MCPB
Item No. 4A
Date: 4-26-2018

Clarksburg Road – Frederick Road (CIP Project No. 508000-09), Mandatory Referral No. MR2018019

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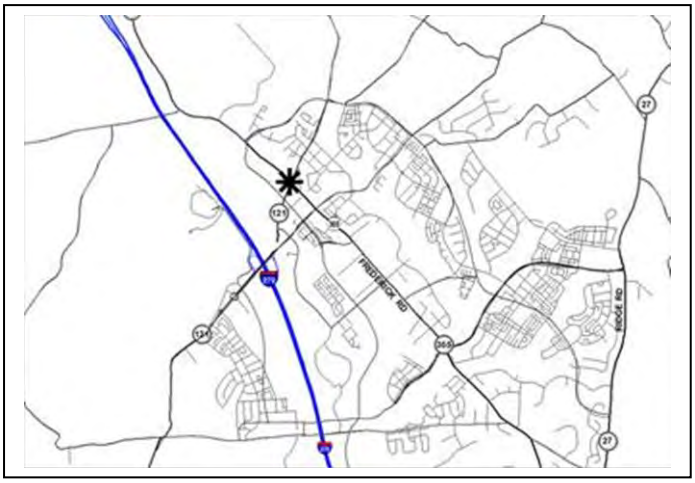
Completed: 04/19/2018

Description

Mandatory Referral MR2018019: Clarksburg Road – Frederick Road
Construct improvements to a 0.49-mile-long section of Clarksburg Road (121A) and a 0.27-mile-long section of Frederick Road (MD 355) in Clarksburg.

Master Plan: 2014 Ten Mile Creek Area Limited Amendment

- Applicant: Montgomery County Department of Transportation
- Filing Date: March 1, 2018



Summary

- The review of this Mandatory Referral is in two parts:

  Item 4A - Mandatory Referral MR2018019, and

  Item 4B – Preliminary/Final Water Quality Plan MR2018019 discussed as a separate staff report.

- Staff recommends approval of the Mandatory Referral (Item 4A) with modifications shown on pages 4 and 5. This project is located within the Ten Mile Creek Special Protection Area (SPA), the Clarksburg Historic District, and on publicly owned property including 6,382 square feet of parkland that will be transferred to Montgomery County Department of Transportation for the road right-of-way. Approval of a water quality plan is required under Section 19-62 of the Montgomery County Code. The Planning Board must take separate action on the Preliminary/Final Water Quality Plan (Item 4B) prior to acting on the Mandatory Referral. A separate memorandum reviews the Water Quality Plan.

The Montgomery County Department of Transportation (MCDOT) proposes to construct improvements to a 0.49-mile-long section of Clarksburg Road and a 0.27-mile-long section of Frederick Road in Clarksburg, Maryland. This project is in the Ten Mile Creek Special Protection Area. This project is Capital Improvement Project (CIP) No. 508000-09; county funds will be used for the project, as well as contributions from the Clarksburg Town Center project. The project limits are as follows:

- Clarksburg Road from 738 feet west of Frederick Road to Overlook Park Drive, and
- Old Frederick Road from Spire Street to 830 feet to the north of Clarksburg Road.

The site vicinity and project location are displayed in Figures 1 and 2 on the following page. The project will widen portions of Clarksburg Road and Frederick Road to increase capacity and improve levels of service. From here on, this staff report will use the local master plan assumptions that Frederick Road is a north-south road and Clarksburg Road is an east-west road. The project includes the following improvements:

- Widening existing Frederick Road to provide a new 11-foot wide southbound left turn lane and 5-foot wide bicycle lanes in the southbound direction,
- Widening existing Clarksburg Road east of the intersection to provide a new 10-foot wide westbound left turn lane and minimum 5-foot wide bicycle lanes in both directions,
- Narrowing existing Clarksburg Road lanes west of the intersection to provide minimum 7-foot wide bikeable shoulders,
- Construction of a 10-foot wide sidepath along the south side of Clarksburg Road between Frederick Road and Overlook Park Drive,
- Construction of a 10-foot wide sidepath along the east side of Frederick Road between Spire Street and the northern limit of the project (approximately 700 feet north of the intersection), and
- Construction of a 5-foot wide sidewalk along the north side of Clarksburg Road between Frederick Road and across the street from Spire Street (approximately 550 feet east of the intersection) to tie into the existing sidewalk.

Issues

- Submittal/Approval of Water Quality Plan (Item 4B, separate item and staff report)
- Submittal/Approval of Park Construction Permit (Attachment B to Item 4A – Parks Staff Report), to address the following issues: site grading, tree impacts, water quality, cultural resources, park access, and proposed transfer of parkland to road right-of-way.
- Minimization of impacts to:
  - Parkland
  - Environmental Resources
  - Historic District
- Provision of pedestrian facilities that are missing, including the crosswalk and sidewalk lead-in ramps at the intersection of Clarksburg Road and Overlook Park Drive/Catawba Manor Way,

crosswalk on south side of Spire Street and Frederick Road, and missing sidewalks in the Urban Road Code area.

- Application of the Urban Road Code 25 mph speed limit on Clarksburg Road east of the intersection with Frederick Road.

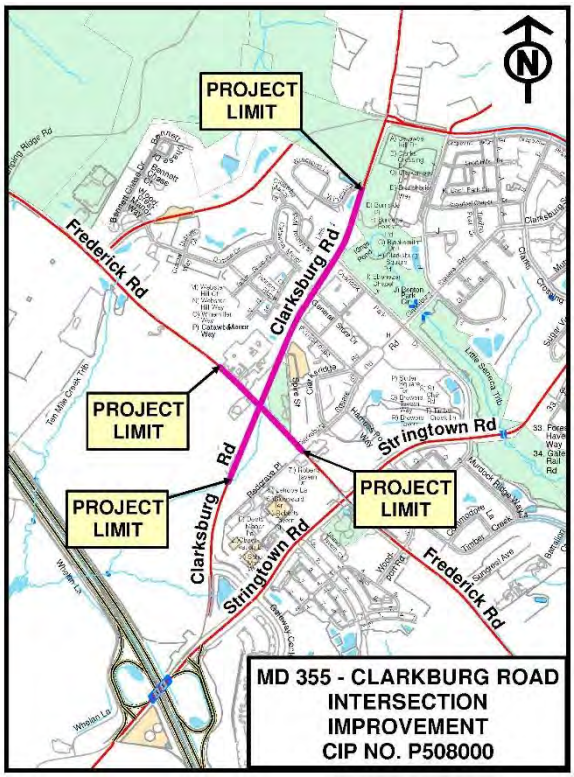


Figure 1: Project Limits and Site Vicinity

Figure 2. Project Location in Red

Recommendations

We recommend that the Planning Board approve this project with the following modifications transmitted to the Montgomery County Department of Transportation:

1. Submit final roadway construction plans to the M-NCPPC Department of Parks for review as part of the Park Construction Permit to ensure that all work is performed in accordance with M-NCPPC standard details, specifications, and policies.
2. Any parkland needed for the proposed road improvement should be compensated by "in-kind" site improvements on Clarksburg Triangle Urban Park with an approximately comparable value to the parkland being transferred. Compensatory project(s) will be negotiated and finalized during the Park Construction Permit process and may include removal of two utility poles in the middle of the park, funding of an archaeological investigation of the entire Park, funding fabrication and installation of cultural and natural interpretive signage for the Park, and/or other appropriate site improvements. Final right-of-way easement plats and compensatory site improvements for the loss of parkland must be agreed to and finalized between MCDOT and M-NCPPC before the issuance of a Park Construction Permit.
3. Mitigation for impacts to Park trees (with a 6" diameter at breast height or greater) damaged or removed shall be provided by replacing trees on parkland at a rate of one inch to one inch. Tree impacts will be determined by an M-NCPPC forester prior to construction based on the Final Design. The Department of Parks will work with MCDOT to locate a suitable location in the Park for tree planting during the Park Permit process.
4. The ten-foot-wide sidepath proposed on the south side of Clarksburg Road between Frederick Road and Overlook Park Drive will transition to an eight-foot-wide sidepath planned as part of MR2018018 (Clarksburg Road – Snowden Farm Parkway) that extends from Overlook Park Drive to Snowden Farm Parkway. These two segments should be coordinated to have a consistent width of a minimum of eight feet due to the location within an SPA and impacts to the adjacent Clarksburg Triangle Urban Park.
5. A crosswalk and appropriate pedestrian ramps/sidewalk lead-ins should be added to this project at the intersection of Clarksburg Road and Overlook Park Drive/Catawba Manor Way. Additionally, pedestrian ramps/sidewalk lead-ins should be added at the intersections of Clarksburg Road and Tannery Ridge Drive/Public House Road and Clarksburg Road and Catawba Manor Way/General Store Drive to not preclude pedestrians from crossing Clarksburg Road at these locations.
6. A crosswalk should be added to this project across the southern end of Spire Street where it intersects with Frederick Road to provide a safe transition for pedestrians crossing to access the sidepath in front of the Park.

7. Design and implement sidewalks on the west side of Frederick Road within the Historic District opposite the Clarksburg Triangle Urban Park, from the intersection of Clarksburg Road to the southern project extents as recommended in both the 1994 Clarksburg Master Plan and the 2014 Ten Mile Creek Limited Amendment.

8. Post the speed limit on Clarksburg Road east of Frederick Road at 25 mph because this County road is located within an Urban Road Code area and to support the goals of our County's recently adopted Vision Zero Plan.

9. MCDOT should consider tightening the corner radius on northbound Frederick Road at Spire Street to require cars to slow down before making a right turn onto Spire Street. Cars currently take this detour to avoid the intersection and are likely to continue to do so even after this intersection improvement is complete. MCDOT should also monitor traffic conditions and cut-through usage on Spire Street with periodic traffic counts and observations after the proposed design improvements are implemented and work with the community to install design and operations remediation options if conditions warrant.

10. Since the project is in the Clarksburg Historic District, a Historic Area Work Permit will be required prior to initiation of land disturbing activity. At this time, MCDOT is advised of the following concerns:
    a. Design and install the sidepath path within the Historic District with materials that are compatible with the historic features and character of the district.
    b. Adopt and install a light design consistent with '2.10 Lighting' shown on page 29 of the *Streetscape Concepts for the Clarksburg Historic District*.

Existing Conditions

Maryland 355 is known as Frederick Road as it passes through the Clarksburg planning area. It is a two-lane, undivided roadway that travels southeast to northwest in the area of this project and will be considered as a north-south road in this report. Within the project limits, it is classified as Business District Street with planned Bus Rapid Transit according to Montgomery County's Master Plan of Highways and Transitways. The travel lanes are 11-12 feet wide with minimal to no paved shoulders and the posted speed limit is 30 mph. There is a 430-foot long southbound right turn lane onto Clarksburg Road and a 150-foot long northbound left turn lane onto Clarksburg Road. The roadway is primarily an open-section design (no curbs) except for the southbound lane north of the intersection, and there are no current pedestrian facilities or bicycle accommodations within the project limits.

Clarksburg Road is a two-lane, undivided roadway that travels in a north-south direction within the project area, but will be considered as an east-west road in this report to be consistent with the local area master plans. Within the project limits, it is classified as Urban Arterial Road according to Montgomery County's Master Plan of Highways and Transitways. The travel lanes are 10-11 feet wide within the project area and all sections of Clarksburg Road have no paved shoulders except along westbound Clarksburg Road south of the intersection, eastbound Clarksburg Road between the intersection and Spire Street, and a very wide shoulder along westbound Clarksburg Road between Tannery Ridge Drive and 550 feet east of the intersection. There is a 520-foot long westbound right-turn lane onto Frederick Road and a 460-foot long eastbound right turn lane onto Frederick Road. The posted speed limit is 35 mph. The roadway is primarily an open-section design (no curbs) with no pedestrian facilities or bicycle accommodations, except for a sidewalk and curb along the westbound lane from Overlook Park Drive to 550 feet east of the intersection (across from Spire Street).

Land uses along Clarksburg Road and Frederick Road within the project limits include commercial, low-density residential, Clarksburg Triangle Urban Park on the east side of the intersection, and various vacant or undeveloped properties. Figure 3 illustrates the surrounding land uses. The areas in light purple on the figure are vacant or undeveloped properties, with those properties to the west being largely forested.

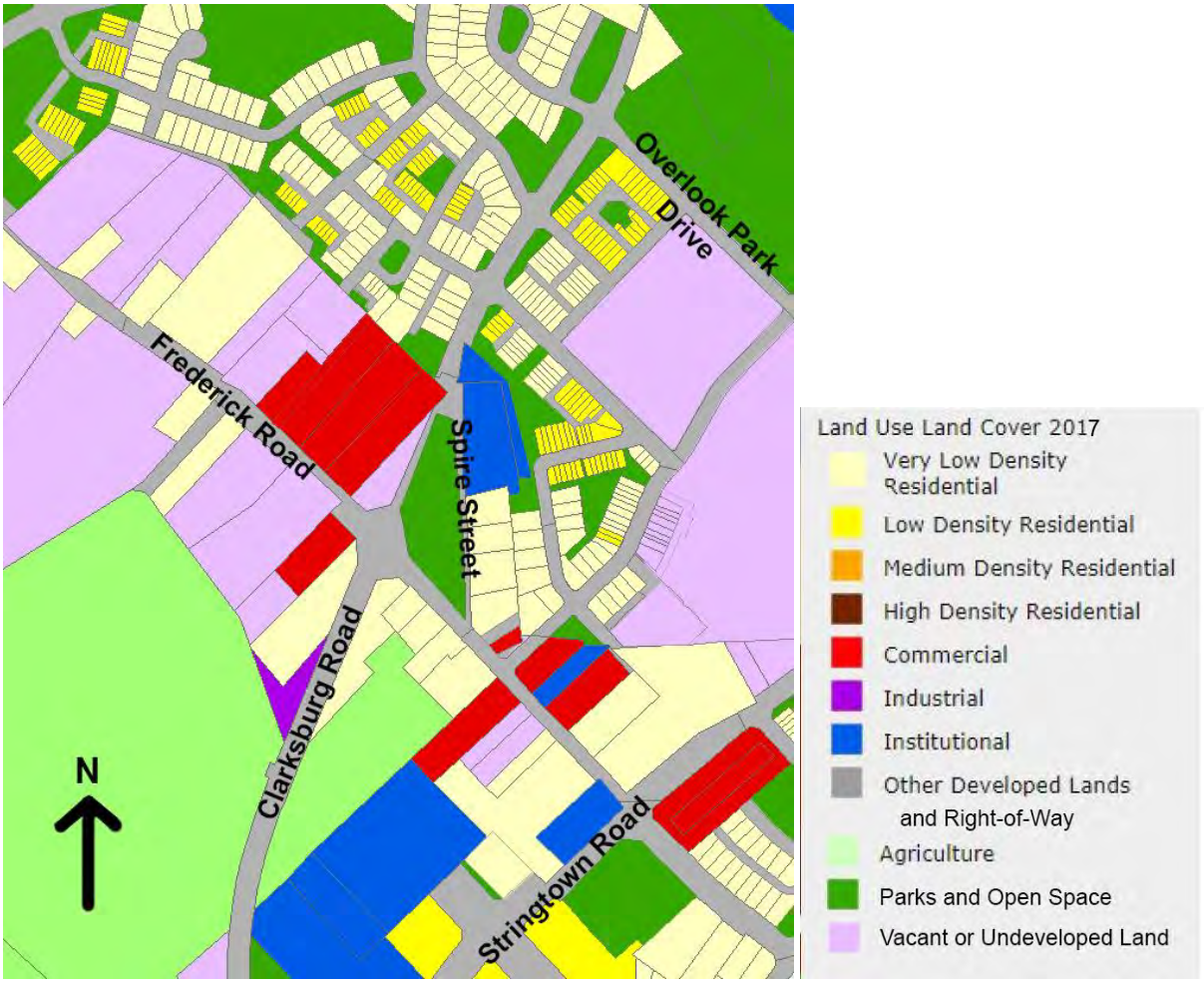


Figure 3. Generalized Land Use

Proposed Improvements/Mandatory Referral Narrative

The proposed intersection improvements will widen portions of Clarksburg Road and Frederick Road to increase capacity and improve levels of service. Clarksburg Road, west of the intersection with Frederick Road, will undergo a milling and overlay process as well as new barriers. Frederick Road improvements include providing a new 11-foot wide southbound left turn lane and 5-foot wide bicycle lane in the southbound direction, and Clarksburg Road improvements include a new 10-foot wide westbound left turn lane and minimum 5-foot wide bicycle lanes in both directions east of the intersection and minimum 7-foot wide bikeable shoulders west of the intersection. The project also includes pedestrian and bicycle improvements including 5-foot wide sidewalk along the north side of the Clarksburg Road northeast of the intersection with Frederick Road where it is missing, a 10-foot wide sidepath along the east side of the Clarksburg Road southeast of the intersection, and a 10-foot wide sidepath along the east side of Frederick Road for the full length of the project.

The length of the proposed improvements on Clarksburg Road is approximately 0.49-miles and approximately 0.27-miles along Frederick Road. The signing and striping plan for the proposed project is included in this Staff Report as Attachment A. All sections of road in this project were designed using a design speed of 35 miles per hour, although the intention is to post Frederick Road and Clarksburg Road west of the intersection at 30 mph.

Typical Sections

The proposed typical section along Clarksburg Road east of the intersection (see Figure 4 below) is consistent with the typical section proposed for the MCDOT Clarksburg Road at Snowden Farm Parkway project (also CIP Project No. 508000-03), which is just east of the subject project. The proposed travel lane widths are 10-feet wide which is in accordance with the requirement for urban roads in the County Council's Expedited Bill 33-13 (Streets and Roads Urban Road Standards and Pedestrian Safety Improvements).

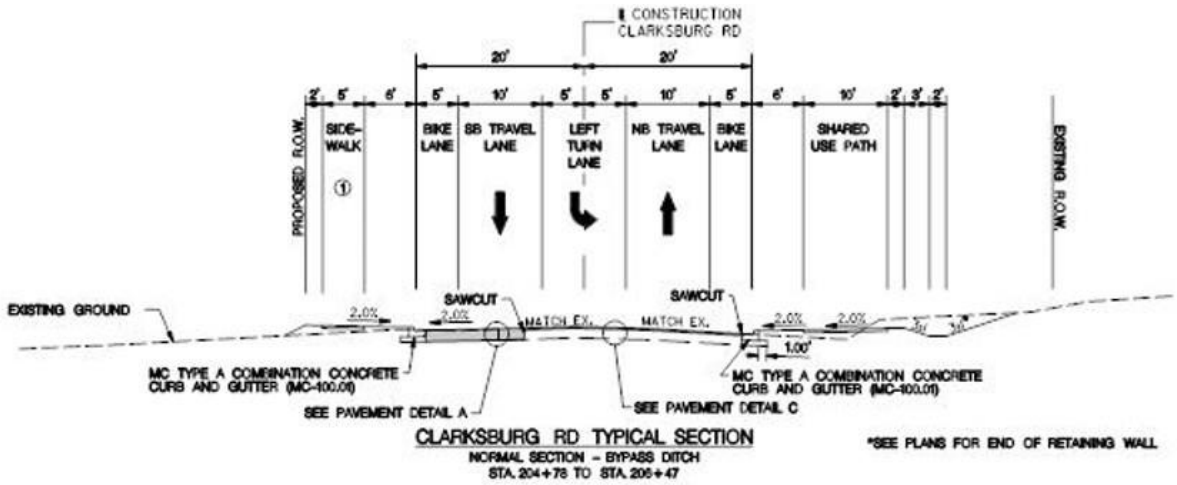


Figure 4: Clarksburg Road Typical Cross Section

Bike lanes are added to Clarksburg Road east of Frederick Road and are slightly narrower than the 5.5-foot wide bike lanes prescribed in MCDOT Design Standards to be consistent with the bike lanes in the CIP project to the east (Clarksburg Road at Snowden Farm Parkway, CIP 508000-03). The proposed sidepath width on the southeast side of Clarksburg Road is 10-feet wide, which exceeds the minimum sidepath width requirement of 8 feet in an environmentally sensitive area per the County Council's Expedited Bill 33-13 (Urban Road Code standards). This sidepath is two feet wider than the sidepath of the CIP project to the east (CIP 508000-03). The proposed sidewalk width on the northeast side is 5 feet. Adequate 6-foot wide buffers are proposed between the curb and bicycle/pedestrian facilities.

The proposed center two-way left-turn lane allows cars to turn left without disrupting the flow of traffic at Tannery Ridge Drive/Public House Road and Spire Street. The center two-way left-turn lane will also transition into an exclusive westbound left-turn lane at the Frederick Road/Clarksburg Road intersection, consistent with the recommended typical section in the 2014 Clarksburg Ten Mile Creek Master Plan Limited Amendment.

The proposed typical section along Clarksburg Road to the west of Frederick Road will be consistent with the Clarksburg Road cross section to the east with the use of 10-foot wide travel lanes (see Figure 5 below). Travel lanes will be narrowed to provide minimum 7-foot wide bikeable shoulders on either side of the road. However, no pedestrian facilities will be provided along this road segment. Although pedestrian facilities are required in Urban Road Code areas such as this, sidewalks are not provided along either side of Clarksburg Road west of the intersection to minimize impacts to the environment and private properties.

As shown in Figure 5 below, Clarksburg Road west of Frederick Road will be an open-section road with 5 to 10-foot wide shoulders, one 10-foot wide travel lane per direction, and a 10-wide left-turn lane at the intersection with Frederick Road.

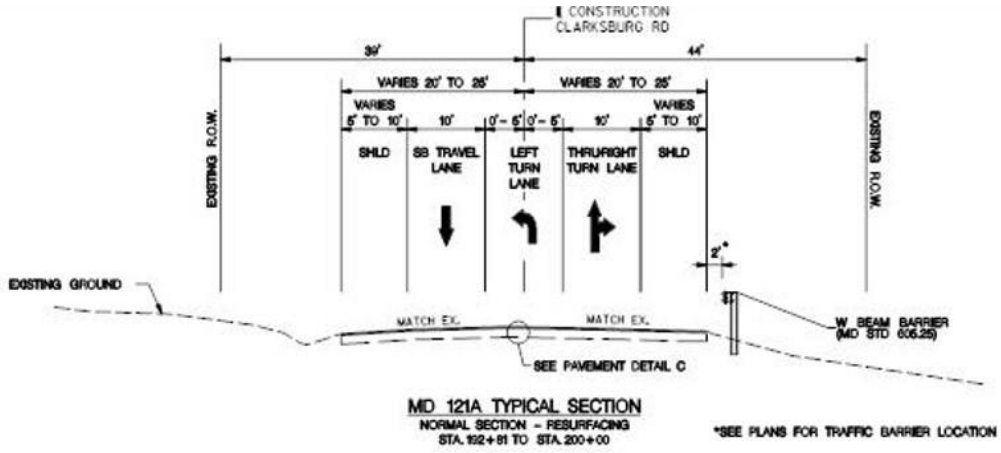


Figure 5**: MD 121A (Clarksburg Road) Typical Cross Section**

The proposed typical sections along Frederick Road are shown below in Figures 6 and 7. The travel lane widths are wider on this road, as this is a state-designated highway and Montgomery County Urban Road Code standards do not apply. On Frederick Road through the intersection with Clarksburg Road, the following roadway geometry will be provided:

Southbound direction
5' wide bike lane
11' wide through lane
Northbound direction
11' wide left-turn lane
13' wide through/right-turn lane
6' wide buffer
10' wide sidepath

Although the full extent of Frederick Road within the project limits is in an Urban Road Code area where sidewalks are required, sidewalks are not provided along the west side of Frederick Road to minimize impacts to the environment and private properties.

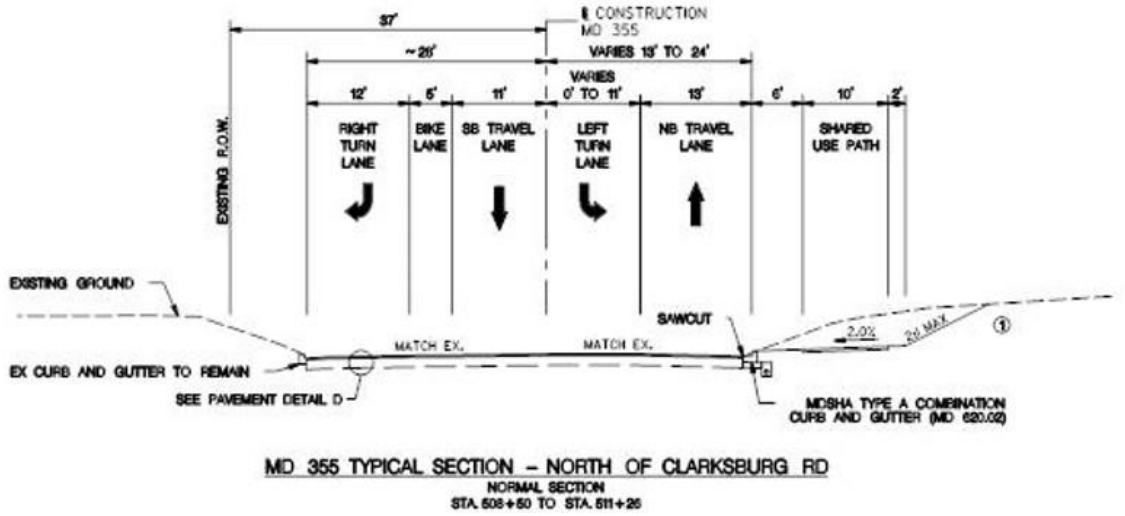


Figure 6**: Frederick Road - North of Clarksburg Road Cross Section**

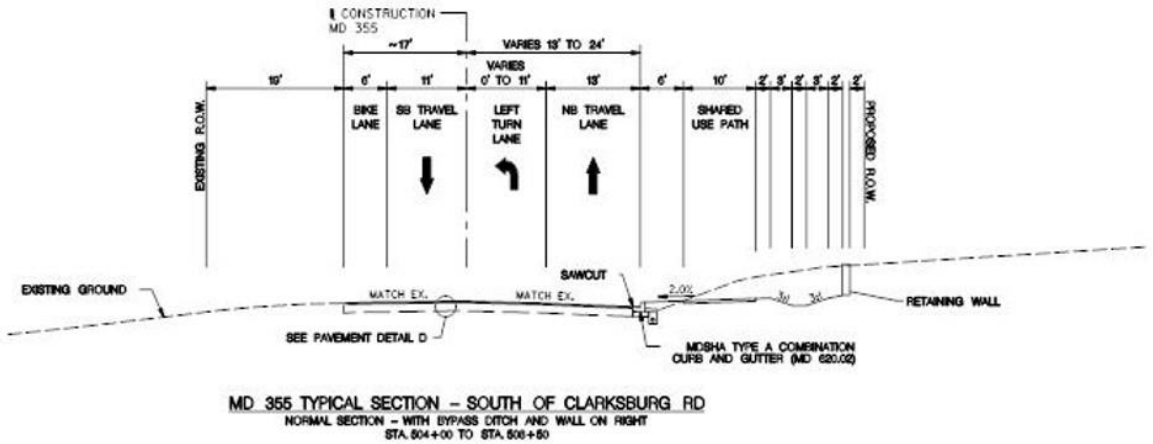


Figure 7**: Frederick Road - South of Clarksburg Road Cross Section**

Elimination of northbound right-turn lane on Frederick Road and potential impacts to Spire Street

During the 35 percent design process, meetings were held between MCDOT and its consultants and Park and Planning staff. The desire to minimize impacts to the Clarksburg Triangle Local Park by reducing widening and need for Parkland encroachment was a key concern from Montgomery Parks staff, and Planning staff concurred that the elimination of the exclusive northbound right-turn lane onto Frederick Road was not technically needed or even justified based on existing and projected turning movements.

One tradeoff resulting from this elimination may be increased traffic using Spire Street in the eastbound direction as a cut-through route. MCDOT should consider tightening up the corner radius on northbound

Frederick Road to eastbound Spire Street to require cars to slow down before making this movement. The existing curve radius is quite large; a radius of 25 feet or less should be considered. In addition, any geometric restriction or modification should be designed to comply with Fire and Rescue needs.

The other resulting tradeoff with the elimination of the northbound right-turn lane is an increase in peak hour delay. During the design year 2040 PM peak hour, the average vehicle delay on the northbound approach increases by 10 seconds (from 31 to 41 seconds/vehicle) with the elimination of the exclusive right-turn lane. This increase is somewhat unexpected, as the removal of the turn lane only adds 90 peak hour trips to the shared lane during the design year 2040 PM peak or 3 vehicles per signal phase on average.

While there are additional operational changes that could be made to Spire Street, such as converting Spire Street into a one-way street from Clarksburg Road westbound to Frederick Road, staff feels that this may be too drastic of a measure until other interventions are considered. MCDOT should monitor traffic conditions and cut-through usage on Spire Street with periodic traffic counts and observations after the proposed design improvements are implemented. Potential design and operations remediation options include:

- The use of peak period (evening) right-turning restrictions should be considered after this project is constructed by MCDOT if a cut-through problem is noted, and
- The use of traffic calming measures may be needed on Spire Street, including speed humps, to help discourage the use of this street for cut-through traffic.

Target Speed and Design Speed

The proposed design speed on Frederick Road and Clarksburg Road for this project is 35 mph. The planned posted speed limits on these roads are 30 mph on Frederick Road, 30 mph on Clarksburg Road west of Frederick Road, and 35 mph on Clarksburg Road east of Frederick Road.

According to the County Council's Expedited Bill No. 33-13, the maximum target speed for a county-owned road in an urban area is 25 mph. For the subject project, only Clarksburg Road to the east of Frederick Road is a county road, the remainder of the roads are under the jurisdiction of Maryland State Highway Administration. Clarksburg Road east of the intersection has been designed with a 35 mph design speed with the assumption that the proposed posted speed limit after construction will be 35 mph. Therefore, road speeds on this road will not be consistent with the Urban Road Code designation of 25 mph.

County Road Design Standards allow the design speed to be greater than the target speed in cases where roadway geometrics are unlikely to control operating speed. This exception applies to this project as the horizontal geometry for this roadway within the project limits is mostly a simple tangent section. The proposed design speed will be maintained at 35 mph which is consistent with the design and proposed posted speed being used for the adjacent CIP project 508000-03 to the east (Clarksburg Road at Snowden Farm Parkway).

There are, however, design treatments that could have been considered to achieve a lower target speed, including the use of roundabouts. The possible locations would be on Clarksburg Road at Overlook Park Drive/Catawba Manor Way (single-lane roundabout). This was not proposed by the applicant, but would be more consistent with the Urban Road Code and the County's Vision Zero Action Plan.

Pedestrian Connections

The only pedestrian crossing proposed for Clarksburg Road is at Frederick Road, and the next pedestrian crossing will only occur 3,400 feet away at Snowden Farm Parkway (as part of the adjacent CIP Project). Within the project area (approximately 1,800 feet), at least one crosswalk is needed to connect the neighborhoods to the east (served by Tannery Ridge Drive and Catawba Manor Way (both ends)) with the Clarksburg Town Center and the Historic District. Providing this crosswalk at Catawba Manor Drive/Overlook Park Drive would be consistent with M-NCPPC staff recommendations for the adjacent design project (CIP Project No. 508000-03).

Additionally, pedestrian ramps/sidewalk lead-ins should be added at the intersections of Clarksburg Road and Tannery Ridge Drive/Public House Road and Clarksburg Road and Catawba Manor Way/General Store Drive to not preclude pedestrians from crossing Clarksburg Road at these locations (see Figure 8).

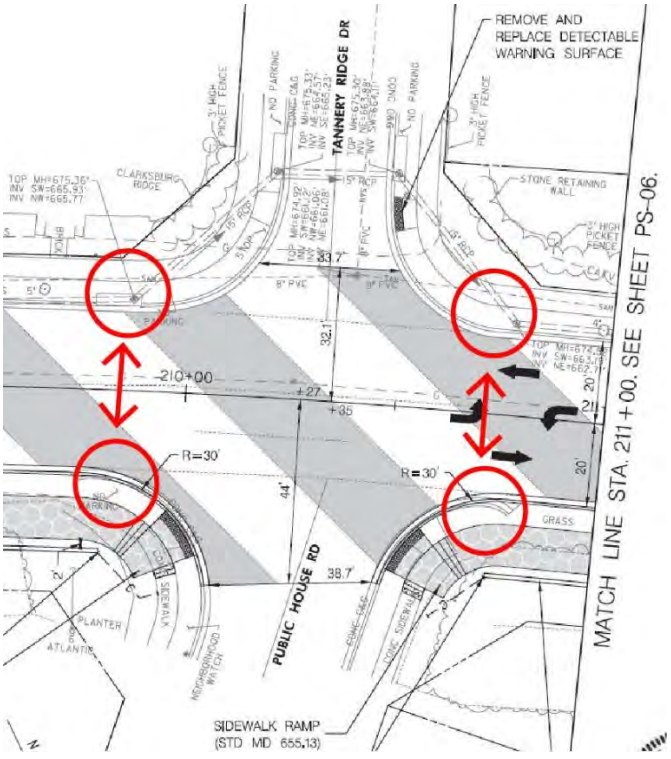


Figure 8: Provide Pedestrian Ramps at Mid-block Crossings

Traffic Study and Supporting Information

A traffic study was submitted for the subject project in January 2016. In this study, three alternative intersection configurations were explored, existing and design year 2040 peak hour traffic volumes were

projected, and peak hour intersection operations were assessed. The selected alternative for this project is a variation of Alternative 2 minus a northbound exclusive right-turn lane. The proposed intersection geometrics at the intersection of Frederick Road and Clarksburg Road are:

Northbound: 1 left-turn lane and 1 through/right lane
Southbound: 1 left-turn lane, 1 through lane, 1 right-turn lane
Eastbound: 1 left-turn lane and 1 through/right lane
Westbound: 1 left-turn lane, 1 through lane, 1 right-turn lane

A subsequent letter was submitted by the applicant on March 26, 2018 where the proposed geometry was re-evaluated for design year 2040 AM and PM peak hour intersection operations without the originally proposed northbound exclusive right-turn lane.

Adequate Facilities – Subdivision Staging Policy – Intersection Delay

The subject project is located within the Clarksburg policy area per the 2016 Subdivision Staging Policy (SSP). All Master Plans, development projects, and Capital Improvement Projects must comply with SSP congestion/delay standard for the Clarksburg policy area which is an overall intersection delay no greater than 51 seconds per vehicle.

A traffic study was conducted in 2016 which forecasted future peak hour traffic volumes to design year 2040. After this study, the intersection lane configuration on Frederick Road at Clarksburg Road was modified to remove an exclusive northbound right-turn lane on Frederick Road. A follow-up memo was submitted by Gannett Fleming, MCDOT's consultant, showing that by 2040, adequate weekday peak hour average vehicle delay for the entire intersection could be maintained below the 51 seconds/vehicle SSP standard. During the PM peak hour, a modification to the total signal cycle from 150 seconds to 120 seconds was needed to reduce the delay below this standard.

All other intersections evaluated in the 2016 traffic study were projected to not exceed the SSP standard for the Clarksburg policy area.

Constraints and Impacts

Park Property

This MR project affects Clarksburg Triangle Urban Park, the future Civic Green located in historic Clarksburg located in the southeast corner of the intersection. Clarksburg Triangle is a designated Urban Open Space under the *Legacy Open Space Functional Master Plan (2001)* and was acquired by the Parks Department through the Legacy Open Space park acquisition program in 2007 and 2009.

The Department of Parks, with the Planning Department, has coordinated with MCDOT on this project for almost two years to create a road project that provides the best combination of benefits for auto transportation and a new sidepath while minimizing impacts to the Park and the Historic District setting. Adopted Planning Board policy (*2017 Program Recreation and Open Space [PROS] Plan*) requires that projects affecting parkland be designed to *avoid* and *minimize* impacts to the greatest

extent feasible before using *mitigation* and, finally, *compensation* for park impacts. This interagency collaboration has resulted in a mandatory referral project that successfully avoids and minimizes many impacts to the park and provides adequate mitigation and compensation for the remaining park impacts.

A Park Construction Permit will be required for construction work in the Park including temporary easements for construction and site restoration as well as permanent easements over constructed portions of the road and path. The following issues will be addressed in detail during the Park Permit process: site grading, tree impacts, water quality, cultural resources, park access, and proposed transfer of parkland to road right-of-way. More details on those items to be coordinated can be found in Attachment B to Item 4A – Parks Staff Report.

Historical

The proposed intersection improvements are located within the County-designated Clarksburg Historic District (13/10, as designated in the Master Plan for Historic Preservation). Therefore, a Historic Area Work Permit is required for this project pursuant to Chapter 24A-6 of the County Code. The Clarksburg Historic District is also listed in the National Register of Historic Places.

In preparation of the Historic Area Work Permit, initial investigations, including environmental delineations, roadside tree inventory, agency correspondence letters, and initial Section 106 / archeology and historic evaluations were conducted in January 2017. Topographic and boundary surveying services including deed research, development of a property mosaic (30 properties), and preparation of a metes and bounds work map were completed in March 2017. The Phase 1a Archeological study was completed and submitted to Maryland Historic Trust (MHT) in January of 2017, and MHT responded with a request for additional information. The subconsultant, Wallace Montgomery and Associates, gathered and provided the additional information requested and re-submitted the Phase 1a in April 2017. In June 2017, MHT responded with a request for the team to follow up the Phase 1a survey with a Phase 1b archeological survey; the timing for this additional work is unknown at this time.

It should also be noted that the Ten Mile Creek Limited Amendment established guidelines for the Historic Preservation Commission's use in reviewing Historic Area Work Permit applications for projects within the Clarksburg Historic District. The guidelines include the following (page 39):

- GUIDELINE: "Retain existing paving widths, locate street trees close to the pavement edge … and provide sidewalks (particularly along both sides of Old Frederick Road), lighting, and signage appropriate to the District." PROJECT COMPLIANCE: The proposed project minimizes existing pavement widths but does not provide sidewalks on both sides of Frederick Road and does not to our knowledge locate street trees close to the pavement edge.
- GUIDELINE: "Road improvements and pedestrian and bicycle linkages to and through the District should be appropriate to the scale and character of the District." PROJECT COMPLIANCE: The project's proposed road improvements and pedestrian and bicycle linkages are appropriate to the scale and character of the District. However, the materials of the sidepath path should be

carefully considered within the Historic District, as asphalt is not the most compatible sidepath material within the Historic District.

- GUIDELINE: "The prominence of … the open space in front of the Clarksburg Methodist Church must not be diminished by development of adjacent properties." PROJECT COMPLIANCE: The removal of the originally recommended retaining wall at the corner of the Clarksburg Methodist Church property (the park) is an improvement and will improve visibility of the church from the surrounding Historic District.

Additionally, Historic Preservation Staff find that the proposal is generally in keeping with the historic character of the surrounding district. The Historic Preservation Staff recommend the adoption of a light design consistent with '2.10 Lighting' shown on page 29 of the *Streetscape Concepts for the Clarksburg Historic District*. These concepts were adopted in 2009 and convey the preferred design and materials for future work within the Historic District.

Utilities

No major utility impacts are associated with this project. There will be utility pole adjustments performed to accommodate the sidepath along Frederick Road and Clarksburg Road. Additionally, WSSC may need to adjust a waterline at the intersection with a potential storm drain conflict, but actions to minimize and avoid this situation are still being reviewed.

Relationship to Other Capital Improvement Projects

There are several projects now under design in the Clarksburg Town Center area including the following projects shown on Figure 9. Note that all cardinal directions below assume Frederick Road to be a north-south road.

- Subject Project – Clarksburg Road at Frederick Road (CIP Project No. 508000-09)
- Clarksburg Road at Snowden Farm Parkway (CIP Project No. 508000-03). Limits of this project include Clarksburg Road from Overlook Park Drive to 922 feet to the east of Snowden Farm Parkway, and Snowden Farm Parkway from Clarksburg Road to 476 feet to the south of Clarksburg Road. This project and the subject project are directly adjacent to each other.
- MD 355 Clarksburg Bike Path (CIP Project No. 501744) – Limits of this project include Frederick Road from Stringtown Road to Spire Street south of the subject project and then from 830 feet north of Clarksburg Road to the planned Snowden Farm Parkway north of the subject project. This project is discontinuous to connect to the north and south ends of the subject CIP project.
- Clarksburg Connector (CIP Project No. 507017) – This project proposes connecting Clarksburg Square Road to Frederick Road.
- Snowden Farm Parkway between Clarksburg Road and Frederick Road – This is a developer project (Woodcrest at Little Bennet - PP 122040190) to complete Snowden Farm Parkway between Frederick Road and Clarksburg Road.

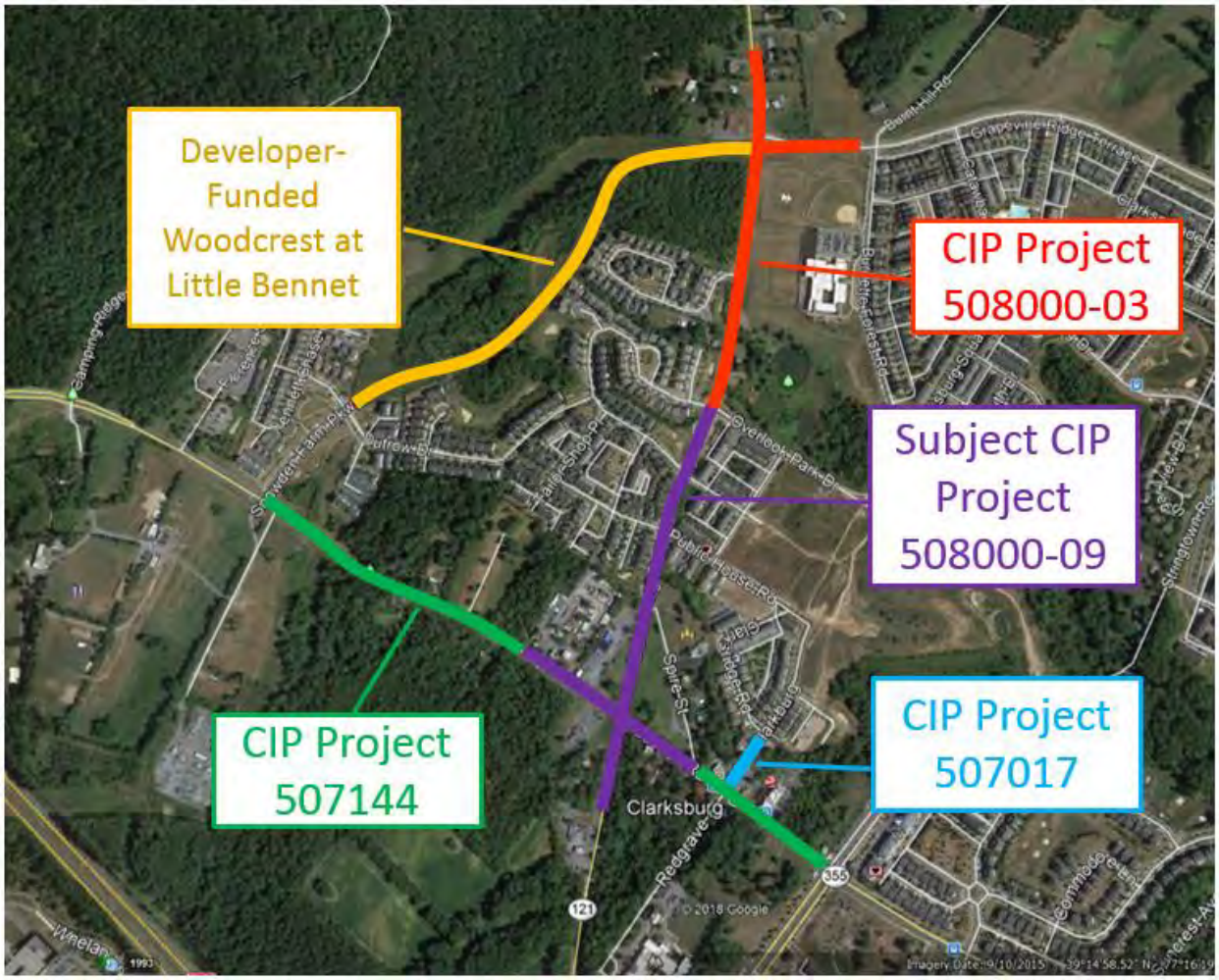


Figure 9: Nearby Capital Improvement Projects

Master Plan Consistency

1994 Clarksburg Master Plan and Hyattstown Special Study Area and Ten Mile Creek Limited Amendment

The 1994 Clarksburg Master Plan and Hyattstown Special Study Area is based on a policy framework that would manage Clarksburg's evolution from a rural crossroads to a corridor town. That policy framework included delineation of a hierarchy of roads and streets (Policy 5) designed to create a road network that would enable through traffic to avoid Clarksburg's Historic District. The network, according to the Plan, would "clearly differentiate between highways needed to accommodate regional through traffic and roads which provide subregional and local access" (p 24).

The Plan designated an area south of Clarksburg Road and east of Frederick Road (MD 355) as Clarksburg's town center, which it envisioned as a "transit-oriented, multi-use Town Center which is compatible with the scale and character of the Clarksburg Historic District" (p 26). A key element of this proposal was the relocation of Frederick Road to the west and the use of "Old" Frederick Road as a Main Street for the Historic District. The Plan recommended against widening "Old" Frederick Road in the

district and recommended a right-of-way of 50 feet. The Plan also provided design guidelines for the Historic District, which were confirmed by the 2014 Ten Mile Creek Limited Amendment.

The intersection proposal meets much of the intent of the plan; it provides sidewalks on the east side of existing Frederick Road, recognizing that right-of-way issues may constrain the ability to put a sidewalk on the west side, as the plan recommends. The proposal limits widening by providing an approximately 40-foot paving section at the north and south Frederick Road approaches to the intersection. While the project does not include the eastbound through lane on Clarksburg Road recommended by the Ten Mile Creek Limited Amendment that was needed to mitigate projected Critical Lane Volume deficiency identified in the Ten Mile Creek Plan, the revised traffic analysis submitted by the applicant presents an alternative mitigation for this intersection that meets the newer delay-based congestion standard requirement for transportation adequacy.

Road Classification

The 1994 Clarksburg Master Plan classified Clarksburg Road between Stringtown Road to the west and Snowden Farm Parkway to the east (Clarksburg Master Plan boundary) as a two-lane (existing and planned lanes) arterial with an 80-foot wide master planned right-of-way. The proposed design is consistent with this classification. The section between Snowden Farm Parkway and Gateway Center Drive is located in the Urban Road Code area, therefore the entire section of Clarksburg Road within the project limits is in the Urban Road Code area.

The 2014 Clarksburg Ten Mile Creek Limited Amendment classified "Old" Frederick Road between Roberts Tavern Drive and Clarksburg Road as a two-lane (existing and planned lanes) business district street with planned Bus Rapid Transit and a 50-foot wide master planned right-of-way. The proposed design is consistent with this classification but not with the right-of-way requirement.

The 2014 Clarksburg Ten Mile Creek Limited Amendment classified "Old" Frederick Road between Clarksburg Road and the planned Snowden Farm Parkway/planned Observation Drive Extended to the north as a two-lane (existing and planned lanes) business district street with planned Bus Rapid Transit service with a 50-foot wide master planned right-of-way. The proposed design is consistent with this classification but not with the right-of-way requirement.

The Ten-Mile Creek Limited Amendment recommended the following intersection improvement:

- Add an eastbound through lane on MD 121 (Clarksburg Road) through the intersection.

From the plan context, it is clear that the MD 121 referenced was meant to be Clarksburg Road (MD 121A). This lane addition was needed to mitigate projected Critical Lane Volume deficiency identified in the Ten Mile Creek Plan. The revised analysis submitted by the applicant presents an alternative mitigation for this intersection that meets the newer delay-based congestion standard.

Bicycle Master Plan

The Public Hearing draft of the Bicycle Master Plan recommends the following improvements:

- Frederick Road between Redgrave Place and planned Snowden Farm Parkway – sidepath on the east side
- Clarksburg Road between Gateway Center Drive and Snowden Farm Parkway – sidepath on the east side and conventional bike lanes

The proposed improvements differ from the Bicycle Master Plan in two respects:

- First, on Frederick Road, a conventional bike lane is included in the design in the southbound direction per Maryland State Highway Administration requirements.
- Second, the current proposed improvements on Clarksburg Road to the west of Frederick Road do not include the sidepath on the east side where there are environmental constraints.

All other bicycle-related recommendations are consistent with the Public Hearing draft of the Bicycle Master Plan.

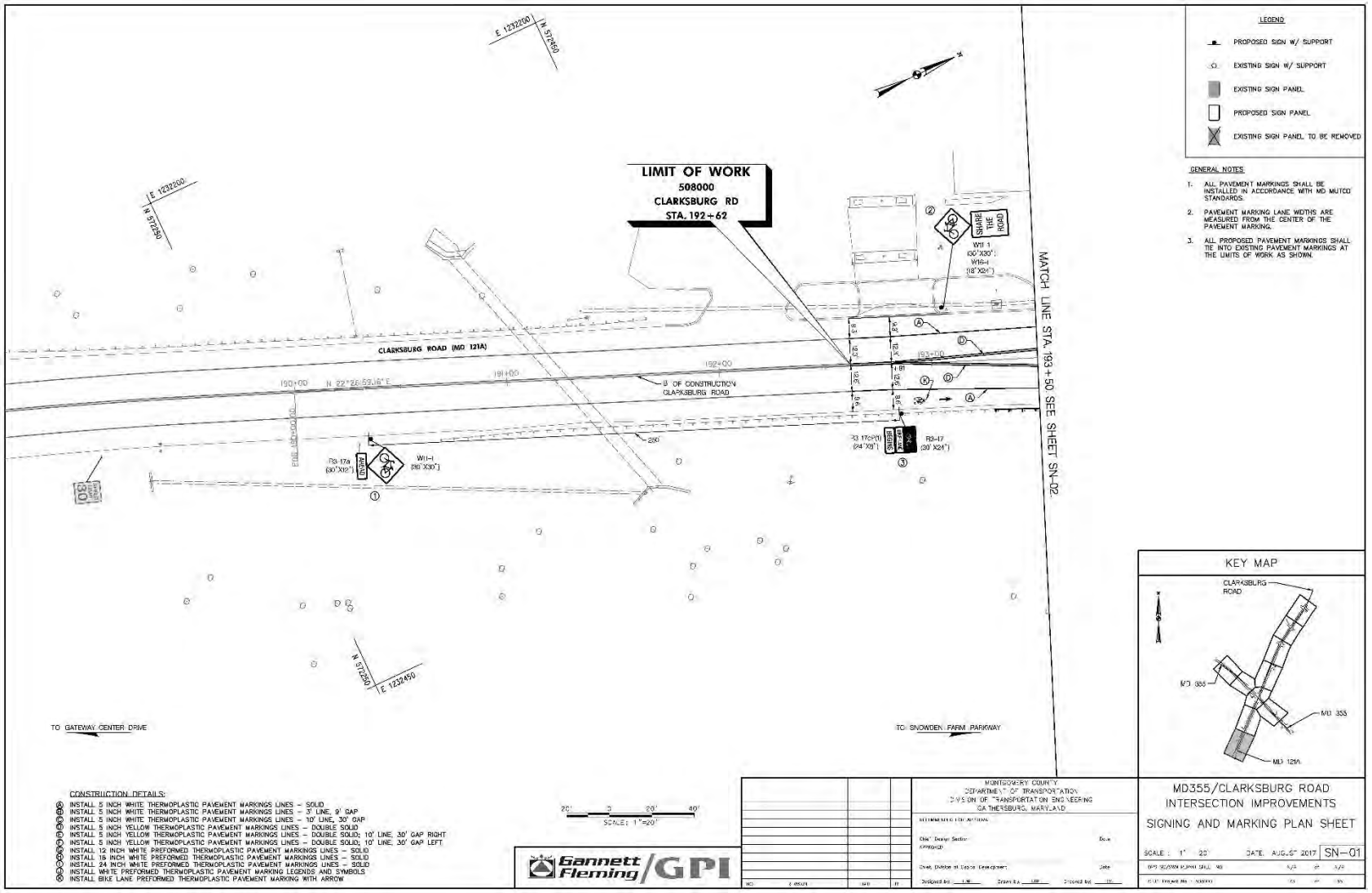
Impacts to Parkland/Park Construction Permit

Initial plans for the intersection improvements indicated significant grading and disruption of about one-third of the Clarksburg Triangle Urban Park due to significant widening of the roadway. Park and Planning staff coordinated with MCDOT to reduce the requirements for the pavement width from Maryland State Highway Administration, thus resulting in a reduction of impact into the Park. Additional design changes coordinated with MCDOT have further reduced the grading impact in the Park.

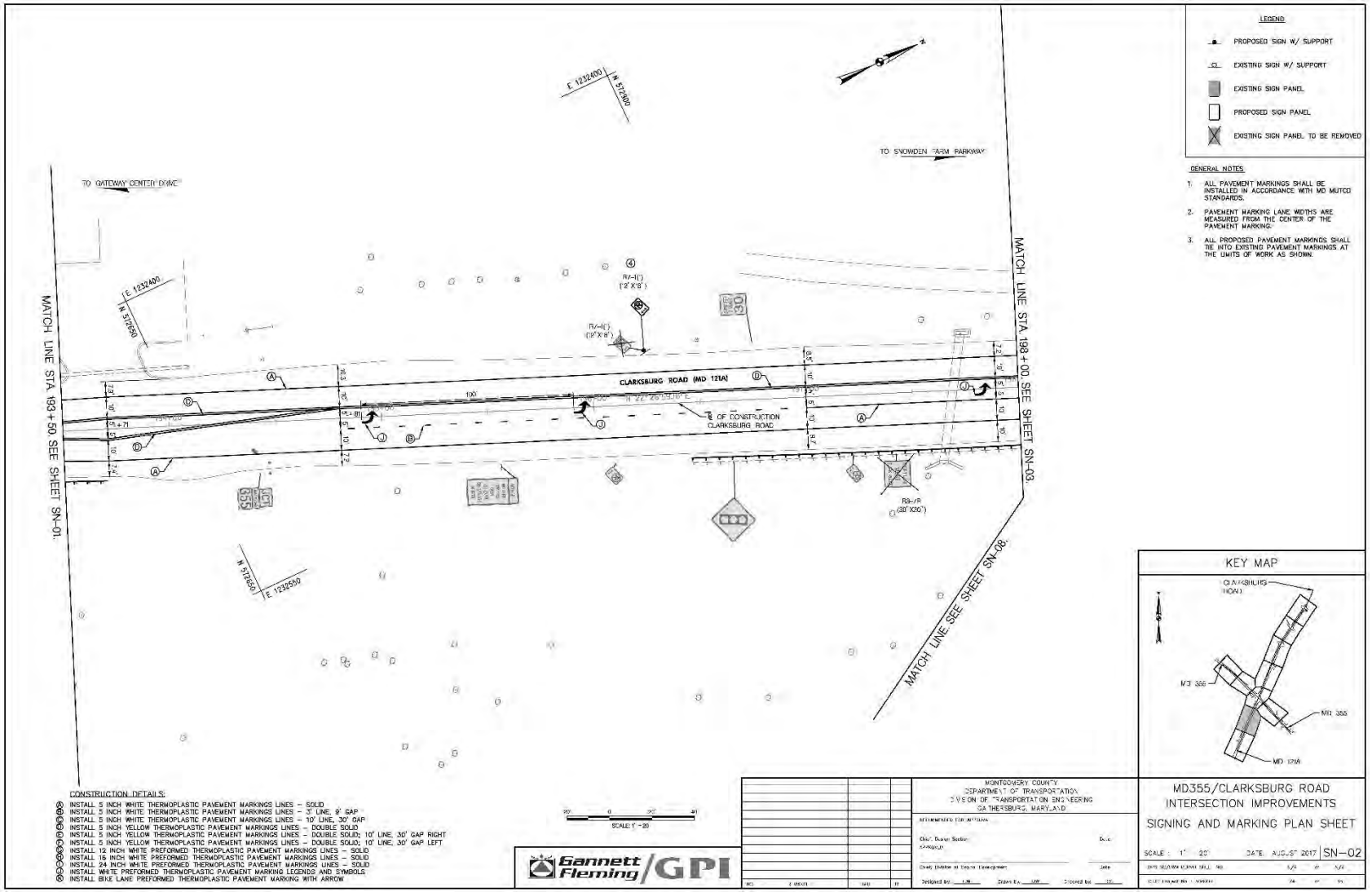
As noted above, MCDOT will be required to obtain a Park Construction Permit from Montgomery County Department of Parks prior to commencement of any construction activities on parkland. During Park Construction Permit Review Parks staff will work with MCDOT to minimize any remaining Park impacts to the greatest extent possible. Montgomery Parks staff have submitted a separate staff report describing the remaining issues to be addressed during the Park Permit Process. This staff report is included as Attachment B.

ATTACHMENT A

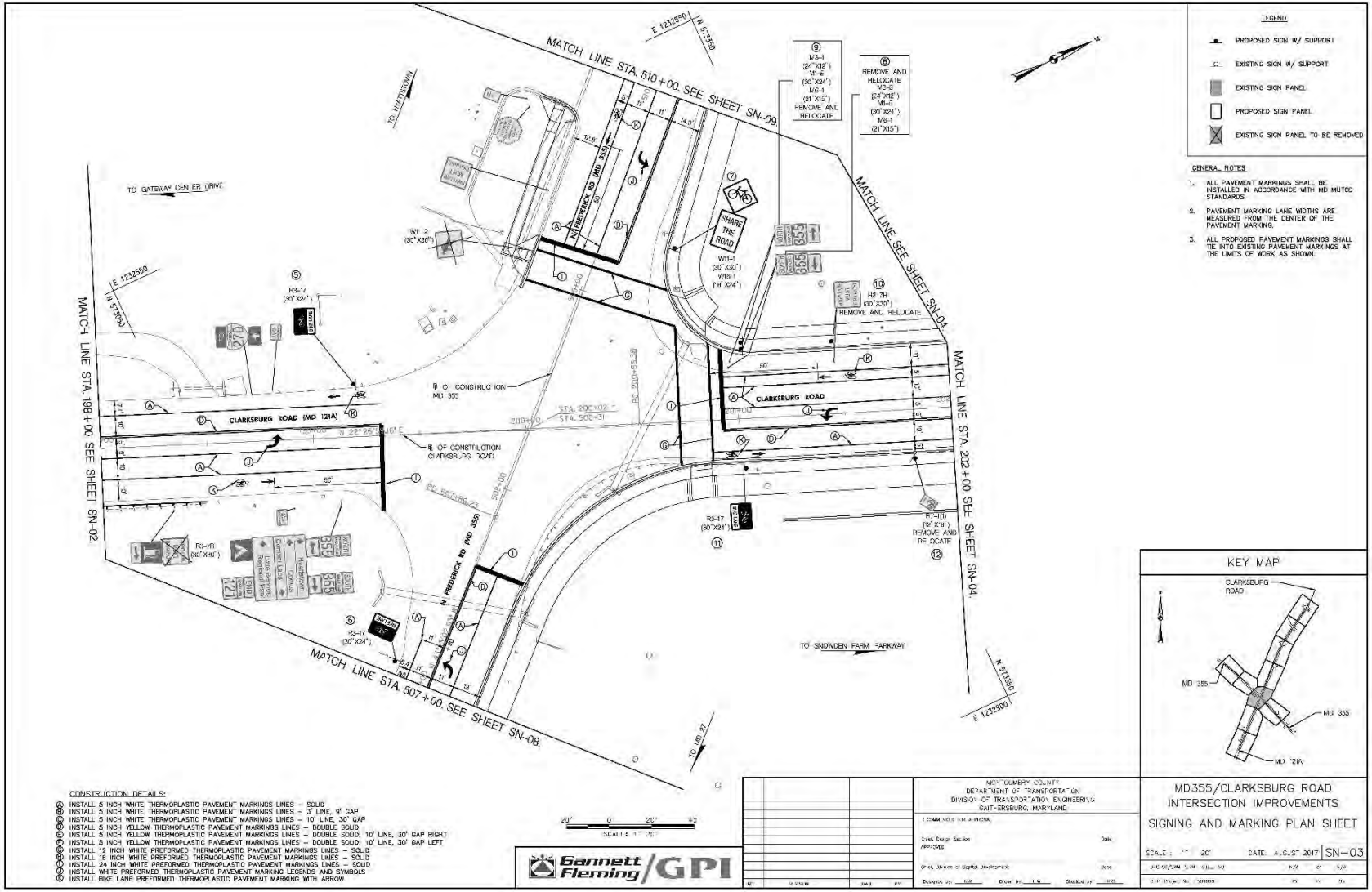
Signing and Marking Plans (Sheet SN-01)



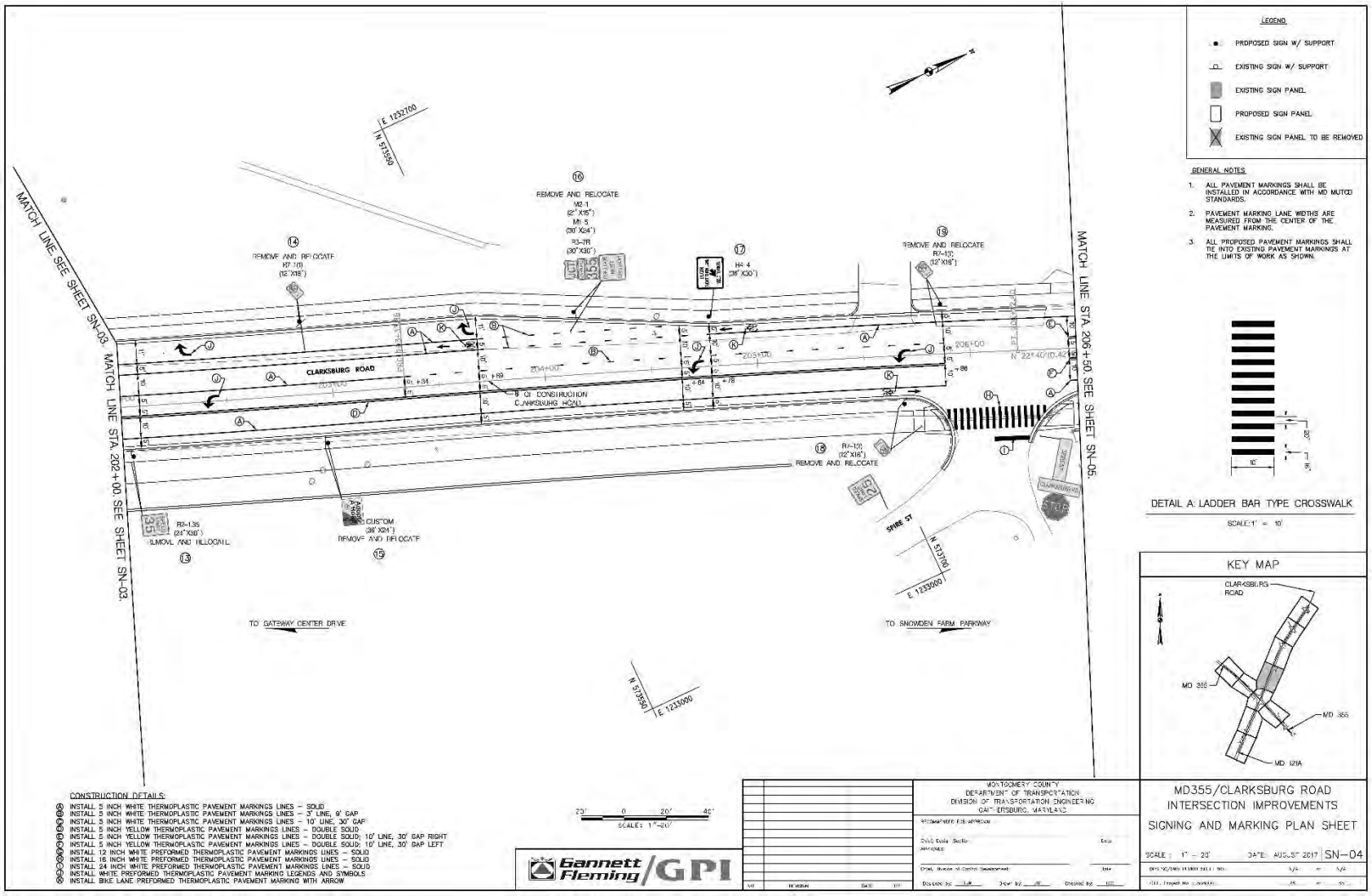
Signing and Marking Plans (Sheet SN-02)



Signing and Marking Plans (Sheet SN-03)



Signing and Marking Plans (Sheet SN-04)



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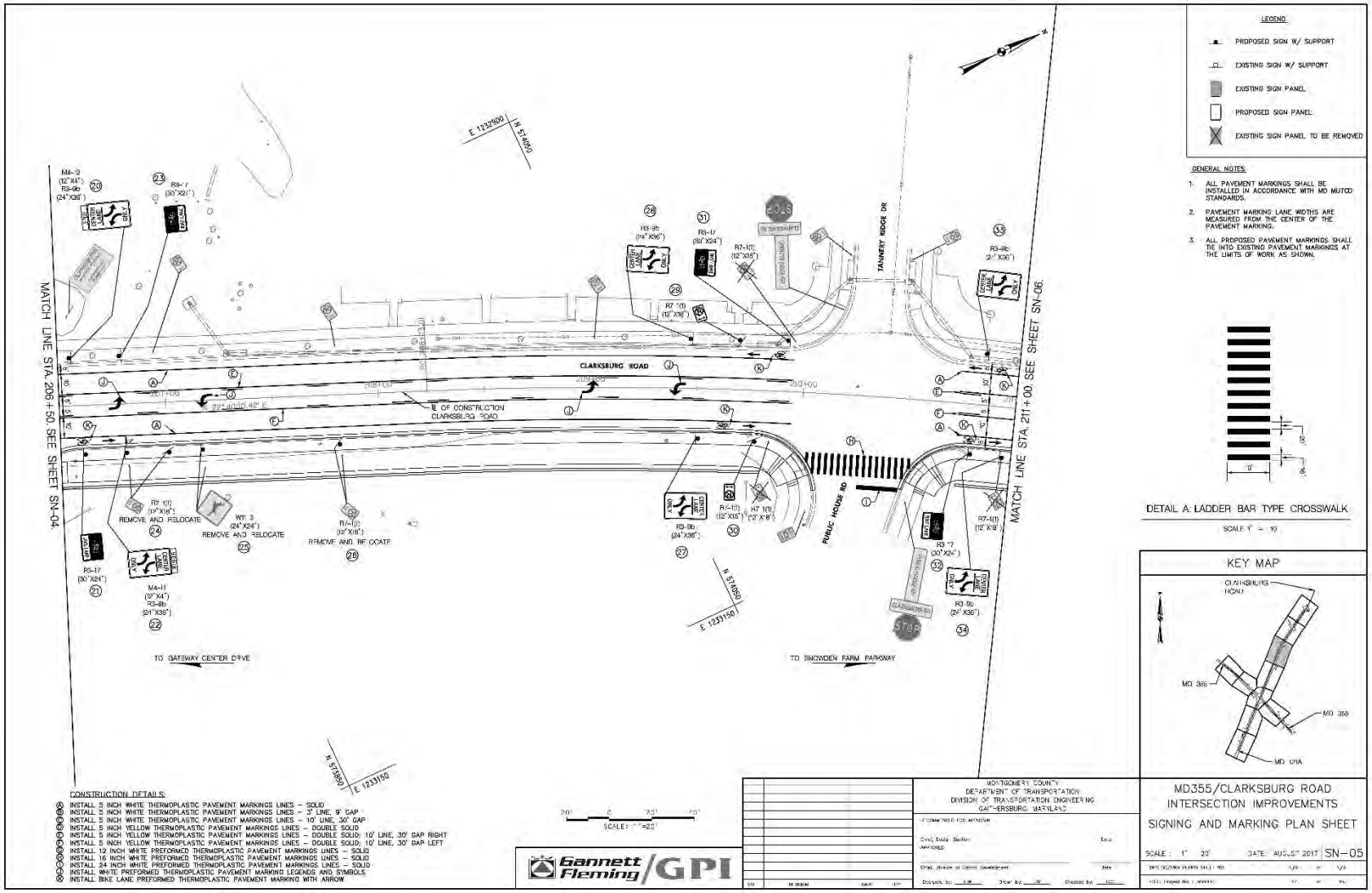
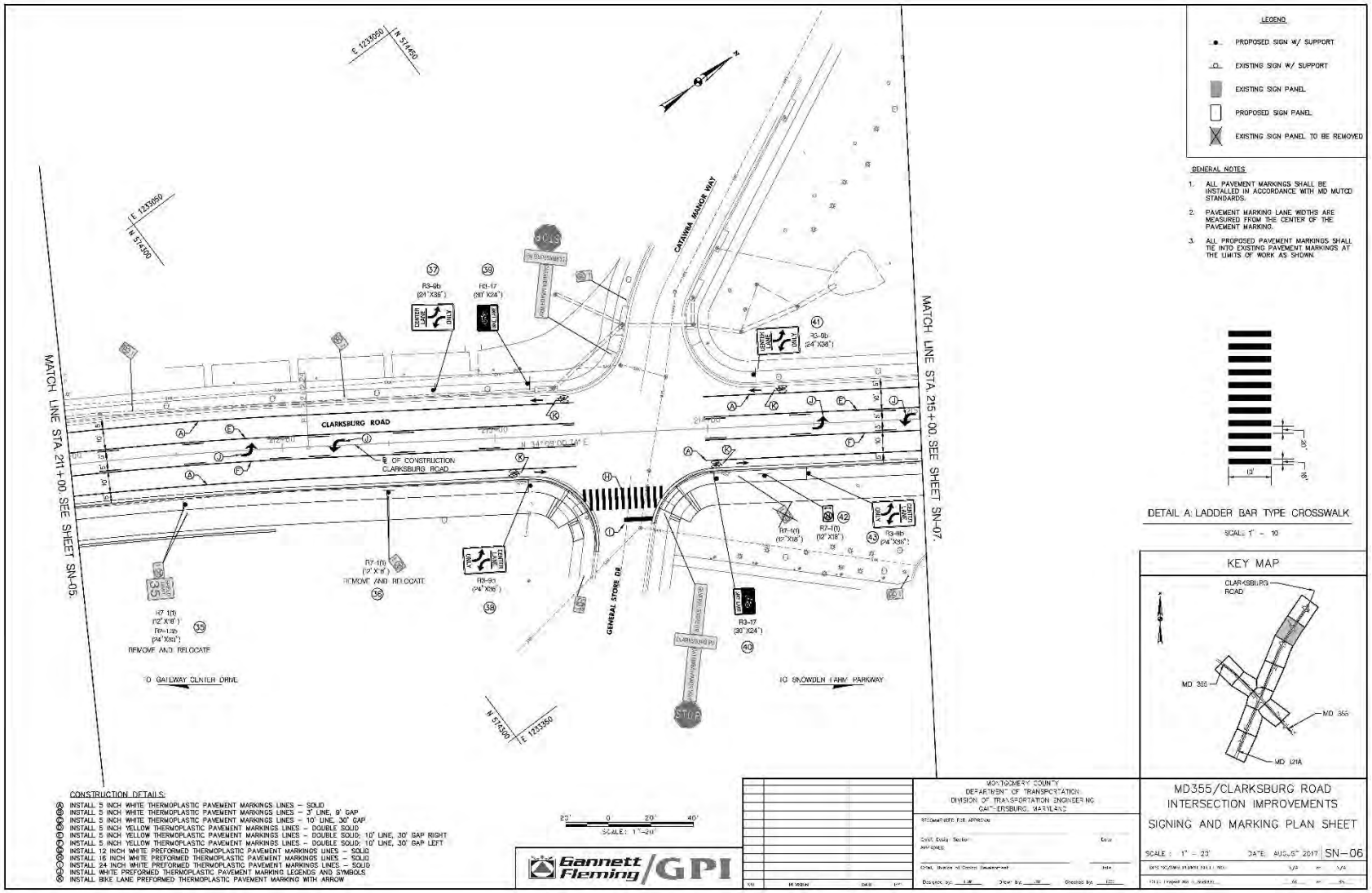
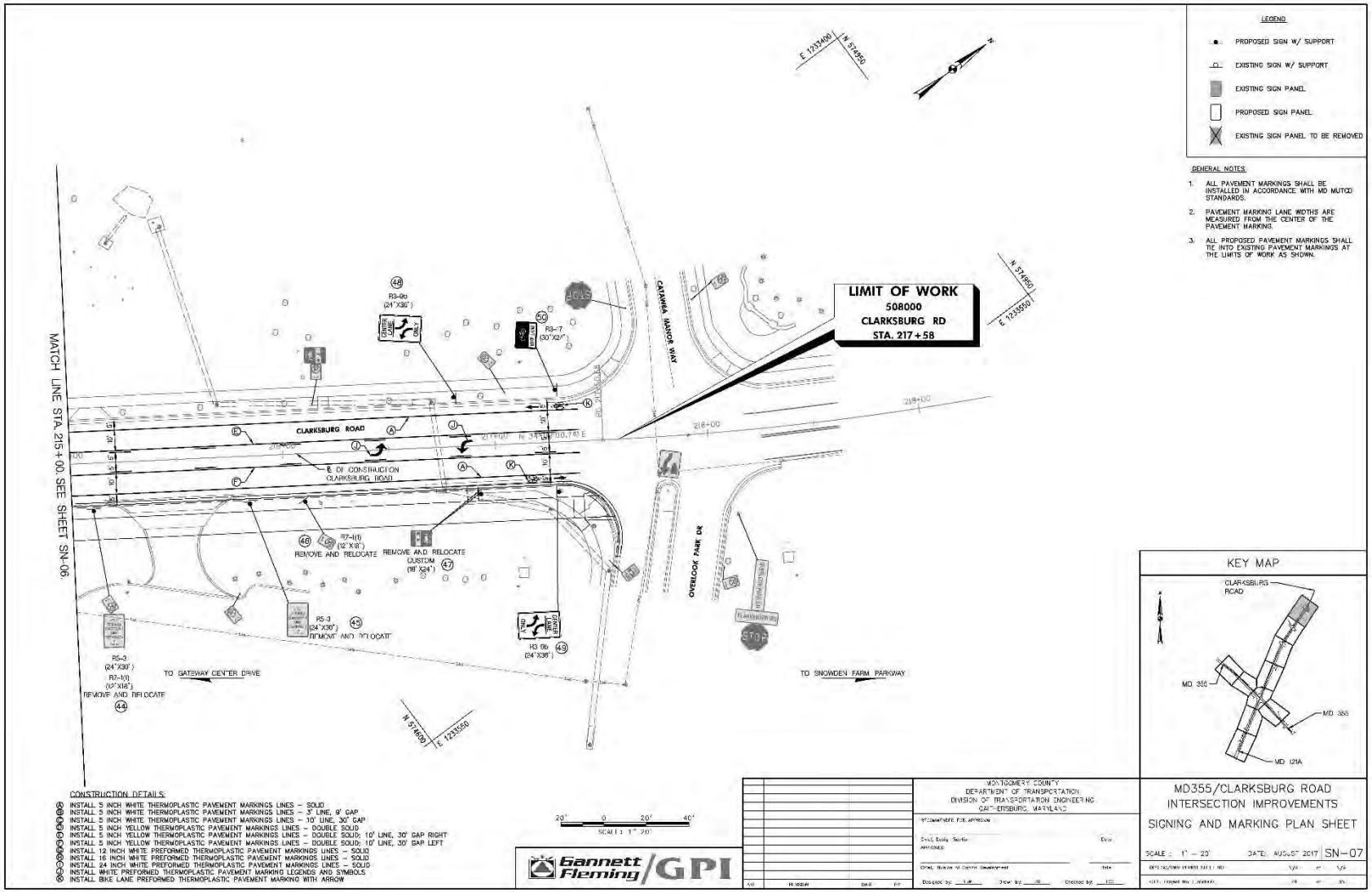


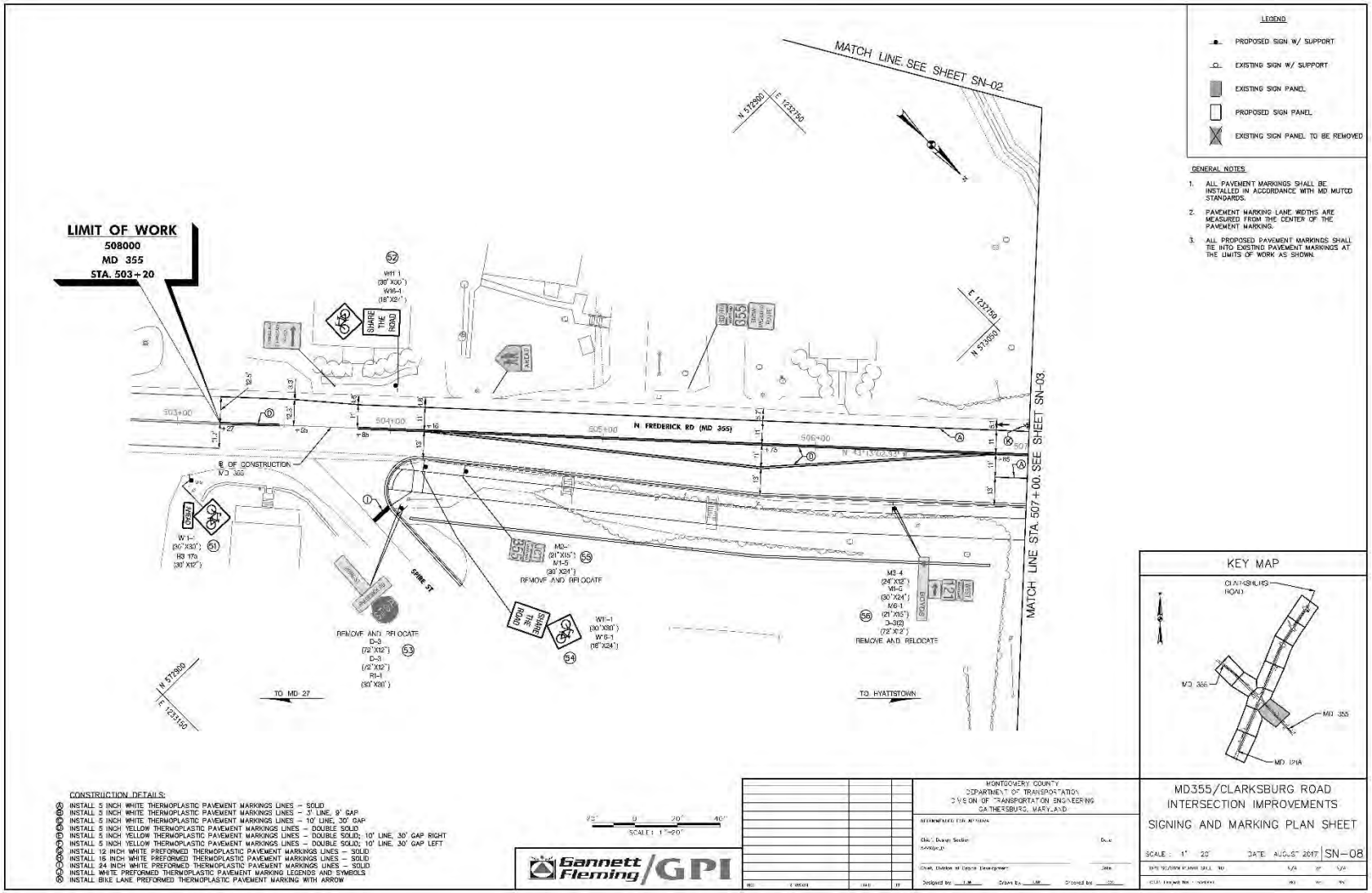
Signing and Marking Plans (Sheet SN-06)



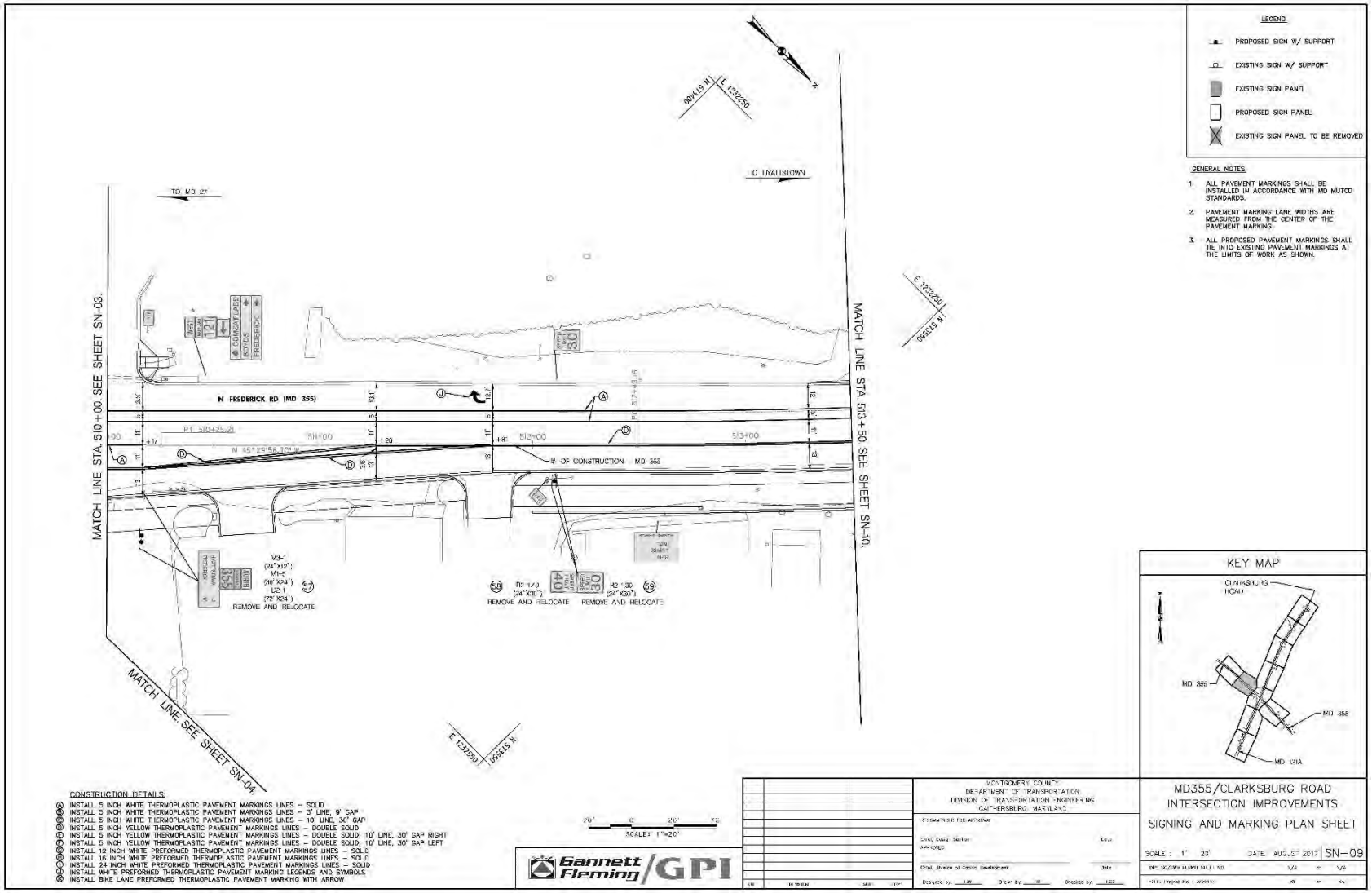
Signing and Marking Plans (Sheet SN-07)



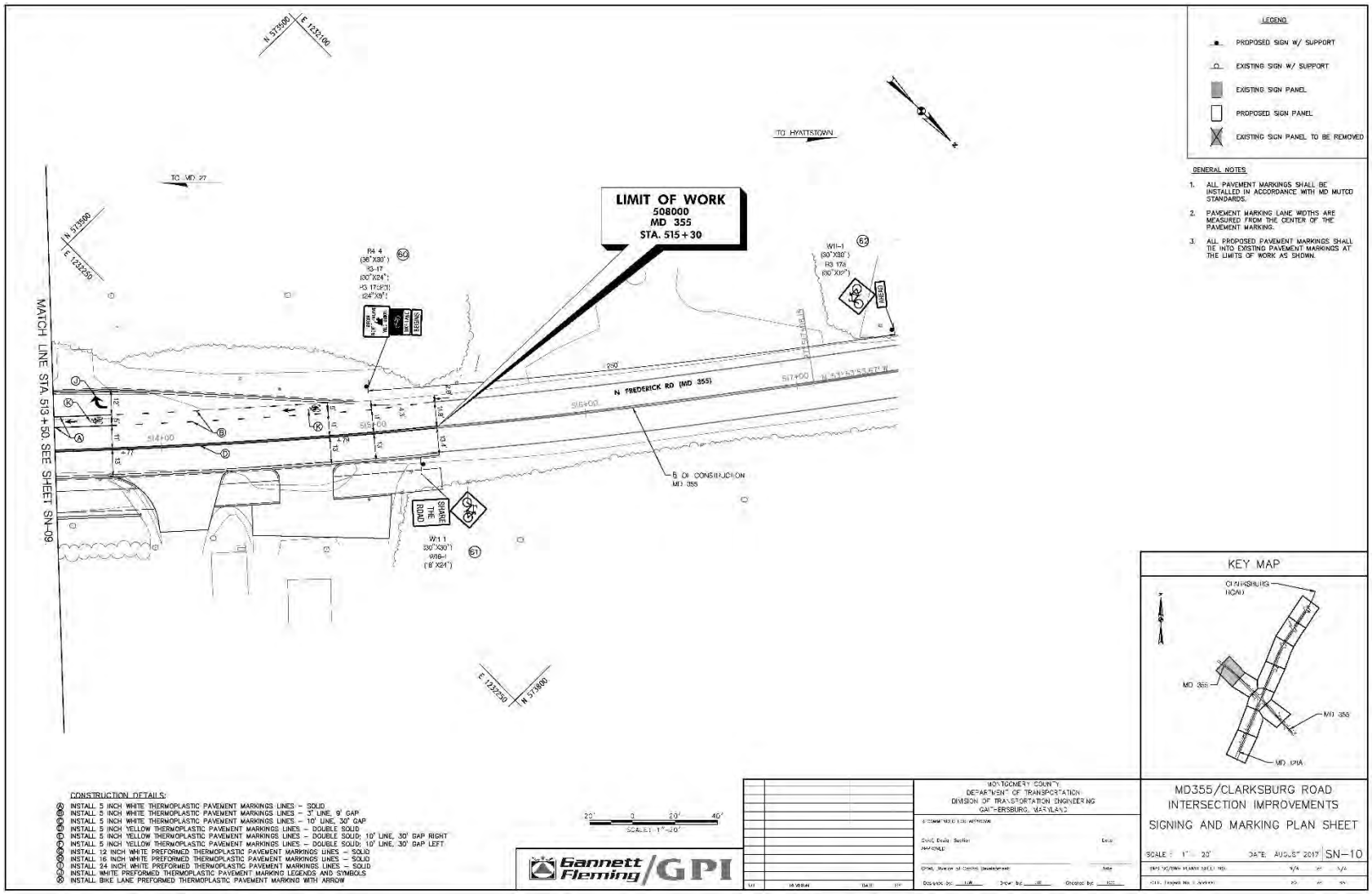
Signing and Marking Plans (Sheet SN-08)



Signing and Marking Plans (Sheet SN-09)



Signing and Marking Plans (Sheet SN-10)



MONTGOMERY COUNTY DEPARTMENT OF PARKS
MARYLAND-NATIONAL CAPITAL PARK & PLANNING COMMISSION

MEMORANDUM

April 17, 2018

TO: Laura Hodgson, Planner Coordinator, Area 3, Planning Department

VIA: Mitra Pedoeem, Deputy Director

Jai Cole, Acting Chief, Park Planning and Stewardship Division (PPSD)

FROM: Brenda Sandberg, Legacy Open Space Program Manager, PPSD

SUBJECT: **Mandatory Referral MR2018019 – Clarksburg Road at Frederick Road (MD355)**

Background

This Mandatory Referral (MR) project affects Clarksburg Triangle Urban Park, the future Civic Green located in historic Clarksburg. Clarksburg Triangle is a designated Urban Open Space under the *Legacy Open Space Functional Master Plan (2001)* and was acquired through the Legacy Open Space park acquisition program in 2007 and 2009. The vision for this future Civic Green is to provide a flexible civic gathering space, a variety of contemplative and social gathering amenities, connectivity for pedestrians and cyclists through and beyond the historic district, and preservation of the viewshed into the historic district from a major intersection.

The Department of Parks, alongside the Planning Department, has coordinated with Montgomery County Department of Transportation (MCDOT) on this project for almost two years to create a road project that provides the best combination of benefits for auto transportation and a new shared use path while minimizing impacts to the Park, the sensitive Ten Mile Creek watershed, and the Historic District setting. Adopted Planning Board policy (*2017 PROS Plan*) requires that projects affecting parkland be designed to *avoid* and *minimize* impacts to the greatest extent feasible before using *mitigation* and, finally, *compensation* for park impacts. This interagency collaboration has resulted in a mandatory referral project that successfully avoids and minimizes many impacts to the park and provides adequate mitigation and compensation for the remaining park impacts.

Conditions

The Department of Parks recommends the following conditions be adopted by the Planning Board as part of their recommendations to be transmitted to the Montgomery County Department of Transportation:

1. Submit final roadway construction plans to the M-NCPPC Department of Parks for review as part of the Park Construction Permit to ensure that all work is performed in accordance with M-NCPPC standard details, specifications, and policies.
2. Any parkland needed for the proposed road improvement should be compensated by “in-kind” site improvements on Clarksburg Triangle Urban Park with an approximately comparable value to the parkland being transferred. Compensatory project(s) will be negotiated and finalized during the Park Construction Permit process. Final right-of-way easements and compensatory site improvements for the loss of parkland must be agreed to and finalized between MCDOT and M-NCPPC before the issuance of a Park Construction Permit.

3. Mitigation for impacts to Park trees (with a 6" diameter at breast height or greater) damaged or removed shall be replaced on parkland at a rate of one-inch to one-inch. Tree impacts will be determined by an M-NCPPC forester prior to construction based on the Final Design. The Department of Parks will work with MCDOT to locate a suitable location in the Park for tree planting during the Park Permit process.

Parks Analysis and Issues for Park Permit Review

A Park Construction Permit will be required for construction work in the Park including temporary easements for construction and site restoration as well as permanent easements over constructed portions of the road and path. The comments below outline the remaining issues to be addressed in detail during the Park Permit process. Park staff look forward to coordinating with MCDOT and their consultants to create a safer intersection and an important pedestrian and bicycle connection for Clarksburg, improve water quality in the Ten Mile Creek watershed, and maintain the ability of Clarksburg Triangle Urban Park to be an important public open space for the Historic District and the rest of Clarksburg.

Site Grading

Clarksburg Triangle Urban Park is a highly sloping site from Spire Street downhill to the intersection of Clarksburg Road and Old Frederick Road (MD 355). Initial plans for the intersection improvements indicated significant grading and disruption of about 1/3 of the Park due to significant widening of the roadway. Park and Planning staff coordinated with MCDOT to reduce the requirements for the pavement width from Maryland State Highway Administration (SHA), thus resulting in a reduction of impact into the Park. Additional design changes coordinated with MCDOT have further reduced the grading impact in the Park. Park staff have the following recommendations regarding slope and grading:

- **Grade all slopes adjacent to or in the Park at 4:1** to allow for adequate maintenance by Parks at this highly visible location. The grading plan will be coordinated and approved during the Park Permit process.
- **Consider using the green panel between the curb and the shared use path to further reduce grading impact into the park.** Consider increasing the cross slope across the panel so the sidepath would be set about a half a foot above the curb (~6", or a 12:1 slope). This cross slope will reduce the elevation difference between the path and the existing slope along the Park frontage, thus reducing grading impact into the Park.

Tree Impacts

The most visible impact to the Park will be the removal of virtually all trees along Clarksburg Road and Old Frederick Road, significantly changing the character of this property and the future Park. Despite successful efforts to reduce the overall project impact on the Park, it was not possible to preserve these hedgerows and also achieve the goals of the road and path project. Per existing policy, trees removed from existing parkland must be replaced inch for inch of diameter at breast height (DBH) or pay tree loss mitigation at $100 per inch DBH. Replacement of these hedgerows with new tree plantings in appropriate areas of the Park will be an important first step in creating the future Civic Green. The following comments cover the issues to be addressed during the Park Permit process:

- **Provide a survey of all trees 6" and greater on existing parkland.** This survey will allow for calculation of the amount of tree replacement necessary.

- **Mitigate for tree loss by planting trees instead of fee-in-lieu payment.** Parks and Historic Preservation staff request replanting trees to create an immediate post-construction benefit for the Park. Parks will develop a planting plan for the parkland in collaboration with the intersection improvement planting plan.
- **Trees to be planted on parkland should be large given the high visibility of this intersection.** Three-inch planting stock is recommended for planting using the Department of Parks' Deciduous Tree Planting Detail using Arbortie for staking.

Water Quality

The project is located in the Ten Mile Creek Special Protection Area (SPA), thus water quality issues need to be prioritized throughout the design and construction of this project, including through the SPA Water Quality Plan. A stream restoration project downstream of Clarksburg Triangle Urban Park and the intersection will provide mitigation of wetland impacts on and adjacent to the Park and will address stormwater treatment for pavement that the project was unable to treat due to site and project constraints. This headwater stream to Ten Mile Creek has valuable macroinvertebrate potential with significant groundwater inputs and wetland seeps that drain to it, but currently suffers from eroding banks and an actively downcutting channel.

Parks staff is happy to work with DOT and their design team to develop a cost-effective and ecologically beneficial stabilization project with long-term stability. Park staff have the following comments on the current stream restoration design:

- **Extend the stream restoration project to a location about 100' downstream of the end of the current design.** This tie-in location is significantly more stable than the current ending point and will dramatically improve the long-term stability and ecological benefits associated with stabilizing the eroding banks and the actively downcutting channel through this stretch. A drainage channel comes into the stream reach on the left bank about 75' downstream of the proposed end of work, creating a confluence that is critical to stabilize.
- **Increase sinuosity to stream design to add stream length and planform stability**. This stream reach is relatively steep and getting additional length out of this channel will help to decrease the slopes and drops needed over the structures. The design needs to make a more concerted effort to create riffle habitat and a stable transition to where the stream ties back into the existing channel.
- **Maximize stream length by shortening outfall pipe on the west side of MD 355.** Shift the endwall closer to shoulder and use Parks' plunge pool outfall detail.
- **Raise the elevation on downstream side of MD 355 culvert to match existing conditions** (approx. 633') and maximize floodplain access, especially within the first 150' of the project.

Cultural Resources

Records indicate the high potential for one or more archaeological sites within the Clarksburg Triangle Urban Park. The "M.E. Church South" is identified on the 1879 Hopkins Map at the southern corner of the Park where Spire Street intersects MD 355 close to the limits of disturbance (LOD) for this project. Other historic records indicate 3 structures on the properties that make up the park. Park comments are as follows:

- **Complete the archaeological investigation (Phase 1a/1b) already underway including areas of the Park within the draft LOD** to identify archaeological resources prior to Park Permit and construction phases.

- **Based on the results of the 1b study, do the following if necessary:**
  - **Fine-tune design and grading at Park Permit to address any issues discovered in the Phase 1b.**
  - **Provide archaeological monitoring during construction on the Park in any areas of significance found in the Phase 1b.**

Park Access

As a walk-to park, providing safe access to this Park from the community is a key design factor. The sidepath will create an excellent route for pedestrians and cyclists to reach the park. However, significant high-speed, cut-thru traffic on Spire Street between Clarksburg Road and MD 355 in both directions creates a safety hazard for both park users and trail users. Given the current policy focus in the County on safe pedestrian and bicycle routes, Park staff have the following two comments with options to consider that could provide safer access to the Park:

- **Provide safe crossings of Spire Street both at Clarksburg Road and MD 355 for the sidepath**. Consider the following options to mitigate the hazards at these crossings:
  - Provide textured pavement crossings for the sidepath at each end of Spire Street.
  - Provide trail crossing signage to ensure traffic awareness of the presence of trail users.
- **Provide traffic calming measures for Spire Street**. Consider the following options:
  - Design entry to Spire Street from north-bound MD 355 to reduce turn speeds and encourage use of the redesigned intersection (such as with a curb bump-out or other measures).
  - Limit access to Spire Street to either local traffic only or restrict to local only during rush hour to minimize cut-through traffic.
  - Clarify with signage or pavement markings where parking is allowed (or not) on Spire Street to serve three residences and the church with safe on-street parking.
  - Provide speed humps to slow traffic between church and park.

Proposed Transfer of Parkland to Road Right-of-Way

To accommodate the intersection improvements and the new sidepath within the road rights-of-way, the MR plans indicate that 6,382 square feet of existing parkland will need to be transferred to the right-of-way (ROW). Transfer of management responsibility for that land from Parks to MCDOT will occur through a permanent easement to MCDOT, the standard method used to implement this change when parkland is titled to Montgomery County.

Park staff have estimated the value of the Park based on the acquisition cost of the land in 2007-2009. Using the actual purchase price from a decade ago is a conservative valuation approach (in that it does not include estimated appreciation in real estate values) that results in a moderate to low value for the land to be transferred to the road ROW.

Park Value (acquisition cost)	Park Size (square feet)	Value/Square Foot	Transfer Area to ROW (s.f.)	Estimated Value of ROW Transfer
$ 1,602,500	114,026	$ 14.05383	6,382	$ 89,692

Since the estimated value of the land transfer is under $100,000, Park staff recommend that MCDOT provide site improvements to Clarksburg Triangle Park as "in-kind" compensation for the land transfer instead of providing cash payment. By compensating through site improvements that are roughly comparable in value to the estimated land value, the formal land appraisal process will not be required and will thus save approximately $5,000-$10,000 in appraisal fees. In addition, by providing certain site improvements during the MR project construction, efficiencies of scale may result in overall cost savings that benefit the taxpayer.

The Department of Parks proposes the following site improvements for MCDOT to consider as in-kind compensation for the interim disruption of the Park and the permanent transfer of parkland to road use. They are listed in order of priority for the benefit of the future Park, and other site improvements can be proposed and considered. The final compensatory project(s) will be determined during the Park Permit process as the plans are finalized and cost estimates for the potential site improvements become available.

1. **Remove two utility poles in the middle of the park** and restring utility lines around the park on the poles on adjacent streets (either existing poles or new poles being relocated for this road improvement project). Potomac Edison will be including this project as a separate line item in their proposal for this project's utility line work to provide a cost estimate for evaluation.
2. **Fund an archaeological investigation (Phase I/II) of the entire Park** to identify location of remains of three structures with potential archaeological significance, including the building associated with the M.E. Church. This study would be an addition to the Phase 1a/1b investigation for the area within the LOD already being conducted per guidance of Maryland Historical Trust (MHT).
3. **Fund fabrication and installation of cultural and natural interpretive signage for the Park**. Cultural and natural interpretive signage will be a key element of this future park. Park staff are responsible for creating the content for the interpretive signs, and funding for fabrication and installation could be provided by this MR project.