MISS UTILITY

THE CONTRACTOR SHALL CALL "MISS UTILITY" AT 1-800-257-7777, 48 HOURS PRIOR TO THE START OF WORK. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL UNDERGROUND UTILITIES IN THE AREA OF PROPOSED WORK ARE LOCATED PRIOR TO COMMENCING CONSTRUCTION WORK. THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH REQUIREMENTS OF CHARTER 364 OF THE MONTGOMERY COUNTY CODE.

ALL UTILITIES SHOWN ON THE PLANS ARE PROVIDED FOR INFORMATION ONLY AND SHALL BE CONSIDERED APPROXIMATE. ANY UTILITIES OR OTHER UNDERGROUND FACILITIES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED/REPLACED AT THE CONTRACTOR'S SOLE EXPENSE.

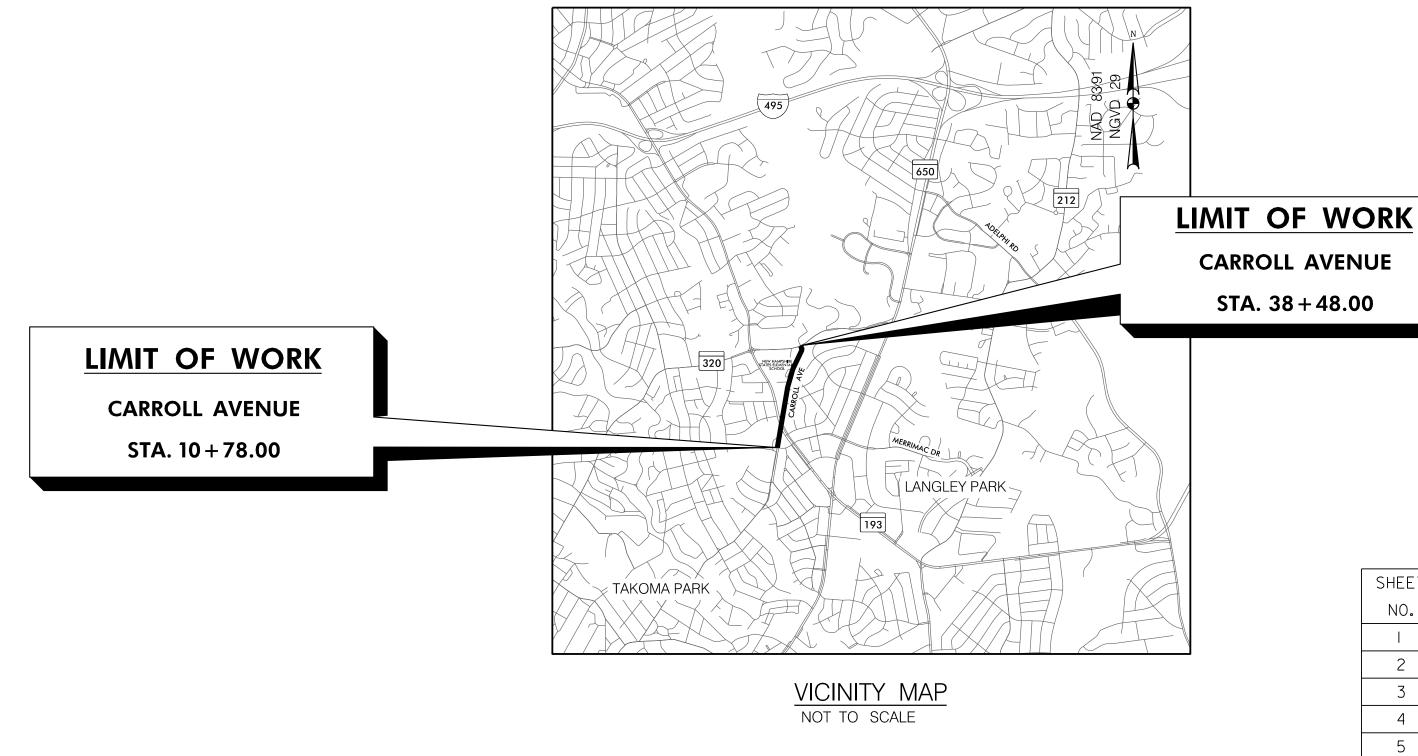
MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION

CARROLL AVENUE SEPARATED BIKELANES

MERRIMAC DRIVE TO PINEY BRANCH ROAD

C.I.P. CONTRACT NO. 0502004

DESIGN DESIGNATION						
ROADWAY	CARROLL	AVENUE				
ROADWAY LENGTH (MILES)	0	. 5				
CONTROLS YEARS	-	-				
AVERAGE DAILY TRAFFIC (A.D.T.)	-	-				
DESIGN HOURLY VOLUME (D.H.V.)	-	-				
DIRECTIONAL DISTRIBUTION	-	-				
% TRUCKS (A.D.T.)	-	-				
% TRUCKS (D.H.V.)	-	-				
FUNCTIONAL CLASSIFICATION	L0	CAL				
CONTROL OF ACCESS	NONE					
INTENSITY OF DEVELOPMENT	URBAN					
TERRAIN	ROL	LING				
DESIGN SPEED (M. P. H.)	25 MPH					
ANTICIPATED POSTED SPEED (M.P.H.)	25	MPH				
MCDOT CLASSIFICATION	NEIGHBORHOO	D CONNECTOR				



				R OF THIS SITE TO OBTA	
TYPE OF PERMIT	REQD	NOT REQD	PERMIT #	EXPIRATION DATE	WORK RESTRICTION DATES
MCDPS Floodplain District		X			
WATERWAYS/WETLAND(S):					
a. Corps of Engineers		X			
b. MDE		X			
c. MDE Water Quality Certification		X			
MDE Dam Safety					
* DPS Roadside Trees Protection Plan	X			Approval Date	
**N.P.D.E.S. NOTICE OF INTENT		X			
FEMA LOMR (Required Post Construction)		X			
OTHERS (Please List):					

*A copy of the approved Roadside Trees Protection Plan must be delivered to the Sediment Control Inspector at the Preconstruction meeting.

**When a Notice of Intent is required, the sediment control permit may not be issued until confirmation of authorization under the MDF's 20-CP permit has been submitted to DPS.

INDEX OF SHEETS

SHEET	DRAWING	SHEET NAME
NO.	NO.	SHELL NAME
I	TI-OI	TITLE SHEET
2	AB-OI	GENERAL NOTES, ABREVIATIONS AND LEGEND
3	TS-0I	TYPICAL SECTIONS
4	GS-0I	GEOMETRY SHEETS
5	DE-OI	GENERAL DETAILS
6-9	PS-01 - PS-04	ROADWAY PLANS
10-13	SN-01 - SN-04	SIGNING & PAVEMENT MARKING DETAILS
14-19	TP-01 - TP-06	TREE SAVE PLANS
20-36	XS-01 - XS-17	CROSS SECTIONS

35% DESIGN REVIEW
JULY 2023
NOT FOR CONSTRUCTION

RKSK
P: 410.728.2900 700 East Pratt Street, Suite 500 Baltimore, MD 21202
Engineers Construction Managers Planners Scientists www.rkk.com
Responsive People Creative Solutions

OWNER/ADDRESS: MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION					MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTA ROCKVILLE, MARYLAND	ATION	
100 EDISON PARK DRIVE GAITHERSBURG, MARYLAND					RECOMMENDED FOR APPROVAL		
CONTACT: DIVISION OF TRANSPORTATION ENGINEERING					Chief, Transportation Planning and Design Section APPROVED	Date	
240-777-7220 DESIGN SECTION					Chief, Division of Transportation Engineering	 Date	SC
240-777-7221	NO.	REVISION	DATE	BY	DESIGNED BY OG DRAWN BY TM CH	IECKED BY <u>TMB</u>	DRAW

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
DIVISION OF TRANSPORTATION ENGINEERING

CARROLL AVENUE
SEPARATED BIKE LANES
MERRIMAC DRIVE TO PINEY BRANCH ROAD

TITLE SHEET

 SCALE
 AS SHOWN
 DATE
 JULY 2023

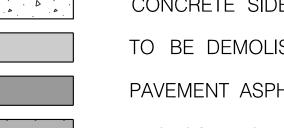
 DRAWING NO.
 TI-01
 OF
 01
 SHEET NO.
 1
 OF
 36

GENERAL NOTES

- 1. RIGHT OF WAY LINES ARE SHOWN FOR ASSISTANCE IN INTERPRETING PLANS. THESE LINES DO NOT REPRESENT THE OFFICIAL PROPERTY ACQUISITION LINES. FOR OFFICIAL RIGHT OF WAY AND EASEMENT INFORMATION, SEE THE APPROPRIATE RIGHT OF WAY PLAT.
- 2. INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS, BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATIONS OF THE MAINS BY DIGGING TEST HOLES BY HAND AT ALL UTILITY CROSSINGS, WELL IN ADVANCE OF TRENCHING. IF CLEARANCE IS LESS THAN TWELVE (12) INCHES, THEN CONTACT THE MONTGOMERY COUNTY DOT PROJECT MANAGER AND THE APPROPRIATE UTILITY BEFORE PROCEEDING WITH CONSTRUCTION.
- 3. REPAIRS TO UTILITIES OR PROPERTY DAMAGED AS A RESULT OF THE CONTRACTOR'S NEGLIGENCE OR METHOD OF OPERATION MUST BE MADE AT THE CONTRACTOR'S EXPENSE BEFORE PROCEEDING WITH CONSTRUCTION.
- 4. THE EXACT LOCATION AND TYPE OF SEDIMENT CONTROL DEVICES WILL BE SUBJECT TO THE APPROVAL OF THE ENGINEER, WHO RESERVES THE RIGHT TO ORDER ADDITIONAL EROSION AND SEDIMENT CONTROL DEVICES.

- 5. CONSTRUCTION EQUIPMENT SHALL HAVE TREADS /TIRES CLEANED PRIOR TO LEAVING THE LOD. ALL MATERIAL REMOVAL /LOAD OUT SHALL BE LIFTED FROM THE LOD. ALL SEDIMENT SPILLED, DROPPED OR TRACKED ONTO THE ROAD MUST BE REMOVED IMMEDIATELY BY VACUUMING, SCRAPING OR SWEEPING.
- 6. SAW CUTS WILL NOT BE MEASURED BUT WILL BE INCIDENTAL TO OTHER RELATED ITEMS AS SPECIFIED IN THE CONTRACT DOCUMENTS.
- 7. REFER TO THE CONTRACT DOCUMENTS FOR ROADWAY BORING, AND SOIL BORING DATA SHEETS.
- 8. ALL WORK ON THIS PROJECT SHALL CONFORM TO THE LATEST MDSHA STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, REVISIONS THEREOF OR ADDITIONS THERETO, THE SPECIAL PROVISIONS INCLUDED IN THE CONTRACT DOCUMENTS, AND THE LATEST VERSION OF THE MARYLAND MUTCD.
- 9. PAVEMENT RESURFACING SHALL BE COMPLETED WITHIN FOURTEEN (14) CALENDAR DAYS AFTER GRINDING. PAVEMENT GRINDING OPERATIONS SHALL NOT BEGIN UNLESS THERE IS A SUFFICIENT TIME TO RESURFACE THE ROADWAY BEFORE COLD WEATHER.
- 10. EXISTING INFORMATION SHOWN IN THE PLANS IS BASED ON TOPOGRAPHIC SURVEY PERFORMED BY MERCADO CONSULTANTS, INC. ON OCTOBER 2022 WITH HORIZONTAL DATUM NAD 83/91 AND VERTICAL DATUM NGVD 29.

LEGEND



CONCRETE SIDEWALK

TO BE DEMOLISHED/PROPOSED FULL DEPTH ASPHALT

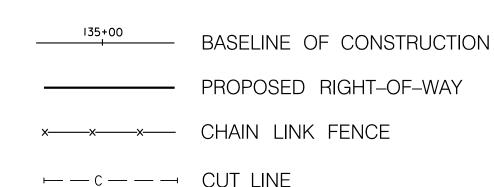
PAVEMENT ASPHALT (RAISED CROSSWALK)

V V V

00000000

PROPOSED GRASS

DETECTABLE WARNING SURFACE



— LOD — LIMIT OF DISTURBANCE

•—• WOOD FENCE

STORM DRAIN

DRAINAGE STRUCTURE IDENTIFICATION

ROADWAY /SOIL BORING

FIRE HYDRANT

LIGHT POLE

TH-01

W-1

UTILITY TEST HOLE LOCATION

----- EXISITING RIGHT OF WAY LINE --san---- EXISTING SEWER MAIN == EXISTING STORM DRAIN PIPE --w---- EXISTING WATER MAIN --FO----- EXISTING FIBER OPTIC EXISTING GAS MANHOLE EXISTING INLET EXISTING LIGHT EXISTING SIGN STORM DRAIN MANHOLE SANITARY SEWER MANHOLE TELEPHONE MANHOLE WATER VALVE WATER METER UTILITY POLE TREES

TREE LINE

___ G__ 4" G____ EXISTING GAS MAIN

ABBREVIATIONS

ABAND ADT	- ADAHUUHEU
ADI	
AHD	Average Daily Traffic
	Approximate
AUX	
₽ or B/L	
	Burtonsville Access Road
	Burtonsville Elementary School Access Road
BK	
BIT	
	Bituminous Concrete
	Bench Mark
BOT	
	. Center of Curve
	. Utility Cabinet
	. Cable Television
Q.B.R	California Bearing Ratio
Q	. Centerline
CL	. Class
CLF	. Chainlink Fence
CMP	Corrugated Metal Pipe
CMPA	Corrugated Metal Pipe Arch
C.O	. Cleanout
COMB	Combination
CONC.	_ Concrete
CONSTR	Construction
COR	
CORR	
	Degree of Curve
	Design Hourly Volume
D.I	
DIA	
	Double Opening
	Department of Permitting Services
E	· · · · · · · · · · · · · · · · · · ·
E	
	External Distance
EA	
EB	
ELEV	
C.N.U.U.P	Elliptical Reinforced Cement
F0	Concrete Pipe
	End Section
EX. or EXIST.	_
FT	
F or FL	
	Flat Bottom Ditch
	Fire Hydrant
FWD	
G	
G.V	
H.B	_ Handbox
H.D.P.E	High Density Polyetheylene Pipe
HDWL	. Headwall
H.E.R.C.P	Horizontal Ellipitical Reinforced
	Concrete Pipe
H.P	•

IN	Inch
	. Inlet Sediment Trap
INV	
	Junction Box
K	
L	
L.F.	
L.L	. Liquid Limit
	Limit of Disturbance
L.P	. Light Pole
LT	
M-NCPPC	Maryland-National Capital Park
	and Planning Commission
MAC	Macadam
M.C	. Moisture Content
MAX	
	.Maximum Dry Content
MOD	
MIN	
N	
NB	
N.E	
N.P	
O.C	
	Overhead Electric
PAV'T	Optimum Moisture
	Point of Curvature
	Point of Compound Curvature
	Point of Crown
P	
_	Utility Pedestal
	Profile Grade Elevation
	Profile Grade Line
P/GL	Profile Ground Line
P/R	. Point of Rotation
P.I	Plasticity Index
P.I	Point of Intersection
	Point On Curve
	.Point On Tangent
PROP	•
	Point of Reverse Curve
PT	
	Point of Tangency
	Point of Vertical Curve
	Polyvinyl Chloride
	Point of Vertical Intersection
	Point of Vertical Reverse Curve Point of Vertical Tangency
R	
RELOC	
	. Rock Fragments
RT	_
RW or R/W	. · · · . · · · ·
	Pight of Mov

or R.O.W.... Right of Way

$R \cap P$	Reinforced Cement Pipe
	Reinforced Cement Concrete Pipe
	Rock Quality Desgnation
R.M	
S	
	Sanitary Sewer
	Southbound
	Storm Drain
	Surface Drain Ditch
	Super Elevation
SF	
	Square Feet
SHLD.	
SHT	
	Structural Plate Pipe
	Standard Penetration Testing
	Stopping Sight Distance
	Super Silt Fence
STD	
STA	
	Single Opening
	Square Yards
	Stormwater Management
Т	
Т	Telephone
T.C	Top of Cover
T.G	Top of Grate
T or TL	Traverse Line
	Top of Manhole
TRAV	Traverse
	Temporary Swale
T.S	Top of Slab
T.S	Topsoil
TYP	Typical
U.D	Under Drain
U.G	Underground
U.P	Utility Pole
	United States Department
	of Agriculture
VCL	Vertical Clearance
	Vertical Curve Length
W	
W	
	Westbound
	Wetland Buffer
	Water Meter
	Wrapped Steel
	Washington Suburban Sanitation Commission
	Water Valve
v v . v	vvaidi vaive

35% DESIGN NOT FOR CONSTRUCTION



M [OWNER/ADDRESS: MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION					MONTGOMERY COUN DEPARTMENT OF TRANSPO ROCKVILLE, MARYLAI	PRTATION	DIVIS
	00 EDISON PARK DRIVE GAITHERSBURG, MARYLAND					RECOMMENDED FOR APPROVAL		
	CONTACT:					Chief, Transportation Planning and Design Section	 Date	MER
E	DIVISION OF TRANSPORTATION INGINEERING					APPROVED		GENERAL N
_	240-777-7220 Design section					Chief, Division of Transportation Engineering	Date	SCALE
	240-777-7221	NO.	REVISION	DATE	BY	DESIGNED BY OG DRAWN BY TM	CHECKED BY TMB	DRAWING NO.

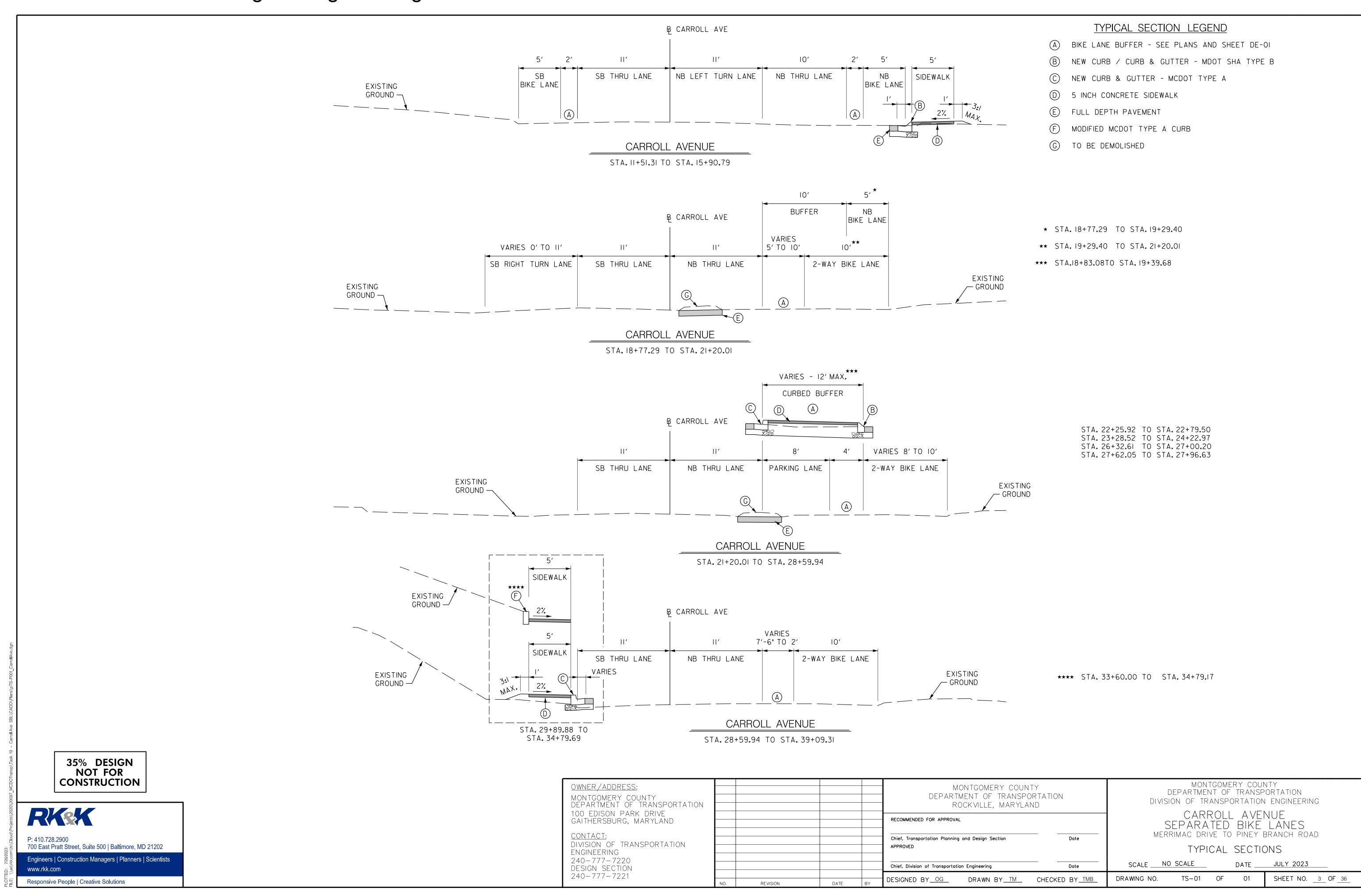
MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION DIVISION OF TRANSPORTATION ENGINEERING

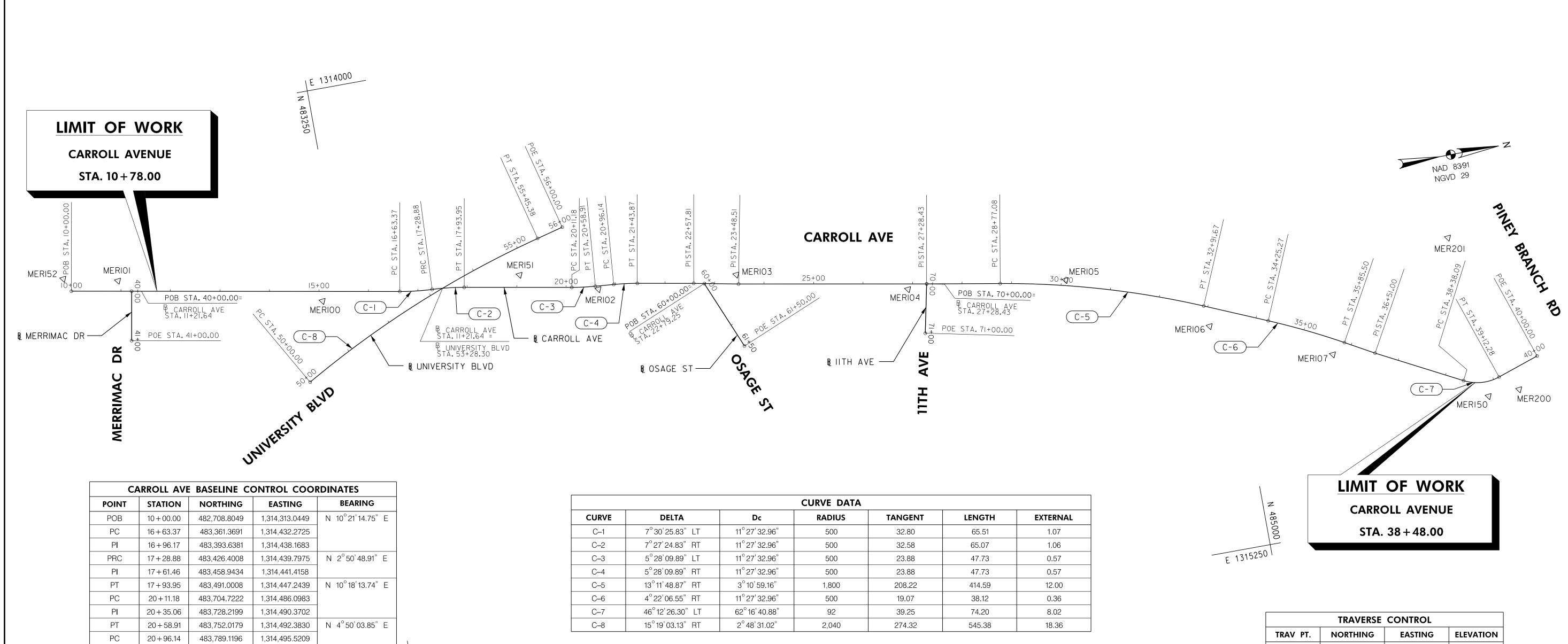
CARROLL AVENUE SEPARATED BIKE LANES MERRIMAC DRIVE TO PINEY BRANCH ROAD

ENERAL NOTES, ABBREVIATIONS, AND LEGEND DATE JULY 2023

AB-01 OF

SHEET NO. 2 OF 36





POINT	STATION	NORTHING	EASTING	BEARING
POB	10+00.00	482,708.8049	1,314,313.0449	N 10°21'14.75" E
PC	16+63.37	483,361.3691	1,314,432.2725	
PI	16 + 96.17	483,393.6381	1,314,438.1683	
PRC	17 + 28.88	483,426.4008	1,314,439.7975	N 2°50'48.91" E
PI	17 + 61.46	483,458.9434	1,314,441.4158	
PT	17 + 93.95	483,491.0008	1,314,447.2439	N 10°18'13.74" E
PC	20 + 11.18	483,704.7222	1,314,486.0983	
PI	20+35.06	483,728.2199	1,314,490.3702	
PT	20 + 58.91	483,752.0179	1,314,492.3830	N 4°50'03.85" E
PC	20 + 96.14	483,789.1196	1,314,495.5209	
PI	21 + 20.02	483,812.9176	1,314,497.5337	
PT	21 + 43.87	483,836.4154	1,314,501.8056	N 10°18'13.74" E
PI	22 + 57.81	483,948.5210	1,314,522.1863	N 11° 06′ 23.55″ E N 10° 16′ 26.09″ E
PI	23 + 48.51	484,037.5172	1,314,539.6572	N 10°16′26.09" E
PI	27 + 28.43	484,411.3475	1,314,607.4179	N 10°00'06.60" E
PC	28 + 77.08	484,557.7334	1,314,633.2345	
PI	30+85.29	484,762.7868	1,314,669.3977	
PT	32+91.67	484,954.1691	1,314,751.4193	N 23°11′55.46″ E
PC	34 + 25.27	485,076.9659	1,314804.0469	
PI	35+05.46	485,150.6751	1,314835.6368	N 29° 19' 09.21" E
PT	35 + 85.50	485,220.5960	1,314874.9054	
PI	36 + 51.00	485,277.7014	1,314906.9766	N 27°33′56.04″ E
PC	38+38.09	485,443.5561	1,314993.5565	
PI	38 + 77.34	485,478.3476	1,315011.7184	
PT	39+12.28	485,515.5356	1,314999.1743	N 18° 38' 24.29" W
POE	40+00.00	485,598.6519	1,314971.1378	

MERRIMAC DR BASELINE CONTROL COORDINATES							
POINT	STATION	NORTHING	EASTING	BEARING			
POB	40+00.00	482,828.4610	1,314,334.9333	S 79° 42'15.86" E			
POE	41 + 00.00	482,810.5884	1,314,433.3232				

UNIVERSITY BLVD BASELINE CONTROL COORDINATES								
POINT	BEARING							
POE/PC	50+00.00	483,150.4533	1,314,580.1260	N 29° 39' 16.92" W				
PI	52 + 74.32	483,388.8473	1,314,444.3982					
PT	55 + 45.38	483,654.6276	1,314,376.4680	N 14° 20′ 13.79″ W				
POE	56+00.00	483,707.5498	1,314,362.9418					

	OSAGE ST BASELINE CONTROL COORDINATES						
POINT	STATION	NORTHING	EASTING	BEARING			
POB	60+00.00	483,969.5358	1,314,526.4216	N 67° 33' 01.91" E			
POE	61 + 50.00	484,026.8161	1,314,665.0541				

	11TH AVE BASELINE CONTROL COORDINATES							
POINT	POINT STATION NORTHING EASTING BEARING							
РОВ	70+00.00	484,411.4038	1,314,607.1501	S 78°07'08.72" E				
POE	71 + 00.00	484,390.8160	1,314,705.0079					

	TRAVERSE	CONTROL	
TRAV PT.	NORTHING	EASTING	ELEVATION
MER100	483,204.5568	1,314,423.2846	220.33
MER101	482,805.3080	1,314,309.1919	224.22
MER102	483,757.1446	1,314,499.4823	233.83
MER103	484,036.3814	1,314,520.3584	242.63
MER104	484,372.5530	1,314,611.3211	249.25
MER105	484,689.1890	1,314,650.1405	242.62
MER106	484,958.7208	1,314,793.6877	233.34
MER107	485,193.5545	1,314,894.4339	214.05
MER200	485,551.0043	1,315,031.0738	202.68
MER201	485,464.3623	1,314,703.6813	210.26
MER150	485,487.8553	1,315,033.6179	204.13
MER151	483,605.4827	1,314,442.5072	229.50
MER152	482,697.1616	1,314,285.6231	226.50

00' 0 100' 20'

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MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION	
100 EDISON PARK DRIVE GAITHERSBURG, MARYLAND	
CONTACT:	
DIVISION OF TRANSPORTATION	

ENGINEERING

240-777-7220 DESIGN SECTION

240-777-7221

		DEPARTMENT OF	ERY COUN [†] F TRANSPC E, MARYLAI	RTATION
		RECOMMENDED FOR APPROVAL		
		Chief, Transportation Planning and Design APPROVED	Section	Date
		Chief, Division of Transportation Engineering	 g	Date
		DESIGNED BY_OG_ DRAWN	BY_TM_	CHECKED BY_TMB

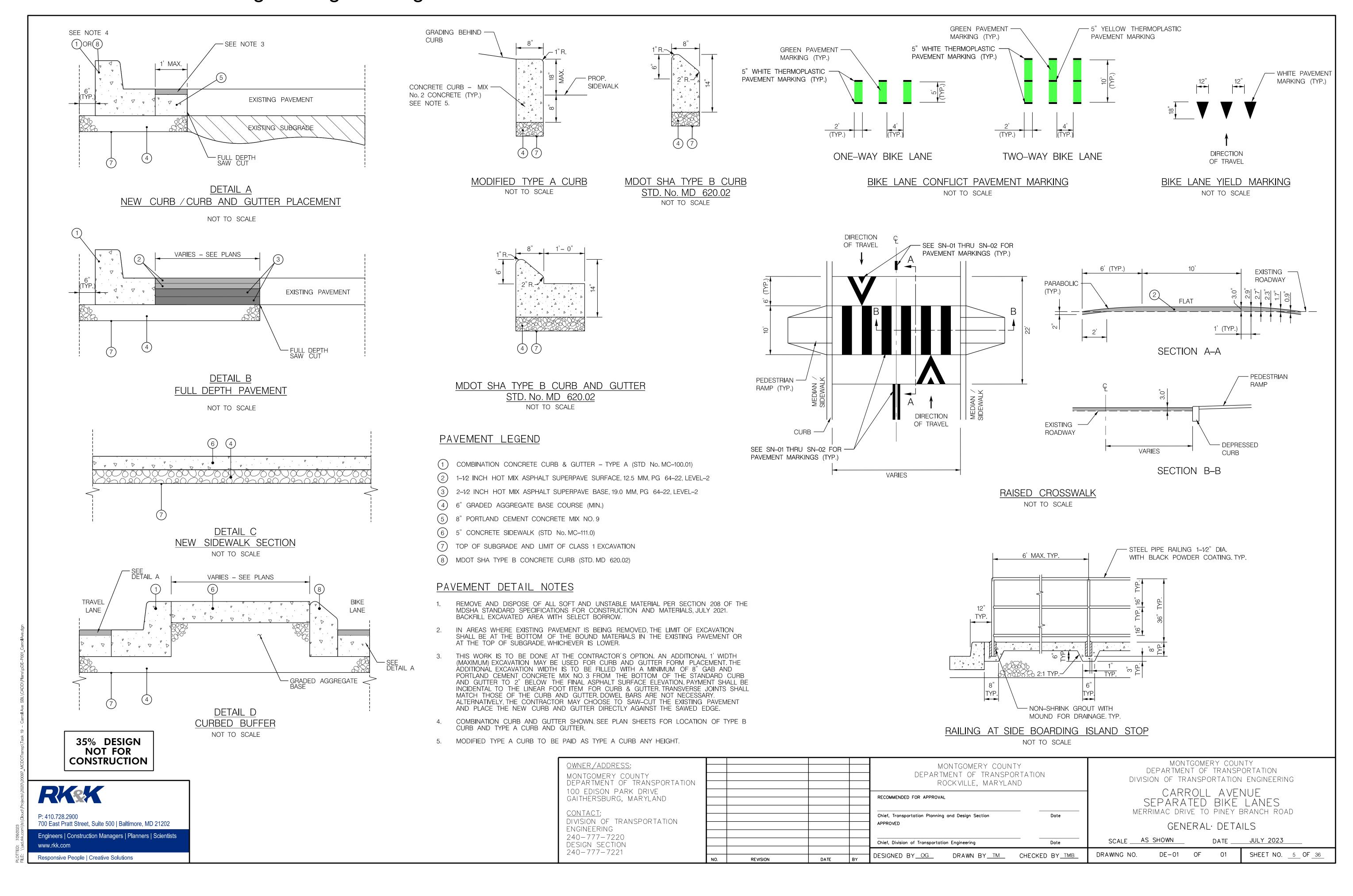
MONTGOMERY COUNTY
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DIVISION OF TRANSPORTATION ENGINEERING

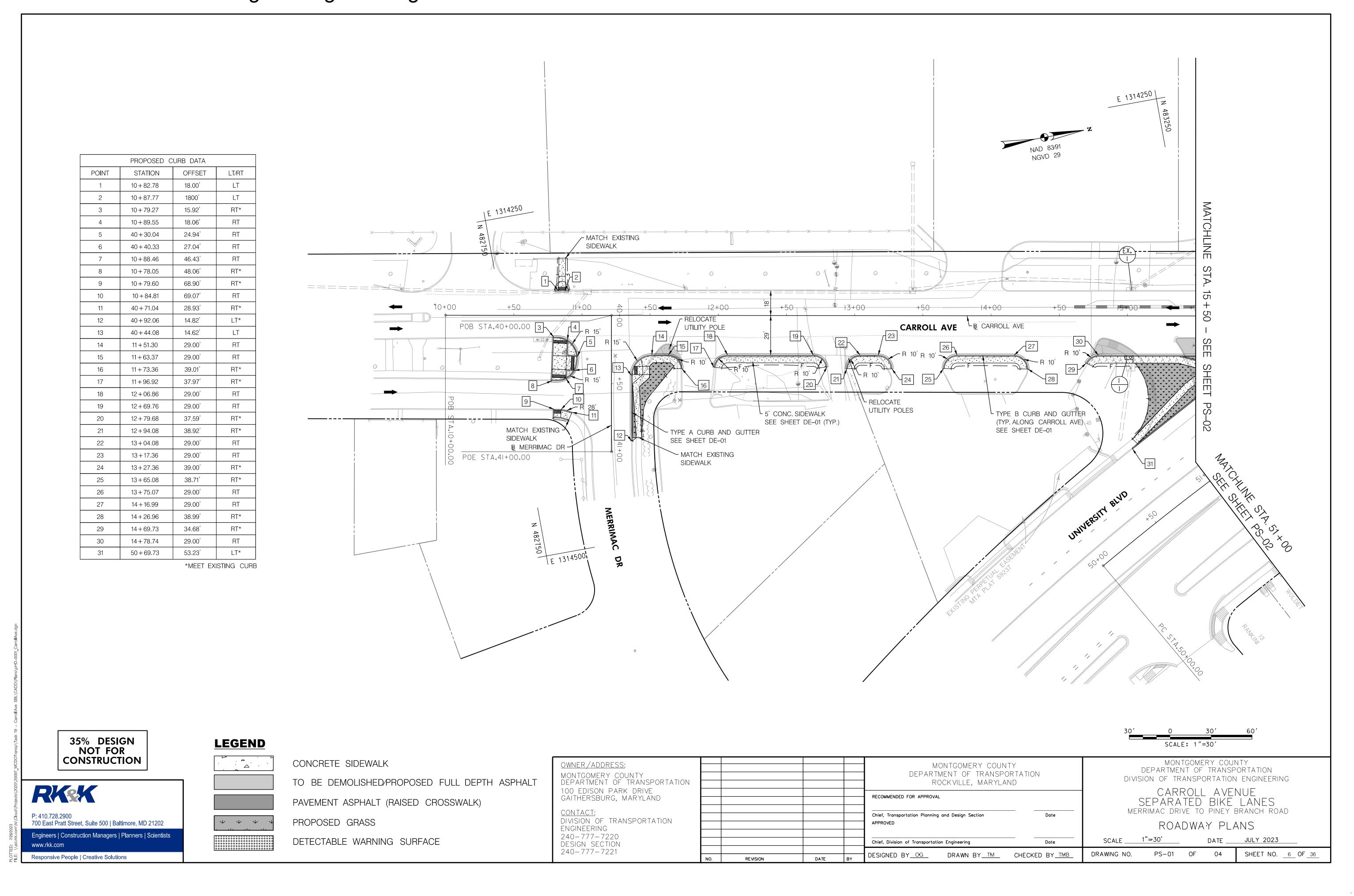
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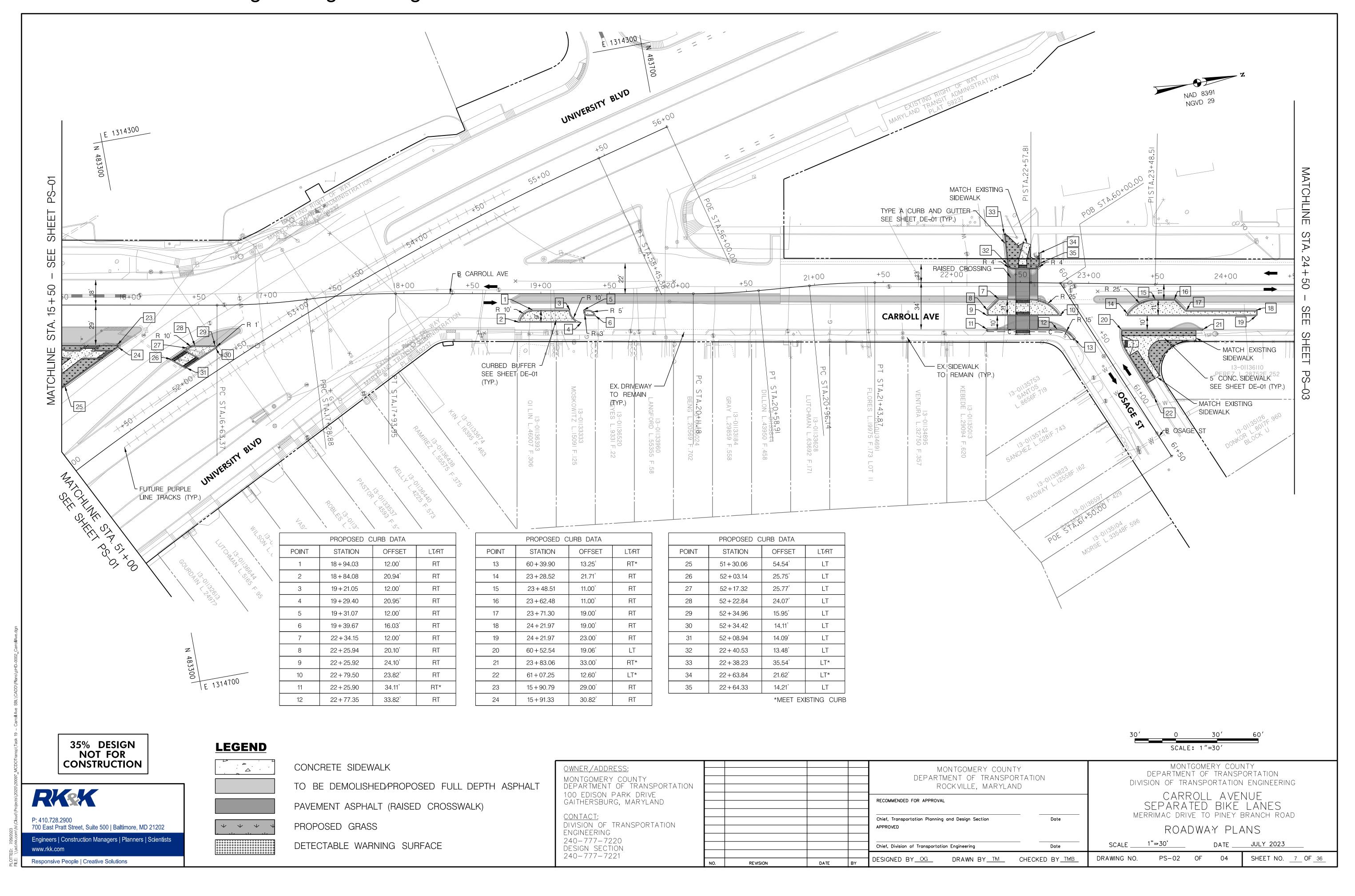
GEOMETRY SHEET

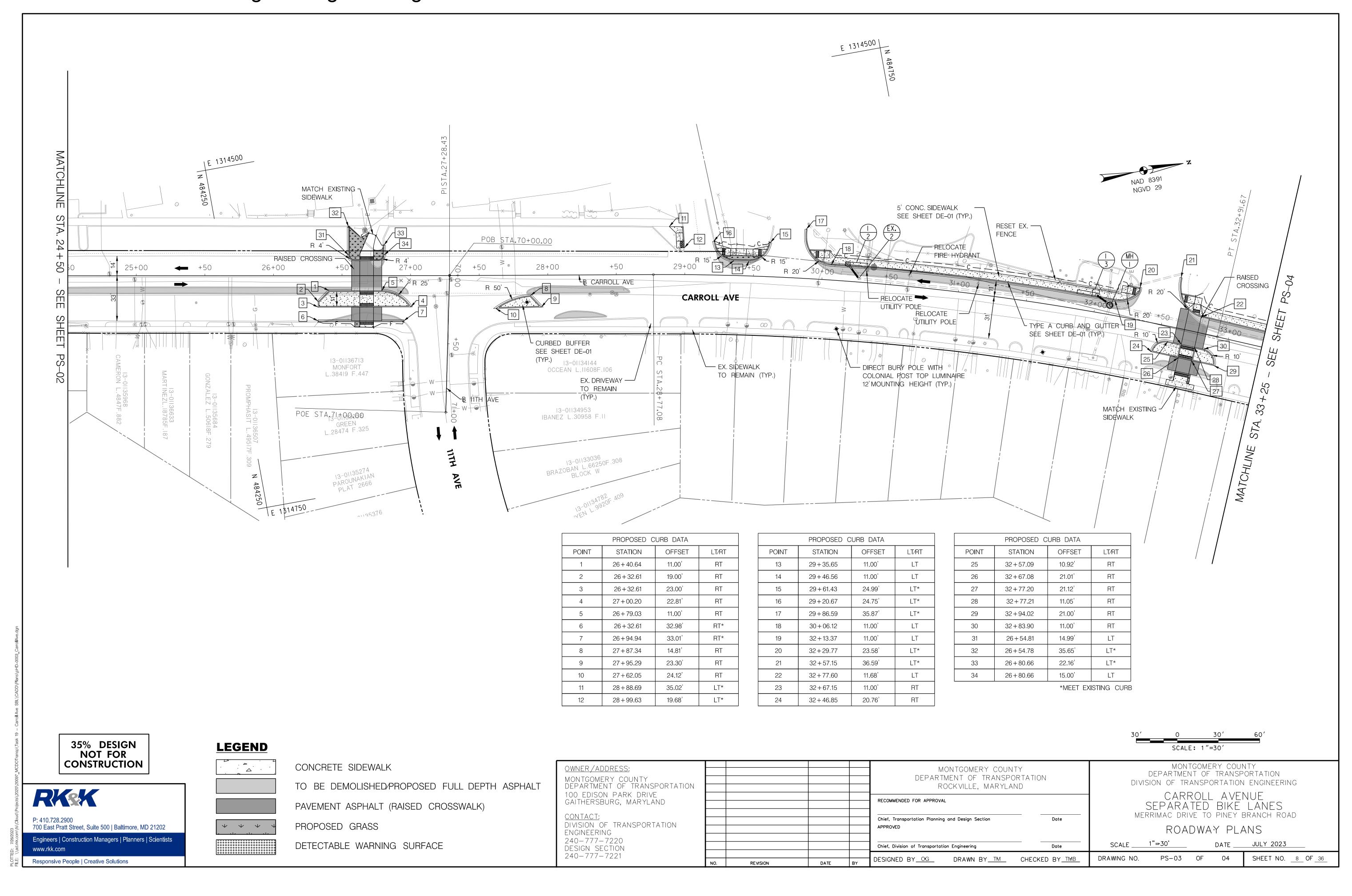
 SCALE
 1"=100'
 DATE
 JULY 2023

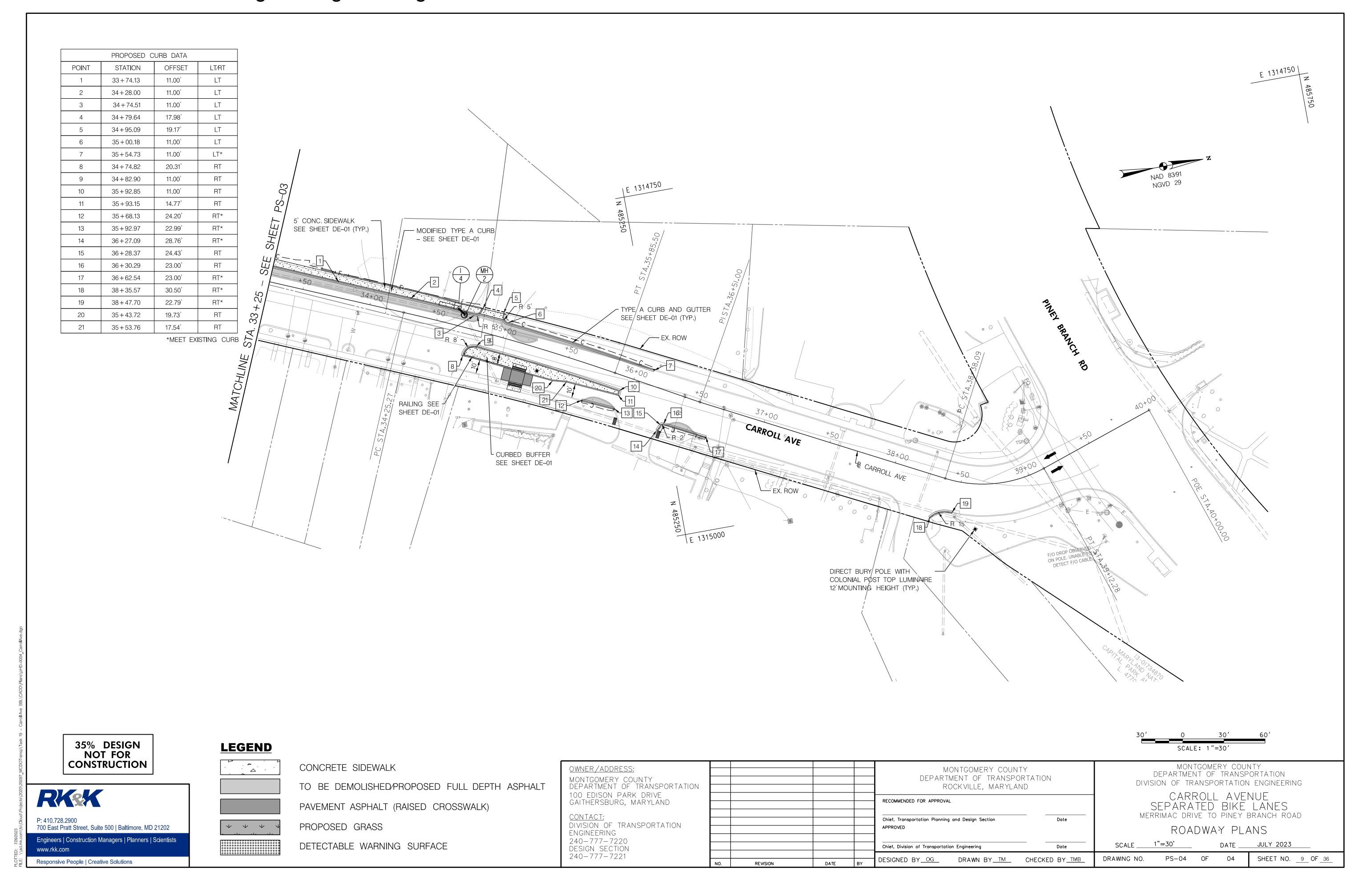
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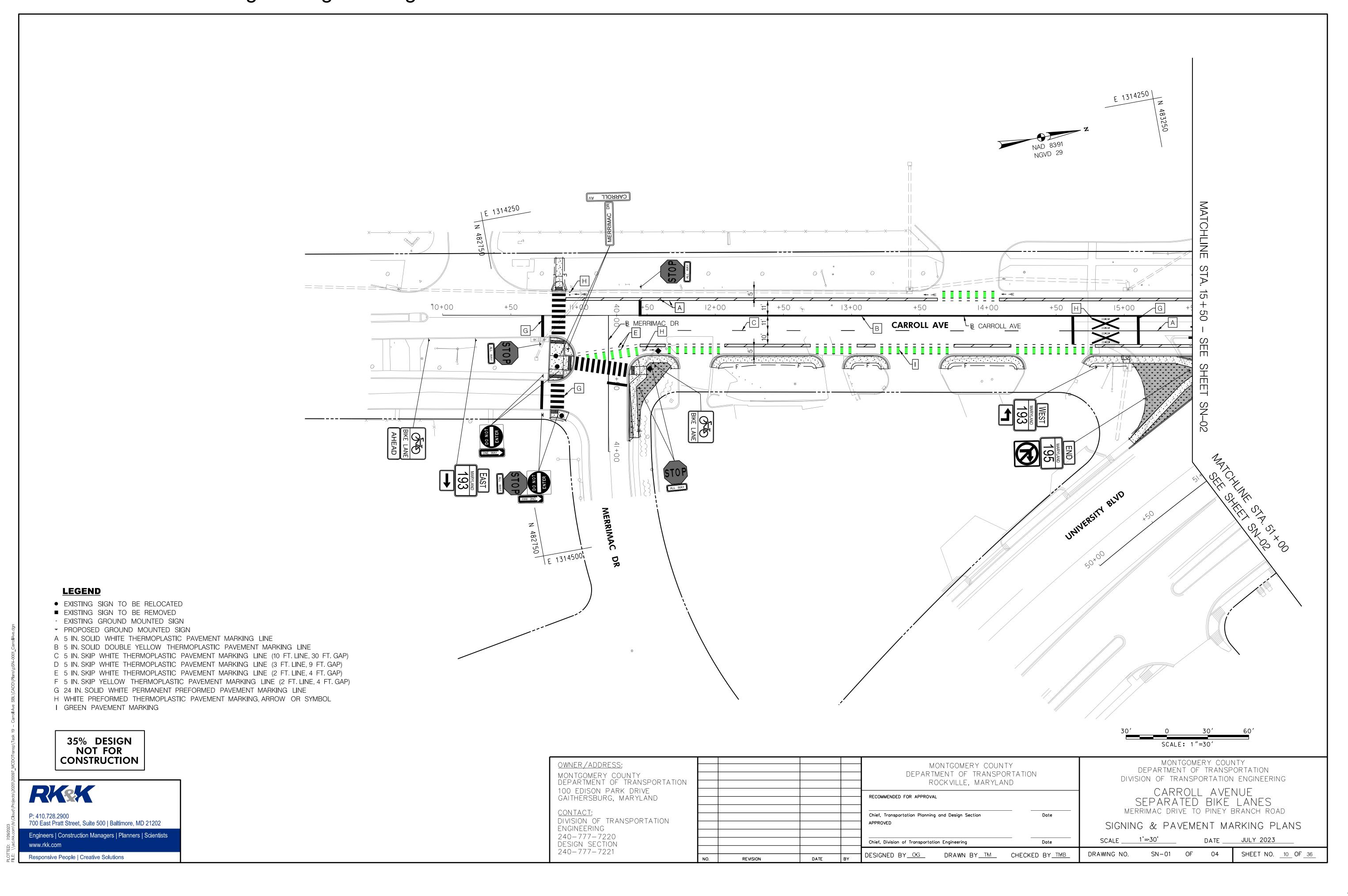


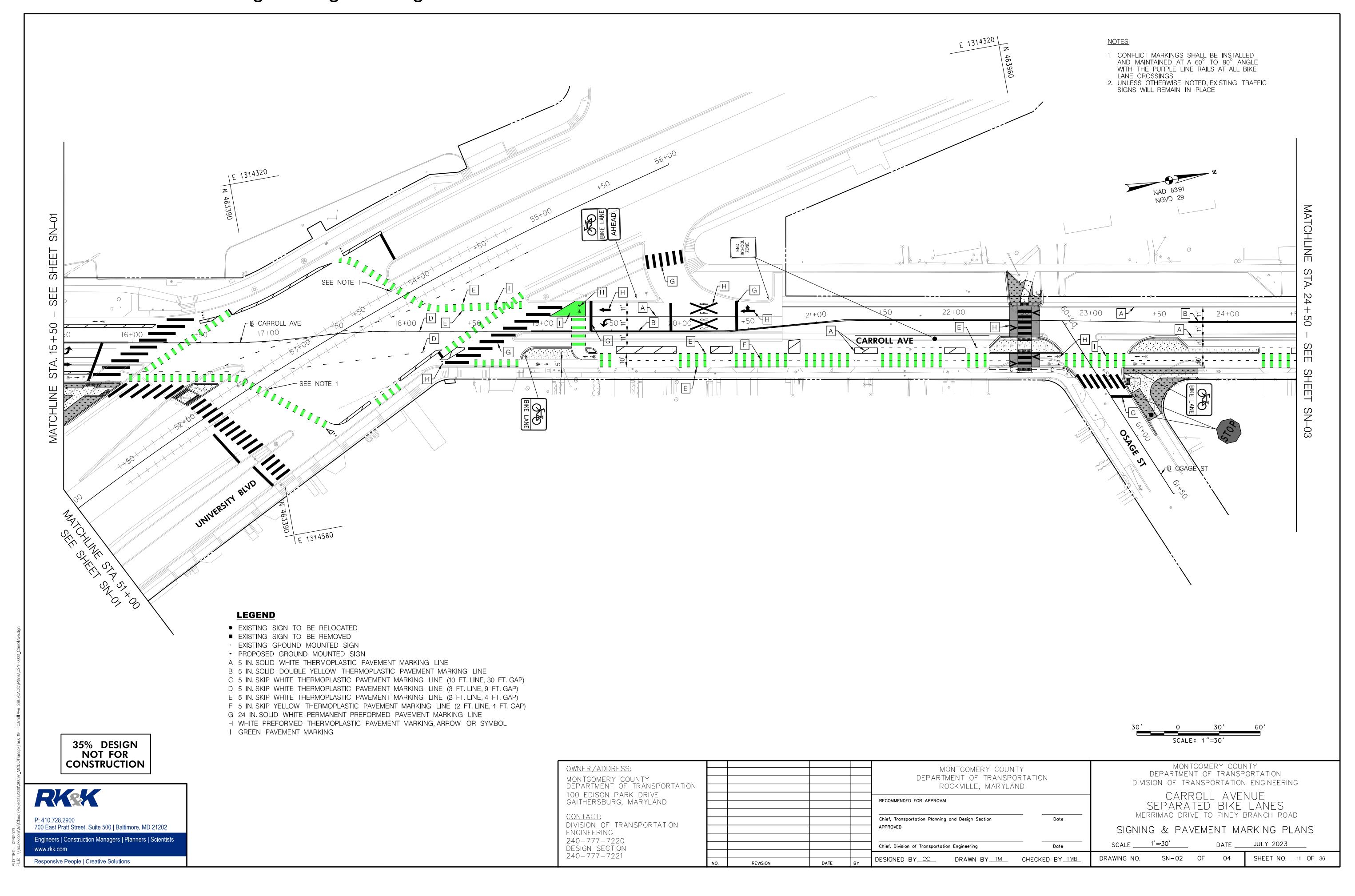


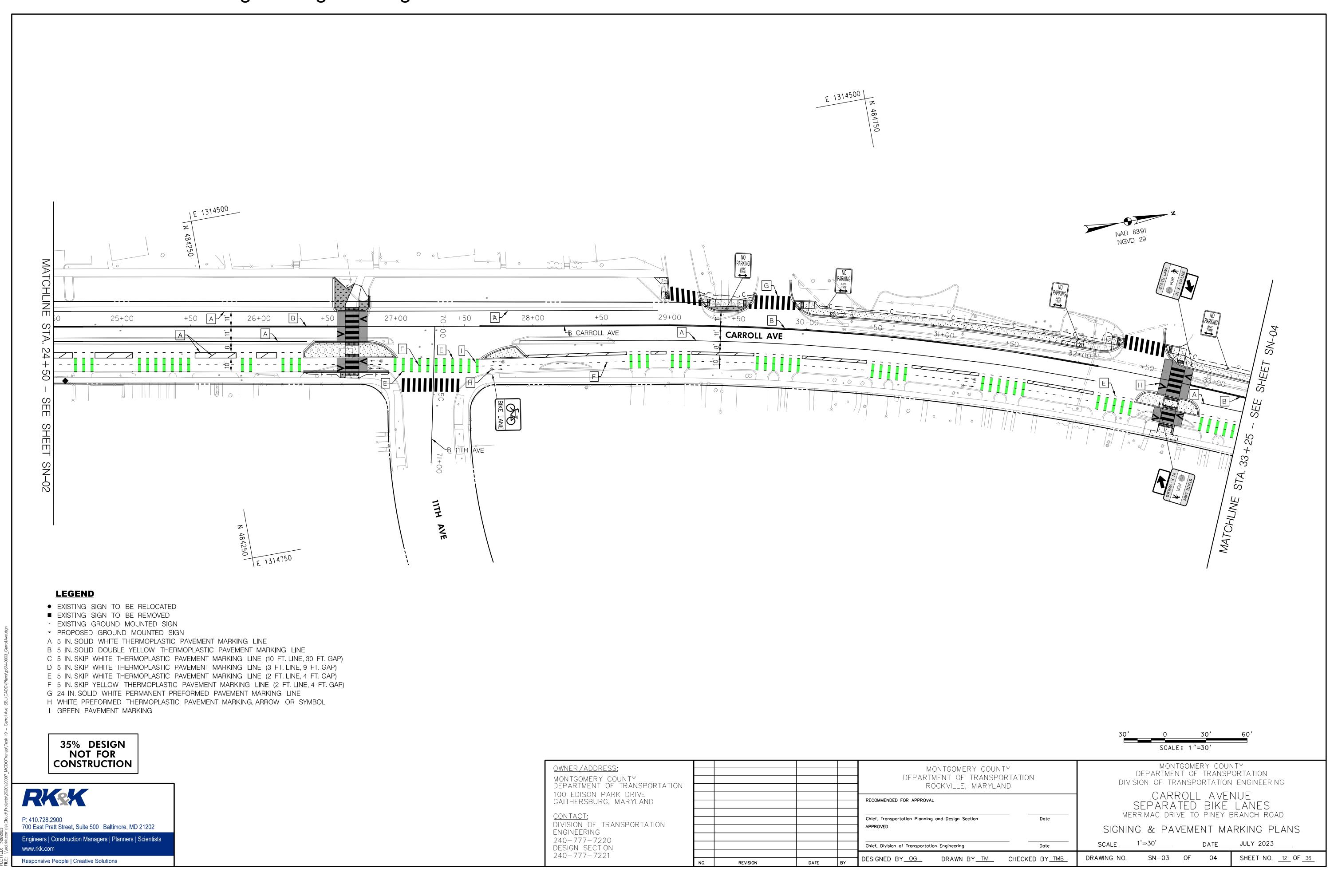


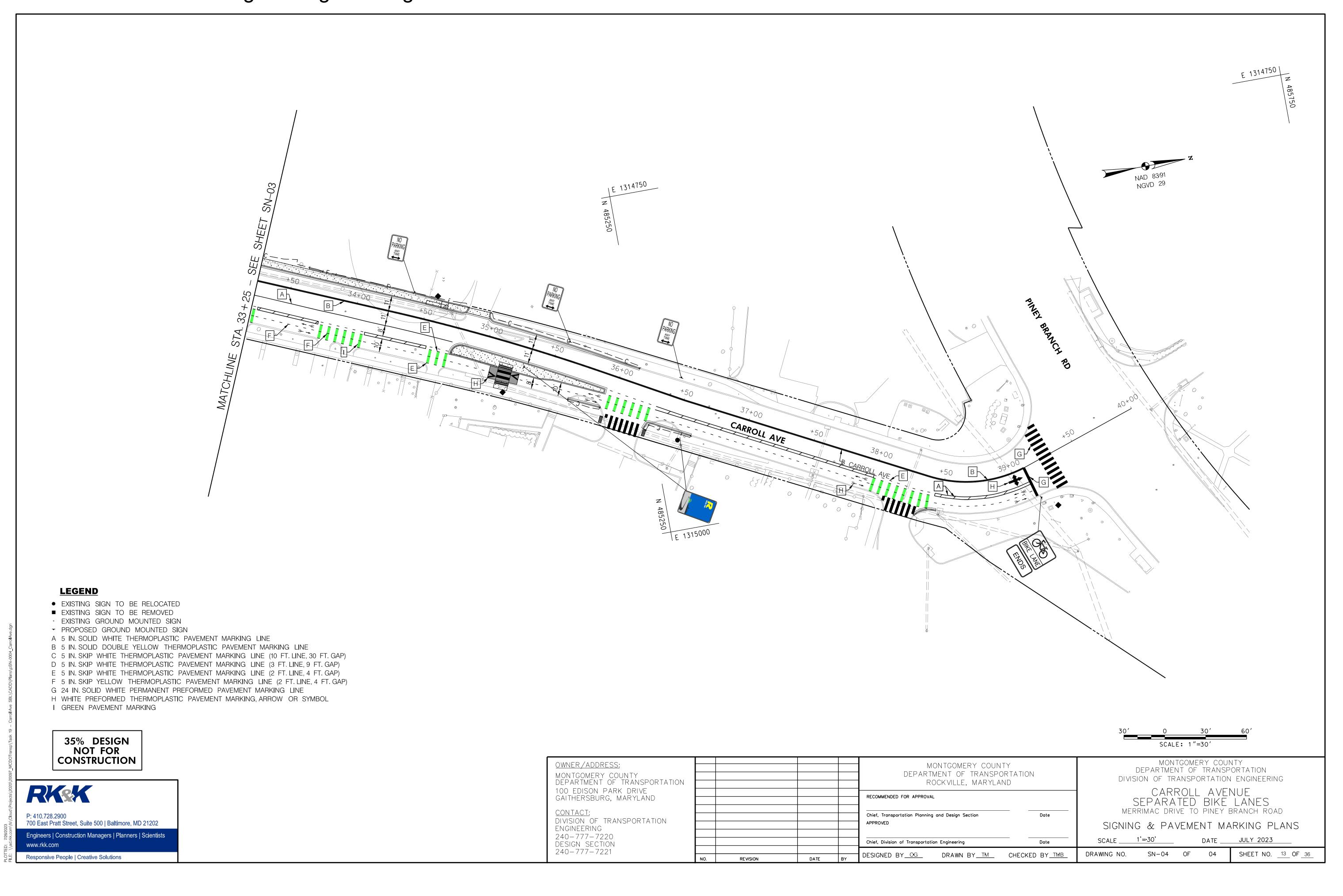










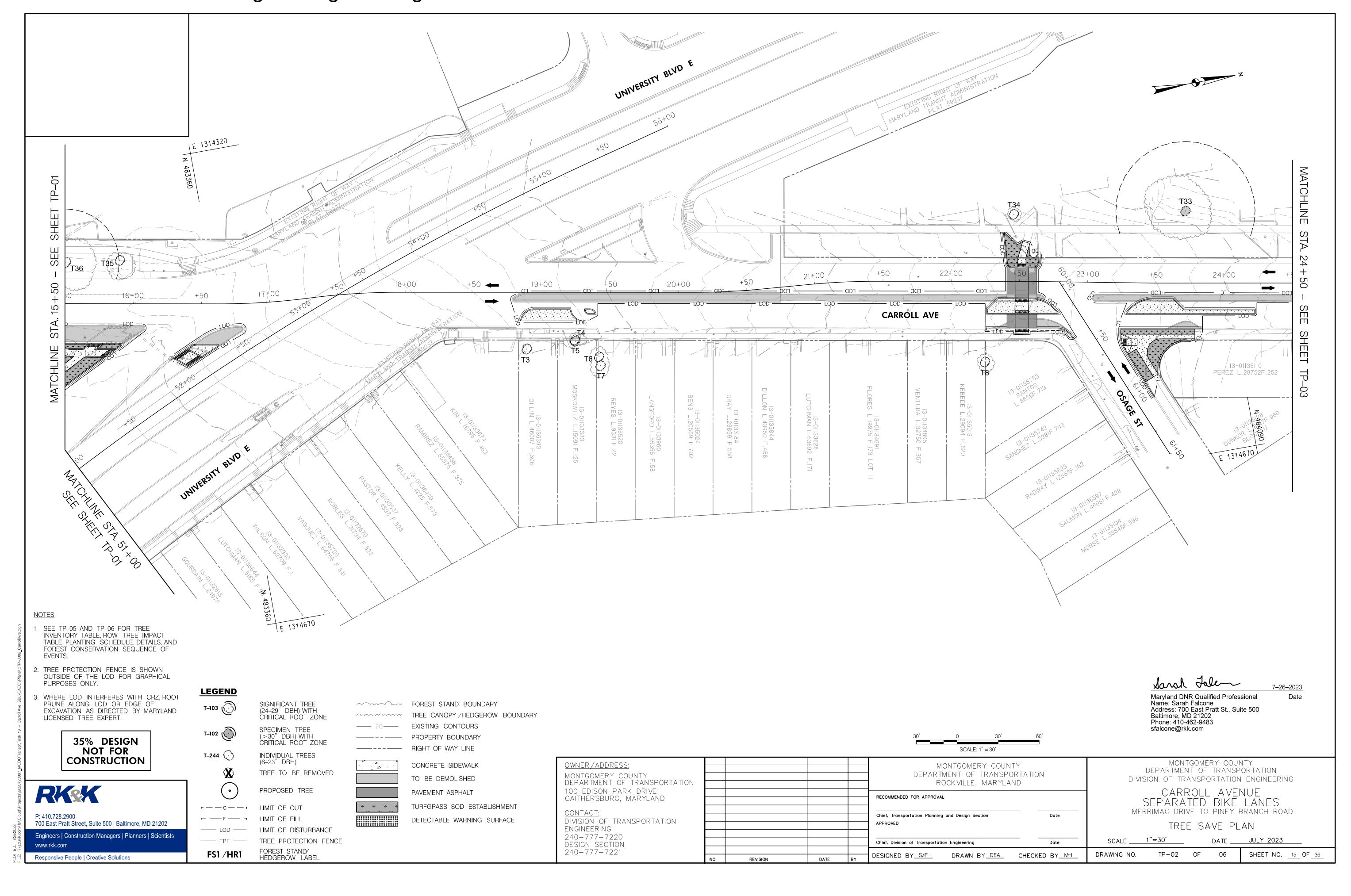


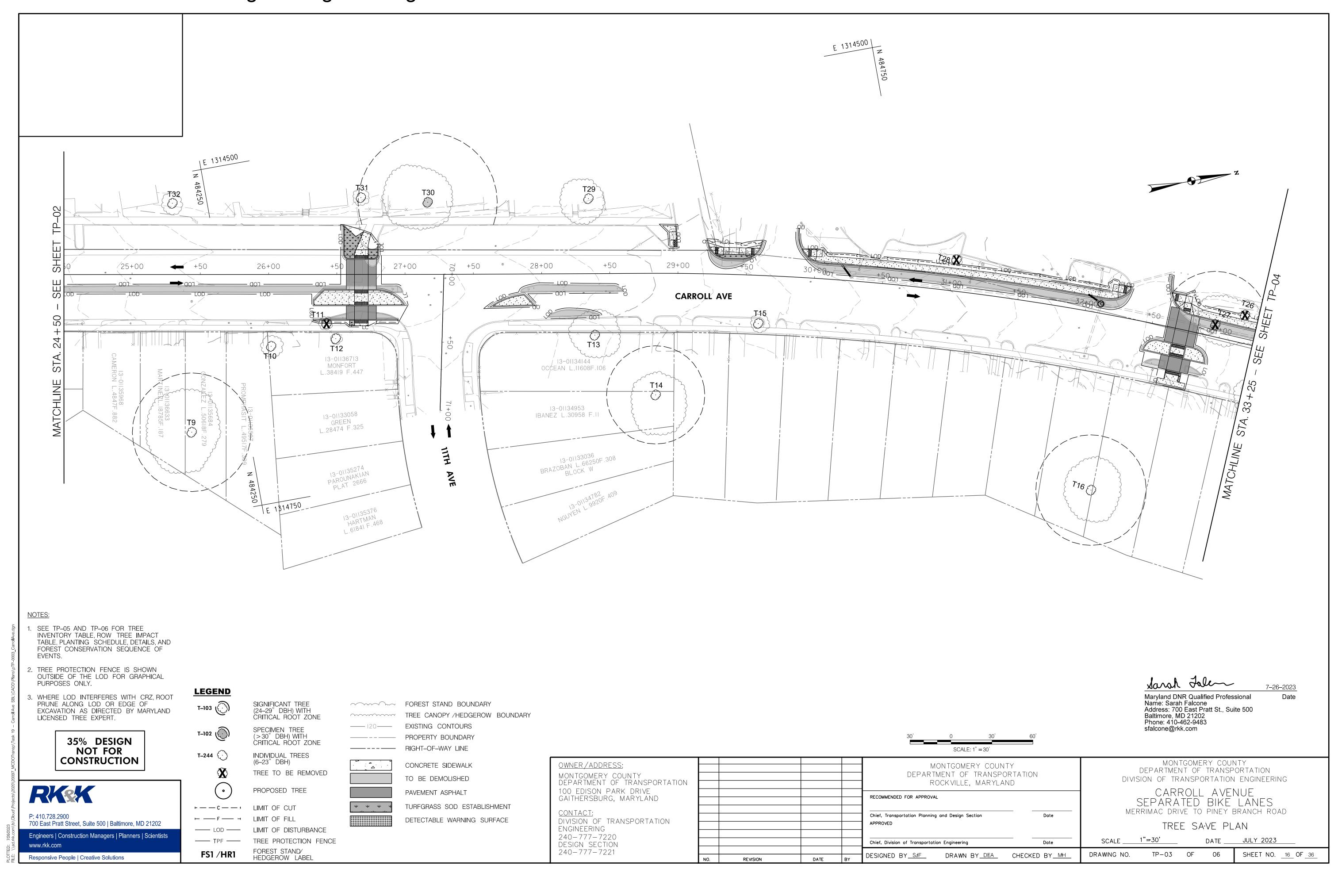
Attachment A: Corridor Engineering Drawings IE 1314250 * 13+00 CARROLL AVE 1CC 12 S 1. SEE TP-05 AND TP-06 FOR TREE INVENTORY TABLE, ROW TREE IMPACT TABLE, PLANTING SCHEDULE, DETAILS, AND FOREST CONSERVATION SEQUENCE OF 2. TREE PROTECTION FENCE IS SHOWN OUTSIDE OF THE LOD FOR GRAPHICAL PURPOSES ONLY. 7-26-2023 <u>LEGEND</u> Maryland DNR Qualified Professional Name: Sarah Falcone Address: 700 East Pratt St., Suite 500 Baltimore: 410, 462, 2482 3. WHERE LOD INTERFERES WITH CRZ, ROOT T-103 SIGNIFICANT TREE PRUNE ALONG LOD OR EDGE OF FOREST STAND BOUNDARY (24–29" DBH) WITH CRITICAL ROOT ZONE EXCAVATION AS DIRECTED BY MARYLAND TREE CANOPY / HEDGEROW BOUNDARY LICENSED TREE EXPERT. Phone: 410-462-9483 EXISTING CONTOURS sfalcone@rkk.com SPECIMEN TREE (>30" DBH) WITH T-102 PROPERTY BOUNDARY 35% DESIGN CRITICAL RÓOT ZONE ---- RIGHT-OF-WAY LINE NOT FOR T-244 🕥 INDIVIDUAL TREES **CONSTRUCTION** (6–23" DBH) MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION OWNER/ADDRESS: CONCRETE SIDEWALK MONTGOMERY COUNTY TREE TO BE REMOVED DEPARTMENT OF TRANSPORTATION MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION TO BE DEMOLISHED DIVISION OF TRANSPORTATION ENGINEERING ROCKVILLE, MARYLAND RKSK PROPOSED TREE 100 EDISON PARK DRIVE GAITHERSBURG, MARYLAND CARROLL AVENUE PAVEMENT ASPHALT RECOMMENDED FOR APPROVAL SEPARATED BIKE LANES ⊢ — c — · LIMIT OF CUT TURFGRASS SOD ESTABLISHMENT V V V V MERRIMAC DRIVE TO PINEY BRANCH ROAD <u>Contact:</u> Division of transportation Date P: 410.728.2900 Chief, Transportation Planning and Design Section ⊢ — F — ¬ LIMIT OF FILL DETECTABLE WARNING SURFACE 700 East Pratt Street, Suite 500 | Baltimore, MD 21202 TREE SAVE PLAN ENGINEERING LIMIT OF DISTURBANCE 240-777-7220 DESIGN SECTION Engineers | Construction Managers | Planners | Scientists SCALE ____1"=30' DATE JULY 2023 Date Chief, Division of Transportation Engineering FOREST STAND/ HEDGEROW LABEL 240-777-7221 FS1 /HR1 DRAWING NO. TP-01 OF 06 SHEET NO. 14 OF 36

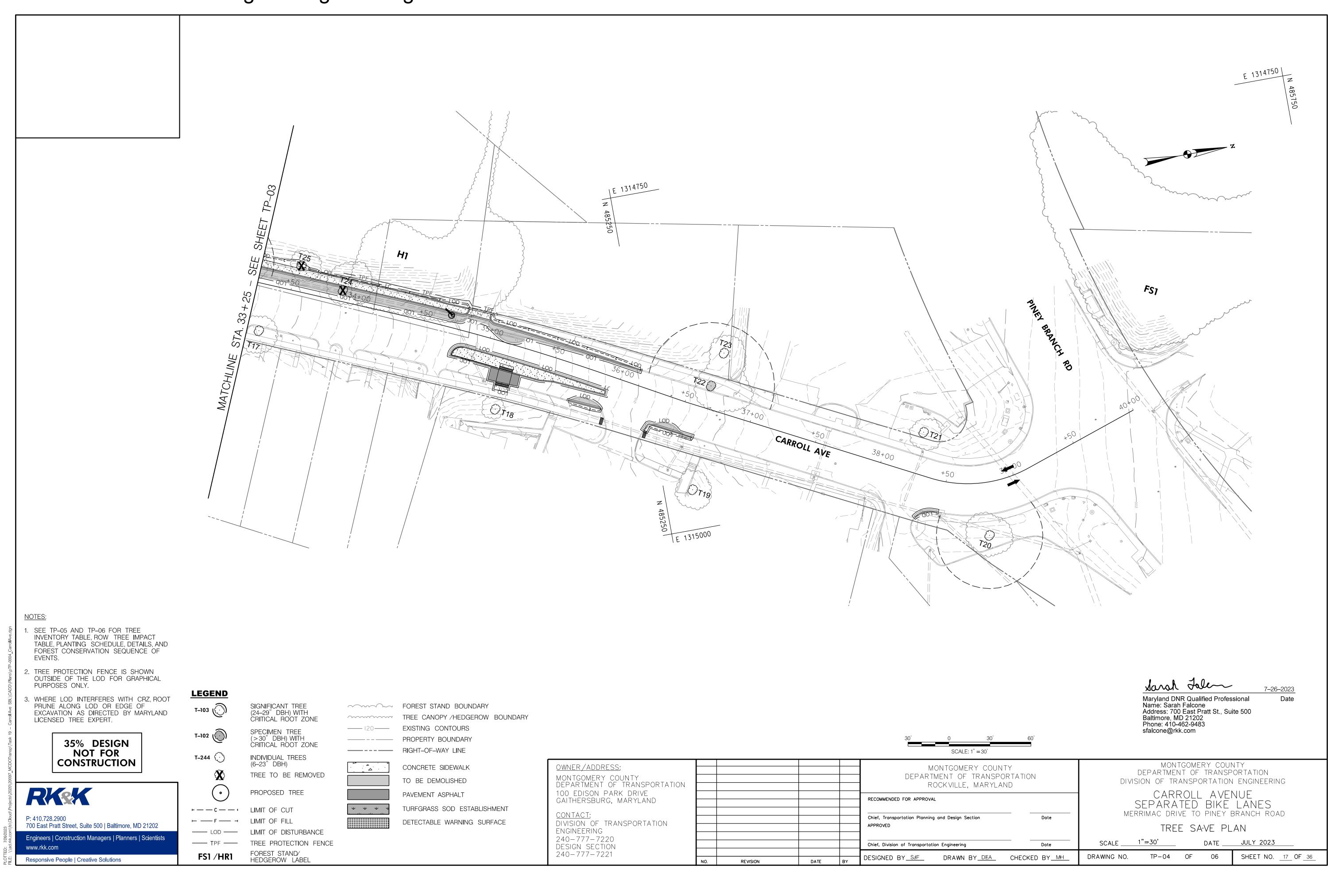
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DESIGNED BY SJF

DRAWN BY DEA CHECKED BY MH







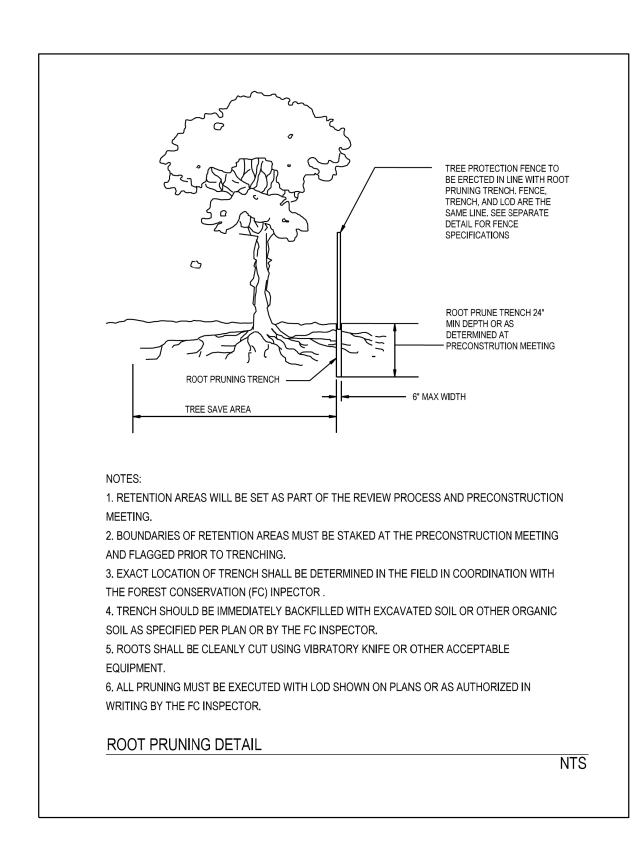
RIGHT-OF-WAY PLANTING SCHEDULE						RIG
Key	Scientific Name/Common Name	Quantity	Size	Placement		Los
CC	Cercis canadensis/Eastern redbud	1	1" caliper, #15 container	As shown		Loca

SEEDING SCHEDULE						
Туре	Quantity (SY)					
Turfgrass Sod Establishment	344					

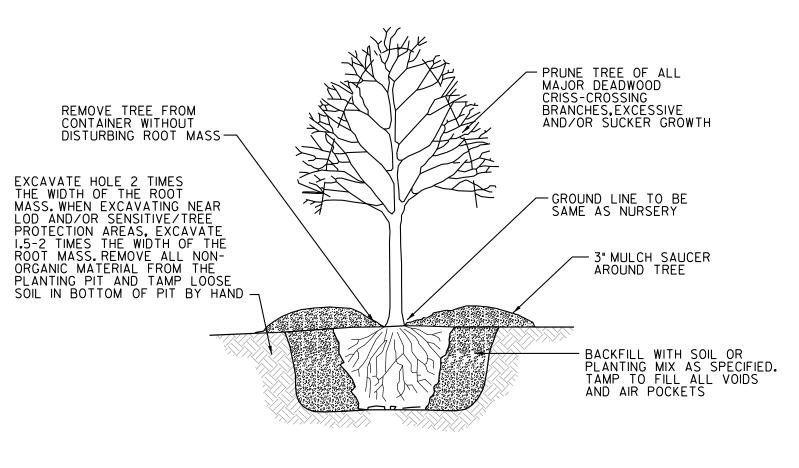
RIGHT-OF-WAY TREE IMPACTS AND MITIGATION REQUIREMENTS							
Location	Requirements action Number of Trees Requirements Removed Requirements						
County ROW	3	3:1 for trees greater than or equal to 6" DBH	9				

*To meet the Montgomery County Roadside Tree Law 3:1 replacement requirement, one tree is being proposed within the existing right-of-way. To meet the remaining replacement requirement (eight trees), \$250 per replacement tree will be paid into the Street Tree Fund prior to construction for a total of \$2,000.

TREE INVENTORY TABLE							
TREE ID	SCIENTIFIC NAME	COMMON NAME	DBH	CONDITION	COMMENTS	REMOVAL	IN ROW
T1	Acer rubrum	Red maple	7	Good/Fair	Minor trunk wound, minor dead branches, minor pruning	Х	Х
T2	Platanus occidentalis	American sycamore	13	Good		Х	Х
T3	Lagerstroemia indica	Crape myrtle	6	Good/Fair	Multistem, fused leaders		
T4	Ulmus americana	American elm	8	Fair	Twin (8, 7), exposed roots, water sprouts		Х
T5	Ulmus americana	American elm	7	Fair	Minor lean, one-sided canopy		
T6	Quercus phellos	Willow oak	10	Fair	Heavy vines, minor lean, minor dead branches, one-sided canopy		
Т7	Morus alba	White mulberry	10	Fair/Poor	Twisted trunk, heavy vines, growing into power lines, pruned, sparse canopy, water sprouts		
T8	Quercus phellos	Willow oak	14	Fair/Poor	Major vines into canopy, growing on driveway		
T9*	Quercus phellos	Willow oak	29	Good			
T10	Prunus serotina	Black cherry	10	Poor	Multistem (10, 6, 6), main stem split, pruned, poor growth form		
T11	Acer saccharum	Sugar maple	9	Poor	Trunk decay, dying canopy, sapsucker damage	Х	Х
T12	Fraxinus pennsylvanica	Green ash	6	Good			
T13	Pinus strobus	White pine	17	Good/Fair	Slight lean, sparse canopy		
T14*	Quercus falcata	Southern red oak	24	Fair/Poor	Slight lean, one-sided and sparse canopy, dead branches, vines on trunk		
T15	Morus alba	White mulberry	12	Fair/Poor	Twin (12, 8), damaged roots, heavy lean, pruned canopy, included bark		Х
T16*	Acer saccharinum	Silver maple	27	Good	Minor broken branches		
T17	Acer rubrum	Red maple	17	Fair/Poor	Damaged roots, pruned, trunk wounds, dying crown, slight lean		Х
T18	Acer rubrum	Red maple	8	Good/Fair	Slight lean		, ,
T19	Gleditsia triacanthos	Honey locust	19		Pruned, water sprouts, dead branches, one-sided canopy, exposed roots		
T20*	Quercus palustris	Pin oak	26	Good/Fair	Pruned, exposed roots		Х
T21	Morus alba	White mulberry	8	Fair	Multistem (6-8), heavily pruned, interfering branches		
T22**	Quercus palustris	Pin oak	31	Fair	Trunk cavity with decay near base, exposed roots, pruned		Х
T23	Prunus sp.	Cherry sp.	8	Fair/Poor	Heavily pruned, one-sided canopy, dead branches, exposed roots		
T24	Quercus palustris	Pin oak	22	Fair	Twin (22, 18), one-sided canopy, dead branches	Х	
T25	Acer rubrum	Red maple	12	Poor	Vines into canopy, dead leader	Х	
T26	Acer rubrum	Red maple	7	Good/Fair	Dead branches	Х	
T27*	Quercus palustris	Pin oak	26	Good	Exposed roots	Х	
T28	Acer rubrum	Red maple	6	Fair/Poor	Significant dead branches, water sprouts	Х	
T29	Pinus strobus	White pine	19	Fair	Lean, one-sided branches, pruned		
T30**	Quercus nigra	Water oak	34	Fair	Exposed roots, heavily pruned, one-sided canopy, leader wound and decay		
T31	Prunus serotina	Black cherry	9	Good/Fair	Splits above DBH, lean, one-sided canopy		
T32	Prunus sp.	Cherry sp.	10	Good/Fair	Lean, heavily pruned		
T33**	Quercus nigra	Water oak	34	Fair/Poor	Fungus on trunk, exposed roots, heavily pruned, dead branches, water sprouts, broken leader		
T34	Prunus sp.	Cherry sp.	8	Fair/Poor	Dead branches, lean, pruned		
T35	Acer saccharum	Sugar maple	14	Good/Fair	Unusual growth form		Х
T36*	Acer rubrum	Red maple	26	Good/Fair	Minor vines, healed trunk wound at base		Х
T37	Acer saccharum	Sugar maple	15	Good/Fair	Girdling roots		Х
T38	Acer saccharum	Sugar maple	14	Good			X
T39	Acer rubrum	Red maple	12	Good			X
T40	Acer rubrum	Red maple	10	Fair	Dead branches, sparse canopy		X
T41	Acer rubrum	Red maple	12	Good/Fair	Girdling roots		X
T42	Acer rubrum	Red maple	13	Good			X



DESIGNED BY SJF



TREE/SHRUB PLANTING - CONTAINER GROWN

TREE CONDITION ASSESSMENT GUIDELINES

- > Excellent healthy tree with exceptional growth form; no visible defects, well-formed crown, few minor dead branches acceptable, this tree condition is rare.
- > Good healthy tree; very minor defects/decay acceptable with callous forming/complete; well-formed crown; minor lean and/or few minor/major dead branches acceptable, vines may be growing along trunk but not present within crown.
- Fair health questionable/stress evident; structurally sound tree; defects present that do not affect structural integrity; moderate lean; minor/major dead branches may be present; crown not broken out but not necessarily well formed or even; vines may be growing along trunk and within crown.
- Ex. Fair tree could be experiencing insect damage, or exhibit a growth form that makes it very susceptible to wind damage in an open setting.
- Poor significant health problems; may be structurally unsound; may be dead or dying; may contain significant decay; may have broken or missing top/crown; may have heavy lean; vines may be significantly affecting tree health.

Note: These guidelines were developed by RK&K based on the professional judgment of our Certified Arborists and other senior environmental staff.

These tree species may commonly exhibit dead branches and/or ratty growth form/structure, which should be taken into account when assessing tree

- Mulberry (Morus spp.)Pin Oak (Quercus palustris) • Silver Maple (Acer saccharinum)
- Virginia Pine (Pinus virginiana)Scarlet Oak (Quercus coccinea) Black Locust (Robinia pseudoacacia)
- Osage Orange (Maclura pomifera)
 Willow Oak (Quercus phellos)
- Black Willow (Salix nigra)

Date

Date

DRAWN BY DEA CHECKED BY MH

sfalcone@rkk.com

Maryland DNR Qualified Professional Name: Sarah Falcone Address: 700 East Pratt St., Suite 500 Baltimore, MD 21202 Phone: 410-462-9483

35% DESIGN NOT FOR **CONSTRUCTION**

*Significant tree **Specimen tree



OWNER/ADDRESS:	MONTGOMERY COUNTY
MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION	DEPARTMENT OF TRANSPORTATION
100 EDISON PARK DRIVE	ROCKVILLE, MARYLAND
GAITHERSBURG, MARYLAND	RECOMMENDED FOR APPROVAL
CONTACT:	Chief, Transportation Planning and Design Section
DIVISION OF TRANSPORTATION ENGINEERING	APPROVED
240-777-7220	Chief, Division of Transportation Engineering
DESIGN SECTION 240-777-7221	DESIGNED BY SJE DRAWN BY DEA CHECKED

MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION DIVISION OF TRANSPORTATION ENGINEERING CARROLL AVENUE SEPARATED BIKE LANES MERRIMAC DRIVE TO PINEY BRANCH ROAD TREE SAVE PLAN NOTES AND CHARTS DATE ____JULY 2023 SCALE ___ SHEET NO. 18 OF 36 DRAWING NO. TP-05 OF

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

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.
- implementation of all stress reduction measures. Documentation of the process (including

Page 1 of 3

- 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

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
- 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.

February 2017

240-777-7221

Post-Construction

Page 2 of 3

e. Watering f. Wound repair

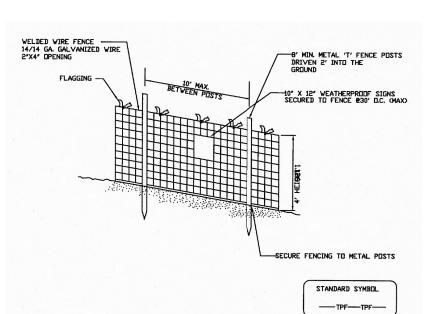
- 9. After construction is completed, but before tree protection devices have been removed, the property owner must request a final inspection with the Forest Conservation Inspector. At the final inspection, the Forest Conservation Inspector may require additional corrective measures, which may include: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

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 fencing 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

Tree Protection Fence Detail

Not to scale



- 1. Practice may be combined with sediment control
- 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.
- Root damage should be avoided. Protection signage is required.
- Fencing shall be maintained throughout construction.

Montgomery County Planning Department • M-NCPPC MontgomeryPlanning.org

Page 3 of 3 February 2017

7-26-2023 Maryland DNR Qualified Professional Name: Sarah Falcone Address: 700 East Pratt St., Suite 500

Baltimore, MD 21202 Phone: 410-462-9483 sfalcone@rkk.com

35% DESIGN NOT FOR **CONSTRUCTION**

RKSK 700 East Pratt Street, Suite 500 | Baltimore, MD 21202 Engineers | Construction Managers | Planners | Scientists

OWNER/ADDRESS: MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION 100 EDISON PARK DRIVE GAITHERSBURG, MARYLAND DIVISION OF TRANSPORTATION ENGINEERING 240-777-7220 DESIGN SECTION

MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ROCKVILLE, MARYLAND RECOMMENDED FOR APPROVAL Date Chief, Transportation Planning and Design Section Date Chief, Division of Transportation Engineering

DRAWN BY DEA

DESIGNED BY SJF

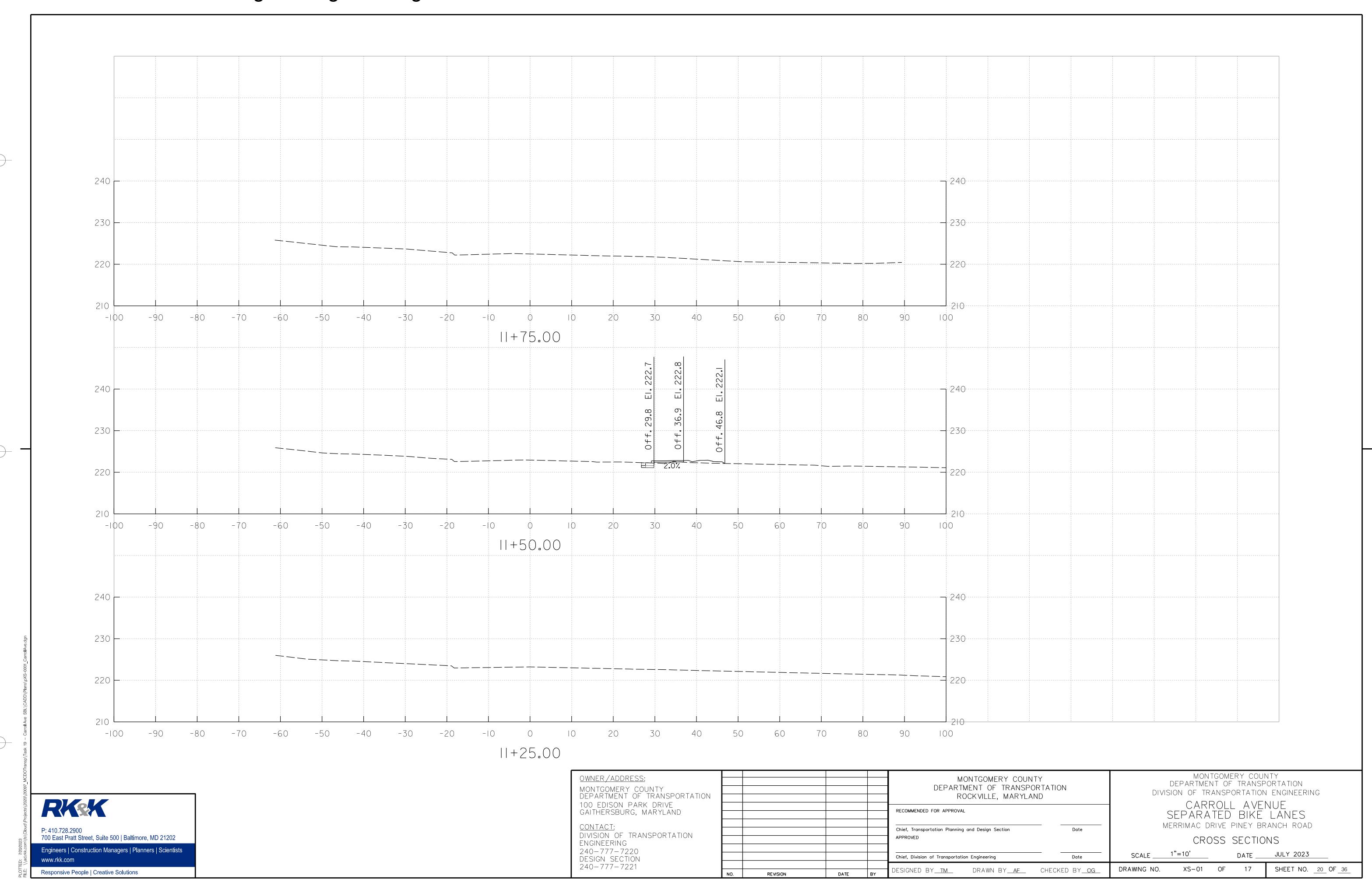
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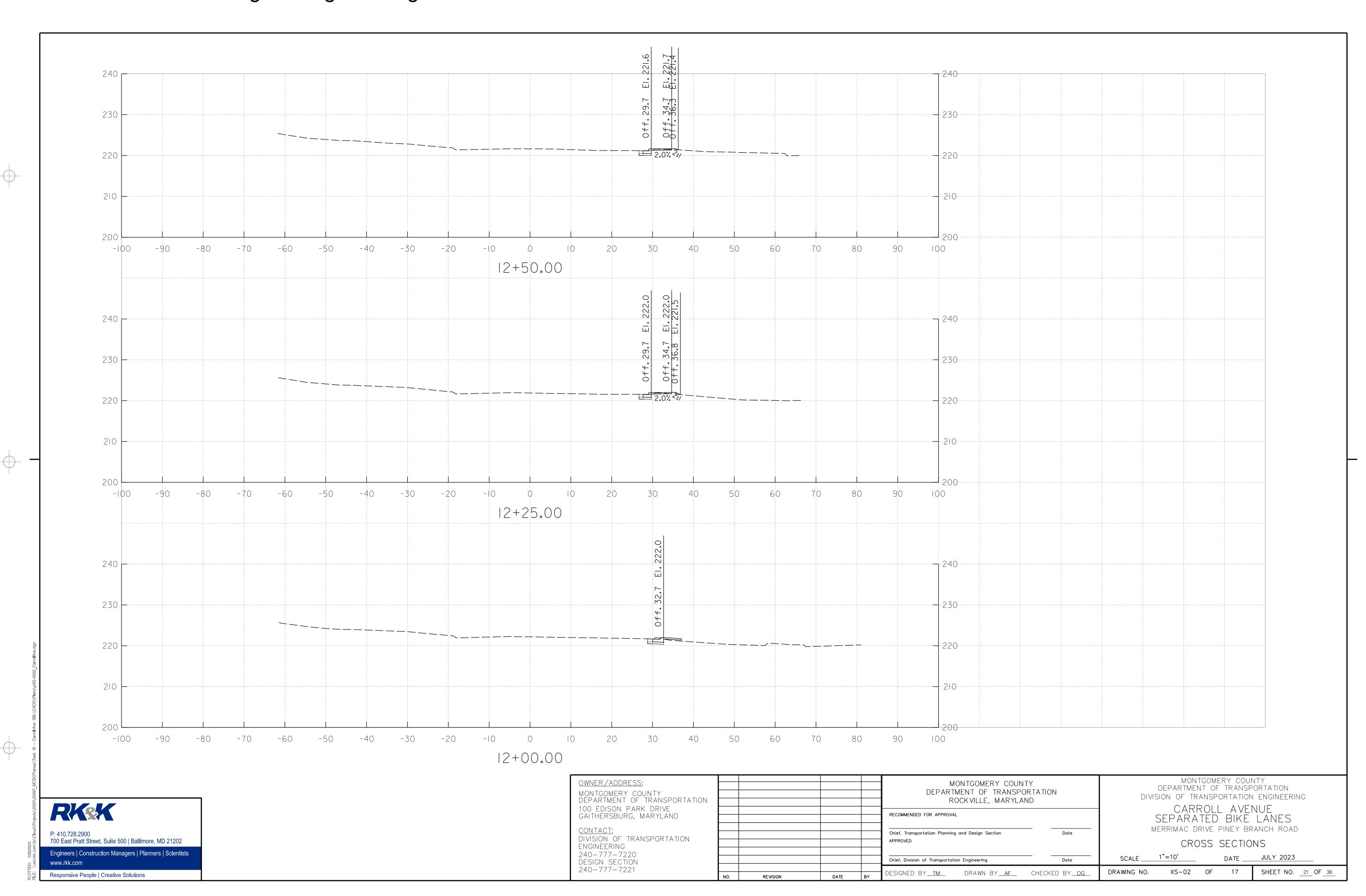
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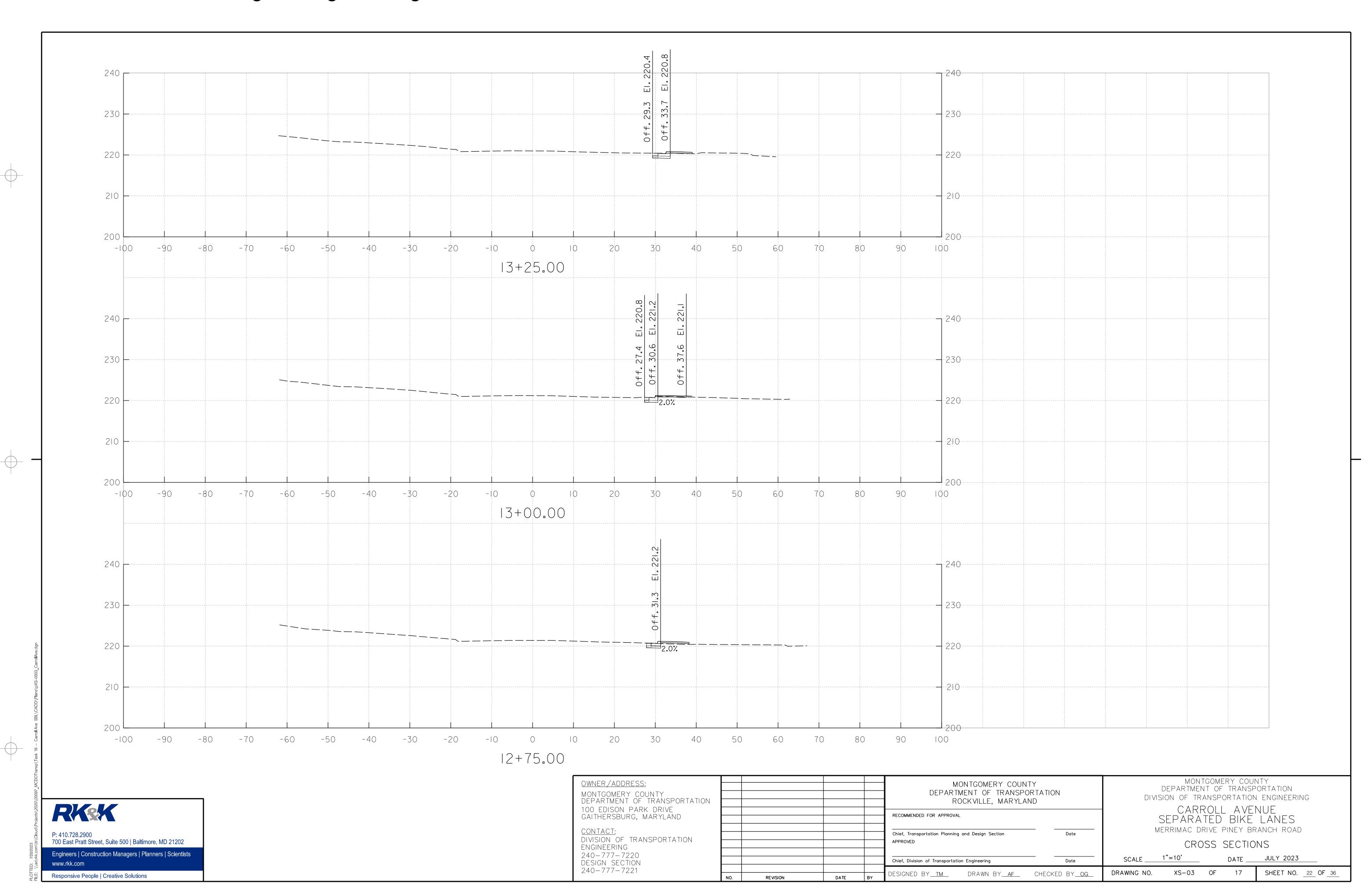
TREE SAVE PLAN NOTES AND CHARTS

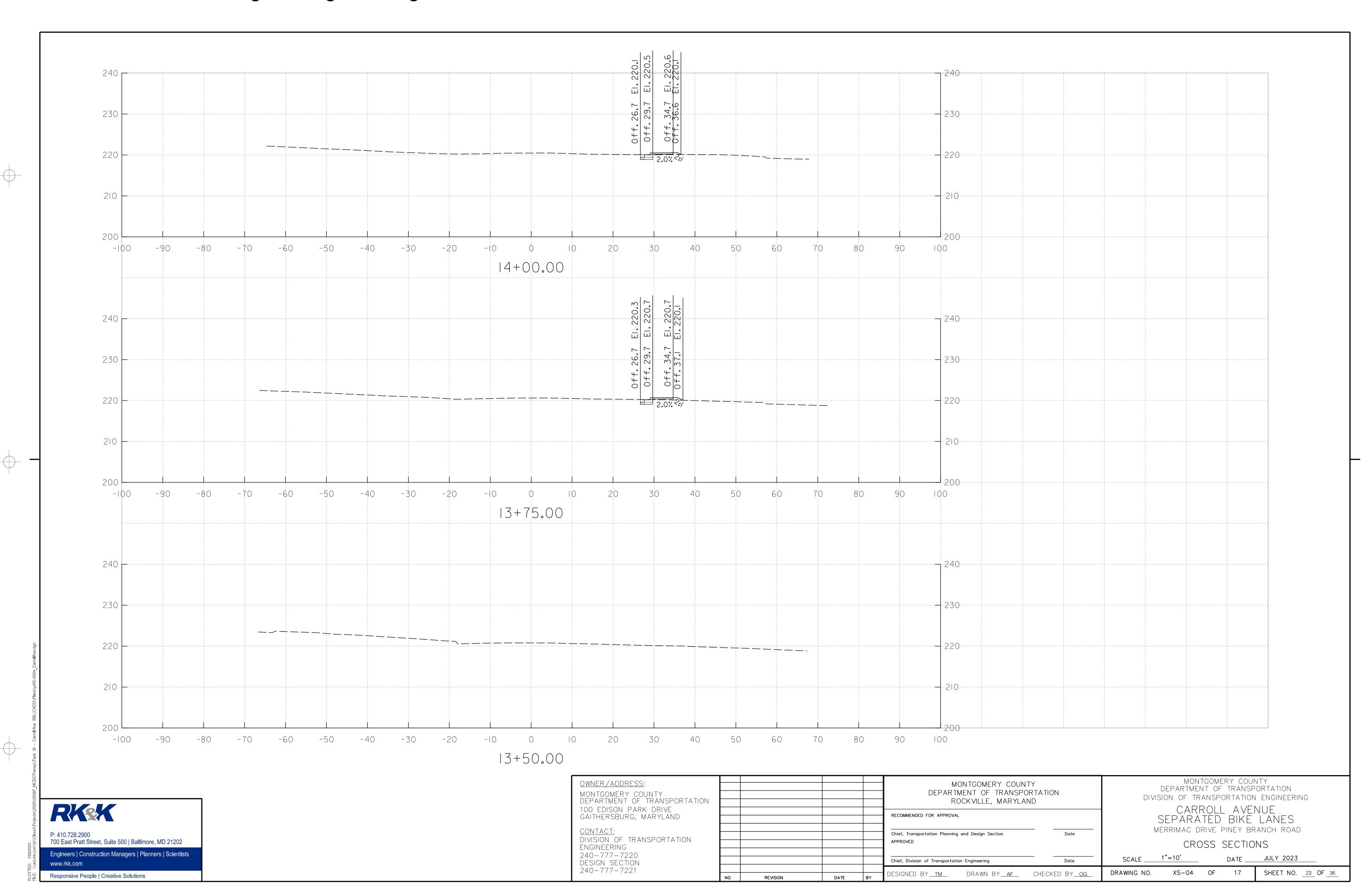
DATE _____JULY 2023 TP-06 OF SHEET NO. 19 OF 36 DRAWING NO.

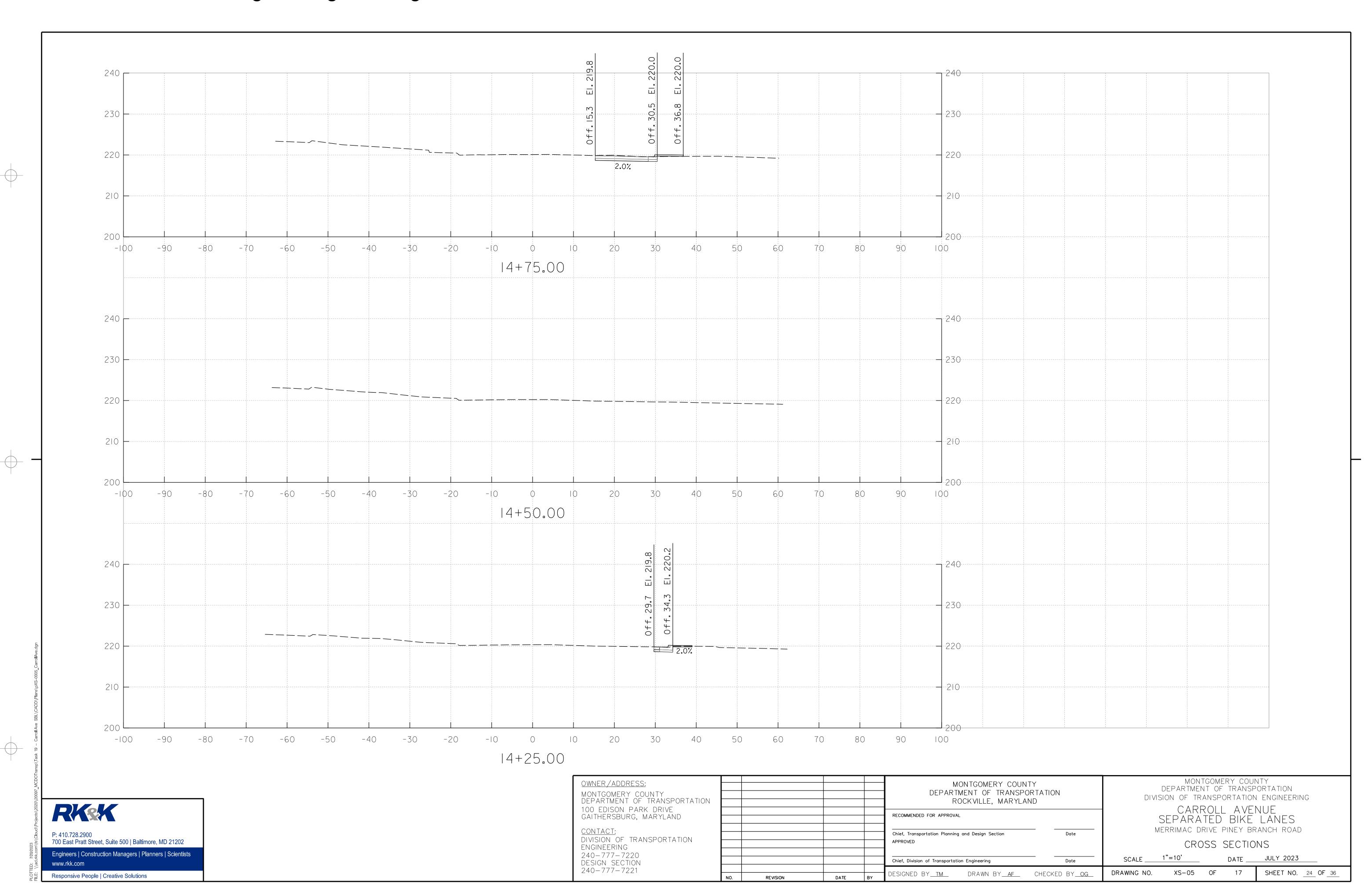
Responsive People | Creative Solutions

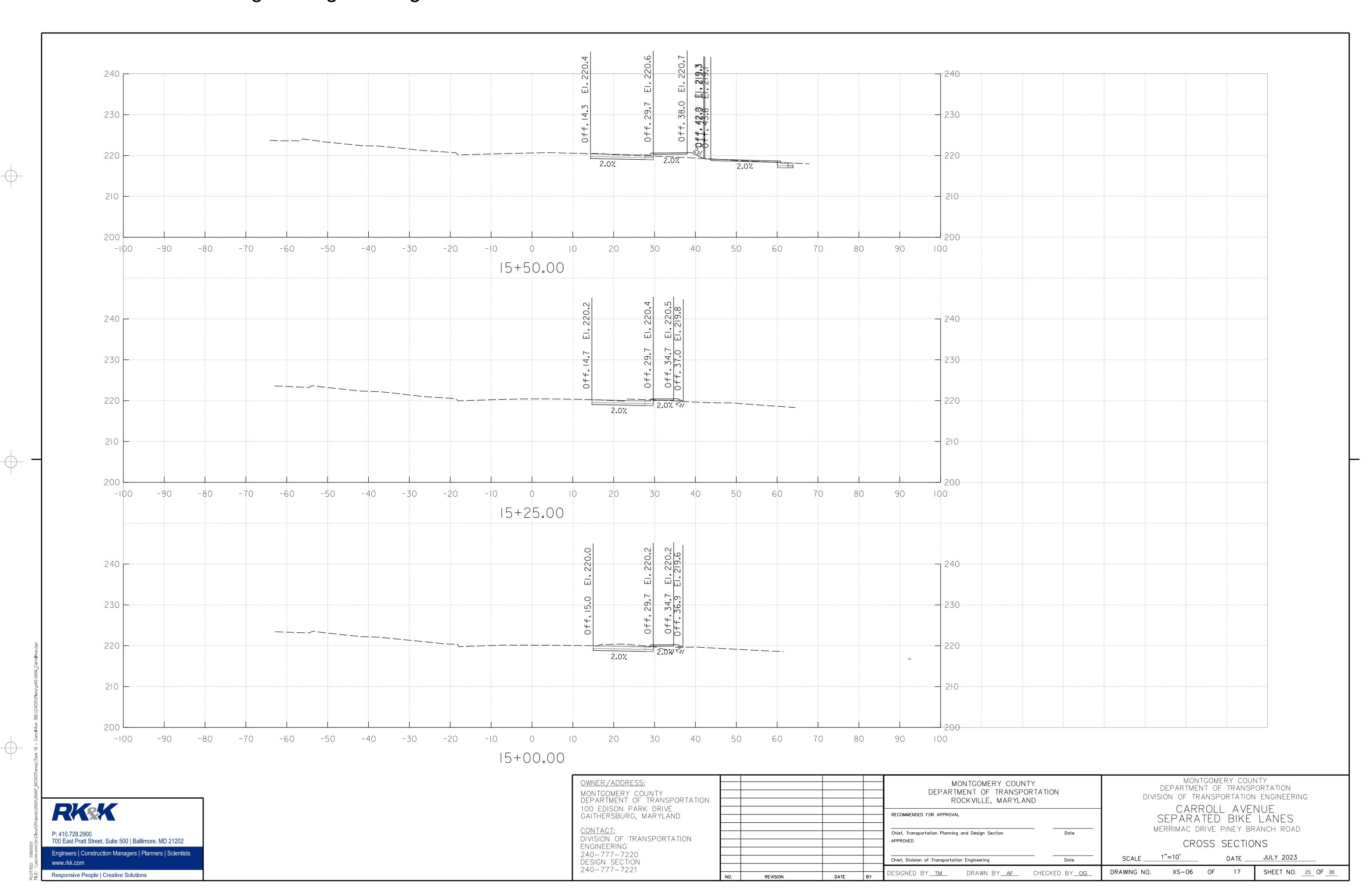


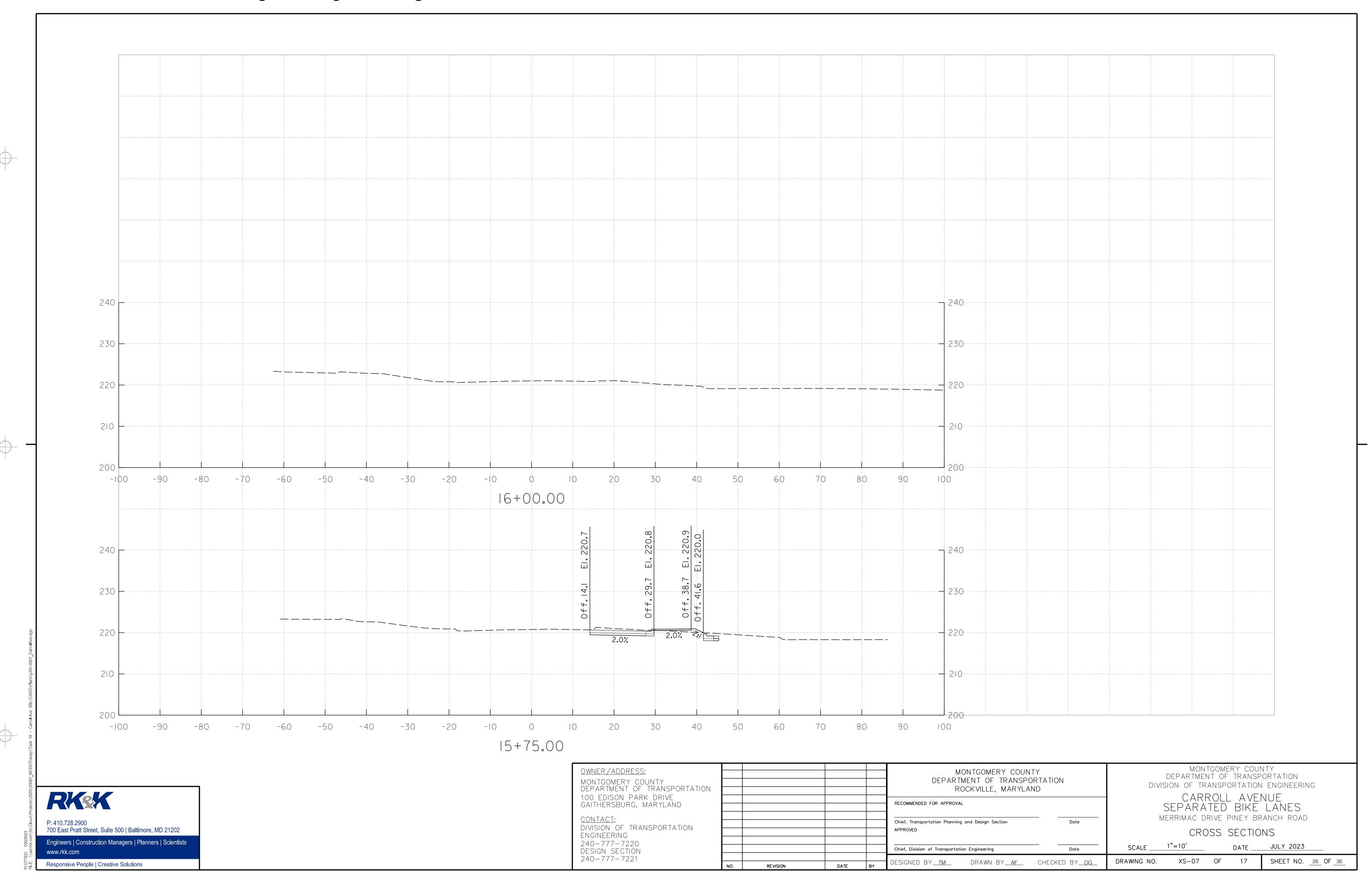


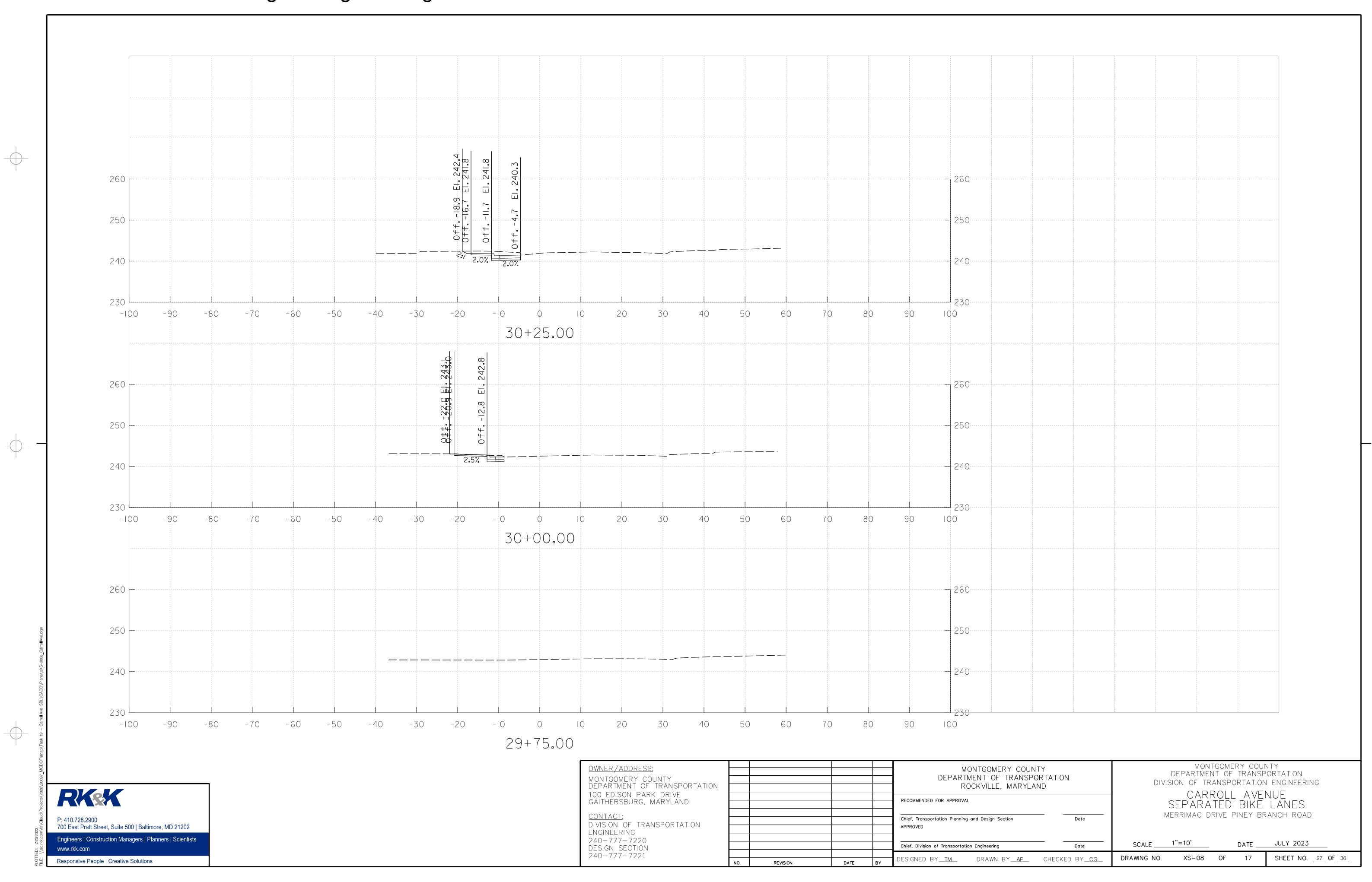


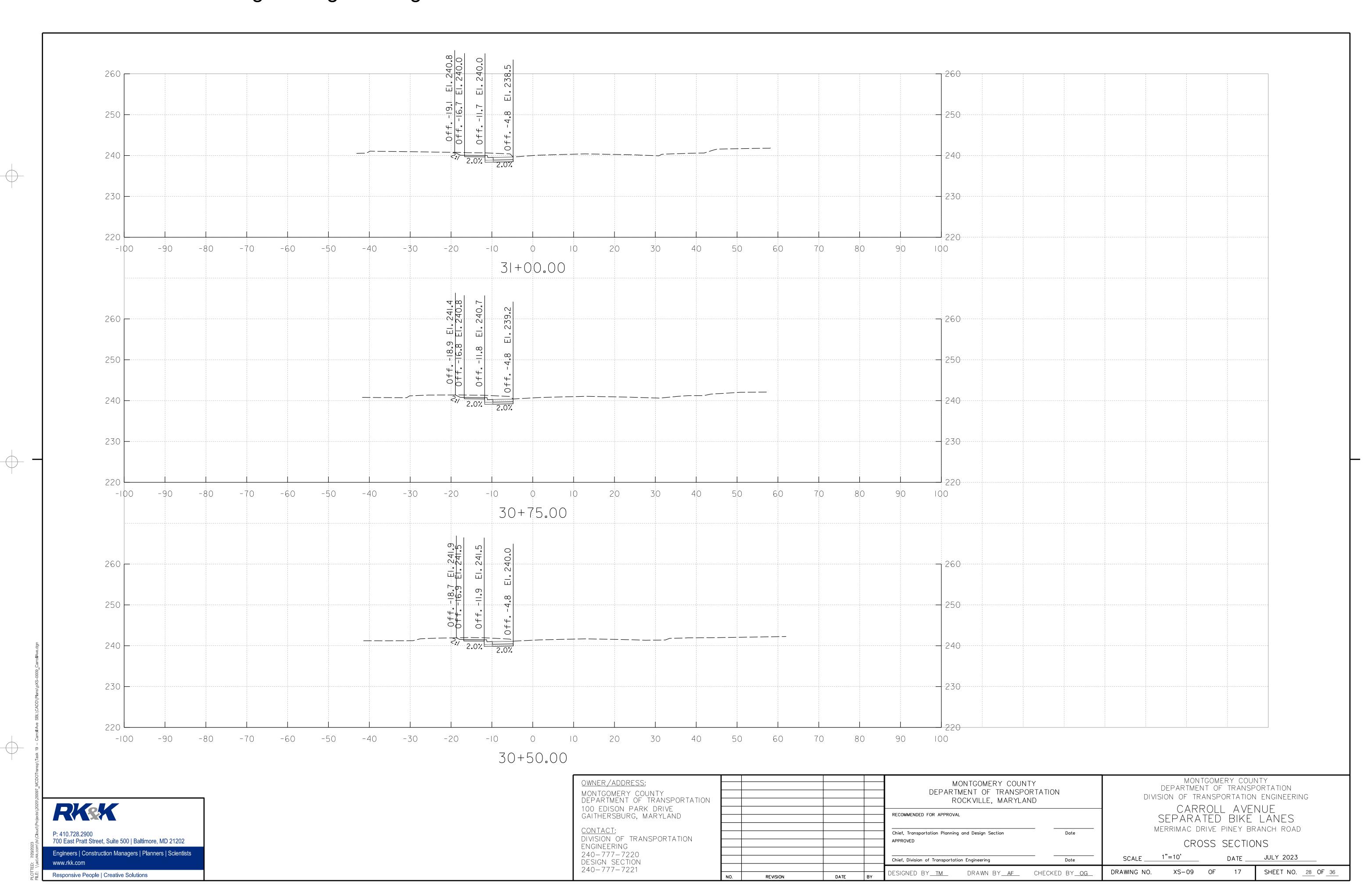


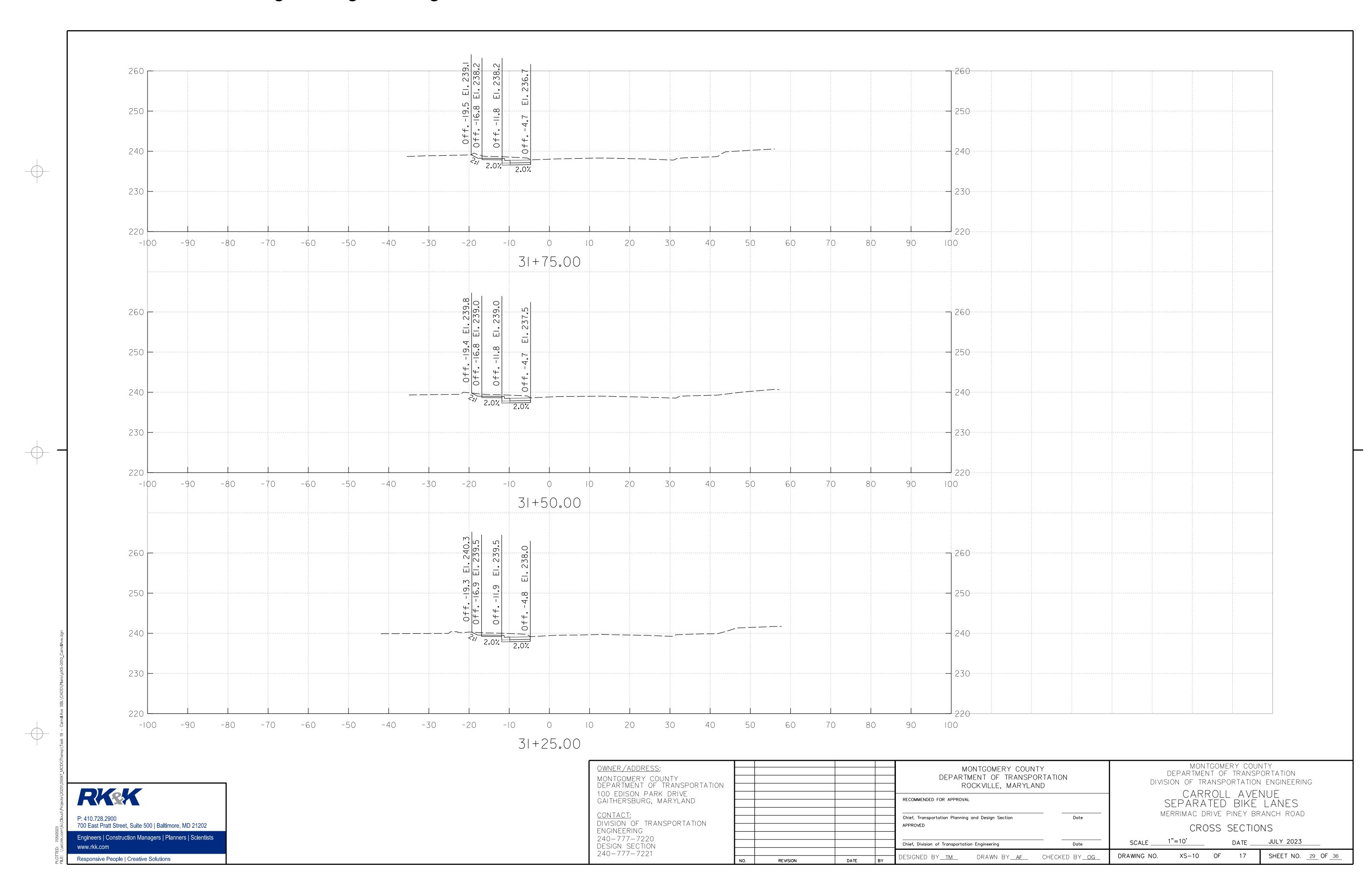


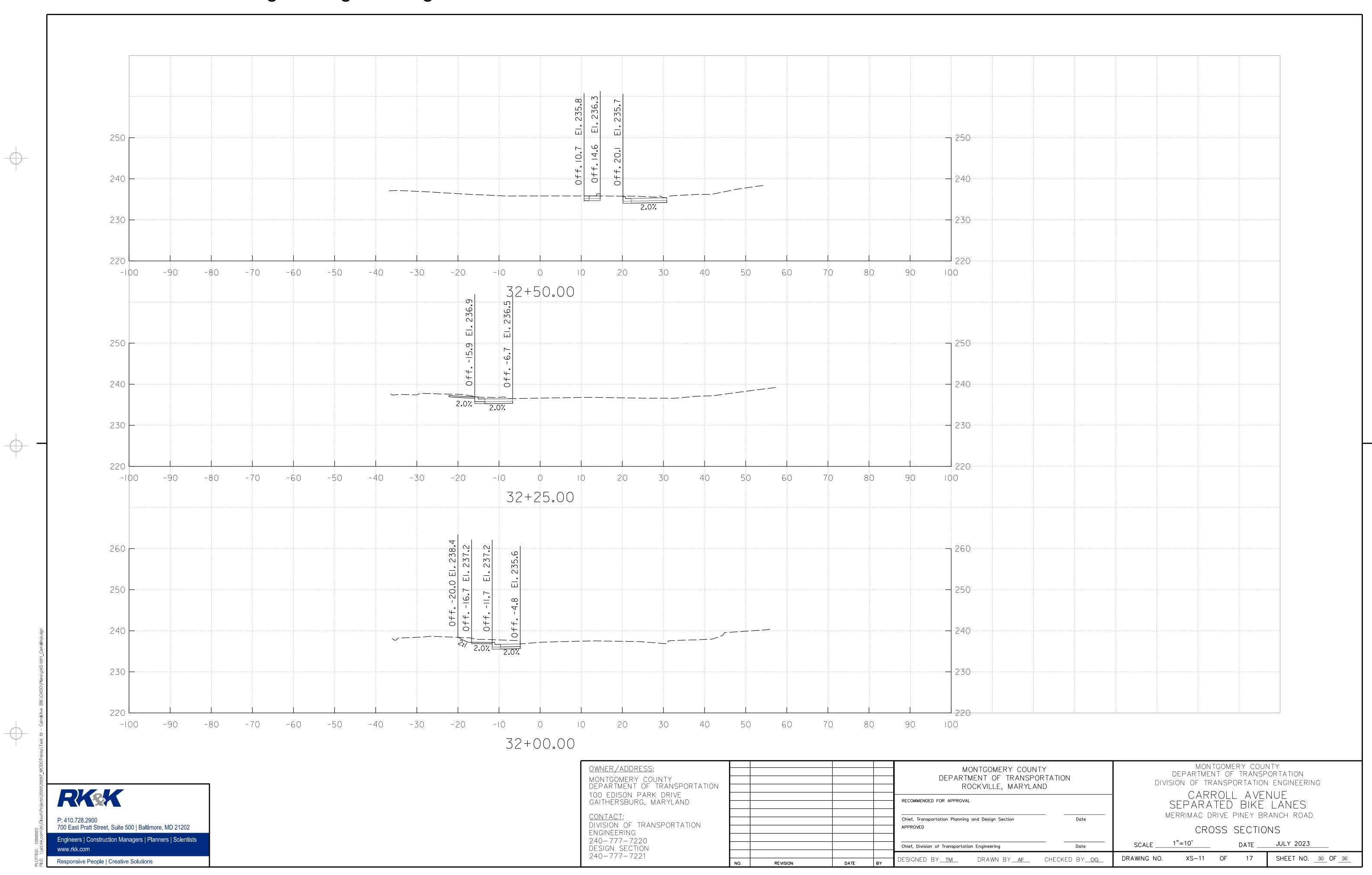


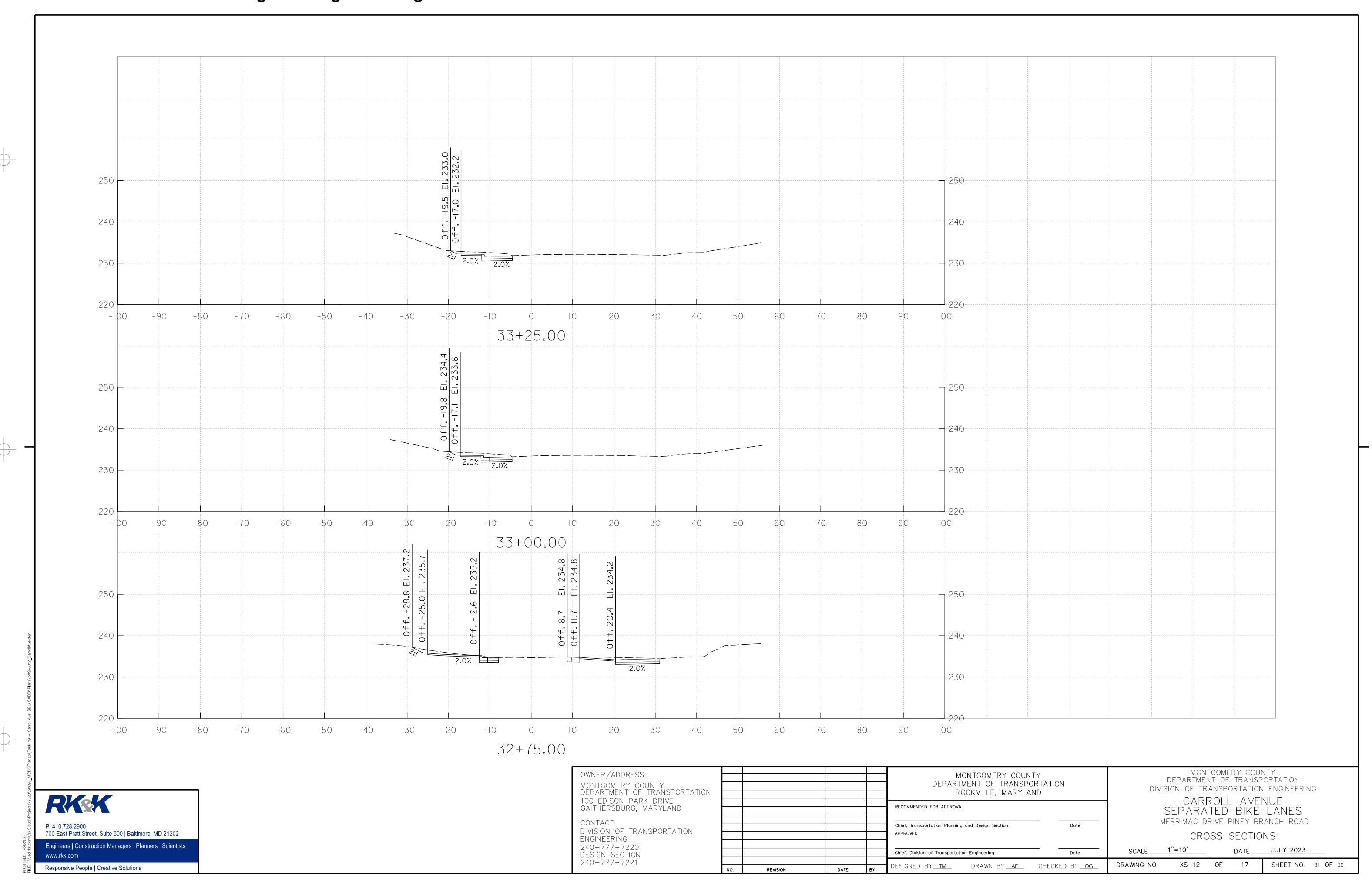


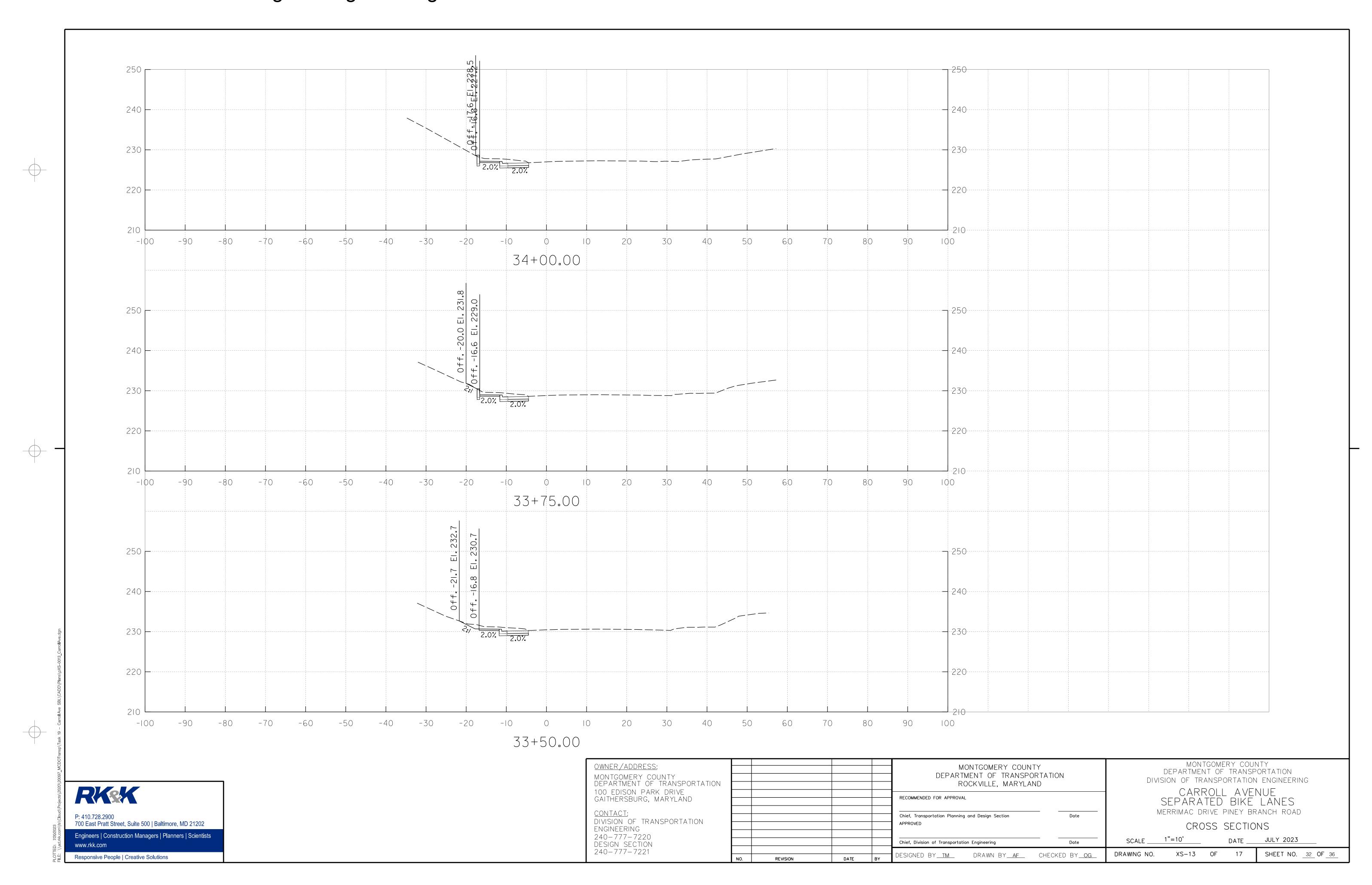


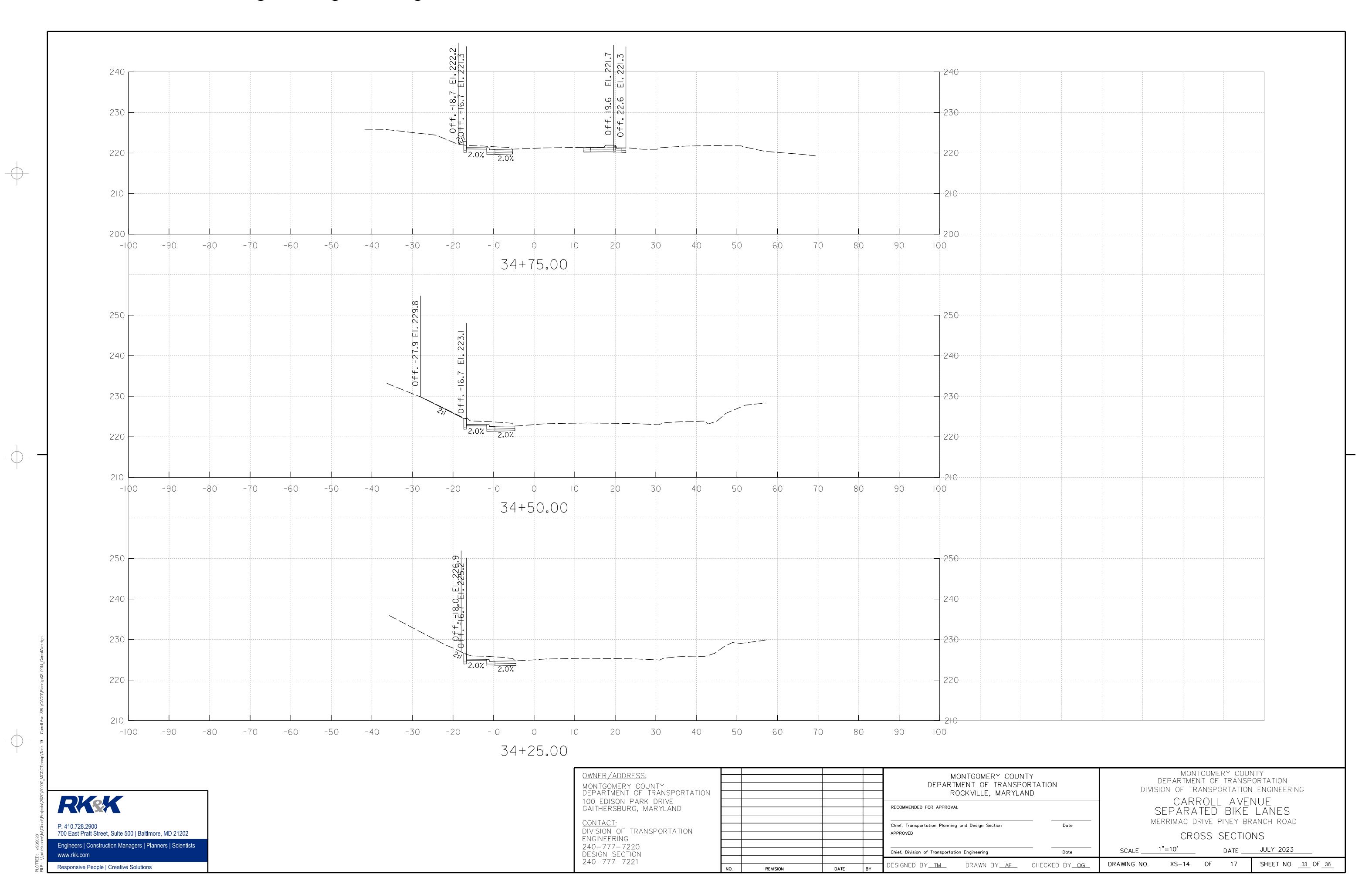


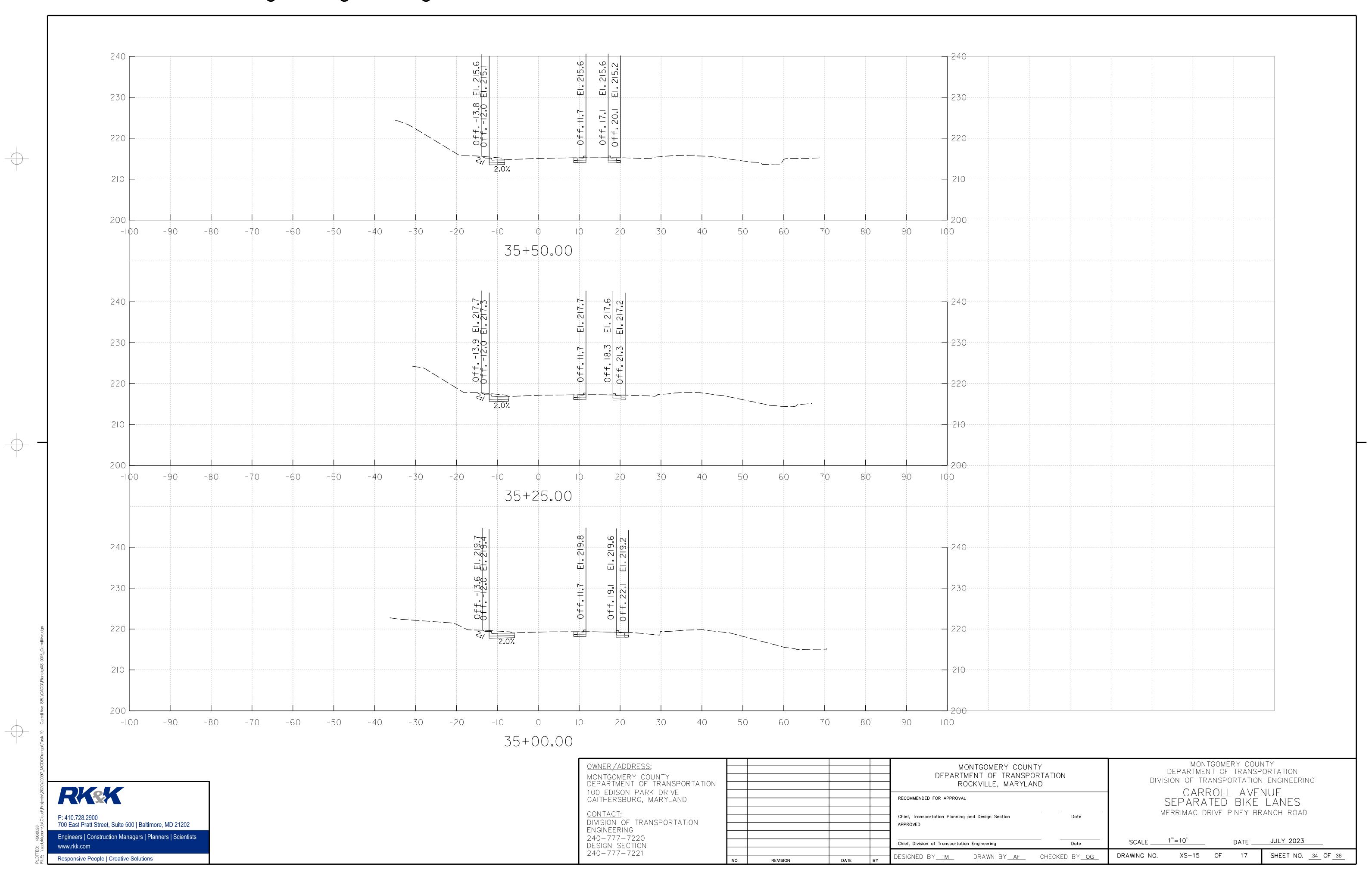


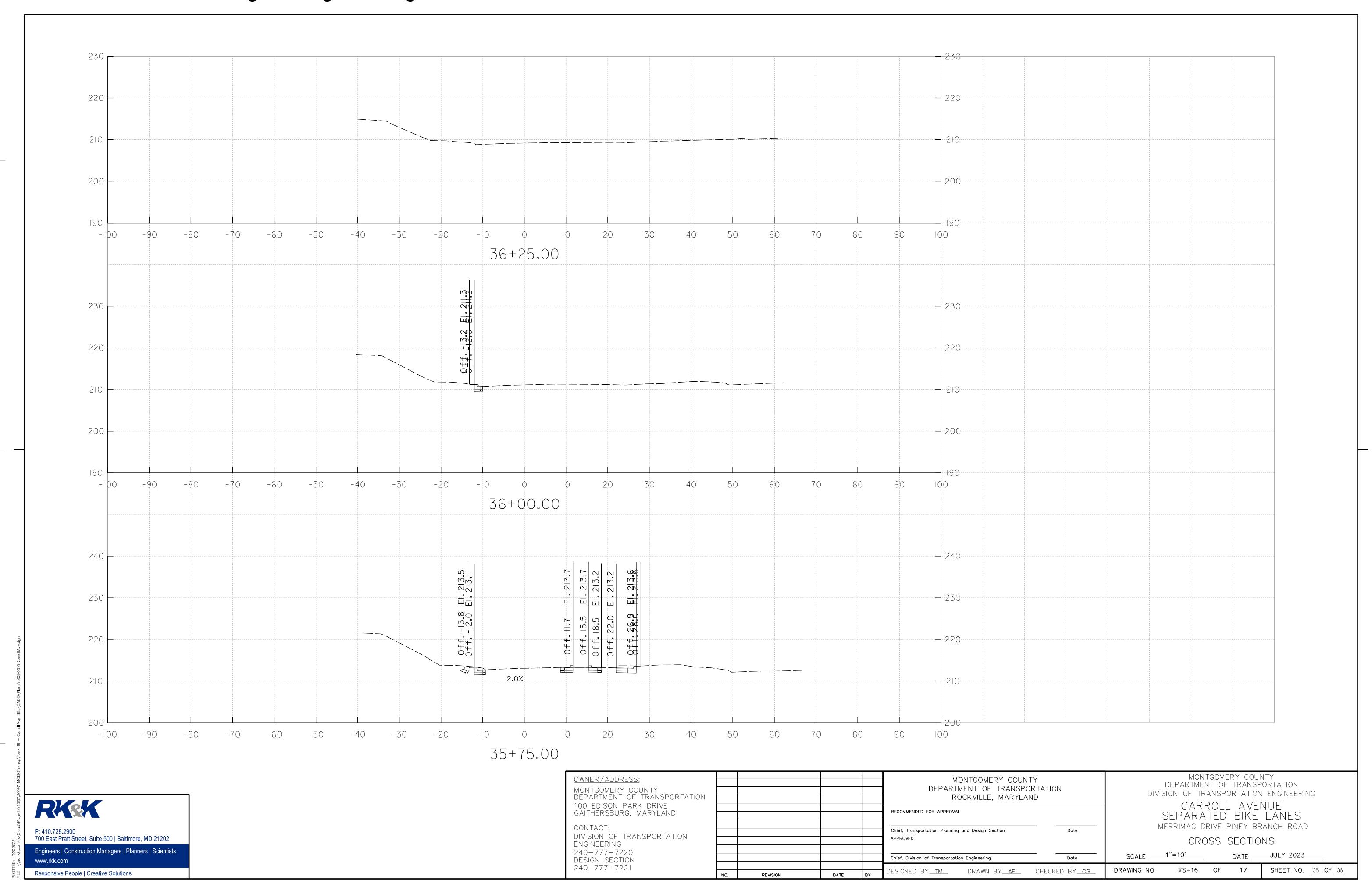


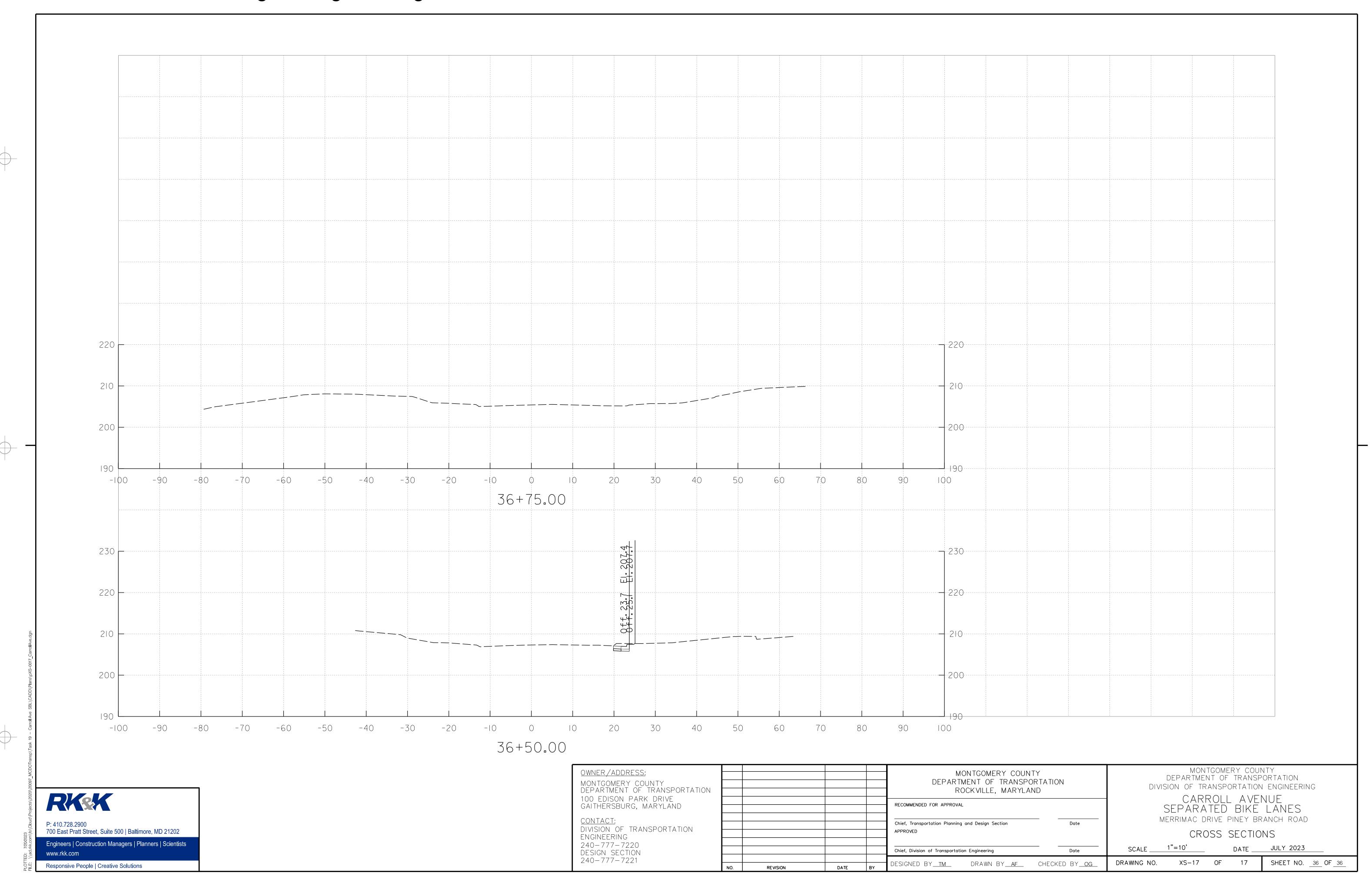


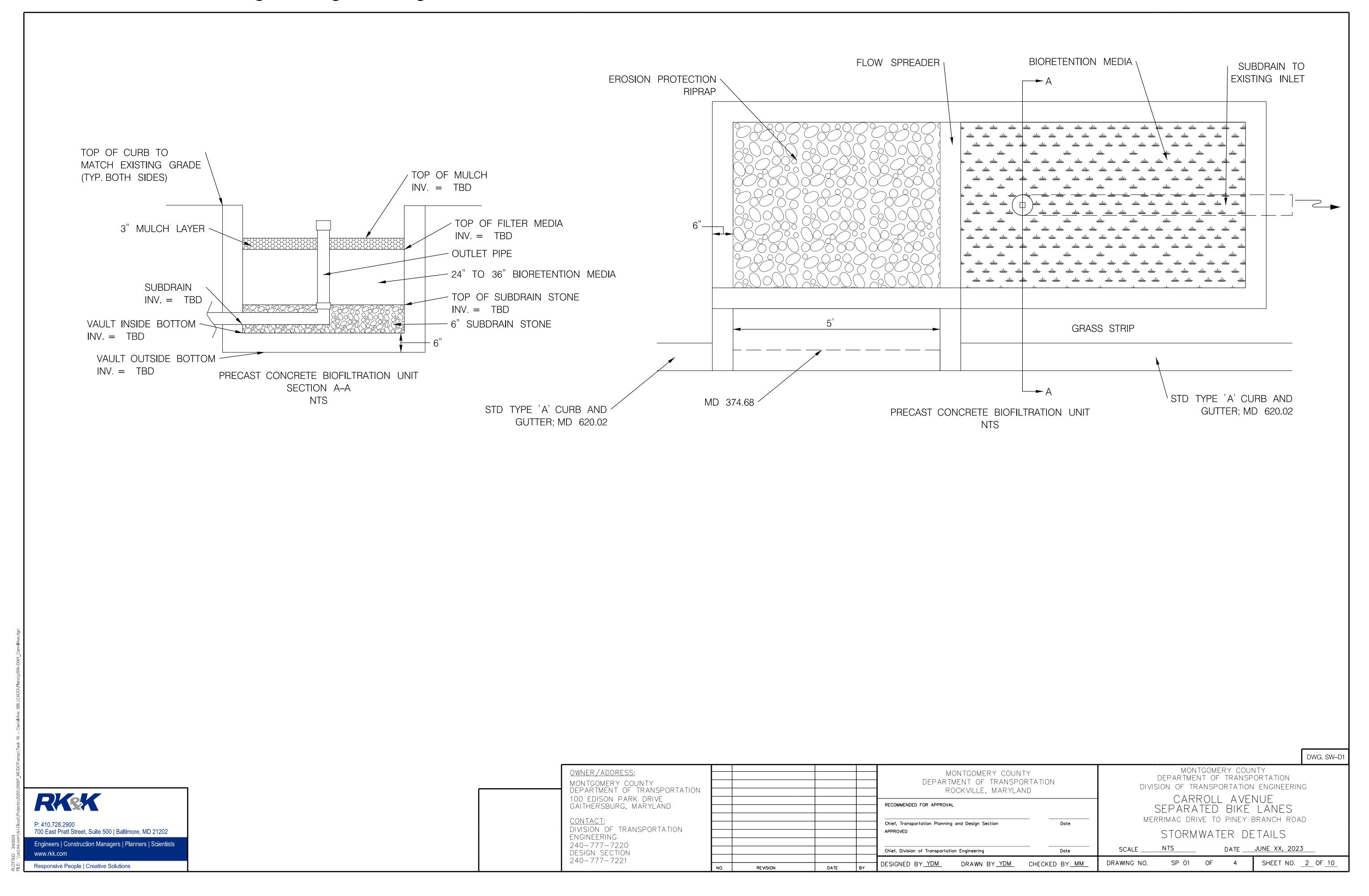


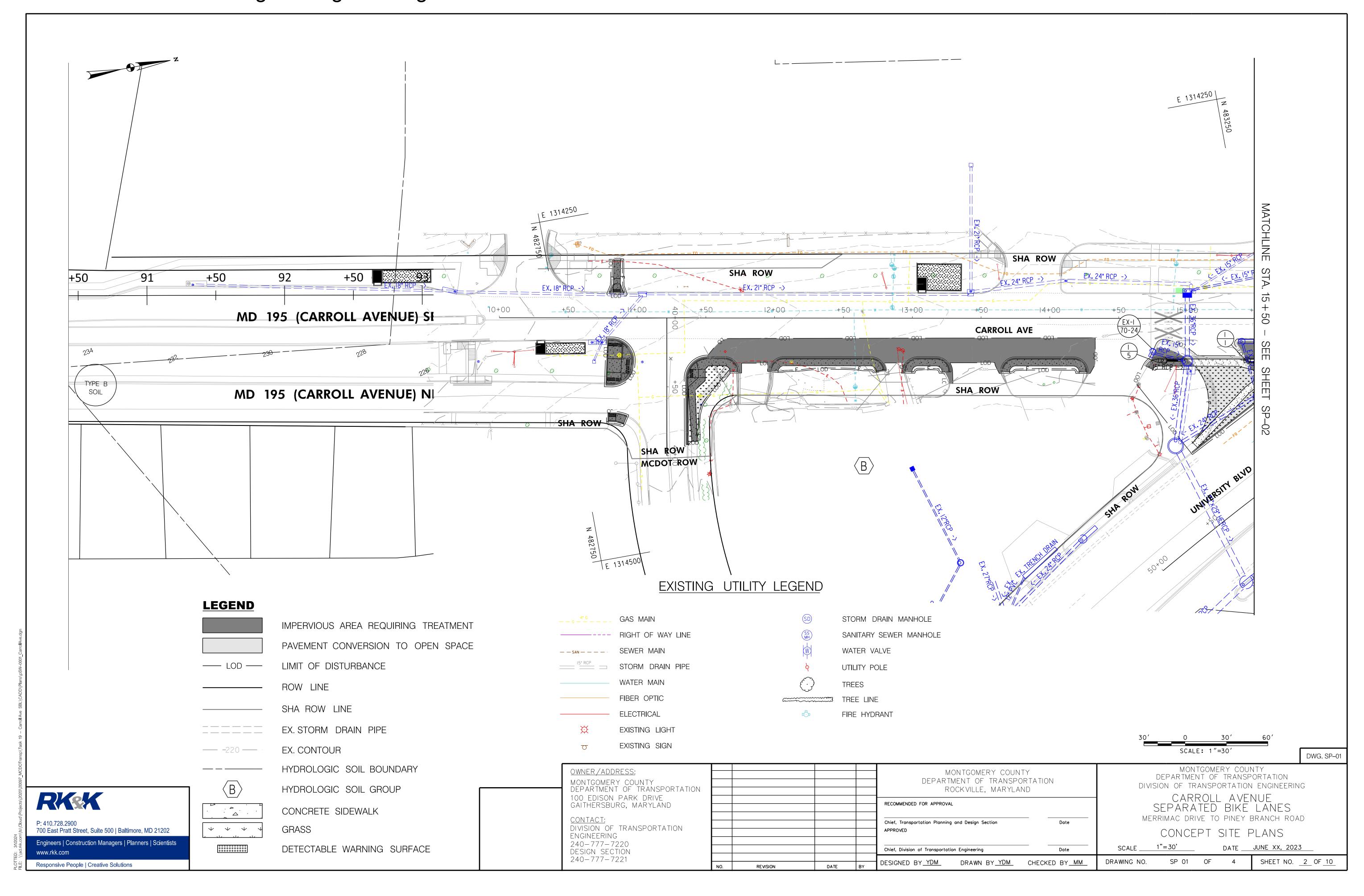












Attachment A: Corridor Engineerir



Carroll Avenue Separated Bike Lanes

Mandatory Referral Requirement: 10-LL-MR2025004

Mandatory Referral Requirement Exemption Statement

Requirement: Landscape and Lighting Plan Drawings

The Carroll Avenue Separated Bike Lanes project does not include landscape design the construction of any proposed structures, and as such, does not require landscape drawings.

The Carroll Avenue Separated Bike Lanes project included a preliminary layout of lighting improvements, within the limits of the project, based on field and desktop analysis. Potential tie in points and electrical service drops were presented in the plans. Lighting photometrics were not prepared for the proposed lighting but they were based on spacing standards defined in MCDOT's Street Lighting Installation Guidelines. Existing lighting fixtures at adjacent facilities were reviewed such that the new fixtures matched the existing lighting where possible.

