

MONTGOMERY COUNTY HISTORIC PRESERVATION COMMISSION
STAFF REPORT

Addresses: 16501 Norwood Road, Sandy Spring
16400 Layhill Road, Sandy Spring

Meeting Date: 3/20/2024

Resources: Master Plan Site #28/14
Woodlawn
Master Plan Site #23/119
Holland Store and House/Red Door Store

Report Date: 3/13/2024
3/15/2024

Applicant: Jose Thommana, MCDOT
(Agent Rebecca Park, MCDOT)

Public Notice: 3/6/2024

Reviews: HAWP

Tax Credit: n/a

Permit #: 1060757 and 1060792

Staff: Chris Berger

Proposal: Shared-use path, lighting, and fence installation and fence relocation and stormwater management facility construction.

STAFF RECOMMENDATION

Staff recommends that the Historic Preservation Commission (HPC) approve with two conditions the HAWP application with final approval of all details delegated to staff:

1. Applicant shall label the locations of the proposed lights on the plans.
2. Applicant shall provide a representative photo for all of the proposed stormwater management features and add their dimensions to the plans. Revised plans submitted 3/15/2024 met conditions.



Figure 1: The Holland Store and House/Red Door Store, shaded in red, is located to the west of Norwood Road,

and Woodlawn, also shaded in red, is to located to the east.

ARCHITECTURAL DESCRIPTION

SIGNIFICANCE: Individually Listed Master Plan Sites (Woodlawn, #28/14, and Holland Store and House/Red Door Store, #23/119)
STYLE: Federal (Woodlawn) and Vernacular (Holland Store and House/Red Door Store)
DATE: 1800 with later additions (Woodlawn) and circa 1860 with later additions (Holland Store and House/Red Door Store)

Woodlawn is described as follows in *Places from the Past*:

One of the finest estates in the county dating from the early 1800s, Woodlawn includes a handsome brick mansion and a superb collection of outbuildings in a beautifully landscaped setting. The house was probably built either by Richard Thomas or his grandson, Samuel Jr., recipient of the property upon Richard's death in 1806. According to tradition, Samuel and Anna Thomas operated a Quaker boarding school at Woodlawn before 1819. Dr. William Palmer purchased the estate in 1825, moving to Montgomery County from Pennsylvania. Palmer was a founder of the Montgomery Mutual Fire Insurance Company.

The symmetrical front façade of the fivebay Federal style house features Flemish bond brick and a fanlight transom over the central entrance. William Palmer expanded the house with a kitchen wing. In 1881, his son, Benjamin Palmer, added the northwest wing. In 1832, master stonemason Isaac Holland built an exceptional three-story stone bank barn with four large roundarched openings on the basement level. The property also includes a combination dairy and smokehouse of stone, a log house, and board and batten tenant house. Grounds include significant mature trees, including an Osage Orange with 11-foot trunk circumference, 100-foot high American Linden, and a 1999 County Champion Norway Spruce.

The Holland Store and House is described as follows in *Places From the Past*:

One of three general stores still in operation in the county, the Holland Store was built about 1860 when James Holland purchased land for the purpose. Located at the intersection of roads to Baltimore and Olney, the store was at the heart of a community that became known as Holland's Corner. In 1889, James Holland was selected postmaster when the crossroads was issued a post office and was renamed Norwood. The structure was expanded to accommodate both the store and living space for the storekeeper.

BACKGROUND

Montgomery County Department of Transportation (MCDOT) is constructing Phase 1 of the Heritage Triangle Trail along a 1,400 foot section of Doctor Bird Road starting at Olney-Sandy Spring Road (MD 108) heading to the south and a 1,700 foot-long section of Norwood Road starting at the intersection of Norwood Road with Layhill Road/Ednor Road and heading to the north. The mandatory referral documents state the following in regard to the cultural resources:

An archeological investigation was performed along the length of the project. Along the Norwood Road section, five shovel test pits identified a very low-density field scatter of seven artifacts, broadly dating from the late 18th to early 20th century. MHT determined that no additional Phase 2 archaeological investigations will be required and that the project will have no adverse effect on historic properties. MCDOT is continuing to coordinate with

MHT and the Montgomery Planning’s Historic Preservation (HP) staff and is pursuing Historic Area Work Permits for Woodlawn Manor and the Red Door Store. The MHT advised that “MCDOT should exercise caution during design and construction of the undertaking to ensure that project construction activities, equipment, and staging areas avoid any disturbance to the Woodlawn Manor property outside the Area of Potential Effects (APE).” Additionally, any archeological findings uncovered during construction shall be shared with Parks Cultural Resources Staff.

PROPOSAL

MCDOT seeks to install a 10-foot wide asphalt shared-use path measuring approximately 1,600 square feet long in State Highway Administration right of way the length of the Woodlawn Master Plan Historic Site on the east side of Norwood Road (HAWP No. 1060757). The path will include a total of 14 lights measuring 12 feet tall to be installed in the grass buffer between the path and Norwood Road. An existing 4-foot-tall wood rail fence segment will be relocated farther to the east onto the Woodlawn property and a second fence will be installed along the path to the east. The new fence will match the existing fence in design and height.

Storm water management facilities will be constructed on both sides of Norwood Road. Aboveground work will be limited to the installation of grates on the Woodlawn side of the road. Two stormdrains and a 3-foot wide bioswale will be installed in State Highway Administration right of way on the opposite side of Norwood Road on the Holland Store and House/Red Door Store Master Plan Historic Site (HAWP No. 1060792). The bioswale will measure approximately 1,000 feet long.

APPLICABLE GUIDELINES

Montgomery County Code Chapter 24A-8

- (b) The commission shall instruct the director to issue a permit, or issue a permit subject to such conditions as are found to be necessary to ensure conformity with the purposes and requirements of this chapter, if it finds that:
 - (1) The proposal will not substantially alter the exterior features of an historic site or historic resource within an historic district; or
 - (2) The proposal is compatible in character and nature with the historical, archeological, architectural or cultural features of the historic site or the historic district in which an historic resource is located and would not be detrimental thereto or to the achievement of the purposes of this chapter; or
 - (4) The proposal is necessary in order that unsafe conditions or health hazards be remedied.

Secretary of Interior’s Standards for Rehabilitation

The Secretary of the Interior defines rehabilitation as “the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features, which convey its historical, cultural, or architectural values.” The relevant *Standards* are as follows:

- 2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.
- 9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportions, and massing to protect the integrity of the property and its environment.

10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

STAFF DISCUSSION

The path will be part of the Heritage Triangle Trail, a larger shared-use path project along Norwood Road that will result in a continuous path between MD 108 (Olney-Sandy Spring Road) and Ednor Road. The completed multi-modal connections will create a network of shared-use paths that will connect the Olney Theatre Center, the Sandy Spring Museum, the Woodlawn Visitor Center, and the Underground Railroad Experience. The paths will provide pedestrians and cyclists with a dedicated travel space where one does not exist.

The 10-foot wide path will be laid with asphalt. There will be a total of 14 lights along the segment. Each will be 12 feet tall, and the black fiberglass posts will hold a “Colonial” style post top with LED lights. Staff seeks a condition that the lights are labeled on the provided plans. The lights are a safety enhancement to provide lighting for path users. The design of the posts match the existing lights on the Heritage Triangle Trail. The HPC at its February 21, 2024, meeting approved the same lights along the path at the Norwood (Master Plan Site #28/13) part of HAWP #1056978.

The existing 4-foot tall wood rail fence is about 15 feet from the edge of Norwood Road and is used to contain animals at the Woodlawn Manor Cultural Park. Once relocated it will be about 40 feet to the east of the road’s edge. A second, matching fence will be installed to the east along the proposed path.

Storm water management facilities will be constructed on both sides of Norwood Road. At the Woodlawn Master Plan Historic Site, three grates will be installed; the remainder of the work on that side of the road will be underground. Work at the Holland Store and House/Red Door Store will result in the installation of two grates, two storm drains, and a linear, 3-foot wide bioswale. Staff seeks a condition that the applicant provide a representative photos of all storm water management features. Staff also seeks to have the dimensions of all the storm water facilities added to the site plan.

Staff supports the projects and recommends approval as conditioned. At its closest, the path will be approximately 400 feet from the manor house at the Woodlawn Master Plan Historic Site. The bioswale will be about 100 feet from the Red Door Store, and the nearest stormdrain will be approximately 250 feet away. In conformance with Chapter 24A-8(b), the proposal will not substantially alter the exterior features of the historic sites, and it is compatible in character with the sites. The path will also create a safer travel route for pedestrians and cyclists along Norwood Road. In accordance with the applicable Secretary of the Interior Standards, the historic character of the properties will be retained and preserved and no historic features or spaces that characterize the properties will result. No historic materials, features, and spatial relationships that characterize the property will be destroyed. Finally, the the essential form and integrity of the historic property and its environment would be unimpaired if the new construction is removed.



Figure 2: The existing right of way at the Woodlawn Master Plan Historic Site facing south along Norwood Road. The Red Door Store is in the background indicated with a red arrow. The existing fence will be relocated and the shared-use path will be installed in its location.

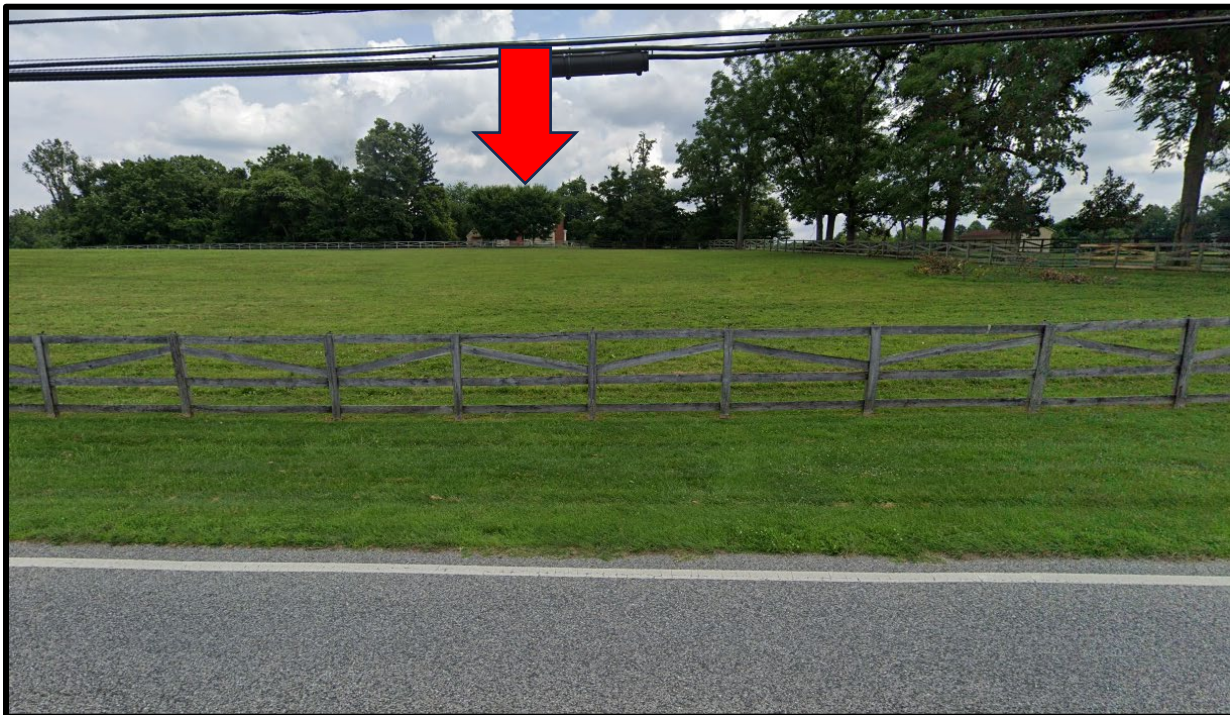


Figure 3: The Woodlawn Manor House is indicated with a red arrow. It is located about 400 feet from the Norwood Road right of way. The shared-use path will be installed where the fence is currently located. Source: Google



Figure 4: This culvert near the Woodlawn Master Plan Historic Site will be replaced with a stormdrain.

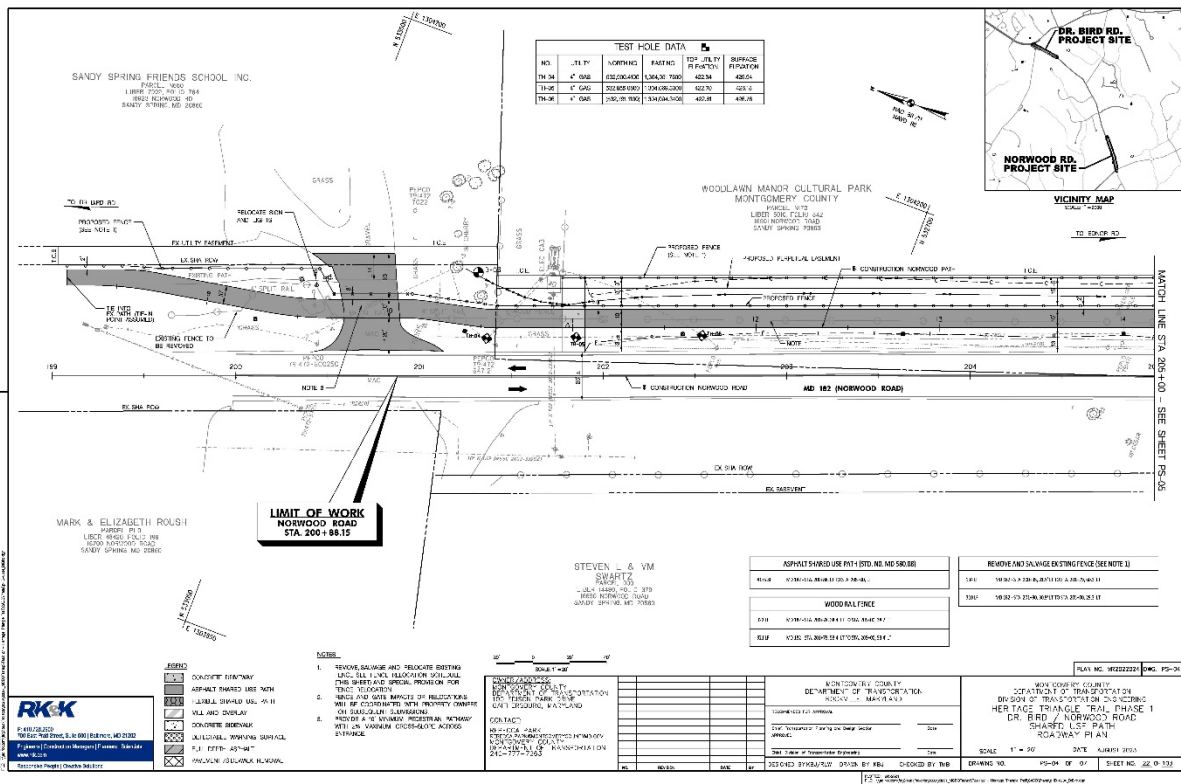


Figure 5: Plan Sheet 1 of 4 for the shared-used path and stormwater management facilities along Norwood Road.

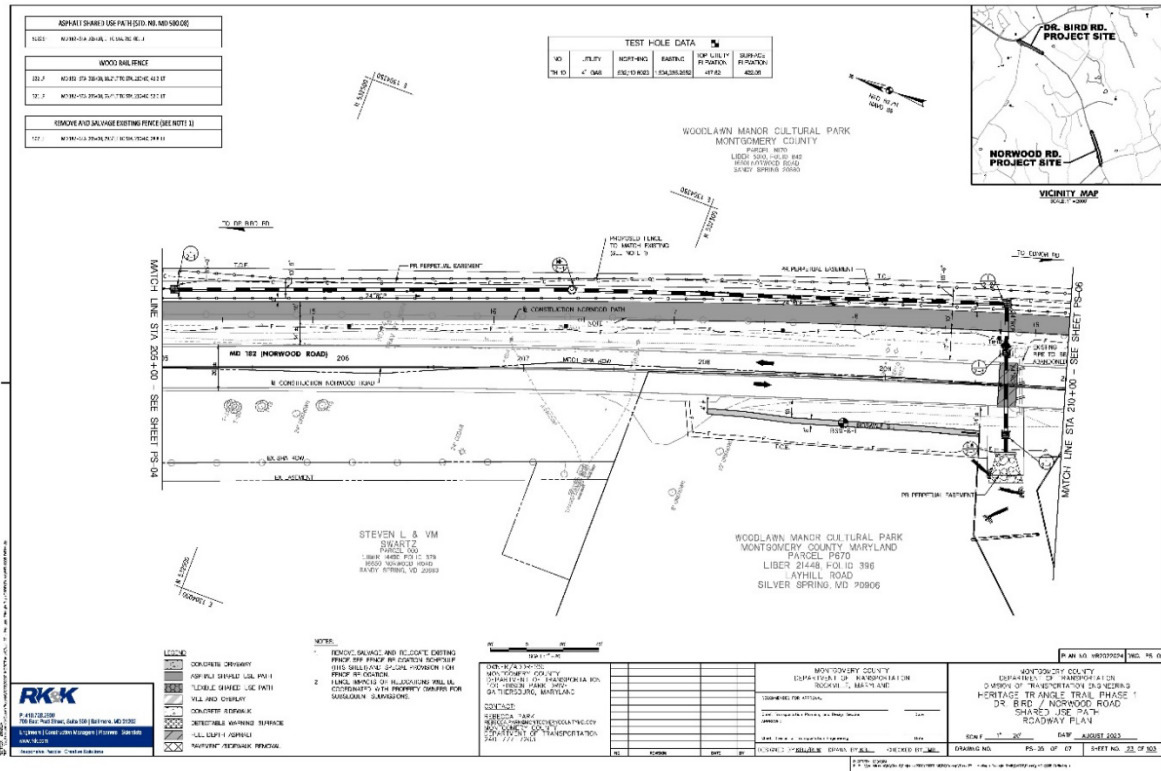


Figure 6: Plan Sheet 2 of 4 for the shared-used path and stormwater management facilities along Norwood Road.

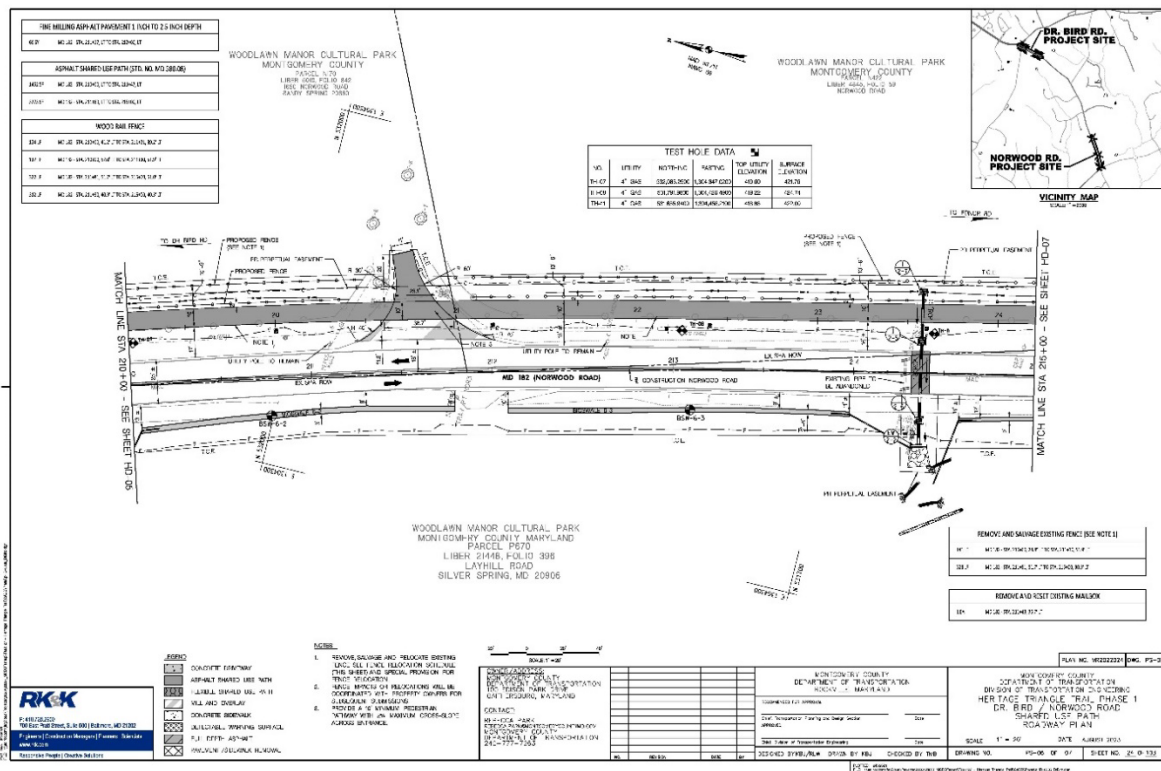


Figure 7: Plan Sheet 3 of 4 for the shared-used path and stormwater management facilities along Norwood Road.



Figure 10: The applicant provided this representative photo to show a bioswale similar to what will be installed at the Red Door Store Master Plan Historic Site.

STAFF RECOMMENDATION

Staff recommends that the Commission **approve with two conditions** the HAWP application

1. ~~Applicant shall label the locations of the proposed lights on the plans.~~
2. ~~Applicant shall provide a representative photo for all of the proposed stormwater management features and add their dimensions to the plans.~~ Revised plans submitted 3/15/2024 met conditions.

under the Criteria for Issuance in Chapter 24A-8(b)(1),(2), and (4), having found that the proposal will not substantially alter the exterior features of the historic sites and is compatible in character with the district and the purposes of Chapter 24A;

and with the *Secretary of the Interior's Standards for Rehabilitation # 2, 9, and 10*;

and with the general condition that the applicant will obtain all other applicable Montgomery County or local government agency permits. After the issuance of these permits, the applicant must contact this Historic Preservation Office if any changes to the approved plan are made;

and with the general condition that final project design details, not specifically delineated by the Commission, shall be approved by HPC staff or brought back to the Commission as a revised HAWP application at staff's discretion;

and with the general condition that the applicant shall notify the Historic Preservation Staff if they propose to make any alterations to the approved plans. Once the work is completed the applicant will contact the staff person assigned to this application at 301-495-4571 or chris.berger@montgomeryplanning.org to schedule a follow-up site visit.



APPLICATION FOR HISTORIC AREA WORK PERMIT
HISTORIC PRESERVATION COMMISSION
301.563.3400

FOR STAFF ONLY:
HAWP# 1060757
DATE ASSIGNED

APPLICANT:

Name: E-mail:
Address: City: Zip:
Daytime Phone: Tax Account No.:

AGENT/CONTACT (if applicable):

Name: E-mail:
Address: City: Zip:
Daytime Phone: Contractor Registration No.:

LOCATION OF BUILDING/PREMISE: MIHP # of Historic Property

Is the Property Located within an Historic District? Yes/District Name
No/Individual Site Name

Is there an Historic Preservation/Land Trust/Environmental Easement on the Property? If YES, include a map of the easement, and documentation from the Easement Holder supporting this application.

Are other Planning and/or Hearing Examiner Approvals /Reviews Required as part of this Application? (Conditional Use, Variance, Record Plat, etc.?) If YES, include information on these reviews as supplemental information.

Building Number: Street:

Town/City: Nearest Cross Street:

Lot: Block: Subdivision: Parcel:

TYPE OF WORK PROPOSED: See the checklist on Page 4 to verify that all supporting items for proposed work are submitted with this application. Incomplete Applications will not be accepted for review. Check all that apply:

- Checkboxes for: New Construction, Addition, Demolition, Grading/Excavation, Deck/Porch, Fence, Hardscape/Landscape, Roof, Shed/Garage/Accessory Structure, Solar, Tree removal/planting, Window/Door, Other:

I hereby certify that I have the authority to make the foregoing application, that the application is correct and accurate and that the construction will comply with plans reviewed and approved by all necessary agencies and hereby acknowledge and accept this to be a condition for the issuance of this permit.

Signature of owner or authorized agent

Date

HAWP APPLICATION: MAILING ADDRESSES FOR NOTIFYING
[Owner, Owner's Agent, Adjacent and Confronting Property Owners]

Owner's mailing address	Owner's Agent's mailing address
Adjacent and confronting Property Owners mailing addresses	

Description of Property: Please describe the building and surrounding environment. Include information on significant structures, landscape features, or other significant features of the property:

Description of Work Proposed: Please give an overview of the work to be undertaken:

Work Item 1: _____	
Description of Current Condition:	Proposed Work:

Work Item 2: _____	
Description of Current Condition:	Proposed Work:

Work Item 3: _____	
Description of Current Condition:	Proposed Work:

**HISTORIC AREA WORK PERMIT
CHECKLIST OF
APPLICATION REQUIREMENTS**

	Required Attachments						
Proposed Work	I. Written Description	2. Site Plan	3. Plans/ Elevations	4. Material Specifications	5. Photographs	6. Tree Survey	7. Property Owner Addresses
New Construction	*	*	*	*	*	*	*
Additions/ Alterations	*	*	*	*	*	*	*
Demolition	*	*	*		*		*
Deck/Porch	*	*	*	*	*	*	*
Fence/Wall	*	*	*	*	*	*	*
Driveway/ Parking Area	*	*		*	*	*	*
Grading/Excavation/ Landscaping	*	*		*	*	*	*
Tree Removal	*	*		*	*	*	*
Siding/ Roof Changes	*	*	*	*	*		*
Window/ Door Changes	*	*	*	*	*		*
Masonry Repair/ Repoint	*	*	*	*	*		*
Signs	*	*	*	*	*		*



APPLICATION FOR HISTORIC AREA WORK PERMIT
HISTORIC PRESERVATION COMMISSION
301.563.3400

FOR STAFF ONLY:
HAWP# 1060792
DATE ASSIGNED

APPLICANT:

Name: E-mail:
Address: City: Zip:
Daytime Phone: Tax Account No.:

AGENT/CONTACT (if applicable):

Name: E-mail:
Address: City: Zip:
Daytime Phone: Contractor Registration No.:

LOCATION OF BUILDING/PREMISE: MIHP # of Historic Property

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No/Individual Site Name

Is there an Historic Preservation/Land Trust/Environmental Easement on the Property? If YES, include a map of the easement, and documentation from the Easement Holder supporting this application.

Are other Planning and/or Hearing Examiner Approvals /Reviews Required as part of this Application? (Conditional Use, Variance, Record Plat, etc.?) If YES, include information on these reviews as supplemental information.

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Town/City: Nearest Cross Street:

Lot: Block: Subdivision: Parcel:

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- New Construction, Addition, Demolition, Grading/Excavation, Deck/Porch, Fence, Hardscape/Landscape, Roof, Shed/Garage/Accessory Structure, Solar, Tree removal/planting, Window/Door, Other:

I hereby certify that I have the authority to make the foregoing application, that the application is correct and accurate and that the construction will comply with plans reviewed and approved by all necessary agencies and hereby acknowledge and accept this to be a condition for the issuance of this permit.

Signature of owner or authorized agent

Date

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Description of Current Condition:	Proposed Work:

Work Item 2: _____	
Description of Current Condition:	Proposed Work:

Work Item 3: _____	
Description of Current Condition:	Proposed Work:

**HISTORIC AREA WORK PERMIT
CHECKLIST OF
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New Construction	*	*	*	*	*	*	*
Additions/ Alterations	*	*	*	*	*	*	*
Demolition	*	*	*		*		*
Deck/Porch	*	*	*	*	*	*	*
Fence/Wall	*	*	*	*	*	*	*
Driveway/ Parking Area	*	*		*	*	*	*
Grading/Excavation/ Landscaping	*	*		*	*	*	*
Tree Removal	*	*		*	*	*	*
Siding/ Roof Changes	*	*	*	*	*		*
Window/ Door Changes	*	*	*	*	*		*
Masonry Repair/ Repoint	*	*	*	*	*		*
Signs	*	*	*	*	*		*



Photo 1: Woodlawn property and proposed SUP location, looking southeast from intersection of Norwood Road and Excalibur Way (RK&K, March 2021)



Photo 2: Proposed SUP location, looking southeast from northern limits of Woodlawn property (RK&K, March 2021)



Photo 3: Proposed SUP location, looking southeast from just north of the Woodlawn driveway (RK&K, March 2021)



Photo 4: Existing culvert at north end of Woodlawn property (RK&K, March 2021)



Photo 5: Woodlawn driveway and northern sign, looking north from the driveway (RK&K, March 2021)



Photo 6: Woodlawn driveway and southern sign, looking north from the driveway (RK&K, March 2021)



Photo 7: Existing culvert south of driveway, looking southwest to the Red Door Store Property (RK&K, March 2021)



Photo 8: Proposed SUP location, looking northwest from southern limits of Woodlawn property (RK&K, March 2021)



Photo 9: View of existing SUP south of Ednor Road, looking southeast from the Red Door Store property (RK&K, March 2021)



Photo 1: Existing SUP along Norwood Road, looking southeast from north of Hennessy Terrace, similar to what will be installed along the Woodlawn property (Google Street View, November 2022)



Photo 2: Existing SUP along Norwood Road, looking north from just north of Hennessy Terrace at Norwood, similar to what will be installed along Woodlawn (Google Street View, November 2022)



Photo 3: Existing SUP along Norwood Road, looking north from Hennessy Terrace, similar to what will be installed along Woodlawn (Google Street View, November 2022)



Photo 4: Image of bioswale similar to what is proposed on the Red Door Store property (RKK Photo)



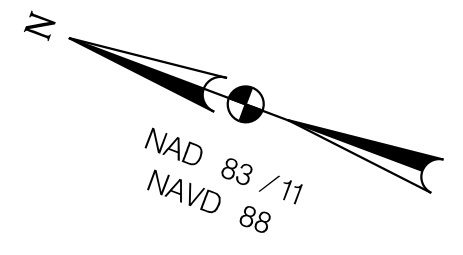
Photo 5: Image of bioswale similar to what is proposed on the Red Door Store property (RK&K photo)

RIGHT-OF-WAY LEGEND

- PROPOSED FEE SIMPLE
- PROPOSED TEMPORARY CONSTRUCTION EASEMENT
- SHARED MAINTENANCE AREA
- EXISTING RIGHT-OF-WAY/PROPERTY LINES
- EXISTING EASEMENT

PAVING LEGEND

- CONCRETE DRIVEWAY
- ASPHALT SHARED USE PATH
- FLEXIBLE SHARED USE PATH
- MILL AND OVERLAY
- CONCRETE SIDEWALK
- DETECTABLE WARNING SURFACE
- FULL DEPTH ASPHALT
- PAVEMENT /SIDEWALK REMOVAL



N 532750
E 1304500

N 532000
E 1304500

N 532000
E 1304000

SANDY SPRING FRIENDS SCHOOL, INC.
LIBER 2602 FOLIO 204
LIBER 2602 FOLIO 204
SANDY SPRING, MD 20860

WOODLAWN MANOR CULTURAL PARK
MONTGOMERY COUNTY

WOODLAWN MANOR CULTURAL PARK
MONTGOMERY COUNTY

WOODLAWN MANOR CULTURAL PARK
MONTGOMERY COUNTY

WOODLAWN MANOR CULTURAL PARK
MONTGOMERY COUNTY

WOODLAWN MANOR CULTURAL PARK
MONTGOMERY COUNTY, MARYLAND
PARCELS PERD
LIBER 21448 FOLIO 396
LAYHILL ROAD
SILVER SPRING, MD 20906

WOODLAWN MANOR CULTURAL PARK
MONTGOMERY COUNTY, MARYLAND
PARCELS PERD
LIBER 21448 FOLIO 396
LAYHILL ROAD
SILVER SPRING, MD 20906

RED DOOR COUNTRY STORE
WOODLAWN MANOR CULTURAL PARK
MONTGOMERY COUNTY, MARYLAND
PARCELS PERD
LIBER 21448 FOLIO 396
LAYHILL ROAD
SILVER SPRING, MD 20906

LEWELLYN FIELDS
HOMESOWNERS ASSOC INC
LIBER 21448 FOLIO 396
LAYHILL ROAD
SILVER SPRING, MD 20906

MARK & ELIZABETH BLOUSH
LIBER 2602 FOLIO 204
LIBER 2602 FOLIO 204
SANDY SPRING, MD 20860

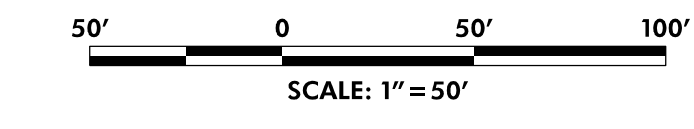
STEVEN L & VM
SWARTZ
LIBER 2602 FOLIO 204
LIBER 2602 FOLIO 204
SANDY SPRING, MD 20860

STEVEN L & VM
SWARTZ
LIBER 2602 FOLIO 204
LIBER 2602 FOLIO 204
SANDY SPRING, MD 20860

MD 182 (NORWOOD ROAD)

EDNOR RD

LAYHILL RD



MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
DIVISION OF TRANSPORTATION ENGINEERING
HERITAGE TRIANGLE TRAIL PHASE 1
DR. BIRD / NORWOOD ROAD
SHARED USE PATH

NORWOOD SITE DISPLAY

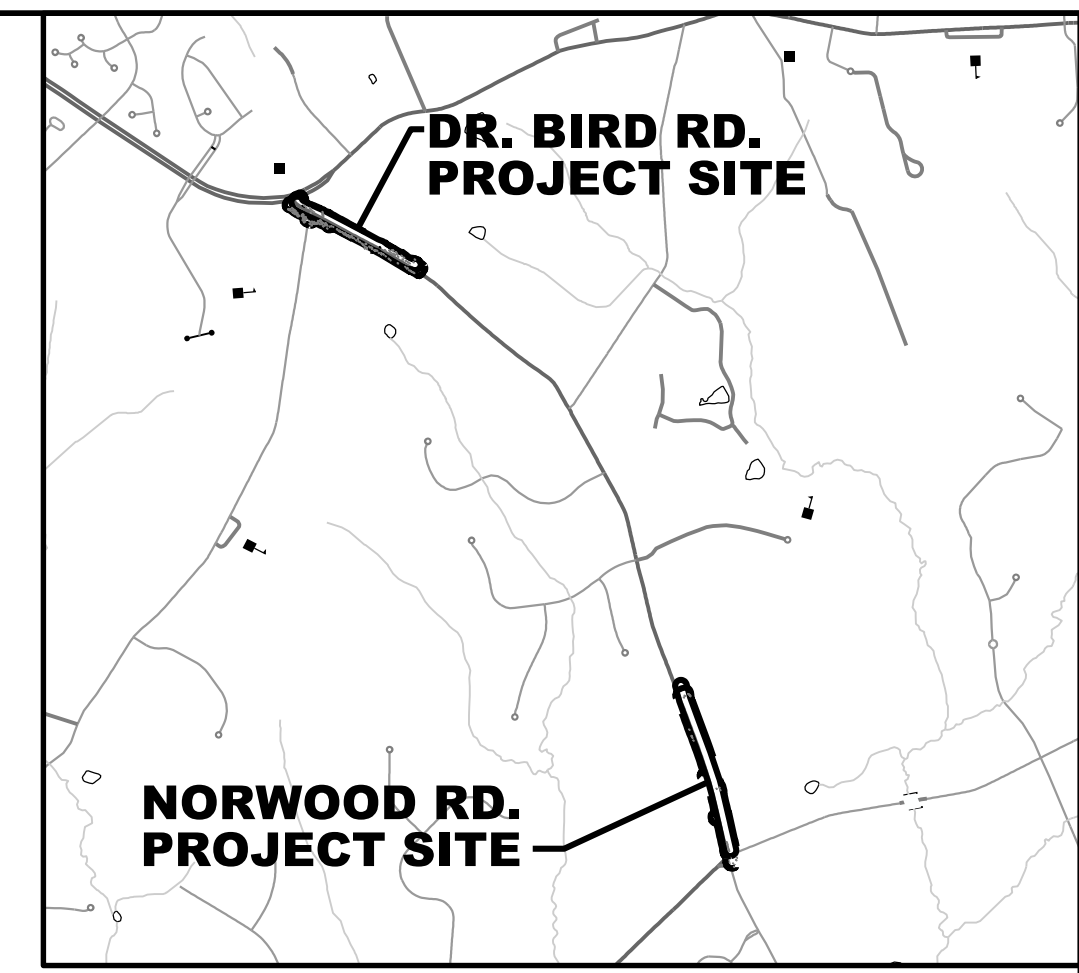
SCALE: 1" = 50' DWG. | OF |

APPROVED	DATE	Chief, Transportation Planning and Design Section
DESIGNED: MEG	CONTRACT NO. MR2022024	
DRAWN: MEG	ROAD NO.	JOB NO.
CHECKED: SAB	FILE NO.	
APPROVED:	DATE	Chief, Division of Transportation Engineering

P: 410.728.2900
700 East Pratt Street, Suite 500 | Baltimore, MD 21202
Engineers | Construction Managers | Planners | Scientists
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LIMIT OF WORK
NORWOOD ROAD
STA. 197+00.00

LIMIT OF WORK
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STA. 219+24.80



NANCY RUST & MICHAEL ROBERT SUTER
 PARCEL P841
 LIBER 7496, FOLIO 614
 17523 DR BIRD ROAD,
 OLNEY, MD 20832

MICHAEL J. & ELIZABETH AUTOBELLI
 PARCEL P941
 LIBER 60858, FOLIO 399
 17415 BATCHELLORS FOREST RD,
 OLNEY, MD 20832

OLNEY ALE HOUSE TWO SIBS, LLC
 PARCEL P843
 LIBER 66780, FOLIO 125
 2000 OLNEY SANDY SPRING RD,
 OLNEY, MD 20832

TEST HOLE DATA					
NO.	UTILITY	NORTHING	EASTING	TOP UTILITY ELEVATION	SURFACE ELEVATION
TH-01	16" WATER	538,072.5800	1,300,025.0700	503.82	508.56
TH-02	8" WATER	538,018.8400	1,300,088.5900	503.93	510.65
TH-03	6" GAS	537,982.1600	(1,300,071.4310)	507.58	510.56

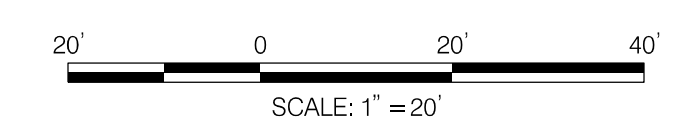
LIMIT OF WORK
DR. BIRD ROAD
STA. 101 + 80.05

MATCH LINE STA 106 + 00 - SEE SHEET PS-02

- NOTES:**
- TIE-IN TO EXISTING CURB AND GUTTER.
 - RELOCATE EX. FH HEAD AND ELBOW 2' BEHIND PROPOSED CURB, RECONNECT TO EX. FH LEAD PER WSSC STD DETAIL W8.0
 - PROVIDE A 10' MINIMUM PEDESTRIAN PATHWAY WITH 2% MAXIMUM CROSS-SLOPE ACROSS ENTRANCE.
 - REMOVE, SALVAGE, AND RELOCATE EXISTING FENCE. SEE FENCE RELOCATION SCHEDULE (SHEET PS-01A) AND SPECIAL PROVISION FOR FENCE RELOCATION.
 - IF CONTRACTOR ENCOUNTERS LONGITUDINAL UNDERDRAIN, THEY SHALL REPAIR AND REPLACE IN ACCORDANCE WITH STD. MD 387.11
 - ADJUST WATER VALVE BOX AND COVER TO FINISHED GRADE.

LEGEND

	CONCRETE DRIVEWAY
	ASPHALT SHARED USE PATH
	FLEXIBLE SHARED USE PATH
	MILL AND OVERLAY
	CONCRETE SIDEWALK
	DETECTABLE WARNING SURFACE
	FULL DEPTH ASPHALT
	PAVEMENT / SIDEWALK REMOVAL



OWNER / ADDRESS:
 MONTGOMERY COUNTY
 DEPARTMENT OF TRANSPORTATION
 100 EDISON PARK DRIVE
 GAITHERSBURG, MARYLAND

CONTACT:
 REBECCA PARK
 REBECCA.PARK@MONTGOMERYCOUNTYMD.GOV
 MONTGOMERY COUNTY
 DEPARTMENT OF TRANSPORTATION
 240-777-7263

MONTGOMERY COUNTY
 DEPARTMENT OF TRANSPORTATION
 ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Transportation Planning and Design Section _____ Date _____

APPROVED

Chief, Division of Transportation Engineering _____ Date _____

DESIGNED BY KBJ/RLW DRAWN BY KBJ CHECKED BY IMB

MONTGOMERY COUNTY
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF TRANSPORTATION ENGINEERING
 HERITAGE TRIANGLE TRAIL PHASE 1
 DR. BIRD / NORWOOD ROAD
 SHARED USE PATH
 ROADWAY PLAN

SCALE 1" = 20' DATE AUGUST 2023

DRAWING NO. PS-01 OF 07 SHEET NO. 18 OF 103

P: 410.728.2900
 700 East Pratt Street, Suite 500 | Baltimore, MD 21202

Engineers | Construction Managers | Planners | Scientists
 www.rk.com

Responsive People | Creative Solutions

PLOTTER: 410.728.2900
 FILE: \\ad.rk.com\rs\Cloud\Projects\2020\202097_MCDOTTransp\Task 27 - Heritage Triangle Trail\CADD\Plans\pHD-0001_DrBird.dgn

PLOTTED: 2/13/2024
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MDOT SHA STANDARD TYPE A COMBINATION CURB AND GUTTER (STD. NO. MD 620.02)	
96 LF	MD 182 - STA. 106+00, LT TO STA. 106+91, LT
125 LF	MD 182 - STA. 107+03, LT TO STA. 108+19, LT
225 LF	MD 182 - STA. 108+56, LT TO STA. 110+72, LT
103 LF	MD 182 - STA. 110+85, LT TO STA. 111+72, LT
21 LF	MD 182 - STA. 111+92, LT TO STA. 112+00, LT
40 LF	MD 182 - STA. 106+00, RT TO STA. 106+33, RT

FINE MILLING ASPHALT PAVEMENT 1 INCH TO 2.5 INCH DEPTH	
1461 SY	MD 182 - STA. 106+00 TO STA. 112+00

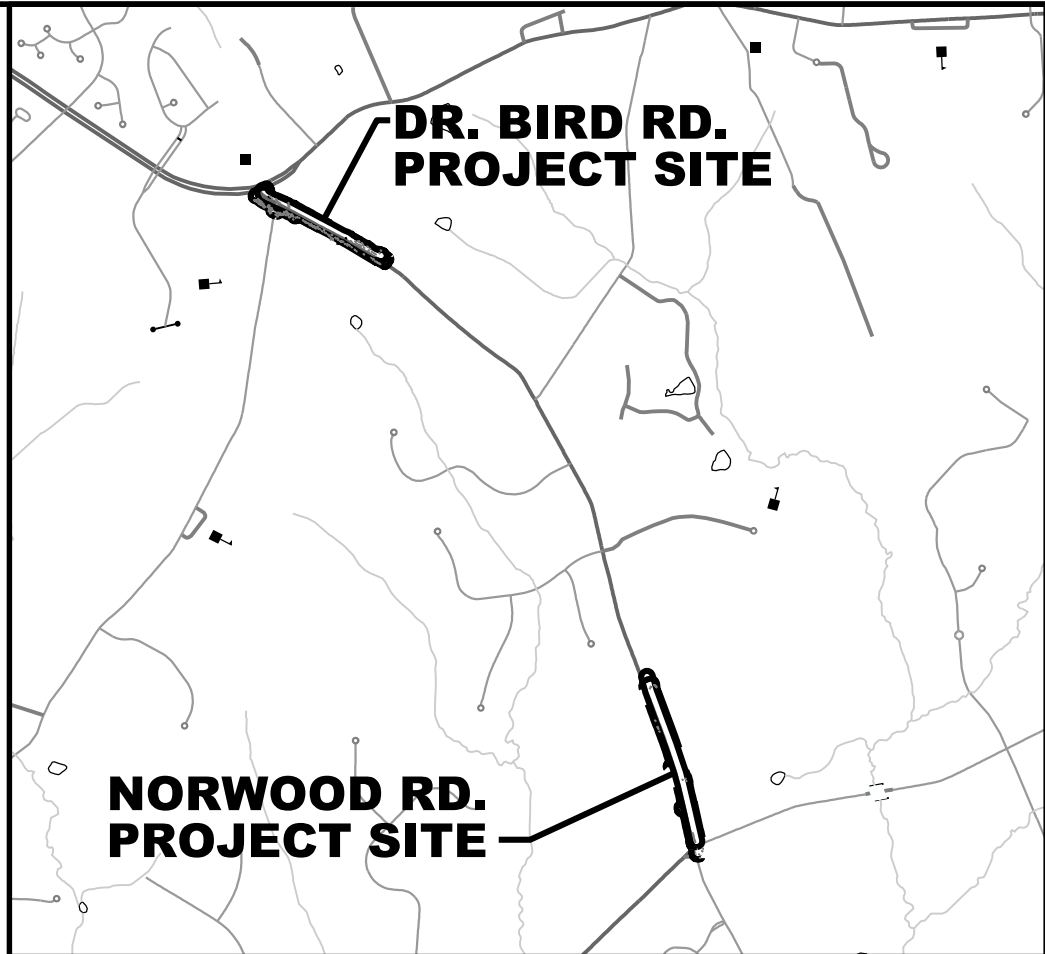
FLEXIBLE SHARED USE PATH	
86 SF	MD 182 - STA. 111+91, LT TO STA. 112+00, LT

REMOVE AND RESET EXISTING MAILBOX	
1 EA	MD 182 - STA. 110+66, LT

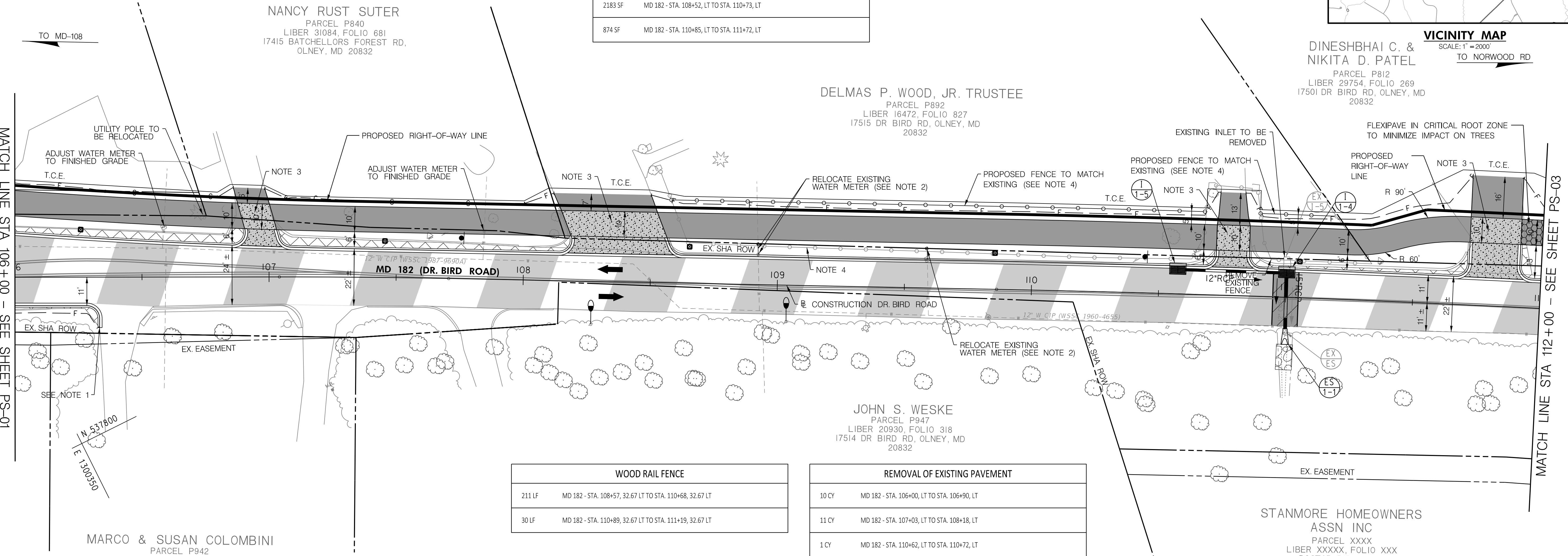
6 INCH DEPTH PORTLAND CEMENT CONCRETE, MDOT SHA MIX 9, FOR DRIVEWAYS AND DRIVEWAY APRONS	
23 SY	MD 182 - STA. 106+89, LT TO STA. 107+05
70 SY	MD 182 - STA. 108+14, LT TO STA. 108+59, LT
24 SY	MD 182 - STA. 110+71, LT TO STA. 110+87, LT
49 SY	MD 182 - STA. 111+70, LT TO STA. 111+93, LT

ASPHALT SHARED USE PATH (STD. NO. MD 580.08)	
892 SF	MD 182 - STA. 106+00, LT TO STA. 106+91, LT
1155 SF	MD 182 - STA. 107+00, LT TO STA. 108+19, LT
2183 SF	MD 182 - STA. 108+52, LT TO STA. 110+73, LT
874 SF	MD 182 - STA. 110+85, LT TO STA. 111+72, LT

REMOVE AND SALVAGE EXISTING FENCE (SEE NOTE 4)	
237 LF	MD 182 - STA. 108+57, 32.67 LT TO STA. 110+68, 32.67 LT
82 LF	MD 182 - STA. 110+89, 32.67 LT TO STA. 111+34, 32.67 LT



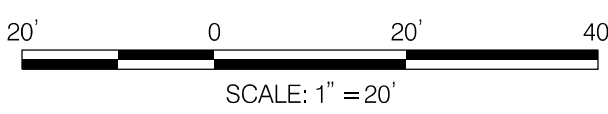
DINESHBHAI C. & NIKITA D. PATEL
 SCALE: 1" = 2000'
 TO NORWOOD RD
 PARCEL P812
 LIBER 29754, FOLIO 269
 17501 DR BIRD RD, OLNEY, MD 20832



WOOD RAIL FENCE	
211 LF	MD 182 - STA. 108+57, 32.67 LT TO STA. 110+68, 32.67 LT
30 LF	MD 182 - STA. 110+89, 32.67 LT TO STA. 111+19, 32.67 LT

REMOVAL OF EXISTING PAVEMENT	
10 CY	MD 182 - STA. 106+00, LT TO STA. 106+90, LT
11 CY	MD 182 - STA. 107+03, LT TO STA. 108+18, LT
1 CY	MD 182 - STA. 110+62, LT TO STA. 110+72, LT
5 CY	MD 182 - STA. 110+86, LT TO STA. 111+72, LT
2 CY	MD 182 - STA. 111+91, LT TO STA. 112+00, LT
2 CY	MD 182 - STA. 106+00, RT TO STA. 106+33, RT

- NOTES:**
- NOSE DOWN CURB TO MATCH EXISTING EDGE OF ROAD.
 - RELOCATE EXISTING WATER METER 2' BEHIND PROPOSED CURB PER WSSC STD. DETAILS W5.6 AND W5.13
 - PROVIDE A 10' MINIMUM PEDESTRIAN PATHWAY WITH 2% MAXIMUM CROSS-SLOPE ACROSS ENTRANCE.
 - REMOVE, SALVAGE, AND RELOCATE EXISTING FENCE. SEE FENCE RELOCATION SCHEDULE (THIS SHEET) AND SPECIAL PROVISION FOR FENCE RELOCATION.
 - IF CONTRACTOR ENCOUNTERS LONGITUDINAL UNDERDRAIN, THEY SHALL REPAIR AND REPLACE IN ACCORDANCE WITH STD. MD 387.11



LEGEND

	CONCRETE DRIVEWAY
	ASPHALT SHARED USE PATH
	FLEXIBLE SHARED USE PATH
	MILL AND OVERLAY
	CONCRETE SIDEWALK
	DETECTABLE WARNING SURFACE
	FULL DEPTH ASPHALT
	PAVEMENT/SIDEWALK REMOVAL

OWNER/ADDRESS:
 MONTGOMERY COUNTY
 DEPARTMENT OF TRANSPORTATION
 100 EDISON PARK DRIVE
 GAITHERSBURG, MARYLAND

CONTACT:
 REBECCA PARK
 REBECCA.PARK@MONTGOMERYCOUNTYMD.GOV
 MONTGOMERY COUNTY
 DEPARTMENT OF TRANSPORTATION
 240-777-7263

MONTGOMERY COUNTY
 DEPARTMENT OF TRANSPORTATION
 ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Transportation Planning and Design Section _____ Date _____

APPROVED

Chief, Division of Transportation Engineering _____ Date _____

DESIGNED BY KBJ/RLW DRAWN BY KBJ CHECKED BY IMB

MONTGOMERY COUNTY
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF TRANSPORTATION ENGINEERING
 HERITAGE TRIANGLE TRAIL PHASE 1
 DR. BIRD / NORWOOD ROAD
 SHARED USE PATH
 ROADWAY PLAN

SCALE 1" = 20' DATE AUGUST 2023

DRAWING NO. PS-02 OF 07 SHEET NO. 20 OF 103

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PLOTTED: 2/13/2024
 FILE: \\ad.rkk.com\rs(Cloud)\Projects\2020\2097_MCDOT\Transp\Task 27 - Heritage Triangle Trail\CADD\Plans\pHD-0002_DrBird.dgn

FINE MILLING ASPHALT PAVEMENT 1 INCH TO 2.5 INCH DEPTH	
936 SY	MD 182 - STA. 112+00 TO STA. 115+97

REMOVAL OF EXISTING PAVEMENT	
1 CY	MD 182 - STA. 112+00, LT TO STA. 112+89, LT
4 CY	MD 182 - STA. 113+23, LT TO STA. 114+56, LT
5 CY	MD 182 - STA. 114+69, LT TO STA. 116+00, LT

FLEXIBLE SHARED USE PATH	
2582 SF	MD 182 - STA. 112+00, LT TO STA. 114+57, LT
1548 SF	MD 182 - STA. 114+68, LT TO STA. 116+16, LT

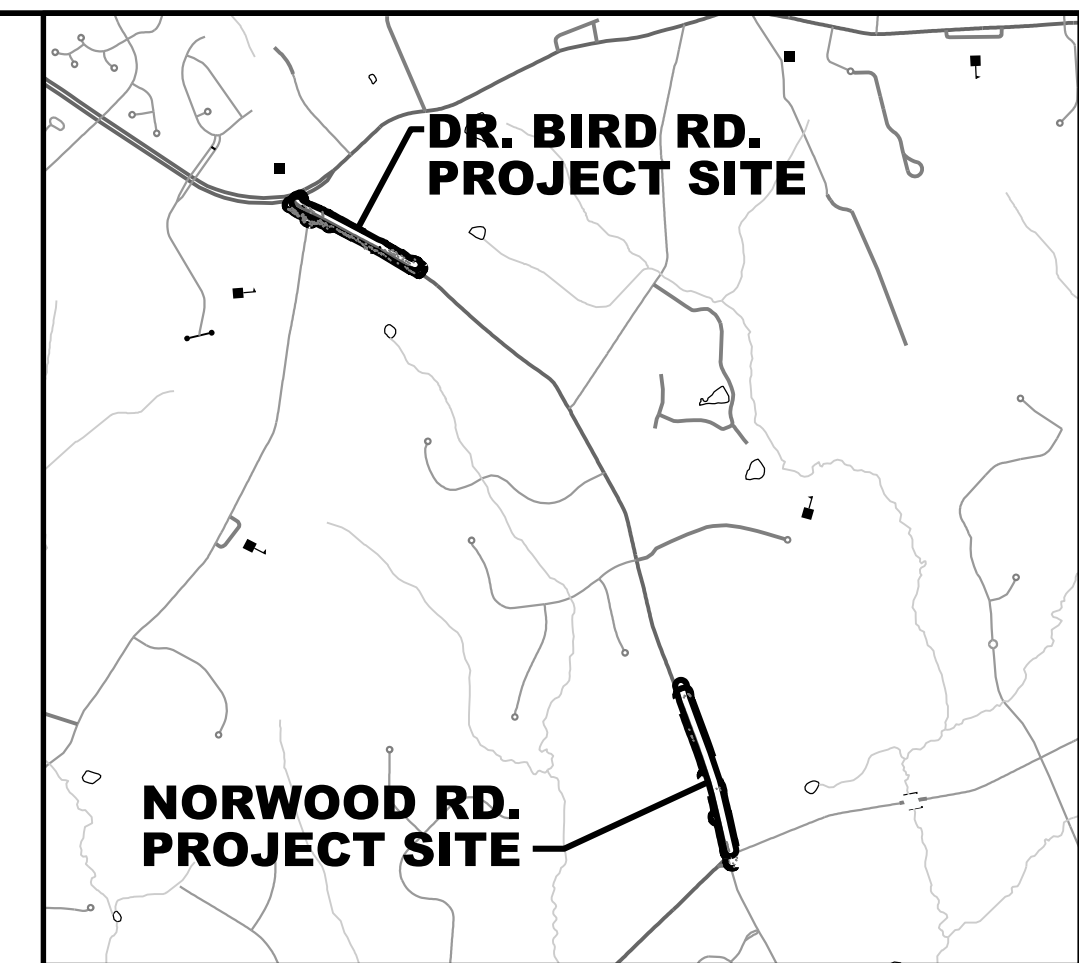
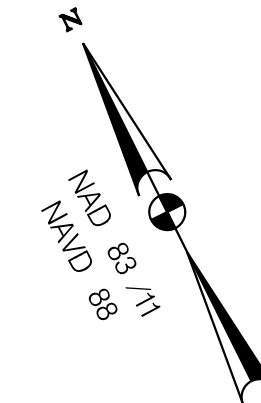
6 INCH DEPTH CONCRETE, MDOT SHA MIX 9, FOR DRIVEWAYS AND DRIVEWAY APRONS	
22 SY	MD 182 - STA. 114+54, LT TO STA. 114+70, LT

REMOVE AND RESET EXISTING MAILBOX	
1 EA	MD 182 - STA. 112+03, LT
1 EA	MD 182 - STA. 114+47, LT
1 EA	MD 182 - STA. 116+07, LT

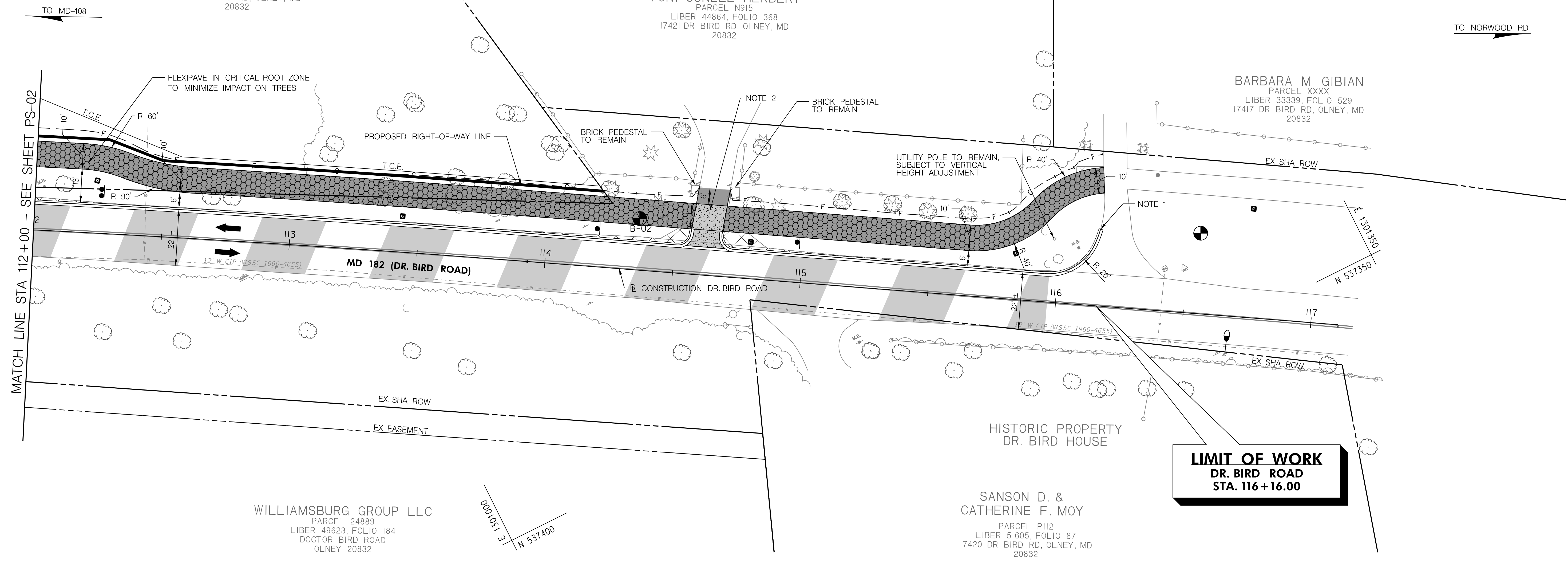
N 537700
E 1301000

DINESHBHAI C. &
NIKITA D. PATEL
PARCEL P812
LIBER 29754, FOLIO 269
17501 DR BIRD RD, OLNEY, MD
20832

MARC L KOZAM
TONI-JUNELL HERBERT
PARCEL N915
LIBER 44864, FOLIO 368
17421 DR BIRD RD, OLNEY, MD
20832



VICINITY MAP
SCALE: 1" = 2000'



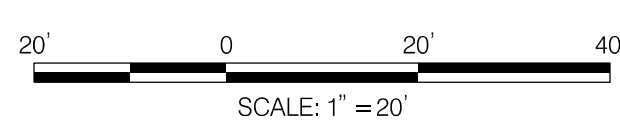
LEGEND

	CONCRETE DRIVEWAY
	ASPHALT SHARED USE PATH
	FLEXIBLE SHARED USE PATH
	MILL AND OVERLAY
	CONCRETE SIDEWALK
	DETECTABLE WARNING SURFACE
	FULL DEPTH ASPHALT
	PAVEMENT/SIDEWALK REMOVAL

- NOTES:**
- NOSE DOWN CURB TO MATCH EXISTING EDGE OF ROAD.
 - PROVIDE A 10' MINIMUM PEDESTRIAN PATHWAY WITH 2% MAXIMUM CROSS-SLOPE ACROSS ENTRANCE.
 - IF CONTRACTOR ENCOUNTERS LONGITUDINAL UNDERDRAIN, THEY SHALL REPAIR AND REPLACE IN ACCORDANCE WITH STD. MD 387.11.

OWNER / ADDRESS:
MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
100 EDISON PARK DRIVE
GAITHERSBURG, MARYLAND

CONTACT:
REBECCA PARK
REBECCA.PARK@MONTGOMERYCOUNTYMD.GOV
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MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ROCKVILLE, MARYLAND	
RECOMMENDED FOR APPROVAL	
Chief, Transportation Planning and Design Section	Date
APPROVED	
Chief, Division of Transportation Engineering	Date
DESIGNED BY <u>KBJ/RLW</u>	DRAWN BY <u>KBJ</u>
CHECKED BY <u>IMB</u>	

MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION DIVISION OF TRANSPORTATION ENGINEERING HERITAGE TRIANGLE TRAIL PHASE 1 DR. BIRD / NORWOOD ROAD SHARED USE PATH ROADWAY PLAN	
SCALE 1" = 20'	DATE AUGUST 2023
DRAWING NO. PS-03	OF 07
SHEET NO. 21	OF 103

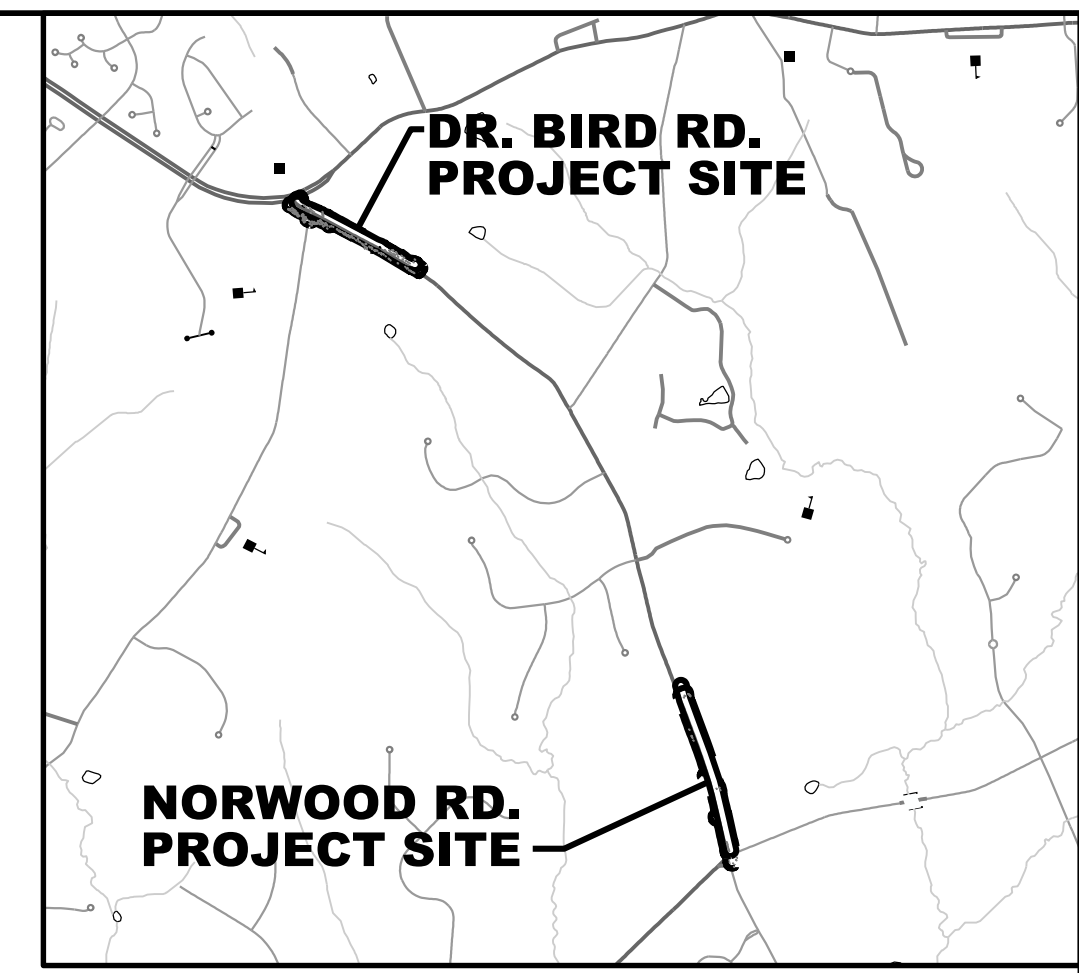
PLAN NO. MR2022024 DWG. PS-03

PLOTTER: 4107282900
FILE: \\ad.rkk.com\ys\Cloud\Projects\2020\2097_MCDOTransp\Task 27 - Heritage Triangle Trail\CADD\Plans\pHD-0003_DrBird.dgn

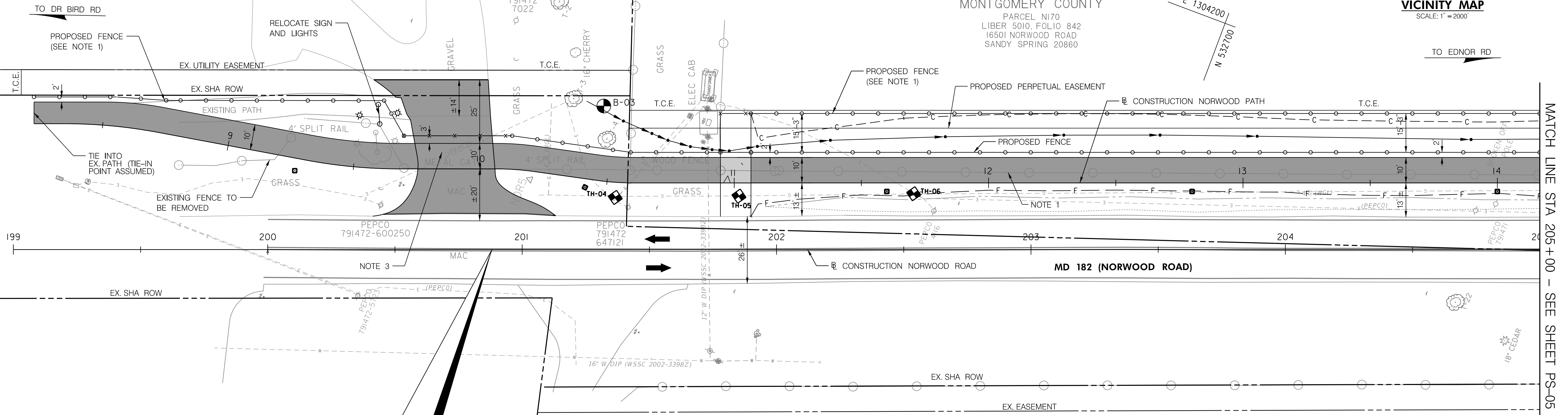
PLOTTER: 2132024
FILE: \\ad.rkk.com\ys\Cloud\Projects\2020\2097_MCDOTransp\Task 27 - Heritage Triangle Trail\CADD\Plans\pHD-0003_DrBird.dgn

SANDY SPRING FRIENDS SCHOOL INC.
 PARCEL N660
 LIBER 7992, FOLIO 784
 16923 NORWOOD RD
 SANDY SPRING, MD 20860

TEST HOLE DATA					
NO.	UTILITY	NORTHING	EASTING	TOP UTILITY ELEVATION	SURFACE ELEVATION
TH-04	4" GAS	532,900.4100	1,304,051.7500	422.34	425.94
TH-05	4" GAS	532,855.0800	1,304,069.3300	422.70	426.18
TH-06	4" GAS	(532,791.1100)	1,304,094.3400	422.61	426.78



WOODLAWN MANOR CULTURAL PARK
 MONTGOMERY COUNTY
 PARCEL N170
 LIBER 5010, FOLIO 842
 16501 NORWOOD ROAD
 SANDY SPRING 20860



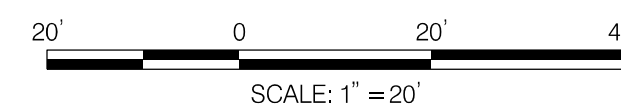
**LIMIT OF WORK
 NORWOOD ROAD
 STA. 200 + 88.15**

MARK & ELIZABETH ROUSH
 PARCEL P110
 LIBER 48420, FOLIO 199
 16700 NORWOOD ROAD
 SANDY SPRING, MD 20860

STEVEN L & VM
 SWARTZ
 PARCEL 000
 LIBER 14490, FOLIO 379
 16650 NORWOOD ROAD
 SANDY SPRING, MD 20860

ASPHALT SHARED USE PATH (STD. NO. MD 580.08)		REMOVE AND SALVAGE EXISTING FENCE (SEE NOTE 1)	
4175 SF	MD 182 - STA. 200+88, LT TO STA. 205+00, LT	134 LF	MD 182 - STA. 200+95, 31.5' LT TO STA. 201+79, 60.3' LT
WOOD RAIL FENCE		310 LF	MD 182 - STA. 201+90, 30.9' LT TO STA. 205+00, 29.3' LT
322 LF	MD 182 - STA. 201+78, 38.4' LT TO STA. 205+00, 38.2' LT		
321 LF	MD 182 - STA. 201+79, 53.4' LT TO STA. 205+00, 53.4' LT		

- NOTES:
- REMOVE, SALVAGE, AND RELOCATE EXISTING FENCE. SEE FENCE RELOCATION SCHEDULE (THIS SHEET) AND SPECIAL PROVISION FOR FENCE RELOCATION.
 - FENCE AND GATE IMPACTS OR RELOCATIONS WILL BE COORDINATED WITH PROPERTY OWNERS FOR SUBSEQUENT SUBMISSIONS. PROVIDE A 10' MINIMUM PEDESTRIAN PATHWAY WITH 2% MAXIMUM CROSS-SLOPE ACROSS ENTRANCE.



OWNER/ADDRESS:
 MONTGOMERY COUNTY
 DEPARTMENT OF TRANSPORTATION
 100 EDISON PARK DRIVE
 GAITHERSBURG, MARYLAND

CONTACT:
 REBECCA PARK
 REBECCA.PARK@MONTGOMERYCOUNTYMD.GOV
 MONTGOMERY COUNTY
 DEPARTMENT OF TRANSPORTATION
 240-777-7263

MONTGOMERY COUNTY
 DEPARTMENT OF TRANSPORTATION
 ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Transportation Planning and Design Section _____ Date _____

APPROVED

Chief, Division of Transportation Engineering _____ Date _____

DESIGNED BY KBJ/RLW DRAWN BY KBJ CHECKED BY IMB

MONTGOMERY COUNTY
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF TRANSPORTATION ENGINEERING
 HERITAGE TRIANGLE TRAIL PHASE 1
 DR. BIRD / NORWOOD ROAD
 SHARED USE PATH
 ROADWAY PLAN

SCALE 1" = 20' DATE AUGUST 2023

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PLAN NO. MR2022024 DWG. PS-04

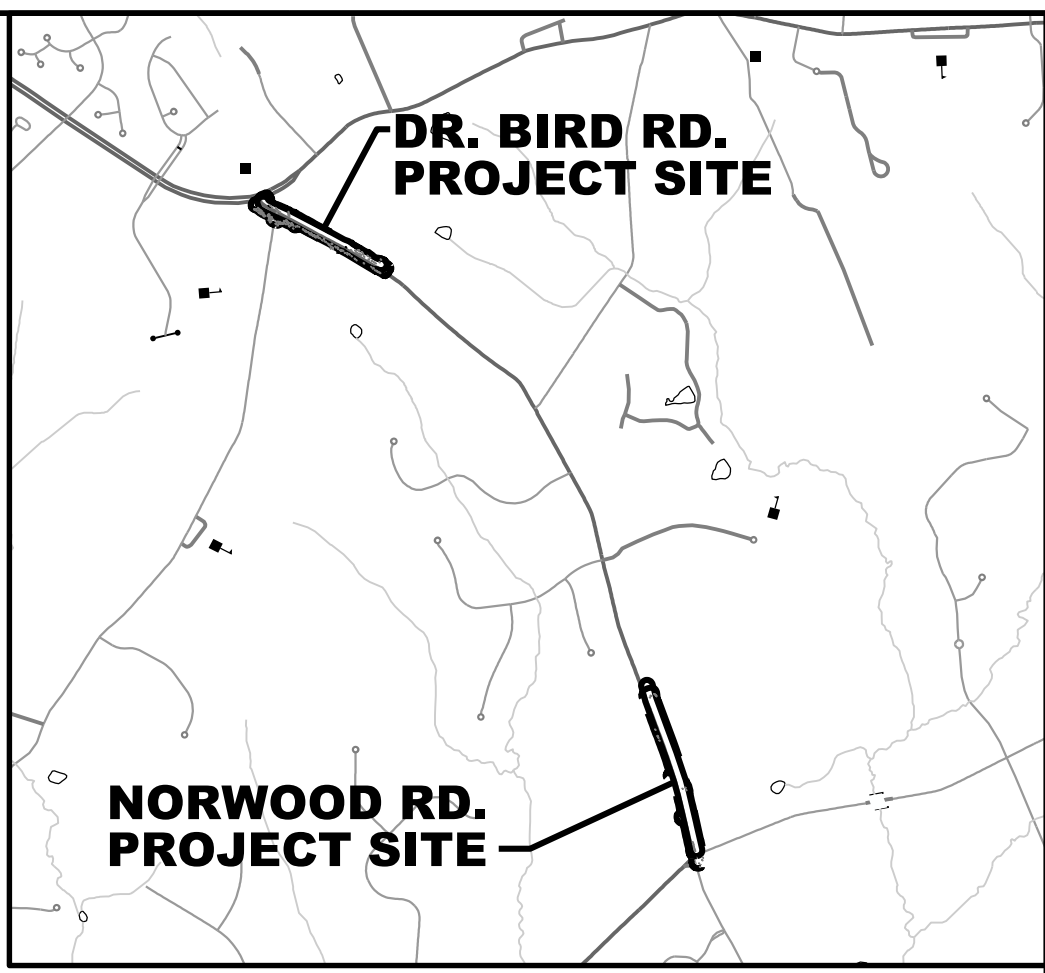
DRAWING NO. PS-04 OF 07 SHEET NO. 22 OF 103

PLOTTER: 410.728.2900
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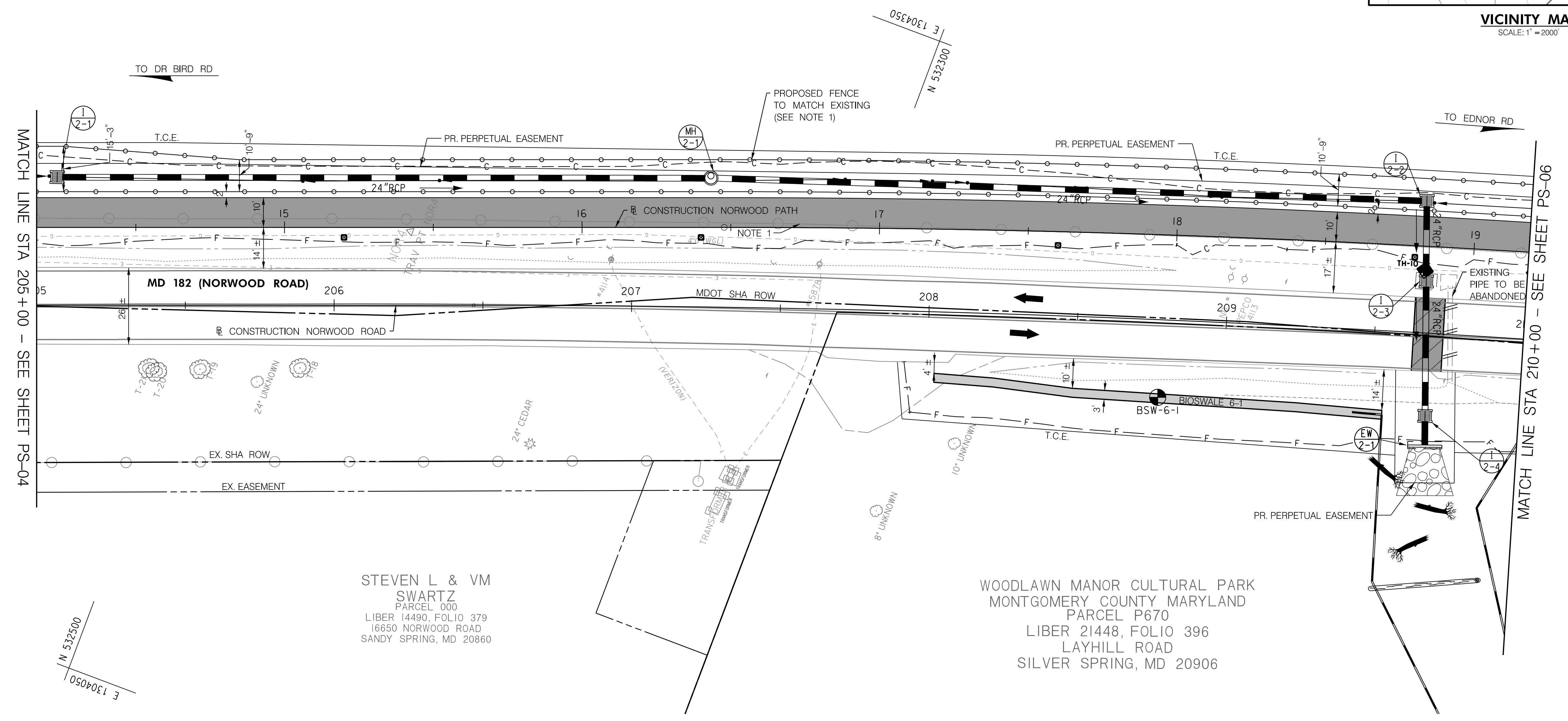
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ASPHALT SHARED USE PATH (STD. NO. MD 580.08)	
5022 SF	MD 182 - STA. 205+00, LT TO STA. 210+00, LT
WOOD RAIL FENCE	
322 LF	MD 182 - STA. 205+00, 38.2' LT TO STA. 210+00, 41.2' LT
321 LF	MD 182 - STA. 205+00, 53.4' LT TO STA. 210+00, 52.0' LT
REMOVE AND SALVAGE EXISTING FENCE (SEE NOTE 1)	
502 LF	MD 182 - STA. 205+00, 29.3' LT TO STA. 210+00, 28.8' LT

TEST HOLE DATA					
NO.	UTILITY	NORTHING	EASTING	TOP UTILITY ELEVATION	SURFACE ELEVATION
TH-10	4" GAS	532,119.8023	1,304,335.2552	417.82	422.09



WOODLAWN MANOR CULTURAL PARK
MONTGOMERY COUNTY
PARCEL N170
LIBER 5010, FOLIO 842
16501 NORWOOD ROAD
SANDY SPRING 20860



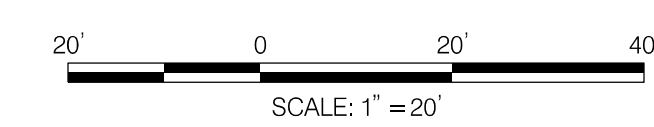
STEVEN L & VM SWARTZ
PARCEL 000
LIBER 14490, FOLIO 379
16650 NORWOOD ROAD
SANDY SPRING, MD 20860

WOODLAWN MANOR CULTURAL PARK
MONTGOMERY COUNTY MARYLAND
PARCEL P670
LIBER 21448, FOLIO 396
LAYHILL ROAD
SILVER SPRING, MD 20906

- NOTES:
- REMOVE, SALVAGE, AND RELOCATE EXISTING FENCE. SEE FENCE RELOCATION SCHEDULE (THIS SHEET) AND SPECIAL PROVISION FOR FENCE RELOCATION.
 - FENCE IMPACTS OR RELOCATIONS WILL BE COORDINATED WITH PROPERTY OWNERS FOR SUBSEQUENT SUBMISSIONS.

LEGEND

	CONCRETE DRIVEWAY
	ASPHALT SHARED USE PATH
	FLEXIBLE SHARED USE PATH
	MILL AND OVERLAY
	CONCRETE SIDEWALK
	DETECTABLE WARNING SURFACE
	FULL DEPTH ASPHALT
	PAVEMENT / SIDEWALK REMOVAL



OWNER / ADDRESS:
MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
100 EDISON PARK DRIVE
GAITHERSBURG, MARYLAND

CONTACT:
REBECCA PARK
REBECCA.PARK@MONTGOMERYCOUNTYMD.GOV
MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
240-777-7263

MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ROCKVILLE, MARYLAND			
RECOMMENDED FOR APPROVAL			
Chief, Transportation Planning and Design Section	_____	Date	_____
APPROVED			
Chief, Division of Transportation Engineering	_____	Date	_____
DESIGNED BY	KBJ/RLW	DRAWN BY	KBJ
CHECKED BY	IMB		
NO.	REVISION	DATE	BY

MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION DIVISION OF TRANSPORTATION ENGINEERING HERITAGE TRIANGLE TRAIL PHASE 1 DR. BIRD / NORWOOD ROAD SHARED USE PATH ROADWAY PLAN	
SCALE 1" = 20'	DATE AUGUST 2023
DRAWING NO. PS-05 OF 07	SHEET NO. 23 OF 103

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FILE: \\ad.rkk.com\rs\Cloud\Projects\2020\202097_MCDOT\Transp\Task 27 - Heritage Triangle Trail\CADD\Plans\pHD-0005_DrBird.dgn

ASPHALT SHARED USE PATH (STD. NO. MD 580.08)	
3081 SF	MD 182 - STA. 215+00, LT TO STA. 218+09, LT

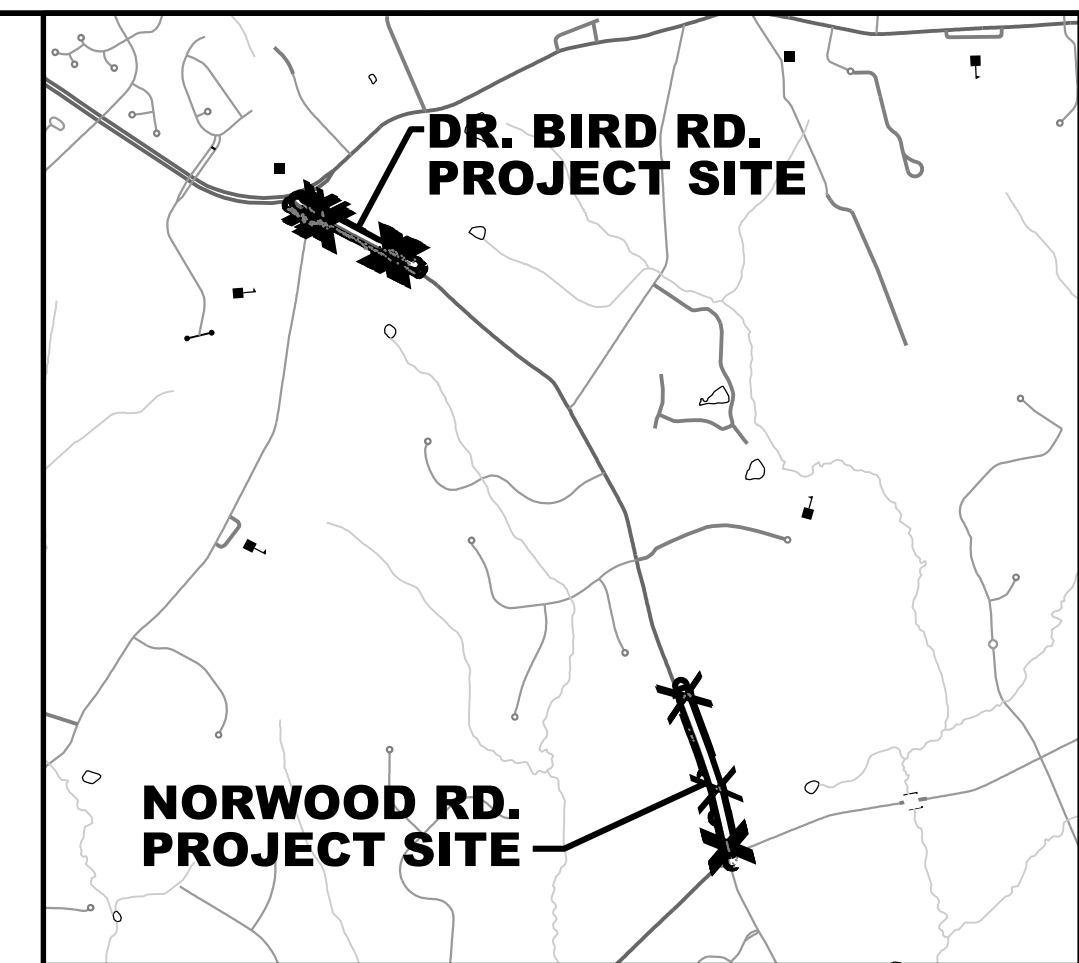
REMOVE AND SALVAGE EXISTING FENCE	
141 LF	MD 182 - STA. 215+00, 30.3' LT TO STA. 217+41, 54.1' LT

5 INCH CONCRETE SIDEWALK	
232 SF	MD 182 - STA. 218+09, LT TO STA. 218+31, LT
648 SF	MD 182 - STA. 218+69, LT TO STA. 219+24, LT
352 SF	MD 182 - STA. 219+10, RT TO STA. 219+35, RT

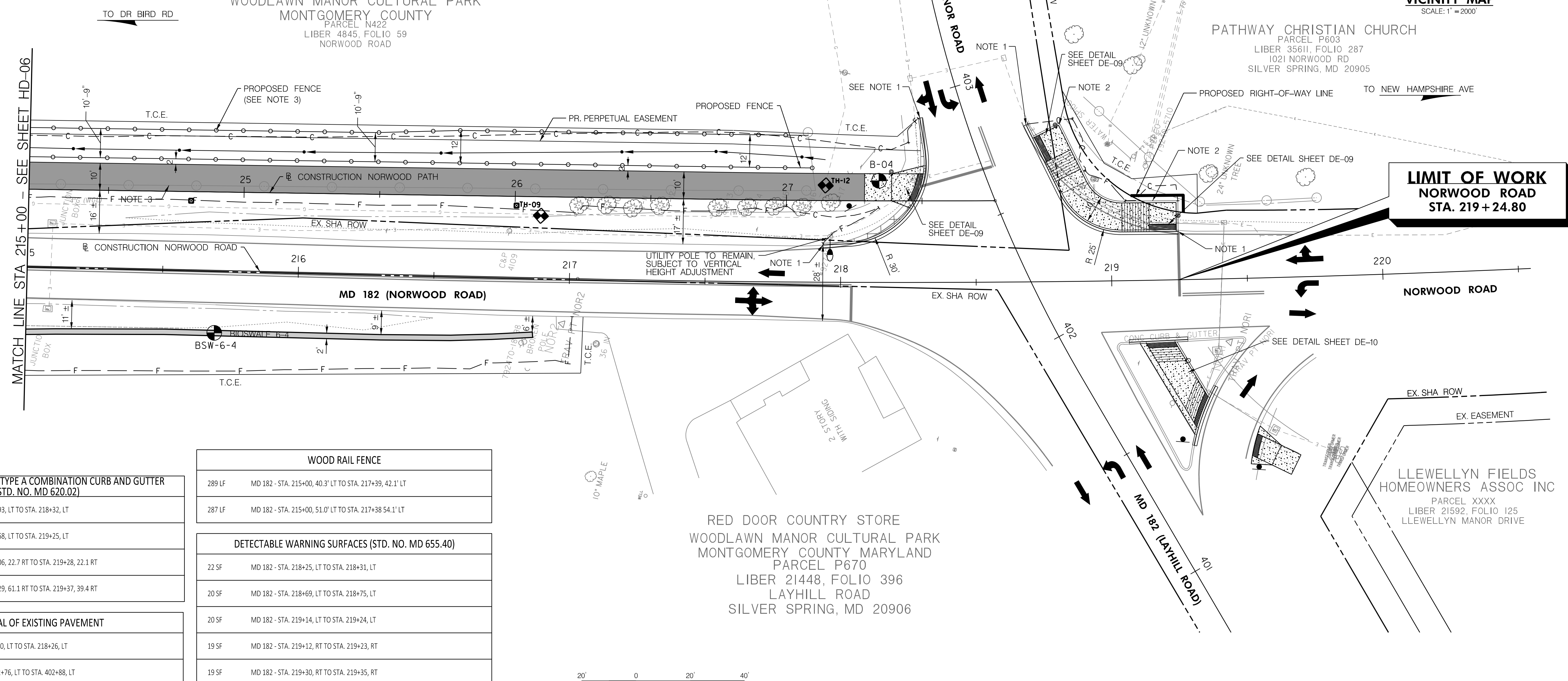
TEST HOLE DATA					
NO.	UTILITY	NORTHING	EASTING	TOP UTILITY ELEVATION	SURFACE ELEVATION
TH-09	4" GAS	531,417.3700	1,304,512.4600	421.14	425.72
TH-12	4" GAS	531,318.0700	1,304,548.4800	425.54	427.79

MDOT SHA STANDARD TYPE A CURB 8 INCH X 16 INCH MINIMUM (STD. NO. MD 620.02)	
81 LF	MD 182 - STA. 218+09, LT TO STA. 219+24, LT
24 LF	MD 182 - STA. 219+23, 22.9 RT TO STA. 219+35, 43.4 RT

WOODLAWN MANOR CULTURAL PARK
MONTGOMERY COUNTY
PARCEL N422
LIBER 4845, FOLIO 59
NORWOOD ROAD



VICINITY MAP
SCALE: 1" = 2000'



MDOT SHA STANDARD TYPE A COMBINATION CURB AND GUTTER (STD. NO. MD 620.02)	
72 LF	MD 182 - STA. 217+93, LT TO STA. 218+32, LT
78 LF	MD 182 - STA. 218+68, LT TO STA. 219+25, LT
22 LF	MD 182 - STA. 219+06, 22.7 RT TO STA. 219+28, 22.1 RT
24 LF	MD 182 - STA. 219+29, 61.1 RT TO STA. 219+37, 39.4 RT

WOOD RAIL FENCE	
289 LF	MD 182 - STA. 215+00, 40.3' LT TO STA. 217+39, 42.1' LT
287 LF	MD 182 - STA. 215+00, 51.0' LT TO STA. 217+38 54.1' LT

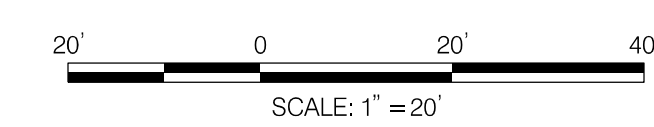
REMOVAL OF EXISTING PAVEMENT	
3 CY	MD 182 - STA. 218+00, LT TO STA. 218+26, LT
1 CY	EDNOR RD - STA. 402+76, LT TO STA. 402+88, LT

DETECTABLE WARNING SURFACES (STD. NO. MD 655.40)	
22 SF	MD 182 - STA. 218+25, LT TO STA. 218+31, LT
20 SF	MD 182 - STA. 218+69, LT TO STA. 218+75, LT
20 SF	MD 182 - STA. 219+14, LT TO STA. 219+24, LT
19 SF	MD 182 - STA. 219+12, RT TO STA. 219+23, RT
19 SF	MD 182 - STA. 219+30, RT TO STA. 219+35, RT

LEGEND

- CONCRETE DRIVEWAY
- ASPHALT SHARED USE PATH
- FLEXIBLE SHARED USE PATH
- MILL AND OVERLAY
- CONCRETE SIDEWALK
- DETECTABLE WARNING SURFACE
- FULL DEPTH ASPHALT
- PAVEMENT/SIDEWALK REMOVAL

- NOTES:**
- NOSE DOWN CURB OVER 2 FEET TO MATCH EXISTING EDGE OF ROAD.
 - ALL CONCRETE BACKING CURB SHALL BE PAID FOR AS MDOT SHA TYPE A CURB, ANY HEIGHT OR DEPTH, 12" MAXIMUM HEIGHT. REMOVE, SALVAGE, AND RELOCATE EXISTING FENCE, SEE FENCE RELOCATION SCHEDULE (THIS SHEET) AND SPECIAL PROVISION FOR FENCE RELOCATION.
 - IF CONTRACTOR ENCOUNTERS LONGITUDINAL UNDERDRAIN THEY SHALL REPAIR AND REPLACE IN ACCORDANCE WITH STD. MD 387.11. FENCE IMPACTS OR RELOCATIONS WILL BE COORDINATED WITH PROPERTY OWNERS FOR SUBSEQUENT SUBMISSIONS.



OWNER / ADDRESS:
MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
100 EDISON PARK DRIVE
GAITHERSBURG, MARYLAND

CONTACT:
REBECCA PARK
REBECCA.PARK@MONTGOMERYCOUNTYMD.GOV
MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
240-777-7263

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Transportation Planning and Design Section _____ Date _____

APPROVED

Chief, Division of Transportation Engineering _____ Date _____

DESIGNED BY KBJ/RLW DRAWN BY KBJ CHECKED BY IMB

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
DIVISION OF TRANSPORTATION ENGINEERING
HERITAGE TRIANGLE TRAIL PHASE 1
DR. BIRD / NORWOOD ROAD
SHARED USE PATH
ROADWAY PLAN

SCALE 1" = 20' DATE AUGUST 2023

DRAWING NO. PS-07 OF 07 SHEET NO. 25 OF 103

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MONTGOMERY COUNTY, MARYLAND
DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING AND OPERATIONS

JUNE 2016

RESIDENTIAL, DIRECT BURIAL FIBERGLASS POLE
ROUND, TAPERED, POST-TOP
GRAY OR BLACK

1) DESCRIPTION

The residential, round, tapered, direct burial fiberglass pole shall be made of a fiberglass reinforced composite (fiberglass filament and color pigmented resin), with a polyurethane and UV inhibitor coating, with a natural finish. This fiberglass pole is intended for use on 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 the attached drawings.

2) DESIGN CRITERIA

2.1 AASHTO Standards

The residential, round, tapered, direct burial fiberglass pole shall meet the requirements of the American Association of State Highway and Transportation Officials (AASHTO) Standard, "Specification for Structural supports for Highway Signs, Luminaires and Traffic Signals," latest edition.

2.2 Wind Load

The residential, round, tapered, direct burial fiberglass pole shall be designed to resist (at yield strength of the material without permanent deflection or destruction) test loads equivalent to the calculated wind loads developed by the velocity pressures of an 80 MPH wind with a 30% gust factor. A minimum safety factor of 1.82 on the yield strength shall be maintained.

2.3 Effective Projected Area (EPA)

The residential, round, tapered, direct burial fiberglass pole shall be designed

using the following assumptions:

- a) The streetlight luminaire shall be mounted at a height of 12 feet above the level of the surrounding ground (EPA of 3 Sq. Ft. +/-).
- b) One (24" x 36") traffic sign may be mounted with the sign's bottom edge 7 feet above the ground. (EPA of 6 Sq. Ft. +/-).

3) MATERIALS

- a) The residential, round, tapered, direct burial fiberglass pole shall be constructed by a winding filament process with color pigmented polyester resin impregnated into the filaments. The filament winding shall be continuously applied with uniform tension.
- b) The resin used will be color pigmented and shall be ultraviolet resistant. A highly weather resistant pigmented polyurethane coating shall be applied to the pole at a minimum thickness of 1.5 mils.

4) FINISH

The residential, round, tapered, direct burial fiberglass pole shall be of a natural finish for the entire length of the pole.

5) TENONS

The residential, round, tapered, direct burial fiberglass pole shall have a permanently bonded, hot-dipped galvanized steel or aluminum, 3 inch tenon.

6) HAND-HOLES

The residential, round, tapered, direct burial fiberglass pole shall have one 2 ½ inch x 5 inch hand-hole, with a non-metallic cover secured with a vandal-resistant, stainless steel screws.

7) POLE

7.1 Shaft

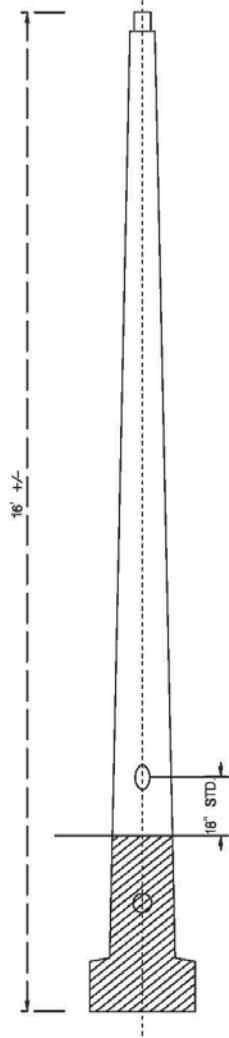
The residential, round, tapered, direct burial fiberglass pole shaft shall have a bottom pole diameter of 5.5 inches (+/- 0.1 inches), and a top pole diameter of 2.9 inches (+/- 0.1 inches)

7.2 Length

The residential, round, tapered, direct burial fiberglass pole shall have a nominal minimum luminaire mounting height of 12 feet and a maximum of 14 feet above the surrounding ground. The shaft shall be embedded a minimum of 3 feet in the ground.

SPECIFICATIONS FOR STREETLIGHT HARDWARE

SPECIFICATIONS FOR STREETLIGHT HARDWARE



MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING AND OPERATIONS

JUNE 2016

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 $0.7 \pm$ 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 $3500K \pm 200K$ 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.

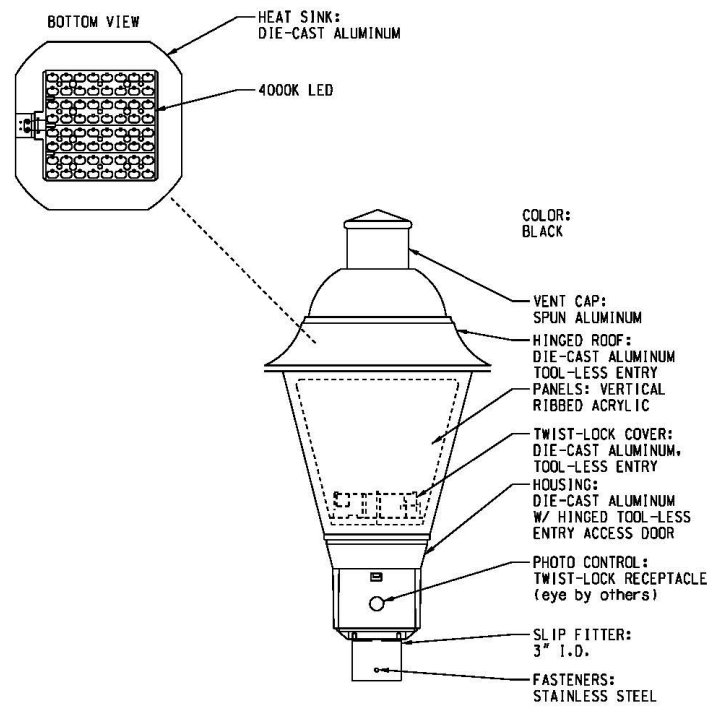
4.6 Slip Fitter

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.

SPECIFICATIONS FOR STREETLIGHT HARDWARE

IFB # 1063092

SPECIFICATIONS FOR STREETLIGHT HARDWARE



November 15, 2022

Mr. Christopher Conklin, PE, Director
Montgomery County Department of Transportation
Executive Office Building
101 Monroe Street, 10th Floor
Rockville, Maryland 20850

Dear Mr. Conklin:

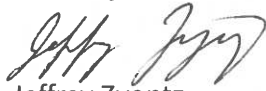
At its regularly scheduled meeting on November 3, 2022, the Montgomery County Planning Board voted to provide the following comments for Mandatory Referral No. 20220024 by a vote of 4:0 (Commissioner Piñero was absent), for the design of sidepath improvements on Doctor Bird Road and Norwood Road between Olney-Sandy Spring Road (MD 108) and Layhill Road/Ednor Road:

1. Construction plans must be submitted to the Montgomery Parks Department for review as part of the Park Construction Permit process to ensure that all work is performed in accordance with M-NCPPC standard details, specifications, and policies. No work on parkland may occur until an approved Park Construction Permit is issued for the project.
2. The final Memorandum of Understanding regarding access and maintenance must be agreed to and finalized between MCDOT and M-NCPPC before the issuance of a Park Construction Permit. MCDOT will be responsible for maintaining the asphalt sidepath facility and the proposed lighting.
3. MCDOT shall continue to coordinate with M-NCPPC on the design of the path and other elements including lighting, user safety elements, stormwater culvert and outfalls, stormwater bioswales, security cameras, double fence design including a mow strip, and natural resource protection and mitigation.
4. Mitigation for impacts to Park trees (with a 6" diameter at breast high or greater) damaged or removed, shall either be (1) replacement planting on parkland at a rate of one inch to one inch diameter or (2) a monetary per inch caliper basis at the rate of \$100/diameter inch, to be paid to Montgomery Parks prior to completion of construction.
5. Where the sidepath crosses driveways, maintain the sidepath's elevation across the driveway. Where possible, the sidepath should be pulled away from the roadway at driveways.
6. Given the open section cross section proposed along Norwood Road and the proximity of existing utility poles close to the road's edge on the east side, consideration from a Vision Zero perspective should be given to relocating or undergrounding these utilities in the future.

Mr. Christopher Conklin, PE, Director
November 15, 2022
Page Two

The Planning Board appreciates the opportunity to review this project and continue coordinating with your staff on this and future projects. If you have questions, please contact Stephen Aldrich at (301) 495-4528 or Stephen.Aldrich@MontgomeryPlanning.org.

Sincerely,



Jeffrey Zyontz

Chair

cc: Stephen Aldrich, Planner IV, M-NCPPC
Jason Sartori, Chief, M-NCPPC
Dan Sheridan, MCDOT

Enclosure:

M-NCPPC Staff Mandatory Referral Staff Report

JZ:SA:aj

**HERITAGE TRIANGLE TRAIL – PHASE 1
DOCTOR BIRD ROAD/NORWOOD ROAD SIDEPATH
MANDATORY REFERRAL NO. 2022024**

Description

Montgomery County Department of Transportation (MCDOT) is proposing to contract a sidepath for pedestrian and bicycle use along two sections of MD 182 – 1,400 feet along Doctor Bird Road starting at its intersection with Olney Sandy Spring Road (MD 108) and 1,700 feet along Norwood Road starting at the Norwood Road intersection with Layhill Road and Ednor Road and running to the north. The project is located in the Olney/Sandy Spring area. The proposed improvements will include construction of a ten-foot-wide sidepath to tie into the existing pedestrian and bicycle network at the project limits.

No. MR2022024

Completed: 10-06-2022

MCPB

Item No. 9

November 3, 2022

Montgomery County




Planning Board

2425 Reedie Drive,

Floor 14

Wheaton, MD 20902

Planning Staff

	Stephen Aldrich, PE, Planner IV, Countywide Planning & Policy Division, Stephen.Aldrich@MontgomeryPlanning.org , 301-495-4528
	Douglas Stephens, Principal Natural Resources Specialist, Park Planning & Stewardship, Douglas.Stephens@MontgomeryPlanning.org , 301-650-4367
	Jason Sartori, Chief, Countywide Planning & Policy Division, Jason.Sartori@MontgomeryPlanning.org , 301-495-2172

LOCATION

Doctor Bird Road starting at Olney Sandy Spring Road (MD 108) and running south a distance of 1,400 feet, and Norwood Road from Layhill Road/Ednor Road intersection running north a distance of 1,700 feet (adjacent to Woodlawn Manor Cultural Park)

MASTER PLAN

1998 Sandy Spring Ashton Master Plan, 2018 Bicycle Master Plan, 2018 Master Plan of Highways and Transitways

APPLICANT

Montgomery County Department of Transportation

ACCEPTANCE DATE

August 22, 2022

REVIEW BASIS

20-302 of the Land Use Article
(Mandatory Referral)

Summary:

- Montgomery County Department of Transportation to construct sidepath improvements along a 1,400 foot section of Doctor Bird Road starting at Olney-Sandy Spring Road (MD 108) heading to the south and a 1,700 foot-long section of Norwood Road starting at the intersection of Norwood Road with Layhill Road/Ednor Road and heading to the north.
- Forest Conservation exemption #42021057E was confirmed on February 27, 2015 as a linear county road project per Section 22A-5(e).
- Staff recommends approval of the Mandatory Referral with comments. .

TABLE OF CONTENTS

MANDATORY REFERRAL REVIEW BASIS	3
SECTION 1: RECOMMENDATIONS SUMMARY	3
SECTION 2: PROJECT DESCRIPTION.....	4
PROPOSED DESIGN PROJECT	4
PEDESTRIAN AND BICYCLE SAFETY IMPACT	4
TYPICAL SECTIONS	8
STORMWATER MANAGEMENT AND DRAINAGE.....	9
PHASING SCHEDULE.....	10
PUBLIC LAND	10
FUNDING.....	11
LIGHTING	11
MEMORANDUM OF UNDERSTANDING.....	12
IMPACTS TO MONTGOMERY PARKS PROPERTIES	13
PUBLIC OUTREACH	13
SECTION 3: 35% DESIGN PLANS FINDINGS AND ANALYSIS	13
DESIGN ELEMENTS - TRANSPORTATION	14
ENVIRONMENTAL REVIEW.....	14
PARKLAND IMPACTS	16
HISTORIC PRESERVATION.....	22
MASTER PLAN CONFORMANCE.....	23
SECTION 4: COMMUNITY OUTREACH	23
SECTION 5: CONCLUSION	23
ATTACHMENTS	23

MANDATORY REFERRAL REVIEW BASIS

This proposal for the construction of pedestrian and bicycle improvements is required to undergo the Mandatory Referral review process under the Montgomery County Planning Department's Uniform Standards for Mandatory Referral Review. State law requires all federal, state, and local governments and public utilities to submit proposed projects for a Mandatory Referral review by the Commission. The law requires the Planning Board to review and approve the proposed location, character, grade and extent of any road, park, public way, or ground, public (including federal) building or structure, or public utility (whether publicly or privately owned) prior to the project being located, constructed, or authorized. This review is typically performed in context with the relevant master plans, guidelines, and policies in effect.

Planning Staff acknowledges that the implementation of master plan transportation recommendations is a challenge faced by the Applicant in developing design plans to convert desired master plan recommendations into engineering design drawings. The design process up to 30/35 percent design typically brings clarity with considerably more detail than considered during a master plan, and issues such as environmental impacts, historic impacts, and construction costs may introduce new factors that need to be weighed in developing a final design solution. It is the intention of the Board that the Mandatory Referral process aids in this process to develop an optimal or at least an improved design solution.

SECTION 1: RECOMMENDATIONS SUMMARY

Planning Staff recommends approval of the Heritage Triangle Trail – Phase 1 Sidepath 35 percent design plans (MR2022024) with the following comments.

1. Construction plans must be submitted to the Parks Department for review as part of the Park Construction Permit process to ensure that all work is performed in accordance with M-NCPPC standard details, specifications, and policies. No work on parkland may occur until an approved Park Construction Permit is issued for the project.
2. The final MOU regarding access and maintenance must be agreed to and finalized between MCDOT and M-NCPPC before the issuance of a Park Construction Permit. MCDOT will be responsible for maintaining the asphalt sidepath facility and the proposed lighting.
3. MCDOT shall continue to coordinate with M-NCPPC on the design of the path and other elements including lighting, user safety elements, stormwater culvert and outfalls, stormwater bioswales, security cameras, double fence design including a mow strip, and natural resource protection and mitigation.
4. Mitigation for impacts to Park trees (with a 6" DBH or greater) damaged or removed, shall either be (1) replacement planting on parkland at a rate of one inch to one inch diameter or (2) a monetary per inch caliper basis at the rate of \$100/diameter inch, to be paid to Montgomery Parks prior to completion of construction.

5. Where the sidepath crosses driveways, maintain the sidepath's elevation across the driveway. Where possible, the sidepath should be pulled away from the roadway at driveways.
6. Given the open section cross section proposed along Norwood Road and the proximity of existing utility poles close to the road's edge on the east side, consideration from a Vision Zero perspective should be given to relocating or undergrounding these utilities in the future.

SECTION 2: PROJECT DESCRIPTION

PROPOSED DESIGN PROJECT

The Montgomery County Department of Transportation (MCDOT) recently completed the 35% design phase of the Heritage Triangle Trail - Phase 1 Doctor Bird / Norwood Road Sidepath Project. The project provides a well-connected pedestrian and bicycle network sidepath along Doctor Bird Road (MD 182) and Norwood Road (MD 182). The project limits, shown below in Figure 1, complete two missing links in the bicycle network and provide a pedestrian and bicycling space where none exists today by adding the following:

- Approximately 1,400 feet of new shared-use path along MD 182 starting at MD 108 (Olney Sandy Spring Road) and traveling south towards Norwood Road.
- Approximately 1,700 feet of new shared-use path along MD 182 starting at the driveway of The Adventure Park at Sandy Spring and traveling south to Ednor Road.
- Lighting, stormwater management facilities, and any required signal/crosswalk improvements at the intersections of MD 108 / MD 182 and Ednor Road / MD 182.

Completing the missing links in the bicycle network will provide a connection between several existing Maryland Heritage Sites along the MD 182 corridor, providing access to residential areas, transit, commercial districts, schools, places of worship, parks, and recreational areas.

PEDESTRIAN AND BICYCLE SAFETY IMPACT

This project is anticipated to significantly improve pedestrian and bicycle safety in the project area. In addition to improvements along Doctor Bird Road and Norwood Road, this project will complete two missing links in the larger bicycle network, providing a safe north/south connection for bicyclists and pedestrians in the Sandy Spring area.

In addition, the grading associated with the sidepath will provide adequate horizontal sight distance for motorists along a roadway where sight distance does not meet current AASHTO requirements. This will allow motorists to see pedestrians and bicyclists using the sidepath, improving safety for all parties.

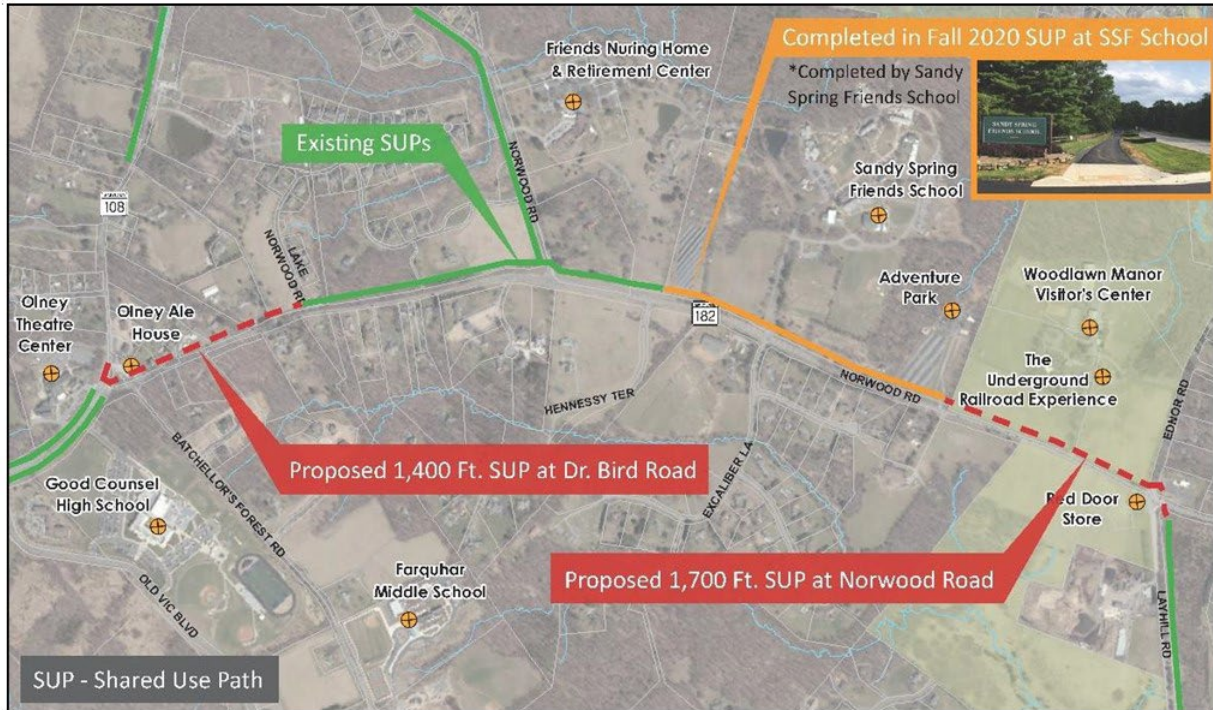


Figure 1 – Vicinity map

Doctor Bird Road - The existing roadway (see Figure 2) has two travel lanes with some shoulder towards the intersection of MD 182 / MD 108, resulting in bicyclists sharing the narrow lanes with vehicles. The proposed sidepath (see Figure 3) will provide an off-road separated bicycle facility to accommodate bicycle users who are not comfortable riding in a shared lane on a narrow roadway. It will also accommodate pedestrians through an area that currently does not have any separated pedestrian space. The path will connect to existing sidepaths at both termination points, improving the overall transportation network.

Norwood Road - The existing roadway (see Figure 4) contains two travel lanes with no existing shoulder, which results in bicyclists sharing narrow lanes with vehicles. The proposed sidepath (see Figure 5) will provide an off-road separated bicycle facility to accommodate bicycle users who are not comfortable riding in a shared lane on a narrow roadway. It will also accommodate pedestrians through an area that currently does not have any separated pedestrian space. The path will connect to existing sidepaths at both termination points, improving the overall transportation network.



Figure 2 – Doctor Bird Road: Existing



Figure 3 – Doctor Bird Road: Proposed



Figure 4 – Norwood Road: Existing



Figure 5 – Norwood Road: Proposed

TYPICAL SECTIONS

Doctor Bird Road – Doctor Bird Road (MD 182) is classified as a two-lane Major Highway in the Master Plan of Highway and Transitways (MPOHT). The existing typical section consists of one eastbound through lane (11' to 12') and one westbound through lane (11'). There is a westbound left-turn lane approaching the intersection of Doctor Bird Road with Olney Sandy Spring Road (MD 108). The immediate area has a rural character.

Under the proposed condition, the existing roadway alignment will be shifted south, near the MD 182 / MD 108 intersection, to provide space for a buffer-separated sidepath on the adjacent westbound lane. The proposed typical section will have a lane configuration identical to existing conditions with one eastbound 11-foot eastbound through lane, one 11-foot westbound through lane, a six-foot grass buffer, and an additional 10-foot sidepath adjacent to the westbound lane. Details are provided below:

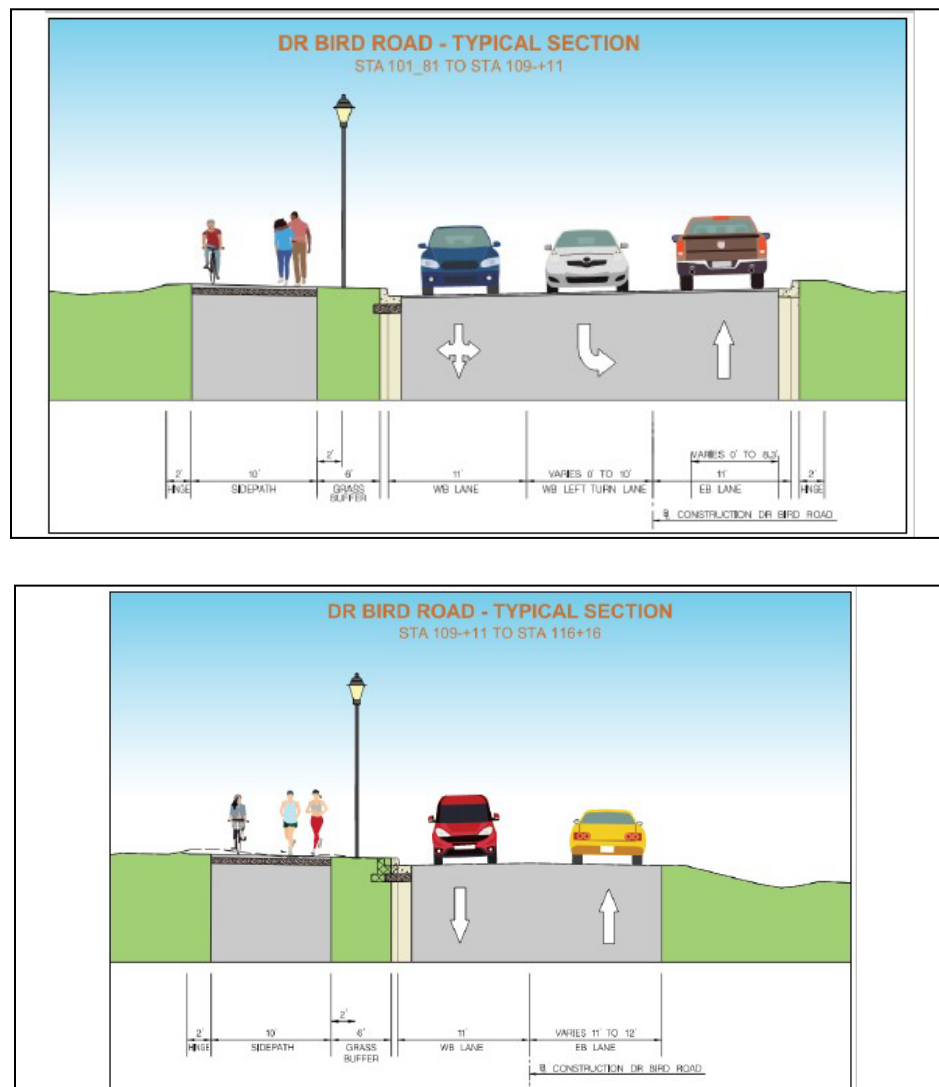


Figure 6 – Doctor Bird Road Proposed Typical Sections

Norwood Road – Norwood Road (MD 182) is classified as a two-lane Major Highway in the MPOHT. The existing typical section consists of one northbound lane (11' to 13') and one southbound lane (10' to 14') without shoulders or safety grading. The immediate area has a rural character.

Under the proposed condition, the existing roadway will not be impacted. The proposed typical section will add a variable width buffered grass shoulder and variable width bio-swale adjacent to the southbound lane as well as a variable width buffered grass shoulder, 10-foot sidepath with buffered grass shoulders on each side, and a variable width drainage ditch adjacent to the northbound lane.

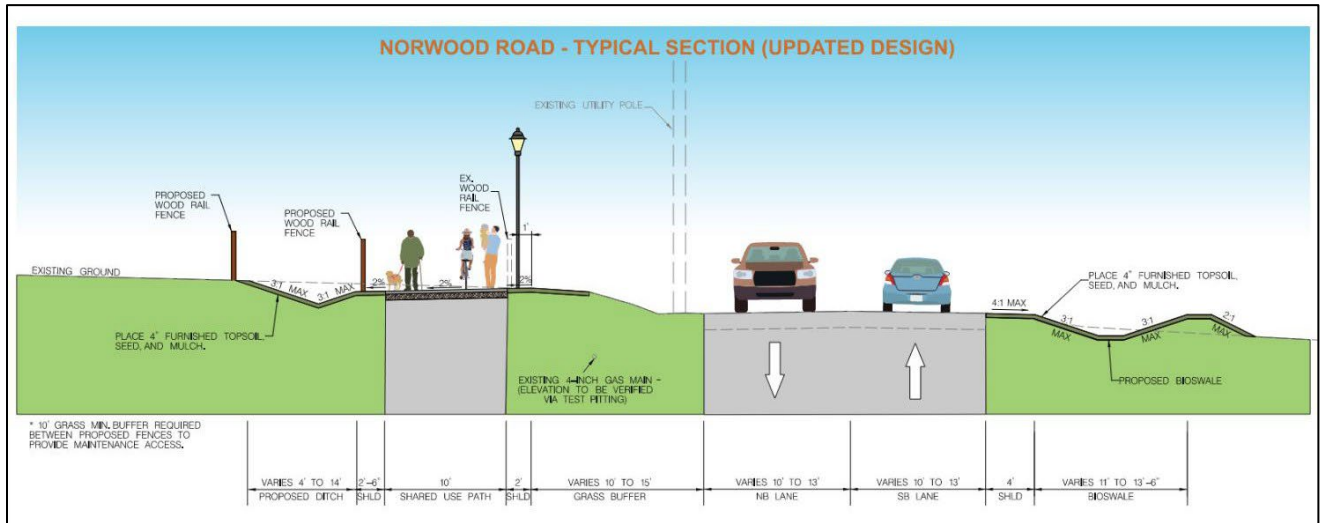


Figure 7 – Norwood Road Proposed Typical Section

STORMWATER MANAGEMENT AND DRAINAGE

The Applicant has provided full stormwater management treatment for this project; however, due to surrounding residential properties, utilities, constrained right-of-way (ROW), and the existence of high-value park properties adjacent to portions of the proposed path, locations to provide stormwater management are limited. Through previous discussions with M-NCPPC Staff, it was decided that stormwater management treatment within their property should be limited to the south side of Norwood Road. This limits the ability to treat the newly proposed path; however, treatment in these facilities has been maximized to the extent possible.

The project provides environmental site design (ESD) to the maximum extent practicable (MEP) within the project area through the provision of one (1) Micro-bioretenion Facility along the Doctor Bird portion of the project, and four (4) Bioswale facilities location along the south side of Norwood Road. The one micro-bioretenion facility will be built within MDOT SHA ROW and use MDOT SHA details, while the bioswales will be built on parks property and use Montgomery County Stormwater Management details. Though all available space within the project area is utilized to provide as much stormwater management treatment as possible, these 5 facilities still do not treat the full stormwater

management requirement. Therefore, MCDOT will be seeking a waiver for the treatment that cannot be provided.

The proposed work will not impact any stream buffers, floodplains, or wetlands. The project site drains to the Watershed of the Anacostia River (02140205) to the South and the Watershed of Rocky Gorge Dam (02-13-11-07) to the North.

Drainage design within the project area is limited to replacing existing roadside drainage amenities in-kind along Doctor Bird Road. Along Norwood Road, a drainage ditch is proposed and designed between the newly proposed shared-use path and the roadway. This ditch provides conveyance to existing cross-culverts, which will be replaced and upgraded under this task to meet current criteria. The outfalls of these cross culverts are being upgraded with a riprap design to provide a stable outfall for crossflows and the proposed bioswales, which outfall into these areas.

PHASING SCHEDULE

This project represents Phase 1 of the Heritage Triangle Trail, a phased project that will connect four heritage tourism destinations—the Olney Theatre Center, Sandy Spring Museum, Underground Railroad Experience Trail Hike, and Woodlawn Manor Cultural Park—via a sidepath for bicyclists and pedestrians. Approximately one mile of trail exists along the eastern portion of Doctor Bird Road/Norwood Roads. A segment along the Sandy Spring Friends School’s Norwood Road frontage was recently completed in 2020. The current phase closes the gap between the Olney Theatre and the existing trail while establishing a new connection to Woodlawn Manor Cultural Park. An overview map is provided in Figure 8.

Following construction of Phase 1, the team is planning to continue design on the remaining segments of the Heritage Triangle Trail. The goal would be to initiate community outreach and preliminary design work on the remaining segments in 2024.

PUBLIC LAND

The proposed sidepath will be constructed largely within the existing state and county right-of-way; however, some parts of the path along Doctor Bird Road will be installed on private residential property. Additionally, portions of the path along Norwood Road will be installed on Montgomery Parks property. The project team has been coordinating with both groups of stakeholders regarding the project design and will prepare full right-of-way/ easement plats as part of the final design process. Temporary construction easements will be required on both the private residential properties and Montgomery Parks property.

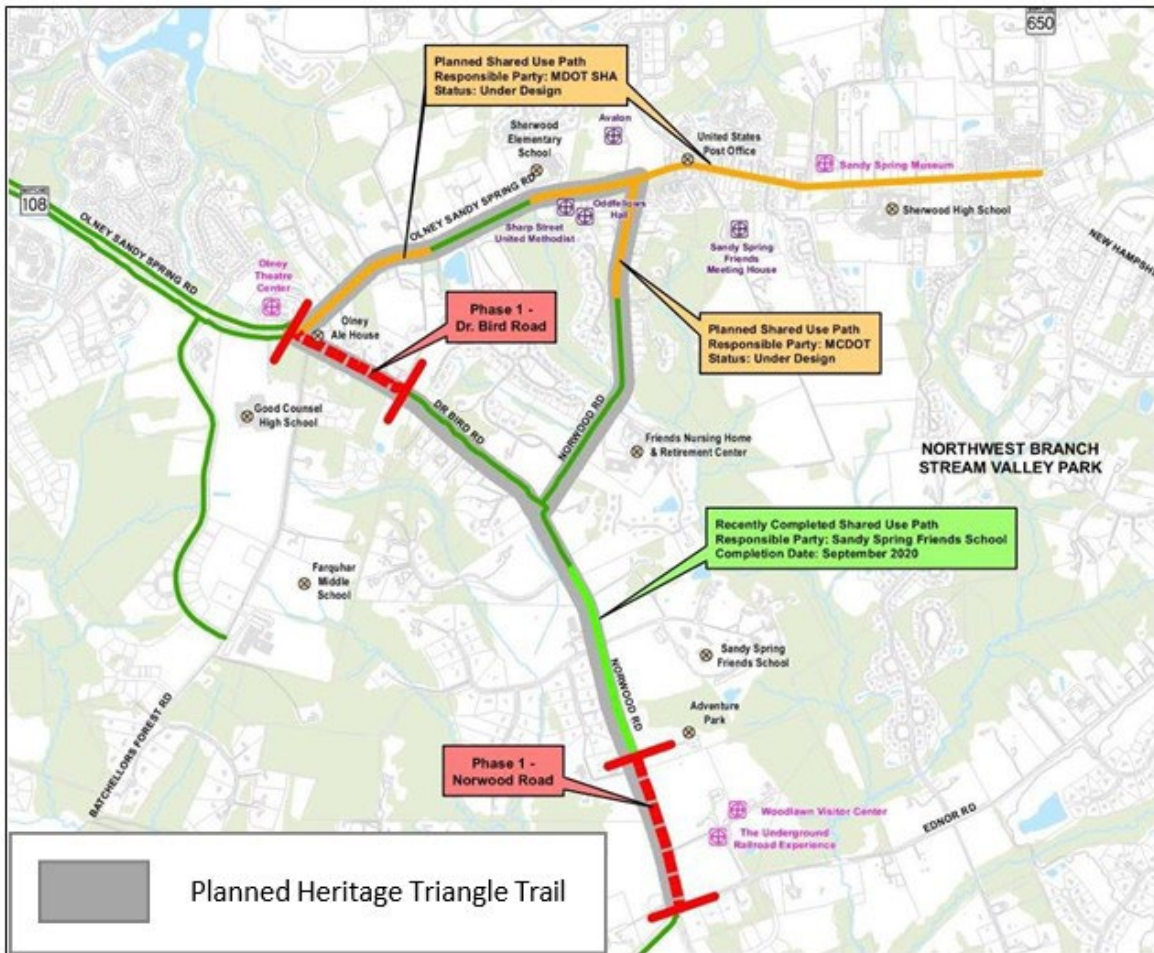


Figure 8 – Heritage Triangle Trail Overview Map

FUNDING

The design and construction of the project is currently funded by MCDOT with a contribution of \$100,000 from the Maryland Heritage Areas Authority Grant Program.

LIGHTING

The initial design plans for this project included pedestrian lighting along all sections of the newly installed sidepath. During the project’s stakeholder outreach, Parks identified several concerns with the installation of lighting along the Norwood Road section. Over the course of several months, MCDOT held several meetings with Parks and several associated stakeholders to review and resolve the lighting concerns identified. Following several discussions, all parties agreed that lighting fixtures would be acceptable along Norwood Road under the following established criteria:

- Lighting Fixtures – MCDOT agreed to select a colonial post lighting fixture that met Parks’ requirements for light transmission (dark sky compliant, shielding, low wattage LED bulbs)
- Lighting Maintenance – MCDOT agreed to maintain the lighting fixtures
- Lighting Continuity – MCDOT agreed to coordinate the future lighting of currently un-lit portions of the surrounding sidepaths that are a part of the proposed Heritage Triangle Trail system (Sandy Spring Friends School Path and the sidepath directly north of this newly constructed path)
- Trail Counters – MCDOT agreed to install bicycle/pedestrian trail counters along the sidepath

MCDOT reviewed several proposed fixtures with Parks and it was agreed that the MCDOT standard colonial post fixture would be acceptable. Regarding the lighting continuity issue, MCDOT and Parks agreed to the following conditions per an email from Montgomery Parks in Spring 2022:

“The installation of lighting on parkland along Norwood Road is contingent upon lighting the adjacent path sections, North Path and Sandy Spring Friends School, concurrently. If lighting the adjacent path sections (North Path and Sandy Spring Friends School) is not to be included in HTT Phase 1, then conduit only will be approved for the parkland section at this time, with delayed approval for light fixtures when funds are procured for the adjacent path lighting to be installed concurrently. Parks’ goal is to provide lighting uniformity along the route that doesn’t lead trail users to unsafe dark zone.”

MCDOT AGREES TO THESE CONDITIONS AND CONFIRMED THAT THE LIGHTING FOR THE CURRENTLY UN-LIT AREAS WILL BE INSTALLED UNDER A SEPARATE CONTRACT SUBJECT TO THE APPROPRIATION OF FUNDS. ALL FUTURE LIGHTING PLANNED IS SUBJECT TO APPROPRIATION. MEMORANDUM OF UNDERSTANDING

In addition to the lighting coordination described in the previous section, MCDOT and Montgomery Parks conducted extensive coordination regarding the proposed project design and the division of maintenance responsibilities for the new project facilities. Because a significant portion of the planned sidepath, drainage facilities, and stormwater management facilities fall on parks property, the team initiated preliminary development on how the assets would be maintained following the completion of construction. Below is an outline of the preliminary responsibilities as discussed by the team:

- **Sidepath Facility – MCDOT:** MCDOT will be responsible for maintaining the asphalt sidepath facility. This will include repairs to the asphalt surface and any additional maintenance required.
- **Vegetation and Fences – Parks:** Montgomery Parks will maintain the lawns, trees, and fences/railings located along the path on Parks property.
- **Drainage Facility – Parks:** Montgomery Parks will maintain the drainage swales installed on Parks property. This will include mowing, weeding, trash removal, and any other associated maintenance for the swales. MCDOT shall be responsible for structural maintenance (inlets, pipes, endwalls, and headwalls).

- **Stormwater Management Facility – Parks:** Montgomery Parks will maintain the stormwater management facilities on Parks property. This includes managing the vegetation in the bioswale, removing trash/debris, and inspecting and maintaining outfalls to ensure they are not blocked. The Department of Environmental Permitting (DEP) will be responsible for structural maintenance per the existing agreement between Parks and DEP (Chapter 19, Article II).
- **Path Lighting – MCDOT:** Currently MCDOT and Montgomery Parks are coordinating regarding project lighting. MCDOT will maintain the lighting if standard Montgomery County light posts and fixtures are installed. MCDOT and the project team are currently researching and investigating ways to amend the contract and maintain lighting if timers are included.
- **Security System – Parks:** Montgomery Parks to own and maintain security cameras installed along the sidepath.

All parties reviewed and acknowledged that this outline should be considered a starting point for the detailed MOU that will be developed to document the final maintenance responsibilities. MCDOT will continue to coordinate with Montgomery Parks and all associated stakeholders to develop, review, and finalize a maintenance MOU for this project.

IMPACTS TO MONTGOMERY PARKS PROPERTIES

This project will have an impact on the Woodlawn Manor Park and MCDOT has been coordinating closely with M-NCPPC, Montgomery County Parks, and the Park Police to incorporate these stakeholders' concerns into its preliminary design. During early coordination with Parks, MCDOT redesigned the preliminary stormwater management system to shift the facilities to the west side of Norwood Road and significantly limit the property impacts to Woodlawn Manor Park. Other than the impacts to Woodlawn Manor Park, there are no additional impacts to M-NCPPC property.

PUBLIC OUTREACH

A newsletter was mailed to residents within the vicinity of the project in February 2021. A virtual public meeting was held on February 25, 2021. A link to the project website is below:

<https://www.montgomerycountymd.gov/dot-dte/projects/heritageTTph1/index.html>

The project team is continuing to coordinate with all project stakeholders as the design is finalized.

SECTION 3: 35% DESIGN PLANS FINDINGS AND ANALYSIS

The primary purpose of the proposed facility is to improve connectivity and safety for both pedestrians and bicyclists along Doctor Bird and Norwood Roads. Providing a ten-foot-wide sidepath facility parallel to Doctor Bird and Norwood Road in two distinct segments will fill in missing sidepath segments and improve the safety for users along the corridor and reduce the potential for crashes by minimizing conflict points with vehicles. The facility will improve the level of comfort for users of all ages and abilities by providing a dedicated facility with horizontal separation from the roadway in the form of a proposed grass buffer with a minimum width of five feet (primarily six feet wide or better) between the roadway and the proposed facility. The proposed facility will connect to existing shared use facilities on Olney Sandy Spring Road (MD 108) to the north and Layhill Road to the south.

DESIGN ELEMENTS - TRANSPORTATION

ROADWAY DESIGN

Doctor Bird Road and Norwood are considered to be Country Connectors with a 40-mph target speed under the Planning Board-approved Complete Streets Design Guide (CSDG). The road currently has a 35-mph posted speed along its length.

SHOULDER DESIGN

Doctor Bird Road and Norwood Road do not currently have paved shoulders, and short portions of the corridor are curbed (typically near new intersections and recently approved driveways). Along Norwood Road, the design will be adding a four-foot grass shoulder on the west side between the roadway and a drainage swale. If a shoulder is provided on a Country Connector, six feet is the minimum shoulder width identified in the CSDG. There is some concern with the east side of Norwood Road and the proximity of utility poles very close to the road edge. This is more of a Vision Zero concern along this corridor than the lack of shoulders. The project will not significantly change shoulder conditions along the east side of the road in this section.

BUFFER DESIGN

The buffers proposed in this design are primarily six feet or wider for the majority of the project limits. This is consistent with the minimum buffer width identified in the CSDG.

ENVIRONMENTAL REVIEW

ENVIRONMENTAL GUIDELINES

The project area does not contain any environmental buffers, streams, other sensitive features. The project area does contain 0.07 acres of forest. The project is within the Northwest Branch watershed

and partially within the Hawlings River Watershed, both of which have a Use Class IV¹ (recreational trout waters) designation.

The project proposes 0.07 acres of forest removal and has no impacts on a stream valley buffer, wetlands, or the 100-Year-Floodplain. The environmental impacts are necessary and unavoidable to achieve the design standards of creating the new pathway, and those impacts have been minimized to the greatest extent possible.

FOREST CONSERVATION

The project is exempt from submission of a forest conservation plan. A forest conservation exemption (#42021057E) was granted under the provisions of Section 22A-5(e) as “a state or county highway project.” The exemption was confirmed on February 27, 2015.

While the project is exempt, the Applicant is still required under section 22A-9 of the County Code to:

- a) Minimize forest cutting, clearing, and loss of specimen trees to the extent possible while balancing other design, construction, and environmental standards. The constructing agency must make a reasonable effort to minimize the cutting or clearing of trees and other woody plants.
- b) If the forest to be cut or cleared for a county highway project equals or exceeds 20,000 square feet, the constructing agency must reforest a suitable area at the rate of one acre of reforestation for each acre of forest cleared.
- c) Mitigation for loss of specimen or champion trees. Mitigation amounts are based on the size and character of the tree.

The Applicant has minimized the limits of disturbance, minimizing the amount of forest clearing and impacts to large and specimen trees. However, the project still has impacts to forest and specimen trees. The Applicant has provided a plan to highlight forest loss/mitigation, tree save, and specimen tree mitigation.

Forest loss/mitigation

Even with minimizing the limits of disturbance and altering some design aspects there are some necessary and unavoidable impacts to forest. The project proposes to remove 0.07 acres (~3,050 square feet) of forest which is below the forest clearing threshold of .46 acres (20,000 square feet) allowed under the exemption. Therefore, the Applicant is not required to provide reforestation.

¹ Environmental Guidelines: Guidelines for Environmental Management of Development in Montgomery County, 2021, page 58.

Tree Save

The Applicant has submitted a tree save plan in conjunction with the Mandatory Referral process to show how the impacts have been minimized and what stress reduction methods are being used to further minimize impacts on trees. Three specimen trees are being removed by this project.

PARKLAND IMPACTS

The proposed sidepath project along Norwood Road (MD182) will impact approximately 64,590 SF square feet of parkland at the frontage of Woodlawn Manor Cultural Park on the east side of Norwood Road. In addition, there are approximately 22,180 SF of proposed parkland impacts, at the Red Door Store Cultural Park on the west side of Norwood Road to accommodate stormwater management swales (Figure 9). There are no parkland impacts associated with the approximately 1,400-foot-long section along Doctor Bird Road starting at MD 108 (Olney Sandy Spring Road) and traveling south towards Norwood Road.

Woodlawn Manor Cultural Park is an 80-acre park dedicated to the preservation and interpretation of cultural resources. Woodlawn Manor is part of the National Park Service's National Underground Railroad Network to Freedom and is an active educational site serving thousands of children and families each year. The two main functions of Woodlawn Manor include the museum and Park Police operations:

- 1) The museum located in the \$3.5 million renovated barn project, historic house, and Underground Railroad Experience Trail functions to tell the story of the Underground Railroad, Quakers, enslaved and Free African Americans of Sandy Spring and Montgomery County.
- 2) Park Police Special Operations have their headquarters at the park, where they prepare for emergency operations as well as stable and pasture their horses in barns and within electrified fencing.

The park is located in the Northwest Branch watershed and in the North Olney Manor Management Region.

MCDOT Heritage Triangle Trail-Phase 1 at Woodlawn Manor Cultural Park



Figure 9 – Project Impacts to Parkland

Montgomery Parks supports the project's goal to improve pedestrian and cyclist connectivity to these important cultural resources and is working with MCDOT to reduce the impacts to parkland where feasible and provide appropriate mitigation for unavoidable impacts. The 10-foot-wide sidepath connector proposed on the east side of Norwood Road along Woodlawn Manor Cultural Park, includes a variable 10- to 15-foot-wide grass buffer between the path and the roadway (see Figure 7). The pasture will be reduced by 22 to 30 feet along the approximately 1,600-foot length on park property.

LIGHTING

Montgomery Parks supports pedestrian lighting (as described in Section 2) for the Heritage Triangle Trail as long as all sections of the path are lit to prevent a discontinuity of lighting along the trail. MCDOT will be responsible for the maintenance of the lighting posts and fixtures. Since there is currently no existing path lighting on the sections adjacent to park property Parks is requiring that conduit only be installed until lighting for the adjacent trail sections is funded. Additional coordination on lighting and minimizing impacts from lighting in this section will be required and included in the Memorandum of Understanding (MOU) and Park Construction Permit.

CULTURAL RESOURCES

Due to the historical context of this site, MCDOT has been in coordination with the Maryland Historical Trust, the Maryland State Historic Preservation Office (MHT) and Parks' Cultural Resources Staff. An archeological investigation was performed along the length of the project. Along the Norwood Road section, five shovel test pits identified a very low-density field scatter of seven artifacts, broadly dating from the late 18th to early 20th century. MHT determined that no additional Phase 2 archaeological investigations will be required and that the project will have no adverse effect on historic properties. MCDOT is continuing to coordinate with MHT and the Montgomery Planning's Historic Preservation (HP) staff and is pursuing Historic Area Work Permits for Woodlawn Manor and the Red Door Store. The MHT advised that "MCDOT should exercise caution during design and construction of the undertaking to ensure that project construction activities, equipment, and staging areas avoid any disturbance to the Woodlawn Manor property outside the Area of Potential Effects (APE)." Additionally, any archeological findings uncovered during construction shall be shared with Parks Cultural Resources Staff.

NATURAL RESOURCES

The proposed trail runs across the road frontage and the Woodlawn site and will impact landscape plantings including trees and shrubs. Nine red cedars (not specimen trees) on parkland at the intersection of Ednor Road and Norwood Road will be removed as part of the project (see Figure 10). At the entrance to Woodlawn Manor two large shrubs and one bur oak (not a specimen tree) will need to be removed to improve sightlines (see Figure 11). Parks and MCDOT will work collaboratively to fulfill Parks tree mitigation requirements through either the planting of new trees, mitigation fee payment, or other natural resource mitigation. Parks Urban Forester will provide guidance during the

Park Construction Permit review to avoid and minimize impacts to the critical root zones to the large oaks lining the entrance to the park.

On the west side of Norwood Road, is the Red Door Store Cultural Park, an approximately 80-acre park which houses the Red Door Store, a distinctive historical example of a mid-19th century rural crossroads store. In 2018, architectural, engineering and market studies were undertaken to better understand the level of effort required to rehabilitate and activate the structure. The Red Door Store Cultural Park contains an approximately 58-acre meadow management site. Meadow areas at the site are primarily composed of old field non-native species, with some native grasses and wildflowers



Figure 10 - Red Cedars to be removed adjacent to Woodlawn Manor Cultural Park

present. Active management currently includes annual mowing to keep the site open and dominated by herbaceous species. It is currently identified as an important area for open habitat species within the Montgomery Parks system. The meadow and adjacent forested area slope down to Batchellor's Run, a restored tributary of Northwest Branch.



Figure 11 – Entrance to Woodlawn Manor Cultural Park

STORMWATER MANAGEMENT

Four bioswales are proposed along the west side of Norwood Road within the Red Door Store Cultural Park to provide required stormwater management for the project. Parks has committed to maintaining the stormwater facilities built by MCDOT on parkland per the agreement with the Montgomery County Department of Environmental Protection. Two SHA culverts will be replaced under Norwood Rd which currently do not function causing flooding on the roadway. Both culverts outfall into the meadow area on the west side of Norwood Rd. Parks will require MCDOT to construct stable and environmentally sensitive outfall structures that avoid erosion and channelization in the meadow.

SAFETY AND SECURITY

Montgomery Parks looks forward to the improved pedestrian and cycling access to Woodlawn Cultural Park, however the new path does present new challenges for safety and security. Figure 12 shows the proposed shared-use path plan view at the entrance to Woodlawn Manor. Parks Staff have noted concerns with the vehicular traffic utilizing this entrance as a cut-through and additional measures should be taken to improve the safety of the path crossing including better signage to reduce thru traffic, a marked crossing and detectable warning strips for pedestrian and cyclists, and other appropriate measures identified during detailed design. The existing signage at the entrance to Woodlawn will need to be relocated and replaced at the direction of Parks Staff.

Along the length of the east side of the path, at the request of Park Police, a double fence separated by a 10-foot width is proposed to separate the equestrian pasture from the path for the safety of both the

horses and path users. The fence must match the existing fence in design and materials. In addition, due to increased access and activity that the path will provide around the Park Police headquarters and equestrian facilities MCDOT will also provide four security cameras along the frontage of the Woodlawn Property. Finally, MCDOT will provide a trail counter along this section of the path to Parks' specification to allow for user data tracking and analysis.

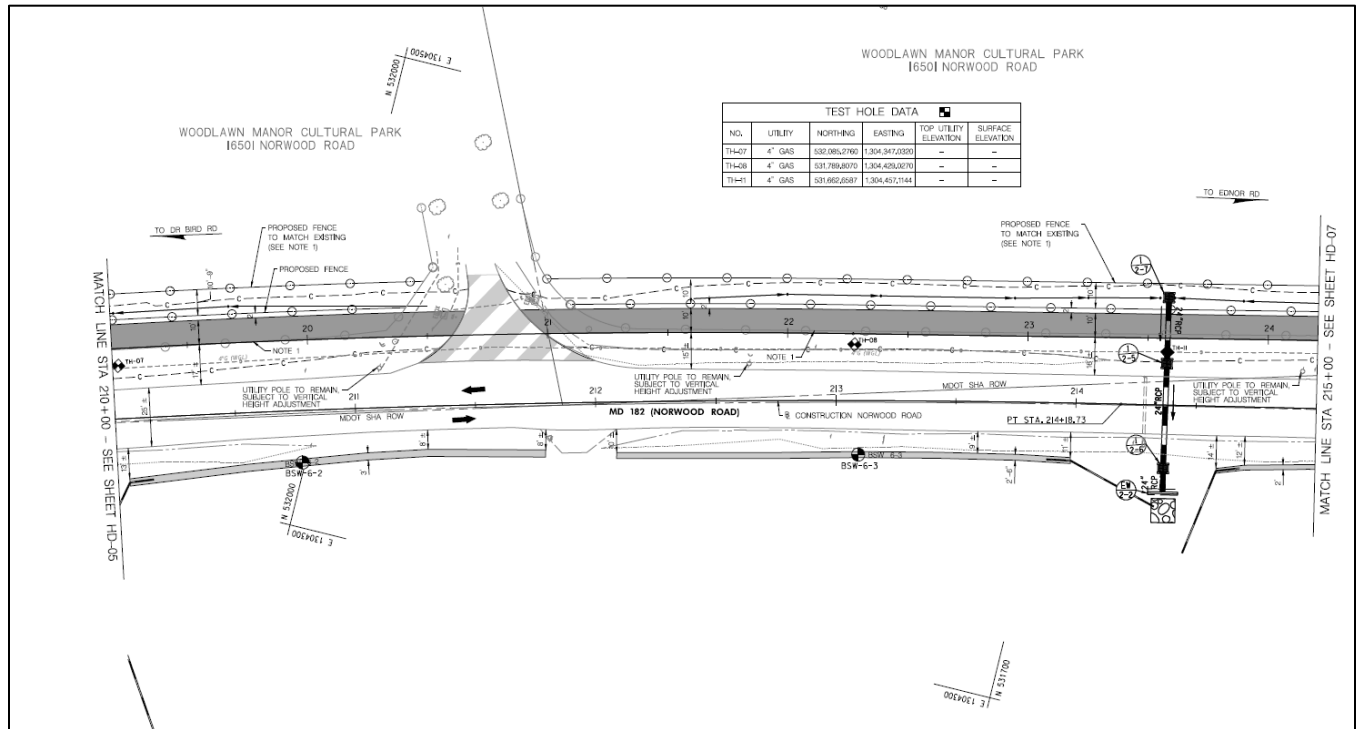


Figure 12 – Plan view of the proposed Sidepath at the Entrance of Woodlawn Manor Cultural Park

PARK CONSTRUCTION PERMIT AND MOU

Parks and MCDOT have agreed that Parks will maintain ownership over the land and no easements will be granted. A Memorandum of Understanding (MOU) will outline the long-term maintenance agreements for each agency.

MCDOT will be required to obtain a Park Construction Permit from Montgomery County Department of Parks prior to commencement of any construction activities on parkland. Plans submitted for Park Construction Permit review must include existing topography, utilities, and identify and locate all trees (with size and species) larger than 6” diameter at breast height (DBH) and greater within 100 feet of the proposed limit of disturbance on park property. Mitigation for impacts to Park trees (with a 6” DBH or greater) damaged or removed, shall either be (1) replacement planting on parkland at a rate of one inch to one inch diameter or (2) a monetary per inch caliper basis at the rate of \$100/diameter inch, to be paid to Montgomery Parks prior to completion of construction. Tree impacts will be determined by an M-NCPPC forester prior to construction based on the Final Design. During Park

Construction Permit Review, Parks Staff will work with MCDOT to minimize impacts to parkland to the greatest extent possible and avoid all critical resources identified.

HISTORIC PRESERVATION

MCDOT's consultant completed detailed cultural resources analysis and submitted a Phase 1 Cultural Resources Report to the Maryland Historic Trust (MHT) in June 2021. MHT responded in August 2021 and determined that no additional Phase 2 archaeological investigations will be required and that the project will have no adverse effect on historic properties. The Applicant is continuing to coordinate with MHT and Montgomery Planning's Historic Preservation (HP) staff as the design progresses forward. Per coordination with HP staff, the Applicant has initiated the submission of draft Historic Area Work Permits (HAWP) via the online portal for the Red Door Store and Woodlawn properties.

The Doctor Bird/Norwood Road sidepath project is adjacent to several sites on the Master Plan for Historic Preservation including Woodlawn (28/14), the Holland Store and House/Red Door Store (23-119), and the Doctor Bird House (23/121). The project limits of disturbance will not encroach on the Doctor Bird House master plan site; but impacts both the Woodlawn and the Holland Store and House/Red Door Store sites, so a HAWP is required before the work begins.

Historic Preservation Staff supports the project and is not concerned about the potential impacts the work will have on the designated sites. The sidepath, lighting, and relocated fencing adjacent to Woodlawn will not significantly impact the historic character of the site's environmental setting. Additionally, HP Staff finds the re-grading necessary for the bioswale and culverts installed on the Holland Store and House/Red Door Store site will only minimally impact the visual character of the site.

A Phase 1 archaeological survey was completed under the MHT's oversight. MHT determined that no further archaeology in the project area was warranted.

Historic Preservation Staff encourages the Applicant to apply for a HAWP around the 70% design phase or at their earliest convenience.

MASTER PLAN CONFORMANCE

The Heritage Triangle Trail – Phase 1 Sidepath is subject to three master plans: the 1998 Ashton Sandy Spring Master Plan, the 2018 Bicycle Master Plan and the 2018 Master Plan of Highways and Transitways.

The 2018 Bicycle Master Plan includes the following recommendation for MacArthur Boulevard:

BIKEWAY	FROM	TO	FACILITY TYPE	BIKEWAY TYPE
Doctor Bird Road (MD 182)	Olney Sandy Spring Road (MD 108)	Norwood Road	Separated Bikeway	Sidepath
Norwood Road (MD 182)	Doctor Bird Road (MD 182)	Layhill Road/Ednor Road	Separated Bikeway	Sidepath

The 2018 Master Plan of Highways and Transitways and the 1998 Ashton Sandy Spring Master Plan classifies Doctor Bird Road/Norwood Road (MD 182) from Olney Sandy Spring Road to Layhill Road/Ednor Road as a two-lane major highway with a master plan right-of-way of 120 feet. Per the Complete Streets Design Guide, these roads would be classified as a Country Connector.

The project is in conformance with the three plans it is subject to: the 1998 Ashton Sandy Spring Master Plan, the 2018 Bicycle Master Plan and the 2018 Master Plan of Highways and Transitways.

SECTION 4: COMMUNITY OUTREACH

A newsletter was mailed to residents within the vicinity of the project in February 2021. A virtual public meeting was held on February 25, 2021. A link to the project website is below:

<https://www.montgomerycountymd.gov/dot-dte/projects/heritageTTph1/index.html>

The project team is continuing to coordinate with all project stakeholders as the design is finalized.

SECTION 5: CONCLUSION

Based on information provided by the Applicant, Planning Staff recommends approval of the Mandatory Referral with comments listed on pages 3 and 4 of this report to be transmitted to the Montgomery County Department of Transportation. The Applicant is requested to reply in writing to the Planning Board, addressing all comments.

ATTACHMENTS

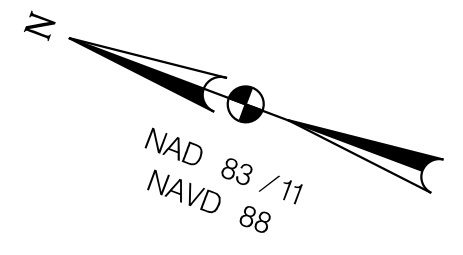
Attachment A: 35 Percent Design Plans

RIGHT-OF-WAY LEGEND

- PROPOSED FEE SIMPLE
- PROPOSED TEMPORARY CONSTRUCTION EASEMENT
- SHARED MAINTENANCE AREA
- EXISTING RIGHT-OF-WAY/PROPERTY LINES
- EXISTING EASEMENT

PAVING LEGEND

- CONCRETE DRIVEWAY
- ASPHALT SHARED USE PATH
- FLEXIBLE SHARED USE PATH
- MILL AND OVERLAY
- CONCRETE SIDEWALK
- DETECTABLE WARNING SURFACE
- FULL DEPTH ASPHALT
- PAVEMENT /SIDEWALK REMOVAL



N 532750
E 1304500

N 532000
E 1304500

N 532000
E 1304000

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16923 NORWOOD RD.
SANDY SPRING, MD 20860

WOODLAWN MANOR CULTURAL PARK
16501 NORWOOD RD.
SANDY SPRING, MD 20860

WOODLAWN MANOR CULTURAL PARK
16501 NORWOOD RD.
SANDY SPRING, MD 20860

PATHWAY CHRISTIAN CHURCH
1021 NORWOOD RD
SILVER SPRING, MD 20905

RED DOOR STORE HISTORICAL/CULTURAL PARK^{REG}
16400 LAYHILL RD.
SANDY SPRING, MD 20860

SANDY SPRING FRIENDS SCHOOL, INC.
PARCEL NO. 004
LIBER 1500 FOLIO 442
MONTGOMERY COUNTY
SANDY SPRING, MD 20860

WOODLAWN MANOR CULTURAL PARK
MONTGOMERY COUNTY

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MONTGOMERY COUNTY

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MONTGOMERY COUNTY

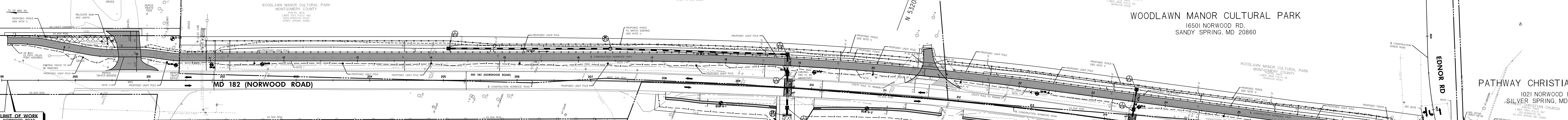
WOODLAWN MANOR CULTURAL PARK
MONTGOMERY COUNTY

WOODLAWN MANOR CULTURAL PARK
MONTGOMERY COUNTY, MARYLAND
PARCEL PFD
LIBER 21448 FOLIO 396
LAYHILL ROAD
SILVER SPRING, MD 20906

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MONTGOMERY COUNTY, MARYLAND
PARCEL PFD
LIBER 21448 FOLIO 396
LAYHILL ROAD
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RED DOOR COUNTRY STORE
WOODLAWN MANOR CULTURAL PARK
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LIBER 21448 FOLIO 396
LAYHILL ROAD
SILVER SPRING, MD 20906

LEWELLYN FIELDS
HOMESWORN ASSOC INC
PARCEL PFD OF
LIBER 1500 FOLIO 442
SANDY SPRING, MD 20860



MARK & ELIZABETH ROUSH
LIBER 1500 FOLIO 442
MONTGOMERY COUNTY
SANDY SPRING, MD 20860

MARK & ELIZABETH ROUSH
16700 NORWOOD RD.
SANDY SPRING, MD 20860

STEVEN L & VM SWARTZ
LIBER 1500 FOLIO 442
MONTGOMERY COUNTY
SANDY SPRING, MD 20860

STEVEN & VM SWARTZ
16650 NORWOOD RD.
SANDY SPRING, MD 20860

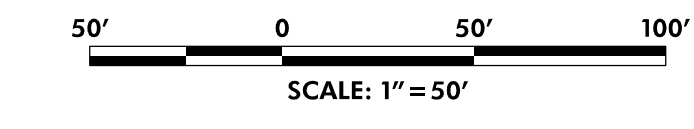
STEVEN L & VM SWARTZ
LIBER 1500 FOLIO 442
MONTGOMERY COUNTY
SANDY SPRING, MD 20860

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
DIVISION OF TRANSPORTATION ENGINEERING
HERITAGE TRIANGLE TRAIL PHASE 1
DR. BIRD / NORWOOD ROAD
SHARED USE PATH

NORWOOD SITE DISPLAY

SCALE: 1" = 50' DWG. | OF |

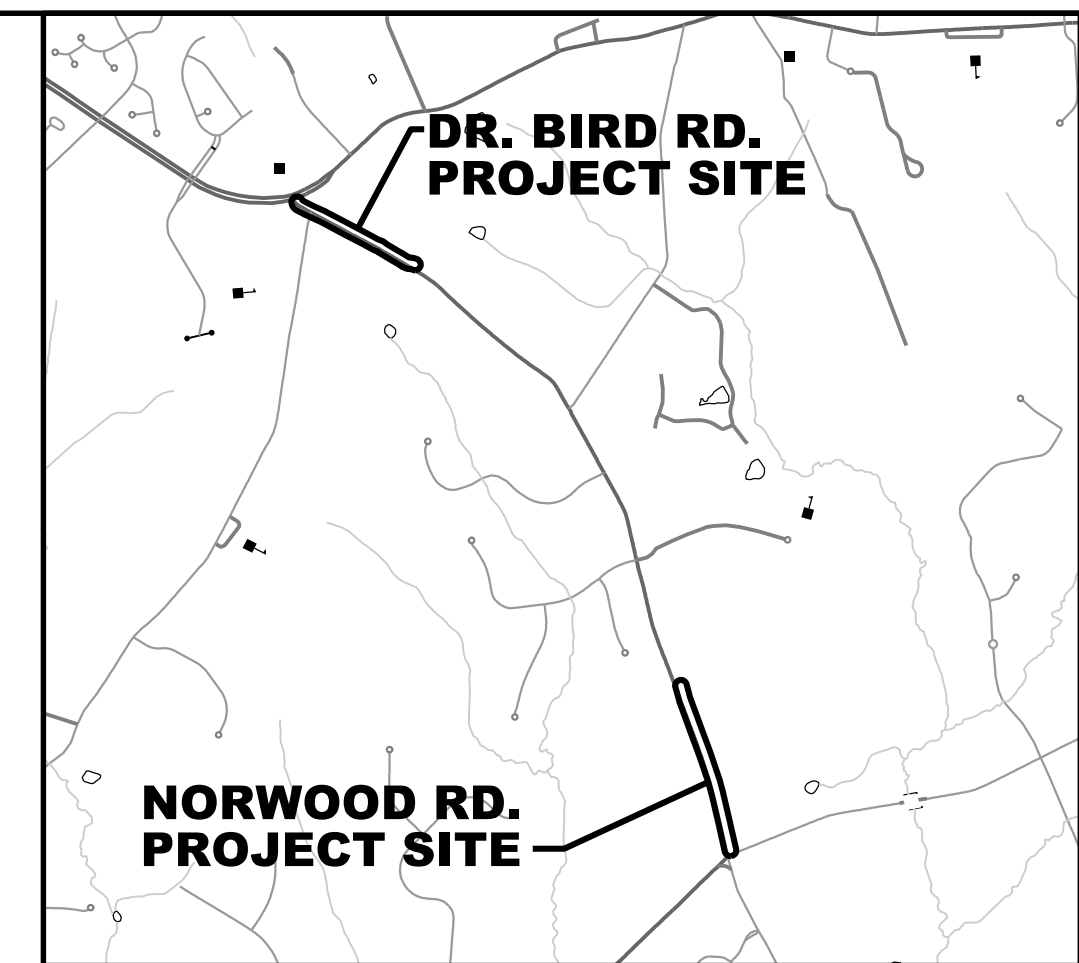
APPROVED	DATE	Chief, Transportation Planning and Design Section
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DRAWN: MEG	ROAD NO.	JOB NO.
CHECKED: SAB	FILE NO.	
APPROVED:	DATE	Chief, Division of Transportation Engineering



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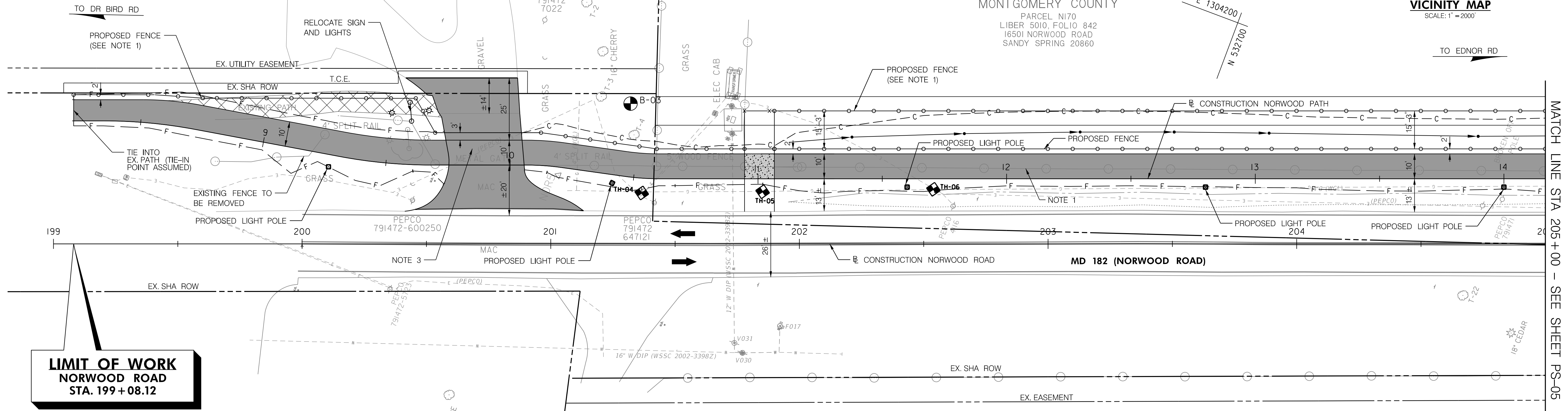
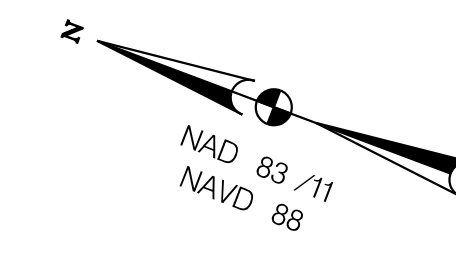
SANDY SPRING FRIENDS SCHOOL INC.
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 16923 NORWOOD RD
 SANDY SPRING, MD 20860

TEST HOLE DATA					
NO.	UTILITY	NORTHING	EASTING	TOP UTILITY ELEVATION	SURFACE ELEVATION
TH-04	4" GAS	532,900.4100	1,304,051.7500	422.34	425.94
TH-05	4" GAS	532,855.0800	1,304,069.3300	422.70	426.18
TH-06	4" GAS	(532,791.1100)	1,304,094.3400	422.61	426.78



WOODLAWN MANOR CULTURAL PARK
 MONTGOMERY COUNTY
 PARCEL N170
 LIBER 5010, FOLIO 842
 16501 NORWOOD ROAD
 SANDY SPRING 20860

VICINITY MAP
 SCALE: 1" = 2000'



**LIMIT OF WORK
 NORWOOD ROAD
 STA. 199+08.12**

MARK & ELIZABETH ROUSH
 PARCEL P110
 LIBER 48420, FOLIO 199
 16700 NORWOOD ROAD
 SANDY SPRING, MD 20860

STEVEN L & VM
 SWARTZ
 PARCEL 000
 LIBER 14490, FOLIO 379
 16650 NORWOOD ROAD
 SANDY SPRING, MD 20860

ASPHALT SHARED USE PATH (STD. NO. MD 580.08)	
4175 SF	MD 182 - STA. 200+88, LT TO STA. 205+00, LT

WOOD RAIL FENCE	
322 LF	MD 182 - STA. 201+78, 38.4' LT TO STA. 205+00, 38.2' LT
321 LF	MD 182 - STA. 201+79, 53.4' LT TO STA. 205+00, 53.4' LT

REMOVE AND SALVAGE EXISTING FENCE (SEE NOTE 1)	
134 LF	MD 182 - STA. 200+95, 31.5' LT TO STA. 201+79, 60.3' LT
310 LF	MD 182 - STA. 201+90, 30.9' LT TO STA. 205+00, 29.3' LT

NOTES:

- REMOVE, SALVAGE, AND RELOCATE EXISTING FENCE. SEE FENCE RELOCATION SCHEDULE (THIS SHEET) AND SPECIAL PROVISION FOR FENCE RELOCATION.
- FENCE AND GATE IMPACTS OR RELOCATIONS WILL BE COORDINATED WITH PROPERTY OWNERS FOR SUBSEQUENT SUBMISSIONS. PROVIDE A 10' MINIMUM PEDESTRIAN PATHWAY WITH 2% MAXIMUM CROSS-SLOPE ACROSS ENTRANCE.



OWNER / ADDRESS:
 MONTGOMERY COUNTY
 DEPARTMENT OF TRANSPORTATION
 100 EDISON PARK DRIVE
 GAITHERSBURG, MARYLAND

CONTACT:
 REBECCA PARK
 REBECCA.PARK@MONTGOMERYCOUNTYMD.GOV
 MONTGOMERY COUNTY
 DEPARTMENT OF TRANSPORTATION
 240-777-7263

MONTGOMERY COUNTY
 DEPARTMENT OF TRANSPORTATION
 ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Transportation Planning and Design Section _____ Date _____

APPROVED

Chief, Division of Transportation Engineering _____ Date _____

DESIGNED BY KBJ/RLW DRAWN BY KBJ CHECKED BY IMB

MONTGOMERY COUNTY
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF TRANSPORTATION ENGINEERING
 HERITAGE TRIANGLE TRAIL PHASE 1
 DR. BIRD / NORWOOD ROAD
 SHARED USE PATH
 ROADWAY PLAN

SCALE 1" = 20' DATE MAY 2024

DRAWING NO. PS-04 OF 07 SHEET NO. 22 OF 101

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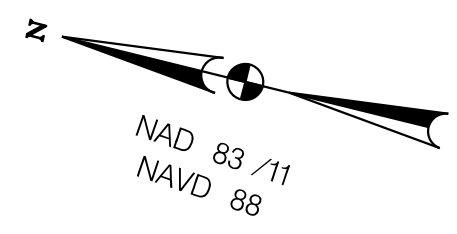
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FINE MILLING ASPHALT PAVEMENT 1 INCH TO 2.5 INCH DEPTH	
69 SY	MD 182 - STA. 211+27, LT TO STA. 212+00, LT

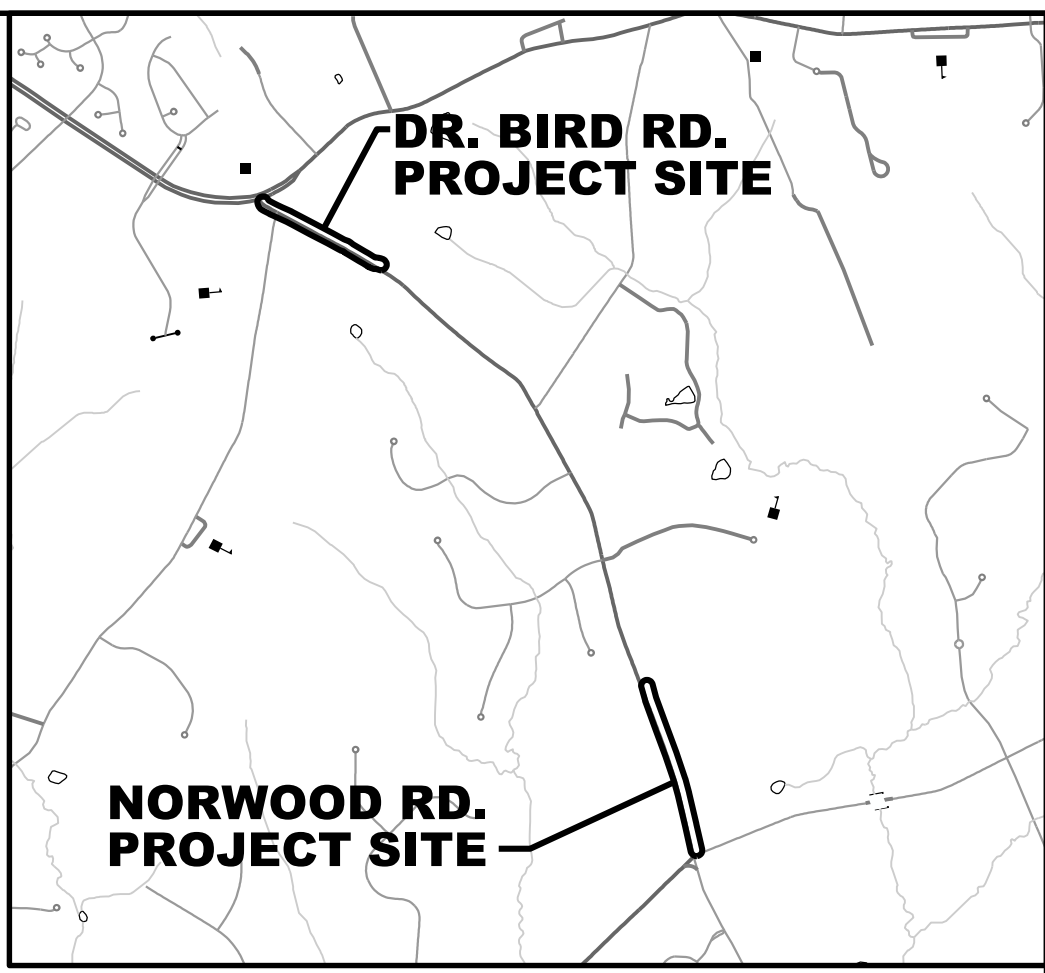
ASPHALT SHARED USE PATH (STD. NO. MD 580.08)	
1452 SF	MD 182 - STA. 210+00, LT TO STA. 211+47, LT
3273 SF	MD 182 - STA. 211+69, LT TO STA. 215+00, LT

WOOD RAIL FENCE	
124 LF	MD 182 - STA. 210+00, 41.2' LT TO STA. 211+21, 39.2' LT
132 LF	MD 182 - STA. 210+00, 52.0' LT TO STA. 211+30, 51.9' LT
322 LF	MD 182 - STA. 211+81, 51.7' LT TO STA. 215+00, 51.0' LT
312 LF	MD 182 - STA. 211+90, 40.9' LT TO STA. 215+00, 40.3' LT

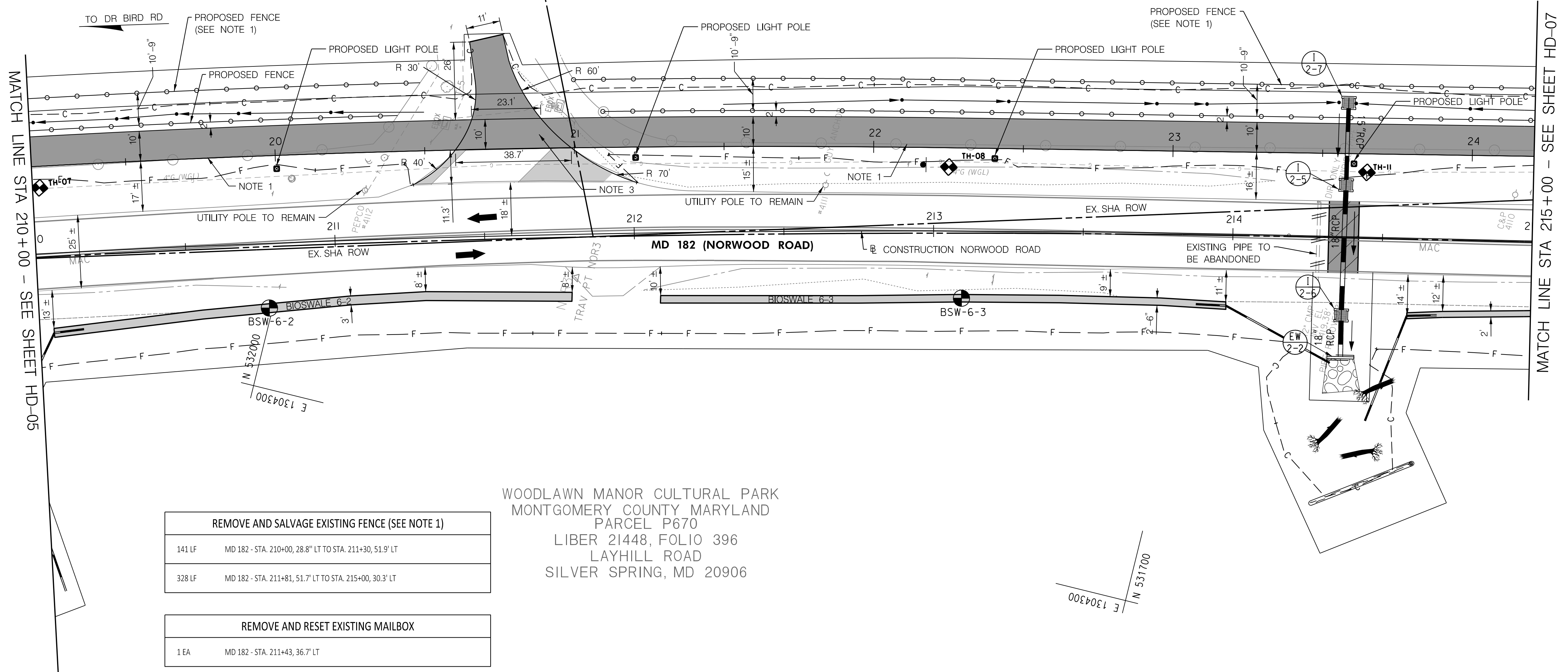
WOODLAWN MANOR CULTURAL PARK
MONTGOMERY COUNTY
PARCEL N170
LIBER 5010, FOLIO 842
16501 NORWOOD ROAD
SANDY SPRING 20860



WOODLAWN MANOR CULTURAL PARK
MONTGOMERY COUNTY
PARCEL N422
LIBER 4845, FOLIO 59
NORWOOD ROAD



TEST HOLE DATA					
NO.	UTILITY	NORTHING	EASTING	TOP UTILITY ELEVATION	SURFACE ELEVATION
TH-07	4" GAS	532,085.2900	1,304,347.0200	419.60	421.76
TH-08	4" GAS	531,791.9800	1,304,426.4900	419.22	424.74
TH-11	4" GAS	531,655.9400	1,304,458.2100	418.88	422.00



REMOVE AND SALVAGE EXISTING FENCE (SEE NOTE 1)	
141 LF	MD 182 - STA. 210+00, 28.8' LT TO STA. 211+30, 51.9' LT
328 LF	MD 182 - STA. 211+81, 51.7' LT TO STA. 215+00, 30.3' LT

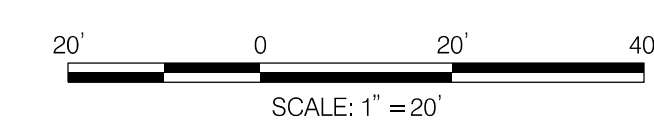
REMOVE AND RESET EXISTING MAILBOX	
1 EA	MD 182 - STA. 211+43, 36.7' LT

WOODLAWN MANOR CULTURAL PARK
MONTGOMERY COUNTY MARYLAND
PARCEL P670
LIBER 21448, FOLIO 396
LAYHILL ROAD
SILVER SPRING, MD 20906

- NOTES:**
- REMOVE, SALVAGE, AND RELOCATE EXISTING FENCE. SEE FENCE RELOCATION SCHEDULE (THIS SHEET) AND SPECIAL PROVISION FOR FENCE RELOCATION.
 - FENCE IMPACTS OR RELOCATIONS WILL BE COORDINATED WITH PROPERTY OWNERS FOR SUBSEQUENT SUBMISSIONS.
 - PROVIDE A 10' MINIMUM PEDESTRIAN PATHWAY WITH 2% MAXIMUM CROSS-SLOPE ACROSS ENTRANCE.

LEGEND

	CONCRETE DRIVEWAY
	ASPHALT SHARED USE PATH
	FLEXIBLE SHARED USE PATH
	MILL AND OVERLAY
	CONCRETE SIDEWALK
	DETECTABLE WARNING SURFACE
	FULL DEPTH ASPHALT
	PAVEMENT /SIDEWALK REMOVAL



OWNER / ADDRESS:
MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
100 EDISON PARK DRIVE
GAITHERSBURG, MARYLAND

CONTACT:
REBECCA PARK
REBECCA.PARK@MONTGOMERYCOUNTYMD.GOV
MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
240-777-7263

MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ROCKVILLE, MARYLAND			
RECOMMENDED FOR APPROVAL			
Chief, Transportation Planning and Design Section	Date		
APPROVED			
Chief, Division of Transportation Engineering	Date		
DESIGNED BY_KBJ/RLW	DRAWN BY_KBJ	CHECKED BY_TMB	
NO.	REVISION	DATE	BY

MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION DIVISION OF TRANSPORTATION ENGINEERING HERITAGE TRIANGLE TRAIL PHASE 1 DR. BIRD / NORWOOD ROAD SHARED USE PATH ROADWAY PLAN	
SCALE 1" = 20'	DATE MAY 2024
DRAWING NO. PS-06 OF 07	SHEET NO. 24 OF 101

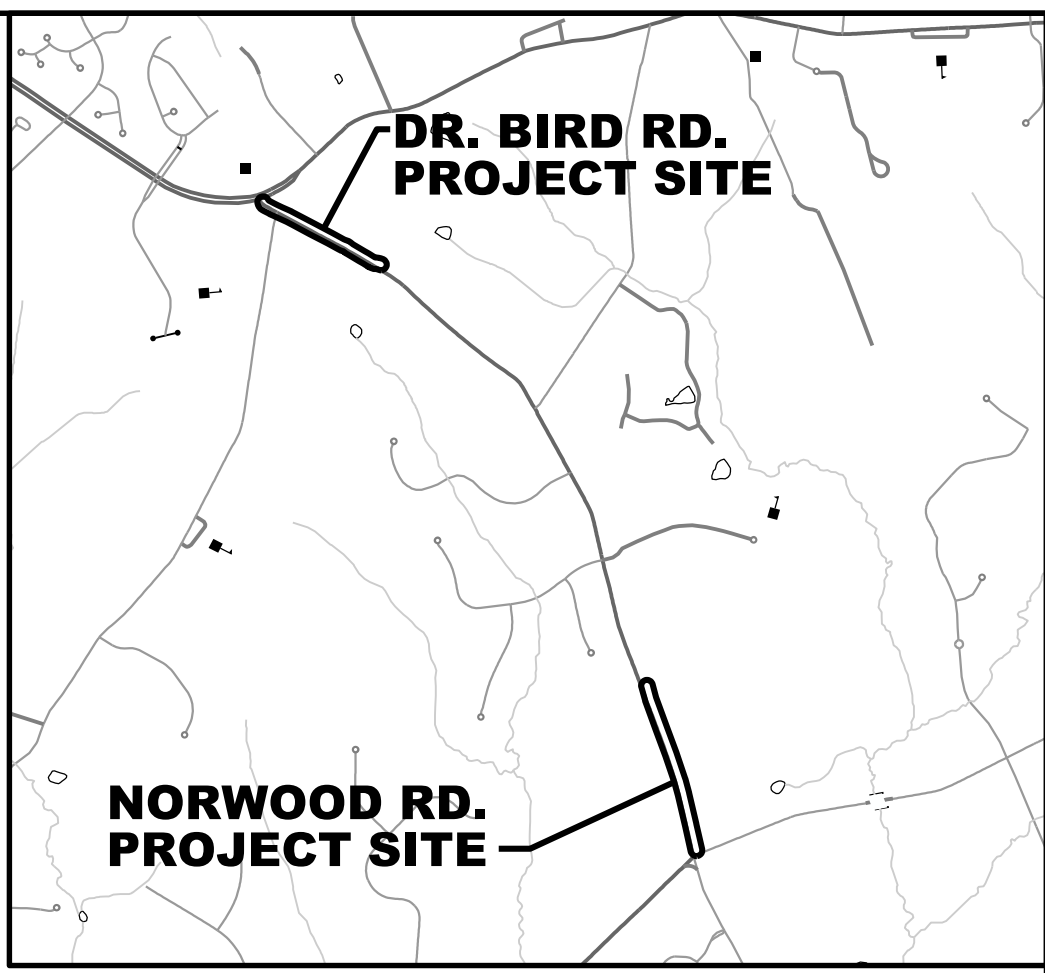
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PLOTTER: 3142024
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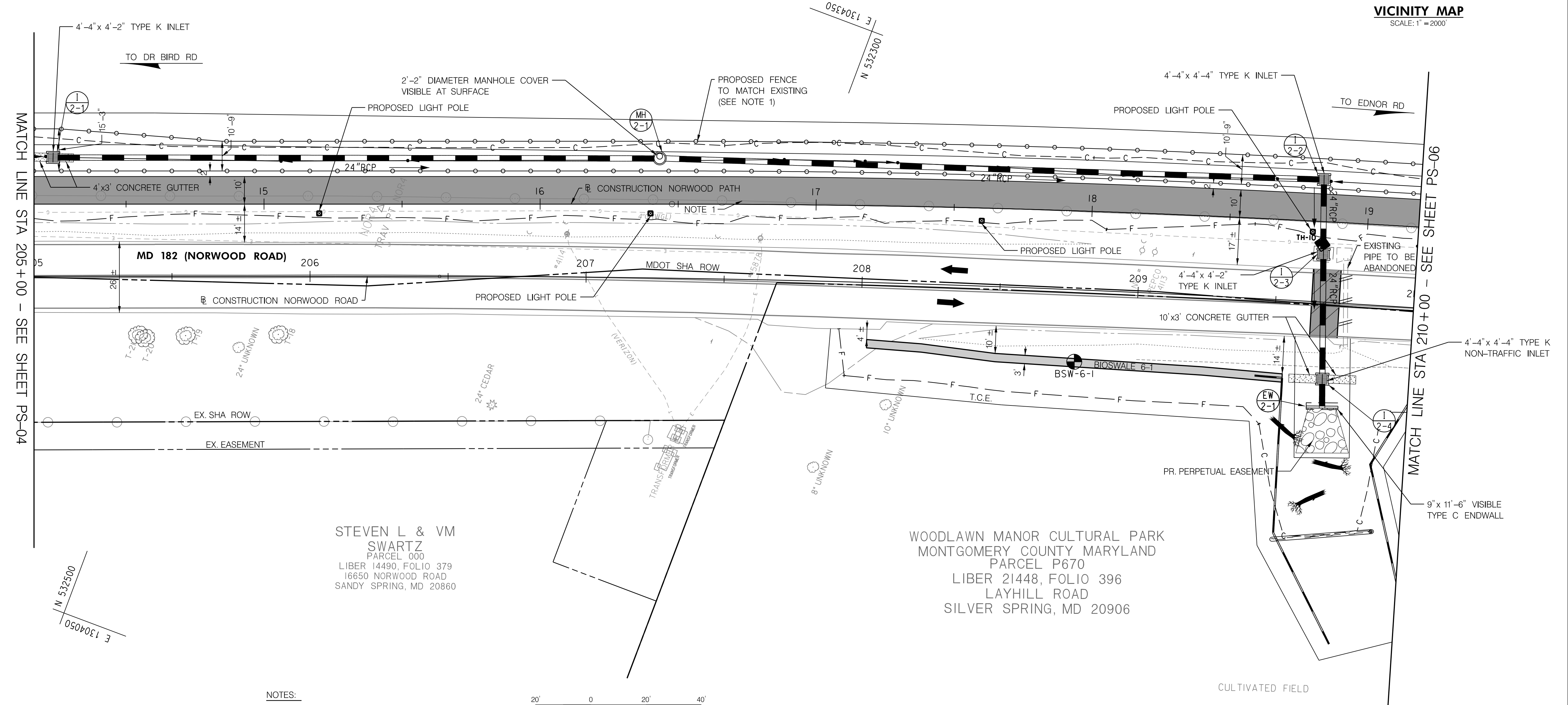
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ASPHALT SHARED USE PATH (STD. NO. MD 580.08)	
5022 SF	MD 182 - STA. 205+00, LT TO STA. 210+00, LT
WOOD RAIL FENCE	
322 LF	MD 182 - STA. 205+00, 38.2' LT TO STA. 210+00, 41.2' LT
321 LF	MD 182 - STA. 205+00, 53.4' LT TO STA. 210+00, 52.0' LT
REMOVE AND SALVAGE EXISTING FENCE (SEE NOTE 1)	
502 LF	MD 182 - STA. 205+00, 29.3' LT TO STA. 210+00, 28.8' LT

TEST HOLE DATA					
NO.	UTILITY	NORTHING	EASTING	TOP UTILITY ELEVATION	SURFACE ELEVATION
TH-10	4" GAS	532,119.8023	1,304,335.2552	417.82	422.09



WOODLAWN MANOR CULTURAL PARK
MONTGOMERY COUNTY
PARCEL N170
LIBER 5010, FOLIO 842
16501 NORWOOD ROAD
SANDY SPRING 20860



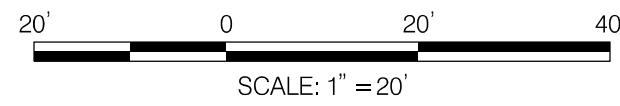
MATCH LINE STA 205+00 - SEE SHEET PS-04

MATCH LINE STA 210+00 - SEE SHEET PS-06

STEVEN L & VM SWARTZ
PARCEL 000
LIBER 14490, FOLIO 379
16650 NORWOOD ROAD
SANDY SPRING, MD 20860

WOODLAWN MANOR CULTURAL PARK
MONTGOMERY COUNTY MARYLAND
PARCEL P670
LIBER 21448, FOLIO 396
LAYHILL ROAD
SILVER SPRING, MD 20906

- NOTES:**
- REMOVE, SALVAGE, AND RELOCATE EXISTING FENCE. SEE FENCE RELOCATION SCHEDULE (THIS SHEET) AND SPECIAL PROVISION FOR FENCE RELOCATION.
 - FENCE IMPACTS OR RELOCATIONS WILL BE COORDINATED WITH PROPERTY OWNERS FOR SUBSEQUENT SUBMISSIONS.



LEGEND

	CONCRETE DRIVEWAY
	ASPHALT SHARED USE PATH
	FLEXIBLE SHARED USE PATH
	MILL AND OVERLAY
	CONCRETE SIDEWALK
	DETECTABLE WARNING SURFACE
	FULL DEPTH ASPHALT
	PAVEMENT /SIDEWALK REMOVAL

OWNER / ADDRESS:
MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
100 EDISON PARK DRIVE
GAITHERSBURG, MARYLAND

CONTACT:
REBECCA PARK
REBECCA.PARK@MONTGOMERYCOUNTYMD.GOV
MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
240-777-7263

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

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
DIVISION OF TRANSPORTATION ENGINEERING
HERITAGE TRIANGLE TRAIL PHASE 1
DR. BIRD / NORWOOD ROAD
SHARED USE PATH
ROADWAY PLAN

SCALE 1" = 20' DATE MAY 2024

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ASPHALT SHARED USE PATH (STD. NO. MD 580.08)	
3081 SF	MD 182 - STA. 215+00, LT TO STA. 218+09, LT

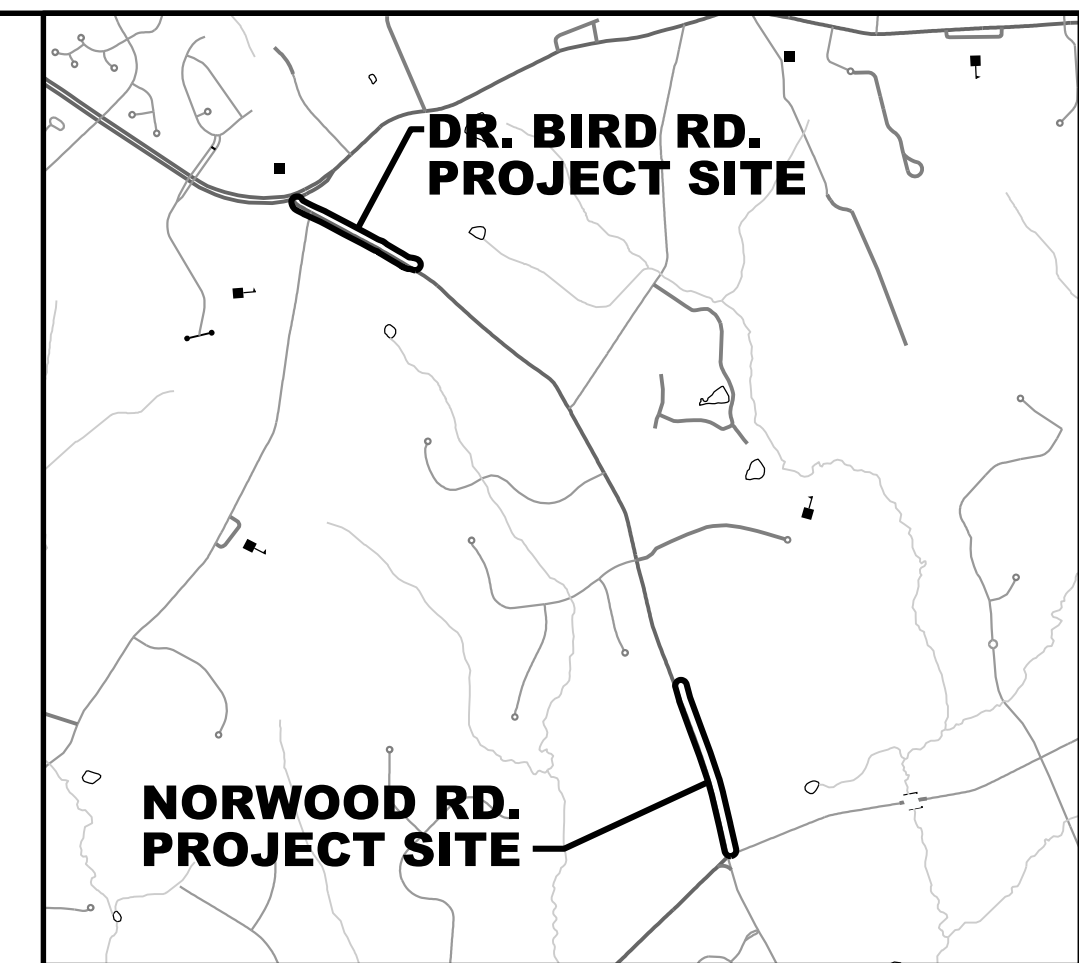
REMOVE AND SALVAGE EXISTING FENCE	
141 LF	MD 182 - STA. 215+00, 30.3' LT TO STA. 217+41, 54.1' LT

5 INCH CONCRETE SIDEWALK	
232 SF	MD 182 - STA. 218+09, LT TO STA. 218+31, LT
648 SF	MD 182 - STA. 218+69, LT TO STA. 219+24, LT
352 SF	MD 182 - STA. 219+10, RT TO STA. 219+35, RT

TEST HOLE DATA					
NO.	UTILITY	NORTHING	EASTING	TOP UTILITY ELEVATION	SURFACE ELEVATION
TH-09	4" GAS	531,417.3700	1,304,512.4600	421.14	425.72
TH-12	4" GAS	531,318.0700	1,304,548.4800	425.54	427.79

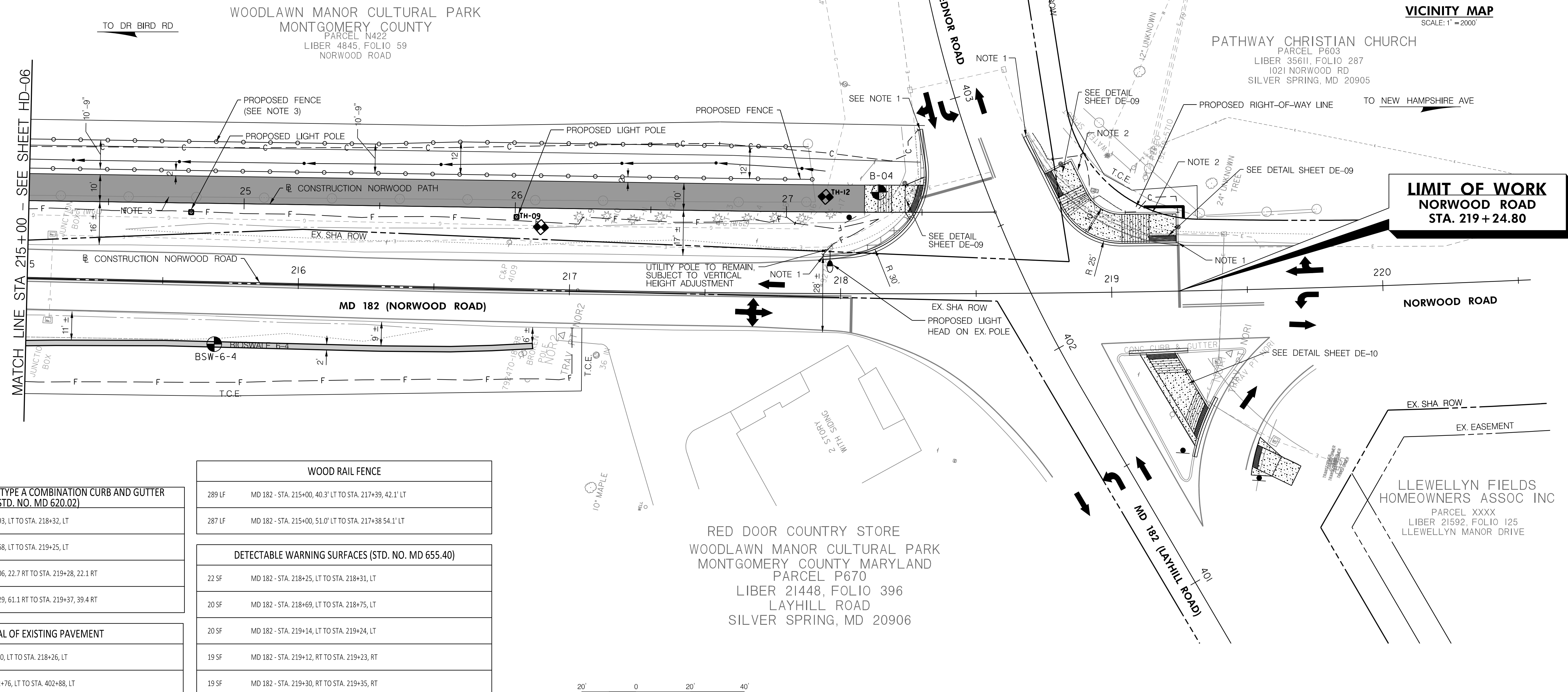
MDOT SHA STANDARD TYPE A CURB 8 INCH X 16 INCH MINIMUM (STD. NO. MD 620.02)	
81 LF	MD 182 - STA. 218+69, LT TO STA. 219+24, LT
24 LF	MD 182 - STA. 219+23, 22.9 RT TO STA. 219+35, 43.4 RT

WOODLAWN MANOR CULTURAL PARK
MONTGOMERY COUNTY
PARCEL N422
LIBER 4845, FOLIO 59
NORWOOD ROAD



VICINITY MAP
SCALE: 1" = 2000'

PATHWAY CHRISTIAN CHURCH
PARCEL P603
LIBER 35611, FOLIO 287
1021 NORWOOD RD
SILVER SPRING, MD 20905



LIMIT OF WORK
NORWOOD ROAD
STA. 219 + 24.80

MDOT SHA STANDARD TYPE A COMBINATION CURB AND GUTTER (STD. NO. MD 620.02)	
72 LF	MD 182 - STA. 217+93, LT TO STA. 218+32, LT
78 LF	MD 182 - STA. 218+68, LT TO STA. 219+25, LT
22 LF	MD 182 - STA. 219+06, 22.7 RT TO STA. 219+28, 22.1 RT
24 LF	MD 182 - STA. 219+29, 61.1 RT TO STA. 219+37, 39.4 RT

WOOD RAIL FENCE	
289 LF	MD 182 - STA. 215+00, 40.3' LT TO STA. 217+39, 42.1' LT
287 LF	MD 182 - STA. 215+00, 51.0' LT TO STA. 217+38 54.1' LT

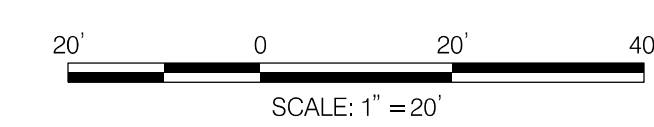
REMOVAL OF EXISTING PAVEMENT	
3 CY	MD 182 - STA. 218+00, LT TO STA. 218+26, LT
1 CY	EDNOR RD - STA. 402+76, LT TO STA. 402+88, LT

DETECTABLE WARNING SURFACES (STD. NO. MD 655.40)	
22 SF	MD 182 - STA. 218+25, LT TO STA. 218+31, LT
20 SF	MD 182 - STA. 218+69, LT TO STA. 218+75, LT
20 SF	MD 182 - STA. 219+14, LT TO STA. 219+24, LT
19 SF	MD 182 - STA. 219+12, RT TO STA. 219+23, RT
19 SF	MD 182 - STA. 219+30, RT TO STA. 219+35, RT

LEGEND

- CONCRETE DRIVEWAY
- ASPHALT SHARED USE PATH
- FLEXIBLE SHARED USE PATH
- MILL AND OVERLAY
- CONCRETE SIDEWALK
- DETECTABLE WARNING SURFACE
- FULL DEPTH ASPHALT
- PAVEMENT /SIDEWALK REMOVAL

- NOTES:**
- NOSE DOWN CURB OVER 2 FEET TO MATCH EXISTING EDGE OF ROAD.
 - ALL CONCRETE BACKING CURB SHALL BE PAID FOR AS MDOT SHA TYPE A CURB, ANY HEIGHT OR DEPTH, 12" MAXIMUM HEIGHT. REMOVE, SALVAGE, AND RELOCATE EXISTING FENCE. SEE FENCE RELOCATION SCHEDULE (THIS SHEET) AND SPECIAL PROVISION FOR FENCE RELOCATION.
 - IF CONTRACTOR ENCOUNTERS LONGITUDINAL UNDERDRAIN THEY SHALL REPAIR AND REPLACE IN ACCORDANCE WITH STD. MD 387.11. FENCE IMPACTS OR RELOCATIONS WILL BE COORDINATED WITH PROPERTY OWNERS FOR SUBSEQUENT SUBMISSIONS.



OWNER / ADDRESS:
MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
100 EDISON PARK DRIVE
GAITHERSBURG, MARYLAND

CONTACT:
REBECCA PARK
REBECCA.PARK@MONTGOMERYCOUNTYMD.GOV
MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
240-777-7263

NO.	REVISION	DATE	BY

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
ROCKVILLE, MARYLAND

RECOMMENDED FOR APPROVAL

Chief, Transportation Planning and Design Section _____ Date _____

APPROVED

Chief, Division of Transportation Engineering _____ Date _____

DESIGNED BY KBJ/RLW DRAWN BY KBJ CHECKED BY TMB

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
DIVISION OF TRANSPORTATION ENGINEERING
HERITAGE TRIANGLE TRAIL PHASE 1
DR. BIRD / NORWOOD ROAD
SHARED USE PATH
ROADWAY PLAN

SCALE 1" = 20' DATE MAY 2024

DRAWING NO. PS-07 OF 07 SHEET NO. 25 OF 101

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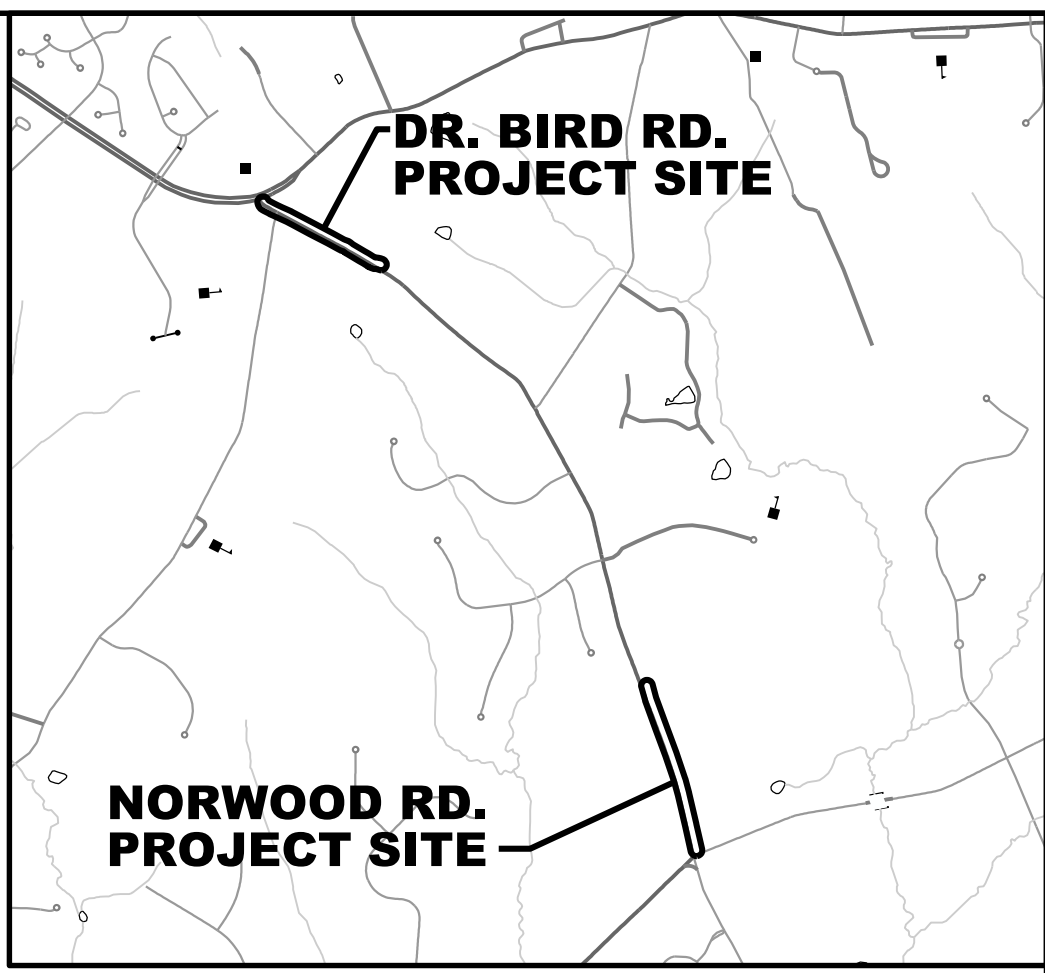
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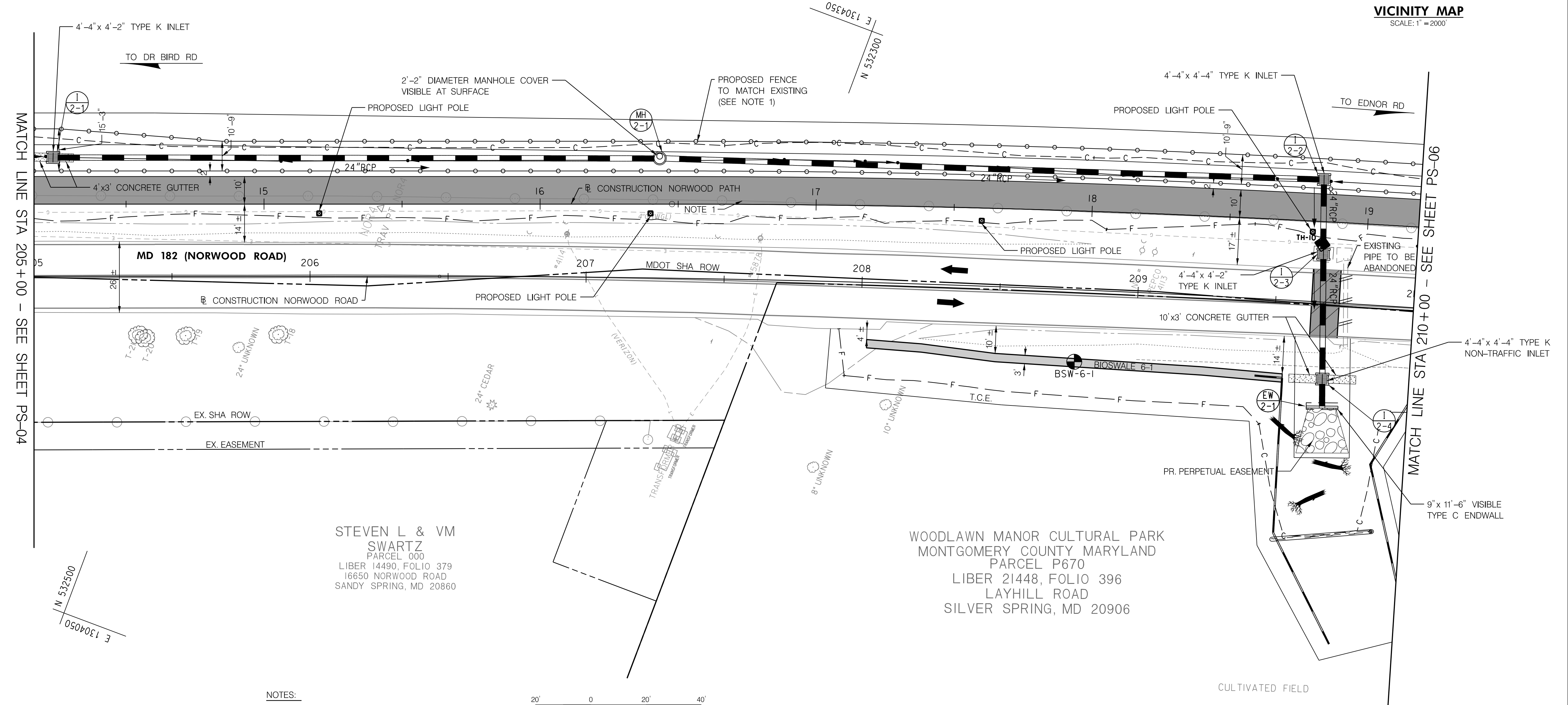
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ASPHALT SHARED USE PATH (STD. NO. MD 580.08)	
5022 SF	MD 182 - STA. 205+00, LT TO STA. 210+00, LT
WOOD RAIL FENCE	
322 LF	MD 182 - STA. 205+00, 38.2' LT TO STA. 210+00, 41.2' LT
321 LF	MD 182 - STA. 205+00, 53.4' LT TO STA. 210+00, 52.0' LT
REMOVE AND SALVAGE EXISTING FENCE (SEE NOTE 1)	
502 LF	MD 182 - STA. 205+00, 29.3' LT TO STA. 210+00, 28.8' LT

TEST HOLE DATA					
NO.	UTILITY	NORTHING	EASTING	TOP UTILITY ELEVATION	SURFACE ELEVATION
TH-10	4" GAS	532,119.8023	1,304,335.2552	417.82	422.09



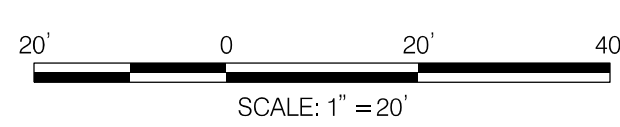
WOODLAWN MANOR CULTURAL PARK
MONTGOMERY COUNTY
PARCEL N170
LIBER 5010, FOLIO 842
16501 NORWOOD ROAD
SANDY SPRING 20860



STEVEN L & VM SWARTZ
PARCEL 000
LIBER 14490, FOLIO 379
16650 NORWOOD ROAD
SANDY SPRING, MD 20860

WOODLAWN MANOR CULTURAL PARK
MONTGOMERY COUNTY MARYLAND
PARCEL P670
LIBER 21448, FOLIO 396
LAYHILL ROAD
SILVER SPRING, MD 20906

- NOTES:
- REMOVE, SALVAGE, AND RELOCATE EXISTING FENCE. SEE FENCE RELOCATION SCHEDULE (THIS SHEET) AND SPECIAL PROVISION FOR FENCE RELOCATION.
 - FENCE IMPACTS OR RELOCATIONS WILL BE COORDINATED WITH PROPERTY OWNERS FOR SUBSEQUENT SUBMISSIONS.



LEGEND

	CONCRETE DRIVEWAY
	ASPHALT SHARED USE PATH
	FLEXIBLE SHARED USE PATH
	MILL AND OVERLAY
	CONCRETE SIDEWALK
	DETECTABLE WARNING SURFACE
	FULL DEPTH ASPHALT
	PAVEMENT /SIDEWALK REMOVAL

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

MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION DIVISION OF TRANSPORTATION ENGINEERING HERITAGE TRIANGLE TRAIL PHASE 1 DR. BIRD / NORWOOD ROAD SHARED USE PATH ROADWAY PLAN		
SCALE 1" = 20'	DATE MAY 2024	
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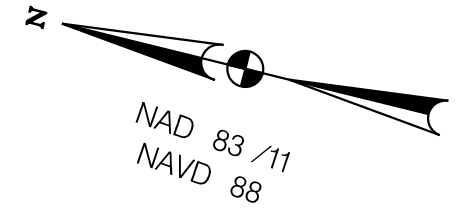
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FINE MILLING ASPHALT PAVEMENT 1 INCH TO 2.5 INCH DEPTH	
69 SY	MD 182 - STA. 211+27, LT TO STA. 212+00, LT

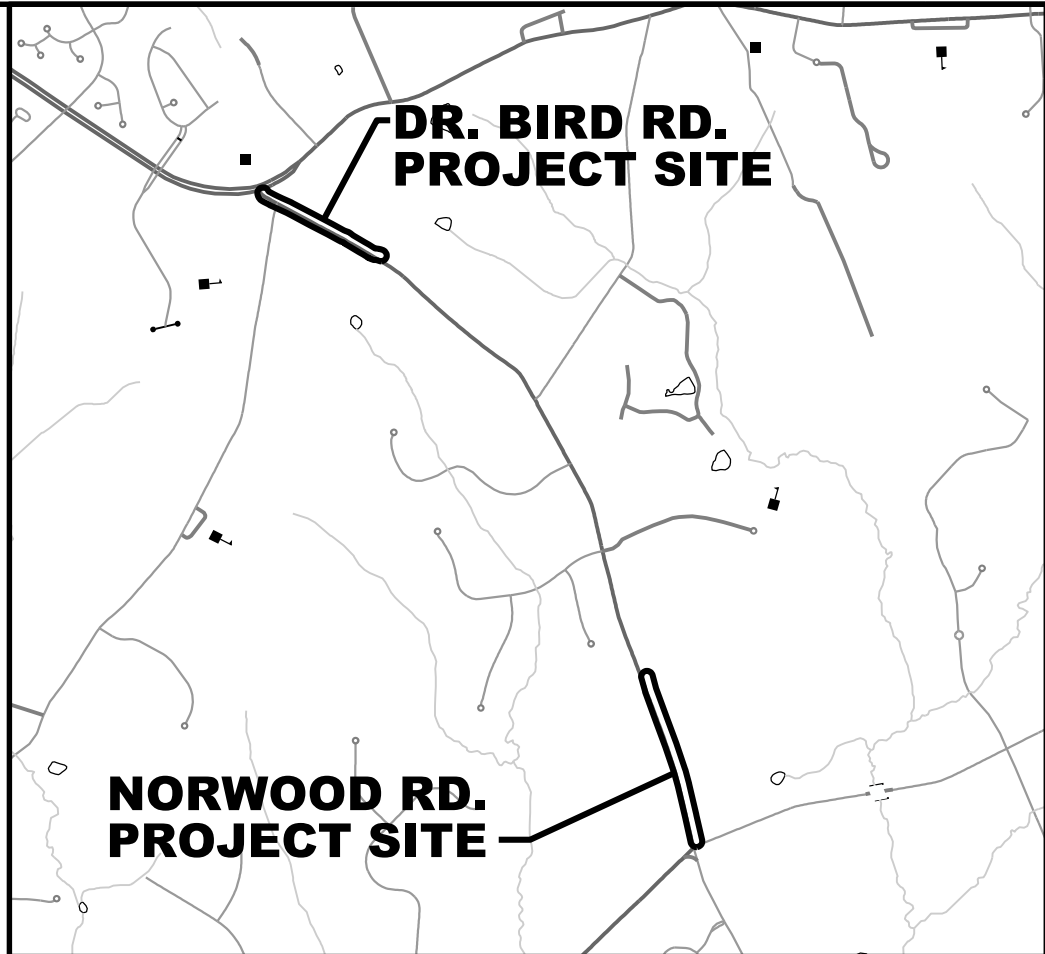
ASPHALT SHARED USE PATH (STD. NO. MD 580.08)	
1452 SF	MD 182 - STA. 210+00, LT TO STA. 211+47, LT
3273 SF	MD 182 - STA. 211+69, LT TO STA. 215+00, LT

WOOD RAIL FENCE	
124 LF	MD 182 - STA. 210+00, 41.2' LT TO STA. 211+21, 39.2' LT
132 LF	MD 182 - STA. 210+00, 52.0' LT TO STA. 211+30, 51.9' LT
322 LF	MD 182 - STA. 211+81, 51.7' LT TO STA. 215+00, 51.0' LT
312 LF	MD 182 - STA. 211+90, 40.9' LT TO STA. 215+00, 40.3' LT

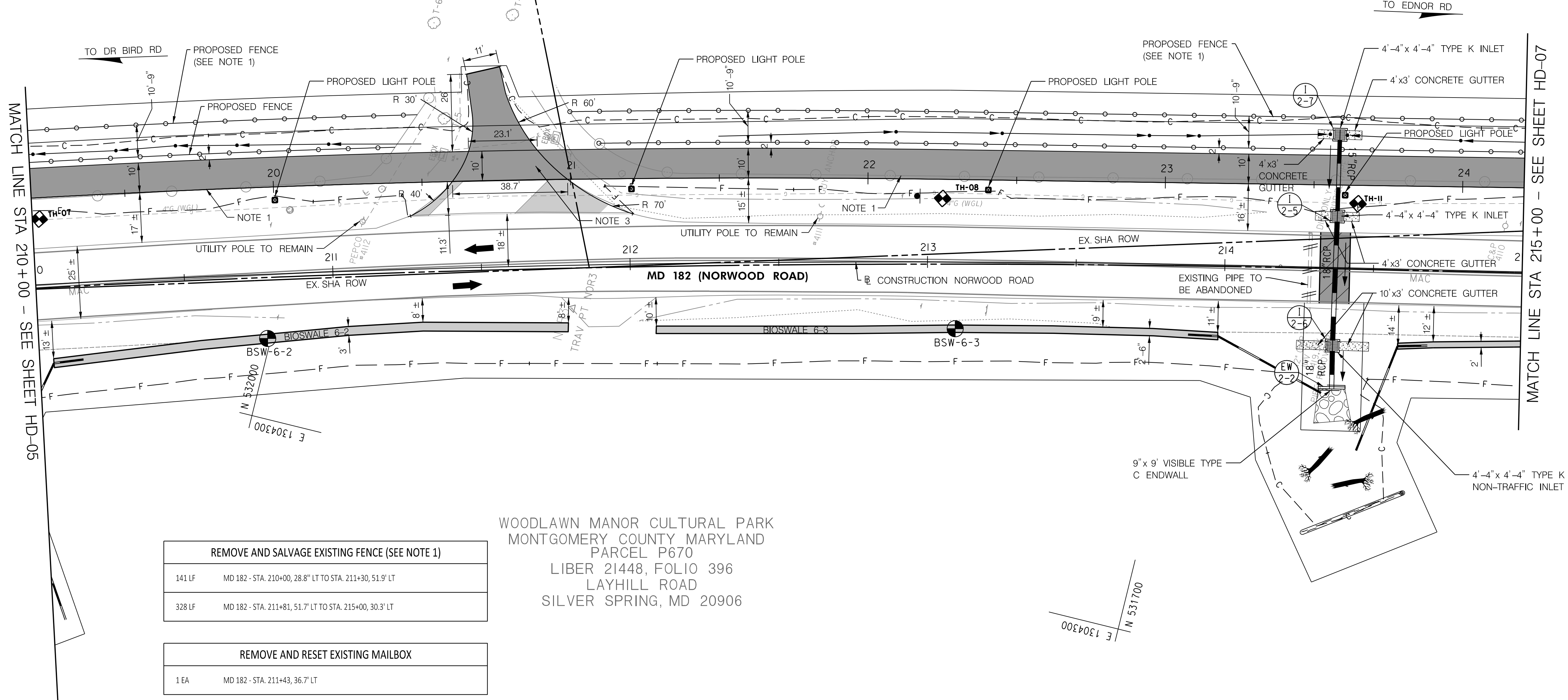
WOODLAWN MANOR CULTURAL PARK
MONTGOMERY COUNTY
PARCEL N170
LIBER 5010, FOLIO 842
16501 NORWOOD ROAD
SANDY SPRING 20860



WOODLAWN MANOR CULTURAL PARK
MONTGOMERY COUNTY
PARCEL N422
LIBER 4845, FOLIO 59
NORWOOD ROAD



TEST HOLE DATA					
NO.	UTILITY	NORTHING	EASTING	TOP UTILITY ELEVATION	SURFACE ELEVATION
TH-07	4" GAS	532,085.2900	1,304,347.0200	419.60	421.76
TH-08	4" GAS	531,791.9800	1,304,426.4900	419.22	424.74
TH-11	4" GAS	531,655.9400	1,304,458.2100	418.88	422.00



REMOVE AND SALVAGE EXISTING FENCE (SEE NOTE 1)	
141 LF	MD 182 - STA. 210+00, 28.8' LT TO STA. 211+30, 51.9' LT
328 LF	MD 182 - STA. 211+81, 51.7' LT TO STA. 215+00, 30.3' LT

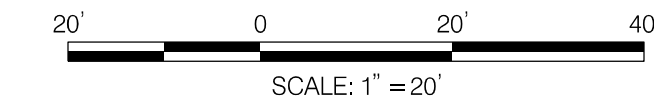
REMOVE AND RESET EXISTING MAILBOX	
1 EA	MD 182 - STA. 211+43, 36.7' LT

WOODLAWN MANOR CULTURAL PARK
MONTGOMERY COUNTY MARYLAND
PARCEL P670
LIBER 21448, FOLIO 396
LAYHILL ROAD
SILVER SPRING, MD 20906

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- REMOVE, SALVAGE, AND RELOCATE EXISTING FENCE. SEE FENCE RELOCATION SCHEDULE (THIS SHEET) AND SPECIAL PROVISION FOR FENCE RELOCATION.
 - FENCE IMPACTS OR RELOCATIONS WILL BE COORDINATED WITH PROPERTY OWNERS FOR SUBSEQUENT SUBMISSIONS.
 - PROVIDE A 10' MINIMUM PEDESTRIAN PATHWAY WITH 2% MAXIMUM CROSS-SLOPE ACROSS ENTRANCE.

LEGEND

	CONCRETE DRIVEWAY
	ASPHALT SHARED USE PATH
	FLEXIBLE SHARED USE PATH
	MILL AND OVERLAY
	CONCRETE SIDEWALK
	DETECTABLE WARNING SURFACE
	FULL DEPTH ASPHALT
	PAVEMENT /SIDEWALK REMOVAL



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MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ROCKVILLE, MARYLAND			
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Photo 1: Example of a K inlet with concrete gutter. Note that the gutter is not used for all K inlets and where it is used, it may be used on both sides.



Photo 2: Example of a manhole in grass.



Photo 3: Example manhole cover.



Photo 4: Example of type C endwall with outfall protection.