

# STATE HIGHWAY ADMINISTRATION

# Shared Use Path Feasibility Study

# Report

MD 201 (Kenilworth Avenue)

From The Anacostia River Trail To Craftsman Circle

Prince George's County

June 2023

Prepared By JMT For MDOT SHA

Office of Highway Development

## **Executive Summary**

This feasibility study is being performed for the MDOT SHA Office of Highway Development for consideration under the Bicycle Retrofit Program (Fund 88). The limits of study extend along MD MD 201 (Kenilworth Avenue) from the Anacostia River Trail to Craftsman Circle to increase connectivity between the Bladensburg Waterfront, Anacostia River Parks and the Cheverly neighborhood. Within these limits are industrial/commercial businesses and residential properties. This section of MD 201 is defined as Context Zone C- Suburban Activity Center.

The proposed study design will evaluate the installation of a shared use path along Lloyd Street, Newton Street, 52<sup>nd</sup> Avenue, MD 201 Northbound, Lydell Road and Schuster Drive. The limits of the proposed design begin at the Anacostia River Trail entrance at the Washington Suburban Sanitary Commission (WSSC) and end at Craftsman Circle.

The shared use path travels along both industrial and residential properties, involving shoulder reductions where necessary to provide the required shared use path width.

Notable risks include a CSX railroad crossing, retaining wall construction adjacent to commercial property lines, local utility pole impacts, potential right of way impacts to both commercial and residential properties, and potential underground utility impacts.

Alternatives were considered, however the significant impacts to existing Right of Way and major utility pole relocations made these alternatives unfeasible.

## Background

The project study area is along MD 201 (Kenilworth Avenue) from the Anacostia River Trail to Craftsman Circle. The length of the study is approximately 1.43 miles (7,550 feet). This Feasibility Study was requested by MDOT SHA Office of Highway Development to improve bicyclist safety, enhance network connectivity, and serve future demand.

#### Purpose and Need

The purpose of the proposed shared use path is to provide and enhance pedestrian and bicyclist connectivity along MD 201 from Bladensburg Waterfront Park to the Cheverly neighborhood. Improving connectivity within the study limits would improve pedestrian and bicyclist safety. The addition of a new shared use path would provide pedestrians and bicyclists a well-defined and safer route to utilize.

The intent of this study is to provide a bicyclist accommodation solution that meets the Fund 88 MDOT Programmatic Purpose and Need (August 2018) for the least cost. The Programmatic Purpose and Need requires that projects be prioritized based on the criteria that incorporates corridor information related to demand, connectivity and safety.

#### Level of Service and Demand

The performance criteria for Fund 88 is determined based on the Level of Service (LOS) of the on-road and off-road bicycle facilities. The FHWA considers "C" to be the minimum acceptable LOS.

There are no existing bicycle facilities within the study limits, therefore the existing bicycle LOS cannot be calculated.

The proposed shared use path is an off-road facility. Therefore, the Shared-Use Path Level of Service Calculator, developed by FHWA, was utilized. This calculator takes the volume of users, types of users, and path width into consideration to determine both the user perception and shared use path LOS. Based on the Shared-Use Path Level of Service Calculator, the following LOS values were determined at two locations along the study corridor:

#### MD 201 at 52<sup>nd</sup> Avenue

Segment Name	Path Width	Centerline	Volun	Volume (users per hour in 1 direction) and Mode Split												
	Closest 0.5 ft.	0-No Centerline	Volume													
Name	Width (ft)	1=Centerline	One-Way (per hour)	Adult Bicyclists	it Bicyclists Pedestrians Run		In-Line Skaters	Child Bicyclists	All Modes							
MD 201 at 52nd Ave	10.0	1	10.0	30.0%	60.0%	5.0%	0.0%	5.0%	100.0%							

User Pe	rception	Delay	ed Passir	ıgs Adjust	ment	Prelim LOS Score	Trail Level	of Service		
		Adj. Facto	r (subtract fr	om User Perc	ep. score)					
Score	Grade	Percent	# Per Hr	Pre Adj Fac	Fin Adj Fac	Prelim LOS Score	LOS Score LOS Gra			
3.54	в	17.28%	3.06	0.03	0.03	3.52	4.00	A		

The input volume is the highest hour volume from the ITMS traffic counts (see Appendix C), and the Mode Split was determined by the future anticipated use of the facility.

Future demand for bicycle ridership cannot be accurately measured since there are no highquality bicycle facilities present today in the study area. As a result, potential users shift to other travel modes. Based on the Short-Trip Opportunity Area model within the Statewide Bicycle Master Plan, the study area is identified as a Very High Opportunity area. This signifies an increase in future volumes, and based on the LOS calculator, the following are the volume limits for the range of LOS scores:

LOS	10 Foot Shared Use Path Volume (Users per Hour)	8 Foot Shared Use Path Volume (Users per Hour)
А	0 to 11	0 to 11
В	12 to 34	12 to 23
С	35 to 63	24 to 41
D	64 to 89	42 to 68
Е	90 to 114	69 to 94
F	Over 114	Over 94

One element not taken into consideration in the LOS calculator is the buffer and landscaping between the curb and the shared use path. Due to the narrow corridor lined with utility poles and other restrictions, there is only one location where buffer is provided in the proposed study design, at the 52<sup>nd</sup> Avenue and MD 201 intersection. Future design will further analyze any locations that could potentially have a buffer space. Any buffer with a minimum width of 5 feet would provide space for trees. These aspects of the proposed study provide additional comfort for future pedestrians and bicyclists.

#### <u>Connectivity</u>

One of the primary purposes of Fund 88 is to provide connections between completed segments of the bicycle network. The MD 201 corridor being examined in this study would connect the Cheverly neighborhood, as well as the residences between MD 201 and 52<sup>nd</sup> Avenue, with

Bladensburg Waterfront Park to the west. Within the park is a section of the Anacostia River Trail, which extends from the confluence Anacostia River and the Potomac River to the south and continues north beyond the divergence of the Anacostia River to the Northeast and Northwest branches.

#### <u>Safety</u>

Since 2020, there has been one bicycle accident. The accident occurred at the intersection of MD 201 and Lydell Road and was a property damage crash. While providing an off-road shared use path will create a safer route for pedestrians and bicyclists, this study area does not allow for buffer space between the curb and shared use path. This lack of buffer lessens the safety compared to paths with a buffer and trees along the route.

### **Existing Conditions**

The following information was gathered through a site visit on January 5, 2023, and desktop research. The project study area is located along Lloyd Street, Newton Street, 52<sup>nd</sup> Avenue, MD 201 Northbound, Lydell Road and Schuster Drive, between the Anacostia River Trail and Craftsman Circle. The study area is within a Priority Funding Area (PFA). MD 201 has a posted speed of 35 mph. MD 201 is a part of the National Highway System (NHS), while the other roadways incorporated into the proposed design are local roadways not a part of the NHS. The study area is within a heavily industrial corridor, where there is a high percentage of large trucks.

Pedestrian and bicycle counts were taken at the following locations:

2019 Counts:

- MD 201 at Lloyd Street
- MD 201 at Lawrence Street
- MD 201 at 52<sup>nd</sup> Avenue
- MD 201 at Lydell Street

This information was taken from the Internet Traffic Monitoring System (I-TMS), where pedestrian and bike counts were broken down into total counts, counts during the AM vehicle peak, and counts during the PM vehicle peak. These counts are provided in <u>Appendix C</u>.

The proposed design runs along six different roadways, each with a unique typical section. MD 201 and 52<sup>nd</sup> Avenue are State Routes, Lloyd Street and Newton Street are County Routes, and Lydell Road and Schuster Drive are Municipal Routes (Cheverly). The following typical section descriptions begin at the Anacostia River Trail entrance on the west end of the study and continue eastward ending at Schuster Drive.

Lloyd Street consists of approximately a 22 foot wide asphalt pavement section with concrete pads that collect drainage on both sides of the roadway. There are no striped shoulders, however commercial vehicles were observed using the concrete pads as a holding area during the site visit. On the westbound side, the concrete pad is 14 feet wide to the west, then

transitions down to 6 feet wide, turning into asphalt as it approaches the intersection with MD 201. On the eastbound side the concrete pad is 5 feet wide through the entire section.



Lloyd Street Looking West.

Newton Street is a 24 foot wide closed section roadway with curb and gutter on both sides. There is residential parking on both sides of the roadway, as well as 3 foot existing sidewalks. Fences line the fronts of the residential properties, set back approximately 11.5 feet from the back of curb on the north side of the road, and set back approximately 8 to 10 feet from the back of existing curb on the south side or the road. Utility poles run along Newton Street in the eastbound direction.



Newton Street Looking West

52<sup>nd</sup> Avenue varies in width from approximately 42 to 46 feet wide. It is closed section on the northbound side with curb and gutter, and is closed section on the southbound side from MD 201 to Lawrence Place, then becomes open section to the north. There is a varying shoulder northbound up to 13 feet wide which is used for parking, and southbound varying up to 10 feet wide. There is existing sidewalk on the northbound side from MD 201 to just north of Kilmer Place. There is no existing sidewalk in the southbound direction. Utility poles run along both sides of the roadway. Truck parking is prevalent throughout the entire study segment of northbound and southbound 52<sup>nd</sup> Avenue.



52<sup>nd</sup> Avenue Looking North

MD 201 consists of two 12-foot through lanes in both the northbound and southbound directions, divided by a curbed grass median with closed drainage. There are 12 foot outside shoulders in both directions. The northbound direction has dense vegetation beyond the existing pavement. There is no existing sidewalk in either direction. Utility poles run along the northbound side.



MD 201 Looking North

Lydell Road is approximately 48 feet wide with one lane in each direction and no discernable pavement markings. It is closed section with curb and gutter on both sides of the roadway. There are no existing sidewalks on either side of the roadway, and a fence that is set back 13 feet from the back of curb in the eastbound direction. Utility poles run along the westbound side.



Lydell Road Looking East

Schuster Drive is approximately 44 feet wide with one lane in each direction and no discernable pavement markings, and parking occurs on both sides of the roadway. It is closed section with curb and gutter on both sides of the roadway. There are no existing sidewalks on either side, and utility poles run along the southbound side of Schuster Drive.



Schuster Drive Looking South

The combination of commercial and residential properties throughout the study area results in multiple pedestrian traffic generators within a half-mile radius of the study limits. Within this radius, there are:

- Bladensburg Waterfront Park
- Bladensburg Neighborhood Park
- Cheverly Euclid Street Neighborhood Park
- Cheverly Swim and Racquet Club

There is 1 bus stop located within the proposed design in the study area at the southeast corner of MD 201 and Lydell Road intersection. There are no crossings along the proposed shared use path with existing crosswalk striping or existing pedestrian signals. Existing pedestrian signals are located at the southeast and southwest corners of MD 201 and Lydell Road intersection, utilized for crossing MD 201, and at the four corners MD 201 and 52<sup>nd</sup> Avenue intersection, also utilized for crossing MD 201.

### Environmental Compliance and Permitting

There are no anticipated environmental impacts within the study area needing permitting.

A significant aspect of the proposed study needing permitting is the CSX railroad crossing at the western limit of the study area, where the proposed shared use path will ultimately connect to

the Anacostia River Trail entrance. This will involve extensive coordination and agreements with CSX. Requirements at this crossing would include, but is not limited to, working within the CSX Right of Way and replacing and/or adding additional crossing signals. This will introduce a major schedule risk.

#### Wetlands and Waterways

At Craftsman Circle, near the proposed shared use path tie in limit, there is a freshwater emergent wetland. The wetland runs from the existing railroad tracks to the south, through the Cheverly Local Park to the north. The proposed design is not within the FEMA Flood Hazard Area. Additional analysis will be required to determine impacts to wetlands and any required permitting.

#### Stormwater Management and Drainage

Lloyd Street has concrete pads on both sides of the roadway with inlets that collect drainage into a closed system. Newton Street is closed section with curb and gutter on both sides of the roadway, however there are no existing inlets on either side of Newton Street. 52<sup>nd</sup> Avenue is closed section along northbound, and a partially closed and partially open section along southbound. MD 201 is open section along the outside edges of roadway, with a closed section median with drainage. Lydell Road and Schuster Drive are both closed section with curb and gutter on both sides of the roadway.

Lloyd Street, MD 201 north of 52<sup>nd</sup> Avenue and 52<sup>nd</sup> Avenue south of Jackson Street have closed drainage systems that appear to flow to a R5UBH riverine just north of the WSSC property and ultimately into the Anacostia River. Newton Street and 52<sup>nd</sup> Avenue North of Jackson Street have closed drainage systems that flow north to a pond just north of Newton Street. The ownership of this pond is not clear but most likely belongs to Prince George's County or Bladensburg municipality. MD 201 south of 52<sup>nd</sup> Avenue has an open drainage system to the outside that flows to 2 culverts that run beneath MD 201, with one being just west of the Baltimore Washington Parkway bridge (48" pipe) and one being just east of the bridge (24" pipe). Both of these pipes flow to the south along Baltimore Washington Parkway into open ditches. The closed median drainage has inlets that drop the median drainage into those same culvert pipes.

The proposed study design has 3 locations that impact the existing drainage system, along Lloyd Street, 52<sup>nd</sup> Avenue from Jackson Street to Kilmer Place, and MD 201 Northbound from Lydell Road to 52<sup>nd</sup> Avenue.

Along westbound Lloyd Street, curb and gutter will be introduced and new inlets will need to be tied into the existing drainage system. Along northbound 52<sup>nd</sup> Avenue, the curb and gutter is proposed to be shifted 2 feet towards the roadway to allow for the necessary shared use path width. There are no existing inlets in this section of 52<sup>nd</sup> Avenue, so no new inlets will be needed. MD 201 northbound will be changed from open section to closed section. The

proposed design and estimate assume 10 COG inlets and 5 manholes along MD 201 northbound due to the closed section condition. Further analysis will be required to determine the necessary inlet locations, but it is anticipated that the drainage captured by these inlets will flow to the existing culverts present in the existing condition.

One stormwater facility was identified in the vicinity of the proposed improvements. The facility is a filtering facility inside the WSSC Anacostia Service Facility adjacent to MD 201 (SWMFAC #160613). There is an existing pond north of Newton Street and West of 52<sup>nd</sup> Avenue, however the ownership cannot be determined at this point.

There are limited areas to provide Storm Water Management (SWM) within project limits. One potential opportunity could be adjacent to Baltimore Washington Parkway south of where it crosses over MD 201. All opportunities will be exhausted within the project scope. However, given the Impervious Area Requiring Treatment (IART), it will be required to go beyond the present scope to investigate other areas within the MDOT SHA ROW to treat existing impervious areas as mitigation for the new impervious areas (that are also within the same watershed) to meet all the SWM quantity and quality management for the project.

New Pavement	Redevelopment	Pavement Removal	Impervious Area Requiring Treatment
34,800 SF	37,300 SF	0 SF	53,450 SF; 1.23AC

Note that the above values were determined using GIS data and aerial imagery.

### Utilities

Utility poles are present throughout the entire study area. They are located along Newton Street eastbound, 52<sup>nd</sup> Avenue northbound and southbound, MD 201 northbound, Lydell Road westbound and Schuster Drive southbound. Most of the poles along 52<sup>nd</sup> Avenue and MD 201 appear to be within MDOT SHA Right of Way. Utility poles in the other locations appear to be within Prince George's County or Municipal Right of Way. A utility designation quality level B will be necessary to locate any underground utilities.

It is anticipated that approximately 11 local utility poles will be impacted. The relocation of utility poles will potentially involve property easements among other impacts.

### Right of Way

Based on preliminary Right of Way (ROW) information, the existing MDOT SHA ROW varies in width as follows.

Location	ROW Width (FT)
MD 201 from Lydell Road to Lloyd Street	Approx. 90-120
52 <sup>nd</sup> Avenue from MD 201 to Newton Street	Approx. 50-75

Right of Way information along Lloyd Street, Newton Street, Lydell Road and Schuster Drive are not shown in the provided plans as this study only includes MDOT SHA Right of Way information. The Prince George's County and Municipal Right of Way information will be needed to provide the anticipated impacts along those roadways.

Locations where the proposed design extends beyond the existing back of sidewalk, and potentially impacts right of way are as follows:

1. MD 201 NB between Lloyd Street and Monroe Street

Further investigation will need to occur in preliminary engineering to determine all right of way impacts, including those along the County and Municipal roadways.

## Proposed Design

The proposed design adds a new shared use path for a majority of the study area and replaces existing sidewalk where applicable. The proposed shared use path is 10 feet wide, narrowing to 8 feet wide in heavily constrained locations. Curb and gutter is proposed at all shared use path locations. The curb and gutter will replace existing curb and gutter in kind and in the same location at the edge of pavement except for the following locations:

- 1. Lloyd Street New curb and gutter is proposed at the existing edge of asphalt pavement, eliminating the existing concrete pad.
- 2. 52<sup>nd</sup> Avenue north of Kilmer Place proposed bump out to avoid Right of Way impacts and tie into the existing driveway.
- 3. 52<sup>nd</sup> Avenue between Jackson Street and Kilmer Place proposed curb and gutter moved 2 feet towards travel lane to avoid significant Right of Way impacts.
- 4. 52<sup>nd</sup> Avenue south of Jackson Street proposed bump out to avoid parking lot and Right of Way impacts.
- 5. MD 201 Northbound proposed curb and gutter where there is no curb and gutter today.

The proposed curb and gutter on Lloyd Street would eliminate the concrete pad waiting area used by commercial vehicles. The proposed curb bump outs along 52<sup>nd</sup> Avenue will eliminate parking in those locations. Along MD 201 northbound, the proposed curb and gutter will be placed at the existing edge of travel lane, eliminating the existing 12-foot shoulder. MD 201 is

classified as a Principal Arterial Other, therefore it is acceptable per AASHTO guidelines to remove this shoulder, but a bike waiver would be required.

Retaining walls are proposed due to proximity of existing Right of Way and steep slopes adjacent to the shared use path. Three retaining walls are proposed at the following locations:

- 1. Lloyd Street from MD 201 intersection to approximately 250 feet west of intersection.
- 2. MD 201 Northbound between Lloyd Street and Monroe Street
- 3. Schuster Drive In front of MY-A & Co. property.

Along Newton Street there is a potential need for steps to be provided at residences where the proposed option introduces a significant change in elevation.

As noted in the stormwater management section, new inlets will be required along the new proposed curb and gutter locations along Lloyd Street and MD 201 northbound and will connect to the main drainage system. Impacted driveway connections and the bus stop at the southeast corner of Lydell Road and MD 201 intersection will be replaced.

Crossings are proposed at all locations where they do not exist today. This includes a proposed crossing on MD 201 just south of 52<sup>nd</sup> Avenue. There are existing pedestrian crossing signals and crosswalk striping, however no existing sidewalk.

The major risk to this project, as mentioned in the permitting section, is the proposed CSX railroad crossing. Extensive coordination, agreements and permitting will be required to provide the shared use path connection to the existing Anacostia River Trail entrance. There is high risk to the overall project schedule and additional costs including replacement and additional crossing signals. All feasible shared use path connections to the trail within the study area involve crossing the CSX railroad tracks.

The eastern study limit at Craftsman Circle ties into the proposed trail easement as shown in the Craftsman Circle Development Plan (See Appendix E).

Maintenance of traffic will involve at a minimum an outside lane closure during construction.

The estimate for the proposed study design is estimated to cost \$5.4M excluding right of way acquisitions and utility impacts other than utility pole relocation. This project resides in a Priority Funding Area, and an agreement will need to be made as to the cost sharing of this project between MDOT SHA, Prince George's County, and the Cheverly Municipality.

### **Design Considerations**

While analyzing the study, four design considerations were identified that are not shown in the proposed study design:

1. 10-foot Shared Use Path on Lloyd Street

The proposed study design shows a 10-foot shared use path along the west portion of Lloyd Street, then narrowing to 8 feet wide where the existing fence shifts closer to the road. Impacting the fence can be considered to maintain a continuous 10-foot-wide shared use path, which would result in fence relocation, a potential retaining wall, and potential right of way impact.

#### 2. Shared Use Path on North Side of 49<sup>th</sup> Avenue

The proposed study design shows the shared use path running along the south side of 49<sup>th</sup> Avenue, between MD 201 and Newton Street. There is a combination of residential properties and utility poles that could cause challenges. Along the north side of 49<sup>th</sup> Avenue is guardrail, trees and thick vegetation. However, moving the shared use path could become an option if the residential properties lead to insurmountable difficulties.

3. Relocating 52<sup>nd</sup> Avenue Curb and Gutter

Locations were noted in the previous section where relocating the existing curb and gutter was necessary to provide a shared use path. In addition to these locations, there are other locations in this section of 52<sup>nd</sup> Avenue where the curb and gutter can be moved closer to the travel lane, narrowing the existing shoulder, or removing it altogether. This would potentially provide a 10-foot shared use path where only an 8-foot path is provided in the proposed study design, as well as buffer space between the curb and shared use path.

4. Cheverly Hospital Site Redevelopment

The redevelopment of the existing Cheverly hospital site is in the planning stage currently and would potentially provide an alternative endpoint for the proposed shared use path. The site plans include residential, retail and dining facilities and is located just east of Baltimore Washington Parkway on Hospital Drive. Additional information on the site redevelopment can be found on Prince George's County website.

### Conclusions and Recommendations

#### Benefits:

- o Improves bicyclist and pedestrian safety by moving bicyclists off the roadway.
- o Provides bicycle facilities where there are none today.
- Increases connectivity between the Anacostia River Trail, commercial destinations, and the surrounding neighborhoods.
- Most of the proposed shared use path will be within existing ROW.

#### Concerns:

• CSX railroad crossing introduces a major risk to schedule and cost.

- There is minimal opportunity to provide Storm Water Management within the study area to compensate for the additional and redeveloped impervious surface.
- o Proposed retaining walls are required to avoid significant right-of-way impacts.
- Proposed work falls within SHA, County, and Municipal Right of Ways, which will require coordination from all parties.
- Impacts to existing utilities including impacts to existing utility poles and potential utility impacts in the areas where proposed storm drain systems will be required.

#### Recommendation:

There is a need for shared use path connectivity between the Cheverly neighborhood and the surrounding destinations. The lack of adequate existing facilities creates safety concerns and forces potential bicyclists to use an alternative mode of transportation. The proposed alternative is recommended as it creates a safe bicycle and pedestrian environment with minimal impacts on the surrounding community, while providing an enhanced off-road experience.

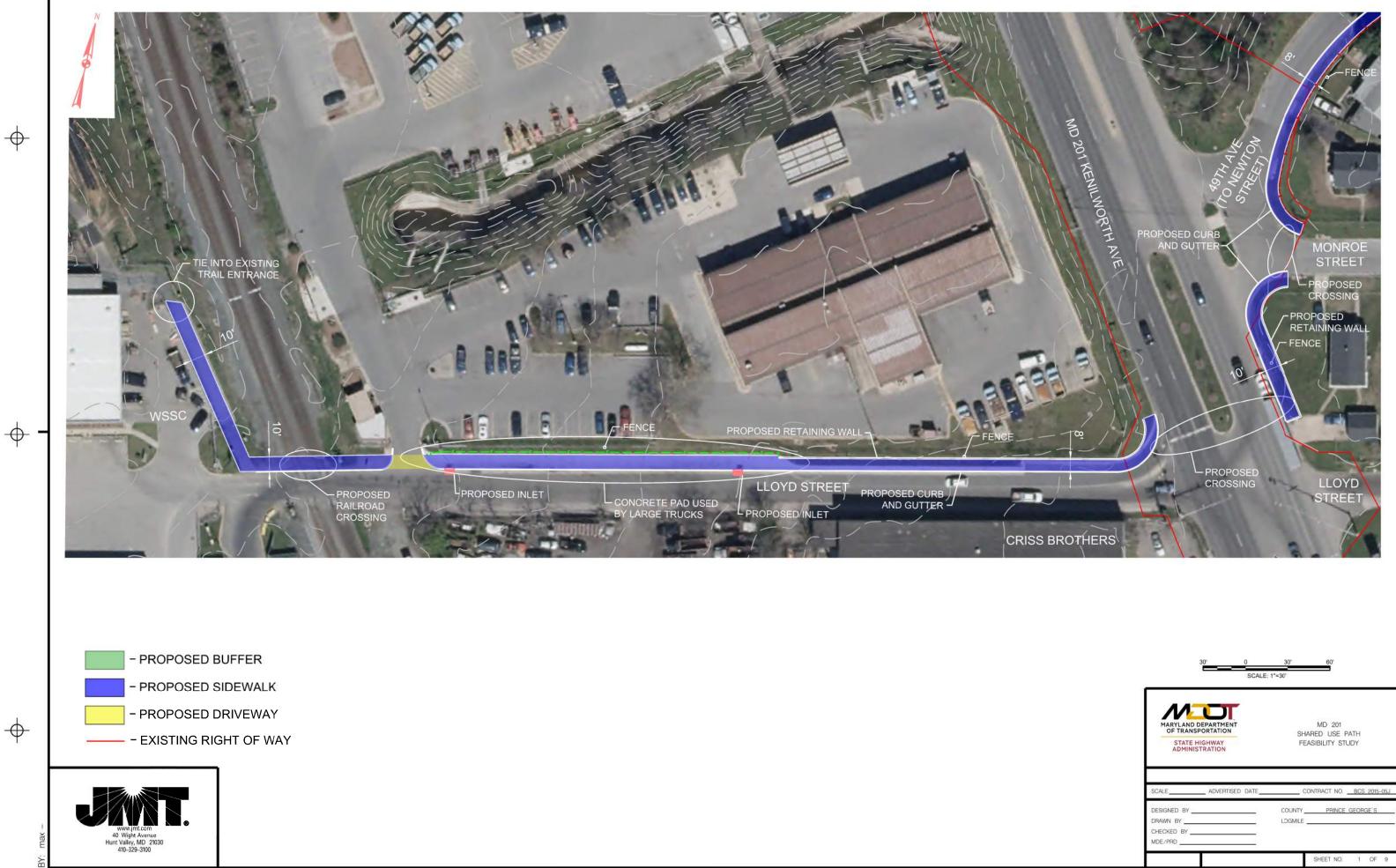
# Appendices

Appendix A: Proposed Shared Use Path (9 Plan Sheets) Appendix B: Cost Estimate Appendix C: Pedestrian Counts Appendix D: Photos of Existing Conditions

Appendix E: Craftsman Circle Development Plan

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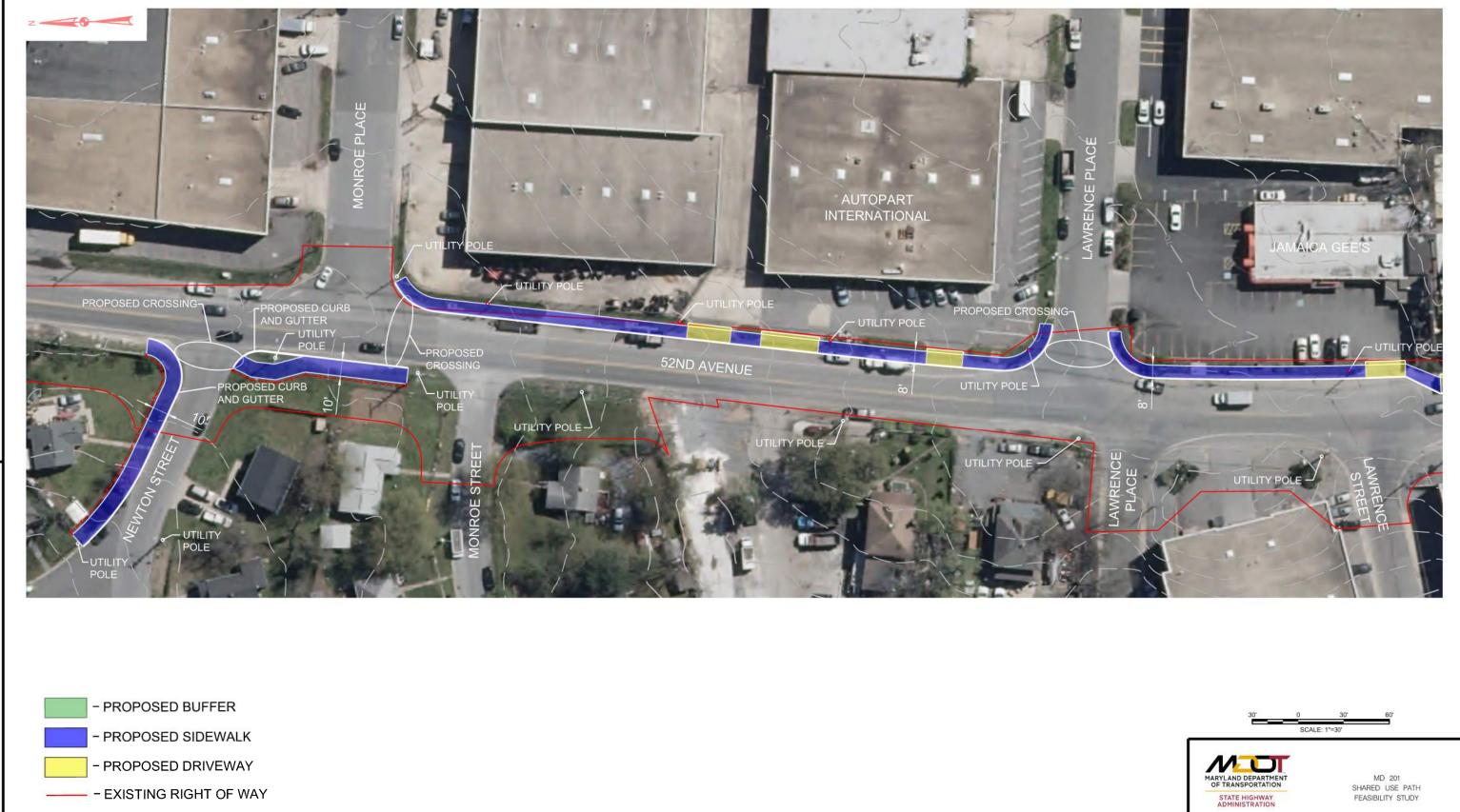


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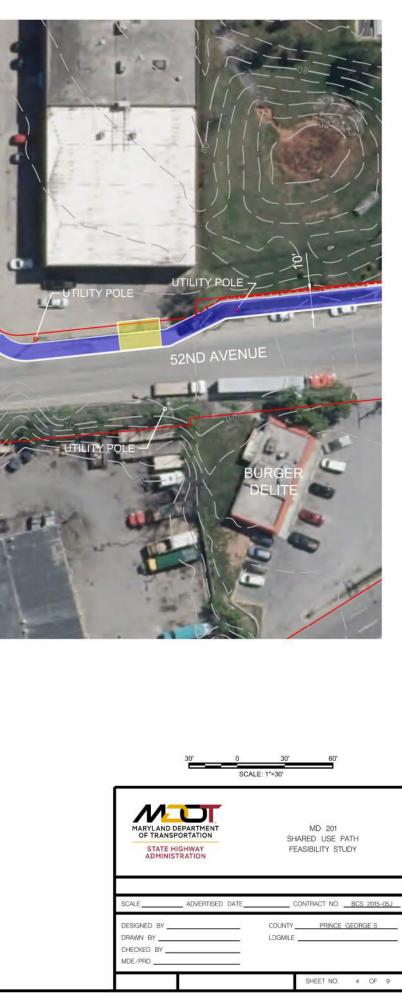
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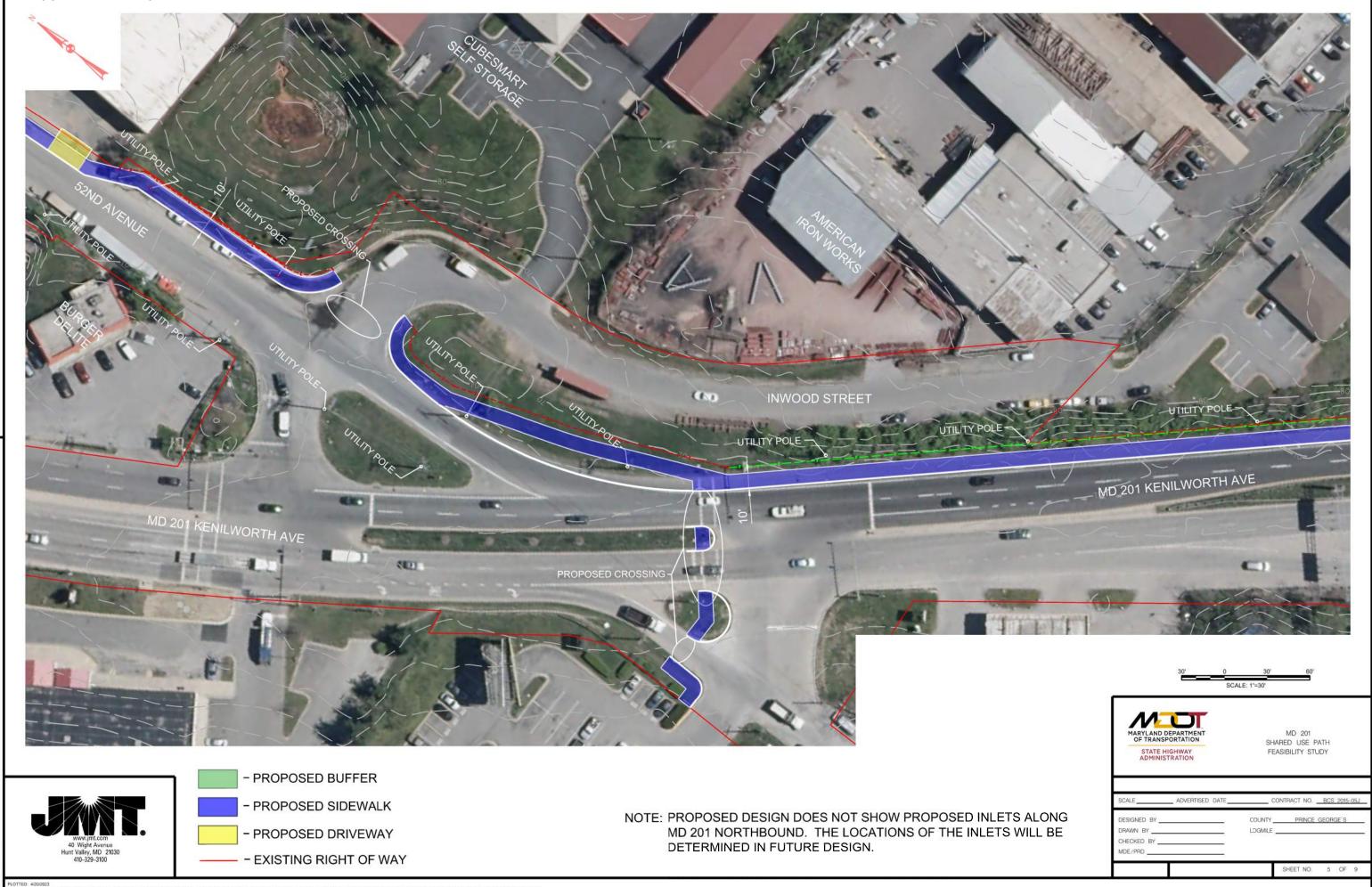




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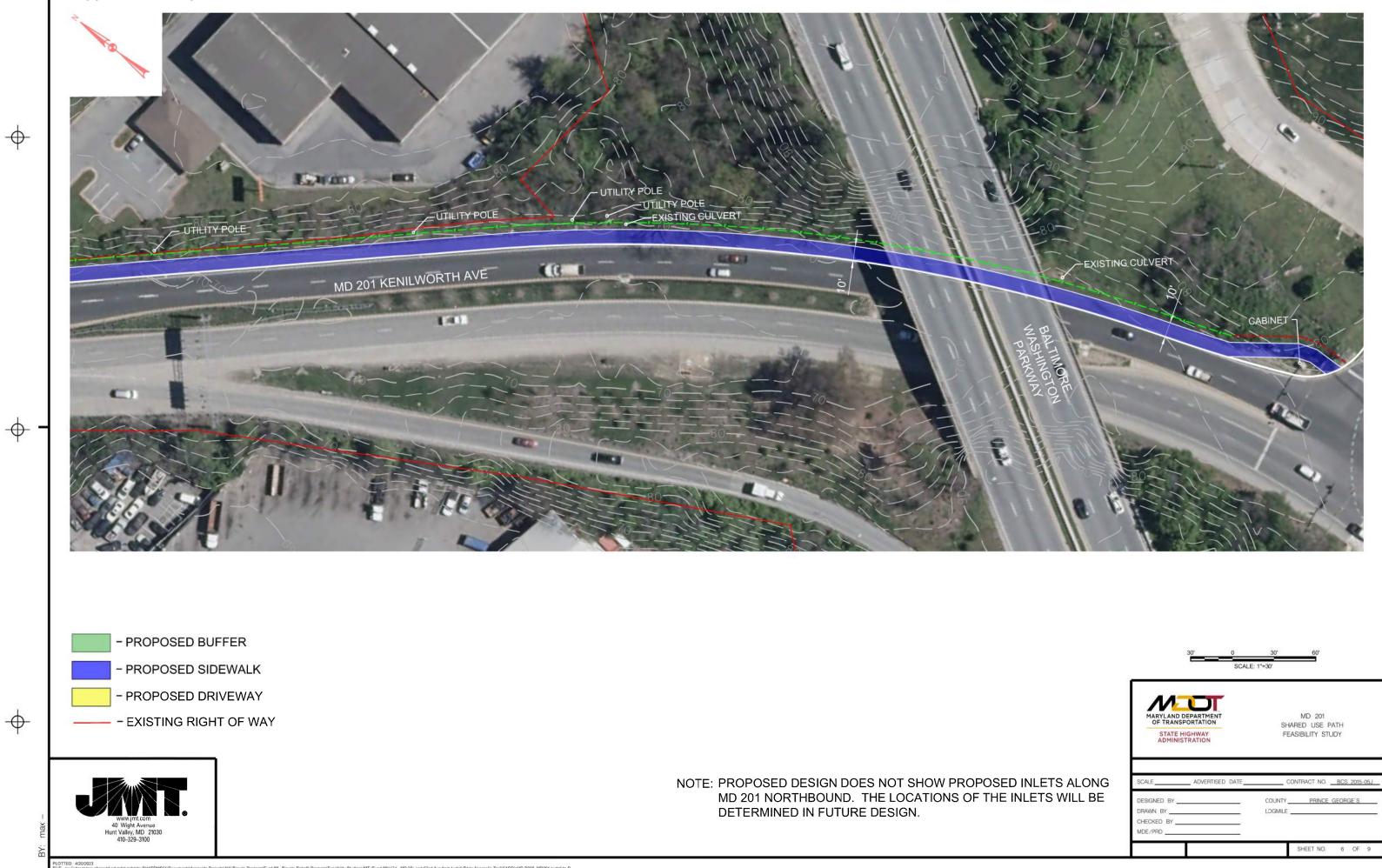




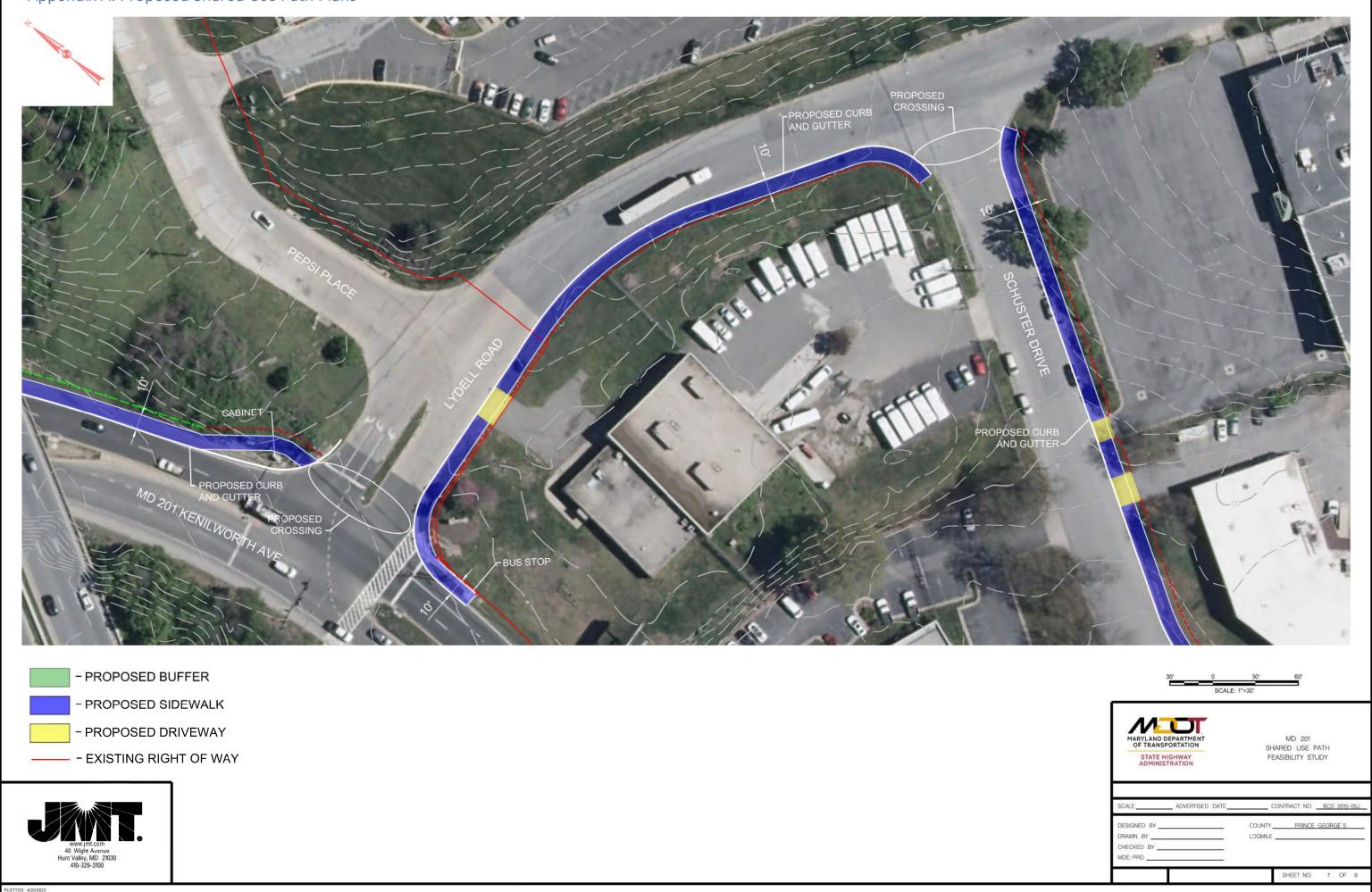
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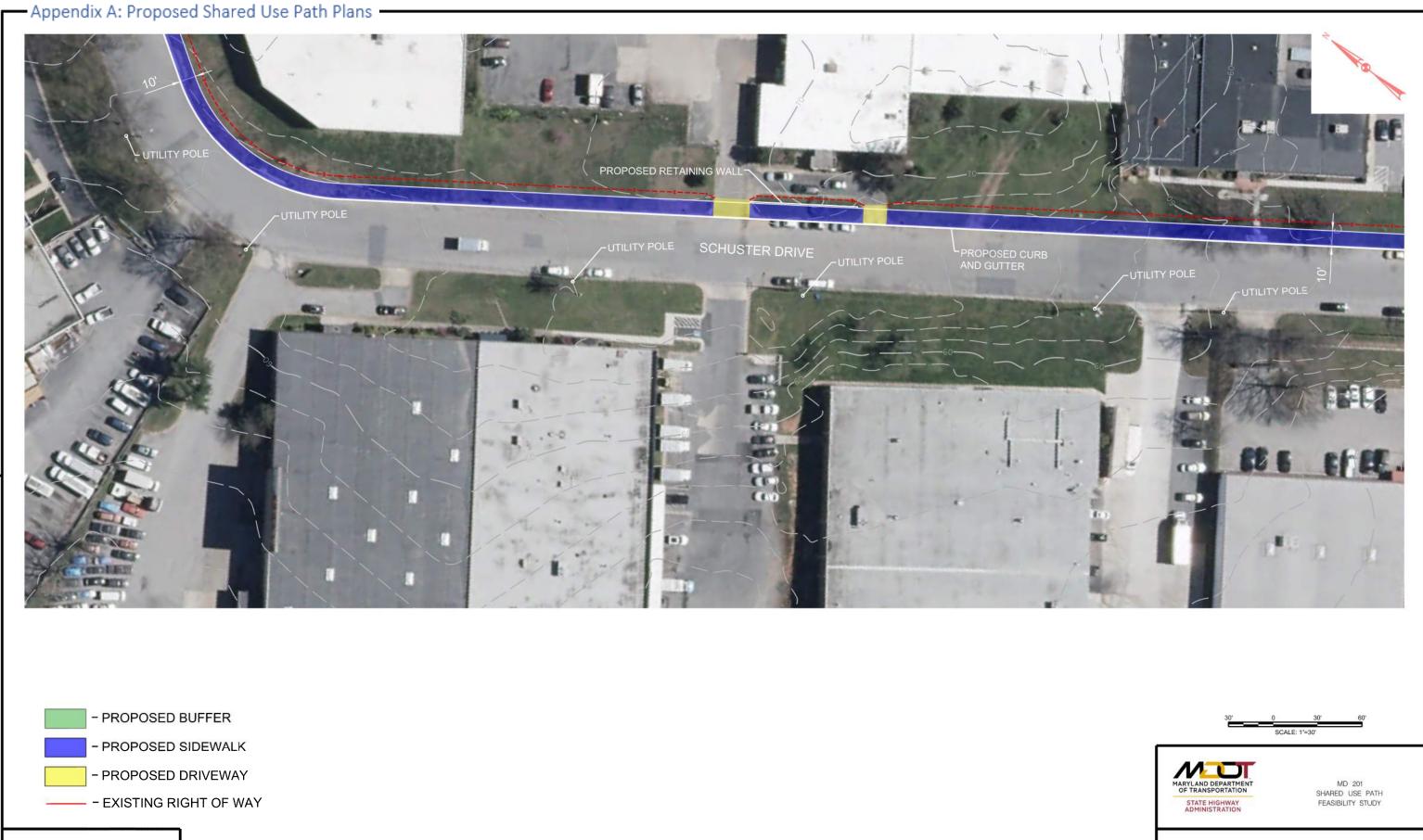




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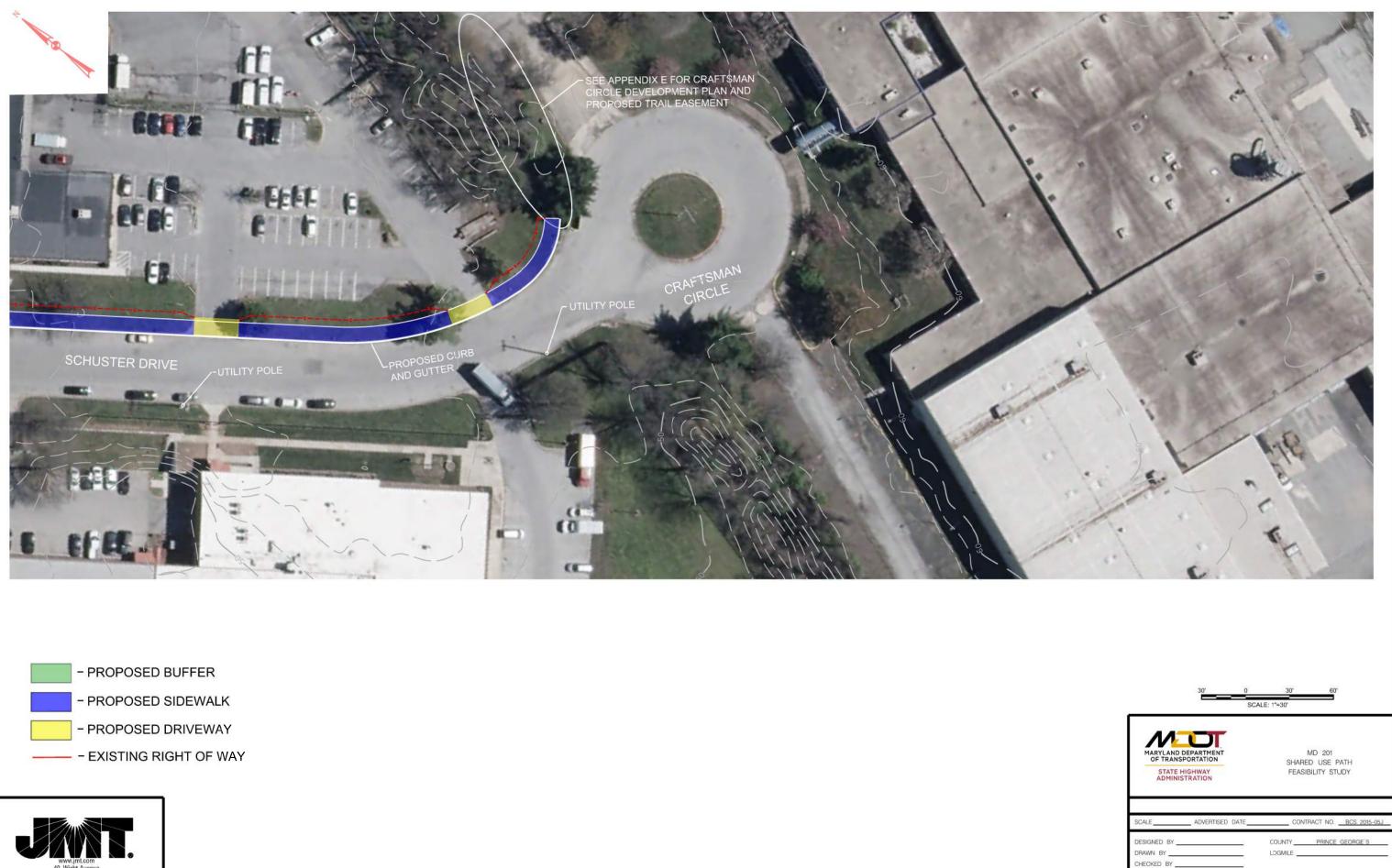
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NUMBER Law Do blade with Raised Medias PER LENCTR: JA Wits   1 TELENTRE JA Wits   1 LS 20,000,00 22,000,00   1 LS 22,000,00 22,000,00 86,000,-2.34   1 LS 7,000,00 10,000,00 10,000,00   2.6 AC 5,000,00 10,000,00 10,000,00   3.0 DELENTER 1550 CY 0,000,00 550,000,00   3.0 DELENTER 1550 CY 0,000,00 20,000,00   3.0 DELENTER 1550,000,00 S 10,000,00,00,00,00,00,00,00,00,00,00,00,	OB DESCRP:						5
REFERED DV.     DISING     DUDT SLA-DEFICE OF HIGHWAY DEFELOPMENT       1     INT     INTO SERIES OFFICE TYPE IN INFORMERS OFFICE CONSTRUCTION STAKEOUT     1     1.5     2.0000000 2.0000000     2.0000000 2.0000000     5.600000       2     INTENDE OF RAFIFE CONSTRUCTION STAKEOUT     1.5     2.0000000 2.6     2.0000000 2.000000     5.600000     5.600000       2     INTENDE OF RAFIFE     1.5     3.000000     5.600000     5.600000       2     INTENDE OF RAFIFE     1.550     1.000     0.00000     5.600000       3     INTENDE Intels Analoses, Pipe, Outfall Structure     1.550     1.000     2.60000     2.60000       4     INTELLEDENTINE     1.550     S.0000     2.60000     2.60000       3     INTELLE OF REFERENCE     1.550     S.0000     2.60000     2.60000       4     STEVEN     5.50     S.7     1.000     2.60000     2.60000       5     INTELEDENTINE     1.550     S.0000     2.60000     2.60000     2.60000     2.60000     2.60000     2.60000     2.60000     2.60000     2.60000	MPROV TYPE:	SHARED USE PATH CONSTRUCTION					
REFERED DV.     DISING     DUDT SLA-DEFICE OF HIGHWAY DEFELOPMENT       1     INT     INTO SERIES OFFICE TYPE IN INFORMERS OFFICE CONSTRUCTION STAKEOUT     1     1.5     2.0000000 2.0000000     2.0000000 2.0000000     5.600000       2     INTENDE OF RAFIFE CONSTRUCTION STAKEOUT     1.5     2.0000000 2.6     2.0000000 2.000000     5.600000     5.600000       2     INTENDE OF RAFIFE     1.5     3.000000     5.600000     5.600000       2     INTENDE OF RAFIFE     1.550     1.000     0.00000     5.600000       3     INTENDE Intels Analoses, Pipe, Outfall Structure     1.550     1.000     2.60000     2.60000       4     INTELLEDENTINE     1.550     S.0000     2.60000     2.60000       3     INTELLE OF REFERENCE     1.550     S.0000     2.60000     2.60000       4     STEVEN     5.50     S.7     1.000     2.60000     2.60000       5     INTELEDENTINE     1.550     S.0000     2.60000     2.60000     2.60000     2.60000     2.60000     2.60000     2.60000     2.60000     2.60000	YPICAL SEC:	4-Lane Divided with Raised Median			PRJ LENGTH:	1.43 Miles	
REFAULD BY:     NT     DEVELOPMENT       1     PRIMINARY TYPE B FACHNERS OFFICE MAINTENANCE OF TRAFFIC MAINTENANCE							FICE OF HIGHWAY
TYPE B ENNINEERS OFFICE   1   1.S   20,000.00   20,000.00   91,000.00     MAINTEANCE OF TRAFFIC   1   1.S   20,000.00   91,000.00   226,000.00   91,000.00   226,000.00   91,000.00   226,000.00   91,000.00   226,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00	REPARED BY:	JMT			DIVISION:		
TYPE B ENNINEERS OFFICE   1   1.S   20,000.00   20,000.00   91,000.00     MAINTEANCE OF TRAFFIC   1   1.S   20,000.00   91,000.00   226,000.00   91,000.00   226,000.00   91,000.00   226,000.00   91,000.00   226,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00   92,000.00	1	PRELIMINARY		(CAT 1)			633.000.
CONSTRUCTION STAKEOUT   1   LS   70,000,00   70,000,00   2% of Cat. 1-8     MOBILIZATION   1   LS   310,000,00   310,000,00   310,000,00     2   GRAINING   2.6   A.C   5,000,00   310,000,00     2   GRAINING   2.6   A.C   5,000,00   149,000,     3   DEALINACE   1.550   CY   60,00   93,000,00   149,000,     3   DEALINACE   1.550   CY   35,00   56,000,00   149,000,     3   DEALINACE   1.550   CY   35,00   260000   460,000,     4   STRECTIONES   1   LS   260000   260000   460,000,     4   STRECTIONES   1450   SF   100   145,000,   82,500,     5   RANNE   Reasing Wals   1450   SF   100   82,500,     6   SIGUIADER   7,600   LF   35,00   266,000,00   22,000,     7   LANDSCAPINE   1220 pts OF CAT 2,45,61 + Items below   177,500,   2,500,   SV   5,00   12,500,			1		20,000.00	20,000.00	,
MOBILIZATION   1   LS   30,000,00   310,000,00   10% of Cit. 1.8     2   GRANING   2.6   AC   5,000,00   13,000,00   199,000,00     2   GRANING   1,550   CY   60,00   93,000,00   149,000,00     3   DEALNACE   1,550   CY   60,00   26,000,00   460,000,00     3   DEALNACE   15% pro   OF CAT 24,56   + Items below   460,000,00   460,000,00     4   SIRUCTURES   1   LS   260000   260000   460,000,00     5   Makines, Pipe, Outful Structure   1   LS   260000   260000   460,000,00     4   SIRUCTURES   115% pro   0   A45,000,00   145,000,00   460,000,00     5   Makines   1450   SF   100   145,000,00   92,2000,00   92,2000,00   92,2000,00   92,2000,00   92,200,00   92,200,00   92,200,00   92,200,00   92,200,00   92,200,00   92,200,00   92,200,00   92,200,00   92,200,00   92,200,00   92,200,00   92,200,00   92,200,00   9,20,00,00   9,20,00,00		MAINTENANCE OF TRAFFIC	1	LS	220,000.00	220,000.00	8% of Cat. 2-8
CLEARING AND GRUBBING 2.6 AC 5,000.00 13,000.00   2 <u>GRADING</u> 1550 CY 60.00 92,000.00   3 <u>DRANACI</u> 1,550 CY 35.00 56,000.00   3 <u>DRANACI</u> 1550 CY 35.00 260000   4 <u>STRUCTIENS</u> 1550 FS 100 145,000   4 <u>STRUCTIENS</u> 1450 SF 100 145,000   5 <u>PANNACI</u> 1450 SF 100 145,000   6 <u>SUCHICC FOR DERIVEWAY</u> 550 SY 150,00 82,500.00   6 <u>SUCHICC FOR DERIVEWAY</u> 550 SF 100 655,000.00   7 <u>LANDSCAPING</u> 125% pt: OF CAT 2,45,6   + ltems below 177,500   6 <u>SUCHICC FOR DERIVEWAY</u> 550 SF 10.00 655,000.00   7 <u>LANDSCAPING</u> 125% pt: OF CAT 2,45,6   + ltems below 177,500   7 <u>LANDSCAPING</u> 125% pt: OF CAT 2,45,6   + ltems below 177,500   8 <u>Remov</u> and Relocate Ulliny Poles 705,000.00 550,000 12,500   8 <u>IREPIC</u> 15% pt: OF CAT 2,45,6   + ltems below 172,500			1	LS			2% of Cat. 1-8
$ \begin{array}{ccccccc} & \mathbf{GKUING} & & & & & & & & & & & & & & & & & & &$		MOBILIZATION					10% of Cat. 1-8
Removal of Existing Pavement   1,550   CY   60,00   93,000,00     Class I Excavation   1,600   CY   35,00   56,000,00     3   DRAINAGE   15% (PK OF CAT 2,45,6) + Items below   460,000,     1   LS   260000   260000     4   STRUCTURES   1450   SF   100     5   PAINSE   1450   SF   100   82,500,00     6   SINCH PCC FOR DERIVEWAY   550   SY   150,00   82,200,00     6   SHOULDER   7,600   LF   35,00   266,000,00     7   IANDSCAPING   12% (PK OF CAT 2,45,6) + Items below   177,500     7   IANDSCAPING   12% (PK OF CAT 2,45,6) + Items below   177,500     8   ILEER   2,500   SY   2,000   5,000     8   ILEER   112% (PK OF CAT 2,45,6) + Items below   177,500   2,500   SY   2,000   5,000     8   ILEER   115% (PK OF CAT 2,45,6) + Items below   1175,500   3,000   45,000   1175,500     8   ILEER   15% (PK OF CAT 2,45,6) + Items below   12,500		CLEARING AND GRUBBING	2.6	AC	5,000.00	13,000.00	
Class I Excavation   1,600   CY   35,00   56,000,00     3   DRNNACE   155% 1% OF CAT 2,4,5,6 1+ Items below   460,000     1   LS   260000   260000     4   STRICTURES   145,000   145,000     5   DRINNACE   145,000   145,000     5   DRINNACE   145,000   145,000     6   SINCH PCC FOR DERIVEWAY   550   SY   150,00   82,500,00     6   SINCH PCC FOR DERIVEWAY   550   SY   150,00   82,500,00     6   SINCH PCC FOR DERIVEWAY   550   SY   10,00   656,000,00     7   LANSCAPINC   7,600   LF   35,00   266,000,00   922,000     7   LANDSCAPINC   122% 1% OF CAT 2,45,61 + Items below   177,500   177,500     7   LANDSCAPINC   125% 1% OF CAT 2,45,61 + Items below   177,500     8   IEAFTIC   15% 1% OF CAT 2,45,61 + Items below   177,500     8   IEAFTIC   15% 1% OF CAT 2,45,61 + Items below   177,500     9   Destrian Crossing Signals   SUBTOTAL CAT 2,45,61 + Items below   179	2	GRADING					149,000
3   DRAINACE   15% [% OF CAT 2,45,6] + Items below   460,000     1   LS   260000   260000     4   STRUCTURES   1450   SF   100   145000     5   PAVING   550   SF   100   145000     5   PAVING   550   SY   150,00   82,500,00     6   SINCH PCC FOR DERIVEWAY   550   SY   150,00   82,2500,00     6   SINCH PCC FOR DERIVEWAY   550   SY   150,00   82,2500,00     6   SINCH PCC FOR DERIVEWAY   550   SY   150,00   82,2500,00     6   SINCH PCC FOR DERIVEWAY   550   SY   150,00   82,2500,00     6   SINCH PCC FOR DERIVEWAY   550   SY   150,00   82,200,00     7   LANISCAPINC   7,600   LF   35,000   266,000,00   550,000,00     7   LANISCAPINC   129% [% OF CAT 2,45,6] + Items below   177,500   2,500   SY   2,00   5,000,00     8   INAIDECAPINC   155% [% OF CAT 2,45,6] + Items below   175,500   3,500,00   11   EA <td></td> <td>Removal of Existing Pavement</td> <td>1,550</td> <td>CY</td> <td>60.00</td> <td>93,000.00</td> <td></td>		Removal of Existing Pavement	1,550	CY	60.00	93,000.00	
Intets, Manholes, Pipe, Outfall Structure   I   LS   260000   260000     4   STRUCTURES   145,000   145,000     7   Extaining Walk   1450   SF   100   145,000     8   INCH PCC FOR DERIVEWAY   550   SY   150,00   82,500,00     6   SIOCH DER   922,000   82,500,00   82,500,00     6   SIOCH DER   922,000   922,000     7   Extension   65,600   SF   10,00   656,000,00     7   Extension   65,600   SF   10,00   656,000,00     7   Extension   2,500   SY   2,00   5,000     7   Extension   2,500   SY   2,00   5,000     8   Terraish and Install Topsoil   2,500   SY   2,00   5,000     8   TEASPIC   1594   OF CAT 2,45,6 ] + Items below   795,000,0     8   TEASPIC   1594   SUBTOTAL PORADWAY COST   3,364,000,0     9   SUBTOTAL OF CATEGORIES 2,4,5,6   1,298,500,0   3,364,000,0     9   SUBTOTAL NEAT CONTINGEN		Class I Excavation	1,600	CY	35.00	56,000.00	
4   STRUCTURES   1450   SF   100   145000     5   PAVINC   550   SY   150.00   82,500.00     6   SINCH PCC FOR DERIVEWAY   550   SY   150.00   82,500.00     6   SINCH PCC FOR DERIVEWAY   550   SY   150.00   82,500.00     6   SINCH PCC FOR DERIVEWAY   550   SY   150.00   82,500.00     6   SINCH PCC FOR DERIVEWAY   550   SY   150.00   82,500.00     6   SINCH PCC FOR DERIVEWAY   550   SY   150.00   82,500.00     7   LANDSCAPING   12%   Yo OF CAT 2,45.6 ] + Items below   177,500     7   LANDSCAPING   12%   Yo OF CAT 2,45.6 ] + Items below   177,500     7   LANDSCAPING   15%   YO OF CAT 2,45.6 ] + Items below   795,000.01     8   TEALFIC   15%   YO OF CAT 2,45.6 ] + Items below   795,000.01     8   Remove and Relocate Utility Poles   Subtrot AL OF CAT 2,45.6 ] + Items below   11   EA     9   Vectorian Crossing Signals   SUBTOT AL OF CAT 2,45.6 ] + Items below   1,298,500 <t< td=""><td>3</td><td>DRAINAGE</td><td>15%</td><td>[% OF CA</td><td>T 2,4,5,6 ] + Items below</td><td></td><td>460,000</td></t<>	3	DRAINAGE	15%	[% OF CA	T 2,4,5,6 ] + Items below		460,000
Retaining Walls   1450   SF   100   145000     5   PATING 8 INCH PCC FOR DERIVEWAY   550   SY   150.00   82,500.00     6   SHOULDER Concrete Curb and Gutter 5" Concrete Sidewalk   7,600   LF   35.00   266,000.00     7   IANDSCAPING Furnish and Install Topsoil Turfgrass Establishment   129% [% OF CAT 2,45,6] + Hems below   177,500.     8   IRAPPIC Remove and Relocate Utility Poles Pedestrian Crossing Signals   15% [% OF CAT 2,45,6] + Hems below   795,000.     8   IRAPPIC SUBTOTAL OF CATEGORIES 2,4,56   129% [% OF CAT 2,45,6] + Hems below   795,000.00     8   IRAPPIC Construction Crossing Signals   11   EA.   50000   550,000     9   UBITOTAL OF CATEGORIES 2,4,56   1,298,500.   1,345,600.     SUBTOTAL OF CATEGORIES 2,4,56   1,298,500.   1,345,600.		Inlets, Manholes, Pipe, Outfall Structure	1	LS	260000	260000	
5   PAYING   81,000   82,500.0     6   SINCH PCC FOR DERIVEWAY   550   SY   150.00   82,500.0     6   SHOLL DER   7,600   LF   35,00   266,000.00     7   Concrete Curb and Gutter   7,600   SF   10.00   656,000.00     7   LANDSCAPING   12%  % OF CAT 2,4,5,6  + Items below   177,500     7   LANDSCAPING   12%  % OF CAT 2,4,5,6  + Items below   177,500     7   LANDSCAPING   12%  % OF CAT 2,4,5,6  + Items below   177,500     7   LANDSCAPING   15%  % OF CAT 2,4,5,6  + Items below   795,000.00     8   IRAFFIC   15%  % OF CAT 2,4,5,6  + Items below   795,000.00     8   IRAFFIC   15%  % OF CAT 2,4,5,6  + Items below   795,000.00     8   IRAFFIC   15%  % OF CAT 2,4,5,6  + Items below   795,000.00     9   Dedestrian Crossing Signals   3   LEGS   15000   45,000     SUBTOTAL OF CATEGORIES 2,4, 5.6   1,298,500.00   3,364,000.00   1,345,600.00   53,364,000.00   53,364,000.00   53,364,000.00   53,364,000.00   53,364,000.00   54,710,000.00   54,710,000.00<	4	STRUCTURES					145,000.
8 INCH PCC FOR DERIVEWAY   550   SY   150.00   82,500.00     6   SHOLLDER   922,000     Concrete Curb and Gutter   7,600   LF   35.00   266,000.00     5" Concrete Sidewalk   65,600   SF   10.00   656,000.00     7   LANDSCAPINC   12%   1%   0F CAT 2,45,6] + Items below   177,500     8   Furnish and Install Topsoil Turfgrass Establishment   2,500   SY   2.00   5,000     8   INFFIC   15%   15%   1000   550,000   3   1000   550,000     8   INFFIC   15%   15%   1000   550,000   3   126S   15000   45,000     8   USBTOTAL OF CATEGORIES 2,4,5,6   1,298,500   3,364,000   3   126S   1,298,500     9   UBITOTAL NEAT CONSTRUCTION   SUBTOTAL NEAT CONSTRUCTION   3,364,000   3,364,000   1,345,600		Retaining Walls	1450	SF	100	145000	
6   SHOULDER   922,000     Concrete Curb and Gutter   7,600   LF   35,00   266,000,00     5" Concrete Sidewalk   65,600   SF   10,00   656,000,00     7   LANDSCAPING   12% [% OF CAT 2,4,5,6] + Items below   177,500     7   Furnish and Install Topsoil   2,500   SY   5,00   12,500     7   Furnish and Install Topsoil   2,500   SY   2,000   5,000     8   IRAFFIC   15% [% OF CAT 2,4,5,6] + Items below   795,000,00   11   EA   50000   550,000     8   IRAFFIC   15% [% OF CAT 2,4,5,6] + Items below   1298,000   3   LEGS   1500   45,000     8   IRAFFIC   SUBTOTAL OF CAT E,4,5,6] + Items below   1,298,500   11   EA   50000   550,000     9   SUBTOTAL OF CAT E,2,4,5,6] + Items below   1,298,500   3   1298,500   3,364,000   1,345,600     9   SUBTOTAL OF CAT E,2,4,5,6   1,298,500   1,345,600   3,364,000   1,345,600   3,364,000   3,364,000   1,345,600   1,345,600   1,345,600   1,345,600   1,345,600   <	5	PAVING					82,500
Concrete Curb and Gutter   7,600   LF   35.00   266,000.00     5" Concrete Sidewalk   65,600   SF   10.00   656,000.00     7   LANDSCAPING   12% 0° CAT 2,4,5,6 ] + Items below   177,500.     Furnish and Install Topsoil   2,500   SY   5.00   12,500     Turfgrass Establishment   2,500   SY   2,00   5,000     8   IRAFFIC   15% 0° CAT 2,4,5,6 ] + Items below   795,000.0     8   IRAFFIC   15% 0° CAT 2,4,5,6 ] + Items below   795,000.0     8   IRAFFIC   15% 0° CAT 2,4,5,6 ] + Items below   795,000.0     8   IRAFFIC   15% 0° CAT 2,4,5,6 ] + Items below   795,000.0     8   IRAFFIC   15% 1° 0° CAT 2,4,5,6 ] + Items below   795,000.0     8   IRAFFIC   15% 1° 0° CAT 2,4,5,6 ] + Items below   795,000.0     9   ISBEDITAL OF CAT E,6,6 ] + Items below   11   EA     9   SUBTOTAL OF CAT E,6,6 ] + Items below   1,298,500.0     9   SUBTOTAL OF CAT E,6,6 ] + Items below   1,298,500.0     9   SUBTOTAL OF CAT E,6,6 ] + Items below   1,298,500.0     9   SUBTOTAL		8 INCH PCC FOR DERIVEWAY	550	SY	150.00	82,500.00	
5" Concrete Sidewalk   65,600   SF   10.00   656,000.00     7   LANDSCAPING   12% [% OF CAT 2,4,5,6] + Items below   177,500.     Furnish and Install Topsoil Turfgrass Establishment   2,500   SY   5.00   12,500     8   IRAFFIC   2,500   SY   2.00   5,000     8   IRAFFIC   11   EA   50000   550,000     8   IRAFFIC   11   EA   50000   550,000     8   ISM Pedestrian Crossing Signals   SUBTOTAL OF CAT EGORIES 2,4,5,6] + Items below   795,000.0     9   SUBTOTAL OF CAT EGORIES 2,4,5,6   1,298,500.     9   SUBTOTAL CONSTRUCTION   3,364,000.     9   SUBTOTAL CONSTRUCTION   54,710,000.0	6	SHOULDER					922,000
7   LANDSCAPINC   12% 1% OF CAT 2,4,5,6 ] + Items below   177,500.     Furnish and Install Topsoil Turfgrass Establishment   2,500   SY   5.00   12,500     8   TRAFFIC   15% 1% OF CAT 2,4,5,6 ] + Items below   795,000.0     8   TRAFFIC   11   EA   50000   550,000     8   TRAFFIC   11   EA   50000   550,000     8   TRAFFIC   11   EA   50000   550,000     9   Pedestrian Crossing Signals   11   EA   50000   550,000     SUBTOTAL OF CATEGORIES 2,4, 5,6   1,298,500.   3,364,000.   50000   54,710,000.0		Concrete Curb and Gutter	7,600	LF	35.00	266,000.00	
Furnish and Install Topsoil Turfgrass Establishment     2,500     SY     5.00     12,500       8     TRAFFIC     2,500     SY     2.00     5,000       8     TRAFFIC     15% I% OF CAT 2,4,5,6 J + Items below     795,000.0       8     TRAFFIC     11     EA     50000     550,000       9     Pedestrian Crossing Signals     11     EA     50000     550,000       9     SUBTOTAL OF CATEGORIES 2,4, 5,6     1,298,500.     1,298,500.     1,3364,000.       9     SUBTOTAL ROADWAY COST CONTINGENCY [%]     40%     54,710,000.0     54,710,000.0		5" Concrete Sidewalk	65,600	SF	10.00	656,000.00	
Turfgrass Establishment   2,500   SY   2.00   5,000     8   TRAFFIC   15% (% OF CAT 2,4,5,6) + Items below   795,000.0     8   Remove and Relocate Utility Poles   11   EA.   50000   550,000     9   Pedestrian Crossing Signals   11   EA.   50000   550,000     3   LEGS   15000   45,000   45,000     SUBTOTAL OF CATEGORIES 2,4, 5,6   1,298,500.0   3,364,000.0     CONTINGENCY [%]   40%   3,364,000.0     SUBTOTAL NEAT CONSTRUCTION   54,710,000.00   54,710,000.0	7	LANDSCAPING	12%	[% OF CA	T 2,4,5,6 ] + Items below		177,500.
8   IAFFIC   IS% (% OF CAT 2,4,5,6 ) + Items below   795,000.0     Remove and Relocate Utility Poles   11   EA.   50000   550,000     Pedestrian Crossing Signals   11   EA.   50000   550,000     SUBTOTAL OF CATEGORIES 2,4, 5,6   1,298,500.   1,298,500.     SUBTOTAL ROADWAY COST   3,364,000.   3,364,000.     CONTINGENCY [%]   40%   1,345,600.     SUBTOTAL-NEAT CONSTRUCTION   \$4,710,000.0		Furnish and Install Topsoil	2,500	SY	5.00	12,500	
Remove and Relocate Utility Poles   11   EA.   50000   550,000     Pedestrian Crossing Signals   3   LEGS   15000   45,000     SUBTOTAL OF CATEGORIES 2,4, 5,6   1,298,500.   3,364,000.     CONTINGENCY [ % ]   40%   1,345,600.     SUBTOTAL-NEAT CONSTRUCTION   \$4,710,000.0		Turfgrass Establishment	2,500	SY	2.00	5,000	
Pedestrian Crossing Signals 3 LEGS 15000 45,000   SUBTOTAL OF CATEGORIES 2,4, 5,6 1,298,500.   SUBTOTAL ROADWAY COST CONTINGENCY [%] 3,364,000.   SUBTOTAL- NEAT CONSTRUCTION 54,710,000.0	8	TRAFFIC	15%	[% OF CA	T 2,4,5,6 ] + Items below		795,000.0
SUBTOTAL OF CATEGORIES 2,4, 5,6   1,298,500.     SUBTOTAL ROADWAY COST   3,364,000.     CONTINGENCY [ % ]   40%     SUBTOTAL- NEAT CONSTRUCTION   \$4,710,000.		Remove and Relocate Utility Poles	11	EA.	50000	550,000	
SUBTOTAL ROADWAY COST     3,364,000.       CONTINGENCY [ % ]     40%       SUBTOTAL- NEAT CONSTRUCTION     \$4,710,000.0		Pedestrian Crossing Signals	3	LEGS	15000	45,000	
CONTINGENCY [ % ]     40%     1,345,600.       SUBTOTAL- NEAT CONSTRUCTION     \$4,710,000.0			SUBTOTAL	OF CATEGO	DRIES 2,4, 5,6		1,298,500.
CONTINGENCY [ % ]     40%     1,345,600.       SUBTOTAL- NEAT CONSTRUCTION     \$4,710,000.			SUBTOTAL	ROADWAY	COST		3,364,000.
OVERHEAD AND ADMINS 14.494 \$279.340			SUBTOTAL	NEAT CON	STRUCTION	]	\$4,710,000.0
			OVEDHEAD	AND ADMI	NS 14.4%	1 1	\$678,240.

TOTAL PROJECT COST

\$5,388,240.00

Notes:

1. Cost estimate does not include Right-of-Way costs, utility costs other than those listed, or CSX railroad crossing costs

MARYLAND I OF TRANSI STATE H ADMINIS	PEPARTMENT PORTATION_ IGHWAY	oendix C: Pedestria	in Counts –	MD 201 at	loyd Stree	t	Stat	te Highw Data Se	vay Adr rvices I	ninist Divisi	on									
Station ID		28			County:		Prin	ce Geor	ges		Comm	ents:								
Date:	11/13/2019	12:00:00 AM			Town:		non	e												
Location:	MD 201 at L	loyd St			Weather:		Clea	ar												
Interval:	60 Min		PEAK	AM PERIO	Start	End	Volume	LOS	V/C	Р	M PERIOD	Star	t End	Volume	LOS	V/C				
			Hours 6	5:00AM-12:0	PM 07:00	08:00	2366	А	0.38	12:00	DPM-19:00PM	17:0	0 18:00	2651	А	0.38				
		MD 201		_		N	1D 201						LLOYD S	T		_	u	LOYD ST		
		From North				Fro	m South						From Eas	st			Fro	om West		
Begin Hour	School Children	Pedestrians	Bicycles	Schoo	l Children	Ped	estrians	В	icycles		School Childr	en	Pedestr	rians	Bic	/cles	School Children	Pedestrians		Bicycles
00:00	0	0		0	0		(	2		0		0		0		(	0	(	0	0
01:00	0	0		0	0		(	0		0		0		0		(	0	(	0	0
02:00	0	0		0	0		(	0		0		0		0		(	0	(	0	0
03:00	0	0		0	0		(	C		0		0		0		(	0		D	0
04:00	0	0		0	0		(	C		0		0		0		(	0 0	(	0	0
05:00	0	0		0	0			0		0		0		0		(	0		_	0
06:00	0	1		0	0		(	_		0		0		0		(	0	(	_	0
07:00	0	0		0	0		(	-		0		0		1		(	0		0	0
08:00	0	2		0	0			2		0		0		1		(	0	1	-	0
09:00 10:00	0	0		0	0		(			0		0		1		(		1	-	0
11:00	0	0		0	0			4		0		0		0		(			-	0
12:00	0	0		0	0		(			0		0		3		(		(	-	0
13:00	0	0		0	0		(	5		0		0		1		(	0 0	1	1	0
14:00	0	1		0	0		(	C		0		0		0		(	0	2	2	0
15:00	0	0		0	0		1	1		0		0		1		(	0	(	D	0
16:00	0	0		0	0		2	2		0		0		7		(	0	(	0	0
17:00	0	0		0	0		(	C		0		0		1		(	0 0	C	0	0
18:00	0	0		0	0		(	2		0		0		0		(	0	(	0	0
19:00	0	0		0	0		(			0		0		0		(			0	0
20:00	0	0		0	0		(			0		0		0		(	,		0	0
21:00	0	0		0	0		(			0		0		0		(			0	0
22:00	0	0		0	0		(			0		0		0		(	, o		-	0
23:00 TOTAL	0	0		0 0	0		( 			0 0		0 0		0 19			0 0 0 0		0 6	0 0
AMPEAK	0	4		0	0					0		0		19					0	0
PMPEAK	0	0		0	0					0		0		1					0	0
DAYPEAK	0	0		0	0					0		0		1					0	0

OF TRANS	PORTATION_	endix C: Pedestria	in Counts –	- MD 2	201 at Lawr	rence St	reet	Stat	te Hig Data	ghway Ad Services	lminis Divis	ion								
Station ID		7			Cc	ounty:		Prin	ce Ge	eorges		Comm	ents:							
Date:	11/13/2019	12:00:00 AM			То	wn:		none	e											
Location:	MD 201 at L	awrence St			w	eather:		Clea	r											
Interval:	60 Min		PEAK	AM	PERIOD	Start	End	Volume	LOS	V/C	F	PM PERIOD	Star	t End	Volume	LOS	V/C			
			Hours	6:00AN	M-12:00PM	07:00	08:00	2212	А	0.34	12:0	0PM-19:00PM	17:0	0 18:00	2723	А	0.41			
		MD 201						1D 201		•			L	AWRENC	E ST			LAW	RENCE ST	
		From North		_			Fro	m South						From Ea	st			Fro	m West	—
Begin Hour	School Children	Pedestrians	Bicycle	s	School Ch	ildren	Pede	estrians		Bicycles	5	School Childr	en	Pedest	rians	Bicy	/cles	School Children	Pedestrians	Bicycles
00:00	0	0		0		0		C	)		0		0		0		C	0	0	0
01:00	0	0		0		0		C	)		0		0		0		C	0	0	0
02:00	0	0		0		0		C	)		0		0		0		C	0	0	0
03:00	0	0		0		0		C	)		0		0		0		C	0	0	0
04:00	0	0		0		0		C	)		0		0		0		C	0	0	0
05:00	0	0		0		0		C			0		0		1		C	-	0	0
06:00	0	0		0		0		С	-		0		0		1		C	, i i i i i i i i i i i i i i i i i i i	0	0
07:00	0	0		0		0		0	_		0		0		1		(		1	0
08:00	0	0		0		0		C	-		0		0		0		0		0	0
09:00 10:00	0	1		0		0		4			0		0		2		0		0	0
11:00	0	3		0		0		4	-		0		0		0				2	0
12:00	0	0		0		0		1			0		0		0		0		6	0
13:00	0	1		0		0		C	)		0		0		1		C	0	2	0
14:00	0	0		0		0		C	)		0		0		0		C	0 0	1	0
15:00	0	0		0		0		1	L		0		0		1		C	0	1	0
16:00	0	2		0		0		2	2		0		0		1		C	0	6	0
17:00	0	0		0		0		1	L		0		0		0		C	0	0	0
18:00	0	0		0		0		C	)		0		0		0		C	0	0	0
19:00	0	0		0		0		1	L		0		0		0		C	0	0	0
20:00	0	0		0		0		C			0		0		0		0	4	0	0
21:00	0	0		0		0		C			0		0		0		0	4	0	0
22:00	0	0		0		0		0			0		0		0		0	-	0	0
23:00	0	0 7		0		0		15			0		0		0		0	-	1	0
TOTAL AMPEAK	0	/ 0		0 0		0		15			0		0		8		ر د	-	29	0
PMPEAK	0	0		0		0		1			0	ļ	0		1		(	-	1 0	0
DAYPEAK	0	0		0		0		1			0		0		0			0	0	0

STATE H	PORTATION_	endix C: Pedestria	n Counts – MD	201 at 52 <sup>nd</sup>	Avenue		State	Departme e Highway Data Servio Iovement	Admini es Divi	sion						
Station ID		26		Co	ounty:		Princ	e Georges		Comme	ents:					
Date:	11/13/2019	12:00:00 AM		Тс	own:		none									
Location:	MD 201 at 5	2nd Ave (Eastboun	d)	w	eather:		Clear									
Interval:	60 Min		PEAK A	M PERIOD	Start	End Vol	ume	LOS V/	с 🗌	PM PERIOD	Star	rt End Volume	LOS V/C			
			Hours 6:00	AM-12:00PM	07:00	08:00 26	533	A 0.5	5 12:	00PM-19:00PM	17:0	00 18:00 2861	A 0.48			
		MD 201				MD 20	01					52nd Ave		Salvatio	n Army Store	
		From North				From Sc	outh					From East		Fro	om West	
Begin Hour	School Children	Pedestrians	Bicycles	School Ch	nildren	Pedestri	ans	Bicyc	les	School Childr	en	Pedestrians	Bicycles	School Children	Pedestrians	Bicycles
00:00	0	0		0	0		0		(		0	0	0	0	0	0
01:00	0	0		0	0		0		(		0	0	0	0	0	0
02:00	0	0		0	0		0		(		0	0	0	0	0	0
03:00	0	0		0	0		0		(	,	0	0	0	0	0	0
04:00	0	3		0	0		0		(		0	0	0	0	0	0
05:00 06:00	0	1		0	0		0		(		0	0	0	0	0	0
07:00	0	7		0	0		4		(		0	1	0	0	5	0
08:00	0	4		0	0		0		(		0	0	0	0	1	0
09:00	0	5		0	0		0		(		0	0	0	0	3	0
10:00	0	6		0	0		0		(		0	0	0	0	0	0
11:00	0	8		0	0		0		(		0	4	0	0	0	0
12:00	0	1		0	0		0		(		0	0	0	0	1	0
13:00	0	10		0	0		0		(	)	0	0	0	0	3	0
14:00	0	3		0	0		1		(		0	1	0	0	3	0
15:00	0	7		0	0		0		(		0	1	0	0	2	0
16:00	0	1		0	0		0		(		0	0	0	0	4	0
17:00	0	2		0	0		0 0		(		0	1	0	0	0	0
18:00 19:00	0	2		0	0		0		(	, 	0	0	0	0	0	0
20:00	0	3		0	0		0		(	1	0	0	0		5	0
21:00	0	0		0	0		0		(		0	0	0		0	0
22:00	0	0		0	0		0		(	1	0	0	0	0	0	0
23:00	0	0		0	0		0		(		0	0	0	0	0	0
TOTAL	0	72		0	0		5		(		0	9	0	0	44	0
AMPEAK	0	7		0	0		0		(		0	1	0	0	5	0
PMPEAK	0	2		0	0		0		(	p	0	1	0	0	0	0
DAYPEAK	0	2		0	0		0		C		0	1	0	0	0	0

MARYLAND D OF TRANSF	IGHWAY	oendix C: Pedestri	an Counts -	- MD 2	201 at Lyde	ell Road		Stat	e High Data S	nway Ad Services	minis Divis	ion									
Station ID: S2000160125				Prince Georges				Comments:													
Date:	11/13/2019			То	wn:		none														
Location:	MD 201 at L			W	eather:		Clear														
Interval:	60 Min		PEAK	AM	PERIOD	Start	End	Volume	LOS V/C		F	PM PERIOD	Star	t End	Volu	Volume LOS V/C					
				urs 6:00AM-12:00PM		07:00	00 08:00 2437		A 0.49 12:0		12:0	0PM-19:00PM	15:0	0 16:00	279	93 A	A 0.55				
			_			N	MD 201				LYDELL RD									_	
		om South				From East							Fro								
Begin Hour	School Children Pedestrians		Bicycle	Bicycles School Chi		ildren Pedestrians		Bicycles		School Children		Pedestrians		I	Bicycles		School Children	Pedestrians	Bicycles		
00:00	0		0			0				0	0			0	0		0	0	0		
01:00	0		0			0 0				0		0	0				C	0 0	0	0	
02:00	0		0			C			0		0	0			0		0 0	0	0		
03:00	0	0 0				0		C			0		0			0 0			0 0	0	0
04:00	0		0			0 0				0		0		0 0		C	0 0	0	0		
05:00	0			0							0	-			0			0	0		
06:00	0 0			0		0 0				0	0		0		_	0		, 	0	0	
07:00	0 0			0		0 3			_		0		0			2 0				0	0
08:00 09:00	0 0			0		0				0		0		0			0		-	0	0
10:00	0	0		0		0		0			0		0			0		(		0	0
11:00	0	0		0		0		1			0		0			1				0	0
12:00	0	0		0		0		C	)		0		0			0		C	0 0	0	0
13:00	0 0			0	0 0			0			0	0		0			0		0	0	0
14:00	0 0			0				1			0	0		2			0		0	0	0
15:00	0	0		0		0		C			0		0			1		C	0 0	0	0
16:00	0	0		0		0		1			0		0			0		C	0 0	0	0
17:00	0	0		0		0		C			0		0			0		C	0 0	0	0
18:00	0	0		0		0		C			0		0			0		C	,	0	0
19:00	0	0		0		0		C			0		0			1			0 0	0	0
20:00	0	0		0		0		C			0		0			0		0	-	0	0
21:00	0	0		0		0		0			0		0			0		0	-	0	0
22:00	0	0		0		0		0			0		0			0		0		0	0
23:00 TOTAL	0 0	0 2		0 0		0 0		7			0 0	ļ	0			0 7		( (		0	0 0
AMPEAK	0	0		0		0		3			0		0			2				0	0
PMPEAK	0	0		0		0					0	ļ	0			1			1	0	0
DAYPEAK	0	0		0		0					0		0			1				0	0

































