

January 28, 2025

Exhibit 6  
CU 25-07

Mr. Jesse Connor  
Davis Hill Development, LLC  
1616 16<sup>th</sup> Avenue South, Music Row  
Nashville, TN 37212

RE: **Mountain Vale Community Solar**  
**Traffic Exemption Statement**  
Montgomery County, Maryland

Dear Mr. Connor:

Bowman has prepared a traffic assessment for the development of a proposed solar facility to be located at 17700 Barnesville Road. The site is currently occupied by one residential dwelling unit on the far eastern side of the property, which will remain. There is also an existing lease on the property for some farming and agricultural use. The purpose of this letter is to assess the potential traffic impact of the proposed solar facility, in accordance with the Montgomery County Traffic Exemption Statement requirements. The scope of this traffic statement was sent in advance to the Montgomery County's Planning Division, and it is on the approved scope of study for other similar projects in the area.

## Background Information

The subject property, Mountain Vale Community Solar, is located in Montgomery County, along the south side of Barnesville Road between Old Hundred Road and Conoy Road. The site is currently occupied by one residential dwelling unit on the far eastern side of the property, which will remain. There is also an existing lease on the property for some farming and agricultural use. A map identifies the property location in **Figure 1**.

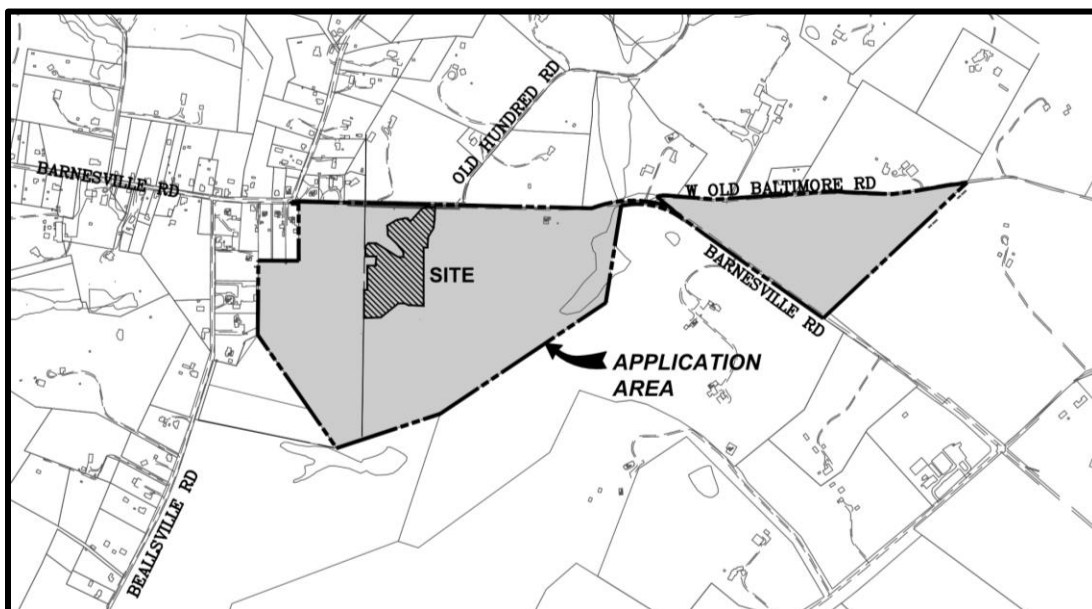
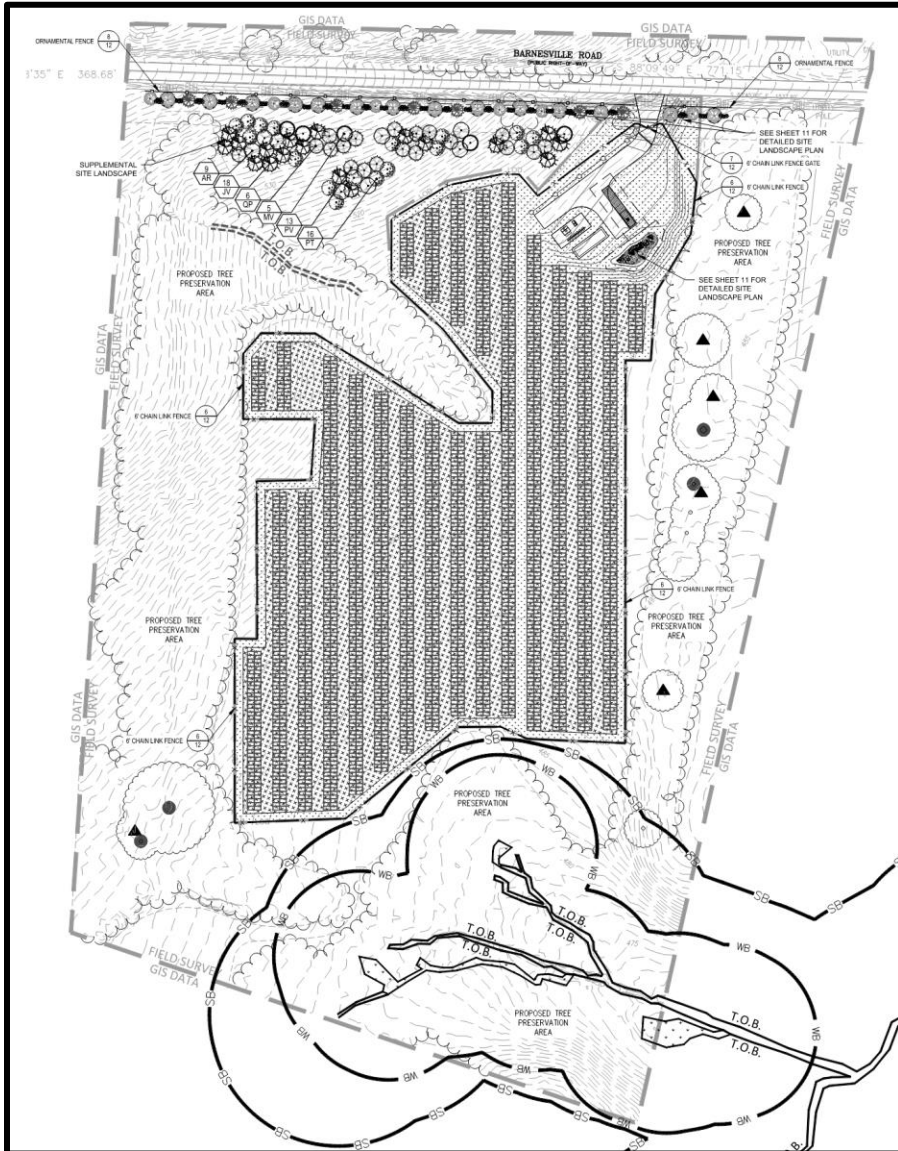


Figure 1. Property Location Map

The applicant proposes to develop a portion of the site with a solar facility for a ground mounted photovoltaic array. The proposed solar facility will be located on the western side of the property. A site location map identifies the location of the proposed solar facility in **Figure 2**, and a conceptual plan is provided in **Attachment A**.

As shown in Figure 2 and Attachment A, the proposed solar facility will have access to Barnesville Road via a 20-foot wide access road west of Old Hundred Road.



**Figure 2. Solar Facility Conceptual Plan**

### Existing Roadway Information

Within the vicinity of the proposed sit, Barnesville Road e is an undivided two-lane roadway. Barnesville Road is a County-maintained roadway (CO 237) with a posted speed limit of 40 miles per hour and a width of approximately 20 feet. It is classified as rural and a major collector based on the Maryland Department of Transportation functional classification map.

Based on the Montgomery Planning document, *Rustic Road Traffic and Crash Analysis* performed April 25, 2022, daily traffic counts were completed along Barnesville Road in the project area, which is the section designated as a rustic road. At the eastern end of the rustic segment (just west of Bucklodge Road – MD 109 and Slidell Road), the daily traffic volumes are 3,931 vehicles per day. Near the western terminus of the rustic segment at Mount Ephraim Road, the daily traffic volumes are 3,031 vehicles per day. The report included an average segment AADT of 3,481 vehicles per day, an average of the two counted locations. Excerpts from the report are provided in **Attachment B**.

### **Trip Generation and Distribution**

The trips anticipated to be generated by the proposed solar facility during the construction stages are approximately 15 trips per day. The trips anticipated to be generated by the solar facility upon completion are approximately 1 to 2 trips per day. The proposed solar facility will have access to Barnesville Road via a 20-foot wide access road west of Old Hundred Road.

Given the location of the site, it is anticipated that the solar facility traffic will be primarily destined to/from the I-270 corridor to the east, which can be access by traveling to/from the east along Barnesville Road or to/from the west along Barnesville Road via Old Hundred Road north. Given the very low trip generation for the solar facility during construction and upon completion, no traffic impacts will result along Barnesville Road and Old Hundred Road.

### **Summary and Conclusions**

The applicant proposes to develop a portion of the property at 17700 Barnesville Road to provide a solar facility for a ground mounted photovoltaic array. The site is currently occupied by one residential dwelling unit on the far eastern side of the property, which will remain. There is also an existing lease on the property for some farming and agricultural use. The proposed solar facility will have access to Barnesville Road via a 20-foot wide access road west of Old Hundred Road.

During the construction of the proposed solar facility, the site is anticipated to generate approximately 15 trips per day. Upon completion, the solar facility is anticipated to generate approximately 1 to 2 trips per day.

Based on the information provided in this report, the addition of the site traffic to be generated by the proposed solar facility will have no adverse impact on the traffic operations within the existing roadway network in the vicinity of the project.

If you should have any questions, or require further information, please feel free to contact me at [nkline@bowman.com](mailto:nkline@bowman.com) or 610.594.9995.

Sincerely,



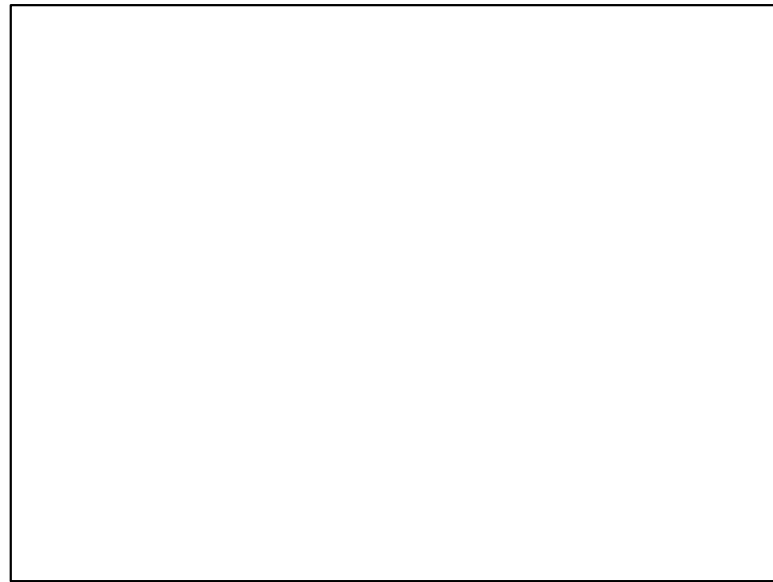
Nicole R. Kline-Elsier, P.E., PTOE  
Regional Service Leader – Traffic/Planning

NRKE - Attachments

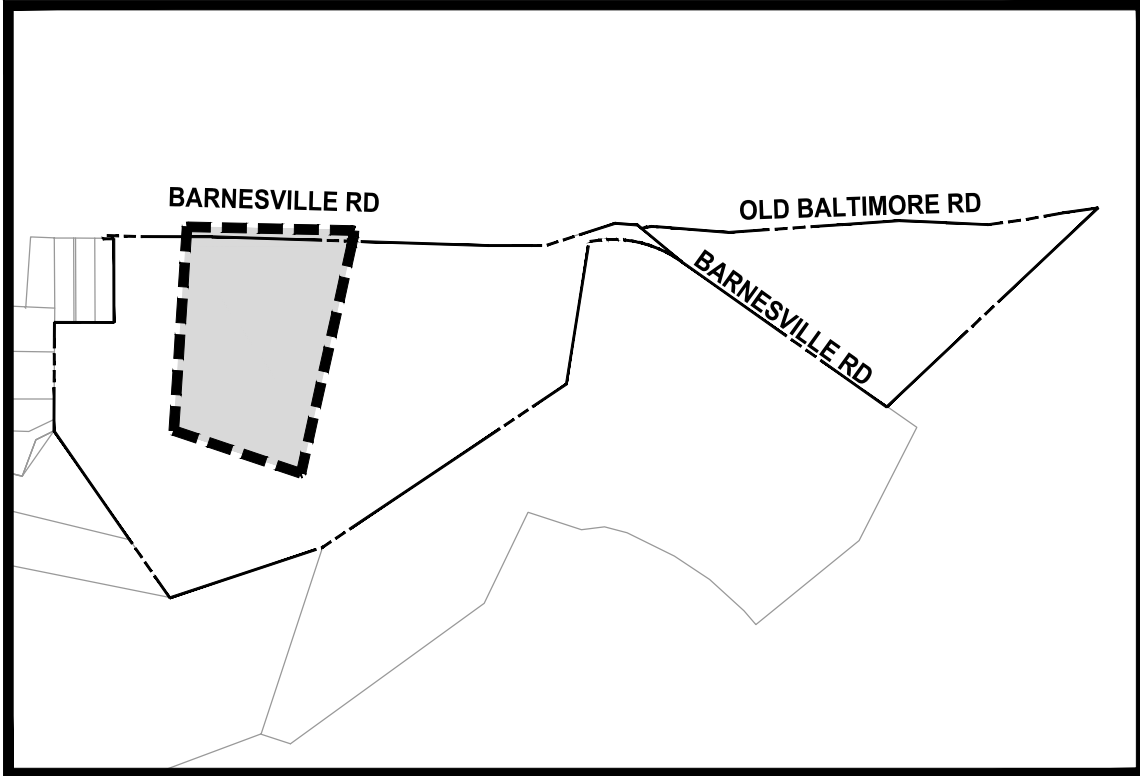
## **ATTACHMENT A**

### **Conceptual Plan**

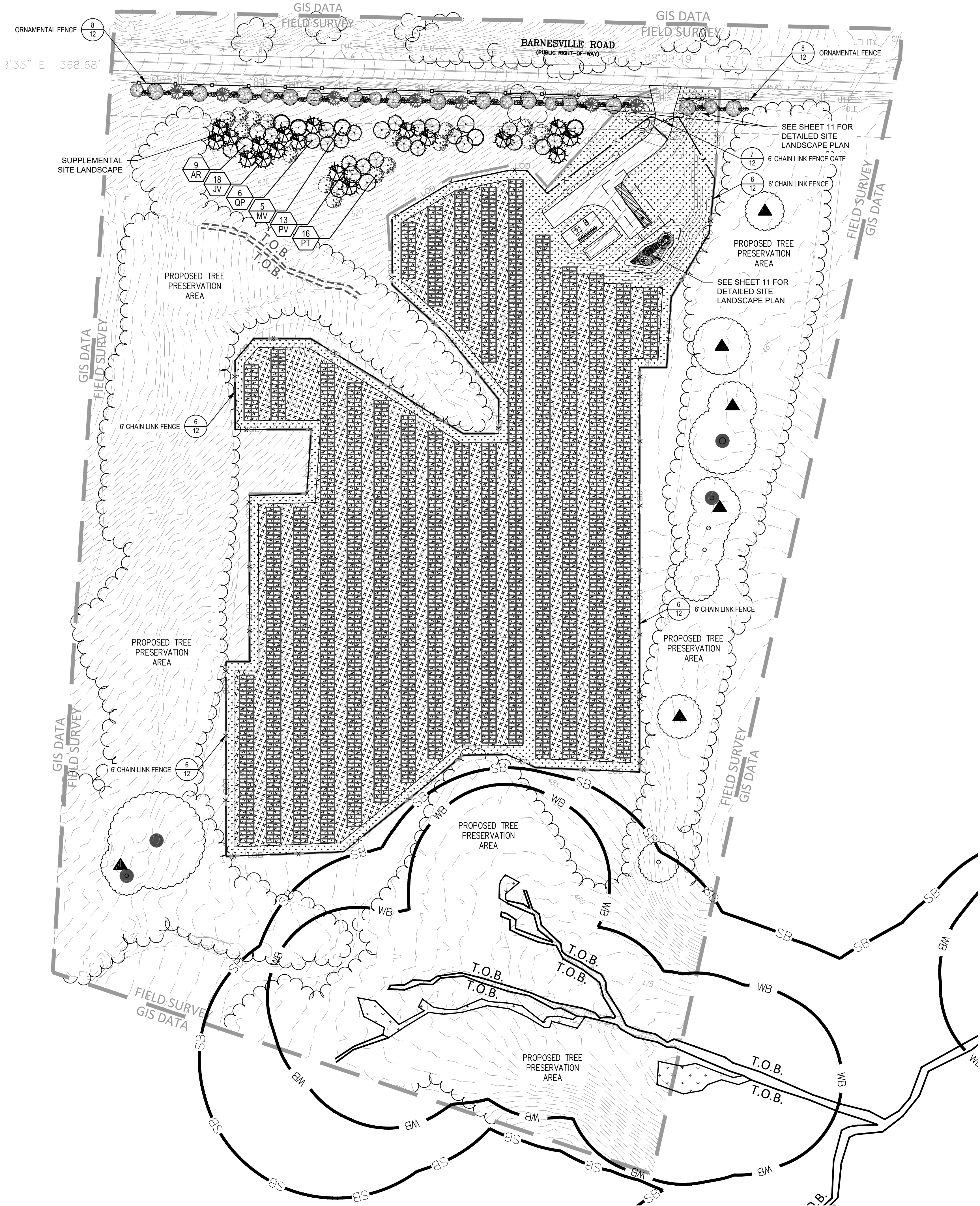
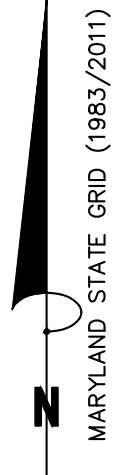




M-NOPPC APPROVAL STAMP

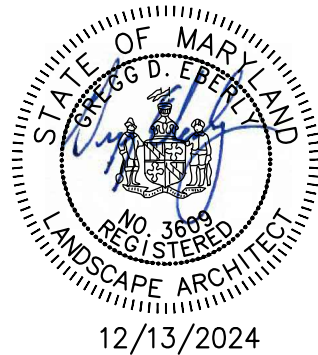


KEY MAP  
N.T.S.

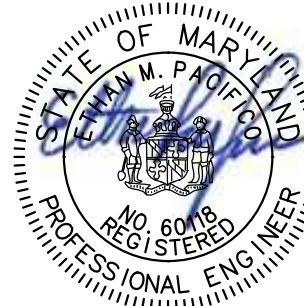
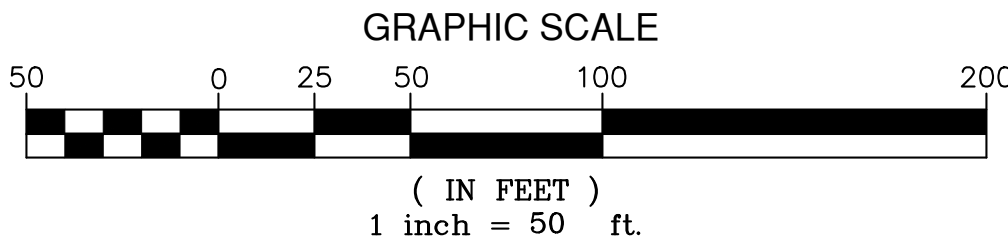


LEGEND

- PROPOSED CANOPY TREE
- PROPOSED EVERGREEN TREE
- PROPOSED UNDERSTORY TREE
- PROPOSED LARGE SHRUB
- PROPOSED MEDIUM SHRUB
- PROPOSED SMALL SHRUB
- PROPOSED TURF GRASS (58,773 S.F. OR 1.35 AC.)
- PROPOSED POLLINATOR SEED MIX (211,915 S.F. OR 4.86 AC.)
- EXISTING PROPERTY BOUNDARY (109.51 AC.)
- EXISTING INDEX CONTOURS
- EXISTING INDEX CONTOURS
- EXISTING STREAM CENTER LINE
- EXISTING PERENNIAL OR INTERMITTENT STREAM (BUFFER SHOWN)
- EXISTING EPHEMERAL STREAM (NO BUFFER REQUIRED)
- EXISTING OVERHEAD UTILITY
- EXISTING STREAM BUFFER
- EXISTING WETLAND BUFFER
- EXISTING TREE OTHER (18–24" CALIPER DBH)
- EXISTING SIGNIFICANT (24–29" CALIPER DBH)
- EXISTING SPECIMEN TREE (30"+ CALIPER DBH)
- EXISTING TREE/FOREST LINE
- EXISTING NONTIDAL PALUSTRINE EMERGENT WETLAND
- PROPOSED LIMITS OF DISTURBANCE
- PROPOSED 6' HEIGHT CHAIN LINK FENCE
- PROPOSED 4.5' HEIGHT ORNAMENTAL FARM FENCE



12/13/2024



12/20/2024

PLAN STATUS

DATE	DESCRIPTION
EP	EG
DESIGN	DRAWN
SCALE	H: 1"=50"
	V: N/A

JOB No. 140362-01-001

DATE : NOVEMBER, 2024

FILE No. 140362-D-CP-001-LSP



## **ATTACHMENT B**

### **Rustic Roads Report Excerpts**

# Rustic Road Traffic and Crash Analysis

Based on GIS analysis performed April 25, 2022

## Executive Summary

County Code section 49-78 item (b)(3) requires that rustic roads be “low volume [with] traffic volumes that do not detract significantly from the rustic character of the road.” Item (5) under this section specifies that the crash history of the road “does not suggest unsafe conditions.” County Code does not specify a traffic volume or crash rate above which a rustic designation would be inappropriate, but the 1996 *Rustic Roads Functional Master Plan* provides some guidance.

Due to low traffic volumes, the number of crashes along rustic roads is very low. However, crashes along rustic roads are likely to result in a fatality or serious injury at a higher rate than other roads in the county. Crashes occur disproportionately at intersections, signifying a potential issue with intersection geometry, sight distance, and/or the need for traffic controls, rather than an issue with the road alignment itself. Because of the low volume of these roads, signalization is rare at intersections.

Given the low number of overall vehicle miles travelled (VMT) and low number of crashes on any particular road, traditional crash rates should be treated with a high degree of uncertainty. It only takes a single crash on a low-volume, short road to dramatically increase the crash rate. This is more a function of the inherent randomness of statistically small numbers rather than road design. As such, a road’s crash rate should not be considered the only measure to determine safety and adequacy of roads and individual crashes should be examined more closely.

None of the roads has a high enough crash rate that by itself would suggest a road be removed from or not added to the Rustic Roads Program. However, this analysis did lead to a recommendation that a section of one rustic road be removed from the program due to a combination of traffic volume and pattern of crashes. A few roads are suggested for further investigation due to higher-than-average traffic counts. The crash maps that accompany this report should also be examined for patterns in crash locations along individual roads.

## All Montgomery County Crashes

Table 1 shows the total number of crashes reported in Montgomery County from January 2015 through December 2020 (six full years of data). Crashes have been categorized as fatal, serious injury, minor injury, and property-damage-only (or no injury) crashes. The analysis uses crashes that were “geolocated” using an algorithm developed by transportation planners in Montgomery Planning’s Countywide Planning and Policy Division as part of Montgomery Planning’s Vision Zero efforts.

*Table 5. Average Annual Daily Traffic – Existing Rustic Roads (Top 10) (2015-2020)*

<b>Road Name</b>	<b>AADT</b>
Frederick Road (MD 355) in Hyattstown	15,996
Old Hundred Road (MD 109)	8,200
Glen Road (Rustic Segment)	5,031
Brookeville Road	3,715
Barnesville Road	3,481
Schaeffer Road	2,964
Glen Road (Exceptional Rustic Segment)	2,393
Cattail Road	2,375
Zion Road	2,230
South Glen Road	2,095

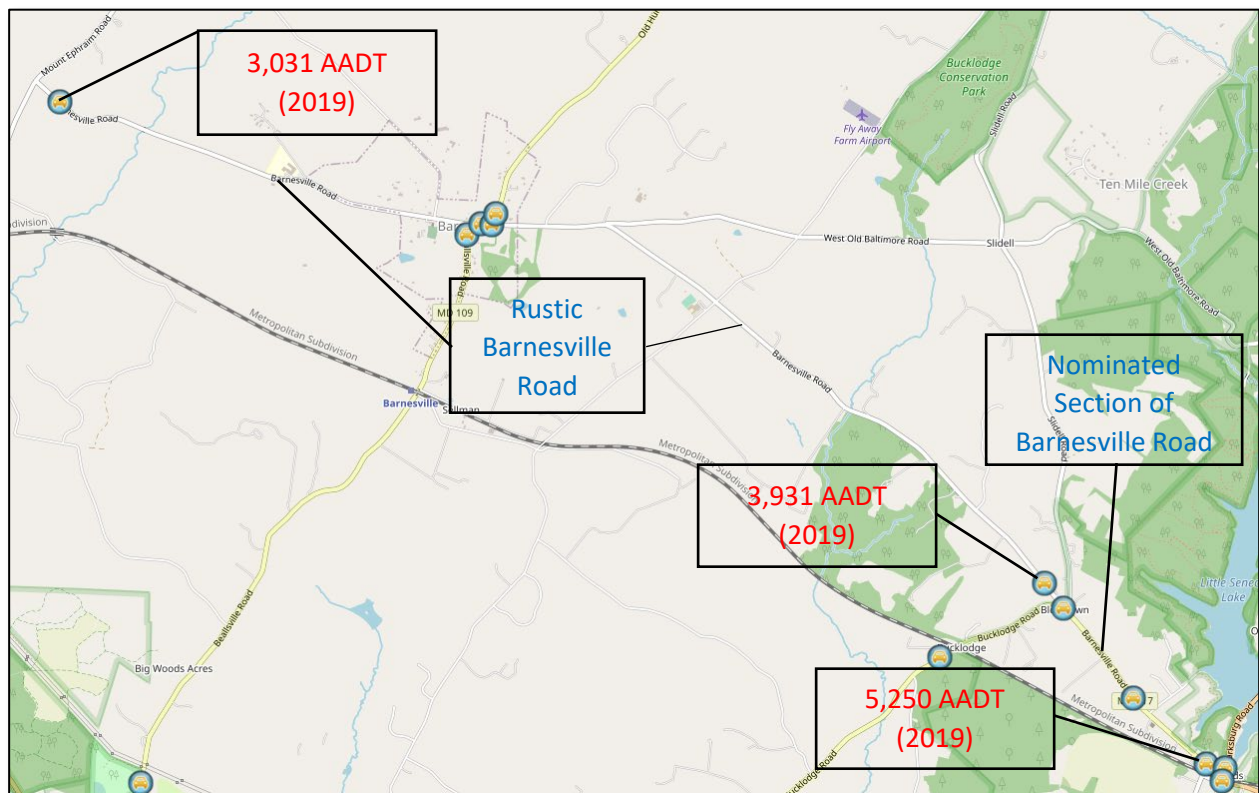
The 1996 *Rustic Roads Functional Master Plan* considered a road to be “low volume” (a necessary criterion for classification as a rustic or exceptional rustic road) if there were fewer than approximately 3,000 average weekday trips per day on the road. (Note that this analysis uses average daily traffic from the full seven-day week and not just the average weekday counts due to the available data. Including the two weekend days typically results in a lower AADT than the weekday only count, but on rustic roads, where travel may be more recreational on the weekends, the weekend rate can be higher. The difference between the two is typically minor.) The two rustic roads with the highest daily counts, Frederick Road (MD 355) in Hyattstown and Old Hundred Road (MD 109) are both state highways with counts well over 3,000 AADT. These roads were both designated rustic in the 1994 *Clarksburg Master Plan and Hyattstown Special Study Area*. The 1994 plan—still in effect in this area—made two recommendations to justify the rustic classification:

- 1) The 1994 plan recommends closing the I-270 interchange with MD 109 and building a new interchange further north in Frederick County to align with MD 75, which intersects MD 355 just north of Hyattstown. This would minimize traffic volumes along Frederick Road as well as along Old Hundred Road.
- 2) If the MD 109 interchange is maintained or improved, the 1994 plan recommends a bypass of the Hyattstown Historic District from an eastward extension of MD 109 past MD 355 that would then turn northward to intersect with MD 355 north of the county line.

The next highest traffic count along an existing rustic road is that of the rustic segment of Glen Road (from Query Mill Road to Piney Meetinghouse Road). The AADT of approximately 5,000 is also considerably higher than the 3,000-trip threshold used in the 1996 plan. Glen Road and several other roads were classified as rustic in the 2002 *Potomac Subregion Master Plan*. When evaluating roads for rustic classification, the 2002 plan noted that the traffic volumes and crash counts of many of the Subregion’s roads were higher than might otherwise be expected due to the two-lane road policy that prevented the expansion of other roads in the Subregion. The 2002 plan therefore recommended a minor change in the legislation to redefine the traffic volume and crash history criteria as guidelines, allowing the other rustic road criteria to be weighted more heavily to account for unique local situations. The current traffic volume does not appear to detract from the rustic character of the road.



The only other rustic roads with an AADT that exceeds 3,000 are Barnesville Road and Brookeville Road. For Barnesville Road, the 2019 count is 3,931 AADT at the eastern end of the current rustic segment (just west of Bucklodge Road—MD 109 and Slidell Road). Near its western terminus at Mount Ephraim Road, the 2019 count is 3,031 AADT. (The figure in Table 5 is an average of these two.) The non-rustic segment of Barnesville Road (MD 117) between Bucklodge Road and Clarksburg Road had an AADT of 5,250 trips in 2019, so the traffic clearly diminishes along this road as one travels west, while increasing with travel to the southeast towards Germantown (see Figure 1).



*Figure 4. Barnesville Road showing traffic measuring spots. The traffic volume at its east end near Clarksburg Road is about 2,000 trips more than at the west end near Mount Ephraim Road. (Source: [https://maps.roads.maryland.gov/itms\\_public/](https://maps.roads.maryland.gov/itms_public/))*

The traffic count for Brookeville Road, reported as 3,715 AADT, is on the segment between MD 108 and Zion Road, which only accounts for about 20% of the road's length (see Figure 2). The traffic counts are lower east of Zion Road according to the state's 2014 turning movement summary at the intersection of Brookeville Road with Zion Road, which shows that the eastern leg of the road has over one-third less traffic than the western leg (1,948 trips vs. 3,203 trips from 6 a.m. to 7 p.m.). [Note, however, that even though this analysis used 2019 counts from SHA because the 2020 and 2021 counts have generally been lower during the pandemic, the AADT for Brookeville Road between MD 108 and Zion Road increased from 3,715 trips in 2019 to 4,561 trips in 2021.]