FOR INDEX OF SHEETS AND LEGEND SEE SHEET 2

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

BOYDS TRANSIT IMPROVEMENTS – 100% DESIGN

C. I. P. PROJECT 501915

IT IS THE RESPONSIBILITY OF PERMITTEE/OWNER OF THIS SITE TO OBTAIN ALL REQUIRED PERMITS PRIOR TO ISSUANCE OF APPROVED SEDIMENT CONTROL PERMIT:

TYPE OF PERMIT	REQD	NOT REQD	PERMIT NO.	EXPIRATION DATE	WORK RESTRICTION DATES
M.C.D.E.P. Floodplain District		X			
WATERWAY/WETLANDS					
a. Corps of Engineers		X			
b. M.D.E.		X			
c. M.D.E. Water Quality Certification		X			
M.D.E. Dam Safety		X			
DPS Roadside Tree Protection Plan	X		TBD	TBD	
N.P.D.E.S. NOTICE OF INTENT	X		TBD	TBD	
M.C.D.P.S. STORMWATER MANAGEMENT	X		285472	N/A	
M.C.D.P.S. SEDIMENT CONTROL	X		288386	TBD	
FEMA LOMR (REQUIRED POST CONSTRUCTION)		X			
D.P.S. BUILDING PERMIT	X		TBD	TBD	
M.C.P.D.S. SEPTIC SYSTEM PERMIT	X		TBD	TBD	
OTHERS: (PLEASE LIST)					
SHA ACCESS PERMIT	X		22-AP-MO-022-XX		

DEVELOPER'S/BUILDER'S CERTIFICATION

I HEREBY CERTIFY THAT ALL CLEARING, GRADING, CONSTRUCTION AND/OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS PLAN AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE OF A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT.

DATE

TIMOTHY H. CUPPLES, P.E., CHIEF
DIVISION OF TRANSPORTATION ENGINEERING

DESIGN CERTIFICATION

I HEREBY CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", MONTGOMERY COUNTY DEPARTMENT OF PERMITTING SERVICES EXECUTIVE REGULATIONS 5-90, 7-02AM AND 36-90, AND MONTGOMERY COUNTY DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION "STORM DRAIN DESIGN CRITERIA" DATED JUNE, 2014.

DATE

JASON D. COSLER, P.E.
MD REGISTRATION NO. 28467

TREE CANOPY REQUIREMENTS TABLE

To be completed by the consultant and placed on the first sheet of the Sediment Control / Stormwater Management plan set for all projects.

Exempt: Yes ☐ No ☒ If exempt under Section 55-5 of the Code, please check the applicable exemption category below.

Total Property Area	Total Disturbed Area
50,320 square feet	55,965 square feet
Shade Trees Required	**Shade Trees Proposed to be Planted**
21	34
Fee in Lieu (Trees Required – Trees Planted) x $250	$

Required Number of Shade Trees

Area (sq. ft.) of the Limits of Disturbance FROM	TO	Number of Shade Trees Required
1	6,000	3
6,001	8,000	6
8,001	12,000	9
12,001	14,000	12
14,001	40,000	15

If the square footage of the limits of disturbance is more than 40,000, then the number of shade trees required must be calculated using the following formula:

(Number of Square Feet in Limits of Disturbance ÷ 40,000) × 15

EXEMPTION CATEGORIES:

☐ 55-5(a) any activity that is subject to Article II of Chapter 22A;

☐ 55-5(b) any commercial logging or timber harvesting operation with an approved exemption from Article II of Chapter 22A;

☐ 55-5(f) any activity conducted by the County Parks Department;

☐ 55-5(g) routine or emergency maintenance of an existing stormwater management facility, including an existing access road, if the person performing the maintenance has obtained all required permits;

☐ 55-5(h) any stream restoration project if the person performing the work has obtained all necessary permits;

☐ 55-5(i) cutting or clearing any tree to comply with applicable provisions of any federal, state, or local law governing safety of dams;

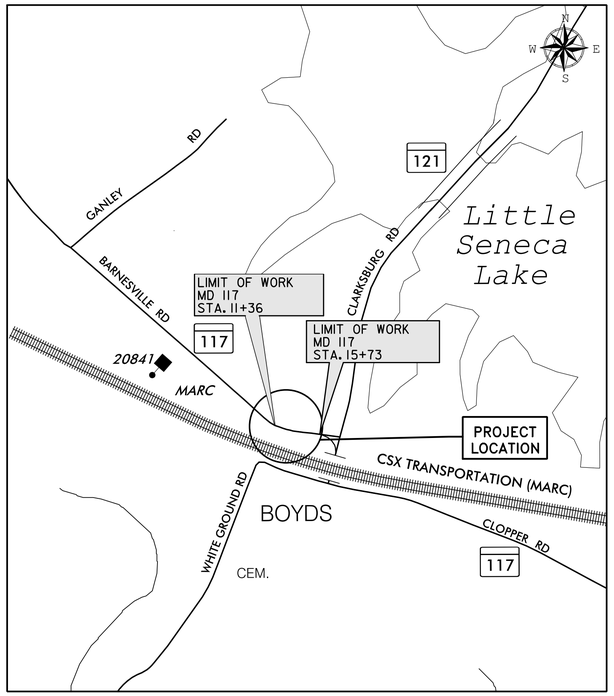
☐ OTHER: Specify per Section 55-5 of the Code.

CERTIFICATION OF QUANTITIES

I FURTHER CERTIFY THAT THE TOTAL AMOUNTS OF EXCAVATION AND FILL AS SHOWN ON THESE PLANS HAVE BEEN COMPUTED TO BE 4,500 CUBIC YARDS OF EXCAVATION AND 1,700 CUBIC YARDS OF FILL AND THAT THE TOTAL AREA TO BE DISTURBED AS SHOWN ON THESE PLANS HAS BEEN DETERMINED TO BE A MAXIMUM OF 55,965 SQUARE FEET OR 1.28 ACRES.

PAMELA H. DESTINO, P.E.
MD REGISTRATION NO. 42708

DATE



PROJECT LENGTH = 0.08 MILES MONTGOMERY COUNTY

VICINITY MAP
SCALE : 1"= 500'

MD 117 (BARNESVILLE ROAD) DESIGN DATA	
DESIGN SPEED:	40 M.P.H.
2022 AADT:	5,193

OWNER/ADDRESS:
MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
100 EDISON PARK DRIVE, 4TH FLOOR
GAITHERSBURG, MD 20878

CONTACT:
REBECCA PARK, P.E.
240-777-7263

GENERAL NOTES

1. SITE CLEANUP AND GROUNDWATER REMEDIATION SHALL BE DONE UNDER A SEPARATE CONTRACT.
2. THE SPECIFICATIONS FOR THIS CONTRACT WILL BE THOSE OF THE LATEST EDITION OF THE MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION. THE MARYLAND DEPARTMEMNT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION BOOK OF STANDARDS FOR HIGHWAY AND INCIDENTAL STRUCTURES, THE MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION 2023 STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, THE MARYLAND WASHINGTON SUBURBAN SANITARY COMMISSION (W.S.S.C.) STANDARDS, MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION STANDARDS, AND SOIL CONSERVATION SERVICE POND CONSTRUCTION SPECIFICATIONS FOR MARYLAND.
3. HORIZONTAL DATUM: NAD 83(1991) VERTICAL DATUM: NAVD 88.
4. TYPES OF STORM DRAIN STRUCTURES REFER TO THE "DESIGN STANDARDS" OF MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION, UNLESS OTHERWISE NOTED.
5. WHEN THE DROP ON THE MAIN LINE THROUGH A STORM DRAIN STRUCTURE CAN BE ACCOMMODATED BY AN INVERT SLOPE OF 1.5:1 OR FLATTER, A ROUNDED CHANNEL LINED WITH SEWER BRICK ON EDGE SHALL BE BUILT TO THE CROWN OF THE PIPES. WHEN THE INVERT SLOPES WOULD BE GREATER THAN 1.5:1 A SPECIAL INVERT SHALL BE CONSTRUCTED AS NOTED.
6. ALL STORM DRAIN PIPE SHALL BE INSTALLED WITH CLASS "C" BEDDING UNLESS OTHERWISE SPECIFIED.
7. THE CONTRACTOR SHALL MAKE FIELD ADJUSTMENTS TO STORM DRAIN STRUCTURES, WHEN NECESSARY, TO MEET EXISTING CONDITIONS, AS APPROVED BY MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION'S PROJECT INSPECTOR.
8. INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS, BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATIONS AND ELEVATIONS OF THE LINES BY DIGGING TEST PITS BY HAND AT ALL UTILITY CROSSINGS, WELL IN ADVANCE OF TRENCHING. IF CLEARANCES ARE LESS THAN SHOWN OR SIX (6) INCHES, WHICHEVER IS LESS, CONTACT MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION'S PROJECT INSPECTOR AND THE APPROPRIATE UTILITY OWNER BEFORE PROCEEDING WITH CONSTRUCTION.
9. REPAIRS TO UTILITIES OR PROPERTY DAMAGE AS A RESULT OF THE CONTRACTOR'S NEGLIGENCE OR METHOD OF OPERATION MUST BE MADE AT THE CONTRACTOR'S EXPENSE AT NO ADDITIONAL COST TO THE COUNTY BEFORE PROCEEDING WITH CONSTRUCTION.
10. CLEARING IS TO BE LIMITED TO THE "LIMIT OF GRADING" AS SHOWN ON THE PLANS.
11. ALL GRADING SHALL BE DONE IN SUCH A MANNER AS TO PROVIDE POSITIVE DRAINAGE.
12. DISTURBED AREAS ADJACENT TO ESTABLISHED LAWNS SHALL BE SODDED. OTHER DISTURBED AREAS SHALL BE SEEDED AND MULCHED.
13. THE CONTRACTOR SHALL OBTAIN A ROADSIDE TREE PERMIT FOR ANY MAINTENANCE, TREATMENT, PLANTING, REMOVAL, OR ROOT CUTTING ON TREES WITHIN THE PUBLIC RIGHT OF WAY. PERMIT REQUIREMENTS MAY BE OBTAINED FROM THE DEPARTMENT OF NATURAL RESOURCES, MARYLAND FOREST, PARK AND WILDLIFE SERVICE, TELEPHONE 301-854-6060.
14. CONTACT THE WASHINGTON SUBURBAN SANITARY COMMISSION SYSTEM MAINTENANCE ENGINEER BEFORE EXCAVATING BENEATH OR IN THE VICINITY OF EXISTING WATER OR SEWER LINES. BACKFILL TO BE DONE UNDER SUPERVISION OF WSSC MAINTENANCE ENGINEER, CALL 301-206-9772.
15. ALL UTILITY POLES NOTED FOR RELOCATION SHALL BE PERFORMED BY OTHERS. MONTGOMERY COUNTY UTILITY COORDINATOR DOUG BAKER (240) 773-3414
16. PRIOR TO VEGETATIVE STABILIZATION, ALL DISTURBED AREAS MUST BE TOPSOILED PER THE MONTGOMERY COUNTY "STANDARDS AND SPECIFICATIONS FOR TOPSOIL".
17. CALL "MISS UTILITY" AT 1-800-257-7777 48 HOURS PRIOR TO THE START OF WORK. THE EXCAVATOR MUST NOTIFY ALL PUBLIC UTILITY COMPANIES WITH UNDERGROUND FACILITIES IN THE AREA OF PROPOSED EXCAVATION AND HAVE THOSE FACILITIES LOCATED BY UTILITY COMPANIES PRIOR TO COMMENCING EXCAVATION. THE EXCAVATOR IS RESPONSIBLE FOR COMPLIANCE WITH REQUIREMENTS OF CHAPTER 36A OF THE MONTGOMERY COUNTY CODE.

MCDPS-SC/SWM SHEET NO. 1 OF 18

TECHNICAL REVIEW OF SEDIMENT CONTROL	ADMINISTRATIVE REVIEW	DPS approval of a sediment control or stormwater management plan is for demonstrated compliance with minimum environmental runoff treatment standards and does not create or imply any right to divert or concentrate runoff onto any adjacent property without that property owner's permission. It does not relieve the design engineer or other responsible person of professional liability or ethical responsibility for the adequacy of the drainage design as it affects uphill or downhill properties.
REVIEWED DATE	REVIEWED DATE	
TECHNICAL REVIEW OF STORMWATER MANAGEMENT	**SMALL LOT DRAINAGE APPROVAL**	288386 **SEDIMENT CONTROL PERMIT NO.**
	N/A: ☐ OR	285472 **SM. FILE NO.** STORMWATER MANAGEMENT: ESD TO THE MEP = 3,397 CF, QN & QL WAIVER N/A 1-PERMEABLE PAVEMENT 1-PROPRIETARY DEVICE
REVIEWED DATE	REVIEWED DATE	
MCDPS APPROVAL OF THIS PLAN WILL EXPIRE TWO YEARS FROM THE DATE OF APPROVAL IF THE PROJECT HAS NOT STARTED.	NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED FOR A MCDPS ACCESS PERMIT.	

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._____ EXPIRATION DATE:_____

WRA
Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Transportation Planning and Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: AMU Drawn by: AMU Checked by: PHD

TI-01 TITLE SHEET

BOYDS TRANSIT IMPROVEMENTS

SCALE : NTS OCTOBER 2023

Project No. : 32207.003 SHEET 1 of 78

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11/9/2023

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2	2	SC0002.PDF	INDEX OF SHEETS, LEGEND,AND ABBREVIATIONS
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4			EC–01 – EXISTING CONDITIONS
5			EC–02 – DEMO PLAN
6	3	SC0003.PDF	HT–01 – TYPICAL SECTIONS
7	4	SC0004.PDF	HT–02 – TYPICAL SECTIONS
8	5	SC0005.PDF	PD–01 – PAVEMENT DETAILS
9			DE–01 – RAMP DETAILS
10			DE–02 – RAMP DETAILS
11	6	SC0006.PDF	HD–01 – ROADWAY PLAN
12	7	SC0007.PDF	HD–02 – ROADWAY PLAN
13			HP–01 – ROADWAY PROFILE
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15			CL–01 – CURB LAYOUT
16	8	SC0008.PDF	GR–01 – SITE GRADING PLAN
17			TCP–A – TRAFFIC CONTROL PLAN GENERAL NOTES
18			TCP–01 – TRAFFIC CONTROL PLAN
19	9	SC0009.PDF	EN–01 – EROSION AND SEDIMENT GENERAL CONTROL NOTES
20	10	SC0010.PDF	EN–02 – EROSION AND SEDIMENT CONTROL NOTES AND DETAILS
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23	12	SC0012.PDF	ES–02 – EROSION AND SEDIMENT CONTROL PLAN STAGE 2 – FINAL GRADING
24	13	SC0013.PDF	DP–01 – DRAINAGE PROFILES
25	14	SC0014.PDF	DD–01 – FILTERING TREE PIT INLET DETAILS
26	15	SC0015.PDF	SW–01 – PERVIOUS CONCRETE SUBGRADE GRADING PLAN
27	15A	SC0015A.PDF	SW–02 – STORMWATER MANAGEMENT PLAN
28	15B	SC0015B.PDF	SW–03 – STORMWATER MANAGEMENT DETAILS
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30			SN–2.01 – SIGNING AND MARKING PLAN
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32	16	SC0016.PDF	LD–01 – TREE PROTECTION PLAN
33	17	SC0017.PDF	LD–02 – LANDSCAPE PLAN
34	18	SC0018.PDF	LD–03 – DETAILS AND NOTES
35			C–101 – SEPTIC SYSTEM REPAIR PLAN
36			A–001 – ARCHITECTURAL ABBREVIATIONS & LEGEND
37			A–101 – FLOOR PLAN
38			A–102 – BIKE STORAGE PLAN, REFLECTED CEILING PLAN, & ROOF PLAN
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40			A–401 – BUILDING SECTIONS
41			A–402 – WALL SECTIONS
42			A–501 – ENLARGED PLAN, INTERIOR ELEVATIONS, & TOILET ROOM DETAILS
43			A–601 – FLOOR PLAN & SECTION DETAILS
44			A–701 – HANDRAIL PLAN & DETAILS
45			A–801 – DOOR, WINDOW, & LOUVER SCHEDULES, TYPES, & DETAILS
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60			E–101 – POWER AND LIGHTING PLANS
61			E–501 – DETAILS
62			E–502 – DETAILS
63			E–701 – ELECTRICAL SCHEDULES AND DIAGRAMS
64–78			CROSS SECTIONS

LEGEND

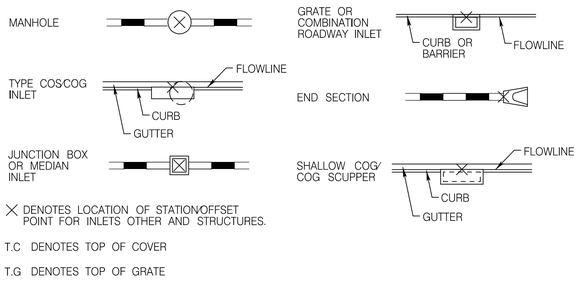
- TELEPHONE MANHOLE
- WATER METER
- WATER VALVE
- SEWER MANHOLE
- STORM DRAIN MANHOLE
- GAS VALVE
- SIGN
- LIGHT POLE
- UTILITY POLE
- FIRE HYDRANT
- TREE
- BORING
- INLET (COG, GRATE)
- MANHOLE
- TEST PIT
- TRAVERSE POINT
- EXISTING TRAFFIC FLWO ARROW
- PROPOSED FLOW ARROW

- EXISTING W–BEAM
- PROPOSED W–BEAM
- WETLAND BUFFER
- WETLAND
- PROPOSED FENCE
- PROPOSED HANDRAIL
- EXISTING CHAINLINK FENCE
- INDEX CONTOUR
- INTERVAL CONTOUR
- TOP OF CUT
- TOE OF FILL
- EXISTING RIGHT OF WAY LINE
- LIMIT OF DISTURBANCE
- TEMPORARY CONSTRUCTION EASEMENT
- PERPETUAL EASEMENT
- OVERHEAD ELECTRIC LINES
- OVERHEAD TELEPHONE LINES
- UNDERGROUND COMMUNICATION LINES
- UNDERGROUND ELECTRIC LINES
- FIBER OPTIC LINES
- STORMDRAIN

ABBREVIATIONS

A.A.S.H.T.O.	American Association of State Highway Transportation Officials
APPROX.	Approximate
B or B/L	Baseline
C.C.	Center of Curve
C or C/L	Centerline
C.I.P.	Cast Iron Pipe
C.M.P.	Corrugated Metal Pipe
C.O.	Cleanout
COMB.	Combination
CONC.	Concrete
CONSTR.	Construction
C.P.P.	Corrugated Polyethylene Pipe
C.P.P.–S.	Corrugated Polyethylene Pipe, Type "S"
CY.	Cubic Yard
D.B.H.	Diameter Breast Height
DC.	Degree of Curve
D.H.V.	Design Hourly Volume
D.I.	Drop Inlet
DIA.	Diameter
D.O.	Double Opening
E.	East
E.	Electric
E.	External Distance
EA.	Each
E.B.	Eastbound.
ELEV.	Elevation
E.R.C.C.P.	Elliptical Reinforced Cement Concrete Pipe
ES.	End Section
EV.	Electric Vehicle
EX. or EXIST.	Existing
FT.	Feet
F or FL.	Flowline
FWD.	Forward
G.	Gas
H.E.R.C.P.	Horizontal Elliptical Reinforced Concrete Pipe
HP.	High Point
HMA.	Hot Mix Asphalt
HT.	Height
I.	Inlet
IN.	Inch
INV.	Invert
L.	Length
LANDSC.	Landscaped
L.F.	Linear Feet
LP.	Low Point
LT.	Left
MARC.	Maryland Area Rail Commuter
MAX.	Maximum.
MCDOT.	Montgomery County Department of Transportation
MDOT SHA.	Maryland Department of Transportation State Highway Administration
MH.	Manhole
MOD.	Modified
MIN.	Minimum
N.	North
NB.	Northbound
NE.	Northeast
NTS.	Not To Scale
O.C.	On Center
PERF	Perforated
P.C.	Point of Curvature
P.C.C.	Point of Compound Curve
P/C.	Point of Crown
P/GE.	Profile Grade Elevation
P.G.E.	Profile Ground Elevation
P.G.L.	Profile Grade Line
P/GL.	Profile Ground Line
P/R.	Point of Rotation
P.I.	Point of Intersection
P.O.C.	Point on Curve
P.O.T.	Point on Tangent.
P.P.W.P.	Polyvinyl Chloride Profile Wall Pipe
PROP.	Proposed
PT.	Point
P.T.	Point of Tangency
P.V.C.	Point of Vertical Curve
PVC.	Polyvinyl Chloride
PVI.	Point of Intersection
R.	Radius
RET. WALL.	Retaining Wall
RT.	Right
RW or R/W.	Right of Way
R.C.P.	Reinforced Cement Pipe
R.C.C.P.	Reinforced Cement Concrete Pipe
S.	South
SAM.	Superpave Asphalt Mix
SB.	Southbound
S.D.	Storm Drain
S.E.	Superelevation
SF.	Silt Fence
S.F.	Square Feet
SS	Sanitary Sewer
SSD.	Stopping Sight Distance
SSF	Super Silt Fence
STD.	Standard
STA.	Station
SO.	Single Opening
S.Y.	Square Yards
SWM	Stormwater Management
SW.	Sidewalk
T	Tangent
T.	Telephone
T.C.P.	Terra Cotta Pipe
TH.	Test Hole
TYP.	Typical
U.P.	Utility Pole
VAR.	Varies
V.C.L.	Vertical Curve Length
W.	Water
W	West
WB.	Westbound

DRAINAGE STRUCTURE STAKEOUT LOCATION



X DENOTES LOCATION OF STATION/OFFSET POINT FOR INLETS OTHER AND STRUCTURES.

T.C DENOTES TOP OF COVER

T.G DENOTES TOP OF GRATE

DRAINAGE BUBBLES (SAMPLES)

INLET	I 1
MANHOLE	MH 1
JUNCTION BOX	JB 1
FIELD CONNECTION	C 1
BEND	B 1
END SECTION	ES 1
END WALL	EW 1
ADJUST EX. STRUCTURE	A 1

MCDPS–SC/SWM SHEET NO. 2 OF 18

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._____ EXPIRATION DATE:_____

Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Transportation Planning and Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: AMU Drawn by: JDG Checked by: PHD

INDEX OF SHEETS, LEGEND, AND ABBREVIATIONS

BOYDS TRANSIT IMPROVEMENTS

SCALE : NTS OCTOBER 2023

Project No. : 32207.003 SHEET 2 of 78

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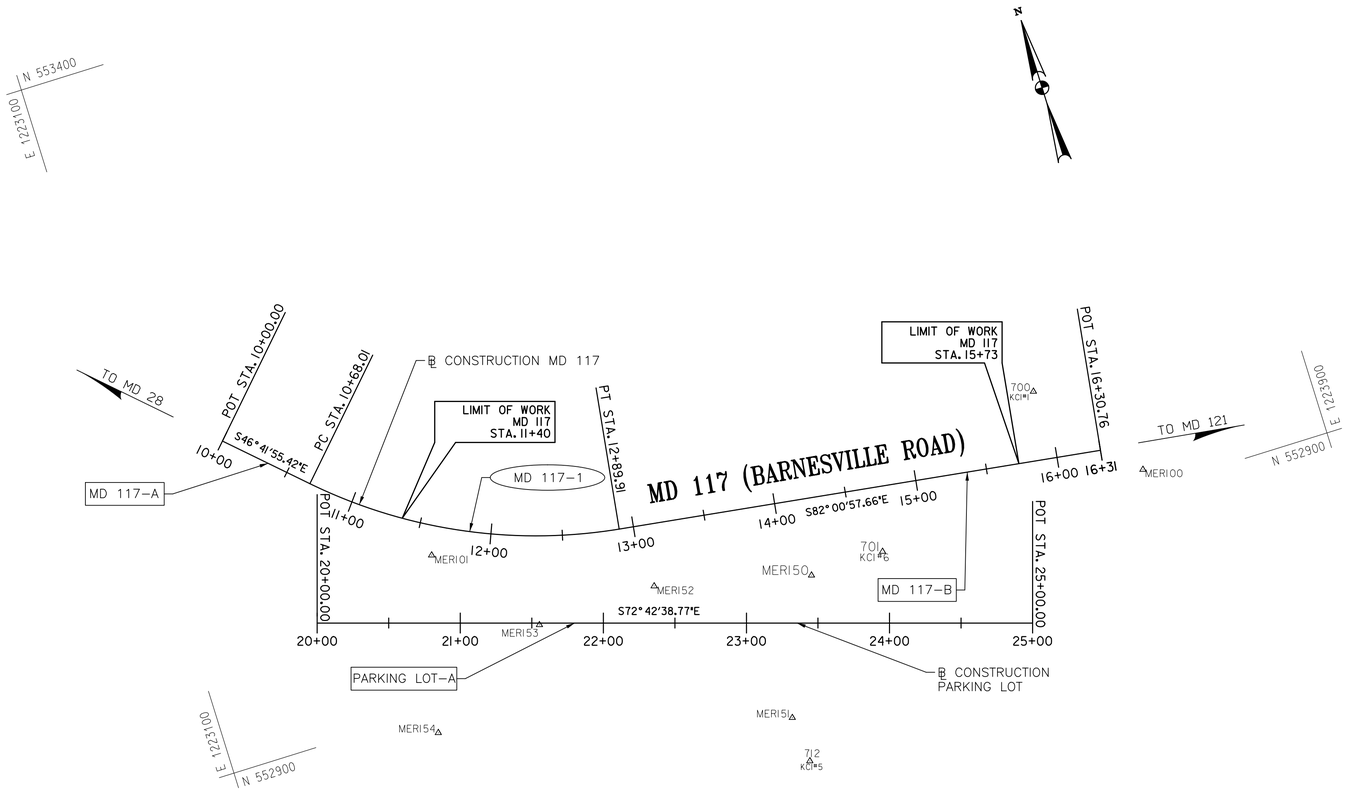
11/2/2023



CONSTRUCTION CONTROL COORDINATES				
POINT	CURVE	DESCRIPTION	NORTH	EAST
℄ CONSTRUCTION MD 117 (BARNESVILLE ROAD)				
1	--	POT STA. 10+00.00	553,123.9829	1,223,161.3159
2	MD 117-1	PC STA. 10+68.01	553,077.3405	1,223,210.8094
3	MD 117-1	PI STA. 11+82.61	552,998.7409	1,223,294.2136
4	MD 117-1	PT STA. 12+89.91	552,982.8228	1,223,407.7071
5	--	POT STA. 16+30.76	552,935.4801	1,223,745.2524
℄ CONSTRUCTION PARKING LOT				
1	--	POT STA. 20+00.00	552,982.8390	1,223,186.6813
2	--	POT STA. 25+00.00	552,834.2413	1,223,664.0896

SURVEY CONTROL			
TRAVERSE	NORTH	EAST	ELEVATION
MER100	552,913.78	1,223,769.59	401.84
MER101	553,004.33	1,223,277.12	429.05
MER150	552,912.07	1,223,526.45	418.17
MER151	552,820.98	1,223,484.05	422.28
MER152	552,937.51	1,223,419.19	431.62
MER153	552,935.49	1,223,334.61	429.90
MER154	552,884.43	1,223,244.72	423.98
KCI#1/700	552,988.68	1,223,712.71	404.68
KCI#5/712	552,788.42	1,223,486.78	421.22
KCI#6/701	552,913.13	1,223,578.80	413.62

LEGEND	
X-A	HORTIZONTAL LINE ID NUMBER
X-1	HORTIZONTAL CURVE ID NUMBER

CURVE DATA								
CURVE	DELTA	Dc	R	L	T	E	PI NORTH	PI EAST
MD 117-1	35°19' 02.24" LT	15°54' 55.78"	360.00'	221.91'	114.60'	17.80'	552,998.7409	1,223,294.2136

LINE DATA		
LINE	LENGTH	BEARING
MD 117-A	68.01'	S 46° 41' 55.42" E
MD 117-B	340.85'	S 82° 00' 57.66" E
PARKING LOT-A	500.00'	S 72° 42' 38.77" E

NOTE:

1. HORIZONTAL DATUM: NAD 83(1991) VERTICAL DATUM: NAV 88.

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._____
EXPIRATION DATE:_____

Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Transportation Planning and Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: AMU Drawn by: AMU Checked by: PHD

GS-01 GEOMETRIC LAYOUT SHEET

BOYDS TRANSIT IMPROVEMENTS

SCALE : 1" = 50' OCTOBER 2023

Project No. : 32207.003 SHEET 3 of 78

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11/2/2023

MD 117 (BARNESVILLE ROAD)

MD 121 (CLARKSBURG ROAD)

TO MD 28

TO I-270

TO MD 117

POT STA. 10+00.00

PC STA. 10+68.81

POT STA. 20+00.00

POT STA. 25+00.00

POT STA. 15+30.76

PT STA. 12+85.91

PB CONSTRUCTION MD 117

PB CONSTRUCTION PARKING LOT

LIMIT OF WORK
MD 117
STA. 11+36

LIMIT OF WORK
MD 117
STA. 15+73

S46°41'55.42"E

S82°00'57.66"E

S72°42'38.77"E

N 553150

E 1223250

N 552800

E 1223150

HUAN CHEE NGUNG
15120 BARNESVILLE ROAD
ACCOUNT # 161100918447
LIBER 47039 FOLIO 0076

BARUA PRAKASH
15110 BARNESVILLE ROAD
ACCOUNT # 110092026B
LIBER 58277 FOLIO 453

CSX TRANSPORTATION, INC.
LIBER TD 8 FOLIO 5

CSX TRANSPORTATION, INC.
LIBER PBR 454 FOLIO 259
LIBER PBR 454 FOLIO 264

STATE
HIGHWAY ADMINISTRATION
LIBER 6744 FOLIO 144

N / F
PUBLIC ROAD

EXISTING SEPTIC
SYSTEM
(APPROX. LOCATION)

EXISTING HOYLE'S MILL
BUILDING TO REMAIN

EXISTING MARC PLATFORM (NB)

EXISTING WB TRACK

EXISTING EB TRACK

POOLESVILLE

REGISTRATION UMAG BASEBALL INC

HORIZONTAL SCALE: 1"=20'

20' 0 20' 40'

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._____
EXPIRATION DATE:_____

Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Transportation Planning and Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: AMU Drawn by: AMU Checked by: PHD

EC-01 EXISTING CONDITIONS

BOYDS TRANSIT IMPROVEMENTS

SCALE : 1" = 20' OCTOBER 2023

Project No. : 32207.003 SHEET 4 of 78

N:\32207-003\CADD\plEC-0001_Boyds.dgn
11/2/2023

SITE DEMOLITION KEY NOTES

① TWO STORY MASONRY & WOOD FRAME BUILDING; REMOVE AND DISPOSE IN ITS ENTIRETY, INCLUDING FOUNDATIONS, FOOTINGS, OR ANY PART THEREOF, AND BACKFILL AS SPECIFIED. SEE NOTE 7 (2705 SF).

② ONE STORY MASONRY & WOOD FRAME STORAGE BUILDING; REMOVE AND DISPOSE IN ITS ENTIRETY, INCLUDING FOUNDATIONS, FOOTINGS, OR ANY PART THEREOF, AND BACKFILL AS SPECIFIED. (1114 SF)

③ ONE AND ONE-HALF STORY WOOD FRAME BARN BUILDING; SALVAGE AND STORE ALL WOOD SIDING; REMOVE AND DISPOSE REMAINING BUILDING IN ITS ENTIRETY, INCLUDING FOUNDATIONS, FOOTINGS, OR ANY PART THEREOF, AND BACKFILL AS SPECIFIED. (2261 SF)

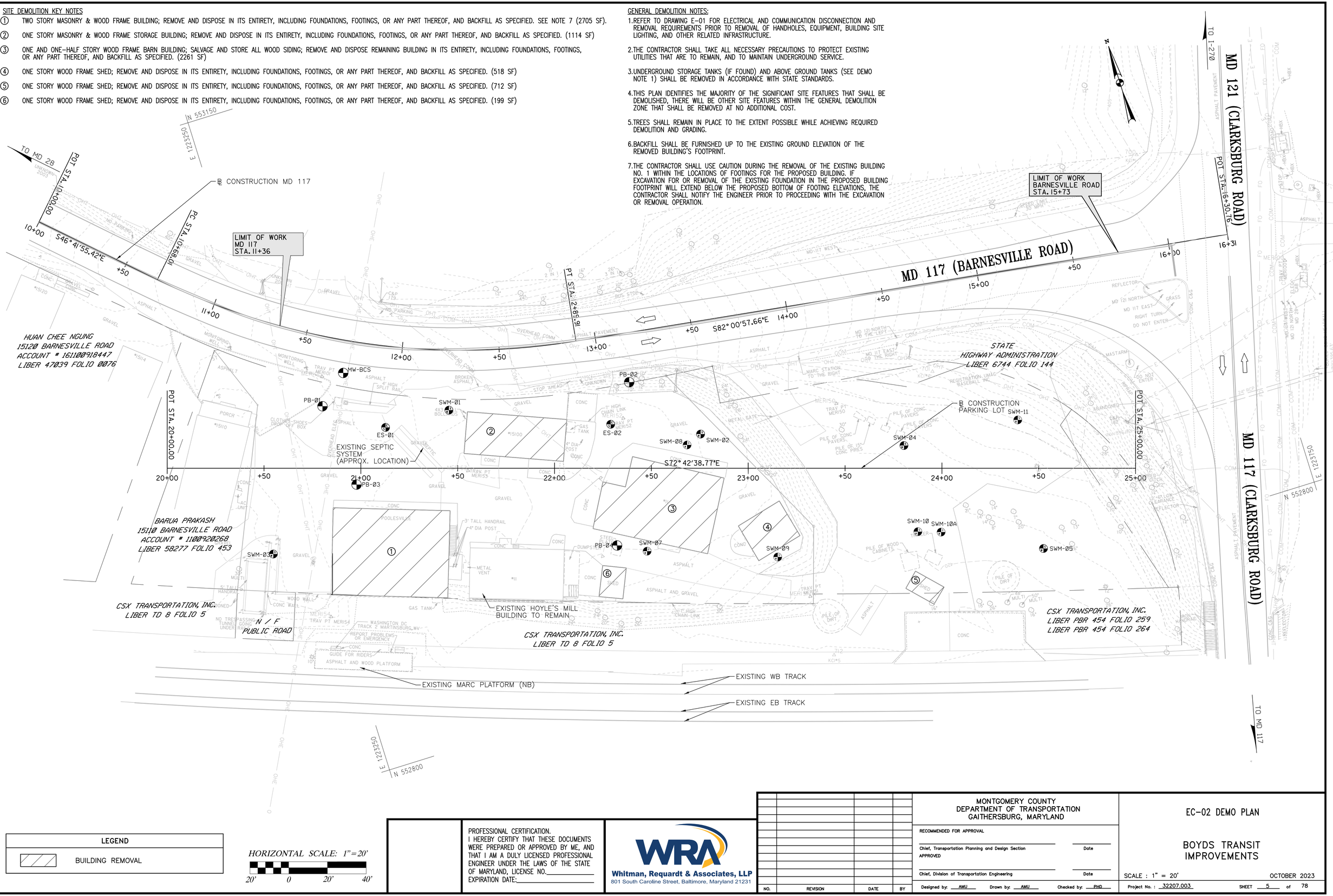
④ ONE STORY WOOD FRAME SHED; REMOVE AND DISPOSE IN ITS ENTIRETY, INCLUDING FOUNDATIONS, FOOTINGS, OR ANY PART THEREOF, AND BACKFILL AS SPECIFIED. (518 SF)

⑤ ONE STORY WOOD FRAME SHED; REMOVE AND DISPOSE IN ITS ENTIRETY, INCLUDING FOUNDATIONS, FOOTINGS, OR ANY PART THEREOF, AND BACKFILL AS SPECIFIED. (712 SF)

⑥ ONE STORY WOOD FRAME SHED; REMOVE AND DISPOSE IN ITS ENTIRETY, INCLUDING FOUNDATIONS, FOOTINGS, OR ANY PART THEREOF, AND BACKFILL AS SPECIFIED. (199 SF)

GENERAL DEMOLITION NOTES:

1. REFER TO DRAWING E-01 FOR ELECTRICAL AND COMMUNICATION DISCONNECTION AND REMOVAL REQUIREMENTS PRIOR TO REMOVAL OF HANDHOLES, EQUIPMENT, BUILDING SITE LIGHTING, AND OTHER RELATED INFRASTRUCTURE.
2. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES THAT ARE TO REMAIN, AND TO MAINTAIN UNDERGROUND SERVICE.
3. UNDERGROUND STORAGE TANKS (IF FOUND) AND ABOVE GROUND TANKS (SEE DEMO NOTE 1) SHALL BE REMOVED IN ACCORDANCE WITH STATE STANDARDS.
4. THIS PLAN IDENTIFIES THE MAJORITY OF THE SIGNIFICANT SITE FEATURES THAT SHALL BE DEMOLISHED, THERE WILL BE OTHER SITE FEATURES WITHIN THE GENERAL DEMOLITION ZONE THAT SHALL BE REMOVED AT NO ADDITIONAL COST.
5. TREES SHALL REMAIN IN PLACE TO THE EXTENT POSSIBLE WHILE ACHIEVING REQUIRED DEMOLITION AND GRADING.
6. BACKFILL SHALL BE FURNISHED UP TO THE EXISTING GROUND ELEVATION OF THE REMOVED BUILDING'S FOOTPRINT.
7. THE CONTRACTOR SHALL USE CAUTION DURING THE REMOVAL OF THE EXISTING BUILDING NO. 1 WITHIN THE LOCATIONS OF FOOTINGS FOR THE PROPOSED BUILDING. IF EXCAVATION FOR OR REMOVAL OF THE EXISTING FOUNDATION IN THE PROPOSED BUILDING FOOTPRINT WILL EXTEND BELOW THE PROPOSED BOTTOM OF FOOTING ELEVATIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO PROCEEDING WITH THE EXCAVATION OR REMOVAL OPERATION.



LEGEND

BUILDING REMOVAL

HORIZONTAL SCALE: 1"=20'

20' 0 20' 40'

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MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Transportation Planning and Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: AMU Drawn by: AMU Checked by: PHD

EC-02 DEMO PLAN

BOYDS TRANSIT IMPROVEMENTS

SCALE : 1" = 20' OCTOBER 2023

Project No. : 32207.003 SHEET 5 of 78

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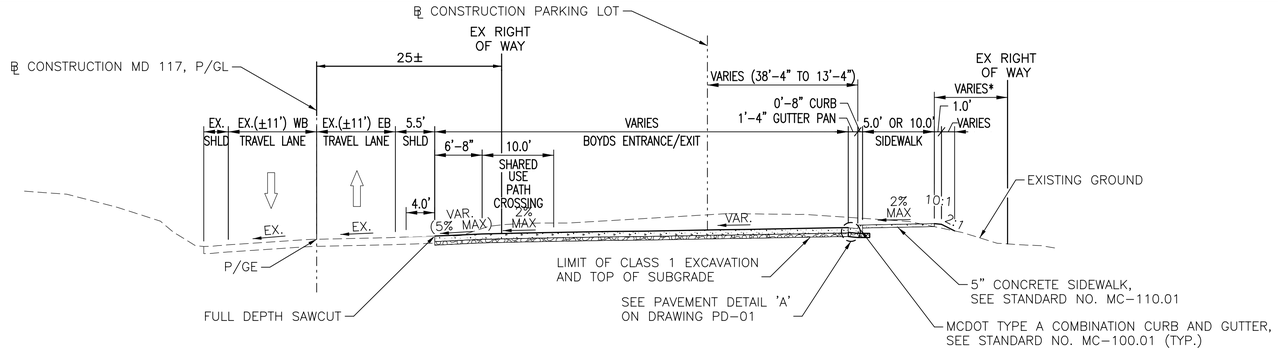
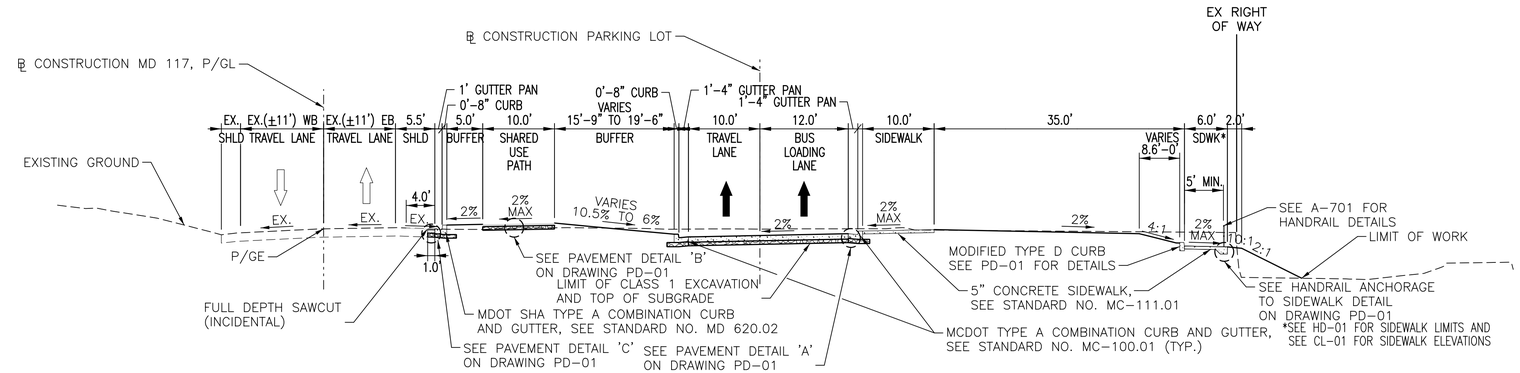
11/2/2023



MD 117 AND SITE ENTRANCE/EXIT

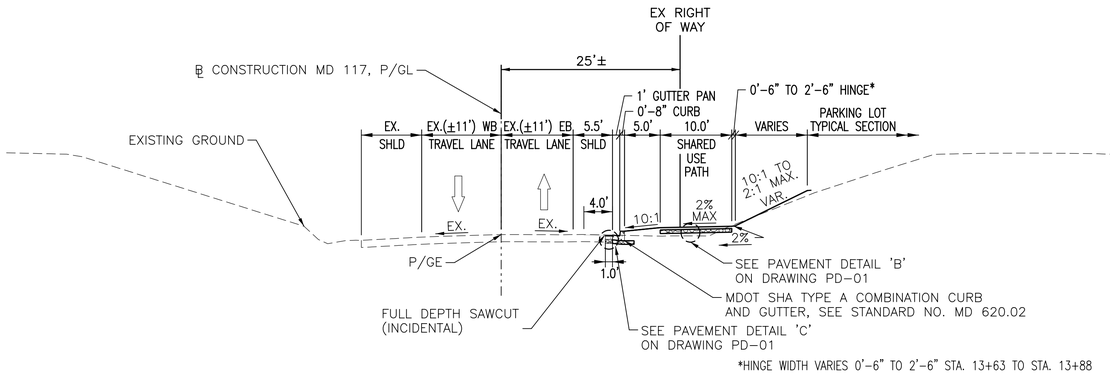
TYPICAL SECTION
SEE HD-01 FOR SECTION LOCATION
STA. 11+40 TO STA. 11+64
STA. 12+49 TO STA. 12+69

*SEE HD-01 FOR TIE IN CONDITIONS



MD 117 AND BUS LOOP

TYPICAL SECTION
SEE HD-01 FOR SECTION LOCATION
STA. 11+64 TO STA. 12+49



*HINGE WIDTH VARIES 0'-6" TO 2'-6" STA. 13+63 TO STA. 13+88

MD 117

STA. 12+69 TO STA. 14+95

NOTES:
1. SLOPE TREATMENT:
   FOR SLOPES 2:1, PLACE 2" TOPSOIL, TURFGRASS ESTABLISHMENT AND TYPE A SSM, UNLESS OTHERWISE NOTED.
   FOR SLOPES FLATTER THAN 2:1, PLACE 4" TOPSOIL AND TURGRASS ESTABLISHMENT, UNLESS OTHERWISE NOTED.
2. SEE ROADWAY PLANS FOR LIMITS OF CURB AND GUTTER

PROFESSIONAL CERTIFICATION.
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MONTGOMERY COUNTY
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GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL
Chief, Transportation Planning and Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date

Designed by: AMU Drawn by: AMU Checked by: PHD

HT-01 TYPICAL SECTIONS

BOYDS TRANSIT IMPROVEMENTS

SCALE : 1" = 10' OCTOBER 2023

Project No. : 32207.003 SHEET 6 of 78

MCDPS-SC/SWM SHEET NO. 3 OF 18

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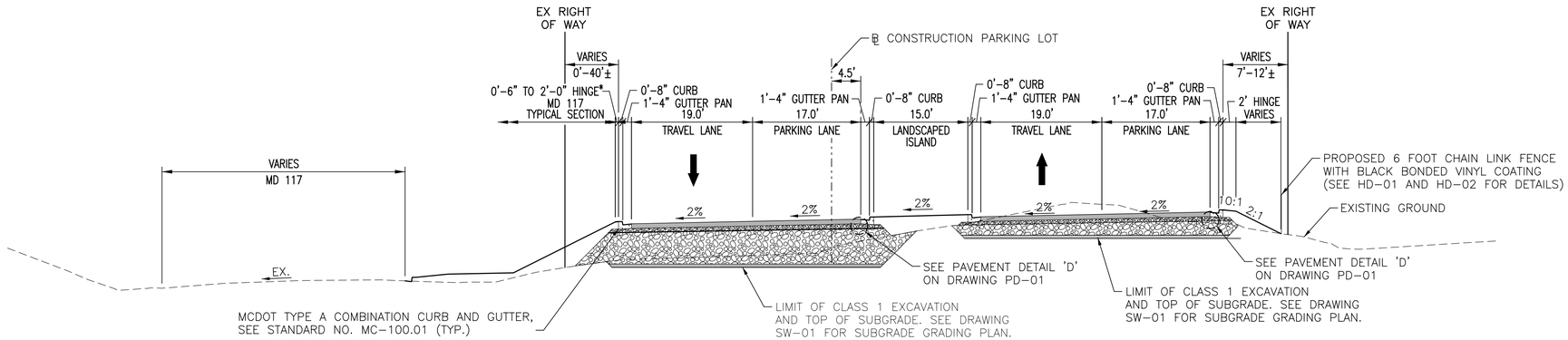
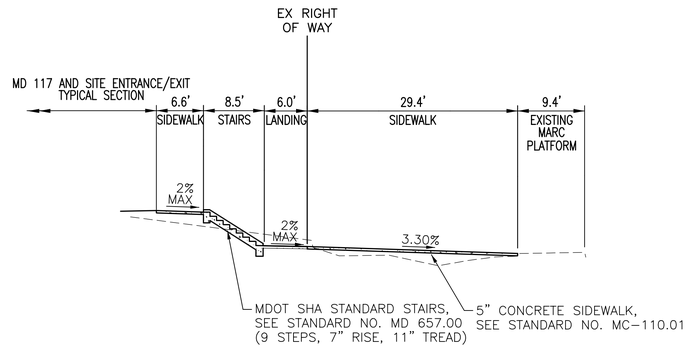
11/2/2023



*HINGE WIDTH VARIES 0'-6" TO 2'-0" STA. 22+60 TO STA. 22+85

PARKING LOT
TYPICAL SECTION
STA. 22+43 TO STA. 24+61



STAIRS AND RAMP TO MARC PLATFORM
TYPICAL SECTION

NOTES:
1. SLOPE TREATMENT:
   FOR SLOPES 2:1, PLACE 2" TOPSOIL, TURFGRASS ESTABLISHMENT AND TYPE A SSM, UNLESS OTHERWISE NOTED.
   FOR SLOPES FLATTER THAN 2:1, PLACE 4" TOPSOIL AND TURGRASS ESTABLISHMENT, UNLESS OTHERWISE NOTED.
2. SEE ROADWAY PLANS FOR LIMITS OF CURB AND GUTTER

PROFESSIONAL CERTIFICATION.
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APPROVED
Chief, Division of Transportation Engineering — Date

Designed by: AMU Drawn by: AMU Checked by: PHD

HT-02 TYPICAL SECTIONS

BOYDS TRANSIT IMPROVEMENTS

SCALE : 1" = 10' OCTOBER 2023

Project No. : 32207.003 SHEET 7 of 78

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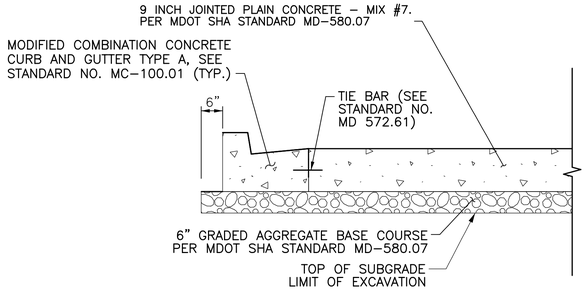
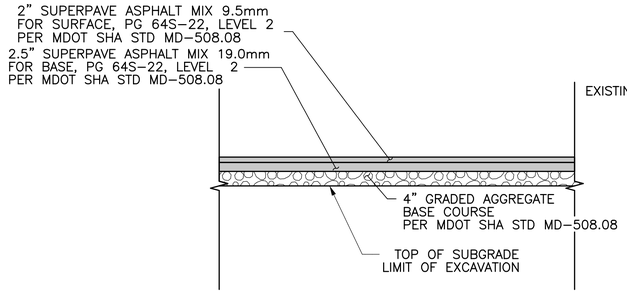
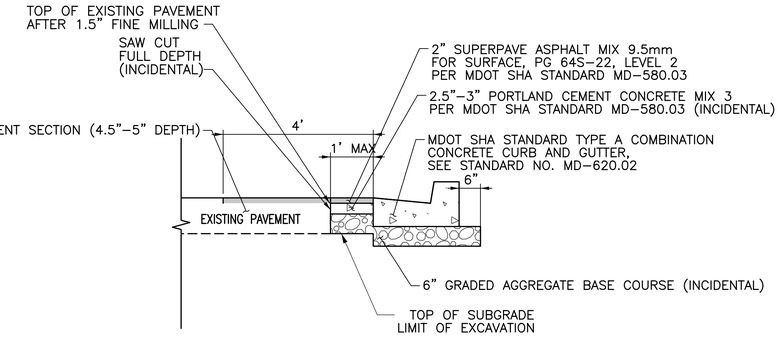
11/2/2023



PAVEMENT DETAIL 'A'
NOT TO SCALE

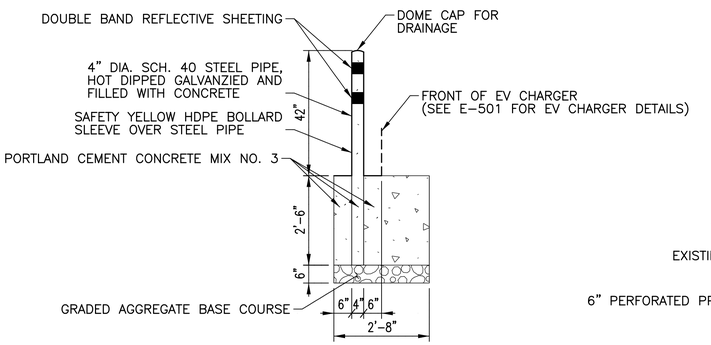


PAVEMENT DETAIL 'B'
NOT TO SCALE

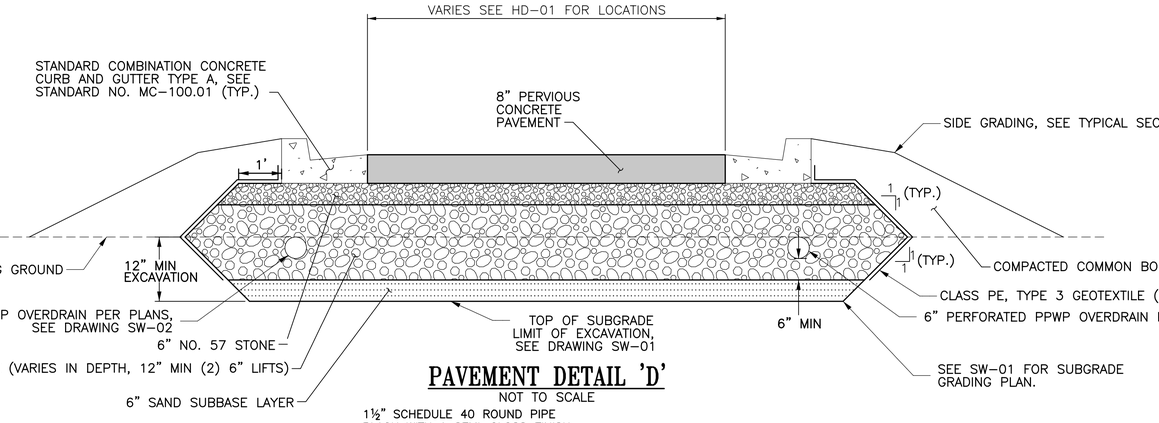


PAVEMENT DETAIL 'C'
NOT TO SCALE

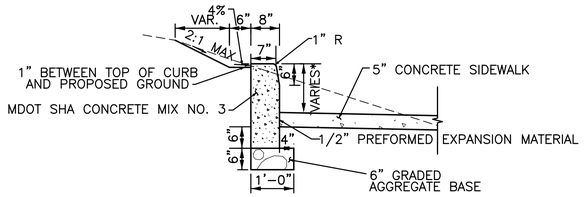
NOTES:
1. SLAB WIDTH IS 4' MINIMUM AND 16' MAXIMUM UNLESS OTHERWISE APPROVED BY THE ENGINEER.
2. TRAVERSE JOINT SPACING IS 7' MINIMUM AND 18' MAXIMUM UNLESS OTHERWISE APPROVED BY THE ENGINEER.
3. IN CURVED SECTIONS THE SLAB DIMENSIONS ARE PROVIDED ALONG THE OUTER RADIUS.



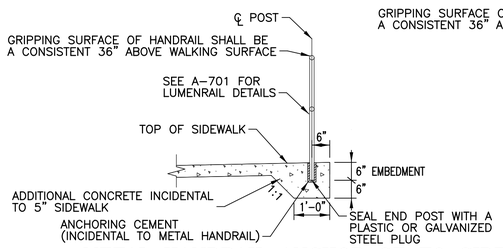
BOLLARD DETAIL
NOT TO SCALE



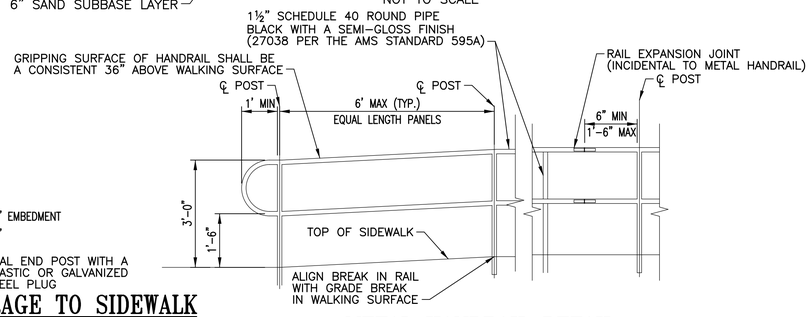
PAVEMENT DETAIL 'D'
NOT TO SCALE



MODIFIED TYPE D CONCRETE CURB DETAIL
NOT TO SCALE
*SEE DWG HD–01 AND HD–02 FOR PROPOSED CURB LIMITS AND HEIGHTS



METAL HANDRAIL ANCHORAGE TO SIDEWALK
NOT TO SCALE



METAL HANDRAIL DETAIL
NOT TO SCALE

NOTES:
1. DRAWINGS ARE FOR DESIGN INTENT ONLY. CONTRACTOR TO COORDINATE ACTUAL SLOPES AND DIMENSIONS WITH SITE CONDITIONS.
2. THE SUBGRADE SHALL BE TEST ROLLED AS SPECIFIED IN SECTION 204 OF THE LATEST STANDARD AND SPECIFICATION FOR CONSTRUCTION MATERIALS.
3. METAL HANDRAIL WILL BE MEASURED AND PAID PER LINEAR FOOT. THE CONTRACTOR SHALL SUBMIT DRAWINGS DETAILING ALL ASPECTS OF FABRICATION AND INSTALLATION OF THE METAL HANDRAIL FOR APPROVAL BY THE ENGINEER PRIOR TO INSTALLATION.

PROFESSIONAL CERTIFICATION.
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801 South Caroline Street, Baltimore, Maryland 21231

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL
Chief, Transportation Planning and Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date

Designed by: AMU Drawn by: AMU Checked by: PHD

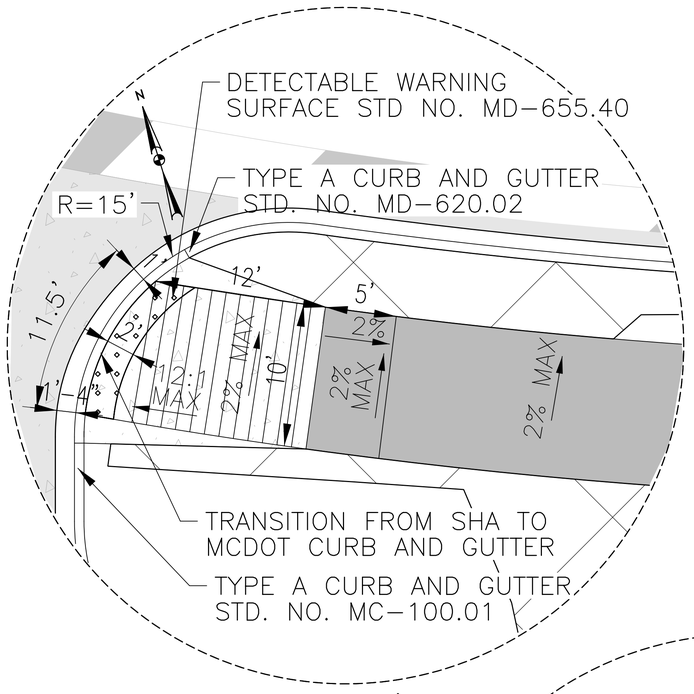
PD–01 PAVEMENT DETAILS

BOYDS TRANSIT
IMPROVEMENTS

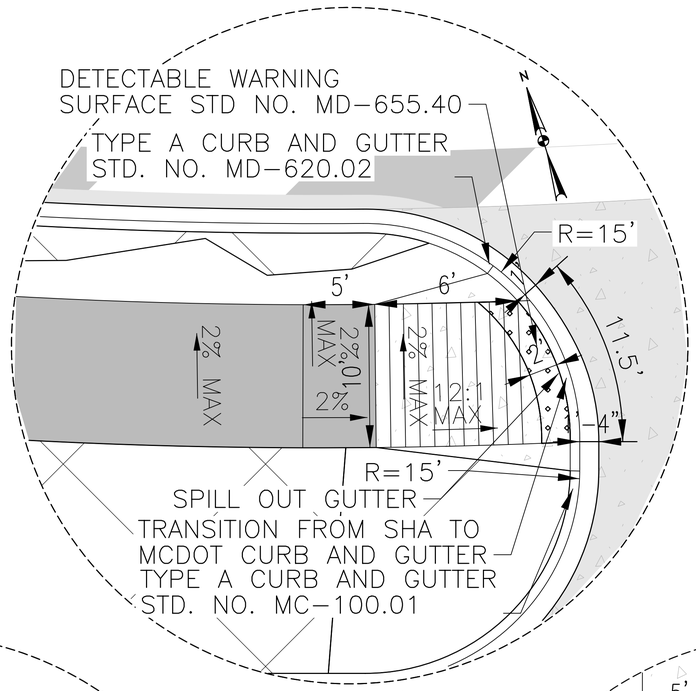
SCALE : AS SHOWN OCTOBER 2023

Project No. : 32207.003 SHEET 8 of 78

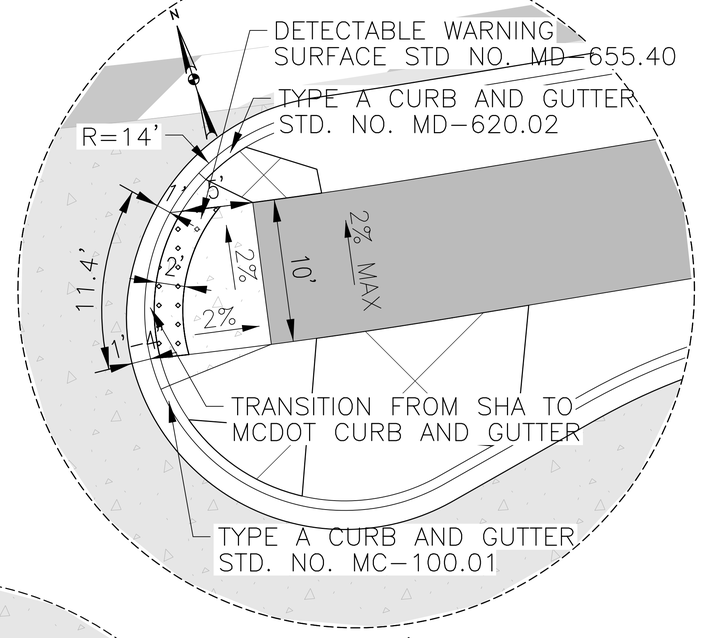
N:\32207-003\CAD\wPD-D001_Boyds.dgn
11/2/2023



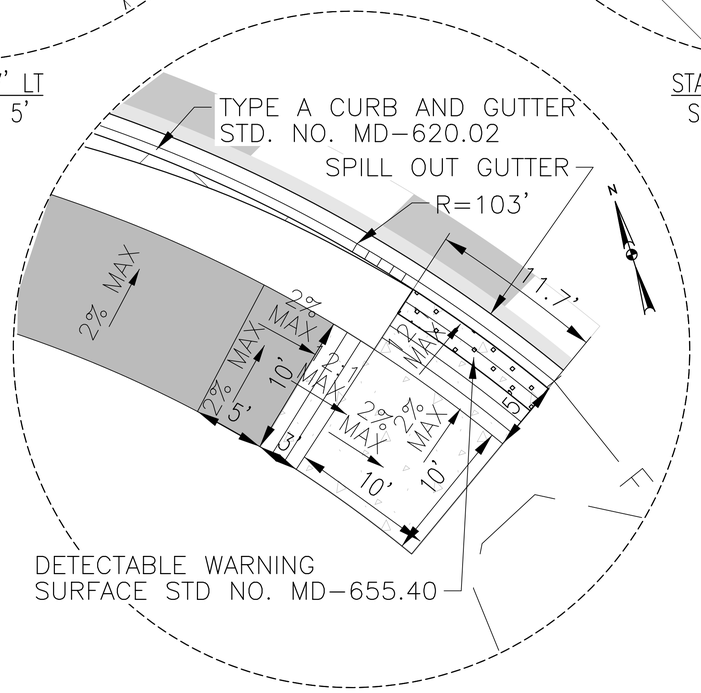
STA. 20+90, 37' LT
SCALE : 1" = 5'



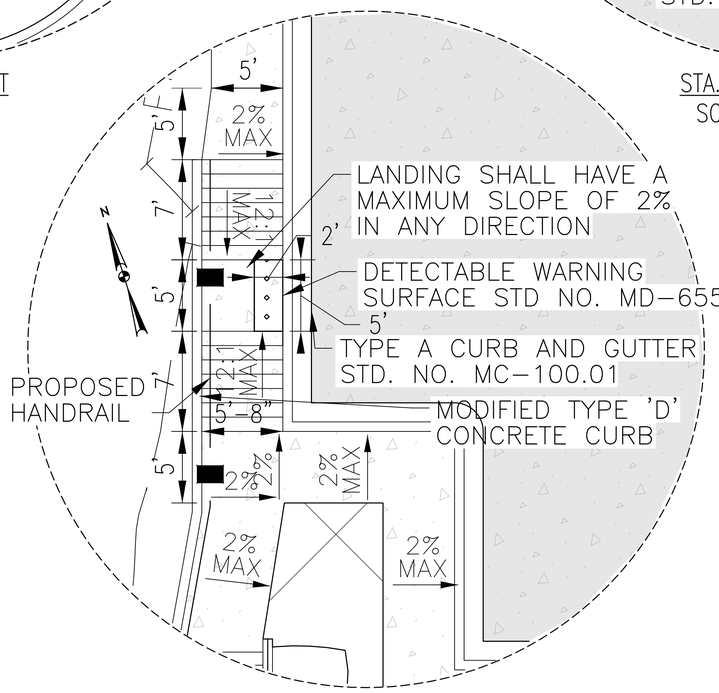
STA. 21+66, 33' LT
SCALE : 1" = 5'



STA. 22+00, 36' LT
SCALE : 1" = 5'



STA. 24+87, 53' LT
SCALE : 1" = 5'



STA. 20+50, 10' RT
SCALE : 1" = 5'

N:\32207-003\CAD\pDE-0001_Boyds.dgn
11/2/2023

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MONTGOMERY COUNTY
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GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Transportation Planning and Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

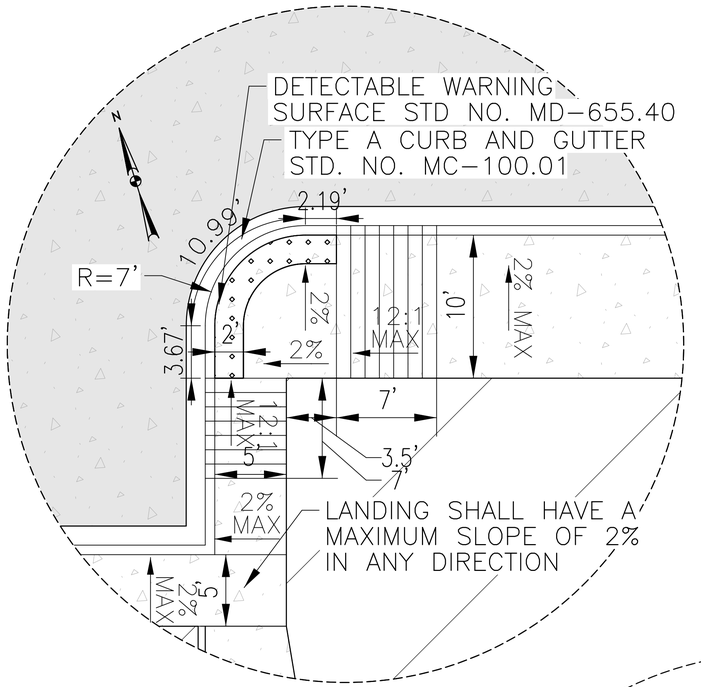
Designed by: AMU Drawn by: AMU Checked by: PHD

DE-01 RAMP DETAILS

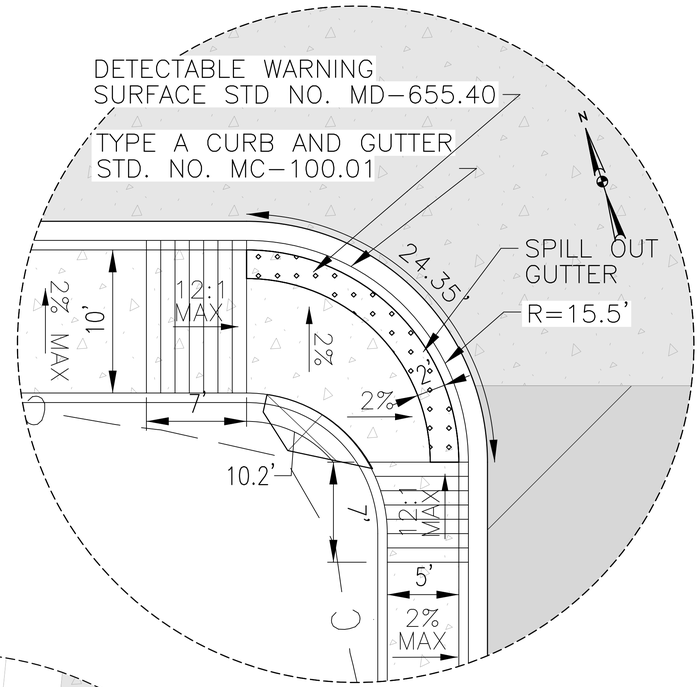
BOYDS TRANSIT
IMPROVEMENTS

SCALE : AS SHOWN OCTOBER 2023

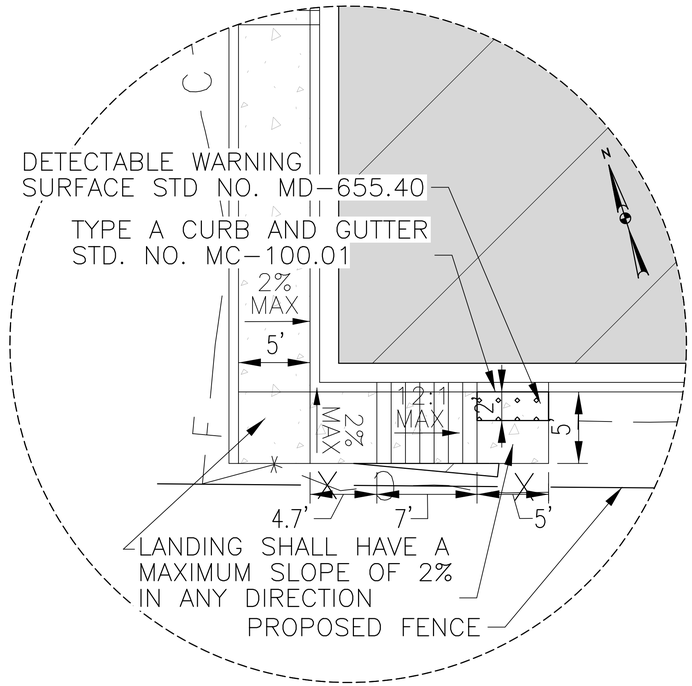
Project No. : 32207.003 SHEET 9 of 78



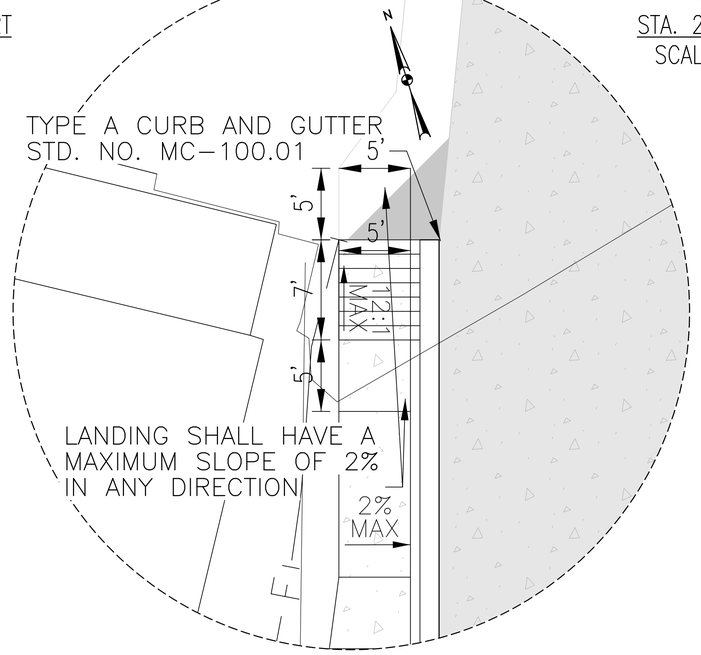
STA. 20+90, 17' RT
SCALE : 1" = 5'



STA. 22+16, 21' RT
SCALE : 1" = 5'



STA. 22+37, 64' RT
SCALE : 1" = 5'



STA. 20+58, 28' LT
SCALE : 1" = 5'

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Chief, Transportation Planning and Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date

Designed by: AMU Drawn by: AMU Checked by: PHD

DE-02 RAMP DETAILS

BOYDS TRANSIT IMPROVEMENTS

SCALE : AS SHOWN OCTOBER 2023

Project No. : 32207.003 SHEET 10 of 78

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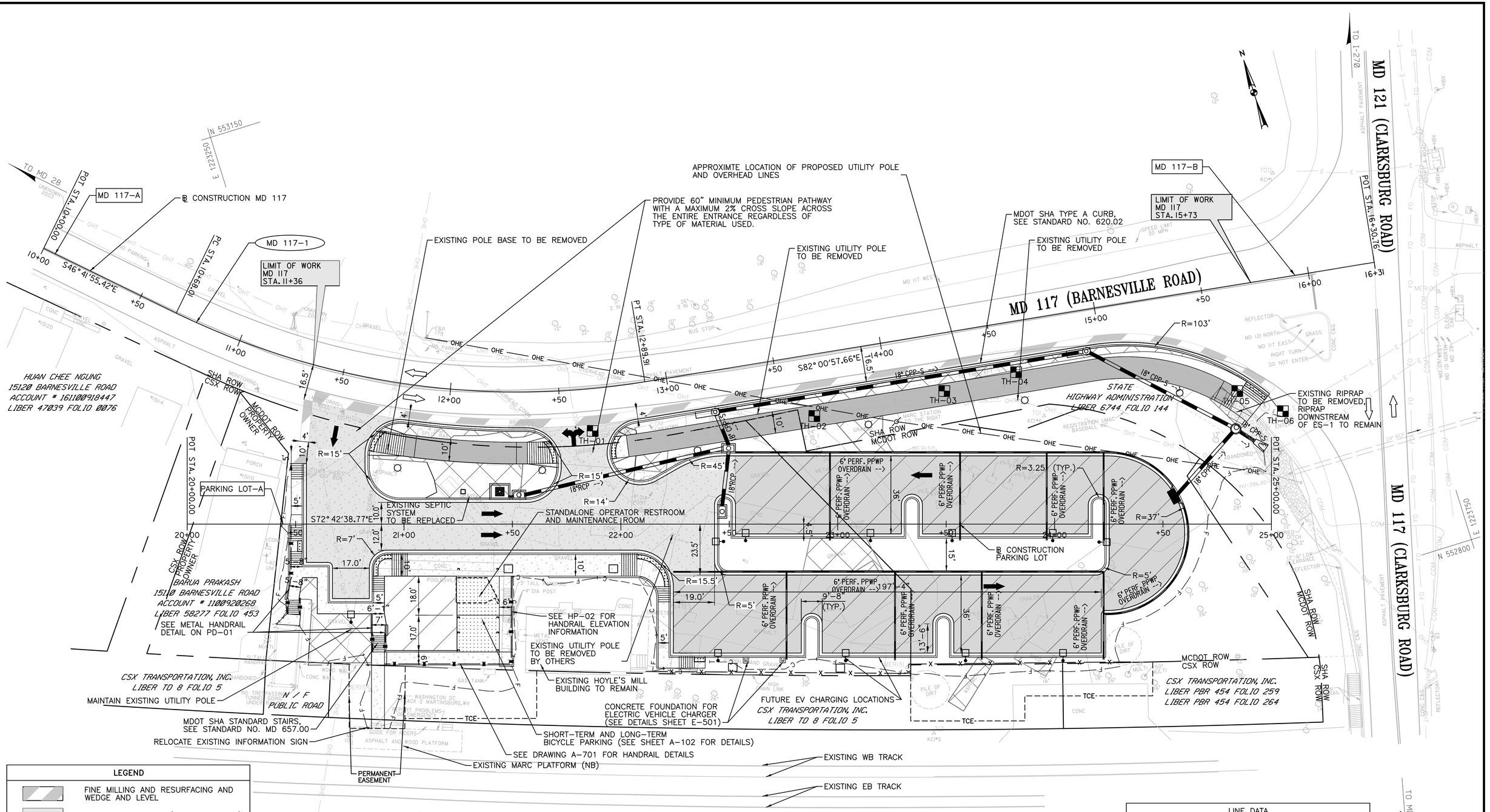
11/2/2023



LEGEND	
	FINE MILLING AND RESURFACING AND WEDGE AND LEVEL
	FULL DEPTH PAVING (PER MD-580.03)
	SHARED USE PATH
	FULL DEPTH PERVIOUS CONCRETE PAVEMENT
	FULL DEPTH CONCRETE PAVEMENT
	CONCRETE SIDEWALK
	DETECTABLE WARNING SURFACE
	PAVEMENT REMOVAL
	BUILDING REMOVAL
	PROPOSED BUILDING FOUNDATION

CURVE DATA								
CURVE	DELTA	Dc	R	L	T	E	PI NORTH	PI EAST
MD 117-1	35°19' 02.24" LT	15°54' 55.78"	360.00'	221.91'	114.60'	17.80'	552,998.7409	1,223,294.2136

LINE DATA		
LINE	LENGTH	BEARING
MD 117-A	68.01'	S 46° 41' 55.42" E
MD 117-B	340.85'	S 82° 00' 57.66" E
PARKING LOT-A	500.00'	S 72° 42' 38.77" E

MCDPS-SC/SWM SHEET NO. 6 OF 18

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MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL
Chief, Transportation Planning and Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date

Designed by: AMU Drawn by: AMU Checked by: PHD

HD-01 ROADWAY PLAN

BOYDS TRANSIT IMPROVEMENTS

SCALE : 1" = 20' OCTOBER 2023

Project No. : 32207.003 SHEET 11 of 78

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11/2/2023

MODIFIED TYPE D CONCRETE CURB		
STATION AND OFFSET	LENGTH	REMARKS
21+66, 24' RT, 24" REVEAL TO 22+17, 67' RT, 24" REVEAL	88'	HOYLES MILL
20+91, 58' RT, 6" REVEAL TO 21+24, 58' RT, 18" REVEAL	33'	SIDEWALK TO MARC
21+43, 65' RT 0" REVEAL TO 21+49, 65' RT, 20" REVEAL*	6'	LANDING
21+49, 65' RT, 20" REVEAL TO 21+49, 61' RT, 0" REVEAL*	4'	LANDING
20+47, 1' RT, 0" REVEAL TO 20+47, 5' RT, 24" REVEAL*	4'	SIDEWALK**
20+47, 5' RT, 24" REVEAL TO 20+59, 35' RT, 24" REVEAL*	30'	SIDEWALK**
20+93, 47' RT 0" REVEAL TO 20+93, 51' RT, 12" REVEAL*	30'	SIDEWALK

*REVEAL IS MEASURED ALONG FILL SIDE OF THE CURB AND TOP OF CURB SHALL BE FLUSH WITH SIDEWALK UNLESS OTHERWISE NOTED.
***REVEAL AT PEDESTRIAN RAMP AT STA. 20+53 18' RT SHALL BE 6" AT THE LANDING ALONG SIDEWALK AND TAPER TO FLUSH WITH SIDEWALK AT TOP OF THE RAMPS.

5 INCH CONCRETE SIDEWALK (MC-111.01)		
STATION AND OFFSET	AREA	REMARKS
20+41, 46' RT TO 22+39, 67' RT	3310 SF	SIDEWALK FROM COUNTRY STORE TO PARKING LOT
11+68, 33' RT TO 11+82, 23' RT	172 SF	SHARED USE PATH RAMP
12+35, 23' RT TO 12+48, 33' RT	148 SF	SHARED USE PATH RAMP
12+70, 31' RT TO 12+78, 23' RT	84 SF	SHARED USE PATH RAMP
15+52, 54' RT TO 15+72, 53' RT	195 SF	SHARED USE PATH RAMP

DETECTABLE WARNING SURFACE (MD-655.40)		
STATION AND OFFSET	AREA	REMARKS
11+70, 28' RT	21.9 SF	SHARED USE PATH RAMP
12+46, 28' RT	21.9 SF	SHARED USE PATH RAMP
12+72, 28' RT	21.6 SF	SHARED USE PATH RAMP
15+68, 50' RT	23 SF	SHARED USE PATH RAMP
20+52, 11' RT	10 SF	SIDEWALK
20+88, 17' RT	28 SF	SIDEWALK
22+18, 19' RT	43.5 SF	SIDEWALK
22+36, 62' RT	10 SF	SIDEWALK

REMOVAL OF EXISTING PAVEMENT		
STATION AND OFFSET	AREA	REMARKS
20+52, 30' RT TO 20+85, 64' RT	82.1 SY	PARKING LOT
20+85, 30' LT TO 21+55, 28' LT	80.4 SY	PARKING LOT
20+91, 45' LT TO 21+61, 42' LT	24.0 SY	PARKING LOT
21+99, 43' LT TO 22+07, 42' LT	2.2 SY	PARKING LOT
22+06, 25' LT TO 22+22, 34' LT	13.1 SY	PARKING LOT
22+68, 57' LT TO 24+89, 66' LT	86.7 SY	PARKING LOT
22+83, 22' RT TO 23+31, 22' RT	49.8 SY	PARKING LOT
22+99, 46' LT TO 23+25 34' LT	29.0 SY	PARKING LOT
23+51, 82' RT TO 23+72, 64' RT	22.7 SY	PARKING LOT

MDOT SHA TYPE A COMBINATION CURB AND GUTTER (MD-620.02)		
STATION AND OFFSET	LENGTH	REMARKS
11+69, 23' RT TO 12+46, 23' RT	84'	BARNESVILLE RD
12+72, 23' RT TO 15+73, 53' RT	315'	BARNESVILLE RD

MCDOT TYPE A COMBINATION CURB AND GUTTER (MC-100.01)		
STATION AND OFFSET	LENGTH	REMARKS
20+55, 32' LT TO 21+96, 41' LT	947'	BOYDS COUNTRY STORE TO BUS EXIT
22+43, LT&RT TO 24+28, LT&RT	500'	PARKING LOT
20+87, 44' LT TO 21+68, 39' LT	142'	PARK AND RIDE BUS LOOP

CAST ALUMINUM MARKER AND POLE		
STATION AND OFFSET	EA	REMARKS
21+27, 15' LT	1	HISTORICAL MARKER

FINE MILLING ASPHALT PAVEMENT 1 INCH TO 2.5 INCH AND WEDGE AND LEVEL		
STATION AND OFFSET	AREA	REMARKS
11+40, 11.6' RT TO 15+73, 49.5' RT	250 SY	BARNESVILLE ROAD
20+48, 28' LT TO 20+56, 38' LT	8 SY	PARKING LOT

MDOT SHA 6 FT CHAIN LINK FENCE WITH BLACK BONDED VINYL COATING (MD-690.01)		
STATION AND OFFSET	LENGTH	REMARKS
22+12, 68' RT TO 24+35, 63' RT	228'	PARKING LOT

METAL HANDRAIL		
STATION AND OFFSET	LF	REMARKS
20+46, 1' RT TO 20+46, 42' RT	40'	PARKING LOT
20+52, 34' RT TO 20+52, 42' RT	8'	PARKING LOT
20+85, 41' RT TO 20+85, 59' RT	18'	PARKING LOT
20+91, 47' RT TO 20+91, 59' RT	12'	PARKING LOT

LUMENRAIL		
STATION AND OFFSET	LF	REMARKS
20+91, 64.5' RT TO 21+50, 24' RT	99'	SIDEWALK TO MARC PLATFORM

4 INCH METAL BOLLARD		
STATION AND OFFSET	EA	REMARKS
22+57, 62.17' RT	1	EV CHARGING STATION
22+58, 62.17' RT	1	EV CHARGING STATION
22+74, 62.17' RT	1	EV CHARGING STATION
22+75, 62.17' RT	1	EV CHARGING STATION

MDOT SHA STANDARD STAIRWAY (MD-657.00)		
STATION AND OFFSET	VOLUME	REMARKS
20+85, 51' RT TO 20+91, 59' RT	1 CY	STAIRS TO MARC
20+46, 34' RT TO 20+52, 42' RT	1 CY	STAIRS TO TUNNEL

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MCDPS-SC/SWM SHEET NO. 7 OF 18

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._____
EXPIRATION DATE:_____

Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL
Chief, Transportation Planning and Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date

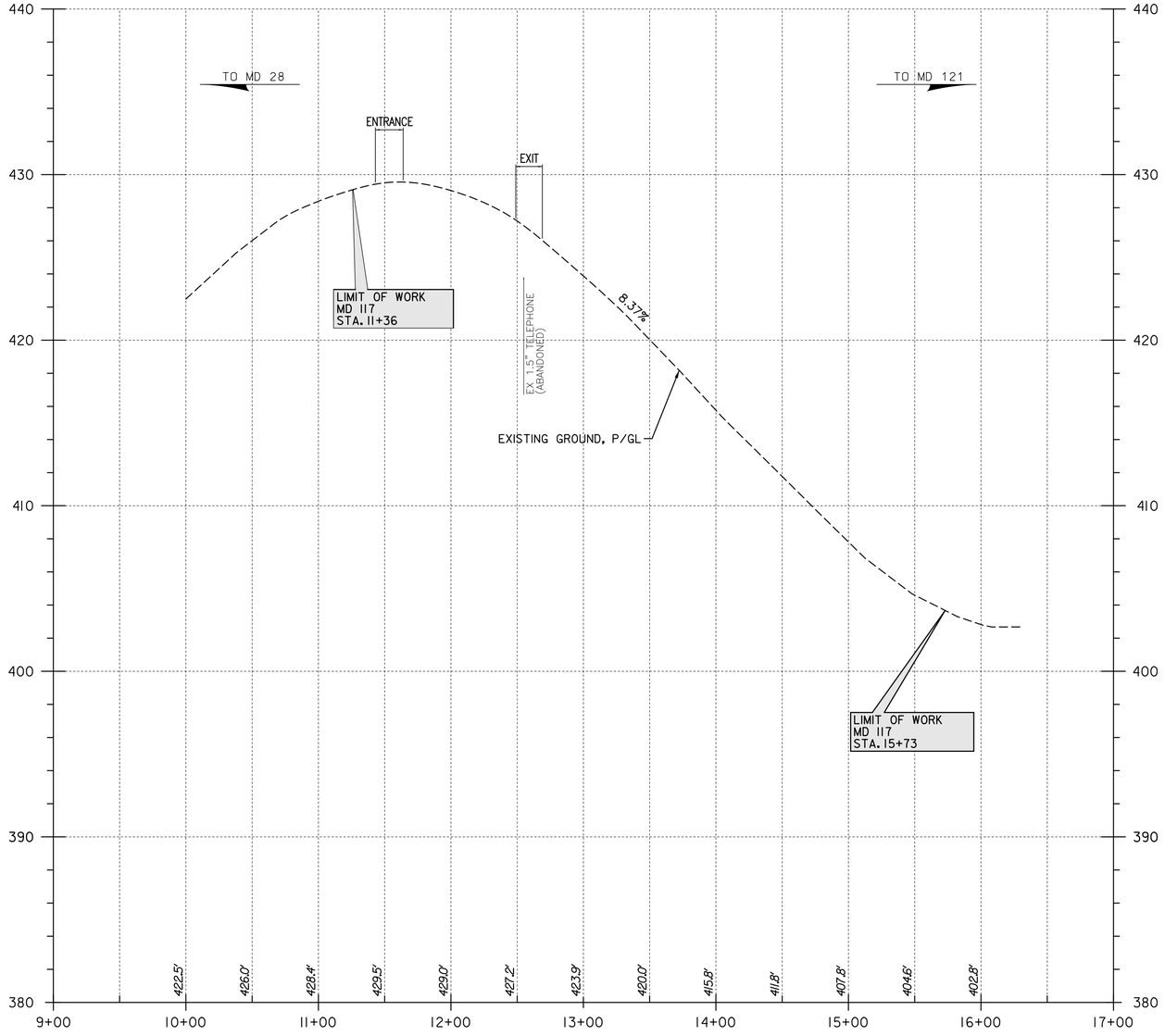
Designed by: AMU Drawn by: AMU Checked by: PHD

HD-02 ROADWAY PLAN

BOYDS TRANSIT IMPROVEMENTS

SCALE : NTS OCTOBER 2023

Project No. : 32207.003 SHEET 12 of 78



MD 117

VERTICAL SCALE: 1"=5'

10'
5'
0
5'

HORIZONTAL SCALE: 1"=20'

20' 0 20' 40'

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HP-01 ROADWAY PROFILE

BOYDS TRANSIT IMPROVEMENTS

SCALE : 1" = 20' H
1" = 5' V

OCTOBER 2023

Project No. : 32207.003

SHEET 13 of 78

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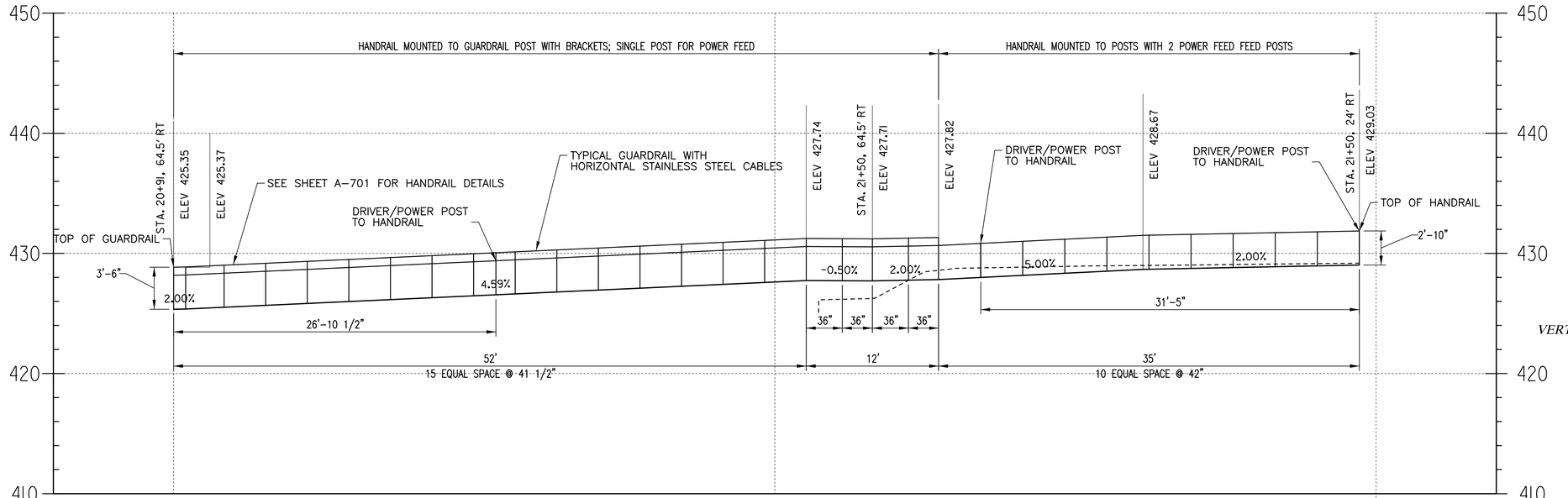
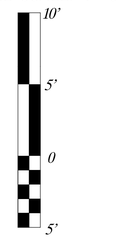
11/2/2023

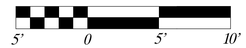


HANDRAIL PROFILE

VERTICAL SCALE: 1"=5'



HORIZONTAL SCALE: 1"=5'



NOTES:

1. 2 W/FT DRIVER AT EACH (40' MAX)
2. 3/4" CONDUIT CAST IN CONCRETE
3. POST SPACING 42" – 48" (MAX.)
4. 1.5" PIPE POST (TYPICAL)

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11/2/2023

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HP-02 HANDRAIL PROFILE

BOYDS TRANSIT IMPROVEMENTS

SCALE : 1" = 1' H
OCTOBER 2023

Project No. : 32207.003

SHEET 14 of 78

CURB LAYOUT SCHEDULE

POINT NO.	STATION	OFFSET	NORTHING	EASTING	ELEV.
		MD 117			
100	11+81.30	17.50' RT	552,997.9601	1,223,296.5558	429.46
101	11+87.54	17.50' RT	552,995.2169	1,223,302.4997	429.37
102	11+97.08	17.50' RT	552,991.2266	1,223,311.6687	429.25
103	12+06.61	17.50' RT	552,987.4805	1,223,320.9403	428.89
104	12+16.15	17.50' RT	552,983.9814	1,223,330.3078	428.62
105	12+25.69	17.50' RT	552,980.7315	1,223,339.7646	428.25
106	12+33.83	17.50' RT	552,978.1540	1,223,347.9110	428.04
107	12+40.31	18.84' RT	552,974.9510	1,223,354.0552	427.73
108	12+45.42	23.17' RT	552,969.3349	1,223,358.1212	427.84
109	12+48.26	33.17' RT	552,958.8858	1,223,358.5144	427.94
110	12+43.84	45.45' RT	552,948.2845	1,223,350.6133	427.73
111	12+34.39	49.62' RT	552,947.2419	1,223,339.1803	427.52
112	12+29.41	49.61' RT	552,948.9260	1,223,333.7697	427.41
113	12+24.43	49.68' RT	552,950.6101	1,223,328.3590	427.52
114	12+04.04	50.79' RT	552,957.5230	1,223,306.1494	427.64
115	11+83.83	53.21' RT	552,964.4360	1,223,283.9397	427.75
116	11+74.09	50.41' RT	552,971.7831	1,223,275.1181	427.96
117	11+68.68	40.68' RT	552,983.2162	1,223,274.0754	428.33
118	11+67.75	34.86' RT	552,988.8535	1,223,275.8301	428.52
119	11+70.40	23.17' RT	552,997.9469	1,223,283.7211	429.03

CURB LAYOUT SCHEDULE

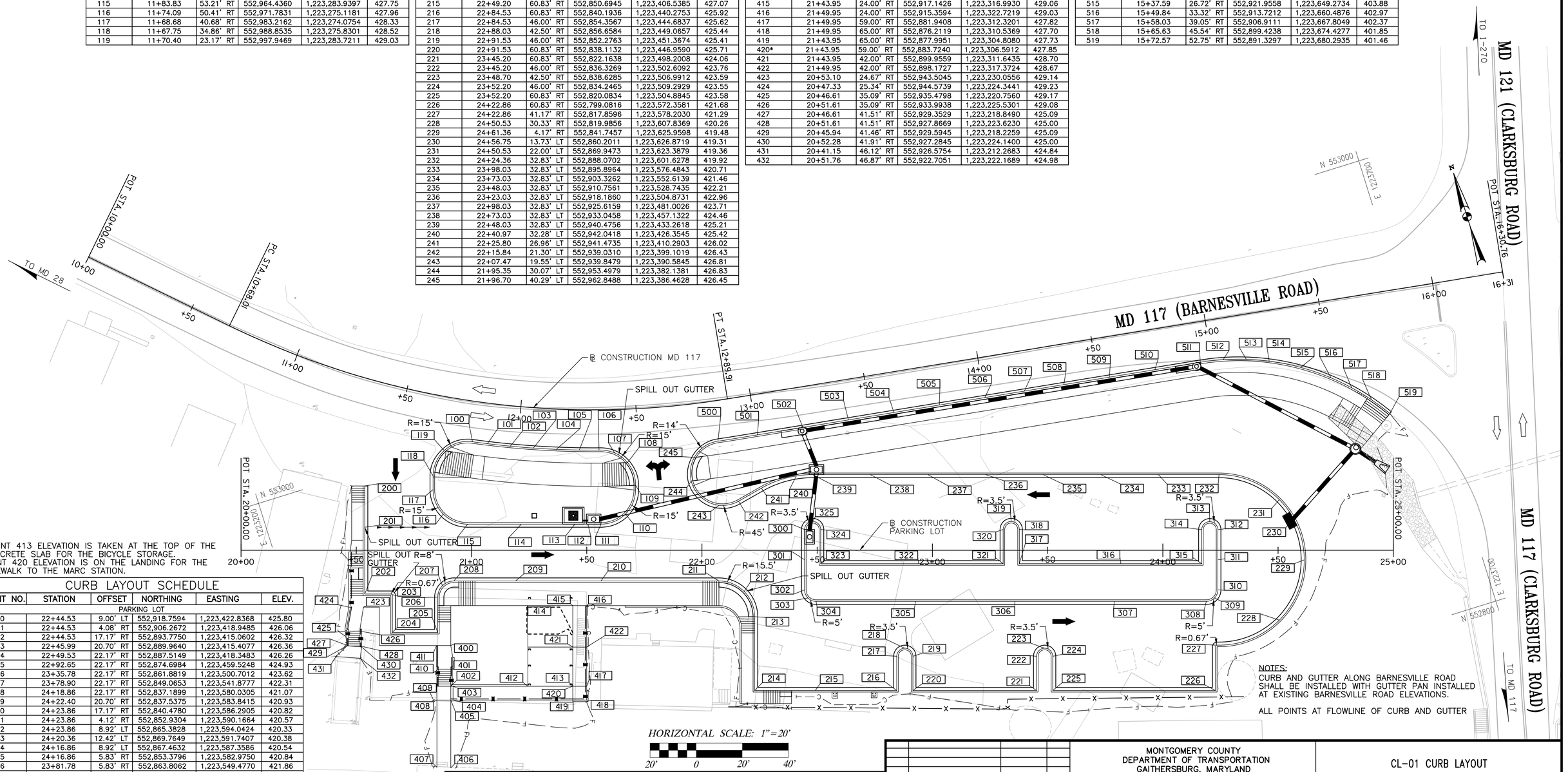
POINT NO.	STATION	OFFSET	NORTHING	EASTING	ELEV.
		PARKING LOT			
200	20+53.67	27.91' LT	552,993.5432	1,223,246.2193	428.68
201	20+53.67	10.00' LT	552,976.4376	1,223,240.8951	427.97
202	20+53.67	19.00' RT	552,948.7481	1,223,232.2764	428.54
203	20+65.47	19.19' RT	552,945.0538	1,223,243.4895	428.48
204	20+65.67	35.67' RT	552,929.2681	1,223,238.7810	428.81
205	20+85.33	35.67' RT	552,923.4233	1,223,257.5590	428.71
206	20+85.33	20.33' RT	552,938.0638	1,223,262.1160	428.51
207	20+87.39	15.38' RT	552,942.1834	1,223,265.5501	428.43
208	20+92.35	13.33' RT	552,942.6634	1,223,270.8919	428.34
209	21+19.09	13.33' RT	552,934.7139	1,223,296.4316	428.09
210	21+56.19	13.33' RT	552,923.6898	1,223,331.8495	427.84
211	22+07.36	13.33' RT	552,908.4809	1,223,380.7121	426.96
212	22+18.32	17.87' RT	552,900.8888	1,223,389.8278	426.82
213	22+22.86	28.83' RT	552,889.0747	1,223,390.9052	426.96
214	22+22.86	60.83' RT	552,858.5206	1,223,381.3950	427.60
215	22+49.20	60.83' RT	552,850.6945	1,223,406.5385	427.07
216	22+84.53	60.83' RT	552,840.1936	1,223,440.2753	425.92
217	22+84.53	46.00' RT	552,854.3567	1,223,444.6837	425.62
218	22+88.03	42.50' RT	552,856.6584	1,223,449.0657	425.44
219	22+91.53	46.00' RT	552,852.2763	1,223,451.3674	425.41
220	22+91.53	60.83' RT	552,838.1132	1,223,446.9590	425.71
221	23+45.20	60.83' RT	552,822.1638	1,223,498.2008	424.06
222	23+45.20	46.00' RT	552,836.3269	1,223,502.6092	423.76
223	23+48.70	42.50' RT	552,838.6285	1,223,506.9912	423.59
224	23+52.20	46.00' RT	552,834.2465	1,223,509.2929	423.55
225	23+52.20	60.83' RT	552,820.0834	1,223,504.8845	423.58
226	24+22.86	60.83' RT	552,799.0816	1,223,572.3581	421.68
227	24+22.86	41.17' RT	552,817.8596	1,223,578.2030	421.29
228	24+50.53	30.33' RT	552,819.9856	1,223,607.8369	420.26
229	24+61.36	4.17' RT	552,841.7457	1,223,625.9598	419.48
230	24+56.75	13.73' LT	552,860.2011	1,223,626.8719	419.31
231	24+50.53	22.00' LT	552,869.9473	1,223,623.3879	419.36
232	24+24.36	32.83' LT	552,888.0702	1,223,601.6278	419.92
233	23+98.03	32.83' LT	552,895.8964	1,223,576.4843	420.71
234	23+73.03	32.83' LT	552,903.3262	1,223,552.6139	421.46
235	23+48.03	32.83' LT	552,910.7561	1,223,528.7435	422.21
236	23+23.03	32.83' LT	552,918.1860	1,223,504.8731	422.96
237	22+98.03	32.83' LT	552,925.6159	1,223,481.0026	423.71
238	22+73.03	32.83' LT	552,933.0458	1,223,457.1322	424.46
239	22+48.03	32.83' LT	552,940.4756	1,223,433.2618	425.21
240	22+40.97	32.28' LT	552,942.0418	1,223,426.3545	425.42
241	22+25.80	26.96' LT	552,941.4735	1,223,410.2903	426.02
242	22+15.84	21.30' LT	552,939.0310	1,223,399.1019	426.43
243	22+07.47	19.55' LT	552,939.8479	1,223,390.5845	426.81
244	21+95.35	30.07' LT	552,953.4979	1,223,382.1381	426.83
245	21+96.70	40.29' LT	552,962.8488	1,223,386.4628	426.45

CURB LAYOUT SCHEDULE

POINT NO.	STATION	OFFSET	NORTHING	EASTING	ELEV.
		PARKING LOT			
400	20+91.00	41.33' RT	552,916.3285	1,223,261.2855	429.53
401	20+91.00	51.58' RT	552,906.5416	1,223,258.2392	429.58
402	20+91.00	59.00' RT	552,899.4600	1,223,256.0350	425.46
403	20+92.00	59.00' RT	552,899.1628	1,223,256.9899	425.48
404	20+92.00	65.00' RT	552,893.4339	1,223,255.2067	425.36
405	20+91.00	65.00' RT	552,893.7311	1,223,254.2519	425.34
406	20+91.00	94.42' RT	552,865.6415	1,223,245.5087	424.37
407	20+85.00	94.19' RT	552,867.6445	1,223,239.8483	424.38
408	20+85.00	65.00' RT	552,895.5143	1,223,248.5230	425.22
409	20+85.67	59.00' RT	552,901.0451	1,223,250.9427	425.34
410	20+85.67	51.58' RT	552,908.1266	1,223,253.1469	429.46
411	20+84.83	41.33' RT	552,918.1612	1,223,255.3975	429.41
412	21+24.45	59.00' RT	552,889.5193	1,223,287.9723	428.44
413*	21+43.95	59.00' RT	552,883.7240	1,223,306.5912	428.34
414	21+24.20	24.00' RT	552,923.0122	1,223,298.1354	429.16
415	21+43.95	24.00' RT	552,917.1426	1,223,316.9930	429.06
416	21+49.95	24.00' RT	552,915.3594	1,223,322.7219	429.03
417	21+49.95	59.00' RT	552,881.9408	1,223,312.3201	427.82
418	21+49.95	65.00' RT	552,876.2119	1,223,310.5369	427.70
419	21+43.95	65.00' RT	552,877.9951	1,223,304.8080	427.73
420*	21+43.95	59.00' RT	552,883.7240	1,223,306.5912	427.85
421	21+43.95	42.00' RT	552,899.9559	1,223,311.6435	428.70
422	21+49.95	42.00' RT	552,898.1727	1,223,317.3724	428.67
423	20+53.10	24.67' RT	552,943.5045	1,223,230.0556	429.14
424	20+47.33	25.34' RT	552,944.5739	1,223,224.3441	429.23
425	20+46.61	35.09' RT	552,935.4798	1,223,220.7560	429.17
426	20+51.61	35.09' RT	552,933.9938	1,223,225.5301	429.08
427	20+46.61	41.51' RT	552,929.3529	1,223,218.8490	425.09
428	20+51.61	41.51' RT	552,927.8669	1,223,223.6230	425.00
429	20+45.94	41.46' RT	552,929.5945	1,223,218.2259	425.09
430	20+52.28	41.91' RT	552,927.2845	1,223,224.1400	425.00
431	20+41.15	46.12' RT	552,926.5754	1,223,212.2683	424.84
432	20+51.76	46.87' RT	552,922.7051	1,223,222.1689	424.98

CURB LAYOUT SCHEDULE

POINT NO.	STATION	OFFSET	NORTHING	EASTING	ELEV.
		MD 117			
500	12+83.20	17.50' RT	552,966.5345	1,223,398.3185	425.33
501	13+00.24	17.50' RT	552,964.0579	1,223,415.5039	424.16
502	13+20.24	17.50' RT	552,961.2800	1,223,435.3100	422.67
503	13+40.24	17.50' RT	552,958.5021	1,223,455.1162	420.94
504	13+60.24	17.50' RT	552,955.7242	1,223,474.9223	419.11
505	13+80.24	17.50' RT	552,952.9462	1,223,494.7284	417.21
506	14+00.24	17.50' RT	552,950.1683	1,223,514.5346	415.48
507	14+17.61	17.50' RT	552,947.7552	1,223,531.7398	414.05
508	14+34.99	17.50' RT	552,945.3420	1,223,548.9450	412.59
509	14+54.99	17.50' RT	552,942.5641	1,223,568.7511	410.91
510	14+74.99	17.50' RT	552,939.7862	1,223,588.5572	409.25
511	14+94.99	17.50' RT	552,937.0083	1,223,608.3634	407.51
512	15+04.97	17.99' RT	552,935.1411	1,223,618.1835	406.65
513	15+14.86	19.44' RT	552,932.3309	1,223,627.7764	405.79
514	15+24.57	21.84' RT	552,928.6040	1,223,637.0518	404.98
515	15+37.59	26.72' RT	552,921.9558	1,223,649.2734	403.88
516	15+49.84	33.32' RT	552,913.7212	1,223,660.4876	402.97
517	15+58.03	39.05' RT	552,906.9111	1,223,667.8049	402.37
518	15+65.63	45.54' RT	552,899.4238	1,223,674.4277	401.85
519	15+72.57	52.75' RT	552,891.3297	1,223,680.2935	401.46



*POINT 413 ELEVATION IS TAKEN AT THE TOP OF THE CONCRETE SLAB FOR THE BICYCLE STORAGE.
POINT 420 ELEVATION IS ON THE LANDING FOR THE SIDEWALK TO THE MARC STATION.

CURB LAYOUT SCHEDULE

POINT NO.	STATION	OFFSET	NORTHING	EASTING	ELEV.
		PARKING LOT			
300	22+44.53	9.00' LT	552,918.7594	1,223,422.8368	425.80
301	22+44.53	4.08' RT	552,906.2672	1,223,418.9485	426.06
302	22+44.53	17.17' RT	552,893.7750	1,223,415.0602	426.32
303	22+45.99	20.70' RT	552,889.9640	1,223,415.4077	426.36
304	22+49.53	22.17' RT	552,887.5149	1,223,418.3483	426.26
305	22+92.65	22.17' RT	552,874.6984	1,223,459.5248	424.93
306	23+35.78	22.17' RT	552,861.8819	1,223,500.7012	423.62
307	23+78.90	22.17' RT	552,849.0653	1,223,541.8777	422.31
308	24+18.86	22.17' RT	552,837.1899	1,223,580.0305	421.07
309	24+22.40	20.70' RT	552,837.5375	1,223,583.8415	420.93
310	24+23.86	17.17' RT	552,840.4780	1,223,586.2905	420.82
311	24+23.86	4.12' RT	552,852.9304	1,223,590.1664	420.57
312	24+23.86	8.92' LT	552,865.3828	1,223,594.0424	420.33
313	24+20.36	12.42' LT	552,869.7649	1,223,591.7407	420.38
314	24+16.86	8.92' LT	552,867.4632	1,223,587.3586	420.54
315	24+16.86	5.83' RT	552,853.3796	1,223,582.9750	420.84
316	23+81.78	5.83' RT	552,863.8062	1,223,549.4770	421.86
317	23+37.70	5.83' RT	552,876.9076	1,223,507.3854	423.25
318	23+37.70	9.00' LT	552,891.0707	1,223,511.7938	422.95
319	23+34.20	12.50' LT	552,895.4527	1,223,509.4921	422.99
320	23+30.70	9.00' LT	552,893.1511	1,223,505.1101	423.14
321	23+30.70	5.83' RT	552,878.9880	1,223,500.7017	423.44
322	22+94.03	5.83' RT	552,889.8851	1,223,465.6918	424.53
323	22+51.53	5.83' RT	552,902.5159	1,223,425.1121	425.81
324	22+51.53	9.00' LT	552,916.6790	1,223,429.5205	425.51
325	22+48.03	12.50' LT	552,921.0611	1,223,427.2188	425.56

LEGEND	
⟶	FLOW DIRECTION

NOTES:
CURB AND GUTTER ALONG BARNESVILLE ROAD SHALL BE INSTALLED WITH GUTTER PAN INSTALLED AT EXISTING BARNESVILLE ROAD ELEVATIONS.

ALL POINTS AT FLOWLINE OF CURB AND GUTTER

HORIZONTAL SCALE: 1"=20'

20' 0 20' 40'

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._____
EXPIRATION DATE:_____

WRA
Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Transportation Planning and Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: AMU Drawn by: AMU Checked by: PHD

CL-01 CURB LAYOUT

BOYDS TRANSIT IMPROVEMENTS

SCALE : 1" = 20' OCTOBER 2023

Project No. : 32207.003 SHEET 15 of 78

N:\32207-0031\CAD\xrCL-0001_Boyds.dgn
11/7/2023

MD 121 (CLARKSBURG ROAD)

MD 117 (BARNESVILLE ROAD)

MD 117 (CLARKSBURG ROAD)

TO I-270

TO MD 28

TO MD 117

N 553150
E 1223200

POT STA.10+00.00

PC STA.10+68.91

℄ CONSTRUCTION MD 117

APPROXIMATE OVERHEAD UTILITY LINE

POT STA.12+89.91

POT STA.16+36.76

16+31

POT STA.20+00.00

POT STA.25+00.00

HUAN CHEE NGUNG
15120 BARNESVILLE ROAD
ACCOUNT # 1611000918447
LIBER 47039 FOLIO 0076

BARUA PRAKASH
15110 BARNESVILLE ROAD
ACCOUNT # 1100920268
LIBER 58277 FOLIO 453

CSX TRANSPORTATION, INC.
LIBER TD 8 FOLIO 5

N / F
PUBLIC ROAD

STATE HIGHWAY ADMINISTRATION
LIBER 6744 FOLIO 144

CSX TRANSPORTATION, INC.
LIBER PBR 454 FOLIO 259
LIBER PBR 454 FOLIO 264

CSX TRANSPORTATION, INC.
LIBER TD 8 FOLIO 5

TH-01
TH-02
TH-03
TH-04
TH-05
TH-06

18" RCP -->
18" CPP-S -->
6' PERF. PPWP OVERDRAIN -->

℄ CONSTRUCTION
PARKING LOT

EXISTING HOYLE'S MILL
BUILDING TO REMAIN

EXISTING MARC PLATFORM (NB)

EXISTING WB TRACK

EXISTING EB TRACK

PERMANENT
EASEMENT

TCE TCE

TCE

E 1223150
N 552800

E 1223200
N 552800

HORIZONTAL SCALE: 1" = 20'

20' 0 20' 40'

LEGEND

- FINE MILLING AND RESURFACING AND WEDGE AND LEVEL
- FULL DEPTH PAVING (PER MD-580.03)
- SHARED USE PATH
- FULL DEPTH PERVIOUS CONCRETE PAVEMENT
- FULL DEPTH CONCRETE PAVEMENT
- CONCRETE SIDEWALK
- DETECTABLE WARNING SURFACE
- PAVEMENT REMOVAL
- BUILDING REMOVAL
- PROPOSED BUILDING FOUNDATION

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._____
EXPIRATION DATE:_____

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NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Transportation Planning and Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: AMU Drawn by: AMU Checked by: PHD

MCDPS-SC/SWM SHEET NO. 8 OF 18

GR-01 SITE GRADING PLAN

BOYDS TRANSIT IMPROVEMENTS

SCALE : 1" = 20' OCTOBER 2023

Project No. : 32207.003 SHEET 16 of 78

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11/2/2023

TRAFFIC CONTROL GENERAL NOTES

TEMPORARY TRAFFIC CONTROL REQUIREMENTS

1. THE PERMITTEE SHALL REFER TO THE ATTACHED TEMPORARY TRAFFIC CONTROL PLAN (TTCP) DRAWINGS TO SELECT THE APPROPRIATE WORK ZONE TEMPORARY TRAFFIC CONTROLS FOR EACH PHASE OF CONSTRUCTION. WORK ZONE SITUATIONS WHICH ARE NOT ADDRESSED IN THE ATTACHED TTCP SHALL CONFORM TO THE GUIDELINES SET FORTH IN THE MARYLAND MANUAL ON TRAFFIC CONTROL DEVICES, MOST RECENT EDITION, AND MARYLAND BOOK OF STANDARDS FOR HIGHWAYS, INCIDENTAL STRUCTURES, & TRAFFIC CONTROL APPLICATIONS.

2. ANY WORK WITHIN THE TRAVELED PORTION OF ROADWAYS SHALL BE RESTRICTED TO THE HOURS OF 9:00 AM TO 3:00 PM, MONDAY THROUGH FRIDAY. WORK ON HOLIDAYS AND WEEKENDS SHALL NOT OCCUR UNLESS AN EXCEPTION IS GRANTED IN WRITING BY THE COUNTY'S DOT INSPECTOR. REFER TO SP 104-01 FOR DETAILS ON LANE CLOSURE TIMINGS.

3. CONSTRUCTION ACTIVITY, LOADING OR UNLOADING OF EQUIPMENT SHALL NOT BLOCK ANY TRAFFIC LANE OTHER THAN THOSE DELINEATED WITHIN THE WORK ZONE.

4. EXCLUSIVE OF EMERGENCY WORK, THE PERMITTEE SHALL CONTACT OCCUPANTS OF ALL ADJOINING PROPERTIES AND INFORM THEM OF THE SCOPE AND THE TIMING OF CONSTRUCTION. A MINIMUM OF 48 HOURS NOTIFICATION SHALL BE REQUIRED PRIOR TO THE COMMENCEMENT OF ANY ACTIVITY ON THE SITE.

5. ACCESS SHALL BE MAINTAINED TO ALL DRIVEWAYS UNLESS PERMISSION FOR CLOSURE IS GRANTED BY THE PROPERTY OWNER/MANAGER. HOWEVER, ACCESSIBILITY FOR EMERGENCY VEHICLES SHALL BE MAINTAINED AT ALL TIMES.

6. IF ANY TRAFFIC CONTROL SIGNS ARE TO BE PLACED ALONG A MDOT SHA ROADWAY OR WITHIN THE LIMITS OF AN INCORPORATED AREA, THE PERMITTEE SHALL NOTIFY THE APPROPRIATE AGENCY OF SIGNAGE TO BE INSTALLED.

7. NO HAZARDOUS MATERIALS SHALL BE STORED WITHIN PUBLIC RIGHT-OF-WAY. NO MATERIALS OR EQUIPMENT SHALL BE STORED ON THE ROADWAY SURFACE OR SIDEWALK DURING NON-WORK PERIODS.

8. ALL EXISTING TRAFFIC CONTROL DEVICES (I.E. SIGNS, MARKING, ETC.) THAT MUST BE REMOVED SHALL BE REPLACED IN THEIR PROPER LOCATION PRIOR TO THE COMPLETION OF THE PROJECT. COST FOR THE REPLACEMENT AND/OR REPAIR OF DEVICES DAMAGED AS A RESULT OF THE PROJECT SHALL BE ASSESSED TO THE PERMITTEE.

9. FOR MERGING, SHIFTING, SHOULDER TAPERS, THE MAXIMUM SPACING BETWEEN DEVICES EQUALS THE POSTED SPEED IN FEET.

10. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MOST RECENT EDITION OF THE MUTCD. ALL SIGNS, TRAFFIC DRUMS AND CONES SHALL BE FULLY REFLECTORIZED WITH HIGH INTENSITY, REFLECTIVE SHEETING AS PER THE MUTCD.

11. PROVISION SHALL BE MADE FOR SAFE MAINTENANCE OF PEDESTRIAN AND BICYCLE TRAFFIC, SUBJECT TO APPROVAL OF THE COUNTY'S DOT INSPECTOR. AT LEAST ONE 10-FOOT TRAVEL LANE SHALL BE AVAILABLE FOR TRAFFIC AT ALL TIMES.

12. ALL WARNING SIGNS, UNLESS OTHERWISE SPECIFIED, SHALL BE A MINIMUM OF 48" X 48", BLACK SYMBOL OR LEGEND ON ORANGE BACKGROUND AND DIAMOND SHAPED. ALL TEMPORARY TRAFFIC SIGNS SHALL BE PLACED ON PORTABLE SUPPORTS ("WINDMASTERS") AND SHALL BE REMOVED DURING NON-APPLICABLE PERIODS. ALL PORTABLE SIGNS SHALL BE MOUNTED A MINIMUM OF ONE (1) FOOT ABOVE THE LEVEL OF THE ROADWAY, WITH HIGHER MOUNTING HEIGHTS DESIRABLE.

13. WHEN PAVEMENT MARKINGS HAVE BEEN OBLITERATED BY THE WORK ACTIVITY, THE PERMITTEE SHALL INSTALL ANY CRITICAL INTERIM PAVEMENT MARKINGS PRIOR TO THE END OF THE WORKDAY AS SPECIFIED BY THE COUNTY'S DOT INSPECTOR AND/OR THE TRAFFIC ENGINEERING AND OPERATIONS SECTION. ON ROAD SECTIONS THAT ARE NOT SCHEDULED TO BE OVERLAID, ALL TEMPORARY PAVEMENT MARKINGS SHALL BE (REMOVABLE) DETOUR GRADE MARKING TAPE. ANY CONFLICTING MARKINGS, WHICH NEED TO BE TEMPORARILY REMOVED, ARE TO BE MASKED USING "3M REMOVABLE BLACK LANE MASK" OR AN APPROVED EQUAL. ON ROAD SECTIONS THAT ARE TO BE OVERLAID, TEMPORARY MARKINGS CAN BE EITHER TAPE OR PAINT. ANY CONFLICTING MARKINGS SHOULD BE REMOVED WITH A PAVEMENT GRINDER.

14. CONTRACTOR SHALL INSTALL APPROPRIATE TEMPORARY TRAFFIC CONTROL DEVICES (I.E. CHAIN LINK FENCE/PLASTIC DRUMS) TO PROTECT MOTORISTS AND/OR PEDESTRIANS FROM HAZARDS WITHIN THE WORK AREA DURING NON-WORKING HOURS.

15. ALL TCP PLAN SHEETS SHOW SIGNING AND ROADWAY CONDITIONS DURING NON-WORK HOURS. THE CONTRACTOR SHALL FOLLOW STANDARDS AS LISTED UNDER SEQUENCE OF CONSTRUCTION DURING WORK HOURS.

16. FLAGGING OPERATIONS SHALL BE IN ACCORDANCE WITH MDOT SHA STANDARD NO. MD.104.02-10.

17. THE CONTRACTOR SHALL COVER THE WORK AREA SEGMENT WITH STEEL PLATES AND PLACE APPROPRIATE ADVANCE WARNING SIGNS FOR STEEL PLATES BEFORE OPENING ALL TRAVEL LANES TO TRAFFIC AT THE END OF WORK DAY FOR ENTIRE DURATION OF THE PROJECT.

18. ALL TRAFFIC CONTROL DEVICES AND STANDARDS SHALL CONFORM TO THE 30 MPH POSTED SPEED LIMIT AND 40 MPH DESIGN SPEED WITHIN THE ENTIRE PROJECT LIMITS.

19. PORTABLE VARIABLE MESSAGE SIGNS SHALL BE USED TO NOTIFY THE TRAVELING PUBLIC OF THE ROAD WORK. MESSAGE AND LOCATION TO BE DETERMINED BY THE ENGINEER IN ACCORDANCE WITH MDOT SHA STD.104.01-22

FLAGGING OPERATIONS

1. WHEN POSSIBLE, TWO-WAY TRAFFIC SHALL BE MAINTAINED, OTHERWISE, FLAGGERS SHALL BE USED TO CONTROL TRAFFIC.

2. FLAGGERS SHALL BE MARYLAND STATE HIGHWAY ADMINISTRATION OR AATSA APPROVED FLAGGERS AND SHALL BE USED AT THE DIRECTION OF THE COUNTY INSPECTOR. FLAGGERS SHALL USE STOP/SLOW PADDLES TO DIRECT TRAFFIC.

3. RADIO COMMUNICATION SHALL BE REQUIRED BETWEEN FLAGGERS AT THE DISCRETION OF THE COUNTY INSPECTOR OR UNDER THE FOLLOWING CONDITIONS:
   - IF THE FLAGGERS CANNOT SEE EACH OTHER
   - IF THE LANE CLOSURE EXCEEDS 200 FEET

PAVEMENT DROP-OFF

1. ANY EXCAVATION(S) IN THE ROADWAY SHALL BE PAVED TO LEVEL GRADE OR PLATED AND THE ROADWAY REOPENED TO ITS FULL CROSS-SECTION PRIOR TO THE END OF EACH WORKDAY. "STEEL PLATES AHEAD" (W21-9) SIGNS SHALL BE PLACED APPROXIMATELY 250 FEET IN ADVANCE OF ANY STEEL PLATE. ANY EXCAVATIONS IN THE SIDEWALK SHALL BE BACKFILLED OR PLATED PRIOR TO THE END OF EACH WORKDAY AND SIDEWALK REOPENED TO ITS FULL CROSS SECTION.

2. TRAFFIC SHALL NOT BE PERMITTED WITHIN TEN (10) FEET OF ANY EXCAVATION THAT RESULTS IN A VERTICAL DROP-OFF OF MORE THAN FIVE (5) INCHES IN THE LEVEL OF PAVEMENT DURING NON-WORKING HOURS UNLESS PROTECTED BY TEMPORARY CONCRETE BARRIERS OR RAMPED WITH AGGREGATE MATERIAL AT A 3:1 OR FLATTER SLOPE FROM THE EDGE OF PAVEMENT. WHEN RAMPING IS UTILIZED, TTC DRUMS SHALL BE POSITIONED ADJACENT TO THE EDGE OF THE WORK AREA ON THE TRAFFIC SIDE OF THE SLOPE.

3. TRAFFIC SHALL NOT BE PERMITTED WITHIN TWO (2) FEET OF ANY EXCAVATION THAT RESULTS IN A VERTICAL DROP-OFF OF MORE THAN TWO (2) INCHES BUT NO MORE THAN FIVE (5) INCHES IN THE LEVEL OF PAVEMENT DURING NON-WORKING HOURS UNLESS EITHER RAMPED WITH AGGREGATE MATERIAL AT A 4:1 OR FLATTER SLOPE, PROVIDED WITH AN ABUTTING WEDGE OF BITUMINOUS MATERIAL AT A 3:1 OR FLATTER SLOPE OR PROTECTED BY TRAFFIC DRUMS.

4. AT DROP-OFFS IN EXCESS OF 5 INCHES, EITHER GRADDED AGGREGATE BASE WEDGE SHALL BE USED IN ACCORDANCE WITH MDOT SHA STANDARD 104.01-28, OR POSITIVE PROTECTION FROM THE DROP-OFF IN THE FORM OF CONCRETE BARRIERS SHALL BE USED IN ACCORDANCE WITH MDOT SHA STANDARD 104.06-18, AT THE END OF WORKDAYS.

TRAFFIC CONTROL GENERAL NOTES (CONT.)

INSPECTOR AUTHORITY

1. THE COUNTY'S DEPARTMENT OF TRANSPORTATION (DOT) INSPECTOR HAS THE AUTHORITY TO MODIFY THE TTCP AS DEEMED NECESSARY. THE INSPECTOR HAS THE AUTHORITY TO ORDER THE PERMITTEE TO STOP WORK AND VACATE THE PUBLIC RIGHT-OF-WAY IF THE TTCP IS NOT COMPLIED WITH.

2. THE IMPLEMENTATION DATE AND CONTINUANCE OF WORK ACTIVITIES MAY BE ALTERED AT THE DISCRETION OF THE COUNTY'S DOT INSPECTOR IN THE EVENT OF CONFLICTS WITH PREVIOUSLY APPROVED OR EMERGENCY ACTIVITIES.

MISCELLANEOUS

1. THE PERMITTEE WILL BE SOLELY RESPONSIBLE FOR ALL ACCIDENTS AND/OR DAMAGE TO PERSONS AND/OR PROPERTY DAMAGE RESULTING FROM HIS OPERATIONS.

2. HAZARDOUS MATERIAL SHALL NOT BE STORED WITHIN PUBLIC RIGHT-OF-WAY. NO MATERIALS OR EQUIPMENT SHALL BE STORED ON THE ROADWAY SURFACE OR SIDEWALK DURING NON-WORKING PERIODS. ALL STORED MATERIALS AND EQUIPMENT SHALL BE SET BACK AT LEAST SIX (6) FEET BEHIND THE CURB ALONG A CLOSED SECTION ROADWAY AND AT LEAST TWELVE (12) FEET FROM THE EDGE OF OPEN SECTION ROADWAY.

3. ALL TTC DEVICES SHALL BE REMOVED AS SOON AS PRACTICAL WHEN THEY ARE NO LONGER NEEDED. WHEN WORK IS SUSPENDED FOR SHORT PERIODS OF TIME, TTC DEVICES THAT ARE NO LONGER APPROPRIATE SHALL BE REMOVED OR COVERED.

4. AT THE COMPLETION OF WORK ACTIVITIES, CONDITIONS WITHIN THE PUBLIC SPACE SHALL BE FULLY RESTORED TO THOSE THAT EXISTED PRIOR TO THE WORK ACTIVITY.

CONTACT INFORMATION

1. CONTACT THE MCDOT TRANSPORTATION MANAGEMENT CENTER 240-777-2100 BETWEEN 5:00 AM AND 11:00 PM TO INFORM THEM OF TEMPORARY LANE CLOSURES IN THE VICINITY OF ANY TRAFFIC SIGNALS.

2. THE PERMITTEE SHALL CONTACT THE TRANSPORTATION SYSTEMS ENGINEERING TEAM AT 240-777-2100 AT LEAST TWO WEEKS IN ADVANCE TO COORDINATE ANY MINOR TRAFFIC SIGNAL WORK. MAJOR TRAFFIC SIGNAL WORK SHALL BE COORDINATED A MINIMUM OF THIRTY (30) DAYS IN ADVANCE OF THE PROJECT. THE PERMITTEE SHALL CONTACT THE MONTGOMERY COUNTY TRAFFIC MANAGEMENT CENTER AT 240-777-2100 A MINIMUM OF 72 HOURS PRIOR TO BEGINNING WORK TO HAVE EXISTING TRAFFIC SIGNAL EQUIPMENT MARKED.

3. THE PERMITTEE SHALL CONTACT TRAFFIC ENGINEERING STUDIES SECTION (TES) AT 240-777-6000 AT LEAST TEN (10) WORKING DAYS IN ADVANCE OF THE FINAL PAVING OPERATIONS TO SCHEDULE THE INSTALLATION OF PERMANENT PAVEMENT MARKING AND SIGNS.

4. THE PERMITTEE SHALL CONTACT THE DIRECTOR OF THE UPCOUNTY REGIONAL SERVICES CENTER AT 240-777-8040 AND THE DISTRICT 5 TRAFFIC SERGEANT OF THE MONTGOMERY COUNTY POLICE DEPARTMENT AT 240-773-6200, A MINIMUM OF ONE WEEK PRIOR TO THE BEGINNING OF ANY WORK ACTIVITIES.

5. FIELD ASSISTANCE BY THE MCDOT, DIVISION OF TRAFFIC ENGINEERING DESIGN AND OPERATION SECTION (TEDO) IS AVAILABLE UPON REQUEST. CONTACT TRAFFIC ENGINEERING DESIGN AND OPERATION SECTION (TEDO) AT 240-777-6000.

6. FOR MDOT SHA OFFICE OF TRAFFIC AND SAFETY, CALL 1-888-963-0307.

MAINTENANCE OF TRAFFIC SEQUENCE OF CONSTRUCTION

1. INSTALL TRAFFIC CONTROL DEVICES AS SHOWN ON THE PLANS. TWO WAY TRAFFIC SHALL BE MAINTAINED ALONG BARNESVILLE ROAD AT ALL TIMES.
2. INSTALL EROSION AND SEDIMENT CONTROL DEVICES AS SHOWN ON THE PLANS.
3. DEMOLISH BUILDINGS ON THE SITE THAT ARE NOT BEING MAINTAINED AND REMOVE EXISTING PAVEMENT.
4. CONSTRUCT THE PARK AND RIDE ACCORDING TO THE PLANS.
5. CONSTRUCT FINAL PAVEMENT COURSE IN THE PARK AND RIDE AND ALONG BARNESVILLE ROAD.
6. REMOVE EROSION AND SEDIMENT CONTROL DEVICES.
7. REMOVE TRAFFIC CONTROL DEVICES.

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._____
EXPIRATION DATE:_____

Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Transportation Planning and Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: AMU Drawn by: AMU Checked by: PHD

TCP-A TRAFFIC CONTROL PLAN
GENERAL NOTES

BOYDS TRANSIT
IMPROVEMENTS

SCALE : NTS OCTOBER 2023

Project No. : 32207.003 SHEET 17 of 78

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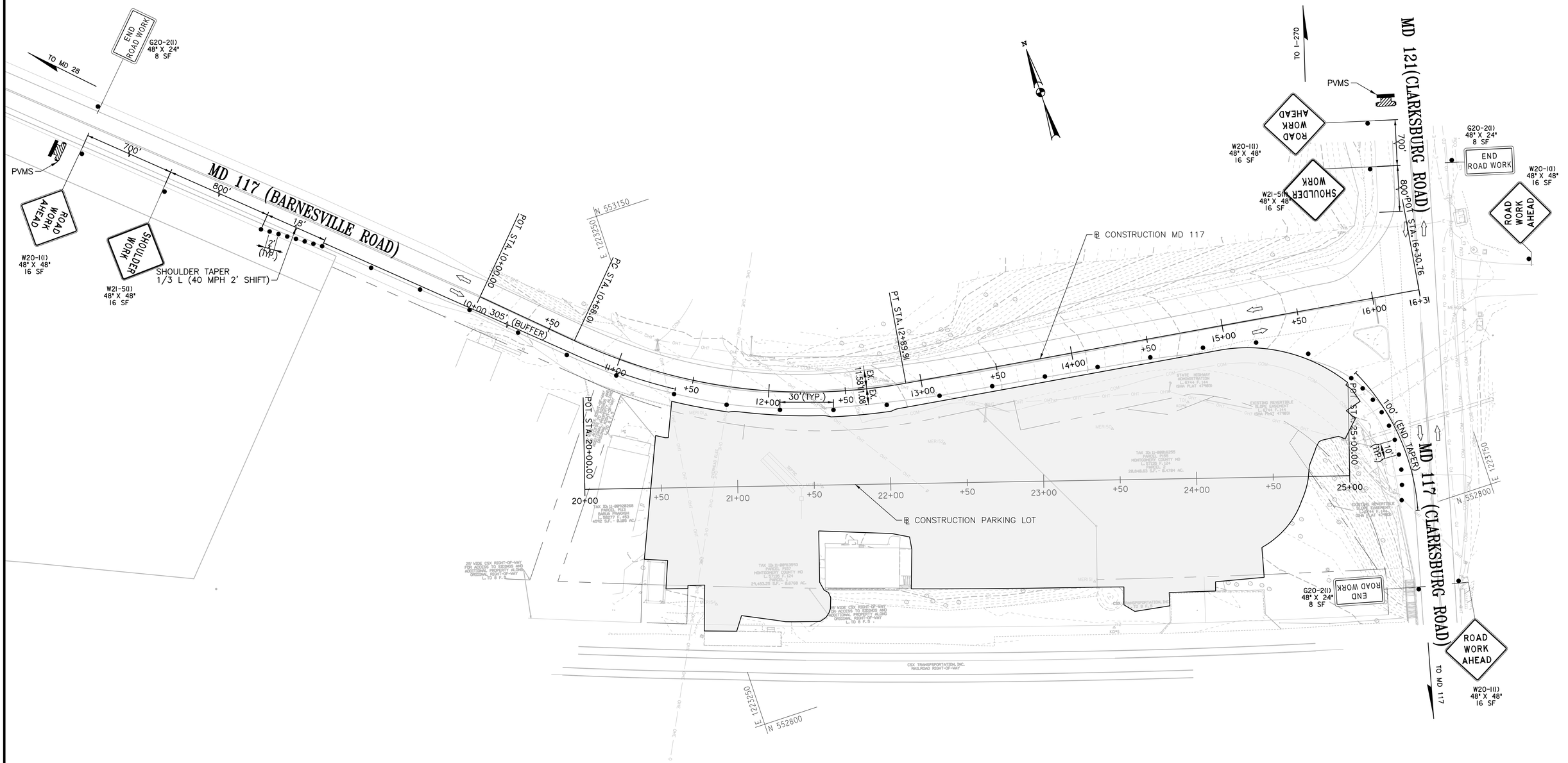
11/2/2023



MOT LEGEND

- TEMPORARY TRAFFIC SIGNS AND SUPPORTS
- TRAFFIC DRUMS
- DIRECTION OF TRAVEL
- WORK ZONE

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._____
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NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Transportation Planning and Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: AMU Drawn by: AMU Checked by: PHD

TCP-01 TRAFFIC CONTROL PLAN

BOYDS TRANSIT IMPROVEMENTS

SCALE : 1" = 30' OCTOBER 2023

Project No. : 32207.003 SHEET 18 of 78

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11/2/2023

STANDARD EROSION AND SEDIMENT CONTROL NOTES

(JANUARY 2017, DPS NOTES)

1. THE PERMITTEE SHALL NOTIFY THE DEPARTMENT OF PERMITTING SERVICES (DPS) FORTY-EIGHT (48) HOURS BEFORE COMMENCING ANY LAND DISTURBING ACTIVITYAND, UNLESS WAIVED BY THE DEPARTMENT, SHALL BE REQUIRED TO HOLD A PRE-CONSTRUCTION MEETINGBETWEEN THEM OR THEIR REPRESENTATIVE, THEIR ENGINEER AND AN AUTHORIZED REPRESENTATIVE OF THE DEPARTMENT.

2. THE PERMITTEE MUST OBTAIN INSPECTION AND APPROVAL BY DPS AT THE FOLLOWING POINTS:

   A. AT THE REQUIRED PRE-CONSTRUCTION MEETING.

   B. FOLLOWING INSTALLATION OF SEDIMENT CONTROL MEASURES AND PRIOR TO ANY OTHER LAND DISTURBING ACTIVITY.

   C. DURING THE INSTALLATION OF A SEDIMENT BASIN OR STORMWATER MANAGEMENT STRUCTURE AT THE REQUIRED INSPECTION POINTS (SEE INSPECTION CHECKLIST ON PLAN). NOTIFICATION PRIOR TO COMMENCING CONSTRUCTION IS MANDATORY.

   D. PRIOR TO REMOVAL OR MODIFICATION OF ANY SEDIMENT CONTROL STRUCTURE(S).

   E. PRIOR TO FINAL ACCEPTANCE.

3. THE PERMITTEE SHALL CONSTRUCT ALL EROSION AND SEDIMENT CONTROL MEASURES PER THE APPROVED PLAN AND CONSTRUCTION SEQUENCE, SHALL HAVE THEM INSPECTED AND APPROVED BY THE DEPARTMENT PRIOR TO BEGINNING ANY OTHER LAND DISTURBANCES, SHALL ENSURE THAT ALL RUNOFF FROM DISTURBED AREAS IS DIRECTED TO THE SEDIMENT CONTROL DEVICES, AND SHALL NOT REMOVE ANY EROSION OR SEDIMENT CONTROL MEASURE WITHOUT PRIOR PERMISSION FROM THE DEPARTMENT.

4. THE PERMITTEE SHALL PROTECT ALL POINTS OF CONSTRUCTION INGRESS AND EGRESS TO PREVENT THE DEPOSITION OF MATERIALS ONTO TRAVERSED PUBLIC THOROUGHFARE(S). ALL MATERIALS DEPOSITED ONTO PUBLIC THOROUGHFARE(S) SHALL BE REMOVED IMMEDIATELY.

5. THE PERMITTEE SHALL INSPECT PERIODICALLY AND MAINTAIN CONTINUOUSLY IN EFFECTIVE OPERATING CONDITION ALL EROSION AND SEDIMENT CONTROL MEASURES UNTIL SUCH TIMES AS THEY ARE REMOVED WITH PRIOR PERMISSION FROM THE DEPARTMENT. THE PERMITTEE IS RESPONSIBLE FOR IMMEDIATELY REPAIRING OR REPLACING ANY SEDIMENT CONTROL MEASURES WHICH HAVE BEEN DAMAGED OR REMOVED BY THE PERMITTEE OR ANY OTHER PERSON.

6. 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 3 HORIZONTAL TO 1 VERTICAL (3H:1V); AND

   B. SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING.

   ALL AREAS DISTURBED OUTSIDE OF THE PERIMETER SEDIMENT CONTROL SYSTEM MUST BE MINIMIZED AND STABILIZED IMMEDIATEDLY. MAINTENANCE MUST BE PERFORMED AS NECESSARY TO ENSURE CONTINUED STABILIZATION.

7. THE PERMITTEE SHALL APPLY SOD, SEED, AND ANCHORED STRAW MULCH, OR OTHER APPROVED STABILIZATION MEASURES TO ALL DISTURBED AREAS WITHIN SEVEN (7) CALENDAR DAYS AFTER STRIPPING AND GRADING ACTIVITIES HAVE CEASED ON THAT AREA. MAINTENANCE SHALL BE PERFORMED AS NECESSARY TO ENSURE CONTINUED STABILIZATION. ACTIVE CONSTRUCTION AREAS SUCH AS BORROW OR STOCKPILE AREAS, ROADWAY IMPROVEMENTS, AND AREAS WITHIN FIFTY (50) FEET OF A BUILDING UNDER CONSTRUCTION MAY BE EXEMPT FROM THIS REQUIREMENT, PROVIDED THAT EROSION AND SEDIMENT CONTROL MEASURES ARE INSTALLED AND MAINTAINED TO PROTECT THOSE AREAS.

8. PRIOR TO REMOVAL OF SEDIMENT CONTROL MEASURES, THE PERMITTEE SHALL STABILIZE ALL CONTRIBUTORY DISTURBED AREAS WITH REQUIRED SOIL AMENDMENTS AND TOPSOIL, USING SOD OR AN APPROVED PERMANENT SEED MIXTURE AND AN APPROVED ANCHORED MULCH. WOOD FIBER MULCH MAY ONLY BE USED IN SEEDING SEASON WHEN THE SLOPE DOES NOT EXCEED 10% AND GRADING HAS BEEN DONE TO PROMOTE SHEET FLOW DRAINAGE. AREAS BROUGHT TO FINISHED GRADE DURING THE SEEDING SEASON SHALL BE PERMANENTLY STABILIZED WITHIN SEVEN (7) CALENDAR DAYS OF ESTABLISHMENT. WHEN PROPERTY IS BROUGHT TO FINISHED GRADE DURING THE MONTHS OF NOVEMBER THROUGH FEBRUARY, AND PERMANENT STABILIZATION IS FOUND TO BE IMPRACTICAL, AN APPROVED TEMPORARY SEED AND STRAW ANCHORED MULCH SHALL BE APPLIED TO DISTURBED AREAS. THE FINAL PERMANENT STABILIZATION OF SUCH PROPERTY SHALL BE COMPLETED PRIOR TO THE FOLLOWING APRIL 15.

9. THE SITE PERMIT, WORK, MATERIALS, APPROVED SC/SWM PLANS, AND TEST REPORTS SHALL BE AVAILABLE AT THE SITE FOR INSPECTION BY DULY AUTHORIZED OFFICIALS OF MONTGOMERY COUNTY.

10. SURFACE DRAINAGE FLOWS OVER UNSTABILIZED CUT AND FILL SLOPES SHALL BE CONTROLLED BY EITHER PREVENTING DRAINAGE FLOWS FROM TRAVERSING THE SLOPES OR BY INSTALLING MECHANICAL DEVICES TO LOWER THE WATER DOWNSLOPE WITHOUT CAUSING EROSION. DIKES SHALL BE INSTALLED AND MAINTAINED AT THE TOP OF CUT OR FILL SLOPES UNTIL THE SLOPE AND DRAINAGE AREA TO IT ARE FULLY STABILIZED, AT WHICH TIME THEY MUST BE REMOVED AND FINAL GRADING DONE TO PROMOTE SHEET FLOW DRAINAGE. MECHANICAL DEVICES MUST BE PROVIDED AT POINTS OF CONCENTRATED FLOW WHERE EROSION IS LIKELY TO OCCUR.

11. PERMANENT SWALES OR OTHER POINTS OF CONCENTRATED WATER FLOW SHALL BE STABILIZED WITHIN THREE (3) CALENDAR DAYS OF ESTABLISHMENT WITH SOD OR SEED WITH AN APPROVED EROSION CONTROL MATTING OR BY OTHER APPROVED STABILIZATION MEASURES.

12. SEDIMENT CONTROL DEVICES SHALL BE REMOVED, WITH PERMISSION OF THE DEPARTMENT, WITHIN THIRTY (30) CALENDAR DAYS FOLLOWING ESTABLISHMENT OF PERMANENT STABILIZATION IN ALL CONTRIBUTORY DRAINAGE AREAS. STORMWATER MANAGEMENT STRUCTURES USED TEMPORARILY FOR SEDIMENT CONTROL SHALL BE CONVERTED TO THE PERMANENT CONFIGURATION WITHIN THIS TIME PERIOD AS WELL.

13. NO PERMANENT CUT OR FILL SLOPE WITH A GRADIENT STEEPER THAN 3:1 WILL BE PERMITTED IN LAWN MAINTENANCE AREAS OR ON RESIDENTIAL LOTS. A SLOPE GRADIENT OF UP TO 2:1 WILL BE PERMITTED IN NON-MAINTENANCE AREAS PROVIDED THAT THOSE AREAS ARE INDICATED ON THE EROSION AND SEDIMENT CONTROL PLAN WITH A LOW-MAINTENANCE GROUND COVER SPECIFIED FOR PERMANENT STABILIZATION. SLOPE GRADIENT STEEPER THAN 2:1 WILL NOT BE PERMITTED WITH VEGETATIVE STABILIZATION.

14. THE PERMITTEE SHALL INSTALL A SPLASHBLOCK AT THE BOTTOM OF EACH DOWNSPOUT UNLESS THE DOWNSPOUT IS CONNECTED BY A DRAIN LINE TO AN ACCEPTABLE OUTLET.

15. FOR FINISHED GRADING, THE PERMITTEE SHALL PROVIDE ADEQUATE GRADIENTS SO AS TO PREVENT WATER FROM STANDING ON THE SURFACE OF LAWNS MORE THAN TWENTY-FOUR (24) HOURS AFTER THE END OF A RAINFALL, EXCEPT IN DESIGNATED DRAINAGE COURSES AND SWALE FLOW AREAS, WHICH MAY DRAIN AS LONG AS FORTY-EIGHT (48) HOURS AFTER THE END OF A RAINFALL.

16. SEDIMENT TRAPS OR BASINS ARE NOT PERMITTED WITHIN 20 FEET OF A BUILDING WHICH IS EXISTING OR UNDER CONSTRUCTION. NO BUILDING MAY BE CONSTRUCTED WITHIN 20 FEET OF A SEDIMENT TRAP OR BASIN.

17. ALL INLETS IN NON-SUMP AREAS SHALL HAVE ASPHALT BERMS INSTALLED AT THE TIME OF BASE PAVING ESTABLISHMENT.

18. THE SEDIMENT CONTROL INSPECTOR HAS THE OPTION OF REQUIRING ADDITIONAL SEDIMENT CONTROL MEASURES, AS DEEMED NECESSARY.

19. ALL TRAP ELEVATIONS ARE RELATIVE TO THE OUTLET ELEVATION, WHICH MUST BE ON EXISTING UNDISTURBED GROUND.

20. VEGETATIVE STABILIZATION SHALL BE PERFORMED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL.

21. SEDIMENT TRAP(S)/BASIN(S) SHALL BE CLEANED OUT AND RESTORED TO THE ORIGINAL DIMENSIONS WHEN SEDIMENT HAS ACCUMULATED TO THE POINT OF ONE-HALF (1/2) THE WET STORAGE DEPTH OF THE TRAP/BASIN (1/4 THE WET STORAGE DEPTH FOR ST-III) OR WHEN REQUIRED BY THE SEDIMENT CONTROL INSPECTOR.

22. SEDIMENT REMOVED FROM TRAPS/BASINS SHALL BE PLACED AND STABILIZED IN APPROVED AREAS, BUT NOT WITHIN A FLOODPLAIN.

23. ALL SEDIMENT BASINS AND TRAPS MUST BE SURROUNDED WITH A WELDED WIRE SAFETY FENCE. THE FENCE MUST BE AT LEAST 42 INCHES HIGH, HAVE POSTS SPACED NO FARTHER APART THAN 8 FEET, HAVE MESH OPENINGS NO GREATER THAN TWO INCHES IN WIDTH AND FOUR INCHES IN HEIGHT, WITH A MINIMUM OF 14 GAUGE WIRE. SAFETY FENCE MUST BE MAINTAINED IN GOOD CONDITION AT ALL TIMES.

24. NO EXCAVATION IN THE AREA OF EXISTING UTILITIES IS PERMITTED UNLESS THEIR LOCATION HAS BEEN DETERMINED. CALL "MISS UTILITY" AT 1-800-257-7777, 48 HOURS PRIOR TO THE START OF WORK.

25. OFF-SITE SPOIL OR BORROW AREAS MUST HAVE PRIOR APPROVAL BY DPS.

26. SEDIMENT TRAP/BASIN DEWATERING FOR CLEANOUT OR REPAIR MAY ONLY BE DONE WITH THE DPS INSPECTOR'S PERMISSION. THE INSPECTOR MUST APPROVE THE DEWATERING METHOD FOR EACH APPLICATION. THE FOLLOWING METHODS MAY BE CONSIDERED:

   A. PUMP DISCHARGE MAY BE DIRECTED TO ANOTHER ON-SITE SEDIMENT TRAP OR BASIN. PROVIDED IT IS OF SUFFICIENT VOLUME AND THE PUMP INTAKE IS FLOATED TO PREVENT AGITATION OR SUCTION OF A DEPOSITED SEDIMENTS; OR

   B. THE PUMP INTAKE MAY UTILIZE A REMOVABLE PUMPING STATION AND MUST DISCHARGE INTO AN UNDISTURBED AREA THROUGH A NON-EROSIVE OUTLET; OR

   C. THE PUMP INTAKE MAY BE FLOATED AND DISCHARGE INTO A DIRT BAG (12 OZ. NON-WOVEN FABRIC), OR APPROVED EQUIVALENT, LOCATED IN AN UNDISTURBED BUFFER AREA.

   REMEMBER: DEWATER OPERATIONS AND METHODS MUST HAVE PRIOR APPROVAL BY THE DPS INSPECTOR.

27. THE PERMITTEE MUST NOTIFY THE DEPARTMENT OF ALL UTILITY CONSTRUCTION ACTIVITIES WITHIN THE PERMITTED LIMITS OF DISTURBANCE PRIOR TO THE COMMENCEMENT OF THOSE ACTIVITIES.

28. TOPSOIL MUST BE APPLIED TO ALL PERVIOUS AREAS WITHIN THE LIMITS OF DISTURBANCE PRIOR TO PERMANENT STABILIZATION IN ACCORDANCE WITH MDE "STANDARDS AND SPECIFICATIONS FOR SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS."

STANDARD SYMBOLS

EARTH DIKE	A-I (PLACE DESIGNATION (e.g. A-I) ON FLOW CHANNEL SIDE OF DIKE)	STABILIZED CONSTRUCTION ENTRANCE	SCE
TEMPORARY SWALE	A-I	SOIL STABILIZATION MATTING	
PERIMETER DIKE/SWALE	PDS-I	ROCK OUTLET PROTECTION	ROP
STONE CHECK DAM	CD	GABIONS	
STONE OUTLET STRUCTURE	TSOS	CLEAR WATER DIVERSION PIPE	CWD – 12 (DESIGNATION CWD-12 REFERS TO 12 INCH CLEAR WATER DIVERSION)
SILT FENCE	SF	PIPE SLOPE DRAIN	PSD – 12 (DESIGNATION PSD-12 REFERS TO 12 IN PIPE SLOPE DRAIN)
SUPER SILT FENCE	SSF	STONE/RIPRAP OUTLET SEDIMENT TRAP	ST-II, ST-III
SILT FENCE ON PAVEMENT	SFOP	PIPE OUTLET SEDIMENT TRAP	ST-I
STANDARD INLET PROTECTION	SIP	LIMIT OF DISTURBANCE	LOD
AT GRADE INLET PROTECTION	AGIP	EXISTING CONTOURS	100
CURB INLET PROTECTION	CIP	PROPOSED CONTOURS	100
MEDIAN INLET PROTECTION	MIP	WETLAND BOUNDARY	
GABION INFLOW PROTECTION	GM	WETLAND BUFFER	
RIPRAP INFLOW PROTECTION	RRP	WATERS OF THE U.S.	
SUMP PIT	SP	PUMP, CLEAR WATER DIVERSION	PCWD
REMOVABLE PUMPING STATION	RPS		
PORTABLE SEDIMENT TANK	PST		
FILTER LOG	FL-18 (DESIGNATION FL-18 REFERS TO 18 INCH DIAMETER FILTER LOG)		
TEMPORARY BERM	FB-A, FB-B		

SITE INFORMATION. (NOT FOR BIDDING PURPOSES)

TOTAL AREA OF SITE	1.29 ACRES
AREA DISTURBED	1.29 ACRES
AREA TO BE ROOFED OR PAVED	0.72 ACRES
TOTAL CUT	4,500 CU. YDS.
TOTAL FILL	1,300 CU. YDS.
OFFSITE WASTE/BORROW AREA LOCATION (IF KNOWN)	N/A

STORMWATER MANAGEMENT CONCEPT APPROVAL

DEPARTMENT OF PERMITTING SERVICES

Mark Elrich, County Executive — Hadi Mansouri, Acting Director

March 23, 2020

Mr. Jason Cosler, PE
Whitman, Requardt & Assoc.
801 South Carolina Street
Baltimore, MD 21231

Via email: jcosler@wrallp.com

Re: **COMBINED STORMWATER MANAGEMENT CONCEPT/*SITE DEVELOPMENT STORMWATER MANAGEMENT PLAN*** for
Boyd Transit Center
Address: 15100 Barnesville RD
SM File #: 285472
Tract Size: 1.21 ac
Total Concept Area: 1.21 ac
Watershed: Seneca Creek

Dear Mr. Cosler:

Based on a review by the Department of Permitting Services Review Staff, the stormwater management concept for the above mentioned site is **acceptable**. The stormwater management concept proposes to meet required stormwater management goals via permeable paving. This approval includes the granting of a partial waiver from the requirements to provide on-site SWM.

The following items will need to be addressed during the detailed sediment control/stormwater management plan stage:

1. A detailed review of the stormwater management computations will occur at the time of detailed plan review.
2. An engineered sediment control plan must be submitted for this development.
3. All facilities must be designed using latest available MCDPS guidance documents.

This list may not be all-inclusive and may change based on available information at the time.

Payment of a stormwater management contribution in accordance with Section 2 of the Stormwater Management Regulation 4-90 **is required**.

DPS — 255 Rockville Pike, 2nd Floor, Rockville, Maryland 20850 | 240-777-0311
www.montgomerycountymd.gov/permittingservices

Mr. Jason Cosler, PE
March 23, 2020
Page 2 of 2

This letter must appear on the sediment control/stormwater management plan at its initial submittal. The concept approval is based on all stormwater management structures being located outside of the Public Utility Easement, the Public Improvement Easement, and the Public Right of Way unless specifically approved on the concept plan. Any divergence from the information provided to this office, or additional information received during the development process, or a change in an applicable Executive Regulation may constitute grounds to rescind or amend any approval actions taken, and to reevaluate the site for additional or amended stormwater management requirements. If there are subsequent additions or modifications to the development, a separate concept request shall be required.

If you have any questions regarding these actions, please feel free to contact Mary Fertig at 240-777-6340 or at mary.fertig@montgomerycountymd.gov.

Sincerely,

Mark C. Etheridge, Manager
Water Resources Section
Division of Land Development Services

MCE: MMF

cc: N. Braunstein
SM File # 285472

ESD: Required/Provided 6,240 cf / 3,120 cf
PE: Target/Achieved: 2.0" / 1.0"
STRUCTURAL: N/A
WAIVED: 3,120 cf

MISS UTILITY

CALL "MISS UTILITY" AT 1-800-257-7777, 48 HOURS PRIOR TO THE START OF WORK. THE EXCAVATOR MUST NOTIFY ALL PUBLIC UTILITY COMPANIES WITH UNDERGROUND FACILITIES IN THE AREA OF PROPOSED EXCAVATION AND HAVE THOSE FACILITIES LOCATED BY UTILITY COMPANIES PRIOR TO COMMENCING EXCAVATION. THE EXCAVATOR IS RESPONSIBLE FOR COMPLIANCE WITH REQUIREMENTS OF CHAPTER 36A OF THE MONTGOMERY COUNTY CODE.

DESIGN CERTIFICATION

"I HEREBY CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, THE 2000 MARYLAND STORMWATER DESIGN MANUAL, VOLUMES I & II, INCLUDING SUPPLEMENTS, THE ENVIRONMENT ARTICLE SECTIONS 4-101 THROUGH 116 AND SECTIONS 4-201 AND 215, AND THE CODE OF MARYLAND REGULATIONS (COMAR) 26.17.01 AND COMAR 26.17.02 FOR EROSION AND SEDIMENT CONTROL AND STORMWATER MANAGEMENT, RESPECTIVELY."

JASON D. COSLER — NAME

SIGNATURE

28467 — MARYLAND. REGISTRATION NUMBER. (P.E.) R.L.S. OR R.L.A. (circle)

DATE

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. 28467

EXPIRATION DATE: 12/20/2024

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._____
EXPIRATION DATE:_____

WRA — Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Transportation Planning and Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ABR Drawn by: ABR Checked by: JDC

EN-01 EROSION AND SEDIMENT GENERAL CONTROL NOTES

BOYDS TRANSIT IMPROVEMENTS

SCALE : NONE — OCTOBER 2023

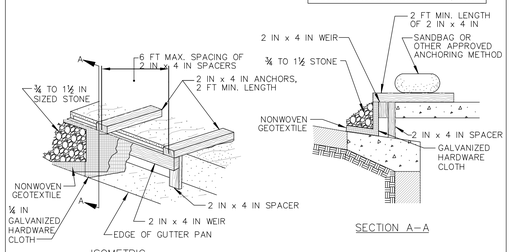
Project No. : 32207.003 — SHEET 19 of 78

MCDPS-SC/SWM SHEET NO. 9 OF 18

N:\32207-003\C400\pES-N001_Boyds.dgn
11/2/2023

DETAIL E-9-3 CURB INLET PROTECTION

STANDARD SYMBOL: CIP



ISOMETRIC

SECTION A–A

CONSTRUCTION SPECIFICATIONS

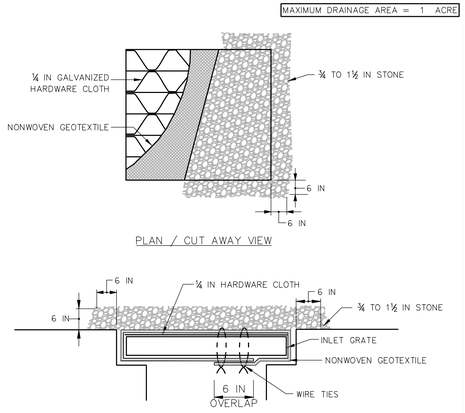
1. USE NOMINAL 2 INCH x 4 INCH LUMBER
2. USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS.
3. NAIL THE 2x4 WEIR TO 9 INCH LONG VERTICAL SPACERS (MAXIMUM 6 FEET APART).
4. ATTACH A CONTINUOUS PIECE OF ¼ INCH GALVANIZED HARDWARE CLOTH, WITH A MINIMUM WIDTH OF 30 INCHES AND A MINIMUM LENGTH OF 4 FEET LONGER THAN THE THROAT OPENING, TO THE 2x4 WEIR, EXTENDING IT 2 FEET BEYOND THROAT ON EACH SIDE.
5. PLACE A CONTINUOUS PIECE OF NONWOVEN GEOTEXTILE OF THE SAME DIMENSIONS AS THE HARDWARE CLOTH OVER THE HARDWARE CLOTH AND SECURELY ATTACH TO THE 2x4 WEIR.
6. PLACE THE ASSEMBLY AGAINST THE INLET THROAT AND NAIL TO 2x4 ANCHORS (MINIMUM 2 FEET LENGTH). EXTEND THE ANCHORS ACROSS THE INLET TOP AND HOLD IN PLACE BY SANDBAGS OR OTHER APPROVED ANCHORING METHOD.
7. INSTALL END SPACERS A MINIMUM OF 1 FOOT BEYOND THE ENDS OF THE THROAT OPENING.
8. FORM THE HARDWARE CLOTH AND THE GEOTEXTILE TO THE CONCRETE GUTTER AND FACE OF CURB TO SPAN THE INLET OPENING. COVER THE HARDWARE CLOTH AND GEOTEXTILE WITH CLEAN ¾ TO 1½ INCH STONE OR EQUIVALENT RECYCLED CONCRETE.
9. AT NON-SUMP LOCATIONS, INSTALL A TEMPORARY SANDBAG OR ASPHALT BERM TO PREVENT INLET BYPASS.
10. 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-9-2 AT-GRADE INLET PROTECTION

STANDARD SYMBOL: AGIP



PLAN / CUT AWAY VIEW

CROSS SECTION

CONSTRUCTION SPECIFICATIONS

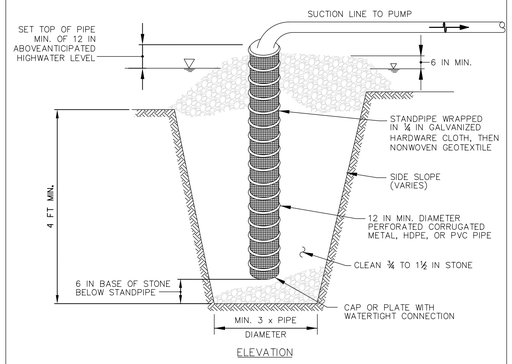
1. USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS.
2. LIFT GRATE AND WRAP WITH NONWOVEN GEOTEXTILE TO COMPLETELY COVER ALL OPENINGS. SECURE WITH WIRE TIES AND SET GRATE BACK IN PLACE.
3. PLACE CLEAN ¾ TO 1¼ INCH STONE OR EQUIVALENT RECYCLED CONCRETE 6 INCHES THICK ON THE GRATE.
4. STORM 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 F-2 SUMP PIT

STANDARD SYMBOL: SP



ELEVATION

CONSTRUCTION SPECIFICATIONS

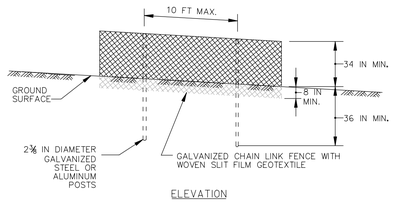
1. USE 12 INCH OR LARGER DIAMETER CORRUGATED METAL, HDPE, OR PVC PIPE WITH 1 INCH DIAMETER PERFORATIONS, 6 INCHES ON CENTER. BOTTOM OF PIPE MUST BE CAPPED WITH WATERTIGHT SEAL.
2. WRAP PIPE WITH ¼ INCH GALVANIZED HARDWARE CLOTH AND WRAP NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, OVER THE HARDWARE CLOTH.
3. EXCAVATE PIT TO THREE TIMES THE PIPE DIAMETER AND FOUR FEET IN DEPTH. PLACE ¾ TO 1½ INCH STONE OR EQUIVALENT RECYCLED CONCRETE, 6 INCHES IN DEPTH PRIOR TO PIPE PLACEMENT.
4. SET TOP OF PIPE MINIMUM 12 INCHES ABOVE ANTICIPATED WATER SURFACE ELEVATION.
5. BACKFILL PIT AROUND THE PIPE WITH ¾ TO 1½ INCH CLEAN STONE OR EQUIVALENT RECYCLED CONCRETE AND EXTEND STONE A MINIMUM OF 6 INCHES ABOVE ANTICIPATED WATER SURFACE ELEVATION.
6. DISCHARGE TO A STABLE AREA AT A NONEROSIVE RATE.
7. A SUMP PIT REQUIRES FREQUENT MAINTENANCE. IF SYSTEM CLOGS, REMOVE PERFORATED PIPE AND REPLACE GEOTEXTILE AND STONE. KEEP POINT OF DISCHARGE FREE OF EROSION.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

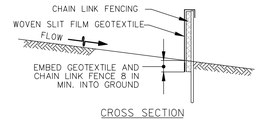
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL E-3 SUPER SILT FENCE

STANDARD SYMBOL: SSF



ELEVATION



CROSS SECTION

CONSTRUCTION SPECIFICATIONS

1. INSTALL 2¾ INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND SIX FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART. DRIVE THE POSTS A MINIMUM OF 36 INCHES INTO THE GROUND.
2. FASTEN 9 GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE (2¾ INCH MAXIMUM OPENING) 42 INCHES IN HEIGHT SECURELY TO THE FENCE POSTS WITH WIRE TIES OR HUG RINGS.
3. FASTEN WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, SECURELY TO THE UPSLOPE SIDE OF CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 8 INCHES INTO THE GROUND.
4. WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED TO PREVENT SEDIMENT BY PASS.
5. EXTEND BOTH ENDS OF THE SUPER 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 SUPER SILT FENCE.
6. PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
7. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL CHAIN LINK FENCING AND GEOTEXTILE.

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

SEQUENCE OF CONSTRUCTION NOTES FOR EROSION AND SEDIMENT CONTROL

(PROJECT IS EXEMPT FROM FOREST CONSERVATION LAW)

GENERAL NOTES FOR PROJECT

1. PRIOR TO CLEARING OF TREES, INSTALLING SEDIMENT CONTROL MEASURES, OR GRADING, A PRE-CONSTRUCTION MEETING MUST BE CONDUCTED ON-SITE WITH THE MONTGOMERY COUNTY DEPARTMENT OF PERMITTING SERVICES (MCDPS) SEDIMENT CONTROL INSPECTOR (240) 777-0311 (48 HOURS NOTICE), THE OWNER'S REPRESENTATIVE, AND THE SITE ENGINEER. IN ORDER FOR THE MEETING TO OCCUR, THE PERMITTEE MUST PROVIDE ONE PAPER SET OF APPROVED SEDIMENT CONTROL PLANS TO THE MCDPS SEDIMENT CONTROL INSPECTOR AT THE PRE-CONSTRUCTION MEETING. IF NO PLANS ARE PROVIDED, THE MEETING SHALL NOT OCCUR AND WILL NEED TO BE RE-SCHEDULED PRIOR TO COMMENCING WORK.
2. THE LIMITS OF DISTURBANCE MUST BE FIELD MARKED PRIOR TO CLEARING OF TREES, INSTALLATION OF SEDIMENT CONTROL MEASURES, CONSTRUCTION, OR OTHER LAND DISTURBING ACTIVITIES.

THE FOLLOWING PROCEDURES SHALL BE IMPLEMENTED DURING EXECUTION OF THE DETAILED SEQUENCE OF CONSTRUCTION INCLUDED ON THE "EN-01 EROSION AND SEDIMENT CONTROL NOTES AND DETAILS" SHEET.

3. CLEAR AND GRUB FOR INSTALLATION OF SEDIMENT CONTROL DEVICES.
4. ONCE THE SEDIMENT CONTROL DEVICES ARE INSTALLED, THE PERMITTEE MUST OBTAIN WRITTEN APPROVAL FROM THE MCDPS INSPECTOR BEFORE PROCEEDING WITH ANY ADDITIONAL CLEARING, GRUBBING, OR GRADING.
5. COORDINATE SEDIMENT CONTROL ACTIVITIES WITH MAINTENANCE OF TRAFFIC PLAN.

STAGE 1 - SUBGRADE

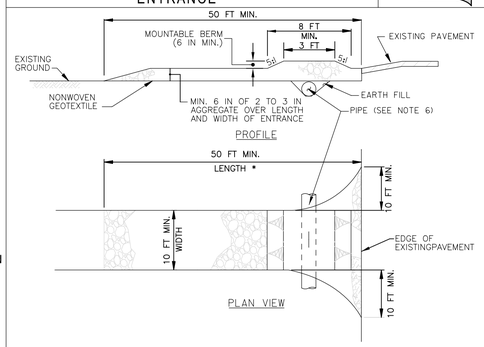
6. INSTALL PERIMETER CONTROL SSF 1-1 THROUGH SSF 1-7 AND REMOVE EXISTING STRUCTURES WITHIN THE FOOTPRINT OF PROPOSED SUBGRADE GRADING.
7. INSTALL STABILIZED CONSTRUCTION ENTRANCE SCE 1-1 AND COMMENCE EXCAVATION OPERATIONS PER SUBGRADE GRADING PLAN ON SW-01 AND INSTALL SP 1-1 THROUGH SP 1-4, AND ED 1-1. ADJUST ED 1-1 AS GRADING OF SITE DEVELOPS.
8. UPON COMPLETION OF SUBGRADE GRADING, INSTALL STORM DRAIN FROM 1-6 TO ES-1 AND REMOVE AND RESET EXISTING RIPRAP AS REQUIRED.
9. COMMENCE OPERATIONS TO INSTALL PERVIOUS CONCRETE AGGREGATE SUBBASE PER TYPICAL DETAIL ON SHEET 7 AND CONTRACT SPECIAL PROVISIONS. INSTALL AND CONNECT OVERDRAIN DRAINAGE SYSTEM TO 1-6.
10. UPON PLACEMENT OF PERVIOUS CONCRETE SUBBASE, REMOVE SSF 1-5, SSF 1-6, SSF 1-7, SP 1-1 THROUGH 1-4, ED 1-1, AND INSTALL TSOS 1-1 AND PROCEED TO STAGE 2.

STAGE 2

11. PERFORM DEMOLITION AND REMOVAL OF EXISTING POOLESVILLE BUILDING AND SEPTIC SYSTEM IMPROVEMENTS.
12. INSTALL THE REMAING PROPOSED STORM DRAIN SYSTEM STRUCTURES AND PIPES ALONG WITH INLET PROTECTION CIP 2-1, CIP 2-2, CIP 2-3, CIP 2-4, CIP 2-5, AND AGIP 2-1
13. UPON COMPLETION OF CONSTRUCTION AND WITH APPROVAL OF THE MCDPS SEDIMENT CONTROL INSPECTOR, THE SEDIMENT CONTROL DEVICES MAY BE REMOVED. ANY AREAS DISTURBED BY THE REMOVAL PROCESS MUST BE STABILIZED IMMEDIATELY.

DETAIL B-1 STABILIZED CONSTRUCTION ENTRANCE

STANDARD SYMBOL: SCE



PROFILE

PLAN VIEW

CONSTRUCTION SPECIFICATIONS

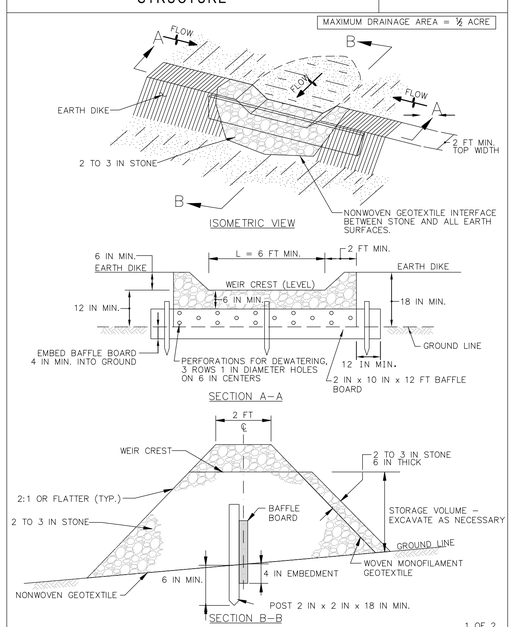
1. PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE MINIMUM LENGTH OF 50 FEET (*)(50 FEET FOR SINGLE RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET. FLARE SCE 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING 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-7 TEMPORARY STONE OUTLET STRUCTURE

STANDARD SYMBOL: TSOS



ISOMETRIC VIEW

SECTION A–A

SECTION B–B

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-7 TEMPORARY STONE OUTLET STRUCTURE

STANDARD SYMBOL: TSOS

CONSTRUCTION SPECIFICATIONS

1. PROVIDE STORAGE VOLUME AS SPECIFIED ON APPROVED PLANS.
2. USE NONWOVEN GEOTEXTILE ON INTERFACE BETWEEN GROUND AND STONE.
3. PERFORATE BAFFLE BOARD WITH 3 ROWS OF 1 INCH DIAMETER HOLES 6 INCHES ON CENTER. EMBED A MINIMUM OF 4 INCHES INTO GROUND. AND EXTEND BAFFEL BOARD MINIMUM OF 12 INCHES INTO EARTH DIKE.
4. USE CLEAN 2 TO 3 INCH STONE OR EQUIVALENT RECYCLED CONCRETE. PLACE WOVEN MONOFILAMENT GEOTEXTILE ON UPSTREAM FACE AND COVER WITH A MINIMUM OF 6 INCHES OF ADDITIONAL STONE.
5. USE NONWOVEN AND WOVEN MONOFILAMENT GEOTEXTILES AS SPECIFIED IN SECTION H-1 MATERIALS.
6. SET WEIR CREST OF STONE 6 INCHES LOWER THAN THE TOP OF EARTH DIKE. USE MINIMUM LENGTH OF 6 FEET FOR WEIR CREST.
7. REMOVE SEDIMENT WHEN IT HAS ACCUMULATED TO WITHIN 6 INCHES OF WEIR CREST. REPLACE GEOTEXTILE AND STONE FACING WHEN STRUCTURE CEASES TO DRAIN. MAINTAIN LINE, GRADE, AND CROSS SECTION.
8. UPON REMOVAL OF STONE OUTLET STRUCTURE, GRADE AREA FLUSH WITH EXISTING GROUND. WITHIN 24 HOURS STABILIZE DISTURBED AREA WITH TOPSOIL, SEED, AND MULCH, OR AS SPECIFIED ON APPROVED PLAN.

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

MCDPS-SC/SWM SHEET NO. 10 OF 18

PROFESSIONAL CERTIFICATION.
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Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Transportation Planning and Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ABR Drawn by: ABR Checked by: JDC

EN-02 EROSION AND SEDIMENT CONTROL NOTES AND DETAILS

BOYDS TRANSIT IMPROVEMENTS

SCALE : NONE OCTOBER 2023

Project No. : 32207.003 SHEET 20 of 78

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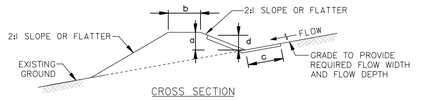
11/2/2023

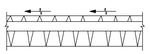
DETAIL C-1 EARTH DIKE

STANDARD SYMBOL
A-1
PLACE DESIGNATION (e.g. A-1) ON FLOW CHANNEL SIDE OF DIKE.



CROSS SECTION

CONTINUOUS GRADE
0.5% MIN. TO 10% MAX. SLOPE



PLAN VIEW

	DIKE TYPE A	DIKE TYPE B
a – DIKE HEIGHT	18 IN MIN.	30 IN MIN.
b – DIKE WIDTH	24 IN MIN.	36 IN MIN.
c – FLOW WIDTH	4 FT MIN.	6 FT MIN.
d – FLOW DEPTH	12 IN MIN.	24 IN MIN.

FLOW CHANNEL STABILIZATION

A-1	SEED WITH STRAW MULCH AND TACK. (NOT ALLOWED FOR CLEAR WATER DIVERSION.)
A-2/B-2	SEED WITH SOIL STABILIZATION MATTING OR LINE WITH SOD.
A-3/B-3	4 TO 7 INCH STONE OR EQUIVALENT RECYCLED CONCRETE PRESSED INTO SOIL A MINIMUM OF 7 INCHES AND FLUSH WITH GROUND.

CONSTRUCTION SPECIFICATIONS

1. REMOVE AND DISPOSE OF ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SO AS NOT TO INTERFERE WITH PROPER FUNCTION OF EARTHDIKE.
2. EXCAVATE OR SHAPE EARTH DIKE TO LINE, GRADE, AND CROSS SECTION AS SPECIFIED. BANK PROJECTIONS OR OTHER IRREGULARITIES ARE NOT ALLOWED.
3. COMPACT FILL.
4. CONSTRUCT FLOW CHANNEL ON AN UNINTERRUPTED, CONTINUOUS GRADE, ADJUSTING THE LOCATION DUE TO FIELD CONDITIONS AS NECESSARY TO MAINTAIN POSITIVE DRAINAGE.
5. PROVIDE OUTLET PROTECTION AS REQUIRED ON APPROVED PLAN.
6. STABILIZE EARTH DIKE WITHIN THREE DAYS OF INSTALLATION. STABILIZE FLOW CHANNEL FOR CLEAR WATER DIVERSION WITHIN 24 HOURS OF INSTALLATION.
7. MAINTAIN LINE, GRADE, AND CROSS SECTION. REMOVE ACCUMULATED SEDIMENT AND DEBRIS, AND MAINTAIN POSITIVE DRAINAGE. KEEP EARTH DIKE AND POINT OF DISCHARGE FREE OF EROSION, AND CONTINUOUSLY MEET REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.
8. UPON REMOVAL OF EARTH DIKE, GRADE AREA FLUSH WITH EXISTING GROUND. WITHIN 24 HOURS OF REMOVAL STABILIZE DISTURBED AREA WITH TOPSOIL, SEED, AND MULCH, OR AS SPECIFIED ON APPROVED PLAN.

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

MCDPS-SC/SWM SHEET NO. 10A OF 18

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EXPIRATION DATE:_____

Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Transportation Planning and Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ABR Drawn by: ABR Checked by: JDC

EN-03 EROSION AND SEDIMENT CONTROL NOTES AND DETAILS

BOYDS TRANSIT IMPROVEMENTS

SCALE : NONE OCTOBER 2023

Project No. : 32207.003 SHEET 21 of 78

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SUPER SILT FENCE (SSF)

NO.	STATION, OFFSET	L.F.	REMARKS
1–1	20+48, 34' LT. TO 20+41, 47' RT.	82	℄ PARKING LOT–A
1–2	20+53, 47' RT. TO 21+51, 66' RT.	181	℄ PARKING LOT–A
1–3	21+50, 28' RT. TO 22+14, 68' RT.	97	℄ PARKING LOT–A
*1–4	22+14, 68' RT. TO 24+98, 25' LT.	377	℄ PARKING LOT–A
1–5	22+03, 46' LT. TO 24+60, 26' LT.	267	℄ PARKING LOT–A
1–6	24+69, 19' LT. TO 24+76, 13' LT.	8	℄ PARKING LOT–A
1–7	24+75, 54' LT. TO 24+89, 43' LT.	19	℄ PARKING LOT–A

*USE TREE PROTECTION FENCE ALONG SECTION OF SSF PER FOREST CONSERVATION PLANS.

STABILIZED CONSTRUCTION ENTRANCE (SCE)

NO.	STATION, OFFSET	EA	REMARKS
1–1	12+59, 17' RT.	1	℄ MD 117–1

SUMP PIT (SP)

NO.	STATION, OFFSET	REMARKS
1–1	22+73, 38' RT.	℄ PARKING LOT–A
1–2	22+87, 9' LT.	℄ PARKING LOT–A
1–3	24+13, 32' RT.	℄ PARKING LOT–A
1–4	24+43, 13' LT.	℄ PARKING LOT–A

ROCK OUTLET PROTECTION (ROP)

NO.	STATION, OFFSET	LENGTH	WIDTH	S.Y.	CLASS	DEPTH	D50
*1–1	25+00, 33' LT.	14'	11'	17	I	19"	9.5"

*EXISTING RIPRAP LIMITS DOWNSTREAM OF ES–1 TO EXISTING HEADWALL.

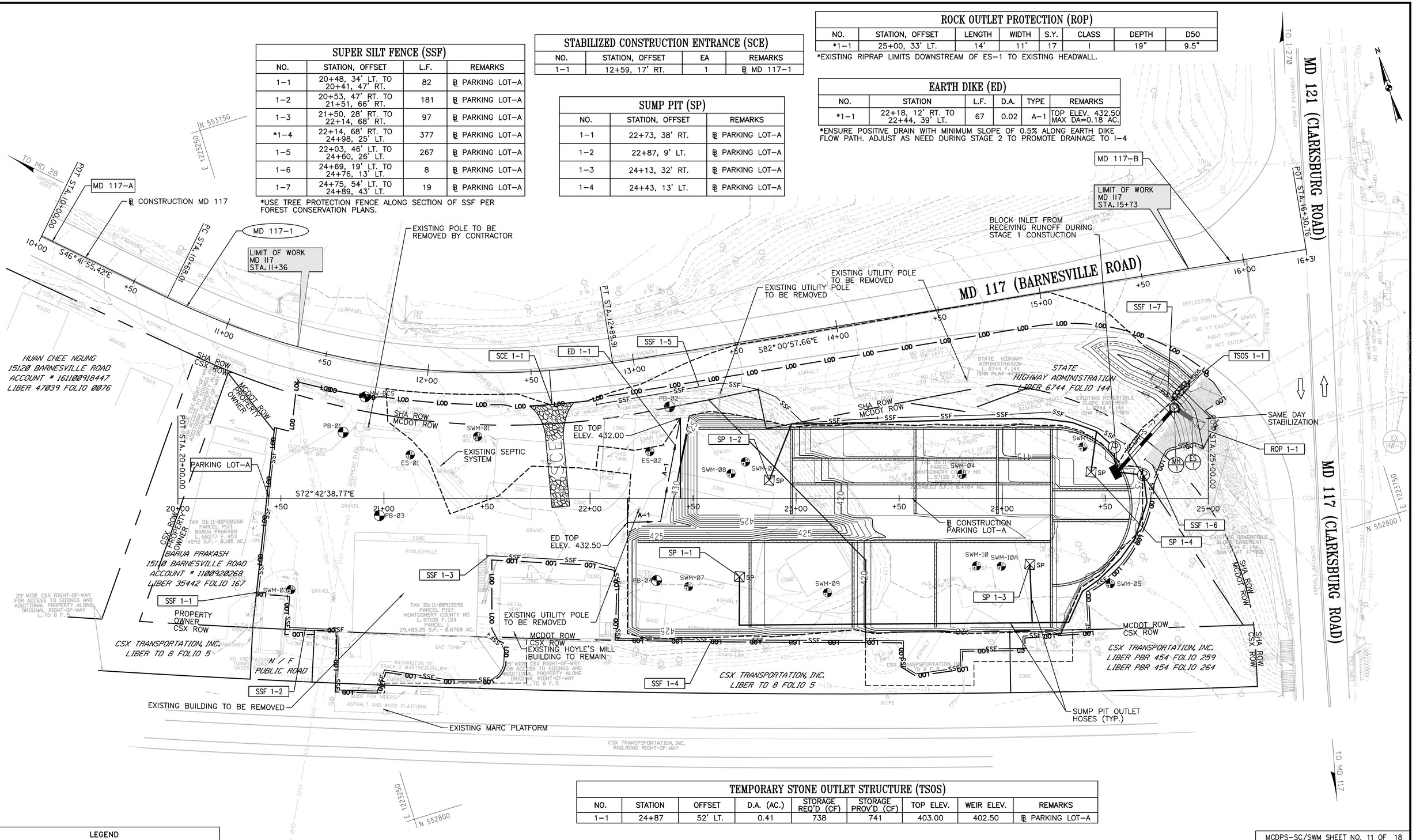
EARTH DIKE (ED)

NO.	STATION	L.F.	D.A.	TYPE	REMARKS
*1–1	22+18, 12' RT. TO 22+44, 39' LT.	67	0.02	A–1	TOP ELEV. 432.50 MAX DA=0.18 AC.

*ENSURE POSITIVE DRAIN WITH MINIMUM SLOPE OF 0.5% ALONG EARTH DIKE FLOW PATH. ADJUST AS NEED DURING STAGE 2 TO PROMOTE DRAINAGE TO I–4

TEMPORARY STONE OUTLET STRUCTURE (TSOS)

NO.	STATION	OFFSET	D.A. (AC.)	STORAGE REQ'D (CF)	STORAGE PROV'D (CF)	TOP ELEV.	WEIR ELEV.	REMARKS
1–1	24+87	52' LT.	0.41	738	741	403.00	402.50	℄ PARKING LOT–A



LEGEND

- DRAINAGE AREA
- PROPERTY LINE
- RIGHT–OF–WAY
- SAME DAY STABILIZATION

HORIZONTAL SCALE: 1" = 20'

20' 0 20' 40'

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WRA
Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL
Chief, Transportation Planning and Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date

Designed by: ABR Drawn by: ABR Checked by: JDC

ES–01 EROSION AND SEDIMENT CONTROL PLAN STAGE 1 – SUBGRADE GRADING

BOYDS TRANSIT IMPROVEMENTS

SCALE : 1" = 20' OCTOBER 2023

Project No. : 32207.003 SHEET 22 of 78

MCDPS–SC/SWM SHEET NO. 11 OF 18

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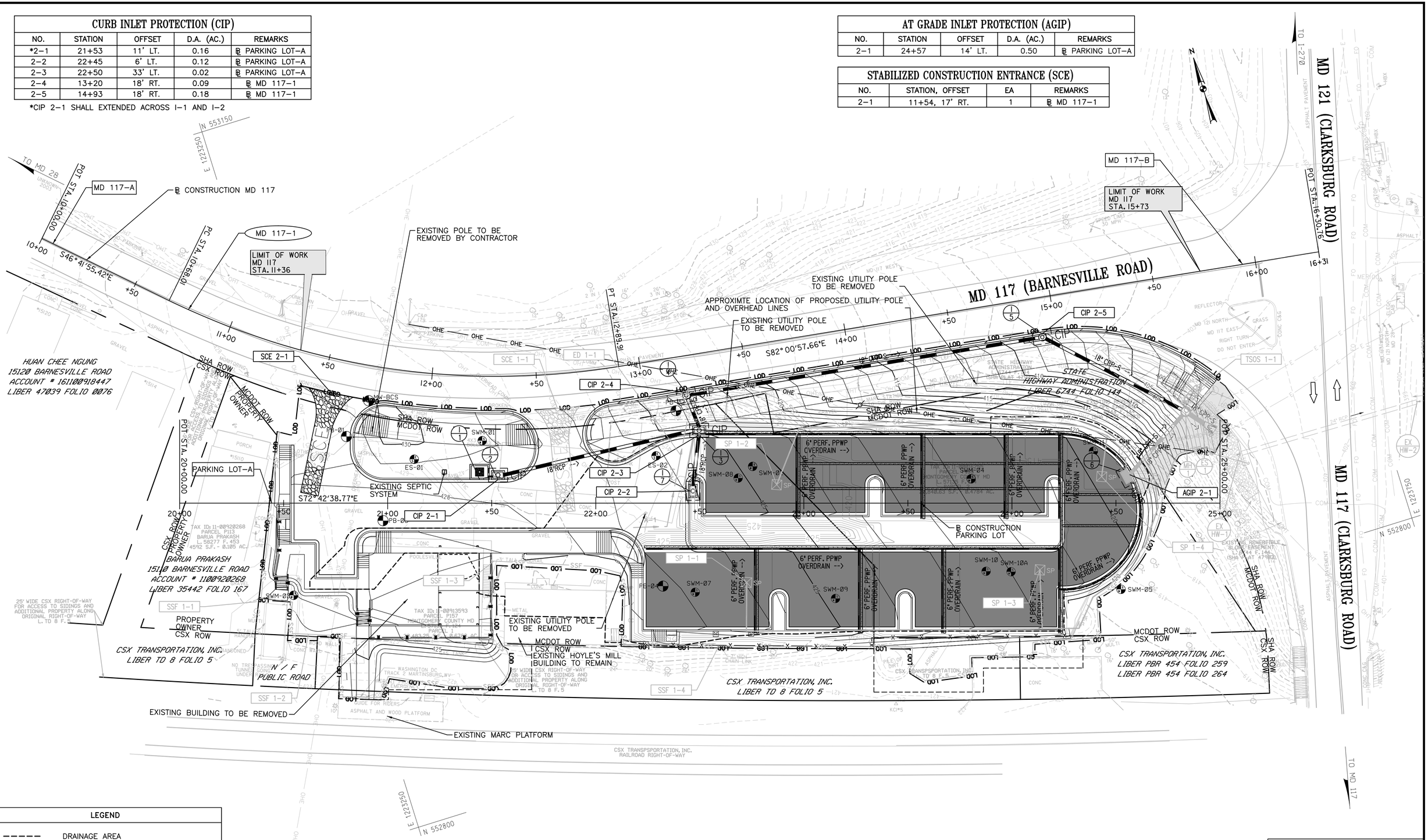
11/2/2023

CURB INLET PROTECTION (CIP)				
NO.	STATION	OFFSET	D.A. (AC.)	REMARKS
*2-1	21+53	11' LT.	0.16	℄ PARKING LOT-A
2-2	22+45	6' LT.	0.12	℄ PARKING LOT-A
2-3	22+50	33' LT.	0.02	℄ PARKING LOT-A
2-4	13+20	18' RT.	0.09	℄ MD 117-1
2-5	14+93	18' RT.	0.18	℄ MD 117-1

*CIP 2-1 SHALL EXTENDED ACROSS I-1 AND I-2

AT GRADE INLET PROTECTION (AGIP)				
NO.	STATION	OFFSET	D.A. (AC.)	REMARKS
2-1	24+57	14' LT.	0.50	℄ PARKING LOT-A

STABILIZED CONSTRUCTION ENTRANCE (SCE)			
NO.	STATION, OFFSET	EA	REMARKS
2-1	11+54, 17' RT.	1	℄ MD 117-1



LEGEND

- DRAINAGE AREA
- PROPERTY LINE
- RIGHT-OF-WAY
- PERMEABLE PAVEMENT
- SAME DAY STABILIZATION

PROFESSIONAL CERTIFICATION.
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MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

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Chief, Transportation Planning and Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ABR Drawn by: ABR Checked by: JDC

ES-02 EROSION AND SEDIMENT CONTROL PLAN STAGE 2 - FINAL GRADING

BOYDS TRANSIT IMPROVEMENTS

SCALE : 1" = 20' OCTOBER 2023

Project No. : 32207.003 SHEET 23 of 78

MCDPS-SC/SWM SHEET NO. 12 OF 18

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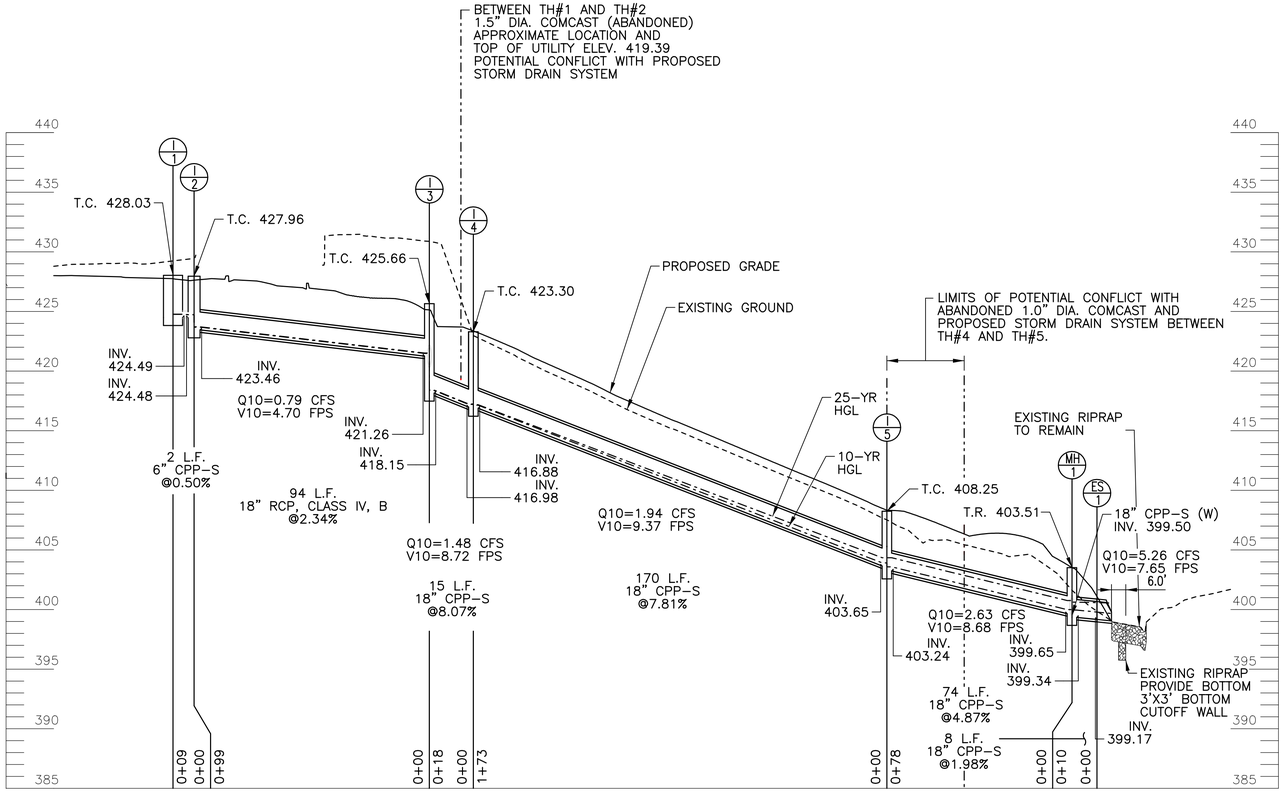
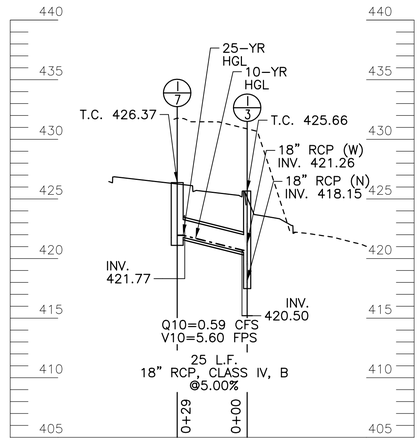


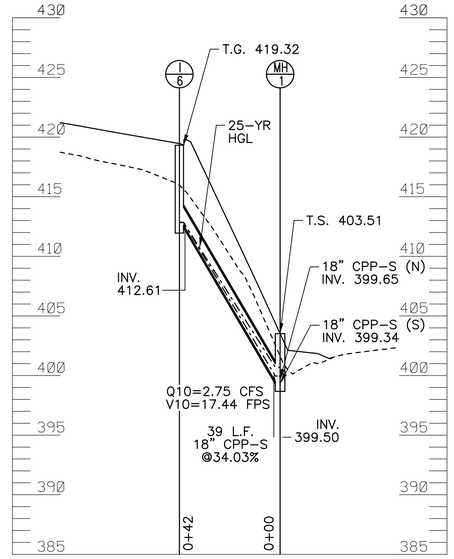
STA 21+44, LT B PARKING LOT-A LT TO STA 15+63, RT MD 117-1

HORI SCALE: 1"=30'
VERT SCALE: 1"=6'



STA 22+45, LT B PARKING LOT-A LT TO STA 22+50, LT B PARKING LOT-A

HORI SCALE: 1"=30'
VERT SCALE: 1"=6'



STA 24+57, LT B PARKING LOT-A LT TO STA 15+63, RT B MD 117-1

HORI SCALE: 1"=30'
VERT SCALE: 1"=6'

NOTES:

1. CONTRACTOR SHALL CONFIRM UTILITY STATUS AS ACTIVE OR ABANDONED PRIOR TO EXCAVATION FOR STORM DRAIN INSTALLATION.

MCDPS-SC/SWM SHEET NO. 13 OF 18

PROFESSIONAL CERTIFICATION.
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GAITHERSBURG, MARYLAND

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Chief, Transportation Planning and Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ABR Drawn by: ABR Checked by: JDC

DP-01 DRAINAGE PROFILES

BOYDS TRANSIT IMPROVEMENTS

SCALE : 1" = 30' OCTOBER 2023

Project No. : 32207.003 SHEET 24 of 78

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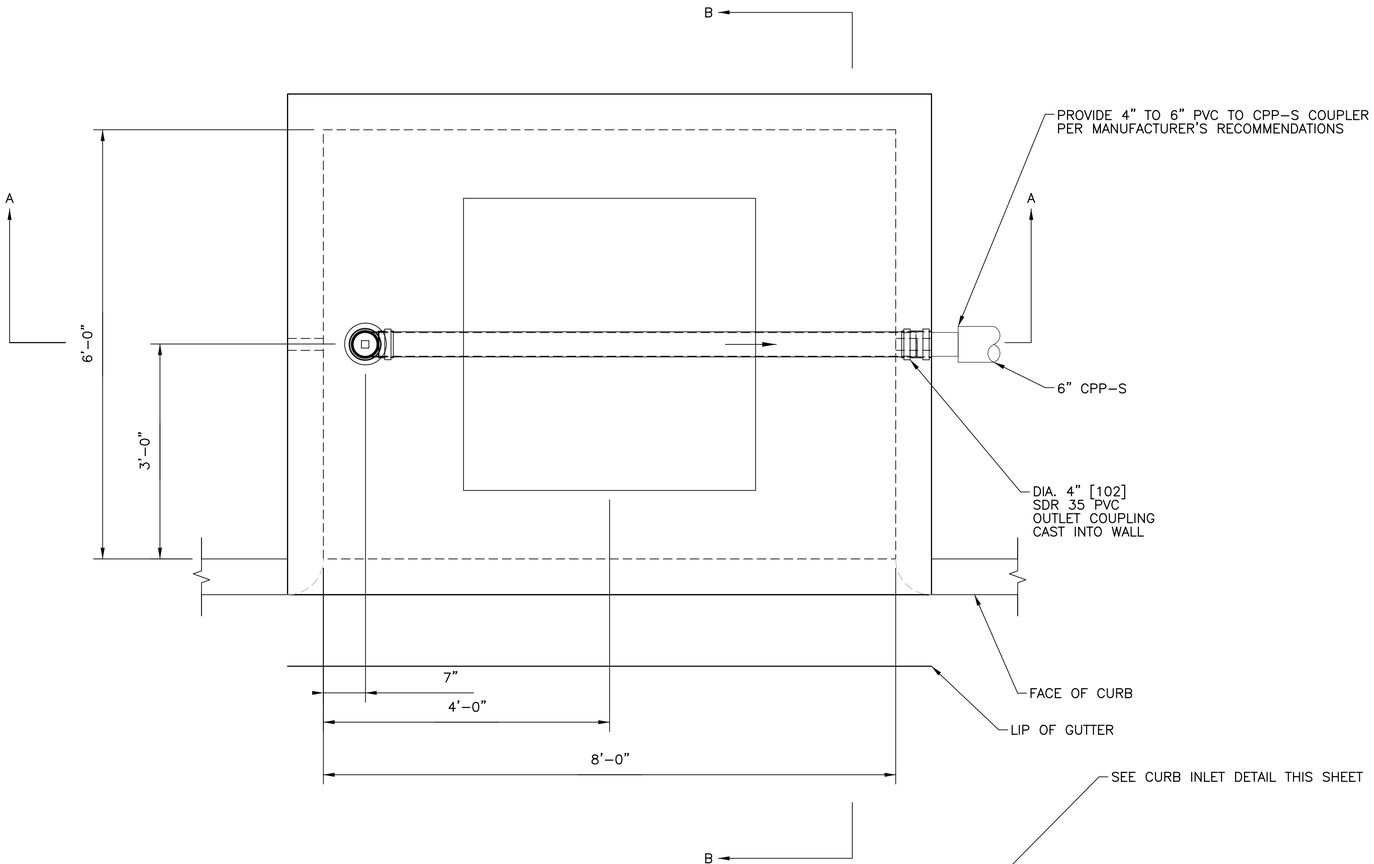
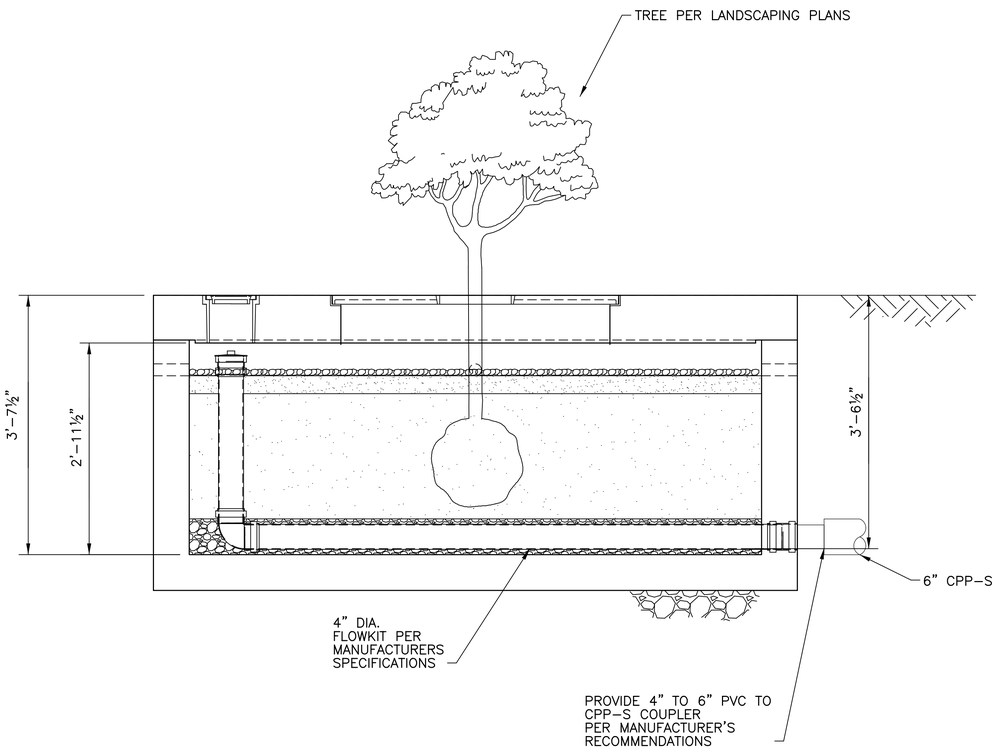
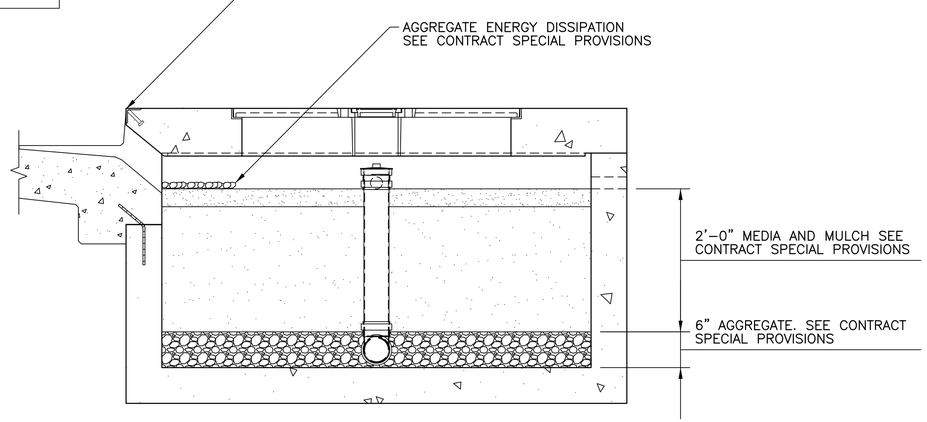


PLAN VIEW



SECTION A-A



SECTION B-B

NOTES:

1. SEE CONTRACT SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.
2. ALL INLET COMPONENTS INCLUDING VAULT, GRATE, MEDIA, STONE, PIPING, AND FITTINGS SHALL BE SUPPLIED BY THE FILTERING TREE PIT MANUFACTURER.

PROFESSIONAL CERTIFICATION.
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DD-01 FILTERING TREE PIT INLET DETAILS

BOYDS TRANSIT IMPROVEMENTS

SCALE : 1" = 1' OCTOBER 2023

Project No. : 32207.003 SHEET 25 of 78

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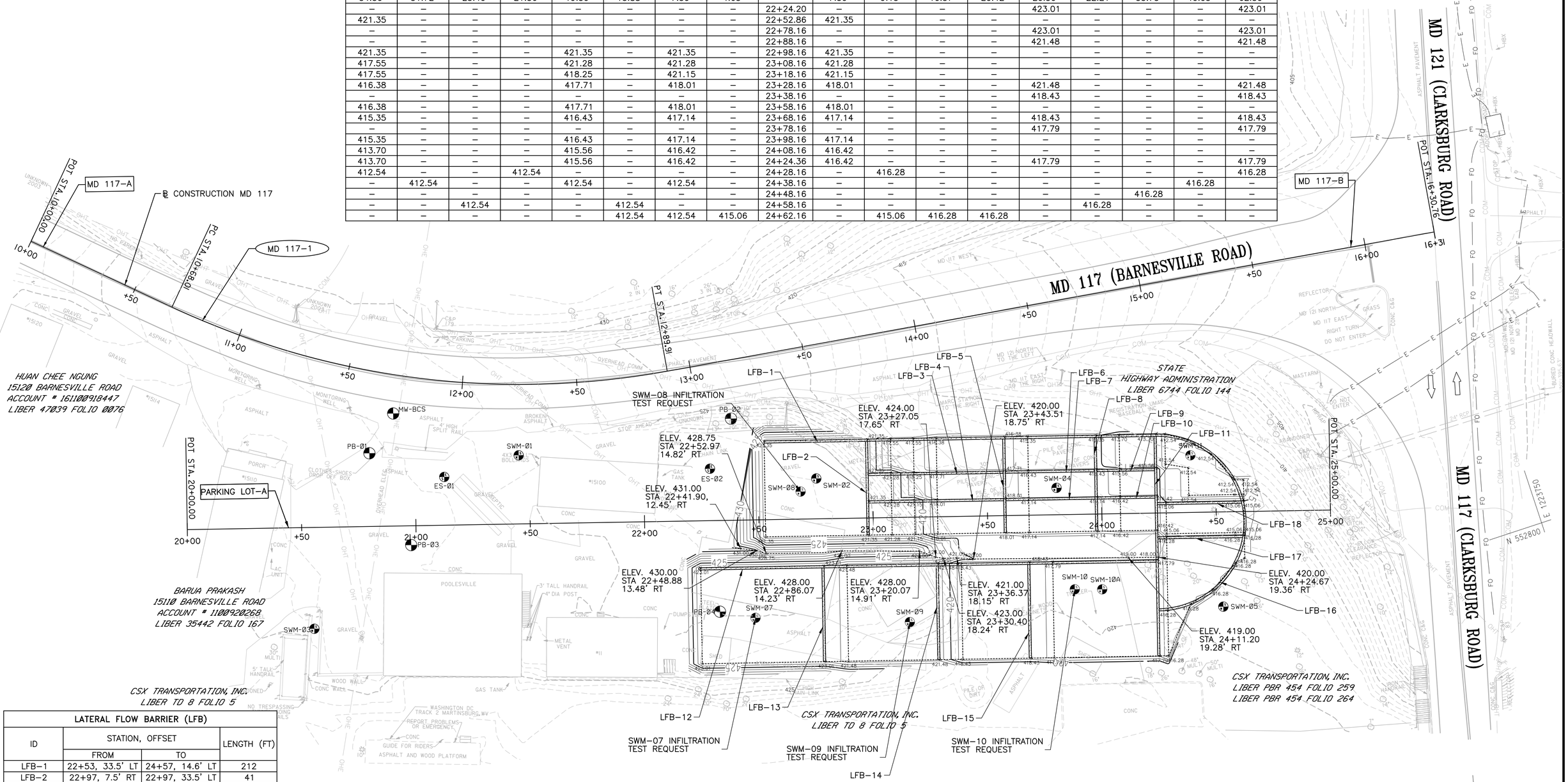
SUBGRADE STAKEOUT STATION–OFFSET–ELEVATION																
	LEFT OFFSET ELEVATION								RIGHT OFFSET ELEVATION							
34.50'	31.72'	25.40'	21.36'	19.50'	13.88'	7.50'	4.63'	STATION	7.50'	9.15'	10.37'	20.42'	20.50'	22.21	33.73'	40.05'	62.50'
–	–	–	–	–	–	–	–	22+24.20	–	–	–	–	423.01	–	–	–	423.01
421.35	–	–	–	–	–	–	–	22+52.86	421.35	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	22+78.16	–	–	–	–	423.01	–	–	–	423.01
–	–	–	–	–	–	–	–	22+88.16	–	–	–	–	421.48	–	–	–	421.48
421.35	–	–	–	421.35	–	421.35	–	22+98.16	421.35	–	–	–	–	–	–	–	–
417.55	–	–	–	421.28	–	421.28	–	23+08.16	421.28	–	–	–	–	–	–	–	–
417.55	–	–	–	418.25	–	421.15	–	23+18.16	421.15	–	–	–	–	–	–	–	–
416.38	–	–	–	417.71	–	418.01	–	23+28.16	418.01	–	–	–	421.48	–	–	–	421.48
–	–	–	–	–	–	–	–	23+38.16	–	–	–	–	418.43	–	–	–	418.43
416.38	–	–	–	417.71	–	418.01	–	23+58.16	418.01	–	–	–	–	–	–	–	–
415.35	–	–	–	416.43	–	417.14	–	23+68.16	417.14	–	–	–	418.43	–	–	–	418.43
–	–	–	–	–	–	–	–	23+78.16	–	–	–	–	417.79	–	–	–	417.79
415.35	–	–	–	416.43	–	417.14	–	23+98.16	417.14	–	–	–	–	–	–	–	–
413.70	–	–	–	415.56	–	416.42	–	24+08.16	416.42	–	–	–	–	–	–	–	–
413.70	–	–	–	415.56	–	416.42	–	24+24.36	416.42	–	–	–	417.79	–	–	–	417.79
412.54	–	–	412.54	–	–	–	–	24+28.16	–	416.28	–	–	–	–	–	–	416.28
–	412.54	–	–	412.54	–	412.54	–	24+38.16	–	–	–	–	–	–	–	416.28	–
–	–	–	–	–	–	–	–	24+48.16	–	–	–	–	–	–	416.28	–	–
–	–	412.54	–	–	412.54	–	–	24+58.16	–	–	–	–	–	416.28	–	–	–
–	–	–	–	–	412.54	412.54	415.06	24+62.16	–	415.06	416.28	416.28	–	–	–	–	–



LATERAL FLOW BARRIER (LFB)			
ID	STATION, OFFSET		LENGTH (FT)
	FROM	TO	
LFB–1	22+53, 33.5' LT	24+57, 14.6' LT	212
LFB–2	22+97, 7.5' RT	22+97, 33.5' LT	41
LFB–3	22+98, 18.5' LT	23+57, 18.5' LT	59
LFB–4	22+98, 6.5' LT	23+57, 6.5' LT	59
LFB–5	23+57, 7.5' RT	23+57, 33.5' LT	41
LFB–6	23+58, 18.5' LT	23+97, 18.5' LT	39
LFB–7	23+58, 6.5' LT	23+97, 6.5' LT	39
LFB–8	23+97, 7.5' RT	23+97, 33.5' LT	41
LFB–9	23+98, 18.5' LT	24+23, 18.5' LT	25
LFB–10	23+98, 6.5' LT	24+23, 6.5' LT	25
LFB–11	24+23, 62.5' RT	24+23, 33.5' LT	96
LFB–12	22+23, 21.5' RT	24+23, 21.5' RT	200
LFB–13	22+77, 62.5' RT	22+77, 21.5' RT	41
LFB–14	23+27, 62.5' RT	23+27, 21.5' RT	41
LFB–15	23+67, 62.5' RT	23+67, 21.5' RT	41
LFB–16	24+24, 41.8' RT	24+57, 14.6' LT	79
LFB–17	24+24, 11.4' RT	24+61, 11.4' LT	37
LFB–18	24+24, 3.6' LT	24+61, 3.6' LT	37

NOTE: TOP ELEVATION OF LFB IS 18" ABOVE SUBGRADE BOTTOM ELEVATION. SEE LFB DETAILS SHEET SW–03.

HORIZONTAL SCALE: 1"=20'

20' 0 20' 40'

NOTES:

1. ELEVATIONS LISTED IN SUBGRADE STAKEOUT TABLE ARE INTENDED TO FACILITATE GRADING TO PROPOSED DESIGN BOTTOM OF PERMEABLE PAVEMENT. TIE–IN SLOPE BETWEEN GRADE BREAKS AND TO EXISTING GROUND SHALL BE PER GRADING SHOWN.
2. LATERAL FLOW BARRIERS SHALL BE INSTALLED IN CONJUCTION WITH GRADING. WHERE OVERDRAINS CROSS THROUGH LATERAL FLOW BARRIERS ENSURE INVERTS LATERAL FLOW BARRIER INVERTS MATCH OVERDRAIN LAYOUT AS SHOWN ON SHEET SW–02.

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._____
EXPIRATION DATE:_____

WRA
Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL
Chief, Transportation Planning and Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date

Designed by: ABR Drawn by: ABR Checked by: JDC

MCDPS–SC/SWM SHEET NO. 15 OF 18

SW–01 PERVIOUS CONCRETE SUBGRADE GRADING PLAN

BOYDS TRANSIT IMPROVEMENTS

SCALE : 1" = 20' OCTOBER 2023

Project No. : 32207.003 SHEET 26 of 78

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11/2/2023

PERMEABLE PAVEMENT NOTES:
1. TOP OF SAND 6" ABOVE SUBGRADE ELEV.
2. OVERDRAIN INV. 12" ABOVE SUBGRADE ELEV.
3. FOR MULTI-STEP AREA 1:1 SLOPE DROP FROM HIGHER TO LOWER ELEV. FOR MEDIA, OVERDRAIN, AND BARRIER ELEVATIONS.
4. SEE SW-01 FOR DETAIL SUBGRADE GRADING PLAN AND LATERAL FLOW BARRIER LAYOUT.

PERMABLE PAVEMENT SUBGRADE STORAGE AREA/VOLUME (PP)

ID	SUBGRADE ELEV. (FT)	LENGTH (FT)	WIDTH (FT)	AREA (SF)	DEPTH (FT)	*STORAGE (CF)
PP-1	421.35	44	41	1804	1	541
PP-2A	416.38	29	13	377	1	113
PP-2B	417.71	29	11	319	1	96
PP-2C	418.01	29	14	406	1	122
PP-3A	415.35	29	13	377	1	113
PP-3B	416.43	29	10	290	1	87
PP-3C	417.14	29	14	406	1	122
PP-4A	413.70	15	12	180	1	54
PP-4B	415.56	15	10	150	1	45
PP-4C	416.42	15	14	210	1	63
PP-5	412.54	VARIES	VARIES	401	1	120
PP-6	423.01	53	41	2173	1	652
PP-7	421.48	39	41	1599	1	480
PP-8	418.43	29	41	1189	1	357
PP-9	417.79	45	41	1845	1	554
PP-10	416.28	VARIES	VARIES	730	1	219
PP-11	415.06	VARIES	VARIES	430	1	129

*STORAGE VOLUME POROSITY OF 0.3

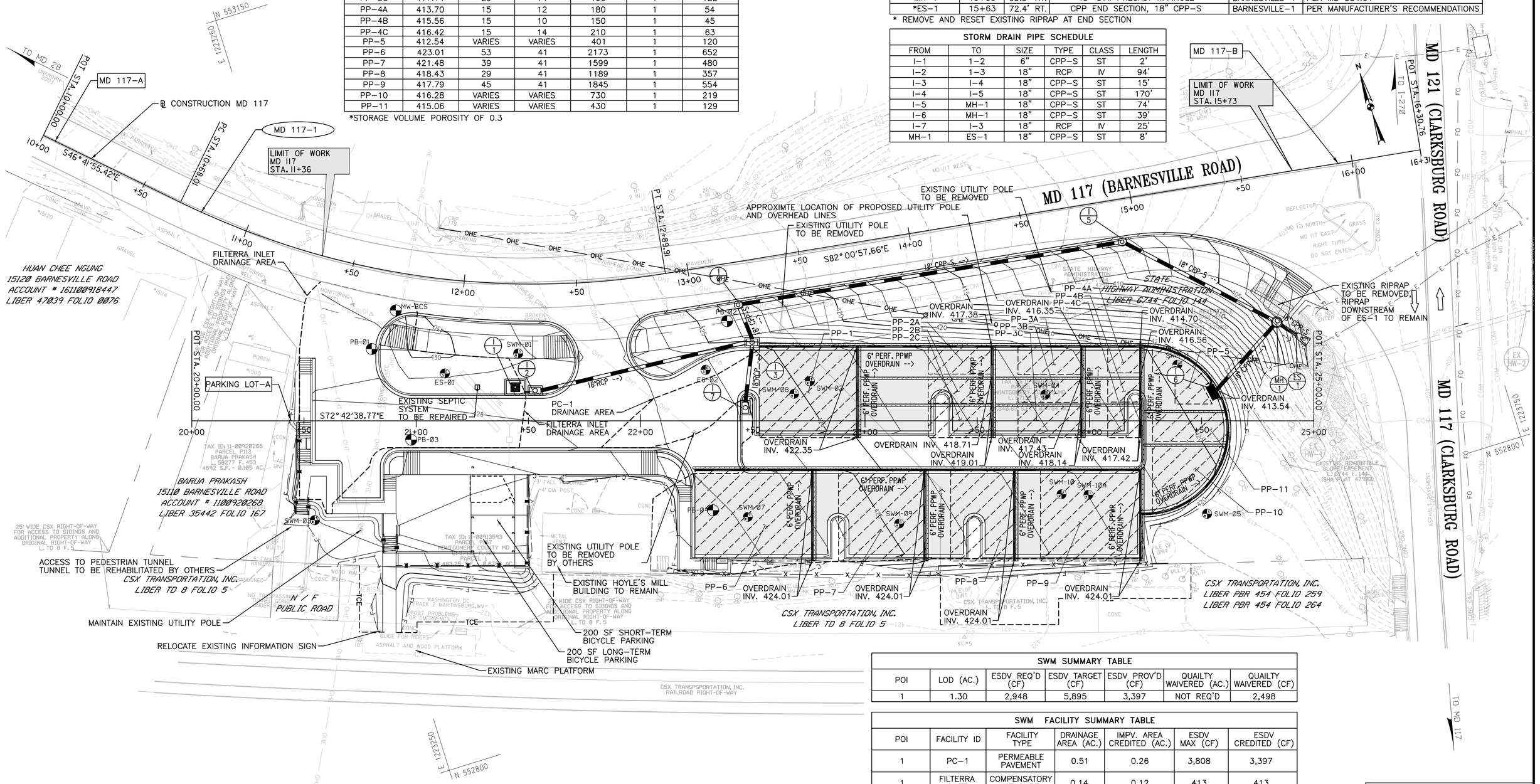
STORM DRAIN STRUCTURE SCHEDULE

STRUCTURE NO.	STATION	OFFSET	TYPE	BASELINE	REMARKS
I-1	21+44	11.3' LT.	8'x6' FILTERING TREE PIT INLET	PARKING LOT-A	DRAWING DD-01
I-2	21+53	11.3' LT.	TYPE "A" INLET, 5' OPENING	PARKING LOT-A	PER MC 501.01
I-3	22+50	32.8' LT.	TYPE "A" INLET, 5' OPENING	PARKING LOT-A	PER MC 501.01
I-4	13+20	17.5' RT.	PRECAST CIRCULAR COG, 10'	BARNESVILLE-1	PER MD 374.62
I-5	14+93	17.6' RT.	PRECAST CIRCULAR COG, 10'	BARNESVILLE-1	PER MD 374.62
I-6	24+57	13.7' LT.	"S-CV" CURVED VANE GRATE, DOUBLE	PARKING LOT-A	PER MD 374.70
I-7	22+45	5.8' LT.	TYPE "A" INLET, 5' OPENING	PARKING LOT-A	PER MC 501.01
MH-1	15+55	65.5' RT.	48" DIA. PRECAST MANHOLE	BARNESVILLE-1	PER MD 384.01
*ES-1	15+63	72.4' RT.	CPP END SECTION, 18" CPP-S	BARNESVILLE-1	PER MANUFACTURER'S RECOMMENDATIONS

* REMOVE AND RESET EXISTING RIPRAP AT END SECTION

STORM DRAIN PIPE SCHEDULE

FROM	TO	SIZE	TYPE	CLASS	LENGTH
I-1	I-2	6"	CPP-S	ST	2'
I-2	I-3	18"	RCP	IV	94'
I-3	I-4	18"	CPP-S	ST	15'
I-4	I-5	18"	CPP-S	ST	170'
I-5	MH-1	18"	CPP-S	ST	74'
I-6	MH-1	18"	CPP-S	ST	39'
I-7	I-3	18"	RCP	IV	25'
MH-1	ES-1	18"	CPP-S	ST	8'



SWM SUMMARY TABLE

POI	LOD (AC.)	ESDV REQ'D (CF)	ESDV TARGET (CF)	ESDV PROV'D (CF)	QUAILTY WAIVERED (AC.)	QUAILTY WAIVERED (CF)
1	1.30	2,948	5,895	3,397	NOT REQ'D	2,498

SWM FACILITY SUMMARY TABLE

POI	FACILITY ID	FACILITY TYPE	DRAINAGE AREA (AC.)	IMPV. AREA CREDITED (AC.)	ESDV MAX (CF)	ESDV CREDITED (CF)
1	PC-1	PERMEABLE PAVEMENT	0.51	0.26	3,808	3,397
1	FILTERRA INLET	COMPENSATORY MEASURE	0.14	0.12	413	413

LEGEND

- PERMEABLE PAVEMENT
- PERMEABLE PAVEMENT SUBGRADE STORAGE AREA PROVIDED
- SWM FACILITY DRAINAGE AREA
- PERMEABLE PAVEMENT FLOW BARRIER

HORIZONTAL SCALE: 1"=20'
20' 0 20' 40'

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._____ EXPIRATION DATE:_____

Whitman, Requardt & Associates, LLP
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NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL
Chief, Transportation Planning and Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date

Designed by: ABR Drawn by: ABR Checked by: JDC

SW-02 STORMWATER MANAGEMENT PLAN

BOYDS TRANSIT IMPROVEMENTS

SCALE : 1" = 20' OCTOBER 2023

Project No. : 32207.003 SHEET 27 of 78

MCDPS-SC/SWM SHEET NO. 15A OF 18

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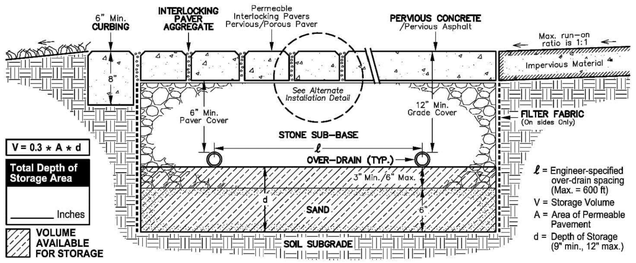
11/2/2023

PERMEABLE PAVEMENT:



GENERAL REQUIREMENTS:

Within three (3) days of installation, contractor must perform single ring infiltration tests. Poured-in-place concrete must remain free from all light vehicular traffic for a minimum of seven (7) days. Heavy vehicular traffic must be restricted for at least ten (10) days after placement.

Post construction of infiltration rates required for all surfaces must conform to ASTM C1701 for poured-in-place permeable concrete, or ASTM C1781 for permeable pavers.

SETBACKS:

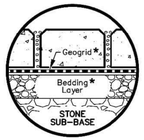
Pervious Pavements require MC DOT prior written approval before being designed within public rights of way.

The storage volume for any pervious surface shall be located down gradient of building structures and be setback a minimum of:

- 100 feet from primary potable water supply or open loop geothermal wells (10' for SF Residential)
- 50 feet from alternate potable water supply or closed loop geothermal wells (No Setback for S.F. Residential)
- 25 feet from septic systems (10' for S.F. Residential)
- 10 feet from any other Infiltrating ESD Practice
- 10 feet from buildings
- Raised mulch/planting beds shall not be placed adjacent to Permeable Pavement

ALTERNATE INSTALLATION DETAIL:

Optional engineer-approved installation as per manufacturers recommendations. *

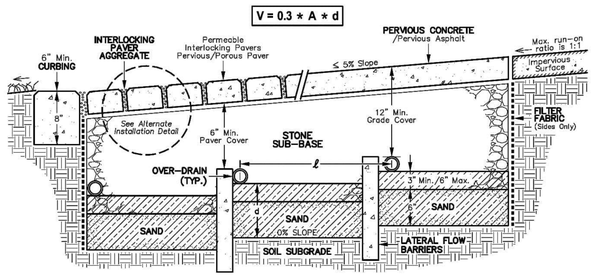


LEGEND:

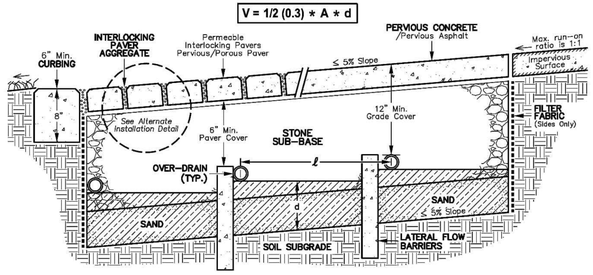
CURBING	6" minimum width. Curbing is not required for sidewalk applications.
INTERLOCKING PAVER AGGREGATE	Paver gap aggregate shall be a silica-based stone per manufacturer's recommendations or meeting ASTM D448 size criteria of No. 8, 89, or 9 stone.
FILTER FABRIC	Engineer-approved, permeable, non-woven geotextile fabric. On sides only.
OVER-DRAIN	4" Schedule 40 PVC or HDPE N-12 installed perpendicular to grade. One foot of over-drain is required for every 600 sq. ft. Over-drain may not connect to drywells or any other SWM. Over-drain discharge point must be shown on the plan view.
OVER-DRAIN PERFORATION	• 3/8 Inch Holes • 4 Inches on center • 90° around pipe
STONE SUB-BASE	Clean open graded, washed silica stone meeting MD SHA Course Aggregate 57 grading requirements. Filter cloth shall not be used horizontally between the sub-base material and the soil sub-grade.
SAND	See Montgomery County Sand Specifications.
SOIL SUBGRADE	Site geotechnical engineer-approved subgrade shall be proof rolled and scarified. Bottom shall be flat or per Stepped/Sloped Permeable Pavement Detail.
PERVIOUS CONCRETE	Pervious concrete construction must be performed by National Ready Mixed Association Certified Pervious Concrete Installer. All construction must be done per ACI 522.13.

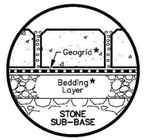
MONTGOMERY COUNTY MARYLAND	**MONTGOMERY COUNTY DEPARTMENT OF PERMITTING SERVICES** **WATER RESOURCES DIVISION**	**PERMEABLE PAVEMENT DETAIL**	**DATE:** MAY 1, 2017 **SCALE:** NONE

PERMEABLE PAVEMENT WITH STEPPED SOIL SUBGRADE:



PERMEABLE PAVEMENT WITH SLOPED SOIL SUBGRADE

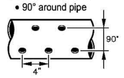




ALTERNATE INSTALLATION DETAIL:

Optional engineer-approved installation as per manufacturers recommendations. *

OVER-DRAIN PERFORATION:



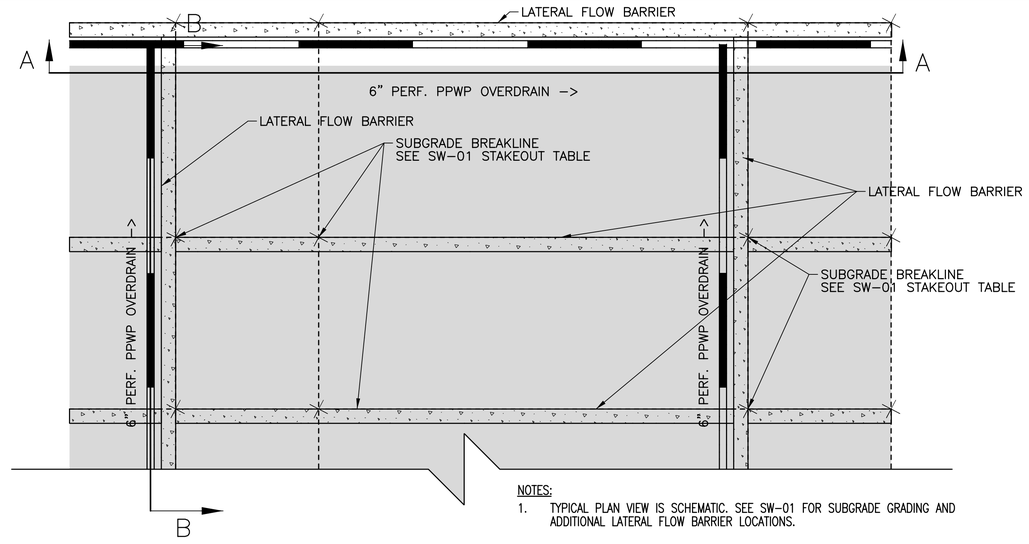
VOLUME AVAILABLE FOR STORAGE

ℓ = Engineer-specified over-drain spacing (Max. = 600 ft)
V = Storage Volume
A = Area of Permeable Pavement
d = Depth of Storage (12" maximum average)

MONTGOMERY COUNTY MARYLAND	**MONTGOMERY COUNTY DEPARTMENT OF PERMITTING SERVICES** **WATER RESOURCES DIVISION**	**PERMEABLE PAVEMENT DETAIL**	**DATE:** MAY 1, 2017 **SCALE:** NONE

NOTES:

1. MONTGOMERY COUNTY DPS DETAILS PROVIDED FOR INFORMATION ONLY. REFERENCE CONTRACT PLANS AND SPECIFICATIONS FOR MATERIALS, EXECUTION AND MEASUREMENT AND PAYMENT INFORMATION.

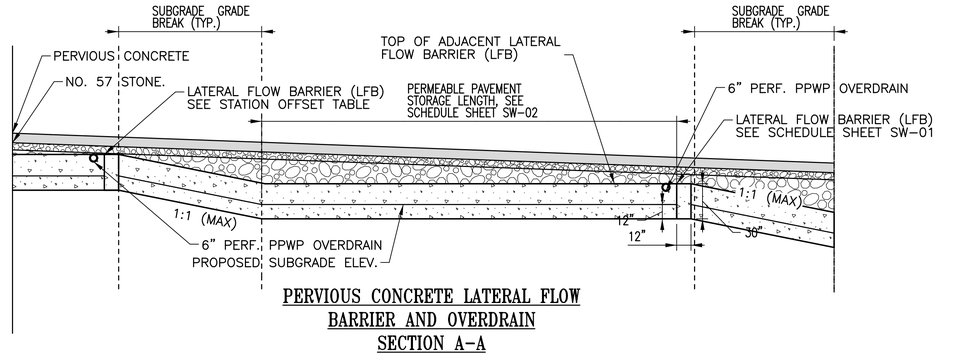


NOTES:

1. TYPICAL PLAN VIEW IS SCHEMATIC. SEE SW-01 FOR SUBGRADE GRADING AND ADDITIONAL LATERAL FLOW BARRIER LOCATIONS.

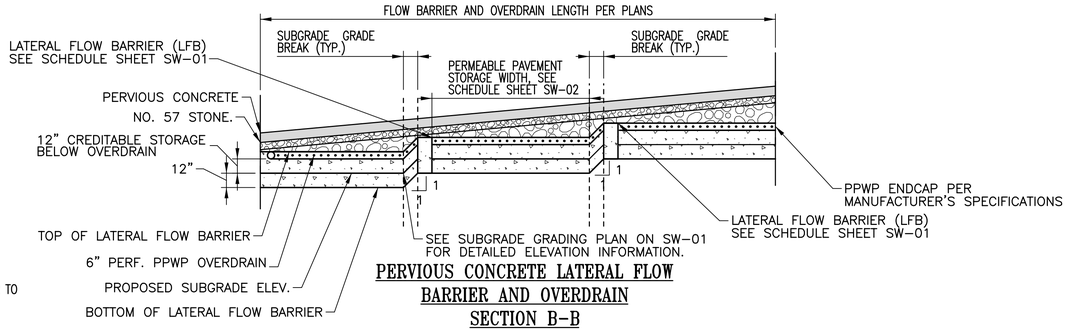
PERVIOUS CONCRETE LATERAL FLOW BARRIER AND OVERDRAIN TYPICAL PLAN VIEW

SCALE: NOT TO SCALE



PERVIOUS CONCRETE LATERAL FLOW BARRIER AND OVERDRAIN SECTION A-A

SCALE: NOT TO SCALE



PERVIOUS CONCRETE LATERAL FLOW BARRIER AND OVERDRAIN SECTION B-B

SCALE: NOT TO SCALE

LATERAL FLOW BARRIER AND OVERDRAIN NOTES:

1. LATERAL FLOW BARRIERS SHALL BE CONSTRUCTED FROM MIX 3 CONCRETE, CONCRETE MASONRY UNITS (UNITS TO BE FILLED WITH CONCRETE) OR A COMBINATION OF THESE MATERIALS TO FORM AN IMPERVIOUS, SUBGRADE BARRIER TO FLOW MIGRATION ACROSS SUBGRADE. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR THE FLOW BARRIER TO THE ENGINEER FOR APPROVAL.
2. ALL OVERDRAIN BENDS, FITTINGS AND APPURTENANCES SHALL BE PROVIDED AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND THE CONTRACT SPECIAL PROVISIONS. ALL PENETRATIONS OF THE LATERAL FLOW BARRIER SHALL BE SEALED WITH NON-SHRINK GROUT.
3. SEE CONTRACT SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.

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._____ EXPIRATION DATE:_____

Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Transportation Planning and Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: ABR Drawn by: ABR Checked by: JDC

SW-03 STORMWATER MANAGEMENT DETAILS

BOYDS TRANSIT IMPROVEMENTS

SCALE : NONE OCTOBER 2023

Project No. : 32207.003 SHEET 28 of 78

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11/2/2023

CRITERIA

THE CONTRACTOR SHALL BE GOVERNED BY THE STANDARDS AND REQUIREMENTS OF THE FOLLOWING PUBLICATIONS, EXCEPT AS MODIFIED BY THE SPECIAL PROVISIONS OF THIS CONTRACT:

DESIGN

MDOT SHA - 'MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES', 2011 EDITION AND SUBSEQUENT REVISIONS. (MDMUTCD)

A A S H T O - 'HIGHWAY SAFETY DESIGN AND OPERATIONS GUIDE' -1997

A A S H T O - 'STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS LUMINAIRES AND TRAFFIC SIGNALS', 2015 EDITION (CATEGORY II FOR ALL OVERHEAD AND CANTILEVER SIGN STRUCTURES).

MATERIALS AND CONSTRUCTION

MDOT SHA - 'STANDARD SPECIFICATIONS FOR CONSTRUCTION & MATERIALS', MOST CURRENT EDITION AND SUBSEQUENT REVISIONS AND SUPPLEMENTS.

MDOT SHA - 'BOOK OF STANDARDS FOR HIGHWAY AND INCIDENTAL STRUCTURES', MOST CURRENT EDITION AND SUBSEQUENT REVISIONS AND SUPPLEMENTS.

DESIGN WIND

100 MPH - WOOD SUPPORTS
10 YEAR RECURRENCE INTERVAL

100 MPH - GROUND MOUNT SIGN STEEL SUPPORTS
10 YEAR RECURRENCE INTERVAL

100 MPH - OVERHEAD AND CANTILEVER STRUCTURES
50 YEAR RECURRENCE INTERVAL

} ALL DISTRICTS

DESIGN STRESS

SOIL BEARING PRESSURE - S = 3,000 P.S.F. (ASSUMED)
SEE MATERIAL & CONSTRUCTION ABOVE AND SPECIAL PROVISIONS FOR DESIGN STRESSES FOR STRUCTURAL STEEL, ALUMINUM, REINFORCING STEEL AND CONCRETE.

CHAMFER

ALL EXPOSED EDGES OF CONCRETE SHALL HAVE A 3/4" X 3/4" CHAMFER.

CLASSIFICATION OF SIGNS

SIGNS ARE DIVIDED INTO TWO (2) GENERAL CATEGORIES.

1. GUIDE SIGNS
   - A) STRUCTURAL TYPES
     - OH - OVERHEAD
     - C - CANTILEVER
     - GM - GROUND MOUNT, BREAKAWAY OR NON-BREAKWAY
     - BM - BRIDGE MOUNTED
   - B) PANELS
     - MATERIAL - EXTRUDED ALUMINUM
     - COPY - DIRECT APPLIED
       - I) HIGH INTENSITY (NEW SIGNS AND REVISIONS TO EXISTING SIGNS)
2. STANDARD SIGNS (REGULATORY, WARNING, ETC.)
   - A) STRUCTURAL TYPES
     - WOOD SUPPORTS
     - SQUARE TUBE
   - B) PANELS
     - MATERIAL - SHEET ALUMINUM
     - COPY - DIRECT APPLIED

IDENTIFICATION OF SIGNS AND PANELS

GUIDE SIGNS

EACH GUIDE SIGN IS IDENTIFIED BY A SIGN NUMBER ON THE PLANS AND IN THE TABULATIONS. (GM-1, GM-2, GM-3, etc)
SIGNS ON STRUCTURES ARE IDENTIFIED WITH A NUMBER AND WHERE VARIATIONS OCCUR, A LOWER CASE LETTER. (OH-1a, OH-1b, OH-1c)

STANDARD SIGNS

STANDARD SIGNS ARE IDENTIFIED BY PANEL NUMBERS AND ARE CLASSIFIED AS FOLLOWS

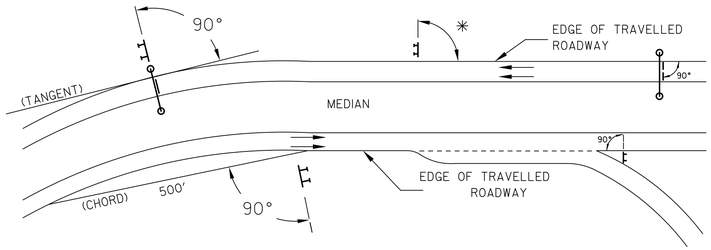
- R - REGULATORY
- W - WARNING
- M - ROUTE MARKERS AND ACCESSORIES
- D - DESTINATION AND MILEAGE PANELS
- S - SCHOOL

PANELS SHALL BE DESIGNATED TO AGREE WITH MARYLAND STANDARD SIGN BOOK. EACH STANDARD SIGN IS IDENTIFIED FIRST BY THE SHEET NUMBER, THEN BY THE NUMERICAL ORDER OF THE SIGN AS IT APPEARS ON THE PLAN.
FOR EXAMPLE SHEET SN 2.1-101,102,103, ETC. SHEET SN 2.2-201,202,203,ETC.

PANEL LAYOUT AND ALPHABETS

1. GUIDE SIGN PANEL LAYOUTS ARE BASED ON THE A.A.S.H.T.O. MANUALS NOTED ABOVE.
2. STANDARD SIGN PANEL LAYOUTS ARE BASED ON THE MDMUTCD WITH SPECIFICATIONS DETAILED IN THE MARYLAND STATE HIGHWAY ADMINISTRATION PUBLICATION, 'STANDARD SIGN BOOK', AVAILABLE ONLINE AT http://apps.roads.maryland.gov/businesswithsha/bizstdsspecs/desmanualstdpub/publicationsonline/oots/internet_signbook.asp

ORIENTATION OF SIGN FACES



* UNDER 30 FEET FROM TRAVELLED ROADWAY TO NEAR EDGE OF SIGN - 93° AWAY FROM THE ROAD TO AVOID SPECULAR REFLECTION AS INDICATED IN 813.03 OF THE MARYLAND STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS.

OVER 30 FEET FROM TRAVELLED ROADWAY TO NEAR EDGE OF SIGN - 90°

REFLECTORIZATION

BACKGROUNDS, BORDERS, TEXTS AND ALL OTHER ELEMENTS OF SIGN PANELS SHALL BE REFLECTORIZED EXCEPT WHERE NOTED. REFER TO PROJECT REQUIREMENTS FOR MORE DETAIL.

SIGN LOCATIONS

1. GUIDE SIGNS ARE LOCATED ON THE PLANS BY DIMENSION TO SURVEY STATIONS, OR WHEN NECESSARY, TO IDENTIFIABLE PHYSICAL FEATURES.
2. ALL CHANGES IN THE LOCATIONS OF SIGNS AS SHOWN ON THE PLAN SHALL HAVE THE PRIOR APPROVAL OF THE ENGINEER.

EXISTING UTILITIES

THE ENGINEER DOES NOT WARRANT OR GUARANTEE THE ACCURACY OR COMPLETENESS OF UTILITY INFORMATION SHOWN ON THE PLAN. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE AND PROTECT ALL EXISTING FACILITIES WHICH MIGHT BE AFFECTED BY THIS WORK OR HIS OPERATION.

ROADSIDE SIGNS

1. VERTICAL ALIGNMENT
   POSITION PANEL SO FACE IS PLUMB.
2. HORIZONTAL ALIGNMENT (SEE DIAGRAM ABOVE)
   - A) ON STRAIGHT ROADWAY SECTIONS, ANGLE OF SIGN FACE TO ROADWAY VARIES WITH DISTANCE FROM TRAVELLED ROADWAY TO NEAR EDGE OF SIGN - SEE DIAGRAM.
   - B) ON THE INSIDE OF HORIZONTAL CURVES, POSITION SIGN SO FACE OF PANEL MAKES AN ANGLE OF 90° WITH A CHORD BETWEEN A POINT ON NEAR EDGE OF PAVEMENT AT SIGN LOCATION AND A POINT ON EDGE OF PAVEMENT 500' IN ADVANCE OF SIGN.
   - C) ON THE OUTSIDE OF HORIZONTAL CURVES, POSITION SIGN SO FACE OF PANEL IS AT RIGHT ANGLES TO THE TANGENT OF THE CURVE AT THE SIGN LOCATION.
   - D) POSITIONING OF SIGNS AT GORES AND RAMP SEPARATIONS IS REFERRED TO THE NORMAL EDGE OF THE MAINLINE ROADWAY.

OVERHEAD SIGNS

1. VERTICAL ALIGNMENT
   POSITION PANELS FOR ALL OVERHEAD STRUCTURES SO THAT PANEL FACE IS PLUMB.
2. OVERHEAD SIGN STRUCTURES SHALL NOT BE ERECTED WITHOUT ATTACHING LUMINAIRES, SUPPORTS, AND/OR SIGNS.
3. HORIZONTAL ALIGNMENT
   - A) POSITION ALL OVERHEAD SIGNS SO THAT THE FACE OF THE PANEL IS AT RIGHT ANGLES TO THE NORMAL EDGE OF ROADWAY, IF ON A STRAIGHT ROADWAY SECTION.
   - B) POSITION ALL OVERHEAD SIGNS SO THAT THE FACE OF THE PANEL IS AT RIGHT ANGLES TO THE TANGENT OF THE CURVE AT SIGN LOCATION, IF ON A HORIZONTAL CURVE.
   - C) POSITIONING OF SIGNS AT GORES AND RAMP SEPARATIONS IS REFERRED TO THE NORMAL EDGE OF THE MAINLINE ROADWAY.
4. VERTICAL CLEARANCE
   - A) OVERHEAD SIGNS SHALL HAVE A MINIMUM VERTICAL CLEARANCE OF 17'-9" FROM ROADWAY TO THE BOTTOM OF LIGHT FIXTURES. ALL LIGHT FIXTURES ARE TO BE AT THE SAME ELEVATION.
   - B) IF THE CONTRACTOR CANNOT OBTAIN 17'-9" (SEE 3A) CLEARANCE, HE IS TO CEASE WORK AND CONTACT THE PROJECT ENGINEER FOR FURTHER INSTRUCTIONS. THE PROJECT ENGINEER MAY CONTACT THE TRAFFIC ENGINEERING DESIGN DIVISION FOR ASSISTANCE.
   - C) ON ALL OVERHEAD SIGNS, THE MINIMUM CLEARANCE TO BOTTOM OF DESIGN SIGN: 20'-9".

PROJECT REQUIREMENTS

ALL NEW SIGNS ON THIS PROJECT SHALL BE FABRICATED FROM SHEETING WHICH MEETS ALL OF THE FOLLOWING REQUIREMENTS, UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS, OR AS DIRECTED BY THE ENGINEER:

1. SHEETING SHALL MEET THE REQUIREMENTS OF SECTIONS 813 AND 950.03 OF MDOT SHA'S STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS JULY 2023 EDITION AND SUBSEQUENT REVISIONS AND SUPPLEMENTS.
2. LISTED ON MDOT SHA OFFICE OF TRAFFIC AND SAFETY'S QUALIFIED PRODUCTS LIST (QPL).

PROJECT REQUIREMENTS CONT'D

3. THE FOLLOWING TYPES OF SHEETING SHALL BE USED FOR THE SPECIFIED SIGN CLASSIFICATIONS:

GENERAL NOTE: ALL COLORS SHALL BE RETROREFLECTIVE EXCEPT BLACK. BLACK TEXT, BORDERS, SYMBOLS OR ANY BLACK ELEMENTS OF ANY SIGN SHALL BE NON-REFLECTIVE. THIS APPLIES TO ALL MDOT SHA SIGNS AS SHOWN BELOW.

A) GUIDE, EXIT GORE, GENERAL INFORMATION, AND SERVICE SIGNS - FALL INTO TWO SUB CATEGORIES:

(I). GROUND MOUNTED:
ALL RETROREFLECTIVE SHEETING ELEMENTS OF THESE SIGNS SHALL MEET OR EXCEED THE REQUIREMENTS FOR ASTM TYPE IX (9).

(II). OVERHEAD STRUCTURE SIGNS AND OVERHEAD CANTILEVER SIGNS:
ALL RETROREFLECTIVE SHEETING ELEMENTS OF ALL OVERHEAD SIGNS SHALL MEET OR EXCEED THE REQUIREMENTS FOR ASTM TYPE XI (II). (THIS SECTION DOES NOT APPLY TO OVERHEAD SIGNALIZED INTERSECTION SIGNING; MAST ARM OR SPAN WIRE. FOLLOW THE REQUIREMENTS FOR THE RESPECTIVE SIGN CLASSIFICATION FOR SIGNAL SIGNING.)

B) WARNING SIGNS - RETROREFLECTIVE SHEETING FOR WARNING SIGNS (FLUORESCENT YELLOW AND FLUORESCENT ORANGE) SHALL MEET OR EXCEED THE REQUIREMENTS FOR ASTM TYPE IX (9). REGULATORY MESSAGES WITHIN WARNING SIGNS SHALL FOLLOW THE REQUIREMENTS FOR REGULATORY SIGNS.

C) SCHOOL SIGNS - RETROREFLECTIVE SHEETING FOR SCHOOL SIGNS (FLUORESCENT YELLOW AND FLUORESCENT YELLOW-GREEN) SHALL MEET OR EXCEED THE REQUIREMENTS FOR ASTM TYPE IX (9). REGULATORY MESSAGES WITHIN SCHOOL SIGNS SHALL FOLLOW THE REQUIREMENTS FOR REGULATORY SIGNS.

D) REGULATORY SIGNS - FALL INTO THREE SUBCATEGORIES:

(I). "RED" REGULATORY SIGNS; (SPECIFICALLY - STOP, YIELD, DO NOT ENTER AND WRONG WAY). ALL RETROREFLECTIVE SHEETING ELEMENTS OF THESE SIGNS SHALL MEET OR EXCEED THE REQUIREMENTS FOR ASTM TYPE IX (9).

(II). ALL R7 AND R8 SERIES PARKING RELATED SIGNS AND THEIR SUPPLEMENTAL PANELS, NO TRESPASSING SIGNS, AND SIGNS DIRECTED AT PEDESTRIANS AND BICYCLISTS ONLY. ALL RETROREFLECTIVE SHEETING ELEMENTS OF THESE SIGNS SHALL MEET THE REQUIREMENTS FOR ASTM TYPE IV (4).

(III). ALL OTHER REGULATORY SIGNS - ALL RETROREFLECTIVE SHEETING ELEMENTS OF THESE SIGNS SHALL MEET ASTM TYPE IV (4) INCLUDING RED ELEMENTS. WARNING MESSAGES WITHIN REGULATORY SIGNS SHALL FOLLOW THE REQUIREMENTS FOR WARNING SIGNS.

E) ROUTE MARKERS (INDEPENDENT USE AND GUIDE SIGN USE)

INDEPENDENT USE: ALL RETROREFLECTIVE SHEETING ELEMENTS OF THESE SIGNS SHALL MEET BUT NOT TO EXCEED THE REQUIREMENTS FOR ASTM TYPE IV (4).

GUIDE SIGN USE: WHEN INCORPORATED IN THE BODY OF A GUIDE SIGN, ALL RETROREFLECTIVE SHEETING ELEMENTS OF THESE SIGNS SHALL MEET THE SHEETING REQUIREMENTS OF THE GUIDE SIGNS FOR WHICH THEY ARE TO BE APPLIED; GROUND MOUNT ASTM TYPE IX (9) OR OVERHEAD ASTM TYPE XI (II).

F) LOGOS AND / OR GRAPHICS - WITHIN SIGNS SHALL FOLLOW THE REQUIREMENTS FOR THE RESPECTIVE SIGN CLASSIFICATION UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS, OR AS DIRECTED BY THE ENGINEER.

G) SPECIFIC SERVICE (LOGO) SIGNING - ALL COPY, DIVIDER BORDERS, LOGOS AND ARROWS SHALL BE DEMOUNTABLE ALUMINUM OVERLAYS, .032 MINIMUM TO .063 MAXIMUM. ALL RETROREFLECTIVE SHEETING ELEMENTS OF THESE SIGNS SHALL MEET OR EXCEED THE REQUIREMENTS FOR ASTM TYPE IX (9). DISTANCES ON DIRECTIONAL ARROWS WHEN SPECIFIED SHALL BE BLACK. THE OVERLAYS ARE TO BE APPLIED WITH .125 ALUMINUM POP RIVETS TO THE BODY OF THE MAIN SIGN.

H) CIVIL DEFENSE SIGNS AND OTHER SIGNS - NOT SPECIFICALLY FALLING INTO ONE OF THE CATEGORIES ABOVE, SHALL FOLLOW THE GUIDELINES FOR THE SIGN CLASSIFICATION THAT MOST CLOSELY MATCHES THE COLOR(S) OF THE PROPOSED SIGN.

4. THE FOLLOWING MINIMUM THICKNESS SHALL BE USED FOR THE APPROPRIATE WIDTH OF SHEET ALUMINUM BLANKS:

LONGEST DIMENSION	MINIMUM THICKNESS
UP TO 12"	0.040"
GREATER THAN 12" TO 24"	0.063"
GREATER THAN 24" TO 36"	0.080"
GREATER THAN 36" TO 48"	0.100"
OVER 48"	0.125"

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._____
EXPIRATION DATE:_____

Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Transportation Planning and Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: JMM Drawn by: AMU Checked by: JMM

SN-01 SIGNING GENERAL NOTES

BOYDS TRANSIT IMPROVEMENTS

SCALE : NTS OCTOBER 2023

Project No. : 32207.003 SHEET 29 of 78

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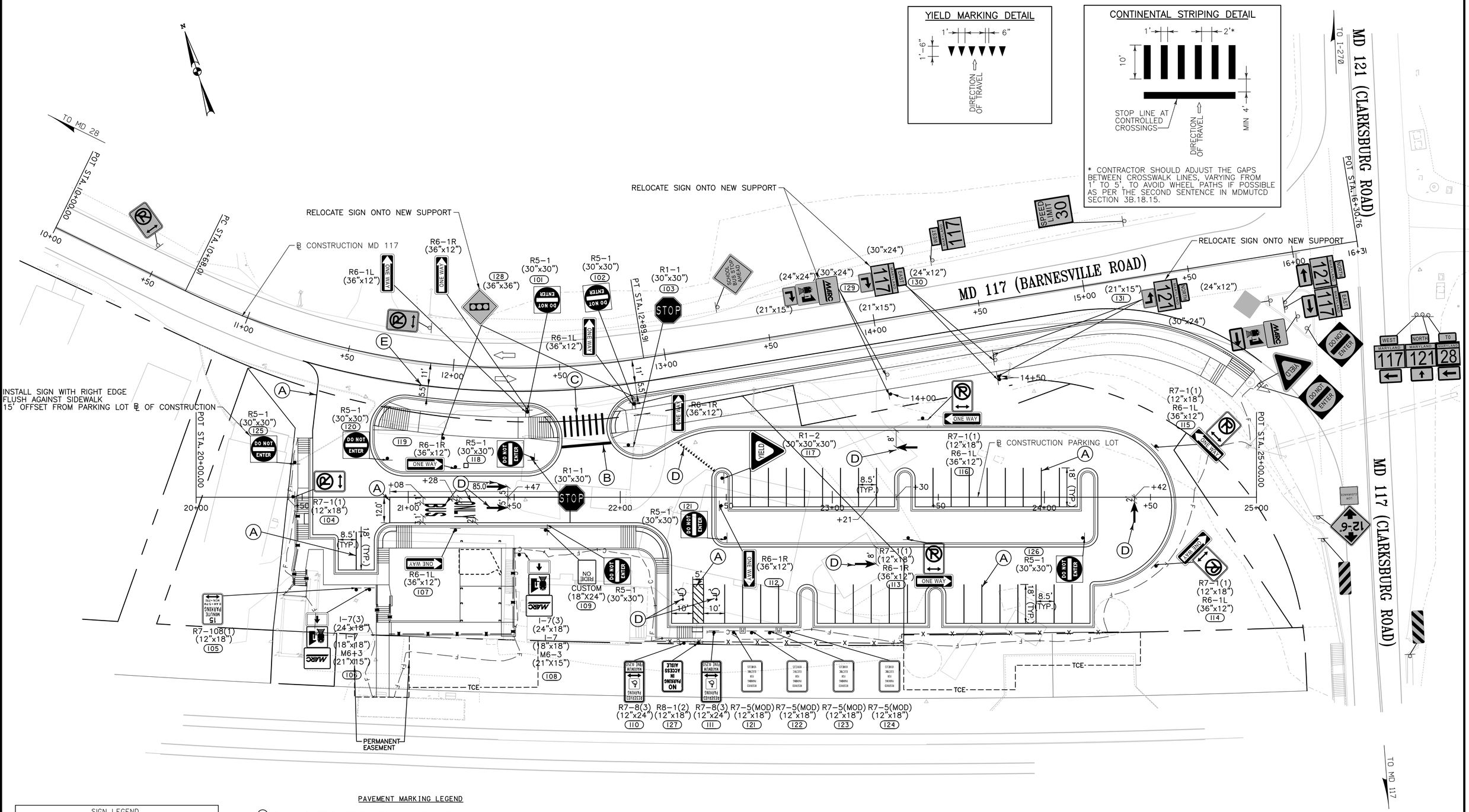
11/2/2023



SIGN LEGEND

- EXISTING GROUND MOUNTED SIGN AND SUPPORT(S)
- PROPOSED GROUND MOUNTED SIGN AND SUPPORT(S)
- EXISTING SIGN
- PROPOSED SIGN
- PAVEMENT MARKING ARROW
- (##) SIGN NO.

PAVEMENT MARKING LEGEND

- (A) 5 INCH WHITE PAVEMENT MARKING PAINT LINES
- (B) 16 INCH WHITE PAVEMENT MARKING PAINT LINES
- (C) 12 INCH WHITE PAVEMENT MARKING PAINT LINES
- (D) WHITE PAVEMENT MARKING PAINT LEGENDS AND SYMBOLS
- (E) 5 INCH SOLID WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKINGS

PROFESSIONAL CERTIFICATION.
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MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Transportation Planning and Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: AMU Drawn by: AMU Checked by: JMM

SN-2.01 – SIGNING AND MARKING PLAN

BOYDS TRANSIT IMPROVEMENTS

SCALE : 1" = 20' OCTOBER 2023

Project No. : 32207.003 SHEET 30 of 78

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11/2/2023

SHEET NO.	SIGN NO.	REMARKS	CODE NUMBERS*							
			1	2	3	4	5	6	7	8
SN-2.01	101	R5-1 (30"x30"), R6-1R (36"x12"), R6-1L (36"x12")	12.25	1						
	102	R5-1 (30"x30"), R6-1R (36"x12"), R6-1L (36"x12")	12.25	1						
	103	R1-1 (30"x30")	6.25	1						
	104	R7-1(1) (12"x18")	1.5	1						
	105	R7-108(1) (12"x18")	1.5	1						
	106	I-7(3) (24"x18"), I-7 (18"x18"), M6-3 (21"x15")	7.4375	1						
	107	R6-1L (36"x12")	3	1						
	108	I-7(3) (24"x18"), I-7 (18"x18"), M6-3 (21"x15")	7.4375	1						
	109	CUSTOM (18"x24")	3	1						
	110	R7-8(3) (12"x24")	2	1						
	111	R7-8(3) (12"x24")	2	1						
	112	R6-1R (36"x12")	6	1						
	113	R7-1(1) (12"x18"), R6-1R (36"x12")	4.5	1						
	114	R7-1(1) (12"x18")	1.5	1						
	115	R7-1(1) (12"x18")	1.5	1						
	116	R7-1(1) (12"x18"), R6-1L (36"x12")	9.25	1						
	117	R1-2 (30"x30"x30")	6.25	1						
	118	R5-1 (30"x30")	12.25	1						
	119	R6-1R (36"x12")	3	1						
	120	R5-1 (30"x30")	6.25	1						
	121	R7-5(MOD) (12"x18")	1.5	1						
	122	R7-5(MOD) (12"x18")	1.5	1						
	123	R7-5(MOD) (12"x18")	1.5	1						
	124	R7-5(MOD) (12"x18")	1.5	1						
	125	R5-1 (30"x30")	6.25	1						
	126	R5-1 (30"x30")	6.25	1						
	127	R8-1(2) (12"x18")	1.5	1						
	128	RELOCATE EX. W3-3 (36"x36")		1	9					
	129	RELOCATE EX. I-7(3) (30"x24"), I-7 (24"x24"), M5-1(R) (21"x15")		1	12					
	130	RELOCATE EX. M3-2 (24"x12"), M1-5(1) (30"x24"), M5-1(R) (21"x15")		1	10					
	131	RELOCATE EX. M3-2 (24"x12"), M1-5(1) (30"x24"), M5-1(L) (21"x15")		1	10					
		PAVEMENT MARKING QUANTITIES				810	70	25	460	96
		PROPOSED QUANTITIES	136	31	41	810	70	25	460	96

	*CODE NUMBERS DESCRIPTION AND UNITS	
CODE NUMBERS	DESCRIPTION	UNIT
1	SHEET ALUMINUM SIGNS	SF
2	SQUARE PERFORATED TUBULAR STEEL SIGN POST AND ANCHOR BASE	EA
3	RELOCATE EXISTING GROUND MOUNTED SIGN	SF
4	5 INCH WHITE PAVEMENT MARKING PAINT LINES	LF
5	12 INCH WHITE PAVEMENT MARKING PAINT LINES	LF
6	16 INCH WHITE PAVEMENT MARKING PAINT LINES	LF
7	5 INCH WHITE THERMOPLASTIC PAVEMENT MARKINGS	LF
8	PAVEMENT MARKING PAINT LEGENDS AND SYMBOLS	SF

PROFESSIONAL CERTIFICATION.
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NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Transportation Planning and Design Section _____ Date

APPROVED

Chief, Division of Transportation Engineering _____ Date

Designed by: AMU Drawn by: AMU Checked by: JMM

SN-11 - SIGNING AND MARKING QUANTITIES

BOYDS TRANSIT IMPROVEMENTS

SCALE : 1" = 20' OCTOBER 2023

Project No. : 32207.003 SHEET 31 of 78

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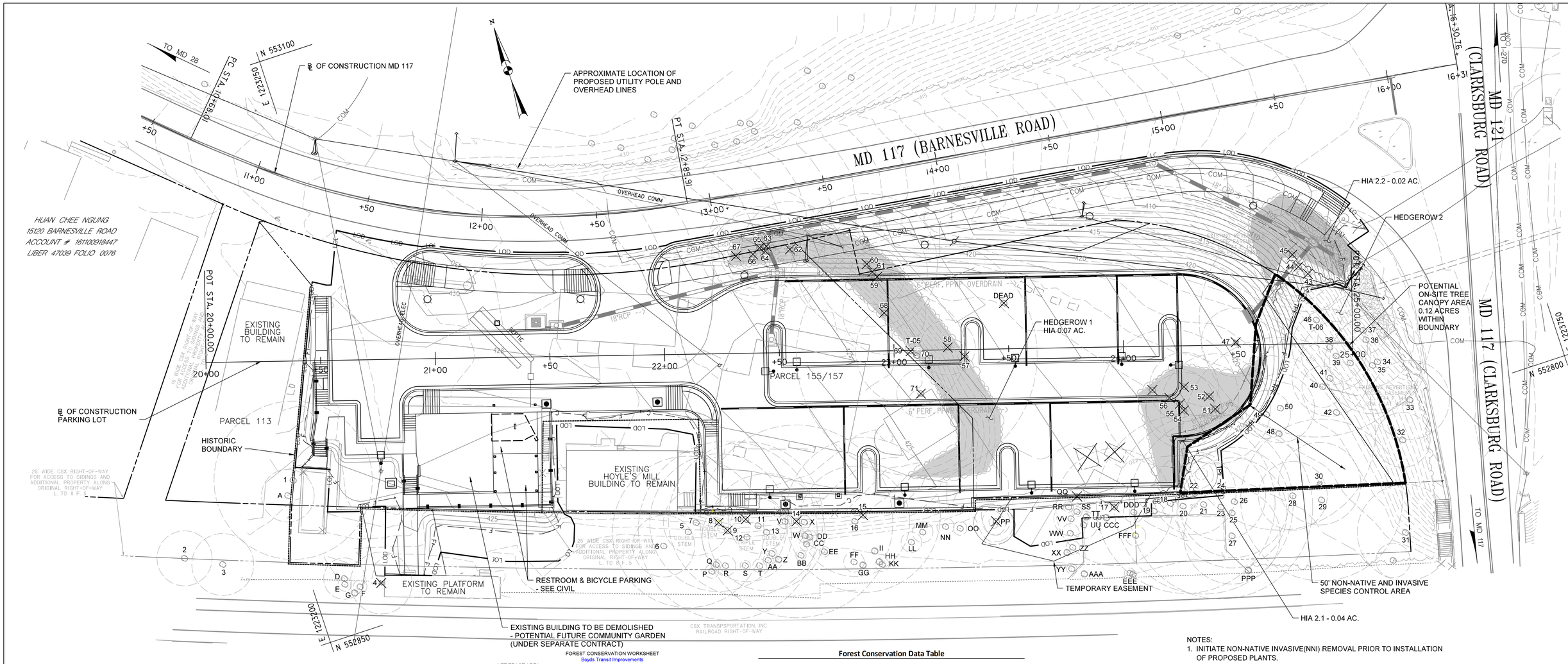
11/2/2023



LEGEND

- EXISTING TREE WITH CRITICAL ROOT ZONE
- EXISTING TREE TO BE REMOVED
- SPECIMEN TREE WITH CRITICAL ROOT ZONE (T-00)
- HEDGE ROW IMPACT AREA (HIA) - 0.13AC. TOTAL
- PROPOSED WOODED EDGE
- TPF — TREE PROTECTION FENCE & TREE ROOT PRUNING

FOREST CONSERVATION WORKSHEET
Boyds Transit Improvements

NET TRACT AREA:

A. Total tract area ... Includes 1.16 for parcels 157/155 and disturbance offsite		1.40
B. Land dedication acres (parks, county facility, etc.) ...		0.00
C. Land dedication for roads or utilities (not being constructed by this plan) ...		0.00
D. Area to remain in commercial agricultural production/use ...		0.00
E. Other deductions (Includes deduction for Hoyles Mill historic property to be preserved)		0.06
F. Net Tract Area ..... =		1.34

LAND USE CATEGORY: (from *Trees Technical Manual*)
Input the number "1" under the appropriate land use, limit to only one entry.

ARA	MDR	IDA	HDR	MPD	CIA
0	0	1	0	0	0

G. Afforestation Threshold ...	15%	x F =	0.20
H. Conservation Threshold ...	20%	x F =	0.27

EXISTING FOREST COVER:

I. Existing forest cover ..... =	0.00
J. Area of forest above afforestation threshold ..... =	0.00
K. Area of forest above conservation threshold ..... =	0.00

BREAK EVEN POINT:

L. Forest retention above threshold with no mitigation .... =	0.00
M. Clearing permitted without mitigation ..... =	0.00

PROPOSED FOREST CLEARING:

N. Total area of forest to be cleared ..... =	0.00
O. Total area of forest to be retained ..... =	0.00

PLANTING REQUIREMENTS:

P. Reforestation for clearing above conservation threshold .... =	0.00
Q. Reforestation for clearing below conservation threshold .... =	0.00
R. Credit for retention above conservation threshold ..... =	0.00
S. Total reforestation required ..... =	0.00
T. Total afforestation required ..... =	0.20
U. Credit for landscaping (may not exceed 20% of "S") ..... =	0.00
V. Total reforestation and afforestation required ..... =	0.20

worksheet updated 8/5/2002

Forest Conservation Data Table

	Number of Acres
Tract	1.3
Remaining in Agricultural Use	-
Road & Utility ROWs[1]	-
Total Existing Forest	-
Forest Retention	-
Forest Cleared	-

Land Use & Thresholds[2]

Land Use Category	IDA	ARA, MDR, IDA, HDR, MDP, or CIA.
Conservation Threshold	20%	percent
Afforestation Threshold	15%	percent

	Total Channel Length (ft.)	Average Buffer Width (ft.)[3]
Stream(s)	-	-

Acres of Forest in	Retained	Cleared	Planted
Wetlands	-	-	-
100-Year Floodplain	-	-	-
Stream Buffers	-	-	-
Priority Areas	-	-	-

[1] Only Road or Utility ROWs not to be improved as part of development application.
[2] Information from FC Land Use Categories & Thresholds document.
[3] Measured from stream edge to buffer edge.

20' 0 20' 40'
SCALE: 1" = 20'

NOTES:
1. INITIATE NON-NATIVE INVASIVE(NNI) REMOVAL PRIOR TO INSTALLATION OF PROPOSED PLANTS.
2. INVASIVE REMOVAL SHALL FOLLOW THE STANDARDS OF M-NCPPC INVASIVE REMOVAL SPECS WITH THE EXCEPTION OF NO SOIL DISTURBANCE IS PERMITTED BEYOND THE LIMITS OF DISTURBANCE FOR THE PROJECT.
3. A TWO-YEAR MAINTENANCE CONTRACT SHALL BE INCORPORATED INTO THE CONTRACT
4. STOCKPILE AREAS AND BORROW PITS WERE NOT KNOWN AT THE TIME OF THE CONCEPTUAL PLAN SUBMITTAL.
5. SPECIFICATIONS SHALL FOLLOW MNCPPC STANDARD SPECIFICATINOS AND DETAILS.
6. FCP REFLECTS THE FIELD INVESTIGATION 8-14-2020 OF SPECIMEN TREES AND TREES WITHIN THE HISTORIC DISTRICT ADJACENT TO THE PROPOSED DEVELOPMENT.
7. SEE SHEET LD-03 FOR A COMPREHENSIVE LIST OF TREES ON SITE.

SPECIMEN TREE SUMMARY TABLE (30" and above DBH)

ID	DBH	BOTANICAL/COMMON	CONDITION	REMARKS	RECOMMENDATION
T-05	35"	PRINCESS TREE	POOR	ONE ATTACHED DEAD TRUNK. VINES	REMOVE
T-06	34"	PRINCESS TREE	POOR	IVY COVERED, DEAD LIMBS	RETAIN

PROFESSIONAL CERTIFICATION.
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. ____ EXPIRATION DATE: _____

MAHAN RYKIEL
LANDSCAPE ARCHITECTURE
URBAN DESIGN & PLANNING

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL
Chief, Transportation Planning and Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date

Designed by: J.T.T. Drawn by: M.I.M. Checked by: S.C.S.

TREE PROTECTION PLAN

BOYDS TRANSIT IMPROVEMENTS

SCALE : 1" = 20' OCTOBER 2023

Project No. : 509337 SHEET 32 of 78

LD-01

MCDPS–SC/SWM SHEET NO. 16 OF 18

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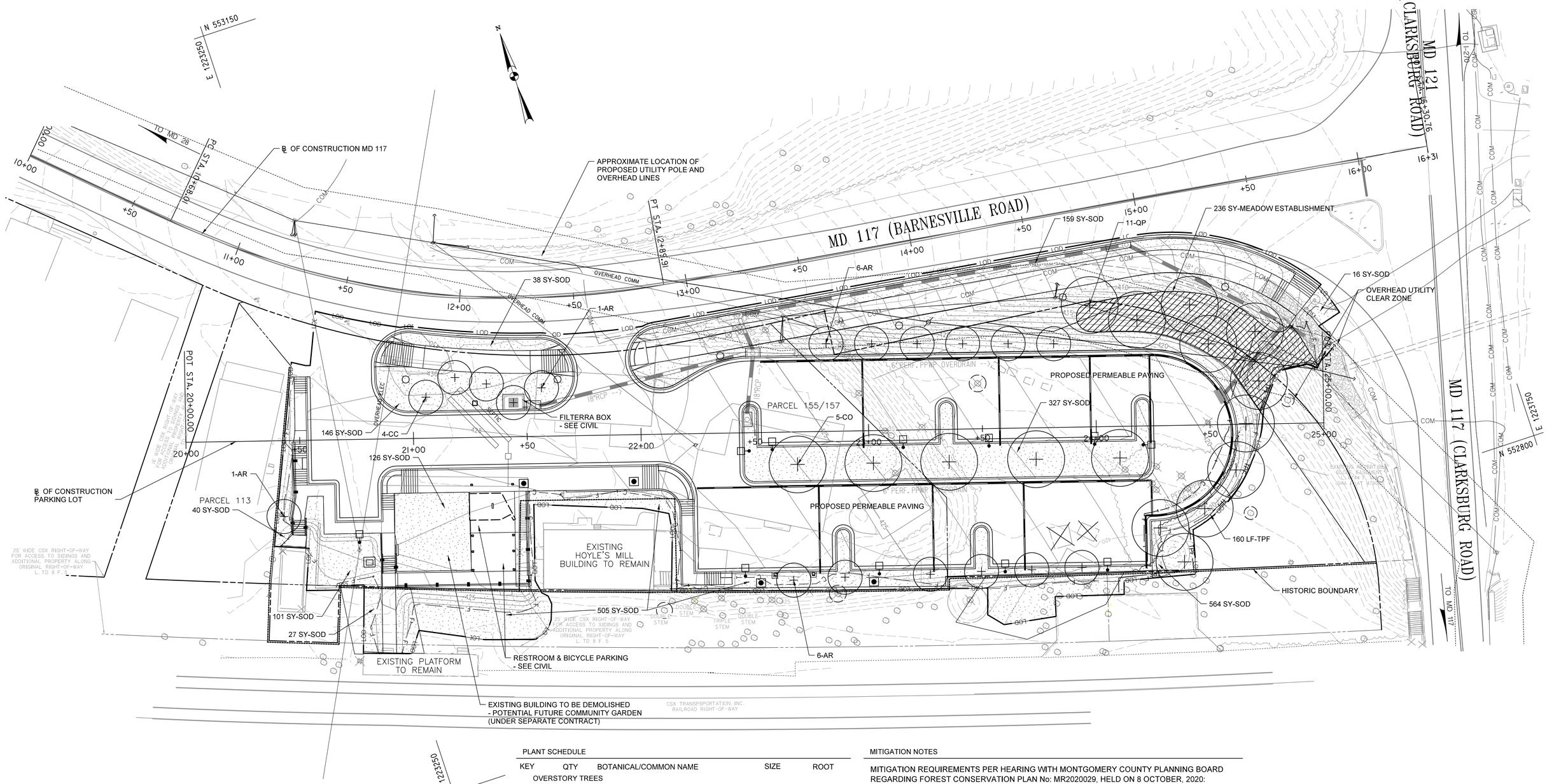

LEGEND

- MAJOR SHADE TREE
- COLUMNAR SHADE TREE
- FLOWERING TREE
- PROPOSED WOODED EDGE
- TPF — PROPOSED TREE PROTECTION FENCE & ROOT PRUNING
- LOD — LIMIT OF DISTURBANCE
- EXISTING TREE TO REMAIN WITH CRZ
- EXISTING TREE TO BE REMOVED
- TURFGRASS SOD ESTABLISHMENT
- MEADOW ESTABLISHMENT

PLANT SCHEDULE

KEY	QTY	BOTANICAL/COMMON NAME	SIZE	ROOT
		OVERSTORY TREES		
CO	5	Celtis occidentalis/Hackberry	3" Cal.	B&B
QP	11	Quercus phellow / Willow Oak	3" Cal.	B&B
		COLUMNAR TREES		
AR	14	Acer rubrum 'Armstrong'/Armstrong Red Maple	3" Cal.	B&B
CC	4	Carpinus caroliniana/American hornbeam	3" Cal.	B&B

2,052 SY - TURFGRASS SOD ESTABLISHMENT (TSE)

236 SY - MEADOW ESTABLISHMENT

160 LF TREE PROTECTION FENCE (TPF)

MITIGATION NOTES

MITIGATION REQUIREMENTS PER HEARING WITH MONTGOMERY COUNTY PLANNING BOARD REGARDING FOREST CONSERVATION PLAN No: MR2020029, HELD ON 8 OCTOBER, 2020:

- PER THE APPROVED VARIANCE, 45 CALIPER INCHES, IN THE FORM OF FIFTEEN (15) NATIVE CANOPY TREES, WITH A MINIMUM SIZE OF THREE (3) CALIPER INCHES, IS REQUIRED.
  - NINETEEN 3" CALIPER TREES ARE PROPOSED, EXCEEDING THE REQUIREMENT.
- WITH NO FOREST CLEARING, AND BY MEETING THE AFFORESTATION THRESHOLD, THE 0.20-ACRE FOREST PLANTING REQUIREMENT WILL BE MET THROUGH PURCHASING CREDITS IN AN OFF-SITE FOREST CONSERVATION BANK.

20' 0 20' 40'
SCALE: 1" = 20'

LD-02

MCDPS-SC/SWM SHEET NO. 17 OF 18

PROFESSIONAL CERTIFICATION.
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EXPIRATION DATE: _____

MAHAN RYKIEL
LANDSCAPE ARCHITECTURE
URBAN DESIGN & PLANNING

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL
Chief, Transportation Planning and Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date

Designed by: J.T.T. Drawn by: M.I.M. Checked by: S.C.S.

LANDSCAPE PLAN

BOYDS TRANSIT IMPROVEMENTS

SCALE : 1" = 20' OCTOBER 2023

Project No. : 509337 SHEET 33 of 78

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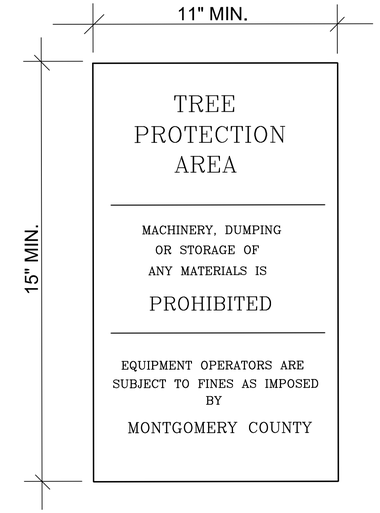
$$DATE/ABB$

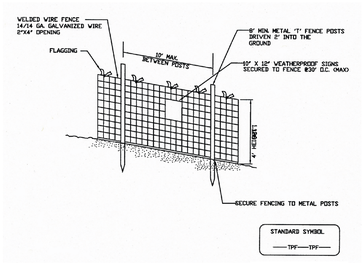


TREE PROTECTION SIGNAGE

NTS

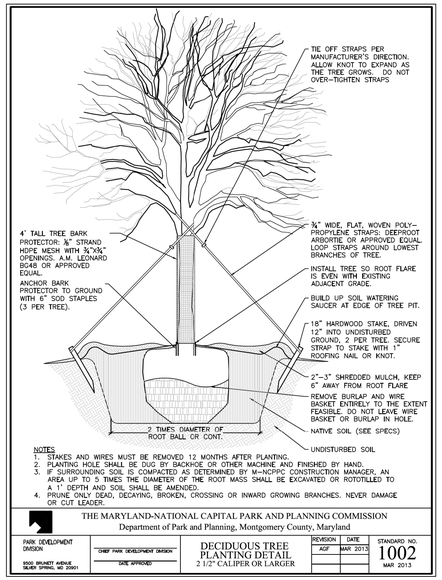
Tree Protection Fence Detail

Not to scale



NOTES

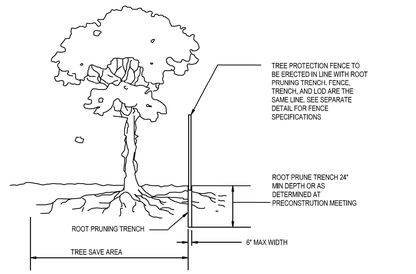
1. Practice may be combined with sediment control fencing.
2. Location and limits of fencing should be coordinated in field with arborist.
3. Boundaries of protection area should be staked prior to installing protective device.
4. Root damage should be avoided.
5. Protection signage is required.
6. Fencing shall be maintained throughout construction.



NOTES
1. STAKES AND WIRES MUST BE REMOVED 12 MONTHS AFTER PLANTING.
2. PLANTING HOLE SHALL BE DUG BY BACKHOE OR OTHER MACHINE AND FINISHED BY HAND.
3. IF SURROUNDING SOIL IS COMPACTED AS DETERMINED BY M-NCPPC CONSTRUCTION MANAGER, AN AREA UP TO 5 TIMES THE DIAMETER OF THE ROOT MASS SHALL BE EXCAVATED OR ROTOTILLED TO A 1' DEPTH AND SOIL SHALL BE AMENDED.
4. PRUNE ONLY DEAD, DECAYING, BROKEN, CROSSING OR INWARD GROWING BRANCHES. NEVER DAMAGE OR CUT LEADER.

THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION
Department of Park and Planning, Montgomery County, Maryland

PARK DEVELOPMENT DIVISION	CHIEF PARK DEVELOPMENT DIVISION	DECIDUOUS TREE PLANTING DETAIL 2 1/2" CALIPER OR LARGER	REVISION	DATE	STANDARD NO.
9500 BRUNETT AVENUE SILVER SPRING, MD 20901	DATE APPROVED		AGF	MAR 2013	1002
					MAR. 2013



NOTES:

1. RETENTION AREAS WILL BE SET AS PART OF THE REVIEW PROCESS AND PRECONSTRUCTION MEETING.
2. BOUNDARIES OF RETENTION AREAS MUST BE STAKED AT THE PRECONSTRUCTION MEETING AND FLAGGED PRIOR TO TRENCHING.
3. EXACT LOCATION OF TRENCH SHALL BE DETERMINED IN THE FIELD IN COORDINATION WITH THE FOREST CONSERVATION (FC) INPECTOR .
4. TRENCH SHOULD BE IMMEDIATELY BACKFILLED WITH EXCAVATED SOIL OR OTHER ORGANIC SOIL AS SPECIFIED PER PLAN OR BY THE FC INSPECTOR.
5. ROOTS SHALL BE CLEANLY CUT USING VIBRATORY KNIFE OR OTHER ACCEPTABLE EQUIPMENT.
6. ALL PRUNING MUST BE EXECUTED WITH LOD SHOWN ON PLANS OR AS AUTHORIZED IN WRITING BY THE FC INSPECTOR.

ROOT PRUNING DETAIL

NTS

INSPECTIONS

All field inspections must be requested by the applicant.

Field Inspections must be conducted as follows:

Plans without Planting Requirements

1. After the limits of disturbance have been staked and flagged, but before any clearing or grading begins.
2. After necessary stress reduction measures have been completed and protection measures have been installed, but before any clearing and grading begin and before release of the building permit.
3. After completion of all construction activities, but before removal of tree protection fencing, to determine the level of compliance with the provision of the forest conservation.

Additional Requirements for Plans with Planting Requirements

4. Before the start of any required reforestation and afforestation planting.
5. After the required reforestation and afforestation planting has been completed to verify that the planting is acceptable and prior to the start the maintenance period.
6. At the end of the maintenance period to determine the level of compliance with the provisions of the planting plan, and if appropriate, release of the performance bond.

DEVELOPER'S CERTIFICATE

The undersigned agrees to execute all the features of Approved Final Forest Conservation Plan No. MR2020029 including financial bonding, forest planting, maintenance, and all other applicable agreements.

Developer's Name: Montgomery County Department of Transportation
Printed Company Name

Contact Person or Owner: Tim Cupples
Printed Name

Address: 100 Edison Park Drive, Fourth Floor Gaithersburg, MD 20878

Phone and Email: 240-777-7214, tim.cupples@montgomerymd.gov

Signature: _____

Sequence of Events for Properties Required to Comply With Forest Conservation Plans, Exemptions from Submitting Forest Conservation Plans, and Tree Save Plans

The property owner is responsible for ensuring all tree protection measures are performed in accordance with the approved final forest conservation plan or tree save plan, and as modified in the field by a Planning Department Forest Conservation Inspector. The measures must meet or exceed the most recent standards published by the American National Standards Institute (ANSI A300).

Pre-Construction

1. An on-site pre-construction meeting is required after the limits of disturbance have been staked and flagged and before any land disturbance.

2. The property owner must arrange for the meeting and following people ~~should~~ must participate at the pre-construction meeting: the property owner or their representative, construction superintendent, International Society of Arboriculture (ISA) certified arborist/Maryland Licensed Tree Expert (representing owner) that will implement the tree protection measures, The Planning Department Forest Conservation Inspector, and Montgomery County Department of Permitting Services (DPS) Sediment Control Inspector. The purpose of this meeting is verify the limits of disturbance and discuss specific tree protection and tree care measures shown on the approved plan. No land disturbance shall begin before tree protection and stress-reduction measures have been implemented and approved by the Planning Department's Forest Conservation Inspector.
   a. Typical tree protection devices include:
      i. Chain link fence (four feet high)
      ii. Super silt fence with wire strung between the support poles (minimum 4 feet high) with high visibility flagging.
      iii. 14 gauge, 2 inch x 4 inch welded wire fencing supported by steel T-bar posts (minimum 4 feet high) with high visibility flagging.
   b. Typical stress reduction measures may include, but are not limited to:
      i. Root pruning with a root cutter or vibratory plow designed for that purpose. Trenchers are not allowed, unless approved by the Forest Conservation Inspector
      ii. Crown Reduction or pruning
      iii. Watering
      iv. Fertilizing
      v. Vertical mulching
      vi. Root aeration systems

   Measures not specified on the Forest Conservation Plan may be required as determined by the Forest Conservation Inspector in coordination with the property owner's arborist.

3. A Maryland Licensed Tree expert must perform, or directly supervise, the implementation of all stress reduction measures. Documentation of the process (including

photographs) may be required by the Forest Conservation Inspector, and will be determined at the pre-construction meeting.

4. Temporary tree protection devices must be installed per the approved Forest Conservation Plan, Exemption Plan, or Tree Save Plan and prior to any land disturbance. The Forest Conservation Inspector, in coordination with the DPS Sediment Control Inspector, may make field adjustments to increase the survivability of trees and forest shown as saved on the approved plan.

5. Tree protection fencing must be installed and maintained by the property owner for the duration of construction project and must not be altered without prior approval from the Forest Conservation Inspector. All construction activity within protected tree and forest areas is prohibited. This includes the following activities:
   a. Parking or driving of equipment, machinery or vehicles of any type.
   b. Storage of any construction materials, equipment, stockpiling, fill, debris, etc.
   c. Dumping of any chemicals (i.e., paint thinner), mortar or concrete remainder, trash, garbage, or debris of any kind.
   d. Felling of trees into a protected area.
   e. Trenching or grading for utilities, irrigation, drainage, etc.

6. Forest and tree protection signs must be installed as required by the Forest Conservation Inspector. The signs must be waterproof and wording provided in both English and Spanish.

During Construction

7. Periodic inspections will be made by the Forest Conservation Inspector. Corrections and repairs to tree protection devices must be completed within the timeframe given by the Inspector.

8. The property owner must immediately notify the Forest Conservation Inspector of any damage to trees, forests, understory, ground cover, and any other undisturbed areas shown on the approved plan. Remedial actions, and the relative timeframes to restore these areas, will be determined by the Forest Conservation Inspector.

Post-Construction

9. After construction is completed, but before tree protection devices have been removed, the property owner must request a final inspection with the Forest Conservation Inspector. At the final inspection, the Forest Conservation Inspector may require additional corrective measures, which may include:
   a. Removal, and possible replacement, of dead, dying, or hazardous trees
   b. Pruning of dead or declining limbs
   c. Soil aeration
   d. Fertilization
   e. Watering
   f. Wound repair

   g. Clean up of retention areas, including trash removal

10. After the final inspection and completion of all corrective measures the Forest Conservation Inspector will request all temporary tree and forest protection devices be removed from the site. Removal of tree protection devices that also operate for erosion and sediment control must be coordinated with both DPS and the Forest Conservation Inspector and cannot be removed without permission of the Forest Conservation Inspector. No additional grading, sodding, or burial may take place after the tree protection feneing is removed.

11. Long-term protection measures, including permanent signage, must be installed per the approved plan. Installation will occur at the appropriate time during the construction project. Refer to the approved plan drawing for the long-term protection measures to be installed.

Tree # for FCP documentation	Tree - Common Name	DBH(inches)	Condition	Comments	Recommendation
1	Black Locust	23.0	Fair	Some Dead Branches. Multi-stem White Mulberry growing at base	Retain, Root Pruning
2	Black Walnut	8.0	Fair	2x Trunk. Dead Branches. Leaning. Bag Worm	Retain
3	Black Walnut	9.0	Fair	2x Trunk. Dead Branches. Leaning. 6"+ Scar on trunk. Bag Worm	Retain
4	Virginia Red Cedar	9.0	Good	3x Trunk. 6,3,3. Trunk adjacent to wall.	Remove
5	Black Locust	22.0	Poor	Significant lean. Dead Branches	Retain, Root Pruning
6	White Mulberry	9.0	Poor	Significant lean. Dead Branches. MCIS	Retain
7	Black Cherry	11.0	Poor	Significant lean. Dead Branches	Retain, Root Pruning
8	Princess Tree	22.0	Poor	Significant lean. Dead Branches. MCIS	Remove to base
9	Princess Tree	28.0	Poor	Dead Branches.	Remove to base
10	Tree of Heaven	13.0	Poor	3x Trunk. 12,13,10. Trunk adjacent to wall. MCIS	Remove to base
11	Tree of Heaven	8.0	Poor	Dead Branches. MCIS	Retain, Root Pruning
12	Tree of Heaven	10.0	Poor	2x Trunk, 10 and 6, Significant lean, Dead Branches. MCIS	Retain, Root Pruning
13	Tree of Heaven	12.0	Poor	3x Trunk. 12",7",8". Covered with vines. Broken branches	Retain, Root Pruning
14	Princess Tree	23.0	Poor	Significant lean. Covered with vines. Dead Branches	Remove to base
15	Boxelder	22.5	Poor	2x Trunk, 16,13, Significant lean, Dead Branches	Remove to base
16	Boxelder	16.0	Dead	Significant lean. Dead Branches	Retain, Root Pruning
17	Black Locust	18.0	Poor	Large cavity at base of trunk. Growing on corner of shed.	Remove to base
18	Princess Tree	17.0	Poor	Significant lean. Covered with vines. Cut top.	Retain, Root Pruning
19	Tree of Heaven	8.0	Poor	Covered with vines. Dead and cut branches. Top Cut.	Retain
20	Princess Tree	26.0	Poor	Covered with Vines. Dead Branches. MCIS	Retain, Root Pruning
21	Tree of Heaven	14.0	Poor	Covered with vines. Dead Branches. MCIS	Retain
22	Tree of Heaven	9.0	Poor	Significant lean. Covered with vines.	Retain, Root Pruning
23	Tree of Heaven	16.0	Poor	Multi-trunk. Covered with vines. Dead Branches. Large scar on trunk.	Retain
24	Tree of Heaven	13.0	Poor	Covered with Vines. Dead Branches. MCIS	Retain
25	Tree of Heaven	16.0	Poor	Multi-trunk. Covered with vines. Dead Branches.	Retain
26	Tree of Heaven	16.0	Poor	Covered with vines. Dead and cut branches.	Retain
27	Tree of Heaven	14.0	Poor	Covered with vines. Dead and cut branches.	Retain
28	Black Cherry	10.0	Poor	Covered with Vines. Dead Branches. Significant Lean.	Retain
29	Boxelder	23.5	Fair/Poor	3x Trunk. 14,10,9. Covered with vines. Dead Branches	Retain
30	Eastern Red Cedar	12.0	Poor	Covered with Vines. Dead Branches. Insect boring damage	Retain
31	Tree of Heaven	14.0	Poor	Covered with Vines. Dead Branches. MCIS	Retain
32	Tree of Heaven	8.0	Poor	Covered with Vines. Dead Branches. MCIS	Retain
33	Tree of Heaven	11.5	Poor	Covered with Vines. Dead Branches. MCIS	Retain
34	Tree of Heaven	14.0	Poor	Covered with Vines. Dead Branches. MCIS	Retain
35	Tree of Heaven	10.0	Poor	Covered with Vines. Dead Branches. MCIS	Retain
36	Tree of Heaven	10.0	Poor	Covered with Vines. Dead Branches. MCIS	Retain
37	Tree of Heaven	7.0	Poor	Covered with Vines. Dead Branches. MCIS	Retain
38	Tree of Heaven	11.0	Poor	Covered with Vines. Dead Branches. MCIS	Retain
39	Tree of Heaven	10.0	Poor	Covered with Vines. Dead Branches. MCIS	Retain
40	Tree of Heaven	6.0	Poor	Covered with Vines. Dead Branches. MCIS	Retain
41	Tree of Heaven	11.0	Poor	Covered with Vines. Dead Branches. MCIS	Retain
42	Tree of Heaven	14.0	Poor	Covered with Vines. Dead Branches. MCIS	Retain
43	Tree of Heaven	11.0	Poor	Covered with Vines. Dead Branches. MCIS	Retain, Root Pruning
44	Tree of Heaven	10.0	Poor	Covered with Vines. Dead Branches. MCIS	Remove
45	Tree of Heaven	12.0	Poor	Covered with Vines. Dead Branches. MCIS	Remove
46	Tree of Heaven	34.0	Poor	T-06 Specimen. Covered with Vines. Dead Branches. MCIS	Retain, Root Pruning
47	Eastern Red Cedar	10.0	Fair	Covered with Vines.	Remove
48	Princess Tree	28.0	Fair/Poor	Covered with vines. Dead Branches. MCIS	Retain, Root Pruning
49	Boxelder	7.0	Poor	Covered with Vines. Dead Branches.	Retain
50	Boxelder	10.0	Poor	Covered with Vines. Dead Branches.	Retain
51	Boxelder	16.0	Fair	2x Trunk, 11 and 10	Remove
52	Boxelder	Dead	Dead	Dead	N/A
53	Boxelder	10.0	Poor	Covered with Vines. Dead Branches.	Remove
54	White Mulberry	11.0	Poor	2x Trunk, 8 and 6. Vine covered. MCIS	Remove
55	Boxelder	10.0	Poor	Covered with Vines. Dead Branches.	Remove
56	Boxelder	20.0	Poor	Covered with Vines. Dead Branches.	Remove
57	American Elm	Dead	Dead	Dead	N/A
58	Sassafras	8.0	Poor	Vine covered. Dead Branches. 2 Trees adjacent to each other	Remove
59	Sassafras	8.0	Poor	Vine covered. Dead Branches.	Remove
60	Princess Tree	20.5	Poor	2x Trunk, 13 and 14. one dead trunk. MCIS	Remove
61	American Elm	16.0	Poor	Vine covered. Dead Branches.	Remove
62	American Elm	14.0	Poor	Vine covered. Dead Branches.	Remove
63	Black Gum	17.0	Poor	3x Trunk. 10,6,8. Covered with vines. Dead Branches	Remove
64	Black Gum	8.0	Fair	Some Vines	Remove
65	Black Gum	12.0	Fair	Some Vines	Remove
66	Black Gum	12.0	Fair	Some Vines	Remove
67	Black Gum	10.0	Fair	Some Vines	Remove
68	Black Cherry	12.0	Fair	Dead Branches.	Remove
69	American Elm	16.0	Poor	Vine covered. Dead Branches.	Remove
70	Princess Tree	35.0	Poor	T5 Specimen. 2x Trunk, 35" live and 30" dead trunk. MCIS	Remove
71	Common Hackberry	7.0	Fair	Some dead branches.	Remove

8/19/2020

Tree # for FCP documentation	Tree- Common Name	DBH(inches)	Condition	Comments	
A	White Mulberry	9.0	Fair	Triple stem-7", 8", 9". Branch die back. Growing at base of Black Locust	Retain
D	Black Locust	6.0	Good	Some vines around base.	Retain
E	Black Locust	2.0	Fair	Growing next to wall. Leaning. Main leader cut.	Retain
F	Silver Maple	1.5	Good	Growing next to wall. Under Overhead utility lines	Retain
G	Eastern Red Cedar	1.0	Good	Growing next to wall. Under Overhead utility lines	Retain
P	Hackberry	2.0	Poor	Significant lean. Covered with vines.	Retain
Q	Tree of Heaven	1.5	Poor	Significant lean. Covered with vines.	Retain
R	Tree of Heaven	3.0	Poor	Significant lean. Covered with vines.	Retain
S	Silver Maple	1.5	Fair	Significant lean. Covered with vines.	Retain
T	Silver Maple	2.0	Poor	2x Trunk. Top Cut-off. Vine covered.	Retain
V	Black Cherry	2.0	Poor	Significant lean. Covered with vines. Cut and dead branches.	Retain
W	Tree of Heaven	2.0	Poor	Growing out of fence. Cut top/branches. Covered with vines.	Retain
X	Staghorn Sumac	2.0	Poor	Significant lean. Covered with vines. Cut top.	Retain
Y	Black Walnut	1.5	Poor	Covered with vines. Cut branches.	Retain
Z	White Mulberry	1.0	Poor	Covered with vines. Cut branches.	Retain
AA	Boxelder	1.5	Poor	Covered with vines. Cut branches.	Retain
BB	White Mulberry	1.5	Poor	Covered with vines. Cut branches.	Retain
CC	Black Walnut	2.0	Poor	Covered with vines. Cut branches.	Retain
DD	Staghorn Sumac	2.0	Poor	Significant lean. Covered with vines.	Retain
EE	Black Walnut	1.5	Poor	Significant lean. Covered with vines.	Retain
FF	Black Walnut	3.0	Fair	Covered with vines.	Retain
GG	Tree of Heaven	1.0	Poor	Cut off top. Adjacent to RR tracks	Retain
HH	Black Walnut	1.0	Poor	Cut off top. Adjacent to RR tracks.Covered with vines.	Retain
II	White Mulberry	1.0	Poor	Covered with vines. Cut branches.	Retain
KK	Tree of Heaven	2.0	Fair	Some vines in canopy.	Retain
LL	Black Walnut	3.0	Fair	Some vines in canopy	Retain
MM	Black Walnut	3.0	Poor	Girdling vines on trunk and canopy.	Retain
NN	Black Walnut	2.5	Poor	Girdling vines on trunk and canopy.	Retain
OO	Tree of Heaven	2.0	Fair	Long scar down trunk. Cut	Retain
PP	Black Locust	4.0	Fair	Some Dead Branches.	Remove
QQ	Tree of Heaven	2.5	Poor	Covered with vines. Dead branches.	Remove
RR	Tree of Heaven	1.5	Fair	Leaning. Some vines in canopy.	Retain
SS	Tree of Heaven	1.5	Poor	Covered with vines. Dead branches.	Retain
TT	Tree of Heaven	1.0	Poor	Significant lean. Covered with vines.	Retain
UU	Tree of Heaven	4.0	Fair	Some vines in canopy.	Retain
VV	Tree of Heaven	5.0	Poor	Covered with vines. Cut branches.	Retain
WW	Black Walnut	2.5	Fair	Some vines	Retain
XX	Black Walnut	1.0	Fair	Tree of Heaven growing at base	Retain
YY	Black Walnut	1.5	Fair	Some vines in canopy.	Retain
ZZ	Black Walnut	2.0	Fair	Some vines in canopy.	Retain
AAA	Tree of Heaven	1.0	Fair	Some vines in canopy.	Retain
CCC	Tree of Heaven	1.0	Poor	Girdling vines on trunk and canopy.	Retain
DDD	Tree of Heaven	3.0	Poor	Girdling vines on trunk and canopy.	Retain
EEE	Tree of Heaven	1.5 & 1.0	Poor	2 Trees directly next to each other. Topped. Covered w/vines.	Retain
FFF	Tree of Heaven	3.0	Poor	Covered with vines. Dead and cut branches.	Retain
PPP	Tree of Heaven	1.0	Poor	Cut top. Dead Branches.	Retain

LD-03

MCDPS-SC/SWM SHEET NO. 18 OF 18

PROFESSIONAL CERTIFICATION.
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. ____ EXPIRATION DATE: _____

MAHAN RYKIEL
LANDSCAPE ARCHITECTURE
URBAN DESIGN & PLANNING

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Transportation Planning and Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: J.T.T. Drawn by: M.I.M. Checked by: S.C.S.

DETAILS AND NOTES

BOYDS TRANSIT IMPROVEMENTS

SCALE : NTS OCTOBER 2023

Project No. : 509337 SHEET 34 of 78

$$$$DONOTPLOTTHISSHEET$$$$
$$DATE/@@$$

MD 117 (BARNESVILLE ROAD)

HUAN CHEE NGUNG
15120 BARNESVILLE ROAD
ACCOUNT # 1611000918447
LIBER 47039 FOLIO 0076

16' WIDE CSX RIGHT-OF-WAY FOR ACCESS TO SIDINGS AND ADDITIONAL PROPERTY ALONG ORIGINAL RIGHT-OF-WAY L.TD 8 F.5

TAX ID: 11-00920268
PARCEL P113
BARUA PRAKASH
L. 35442 F. 167
4592 S.F. - 0.105 AC.

JOHN CAVELL
15110 BARNESVILLE ROAD
ACCOUNT # 1100920268
LIBER 35442 FOLIO 167

25' WIDE CSX RIGHT-OF-WAY FOR ACCESS TO SIDINGS AND ADDITIONAL PROPERTY ALONG ORIGINAL RIGHT-OF-WAY L.TD 8 F.5

CSX TRANSPORTATION, INC.
LIBER TD 8 FOLIO 5

N / F
PUBLIC ROAD

PVC CLEANOUT

4" PERF. PVC

4" PERF. PVC

4" PVC

REMOVE AND REPLACE EXISTING PIPING

1,500 GALLON, DUAL COMPARTMENT, PRECAST CONCRETE SEPTIC TANK WITH TRAFFIC RATED LIDS

CAST IRON CLEANOUT

REMOVE EXISTING SEPTIC TANK

4" PVC

4" PVC

PVC CLEANOUT

BUILDING WITH SINGLE RESTROOM FOR TRANSIT STAFF ONLY

1" WATER

TAX ID: 13-00913593
PARCEL P157
OTTO ANDERSON EXEMPT TRUST
L. 54782 F. 491
PARCEL 1
28,483.25 S.F. - 0.6768 AC.

EXISTING HOYLE'S MILL BUILDING TO REMAIN

25' WIDE CSX RIGHT-OF-WAY FOR ACCESS TO SIDINGS AND ADDITIONAL PROPERTY ALONG ORIGINAL RIGHT-OF-WAY L.TD 8 F.5

CSX TRANSPORTATION, INC.
LIBER TD 8 FOLIO 5

TCE

PERMANENT EASEMENT

CSX TRANSPORTATION, INC.
RAILROAD RIGHT-OF-WAY

SEPTIC SYSTEM REPAIR NOTES

THE BELOW NOTES AND THE INFORMATION SHOWN ON THIS DRAWING SHALL BE USED FOR BIDDING PURPOSES ONLY. ACTUAL REPAIRS WILL BE DETERMINED BY MONTGOMERY COUNTY SEPTIC INSPECTOR DURING AN ONSITE INSPECTION.

1. EXCAVATE MINIMUM AMOUNT OF SOIL NECESSARY TO REMOVE EXISTING SEPTIC TANK AND PIPING ONLY. FOR BIDDING PURPOSES, IT IS ASSUMED THAT THE PIPING IS LOCATED AT A DEPTH OF APPROXIMATELY 5 FEET. DO NOT DISTURB EXISTING STONE IN DISPOSAL TRENCHES BELOW THE EXISTING PIPING.
2. INSTALL NEW 1,500 GALLON, DUAL COMPARTMENT, PRECAST CONCRETE SEPTIC TANK WITH TRAFFIC RATED LIDS.
3. INSTALL NEW 4" SOLID PVC PIPING FROM NEW BUILDING TO BEGINNING OF EXISTING SEPTIC DISPOSAL TRENCHES.
4. INSTALL NEW 4" PERFORATED PVC PIPING IN EXISTING DISPOSAL TRENCHES. INSTALL PVC CLEANOUT AT THE END OF EACH PERFORATED PVC PIPE.
5. INSTALL 2" OF NO. 57 STONE ABOVE THE 4" PERFORATED PVC PIPING.
6. BACKFILL WITH SELECT FILL TO EITHER SUBGRADE OF CONCRETE PAVEMENT SECTION OR 4" BELOW FINISHED GRADE IN TURF AREAS.

HORIZONTAL SCALE: 1"=10'

10' 0 10' 20'

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._____
EXPIRATION DATE:_____

WRA
Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL
Chief, Transportation Planning and Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date

Designed by: MHC Drawn by: MHC Checked by: AUQ

C-101 SEPTIC SYSTEM REPAIR PLAN

BOYDS TRANSIT IMPROVEMENTS

SCALE : 1" = 10' OCTOBER 2023

Project No. : 32207.003 SHEET 35 of 78

N:\32207-003\CADD\32207003C1-01.dgn
11/2/2023

ARCHITECTURAL ABBREVIATIONS

ABV	ABOVE
AC	AIR CONDITIONING (CONDITIONER)
AD	ACCESS DOOR (OR PANEL)
ADA	AMERICANS WITH DISABILITIES ACT
ADD	ADDENDUM
ADJ	ADJACENT
AF	ACCESS FLOOR
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
ALT	ALTERNATE
ALUM	ALUMINUM
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL
ASB	ASBESTOS
ASP	ASPHALT
BC	BOTTOM OF CURB
BD	BOARD
BEN	BENCH
BETW	BETWEEN
BLDG	BUILDING
BM	BEAM
BOT	BOTTOM
BR/S	BACKER ROD AND SEALANT
C	CONDUIT
C/C	CENTER TO CENTER
CAB	CABINET
CEM	CEMENT
CER	CERAMIC
CI	CAST IRON
CG	CORNER GUARD
CH	CEILING HEIGHT
CJ	CONTROL JOINT
CL	CENTERLINE
CLOS	CLOSET
CLG	CEILING
CLR	CLEAR
CMP	CORRUGATED METAL PIPE
CMU	CONCRETE MASONRY UNIT
CO	CLEAR OPENING
COL	COLUMN
COMP	COMPACTED
CONC	CONCRETE
CONSTR	CONSTRUCTION
CONT	CONTINUOUS
CONV	CONVECTOR
CR	COLD ROLLED
CSK	COUNTERSUNK
CT	CERAMIC TILE
CTR	COUNTER
CW	COLD WATER
CX	CONNECT TO EXISTING
D	DOUBLE
DEG	DEGREE
DEMO	DEMOLITION
DET	DETAIL
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIR	DIRECTORY
DN	DOWN
DO	DOOR OPENING
DR	DOOR
DS	DOWNSPOUT
DWG	DRAWING
E	EAST
EA	EACH
EF	EACH FACE
EFS	EXTERIOR FINISH SYSTEM
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRIC OR ELECTRICAL
ELEV	ELEVATOR
EM	ENTRY MAT
EPB	ELECTRIC PANEL BOX
EPS	EXPANDED POLYSTYRENE
EPX	EPOXY
EQ	EQUAL
EQUIP	EQUIPMENT
EST	ESTIMATE
EUH	ELECTRIC UNIT HEATER
EW	EACH WAY
EWC	ELECTRIC WATER COOLER
EWCA	ELECTRIC WATER COOLER – ACCESSIBLE
EXIST	EXISTING
EXP	EXPANSION OR EXPOSED
EXT	EXTERIOR

F	FILLER
FC	FAN COIL UNIT
FD	FLOOR DRAIN OR FIRE DAMPER
FEX	FIRE EXTINGUISHER WALL MOUNT W/O CABINET
FEC	FIRE EXTINGUISHER CABINET
FH	FLAT HEAD
FIRE T	FIRE TREATED
FIN	FINISH OR FINISHED
FIX	FIXTURE
FL	FLASHING
FLR	FLOOR
FR	FIRE RATED
FRC	FIBER–REINFORCED COATING
FS	FOLDING SHELF
FT	FOOT OR FEET
FTG	FOOTING
GA	GAUGE
GALV	GALVANIZED
GB	GRAB BAR
GEN	GENERAL
GL	GLASS
GRD	GROUND
GP	GYPSUM PLASTER
GRT	GROUT
GVP	GYPSUM VENEER PLASTER
GYPB	GYPSUM BOARD (WALL OR CEILING)
GYPBS	GYPSUM BOARD SHAFT–WALL ASSEMBLY
H	HEAD
HB	HORIZONTAL BLIND
HDW	HARDWARE
HM	HOLLOW METAL
HOR	HORIZONTAL
HP	HIGH POINT
HR	HOUR
HT	HEIGHT
HTR	HEATER
HVAC	HEATING, VENTILATING AND AIR CONDITIONING
HW	HOT WATER
ID	INSIDE DIAMETER
IN	INCH
INSUL	INSULATION
INT	INTERIOR
LAV	LAVATORY
LG	LONG
LLV	LONG LEG VERTICAL
LOC	LOCATION
LP	LOW POINT
LT	LIGHT
LTG	LIGHTING
LV	LOUVER
M	MIRROR OR MEN
MACH	MACHINE
MAS	MASONRY
MATL	MATERIAL
MAX	MAXIMUM
MDF	MEDIUM DENSITY FIBERBOARD
MFB	MINERAL FIBER BLANKET
MECH	MECHANICAL
MET	METAL
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MK	MARK
MO	MASONRY OPENING
MR	MOP RACK
MTD	MOUNTED
MTL	METAL
N	NORTH
NA	NOT APPLICABLE
ND	SANITARY NAPKIN DISPENSER
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NTS	NOT TO SCALE
OA	OVERALL
OC	ON CENTER
OD	OUTSIDE DIAMETER
OFF	OFFICE
OPNG	OPENING
OPP	OPPOSITE
OZ	OUNCE

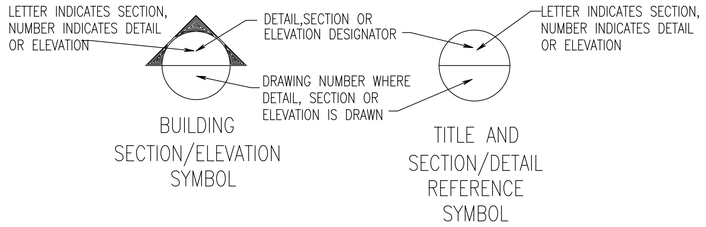
PAV	PAVER TILE
PC	PIECE
PF	PLASTIC FABRICATION
PL	PLATE
PLAM	PLASTIC LAMINATE
PLAS	PLASTER
PREFAB	PREFABRICATED
PRES T	PRESSURE TREATED
PT	PAINT
PTD	PAPER TOWEL DISPENSER
PTN	PARTITION
PVC	POLYVINYL CHLORIDE
QTY	QUANTITY
R	RISER OR RADIUS
RB	RESILIENT WALL BASE AND ACCESSORIES (VINYL BASE; RUBBER BASE; TREADS; NOSING; EDGINGS)
RCP	REINFORCED CONCRETE PIPE
RD	ROOF DRAIN OR ROUND
REBAR	REINFORCING BAR
REINF	REINFORCED OR REINFORCING
RESF	RESINOUS FLOORING
REQ	REQUIRED
REQ'D	REQUIRED
RET	RETURN
REV	REVISION
RF	RESILIENT FLOORING (VINYL; RUBBER; VINYL COMPOSITION; SHEET FLOORING)
RH	ROBE HOOK
RM	ROOM
RO	ROUGH OPENING
RWR	RECESSED WASTE RECEPTACLE
RV	ROOF VENT
RX	REMOVE EXISTING
S	SILL, SOUTH OR SINGLE
SC	SPECIAL COATING (OTHER THAN PAINT SYSTEMS)
SCH	SCHEDULE OR SCHEDULED
SD	SOAP DISPENSER OR STORM DRAIN
SECT	SECTION
SF	SQUARE FOOT OR SQUARE FEET
SH	SHOWER
SHT	SHEET
SIM	SIMILAR
SND	SANITARY NAPKIN DISPENSER
SPEC	SPECIFICATION
SP	STAND PIPE
SQ	SQUARE
SS	STAINLESS STEEL OR SERVICE SINK
SSM	SOLID SURFACING MATERIAL
STAT	STATIONARY
STL	STEEL
STRUCT	STRUCTURAL OR STRUCTURE
SUSP	SUSPENDED
SWR	SURFACE–MOUNTED WASTE RECEPTACLE
SYS	SYSTEM
T	TILE
T&B	TOP & BOTTOM
T&G	TONGUE & GROOVE
TC	TOP OF CURB
TCD	TOILET SEAT COVER DISPENSER
TEL	TELEPHONE
TH	THICK
TO	TOP OF
TOW	TOP OF WALL
TPD	TOILET PAPER DISPENSER
TYP	TYPICAL
U	UNIT
UNO	UNLESS OTHERWISE NOTED
V	VENT
VB	VERTICAL BLIND
VERT	VERTICAL
VIF	VERIFY IN FIELD
VB	VAPOR BARRIER
VS	VERTICAL STANDPIPE

W	WOMEN, WIDTH, WEST OR WOVEN
W/	WITH
WC	WATER CLOSET OR WALL COVERING (VINYL OR TEXTILE WALL COVERING; WALL PAPER)
WD	WOOD
WH	WEEP HOLE
WHT	WHITE
WO	WINDOW OPENING
WP	WATERPROOF OR WORKING POINT
WR	WATER RESISTANT OR WASTE RECEPTACLE
WT	WEIGHT
WWF	WOVEN WIRE FABRIC
YD	YARD
YR	YEAR

LEGEND

- CONCRETE MASONRY UNITS
- GYPSUM BOARD PARTITIONS
- WOOD–FINISH GRADE
- WOOD BLOCKING
- RIGID WALL/PERIMETER INSULATION
- RIGID ROOF INSULATION
- BATT INSULATION
- CONCRETE
- POROUS FILL
- EARTH
- METAL PATTERN

- DOOR NUMBER SYMBOL
- LOUVER NUMBER SYMBOL (L1)
- WINDOW NUMBER SYMBOL (W1)
- ROOM NUMBER SYMBOL
- WALL/BUILDING SECTION SYMBOL
- TITLE AND DETAIL REFERENCE SYMBOL
- PARTITION TYPES
- DEMOLITION KEY NOTES (1)
- CONSTRUCTION KEY NOTES (1)
- REVISION
- NORTH ARROW (CONSTRUCTION NORTH)
- FEX — FIRE EXTINGUISHER – WALL MOUNT W/O CABINET
- FEC — FIRE EXTINGUISHER AND CABINET



BUILDING SECTION/ELEVATION SYMBOL

TITLE AND SECTION/DETAIL REFERENCE SYMBOL

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._____
EXPIRATION DATE:_____

Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Transportation Planning and Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: WRA Drawn by: KMR Checked by: SSS

A–001 – ARCHITECTURAL ABBREVIATIONS & LEGEND

BOYDS TRANSIT IMPROVEMENTS

SCALE : NO SCALE OCTOBER 2023

Project No. : 32207.003 SHEET 36 of 78

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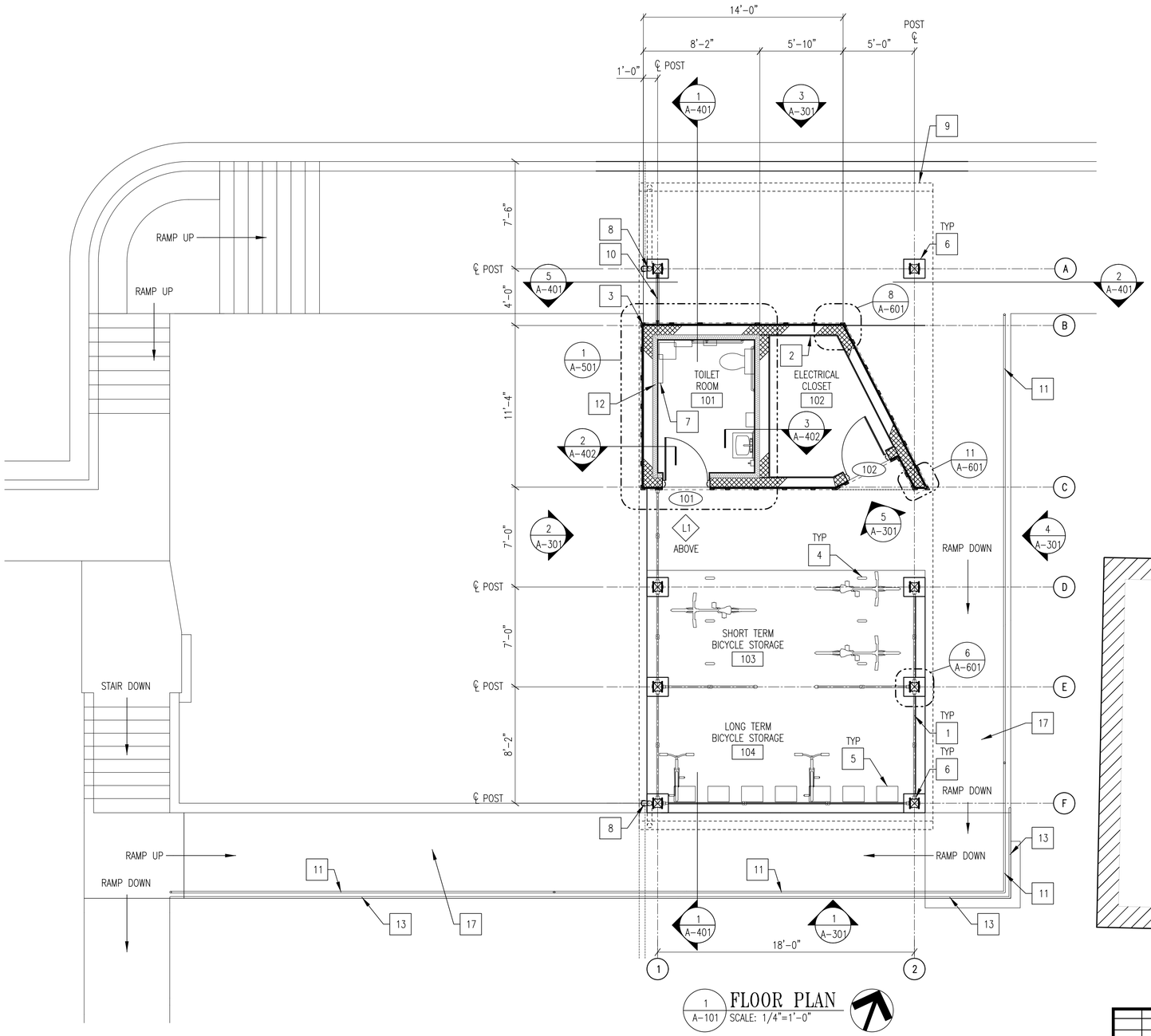
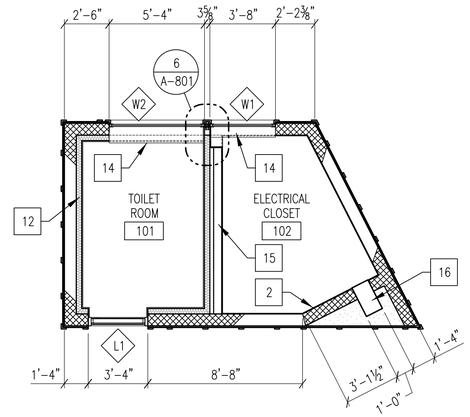
11/2/2023



1 A-101 FLOOR PLAN
SCALE: 1/4"=1'-0"



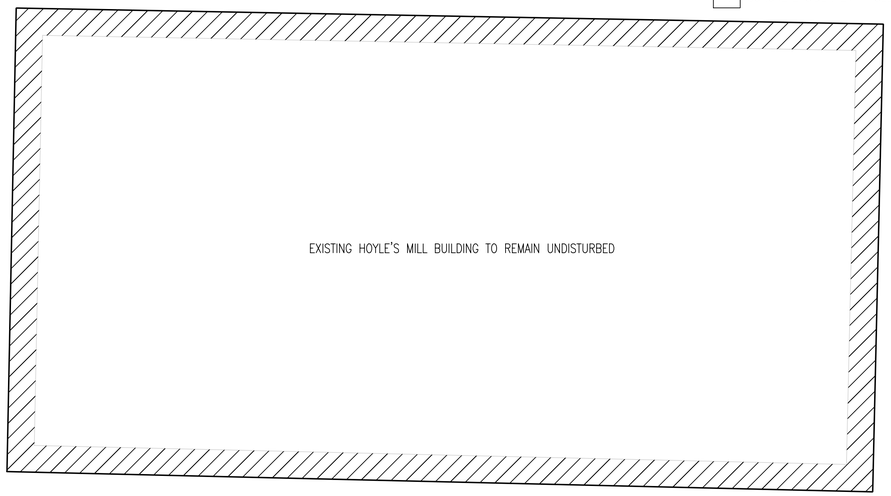
2 A-101 WINDOW AND LOUVER PLAN
SCALE: 1/4"=1'-0"

GENERAL KEYNOTES

1. SEE SHEET A-102 FOR SHORT TERM AND LONG TERM BICYCLE LAYOUTS AND CLEARANCES
2. SEE SHEET A-001 FOR ARCHITECTURAL ABBREVIATIONS AND LEGEND
3. SEE SHEET A-701 FOR HANDRAIL, GUARD RAIL AND PIPE RAILING LAYOUT AND DETAILS

NEW WORK KEYNOTES

1. GALVANIZED SCHEDULE 40 PIPE RAILING
2. 3/4" FIRE-RATED PLYWOOD SHEATHING ON INTERIOR FACE OF ELECTRICAL CLOSET
3. START POINT OF CMU
4. SHORT TERM BICYCLE PARKING, INVERTED U SHAPED RACK
5. LONG TERM BICYCLE STORAGE, VERTICAL HANGING RACK
6. WOOD COLUMN ON CONCRETE PEDESTAL, TYP OF 8 – SEE STRUCTURAL, COLUMN IS WRAPPED IN PVC TRIM PANEL, SEE DETAIL 6/A-601
7. WALL MOUNTED HEATER – SEE MECHANICAL DRAWINGS
8. 4" ROUND DOWNSPOUT WITH BOOT
9. ROOF OUTLINE ABOVE
10. LAMINATED GLASS WINDSCREEN, SEE DETAILS 5 & 9/A-601
11. LUMENLINEAR HANDRAIL OR APPROVED EQUAL, SEE DETAILS ON SHEET A-701
12. 2X4 WOOD STUDS WITH 3 1/2" CAVITY INSULATION UP TO TO OF MASONRY, 1/2" CEMENT BOARD UP TO 12'-0" AFF AND 1/2" GYPSUM WALL BOARD UP TO T.O. MASONRY
13. CABLERAIL GUARD RAIL, SEE DETAILS ON SHEET A-701
14. 1" SOLID WOOD SILL, PAINT PT-1
15. 2X6 WOOD STUDS ON TOP OF CMU WALL WITH 5 1/2" INSULATION
16. 12x12 DUCT THROUGH WALL TO 12X12 VENT IN UNDERSIDE OF SOFFIT
17. CONCRETE SIDEWALK – SEE CIVIL DRAWINGS FOR DETAILS



GRAPHIC SCALES

0 2' 4' 8'
SCALE: 1/4" = 1'-0"

PROFESSIONAL CERTIFICATION.
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EXPIRATION DATE:_____

WRA
Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Transportation Planning and Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: FAH Drawn by: KMR Checked by: SSS

A-101 – FLOOR PLAN

BOYDS TRANSIT IMPROVEMENTS

SCALE : 1/4" = 1'-0" OCTOBER 2023

Project No. : 32207.003 SHEET 37 of 78

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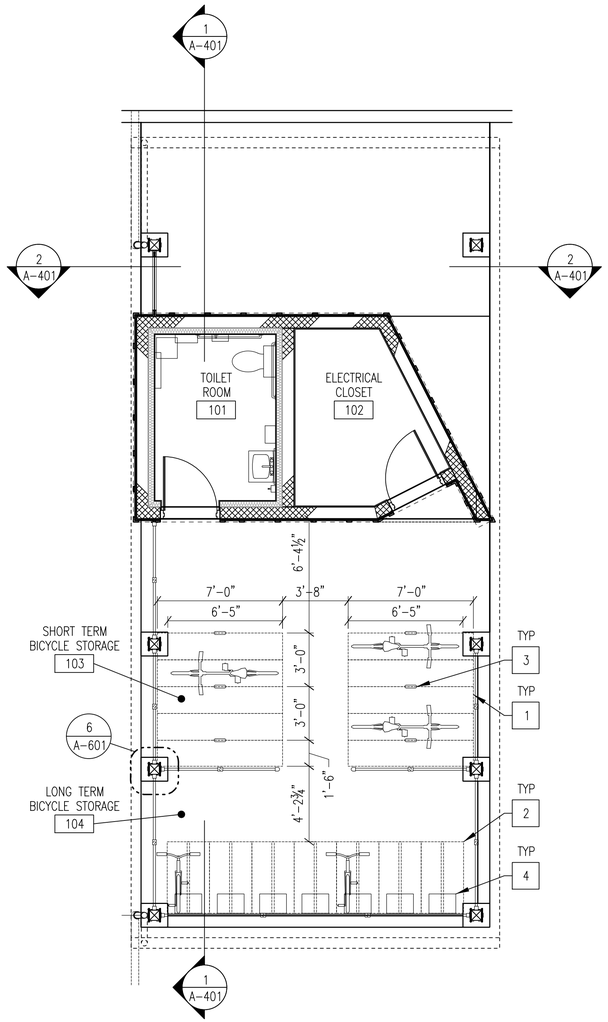
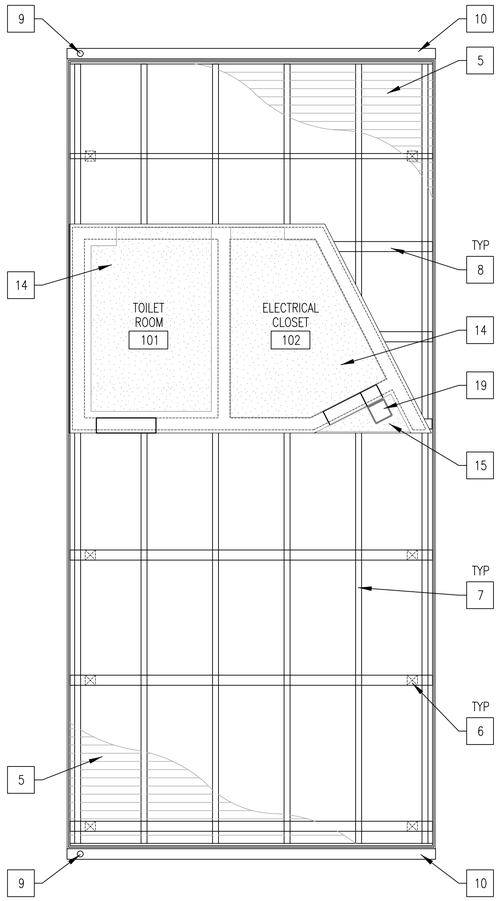
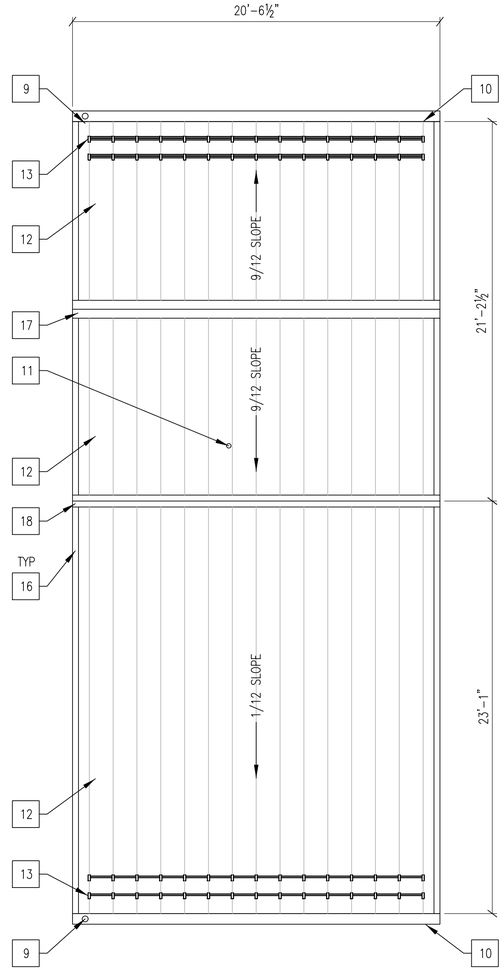
11/7/2023



1 A-102 BICYCLE STORAGE PLAN
SCALE: 1/4"=1'-0"



2 A-102 REFLECTED CEILING PLAN
SCALE: 1/4"=1'-0"



3 A-102 ROOF PLAN
SCALE: 1/4"=1'-0"

GENERAL KEYNOTES

1. SHORT TERM BICYCLE PARKING = 10
   LONG TERM BICYCLE PARKING = 14
   TOTAL BICYCLE PARKING = 24
2. SEE SHEETS A-301 AND A-501 FOR EXTERIOR AND INTERIOR FINISH SCHEDULES

NEW WORK KEYNOTES

1	OUTLINE OF BICYCLE CLEARANCE, 7'-0" x 1'-6"
2	OUTLINE OF BICYCLE CLEARANCE, 4'-0" X 1'-3"
3	SHORT TERM BICYCLE PARKING, INVERTED U SHAPED RACK
4	LONG TERM BICYCLE STORAGE, VERTICAL HANGING RACK
5	EXPOSED T&G WOOD DECK
6	WOOD COLUMN BELOW GLULAM BEAM, TYP OF 8
7	EXPOSED WOOD JOISTS – SEE STRUCTURAL DRAWINGS
8	GLULAM BEAM – SEE STRUCTURAL DRAWINGS
9	4" ROUND DOWNSPOUT
10	7" HALF ROUND GUTTER
11	PLUMBING VENT, SEE 10/A-601 FOR ROOF PENETRATION DETAIL – SEE PLUMBING DRAWINGS
12	STANDING SEAM METAL ROOF, 16" O.C.
13	SNOW/ICE GUARD RAIL
14	GYPSUM BOARD CEILING ATTACHED TO UNDERSIDE OF RAFTERS, SEE INTERIOR FINISH SCHEDULE
15	FIBER CEMENT BOARD SOFFIT, PAINT PT-1, SEE EXTERIOR FINISH SCHEDULE
16	METAL ROOF EDGE TRIM
17	METAL RIDGE CAP
18	METAL FLASHING AT VALLEY
19	12X12 VENT IN SOFFIT – SEE MECHANICAL DRAWINGS

GRAPHIC SCALES

0 2' 4' 8'
SCALE: 1/4" = 1'-0"

PROFESSIONAL CERTIFICATION.
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Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Transportation Planning and Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: FAH Drawn by: KMR Checked by: SSS

A-102 – BIKE STORAGE PLAN, REFLECTED CEILING PLAN, & ROOF PLAN

BOYDS TRANSIT IMPROVEMENTS

SCALE : 1/4" = 1'-0" OCTOBER 2023

Project No. : 32207.003 SHEET 38 of 78

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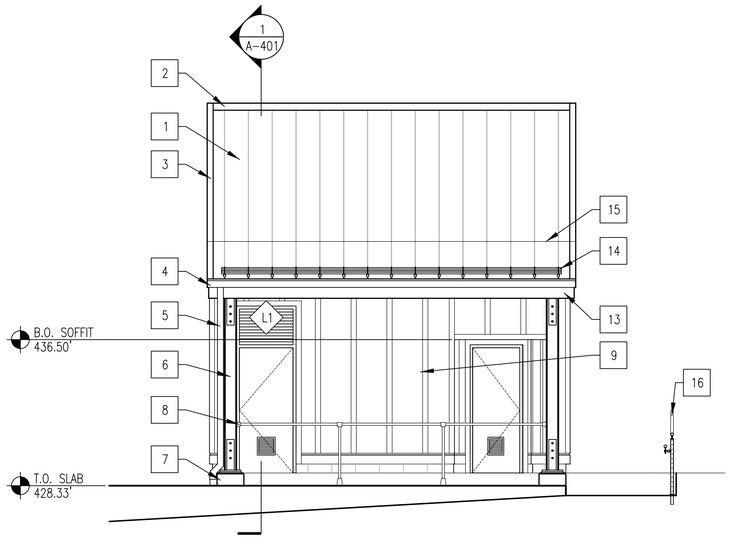
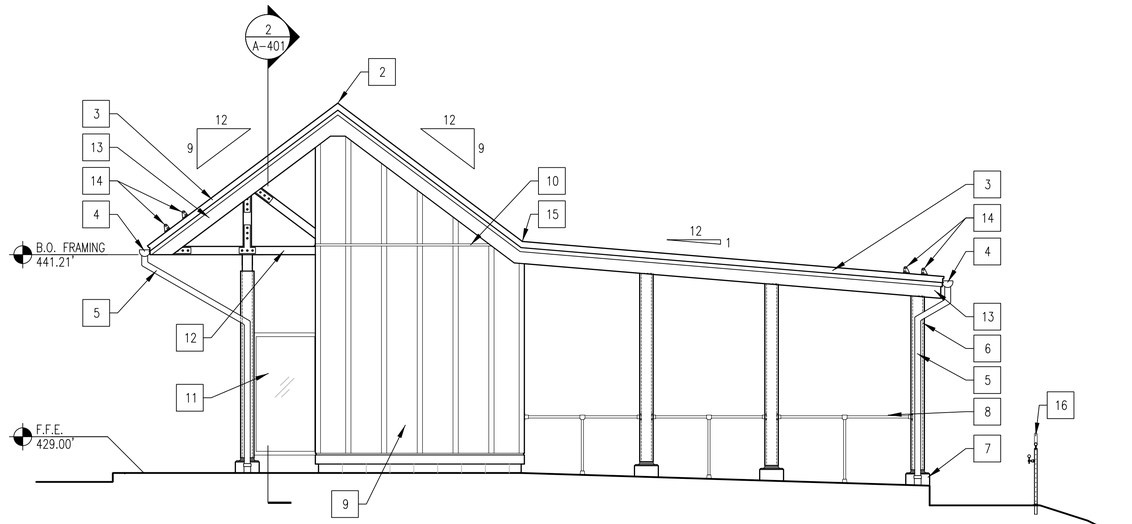
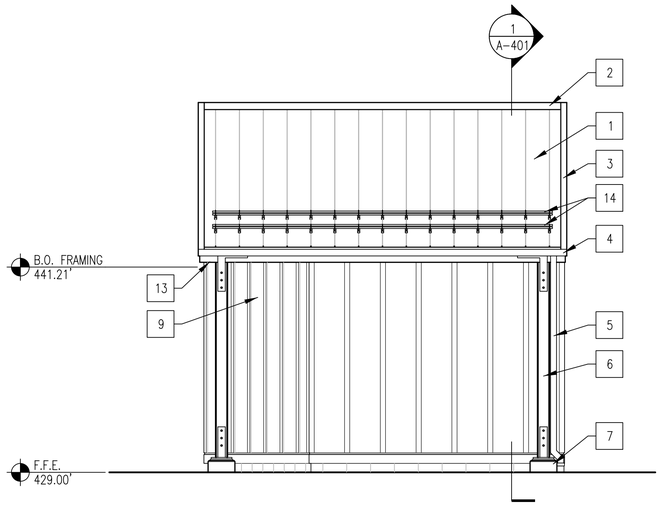
11/2/2023



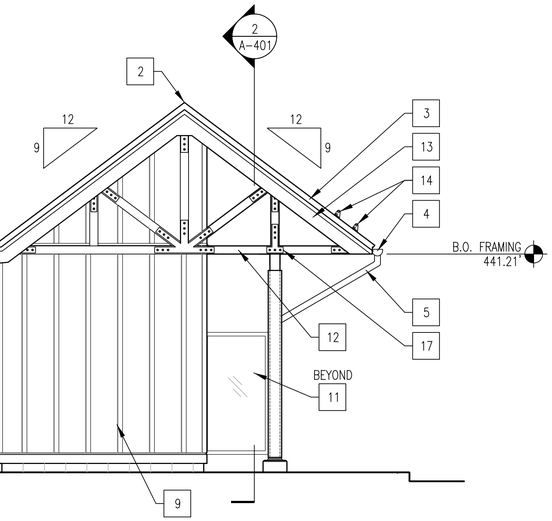
1 A-301 SOUTH ELEVATION
SCALE: 1/4"=1'-0"
REF: A-101



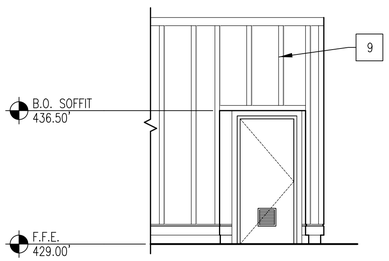
2 A-301 WEST ELEVATION
SCALE: 1/4"=1'-0"
REF: A-101



3 A-301 NORTH ELEVATION
SCALE: 1/4"=1'-0"
REF: A-101



4 A-301 EAST ELEVATION
SCALE: 1/4"=1'-0"
REF: A-101



5 A-301 PARTIAL ELEVATION
SCALE: 1/4"=1'-0"
REF: A-101

GENERAL NOTES

1. SEE SHEET A-001 FOR ARCHITECTURAL ABBREVIATIONS AND LEGEND
2. ALL EXPOSED WALLS, STRUCTURE AND METAL TO BE PAINTED PT-1
3. SEE SHEET A-701 FOR HANDRAIL, GUARD RAIL AND PIPE RAILING LAYOUT AND DETAILS

NEW WORK KEYNOTES

1	STANDING SEAM METAL ROOF, MTP-1
2	METAL RIDGE CAP, MTP-1
3	METAL EDGE ROOF TRIM, MTP-1
4	7" HALF ROUND GUTTER, WHITE
5	4" METAL ROUND DOWNSPOUT WITH BOOT, WHITE
6	WOOD COLUMN WITH PVC TRIM, PT-1
7	CONCRETE PIER – SEE STRUCTURAL DRAWINGS
8	GALVANIZED SCHEDULE 40 PIPE RAILING
9	BOARD AND BATTEN SIDING, PT-1
10	SIDING JOINT FLASHING, PT-1
11	WIND SCREEN, SEE DETAILS 9 ON A-601
12	EXPOSED WOOD FRAMING, PT-1
13	TRIM BOARDS AROUND ROOF PERIMETER, PT-1
14	SNOW/ICE GUARD RAIL
15	VALLEY FLASHING, MTP-1
16	CABLE RAIL GUARD RAIL AND LUMENLINEAR HANDRAIL OR APPROVED EQUAL
17	GUSSET PLATE, SEE STRUCTURAL DRAWINGS, PT-1

EXTERIOR FINISH LIST

DESIGNATION	MANUFACTURER/COLOR	DESCRIPTION
PT-1	BENJAMIN MOORE "WHITE DOVE", PM-9 OR APPROVED EQUAL	PAINT
MTP-1	PPG "FASHION GRAY", PCNT-78166 OR APPROVED EQUAL	METAL ROOF PANEL & TRIM
–	MANU. WHITE	GUTTER & DOWNSPOUT
–	SEE DOOR SCHEDULE	DOOR & FRAME
–	SEE LOUVER TYPES	LOUVER

GRAPHIC SCALES

0 2' 4' 8'
SCALE: 1/4" = 1'-0"

PROFESSIONAL CERTIFICATION.
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Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Transportation Planning and Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: FAH Drawn by: KMR Checked by: SSS

A-301 – EXTERIOR ELEVATIONS

BOYDS TRANSIT IMPROVEMENTS

SCALE : 1/4" = 1'-0" OCTOBER 2023

Project No. : 32207.003 SHEET 39 of 78

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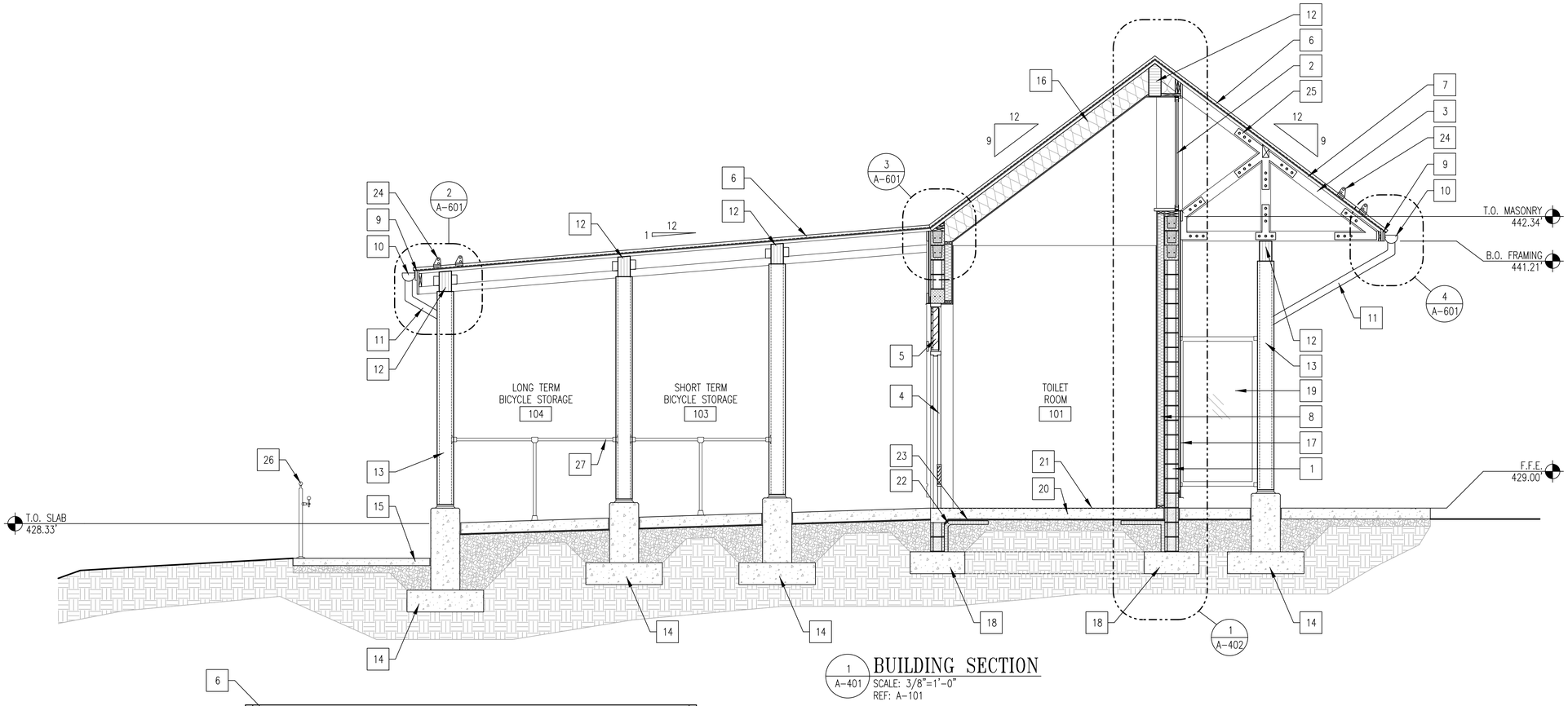
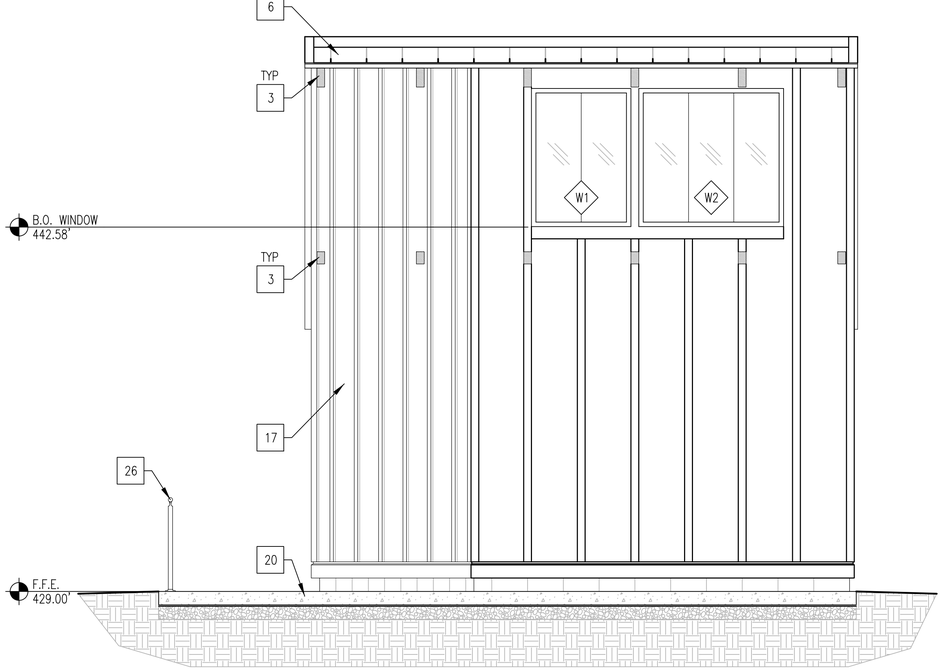
11/2/2023



1 / A-401 BUILDING SECTION
SCALE: 3/8"=1'-0"
REF: A-101



2 / A-401 BUILDING SECTION
SCALE: 3/8"=1'-0"
REF: A-101

GENERAL KEYNOTES

1. SEE SHEET A-501 FOR INTERIOR FINISHES, SEE SHEET A-301 FOR EXTERIOR FINISHES
2. SEE SHEET A-701 FOR HANDRAIL, GUARD RAIL AND PIPE RAILING LAYOUT AND DETAILS

NEW WORK KEYNOTES

1. 8" CMU WALL WITH FLUID-APPLIED AIR BARRIER ON EXTERIOR FACE OF CMU
2. RIBBED POLYCARBONATE WINDOW
3. WOOD FRAMING – SEE STRUCTURAL DRAWINGS
4. FIBERGLASS DOOR AND FRAME WITH LOUVER IN DOOR
5. METAL LOUVER
6. 1 1/2" STANDING SEAM METAL ROOF
7. 2X6 T&G WOOD DECK WITH 7/16" PLYWOOD SHEATHING
8. 2X4 WOOD STUDS WITH 3 1/2" CAVITY INSULATION UP TO UNDERSIDE OF DECK, 1/2" CEMENT BOARD UP TO 12'-0" AFF AND 1/2" GYPSUM WALL BOARD UP TO UNDERSIDE OF DECK, SEE SHEET A-501 FOR FINISH HEIGHTS
9. 1" PVC FASCIA TRIM BOARD
10. 7" HALF ROUND GUTTER
11. 4" METAL ROUND DOWNSPOUT WITH BOOT
12. GLULAM BEAM – SEE STRUCTURAL DRAWINGS
13. WOOD COLUMN WRAPPED IN PVC TRIM PANEL
14. CONCRETE PIER AND FOUNDATION – SEE S-503 WITHIN STRUCTURAL DRAWINGS
15. RAMP DOWN TO TRAIN PLATFORM – SEE CL-01 WITHIN CIVIL DRAWINGS
16. 12" ROOF INSULATION BETWEEN RAFTERS AND 1/2" GYPSUM BOARD ON UNDERSIDE OF ROOF RAFTERS
17. FIBER CEMENT BOARD AND PVC BATTEN SIDING ON 3/4" HAT CHANNELS
18. CONCRETE FOUNDATION – SEE STRUCTURAL DRAWINGS
19. LAMINATED GLASS WINDSCREEN, SEE DETAIL 9/A-601
20. 5" CONCRETE FLOOR SLAB – SEE STRUCTURAL DRAWINGS
21. CERAMIC FLOOR TILE, CT-1
22. 2" PERIMETER RIGID INSULATION
23. 15 MIL VAPOR BARRIER
24. SNOW/ICE GUARD RAIL
25. GUSSET PLATE, SEE STRUCTURAL DRAWINGS
26. CABLE RAIL GUARD RAIL AND LUMENLINEAR HANDRAIL OR APPROVED EQUAL
27. GALVANIZED SCHEDULE 40 PIPE RAILING

GRAPHIC SCALES

0 1' 2' 3' 5'
SCALE: 3/8" = 1'-0"

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Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL
Chief, Transportation Planning and Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date

Designed by: FAH Drawn by: KMR Checked by: SSS

A-401 – BUILDING SECTIONS

BOYDS TRANSIT IMPROVEMENTS

SCALE : AS NOTED OCTOBER 2023

Project No. : 32207.003 SHEET 40 of 78

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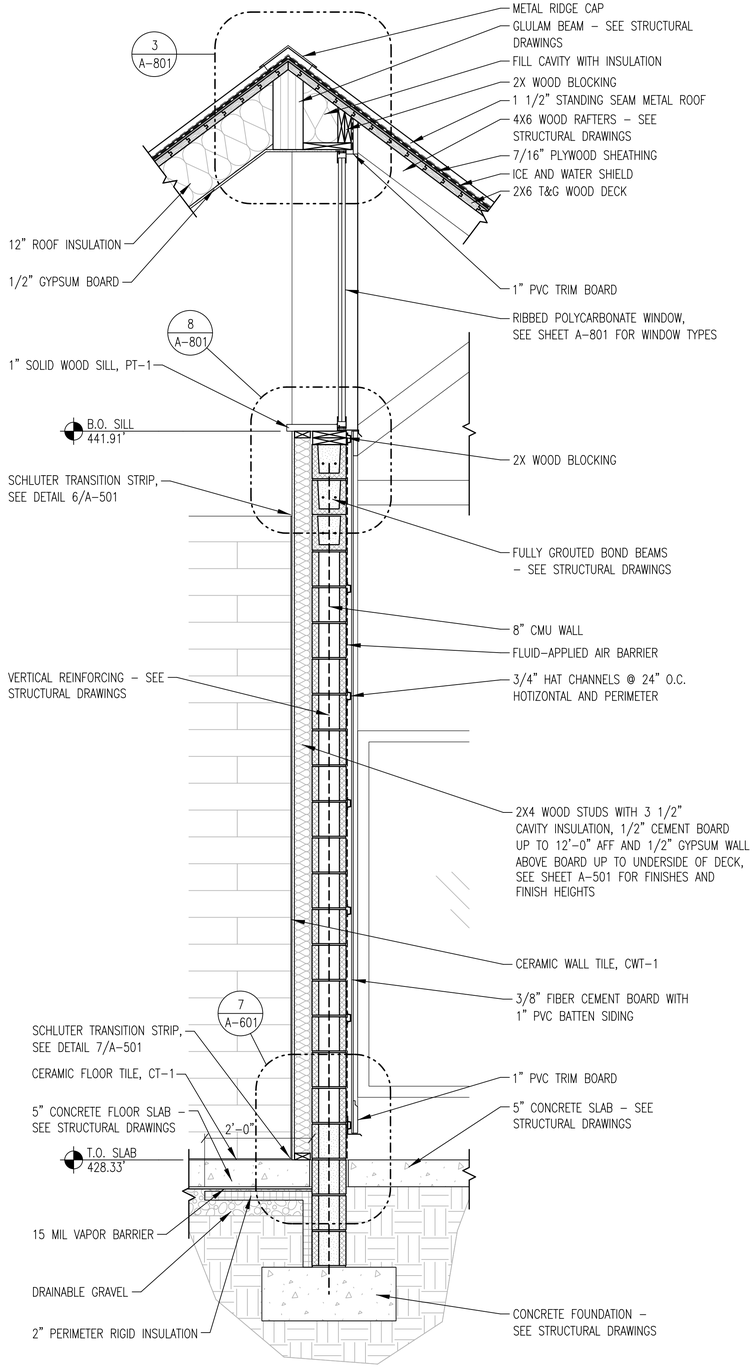
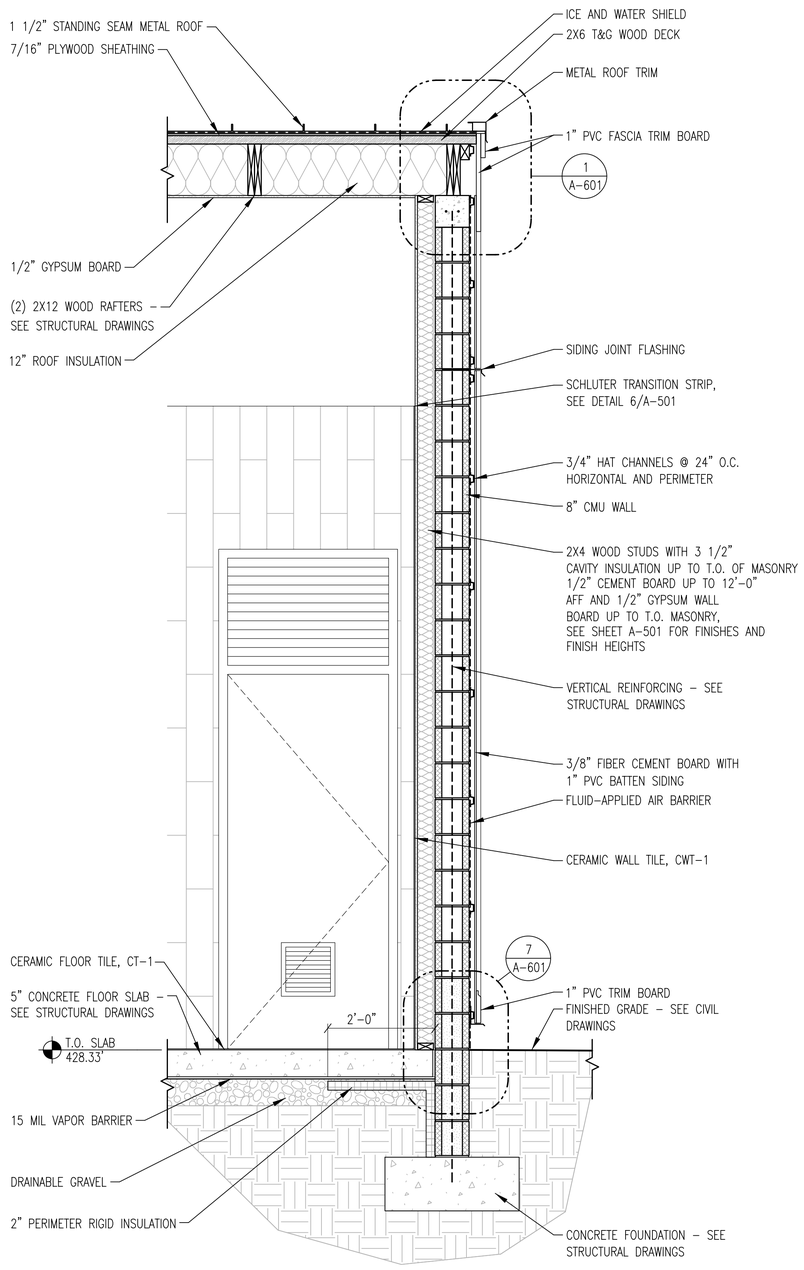
11/2/2023



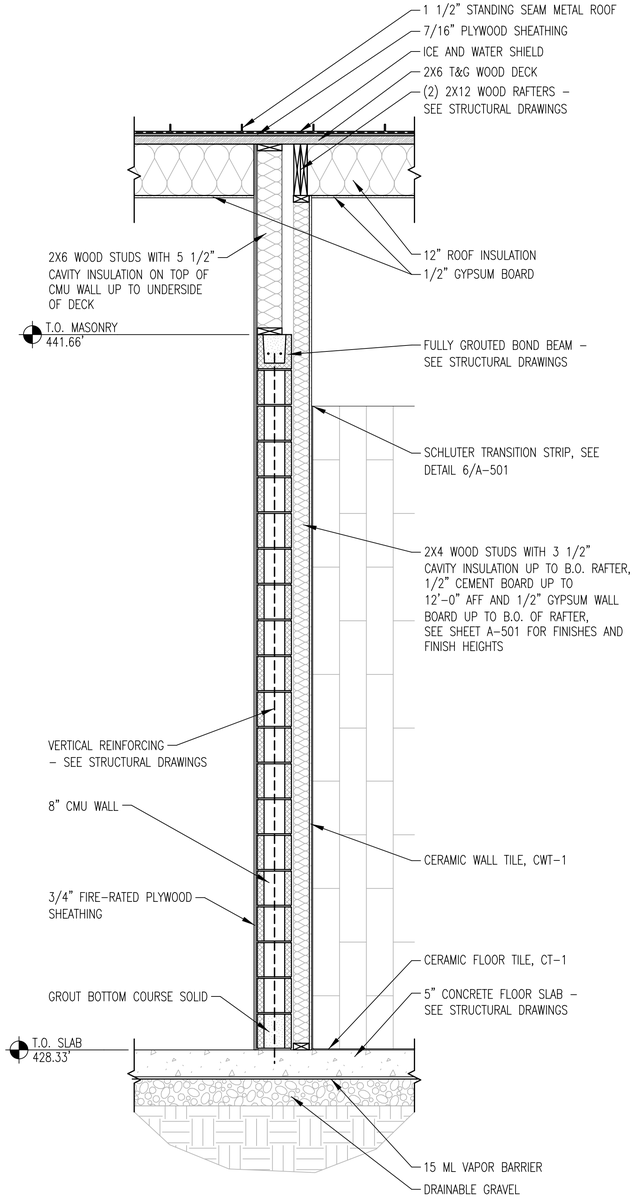
1 A-401 **WALL SECTION**
SCALE: 3/4"=1'-0"
REF: A-401



2 A-401 **WALL SECTION**
SCALE: 3/4"=1'-0"
REF: A-101

GENERAL KEYNOTES

1. SEE SHEET A-501 FOR INTERIOR FINISHES, SEE SHEET A-301 FOR EXTERIOR FINISHES



3 A-401 **WALL SECTION**
SCALE: 3/4"=1'-0"
REF: A-101

GRAPHIC SCALES

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

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._____
EXPIRATION DATE:_____

Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL
Chief, Transportation Planning and Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date

Designed by: FAH Drawn by: KMR Checked by: SSS

A-402 – WALL SECTIONS

BOYDS TRANSIT IMPROVEMENTS

SCALE : AS NOTED OCTOBER 2023

Project No. : 32207.003 SHEET 41 of 78

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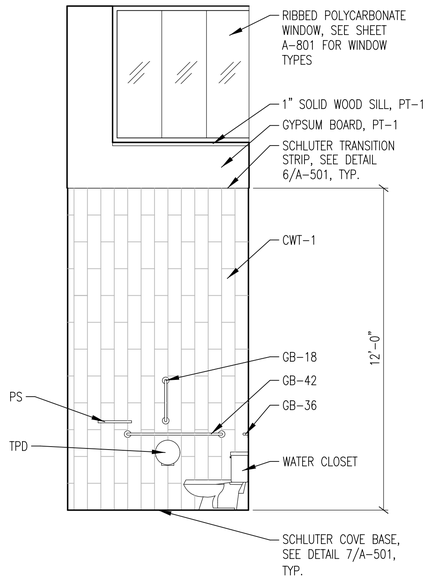
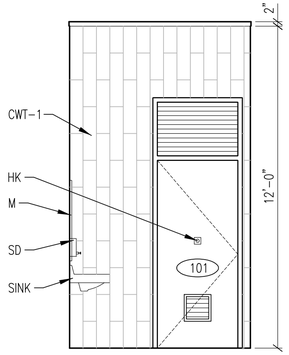
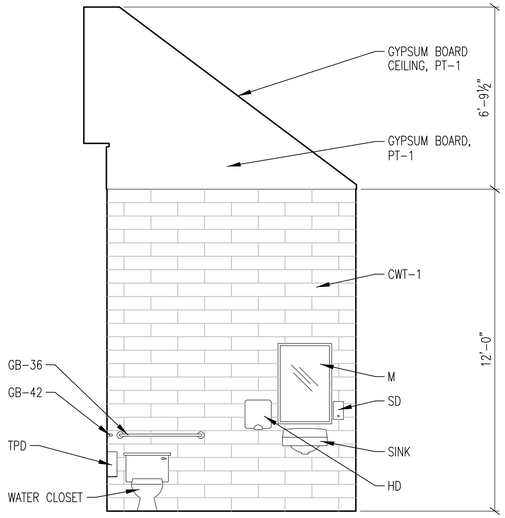
11/2/2023



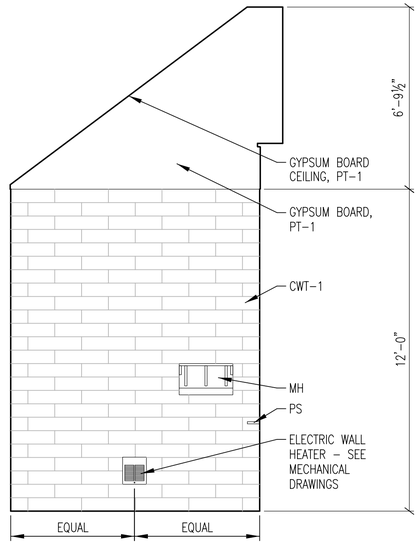
1 / A-501 INTERIOR ELEVATION
SCALE: 3/8"=1'-0"
REF: 5/A-501



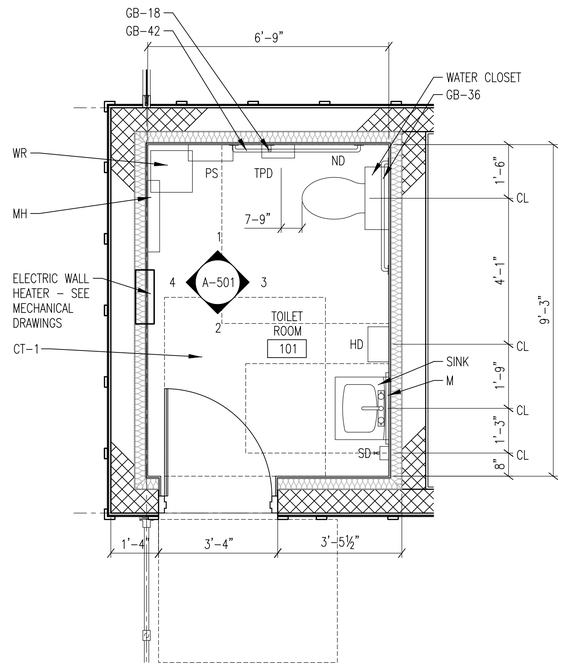
2 / A-501 INTERIOR ELEVATION
SCALE: 3/8"=1'-0"
REF: 5/A-501



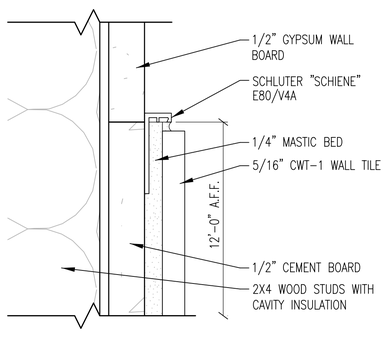
3 / A-501 INTERIOR ELEVATION
SCALE: 3/8"=1'-0"
REF: 5/A-501



4 / A-501 INTERIOR ELEVATION
SCALE: 3/8"=1'-0"
REF: 5/A-501

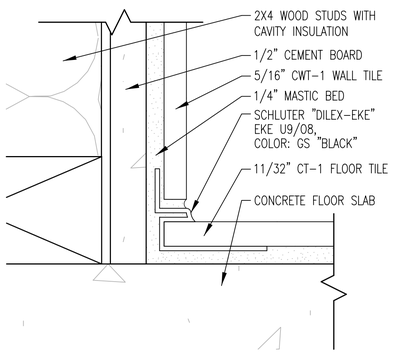


5 / A-501 ENLARGED RESTROOM PLAN
SCALE: 1/2"=1'-0"
REF: A-101



WALL TILE TRANSITION @ GWB

6 / A-501
SCALE: 1"=1'-0"
REF: A-401 & A-501



WALL BASE

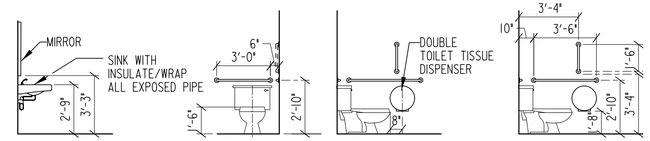
7 / A-501
SCALE: 1"=1'-0"
REF: A-401 & A-501

TOILET ACCESSORY SCHEDULE

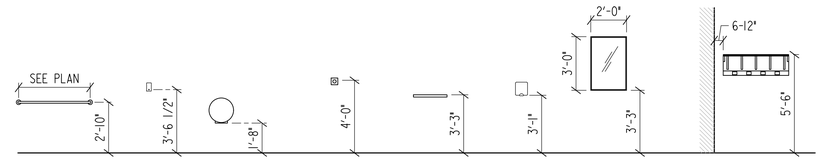
DESIGNATION	DESCRIPTION
GB-18	18" STAINLESS STEEL GRAB BAR
GB-36	36" STAINLESS STEEL GRAB BAR
GB-42	42" STAINLESS STEEL GRAB BAR
SD	SURFACE-MOUNTED, VERTICAL ABS PLASTIC SOAP DISPENSER
TPD	SURFACE-MOUNTED JUMBO ROLL TOILET TISSUE DISPENSER, STAINLESS STEEL
WR	FREE STANDING STAINLESS STEEL WASTE RECEPTACLE
PS	15" LONG X 5 1/2" WIDE STAINLESS STEEL FIXED PURSE SHELF
HD	SURFACE-MOUNTED HAND DRYER
M	24" X 36" STAINLESS STEEL MIRROR
HK	DOUBLE PRONG HOOK
MH	CUSTODIAL MOP AND BROOM HOLDER

INTERIOR FINISH LIST

DESIGNATION	MANUFACTURER	DESCRIPTION
PT-1	BENJAMIN MOORE "WHITE DOVE", PM-9 OR APPROVED EQUAL	PAINT
CT-1	ARCHITESSA: "TREK", #10710038827, "12 X 24" X 9MM; "VULCAN" OR APPROVED EQUAL	FLOOR TILE
CWT-1	ARCHITESSA: "BEYOND", #13910058511, "6 X 24" X 8MM; "WHITE" OR APPROVED EQUAL	WALL TILE



HANDICAP ACCESSIBLE WATER CLOSET, TOILET TISSUE DISPENSER, SANITARY NAPKIN DISPOSAL, GRAB BAR SIZES AND MOUNTING AS DIMENSIONED, TYPICAL REQUIRED FOR SINGLE HANDICAP TOILET ROOMS.



8 / A-501 TOILET ROOM ACCESSORY MOUNTING HEIGHTS
SCALE: N.T.S.

GRAPHIC SCALES

0 1' 2' 4'
SCALE: 1/2" = 1'-0"

0 1' 2' 3' 5'
SCALE: 3/8" = 1'-0"

0 6" 1' 2'
SCALE: 1" = 1'-0"

PROFESSIONAL CERTIFICATION.
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MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL
Chief, Transportation Planning and Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date

Designed by: FAH Drawn by: KMR Checked by: SSS

A-501 - ENLARGED PLAN, INTERIOR ELEVATIONS, & TOILET ROOM DETAILS

BOYDS TRANSIT IMPROVEMENTS

SCALE : AS NOTED
OCTOBER 2023

Project No. : 32207.003
SHEET 42 of 78

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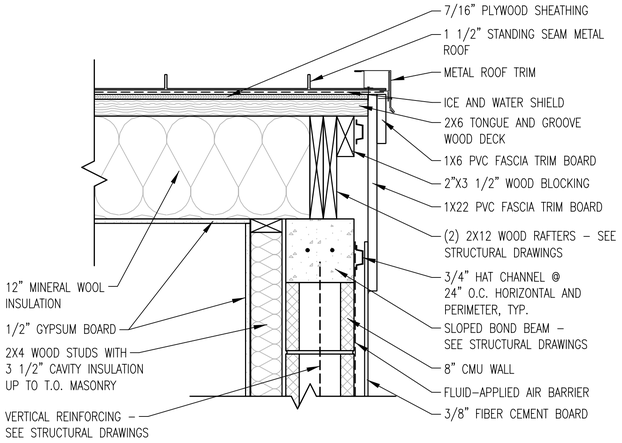
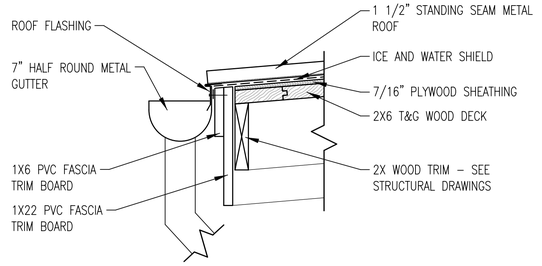
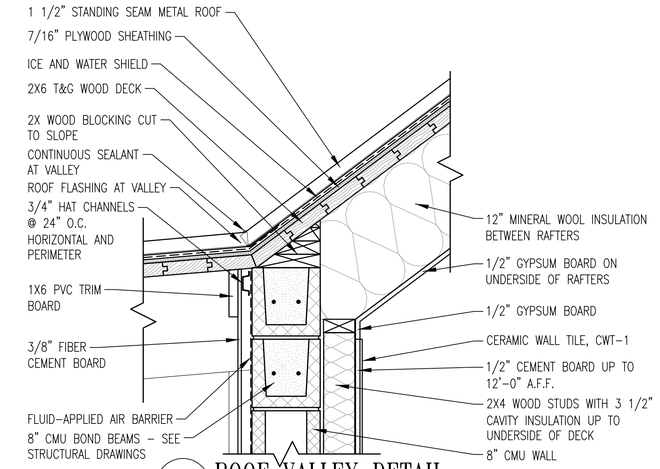
11/2/2023



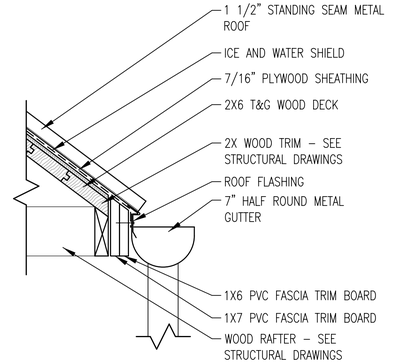
1 A–601 ROOF RAKE DETAIL
SCALE: 1 1/2"=1'–0"
REF: A–402



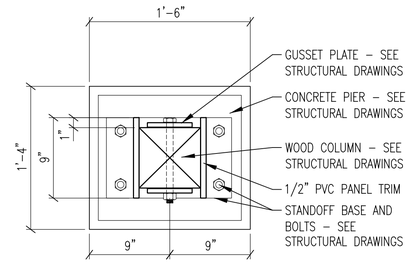
2 A–601 ROOF EDGE DETAIL
SCALE: 1 1/2"=1'–0"
REF: A–401



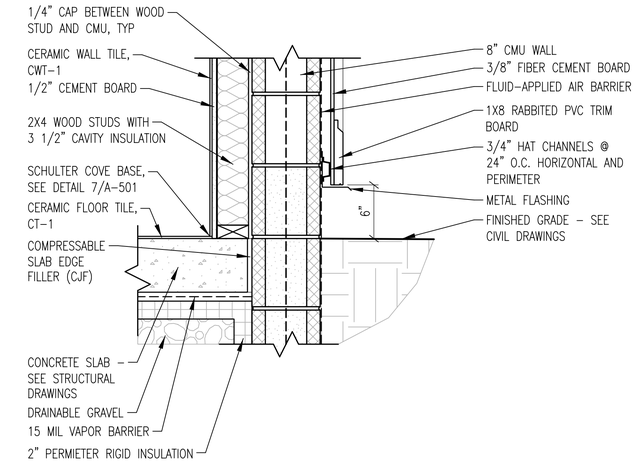
3 A–601 ROOF VALLEY DETAIL
SCALE: 1 1/2"=1'–0"
REF: A–401



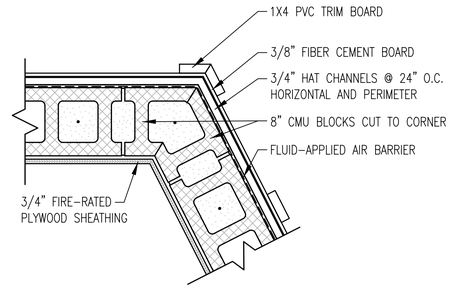
4 A–601 ROOF EDGE DETAIL
SCALE: 1 1/2"=1'–0"
REF: A–401



6 A–601 COLUMN DETAIL
SCALE: 1 1/2"=1'–0"
REF: A–101

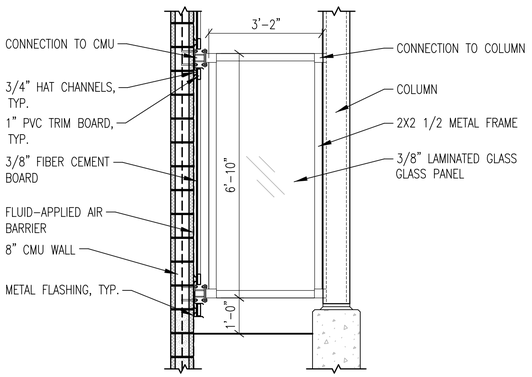


7 A–601 WALL BASE DETAIL
SCALE: 1 1/2"=1'–0"
REF: A–402

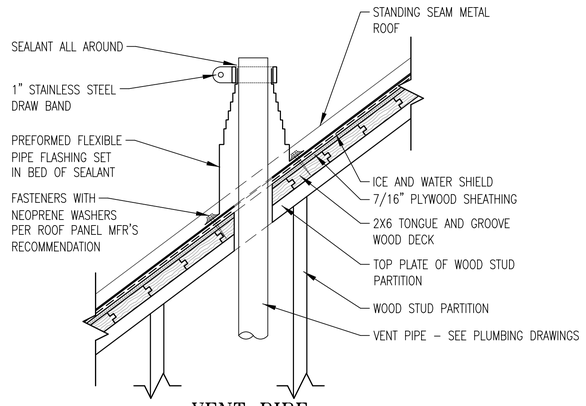


8 A–601 EXTERIOR WALL PLAN DETAIL @ ANGLED WALL
SCALE: 1 1/2"=1'–0"
REF: A–101

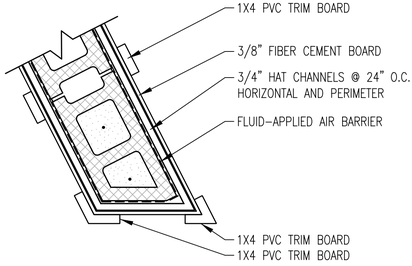
NOTES:
SEE STRUCTURAL DRAWINGS FOR WINDSCREEN CONNECTIONS TO COLUMN AND CMU WALL



9 A–601 WINDSCREEN ELEVATION
SCALE: 1/2"=1'–0"
REF: A–101



VENT PIPE PENETRATION DETAIL
10 A–601
SCALE: 1 1/2"=1'–0"
REF: 3/A–102



EXTERIOR WALL PLAN DETAIL @ END OF WALL
11 A–601
SCALE: 1 1/2"=1'–0"
REF: A–101

GRAPHIC SCALES

0 1' 2' 4'
SCALE: 1/2" = 1'–0"

0 4" 8" 16"
SCALE: 1 1/2" = 1'–0"

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MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL
Chief, Transportation Planning and Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date

Designed by: FAH Drawn by: KMR Checked by: SSS

A–601 – FLOOR PLAN & SECTION DETAILS

BOYDS TRANSIT IMPROVEMENTS

SCALE : AS NOTED OCTOBER 2023

Project No. : 32207.003 SHEET 43 of 78

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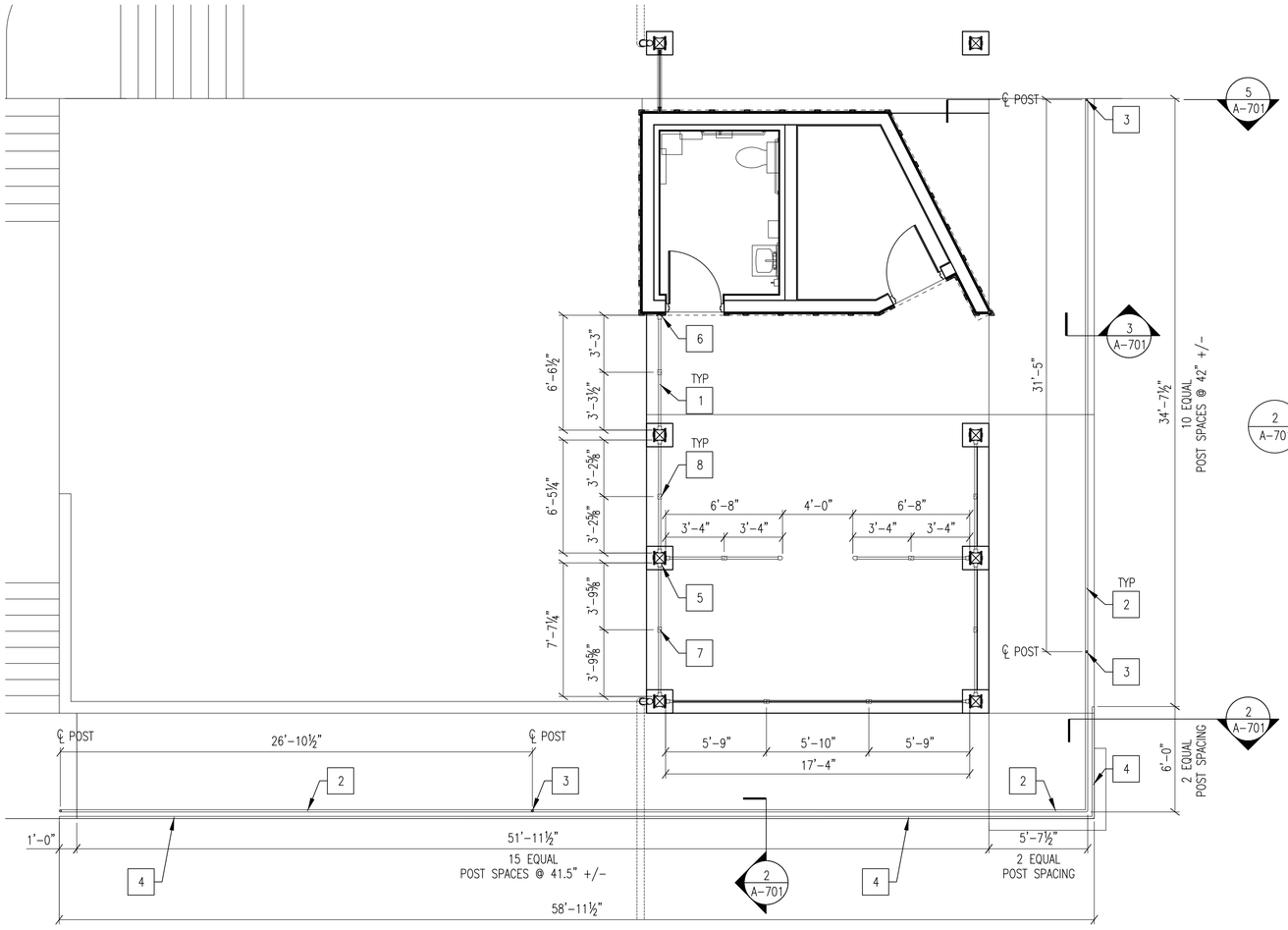
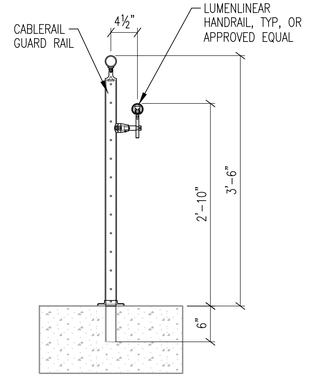
11/2/2023



1 A-701 **HANDRAIL PLAN**
SCALE: 3/8"=1'-0"
REF: A-101



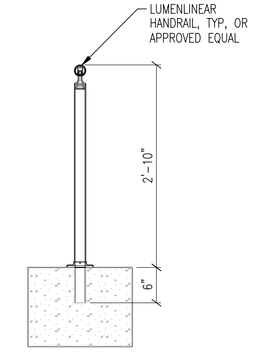
2 A-701 **GUARDRAIL & HANDRAIL SECTION DETAIL**
SCALE: 1"=1'-0"
REF: 1/A-701

GENERAL KEYNOTES

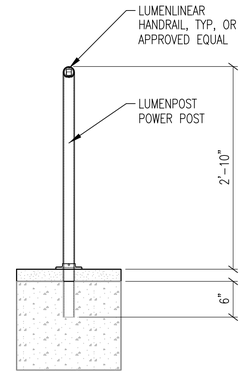
1. SEE SHEET A-001 FOR ARCHITECTURAL ABBREVIATIONS AND LEGEND

NEW WORK KEYNOTES

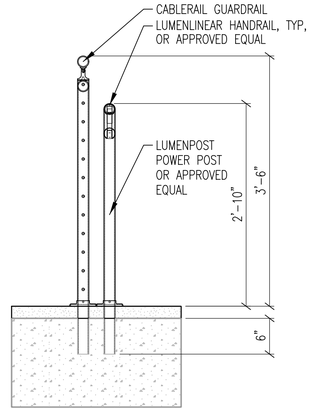
1. SCHEDULE 40 PIPE GUARD RAIL
2. LUMENLINEAR HANDRAIL OR APPROVED EQUAL
3. POWERPOST (LUMENPOST) OR APPROVED EQUAL, SEE DETAIL 4 & 5/A-701
4. CABLERAIL GUARD RAIL
5. SCHEDULE 40 PIPE GUARD RAIL ATTACHED TO WOOD COLUMN, SEE DETAIL 6/A-701, TYP
6. SCHEDULE 40 PIPE GUARD RAIL ATTACHED TO BUILDING, SEE DETAIL 7/A-701
7. SCHEDULE 40 PIPE GUARD RAIL ATTACHED TO CONCRETE SLAB, SEE DETAIL 8/A-701, TYP
8. SCHEDULE 40 PIPE GUARD RAIL INTERSECTION, SEE DETAIL 9/A-701, TYP



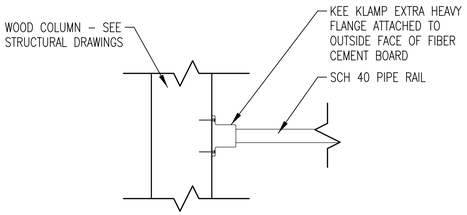
3 A-701 **HANDRAIL SUPPORT POST DETAIL**
SCALE: 1"=1'-0"
REF: 1/A-701



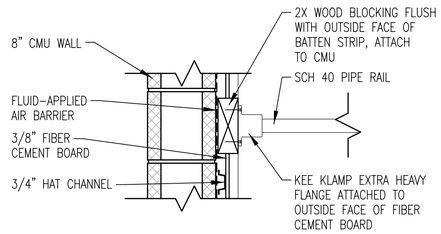
4 A-701 **HANDRAIL SECTION DETAIL @ LUMENPOST**
SCALE: 1"=1'-0"
REF: 1/A-701



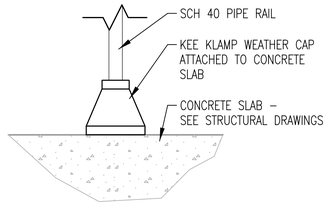
5 A-701 **GUARDRAIL & HANDRAIL SECTION DETAIL**
SCALE: 1"=1'-0"
REF: 1/A-701



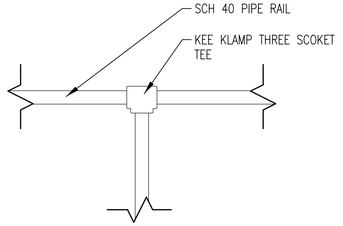
6 A-701 **GUARDRAIL ATTACHED TO WOOD COLUMN DETAIL**
SCALE: 1 1/2"=1'-0"
REF: 1/A-701



7 A-701 **GUARDRAIL ATTACHED TO BUILDING DETAIL**
SCALE: 1 1/2"=1'-0"
REF: 1/A-701



8 A-701 **GUARDRAIL ATTACHED TO CONCRETE SLAB DETAIL**
SCALE: 1 1/2"=1'-0"
REF: 1/A-701



9 A-701 **GUARDRAIL INTERSECTION DETAIL**
SCALE: 1 1/2"=1'-0"
REF: 1/A-701

GRAPHIC SCALES

0 1' 2' 3' 5'
SCALE: 3/8" = 1'-0"

0 6" 1' 2'
SCALE: 1" = 1'-0"

0 4" 8" 16"
SCALE: 1 1/2" = 1'-0"

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NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Transportation Planning and Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: FAH Drawn by: KMR Checked by: SSS

A-701 - HANDRAIL PLAN & DETAILS

BOYDS TRANSIT IMPROVEMENTS

SCALE : AS NOTED OCTOBER 2023

Project No. : 32207.003 SHEET 43 of 78

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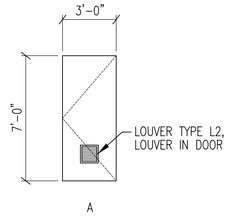
11/2/2023

DOOR SCHEDULE

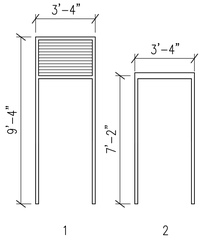
DOOR NO.	SPACE	OPENING DETAILS	FIRE RATING	DOOR TYPE	DOOR SIZE	DOOR THICKNESS	DOOR MATERIAL	DOOR FINISH	FRAMES TYPE	FRAMES MATERIAL	FRAMES FINISH	COMMENTS
101	TOILET ROOM	2, 4 & 7/A-801	NOT RATED	A	3070	1 3/4"	FIBERGLASS	FACT	1	FIBERGLASS	FACT	DOOR WILL HAVE WEATHERSTRIPPING
102	ELECTRICAL CLOSET	2 & 7/A-801	NOT RATED	A	3070	1 3/4"	FIBERGLASS	FACT	2	FIBERGLASS	FACT	DOOR WILL HAVE WEATHERSTRIPPING

HARDWARE SCHEDULE

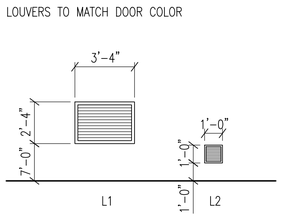
DOOR NO.	SPACE	HINGES HVY	HINGES NRP	LOCKSET FUNCTIONS PASS	LOCKSET FUNCTIONS OFFICE	LOCKSET FUNCTIONS CLASS	CLOSERS PRIV.	CLOSERS CARD	PUSH / PULL SET PAR.	PUSH / PULL SET REG.	DOOR STOP WALL	DOOR STOP FLOOR	KICK PLATES	FLUSH BOLTS	SILENCER SET	REMARKS
101	TOILET ROOM	1.5	-	-	-	-	-	1	-	1	1	-	1	-	-	DOOR WILL HAVE WEATHERSTRIPPING
102	ELECTRICAL CLOSET	1.5	-	-	-	-	-	1	-	1	1	-	1	-	-	DOOR WILL HAVE WEATHERSTRIPPING



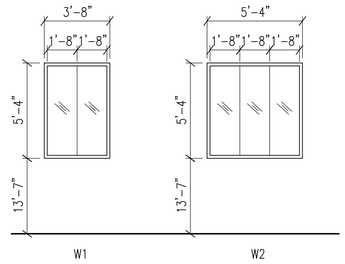
DOOR TYPE
SCALE: 1/4" = 1'-0"



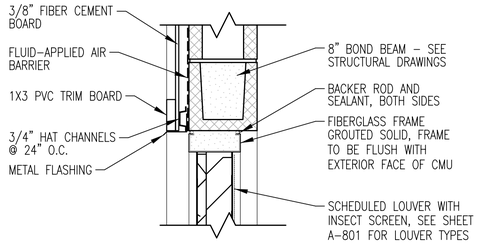
FRAME TYPE
SCALE: 1/4" = 1'-0"



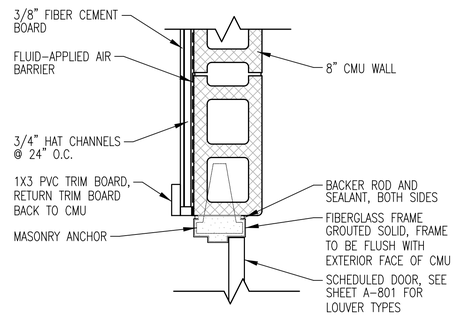
LOUVER TYPES
SCALE: 1/4" = 1'-0"



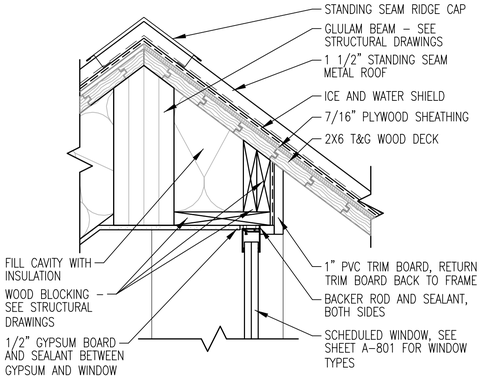
WINDOW TYPES
SCALE: 1/4" = 1'-0"



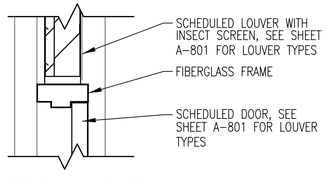
1 / A-801 LOUVER HEAD DETAIL
SCALE: 1 1/2" = 1'-0"
REF: A-801



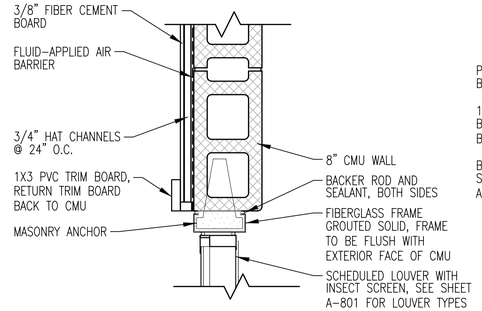
2 / A-801 DOOR JAMB DETAIL
SCALE: 1 1/2" = 1'-0"
REF: A-801



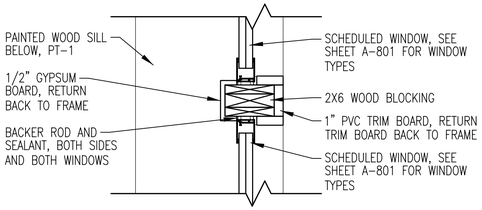
3 / A-801 WINDOW HEAD DETAIL
SCALE: 1 1/2" = 1'-0"
REF: A-801



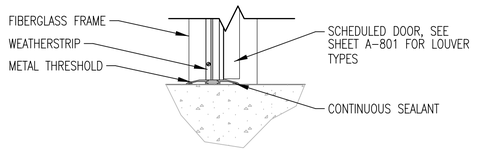
4 / A-801 DOOR HEAD & LOUVER SILL DETAIL
SCALE: 1 1/2" = 1'-0"
REF: A-801



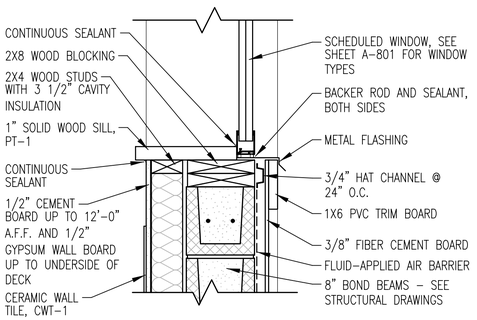
5 / A-801 LOUVER JAMB DETAIL
SCALE: 1 1/2" = 1'-0"
REF: A-801



6 / A-801 WINDOW JAMB DETAIL
SCALE: 1 1/2" = 1'-0"
REF: A-801



7 / A-801 DOOR SILL DETAIL
SCALE: 1 1/2" = 1'-0"
REF: A-801



8 / A-801 WINDOW SILL DETAIL
SCALE: 1 1/2" = 1'-0"
REF: A-801

GRAPHIC SCALES
0 2' 4' 8'
SCALE: 1/4" = 1'-0"
0 4" 8" 16"
SCALE: 1 1/2" = 1'-0"

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._____ EXPIRATION DATE:_____

Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL
Chief, Transportation Planning and Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date

Designed by: FAH Drawn by: KMR Checked by: SSS

A-801 - DOOR, WINDOW, & LOUVER SCHEDULES, TYPES, & DETAILS

BOYDS TRANSIT IMPROVEMENTS

SCALE : AS NOTED OCTOBER 2023

Project No. : 32207.003 SHEET 45 of 78

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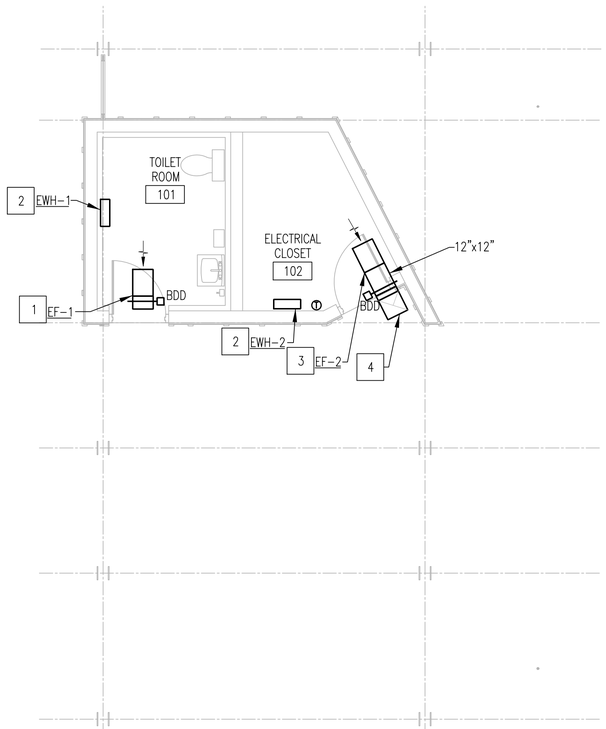
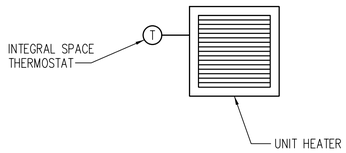
11/2/2023



1 M-101 FLOOR PLAN
SCALE: 1/4"=1'-0"

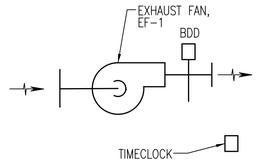


UNIT HEATER (EWH-1, EWH-2) – SEQUENCE OF OPERATION

GENERAL

1. WHEN INTEGRAL SPACE THERMOSTAT SENSES A TEMPERATURE BELOW THE HEATING SETPOINT (50'F, ADJUSTABLE), THE UNITS HEATER SHALL ENERGIZE TO MAINTAIN SETPOINT. WHEN THE SPACE THERMOSTAT IS SATISFIED THE HEATER SHALL CYCLE OFF.

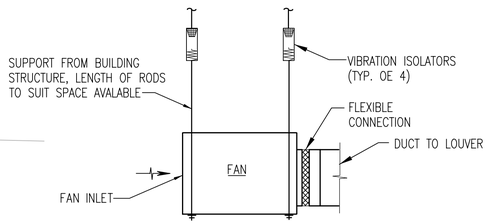
2 M-101 WALL HEATER CONTROLS SCHEMATIC
SCALE: 1/4"=1'-0"



EXHAUST SEQUENCE OF OPERATIONS

1. PROVIDE TIMECLOCK FOR EXHAUST FAN (EF-1) TO OPERATE DURING OCCUPIED HOURS.
2. WHEN TIMECLOCK CALLS FOR FAN TO RUN,ENERGIZE EXHAUST FAN (EF-1) AND RUN CONTINUOUSLY.
3. WHEN TIMECLOCK CALLS FOR FAN TO CEASEOPERATION, DE-ENERGIZE EF-1.

3 M-101 EXHAUST FAN (EF-1) CONTROLS SCHEMATIC
SCALE: 1/4"=1'-0"



5 M-101 CENTRIFUGAL IN-LINE FAN
SCALE: 1/4"=1'-0"

NEW WORK KEYNOTES

1. INLINE EXHAUST FAN MOUNTED AT 8'-0" AFF AND CONNECT TO EXHAUST LOUVER ABOVE DOOR. PROVIDE 12" DEEP SHEET METAL PLENUM, 12"x12" AND CONNECT TO ARCHITECTURAL LOUVER. BLANK OFF REMAINDER OF LOUVER. REFER TO ARCHITECTURAL PLANS FOR EXHAUST LOUVER INSTALLATION ABOVE DOOR AND INTAKE LOUVER LOW ON DOOR.
2. ELECTRIC WALL HEATER MOUNTED AT 12" AFF.
3. INLINE EXHAUST FAN MOUNTED AT 8'-0" AFF WITH 12"x12" DUCT INTO SOFFIT.
4. TURN DOWN DUCT AND TERMINATE WITH 12"x12" ALUMINUM SOFFIT VENT WITH INSECT SCREEN. REFER TO ARCHITECTURAL PLANS FOR EXHAUST LOUVER INSTALLATION IN SOFFIT AND INTAKE LOUVER LOW ON DOOR.

MECHANICAL LEGEND

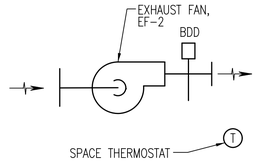
- NEW EQUIPMENT
- NEW WORK LINE WEIGHT
- (T) TEMPERATURE SENSOR

MECHANICAL ABBREVIATIONS

@	AT
&	AND
ADJ	ADJUSTABLE
AFF	ABOVE FINISHED FLOOR
BDD	BACK DRAFT DAMPER
BOD	BOTTOM OF DUCT
BTUH	BRITISH THERMAL UNIT PER HOUR
CAP	CAPACITY
CFM	CUBIC FEET PER MINUTE
DEG F, °F	DEGREE FAHRENHEIT
DIA	DIAMETER
DN	DOWN
DWG	DRAWING
EF	EXHAUST FAN
EFF	EFFICIENCY
ESP, TSP	EXTERNAL/TOTAL STATIC PRESSURE
EXH	EXHAUST
EWH	ELECTRIC WALL HEATER
FLA	FULL LOAD AMPERES
FT	FEET
HP	HORSEPOWER
HZ	HERTZ
IN	INCH
INV	INVERT
KW	KILOWATT
MAX	MAXIMUM
MIN	MINIMUM
N	NORTH
NTS	NOT TO SCALE
PD	PRESSURE DROP
PH	PHASE
RPM	REVOLUTIONS PER MINUTE

GENERAL NOTES:

1. GENERAL NOTES ARE DISCIPLINE SPECIFIC, AND APPLY TO EVERY DRAWING IN THAT DISCIPLINE. DRAWING NOTES APPLY TO ALL WORK SHOWN ON A DRAWING. CONTRACTOR/DEMOLITION NOTES APPLY TO INDIVIDUAL SITUATIONS AND EQUIPMENT.
2. MAKE PROPER CONNECTION TO FIXTURES AND EQUIPMENT. DRAWINGS ARE SCHEMATIC AND ALL BRANCH MAINS, ELBOWS, AND CONNECTIONS ARE NOT SHOWN.
3. COORDINATE LOCATION OF DUCTWORK WITH LIGHTING FIXTURES, PIPING, EQUIPMENT AND BUILDING STRUCTURE. DUCTWORK SHALL BE RUN TO AVOID CONFLICTS WITH OTHER TRADES.
4. DO NOT LOCATE MECHANICAL EQUIPMENT DIRECTLY ABOVE ELECTRICAL SUBSTATIONS, CABLE TRAYS, TRANSFORMERS, PANEL BOARDS, OR SWITCHGEAR.
5. DIMENSIONS ARE IN INCHES UNLESS NOTED OTHERWISE.
6. INSTALL DUCTWORK SO THAT DAMPERS ARE ACCESSIBLE.
7. CERTAIN ITEMS SUCH AS ACCESS DOORS, RISE AND DROPS IN DUCTWORK ETC., ARE INDICATED ON THE DRAWINGS FOR CLARITY OR A SPECIFIC LOCATION REQUIREMENT AND SHALL NOT BE INTERPRETED AS THE EXTENT OF THE REQUIREMENTS FOR THESE ITEMS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THESE ITEMS AS REQUIRED IN THE CONTRACT DRAWINGS AND SPECIFICATIONS.
8. DETAILS WITHOUT SPECIFIC REFERENCE TO A LOCATION SHALL BE APPLIED TO THE GENERAL INSTALLATION OF PIPES, DUCTS, ETC.
9. MOUNT TEMPERATURE SENSORS 48" AFF UNLESS NOTED OTHERWISE.



EXHAUST SEQUENCE OF OPERATIONS

1. WHEN SPACE TEMPERATURE EXCEEDS 83 F (ADJ), ENERGIZE EXHAUST FAN (EF-2) AND RUN CONTINUOUSLY.
2. WHEN SPACE TEMPERATURE FALLS BELOW 80 F (ADJ), DE-ENERGIZE EF-2.

4 M-101 EXHAUST FAN (EF-2) CONTROLS SCHEMATIC
SCALE: 1/4"=1'-0"

ELECTRIC WALL HEATER SCHEDULE

UNIT ID	LOCATION	MOUNTING	HEAT SOURCE	CAPACITY (BTUH)	AIR FLOW (CFM)	ELECTRICAL DATA			BASIS OF DESIGN	NOTES
						KW	FLA	VOLTS/PH		
EWH-1	TOILET ROOM	WALL - RECESSED	ELECTRIC	6,826	65	2.0	9.6	208/1	QMARK CWH1208	
EWH-2	ELEC ROOM	WALL - RECESSED	ELECTRIC	6,826	65	2.0	9.6	208/1	QMARK CWH1208	

FAN SCHEDULE

UNIT ID	TYPE	SERVICE	LOCATION	MAX. CFM	ESP (IN. WG)	FAN RPM	DRIVE TYPE	METHOD OF CONTROL	ELECTRICAL DATA		BASIS OF DESIGN	NOTES
									HP	VOLTS/PH		
EF-1	INLINE	EXHAUST	TOILET ROOM	75	0.3	1550	DIRECT	TIMER	1/40	115/1	GREENHECK SQ-60	
EF-2	INLINE	EXHAUST	ELEC ROOM	75	0.3	1550	DIRECT	TSTAT	1/40	115/1	GREENHECK SQ-60	

NOTES:
1. PROVIDE FAN WITH BACKDRAFT DAMPER.
2. PROVIDE FAN WITH MOTOR STARTER.

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. 22089
EXPIRATION DATE: 09/01/2024

Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL
Chief, Transportation Planning and Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date

Designed by: NA Drawn by: NA Checked by: CAH

M-101 – FLOOR PLAN, NOTES AND SCHEDULES

BOYDS TRANSIT IMPROVEMENTS

SCALE : 1/4" = 1'-0" OCTOBER 2023

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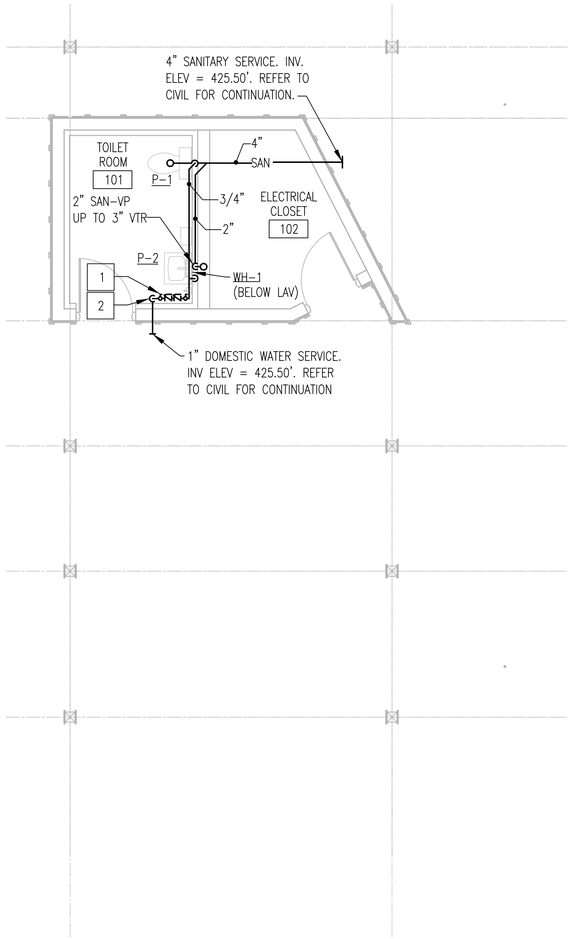
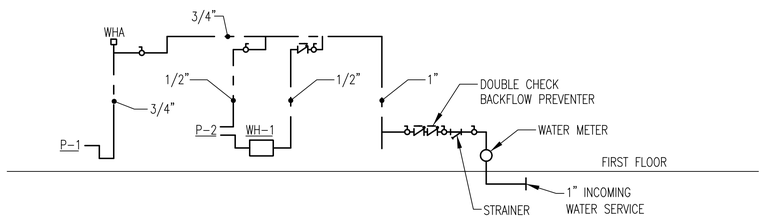


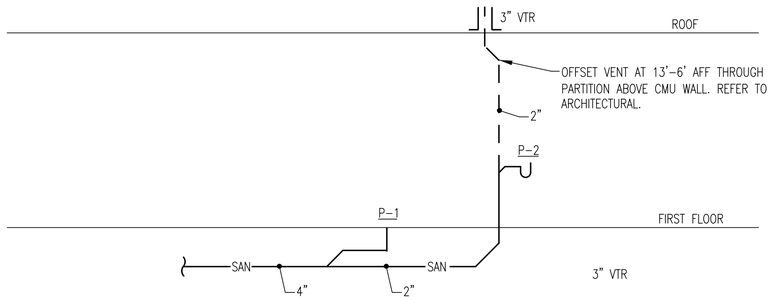
1 P-101 FLOOR PLAN
SCALE: 1/4"=1'-0"

NEW WORK KEYNOTES

1. 1" DOUBLE CHECK BACKFLOW PREVENTER MOUNTED AT 36" AFF.
2. WATER METER IN VERTICAL.



2 P-101 DOMESTIC WATER RISER DIAGRAM
NOT TO SCALE



3 P-101 SANITARY RISER DIAGRAM
NOT TO SCALE

PLUMBING LEGEND

- NEW EQUIPMENT
- NEW WORK LINE WEIGHT
- TEE TURNED UP
- TEE TURNED DOWN
- PIPING TURNED DOWN
- PIPING TURNED UP
- SAN — SANITARY PIPING
- DOMESTIC COLD WATER
- VENT PIPING
- REDUCED PRESSURE BACKFLOW PREVENTER ASSEMBLY
- CO — WALL CLEANOUT
- CO — FLOOR CLEANOUT
- BALL VALVE
- DIRECTION OF FLOW ARROW

PLUMBING ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
BTUH	BRITISH THERMAL UNIT PER HOUR
CAP	CAPACITY
CO	CLEANOUT
DCW	DOMESTIC COLD WATER, POTABLE
DEG F, °F	DEGREE FAHRENHEIT
DIA	DIAMETER
DN	DOWN
DWG	DRAWING
EFF	EFFICIENCY
FLA	FULL LOAD AMPERES
FT	FEET
GAL	GALLONS
GPM	GALLONS PER MINUTE
HP	HORSEPOWER
HW	HOT WATER, POTAB;E
HZ	HERTZ
IN	INCH
INV	ONVERT
KW	KILOWATT
MX	MAXIMUM
MIN	MINIMUM
N	NORTH
NTS	NOT TO SCALE
PH	PHASE
V	VENT
VTR	VENT THROUGH ROOF
WH	WATER HEATER
WHA	WATER HAMMER ARRESTOR

GENERAL NOTES:

1. GENERAL NOTES ARE DISCIPLINE SPECIFIC, AND APPLY TO EVERY DRAWING IN THAT DISCIPLINE. DRAWING NOTES APPLY TO ALL WORK SHOWN ON A DRAWING. CONTRACTOR NOTES APPLY TO INDIVIDUAL SITUATIONS AND EQUIPMENT.
2. SLOPES AND INVERT ELEVATIONS SHALL BE ESTABLISHED BEFORE ANY PIPING IS INSTALLED IN ORDER TO MAINTAIN PROPER SLOPES.
3. MAKE PROPER CONNECTION TO FIXTURES AND EQUIPMENT. DRAWINGS ARE SCHEMATIC AND ALL BRANCH MAINS, ELBOWS, AND CONNECTIONS ARE NOT SHOWN.
4. COORDINATE LOCATION OF PIPING WITH LIGHTING FIXTURES, OTHER PIPING AND DUCTWORK, EQUIPMENT AND BUILDING STRUCTURE. PIPING SHALL BE RUN TO AVOID CONFLICTS WITH OTHER TRADES.
5. DO NOT RUN PIPING DIRECTLY ABOVE ELECTRICAL SUBSTATIONS, CABLE TRAYS, TRANSFORMERS, PANEL BOARDS, OR SWITCHGEAR.
6. DIMENSIONS ARE IN INCHES UNLESS NOTED OTHERWISE.
7. UNLESS NOTED OTHERWISE, PIPING IS OVERHEAD, TIGHT TO UNDERSIDE OF STRUCTURE, WITH SPACE FOR INSULATION IF REQUIRED.
8. INSTALL PIPING SO THAT VALVES ARE ACCESSIBLE.
9. CERTAIN ITEMS SUCH AS PIPING, ETC., ARE INDICATED ON THE DRAWINGS FOR CLARITY OR A SPECIFIC LOCATION REQUIREMENT AND SHALL NOT BE INTERPRETED AS THE EXTENT OF THE REQUIREMENTS FOR THESE ITEMS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THESE ITEMS AS REQUIRED IN THE CONTRACT DRAWINGS AND SPECIFICATIONS.
10. SCHEMATIC AND RISER DIAGRAMS INDICATE FLOW AND OPERATIONAL CONCEPT AS WELL AS GENERAL ARRANGEMENT OF EQUIPMENT. VALVES, PRESSURE GAUGES, ETC. ADDITIONAL VALVES PRESSURE GAUGES, ETC. SHALL BE PROVIDED AS SHOWN ON DETAILS AND AS INDICATED IN SPECIFICATIONS.
11. DETAILS WITHOUT SPECIFIC REFERENCE TO A LOCATION SHALL BE APPLIED TO THE GENERAL INSTALLATION OF PIPES, ETC.

INSTANTANEOUS DOMESTIC WATER HEATER SCHEDULE

UNIT ID	LOCATION	TYPE	CAPACITY INPUT (KW)	TEMP RISE @ 0.5 GPM (DEG F)	ACTIVATION FLOW (GPM)	VOLTS/PH	BASIS OF DESIGN	NOTES
WH-1	TOILET ROOM	ELECTRIC	4.2	56	0.2	208/1	EEMAX 4208T	

PLUMBING FIXTURE SCHEDULE

UNIT ID	DESCRIPTION	CW (IN)	HW (IN)	SAN (IN)	VENT (IN)	WSFU	DFU	REMARKS	BASIS OF DESIGN
P-1	WATER CLOSET FLOOR MOUNTED, TANK TYPE	3/4	-	4	2	2.2	3	TANK TYPE , 1.28 GPF	AMERICAN STANDARD, CADET 3
P-2	LAVATORY WALL MOUNTED BARRIER FREE	1/2	1/2	1 1/2	1 1/2	2	1	MANUAL FAUCET 0.5 GPM (NOTE 1)	AMERICAN STANDARD, LUCERNE

NOTE:
1. PROVIDE ASSE 1070 INDIVIDUAL MIXING VALVE AT THE LAVATORY FAUCET TO PROVIDE A MAXIMUM HOT WATER TEMPERATURE AT THE OUTLET OF THE FAUCET OF 110° F FOR PUBLIC HANDWASHING SINKS.

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. 22089
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Designed by: NA Drawn by: NA Checked by: CAH

P-101 – FLOOR PLAN, NOTES AND SCHEDULES

BOYDS TRANSIT IMPROVEMENTS

SCALE : 1/4" = 1'-0" OCTOBER 2023

Project No. : 32207.003 SHEET 47 of 78

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GENERAL

1. FIELD VERIFY DIMENSIONS, LOCATIONS AND ELEVATIONS SHOWN ON DRAWINGS FOR EXISTING STRUCTURES. BRING DISCREPANCIES TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
2. COORDINATE ACTIVITIES WITH THE OWNER.
3. NOT ALL OPENINGS IN THE STRUCTURAL WORK ARE SHOWN. REVIEW DRAWINGS FROM OTHER DISCIPLINES AND COORDINATE OPENINGS AND EMBEDDED ITEMS SUCH AS SLEEVES, ANCHORS, CONDUITS, ETC. INCORPORATED INTO THE STRUCTURAL WORK.
4. THE SPECIAL INSPECTION PROGRAM AND SPECIAL INSPECTOR WILL BE PROCURED AND FUNDED BY THE OWNER. COORDINATE APPLICABLE ACTIVITIES AND SCHEDULE WITH THE OWNER, SPECIAL INSPECTOR, AND THE STATEMENT OF SPECIAL INSPECTIONS NOTES INCLUDED ON THIS SHEET.
5. THE DRAWINGS SHOW THE FINAL CONDITION OF THE STRUCTURES. PROVIDE MEANS TO STABILIZE THE STRUCTURES DURING TEMPORARY CONDITIONS.
6. SCALES NOTED ON THE DRAWINGS ARE FOR GENERAL INFORMATION ONLY. DO NOT OBTAIN DIMENSIONAL INFORMATION FROM DIRECT SCALING OF THE DRAWINGS.

SHALLOW FOUNDATIONS AND SLABS-ON-GROUND

1. DESIGN OF SHALLOW FOUNDATIONS AND SLABS-ON-GROUND IS IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT PREPARED BY WRA DATED AUGUST 2019 (REVISED JUNE 2022).
2. SHALLOW FOUNDATIONS, SUCH AS SPREAD FOOTING AND SLAB-ON-GROUND, MUST BEAR UPON UNDISTURBED SOIL OR COMPACTED ENGINEERED FILL WITH A MINIMUM ALLOWABLE BEARING CAPACITY OF 3000 PSF. OBTAIN THE SERVICES OF A GEOTECHNICAL ENGINEER LICENSED IN THE STATE OF MARYLAND WHO IS RESPONSIBLE FOR VERIFICATION OF THE SPECIFIED MINIMUM ALLOWABLE BEARING CAPACITY AT EACH FOOTING.
3. SHALLOW FOUNDATION ELEVATIONS SHOWN ON THE DRAWINGS ARE MINIMUM EXCAVATION DEPTHS. EXCAVATE FURTHER AS REQUIRED TO REMOVE UNSATISFACTORY SOILS TO A LAYER WITH THE MINIMUM SPECIFIED ALLOWABLE BEARING CAPACITY. WHERE REQUIRED, PROVIDE COMPACTED ENGINEERED FILL TO ACHIEVE THE REQUIRED SUBGRADE ELEVATIONS. NOTIFY THE ENGINEER OF ANY CONDITIONS THAT REQUIRE CHANGES IN FOUNDATION ELEVATIONS.
4. PLACE SHALLOW FOUNDATIONS ON THE SAME DAY THAT THE BEARING SURFACE IS INSPECTED BY THE CONTRACTOR'S GEOTECHNICAL ENGINEER. ANY BEARING SURFACE NOT PLACED ON THE SAME DAY OF INITIAL INSPECTION MUST BE RE-INSPECTED BY THE CONTRACTOR'S GEOTECHNICAL ENGINEER ON THE DAY CONCRETE IS PLACED.
5. KEEP EXCAVATIONS DRY.
6. REMOVE UNSATISFACTORY SOILS BELOW SLABS-ON-GROUND TO A COMPETENT SOIL STRATUM AND REPLACE WITH COMPACTED ENGINEERED FILL
7. MINIMUM DEPTH BELOW GRADE FOR BOTTOM OF FOUNDATIONS FOR FROST PROTECTION IS 30 INCHES.
8. PROVIDE A 6" LAYER OF OPEN-GRADED COARSE AGGREGATE AND A 15-MIL VAPOR RETARDER BENEATH INTERIOR SLABS-ON-GROUND. SUBGRADE FOR SLABS-ON-GROUND MUST BE INSPECTED AND APPROVED BY THE CONTRACTOR'S GEOTECHNICAL ENGINEER BEFORE PLACING ANY CONCRETE OR OPEN-GRADED COARSE AGGREGATE.
9. REFER TO OTHER DISCIPLINES' DRAWINGS FOR WORK INCORPORATED IN, OR COORDINATED WITH, FOUNDATION AND SLAB-ON-GROUND WORK.
10. PROVIDE SUPPORT OF EXCAVATIONS REQUIRED TO COMPLETE THE WORK SHOWN ON THE DRAWINGS. SUPPORT OF EXCAVATION SYSTEMS MUST BE DESIGNED BY THE CONTRACTOR'S PROFESSIONAL ENGINEER.

CONCRETE

1. PROVIDE NORMAL-WEIGHT CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 5,000 PSI AT 28 DAYS AS FOLLOWS, UNLESS NOTED OTHERWISE.
2. CONCRETE MUST BE AIR ENTRAINED.
3. DETAIL AND CONSTRUCT REINFORCED CONCRETE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE ACI 301, "SPECIFICATION FOR STRUCTURAL CONCRETE", AND AS SPECIFIED HEREIN.
4. DETAIL REINFORCING STEEL IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE ACI 315, "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES" AND ACI SP-66, "ACI DETAILING MANUAL."
5. PROVIDE REINFORCING STEEL CONFORMING TO ASTM A615, GRADE 60, DEFORMED BARS.
6. UNLESS NOTED OTHERWISE ON THE DRAWINGS, PROVIDE CONCRETE COVER FOR REINFORCING STEEL AS FOLLOWS:
   A. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH, FILL, OPEN-GRADED COARSE AGGREGATE: 3"
   B. OTHER CONCRETE: 2"
7. SUBMIT REINFORCING STEEL DETAILS AND JOINT LAYOUT (SHOP DRAWINGS) AND RECEIVE APPROVAL FROM THE ENGINEER BEFORE PROCEEDING WITH FABRICATION.
8. CHAMFER ALL EXPOSED CONCRETE EDGES 3/4" UNLESS NOTED OTHERWISE.
9. DETAIL ALL SPLICES AND STANDARD HOOKS FOR REINFORCING BARS NOT DIMENSIONED ON THE DRAWINGS AS TABULATED ON SHEET S0-02.
10. PROVIDE JOINTS ONLY AS DETAILED ON THE DRAWINGS AND ON APPROVED SHOP DRAWINGS. DO NOT PROVIDE ADDITIONAL JOINTS NOR OMIT ANY JOINTS EXCEPT BY WRITTEN AUTHORIZATION FROM THE ENGINEER. APPROVED ADDITIONAL JOINTS MUST NOT RESULT IN ADDITIONAL EXPENSE TO THE OWNER.
11. PROVIDE CONSTRUCTION JOINT INTERFACE CLEAN AND FREE OF LAITANCE. WHERE INDICATED ON THE DRAWINGS, INTENTIONALLY ROUGHEN CONSTRUCTION JOINTS TO A FULL AMPLITUDE OF 1/4 INCH. IMMEDIATELY BEFORE NEW CONCRETE IS PLACED, CONSTRUCTION JOINTS MUST BE PREWETTED AND STANDING WATER REMOVED.
12. WHERE A CONCRETE MEMBER IS SLOPED (TOP AND/OR BOTTOM), PROVIDE SLOPED REINFORCING STEEL PARALLEL TO THE CONCRETE SURFACE UNLESS OTHERWISE NOTED.
13. OPENINGS SHOWN ON THE STRUCTURAL DRAWINGS ARE PRINCIPAL OPENINGS. REVIEW DRAWINGS FROM OTHER DISCIPLINES AND COORDINATE OPENINGS AND EMBEDDED ITEMS SUCH AS SLEEVES, ANCHORS, CONDUIT, ETC. INCORPORATED INTO THE CONCRETE WORK.
14. COLD WEATHER PLACEMENT OF CONCRETE MUST BE IN ACCORDANCE WITH ACI 306R, ACI 306.1, AND THE SPECIFICATIONS.
15. HOT WEATHER PLACEMENT OF CONCRETE MUST BE IN ACCORDANCE WITH ACI 305R, ACI 305.1, AND THE SPECIFICATIONS.
16. PROVIDE SYNTHETIC MACRO-FIBER COMPLYING WITH ASTM C1116/C1116M, TYPE III, 1 TO 2-1/4" LONG.

CONCRETE MASONRY

1. CONSTRUCT MASONRY IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE ACI-530/ ASCE 5/ TMS 402, (2016) "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES" AND ACI 530.1/ ASCE 6/ TMS 602 (2016) "SPECIFICATION FOR MASONRY STRUCTURES".
2. PROVIDE HOLLOW LIGHTWEIGHT LOAD-BEARING CONCRETE MASONRY UNITS MEETING THE REQUIREMENTS OF ASTM C90.
3. PROVIDE MORTAR CONFORMING TO THE REQUIREMENTS OF ASTM C-270. CEMENT USED FOR MORTAR MUST BE PORTLAND CEMENT.
4. PROVIDE GROUT CONFORMING TO THE REQUIREMENTS OF ASTM C476 COARSE OR FINE GROUT, WITH A MINIMUM COMPRESSIVE STRENGTH EQUAL TO OR GREATER THAN THE SPECIFIED COMPRESSIVE STRENGTH OF MASONRY (F'm) BUT NOT LESS THAN 2,000 PSI AT 28 DAYS.
5. PROVIDE CONCRETE MASONRY WITH A MINIMUM COMPRESSIVE STRENGTH (F'm) OF 2,000 PSI. PROVIDE CONCRETE MASONRY UNITS WITH A SPECIFIED MINIMUM NET AREA COMPRESSIVE STRENGTH 2,000 PSI.
6. PROVIDE REINFORCING STEEL CONFORMING TO ASTM A615, GRADE 60, DEFORMED BARS. REINFORCING STEEL REQUIRING WELDABILITY MUST CONFORM TO ASTM A706, GRADE 60, DEFORMED BARS.
7. UNLESS NOTED OTHERWISE ON THE DRAWINGS, PROVIDE MASONRY COVER FOR REINFORCING STEEL AS FOLLOWS:
   A. MASONRY FACE EXPOSED TO EARTH, FILL, OR WEATHER:
      i. BARS LARGER THAN #5: 2"
      ii. #5 BARS AND SMALLER: 1-1/2"
   B. MASONRY FACE NOT EXPOSED TO EARTH, FILL, OR WEATHER: 1-1/2"
8. FULLY GROUT CELLS CONTAINING REINFORCING STEEL, CELLS IN CONTACT WITH EARTH OR FILL, AND THE BOTTOM COURSE OF WALLS.
9. LAY MASONRY IN RUNNING BOND.
10. REINFORCE MORTAR JOINTS OF MASONRY WALLS WITH HORIZONTAL JOINT REINFORCING AT 16" ON CENTER MAXIMUM. PROVIDE 9 GAUGE LADDER-TYPE HORIZONTAL JOINT REINFORCING CONFORMING TO ASTM A1064.
11. PROVIDE CONTINUOUS BOND BEAMS AT THE TOP OF WALLS, AT BEARING ELEVATIONS, AND AT OTHER LOCATIONS SPECIFIED ON THE DRAWINGS.

WOOD

1. GLUED LAMINATED (GLULAM) MEMBERS SHALL BE SPECIFIED SP/SP WET CONDITIONS USE, AND ARCHITECTURAL APPEARANCE. THE REFERENCE DESIGN VALUES FOR GLULAM MEMBER SHALL SATISFY THE VALUES FOR COMBINATION SYMBOL "24F-E1.8" AS INDICATED IN NDS-2018 "DESIGN VALUES FOR WOOD CONSTRUCTION."
2. MANUFACTURER QUALIFICATIONS INCLUDE CERTIFICATION BY THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION (AITC) OR THE AMERICAN PLYWOOD ASSOCIATION (APA).
3. GLULAM MEMBERS SHALL COMPLY WITH AITC, A190.1, WITH EACH PIECE MARKED WITH AN AITC QUALITY MARK, OR APA-EWS TRADEMARK.
4. DIMENSIONAL LUMBER MEMBERS SHALL BE SOUTHERN PINE, GRADED NO. 1, OR APPROVED EQUAL. THE REFERENCE DESIGN VALUES FOR SOLID SAWN MEMBER SHALL SATISFY THE VALUES FOR "SOUTHERN PINE NO. 1" AS INDICATED IN NDS-2018 "DESIGN VALUES FOR WOOD CONSTRUCTION."
5. PROVIDE HOT-DIPPED GALVANIZED FASTENERS, NAILS, SCREWS, AND BOLTS
6. STEEL FABRICATED GUSSET PLATES. SADDLES, AND SEATS THAT ARE EXPOSED TO VIEW MUST RECEIVE A ZINC-RICH PRIMER AND EXTERIOR PAINTINGS. ITEMS NOT EXPOSED TO VIEW MUST BE HOT-DIPPED GALVANIZED.
7. PROVIDE HOT-DIPPED GALVANIZED OR G185 GALVANIZED WOOD OR GLULAM METAL HANGERS AND STRAPS. HANGERS EXPOSED TO VIEW MUST RECEIVE EXTERIOR PAINTINGS IN ADDITION TO THE G185 GALVANIZED COATING.
8. ALL STRUCTURAL WOOD MEMBERS (GLULAM, DECKING, DIMENSIONED LUMBER, SHEATHING) SHALL BE TREATED WITH PRESERVATIVES.
9. GLULAM MEMBER DIMENSIONS ARE ACTUAL SIZES.
10. ROOF DECKING, ROOF JOIST, RAFTER, AND OTHER MISCELLANEOUS WOOD MEMBER DIMENSIONS ARE NOMINAL SIZES UNLESS THE SIZE IS FOLLOWED BY (") INDICATING THAT THE DIMENSION IS ACTUAL SIZE.
11. ROOF SHEATHING CONSTRUCTION:
   A. SHEATHING THICKNESS: 7/16"
   B. SHEATHING GRADE: EXTERIOR; STRUCTURAL 1
   C. REFER TO DETAILS ON SHEET S2-03 FOR SHEATHING FASTENER REQUIREMENTS.
12. PROVIDE ASTM A307 STEEL BOLTS, WITH ASTM A 563 HEX NUTS, UNLESS OTHERWISE NOTED.

ADHESIVE ANCHORS

1. THE ADHESIVE ANCHOR SYSTEM USED FOR POST INSTALLED ANCHORAGE TO CONCRETE MUST CONFORM TO THE REQUIREMENTS OF THE MOST RECENTLY PUBLISHED ACI 355.4, "ACCEPTANCE CRITERIA FOR QUALIFICATION OF POST-INSTALLED ADHESIVE ANCHORS IN CONCRETE AND COMMENTARY." EACH ADHESIVE ANCHOR SYSTEM MUST SATISFY THE STRENGTH REQUIREMENTS FOR ITS USE. BULK-MIXED ADHESIVES ARE NOT PERMITTED. ADHESIVE ANCHORAGE DESIGN IS IN ACCORDANCE WITH ACI 318-14. ADHESIVE ANCHORS IN CONCRETE MUST BE QUALIFIED FOR USE IN CRACKED CONCRETE IN ACCORDANCE WITH ACI 355.4. PROVIDE THE FOLLOWING ANCHOR SYSTEMS, OR APPROVED EQUALS:

A. ANCHORAGE TO CONCRETE
   i. HILTI HIT-HY 200-R V3 WITH HILTI HAS-R THREADED ROD.

B. ANCHORAGE TO CONCRETE MASONRY
   i. HILTI HIT-HY 270 MASONRY ADHESIVE ANCHORING SYSTEM WITH HILTI HAS-R THREADED ROD.
   ii. PROVIDE MESH SLEEVE AT HOLLOW MASONRY LOCATIONS.

2. PROVIDE HOT-DIPPED GALVANIZED STEEL ANCHORS.
3. CONCRETE AT THE TIME OF ADHESIVE ANCHOR INSTALLATION MUST HAVE A MINIMUM AGE OF 21 DAYS.

ADHESIVE ANCHORS (CONTINUED)

4. INSTALL ADHESIVE ANCHORS WITH A MINIMUM EDGE DISTANCE OF 3 INCHES TO ANY FREE EDGE OF CONCRETE AND 4 INCHES TO ANY FREE EDGE OF MASONRY, OR EDGE DISTANCE INDICATED ON DRAWINGS, WHICHEVER IS GREATER.
5. INSTALL ADHESIVE ANCHORS WITH TRAINED QUALIFIED PERSONNEL, IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS.
6. PROVIDE THOROUGHLY CLEANED ANCHOR HOLES PRIOR TO ADHESIVE INJECTION, AS REQUIRED BY THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS. PROTECT DRILLED AND CLEANED ANCHOR HOLES FROM CONTAMINATION UNTIL THE ADHESIVE IS INSTALLED.
7. PROVIDE ANCHORS CLEAN, OIL-FREE, AND FREE OF LOOSE RUST, PAINT, OR OTHER COATINGS.
8. PROVIDE INSTALLED ADHESIVE ANCHORS SECURELY FIXED IN-PLACE TO PREVENT DISPLACEMENT WHILE THE ADHESIVE CURES.
9. ARRANGE FOR AN ANCHOR MANUFACTURER'S REPRESENTATIVE TO PROVIDE ONSITE INSTALLATION TRAINING FOR ALL OF THEIR ANCHORING PRODUCTS SPECIFIED. THE ENGINEER MUST RECEIVE DOCUMENTED CONFIRMATION THAT ALL PERSONNEL WHO INSTALL ANCHORS ARE TRAINED PRIOR TO THE COMMENCEMENT OF INSTALLING ANCHORS.
10. PERSONNEL INSTALLING HORIZONTAL OR OVERHEAD ADHESIVE ANCHORS MUST BE QUALIFIED PER THE SPECIFICATIONS.
11. DO NOT DAMAGE EXISTING REINFORCING STEEL IN THE CONCRETE DURING ANCHOR INSTALLATION, UNLESS OTHERWISE NOTED ON THE DRAWINGS. PRIOR TO ANCHOR INSTALLATION, DETERMINE LOCATION OF EXISTING REINFORCING STEEL BY NON-DESTRUCTIVE MEANS AND NOTIFY THE ENGINEER OF ANY CONFLICTS BETWEEN REINFORCING STEEL AND ANCHOR LOCATION PRIOR TO FABRICATION OF MATERIALS.
12. DESIGN BASIS FOR ADHESIVE ANCHORS IS INDICATED ABOVE. SUBSTITUTIONS WILL BE CONSIDERED, BUT PRODUCT MUST MEET OR EXCEED ALL CRITERIA OF THE SPECIFIED ANCHOR. SUBSTITUTION REQUESTS MUST BE APPROVED IN WRITING BY THE ENGINEER PRIOR TO USE. PROVIDE PRODUCT DATA AND CALCULATIONS DEMONSTRATING THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE PERFORMANCE OF THE SPECIFIED PRODUCT. SUBSTITUTIONS WILL BE EVALUATED BY THEIR HAVING AN ICC ESR SHOWING COMPLIANCE WITH THE RELEVANT BUILDING CODE FOR SEISMIC USES, LOAD RESISTANCE, INSTALLATION CATEGORY, AND AVAILABILITY OF COMPREHENSIVE INSTALLATION INSTRUCTIONS. ADHESIVE ANCHOR EVALUATION WILL ALSO CONSIDER CREEP, IN-SERVICE TEMPERATURES AND INSTALLATION TEMPERATURE.

DESIGN LOADS AND CRITERIA

ALL LOADS INDICATED BELOW ARE UNFACTORED

1. RISK CATEGORY: II
2. DEAD LOADS:
   A. STRUCTURES: ACTUAL WEIGHT
   B. SUPERIMPOSED DEAD LOAD:
      i. ROOF: 15 PSF
      ii. SUPERIMPOSED DEAD LOAD INCLUDES COMBINED WEIGHT OF ALL PERMANENT NON-STRUCTURAL COMPONENTS SUPPORTED BY THE FRAMING, INCLUDING MEP COMPONENTS, ROOFING, AND FLOOR AND CEILING FINISHES.
3. LIVE LOADS:
   A. FLOOR SLAB: 60 PSF
   B. GUARDRAIL - 200 LBS AT EACH POST OR 50 PLF ALONG THE TOP RAIL, WHICHEVER IS GREATER.
4. ROOF LIVE LOAD: 30 PSF OR 300 LB CONCENTRATED LOAD
5. ROOF SNOW LOAD:
   A. GROUND SNOW LOAD (Pg): 30 PSF
   B. EXPOSURE FACTOR (Ce): 1.0
   C. THERMAL FACTOR (Ct): 1.2
   D. SNOW LOAD IMPORTANCE FACTOR (Is): 1.0
   E. FLAT ROOF SNOW LOAD (Pf): 20 PSF
   F. SNOW DRIFT: PER ASCE 7
6. WIND LOAD:
   A. ULTIMATE WIND SPEED (Vult): 115 MPH
   B. NOMINAL WIND SPEED (Vasd): 89 MPH
   C. EXPOSURE CATEGORY: C
   D. INTERNAL PRESSURE COEFFICIENT: +/- 0.18
   E. COMPONENTS AND CLADDING: PER ASCE 7-16
7. SEISMIC LOAD:
   A. SEISMIC IMPORTANCE FACTOR (Ie): 1.0
   B. MAXIMUM EARTHQUAKE SPECTRAL RESPONSE ACCELERATION AT SHORT PERIODS: Ss=0.135g
   C. MAXIMUM EARTHQUAKE SPECTRAL RESPONSE ACCELERATION AT ONE-SECOND: S1=0.043g
   D. SITE CLASSIFICATION: D
   E. SITE SEISMIC COEFFICIENT: Fa=1.6; Fv=2.4
   F. SPECTRAL RESPONSE COEFFICIENTS: SDS = 0.144; SD1 = 0.069
   G. SEISMIC DESIGN CATEGORY: B
   H. ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE
   I. BASIC SEISMIC FORCE RESISTING SYSTEM: ORDINARY REINFORCED CMU SHEAR WALLS
   J. RESPONSE MODIFICATION FACTOR: R=2
   K. SEISMIC RESPONSE COEFFICIENT: Cs=0.072
   L. DESIGN BASE SHEAR,v: V = Cs * W (W, EFFECTIVE SEISIC WEIGHT OF STRUCTURE)

CODES AND STANDARDS

1. INTERNATIONAL BUILDING CODE IBC (2018), INCLUDING THE MODIFICATIONS MADE BY LOCAL JURISDICTION
2. AMERICAN INSTITUTE OF STEEL CONSTRUCTION AISC 360 (2016) "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS"
3. AMERICAN CONCRETE INSTITUTE ACI 318 (2014), "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE"
4. THE MASONRY SOCIETY (TMS)
   A. TMS 402 (2016), "BUILDING CODE FOR MASONRY STRUCTURES"
   B. TMS 602 (2016), "SPECIFICATION FOR MASONRY STRUCTURES"
5. AMERICAN WOOD COUNCIL NDS (2018), "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION"
6. AMERICAN SOCIETY OF CIVIL ENGINEERS ASCE 7 (2016), "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES"

STATEMENT OF SPECIAL INSPECTION

1. SPECIAL INSPECTION OF STRUCTURL COMPONENTS MUST BE IN ACCORDANCE WITH MONTGOMERY COUNTY MARYLAND, DEPARTMENT OF PERMITTING SERVICES, DIVISION OF BUILDING CONSTRUCTION, "SPECIAL INSPECTIONS PROGRAM". REFER TO HEREINAFTER AS THE "MANUAL".
2. REFER TO THE MANUAL FOR ADDITIONAL SPECIAL INSPECTIONS REQUIREMENTS.
3. CONCRETE CONSTRUCTION IN ACCORDANCE WITH IBC 1705.3 AND THE MANUAL.
4. MASONRY CONSTRUCTION IN ACCORDANCE WITH IBC1705.4 AND QUALITY ASSURANCE PROGRAM REQUIREMENTS OF TMS 402 AND TMS 602, LEVEL B, AND THE MANUAL.
5. SOILS INSPECTION AND TESTING SERVICE IN ACCORDANCE WITH IBC 1705.6 AND THE MANUAL.

DELEGATED DESIGN

1. DESIGN AND DETAILING RESPONSIBILITY FOR THE FOLLOWING ENGINEERED SYSTEMS AND COMPONENTS IS DELEGATED TO A QUALIFIED PROFESSIONAL ENGINEER, SELECTED AND HIRED BY THE CONTRACTOR. THESE SYSTEMS AND COMPONENTS INCLUDE, BUT ARE NOT LIMITED TO:
   A. GUARDRAILS AND HANDRAILS (*)
   B. TEMPORARY SUPPORT OF EXCAVATION AND STRUCTURES
   C. CONCRETE FORMWORK AND SHORING
2. DELEGATED DESIGN ITEMS MUST COMPLY WITH THE APPLICABLE DESIGN CODES, STANDARDS, CRITERIA, AND LOADS INDICATED IN THE CONSTRUCTION DOCUMENTS.
3. FOR DELEGATE DESIGN ITEM WITH AN (*) MARK ABOVE, PROVIDE CALCULATIONS AND SHOP DRAWINGS STAMPED AND SIGNED BY A REGISTERED PROFESSIONAL ENGINEER. SUBMIT CALCULATIONS AND SHOP DRAWINGS FOR REVIEW AND APPROVAL.

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._____
EXPIRATION DATE:_____

Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL
Chief, Transportation Planning and Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date

Designed by: KC Drawn by: KC Checked by: WC

S0-01 GENERAL STRUCTURAL NOTES

BOYDS TRANSIT IMPROVEMENTS

SCALE : NTS OCTOBER 2023

Project No. : 32207.003 SHEET 48 of 78

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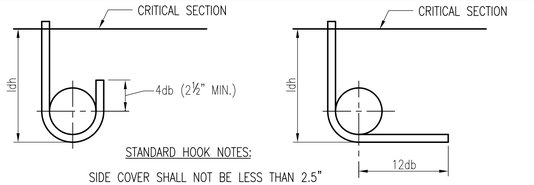
11/2/2023

LAP SPLICE LENGTH					MINIMUM TENSION EMBEDMENTS			
BAR SIZE	SLAB AND WALL		BEAM		STD 90° HOOK		STD 180° HOOK	
	OTHER BARS	TOP BARS	OTHER BARS	TOP BARS	ldh	12db	ldh	4db
#3	12"	13"	12"	13"	6"	5"	6"	3"
#4	14"	18"	17"	22"	6"	6"	6"	3"
#5	17"	22"	25"	32"	8"	8"	8"	3"
#6	20"	26"	34"	44"	9"	9"	9"	3"
#7	33"	43"	49"	63"	11"	11"	11"	4"
#8	42"	54"	56"	72"	12"	12"	12"	4"
#9	52"	67"	63"	81"	14"	14"	14"	5"
#10	63"	82"	71"	92"	16"	16"	16"	6"
#11	75"	97"	78"	102"	17"	17"	17"	6"



STANDARD HOOK NOTES:

SIDE COVER SHALL NOT BE LESS THAN 2.5"
END COVER ON 90° HOOK SHALL NOT BE LESS THAN 2"

STANDARD 180° AND 90° END HOOKS

LAP SPLICE NOTES:

CONCRETE: 5000 PSI COMPRESSIVE STRENGTH (NORMALWEIGHT CONCRETE)

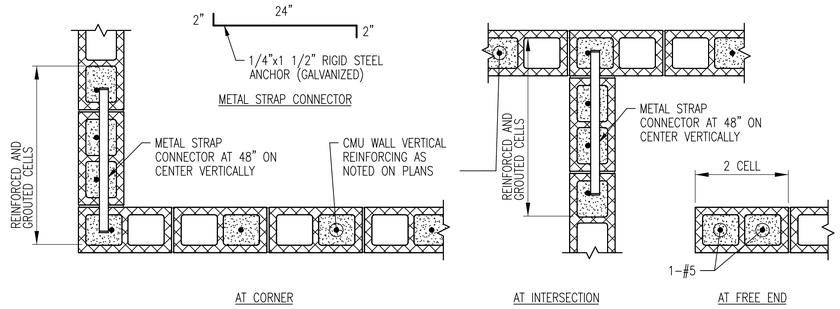
SLAB AND WALL: 6" MINIMUM REBAR SPACING WITH CONCRETE COVER = 1.5" CLEAR

BEAM: MINIMUM CLEAR SPACING BETWEEN BARS = 1.5 db (1.5" MIN). MINIMUM CONCRETE COVER = 1.5" CLEAR. MINIMUM STIRRUP #4@12" PROVIDED.

TOP BAR: HORIZONTAL REINFORCEMENT PLACED SUCH THAT MORE THAN 12? OF FRESH CONCRETE IS CAST BELOW THE DEVELOPMENT LENGTH OR SPLICE.

1 SO-02 TENSION LAP SPLICE AND STANDARD HOOK LENGTH (ACI 318-14)

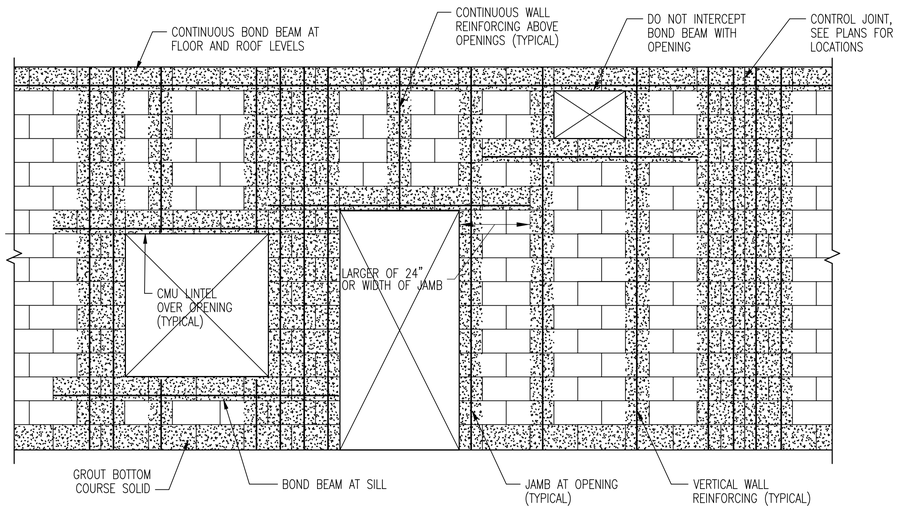
SCALE: NTS



NOTE:
AS AN ALTERNATIVE TO THE METAL STRAP CONNECTOR, INTERLOCK AT LEAST FIFTY PERCENT OF MASONRY UNITS AT THE INTERSECTION.

2 SO-02 TYPICAL CMU WALL REINFORCING DETAILS AT FREE ENDS, CORNERS, AND INTERSECTIONS

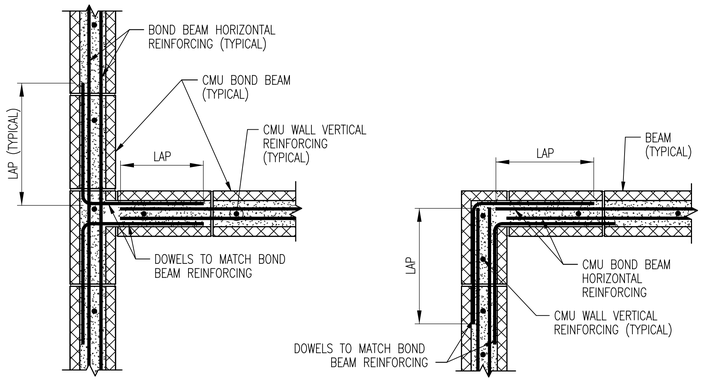
SCALE: NTS



NOTE: PROVIDE REBAR DOWELS AT BASE OF WALL PER TYPICAL DETAIL.

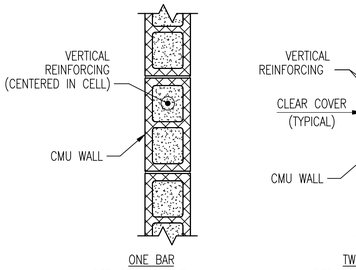
3 SO-02 TYPICAL CONCRETE MASONRY WALL REINFORCING DETAILS

SCALE: NTS



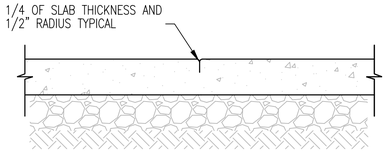
4 SO-02 TYPICAL CMU BOND BEAM REINFORCING DETAIL

SCALE: NTS



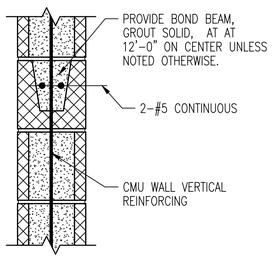
5 SO-02 TYPICAL CMU WALL VERTICAL REINFORCING LAYOUT DETAIL

SCALE: NTS



6 SO-02 TYPICAL FIBER REINFORCED SLAB-ON-GROUND SCORED JOINT (SJ) DETAIL

SCALE: NTS



TYPICAL CMU BOND BEAM DETAIL

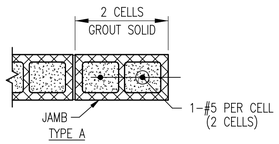
7 SO-02 SCALE: NTS

CMU TENSION LAP SPLICE		
BAR SIZE	8" CMU	
	A	B
#3	12"	17"
#4	13"	30"
#5	20"	46"
#6	38"	86"

NOTES:
1. A= ONE BAR PER CELL. B= TWO BARS PER CELL. REFER TO "TYPICAL CMU WALL VERTICAL REINFORCING LAYOUT DETAIL."
2. BARS SPLICED BY NON-CONTACT LAP SPLICES MUST NOT BE SPACED FARTHER THAN ONE-FIFTH THE REQUIRED LENGTH OF LAP NOR MORE THAN 8".
3. F'm = 2,000 psi
4. GRADE 60 REINFORCING BAR.

8 SO-02 CMU TENSION LAP SPLICE LENGTH

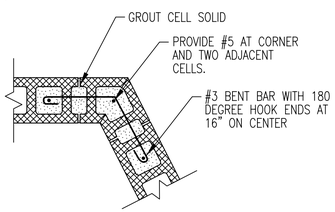
SCALE: NTS



NOTE: PROVIDE TYPE A FOR OPENINGS UP TO 5'-0" WIDE.

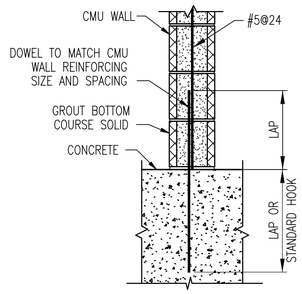
9 SO-02 TYPICAL CMU JAMB DETAIL

SCALE: NTS



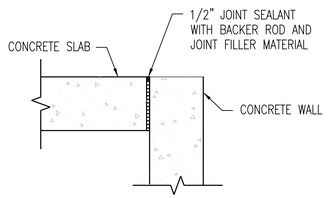
10 SO-02 TYPICAL CMU AT BENT

SCALE: NTS



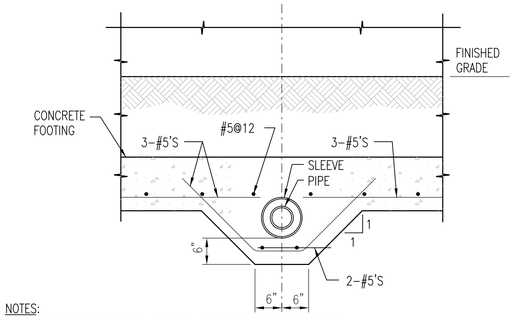
11 SO-02 TYPICAL BASE OF CMU WALL DETAIL

SCALE: NTS



12 SO-02 TYPICAL SLAB EXPANSION JOINT

SCALE: NTS



NOTES:
1. FOR PIPE SIZE AND INVERTS, SEE MECHANICAL DRAWINGS.
2. SLEEVE MUST BE TWO PIPE SIZES LARGER THAN THE PENETRATING PIPE, AND MUST BE EITHER SCHEDULE 80 PVC OR DUCTILE IRON PIPE.
3. FILL GAP BETWEEN THE PIPE AND THE SLEEVE AT BOTH ENDS WITH SPRAY FOAM OR SEALANT TO KEEP STONES FROM ENTERING THE ANNULAR SPACE BETWEEN THE PIPE AND THE SLEEVE.

13 SO-02 TYPICAL PIPE PENETRATION THROUGH FOOTING

SCALE: NTS

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._____
EXPIRATION DATE:_____

Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Transportation Planning and Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: KC Drawn by: WC Checked by: WC

SO-02 – STRUCTURAL TYPICAL DETAILS

BOYDS TRANSIT IMPROVEMENTS

SCALE : NTS OCTOBER 2023

Project No. : 32207.003 SHEET 49 of 78

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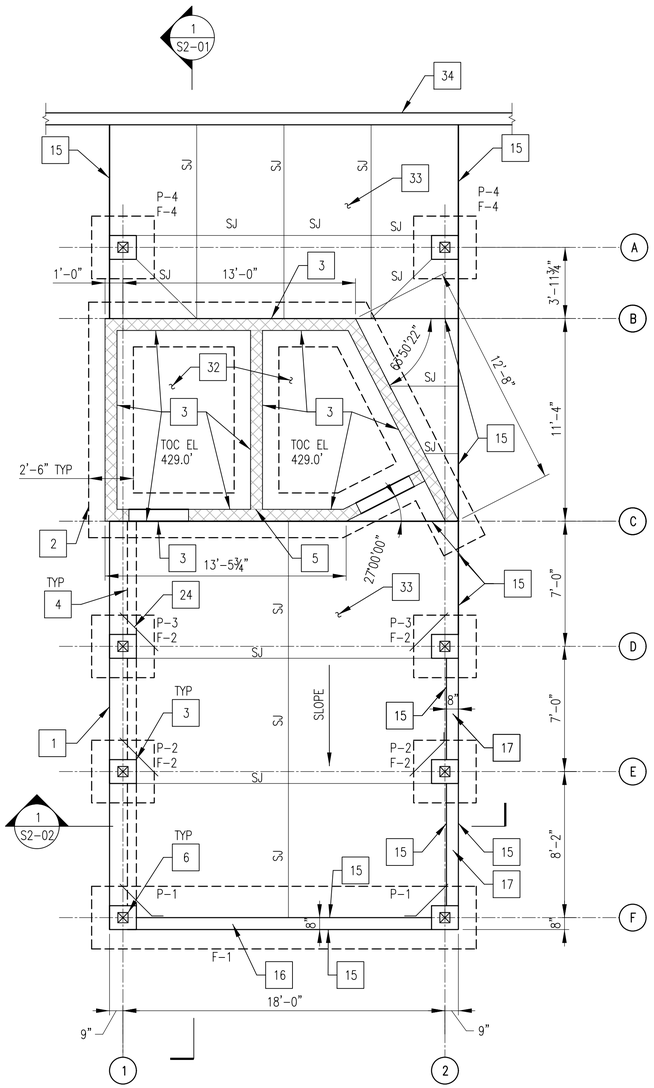
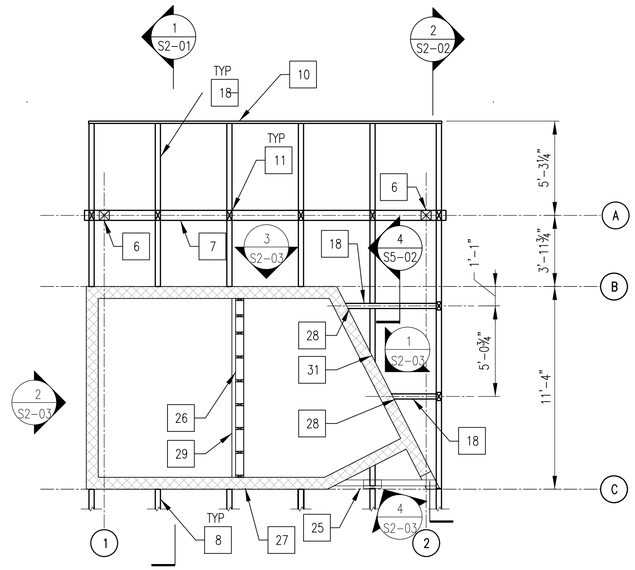
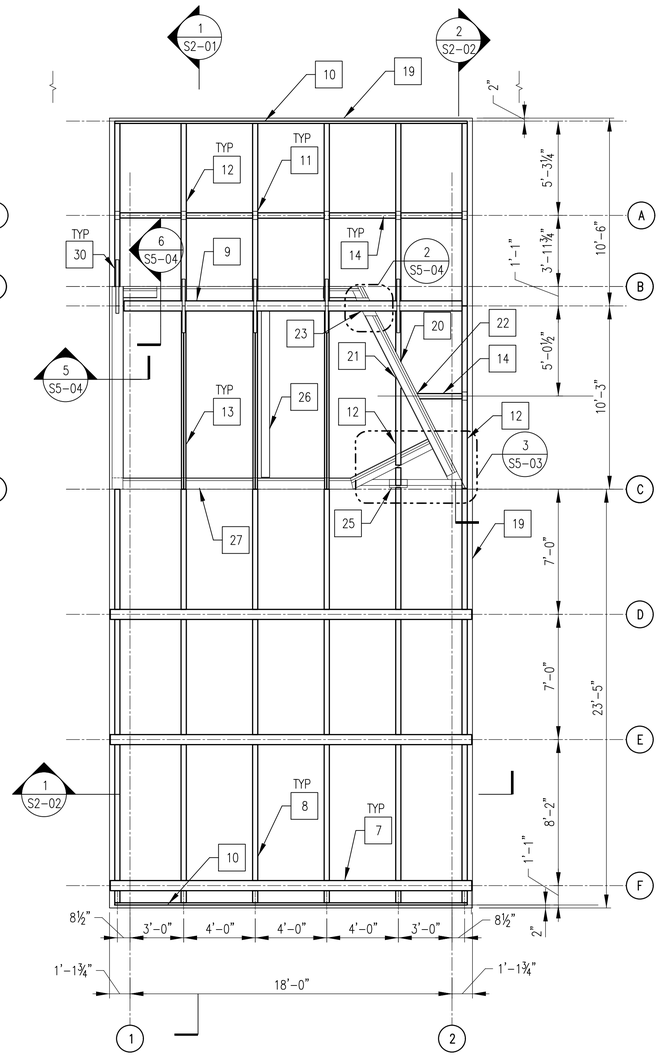
11/2/2023



1 S1-01 FOUNDATION PLAN
SCALE: 1/4 =1'-0"



2 S1-01 LOWER ROOF FRAMING PLAN
SCALE: 1/4 =1'-0"



3 S1-01 ROOF FRAMING PLAN
SCALE: 1/4 =1'-0"

GENERAL KEYNOTES

1. SEE SHEET S0-01 FOR GENERAL STRUCTURAL NOTES.
2. SEE SHEET S0-02 FOR TYPICAL STRUCTURAL DETAILS.
3. SEE SHEET S2-03 FOR CMU ELEVATIONS AND TOP OF CMU WALL ELEVATIONS AND TYPICAL DECKING AND SHEATHING FASTENERS REQUIREMENTS.
4. REFER TO CIVIL DRAWINGS FOR ADJACENT CONCRETE SIDEWALK AROUND THE CANOPY AND BUILDING STRUCTURES.

NEW WORK KEYNOTES

1. EDGE OF CONCRETE SLAB
2. CONTINUOUS CONCRETE FOOTING
3. 1/2" ISOLATION JOINT AROUND CONCRETE PIER, OR CMU WALL WITH BACKER ROD AND SEALANT,TYPICAL
4. THICKENED SLAB EDGE
5. 8" CMU WALL WITH #5@24
6. 6-3/4"X6-7/8" GLULAM POST
7. 6-3/4"X11" GLULAM BEAM
8. 4x8 WOOD JOIST ABOVE BICYCLE STORAGE
9. 6-3/4"X 17-7/8" GLULAM RIDGE MEMBER, CUT TO MATCH ROOF SLOPE
10. 2x8 FASCIA BOARD, CUT TO MATCH ROOF SLOPE
11. 4X6 WOOD POST
12. 4x6 WOOD RAFTER
13. (2)2x12 WOOD RAFTER
14. 4X8 PURLIN, CUT TO MATCH ROOF SLOPE
15. 1/2" ISOLATION JOINT WITH BACKER ROD AND SEALANT
16. 8" THICK CONCRETE RETAINING WALL
17. PROVIDE CONCRETE CURB SIMILAR TO MODIFIED TYPE D CONCRETE CURB DETAIL ON SHEET PD-01.
18. 4x6 WOOD JOIST
19. EDGE OF 1-1/2" TONGUE & GROOVE DECKING AND 7/16" THICK PLYWOOD
20. HU46 X SKR63 SLU37. FACE FASTENERS: (8) 10dX3" NAIL, JOIST FASTENERS: (4) 10dX3" NAIL
21. HU46 X SKR63 SLD37. FACE FASTENERS: (8) TNT 25214H, JOIST FASTENERS: (4) 10dX3" NAIL
22. HU46 X SKL27. FACE FASTENERS: (8) 10dX3" NAIL, JOIST FASTENERS: (4) 10dX3" NAIL
23. PROVIDE POCKET FOR GLULAM BEAM
24. 2-#4X3'-0" RE-ENTRANT CORNER REINFORCING STEEL AT CENTER OF SLAB. TYPICAL
25. HSS 4X4X1/4
26. 2X6 WOOD STUD FRAMING WITH VERTICAL MEMBERS AT 1'-4" ON CENTER
27. SILL PLATE WITH/OR WOOD BLOCKING
28. HU46 X SKL27. FACE FASTENERS: (8) TNT 25214H, JOIST FASTENERS: (4) 10dX3" NAIL
29. 8" CMU WALL (BELOW), TOP OF WALL EL 440.33'
30. SIMPSON STRONG-TIE STRAP TIE MODEL MSTI36. FASTENER (36) 10dX1.5" NAIL
31. HU46 X SKR63. FACE FASTENERS: (8) 10dX3" NAIL, JOIST FASTENERS: (4) 10dX3" NAIL
32. PROVIDE TROWEL FINISH FOR INTERIOR SLAB-ON-GROUND
33. PROVIDE BROOM FINISH FOR EXTERIOR SLAB-ON-GROUND IN THE DIRECTION OF FLOOR SLOPE
34. PAVEMENT CURB

CONCRETE FOOTING SCHEDULE					
TYPE	SIZE	THICKNESS	BOTTOM OF FOOTING ELEVATION	LONGITUDINAL REINFORCING STEEL	TRANSVERSE REINFORCING STEEL (SEE NOTE 1)
F-1	21'-6"X3'-6"	1'-0"	424.25'	#5@12 T&B	#5@12 T&B
F-2	3'-6"X3'-6"	1'-0"	424.50'	#5@12 T&B	#5@12 T&B
F-3	2'-6" WIDE (SEE NOTE 2)	1'-0"	426.00'	3#5	#5@12
F-4	3'-6"X3'-6"	1'-0"	426.00'	#5@12 T&B	#5@12 T&B

NOTES:
1. PLACE TRANSVERSE REINFORCING STEEL AT EXTERIOR FACES OF THE FOOTING.
2. CENTER THE FOOTING UNDER 8" CMU WALL. PROVIDE DOWEL BARS TO MATCH WALL REINFORCING STEEL.

CONCRETE PIER SCHEDULE				
TYPE	SIZE	TOP OF PIER ELEVATION	VERTICAL REINFORCING STEEL	HORZIONTAL TIES
P-1	1'-6"X1'-4"	429.00'	(8)#6	#4@12
P-2	1'-6"X1'-4"	429.25'	(8)#6	#4@12
P-3	1'-6"X1'-4"	429.46'	(8)#6	#4@12
P-4	1'-6"X1'-4"	429.67'	(8)#6	#4@12

SHEET LEGEND

P-X INDICATES A PIER TYPE. SEE PIER SCHEDULE.
F-1 INDICATES A FOOTING TYPE. SEE FOOTING SCHEDULE.
SJ INDICATES SCORED JOINT

0 2' 4' 8'
SCALE: 1/4" = 1'-0"

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._____
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APPROVED
Chief, Division of Transportation Engineering — Date

Designed by: KC Drawn by: KC Checked by: WC

S1-01 FRAMING PLANS

BOYDS TRANSIT IMPROVEMENTS

SCALE : 1/4" = 1'-0" OCTOBER 2023

Project No. : 32207.003 SHEET 50 of 78

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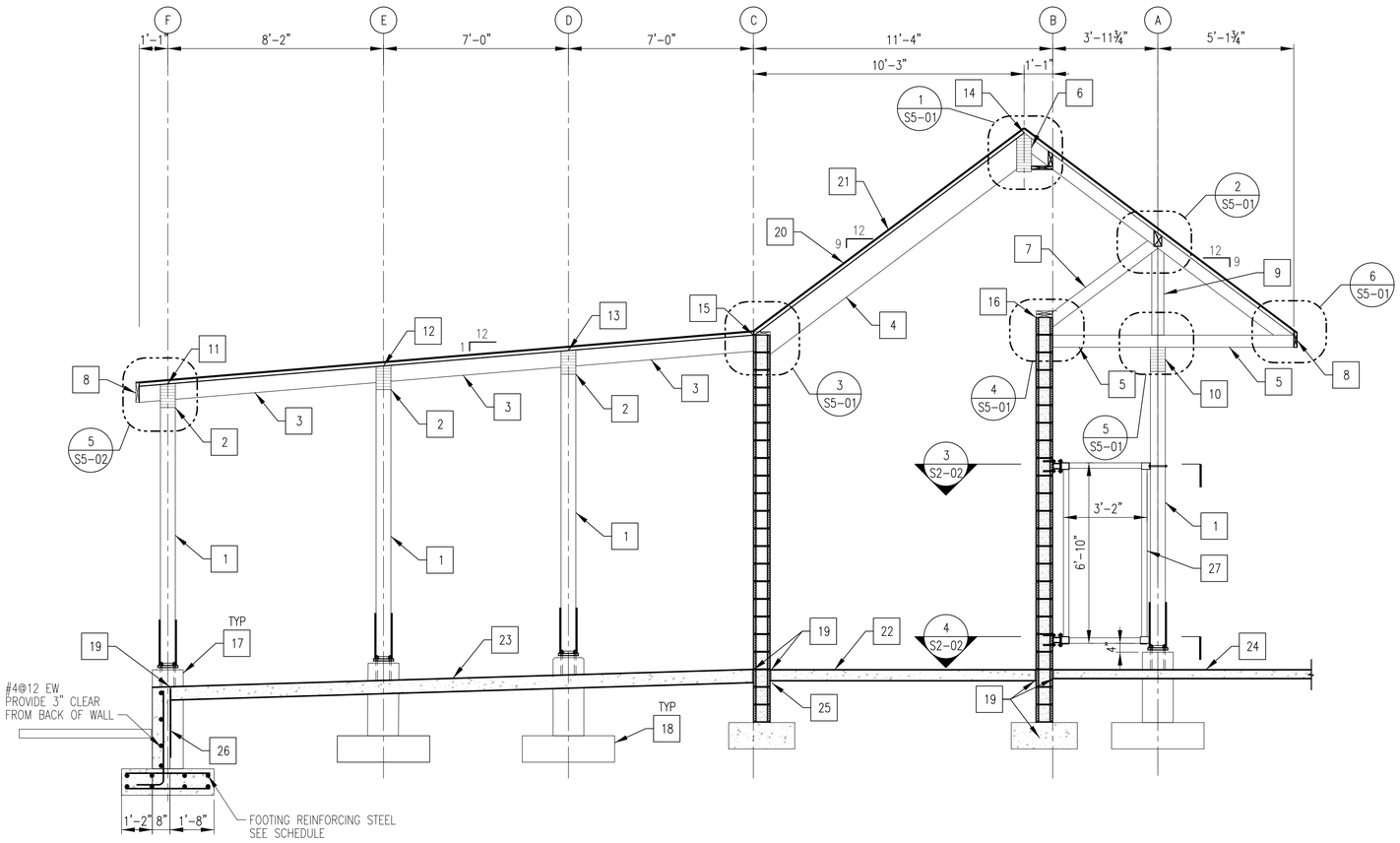
11/2/2023



1 S2-01 SECTION
SCALE: 3/8"=1'-0"
REF: S1-01

GENERAL KEYNOTES

1. SEE SHEET S0-01 FOR GENERAL STRUCTURAL NOTES.
2. SEE SHEET S0-02 TYPICAL STRUCTURAL DETAILS.

NEW WORK KEYNOTES

1	6-3/4"X6-7/8" GLULAM POST
2	6-3/4"X11" GLULAM BEAM. SLOPE TOP OF BEAM TO MATCH ROOF SLOPE.
3	4X8 WOOD JOIST
4	(2) 2X12 WOOD BUILT-UP RAFTER
5	4X6 WOOD RAFTER / JOIST
6	GLULAM RIDGE BEAM, CUT FROM 6-3/4"X17-7/8" TO MATCH ROOF SLOPE
7	4X6 WOOD DIAGONAL
8	2X8 FASCIA BOARD. CUT TO MATCH ROOF SLOPE
9	4X6 POST
10	6-3/4"X11" GLULAM BEAM. TOP OF BEAM EL 441.21'
11	WORKING POINT ELEVATION 439.82'
12	WORKING POINT ELEVATION 440.50'
13	WORKING POINT ELEVATION 441.08'
14	WORKING POINT ELEVATION 449.32' (TOP OF GLULAM)
15	TOP OF CMU BOND BEAM EL 441.67'
16	TOP OF CMU BOND BEAM EL 442.33'
17	CONCRETE PIER (SEE PIER SCHEDULE)
18	CONCRETE FOOTING (SEE FOOTING SCHEDULE)
19	1/2" ISOLATION JOINT WITH JOINT SEALANT
20	1 1/2" TONGUE AND GROOVE DECK
21	7/16" PLYWOOD
22	5" THICK FIBER REINFORCED SLAB-ON-GROUND ON 15 MIL VAPOR BARRIER AND 6" OF NO. 57 STONE. TOP OF FINISHED FLOOR ELEVATION 429.00'
23	6" THICK FIBER REINFORCED SLAB-ON-GROUND ON 6" OF GRADED AGGREGAT BASE
24	4" THICK SIDEWALK. SEE CIVIL SHEETS FOR REQUIREMENTS
25	FOUNDATION INSULATION NOT SHOWN FOR CLARITY. REFER TO ARCHITECTURAL SHEETS FOR REQUIREMENTS
26	PROVIDE DAMP PROOFING ON BACK FACE OF RETANING WALL FROM 4" BELOW TOP OF WALL TO 6" BELOW BOTTOM OF CONCRETE SIDEWALK AT FRONT OF WALL.
27	WIND SCREEN. TOP OF WIND SCREEN EL 436.83'

0 1' 2' 3' 5'
SCALE: 3/8" = 1'-0"

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11/2/2023

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Chief, Transportation Planning and Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date

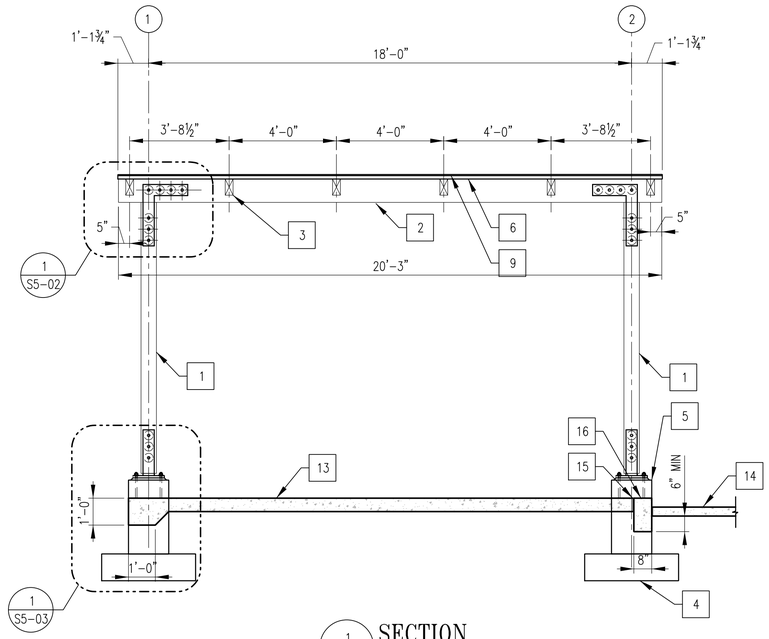
Designed by: KC Drawn by: WC Checked by: WC

S2-01 – SECTION

BOYDS TRANSIT IMPROVEMENTS

SCALE : AS NOTED OCTOBER 2023

Project No. : 32207.003 SHEET 51 of 78



1 / S2-02 SECTION
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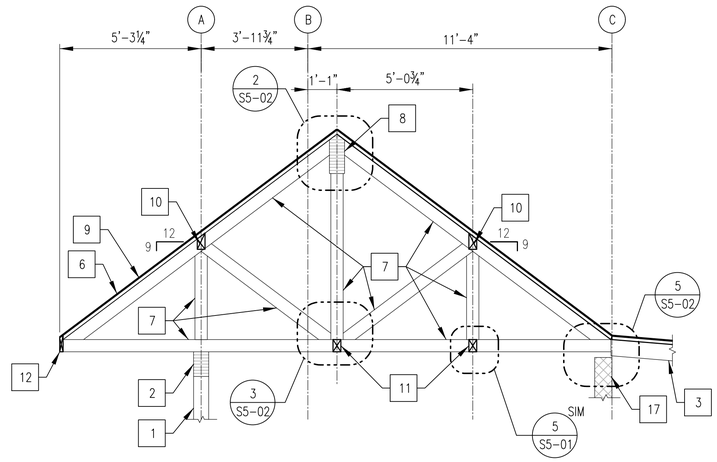

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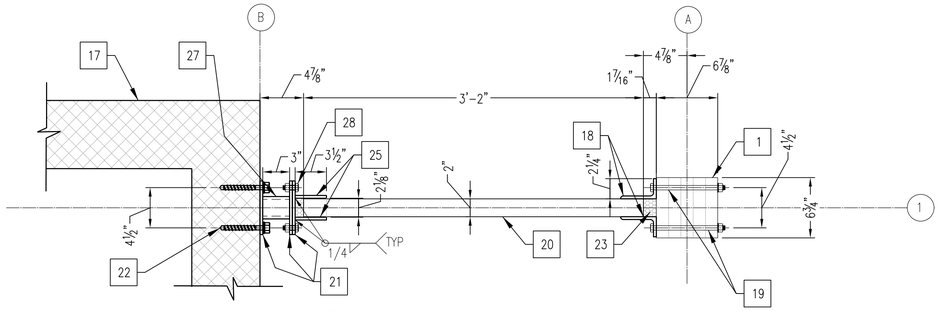

3 / S2-02 SECTION
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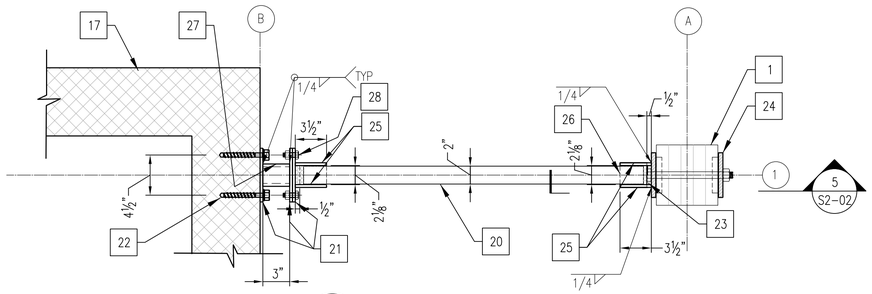
REF: S2-01



4 / S2-02 SECTION
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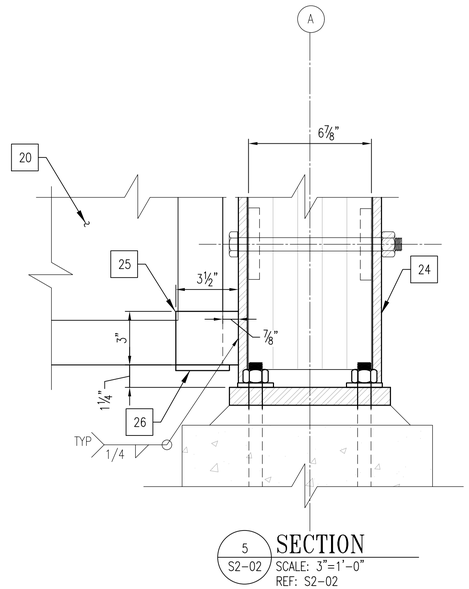
REF: S2-01



5 / S2-02 SECTION
SCALE: 3"=1'-0"
REF: S2-02

GENERAL KEYNOTES

1. SEE SHEET S0-01 FOR GENERAL STRUCTURAL NOTES.
2. SEE SHEET S0-02 FOR TYPICAL STRUCTURAL DETAILS.

NEW WORK KEYNOTES

1	6-3/4"X6-7/8" GLULAM POST
2	6-3/4"X11" GLULAM BEAM
3	4X8 WOOD JOIST
4	SCHEDULED FOOTING (SEE SHEET S1-01)
5	SCHEDULED PIER (SEE SHEET S1-01)
6	1 1/2" TONGUE AND GROOVE DECK
7	4X6 WOOD TRUSS MEMBERS
8	GLULAM RIDGE MEMBER. CUT FROM 6-3/4"X17-7/8" TO MATCH ROOF SLOPE
9	7/16" THICK SHEATHING
10	4X8 WOOD PURLIN, CUT TOP TO MATCH ROOF SLOPE
11	4X6 WOOD JOIST. PROVIDE JOIST SEAT WITH WELDED STEEL PLATE SIMILAR TO SECTION 4/S5-04
12	2X8 WOOD FASCIA BOARD, CUT TO MATCH ROOF SLOPE
13	6" THICK FIBER REINFORCED SLAB-ON-GROUND ON 6" GRADED AGGREGATE BASE
14	4" THICK CONCRETE SIDEWALK, REFER TO CIVIL SHEETS FOR REQUIREMENTS.
15	1/2" ISOLATION JOINT WITH BACKER ROD AND SEALANT
16	CONCRETE CURB. SIMILAR TO MODIFIED TYPE D CONCRETE CURB DETAIL ON SHEET PD-01
17	CMU WALL
18	L5X3X5/16 X 0'-3". CUT SHORT LEG TO 2-1/4" LONG. TOP OF STEEL EL 436.83'
19	1/2" DIAMETER THROUGH BOLT. PROVIDE STANDARD WASHER UNDER NUT
20	WIND SCREEN. 3'-2" X 6'-10". BOTTOM OF WIND SCREEN AT ELEVATION 430.00'
21	VERTICAL PLATE 5/16" X 6" X 0'-6". TOP CONNECTION: TOS EL 439.96' BOTTOM CONNECTION: TOS EL 430.38'
22	(4) 1/2" DIAMETER HILTI KWIK HUS-EZ-CRC SCREW ANCHORS WITH 4-1/4" EMBEDMENT AT 4-1/2" GAGE
23	FILL GAP BETWEEN ANGLES OR PLATES, WIND SCREEN, AND GUSSET PLATES WITH EXPANDABLE, WATERPROOF AND PAINTABLE SPRAY FOAM. AFTER FORM HARDEN, CUT AND GRIND SMOOTH AND COAT WITH EXTERIOR PAINT TO MATCH STEEL ELEMENTS. TYPICAL

NEW WORK KEYNOTES (CONTINUED)

24	REFER TO SHEET S5-03 FOR DETAILS OF GUSSET PLATES, SHEAR PLATES, AND THROUGH BOLT AT THE BOTTOM OF GLULAM POST
25	VERTICAL PLATE 5/16" X 3" X 0'-3 1/2" TOP CONNECTION: TOS EL 436.83' BOTTOM CONNECTION: TOS EL 430.25'
26	PLATE 5/16"X2-3/4" X 0'-3". WELD HORIZONTAL PLATE TO BOTTOM OF VERTICAL 5/16" PLATE WITH CJP AND GRIND WELD SMOOTH, SIMILAR TO SECTION 4 ON SHEET S5-04. LEAVE 1/2" GAP BETWEEN HORIZONTAL PLATE AND VERTICAL GUSSET PLATE. TOP OF STEEL EL 430.00'
27	HSS 2-1/2X2-1/2X5/16. CENTER HSS TO PLATE 5/16"X6"X0'-6"
28	(4) 1/2" DIAMETER BOLTS, ASTM F3125 GRADE 325, PRETENSIONED, AT 4-1/2" GAGE.

0 1' 2' 3' 5'
SCALE: 3/8" = 1'-0"

0 4" 8" 16"
SCALE: 1 1/2" = 1'-0"

0 2" 4" 8"
SCALE: 3" = 1'-0"

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Chief, Transportation Planning and Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: KC Drawn by: WC Checked by: WC

S2-02 – SECTIONS

BOYDS TRANSIT IMPROVEMENTS

SCALE : AS NOTED OCTOBER 2023

Project No. : 32207.003 SHEET 52 of 78

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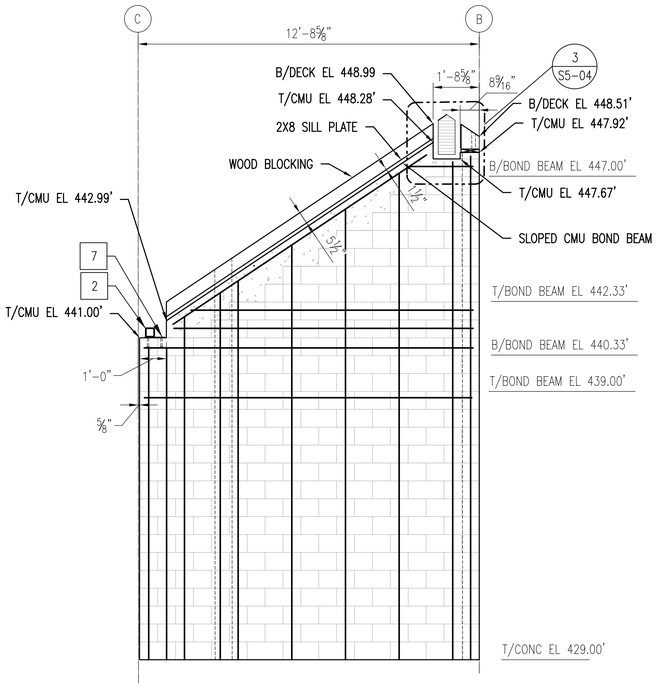
11/2/2023



1 S2-03 ELEVATION
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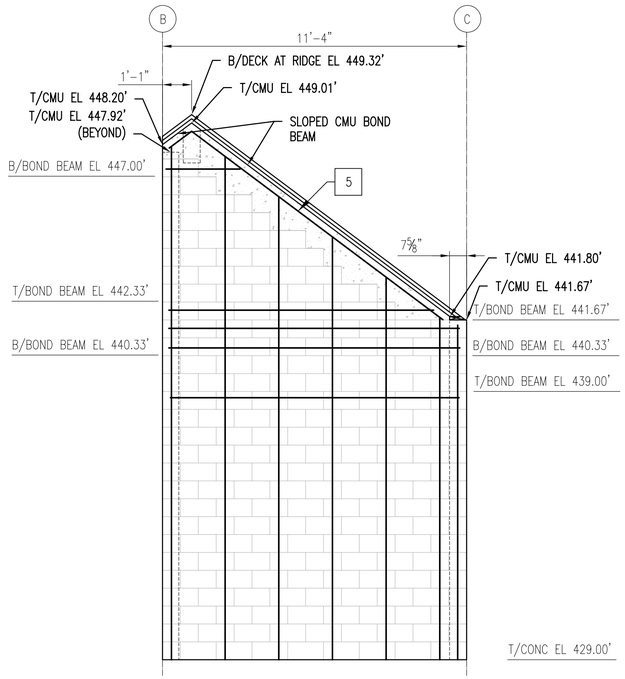

2 S2-03 ELEVATION
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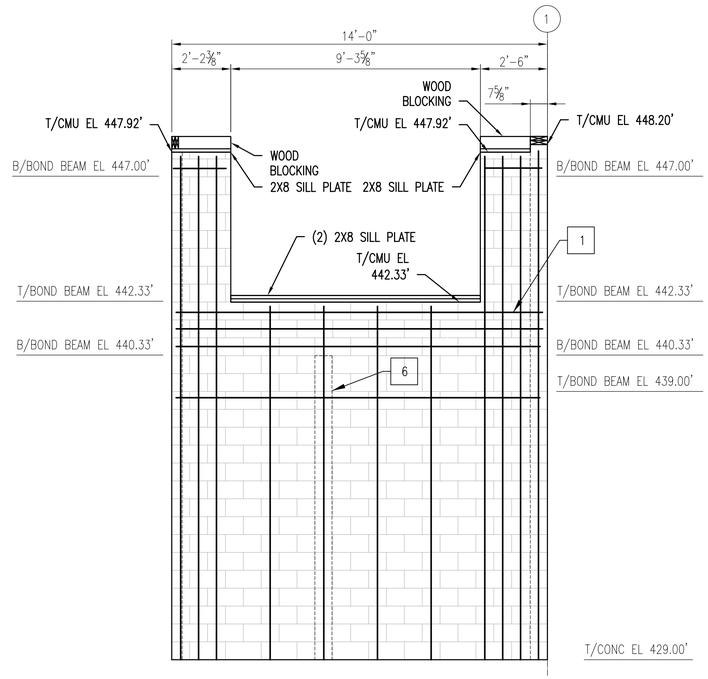
REF: S1-01



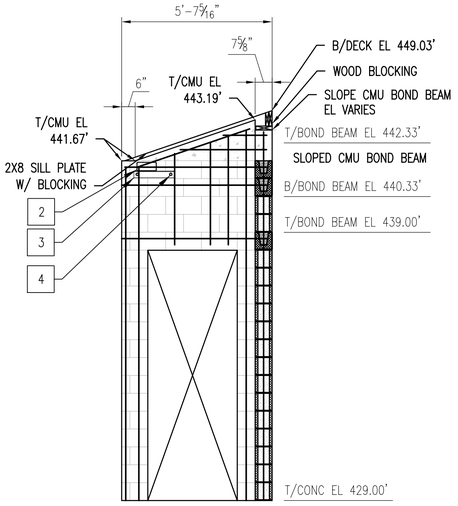
3 S2-03 ELEVATION
SCALE: 3/8"=1'-0"
REF: S1-01

GENERAL KEYNOTES

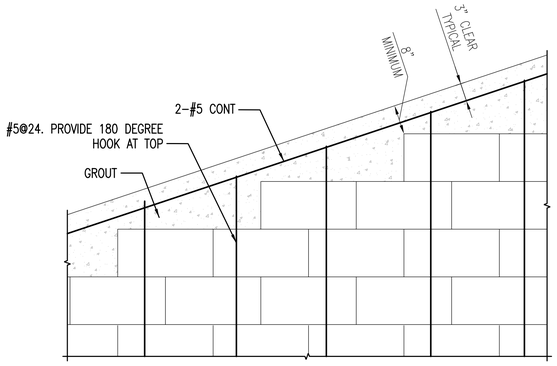
1. SEE SHEET S0-01 FOR GENERAL STRUCTURAL NOTES.
2. SEE SHEET S0-02 FOR TYPICAL STRUCTURAL DETAILS.
3. THE CMU WALL ELEVATION VIEWS SHOWN ON THIS SHEET ARE INTENDED TO CLARIFY THE TOP OF CMU WALL ELEVATIONS, LOCATION OF BOND BEAMS (BY SHOWING THE BOND BEAM REINFORCING STEEL), AND LOCATION OF VERTICAL CMU REINFORCING STEEL. NOT ALL ROOF FRAMING ELEMENTS AND CMU REINFORCING STEEL ARE SHOWN FOR CLARITY.

NEW WORK KEYNOTES

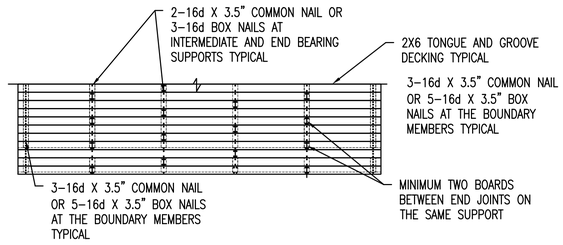
1	CMU BOND BEAM REINFORCING STEEL, TYPICAL
2	HSS4X4X1/4
3	L3X3X1/4 X 1'-6" LONG
4	3/4" DIAMETER HILTI HY-270 ADHESIVE ANCHOR WITH 6-3/4" EMBEDMENT
5	SLOPED CMU BOND BEAM REINFORCING STEEL, TYPICAL
6	PROVIDE CMU BOND BEAM IN PARTITION WALL BEYOND. TOP OF BOND BEAM EL 439.00'. GROUT WALL BEYOND SOLID ABOVE BOND BEAM.
7	PLATE 3/8" X 5" X 0'-9" WITH (2) 5/8" X 4" LONG SHEAR STUDS WELDED TO BOTTOM OF PLATE AT 6" GAGE



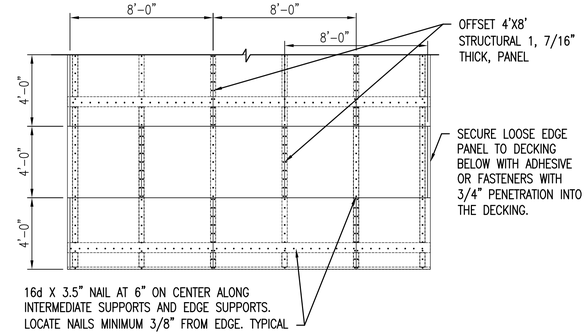
4 S2-03 ELEVATION
SCALE: 3/8"=1'-0"
REF: S1-01



5 S2-03 SLOPED CMU BOND BEAM TYPICAL DETAIL
SCALE: NTS



6 S2-03 ROOF DECKING FASTENERS TYPICAL DETAIL
SCALE: NTS



NOTE: 2X6 TONGUE AND GROOVE DECKING BELLOW SHEATHING NOT SHOWN FOR CLARITY

7 S2-03 ROOF SHEATHING FASTENERS TYPICAL DETAIL
SCALE: NTS

0 1' 2' 3' 5'
SCALE: 3/8" = 1'-0"

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S2-03 - ELEVATIONS AND DETAILS

BOYDS TRANSIT IMPROVEMENTS

SCALE : AS NOTED OCTOBER 2023

Project No. : 32207.003 SHEET 53 of 78

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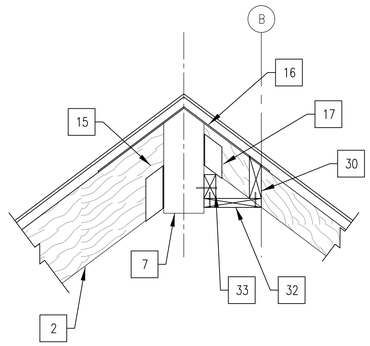
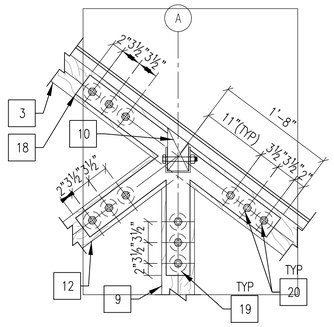
11/2/2023



1 S5-01 DETAIL
SCALE 1" = 1'-0"
REF: S2-01



2 S5-01 DETAIL
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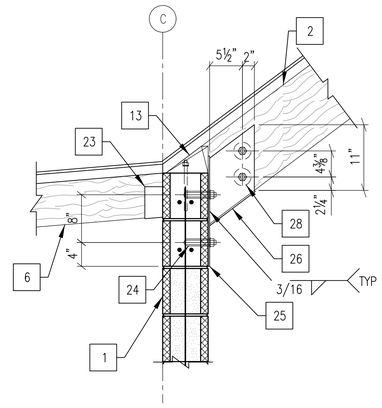
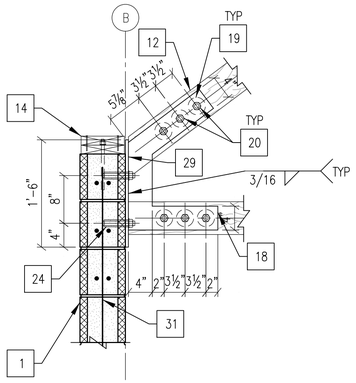


3 S5-01 DETAIL
SCALE 1" = 1'-0"
REF: S2-01



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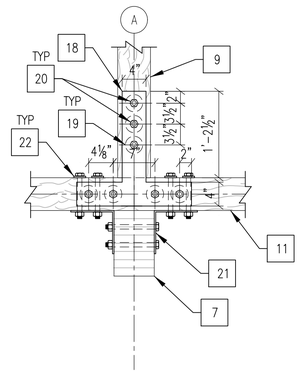
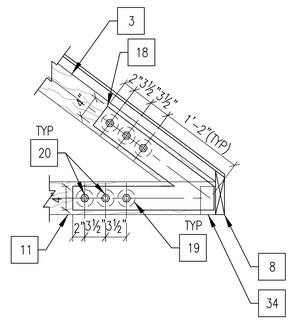


5 S5-01 DETAIL
SCALE 1" = 1'-0"
REF: S2-01



6 S5-01 DETAIL
SCALE 1" = 1'-0"
REF: S2-01

0 6" 1' 2'
SCALE: 1" = 1'-0"

GENERAL KEYNOTES

1. SEE SHEET S0-01 FOR GENERAL STRUCTURAL NOTES.
2. SEE SHEET S0-02 FOR TYPICAL STRUCTURAL DETAILS.

NEW WORK KEYNOTES

1. 8" CMU WALL
2. (2)x 2x12 WOOD RAFTER. FASTENED TOGETHER WITH 10d X 3" NAIL AT 24" ON CENTER, FACE NAIL AT TOP AND BOTTOM STAGGERED ON OPPOSITE SIDES
3. 4X6 WOOD RAFTER
4. 6-3/4"X6-7/8" GLULAM POST
5. GLULAM RIDGE BEAM. CUT FROM 6-3/4" X 17-7/8" TO MATCH ROOF SLOPE.
6. 4x8 WOOD JOIST
7. 6-3/4"X11" GLULAM BEAM
8. 2x8 FASCIA BOARD. CUT TO MATCH ROOF SLOPE.
9. 4X6 WOOD POST
10. 2x6 WOOD PURLIN
11. 4X6 WOOD JOIST
12. 4X6 WOOD DIAGONAL
13. WOOD BLOCKING. FASTEN WOOD BLOCKING TO CMU BOND BEAM WITH 1/2" DIAMETER ADHESIVE BOLTS WITH STANDARD WASHRES AT 2'-0" ON CENTER. RECESS HEX NUT AND BOLT AND PROVIDE MINIMUM 1-1/2" OF WOOD BELOW STANDARD WASHER
14. (2) 2X8 SILL PLATES. SECURE BOTTOM 2X8 SILL PLATE TO CMU BOND BEAM WITH 1/2" DIAMETER ADHESIVE BOLT WITH STANDARD WASHER AT 2'-0" ON CENTER. SECURE TOP 2X8 TO BOTTOM 2X8 WITH (3) 10dX3" NAIL AT 6" ON CENTER
15. SIMPSON STRONG-TIE JOIST HANGER MODEL HU210-2 X SLD37. FACE FASTENERS: (14) 10dX3" NAIL. JOIST FASTENERS: (6) 10dX3" NAIL
16. SIMPSON STRONG-TIE STRAP TIE MODEL NO. MSTI36. FASTENERS (36) 10d X 1.5" NAIL
17. SIMPSON STRONG-TIE JOIST HANGER MODEL HHUS46xSLD37. FACE FASTENERS: (14) 10d X 3" NAIL. JOIST FASTENERS: (6) 10dX3" NAIL
18. 3/8" GUSSET PLATE ON BOTH SIDES OF MEMBER
19. (3) 2-5/8" DIAMETER SHEAR PLATE ON BOTH SIDES OF MEMBER WITH 3/4" DIAMETER THROUGH BOLTS WITH STANDARD WASHERS
20. SHORT-SLOTTED HOLES IN STEEL PLATE (BOTH SIDES) PERPENDICULAR TO LENGTH OF MEMBER. TWO PER BOLT GROUP. PROVIDE STANDARD HOLE OTHERWISE.
21. SIMSPON STRONG-TIE HEAVY ANGLE MODEL NO. HL73 BOTH SIDES
22. PROVIDE STANDARD HOT-DIPPED GALVANIZED WASHER
23. SIMPSON STRONG-TIE JOIST HANGER HUC46XSLD6. FACE FASTENER: (8) TNT25214H, JOIST FASTENERS: (6) 10dX3 NAIL
24. (2) 3/4" DIAMETER HILTI HY-270 ADHESIVE ANCHOR WITH 6-3/4" EMBEDMEDMENT. BOTH SIDES AT 8" SPACING CENTERED ON JOIST.
25. PL 3/8"x1'-0"x1'-6 1/2" CENTERED ON RAFTER
26. 1/4" BENT PLATE JOIST SEAT
28. (2) 2-5/8" DIAMETER SHEAR PLATE ON BOTH SIDES OF MEMBER WITH 3/4" DIAMETER THROUGH BOLTS
29. PL 3/8x1'-0"x1'-6" CENTERED ON JOIST
30. 2X8 JOIST. CUT TO MATCH ROOF SLOPE WITH SIMPSON STRONG-TIE HANGER LU24. FACE FASTENERS: (4) 10dX1.5 NAIL, JOIST FASTENERS: (2) 10dX1.5 NAIL
31. #5@24"
32. 2X 9-5/8" HEADER. FASTENED TO JOIST AND NAILINGN BLOCK WITH 8d X 2.75" NAIL AT 6" ON CENTER
33. 2X4 NAILING BLOCK. FASTENED TO GLULAM WITH 10d X 3" NAIL AT 6" ON CENTER
34. SIMPSON STRONG-TIE HANGER HUC46. FACE FASTENERS: (8) 10d X 1.5" NAIL. JOIST FASTENERS: (4) 10d X 3" NAIL

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._____
EXPIRATION DATE:_____

Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Transportation Planning and Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: KC Drawn by: WC Checked by: WC

S5-01 - DETAILS

BOYDS TRANSIT IMPROVEMENTS

SCALE : AS NOTED OCTOBER 2023

Project No. : 32207.003 SHEET 54 of 78

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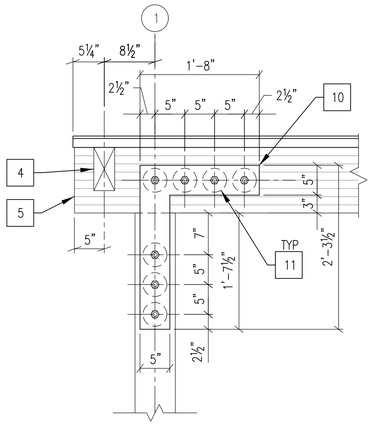
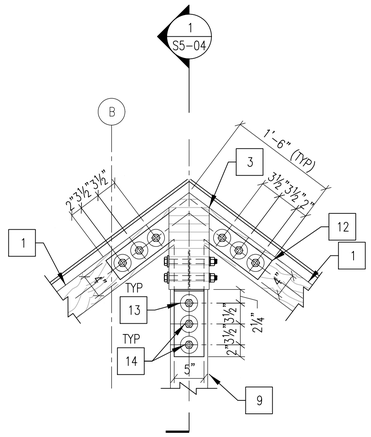
11/2/2023



NOTE: GLULAM BEAM CONNECTIONS TO GLULAM POST IS TYPICAL FOR ALL 8 LOCATIONS.

1 / S5-02 **DETAIL**
SCALE 1" = 1'-0"
REF: S2-02



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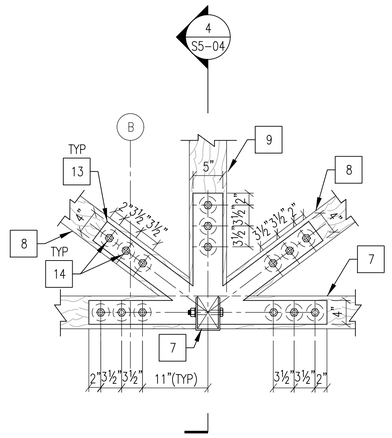

3 / S5-02 **DETAIL**
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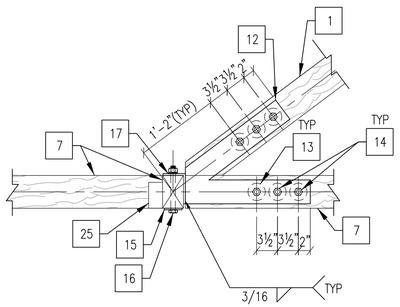

4 / S5-02 **SECTION**
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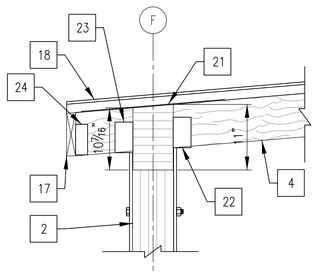

5 / S5-02 **SECTION**
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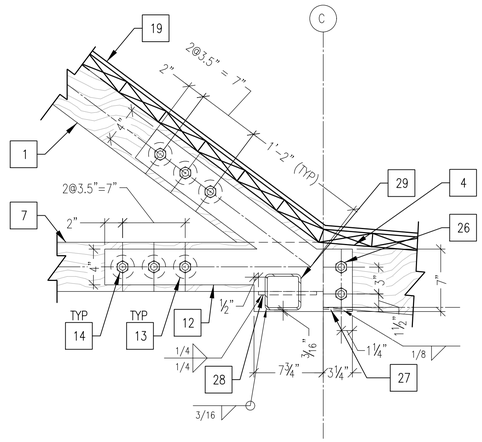
REF: S2-01



6 / S5-02 **DETAIL**
SCALE 1 1/2" = 1'-0"
REF: S2-01

GENERAL KEYNOTES

1. SEE SHEET S0-01 FOR GENERAL STRUCTURAL NOTES.
2. SEE SHEET S0-02 FOR TYPICAL STRUCTURAL DETAILS.

NEW WORK KEYNOTES

1. 4X6 WOOD RAFTER
2. 6-3/4"X6-7/8" GLULAM POST
3. GLULAM RIDGE BEAM. CUT FROM 6-3/4" X 17-7/8" TO MATCH ROOF SLOPE.
4. 4x8 WOOD JOIST
5. 6-3/4"X11" GLULAM BEAM
6. 4X6 WOOD POST
7. 4X6 WOOD JOIST
8. 4X6 WOOD DIAGONAL
9. 4x8 WOOD POST
10. 1/2" GUSSET PLATE ON BOTH SIDES OF MEMBER
11. 4" DIAMETER SHEAR PLATE ON BOTH SIDES OF MEMBER WITH 3/4" DIAMETER THROUGH BOLTS
12. 3/8" GUSSET PLATE BOTH SIDES OF MEMBER
13. (3) 2-5/8" DIAMETER SHEAR PLATE ON BOTH SIDES OF MEMBER WITH 3/4" DIAMETER THROUGH BOLTS
14. SHORT-SLOTTED HOLES (13/16"X1") IN STEEL PLATE (BOTH SIDES) PERPENDICULAR TO LENGTH OF MEMBER. TWO PER BOLT GROUP.
15. 3" DIAMETER 1/4" THICK HOT-DIP GALVANIZED ROUND PLATE WASHER, TYPICAL
16. (2)3/4" DIAMETER THROUGH BOLT @ 3" ON CENTER
17. L5x3-1/2x5/16 (LLV) X 0'-6" LONG. GRIND CORNER OF 4X6 AT CONER OF ANGLE TO PROVIDE TIGHT FIT. PROVIDE TRANSERVE SHORT-SLOTTED HOLE (13/16"x1") FOR 3/4" DIAMETER THROUGH BOLTS
18. 2X8 FASCIA BOARD, CUT TO MATCH ROOF SLOPE. SECURE FASCIA BOARD TO WOOD JOIST WITH (3) 10d NAIL
19. 1-1/2" TONGUE AND GROOVED DECKING AND 7/16" SHEATHING
20. (2)3/4" DIAMETER THROUGH BOLT @ 3" ON CENTER
21. SIMPSON STRONG-TIE MSTA24 (1-1/4"X24")-18 GAUGE GALVANIZED STEEL STRAP TIE, CENTERED OVER GLULAM MEMBER. FASTEN STRAP TIE WITH MINIMUM (8) 0.148X2-1/2 NAILS TO THE 4X8 JOISTS ON BOTH SIDES OF THE GLULAM MEMBER. NAIL STRAP TO GLULAM MEMBER. TYPICAL FOR ALL CANTILEVERED JOIST.
22. SIMPSON STRONG-TIE JOIST HANGER HUC46XSLU5 FACE FASTENERS: (12) 10dX3 NAIL, JOIST FASTENERS: (6) 10dX3 NAIL
23. SIMPSON STRONG-TIE JOIST HANGER HUC46XSLD5 FACE FASTENERS: (12) 10dX3 NAIL, JOIST FASTENERS: (6) 10dX3 NAIL
24. SIMPSON STRONG-TIE JOIST HANGER HUC46XSLU5 FACE FASTENERS: (12) 10dX1.5 NAIL, JOIST FASTENERS: (6) 10dX3 NAIL
25. SIMPSON STRONG-TIE JOIST HANGER HUC46 FACE FASTENERS: (8) 10dX3 NAIL, JOIST FASTENERS: (4) 10dX3 NAIL
26. (2) 3/4" DIAMETER THROUGH BOLTS
27. PLATE 3/16" X 3-1/2" X 0'-3-1/2" AT BOTTOM OF 4X8 JOIST. WELD PLATE TO 3/8" GUSSET PLATES
28. PLATE 3/8" X 3-1/2" X 0'-6" AT BOTTOM OF 4X6 JOIST. WELD PLATE TO 3/8" GUSSET PLATES
29. HSS4X4X1/4. WELD TO 3/8" THICK GUSSET PLATE. FIELD WELD HSS TO BEARING PLATE ON TOP OF CMU WALL. BOTTOM OF STEEL ELEVATION 441.03'

0 6" 1' 2'
SCALE: 1" = 1'-0"

0 4" 8" 16"
SCALE: 1 1/2" = 1'-0"

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._____
EXPIRATION DATE:_____

Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Transportation Planning and Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: KC Drawn by: WC Checked by: WC

S5-02 – SECTIONS AND DETAILS

BOYDS TRANSIT IMPROVEMENTS

SCALE : AS NOTED OCTOBER 2023

Project No. : 32207.003 SHEET 55 of 78

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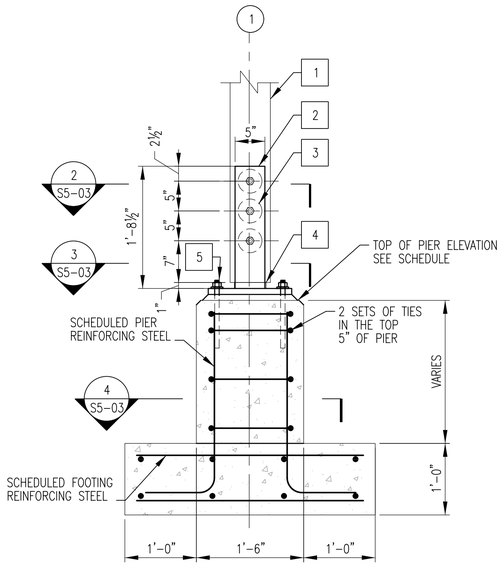
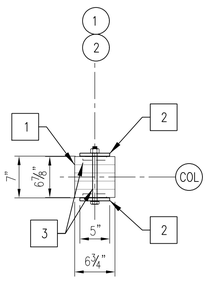
11/2/2023



NOTES:
1. GLULAM POST CONNECTION TO CONCRETE PIER IS TYPICAL FOR ALL 8 POSTS.
2. CONCRETE SLAB-ON-GROUND NOT SHOWN FOR CLARITY.

1 S5-03 **DETAIL**
SCALE 1" = 1'-0"
REF: S2-02



2 S5-03 **SECTION**
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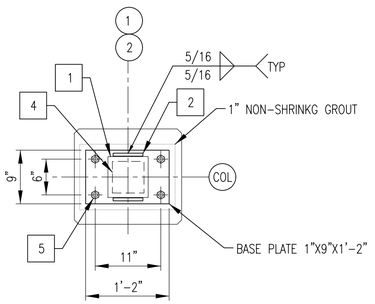
REF: S5-03



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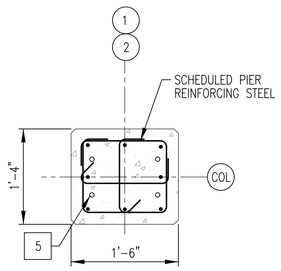

4 S5-03 **SECTION**
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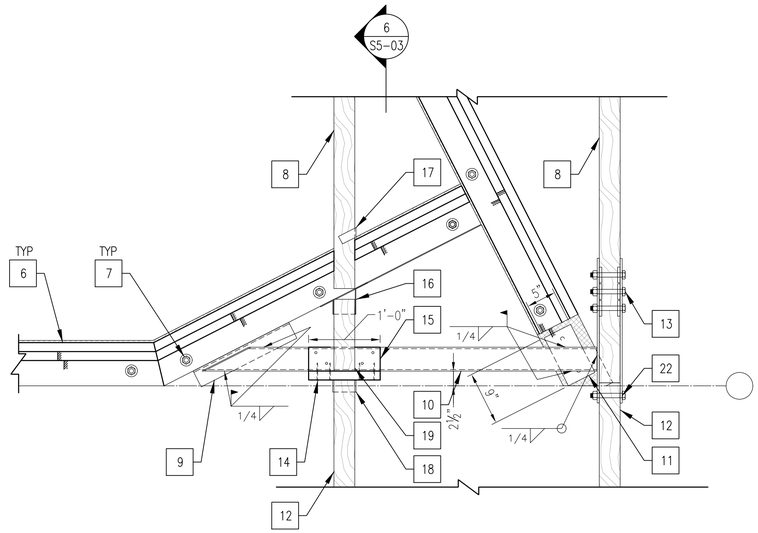
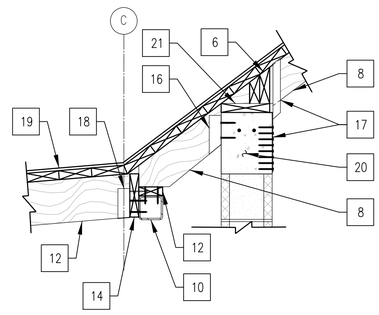
REF: S5-03



NOTE: DECKING, SHEATHING AND SOME FASTENERS ARE NOT SHOWN FOR CLARITY

5 S5-03 **DETAIL**
SCALE 1" = 1'-0"
REF: S1-01



6 S5-03 **SECTION**
SCALE 1" = 1'-0"
REF: S5-03

GENERAL KEYNOTES

1. SEE SHEET S0-01 FOR GENERAL STRUCTURAL NOTES.
2. SEE SHEET S0-02 FOR TYPICAL STRUCTURAL DETAILS.

NEW WORK KEYNOTES

1. 6-3/4" X 6-7/8" GLULAM POST.
2. GUSSET PLATE 1/2" THICK WITH 13/16" DIAMETER HOLES FOR 3/4" DIAMETER THROUGH BOLTS.
3. 4" DIAMETER SHEAR PLATE WITH 3/4" DIAMETER THROUGH BOLTS
4. SIMPSON STRONG-TIE CSP-8 STANDOFF BASE 5 5/16" X 5 5/16" X 1". SECURE STANDOFF TO POST WITH 0.148"X3" NAIL.
5. (4) 3/4" DIAMETER ADHESIVE BOLT (HILTI HY-200) WITH HOT-DIPPED GALVANIZED, GRADE 36, HAS ROD WITH 8" EMBEDMENT.
6. WOOD BLOCKING. TOE NAIL WOOD BLOCKING TO SILL PLATE WITH 8d x 2.75" NAIL AT 4" ON CENTER ON BOTH SIDES. TYPICAL.
7. 1/2" DIAMETER ADHESIVE ANCHOR BOLT WITH 6" EMBEDMENT INTO GROUTED CMU AT 2'-0" ON CENTER. PROVIDE STANDARD WASHER UNDER THE HEX NUT.
8. 4X6 RAFTER
9. L3X3X1/4 X 1'-6" LONG. FASTEN VERTICAL LEG OF ANGLE TO GROUTED CMU WITH (2) 1/2" DIAMETER ADHESIVE ANCHORS WITH 6" EMBEDMENT AT 1'-0" GAGE, AND MINIMUM 1-1/4" EDGE DISTANCE FROM THE BOTTOM OF ANGLE.
10. HSS4X4X1/4. BOS EL 441.03'. PROVIDE 1/4" CAP PLATE AT END BEARING ON L3X3X1/4. WELD CAP PLATE ALL AROUND.
11. PLATE 3/8" X 5" X 0'-9" WITH (2) 5/8" X 4" LONG SHEAR STUDS WELDED TO THE BOTTOM OF THE PLATE AT 6" GAGE.
12. 4X8 JOIST.
13. 3/4" DIAMETER THROUGH BOLTS WITH 2-5/8" DIAMETER SHEAR PLATE ON BOTH SIDES OF MEMBER
14. 2X8 LEDGE BOARD FASTENED TO HSS WITH (8) #12 X 2.75" TEK WOOD TO STEEL SELF-TAPPING SCREWS
15. 1.5"X4" WOOD BLOCKING FASTENED TO HSS WITH (4) #12 X 2.75" TEK WOOD TO STEEL SELF-TAPPING SCREWS
16. SIMPSON STRONG TIE HANGER HU46XSKL27 SLD 37. FACE FASTENERS: (8) TNT 25214H, JOIST FASTENER: (4) 10d X 3" NAIL.
17. SIMPSON STRONG TIE MTS 20 STRAP. FACE FASTENERS: (8) TNT 25214H, JOIST FASTENERS: (14) 10d X 1.5" NAIL.
18. SIMPSON STRONG TIE HANGER U46XSLD5. FACE FASTENERS: (8) 10d X 1.5" NAIL, JOIST FASTENERS: (4) 10d X 3" NAIL.
19. 1-1/2" TONGUE AND GROOVE DECKING AND 7/16" THICK SHEATHING.
20. SLOPED CMU BOND BEAM.
21. 2X8 SILL PLATE. FASTENED TO CMU BOND BEAM WITH ADHESIVE ANCHOR BOLTS
22. (2) 3/4" DIAMETER THROUGH BOLTS

0 6" 1' 2'
SCALE: 1" = 1'-0"

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._____
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Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL
Chief, Transportation Planning and Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date

Designed by: KC Drawn by: WC Checked by: WC

S5-03 - SECTIONS AND DETAILS

BOYDS TRANSIT IMPROVEMENTS

SCALE : AS NOTED OCTOBER 2023

Project No. : 32207.003 SHEET 56 of 78

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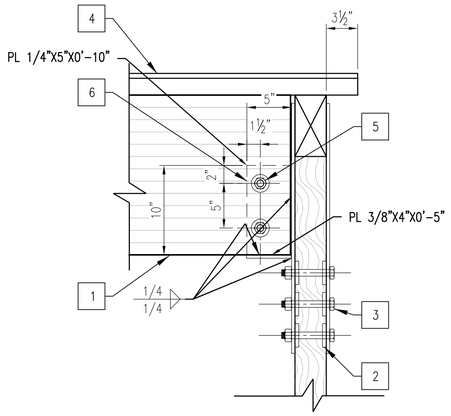
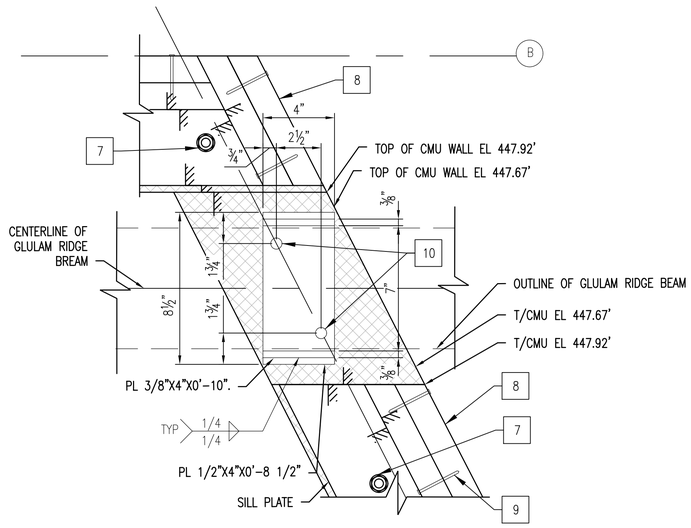
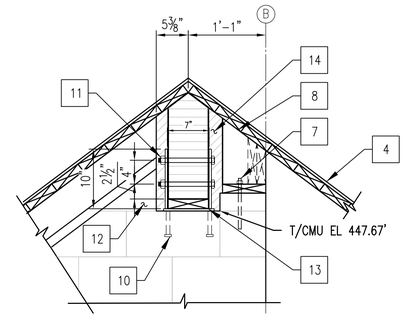
11/2/2023



1 SECTION
S5-04 SCALE 1 1/2" = 1'-0"
REF: S5-02



2 DETAIL
S5-04 SCALE 3" = 1'-0"
REF: S1-01



3 SECTION
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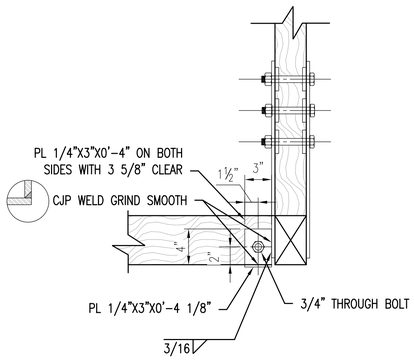
REF: S2-03



4 SECTION
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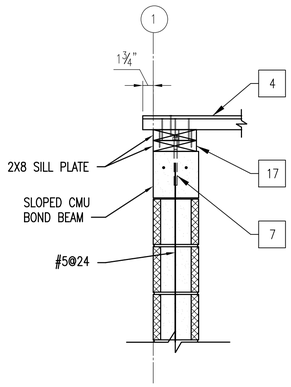
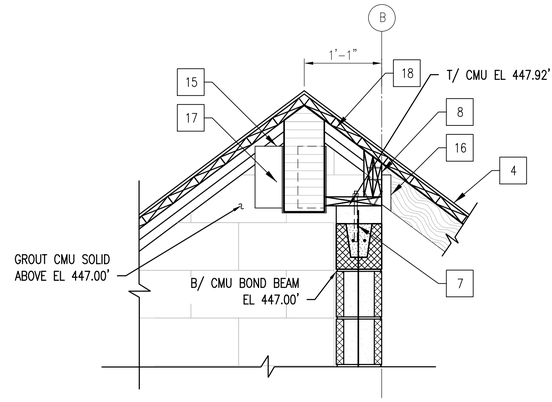
REF: S5-02



5 SECTION
S5-04 SCALE 1" = 1'-0"
REF: S1-01



6 SECTION
S5-04 SCALE 1" = 1'-0"
REF: S1-01

GENERAL KEYNOTES

1. SEE SHEET S-001 FOR GENERAL STRUCTURAL NOTES.
2. SEE SHEET S-002 FOR TYPICAL STRUCTURAL DETAILS.

NEW WORK KEYNOTES

1. GLULAM RIDGE BEAM. CUT FROM 6-3/4" X 17-7/8" TO MATCH ROOF SLOPE
2. 2-5/8" DIAMETER SHEAR PLATES
3. 3/4" DIAMETER THROUGH BOLTS
4. 1-1/2" TONGUE AND GROOVE DECKING AND 7/16" THICK SHEATHING.
5. 3/4" DIAMETER THROUGH BOLT WITH STANDARD WASHER UNDER HEX NUT AND BOLT AGAINST GLULAM MEMER
6. PROVIDE 5/16" SLOT IN GLULAM MEMBER FOR 1/4" THICK VERTICAL PLATE.
7. 1/2" DIAMETER ADHESIVE ANCHOR BOLT WITH 6" EMBEDMENT INTO GROUTED CMU AT 2'-0" ON CENTER. PROVIDE STANDARD WASHER UNDER THE HEX NUT.
8. WOOD BLOCKING. TOE NAIL WOOD BLOCKING TO SILL PLATE WITH 8d x 2.75" NAIL AT 4" ON CENTER ON BOTH SIDES. TYPICAL.
9. (2) 10d X 3" AT 6" ON CENTER ON ALTERNATE SIDE.
10. 5/8" DIAMETER X 4" LONG SHEAR STUDS WELDED TO UNDERSIDE OF PLATE.
11. 3/4" DIAMETER THROUGH BOLT. PROVIDE HORIZONTAL SHORT SLOTTED HOLE ON 3/8" GUSSET PLATE FOR 3/4" DIAMETER BOLT.
12. PROVIDE THIS PORTION OF SLOPED CMU BOND BEAM AFTER SETTING THE GLULAM MEMBER ON THE SADDLE SUPPORT AND 3/4" DIAMETER THROUGH BOLTS.
13. PROVIDE WOOD BLOCKING NAIL TO THE BOTTOM OF GLULAM TO FIT SADDLE CONNECTOR.
14. FILL GAP WITH EXPANDABLE WATERPROOF INSULATION FOAM.
15. SIMPSON STRONG TIE HGUM 7.00X11 (CONCEALED RIGHT) GLULAM HANGER. FACE FASTENERS: (8) 5/8"x5" TITEN HD ANCHORS (TO CMU) OR 5/8" X 5" LAG SCREWS (TO WOOD BLOCKING), JOIST FASTENERS: (24) 1/4"X2 1/2" SDS SCREWS.
16. PROVIDE SIMPSON STRONG TIE HANGER HUC46XSLD37. FACE FASTENERS: (8) 10d X 3 NAIL OR TNT25214H. JOIST FASTENERS: (6) 10d X 3" NAIL.
17. (2) 2X8 SILL PLATE. FASTEN TOP AND BOTTOM 2X8 SILL PLATE WITH (3) 10d X 3" NAIL AT 6" ON CENTER.
18. SIMPSON STRONG-TIE STRAP MODEL MSTI36. FASTENERS: (36) 10dX1.5" NAIL.

0 2" 4" 8"
SCALE: 3" = 1'-0"

0 4" 8" 16"
SCALE: 1 1/2" = 1'-0"

0 6" 1' 2'
SCALE: 1" = 1'-0"

N:\32207-003\CAD\32207003S5-04.dgn
11/2/2023

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._____
EXPIRATION DATE:_____

Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Transportation Planning and Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: WC Drawn by: WC Checked by: PSO

S5-04 - SECTIONS AND DETAILS

BOYDS TRANSIT IMPROVEMENTS

SCALE : AS NOTED OCTOBER 2023

Project No. : 32207.003 SHEET 57 of 78

GENERAL NOTES AND DEFINITIONS

1. INSTALLATION OF ELECTRICAL WORK MUST CONFORM TO THE AHJ'S LATEST ACCEPTED EDITION OF THE NATIONAL ELECTRICAL CODE (NFPA 70) AND ALL APPLICABLE LOCAL CODES AND QUALITY WORKMANSHIP STANDARDS.
2. DRAWINGS ARE DIAGRAMMATIC. FINAL EQUIPMENT LOCATIONS MUST BE COORDINATED IN THE FIELD AND FIT INTO THE AVAILABLE SPACE IN ACCORDANCE WITH GIVEN WORK SPACE REQUIRED BY CODE AND MAINTENANCE REQUIRED BY THE MANUFACTURER. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE EQUIPMENT THAT MEETS THE ABOVE REQUIREMENTS AND NOTIFY THE OWNER/ENGINEER WHEN THE REQUIREMENTS ARE NOT MET.
3. THE ELECTRICAL CONTRACTOR MUST PROVIDE THE NECESSARY COORDINATION, INSTRUCTIONS AND SUPERVISION NEEDED WHEN WORKING WITH OTHER TRADES.
4. COORDINATE WORK RELATED TO THE ELECTRICAL SERVICE DIRECTLY WITH THE UTILITY COMPANY AND OBTAIN APPROVAL BEFORE INSTALLATION.
5. SUBMIT A LIST OF MAJOR EQUIPMENT INCLUDING LIGHT FIXTURES TO THE ENGINEER FOR REVIEW AND APPROVAL. NO SUBSTITUTIONS WILL BE ALLOWED WITHOUT THE PERMISSION OF THE OWNER/ENGINEER IN WRITING. EQUIPMENT MUST BE NEW AND INCLUDE THE MANUFACTURER'S NAME, TRADE NAME AND UL CERTIFICATION.
6. ELECTRICAL REQUIREMENTS FOR MECHANICAL EQUIPMENT ARE BASED ON EQUIPMENT SPECIFIED. COORDINATE EXACT REQUIREMENTS WITH MECHANICAL SHOP DRAWINGS PRIOR TO ORDERING AND INSTALLING EQUIPMENT.
7. ELECTRICAL EQUIPMENT INSTALLED AGAINST CONCRETE OR MASONRY WALLS MUST BE INSTALLED WITHIN A 1/4" SPACE BETWEEN THE EQUIPMENT AND THE MOUNTING SURFACE. SPACERS MUST BE STAINLESS STEEL, PVC OR NYLON.
8. PROVIDE NECESSARY COMPONENTS REQUIRED FOR MAKING FINAL CONNECTIONS OF EQUIPMENT INSTALLED AS PART OF THIS CONTRACT.
9. CIRCUIT NUMBERS ARE FOR IDENTIFICATION PURPOSE ONLY. THE CONTRACTOR IS RESPONSIBLE FOR BALANCING LOADS AND CORRECTLY PHASING THE CIRCUITS IN PANELBOARDS.
10. MINIMUM CONDUIT AND WIRE SIZE IS 3/4" AND #12 AWG.
11. DO NOT INSTALL MORE THAN THREE CIRCUITS IN ONE HOMERUN UON.
12. 120V CIRCUITS MUST HAVE SEPARATE NEUTRALS.
13. PROVIDE #10 AWG OR LARGER WIRES TO 120 VOLT RECEPTACLE CIRCUITS WHERE THE LAST RECEPTACLE IS LOCATED 100 FEET OR MORE FROM THE PANELBOARD .
14. PROVIDE PULL STRINGS IN EMPTY CONDUIT TO FACILITATE PULLING OF CABLES IN FUTURE.
15. CONTRACTOR MUST VERIFY DOOR SWINGS BEFORE SETTING SWITCHES. INSTALL SWITCHES ON THE LOCK SIDE OF DOORS 4 FEET AFF, UNLESS OTHERWISE NOTED.
16. PANEL BUSSES MUST BE COPPER UON.
17. CONDUIT ROUTING, WHEN SHOWN, IS DIAGRAMMATIC AND MUST BE INSTALLED IN A MANNER TO PREVENT CONFLICTS WITH EQUIPMENT AND STRUCTURAL CONDITIONS. INTERIOR CONDUITS INCLUDING THOSE EXPOSED, ABOVE SUSPENDED CEILINGS, AND CONCEALED WITHIN FURRED WALLS MUST BE INSTALLED PARALLEL TO BEAMS AND WALLS. CONDUITS INSTALLED IN FINISHED AREAS MUST BE CONCEALED.
18. PROVIDE PULL BOXES AND JUNCTION BOXES, WHEN REQUIRED, IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS THOUGH THESE BOXES MAY NOT BE SHOWN ON THE DRAWINGS. JUNCTION AND PULL BOXES, ASSOCIATED WITH FEEDERS AND BRANCH CIRCUITS, MUST BE LABELED SHOWING THE PANEL AND CIRCUIT NUMBERS ROUTED THROUGH THEM.
19. THE WIRING DIAGRAMS, QUANTITY AND SIZE OF WIRES AND CONDUITS ARE BASED UPON SELECTED STANDARD COMPONENTS OF ELECTRICAL EQUIPMENT. MODIFICATIONS, APPROVED BY THE ENGINEER, MAY BE MADE BY THE CONTRACTOR AT THEIR EXPENSE TO ACCOMMODATE EQUIPMENT ACTUALLY PURCHASED.
20. NUMBERS ADJACENT TO EQUIPMENT AND DEVICES INDICATE THE PANEL AND CIRCUIT SERVING THAT EQUIPMENT OR DEVICE. PROVIDE COMPLETE WIRING IN CONDUIT.
21. ELECTRICAL EQUIPMENT LOCATED OUTDOORS MUST HAVE NEMA 4X ENCLOSURE UON.
22. OUTDOOR UNDERGROUND CONCRETE ENCASED CONDUITS SHALL BE PVC SCHEDULE 40 UON.
23. DIRECT-BURIED UNDERGROUND CONDUITS MUST BE SCHEDULE 40 UON.
24. WIRES: INTERIOR - THHN / THWN-2 , UON
25. WIRES: EXTERIOR - XHHN / XHWN-2, UON
26. PROVIDE SYSTEM GROUNDING CONDUCTORS AND EQUIPMENT GROUNDING CONDUCTORS IN ACCORDANCE WITH NEC-250, UON.

FURNISH:	SUPPLY AND DELIVER TO PROJECT SITE, READY FOR UNLOADING UNPACKING, INSTALLATION, AND SIMILAR OPERATIONS.
INSTALL:	UNLOAD, TEMPORARILY STORE, UNPACK, ASSEMBLE, ERECT, PLACE, ANCHOR, CONNECT, APPLY, WORK TO DIMENSION, FINISH, CURE, PROTECT, CLEAN AND SIMILAR OPERATIONS AT PROJECT SITE.
PROVIDE:	FURNISH AND INSTALL, COMPLETE AND READY FOR INTENDED USE.
WIRING:	CONDUIT AND WIRES / CONDUCTORS.
EXISTING TO REMAIN:	LEAVE EXISTING ITEMS THAT ARE NOT TO BE REMOVED AND THAT ARE NOT OTHERWISE INDICATED TO BE SALVAGED OR REINSTALLED.
REMOVE / DEMOLISH:	DETACH ITEMS FROM EXISTING CONSTRUCTION AND DISPOSE OF THEM OFF-SITE UNLESS INDICATED TO BE SALVAGED OR REINSTALLED.
REMOVE AND SALVAGE:	DETACH ITEMS FROM EXISTING CONSTRUCTION, IN A MANNER TO PREVENT DAMAGE AND DELIVER TO OWNER FOR REUSE.
REMOVE AND REINSTALL:	DETACH ITEMS FROM EXISTING CONSTRUCTION, IN A MANNER TO PREVENT DAMAGE, PREPARE FOR REUSE, AND REINSTALL WHERE INDICATED.

ABBREVIATIONS

A	AMPERES
AC	ALTERNATING CURRENT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINSHED GRADE
AHU	AIR HANDLING UNIT
AIC	AMPERES INTERRUPTING CAPACITY, -SYM, RMS, AMPS-
AL	ALUMINUM
ANNUN	ANNUNCIATOR
AS	AMMETER SWITCH
ATC	AUTOMATIC TEMPERATURE CONTROL
ATS	AUTOMATIC TRANSFER SWITCH
AUTO	AUTOMATIC
AUX	AUXILIARY
AWG	AMERICAN WIRE GAUGE
BCSD	BARE COPPER SOFT DRAWN
BFC	BELOW FINISHED CEILING
BFI	BLOWN FUSE INDICATOR
BFG	BELOW FINISHED GRADE
BLDG	BUILDING
BKR	BREAKER
C	CONDUIT
CB	CIRCUIT BREAKER
CC1	POWER-CONTROL-INSTRUMENTATION CABLE RUN NUMBER AS INDICATED.
CKT	CIRCUIT
COMB	COMBINATION
CLG	CEILING
CP	CONTROL PANEL
CPT	CONTROL POWER TRANSFORMER
CT	CURRENT TRANSFORMER
CU	COPPER
CX	CONNECT TO EXISTING
CCTV	CLOSED CIRCUIT TELEVISION
DAS	DATA ACQUISITION SYSTEM
DC	DIRECT CURRENT
O/D	OUT/DOOR
DISC	DISCNNECT
DN	DOWN
DP	DISTRIBUTED PANEL
DPC	DISTRIBUTED PROCESS CONTROLLER
DWG	DRAWING
EA	EACH
EC	EMPTY CONDUIT
ECD	ELEMENTARY CONTROL DIAGRAM
EF	EXHAUST
EH	ELECTRIC HEATER
ELEV	ELEVATION
EMERG	EMERGENCY
EMH	ELECTRIC MANHOLE
EMT	ELECTRIC METALLIC TUBING
EV	ELECTRIC VEHICLE
ENCL	ENCLOSURE
E/O	ELECTRICALLY/OPERATED
EQUIP	EQUIPMENT
ETM	ELAPSED TIME METER
ETR	EXISTING TO REMAIN
EUH	ELECTRICAL UNIT HEATER
EWC	ELECTRICAL WATER COOLER
EWH	ELECTRICAL WATER HEATER
EX. EXIST	EXISTING
EXP	EXPLOSION PROOF
F	FUSE
FA	FRAM AMPS
FA	FIRE ALARM
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FBO	FURNISHED BY OTHERS UNDER SEPARATE CONTRACT
FC	FAN COIL UNIT
FDR	FEEDER
FL	FLOOR
FLEX	FLEXIBLE
FMC	FLEXIBLE METAL CONDUIT
FS	FLOW SWITCH
FSS	FUSED SAFETY SWITCH
FT	FOOT OR FEET
FVNR	FULL VOLTAGE NON-REVERSING
FVR	FULL VOLTAGE REVERSING
G	GROUND
GFI	GROUND FAULT INTERRUPTER
GFCI	GOVERNMENT FURNISHED CONTRACTOR INSTALLED
GFGI	GOVERNMENT FURNISHED GOVERNMENT INSTALLED
GFP	GROUND FAULT PROTECTION
HID	HIGH INTENSITY DISCHARGE
HH	HANDHOLE
HOA	HAND OFF AUTOMATIC
HP	HORSEPOWER
HPS	HIGH PRESSURE SODIUM
HTR	HEATER
HV	HIGH VOLTAGE
HZ	HERTZ
ICCB	INSULATED CASE CIRCUIT BREAKER
IDS	INTRUSION DETECTION SYSTEM
IMC	INTERMEDIATE METALLIC CONDUIT
JB	JUNCTION BOX
KAIC	THOUSAND AMPERES INTERRUPTING CAPACITY
KV	KILOVOLT
KVA	KILOVOLT AMPERE
LTG	LIGHTING
LO	LOCKOUT
LP	LIGHTING AND APPLIANCE PANEL
LT/FMC	LIQUID TIGHT/FLEXIBLE METAL CONDUIT
LS	LIMIT SWITCH
LSH	LEVEL SWITCH HIGH
MAFC	MAKE ALL FINAL CONNECTIONS
M/C	MULTI/CONDUCTOR
MCB	MAIN CIRCUIT BREAKER
MCCB	MOLDED CASE CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MCP	MOTOR CONTROL PROTECTOR
MH	MOUNTING HEIGHT
MIN	MINIMUM
MILO	MAIN LUGS ONLY
MOD	MOTOR OPERATED DAMPER
MO	METAL OXIDE
MSP	MOTOR STARTER PANEL
MTD	MOUNTED
MTG	MOUNTING
N	NEUTRAL
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NFSS	NON FUSED SAFETY SWITCH
NO	NORMALLY OPEN
NO	NUMBER
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NTS	NOT TO SCALE
OL	OVERLOAD
P	POLE OR POLES
PB	PUSH BUTTON
PH	PHASE
PL	PILOT LIGHT
PLC	PROGRAMMABLE LOGIC CONTROLLER
PNL	PANELBOARD
PS	PRESSURE SWITCH
PSH	PRESSURE SWITCH HIGH
PT	POTENTIAL TRANSFORMER
PVC	POLYVINYL CHLORIDE
RC	REMOTE CONTROL
RECEPT	RECEPTACLE
REQ'D	REQUIRED
RGS	RIGID GALVANIZED STEEL
RM	ROOM
RMS	ROOT MEAN SQUARE
RTD	RESISTANCE TEMPERATURE DETECTOR
RTU	REMOTE TERMINAL UNIT
RVAT	REDUCED VOLTAGE AUTOTRANSFORMER
RX	REMOVE EXISTING
SER.	WERVICE
SF	SUPPLY FAN
SG1-1A/P	SWGR POWER WIRE RUN NUMBER/ SWGR NUMBER AND UNIT NUMBER AS INDICATED
SIC	SYMMETRICAL INTERRUPTING CURRENT
SOPN	SPACE OR POLE NUMBER
SPPS	SOUND POWERED PHONE SYSTEM
SS	STAINLESS STEEL
SS	SAFETY SWITCH
ST	SHUNT TRIP
STA	STATION
STP	SHIELDED TWISTED PAIR
STPS	SHIELDED TWISTED PAIR OVER ALL SHIELD
STR	STARTER
STT	SHIELDED TWISTED TRIPLE
S/N	SOLID/NEUTRAL
SW	SWITCH
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
SYM	SYMMETRICAL
SYS	SYSTEM
TA	TRIP AMPS
TC	TIME CLOCK
TDD	TIME DELAY DE-ENERGIZED -OFF-
TDE	TIME DELAY ENERGIZED -ON-
TDC	TIME DELAY CLOSED
TDO	TIME DELAY OPEN
TMH	TELEPHONE MANHOLE
TP	TWISTED PAIR
TPS	TWISTED PAIR SHIELDED
TST	THERMOSTAT SWITCH IN AUTO-TRANSFORMER STARTER
TTB/TTC	TELEPHONE TERMINAL BOARD/CABINET
TYP	TYPICAL
UH	UNIT HEATER
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VOLTS OR VOLTAGE
VFD	VARIABLE FREQUENCY DRIVE
W	WATTS
W	WIRE
W/	WITH/
WP	WEATHERPROOF
XFMR	TRANSFORMER
*	CENTERLINE
*	PHASE
@	AT
#	NUMBER

ELECTRICAL LEGEND

LIGHTING

- LED LIGHTING FIXTURE
- WG — LED INDUSTRIAL TYPE LIGHTING FIXTURE, WG = WIRE GUARD
- WALL PACK LIGHTING FIXTURE
- FLOOD/SPOT LIGHTING FIXTURE
- EXIT LIGHTING FIXTURE, ARROW, INDICATES DIRECTION
- LIGHTING FIXTURE TYPE SYMBOL (SEE LIGHTING FIXTURE SCHEDULE)
- EMERGENCY BATTERY POWERED LIGHTING UNIT
- SINGLE LIGHTING FIXTURE - HIGH INTENSITY DISCHARGE POLE MOUNTED.
- DOUBLE LIGHTING FIXTURES - HIGH INTENSITY DISCHARGE POLE MOUNTED.
- COLONIAL POST MOUNTED LIGHT FIXTURE

SWITCHES

- S — SINGLE POLE SWITCH, 20A, 120-277V
- LIGHTING CONTACTOR (X POLE) 277V
- PC — PHOTO CELL
- OS — OCCUPANCY SENSOR PROVIDE POWER PACK AS REQUIRED. CEILING MOUNTED.

RECEPTACLES

- DUPLEX CONVENIENCE RECEPTACLE, 20A, 125V AC, MOUNT 1'-6" AFF (UON)
- G — DUPLEX CONVENIENCE RECEPTACLE 20A, 125V AC, SUBSCRIPT "G" INDICATES GFI TYPE, MOUNT 18" AFF (UON)
- G — DUPLEX CONVENIENCE RECEPTACLE 20A, 125V AC, SUBSCRIPT "G" INDICATES GFI TYPE, MOUNT 12" ABOVE COUNTER (UON)
- SPECIAL PURPOSE RECEPTACLE 20A OR 30A OR 50A, 3P, 4W, 208V AC MOUNT 48" AFF (UON)

SAFETY SWITCHED/BREAKERS/STARTERS

- J 60/3 — NON-FUSED DISCONNECT SWITCH, SUBSCRIPT INDICATES AMPACITY AND NUMBER OF POLES
- F 15/3 — FUSED DISCONNECT SWITCH, SUBSCRIPT INDICATES FUSED SIZE 2, NEMA SIZE 1 STARTER UON
- S_M — MANUAL MOTOR STARTER SWITCH WITH OVERLOAD. PROVIDE HOA AS REQUIRED.
- VFD — VARIABLE FREQUENCY DRIVE, INDIVIDUALLY MOUNTED.

EQUIPMENT CONNECTION

- 2 — MOTOR, NUMBER INDICATES HORSEPOWER
- H — ELECTRIC UNIT HEATER
- J — JUNCTION BOX
- E — EQUIPMENT CONNECTION AS NOTED
- CUH — CABINET UNIT HEATER
- CP — CONTROL PANEL

GROUNDING

- GROUND ROD, 3/4" DIAMETER X 10'-0" LONG UON

SECURITY SYSTEM

- CR — CARD READER
- DC — MAGNETIC DOOR CONTACT
- ML — MAGNETIC LOCK

SITE SYSTEM

- EXISTING HANDHOLE
- G — GROUND CONDUCTOR
- HANDHOLE
- UNDERGROUND DUCTBANK
- E — DIRECT BURIED CONDUIT
- MH — MANHOLE
- SINGLE LIGHTING FIXTURE - POLE MOUNTED
- DOUBLE LIGHTING FIXTURES - POLE MOUNTED

WIRING

- HPA-1,3,5 — BRANCH CIRCUIT HOMERUN TO PANELBOARD. HPA DENOTES TO PANEL HPA AND NUMERALS IDENTIFY CIRCUIT NUMBERS. ARROWS DENOTE NO. OF CIRCUITS.
- CONDUIT WITH WIRES, #12 AWG IN 3/4" C. UNLESS OTHERWISE NOTED. NUMBER OF CONDUCTORS AS REQUIRED. PROVIDE SEPARATE NEUTRALS FOR ALL SINGLE PHASE CIRCUITS.

OR

- BRANCH CIRCUIT OR FEEDER WIRING IN CONDUIT. 2#12 CONDUCTORS AND 1#12 GROUND IN A 3/4"C (UON)
- CONDUIT TURNED UP
- CONDUIT TURNED DOWN
- G — GROUNDING CONDUCTOR (BCSD)
- OHE — EXISTING OVERHEAD LINE

PANELBOARDS

- ELECTRICAL PANELBOARD
- ELECTRICAL PANELBOARD (208Y/120V, 4W+G)

MISCELLANEOUS

- 1 — SPECIFIC NOTE NUMBER
- 1 — FEEDER SIZE
- A / XXX — SECTION NUMBER / DRAWING NUMBER
- A / A6.1 — DETAIL NUMBER / DRAWING NUMBER WHERE SHOWN

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Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL
Chief, Transportation Planning and Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date

Designed by: RWL Drawn by: PD Checked by: IHK

E-001 - ELECTRICAL
GENERAL NOTES, DEFINITIONS, ABBREVIATIONS AND LEGENDS

BOYDS TRANSIT IMPROVEMENTS

SCALE : NO SCALE OCTOBER 2023

Project No. : 32207.003 SHEET 58 of 78

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11/2/2023

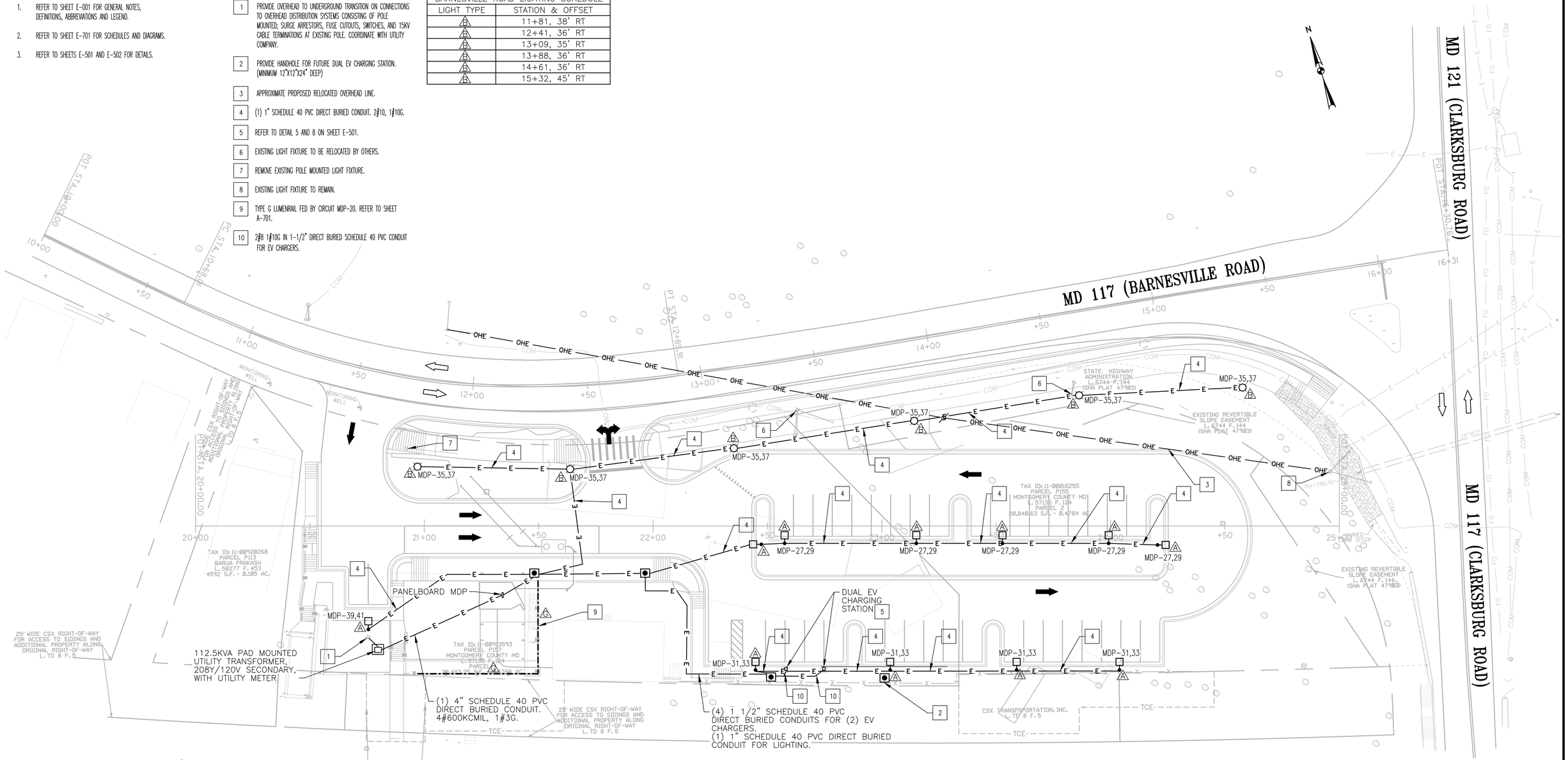
GENERAL KEYNOTES

1. REFER TO SHEET E-001 FOR GENERAL NOTES, DEFINITIONS, ABBREVIATIONS AND LEGEND.
2. REFER TO SHEET E-701 FOR SCHEDULES AND DIAGRAMS.
3. REFER TO SHEETS E-501 AND E-502 FOR DETAILS.

NEW WORK KEYNOTES

1. PROVIDE OVERHEAD TO UNDERGROUND TRANSITION ON CONNECTIONS TO OVERHEAD DISTRIBUTION SYSTEMS CONSISTING OF POLE MOUNTED; SURGE ARRESTORS, FUSE CUTOUTS, SWITCHES, AND 15KV CABLE TERMINATIONS AT EXISTING POLE. COORDINATE WITH UTILITY COMPANY.
2. PROVIDE HANDHOLE FOR FUTURE DUAL EV CHARGING STATION. (MINIMUM 12"X12"X24" DEEP)
3. APPROXIMATE PROPOSED RELOCATED OVERHEAD LINE.
4. (1) 1" SCHEDULE 40 PVC DIRECT BURIED CONDUIT. 2#10, 1#10G.
5. REFER TO DETAIL 5 AND 8 ON SHEET E-501.
6. EXISTING LIGHT FIXTURE TO BE RELOCATED BY OTHERS.
7. REMOVE EXISTING POLE MOUNTED LIGHT FIXTURE.
8. EXISTING LIGHT FIXTURE TO REMAIN.
9. TYPE G LUMENRAIL FED BY CIRCUIT MDP-20. REFER TO SHEET A-701.
10. 2#8 1#10G IN 1-1/2" DIRECT BURIED SCHEDULE 40 PVC CONDUIT FOR EV CHARGERS.

BARNESVILLE ROAD LIGHTING SCHEDULE	
LIGHT TYPE	STATION & OFFSET
A	11+81, 38' RT
A	12+41, 36' RT
A	13+09, 35' RT
A	13+88, 36' RT
A	14+61, 36' RT
A	15+32, 45' RT



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NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Transportation Planning and Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: RWL Drawn by: PD Checked by: IHK

ES101 – ELECTRICAL SITE PLAN

BOYDS TRANSIT IMPROVEMENTS

SCALE : 1" = 20' OCTOBER 2023

Project No. : 32207.003 SHEET 59 of 78

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11/2/2023

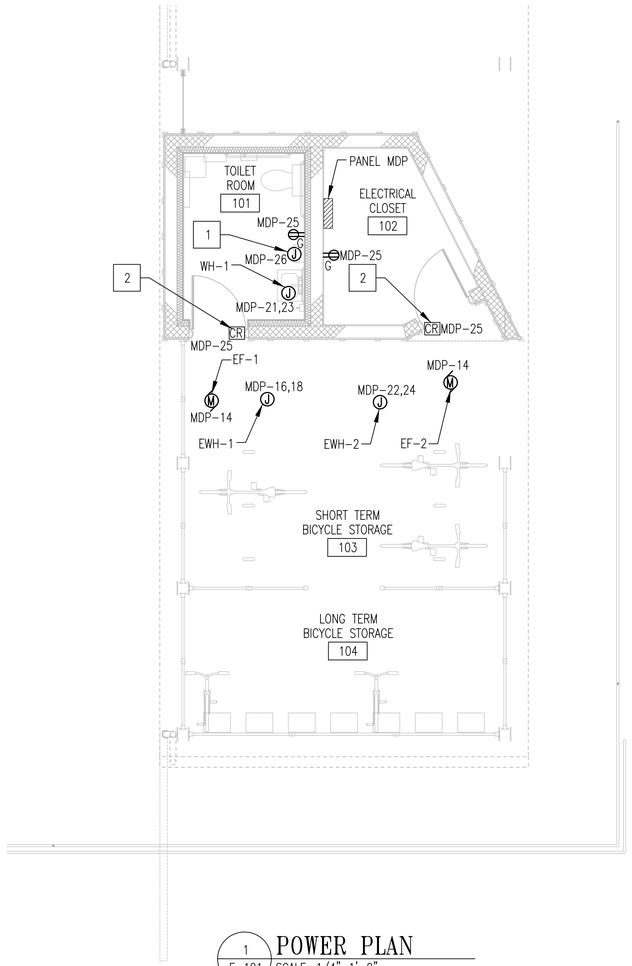
GENERAL KEYNOTES

1. REFER TO SHEET E-001 FOR GENERAL NOTES, DEFINITIONS, ABBREVIATIONS AND LEGEND.
2. REFER TO SHEET E-701 FOR SCHEDULES AND DIAGRAMS.

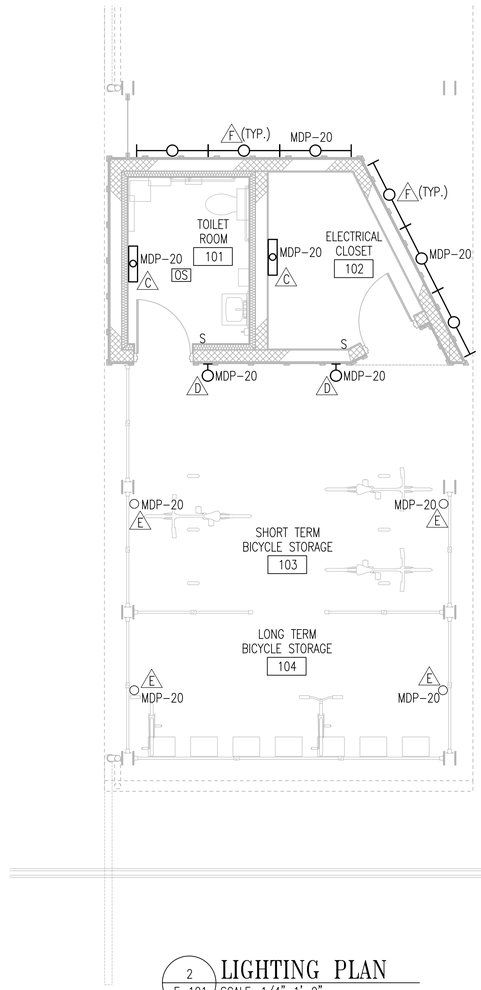
NEW WORK KEYNOTES

1 HARDWIRED CONNECTION FOR HAND DRYER.

2 HARDWIRED CONNECTION FOR CARD READER.



1 E-101 POWER PLAN
SCALE: 1/4"=1'-0"



2 E-101 LIGHTING PLAN
SCALE: 1/4"=1'-0"

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GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Transportation Planning and Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: RWL Drawn by: PD Checked by: IHK

E-101 – POWER AND LIGHTING PLANS

BOYDS TRANSIT IMPROVEMENTS

SCALE : 1/4" = 1'-0" OCTOBER 2023

Project No. : 32207.003 SHEET 60 of 78

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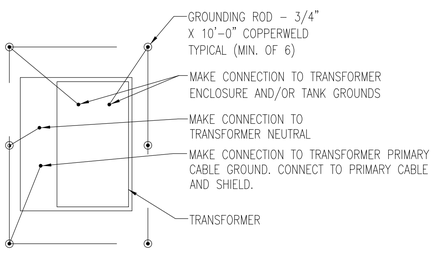
11/2/2023

GENERAL KEYNOTES

1. REFER TO SHEET E-001 FOR GENERAL NOTES, DEFINITIONS, ABBREVIATIONS AND LEGEND.
2. REFER TO SHEET ES101 FOR SITE PLAN.

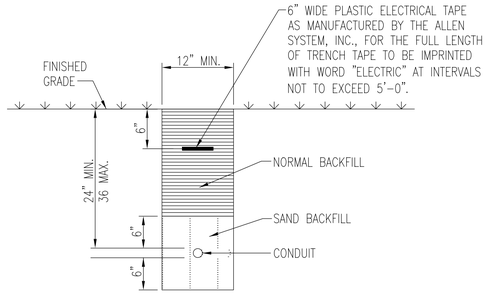
NEW WORK KEYNOTES

1 REFER TO SHEET PD-01 FOR ADDITIONAL BOLLARD DETAIL.

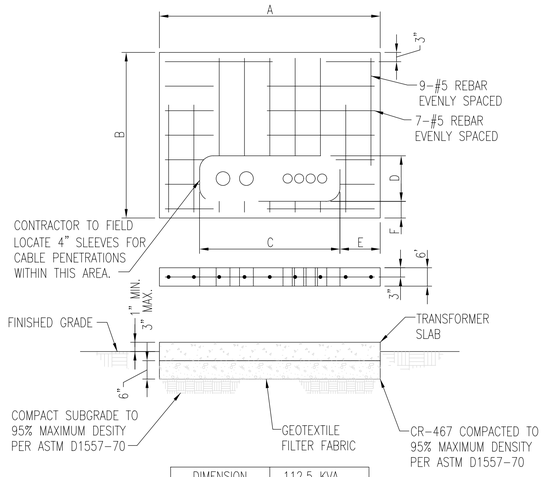


NOTE:
ALL UNDERGROUND CONNECTIONS SHALL BE EXOTHERMIC WELD

1 PAD MOUNTED TRANSFORMER GROUNDING GRID DETAIL
1 / E-501 NOT TO SCALE



2 UNDERGROUND CONDUIT INSTALLATION DETAIL
2 / E-501 NOT TO SCALE



DIMENSION	112.5 KVA TRANSFORMER
A	72"
B	53"
C	65"
D	17"
E	3.5"
F	3.5"

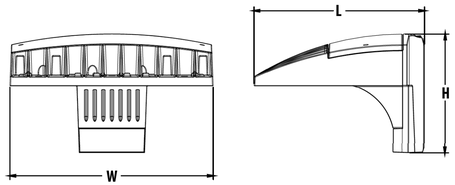
NOTE:
CONDUIT AND GROUNDING SHALL BE COORDINATED WITH PAD INSTALLATION.

3 TRANSFORMER PAD DETAIL
3 / E-501 NOT TO SCALE

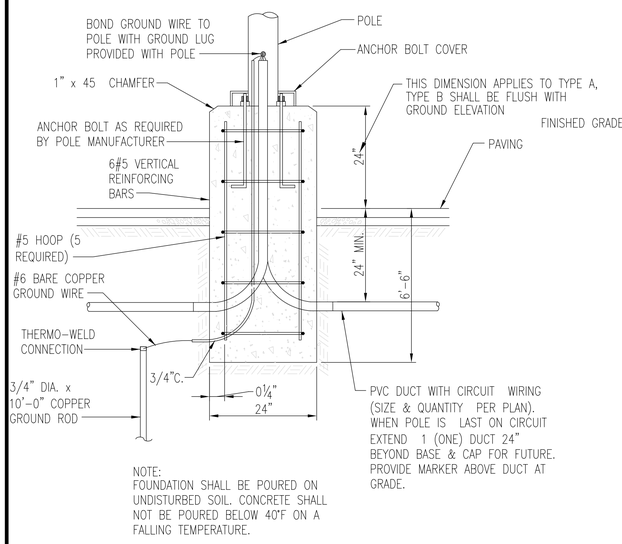
Width: 13-3/4" *(34.9 cm)*

Length: 11.5" *(29.2 cm)*

Height: 8" *(20.3 cm)*



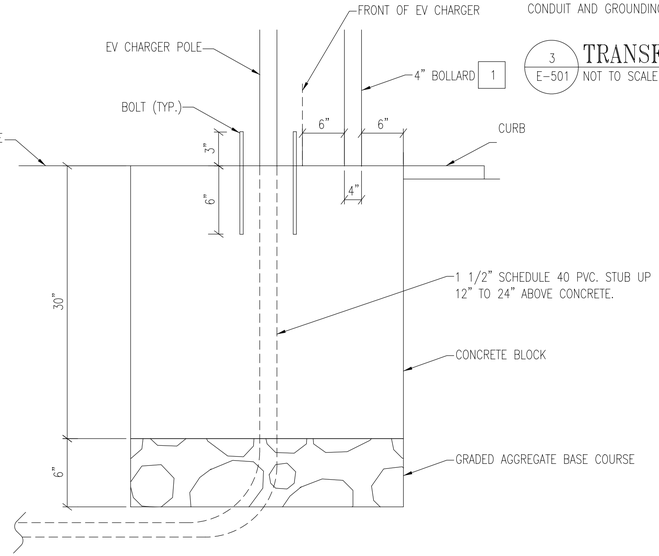
6 TYPE A LIGHT FIXTURE HEAD DETAIL
6 / E-501 NOT TO SCALE



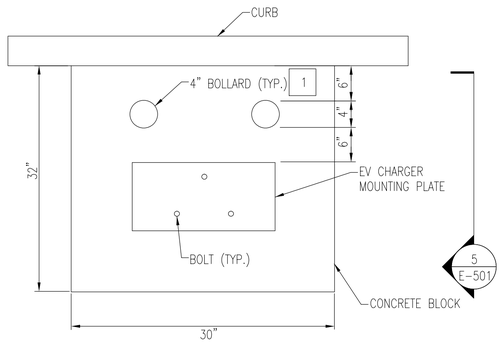
NOTE:
FOUNDATION SHALL BE POURED ON UNDISTURBED SOIL. CONCRETE SHALL NOT BE POURED BELOW 40°F ON A FALLING TEMPERATURE.

ELEVATION/SECTION

4 POLE BASE DETAIL – FIXTURE TYPE
4 / E-501 NOT TO SCALE



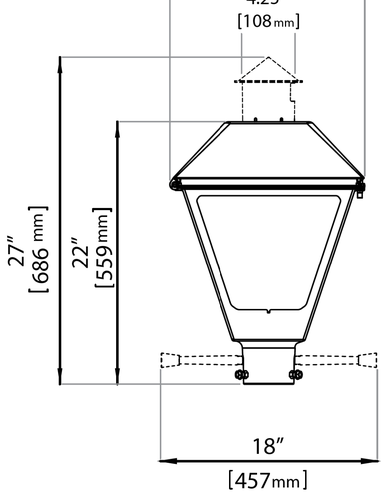
ELEVATION/SECTION



PLAN VIEW

5 EV CHARGING CONCRETE MOUNTING DETAIL
5 / E-501 NOT TO SCALE

8 EV CHARGING CONCRETE MOUNTING DETAIL
8 / E-501 NOT TO SCALE



7 TYPE B LIGHT FIXTURE HEAD DETAIL
7 / E-501 NOT TO SCALE

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Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Transportation Planning and Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: RWL Drawn by: PD Checked by: IHK

E-501 – DETAILS

BOYDS TRANSIT IMPROVEMENTS

SCALE : NO SCALE OCTOBER 2023

Project No. : 32207.003 SHEET 61 of 78

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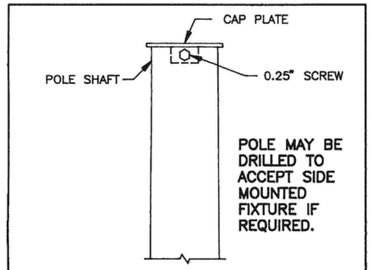
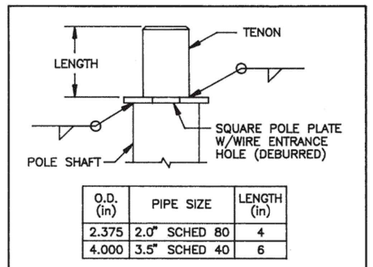
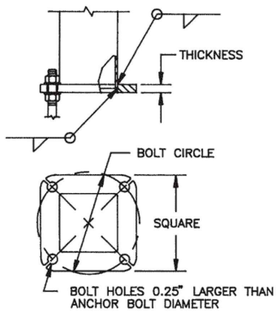


CAP DETAIL (OPTIONAL)

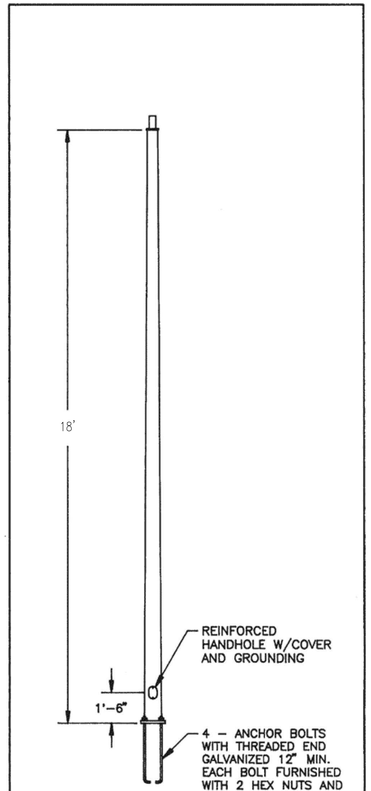


O.D. (in)	PIPE SIZE	LENGTH (in)
2.375	2.0" SCHED 80	4
4.000	3.5" SCHED 40	6

TENON DETAIL (STANDARD)

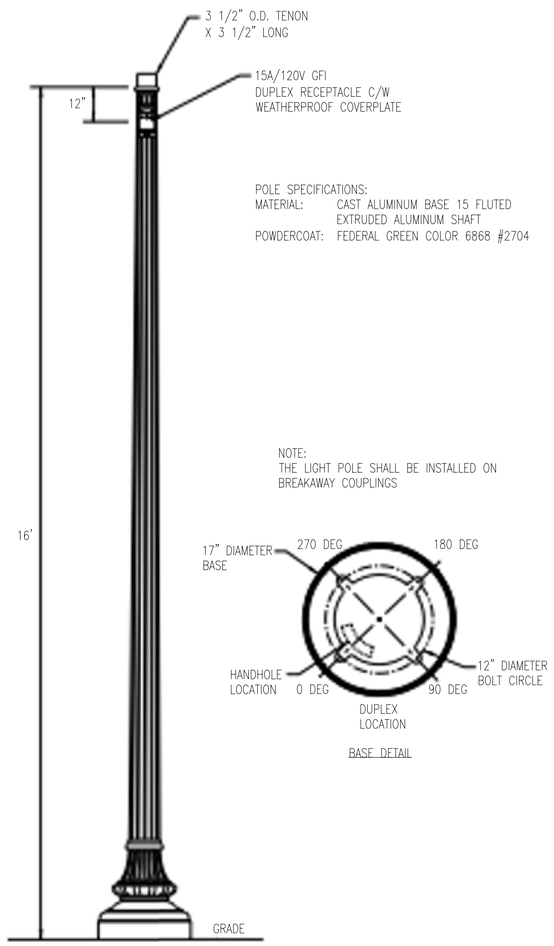


POLE BASE DETAIL



POLE DETAIL

1 / E-502 TYPE A LIGHT FIXTURE POLE DETAIL
NOT TO SCALE



POLE SPECIFICATIONS:
MATERIAL: CAST ALUMINUM BASE 15 FLUTED
EXTRUDED ALUMINUM SHAFT
POWDERCOAT: FEDERAL GREEN COLOR 6868 #2704

NOTE:
THE LIGHT POLE SHALL BE INSTALLED ON BREAKAWAY COUPLINGS

BASE DETAIL

2 / E-502 TYPE B LIGHT FIXTURE POLE DETAIL
NOT TO SCALE

GENERAL KEYNOTES

1. REFER TO SHEET E-001 FOR GENERAL NOTES, DEFINITIONS, ABBREVIATIONS AND LEGEND.
2. REFER TO SHEET ES101 FOR SITE PLAN.

MCDOT SPECIFICATION
(TYPE B) RESIDENTIAL, COLONIAL POST-TOP,
LED OPTICS, TYPE III DISTRIBUTION, STYLE LUMINAIRE

1) PURPOSE
The purpose of these specifications is to prescribe the minimum requirements for the design, manufacture, fabrication, finishing and delivery of colonial post-top, LED optics, type III distribution, style luminaire. This luminaire is intended for use on or with the black fiberglass pole. These colonial post-tops, LED optics, type III distribution, style luminaires are intended for use along residential roadways, walkways, and tunnels throughout Montgomery County. Any manufacturer, distributor or vendor who submits a bid shall agree to comply with these specifications and attached drawings.

2) DESCRIPTION
The residential, colonial post-top, LED optics, type III distribution, style luminaire is made of a cast aluminum alloy housing.
Each streetlight luminaire shall include the following:
a) Cast aluminum housing and hinged top canopy;
b) 120 volt LED Driver;
c) 10KV Surge Suppression Device built in;
d) NEMA standard photoelectric control receptacle and NEMA multi-volt standard photocell;
f) Acrylic or Polycarbonate resin refractor side panels (lens);
h) All necessary hardware required for mounting on fiberglass poles, as specified.

3) DESIGN CRITERIA
3.1) AASHTO Standards
The luminaire shall meet the requirements of American Association of State Highway and Transportation Officials (AASHTO) Standard, ?Specification for Structural supports for Highway Signs, Luminaires and Traffic Signals,? latest edition.
3.2) Shape and Minimum Size
a) The luminaire shall be of a trapezoidal shape. The minimum size for the luminaire shall 40.0 inches (sum of the length plus height), when viewed from the side.
b) The luminaire shall be suitable to accommodate 120 volt LED Driver, 10KV Surge Suppression Device and NEMA standard photoelectric control receptacle and NEMA multi-volt standard photocell.
3.3 Effective Projected Area (EPA)
The luminaire shall have a maximum estimated allowable EPA for the luminaire of 0.7 ± square feet.
3.4 Finish
The luminaire shall have a black polyester powder coat finish. During the finishing process, all critical openings shall be plugged to prevent contamination of the threads or reduction of other critical openings.

4) MATERIALS
4.1 Housing
The luminaire shall consist of a water tight housing fabricated from die-cast aluminum with a gasketed die-cast aluminum canopy. The canopy shall be hinged on one side and secured on the opposite side with a captive stainless steel screw. All castings used to fabricate the luminaire housing shall be clean and smooth with details defined and true to pattern. The housing shall be suitable to accommodate 120 volt LED Driver, 10KV Surge Suppression Device and NEMA standard photoelectric control receptacle and NEMA multi-volt standard photocell.
4.2 Driver & Surge Protection
The driver shall be mounted to facilitate easy removal for maintenance operations.
The driver shall be equipped with a 10KV Surge Protection and suppression system. All electrical connections shall be polarized and of plug-in design. The driver shall be wired to receive 120 volt AC current. The driver shall reliably start and operate the lamp in ambient temperatures down to minus 30 degrees. The terminal block shall be capable of accepting up to a #6 AWG wire.
4.3 LED Color Temperature (CCT) and Rendering Index (CRI)
The Correlated Color Temperature (CCT) shall be a nominal Kelvin Temperature of 3500K ± 200K with a minimum Color Rendering Index (CRI) of 70.
4.4 Photoelectric Cell
The photocell receptacle shall be mounted for easy access and maintenance. The photocell shall be of the NEMA twist-lock type.
4.5 Side refractor panels
The luminaire shall be equipped with acrylic or polycarbonate resin refractor panels, with spring loaded retainer clips to hold refractor panels.
4.6 Slip Fitter
The slip fitter shall have a nominal inside diameter of 3.375 inches +/- 0.25 and shall be secured to the lamp post tenon with three or four evenly spaced set screws. The slip fitter shall accommodate a tenon 3.0 inches long.

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801 South Caroline Street, Baltimore, Maryland 21231

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MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

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Chief, Transportation Planning and Design Section — Date
APPROVED
Chief, Division of Transportation Engineering — Date

Designed by: RWL Drawn by: PD Checked by: IHK

E-502 - DETAILS

BOYDS TRANSIT IMPROVEMENTS

SCALE : NO SCALE OCTOBER 2023

Project No. : 32207.003 SHEET 62 of 78

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11/2/2023

PANELBOARD MDP

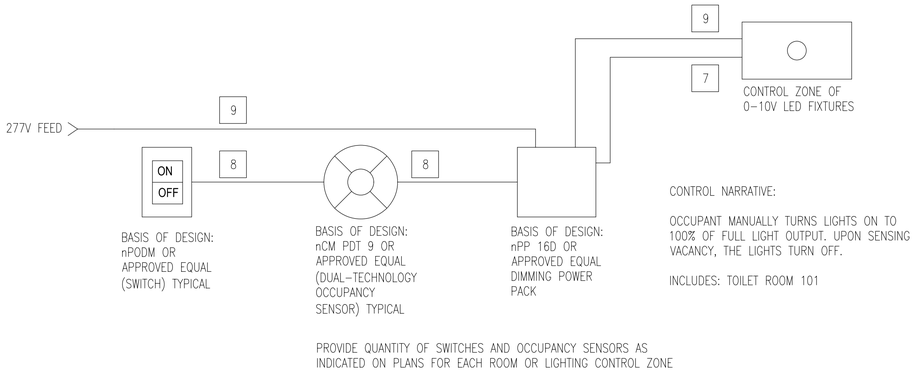
10,000 RMS AIC
NEMA 1 ENCLOSURE

400 AMP BUS
208Y/120 VOLTS
SURFACE MOUNTED

400 AMP MCB
3 PHASE, 4 WIRE + GROUND
PANEL LOCATION – ELECTRICAL ROOM 102

LOAD SERVED	LOAD (KVA) A	LOAD (KVA) B	LOAD (KVA) C	CB TRIP	WIRE SIZE	CKT. NO.	PHASE A B C	CKT. NO.	WIRE SIZE	CB TRIP	LOAD (KVA) A	LOAD (KVA) B	LOAD (KVA) C	LOAD SERVED
DUAL PORT EV CHARGER 1	6.6			40	1	1		2	N/A	40	6.6			DUAL PORT EV CHARGER 3 (FUTURE)
		6.6				3		4				6.6		
DUAL PORT EV CHARGER 1			6.6	40	1	5		6	N/A	40			6.6	DUAL PORT EV CHARGER 3 (FUTURE)
	6.6					7		8			6.6			
DUAL PORT EV CHARGER 2		6.6		40	1	9		10	N/A	40		6.6		DUAL PORT EV CHARGER 4 (FUTURE)
			6.6			11		12					6.6	
DUAL PORT EV CHARGER 2	6.6			40	1	13		14	#12	15	0.2			EF-1, EF-2
		6.6				15		16	#12	15		2.3		EWH-1
DUAL PORT EV CHARGER 4 (FUTURE)			6.6	40	N/A	17		18	#12	15			2.3	
	6.6					19		20	#12	15	1.9			TYPE C,D,E,F,G LIGHT FIXTURES
WH-1		4.9		30	#10	21		22	#12	15		2.3		EWH-2
			4.9			23		24					2.3	
RECEPTS AND CARD READERS	1.0			20	#12	25		26	#12	20	1.0			HAND DRYER
TYPE A LOT FIXTURES NORTH		0.5		20	#10	27		28						
			0.5			29		30						
TYPE A LOT FIXTURES SOUTH	0.5			20	#10	31		32						
		0.5				33		34						
TYPE B PATH FIXTURES NORTH			0.2	20	#10	35		36						
	0.2					37		38						
TYPE A LIGHT FIXTURE WEST		0.2		20	#10	39		40						
			0.2			41		42						
TOTAL	28.3	25.9	25.6								16.3	17.8	17.8	TOTAL

TOTAL CONNECTED KVA: A=44.60 B=43.70 C=43.40



CONTROL NARRATIVE:

OCCUPANT MANUALLY TURNS LIGHTS ON TO 100% OF FULL LIGHT OUTPUT. UPON SENSING VACANCY, THE LIGHTS TURN OFF.

INCLUDES: TOILET ROOM 101

PROVIDE QUANTITY OF SWITCHES AND OCCUPANCY SENSORS AS INDICATED ON PLANS FOR EACH ROOM OR LIGHTING CONTROL ZONE

5 / E-501 RESTROOM LIGHTING CONTROL DIAGRAM
NOT TO SCALE

SEQUENCE OF OPERATIONS FOR SPACES WITHOUT CONTROL DIAGRAMS:

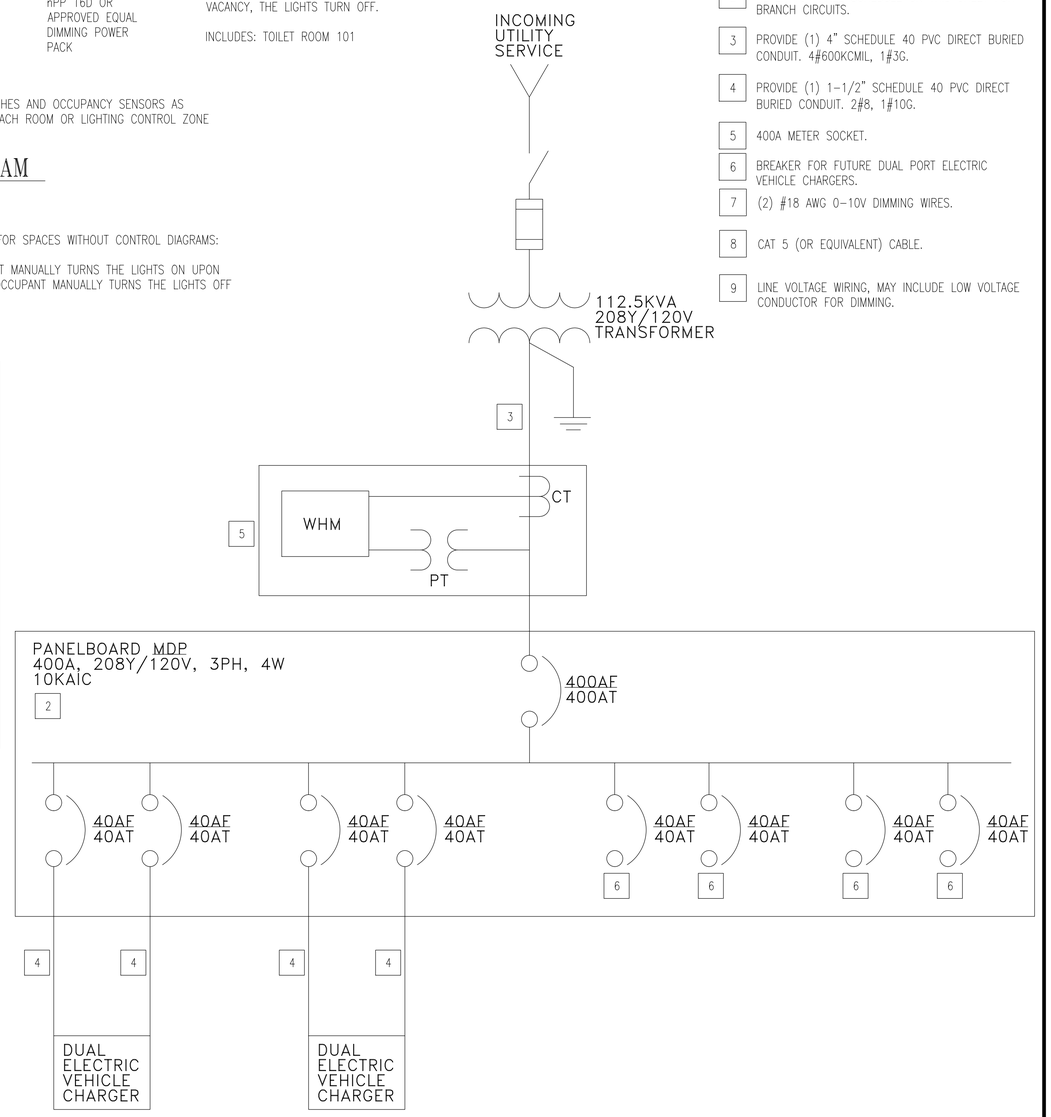
ELECTRICAL ROOM: OCCUPANT MANUALLY TURNS THE LIGHTS ON UPON ENTERING THE SPACE AND OCCUPANT MANUALLY TURNS THE LIGHTS OFF WHEN EXITING.

GENERAL KEYNOTES

1. REFER TO SHEET E-001 FOR GENERAL NOTES, DEFINITIONS, ABBREVIATIONS AND LEGEND.
2. MINIMUM CONDUIT SIZE SHALL BE 3/4".
3. INTERIOR CONDUITS SHALL BE EMT.

NEW WORK KEYNOTES

1. REFER TO ES101 FOR CONDUIT AND WIRING SIZE.
2. REFER TO PANEL SCHEDULE ON THIS SHEET FOR BRANCH CIRCUITS.
3. PROVIDE (1) 4" SCHEDULE 40 PVC DIRECT BURIED CONDUIT. 4#600KCMIL, 1#3G.
4. PROVIDE (1) 1-1/2" SCHEDULE 40 PVC DIRECT BURIED CONDUIT. 2#8, 1#10G.
5. 400A METER SOCKET.
6. BREAKER FOR FUTURE DUAL PORT ELECTRIC VEHICLE CHARGERS.
7. (2) #18 AWG 0-10V DIMMING WIRES.
8. CAT 5 (OR EQUIVALENT) CABLE.
9. LINE VOLTAGE WIRING, MAY INCLUDE LOW VOLTAGE CONDUCTOR FOR DIMMING.



LIGHTING FIXTURE SCHEDULE

FIX. TYPE	DESCRIPTION	MOUNTING	LAMPS VOLT	LAMPS TYPE	MANUFACTURER	REMARKS
A	18' EXTERIOR POLE – SINGLE ARM	POLE 18' AFG	208	LED	LITHONIA LIGHTING DSXWPM LED 20C 1000 40K T4M 208 PIRH1FC3V OR APPROVED EQUAL	INTEGRAL DAYLIGHT SENSING
B	16' COLONIAL POST TOP LIGHT	POLE 16' AFG	208	LED	LEOTEK PTC S F N S 30J MV 40K 3R BK 030 OR APPROVED EQUAL	
C	24" LINEAR LIGHT FIXTURE WITH EMERG	WALL 7' AFF	120	LED	LITHONIA LIGHTING CLX L24 4500LM SEF L/LENS MVOLTS GZ10 35K 80CR E10WLCPI OR APPROVED EQUAL	PROVIDE WITH EMERGENCY BATTERY PACK OPTION
D	6" UP/DOWN CYLINDER LIGHT	WALL 7' AFF	120	LED	PROGRESS LIGHTING P5642-30/30K OR APPROVED EQUAL	DAYLIGHT SENSING WITH HUBBELL DHOP PHOTOCELL
E	ADJUSTABLE FLOOD LIGHT	CEILING 11.5' AFF	120	LED	LITHONIA LIGHTING HGX LED 3RH ALO 40K 120 PE OR APPROVED EQUAL	INTEGRAL DAYLIGHT SENSING
F	LINEAR SIGN LIGHT	WALL	120	LED	COOPER LIGHTING LINE 2.0 OR APPROVED EQUAL	
G	LUMENRAIL	HANDRAIL	120	LED	WAGNER LUMENLINEAR OR APPROVED EQUAL	

EXISTING TO BE REPLACED FIXTURE SCHEDULE

POLEID	STREET NAME	LUM STYLE	SUPPLIER	REMARKS
F-44480	BARNESVILLE ROAD	OVERHEAD POLE	FIRST ENERGY	BY OTHERS
F-44481	BARNESVILLE ROAD	OVERHEAD POLE	FIRST ENERGY	BY OTHERS
F-44482	BARNESVILLE ROAD	OVERHEAD POLE	FIRST ENERGY	BY OTHERS

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APPROVED
Chief, Division of Transportation Engineering — Date

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E-701 – ELECTRICAL SCHEDULES AND DIAGRAMS

BOYDS TRANSIT IMPROVEMENTS

SCALE : NO SCALE OCTOBER 2023

Project No. : 32207.003 SHEET 63 of 78

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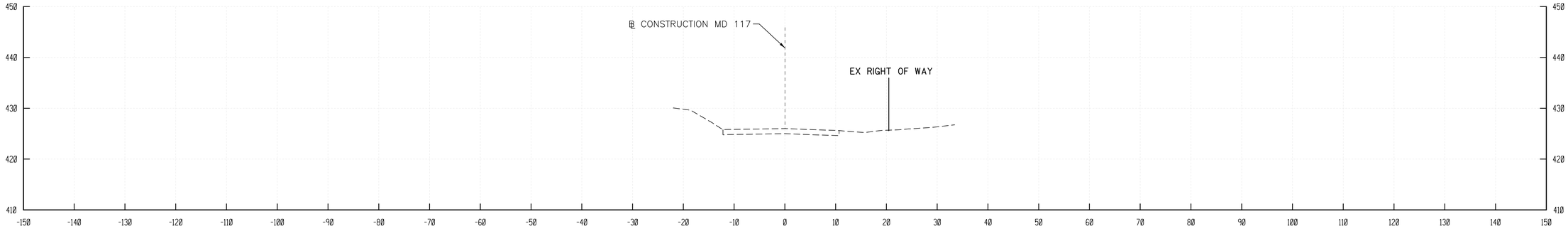

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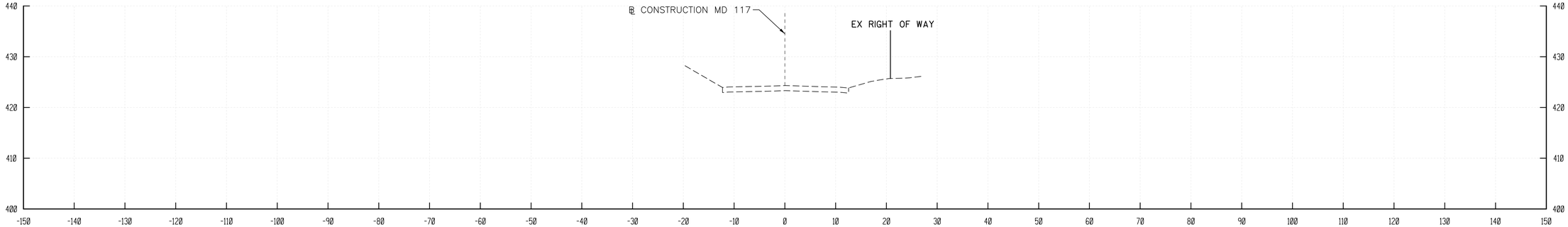

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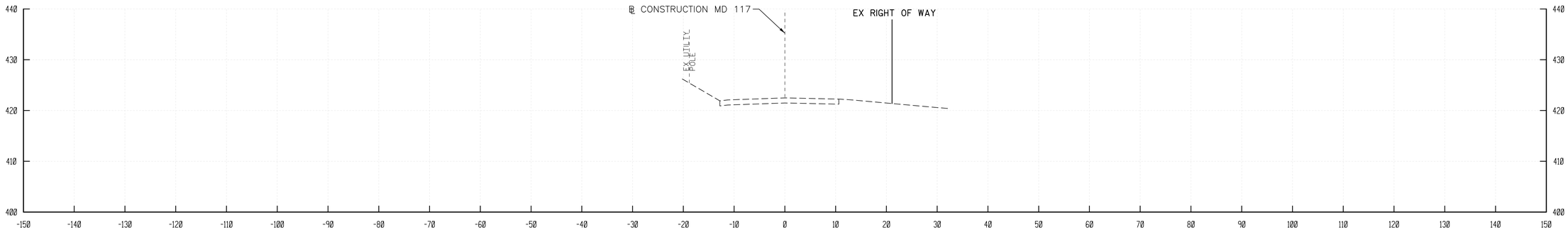

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10+00 10+50

HORIZONTAL SCALE: 1"=10'

10' 0 10' 20'

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APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: AMU Drawn by: AMU Checked by: PHD

CROSS SECTIONS

BOYDS TRANSIT IMPROVEMENTS

SCALE : 1" = 10' AUGUST 2023

Project No. : 32207.003 SHEET 63 of 77

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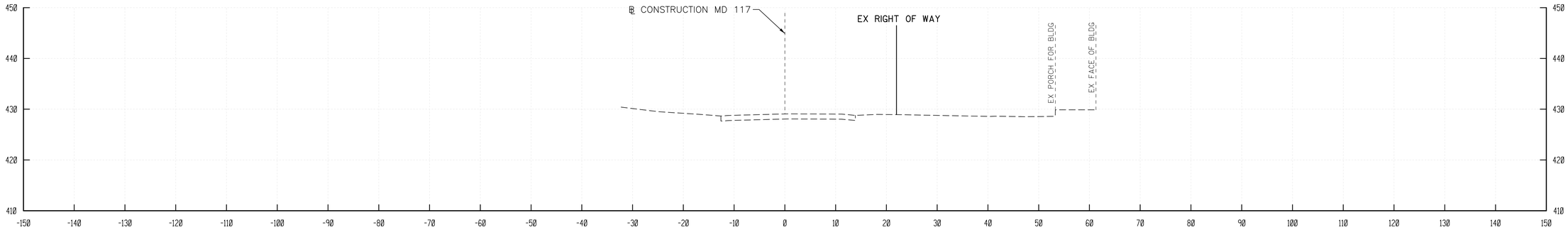

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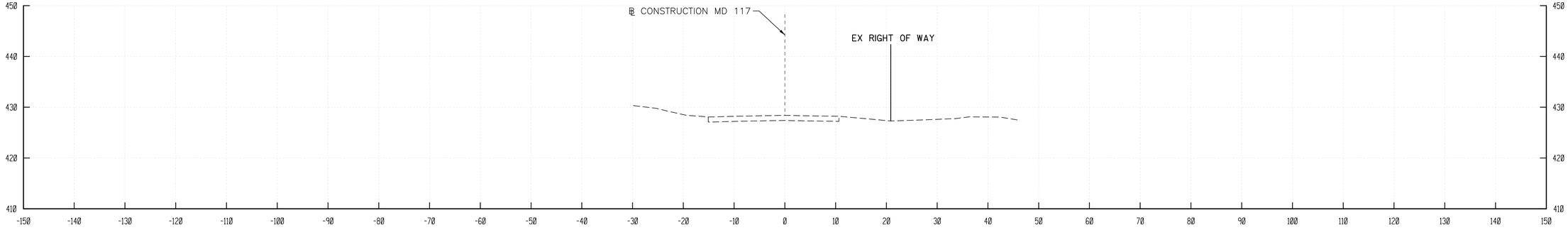
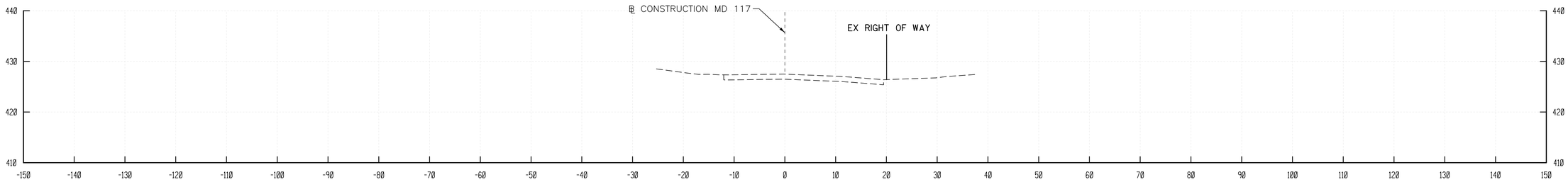


11+00



10+75

10+75 11+25

HORIZONTAL SCALE: 1"=10'

10' 0 10' 20'

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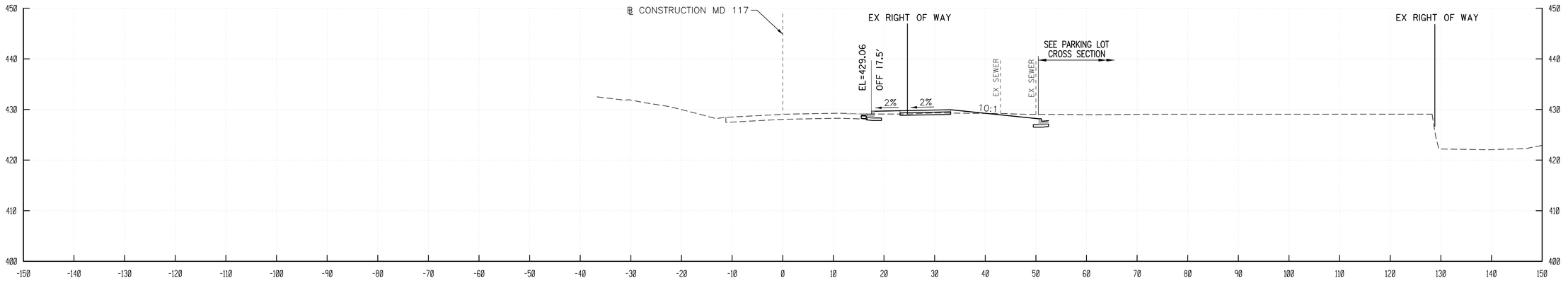

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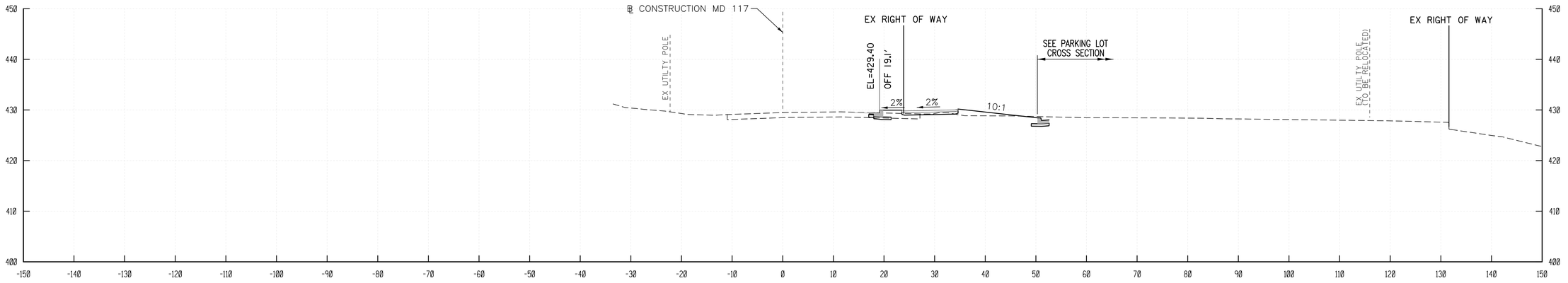

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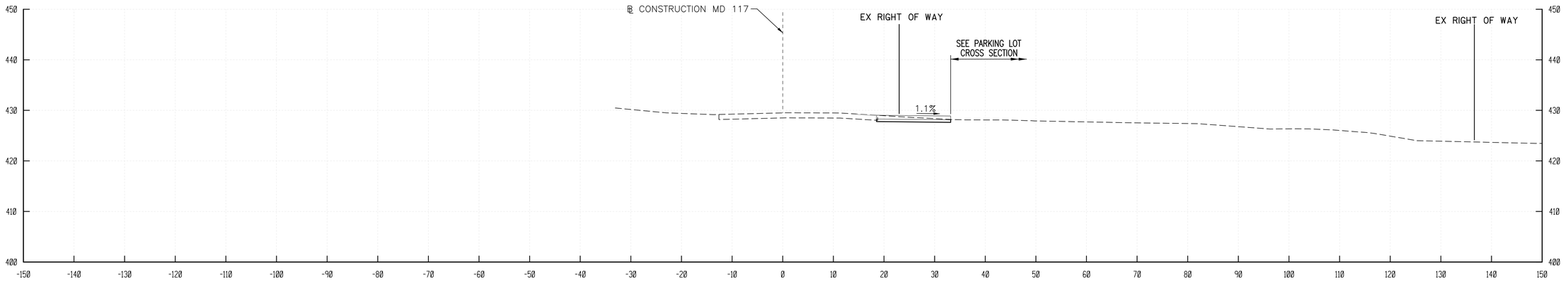

11+50

11+50 12+00

HORIZONTAL SCALE: 1"=10'

10' 0 10' 20'

PROFESSIONAL CERTIFICATION.
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Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Transportation Planning and Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: AMU Drawn by: AMU Checked by: PHD

CROSS SECTIONS

BOYDS TRANSIT IMPROVEMENTS

SCALE : 1" = 10' AUGUST 2023

Project No. : 32207.003 SHEET 65 of 77

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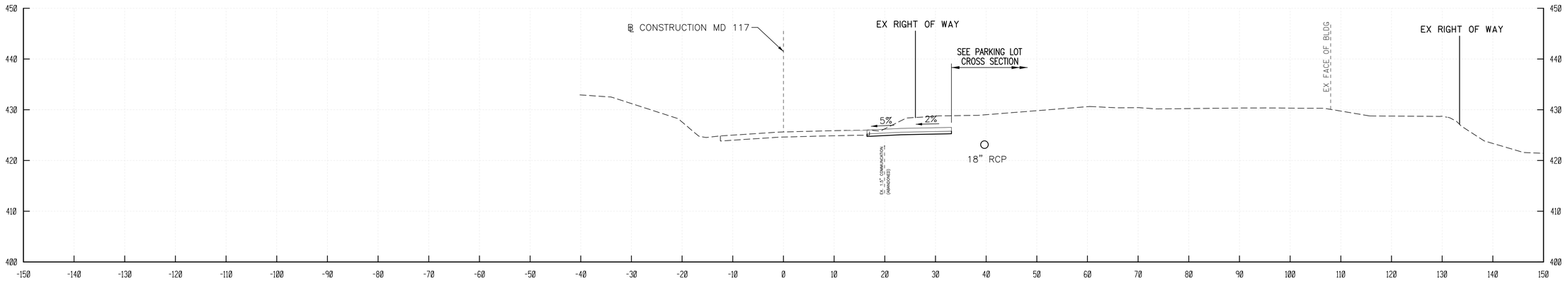
11/2/2023



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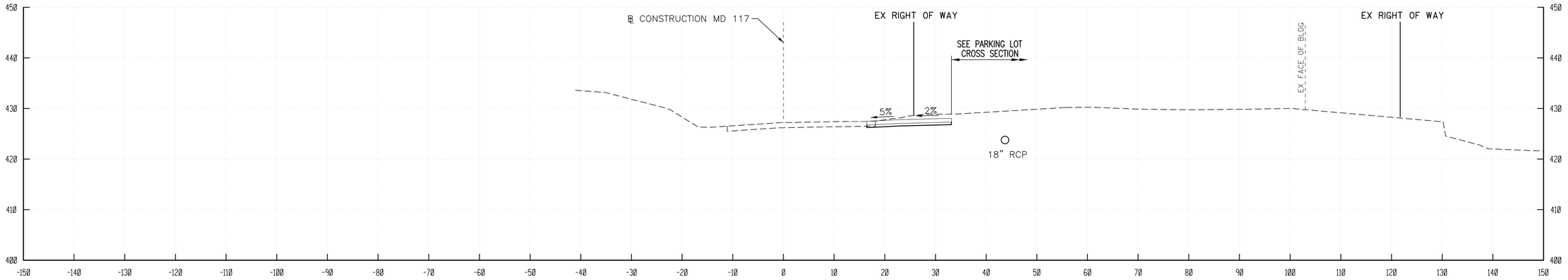

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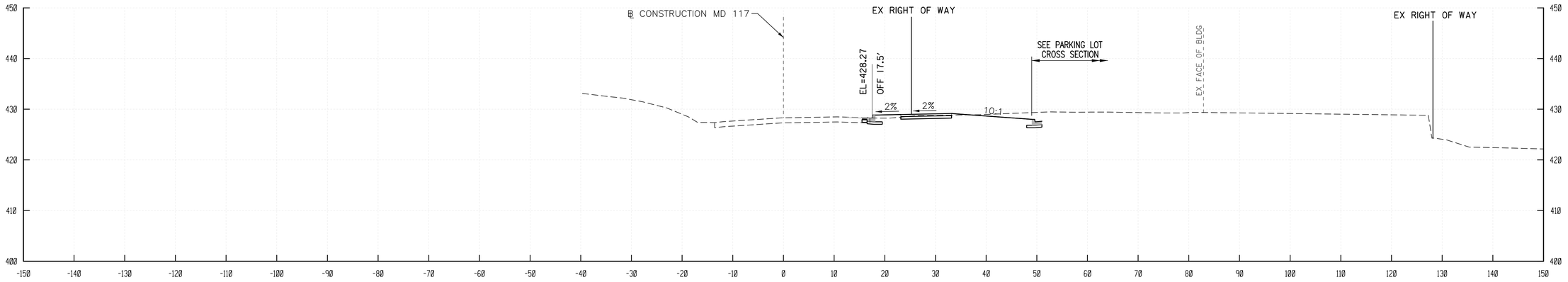

12+25

12+25 12+75

HORIZONTAL SCALE: 1"=10'

10' 0 10' 20'

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SCALE : 1" = 10' AUGUST 2023

Project No. : 32207.003 SHEET 66 of 77

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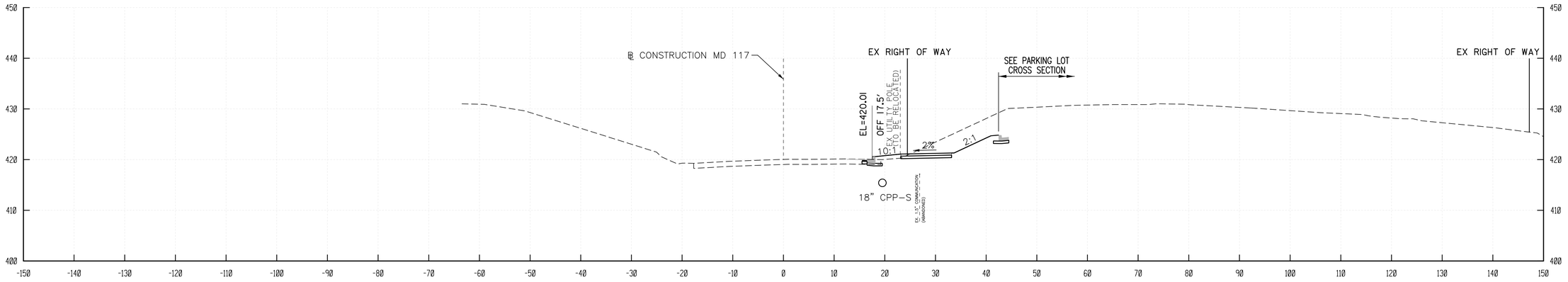
11/2/2023



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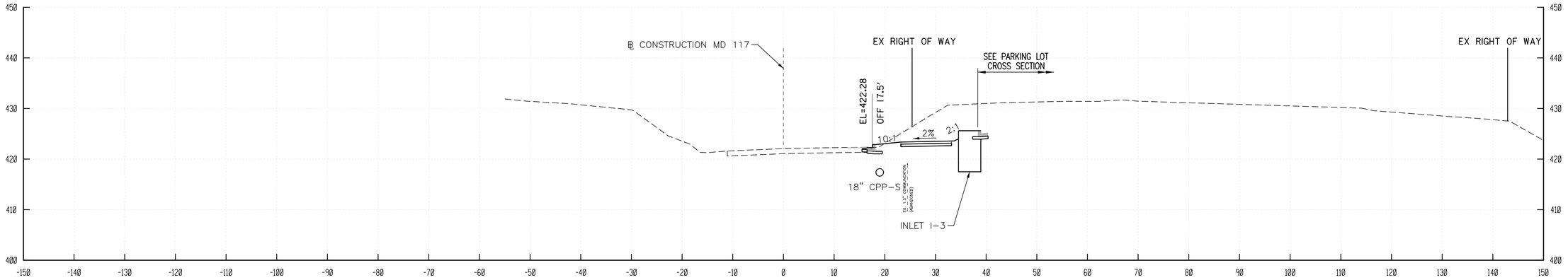

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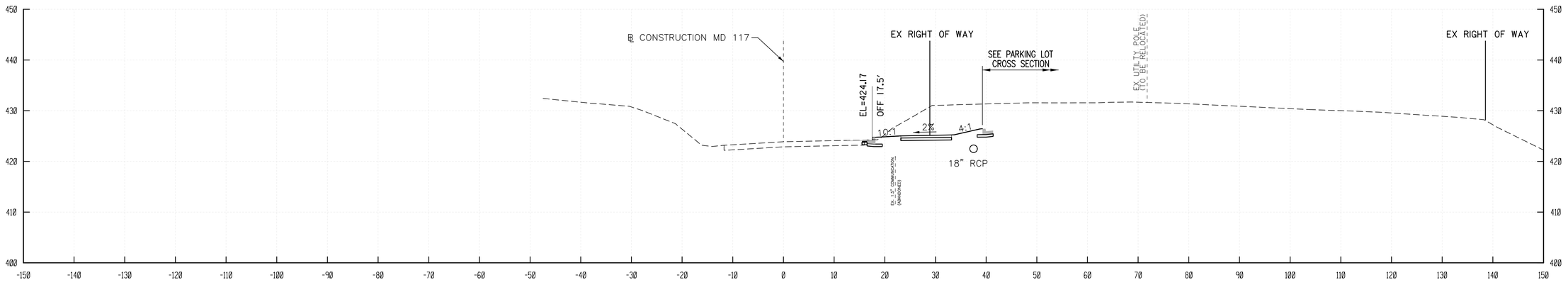

13+00

13+00 13+50

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Project No. : 32207.003 SHEET 67 of 77

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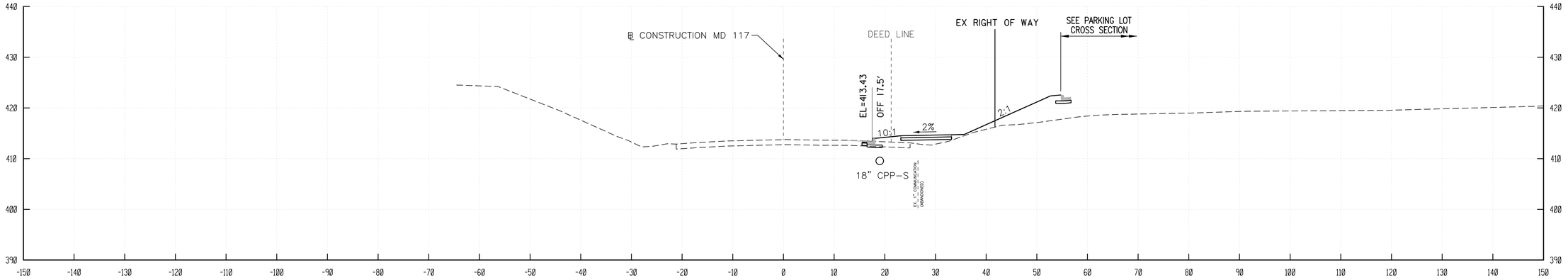
11/2/2023



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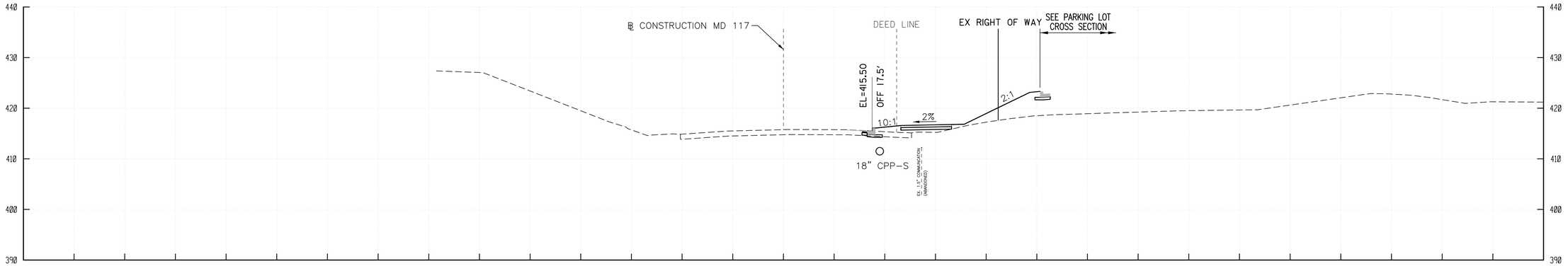

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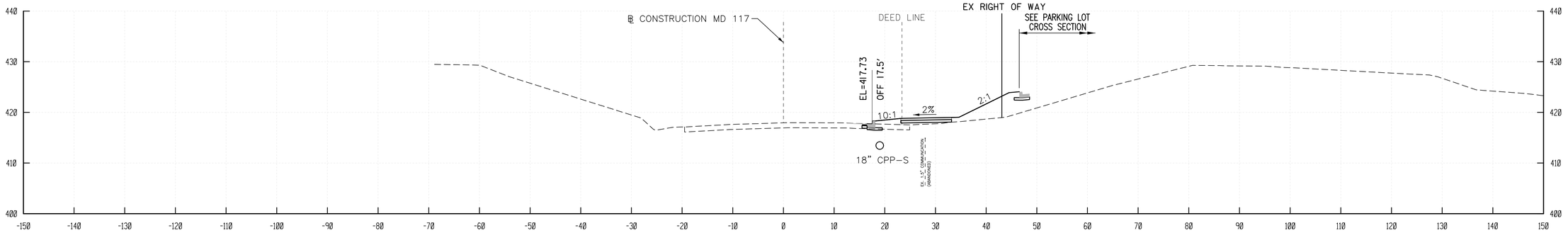

13+75

13+75 14+25

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SCALE : 1" = 10' AUGUST 2023

Project No. : 32207.003 SHEET 68 of 77

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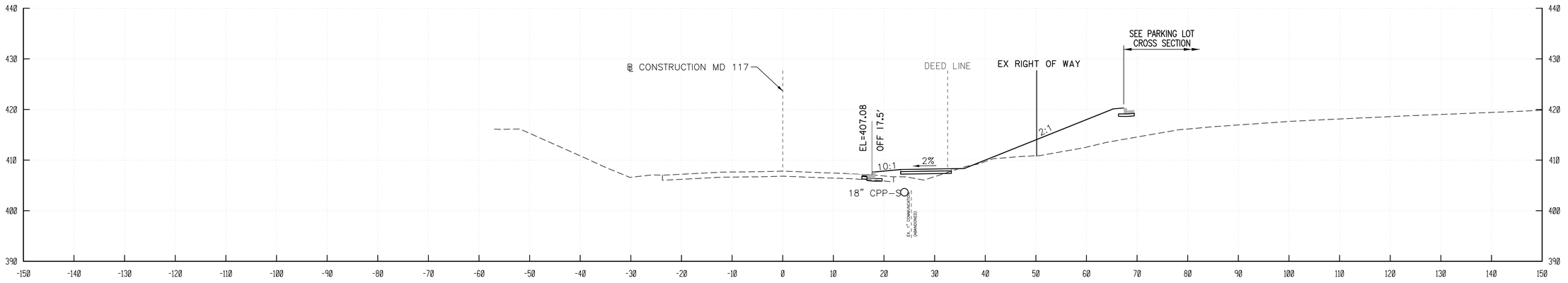
11/2/2023



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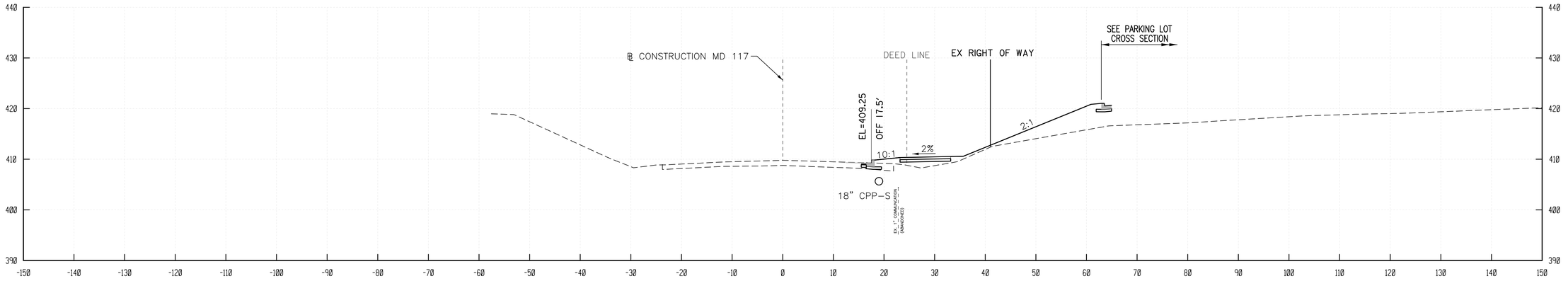

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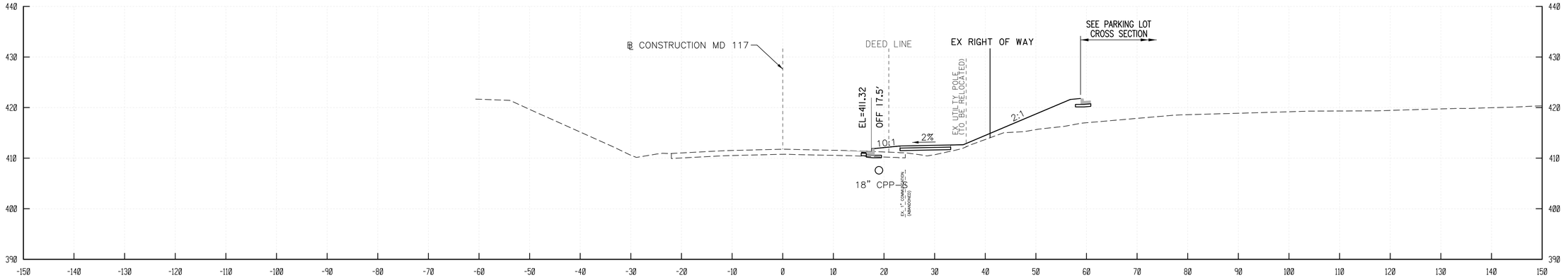

14+50

14+50 15+00

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CROSS SECTIONS

BOYDS TRANSIT IMPROVEMENTS

SCALE : 1" = 10' AUGUST 2023

Project No. : 32207.003 SHEET 69 of 77

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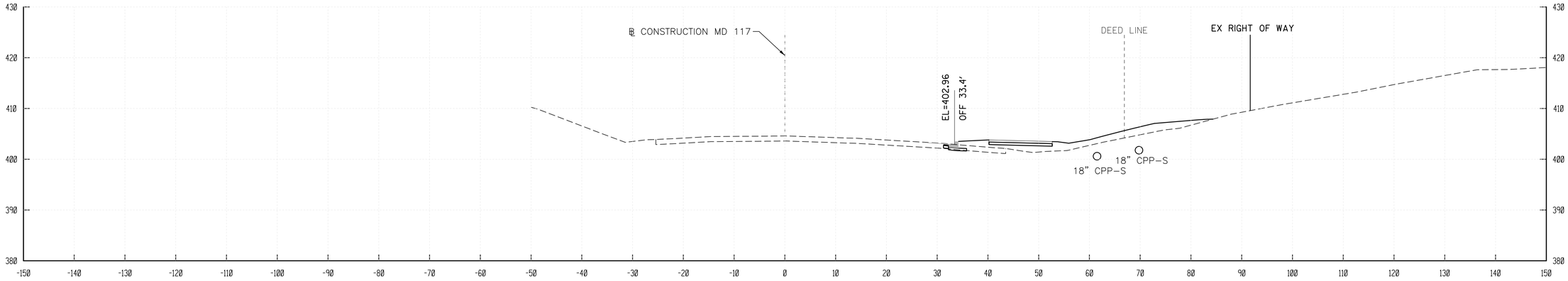
SEE TYPICAL SECTIONS AND RAMP DETAILS FOR SLOPES



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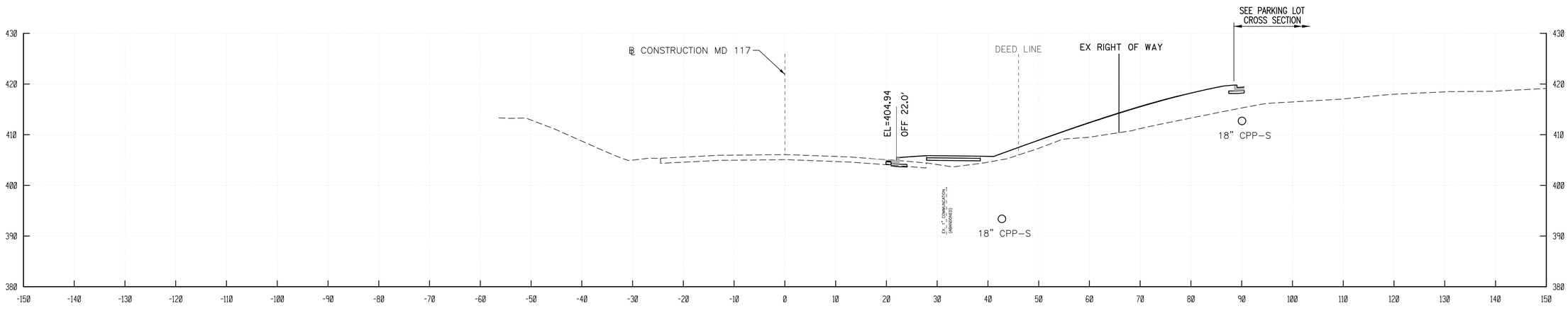
SEE TYPICAL SECTIONS AND RAMP DETAILS FOR SLOPES



15+25

15+25 15+25

HORIZONTAL SCALE: 1"=10'

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CROSS SECTIONS

BOYDS TRANSIT IMPROVEMENTS

SCALE : 1" = 10' AUGUST 2023

Project No. : 32207.003 SHEET 70 of 77

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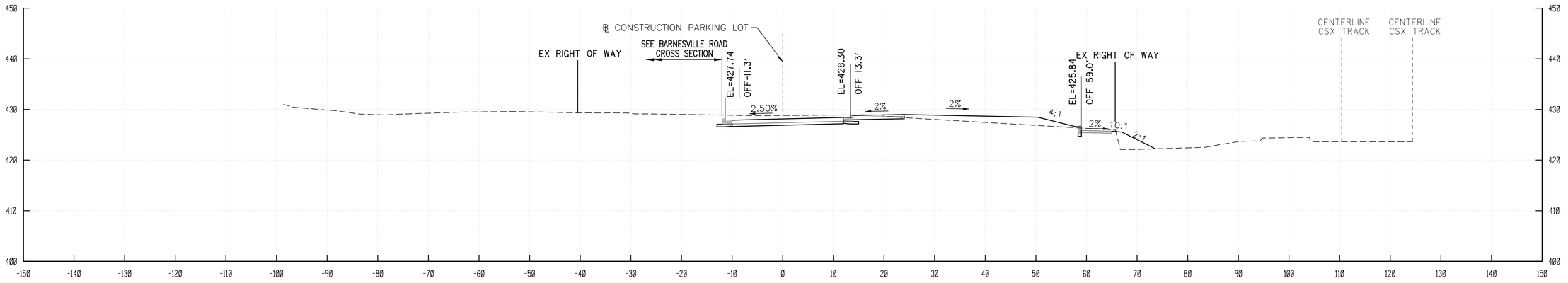
11/2/2023



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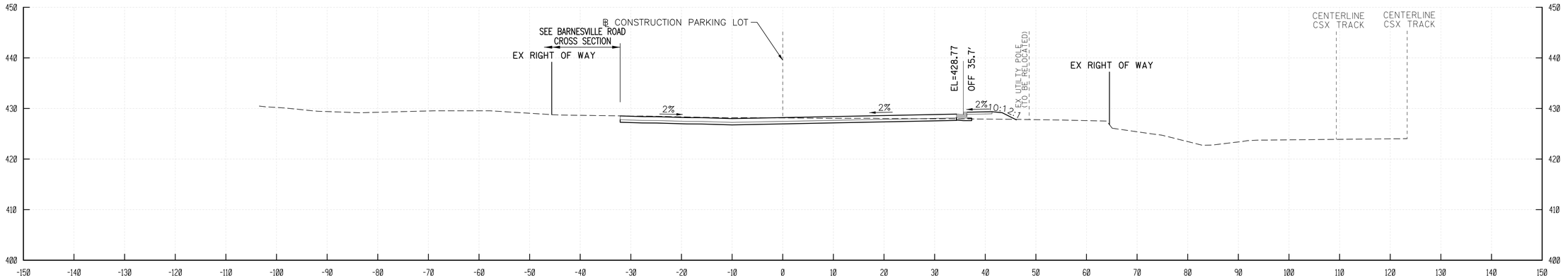

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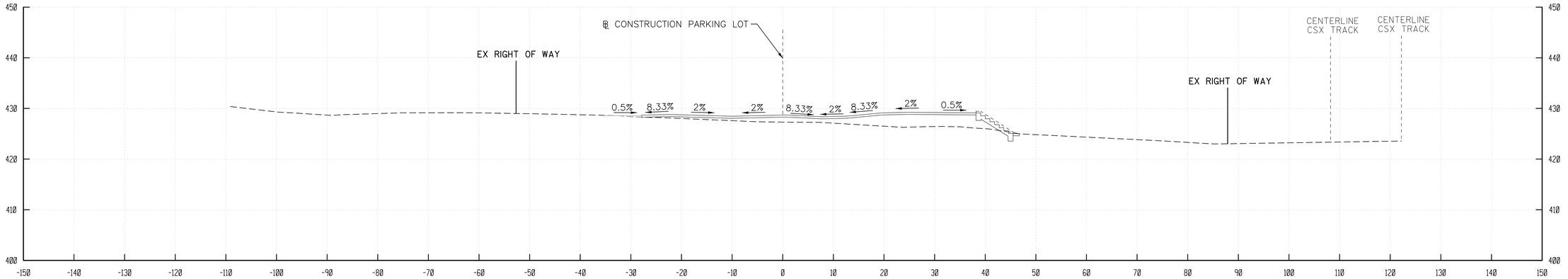

20+50

20+50 21+00

HORIZONTAL SCALE: 1"=10'

10' 0 10' 20'

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CROSS SECTIONS

BOYDS TRANSIT IMPROVEMENTS

SCALE : 1" = 10' AUGUST 2023

Project No. : 32207.003 SHEET 71 of 77

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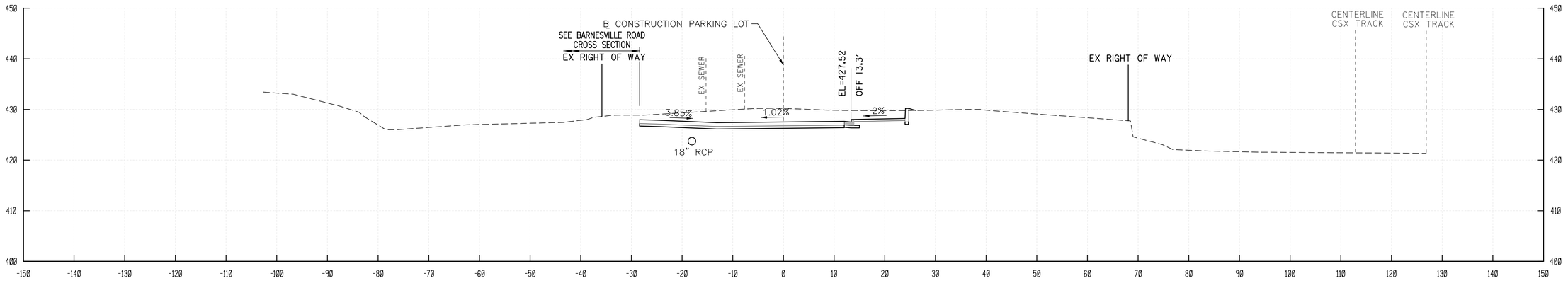

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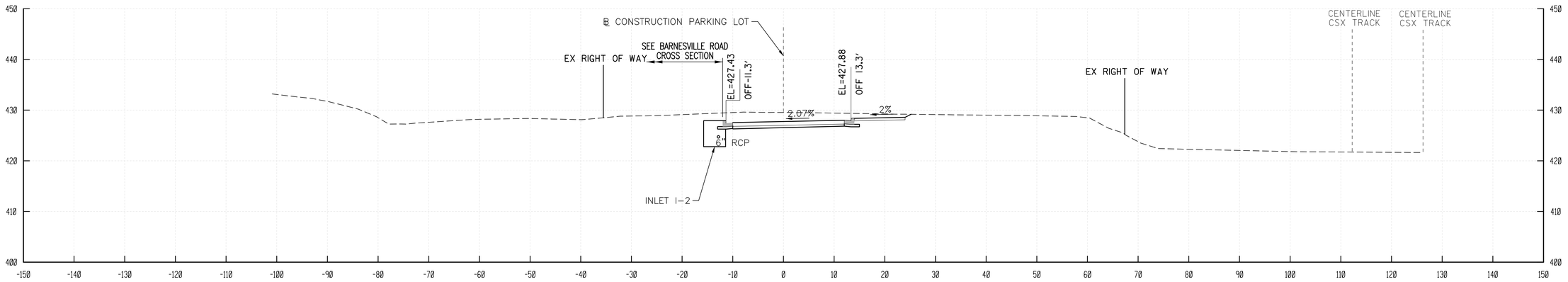

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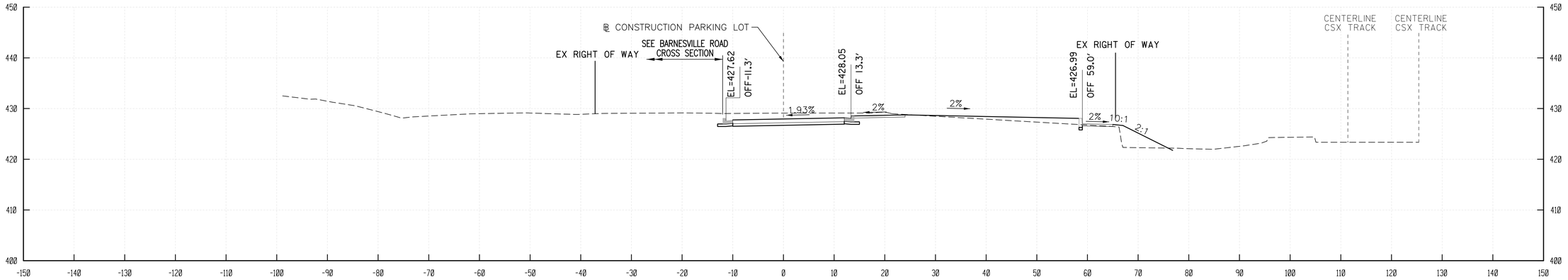

21+25

21+25 21+75

HORIZONTAL SCALE: 1"=10'

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Project No. : 32207.003 SHEET 72 of 77

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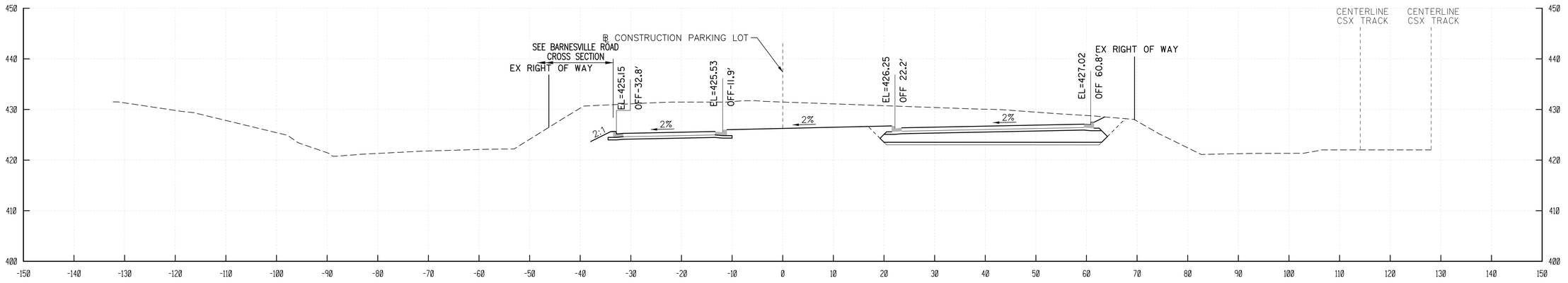
11/2/2023



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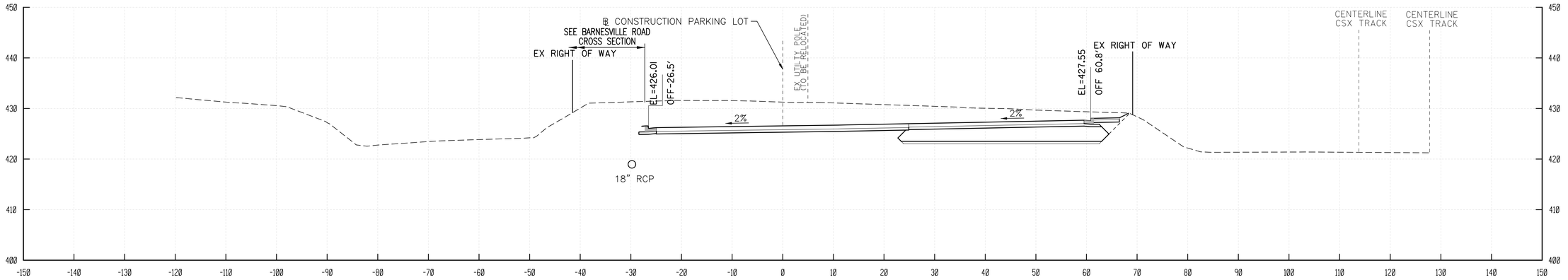

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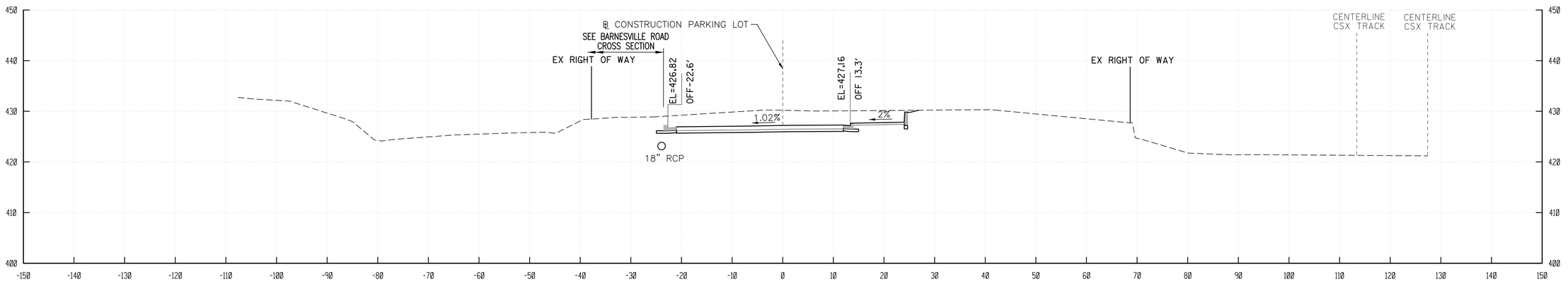

22+00

22+00 22+50

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CROSS SECTIONS

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SCALE : 1" = 10' AUGUST 2023

Project No. : 32207.003 SHEET 73 of 77

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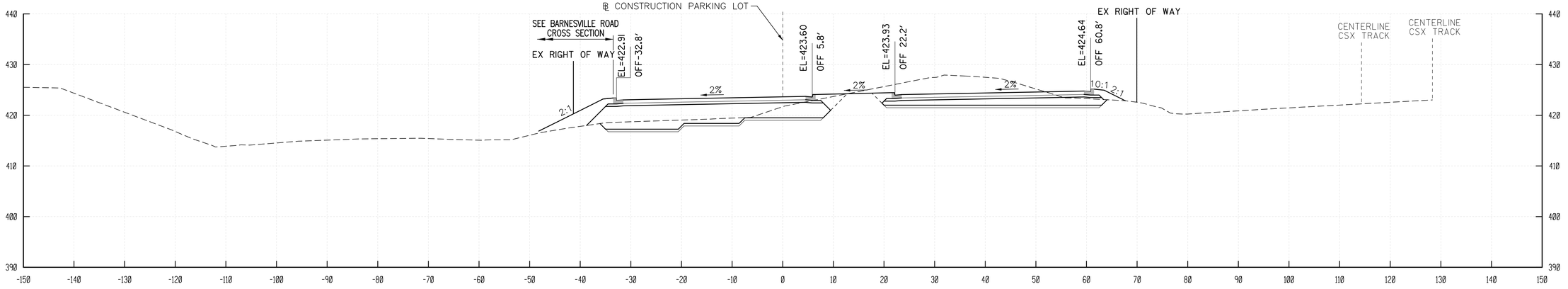

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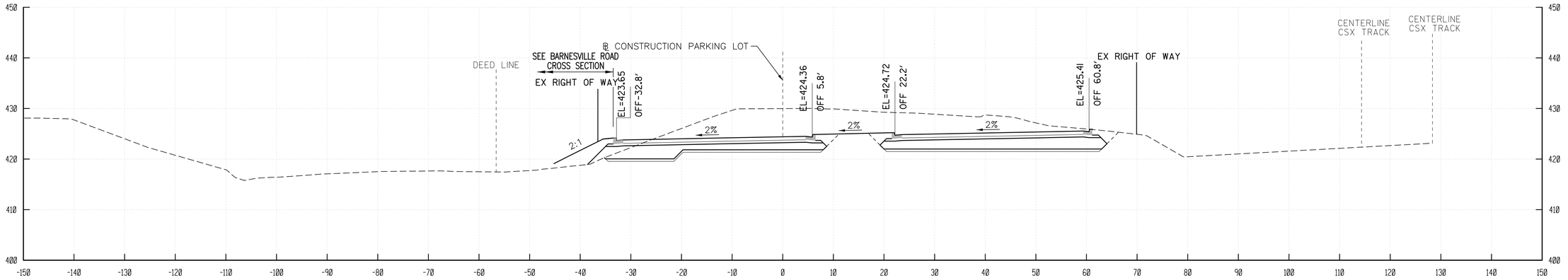

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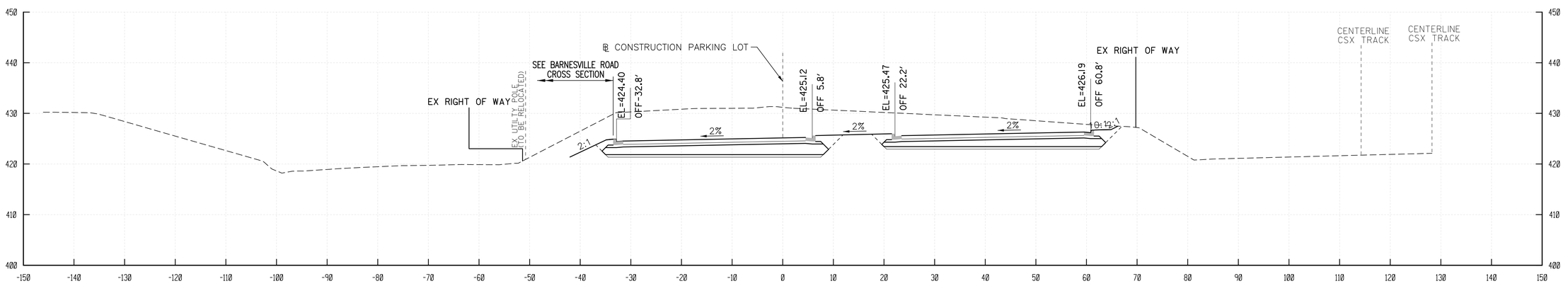

22+75

22+75 23+25

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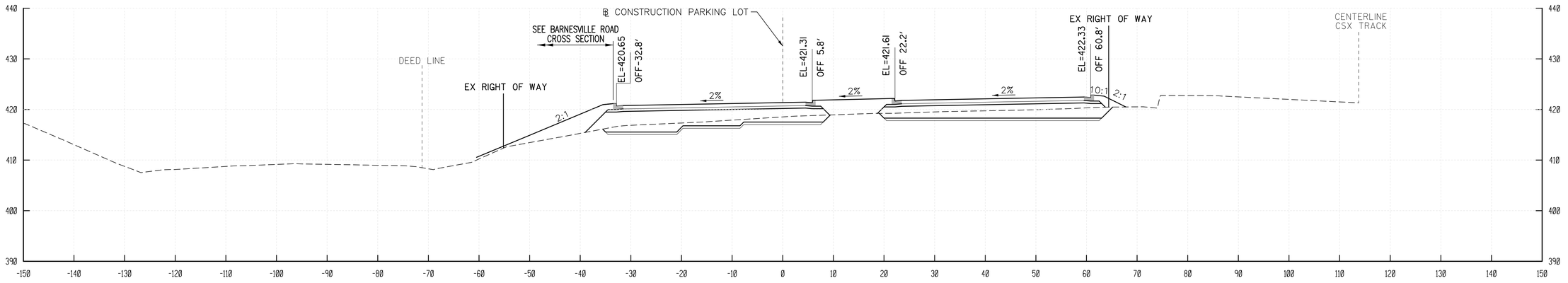

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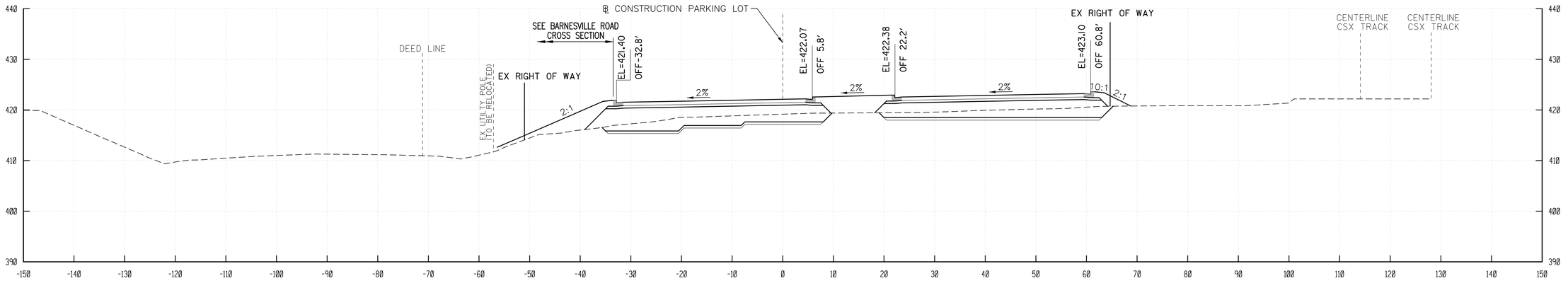

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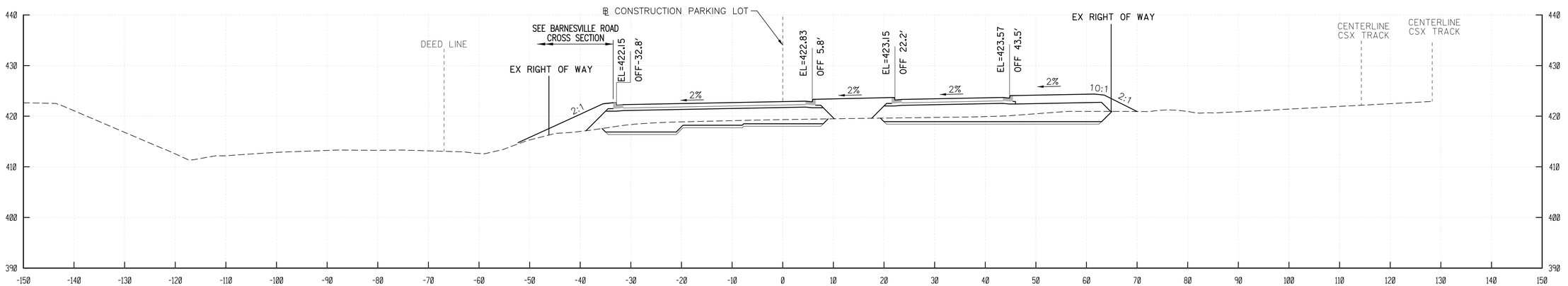

23+50

23+50 24+00

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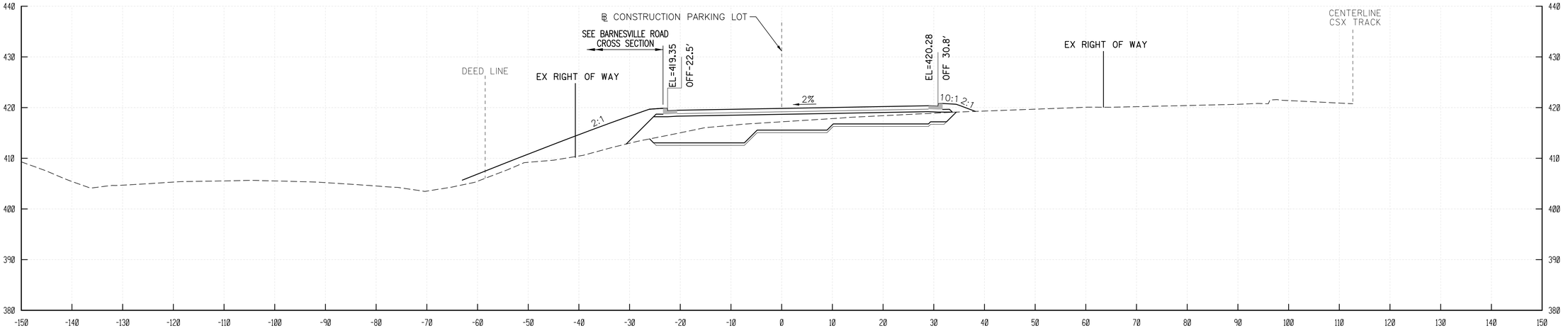
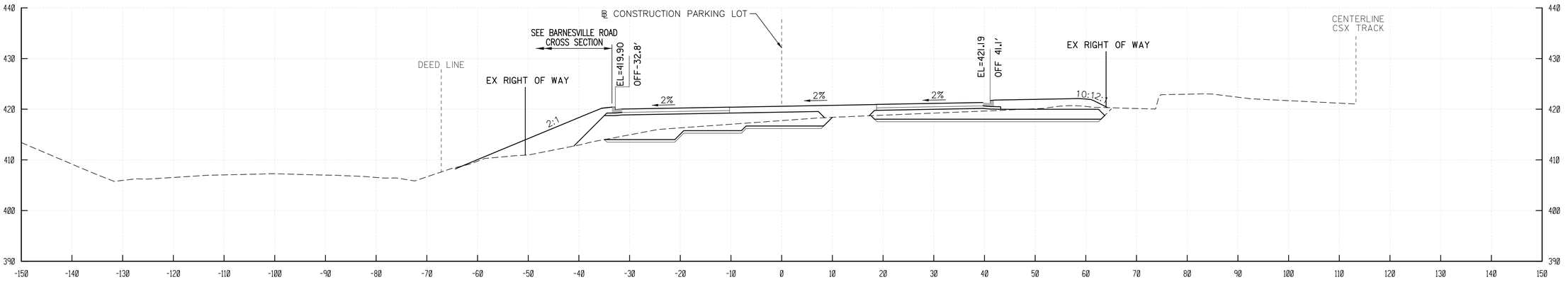


24+50



24+25

24+25 24+50

HORIZONTAL SCALE: 1"=10'

10' 0 10' 20'

N:\32207-003\CADD\phC-3014_Boyds.dgn
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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._____
EXPIRATION DATE:_____

Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Transportation Planning and Design Section — Date

APPROVED

Chief, Division of Transportation Engineering — Date

Designed by: AMU Drawn by: AMU Checked by: PHD

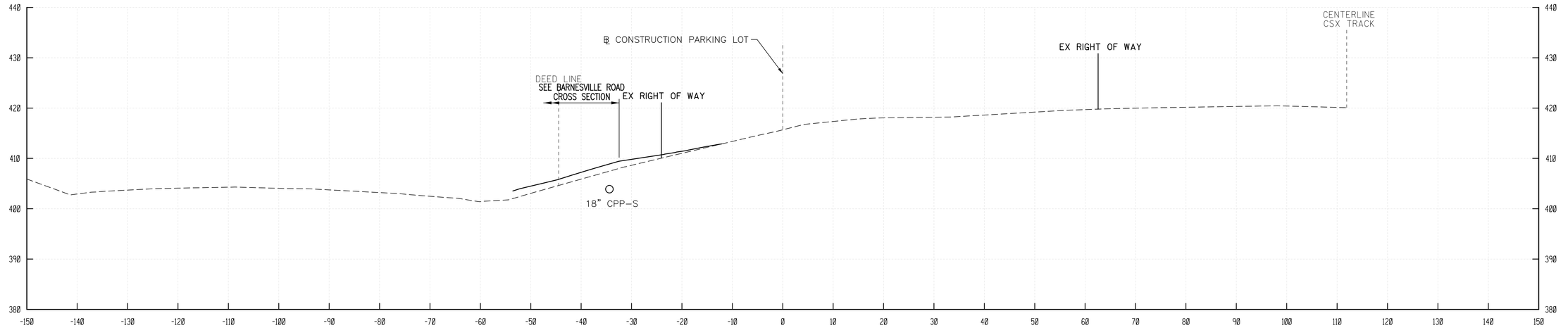
CROSS SECTIONS

BOYDS TRANSIT IMPROVEMENTS

SCALE : 1" = 10' AUGUST 2023

Project No. : 32207.003 SHEET 76 of 77

*NOTE: SLOPES ARE NOT LABELED DUE TO SKEW OF CROSS SECTION.
SEE TYPICAL SECTIONS FOR SLOPES



24+75 24+75 24+75

HORIZONTAL SCALE: 1"=10'

10' 0 10' 20'

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CROSS SECTIONS

BOYDS TRANSIT IMPROVEMENTS

SCALE : 1" = 10' AUGUST 2023

Project No. : 32207.003 SHEET 77 of 77

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