Dedicated but Unmaintained Roads Program
CIP No. 501117

Suncrest Avenue Improvement

January 30, 2026

Montgomery County Department of Transportation
Division of Transportation Engineering

100 Edison Park Drive, Fourth Floor
Gaithersburg, Maryland 20878

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I. INTRODUCTION

Montgomery County Department of Transportation (MCDOT), Division of Transportation Engineering received a majority signed petition from residents on Suncrest Avenue in Clarksburg requesting the roadway to be evaluated for improvement under the Dedicated But Unmaintained (DBU) Roads program.

Suncrest Avenue is currently a paved road from east of MD355 (Frederick Road) to the end of the cul-de-sac. The road improvement project will include design and construction of repairing the roadway pavement, storm drain system, and bringing the roadway up to the County's current standards.

This report was prepared for residents along Suncrest Avenue and describes an overview of the DBU program, the existing conditions of Suncrest Avenue, conceptual design, project schedule, and a budgetary cost estimate for the project.

II. BACKGROUND

1. Background of DBU Policy

The following is a chronological order for the establishment of the DBU policy:

- The County Council appropriated funds in FY08 Capital Budget for developing the DBU policy.
- July 2007-June 2008 (FY08) - Community stakeholders and representatives from the County met periodically and developed the policy.
- September 2009 - the County Executive transmitted a draft policy to the County Council.
- October 2009 – County Council Transportation and Environment (T&E) Committee reviewed and commented on the draft policy.
- December 2009 - the DBU policy was adopted.
- January 2010 - The County Executive recommended the Capital Improvement Program (CIP) budget for the DBU program.
- May 2010 - The County Council approved CIP for the DBU program.

- November 2015 – Amended policy was approved via Council Resolution 18-321.

2. Background of DBU Roads and Public Information

MCDOT compiled the list of DBU roads from a report by Montgomery County Civic Federation and the County's inventory utilizing the latest State Highway Administration (SHA) MAARS Report, Geographic Information System (GIS) map/aerial photos, existing subdivision plats, existing deeds, and status of the County maintenance by the County's depots. As a result of the research, a total of seventy-five (75) roads within the County have been identified as the DBU roads. The list is included in Appendix A.

As required by the DBU policy, two public information meetings were held for the property owners who reside adjacent to the identified DBU roads. The two public information meetings were held to provide every affected property owner an opportunity to attend one of the public information meetings to understand the program and address any of their concerns regarding the program. The meetings were held on September 22, 2010, and October 12, 2010. The deadline of DBU application was set for December 31, 2010.

The DBU program divides into the following four categories:
1. Self-Build/Self Maintain
2. Self-Build/County Maintain
3. County Build/County Maintain
4. No Build (Do Nothing)

3. Background Information on Suncrest Avenue Application

In October 2023, MCDOT received a petition from residents, with a majority vote, requesting an evaluation for the entirety of Suncrest Avenue for improvement under the DBU program. This has initiated efforts to analyze the potential impact, feasibility, and cost to complete this project.

III. EXISTING CONDITION

This preliminary evaluation was developed using GIS aerial photo, database research, and coordination with various utility companies. MCDOT also conducted a field investigation on August 14, 2024, to review actual field conditions.

1. Roadway

Suncrest Avenue branches off the east side of MD355 (Frederick Road) in Clarksburg. The road is 930 feet long and ends in a T-turnaround. From the entrance heading northeast, the pavement is 13 feet wide. At house number

13119, the pavement slightly widens to 15 feet. Finally, it reaches 20 feet wide at the beginning of the T-turnaround. The T-turnaround measures to be 48 feet wide.

Longitudinally, the vertical slope starts at level with MD355 and decreases at a moderate rate until house number 13116, the lowest point. From here, there is an aggressive climb to reach the T-turnaround at the end of the cul-de-sac.

Suncrest Avenue is an open section road with steep grass shoulder on the south side and a grass swale on the north side. There is no noticeable crown to direct runoff on the pavement. The surface is in poor condition with numerous potholes, spalling and rutting for most of the roadway. The asphalt itself was observed to be an overlay on top of existing brick pavement, which has also deteriorated where the brickworks are exposed. The condition slightly improves at the T-turnaround.

Starting Project Limit - Suncrest Ave Looking Southwest Toward MD355

Existing Open Section – Suncrest Ave Looking Northeast

2. Drainage

With Suncrest Avenue not being maintained by the County and due to the age of the road, MCDOT was not able to obtain sufficient data regarding a stormwater management plan and cannot accurately describe the present condition of drainage along the roadway. From our field visit, we found an existing inlet at low point of the road, in front of house number 13116. From here, a pipe conveys runoff to the south side of the roadway where it discharges to an existing channel which then outfalls behind the fences of house number 13121.

A review of stormwater management records show that many of the houses and newer construction houses along Suncrest Ave redirects runoff directly from the roof to underground dry wells. As such, the drainage and stormwater management (SWM) concept focuses on the runoff from the redesigned road width.

3. Utilities

A review of GIS data and field observation found there are 5 existing PEPCO poles along the south side of the roadway. Services such as power, internet, and cable are attached to the poles. Their approximate locations are shown in Appendix E and Appendix F.

According to GIS information from Department of Permitting Services, there are existing water and sewer lines along the south side of the roadway. However, with the lack of existing data, MCDOT is unable to determine the depths of those pipes.

4. Trees

There are potentially fifteen (15) trees that will be affected by this improvement project. The approximate locations are shown on the GIS map in Appendix D.

5. Streetlights

According to the streetlight database, there are currently three (3) streetlights mounted on PEPCO poles along Suncrest Avenue. Should there be a need to relocate any of these poles, this will also require relocation of the streetlights and a lighting assessment to ensure the road is adequately lit.

IV. CONCEPTUAL DESIGN

1. Roadway

On August 28, 2024, MCDOT started a coordination with Montgomery County Fire and Rescue Services (MCFRS) on pavement width requirement, apparatus access, and parking restriction. Any new development must meet appropriate MCFRS's requirement for equipment access, apparatus turnaround, and parking restriction. MCFRS's preference is a 20 feet pavement width and 2 feet of clearance on both sides for emergency apparatus access and parking restriction along at least one side of the roadway. However, due to the limited space along Suncrest Avenue, a 16 feet wide pavement is acceptable with 2 feet of clearance on both sides and on-street parking will have to be restricted along the roadway. Coordination between MCDOT and MCFRS will continue throughout the design process for Sunset Avenue.

A geotechnical report will be needed and prepared during the design phase. Based on GIS soil data, four (4) cores will be needed to properly identify the existing soil characteristics. This data will inform if the existing subgrade is sufficient to prevent pavement failure or stabilization is needed. It is critical to have stabilized subgrade to support the base and asphalt pavement. A GIS map of existing soil data is shown in Appendix C.

Due to various constraints along the roadway and to minimize impacts to the existing features, MCDOT proposes two options for the typical sections of the roadway. The proposed typical sections can be seen in Appendix E.

The first option is to have an open section roadway with pavement width of 16 feet with a 2 feet clearance and a swale along both sides of the roadway. There will be an excavation of 2 feet depth for the pavement and 4 feet depth for the grass ditches. In addition, due to the steep slope of the shoulders where Sunset Avenue intersects MD355 (Frederick Road), approximately 250 feet long retaining wall is needed along the south side of the roadway. With Suncrest Avenue having the Right-of-Way width of only 30 feet, a perpetual easement of about 9,000 square feet is needed along the north side, and 2,250 square feet on the south side of the road is needed for the open drainage swale and in in order to maintain the proposed SWM facility between 13121 and 13123 Suncrest Avenue. A 500 square feet perpetual easement is needed on the southside of Suncrest Avenue towards the intersection of MD 355 for the maintenance of the proposed retaining wall. A temporary construction easement of approximately 19,000 square feet is needed along both sides of the road in order to build the road improvements listed in the report.

The second option is also 16 feet width of pavement but with curb and gutter along both sides of the road. There will be excavation of 2-foot depth for the roadway and 2-foot depth for the curb and gutter. The proposed storm drain along the south side of the road would require approximately 2,500 square feet of perpetual easement. With this option, a temporary construction easement of about 19,000 square feet is needed along both sides of the road.

2. Stormwater Management & Drainage

MCDOT will coordinate the Department of Permitting Services and the Depart of Environmental Protection to determine the best approach to manage stormwater runoff for this improvement project.

There are two options for drainage improvement.

With the open section, the existing shallow swale will be modified. A soil analysis will be needed to determine the mixture of soil that will be most suitable for ground infiltration. In addition, culverts will be installed under each of the fifteen (15) driveways based on the County's Design Standard No. MC-301.03.

For the closed curb and gutter design, three new inlets are proposed. A new inlet will be installed at house number 13101 Another new inlet will be installed on the south side of the road across from the existing inlet. The third inlet will replace the existing inlet at 13116 Suncrest Avenue. Installation of curbs will also require rebuilding of the apron for all the driveways along Sunset Avenue in accordance with the County's Design Standard No. MC-301.05.

In both designs, the stormwater currently conveys from the lowest point at the existing inlet in front of house number 13116 to the existing swale between house number 13121 and 13123. The proposed design will retrofit the existing swale into a bioretention facility, and will outfall to the existing channel behind 13121 Suncrest Ave. In the event that the existing channel will need to be stabilized, the design will incorporate that work if needed.

3. Utilities

Based on GIS data and field observation, MCDOT does not anticipate any utility pole relocations. However, this may change as further information is obtained during the design phase. MCDOT will coordinate closely with PEPCO and other utilities to determine if any utility relocations will be needed.

4. Trees

Fifteen (15) trees will be affected by this improvement project. Note that this number will likely change as more information is obtained during the design process. Per the County code, MCDOT will replace an equal number of trees as those to be removed. However, the County makes no guarantee the same species will be planted in place of those removed trees.

V. PROJECT SCHEDULE

The following is a tentative schedule assuming the County Executive and the County Council will approve funding for Suncrest Avenue Improvement in the CIP budget request for FY29 – FY34. Note that the County's Fiscal Year starts on July 1 of the calendar year.

Phase	Duration	Starting Date	Ending Date
Design	18 months	Fall 2028	Spring 2030
Property Acquisition	9 months	Spring 2030	Fall 2030
Construction	12 months	Spring 2031	Spring 2032

VI. PROJECT COST ESTIMATE

For each of the alternatives proposed, MCDOT has derived a total project cost to include design, property acquisition, and construction. Cost for design includes the geotechnical report, permits for stormwater management and erosion control, topographic survey, and engineering design. The breakdown can be seen in **Appendix E & Appendix F**.

The **open section** roadway will cost $1,697,220.29. This cost includes 3% inflation costs per year until the project funding is potentially approved for fiscal budget FY29-34. The County will contribute 10%, or $169,722.03 to the total project cost. The remaining 90%, or $1,527,498.26 of the project cost will be evenly divided amongst the fifteen (15) APOs. **Therefore, each APO will be responsible for paying $101,833.22 billed through property taxes**. Each APO will have an option to pay in a lump sum, or as installments through property tax. Payments through installments will result an additional **$5,091.66 in property tax burden every year, for 20 years, and subject to interest.**

The **curb and gutter section** roadway will cost $1,588,692.90. The County's 10% contribution is $137,042.04. The APO responsibility is $1,429,823.61. **The lump sum total for each APO is $95,321.57**. If paid in installments, the annual property tax burden would be **$4,766.08 for 20 years, subject to interest.**

Open Section

Design	$ 136,000.00
Land Acquisition	$ 215,949.10
Construction Management	$ 271,000.00
Construction Cost	$ 841,088.04
Total Project Cost	**$1,464,037.13**
Projected Total Cost (FY29)	**$1,697,220.29**

County's Participation (10% Project Cost):
Projected Total Project Cost (FY29) * 0.10 =
$169,722.03

Total APO Responsibility (90% Project Cost):
Projected Total Project Cost (FY29) * 0.90 =
$1,527,498.26

Responsibility per APO:
Projected Total Project Cost (FY29) / 15 APOs =
$101,833.22

Annual Property Tax Increase per lot (for 20 years):
Responsibility per APO / 20 years =
$5,091.66 (+ interest)

Closed Section

Design	$ 136,000.00
Land Acquisition	$ 154,060.93
Construction Management	$ 271,000.00
Construction Cost	$ 809,359.52
Total Project Cost	**$1,370,420.45**
Projected Total Cost (FY29)	**$1,588,692.90**

County's Participation (10% Project Cost):
Projected Total Project Cost (FY29) * 0.10 =
$158,869.29

Total APO Responsibility (90% Project Cost):
Projected Total Project Cost (FY29) * 0.90 =
$1,429,823.61

Responsibility per APO:
Projected Total Project Cost (FY29) / 15 APOs =
$95,321.57

Annual Property Tax Increase per lot (for 20 years):
Responsibility per APO / 20 years =
$4,766.08 (+ interest)

APPENDIX A
List of DBU Roads

DBU List

7/31/2025

No.	Road Name	Starting Point (Miles)	Ending Point (Miles)	Total (Miles)	Town
1	3rd AVE	GEORGIA AVE	0.05	0.05	OLNEY
2	AITCHESON LA	0.22 (North of Riding Stable Road)	0.70	0.48	LAUREL
3	ANCHORAGE DR	MACARTHUR BLVD	0.13	0.13	BETHESDA
4	ANCHORAGE PL.	BOLLING LA	ANCHORAGE DR/.08	0.08	BETHESDA
5	ANDERSON ST.	0.1 (Northwest of Octagon Lane)	0.18	0.08	SILVER SPRING
6	ARDWICK DR	GOLF LA.	WAYCROFT WAY/.22	0.22	ROCKVILLE
7	ATTLEBORO RD	NORWOOD RD	DUXBURY DR/0.25	0.25	SILVER SPRING
8	AUTH LA	0.09 (South of Hermleigh Road)	0.13	0.04	SILVER SPRING
9	BELFAST PL	KINGSGATE RD	0.15	0.15	POTOMAC
10	BELLE COTE DR	KRUHM RD	0.42	0.42	BURTONSVILLE
11	BENNETT ROAD	WOODWELL RD	ALDERTON LN	0.08	WHEATON
12	BENTLEY RD	0.36 (North of Olney Sandy Spring Road)	0.50	0.14	OLNEY
13	BIRCHCREST LA	FREDERICK RD	0.22	0.22	CLARKSBURG
14	BISHOP DR	WINTHROP DR	0.05	0.05	SILVER SPRING
15	BLANTON RD	GOOD HOPE RD	0.15	0.15	SILVER SPRING
16	BOLLING LA	ANCHORAGE DR	ANCHORAGE PL./0.11	0.11	BETHESDA
17	BRATTON DR	SUNSET DR	BRATTON CT/0.09	0.09	ROCKVILLE
18	BROOKS RD	RIDGE DR	KIRK LA/0.15	0.15	ROCKVILLE
19	CARNAGIE AVE	NEEDWOOD RD	0.12	0.12	DERWOOD
20	CINDY LA	SEVEN LOCKS RD	0.08	0.08	BETHESDA
21	CIRCLE DR	RIDGE DR/0.68	GLEN MILL RD/1.02	0.34	ROCKVILLE
22	CLOVER LA	PERSIMMON TREE RD	0.06	0.06	POTOMAC
23	CREST HILL LA	0.22 (South of Briggs Chaney Road)	0.51	0.29	SILVER SPRING
24	CROWFOOT LA	COPLEY LA	0.09	0.09	SILVER SPRING
25	DOMINION DR	0.2 (North of Olney Sandy Spring Road)	0.25	0.05	SANDY SPRING
26	DUXBURY RD	ATTLEBORO RD	0.14	0.14	SILVER SPRING
27	ECKMOOR RD	ELDRID DR	0.05	0.05	SILVER SPRING
28	EMORY ST	MUNCASTER MILL RD	0.07	0.07	GAITHERSBURG
29	EMORY CHURCH RD	NORBROOK DR	0.13	0.13	OLNEY
30	ERSKINE AVE	GLENALLAN AVE	WALLACE AVE/0.10	0.10	SILVER SPRING
31	FRASER AVE	MONTGOMERY ST	LINDEN LA	0.11	SILVER SPRING
32	GARDNER PL	CHAPELGATE RD	0.11	0.11	GERMANTOWN
33	GARY RD	0.31 (North of River Road)	0.35	0.04	POTOMAC
34	GOLF LA	MIDDLESHIRE PL/0.10	0.28	0.18	ROCKVILLE
35	HAW LA	EDNOR RD	0.21	0.21	SILVER SPRING

36	HAWHILL END	WILDEN LA/.07	0.13	0.06	POTOMAC
37	HEIL RD	NEW HAMPSHIRE AVE	0.15	0.15	SILVER SPRING
38	HILLSDALE DR	HILLSDALE DR/.06	0.10	0.04	KENSINGTON
39	KINGSGATE RD	ROCK RUN DR	0.15	0.15	POTOMAC
40	KIRK LA	BROOK RD	0.04	0.04	OLNEY
41	LAUX ST	ROSEMERE AVE	0.03	0.03	SILVER SPRING
42	LEEWARD PL	MACARTHUR BLVD	0.05	0.05	BETHESDA
43	LONG BRANCH PKWY	DEARBORN AVE	0.06	0.06	SILVER SPRING
44	MAPLE RIDGE CT	HOLLY RIDGE ROAD	0.15	0.15	ROCKVILLE
45	MARTIN AVE	ARCOLA AVE	0.08	0.08	WHEATON
46	MERRICK RD	WILSON LA	0.13	0.13	BETHESDA
47	MOULTRIE PKWY	LOGAN DR	0.06	0.06	POTOMAC
48	MT EVEREST LA	NORBECK ROAD	0.42	0.42	SILVER SPRING
49	Oaklawn Drive	AVENELL RD	0.15	0.15	SILVER SPRING
50	OLD ORCHARD RD	0.38 (South of Ednor Road)	0.52	0.14	SILVER SPRING
51	OLNEY LA	BREADY RD	0.26	0.26	OLNEY
52	ORANGE DRIVE	INIVERSITY BLVD	0.04	0.04	SILVER SPRING
53	OVERHILL RD	GARRETT RD	0.21	0.21	DERWOOD
54	PEMBROKE RD	BRADLEY RD	0.14	0.14	BETHESDA
55	POE RD	0.12 (South of Bradley Blvd)	0.16	0.04	BETHESDA
56	RADNOR RD	SPUR TO DURBIN RD	0.02	0.02	BETHESDA
57	SILVERWOOD LA	MARYLAND AVE	0.21	0.21	BETHESDA
58	STONE RD	KIRK LA	0.09	0.09	OLNEY
59	SUNCREST AVE	FREDERICK RD	0.18	0.18	CLARKSBURG
60	UNITY LA	GLEN MILL RD	0.31	0.31	POTOMAC
61	UNNAMED RD	BRYANTS NURSERY RD	NORBECK RD	0.30	SILVER SPRING
62	UPLAND DR	GOOD HOPE RD	0.17	0.17	SILVER SPRING
63	WAYCROFT WAY	GOLF LA	0.27	0.27	ROCKVILLE
64	WILLOW LA	PINETREE ROAD	0.25	0.25	ROCKVILLE
65	WINDSWEPT LA	NEW HAMPSHIRE AVE	0.67	0.67	BRINKLOW
66	WINDWARD PLACE	MACARTHUR BLVD	0.07	0.07	BETHESDA
67	WINNPENNY LA	CAPE MAY RD	0.07	0.07	SILVER SPRING
68	WINTHROP DR	PIPING ROCK DR	BISHOP RD	0.06	SILVER SPRING
69	WISCASSET RD	MOHICAN RD	0.07	0.07	BETHESDA
70	ALLEY	BALTIMORE AVE	NEWPORT AVE	0.10	BETHESDA
71	ALLEY	PIERCE DR	EASTMOOR DR	0.12	SILVER SPRING
72	ALLEY	RIDGEMOOR DR	RIDGEMOOR DR	0.09	SILVER SPRING
73	ALLEY	NEWBURN DR	NEWBURN DR	0.11	BETHESDA
74	ALLEY	BAYARD BLVD	ALLAN RD	0.04	BETHESDA
75	ALLEY	EARLSTON DR	WESTWAY DR	0.09	BETHESDA
76	ALLEY	ALLEY	CHELTENHAM DR	0.08	BETHESDA
77	ALLEY	RIVER RD	MERIVALE RD	0.10	BETHESDA
78	ALLEY	BERKLEY ST	LEROY PL	0.16	BETHESDA
79	ALLEY	WESTWAY DR	EARLSTON DR	0.19	BETHESDA

APPENDIX B

Petition Submitted by the Suncrest Avenue Community

Petition for DBU road improvement for SUNCREST AVE (Clarksburg, MD)

Petition summary and background	Application for DBU road improvements for **SUNCREST AVE (Clarksburg, MD)** through Montgomery County DBU road improvement program. Make SUNCREST AVE code compliant.
Action petitioned for	We, the undersigned, are applying for possible DBU road improvements for **SUNCREST AVE (Clarksburg, MD)** through the county. If approved, we understand that the county will cover for no more than 10% of the total project cost. The remaining 90% of project costs shall be reimbursed to the county via Tax assessment (or lump sum if option is available)

Printed Name	Signature	Address	Comment	Date
Hung Huynh	Hung Huynh	13123 Suncrest		10/27/23
NGAN PHUONG		13119 Suncrest Ave		10/27/23
Carlos De Leon		13105 Suncrest.		10/27/23
Mac Bahk		13104 Suncrest Ave.		10/27/23
Warren Anderson	Warren Anderson	13116 Suncrest Ave		10/26/23
CENGIZ HALICI		13125 Suncrest Ave		10/28/23
Hong-Chan Wei		13121 Suncrest Ave		10/28/23
DON BAHK		13112 SUNCREST AVE		10/28/23

APPENDIX C

List of Affected Property Owners

#	House Number	Owner Last Name (As of 08/27/2024)
1	**23101 Frederick Rd**	**Fleming**
2	**23031 Frederick Rd**	**Olsen**
3	**13120 Suncrest Ave**	**Encarnacao**
4	**13125 Suncrest Ave**	**Halici**
5	**13116 Suncrest Ave**	**Anderson**
6	**13123 Suncrest Ave**	**Huynh**
7	**13112 Suncrest Ave**	**Bahk**
8	**13121 Suncrest Ave**	**Wei**
9	**13108 Suncrest Ave**	**Wang**
10	**13119 Suncrest Ave**	**Tu**
11	**13104 Suncrest Ave**	**McField**
12	**13117 Suncrest Ave**	**Ferry**
13	**13100 Suncrest Ave**	**Gordon**
14	**13105 Suncrest Ave**	**De La Torre**
15	**13101 Suncrest Ave**	**De La Torre**

Total Number of Affected Properties: 15

APPENDIX D

Design, Project Management, Construction Management, and Property Acquisition Costs

Project: Suncrest Avenue Improvement | ***Manhour Cost Estimate*** | Date: 01/13/2026

Design Duration: 18 months										
	FY28				FY30				Total	Rounded
	Hourly Rate	Hours Per Month	Months	Cost	Hourly Rate	Hours Per Month	Months	Cost		
Design PM	100	60	12	72,000	100	60	6	36000		
Soil Boring (4)				8,000						
Permit SWM				2,990						
Permit ESC				10,180						
Permit Forest Conservation				6,000						
Subtotal				$ 99,170				$ 36,000	$ 135,170	$ 136,000

Property Acquisition Duration: 9 months												
	FY30				FY31				Easement	Appraisal	Total	Rounded
	Hourly Rate	Hours Per Month	Months	Cost	Hourly Rate	Hours Per Month	Months	Cost				
Property Acq	100	20	6	12000	100	20	3	6000				
Subtotal				$ 12,000				$ 6,000	45477	7000	$ 70,477	$ 71,000

Construction Management Duration: 12 months										
	FY31				FY32				Total	Rounded
	Hourly Rate	Hours Per Month	Months	Cost	Hourly Rate	Hours Per Month	Months	Cost		
Design PM	100	16	8	12800	100	12	4	4800		
Construction PM	120	90	8	86400	120	83	4	39840		
Area Engineer	120	90	8	86400	120	83	4	39840		
Subtotal				$ 185,600				$ 84,480	$ 270,080	$ 271,000

Easement Cost Estimate - Open Section

Date: 01/13/2026

No.	House No.	Frontage Length (Ft)	Land (SF)	Land Value as of 2022	Appreciation 2030 F=P(1+r)^n	Value/SF	Perpetual Easement/SF	Need Width (LF)	Perpetual Cost	Temp Construction Easement/SF	Need for Cons	Temp Cons Cost	
1	**23101 Frederick Rd**	214.94	23086.00	146200.00	233020.59	$ 10	$ 8.07	5.00	8,678.06	$ 1.01	10.5	$ 2,277.99	
2	**13120 Suncrest Ave**	118.20	12632.00	145800.00	232383.05	$ 18	$ 14.72	5.00	8,697.81	$ 1.84	10.5	$ 2,283.17	
3	**13116 Suncrest Ave**	114.65	12196.00	145200.00	231426.74	$ 19	$ 15.18	5.00	8,702.22	$ 1.90	10.5	$ 2,284.33	
4	**13112 Suncrest Ave**	113.82	12196.00	145200.00	231426.74	$ 19	$ 15.18	5.00	8,639.22	$ 1.90	10.5	$ 2,267.80	
5	**13108 Suncrest Ave**	115.48	12196.00	145200.00	231426.74	$ 19	$ 15.18	5.00	8,765.22	$ 1.90	10.5	$ 2,300.87	
6	**13104 Suncrest Ave**	113.82	12196.00	145200.00	231426.74	$ 19	$ 15.18	5.00	8,639.22	$ 1.90	10.5	$ 2,267.80	
7	**13100 Suncrest Ave**	115.48	10890.00	143500.00	228717.20	$ 21	$ 16.80	5.00	9,701.47	$ 2.10	10.5	$ 2,546.64	
		906.39							$ 61,823.24			$ 16,228.60	$ 78,051.83

No.	House No.	Frontage Length (Ft)	Land (SF)	Land Value as of 2022	Appreciation 2030 F=P(1+r)^n	Value/SF	Perpetual Easement/SF	Need Width (LF)	Perpetual Cost	Temp Construction Easement/SF	Need for Cons	Temp Cons Cost	
8	**23031 Frederick Rd**	214.31	22215.00	145600.00	232064.28	$ 10	$ 8.36		-	$ 1.04	10.5	$ 2,350.68	
9	**13125 Suncrest Ave**	119.40	12632.00	145800.00	232383.05	$ 18	$ 14.72	5.00	8,786.11	$ 1.84	10.5	$ 2,306.35	
10	**13123 Suncrest Ave**	114.10	12196.00	145200.00	231426.74	$ 19	$ 15.18	5.00	8,660.48	$ 1.90	10.5	$ 2,273.37	
11	**13121 Suncrest Ave**	94.12	9801.00	141800.00	226007.66	$ 23	$ 18.45	5.00	8,681.50	$ 2.31	10.5	$ 2,278.89	
12	**13119 Suncrest Ave**	93.46	9801.00	141800.00	226007.66	$ 23	$ 18.45	5.00	8,620.62	$ 2.31	10.5	$ 2,262.91	
13	**13117 Suncrest Ave**	92.84	9801.00	141800.00	226007.66	$ 23	$ 18.45	5.00	8,563.43	$ 2.31	10.5	$ 2,247.90	
14	**13105 Suncrest Ave**	92.84	9583.00	141200.00	225051.35	$ 23	$ 18.79		-	$ 2.35	10.5	$ 2,289.31	
15	**13101 Suncrest Ave**	90.22	10454.00	142900.00	227760.89	$ 22	$ 17.43	5.00	7,862.48	$ 2.18	10.5	$ 2,063.90	
		911.29							$ 51,174.62			$ 15,722.65	$ 66,897.26
													$ 144,949.10

Easement Cost Estimate - Closed Section

Date: 01/13/2026

No.	House No.	Frontage Length (Ft)	Land (SF)	Land Value as of 2022	Appreciation 2030 F=P(1+r)^n	Value/SF	Perpetual Easement/SF	Need Width (LF)	Perpetual Cost	Temp Construction Easement/SF	Need for Cons	Temp Cons Cost	
1	**23101 Frederick Rd**	214.94	23086.00	146200.00	233020.59	$ 10	$ 8.07		-	$ 1.01	10.5	$ 2,277.99	
2	**13120 Suncrest Ave**	118.20	12632.00	145800.00	232383.05	$ 18	$ 14.72		-	$ 1.84	10.5	$ 2,283.17	
3	**13116 Suncrest Ave**	114.65	12196.00	145200.00	231426.74	$ 19	$ 15.18		-	$ 1.90	10.5	$ 2,284.33	
4	**13112 Suncrest Ave**	113.82	12196.00	145200.00	231426.74	$ 19	$ 15.18		-	$ 1.90	10.5	$ 2,267.80	
5	**13108 Suncrest Ave**	115.48	12196.00	145200.00	231426.74	$ 19	$ 15.18		-	$ 1.90	10.5	$ 2,300.87	
6	**13104 Suncrest Ave**	113.82	12196.00	145200.00	231426.74	$ 19	$ 15.18		-	$ 1.90	10.5	$ 2,267.80	
7	**13100 Suncrest Ave**	115.48	10890.00	143500.00	228717.20	$ 21	$ 16.80		-	$ 2.10	10.5	$ 2,546.64	
		906.39							$ -			$ 16,228.60	$ 16,228.60

No.	House No.	Frontage Length (Ft)	Land (SF)	Land Value as of 2022	Appreciation 2030 F=P(1+r)^n	Value/SF	Perpetual Easement/SF	Need Width (LF)	Perpetual Cost	Temp Construction Easement/SF	Need for Cons	Temp Cons Cost	
8	**23031 Frederick Rd**	214.31	22215.00	145600.00	232064.28	$ 10	$ 8.36		-	$ 1.04	10.5	$ 2,350.68	
9	**13125 Suncrest Ave**	119.40	12632.00	145800.00	232383.05	$ 18	$ 14.72		-	$ 1.84	10.5	$ 2,306.35	
10	**13123 Suncrest Ave**	114.10	12196.00	145200.00	231426.74	$ 19	$ 15.18	5.00	8,660.48	$ 1.90	10.5	$ 2,273.37	
11	**13121 Suncrest Ave**	94.12	9801.00	141800.00	226007.66	$ 23	$ 18.45	5.00	8,681.50	$ 2.31	10.5	$ 2,278.89	
12	**13119 Suncrest Ave**	93.46	9801.00	141800.00	226007.66	$ 23	$ 18.45	5.00	8,620.62	$ 2.31	10.5	$ 2,262.91	
13	**13117 Suncrest Ave**	92.84	9801.00	141800.00	226007.66	$ 23	$ 18.45	5.00	8,563.43	$ 2.31	10.5	$ 2,247.90	
14	**13105 Suncrest Ave**	92.84	9583.00	141200.00	225051.35	$ 23	$ 18.79	5.00	8,721.18	$ 2.35	10.5	$ 2,289.31	
15	**13101 Suncrest Ave**	90.22	10454.00	142900.00	227760.89	$ 22	$ 17.43	5.00	7,862.48	$ 2.18	10.5	$ 2,063.90	
		911.29							$ 51,109.69			$ 15,722.65	$ 66,832.33
													$ 83,060.93

APPENDIX E

Open Section Plans, Typical Section, and Cost Estimate

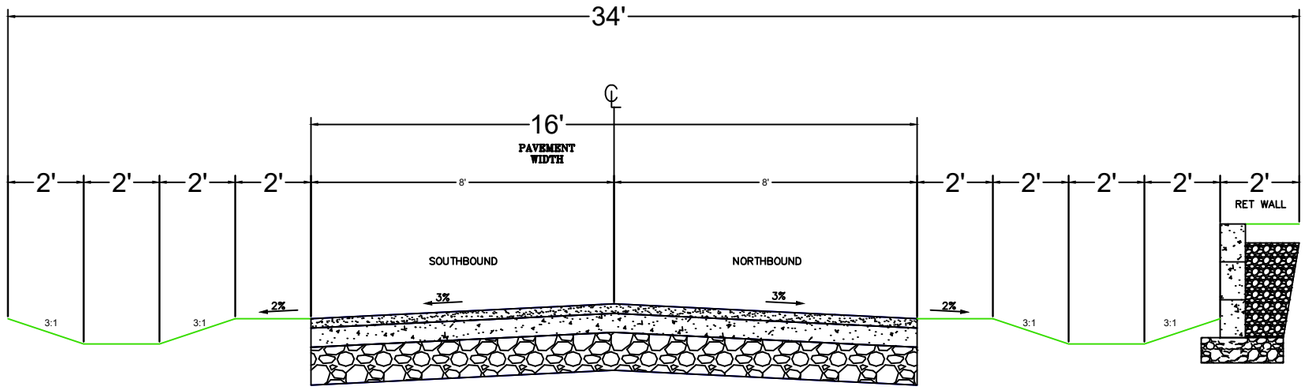
LEGEND

- EDGE OF PAVEMENT
- EXISTING ROADSIDE TREES
- EXISTING PEPCO POLE
- PROPOSED OPEN SWALE
- PROPOSED RETAINING WALL
- PROPOSED PIPE
- EXISTING PIPE
- EXISTING INLET
- PROPOSED RIPRAP
- PROPOSED MICRO BIORETENTION
- PROPOSED ASPHALT PAVEMENT

SWM CONCEPT OPEN SECTION

SUNCREST AVENUE IMPROVEMENT

Scale 1"=30'
Jan 2026



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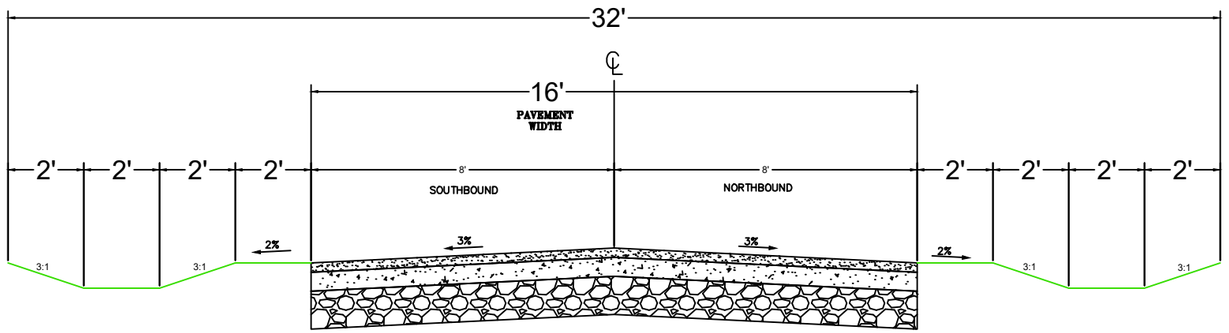

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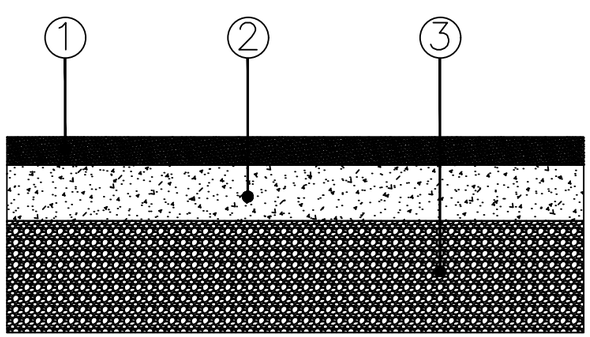


1. 2" HM SUPERPAVE, TYPE I 12.5mm, PG64-22, SURFACE, LEVEL 2
2. 4" HM SUPERPAVE, TYPE I 19mm, PG64-22, BASE, LEVEL 2
3. 8" GRADED AGGREGATE BASE, PLACED IN 2-4" LIFTS

TYPICAL SECTION OPEN

SUNCREST AVENUE IMPROVEMENT

Scale 1"=4'
Sept 2024

MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION
DIVISION OF TRANSPORTATION ENGINEERING
WORK ORDER PROPOSAL

OPEN SECTION

ITEM #	ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL COST
1001	CLEARING	6	CH	$50.00	$300.00
1002	UNCLASSIFIED GRUBBING EXCAVATION	1126	CY	$30.00	$33,780.00
1007	ARROW PANELS	160	UD	$0.01	$1.60
1008	TEMPORARY TRAFFIC SIGNS	96	SF	$15.00	$1,440.00
1021	TYPE III BARRICADES FOR MAINTENANCE OF TRAFFIC	2	EA	$0.01	$0.02
1022	CONES FOR MAINTENANCE OF TRAFFIC	20	EA	$25.00	$500.00
1023	FLAGGER	1280	HR	$52.00	$66,560.00
1032	CRUSHER RUN AGGREGATE CR-6 FOR MAINTENANCE OF TRAFFIC	200	TONS	$0.01	$2.00
1033	HOT MIX ASPHALT AND COLD MIX ASPHALT FOR MAINTENANCE OF TRAFFIC	200	TONS	$1.00	$200.00
1034	CONSTRUCTION STAKEOUT	16	CH	$150.00	$2,400.00
1036	STEEL PLATE, 8'X12' FOR MAINTENANCE OF TRAFFIC	14	EA	$1.00	$14.00
2001	UNCLASSIFIED ROADWAY EXCAVATION	1186	CY	$30.00	$35,580.00
2004	TEST PIT EXCAVATION	85	CY	$100.00	$8,500.00
2010	BIAXIAL GEOGRID	1778	SY	$2.00	$3,556.00
3001	CLASS 3 EXCAVTION FOR STORM DRAIN AND MISCELLANEOUS CONSTRUCTION: TOTAL DEPTH OF EXCAVATION LESS THAN OR EQUAL TO 4 VERTICAL FEET	1878	CY	$50.00	$93,900.00
3002	CLASS 3 EXCAVTION FOR STORM DRAIN AND MISCELLANEOUS CONSTRUCTION: TOTAL DEPTH OF EXCAVATION GREATER THAN 4 VERTICAL FEET AND LESS THAN OR EQUAL TO 8 VERTICAL FEET	15	CY	$60.00	$900.00
3004	SELECTED BACKFILL USING No. 57 AGGREGATE	107	TONS	$65.00	$6,955.00
3005*	SELECTED BACKFILL USING CRUSHER RUN AGGREGATE CR-6	60	TONS	$55.00	$3,300.00
3008	CLASS IV OR CLASS V 21 INCH REINFORCED CONCRETE PIPE	20	LF	$29.00	$580.00
3035	17 INCH X 13 INCH CORRUGTED METAL PIPE ARCH, 16 GAUGE	442	LF	$11.00	$4,862.00
3042	NEW PIPE CONNECTIONS TO EXISTING STORM DRAIN STRUCTURES (ANY SIZE, ANY TYPE)	2	EA	$1,500.00	$3,000.00
3060	M.S.H.A. STANDARD No. MD-368.01 END SECTION FOR 21 INCH REINFORCED CONCRETE PIPE	1	EA	$588.00	$588.00
3075	M.S.H.A. STANDARD No. MD-371.01 END SECTION FOR 17 INCH X 13 INCH CORRUGATED METAL PIPE ARCH	13	EA	$85.00	$1,105.00
3081	CLEAN EXISTING INLETS	2.18	CY	$1.00	$2.18
3084	6 INCH DIAMETER PERFORATED PIPE FOR UNDER DRAINS & SPRING CONTROL	382	LF	$20.00	$7,640.00
3085	EROSION AND SEDIMENT CONTROL ORIGINAL EXCAVATION	3064	CY	$0.01	$30.64
3097	INLET PROTECTION	15.33	LF	$50.00	$766.50
3098	STABILIZED CONSTRUCTION ENTRANCE	25	TONS	$20.00	$500.00
3100	MODIFIED SUPER SILT FENCE	1900	LF	$10.00	$19,000.00
3104	GEOTEXTILE FOR SEDIMENT CONTROL	110	SY	$1.00	$110.00
3105	RIP RAP FOR SEDIMENT CONTROL	25	TONS	$1.00	$25.00
3114	CLASS II RIP RAP FOR SLOPE AND CHANNEL PROTECTION	91	TONS	$85.00	$7,735.00
4009	REINFORCED CONCRETE RETAINING WALLS	34	CY	$50.00	$1,700.00
5001	GRADED AGGREGATE BASE COURSE FOR EACH 4 INCH LIFT	4806	SY	$14.00	$67,284.00
5002	CALCIUM CHLORIDE FOR DUST CONTROL	8108	SY	$0.01	$81.08
5004	HOT MIX ASPHALT SURFACE PAVEMENT FOR ROADWAYS: SUPERPAVE 12.5 MM, PG 64-22	200	TONS	$110.00	$22,000.00
5005	HOT MIX ASPHALT BASE PAVEMENT FOR DRIVEWAYS AND BIKE PATHS: SUPERPAVE 19.0 MM, PG 64-22	400	TONS	$110.00	$44,000.00
5012	MILLING HOT MIX ASPHALT PAVEMENT PER 1 INCH DEPTH: FOR TOTAL QUANTITIES GREATER THAN 500 SQUARE YARDS	3440	SY	$6.00	$20,640.00
6007	7 INCH DEPTH PLAIN CONCRETE FOR DRIVEWAYS AND DRIVEWAY APRONS, MSHA MIX NO. 3	2584	SF	$4.00	$10,336.00
6042	REMOVE & RESET/RELOCATE EXISTING MAIL BOX (ANY SIZE, ANY TYPE)	15	EA	$10.00	$150.00
7004	TEMPORARY WOOD CELLULOSE MULCHING	1689	SY	$0.10	$168.90
7006	PERMANENT SEEDING AREAS	1689	SY	$1.25	$2,111.25
7015	SOIL STABILIZATION MATTING: TYPE "A"	1689	SY	$7.00	$11,823.00
7018	SELECTIVE TREE FELLING AND REMOVAL: 6¼ INCHES IN CALIPER OR LARGER	16	CH	$550.00	$8,800.00
7020	TREE ROOT PRUNING	1900	LF	$1.00	$1,900.00
7023	BIORETENTION SOIL MEDIA MIX	750	CY	$70.00	$52,500.00
7024	TREE PROTECTION FENCE WITH WIRE MESH PER LATEST MNCPPC STANDARD	450	LF	$7.00	$3,150.00
8009	ADJUST EXISTING MANHOLES (ANY SIZE, ANY TYPE) TO FINISHED GRADE: DOWN 6 INCHES OR UP 12 INCHES	1	EA	$300.00	$300.00
Misc	STREAM RESTORATION	1	EA	$50,000.00	$50,000.00
				SUBTOTAL	$600,777.17
				40% CONTINGENCY	$240,310.87
				GRAND TOTAL	**$841,088.04**

APPENDIX F

Closed Section Plans, Typical Section, and Cost Estimate

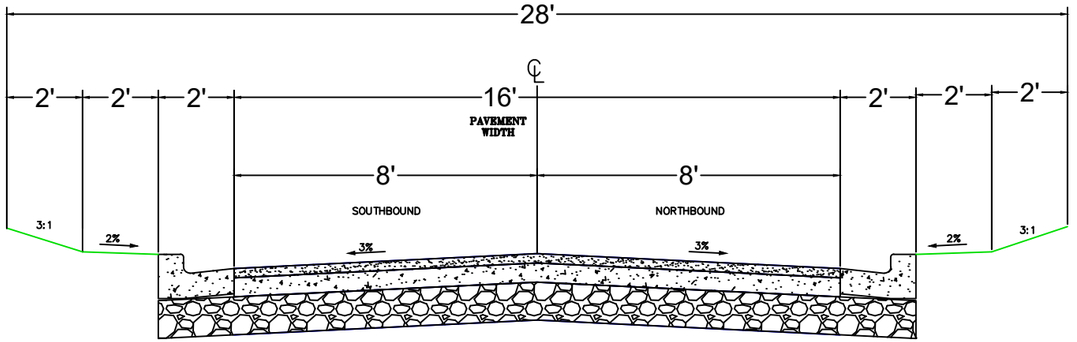
LEGEND

- EDGE OF PAVEMENT
- EXISTING ROADSIDE TREES
- EXISTING PEPCO POLE
- CONCRETE CURB/GUTTER
- PROPOSED PIPE
- PROPOSED INLET
- PROPOSED RIPRAP
- PROPOSED BIO RETENTION
- CURB OPENING
- PROPOSED ASPHALT PAVING

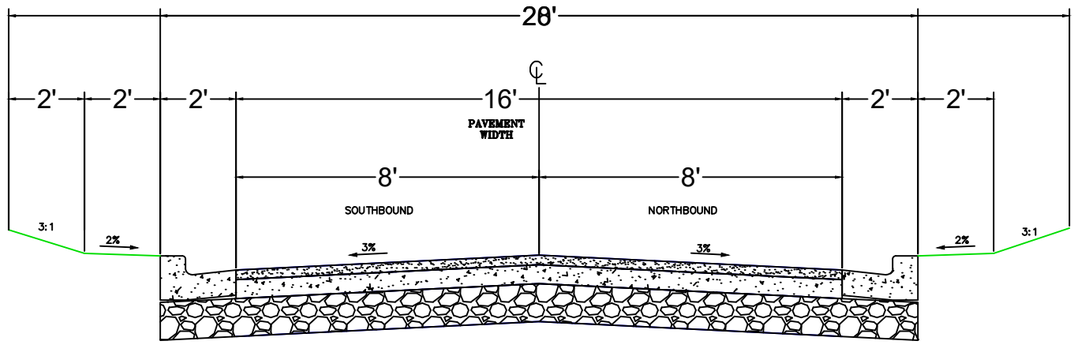
SWM CONCEPT CURB + GUTTER

SUNCREST AVENUE IMPROVEMENT

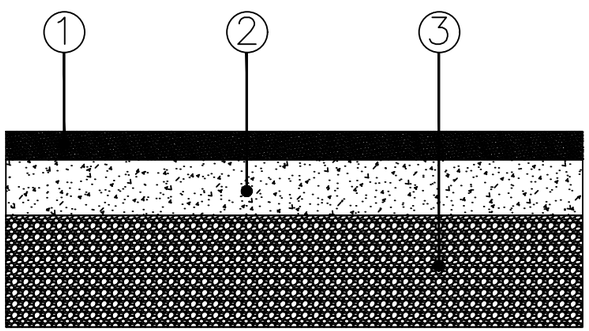
Scale 1"=30'
Jan 2026



STA 100+30 to STA 105+34



STA 105+34 to STA 109+44



1. 2" HM SUPERPAVE, TYPE I 12.5mm, PG64-22, SURFACE, LEVEL 2
2. 4" HM SUPERPAVE, TYPE I 19mm, PG64-22, BASE, LEVEL 2
3. 8" GRADED AGGREGATE BASE, PLACED IN 2-4" LIFTS

TYPICAL SECTION C&G

SUNCREST AVENUE IMPROVEMENT

Scale 1"=4'
Sept 2024

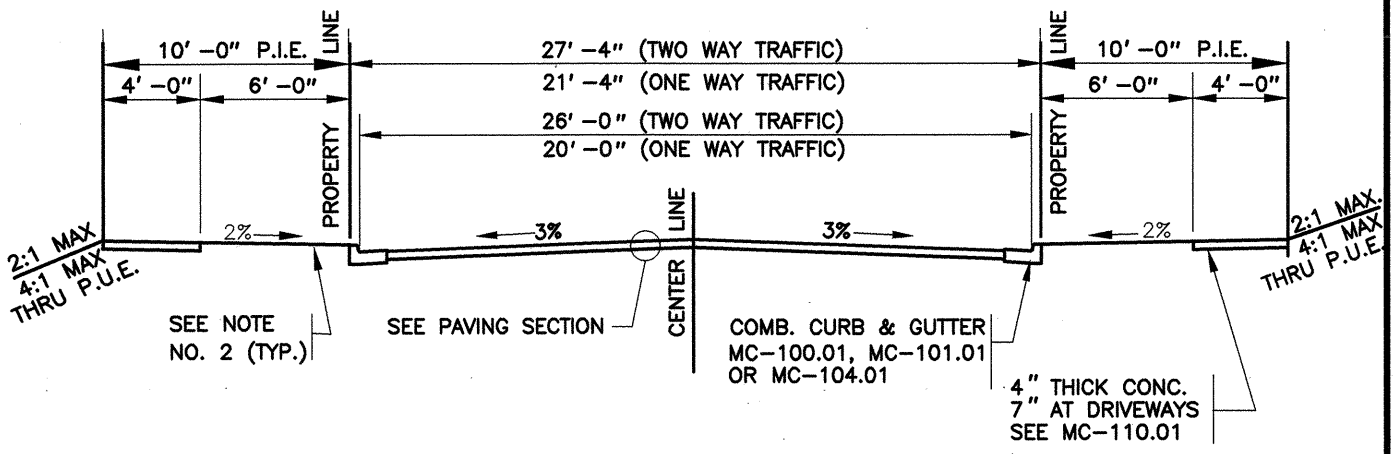
MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION
DIVISION OF TRANSPORTATION ENGINEERING
WORK ORDER PROPOSAL

CLOSED SECTION

ITEM #	ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL COST
1001	CLEARING	5	CH	$50.00	$250.00
1002	UNCLASSIFIED GRUBBING EXCAVATION	986	CY	$30.00	$29,580.00
1007	ARROW PANELS	160	UD	$0.01	$1.60
1008	TEMPORARY TRAFFIC SIGNS	96	SF	$15.00	$1,440.00
1021	TYPE III BARRICADES FOR MAINTENANCE OF TRAFFIC	2	EA	$0.01	$0.02
1022	CONES FOR MAINTENANCE OF TRAFFIC	20	EA	$25.00	$500.00
1023	FLAGGER	1280	HR	$52.00	$66,560.00
1032	CRUSHER RUN AGGREGATE CR-6 FOR MAINTENANCE OF TRAFFIC	198	TONS	$0.01	$1.98
1033	HOT MIX ASPHALT AND COLD MIX ASPHALT FOR MAINTENANCE OF TRAFFIC	198	TONS	$1.00	$198.00
1034	CONSTRUCTION STAKEOUT	16	CH	$150.00	$2,400.00
1036	STEEL PLATE, 8'X12' FOR MAINTENANCE OF TRAFFIC	14	EA	$1.00	$14.00
2001	UNCLASSIFIED ROADWAY EXCAVATION	1174	CY	$30.00	$35,220.00
2004	TEST PIT EXCAVATION	85	CY	$100.00	$8,500.00
2008	REMOVAL OF EXISTING MASONRY INCLUDING PRECAST STRUCTURES AND ANY SIZE AND ANY TYPE OF PIPE	3	CY	$1.00	$3.00
2010	BIAXIAL GEOGRID	1760	SY	$2.00	$3,520.00
3001	CLASS 3 EXCAVTION FOR STORM DRAIN AND MISCELLANEOUS CONSTRUCTION: TOTAL DEPTH OF EXCAVATION LESS THAN OR EQUAL TO 4 VERTICAL FEET	443	CY	$50.00	$22,150.00
3002	CLASS 3 EXCAVTION FOR STORM DRAIN AND MISCELLANEOUS CONSTRUCTION: TOTAL DEPTH OF EXCAVATION GREATER THAN 4 VERTICAL FEET AND LESS THAN OR EQUAL TO 8 VERTICAL FEET	326	CY	$60.00	$19,560.00
3004	SELECTED BACKFILL USING No. 57 AGGREGATE	95	TONS	$65.00	$6,175.00
3005*	SELECTED BACKFILL USING CRUSHER RUN AGGREGATE CR-6	95	TONS	$55.00	$5,225.00
3007	CLASS IV OR CLASS V 18 INCH REINFORCED CONCRETE PIPE	451	LF	$23.00	$10,373.00
3008	CLASS IV OR CLASS V 21 INCH REINFORCED CONCRETE PIPE	20	LF	$29.00	$580.00
3042	NEW PIPE CONNECTIONS TO EXISTING STORM DRAIN STRUCTURES (ANY SIZE, ANY TYPE)	4	EA	$1,500.00	$6,000.00
3048	TYPE "A" MANHOLE MCDOT STANDARD No. MC-510.01: FOR THE PORTION OF VERTICAL DEPTH UP TO AND INCLUDING 6 FEET	18	VF	$150.00	$2,700.00
3049	TYPE "A" MANHOLE MCDOT STANDARD No. MC-510.01: FOR THE PORTION OF VERTICAL DEPTH GREATER THAN 6 FEET AND LESS THAN OR EQUAL TO 8 FEET	6	VF	$120.00	$720.00
3054	STORM DRAIN INLETS THROATS (ANY SIZE, ANY TYPE)	45	LF	$20.00	$900.00
3055	TOP SLABS, INCLUDING MANHOLE FRAME AND COVER, FOR STORM DRAIN INLETS (ANY SIZE, ANY TYPE)	3	CY	$400.00	$1,200.00
3059	M.S.H.A. STANDARD No. MD-368.01 END SECTION FOR 18 INCH REINFORCED CONCRETE PIPE	1	EA	$551.00	$551.00
3060	M.S.H.A. STANDARD No. MD-368.01 END SECTION FOR 21 INCH REINFORCED CONCRETE PIPE	1	EA	$588.00	$588.00
3081	CLEAN EXISTING INLETS	2.18	CY	$1.00	$2.18
3084	6 INCH DIAMETER PERFORATED PIPE FOR UNDER DRAINS & SPRING CONTROL	140	LF	$20.00	$2,800.00
3085	EROSION AND SEDIMENT CONTROL ORIGINAL EXCAVATION	1943	CY	$0.01	$19.43
3097	INLET PROTECTION	15.33	LF	$50.00	$766.50
3098	STABILIZED CONSTRUCTION ENTRANCE	25	TONS	$20.00	$500.00
3100	MODIFIED SUPER SILT FENCE	1900	LF	$10.00	$19,000.00
3104	GEOTEXTILE FOR SEDIMENT CONTROL	25	SY	$1.00	$25.00
3105	RIP RAP FOR SEDIMENT CONTROL	25	TONS	$1.00	$25.00
3113	CLASS I RIP RAP FOR SLOPE AND CHANNEL PROTECTION	17.5	TONS	$60.00	$1,050.00
3114	CLASS II RIP RAP FOR SLOPE AND CHANNEL PROTECTION	91	TONS	$85.00	$7,735.00
5001	GRADED AGGREGATE BASE COURSE FOR EACH 4 INCH LIFT	3520	SY	$14.00	$49,280.00
5002	CALCIUM CHLORIDE FOR DUST CONTROL	8108	SY	$0.01	$81.08
5004	HOT MIX ASPHALT SURFACE PAVEMENT FOR ROADWAYS: SUPERPAVE 12.5 MM, PG 64-22	198	TONS	$110.00	$21,780.00
5005	HOT MIX ASPHALT BASE PAVEMENT FOR DRIVEWAYS AND BIKE PATHS: SUPERPAVE 19.0 MM, PG 64-22	396	TONS	$110.00	$43,560.00
5012	MILLING HOT MIX ASPHALT PAVEMENT PER 1 INCH DEPTH: FOR TOTAL QUANTITIES GREATER THAN 500 SQUARE YARDS	3440	SY	$6.00	$20,640.00
6002	COMBINATION CONCRETE CURB & GUTTER (ANY TYPE)	1900	LF	$26.00	$49,400.00
6007	7 INCH DEPTH PLAIN CONCRETE FOR DRIVEWAYS AND DRIVEWAY APRONS, MSHA MIX NO. 3	2584	SF	$4.00	$10,336.00
6042	REMOVE & RESET/RELOCATE EXISTING MAIL BOX (ANY SIZE, ANY TYPE)	15	EA	$10.00	$150.00
7004	TEMPORARY WOOD CELLULOSE MULCHING	1689	SY	$0.10	$168.90
7006	PERMANENT SEEDING AREAS	1689	SY	$1.25	$2,111.25
7015	SOIL STABILIZATION MATTING: TYPE "A"	1689	SY	$7.00	$11,823.00
7018	SELECTIVE TREE FELLING AND REMOVAL: 6¼ INCHES IN CALIPER OR LARGER	8	CH	$550.00	$4,400.00

7020	TREE ROOT PRUNING	1900	LF	$1.00	$1,900.00
7023	BIORETENTION SOIL MEDIA MIX	750	CY	$70.00	$52,500.00
7024	TREE PROTECTION FENCE WITH WIRE MESH PER LATEST MNCPPC STANDARD	450	LF	$7.00	$3,150.00
Misc	STREAM RESTORATION	1	EA	$50,000.00	$50,000.00
				SUBTOTAL	$578,113.94
				40% CONTINGENCY	$231,245.58
				GRAND TOTAL	**$809,359.52**

APPENDIX G
Standard Drawings



TYPICAL ROAD SECTION

3" BITUMINOUS CONCRETE SURFACE COURSE IN 2-1 1/2" LAYERS
3" BITUMINOUS CONCRETE BASE COURSE
APPROVED SUBGRADE

PAVING SECTION

GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. THE SLOPE BEHIND THE CURB TOWARD THE ROAD SHALL BE 2% FOR A DISTANCE OF 3' – 0" FROM THE FACE OF CURB.
3. SURFACE AREA OF INLET SLABS SHALL REMAIN ENTIRELY EXPOSED.
4. TOP OF CURB ELEVATION (20' PAVEMENT) = CENTERLINE ELEVATION + 0.11' (FOR 6" CURB HEIGHT)
5. TOP OF CURB ELEVATION (26' PAVEMENT) = CENTERLINE ELEVATION + 0.02' (FOR 6" CURB HEIGHT)

APPROVED JAN 5/96
DATE

DIRECTOR, DEPT. OF TRANS.

CHIEF, DIV. OF ENG. SERVICES

REVISED

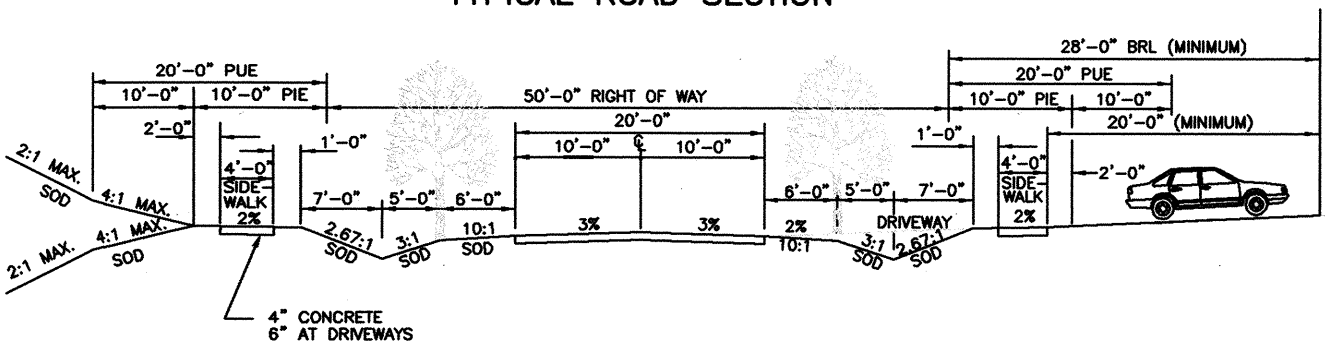
MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

MODIFIED TERTIARY RESIDENTIAL STREET

STANDARD NO. MC-210.03

P:\DOTSTD\MC21003 7-1-94 11:08:00 am EST

TYPICAL ROAD SECTION



PAVING SECTION

3" BITUMINOUS CONCRETE SURFACE COURSE IN 2 – 1 1/2" LAYERS
3" BITUMINOUS CONCRETE BASE COURSE
APPROVED SUBGRADE

GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. SEE STANDARD NO. MC–811.01 – METHODS OF GRADING SIDE SLOPES.
3. PUBLIC UTILITY EASEMENTS (PUEs) ARE SUBJECT TO THE TERMS AND CONDITIONS OF A DOCUMENT ENTITLED "DECLARATIONS OF TERMS AND PROVISIONS OF PUBLIC UTILITY EASEMENTS" THAT IS RECORDED IN THE LAND RECORDS OF MONTGOMERY COUNTY IN LIBER 3834 AT FOLIO 457.
4. THE SIDE DITCH IN FILL SLOPES MAY BE ELIMINATED IN AREAS NOT MASTER PLANNED FOR DEVELOPMENT ONLY AFTER OVERLAND FLOW PATH AND EROSION POTENTIAL ARE CONSIDERED.
5. SEE STANDARDS NO. MC–701.01 AND MC–703.02 FOR SPECIES, SIZE AND SPACING OF STREET TREES.
6. WHEN USING THIS STANDARD, THE GARAGE SHALL BE SET BACK A MINIMUM DISTANCE OF 20 FEET, MEASURED FROM THE BACK EDGE OF THE SIDEWALK. THE MINIMUM BUILDING RESTRICTION LINE SETBACK IS 28 FEET.
7. STREET LIGHTING POLES ARE TO BE LOCATED AS DIRECTED BY THE MONTGOMERY COUNTY DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION.
8. PUBLIC IMPROVEMENTS EASEMENTS (PIEs) ARE TO BE GRANTED BY A SITE SPECIFIC DECLARATION OF PUBLIC IMPROVEMENTS EASEMENT DOCUMENT. THAT DOCUMENT IS TO BE RECORDED IN THE LAND RECORDS OF MONTGOMERY COUNTY, MARYLAND AND REFERENCED ON THE RECORD PLAT.
9. THE 2–FOOT WIDE SECTION OF THE PIEs BEHIND THE SIDEWALKS IS TO ALLOW FOR THE TEMPORARY CONSTRUCTION, RECONSTRUCTION, AND MAINTENANCE OF THE SIDEWALKS.
10. SEVERAL OF THE DIMENSIONS SPECIFIED ON THIS STANDARD REFLECT MODIFICATIONS TO THE VALUES SHOWN ON STANDARD NO. MC–301.03 (RESIDENTIAL DRIVEWAY/OPEN SECTION ROAD).
11. ELEVATION AT THE FRONT EDGE OF SIDEWALK = EDGE OF PAVEMENT ELEVATION + 0.38'

APPROVED 1/30/07
DATE

DIRECTOR, DEPT. OF PUBLIC WORKS & TRANSPORTATION

CHIEF, DIV. OF CAP. DEV.

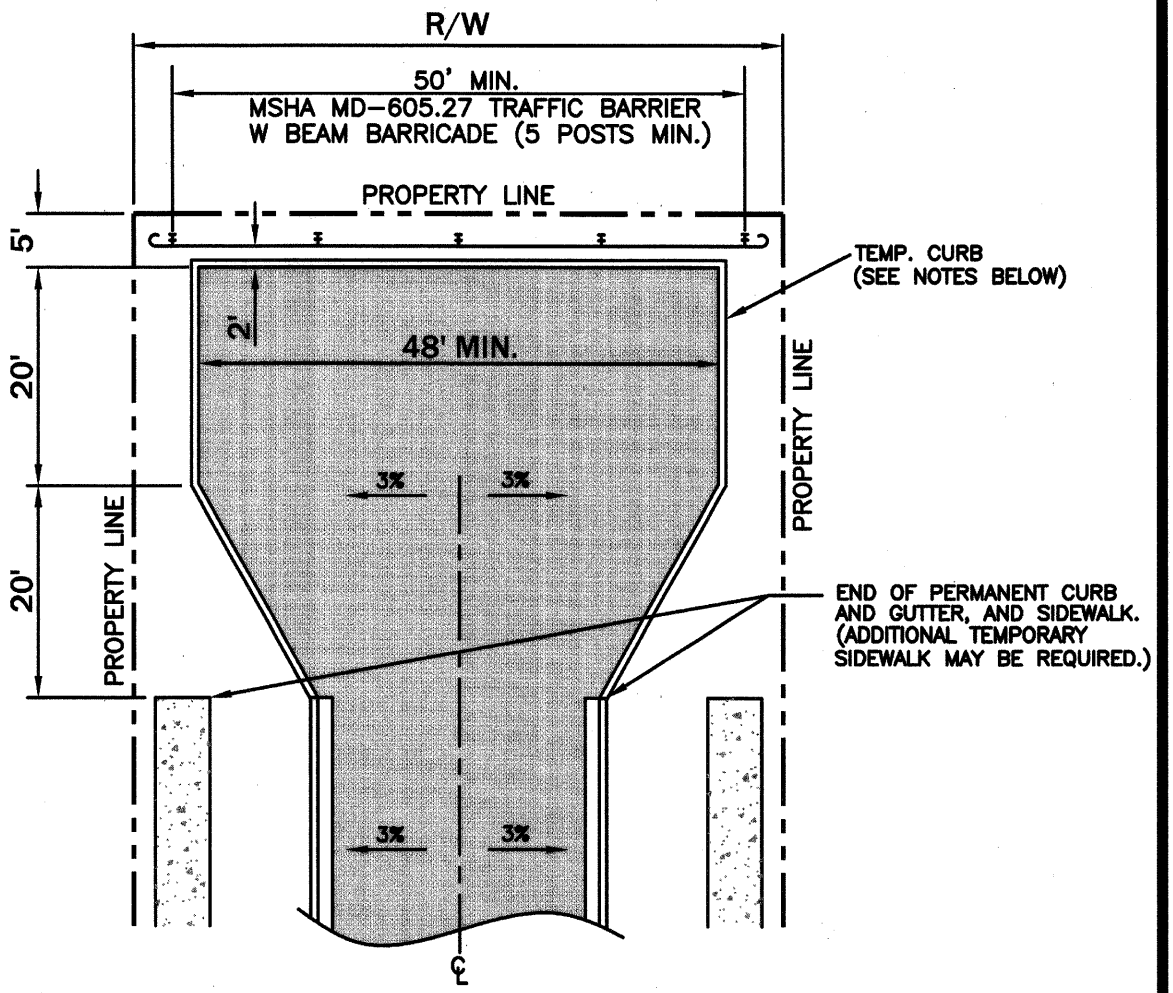
REVISED

Width of PUEs and Note #9 (1–07)

MONTGOMERY COUNTY
DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION

TERTIARY RESIDENTIAL STREET OPEN SECTION WITH SIDEWALKS AND STREET TREES

STANDARD NO. MC–210.05



GENERAL NOTES

1. RIGHT-OF-WAY WIDTH SHALL BE AS SPECIFIED ON THE APPROACH ROAD STANDARD.
2. FOR DEAD END ROADWAYS LONGER THAN 150', REFER TO CURRENT FIRE SAFETY CODE – APPARATUS ACCESS REGULATIONS FOR ADDITIONAL TURNAROUND REQUIREMENTS.
3. ADDITIONAL SLOPE, DRAINAGE, AND PUBLIC IMPROVEMENT EASEMENT MAY BE REQUIRED.
4. PAVING SECTION AND THICKNESS WITHIN TURNAROUND SHALL CONFORM TO THE SAME ROADWAY PAVING SECTION AS THE APPROACH ROAD.
5. STANDARD MD-800.01 BARRICADE POSTS (12 POSTS MIN.) MAY BE SUBSTITUTED FOR W BEAM BARRICADE SUBJECT TO PLAN APPROVAL.
6. THE INSTALLATION OF DRIVEWAY APRONS WITHIN THE LIMITS OF THE TURNAROUND SHALL BE SUBJECT TO PLAN APPROVAL.
7. TEMPORARY CURB PER MC-103.01 SHALL BE INSTALLED OR OMITTED AS REQUIRED TO PROVIDE POSITIVE DRAINAGE SUBJECT TO PLAN APPROVAL.
8. WHERE TEMPORARY CURB IS NOT USED, CURB AND GUTTER END TREATMENTS SHALL CONFORM TO MC-220.01.

APPROVED 23 AUGUST '12
DATE

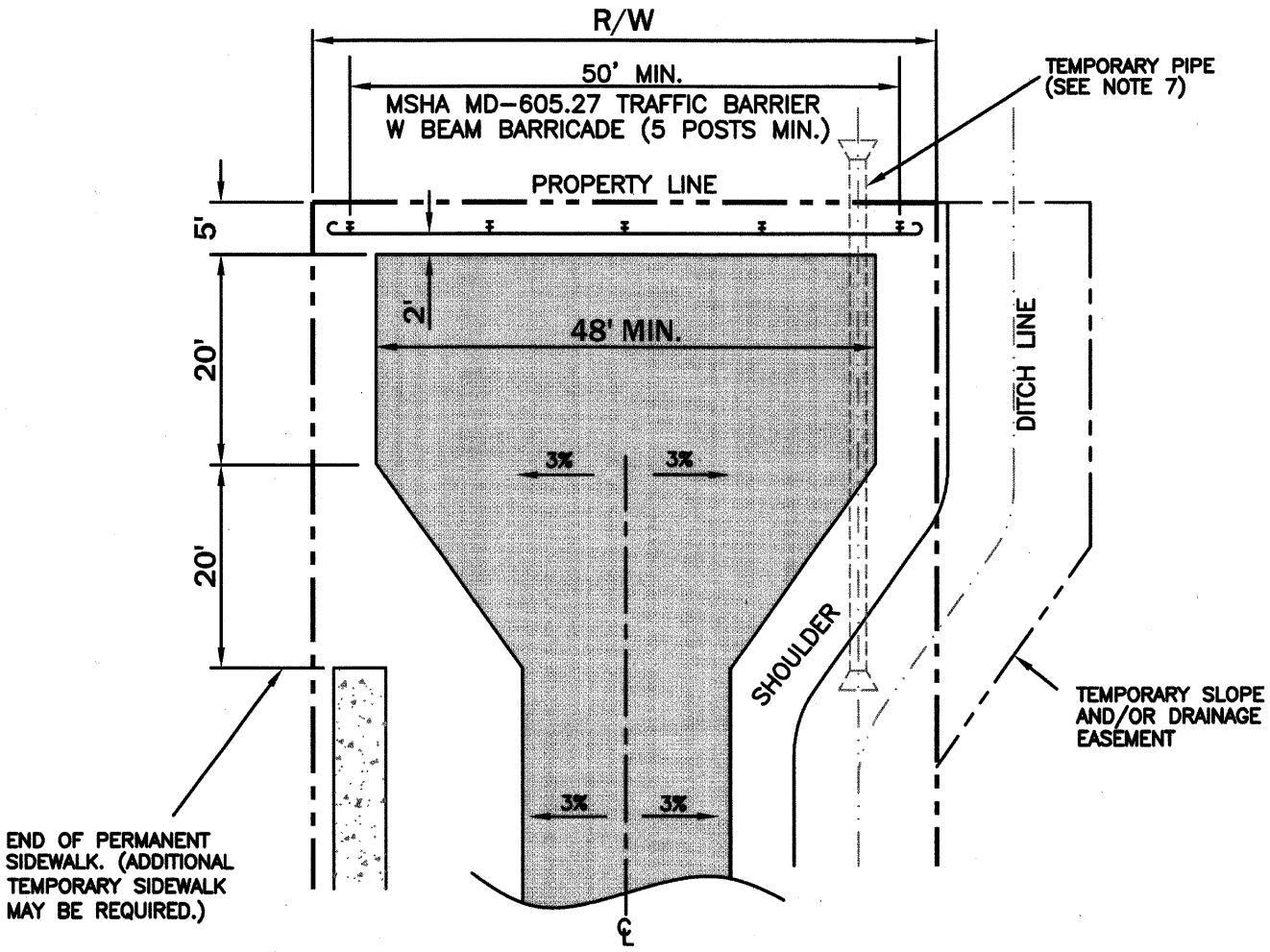
DIRECTOR, DEPARTMENT OF TRANSPORTATION

CHIEF, DIVISION OF TRANSPORTATION ENGINEERING

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

TEMPORARY TURNAROUND CURB AND GUTTER ROADS

STANDARD NO. MC-223.01



GENERAL NOTES

1. RIGHT-OF-WAY WIDTH IS AS SPECIFIED ON THE APPROACH ROAD STANDARD. THE WIDTH AND LOCATION FROM EDGE OF PAVEMENT TO CURBSIDE ELEMENTS SUCH AS SHOULDERS, DITCH LINES, AND PUBLIC IMPROVEMENT EASEMENTS SHALL BE AS SPECIFIED ON APPROACH ROAD STANDARD.
2. FOR DEAD END ROADWAYS LONGER THAN 150', REFER TO CURRENT FIRE SAFETY CODE – APPARATUS ACCESS REGULATIONS FOR ADDITIONAL TURNAROUND REQUIREMENTS.
3. ADDITIONAL SLOPE, DRAINAGE, AND PUBLIC IMPROVEMENT EASEMENT MAY BE REQUIRED.
4. PAVING SECTION AND THICKNESS WITHIN TURNAROUND SHALL CONFORM TO THE SAME PAVING SECTION AS THE APPROACH ROAD.
5. STANDARD MD-800.01 BARRICADE POSTS (12 POSTS MIN.) MAY BE SUBSTITUTED FOR W BEAM BARRICADE SUBJECT TO PLAN APPROVAL.
6. THE INSTALLATION OF DRIVEWAY APRONS WITHIN THE LIMITS OF THE TURNAROUND SHALL BE SUBJECT TO PLAN APPROVAL.
7. TEMPORARY PIPE SHALL BE USED WHERE DITCH CANNOT BE WARPED AROUND TURNAROUND DUE TO RIGHT-OF-WAY LIMITATIONS AND SHALL MEET THE REQUIREMENTS OF STANDARD MC-301.03

APPROVED 23 August '17
DATE

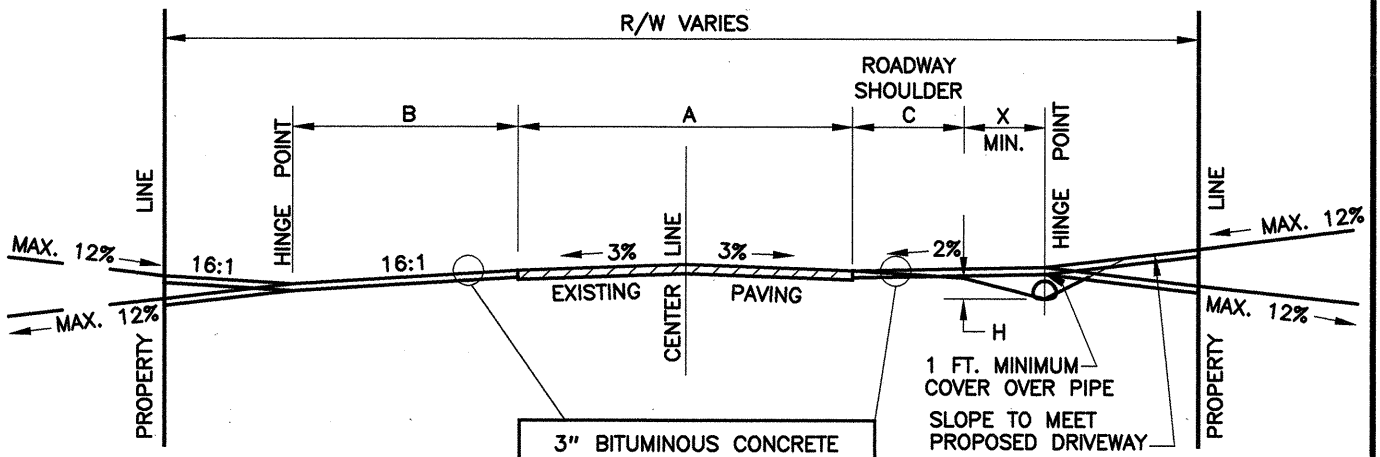
DIRECTOR, DEPARTMENT OF TRANSPORTATION

CHIEF, DIVISION OF TRANSPORTATION ENGINEERING

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

TEMPORARY TURNAROUND OPEN SECTION ROADS

STANDARD NO. MC-223.02

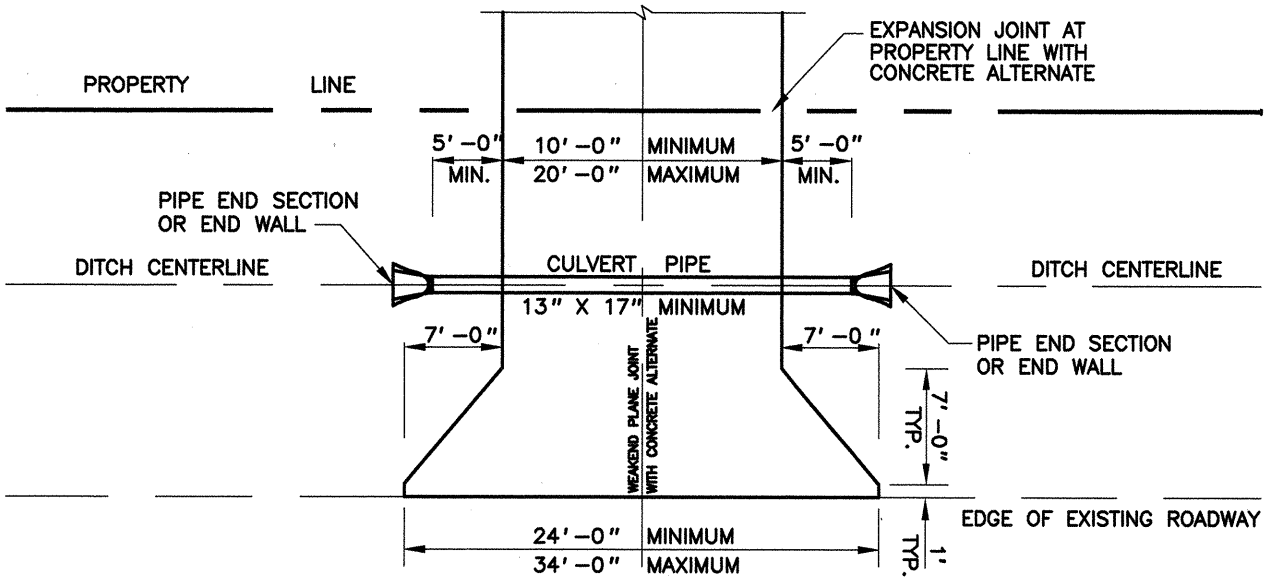


ROADWAY	A	B	C
SECONDARY	20' –0"	13' –0"	7' –0"
PRIMARY	24' –0"	14' –0"	8' –0"
ARTERIAL	24' –0"	16' –0"	10' –0"

3" BITUMINOUS CONCRETE SURFACE COURSE
3" BITUMINOUS CONCRETE BASE COURSE

PAVING SECTION

CULVERT SIZE	X	H MIN.	Q MAX.
13" X 17"	6'	1.50'	4.5 C.F.S.
15" X 21"	6'	1.50'	7.0 C.F.S.
18" X 24"	7'	1.75'	10.0 C.F.S.



GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. DRIVEWAY AND DRIVEWAY APRON TO BE MAINTAINED BY PROPERTY OWNER.
3. DITCH IS TO BE DESIGNED FOR A MAXIMUM Q. OF 12 C.F.S., A MAXIMUM V. OF 5 F.P.S. AND A DEPTH OF FLOW OF ONE FOOT. DEPTH OF FLOW MAY EXCEED ONE FOOT FOR CULVERT APPROACH HEAD REQUIREMENTS, WITH A MAXIMUM ALLOWABLE OF 6" ABOVE THE CROWN OF PIPE.
4. END SECTIONS ARE TO BE FASTENED TO THE FIRST CORRUGATION AND FITTED TO FORM A TIGHT CONNECTION. THE PIPE SHALL NOT PROJECT INTO THE END SECTION.
5. SPECIAL CARE MUST BE TAKEN TO PROVIDE PROPER COMPACTION OF BACKFILL AROUND THE CULVERT PIPE AND THE END SECTION.

APPROVED JAN 5/96
DATE

DIRECTOR, DEPT. OF TRANS.

CHIEF, DIV. OF ENG. SERVICES

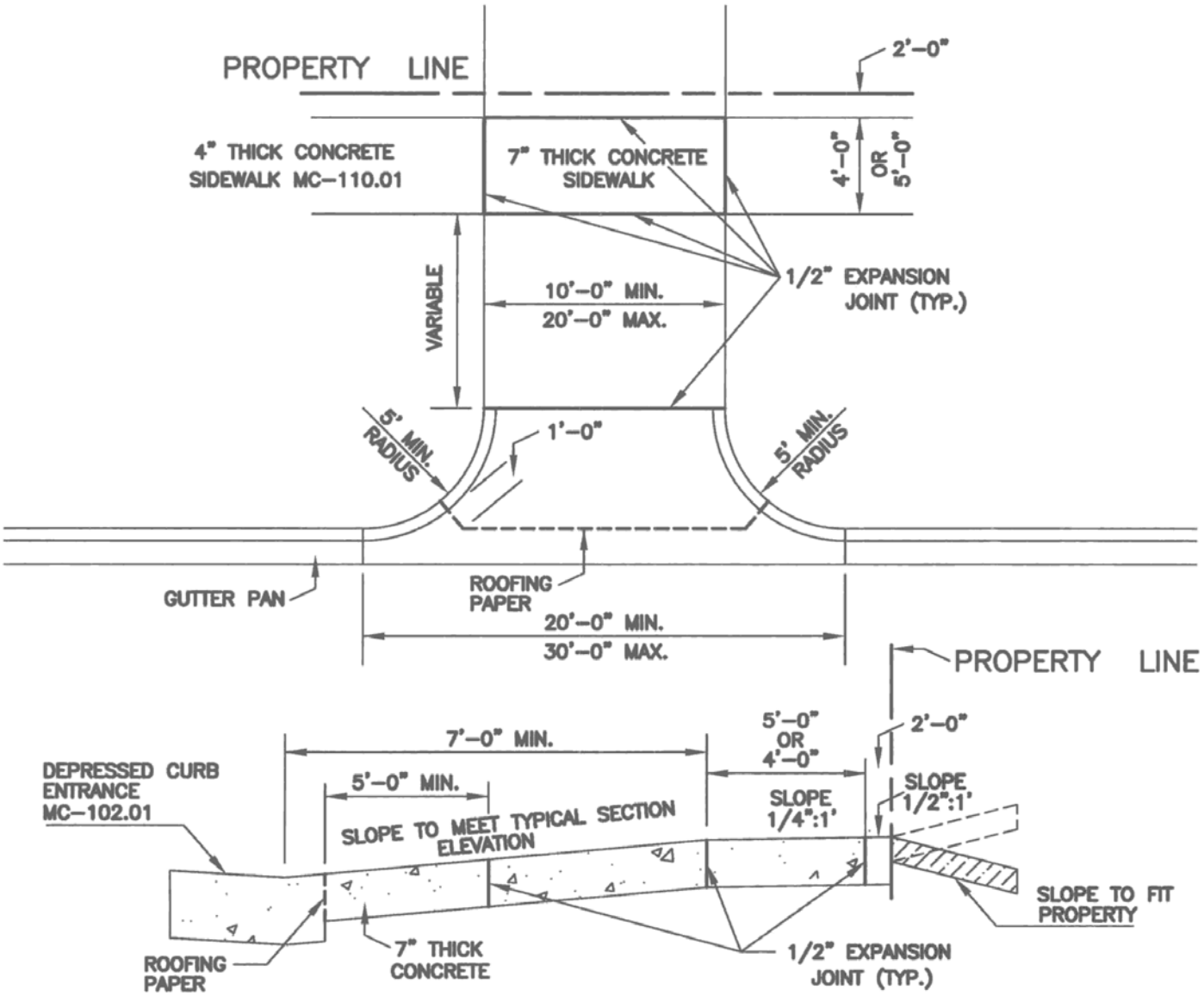
REVISED

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

RESIDENTIAL DRIVEWAY
OPEN SECTION ROAD

STANDARD NO. MC-301.03

P:\DOTSTD\MC30103 6-24-94 9:34:23 am EST



GENERAL NOTES

1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2. DRIVEWAY AND DRIVEWAY APRON TO BE MAINTAINED BY PROPERTY OWNER.
3. THE EXPANSION JOINTS SHALL BE PLACED AT LOCATIONS SHOWN.
4. EXPANSION JOINT MATERIAL SHALL BE 1/2 INCH PREFORMED CORK, TRIMMED AND SEALED WITH NON-STAINING TWO-COMPONENT POLYSULFIDE OR POLYURETHANE ELASTOMERIC TYPE SEALANT COMPLYING WITH ASTM-C920. △1

APPROVED 14 APR '06
DATE

DIRECTOR, DEPT. OF PUBLIC WORKS & TRANSPORTATION

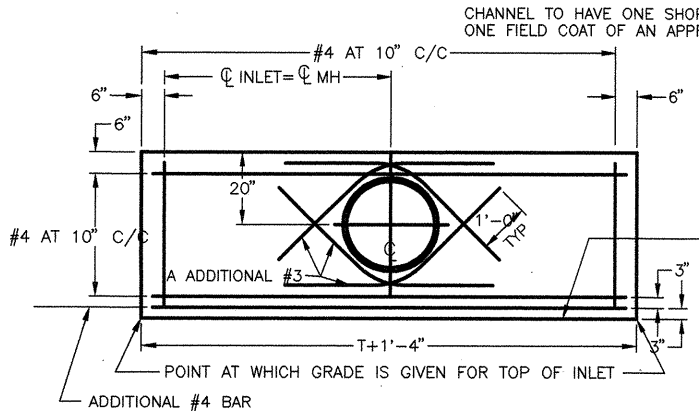
for CHIEF, DIV. OF CAP. DEV.

REVISED
RENAMED 04-27-2005
△1 ASTM-C920 4/2006

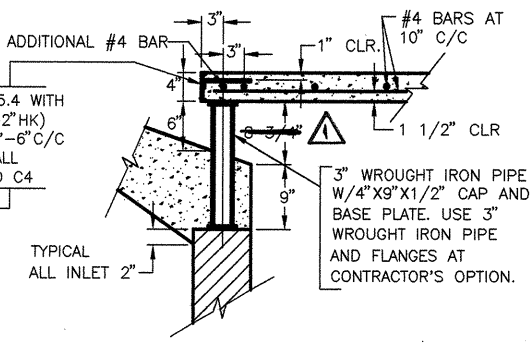
MONTGOMERY COUNTY
DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION

RESIDENTIAL DRIVEWAY WITH CURB RADIUS

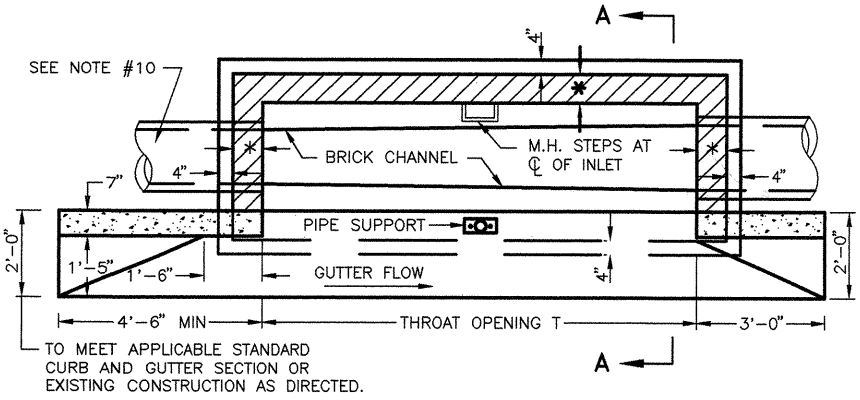
STANDARD NO. MC-301.05



PLAN TOP SLAB

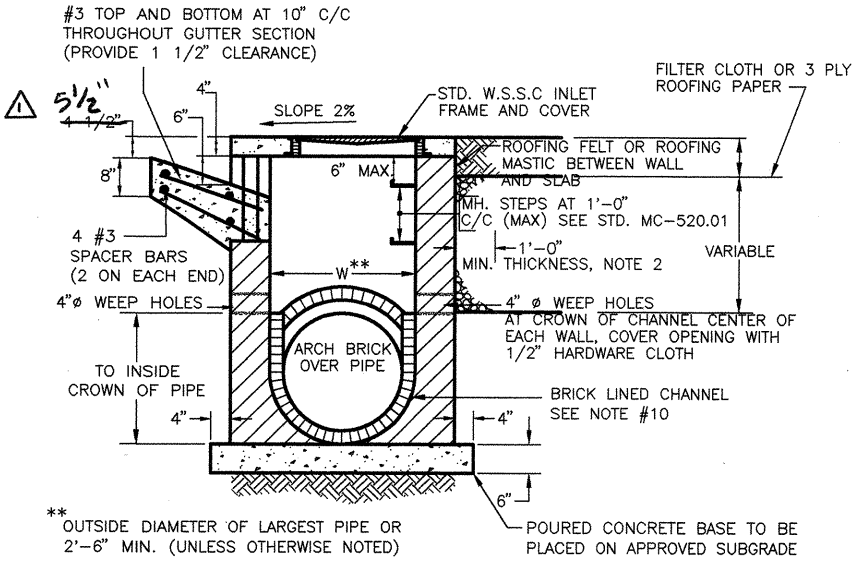


SECTION THROUGH PIPE SUPPORT



* SEE NOTE # 5.

PLAN BELOW SLAB



SECTION A-A

GENERAL NOTES

1. USE SOLID MASONRY (BRICK OR CONCRETE BLOCK) OR POURED CONCRETE FOR WALLS.
2. INSTALL FOUNDATION DRAINAGE MATERIAL AROUND STRUCTURE FROM BOTTOM OF WEEP HOLES TO WITHIN 8" OF SURFACE.
3. MORTAR SHALL CONFORM TO ASTM SPECIFICATION C 270 TYPE M.
4. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION FOR MATERIALS AND METHODS OF CONSTRUCTION.
5. WALL THICKNESS WILL BE THE FOLLOWING: 8" THICK WALLS FOR THE FIRST 8'-0" OF DEPTH, 12" THICK WALLS BETWEEN 8'-0" AND 12'-0" OF DEPTH, 16" THICK WALLS FOR DEPTH GREATER THAN 12'-0" DEPTH TO BE MEASURED FROM TOP OF CURB TO CROWN OF OUTGOING PIPE.
6. f'_c =3500 PSI AT 28 DAYS.
7. ALL REINFORCING STEEL TO BE ASTM A615, GR 60.
8. FOR PIPES 30" AND LARGER, PROVIDE STEPS IN CHANNELS OR STRUCTURES. SEE STANDARD MC-520.02
9. ON TERMINAL INLETS, THE INLET BOTTOM SHALL BE SLOPED TO OUTLET PIPE WITH SEWER BRICK OR CONCRETE, 9" MIN. FALL.
10. FOR ACTUAL PIPE LOCATIONS, REFER TO STORM DRAIN PLANS AND CONSTRUCT BRICK CHANNEL TO PIPE CONFIGURATIONS BRICK CHANNEL SHALL BE SEWER BRICK ON EDGE AND BUILT TO THE CROWN OF THE PIPE.

DESIGNATION	T THROAT OPENING	NUMBER OF PIPE SUPPORTS
A-5	5'-0"	0
A-10	10'-0"	1
A-15	15'-0"	2
A-20	20'-0"	3

PIPE SUPPORTS TO BE SPACED AT 5'-0" C/C

APPROVED JAN 5/96
DATE

DIRECTOR, DEPT. OF TRANS.

CHIEF, DIV. OF ENG. SERVICES

REVISED
1 RESTORED 1" DEPRESSION AT GUTTER EDGE 6/25/12

MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION

"A" INLET

STANDARD NO. MC-501.01

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