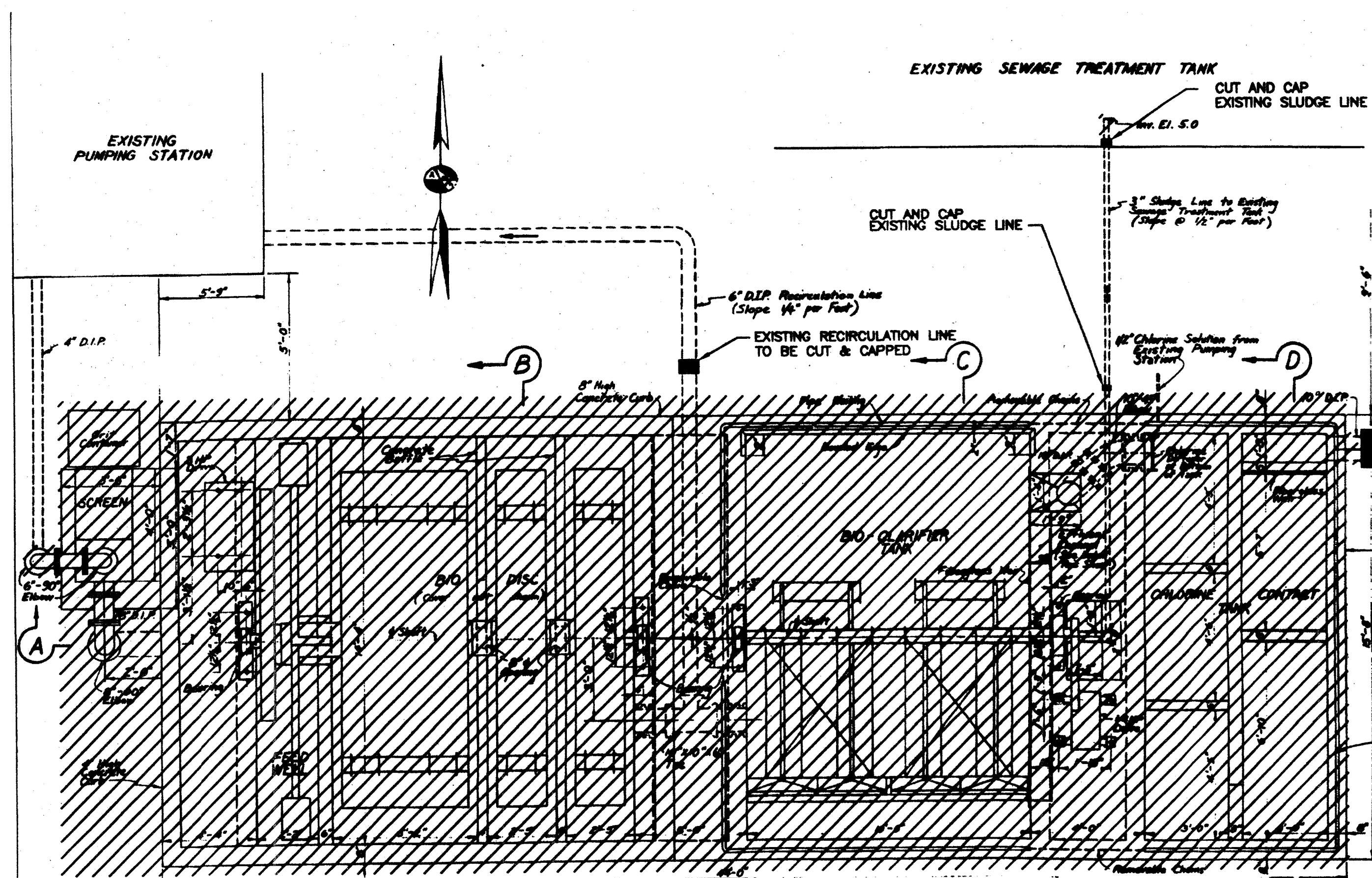
CITY OF BALTIMORE
DEPARTMENT OF RECREATION AND PARKS

FORT SMALLWOOD PARK
WASTEWATER TREATMENT
PLANT REPLACEMENT AND
COLLECTION SYSTEM
IMPROVEMENTS

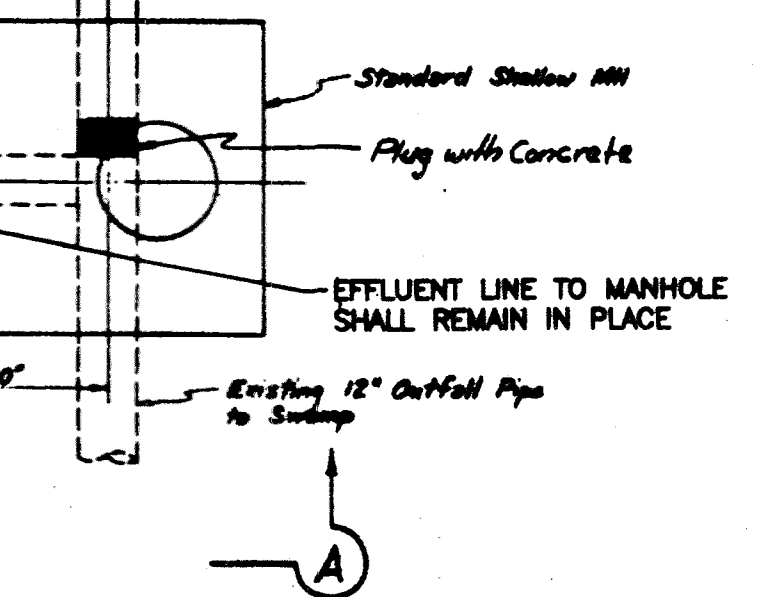
PUMPING STATION DEMOLITION AND SECTIONS

SCALE: AS SHOWN DATE: NOVEMBER 4, 2002
DRAWING: 3 SHEET 3 OF 16

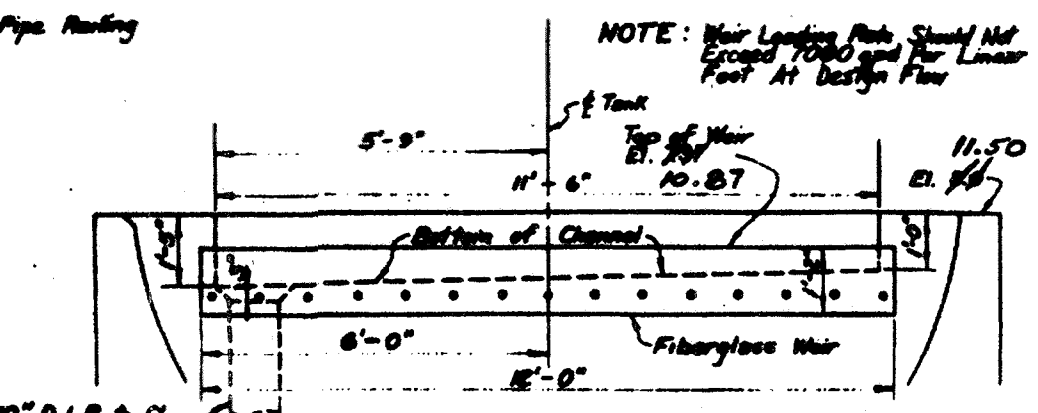
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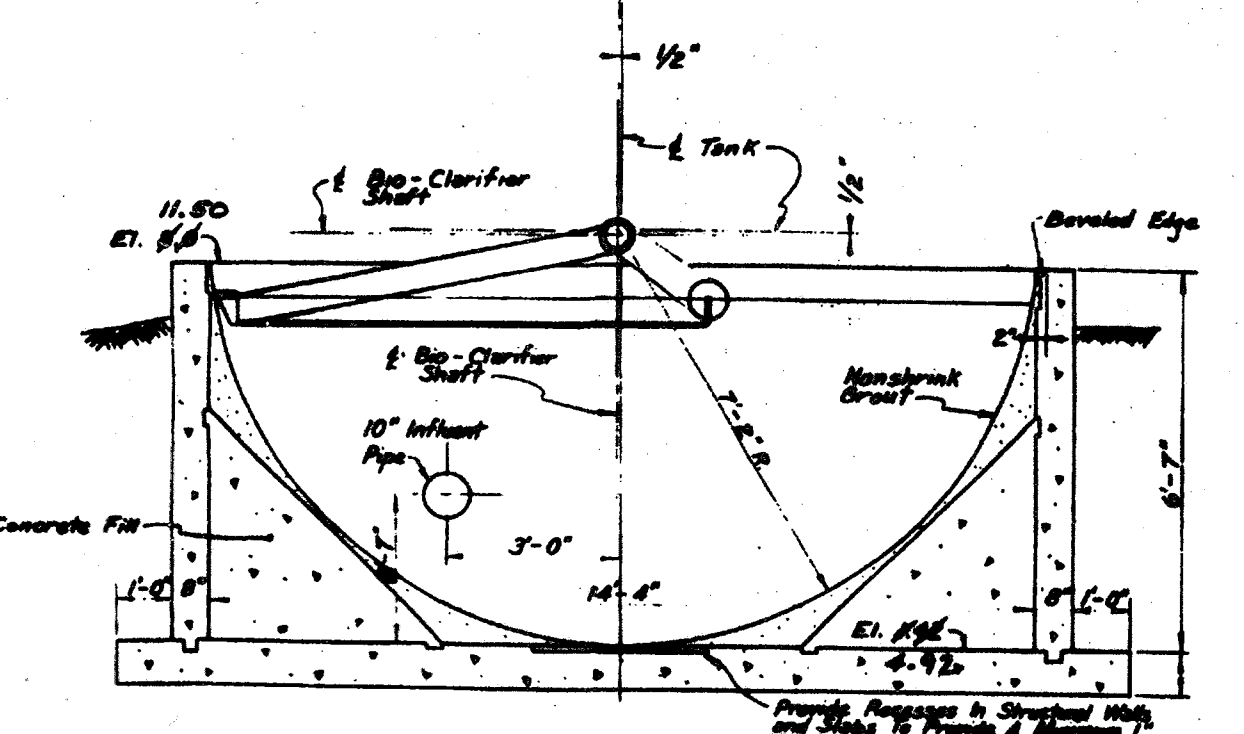
SECTION A-A
SCALE: 3/8" = 1'-0"



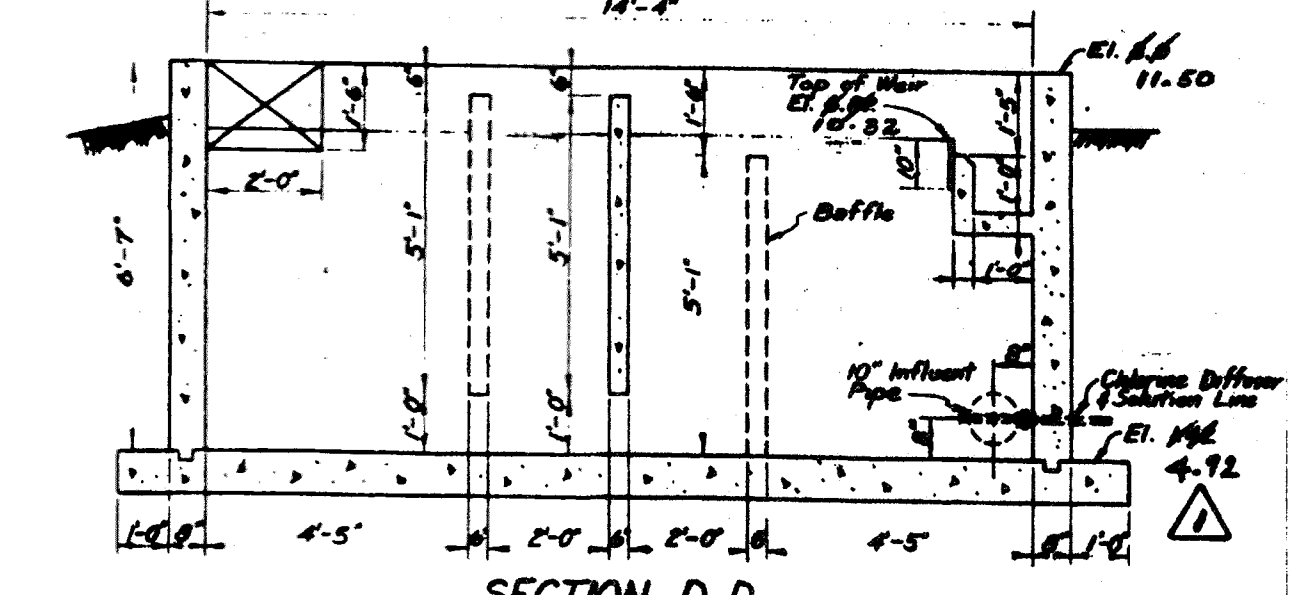
SECTION B-B
SCALE: 3/8" = 1'-0"



BIO-CLARIFIER EFFLUENT CHANNEL DETAIL
SCALE: 3/8" = 1'-0"



SECTION C-C
SCALE: 3/8" = 1'-0"



SECTION D-D
SCALE: 3/8" = 1'-0"

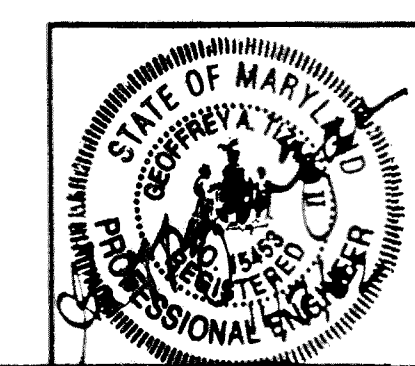
TREATMENT PLANT RAISED 3'-00" DUE TO FIELD CONDITIONS

EXISTING BELOW GRADE INFLUENT LINE TO REMAIN IN PLACE, GATE VALVE TO REMAIN IN PLACE, PIPE BEYOND GATE VALVE TO BE REMOVED

- NOTES:
1. PLAN AND SECTION OF EXISTING WASTEWATER TREATMENT PLANT PROVIDED FOR REFERENCE ONLY. THEY ARE PROVIDED TO ASSIST THE CONTRACTOR IN DETERMINING EXTENT OF DEMOLITION REQUIREMENTS.
 2. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS.
 3. ELEVATIONS SHOWN ON CONTRACT DETAILS ABOVE HAVE NOT BEEN ASBUILT, AND CAN NOT BE ASSUMED AS ACCURATE. FIELD OBSERVATIONS INDICATE TOP OF CONCRETE STRUCTURE WALLS AT APPROXIMATELY 4 FEET ABOVE EXISTING GRADE

NOTES:
1. SECTION DETAILS PROVIDED FOR REFERENCE ONLY

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EXAMINED BY SJR/GAT

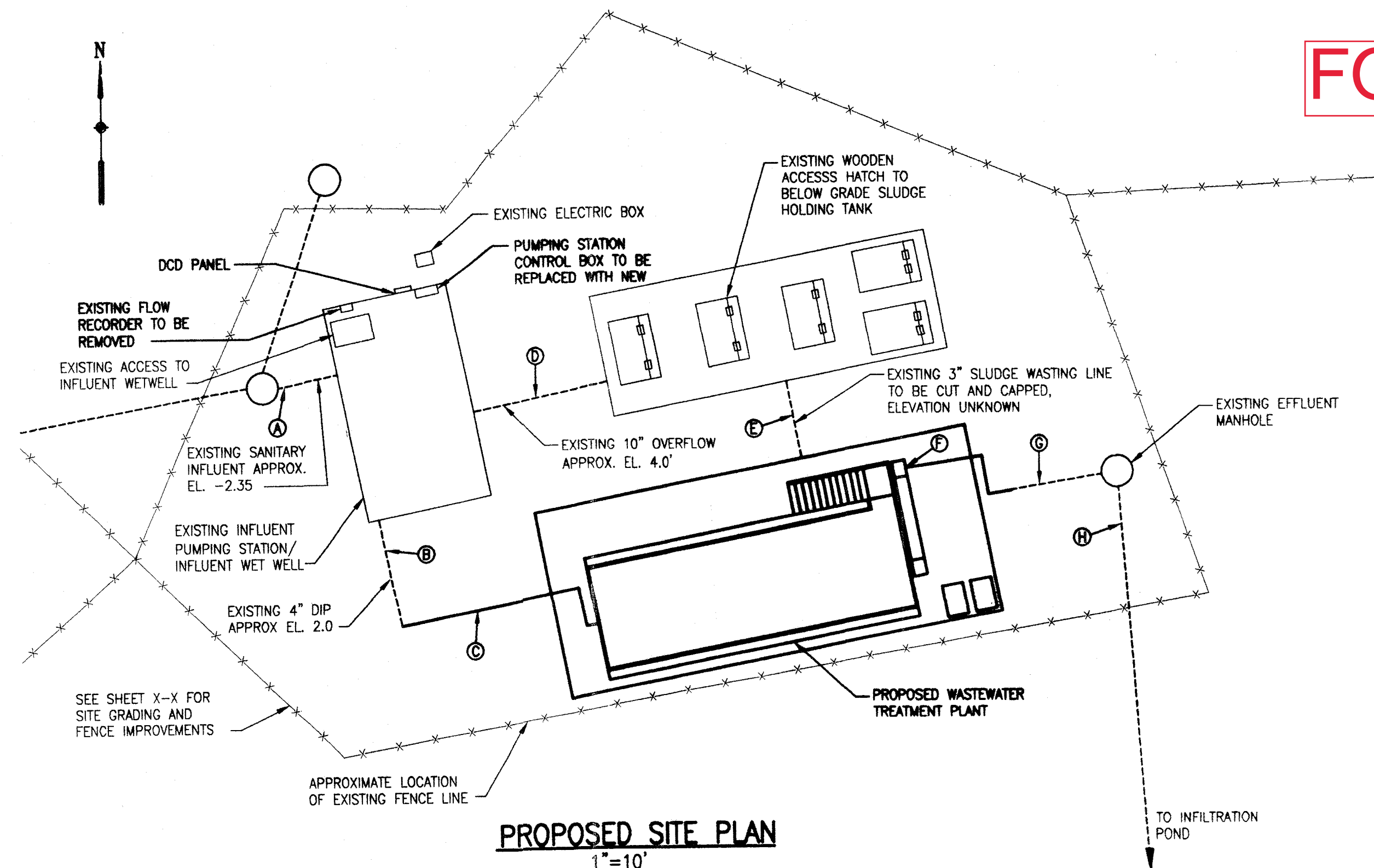


EA ENGINEERING, SCIENCE, AND TECHNOLOGY

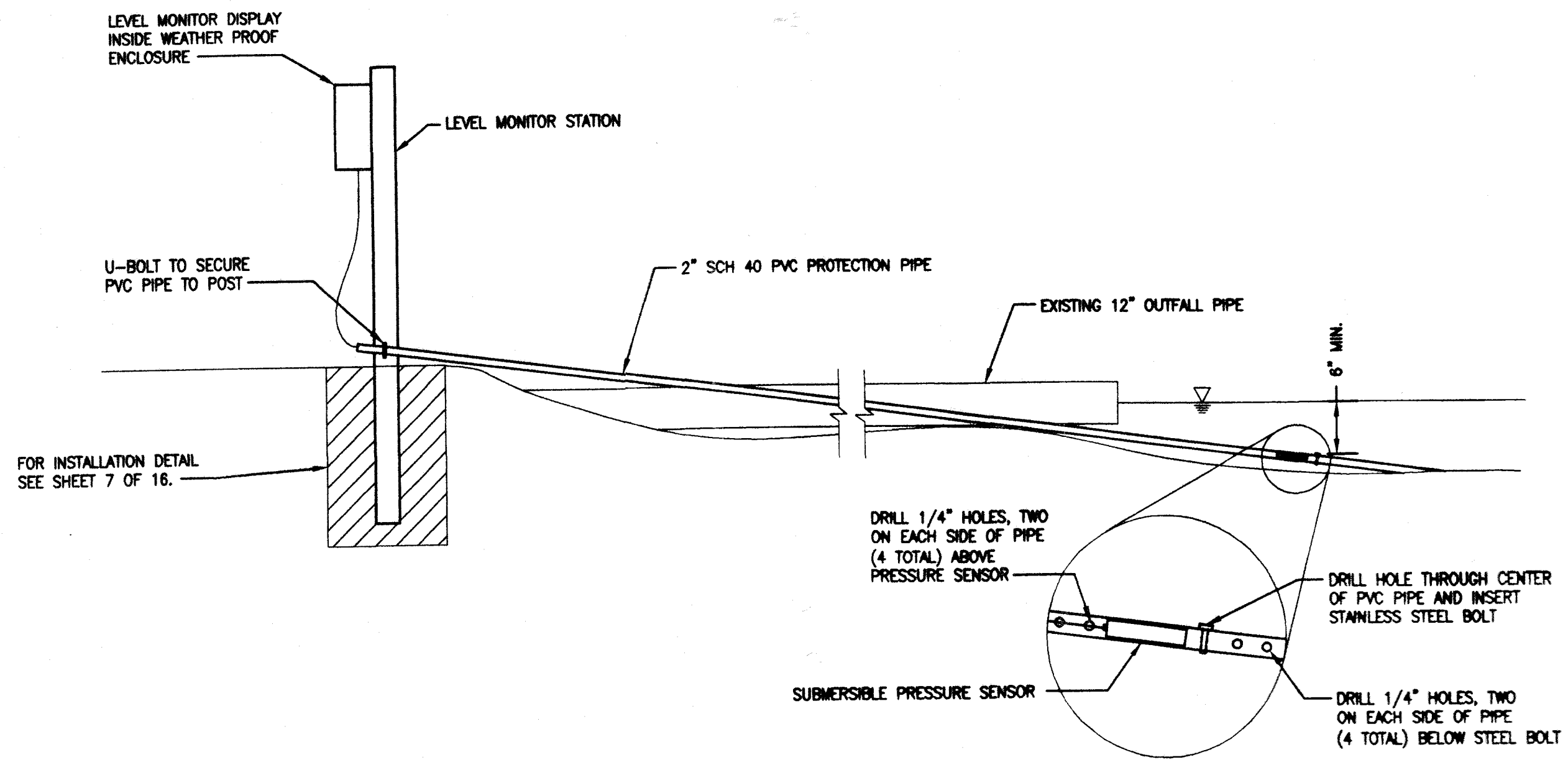
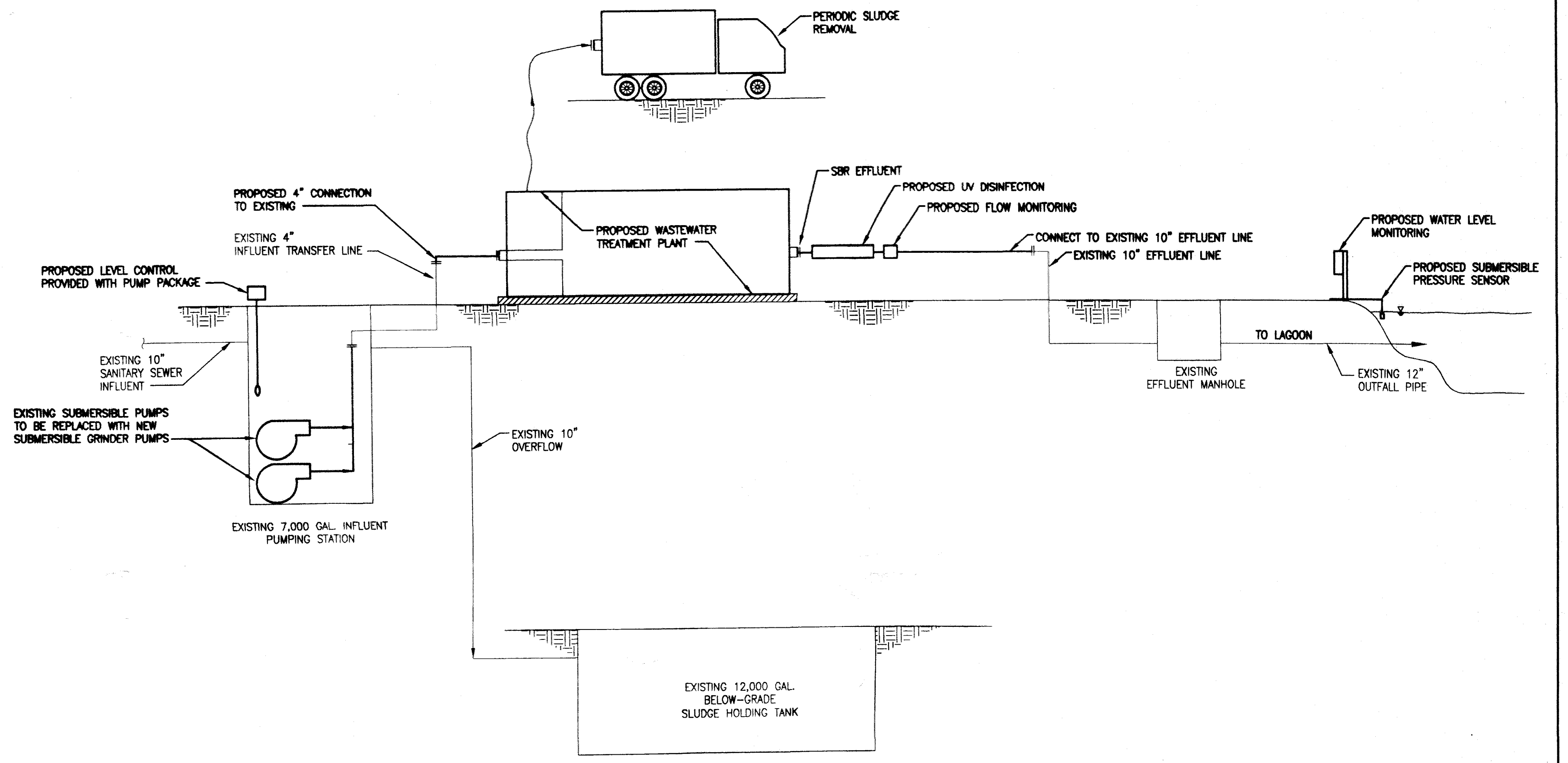
CITY OF BALTIMORE
DEPARTMENT OF RECREATION AND PARKS
FORT SMALLWOOD PARK
WASTEWATER TREATMENT
PLANT REPLACEMENT AND
COLLECTION SYSTEM
IMPROVEMENTS
WASTEWATER TREATMENT
DEMOLITION PLAN AND SECTIONS

AS SHOWN DATE: NOVEMBER 4, 2002
DRAWING: 4 SHEET 4 OF 16

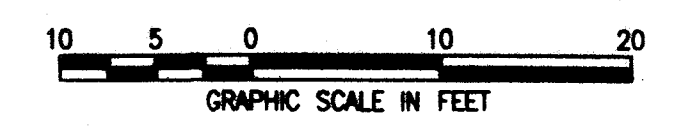
FOR REFERENCE ONLY



YARD PIPING SCHEDULE				
ID	DIAMETER (INCHES)	DESCRIPTION	EXISTING/PROPOSED	PRESSURE/GRAVITY
A	10"	SANITARY SEWER INFLUENT	EXISTING	GRAVITY
B	4"	INFLUENT TRANSFER LINE	EXISTING	PRESSURE
C	4"	INFLUENT TRANSFER LINE	PROPOSED/ABOVE GRADE	PRESSURE
D	10"	OVERFLOW	EXISTING	GRAVITY
E	UNKNOWN	SLUDGE WASTING	ABANDONED	GRAVITY
F	6"	EFFLUENT LINE	PROPOSED/ABOVE GRADE	GRAVITY
G	10"	EFFLUENT LINE	EXISTING	GRAVITY
H	12"	OUTFALL PIPE	EXISTING	GRAVITY



- NOTES:
1. LENGTH OF PVC PROTECTION PIPE TO BE FIELD DETERMINE TO PROVIDE A MIN. OF 6" OF WATER ABOVE PRESSURE SENSOR.
 2. LEVEL MONITOR STATION TO BE FIELD LOCATED, SUBJECT TO ENGINEERS APPROVAL.
 3. CONTRACTOR TO PROVIDE CLEARED AREA MIN. OF 5' AROUND THE LEVEL MONITOR STATION AND ALONG BOTH SIDES OF THE PVC PROTECTION PIPE.
 4. CONTRACTOR TO FIELD SURVEY AS-BUILT LOCATION AND ELEVATION OF PRESSURE SENSOR.



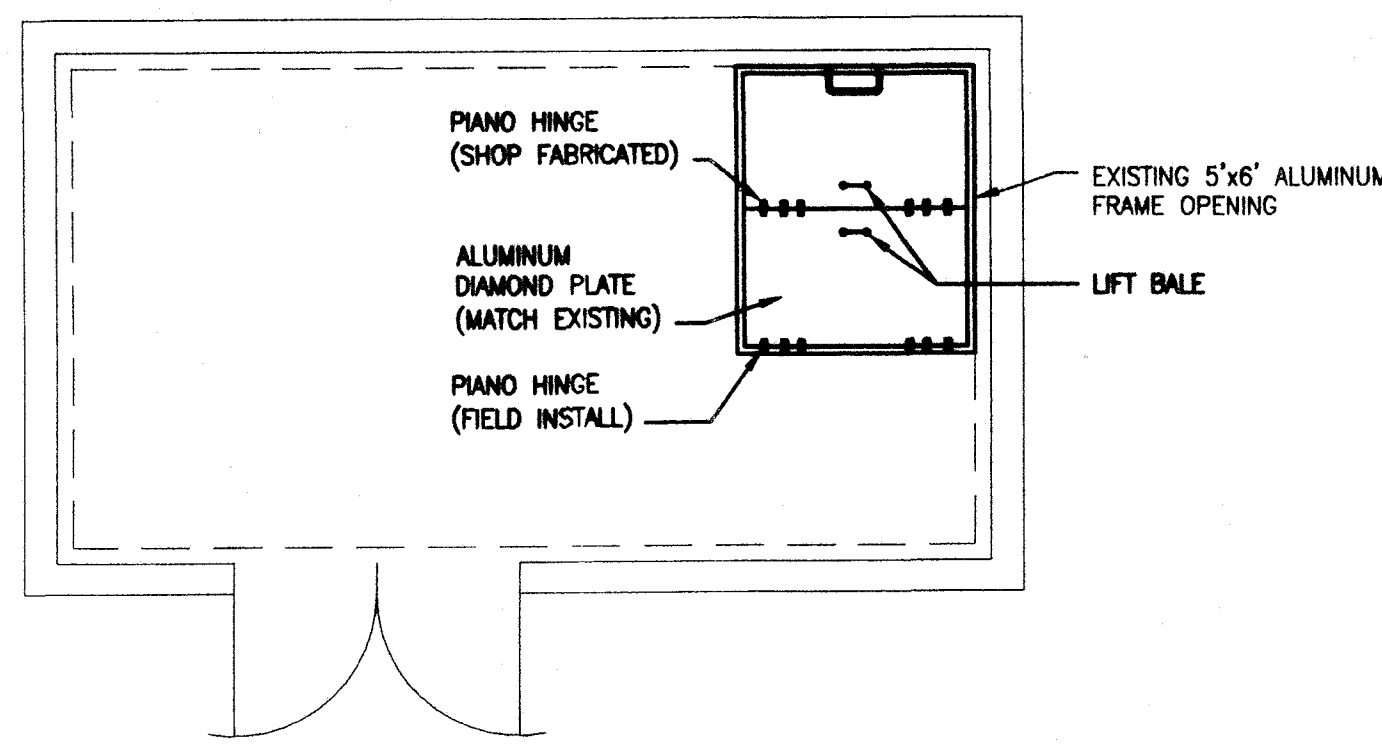
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CITY OF BALTIMORE
DEPARTMENT OF RECREATION AND PARKS
FORT SMALLWOOD PARK
WASTEWATER TREATMENT
PLANT REPLACEMENT AND
COLLECTION SYSTEM
IMPROVEMENTS
WASTEWATER TREATMENT PLANT
SITE PLAN AND PROCESS FLOW DIAGRAM

SCALE: AS SHOWN DATE: NOVEMBER 4, 2002
DRAWING: 5 SHEET 5 OF 16

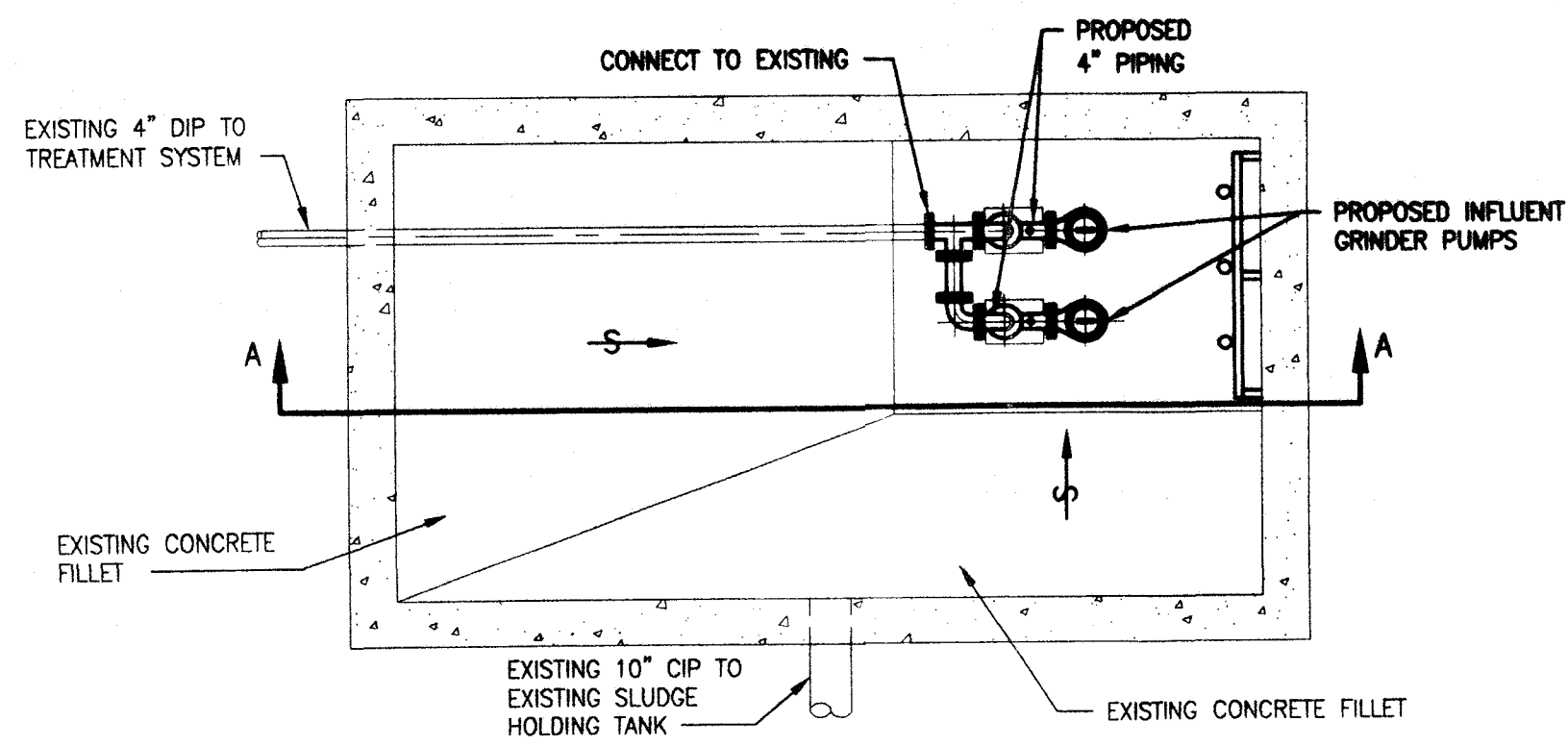
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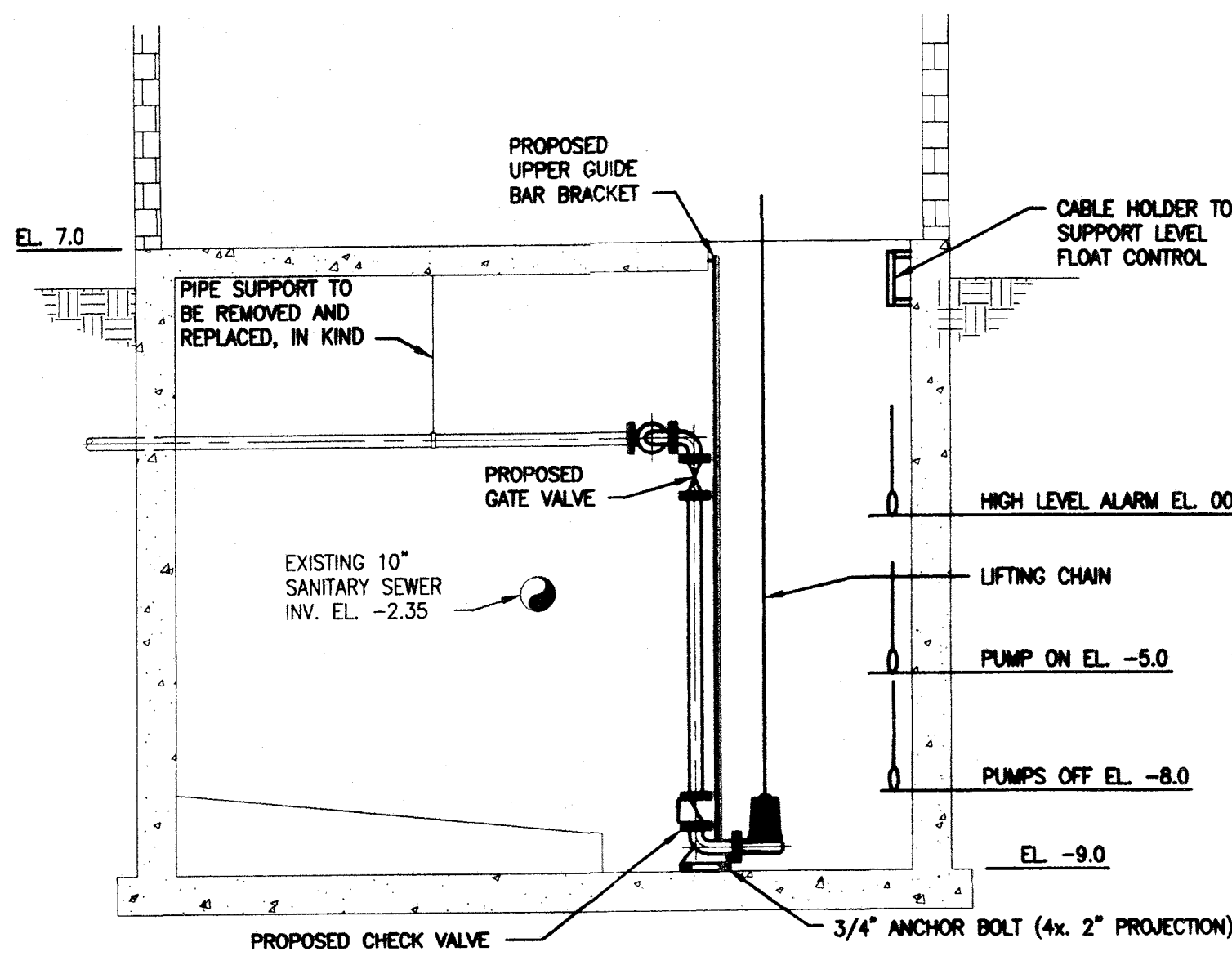
PUMP STATION FLOOR PLAN AND ACCESS DOOR DETAIL
 SCALE 1/4"=1'-0"

NOTE:

1. EXISTING ACCESS DOOR IS NO LONGER FUNCTIONAL. CONTRACTOR TO FABRICATE AND FIELD FIT REPLACEMENT ACCESS DOOR.



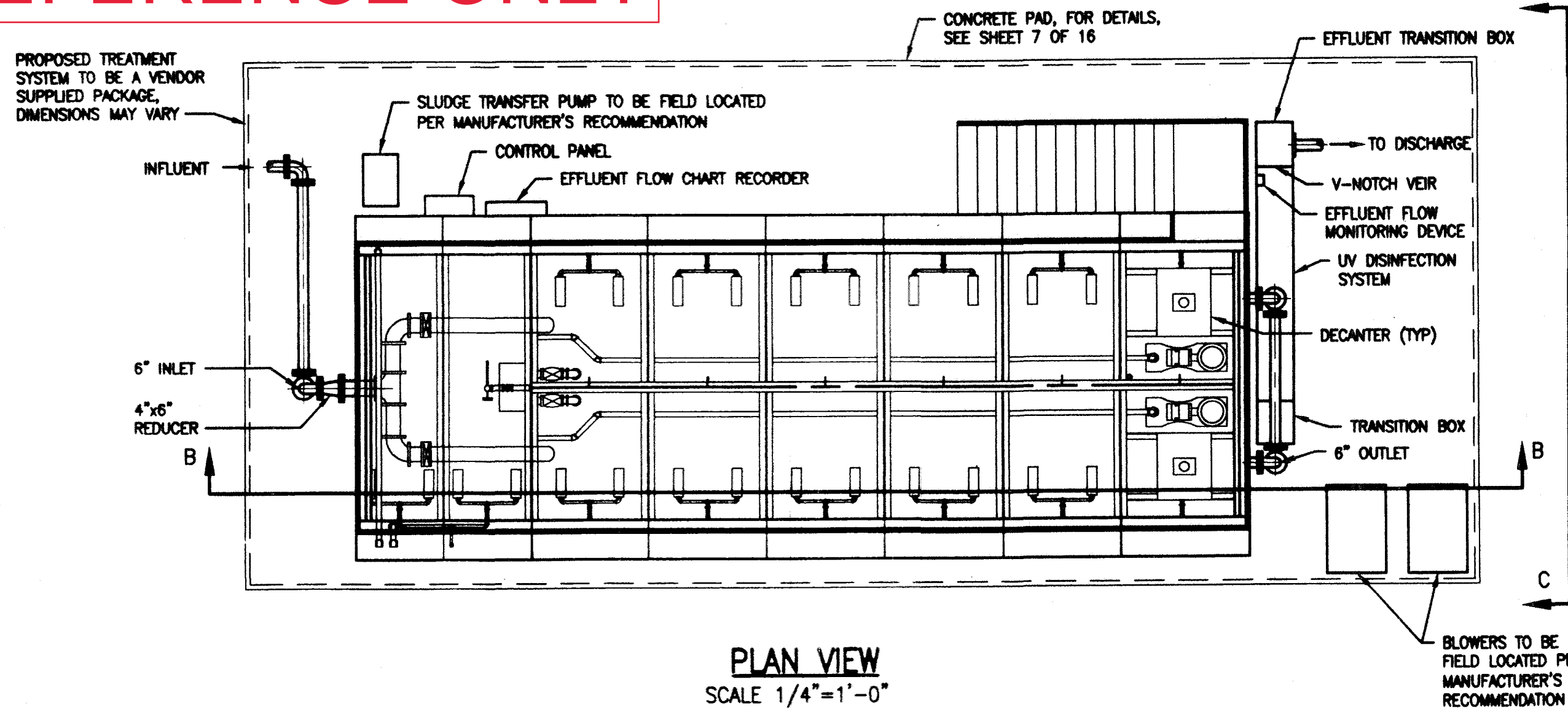
WET WELL PUMP STATION PLAN
 SCALE 1/4"=1'-0"



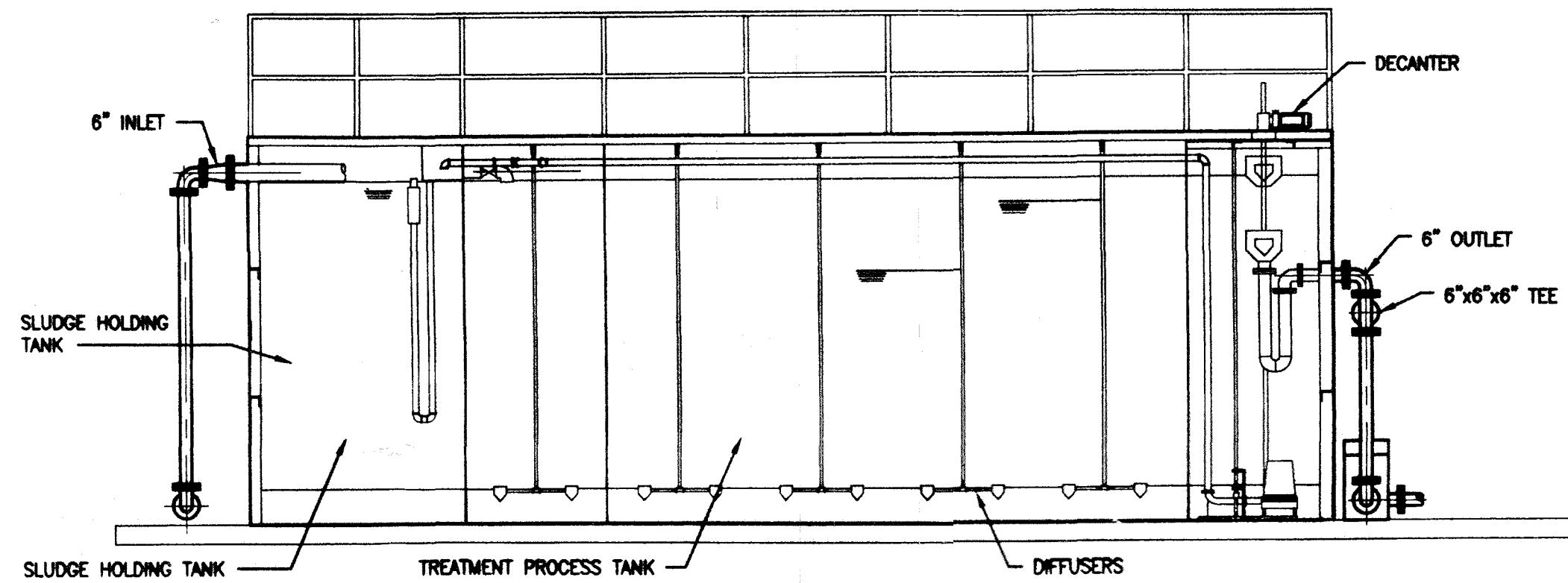
SECTION A-A
 SCALE 1/4"=1'-0"

NOTE:

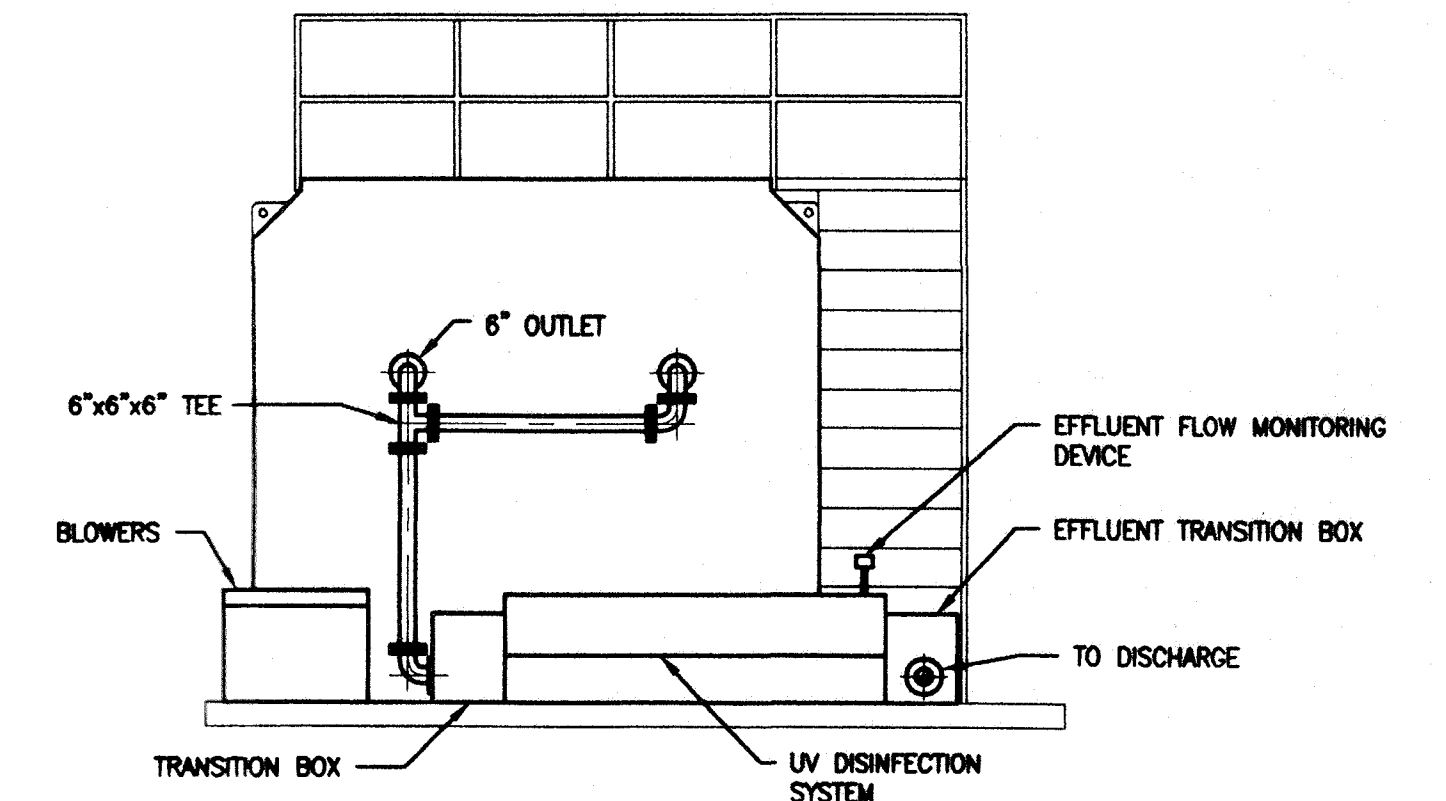
1. SUBMERSIBLE GRINDER PUMPS, GUIDE RAILS, AND LEVEL FLOAT INSTRUMENTATION AND CONTROLS SHALL BE PROVIDED AS A PACKAGE SYSTEM. CONTRACTOR TO INSTALL PER MANUFACTURERS RECOMMENDATIONS.



PLAN VIEW
 SCALE 1/4"=1'-0"



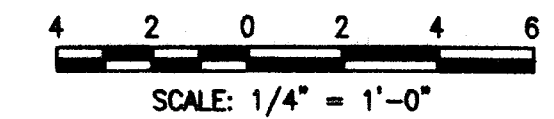
SECTION B-B
 SCALE 1/4"=1'-0"



SECTION C-C
 SCALE 1/4"=1'-0"

NOTE:

1. DEMOLITION AND CLEANING OF WET WELL SHOULD BE PERFORMED PRIOR TO INSTALLATION OF NEW EQUIPMENT. SEE DEMOLITION DETAILS, SHEETS 3 AND 4.
2. CONTRACTOR IS RESPONSIBLE FOR PERFORMING ALL WORK IN ACCORDANCE WITH STATE AND FEDERAL CONFINED SPACE SAFETY REGULATIONS.
3. INFORMATION PRESENTED HEREIN IS INTENDED TO IDENTIFY THE RECOMMENDED LOCATION/CONFIGURATION OF EQUIPMENT, PIPING, VALVES, INSTRUMENTATION, AND APPURTENANCES. THE CONTRACTOR SHALL FIELD VERIFY ALL REQUIRED DIMENSIONS PRIOR TO FABRICATION AND/OR INSTALLATION.
4. THE CONTRACTOR SHALL PROVIDE PROPOSED EQUIPMENT LAYOUT AND PIPING CONFIGURATION DRAWINGS PRIOR TO FABRICATION AND/OR INSTALLATION.
5. PIPING SHALL BE SUPPORTED PER PIPE MANUFACTURERS RECOMMENDATION AND CITY OF BALTIMORE STANDARDS.



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 EXAMINED BY SJR/GAT



CITY OF BALTIMORE
 DEPARTMENT OF RECREATION AND PARKS

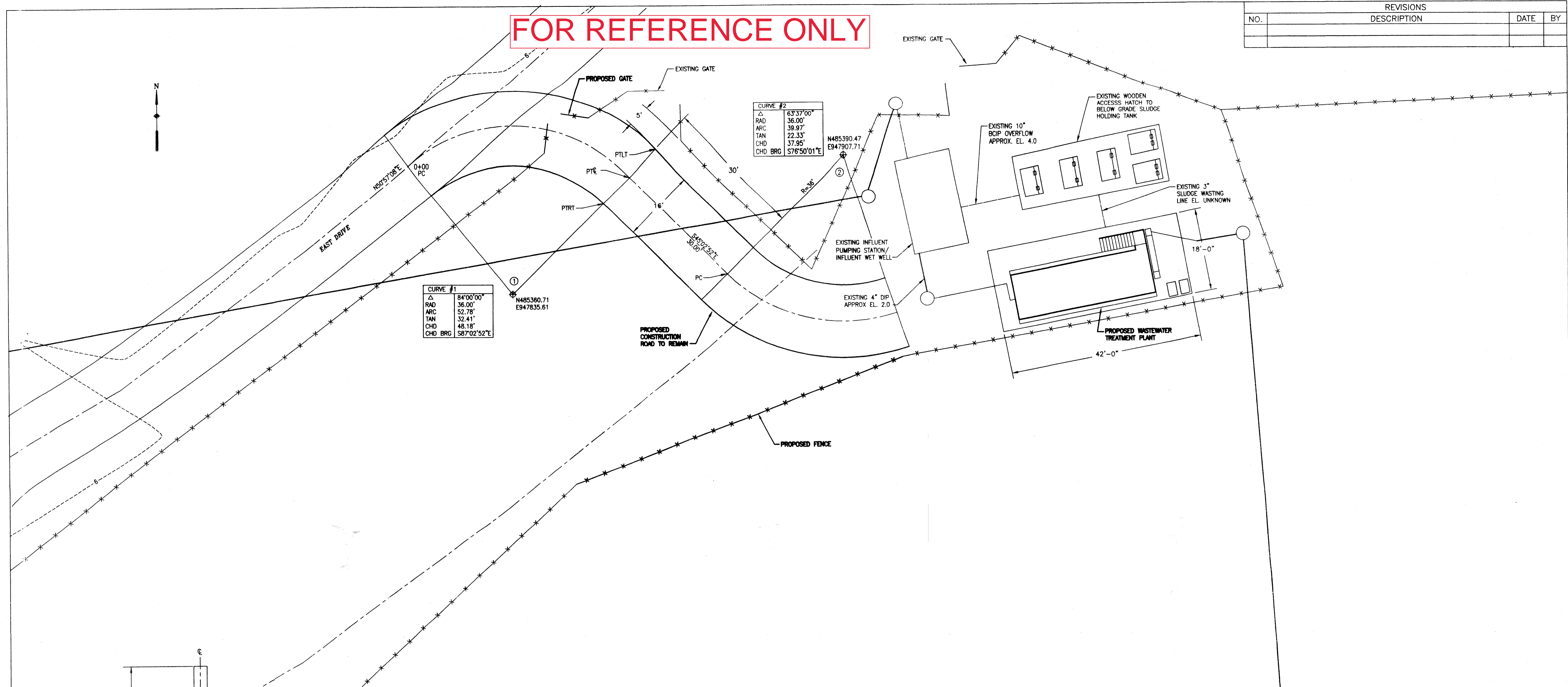
FORT SMALLWOOD PARK
 WASTEWATER TREATMENT
 PLANT REPLACEMENT AND
 COLLECTION SYSTEM
 IMPROVEMENTS

WASTEWATER TREATMENT
 PLANT AND PUMPING STATION
 PLAN AND SECTIONS

SCALE: 1/4"=1'-0" DATE: NOVEMBER 4, 2002
 DRAWING: 6 SHEET 6 OF 16

FOR REFERENCE ONLY

REVISIONS			
NO.	DESCRIPTION	DATE	BY



CURVE #1

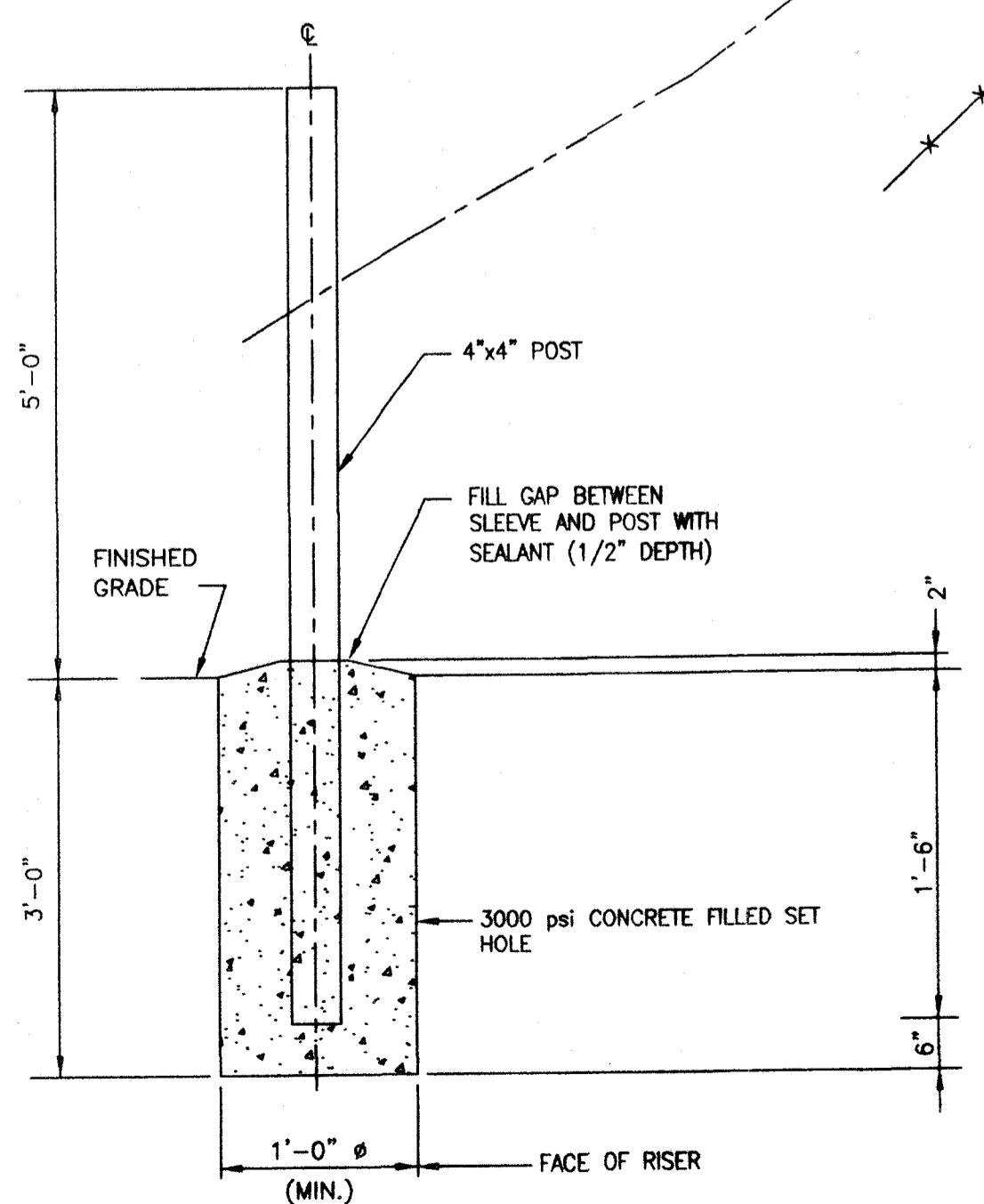
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RAD	36.00'
ARC	52.78'
TAN	32.41'
CHD	48.18'
CHD BRG	S87°02'52"E

N485360.71
E947835.61

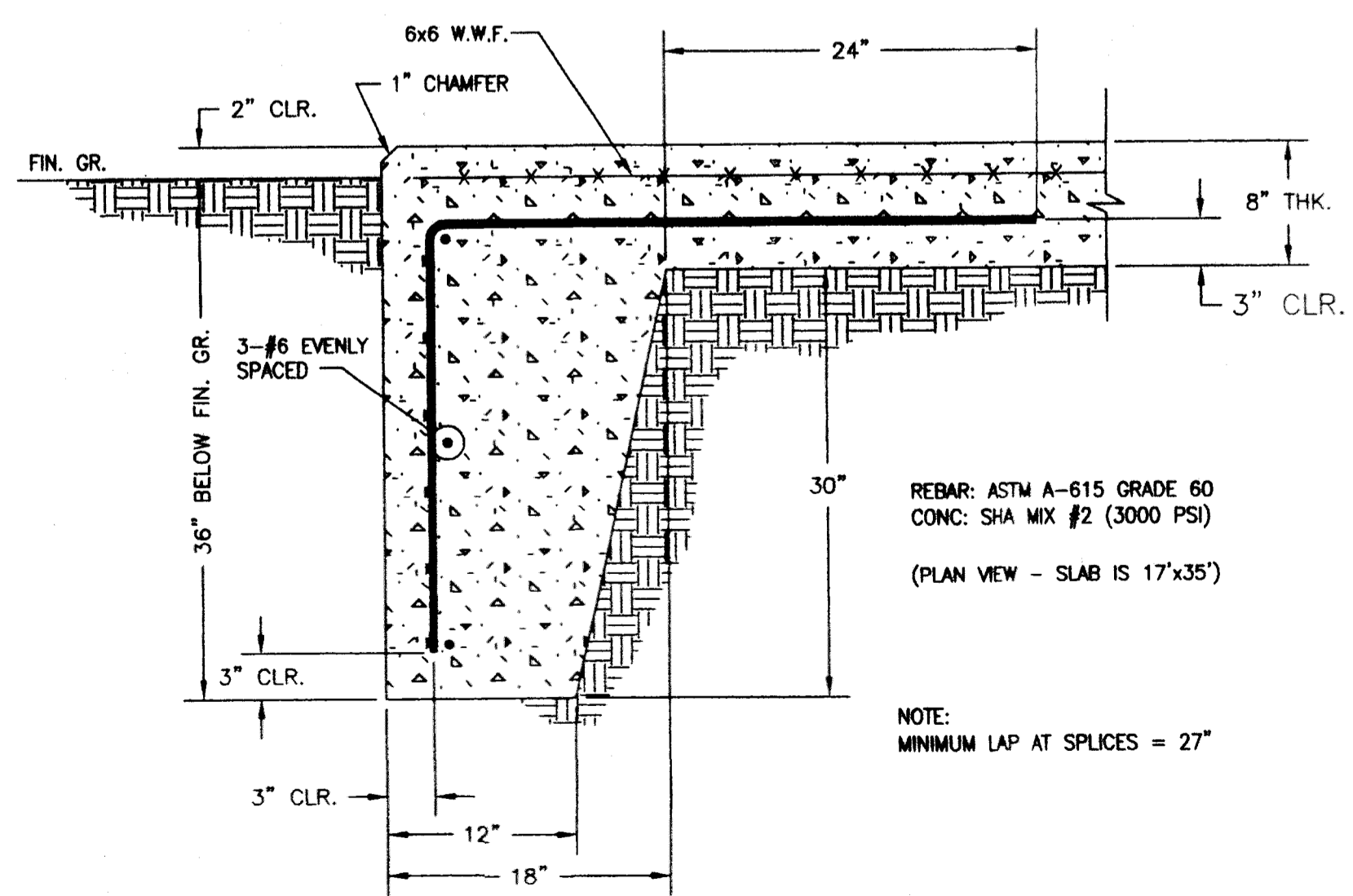
CURVE #2

Δ	63.37'00"
RAD	36.00'
ARC	39.87'
TAN	22.33'
CHD	37.95'
CHD BRG	S76°50'01"E

N485390.47
E947907.71



POST DETAIL
NOT TO SCALE



SLAB DETAIL
NOT TO SCALE

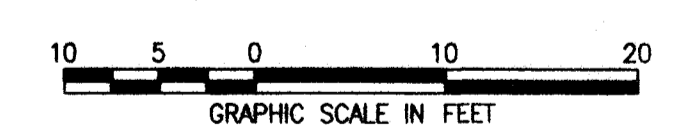
REBAR: ASTM A-615 GRADE 60
CONC: SHA MIX #2 (3000 PSI)
(PLAN VIEW - SLAB IS 17'x35')

NOTE:
MINIMUM LAP AT SPLICES = 27"

- SEQUENCE OF CONSTRUCTION**
1. NOTIFY OWNER, ENGINEER AND SEDIMENT CONTROL INSPECTOR THREE (3) DAYS PRIOR TO START OF CONSTRUCTION.
 2. INSTALL CONTRACTORS TEMPORARY WORK SITE FENCING.
 3. INSTALL ALL SEDIMENT CONTROL STRUCTURES.
 4. INSTALL NEW GATES AND CONSTRUCTION ACCESS ROAD.
 5. PROCEED WITH DEMOLITION IN ACCORDANCE WITH PLAN SHEETS 3 AND 4 OF 16.
 6. INSTALL CONCRETE SLAB AND NEW TREATMENT PLANT.
 7. PERFORM BERM REPAIRS AS SHOWN ON GRADING PLAN, PROFILE, AND CROSS SECTIONS. REPLACE OR REPAIR FENCING ALONG BERM AS NECESSARY TO MAINTAIN SECURITY.
 8. UPON APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, REMOVE ALL TEMPORARY SEDIMENT CONTROL MEASURES AND INSTALL ALL PERMANENT STABILIZATION.

LEGEND

- - - - - APPROXIMATE SHORELINE
- x - x - EXISTING FENCELINE
- - - - - EXISTING WATERLINE
- MANHOLE
- - - - - SANITARY LINE TO BE REHABILITATED
- ℄ ROAD



STATE OF MARYLAND
PROFESSIONAL ENGINEER
GEOFFREY W. TAYLOR
No. 17424

EA ENGINEERING, SCIENCE, AND TECHNOLOGY
CARROLL ENGINEERING, INC.
61 PADONA RD., EAST TIMONUM, MD 21093
(410) 252-6211

CITY OF BALTIMORE
DEPARTMENT OF RECREATION AND PARKS

**FORT SMALLWOOD PARK
WASTEWATER TREATMENT PLANT
REPLACEMENT AND COLLECTION
SYSTEM IMPROVEMENTS**

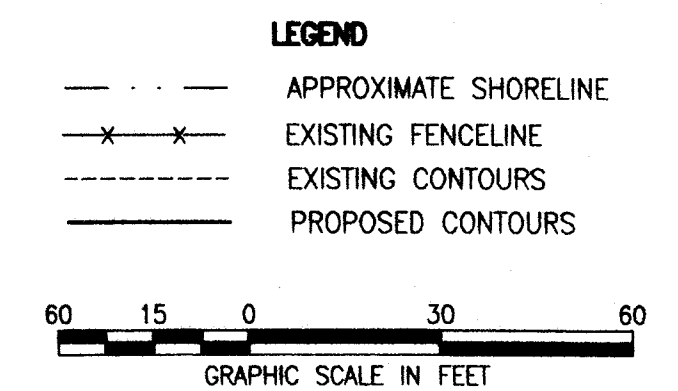
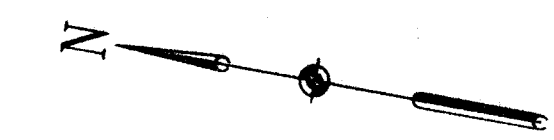
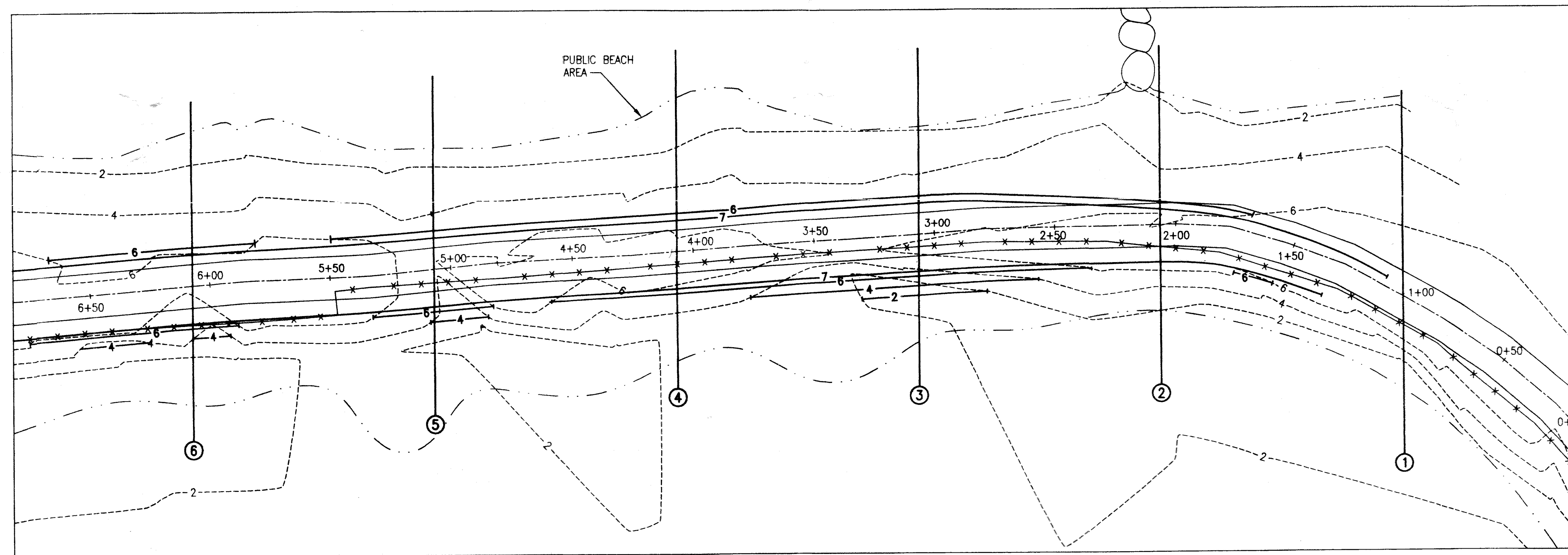
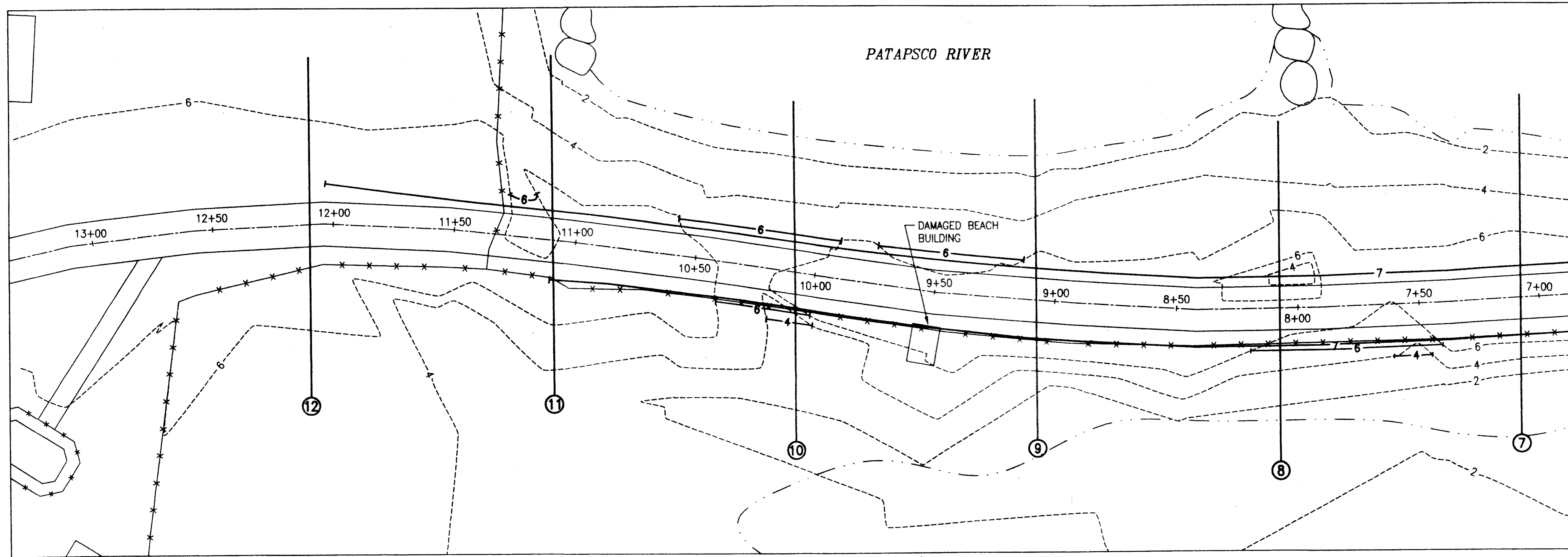
PARTIAL SITE PLAN AND DETAILS

SCALE: 1"=10'
DATE: NOV. 4, 2002
DRAWING: SHEET 7 OF 16

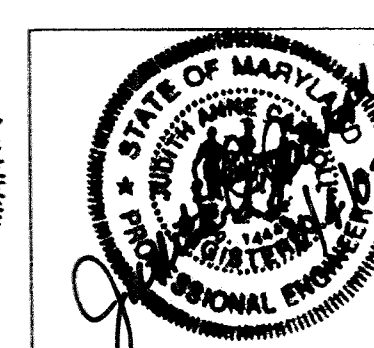
DRAWN BY DWM
EXAMINED BY DEB

FOR REFERENCE ONLY

REVISIONS			
NO.	DESCRIPTION	DATE	BY



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 TIMONUM, MD 21093
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CITY OF BALTIMORE
 DEPARTMENT OF RECREATION AND PARKS

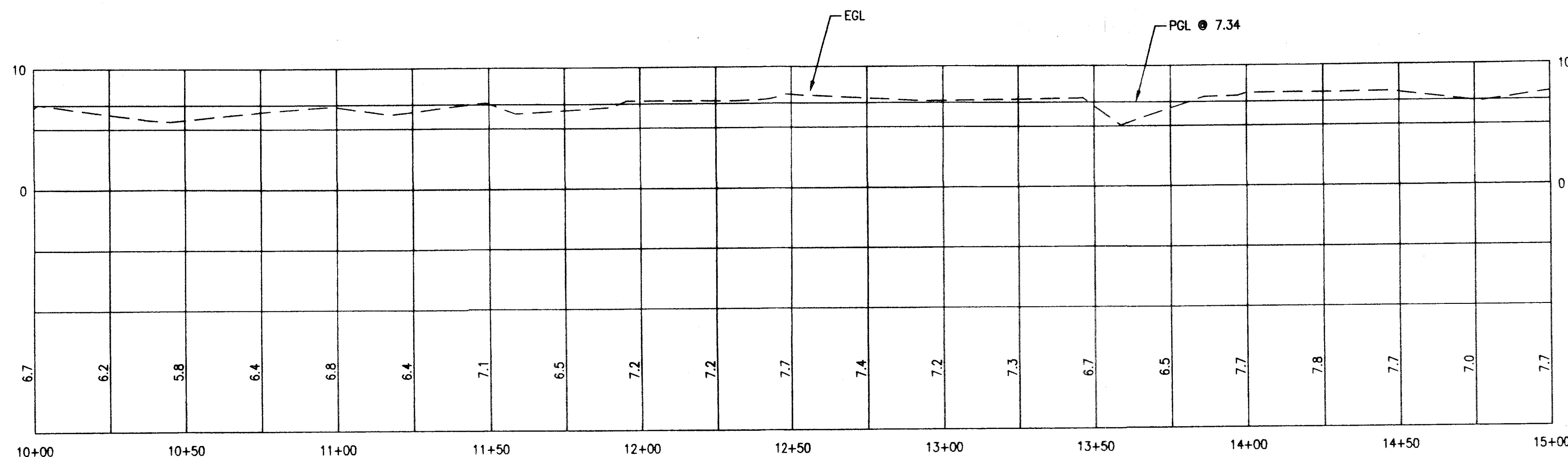
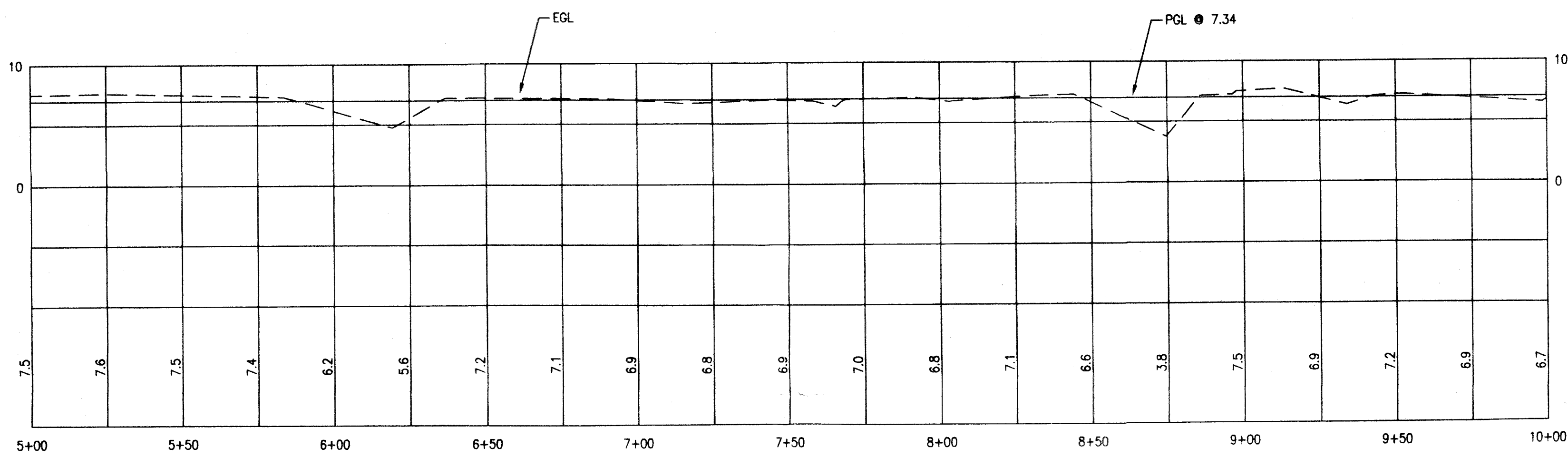
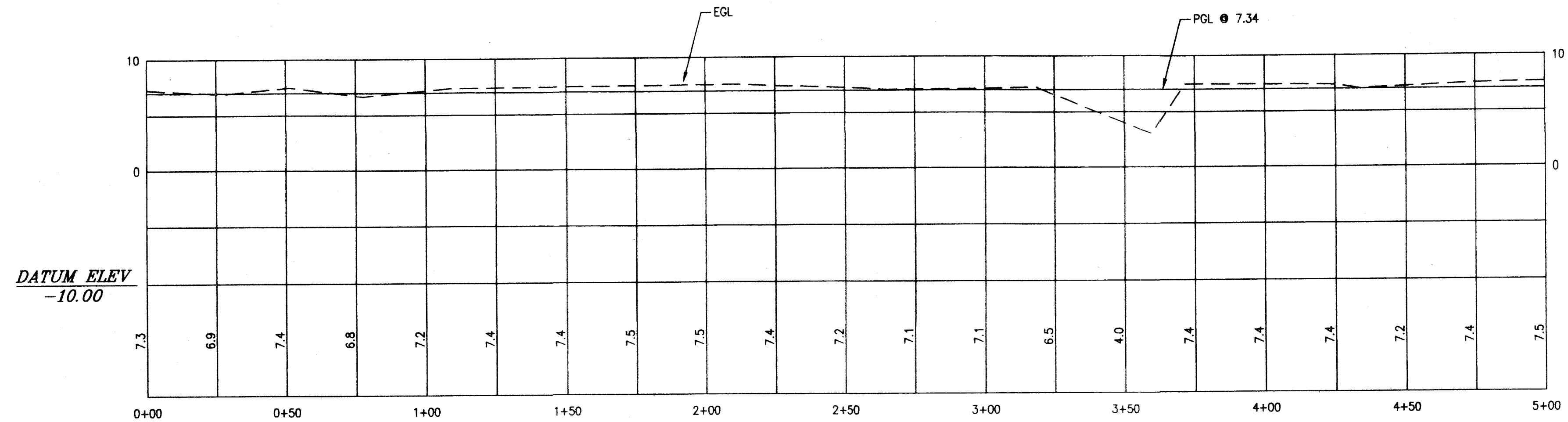
**FORT SMALLWOOD PARK
 WASTEWATER TREATMENT PLANT
 REPLACEMENT AND COLLECTION
 SYSTEM IMPROVEMENTS**

BERM IMPROVEMENT GRADING PLAN

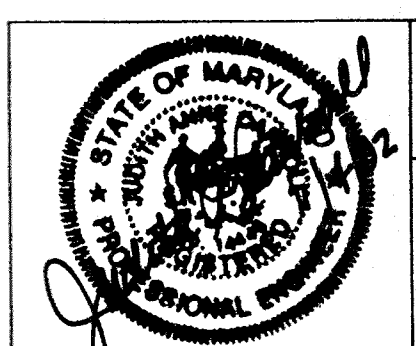
SCALE: 1"=30'
 DRAWING: SHEET 8 OF 16
 DATE: NOV. 4, 2002

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CITY OF BALTIMORE
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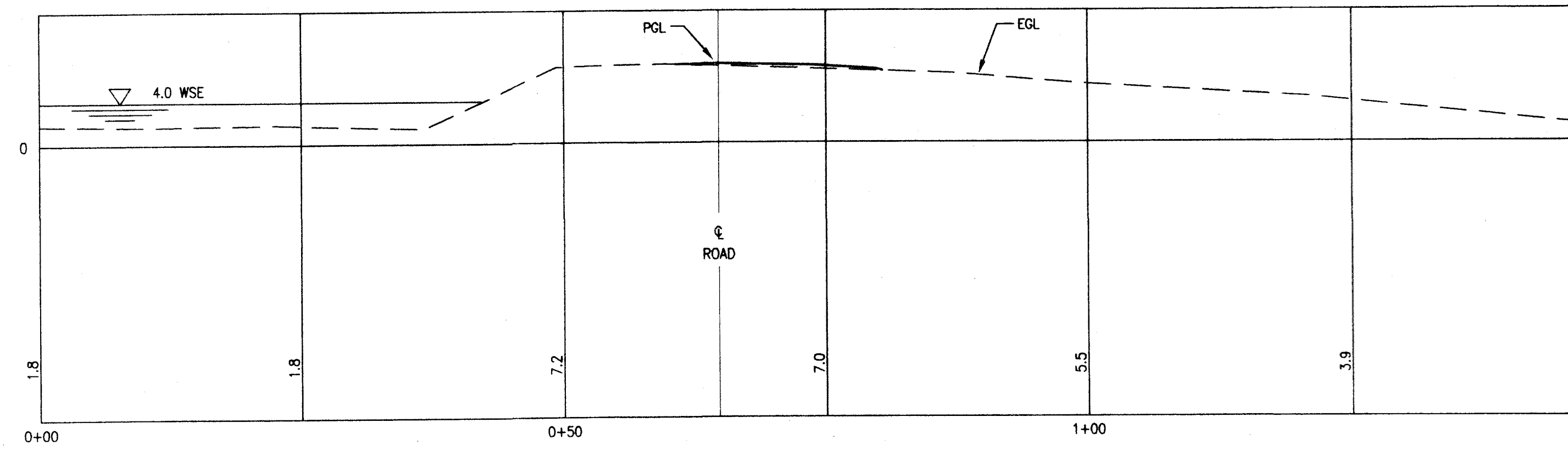
FORT SMALLWOOD PARK
 WASTEWATER TREATMENT PLANT
 REPLACEMENT AND COLLECTION
 SYSTEM IMPROVEMENTS

BERM IMPROVEMENT PROFILES

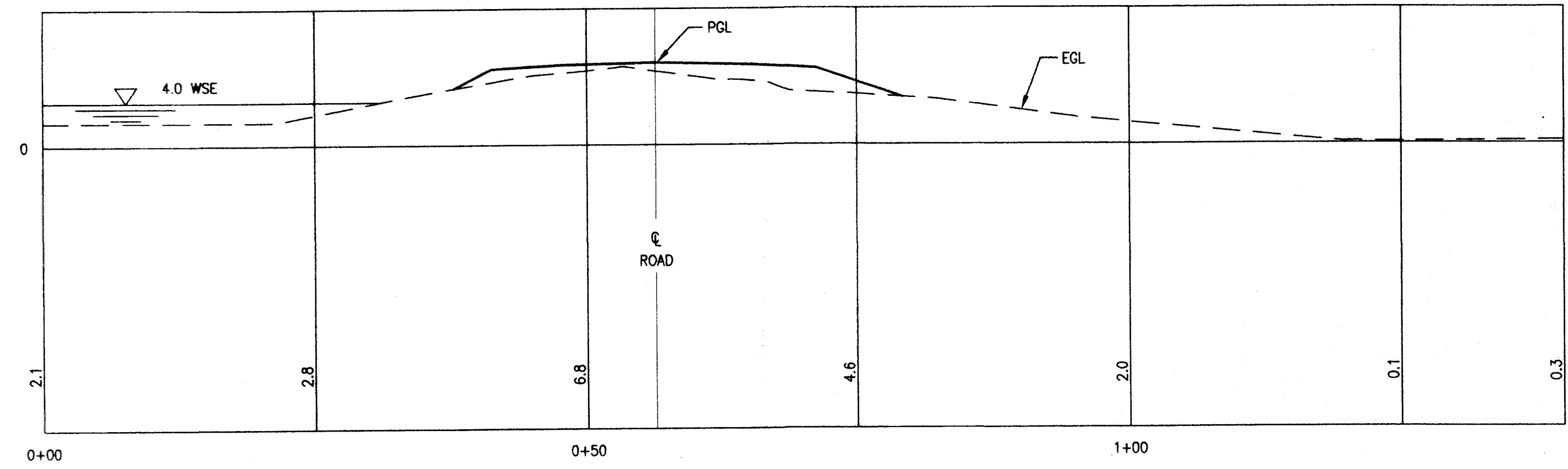
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 DRAWING: SHEET 9 OF 16

FOR REFERENCE ONLY

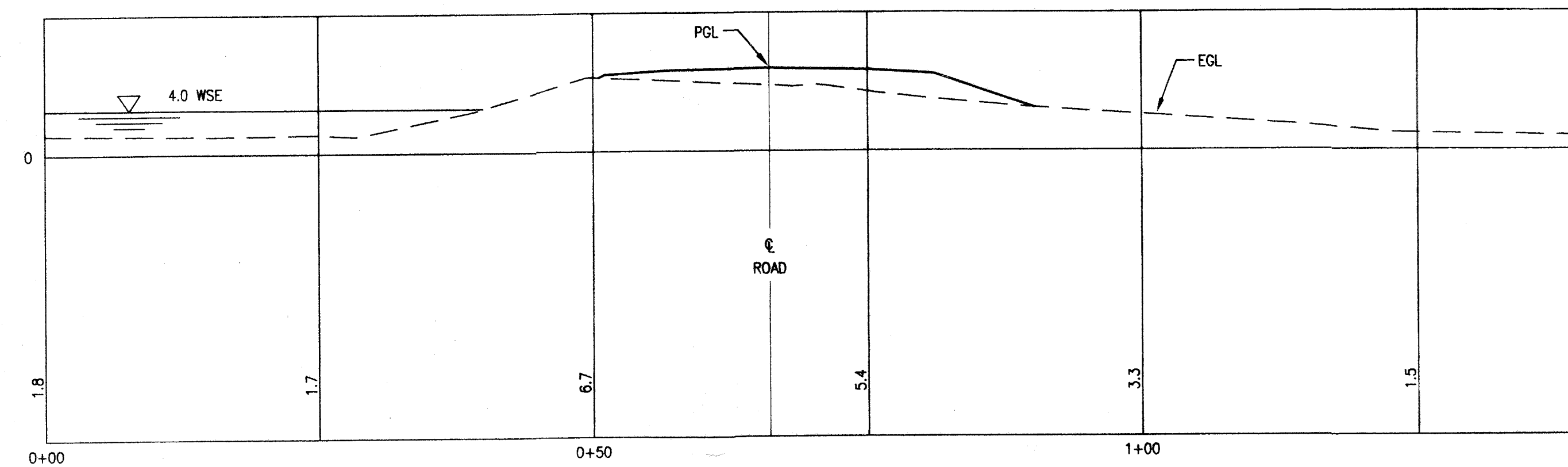
REVISIONS			
NO.	DESCRIPTION	DATE	BY



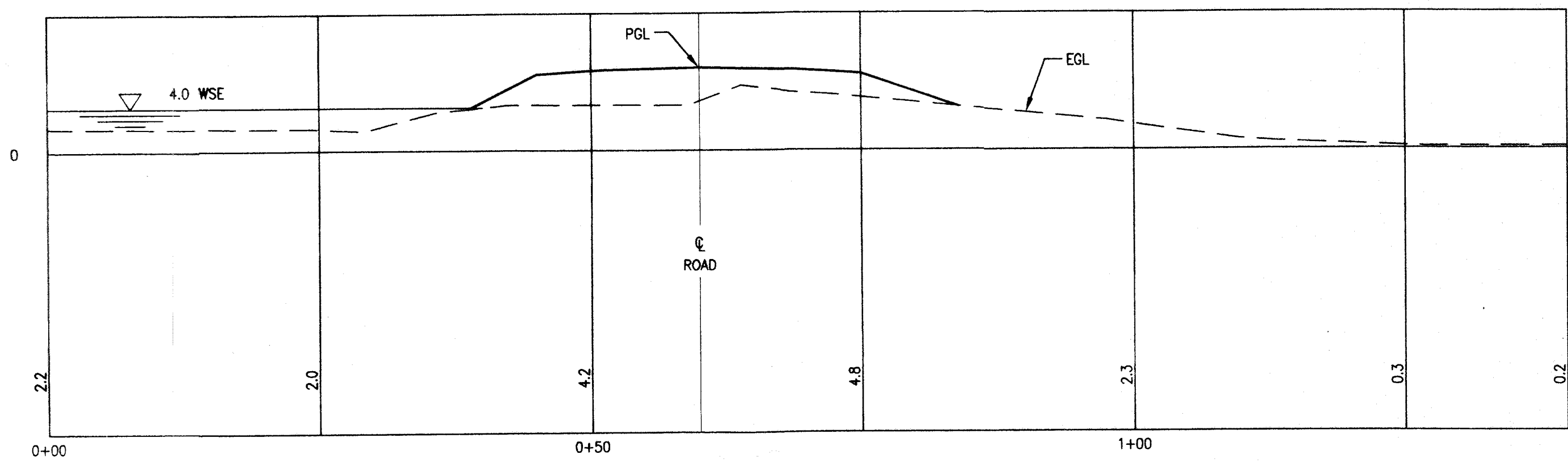
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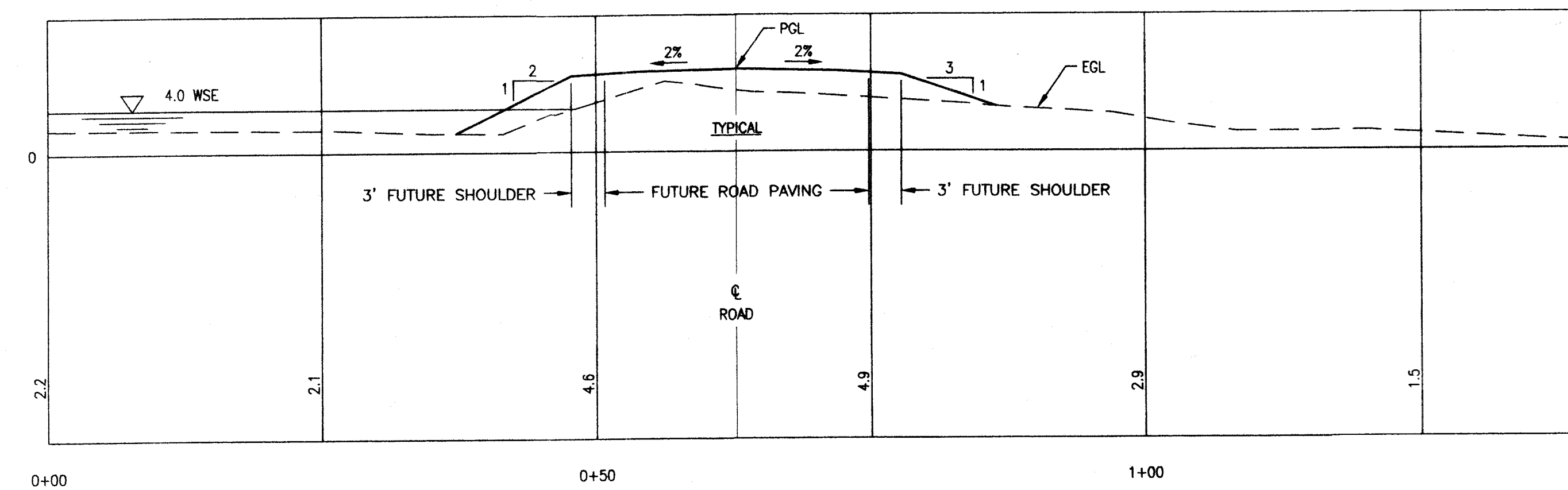
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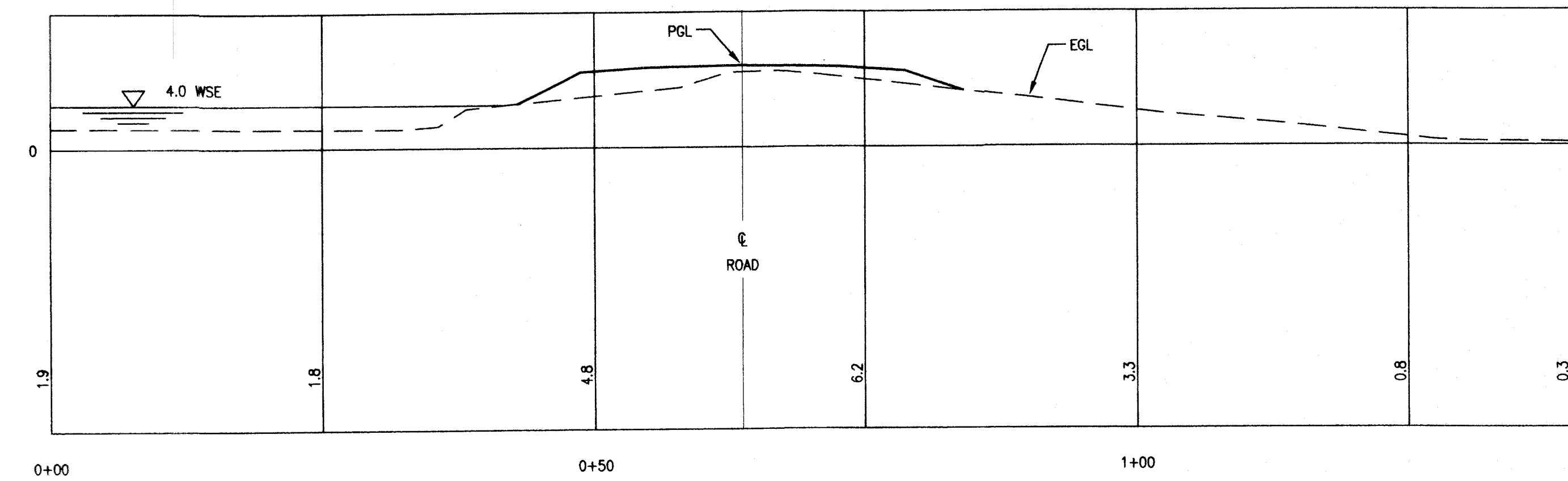
SECTION 2



SECTION 5

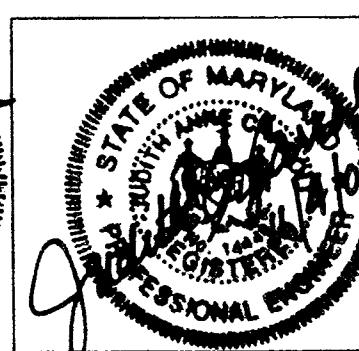


SECTION 3



SECTION 6

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DEPARTMENT OF RECREATION AND PARKS

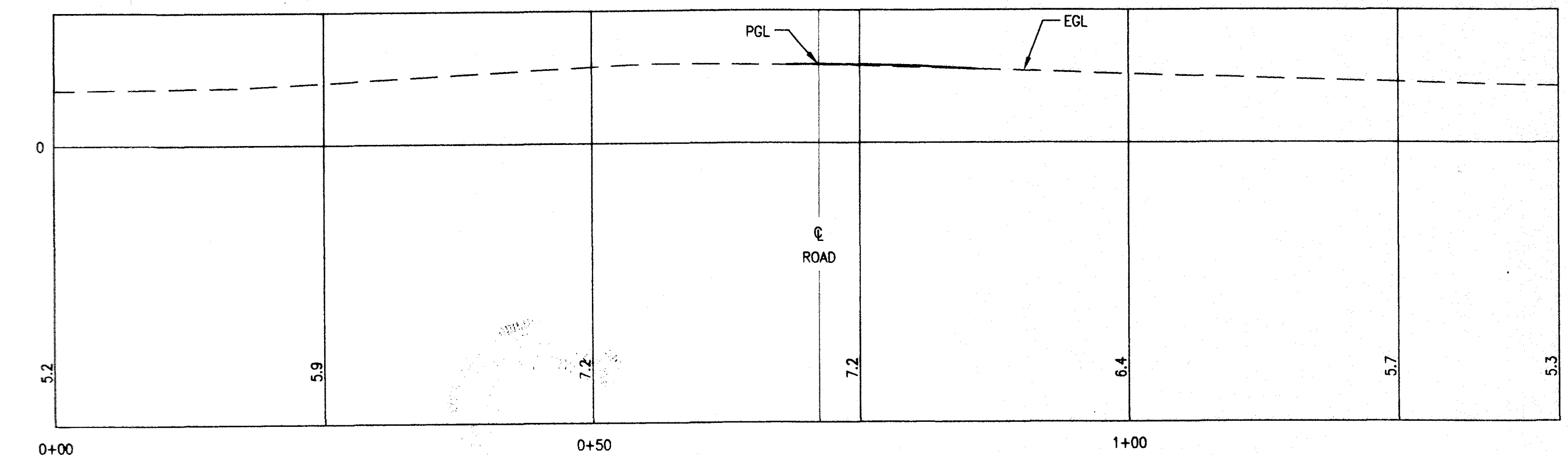
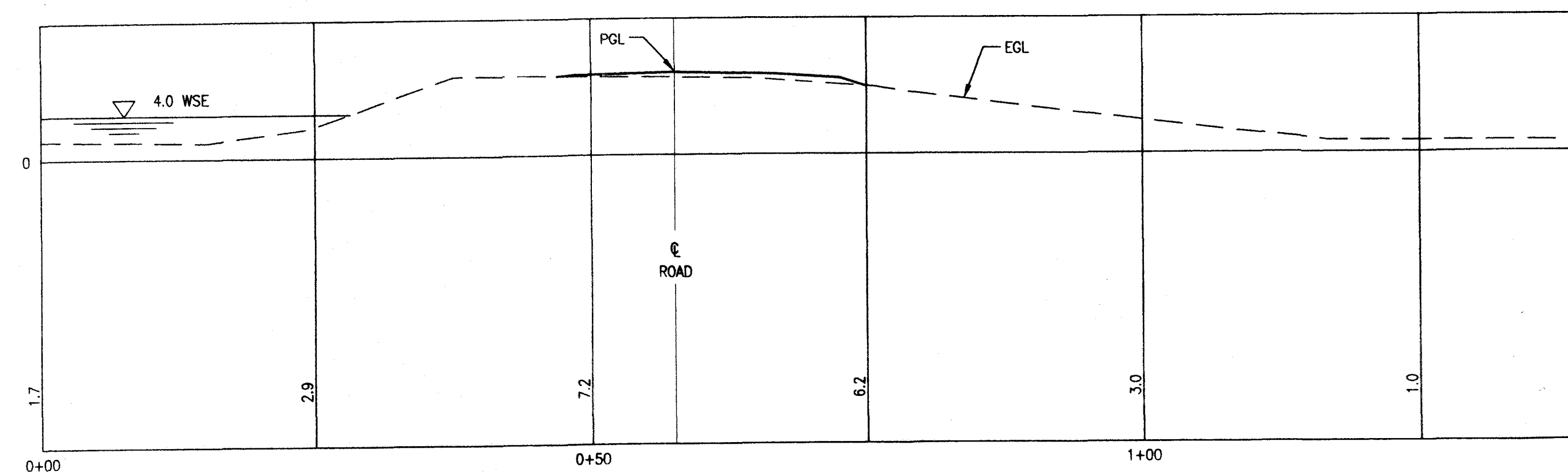
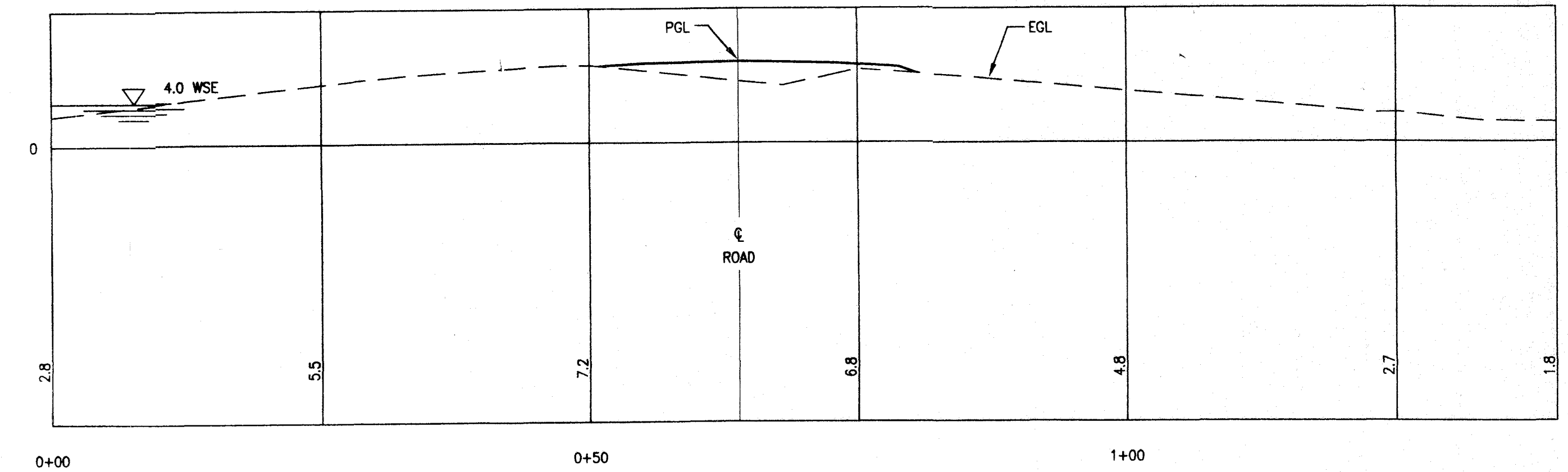
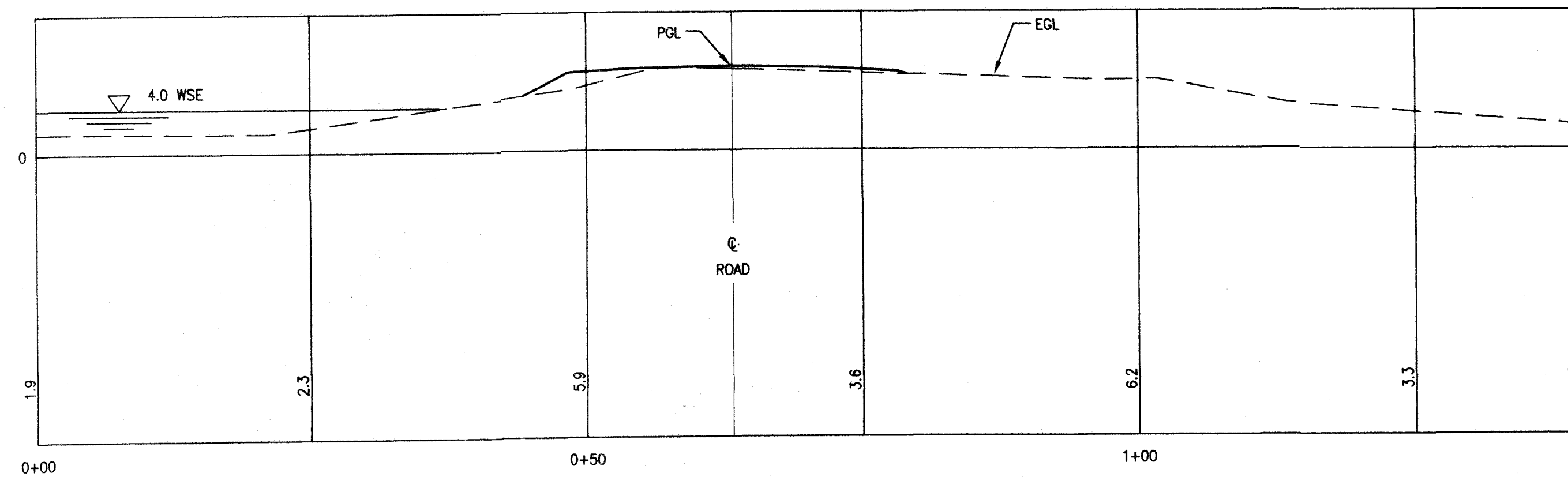
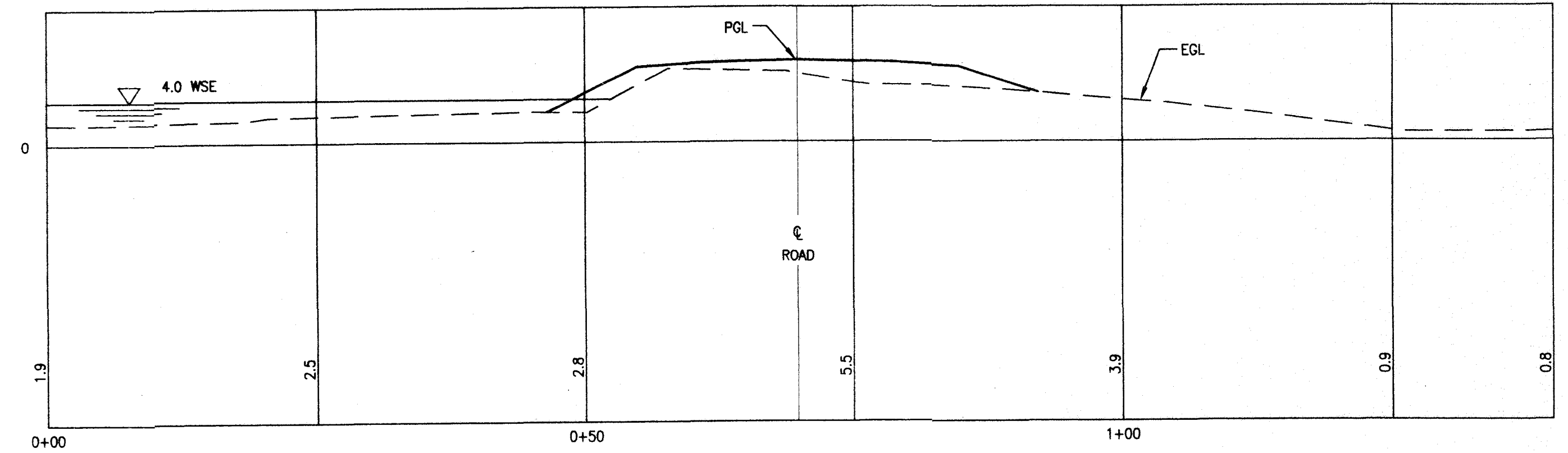
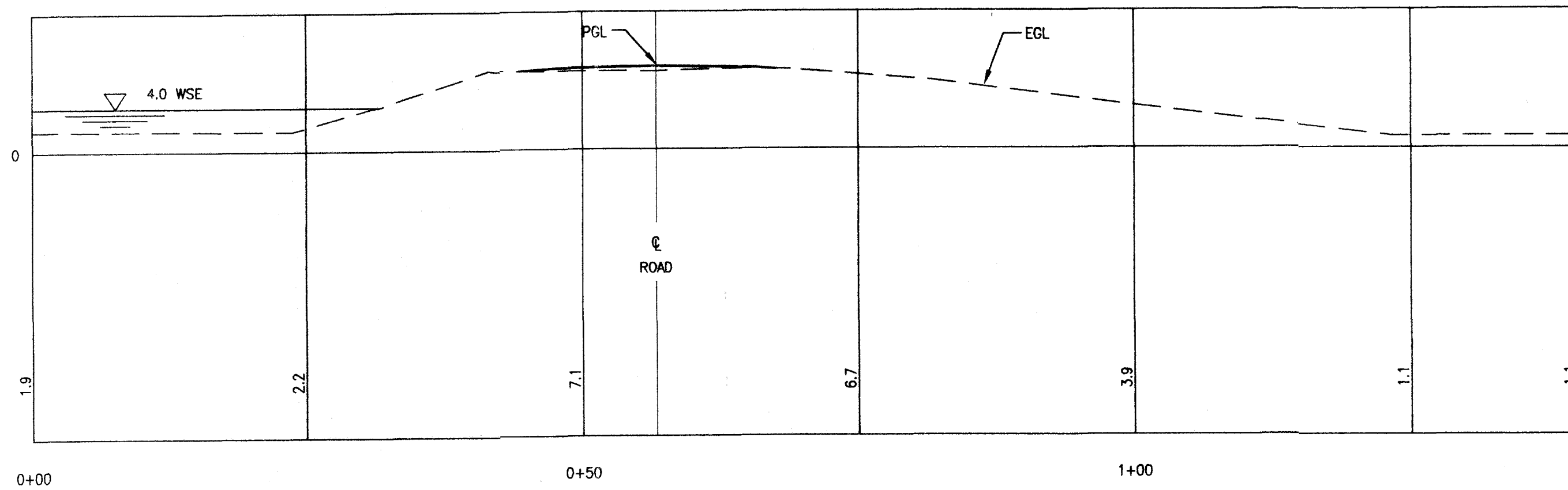
FORT SMALLWOOD PARK
WASTEWATER TREATMENT PLANT
REPLACEMENT AND COLLECTION
SYSTEM IMPROVEMENTS

BERM IMPROVEMENT SECTIONS

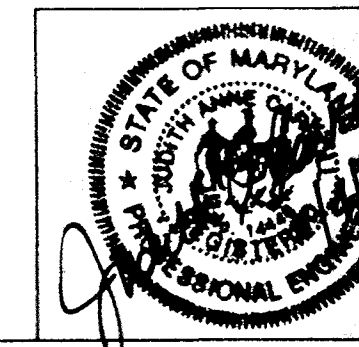
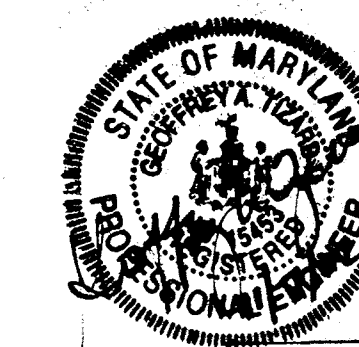
SCALE: 1"=10'
DRAWING: SHEET 10 OF 16
DATE: NOV. 4, 2002

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EA EA ENGINEERING, SCIENCE, AND TECHNOLOGY



CARROLL ENGINEERING, INC.
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 TIMONUM, MD 21083
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CITY OF BALTIMORE
 DEPARTMENT OF RECREATION AND PARKS

FORT SMALLWOOD PARK
 WASTEWATER TREATMENT PLANT
 REPLACEMENT AND COLLECTION
 SYSTEM IMPROVEMENTS

BERM IMPROVEMENT SECTIONS

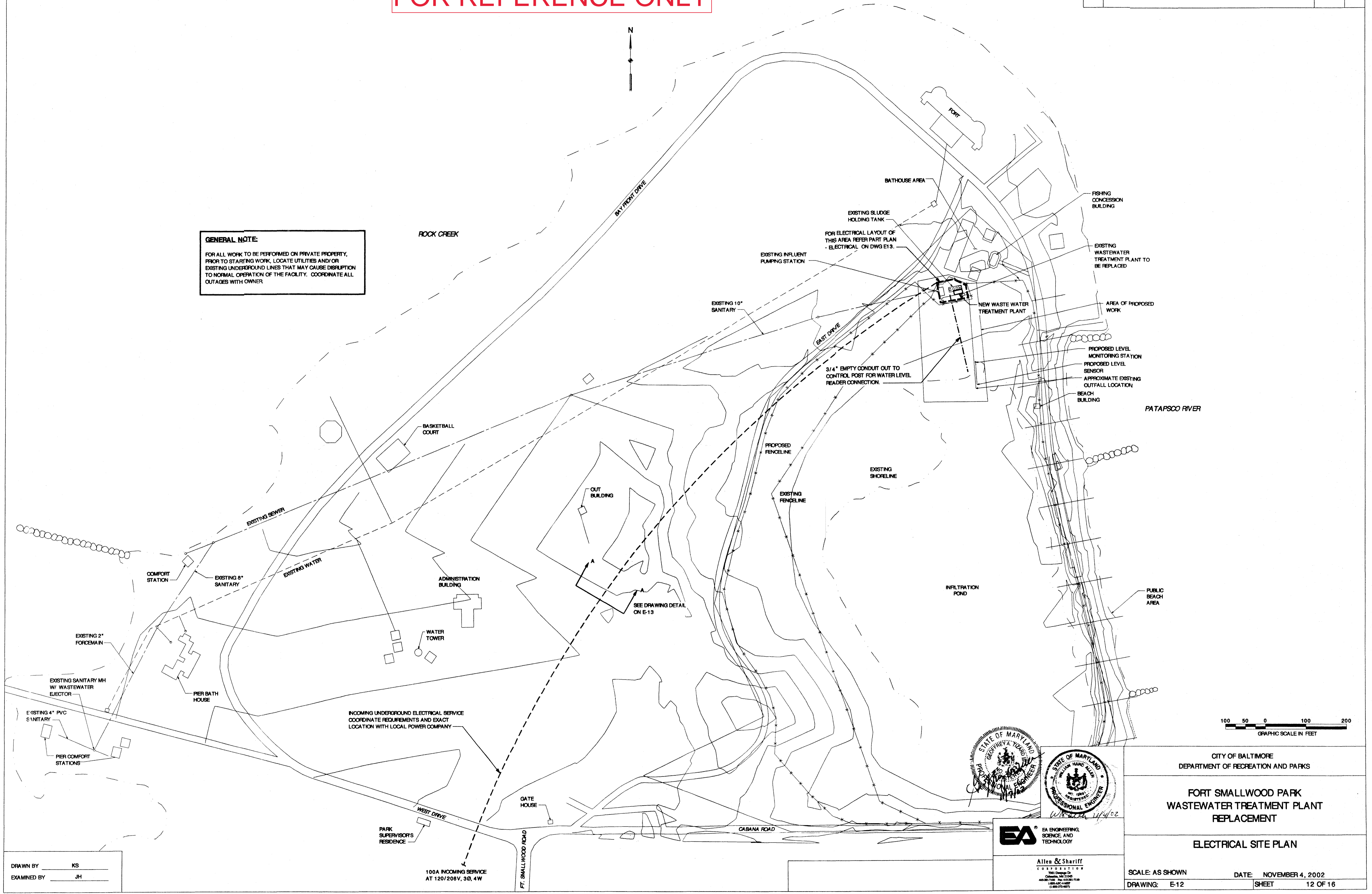
SCALE: 1"=10'
 DRAWING: _____

DATE: NOV. 4, 2002
 SHEET 11 OF 16

FOR REFERENCE ONLY

REVISIONS			
NO.	DESCRIPTION	DATE	BY

GENERAL NOTE:
 FOR ALL WORK TO BE PERFORMED ON PRIVATE PROPERTY, PRIOR TO STARTING WORK, LOCATE UTILITIES AND/OR EXISTING UNDERGROUND LINES THAT MAY CAUSE DISRUPTION TO NORMAL OPERATION OF THE FACILITY. COORDINATE ALL OUTAGES WITH OWNER.



DRAWN BY KS
 EXAMINED BY JH



EA ENGINEERING, SCIENCE, AND TECHNOLOGY
 Allen & Shariff CORPORATION
 7041 Orange Dr.
 Columbia, Md 21046
 410-321-1100 Fax: 410-321-1110
 114402-02

CITY OF BALTIMORE
 DEPARTMENT OF RECREATION AND PARKS

**FORT SMALLWOOD PARK
 WASTEWATER TREATMENT PLANT
 REPLACEMENT**

ELECTRICAL SITE PLAN

SCALE: AS SHOWN DATE: NOVEMBER 4, 2002
 DRAWING: E-12 SHEET: 12 OF 16

REVISIONS			
NO.	DESCRIPTION	DATE	BY

FOR REFERENCE ONLY

ELECTRICAL NOTES :
GENERAL ELECTRICAL MATERIALS AND METHODS

PART 1 - GENERAL

1.01 SCOPE OF WORK: FURNISH ALL LABOR, TOOLS, MATERIALS INCLUDING ALL SPECIALTIES AND APPURTENANCES FOR THE INSTALLATION OF THE COMPLETELY TESTED AND OPERATING ELECTRICAL SYSTEM INDICATED HEREIN AND ON THE CONTRACT DRAWINGS. COMPLETE ELECTRICAL SYSTEMS INCLUDING BUT NOT LIMITED TO THE FOLLOWING:

1. POWER DISTRIBUTION SYSTEM
 2. CONNECTIONS TO EQUIPMENT FROM OTHER SECTIONS OF THE SPECIFICATION.
- NOTE:
REFER TO BALTIMORE CITY STANDARD SPECIFICATIONS.

1.02 WORK PERFORMED AND MATERIAL PROVIDED SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NEC) AND ALL APPLICABLE LOCAL CODES. WORK CODES SHALL BE EXECUTED IN ACCORDANCE WITH ALL APPLICABLE CODES, ORDINANCES, RULES AND REGULATIONS OF LOCAL AND STATE AGENCIES HAVING JURISDICTION OVER THIS WORK. SUCH CODES SHALL TAKE PRECEDENCE OVER THE DRAWINGS. OBTAIN ALL NECESSARY PERMITS AND INSPECTIONS. PAY REQUIRED FEES.

1.03 ELECTRIC SERVICE SHALL COMPLY WITH NEC, LOCAL CODES, AND LOCAL UTILITY REQUIREMENTS. PROVIDE ALL REQUIRED EQUIPMENT AND CONNECTIONS FOR A FULLY FUNCTIONAL SYSTEM. UPGRADE ELECTRICAL SERVICE TO 3Ø, 100AMP, 208/120 VOLT.

1.04 SUBMIT FOR NUMBER OF COPIES AS DEFINED BY THE CITY'S SUBMITTAL PROCESS COPIES OF MANUFACTURER'S CATALOG LITERATURE OF MAJOR COMPONENTS CONTAINED IN THE ELECTRICAL WORK INCLUDING:

A. POWER DISTRIBUTION EQUIPMENT : PANELBOARDS, CIRCUIT BREAKERS, SAFETY SWITCHES

ALL MATERIALS SHALL BE NEW, BEST OF THEIR KIND, FREE FROM DEFECTS AND LISTED BY THE UNDERWRITERS LABORATORIES, INC. BEFORE ORDERING MATERIALS OR EQUIPMENT. SUBMIT ENGINEERING DATA FOR MATERIAL AND EQUIPMENT PROPOSED FOR USE. CHECK EQUIPMENT DIMENSIONS FOR ADEQUATE SPACE ALLOTMENT ON PROJECT. NO SUBSTITUTION WILL BE ALLOWED WITHOUT WRITTEN PERMISSION FROM THE ENGINEER OR THE OWNER'S REPRESENTATIVE.

1.05 ELECTRICAL DRAWINGS ARE CONSIDERED DIAGRAMMATIC AND INDICATE MAJOR COMPONENT, GENERAL LOCATION OF WORK AND SYSTEM. PROVIDE ALL REQUIRED EQUIPMENT FOR FULLY OPERATIONAL SYSTEMS. COORDINATE WITH THE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS, AND BE FAMILIAR WITH ALL CONDITIONS, NEW AND EXISTING WHICH AFFECT THE WORK. VERIFY AND FIELD CHECK ALL DIMENSIONS AND CONDITIONS PRIOR TO START OF ANY WORK AND REVIEW THE DRAWINGS FOR ANY CONDITIONS WHICH AFFECT WORK. EQUIPMENT LOCATIONS ARE APPROXIMATE AND SHALL BE FIELD VERIFIED.

1.06 ALL WORK SHALL BE INSTALLED IN A NEAT AND GOOD WORKMANSHIP MANNER. GUARANTEE WORK AND WORKMANSHIP FOR A PERIOD OF TWO (2) YEARS, BEGINNING FROM THE DAY OF FINAL ACCEPTANCE OF THE WORK OR BENEFICIAL OCCUPANCY BY THE OWNER, WHICHEVER OCCURS FIRST. GUARANTEE WORK SHALL BE PERFORMED PROMPTLY AND AT NO ADDITIONAL COST TO THE OWNER. GUARANTEE SHALL APPLY TO ALL MATERIALS, EQUIPMENT, AND SERVICES.

PART 2 - PRODUCTS

2.01 GENERAL : THE PRODUCT MANUFACTURERS AND COMPONENT MODEL NUMBERS IN THE FOLLOWING PARAGRAPHS ARE GIVEN TO ESTABLISH A LEVEL OF QUALITY AND PERFORMANCE AND THEY ARE NOT INTENDED TO EXCLUDE EQUIVALENT PRODUCTS OF ALTERNATE MANUFACTURERS. ALTERNATE MANUFACTURERS OF EQUIVALENT PRODUCTS WILL BE CONSIDERED UPON SUBMISSION AND APPROVAL BY ARCHITECT AND ENGINEER.

2.02 CONDUIT SHALL BE EMT IN DRY INTERIOR SPACES. USE LIQUID TIGHT FLEXIBLE METAL CONDUIT FOR FINAL CONNECTIONS TO EXTERIOR EQUIPMENT. MINIMUM CONDUIT SIZE SHALL BE 3/4".

2.03 CIRCUIT BREAKERS SHALL BE MOLDED CASE, THERMAL MAGNETIC, QUICK-MAKE, QUICK-BREAK, BOLT-ON TYPE. CIRCUIT BREAKER SHALL BE RATED AT FAULT CURRENT (AIC) RATING OF PANEL.

2.04 CABLE

- A. CONDUCTORS SHALL BE COPPER THIN OR THIN 600 VOLT INSULATION.
- B. CONDUCTORS #10 AND SMALLER SHALL BE SOLID, LARGER SHALL BE STRANDED.

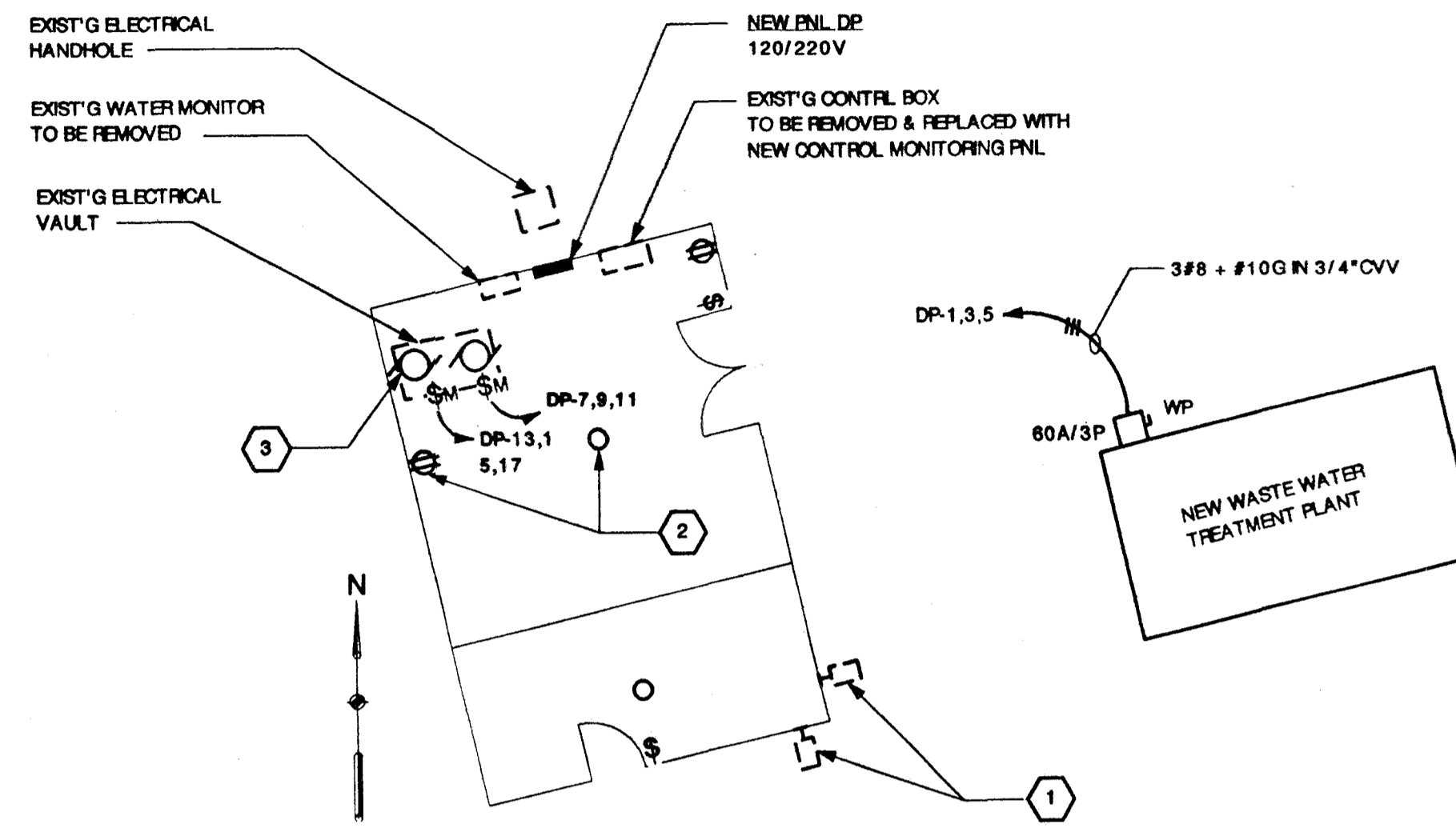
2.05 DEVICES SHALL BE COMMERCIAL GRADE, 20 AMP, DEVICE PLATES SHALL BE STAINLESS STEEL, NON-MAGNETIC, SATIN FINISH.

PART 3 - EXECUTION

3.01 ALL EQUIPMENT AND SYSTEMS DESIGNS, INSTALLATIONS AND TESTING SHALL BE IN CONFORMANCE WITH APPLICABLE CODES, STANDARDS, AND ORDINANCES, THE MANUFACTURER'S RECOMMENDATIONS, UTILITY REQUIREMENTS, AND THE CRITERIA NOTED.

3.02 CONDUITS AND CABLES SHALL BE CONCEALED IN FINISHED SPACES. TEST CABLES FOR CONTINUITY AND GROUNDS.

3.03 OBTAIN ALL PERMITS AND PAY ALL FEES REQUIRED FOR ELECTRICAL WORK. COPIES OF PERMITS SHALL BE PROVIDED TO ARCHITECT AND ENGINEER.

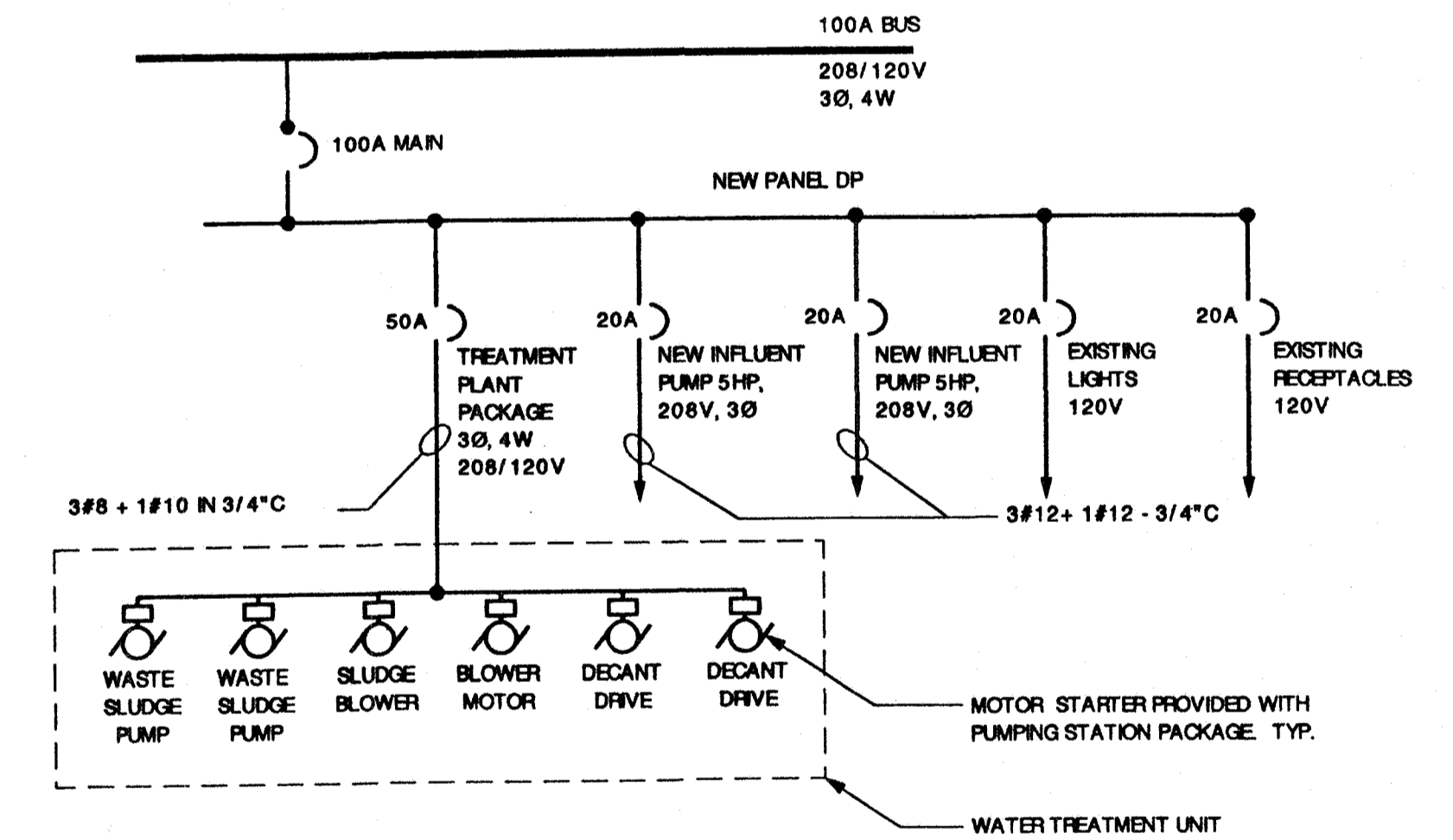


PART PLAN - ELECTRICAL
SCALE: 1/8" = 1'-0"

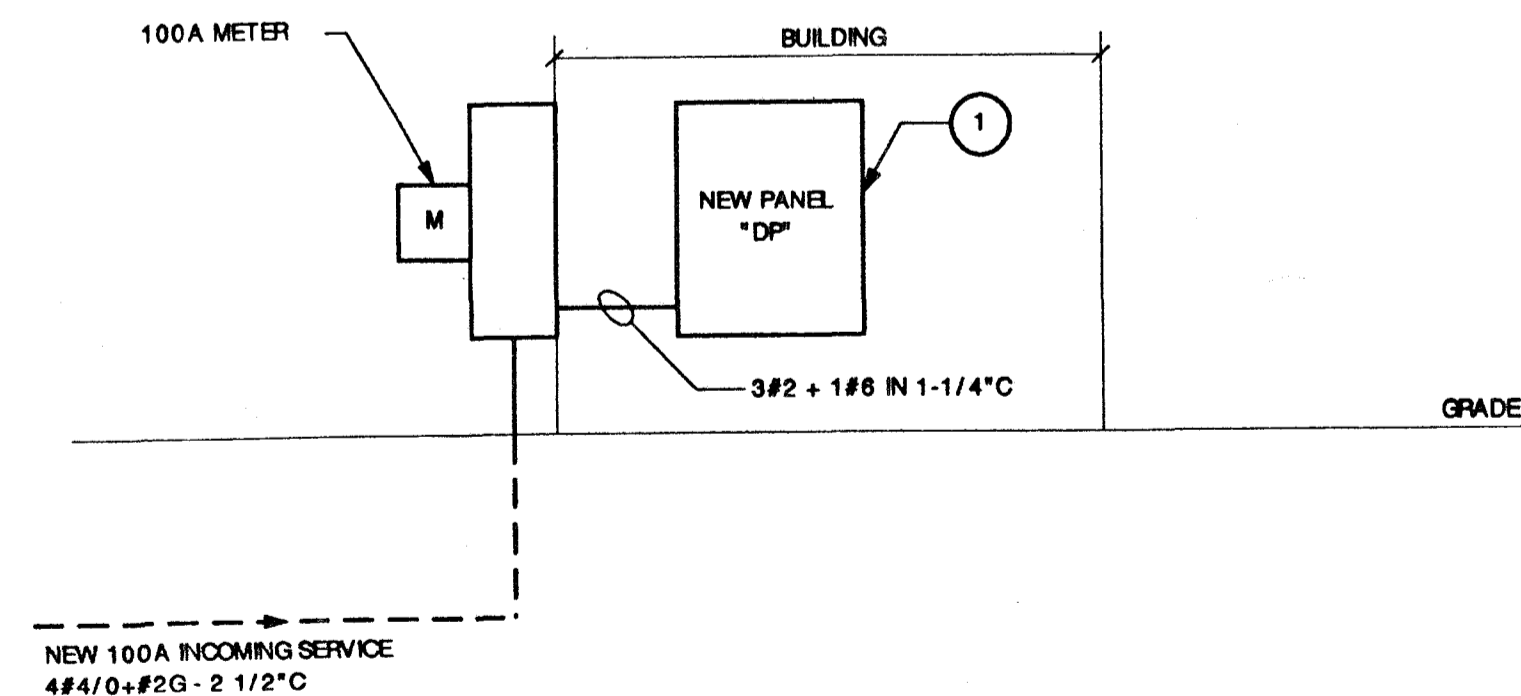
PART PLAN NOTES:

1. CLEAN, REFURBISH, AND RETURN EXISTING LIGHTING FIXTURES TO WORKING ORDER.
2. INSPECT ALL EXISTING LIGHTING, SWITCHES, AND RECEPTACLES TO ENSURE THAT EACH ARE PROPERLY FUNCTIONING. IN EVENT THAT DEVICE IS NOT IN GOOD WORKING ORDER THEN IT SHALL BE REPLACE WITH NEW DEVICE.
3. EXISTING SLUMP PUMP SHALL BE REMOVED AND REPLACED WITH NEW INFLUENT PUMPS AS SHOWN.

SYMBOL LEGEND	
	HOMERUN CONNECT TO CIRCUIT BREAKER INDICATED
	WIRE RUN (SLASHES INDICATE # OF WIRES IF MORE THAN 2. 2#12+1#12G-3/4" MIN. UNO)
	CONDUIT UNDER GROUND
	EXIST'G CONDUIT & WIRING TO BE REMOVED UNLESS NOTED OTHERWISE
	EXISTING WALL MOUNTED LIGHT LIGHTING FIXTURE TO REMAIN UNO
	EXISTING RECEPTACLE TO REMAIN UNO
	EXISTING CEILING MOUNTED LIGHT LIGHTING FIXTURE TO REMAIN UNO
	JUNCTION BOX
	NON FUSED DISCONNECT SWITCH FOR NEW FUEL OIL PUMP (NEMA 3R ENCLOSEURE)
	NEW MOTOR CONNECTION FOR NEW FUEL OIL PUMP
	EXISTING LIGHT SWITCH TO REMAIN UNO
	MANUAL MOTOR SWITCH
	NON-FUSE SAFETY SWITCH
	WEATHERPROOF
	UNO



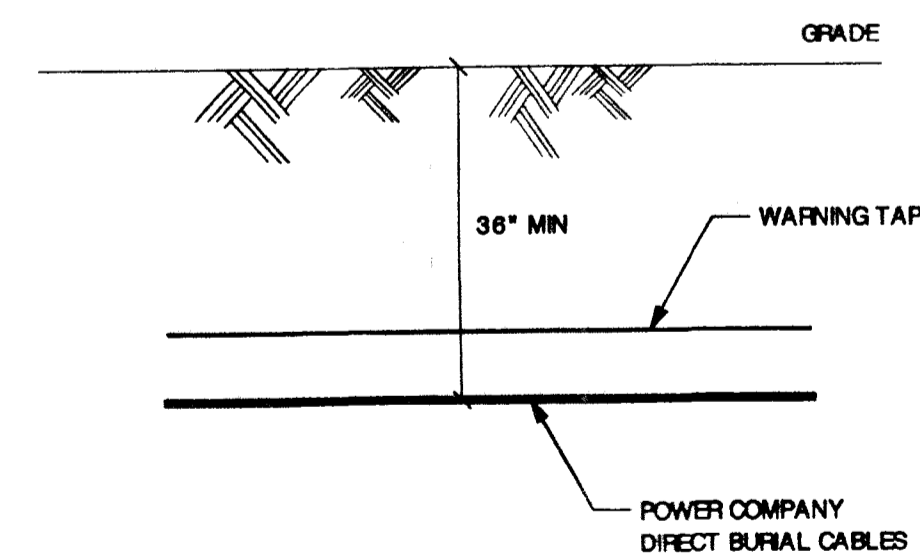
ONE LINE DIAGRAM
NOT TO SCALE



POWER RISER DIAGRAM
NOT TO SCALE

POWER RISER NOTE:

1. CONTRACTOR SHALL REMOVE EXISTING PANEL DCO AND REPLACE WITH NEW PANEL DP AS SHOWN.

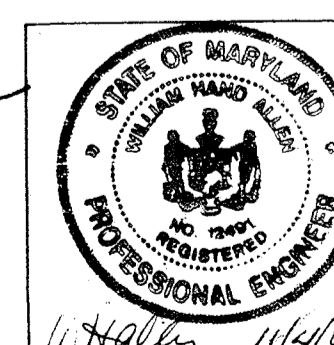


SECTION A-A
NOT TO SCALE

NOTE:

1. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE INSTALLATION OF SERVICE UPGRADE.

DRAWN BY KS
EXAMINED BY JH



Allen & Shariff
CORPORATION
7901 Chesapeake Dr.
Chesapeake, MD 20762
410-581-7100 Fax: 410-581-7110
1-800-275-4027

CITY OF BALTIMORE
DEPARTMENT OF RECREATION AND PARKS

**FORT SMALLWOOD PARK
WASTEWATER TREATMENT PLANT
REPLACEMENT**

**ELECTRICAL PLANS, SECTIONS
AND DETAILS**

SCALE: AS SHOWN

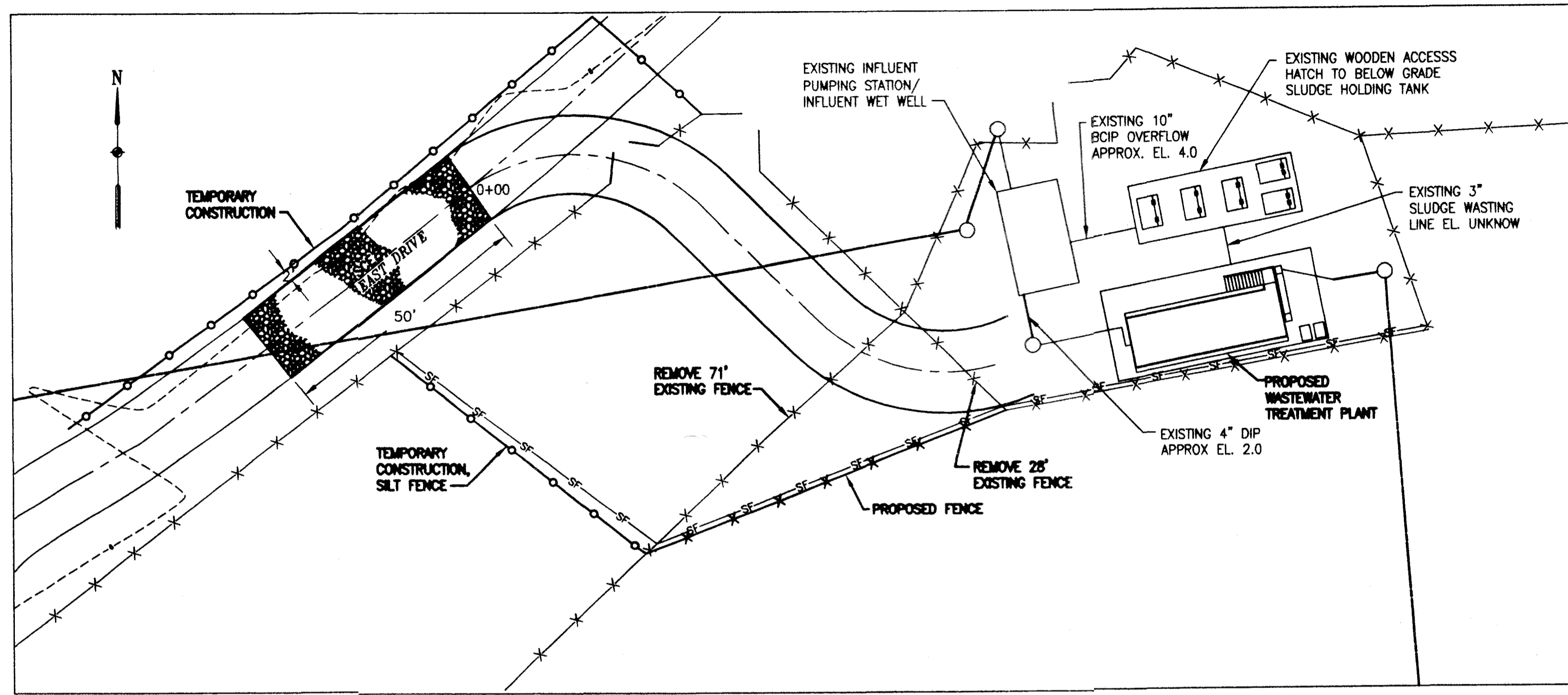
DATE: NOVEMBER 4, 2002

DRAWING: E-13

SHEET 13 OF 16

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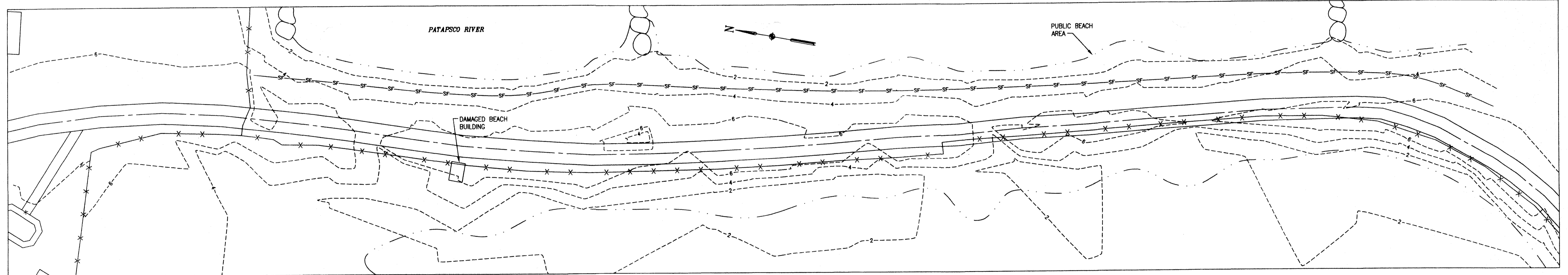
REVISIONS			
NO.	DESCRIPTION	DATE	BY



LEGEND

	APPROXIMATE SHORELINE
	EXISTING FENCELINE
	EXISTING WATERLINE
	MANHOLE
	SANITARY LINE TO BE REHABILITATED
	ROAD
	TEMPORARY SITE FENCE
	SILT FENCE
	PERMANENT FENCE
	STABILIZED CONSTRUCTION ENTRANCE

FACILITY PLAN
SCALE: 1"=20'



ROADWAY PLAN
SCALE: 1"=40'

DRAWN BY DWM
EXAMINED BY DEB

Professional Engineer seals for the State of Maryland. The seal for EA Engineering, Science, and Technology is dated 10/15/02. The seal for Carroll Engineering, Inc. is dated 11/15/02.

EA ENGINEERING, SCIENCE, AND TECHNOLOGY
61 PADONA RD., EAST TOWSON, MD 21093
(410) 252-6211

CITY OF BALTIMORE
DEPARTMENT OF RECREATION AND PARKS

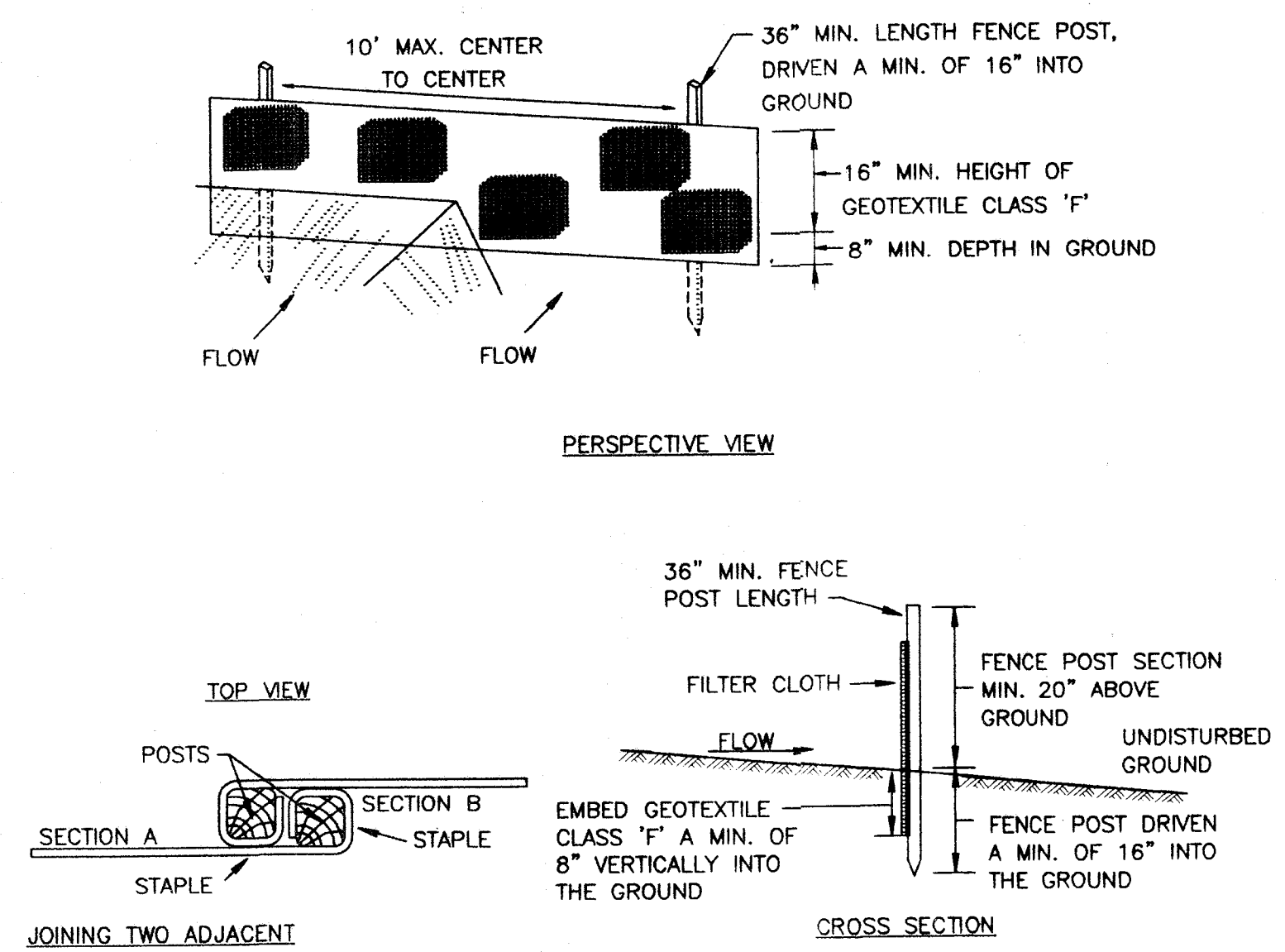
**FORT SMALLWOOD PARK
WASTEWATER TREATMENT PLANT
REPLACEMENT AND COLLECTION
SYSTEM IMPROVEMENTS**

SEDIMENT CONTROL PLAN

SCALE: AS SHOWN
DATE: NOV. 4, 2002
DRAWING: SHEET 14 OF 16

FOR REFERENCE ONLY

NO.	DESCRIPTION	DATE	BY
1	ADDENDUM NO. 1 - ADDED ANNE ARUNDEL COUNTY NOTES	1/10/03	MSR



CONSTRUCTION SPECIFICATIONS

- FENCE POSTS SHALL BE A MINIMUM OF 36" LONG, DRIVEN 16" MINIMUM INTO THE GROUND. WOOD POSTS SHALL BE 1-1/2" X 1-1/2" SQUARE (MIN.) CUT, OR 1-3/4" DIAMETER (MIN.) ROUND AND SHALL BE OF SOUND QUALITY HARDWOOD. STEEL POSTS WILL BE STANDARD T OR U SECTION WEIGHING NOT LESS THAN 1.00 POUNDS PER LINEAR FOOT.
- GEOTEXTILE SHALL BE FASTENED SECURELY TO EACH FENCE POST WITH WIRE TIES OR STAPLES AT TOP AND MID-SECTION AND SHALL MEET THE FOLLOWING REQUIREMENTS FOR GEOTEXTILE CLASS 'F':

TENSILE STRENGTH: 50 LBS/ IN (MIN.)	TEST: MSMT 509
TENSILE MODULUS: 20 LBS/ IN (MIN.)	TEST: MSMT 509
FLOW RATE: 0.3 GAL. FT/ MINUTE (MAX.)	TEST: MSMT 322
FILTERING EFFICIENCY: 75% (MIN.)	TEST: MSMT 322
- WHERE ENDS OF GEOTEXTILE FABRIC COME TOGETHER, THEY SHALL BE OVERLAPPED, FOLDED AND STAPLED TO PREVENT SEDIMENT BYPASS.
- SILT FENCE SHALL BE INSPECTED AFTER EACH RAINFALL EVENT AND MAINTAINED WHEN BULGES OCCUR OR WHEN SEDIMENT ACCUMULATION REACHES 50% OF THE FABRIC HEIGHT.

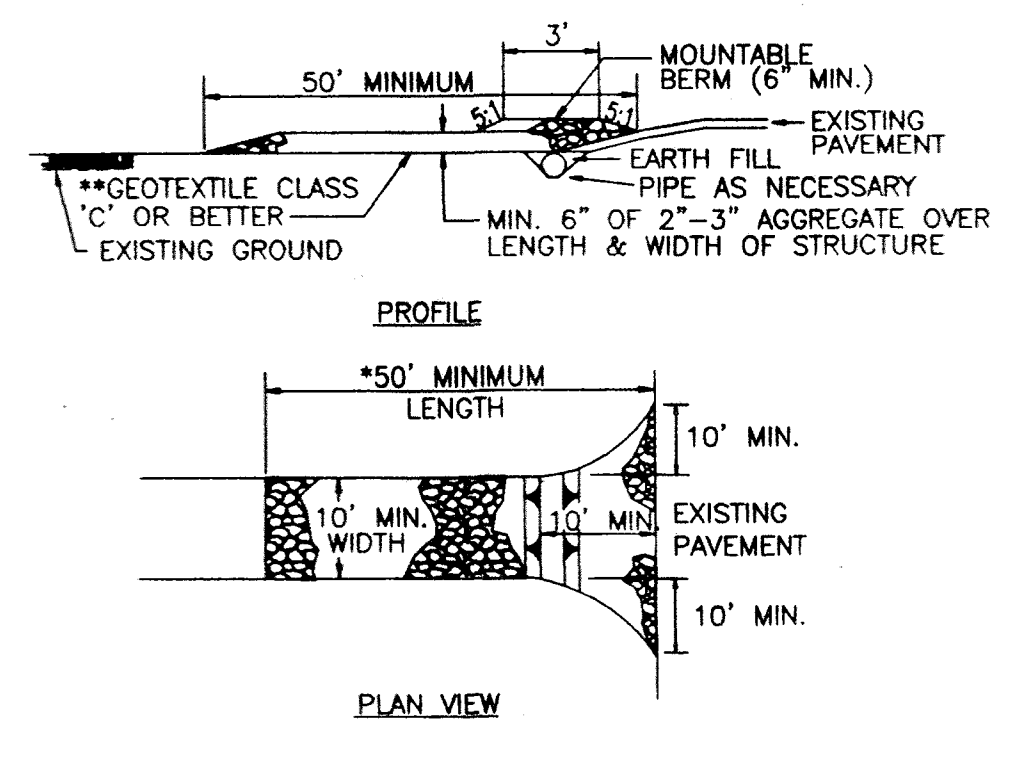
SILT FENCE DESIGN CRITERIA

SLOPE STEEPNESS	(MAXIMUM) SLOPE LENGTH	(MAXIMUM) SILT FENCE LENGTH
FLATTER THAN 50:1	UNLIMITED	unlimited
50:1 to 10:1	125 FEET	1,000 FEET
10:1 to 5:1	100 FEET	750 FEET
5:1 to 3:1	60 FEET	500 FEET
3:1 to 2:1	40 FEET	250 FEET
2:1 OR STEEPER	20 FEET	125 FEET

NOTE: IN AREAS OF LESS THAN 2% SLOPE AND SANDY SOILS (USDA GENERAL CLASSIFICATION SYSTEM, SOIL CLASS A) MAXIMUM SLOPE LENGTH AND SILT FENCE LENGTH WILL BE UNLIMITED. IN THESE AREAS A SILT FENCE MAY BE THE ONLY PERIMETER CONTROL REQUIRED.

SILT FENCE

NOT TO SCALE

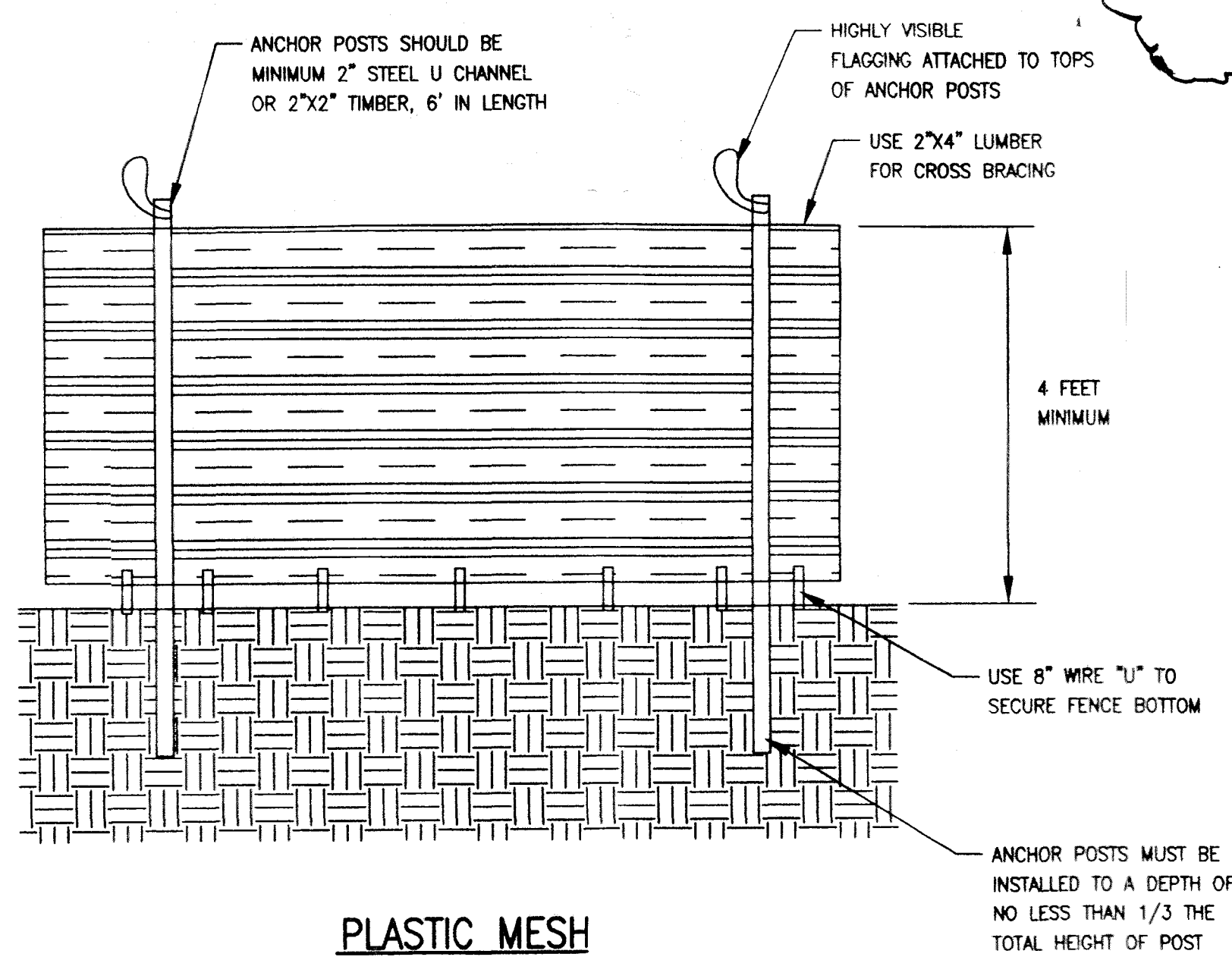


CONSTRUCTION ENTRANCE

- LENGTH - MINIMUM OF 50' (*30' FOR SINGLE RESIDENCE LOT).
- WIDTH - 10' MINIMUM, SHOULD BE FLARED AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
- GEOTEXTILE FABRIC (FILTER CLOTH) SHALL BE PLACED OVER THE EXISTING GROUND PRIOR TO PLACING STONE. **THE PLAN APPROVAL AUTHORITY MAY NOT REQUIRE SINGLE FAMILY RESIDENCES TO USE GEOTEXTILE.
- STONE - CRUSHED AGGREGATE (2" TO 3") OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT SHALL BE PLACED AT LEAST 6" DEEP OVER THE LENGTH AND WIDTH OF THE ENTRANCE.
- SURFACE WATER - ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED THROUGH THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PIPE INSTALLED THROUGH THE STABILIZED CONSTRUCTION ENTRANCE SHALL BE PROTECTED WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 6" OF STONE OVER THE PIPE. PIPE HAS TO BE SIZED ACCORDING TO DRAINAGE. WHEN THE S.C.E. IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE WILL NOT BE NECESSARY. PIPE SHOULD BE SIZED ACCORDING TO THE AMOUNT OF RUNOFF TO BE CONVEYED. A 6" MINIMUM WILL BE REQUIRED.
- LOCATION - A STABILIZED CONSTRUCTION ENTRANCE SHALL BE LOCATED AT EVERY POINT WHERE CONSTRUCTION TRAFFIC ENTERS OR LEAVES A CONSTRUCTION SITE. VEHICLES LEAVING THE SITE MUST TRAVEL OVER THE ENTIRE LENGTH OF THE STABILIZED CONSTRUCTION ENTRANCE.

STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE



PLASTIC MESH TREE PROTECTION FENCE

NOT TO SCALE

- COMBINE FOREST PROTECTION DEVICES WITH SEDIMENT AND EROSION CONTROL DEVICES WHEN POSSIBLE.
- AVOID INJURING ROOTS WHEN INSTALLING ANCHOR POSTS.
- WHEN USING FENCING, IT SHOULD BE AT LEAST 4' HIGH.
- ATTACH HIGHLY VISIBLE FLAGGING.
- FENCES OR DEVICES SHOULD BE SECURELY ANCHORED, AT LEAST 1/3 OF THE ANCHOR POST SHOULD BE BELOW GROUND.

ANNE ARUNDEL SOIL CONSERVATION DISTRICT
 DETAILS AND SPECIFICATIONS FOR VEGETATIVE ESTABLISHMENT

FOLLOWING INITIAL SOIL DISTURBANCES OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN SEVEN CALENDAR DAYS FOR THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES GREATER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1) AND FOURTEEN DAYS FOR ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.

- PERMANENT SEEDING:**
 - SOIL TESTS:** LIME FERTILIZER WILL BE APPLIED PER SOIL TESTS RESULTS FOR SITES GREATER THAN 5 ACRES. SOIL TESTS WILL BE DONE AT COMPLETION OF ROUGH GRADING. RATES AND ANALYSES WILL BE PROVIDED TO THE GRADING INSPECTOR AS WELL AS THE CONTRACTOR.
 - OCCURRENCE OF ACID SULFATE SOILS (GRAYISH BLACK COLOR) WILL REQUIRE COVERING WITH A MINIMUM OF 12 INCHES OF CLEAN SOIL WITH 6 INCHES MINIMUM CAPPING OF TOPSOIL. NO STOCKPILING OF MATERIAL IS ALLOWED. IF NEEDED, SOIL TESTS SHOULD BE DONE BEFORE AND AFTER A 6-WEEK INCUBATION PERIOD TO ALLOW OXIDATION OF SULFATES.
 - SEEDBED PREPARATION:** AREA TO BE SEEDED SHALL BE LOOSE AND FRIABLE TO A DEPTH OF AT LEAST 3 INCHES. THE TOP LAYER SHALL BE LOOSENEED BY RANKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING OCCURS. FOR SITES LESS THAN 5 ACRES, APPLY 100 POUNDS OF DOLOMITIC LIMESTONE AND 21 POUNDS OF 10-20-20 FERTILIZER PER 1,000 SQUARE FEET. HARROW OR DISK LIME AND FERTILIZER INTO THE SOIL TO A DEPTH OF AT LEAST 3 INCHES ON SLOPES FLATTER THAN 3:1.
 - SEEDING:** APPLY 5-6 POUNDS 1,000 SQUARE FEET OF TALL FESCUE BETWEEN FEBRUARY 1 AND APRIL 30 OR BETWEEN AUGUST 15 AND OCTOBER 31. APPLY SEED UNIFORMLY ON A MOIST FIRM SEEDBED WITH A CYCLONE SEEDED DRILL, CULTIPACKER SEEDER OR HYDROSEEDER (SLURRY INCLUDES SEEDS AND FERTILIZER, RECOMMENDED ON STEEP SLOPES ONLY). MAXIMUM SEED DEPTH SHOULD BE 1/2 INCH IN CLAYEY SOILS AND 1/4 INCH IN SANDY SOILS WHEN USING OTHER THAN THE HYDROSEEDER METHOD. IRRIGATE IF SOIL MOISTURE IS DEFICIENT TO SUPPORT ADEQUATE GROWTH UNTIL VEGETATION IS FIRMLY ESTABLISHED. IF OTHER SEED MIXES ARE TO BE USED, SELECT FROM TABLE 25, ENTITLED "PERMANENT SEEDING FOR LOW MAINTENANCE AREAS" FROM THE 1994 STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. MIXES SUITED FOR THIS AREA ARE 1, 3 AND 5-7. MIXES 5-7 ARE SUITABLE IN NON-MOWABLE SITUATIONS.
 - MULCHING:** MULCH SHALL BE APPLIED TO ALL SEEDED AREAS IMMEDIATELY AFTER SEEDING. DURING THE TIME PERIODS WHEN SEEDING IS NOT PERMITTED, MULCH SHALL BE APPLIED IMMEDIATELY AFTER GRADING.

MULCH SHALL BE UNROTTED, UNCHOPPED, SMALL GRAIN STRAW APPLIED AT A RATE OF 2 TONS PER ACRE OR 90 POUNDS PER 1,000 SQUARE FEET (2 BALES). IF A MULCH-ANCHORING TOOL IS USED, APPLY 2.5 TONS PER ACRE. MULCH MATERIALS SHALL BE RELATIVELY FREE OF ALL KINDS OF WEEDS AND SHALL BE COMPLETELY FREE OF PROHIBITED NOXIOUS WEEDS. SPREAD MULCH UNIFORMLY, MECHANICALLY OR BY HAND, TO A DEPTH OF 1-2 INCHES.
 - SECURING STRAW MULCH:** STRAW MULCH SHALL BE SECURED IMMEDIATELY FOLLOWING MULCH APPLICATION TO MINIMIZE MOVEMENT BY WIND OR WATER. THE FOLLOWING METHODS ARE PERMITTED.
 - USE A MULCH-ANCHORING TOOL, WHICH IS DESIGNED TO PUNCH AND ANCHOR MULCH INTO THE SOIL SURFACE TO A MINIMUM DEPTH OF 2 INCHES. THIS IS THE MOST EFFECTIVE METHOD FOR SECURING MULCH, HOWEVER, IT IS LIMITED TO RELATIVELY FLAT AREAS WHERE EQUIPMENT CAN OPERATE SAFELY.
 - WOOD CELLULOSE FIBER MAY BE USED FOR ANCHORING STRAW. APPLY THE FIBER BINDER AT A NET DRY WEIGHT OF 750 POUNDS PER ACRE. IF MIXED WITH WATER, USE 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.
- TEMPORARY SEEDING:**

LIME:	100 POUNDS OF DOLOMITIC LIMESTONE PER 1,000 SQUARE FEET.
FERTILIZER:	15 POUNDS OF 10-10-10 PER 1,000 SQUARE FEET.
SEED:	PERENNIAL RYE - 0.92 POUNDS PER 1,000 SQUARE FEET (FEBRUARY 1 THROUGH APRIL 30 OR AUGUST 15 THROUGH NOVEMBER 1). MILLET - 0.92 POUNDS PER 1,000 SQUARE FEET (MAY 1 THROUGH AUGUST 15)
MULCH:	SAME AS 1 D AND E ABOVE.
- NO FILLS MAY BE PLACED ON FROZEN GROUND. ALL FILL TO BE PLACED IN APPROXIMATELY LAYERS, EACH HAVING A LOOSE THICKNESS OF NOT MORE THAN 8 INCHES. ALL FILL IN ROADWAYS AND PARKING AREAS IS TO BE CLASSIFIED TYPE 2 AS PER ANNE ARUNDEL COUNTY CODE - ARTICLE 21, SECTION 2-308, AND COMPACTED TO 96% DENSITY; COMPACTION TO BE DETERMINED BY ASTM D-1557-66T (MODIFIED PROCTOR). ANY FILL WITHIN THE BUILDING AREA IS TO BE COMPACTED TO A MINIMUM OF 95% AS DETERMINED BY METHODS PREVIOUSLY MENTIONED. FILLS FOR POND EMBANKMENTS SHALL BE COMPACTED AS PER MD-378 CONSTRUCTION SPECIFICATION. ALL OTHER FILLS SHALL BE COMPACTED SUFFICIENTLY SO AS TO BE STABLE AND PREVENT EROSION AND SLIPPAGE.
- PERMANENT SOD:**

INSTALLATION OF SOD SHOULD FOLLOW PERMANENT SEEDING DATES. PERMANENT SOD IS TO BE TALL FESCUE, STATE APPROVED SOD. LIME AND FERTILIZER PER PERMANENT SEEDING SPECIFICATIONS AND LIGHTLY IRRIGATE SOIL PRIOR TO LAYING SOD. SOD IS TO BE LAID ON THE CONTOUR WITH ALL ENDS TIGHTLY ABUTTING. JOINTS ARE TO BE STAGGERED BETWEEN ROWS. WATER AND ROLL OR TAMP SOD TO INSURE POSITIVE ROOT CONTACT WITH THE SOIL. ALL SLOPES STEEPER THAN 3:1, AS SHOWN, ARE TO BE PERMANENTLY SODDED OR PROTECTED WITH AN APPROVED EROSION CONTROL NETTING. ADDITIONAL WATERING FOR ESTABLISHMENT MAY BE REQUIRED. SOD IS NOT TO BE APPLIED ON FROZEN GROUND. SOD SHALL NOT BE HARVESTED OR TRANSPLANTED WHEN MOISTURE CONTENT (DRY OR WET) AND/OR EXTREME TEMPERATURE MAY ADVERSELY AFFECT ITS SURVIVAL. IN THE ABSENCE OF ADEQUATE RAINFALL, IRRIGATION SHOULD BE PERFORMED TO INSURE ESTABLISHED SOD.
- MINING OPERATIONS:**

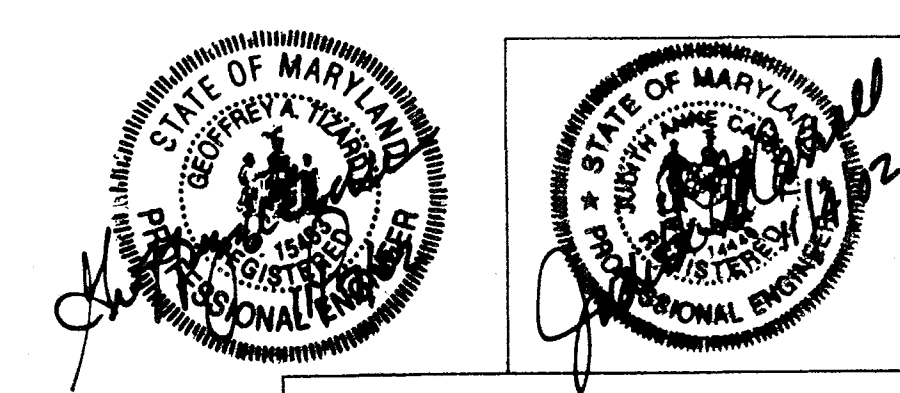
SEDIMENT CONTROL PLANS FOR MINING OPERATIONS MUST INCLUDE THE FOLLOWING SEEDING DATES AND MIXTURE:

FOR SEEDING DATES OF:
 FEBRUARY 1 THROUGH APRIL 30 AND AUGUST 15 THROUGH OCTOBER 31, USE SEED MIXTURE OF TALL FESCUE AT THE RATE OF 2 POUNDS PER 1,000 SQUARE FEET AND SERICEA LESPEDEZA AT THE RATE OF 0.5 POUNDS PER 1,000 SQUARE FEET.
 FOR SEEDING DATES OF MAY 1 THROUGH AUGUST 14, USE SEED MIXTURE OF TALL FESCUE AT THE RATE OF 2 POUNDS PER 1,000 SQUARE FEET AND WEEPING LOVEGRASS AT THE RATE OF 0.1 POUNDS PER 1,000 SQUARE FEET.

NOTE: USE OF THIS INFORMATION DOES NOT PRECLUDE MEETING ALL OF THE REQUIREMENTS OF THE "1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL".

REQUIRED SEQUENCE OF CONSTRUCTION

- NOTIFY OWNER, ENGINEER AND SEDIMENT CONTROL INSPECTOR THREE (3) DAYS PRIOR TO START OF CONSTRUCTION.
- INSTALL CONTRACTORS TEMPORARY WORK SITE FENCING.
- INSTALL ALL SEDIMENT CONTROL STRUCTURES.
- INSTALL NEW GATES AND CONSTRUCTION ACCESS ROAD.
- PROCEED WITH DEMOLITION IN ACCORDANCE WITH PLAN SHEETS.
- INSTALL CONCRETE SLAB AND NEW TREATMENT PLANT.
- PERFORM BERM REPAIRS AS SHOWN ON GRADING PLAN, PROFILE, AND CROSS SECTIONS. REPLACE OR REPAIR FENCING ALONG BERM AS NECESSARY TO MAINTAIN SECURITY.
- UPON APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, REMOVE ALL TEMPORARY SEDIMENT CONTROL MEASURES AND INSTALL ALL PERMANENT STABILIZATION.



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CITY OF BALTIMORE
 DEPARTMENT OF RECREATION AND PARKS

FORT SMALLWOOD PARK
 WASTEWATER TREATMENT PLANT
 REPLACEMENT AND COLLECTION
 SYSTEM IMPROVEMENTS

SEDIMENT CONTROL DETAILS

SCALE: AS SHOWN
 DATE: NOV. 4, 2002
 DRAWING: SHEET 15 OF 16

DRAWN BY DWM
 EXAMINED BY DEB

FOR REFERENCE ONLY

20.0 STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION

DEFINITION
USING VEGETATION AS COVER FOR BARREN SOIL TO PROTECT IT FROM FORCES THAT CAUSE EROSION.

PURPOSE
VEGETATIVE STABILIZATION SPECIFICATIONS ARE USED TO PROMOTE THE ESTABLISHMENT OF VEGETATION ON ERODED SOIL. WHEN SOIL IS STABILIZED WITH VEGETATION, THE SOIL IS LESS LIKELY TO BE ERODED AND MORE LIKELY TO ALLOW INFILTRATION OF RAINFALL, THEREBY REDUCING SEDIMENT LOADS AND RUNOFF TO DOWNSTREAM AREAS, AND IMPROVING WILDLIFE HABITAT AND VISUAL RESOURCES.

CONDITIONS WHERE PRACTICE APPLIES
THIS PRACTICE SHALL BE USED ON DENUDED AREAS AS SPECIFIED ON THE PLANS AND MAY BE USED ON HIGHLY ERODIBLE OR CRITICALLY ERODING AREAS. THIS SPECIFICATION IS DIVIDED INTO TEMPORARY SEEDING, TO QUICKLY ESTABLISH VEGETATIVE COVER FOR SHORT DURATION (UP TO ONE YEAR), AND PERMANENT SEEDING, FOR LONG TERM VEGETATIVE COVER. EXAMPLES OF APPLICABLE AREAS FOR TEMPORARY SEEDING ARE TEMPORARY SOIL STOCKPILES, CLEARED AREAS BEING LEFT IDLE BETWEEN CONSTRUCTION PHASES, EARTH DIKES, ETC. AND FOR PERMANENT SEEDING ARE LAWNS, DAMS, CUT AND FILL SLOPES AND OTHER AREAS AT FINAL GRADE, FORMER STOCKPILE AND STAGING AREAS, ETC.

EFFECTS ON WATER QUALITY AND QUANTITY
PLANTING VEGETATION IN DISTURBED AREAS WILL HAVE AN EFFECT ON THE WATER BUDGET, ESPECIALLY ON VOLUMES AND RATES OF RUNOFF, INFILTRATION, EVAPORATION, TRANSPARATION, PERCOLATION, AND GROUNDWATER RECHARGE. VEGETATION, OVER TIME, WILL INCREASE ORGANIC MATTER CONTENT AND IMPROVE THE WATER HOLDING CAPACITY OF THE SOIL AND SUBSEQUENT PLANT GROWTH.

VEGETATION WILL HELP REDUCE THE MOVEMENT OF SEDIMENT, NUTRIENTS, AND OTHER CHEMICALS CARRIED BY RUNOFF TO RECEIVING WATERS. PLANTS WILL ALSO HELP PROTECT GROUNDWATER SUPPLIES BY ASSIMILATING THOSE SUBSTANCES PRESENT WITHIN THE ROOT ZONE. SEDIMENT CONTROL DEVICES MUST REMAIN IN PLACE DURING GRADING, SEEDBED PREPARATION, SEEDING, MULCHING AND VEGETATIVE ESTABLISHMENT TO PREVENT LARGE QUANTITIES OF SEDIMENT AND ASSOCIATED CHEMICALS AND NUTRIENTS FROM WASHING INTO SURFACE WATERS.

SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS

- A. SITE PREPARATION**
- INSTALL EROSION AND SEDIMENT CONTROL STRUCTURES (EITHER TEMPORARY OR PERMANENT) SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, BERMS, WATERWAYS, OR SEDIMENT CONTROL BASINS.
 - PERFORM ALL GRADING OPERATIONS AT RIGHT ANGLES TO THE SLOPE. FINAL GRADING AND SHAPING IS NOT USUALLY NECESSARY FOR TEMPORARY SEEDING.
 - SCHEDULE REQUIRED SOIL TESTS TO DETERMINE SOIL AMENDMENT COMPOSITION AND APPLICATION RATES FOR SITES HAVING DISTURBED AREA OVER 5 ACRES.
- B. SOIL AMENDMENTS (FERTILIZER AND LIME SPECIFICATIONS)**
- SOIL TESTS MUST BE PERFORMED TO DETERMINE THE EXACT RATIOS AND APPLICATION RATES FOR BOTH LIME AND FERTILIZER ON SITES HAVING DISTURBED AREAS OVER 5 ACRES. SOIL ANALYSIS MAY BE PERFORMED BY THE UNIVERSITY OF MARYLAND OR A REGIONAL LABORATORY. SOIL SAMPLES TAKEN FOR ENGINEERING PURPOSES MAY ALSO BE USED FOR CHEMICAL ANALYSIS.
 - FERTILIZERS SHALL BE UNIFORM IN COMPOSITION, FREE FLOWING AND SUITABLE FOR ACCURATE APPLICATION BY APPROVED EQUIPMENT. MANURE MAY BE SUBSTITUTED FOR FERTILIZER WITH PRIOR APPROVAL FROM THE APPROPRIATE APPROVAL AUTHORITY. FERTILIZERS SHALL BE DELIVERED TO THE SITE FULLY LABELED ACCORDING TO THE APPLICABLE STATE FERTILIZER LAWS AND SHALL BEAR THE NAME, TRADE NAME OR TRADEMARK AND WARRANTIES OF THE PRODUCER.
 - LIME MATERIALS SHALL BE GROUND LIMESTONE (HYDRATED OR BURNT LIME MAY BE SUBSTITUTED) WHICH CONTAINS AT LEAST 50% TOTAL OXIDES (CALCIUM OXIDE PLUS MAGNESIUM OXIDE). LIMESTONE SHALL BE GROUND TO SUCH FINENESS THAT AT LEAST 50% WILL PASS THROUGH A #100 MESH SIEVE AND 98-100% WILL PASS THROUGH A #20 MESH SIEVE.
 - INCORPORATE LIME AND FERTILIZER INTO THE TOP 3 - 5" OF SOIL BY DISKING OR OTHER SUITABLE MEANS.
- C. SEEDBED PREPARATION**
- TEMPORARY SEEDING**
 - SEEDBED PREPARATION SHALL CONSIST OF LOOSENING SOIL TO A DEPTH OF 3" TO 5" BY MEANS OF SUITABLE AGRICULTURAL OR CONSTRUCTION EQUIPMENT, SUCH AS DISC HARROWS OR CHISEL PLOWS OR RIPPEES MOUNTED ON CONSTRUCTION EQUIPMENT. AFTER THE SOIL IS LOOSENED, IT SHOULD NOT BE ROLLED OR DRAGGED SMOOTH BUT LEFT IN THE ROUGHENED CONDITION. SLOPED AREAS (GREATER THAN 3:1) SHOULD BE TRACKED LEAVING THE SURFACE IN AN IRREGULAR CONDITION WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE.
 - APPLY FERTILIZER AND LIME AS PRESCRIBED ON THE PLANS.
 - INCORPORATE LIME AND FERTILIZER INTO THE TOP 3 - 5" OF SOIL BY DISKING OR OTHER SUITABLE MEANS.
 - PERMANENT SEEDING**
 - MINIMUM SOIL CONDITIONS REQUIRED FOR PERMANENT VEGETATIVE ESTABLISHMENT:
 - SOIL PH SHALL BE BETWEEN 6.0 AND 7.0.
 - SOLUBLE SALTS SHALL BE LESS THAN 500 PARTS PER MILLION (PPM).
 - THE SOIL SHALL CONTAIN LESS THAN 40% CLAY BUT ENOUGH FINE GRAINED MATERIAL (> 30% SILT PLUS CLAY) TO PROVIDE THE CAPACITY TO HOLD A MODERATE AMOUNT OF MOISTURE. AN EXCEPTION IS LOVEGRASS OR SERICIA LESPEDEZA IS TO BE PLANTED, THEN A SANDY SOIL (< 30% SILT PLUS CLAY) WOULD BE ACCEPTABLE.
 - SOIL SHALL CONTAIN 1.5% MINIMUM ORGANIC MATTER BY WEIGHT.
 - SOIL MUST CONTAIN SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT PENETRATION.
 - IF THESE CONDITIONS CANNOT BE MET BY SOILS ON SITE, ADDING TOPSOIL IS REQUIRED IN ACCORDANCE WITH SECTION 21, STANDARDS AND SPECIFICATIONS FOR TOPSOIL.
 - AREAS PREVIOUSLY GRADED IN CONFORMANCE WITH THE DRAWINGS SHALL BE MAINTAINED IN A TRUE AND EVEN GRADE, THEN SCARIFIED OR OTHERWISE LOOSENED TO A DEPTH OF 3 - 5" TO PERMIT BONDING OF THE TOPSOIL TO THE SURFACE AREA AND TO CREATE HORIZONTAL EROSION CHECK SLOTS TO PREVENT TOPSOIL FROM SLIDING DOWN A SLOPE.
 - APPLY SOIL AMENDMENTS AS PER SOIL TEST OR AS INCLUDED ON THE PLANS.
 - MIX SOIL AMENDMENTS INTO THE TOP 3 - 5" OF TOPSOIL BY DISKING OR OTHER SUITABLE MEANS. LAWN AREAS SHOULD BE RAKED TO SMOOTH THE SURFACE, REMOVE LARGE OBJECTS LIKE STONES AND BRANCHES, AND READY THE AREA FOR SEED APPLICATION. WHERE SITE CONDITIONS WILL NOT PERMIT NORMAL SEEDBED PREPARATION, LOOSEN SURFACE SOIL BY DRAGGING WITH A HEAVY CHAIN OR OTHER EQUIPMENT TO ROUGHEN THE SURFACE. STEEP SLOPES (STEEPER THAN 3:1) SHOULD BE TRACKED BY A DOZER LEAVING THE SOIL IN AN IRREGULAR CONDITION WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE. THE TOP 3 - 3" OF SOIL SHOULD BE LOOSE AND FRIABLE. SEEDBED LOOSENING MAY NOT BE NECESSARY ON NEWLY DISTURBED AREAS.

CONSULTANT'S CERTIFICATION

"THE DEVELOPER'S PLAN TO CONTROL SILT AND EROSION IS ADEQUATE TO CONTAIN THE SILT AND EROSION ON THE PROPERTY COVERED BY THE PLAN. I CERTIFY THAT THIS PLAN OF EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THIS SITE, AND WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE ANNE ARUNDEL COUNTY SOIL CONSERVATION DISTRICT PLAN SUBMITTAL GUIDELINES AND THE CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SEDIMENT AND EROSION CONTROL. I HAVE REVIEWED THIS EROSION AND SEDIMENT CONTROL PLAN WITH THE OWNER/DEVELOPER."

SIGNATURE: *Gennady Schwartz* MD P.E. LICENSE # 15453 DATE: 2/14/02
 MD LAND SURVEYOR LICENSE # 11047
 NAME (PRINT): Gennady S. Tizard, II FIRM NAME: EA ENGINEERING, SCIENCE AND TECHNOLOGY
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DRAWN BY: DWM
 EXAMINED BY: DEB

- D. SEED SPECIFICATIONS**
- ALL SEED MUST MEET THE REQUIREMENTS OF THE MARYLAND STATE SEED LAW. ALL SEED SHALL BE SUBJECT TO RE-TESTING BY A RECOGNIZED SEED LABORATORY. ALL SEED USED SHALL HAVE BEEN TESTED WITHIN THE 6 MONTHS IMMEDIATELY PRECEDING THE DATE OF SOWING SUCH MATERIAL ON THIS JOB.
 - SEED TAGS SHALL BE MADE AVAILABLE TO THE INSPECTOR TO VERIFY TYPE AND RATE OF SEED USED. INCULCANT THE INCULCANT FOR TREATING LEGUME SEED IN THE SEED MIXTURES SHALL BE A PURIFIED CULTURE OF NITROGEN-FIXING BACTERIA PREPARED SPECIFICALLY FOR THE SPECIES. INCULCANTS SHALL NOT BE USED LATER THAN THE DATE INDICATED ON THE CONTAINER. ADD FRESH INCULCANT AS DIRECTED ON PACKAGE. USE FOUR TIMES THE RECOMMENDED RATE WHEN HYDROSEEDING. NOTE: IT IS VERY IMPORTANT TO KEEP INCULCANT AS COOL AS POSSIBLE UNTIL USED. TEMPERATURES ABOVE 75-80° F. CAN WEAKEN BACTERIA AND MAKE THE INCULCANT LESS EFFECTIVE.
- E. METHODS OF SEEDING**
- HYDROSEEDING:** APPLY SEED UNIFORMLY WITH HYDROSEEDER (SLURRY INCLUDES SEED AND FERTILIZER), BROADCAST OR DROP SEEDER, OR A CULTIPACKER SEEDER.
 - IF FERTILIZER IS BEING APPLIED AT THE TIME OF SEEDING, THE APPLICATION RATES AMOUNTS WILL NOT EXCEED THE FOLLOWING: NITROGEN: MAXIMUM OF 100 LBS. PER ACRE TOTAL OF SOLUBLE NITROGEN; P205 (PHOSPHOROUS): 200 LBS./AC; K20 (POTASSIUM): 200 LBS./AC.
 - LIME - USE ONLY GROUND AGRICULTURAL LIMESTONE. (UP TO 3 TONS PER ACRE MAY BE APPLIED BY HYDROSEEDING.) NORMALLY, NOT MORE THAN 2 TONS ARE APPLIED BY HYDROSEEDING AT ANY ONE TIME. DO NOT USE BURNT OR HYDRATED LIME WHEN HYDROSEEDING.
 - SEED AND FERTILIZER SHALL BE MIXED ON SITE AND SEEDING SHALL BE DONE IMMEDIATELY AND WITHOUT INTERRUPTION.
 - DRY SEEDING:** THIS INCLUDES USE OF CONVENTIONAL DROP OR BROADCAST SPREADERS.
 - TEMPORARY OR PERMANENT SEEDING SUMMARIES OR TABLES 25 OR 26. THE SEEDED AREA SHALL THEN BE ROLLED WITH A WEIGHTED ROLLER TO PROVIDE GOOD SEED TO SOIL CONTACT.
 - WHERE PRACTICAL, SEED SHOULD BE APPLIED IN TWO DIRECTIONS PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION.
 - DRILL OR CULTIPACKER SEEDING:** MECHANIZED SEEDERS THAT APPLY AND COVER SEED WITH SOIL.
 - CULTIPACKING SEEDERS ARE REQUIRED TO BURY THE SEED IN SUCH A FASHION AS TO PROVIDE AT LEAST 1/4 INCH OF SOIL COVER. SEEDBED MUST BE FIRM AFTER PLANTING.
 - WHERE PRACTICAL, SEED SHOULD BE APPLIED IN TWO DIRECTIONS PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION.

- F. MULCH SPECIFICATIONS (IN ORDER OF PREFERENCE)**
- STRAW SHALL CONSIST OF THOROUGHLY THRESHED WHEAT, RYE OR OAT STRAW, REASONABLY BRIGHT IN COLOR, AND SHALL NOT BE MUSTY, MOLLY, CAKED, DECAYED, OR EXCESSIVELY DUSTY AND SHALL BE FREE OF NOXIOUS WEED SEEDS AS SPECIFIED IN THE MARYLAND SEED LAW.
 - WOOD CELLULOSE FIBER MULCH (WCFM)
 - WCFM SHALL CONSIST OF SPECIALLY PREPARED WOOD CELLULOSE PROCESSED INTO A UNIFORM FIBROUS PHYSICAL STATE.
 - WCFM SHALL BE DYED GREEN OR CONTAIN A GREEN DYE IN THE PACKAGE THAT WILL PROVIDE AN APPROPRIATE COLOR TO FACILITATE VISUAL INSPECTION OF THE UNIFORMLY SPREAD SLURRY.
 - WCFM, INCLUDING DYE, SHALL CONTAIN NO GERMINATION OR GROWTH INHIBITING FACTORS.
 - WCFM MATERIALS SHALL BE MANUFACTURED AND PROCESSED IN SUCH A MANNER THAT THE WOOD CELLULOSE FIBER MULCH WILL REMAIN IN UNIFORM SUSPENSION IN WATER UNDER AGITATION AND WHEN BLENDED WITH SEED, FERTILIZER AND OTHER ADDITIVES TO FORM A HOMOGENEOUS SLURRY. THE MULCH MATERIAL SHALL FORM A BLOTTER-LIKE GROUND COVER ON APPLICATION, HAVING MOISTURE ABSORPTION AND PERCOLATION PROPERTIES AND SHALL COVER AND HOLD GRASS SEED IN CONTACT WITH THE SOIL WITHOUT INHIBITING THE GROWTH OF THE GRASS SEEDLINGS.
 - WCFM MATERIAL SHALL CONTAIN NO ELEMENTS OR COMPOUNDS AT CONCENTRATION LEVELS THAT WILL BE PHYTO-TOXIC.
 - WCFM MUST CONFORM TO THE FOLLOWING PHYSICAL REQUIREMENTS: FIBER LENGTH TO APPROXIMATELY 10 MM, DIAMETER APPROXIMATELY 1 MM, PH RANGE OF 4.0 TO 8.5, ASH CONTENT OF 1.6% MAXIMUM AND WATER HOLDING CAPACITY OF 90% MINIMUM.

- NOTE:** ONLY STERILE STRAW MULCH SHOULD BE USED IN AREAS WHERE ONE SPECIES OF GRASS IS DESIRED. MULCHING SEEDED AREAS - MULCH SHALL BE APPLIED TO ALL SEEDED AREAS IMMEDIATELY AFTER SEEDING.
- IF GRADING IS COMPLETED OUTSIDE OF THE SEEDING SEASON, MULCH ALONE SHALL BE APPLIED AS PRESCRIBED IN THIS SECTION AND MAINTAINED UNTIL THE SEEDING SEASON RETURNS AND SEEDING CAN BE PERFORMED IN ACCORDANCE WITH THESE SPECIFICATIONS.
 - WHEN STRAW MULCH IS USED, IT SHALL BE SPREAD OVER ALL SEEDED AREAS AT THE RATE OF 2 TONS/ACRE. MULCH SHALL BE APPLIED TO A UNIFORM LOOSE DEPTH OF BETWEEN 1" AND 2". MULCH APPLIED SHALL ACHIEVE A UNIFORM DISTRIBUTION AND DEPTH SO THAT THE SOIL SURFACE IS NOT EXPOSED. IF A MULCH ANCHORING TOOL IS TO BE USED, THE RATE SHOULD BE INCREASED TO 2.5 TONS/ACRE.
 - WOOD CELLULOSE FIBER USED AS A MULCH SHALL BE APPLIED AT A NET DRY WEIGHT OF 1,500 LBS. PER ACRE. THE WOOD CELLULOSE FIBER SHALL BE MIXED WITH WATER, AND THE MIXTURE SHALL CONTAIN A MAXIMUM OF 50 LBS. OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.
 - SECURING STRAW MULCH (MULCH ANCHORING): MULCH ANCHORING SHALL BE PERFORMED IMMEDIATELY FOLLOWING MULCH APPLICATION TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS (LISTED BY PREFERENCE), DEPENDING UPON SIZE OF AREA AND EROSION HAZARD:
 - A MULCH ANCHORING TOOL IS A TRACTOR DRAWN IMPLEMENT DESIGNED TO PUNCH AND ANCHOR MULCH INTO THE SOIL SURFACE A MINIMUM OF TWO (2) INCHES. THIS PRACTICE IS MOST EFFECTIVE ON LARGE AREAS, BUT IS LIMITED TO FLATTER SLOPES WHERE EQUIPMENT CAN OPERATE SAFELY. IF USED ON SLOPING LAND, THIS PRACTICE SHOULD BE USED ON THE CONTOUR IF POSSIBLE.
 - WOOD CELLULOSE FIBER MAY BE USED FOR ANCHORING STRAW. THE FIBER BINDER SHALL BE APPLIED AT A NET DRY WEIGHT OF 750 POUNDS/ACRE. THE WOOD CELLULOSE FIBER SHALL BE MIXED WITH WATER AND THE MIXTURE SHALL CONTAIN A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.
 - APPLICATION OF LIQUID BINDERS SHOULD BE HEAVIER AT THE EDGES WHERE WIND CATCHES MULCH. SUCH BONDING EXITS STANDARD EROSION EVIDENCES. THE REMAINDER OF AREA SHOULD BE APPLIED UNIFORM AFTER BINDER APPLICATION. SYNTHETIC BINDERS - SUCH AS ACRYLIC DLR (AGRO-TACK), DCA-70, PETROSET, TERRA TACK II, TERRA TACK AR OR OTHER APPROVED EQUIPMENT MAY BE USED AT RATES RECOMMENDED BY THE MANUFACTURER TO ANCHOR MULCH.
 - LIGHTWEIGHT PLASTIC NETTING MAY BE STAPLED OVER THE MULCH ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. NETTING IS USUALLY AVAILABLE IN ROLLS 4' TO 15' FEET WIDE AND 300 TO 3,000 FEET LONG.

SECTION IV - SOD: TO PROVIDE QUICK COVER ON DISTURBED AREAS (>2:1 GRADE OR FLATTER)

- A. GENERAL SPECIFICATIONS**
- CLASS OF TURFGRASS SOD SHALL BE MARYLAND OR VIRGINIA STATE CERTIFIED OR APPROVED. SOD LABELS SHALL BE MADE AVAILABLE TO THE JOB FOREMAN AND INSPECTOR.
 - SOD SHALL BE MACHINE CUT AT A UNIFORM SOIL THICKNESS OF 3/4", PLUS OR MINUS 1/4", AT THE TIME OF CUTTING. MEASUREMENT FOR THICKNESS SHALL EXCLUDE TOP GROWTH AND THATCH. ALLOWABLE DEVIATION FROM STANDARD WIDTHS AND LENGTHS SHALL BE 5 PERCENT. BROKEN PANDS AND TORN OR UNEVEN ENDS WILL NOT BE ACCEPTABLE.
 - STANDARD SIZE SECTIONS OF SOD SHALL BE STRONG ENOUGH TO SUPPORT THEIR OWN WEIGHT AND RETAIN THEIR SIZE AND SHAPE WHEN SUSPENDED VERTICALLY WITH A FIRM GRASP ON THE UPPER 10 PERCENT OF THE SECTION.
 - SOD SHALL NOT BE HARVESTED OR TRANSPLANTED WHEN MOISTURE CONTENT (EXCESSIVELY DRY OR WET) WOULD UNIVERSALLY AFFECT ITS SURVIVAL.
 - SOD SHALL BE HARVESTED, DELIVERED, AND INSTALLED WITHIN A PERIOD OF 36 HOURS. SOD NOT TRANSPORTED WITHIN THIS PERIOD SHALL BE APPROVED BY AN AGRONOMIST OR SOIL SCIENTIST PRIOR TO ITS INSTALLATION.

- B. SOD INSTALLATION**
- DURING PERIODS OF EXCESSIVELY HIGH TEMPERATURE OR IN AREAS HAVING DRY SUBSOIL, THE SUBSOIL SHALL BE LIGHTLY IRRIGATED IMMEDIATELY PRIOR TO LAYING THE SOD. THE FIRST ROW OF SOD SHALL BE LAID IN A STRAIGHT LINE WITH SUBSEQUENT ROWS PLACED PARALLEL TO AND TIGHTLY WEDGED AGAINST EACH OTHER. LATERAL JOINTS SHALL BE STAGGERED TO PROMOTE MORE UNIFORM GROWTH AND STRENGTH. ENSURE THAT SOD IS NOT STRETCHED OR OVERLAPPED AND THAT ALL JOINTS ARE BUTTED TIGHT IN ORDER TO PREVENT VOIDS WHICH WOULD CAUSE AIR DRYING OF THE ROOTS.
 - WHEREVER POSSIBLE, SOD SHALL BE LAID WITH THE LONG EDGES PARALLEL TO THE CONTOUR AND WITH STAGGERED JOINTS. SOD SHALL BE ROLLED AND TAMPED, PEGGED OR OTHERWISE SECURED TO PREVENT SLIPPAGE ON SLOPES AND TO ENSURE SOLID CONTACT BETWEEN SOD ROOTS AND THE UNDERLYING SOIL SURFACE.
 - SOD SHALL BE WATERED IMMEDIATELY FOLLOWING ROLLING OR TAMPING UNTIL THE UNDERSIDE OF THE NEW SOD PAD AND SOIL SURFACE BELOW THE SOD ARE THOROUGHLY WET. THE OPERATIONS OF LAYING, TAMPING AND IRRIGATING FOR ANY PIECE OF SOD SHALL BE COMPLETED WITHIN EIGHT HOURS.
- C. SOD MAINTENANCE**
- IN THE ABSENCE OF ADEQUATE RAINFALL, WATERING SHALL BE PERFORMED DAILY OR AS OFTEN AS NECESSARY DURING THE FIRST WEEK AND IN SUFFICIENT QUANTITIES TO MAINTAIN MOIST SOIL TO A DEPTH OF 4". WATERING SHOULD BE DONE DURING THE HEAT OF THE DAY TO PREVENT WILTING.
 - AFTER THE FIRST WEEK, SOD WATERING IS REQUIRED AS NECESSARY TO MAINTAIN ADEQUATE MOISTURE CONTENT.
 - THE FIRST MOWING OF SOD SHOULD NOT BE ATTEMPTED UNTIL THE SOD IS FIRMLY ROOTED. NO MORE THAN 1/3 OF THE GRASS LEAF SHALL BE REMOVED BY THE INITIAL CUTTING OR SUBSEQUENT CUTTINGS. GRASS HEIGHT SHALL BE MAINTAINED BETWEEN 2" AND 3" UNLESS OTHERWISE SPECIFIED.

REVISIONS			
NO.	DESCRIPTION	DATE	BY
1	ADDENDUM NO. 1 - ADDED ANNE ARUNDEL COUNTY NOTES	1/10/03	MJR
1	R.L. NO. 1 - ADDED ANNE ARUNDEL COUNTY NOTES	2/15/03	MJR

TEMPORARY SEEDING SUMMARY

SEED MIXTURE (HARDNESS ZONE 7A) FROM TABLE 26				FERTILIZER RATE (10-10-10)	LIME RATE
NO.	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES SEEDING DEPTHS		
--	RYE	140	8/15-11/30 1"-2"	600 LB/AC (15 LB/1000SF)	2 TONS/AC (100 LB/1000SF)
--	BARLEY PLUS FOXTAIL MILLET	150	2/1-10/15 1"		
--	MILLET	50	5/1-8/14 1/2"		

GENERAL NOTES (FOR EROSION AND SEDIMENT CONTROL PLANS ONLY)

- REFER TO "1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" FOR STANDARD DETAILS AND DETAILED SPECIFICATIONS OF EACH PRACTICE SPECIFIED HEREIN.
- WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, MINOR FIELD ADJUSTMENTS CAN AND WILL BE MADE TO INSURE THE CONTROL OF ANY SEDIMENT. CHANGES IN SEDIMENT CONTROL PRACTICES REQUIRE PRIOR APPROVAL OF THE SEDIMENT CONTROL INSPECTOR AND THE ANNE ARUNDEL COUNTY SOIL CONSERVATION DISTRICT.
- AT THE END OF EACH WORKING DAY, ALL SEDIMENT CONTROL PRACTICES WILL BE INSPECTED AND LEFT IN OPERATION THROUGHOUT THE NIGHT.
- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
 - SEVEN CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES GREATER THAN THREE HORIZONTAL TO ONE VERTICAL (3:1), AND
 - FOURTEEN DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE WHICH WILL REMAIN IDLE OVER FOURTEEN DAYS.
- ANY CHANGE TO THE GRADING PROPOSED ON THIS PLAN REQUIRES RE-SUBMISSION TO THE ANNE ARUNDEL COUNTY SOIL CONSERVATION DISTRICT FOR APPROVAL.
- DUST CONTROL WILL BE PROVIDED FOR ALL DISTURBED AREAS. REFER TO "1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", PG. H-30-1, FOR ACCEPTABLE METHODS AND SPECIFICATIONS FOR DUST CONTROL.
- ANY VARIATIONS FROM THE SEQUENCE OF OPERATIONS STATED ON THIS PLAN REQUIRES THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR AND THE ANNE ARUNDEL COUNTY SOIL CONSERVATION DISTRICT PRIOR TO THE INITIATION OF THE CHANGE.
- EXCESS CUT OR BORROW MATERIAL SHALL GO TO, OR COME FROM, RESPECTIVELY, A SITE WITH AN OPEN GRADING PERMIT.

INLET PROTECTION NOTE

THE CONTRACTOR IS REQUIRED TO INSTALL INLET PROTECTION ON ALL STORM DRAIN INLETS WITH THE EXCEPTION OF THE FOLLOWING:

- ANY INLET OUTFALLING DIRECTLY INTO A SEDIMENT TRAPPING DEVICE.
 - INLETS ON PRIVATE OR PUBLIC PAVED ROADWAYS OPEN TO THE PUBLIC. ALL INLET PROTECTION WILL BE INSTALLED AS DIRECTED BY THE INSPECTOR IN ACCORDANCE WITH THE "1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", PAGE E-16-5A OR E-16-5B. THE REMOVAL OF ANY INLET PROTECTION DEVICES WILL REQUIRE APPROVAL FROM THE INSPECTOR.
- *STORM DRAINS TO BE FLUSHED PRIOR TO TRAPPING DEVICE REMOVAL.

UTILITY NOTE

- CONTRACTOR SHOULD OPEN ONLY THAT SECTION OF TRENCH THAT CAN BE BACKFILLED AND STABILIZED EACH DAY. IF TRENCH MUST REMAIN OPEN LONGER THAN ONE DAY, SILT FENCE SHALL BE PLACED BELOW (DOWNSLOPE OF) THE TRENCH.
- PLACE ALL EXCAVATED MATERIAL ON UPHILL SIDE OF TRENCH.
- ANY SEDIMENT CONTROLS DISTURBED BY UTILITY CONSTRUCTION ARE TO BE REPAIRED IMMEDIATELY.

(THE DISTRICT SHALL ALLOW CONTINUED USE OF THE STANDARD UTILITY NOTE FOR WORK OUTSIDE THE MAIN SITE IF THE LENGTH OF TRENCH IS OF SHORT, TO MODERATE LENGTH (UP TO DISCRETION OR REVIEWER). IF THE WORK IS DEEMED TO BE OF SIGNIFICANT EXTENT, THE DISTRICT WILL REQUIRE THE PLAN DESIGNER TO PROVIDE PHYSICAL SEDIMENT CONTROL MEASURES ON THE PLANS.)

OWNER'S / DEVELOPER'S CERTIFICATION

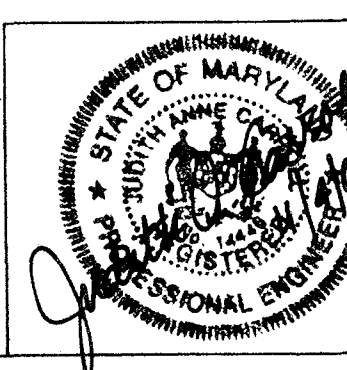
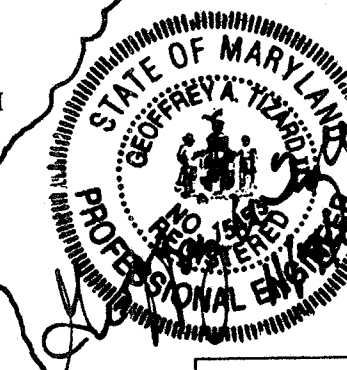
I/WE DO HEREBY CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION, AND/OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS APPROVED PLAN AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATION OF ATTENDANCE AT AN APPROVED DEPARTMENT OF THE ENVIRONMENT SEDIMENT AND EROSION CONTROL TRAINING PROGRAM PRIOR TO THE BEGINNING OF WORK.

Gennady Schwartz
 PRINT NAME: Gennady Schwartz DATE: 1-02-05
 ADDRESS: 2600 MADISON AVENUE BALTIMORE, MD 21212
 TELEPHONE NUMBER: 410-396-7948 CARD NO.:

ENGINEER'S CERTIFICATION

I DO HEREBY CERTIFY THAT THIS PLAN FOR EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED UPON PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE ANNE ARUNDEL COUNTY SOIL CONSERVATION DISTRICT.

Geoffrey A. Tizard, II
 PRINT NAME: Geoffrey A. Tizard, II DATE: 11/7/02
 ADDRESS: 15 Lovelan Circle, Sparks, MD 21152
 TELEPHONE NUMBER: 410-771-4950



STANDARD RESPONSIBILITY NOTES

I (WE) CERTIFY THAT:

- ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE IN ACCORDANCE WITH THIS SEDIMENT AND EROSION CONTROL PLAN, AND FURTHER, AUTHORIZE THE RIGHT OF ENTRY FOR PERIODIC ON-SITE EVALUATION BY THE ANNE ARUNDEL COUNTY SOIL CONSERVATION DISTRICT BOARD OF SUPERVISORS AND THEIR AUTHORIZED AGENTS.
- ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE FROM THE MARYLAND DEPARTMENT OF THE ENVIRONMENT'S APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT.
- THE APPROPRIATE ENCLOSURE WILL BE CONSTRUCTED AND MAINTAINED ON THE SEDIMENT BASIN (S) INCLUDED IN THIS PLAN. SUCH STRUCTURE (S) WILL BE IN COMPLIANCE WITH ARTICLE 21, SECTION 2-304 OF THE ANNE ARUNDEL COUNTY CODE.
- THE DEVELOPER IS RESPONSIBLE FOR THE ACQUISITION OF ALL EASEMENTS, RIGHTS, AND/OR RIGHTS-OF-WAY THAT MAY BE REQUIRED FOR THE SEDIMENT AND EROSION CONTROL PRACTICES, STORMWATER MANAGEMENT PRACTICES AND DISCHARGE OF STORMWATER ONTO OR ACROSS ADJACENT OR DOWNSTREAM PROPERTIES INCLUDED IN THIS PLAN. HE IS ALSO RESPONSIBLE FOR THE ACQUISITION OF ALL EASEMENTS, RIGHTS AND/OR RIGHTS-OF-WAY THAT MAY BE REQUIRED FOR GRADING AND/OR WORK ON ADJACENT PROPERTIES INCLUDED IN THIS PLAN.
- FOLLOWING INITIAL SOIL DISTURBANCES OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN SEVERAL CALENDAR DAYS FOR THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES GREATER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1) AND FOURTEEN DAYS FOR ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- THE SEDIMENT CONTROL APPROVALS ON THIS PLAN EXTEND ONLY TO AREAS AND PRACTICES IDENTIFIED AS PROPOSED WORK.
- THE APPROVAL OF THIS PLAN FOR SEDIMENT AND EROSION CONTROL DOES NOT RELIEVE THE DEVELOPER/CONSULTANT FROM COMPLYING WITH ANY FEDERAL/STATE/COUNTY REQUIREMENTS APPERTAINING TO ENVIRONMENTAL ISSUES.
- THE DEVELOPER MUST REQUEST THAT THE DEPARTMENT OF INSPECTIONS AND PERMITS APPROVE WORK COMPLETED IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN, THE GRADING OR BUILDING PERMIT, AND THE ORDINANCE.
- ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE DEPARTMENT OF INSPECTIONS AND PERMITS SHALL BE REQUIRED ON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCES OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THE INITIAL APPROVAL BY THE DEPARTMENT OF INSPECTIONS AND PERMITS IS GIVEN.
- APPROVAL SHALL BE REQUESTED ON FINAL STABILIZATION OF ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES BEFORE REMOVAL OF CONTROLS.

PRINT NAME: Gennady Schwartz TITLE: CHIEF OF CAPITAL DEVELOPMENT
 ADDRESS: 2600 MADISON AVENUE BALTIMORE, MD 21212
 TELEPHONE: (410) 396-7948

CITY OF BALTIMORE
 DEPARTMENT OF RECREATION AND PARKS

FORT SMALLWOOD PARK
 WASTEWATER TREATMENT PLANT
 REPLACEMENT AND COLLECTION
 SYSTEM IMPROVEMENTS

SEDIMENT CONTROL NOTES

SCALE: SHEET 16 OF 16
 DATE: NOV. 4 2002