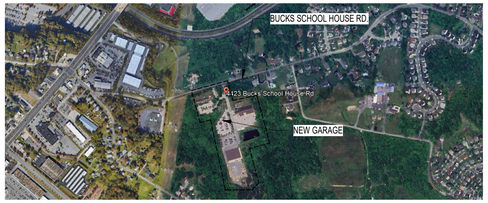
VICINITY MAP



GOOGLE EARTH IMAGE

ABBREVIATIONS

Above finished floor	AFF	Footing	FTG	Project	PROJ
Acoustic	ACST	Foundation	FDN	Property	PROP
Acoustic Panel Ceiling	APC	Furnish(ed), furniture	FURN	Public Address	PA
Addendum	ADD	Furring	FURR	Quality control	QC
Alternate	ALT	Gage (gauge)	GA	Quality	QUAL
Aluminum	AL	Galvanize(d)	GALV	Quantity	QTY
Angle	L	Galvanized Iron	GALVI	Quarry Tile	QT
Approximate	APPROX	Glazed Wall Tile	GWT	Radius	RAD
Architecture, architectural	ARCH	Grab Bar	GB	Rain Leader	RL
Asbestos	ASB	Grade	GR	Received	RCVD
Asphalt	ASPH	Gravel	GVL	Receptacle	RCPT
Assistant	ASST	Gypsum Wallboard	GWB	Receptionist	RECPT
Association	ASSN	Gypsum	GYP	Recess(ed)	REC
Automatic	AUTO	Handicapped	HC	Refer, reference	REF
Average	AVG	Hardware	HDW	Refrigerate, refrigerator	REFR
Base plate	BP	Heating ventilating and	HVAC	Reinforce	REINF
Basement	BSMT	air conditioning		Reinforced concrete	RC
Beam	BM	Height	HGT	Remove	RMV
Bearing	BRG	High Point	HPT	Repair	RPR
Bedroom	BR	High Performance	HP	Required	REQD
Benchmark	BM	High Performance Coating	HPC	Revise, revision	REV
Board	BD	Hollow Metal	HM	Right hand	RH
Boiler	BLR	Horizontal	HORIZ	Road	RD
Bottom	BOT	Include(d), inclusive	INCL	Roof Drain	RD
Brick	BRK	Incorporated	INC	Roof	RF
Building line	BL	Information	INFO	Roofing	RFG
Building	BLDG	Inside diameter	ID	Room	RM
Built-up-roof	BUR	Install(ed), installation	INSTL	Rubber tile floor	RTF
Cabinet	CAB	Insulation	INSUL	Rubber	RBR
Carpet	CPT	Interior	INT	Schedule	SCHED
Catalog	CAT	Janitor	JAN	Schematic	SCHEM
Ceiling height	CH	Joint	JT	Section	SECT
Ceiling	CLG	Joist	J, JST	Service	SVCE
Center	CTR	Junction box	JB	"Sheet, sheeting"	SHT
Centerline	CL	Knock down	KD	Shower	SH
Ceramic Tile	CT	Laboratory	LAB	Siding	SDG
Ceramic	CER	Lavatory	LAV	Similar	SIM
Chalkboard	CB	Left Hand	LH	Slope	SL
Clear	CLR	Left	L	Sound-transmission class	STC
Closet	CLO	Length	LG	South	S
Coated	CTD	Level	LVL	Speaker	SPKR
Cold rolled	CR	Light	LT	Specification	SPEC
Column	COL	Machine	MACH	Sprinkler	SPR
Company	CO	Maintenance	MAINT	Square	SQ
Composition	COMP	Manager	MGR	Stainless steel	SS
Concrete Masonry Unit	CMU	Manual	MNL	Standard	STD
Concrete	CONC	Manufacturing	MFG	Standpipe	SP
Construction joint	CJ	Markerboard	MB	Steel	STL
Construction	CONSTR	Masonry opening	MO	Storage	STOR
"Continue, Continuous"	CONT	Masonry	MSNRY	Structural Glazed Facing Tile	SGFT
Corridor	CORR	Master bedroom	MBR	Structural, structure	STRUCT
Countersink	CSK	Material	MATL	Substitute	SUBST
Cubic	CU	Maximum	MAX	Surface	SURF
Curve(d)	CRV	Mechanical	MECH	Suspend(ed)	SUSP
Dampproofing	DP	Membrane	MEMB	Switch	SW
Degree	DEG	Men	M	Symmetrical	SYM
Department(al)	DEPT	Metal	MET, MTL	System	SYS
Detail	DET	Mezzanine	MEZZ	Tackboard	TB
Diagonal	DIAG	Minimum	MIN	Tackstrip	TS
Diameter	DIA	Mirror	MIR	Telephone	TEL
Dimension	DIM	Miscellaneous	MISC	Television	TV
Dishwasher	DW	Mounted	MTD	Temporary	TEMP
Dispenser	DISP	Mounting	MTG	Terrazzo	TER
Door	DR	Necessary	NEC	Thick	THK
Double	DBL	Noise-reduction coefficient	NRC	Through	THRU
Double-hung	DH	Nominal	NOM	Toilet	T
Down	DN	Non Combustible	NC, NONCOM	Tongue and groove	T&G
Downspout	DS	North	N	Top and bottom	T&B
Drain	DR	Not in Contract	NIC	Top chord	TC
Drawing	DWG	Not to scale	NTS	Top of Masonry Parapet	TMP
Each	EA	Not available	NA	Top of Bearing	TOFB
East	E	Number	NO	Top of Steel	T.O.S.
Electric Water Cooler	EWC	Office	OFF	Topping	TOPG
"Electric, electrical"	ELEC	On center	OC	Total	TOT
Elevation	EL	Opening	OPNG	Transformer	XFMR
Elevator	ELEV	Opposite	OPP	Transom	TR
Engineer	ENGR	Outside diameter	OD	Transparent	TRANS
Entrance	ENTR	Overall	OA	Tread	TRD
Equal	EQ	Overhead	OVHD	Threshold	THRESH
Equipment	EQUIP	Page	P	Typical	TYP
Exhaust	EXH	Painted	PTD	Underground	UG
Existing	EXIST	Pair	PR	Underwriters Laboratories	UL
Expansion joint	EXP JT	Panel	PNL	Unfinished	UNF
Exposed	EXP	Partition	PTN	Unit Ventilator	UV
Exterior	EXT	Percent	PCT	Unless Otherwise Noted	UON
Fabricate	FAB	Perforate(d)	PERF	Urinal	UR
Face of Stud	F. OF S.	Permanent	PERM	US Gypsum Company	USG
Fan Coil Unit	FCU	Perpendicular	PERP	Vertical	VERT
Fiberglass-reinforced plastics	FRP	Piece	PC	Vestibule	VEST, V
Finish	FIN	Plastic Laminate	PLAM	Vinyl Reducing Strip	VRS
Finished Floor	FF	Plastic Laminate	PLAS.LAM	Vinyl Composite Tile	VCT
Fire Extinguisher	FE	Plate	PL	Vinyl asbestos tile	VAT
Fire Extinguisher & Cabinet	FEC	Plumbing	PLMB	Wardrobe	WARD
Fire Retardant Treated	FRT	Plywood	PLYWD	Water closet	WC
Fireproof	FPRF	Point	PT	Waterproof	WP
Fixture	FXTR	Polyvinyl chloride	PVC	Weight	WT
Flange	FLG	Precast	PRCST	Welded	WLD
Flashing	FL	Prefabricated	PREFAB	Welded Wire Mesh	WWM
Floor	FL	Preliminary	PRELIM	With	W/
Floor drain	FD	Preparation, prepare	PREP	Without	W/O
Flooring	FLG	Program	PRGM	Women	W
Fluorescent	FLUOR	Projection Screen	PS	Wood	WD
				Wrought Iron	WI

FULLERTON UTILITIES NEW TRUCK GARAGE

4419A BUCKS SCHOOLHOUSE ROAD BALTIMORE, MD 21237

100 % CONSTRUCTION SET 3/4/2025

PROJECT DESCRIPTION: NEW 7-BAY PRE-ENGINEER GARAGE BUILDING

DESIGN TEAM

BALTIMORE COUNTY DPW	OWNER	
BALTIMORE COUNTY PROPERTY MANAGEMENT	MANAGEMENT	1220 LONG GREEN PIKE GLEN ARM, MD 21057
GRIMM + PARKER ARCHITECTS	ARCHITECT	11720 BELTSVILLE DRIVE CALVERTON, MD 20705
CARROLL ENGINEERING INC.	CIVIL	215 SCHILLING CIRCLE SUITE 102 HUNT VALLEY, MD 21031
BKM	MEP	6300 BLAIR HILL LANE SUITE 400 BALTIMORE, MD 21209
CONVERGENT TECHNOLOGIES	AV / TEL	5180 PARKSTONE DRIVE SUITE 250 CHANTILLY, VA 20151
FORELLA	COST ESTIMATOR	5180 PARKSTONE DRIVE SUITE 250 CHANTILLY, VA 20151

LIST OF DRAWINGS

SYMBOLS OF MATERIALS

EARTH
GRAVEL
CONCRETE
CONCRETE MASONRY UNITS
SOLID CONCRETE MASONRY UNITS
BRICK
WOOD-FINISHED
WOOD ROUGH
PLYWOOD
GYPSUM BOARD
ACOUSTIC TILE
STEEL - LARGE SCALE
ALL METALS - SMALL SCALE
CAST STONE
GLASS - LARGE SCALE
BATT INSULATION
RIGID INSULATION
CERAMIC TILE
CARPET

DWG FILENAME

SEAL
STATE OF MARYLAND SUSAN HAINS No. 16221 ARCHITECT
DATE: 10/11/2024

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AN A DULY LICENSED PROFESSIONAL ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 16221 , EXPIRATION DATE: 5/26/2026

ARCHITECT: GRIMM + PARKER ARCHITECT, INC.
AS--BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: Designer
DWN BY: Author
CHKD BY: Checker

AS--BUILT / REVISION | BY | DATE | P.W.A NO.
CONTRACT COMPLETION BOX

KEY SHEET: MSW
POSITION SHT: 29NE22, 29NE23, 28NE22, 28NE23
DRAWING SCALE: PLAN SCALE: ; PROFILE SCALE:

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

PROPERTY MANAGEMENT
APPROVED BY: Michael Goodyear PROPERTY MANAGER
DATE: 3.17.2025
Agency: DPWT
Approved by: Lisa K Eicholtz, PE
Date: 3/17/2025

SUBDIVISION: FULLERTON

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT

NEW TRUCK GARAGE
TITLE SHEET
100 % CONSTRUCTION SET 3/4/2025
4419A BUCKS SCHOOLHOUSE ROAD BALTIMORE, MD 21237

ELECTION DIST. NO.: 14C5

SHEET DESIGNATION	CONTRACT NUMBER
TS	24167 PO0
	JOB ORDER NUMBER
	PO 10010489
	1 OF 53
	DRAWING NUMBER
	2024 -2763
	FILE NO.: 8

BALTIMORE COUNTY MARYLAND

VICINITY MAP

SCALE: 1" = 500'

500 250 0 500 1000

GRAPHIC SCALE IN FEET

EXISTING CONDITIONS PLAN

SCALE: 1" = 40'

40 20 0 40 80

GRAPHIC SCALE IN FEET

MCS NAD 83(2011) NAVD 88

LEGEND

- EXISTING BUILDING
- 100 EXISTING MAJOR CONTOUR
- 99 EXISTING MINOR CONTOUR
- EXISTING PROPERTY LINE
- EXISTING RIGHT-OF-WAY
- EXISTING EASEMENT
- EXISTING SETBACK
- EXISTING CURB
- EXISTING CURB & GUTTER
- EXISTING FENCELINE
- EXISTING SIGN
- EXISTING FLAGPOLE
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- EXISTING LIGHT POLE
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY CLEANOUT
- EXISTING STORMDRAIN LINE
- EXISTING STORMDRAIN MANHOLE
- WV EXISTING WATER VALVE
- EXISTING WATER MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING ELECTRIC HANDBOX
- CTV EXISTING COMM HANDHOLE
- GV EXISTING GAS VALVE
- EXISTING STORMDRAIN INLET
- EXISTING ASPHALT PAVING
- EXISTING CONCRETE PAVING
- EXISTING GRAVEL

UTILITY DESIGNATION DESCRIPTION:

QUALITY LEVEL D (QL-D):
INCLUDES UTILITIES DESIGNATED THROUGH RECORD DOCUMENTS. THIS DATA COULD BE DIGITAL RECORDS, PAPER RECORDS, OR GIS DATA. THE AVAILABLE DATA COULD BE LIMITED AND NOT PRODUCE A COMPLETE PICTURE OF WHAT IS ONSITE. THE COMPLETENESS AND ACCURACY OF THE INFORMATION COULD BE COMPROMISED. HOWEVER, THE DATA COLLECTED IS SHOWN AND DESIGNATED SO AS TO REFLECT THE POTENTIAL FOR THE EXISTENCE OF UTILITIES.

QUALITY LEVEL C (QL-C):
INCLUDES UTILITIES DESIGNATED THROUGH THE PROCESS OF SURVEYING THE VISIBLE UTILITY SURFACE FEATURES. THIS DATA IS COMPILED WITH THE QUALITY LEVEL D DATA TO PROVIDE AN INCREASED, NOT ABSOLUTE, LEVEL OF HORIZONTAL POSITION ACCURACY FOR UNDERGROUND, NON-VISIBLE, QUALITY LEVEL D INFORMATION.

QUALITY LEVEL B (QL-B):
INCLUDES DESIGNATING THE UNDERGROUND UTILITIES BY MARKINGS PROVIDED THROUGH AN 811 CALL, BY CONTACTING AN INDIVIDUAL UTILITY COMPANY, OR PERFORMING TRACING OR GROUND PENETRATING RADAR. THE DESIGNATED UTILITY MARKINGS ARE THEN SURVEYED AND ADDED TO THE DRAWING. THIS DATA IS ADDED TO THE DATA COLLECTED FROM QUALITY LEVELS D AND C TO PROVIDE AN INCREASED LEVEL OF HORIZONTAL POSITION ACCURACY FOR UNDERGROUND, NON-VISIBLE UTILITIES.

QUALITY LEVEL A (QL-A):
INVOLVES PHYSICALLY LOCATING THE ACTUAL UTILITY BY MEANS OF TEST PITTING OR OTHER METHODS OF EXPOSURE. ONCE THE UTILITY IS EXPOSED IT IS LOCATED HORIZONTALLY AND VERTICALLY BY SURVEY MEASUREMENTS.

GENERAL NOTES:

1. FIELD RUN TOPOGRAPHICAL SURVEY PERFORMED ON OCTOBER 25TH, 2023. SUPPLEMENTED WITH BALTIMORE COUNTY GIS INFORMATION AND RECORD DRAWINGS.
2. EXISTING UTILITY INFORMATION IS DERIVED FROM SURVEY, BALTIMORE COUNTY GIS AND BALTIMORE COUNTY RECORD PLANS.EXISTING UNDERGROUND UTILITIES DESIGNATED ON THE PLANS ARE BASED ON CURRENTLY AVAILABLE INFORMATION AND ARE SHOWN FOR REFERENCE ONLY. THE OWNER AND ENGINEER DISCLAIM ANY RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF SAID INFORMATION BEYOND THE DESIGNATION INDICATED. THE QUALITY LEVEL DESIGNATED IS IN ACCORDANCE WITH ASCE "STANDARD GUIDELINE FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA" (CI/ASCE 38-02). THE CONTRACTOR SHALL MAKE HIMSELF FAMILIAR WITH THOSE STANDARDS PRIOR TO ANY RELIANCE ON THE INFORMATION SHOWN ON THESE PLANS.
3. PRIOR TO ANY EXCAVATION, IN THE ABSENCE OF QUALITY LEVEL A OR B DESIGNATION, THE CONTRACTOR SHALL VERIFY, TO HIS OWN SATISFACTION, THE EXISTENCE, DEPTH, SIZE, MATERIAL, AND LOCATION OF ALL UNDERGROUND UTILITIES, AND DETERMINE WHETHER THOSE UTILITIES ARE LIVE. ANY EARTHWORK IN LOCATIONS WHERE UTILITIES ARE POSSIBLE SHALL BE DONE WITH EXTREME CAUTION.
4. THE GIVING OF INFORMATION ON THE PLANS WILL NOT RELIEVE THE CONTRACTOR OF HIS OBLIGATION TO SUPPORT AND PROTECT ALL DESIGNATED OR UNDESIGNATED EXISTING UTILITIES AND APPURTENANCES. SHOULD ANY EXISTING UTILITY BE DAMAGED BY THE CONTRACTOR, THE CONTRACTOR SHALL REPAIR THE DAMAGE CAUSED TO THE UTILITY OWNER'S SATISFACTION, AT THE CONTRACTOR'S EXPENSE.
8. LIVE UNDERGROUND UTILITIES MAY EXIST WITHIN THE WORK AREA. CONTRACTOR SHALL USE EXTREME CAUTION AND SHALL COMPLY WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS.
9. INFORMATION SHOWN ON THIS DRAWING HAS BEEN PROVIDED AS A GUIDE TO ASSIST THE CONTRACTOR IN ESTABLISHING THE LOCATIONS OF PROPOSED CONSTRUCTION WITH RESPECT TO EXISTING SITE IMPROVEMENTS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL CONSTRUCTION SURVEY STAKEOUT REQUIRED AND TO CONFIRM ALL INFORMATION SHOWN HEREON.
10. SEE THIS SHEET FOR SITE BENCHMARKS. CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING TEMPORARY BENCHMARKS THROUGHOUT THE DURATION OF THE PROJECT FOR CONSTRUCTION LAYOUT PURPOSES.

GENERAL SURVEY NOTES:

1. COORDINATES AND ELEVATIONS SHOWN HEREON ARE REFERRED TO THE NORTH AMERICAN DATUM OF 1983 (2011) AND NORTH AMERICAN VERTICAL DATUM OF 1988 AND ARE BASED ON THE FOLLOWING CONTROL STATIONS:

CONTROL	NORTH	EAST	ELEVATION
BCO 332A	N 621,896.749	E 1,452,932.407	248.62
BCO 333A	N 621,523.650	E 1,453,586.516	257.25

2. FIELD SURVEYS WERE PERFORMED ON 07/21/2023
3. SITE DATA:
   MAP 81 – GRID 6 – PARCEL 172
   OWNERSHIP: BALTIMORE COUNTY, MARYLAND
   DEED: /05403/0702/
   ADDRESS: BUCKS SCHOOLHOUSE RD, BALTIMORE, MD 21237

SWM PERMIT#: CEN24-000079
GRADING PERMIT#: CEN24-000078

DESIGN ENGINEER:
JUDITH CARROLL, P.E, PRESIDENT
CARROLL ENGINEERING, INC.
215 SCHILLING CIRCLE, SUITE 102
HUNT VALLEY, MD 21031
OFFICE: 410-785-7423
JCARROLL@CEIENGINEERING.COM

PROPERTY OWNER:
BALTIMORE COUNTY, MARYLAND
OWNER CONTACT PERSON:
MIKE GOODYEAR
SR PROJECT MANAGER
ALT: GEORGE THOMAKOS
BC PROPERTY MANAGEMENT/CAPITAL
OFFICE: 410-887-6595
MGOODYEAR@BALTIMORECOUNTYMD.GOV

SEAL

STATE OF MARYLAND — JUDITH A. CARROLL — No. 14446 — REGISTERED PROFESSIONAL ENGINEER

DATE: 09-20-24

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

LICENSE NO. 14446 EXPIRATION DATE: 05/25/2025

CARROLL ENGINEERING, INC. 215 SCHILLING CIRCLE, SUITE 102 HUNT VALLEY, MD 21031 410-785-7423 WWW.CEIENGINEERING.COM

DGN BY: MJM
DWN BY: MJM
CHKD BY: CMS

AS-BUILT PER RECORD PRINT
BY:
DATE:

AS-BUILT / REVISION | BY | DATE | P.W.A NO.

CONTRACT COMPLETION BOX

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

KEY SHEET	POSITION SHT
MSW	28 NE 22 29 NE 22 28 NE 23 29 NE 23

DRAWING SCALE
PLAN SCALE: 1"=40'
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT

NEW TRUCK GARAGE

EXISTING CONDITIONS PLAN

100 % CONSTRUCTION SET 3/4/2025

4419A BUCKS SCHOOLHOUSE ROAD, ROSEDALE, MD 21237

SUBDIVISION: FULLERTON

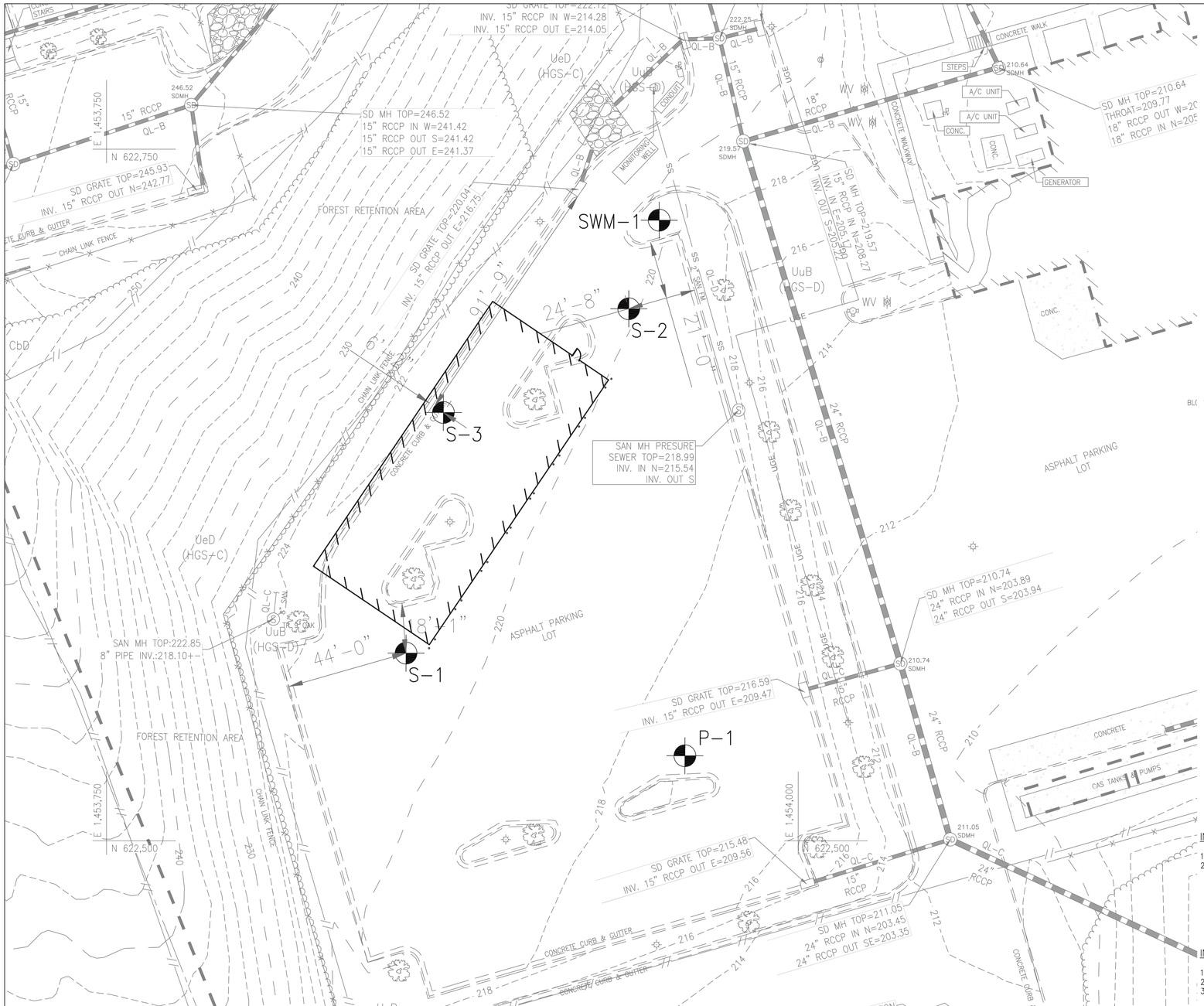
ELECTION DIST. NO.: 14C5

MCS NAD 83(2011) NAVD 88

SHEET DESIGNATION	CONTRACT NUMBER
C100	24167 PO0
	JOB ORDER NUMBER
	PO 10010489
	2 OF 53
	DRAWING NUMBER
	2024-2764
	FILE NO.: 8

BALTIMORE COUNTY MARYLAND

100 % CONSTRUCTION SET 3/4/2025



MCS NAD 83(2011) NAVD 88

LEGEND

- EXISTING BUILDING
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- EXISTING WATER MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING ELECTRIC HANDBOX
- EXISTING COMM HANDHOLE
- EXISTING GAS VALVE
- EXISTING STORMDRAIN INLET
- EXISTING ASPHALT PAVING
- EXISTING CONCRETE PAVING
- EXISTING GRAVEL
- PROPOSED BUILDING FOOTPRINT
- PROPOSED BORING LOCATION
  P-#: PARKING BORING
  S-#: STRUCTURAL BORING
  SWM-#: STORMWATER BORING

VICINITY MAP

SCALE: 1" = 500'

500 250 0 500 1000

GRAPHIC SCALE IN FEET

BORING PLAN

SCALE: 1" = 20'

20 10 0 20 40

GRAPHIC SCALE IN FEET

GENERAL NOTES:

1. FIELD RUN TOPOGRAPHICAL SURVEY PERFORMED ON JULY 21ST, 2023. SUPPLEMENTED WITH BALTIMORE COUNTY GIS INFORMATION AND RECORD DRAWINGS.
2. EXISTING UNDERGROUND UTILITIES DESIGNATED ON THE PLANS ARE BASED ON CURRENTLY AVAILABLE INFORMATION AND ARE SHOWN FOR REFERENCE ONLY. THE OWNER AND ENGINEER DISCLAIM ANY RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF SAID INFORMATION BEYOND THE DESIGNATION INDICATED. THE QUALITY LEVEL DESIGNATED IS IN ACCORDANCE WITH ASCE "STANDARD GUIDELINE FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA" (CI/ASCE 38-02). THE CONTRACTOR SHALL MAKE HIMSELF FAMILIAR WITH THOSE STANDARDS PRIOR TO ANY RELIANCE ON THE INFORMATION SHOWN ON THESE PLANS.
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2. FIELD SURVEYS WERE PERFORMED ON 07/21/2023
3. SITE DATA:
   MAP 81 – GRID 6 – PARCEL 172
   OWNERSHIP: BALTIMORE COUNTY, MARYLAND
   DEED: /05403/0702/
   ADDRESS: BUCKS SCHOOLHOUSE RD, BALTIMORE, MD 21237

INFORMATION FOR STRUCTURAL DESIGN

1. THE PROPOSED BUILDING IS TO BE ONE STORY ABOVE GRADE.
2. INFORMATION INVESTIGATED:
   - PROVIDE CLEAR RECOMMENDATIONS FOR FOUNDATION SYSTEM TYPE AND ALLOWABLE CAPACITIES.
   - PROVIDE LATERAL EARTH PRESSURES FOR DESIGN OF FOUNDATION WALLS.
   - INCLUDE ALLOWABLE CAPACITIES FOR RESISTING LATERAL SLIDING AND OVERTURNING LOADS DUE TO WIND AND SEISMIC.
   - DETERMINE SEISMIC SITE CLASSIFICATION.
   - DETERMINE GROUNDWATER CONDITIONS AND PROVIDE RECOMMENDATIONS FOR ANY ANTICIPATED CONSTRUCTION PROBLEMS (DEWATERING REQUIREMENTS, DRILLING INTO ROCK, SLOPE STABILITY ISSUES, ETC.).

INFORMATION FOR CIVIL DESIGN

1. BORING LOGS PROVIDED WITH ELEVATION OF SEASONAL HIGH GROUND WATER ELEVATIONS.
2. PAVEMENT SECTION RECOMMENDATIONS PROVIDED FOR CONCRETE AND ASPHALT PAVEMENT FOR SERVICE AREA DRIVES, H-25 LOADING.
3. RECOMMENDATIONS PROVIDED FOR UPGRADING THE EXISTING ASPHALT PAVEMENT TO H-25 LOADING.

BORING DATA

TEST PIT	MD- Northing	MD- Easting	Existing Elev. (Ft)	Proposed Elev. (Ft)	Boring Depth (Ft)
P-1	1453959.05	622530.73	217.50	217.50	Ex. Grade -10
S-1	1453858.25	622567.83	221.00	220.78	Ex. Grade -30
S-2	1453938.75	622692.33	220.00	220.78	Ex. Grade -30
S-3	1453871.75	622654.83	221.00	220.78	Ex. Grade -30
SWM-1	1453949.75	622724.33	218.00	218.00	Ex. Grade -15

SWM PERMIT#: CEN24-000079
GRADING PERMIT#: CEN24-000078

DESIGN ENGINEER:
JUDITH CARROLL, P.E, PRESIDENT
CARROLL ENGINEERING, INC.
215 SCHILLING CIRCLE, SUITE 102
HUNT VALLEY, MD 21031
OFFICE: 410-785-7423
JCARROLL@CEIENGINEERING.COM

PROPERTY OWNER:
BALTIMORE COUNTY, MARYLAND
OWNER CONTACT PERSON:
MIKE GOODYEAR
SR PROJECT MANAGER
ALT. GEORGE THOMAKOS
BC PROPERTY MANAGEMENT/CAPITAL
OFFICE: 410-887-6595
MGOODYEAR@BALTIMORECOUNTYMD.GOV

SEAL: STATE OF MARYLAND — JUDITH A. CARROLL — NO.14446 — REGISTERED PROFESSIONAL ENGINEER
DATE: 09-20-24

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 14446 EXPIRATION DATE: 05/25/2025

CARROLL ENGINEERING, INC. 215 SCHILLING CIRCLE, SUITE 102 HUNT VALLEY, MD 21031 410-785-7423 WWW.CEIENGINEERING.COM

DGN BY: MJM
DWN BY: MJM
CHKD BY: CMS
DATE REVIEWED:

AS-BUILT PER RECORD PRINT
BY:
DATE:

AS-BUILT / REVISION	BY	DATE	P.W.A NO.
CONTRACT COMPLETION BOX			

KEY SHEET: MSW

POSITION SHT: 28 NE 22, 29 NE 22, 28 NE 23, 29 NE 23

DRAWING SCALE
PLAN SCALE: 1"=20'
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							

SUBDIVISION: FULLERTON

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT

NEW TRUCK GARAGE
BORING PLAN
100 % CONSTRUCTION SET 3/4/2025
4419A BUCKS SCHOOLHOUSE ROAD, ROSEDALE, MD 21237

ELECTION DIST. NO.: 14C5

MCS NAD 83(2011) NAVD 88

SHEET DESIGNATION	CONTRACT NUMBER
C101	24167 PO0
	JOB ORDER NUMBER
	PO 10010489
	3 OF 53
	DRAWING NUMBER
	2024-2765
	FILE NO.: 8

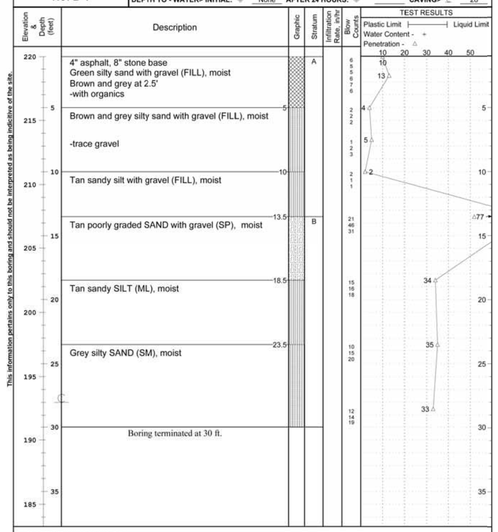
BALTIMORE COUNTY MARYLAND

100 % CONSTRUCTION SET 3/4/2025

GEOTECH ENGINEERS, INC.

LOG OF BORING No. B-1

PROJECT: Fullerton Maintenance Building — PROJECT NO.: 442827E
CLIENT: Grimm + Parker
PROJECT LOCATION: 4421 Bucks Schoolhouse Road
LOCATION: Baltimore, MD — ELEVATION: 221
DRILLER: KIM Engineering — LOGGED BY: DF
DRILLING METHOD: Hollow Stem Auger — DATE: 02/28/2024
DEPTH TO - WATER> INITIAL: ▽ None AFTER 24 HOURS: ▼ — CAVING> ℄ 28



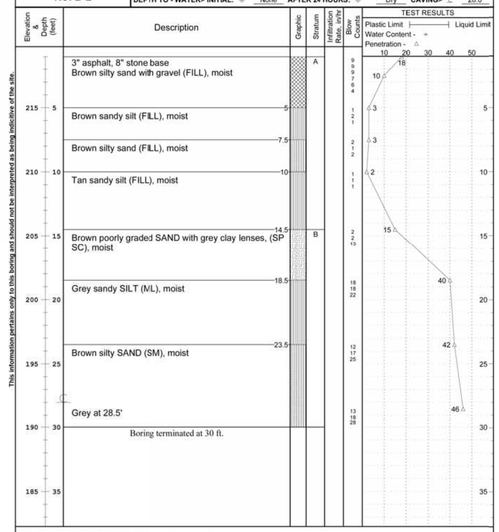
Backfilled upon completion

Figure PAGE 1 of 1

GEOTECH ENGINEERS, INC.

LOG OF BORING No. B-2

PROJECT: Fullerton Maintenance Building — PROJECT NO.: 442827E
CLIENT: Grimm + Parker
PROJECT LOCATION: 4421 Bucks Schoolhouse Road
LOCATION: Baltimore, MD — ELEVATION: 220
DRILLER: KIM Engineering — LOGGED BY: DF
DRILLING METHOD: Hollow Stem Auger — DATE: 02/28/2024
DEPTH TO - WATER> INITIAL: ▽ None AFTER 24 HOURS: ▼ Dry — CAVING> ℄ 28.0'



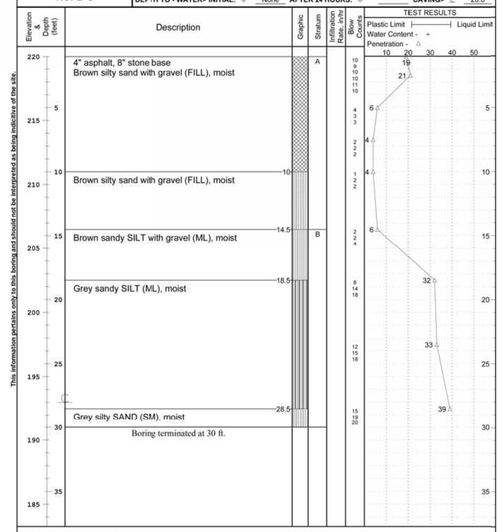
PVC pipe installed for overnight groundwater readings.

Figure PAGE 1 of 1

GEOTECH ENGINEERS, INC.

LOG OF BORING No. B-3

PROJECT: Fullerton Maintenance Building — PROJECT NO.: 442827E
CLIENT: Grimm + Parker
PROJECT LOCATION: 4421 Bucks Schoolhouse Road
LOCATION: Baltimore, MD — ELEVATION: 221
DRILLER: KIM Engineering — LOGGED BY: DF
DRILLING METHOD: Hollow Stem Auger — DATE: 02/28/2024
DEPTH TO - WATER> INITIAL: ▽ None AFTER 24 HOURS: ▼ — CAVING> ℄ 28.0



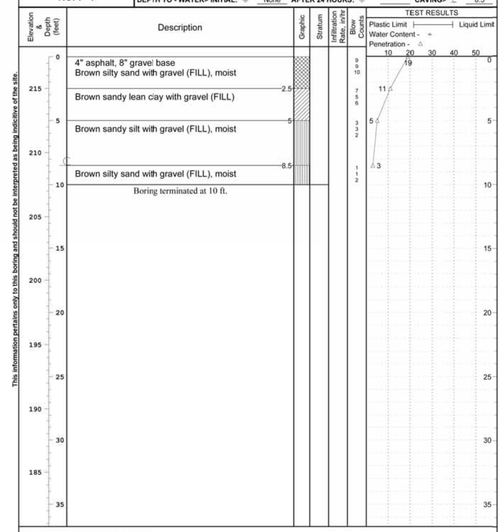
Backfilled upon completion

Figure PAGE 1 of 1

GEOTECH ENGINEERS, INC.

LOG OF BORING No. P-1

PROJECT: Fullerton Maintenance Building — PROJECT NO.: 442827E
CLIENT: Grimm + Parker
PROJECT LOCATION: 4421 Bucks Schoolhouse Road
LOCATION: Baltimore, MD — ELEVATION: 217.5
DRILLER: KIM Engineering — LOGGED BY: DF
DRILLING METHOD: Hollow Stem Auger — DATE: 02/28/2024
DEPTH TO - WATER> INITIAL: ▽ None AFTER 24 HOURS: ▼ — CAVING> ℄ 8.5



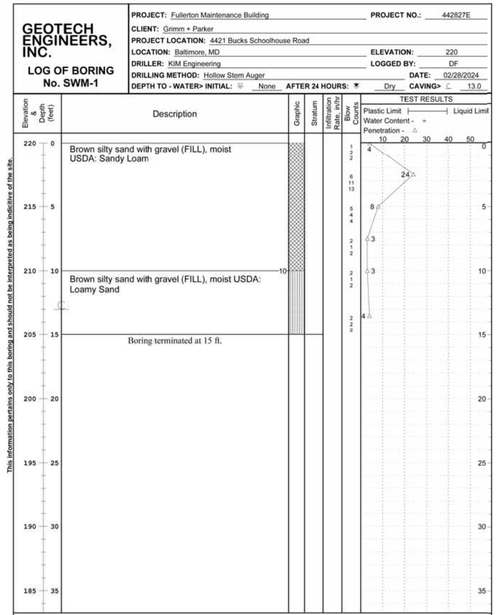
Backfilled upon completion

Figure PAGE 1 of 1

GEOTECH ENGINEERS, INC.

LOG OF BORING No. SWM-1

PROJECT: Fullerton Maintenance Building — PROJECT NO.: 442827E
CLIENT: Grimm + Parker
PROJECT LOCATION: 4421 Bucks Schoolhouse Road
LOCATION: Baltimore, MD — ELEVATION: 220
DRILLER: KIM Engineering — LOGGED BY: DF
DRILLING METHOD: Hollow Stem Auger — DATE: 02/28/2024
DEPTH TO - WATER> INITIAL: ▽ None AFTER 24 HOURS: ▼ Dry — CAVING> ℄ 13.0



PVC pipe installed for overnight groundwater readings.

Figure PAGE 1 of 1

SEAL

STATE OF MARYLAND — JUDITH A. CARROLL — No. 14446 — REGISTERED PROFESSIONAL ENGINEER

DATE: 09-20-24

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AN A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 14446 EXPIRATION DATE: 05/25/2025

CARROLL ENGINEERING, INC. 215 SCHILLING CIRCLE, SUITE 102 HUNT VALLEY, MD 21031 (410)785-7423 WWW.CEIENGINEERING.COM

AS–BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: MJM
DWN BY: MJM
CHKD BY: CMS

AS–BUILT / REVISION	BY	DATE	P.W.A NO.
CONTRACT COMPLETION BOX			

KEY SHEET: MSW

POSITION SHT: 28 NE 22, 29 NE 22, 28 NE 23, 29 NE 23

DRAWING SCALE
PLAN SCALE:
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

SWM PERMIT#: CEN24-000079
GRADING PERMIT#: CEN24-000078

DESIGN ENGINEER:
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MCS NAD 83(2011) NAVD 88

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT

NEW TRUCK GARAGE
BORING LOG
100 % CONSTRUCTION SET 3/4/2025
4419A BUCKS SCHOOLHOUSE ROAD, ROSEDALE, MD 21237

SUBDIVISION: FULLERTON
ELECTION DIST. NO.: 14C5

SHEET DESIGNATION	CONTRACT NUMBER
C102	24167 PO0
JOB ORDER NUMBER	PO 10010489
4 OF 53	DRAWING NUMBER
2024-2766	FILE NO.: 8

BALTIMORE COUNTY MARYLAND

100 % CONSTRUCTION SET 3/4/2025

LEGEND

- EXISTING BUILDING
- 100 EXISTING MAJOR CONTOUR
- 99 EXISTING MINOR CONTOUR
- EXISTING PROPERTY LINE
- EXISTING RIGHT-OF-WAY
- EXISTING EASEMENT
- EXISTING SETBACK
- EXISTING CURB
- EXISTING CURB & GUTTER
- EXISTING FENCELINE
- EXISTING SIGN
- EXISTING FLAGPOLE
- EXISTING BOLLARD
- EXISTING TREELINE
- EXISTING DECIDUOUS TREE
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY CLEANOUT
- EXISTING STORMDRAIN LINE
- EXISTING STORMDRAIN MANHOLE
- WV EXISTING WATER VALVE
- EXISTING WATER MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING ELECTRIC HANDBOX
- CTV EXISTING COMM HANDHOLE
- GV EXISTING GAS VALVE
- EXISTING STORMDRAIN INLET
- EXISTING ASPHALT PAVING
- EXISTING CONCRETE PAVING
- EXISTING GRAVEL
- ASPHALT TO BE REMOVED
- ASPHALT TO BE MILLED
- TREE TO BE REMOVED
- LOD LIMIT OF DISTURBANCE
- LOW LIMIT OF WORK

DEMOLITION KEYNOTES:

1. ASPHALT AND ASSOCIATED SUB BASE TO BE REMOVED TO FULL DEPTH OF PAVEMENT SECTION.
2. CURB AND ASSOCIATED SUB BASE TO BE REMOVED TO FULL DEPTH OF PAVEMENT SECTION.
3. (4) EXISTING TREE TO BE DEMOLISHED.
4. (2) LIGHT POLE TO BE REMOVED, SALVAGED AND RETURNED TO OWNER FOR REINSTALLATION. BASE TO BE REMOVED.
5. MILL ASPHALT TO LIMIT-OF-WORK.
6. LOCATE SANITARY LINE AT (3) POINTS SHOWN AND PROVIDE HORIZONTAL AND VERTICAL LOCATION INFO TO CIVIL ENGINEER

VICINITY MAP
SCALE: 1" = 500'
500 250 0 500 1000
GRAPHIC SCALE IN FEET

DEMOLITION NOTES:

1. CONTRACTOR SHALL CONTACT THE OWNER AND DEVELOPER 72 HOURS PRIOR TO COMMENCING ANY WORK.
2. CONTRACTOR TO COORDINATE WITH MISS UTILITY, BALTIMORE COUNTY DEPARTMENT OF PROPERTY MANAGEMENT, AND A PRIVATE UTILITY LOCATOR COMPANY PRIOR TO COMMENCING ANY WORK. THE CONTRACTOR MUST NOTIFY ALL PUBLIC UTILITY COMPANIES WITH UNDERGROUND FACILITIES IN THE AREA OF PROPOSED EXCAVATION AND HAVE THOSE FACILITIES LOCATED BY THE UTILITY COMPANIES PRIOR TO COMMENCING EXCAVATION.
3. CONTRACTOR SHALL VERIFY FIELD CONDITIONS PRIOR TO AND DURING CONSTRUCTION/DEMOLITION AND NOTIFY THE OWNER IMMEDIATELY OF ANY DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND THE PLANS.
4. ALL UTILITY FRAMES AND COVERS TO REMAIN WITHIN THE PROJECT AREA SHALL BE ADJUSTED BY THE CONTRACTOR TO MEET NEW PAVEMENT OR GROUND ELEVATION. THE CONTRACTOR SHALL MAKE, CHECK, AND BE RESPONSIBLE FOR ALL MEASUREMENTS AND DIMENSIONS NECESSARY FOR THE PROPER CONSTRUCTION OF AND THE PREVENTION OF MISFITTINGS IN THE WORK. VERIFY LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES BEFORE STARTING CONSTRUCTION IN EACH AREA.
5. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY DISTURBANCE OR DEMOLITION IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL PLAN.
6. CONTRACTOR SHALL STABILIZE ALL UNINTENTIONALLY DISTURBED AREAS OUTSIDE OF THE L.O.D. BY THE END OF THE SAME WORKING DAY.
7. CONTRACTOR SHALL DISPOSE OF ALL DEMOLISHED AND DELETERIOUS MATERIALS NOT TO BE SALVAGED FOR REUSE ON SITE IN A SAFE AND LEGAL MANNER.
8. CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITY STRUCTURES TO REMAIN DURING DEMOLITION AND CONSTRUCTION ACTIVITIES AND TO PREVENT DEBRIS, SEDIMENT, OR WATER FROM ENTERING THE STRUCTURES.
9. CONTRACTOR SHALL PROTECT ALL FACILITIES AND UTILITIES TO REMAIN FROM DAMAGE WHETHER SHOWN HEREON OR NOT.
10. CONTRACTOR TO REMOVE ALL POLES, FOUNDATIONS, TIES, MANHOLES, MANHOLE COVERS, METERS/VAULTS, HAND BOXES, ETC. ASSOCIATED WITH EXISTING UTILITIES TO BE REMOVED UNLESS NOTED OTHERWISE. CONTRACTOR SHALL PROVIDE PROTECTION FOR ALL EXISTING POLES TO REMAIN.
11. ALL PAVEMENT SHALL BE SAWCUT PRIOR TO REMOVAL WHERE EXISTING CURB IS BEING REMOVED AND/ OR THERE IS ADJOINING PAVEMENT TO REMAIN. ALL SAWCUTS ARE TO BE NEAT, CLEAN AND STRAIGHT.
12. THE CONTRACTOR SHALL RESTORE ANY AND ALL AREAS DISTURBED DURING CONSTRUCTION TO ORIGINAL CONDITION OR BETTER.
13. ALL EXISTING PAINT MARKINGS ADJACENT TO THE PROJECT AREA WHICH BECOME FADED OR OBSCURED DUE TO CONSTRUCTION ACTIVITY SHALL BE REPAINTED OR RESTORED AT NO ADDITIONAL COST TO THE OWNER.
14. CONTRACTOR SHALL USE CAUTION WHEN WORKING AROUND EXISTING TREES TO REMAIN SO AS TO NOT DAMAGE THE TREES, TREE BRANCHES OR TREE ROOT SYSTEM.
15. CONTRACTOR SHALL INSTALL ORANGE PLASTIC MESH TREE PROTECTION FENCE (TPF) PRIOR TO ANY DEMOLITION ACTIVITIES, UNLESS OTHERWISE NOTED.
16. ALL ABANDONED UTILITIES SHALL BE PERMANENTLY CAPPED IN ACCORDANCE WITH UTILITY OWNERS REQUIREMENTS UNLESS OTHERWISE NOTED.
17. CONTRACTOR SHALL COORDINATE WITH OWNER AND UTILITY PROVIDER TO MINIMIZE DURATION OF UTILITY OUTAGES.
18. CONTRACTOR SHALL MAINTAIN VEHICULAR ACCESS TO AND AROUND OVERALL SITE DURING PAVEMENT OPEN CUT ACTIVITIES. CONTRACTOR SHALL FURNISH VEHICULAR AND PEDESTRIAN TRAFFIC PROTECTION IN ACCORDANCE WITH MUTCD LATEST VERSION.
19. CONTRACTOR SHALL UTILIZE SIX (6) FOOT TALL CHAIN LINK CONSTRUCTION FENCE AROUND ALL ACTIVE WORK AREAS. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS AND WARNING MEASURES TO PROTECT PEDESTRIANS FROM CONSTRUCTION ACTIVITIES. CONTRACTORS SHALL SUBMIT TO BALTIMORE COUNTY FOR ALL APPLICABLE PERMITS.

DEMOLITION PLAN

SCALE: 1" = 20'
20 10 0 20 40
GRAPHIC SCALE IN FEET

DESIGN ENGINEER:
JUDITH CARROLL, P.E, PRESIDENT
CARROLL ENGINEERING, INC.
215 SCHILLING CIRCLE, SUITE 102
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OFFICE: 410-785-7423
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SWM PERMIT#: CEN24-000079
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MCS NAD 83(2011) NAVD 88

SEAL: STATE OF MARYLAND · JUDITH A. CARROLL · NO.14446 · REGISTERED PROFESSIONAL ENGINEER
DATE: 09-20-24

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LICENSE NO. 14446 EXPIRATION DATE: 05/25/2025

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AS-BUILT PER RECORD PRINT
BY:
DATE:

AS-BUILT / REVISION	BY	DATE	P.W.A NO.
CONTRACT COMPLETION BOX			

KEY SHEET	POSITION SHT	DRAWING SCALE	
MSW	28 NE 22 29 NE 22 28 NE 23 29 NE 23	PLAN SCALE:	1"=20'
		PROFILE SCALE:	

PROPERTY MANAGEMENT
APPROVED BY: _____ PROPERTY MANAGER
DATE: _____

DGN BY: MJM	BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
DWN BY: MJM	REVIEWED BY:							
CHKD BY: CMS	DATE REVIEWED:							

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT

NEW TRUCK GARAGE
DEMOLITION PLAN
100 % CONSTRUCTION SET 3/4/2025
4419A BUCKS SCHOOLHOUSE ROAD, ROSEDALE, MD 21237

SUBDIVISION: FULLERTON
ELECTION DIST. NO.: 14C5

SHEET DESIGNATION	CONTRACT NUMBER
C200	24167 PO0
	JOB ORDER NUMBER
	PO 10010489
	5 OF 53
	DRAWING NUMBER
	2024-2767
	FILE NO.: 8

BALTIMORE COUNTY MARYLAND

100 % CONSTRUCTION SET 3/4/2025

LEGEND

- EXISTING BUILDING
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING PROPERTY LINE
- EXISTING RIGHT-OF-WAY
- EXISTING EASEMENT
- EXISTING SETBACK
- EXISTING CURB
- EXISTING CURB & GUTTER
- EXISTING FENCELINE
- EXISTING SIGN
- EXISTING FLAGPOLE
- EXISTING BOLLARD
- EXISTING TREELINE
- EXISTING DECIDUOUS TREE
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY CLEANOUT
- EXISTING STORMDRAIN LINE
- EXISTING STORMDRAIN MANHOLE
- EXISTING WATER VALVE
- EXISTING WATER MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING ELECTRIC HANDBOX
- EXISTING COMM HANDHOLE
- EXISTING GAS VALVE
- EXISTING STORMDRAIN INLET
- EXISTING ASPHALT PAVING
- EXISTING CONCRETE PAVING
- EXISTING GRAVEL

LEGEND

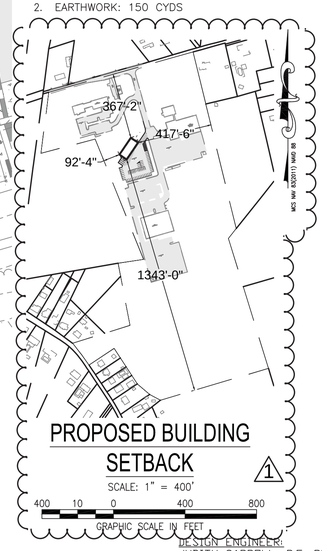
- PROPOSED BUILDING
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED CURB
- PROPOSED CURB & GUTTER
- PROPOSED LIGHT POLE
- PROPOSED UNDERGROUND ELECTRIC
- PROPOSED ASPHALT PAVING
- PROPOSED MICRO-BIORETENTION AREA
- PROPOSED SEGMENTAL BLOCK WALL
- PROPOSED STORMDRAIN LINE
- PROPOSED STORMDRAIN INLET
- LIMIT OF DISTURBANCE
- LIMIT OF WORK

PROPOSED KEYNOTES:

1. PROVIDE ASPHALT PAVEMENT.
2. PROVIDE PAVEMENT MARKINGS
3. RELOCATE LIGHT POLE AND PROVIDE ALL NECESSARY BASE, CONDUIT, WIRING, ETC FOR PROPOSED LIGHT
4. MODIFY EXISTING STORM DRAIN INLET AS REQUIRED TO DIRECT FLOW FROM SWALE TO INLET.
5. PROVIDE CONCRETE CURB / CURB & GUTTER
6. PROVIDE PROPOSED STRUCTURE (SEE ARCH/STRUCTURAL)
7. PROVIDE MICRO-BIO RETENTION FACILITY (SEE C600 – SWM PLAN)
8. PROVIDE STORM DRAINS (SEE C500 – STORM DRAIN PLAN)
9. PROVIDE BOLLARDS (SEE ARCH PLANS FOR GARAGE BOLLARD LOCATIONS)
10. PROVIDE CONCRETE SIDEWALK
11. PROVIDE SEGMENTAL BLOCK WALL
12. PROVIDE CONDUIT PER BGE FOR ELECTRICAL SERVICE

EARTHWORK & LOD NOTE:

1. LIMIT-OF-DISTURBANCE = 19,532 SF (0.448 Ac.)
2. EARTHWORK: 150 CYDS



PROPOSED BUILDING SETBACK

1

SCALE: 1" = 400'

400 10 0 400 800

GRAPHIC SCALE IN FEET

VICINITY MAP

SCALE: 1" = 500'

500 250 0 500 1000

GRAPHIC SCALE IN FEET

PROPOSED NOTES:

1. CONTRACTOR SHALL CONTACT THE OWNER AND DEVELOPER 72 HOURS PRIOR TO COMMENCING ANY WORK.
2. CONTRACTOR TO COORDINATE WITH MISS UTILITY, BALTIMORE COUNTY DEPARTMENT OF PROPERTY MANAGEMENT, AND A PRIVATE UTILITY LOCATOR COMPANY PRIOR TO COMMENCING ANY WORK. THE CONTRACTOR MUST NOTIFY ALL PUBLIC UTILITY COMPANIES WITH UNDERGROUND FACILITIES IN THE AREA OF PROPOSED EXCAVATION AND HAVE THOSE FACILITIES LOCATED BY THE UTILITY COMPANIES PRIOR TO COMMENCING EXCAVATION.
3. CONTRACTOR SHALL VERIFY FIELD CONDITIONS PRIOR TO AND DURING CONSTRUCTION/DEMOLITION AND NOTIFY THE OWNER IMMEDIATELY OF ANY DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND THE PLANS.
4. ALL UTILITY FRAMES AND COVERS TO REMAIN WITHIN THE PROJECT AREA SHALL BE ADJUSTED BY THE CONTRACTOR TO MEET NEW PAVEMENT OR GROUND ELEVATION. THE CONTRACTOR SHALL MAKE, CHECK, AND BE RESPONSIBLE FOR ALL MEASUREMENTS AND DIMENSIONS NECESSARY FOR THE PROPER CONSTRUCTION OF AND THE PREVENTION OF MISFITTINGS IN THE WORK. VERIFY LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES BEFORE STARTING CONSTRUCTION IN EACH AREA.
5. CONTRACTOR SHALL STABILIZE ALL UNINTENTIONALLY DISTURBED AREAS OUTSIDE OF THE L.O.D. BY THE END OF THE SAME WORKING DAY.
6. CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITY STRUCTURES TO REMAIN DURING DEMOLITION AND CONSTRUCTION ACTIVITIES AND TO PREVENT DEBRIS, SEDIMENT, OR WATER FROM ENTERING THE STRUCTURES.
7. CONTRACTOR SHALL PROTECT ALL FACILITIES AND UTILITIES TO REMAIN FROM DAMAGE WHETHER SHOWN HEREON OR NOT.
8. CONTRACTOR SHALL PROVIDE PROTECTION FOR ALL EXISTING POLES TO REMAIN.
9. THE CONTRACTOR SHALL RESTORE ANY AND ALL AREAS DISTURBED DURING CONSTRUCTION TO ORIGINAL CONDITION OR BETTER.
10. ALL EXISTING PAINT MARKINGS ADJACENT TO THE PROJECT AREA WHICH BECOME FADED OR OBSCURED DUE TO CONSTRUCTION ACTIVITY SHALL BE REPAINTED OR RESTORED AT NO ADDITIONAL COST TO THE OWNER.
11. CONTRACTOR SHALL USE CAUTION WHEN WORKING AROUND EXISTING TREES TO REMAIN SO AS TO NOT DAMAGE THE TREES, TREE BRANCHES OR TREE ROOT SYSTEM.
12. CONTRACTOR SHALL INSTALL ORANGE PLASTIC MESH TREE PROTECTION FENCE (TPF) PRIOR TO ANY CONSTRUCTION ACTIVITIES.
13. CONTRACTOR SHALL COORDINATE WITH OWNER AND UTILITY PROVIDER TO MINIMIZE DURATION OF UTILITY OUTAGES.
14. CONTRACTOR SHALL MAINTAIN VEHICULAR ACCESS TO AND AROUND OVERALL SITE DURING PAVEMENT OPEN CUT ACTIVITIES. CONTRACTOR SHALL FURNISH VEHICULAR AND PEDESTRIAN TRAFFIC PROTECTION IN ACCORDANCE WITH MUTCD LATEST VERSION.
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20 10 0 20 40

GRAPHIC SCALE IN FEET

PROPOSED SITE PLAN

SCALE: 1" = 20'

MCS NAD 83(2011) NAVD 88

PROPERTY OWNER:
BALTIMORE COUNTY, MARYLAND

OWNER CONTACT PERSON:
MIKE GOODYEAR
SR PROJECT MANAGER
ALT. GEORGE THOMAKOS
BC PROPERTY MANAGEMENT/CAPITAL
OFFICE: 410-887-6595
MGOODYEAR@BALTIMORECOUNTYMD.GOV

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THIS PLAN IS SEALED AND CERTIFIED AS BEING IN ACCORDANCE WITH THE APPROVED DEVELOPMENT PLAN

SEAL

STATE OF MARYLAND — JUDITH A. CARROLL — No. 14446 — REGISTERED PROFESSIONAL ENGINEER

DATE: 10-30-24

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AN A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

LICENSE NO. 14446 EXPIRATION DATE: 05/25/2025

CARROLL ENGINEERING, INC. 215 SCHILLING CIRCLE, SUITE 102 HUNT VALLEY, MD 21031 (410)785-7423 WWW.CEIENGINEERING.COM

DGN BY: MJM
DWN BY: MJM
CHKD BY: CMS

AS-BUILT PER RECORD PRINT
BY:
DATE:

AS-BUILT / REVISION	BY	DATE	P.W.A NO.
PERMIT REVISION 1	MJM	10/30/24	
CONTRACT COMPLETION BOX			

KEY SHEET	POSITION SHT	DRAWING SCALE	
MSW	28 NE 22 29 NE 22 28 NE 23 29 NE 23	PLAN SCALE:	1"=20'
		PROFILE SCALE:	

PROPERTY MANAGEMENT
APPROVED BY: _____ PROPERTY MANAGER
DATE: _____

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

SWM PERMIT#: CEN24-000079
GRADING PERMIT#: CEN24-000078

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT

NEW TRUCK GARAGE

PROPOSED SITE PLAN

100 % CONSTRUCTION SET 3/4/2025

4419A BUCKS SCHOOLHOUSE ROAD, ROSEDALE, MD 21237

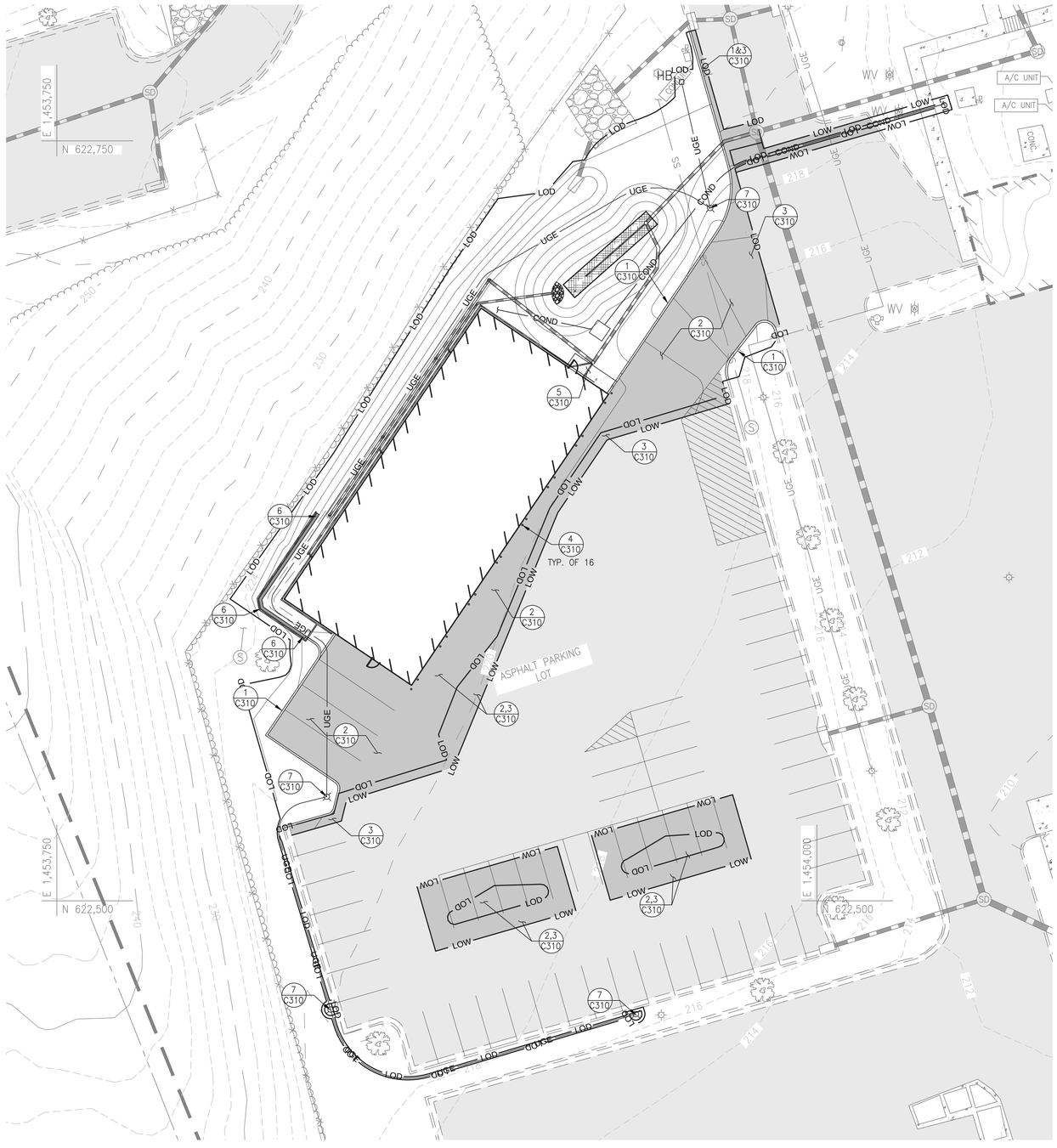
SUBDIVISION: FULLERTON

ELECTION DIST. NO.: 14C5

SHEET DESIGNATION	CONTRACT NUMBER
C300	24167 PO0
	JOB ORDER NUMBER
	PO 10010489
	6 OF 53
	DRAWING NUMBER
	2024-2768
	FILE NO.: 8

BALTIMORE COUNTY MARYLAND

100 % CONSTRUCTION SET 3/4/2025



MCS NAD 83(2011) NAVD 88

LEGEND

- EXISTING BUILDING
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING PROPERTY LINE
- EXISTING RIGHT-OF-WAY
- EXISTING EASEMENT
- EXISTING SETBACK
- EXISTING CURB
- EXISTING CURB & GUTTER
- EXISTING FENCELINE
- EXISTING SIGN
- EXISTING FLAGPOLE
- EXISTING BOLLARD
- EXISTING TREELINE
- EXISTING DECIDUOUS TREE
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY CLEANOUT
- EXISTING STORMDRAIN LINE
- EXISTING STORMDRAIN MANHOLE
- EXISTING WATER VALVE
- EXISTING WATER MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING ELECTRIC HANDBOX
- EXISTING COMM HANDHOLE
- EXISTING GAS VALVE
- EXISTING STORMDRAIN INLET
- EXISTING ASPHALT PAVING
- EXISTING CONCRETE PAVING
- EXISTING GRAVEL

LEGEND

- PROPOSED BUILDING
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED CURB
- PROPOSED CURB & GUTTER
- PROPOSED LIGHT POLE
- PROPOSED UNDERGROUND ELECTRIC
- PROPOSED ASPHALT PAVING
- PROPOSED MICRO-BIORETENTION AREA
- PROPOSED SEGMENTAL BLOCK WALL
- PROPOSED STORMDRAIN LINE
- PROPOSED STORMDRAIN INLET

VICINITY MAP
SCALE: 1" = 500'

500 250 0 500 1000
GRAPHIC SCALE IN FEET

DETAIL REFERENCE NOTATION:

CIVIL DETAIL NUMBER

X### = DRAWING SHEET THAT CONTAINS THE DETAIL REFERENCED

20 10 0 20 40
GRAPHIC SCALE IN FEET
SCALE: 1" = 20'

DETAIL REFERENCE PLAN
SCALE: 1" = 20'

THIS PLAN IS SEALED AND CERTIFIED AS BEING IN ACCORDANCE WITH THE APPROVED DEVELOPMENT PLAN

SEAL

STATE OF MARYLAND · JUDITH A. CARROLL · NO.14446 · REGISTERED PROFESSIONAL ENGINEER

DATE: 09-20-24

PROFESSIONAL CERTIFICATION		AS-BUILT / REVISION	BY	DATE	P.W.A NO.	KEY SHEET	POSITION SHT	DRAWING SCALE		PROPERTY MANAGEMENT
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AN A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 14446 EXPIRATION DATE: 05/25/2025						MSW	28 NE 22 29 NE 22 28 NE 23 29 NE 23	PLAN SCALE: 1"=20' PROFILE SCALE:		APPROVED BY: PROPERTY MANAGER DATE:
CARROLL ENGINEERING, INC. 215 SCHILLING CIRCLE, SUITE 102 HUNT VALLEY, MD 21031 410-785-7423 WWW.CARROLLENGINEERING.COM	DGN BY: MJM	BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER	
AS-BUILT PER RECORD PRINT	DWN BY: MJM	REVIEWED BY:								
BY: DATE:	CHKD BY: CMS	DATE REVIEWED:								

SWM PERMIT#: CEN24-000079
GRADING PERMIT#: CEN24-000078

DESIGN ENGINEER:
JUDITH CARROLL, P.E, PRESIDENT
CARROLL ENGINEERING, INC.
215 SCHILLING CIRCLE, SUITE 102
HUNT VALLEY, MD 21031
OFFICE: 410-785-7423
JCARROLL@CEIENGINEERING.COM

PROPERTY OWNER:
BALTIMORE COUNTY, MARYLAND
OWNER CONTACT PERSON:
MIKE GOODYEAR
SR PROJECT MANAGER
ALT. GEORGE THOMAKOS
BC PROPERTY MANAGEMENT/CAPITAL
OFFICE: 410-887-6595
MGOODYEAR@BALTIMORECOUNTYMD.GOV

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT

NEW TRUCK GARAGE

DETAIL REFERENCE PLAN

100 % CONSTRUCTION SET 3/4/2025

4419A BUCKS SCHOOLHOUSE ROAD, ROSEDALE, MD 21237

SUBDIVISION: FULLERTON

ELECTION DIST. NO.: 14C5

MCS NAD 83(2011) NAVD 88

SHEET DESIGNATION	CONTRACT NUMBER
C301	24167 PO0
	JOB ORDER NUMBER
	PO 10010489
	7 OF 53
	DRAWING NUMBER
	2024-2769
	FILE NO.: 8

BALTIMORE COUNTY MARYLAND

PROPOSED SITE DIMENSIONAL PLAN

SCALE: 1" = 20'

20 10 0 20 40

GRAPHIC SCALE IN FEET

LEGEND

- EXISTING BUILDING
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING PROPERTY LINE
- EXISTING RIGHT-OF-WAY
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- EXISTING GRAVEL
- PROPOSED BUILDING
- PROPOSED MAJOR CONTOUR
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- PROPOSED CURB
- PROPOSED CURB & GUTTER
- PROPOSED LIGHT POLE
- PROPOSED UNDERGROUND ELECTRIC
- PROPOSED ASPHALT PAVING
- PROPOSED MICRO-BIORETENTION AREA
- PROPOSED SEGMENTAL BLOCK WALL
- PROPOSED STORMDRAIN LINE
- PROPOSED STORMDRAIN INLET
- LIMIT OF DISTURBANCE
- LIMIT OF WORK

MCS NAV 83(2011) NAVD 88

SITE SURVEY BENCHMARKS:

SHOWN IN PLAN VIEW

TRAVERSE #40 – REBAR/CAP
N: 622,768.69
E: 1,453,957.29
ELEV.: 221.69

TRAVERSE #57 – MAG SPIKE
N: 622,744.47
E: 1,453,745.49
ELEV.: 247.29

TRAVERSE #61 – HUB/TACK
N: 622,528.59
E: 1,453,964.46
ELEV.: 217.05

VICINITY MAP

SCALE: 1" = 500'

500 250 0 500 1000

GRAPHIC SCALE IN FEET

SEGMENTAL BLOCK WALL ENLARGEMENT

SCALE: 1" = 5'

5 2.5 0 5 10

GRAPHIC SCALE IN FEET

WALL STAKEOUT TABLE

STATION	NORTHING	EASTING	TOP OF WALL ELEVATION (FT.)
0+00.00	622586.25	1453831.47	222.00
0+10.00	622591.89	1453823.14	222.50/222.00
0+17.50	622596.03	1453817.03	222.50
0+20.92	622599.36	1453816.38	222.50/222.00
0+42.13	622616.86	1453828.24	222.00/221.50
0+55.13	622627.28	1453835.50	221.50

MCS NAD 83(2011) NAVD 88

THIS PLAN IS SEALED AND CERTIFIED AS BEING IN ACCORDANCE WITH THE APPROVED DEVELOPMENT PLAN

SEAL

STATE OF MARYLAND — JUDITH A. CARROLL — No. 14446 — REGISTERED PROFESSIONAL ENGINEER

DATE: 09-20-24

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BY:

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AS-BUILT / REVISION	BY	DATE	P.W.A NO.
CONTRACT COMPLETION BOX			

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

KEY SHEET: MSW

POSITION SHT	
28 NE 22	
29 NE 22	
28 NE 23	
29 NE 23	

DRAWING SCALE

PLAN SCALE: 1"=20'

PROFILE SCALE:

FIELD ENGINEER

PROPERTY MANAGEMENT

APPROVED BY: _____ PROPERTY MANAGER

DATE: _____

SWM PERMIT#: CEN24-000079
GRADING PERMIT#: CEN24-000078

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT

NEW TRUCK GARAGE

PROPOSED SITE PLAN

100 % CONSTRUCTION SET 3/4/2025

4419A BUCKS SCHOOLHOUSE ROAD, ROSEDALE, MD 21237

SUBDIVISION: FULLERTON

ELECTION DIST. NO.: 14C5

PROPERTY OWNER:
BALTIMORE COUNTY, MARYLAND

OWNER CONTACT PERSON:
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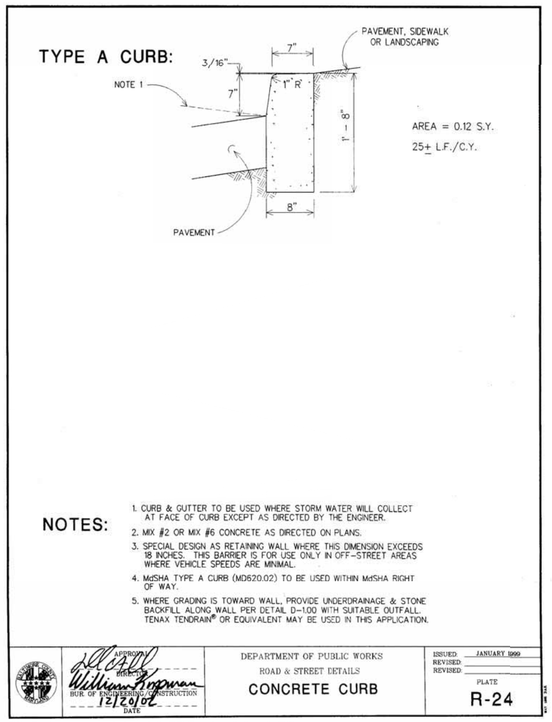
JCARROLL@CEENGINEERING.COM

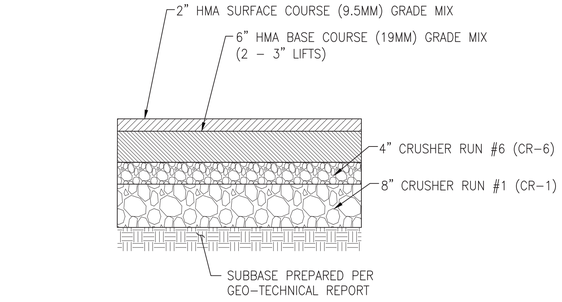
SHEET DESIGNATION	CONTRACT NUMBER
C302	24167 P00
	JOB ORDER NUMBER
	PO 10010489
	8 OF 53
	DRAWING NUMBER
	2024-2770
	FILE NO.: 8

BALTIMORE COUNTY MARYLAND



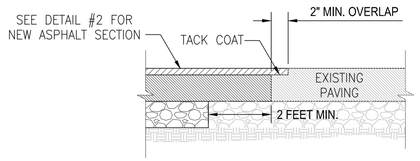
1 CONCRETE CURB DETAIL

NOT TO SCALE



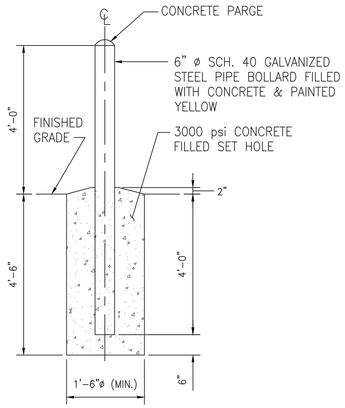
2 HOT MIX ASPHALT PAVING DETAIL

NOT TO SCALE



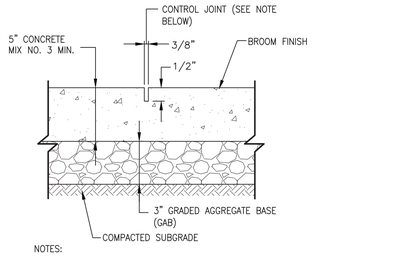
3 HMA PAVING TRANSITION DETAIL

NOT TO SCALE



4 VEHICULAR BOLLARD DETAIL

NOT TO SCALE

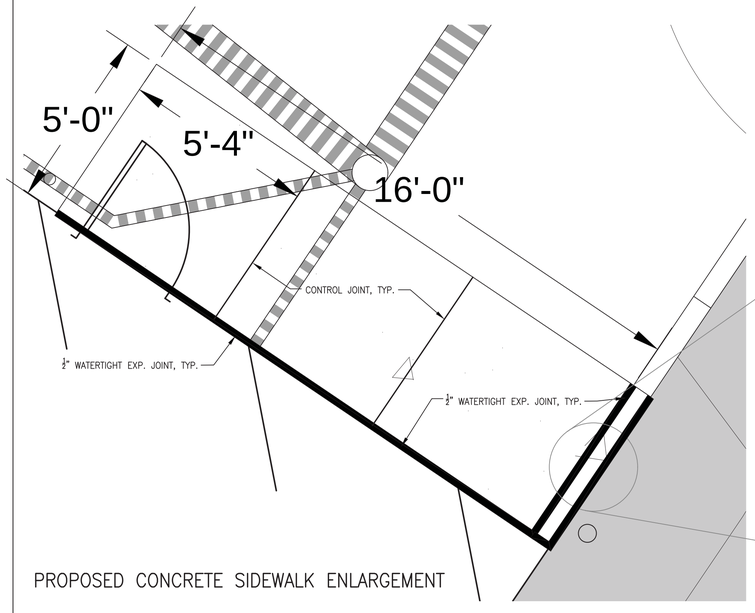


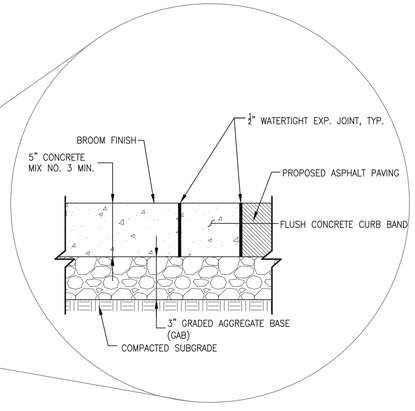
NOTES:

1. CONTROL JOINTS SHALL BE INSTALLED EVERY 5'-3" TO CREATE (3) 5' x 5'-4" SECTIONS. SEE ENLARGEMENT FOR VISUAL.
2. CONTROL JOINT MUST BE HAND TOOLED. SAWCUT CONTROL JOINTS WILL NOT BE ACCEPTED.
3. EXPANSION JOINT SHALL BE PLACED BETWEEN THE CONCRETE SIDEWALK AND THE ADJOINING BUILDING AND FLUSH CONCRETE CURB BAND.
4. SIDEWALK SHALL BE INSTALLED WITH SINGLE CONCRETE POUR
5. CONCRETE SHALL HAVE NO CALCIUM CHLORIDE OF ANY KIND.

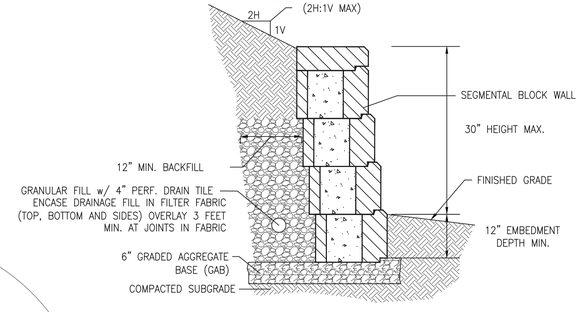
5 PROPOSED CONCRETE SIDEWALK

NOT TO SCALE





PROPOSED CONCRETE SIDEWALK ENLARGEMENT



6 RETAINING WALL DETAIL

NOT TO SCALE

7 LIGHT POLE BASE DETAIL

NOT TO SCALE

SWM PERMIT#: CEN24-000079
GRADING PERMIT#: CEN24-000078

DESIGN ENGINEER:
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MCS NAD 83(2011) NAVD 88

SEAL

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AS-BUILT / REVISION	BY	DATE	P.W.A NO.
CONTRACT COMPLETION BOX			

KEY SHEET: MSW

POSITION SHT: 28 NE 22, 29 NE 22, 28 NE 23, 29 NE 23

DRAWING SCALE
PLAN SCALE:
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
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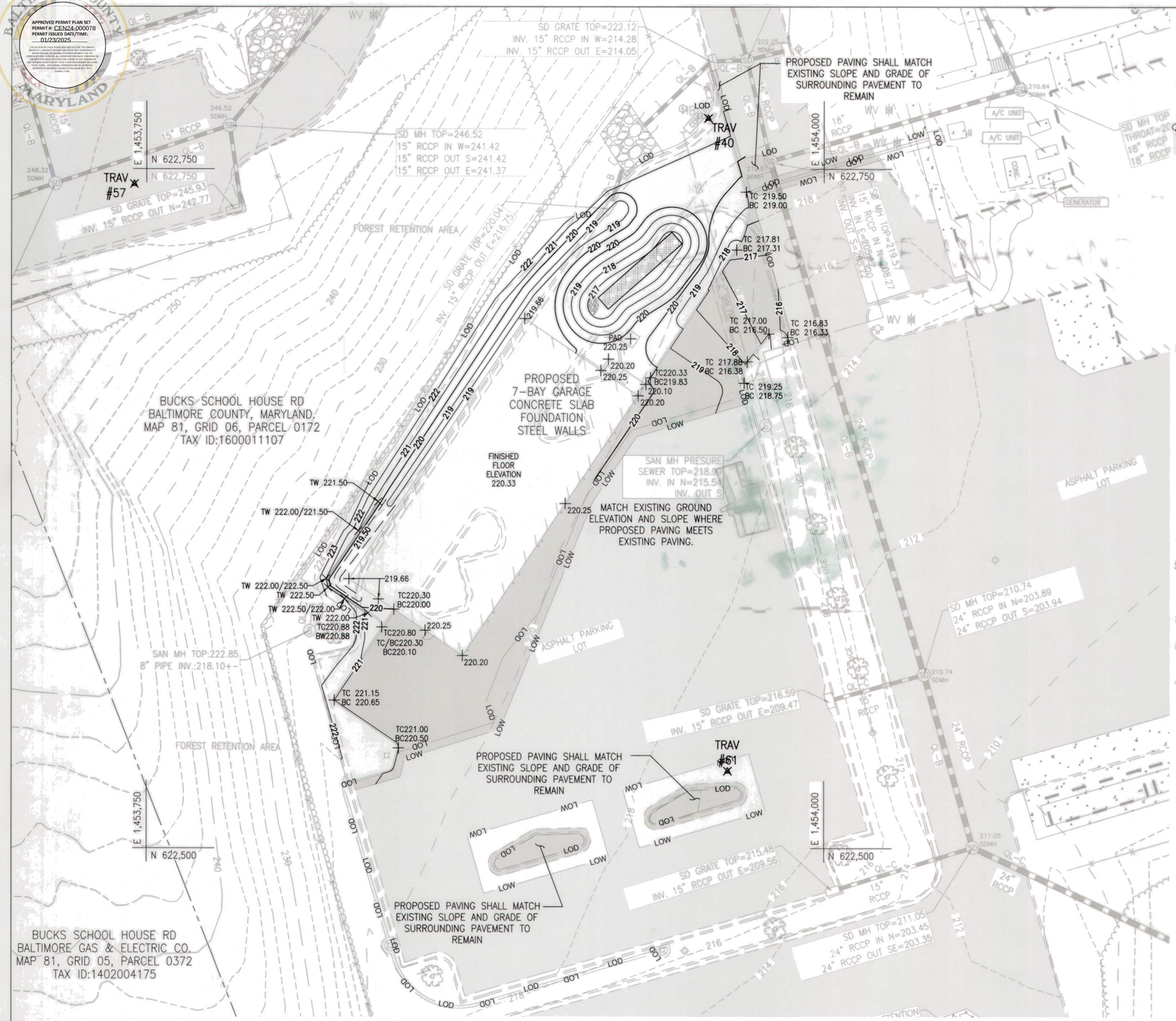
BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT

NEW TRUCK GARAGE
SITE DETAILS
100 % CONSTRUCTION SET 3/4/2025
4419A BUCKS SCHOOLHOUSE ROAD, ROSEDALE, MD 21237

SUBDIVISION: FULLERTON
ELECTION DIST. NO.: 14C5

SHEET DESIGNATION	CONTRACT NUMBER
C310	24167 PO0
JOB ORDER NUMBER	PO 10010489
9 OF 53	
DRAWING NUMBER	2024-2771
FILE NO.: 8	



MCS NAV 83(2011) NAVD 88

LEGEND

- EXISTING BUILDING
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
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LEGEND

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- PROPOSED MAJOR CONTOUR
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- LIMIT OF DISTURBANCE
- LIMIT OF WORK

GRID

SITE SURVEY BENCHMARKS:

SHOWN IN PLAN VIEW

TRAVERSE #40 – REBAR/CAP
N: 622,768.69
E: 1,453,957.29
ELEV.: 221.69

TRAVERSE #57 – MAG SPIKE
N: 622,744.47
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ELEV.: 247.29

TRAVERSE #61 – HUB/TACK
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E: 1,453,964.46
ELEV.: 217.05

VICINITY MAP
SCALE: 1" = 500'
500 250 0 500 1000
GRAPHIC SCALE IN FEET

BALTIMORE COUNTY GRADING NOTES:

1. THE PROPOSED GRADING SHOWN ON THIS PLAN MEETS THE REQUIREMENTS SET FORTH BY BALTIMORE COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY AND COMPLIES WITH ARTICLE 33, TITLE 5 OF THE BALTIMORE COUNTY CODE. HOWEVER, DUE TO BUILDING TYPES AND LAYOUT, SOME FIELD ADJUSTMENTS MAY BE REQUIRED. ALL CHANGES MUST COMPLY WITH THE ABOVE MENTIONED REQUIREMENTS.
2. ALL SWALES HAVE BEEN DESIGNED BY THE ENGINEER TO CONVEY RUNOFF ACCORDING TO BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS DESIGN STANDARDS.
3. THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION, OR DISTURBANCE OF VEGETATION IN THE FOREST BUFFER EASEMENT OR OTHER FOREST RETENTION AREAS, EXCEPT AS PERMITTED BY THE BALTIMORE COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY.
4. STORMWATER MANAGEMENT HAS BEEN ADDRESSED BY ENVIRONMENTAL SITE DESIGN.

GENERAL GRADING NOTES:

1. ALL UTILITY FRAMES AND COVERS TO REMAIN WITHIN THE PROJECT AREA SHALL BE ADJUSTED BY THE CONTRACTOR TO MEET THE FINISHED PAVEMENT OR GROUND ELEVATION.
2. CONTRACTOR SHALL RETURN DISTURBED PAVEMENT FROM UTILITY CUTS TO THEIR ORIGINAL SLOPE AND GRADE IN EQUAL OR BETTER CONDITION.
3. CONTRACTOR SHALL REVIEW THE EROSION AND SEDIMENT CONTROL PLAN AND THE ASSOCIATED STANDARD PLAN 164-COUNTY-23 PRIOR TO BEGINNING ANY WORK ON SITE.
4. SEDIMENT PRODUCING STOCK PILES WILL NOT BE ALLOWED ON THIS PROJECT. SEDIMENT PRODUCING MATERIALS SHALL BE HAULED IN/OUT OF THE SITE AS NEEDED AND THE SITE SHALL BE STABILIZED AT THE END OF EACH WORK DAY.

PROPOSED NOTES:

1. CONTRACTOR SHALL CONTACT THE OWNER AND DEVELOPER 7 DAYS PRIOR TO COMMENCING ANY WORK.
2. CONTRACTOR TO COORDINATE WITH MISS UTILITY, BALTIMORE COUNTY DEPARTMENT OF PROPERTY MANAGEMENT, AND A PRIVATE UTILITY LOCATOR COMPANY PRIOR TO COMMENCING ANY WORK. THE CONTRACTOR MUST NOTIFY ALL PUBLIC UTILITY COMPANIES WITH UNDERGROUND FACILITIES IN THE AREA OF PROPOSED EXCAVATION AND HAVE THOSE FACILITIES LOCATED BY THE UTILITY COMPANIES PRIOR TO COMMENCING EXCAVATION.
3. CONTRACTOR SHALL VERIFY FIELD CONDITIONS PRIOR TO AND DURING CONSTRUCTION/DEMOLITION AND NOTIFY THE OWNER IMMEDIATELY OF ANY DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND THE PLANS.
4. CONTRACTOR SHALL VERIFY ALL EXISTING UTILITY PIPE INVERTS WHERE PROPOSED PIPES MEET EXISTING STRUCTURES/PIPES AND NOTIFY THE CIVIL ENGINEER IF DISCREPANCY IS FOUND.
5. ALL UTILITY FRAMES AND COVERS TO REMAIN WITHIN THE PROJECT AREA SHALL BE ADJUSTED BY THE CONTRACTOR TO MEET NEW PAVEMENT OR GROUND ELEVATION. THE CONTRACTOR SHALL MAKE, CHECK, AND BE RESPONSIBLE FOR ALL MEASUREMENTS AND DIMENSIONS NECESSARY FOR THE PROPER CONSTRUCTION OF AND THE PREVENTION OF MISFITTINGS IN THE WORK. VERIFY LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES BEFORE STARTING CONSTRUCTION IN EACH AREA.
6. CONTRACTOR SHALL STABILIZE ALL UNINTENTIONALLY DISTURBED AREAS OUTSIDE OF THE L.O.D. BY THE END OF THE SAME WORKING DAY.
7. CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITY STRUCTURES TO REMAIN DURING DEMOLITION AND CONSTRUCTION ACTIVITIES AND TO PREVENT DEBRIS, SEDIMENT, OR WATER FROM ENTERING THE STRUCTURES.
8. CONTRACTOR SHALL PROTECT ALL FACILITIES AND UTILITIES TO REMAIN FROM DAMAGE WHETHER SHOWN HEREON OR NOT.
9. CONTRACTOR SHALL PROVIDE PROTECTION FOR ALL EXISTING POLES TO REMAIN.
10. THE CONTRACTOR SHALL RESTORE ANY AND ALL AREAS DISTURBED DURING CONSTRUCTION TO ORIGINAL CONDITION OR BETTER.
11. ALL EXISTING PAINT MARKINGS ADJACENT TO THE PROJECT AREA WHICH BECOME FADED OR OBSCURED DUE TO CONSTRUCTION ACTIVITY SHALL BE REPAINTED OR RESTORED AT NO ADDITIONAL COST TO THE OWNER.
12. CONTRACTOR SHALL USE CAUTION WHEN WORKING AROUND EXISTING TREES TO REMAIN SO AS TO NOT DAMAGE THE TREES, TREE BRANCHES OR TREE ROOT SYSTEM.
13. CONTRACTOR SHALL INSTALL ORANGE PLASTIC MESH TREE PROTECTION FENCE (TPF) PRIOR TO ANY CONSTRUCTION ACTIVITIES.
14. CONTRACTOR SHALL COORDINATE WITH OWNER AND UTILITY PROVIDER TO MINIMIZE DURATION OF UTILITY OUTAGES.
15. CONTRACTOR SHALL MAINTAIN VEHICULAR ACCESS TO AND AROUND OVERALL SITE DURING PAVEMENT OPEN CUT ACTIVITIES. CONTRACTOR SHALL FURNISH VEHICULAR AND PEDESTRIAN TRAFFIC PROTECTION IN ACCORDANCE WITH MUTCD LATEST VERSION.
16. CONTRACTOR SHALL UTILIZE SIX (6) FOOT TALL CHAIN LINK CONSTRUCTION FENCE AROUND ALL ACTIVE WORK AREAS. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS AND WARNING MEASURES TO PROTECT PEDESTRIANS FROM CONSTRUCTION ACTIVITIES. CONTRACTORS SHALL SUBMIT TO BALTIMORE COUNTY FOR ALL APPLICABLE PERMITS.

SITE INFORMATION:

A. AREA DISTURBED: 0.448 AC/19,532 SF
B. TOTAL CUT: 100 CYDS
C. TOTAL FILL: 50 CYDS

PROPOSED GRADING PLAN

SCALE: 1" = 20'
20 10 0 20 40
GRAPHIC SCALE IN FEET

OWNER'S/DEVELOPER'S CERTIFICATION - GRADING:

I/WE CERTIFY THAT ALL GRADING ON THIS SITE WILL BE DONE IN ACCORDANCE WITH THE CURRENT GRADING REQUIREMENTS AS SET FORTH BY THE BALTIMORE COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY AND WITH THE REQUIREMENTS SPECIFIED IN ARTICLE 33, TITLE 5 OF THE BALTIMORE COUNTY CODE.

H.M. Lom — Chief Capital Construction — 11/7/2024
SIGNATURE OF OWNER/DEVELOPER TITLE DATE

GREGORY M. DORAN
PRINT NAME

THIS PLAN IS SEALED & CERTIFIED AS BEING IN ACCORDANCE WITH THE APPROVED DEVELOPMENT PLAN

STORMWATER MANAGEMENT REQUIRED

BALTIMORE COUNTY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
AND SUSTAINABILITY
APPROVED FOR GRADING
Signature — 12-04-24 Date

DESIGN ENGINEER:
JUDITH CARROLL, P.E, PRESIDENT
CARROLL ENGINEERING, INC.
215 SCHILLING CIRCLE, SUITE 102
HUNT VALLEY, MD 21031
OFFICE: 410-785-7423
JCARROLL@CEIENGINEERING.COM

PROPERTY OWNER:
BALTIMORE COUNTY, MARYLAND
OWNER CONTACT PERSON:
MIKE GOODYEAR
SR PROJECT MANAGER
ALT. GEORGE THOMAKOS
BC PROPERTY MANAGEMENT/CAPITAL
OFFICE: 410-887-6595
MGOODYEAR@BALTIMORECOUNTYMD.GOV

THIS PLAN IS SEALED AND CERTIFIED AS BEING IN ACCORDANCE WITH THE APPROVED DEVELOPMENT PLAN

SWM PERMIT#: CEN24-000079
GRADING PERMIT#: CEN24-000078

SEAL — DATE: 10-30-24

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AN A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 14446 EXPIRATION DATE: 05/25/2025
CARROLL ENGINEERING, INC.
AS-BUILT PER RECORD PRINT
BY: DATE:
DGN BY: MJM
DWN BY: MJM
CHKD BY: CMS

AS-BUILT / REVISION	BY	DATE	P.W.A NO.
CONTRACT COMPLETION BOX			

KEY SHEET	POSITION SHT	DRAWING SCALE	
MSW	28 NE 22 29 NE 22 28 NE 23 29 NE 23	PLAN SCALE:	1"=20'
		PROFILE SCALE:	

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT

NEW TRUCK GARAGE
PROPOSED GRADING PLAN
PERMIT SET 09/20/2024
4419A BUCKS SCHOOLHOUSE ROAD, ROSEDALE, MD 21237

SUBDIVISION: FULLERTON
ELECTION DIST. NO.: 14C5

MCS NAD 83(2011) NAVD 88

SHEET DESIGNATION	CONTRACT NUMBER
C400	24167 PO0
	JOB ORDER NUMBER
	PO 10010489
	10 OF 53
	DRAWING NUMBER
	2024-2772
	FILE NO.: 8

40 20 0 40 80
GRAPHIC SCALE IN FEET

EXISTING CONDITIONS EXHIBIT

SCALE: 1" = 40'

GENERAL NOTES:

1. FIELD RUN TOPOGRAPHICAL SURVEY PERFORMED ON JULY 21ST, 2023. SUPPLEMENTED WITH BALTIMORE COUNTY GIS INFORMATION AND RECORD DRAWINGS.
2. EXISTING UNDERGROUND UTILITIES DESIGNATED ON THE PLANS ARE BASED ON CURRENTLY AVAILABLE INFORMATION AND ARE SHOWN FOR REFERENCE ONLY. THE OWNER AND ENGINEER DISCLAIM ANY RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF SAID INFORMATION BEYOND THE DESIGNATION INDICATED. THE QUALITY LEVEL DESIGNATED IS IN ACCORDANCE WITH ASCE "STANDARD GUIDELINE FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA" (CI/ASCE 38-02). THE CONTRACTOR SHALL MAKE HIMSELF FAMILIAR WITH THOSE STANDARDS PRIOR TO ANY RELIANCE ON THE INFORMATION SHOWN ON THESE PLANS.
3. PRIOR TO ANY EXCAVATION, IN THE ABSENCE OF QUALITY LEVEL A OR B DESIGNATION, THE CONTRACTOR SHALL VERIFY, TO HIS OWN SATISFACTION, THE EXISTENCE, DEPTH, SIZE, MATERIAL, AND LOCATION OF ALL UNDERGROUND UTILITIES, AND DETERMINE WHETHER THOSE UTILITIES ARE LIVE. ANY EARTHWORK IN LOCATIONS WHERE UTILITIES ARE POSSIBLE SHALL BE DONE WITH EXTREME CAUTION.
4. THE GIVING OF INFORMATION ON THE PLANS WILL NOT RELIEVE THE CONTRACTOR OF HIS OBLIGATION TO SUPPORT AND PROTECT ALL DESIGNATED OR UNDESIGNATED EXISTING UTILITIES AND APPURTENANCES. SHOULD ANY EXISTING UTILITY BE DAMAGED BY THE CONTRACTOR, THE CONTRACTOR SHALL REPAIR THE DAMAGE CAUSED TO THE UTILITY OWNER'S SATISFACTION, AT THE CONTRACTOR'S EXPENSE.
5. LIVE UNDERGROUND UTILITIES MAY EXIST WITHIN THE WORK AREA. CONTRACTOR SHALL USE EXTREME CAUTION AND SHALL COMPLY WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS.
6. INFORMATION SHOWN ON THIS DRAWING HAS BEEN PROVIDED AS A GUIDE TO ASSIST THE CONTRACTOR IN ESTABLISHING THE LOCATIONS OF PROPOSED CONSTRUCTION WITH RESPECT TO EXISTING SITE IMPROVEMENTS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL CONSTRUCTION SURVEY STAKEOUT REQUIRED AND TO CONFIRM ALL INFORMATION SHOWN HEREON.
7. SEE THIS SHEET FOR SITE BENCHMARKS. CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING TEMPORARY BENCHMARKS THROUGHOUT THE DURATION OF THE PROJECT FOR CONSTRUCTION LAYOUT PURPOSES.
8. EXISTING UTILITY INFORMATION IS DERIVED FROM SURVEY, BALTIMORE COUNTY GIS AND BALTIMORE COUNTY RECORD PLANS.

SOIL TYPES

SYMBOL	DESCRIPTION	HSG
CbD	Chillum-Urban land complex, 5-15% slopes	C
UeD	Udorthents, reclaimed gravel pits, 5-15% slopes	C
UuB	Urban land-Udorthents complex, 0-8% slopes	D

EXISTING CONDITION HYDROCAD DATA SUMMARY

DRAINAGE AREA	OVERALL AREA (AC.)	IMPERVIOUS AREA (AC.)	CN	Tc (HR)
DA-1	1.544	0.871	–	–
DA-1A	0.614	0.000	72	0.1
DA-1B	0.318	0.479	97	0.1
DA-1C	0.547	0.529	97	0.1
DA-1D	0.065	0.035	88	0.1

EXISTING CONDITION PEAK FLOW DATA

DRAINAGE AREA	Q (1-YEAR)	Q (10-YEAR)
DA-1	3.02 CFS	6.68 CFS
DA-1A	0.48 CFS	1.79 CFS
DA-1B	0.89 CFS	1.69 CFS
DA-1C	1.53 CFS	2.90 CFS
DA-1D	0.13 CFS	0.31 CFS

STORMWATER FACILITY SEQUENCE OF CONSTRUCTIONS:

SEE EROSION AND SEDIMENT CONTROL (ESC) COVER SHEET FOR ESC SEQUENCE OF CONSTRUCTION

1. CONSTRUCT THE PROPOSED BUILDING AND TEMPORARILY DIRECT DOWNSPOUTS TO STABILIZED SWALE. DOWNSPOUTS SHALL DRAIN TO THE SWALE UNTIL DIRECTED.
2. PERFORM GRADING OF THE MICRO-BIO-RETENTION AREA AND INSTALL STORM DRAIN PIPING INCLUDING THE MICRO-BIO RETENTION OUTFALL STRUCTURE TO THE EXISTING MANHOLE. INSTALL STORM DRAIN PIPING IN A DOWNSTREAM TO UPSTREAM FASHION AND INSTALL AGIP AT THE STORMWATER FACILITY OUTLET STRUCTURE. THE (2) 4" PIPE SOCKETS ON THE STRUCTURE SHALL BE CAPPED UNTIL THE FACILITY IS INSTALLED.
3. INSTALL 4" PVC PIPE FROM THE INTERIOR TRENCH DRAINS TO THE MBR OUTFALL STRUCTURE.
4. CONSTRUCT THE MICRO-BIO RETENTION FACILITY INCLUDING 4" UNDERDRAIN, PROVIDE SWM FACILITY SECTION, PROVIDE SWM PLANTINGS, AND SOD THE SURROUNDING AREA NOT PLANTED.

   4.1. A THREE (3) DAY DRY FORECAST MUST BE ESTABLISHED PRIOR TO START OF FACILITY WORK PER NATIONAL OCEANIC AND ATMOSPHERIC ASSOCIATION (NOAA) WEATHER FORECAST. IN THE EVENT OF RAINFALL, REMOVABLE PUMP STATION AND PORTABLE SEDIMENT TANKS/BAGS TO BE EMPLOYED TO TREAT WATER REMOVED FROM EXCAVATION.

5. WITH THE APPROVAL OF BALTIMORE COUNTY DEPARTMENT OF PERMITS, APPROVALS AND INSPECTIONS, SEDIMENT CONTROL, AND THE SEDIMENT CONTROL INSPECTOR, CONNECT DOWNSPOUTS AND BOOTS TO 4" PVC STORM DRAINS TO COMMISSION FACILITY.

SWM SHEET INDEX

SITE INFORMATION:

A. AREA DISTURBED: 0.448 AC/19,532 SF
B. TOTAL CUT: 100 CYDS
C. TOTAL FILL: 50 CYDS

TABLE 5.1 NATURAL RESOURCES AND THE CORRESPONDING REGULATORY AUTHORITIES:

FEDERAL	STATE	LOCAL
WETLANDS	TIDAL AND NON-TIDAL WETLANDS	STEEP SLOPES
MAJOR WATERWAYS	WETLANDS OF SPECIAL STATE CONCERN	HIGHLY ERODIBLE SOILS
FLOODPLAINS	WETLAND BUFFERS	ENHANCED STREAM BUFFERS
	STREAM BUFFERS	TOPOGRAPHY/SLOPES
	PERENNIAL STREAMS	SPRINGS
	FLOODPLAINS	SEEPS
	FORESTS	INTERMITTENT STREAMS
	FOREST BUFFERS	VEGETATIVE COVER
	CRITICAL AREAS	SOILS
		BEDROCK/GEOLOGY
		EXISTING DRAINAGE AREAS

VICINITY MAP
SCALE: 1" = 1000'
1000 500 0 1000 2000
GRAPHIC SCALE IN FEET

LEGEND

- EXISTING BUILDING
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING PROPERTY LINE
- EXISTING RIGHT-OF-WAY
- EXISTING EASEMENT
- EXISTING SETBACK
- EXISTING CURB
- EXISTING CURB & GUTTER
- EXISTING FENCELINE
- EXISTING SIGN
- EXISTING FLAGPOLE
- EXISTING BOLLARD
- EXISTING TREELINE
- EXISTING DECIDUOUS TREE
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY CLEANOUT
- EXISTING STORMDRAIN LINE
- EXISTING STORMDRAIN MANHOLE
- EXISTING WATER VALVE
- EXISTING WATER MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING ELECTRIC HANDBOX
- EXISTING COMM HANDHOLE
- EXISTING GAS VALVE
- EXISTING STORMDRAIN INLET
- EXISTING ASPHALT PAVING
- EXISTING CONCRETE PAVING
- EXISTING GRAVEL
- DRAINAGE AREA DELINEATION TIME OF CONCENTRATION PATH

SITE SURVEY BENCHMARKS:

SHOWN IN PLAN VIEW

TRAVERSE #40 - REBAR/CAP
N: 622,768.69
E: 1,453,957.29
ELEV.: 221.69

TRAVERSE #57 - MAG SPIKE
N: 622,744.47
E: 1,453,745.49
ELEV.: 247.29

TRAVERSE #61 - HUB/TACK
N: 622,528.59
E: 1,453,964.46
ELEV.: 217.05

#6314

Baltimore County Soil Conservation District
APPROVED FOR STORMWATER MANAGEMENT
DISTRICT OFFICIAL — 12-04-24 — DATE — 172-2811-24 — PLAN NO.
TECHNICAL REVIEW FOR DISTRICT
BY: — 12-04-24 — DATE
BALTO. CO. DEPT. OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY

APPROVED: Chief
STORMWATER ENGINEERING
BALT. CO. DEPT. OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY
STORMWATER MANAGEMENT REQUIRED

STORMWATER MANAGEMENT GENERAL NOTES:

1. UNLESS NOTED OTHERWISE, ALL CONSTRUCTION AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH:
   A. BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS STANDARD SPECIFICATION FOR CONSTRUCTION MATERIALS, DECEMBER 2007, ERRATA & ADDENDA.
   B. NATURAL RESOURCES CONSERVATION SERVICE OF MARYLAND STANDARDS AND SPECIFICATIONS, POND, CODE 378, JANUARY 2000.
   C. MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION, JULY 2003, STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS.
2. STORMWATER MANAGEMENT APPROVED UNDER BILL NO. 25-10.
3. PRIVATE OWNERSHIP AND MAINTENANCE RESPONSIBILITY OF STORMWATER MANAGEMENT FACILITIES.
4. A STATE PERMIT IS NOT REQUIRED FOR THIS PROJECT.

ENGINEER'S CERTIFICATION
I hereby certify that this plan has been prepared by me or under my supervision and meets the minimum standards of the Baltimore County Department of Environmental Protection and Sustainability and the Baltimore Soil Conservation District.
Judith A. Carroll — 14446 EXP:5/25/25
Signature — P.E. No.
JUDITH A. CARROLL, PRESIDENT — 11/06/2024
Print Name — Date

LANDOWNER'S/DEVELOPER'S CERTIFICATION
I/We hereby certify that all work shown on these construction drawings will be accomplished pursuant to these plans. I/We also understand that it is my/our responsibility to have the construction supervised and certified, including the submittal of "AS-BUILT" plans within thirty (30) days of completion, by a Maryland registered professional engineer.
— 11/7/2024
Signature of Owner/Developer — Date
GREGORY M. DORAN
Print Name

THIS PLAN IS SEALED AND CERTIFIED AS BEING IN ACCORDANCE WITH THE APPROVED DEVELOPMENT PLAN

SEAL — STATE OF MARYLAND — JUDITH A. CARROLL — No. 14446 — REGISTERED PROFESSIONAL ENGINEER
DATE: 10-30-24

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 14446 EXPIRATION DATE: 05/25/2025
CARROLL ENGINEERING, INC.
DGN BY: MJM
DWN BY: MJM
CHKD BY: CMS
AS-BUILT PER RECORD PRINT
BY:
DATE:

AS-BUILT / REVISION	BY	DATE	P.W.A NO.	KEY SHEET	POSITION SHT	DRAWING SCALE	PROPERTY MANAGEMENT
				MSW	28 NE 22 29 NE 22 28 NE 23 29 NE 23	PLAN SCALE: PROFILE SCALE:	APPROVED BY: PROPERTY MANAGER DATE:

CONTRACT COMPLETION BOX

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

SWM PERMIT#: CEN24-000079
GRADING PERMIT#: CEN24-000078

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT

NEW TRUCK GARAGE
EXISTING CONDITIONS EXHIBIT
PERMIT SET 09/20/2024
4419A BUCKS SCHOOLHOUSE ROAD, ROSEDALE, MD 21237

SUBDIVISION: FULLERTON
ELECTION DIST. NO.: 14C5

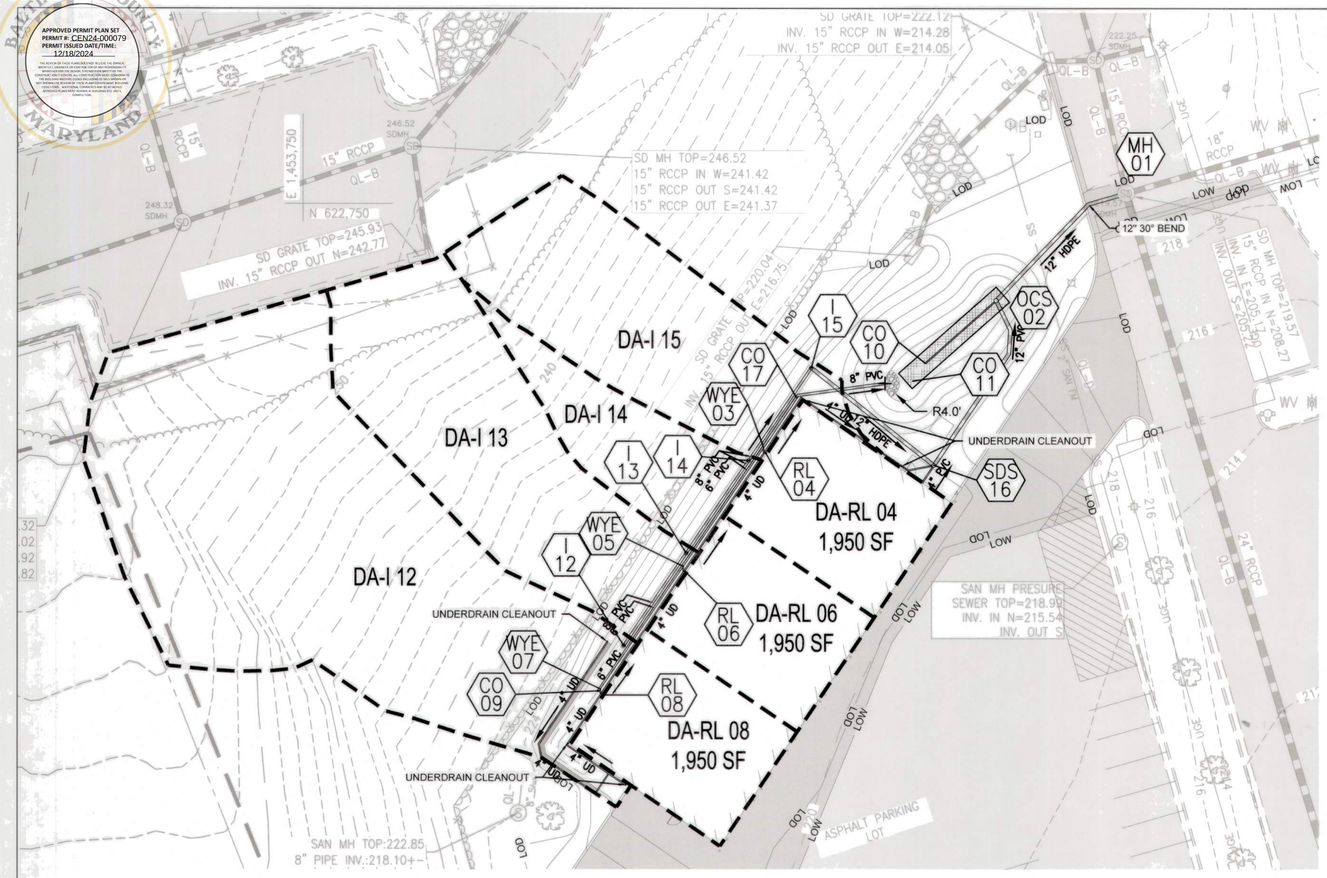
DESIGN ENGINEER:
JUDITH CARROLL, P.E, PRESIDENT
CARROLL ENGINEERING, INC.
215 SCHILLING CIRCLE, SUITE 102
HUNT VALLEY, MD 21031
OFFICE: 410-785-7423
JCARROLL@CEIENGINEERING.COM

PROPERTY OWNER:
BALTIMORE COUNTY, MARYLAND
OWNER CONTACT PERSON:
MIKE GOODYEAR
SR PROJECT MANAGER
ALT. GEORGE THOMAKOS
BC PROPERTY MANAGEMENT/CAPITAL
OFFICE: 410-887-6595
MGOODYEAR@BALTIMORECOUNTYMD.GOV

MCS NAD 83(2011) NAVD 88

SHEET DESIGNATION	CONTRACT NUMBER
SWM-1	24167 P00
	JOB ORDER NUMBER
	PO 10010489
	11 OF 53
	DRAWING NUMBER
	2024- 2773
	FILE NO.: 8

BALTIMORE COUNTY MARYLAND



STORM DRAIN KEY PLAN

SCALE: 1" = 20'

GRAPHIC SCALE IN FEET
SCALE: 1" = 20'

STORM DRAIN NOTES:

1. CONTRACTOR SHALL INSTALL DOWNSPOUT BOOTS WITH INTEGRATED CLEANOUTS AT ALL DOWNSPOUT LOCATIONS.
2. BOOT TO BE CONNECTED TO 4" PVC PER MANUFACTURER DIRECTION.
3. CONTRACTOR SHALL MAINTAIN A MINIMUM OF 2% SLOPE FOR ALL ROOF LEADERS.
4. CONTRACTOR TO PROVIDE 45° BENDS ON ALL WYES FOR DOWNSPOUT CONNECTIONS

STORMDRAIN STRUCTURE/PART SCHEDULE

No.	Type	Inv. In	Inv. Out	Diameter	Reducer Required?	Rim Size	Rim Inv.	Northing
MH-1	*EXISTING MH*	211.36	*205.22*	*48"*	-	-	*219.57*	622,752.90
OCS-02	INLET/BASIN	211.94(12")/214.20 (4")	211.84	15"	YES	8" DOME	217.70	622,723.03
-	45° BEND	217.12	217.12	8"	-	-	-	-
-	VERTICAL WYE	217.12	217.12	8"X8"X6"	-	-	-	-
-	6" CO ADAPT FPT	-	-	-	-	6"	219.25	622,681.82
CO-17	6" PLUG MPT	-	-	-	-	6"	219.25	622,681.82
-	REDUCER	217.29	217.21	6"x 8"	YES	-	-	-
WYE-3	HORZ WYE	217.38(4")/217.29 (6")	217.29(6")	6"x6"x4"	-	-	-	622,681.82
-	45° BEND	217.38	217.59	4"	-	-	-	-
RL-4	DS BOOT	217.46	217.46	4"	-	-	-	622,680.45
WYE-5	HORZ WYE	217.70(4")/217.61 (6")	217.61(6")	6"x6"x4"	-	-	-	622,648.88
-	45° BEND	217.70	217.70	4"	-	-	-	-
RL-6	DS BOOT	217.78	217.78	4"	-	-	-	622,647.50
WYE-7	HORZ WYE	218.12(4")/218.03 (6")	218.33(6")	6"x6"x4"	-	-	-	622,614.66
-	45° BEND	218.12	218.12	4"	-	-	-	-
RL-8	DS BOOT	218.20	218.20	4"	-	-	-	622,613.07
-	(2) 45° BEND	-	218.03	6"	-	-	-	-
-	CO ADAPT FPT	-	-	-	-	6"	217.66	-
CO-9	6" PLUG MPT	-	-	-	-	6"	217.66	622,615.49
-	CO ADAPT FPT	-	-	-	-	4"	217.95	-
CO-10	4" PLUG MPT	-	-	-	-	4"	217.95	622,705.58
-	(2) 45 DEG. BEND	-	213.33	4"x4"x4"	-	-	-	-
-	CO ADAPT FPT	-	-	-	-	4"	217.95	-
CO-11	4" PLUG MPT	-	-	-	-	4"	217.95	622,700.56
I-12	12" DOME INLET	-	214.50	12"	-	12"	219.25	622,626.75

STORMDRAIN PIPE SCHEDULE

Begin	End	Length (ft)	Material	Diameter	Slope
MH-1	OCS-02	48.24	PVC	12"	1.00%
OCS2	CO-10	26.00	PERF PVC	4"	0.50%
END	WYE-3	42.22	PVC	8"	0.50%
WYE-3	RL-4	1.00	PVC	4"	2.00%
WYE-3	WYE-5	39.78	PVC	6"	1.01%
WYE-5	RL-6	1.00	PVC	4"	2.00%
WYE-5	WYE-7	41.50	PVC	6"	1.01%
WYE-7	RL-8	1.00	PVC	4"	2.00%
RL-8	CO-9	1.00	PVC	6"	1.00%
OCS-02	SDS-16	53.54	PVC	12"	1.01%
SDS-16	I-15	42.72	PVC	12"	1.01%
I-15	I-14	31.18	PVC	8"	1.03%
I-14	I-13	31.18	PVC	8"	1.03%
I-13	I-12	31.18	PVC	8"	1.03%

LEGEND

- EXISTING BUILDING
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING PROPERTY LINE
- EXISTING RIGHT-OF-WAY
- EXISTING EASEMENT
- EXISTING SETBACK
- EXISTING CURB
- EXISTING CURB & GUTTER
- EXISTING FENCELINE
- EXISTING SIGN
- EXISTING FLAGPOLE
- EXISTING BOLLARD
- EXISTING TREELINE
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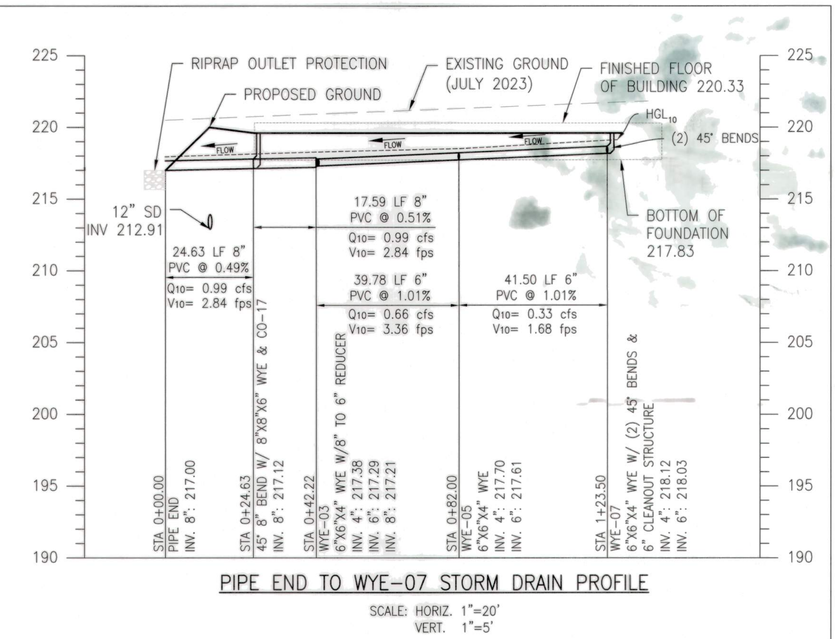
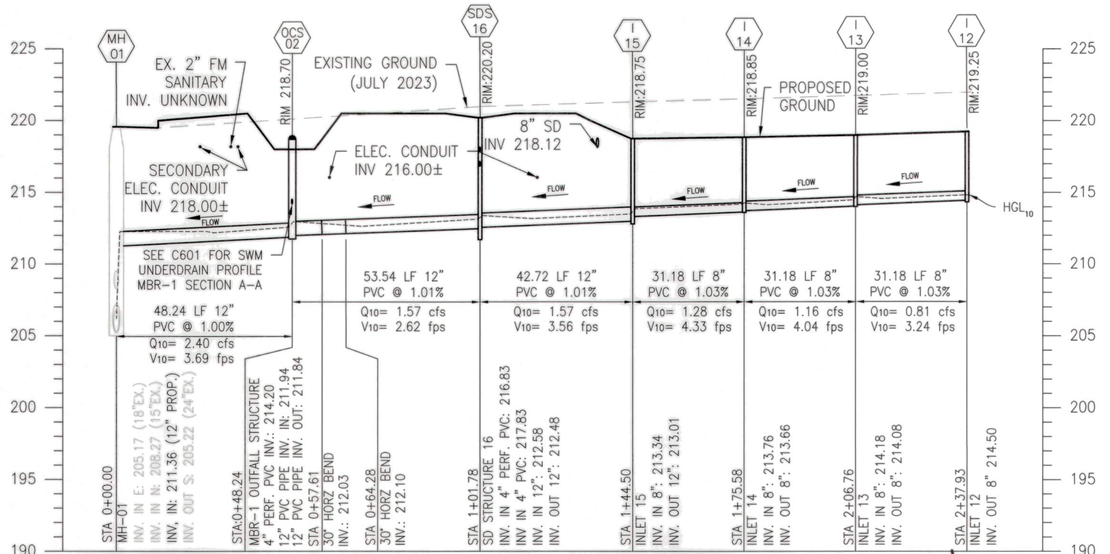
- EXISTING ASPHALT PAVING
- EXISTING CONCRETE PAVING
- EXISTING GRAVEL
- PROPOSED BUILDING
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED CURB
- PROPOSED CURB & GUTTER
- PROPOSED LIGHT POLE
- PROPOSED UNDERGROUND ELECTRIC
- PROPOSED ASPHALT PAVING
- PROPOSED MICRO-BIORETENTION AREA
- PROPOSED SEGMENTAL BLOCK WALL
- PROPOSED STORMDRAIN LINE
- PROPOSED STORMDRAIN INLET
- LIMIT OF DISTURBANCE
- LIMIT OF WORK

MCS NAD 83(2011) NAVD 88



PIPE END TO WYE-07 STORM DRAIN PROFILE

SCALE: HORIZ. 1"=20'
VERT. 1"=5'



NOTE: CONTRACTOR TO TEST PIT UNKNOWN INVERTS OF EXISTING UTILITIES PRIOR TO ANY PIPE INSTALLATION

EX. MH-01 TO I-12 STORM DRAIN PROFILE

SCALE: HORIZ. 1"=20'
VERT. 1"=5'

5 2.5 0 5 10
GRAPHIC SCALE IN FEET
SCALE: 1" = 5'

20 10 0 20 40
GRAPHIC SCALE IN FEET
SCALE: 1" = 20'

APPROVED: _____ Chief
STORMWATER ENGINEERING
BALT. CO. DEPT. OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY

STORMWATER MANAGEMENT REQUIRED

MCS NAD 83(2011) NAVD 88

DESIGN ENGINEER:
JUDITH CARROLL, P.E, PRESIDENT
CARROLL ENGINEERING, INC.
215 SCHILLING CIRCLE, SUITE 102
HUNT VALLEY, MD 21031
OFFICE: 410-785-7423
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PROPERTY OWNER:
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SR PROJECT MANAGER
ALT. GEORGE THOMAKOS
BC PROPERTY MANAGEMENT/CAPITAL
OFFICE: 410-887-6595
MGOODYEAR@BALTIMORECOUNTYMD.GOV

THIS PLAN IS SEALED AND CERTIFIED AS BEING IN ACCORDANCE WITH THE APPROVED DEVELOPMENT PLAN

SEAL: STATE OF MARYLAND · JUDITH A. CARROLL · No. 14446 · REGISTERED PROFESSIONAL ENGINEER

DATE: 10-30-24

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 14446 EXPIRATION DATE: 05/25/2025

CARROLL ENGINEERING, INC.

AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: MJM
DWN BY: MJM
CHKD BY: CMS

AS-BUILT / REVISION	BY	DATE	P.W.A NO.
CONTRACT COMPLETION BOX			

KEY SHEET: MSW

POSITION SHT: 28 NE 22, 28 NE 22, 28 NE 23, 29 NE 23

DRAWING SCALE: PLAN SCALE: 1"=20' PROFILE SCALE: H:1"=20' V:1"=5'

PROPERTY MANAGEMENT: APPROVED BY: _____ PROPERTY MANAGER DATE: _____

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

SWM PERMIT#: CEN24-000079
GRADING PERMIT#: CEN24-000078

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT

NEW TRUCK GARAGE
STORM DRAIN PLAN
PERMIT SET 09/20/2024
4419A BUCKS SCHOOLHOUSE ROAD, ROSEDALE, MD 21237

SUBDIVISION: FULLERTON
ELECTION DIST. NO.: 14C5

BALTIMORE COUNTY MARYLAND

SHEET DESIGNATION	CONTRACT NUMBER
C500	24167 P00
	JOB ORDER NUMBER
	PO 10010489
	12 OF 53
	DRAWING NUMBER
	2024-2774
	FILE NO.: 8

Fullerton DPW Garage
SWM Roof Area

Name of printed page file:
TR20.out

STORM 10-Yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Peak Flow Elevation (ft)	Peak Flow Time (hr)	Peak Flow Rate (cfs)	Peak Flow Rate (csm)
Roof Area	0.800E-04		1.975		11.92	0.33*	4094.62

*PER ROOF LEADER

Line No.	Alignment: Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Flow Data: Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Physical Data: Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	Line ID
1	End	24.630	0.000	None	0.00	0.00	0.00	6.0	217.00	0.49	217.12	8	Cir	0.012	0.75	0.00	PIPE END TO 45 BEN
2	1	17.590	-45.000	None	0.33	0.00	0.00	6.0	217.12	0.51	217.21	8	Cir	0.012	0.15	0.00	45 BEND TO WYE 03
3	2	39.780	0.000	None	0.33	0.00	0.00	6.0	217.21	1.01	217.61	6	Cir	0.012	0.15	0.00	WYE 03 TO WYE 05
4	3	41.500	0.000	None	0.33	0.00	0.00	6.0	217.61	1.01	218.03	6	Cir	0.012	1.00	0.00	WYE 05 TO WYE 07

Line	Size (in)	Q (cfs)	Downstream: Invert elev (ft)	HGL elev (ft)	Depth (ft)	Area (sqft)	Vel (ft/s)	Vel head (ft)	EGL elev (ft)	Sf (%)	Len (ft)	Upstream: Invert elev (ft)	HGL elev (ft)	Depth (ft)	Area (sqft)	Vel (ft/s)	Vel head (ft)	EGL elev (ft)	Sf (%)	Check: Ave Sf (%)	Enrgy loss (ft)	JL coeff (K)	Minor loss (ft)
1	8	0.99	217.00	217.95	0.67	0.35	2.84	0.13	218.08	0.573	24.630	217.12	218.09	0.67	0.35	2.84	0.13	218.22	0.573	0.573	0.141	0.75	0.09
2	8	0.99	217.12	218.18	0.67	0.35	2.84	0.13	218.31	0.573	17.590	217.21	218.29	0.67	0.35	2.84	0.13	218.41	0.573	0.573	0.101	0.15	0.02
3	6	0.66	217.21	218.30	0.50	0.20	3.36	0.18	218.48	1.181	39.780	217.61	218.77	0.50	0.20	3.36	0.18	218.95	1.181	1.181	0.470	0.15	0.03
4	6	0.33	217.61	218.93	0.50	0.20	1.68	0.04	218.98	0.295	41.500	218.03	219.05	0.50	0.20	1.68	0.04	219.10	0.295	0.295	0.123	1.00	0.04

Name of printed page file:
TR20.out

STORM 10-Yr

Area or Reach Identifier	Drainage Area (sq mi)	Rain Gage ID or Location	Runoff Amount (in)	Peak Flow Elevation (ft)	Peak Flow Time (hr)	Peak Flow Rate (cfs)	Peak Flow Rate (csm)
I-12	0.390E-03		1.246		11.94	0.81	2078.83
I-13	0.170E-03		0.991		11.94	0.35	2078.83
I-14	0.600E-04		0.722		11.94	0.12	2078.83
I-15	0.140E-03		0.919		11.94	0.29	2078.83

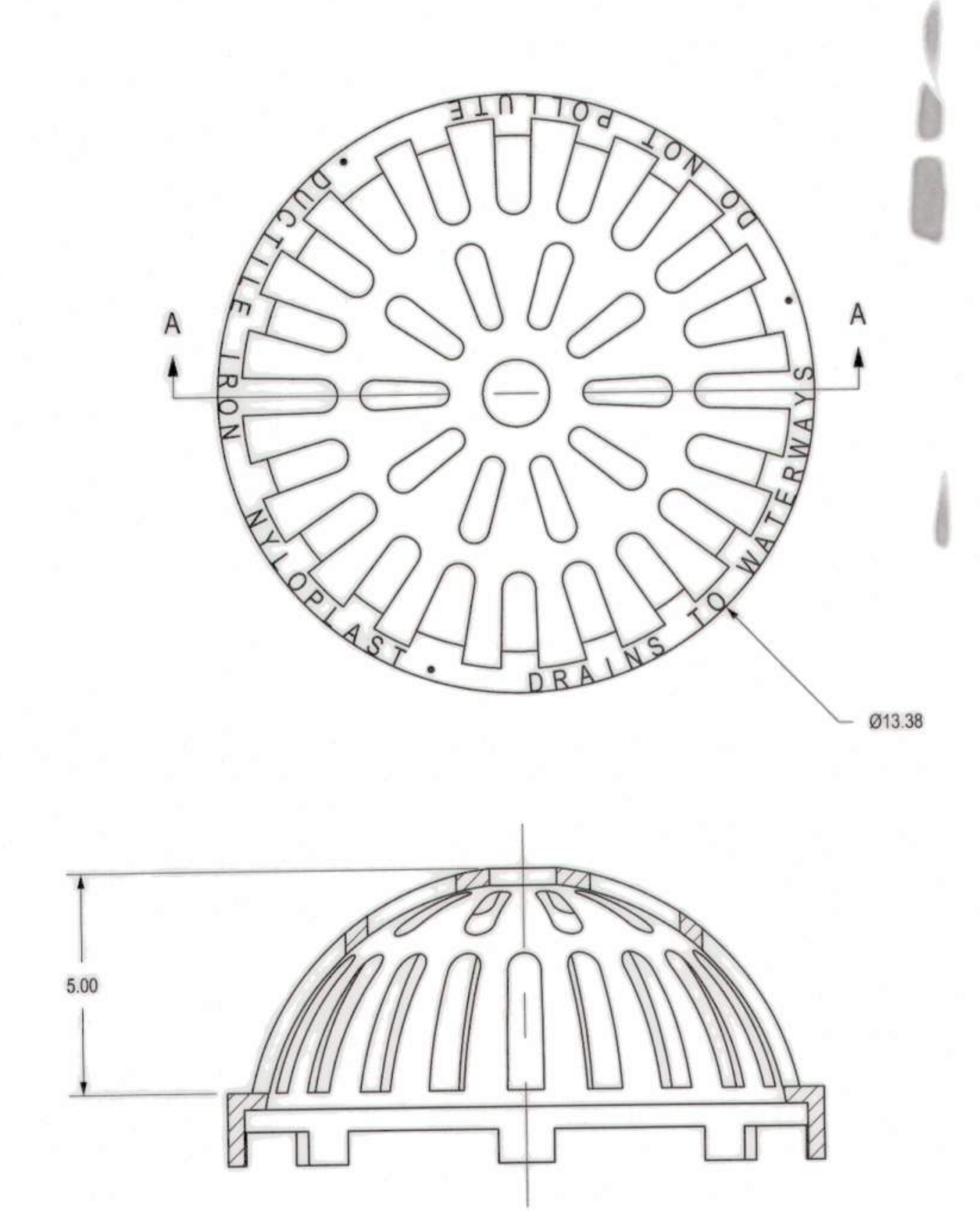
Line No.	Alignment: Dnstr Line No.	Line Length (ft)	Defl angle (deg)	Junc Type	Flow Data: Known Q (cfs)	Drng Area (ac)	Runoff Coeff (C)	Inlet Time (min)	Physical Data: Invert El Dn (ft)	Line Slope (%)	Invert El Up (ft)	Line Size (in)	Line Shape	N Value (n)	J-Loss Coeff (K)	Inlet/ Rim El (ft)	Line ID
1	End	48.240	0.000	MH	0.83*	0.00	0.00	0.0	211.36	1.00	211.84	12	Cir	0.012	1.00	219.90	EX MH 1 TO OCS 02
2	1	53.540	90.000	MH	0.00	0.00	0.00	0.0	211.94	1.01	212.48	12	Cir	0.012	1.00	219.80	OCS 02 TO SDS 16
3	2	42.720	-90.000	DrGrt	0.29	0.00	0.00	5.0	212.58	1.01	213.01	12	Cir	0.012	0.50	219.50	SDS 16 TO I 15
4	3	31.180	0.000	DrGrt	0.12	0.00	0.00	5.0	213.34	1.03	213.66	8	Cir	0.012	0.50	219.50	I 14 TO I 15
5	4	31.180	0.000	DrGrt	0.35	0.00	0.00	5.0	213.76	1.03	214.08	8	Cir	0.012	0.50	219.50	I 13 TO I 14
6	5	31.180	0.000	DrGrt	0.81	0.00	0.00	5.0	214.18	1.03	214.50	8	Cir	0.012	1.00	219.50	I 12 TO I 13

*10-YEAR MBR OUTFLOW

Line	Size (in)	Q (cfs)	Downstream: Invert elev (ft)	HGL elev (ft)	Depth (ft)	Area (sqft)	Vel (ft/s)	Vel head (ft)	EGL elev (ft)	Sf (%)	Len (ft)	Upstream: Invert elev (ft)	HGL elev (ft)	Depth (ft)	Area (sqft)	Vel (ft/s)	Vel head (ft)	EGL elev (ft)	Sf (%)	Check: Ave Sf (%)	Enrgy loss (ft)	JL coeff (K)	Minor loss (ft)
1	12	2.40	211.36	212.36	1.00	0.55	3.06	0.15	212.51	0.387	48.240	211.84	212.51 j	0.67**	0.55	4.33	0.29	212.80	0.634	0.510	0.246	1.00	0.29
2	12	1.57	211.94	213.02	1.00	0.79	2.00	0.06	213.09	0.166	53.540	212.48	213.07	0.59	0.48	3.25	0.16	213.24	0.385	0.275	0.147	1.00	0.16
3	12	1.57	212.58	213.34	0.76	0.42	2.46	0.34	213.68	0.000	42.720	213.01	213.45 j	0.44	0.34	4.67	0.34	213.79	0.000	0.000	0.000	0.50	n/a
4	8	1.28	213.34	213.87	0.53*	0.30	4.33	0.29	214.16	0.000	31.180	213.66	214.19	0.53**	0.30	4.33	0.29	214.48	0.000	0.000	0.000	0.50	n/a
5	8	1.16	213.76	214.31	0.55	0.29	3.79	0.28	214.59	0.000	31.180	214.08	214.56 j	0.48	0.27	4.28	0.28	214.85	0.000	0.000	0.000	0.50	n/a
6	8	0.81	214.18	214.76	0.58	0.24	2.50	0.25	215.01	0.000	31.180	214.50	214.88 j	0.38	0.20	3.98	0.25	215.12	0.000	0.000	0.000	1.00	n/a

1299CGD

APPROX. DRAIN AREA = 82.87 SQ IN
APPROX. WEIGHT = 18.50 LBS



SECTION A-A

DIMENSIONS ARE FOR REFERENCE ONLY
ACTUAL DIMENSIONS MAY VARY
DIMENSIONS ARE IN INCHES
QUALITY: MATERIALS SHALL CONFORM TO ASTM A536 GRADE 70-50-05
PAINT: CASTINGS ARE FURNISHED WITH A BLACK PAINT
LOCKING DEVICE AVAILABLE UPON REQUEST

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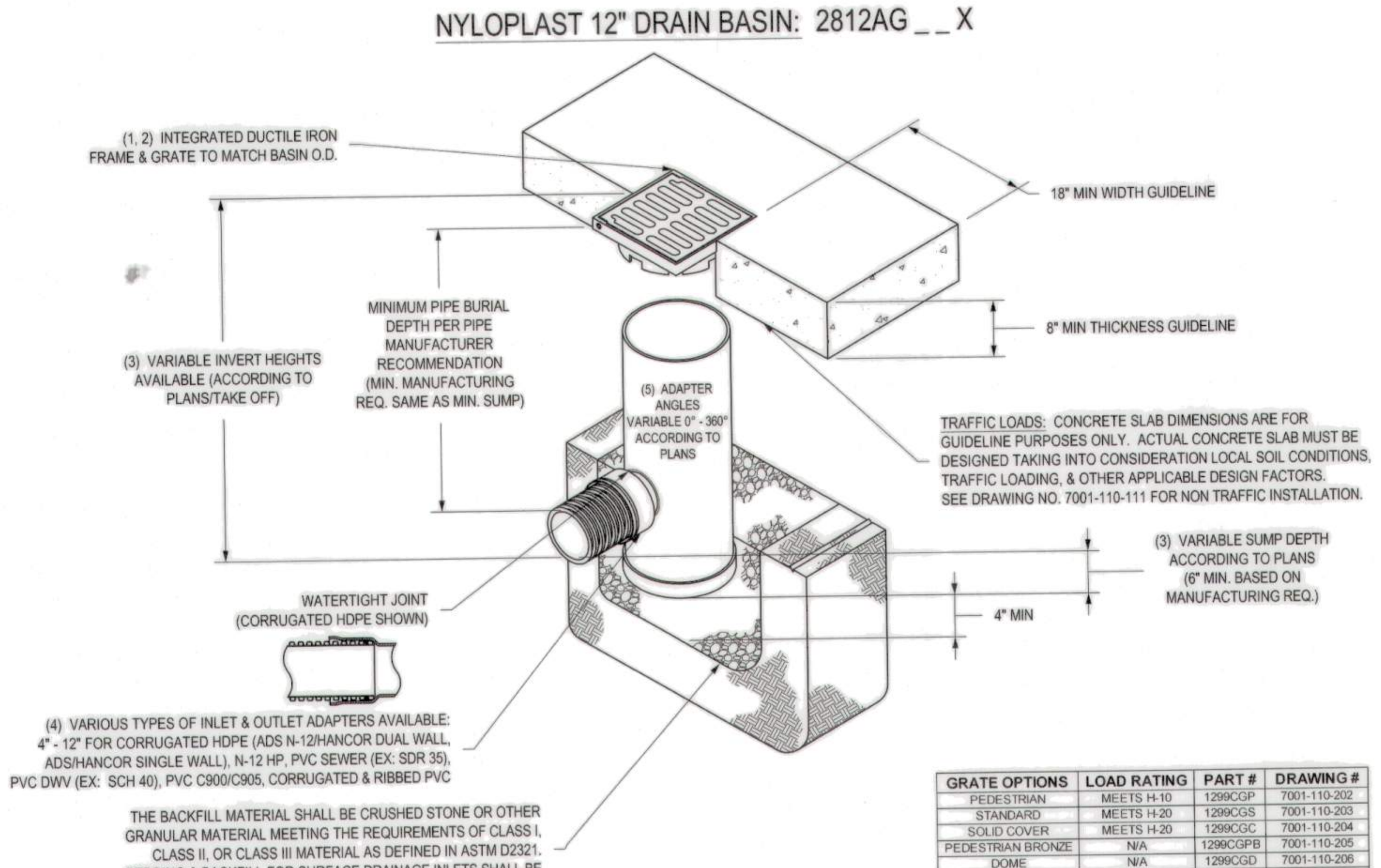
DRAWN BY EBC | DATE 3-6-06 | REVISED BY EBC | DATE 3-10-11 | DWG SIZE A | MATERIAL DUCTILE IRON | PROJECT NO./NAME | SCALE 1:4 | SHEET 1 OF 1

Nyloplast — 3130 VERONA AVE, BUFORD, GA 30518, PHN (770) 932-2443, FAX (770) 932-2490, www.nyloplast-us.com

TITLE: 12 IN DOME GRATE | DWG NO. 7001-110-206 | REV D

NYLOPLAST 12" DRAIN BASIN: 2812AG _ _ X



GRATE OPTIONS	LOAD RATING	PART #	DRAWING #
PEDESTRIAN	MEETS H-10	1299CGP	7001-110-202
STANDARD	MEETS H-20	1299CGS	7001-110-203
SOLID COVER	MEETS H-20	1299CGC	7001-110-204
PEDESTRIAN BRONZE	N/A	1299CGPB	7001-110-205
DOME	N/A	1299CGD	7001-110-206
DROP IN GRATE	LIGHT DUTY	1201DI	7001-110-021

1 - GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05, WITH THE EXCEPTION OF THE BRONZE GRATE.
2 - FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
3 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065
4 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER.
5 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.

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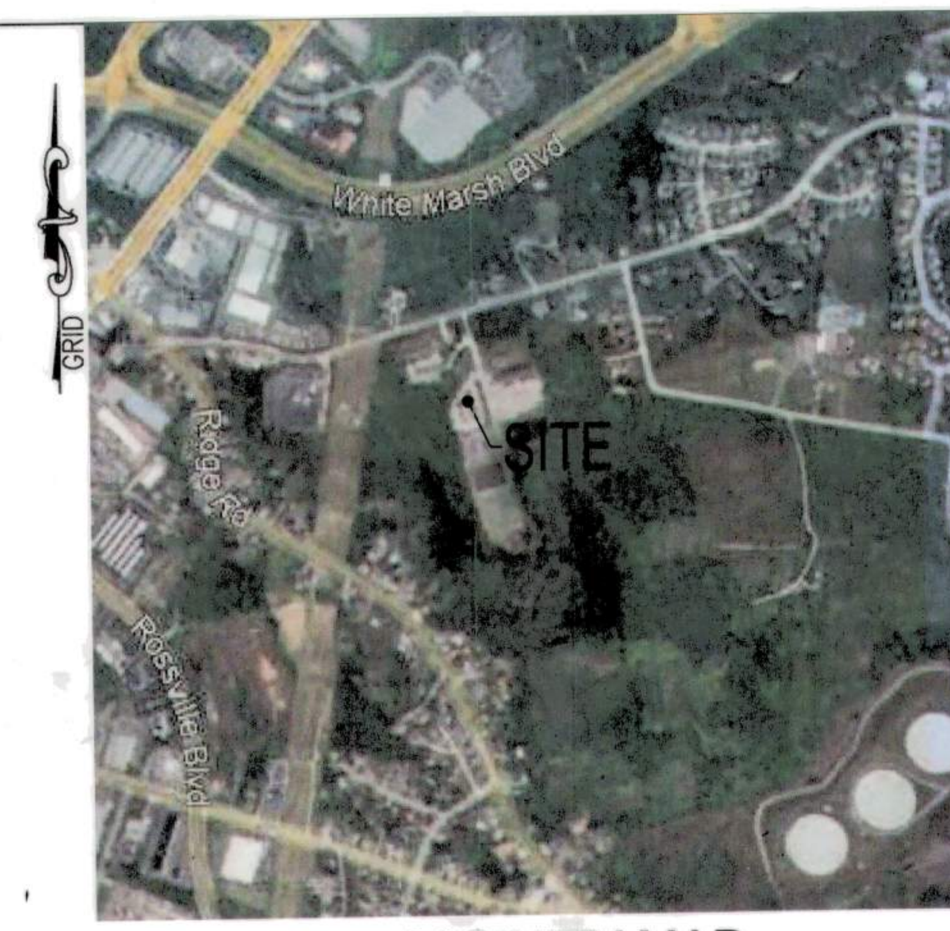
DRAWN BY EBC | DATE 03-29-06 | REVISED BY NMH | DATE 03-11-16 | DWG SIZE A | MATERIAL | PROJECT NO./NAME | SCALE 1:20 | SHEET 1 OF 1

Nyloplast — 3130 VERONA AVE, BUFORD, GA 30518, PHN (770) 932-2443, FAX (770) 932-2490, www.nyloplast-us.com

TITLE: 12 IN DRAIN BASIN QUICK SPEC INSTALLATION DETAIL | DWG NO. 7001-110-189 | REV E



VICINITY MAP

SCALE: 1" = 500'
500 250 0 500 1000
GRAPHIC SCALE IN FEET

APPROVED: Chief
STORMWATER ENGINEERING
BALT. CO. DEPT. OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY

STORMWATER MANAGEMENT REQUIRED

PROPERTY OWNER:
BALTIMORE COUNTY, MARYLAND
OWNER CONTACT PERSON:
MIKE GOODYEAR
SR PROJECT MANAGER
ALT. GEORGE THOMAKOS
BC PROPERTY MANAGEMENT/CAPITAL
OFFICE: 410-887-6595
MGOODYEAR@BALTIMORECOUNTYMD.GOV

DESIGN ENGINEER:
JUDITH CARROLL, P.E, PRESIDENT
CARROLL ENGINEERING, INC.
215 SCHILLING CIRCLE, SUITE 102
HUNT VALLEY, MD 21031
OFFICE: 410-785-7423
JCARROLL@CEIENGINEERING.COM

MCS NAD 83(2011) NAVD 88

SWM PERMIT#: CEN24-000079
GRADING PERMIT#: CEN24-000078

THIS PLAN IS SEALED AND CERTIFIED AS BEING IN ACCORDANCE WITH THE APPROVED DEVELOPMENT PLAN

SEAL: STATE OF MARYLAND — JUDITH A. CARROLL — NO. 14446 — REGISTERED PROFESSIONAL ENGINEER
DATE: 10-30-24

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AN A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 14446 EXPIRATION DATE: 05/25/2025

CARROLL ENGINEERING, INC.
DGN BY: MJM
DWN BY: MJM
CHKD BY: CMS
AS-BUILT PER RECORD PRINT
BY:
DATE:

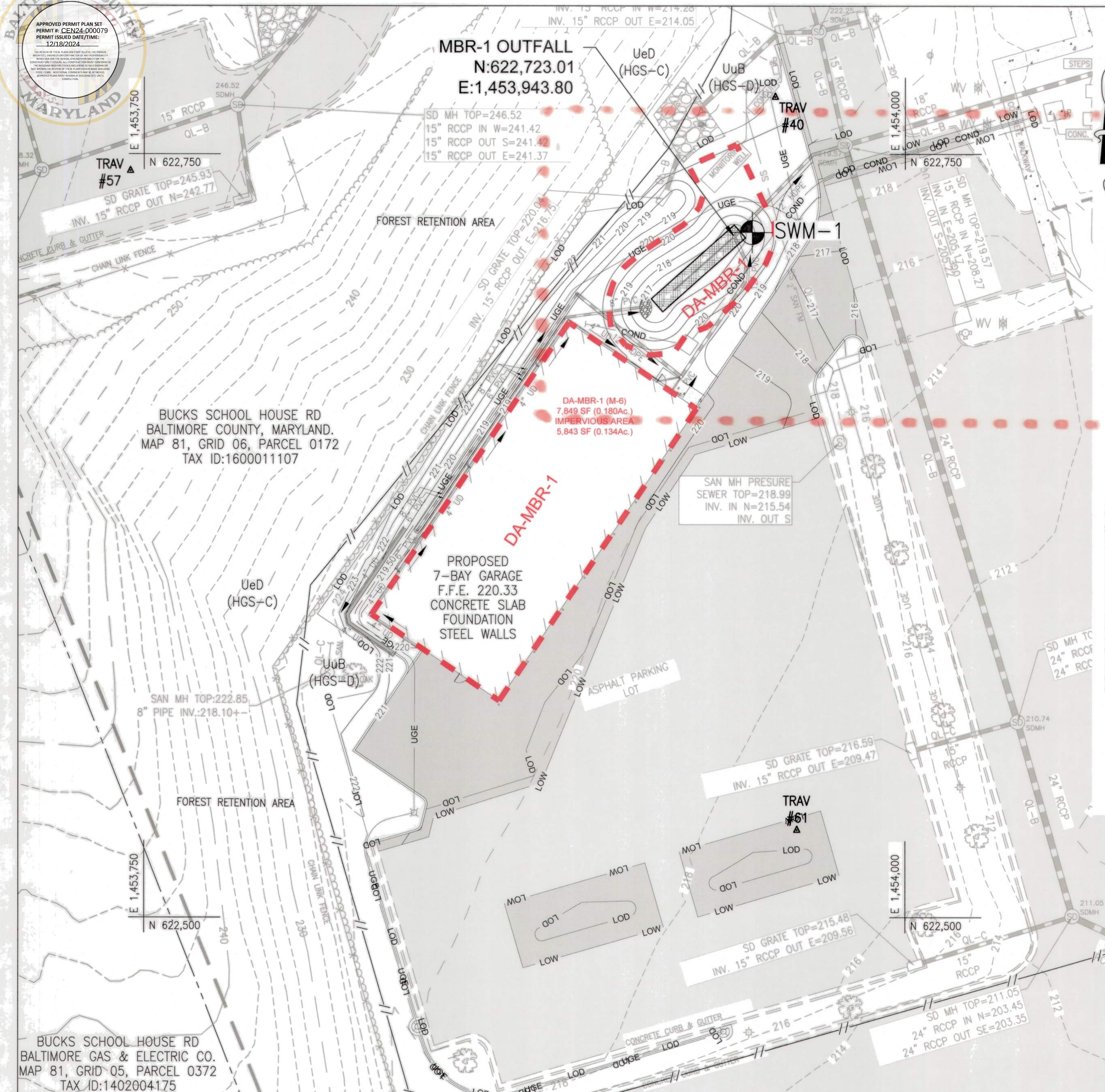
AS-BUILT / REVISION	BY	DATE	P.W.A NO.	KEY SHEET	POSITION SHT	DRAWING SCALE	PROPERTY MANAGEMENT
CONTRACT COMPLETION BOX				MSW	28 NE 22 29 NE 22 28 NE 23 29 NE 23	PLAN SCALE: PROFILE SCALE:	APPROVED BY: PROPERTY MANAGER DATE:
BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT

NEW TRUCK GARAGE
STORM DRAIN DETAILS
PERMIT SET 09/20/2024
4419A BUCKS SCHOOLHOUSE ROAD, ROSEDALE, MD 21237

SUBDIVISION: FULLERTON
ELECTION DIST. NO.: 14C5

SHEET DESIGNATION	CONTRACT NUMBER
C501	24167 PO0
	JOB ORDER NUMBER: PO 10010489
	13 OF 53
	DRAWING NUMBER: 2024- 2775
	FILE NO.: 8



LEGEND

- EXISTING BUILDING
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING PROPERTY LINE
- EXISTING RIGHT-OF-WAY
- EXISTING EASEMENT
- EXISTING SETBACK
- EXISTING CURB
- EXISTING CURB & GUTTER
- EXISTING FENCELINE
- EXISTING SIGN
- EXISTING FLAGPOLE
- EXISTING BOLLARD
- EXISTING TREELINE
- EXISTING DECIDUOUS TREE
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY CLEANOUT
- EXISTING STORMDRAIN LINE
- EXISTING STORMDRAIN MANHOLE
- EXISTING WATER VALVE
- EXISTING WATER MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING ELECTRIC HANDBOX
- EXISTING COMM HANDHOLE
- EXISTING GAS VALVE
- EXISTING STORMDRAIN INLET
- EXISTING ASPHALT PAVING
- EXISTING CONCRETE PAVING
- EXISTING GRAVEL

LEGEND

- PROPOSED BUILDING
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED CURB
- PROPOSED CURB & GUTTER
- PROPOSED LIGHT POLE
- PROPOSED UNDERGROUND ELECTRIC
- PROPOSED ASPHALT PAVING
- PROPOSED MICRO-BIORETENTION AREA
- PROPOSED SEGMENTAL BLOCK WALL
- PROPOSED STORMDRAIN LINE
- PROPOSED STORMDRAIN INLET
- SWM-1 SWM BORING LOCATION

MCS NAV 83(2011) NAVD 88

SITE SURVEY BENCHMARKS:

SHOWN IN PLAN VIEW

TRAVERSE #40 – REBAR/CAP
N: 622,768.69
E: 1,453,957.29
ELEV.: 221.69

TRAVERSE #57 – MAG SPIKE
N: 622,744.47
E: 1,453,745.49
ELEV.: 247.29

TRAVERSE #61 – HUB/TACK
N: 622,528.59
E: 1,453,964.46
ELEV.: 217.05

VICINITY MAP

SCALE: 1" = 1000'
1000 500 0 1000 2000
GRAPHIC SCALE IN FEET

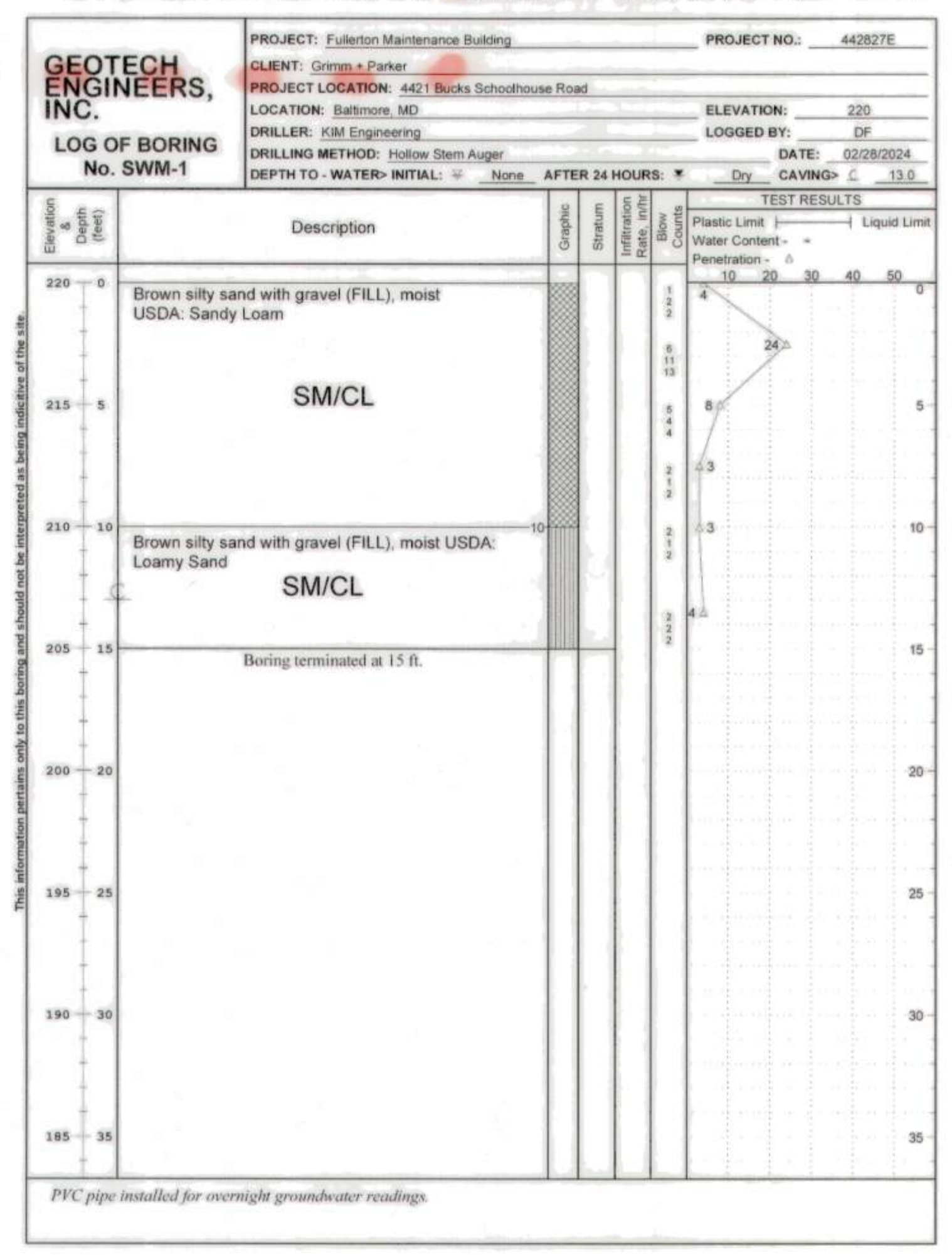
BALTIMORE CITY ADC MAP 69 GRID D5
PERMITTED USE No. 21009264

GENERAL SURVEY NOTES:

1. COORDINATES AND ELEVATIONS SHOWN HEREON ARE REFERRED TO THE NORTH AMERICAN DATUM OF 1983 (2011) AND NORTH AMERICAN VERTICAL DATUM OF 1988 AND ARE BASED ON THE FOLLOWING CONTROL STATIONS:

CONTROL	NORTH	EAST	ELEVATION
BCO 332A	N 621,896.749	E 1,452,932.407	248.62
BCO 333A	N 621,523.650	E 1,453,586.516	257.25

STORMWATER MANAGEMENT BORING REPORT


GEOTECH ENGINEERS, INC.
LOG OF BORING No. SWM-1

PROJECT: Fullerton Maintenance Building — PROJECT NO.: 442827E
CLIENT: Grimm + Parker
PROJECT LOCATION: 4421 Bucks Schoolhouse Road
LOCATION: Baltimore, MD — ELEVATION: 220
DRILLER: KIM Engineering — LOGGED BY: DF
DRILLING METHOD: Hollow Stem Auger — DATE: 02/28/2024
DEPTH TO - WATER> INITIAL: None — AFTER 24 HOURS: Dry — CAVING> 13.0

Elevation & Depth (feet)	Description	Blow Counts	Penetration
220 – 0	Brown silty sand with gravel (FILL), moist USDA: Sandy Loam — SM/CL	1 2 2	4
		6 11 13	24
215 – 5		5 4 4	8
		2 1 2	3
210 – 10	Brown silty sand with gravel (FILL), moist USDA: Loamy Sand — SM/CL	2 1 2	3
		2 2 2	4
205 – 15	Boring terminated at 15 ft.		

TEST RESULTS: Plastic Limit — Liquid Limit; Water Content; Penetration

This information pertains only to this boring and should not be interpreted as being indicative of the site.

PVC pipe installed for overnight groundwater readings.

Figure — PAGE 1 of 1

M-6 MICRO-BIO RETENTION FACILITY DESIGN CRITERIA:

A. PROPOSED DRAINAGE AREA TO MBR-1:
- A.A. DRAINAGE AREA: 7849 SF – 0.180 Ac.
- A.B. IMPERVIOUS AREA: 5843 SF – 0.134 Ac.
- A.C. PERVIOUS AREA: 2006 SF – 0.046 Ac.

B. DA RUNOFF CURVE NUMBER: 93

C. TIME OF CONCENTRATION: 6 MINUTES

D. IMPERVIOUS AREA REQUIRING TREATMENT:
- D.A. IART REQUIRED: 4,792 SF
- D.B. IART PROVIDED: 5,843 SF

E. ESD VOLUME:
- E.A. ESDv REQUIRED: 379 CF; Pe Required: 1.00" (Re-Development)
- E.B. ESDV PROVIDED: 477 CF; Pe Provided: 1.00"
  STORAGE PROVIDED (75% ESDV): 358 CF

F. GROUNDWATER RECHARGE:
- F.A. GROUNDWATER RECHARGE REQUIRED: 61 CF
- F.B. GROUNDWATER RECHARGE PROVIDED: 61 CF
  (5'-8" X 36'-3" X 9" DEPTH X 0.40 RATIO) = 61 CF

G. MINIMUM AREA OF FILTER MEDIA:
- G.A. Af MIN = 2% of DA
  - G.A.A. 0.02 x 7,847 SF = 157 SF.
- G.B. Af PROVIDED = 5'-8" X 36'-3" = 205 SF
- G.C. AF PROVIDED 205SF > AF REQUIRED 157 SF.

DEDICATION TABLE

THE FOLLOWING RIGHTS OF WAY ARE TO BE CONVEYED TO BALTIMORE COUNTY BY THE DEVELOPER/OWNER OF THIS PROPERTY AS A CONDITION OF APPROVAL OF THESE PLANS. DATA ENTERED INTO THE TABLE INDICATES PERTINENT INFORMATION INCLUDED ON THE PLANS. WHERE THE TABLE IS BLANK, DATA IS NOT APPLICABLE AND NO DEDICATION IS REQUIRED.

TYPE OF CONVEYANCE	NO.	TOTAL AREA* (AC)
ACCESS EASEMENT		
CHESAPEAKE BAY CRITICAL AREA EASEMENT		
CONSERVANCY AREA EASEMENT		
DRAINAGE AND UTILITY EASEMENT		
FIRE SUPPRESSION TANK EASEMENT		
FLOODPLAIN EASEMENT		
FLOODPLAIN RESERVATION		
FOREST BUFFER EASEMENT		
FOREST BUFFER RESERVATON		
FOREST BUFFER & FOREST CONSERVATION EASEMENT		
FOREST BUFFER & FOREST CONSERVATION RESERVATION		
FOREST CONSERVATION EASEMENT		
FOREST CONSERVATION RESERVATION		
GREENWAY EASEMENT		
GREENWAY RESERVATION		
HIGHWAY WIDENING (SHA)		
LOCAL OPEN SPACE		
HIGHWAY EASEMENT		
REVERTIBLE SLOPE EASEMENT		
HIGHWAY RIGHT-OF-WAY		
SIGHTLINE EASEMENT		
STORMWATER MANAGEMENT EASEMENT	1	8,022 SF (0.184 Ac.)
STORMWATER MANAGEMENT RESERVATION		
TEMPORARY EASEMENT – Any Type		
TURNAROUND EASEMENT		
WETLANDS MITIGATION EASEMENT		

DURING THE COUNTY REVIEW OF A DEVELOPMENT PLAN THE TOTAL AREAS SHOWN IN THIS TABLE MAY BE APPROXIMATE. FINAL SUBMITTAL OF THE LIMITED EXEMPTION DEVELOPMENT PLANS, FULL PROCESS DEVELOPMENT PLANS, AMENDED DEVELOPMENT PLANS, FINAL DEVELOPMENT PLANS PURSUANT TO THE BALTIMORE COUNTY ZONING REGULATIONS, RECORD PLATS, AND CONSTRUCTION DRAWINGS SHALL HAVE EXACT NUMBER(S) AND EXACT AREA(S) OF CONVEYANCE. CONTACT BALTIMORE COUNTY OFFICE OF LAW: REAL ESTATE COMPLIANCE FOR INFORMATION.

TABLE 5.1 NATURAL RESOURCES AND THE CORRESPONDING REGULATORY AUTHORITIES:

FEDERAL	STATE	LOCAL
WETLANDS X	TIDAL AND NON-TIDAL WETLANDS X	STEEP SLOPES X
MAJOR WATERWAYS X	WETLANDS OF SPECIAL STATE CONCERN X	HIGHLY ERODIBLE SOILS X
FLOODPLAINS X	WETLAND BUFFERS X	ENHANCED STREAM BUFFERS X
	STREAM BUFFERS X	TOPOGRAPHY/SLOPES ✓
	PERENNIAL STREAMS X	SPRINGS X
	FLOODPLAINS X	SEEPS X
	FORESTS ✓	INTERMITTENT STREAMS X
	FOREST BUFFERS ✓	VEGETATIVE COVER ✓
	CRITICAL AREAS X	SOILS ✓
		BEDROCK/GEOLOGY X
		EXISTING DRAINAGE AREAS ✓

SITE INFORMATION:

A. AREA DISTURBED: 0.448 AC/19,532 SF
B. TOTAL CUT: 100 CYDS
C. TOTAL FILL: 50 CYDS

APPROVED: ____________ Chief
STORMWATER ENGINEERING
BALT. CO. DEPT. OF
ENVIRONMENTAL PROTECTION
AND SUSTAINABILITY

STORMWATER MANAGEMENT REQUIRED

BUCKS SCHOOL HOUSE RD
BALTIMORE GAS & ELECTRIC CO.
MAP 81, GRID 05, PARCEL 0372
TAX ID:1402004175

SOIL TYPES		
SYMBOL	DESCRIPTION	HSG
CbD	Chillum–Urban land complex, 5–15% slopes	C
UeD	Udorthents, reclaimed gravel pits, 5–15% slopes	C
UuB	Urban land–Udorthents complex, 0–8% slopes	D

THIS PLAN IS SEALED AND CERTIFIED AS BEING IN ACCORDANCE WITH THE APPROVED DEVELOPMENT PLAN

STORMWATER MANAGEMENT PLAN

SCALE: 1" = 20'
40 10 0 20 20
GRAPHIC SCALE IN FEET

	LOD(SF/Ac.)		Impervious Area (SF/Ac.)		Pervious Area (SF/Ac.)	
Existing Conditions	19532	0.448	14291	0.33	5241	0.12
Future Conditions	19532	0.448	11827	0.27	7705	0.18

	Required	Provided
Recharge Vol.(Cf)	61	61
ESDv (Cf)	379	477
Pe (Inches)	1.00"	1.00"
Area of Filter (Sf)	157	205

SWM PERMIT#: CEN24-000079
GRADING PERMIT#: CEN24-000078

DESIGN ENGINEER:
JUDITH CARROLL, P.E, PRESIDENT
CARROLL ENGINEERING, INC.
215 SCHILLING CIRCLE, SUITE 102
HUNT VALLEY, MD 21031
OFFICE: 410-785-7423
JCARROLL@CEIENGINEERING.COM

PROPERTY OWNER:
BALTIMORE COUNTY, MARYLAND
OWNER CONTACT PERSON:
MIKE GOODYEAR
SR PROJECT MANAGER
ALT. GEORGE THOMAKOS
BC PROPERTY MANAGEMENT/CAPITAL
OFFICE: 410-887-6595
MGOODYEAR@BALTIMORECOUNTYMD.GOV

MCS NAD 83(2011) NAVD 88

SEAL: STATE OF MARYLAND — JUDITH A. CARROLL — No. 14446 — REGISTERED PROFESSIONAL ENGINEER
DATE: 10-30-24

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AN A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 14446 EXPIRATION DATE: 05/25/2025

CARROLL ENGINEERING, INC.
AS-BUILT PER RECORD PRINT
BY:
DATE:
DGN BY: MJM
DWN BY: MJM
CHKD BY: CMS

AS-BUILT / REVISION	BY	DATE	P.W.A NO.	KEY SHEET	POSITION SHT	DRAWING SCALE		PROPERTY MANAGEMENT
				MSW	28 NE 22 29 NE 22 28 NE 23 29 NE 23	PLAN SCALE:	1"=20'	APPROVED BY: ____ PROPERTY MANAGER
CONTRACT COMPLETION BOX						PROFILE SCALE:		DATE:
BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER	
REVIEWED BY:								
DATE REVIEWED:								

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT

NEW TRUCK GARAGE
STORMWATER MANAGEMENT PLAN
PERMIT SET 09/20/2024
4419A BUCKS SCHOOLHOUSE ROAD, ROSEDALE, MD 21237

SUBDIVISION: FULLERTON
ELECTION DIST. NO.: 14C5

SHEET DESIGNATION	CONTRACT NUMBER
C600	24167 PO0
	JOB ORDER NUMBER
	PO 10010489
	14 OF 53
	DRAWING NUMBER
	2024- 2776
	FILE NO.: 8

APPROVED PERMIT PLAN SET
PERMIT #: CEN24-000079
PERMIT ISSUED DATE/TIME:
12/18/2024

FULLERTON COMPLEX UPGRADES

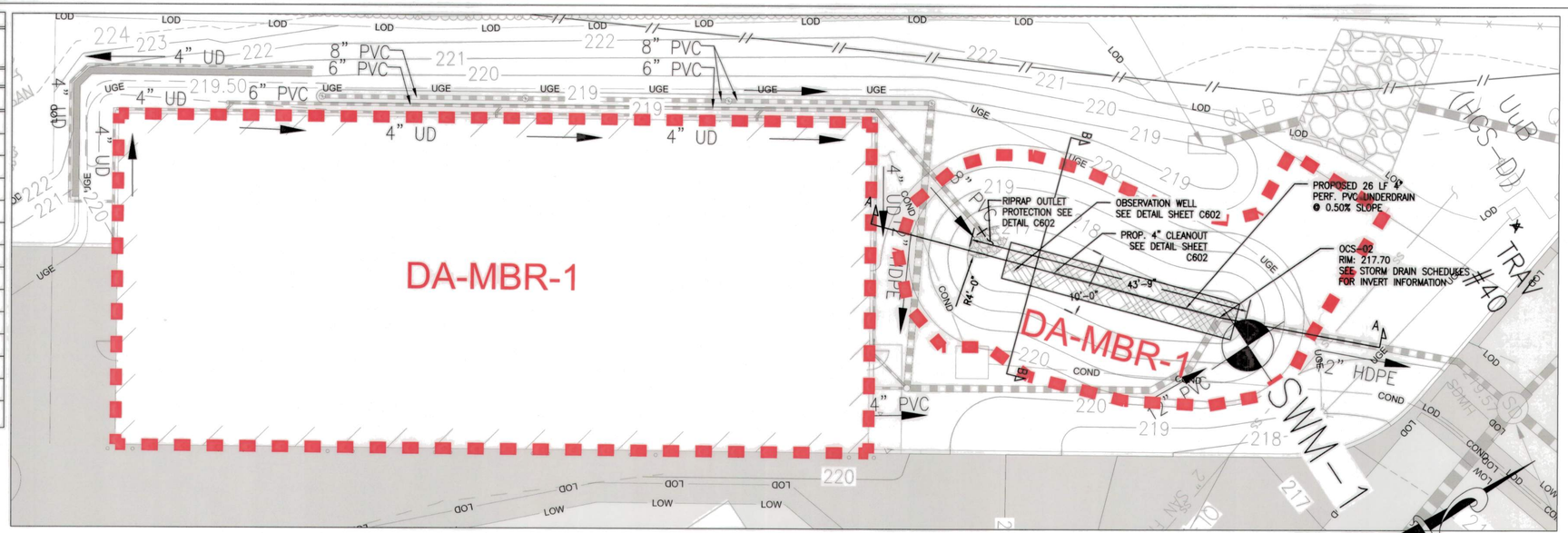
T DATA FOR MICRO-BIORETENTION MBR-1

TO BE COMPLETED BY THE CERTIFYING ENGINEER

FEATURE	DESIGN	AS-BUILT
BOTTOM ELEVATION	212.59	
SURFACE ELEVATION	217.00	
FILTER SURFACE DIMENSIONS (WxL)	36'-3" X 5'-8"	
FILTER BOTTOM DIMENSIONS (WxL)	36'-3" X 5'-8"	
STORAGE VOLUME AT OUTLET WEIR	358 c.f.	
OBSERVATION WELL WITH DEPTH TO BOTTOM INDICATED ON CAP	4" PVC / 4'-9"	
MEDIA TYPE / THICKNESS	SHA BSM 24" THICK	
FACILITY SURFACE AREA @ ELEV. 217.00	396 SF	
OUTLET STRUCTURE / RIM ELEVATION	12" NYLOPLAST W/ 8" DOME GRATE & REDUCER/ 218.70	
UNDERDRAIN SIZE/TYPE/LENGTH	4" PERF. PVC /26 LF.	
UNDERDRAIN MAX. INV UP / INV DN	213.34/213.20	
OUTLET PIPE SIZE / TYPE	12" HDPE	
OUTLET PIPE INV.	211.84	
OUTLET STRUCTURE NORTHING / EASTING	N:622,723.01 E:1,453,943.80	

DATE AS-BUILT ACCEPTED BY BALTIMORE COUNTY: _____

FACILITIES BEING CERTIFIED:
M-6 MICRO-BIO RETENTION (MBR-1)
"CERTIFY" MEANS TO STATE OR DECLARE A PROFESSIONAL OPINION BASED ON SUFFICIENT AND APPROPRIATE ONSITE INSPECTIONS AND MATERIAL TESTS CONDUCTED DURING CONSTRUCTION.

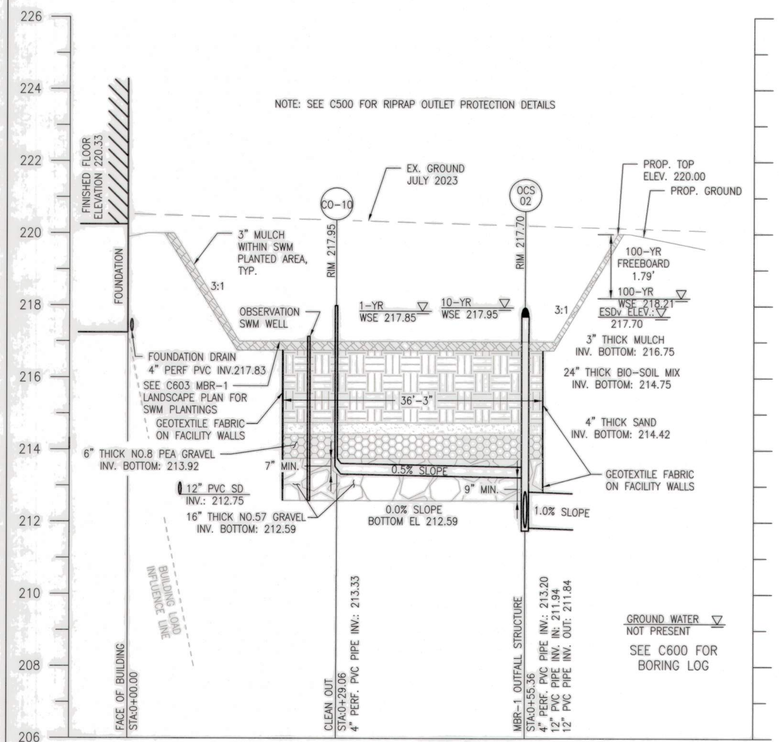


LEGEND

- EXISTING BUILDING
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING PROPERTY LINE
- EXISTING RIGHT-OF-WAY
- EXISTING EASEMENT
- EXISTING SETBACK
- EXISTING CURB
- EXISTING CURB & GUTTER
- EXISTING FENCELINE
- EXISTING SIGN
- EXISTING FLAGPOLE
- EXISTING BOLLARD
- EXISTING TREELINE
- EXISTING DECIDUOUS TREE
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY CLEANOUT
- EXISTING STORMDRAIN LINE
- EXISTING STORMDRAIN MANHOLE
- EXISTING WATER VALVE
- EXISTING WATER MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING ELECTRIC HANDBOX
- EXISTING COMM HANDHOLE
- EXISTING GAS VALVE
- EXISTING STORMDRAIN INLET
- EXISTING ASPHALT PAVING
- EXISTING CONCRETE PAVING
- PROPOSED BUILDING
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED CURB
- PROPOSED CURB & GUTTER
- PROPOSED LIGHT POLE
- PROPOSED UNDERGROUND ELECTRIC
- PROPOSED ASPHALT PAVING
- PROPOSED MICRO-BIORETENTION AREA
- PROPOSED SEGMENTAL BLOCK WALL
- PROPOSED STORMDRAIN LINE
- PROPOSED STORMDRAIN INLET

MCS NAV 83(2011) NAVD 88

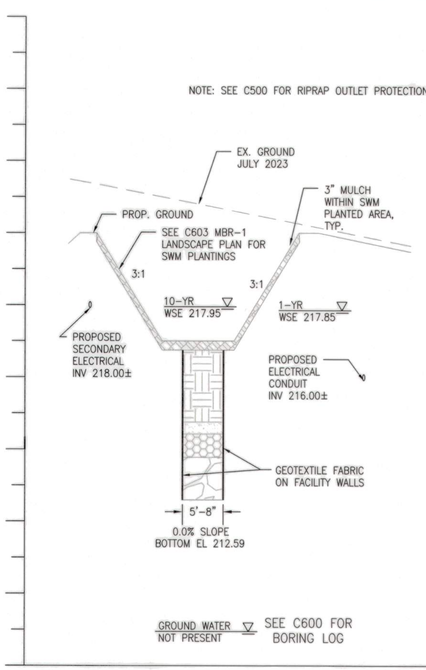
NOTE: SEE C500 FOR RIPRAP OUTLET PROTECTION DETAILS



MBR-1 SECTION A-A

SCALE: HORIZ. 1"=10'
VERT. 1"=2'

NOTE: SEE C500 FOR RIPRAP OUTLET PROTECTION DETAILS



MBR-1 SECTION B-B

SCALE: HORIZ. 1"=10'
VERT. 1"=2'

GRAPHIC SCALE IN FEET
SCALE: 1" = 2'

GRAPHIC SCALE IN FEET
SCALE: 1" = 10'

MBR-1 DETAIL

SCALE: 1" = 10'

GRAPHIC SCALE IN FEET
SCALE: 1" = 10'

NOTES:
1. ALL MATERIALS AND CONSTRUCTION PRACTICES SHALL BE IN ACCORDANCE WITH CHAPTER 5 AND APPENDIX B.4 "SPECIFICATIONS FOR ENVIRONMENTAL SITE DESIGN PRACTICES" OF THE CURRENT MARYLAND STORMWATER DESIGN MANUAL.
2. EXCAVATION SHALL NOT COMPACT UNDERLYING SOILS. SCARIFY BOTTOM SURFACE PRIOR TO POURING STONE.
3. UNDERDRAIN SHALL BE 4" PERFORATED PVC. PERFORATIONS SHALL BE ⅜" DIAMETER LOCATED 6" ON CENTER WITH A MINIMUM OF 4 HOLES PER ROW. PIPE SHALL BE WRAPPED WITH A ¼" (NO.4 OR 4x4) GALVANIZED HARDWARE CLOTH.
4. THE GRAVEL LAYER (NO. 57 STONE) SHALL BE AT LEAST 12" THICK BELOW THE UNDERDRAIN PIPE UNLESS OTHERWISE NOTED.
5. THE UNDERDRAIN SHALL BE INSTALLED AT A MINIMUM SLOPE OF 0.5%..
6. OBSERVATION WELLS SHALL BE 4" PVC CLEANOUT EXTENDING 4" ABOVE FINISHED GRADE. (SEE DETAIL ON SHEET C-704 AND C-705)
7. MICRO-BIORETENTION AREAS SHALL NOT BE CONSTRUCTED UNTIL ALL CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.
8. SEE LANDSCAPING PLAN FOR PLANTING SPECIES AND LOCATIONS.
9. SEE EROSION AND SEDIMENT CONTROL PLAN FOR EROSION AND SEDIMENT CONTROL MEASURES.
10. SEE SWM REPORT FOR BORING DATA AND SWM-01 FOR LOCATIONS.
11. SEE THIS SHEET FOR MICRO-BIO RETENTION FACILITY MAINTENANCE SCHEDULE AND DETAILS.
12. SEE C602 FOR RIPRAP DESIGN CALCULATION AND DETAIL.

MICRO-BIORETENTION PRACTICE (M-6) BALTIMORE COUNTY MAINTENANCE SCHEDULE

1. THE TOP FEW INCHES OF FILTER MEDIA (MULCH LAYER) SHOULD BE INSPECTED EACH SPRING. ONCE EVERY 2 TO 3 YEARS, REMOVE PREVIOUS MULCH LAYER AND APPLY NEW 2 TO 3 INCH MULCH LAYER.
2. SILTS AND SEDIMENT SHOULD BE REMOVED FROM THE SURFACE OF THE FILTER BED WHEN ACCUMULATION EXCEEDS ONE (1) INCH. CHECK FOR DEWATERING WITHIN 48 HOURS.
3. PLANT INSPECTION SHALL BE SCHEDULED TWICE A YEAR IN SPRING AND FALL. THIS INSPECTION WILL INCLUDE REMOVAL AND REPLACEMENT OF DEAD, DISEASED AND EXCESSIVE VEGETATION CONSIDERED BEYOND TREATMENT. TREE STAKES AND WIRES SHALL BE REMOVED AFTER TREES HAVE BECOME ESTABLISHED. IF SPECIFIC PLANTS ARE NOT SURVIVING, MORE APPROPRIATE SPECIES SHOULD BE USED. WATERING MAY BE REQUIRED DURING PROLONGED DRY PERIODS.
4. SOIL EROSION AND FLOW BLOCKAGES TO BE ADDRESSED ON AN AS NEEDED BASIS WITH A MINIMUM OF ONCE PER MONTH AND AFTER HEAVY STORMS INSPECTIONS. INSPECT CLEAN OUTS AND OBSERVATION WELLS ALONG WITH OVERFLOW INLETS AND OUTFALL/EXIT PIPES AT LEAST ONCE A MONTH AND AFTER HEAVY STORMS.

STORM WATER MANAGEMENT AS-BUILT NOTE:

THE CONTRACTOR SHALL SUPPLY ALL OF THE FOLLOWING INFORMATION DURING AND AFTER THE CONSTRUCTION OF THE SWM SYSTEM. ALL REQUIRED DOCUMENTS SHALL BE SUBMITTED WITHIN NINETY (90) DAYS OF THE DATE OF SUBSTANTIAL COMPLETION AS ACCEPTED BY THE OWNER:

1. AS-BUILT TOPOGRAPHIC SURVEY BASED ON THE SAME DATUM AND BENCHMARKS AS THE ORIGINAL SURVEY USED IN DESIGN. THE AS-BUILT SURVEY SHALL SHOW THE FOLLOWING:
   a. SIZE, ELEVATIONS AND GRADES OF EXCAVATION FOR BMPS(s),
   b. SURFACE ELEVATIONS AND GRADES FOR EACH LAYER OF DIFFERENT MATERIAL IN THE BMP(s),
   c. INVERT ELEVATIONS OF ALL UNDERDRAINS, STORM PIPING AND APPURTENENT STRUCTURES IN THE BMP(s),
   d. SURFACE ELEVATIONS AND SPOT GRADES OF THE COMPLETED BMP(s) IN LOCATIONS TO MATCH THE APPROVED SWM PLANS AND DETAILS.

   THE SURVEY SHALL BE IN AUTOCAD FORMAT. CONTACT THE ENGINEER FOR CADD STANDARDS TO BE USED.
2. MATERIAL TICKETS FOR ALL MATERIALS USED IN CONSTRUCITON OF THE BMP(s).
3. PHOTOGRAPHS OF CRITICAL INSPECTIONS INCLUDING, BUT NOT LIMITED TO:
   a. PHOTOS OF EACH LAYER OF DIFFERENT MATERIAL IN THE BMP(s),
   b. PHOTOS OF PLACMENT OF ALL UNDERDRAINS, STORM PIPING, AND APPURTENENT STRUCTURES IN THE BMP(s),
   c. PHOTOS OF THE COMPLETED BMP(s) INCLUDING ALL STABILIZATION AND LANDSCAPING.
4. COMPLETED AS-BUILT TABLES WITH THE INSPECTORS INITIALS IN ORIGINAL HANDWRITING – SEE SWM SHEETS FOR REQUIRED INFORMATION.

AS-BUILT CERTIFICATION

I hereby certify that the facility shown on this plan was constructed as shown on the "AS-BUILT" plans and meets the approved plans and specifications.

Signature P.E. No.

Print Name Date

CONTRACTOR'S AS-BUILT NOTE:

AS-BUILT plans and certifications are required for this stormwater management facility. These must be prepared and sealed by a registered professional engineer. Baltimore County will not perform the inspection or prepare the as-built plans or certification. The stormwater management permit security will not be released until the AS-BUILT plans and certification are approved by Baltimore County.

In order to prepare the required AS-BUILT plans and certification, this stormwater management facility must be inspected by the engineer at specific stages during construction as required by the amended Baltimore County Code, Title 4, stormwater management. The contractor shall notify the engineer at least five (5) working days prior to starting any work shown on these plans.

APPROVED: _____ Chief
STORMWATER ENGINEERING
BALT. CO. DEPT. OF
ENVIRONMENTAL PROTECTION
AND SUSTAINABILITY

STORMWATER MANAGEMENT REQUIRED

MCS NAD 83(2011) NAVD 88

THIS PLAN IS SEALED AND CERTIFIED AS BEING IN ACCORDANCE WITH THE APPROVED DEVELOPMENT PLAN

SEAL

DATE: 10-30-24

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 14446 EXPIRATION DATE: 05/25/2025

CARROLL ENGINEERING, INC.

AS-BUILT PER RECORD PRINT
BY:
DATE:

AS-BUILT / REVISION	BY	DATE	P.W.A NO.
CONTRACT COMPLETION BOX			

DGN BY: MJM	BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER
DWN BY: MJM	REVIEWED BY:						
CHKD BY: CMS	DATE REVIEWED:						

KEY SHEET: MSW

POSITION SHT: 28 NE 22, 29 NE 22, 28 NE 23, 29 NE 23

DRAWING SCALE: PLAN SCALE: 1"=10'; PROFILE SCALE: H:1"=10' V:1"=2'

FIELD ENGINEER

PROPERTY MANAGEMENT: APPROVED BY: _____ PROPERTY MANAGER; DATE: _____

SUBDIVISION: FULLERTON

SWM PERMIT#: CEN24-000079
GRADING PERMIT#: CEN24-000078

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT

NEW TRUCK GARAGE

MICRO-BIORETENTION DETAILS AND SECTIONS

PERMIT SET 09/20/2024

4419A BUCKS SCHOOLHOUSE ROAD, ROSEDALE, MD 21237

ELECTION DIST. NO.: 14C5

DESIGN ENGINEER:
JUDITH CARROLL, P.E, PRESIDENT
CARROLL ENGINEERING, INC.
215 SCHILLING CIRCLE, SUITE 102
HUNT VALLEY, MD 21031
OFFICE: 410-785-7423
JCARROLL@CEIENGINEERING.COM

PROPERTY OWNER:
BALTIMORE COUNTY, MARYLAND

OWNER CONTACT PERSON:
MIKE GOODYEAR
SR PROJECT MANAGER
ALT. GEORGE THOMAKOS
BC PROPERTY MANAGEMENT/CAPITAL
OFFICE: 410-887-6595
MGOODYEAR@BALTIMORECOUNTYMD.GOV

SHEET DESIGNATION	CONTRACT NUMBER
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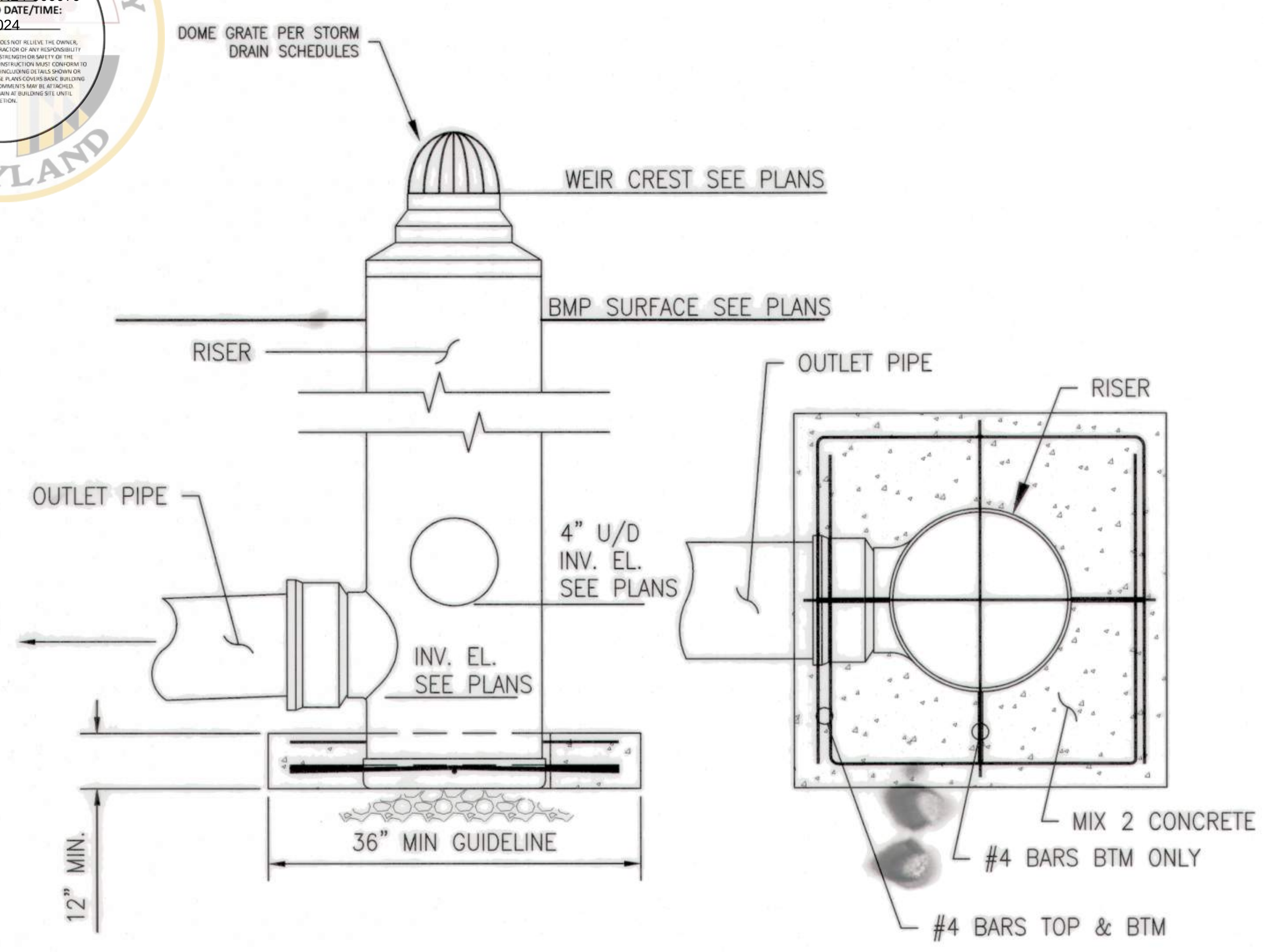
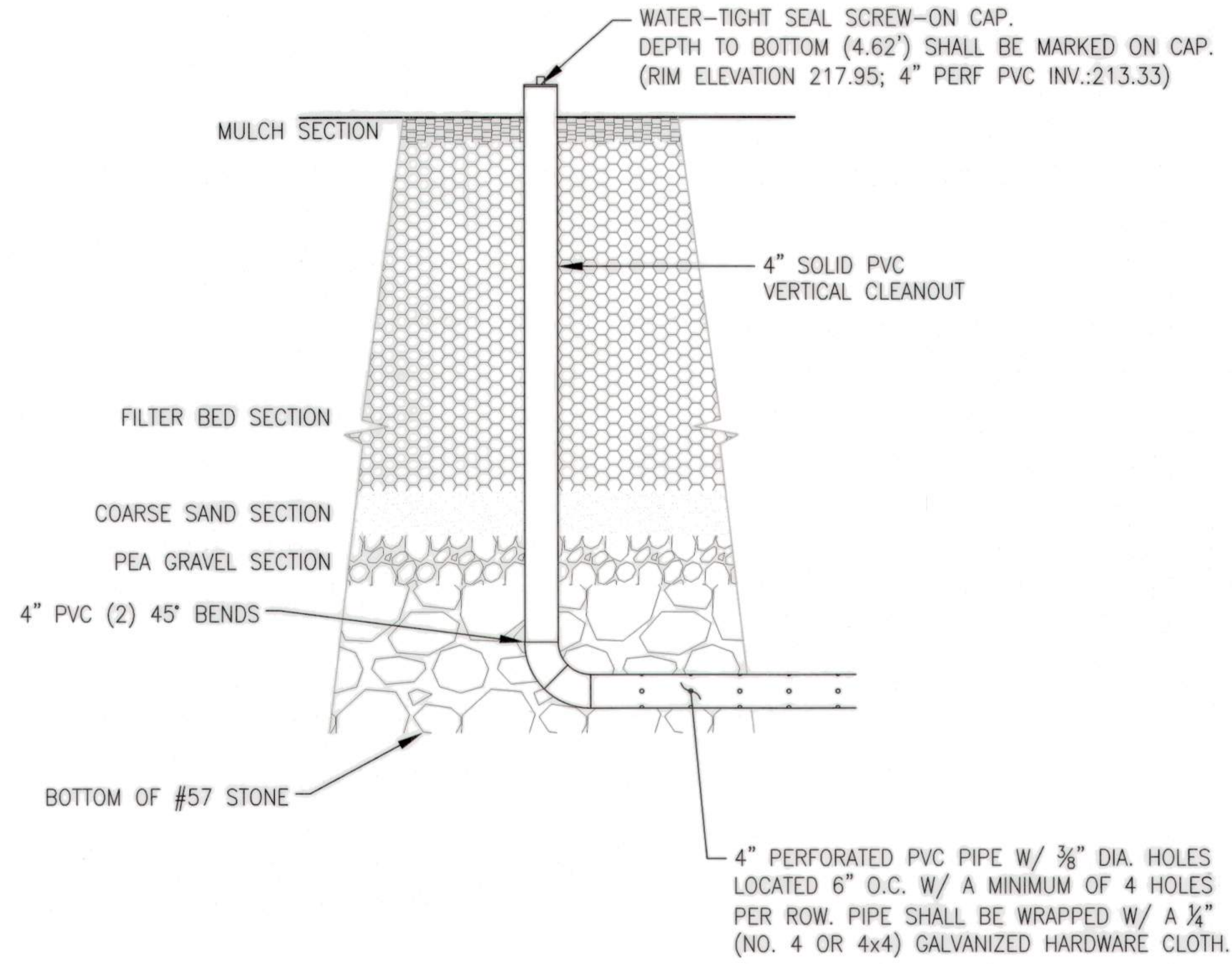
	JOB ORDER NUMBER
	PO 10010489
	15 OF 53
	DRAWING NUMBER
	2024-2777
	FILE NO.: 8



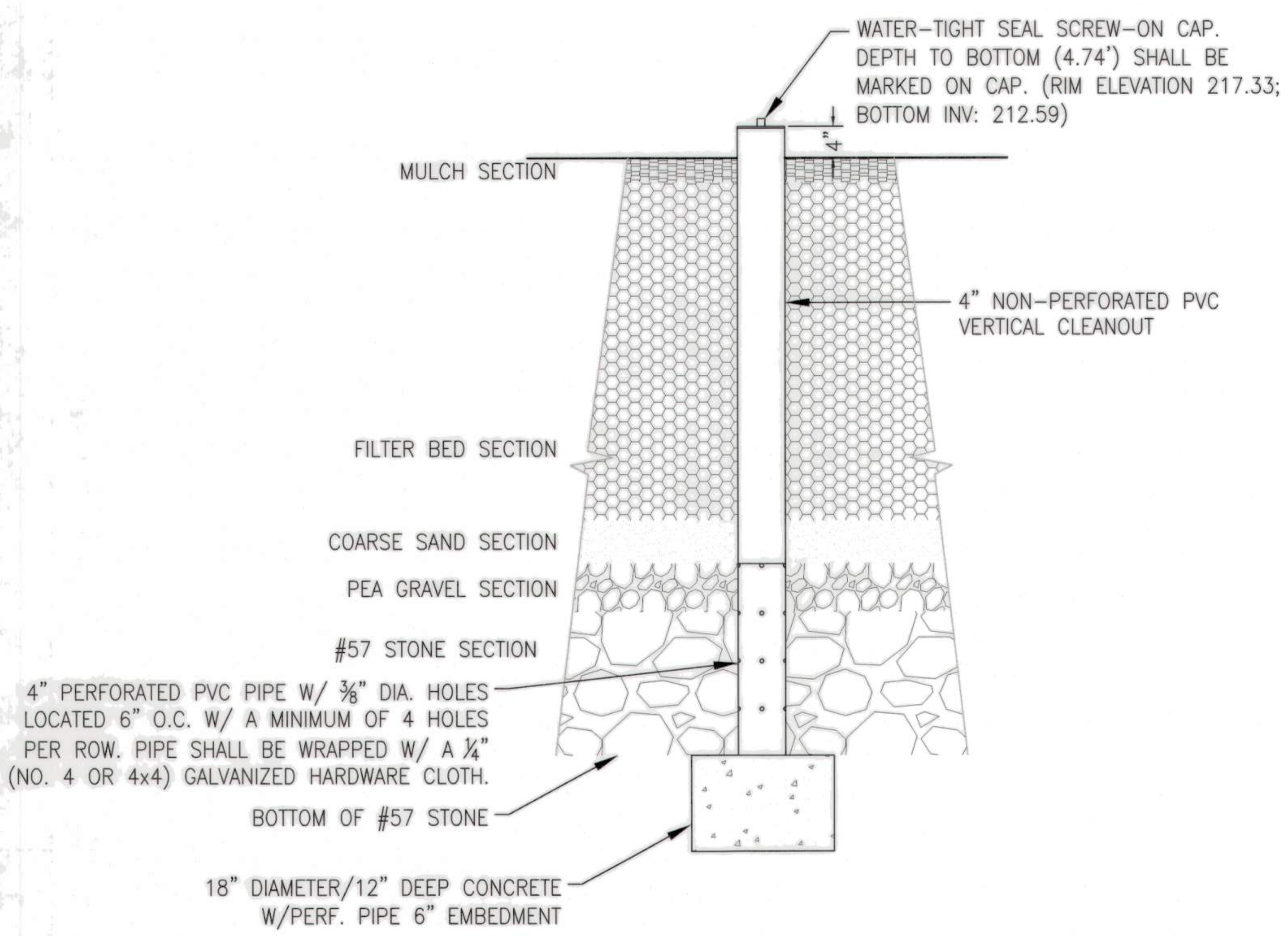
1 MICRO BIORETENTION BASIN RISER AND CONCRETE BASE

NOT TO SCALE



2 UNDERDRAIN CLEANOUT DETAIL

NOT TO SCALE



3 OBSERVATION WELL DETAIL

NOT TO SCALE

B.4.C SPECIFICATIONS FOR MICRO-BIORETENTION. RAIN GARDENS, LANDSCAPE INFILTRATION & INFILTRATION BERMS

1. MATERIAL SPECIFICATIONS
THE ALLOWABLE MATERIALS TO BE USED IN THESE PRACTICES ARE DETAILED IN TABLE B.4.1.

2. FILTERING MEDIA OR PLANTING SOIL
THE SOIL SHALL BE A UNIFORM MIX, FREE OF STONES, STUMPS, ROOTS OR OTHER SIMILAR OBJECTS LARGER THAN TWO INCHES. NO OTHER MATERIALS OR SUBSTANCES SHALL BE MIXED OR DUMPED WITHIN THE MICRO-BIORETENTION PRACTICE THAT MAY BE HARMFUL TO PLANT GROWTH, OR PROVE A HINDRANCE TO THE PLANTING OR MAINTENANCE OPERATIONS. THE PLANTING SOIL SHALL BE FREE OF BERMUDA GRASS, QUACKGRASS, JOHNSON GRASS, OR OTHER NOXIOUS WEEDS AS SPECIFIED UNDER COMAR 15.08.01.05.

THE PLANTING SOIL SHALL BE TESTED AND SHALL MEET THE CRITERIA OF SHA STANDARD SPECIFICATION FOR CONSTRUCTION MATERIALS, SECTION 920.01.05 (SEE THIS SHEET).

THERE SHALL BE AT LEAST ONE SOIL TEST PER PROJECT. EACH TEST SHALL CONSIST OF BOTH THE STANDARD SOIL TEST FOR PH, AND ADDITIONAL TESTS OF ORGANIC MATTER, AND SOLUBLE SALTS. A TEXTURAL ANALYSIS IS REQUIRED FROM THE SITE STOCKPILED TOPSOIL. IF TOPSOIL IS IMPORTED, THEN A TEXTURE ANALYSIS SHALL BE PERFORMED FOR EACH LOCATION WHERE THE TOPSOIL WAS EXCAVATED.

3. COMPACTION
IT IS VERY IMPORTANT TO MINIMIZE COMPACTION OF BOTH THE BASE OF BIORETENTION PRACTICES AND THE REQUIRED BACKFILL. WHEN POSSIBLE, USE EXCAVATION HOES TO REMOVE ORIGINAL SOIL. IF PRACTICES ARE EXCAVATED USING A LOADER, THE CONTRACTOR SHOULD USE WIDE TRACK OR MARSH TRACK EQUIPMENT, OR LIGHT EQUIPMENT WITH TURF TYPE TIRES. USE OF EQUIPMENT WITH NARROW TRACKS OR NARROW TIRES, RUBBER TIRES WITH LARGE LUGS, OR HIGH-PRESSURE TIRES WILL CAUSE EXCESSIVE COMPACTION RESULTING IN REDUCED INFILTRATION RATES AND IS NOT ACCEPTABLE. COMPACTION WILL SIGNIFICANTLY CONTRIBUTE TO DESIGN FAILURE.

COMPACTION CAN BE ALLEVIATED AT THE BASE OF THE BIORETENTION FACILITY BY USING A PRIMARY TILLING OPERATION SUCH AS A CHISEL PLOW, RIPPER, OR SUBSOILER. THESE TILLING OPERATIONS ARE TO REFRACTURE THE SOIL PROFILE THROUGH THE 12 INCH COMPACTION ZONE. SUBSTITUTE METHODS MUST BE APPROVED BY THE ENGINEER. ROTOTILLERS TYPICALLY DO NOT TILL DEEP ENOUGH TO REDUCE THE EFFECTS OF COMPACTION FROM HEAVY EQUIPMENT.

ROTOTILL 2 TO 3 INCHES OF SAND INTO THE BASE OF THE BIORETENTION FACILITY BEFORE BACKFILLING THE OPTIONAL SAND LAYER. PUMP ANY PONDED WATER BEFORE PREPARING (ROTOTILLING) BASE.

WHEN BACKFILLING THE TOPSOIL OVER THE SAND LAYER, FIRST PLACE 3 TO 4 INCHES OF TOPSOIL OVER THE SAND, THEN ROTOTILL THE SAND/TOPSOIL TO CREATE A GRADATION ZONE. BACKFILL THE REMAINDER OF THE TOPSOIL TO FINAL GRADE. WHEN BACKFILLING THE BIORETENTION FACILITY, PLACE SOIL IN LIFTS 12" TO 18". DO NOT USE HEAVY EQUIPMENT WITHIN THE BIORETENTION BASIN. HEAVY EQUIPMENT CAN BE USED AROUND THE PERIMETER OF THE BASIN TO SUPPLY SOILS AND SAND. GRADE BIORETENTION MATERIALS WITH LIGHT EQUIPMENT SUCH AS A COMPACT LOADER OR A DOZER/LOADER WITH MARSH TRACKS.

4. PLANT MATERIAL
RECOMMENDED PLANT MATERIAL FOR MICRO-BIORETENTION PRACTICES CAN BE FOUND IN APPENDIX A, SECTION A.2.3.

5. PLANT INSTALLATION
COMPOST IS A BETTER ORGANIC MATERIAL SOURCE, IS LESS LIKELY TO FLOAT, AND SHOULD BE PLACED IN THE INVERT AND OTHER LOW AREAS. MULCH SHOULD BE PLACED IN SURROUNDING TO A UNIFORM THICKNESS OF 2" TO 3". SHREDDED OR CHIPPED HARDWOOD MULCH IS THE ONLY ACCEPTED MULCH. PINE MULCH AND WOOD CHIPS WILL FLOAT AND MOVE TO THE PERIMETER OF THE BIORETENTION AREA DURING A STORM EVENT AND ARE NOT ACCEPTABLE. SHREDDED MULCH MUST BE WELL AGED (6 TO 12 MONTHS) FOR ACCEPTANCE.

ROOTSTOCK OF THE PLANT MATERIAL SHALL BE KEPT MOIST DURING TRANSPORT AND ON-SITE STORAGE. THE PLANT ROOT BALL SHOULD BE PLANTED SO 1/8TH OF THE BALL IS ABOVE FINAL GRADE SURFACE. THE DIAMETER OF THE PLANTING PIT SHALL BE AT LEAST SIX INCHES LARGER THAN THE DIAMETER OF THE PLANTING BALL. SET AND MAINTAIN THE PLANT STRAIGHT DURING THE ENTIRE PLANTING PROCESS. THOROUGHLY WATER GROUND BED COVER AFTER INSTALLATION.

TREES SHALL BE BRACED USING 2" BY 2" STAKES ONLY AS NECESSARY AND FOR THE FIRST GROWING SEASON ONLY. STAKES ARE TO BE EQUALLY SPACED ON THE OUTSIDE OF THE TREE BALL.

GRASSES AND LEGUME SEED SHOULD BE DRILLED INTO THE SOIL TO A DEPTH OF AT LEAST ONE INCH. GRASS AND LEGUME PLUGS SHALL BE PLANTED FOLLOWING THE NON-GRASS GROUND COVER PLANTING SPECIFICATIONS.

THE TOPSOIL SPECIFICATIONS PROVIDE ENOUGH ORGANIC MATERIAL TO ADEQUATELY SUPPLY NUTRIENTS FROM NATURAL CYCLING. THE PRIMARY FUNCTION OF THE BIORETENTION STRUCTURE IS TO IMPROVE WATER QUALITY. ADDING FERTILIZERS DEFEATS, OR AT A MINIMUM, IMPEDES THIS GOAL. ONLY ADD FERTILIZER IF WOOD CHIPS OR MULCH ARE USED TO AMEND THE SOIL. ROTOTILL UREA FERTILIZER AT A RATE OF 2 POUNDS PER 1000 SQUARE FEET.

1. UNDERDRAINS
UNDERDRAINS SHOULD MEET THE FOLLOWING CRITERIA:

- PIPE – SHOULD BE 4" TO 6" DIAMETER, SLOTTED OR PERFORATED RIGID PLASTIC PIPE (ASTMF 758, TYPE PS 28, OR AASHTO-M-278) IN A GRAVEL LAYER. THE PREFERRED MATERIAL IS SLOTTED, 4" RIGID PIPE (E.G., PVC OR HDPE).
- PERFORATIONS – IF PERFORATED PIPE IS USED, PERFORATIONS SHOULD BE 3/8" DIAMETER LOCATED 6" ON CENTER WITH A MINIMUM OF FOUR HOLES PER ROW. PIPE SHALL BE WRAPPED WITH A 1/4" (NO. 4 OR 4X4) GALVANIZED HARDWARE CLOTH.
- GRAVEL – THE GRAVEL LAYER (NO. 57 STONE PREFERRED) SHALL BE AT LEAST 3" THICK ABOVE AND BELOW THE UNDERDRAIN.
- THE MAIN COLLECTOR PIPE SHALL BE AT A MINIMUM 0.5% SLOPE.
- A RIGID, NON-PERFORATED OBSERVATION WELL MUST BE PROVIDED (ONE PER EVERY 1,0000 SQUARE FEET) TO PROVIDE A CLEAN-OUT PORT AND MONITOR PERFORMANCE OF THE FILTER.
- A 4" LAYER OF PEA GRAVEL (1/8" TO 3/8" STONE) SHALL BE LOCATED BETWEEN THE FILTER MEDIA AND UNDERDRAIN TO PREVENT MIGRATION OF FINES INTO THE UNDERDRAIN. THIS LAYER MAY BE CONSIDERED PART OF THE FILTER BED WHEN BED THICKNESS EXCEEDS 24".

THE MAIN COLLECTOR PIPE FOR UNDERDRAIN SYSTEMS SHALL BE CONSTRUCTED AT A MINIMUM SLOPE OF 0.5%. OBSERVATION WELLS AND/OR CLEAN-OUT PIPES MUST BE PROVIDED (ONE MINIMUM PER EVERY 1000 SQUARE FEET OF SURFACE AREA).

7. MISCELLANEOUS
THESE PRACTICES MAY NOT BE CONSTRUCTED UNTIL ALL CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED

Table B.4.1 Material Specifications for Micro-Bioretention, Rain Gardens & Landscape Infiltration

Material	Specification	Size	Notes
Plantings	See Landscape Plan	n/a	Plantings are site-specific
Planting Soil (2' to 4' deep)	See SHA Standard Specification for Construction Materials Section 920.01.05 (this sheet)	n/a	USDA soil types loamy sand or sandy loam; clay content <5%
Organic Content	Min. 10% by dry weight (ASTM D 2974)		
Mulch	Shredded hardwood		Aged 6 months, minimum; no pine or wood chips
Pea Gravel Diaphragm	Pea Gravel: ASTM-D-448	No. 8 or No. 9 (1/8" to 3/8")	
Geotextile		n/a	PE Type 1 Nonwoven
Gravel (underdrains & infiltration berms)	AASHTO M-43	No. 57 or No. 6 Aggregate (3/8" to 3/4")	
Underdrain Piping	F 758, Type PS 28 or AASHTO M-278 or AASHTO M-252	4" to 6" rigid schedule 40 PVC or SDR35 or 4" HDPE	Slotted or perforated pipe. 3/8" perf. @ 6" on center, 4 holes per row; minimum of 3" of gravel over pipes; not necessary underneath pipes. Perforated pipe shall be wrapped with 1/4" galvanized hardware cloth
Sand	ASTM-C-33	0.02" to 0.04"	Sand substitutions such as Diabase and Graystone (AASHTO) #10 are not acceptable. No calcium carbonate or dolomitic sand substitutions are acceptable. No "rock dust" can be used for sand.

RIPRAP OUTLET PROTECTION DESIGN

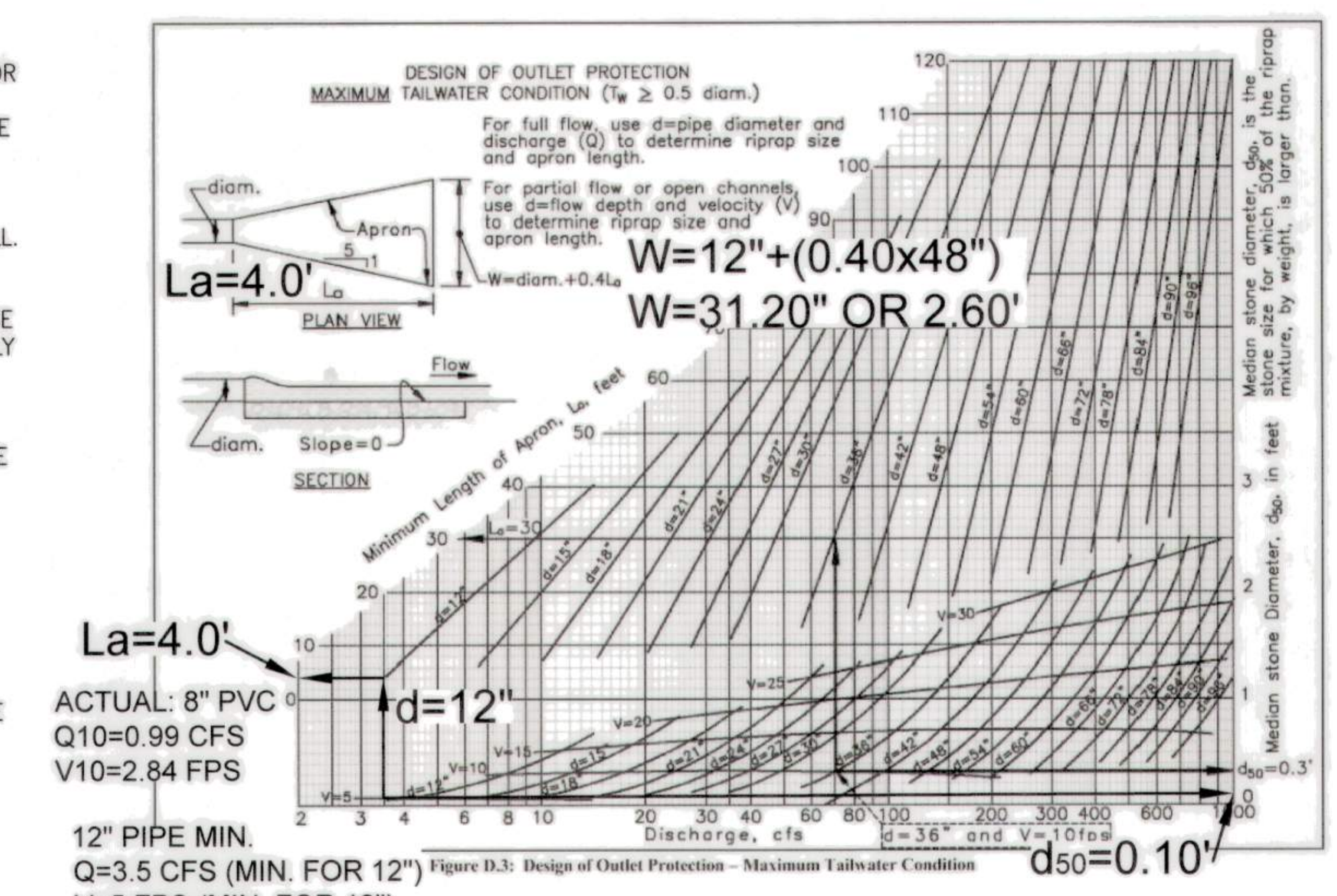
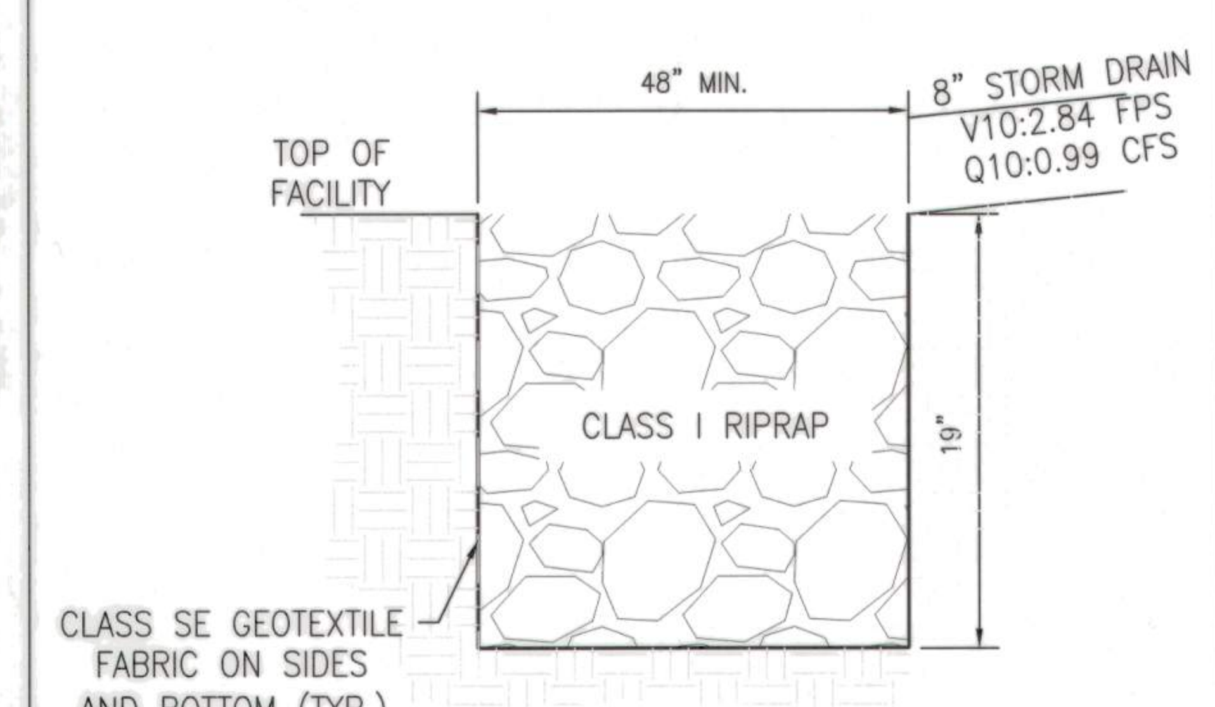


Figure D.3: Design of Outlet Protection – Maximum Tailwater Condition



RIPRAP OUTLET PROTECTION DETAIL

APPROVED: ______ Chief
STORMWATER ENGINEERING
BALT. CO. DEPT. OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY

STORMWATER MANAGEMENT REQUIRED

DESIGN ENGINEER:
JUDITH CARROLL, P.E, PRESIDENT
CARROLL ENGINEERING, INC.
215 SCHILLING CIRCLE, SUITE 102
HUNT VALLEY, MD 21031
OFFICE: 410-785-7423
JCARROLL@CEIENGINEERING.COM

PROPERTY OWNER:
BALTIMORE COUNTY, MARYLAND
OWNER CONTACT PERSON:
MIKE GOODYEAR
SR PROJECT MANAGER
ALT. GEORGE THOMAKOS
BC PROPERTY MANAGEMENT/CAPITAL
OFFICE: 410-887-6595
MGOODYEAR@BALTIMORECOUNTYMD.GOV

THIS PLAN IS SEALED AND CERTIFIED AS BEING IN ACCORDANCE WITH THE APPROVED DEVELOPMENT PLAN

SWM PERMIT#: CEN24-000079
GRADING PERMIT#: CEN24-000078

MCS NAD 83(2011) NAVD 88

SEAL: STATE OF MARYLAND, JUDITH A. CARROLL, NO. 14446, REGISTERED PROFESSIONAL ENGINEER
DATE: 10-30-24

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AN A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 14446 EXPIRATION DATE: 05/25/2025

CARROLL ENGINEERING, INC.
DGN BY: MJM
DWN BY: MJM
CHKD BY: CMS
AS-BUILT PER RECORD PRINT
BY:
DATE:

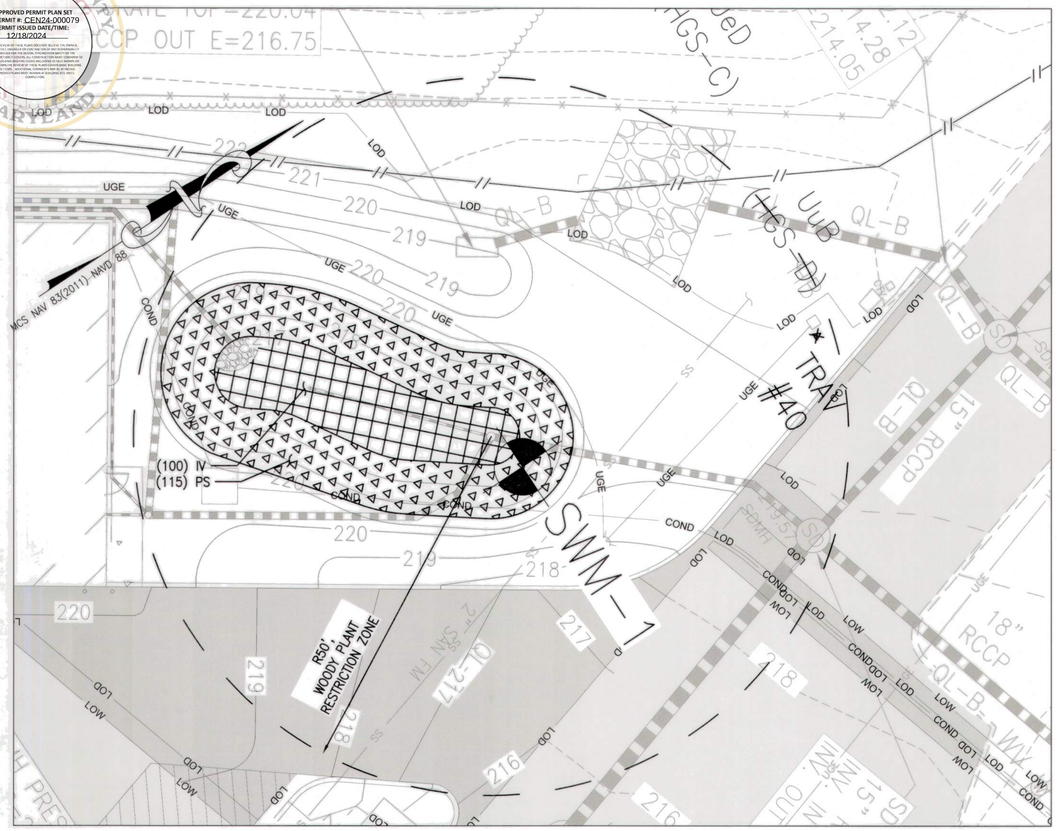
AS-BUILT / REVISION	BY	DATE	P.W.A NO.	KEY SHEET	POSITION SHT	DRAWING SCALE		PROPERTY MANAGEMENT
				MSW	28 NE 22, 29 NE 22, 28 NE 23, 29 NE 23	PLAN SCALE:		APPROVED BY: ______ PROPERTY MANAGER
CONTRACT COMPLETION BOX						PROFILE SCALE:		DATE:
BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER	
REVIEWED BY:								
DATE REVIEWED:								

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT

NEW TRUCK GARAGE
MICRO-BIORETENTION DETAILS AND NOTES
PERMIT SET 09/20/2024
4419A BUCKS SCHOOLHOUSE ROAD, ROSEDALE, MD 21237

SUBDIVISION: FULLERTON
ELECTION DIST. NO.: 14C5

SHEET DESIGNATION	CONTRACT NUMBER
C602	24167 P00
	JOB ORDER NUMBER
	PO 10010489
	16 OF 53
	DRAWING NUMBER
	2024-2778
	FILE NO.: 8



MBR-1 LANDSCAPE PLAN

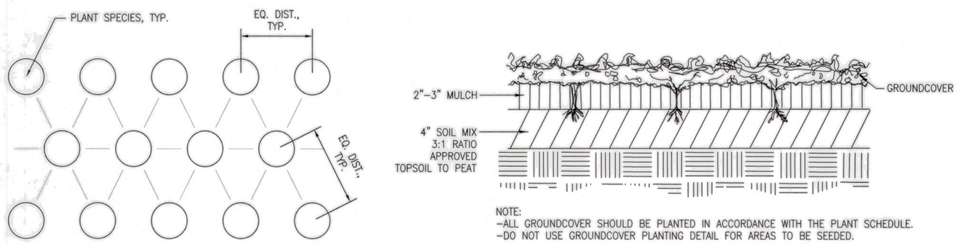
SCALE: 1" = 10'

10 5 0 10 20

GRAPHIC SCALE IN FEET

PLANT SCHEDULE

KEY	QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	ROOT	COMMENT
GROUNDCOVER, PERENNIALS, AND ORNAMENTAL GRASSES						
IV	100	IRIS VERSICOLOR	BLUE FLAG IRIS	#1	CONT.	SPACE 24" O.C.
PS	115	PANICUM VIRGATUM 'SHENANDOAH'	SHENANDOAH SWITCH GRASS	#3	CONT.	SPACE 36" O.C.



NOTE:
-ALL GROUNDCOVER SHOULD BE PLANTED IN ACCORDANCE WITH THE PLANT SCHEDULE.
-DO NOT USE GROUNDCOVER PLANTING DETAIL FOR AREAS TO BE SEEDED.

GROUNDCOVER PLANTING DETAIL

NOT TO SCALE

GENERAL LANDSCAPE NOTES

1. CONTRACTOR SHALL VERIFY ACCURACY OF INFORMATION SHOWN ON THE DRAWINGS AND EXISTING CONDITIONS IN THE FIELD TO HIS OWN SATISFACTION PRIOR TO ACQUIRING THE PLANT MATERIAL.
2. DAMAGE TO EXISTING CONDITIONS TO REMAIN AND NEW CONSTRUCTION SHALL BE REPAIRED AND RESTORED AT THE SOLE EXPENSE OF THE CONTRACTOR TO THE SATISFACTION OF THE OWNER.
3. CONTRACTOR SHALL REFER TO SPECIFICATIONS AND COMPLY WITH THE FOLLOWING SEQUENCE OF CONSTRUCTION:
   A. STAKE OUT PLANT/BED LOCATIONS.
   B. CUT EDGE OF PLANT BED
   C. TILL SOIL AND APPLY AMENDMENTS TO ENTIRE PLANTING AREA AS REQUIRED.
   D. APPLY PRE-EMERGENT HERBICIDE (TWO WEEKS PRIOR TO PLANTING).
   E. INSTALL PLANTS.
   F. PLACE BACKFILL.
   G. THOROUGHLY WATER EACH INDIVIDUAL PLANT.
   H. MULCH INDIVIDUAL PLANTS OR ENTIRE PLANT BED.
   I. WATER ENTIRE PLANT BED THOROUGHLY.
5. PROPOSED PLANT MATERIAL SUBSTITUTIONS ARE SUBJECT TO WRITTEN APPROVAL BY THE OWNER'S REPRESENTATIVE PRIOR TO DELIVERY AND INSTALLATION.
6. ALL SHRUB AND GROUNDCOVER AREAS SHALL BE PLANTED IN CONTINUOUS, PREPARED BEDS AND MULCHED WITH DOUBLE SHREDDED HARDWOOD BARK MULCH AS DETAILED AND AS SPECIFIED.
7. PLANTING BEDS SHALL HAVE POSITIVE DRAINAGE, WITH A MINIMUM 2 PERCENT SLOPE, AWAY FROM BUILDINGS AND STRUCTURES.
8. ALL PLANT MATERIAL SHALL BE NURSERY GROWN AND SHALL COMPLY WITH THE AMERICAN STANDARD FOR NURSERY STOCK, LATEST EDITION, PUBLISHED BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION (ANLA).
9. ALL PLANTING PROCEDURES SHALL COMPLY WITH THE LATEST EDITION OF "LANDSCAPE CONSTRUCTION ASSOCIATION GUIDELINES FOR THE BALTIMORE/WASHINGTON METROPOLITAN AREA,".
10. CONTAINERIZED PLANTS SHALL BE CHECKED FOR WRAPPED OR KINKED ROOTS. CONTAINERIZED PLANT MATERIAL SHALL BE REPLACED IF WRAPPED OR KINKED ROOTS ARE PRESENT.
11. ALL SOFTSCAPE AREAS NOT PLANTED WITH TREES, SHRUBS, OR HERBACEOUS SPECIES SHALL BE SEEDED FOR TURF GROWTH PER THE TURFS AND GRASSES SPECIFICATION.
12. PLANTING SHOULD OCCUR WITHIN 24 HOURS OF DELIVERY OF PLANT MATERIAL TO SITE. PLANT MATERIAL LEFT UNPLANTED FOR MORE THAN 24 HOURS SHOULD BE PROTECTED FROM DIRECT SUN AND WEATHER AND KEPT MOIST UNTIL PLANTED.
13. PRE- AND POST-EMERGENT HERBICIDES SHALL BE APPLIED TO PREVENT THE GERMINATION AND GROWTH OF WEEDS.
14. EACH LANDSCAPED AREA MUST BE READILY ACCESSIBLE TO A WATER SUPPLY. THE LANDSCAPE CONTRACTOR SHALL PROVIDE ALL EQUIPMENT NECESSARY TO TRANSPORT THE WATER FROM SOURCE TO REQUIRED LOCATIONS. THE LANDSCAPE CONTRACTOR SHALL WATER ALL PLANTS PROMPTLY, ADEQUATELY AND AS OFTEN AS NECESSARY TO INSURE PROPER PLANT GROWTH AND TO KEEP THE SOIL MOIST AND IN GOOD CONDITION SATISFACTORY TO THE OWNER'S REPRESENTATIVE. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR WATERING AND MAINTAINING THE HEALTHY CONDITION OF ALL PLANTS FROM THE TIME OF PLANTING THROUGH TWO FULL YEARS AFTER FINAL INSPECTION AND ACCEPTANCE.
15. THE CONTRACTOR SHALL PROVIDE ALL MATERIALS, LABOR AND EQUIPMENT TO COMPLETE ALL LANDSCAPE MAINTENANCE WORK FOR THE FULL WARRANTY PERIODS.
16. ALL PLANT MATERIAL SHALL BE GUARANTEED FOR THE DURATION OF THE FULL WARRANTY PERIOD AFTER FINAL INSPECTION AND ACCEPTANCE OF THE WORK. PLANTS SHALL BE ALIVE AND IN GOOD GROWING CONDITION AT TWELVE (12) MONTHS POST FINAL ACCEPTANCE AND THE END OF THE GUARANTEE PERIOD. WHEN NECESSARY, PLANT MATERIAL SHALL BE REPAIRED OR REPLACED WITH NEW PLANT MATERIAL TO ENSURE CONTINUED COMPLIANCE WITH APPLICATION REGULATIONS AT THE EXPENSE OF THE CONTRACTOR. UNLESS OTHERWISE WAIVED, AT THE 12 MONTH MAINTENANCE MARK, THE CONTRACTOR SHALL NOTIFY THE OWNER / OWNER'S REPRESENTATIVE FOR INSPECTION PURPOSES.

BALTIMORE COUNTY GENERAL MAINTENANCE REQUIREMENTS:

1. LAWN AREAS SHALL BE MOWED TO A HEIGHT OF 2 TO 3 INCHES AND NOT ALLOWED TO REACH A HEIGHT OF 4 INCHES BEFORE MOWING.
2. ALL CURBS AND WALKS SHALL BE EDGED AS NEEDED.
3. ALL LAWN AREAS ADJACENT TO BUILDING FACES OR STRUCTURES SHALL BE TRIMMED.
4. A SLOW RELEASE NITROGEN BALANCED FERTILIZER WITH A 2-1-1 RATIO SHALL BE APPLIED AT A RATE OF 2 POUNDS OF NITROGEN PER 1000 SQUARE FEET IN SEPTEMBER, OCTOBER, AND FEBRUARY.
5. LIME SHALL BE APPLIED AT THE RATE DETERMINED BY A SOILS REPORT.
6. IT IS RECOMMENDED THAT LAWN AREAS BE TREATED IN MID-MARCH TO EARLY APRIL WITH PRE-EMERGENT HERBICIDE (BETASAN) OR EQUAL APPLIED AT THE MANUFACTURER'S RECOMMENDED RATE.
7. A POST-EMERGENT HERBICIDE (TRIMEC) OR EQUAL IS RECOMMENDED TO BE SPRAYED ON LAWN AREAS IN THE LATE SPRING OR THE EARLY FALL. FOLLOW MANUFACTURER'S RATES AND RECOMMENDATIONS.
8. INSECTICIDES AND FUNGICIDES ARE RECOMMENDED FOR INSECT AND DISEASE CONTROL.
9. RESEED BARE AREAS OF LAWN AS NECESSARY. YEARLY AERATION IS RECOMMENDED.
10. ALL TRASH, LITTER, AND DEBRIS SHALL BE REMOVED FROM LAWN AREAS, PARKING LOTS, AND SHRUB BEDS AS NEEDED.
11. MULCH ALL SHRUB AND GROUNDCOVER BEDS YEARLY WITH 3 INCHES OF SHREDDED HARDWOOD BARK MULCH.
12. PERMIT SHRUBS AND TREES TO GROW AND ENLARGE TO THEIR DESIGN SIZE. CONSULT PROJECT LANDSCAPE ARCHITECT FOR DETAILS.
13. PRUNE TREES IN ACCORDANCE WITH LANDSCAPE SPECIFICATION GUIDELINES FOR BALTIMORE-WASHINGTON METROPOLITAN AREAS.

ONE YEAR MAINTENANCE AGREEMENT

THE COMPANY RESPONSIBLE FOR TREE CARE:
INSTALLER SHALL REPAIR OR REPLACE PLANTINGS AND ACCESSORIES THAT FAIL IN MATERIALS, WORKMANSHIP, OR GROWTH WITHIN THE SPECIFIED WARRANTY PERIOD.

1. WATERING SHALL BE PROVIDED DURING THE GROWING SEASON AS REQUIRED.
   A. FIRST GROWING SEASON: ONCE PER WEEK
   B. METHOD OF PROVIDING WATER SHALL INCLUDE HAND WATERING AND/OR SLOW-RELEASE WATERING DEVICES
2. REINFORCEMENT PLANTING PROVISIONS:
   A. A MINIMUM OF 90% OF THE TOTAL NUMBER OF TREES AND SHRUBS PLANTED PER ACRE IS REQUIRED TO SURVIVE AT THE END OF THE ONE YEAR MAINTENANCE PERIOD.
3. PROTECTION FROM DISEASE AND INJURY:
   A. PERIODIC INSPECTION SHALL BE MADE FOR ANY EVIDENCE OF DISEASE OR DAMAGE.
4. FAILURES INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:
   A. DEATH AND UNSATISFACTORY GROWTH, EXCEPT FOR DEFECTS RESULTING FROM ABUSE OR NEGLECT BY OWNER, OR INCIDENTS THAT ARE BEYOND CONTRACTOR'S CONTROL.
   B. STRUCTURAL FAILURES INCLUDING PLANTINGS FALLING OR BLOWING OVER.
   C. FAULTY PERFORMANCE OF TREE STABILIZATION.
   D. DETERIORATION OF METALS, METAL FINISHES, AND OTHER MATERIALS BEYOND NORMAL WEATHERING.
4. WARRANTY PERIODS FROM DATE OF PLANTING COMPLETION AS DETERMINED BY THE OWNER:
   A. GROUND COVERS, BIENNIALS, PERENNIALS, AND OTHER PLANTS: 12 MONTHS.
5. INCLUDE THE FOLLOWING REMEDIAL ACTIONS AS A MINIMUM:
   A. IMMEDIATELY REMOVE DEAD PLANTS AND REPLACE UNLESS REQUIRED TO PLANT IN THE SUCCEEDING PLANTING SEASON.
   B. REPLACE PLANTS THAT ARE MORE THAN 25 PERCENT DEAD OR IN AN UNHEALTHY CONDITION AT END OF WARRANTY PERIOD.
   C. A LIMIT OF ONE REPLACEMENT OF EACH PLANT WILL BE REQUIRED EXCEPT FOR LOSSES OR REPLACEMENTS DUE TO FAILURE TO COMPLY WITH REQUIREMENTS.
   D. PROVIDE EXTENDED WARRANTY FOR PERIOD EQUAL TO ORIGINAL WARRANTY PERIOD, FOR REPLACED PLANT MATERIAL.
   E. REMOVE WEEDS NOT LESS THAN ONCE PER MONTH

SWM PERMIT#: CEN24-000079
GRADING PERMIT#: CEN24-000078

TURFGRASS REQUIREMENTS:

1. TURFGRASS SOD: MARYLAND CERTIFIED NUMBER 1 QUALITY/PREMIUM, INCLUDING LIMITATIONS ON THATCH, WEEDS, DISEASES, NEMATODES, AND INSECTS, COMPLYING WITH "SPECIFICATIONS FOR TURFGRASS SOD MATERIALS" IN TPI'S "GUIDELINE SPECIFICATIONS TO TURFGRASS SODDING." FURNISH VIABLE SOD OF UNIFORM DENSITY, COLOR, AND TEXTURE, STRONGLY ROOTED, AND CAPABLE OF VIGOROUS GROWTH AND DEVELOPMENT WHEN PLANTED.
2. TURFGRASS SPECIES: QUALITY, STATE CERTIFIED, SOD OF GRASS SPECIES AS FOLLOWS, WITH NOT LESS THAN 95 PERCENT GERMINATION, NOT LESS THAN 85 PERCENT PURE SEED, AND NOT MORE THAN 0.5 PERCENT WEED SEED. PROPORTIONED BY WEIGHT AS FOLLOWS:
   - 90 PERCENT TALL TURF TYPE FESCUE CULTIVARS
     - A BLEND OF AT LEAST THREE MARYLAND CERTIFIED TALL TURF TYPE FESCUE CULTIVARS
   - 10 PERCENT IMPORTED KENTUCKY BLUEGRASS.
3. LAY SOD WITHIN 24 HRS OF HARVESTING. SO NOT LAY SOD IF DORMANT OR IF GROUND IS FROZEN OR MUDDY. SOD SHALL FORM A SOLID MASS WITH TIGHTLY FITTED JOINTS AND END / SIDES OF SOD PIECES BUTTED ADJACENT TO EACH OTHER. TAMP AND ROLL SOD LIGHTLY ONCE PLACED TO ENSURE CONTACT WITH SOIL AND ELIMINATE AIR POCKETS.
4. SOD TO BE ANCHORED WITH WOODEN PEGS WHERE SLOPE IS 1:6 OR GREATER.
5. SATURATE SOD WITH FINE WATER SPRAY WITHIN TWO HOURS OF PLANTING. DURING FIRST TWO WEEK AFTER PLANTING, WATER DAILY OR MORE FREQUENTLY AS NECESSARY TO MAINTAIN MOIST SOIL TO A MINIMUM DEPTH OF 1-1/2 INCHES BELOW SOD.
6. FERTILIZERS: SLOW-RELEASE FERTILIZER: GRANULAR OR PELLETED FERTILIZER CONSISTING OF 50 PERCENT WATER-INSOLUBLE NITROGEN, PHOSPHORUS, AND POTASSIUM DERIVED FROM NATURAL SOURCES IN THE FOLLOWING COMPOSITION:
   - COMPOSITION:
     - FOR BIDDING PURPOSES: 20PERCENT NITROGEN, 10 PERCENT PHOSPHOROUS, AND 10 PERCENT POTASSIUM, BY WEIGHT.
     - FOR INSTALLATION PURPOSES: NITROGEN, PHOSPHOROUS, AND POTASSIUM IN AMOUNTS RECOMMENDED IN SOIL REPORTS FROM A QUALIFIED SOIL-TESTING LABORATORY.
7. PESTICIDES/HERBICIDES: PESTICIDES AND HERBICIDES, REGISTERED AND APPROVED BY THE EPA, ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION, AND OF TYPE RECOMMENDED BY MANUFACTURER FOR EACH SPECIFIC PROBLEM AND AS REQUIRED FOR PROJECT CONDITIONS AND APPLICATION. DO NOT USE RESTRICTED PESTICIDES AND HERBICIDES UNLESS AUTHORIZED IN WRITING BY AUTHORITIES HAVING JURISDICTION.
   A. NEONICTINOIDS SHALL NOT BE USED.
   B. PERMITTED PESTICIDES SHALL BE POSTED IN ACCORDANCE WITH THE INTEGRATED PEST MANAGEMENT IN PUBLIC SCHOOLS LAW IN MARYLAND
   C. PRE-EMERGENT HERBICIDE (SELECTIVE AND NONSELECTIVE): EFFECTIVE FOR CONTROLLING THE GERMINATION OR GROWTH OF WEEDS WITHIN PLANTED AREAS AT THE SOIL LEVEL DIRECTLY BELOW THE MULCH LAYER.
   D. POST-EMERGENT HERBICIDE (SELECTIVE AND NONSELECTIVE): EFFECTIVE FOR CONTROLLING WEED GROWTH THAT HAS ALREADY GERMINATED.

SOIL CARE / FERTILIZATION:

1. INITIAL SOIL TESTING IS REQUIRED. CONDUCT INDIVIDUAL SOIL TESTS FOR PROPOSED PLANTING BEDS. SOIL TEST SHALL BE A REPRESENTATIVE SAMPLE FROM EACH AREA, WITH A MINIMUM OF ONE (1) TEST IS REQUIRED FOR TURFED AREAS AND ONE (1) TEST IS REQUIRED FOR LANDSCAPED AREAS.
2. TREATMENTS SHALL BE BASED ON THE RESULTS OF THE SOIL ANALYSIS AND RECOMMENDATIONS OF SOIL LABORATORY WHICH CONDUCTED THE SOIL TESTS. FERTILIZATION SHALL BE CONSISTENT WITH THE RECOMMENDATIONS OF THE ANSI A-300 (PART 2) – TREE, SHRUB, AND OTHER WOODY PLANT MAINTENANCE – STANDARD PRACTICES (FERTILIZATION) OR AS RECOMMENDED BY THE SOIL LABORATORY NOTED ABOVE.
3. PER BALTIMORE COUNTY REQUIREMENTS, A SLOW RELEASE NITROGEN BALANCED FERTILIZER WITH A 2-1-1 RATIO SHALL BE APPLIED AT A RATE OF 2 POUNDS OF NITROGEN PER 1000 SQUARE FEET IN SEPTEMBER, OCTOBER, AND FEBRUARY TO REDUCE THE RISK OF EXCESSIVE NITROGEN LOSS THROUGH LEACHING. FERTILIZER USED SHALL INCLUDE HUMIC ACIDS, SOLUBLE SEAWEED EXTRACTS AND SOIL BIOLOGICAL INOCULANTS SUCH AS PHC OR APPROVED EQUAL.

LEGEND

EXISTING BUILDING	PROPOSED BUILDING
EXISTING MAJOR CONTOUR	PROPOSED MAJOR CONTOUR
EXISTING MINOR CONTOUR	PROPOSED MINOR CONTOUR
EXISTING PROPERTY LINE	PROPOSED CURB
EXISTING RIGHT-OF-WAY	PROPOSED CURB & GUTTER
EXISTING EASEMENT	PROPOSED LIGHT POLE
EXISTING SETBACK	PROPOSED UNDERGROUND ELECTRIC
EXISTING CURB	PROPOSED ASPHALT PAVING
EXISTING CURB & GUTTER	PROPOSED MICRO-BIORETENTION AREA
EXISTING FENCELINE	PROPOSED SEGMENTAL BLOCK WALL
EXISTING SIGN	PROPOSED STORMDRAIN LINE
EXISTING FLAGPOLE	PROPOSED STORMDRAIN INLET
EXISTING BOLLARD	PROPOSED GROUNDCOVER, PERENNIALS, ORNAMENTAL GRASSES
EXISTING TREELINE	
EXISTING DECIDUOUS TREE	
EXISTING UTILITY POLE	
EXISTING LIGHT POLE	

APPROVED: Chief
STORMWATER ENGINEERING
BALT. CO. DEPT. OF
ENVIRONMENTAL PROTECTION
AND SUSTAINABILITY

STORMWATER MANAGEMENT REQUIRED

DESIGN ENGINEER:
JUDITH CARROLL, P.E, PRESIDENT
CARROLL ENGINEERING, INC.
215 SCHILLING CIRCLE, SUITE 102
HUNT VALLEY, MD 21031
OFFICE: 410-785-7423
JCARROLL@CEIENGINEERING.COM

PROPERTY OWNER:
BALTIMORE COUNTY, MARYLAND
OWNER CONTACT PERSON:
MIKE GOODYEAR
SR PROJECT MANAGER
ALT. GEORGE THOMAKOS
BC PROPERTY MANAGEMENT/CAPITAL
OFFICE: 410-887-6595
MGOODYEAR@BALTIMORECOUNTYMD.GOV

THIS PLAN IS SEALED AND CERTIFIED AS BEING IN ACCORDANCE WITH THE APPROVED DEVELOPMENT PLAN

SEAL — STATE OF MARYLAND · JUDITH A. CARROLL · No. 14446 · REGISTERED PROFESSIONAL ENGINEER

DATE: 10-30-24

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AN A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 14446 EXPIRATION DATE: 05/25/2025

CARROLL ENGINEERING, INC.

AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: MJM
DWN BY: MJM
CHKD BY: CMS

AS-BUILT / REVISION	BY	DATE	P.W.A NO.
CONTRACT COMPLETION BOX			

KEY SHEET	POSITION SHT	DRAWING SCALE	
MSW	28 NE 22 29 NE 22 28 NE 23 29 NE 23	PLAN SCALE:	1"=10'
		PROFILE SCALE:	

PROPERTY MANAGEMENT
APPROVED BY: _____ PROPERTY MANAGER
DATE: _____

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT

NEW TRUCK GARAGE
MICRO-BIORETENTION LANDSCAPE PLAN
PERMIT SET 09/20/2024
4419A BUCKS SCHOOLHOUSE ROAD, ROSEDALE, MD 21237

SUBDIVISION: FULLERTON
ELECTION DIST. NO.: 14C5

MCS NAD 83(2011) NAVD 88

SHEET DESIGNATION	CONTRACT NUMBER
C603	24167 P00
	JOB ORDER NUMBER
	PO 10010489
17A 17 OF 53	DRAWING NUMBER
	2024-2779 2779A
	FILE NO.: 8

BALTIMORE COUNTY MARYLAND

MCS NAVD 83/88

PROPOSED NOTES:

1. CONTRACTOR SHALL CONTACT THE OWNER AND DEVELOPER 72 HOURS PRIOR TO COMMENCING ANY WORK.
2. CONTRACTOR TO COORDINATE WITH MISS UTILITY, BALTIMORE COUNTY DEPARTMENT OF PROPERTY MANAGEMENT, AND A PRIVATE UTILITY LOCATOR COMPANY PRIOR TO COMMENCING ANY WORK. THE CONTRACTOR MUST NOTIFY ALL PUBLIC UTILITY COMPANIES WITH UNDERGROUND FACILITIES IN THE AREA OF PROPOSED EXCAVATION AND HAVE THOSE FACILITIES LOCATED BY THE UTILITY COMPANIES PRIOR TO COMMENCING EXCAVATION.
3. CONTRACTOR SHALL VERIFY FIELD CONDITIONS PRIOR TO AND DURING CONSTRUCTION/DEMOLITION AND NOTIFY THE OWNER IMMEDIATELY OF ANY DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND THE PLANS.
4. ALL UTILITY FRAMES AND COVERS TO REMAIN WITHIN THE PROJECT AREA SHALL BE ADJUSTED BY THE CONTRACTOR TO MEET NEW PAVEMENT OR GROUND ELEVATION. THE CONTRACTOR SHALL MAKE, CHECK, AND BE RESPONSIBLE FOR ALL MEASUREMENTS AND DIMENSIONS NECESSARY FOR THE PROPER CONSTRUCTION OF AND THE PREVENTION OF MISFITTINGS IN THE WORK. VERIFY LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES BEFORE STARTING CONSTRUCTION IN EACH AREA.
5. CONTRACTOR SHALL STABILIZE ALL UNINTENTIONALLY DISTURBED AREAS OUTSIDE OF THE L.O.D. BY THE END OF THE SAME WORKING DAY.
6. CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITY STRUCTURES TO REMAIN DURING DEMOLITION AND CONSTRUCTION ACTIVITIES AND TO PREVENT DEBRIS, SEDIMENT, OR WATER FROM ENTERING THE STRUCTURES.
7. CONTRACTOR SHALL PROTECT ALL FACILITIES AND UTILITIES TO REMAIN FROM DAMAGE WHETHER SHOWN HEREON OR NOT.
8. CONTRACTOR SHALL PROVIDE PROTECTION FOR ALL EXISTING POLES TO REMAIN.
9. THE CONTRACTOR SHALL RESTORE ANY AND ALL AREAS DISTURBED DURING CONSTRUCTION TO ORIGINAL CONDITION OR BETTER.
10. ALL EXISTING PAINT MARKINGS ADJACENT TO THE PROJECT AREA WHICH BECOME FADED OR OBSCURED DUE TO CONSTRUCTION ACTIVITY SHALL BE REPAINTED OR RESTORED AT NO ADDITIONAL COST TO THE OWNER.
11. CONTRACTOR SHALL USE CAUTION WHEN WORKING AROUND EXISTING TREES TO REMAIN SO AS TO NOT DAMAGE THE TREES, TREE BRANCHES OR TREE ROOT SYSTEM.
12. CONTRACTOR SHALL INSTALL ORANGE PLASTIC MESH TREE PROTECTION FENCE (TPF) PRIOR TO ANY CONSTRUCTION ACTIVITIES.
13. CONTRACTOR SHALL COORDINATE WITH OWNER AND UTILITY PROVIDER TO MINIMIZE DURATION OF UTILITY OUTAGES.
14. CONTRACTOR SHALL MAINTAIN VEHICULAR ACCESS TO AND AROUND OVERALL SITE DURING PAVEMENT OPEN CUT ACTIVITIES. CONTRACTOR SHALL FURNISH VEHICULAR AND PEDESTRIAN TRAFFIC PROTECTION IN ACCORDANCE WITH MUTCD LATEST VERSION.
15. CONTRACTOR SHALL UTILIZE SIX (6) FOOT TALL CHAIN LINK CONSTRUCTION FENCE AROUND ALL ACTIVE WORK AREAS. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS AND WARNING MEASURES TO PROTECT PEDESTRIANS FROM CONSTRUCTION ACTIVITIES. CONTRACTORS SHALL SUBMIT TO BALTIMORE COUNTY FOR ALL APPLICABLE PERMITS.

IART DATA:

1. REMOVED IMPERVIOUS AREA: 4,503 SF (0.104 AC)
2. NEW IMPERVIOUS AREA: 2,039 SF (0.047 AC.)
3. RECONSTRUCTED AREA: 9,788 SF (0.225 AC.)
4. LIMIT OF DISTURBANCE: 19,532 SF (0.448 AC.)

NEW DEVELOPMENT vs. RE-DEVELOPMENT CONDITIONS

EXISTING IMPERVIOUS AREA: 14,291 SF
IMPERVIOUS AREA COVERAGE: 14,291 SF/19,532 SF = 0.731 OR 73%*

*EXISTING IMPERVIOUS AREA COVERAGE IS GREATER THAN 40%, THEREFORE THE SITE IS IN REDEVELOPMENT CONDITIONS AND HAS A Pe = 1.0"

IMPERVIOUS AREA REQUIREING TREATMENT:

IART FROM REDEVELOPMENT: 0.17 AC
IART FROM NEW DEVELOPMENT: −0.06 AC

TOTAL IART = 0.17AC. − 0.06AC. = 0.11 AC. (4792 SF)

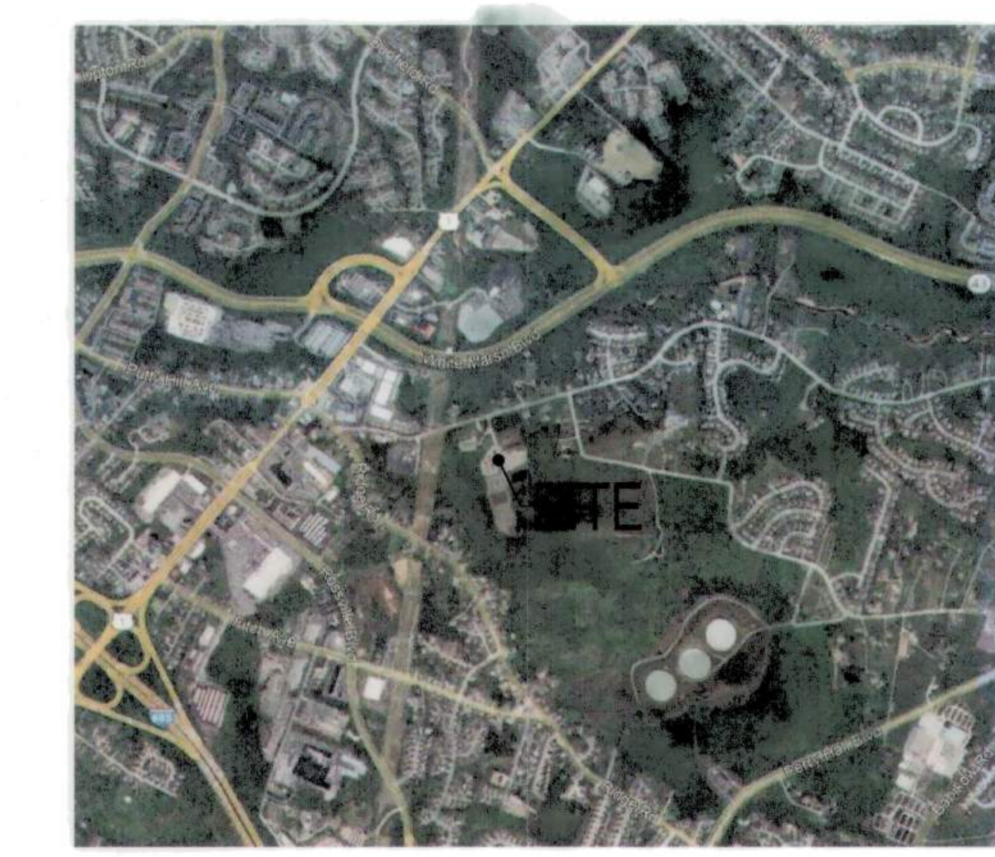
SITE SURVEY BENCHMARKS:

SHOWN IN PLAN VIEW

TRAVERSE #40 – REBAR/CAP
N: 622,768.69
E: 1,453,957.29
ELEV.: 221.69

TRAVERSE #57 – MAG SPIKE
N: 622,744.47
E: 1,453,745.49
ELEV.: 247.29

TRAVERSE #61 – HUB/TACK
N: 622,528.59
E: 1,453,964.46
ELEV.: 217.05



VICINITY MAP
SCALE: 1" = 1000'
1000 500 0 1000 2000
GRAPHIC SCALE IN FEET

LEGEND

- EXISTING BUILDING
- EXISTING MAJOR CONTOUR (100)
- EXISTING MINOR CONTOUR (99)
- EXISTING PROPERTY LINE
- EXISTING RIGHT-OF-WAY
- EXISTING EASEMENT
- EXISTING SETBACK
- EXISTING CURB
- EXISTING CURB & GUTTER
- EXISTING FENCELINE
- EXISTING SIGN
- EXISTING FLAGPOLE
- EXISTING BOLLARD
- EXISTING TREELINE
- EXISTING DECIDUOUS TREE
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY CLEANOUT
- EXISTING STORMDRAIN LINE
- EXISTING STORMDRAIN MANHOLE
- WV EXISTING WATER VALVE
- EXISTING WATER MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING ELECTRIC HANDBOX
- CTV EXISTING COMM HANDHOLE
- GV EXISTING GAS VALVE
- EXISTING STORMDRAIN INLET
- EXISTING ASPHALT PAVING
- EXISTING CONCRETE PAVING
- PROPOSED BUILDING
- REMOVED IMPERVIOUS AREA
- RECONSTRUCTED IMPERVIOUS AREA
- NEW IMPERVIOUS AREA
- LOD LIMIT OF DISTURBANCE

40 20 0 40 80
GRAPHIC SCALE IN FEET

IART EXHIBIT

SCALE: 1" = 40'

THIS PLAN IS SEALED AND CERTIFIED AS BEING IN ACCORDANCE WITH THE APPROVED DEVELOPMENT PLAN

SWM PERMIT#: CEN24-000079
GRADING PERMIT#: CEN24-000078

DESIGN ENGINEER:
JUDITH CARROLL, P.E, PRESIDENT
CARROLL ENGINEERING, INC.
215 SCHILLING CIRCLE, SUITE 102
HUNT VALLEY, MD 21031
OFFICE: 410-785-7423
JCARROLL@CEIENGINEERING.COM

PROPERTY OWNER:
BALTIMORE COUNTY, MARYLAND
OWNER CONTACT PERSON:
MIKE GOODYEAR
SR PROJECT MANAGER
ALT. GEORGE THOMAKOS
BC PROPERTY MANAGEMENT/CAPITAL
OFFICE: 410-887-6595
MGOODYEAR@BALTIMORECOUNTYMD.GOV

APPROVED: [signature] Chief
STORMWATER ENGINEERING
BALT. CO. DEPT. OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY

STORMWATER MANAGEMENT REQUIRED

MCS NAD 83(2011) NAVD 88

SEAL	PROFESSIONAL CERTIFICATION		AS-BUILT / REVISION	BY	DATE	P.W.A NO.	KEY SHEET	POSITION SHT	DRAWING SCALE	PROPERTY MANAGEMENT
STATE OF MARYLAND JUDITH A. CARROLL NO.14446 REGISTERED PROFESSIONAL ENGINEER	I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AN A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 14446 EXPIRATION DATE: 05/25/2025		CONTRACT COMPLETION BOX				MSW	28 NE 22 29 NE 22 28 NE 23 29 NE 23	PLAN SCALE: PROFILE SCALE:	APPROVED BY: PROPERTY MANAGER DATE:
	CARROLL ENGINEERING, INC.	DGN BY: MJM	BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
	AS-BUILT PER RECORD PRINT	DWN BY: MJM	REVIEWED BY:							
DATE: 10-30-24	BY: DATE:	CHKD BY: CMS	DATE REVIEWED:							

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT

NEW TRUCK GARAGE
IART EXHIBIT
PERMIT SET 09/20/2024
4419A BUCKS SCHOOLHOUSE ROAD, ROSEDALE, MD 21237

SUBDIVISION: FULLERTON
ELECTION DIST. NO.: 14C5

SHEET DESIGNATION	CONTRACT NUMBER
SWM-2	24167 POO
BALTIMORE COUNTY MARYLAND	JOB ORDER NUMBER
	PO 10010489
	17B OF 53
	DRAWING NUMBER
	2024- 2779B
	FILE NO.: 8

APPROVED PERMIT PLAN SET
PERMIT #: CEN24-000079
PERMIT ISSUED DATE/TIME: 12/18/2024

M-6 MBR-1 OUTFALL
N:622,723.01
E:1,453,943.80

TRAV #57
E 1,453,750
N 622,750

TRAV #40

TRAV #61
E 1,454,000
N 622,500

E 1,453,750
N 622,500

DA-MBR-1 (M-6)
7,849 SF (0.180Ac.)
IMPERVIOUS AREA
5,843 SF (0.134Ac.)

FOREST RETENTION AREA

UeD (HGS-C)

UuB (HGS-D)

ASPHALT PARKING LOT

BLOCK WALL

SD GRATE TOP=222.12
INV. 15" RCCP IN W=214.28
INV. 15" RCCP OUT E=214.05

SD MH TOP=246.52
15" RCCP IN W=241.42
15" RCCP OUT S=241.42
15" RCCP OUT E=241.37

SD GRATE TOP=245.93
15" RCCP OUT N=242.77

SD GRATE TOP=220.04
INV. 15" RCCP OUT E=216.75

SAN MH PRESURE SEWER TOP=218.93
INV. IN N=215.54
INV. OUT S

SAN MH TOP:222.85
8" PIPE INV.:218.10+-

SD MH TOP=210.64
THROAT=209.77
18" RCCP OUT W=205.78
18" RCCP IN N=205.89

SD MH TOP=219.57
INV. 15" RCCP IN N=206.12
INV. OUT S=205.92

SD MH TOP=210.74
24" RCCP IN N=203.89
24" RCCP OUT S=203.94

SD GRATE TOP=216.59
INV. 15" RCCP OUT E=209.47

SD GRATE TOP=215.48
INV. 15" RCCP OUT E=209.56

SD MH TOP=211.05
24" RCCP IN N=203.45
24" RCCP OUT SE=203.35

MCS NAD 83/88

20 10 0 20 40
GRAPHIC SCALE IN FEET

ESD-BMP EXHIBIT

SCALE: 1" = 20'

M-6 MICRO-BIO RETENTION FACILITY DESIGN CRITERIA:

A. PROPOSED DRAINAGE AREA TO MBR-1:
- A.A. DRAINAGE AREA: 7849 SF - 0.180 Ac.
- A.B. IMPERVIOUS AREA: 5843 SF - 0.134 Ac.
- A.C. PERVIOUS AREA: 2006 SF - 0.046 Ac.

B. DA RUNOFF CURVE NUMBER: 93

C. TIME OF CONCENTRATION: 6 MINUTES

D. IMPERVIOUS AREA REQUIRING TREATMENT:
- D.A. IART REQUIRED: 4,792 SF
- D.B. IART PROVIDED: 5,843 SF

E. ESD VOLUME:
- E.A. ESDv REQUIRED: 379 CF; Pe Required: 1.00" (Re-Development)
- E.B. ESDV PROVIDED: 477 CF; Pe Provided: 1.00"
  STORAGE PROVIDED (75% ESDV): 358 CF

F. GROUNDWATER RECHARGE:
- F.A. GROUNDWATER RECHARGE REQUIRED: 61 CF
- F.B. GROUNDWATER RECHARGE PROVIDED: 61 CF
  (5'-8" X 36'-3" X 9" DEPTH X 0.40 RATIO) = 61 CF

G. MINIMUM AREA OF FILTER MEDIA:
- G.A. Af MIN = 2% of DA
  - G.A.A. 0.02 x 7,847 SF = 157 SF.
- G.B. Af PROVIDED = 5'-8" X 36'-3" = 205 SF
- G.C. Af PROVIDED 205SF > Af REQUIRED 157 SF.

	LOD(SF/Ac.)		Impervious Area (SF/Ac.)		Pervious Area (SF/Ac.)	
Existing Conditions	19532	0.448	14291	0.33	5241	0.12
Future Conditions	19532	0.448	11827	0.27	7705	0.18

	Required	Provided
Recharge Vol.(Cf)	61	61
ESDv (Cf)	379	477
Pe (Inches)	1.00"	1.00"
Area of Filter (Sf)	157	205

SITE SURVEY BENCHMARKS:

SHOWN IN PLAN VIEW

TRAVERSE #40 - REBAR/CAP
N: 622,768.69
E: 1,453,957.29
ELEV.: 221.69

TRAVERSE #57 - MAG SPIKE
N: 622,744.47
E: 1,453,745.49
ELEV.: 247.29

TRAVERSE #61 - HUB/TACK
N: 622,528.59
E: 1,453,964.46
ELEV.: 217.05

VICINITY MAP
SCALE: 1" = 1000'

1000 500 0 1000 2000
GRAPHIC SCALE IN FEET

LEGEND

- EXISTING BUILDING
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING PROPERTY LINE
- EXISTING RIGHT-OF-WAY
- EXISTING EASEMENT
- EXISTING SETBACK
- EXISTING CURB
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- EXISTING STORMDRAIN LINE
- EXISTING STORMDRAIN MANHOLE
- EXISTING WATER VALVE
- EXISTING WATER MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING ELECTRIC HANDBOX
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- EXISTING GAS VALVE
- EXISTING STORMDRAIN INLET
- EXISTING ASPHALT PAVING
- EXISTING CONCRETE PAVING
- PROPOSED BUILDING
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED CURB
- PROPOSED CURB & GUTTER
- PROPOSED LIGHT POLE
- PROPOSED UNDERGROUND ELECTRIC
- PROPOSED ASPHALT PAVING
- PROPOSED MICRO-BIORETENTION AREA
- PROPOSED SEGMENTAL BLOCK WALL
- PROPOSED STORMDRAIN LINE
- PROPOSED STORMDRAIN INLET
- TREATED IMPERVIOUS AREA
- DRAINAGE AREA DELINEATION
- LIMIT OF DISTURBANCE

THIS PLAN IS SEALED AND CERTIFIED AS BEING IN ACCORDANCE WITH THE APPROVED DEVELOPMENT PLAN

SEAL: JUDITH A. CARROLL, No 14446, REGISTERED PROFESSIONAL ENGINEER
DATE: 10-30-24

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AN A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 14446 EXPIRATION DATE: 05/25/2025

CARROLL ENGINEERING, INC.

AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: MJM
DWN BY: MJM
CHKD BY: CMS

AS-BUILT / REVISION	BY	DATE	P.W.A NO.
CONTRACT COMPLETION BOX			

KEY SHEET: MSW

POSITION SHT: 28 NE 22, 29 NE 22, 28 NE 23, 29 NE 23

DRAWING SCALE
PLAN SCALE:
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

SWM PERMIT#: CEN24-000079
GRADING PERMIT#: CEN24-000078

SUBDIVISION: FULLERTON

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT

NEW TRUCK GARAGE
ESD-BMP EXHIBIT
PERMIT SET 09/20/2024
4419A BUCKS SCHOOLHOUSE ROAD, ROSEDALE, MD 21237

ELECTION DIST. NO.: 14C5

DESIGN ENGINEER:
JUDITH CARROLL, P.E., PRESIDENT
CARROLL ENGINEERING, INC.
215 SCHILLING CIRCLE, SUITE 102
HUNT VALLEY, MD 21031
OFFICE: 410-785-7423
JCARROLL@CEIENGINEERING.COM

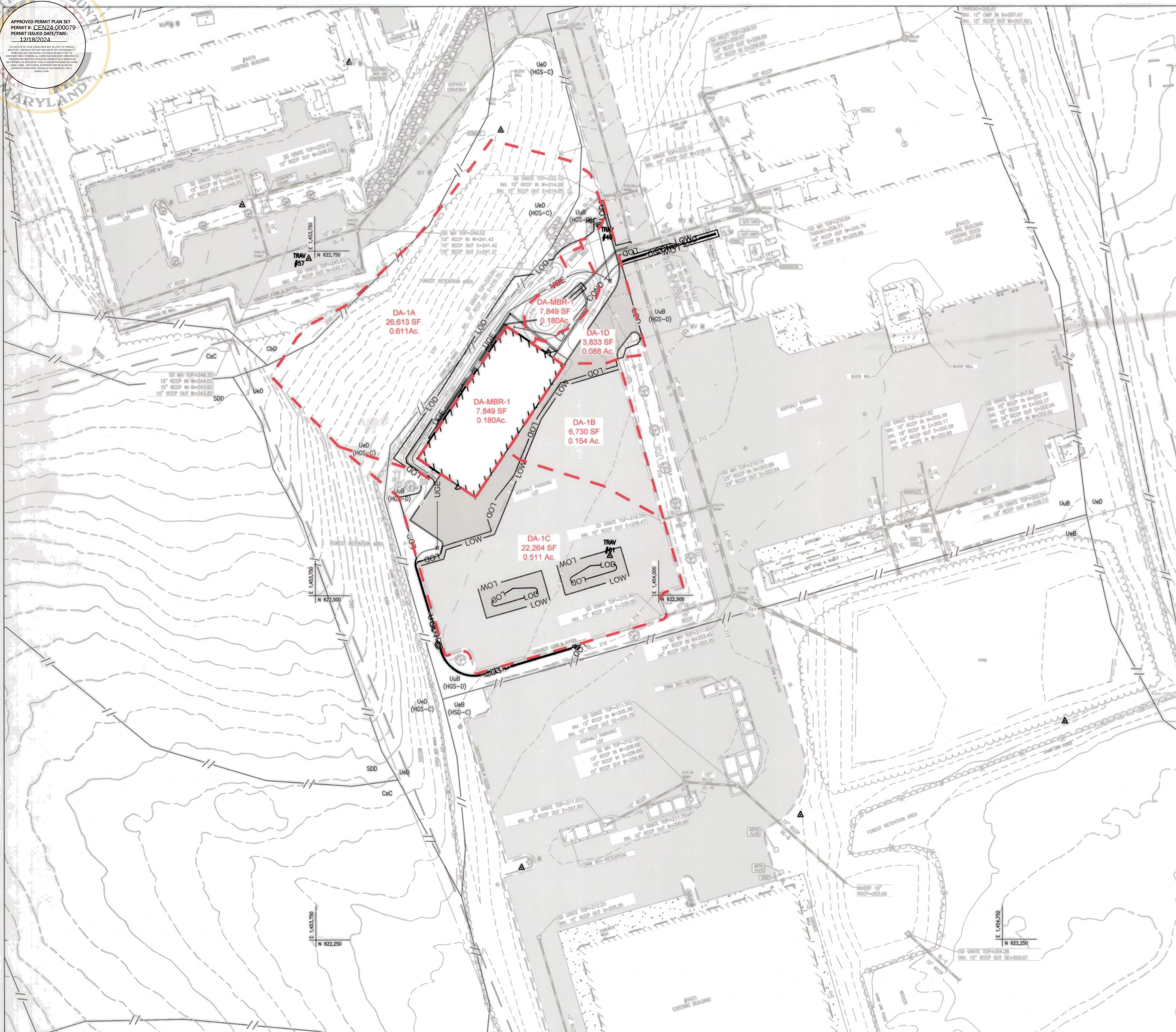
PROPERTY OWNER:
BALTIMORE COUNTY, MARYLAND
OWNER CONTACT PERSON:
MIKE GOODYEAR
SR PROJECT MANAGER
ALT. GEORGE THOMAKOS
BC PROPERTY MANAGEMENT/CAPITAL
OFFICE: 410-887-6595
MGOODYEAR@BALTIMORECOUNTYMD.GOV

APPROVED: Chief
STORMWATER ENGINEERING
BALT. CO. DEPT. OF
ENVIRONMENTAL PROTECTION
AND SUSTAINABILITY

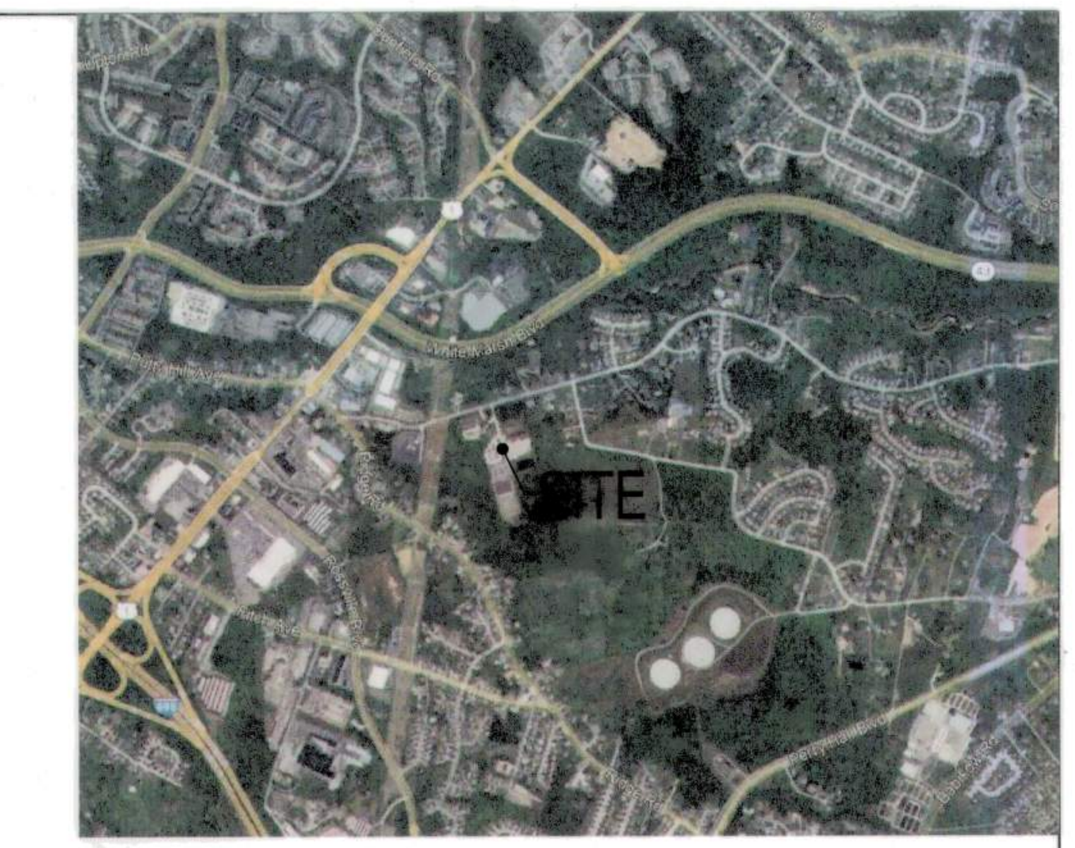
STORMWATER MANAGEMENT REQUIRED

MCS NAD 83(2011) NAVD 88

SHEET DESIGNATION	CONTRACT NUMBER
SWM-3	24167 P00
	JOB ORDER NUMBER
	PO 10010489
	17C OF 53
	DRAWING NUMBER
	2024- 2779C
	FILE NO.: 8



MCS NAVD 83/88



VICINITY MAP

SCALE: 1" = 1000'

1000 500 0 1000 2000
GRAPHIC SCALE IN FEET

SOIL TYPES		
SYMBOL	DESCRIPTION	HSG
CbD	Chillum–Urban land complex, 5–15% slopes	C
UeD	Udorthents, reclaimed gravel pits, 5–15% slopes	C
UuB	Urban land–Udorthents complex, 0–8% slopes	D

PROPOSED CONDITION HYDROCAD DATA SUMMARY				
DRAINAGE AREA	OVERALL AREA (AC.)	IMPERVIOUS AREA (AC.)	CN	Tc (HR)
DA–1	1.544	0.812	–	–
DA–1A	0.611	0.000	72	0.1
DA–1B	0.154	0.154	98	0.1
DA–1C	0.511	0.481	97	0.1
DA–1D	0.088	0.043	89	0.1
DA–MBR–1	0.180	0.134	93	0.1

PROPOSED CONDITION PEAK FLOW DATA		
DRAINAGE AREA	Q (1–YEAR)	Q (10–YEAR)
DA–1	2.86 CFS	6.53 CFS
DA–1A	0.47 CFS	1.78 CFS
DA–1B	0.44 CFS	0.83 CFS
DA–1C	1.43 CFS	2.72 CFS
DA–1D	0.19 CFS	0.42 CFS
DA–MBR–1	0.45 CFS	0.91 CFS

SITE SURVEY BENCHMARKS:

SHOWN IN PLAN VIEW

TRAVERSE #40 – REBAR/CAP
N: 622,768.69
E: 1,453,957.29
ELEV.: 221.69

TRAVERSE #57 – MAG SPIKE
N: 622,744.47
E: 1,453,745.49
ELEV.: 247.29

TRAVERSE #61 – HUB/TACK
N: 622,528.59
E: 1,453,964.46
ELEV.: 217.05

LEGEND

- EXISTING BUILDING
- 100 EXISTING MAJOR CONTOUR
- 99 EXISTING MINOR CONTOUR
- EXISTING PROPERTY LINE
- EXISTING RIGHT–OF–WAY
- EXISTING EASEMENT
- EXISTING SETBACK
- EXISTING CURB
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- EXISTING STORMDRAIN INLET
- EXISTING ASPHALT PAVING
- EXISTING CONCRETE PAVING
- PROPOSED BUILDING
- 100 PROPOSED MAJOR CONTOUR
- 99 PROPOSED MINOR CONTOUR
- PROPOSED CURB
- PROPOSED CURB & GUTTER
- PROPOSED LIGHT POLE
- UGE PROPOSED UNDERGROUND ELECTRIC
- PROPOSED ASPHALT PAVING
- PROPOSED MICRO–BIORETENTION AREA
- LOD LIMIT OF DISTURBANCE
- DRAINAGE AREA DELINEATION

APPROVED: _______ Chief
STORMWATER ENGINEERING
BALT. CO. DEPT. OF
ENVIRONMENTAL PROTECTION
AND SUSTAINABILITY

STORMWATER MANAGEMENT REQUIRED

40 20 0 40 80
GRAPHIC SCALE IN FEET

PROPOSED CONDITIONS EXHIBIT

SCALE: 1" = 40'

SWM PERMIT#: CEN24-000079
GRADING PERMIT#: CEN24-000078

DESIGN ENGINEER:
JUDITH CARROLL, P.E, PRESIDENT
CARROLL ENGINEERING, INC.
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HUNT VALLEY, MD 21031
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OFFICE: 410-887-6595
MGOODYEAR@BALTIMORECOUNTYMD.GOV

MCS NAD 83(2011) NAVD 88

THIS PLAN IS SEALED AND CERTIFIED AS BEING IN ACCORDANCE WITH THE APPROVED DEVELOPMENT PLAN

SEAL: STATE OF MARYLAND · JUDITH A. CARROLL · NO. 14446 · REGISTERED PROFESSIONAL ENGINEER
DATE: 10–30–24

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AN A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 14446, EXPIRATION DATE: 05/25/2025

CARROLL ENGINEERING, INC.
DGN BY: MJM
DWN BY: MJM
CHKD BY: CMS
AS–BUILT PER RECORD PRINT
BY:
DATE:

AS–BUILT / REVISION	BY	DATE	P.W.A NO.	KEY SHEET	POSITION SHT	DRAWING SCALE
				MSW	28 NE 22 29 NE 22 28 NE 23 29 NE 23	PLAN SCALE:
						PROFILE SCALE:
CONTRACT COMPLETION BOX						

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

PROPERTY MANAGEMENT
APPROVED BY: ____________ PROPERTY MANAGER
DATE: ____________

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT

NEW TRUCK GARAGE

PROPOSED CONDITIONS EXHIBIT
PERMIT SET 09/20/2024

4419A BUCKS SCHOOLHOUSE ROAD, ROSEDALE, MD 21237

SUBDIVISION: FULLERTON
ELECTION DIST. NO.: 14C5

SHEET DESIGNATION	CONTRACT NUMBER
SWM-4	24167 P00
	JOB ORDER NUMBER
	PO 10010489
	17D OF 53
	DRAWING NUMBER
	2024- 2779D
	FILE NO.: 8

BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS
FULLERTON MAINTENANCE COMPLEX UPGRADES
4419A BUCKS SCHOOLHOUSE ROAD
ROSEDALE, MARYLAND
EROSION AND SEDIMENT CONTROL

SEQUENCE OF OPERATIONS/CONSTRUCTION (SOC):

PRE-CONSTRUCTION/PRE-DISTURBANCE:

1. CONTRACTOR TO NOTIFY THE OWNER NOT LESS THAN (7) DAYS PRIOR TO CONTRACTOR CLOSING PARKING LOT.
2. POST A NOTICE NEAR THE PARKING LOT ENTRANCE NOTING THE FIRST DAY OF LOT CLOSURE AT LEAST (7) DAYS PRIOR TO CLOSING THE LOT.
3. AFTER THE PARKING LOT HAS BEEN CLOSED FOR CONSTRUCTION, THE CONTRACTOR MAY SALVAGE THE LIGHT POLES OR WAIT UNTIL STEP 11.

EROSION AND SEDIMENT CONTROL SEQUENCE:

4. NOTIFY BALTIMORE COUNTY DEPARTMENT OF PERMITS, APPROVALS AND INSPECTIONS, SEDIMENT CONTROL, (410) 887-3226 AT LEAST 48 HOURS PRIOR TO BEGINNING WORK AND SCHEDULE MEETING WITH ALL PARTIES.
5. PROVIDE LAYOUT OF THE LIMIT OF DISTURBANCE (LOD). THE LOD MUST BE FIELD MARKED PRIOR TO AND INSPECTED AT THE PRE-CONSTRUCTION MEETING. IF APPLICABLE, ORANGE HIGH VISIBILITY FENCE SHALL BE MANUALLY INSTALLED ALONG THE LIMIT OF DISTURBANCE, WHERE THE LIMIT IS WITHIN 50 FEET OF ANY FOREST BUFFER/CONSERVATION EASEMENT. THIS SHALL BE COMPLETED BY AND INSPECTED AT THE PRE-CONSTRUCTION MEETING.
6. CONDUCT ON-SITE PRE-CONSTRUCTION MEETING WITH ALL PARTIES TO DISCUSS ISSUES INCLUDING, BUT NOT LIMITED TO, MEANS AND METHODS, LIMITS OF WORK RESPONSIBILITIES, AND TO INSPECT THE SITE FOR ANY UNFORESEEN CONDITIONS.
7. INSTALL TREE PROTECTION FENCING AS NOTED. CLEAR AND GRUB FOR EROSION AND SEDIMENT CONTROL MEASURES ONLY. INSTALL EROSION & SEDIMENT CONTROL DEVICES INCLUDING, BUT NOT LIMITED TO, SILT FENCE AND STABILIZED CONSTRUCTION ENTRANCE AND STABILIZE DISTURBANCE AS NECESSARY.
8. INSTALL CONSTRUCTION FENCE SURROUNDING AREA-OF-WORK AND IMMEDIATELY STABILIZE ANY DISTURBANCE.
9. NOTIFY BALTIMORE COUNTY DEPARTMENT OF PERMITS, APPROVALS AND INSPECTIONS, SEDIMENT CONTROL, UPON COMPLETION OF SAID INSTALLATION.
10. WITH THE APPROVAL OF BALTIMORE COUNTY DEPARTMENT OF PERMITS, APPROVALS AND INSPECTIONS, SEDIMENT CONTROL, AND THE SEDIMENT CONTROL INSPECTOR, BEGIN SITE WORK.

SITE WORK PHASE-1: *CONTRACTOR TO UTILIZE SAME-DAY STABILIZATION*

11. REMOVE AND DISPOSE OF LIGHT POLE BASES AND REMOVE TREES NOTED TO BE DEMOLISHED TO AT LEAST 12" BELOW GRADE.

    11.1. TREES TO BE DEMOLISHED THAT ARE UNDER PROPOSED PAVEMENT SHALL BE REMOVED TO THE GREATEST EXTENT POSSIBLE.

12. REMOVE THE CURBED PARKING ISLANDS (2) ON THE SOUTHERN END OF THE PARKING LOT INCLUDING TREES, LIGHT POLES, POLE BASES, AND CURBING. MECHANICALLY COMPACT EXISTING SOILS AND INSTALL SUB-BASE FOR PROPOSED ASPHALT AT THE PARKING ISLANDS. MILL THE SURROUNDING ASPHALT TO REMAIN TO LIMITS SHOWN. ASPHALT SHALL NOT BE INSTALLED UNTIL ALL AREAS OF PROPOSED ASPHALT ARE READY TO BE PLACED.

SITE WORK PHASE-2: SITE DEMOLITION

13. MILL SITE ASPHALT TO LIMITS SHOWN ON THE PLANS AND REMOVE REMAINING ASPHALT AND CURBING TO BE DEMOLISHED.
14. CLEAN SITE AREA FOR PROPOSED CONSTRUCTION ACTIVITY.

SITE WORK PHASE-3: PROPOSED CONSTRUCTION

15. EXCAVATE AND PROVIDE THE BUILDING'S GRADE BEAM AND SLAB FOUNDATION. PROVIDE UTILITIES UNDER PROPOSED SLAB TO 5' OUTSIDE THE FOUNDATION, INCLUDING ELECTRICAL CONDUITS AND DRAIN PIPING FROM INTERIOR TRENCH DRAINS.
16. PROVIDE CRUSHER RUN BASE COURSES IN-FRONT OF THE PROPOSED BUILDING FOR THE ASPHALT PAVEMENT.
17. PROVIDE STORM DRAIN PIPING AT REAR OF PROPOSED BUILDING. DOWNSPOUTS AND BOOTS SHOULD NOT BE CONNECTED TO THE STORM DRAIN PIPING UNTIL DIRECTED. PROVIDE TEMPORARY 4" PVC CAP AT THE LOCATION WHERE THE DOWN SPOUT BOOT WILL CONNECT TO THE 4" PVC PIPE.
18. PROVIDE BLOCK WALL, GRADE SWALE, AND PROVIDE PERMANENT STABILIZATION WITH SOD IN AREA.
19. CONSTRUCT THE PROPOSED BUILDING AND TEMPORARILY DIRECT DOWNSPOUTS TO STABILIZED SWALE. DOWNSPOUTS SHALL DRAIN TO THE SWALE UNTIL DIRECTED.
20. PERFORM GRADING OF THE MICRO-BIO-RETENTION AREA AND INSTALL STORM DRAIN PIPING INCLUDING THE MICRO-BIO RETENTION OUTFALL STRUCTURE TO THE EXISTING MANHOLE. INSTALL STORM DRAIN PIPING IN A DOWNSTREAM TO UPSTREAM FASHION AND INSTALL AGIP AT THE STORMWATER FACILITY OUTLET STRUCTURE. THE (2) 4" PIPE SOCKETS ON THE STRUCTURE SHALL BE CAPPED UNTIL THE FACILITY IS INSTALLED.
21. INSTALL 4" PVC PIPE FROM THE INTERIOR TRENCH DRAINS TO THE MBR OUTFALL STRUCTURE.
22. CONSTRUCT THE MICRO-BIO RETENTION FACILITY INCLUDING 4" UNDERDRAIN, PROVIDE SWM FACILITY SECTION, PROVIDE SWM PLANTINGS, AND SOD THE SURROUNDING AREA NOT PLANTED.

    22.1. A THREE (3) DAY DRY FORECAST MUST BE ESTABLISHED PRIOR TO START OF FACILITY WORK PER NATIONAL OCEANIC AND ATMOSPHERIC ASSOCIATION (NOAA) WEATHER FORECAST. IN THE EVENT OF RAINFALL, REMOVABLE PUMP STATION AND PORTABLE SEDIMENT TANKS/BAGS TO BE EMPLOYED TO TREAT WATER REMOVED FROM EXCAVATION.

23. WITH THE APPROVAL OF BALTIMORE COUNTY DEPARTMENT OF PERMITS, APPROVALS AND INSPECTIONS, SEDIMENT CONTROL, AND THE SEDIMENT CONTROL INSPECTOR, CONNECT DOWNSPOUTS AND BOOTS TO 4" PVC STORM DRAINS.
24. PROVIDE NEW LIGHT POLE BASES, INSTALL SALVAGED LIGHT POLES, PROVIDE SECONDARY ELECTRICAL CONDUIT, AND SIDEWALK.
25. PROVIDE REMAINING CURBING FOR ENTIRE SITE. PROVIDE BACKFILL BEHIND CURBING TO PROPOSED GRADE. PROVIDE PERMANENT STABILIZATION WITH SOD IN AREA. WITH THE APPROVAL OF BALTIMORE COUNTY DEPARTMENT OF PERMITS, APPROVALS AND INSPECTIONS, SEDIMENT CONTROL, AND THE SEDIMENT CONTROL INSPECTOR, REMOVE ALL SEDIMENT CONTROLS NOT REMAINING FOR PHASE 4.

SITE WORK PHASE-4:

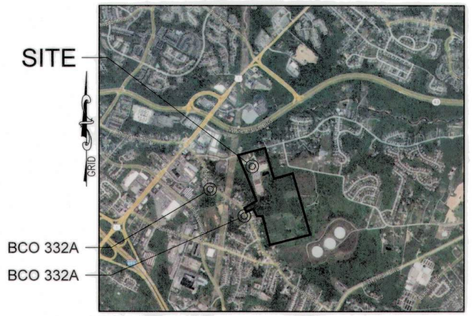
26. WITH THE APPROVAL OF BALTIMORE COUNTY DEPARTMENT OF PERMITS, APPROVALS AND INSPECTIONS, SEDIMENT CONTROL, AND THE SEDIMENT CONTROL INSPECTOR, THE CONTRACTOR SHALL DESIGNATE EQUIPMENT TO REMAIN WITHIN THE LOD, PROVIDE SILT FENCING, AND REMOVE THE STABILIZED CONSTRUCTION ENTRANCE BY LIFTING THE MATERIAL DIRECTLY TO A TRUCK.
27. MECHANICALLY COMPACT SUB-BASE AND PROVIDE CRUSHER RUN LAYERS FOR NEW ASPHALT LOT ENTRANCE.
28. AFTER ALL AREAS HAVE BEEN PERMANENTLY STABILIZED WITH SOD OR CRUSHER RUN, WITH THE APPROVAL OF BALTIMORE COUNTY DEPARTMENT OF PERMITS, APPROVALS AND INSPECTIONS, SEDIMENT CONTROL, AND THE SEDIMENT CONTROL INSPECTOR, THE CONTRACTOR MAY REMOVE THE REMAINING SEDIMENT CONTROLS.

SITE WORK FINAL CONDITIONS:

29. CONTRACTOR TO PROVIDE ASPHALT PAVING SECTION AND PARKING LOT STRIPING PER MANUFACTURERS RECOMMENDATIONS.
30. AFTER THE ASPHALT HAS BEEN INSTALLED THE CONTRACTOR SHALL REMOVE THE TREE PROTECTION FENCE AND THE CONSTRUCTION FENCE.

CONSTRUCTION ENTRANCE NOTE:

WHERE NO CONSTRUCTION ENTRANCE IS PROVIDED CONTRACTOR SHALL MAINTAIN THE SITE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, OR TRACKED OUTSIDE THE LOD BY VACUUMING, SCRAPING, AND/OR SWEEPING. CONTRACTOR MUST CLEAN CONSTRUCTION EQUIPMENT PRIOR TO LEAVING THE LOD TO MINIMIZE SEDIMENT TRACK OUT. WASHING EQUIPMENT AND SURFACES TO REMOVE SEDIMENT IS ONLY ACCEPTABLE WHEN, SEDIMENT LADEN WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.



VICINITY MAP 1000 500 0 1000 2000
SCALE: 1" = 1000' GRAPHIC SCALE IN FEET

BALTIMORE CITY ADC MAP 69 GRID D5
PERMITTED USE No. 21009264

MAINTENANCE NOTE:

CONTRACTOR SHALL INSPECT AND MAINTAIN ALL SEDIMENT CONTROL MEASURES AND DEVICES AFTER EVERY STORM EVENT. MAINTENANCE SHALL INCLUDE, BUT NOT LIMITED TO THE REMOVAL OF ALL ACCUMULATED SEDIMENT. GEOTEXTILE FABRIC SHALL BE REPLACED AS NEEDED TO ENSURE PROPER FUNCTION.

INLET PROTECTION NOTE:

THE CONTRACTOR IS REQURIED TO INSTALL INLET PROTECTION ON ALL STORM DRAIN INLETS WITH THE EXCEPTION OF THE FOLLOWING:
1. ANY INLET OUTFALLING DIRECTLY INTO A SEDIMENT TRAPPING DEVICE.
2. 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 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, PAGE E.23 (OR AS MAY BE AMENDED). THE REMOVAL OF ANY INLET PROTECTION DEVICES WILL REQUIRE APPROVAL FROM THE INSPECTOR.

*STORM DRAINS TO BE FLUSHED PRIOR TO TRAPPING DEVICE REMOVAL.

DAILY STABILIZATION NOTE:

CONTRACTOR SHALL ONLY DISTURB THAT AREA WHICH CAN BE COMPLETED AND STABILIZED BY THE END OF EACH WORKING DAY. STABILIZATION SHALL BE AS FOLLOWS:
1. FOR AREAS TO BE PAVED, THE APPLICATION OF BASE STONE.
2. FOR AREAS TO BE VEGETATIVELY STABILIZED;
   2.a. PERMANENT SEED AND SOIL STABILIZATION MATTING OR SOD FOR STEEP SLOPES, CHANNELS OR SWALES.
   2.b. PERMANENT SEED AND MULCH FOR ALL OTHER AREAS. ANY AREAS WHICH CAN NOT BE STABILIZED BY THE END OF EACH WORKING DAY MUST HAVE SILT FENCE INSTALLED ON THE DOWNSLOPE SIDE.

NOTE TO CONTRACTOR:

"EROSION AND SEDIMENT CONTROL SHALL BE STRICTLY ENFORCED. FAILURE TO MAINTAIN SEDIMENT CONTROLS IN AN OPERABLE CONDITION WILL NOT BE ACCEPTABLE"

SHEET INDEX

SHEET NO.	DESIGNATION	DESCIPTION
1.	C700	EROSION & SEDIMENT CONTROL COVER SHEET
2.	C710	PHASE 1 EROSION & SEDIMENT CONTROL PLAN
3.	C711	PHASE 2 EROSION & SEDIMENT CONTROL PLAN
4.	C712	PHASE 3 EROSION & SEDIMENT CONTROL PLAN
5.	C713	PHASE 4 EROSION & SEDIMENT CONTROL PLAN
6.	C714	FINAL CONDITION EROSION & SEDIMENT CONTROL PLAN
7.	C720	EROSION & SEDIMENT CONTROL DETAILS
8.	C721	EROSION & SEDIMENT CONTROL NOTES
9.	C722	EROSION & SEDIMENT CONTROL NOTES
10.	C723	EROSION & SEDIMENT CONTROL NOTE

GENERAL SURVEY NOTES:

1. COORDINATES AND ELEVATIONS SHOWN HEREON ARE REFERRED TO THE NORTH AMERICAN DATUM OF 1983 (2011) AND NORTH AMERICAN VERTICAL DATUM OF 1988 AND ARE BASED ON THE FOLLOWING CONTROL STATIONS:

CONTROL	NORTH	EAST	ELEVATION
BCO 332A	N 621,896.749	E 1,452,932.407	248.62
BCO 333A	N 621,523.650	E 1,453,586.516	257.25

STANDARD STABILIZATION NOTE:

*STABILIZATION PRACTICES ON ALL PROJECTS MUST BE IN COMPLIANCE WITH THE REQUIREMENTS OF COMAR 26.17.1.08 G REGULATIONS.

FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION MUST BE COMPLETED WITHIN:
A.) THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN HORIZONTAL TO 1 VERTICAL (3:1); AND
B.) SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING.

OWNER'S / DEVELOPER'S ESC CERTIFICATION (DEPS)

I/WE HEREBY CERTIFY THAT ALL WORK SHOWN ON THESE CONSTRUCTION DRAWINGS WILL BE ACCOMPLISHED PURSUANT TO THESE PLANS. I/WE ALSO UNDERSTAND THAT IT IS MY/OUR RESPONSIBILITY TO HAVE THE CONSTRUCTION SUPERVISED AND CERTIFIED, INCLUDING THE SUBMITTAL OF "AS-BUILT" PLANS WITHIN THIRTY (30) DAYS OF COMPLETION, BY A MARYLAND REGISTERED PROFESSIONAL ENGINEER.

A M Lon — 11/7/2024
OWNER/DEVELOPER SIGNATURE — DATE

Gregory M. Doran Chief Capital Construction
PRINTED NAME AND TITLE

DESIGN CERTIFICATION (BCSCD)

I CERTIFY THAT THIS PLAN OF EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE, AND THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE BALTIMORE COUNTY SOIL CONSERVATION DISTRICT AND THE CURRENT STATE OF MARYLAND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. I HAVE REVIEWED THIS EROSION AND SEDIMENT CONTROL PLAN WITH THE OWNER/DEVELOPER.

Judith A. Carroll — 08/02/2024
SIGNATURE — DATE

JUDITH A. CARROLL, PRESIDENT — MD PE #:14446
PRINTED NAME — EXP: 05/25/2025

OWNER'S / DEVELOPER'S ESC CERTIFICATION (BCSCD)

I/WE HEREBY CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION AND/OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS PLAN AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THIS CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I/WE ALSO CERTIFY THAT THE SITE WILL BE INSPECTED AT THE END OF EACH WORKING DAY, AND THAT ANY NEEDED MAINTENANCE WILL BE COMPLETED SO AS TO INSURE THAT ALL SEDIMENT CONTROL PRACTICES ARE LEFT IN OPERATIONAL CONDITION. I/WE AUTHORIZE THE RIGHT OF ENTRY FOR PERIODIC ON-SITE EVALUATION BY THE BALTIMORE COUNTY SOIL CONSERVATION DISTRICT BOARD OF SUPERVISORS OR THEIR AUTHORIZED AGENTS.

A M Lon — 11/7/2024
OWNER/DEVELOPER SIGNATURE — DATE

Gregory M. Doran Chief Capital Construction
PRINTED NAME AND TITLE

SITE INFORMATION:

A. AREA DISTURBED: 0.448 ACRES - 19,532 S.F.
B. TOTAL CUT: 100 CUBIC YARDS
C. TOTAL FILL: 50 CUBIC YARDS

CUT/ FILL TOTALS ARE FOR PERMIT REVIEW ONLY. CONTRACTOR IS RESPONSIBLE FOR CALCULATING CUT/ FILL QUANTITIES FOR ESTIMATION PURPOSES. ENGINEER OFFERS NO GUARANTEE TO QUANTITIES ACTUALLY ENCOUNTERED DURING CONSTRUCTION.

SEDIMENT CONTROL NOTE:

1. SEDIMENT CONTROLS ARE OFFSET FROM THE LIMIT OF DISTURBANCE (LOD) FOR VISUAL CLARITY. ALL SEDIMENT CONTROLS WILL BE CONSTRUCTED AT THE LOD.
2. THESE PLANS ARE FOR EROSION & SEDIMENT CONTROL ONLY.

DESIGN ENGINEER:
JUDITH CARROLL, P.E, PRESIDENT
CARROLL ENGINEERING, INC.
215 SCHILLING CIRCLE, SUITE 102
HUNT VALLEY, MD 21031
OFFICE: 410-785-7423
JCARROLL@CEIENGINEERING.COM

PROPERTY OWNER:
BALTIMORE COUNTY, MARYLAND
OWNER CONTACT PERSON:
MIKE GOODYEAR
SR PROJECT MANAGER
ALT. GEORGE THOMAKOS
BC PROPERTY MANAGEMENT/CAPITAL
OFFICE: 410-887-6595
MGOODYEAR@BALTIMORECOUNTYMD.GOV

THIS PLAN IS SEALED AND CERTIFIED AS BEING IN ACCORDANCE WITH THE APPROVED DEVELOPMENT PLAN

SEAL: STATE OF MARYLAND — JUDITH A. CARROLL — No. 14446 — REGISTERED PROFESSIONAL ENGINEER
DATE: 10-30-24

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 14446 EXPIRATION DATE: 05/25/2025
CARROLL ENGINEERING, INC.
AS-BUILT PER RECORD PRINT
BY: DATE:

DGN BY: MJM
DWN BY: MJM
CHKD BY: CMS

AS-BUILT / REVISION | BY | DATE | P.W.A NO.
CONTRACT COMPLETION BOX

BUREAU OF ENGINEERING AND CONSTRUCTION | TRAFFIC | HIGHWAYS | STRUCTURES | STORM DRAINS | SEWER | WATER | FIELD ENGINEER
REVIEWED BY:
DATE REVIEWED:

KEY SHEET: MSW
POSITION SHT: 28 NE 22, 29 NE 22, 28 NE 23, 29 NE 23
DRAWING SCALE: PLAN SCALE: N/A; PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

SWM PERMIT#: CEN24-000079
GRADING PERMIT#: CEN24-000078

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT

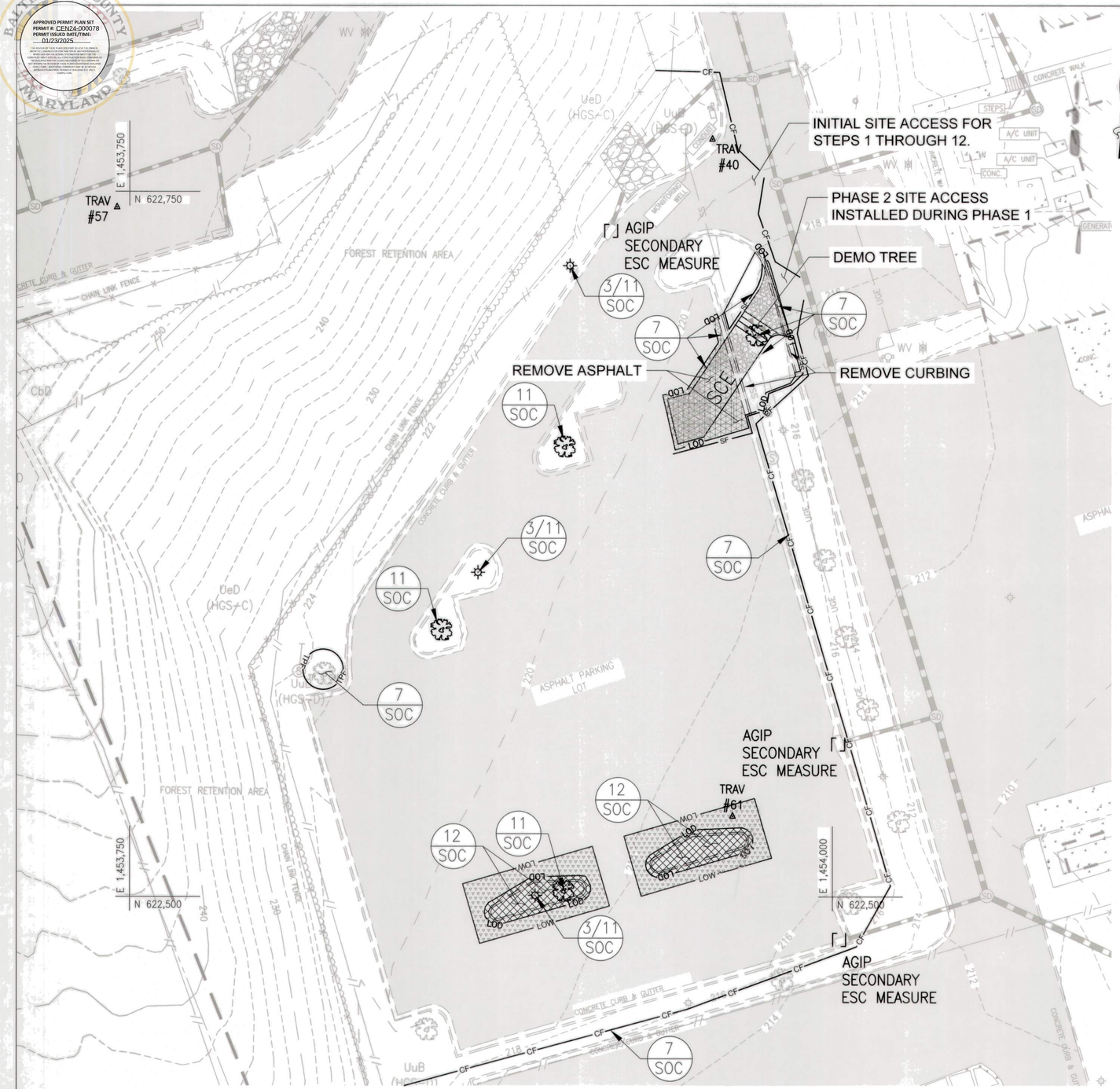
NEW TRUCK GARAGE
EROSION & SEDIMENT COVER SHEET
PERMIT SET 09/20/2024
4419A BUCKS SCHOOLHOUSE ROAD, ROSEDALE, MD 21237

SUBDIVISION: FULLERTON
ELECTION DIST. NO.: 14C5

MCS NAD 83(2011) NAVD 88

SHEET DESIGNATION	CONTRACT NUMBER
C700	24167 P00
	JOB ORDER NUMBER
	PO 10010489
	18 OF 53
	DRAWING NUMBER
	2024-2780
	FILE NO.: 8

BALTIMORE COUNTY MARYLAND



SITE SURVEY BENCHMARKS:

SHOWN IN PLAN VIEW

TRAVERSE #40 – REBAR/CAP
N: 622,768.69
E: 1,453,957.29
ELEV.: 221.69

TRAVERSE #57 – MAG SPIKE
N: 622,744.47
E: 1,453,745.49
ELEV.: 247.29

TRAVERSE #61 – HUB/TACK
N: 622,528.59
E: 1,453,964.46
ELEV.: 217.05

MCS NAV 83(2011) NAVD 88

LEGEND

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- EXISTING MAJOR CONTOUR
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- STABILIZED STONE BASE
- MILLED ASPHALT
- REMOVE ASPHALT PAVEMENT

PHASE 1 EROSION & SEDIMENT CONTROL PLAN

SCALE: 1" = 20'

SWM PERMIT#: CEN24-000079
GRADING PERMIT#: CEN24-000078

THIS PLAN IS SEALED AND CERTIFIED AS BEING IN ACCORDANCE WITH THE APPROVED DEVELOPMENT PLAN

SEAL — STATE OF MARYLAND · JUDITH A. CARROLL · No. 14446 · REGISTERED PROFESSIONAL ENGINEER

DATE: 10-30-24

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AN A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

LICENSE NO.: 14446 EXPIRATION DATE: 05/25/2025

CONTRACT COMPLETION BOX

CARROLL

DGN BY: MJM
DWN BY: MJM
CHKD BY: CMS

AS-BUILT PER RECORD PRINT
BY:
DATE:

AS-BUILT / REVISION	BY	DATE	P.W.A NO.

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

KEY SHEET: MSW

POSITION SHT	DRAWING SCALE	
28 NE 22	PLAN SCALE:	1"=20'
29 NE 22		
28 NE 23	PROFILE SCALE:	
29 NE 23		

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

SUBDIVISION: FULLERTON

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT

NEW TRUCK GARAGE
PHASE 1 EROSION & SEDIMENT CONTROL PLAN
PERMIT SET 09/20/2024
4419A BUCKS SCHOOLHOUSE ROAD, ROSEDALE, MD 21237

ELECTION DIST. NO.: 14C5

DESIGN ENGINEER:
JUDITH CARROLL, P.E, PRESIDENT
CARROLL ENGINEERING, INC.
215 SCHILLING CIRCLE, SUITE 102
HUNT VALLEY, MD 21031
OFFICE: 410-785-7423
JCARROLL@CEIENGINEERING.COM

PROPERTY OWNER:
BALTIMORE COUNTY, MARYLAND
OWNER CONTACT PERSON:
MIKE GOODYEAR
SR PROJECT MANAGER
ALT. GEORGE THOMAKOS
BC PROPERTY MANAGEMENT/CAPITAL
OFFICE: 410-887-6595
MGOODYEAR@BALTIMORECOUNTYMD.GOV

MCS NAD 83(2011) NAVD 88

SHEET DESIGNATION	CONTRACT NUMBER
C710	24167 P00
	JOB ORDER NUMBER
	PO 10010489
	19 OF 53
	DRAWING NUMBER
	2024- 2781
	FILE NO.: 8

APPROVED PERMIT PLAN SET
PERMIT #: CEN24-000078
PERMIT ISSUED DATE/TIME: 01/23/2025

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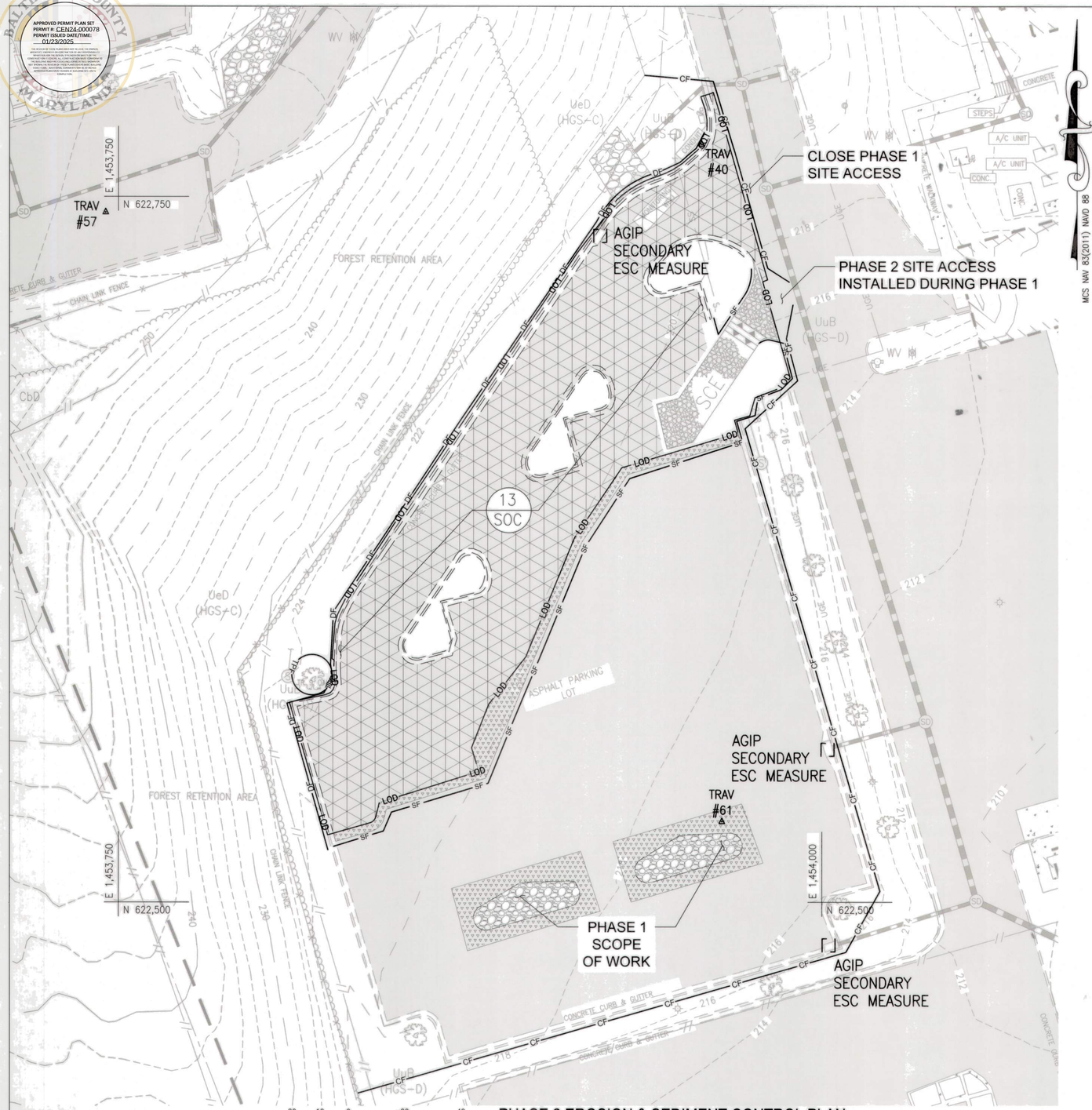

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ELEV.: 217.05

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- COIP COMBINATION INLET PROTECTION
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- STABILIZED STONE BASE
- MILLED ASPHALT
- ▨ REMOVE ASPHALT PAVEMENT

THIS PLAN IS SEALED AND CERTIFIED AS BEING IN ACCORDANCE WITH THE APPROVED DEVELOPMENT PLAN

20 10 0 20 40
GRAPHIC SCALE IN FEET

PHASE 2 EROSION & SEDIMENT CONTROL PLAN
SCALE: 1" = 20'

SWM PERMIT#: CEN24-000079
GRADING PERMIT#: CEN24-000078

DESIGN ENGINEER:
JUDITH CARROLL, P.E, PRESIDENT
CARROLL ENGINEERING, INC.
215 SCHILLING CIRCLE, SUITE 102
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MCS NAD 83(2011) NAVD 88

SEAL	PROFESSIONAL CERTIFICATION		AS-BUILT / REVISION		BY	DATE	P.W.A NO.	KEY SHEET	POSITION SHT	DRAWING SCALE	PROPERTY MANAGEMENT
JUDITH A. CARROLL NO.14446 Judith Carroll	I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AN A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 14446, EXPIRATION DATE: 05/25/2025		CONTRACT COMPLETION BOX					MSW	28 NE 22 29 NE 22 28 NE 23 29 NE 23	PLAN SCALE: 1"=20' PROFILE SCALE:	APPROVED BY: PROPERTY MANAGER DATE:
	CARROLL ENGINEERING, INC.	DGN BY: MJM	BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS		STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
	AS-BUILT PER RECORD PRINT	DWN BY: MJM	REVIEWED BY:								
DATE: 10-30-24	BY: DATE:	CHKD BY: CMS	DATE REVIEWED:								

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT

NEW TRUCK GARAGE
PHASE 2 EROSION & SEDIMENT CONTROL PLAN
PERMIT SET 09/20/2024
4419A BUCKS SCHOOLHOUSE ROAD, ROSEDALE, MD 21237

SUBDIVISION: FULLERTON
ELECTION DIST. NO.: 14C5

SHEET DESIGNATION	CONTRACT NUMBER
C711	24167 P00
	JOB ORDER NUMBER
	PO 10010489
	20 OF 53
	DRAWING NUMBER
	2024- 2782
	FILE NO.: 8

APPROVED PERMIT PLAN SET
PERMIT #: CEN24-000078
PERMIT ISSUED DATE/TIME: 01/23/2025

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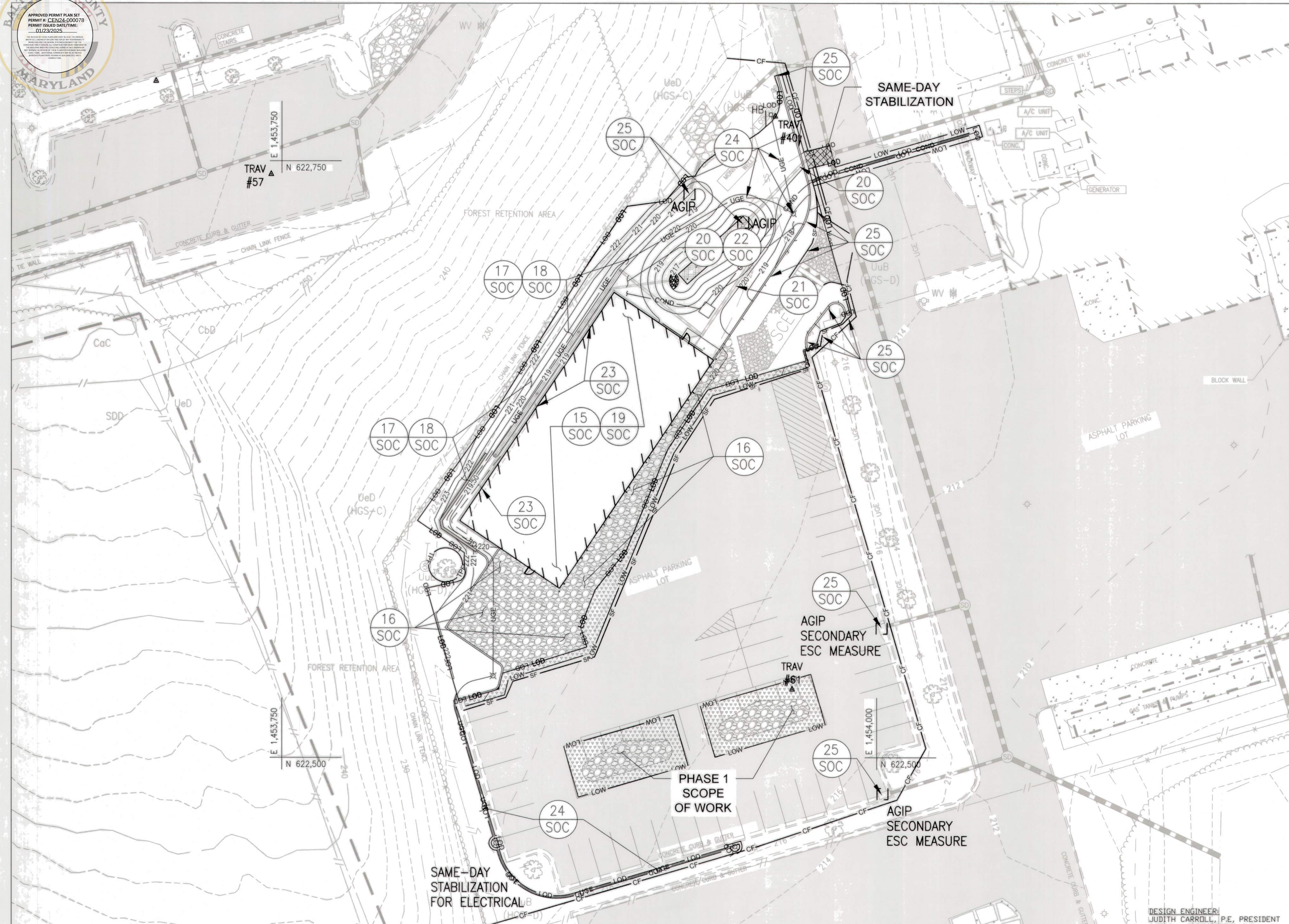

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MCS NAV 83(2011) NAVD 88

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HUNT VALLEY, MD 21031
OFFICE: 410-785-7423
JCARROLL@CEIENGINEERING.COM

PROPERTY OWNER:
BALTIMORE COUNTY, MARYLAND
OWNER CONTACT PERSON:
MIKE GOODYEAR
SR PROJECT MANAGER
ALT. GEORGE THOMAKOS
BC PROPERTY MANAGEMENT/CAPITAL
OFFICE: 410-887-6595
MGOODYEAR@BALTIMORECOUNTYMD.GOV

THIS PLAN IS SEALED AND CERTIFIED AS BEING IN ACCORDANCE WITH THE APPROVED DEVELOPMENT PLAN

GRAPHIC SCALE IN FEET (20 10 0 20 40)

PHASE 3 EROSION & SEDIMENT CONTROL PLAN

SCALE: 1" = 20'

SWM PERMIT#: CEN24-000079
GRADING PERMIT#: CEN24-000078

MCS NAD 83(2011) NAVD 88

SEAL: STATE OF MARYLAND, JUDITH A. CARROLL, NO.14446, REGISTERED PROFESSIONAL ENGINEER
DATE: 10-30-24

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AN A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 14446 EXPIRATION DATE: 05/25/2025

CARROLL ENGINEERING, INC.
AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: MJM	DWN BY: MJM	CHKD BY: CMS

AS-BUILT / REVISION	BY	DATE	P.W.A NO.
CONTRACT COMPLETION BOX			

KEY SHEET	POSITION SHT	DRAWING SCALE	
MSW	28 NE 22 29 NE 22 28 NE 23 29 NE 23	PLAN SCALE:	1"=20'
		PROFILE SCALE:	

PROPERTY MANAGEMENT
APPROVED BY: ________ PROPERTY MANAGER
DATE: ________

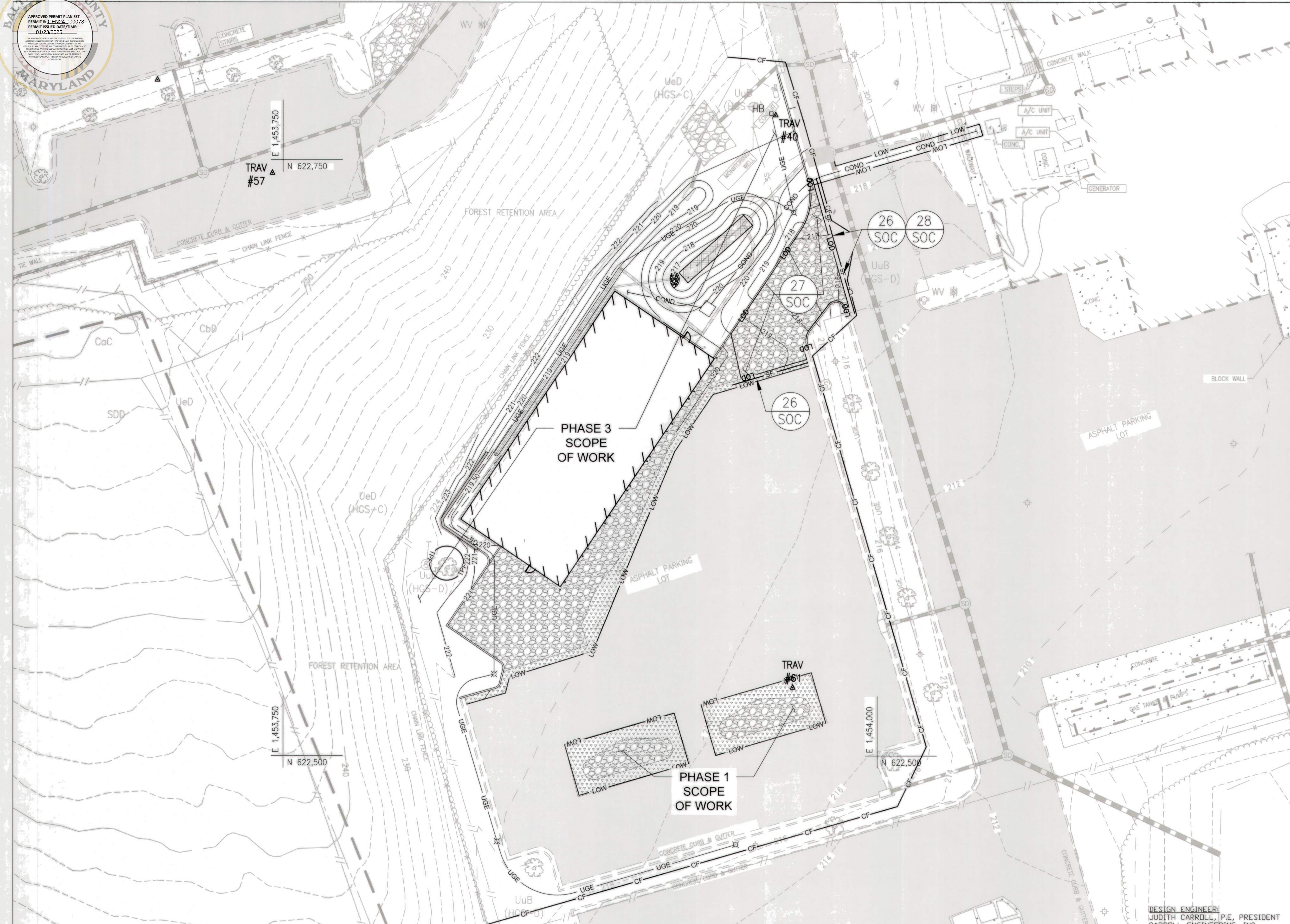
BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT

NEW TRUCK GARAGE
PHASE 3 EROSION & SEDIMENT CONTROL PLAN
PERMIT SET 09/20/2024
4419A BUCKS SCHOOLHOUSE ROAD, ROSEDALE, MD 21237

SUBDIVISION: FULLERTON
ELECTION DIST. NO.: 14C5

SHEET DESIGNATION	CONTRACT NUMBER
C712	24167 POO
	JOB ORDER NUMBER
	PO 10010489
	21 OF 53
	DRAWING NUMBER
	2024- 2783
	FILE NO.: 8



SITE SURVEY BENCHMARKS:

SHOWN IN PLAN VIEW

TRAVERSE #40 – REBAR/CAP
N: 622,768.69
E: 1,453,957.29
ELEV.: 221.69

TRAVERSE #57 – MAG SPIKE
N: 622,744.47
E: 1,453,745.49
ELEV.: 247.29

TRAVERSE #61 – HUB/TACK
N: 622,528.59
E: 1,453,964.46
ELEV.: 217.05

MCS NAV 83(2011) NAVD 88

LEGEND

- EXISTING BUILDING
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING PROPERTY LINE
- EXISTING RIGHT-OF-WAY
- EXISTING EASEMENT
- EXISTING SETBACK
- EXISTING CURB
- EXISTING CURB & GUTTER
- EXISTING FENCELINE
- EXISTING SIGN
- EXISTING FLAGPOLE
- EXISTING BOLLARD
- EXISTING TREELINE
- EXISTING DECIDUOUS TREE
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- EXISTING LIGHT POLE
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY CLEANOUT
- EXISTING STORMDRAIN LINE
- EXISTING STORMDRAIN MANHOLE
- EXISTING WATER VALVE
- EXISTING WATER MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING ELECTRIC HANDBOX
- EXISTING COMM HANDHOLE
- EXISTING GAS VALVE
- EXISTING STORMDRAIN INLET
- EXISTING ASPHALT PAVING
- EXISTING CONCRETE PAVING
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- PROPOSED STORMDRAIN LINE
- SILT FENCE
- DIVERSION FENCE
- TEMPROARY CONSTRUCTION FENCE
- SAME DAY STABILIZATION
- STABILIZED STONE BASE
- MILLED ASPHALT
- REMOVE ASPHALT PAVEMENT

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GRAPHIC SCALE IN FEET (20 10 0 20 40)

PHASE 4 EROSION & SEDIMENT CONTROL PLAN

SCALE: 1" = 20'

SWM PERMIT#: CEN24-000079
GRADING PERMIT#: CEN24-000078

DESIGN ENGINEER:
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CONTRACT COMPLETION BOX						PROFILE SCALE:	

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

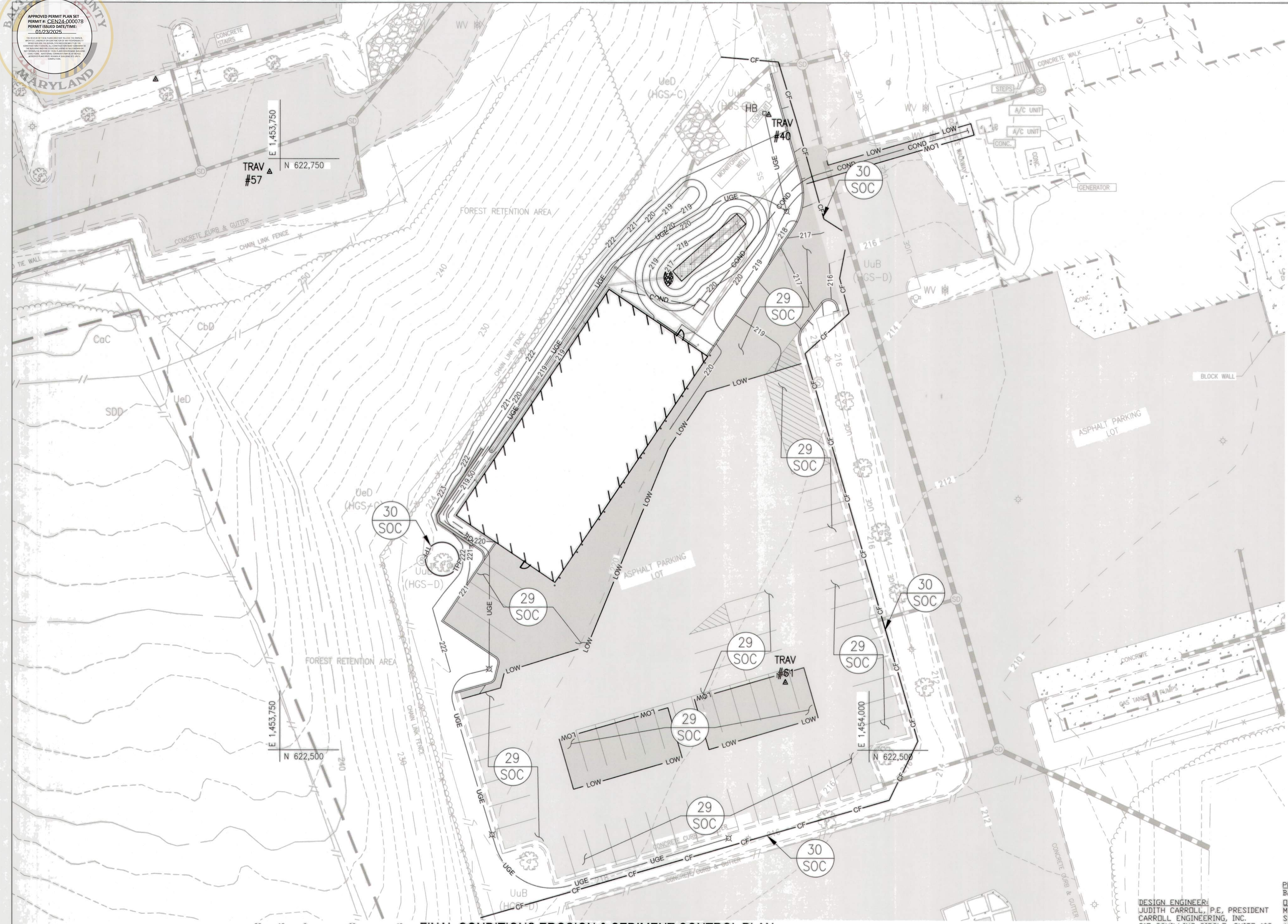
PROPERTY MANAGEMENT
APPROVED BY: ______ PROPERTY MANAGER
DATE: ______

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT

NEW TRUCK GARAGE
PHASE 4 EROSION & SEDIMENT CONTROL PLAN
PERMIT SET 09/20/2024
4419A BUCKS SCHOOLHOUSE ROAD, ROSEDALE, MD 21237

SUBDIVISION: FULLERTON
ELECTION DIST. NO.: 14C5

SHEET DESIGNATION	CONTRACT NUMBER
C713	24167 PO0
	JOB ORDER NUMBER
	PO 10010489
	22 OF 53
	DRAWING NUMBER
	2024- 2784
	FILE NO.: 8



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- PROPOSED ASPHALT PAVING
- PROPOSED MICRO–BIORETENTION AREA
- PROPOSED SEGMENTAL BLOCK WALL
- PROPOSED STORMDRAIN LINE
- SF — SILT FENCE
- DF — DIVERSION FENCE
- CF — TEMPROARY CONSTRUCTION FENCE
- TPF — TREE PROTECTION FENCE
- COIP — COMBINATION INLET PROTECTION
- SAME DAY STABILIZATION
- STABILIZED STONE BASE
- MILLED ASPHALT
- REMOVE ASPHALT PAVEMENT

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GRAPHIC SCALE IN FEET (20 10 0 20 40)

FINAL CONDITIONS EROSION & SEDIMENT CONTROL PLAN

SCALE: 1" = 20'

SWM PERMIT#: CEN24-000079
GRADING PERMIT#: CEN24-000078

DESIGN ENGINEER:
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CARROLL ENGINEERING, INC.

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CONTRACT COMPLETION BOX						PROFILE SCALE:		DATE:	
DGN BY: MJM	BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER	
DWN BY: MJM	REVIEWED BY:								
CHKD BY: CMS	DATE REVIEWED:								

AS–BUILT PER RECORD PRINT
BY:
DATE:

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT

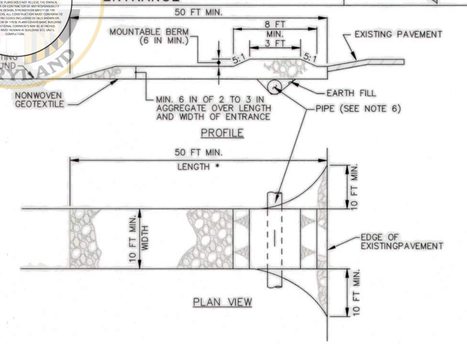
NEW TRUCK GARAGE
FINAL CONDITIONS EROSION & SEDIMENT CONTROL PLAN
PERMIT SET 09/20/2024
4419A BUCKS SCHOOLHOUSE ROAD, ROSEDALE, MD 21237

SUBDIVISION: FULLERTON
ELECTION DIST. NO.: 14C5

SHEET DESIGNATION	CONTRACT NUMBER
C714	24167 PO0
	JOB ORDER NUMBER
	PO 10010489
	23 OF 53
	DRAWING NUMBER
	2024- 2785
	FILE NO.: 8

STABILIZED CONSTRUCTION ENTRANCE

STANDARD SYMBOL: SCE



CONSTRUCTION SPECIFICATIONS

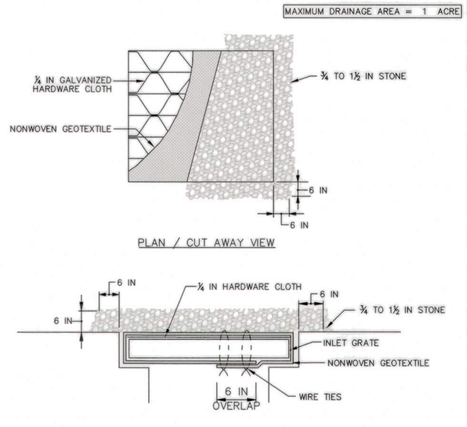
1. PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE MINIMUM LENGTH OF 50 FEET (*30 FEET FOR SINGLE RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET. FLARE SCE 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
2. PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PROTECT PIPE INSTALLED THROUGH THE SCE WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. PROVIDE PIPE AS SPECIFIED ON APPROVED PLAN. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE IS NOT NECESSARY. A MOUNTABLE BERM IS REQUIRED WHEN SCE IS NOT LOCATED AT A HIGH SPOT.
3. PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H–1 MATERIALS.
4. PLACE CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE) OR EQUIVALENT RECYCLED CONCRETE (WITHOUT REBAR) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SCE.
5. MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SURFACE, MOUNTABLE BERM, AND SPECIFIED DIMENSIONS. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO ADJACENT ROADWAY BY VACUUMING, SCRAPING, AND/OR SWEEPING. WASHING ROADWAY TO REMOVE MUD TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE | 2011 | MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL E-9-2 AT-GRADE INLET PROTECTION

STANDARD SYMBOL: AGIP



CONSTRUCTION SPECIFICATIONS

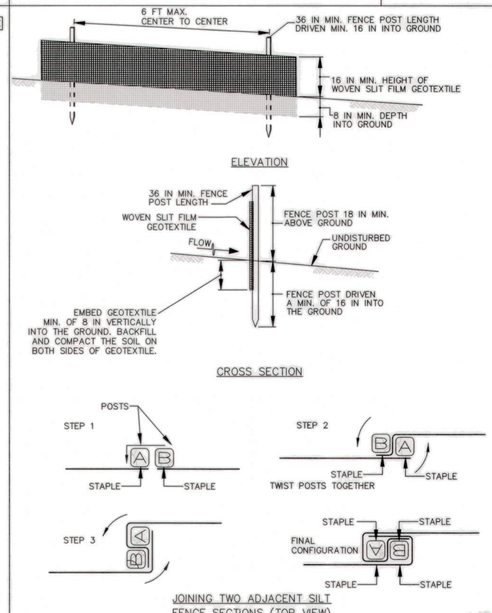
1. USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H–1 MATERIALS.
2. LIFT GRATE AND WRAP WITH NONWOVEN GEOTEXTILE TO COMPLETELY COVER ALL OPENINGS. SECURE WITH WIRE TIES AND SET GRATE BACK IN PLACE.
3. PLACE CLEAN ¾ TO 1½ INCH STONE OR EQUIVALENT RECYCLED CONCRETE 6 INCHES THICK ON THE GRATE.
4. STORM DRAIN INLET PROTECTION REQUIRES FREQUENT MAINTENANCE. REMOVE ACCUMULATED SEDIMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGING. IF INLET PROTECTION DOES NOT COMPLETELY DRAIN WITHIN 24 HOURS AFTER A STORM EVENT, IT IS CLOGGED. WHEN THIS OCCURS, REMOVE ACCUMULATED SEDIMENT AND CLEAN, OR REPLACE GEOTEXTILE AND STONE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE | 2011 | MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL E-1 SILT FENCE

STANDARD SYMBOL: SF



1 OF 2

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE | 2011 | MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL E-1 SILT FENCE

STANDARD SYMBOL: SF

CONSTRUCTION SPECIFICATIONS

1. USE WOOD POSTS 1⅜ X 1⅜ ± ⅛ INCH (MINIMUM) SQUARE CUT OF SOUND QUALITY HARDWOOD. AS AN ALTERNATIVE TO WOODEN POST USE STANDARD "T" OR "U" SECTION STEEL POSTS WEIGHING NOT LESS THAN 1 POUND PER LINEAR FOOT.
2. USE 36 INCH MINIMUM POSTS DRIVEN 16 INCH MINIMUM INTO GROUND NO MORE THAN 6 FEET APART.
3. USE WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H–1 MATERIALS AND FASTEN GEOTEXTILE SECURELY TO UPSLOPE SIDE OF FENCE POSTS WITH WIRE TIES OR STAPLES AT TOP AND MID–SECTION.
4. PROVIDE MANUFACTURER CERTIFICATION TO THE AUTHORIZED REPRESENTATIVE OF THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT THE GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H–1 MATERIALS.
5. EMBED GEOTEXTILE A MINIMUM OF 8 INCHES VERTICALLY INTO THE GROUND. BACKFILL AND COMPACT THE SOIL ON BOTH SIDES OF FABRIC.
6. WHERE TWO SECTIONS OF GEOTEXTILE ADJOIN: OVERLAP, TWIST, AND STAPLE TO POST IN ACCORDANCE WITH THIS DETAIL.
7. EXTEND BOTH ENDS OF THE SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SILT FENCE.
8. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN SILT FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL FENCE.

2 OF 2

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE | 2011 | MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

THIS PLAN IS SEALED AND CERTIFIED AS BEING IN ACCORDANCE WITH THE APPROVED DEVELOPMENT PLAN

SEAL: STATE OF MARYLAND · JUDITH A. CARROLL · NO 14446 · REGISTERED PROFESSIONAL ENGINEER
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KEY SHEET: MSW
POSITION SHT: 28 NE 22, 29 NE 22, 28 NE 23, 29 NE 23
DRAWING SCALE: PLAN SCALE: ____ PROFILE SCALE: ____

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
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PROPERTY MANAGEMENT
APPROVED BY: _____ PROPERTY MANAGER
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SWM PERMIT#: CEN24-000079
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BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT

NEW TRUCK GARAGE
EROSION & SEDIMENT CONTROL DETAILS
PERMIT SET 09/20/2024
4419A BUCKS SCHOOLHOUSE ROAD, ROSEDALE, MD 21237

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SHEET DESIGNATION	CONTRACT NUMBER
C720	24167 POD
	JOB ORDER NUMBER
	PO 10010489
	24 OF 53
	DRAWING NUMBER
	2024- 2786
	FILE NO.: 8

B-3 STANDARDS AND SPECIFICATIONS FOR LAND GRADING

Definition

Reshaping the existing land surface to provide suitable topography for building facilities and other site improvements.

Purpose

To provide erosion control and vegetative establishment for extreme changes in grade.

Conditions Where Practice Applies

Earth disturbances or extreme grade modifications on steep or long slopes.

Design Criteria

The grading plan should be based on the incorporation of building designs and street layouts that fit and utilize existing topography and desirable natural surroundings to avoid extreme grade modifications. Information submitted must provide sufficient topographic surveys and soil investigations to determine limitations that must be imposed on the grading operation related to slope stability, adjacent properties, drainage patterns, measures for water removal, and vegetative treatment, etc.

Many jurisdictions have regulations and design procedures already established for land grading that must be followed. The plan must show existing and proposed contours for the area(s) to be graded including practices for erosion control, slope stabilization, and safe conveyance of runoff (e.g., waterways, lined channels, reverse benches, grade stabilization structures). The grading/construction plans are to include the phasing of these practices and consideration of the following:

1. Provisions to safely convey surface runoff to storm drains, protected outlets or stable water courses to ensure that surface runoff will not damage slopes or other graded areas.
2. Cut and fill slopes, stabilized with grasses, no steeper than 2:l. (Where the slope is to be mowed, the slope should be no steeper than 3:l, but 4:l is preferred because of safety factors related to mowing steep slopes.) Slopes steeper than 2:l require special design and stabilization considerations to be shown on the plans.
3. Benching per Detail B-3-1 whenever the vertical interval (height) of any 2:l slope exceeds 20 feet; for 3:l slopes, when it exceeds 30 feet; and for 4:l slopes, when it exceeds 40 feet. Locate benches to divide the slope face as equally as possible and to convey the water to a stable outlet. Soils, seeps, rock outcrops, etc. are to be taken into consideration when designing benches.
   a. Provide benches with a minimum width of six feet for ease of maintenance.
   b. Design benches with a reverse slope of 6:l or flatter to the toe of the upper slope and with a minimum of one foot in depth. Grade the longitudinal slope of the bench between 2 percent and 3 percent, unless accompanied by appropriate design and computations.
   c. The maximum allowable flow length within a bench is 800 feet unless accompanied by appropriate design and computations.
4. Diversion of surface water from the face of all cut and fill slopes using earth dikes or swales. Convey surface water down slope using a designed structure, and:
   a. Protect the face of all graded slopes from surface runoff until they are stabilized.
   b. Do not subject the slope's face to any concentrated flow of surface water such as from natural drainage ways, graded swales, downspouts, etc.
   c. Protect the face of the slope by special erosion control materials to include, but not be limited to, approved vegetative stabilization practices, riprap or other approved stabilization methods.
5. Serrated slope as shown in Detail B-3-2. The steepest allowable slope for ripable rock is 1.5:1. For non rock surfaces, the slopes are to be 2:1 or flatter. These steps will weather and act to hold moisture, lime, fertilizer and seed thus producing a much quicker and longer lived vegetative cover and better slope stabilization.
6. Subsurface drainage provisions. Provide subsurface drainage where necessary to intercept seepage that would otherwise adversely affect slope stability or create excessively wet site conditions.
7. Proximity to adjacent property. Slopes must not be created close to property lines without adequate protection against sedimentation, erosion, slippage, settlement, subsidence, or other related damages.
8. Quality of fill material. Fill material must be free of brush, rubbish, logs, stumps, building debris, and other objectionable material. Do not place frozen materials in the fill nor place the fill material on a frozen foundation.
9. Stabilization. Stabilize all disturbed areas structurally or vegetatively in compliance with Section B4 Standards and Specifications for Stabilization Practices.

Maintenance

The line, grade, and cross section of benching and serrated slopes must be maintained. Benches and serrated slopes must continuously meet the requirements for Adequate Vegetative Establishment in accordance with Section B-4 Vegetative Stabilization.

B-4 STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION

Definition

Using vegetation as cover to protect exposed soil from erosion.

Purpose

To promote the establishment of vegetation on exposed soil.

Conditions Where Practice Applies

On all disturbed areas not stabilized by other methods. This specification is divided into sections on incremental stabilization; soil preparation, soil amendments and topsoiling; seeding and mulching; temporary stabilization; and permanent stabilization.

Effects on Water Quality and Quantity

Stabilization practices are used to promote the establishment of vegetation on exposed soil. When soil is stabilized with vegetation, the soil is less likely to erode and more likely to allow infiltration of rainfall, thereby reducing sediment loads and runoff to downstream areas.

Planting vegetation in disturbed areas will have an effect on the water budget, especially on volumes and rates of runoff, infiltration, evaporation, transpiration, percolation, and groundwater recharge. Over time, vegetation 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 practices must remain in place during grading, seedbed preparation, seeding, mulching, and vegetative establishment.

Adequate Vegetative Establishment

Inspect seeded areas for vegetative establishment and make necessary repairs, replacements, and reseedings within the planting season.

1. Adequate vegetative stabilization requires 95 percent groundcover.
2. If an area has less than 40 percent groundcover, restabilize following the original recommendations for lime, fertilizer, seedbed preparation, and seeding.
3. If an area has between 40 and 94 percent groundcover, over-seed and fertilize using half of the rates originally specified.
4. Maintenance fertilizer rates for permanent seeding are shown in Table B.6.

B-4-1 STANDARDS AND SPECIFICATIONS FOR INCREMENTAL STABILIZATION

Definition

Establishment of vegetative cover on cut and fill slopes.

Purpose

To provide timely vegetative cover on cut and fill slopes as work progresses.

Conditions Where Practice Applies

Any cut or fill slope greater than 15 feet in height. This practice also applies to stockpiles.

Criteria

A. Incremental Stabilization – Cut Slopes
   1. Excavate and stabilize cut slopes in increments not to exceed 15 feet in height. Prepare seedbed and apply seed and mulch on all cut slopes as the work progresses.
   2. Construction sequence example (Refer to Figure B.1):
      a. Construct and stabilize all temporary swales or dikes that will be used to convey runoff around the excavation.
      b. Perform Phase 1 excavation, prepare seedbed, and stabilize.
      c. Perform Phase 2 excavation, prepare seedbed, and stabilize. Overseed Phase 1 areas as necessary.
      d. Perform final phase excavation, prepare seedbed, and stabilize. Overseed previously seeded areas as necessary.

Note: Once excavation has begun the operation should be continuous from grubbing through the completion of grading and placement of topsoil (if required) and permanent seed and mulch. Any interruptions in the operation or completing the operation out of the seeding season will necessitate the application of temporary stabilization.

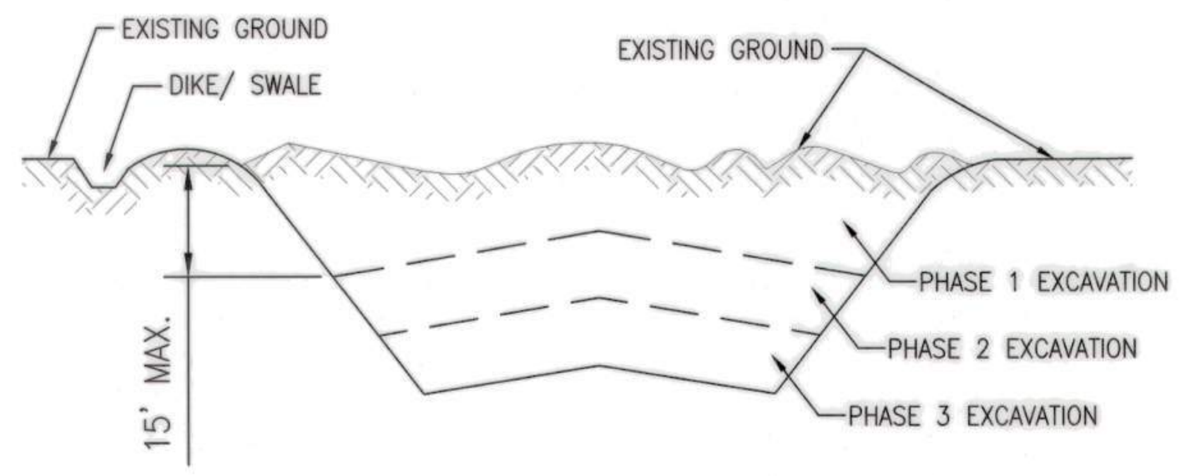

Figure B.1: Incremental Stabilization – Cut

B. Incremental Stabilization – Fill Slopes
   1. Construct and stabilize fill slopes in increments not to exceed 15 feet in height. Prepare seedbed and apply seed and mulch on all slopes as the work progresses.
   2. Stabilize slopes immediately when the vertical height of a lift reaches 15 feet, or when the grading operation ceases as prescribed in the plans.
   3. At the end of each day, install temporary water conveyance practice(s), as necessary, to intercept surface runoff and convey it down the slope in a non-erosive manner.
   4. Construction sequence example (Refer to Figure B.2):
      a. Construct and stabilize all temporary swales or dikes that will be used to divert runoff around the fill. Construct silt fence on low side of fill unless other methods shown on the plans address this area.
      b. At the end of each day, install temporary water conveyance practice(s), as necessary, to intercept surface runoff and convey it down the slope in a non-erosive manner.
      c. Place Phase 1 fill, prepare seedbed, and stabilize.
      d. Place Phase 2 fill, prepare seedbed, and stabilize.
      e. Place final phase fill, prepare seedbed, and stabilize. Overseed previously seeded areas as necessary.

Note: Once the placement of fill has begun the operation should be continuous from grubbing through the completion of grading and placement of topsoil (if required) and permanent seed and mulch. Any interruptions in the operation or completing the operation out of the seeding season will necessitate the application of temporary stabilization.

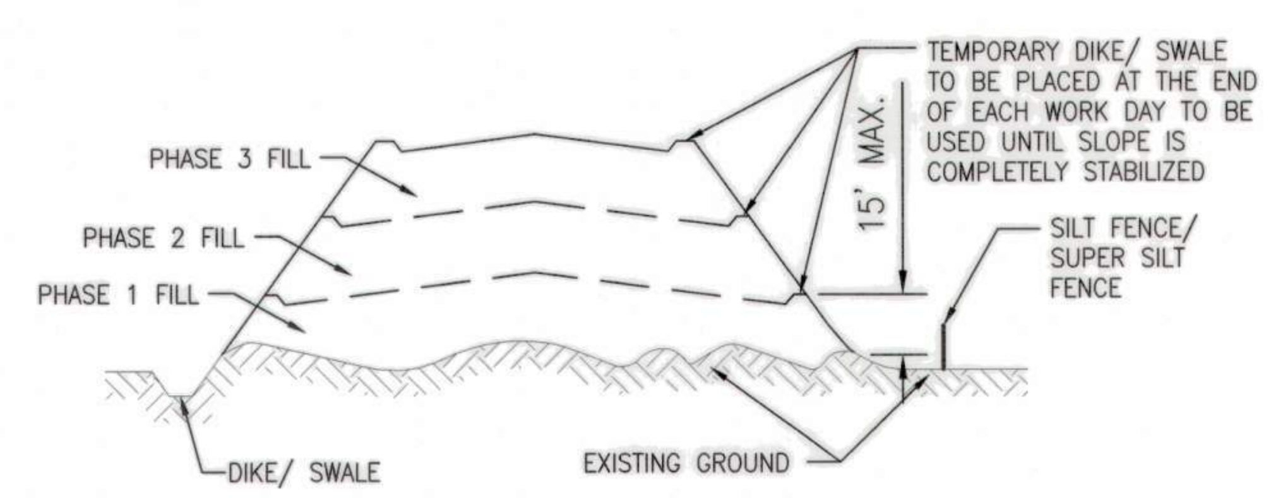

Figure B.2: Incremental Stabilization – Fill

B-4-2 STANDARDS AND SPECIFICATIONS FOR SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS

Definition

The process of preparing the soils to sustain adequate vegetative stabilization.

Purpose

To provide a suitable soil medium for vegetative growth.

Conditions Where Practice Applies

Where vegetative stabilization is to be established.

Criteria

A. Soil Preparation
   1. Temporary Stabilization
      a. Seedbed preparation consists of loosening soil to a depth of 3 to 5 inches by means of suitable agricultural or construction equipment, such as disc harrows or chisel plows or rippers mounted on construction equipment. After the soil is loosened, it must not be rolled or dragged smooth but left in the roughened condition. Slopes 3:1 or flatter are to be tracked with ridges running parallel to the contour of the slope.
      b. Apply fertilizer and lime as prescribed on the plans.
      c. Incorporate lime and fertilizer into the top 3 to 5 inches of soil by disking or other suitable means.
   2. Permanent Stabilization
      a. A soil test is required for any earth disturbance of 5 acres or more. The minimum soil conditions required for permanent vegetative establishment are:
         i. Soil pH between 6.0 and 7.0.
         ii. Soluble salts less than 500 parts per million (ppm).
         iii. Soil contains less than 40 percent clay but enough fine grained material (greater than 30 percent silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception: if lovegrass will be planted, then a sandy soil (less than 30 percent silt plus clay) would be acceptable.
         iv. Soil contains 1.5 percent minimum organic matter by weight.
         v. Soil contains sufficient pore space to permit adequate root penetration.
      b. Application of amendments or topsoil is required if on-site soils do not meet the above conditions.
      c. Graded areas must be maintained in a true and even grade as specified on the approved plan, then scarified or otherwise loosened to a depth of 3 to 5 inches.
      d. Apply soil amendments as specified on the approved plan or as indicated by the results of a soil test.
      e. Mix soil amendments into the top 3 to 5 inches of soil by disking or other suitable means. Rake lawn areas to smooth the surface, remove large objects like stones and branches, and ready the area for seed application. Loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface where site conditions will not permit normal seedbed preparation. Track slopes 3:1 or flatter with tracked equipment leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. Leave the top 1 to 3 inches of soil loose and friable. Seedbed loosening may be unnecessary on newly disturbed areas.

B. Topsoiling
   1. Topsoil is placed over prepared subsoil prior to establishment of permanent vegetation. The purpose is to provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.
   2. Topsoil salvaged from an existing site may be used provided it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-NRCS.
   3. Topsoiling is limited to areas having 2:1 or flatter slopes where:
      a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
      b. The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.
      c. The original soil to be vegetated contains material toxic to plant growth.
      d. The soil is so acidic that treatment with limestone is not feasible.
   4. Areas having slopes steeper than 2:1 require special consideration and design.
   5. Topsoil Specifications: Soil to be used as topsoil must meet the following criteria:
      a. Topsoil must be a loam, sandy loam, clay loam, silt loam, sandy clay loam, or loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Topsoil must not be a mixture of contrasting textured subsoils and must contain less than 5 percent by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1½ inches in diameter.
      b. Topsoil must be free of noxious plants or plant parts such as Bermuda grass, quack grass, Johnson grass, nut sedge, poison ivy, thistle, or others as specified.
      c. Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.
   6. Topsoil Application
      a. Erosion and sediment control practices must be maintained when applying topsoil.
      b. Uniformly distribute topsoil in a 5 to 8 inch layer and lightly compact to a minimum thickness of 4 inches. Spreading is to be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations must be corrected in order to prevent the formation of depressions or water pockets.
      c. Topsoil must not be placed if the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.

C. Soil Amendments (Fertilizer and Lime Specifications)
   1. Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas of 5 acres or more. Soil analysis may be performed by a recognized private or commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analyses.
   2. Fertilizers must be uniform in composition, free flowing and suitable for accurate application by appropriate equipment. Manure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers must all be delivered to the site fully labeled according to the applicable laws and must bear the name, trade name or trademark and warranty of the producer.
   3. Lime materials must be ground limestone (hydrated or burnt lime may be substituted except when hydroseeding) which contains at least 50 percent total oxides (calcium oxide plus magnesium oxide). Limestone must be ground to such fineness that at least 50 percent will pass through a #100 mesh sieve and 98 to 100 percent will pass through a #20 mesh sieve.
   4. Lime and fertilizer are to be evenly distributed and incorporated into the top 3 to 5 inches of soil by disking or other suitable means.
   5. Where the subsoil is either highly acidic or composed of heavy clays, spread ground limestone at the rate of 4 to 8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil.

B-4-3 STANDARDS AND SPECIFICATIONS FOR SEEDING AND MULCHING

Definition

The application of seed and mulch to establish vegetative cover.

Purpose

To protect disturbed soils from erosion during and at the end of construction.

Conditions Where Practice Applies

To the surface of all perimeter controls, slopes, and any disturbed area not under active grading.

Criteria

A. Seeding
   1. Specifications
      a. All seed must meet the requirements of the Maryland State Seed Law. All seed must be subject to re-testing by a recognized seed laboratory. All seed used must have been tested within the 6 months immediately preceding the date of sowing such material on any project. Refer to Table B.4 regarding the quality of seed. Seed tags must be available upon request to the inspector to verify type of seed and seeding rate.
      b. Mulch alone may be applied between the fall and spring seeding dates only if the ground is frozen. The appropriate seeding mixture must be applied when the ground thaws.
      c. Inoculants: The inoculant for treating legume seed in the seed mixtures must be a pure culture of nitrogen fixing bacteria prepared specifically for the species. Inoculants must not be used later than the date indicated on the container. Add fresh inoculants as directed on the package. Use four times the recommended rate when hydroseeding. Note: It is very important to keep inoculant as cool as possible until used. Temperatures above 75 to 80 degrees Fahrenheit can weaken bacteria and make the inoculant less effective.
      d. Sod or seed must not be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phyto-toxic materials.
   2. Application
      a. Dry Seeding: This includes use of conventional drop or broadcast spreaders.
         i. Incorporate seed into the subsoil at the rates prescribed on Temporary Seeding Table B.1, Permanent Seeding Table B.3, or site-specific seeding summaries.
         ii. Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction. Roll the seeded area with a weighted roller to provide good seed to soil contact.
      b. Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil.
         i. Cultipacking seeders are required to bury the seed in such a fashion as to provide at least 1/4 inch of soil covering. Seedbed must be firm after planting.
         ii. Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction.
      c. Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer).
         i. If fertilizer is being applied at the time of seeding, the application rates should not exceed the following: nitrogen, 100 pounds per acre total of soluble nitrogen; P205 (phosphorous), 200 pounds per acre; K20 (potassium), 200 pounds per acre.
         ii. 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.
         iii. Mix seed and fertilizer on site and seed immediately and without interruption.
         iv. When hydroseeding do not incorporate seed into the soil.

B. Mulching
   1. Mulch Materials (in order of preference)
      a. Straw consisting of thoroughly threshed wheat, rye, oat, or barley and reasonably bright in color. Straw is to be free of noxious weed seeds as specified in the Maryland Seed Law and not musty, moldy, caked, decayed, or excessively dusty. Note: Use only sterile straw mulch in areas where one species of grass is desired.
      b. Wood Cellulose Fiber Mulch (WCFM) consisting of specially prepared wood cellulose processed into a uniform fibrous physical state.
         i. WCFM is to 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.
         ii. WCFM, including dye, must contain no germination or growth inhibiting factors.
         iii. WCFM materials are to be manufactured and processed in such a manner that the wood cellulose fiber mulch will remain in uniform suspension in water under agitation and will blend with seed, fertilizer and other additives to form a homogeneous slurry. The mulch material must form a blotter-like ground cover, on application, having moisture absorption and percolation properties and must cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings.
         iv. WCFM material must not contain elements or compounds at concentration levels that will be phyto-toxic.
         v. WCFM must conform to the following physical requirements: fiber length of approximately 10 millimeters, diameter approximately 1 millimeter, pH range of 4.0 to 8.5, ash content of 1.6 percent maximum and water holding capacity of 90 percent minimum.
   2. Application
      a. Apply mulch to all seeded areas immediately after seeding.
      b. When straw mulch is used, spread it over all seeded areas at the rate of 2 tons per acre to a uniform loose depth of 1 to 2 inches. Apply mulch to achieve a uniform distribution and depth so that the soil surface is not exposed. When using a mulch anchoring tool, increase the application rate to 2.5 tons per acre.
      c. Wood cellulose fiber used as mulch must be applied at a net dry weight of 1500 pounds per acre. Mix the wood cellulose fiber with water to attain a mixture with a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.
   3. Anchoring
      a. Perform mulch anchoring immediately following application of mulch to minimize loss by wind or water. This may be done by one of the following methods (listed by preference), depending upon the size of the area and erosion hazard:
         i. A mulch anchoring tool is a tractor drawn implement designed to punch and anchor mulch into the soil surface a minimum of 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 follow the contour.
         ii. Wood cellulose fiber may be used for anchoring straw. Apply the fiber binder at a net dry weight of 750 pounds per acre. Mix the wood cellulose fiber with water at a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.
         iii. Synthetic binders such as Acrylic DLR (Agro-Tack), DCA-70, Petroset, Terra Tax II, Terra Tack AR or other approved equal may be used. Follow application rates as specified by the manufacturer. Application of liquid binders needs to be heavier at the edges where wind catches mulch, such as in valleys and on crests of banks. Use of asphalt binders is strictly prohibited.
         iv. Lightweight plastic netting may be stapled over the mulch according to manufacturer recommendations. Netting is usually available in rolls 4 to 15 feet wide and 300 to 3,000 feet long.

THIS PLAN IS SEALED AND CERTIFIED AS BEING IN ACCORDANCE WITH THE APPROVED DEVELOPMENT PLAN

SWM PERMIT#: CEN24-000079
GRADING PERMIT#: CEN24-000078

DESIGN ENGINEER:
JUDITH CARROLL, P.E, PRESIDENT
CARROLL ENGINEERING, INC.
215 SCHILLING CIRCLE, SUITE 102
HUNT VALLEY, MD 21031
OFFICE: 410-785-7423
JCARROLL@CEIENGINEERING.COM

PROPERTY OWNER:
BALTIMORE COUNTY, MARYLAND
OWNER CONTACT PERSON:
MIKE GOODYEAR
SR PROJECT MANAGER
ALT. GEORGE THOMAKOS
BC PROPERTY MANAGEMENT/CAPITAL
OFFICE: 410-887-6595
MGOODYEAR@BALTIMORECOUNTYMD.GOV

MCS NAD 83(2011) NAVD 88

SEAL: STATE OF MARYLAND, JUDITH A. CARROLL, NO. 14446, REGISTERED PROFESSIONAL ENGINEER
DATE: 10-30-24

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 14446, EXPIRATION DATE: 05/25/2025

CARROLL ENGINEERING, INC.
AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: MJM	DWN BY: MJM	CHKD BY: CMS

AS-BUILT / REVISION	BY	DATE	P.W.A NO.	KEY SHEET	POSITION SHT	DRAWING SCALE		PROPERTY MANAGEMENT
				MSW	28 NE 22 29 NE 22 28 NE 23 29 NE 23	PLAN SCALE:		APPROVED BY: ____ PROPERTY MANAGER
CONTRACT COMPLETION BOX						PROFILE SCALE:		DATE:

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT

NEW TRUCK GARAGE
EROSION & SEDIMENT CONTROL NOTES
PERMIT SET 09/20/2024
4419A BUCKS SCHOOLHOUSE ROAD, ROSEDALE, MD 21237

SUBDIVISION: FULLERTON
ELECTION DIST. NO.: 14C5

SHEET DESIGNATION	CONTRACT NUMBER
C721	24167 P00
	JOB ORDER NUMBER: PO 10010489
	25 OF 53
	DRAWING NUMBER: 2024-2787
	FILE NO.: 8

B-4-4 STANDARDS AND SPECIFICATIONS FOR TEMPORARY STABILIZATION

Definition

To stabilize disturbed soils with vegetation for up to 6 months.

Purpose

To use fast growing vegetation that provides cover on disturbed soils.

Conditions Where Practice Applies

Exposed soils where ground cover is needed for a period of 6 months or less. For longer duration of time, permanent stabilization practices are required.

Criteria

1. Select one or more of the species or seed mixtures listed in Table B.1 for the appropriate Plant Hardiness Zone (from Figure B.3), and enter them in the Temporary Seeding Summary below along with application rates, seeding dates and seeding depths. If this Summary is not put on the plan and completed, then Table B.1 plus fertilizer and lime rates must be put on the plan.
2. For sites having soil tests performed, use and show the recommended rates by the testing agency. Soil tests are not required for Temporary Seeding.
3. When stabilization is required outside of a seeding season, apply seed and mulch or straw mulch alone as prescribed in Section B-4-3.A.1.b and maintain until the next seeding season.

Temporary Seeding Summary

Hardiness Zone (from Figure B.3): 7a Seed Mixture (from Table B.1): ____________					Fertilizer Rate (10-20-20)	Lime Rate
No.	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths		
	Annual Ryegrass	40	Feb 15 to Apr 30; Aug 15 to Nov 30	0.5 inch	436 lb/ac (10 lb/1000sf)	2 tons/ac (90 lb/1000sf)
	Barley	96	Feb 15 to Apr 30; Aug 15 to Nov 30	1.0 inch		
	Foxtail Millet	30	May 1 to Aug 14	0.5 inch		

B-4-5 STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION

Definition

To stabilize disturbed soils with permanent vegetation.

Purpose

To use long-lived perennial grasses and legumes to establish permanent ground cover on disturbed soils.

Conditions Where Practice Applies

Exposed soils where ground cover is needed for 6 months or more.

Criteria

A. Seed Mixtures
1. General Use
   a. Select one or more of the species or mixtures listed in Table B.3 for the appropriate Plant Hardiness Zone (from Figure B.3) and based on the site condition or purpose found on Table B.2. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The Summary is to be placed on the plan.
   b. Additional planting specifications for exceptional sites such as shorelines, stream banks, or dunes or for special purposes such as wildlife or aesthetic treatment may be found in USDA-NRCS Technical Field Office Guide, Section 342 – Critical Area Planting.
   c. For sites having disturbed area over 5 acres, use and show the rates recommended by the soil testing agency.
   d. For areas receiving low maintenance, apply urea form fertilizer (46-0-0) at 3 ½ pounds per 1000 square feet (150 pounds per acre) at the time of seeding in addition to the soil amendments shown in the Permanent Seeding Summary.
2. Turfgrass Mixtures
   a. Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which will receive a medium to high level of maintenance.
   b. Select one or more of the species or mixtures listed below based on the site conditions or purpose. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The summary is to be placed on the plan.
      i. Kentucky Bluegrass: Full Sun Mixture: For use in areas that receive intensive management. Irrigation required in the areas of central Maryland and Eastern Shore. Recommended Certified Kentucky Bluegrass Cultivars Seeding Rate: 1.5 to 2.0 pounds per 1000 square feet. Choose a minimum of three Kentucky bluegrass cultivars with each ranging from 10 to 35 percent of the total mixture by weight.
      ii. Kentucky Bluegrass/Perennial Rye: Full Sun Mixture: For use in full sun areas where rapid establishment is necessary and when turf will receive medium to intensive management. Certified Perennial Ryegrass Cultivars/Certified Kentucky Bluegrass Seeding Rate: 2 pounds mixture per 1000 square feet. Choose a minimum of three Kentucky bluegrass cultivars with each ranging from 10 to 35 percent of the total mixture by weight.
      iii. Tall Fescue/Kentucky Bluegrass: Full Sun Mixture: For use in drought prone areas and/or for areas receiving low to medium management in full sun to medium shade. Recommended mixture includes; Certified Tall Fescue Cultivars 95 to 100 percent, Certified Kentucky Bluegrass Cultivars 0 to 5 percent. Seeding Rate: 5 to 8 pounds per 1000 square feet. One or more cultivars may be blended.
      iv. Kentucky Bluegrass/Fine Fescue: Shade Mixture: For use in areas with shade in Bluegrass lawns. For establishment in high quality, intensively managed turf area. Mixture includes; Certified Kentucky Bluegrass Cultivars 30 to 40 percent and Certified Fine Fescue and 60 to 70 percent. Seeding Rate: 1½ to 3 pounds per 1000 square feet.

      Notes:
      Select turfgrass varieties from those listed in the most current University of Maryland Publication, Agronomy Memo #77, "Turfgrass Cultivar Recommendations for Maryland"

      Choose certified material. Certified material is the best guarantee of cultivar purity. The certification program of the Maryland Department of Agriculture, Turf and Seed Section, provides a reliable means of consumer protection and assures a pure genetic line
   c. Ideal Times of Seeding for Turf Grass Mixtures
      Western MD: March 15 to June 1, August 1 to October 1 (Hardiness Zone: 5b, 6a)
      Central MD: March 1 to May 15, August 15 to October 15 (Hardiness Zone: 6b)
      Southern MD, Eastern Shore: March 1 to May 15, August 15 to October 15 (Hardiness Zone: 7a, 7b)
   d. Till areas to receive seed by disking or other approved methods to a depth of 2 to 4 inches, level and rake the areas to prepare a proper seedbed. Remove stones and debris over 1½ inches in diameter. The resulting seedbed must be in such condition that future mowing of grasses will pose no difficulty.
   e. If soil moisture is deficient, supply new seedings with adequate water for plant growth (½ to 1 inch every 3 to 4 days depending on soil texture) until they are firmly established. This is especially true when seedings are made late in the planting season, in abnormally dry or hot seasons, or on adverse sites.

Permanent Seeding Summary

Hardiness Zone (from Figure B.3): 7a Seed Mixture (from Table B.3): #9					Fertilizer Rate (10-20-20)			Lime Rate
No.	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths	N	P_2O_5	K_2O	
9	Tall Fescue	60	Feb 15 to April 30; Aug 15 to Oct 31	1/4-1/2 inch	45 lb/ac (1.0 lb/ 1000sf)	90 lb/ac (2.0 lb/ 1000sf)	90 lb/ac (2.0 lb/ 1000sf)	2 tons/ac (90 lb/ 1000sf)
	Kentucky Bluegrass	40		1/4-1/2 inch				
	Perennial Ryegrass	20		1/4-1/2 inch				

* For seeding dates May 1 to Aug 14, add 6.0lbs per acre of foxtail millet to seed mixture No. 9.

B. Sod: To provide quick cover on disturbed areas (2:1 grade or flatter).
1. General Specifications
   a. Class of turfgrass sod must be Maryland State Certified. Sod labels must be made available to the job foreman and inspector.
   b. Sod must be machine cut at a uniform soil thickness of ¾ inch, plus or minus ¼ inch, at the time of cutting. Measurement for thickness must exclude top growth and thatch. Broken pads and torn or uneven ends will not be acceptable.
   c. Standard size sections of sod must 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.
   d. Sod must not be harvested or transplanted when moisture content (excessively dry or wet) may adversely affect its survival.
   e. Sod must be harvested, delivered, and installed within a period of 36 hours. Sod not transplanted within this period must be approved by an agronomist or soil scientist prior to its installation.
2. Sod Installation
   a. During periods of excessively high temperature or in areas having dry subsoil, lightly irrigate the subsoil immediately prior to laying the sod.
   b. Lay the first row of sod in a straight line with subsequent rows placed parallel to it and tightly wedged against each other. Stagger lateral joints 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.
   c. Wherever possible, lay sod with the long edges parallel to the contour and with staggering joints. Roll and tamp, peg or otherwise secure the sod to prevent slippage on slopes. Ensure solid contact exists between sod roots and the underlying soil surface.
   d. Water the sod immediately following rolling and tamping until the underside of the new sod pad and soil surface below the sod are thoroughly wet. Complete the operations of laying, tamping and irrigating for any piece of sod within eight hours.
3. Sod Maintenance
   a. In the absence of adequate rainfall, water daily during the first week or as often and sufficiently as necessary to maintain moist soil to a depth of 4 inches. Water sod during the heat of the day to prevent wilting.
   b. After the first week, sod watering is required as necessary to maintain adequate moisture content.
   c. Do not mow until the sod is firmly rooted. No more than ⅓ of the grass leaf must be removed by the initial cutting or subsequent cuttings. Maintain a grass height of at least 3 inches unless otherwise specified.

B-4-6 STANDARDS AND SPECIFICATIONS FOR SOIL STABILIZATION MATTING

Definition

Material used to temporarily or permanently stabilize channels or steep slopes until groundcover is established.

Purpose

To protect the soils until vegetation is established.

Conditions Where Practice Applies

On newly seeded surfaces to prevent the applied seed from washing out; in channels and on steep slopes where the flow has erosive velocities or conveys clear water; on temporary swales, earth dikes, and perimeter dike swales as required by the respective design standard; and, on stream banks where moving water is likely to wash out new vegetative plantings.

Design Criteria

1. The soil stabilization matting that is used must withstand the flow velocities and shear stresses determined for the area, based on the 2-year, 24-hour frequency storm for temporary applications and the 10-year, 24-hour frequency storm for permanent applications. Designate on the plan the type of soil stabilization matting using the standard symbol and include the calculated shear stress for the respective treatment area.
2. Matting is required on permanent channels where the runoff velocity exceeds two and half feet per second (2.5 fps) or the shear stress exceeds two pounds per square foot (2 lbs/ft2). On temporary channels discharging to a sediment trapping practice, provide matting where the runoff velocity exceeds four feet per second (4 fps).
3. Temporary soil stabilization matting is made with degradable (lasts 6 months minimum), natural, or manmade fibers of uniform thickness and distribution of fibers throughout and is smolder resistant. The maximum permissible velocity for temporary matting is 6 feet per second.
4. Permanent soil stabilization matting is an open weave, synthetic material consisting of nondegradable fibers or elements of uniform thickness and distribution of weave throughout. The maximum permissible velocity for permanent matting is 8.5 feet per second.
5. Calculate channel velocity and shear stress using the following procedure:

   Shear Stress (τ) is a measure of the force of moving water against the substrate and is calculated as:

   $\tau = \gamma \times R \times Sw$ where:
   τ = shear stress (lb/ft2)
   γ = weight density of water (62.4 lb/ft3)
   R = average water depth (hydraulic radius) (ft)
   Sw = water surface slope (ft/ft)

   Velocity (v) measures the rate of flow through a defined area and is calculated as:

   $$v = \frac{1.48 R^{\frac{2}{3}} s^{\frac{1}{2}}}{n}$$

   where:
   v = velocity (ft/sec)
   n = Manning's roughness coefficient
   R = hydraulic radius (ft)
   s = channel slope (ft/ft)

6. Use Table B.7 to assist in selecting the appropriate soil stabilization matting for slope applications based on the slope, the slope length, and the soil-erodibility K factor.

Table B.7: Soil Stabilization on Slopes

Slope	20:1 Flatter (≤5%)			<20:1 to 4:1 (>5-25%)			<4:1 to 3:1 (>25 - 33%)			<3:1 to 2.5:1 (>33 - 40%)			<2.5:1 to 2:1** (>40 - 50%)		
Slope Length (feet)*	0-30	30-60	60-120	0-30	30-60	60-120	0-30	30-60	60-120	0-30	30-60	60-120	0-30	30-60	60-120
Straw Mulch/Wood Cellulose Fiber	■	■	■	■ for K ≤ 0.35***	■	■	■	■							
Temporary Matting with Design Shear Stress ≥ 1.5 lb/sf	■	■	■	■	■	■	■	■	■						
Temporary Matting with Design Shear Stress ≥ 1.75 lb/sf	■	■	■	■	■	■	■	■	■	■	■				
Temporary Matting with Design Shear Stress ≥ 2.0 lb/sf	■	■	■	■	■	■	■	■	■	■	■	■	■		
Temporary Matting with Design Shear Stress ≥ 2.25 lb/sf	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

■ Effective range for all K values unless otherwise specified

* Slope length includes contributing flow length.
** Slopes steeper than 2:1 must be engineered.
*** Soil having a K value less than or equal to 0.35 can be stabilized effectively with straw mulch or wood cellulose fiber when located on slopes steeper than 5%. Soil stabilization matting is required on all slopes steeper than 5% that have soil with a K factor greater than 0.35. K factor ratings are published in the NRCS Soil Survey. During construction or reclamation, the soil erodibility K value should represent the upper 6 inches of the final fill material re-spread as the last lift. Only the effects of rock fragments within the soil profile are considered in the estimation of the K value. Do not adjust K values to account for rocks on the soil surface or increases in the soil organic matter related to management activities.

DESIGN ENGINEER:
JUDITH CARROLL, P.E, PRESIDENT
CARROLL ENGINEERING, INC.
215 SCHILLING CIRCLE, SUITE 102
HUNT VALLEY, MD 21031
OFFICE: 410-785-7423
JCARROLL@CEIENGINEERING.COM

PROPERTY OWNER:
BALTIMORE COUNTY, MARYLAND
OWNER CONTACT PERSON:
MIKE GOODYEAR
SR PROJECT MANAGER
ALT. GEORGE THOMAKOS
BC PROPERTY MANAGEMENT/CAPITAL
OFFICE: 410-887-6595
MGOODYEAR@BALTIMORECOUNTYMD.GOV

THIS PLAN IS SEALED AND CERTIFIED AS BEING IN ACCORDANCE WITH THE APPROVED DEVELOPMENT PLAN

SWM PERMIT#: CEN24-000079
GRADING PERMIT#: CEN24-000078

MCS NAD 83(2011) NAVD 88

B-4-8 STANDARDS AND SPECIFICATIONS FOR STOCKPILE AREA

Definition

A mound or pile of soil protected by appropriately designed erosion and sediment control measures.

Purpose

To provide a designated location for the temporary storage of soil that controls the potential for erosion, sedimentation, and changes to drainage patterns.

Conditions Where Practice Applies

Stockpile areas are utilized when it is necessary to salvage and store soil for later use.

Criteria

1. The stockpile location and all related sediment control practices must be clearly indicated on the erosion and sediment control plan.
2. The footprint of the stockpile must be sized to accommodate the anticipated volume of material and based on a side slope ratio no steeper than 2:1. Benching must be provided in accordance with Section B-3 Land Grading.
3. Runoff from the stockpile area must drain to a suitable sediment control practice.
4. Access the stockpile area from the upgrade side.
5. Clear water runoff into the stockpile area must be minimized by use of a diversion device such as an earth dike, temporary swale or diversion fence. Provisions must be made for discharging concentrated flow in a non-erosive manner.
6. Where runoff concentrates along the toe of the stockpile fill, an appropriate erosion/sediment control practice must be used to intercept the discharge.
7. Stockpiles must be stabilized in accordance with the 3/7 day stabilization requirement as well as Standard B-4-1 Incremental Stabilization and Standard B-4-4 Temporary Stabilization.
8. If the stockpile is located on an impervious surface, a liner should be provided below the stockpile to facilitate cleanup. Stockpiles containing contaminated material must be covered with impermeable sheeting.

Maintenance

The stockpile area must continuously meet the requirements for Adequate Vegetative Establishment in accordance with Section B-4 Vegetative Stabilization. Side slopes must be maintained at no steeper than a 2:1 ratio. The stockpile area must be kept free of erosion. If the vertical height of a stockpile exceeds 20 feet for 2:1 slopes, 30 feet for 3:1 slopes, or 40 feet for 4:1 slopes, benching must be provided in accordance with Section B-3 Land Grading.

H-1 STANDARDS AND SPECIFICATIONS FOR MATERIALS

Table H.1: Geotextile Fabrics

		WOVEN SLIT FILM GEOTEXTILE		WOVEN MONOFILAMENT GEOTEXTILE		NONWOVEN GEOTEXTILE	
		MINIMUM AVERAGE ROLL VALUE					
PROPERTY	TEST METHOD	MD	CD	MD	CD	MD	CD
GRAB TENSILE STRENGTH	ASTM D-4632	200lb	200lb	370lb	250lb	200lb	200lb
GRAB TENSILE ELONGATION	ASTM D-4632	15%	10%	15%	15%	50%	50%
TRAPEZOIDAL TEAR STRENGTH	ASTM D-4533	75 lb	75 lb	100 lb	60 lb	80 lb	80 lb
PUNCTURE STRENGTH	ASTM D-6241	450 lb		900 lb		450 lb	
APPARENT OPENING SIZE [2]	ASTM D-4751	U.S. Sieve 30 (0.59 mm)		U.S. Sieve 70 (0.21 mm)		U.S. Sieve 70 (0.21 mm)	
PERMITTIVITY	ASTM D-4491	0.05 sec		0.28 sec		1.1 sec	
ULTRAVIOLET RESISTANCE RETAINED AT 500 HOURS	ASTM D-4355	70% strength		70% strength		70% strength	

1 All numeric values except apparent opening size (AOS) represent minimum average roll values (MARV). MARV is calculated as the typical minus two standard deviations. MD is machine direction; CD is cross direction.

2 Values for AOS represent the average maximum opening.

Geotextiles must be evaluated by the National Transportation Product Evaluation Program (NTPEP) and conform to the values in Table H.1.

The geotextile must be inert to commonly encountered chemicals and hydrocarbons and must be rot and mildew resistant. The geotextile must be manufactured from fibers consisting of long chain synthetic polymers and composed of a minimum of 95 percent by weight of polyolefins or polyesters, and formed into a stable network so the filaments or yarns retain their dimensional stability relative to each other, including selvages.

When more than one section of geotextile is necessary, overlap the sections by at least one foot. The geotextile must be pulled taut over the applied surface. Equipment must not run over exposed fabric. When placing riprap on geotextile, do not exceed a one foot drop height.

Table H.2: Stone Size

TYPE	SIZE RANGE	d_{50}	d_{100}	AASHTO	MIDSIZE WEIGHT [3]
NUMBER 57 [1]	3/8 TO 1 1/2INCH	1/2 IN	1 1/2 IN	M-43	N/A
NUMBER 1	2 TO 3 INCH	2 1/2 IN	3 IN	M-43	N/A
RIPRAP [2] (CLASS 0)	4 TO 7 INCH	5 1/2 IN	7 IN	N/A	N/A
CLASS I	N/A	9 1/2 IN	15 IN	N/A	40 lb
CLASS II	N/A	16 IN	24 IN	N/A	200 lb
CLASS III	N/A	23 IN	34 IN	N/A	600 lb

1 This classification is to be used on the upstream face of stone outlets and check dams.

2 This classification is to be used for gabions.

3 Optimum gradation is 50 percent of the stone being above and 50 percent below the midsize.

Stone must be composed of a well graded mixture of stone sized so that fifty (50) percent of the pieces by weight are larger than the size determined by using the charts. A well graded mixture, as used herein, is defined as a mixture composed primarily of larger stone sizes but with a sufficient mixture of other sizes to fill the smaller voids between the stones. The diameter of the largest stone in such a mixture must not exceed the respective d100 selected from Table H.2. The d50 refers to the median diameter of the stone. This is the size for which 50 percent, by weight, will be smaller and 50 percent will be larger.

Note: Recycled concrete equivalent may be substituted for all stone classifications for temporary control measures only. Concrete broken into the sizes meeting the appropriate classification, containing no steel reinforcement, and having a minimum density of 150 pounds per cubic foot may be used as an equivalent.

SAME-DAY STABILIZATION NOTE:

FOR UTILITY TRENCHES OUTSIDE THE DRAINAGE AREA LIMITS OF EROSION AND SEDIMENT CONTROL (ESC) DEVICES, THE CONTRACTOR SHALL OPEN ONLY A SECTION OF TRENCH THAT CAN BE BACKFILLED AND STABILIZED AT THE END OF EACH WORKDAY. NO DISTURBED AREA SHALL BE LEFT UNSTABILIZED OVERNIGHT. ANY EXCESS STOCKPILE MATERIAL THAT CANNOT BE STABILIZED WITHIN THE ESC CONTROLS SHALL BE REMOVED FROM THE SITE AT THE END OF EACH WORKDAY. FOR ADDITIONAL DETAIL SEE NOTE 8 OF THE MARYLAND GENERAL EROSION AND SEDIMENT CONTROL NOTES SHEET ESC2.17

STANDARD STABILIZATION NOTE:

"FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES GREATER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE."

SITE INFORMATION

A. AREA DISTURBED: 19,532 SQUARE FEET / 0.448 ACRES.
B. OFF-SITE WASTE / BORROW AREA LOCATION TBD
C. CUT: 100 C.Y.
D. FILL: 50 C.Y.

*NOTES:
1. CUT/FILL TOTALS ARE FOR ESC REVIEW ONLY. CONTRACTOR IS RESPONSIBLE FOR CALCULATING CUT/FILL QUANTITIES FOR ESTIMATION PURPOSES. ENGINEER OFFERS NO GUARANTEE TO QUANTITIES ACTUALLY ENCOUNTERED DURING CONSTRUCTION.

EROSION AND SEDIMENT CONTROL GENERAL NOTES

1. Refer to "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" for standard details and detailed specifications of each practice specified herein.
2. 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 Baltimore County Soil Conservation District.
3. At the end of each working day, all sediment control practices will be inspected and left in operational condition.
4. Following initial soil disturbance or redisturbance, permanent or temporary stabilization must be completed within:
   - 4.a. Three (3) 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)
   - 4.b. Seven (7) calendar days as to all other disturbed or graded areas on the project site not under active grading.
5. Any changes to the grading proposed on this plan requires re-submission to Baltimore County Soil Conservation District for approval.
6. Dust control will be provided for all disturbed areas. Refer to "2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control", pg. H.22, for acceptable methods and specifications for dust control.
7. Any variations from the sequence of operations stated on this plan requires the approval of the sediment control inspector and the Baltimore County Soil Conservation District prior to the initiation of the change.
8. Excess cut or borrow material shall go to, or come from, respectively, a site with an open grading permit and approved sediment control plan.
9. The following item may be used as applicable: Refer to "Maryland's Guidelines to Waterway Construction" by the Water Management Administration of the Maryland Department of the Environment, revised November 2000, for standard details and detailed specifications of each practice specified herein for waterway construction.
10. PUMPING SEDIMENT-LADEN WATER INTO WATERS OF THE STATE IS STRICTLY PROHIBITED. Any portable dewatering device must be located within the limits of disturbance.
11. Uopn installation of the base pavement and at the direction of the sediment control inspector, relocate the stabilized construction entrance(s) and install additional control measures (stabilized construction entrances, silt fences, super silt fences) as needed to control sediment runoff from disturbed areas. The additional controls must not alter drainage patterns.

THIS PLAN IS SEALED AND CERTIFIED AS BEING IN ACCORDANCE WITH THE APPROVED DEVELOPMENT PLAN

SWM PERMIT#: CEN24-000079
GRADING PERMIT#: CEN24-000078

DESIGN ENGINEER:
JUDITH CARROLL, P.E, PRESIDENT
CARROLL ENGINEERING, INC.
215 SCHILLING CIRCLE, SUITE 102
HUNT VALLEY, MD 21031
OFFICE: 410-785-7423
JCARROLL@CEIENGINEERING.COM

PROPERTY OWNER:
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SR PROJECT MANAGER
ALT. GEORGE THOMAKOS
BC PROPERTY MANAGEMENT/CAPITAL
OFFICE: 410-887-6595
MGOODYEAR@BALTIMORECOUNTYMD.GOV

SEAL: STATE OF MARYLAND — JUDITH A. CARROLL — NO. 14446 — REGISTERED PROFESSIONAL ENGINEER
DATE: 10-30-24

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APRROVED BY ME AND THAT I AN A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 14446 EXPIRATION DATE: 05/25/2025

CARROLL ENGINEERING, INC.
AS-BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: MJM
DWN BY: MJM
CHKD BY: CMS

AS-BUILT / REVISION	BY	DATE	P.W.A NO.	KEY SHEET	POSITION SHT	DRAWING SCALE	PROPERTY MANAGEMENT
				MSW	28 NE 22 29 NE 22 28 NE 23 29 NE 23	PLAN SCALE: PROFILE SCALE:	APPROVED BY: PROPERTY MANAGER DATE:
CONTRACT COMPLETION BOX							

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

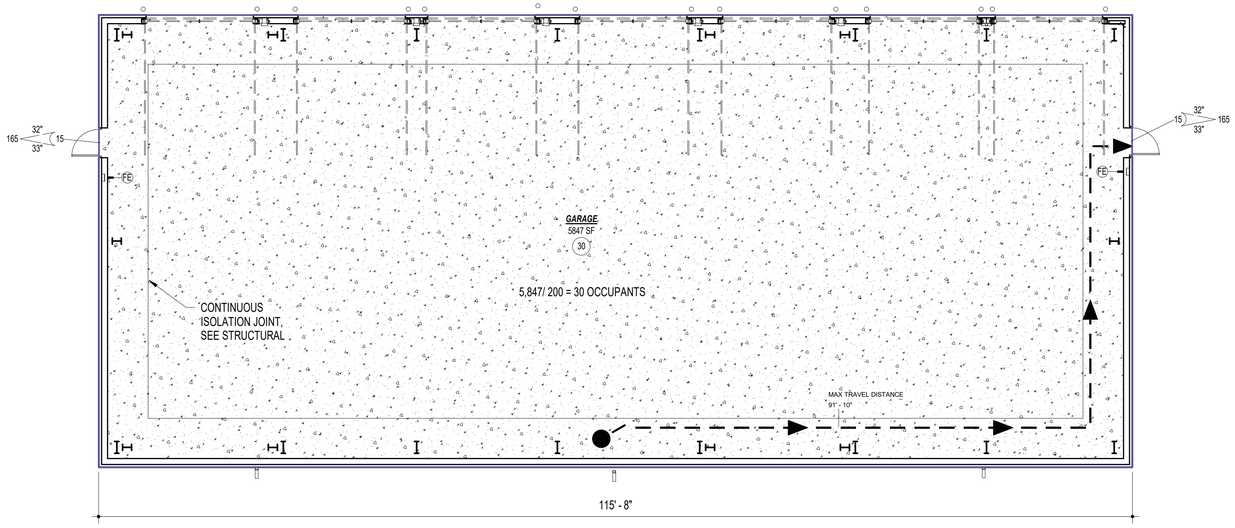
BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT

NEW TRUCK GARAGE
EROSION & SEDIMENT CONTROL NOTES
PERMIT SET 09/20/2024
4419A BUCKS SCHOOLHOUSE ROAD, ROSEDALE, MD 21237

SUBDIVISION: FULLERTON
ELECTION DIST. NO.: 14C5

MCS NAD 83(2011) NAVD 88

SHEET DESIGNATION	CONTRACT NUMBER
C723	24167 PO0
	JOB ORDER NUMBER
	PO 10010489
	27 OF 53
	DRAWING NUMBER
	2024-2789
	FILE NO.: 8



1 CODE STUDY PLAN - FIRST FLOOR
1/8" = 1'-0"

0 4' 8' 16'

CODE REVIEW

PROJECT NAME AND LOCATION

NAME	FULLERTON - NEW GARAGE
STREET ADDRESS	4423A BUCKS SCHOOLHOUSE ROAD
COUNTY	BALTIMORE COUNTY
CITY, STATE	ROSEDALE, MD 21237

PROJECT DESCRIPTION: NEW PRE-ENGINEER BUILDING: 7-VEHICLE PARKING GARAGE

APPLICABLE CODES

Building Code:
- 2021 INTERNATIONAL BUILDING CODE
- 2021 INTERNATIONAL ENERGY CONSERVATION CODE (IECC)
- 2021 INTERNATIONAL MECHANICAL CODE
- 2021 INTERNATIONAL ELECTRICAL CODE
- 2021 INTERNATION PLUMBING CODE
  BALTIMORE COUNTY COUNCIL BILL #41-15

Life Safety Code: 2018 NFPA 101 LIFE SAFETY CODE W/ AMENDMENT BY BALTIMORE COUNTY BILL 14-21

Fire Prevention Code: 2018 NFPA 1 FIRE CODE W/ AMENDMENT BY BALTIMORE COUNTY BILL 14-21

Accessibility: AMERICANS WITH DISABILITY ACT ACCESSIBILITY GUIDELINES (ADAAG 2010) AND MARYLAND ACCESSIBILITY CODE (COMAR.09.12.53)

BUILDING USE AND CONSTRUCTION CLASSIFICATIONS

Use Group: LOW-HAZARD STORAGE, S-2, ENCLOSED GARAGE, UNOCCUPIED SPACE
ENCLOSED 7-VEHICLE PARKING GARAGE

Building Area: 1 STORY GARAGE 5,847 GSF

Proposed Type of Construction: **IBC TYPE IIB**

Allowable Building Height: 75' (IBC TABLE 504.3) / MAX ALLOWABLE (PER IBC 504.4) 4 STORIES

Actual Building Height: 21' MAXIMUM

OCCUPANCY LOADS AND EGRESS REQUIREMENTS

Location Calculated	Area in Sq. Ft.	Sq. Ft. per Person	Occupant Load	Egress Width Required	Egress Width Provided	Number Exits Required	Number Exits Provided
GARAGE	5,847 SF	200	30	32"	62"	2	2

FIRE PROTECTION SYSTEM REQUIREMENTS

	System	IBC Code	Fire Code
Automatic Sprinklers	NO	903.2.10	9.7
Fire Alarm System	NO	907.2.10	--
Smoke Detection System	NO	--	--

INTERIOR FINISH REQUIREMENTS

Per IBC Table 803.11 & NFPA 101, Chapter 10: Table A10.2.2, Chapter 12: 12.3.3
Interior wall and ceiling finish materials shall be Class A or B in all corridors and lobbies
Interior wall and ceiling finish materials shall be Class A enclosed stairways

TRAVEL DISTANCE TO EXITS

	IBC Code	NFPA 101
Maximum Length of Travel in Fully Sprinklered Building	250' (Table 1017.2)	200' for Garage (Table 42.8.2.6.1)
Maximum Length Common Path of Travel in Fully Sprinklered Building	100'(Table 1006.2.1)	50 (42.8.2.5.1
Spaces with One Means of Egress, Maximum Travel Distance to an Exit Access Door	100'(Table 1006.2.1)	.

MINIMUM CORRIDOR WIDTH REQUIREMENTS

Width	IBC Code	NFPA 101
36 IN.M EXIT CORRIDOR	Table 1020.3	12.2.3.8

PANIC HARDWARE
Per IBC Code 1010.1.10 & NFPA 101, 7.2.1.7, 12.2.2.2.3
ALL DOORS SERVING 50 OR MORE OCCUPANTS AT SMOKE BARRIER DOORS

EMERGENCY LIGHTING REQUIREMENTS
Per IBC Code 1008.3 & NFPA 101, 7.9 AND 12.2.9
ALL MEANS OF EGRESS

FIRE RATING REQUIREMENTS- STRUCTURAL ELEMENTS/ EGRESS COMPONENTS

	Rating Required	IBC Code	Fire Code
Primary Structural Frame	0	TABLE 601, TABLE 602	TABLE A.8.2.1.2
Exterior Bearing Walls	0	TABLE 601, TABLE 602	TABLE A.8.2.1.2
Exterior Non-Bearing Walls	0	TABLE 602	TABLE A.8.2.1.2
Interior Bearing Walls	0	TABLE 601	TABLE A.8.2.1.2
Floor/ Ceiling Assemblies	0	TABLE 601	TABLE A.8.2.1.2
Roof/ Ceiling Assemblies	0	TABLE 601	TABLE A.8.2.1.2
Columns	0	TABLE 601	TABLE A.8.2.1.2
Beams	0	TABLE 601	TABLE A.8.2.1.2

EGRESS WIDTH

	IBC Code	NFPA
Egress width at doors and corridors	.15"/OCC. (1005.3.2, Exception 1)	.2"/OCC.(TABLE 7.3.3.1)

NUMBER OF REMOTE EXITS REQUIRED

By Room	IBC Code	NFPA
Rooms Less Than 50 Occupants	1 Exit (Table 1006.2.1)	--
Rooms with 50 - 500 Occupants	2 Exits (1006.2.1)	--

By Story	IBC Code	Fire Code
1 - 500 Occupants	2 Exits (Table 1006.3.2)	2 Exits, 7.4.1.1
501 - 1000 Occupants	3 Exits (Table 1006.3.2)	3 Exits, 7.4.1.2

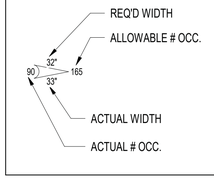
REMOTENESS OF EXITS
Life Safety A.7.5.1.3.3 - 1/3 the Length of Maximum Room Diagonal (Credit for Sprinklered Building)
IBC 1007.1.1 Exception 2 - 1/3 the Length of Maximum Room Diagonal (Credit for Sprinklered Building)

MAXIMUM DEAD END DISTANCES

IBC Code	NFPA
50 FT. (1020.5) Exception 2	50 FT. (14.2.5.2)

NOTES:
1. REFER TO THE DOOR SCHEDULE FOR DOORS WITH CLOSERS REQUIRED.
2. NO TOILET FACILITIES REQUIRED PER IBC SECTION 2902.3 EMPLOYEE AND PUBLIC TOILET FACILITY EXCEPTION 1.
   PUBLIC TOILET FACILITIES SHALL NOT BE REQUIRED FOR
   1. PARKING GARAGES WHERE OPRATED WITHOUT PARKING ATTENDANTS

SYMBOL KEY



FE FIRE EXTINGUISHER

DWG FILENAME

SEAL
STATE OF MARYLAND
SUSAN HAINS
No. 16221
ARCHITECT
DATE: 10/11/2024

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AN A DULY LICENSED PROFESSIONAL ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 16221 , EXPIRATION DATE: 5/26/2026

ARCHITECT: GRIMM + PARKER ARCHITECT, INC.
AS--BUILT PER RECORD PRINT
BY:
DATE:

DGN BY: Designer
DWN BY: Author
CHKD BY: Checker

AS--BUILT / REVISION	BY	DATE	P.W.A NO.
CONTRACT COMPLETION BOX			

KEY SHEET: MSW
POSITION SHT: 29NE22, 29NE23, 28NE22, 28NE23
DRAWING SCALE: PLAN SCALE: ; PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

SUBDIVISION: FULLERTON

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT

NEW TRUCK GARAGE
CODE STUDY - FIRST FLOOR
100 % CONSTRUCTION SET 3/4/2025
4419A BUCKS SCHOOLHOUSE ROAD BALTIMORE, MD 21237

ELECTION DIST. NO.: 14C5

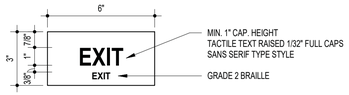
SHEET DESIGNATION	CONTRACT NUMBER
A001	24167 PO0
	JOB ORDER NUMBER
	PO 10010489
	28 OF 53
	DRAWING NUMBER
	2024-2790
	FILE NO.: 8

BALTIMORE COUNTY MARYLAND

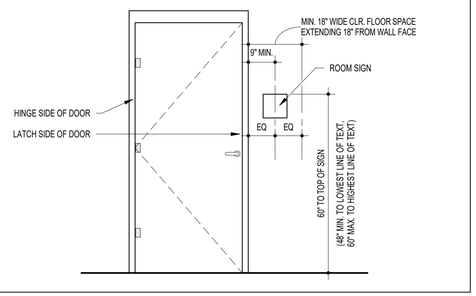
ROOM SIGNAGE ELEVATION

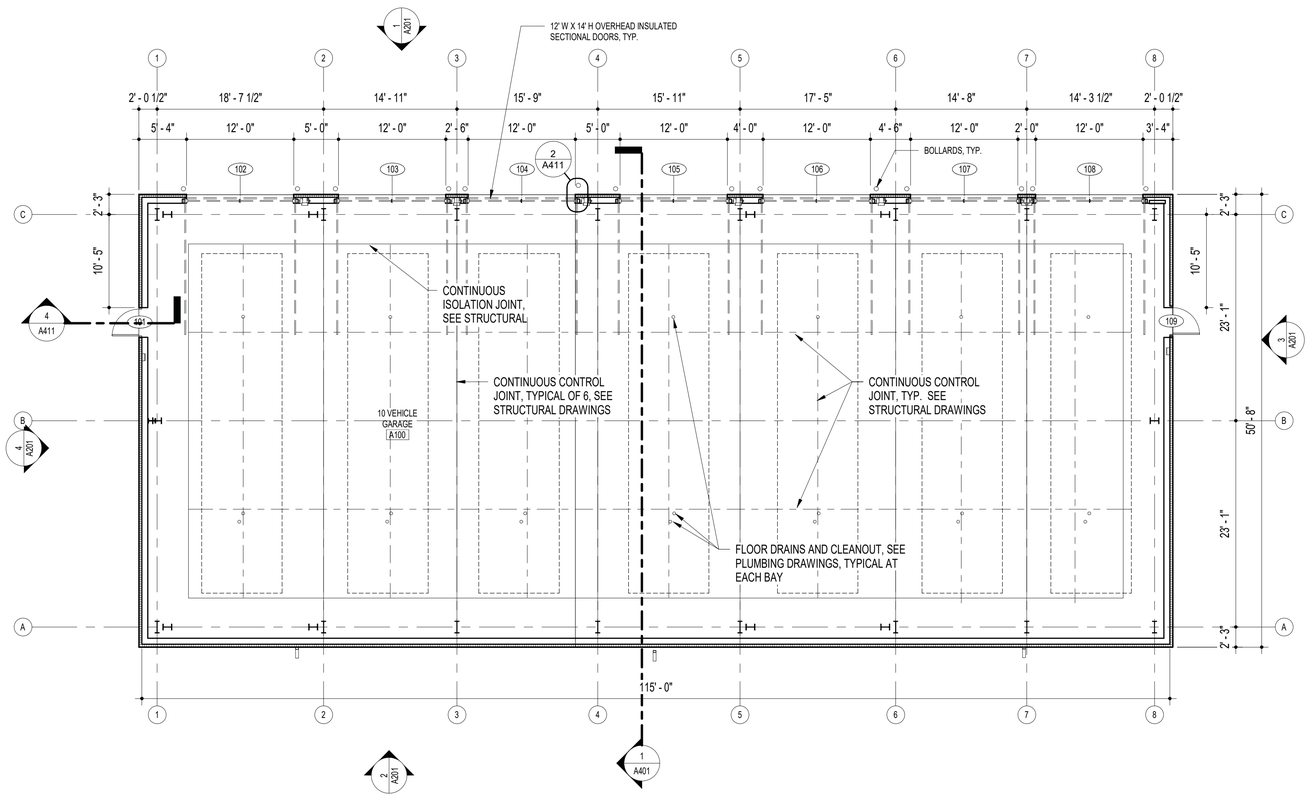
SIGN NOTE:
ROOM SIGNS TO BE PROVIDED AT EVERY DOOR. EXACT ROOM NUMBER TO BE DETERMINED BY OWNER. SIGNS TO BE MOUNTED WITH DOUBLE STICK TAPE AND SILICONE ADHESIVE. SEAL PERIMETER WITH CLEAR SILICONE CAULKING. PROVIDE BLANK SIGN FOR BACK WHERE MOUNTED ON GLASS SIDELITE.

PROVIDE THIS SIGN ADJACENT TO ALL DOORS WITH EXIT SIGN



ROOM SIGNAGE LOCATION





1 OVERALL FIRST FLOOR PLAN

1/8" = 1'-0"

0 4' 8' 16'

GENERAL NOTES

GENERAL NOTE APPLICABLE TO ALL DRAWINGS - ITEMS AND CONDITIONS DETAILED, NOTED OR OTHERWISE IDENTIFIED ON ONE OF THE SECTIONS OR DETAILS ARE APPLICABLE AND BINDING TO ALL OTHER SECTIONS AND DETAILS FOR IDENTICAL OR SIMILAR CONDITIONS.

1. ALL CONSTRUCTION AND WORK REPRESENTED IN THE COMPLETE SET OF DOCUMENTS IS ASSUMED TO BE NEW AND FURNISHED AND INSTALLED BY THE CONTRACTOR UNLESS OTHERWISE NOTED.
2. IF A CONFLICT EXISTS WITHIN OR BETWEEN DRAWINGS AND SPECIFICATIONS, THE MORE STRINGENT AND MORE COSTLY REQUIREMENT TO APPLY. ITEMS SHOWN ON THE DRAWINGS, BUT NOT SPECIFIED, TO APPLY AND BE PROVIDED BY THE CONTRACTOR. IF AN ITEM IS SHOWN ON THE DRAWINGS, BUT IS NOT INCLUDED IN THE SPECIFICATIONS, PROVIDE ITEM OF A QUALITY LEVEL CONSISTENT WITH THE GENERAL QUALITY LEVEL OF THE CONTRACT REQUIREMENTS. REPORT CONFLICTS BETWEEN THE DRAWINGS AND SPECIFICATIONS TO THE ATTENTION OF THE ARCHITECT IMMEDIATELY.
3. IF A CONFLICT EXISTS BETWEEN DRAWINGS OF DIFFERENT SCALES, CONSULT THE ARCHITECT FOR CLARIFICATION.
4. IN THE ABSENCE OF A WRITTEN DIMENSION, OR IN CASE OF DOUBT AS TO THE PROPER MEASUREMENT, CONSULT THE ARCHITECT FOR CLARIFICATION.
5. IF AN AREA OR SPACE IS SHOWN, BUT IS NOT CLEARLY DEFINED OR INDICATED BY NOTES, PROVIDE THE SAME MATERIALS AND FINISHES AS SCHEDULED OR DETAILED FOR AREAS OF SIMILAR USE ELSEWHERE IN THE BUILDING.
6. SECTIONS INDICATED ARE INTENDED TO SHOW THE SPECIFIC CONSTRUCTION WHERE REFERENCED AS WELL AS ESTABLISH THE GENERAL CONSTRUCTION DETAILS FOR SECTIONS THROUGHOUT THE PROJECT WHICH DO NOT HAVE SPECIFIC SECTIONS DRAWN. THE MOST SIMILAR SECTIONS TO BE ADAPTED TO ANY SECTIONS NOT DETAILED. ANY SPECIFIC QUESTIONS CONCERNING CONSTRUCTION NOT ADEQUATELY COVERED BY THE ABOVE SHOULD BE DIRECTED TO THE ARCHITECT DURING THE BIDDING.
7. TYPICAL DETAILS THROUGHOUT THE DRAWING SET TO APPLY FOR ALL APPLICABLE CONDITIONS EVEN IF NOT SPECIFICALLY SHOWN OR REFERENCED.
8. SEE STRUCTURAL DRAWINGS FOR ACTUAL STRUCTURAL STEEL AND BEARING ELEVATIONS.
9. REFER TO ARCHITECTURAL SITE PLAN FOR THE LAYOUT OF CONCRETE WALKS, MOW STRIPS, PAVING PATTERNS, ETC. IN THE BUILDING VICINITY. REFER TO CIVIL DRAWINGS FOR THE CONTINUATION OF THIS WORK.
10. AT ALL OUTSIDE CORNERS OF INTERIOR CMU WALLS, COLUMN ENCLOSURES, PIPE CHASES OR OTHER WALL PROJECTIONS, PROVIDE MASONRY UNITS WITH BULLNOSED (ROUNDED) EDGES WITH 1" RADIUS, UNLESS OTHERWISE NOTED OR WHERE SCHEDULED TO RECEIVE CERAMIC TILE. WHERE MASONRY CORNERS ALIGN WITH BULKHEADS, TRANSITION FROM BULLNOSE CORNER UNITS TO SQUARE CORNER UNITS.
11. UNLESS SPECIFICALLY NOTED OTHERWISE, ENCLOSE ALL VERTICAL MECHANICAL PIPES, RAIN LEADERS, ETC. WITH 4" CMU OR GYPSUM BOARD TO MATCH SURROUNDING FINISHES.
12. REFER TO PLANS AND ELEVATIONS FOR LOCATIONS OF CONTROL JOINTS (C.J.) AND EXPANSION JOINTS (E.J.) IN EXTERIOR MASONRY WALLS. IF A CONFLICT EXISTS BETWEEN JOINT LOCATIONS SHOWN ON THE ELEVATIONS AND PLANS, CONSULT THE ARCHITECT FOR CLARIFICATION PRIOR TO CONSTRUCTION. REFER TO FLOOR PLANS FOR LOCATIONS OF CONTROL JOINTS (C.J.) IN INTERIOR MASONRY WALLS.
13. ALL APPURTENANCES BUILT INTO OR THROUGH WALLS, INCLUDING DOORS, DUCTS, WINDOWS, LOUVERS, GRILLES, MECHANICAL WORK, ETC. TO FIT TIGHT AND BE THOROUGHLY SEALED AROUND PERIMETERS. WORK AT EXTERIOR WALLS TO BE FLASHED OR OTHERWISE WATERPROOF SEALED.
14. FIELD CHECK ROUGH AND/OR FINISHED DIMENSIONS FOR ACCURATE FITTING OF CABINETS, COUNTERS, LOCKERS, DOORS, WINDOWS, FIXTURES, SHELVING, GATES AND OTHER INSTALLATIONS PRIOR TO SHOP OR FACTORY FABRICATION. PROVIDE FILLER STRIPS, SCRIBE STRIPS, BASES, CLOSURE FINISHES AND TRIM FOR A COMPLETE INSTALLATION.
15. PROVIDE APPROPRIATE TRANSITION STRIPS AT CHANGES IN FLOOR ELEVATIONS.
16. EACH CONTRACTOR MUST REFER TO ALL DRAWINGS AND BE RESPONSIBLE FOR WORK PERTAINING TO THEIR PARTICULAR TRADE. ALL CONTRACTORS MUST COORDINATE THE WORK OF ALL TRADES AND FIELD CHECK AGAINST ANY CONFLICTS BETWEEN DRAWINGS. REPORT CONFLICTS TO THE ARCHITECT FOR CLARIFICATION.
17. ACCESS PANELS, LOUVER OPENINGS, VENTILATORS, GRILLES, VALVE CABINETS, FIRE DAMPERS OR OTHER APPURTENANCES AFFECTING WALLS, CEILINGS OR FLOORS ARE SHOWN THROUGHOUT THE DRAWINGS. PROVIDE NECESSARY LINTELS, SUPPORT AND ANCHORAGE. SEE STRUCTURAL NOTES FOR LINTEL REQUIREMENTS.
18. REFER TO MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR LOCATIONS OF CONCRETE PADS TO BE PROVIDED BELOW OR AROUND EQUIPMENT.
19. INSTALL ELECTRIC SWITCHES, OUTLETS, THERMOSTATS, CONTROLS, CLOCKS, SPEAKERS, FLAGPOLE HOLDERS AND OTHER WALL-MOUNTED ACCESSORIES IN LOCATIONS WHICH ARE UNOBSTRUCTED BY CABINETS, COUNTERS, RACKS, DISPLAY BOARDS, FIXTURES, SHELVING OR OTHER FURNISHINGS OR EQUIPMENT DESIGNATED FOR SPACES SHOWN ON DRAWINGS. THESE DEVICES MAY BE SHOWN ON THE ARCHITECTURAL DRAWINGS TO ALERT OTHER SUB-CONTRACTORS OF THEIR PRESENCE. COORDINATE INSTALLATION WITH THE ELECTRICAL DRAWINGS. ADVISE THE ARCHITECT OF CONFLICTS IN LOCATION OR TYPES OF DEVICES SHOWN PRIOR TO INSTALLATION. DO NOT INSTALL WALL-MOUNTED ITEMS ON, THROUGH OR INTO ANY EQUIPMENT UNLESS INDICATED.
20. MOUNT ELECTRIC SWITCHES, THERMOSTATS AND OTHER ELECTRONIC CONTROLS LOCATED IN THE SAME VICINITY AT THE SAME HEIGHT ABOVE FINISHED FLOOR IN A UNIFORM, ORDERLY FASHION UNLESS NOTED OTHERWISE.
21. A CONTINUOUS AIR BARRIER IS REQUIRED. JOINTS AND SEAMS MUST BE SEALED INCLUDING ALL TRANSITIONS AND CHANGES IN MATERIALS. PENETRATIONS OF AIR BARRIER MUST BE GASKETED OR SEALED IN A MANNER COMPATIBLE WITH OTHER MATERIALS AND ACCEPTED BY AIR BARRIER MANUFACTURER.

DWG FILENAME

SEAL: STATE OF MARYLAND · SUSAN HAINS · No. 16221 · ARCHITECT

DATE: 10/11/2024

PROFESSIONAL CERTIFICATION	AS–BUILT / REVISION	BY	DATE	P.W.A NO.	KEY SHEET	POSITION SHT	DRAWING SCALE	PROPERTY MANAGEMENT
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AN A DULY LICENSED PROFESSIONAL ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.					MSW	29NE22 29NE23 28NE22 28NE23	PLAN SCALE:	APPROVED BY: PROPERTY MANAGER
LICENSE NO. 16221 , EXPIRATION DATE: 5/26/2026	CONTRACT COMPLETION BOX						PROFILE SCALE:	DATE:

ARCHITECT: GRIMM + PARKER ARCHITECT, INC.	DGN BY: Designer	BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
AS–BUILT PER RECORD PRINT BY: DATE:	DWN BY: Author	REVIEWED BY:							
	CHKD BY: Checker	DATE REVIEWED:							

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT

NEW TRUCK GARAGE
FIRST FLOOR PLAN
100 % CONSTRUCTION SET 3/4/2025
4419A BUCKS SCHOOLHOUSE ROAD BALTIMORE, MD 21237

SUBDIVISION: FULLERTON

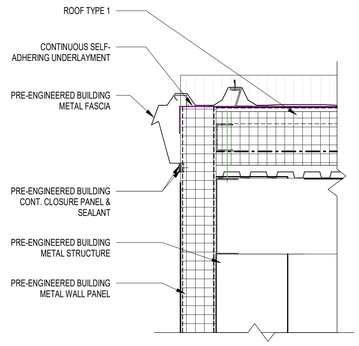
ELECTION DIST. NO.: 14C5

SHEET DESIGNATION	CONTRACT NUMBER
A101	24167 PO0
	JOB ORDER NUMBER
	PO 10010489
	29 OF 53
	DRAWING NUMBER
	2024-2791
	FILE NO.: 8

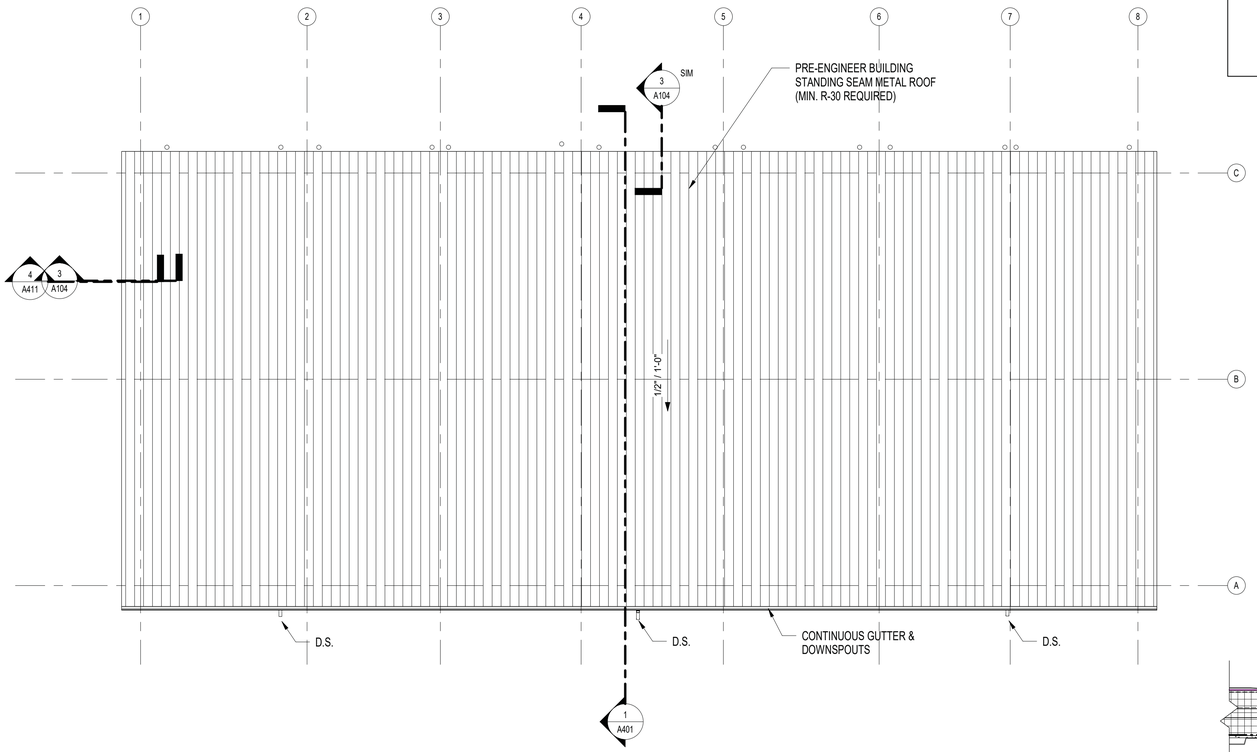
BALTIMORE COUNTY MARYLAND

TYPICAL ROOF NOTES

1. DETAILS INDICATED ARE TYPICAL FOR ALL SIMILAR ROOFING CONDITIONS UNLESS OTHERWISE INDICATED.
2. ALL ROOF PENETRATIONS AND ACCESSORIES (DRAINS, VENTS, ETC.) ARE TO BE INSTALLED AND FLASHED IN COMPLIANCE WITH THE CURRENT EDITIONS OF N.R.C.A. ROOFING AND WATERPROOFING MANUAL AND S.M.A.C.N.A. (ARCHITECTURAL SHEET METAL MANUAL)
3. COORDINATE WITH MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR ITEMS (INCLUDING UNIT SIZES AND LOCATIONS) NOT SHOWN OR SCHEMATICALLY SHOWN ON ROOF PLANS.
4. START TAPERED INSULATION AT SUMP PLATES. INSULATION TO BE TAPERED DOWN AT SLOPE OF 1/2" PER FOOT FROM ALL (4) SIDES OF INDICATED SUMP. SEE TYPICAL ROOF DRAIN DETAIL.
5. IN ACCORDANCE WITH SPECIFICATION SECTION 07 62 00 SHEET METAL, FLASHING AND TRIM, ROOFING CONTRACTOR AND MASONRY CONTRACTOR TO COORDINATE FLEXIBLE FLASHING & 2 PART COUNTER-FLASHING INSTALLATION.
6. CONTRACTOR IS RESPONSIBLE FOR PROVIDING EXT. FRT WOOD BLOCKING AS REQUIRED TO ACCOMMODATE ALL PROFILES OF FINISHED ROOFING INCLUDING AT CRICKETS AND TAPERED INSULATION AT WALLS, PARAPETS AND PERIMETER EDGE FLASHING.
7. PROVIDE INSULATION THICKNESS AS REQUIRED TO PROVIDE MIN. R-30 CONTINUOUS INSULATION ABOVE ROOF DECK TO MEET IECC REQUIREMENTS. INSULATION THICKNESS MAY BE REDUCED 1" OR LESS PER IECC SECTION 402.2.2 EXCEPTION #1 PROVIDED THE AREA-WEIGHTED U-FACTOR IS EQUIVALENT TO THE SAME ASSEMBLY WITH THE MINIMUM REQUIRED R-VALUE OVER THE ENTIRETY OF THE ROOF. CONTRACTOR MUST PROVIDE CALCULATIONS VERIFYING IECC COMPLIANCE.

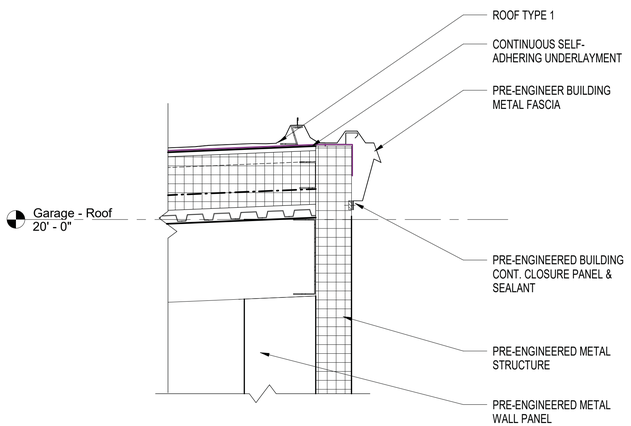


3 EAVE DETAIL
1 1/2" = 1'-0"

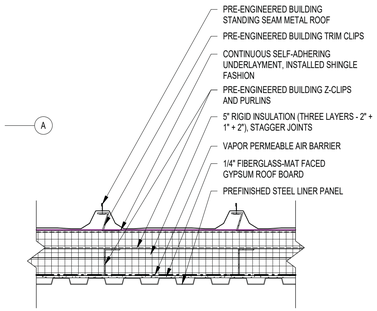


1 Garage - Roof
1/8" = 1'-0"

0 4' 8' 16'



4 HIGH EAVE DETAIL
1 1/2" = 1'-0"



2 ROOF TYPE 1 (MIN. R-30 REQUIRED)
1 1/2" = 1'-0"

0 10' 20' 40'

DWG FILENAME

SEAL

STATE OF MARYLAND · SUSAN HAINS · No. 16221 · ARCHITECT

DATE: 10/11/2024

PROFESSIONAL CERTIFICATION		AS–BUILT / REVISION	BY	DATE	P.W.A NO.	KEY SHEET	POSITION SHT	DRAWING SCALE	PROPERTY MANAGEMENT
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LICENSE NO. 16221 , EXPIRATION DATE: 5/26/2026		CONTRACT COMPLETION BOX						PROFILE SCALE:	DATE:
ARCHITECT: GRIMM + PARKER ARCHITECT, INC.	DGN BY: Designer	BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
AS–BUILT PER RECORD PRINT	DWN BY: Author	REVIEWED BY:							
BY: DATE:	CHKD BY: Checker	DATE REVIEWED:							

SUBDIVISION: FULLERTON

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT

NEW TRUCK GARAGE
ROOF PLAN
100 % CONSTRUCTION SET 3/4/2025
4419A BUCKS SCHOOLHOUSE ROAD BALTIMORE, MD 21237

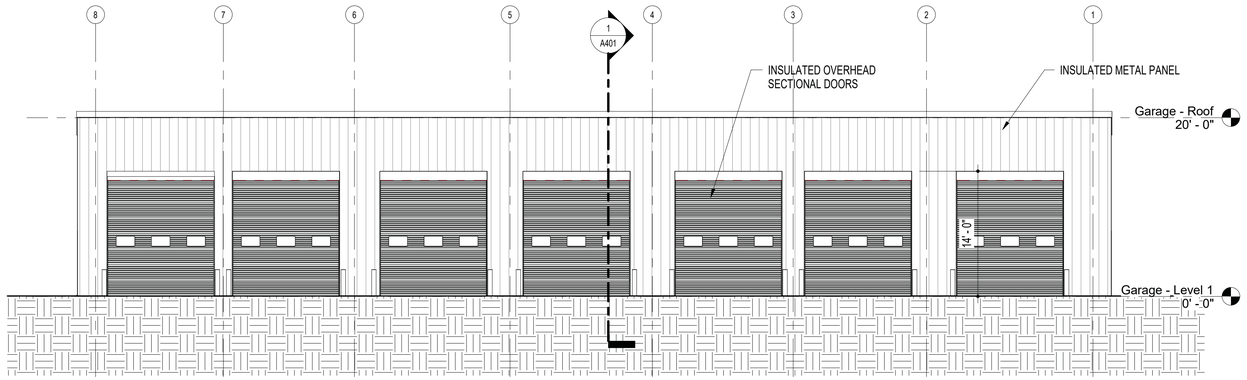
ELECTION DIST. NO.: 14C5

SHEET DESIGNATION	CONTRACT NUMBER
A104	24167 PO0
	JOB ORDER NUMBER
	PO 10010489
	30 OF 53
	DRAWING NUMBER
	2024-2792
	FILE NO.: 8

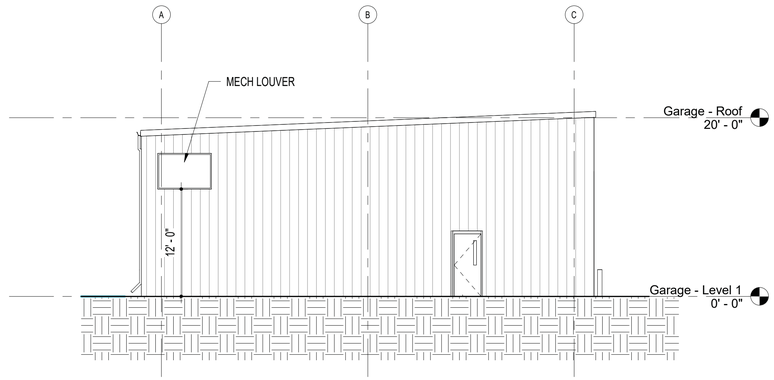
BALTIMORE COUNTY MARYLAND

ELEVATION NOTES (NOTES APPLY TO ALL ELEVATION SHEETS)

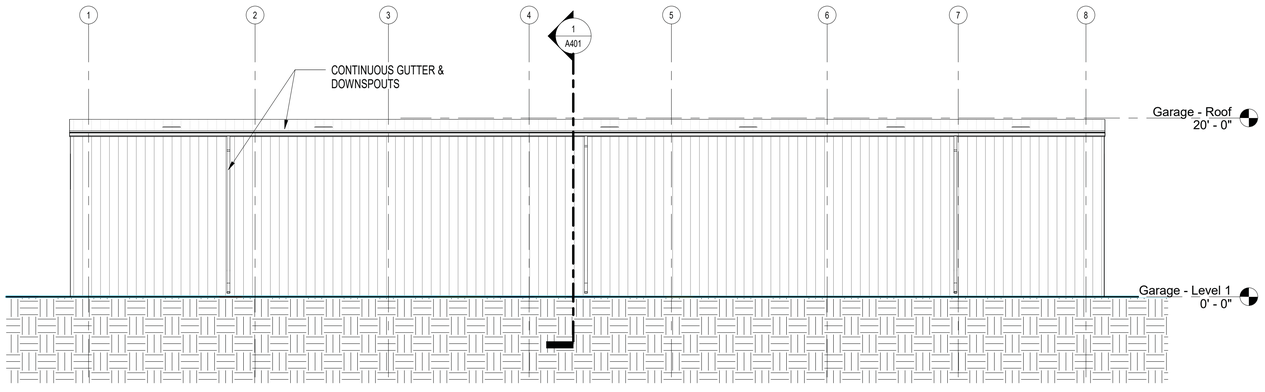
1. REFER TO STRUCTURAL DRAWINGS FOR FOOTING ELEVATIONS.
2. PROVIDE SEALANT AT ALL INTERSECTIONS OF DISSIMILAR MATERIALS IN ACCORDANCE WITH THE SPECIFICATIONS.
3. ALL EXTERIOR EXPOSED STEEL TO BE FIELD PAINTED WITH HIGH PERFORMANCE COATING UNLESS NOTED OTHERWISE. COLOR TO BE SELECTED BY THE ARCHITECT.



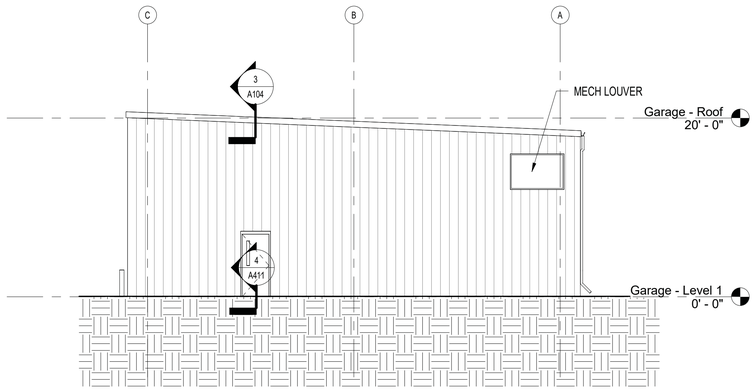
1 GARAGE - FRONT ELEVATION
1/8" = 1'-0"



3 GARAGE - LEFT ELEVATION
1/8" = 1'-0"



2 GARAGE - REAR ELEVATION
1/8" = 1'-0"



4 GARAGE - RIGHT ELEVATION
1/8" = 1'-0"

0 4' 8' 16'

DWG FILENAME

SEAL
STATE OF MARYLAND SUSAN HAINS No. 16221 ARCHITECT
DATE: 10/11/2024

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AN A DULY LICENSED PROFESSIONAL ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 16221 , EXPIRATION DATE: 5/26/2026

ARCHITECT: GRIMM + PARKER ARCHITECT, INC.
DGN BY: Designer
DWN BY: Author
AS--BUILT PER RECORD PRINT
CHKD BY: Checker
BY:
DATE:

AS--BUILT / REVISION | BY | DATE | P.W.A NO.

CONTRACT COMPLETION BOX

BUREAU OF ENGINEERING AND CONSTRUCTION | TRAFFIC | HIGHWAYS | STRUCTURES | STORM DRAINS | SEWER | WATER | FIELD ENGINEER
REVIEWED BY:
DATE REVIEWED:

KEY SHEET: MSW
POSITION SHT: 29NE22, 29NE23, 28NE22, 28NE23
DRAWING SCALE
PLAN SCALE:
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

SUBDIVISION: FULLERTON

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT

NEW TRUCK GARAGE
BUILDING ELEVATIONS
100 % CONSTRUCTION SET 3/4/2025
4419A BUCKS SCHOOLHOUSE ROAD BALTIMORE, MD 21237

ELECTION DIST. NO.: 14C5

SHEET DESIGNATION	CONTRACT NUMBER
A201	24167 PO0
	JOB ORDER NUMBER
	PO 10010489
	31 OF 53
	DRAWING NUMBER
	2024-2793
	FILE NO.: 8

BALTIMORE COUNTY MARYLAND

FINISHES NOTE AND SCHEDULE

TYPICAL FINISHES

SPACES NOT LISTED ON THE SCHEDULE TO HAVE THE TYPICAL FINISHES LISTED BELOW:

FLOORS: CONC
BASE: NONE
WALLS: PTD
CEILING: EXP

GYP. BD. ABOVE H.M. FRAMES AS INDICATED ON SECTIONS. DETAILS TO RECEIVE SAME TOP COATS AS ADJACENT WALLS UNLESS OTHERWISE NOTED.

FINISH MATERIALS

FLOORS

CONC1 CONCRETE WITH HARDENER
CONC2 CONCRETE WITH TRAFFIC COATING

BASES

NONE NO BASE

CEILINGS

EXP EXPOSED CONSTRUCTION - PAINTED

WALLS

PTD PAINTED
EXP EXPOSED

NUMBERED REMARKS

WHEN SHOWN IN THE REMARKS COLUMN OF THE FINISH SCHEDULE:

1. EXPOSED CONSTRUCTION (STRUCTURE, ROOF DECK, MECHANICAL EQUIPMENT, AND DUCTS) WILL EACH BE PAINTED SEPERATE COLORS.
2. EXPOSED CONSTRUCTION PAINTED FLAT BLACK.

WALL KEY

WALLS ON FINISH SCHEDULE ARE DENOTED THUS:

TYPICAL UNLESS OTHERWISE NOTED.

TYPICAL NOTES

1. REFER TO FLOOR PLANS, CEILING PLANS, INTERIOR ELEVATIONS, SECTIONS AND DETAILS FOR ADDITIONAL INFORMATION AND EXTENT OF EACH FINISH WHEN MORE THAN ONE FINISH IS INDICATED FOR ANY SPACE.
2. SEE CEILING PLANS FOR HEIGHTS OF CEILINGS AND LOCATIONS AND HEIGHTS OF BULKHEADS, SOFFITS, ETC.
3. PAINT ALL EXPOSED STEEL LADDERS, LINTELS, HUNG PLATES, HAND AND GUARD RAILS, STAIRS AND STRINGERS.
4. PAINT ALL EXPOSED STEEL COLUMNS, TRUSSES, JOISTS, BEAMS, DECK, AND MISCELLANEOUS BRIDGING, ANGLES, PLATES, ETC.
5. FIELD PAINT ALL EXPOSED, NON-FACTORY FINISHED STRUCTURAL AND MEP COMPONENTS.
6. PROVIDE SEALANT AT INTERSECTIONS OF DISSIMILAR MATERIALS, COMPLYING WITH SPECIFICATIONS.
7. REFER TO INTERIOR ELEVATIONS AND SECTIONS FOR ADDITIONAL FINISH INFORMATION. PROVIDE ALL FINISH MATERIALS SHOWN IN PLANS, ELEVATIONS OR SECTIONS AS NOTED OR DEPICTED ON THE DRAWINGS AND SPECIFICATIONS.
8. BRING CONFLICTS TO THE ARCHITECTS ATTENTION DURING THE BIDDING PERIOD FOR CLARIFICATION.
9. WALL AND CEILING FINISHES TO INCLUDE ALL PROJECTIONS, BEAM ENCLOSURES, RECESSES, BULKHEADS, MATERIAL CHANGES, OR OTHER ENCLOSURES.
10. ELECTRICAL OUTLETS, CLOCKS, P.A. SPEAKERS OR OTHER DEVICES SHOWN ON THE ARCHITECTURAL DRAWINGS SERVE TO CALL ATTENTION TO THE PRESENCE OF SUCH DEVICES. NOT ALL DEVICES MAY BE SHOWN ON ARCHITECTURAL DRAWINGS. CONSULT THE OTHER DRAWINGS FOR FURTHER INFORMATION AND ADVISE ARCHITECT OF ANY CONFLICT OF LOCATION OR TYPE OF DEVICES SHOWN. COORDINATE ALL WORK, FINISHES AND DEVICES.
11. BRING CONFLICTS BETWEEN THE FINISH SCHEDULE AND MATERIALS SHOWN ON OTHER DRAWINGS (AND/OR SPECIFICATIONS) TO THE ATTENTION OF THE ARCHITECT IMMEDIATELY. IF A CONFLICT EXISTS INBETWEEN DRAWINGS (AND/OR SPECIFICATIONS), THE MORE STRINGENT AND MORE COSTLY REQUIREMENT TO APPLY.

RM. NO.	NAME	COLOR SCHEME	FLOOR	BASE	WALLS				CLG. MATL.	REMARKS
					A	B	C	D		
A100	10 VEHICLE GARAGE		CONC	NONE	EXP	EXP	EXP	EXP	EXP.	1,2

EXTERIOR WALL TYPES & NOTES

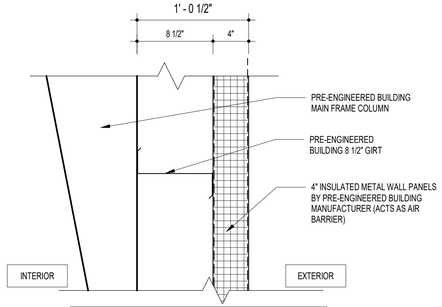
SCALE: 1 1/2" = 1'-0"

TYPICAL WALL TYPE NOTES

1. NOT ALL WALL TYPES SHOWN ARE REPRESENTED IN THESE DRAWINGS.
2. WALLS MUST EXTEND FULL HEIGHT FROM FLOOR SLAB TO THE FLOOR OR ROOF DECK ABOVE UNLESS SPECIFICALLY NOTED OTHERWISE. IN CORRIDORS, EXTEND COLUMN CHASE AND LOCKER FIN WALLS 4" ABOVE CEILING ONLY.
3. REFER TO THE CODE STUDY AND FLOOR PLANS FOR IDENTIFICATION OF ALL SMOKE AND FIRE WALL CONDITIONS / LOCATIONS. IN ADDITION TO THE REQUIREMENTS INDICATED ON THE CODE STUDY AND FLOOR PLANS, ALL CORRIDOR AND VESTIBULE WALLS MUST BE BUILT TO RESIST THE PASSAGE OF SMOKE.
4. FIRE WALLS, FIRE SEPARATION WALLS, SMOKE BARRIER WALLS AND WALLS REQUIRED TO RESIST THE PASSAGE OF SMOKE MUST EXTEND FULL HEIGHT FROM FLOOR SLAB TO THE FLOOR OR ROOF DECK ABOVE AND MUST BE SEALED TIGHT TO THE DECK OR STRUCTURAL MEMBER WITH AN APPROVED FIRE RESISTIVE JOINT SYSTEM. SEAL ALL PENETRATIONS AND TOPS OF WALLS IN ACCORDANCE WITH SPECIFICATION DIVISION 7 SECTION - FIRE RESISTIVE JOINT SYSTEMS. WALLS AT FIRE AND SMOKE CONDITIONS / LOCATIONS MUST BE BUILT TIGHT TO DUCTS, PIPES AND PENETRATIONS AND MUST BE TERMINATED IN ACCORDANCE WITH WALL TERMINATION DETAILS ON THIS SHEET. FILL FLUTES IN FLOOR AND ROOF DECKS AS INDICATED. WHERE WALLS AT FIRE AND SMOKE CONDITIONS / LOCATIONS ARE INTERRUPTED BY STRUCTURAL MEMBERS, PROVIDE FIRE RESISTIVE JOINT SYSTEM IN AREAS BETWEEN TOP AND/OR SIDE OF WALL AND STRUCTURAL MEMBER AND BETWEEN DECK ABOVE AND STRUCTURAL MEMBER IN ACCORDANCE WITH APPROVED FIRE RESISTIVE JOINT SYSTEM AND TYPICAL WALL TERMINATION NOTE #4 BELOW.
5. WALL TYPES MAY NOT HAVE BEEN INCLUDED IN THIS SCHEDULE FOR INTERIOR WALL TYPES WHICH ARE COVERED BY WALL SECTIONS.
6. THESE WALL TYPES DO NOT SHOW LATERAL BRACING OR WALL REINFORCING. SEE STRUCTURAL AND OTHER DRAWINGS FOR THAT INFORMATION.
7. SEE FINISH SCHEDULE FOR FINISHES TO BE APPLIED TO THESE WALL TYPES.
8. ALL WALLS WITH FIRE RATING INDICATED TO BE BUILT IN STRICT CONFORMANCE WITH A UL TESTED ASSEMBLY OR OTHER TESTED ASSEMBLY WHICH PROVIDES THE FIRE RATING INDICATED.
9. FURRING CHANNELS AND STUDS TO BE 16" O.C. MAXIMUM UNLESS SPECIFICALLY NOTED OTHERWISE.
10. THE GAGE OF ALL METAL STUDS TO BE SIZED SO THAT THE DEFLECTION OF THE WALL MUST NOT EXCEED 1/240 PER ASTM C645 UNLESS A HEAVIER GAGE IS INDICATED ON THE WALL TYPE OR DETAILS.
11. IN ALL WALLS WITH SOUND ATTENUATION BLANKETS OR AN STC RATING LISTED; OUTLETS, SWITCHES, ETC., MUST NOT BE LOCATED BACK TO BACK. OUTLETS TO BE OFFSET AND SEALED. PERIMETERS OF WALLS (AT ADJACENT WALLS, COLUMNS, CEILINGS, ETC.) SHOULD BE SEALED. ADDITIONALLY, WALL PENETRATIONS MUST BE SEALED WITH APPROPRIATE TYPE OF ACOUSTIC SEALANT.
12. PROVIDE SPACE FOR DEFLECTION OF BEAMS, JOISTS, AND STEEL DECK @ TOP OF ALL WALLS THAT RUN TO THE DECK. FILL GAP WITH NON COMBUSTIBLE, COMPRESSIBLE FILLER ON NON RATED WALLS AND FIRE RESISTIVE JOINT SYSTEM ON RATED WALLS - SEE TYP. DETAILS THIS SHEET.
13. FOR CASES WHEN WALLS ARE INDICATED TO EXTEND FULL HEIGHT TO THE DECK BUT STOP AT A STRUCTURAL MEMBER, SEE THE TYPICAL DETAILS ON THIS SHEET FOR THE APPROPRIATE CLOSURE CONDITIONS. IF EXACT CONDITION IS NOT INDICATED, MODIFY CLOSEST CONDITION FOR SPECIFIC APPLICATION.
14. PROVIDE METAL BACKER PLATE ACCESSORY IN ALL IN ALL STUD WALLS WHERE REQUIRED TO ATTACH WALL HUNG, CASEWORK, SHELVING, LIGHTS, ELECTRICAL DEVICES, TOILET ACCESSORIES AND ANY OTHER ITEMS WHICH REQUIRE SECURE ATTACHMENT TO THE WALLS. PROVIDE FRT WOOD BLOCKING IN ALL STUD WALLS WHERE REQUIRED TO ATTACH FLOOR SUPPORTED LOCKERS, CASEWORK AND ANY OTHER ITEMS THAT REQUIRE SECURE ATTACHMENT TO WALLS.

TYPICAL WALL TERMINATION NOTES

1. USE THESE TYPICAL WALL TERMINATION DETAILS FOR ALL WALLS INDICATED TO EXTEND TO DECK ABOVE, UNLESS SPECIFICALLY DETAILED OTHERWISE. COORDINATE WITH STRUCTURAL FRAMING PLANS.
2. SEE WALL TYPES ABOVE FOR ACTUAL WALL CONSTRUCTION.
3. AT FIRE WALLS, FIRE SEPARATION WALLS, SMOKE BARRIER WALLS AND WALLS REQUIRED TO RESIST THE PASSAGE OF SMOKE, ALL MATERIALS OR COMBINATION OF MATERIALS REFERENCED IN THE WALL TERMINATION DETAILS, INCLUDING COMPRESSIBLE AND NON-COMBUSTIBLE MATERIALS, MINERAL WOOL INSULATION, FIRE AND SMOKE RESISTIVE SEALANTS AND SPRAY FIRESTOP MUST BE PROVIDED IN ACCORDANCE WITH THE APPROVED FIRE RESISTIVE JOINT SYSTEM. WHERE UL ASSEMBLIES ARE INDICATED, CONTRACTOR MUST REFERENCE UL ASSEMBLIES FOR ADDITIONAL REQUIREMENTS OF THE REFERENCED ASSEMBLIES. IF ALTERNATE UL ASSEMBLIES ARE SUBMITTED, CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL REQUIREMENTS OF THE SUBMITTED ASSEMBLY.
4. IF A WALL REQUIRING A FIRE RATING IS LOCATED DIRECTLY UNDER A BEAM THE FIRE RATING OF THE WALL MUST BE MAINTAINED TO THE DECK BY EXTENDING WALL AROUND BEAM. CONSULT ARCHITECT FOR EXACT REQUIREMENTS TO MAINTAIN RATING.



8 1/2" PRE-ENGINEER BUILDING GRIT	00.00
4" INSULATED METAL WALL PANEL – PRE ENGINEER BUILDING	30.86
OUTSIDE AIR FILM	00.17
TOTAL R VALUE (MIN. R-26 REQUIRED)	31.03

EXTERIOR WALL TYPE 1

DOOR SCHEDULE AND DETAILS

TYPICAL DETAILS

DOORS NOT LISTED ON THE SCHEDULE TO HAVE THE TYPICAL FINISHES LISTED BELOW:

DOOR:
WIDTH: 3'-0"
HEIGHT: 7'-0"
THICKNESS: 1-3/4"
TYPE: F
MATERIAL: SCWD
DOOR LABEL: NONE

FRAME:
MATERIAL: HM
TYPE: 1
JAMB: J1
HEAD: H1
SILL: NONE

TYPICAL DOOR NOTES

1. COORDINATE AND PROVIDE HARDWARE AS DETAILED IN THE SPECIFICATIONS OR, IF NOT SPECIFIED, PROVIDE HARDWARE (OF EQUAL QUALITY TO THAT SPECIFIED, AND MOST SIMILAR IN FUNCTION TO TYPE OF DOOR) REQUIRED FOR DOORS TO OPERATE AND APPEAR AS INTENDED ON DRAWINGS.
2. PROVIDE BRUSHED STAINLESS STEEL KICK PLATES ON PUSH SIDE OF DOORS WITH PUSH BARS OR CLOSER DEVICES. KICK PLATE TO BE INSET 1/2" FROM EACH SIDE OF DOOR, AND MAXIMUM 8" HIGH OR 1/2" BELOW EDGE OF GLASS LIGHT (IF PRESENT).
3. PROVIDE EXPOSED HARDWARE WITH BRUSHED-IN FINISH AND "SILVER" METALLIC IN COLOR (ALUMINUM, CHROME, OR STEEL).
4. WHEN EXPOSED CLEAR FINISHED WOOD DOORS ARE PAIRED, TAKE CARE TO SELECT MATCHING GRAIN TYPE AND COLOR FOR EACH DOOR IN PAIR.
5. IF CONFLICT EXISTS BETWEEN DOOR RATING AS SCHEDULED AND WALL/PARTITION TYPE FIRE RATING AS SHOWN ON PLANS, PROVIDE DOOR(S) WITH THE GREATER FIRE RATING OF THE TWO.
6. VERIFY ALL DIMENSIONS AND CLEARANCES, AND COORDINATE UNDERCUTTING REQUIRED TO CLEAR ADJACENT FLOOR MATERIALS.
7. IF A DISCREPANCY EXISTS BETWEEN THE DOOR SCHEDULE REMARKS AND THE HARDWARE SCHEDULE IN THE SPECIFICATIONS, PROVIDE THE HARDWARE NEEDED TO MEET THE MORE STRINGENT OF THE REQUIREMENTS.
8. SEE SPECIFICATIONS FOR SCHEDULED HARDWARE SETS.
9. PROVIDE CONTINUOUS WEATHERSTRIPPING AND DOOR BOTTOM SEALS AT EXTERIOR DOORS AS SPECIFIED.

DOOR UNDERCUTS

PROVIDE THE FOLLOWING UNDERCUTS AT ALL DOORS:

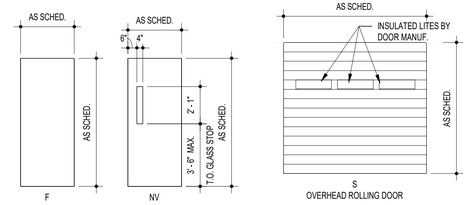
- EXTERIOR DOORS WITH THRESHOLDS: 1/8" ABOVE THERSHOLD HEIGHT
- DOOR WITH AUTOMATIC DOOR BOTTOMS: AMOUNT REQUIRED BY DOOR BOTTOM MFR
- DOORS WITH THRESHOLD AND AUTOMATIC DOOR BOTTOM: HEIGHT OF THRESHOLD AND AMOUNT REQUIRED BY DOOR BOTTOM MFR
- ALL OTHER DOORS: 5/8" ABOVE FINISH FLOOR

NOTES FOR REMARKS COLUMN

NOTE: NOT ALL NOTES MAY BE USED ON THIS PROJECT. SEE SPECIFICATIONS FOR ADDITIONAL DOOR INFORMATION. REFERENCE SPECIFICATIONS FOR DETAILED HARDWARE REQUIREMENTS.

1. PROVIDE WEATHERSTRIPPING ON ALL SIDES, TOP AND BOTTOM OF DOOR.
2. PROVIDE DOOR WITH INSULATED CORE.
3. INSULATED SECTIONAL OVERHEAD DOOR.

DOOR TYPES



NOTE: (UNLESS OTHERWISE NOTED)
1. ALL GLASS IN EXTERIOR DOORS TO BE G-1

GLASS TYPE G-1 1" INSULATING GLASS; CONSISTING OF

1/4" CLEAR TEMPERED SAFETY GLASS, EXTERIOR LITE WITH LOW E COATING
1/2" AIR SPACE, AND
1/4" CLEAR TEMPERED SAFETY GLASS

DOOR NO.	DOOR NOMINAL SIZE WIDTH	HEIGHT	THK.	TYPE	MATL	FRAME MATL	TYPE	SECTIONS JAMB	HEAD	SILL	HARDWARE SET	REMARKS
101	3' - 0"	7' - 0"	1 3/4"	NV	HM	HM					01	1,2
102	12' - 0"	14' - 0"	3"					2/A411	1/A411	3/A411	02	3
103	12' - 0"	14' - 0"	3"					2/A411	1/A411	3/A411	02	3
104	12' - 0"	14' - 0"	3"					2/A411	1/A411	3/A411	02	3
105	12' - 0"	14' - 0"	3"					2/A411	1/A411	3/A411	02	3
106	12' - 0"	14' - 0"	3"					2/A411	1/A411	3/A411	02	3
107	12' - 0"	14' - 0"	3"					2/A411	1/A411	3/A411	02	3
108	12' - 0"	14' - 0"	3"					2/A411	1/A411	3/A411	02	3
109	3' - 0"	7' - 0"	1 3/4"	NV	HM	HM					01	1,2

HARDWARE SETS

SET 01

4	HINGE, FULL MORTISE	TA2314 NRP 4-1/2" X 4-1/2"	US32D MK
1	STOREROOM OR CLOSET LOCK	MOR 8805FL	626 YA
1	CYLINDER	CYLINDER AS REQUIRED X4 6-PIN "BCP" KEYWAY	26 3C
1	SURFACE CLOSER	DC6200 A4	689 RU
1	KICK PLATE	K1050 - 10"X 2" LDW X 4BE X CSK	US32D RO
1	ASTRAGAL	3151CN	PE
1	GASKETING	S88D	PE
1	RAIN GUARD	346C	PE
1	SWEEP	315CN	PE
1	THRESHOLD	2005AV	PE

SET 02 (OVERHEAD DOORS)

1 HARDWARE BY OTHERS OT

SEAL
STATE OF MARYLAND · SUSAN HAINS · No. 16221 · ARCHITECT
DATE: 10/11/2024

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AN A DULY LICENSED PROFESSIONAL ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 16221 , EXPIRATION DATE: 5/26/2026

ARCHITECT: GRIMM + PARKER ARCHITECT, INC.
DGN BY: Designer
DWN BY: Author
AS–BUILT PER RECORD PRINT
BY:
DATE:
CHKD BY: Checker

AS–BUILT / REVISION | BY | DATE | P.W.A NO.
CONTRACT COMPLETION BOX

KEY SHEET: MSW
POSITION SHT: 29NE22, 29NE23, 28NE22, 28NE23
DRAWING SCALE
PLAN SCALE:
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT

NEW TRUCK GARAGE
WALL TYPES, DOOR AND FINISH SCHEDULE
100 % CONSTRUCTION SET 3/4/2025
4419A BUCKS SCHOOLHOUSE ROAD BALTIMORE, MD 21237

SUBDIVISION: FULLERTON
ELECTION DIST. NO.: 14C5

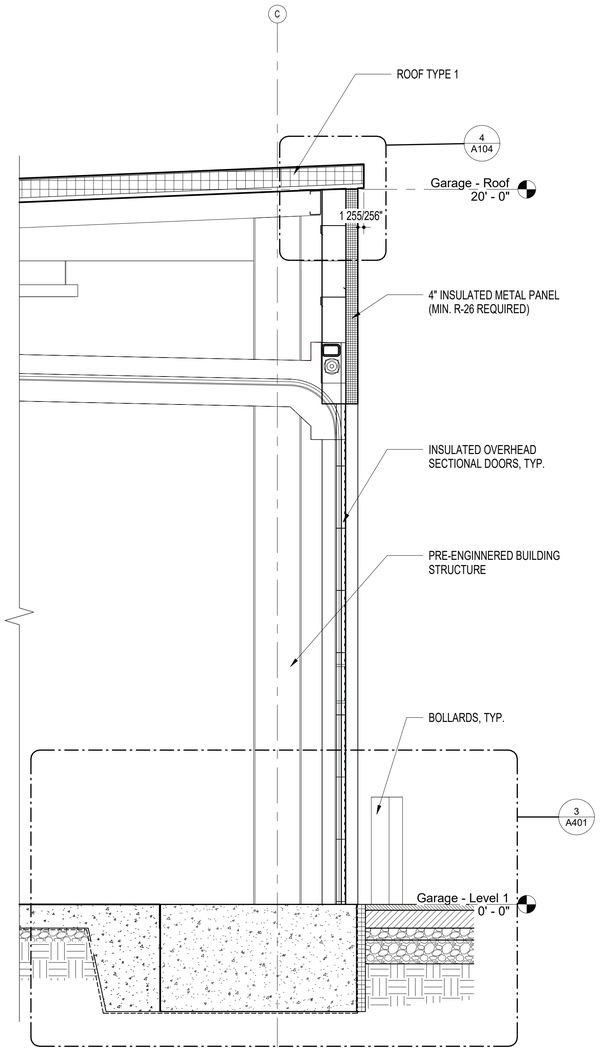
DWG FILENAME

SHEET DESIGNATION	CONTRACT NUMBER
A301	24167 PO0
	JOB ORDER NUMBER
	PO 10010489
	32 OF 53
	DRAWING NUMBER
	2024-2794
	FILE NO.: 8

BALTIMORE COUNTY MARYLAND

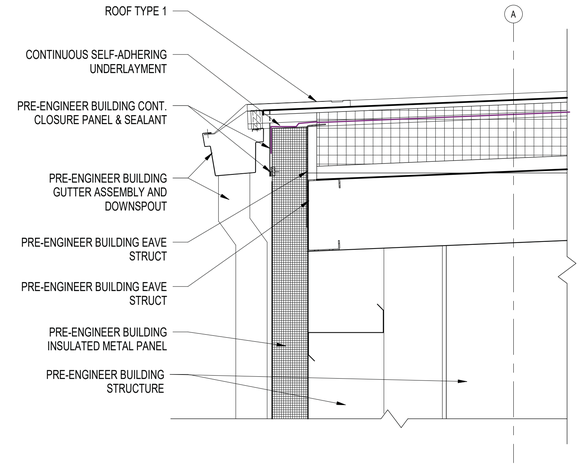
GENERAL SECTION NOTES

ITEMS AND CONDITIONS DETAILED, NOTED OR OTHERWISE IDENTIFIED ON ONE OF THESE SECTIONS OR DETAILS ARE APPLICABLE AND BINDING TO ALL OTHER SECTIONS AND DETAILS FOR IDENTICAL OR SIMILAR CONDITIONS.



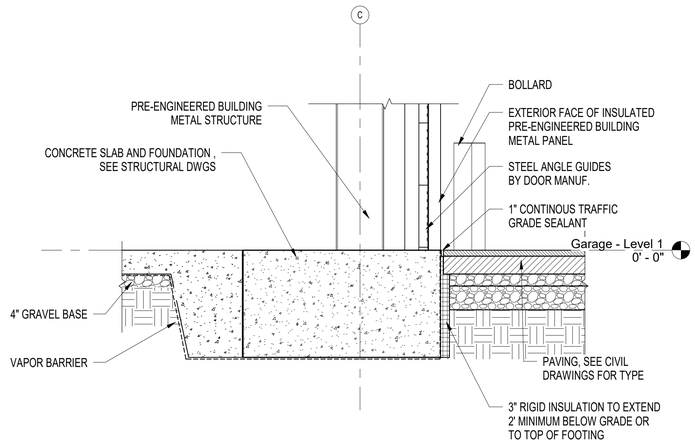
2 WALL SECTION

1/2" = 1'-0"



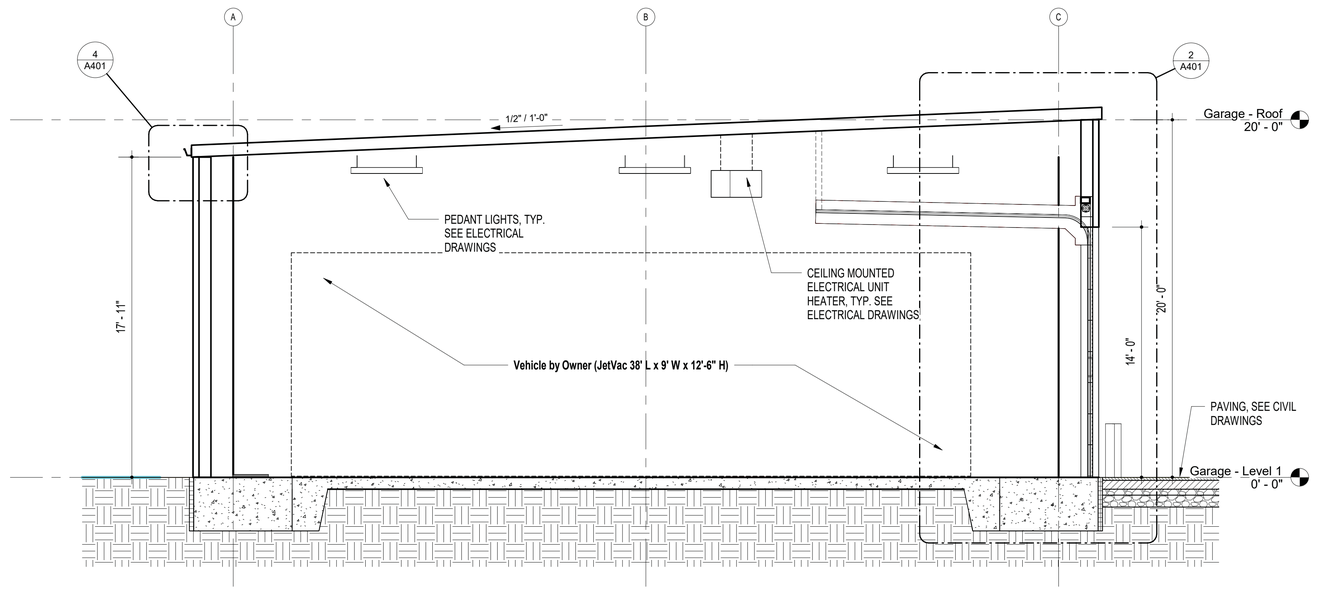
4 EAVE/GUTTER DETAIL

1 1/2" = 1'-0"



3 OVERHEAD DOOR SILL DETAIL

1/2" = 1'-0"



1 BLDG SECTION

1/4" = 1'-0"

DWG FILENAME

SEAL

STATE OF MARYLAND · SUSAN HAINS · No. 16221 · ARCHITECT

DATE: 10/11/2024

PROFESSIONAL CERTIFICATION		AS–BUILT / REVISION	BY	DATE	P.W.A NO.	KEY SHEET	POSITION SHT	DRAWING SCALE		PROPERTY MANAGEMENT
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LICENSE NO. 16221 , EXPIRATION DATE: 5/26/2026		CONTRACT COMPLETION BOX						PROFILE SCALE:		DATE:
ARCHITECT: GRIMM + PARKER ARCHITECT, INC.	DGN BY: Designer	BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER	
AS–BUILT PER RECORD PRINT	DWN BY: Author	REVIEWED BY:								
BY: DATE:	CHKD BY: Checker	DATE REVIEWED:								

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT

NEW TRUCK GARAGE

BUILDING SECTIONS + DETAILS

100 % CONSTRUCTION SET 3/4/2025

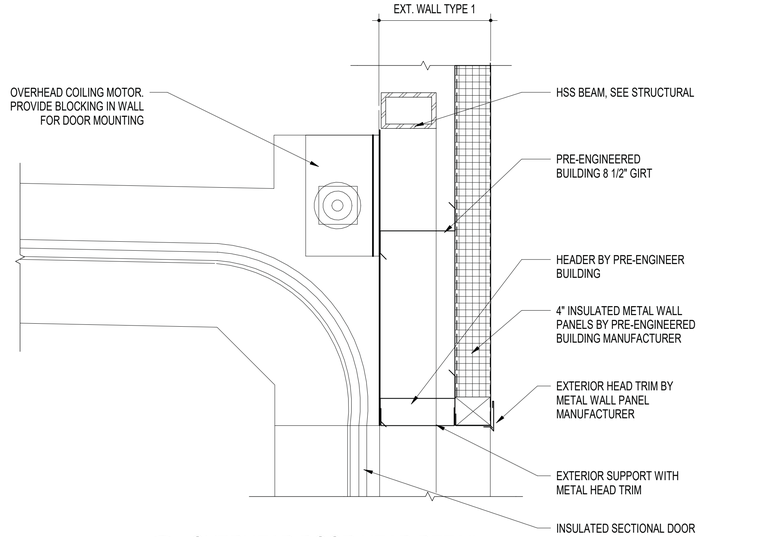
4419A BUCKS SCHOOLHOUSE ROAD BALTIMORE, MD 21237

SUBDIVISION: FULLERTON

ELECTION DIST. NO.: 14C5

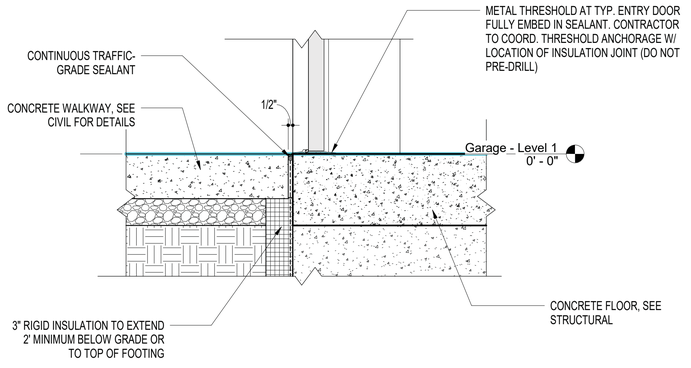
SHEET DESIGNATION	CONTRACT NUMBER
A401	24167 PO0
	JOB ORDER NUMBER
	PO 10010489
	33 OF 53
	DRAWING NUMBER
	2024-2795
	FILE NO.: 8

BALTIMORE COUNTY MARYLAND



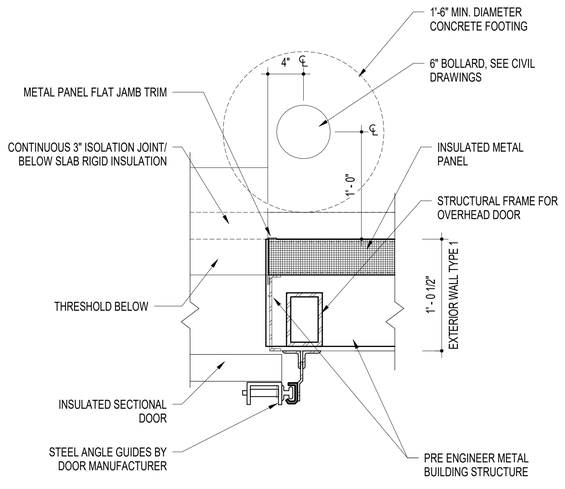
1 OVERHEAD DOOR HEAD DETAIL

1 1/2" = 1'-0"



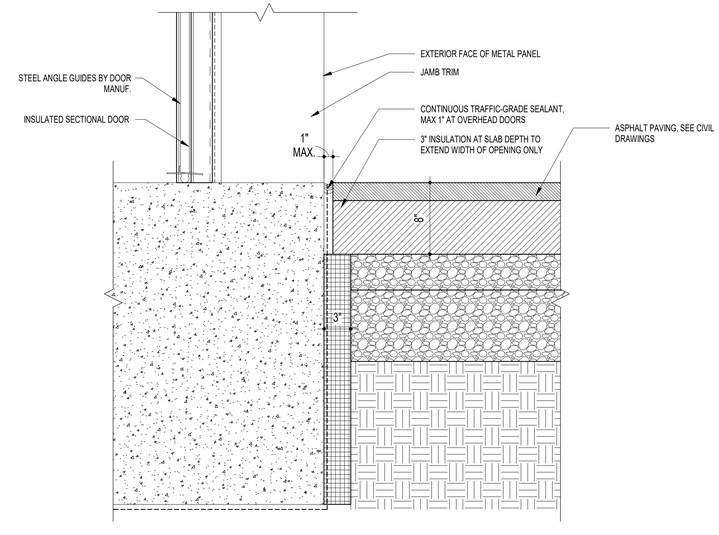
4 SILL AT MAN DOOR

1 1/2" = 1'-0"



2 OH DOOR JAMB DETAIL

1 1/2" = 1'-0"



3 OVERHEAD DOOR SILL DETAIL

1 1/2" = 1'-0"

0 10' 20' 40'

DWG FILENAME

SEAL

STATE OF MARYLAND · SUSAN HAINS · No. 16221 · ARCHITECT

DATE: 10/11/2024

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LICENSE NO. 16221 , EXPIRATION DATE: 5/26/2026		CONTRACT COMPLETION BOX						PROFILE SCALE:		DATE:
ARCHITECT: GRIMM + PARKER ARCHITECT, INC.	DGN BY: Designer	BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER	
AS–BUILT PER RECORD PRINT	DWN BY: Author	REVIEWED BY:								
BY: DATE:	CHKD BY: Checker	DATE REVIEWED:								

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT

NEW TRUCK GARAGE

OVERHEAD DOOR AND MISC. FRAME DETAILS

100 % CONSTRUCTION SET 3/4/2025

4419A BUCKS SCHOOLHOUSE ROAD BALTIMORE, MD 21237

SUBDIVISION: FULLERTON

ELECTION DIST. NO.: 14C5

SHEET DESIGNATION	CONTRACT NUMBER
A411	24167 PO0
	JOB ORDER NUMBER
	PO 10010489
	34 OF 53
	DRAWING NUMBER
	2024-2796
	FILE NO.: 8

BALTIMORE COUNTY MARYLAND

RCP NOTES

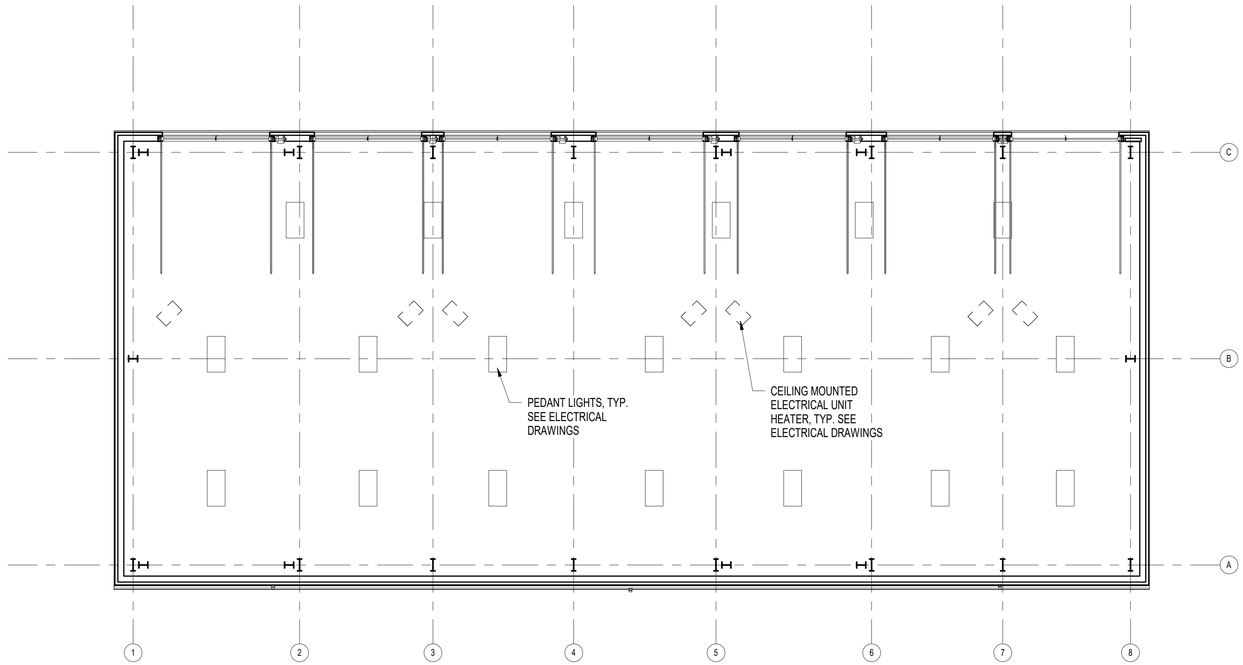
(APPLY TO 700 SERIES SHEETS)

GENERAL NOTE APPLICABLE TO ALL DRAWINGS - ITEMS AND CONDITIONS DETAILED NOTED OR OTHERWISE IDENTIFIED ON ONE OF THE SECTIONS OR DETAILS ARE APPLICABLE AND BINDING TO ALL OTHER SECTIONS AND DETAILS FOR IDENTICAL OR SIMILAR CONDITIONS.

1. REFER TO ELECTRICAL DRAWINGS FOR LIGHT PATTERN AND EXIT LIGHT LOCATIONS. NOTIFY ARCHITECT OF DISCREPANCIES PRIOR TO SHOP DRAWINGS.
2. REFER TO MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR ITEMS NOT SHOWN ON CEILING PLAN. GRILLES, SPEAKERS, SPRINKLERS, HEAT & SMOKE DETECTORS, TO BE CENTERED IN TILES UNLESS NOTED OTHERWISE.

RCP LEGEND

2'X4' RECESSED LIGHT FIXTURE - SEE ELEC



1 REFLECTIVE CEILING PLAN

1/8" = 1'-0"

0 4' 8' 16'

DWG FILENAME

SEAL

STATE OF MARYLAND · SUSAN HAINS · No. 16221 · ARCHITECT

DATE: 10/11/2024

PROFESSIONAL CERTIFICATION		AS–BUILT / REVISION		BY	DATE	P.W.A NO.	KEY SHEET	POSITION SHT	DRAWING SCALE		PROPERTY MANAGEMENT
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LICENSE NO. 16221 , EXPIRATION DATE: 5/26/2026		CONTRACT COMPLETION BOX							PROFILE SCALE:		DATE:
ARCHITECT: GRIMM + PARKER ARCHITECT, INC.	DGN BY: Designer	BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER		
AS–BUILT PER RECORD PRINT	DWN BY: Author	REVIEWED BY:									
BY: DATE:	CHKD BY: Checker	DATE REVIEWED:									

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT

NEW TRUCK GARAGE

REFLECTED CEILING PLAN

100 % CONSTRUCTION SET 3/4/2025

4419A BUCKS SCHOOLHOUSE ROAD BALTIMORE, MD 21237

SUBDIVISION: FULLERTON

ELECTION DIST. NO.: 14C5

SHEET DESIGNATION	CONTRACT NUMBER
A701	24167 PO0
	JOB ORDER NUMBER
	PO 10010489
	35 OF 53
	DRAWING NUMBER
	2024-2797
	FILE NO.: 8

BALTIMORE COUNTY MARYLAND

GENERAL NOTES

FOUNDATION AND SLAB ON GRADE:

NOTE: 1
FOOTINGS ARE DESIGNED FOR A BEARING CAPACITY OF 1500 PSF BASED ON THE GEOTECHNICAL REPORT PREPARED BY GEOTECH ENGINEERS, INC ON APRIL 8, 2024. FOOTINGS SHALL BEAR ON NATURAL UNDISTURBED SOIL 1'-0" BELOW ORIGINAL GRADE OR ON STRUCTURALLY COMPACTED FILL. BOTTOM OF EXTERIOR FOOTINGS SHALL BE 2'-6" BELOW FINISHED GRADE. A GEOTECHNICAL ENGINEER REGISTERED IN THE LOCAL JURISDICTION SHALL VERIFY THE SOIL BEARING CAPACITY IN THE FIELD. IF FOUND TO BE LESS THAN THE REQUIRED BEARING PRESSURE, THE FOOTINGS WILL HAVE TO BE REDESIGNED.

NOTE: 2
ALL FILL UNDER SLABS-ON-GRADE SHALL BE COARSE GRANULAR MATERIAL COMPACTED TO 95% OF MAXIMUM DENSITY AT OPTIMUM WATER CONTENT. SLABS-ON-GRADE SHALL BE POURED IN ACCORDANCE WITH ACI 302.1R, "GUIDE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION" (LATEST LOCAL APPROVED EDITION). SAW CUT CONTROL JOINTS SUCH THAT TOTAL AREA BOUNDED BY SAW CUTS AND FORMED EDGES DOES NOT EXCEED 400 FT² AND LONG SIDE TO SHORT SIDE DOES NOT EXCEED A 1.5:1 RATIO. PROVIDE #4 x3'-0" LONG BAR AT MID-DEPTH OF SLAB AT ALL RE-ENTRANT CORNERS AND COLUMN ISOLATION JOINT CORNERS THAT DO NOT HAVE A CONTROL/CONSTRUCTION JOINT TERMINATING.

CONCRETE:

NOTE: 1
ALL CONCRETE, EXCEPT AS NOTED, SHALL BE f'_c=4000 PSI NORMAL WEIGHT CONCRETE AT 28 DAYS. ALL CONCRETE EXPOSED TO THE WEATHER SHALL BE f'_c=5000 PSI NORMAL WEIGHT CONCRETE AND SHALL BE AIR ENTRAINED FOR EXPOSURE CLASS F3 PER ACI 318, "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" (LATEST LOCAL APPROVED EDITION).

NOTE: 2
ALL REINFORCING STEEL SHALL BE DEFORMED BILLET STEEL CONFORMING TO ASTM DESIGNATION A615 (LATEST LOCAL APPROVED EDITION), GRADE 60. ALL REINFORCING STEEL SHALL BE DETAILED, FABRICATED AND PLACED IN ACCORDANCE WITH ACI SP-66, "ACI DETAILING MANUAL" (LATEST LOCAL APPROVED EDITION).

NOTE: 3
ALL SPLICES IN REINFORCING SHALL BE CLASS "B" SPLICES IN ACCORDANCE WITH ACI 318, "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" (LATEST LOCAL APPROVED EDITION) EXCEPT AS OTHERWISE NOTED.

NOTE: 4
WELDED WIRE FABRIC (W.W.F.) SHALL HAVE ENDS LAPPED ONE FULL MESH AND SHALL BE ADEQUATELY SUPPORTED BY CHAIRS OR BOLSTERS. WELDED WIRE FABRIC SHALL BE PLACED WITHIN THE UPPER THIRD OF THE SLAB ON GRADE AND 3/4" CLEAR FRO THE TOPS OF THE SLABS ON METAL DECK.

NOTE: 5
WALL FOOTING REINFORCING SHALL EXTEND 2'-0" INTO ADJACENT COLUMN FOOTING, UNLESS OTHERWISE NOTED.

NOTE: 6
UNLESS OTHERWISE NOTED ON STRUCTURAL DRAWINGS, PROVIDE CONCRETE PROTECTION FOR REINFORCING AS FOLLOWS:

CAST AGAINST EARTH = 3"
EXPOSED TO EARTH OR WEATHER:
NO. 6 AND LARGER BARS = 2"
NO. 5 AND SMALLER BARS = 1 1/2"
NOT EXPOSED TO EARTH OR WEATHER:
SLABS AND WALLS = 3/4".

NOTE: 7
CONDUITS IN STRUCTURAL MEMBERS:
a. CONDUITS SHALL ONLY BE PLACED IN THE MIDDLE THIRD OF THE DEPTH OF THE SLAB.
b. NO CONDUIT WITH AN OUTSIDE DIAMETER GREATER THAN ONE THIRD OF THE SLAB THICKNESS SHALL BE PLACED IN THE SLAB.
c. NO CONDUITS SHALL BE PLACED IN THE SLAB OR WALL UNLESS SPECIFICALLY INDICATED ON THE ELECTRICAL DRAWINGS.
d. CONDUITS WHICH CROSS OVER ONE ANOTHER IN A CONCRETE SLAB SHALL NOT OCCUPY A TOTAL SPACE AT THE POINT OF CROSSOVER GREATER THAN ONE THIRD THE DEPTH OF THE SLAB.
e. NO CONDUITS SHALL BE PLACED IN A PIER.

NOTE: 8
CONSTRUCTION JOINTS IN SLABS SHALL BE LOCATED MIDWAY BETWEEN SUPPORTS. WHEN AN INTERSECTING MEMBER OCCURS AT MIDSPAN, THE JOINT SHALL BE OFFSET TWICE THE WIDTH OF THE INTERSECTING MEMBER. BEFORE FRESH CONCRETE IS POURED AGAINST CONCRETE IN PLACE, THE CONTACT SURFACES SHALL BE THOROUGHLY CLEANED, ALL LAITANCE SHALL BE REMOVED AND THE CONTACT SURFACES SHALL BE THOROUGHLY SLUSHED WITH GROUT CONSISTING OF ONE PART SAND TO ONE PART CEMENT WITH A MINIMUM AMOUNT OF WATER.

NOTE: 9
CONSTRUCTION JOINTS SHALL HAVE THE SURFACE OF THE FIRST POUR ROUGHENED TO 1/4" AMPLITUDE, UNLESS OTHERWISE NOTED.

CONCRETE CONTINUED:

NOTE: 10
THE CONTRACTOR MUST SUBMIT A CONCRETE DESIGN MIX IN ACCORDANCE WITH ACI 318 (LATEST LOCAL APPROVED EDITION). SUCH DESIGN MIX SHALL BE ACCOMPANIED BY THE APPROPRIATE GRAPHS AND BACKGROUND DATA. CONCRETE DESIGN MIX SHALL INDICATE 7 AND 28 DAY STRENGTHS, CEMENT CONTENT, WATER-CEMENT RATIO, FINE AND COARSE AGGREGATES AND ADMIXTURES FOR EACH DESIGN STRENGTH. THE ADDITION OF WATER AT THE PLANT OR IN THE FIELD GREATER THAN THE SPECIFIED WATER CONTENT IS STRICTLY PROHIBITED.

NOTE: 11
ALL CONCRETE WORK SHALL CONFORM TO THE LATEST LOCAL APPROVED EDITIONS OF THE FOLLOWING ACI AND ASTM DOCUMENTS:
- ACI-301 SPECIFICATIONS FOR STRUCTURAL CONCRETE
- ACI-318 CODE
- ACI-214 COMPRESSIVE TEST
- ACI-306 COLD WEATHER
- ACI SP-66 DETAILING
- ACI-347 FORMWORK
- ACI-305 HOT WEATHER
- ACI-211 PROPORTIONS OF CONCRETE
- ACI-304 PLACING CONCRETE
- ASTM C-94 READY-MIX CONCRETE

NOTE: 12
ALL FIELD AND LAB TESTING OF CONCRETE SHALL CONFORM TO THE LATEST LOCAL APPROVED EDITIONS OF ASTM:
- ASTM C-31 FIELD CYLINDER SPECIMENS
- ASTM C-143 SLUMP TEST
- ASTM C-231 AIR CONTENT (WHEN REQUIRED)
- ASTM C-39 LAB TESTING CYLINDERS
- ASTM C-172 SAMPLING FRESH CONCRETE
- ASTM C-42 HARDENED CORES (WHEN REQUIRED)

TEST RESULTS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE LOCAL JURISDICTION.

NOTE: 13
ALL FORMWORK SHALL BE IN ACCORDANCE WITH ACI 347, "GUIDE TO FORMWORK FOR CONCRETE" (LATEST LOCAL APPROVED EDITION).

STEEL:

NOTE: 1
STRUCTURAL STEEL FOR WIDE FLANGE SHAPES SHALL CONFORM TO ASTM SPECIFICATION A992. STRUCTURAL STEEL FOR HSS MEMBERS SHALL CONFORM TO ASTM SPECIFICATION A500 GRADE C. STRUCTURAL STEEL FOR PIPES SHALL CONFORM TO ASTM SPECIFICATION A53 TYPE E, GRADE B. ALL OTHER STEEL SHALL CONFORM TO ASTM SPECIFICATION A36. MILL TEST REPORTS SHALL BE SUBMITTED TO THE ARCHITECT. ALL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE AISC MANUAL, AISC SPECIFICATION AND AISC CODE OF STANDARD PRACTICE. ALL CONNECTIONS FOR NON-COMPOSITE BEAMS SHALL DEVELOP THE ALLOWABLE UNIFORM LOAD OF THE BEAM. CONNECTIONS FOR COMPOSITE BEAMS SHALL DEVELOP THE REACTION NOTED ON THE PLANS. IN GENERAL, FIELD CONNECTIONS SHALL BE MADE WITH 3/4" DIAMETER A325 BOLTS UNLESS OTHERWISE NOTED AND SHOP CONNECTIONS SHALL BE WELDED.

NOTE: 2
BOLTS, EXCEPT AS NOTED, NEED ONLY BE INSTALLED TO THE "SNUG TIGHT" CONDITION AS DEFINED IN THE RCSC "SPECIFICATION FOR STRUCTURAL JOINTS." BOLTS IN BEAM TO COLUMN CONNECTIONS THAT HAVE SLOTTED HOLES, BOLTS NOTED AS SLIP CRITICAL, AND BOLTS SUBJECT TO DIRECT TENSION SHALL BE FULLY PRE-TENSIONED IN ACCORDANCE WITH THE "SPECIFICATION FOR STRUCTURAL JOINTS" (LATEST LOCAL APPROVED EDITION).

NOTE: 3
WELDS SHALL BE MADE WITH E70XX LOW HYDROGEN ELECTRODES.

NOTE: 4
ALL CONNECTIONS, UNLESS OTHERWISE NOTED, SHALL BE DOUBLE ANGLE, SINGLE ANGLE, SINGLE PLATE, OR THRU PLATE CONNECTIONS PER THE TYPICAL DETAILS OF THE CONTRACT DOCUMENTS. CONNECTIONS SHALL BE SELECTED BY THE STEEL DETAILER BASED ON THE CONNECTION TABLES PROVIDED IN THE TYPICAL DETAILS. LOADS SHOWN IN THE DRAWINGS ARE ASD LOADS UNLESS OTHERWISE NOTED.

NOTE: 5
ALL GROOVE WELDS SHALL BE FULL PENETRATION GROOVE WELDS IN ACCORDANCE WITH ANSI/AWS D1.1, "STRUCTURAL WELDING CODE" (LATEST LOCAL APPROVED EDITION). THESE WELDS SHALL BE MADE ONLY BY OPERATORS QUALIFIED BY PRESCRIBED TESTS IN THE "STRUCTURAL WELDING CODE." ACCEPTANCE SHALL BE SUBJECT TO THE INSPECTION AND REVIEW OF AN INDEPENDENT INSPECTION AGENCY. ALL FULL PENETRATION WELDS SHALL BE ULTRASONICALLY TESTED.

NOTE: 6
HOLES AND OPENINGS REQUIRED IN STRUCTURAL STEEL MEMBERS FOR THE WORK OF OTHER TRADES SHALL BE SHOWN ON THE SHOP DRAWINGS SUBMITTED FOR REVIEW.

STEEL CONTINUED:

NOTE: 7
FIELD MODIFICATION OF THE STRUCTURAL STEEL IS NOT ALLOWED WITHOUT PRIOR REVIEW BY THE ARCHITECT AND STRUCTURAL ENGINEER.

NOTE: 8
WELDING SEQUENCE AND TECHNIQUE SHALL BE SUCH THAT DISTORTION OF STEEL MEMBERS IS MINIMIZED AND UNDUE DISTORTION IS AVOIDED.

NOTE: 9
ALL STRUCTURAL STEEL SHALL BE SHOP PAINTED WITH A RUST INHIBITIVE PRIMER. ALL EXPOSED STEEL AND LINTELS IN EXTERIOR WALLS SHALL BE HOT-DIPPED GALVANIZED. REFER TO ARCHITECTURAL DRAWINGS FOR GALVANIZED STEEL THAT SHALL RECEIVE A PAINTED FINISH COAT.

RIGGING, HOISTING AND SCAFFOLDING REQUIREMENTS:

NOTE: 1
THE CONTRACTOR SHALL PREPARE AND SUBMIT TO THE ARCHITECT FOR REVIEW A SITE SPECIFIC RIGGING AND HOISTING PLAN FOR ALL MAJOR EQUIPMENT THAT WILL BE TRANSPORTED THROUGH OR HOISTED FROM THE BUILDING. THE PLAN SHALL INCLUDE THE SEQUENCE OF ERECTION, THE DESCRIPTION OF THE RIGGING, HOISTING AND TRANSPORTATION EQUIPMENT AND THE SITE PREPARATIONS THAT WILL BE NEEDED TO COMPLETE THE INSTALLATION.

NOTE: 2
THE CONTRACTOR SHALL PREPARE AND SUBMIT TO THE ARCHITECT FOR REVIEW A SITE SPECIFIC PLAN FOR ALL SCAFFOLDING THAT WILL BE INSTALLED ON FRAMED FLOORS AND ROOFS.

NOTE: 3
THE PROPOSED RIGGING, HOISTING OR SCAFFOLDING PLAN SHALL BE REVIEWED BY A PROFESSIONAL ENGINEER REGISTERED IN THE LOCAL JURISDICTION. THE PROFESSIONAL ENGINEER SHALL PROVIDE A SIGNED AND SEALED CERTIFICATION STATING THAT THE PROPOSED PLAN WILL NOT DAMAGE OR OVERSTRESS THE STRUCTURE.

NOTE: 4
IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSURE THAT THE LOADS SUPERIMPOSED BY THE RIGGING, HOISTING OR SCAFFOLDING SYSTEMS WILL NOT EXCEED THE FOLLOWING LOADS:
- ROOFS = 30 PSF

NOTE: 5
THE CONTRACTOR SHALL PROVIDE PROTECTION FOR ALL FINISHES.

PRE-ENGINEERED BUILDING:

NOTE: 1
THE PRE-ENGINEERED BUILDING, ITS COMPONENTS AND ALL ITS CONNECTIONS SHALL BE DESIGNED FOR THE LIVE LOADS SHOWN ON THE PLANS IN COMBINATION WITH THE SNOW, WIND AND SEISMIC LOADS AS REQUIRED BY THE LOCAL BUILDING CODE.

NOTE: 2
THE PRE-ENGINEERED BUILDING ROOF SHALL BE DESIGNED FOR A MINIMUM COLLATERAL DEAD LOAD OF 5 PSF.

NOTE: 3
THE PRE-ENGINEERED BUILDING DESIGNER SHALL COORDINATE WITH THE ARCHITECTURAL AND MEP DRAWINGS TO LOCATE ALL ITEMS THAT ARE SUPPORTED FROM THE PRE-ENGINEERED STRUCTURAL COMPONENTS AND THE WEIGHT OF THESE ITEMS SHALL BE INCLUDED IN THE DESIGN.

NOTE: 4
THE PRE-ENGINEERED BUILDING DESIGNER SHALL SUPPLY FINAL COLUMN LOADS FOR THE DESIGN OF THE FOUNDATIONS.

NOTE: 5
THE PRE-ENGINEERED BUILDING DESIGNER IS RESPONSIBLE FOR DETERMINING THE NUMBER, SIZE, AND EMBEDMENT OF THE ANCHOR BOLTS AT ALL THE PRE-ENGINEERED BUILDING COLUMNS.

NOTE: 6
THE PRE-ENGINEERED BUILDING DRAWINGS AND THE CORRESPONDING STRUCTURAL CALCULATIONS SHALL BE SIGNED AND SEALED BY AN ENGINEER REGISTERED IN THE LOCAL JURISDICTION AND SHALL BE SUBMITTED TO THE ARCHITECT FOR REVIEW.

NOTE: 7
THE FOUNDATIONS FOR THE PRE-ENGINEERED BUILDING COLUMNS HAVE BEEN DESIGNED FOR THE LOADS SUPPLIED BY THE PRE-ENGINEERED BUILDING MANUFACTURER AND THESE LOADS ARE SHOWN ON THE DRAWINGS. IF THE FINAL PRE-ENGINEERED BUILDING COLUMN LOADS ARE DIFFERENT THAN THE LOADS SHOWN ON THE PLANS, THEN THE PRE-ENGINEERED BUILDING MANUFACTURER SHALL INFORM THE GENERAL CONTRACTOR AND THE DESIGN TEAM AND PROVIDE COLUMBIA ENGINEERING INC., WITH THE REVISED FINAL COLUMN LOADS. IN THIS CASE, THE FOUNDATIONS FOR THE PRE-ENGINEERED BUILDING COLUMNS MAY HAVE TO BE REDESIGNED.

SUBMITTALS:

NOTE: 1
THIRTY (30) DAYS PRIOR TO SUBMITTING SHOP DRAWINGS, THE GENERAL CONTRACTOR [CONSTRUCTION MANAGER] SHALL SUBMIT A SCHEDULE TO THE DESIGN TEAM THAT DETAILS THE ESTIMATED QUANTITY OF SUBMITTALS AND THE ANTICIPATED SUBMISSION DATES. THE STRUCTURAL ENGINEER SHALL HAVE THE OPPORTUNITY TO REVIEW THE PROPOSED SCHEDULE AND REQUEST ADJUSTMENTS IF DEEMED NECESSARY. THE GENERAL CONTRACTOR [CONSTRUCTION MANAGER] SHALL INCORPORATE THE DESIGN TEAM COMMENTS AND SUBMIT A FINAL SUBMITTAL SCHEDULE TO THE DESIGN TEAM FOR APPROVAL. NO MODIFICATIONS OR ADDITIONS TO THE APPROVED SCHEDULE ARE PERMITTED WITHOUT AUTHORIZATION FROM THE STRUCTURAL ENGINEER AND ARCHITECT AT LEAST ONE MONTH IN ADVANCE OF THE PROPOSED DEVIATION.

NOTE: 2
SHOP DRAWINGS FOR ALL STRUCTURAL ELEMENTS SHOWN ON THE CONTRACT DOCUMENTS MUST BE SUBMITTED FOR REVIEW BY THE CONTRACTOR. IF A CONTRACTOR FAILS TO SUBMIT THE SHOP DRAWINGS, COLUMBIA ENGINEERING, INC. WILL NOT BE RESPONSIBLE FOR THE STRUCTURAL CERTIFICATION AND/OR THE DESIGN OF THE PROJECT.

NOTE: 3
COLUMBIA ENGINEERING'S REVIEW OF SUBMITTALS SHALL BE FOR GENERAL CONFORMANCE WITH THE DESIGN INTENT OF THE CONSTRUCTION DOCUMENTS. NO WORK SHALL BE STARTED WITHOUT SUCH REVIEW.

NOTE: 4
REPRODUCTION OF THE CONTRACT DOCUMENTS WILL NOT BE ACCEPTED AS SHOP DRAWINGS.

NOTE: 5
SHOP DRAWINGS FOR THE FOLLOWING ITEMS SHALL BE SUBMITTED FOR ARCHITECT/ENGINEER REVIEW:
a. CONCRETE MIX DESIGN.
b. CONCRETE REINFORCING STEEL.
c. CONSTRUCTION/CONTROL JOINT LAYOUT FOR SLABS ON GRADE.
d. STRUCTURAL STEEL.
SEE SPECIFICATIONS FOR ADDITIONAL REQUIRED SUBMITTALS.

NOTE: 6
THE FOLLOWING ITEMS REQUIRE DELEGATED STRUCTURAL DESIGN BY THE SUPPLIER:
a. PRE-ENGINEERED BUILDING.
SUBMITTALS FOR THE ABOVE ITEMS SHALL BE PREPARED UNDER THE SUPERVISION OF A DELEGATED PROFESSIONAL ENGINEER REGISTERED IN THE LOCAL JURISDICTION. THE DELEGATED ENGINEER SHALL BE RESPONSIBLE FOR ENSURING COMPLIANCE WITH ALL APPLICABLE BUILDING CODES AND LOADING CONDITIONS. SHOP DRAWING AND CALCULATIONS SHALL BE SIGNED AND SEALED BY THE CERTIFYING PROFESSIONAL AND SUBMITTED FOR REVIEW. SEE SPECIFICATIONS FOR ADDITIONAL DELEGATED DESIGN SUBMITTALS AND REQUIREMENTS.

NOTE: 7
ALL SHOP DRAWINGS USED FOR CONSTRUCTION SHALL BEAR THE STAMP OF THE ARCHITECT/ENGINEER AND SHALL BE MARKED "REVIEWED" OR "REVIEWED AS NOTED".

MISCELLANEOUS:

NOTE: 1
ITEMS AND CONDITIONS NOTED OR IDENTIFIED IN SECTIONS AND DETAILS APPLY TO AREAS SIMILAR IN CONDITION TO THOSE DENOTED BY THE SECTION CUT OR DETAIL MARK.

NOTE: 2
THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND STRUCTURAL ENGINEER OF ANY DISCREPANCIES BETWEEN THE STRUCTURAL DOCUMENTS AND ANY OTHER DOCUMENTS OR EXISTING CONDITIONS FOR RESOLUTION PRIOR TO PROCEEDING WITH FABRICATION OR CONSTRUCTION.

NOTE: 3
LOADS GREATER THAN THE DESIGN LIVE LOADS SHALL NOT BE PLACED ON THE STRUCTURE. A CONCRETE STRUCTURE MAY NOT SUPPORT ITS DESIGN LIVE LOADS FOR 28 DAYS, UNLESS THE DESIGN STRENGTH IS ACHIEVED EARLIER BASED ON FIELD CURED CYLINDERS.

NOTE: 4
THE CONTRACTOR SHALL SUPPORT ADJACENT STRUCTURES, UTILITIES, AND EXCAVATIONS. CONTRACTOR SHALL HAVE ALL TEMPORARY FORMWORK, SHEETING, SHORING, UNDERPINNING, ETC., AS PART OF THE CONTRACTOR'S WORK, SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE LOCAL JURISDICTION.

NOTE: 5
ALL WORK SPECIFIED HEREIN SHALL BE INSPECTED IN ACCORDANCE WITH IBC CHAPTER 17 (EXCEPTIONS NOTED SHALL NOT BE PERMITTED) AND ALL LOCAL ORDINANCES. INSPECTIONS REQUIRED SHALL BE PER THE STATEMENT OF SPECIAL INSPECTIONS NOTED ON THIS SHEET. THE CONTRACTOR SHALL HIRE AN INDEPENDENT, EXPERIENCED, QUALIFIED INSPECTOR TO PERFORM ALL THE REQUIRED INSPECTION WORK. THE ENGINEER WILL NOT PERFORM THE REQUIRED INSPECTION AS A PART OF HIS DESIGN SERVICE. THE ENGINEER MAY VISIT THE SITE TO ASCERTAIN GENERAL CONFORMANCE TO THE CONTRACT DOCUMENTS, AND SUCH VISITS ARE NOT TO BE CONSTRUED AS MEETING INSPECTION REQUIREMENTS.

NOTE: 6
THE GENERAL CONTRACTOR AND ITS SUBCONTRACTORS SHALL HAVE A MINIMUM OF FIVE YEARS EXPERIENCE IN THE CONSTRUCTION OF WORK SIMILAR IN NATURE TO THIS PROJECT.

NOTE: 7
LEGAL USE OF DOCUMENTS
THE PLANS, SPECIFICATIONS AND OTHER INFORMATION CONTAINED IN THESE DRAWINGS (COLLECTIVELY THE "DRAWINGS") WERE PREPARED BY COLUMBIA ENGINEERING, INC. AND ARE INSTRUMENTS OF PROFESSIONAL SERVICES RENDERED AND DELIVERED PURSUANT TO THE TERMS AND CONDITIONS OF A WRITTEN AGREEMENT (THE "AGREEMENT") ONLY TO THE RECIPIENT NAMED THEREIN. ANY USE OF THE DRAWINGS BY ANY PARTY WHICH IS INCONSISTENT WITH THE TERMS AND CONDITIONS OF THE AGREEMENT IS EXPRESSLY PROHIBITED. COLUMBIA ENGINEERING, INC. EXPRESSLY RESERVES ITS COPYRIGHT AND ALL INTELLECTUAL PROPERTY AND OTHER RIGHTS IN THE DRAWINGS. NO PORTION OF THE DRAWINGS ARE TO BE REPRODUCED, CHANGED OR OTHERWISE USED IN ANY FORM OR MANNER WHATSOEVER WHICH IS INCONSISTENT WITH EITHER THE AGREEMENT OR THE PURPOSES FOR WHICH THEY WERE ORIGINALLY PREPARED, NOR ARE THEY TO BE DEEMED ASSIGNED TO ANY PERSON OR ENTITY WITHOUT OBTAINING THE EXPRESS PRIOR WRITTEN PERMISSION AND CONSENT OF COLUMBIA ENGINEERING, INC. THE RECIPIENT OF THE DRAWINGS AGREES TO INDEMNIFY AND HOLD HARMLESS COLUMBIA ENGINEERING, INC., ITS EMPLOYEES, OFFICERS, DIRECTORS AND AGENTS, FROM AND AGAINST ANY AND ALL DAMAGES WHICH ARISE OUT OF OR IN CONNECTION WITH ANY VIOLATION OF THE FOREGOING.

DESIGN CODES:

INTERNATIONAL BUILDING CODE:
IBC 2021 WITH LOCAL AMENDMENTS

BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE:
ACI 318-14

BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES:
TMS 402/602-16

SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS:
AISC 15TH EDITION 360-16

DESIGN LOADS:
IBC RISK CATEGORY 2

FLOOR LIVE LOADS:
SLAB ON GRADE ------ 100 PSF
VEHICLE AREA --------- 250 PSF

ROOF LOADS:
LIVE LOAD = 30 PSF
GROUND SNOW LOAD, p_g = 30 PSF
FLAT ROOF SNOW LOAD, p_f = 21 PSF
SNOW EXPOSURE FACTOR, C_e = 1.0
SNOW LOAD IMPORTANCE FACTOR, I_s = 1.0
THERMAL FACTOR, C_t = 1.0

SEISMIC DESIGN DATA:
SOIL SITE CLASS D
SEISMIC DESIGN CATEGORY B
SEISMIC IMPORTANCE FACTOR, I_e = 1.0

MAPPED SPECTRAL RESPONSE ACCELERATION PARAMETERS:
S_S = 0.146
S_1 = 0.044

DESIGN SPECTRAL RESPONSE ACCELERATION PARAMETERS:
S_{DS} = 0.156
S_{D1} = 0.007

WIND LOADS:
DESIGN WIND SPEED:
V_{ult} = 115 MPH (3 SECOND GUST)

WIND EXPOSURE B

Columbia Engineering Inc.
Structural Engineers
6210 Old Dobbin Lane **Tel 410.992.9970**
Suite 150 **Fax 410.992.0627**
Columbia, MD 21045

DWG FILENAME

SEAL

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AN A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 34693, EXPIRATION DATE: 07-08-2025

ARCHITECT: DGN BY: CZ
AS--BUILT PER RECORD PRINT BY: DWN BY: HW
DATE: CHKD BY: Checker

DATE: 9/17/2024

AS--BUILT / REVISION	BY	DATE	P.W.A NO.
CONTRACT COMPLETION BOX			

KEY SHEET	POSITION SHT
-	-

DRAWING SCALE
PLAN SCALE:
PROFILE SCALE:

PROPERTY MANAGEMENT
APPROVED BY: PROPERTY MANAGER
DATE:

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

CEI JOB #23-186, REVIT 2023

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT

NEW TRUCK GARAGE
GENERAL NOTES
100 % CONSTRUCTION SET 3/4/2025
4419A BUCKS SCHOOLHOUSE ROAD, BALTIMORE, MD 21237

SUBDIVISION: FULLERTON ELECTION DIST. NO.: 14C5

SHEET DESIGNATION	CONTRACT NUMBER
S001	24167 PO0
JOB ORDER NUMBER	PO 10010489
36 OF 53	
DRAWING NUMBER	2024-2798
FILE NO.: 8	

INSPECTION TABLES

STATEMENT OF SPECIAL INSPECTIONS:

NOTE 1:
INSPECTION OR TESTING SHALL BE PROVIDED FOR ALL MATERIAL, COMPONENTS AND WORK LISTED IN THE TABLES BELOW. THESE ARE MINIMUM REQUIREMENTS. INSPECTION AND TESTING TASKS MUST ALSO SATISFY ALL STANDARDS ESTABLISHED IN THE FOLLOWING APPLICABLE CODES AND ALL LOCAL ORDINANCES.

INTERNATIONAL BUILDING CODE (IBC):
IBC CHAPTER 17

AMERICAN INSTITUTE OF STEEL CONTRUCTION (AISC):
SPECIFICATION FOR STEEL BUILDINGS (AISC 360), CHAPTER N
SEISMIC PROVISIONS FOR STRUCTURAL STEEL BUILDINGS (AISC 341), CHAPTER J

STEEL DECK INSTITUTE (SDI):
MANUAL OF CONSTRUCTION WITH STEEL DECK (MOC), CHAPTER X

THE MASONRY SOCIETY (TMS):
SPECIFICATION FOR MASONRY STRUCTURES (TMS 602), SECTION 1.6

AMERICAN IRON AND STEEL INSTITUTE (AISI):
NORTH AMERICAN STANDARD FOR COLD-FORMED STEEL STRUCTURAL FRAMING (AISI S240), CHAPTER D

NOTE 2:
DEFINITIONS:

CONTINUOUS INSPECTION:
INDICATES SPECIAL INSPECTOR SHALL BE PRESENT DURING CONTRACTOR PERFORMANCE OF THE TASK.

PERIODIC INSPECTION:
INDICATES SPECIAL INSPECTOR SHALL PROVIDE INSPECTION OR TESTING OF ALL WORK INDICATED, BUT THAT SPECIAL INSPECTOR IS NOT REQUIRED TO BE PRESENT DURING CONTRACTOR PERFORMANCE OF THE TASK. PERIODIC INSPECTION DOES NOT MEAN RANDOM INSPECTION IS ALLOWED.

OBSERVE:
INSPECTOR SHALL OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS.

PERFORM:
INSPECTOR SHALL PERFORM THESE TASKS FOR EACH JOINT, MEMBER, OR ELEMENT.

QC:
QUALITY CONTROL INSPECTION TASK TO BE COMPLETED BY FABRICATOR OR ERECTOR PERSONNEL.

QA:
QUALITY ASSURANCE INSPECTION TASK TO BE COMPLETED BY THIRD-PARTY INSPECTION AGENCY / SPECIAL INSPECTOR.

CONCRETE

INSPECTION TASK	TYPE OF QA INSPECTION
1. INSPECT OF REINFORCING STEEL FOR SIZE, QUANTITY AND PLACEMENT.	PERIODIC
2. INSPECT ANCHORS CAST IN CONCRETE.	PERIODIC
3. VERIFY USE OF REQUIRED DESIGN MIX.	PERIODIC
4. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE. PERFORM UNIT WEIGHT TEST FOR LIGHTWEIGHT CONCRETE.	CONTINUOUS
5. INSPECT CONCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	CONTINUOUS
6. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	PERIODIC
7. MEASURE F (F) AND F (L) TOLERANCE FOR FLOORS.	PERIODIC

STEEL

STEEL - PRIOR TO WELDING

INSPECTION TASK	TYPE OF INSPECTION	
	QC	QA
1. WELDER QUALIFICATION RECORDS AND CONTINUITY RECORDS.	PERFORM	OBSERVE
2. WELDING PROCEDURE SPECIFICATIONS (WPSs) AVAILABLE	PERFORM	PERFORM
3. MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE	PERFORM	PERFORM
4. MATERIAL IDENTIFICATION (TYPE/GRADE)	OBSERVE	OBSERVE
5. WELDER IDENTIFICATION SYSTEM	OBSERVE	OBSERVE
6. CONFIGURATION AND FINISH OF ACCESS HOLES	OBSERVE	OBSERVE
7. FIT-UP OF FILLET WELDS • DIMENSIONS (ALIGNMENT, GAPS AT ROOT) • CLEANLINESS (CONDITION OF STEEL SURFACES) • TACKING (TACK WELD QUALITY AND LOCATION)	OBSERVE	OBSERVE
8. CHECK WELDING EQUIPMENT	OBSERVE	NONE

STEEL - DURING WELDING

INSPECTION TASK	TYPE OF INSPECTION	
	QC	QA
1. USE OF QUALIFIED WELDERS	OBSERVE	OBSERVE
2. CONTROL AND HANDLING OF WELDING CONSUMABLES • PACKAGING • EXPOSURE CONTROL	OBSERVE	OBSERVE
3. NO WELDING OVER CRACKED TACK WELDS.	OBSERVE	OBSERVE
4. ENVIRONMENTAL CONDITIONS • WIND SPEED WITH LIMITS • PRECIPITATION AND TEMPERATURE	OBSERVE	OBSERVE
5. WPS FOLLOWED FOR SINGLE - PASS FILLET WELDS • SETTINGS ON WELDING EQUIPMENT • TRAVEL SPEED • SELECTED WELDING MATERIALS • SHIELDING GAS TYP/FLOW RATE • PREHEAT APPLIED • INTERPASS TEMPERATURE MAINTAINED (MINIMUM/MAXIMUM) • PROPER POSITION (F,V,H, OH)	OBSERVE	OBSERVE
6. WELDING TECHNIQUES FOR SINGLE-PASS FILLET WELDS • INTERPASS AND FINAL CLEANING • EACH PASS WITHIN PROFILE LIMITATIONS • EACH PASS MEETS QUALITY REQUIREMENTS	OBSERVE	OBSERVE

STEEL - AFTER WELDING

INSPECTION TASK	TYPE OF INSPECTION	
	QC	QA
1. WELDS CLEANED	OBSERVE	OBSERVE
2. SIZE, LENGTH AND LOCATION OF WELDS	PERFORM	PERFORM
3. WELDS MEET VISUAL ACCEPTANCE CRITERIA • CRACK PROHIBITION • WELD / BASE-METAL FUSION • CRATER CROSS SECTION • WELD PROFILES • WELD SIZE • UNDERCUT • POROSITY		
4. ARC STRIKES	PERFORM	PERFORM
5. K - AREA [a]	PERFORM	PERFORM
6. BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED)	PERFORM	PERFORM
7. REPAIR ACTIVITIES	PERFORM	PERFORM
8. DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR MEMBER	PERFORM	PERFORM
9. NO PROHIBITED WELDS HAVE BEEN ADDED WITHOUT THE APPROVAL OF THE ENGINEER OF RECORD	OBSERVE	OBSERVE

NOTES:

[a] WHEN WELDING OF DOUBLER PLATES, CONTINUITY PLATES OR STIFFENERS HAS BEEN PERFORMED IN THE K-AREA, VISUALLY INSPECT THE WEB K-AREA FOR CRACKS WITHIN THREE INCHES OF THE WELD.

STEEL CONTINUED

STEEL - PRIOR TO BOLTING

INSPECTION TASK	TYPE OF INSPECTION	
	QC	QA
1. MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR FASTENER MATERIALS	OBSERVE	PERFORM
2. FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS	OBSERVE	OBSERVE
3. CORRECT FASTENERS SELECTED FOR THE JOINT DETAIL (GRADE, TYPE, BOLT LENGTH IF THREADS ARE TO BE EXCLUDED FROM SHEAR PLANE)	OBSERVE	OBSERVE
4. CORRECT BOLTING PROCEDURE SELECTED FOR JOINT DETAIL	OBSERVE	OBSERVE
5. CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS	OBSERVE	OBSERVE
6. PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED	PERFORM/ CONTINUOUS	OBSERVE
7. PROTECTED STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS AND OTHER FASTENER COMPONENTS	OBSERVE	OBSERVE

STEEL - DURING BOLTING

INSPECTION TASK	TYPE OF INSPECTION	
	QC	QA
1. FASTENER ASSEMBLIES PLACED IN ALL HOLES AND WASHERS AND NUTS ARE POSITIONED AS REQUIRED.	OBSERVE	OBSERVE
2. FASTENERS COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING	OBSERVE	OBSERVE
3. FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE RCSC SPECIFICATION, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDGES	OBSERVE	OBSERVE

STEEL - AFTER BOLTING

INSPECTION TASK	TYPE OF INSPECTION	
	QC	QA
1. DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS	PERFORM	PERFORM

STEEL - OTHER

INSPECTION TASK	TYPE OF INSPECTION	
	QC	QA
1. VERIFY COMPLIANCE OF THE FABRICATED STEEL WITH THE SHOP DRAWINGS	PERFORM	NONE
2. SETTING OF ANCHOR BOLTS, BEARING PLATES AND EMBEDDED ITEMS PRIOR TO PLACEMENT OF CONCRETE. AT A MINIMUM, CONFIRM DIAMETER, GRADE, TYPE, LENGTH, AND DEPTH OF EMBEDMENT.	OBSERVE	PERFORM
3. STRUCTURAL MEMBERS FOR PLUMBNESS, ELEVATION AND ALIGNMENT	OBSERVE	PERFORM
4. VERIFY COMPLIANCE OF THE ERECTED STEEL FRAME WITH ERECTION DRAWINGS FOR ITEMS SUCH AS BRACES, STIFFENERS, MEMBER LOCATIONS AND CONNECTION DETAILS	PERFORM	NONE
5. VERIFY COMPLIANCE OF THE FABRICATED AND ERECTED STEEL FRAME WITH CONTRACT DOCUMENTS FOR ITEMS SUCH AS BRACES, STIFFENERS, MEMBER LOCATIONS AND CONNECTION DETAILS	NONE	PERFORM

Columbia Engineering Inc.
Structural Engineers
6210 Old Dobbin Lane **Tel 410.992.9970**
Suite 150 **Fax 410.992.0627**
Columbia, MD 21045

SEAL

DATE: 9/17/2024

PROFESSIONAL CERTIFICATION		AS–BUILT / REVISION	BY	DATE	P.W.A NO.	KEY SHEET	POSITION SHT	DRAWING SCALE		PROPERTY MANAGEMENT
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AN A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.						-	-	PLAN SCALE:		APPROVED BY: PROPERTY MANAGER
LICENSE NO. 34693, EXPIRATION DATE: 07-08-2025								PROFILE SCALE:		DATE:
ARCHITECT:	DGN BY: Designer	CONTRACT COMPLETION BOX								
	DWN BY: Author	BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER	
AS–BUILT PER RECORD PRINT BY: DATE:	CHKD BY: Checker	REVIEWED BY:								
		DATE REVIEWED:								

CEI JOB #23-186, REVIT 2023

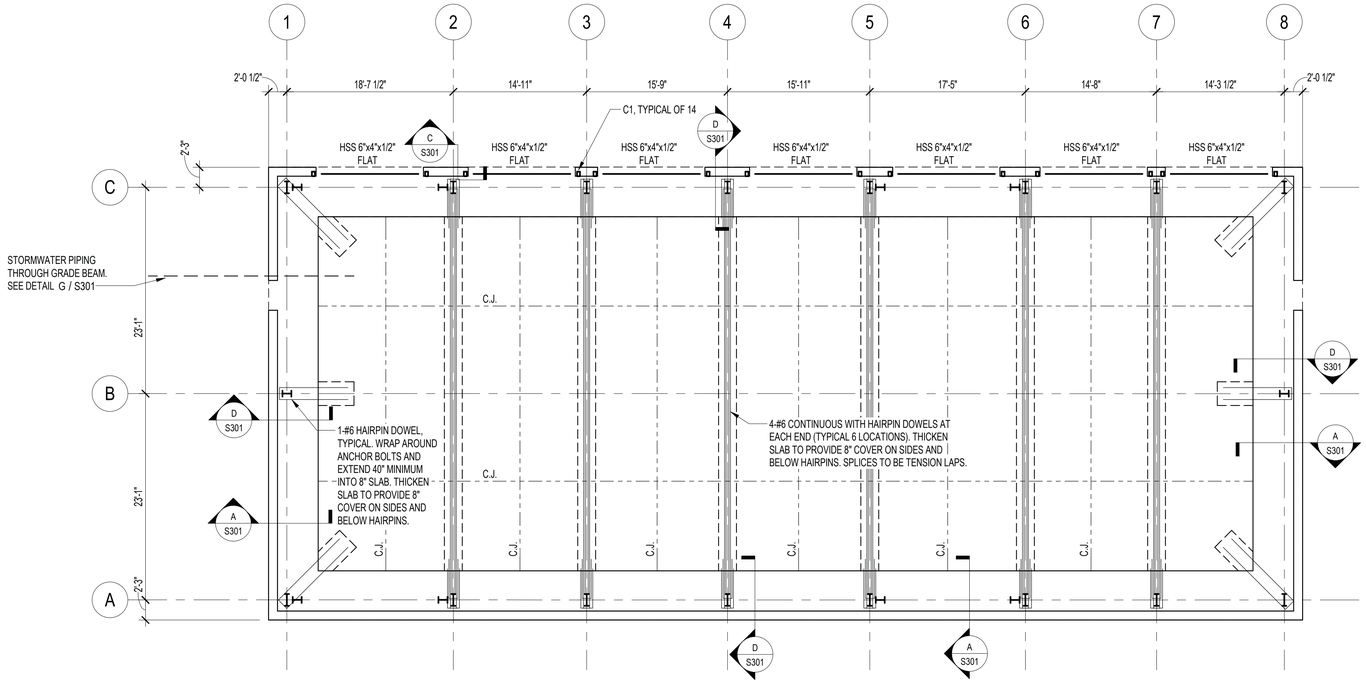
BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT

NEW TRUCK GARAGE
INSPECTION TABLES
100 % CONSTRUCTION SET 3/4/2025
4419A BUCKS SCHOOLHOUSE ROAD, BALTIMORE, MD 21237

SUBDIVISION: FULLERTON ELECTION DIST. NO.: 14C5

SHEET DESIGNATION	CONTRACT NUMBER
S002	24167 P00
	JOB ORDER NUMBER
	PO 10010489
	37 OF 53
	DRAWING NUMBER
	2024-2799
	FILE NO.: 8

DWG FILENAME



PRE-ENGINEERED BUILDING FOUNDATION DESIGN LOADS

FOOTING LOCATION	VERTICAL REACTIONS					HORIZONTAL REACTIONS, EAST-WEST					HORIZONTAL REACTIONS, NORTH-SOUTH	
	DEAD LOAD	ROOF LIVE LOAD	SNOW LOAD	SEISMIC LOAD	WIND LOAD	DEAD	LIVE	SNOW	SEISMIC	WIND	SEISMIC	WIND
1-B, 8-B	4.6 k	9.7 k	9.7 k	+/- 0.4 k	+/- 12.5 k	N/A	N/A	N/A	+/- 0.02 k	+/- 4.9 k	+/- 0.5 k	+/- 2.6 k
1-A, 1-C, 8-A, 8-C	2.3 k	3.3 k	3.3 k	+/- 1.9 k	+/- 5.4 k	0.1 k	N/A	N/A	+/- 0.7 k	+/- 1.6 k	+/- 0.5 k	+/- 2.4 k
2-A, 5-A, 6-A, 1-C, 5-C, 6-C	8.2 k	16.2 k	16.2 k	+/- 4.0 k	+/- 17.9 k	3.0 k	6.5 k	6.5 k	+/- 1.2 k	+/- 11.3 k	+/- 2.2 k	+/- 6.1 k
3-A, 4-A, 7-A, 3-C, 4-C, 7-C	6.1 k	15.6 k	15.6 k	+/- 0.4 k	+/- 15.6 k	3.5 k	6.4 k	6.4 k	+/- 0.5 k	+/- 9.3 k	N/A	N/A

NOTES:
IF THE FINAL PRE-ENGINEERED BUILDING COLUMN LOADS ARE GREATER THAN THE LOADS SHOWN ON THE SCHEDULE, THEN THE PRE-ENGINEERED BUILDING MANUFACTURER SHALL INFORM THE GENERAL CONTRACTOR AND THE DESIGN TEAM AND PROVIDE COLUMBIA ENGINEERING INC., WITH THE REVISED FINAL COLUMN LOADS. IN THIS CASE, THE FOUNDATIONS FOR THE PRE-ENGINEERED BUILDING COLUMNS MAY HAVE TO BE REDESIGNED.

COLUMN SCHEDULE

MARK	SIZE	BASE PLATE	ANCHOR BOLTS
C1	HSS 6"x4"x1/4"	12"x12"x1"	(4) 3/4" DIAMETER ASTM F1554 THREADED RODS WITH HILTI HIT-HY200 V3 ADHESIVE, 12" EMBEDMENT.

NOTES:
1. ALL HSS COLUMNS SHALL RECEIVE A 5/8" THICK CAP PLATE UNLESS NOTED OTHERWISE.
2. SEE DETAIL E / S301 FOR BASE PLATE

FOUNDATION AND SLAB ON GRADE PLAN

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

NOTES:
1. SLAB ON GRADE SHALL BE 10" THICK CONCRETE REINFORCED NORMAL WEIGHT CONCRETE (f'c = 4000 PSI) WITH #4 BARS AT 12"o.c. EACH WAY TOP AND BOTTOM ON 15 MILS VAPOR BARRIER OVER 6" THICK LAYER OF WASHED GRAVEL. TOP OF SLAB ELEVATION SHALL BE 220.33' (DATUM 0.00') UNLESS NOTED OTHERWISE.
2. C.J. DENOTES CONTROL OR CONSTRUCTION JOINT.

Columbia Engineering Inc.
Structural Engineers
6210 Old Dobbin Lane
Suite 150
Columbia, MD 21045
Tel 410.992.9970
Fax 410.992.0627

 CEI No. 23-186 / Revit 2023

SEAL

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AN A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 34693, EXPIRATION DATE: 07-08-2025
ARCHITECT:
AS–BUILT PER RECORD PRINT
BY:
DATE:
DGN BY: Designer
DWN BY: Author
CHKD BY: Checker

AS–BUILT / REVISION	BY	DATE	P.W.A NO.	KEY SHEET	POSITION SHT	DRAWING SCALE		PROPERTY MANAGEMENT
				-	-	PLAN SCALE:		APPROVED BY: PROPERTY MANAGER
CONTRACT COMPLETION BOX						PROFILE SCALE:		DATE:

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT

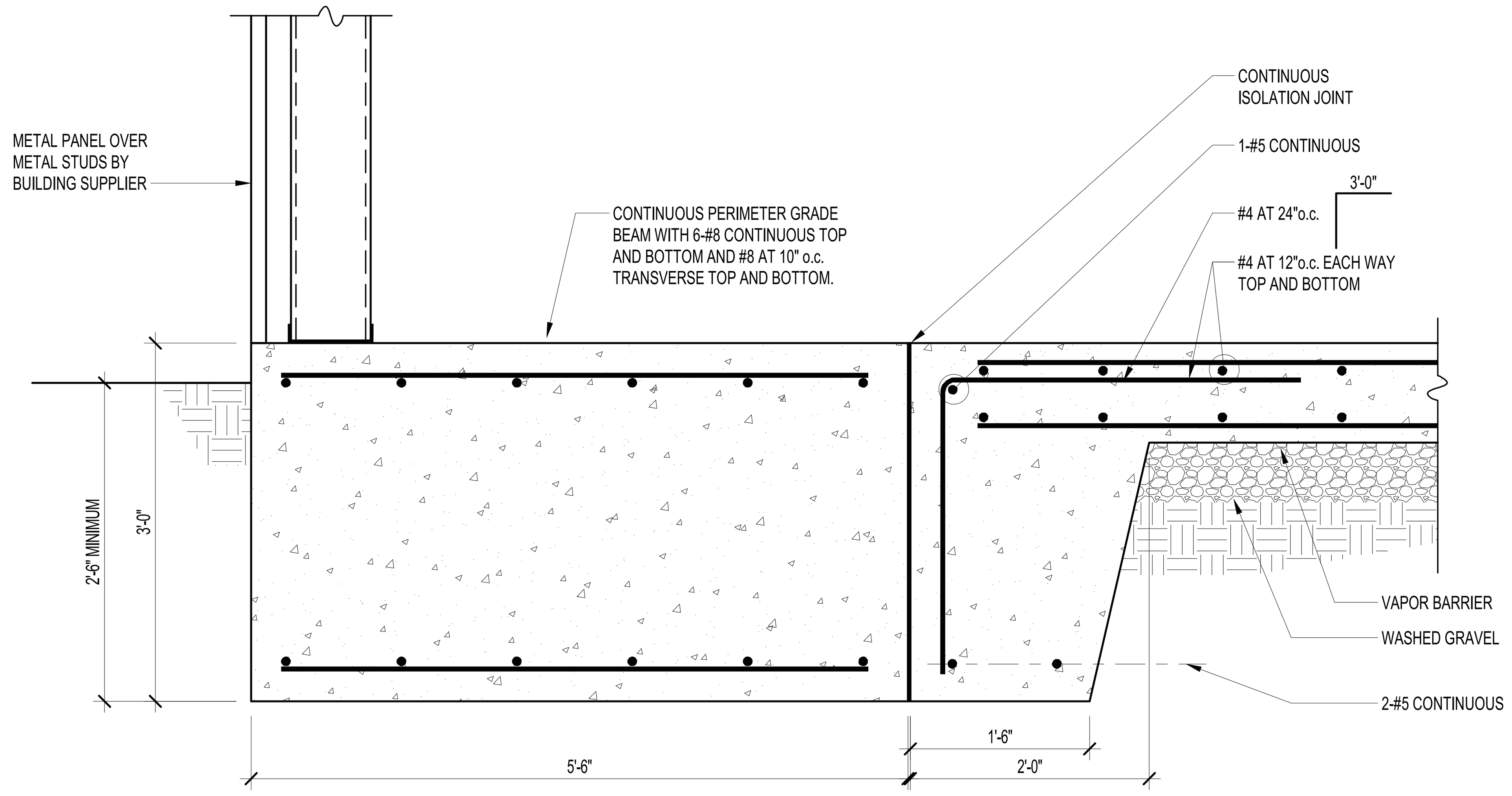
NEW TRUCK GARAGE
FOUNDATION AND SLAB ON GRADE PLAN
100 % CONSTRUCTION SET 3/4/2025
4419A BUCKS SCHOOLHOUSE ROAD, BALTIMORE, MD 21237

SUBDIVISION: FULLERTON
ELECTION DIST. NO.: 14C5

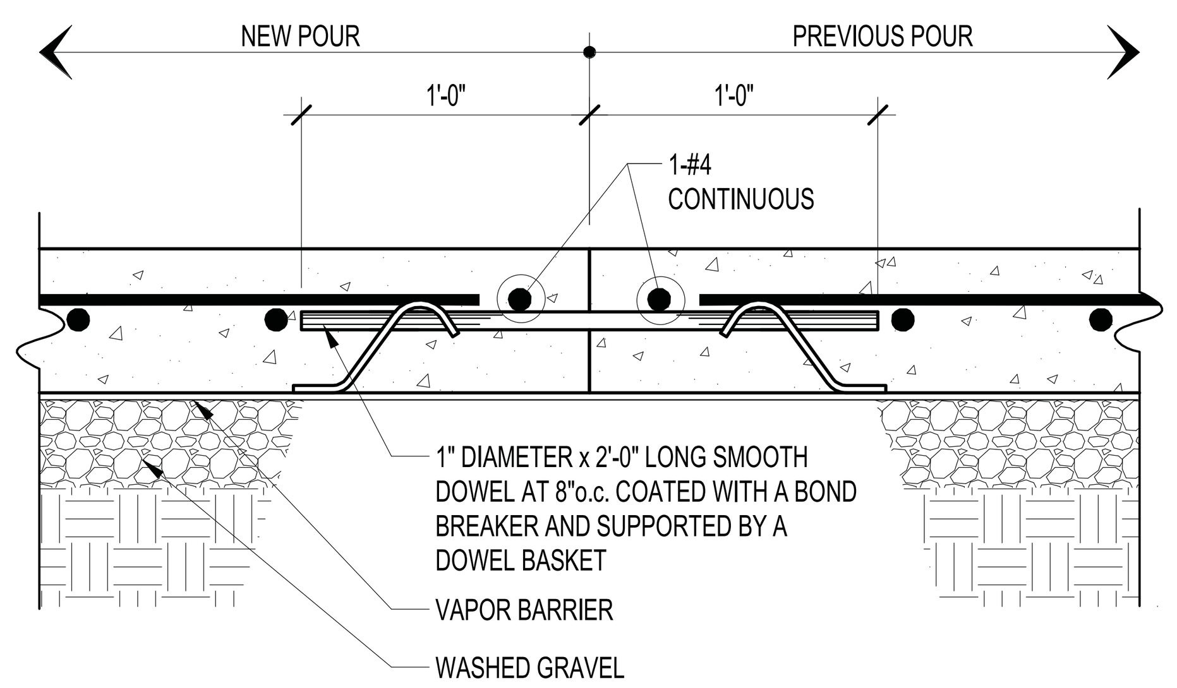
SHEET DESIGNATION	CONTRACT NUMBER
S101	24167 P00
	JOB ORDER NUMBER
	PO 10010489
	38 OF 53
	DRAWING NUMBER
	2024-2800
	FILE NO.: 8

DATE: 9/17/2024
CEI JOB #23-186, REVIT 2023

DWG FILENAME

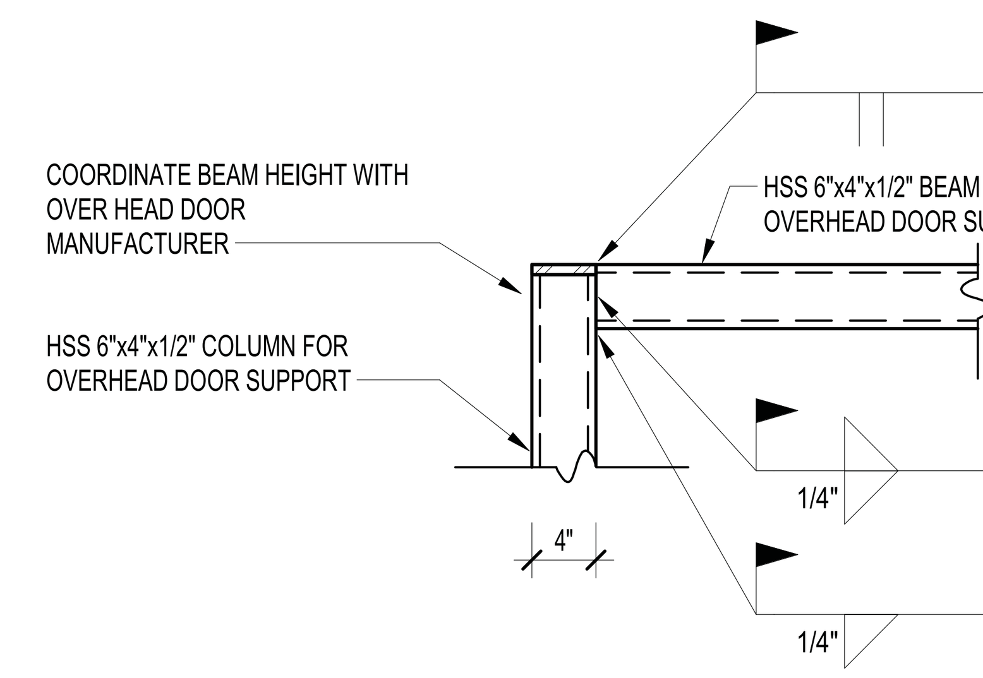


A SECTION
S301
SCALE: 1" = 1'-0"



DOWELED CONSTRUCTION JOINT AT SLAB ON GRADE

B TYPICAL DETAIL
S301
NOT TO SCALE



C SECTION
S301
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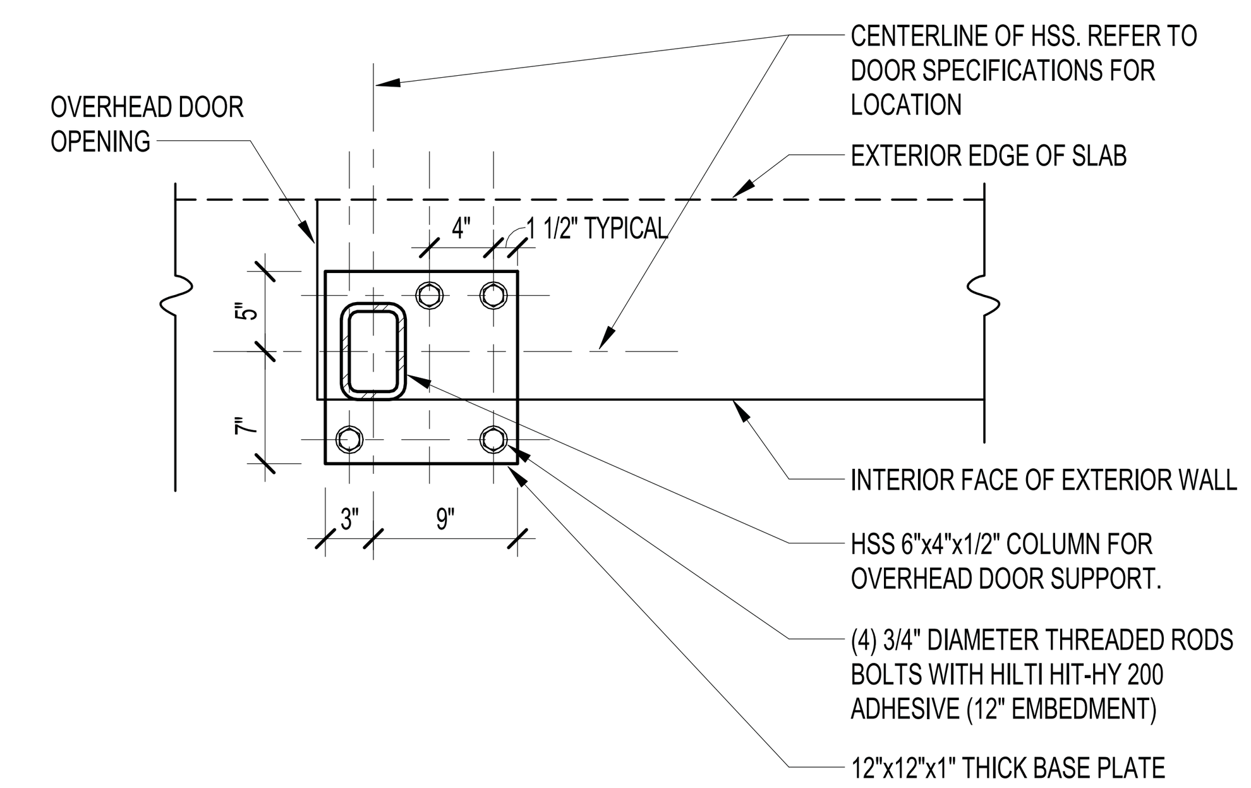

F SECTION
S301
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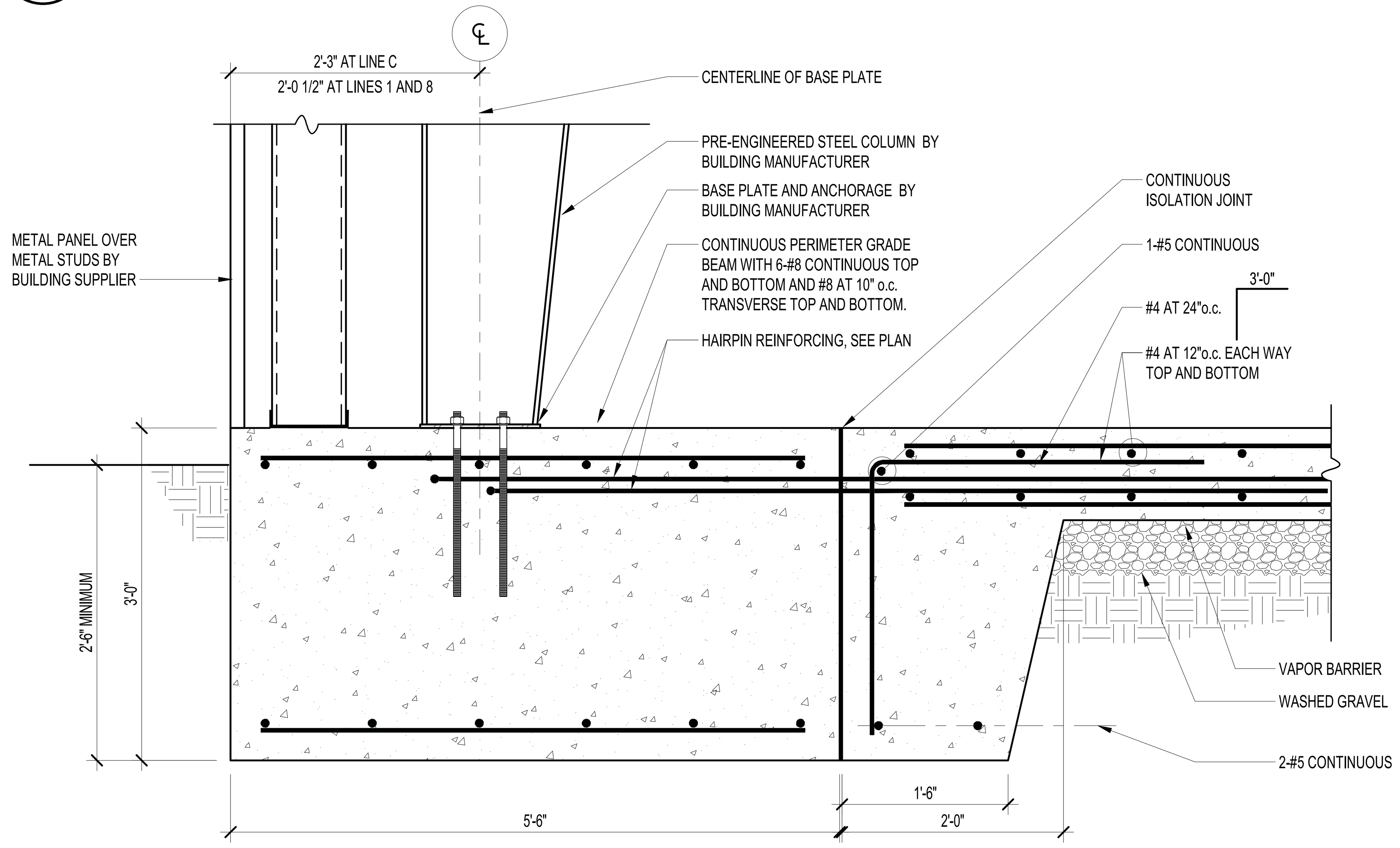

D SECTION
S301
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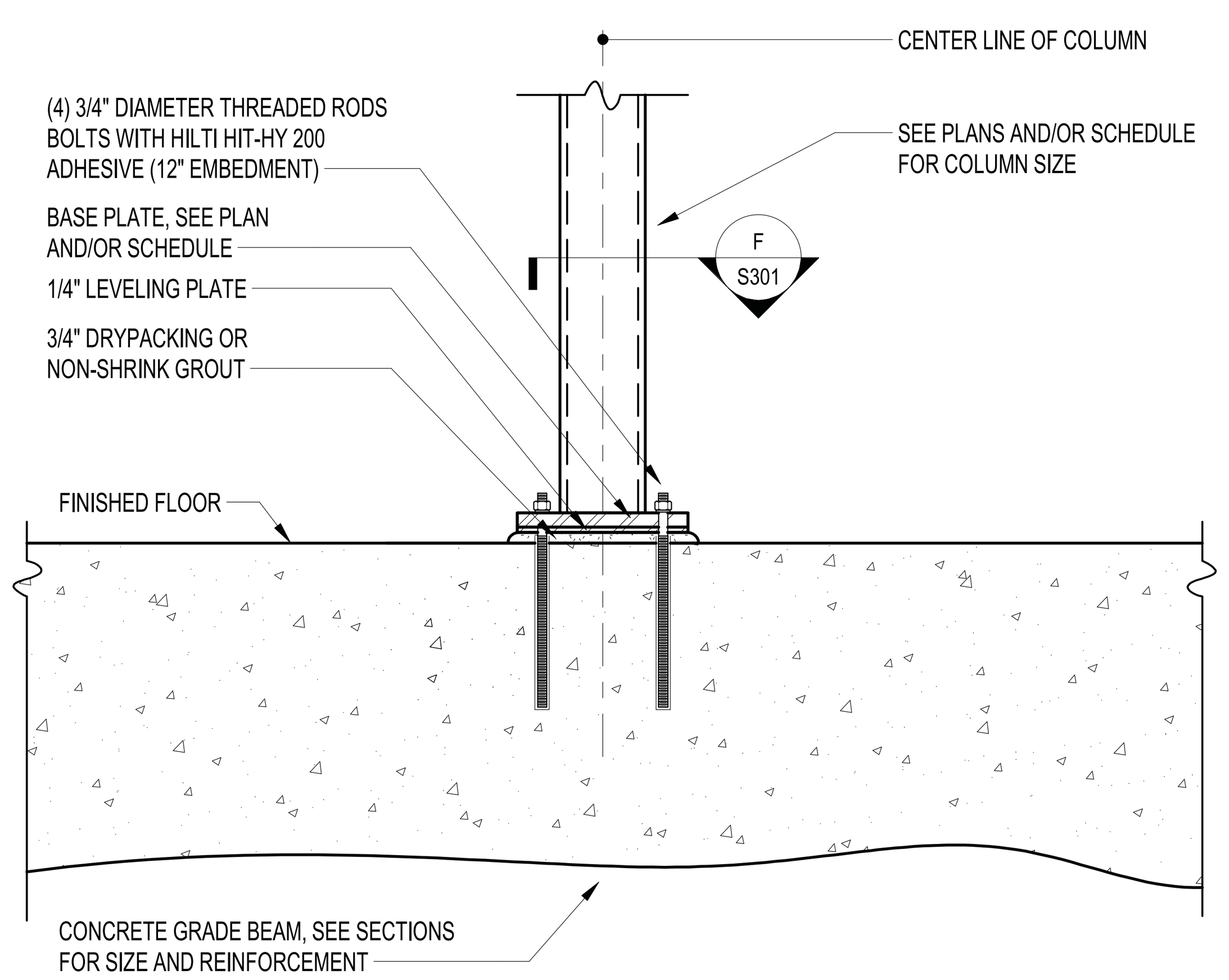
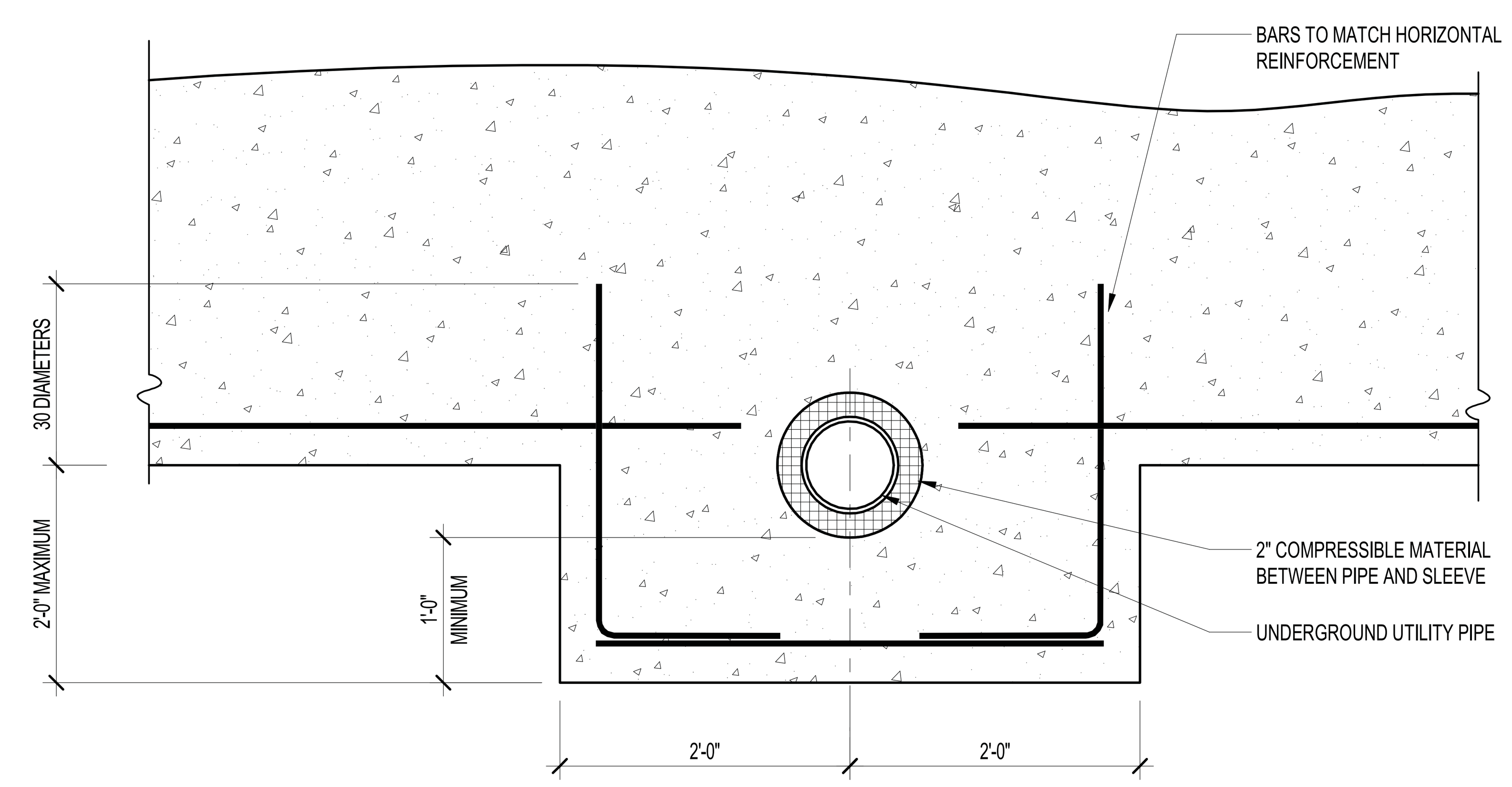


DOOR FRAME COLUMN AND BASE PLATE

E TYPICAL DETAIL
S301
NOT TO SCALE



THICKENED FOOTING AT UTILITY LINES

G TYPICAL DETAIL
S301
SCALE: 1" = 1'-0"

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Columbia, MD 21045

DWG. FILENAME

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DATE: 9/17/2024	AS-BUILT PER RECORD PRINT BY: DATE: / CHKD BY: Checker	DATE REVIEWED:							

CEI JOB #23-186, REVIT 2023

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT

NEW TRUCK GARAGE
SECTIONS
100 % CONSTRUCTION SET 3/4/2025
4419A BUCKS SCHOOLHOUSE ROAD, BALTIMORE, MD 21237

SUBDIVISION: FULLERTON
ELECTION DIST. NO.: 14C5

SHEET DESIGNATION	CONTRACT NUMBER
S301	24167 PO0
	JOB ORDER NUMBER: PO 10010489
	39 OF 53
	DRAWING NUMBER: 2024-2801
	FILE NO.: 8

PLUMBING ABBREVIATIONS

ABOVE FINISHED FLOOR	AFF
ACID VENT	AV
ACID WASTE	AW
AIR HANDLING UNIT	AHU
BACKWATER VALVE	BWV
COMPRESSED AIR	CA
CONDENSATE DRAIN LINE	CD
CLEAN OUT	CO
CONNECTION	CONN
COLD WATER (DOMESTIC)	DCW
DEIONIZED WATER	DI
DESIGNATION	DESIG
EXISTING TO REMAIN	ETR
FEET	FT
FIRE LINE	F
FIRE DEPARTMENT VALVE	FDV
FOUNDATION DRAINAGE	FD
HORSEPOWER	HP
HOT WATER (DOMESTIC)	DHW
HOT WATER RECIRCULATE	DHR
INDIRECT WASTE	IW
KILOWATT(S)	KW
POUNDS	LBS
PUMPED DISCHARGE	PD
MAXIMUM	MAX
THOUSAND BRITISH THERMAL UNITS PER HOUR	MBH
NATURAL GAS	G
NORMALLY CLOSED	NC
NOT IN CONTRACT	NIC
NORMALLY OPEN	NO
REVERSE OSMOSIS	RO
REMOVE EXISTING	RX
REVOLUTIONS PER MINUTE	RPM
ROOF TOP UNIT	RTU
SALT WATER	SAL
SANITARY	SAN
SPRINKLER	SP
STORM WATER	ST
TRAP PRIMING LINE	TPL
TRAP PRIMING VALVE	TPV
UNLESS OTHERWISE NOTED	UON
VACUUM	VAC
VENT	VT
VENT THRU ROOF	VTR
WASTE	W

MECHANICAL ABBREVIATIONS

AIR CHANGES / HOUR	AC / HR	EXISTING TO REMAIN	ETR	NORMALLY CLOSED	NC
ABOVE FINISHED FLOOR	AFF	ENTERING WATER TEMPERATURE	EWT	NOT IN CONTRACT	NIC
AIR HANDLING UNIT	AHU	FLEXIBLE CONNECTION / FORWARD CURVED	FC	NORMALLY OPEN / NUMBER	NO
AIR PRESSURE DROP	APD	FULL LOAD AMPS	FLA	OUTSIDE AIR	OA
ARCHITECTURAL	ARCH	FEET PER MINUTE	FPM	OPEN END DUCT	OED
AUTOMATIC TEMPERATURE CONTROLS	ATC	FEET	FT	POUNDS PER SQUARE INCH	PSI
AIR TERMINAL UNIT	ATU	FACE VELOCITY	FV	PRESSURE	PRESS
BUILDING AUTOMATION SYSTEM	BAS	GALLON(S)	GAL	QUANTITY	QTY
BACK-FLOW PREVENTER	BFP	GRAVITY HOOD (INTAKE OR RELIEF)	GH	RETURN AIR	RA
BRAKE HORSEPOWER	BHP	GALLONS PER MINUTE	GPM	RETURN AIR FAN	RAF
BACKWARD INCLINED	BI	HEIGHT	H	RELATIVE HUMIDITY	RH
BRITISH THERMAL UNIT	BTU	HORSEPOWER	HP	REDUCED PRESSURE BACK-FLOW PREVENTER	RPBFP
BRITISH THERMAL UNITS PER HOUR	BTUH	HEATER	HTR	REVOLUTIONS PER MINUTE	RPM
CAPACITY	CAP	HEAT EXCHANGER	HX	ROOF TOP UNIT	RTU
CUBIC FEET PER HOUR	CFH	HERTZ	HZ	REMOVE EXISTING	RX
CUBIC FEET PER MINUTE	CFM	INCH(ES)	IN	SUPPLY AIR	SA
CONNECT TO EXISTING	CX	KILOWATT	KW	STATIC PRESSURE	SP
DRY BULB	DB	LENGTH	L	TESTING AND BALANCING	TAB
DESIGNATION	DESIG	LEAVING AIR TEMPERATURE	LAT	TOTAL STATIC PRESSURE	TSP
DIAMETER	DIA	POUNDS	LBS	TYPICAL	TYP
DOWN	DN	LOCKED ROTOR AMPS	LRA	UNLESS OTHERWISE NOTED	UON
DIFFERENTIAL PRESSURE SENSOR	DPS	LEAVING WATER TEMPERATURE	LWT	VOLTS	V
DRAWING(S)	DWG	MAXIMUM	MAX	VARIABLE AIR VOLUME	VAV
EXHAUST AIR	EA	THOUSAND BRITISH THERMAL UNITS PER HOUR	MBH	VARIABLE FREQUENCY DRIVE	VFD
ENTERING AIR TEMPERATURE	EAT	MINIMUM CIRCUIT AMPACITY	MCA	WIDTH	W
ENERGY EFFICIENCY RATIO	EER	MECHANICAL EQUIPMENT ROOM	MER	WET BULB	WB
EXHAUST FAN	EF	MAXIMUM FUSE SIZE	MFS	WATER COLUMN	WC
ENERGY MANAGEMENT CONTROL SYSTEM	EMCS	MINIMUM	MIN	WATER GAUGE	WG
EXTERNAL STATIC PRESSURE	ESP	MAXIMUM OVERCURRENT PROTECTION	MOP	WATER PRESSURE DROP	WPD

MECHANICAL GENERAL NOTES

1. THE MECHANICAL AND PLUMBING CONTRACT DRAWINGS ARE DIAGRAMMATIC AND ARE INTENDED TO INDICATE SCOPE AND THE GENERAL ARRANGEMENT OF THE SYSTEMS. WHERE APPLICABLE THE FOLLOWING NOTES SHALL APPLY TO ALL MECHANICAL SYSTEMS.
2. THOUGH SOME DUCTWORK AND PIPING OFFSETS AND TRANSITIONS ARE INDICATED, IT IS NOT THE INTENT OF THE DRAWINGS TO SHOW ALL OFFSETS AND TRANSITIONS REQUIRED. THE CONTRACTOR SHALL FULLY COORDINATE THE MECHANICAL WORK WITHIN ITSELF AND WITH THE WORK OF ALL OTHER TRADES TO PROVIDE COMPLETE AND OPERABLE SYSTEMS WITHOUT INTERFERENCES.
3. SUPPORT ALL EQUIPMENT (I.E. FANS, ETC.) FROM STRUCTURE WITH SPECIFIED VIBRATION ISOLATION.
4. ALL DUCT SIZES REFER TO INTERNAL FREE AREA. REFER TO DRAWINGS AND SPECIFICATIONS FOR INTERNAL INSULATION AND SOUND LINING PRIOR TO FABRICATION.
5. ALL DUCTWORK SHALL BE CONSTRUCTED OF RIGID SHEET METAL UNLESS OTHERWISE NOTED.
6. INSTALL DUCTWORK MAINS TIGHT TO UNDERSIDE OF STRUCTURE UNLESS OTHERWISE INDICATED.
7. REFER TO MECHANICAL DETAILS FOR TYPICAL EQUIPMENT CONNECTIONS.
8. PATCH AND SEAL ALL REMAINING OPENINGS (NEW AND EXISTING) THROUGH FLOORS, CEILINGS, WALLS, AND ROOF RESULTING FROM DEMOLITION OR NEW WORK WITH MATERIALS AND FINISHES TO MATCH EXISTING CONSTRUCTION AND FIRE RATING.
9. AS AN INTEGRAL PART OF THESE DOCUMENTS, THE CONTRACTOR SHALL REFER TO THE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
10. PRIOR TO THE BALANCING OF SYSTEMS BY THE AABC CERTIFIED BALANCING CONTRACTOR, ALL HIGH PRESSURE AND LOW PRESSURE SYSTEMS SHALL BE TESTED BY THE MECHANICAL CONTRACTOR FOR DUCT LEAKAGE. DUCT LEAKAGE SHALL NOT EXCEED 1% FOR A DURATION OF TEN (10) MINUTES. SEE SPECIFICATIONS FOR ADDITIONAL TESTING CRITERIA.
    INSULATION MATERIALS SHALL NOT BE APPLIED UNTIL SYSTEMS HAVE BEEN WITNESSED, DOCUMENTED AND SUBMITTED TO MEET THE ABOVE TESTING REQUIREMENTS. REFER SPECIFICATIONS FOR SYSTEMS INDICATED AS LOW PRESSURE OR HIGH PRESSURE. THE BALANCE CONTRACTOR SHALL WITNESS AND CERTIFY ALL DUCT PRESSURE TESTS.
11. CONTRACTOR SHALL VISIT THE SITE AND VERIFY EXISTING CONDITIONS PRIOR TO THE BEGINNING OF ANY WORK. FAILURE TO VISIT THE SITE SHALL IN NO WAY RELIEVE THE CONTRACTOR FROM ANY RESPONSIBILITY.
12. CONTRACTOR SHALL NOTIFY AND COORDINATE WITH THE OWNER ANY UTILITY OUTAGES. OWNER SHALL BE GIVEN A MINIMUM OF FIVE (5) WORKING DAYS FOR ANY OUTAGES.
13. CONTRACTOR SHALL TEST/BALANCE ALL AIR EQUIPMENT AND DEVICES INDICATED ON THE DOCUMENTS. AIR SYSTEM EQUIPMENT AND DEVICES SHALL INCLUDE, BUT NOT BE LIMITED TO: FANS, AIR VOLUME TERMINAL UNITS, AIR DEVICES, DUCT MOUNTED VOLUME DAMPERS, HOODS, ETC. BALANCE ALL EQUIPMENT AND DEVICES TO THE AIR/WATER FLOWS (CFM OR GPM) INDICATED ON THE DOCUMENTS (WHERE FLOWS ARE NOT CLEARLY INDICATED, CONTACT THE A/E FOR CLARIFICATION).
14. SEE ARCHITECTURAL DOCUMENTS FOR ADDITIONAL ROOFING REQUIREMENTS.
15. WHERE MOTOR STARTERS AND/OR VARIABLE FREQUENCY DRIVES (VFD'S) ARE INDICATED FOR MECHANICAL EQUIPMENT, THEY SHALL COMPLY WITH ALL REQUIREMENTS OUTLINED WITH THE ELECTRICAL SPECIFICATIONS FOR MOTOR STARTERS AND VFD'S. WHERE MOTOR STARTERS AND/OR VFD'S ARE PROVIDED BY THE MECHANICAL CONTRACTOR, OR AS A PORTION OF A PACKAGED MECHANICAL UNIT, THE ELECTRICAL SPECIFICATIONS SHALL ALSO APPLY. ALL VFD'S FOR THE PROJECT, WHETHER PROVIDED BY THE MECHANICAL OR ELECTRICAL CONTRACTOR, SHALL BE PROVIDED BY A SINGLE MANUFACTURER, AND SHALL INCLUDE THE SAME FEATURES AND OPTIONS.

PLUMBING LEGEND

STORM WATER — ST —

COMPRESSED AIR — CA —

FLOOR DRAIN (FD)

FLOOR SINK (FS)

FUNNEL FLOOR DRAIN (FFD)

ROOF DRAIN (RD)

PIPE CONNECTION BOTTOM

PIPE CONNECTION TOP

PIPING ELBOW DOWN

PIPING ELBOW UP

PLUMBING GENERAL NOTES

1. THE PLUMBING CONTRACT DRAWINGS ARE DIAGRAMMATIC AND ARE INTENDED TO INDICATE SCOPE AND THE GENERAL ARRANGEMENT OF THE SYSTEMS.
2. PROVIDE PIPE SLEEVE EXTENDING FULL WIDTH OF FOOTINGS FOR PIPING THROUGH FOOTINGS, FOUNDATION WALLS, ETC.
3. PROVIDE A MINIMUM OF 24 INCHES CLEARANCE FOR RODDING OF CLEANOUTS.
4. CONTRACTOR SHALL COORDINATE ALL WORK WITH ALL OTHER DISCIPLINES PRIOR TO CONSTRUCTION.
5. ACCESS SHALL BE PROVIDED FOR ALL CONCEALED VALVES, CLEANOUTS ETC. LOCATED AT/IN CEILINGS, WALLS OR FLOORS.
6. CONTRACTOR SHALL COORDINATE THE LOCATION OF ALL FLUSH TYPE CLEANOUTS WITH WALLS, EQUIPMENT, DUCTWORK, PIPE, STRUCTURAL MEMBERS, ETC.
7. ALL SPECIFICATIONS AND DRAWINGS (I.E., ARCHITECTURAL, STRUCTURAL, MECHANICAL, PLUMBING, FIRE PROTECTION AND ELECTRICAL) ARE COMPLEMENTARY AND MUST BE USED IN COMBINATION TO OBTAIN COMPLETE CONSTRUCTION INFORMATION.
8. COORDINATE ALL PIPING TO BE INSTALLED WITH OTHER TRADES (I.E., MECHANICAL, FIRE PROTECTION AND ELECTRICAL) TO ASSURE THAT ALL PIPING SYSTEMS ARE INSTALLED ABOVE FINISHED CEILING OR IN A CONCEALED SPACE. ALL CEILING HEIGHTS INDICATED ON ARCHITECTURAL AND/OR INTERIOR DESIGN DRAWINGS AND MINIMUM CLEARANCES REQUIRED BY LOCAL CODES SHALL BE MAINTAINED THROUGHOUT THE BUILDING.
9. ALL CUTTING, DRILLING AND PATCHING OF WALLS, FLOORS OR STRUCTURAL MEMBERS FOR THE INSTALLATION OF THE PLUMBING SYSTEMS SHALL BE PROVIDED BY THE PLUMBING CONTRACTOR. STRUCTURAL COMPONENTS SHALL NOT BE CUT, DRILLED OR MODIFIED IN ANY WAY WITHOUT THE STRUCTURAL ENGINEER'S REVIEW AND APPROVAL.
10. ALL PIPING, SYSTEMS, VALVES AND EQUIPMENT SHALL BE PROPERLY IDENTIFIED.

MECHANICAL LEGEND

SUPPLY AIR & OUTSIDE AIR DUCT UP (DASHED LINES FOR DOWN)

RETURN DUCT UP (DASHED LINES FOR DOWN)

EXHAUST DUCT UP (DASHED LINES FOR DOWN)

FLEXIBLE DUCT

DOUBLE THICKNESS TURNING VANES

EXISTING DUCTWORK

OPEN ENDED DUCT (OED)

NEW DUCTWORK

DUCT TRANSITION ROUND TO RECTANGULAR (ø)

DUCT TRANSITION

CHANGE IN DUCT ELEVATION (R-RISE, D-DROP)

DUCT SIZE (FIRST FIGURE IS SIDE SHOWN) (12x20)

LINEAR SLOT DIFFUSER

BALANCING DAMPER

MOTOR OPERATED DAMPER (MOD)

THERMOSTAT (T)

CARBON DIOXIDE SENSOR (C02)

SEAL: STATE OF MARYLAND — ANDREW CHARLES ENDRES, JR. — No. 18528 — PROFESSIONAL ENGINEER

DATE:

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APRROVED BY ME AND THAT I AN A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 18528, EXPIRATION DATE: 07/27/26.

ENGINEER: | DGN BY: ? | DWN BY: ? | CHKD BY: ?

AS--BUILT PER RECORD PRINT
BY:
DATE:

AS--BUILT / REVISION	BY	DATE	P.W.A NO.	KEY SHEET	POSITION SHT	DRAWING SCALE	PROPERTY MANAGEMENT
				-	-	PLAN SCALE:	APPROVED BY: PROPERTY MANAGER
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BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

SUBDIVISION: FULLERTON

NEW TRUCK GARAGE

MECHANICAL LEGEND, ABBREVIATIONS AND GENERAL NOTES

100 % CONSTRUCTION SET 3/4/2025

4419A BUCKS SCHOOL HOUSE RD, ROSEDALE MD 21237

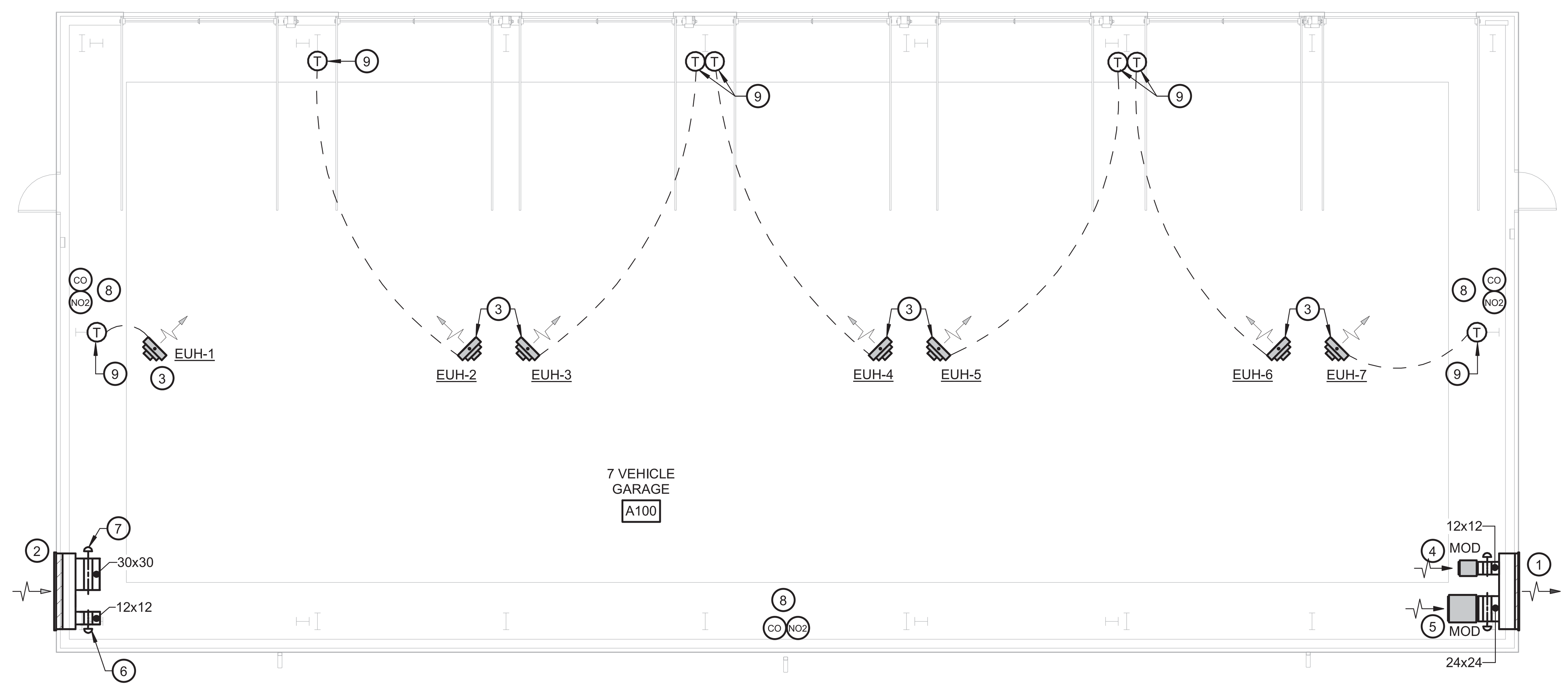
ELECTION DIST. NO.: 14C5

SHEET DESIGNATION	CONTRACT NUMBER
M-001	24XXX P00
	JOB ORDER NUMBER
	PO 10010489
	40 OF 53
	DRAWING NUMBER
	2024-2802
	FILE NO.: 8

BALTIMORE COUNTY MARYLAND

DWG. FILENAME

BKM# 23179.01



GENERAL NOTES:

1. REFER TO M-001 FOR MECHANICAL LEGEND, ABBREVIATIONS AND GENERAL NOTES.
2. LOUVERS SHALL BE LOCATED AS HIGH AS POSSIBLE TO ENSURE CLEARANCE IS MAINTAINED ABOVE PARKED VEHICLES.

DRAWING NOTES:

1. 6'-0" x 4'-0" EXHAUST AIR LOUVER AND 72x48x12 INSULATED PLENUM. LOUVER BY ARCHITECT.
2. 6'-0" x 4'-0" OUTDOOR AIR LOUVER AND 72x48x12 INSULATED PLENUM. LOUVER BY ARCHITECT.
3. 7.5 KW ELECTRIC UNIT HEATER (TYP OF 7). SUPPORT FROM STRUCTURE ABOVE AND HIGH ENOUGH TO AVOID CONFLICT WITH PARKED VEHICLES.
4. INLINE EXHAUST FAN EF-1. INLET SHALL BE OPEN ENDED WITH MESH SCREEN.
5. INLINE PURGE EXHAUST FAN EF-2. INLET SHALL BE OPEN ENDED WITH MESH SCREEN.
6. 12x12 OED WITH MOD. MOD SHALL BE INTERLOCKED WITH EF-1.
7. 30x30 OED WITH MOD. MOD SHALL BE INTERLOCKED WITH EF-2.
8. COMBINED CO AND NO2 SENSOR. EXACT QUANTITY AND LOCATION TO BE DETERMINED BY SENSOR MANUFACTURER TO PROVIDE FULL COVERAGE OF GARAGE AREA.
9. LOCATE THERMOSTAT ON COLUMN.

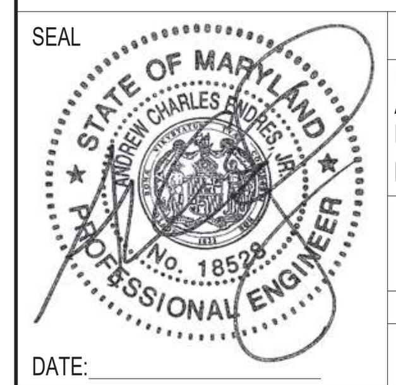
1 FIRST FLOOR PLAN - HVAC - NEW WORK

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

0 2 4 8 16 24
SCALE: 1/8" = 1'-0"

DWG. FILENAME

SEAL



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AS--BUILT PER RECORD PRINT	DWN BY: ?	REVIEWED BY:								
BY: DATE:	CHKD BY: ?	DATE REVIEWED:								

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT

NEW TRUCK GARAGE
FIRST FLOOR PLAN - HVAC
100 % CONSTRUCTION SET 3/4/2025
4419A BUCKS SCHOOL HOUSE RD, ROSEDALE, MD 21237

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ELECTION DIST. NO.: 14C5

SHEET DESIGNATION	CONTRACT NUMBER
M101	24XXX PO0
	JOB ORDER NUMBER: PO 10010489
	41 OF 53
	DRAWING NUMBER: 2024-2803
	FILE NO.: 8

BKM# 23179.01

EXHAUST FAN SCHEDULE

DESIG	LOCATION	AREA SERVED	CFM	ESP (IN)	MOTOR					RPM	FAN TYPE	DRIVE TYPE	METHOD OF CONTROL	BASIS OF DESIGN	
					HP	MAX BHP	VOLTS	PHASE	VFD					MANUFACTURER	MODEL
EF-1	A100 - VEHICLE GARAGE	GARAGE	300	0.5	1/10	0.07	115	1	NO	1550	CENTRIFUGAL INLINE	DIRECT	ATC	GREENHECK	SQ-90
EF-2	A100 - VEHICLE GARAGE	GARAGE (PURGE EXHAUST)	4,200	0.5	2	1.76	208	3	NO	1725	CENTRIFUGAL INLINE	DIRECT	ATC	GREENHECK	SQ-160

ELECTRIC UNIT HEATER SCHEDULE

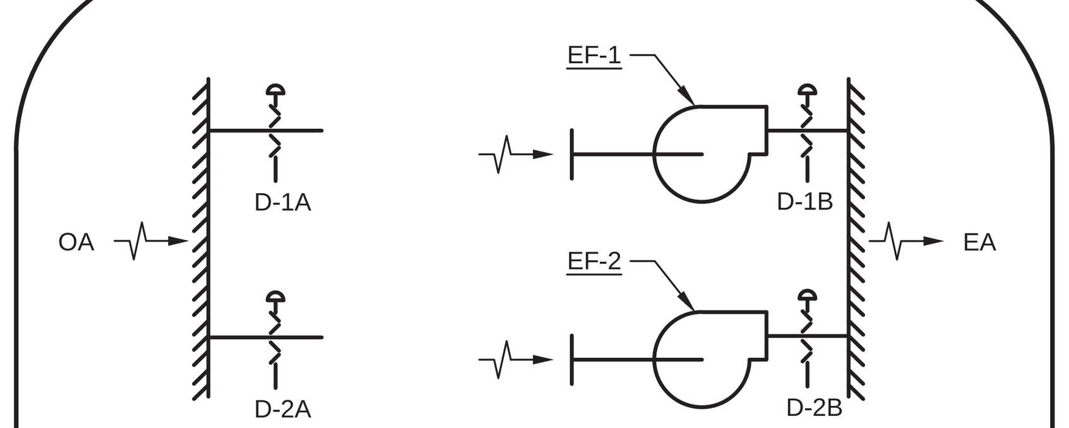
DESIG	AREAS SERVED	MOUNTING	CFM	HEATING CAPACITY		ELECTRICAL CHARACHTERISTICS				WEIGHT (LBS)	BASIS OF DESIGN	
				KW	MBH	VOLTS	PHASE	MCA	MFA		MANUFACTURER	MODEL
EUH-X	A100 - VEHICLE GARAGE	CEILING	580	7.5	25.6	208	3	27.9	30	167	MARKEL	HLA-12

NOTES:
1. REFER TO FLOOR PLAN FOR QUANTITY OF HEATERS.
2. ALL UNIT HEATERS SHALL BE PROVIDED WITH EXPLOSION PROOF MOTORS.
3. PROVIDE FACTORY MOUNTED DISCONNECT SWITCH.

ATC GENERAL NOTES

MC023

1. THE ATC WORK SHALL INCLUDE PROVISIONS FOR A COMPLETE AND OPERABLE CONTROL SYSTEM, INCLUDING ALL DEVICES REQUIRED TO ACHIEVE THE SEQUENCES AND FUNCTIONS INDICATED THROUGHOUT THE CONTRACT DOCUMENTS.
2. THE ATC CONTRACTOR SHALL COORDINATE AND VERIFY THAT ALL CONTROLLERS, DEVICES AND ACCESSORIES ARE PROVIDED AS REQUIRED TO ACCOMPLISH ALL CONTROL FUNCTIONS AND SEQUENCES INDICATED IN THE CONTRACT DOCUMENTS. WHERE CONTROL RELATED DEVICES ARE NOT PROVIDED BY AN EQUIPMENT MANUFACTURER, IT SHALL BE THE RESPONSIBILITY OF THE ATC CONTRACTOR TO PROVIDE THE CONTROL DEVICES REQUIRED TO ACCOMPLISH THE FUNCTIONS AND SEQUENCES INDICATED.
3. GENERAL EXHAUST FANS, VENTILATION FANS, RELIEF AND INTAKE DEVICES SHALL BE PROVIDED WITH MOTOR OPERATED DAMPERS. UNLESS OTHERWISE NOTED, DAMPERS SHALL OPEN WHEN FAN IS ENERGIZED AND CLOSED WHEN FAN IS DE-ENERGIZED.
4. REFER TO SPECIFICATIONS FOR FUNCTIONAL PERFORMANCE TEST VERIFICATION REQUIREMENTS.
5. ALL TEMPERATURE SETPOINTS SHALL BE ADJUSTABLE.



EXHAUST FAN CONTROL

EXHAUST FAN EF-1

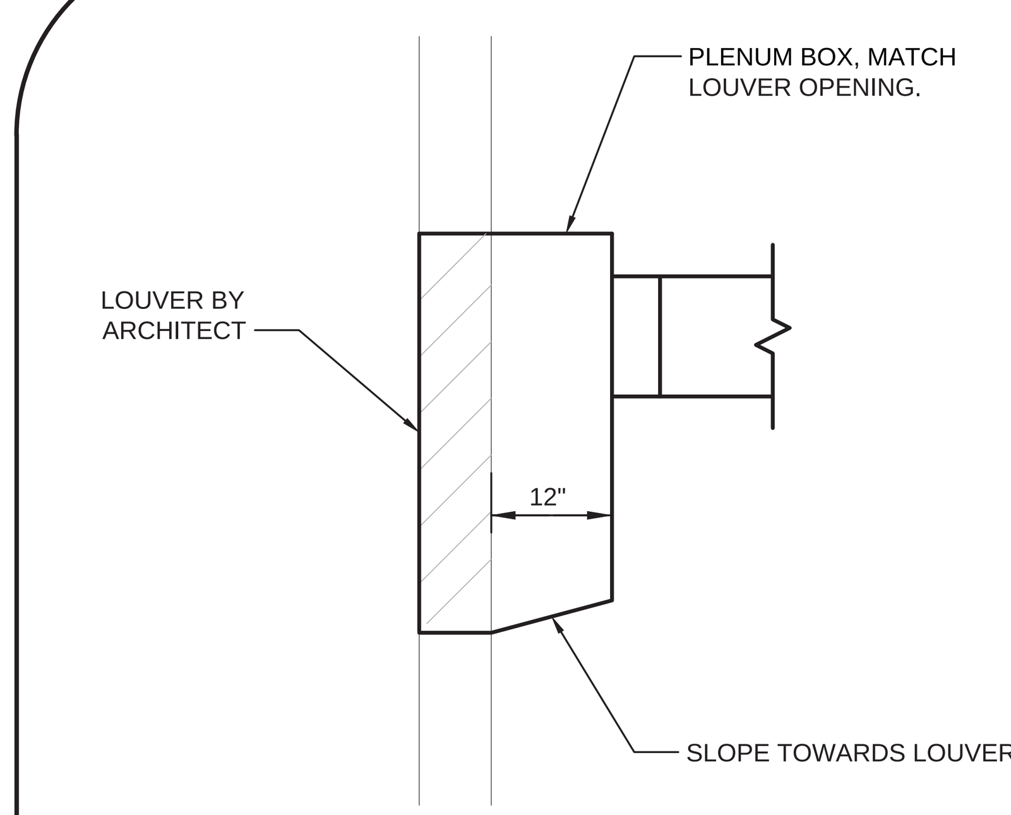
1. OUTDOOR AIR DAMPER D-1A AND EXHAUST DAMPER D-1B, SHALL REMAIN OPEN. EXHAUST FAN SHALL RUN CONTINUOUSLY.

EXHAUST FAN EF-2 (PURGE)

1. UPON DETECTION OF SPACE CARBON MONOXIDE (CO) CONCENTRATION ABOVE SETPOINT OF 25 PPM (ADJUSTABLE) OR NITROGEN DIOXIDE (NO2) CONCENTRATION ABOVE SETPOINT OF 0.7 PPM (ADJUSTABLE), OUTDOOR AIR DAMPER D-2A AND EXHAUST AIR DAMPER D-2B SHALL OPEN AND EXHAUST FAN EF-2 SHALL ENERGIZE.
2. UPON FALL IN SPACE CO OR NO2 CONCENTRATION BELOW SETPOINTS, THE OPPOSITE SHALL OCCUR.
3. UPON DETECTION OF SPACE CO CONCENTRATION OF 100 PPM OR NO2 CONCENTRATION OF 1.5 PPM, ALARM LOCALLY WITH VISUAL AND AUDIBLE ALARM.

ELECTRIC UNIT HEATER CONTROL

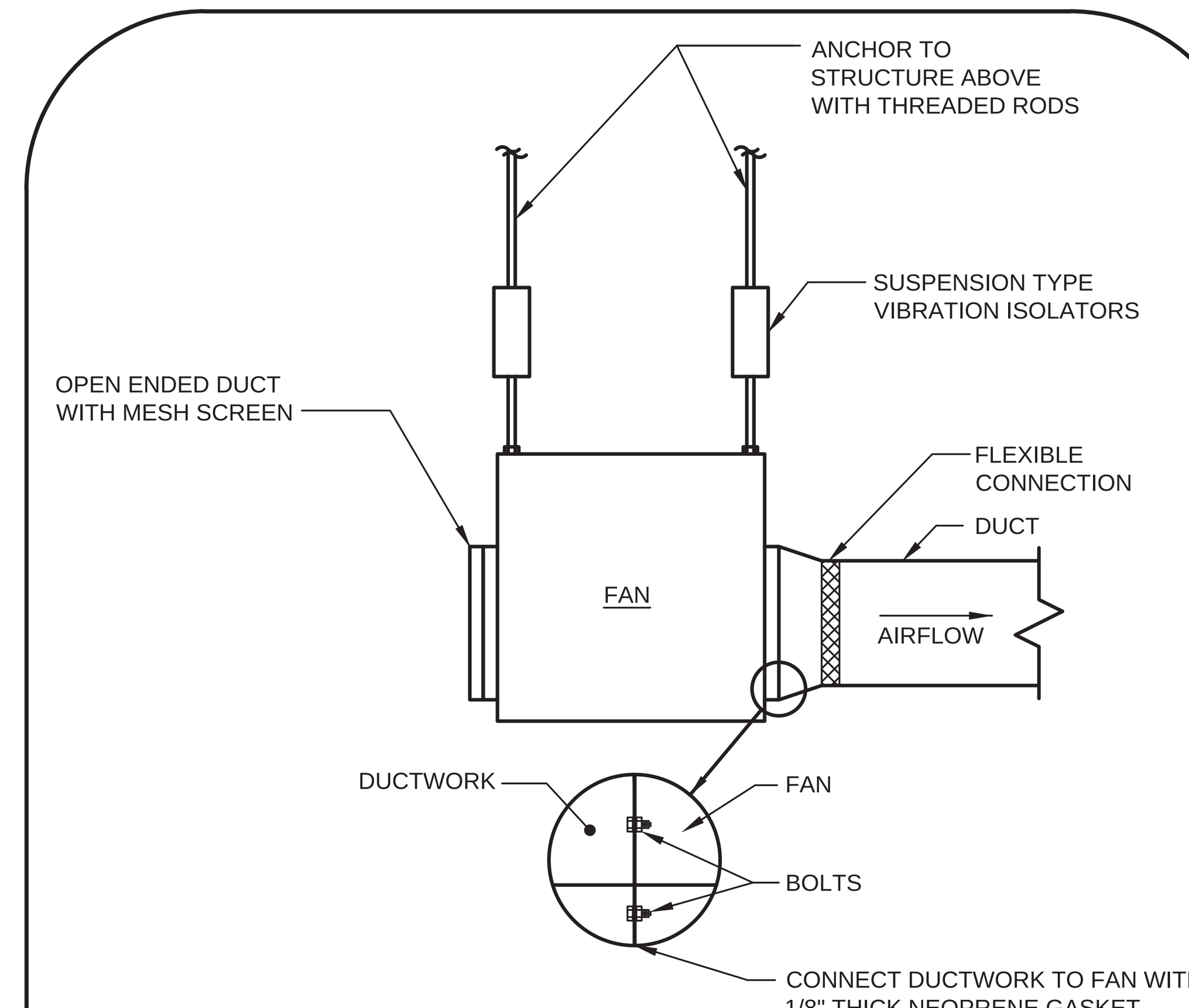
1. ELECTRIC HEATER THERMOSTATS SHALL BE DESIGNED TO OPERATE ON A 2°F DIFFERENTIAL OVER A RANGE OF 45°F-85°F AND SHALL BE OF THE START/STOP TYPE.
2. FAN MOTOR SHALL CYCLE TO MAINTAIN THERMOSTAT SETTING 45°F (ADJUSTABLE). THERMOSTAT SHALL BE MOUNTED IN RETURN AIR.
3. ELECTRIC HEATING COIL SHALL ENERGIZE TO MAINTAIN THERMOSTAT SETTING OF 45°F (ADJUSTABLE).
4. ELECTRIC HEATING COIL SHALL BE INTERLOCKED WITH FAN.



1 LOUVER DETAIL (OUTSIDE AND EXHAUST AIR)

NO SCALE

NOTES:
1. OUTSIDE AIR PLENUM BOX SHALL BE INSULATED AND/OR DOUBLE WALL LINED DUCT.



2 CENTRIFUGAL IN-LINE FAN DETAIL

NO SCALE

MD0070

SEAL	PROFESSIONAL CERTIFICATION		AS--BUILT / REVISION	BY	DATE	P.W.A NO.	KEY SHEET	POSITION SHT	DRAWING SCALE	PROPERTY MANAGEMENT
STATE OF MARYLAND ANDREW CHARLES ENDRES, JR. No. 18528 PROFESSIONAL ENGINEER	I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APRROVED BY ME AND THAT I AN A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 18528, EXPIRATION DATE: 07/27/26.		CONTRACT COMPLETION BOX				-	-	PLAN SCALE: PROFILE SCALE:	APPROVED BY: PROPERTY MANAGER DATE:
	ENGINEER:	DGN BY: ?	BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
	AS--BUILT PER RECORD PRINT	DWN BY: ?	REVIEWED BY:							
DATE:	BY: DATE:	CHKD BY: ?	DATE REVIEWED:							

SUBDIVISION: FULLERTON

NEW TRUCK GARAGE
MECHANICAL DETAILS, CONTROLS & SCHEDULES
100 % CONSTRUCTION SET 3/4/2025
4419A BUCKS SCHOOL HOUSE RD, ROSEDALE MD 21237

ELECTION DIST. NO.: 14C5

SHEET DESIGNATION	CONTRACT NUMBER
M-201	24XXX P00
BALTIMORE COUNTY MARYLAND	JOB ORDER NUMBER
	PO 10010489
	42 OF 53
	DRAWING NUMBER
	2024-2804
	FILE NO.: 8

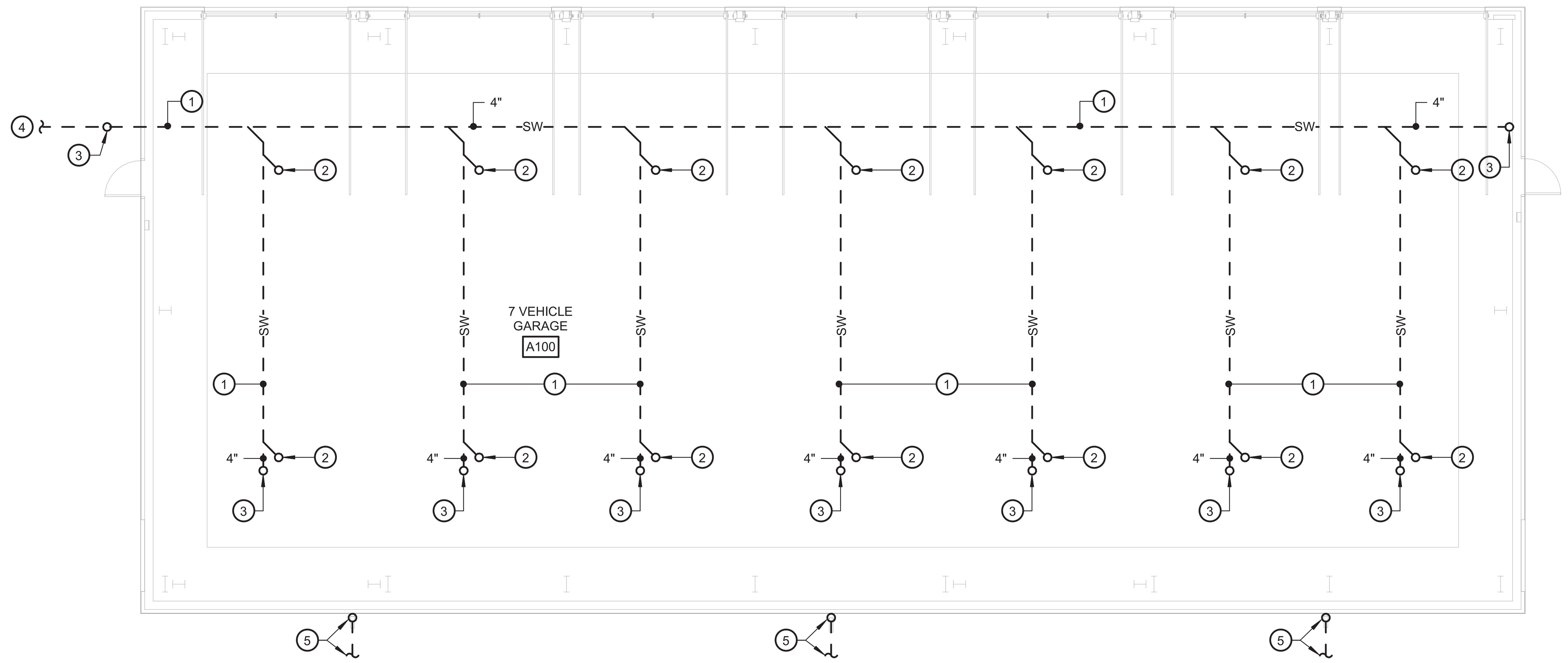
BKM# 23179.01

100 % CONSTRUCTION SET 3/4/2025

ARL: G:\23179.01\Drawings\Acad\M\M201 JETTVAC SCHEDULES

Plotted By: Roel Castillo-Hernandez | 10/11/2024 9:54 AM

DWG. FILENAME



1 FIRST FLOOR PLAN - PLUMBING - NEW WORK

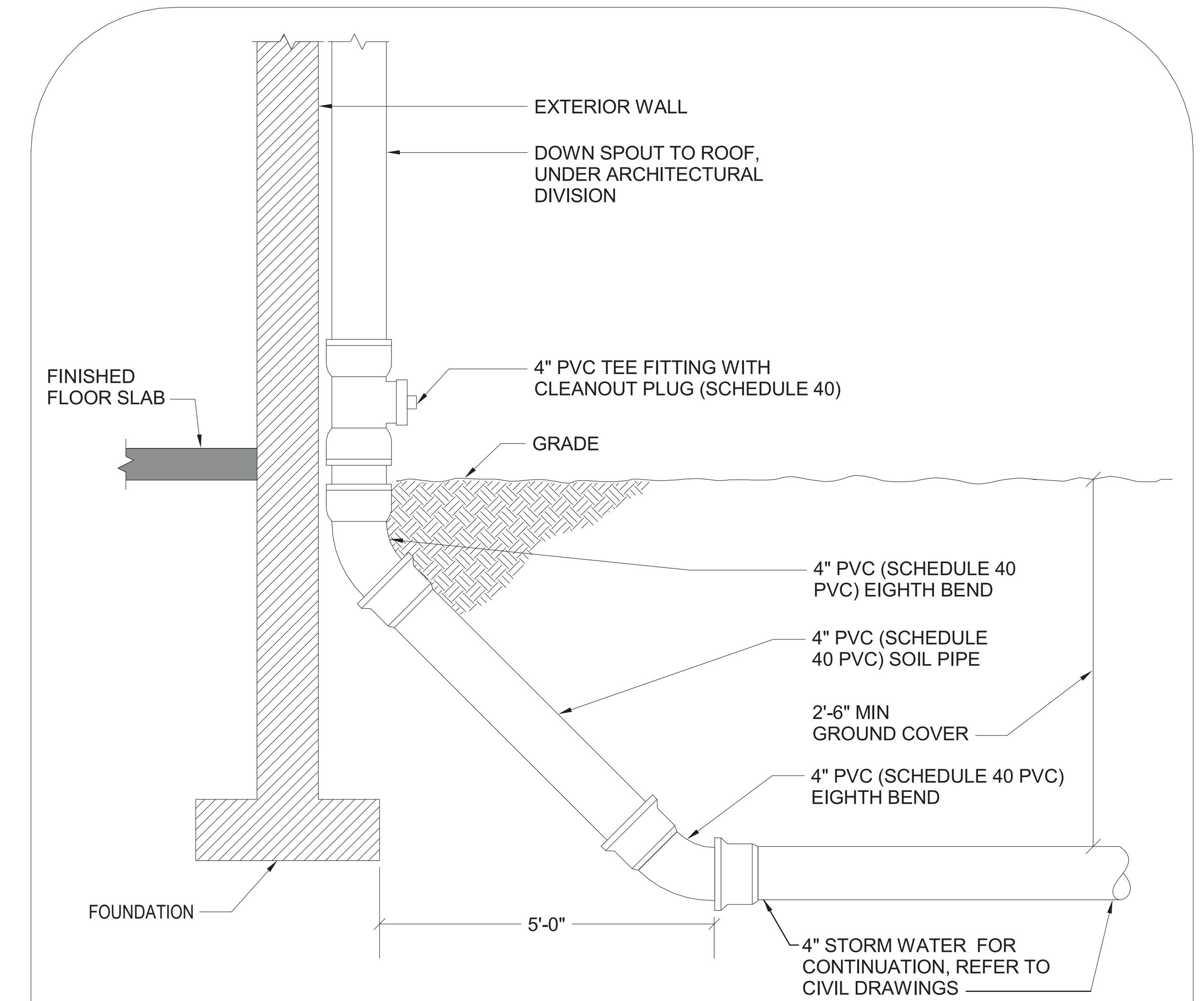
SCALE: 1/8" = 1'-0"

GENERAL NOTES:

1. REFER TO M-001 FOR PLUMBING LEGEND, ABBREVIATIONS AND GENERAL NOTES.

DRAWING NOTES:

1. 4" STORM WATER PIPING BELOW SLAB. ALL STORM WATER PIPING SHALL RUN AT 1% SLOPE.
2. 4" STORM WATER PIPING UP TO AREA DRAIN. AREA DRAIN STRAINER SHALL BE 8" ROUND AND SHALL BE HEAVY DUTY, RATED FOR TRAFFIC. SLOPE FLOOR TO EACH DRAIN.
3. 4" STORM WATER PIPING UP TO CLEANOUT. CLEANOUT COVER SHALL BE HEAVY DUTY TYPE, RATED FOR TRAFFIC.
4. 4" STORM WATER PIPING OUT TO SITE. PIPE INVERT ELEVATION +/- 2'-6" BELOW F.F.E. REFER TO CIVIL DRAWINGS FOR CONTINUATION.
5. 4" PVC DOWNSPOUT BOOT. DOWNSPOUT UNDER ANOTHER DIVISION. PIPE INVERT ELEVATION +/- 2'-6" BELOW F.F.E. REFER TO CIVIL DRAWINGS FOR CONTINUATION.



2 DOWNSPOUT BOOT DETAIL

NO SCALE

PD00298

NOTE: REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS.

0 2 4 8 16 24

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

DWG. FILENAME

SEAL	PROFESSIONAL CERTIFICATION	AS--BUILT / REVISION	BY	DATE	P.W.A NO.	KEY SHEET	POSITION SHT	DRAWING SCALE	PROPERTY MANAGEMENT
STATE OF MARYLAND ANDREW CHARLES ENDRES, JR. No. 18528 PROFESSIONAL ENGINEER	I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APRROVED BY ME AND THAT I AN A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 18528, EXPIRATION DATE: 07/27/26.	CONTRACT COMPLETION BOX				-	-	PLAN SCALE: PROFILE SCALE:	APPROVED BY: PROPERTY MANAGER DATE:
	ENGINEER: / DGN BY: ?	BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
	AS--BUILT PER RECORD PRINT / DWN BY: ?	REVIEWED BY:							
DATE:	BY: DATE: / CHKD BY: ?	DATE REVIEWED:							

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT

NEW TRUCK GARAGE

FIRST FLOOR PLAN - PLUMBING

100 % CONSTRUCTION SET 3/4/2025

4419A BUCKS SCHOOL HOUSE RD, ROSEDALE, MD 21237

SUBDIVISION: FULLERTON

ELECTION DIST. NO.: 14C5

SHEET DESIGNATION	CONTRACT NUMBER
P101	24XXX PO0
BALTIMORE COUNTY MARYLAND	JOB ORDER NUMBER: PO 10010489
	43 OF 53
	DRAWING NUMBER: 2024-2805
	FILE NO.: 8

BKM# 23179.01

ELECTRICAL LEGEND

DRAWING SYMBOLS

- DRAWING NOTE (APPLIES TO THIS DRAWING ONLY)
- DETAIL, SECTION OR ELEVATION NUMBER
- DRAWING NUMBER
- REVISION NUMBER - CLOUDED AREA ON DRAWING CONTAINS REVISION

DEMOLITION SYMBOLS

- EXISTING ELECTRICAL CIRCUIT TO BE REMOVED
- EXISTING ELECTRICAL EQUIPMENT TO BE REMOVED
- EXISTING ELECTRICAL CIRCUIT TO REMAIN
- EXISTING ELECTRICAL EQUIPMENT TO REMAIN
- TOGGLE SWITCH TO BE DEMOLISHED

ELECTRICAL POWER PLAN SYMBOLS

- ELECTRICAL CIRCUIT - 2 #12, 1 #12 GW IN 3/4" CONDUIT, UON
- HOMERUN TO PANELBOARD
- ELECTRICAL CIRCUIT CONCEALED BELOW GRADE OR FINISHED FLOOR
- CONDUIT TURNING UP
- CONDUIT TURNING DOWN
- CLOCK OUTLET, 80" AFF OR 6" BELOW CEILING, WHICHEVER IS LOWER.
- JUNCTION BOX: CEILING, WALL OR FLUSH-FLOOR MOUNTED
- (GFCI, WP, xx") DUPLEX RECEPTACLE - 2P, 3W, 20A, 125V, NEMA 5-20R IN RECESSED OUTLET BOX, 18" AFF, UON:
  - xx" - DENOTES MOUNTING HEIGHT.
  - WP - WEATHERPROOF, MW - MICROWAVE,
  - RE - REFRIGERATOR, CM - COFFEE MAKER,
  - DW - DISHWASHER,
  - GFCI - GROUND FAULT CIRCUIT INTERRUPTER
- DUPLEX RECEPTACLE, MOUNTED 6" ABOVE COUNTERTOP BACK SPLASH UNLESS OTHERWISE NOTED
- DUPLEX RECEPTACLE - 2P, 3W, 20A, 125V, NEMA 5-20R IN SURFACE OUTLET BOX, 18" AFF, UON
- TWO DUPLEX RECEPTACLES WITH COMMON FACEPLATE 2P, 3W, 20A, 125V, NEMA 5-20R IN RECESSED TWO-GANG OUTLET BOX, 18" AFF, UON
- TWO DUPLEX RECEPTACLES WITH COMMON FACEPLATE IN SURFACE OUTLET BOX, 18" AFF, UON
- SPECIAL RECEPTACLE, 18" AFF UON (TYPE AS NOTED) 1 - RANGE: NEMA '14-50' RECEPTACLE, 30" AFF
  2 - DRYER: NEMA '14-30' RECEPTACLE, 30" AFF
  3 - SERVER RACK: NEMA 'L6-30' RECEPTACLE, 30A, 208V.
- TRANSFORMER, TYPE AS NOTED ON DRAWING
- CEILING MOUNTED CORD REEL
- PANELBOARD, RECESSED OR SURFACE MOUNTED
- ELECTRICAL MOTOR
- S_M MOTOR SWITCH WITH THERMAL OVERLOAD
- DISCONNECT SWITCH. REFER TO DRAWINGS FOR FUSE SIZE AND RATING
- HARD-WIRED CONNECTION.

ELECTRICAL POWER RISER SYMBOLS

- (90A) FUSE - NUMERAL INDICATES FUSE AMPERE RATING
- (90A) LOW VOLTAGE MOLDED CASE CIRCUIT BREAKER, RATING AS INDICATED, SEE SCHEDULE FOR TYPE AND ACCESSORIES
- TRANSFORMER, TYPE AS NOTED ON DRAWING
- CURRENT TRANSFORMER
- 3 PHASE DELTA CONNECTION
- 3 PHASE WYE CONNECTION WITH GROUNDED NEUTRAL
- GROUNDING
- (M) WATT / HOUR METER

LIGHTING PLAN SYMBOLS

- (A) UPPER CASE - FIXTURE TYPE (TYPICAL FOR ALL LIGHTING FIXTURES) - SEE LIGHTING FIXTURE SCHEDULE
- (1) NUMERICAL INDICATES CIRCUIT NUMBER,
- LIGHTING FIXTURE: DOWNLIGHT, 2' x 4' & 2' x 2'
- (a) LOWER CASE - INDICATES CONTROLLING SWITCH(ES) (TYPICAL FOR ALL LIGHTING FIXTURES)
- LIGHTING FIXTURE ON BATTERY BACKUP
- LIGHTING FIXTURE, WALL MOUNTED - SEE LIGHTING FIXTURE SCHEDULE
- SITE LIGHTING FIXTURE, POLE MOUNTED. SEE LIGHTING FIXTURE SCHEDULE
- S_a SINGLE POLE TOGGLE SWITCH - SUBSCRIPT INDICATES FIXTURES CONTROLLED BY THE SWITCH (TYPICAL FOR ALL LIGHTING SWITCHES), 48" AFF, UON:
  - 3 - THREE WAY TOGGLE SWITCH,
  - 4 - FOUR WAY TOGGLE SWITCH,
  - D - DIMMER SWITCH, K - KEY SWITCH,
  - P - PILOT LIGHT, T - TIMER,
  - O - WALL MTD. OCCUPANCY SENSOR,
  - WP - WEATHERPROOF, LV - LOW VOLTAGE
- (PC) PHOTOCELL CONTROL, INDOOR
- (OS) OCCUPANCY SENSOR - CEILING MOUNTED, WALL MOUNTED

ELECTRICAL ABBREVIATIONS

A	AMPERE
AC	ALTERNATING CURRENT
AFC	ABOVE FINISHED COUNTER
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHU	AIR HANDLING UNIT
AIC	AMPERE INTERRUPTING CAPACITY
ANSI	AMERICAN NAT'L STANDARDS INSTIT.
ASYM	ASYMMETRICAL
ATC	AUTOMATIC TEMPERATURE CONTROL
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BATT	BATTERY
BLDG	BUILDING
C	CONDUIT
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CLG	CEILING
CPT	CONTROL POWER TRANSFORMER
CT	CURRENT TRANSFORMER
CTLR	CONTROLLER
CTR	CENTER
CTRL	CONTROL
CU	COPPER
CX	CONNECT TO EXISTING
DB	DIRECT BURIAL
DIA	DIAMETER
DN	DOWN
DWG	DRAWING
ECB	ENCLOSED CIRCUIT BREAKER
EF	EXHAUST FAN
ELEC	ELECTRIC / ELECTRICAL
EMER	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
EQUIP	EQUIPMENT
ETR	EXISTING TO REMAIN
EWC	ELECTRIC WATER COOLER
EX	EXISTING
FA	FIRE ALARM
FAP	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FCU	FAN COIL UNIT
FDR	FEEDER
F	FUSED OR FUSIBLE
FLA	FULL LOAD AMPERES
FSD	FIRE/SMOKE DAMPER
FSS	FUSED SAFETY SWITCH
FVNR	FULL VOLTAGE NON-REVERSING
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GW	GROUND WIRE
GND	GROUND
HOA	HAND-OFF-AUTOMATIC
HP	HORSEPOWER
HZ	HERTZ
JB	JUNCTION BOX
KCMIL	THOUSAND CIRCULAR MILS
KVA	KILOVOLT-AMPERE
KW	KILOWATT
LTG	LIGHTING
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MCP	MOTOR CIRCUIT PROTECTOR
MDP	MAIN DISTRIBUTION PANEL
MECH	MECHANICAL
MH	MANHOLE
MLO	MAIN LUGS ONLY
MTD	MOUNTED
MT HT	MOUNTING HEIGHT
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUF. ASSOC.
NF	NON-FUSED
NFSS	NON-FUSED SAFETY SWITCH
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
PH or Ø	PHASE
P	POLE
PB	PUSH BUTTON
PNL	PANEL
PVC	POLYVINYL CHLORIDE
RM	ROOM
RX	REMOVE EXISTING
SW	SWITCH
SCHED	SCHEDULE
SD	SMOKE DAMPER
SEC	SECONDARY
SFA	SPRINKLER FLOW ALARM
SS	SAFETY SWITCH
SYM	SYMMETRICAL
TEL	TELEPHONE
TTB	TELEPHONE TERMINAL BOARD
TYP	TYPICAL
UG	UNDERGROUND
UH	UNIT HEATER
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERUPTIBLE POWER SYSTEM
V	VOLT
VFD	VARIABLE FREQUENCY DRIVE
VPS	VALVE POSITION (TAMPER) SWITCH
W	WIRE
WAP	WIRELESS ACCESS POINT
WP	WEATHERPROOF
XFMR	TRANSFORMER

SEAL: STATE OF MARYLAND, RICHARD ADAM MILLER, No. 20513, REGISTERED PROFESSIONAL ENGINEER

DATE:

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APRROVED BY ME AND THAT I AN A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

LICENSE NO. 20513, EXPIRATION DATE: 07/17/26.

ENGINEER:

AS–BUILT PER RECORD PRINT

BY:

DATE:

DGN BY: RCH

DWN BY: RCH

CHKD BY: RAM

AS–BUILT / REVISION	BY	DATE	P.W.A NO.	KEY SHEET	POSITION SHT	DRAWING SCALE		PROPERTY MANAGEMENT
				-	-	PLAN SCALE:		APPROVED BY: PROPERTY MANAGER
CONTRACT COMPLETION BOX						PROFILE SCALE:		DATE:
BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER	
REVIEWED BY:								
DATE REVIEWED:								

SUBDIVISION: FULLERTON

NEW TRUCK GARAGE

ELECTRICAL LEGEND, AND ABBREVIATIONS

100 % CONSTRUCTION SET 3/4/2025

4419A BUCKS SCHOOL HOUSE RD, ROSEDALE MD 21237

ELECTION DIST. NO.: 14C5

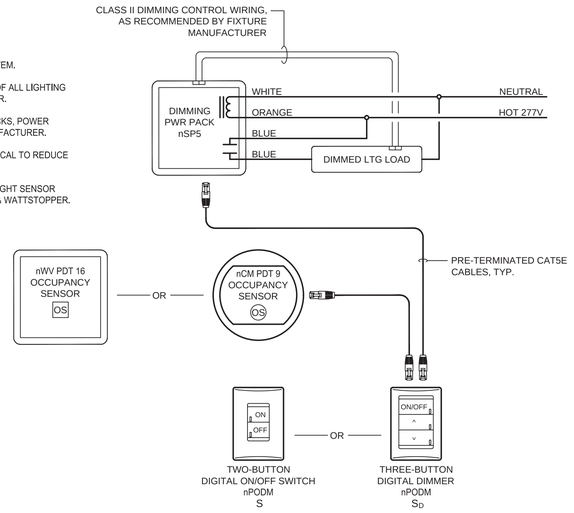
BALTIMORE COUNTY MARYLAND

SHEET DESIGNATION	CONTRACT NUMBER
E001	24XXX PO0
	JOB ORDER NUMBER
	PO 10010489
	44 OF 53
	DRAWING NUMBER
	2024-2806
	FILE NO.: 8

BKM# 23179.01

DETAIL NOTES:

1. ALL NEW LIGHTING CONTROLS SHALL BE LOW VOLTAGE SYSTEM.
2. CONTRACTOR SHALL COORDINATE WIRING REQUIREMENTS OF ALL LIGHTING CONTROL DEVICES WITH LIGHTING CONTROL MANUFACTURER.
3. CONTRACTOR SHALL COORDINATE QUANTITY OF POWER PACKS, POWER SUPPLIES & OTHER DEVICES WITH LIGHTING CONTROL MANUFACTURER.
4. PROVIDE MULTI-BUTTON DIMMERS/SWITCHES WHERE PRACTICAL TO REDUCE TOTAL DEVICE QUANTITY.
5. BASIS OF DESIGN FOR LIGHTING CONTROLLER SYSTEM IS NLIGHT SENSOR SWITCH WITH ACCEPTABLE EQUALS BY GREENGATE-EATON & WATTSTOPPER.



TYPICAL LIGHTING CONTROL WIRING DIAGRAM

SCALE: NONE

BRANCH CIRCUIT WIRE SIZING

(20 AMPERE SINGLE PHASE CIRCUITS) (1) (4)		
(5) LENGTH OF RUN	HOMERUN SIZE (2)	CIRCUIT WIRE SIZE (3)
120 VOLT SYSTEM		
0' - 50'	#12	#12
50' - 100'	#10	#12
100' - 175'	#8	#10
175' - 300'	#6	#8
208 OR 240 VOLT SYSTEM		
0' - 125'	#12	#12
125' - 200'	#10	#12
200' - 300'	#8	#10
277 VOLT SYSTEM		
0' - 150'	#12	#12
150' - 275'	#10	#12
275' - 400'	#8	#10

WIRE SIZING CHART NOTES:

1. WIRING FOR BRANCH CIRCUITS PROTECTED BY 20 AMPERE OVERCURRENT PROTECTIVE DEVICES SHALL BE SIZED IN ACCORDANCE WITH THE ABOVE TABLE (UON). WIRING FOR OTHER BRANCH CIRCUITS SHALL BE SIZED AS SHOWN ON DRAWINGS. EQUIPMENT GROUNDING CONDUCTOR SHALL BE SIZED THE SAME AS THE HOMERUN/CIRCUIT CONDUCTOR.
2. HOMERUN LENGTH SHALL BE FROM THE PANELBOARD TO THE CLOSEST OUTLET, DEVICE OR FIXTURE ON THE CIRCUIT.
3. CIRCUIT LENGTH SHALL BE FROM THE CLOSEST TO THE FARTHEST OUTLET, DEVICE OR FIXTURE.
4. PROVIDE CODE COMPLIANT MEANS OF REDUCING CONDUCTOR SIZE AS NEEDED FOR TERMINATIONS. PROVIDE ADDITIONAL JUNCTION BOXES, SPLICES, LUGS, ETC. AS NEEDED.
5. LENGTH OF RUN REFERS TO THE LENGTH OF THE HOME RUN OR THE LENGTH OF THE CIRCUIT (WITH EACH DEFINED IN NOTES 2 & 3).

GENERAL NEW WORK NOTES:

1. REFER TO ARCHITECTURAL DRAWINGS FOR ROOM NAME LIST.
2. DRAWINGS SHALL NOT BE SCALED. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS AND MOUNTING HEIGHTS OF FIXTURES AND DEVICES.
3. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATIONS OF LIGHTING FIXTURES.
4. REFER TO ARCHITECTURAL DRAWINGS FOR COLORS AND FINISHES FOR WIRING DEVICES AND COVERPLATES.
5. THE ELECTRICAL CONTRACTOR SHALL COORDINATE HIS WORK WITH THAT OF ALL OTHER TRADES. THE ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ALL OTHER DRAWINGS AND SPECIFICATIONS SHALL BE CONSULTED AND COORDINATED WITH PRIOR TO ROUGH-IN.
6. REFER TO MECHANICAL PLANS FOR EXACT MECHANICAL EQUIPMENT LOCATION & ELECTRICAL CONNECTION REQUIREMENTS.
7. WHEREVER POSSIBLE, THE CONTRACTOR SHALL OBTAIN ACTUAL ROUGH-IN DRAWINGS FOR THE ACTUAL ITEM OF EQUIPMENT TO BE INSTALLED PRIOR TO ROUGH-IN. THIS SHALL APPLY TO ALL EQUIPMENT, WHETHER IT IS TO BE INSTALLED BY THE CONTRACTOR OR BY THE OWNER.
8. IT IS THE INTENT OF THESE DRAWINGS THAT ALL NEW ELECTRICAL WORK TO BE INSTALLED IN FINISHED AREAS, BE INSTALLED CONCEALED WITHIN NEW OR EXISTING WALLS, FLOORS OR CEILINGS. ANY AND ALL CUTTING AND PATCHING OF SURFACES SHALL BE PROVIDED BY THE CONTRACTOR. SURFACE METAL RACEWAYS SHALL BE PERMITTED IN FINISHED AREAS ONLY WHERE SPECIFICALLY APPROVED IN THE FIELD BY THE ARCHITECT.
9. PRIOR TO PURCHASE AND INSTALLATION OF ANY MOTOR CONTROL EQUIPMENT (STARTERS, ETC.), THE CONTRACTOR SHALL VERIFY THE ACTUAL MOTOR ELECTRICAL CHARACTERISTICS. STARTER OVERLOADS SHALL BE SIZED IN ACCORDANCE WITH THE ACTUAL MOTOR RUNNING LOAD AMPERES.
10. PROVIDE EQUIPMENT GROUNDING CONDUCTORS FOR ALL FEEDERS AND CIRCUITS.
11. WHERE CIRCUIT AND HOMERUN LINES ARE NOT SHOWN, PROVIDE MINIMUM 2#12+1#12 GROUND IN 3/4" CONDUIT. FOR CIRCUITS WITH SHARED NEUTRAL, PROVIDE NO MORE THAN 3#12 (PHASE), 1#12 (NEUTRAL) AND 1#12 GROUND IN 3/4" CONDUIT. CIRCUITS SHALL NOT SHARE NEUTRAL CONDUCTORS UNLESS NOTED OTHERWISE REFER TO BRANCH CIRCUIT WIRE SIZING CHART FOR SIZING OF CONDUCTORS FOR LONG CIRCUITS.
12. COORDINATE NUMBER AND TYPE OF CONDUCTORS REQUIRED FOR DIMMING CIRCUITS WITH TYPE OF DIMMING BALLAST/DIMMER SWITCHES TO BE PROVIDED.
13. FOR INTERIOR AND EXTERIOR LIGHTING FIXTURES WITH EMERGENCY DRIVERS, PROVIDE HOT CONDUCTOR IN ADDITION TO SWITCHLEG FROM WALL SWITCH, TIME CLOCK, CONTACTOR, ETC. THE ONLY EXCEPTION TO THIS IS FOR INTERIOR FIXTURES DESIGNATED AS NIGHT LIGHTS.
14. MC CABLE IS PROHIBITED. ALL CONDUCTORS SHALL MUST BE RUN IN CONDUIT.
15. UNLESS NOTED OTHERWISE, ALL CONDUCTORS SHOWN ON THESE DRAWINGS HAVE BEEN SIZED BASED ON COPPER IN ACCORDANCE WITH 75° C (167° F) INSULATION TYPE. FOR OTHER TYPES OF CABLE, SIZE ACCORDING TO NEC TABLE 310.16 FOR PROPER AMPACITY.
16. WHERE LIGHT SWITCHES ARE SHOWN GROUPED TOGETHER, THEY SHALL BE UNDER MULTIGANG PLATE. WHERE DIMMER SWITCHES ARE USED, SELECTION OF CAPACITY SHALL BE BASED ON LOAD SERVED AND ANY DE-RATING REQUIRED DUE TO GANGING OF SWITCHES.
17. ON THE ROOF, XHHW-2 CONDUCTORS SHALL BE USED.
18. CIRCUIT NUMBERS INDICATED ARE FOR CLARIFICATION OF GROUPING ONLY. ADJUST CIRCUIT NUMBERS TO COORDINATE WITH ACTUAL CIRCUIT BREAKERS USED.
19. PROVIDE TYPED CIRCUIT DIRECTORIES FOR ALL PANELBOARDS TO INDICATE TYPE OF LOAD SERVED AND AREA SERVED (E.G. RECEPTACLES-OFFICE 201).
20. PROVIDE LABEL ON ALL RECEPTACLE COVER PLATES. LABEL SHALL INDICATE SOURCE PANEL & CIRCUIT NUMBER. COORDINATE WITH ARCHITECT & OWNER FOR DIRECTION ON WHETHER TO PUT LABEL ON FRONT OR BACK SIDE OF COVER PLATE. IF ON BACK SIDE OF COVER PLATE, USE PERMANENT, INDELIBLE, BLACK MARKER. IF ON FRONT OF COVER PLATE, PROVIDE LAMINATED POLYESTER, STICK-ON TYPE LABEL WITH BLACK LETTERING ON CLEAR BACKGROUND (SEE SPECIFICATION). FORMAT LABEL IS AS FOLLOWS: PANEL NAME - CIRCUIT NUMBER. IF BUILDING STANDARD IS ALREADY IN PLACE, USE THE BUILDING STANDARD IN LIEU OF THE LABELING CALLED FOR IN THIS NOTE.
21. ALL EQUIPMENT IN THE FAULT CURRENT / COORDINATION / ARC FLASH STUDY SHALL HAVE ITS AVAILABLE FAULT CURRENT LABELED IN THE FIELD.
22. CABLES AND CONDUITS RUN UNDER ROOF DECKING SHALL BE INSTALLED PER NEC 300.4 (E).
23. ALL PANELBOARDS, ECB's, AND DISCONNECT SWITCHES SHALL BE LABELED AS TO THEIR SOURCE AND IN ACCORDANCE WITH CLIENT STANDARDS.
24. MECHANICAL EQUIPMENT ELECTRICAL CONNECTIONS ARE SIZED BASED ON THE MECHANICAL BASIS OF DESIGN (BOD). IF OTHER MECHANICAL EQUIPMENT IS SUBMITTED THAT IS OTHERWISE EQUAL TO THE BOD, IT MAY BE APPROVED CONTINGENT ON THE REQUIREMENT THAT ANY ADDITIONAL ELECTRICAL COST, INCLUDING ANY POSSIBLE DESIGN AND/OR ENGINEERING COST, BE ABSORBED BY THE CONTRACTOR AT NO COST TO THE OWNER.
25. ALL EQUIPMENT TERMINATIONS SHALL BE RATED AT 75 DEGREES. IF ANY EQUIPMENT TERMINATIONS ARE RATED AT 60 DEGREES, CONTRACTOR SHALL DERATE CABLES TO 60 DEGREES PER NEC ARTICLE 110.14(C)(1)(a) AND NEC ARTICLE 310.15 AT NO COST TO THE OWNER.

LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	MOUNTING	LAMP	VOLTS	WATTS	LUMENS	COLOR TEMP.	MANUFACTURER CATALOG NO.	NOTES
A	4' LED LOW BAY FIXTURE	CC17	LED	MVOLT	60	7828	3500K	COLUMBIA #RLB4-35-LHHE-FAM-EDU-CM48SCF3-KIT	
AE	4' LED LOW BAY FIXTURE WITH EMERGENCY BATTERY	CC17	LED	MVOLT	60	7828	3500K	COLUMBIA #RLB4-35-LHHE-FAM-EDU-ELL14-CM48SCF3-KIT	
B	EXTERIOR WALL PACK WITH PHOTOCONTROL	WS18	LED	MVOLT	63	7700	3500K	BEACON #TRP2-36L-55-4K8-4F-UNV-PC	
BE	EXTERIOR WALL PACK WITH PHOTOCONTROL AND EMERGENCY BATTERY	WS18	LED	MVOLT	63	7700	3500K	BEACON #TRP2-36L-55-4K8-4F-UNV-PC-E	
C	LED SITE LIGHT FIXTURE WITH TYPE III DISTRIBUTION	P25	LED	480	133	16360	4000K	LITHONIA #RSX1 LED-P4-40K-R3-HVOLT-SPA-DF-DDBXD #SSS-QS-25-4C-DDBXD	

MOUNTING:

CS - CEILING, SURFACE	WS# - WALL MTD, SURFACE, # FEET AFF
CR - CEILING, RECESSED, ACT	WR# - WALL MTD, RECESSED, # FEET AFF
CC# - CEILING, SUSPENDED, # FEET AFF	UC - UNDER CABINET
CG - CEILING, RECESSED, GYPSUM BOARD	P# - POLE MOUNTED, # FEET

ARL: G:\23179.01\Drawings\Acad\EGARAGEE002.JETTVAC

Plotted By: Roel Castillo-Hernandez | 9/16/2024 3:51 PM

SEAL

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AN A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

LICENSE NO. 20513, EXPIRATION DATE: 07/17/26

ENGINEER: _____ DGN BY: RCH

AS–BUILT PER RECORD PRINT BY: DWN BY: RCH

DATE: CHKD BY: RAM

AS–BUILT / REVISION | BY | DATE | P.W.A NO.

CONTRACT COMPLETION BOX

BUREAU OF ENGINEERING AND CONSTRUCTION | TRAFFIC | HIGHWAYS | STRUCTURES | STORM DRAINS | SEWER | WATER | FIELD ENGINEER

REVIEWED BY:

DATE REVIEWED:

KEY SHEET: - | POSITION SHT: -

DRAWING SCALE: PLAN SCALE: _____ PROFILE SCALE: _____

PROPERTY MANAGEMENT: APPROVED BY: _____ PROPERTY MANAGER DATE: _____

SUBDIVISION: FULLERTON

NEW TRUCK GARAGE

ELECTRICAL GENERAL NOTES AND LIGHT FIXTURE SCHEDULE

100 % CONSTRUCTION SET 3/4/2025

4419A BUCKS SCHOOL HOUSE RD, ROSEDALE MD 21237

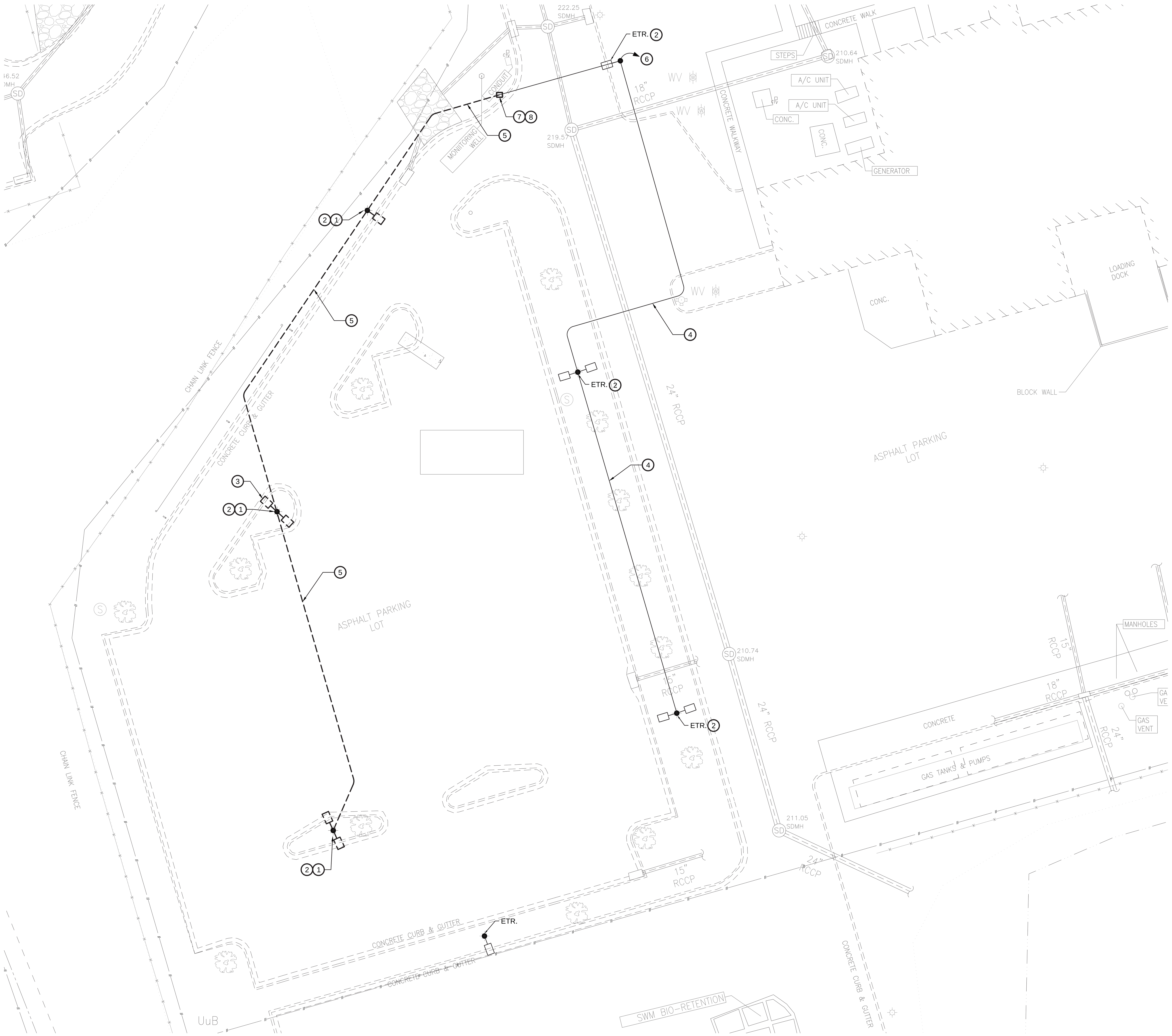
ELECTION DIST. NO.: 14C5

DWG. FILENAME: -

SHEET DESIGNATION	CONTRACT NUMBER
E002	24XXX P00
	JOB ORDER NUMBER: PO 10010489
	45 OF 53
	DRAWING NUMBER: 2024-2807
	FILE NO.: 8

BKM# 23179.01

100 % CONSTRUCTION SET 3/4/2025



GENERAL NOTES:

1. REFER TO E001 FOR ELECTRICAL LEGEND, ABBREVIATIONS AND GENERAL NOTES.

DRAWING NOTES:

1. REMOVE EXISTING POLE AND ASSOCIATED LIGHT FIXTURES. REMOVE ASSOCIATED WIRING AND CONDUIT BACK TO NEAREST CONNECTION POINT. PROTECT AND RETAIN POLES AND ASSOCIATED LIGHT FIXTURE FOR RELOCATION AS INDICATED ON NEW WORK.
2. CONTRACTOR TO PROVIDE CIRCUIT TRACING FOR LIGHT POLE WIRING. IDENTIFY CIRCUIT ROUTING, SOURCE, AND CONTROLS. CONTRACTOR TO SUBMIT CIRCUIT TRACING REPORT TO ENGINEER OF RECORD UPON COMPLETION.
3. DISCONNECT EXISTING LIGHT FIXTURE FROM POLE. TURN OVER LIGHT FIXTURE TO OWNER FOR SALVAGED USE. PROVIDE BLANK PLATE OVER OPENING IN POLE FROM REMOVED LIGHT FIXTURE. PAINT PLATE TO MATCH POLE.
4. ASSUMED SITE LIGHTING CIRCUIT ROUTING PER EXISTING CONSTRUCTION DOCUMENTS.
5. REMOVE EXISTING SITE LIGHTING CIRCUIT BACK TO WHERE NEW HAND HOLE IS SHOWN.
6. PER EXISTING CONSTRUCTION DOCUMENTS, SITE LIGHTING FED FROM 480V PANEL PB1 LOCATED IN MAIN ELECTRICAL ROOM IN PUMP BUILDING. CIRCUIT NUMBERS 8,10,12 VIA 3#6 AWG + 1#6 GND.
7. PROVIDE NEW HAND HOLE FOR SITE LIGHTING. BOD SHALL BE HUBBLE QUAZITE. SEE DETAIL ON E301 FOR ADDITIONAL INFORMATION. ADJUST LOCATION BASED ON FIELD CONDITIONS.
8. INTERCEPT EXISTING SITE LIGHTING AT NEW HAND HOLE. PROTECT AND RETAIN CIRCUITRY FOR RECONNECTION SHOWN IN NEW WORK.

1 SITE PLAN - ELECTRICAL - DEMOLITION
SCALE: 1" = 20'-0"

Plotted By: Roel Castillo-Hernandez | 9/16/2024 3:25 PM

ARL: G:\23179.01\Drawings\Acad\E\GARAGE\E003 - DEMO SITE PLAN

DWG. FILENAME

SEAL	PROFESSIONAL CERTIFICATION		AS--BUILT / REVISION	BY	DATE	P.W.A NO.	KEY SHEET	POSITION SHT	DRAWING SCALE	PROPERTY MANAGEMENT
STATE OF MARYLAND RICHARD ADAM MILLER No. 20513 REGISTERED PROFESSIONAL ENGINEER	I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APRROVED BY ME AND THAT I AN A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 20513, EXPIRATION DATE: 07/17/26.		CONTRACT COMPLETION BOX				-	-	PLAN SCALE: PROFILE SCALE:	APPROVED BY: PROPERTY MANAGER DATE:
	ENGINEER:	DGN BY: RCH	BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
	AS--BUILT PER RECORD PRINT	DWN BY: RCH	REVIEWED BY:							
DATE:	BY: DATE:	CHKD BY: RAM	DATE REVIEWED:							

NEW TRUCK GARAGE
SITE PLAN - ELECTRICAL - DEMOLITION
100 % CONSTRUCTION SET 3/4/2025
4419A BUCKS SCHOOL HOUSE RD, ROSEDALE MD 21237

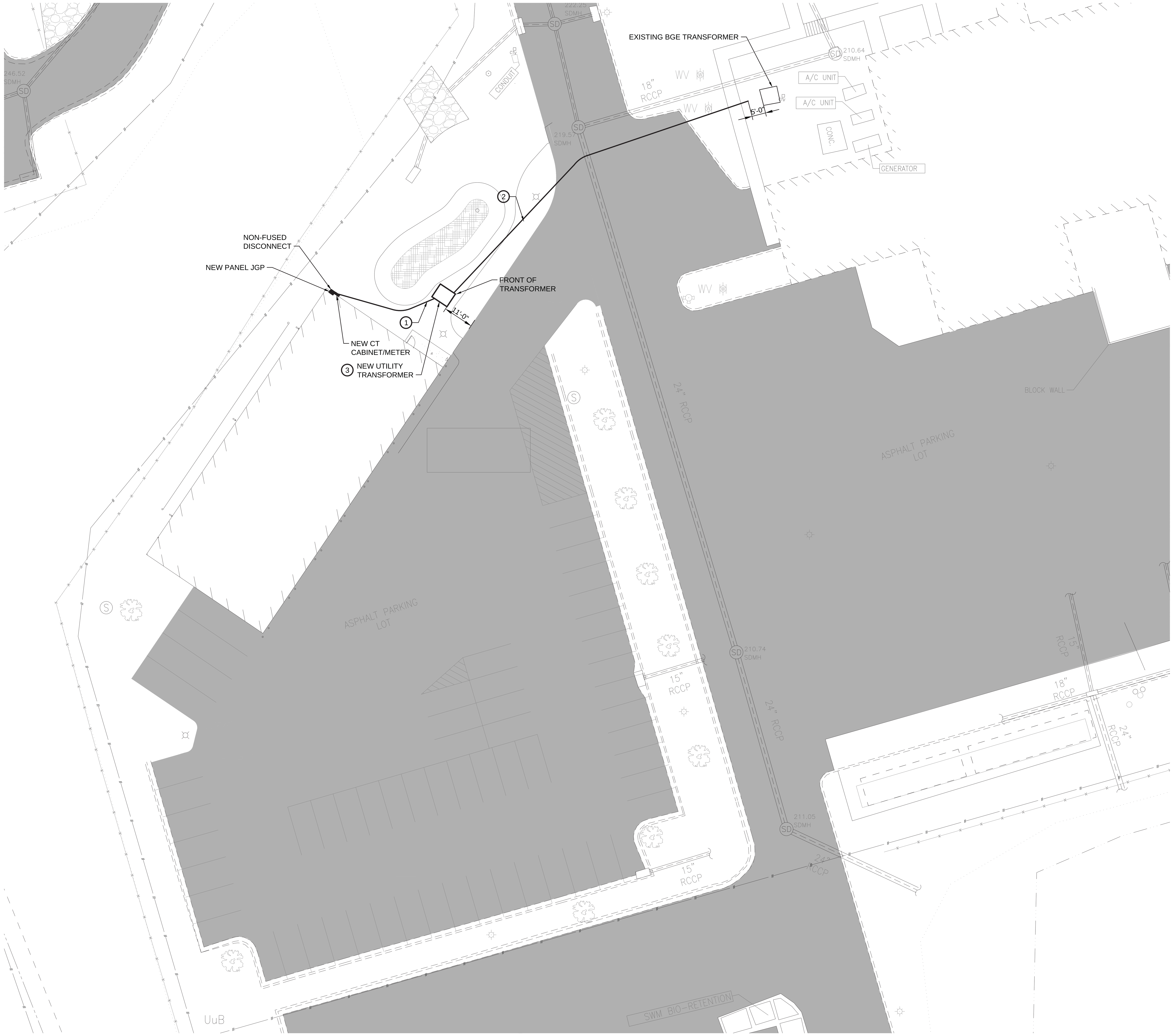
SUBDIVISION: FULLERTON

ELECTION DIST. NO.: 14C5

SHEET DESIGNATION	CONTRACT NUMBER
E003	24XXX PO0
BALTIMORE COUNTY MARYLAND	JOB ORDER NUMBER
	PO 10010489
	46 OF 53
	DRAWING NUMBER
	2024-2808
	FILE NO.: 8

BKM# 23179.01

100 % CONSTRUCTION SET 3/4/2025



1 SITE PLAN - POWER - NEW WORK

SCALE: 1" = 20'-0"

GENERAL NOTES:

1. REFER TO E001 FOR ELECTRICAL LEGEND, ABBREVIATIONS AND GENERAL NOTES.
2. ALL ELECTRICAL SERVICE WORK MUST COMPLY WITH BGE STANDARDS. COORDINATE WITH BGE AS REQUIRED.

◯ DRAWING NOTES:

1. PROVIDE (2) 4" CONDUIT FROM NEW PAD MOUNTED UTILITY TRANSFORMER TO CT CABINET/METER. ONE DUCT IS SPARE. STUB SPARE 6" AFG, BENEATH METER. DEPTH IS 30" MINIMUM.
2. PROVIDE (2) 4" DIRECT BURIED CONDUIT(S) WITH PULL WIRE FROM NEW TRANSFORMER PRIMARY TO A POINT 5 FEET FROM EXISTING UTILITY TRANSFORMER. INSTALLED CONDUITS SHALL BE AT A MINIMUM OF 3'-0" DEPTH PER BGE STANDARDS. ONE CONDUIT IS SPARE. CONDUCTORS SHALL BE PROVIDED AND INSTALLED BY ELECTRIC UTILITY PROVIDER.
3. NEW PAD MOUNTED TRANSFORMER BY UTILITY. PROVIDE CONCRETE PAD PER UTILITY REQUIREMENTS.

ARL: G:\23179.01\Drawings\Acad\E\GARAGE\E004 - POWER NEW WORK SITE PLAN

Plotted By: Roel Castillo-Hernandez | 9/16/2024 3:25 PM

DWG. FILENAME

SEAL	PROFESSIONAL CERTIFICATION		AS–BUILT / REVISION	BY	DATE	P.W.A NO.	KEY SHEET	POSITION SHT	DRAWING SCALE		PROPERTY MANAGEMENT
STATE OF MARYLAND RICHARD ADAM MILLER No. 20513 REGISTERED PROFESSIONAL ENGINEER	I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APRROVED BY ME AND THAT I AN A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 20513, EXPIRATION DATE: 07/17/26.						-	-	PLAN SCALE:		APPROVED BY: PROPERTY MANAGER
			CONTRACT COMPLETION BOX						PROFILE SCALE:		DATE:
	ENGINEER:	DGN BY: RCH	BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER	
	AS–BUILT PER RECORD PRINT	DWN BY: RCH	REVIEWED BY:								
DATE:	BY: DATE:	CHKD BY: RAM	DATE REVIEWED:								

SUBDIVISION: FULLERTON

NEW TRUCK GARAGE

SITE PLAN - POWER - NEW WORK

100 % CONSTRUCTION SET 3/4/2025

4419A BUCKS SCHOOL HOUSE RD, ROSEDALE MD 21237

ELECTION DIST. NO.: 14C5

-

SHEET DESIGNATION	CONTRACT NUMBER
E004	24XXX PO0
BALTIMORE COUNTY MARYLAND	JOB ORDER NUMBER
	PO 10010489
	47 OF 53
	DRAWING NUMBER
	2024-2809
	FILE NO.: 8

1 SITE PLAN - LIGHTING - NEW WORK

SCALE: 1" = 20'-0"

GENERAL NOTES:

1. REFER TO E001 FOR ELECTRICAL LEGEND, ABBREVIATIONS AND GENERAL NOTES.
2. ALL NEW UNDERGROUND SITE LIGHTING CIRCUIT CONDUCTORS SHALL BE COPPER WITH TYPE RHH/RHHW INSULATION. .

○ DRAWING NOTES:

1. REINSTALL EXISTING POLE AND ASSOCIATED FIXTURE RETAINED DURING DEMOLITION. CIRCUIT EACH POLE LIGHT TO PHASES (ϕ) NOTED ON SITE PLAN. PROVIDE CONCRETE CAISSON FOUNDATION.
2. EXTEND EXISTING SITE LIGHTING CIRCUIT TO RELOCATED POLE AS INDICATED. PROVIDE 3#6 AWG + 1#6 GND IN (1) 1-1/2" CONDUIT.
3. ASSUMED SITE LIGHTING CIRCUIT ROUTING PER EXISTING CONSTRUCTION DOCUMENTS.
4. PER EXISTING CONSTRUCTION DOCUMENTS, SITE LIGHTING FED FROM 480V PANEL PB1 LOCATED IN MAIN ELECTRICAL ROOM IN PUMP BUILDING. CIRCUIT NUMBERS 8,10,12 VIA 3#6 AWG + 1#6 GND.
5. PROVIDE TYPE C LIGHT FIXTURE, NEW POLE, AND FOUNDATION. REFER TO LIGHT FIXTURE SCHEDULE FOR BOD.
6. CONNECT NEW CONDUCTORS TO EXISTING CONDUCTORS IN NEW HAND HOLE.
7. WALL MOUNTED LIGHT FIXTURES. SEE E101 FOR MORE INFORMATION.

ARL: G:\23179.01\Drawings\Acad\E\GARAGE\E005 - LIGHTING NEW WORK SITE PLAN

Plotted By: Roel Castillo-Hernandez | 10/11/2024 9:55 AM

DWG FILENAME

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SEAL	PROFESSIONAL CERTIFICATION		AS–BUILT / REVISION	BY	DATE	P.W.A NO.	KEY SHEET	POSITION SHT	DRAWING SCALE		PROPERTY MANAGEMENT
STATE OF MARYLAND RICHARD ADAM REICH 20513 REGISTERED PROFESSIONAL ENGINEER	I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AN A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 20513, EXPIRATION DATE: 07/17/26						.	.	PLAN SCALE:		APPROVED BY: PROPERTY MANAGER
			CONTRACT COMPLETION BOX						PROFILE SCALE:		DATE:
	ENGINEER:	DGN BY: ?	BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER	
	AS–BUILT PER RECORD PRINT	DWN BY: ?	REVIEWED BY:								
DATE:	BY: DATE:	CHKD BY: ?	DATE REVIEWED:								

SUBDIVISION: FULLERTON

NEW TRUCK GARAGE
SITE PLAN - LIGHTING - NEW WORK
100 % CONSTRUCTION SET 3/4/2025
4419A BUCKS SCHOOL HOUSE RD, ROSEDALE MD 21237

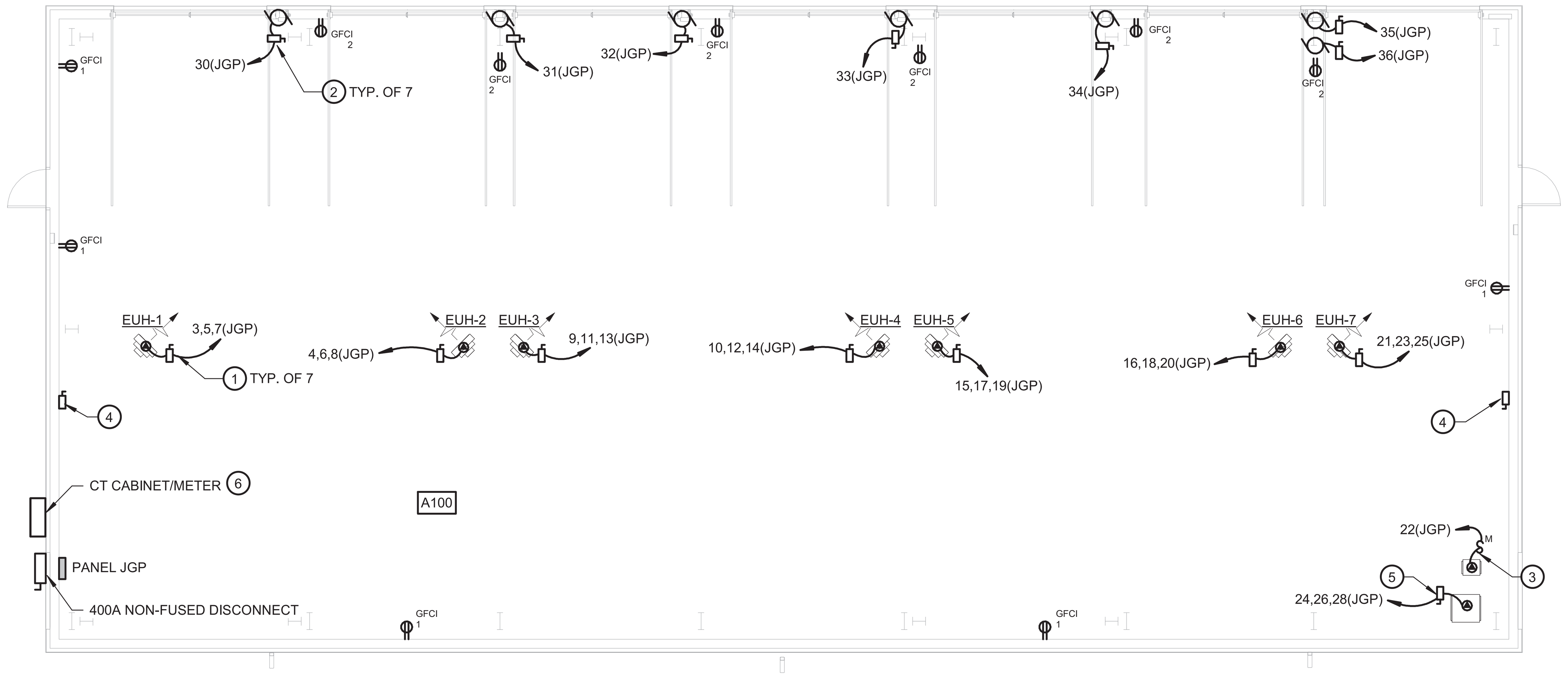
ELECTION DIST. NO.: 14C5

SHEET DESIGNATION	CONTRACT NUMBER
E005	24XXX PO0
	JOB ORDER NUMBER
	PO 10010489
	48 OF 53
	DRAWING NUMBER
	2024-2810
	FILE NO.: 8

BALTIMORE COUNTY MARYLAND

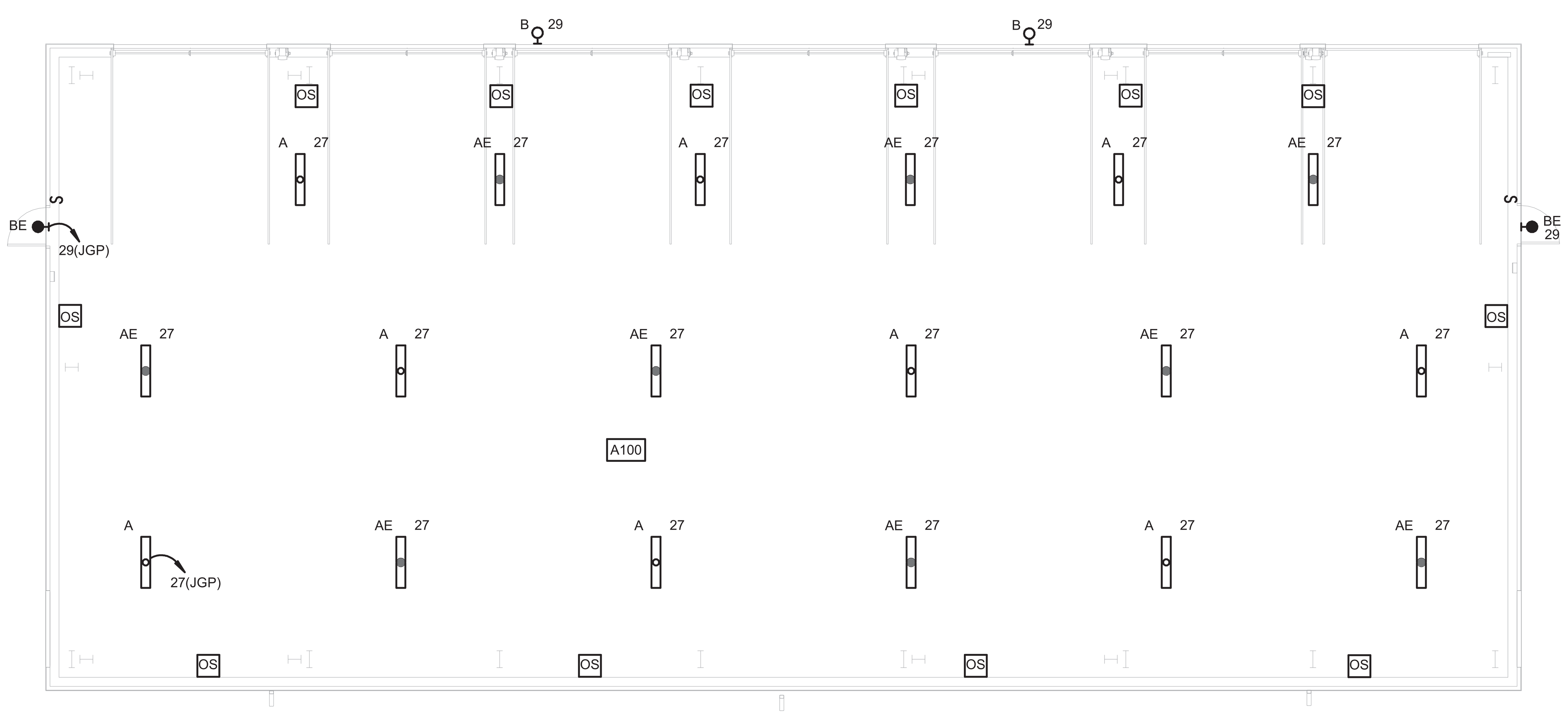
BKM# 23179.01

100 % CONSTRUCTION SET 3/4/2025



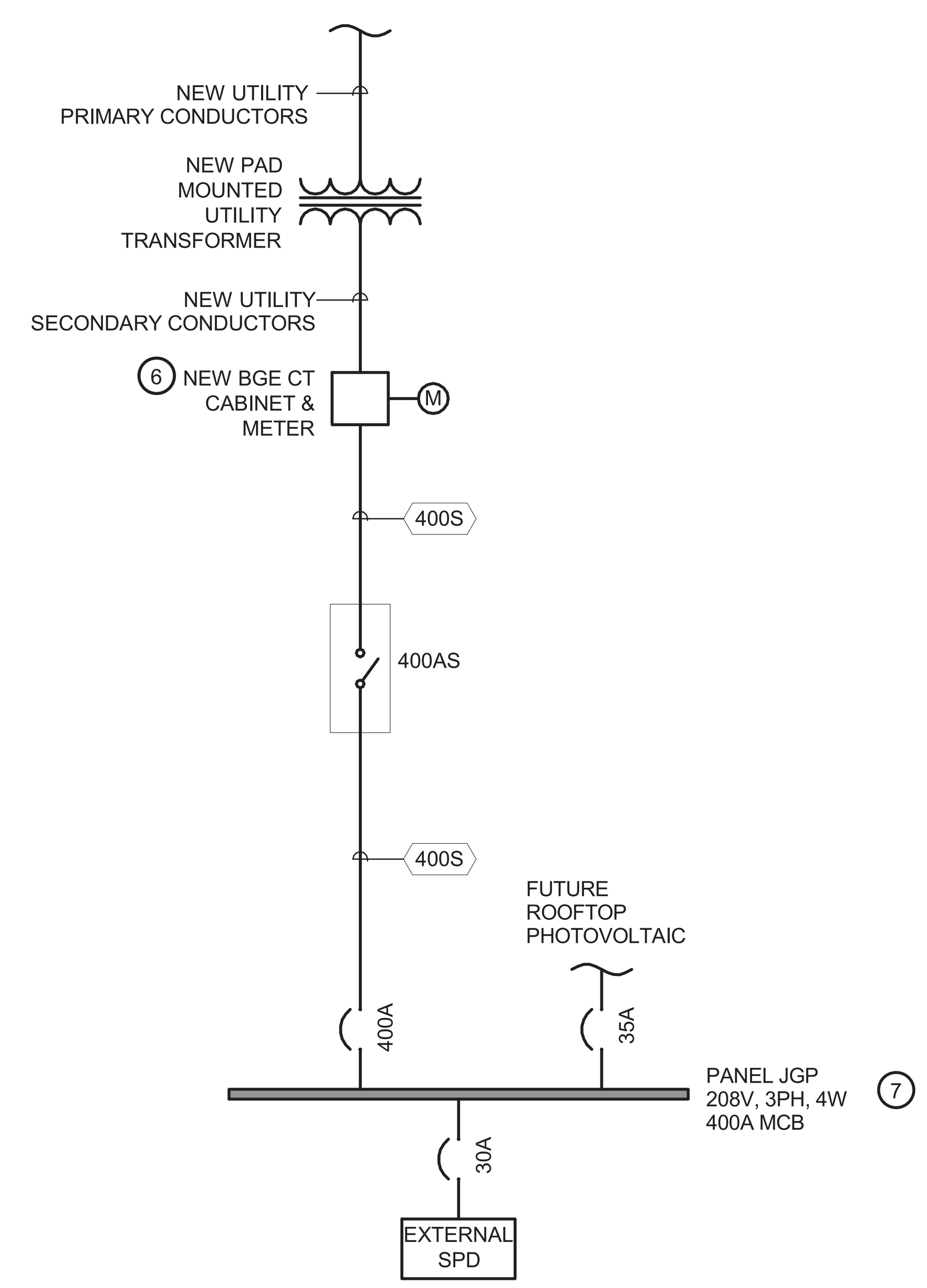
1 **FIRST FLOOR PLAN - POWER - NEW WORK**

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



2 **FIRST FLOOR PLAN - LIGHTING - NEW WORK**

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



FEEDER SCHEDULE

DESIG	SETS	PHASE CONDUCTORS	NEUTRAL	CONDUIT	GROUND	REMARKS
400S	2	(3) #3/0 AWG	#3/0 AWG	2"	#2 AWG	-

NOTES:

1. PHASE CONDUCTORS, NEUTRAL GROUND AND CONDUIT SHOWN IN THE FEEDER SCHEDULE APPLY TO EACH SET WHEN MULTIPLE SETS ARE REQUIRED. ALL CONDUCTORS ARE COPPER UNLESS OTHERWISE NOTED.
2. 600 VOLT CONDUCTORS HAVE BEEN SELECTED IN ACCORDANCE WITH THE AMPACITIES LISTED IN TABLE 310.15(B)(16) OF THE CURRENT NEC. THIS TABLE APPLIES TO CONDUCTORS RATED 0-2000 VOLTS, BASED ON AMBIENT TEMPERATURES OF 26-30 DEGREES C (78-86 DEGREES F). INSTALLATION OF RACEWAYS UNDERGROUND OR IN HIGHER AMBIENT AREAS MAY REQUIRE CHANGES TO CONDUCTOR AND CONDUIT SIZES. THE CONTRACTOR SHALL ADJUST CONDUCTOR AND CONDUIT SIZES WHERE REQUIRED TO ACCOMMODATE THESE CONDITIONS. IN NO CASE SHALL CONDUCTOR AND CONDUIT SIZES BE SMALLER THAN THOSE SCHEDULED OR SPECIFIED.
3. NEW FEEDER: X

3 **ELECTRICAL ONE-LINE**

SCALE: NO SCALE

GENERAL NOTES:

1. REFER TO E001 FOR ELECTRICAL LEGEND, ABBREVIATIONS, GENERAL NOTES, AND LIGHT FIXTURE SCHEDULE.
2. ALL RECEPTACLES, LIGHT FIXTURES, AND EQUIPMENT SHALL BE CIRCUITED TO PANEL JGP. NUMBER DENOTES CIRCUIT NUMBER.
3. INTERIOR LIGHT FIXTURES SHALL BE CONTROLLED VIA WALL MOUNTED OCCUPANCY SENSORS. SENSORS SHALL TURN LIGHTS OFF AUTOMATICALLY 20 MINUTES OF OCCUPANTS LEAVING THE SPACE OR VIA WALL MOUNTED SWITCH. EMERGENCY LIGHTS SHALL TURN ON UPON LOSS OF POWER.
4. EXTERIOR WALL MOUNTED LIGHTS SHALL BE CONTROLLED VIA INTEGRAL PHOTO CELLS.

DRAWING NOTES:

1. PROVIDE 240V, 3P, 30A NON FUSED SAFETY SWITCH IN NEMA 1 ENCLOSURE FOR CONNECTION TO ELECTRIC UNIT HEATER. CIRCUIT TO PANEL INDICATED USING A MINIMUM OF 3#10 AWG + 1#10 GND IN (1) 3/4" CONDUIT.
2. PROVIDE 120V, 1P CONNECTION TO OVERHEAD DOOR CONTROLLER. CONTROLLER SHALL BE PROVIDED BY DOOR SUPPLIER. PROVIDE ALL MOUNTING HARDWARE AS REQUIRED.
3. PROVIDE MOTOR RATED SWITCH WITH THERMAL OVERLOAD FOR CONNECTION TO EXHAUST FAN EF-1.
4. PROVIDE 30A NON-FUSED SAFETY SWITCH IN NEMA 1 ENCLOSURE FOR FUTURE CONNECTION TO AIR COMPRESSOR.
5. PROVIDE 240V, 3P, 30A NON FUSED SAFETY SWITCH IN NEMA 1 ENCLOSURE FOR CONNECTION TO EXHAUST FAN EF-2.
6. PROVIDE MAIN ELECTRICAL SERVICE EXTERIOR MOUNTED CT CABINET. COORDINATE PROPOSED MANUFACTURER, MODEL NUMBER, AND INSTALLATION REQUIREMENTS WITH BGE.
7. PROVIDE SERVICE ENTRANCE GROUNDING PER NEC ARTICLE 250. SEE DETAIL ON E301

Panel: JGP

LOCATION: 7 VEHICLE GARAGE A100 **MAINS RATING:** 400 A **VOLTAGE:** 120/208 3Ø 4W
MOUNTING: Surface **MAINS TYPE:** MCB **AIC RATING:** 22 KAIC

CKT	Circuit Description	Trip	Poles	A	B	C	A	B	C	Poles	Trip	Circuit Description	CKT
1	RECEPTACLE	20 A	1	0.90			1.08			1	20 A	RECEPTACLE	2
3	EUH-1	30 A	3		2.50			2.50		3	30 A	EUH-2	4
5	--	--	--			2.50			2.50	--	--	--	6
7	--	--	--	2.50			2.50			--	--	--	8
9	EUH-3	30 A	3		2.50			2.50		3	30 A	EUH-4	10
11	--	--	--			2.50			2.50	--	--	--	12
13	--	--	--	2.50			2.50			--	--	--	14
15	EUH-5	30 A	3		2.50			2.50		3	30 A	EUH-6	16
17	--	--	--			2.50			2.50	--	--	--	18
19	--	--	--	2.50			2.50			--	--	--	20
21	EUH-7	30 A	3		2.50			0.48		1	15 A	EF-1	22
23	--	--	--			2.50			0.52	3	15 A	EF-2	24
25	--	--	--	2.50			0.52			--	--	--	26
27	INTERIOR LIGHTING	20 A	1		1.08			0.52		--	--	--	28
29	EXTERIOR LIGHTING	20 A	1			0.25			1.18	1	20 A	OVERHEAD DOOR	30
31	OVERHEAD DOOR	20 A	1	1.18			1.18			1	20 A	OVERHEAD DOOR	32
33	OVERHEAD DOOR	20 A	1		1.18			1.18		1	20 A	OVERHEAD DOOR	34
35	OVERHEAD DOOR	20 A	1			1.18			1.18	1	20 A	OVERHEAD DOOR	36
37	FUTURE AIR COMPRESSOR	25 A	3	0.00			0.00			3	25 A	FUTURE AIR COMPRESSOR	38
39	--	--	--		0.00			0.00		--	--	--	40
41	--	--	--			0.00			0.00	--	--	--	42
43	FUTURE PV	35 A	3	0.00			--			1	--	SPACE	44
45	--	--	--		0.00			--		1	--	SPACE	46
47	--	--	--			0.00			--	1	--	SPACE	48
49	SPD	30 A	3	0.00			--			1	--	SPACE	50
51	--	--	--		0.00			--		1	--	SPACE	52
53	--	--	--			0.00			--	1	--	SPACE	54

Connected Load

AØ:	22.35	KVA =	186 A	A
BØ:	21.93	KVA =	183 A	A
CØ:	21.80	KVA =	182 A	A

Notes:
PANEL SHALL BE SERVICE ENTRANCE RATED

0 2 4 8 16 24
SCALE: 1/8" = 1'-0"

DWG. FILENAME

SEAL

DATE:

PROFESSIONAL CERTIFICATION

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LICENSE NO. 20513, EXPIRATION DATE: 07/17/26.

ENGINEER: | DGN BY: ? | DWN BY: ? | CHKD BY: ?

AS--BUILT PER RECORD PRINT
BY:
DATE:

AS--BUILT / REVISION	BY	DATE	P.W.A NO.	KEY SHEET	POSITION SHT	DRAWING SCALE		PROPERTY MANAGEMENT
				-	-	PLAN SCALE:		APPROVED BY: PROPERTY MANAGER
CONTRACT COMPLETION BOX						PROFILE SCALE:		DATE:

BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER
REVIEWED BY:							
DATE REVIEWED:							

SUBDIVISION: FULLERTON

BALTIMORE COUNTY OFFICE OF BUDGET AND FINANCE - PROPERTY MANAGEMENT

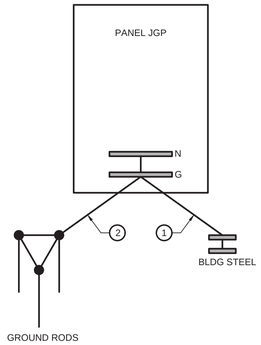
NEW TRUCK GARAGE
FIRST FLOOR PLAN - ELECTRICAL
100 % CONSTRUCTION SET 3/4/2025
4419A BUCKS SCHOOL HOUSE RD, ROSEDALE, MD 21237

ELECTION DIST. NO.: 14C5

SHEET DESIGNATION	CONTRACT NUMBER
E101	24XXX PO0
	JOB ORDER NUMBER: PO 10010489
	49 OF 53
	DRAWING NUMBER: 2024-2811
	FILE NO.: 8

BKM# 23179.01

100 % CONSTRUCTION SET 3/4/2025

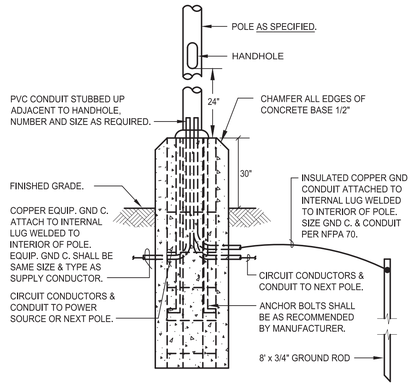


1 SERVICE ENTRANCE - POWER SYSTEM GROUNDING DETAIL

SCALE: NOT TO SCALE

DETAIL DRAWING NOTES:

1. PROVIDE (1)#2 COPPER CONDUCTOR TO NEAREST BUILDING STRUCTURAL STEEL.
2. PROVIDE (1)#2 COPPER CONDUCTOR TO GROUND ROD(S).

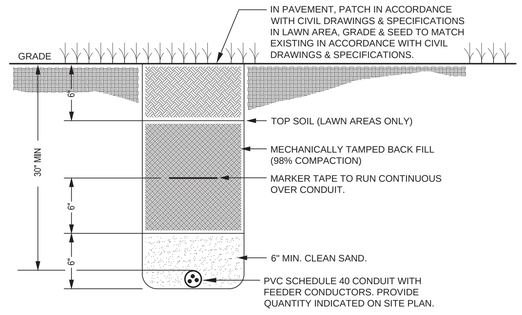


LEGEND: GND C. - GROUNDING CONDUCTOR

2 CONCRETE POLE BASE DETAIL

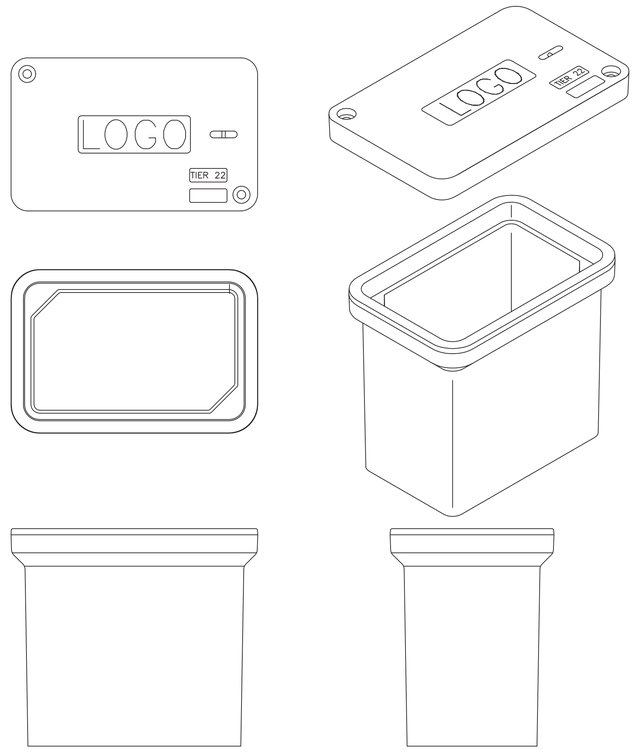
SCALE: NONE

REFER TO STRUCTURAL DETAIL FOR CONCRETE AND REBAR INFORMATION.



3 DIRECT BURIED CONDUIT

SCALE: NONE



HAND HOLE BASIS OF DESIGN			
SIZE	DEPTH	CATALOG NO.	NOTES
11" X 18"	18"	BOX: PG1118BA18 COVER: PG118HH0029	1,2,3

1. BASIS OF DESIGN IS QUAZITE.
2. PROVIDE TIER 22 LOAD RATING.
3. PROVIDE 'LIGHTING' LOGO ON COVER.

4 HANDHOLE DETAIL

NOT TO SCALE

SEAL

STATE OF MARYLAND · RICHARD ADAM KELLER · 20513 · REGISTERED PROFESSIONAL ENGINEER

DATE:

PROFESSIONAL CERTIFICATION		AS–BUILT / REVISION	BY	DATE	P.W.A NO.	KEY SHEET	POSITION SHT	DRAWING SCALE		PROPERTY MANAGEMENT
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LICENSE NO. 20513, EXPIRATION DATE: 07/17/26		CONTRACT COMPLETION BOX						PROFILE SCALE:		DATE:
ENGINEER:	DGN BY: RCH	BUREAU OF ENGINEERING AND CONSTRUCTION	TRAFFIC	HIGHWAYS	STRUCTURES	STORM DRAINS	SEWER	WATER	FIELD ENGINEER	
AS–BUILT PER RECORD PRINT	DWN BY: RCH	REVIEWED BY:								
BY: DATE:	CHKD BY: RAM	DATE REVIEWED:								

SUBDIVISION: FULLERTON

NEW TRUCK GARAGE
ELECTRICAL DETAILS
100 % CONSTRUCTION SET 3/4/2025
4419A BUCKS SCHOOL HOUSE RD, ROSEDALE MD 21237

ELECTION DIST. NO.: 14C5

DWG. FILENAME

SHEET DESIGNATION	CONTRACT NUMBER
E201	24XXX P00
	JOB ORDER NUMBER
	PO 10010489
	50 OF 53
	DRAWING NUMBER
	2024-2812
	FILE NO.: 8

BALTIMORE COUNTY MARYLAND

BKM# 23179.01

100 % CONSTRUCTION SET 3/4/2025