MCPB
Item No. 9
Date: 06-16-16

MD97 Brookeville Bypass, Mandatory Referral No. 2016030

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Completed: 06/09/16

Description

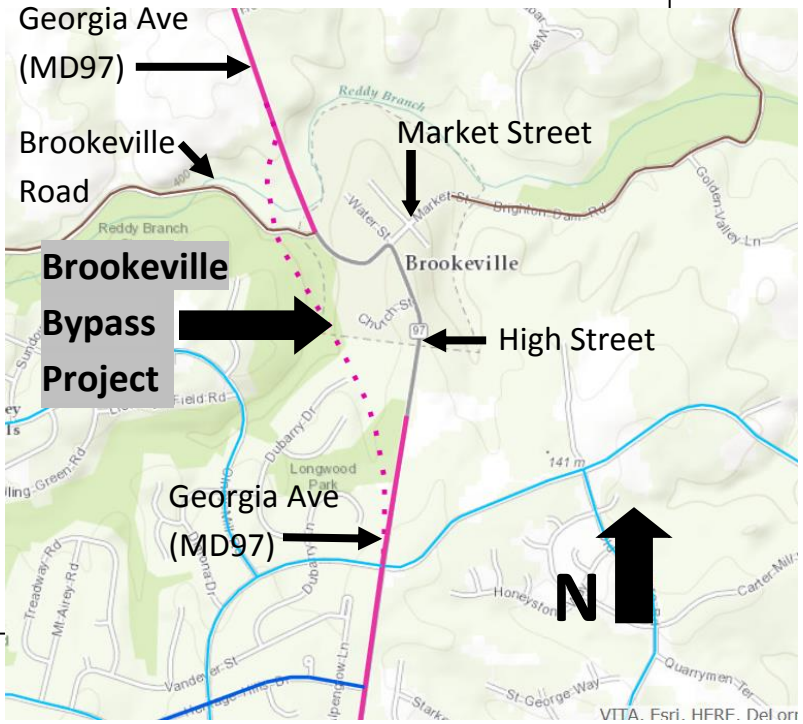
The Maryland State Highway Administration (SHA) proposes to construct a two-lane relocation of MD97 around the Town of Brookeville.

A three-legged roundabout would be constructed at the southern project limit to control the intersection of Georgia Avenue, High Street, and the bypass.

A four-legged roundabout would be constructed at the intersection of the bypass and Brookeville Road, just south of the northern project limit.

At the northern project limit, the bypass would tie into existing Georgia Avenue just north of Reddy Branch. The existing MD97 pavement between Brookeville Road and the bypass would be removed but the bridge over Reddy Branch would be retained.

Vicinity Map



Issues

- Minimization of impacts to
  - Parkland
  - Environmental resources
  - Historic resources
  - Archaeological resources
- Accessibility of the Brookeville Historic District vs. reduction in cut-through traffic
- Whether to construct a roundabout at Brookeville Road, as proposed, or to construct a bridge over the road

Summary

We recommend that the Board APPROVE this project with the following comments to the Maryland State Highway Administration:

1. This project requires a Park Construction Permit from the Department of Parks; all requirements of that permit must be adhered to. Prior to approval of the Park Construction Permit and transmittal of parkland for the project:
    a. All impacts to parkland must be minimized and the final limit of disturbance on parkland must be approved by Parks staff;
    b. A stream restoration design for Meadow Branch bridge and culvert replacement must be approved by Parks staff;
    c. Plans for the relocation of the gravity and force main sewer line under the Meadow Branch bridge abutments must be approved by Parks staff;
    d. A mitigation package of park replacement property must be approved by Parks staff; and
    e. The superstructure and substructure of the existing MD97 bridge over Reddy Branch must be removed.

2. A target speed of 30 mph - consistent with the proposed 30 mph speed limit - should be used to design this project to help minimize impacts to parkland and the sensitive environmental resources in this County-designated biodiversity area. The vertical profile used through parkland between the two proposed roundabouts should reflect a 30 mph design speed.

3. The proposed paved shoulder width on the bypass should be reduced from eight feet to six feet.

4. The proposed roundabouts will become the defacto gateways into the Brookeville Historic District and should reflect the highest level of design to ensure their attractiveness and safety.

Previous Board action

The Board endorsed one of the western alignments of the Brookeville Bypass - Alternative 7 Modified (Alternative 7M) - on September 19, 2002, which was reflected in the Olney Master Plan that was subsequently approved and adopted in 2005 (see Attachment 1).

The Board received a briefing on this project on April 30, 2015 as an update after a project hiatus of a dozen years in preparation for this Mandatory Referral. At that hearing, the Board voted to allow SHA to use the Reddy Branch SVU 1 site to meet Clean Water Act Section 404 compensatory mitigation requirements (see Attachment 2).

Also discussed at the hearing was staff's recommendation to consider replacing the proposed roundabout at Brookeville Road with a bridge spanning the road in order to ensure that impacts to parkland, natural resources and archaeological resources would be minimized. SHA staff responded that such an evaluation would delay the project by a year and be too expensive. However, SHA did subsequently evaluate the long bridge alternative and the results of that evaluation are discussed below.

The project submitted for Mandatory Referral review is essentially the same as previously reviewed, but it has undergone refinements to the design to reduce some impacts.

Site Context

The project would be constructed on currently undeveloped land, most of which is parkland and a designated biodiversity area. Some of that parkland is within the limits of the Town of Brookeville and the Brookeville Historic District, which is on the National Register of Historic Places. (The County-designated historic district excludes the affected parkland.) While the town includes numerous historic buildings, only the westernmost portion of the town that is undeveloped parkland would be directly impacted.

The west side of the proposed project is bordered by parkland and by single family homes, none of which would be directly impacted.

Current Average Daily Traffic on Georgia Avenue (MD97) through the Town of Brookeville is approximately 10,400 vehicles per day.

Project History

In the 1960's, studies were initiated to search for an alternative routing of Georgia Avenue (MD97) to bypass the Town of Brookeville. In 1990, thirteen alternatives were included in a feasibility study and in 1995 a formal planning study began. In 1996, regulatory agency concurrence was reached on the Purpose and Need Statement and six preliminary alternatives were presented, after which it was decided that a no-build plus three build alternatives would be carried forward for detailed study. In 1997, the State Highway Administration (SHA) received regulatory agency review concurrence and a Draft Environmental Impact Study (DEIS) began. In 1998, concerns about consistency with Maryland's Smart Growth and Neighborhood Conservation Act (1997) caused the project to be placed on hold.

The project was reinitiated in 2000; in 2002, the Planning Board and County Council reviewed five alternatives - three western, one eastern, and one no-build alternative – and voted to support Alternative 7M. In 2004, the Final Environmental Impact Statement (FEIS) and Record of Decision (see Attachment 3) were published and Location Approval was granted by the Federal Highway Administration. Due to funding issues, the project was again placed on hold. The FEIS Purpose and Need statement is shown as Attachment 4A; the FEIS summary of impacts of the alternatives under consideration is shown as Attachment 4B.

The Brookeville Bypass project was reinitiated in 2014. M-NCPPC staff was first invited back into the project planning process in October of that year and has regularly been attending monthly team meetings since that time.

During the Planning Board's April 2015 review, SHA stated that they would be submitting their application for Mandatory Referral review in July 2015, with an anticipated Board review in September. That submission was delayed by SHA due to various design issues that needed to be addressed.

In December 2015, SHA proposed changing the concept to close the segment of Brookeville Road between the northern roundabout and Georgia Avenue. Since Georgia Avenue was already proposed to be closed to accommodate the bypass, this would have meant that both of the town's connections to the north and west would have been removed. The Town of Brookeville's representatives on this project supported the closure, but this proposal prompted objections from some residents outside the town who were concerned about a more circuitous east-west travel pattern, either going through town south on High Street and then north on the bypass or vice-versa, or traveling via Bordly Drive to the north.

The proposal also prompted objections from historic preservation groups, the Maryland Historic Trust (MHT), and Planning staff, all of whom were concerned about losing these connections to this historic market town. MHT wrote on April 5, 2016 (see Attachment 5C) that closing Brookeville Road would be a severe adverse impact on the historic district and was not consistent with the project's Purpose and Need. MHT also found that the two other alternatives under consideration, the current design and Alternative 8B (the long bridge spanning both Brookeville Road and Reddy Branch) were consistent with the Purpose and Need but had fewer impacts.

SHA subsequently chose to drop the proposal to close Brookeville Road and to pursue the current design, which is consistent with what the Board previously reviewed. Their preliminary report on the long bridge alternative is included as Attachment 6, as prepared by SHA and transmitted to us on April 21, 2016. A merged summary of the impacts from Alternatives 7M and 8B as estimated in the 2002 FEIS and as now estimated in 2016, to show how they have changed over time, is shown in the section entitled "Alternative 8B" below.

Master Plan Consistency

Olney and Town of Brookeville Master Plans

The proposed project straddles two master plan areas, both the Olney Master Plan (2005) http://www.montgomeryplanning.org/community/plan_areas/georgia_avenue/master_plans/olney/april_2005_approved_adopted/index.shtm and the Town of Brookeville's Comprehensive Plan (2010) http://townofbrookevillemd.org/wp-content/uploads/2013/03/BrookevilleComprehensivePlan.pdf (see Attachment 7 for a discussion of the Brookeville Bypass). The proposed alignment for the bypass is consistent with the recommendations of both plans for a two-lane roadway.

The Olney Master Plan recommends that the bypass be constructed as a two-lane road in an eighty-foot right-of-way (ROW). While a two-lane road is proposed, the typical section width varies up to 108 feet, and the actual construction footprint of the roadway is more than 240 feet wide in some locations. While ROWs recommended in our master plans are stated as minimums, and grading work is anticipated beyond that ROW, this project's footprint far exceeds what was anticipated.

Rustic Road Designation

Brookeville Road was first designated as a Rustic Road in the Rustic Roads Master Plan (1996) http://www.montgomeryplanning.org/community/plan_areas/rural_area/master_plans/rustic_roads/rustic_toc.shtm (see Attachment 8). While the goal of the Rustic Roads program is to preserve these roads as of the date they were designated, the text in Brookeville Road's designation includes the following notes in regard to the area around the Brookeville Bypass: *"The designation of this road as a rustic road is not to be used to affect in any way the Brookeville Bypass when that road is constructed. The Olney Master Plan includes a potential relocation of Brookeville Road slightly north of its current intersection with Georgia Avenue. That relocated road will not be a rustic road."* The above reference to the Olney Master Plan was to the 1980 plan; the subsequent 2005 Olney Master Plan does not recommend any relocation of Brookeville Road at its intersection with Georgia Avenue.

This project was discussed by the Rustic Roads Advisory Committee on May 3, 2016, but final notes from that meeting are not yet available.

Pedestrian and Bicyclist Accommodation

The Olney Master Plan recommends a shared use path along Georgia Avenue from Olney north to the bypass and bike lanes on the bypass itself. The Town of Brookeville's plan recommends *"integrated bikeway and pedestrian ways".* The Town of Brookeville is the major destination in this area and will

likely remain the focus of pedestrian and bicycle activity, particularly with the anticipated reduction in vehicular volumes resulting from the construction of the bypass.

During the current design process, SHA asked whether they should include a shared use path in the proposed typical section, the staff consensus was that the proposed roadway shoulders were sufficient as the Master Plan-recommended bike lanes and that the additional environmental and park impacts that would be caused by the addition of a shared use path or sidewalk on the bypass should be avoided, but that the recommended shared-use path should be built on the east side of Georgia Avenue and terminate at the north side of the southern roundabout. In addition, SHA is working with the Town to construct sidewalks along the segment of Georgia Avenue/High Street that would be bypassed.

Smart Growth

This project is partly inside and partly outside of the Priority Funding Area (PFA) that was established in response to the Maryland Smart Growth and Neighborhood Conservation Act of 1997. That law restricts state funding on transportation projects outside PFAs in order to discourage sprawl. This project was required to get a waiver from these requirements, which the Memorandum of Understanding that was signed by representatives of the Maryland State Highway Administration and the Montgomery County Executive was intended to address. (see page 28 of Attachment 9). Condition I.B.3 is the only design-oriented condition in the MOU and requires that a roundabout be constructed at the northern end of the project.

The Smart Growth package that was subsequently submitted to the Maryland Board of Public Works for the waiver included the MOU as an attachment, but was in a different format. Condition #4 had the following wording: *"Montgomery County, the Maryland Department of Transportation, and Howard County Government will work out a safe traffic calming point north of the project which limits traffic capacity to the current capacity of MD97 through Brookeville."* The action proposed to meet this condition was stated as follows: *"Roundabouts will be constructed at the northern and southern termini of the new road to provide traffic calming. The new roadway will be a 2-lanes (sic) (1-lane in each direction) with a speed limit of 40 mph. These design features help to ensure that the new roadway will maintain the traffic capacity of the existing segments of MD97."*

The above action stated that the posted speed would be 40 mph but the proposed posted speed has been changed to 30 mph. While not consistent with the letter of the agreement, the 30 mph posted speed would be consistent with the overall Smart Growth goal of limiting sprawl by using the same posted speed as the existing MD97 through the Town of Brookeville, a speed that is encouraged by the tee intersection, stop sign and sharp curves.

Design Speed

While the proposed road would have a posted speed of 30 mph, its design speed would be 40 mph, unnecessarily increasing impacts on parkland and the environment. The higher design speed requires flatter horizontal and vertical curves and would encourage higher operating speeds by drivers. This approach to design is in conflict with the guidance of the Federal Highway Administration states the following in regard to the American Association of State Highway and Transportation Officials "Green Book" on roadway design:

> *"The Green Book provides minimum or limiting values for the design criteria. It also recommends "above-minimum design values should be used, where practical." The underlying rationale for this guidance is that above-minimum features will safely*

accommodate a condition beyond the assumed parameters. Historically, this was thought to be "conservative" and consistent with other engineering disciplines that use factors of safety to intentionally "over design" critical components. The direct effect of utilizing above-minimum design elements is that it affords drivers greater comfort to travel at higher speeds, and thereby leads to an "inferred" design speed greater than the designated design speed that may be inappropriate for surrounding conditions."

Definition: Inferred Design Speed is the maximum speed for which all critical design-speed-related criteria are met at a particular location.

> *"Frequently, roads and streets designed for a particular speed appear suitable for much higher speeds. Drivers read the road, not the design plans. Some roadway segments, such as a long straight section, look the same regardless of designated design speed. When these features are combined with over-designed speed sensitive features (i.e., from using above-minimum values as recommended by highway geometric design policy) the visible cues on appropriate speed may be in sharp contrast to the designated design speed. What was contemplated by the designer as a factor of safety (with respect to the designated design speed) is often negated by driver speed choice."* Speed Concepts Informational Guide (2009) Federal Highway Administration

The concept of adding 10 mph to the posted speed to determine a design speed is an outmoded practice that would increase the impacts to parkland and environmental resources. Whereas some projects would have difficulty in getting drivers to operate their vehicles at the target speed because there would be few visual cues to do so, this project has ample ability to achieve a consistent 30 mph design by means of horizontal and vertical curvature that better conforms to the existing topography, narrower shoulders, and the proposed roundabouts at either end. The current state-of-the-art practice is better reflected in Montgomery County's Executive Regulations that were promulgated following the 2007 Road Code update:

> *Target speed is the speed at which vehicles should operate on a thoroughfare in a specific context, consistent with the level of multimodal activity generated by adjacent land uses, to provide mobility for motor vehicles and a safe environment for pedestrians and bicyclists. The target speed is usually the posted speed limit.*

While some of the increase in parkland impacts is due to increases in stormwater management requirements since 2002, the choice of a higher design speed has had a pernicious effect on parkland via increases in the depth and width of the required hillside cuts.

Using a 30 mph design speed, in sync with the proposed 30 mph posted speed would be consistent with the County's policy on target speed and result in a significant reduction in park impacts, which are now estimated at between 9 and 11 acres, as compared to the 5.6 acres approved in 2002. ***We recommend that a target speed of 30 mph be used for this project, which would reduce impacts on parkland and environmental resources.***

Roadway Cross-Section

Eleven-foot-wide travel lanes and eight-foot-wide shoulders are proposed for this project. To date, SHA has not agreed to staff's recommendation made as part of the design team to reduce the width of the

shoulders. This reduction in cross-section width would reduce the significant impact on parkland and the reduction in impervious surface would reduce the need for stormwater management that has additional impacts.

By contrast, six-foot-wide shoulders are proposed on SHA's MD108 intersection project at Muncaster and Brookeville Roads. (The MD108 project is at the western end of Brookeville Road, as opposed to the MD97 bypass project that's at the eastern end.) The MD108 project is being designed with shoulders that were reduced from 8' to 6' because it is in an environmental special protection area that limits additional impervious surface area. MD108 is posted at 50 mph and has a 2032 forecast volume of 24,000 vehicles per day, compared to the MD97 bypass project that will be posted at 30 mph and has a 2033 forecast volume of 12,700 vehicles per day. The reduction in shoulder width can be done and since the bypass project is in a designated biodiversity area, there's a good reason to do so.

We recommend that the shoulder width be reduced to six feet.

Traffic

The project would be extremely successful at achieving its goal of removing north-south through-traffic from the heart of the town of Brookeville**.** Attachment 10 shows SHA's findings for existing and forecast traffic volumes for the proposed project (Alternative 7M Adjusted), the long bridge (Alternative 8B Modified), and the now-deleted proposal to close Brookeville Road.

The table below summarizes the analysis results for the two segments of existing MD97 (High Street and Market Street west of High Street) that would be superseded by the proposed bypass. Traffic on both of these streets would drop by more than 90% in the 2040 forecast year for either of the alternatives still under consideration.

Table 1: Traffic Forecasts

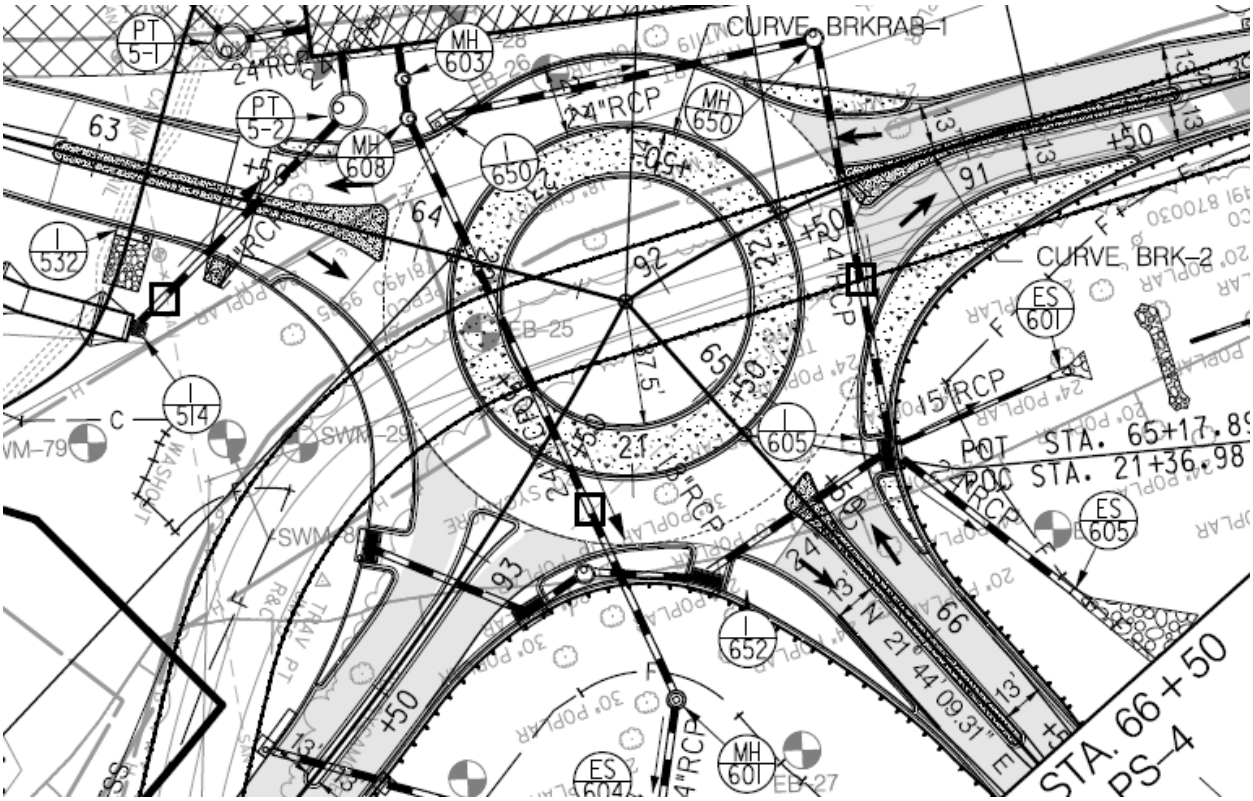
Traffic Volumes (vehicles per day) / Road Name	Existing Traffic Volume	Forecast 2040 Volume for No-Build Condition	Forecast 2040 Volume for Alt 7M Adjusted (Proposed Project)	Forecast 2040 Volume for Alt 8B Adjusted (Long Bridge Alternative)
High Street	10,400	13,725	900 (a 93% reduction)	1,225 (a 91% reduction)
Market Street (between High Street and Georgia Avenue)	10,275	13,575	600 (a 96% reduction)	925 (a 93% reduction)
MD97 Bypass (south of Brookeville Road)	0	0	13,025	12,700

Roundabouts

As noted above, the proposed roundabouts were required as one of the conditions of granting the Smart Growth waiver for this project in 2002, which is partly outside the Priority Funding Area. Their potential effectiveness at slowing down traffic has been compromised by SHA's decision to design the road at too-high a design speed, as discussed above. In addition however, the design of the roundabouts needs significant improvement to avoid them becoming eyesores at the gateways of the Town of Brookeville Historic District.

As shown in Figure 1, the proposed roundabout would have a landscaped center island with a radius of 37 feet; a 14-foot-wide paved truck apron, including the curb and gutter; and a 16-foot-wide roadway around the center island of the roundabout. In addition though, there would also be paved truck overruns beyond the outer circle of the roundabout that would result in a paved area that is up to 50 feet wide, as measured from the inner edge of the truck apron in the center island to the outer edge of the overrun.

Figure 1: Proposed Roundabout at MD97 Brookeville Bypass and Brookeville Road



Even though the truck apron and overrun areas would be made of stamped colored concrete, this expanse of pavement would be visually obtrusive.

Figures 2A & 2B

To accommodate the rare large truck that cannot be accommodated by the roundabout roadway and the truck apron, ***we recommend that a material such as Grasspave (see Figures 2A & 2B) be used in the overrun areas to reduce the width of pavement at the roundabouts.*** Grasspave is a material that is structurally adequate to support truck loads but is generally not distinguishable from grass when planted. While SHA might normally be reluctant to use materials such as this, we believe that it is very important that this project not detract from the visual quality of the adjacent historic district; this product – or a similar one – would be a good way to achieve the transportation needs while minimizing the visual footprint of the roundabout.In addition, the truck overrun areas are shown not just as paved areas beyond the outer curb of the roundabout, but as lumps of pavement that seem to project into it. ***We recommend that the proposed outer curb should have a consistent offset from the striped edge line rather than be designed as bumpouts that could both catch the tires of inattentive drivers and become repositories for roadway debris.***

Historical and Archaeological Resources

The Brookeville Historic District is on the National Register of Historic Places, as well as being a County-designated historic district. There are additional historic and archaeological resources immediately north of the project and on parkland. Resources on parkland are addressed in a separate Parks memo.

The Maryland Historical Trust provided comments on April 5, 2016 on the three alternatives under consideration and stated that all the alternatives would have adverse impacts on the town of Brookeville, but that Alternative 7M Adjusted that would have closed Brookeville Road would not meet the project's purpose and need, including preserving the historic character of the town; SHA

subsequently dropped this alternative. MHT stated that Alternative 7M Adjusted without closing Brookeville Road and Alternative 8B would preserve the historic character of the town with fewer impacts to cultural resources.

Correspondence Between SHA and MHT
Attachment 5A: SHA letter to MHT dated October 8, 2016
Attachment 5B: SHA letter to MHT dated February 5, 2016
Attachment 5C: Maryland Historical Trust response dated April 5, 2016
Attachment 5D: SHA letter to MHT dated June 2, 2016

Alternative 8B

In 2002, the staff memo to the Board on this project advised that both Alternative 7M (similar to the proposed alignment) and Alternative 8B (with a bridge spanning Brookeville Road) met the intent of the master plan in effect at that time, served local network connectivity needs, and had public support (see Attachment 11A, page 9), but the Planning Board concurred with the staff's recommendation that SHA should proceed with the design of Alternative 7 Modified (see Attachment 11B). At the time, the proposed impacts on parkland were estimated to be 5.6 acres but are now estimated at 9 to 11 acres. Therefore, we recommended in April 2015 that SHA re-evaluate Alternative 8B to determine whether it would have a lesser impact on parkland and environmental resources. In addition, the cost estimates were so out of date that the 2002 comparison - which stated that Alternative 8B would cost 50% more than Alternative 7M - was no longer valid.

The construction cost of Alt 7M is now estimated to be $25.4M; the cost of Alt 8B would be $28.8M, a difference of $3.4M or 13% more than SHA's preferred alternative. The difference in costs between the two projects is fairly modest; however, staff's recommended modifications to the vertical profile of Alt 8B, which is far from optimized in regard to the large cut into the hillside, would likely make the additional cost smaller still.

Historic and Archaeological Impacts
The mill race for the Newlin's Mill historic site runs along the south side of Brookeville Road and would be adversely impacted by the proposed project. According to Section 4(f) of The Department of Transportation Act (DOT Act) of 1966, SHA must avoid use of historic sites unless there is no feasible and prudent alternative. If no such alternative exists that avoids the use, then the agency must employ all possible planning to minimize harm to historic sites (and other property types) resulting from use of the properties by the project. If impacts cannot be avoided, then they must be minimized and mitigated. The level of mitigation would be directly related to the scope of the project and of the impact to the site. FHWA, in coordination with the State Historic Preservation Officer – in this case Maryland Historical Trust - make the determination regarding whether the project has met the requirements for Section 4(f). The MOA that will be developed for these impacts will be signed by FHWA, SHA, MHT and MNCPPC (see Attachment 12).

Table 2: SHA's summary of environmental and cultural resource impacts for Alternatives 7M & 8B

Environmental Resources	*Alternative 7M Adjusted*		*Alternative 8B Modified*	
Wetlands (acres)	*2.02*		*1.74*	
Streams (linear feet)	*2033*		*2214*	
100-year floodplain (acres)	*4.17*		*1.98*	
Forest cover (acres)	*19.14*		*17.87*	
Archaeological site (square feet)	**1593*		*	
Historic District (acres)	*0.68*		*0.79*	
Parkland	*9.57 (LOD based)*	*11.14 (Proposed ROW/easement based)*	*9.19 (LOD based)*	***10.70 (ROW based)*
M-NCPPC No-Touch Zone (acres)	*0.91*		*1.1*	

***** *The impact is for fill in the archeological site. No excavation in the area. Both options will impact the mill race but the impacts have not been defined for either option because the limits of the mill race have not been identified.*

***This number is interpolated from the ratio obtained from Alt. 7M Adjusted.*

Staff Note: The values in the above table were provided by SHA but cannot be verified by staff at this time because no complete set of plans that reflects all proposed work has yet been submitted. We believe though that the preliminary profile used by SHA to determine the impacts from Alternative 8B is far from optimized, as noted above, and the impacts on parkland and the "no-touch zone" would be less than what is shown.

One concern raised about a bridge spanning Brookeville Road is that it would have an adverse visual impact on the historic district, but no renderings were available until recently to make a reasonable assessment. Renderings for both alternatives under consideration were included as part of SHA's 6/2/16 submission to MHT (see Attachment 13). Staff's assessment is that the long bridge over Brookeville Road would not present a visual detriment to the historic district. On the contrary, the proposed design with a roundabout that is raised above the existing grade of Brookeville Road would present a larger adverse impact on the view from the historic district by changing Brookeville Road east of the roundabout, and by blocking the view of the remaining intact road west of the roundabout.

Alternative 8B is the only one that would keep both roads at the northern end of the town of Brookeville – Brookeville Road and Georgia Avenue – intact, preserving the historical approaches to this market town. Alternative 8B - which bridges Brookeville Road and Reddy Branch and places the northern roundabout instead on Georgia Avenue - would result in multiple positive outcomes including:

- reducing parkland impacts;
- reducing impacts to the Western Reddy Branch Biodiversity Area;
- reducing forest impacts;
- reducing wetland impacts;
- eliminating impacts to the Newlins Mill race;
- enhancing the experience of the trail connection between the town of Brookeville and Oakley Cabin historic site;

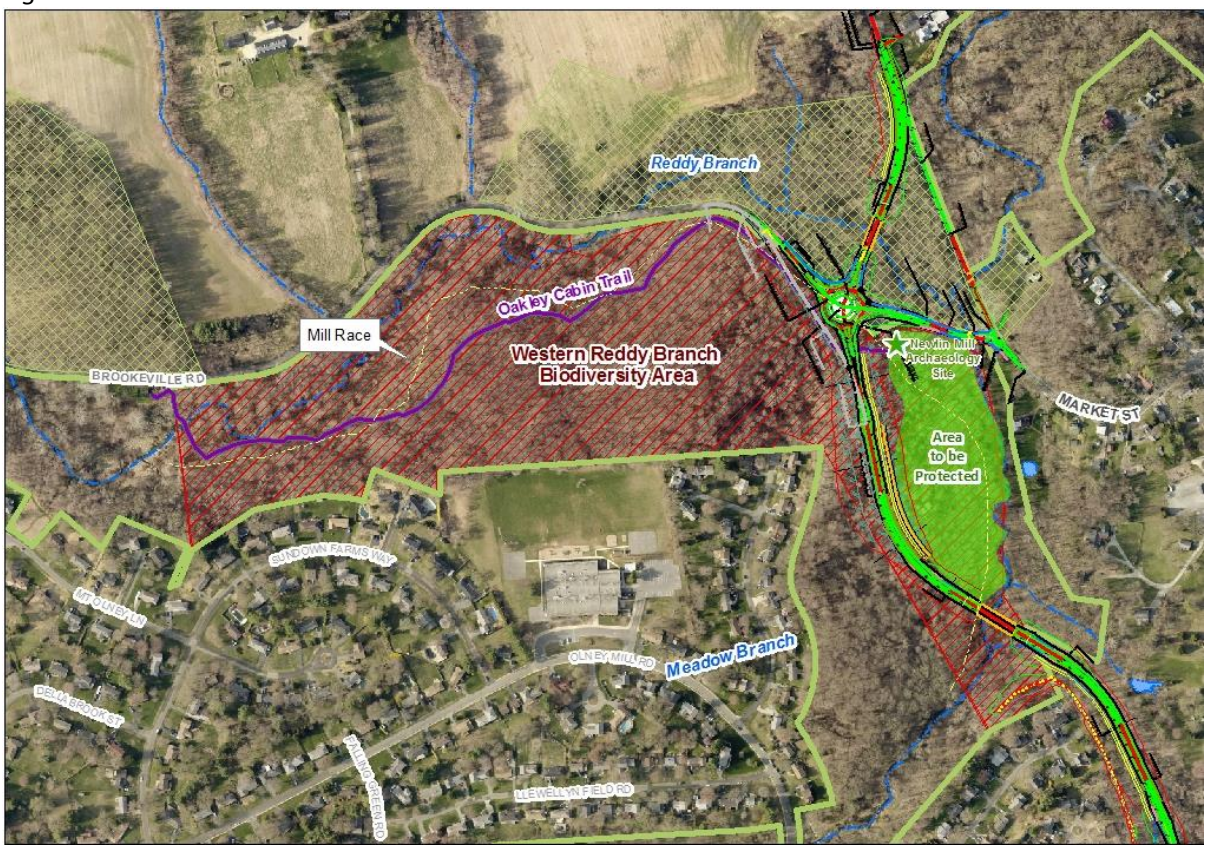
- reducing the impact to the rural/rustic nature of Brookeville Road;
- retaining both Brookeville Road and Georgia Avenue as historic connections to the town of Brookeville

Parks and Environmental Impacts

Western Reddy Branch Biodiversity Area/No-Touch Area

Brookeville Bypass will cut through a significant portion of the Western Reddy Branch Biodiversity Area (Figure 3). Park Biodiversity Areas are classified as areas of parkland which contain any one of the following; Areas of contiguous, high quality forest and/or wetland which show little evidence of past land-use disturbance; Rare, threatened, endangered, or watch-list species; Exceptional examples of notable plant community types found in Montgomery County; and/or Areas of exceptional scenic beauty.

Figure 3.



Because the road is proposed to cut through this forested area, impacts do not only result from actual forest loss, but also from 'edge effect' resulting from forest fragmentation that creates isolated patches with deleterious impacts on the remaining forest fragment. These impacts can be abiotic (i.e. changes in the environment), direct biological effects (i.e. changes to the abundance and distribution and survival of species due to direct physical conditions near the edge such as desiccation, wind throw and non-native invasive plant species), or indirect biological effects (i.e. changes in species interactions such as brood parasitism, predation, and seed dispersal).

No Touch Area

The Department of Parks is committed to the construction of the new road while minimizing the impacts to this environmentally sensitive Park as much as possible. To that end, in lieu of trying to protect the entire 55 acres of this Biodiversity Area, which cannot be achieved with implementation of this project, Parks decided to focus efforts on only the very best portion of this special setting that can be protected. Therefore, as soon as the project restarted, Parks conducted field investigations and determined that there was a 5.5-acre area on the east facing slope and extending down to Meadow Branch stream that had the highest quality forest, and warranted special protection measures. This is also the forested area that provides a natural barrier between the bypass and the Town of Brookeville. It is within this 5.5-acre polygon (named the '*No Touch'* area*)* that Parks has focused its efforts towards reduction of the project Limit of Disturbance (LOD).

Despite modest impact reduction measures to date SHA is still proposing to impact over half an acre within the '*No Touch*' area. While we don't believe that impacts to this area can be completely eliminated without constructing massive retaining walls, Parks believes that cost-effective LOD reducing measures can be implemented to further reduce the area impacted with the current road alignment. Examples include:

- The current design for the bridge abutments for the Meadow Branch structure does not include tieback retaining walls to contain the fill for the approaches. Instead, the current design proposes a significant amount of fill into the *No Touch* area. By utilizing retaining walls for the bridge abutments, SHA can realize an approximate 60' impact reduction to the No Touch area which equates to saving at least 10 significant trees between 20 – 30" diameter -at-breast-height (dbh) and over 24 trees under 18" dbh, all within the stream buffer.

- The proposed erosion and sediment control (E&S) measures include temporary earth dikes and swales to divert the runoff during construction, which create a wider footprint along the edges of grading. By replacing these controls with diversion fences and other measures, we believe SHA can reduce impacts along the entire length of the No Touch area by 10'-15'.

While SHA has repeated stated at several project meetings that they intend to incorporate further impact reduction measures with this project, they have yet to identify potential measures and have recently raised doubts as to their level of commitment to such efforts. SHA has formally submitted for Technical Review through the Park Permit process and Park Development Division staff will be conducting a detailed review of the submitted plans and will work with SHA to determine appropriate LOD-reducing measures can be incorporated into the design. **However, we feel it is important for SHA to commit to this effort before the design develops further.**

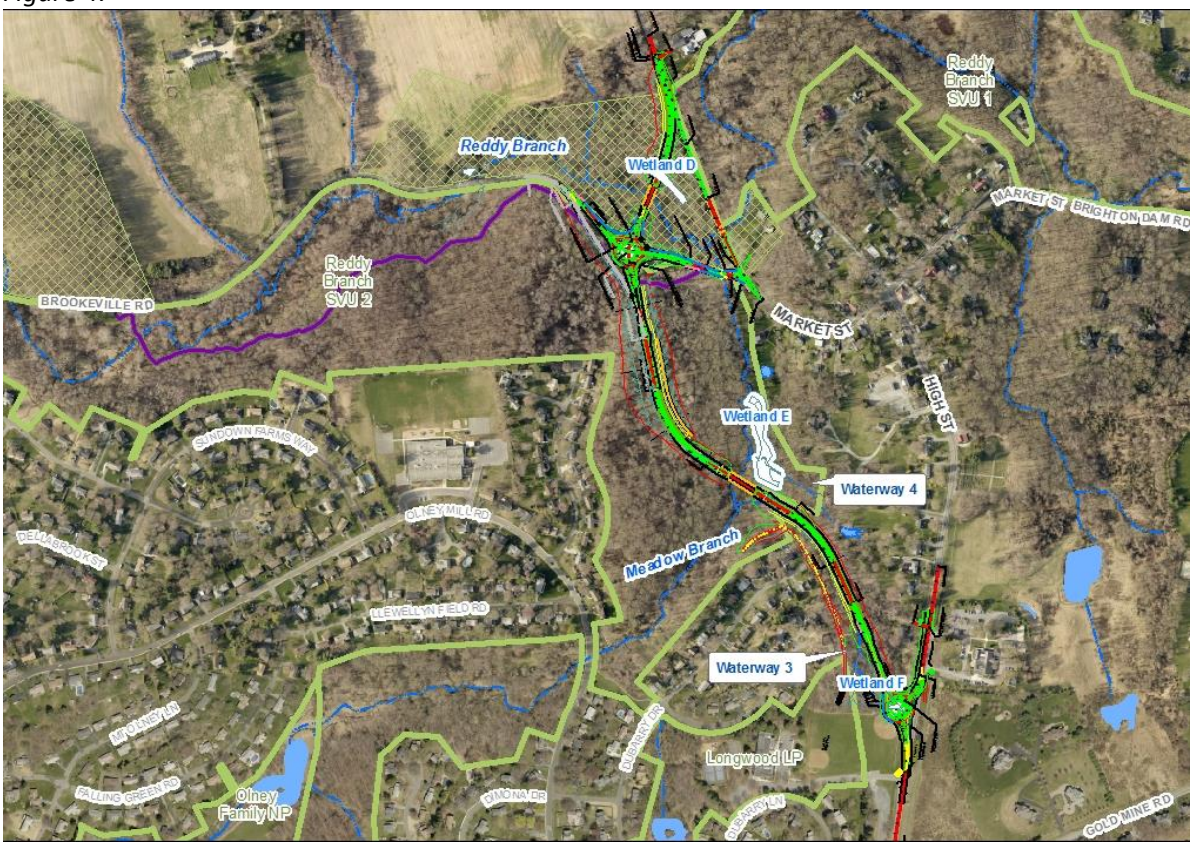
Stream and Wetland Impacts

There are four (4) streams and tributaries that will be impacted or crossed by this project (Figure 4). The first is an intermittent unnamed tributary (waterway 3) that originates as a wetland near the northern edge of Longwood Local Park and flows within the existing Montgomery County ROW into Meadow Branch, a tributary to Reddy Branch, on parkland. Sections of his tributary are proposed to be piped, rather than relocated from its location directly under the proposed alignment. The second is a perennial unnamed tributary (waterway 4) that flows from the vicinity of an old farm pond into parkland, before confluencing with Meadow Branch. The third is the mainstem of Meadow Branch, which is proposed to

be crossed with a 120-foot span bridge, and the fourth is the main stem of Reddy Branch which is proposed to be crossed with a 120-foot span bridge.

There are also three (3) jurisdictional wetlands proposed to be impacted by the project (Figure 4). The southernmost wetland (wetland F) is a forested wetland predominantly within the existing ROW for the road adjacent to Longwood LP. Impacts to this wetland will likely be unavoidable due to the narrowness of the ROW in this area; however, we believe that LOD reduction measures could limit those impacts. Wetland E is on parkland on the right bank of Meadow Branch. This wetland is of higher quality than wetland F and is both groundwater and streamflow fed; and impacts to this wetland can be virtually eliminated by incorporating a retaining wall into the southeastern abutment for the Meadow Branch bridge structure. Wetland D is located on future parkland on the north side of Reddy Branch bridge structure, and the proposed design will impact almost the entire wetland.

Figure 4.



Meadow Branch Stream Crossing of the Bypass

As Brookeville Bypass enters parkland, it will cross over Meadow Branch, a larger tributary to Reddy Branch with a 120'(+extension) span bridge. As previously stated, the current design of this bridge does not include retaining walls on either side, so SHA is proposing significant fills to support the roadway beyond the bridge structure. As stated before, utilizing a retaining wall with the northwestern abutment will provide significant reductions to the *No Touch* area. On the southeastern stream bank, there are both a sanitary sewer line and a sanitary force main that runs parallel to Meadow Branch under the proposed abutment. While SHA is proposing to

extend the bridge span on the southeastern side in order to avoid impacting the sewer force main, it is still unclear if the gravity sewer line and/or the force main will still need to be relocated. By eliminating bioswale facilities in this area, extending the length of the bridge, and keeping to the currently proposed LOD, SHA had already taken measures to avoid impacting wetland F; however, relocated the sewer lines has the potential of significantly impacting the stream and wetland F. **If one or both sewer lines are required to be relocated, Parks will require the associated plans be reviewed and approved prior to transfer of the land to SHA and prior to approval of the Park Construction Permit.**

SHA's design proposes construction access across Meadow Branch, which will involve a temporary stream crossing and numerous erosion and sediment control measures both within the stream and along the banks. Because SHA will be impacting the stream channel throughout construction, they will need to stabilize and restore this stream reach upon construction completion. Parks raised this need to SHA throughout the review process, but we have yet to receive a stream restoration design for this section of stream, and **Parks will require these plans be reviewed and approved prior to transfer of the land to SHA and prior to approval of the Park Construction Permit.**

Meadow Culvert Replacement Under Brookeville Road

SHA will be replacing the existing corrugated metal culverts that convey Meadow Branch under Brookeville Road as part of this project because the existing infrastructure is deteriorated. While they do show an LOD to provide room to do this work, **Parks has yet to receive a design for this culvert replacement and associated stream work and will require these plans be reviewed and approved prior to transfer of the land to SHA and prior to approval of the Park Construction Permit.**

Reddy Branch Stream Crossing of the Bypass

The Reddy Branch crossing is planned to be built from both sides of the stream, with only limited LOD across the stream. Because no construction access is proposed across the stream channel, and SHA has committed to not disturbing this channel at all (there is only a narrow LOD shown across the channel area), there is no channel restoration proposed. **However, if it is determined through detailed design that construction access (i.e. for abutment construction, stream crossing, staging, etc.) is required within 25' of the top of bank, then post-construction stream channel restoration will be required.**

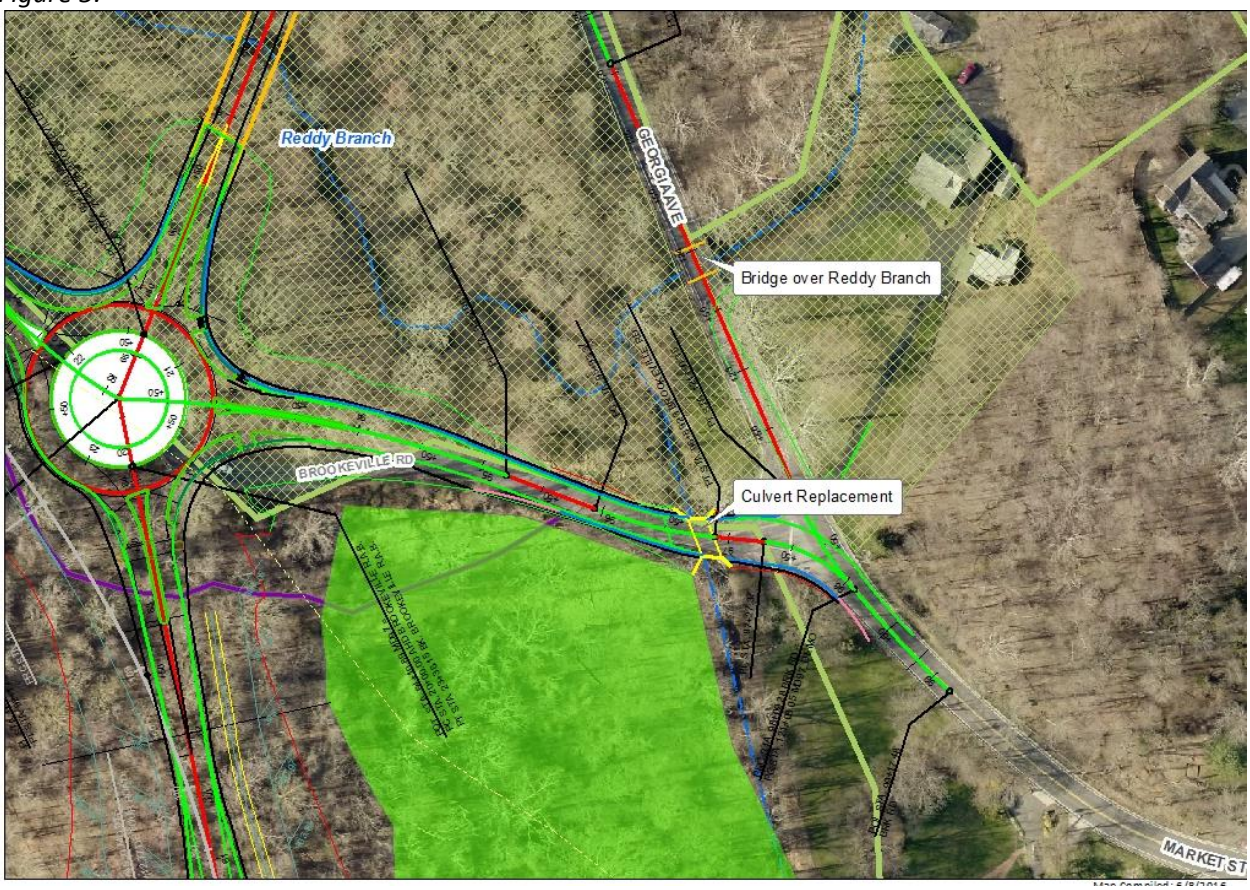
Other LOD Reducing Measures

The Current design for the road includes a noise wall from Longwood Park along the western edge of the ROW. When the noise wall crosses onto parkland, it is proposed to turn west along the rear of the houses along Dubarry Drive. It is Park's regular practice to require noise walls intended to protect private properties to be built on or directly adjacent to the property line. This practice not only limits the amount of impacted parkland, but it also limits the amount of public land that is isolated on the other side of the wall. These resultant areas are functionally disconnected from the Stream Valley Park, virtually impossible to maintain, and result in the 'giving away' of parkland by expanding the perceived back yards of these residents. The current proposal shows the noise wall up to 80' from the property line, requiring significant disturbance into the forested stream buffer.

Existing Maryland 97 Bridge over Reddy Branch removal

Currently, Georgia Avenue crosses Reddy Branch via an approximately 80-year old, 25'-30'-span bridge structure. The current plans show a 'decommissioning' of Georgia Avenue from its existing intersection with Brookeville Road north to its proposed realignment as part of this project. A portion of the existing asphalt road (12' min. width) will need remain to provide access to the Yinger property driveway south of Reddy Branch. Also, a reinforced access route will be required to provide access to a proposed underground stormwater management facility north of the stream (Figure 5).

Figure 5.



The remainder of the existing asphalt will be removed with this project. Directly adjacent to this section of Georgia Avenue is a portion of property currently proposed to become parkland, which is included in the park mitigation package for this project. Originally, the plan for this section of Georgia Avenue was to remove the asphalt (with the exception of the above locations) as well as the bridge decking and abutments. SHA later proposed to remove the bridge decking but to keep the abutments in place. However, Parks believes that leaving in the old abutments intact will create a safety hazard, while continuing the stream impacts created with the original construction. Parks proposed a compromise that they can leave the lower portions of the abutments in place (up to approximately 2' above the streambed) with localized in-stream and bank stabilization to avoid flanking the remaining infrastructure. It is a compromise to our usual practice of removing infrastructure top a minimum of 24" below finished grade.

In-stream design work, sheer stress is defined as the force exerted by water on the stream bed and banks per unit area for a given storm event. Because the existing bridge over Reddy Branch is severely undersized, it creates a backwater effect along the upstream portions of Reddy Branch during most rain events. Because the water is not allowed to flow freely with the bridge in place, the upstream areas pond, resulting in artificially lower sheer stresses on the banks and the streambed. Once the bridge is removed and the stream is allowed to flow freely, the sheer stresses will inevitably increase because it will go from an artificial restricted flow to its more natural flow condition. COMR requires that if a project increases the sheer stresses for a stream reach by more than 10%, the applicant is required to mitigate for that increased stress on the channel with stream restoration through the area of the influence. When this bridge (even just the decking) is removed, then the sheer stresses upstream of the bridge would increase by more than 10%, and SHA would be required by MDE to include this associated stream stabilization work in their project. Soon after MDE raised this requirement during the review process, SHA changed their design and insisted on leaving the bridge in place and abandoning it for vehicular access.

The Department of Parks is strongly against this proposal for the following reasons:

- The Department of Parks has inherited a number of abandoned bridges/culverts (by MCDOT and SHA) on parkland that are not only stream impacts but are dangerous and a public nuisance.
- These abandoned bridges are safety hazards that Parks spends time and money to keep people off of and ultimately attempts to remove them. In practice, they are not maintained and most are crumbling into the stream.
- The current MD97 bridge over Reddy Branch is an SHA bridge and if its transportation purpose cease to exist, they need to remove it as legacy infrastructure. Any mitigation required by the State of Maryland for those impacts should be incorporated into this project.
- If the Brookeville Bypass is constructed and the bridge abandoned, the Department of Parks will own the adjacent property upstream of the bridge. Since this bridge is approximately 80 years old, and it will eventually be removed (either as a planned project or as the result of a major storm event), the resulting stream instability will occur on Park property. If SHA is not willing to pay for the removal with this bond funded project, Parks would be uncomfortable with any assurances given that they will come in and do it at a later date using direct tax revenues.

Parks (and other resource agencies) have made its position on the bridge removal clear to SHA, so SHA then suggested that they will commit to the completion of an advanced geomorphic study of Reddy Branch in the vicinity of the existing MD 97 Bridge and use those data in conjunction with input from the resource agencies (e.g. MDE, DNR, USCOE, MNCPPC, and EPA) to collectively make a decision on whether or not to remove the bridge. However; in this proposal, no work on the bridge would be included in the scope of the Brookeville Bypass project.

Parks is uncomfortable accepting SHA's suggested commitment to simply study Reddy Branch, rather than committing to concrete actions. We believe that Parks, the resource agencies, and SHA have studied the reach sufficiently (SHA's stream restoration consultants for this project produced a 'Detailed Geomorphic Report') to understand how the stream will react to the bridge/culvert work, and that there is enough information available now to warrant the development of a preliminary design for the bridge removal and associated stream channel stabilization. Fish and Wildlife Service issued a letter to SHA supporting the removal of MD 97 bridge over Reddy Branch (see Attachment 14). The removal of this bridge was originally within the scope of this project, so we believe that it should have been accounted

for in the budget for the road. Parks and the resource agencies are willing to work with SHA to develop reasonable stabilization extents (not expected to exceed to original study area) and concept design. Furthermore, we do not want to delay the construction of the road due to this requirement. Therefore, we believe it would be reasonable for **SHA to state their intention to removing the bridge and abutments per Parks' proposed compromise, commit to having a concept design completed prior to the project's NTP, obtain permits for restoration work prior to 50% road construction completion, and to completing the bridge removal work and associated stream stabilization within 6 months of the Bypass opening to traffic.**

Newlin's/Down's Mill Archaeology Site (18MO368)

The Newlin's Mill archaeological site is located on the west side of Brookeville Road, near the intersection with Georgia Avenue (Figure 3). It is currently the only archaeological site that Parks owns that has been determined to be eligible for the National Register as an archaeological site under Criterion D, and is unique in Parks' inventory. Newlin's Mill is one of two water-powered mills that book-end the town of Brookeville. Thomas Mill was a grist mill located on the eastern side of the town, next to the Madison House. Originally constructed between 1794-1800, Newlin's Mill produced castor and linseed oil for the community in the early 19th century, and later, by 1850, was grinding clover and grain, as well as adding an up-and-down saw to process lumber. Oral history indicates that a tannery was also located within the mill complex. The mill was an integral part of the success of Brookeville as a rural industrial center in the 19th century, and is an essential part of the town's story. Newlin's Mill was no longer operating by 1900, and the property has changed little since that time.

The Newlin's Mill site was investigated during the initial phases of this project, as required under Section 106 of the NHPA. The work included Phase I (Identification of the presence of an archaeological site) and Phase II (evaluation for inclusion in the National Register). The Newlin's Mill site was determined to be eligible for inclusion on the National Register, under Criteria A, C, and D, and is also a contributing resource to the Brookeville Historic District. The archaeological components of the site include seven main features – a mill platform, a stone well, the foundation of the mill worker's house, a wheel pit, the headraces, a C-shaped mound (likely a control gate for water management), and a stone retaining wall. The headraces supplied a consistent water supply to power the mill wheel, and are comprised of a large race and a small race. The large race begins at a no-longer extant mill pond at Oakley Cabin and runs roughly in line with Brookeville Road until it terminates at the mill site. The large race is mostly intact and clearly visible. The small race paralleled Meadow Branch on the south side of the site, and both the mill pond and the small race have since been eroded or damaged. The archaeological work at this site demonstrated that the various deposits and features are intact and have the potential to contribute to our understanding of the industrial economic development of the Brookeville area throughout the 19th century.

SHA's proposed alignment will have adverse effects to Newlin's Mill. The proposed LOD encompasses an 800-foot long section of the large race. SHA is proposing to fill over that section of the race to provide for a foundation for the bypass and roundabout which will result in a permanent forfeiture of access to the race and a significant diminishing of the setting of the site and therefore a permanent loss of the site's integrity. In addition, the current plans indicate that the LOD along Brookeville Road encroaches into the No-Touch Area established by Parks. **If final plans for the road are shown to have any impacts to the Newlin's Mill archaeology site within the No-Touch area, plans will be required to be reviewed and approved by Park staff prior to transfer of the land to SHA and prior to approval of the Park Construction Permit. Additionally, details on how the filling of the race will occur and what measures**

SHA proposes to use to protect the site during this process will need to be reviewed and approved by Parks staff.

Mitigation for Newlin's Mill

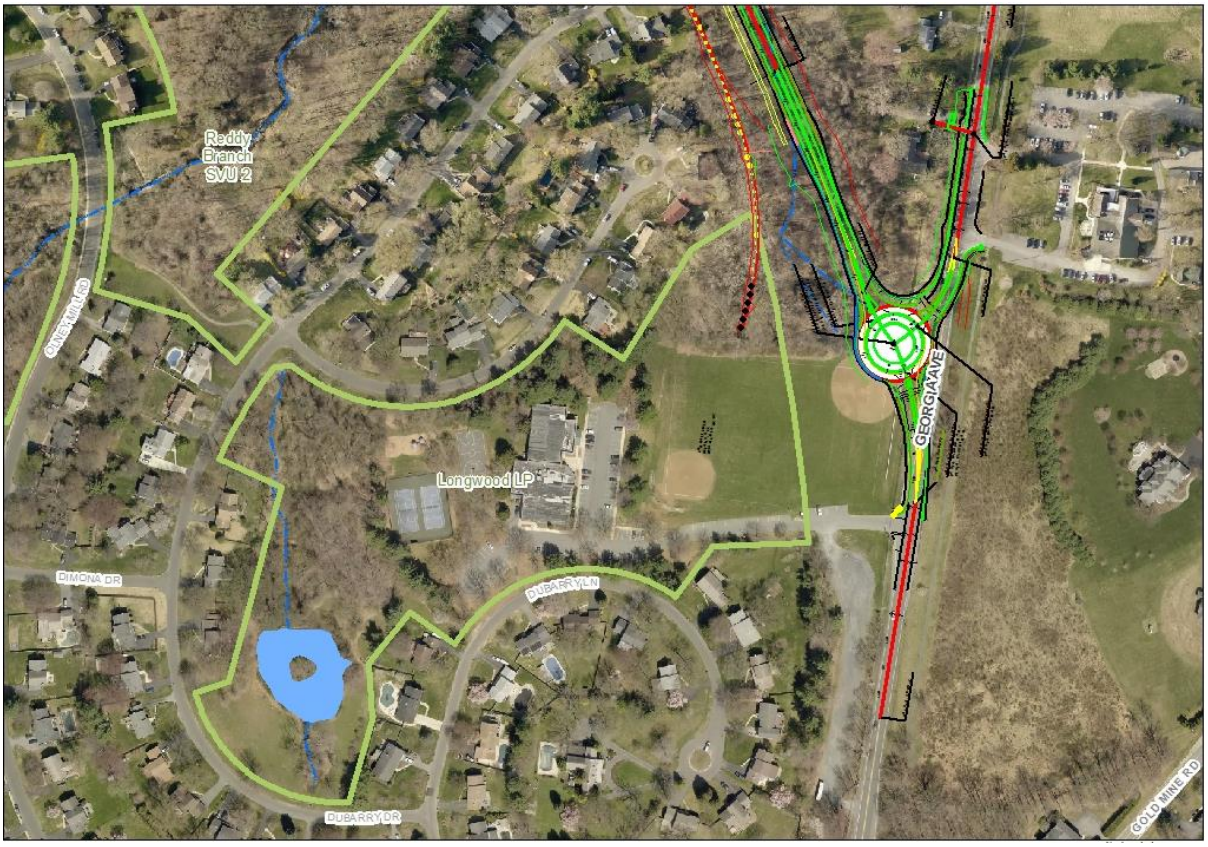
Mitigation for the known impacts to the race will involve two main components – signage and a walking trail map/brochure on the history of milling and transportation in the historic town. SHA is proposing to place two interpretive signs within the site area and along the Oakley Cabin Trail. In addition, Parks has requested that SHA develop a walking trail with accompanying material (pamphlet and website) that explores the history and industrial archaeology of Newlin's Mill and its relationship to the town of Brookeville. SHA will use QR codes to link to additional material on a website that visitors can access using a smartphone. **Any ground-disturbing work that will occur within the No-Touch Area for the archaeological site will require monitoring by an archaeologist qualified under the Secretary of the Interior's Standards for Archaeology.**

Section 4(f) regulations require avoidance unless there is no feasible alternative. If the adverse effect to the site is unavoidable – including impacts to the headraces – SHA is required to minimize those effects and mitigate the remaining adverse impacts of their project. Once the extent of the impacts are known, SHA will develop an MOA outlining the mitigation agreement, with Montgomery Parks as a Consulting Party signatory. In order to sign the Memorandum of Agreement for Section 106, Parks expects that SHA's staff will develop detailed content on the history of milling and transportation in the Town, based on both archaeological and historical research, in coordination with Parks staff. One of the elements will include a virtual reconstruction of the Newlin's Mill complex.

Longwood Local Park Impacts

Longwood Local Park is a 10-acre park acquired by M-NCPPC in 1975 and built in 1981. Amenities within the park include; a playground, two diamond fields, one soccer overlay field, two tennis courts, a basketball court and Longwood Community Recreational Center (Figure 6). Prior to the Department of Parks acquiring the park, Montgomery County acquired a ROW along Georgia Avenue in preparation for the future Brookeville Bypass. The large diamond field #2, a portion of the soccer overlay field, portions of the entrance road and a large gravel parking area lie within this ROW. The current LOD for construction of the roadway, SWM facility, and southern roundabout will eliminate the adult diamond field (#2), and the soccer overlay.

Figure 6.



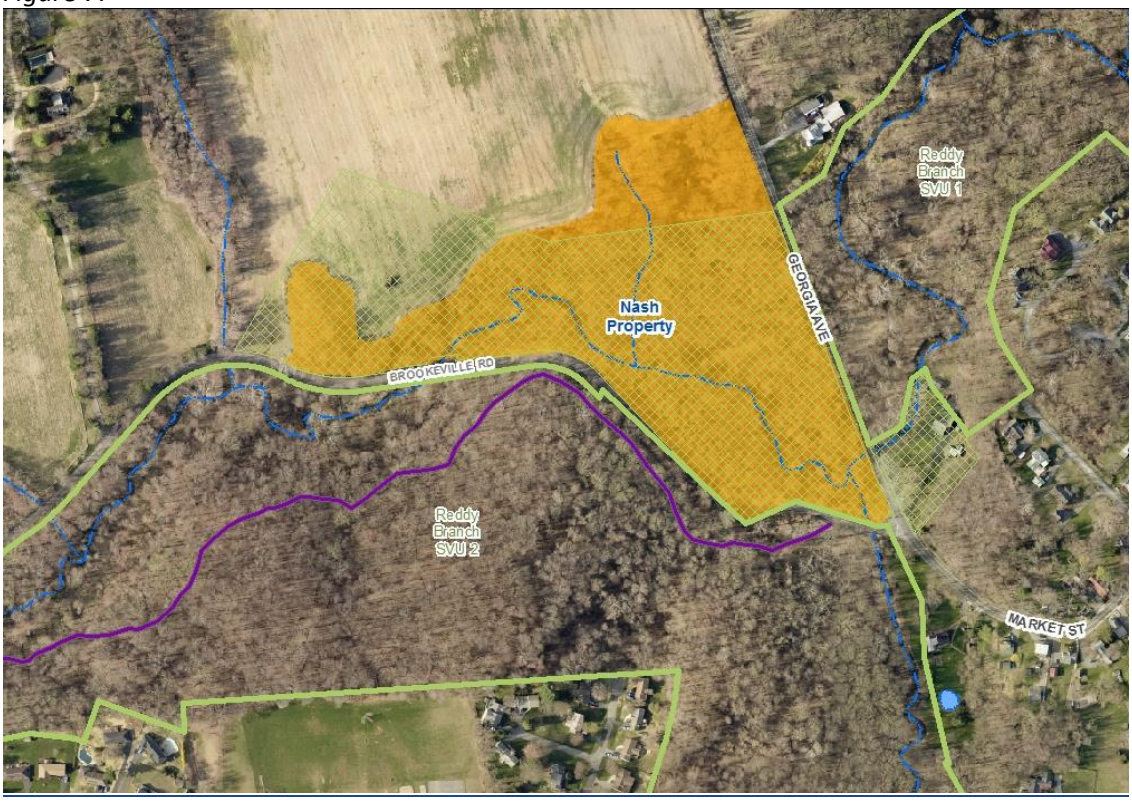
In mitigation for the loss of the large diamond field and the soccer overlay, SHA will convert the existing youth diamond field into an adult diamond field. SHA is also proposing to relocate the field west slightly and adding a fence and warning track to separate players from the new pond. **All construction of the infield, access routes, grading, and turf establishment shall be subject to Technical Review and Park Permit issuance. SHA will need to work with the Department of Parks, CUPF, and the Department of Recreation to determine timing of field closures and protection of construction areas while not conflicting with park and recreation center users.**

Parkland Mitigation Package

In 2002, the Planning Board stated that SHA needs to work with M-NCPPC to develop a mitigation strategy for parkland and wetland impacts. As was the case then, Parks still require that SHA replace land taken for this project at equal or greater natural, cultural and/or recreational value. Following the

2002 Planning Board item, SHA sent a letter to M-NCPPC requesting concurrence of the assessment of impacts to park property and associated mitigation. In it, SHA stated, "SHA will coordinate with M-NCPPC and the Maryland Department of Natural Resources to identify suitable replacement land of equal or greater natural resource and economic value for the [then] estimated 5.62 acres of public parkland. SHA will acquire all replacement park properties during the design phase of the project and will complete the transfer prior to construction." Identification of parkland mitigation sites was not finalized at that time because the project went dormant soon after. After analyzing the currently proposed impacts to parkland from this project, the impacts are now roughly 12 acres – more than double the impacts first assumed. Parks has worked with SHA and determined two sites for parkland mitigation. The first is the Nash property which includes approximately 18 acres and a portion of the mainstem of Reddy Branch currently not under park stewardship (Figure 7). This parcel of land is Board approved potential parkland included in the Olney Master Plan and designated as a Legacy Open Space Natural Resource.

Figure 7.



The second is the Becker property and is approximately 18 acres and connects Rachel Carson Conservation Park to Rt. 108 and has high quality forest resources (Figure 8). SHA is currently finalizing acquisition of these two parcels.

Figure 8.

It is important to note that the creation and approval of a parkland mitigation package does not imply that the Department of Parks accepts the level of impacts to parkland currently shown on SHA's plans. We will continue to work with SHA to ensure that the road is built on schedule but will continue to insist on the impact reducing measures we have been asking for since the project was re-started 2 years ago. It is the long standing policy of Parks and the Planning Board (via the 'Policy for Parks') to first work to avoid impacts, then to minimize them if avoidance is not possible, and last to mitigate for impacts that can't be minimized.

Outreach

A public meeting for this project was held on September 29, 2015 that was attended by approximately forty people; the substantial majority of those who expressed an opinion were for the project. One notable topic was brought up at the meeting by several people who live on Dubarry Drive and Rena Court, west of the proposed bypass, i.e. not in the Town of Brookeville. Several of the homes in this neighborhood reportedly don't have basements because of bedrock near the surface and the residents were worried that the blasting required for the road excavation would affect their properties.

Following the creation of the alternative that would include the closure of Brookeville Road, SHA held another public meeting for this project on February 26, 2016 to provide them an update on the change and to solicit comments. The meeting was attended by approximately 50-60 people in addition to public agency staff and consultants.

The first portion of the meeting was held at individual stations at which plans were mounter on poster boards and people could ask questions of staff. Then a formal public presentation was made and questions/comments were heard from people in the audience. During that Q&A, we did not hear

anyone who spoke in support of closing Brookeville Road. By contrast, there were several comments clearly saying that people did NOT want the town to be cut off and complaining that it would make east-west travel more circuitous and there was concern expressed that the closure of Brookeville Road would be a significant change to the town's legacy.

There were also a couple of comments at the meeting against the proposed roundabouts, saying that they don't accommodate traffic very well other than cars and small trucks, and that they would create safety issues for large trucks and trailers with farm equipment. In a side conversation with SHA staff, they said that they will discuss potentially eliminating at least the northern roundabout with the Smart Growth committee as a condition for the SG waiver, and seemed to agree with me that representatives of the current administration probably don't care that much about SG requirements, i.e. that a request for deleting this requirement would likely be successful.

One woman noted that noise walls are proposed for the properties on the hill west of the bypass and asked what was proposed for the properties east of the bypass who front on Georgia Avenue and in the future will have traffic both in the front and back. She said that when this project was discussed several years ago, there seemed to be an agreement to provide berms behind these homes. The SHA project manager said that there would be drainage swales separating the bypass from backyards. There wasn't really a fully responsive answer to this concern, but I don't recall any proposal to do any noise walls or fencing and will follow this up with SHA.

Someone asked when the Army Corps of Engineers (ACE) report will come out. SHA said that it usually takes a year to get a permit for wetland and stream impacts. **ACE's public hearing on this project is currently scheduled for August 4, 2016 at 5:30 pm at Rosa Parks Middle School, 19200 Olney Mill Road, Olney**, **Maryland 20832.**

SHA maintains a webpage with information about the project:
http://apps.roads.maryland.gov/WebProjectLifeCycle/ProjectInformation.aspx?projectno=MO7462115

The Town of Brookeville maintains a webpage that gives the history of the project and reflects our understanding of a high level of support in the town:
http://townofbrookevillemd.org/about/brookeville-bypass/

Conclusion

The current design of this project has greater impacts than were anticipated when the project went on hiatus more than a decade ago. Because the project has been operating on a tight schedule since its restart in 2014, the SHA design team has been very reluctant to reconsider whether a bridge over Brookeville Road better meets the project's goals than the current design that includes a roundabout at Brookeville Road. A preliminary study of the bridge alternative was done fairly quickly after the Board's review in April 2015, but the results were only delivered with the Mandatory Referral submission in April 2016. The long delay negated staff's main purpose for holding last year's review, which was to get the concept squared away before discussing the details of the project.

This County priority project has a long history and we believe that it should be constructed in the near term. Residents of the Town of Brookeville have expressed concerns since the restart of this project in 2014 that any delay could jeopardize the project, to which SHA has responded that this project is a priority of the Governor and the funding will not be pulled.

We believe that the bridge alternative still has merit but that SHA should be allowed to proceed with their current design as long as the latter is improved to reduce parkland impacts. This project is intended to protect a historic resource, the Brookeville Historic District, and will in turn be in place for a very long time. The decision on whether this project's design adequately protects that historic resource lies most clearly with the Maryland Historical Trust and with the Federal Highway Administration.

From a park stewardship standpoint, we believe that these interests can best be served via the requirements of the Park Construction Permit after a more detailed review of the final plans is performed.

List of Attachments

1. Olney Master Plan Recommendations on Brookeville Bypass
2. Follow-up letter to SHA from Planning Board's April 30, 2015 Review
3. MD97 Brookeville Project Record of Decision (2004)
4. FEIS excerpts
    a. Purpose and Need Statement
    b. Environmental Impact Summary
5. Correspondence Between SHA and MHT
    a. SHA letter to MHT dated October 8, 2015
    b. SHA letter to MHT dated February 5, 2016
    c. Maryland Historical Trust response dated April 5, 2016
    d. SHA letter to MHT dated June 2, 2016
6. SHA's 2016 Summary of Impacts for Alternative 7M Adjusted (proposed alternative) and Alternative 8B Modified (with bridge over Brookeville Road)
7. Town of Brookeville Comprehensive Plan Recommendations on Brookeville Bypass excerpt
8. Rustic Roads Master Plan Recommendations on Brookeville Bypass excerpt
9. MD97 Brookeville Project Smart Growth Package (2013)
10. Traffic Analysis dated May 23, 2016
11. MD97 Brookeville Bypass DEIS Recommendations
    a. Staff memo dated September 13, 2002
    b. Planning Board follow-up letter dated October 7, 2002
12. Draft Memorandum of Agreement between the Federal Highway Administration, the Maryland Historical Trust, the Maryland State Highway Administration, and M-NCPPC
13. Renderings of the Proposed Alignment with a Roundabout at Brookeville Road (Alternative 7M) and of a Bridge over Both Brookeville Road and Reddy Branch (Alternative 8B)
14. Letter from the US Fish and Wildlife Service dated April 20, 2016

3. **Facilitate pedestrian circulation across the intersection. Particularly maintain pedestrian-friendly access between the commercial uses in the Northwest Quadrant and the other three quadrants.**

Norbeck Road

The 1994 Aspen Hill Master Plan envisioned an improved Norbeck Road between Georgia Avenue and Layhill Road as a four-lane divided highway within the 150-foot master planned right-of-way. The State Highway Administration is currently conducting the MD 28/MD 198 Corridor Study, a project planning study, which incorporates this section of roadway. This Plan supports the 1994 Aspen Hill Plan's vision for this roadway as a "green corridor" with control of access maintained by the use of service roads where feasible. A shared-use path should also be constructed along the north side of Norbeck Road to complete path connectivity and provide access to East Norbeck Local Park. Service roads, where feasible along the north side of Norbeck Road, can also function as a shared-use path.

Brookeville Bypass

Georgia Avenue passes through the Town of Brookeville and, as the major north-south highway, carries large volumes of traffic. The Average Daily Traffic (ADT) volume is expected to increase from 9,000 vehicles per day south of Brookeville in 1995 to 18,000 vehicles per day in 2020. The proposed Brookeville Bypass extends approximately 2.5 miles along MD 97, Georgia Avenue, from Gold Mine Road to north of Holiday Drive. The bypass is intended to remove the north-south through traffic from the Town of Brookeville, improve traffic operations safety along MD 97, and preserve the historic character of the town.

The project is included in the Development and Evaluation Program of the FY 2001-2006 Maryland Department of Transportation's Consolidated Transportation Program for Project Planning. The State Highway Administration is currently in the process of developing a final alternative for the proposed Bypass. It completed the Draft Environmental Impact Statement for the MD 97 Brookeville transportation study in November 2001. During autumn 2002, the Planning Board and County Council stated their support for selection of Alternate 7 Modified, a western bypass of Brookeville consistent with the 1980 Olney Plan. This alternate is consistent with the land use and transportation goals of this Master Plan.

The State Highway Administration plans to provide funding for the Brookeville Bypass conditional upon Montgomery County's commitment to limit development outside Priority Funding Areas. This commitment has been expressed in the County's Annual Growth Policy and is reinforced by the recommendation in this Plan to reduce the ultimate capacity of Georgia Avenue to two through travel lanes and the planned right-of-way to 80 feet in width.

Recommendation:

Classify Brookeville Bypass as a Major Highway (M-8) with an 80-foot right-of-way and a maximum of two lanes for through travel, as well as the adjacent portions of Georgia Avenue south to Prince Philip Drive and north to Howard County.

Laytonsville Bypass

MD 108 passes through the Town of Laytonsville and carries a substantial amount of traffic. The Town, which has independent planning and zoning authority, has planned a relocation of MD 108 near its western boundary that would bypass its central business area. The route is similar to the concept displayed in the Olney Master Plan adopted in 1980.

Old Baltimore Road

Old Baltimore Road north and east of Georgia Avenue is classified as a primary residential street from Georgia Avenue to MD 108, and from there north to Gold Mine Road. While it is continuous and is called by a common name, these two segments are different in how they are used. The northern segment from MD 108 and Gold Mine Road (P-13) serves as a north-south collector road for the neighborhoods of far northeast Olney: Lake Hallowell, Christie Estates, James Creek, and Gold Mine Crossing. It is properly classified as a primary residential street, which means while it can accept some through traffic between MD 108 and Gold Mine Road, its primary purpose is to bring traffic into and out of these neighborhoods.

This cannot be said of the segment between Georgia Avenue and MD 108, which serves almost entirely as a through route for traffic coming from south of Olney to Sandy Spring, Ashton, and points northeast into Howard County. The average daily traffic (ADT) is above 9,000 today and will exceed 10,000 in 2025. Most of the major development along this segment of Old Baltimore Road—Hallowell—backs up to the road rather than fronting onto it. There are very few homes with driveways directly onto it.

Recommendation:

Classify Old Baltimore Road between Georgia Avenue and MD 108 as an arterial. However, retain the 70' minimum right-of-way and two through lanes.

Bowie Mill Road

Bowie Mill Road is a two-lane roadway that runs between MD 108 and Muncaster Mill Road. In much of the segment between MD 108 and Cashell Road, the homes fronting Bowie Mill Road are closer to the roadway, and speeding traffic is often observed. To be eligible for the installation of speed humps, this segment of Bowie Mill Road should be classified as a Primary Residential Street. However, this segment retains a significant through traffic function, and so the potential for through-traffic restrictions and truck prohibitions—which can generally apply to Primary Residential Streets—should not apply for this segment of Bowie Mill Road.

Attachment 2

MONTGOMERY COUNTY PLANNING BOARD
THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

May 20, 2015

Mr. Douglas Simmons
Deputy Administrator
State Highway Administration
707 N. Calvert Street, MS C-411
Baltimore, Maryland 21202

RE: MD97 (Georgia Avenue) Brookeville Bypass
SHA FMIS No. MO746M21

Dear Mr. Simmons:

At our regularly scheduled meeting on April 30, 2015, the Planning Board reviewed the current design for the above project and made the following comments:

1. We approve the use of the Reddy Branch SVU 1 site to meet Clean Water Act Section 404 compensatory mitigation requirements.
2. We look forward to your transmittal of the official Mandatory Referral request for this project in July 2015, as stated by your staff at the meeting.

Thank you for the opportunity to review this project and for your attention to this matter. If you have any questions or comments concerning our review, please call Larry Cole at 301-495-4528.

Sincerely,

Casey Anderson
Chair

cc: Huqin Zhang
Senator Karen Montgomery
Town of Brookeville

Attachment 3

Federal Highway Administration - Maryland Division Office

MD 97 BROOKEVILLE PROJECT
FROM SOUTH OF GOLD MINE ROAD TO NORTH OF HOLIDAY DRIVE
FINAL ENVIRONMENTAL IMPACT STATEMENT
AND SECTION 4(f) STATEMENT
MONTGOMERY COUNTY, MARYLAND

RECORD OF DECISION

A. DECISION

1. Purpose and Need

The MD 97 Brookeville Project proposes transportation improvements to MD 97 (Georgia Avenue) in the vicinity of the Town of Brookeville in Montgomery County, Maryland. The purpose and need of this project is to remove the continually increasing traffic volumes from Brookeville, improve traffic operations and safety conditions on existing MD 97, and preserve the historic character of the town. The project area extends approximately two miles from south of Gold Mine Road to north of Holiday Drive and includes the corporate limits of the Town of Brookeville which is the boundary of the Brookeville Historic District as listed in the National Register of Historic Places. A more detailed discussion of the purpose and need for the project can be found in Section I of the DEIS/FEIS.

2. Decision on the Selected Alternate

The Selected Alternate for transportation improvements is Alternate 7 Modified, which proposes a two-lane roadway on new location west of Brookeville and existing MD 97. Access points would occur at roundabouts located at Brookeville Road in the north, and at the southern termini just north of Gold Mine Road. The Selected Alternate will have a 40-mph design speed and an open typical section that will consist of two 11-foot travel lanes, 10-foot graded shoulders (5-foot paved), and safety grading. The proposed typical section for the Selected Alternate and the location of the Build Alternates considered including the Selected Alternate are provided in the FEIS on Figure II-1 and Figure II-2, respectively.

Alternate 7 Modified is selected as a result of post-DEIS coordination with resource agencies, including the Maryland Historical Trust (MHT) and jurisdictional officials and owners of impacted parkland (Maryland-National Capital Park and Planning Commission (M-NCPPC) and Montgomery County). Based on results of post-DEIS Phase II archeological reconnaissance, Alternate 7 Modified was developed to reduce impacts to the National Register eligible Newlin/Downs Mill Complex archeological site, located within the Brookeville Historic District south of Brookeville Road. Alternate 7 Modified is similar to the DEIS Alternate 7 alignment except that Alternate 7 Modified has been shifted approximately 30-40 feet in a westerly direction through the Reddy Branch Stream Valley Park. A retaining wall is proposed south of Brookeville Road and east of

the proposed roundabout to further reduce impacts to the Newlin/Downs Mill Complex site located within the Historic District. The proposed retaining wall would also minimize the use of Reddy Branch Stream Valley Park where the public park overlaps the Brookeville Historic District.

B. ALTERNATES CONSIDERED

A summary of the alternates considered is presented below. A detailed description of these alternates is presented in Section II of the MD 97 Brookeville DEIS and/or FEIS. All of the build alternates proposed a two- lane relocation of MD 97 with continuous five-foot paved shoulders. Both open and closed section roadways were evaluated for each alternate, and roundabouts were proposed at both the southern and northern termini to comply with Smart Growth criteria set forth for the project.

1. Alternate 1 *(not selected)*

Alternate 1 (No-Build) proposed no major improvements to the existing two-lane, undivided roadway, which has shoulder widths ranging from zero to five feet. The existing roadway has both horizontal and vertical deficiencies, which limit sight distance and compromise safety, and also includes a "T" intersection at Market Street, which increases traffic congestion. Alternate 1 (No-Build) is not selected because it does not satisfy the purpose and need of the project.

2. Alternate 5C *(not selected)*

Alternate 5C proposed a 2.1-mile long bypass on the east side of Brookeville. This alignment departed from existing MD 97 in a northeasterly direction near Gold Mine Road and rejoined existing MD 97 approximately 2,000 feet north of the proposed Bordly Drive. Alternate 5C was the longest and the most expensive alternate considered, but was retained in the DEIS because it avoided the use of property from within the Brookeville Historic District.

Alternate 5C is not selected because of substantially higher project costs, lack of public support, community impacts including five residential and one business displacement, greater woodland, and prime farmland soil impacts as compared to the Selected Alternate. The cost of Alternate 5C ($34.2 million) is nearly triple that of the Selected Alternate. Alternate 5C is the only alternate that impacted two public parks (Hawlings River Stream Valley Park and Reddy Branch Stream Valley Park) and bisected Reddy Branch Stream Valley Park to the east of Brookeville. It is also not compatible with the local comprehensive plans.

3. Alternate 7 *(not selected)*

Alternate 7 proposed a 0.7-mile long bypass on the west side of Brookeville. Alternate 7, designed for 40-mph, began at a roundabout located west of MD 97 and north of the Longwood Community Center. The alternate connected to existing MD 97

approximately 700 feet north of the intersection with Brookeville Road. Alternate 7 would cost an estimated $12.2 million.

Alternate 7 is not selected because it results in greater impacts to the Brookeville Historic District and the Newlin/Downs Mill Complex archeological site when compared to the Selected Alternate 7 Modified, which is similar to Alternate 7 except for a 30-40 foot shift to the west which minimizes impacts to the core of the archeological site.

4. Alternate 8A: Roundabout *(not selected)*

Alternate 8A proposed a 0.9-mile long bypass on the west side of Brookeville (west of Alternate 7), with a 40-mph design speed. It departed from existing MD 97 just south of the Longwood Community Center and headed in a northwesterly direction, passing through a roundabout at the same location as that proposed in Alternate 7. The alignment connected to existing MD 97 approximately 600 feet north of the intersection with Brookeville Road. The cost for Alternate 8A is $13.7 million.

Alternate 8A is not selected because of the lack of public support, greater cost and greater impacts to the natural environmental, cultural resources, and Reddy Branch Stream Valley Park when compared to the Selected Alternate 7 Modified.

5. Alternate 8B: Bridge *(not selected)*

Alternate 8B proposed a 0.9-mile long bypass on the west side of Brookeville (west of Alternate 7), with a 50-mph design speed. This alternate followed a similar alignment as Alternate 8A through the roundabout, then curving to the east, crossed Brookeville Road on a bridge approximately 600 feet west of the intersection with existing MD 97. It connected to MD 97 with a three-leg roundabout (one for the bypass and two for existing MD 97) located approximately 800 feet north of the intersection of Brookeville Road. The cost for Alternate 8B is $18 million.

Alternate 8B is not selected because of lack of public support, its higher cost, and greater environmental and cultural resource impacts when compared to the Selected Alternate 7 Modified.

6. Alternate 7 Modified *(Selected Alternate)*

Alternate 7 Modified is selected because it is consistent with state and local planning goals, minimizes most impacts to cultural, socio-economic, and natural environmental resources, and best meets the purpose and need of the project. It requires right-of-way from the fewest properties (11); impacts the least amount of prime farmland soils (4.5 acres); statewide important soils (1.6 acres); and requires only 9.0 acres of forest cover; 0.12 acres of wetlands; only slightly more encroachment on the 100-year floodplain (3.2 acres) than other alternates considered. While the Selected Alternate does impact more linear feet of stream than other alternates considered, it should be noted that the stream

mitigation requirements for this project would provide the opportunity to enhance several degraded portions of Reddy Branch within the park.

The Selected Alternate will not require residential or business displacements, and no individuals or families will need to be relocated. No minority and low-income populations were identified in the project area. One of two publicly owned public parks in the study area (Reddy Branch Stream Valley Park) would be impacted. The Selected Alternate is in close proximity to a currently active underground storage tank north of the proposed roundabout along MD 97. If impacted, formal Phase I and possibly Phase II studies would be warranted to investigate potential liability issues. Three noise sensitive areas, which include five residences, may require noise abatement.

Cultural Resources within the study area include the Brookeville Historic District, listed on the National Register of Historic Places, and Bordley's Choice, determined eligible for the National Register. The Selected Alternate will have no effect on Bordley's Choice. The results of Phase I and Phase II archeological reconnaissance indicate that the Newlin/Downs Mill Complex archeological site, partially located within the Brookeville Historic District [where it overlaps the Reddy Branch Stream Valley Park and extends to the west within the park], is also considered eligible for the National Register. The MHT, in the capacity as the Maryland State Historic Preservation Officer (MDSHPO) has concurred that all of the alternates, including the Selected Alternate, will have an Adverse Effect on cultural resources.

The $12.5 million dollar cost of the Selected Alternate is estimated to be about $300,000 more expensive than Alternate 7, which is the least expensive of the Build Alternates. This additional cost is to build the proposed retaining wall in order to minimize impacts to the National Register eligible Newlin/Downs Mill archeological site. The retaining wall reduces Section 4(f) use to 1.7 acres (from 2.2 acres) of the Brookeville Historic District and avoids the core of the archeological site. It also minimizes the use of Reddy Branch Stream Valley Park by reducing public parkland use from 6.6 acres to 5.6 acres for the Selected Alternate. Based on these findings, and as a result of interagency coordination that occurred through the Maryland Streamlined Environmental and Regulatory Process, it is concluded that the Selected Alternate 7 Modified is the least environmentally damaging practical alternate of those studied.

A detailed evaluation of the environmental impacts of the MD 97 Brookeville Planning Study alternates was presented in Section IV (Environmental Consequences) of the MD 97 FEIS/Section 4(f) Evaluation. An Environmental Impact Summary Table can be found in the Executive Summary of the DEIS/FEIS.

C. SECTION 4(f) EVALUATION

1. Impacts to Section 4(f) Resources

The Section 4(f) resources impacted by the Selected Alternate include the Reddy Branch Stream Valley Park and the Brookeville Historic District. The FHWA has determined

that the FEIS/Section 4(f) Evaluation document adequately discusses environmental impacts, demonstrates that there is no feasible and prudent alternate that would avoid Section 4(f) properties and demonstrates that the Selected Alternate (which uses land from the Brookeville Historic District and Reddy Branch Stream Valley Park) is the alternate, counting mitigation, that will have the least impact on Section 4(f) resources. A detailed evaluation of the environmental impacts of the MD 97 Brookeville Study alternates was presented in Section V of the MD 97 FEIS/Section 4(f) Evaluation.

a. Reddy Branch Stream Valley Park

Selected Alternate 7 Modified would impact a total of 5.62 acres of Reddy Branch Stream Valley Park in two locations, one to the east of MD 97 and one to the west of MD 97. The portion of the park impacted east of MD 97 is owned by Montgomery County and includes 0.24 acre purchased with Maryland Program Open Space Funds. The portion of the park that would be impacted west of MD 97 totals 5.38 acres and is a forested area where portions of the park overlap the Brookeville Historic District. This acreage includes a 2.19 acres parcel also purchased with Maryland Program Open Space funding.

b. Brookeville Historic District

Within the 5.62 acres of Section 4(f) parkland, the Selected Alternate would require 1.66 acres from the Brookeville Historic District, although there would be no direct impacts to historic standing structures or other contributing elements within the District, other than the Newlin/Downs Mill Complex archeological site. The portion of the Brookeville Historic District impacted by the Selected Alternate is wooded with wetlands along Meadow Branch.

Proposed storm water management (SWM) facilities are located in both the Reddy Branch Stream Valley Park and the Brookeville Historic District. Three of the four proposed pond facilities are within Reddy Branch Stream Valley Park, one of which is located where the parkland overlaps the historic district. The location of each SWM facility is based on the proposed drainage patterns once the roadway construction would be complete. In addition to the SWM pond facilities, grass channels would be provided in areas where the runoff could not readily be treated with a pond facility. These grass channels, along with the roadside ditches within the project area, could be utilized to enhance water quality and provide some ground water recharge. As a result, the estimated one-acre of Section 4(f) property to be acquired for SWM is considered to be a conservative maximum estimate and the total 5.62 acre of Section 4(f) impacts may be reduced during final design.

D. MEASURES TO MINIMIZE HARM

All practicable measures to minimize harm have been identified and will be incorporated into the design of the Selected Alternate. These measures include compensation for all residential and commercial property acquisition; standard sediment and erosion control;

stormwater management; and a landscape plan to reduce the visual intrusion on the historic district.

a. Natural Environment

Methods to provide compensatory mitigation for wetland impacts have been coordinated with the United States Army Corps of Engineers (USACOE), the National Marine Fisheries Service (NMFS), the United States Fish and Wildlife Service (USFWS) and the Maryland Department of the Environment (MDE). The Selected Alternate will impact a total of 0.12 acre of wetlands. Replacement mitigation is proposed at a 2:1 ratio for 0.03 acre of palustrine forested and 0.03 acre of palustrine scrub shrub wetlands, and at a 1:1 ratio for 0.06 acre of palustrine emergent wetlands. Therefore, the wetland mitigation proposed for this project totals approximately 0.18 acre. Mitigation for approximately 1,212 linear feet of stream restoration will also be included as part of final design. Stream restoration techniques are likely to include riparian buffer plantings as well as in stream stabilization measures.

In accordance with Maryland's Streamlined Environmental and Regulatory Process, the FEIS served as the USACOE permit application. As a result, a permit will be issued by the USACOE authorizing the construction of the project based on the design commitments made in the FEIS. The following Special Conditions, as summarized below, will be included in the permit.

- The bridge over Reddy Branch shall have sufficient horizontal clearance to provide a 25-foot bench for wildlife on one side of the stream (preferably the north side), and sufficient vertical underclearance to provide a minimum of 8 feet between the surface of the wildlife bench and the bottom of the structure.

- The Permittee shall remove the existing bridge over Reddy Branch that is in the portion of MD 97 (Georgia Avenue) being abandoned. This will provide for a more natural riparian wildlife corridor.

- A 2-cell box culvert shall be constructed to carry the bypass over Meadow Branch. During normal flows, one cell will carry the base flow of the stream and the other cell [dry cell] will be designed for wildlife passage. Both cells will carry water during flood state. This culvert is expected to result in the loss of 85 feet of stream channel length because it displaces a steam meander. Measures will need to address the increase in velocity and to ensure that the project does not result in head cutting.

- Wetland loss of 0.12 acre shall be mitigated by constructing 0.18 acre on property owned by MNCPPC within Reddy Branch Stream Valley Park, along Brighton Dam Road. The mitigation site will be constructed concurrently with the roadway project. All of these plans will be made available to the USACOE for review prior to proceeding with the roadway construction.

- Wetland mitigation project shall be monitored by the wetland consultant for 5 growing seasons following initial planting and shall be responsible to recommend any remedial measures that may be considered necessary to meet the performance standards.

- Mitigation shall be provided for the estimated 1,212 feet of stream impacts by constructing an equivalent length of stream improvements and restoration features in Meadow Branch.

b. Reddy Branch Stream Valley Park

Through ongoing coordination with M-NCPPC and state and federal resource agencies, measures were developed to minimize harm and mitigate for the permanent use of Reddy Branch Stream Valley Park property which include identification of suitable replacement parkland, stormwater management design, mitigation of floodplain impacts, specific design requirements for the culvert type and size at Meadow Branch, mitigation for loss of forested areas, and design of a wildlife passage along Reddy Branch. In addition, SHA will coordinate with M-NCPPC officials regarding the development of detailed design for the temporary use of the M-NCPPC property, approved stream restoration and wetland mitigation locations within Reddy Branch Stream Valley Park, and sediment and erosion controls. Construction fences will be placed around specific trees that will be identified by M-NCPPC and DNR for protection. Wetland mitigation areas in the park will also be monitored and maintained in conformance within the five-year timeframe specified in the Section 404 permit.

Mitigation for both the temporary and Section 4(f) permanent use of public parkland are addressed in the FEIS/Section 4(f) Evaluation. Appendix B of the Section 4(f) Evaluation includes M-NCPPC's signed concurrence of parkland mitigation as presented in SHA correspondence dated November 25, 2003. Appendix B also includes M-NCPPC's concurrence letter dated May 1, 2003 approving temporary use of sites in Reddy Branch Stream Valley Park for stream restoration and wetland replacement.

c. Cultural Resources

The MDSHPO has been consulted on the determination that the Selected Alternate will have an adverse effect on the National Register listed Brookeville Historic District and the National Register eligible Newlin/Downs Mill Complex archaeological site. Final Design of the Selected Alternate will be implemented in accordance with the mitigation measures, as outlined in the Section 106 Memorandum of Agreement (MOA) among the FHWA, MDSHPO and SHA. The executed MOA was included as an appendix to the FEIS. Stipulations of the agreement include the following:

- SHA will design a landscape plan to reduce the visual intrusion of the Selected Alternate 7 Modified on the historic district.

- SHA will coordinate with M-NCPPC and the MDSHPO concerning the development and placement of an interpretive sign at the Newlin/Downs Mill Complex, along the Oakley Cabin Trail, concerning its historic significance. The panel will satisfy the public interpretive component of the proposed data recovery treatment of the Newlin/Downs Mill Complex, a contributing resource to the Brookeville Historic District.

Appropriate consultation with other interested parties occurred during the development of the terms of the MOA, and included M-NCPPC, as portions of the Brookeville Historic District are within Reddy Branch Stream Valley Park, which, is under M-NCPPC's jurisdiction.

d. Smart Growth

The Town of Brookeville is located within a Priority Funding Area (PFA) as designated by Montgomery County, where state funds may be spent on additional infrastructure that supports or encourages growth. An agreement with local elected officials, MDOT, and the Governor's Office set four specific criteria to be met for design and construction of the project. Following this agreement, the MD 97 Brookeville Project was included in the FY 2003-2008 Maryland Consolidated Transportation Program for Project Planning. The four criteria and the actions taken to meet those criteria are as follows:

1. An amendment to the Annual Growth Policy was adopted by the Montgomery County Council on April 6, 1999 in response to the condition that Montgomery County adopt restrictions that prevent the bypass from allowing sprawl development outside the current boundaries of the Town of Brookeville.

2. In response to the condition that a permanent easement must border the entire roadway to ensure that no future access, widening, or connection to the bypass is possible, the Maryland Environmental Trust (MET) has tentatively agreed to hold the easement pending the development of the Letter of Commitment and the Memorandum of Understanding (MOU). An exact amount and location of this easement will be determined during the Final Design phase of this project. Metes and Bounds Plats will be prepared and will be part of the MOU.

3. A roundabout is proposed north of Brookeville Road to limit traffic capacity through the area in response to the condition that MDOT and the Montgomery County and Howard County governments must work out a safe "traffic calming" point north of the bypass to limit future traffic to the current capacity of MD 97 through Brookeville.

4. These controls serve to further ensure that rural areas and open space are preserved, the environment is healthy, and thriving communities enjoy their quality of life. However, if for any reason these controls fail, Montgomery County will reimburse the state for the full cost of the bypass.

Project coordination through Maryland's Streamlined Environmental and Regulatory Process, resulted in the Selected Alternate and Conceptual Mitigation (SACM) Package receiving concurrence without comment from FHWA, USACOE, USFWS, Maryland Department of the Environment (MDE), and Metropolitan Washington Council of Government (MWCOG). Agency concurrence with minor comments was received from the United States Environmental Protection Agency (USEPA) and the Maryland Department of Natural Resources (DNR). Both agencies expressed support of the evaluation of the north-side wildlife passage and DNR offered continued coordination with SHA regarding mitigation designs. The Maryland Department of Planning (MDP) concurred commenting that the Selected Alternate best minimizes the potential of encouraging secondary sprawl-development while meeting the Purpose and Need of the MD 97 Brookeville Project. In response, coordination is ongoing between SHA and MET and will be resolved during Final Design.

F. MONITORING AND ENFORCEMENT

As a part of the commitment to continue efforts to minimize impacts from the project, several monitoring and coordination efforts have been proposed as outlined in the Section 404 Permit of the FEIS. Monitoring programs will consist primarily of the conditions of the Section 404 Permit with respect to wetlands. The USACOE will monitor the wetland mitigation project for five growing seasons following initial planting and shall be responsible for recommending any remedial measures that may be considered necessary to meet the performance standards. To ensure compliance with all appropriate federal and state regulations, all necessary permits will be obtained prior to construction. The permit from the USACOE for any work in waterways or wetland areas will satisfy the requirements of section 401/404 of the Clean Water Act (33 USC 1344).

Coordination with appropriate federal, state and local agencies, including but not limited to the USACOE, USFWS, USEPA, NMFS, DNR, MDSHPO, MET and M-NCPPC will continue during Final Design to ensure that the MD 97 FEIS/Section 4(f) Evaluation mitigation commitments are implemented.

G. COMMENTS RECEIVED ON FINAL ENVIRONMENTAL IMPACT STATEMENT

The Notice of Availability of the FEIS/Section 4(f) Evaluation was published in the *Federal Register* on July 16, 2004. Advertisements announcing the availability of the document were published locally in Washington Post. The notices announced the availability of the FEIS/Section 4(f) Evaluation and the locations where copies of the document were available for public review. A list of agencies, organizations and individuals to which copies of the FEIS/Section 4(f) Evaluation were sent is included in Section VIII of the FEIS.

To date, comments have been received from the Federal Emergency Management Agency (FEMA), and the Environmental Protection Agency (EPA) on the FEIS/Section 4(f) Evaluation. The FEMA requested that SHA coordinate with the Floodplain

Management Officer of Montgomery County to ensure that the project meets the requirements of their floodplain management ordinances, the EPA determined that the Maryland Department of Transportation has adequately addressed its comments within the FEIS. Comments were also received by the Maryland Historical Trust reminding SHA to execute the 2003 Memorandum of Agreement, to mitigate against adverse effects on historic resources. Other local agencies commented reminding SHA to minimize impacts wherever possible. SHA will continue to coordinate with these agencies as this project transitions into the final design phase.

Nelson J. Castellanos
Division Administrator, Maryland Division
Federal Highway Administration

10/15/07
Date

I. PURPOSE AND NEED FOR THE ACTION

Attachment 4A

A. PROJECT DESCRIPTION

The MD 97 Brookeville Project includes proposed transportation improvements to MD 97 (Georgia Avenue) in the vicinity of the Town of Brookeville in Montgomery County, Maryland **(Figure I-1)**. The project area extends approximately two miles from south of Gold Mine Road to north of Holiday Drive and includes the corporate limits of the Town of Brookeville **(Figure I-2)**.

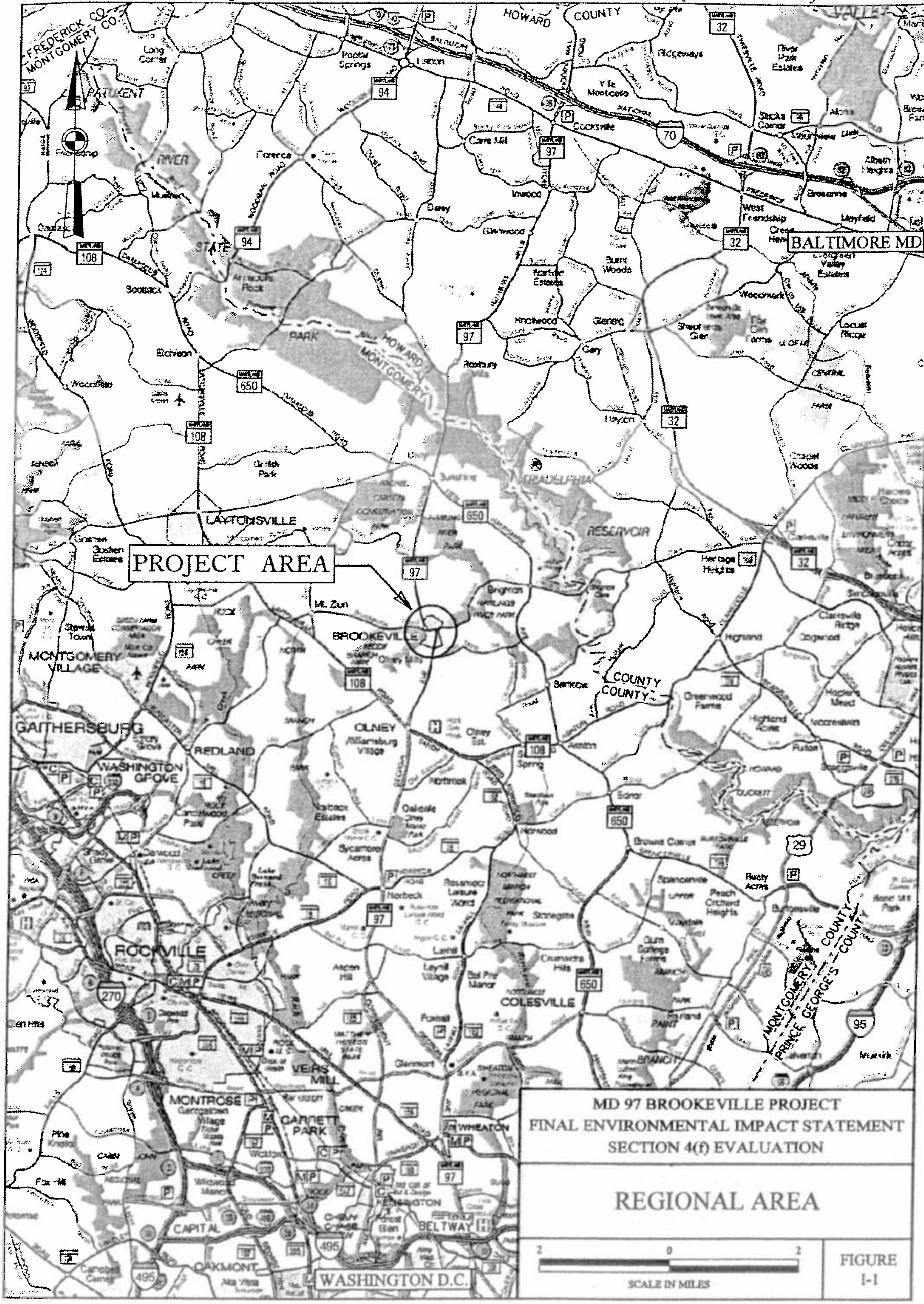
B. BACKGROUND AND HISTORY

Brookeville is a unique crossroads town because of its relatively unaltered 18th century architecture, its pristine and tranquil setting, and its tie to our Country's history. Among the many historic buildings in Brookeville, the Madison House is especially noteworthy. On August 26, 1814, President Madison sought shelter there for the night when the British burned Washington, during the war of 1812. Since that time, the town has been referred to as the "United States Capital for a Day". The Town of Brookeville is recognized as a Montgomery County historic district and was listed on the National Register of Historic Places in 1979.

Today, the Town of Brookeville remains relatively untouched with its quaint, curving streets and enveloping trees, which distinguish the area from the modern and encroaching development of areas such as Olney located about one mile to the south **(Figure I-2)**. Brookeville residents are concerned that the increasing traffic volumes will alter their town's historic character.

The June 1980 Approved and Adopted Master Plan for Olney recognizes that Brookeville is an important historic resource for the entire county. The Olney Master Plan supports the designation of the area around Brookeville for agricultural and open space preservation and the relocation of MD 97 to the west of Brookeville, to preserve the town's historic character. The Olney Master Plan's agricultural and open space recommendations will help preserve Brookeville's historic setting. The Olney Master Plan also notes that property owned by the M-NCPPC and designated for anticipated transportation use for improvement of MD 97 is leased to the Longwood Community Center for use as recreational fields.

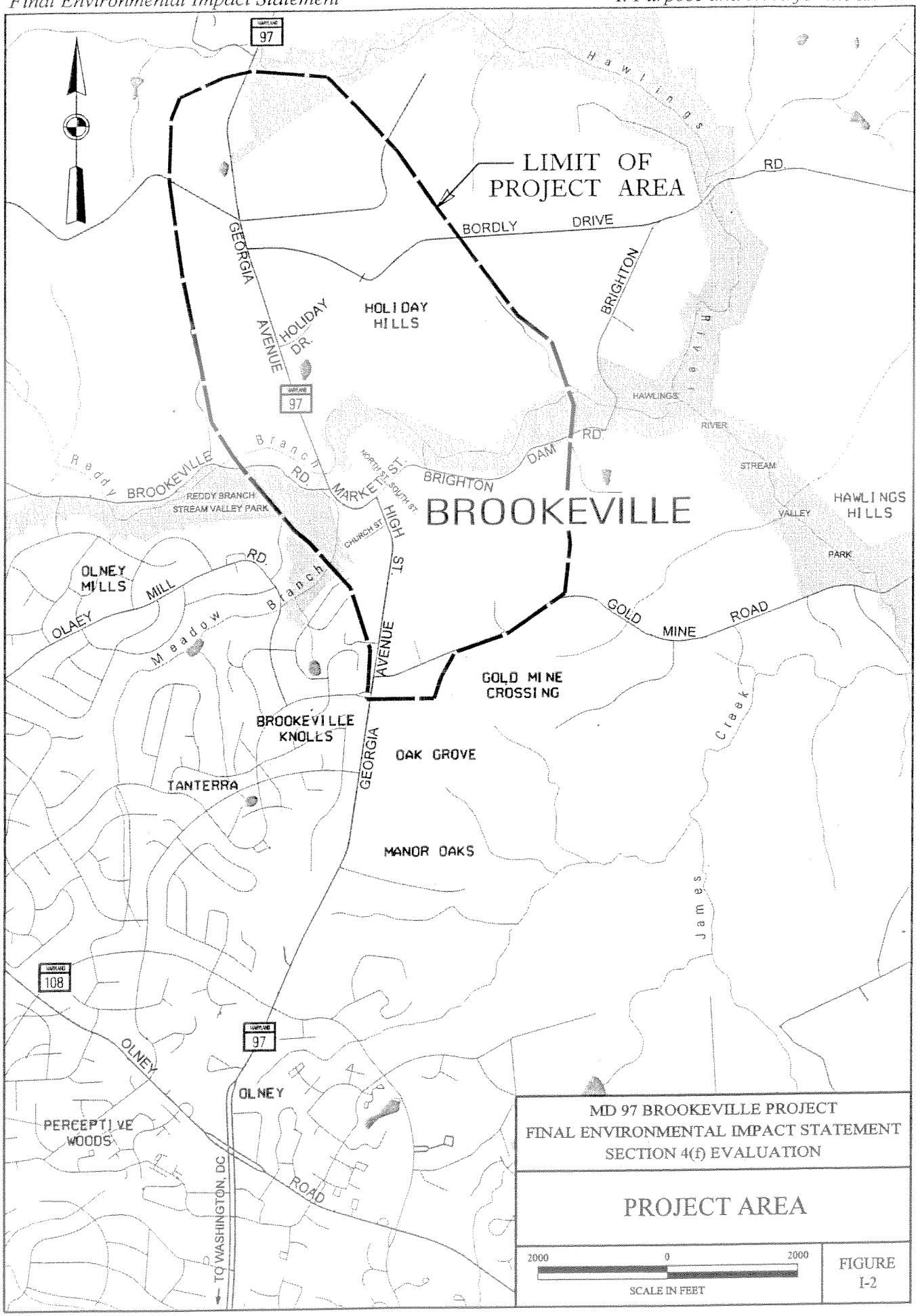
In 1990, a feasibility study for improving traffic flow throughout the town was initiated. The SHA investigated improvements within the Brookeville Historic District and also studied the Master Plan Alignment. A Project Planning Study was initiated in January 1995 and the MD 97 Brookeville Project appears in the current Maryland Department of Transportation's FY 2003-2008 Consolidated Transportation Program (CTP), but only for project planning studies.



MD 97 BROOKEVILLE PROJECT
FINAL ENVIRONMENTAL IMPACT STATEMENT
SECTION 4(f) EVALUATION

REGIONAL AREA

FIGURE I-1


LIMIT OF PROJECT AREA
BROOKEVILLE
HOLIDAY HILLS
BORDLY DRIVE
GEORGIA AVENUE
HOLIDAY DR.
BRIGHTON DAM RD.
HAWLINGS RIVER
HAWLINGS HILLS
REDDY BROOKEVILLE Branch
REDDY BRANCH STREAM VALLEY PARK
MARKET ST.
NORTH ST. SOUTH ST.
HIGH ST.
CHURCH ST.
OLNEY MILLS
MILL
OLAEY
Meadow Branch
GOLD MINE ROAD
GOLD MINE CROSSING
BROOKEVILLE KNOLLS
OAK GROVE
TANTERRA
MANOR OAKS
James Creek
OLNEY
PERCEPTIVE WOODS
TO WASHINGTON, DC
MD 97 BROOKEVILLE PROJECT
FINAL ENVIRONMENTAL IMPACT STATEMENT
SECTION 4(f) EVALUATION
PROJECT AREA
2000 0 2000
SCALE IN FEET
FIGURE I-2

C. EXISTING CONDITIONS

Regionally, MD 97 is an arterial highway serving the east Montgomery County corridor and central Maryland from Washington, D.C. and the Capital Beltway (I-495) to I-70 in Howard County. MD 97 functions as a major north-south commuter route between the employment areas in and surrounding Washington, D.C., and the residential communities north of Brookeville, including northern Montgomery County, Howard, and Frederick Counties **(Figure I-1)**.

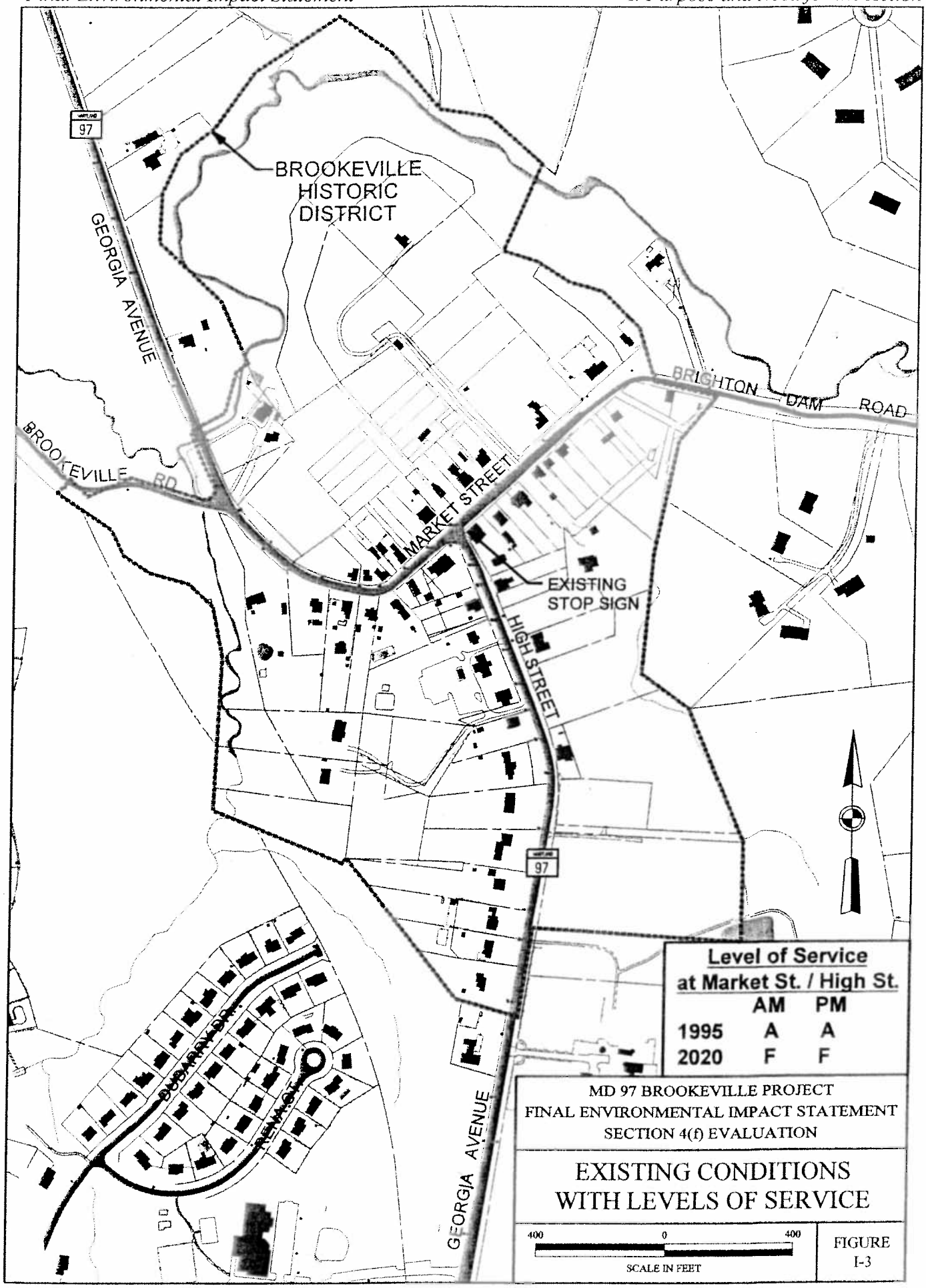
Within the Town of Brookeville, MD 97 experiences a sharp "dog-leg" bend in horizontal alignment **(Figure I-3)** accompanied by steep grades in vertical alignment. The resulting "S" curve along High Street, Market Street, and Georgia Avenue includes roadway geometrics that are substandard in design. Both north of, and within the project area, MD 97 is a two-lane roadway with 11 to 12-foot lane widths, zero to five foot shoulder widths and a ROW width of 40 feet. However, less than one mile south of the project area, traffic demand has necessitated the improvement of MD 97 to a multi-lane divided roadway from Olney to Washington, D.C. **(Figure I-1)**. No access controls are in place.

The 1995 Average Daily Traffic (ADT) volumes were approximately 9,000 vehicles per day passing through Brookeville. These traffic volumes are forecasted to double to approximately 18,000 vehicles per day by the year 2020. In addition, during the PM peak period there is significant back-up of vehicles at the intersection of MD 97 and Market Street in the northbound direction. Similarly, during the AM peak period, a continuous stream of slow moving traffic can be observed at this intersection in the southbound direction.

The numerous driveways, narrow roadway, poor vertical and horizontal alignment, and a northbound stop condition at the T-intersection of High Street and Market Street contribute to the transportation problem within the Town of Brookeville **(Figure I-3)**.

1. Roadway Deficiencies

The existing MD 97 roadway conditions in Brookeville range in width from 22 to 24 feet with shoulders from 0 to 5 feet. At the T-intersection of Market Street and High Street, an inadequate sight distance exists for MD 97 drivers traveling northbound along High Street **(Figure I-3)**. The existing vertical grade and "S" curve along Market Street interfere with the northbound driver's sight distance thus forcing the driver out into the intersection. Northbound drivers traveling through Brookeville on MD 97 (High Street in Brookeville) must turn left at the T-intersection at Brighton Dam Road (Market Street in Brookeville) from a stop condition. These northbound drivers are regularly observed positioning themselves 1 to 1.5 additional car lengths beyond the stop bar to judge if traffic is approaching from the right on Brighton Dam Road and from the left on southbound MD 97. Slightly further north on MD 97, the existing horizontal and vertical curve also affects the driver's sight distance in both the northbound and southbound directions. North on MD 97 where Market Street transitions back into Georgia Avenue, the existing horizontal and vertical curve also affects the driver's sight distance. Both the steep vertical down grade of seven percent transitioning to ten percent and the sharp horizontal curve to the right (130 feet radius) create the sight distance problem along this section of MD 97.


97
BROOKEVILLE HISTORIC DISTRICT
GEORGIA AVENUE
BROOKEVILLE RD.
BRIGHTON DAM ROAD
MARKET STREET
EXISTING STOP SIGN
HIGH STREET
97
SUSANNA DR.
RENAULT
GEORGIA AVENUE
Level of Service at Market St. / High St.
AM PM
1995 A A
2020 F F
MD 97 BROOKEVILLE PROJECT
FINAL ENVIRONMENTAL IMPACT STATEMENT
SECTION 4(f) EVALUATION
EXISTING CONDITIONS WITH LEVELS OF SERVICE
400 0 400
SCALE IN FEET
FIGURE I-3

There are other elements that also impede the driver's sight distance within the Town of Brookeville. These elements include trees, utility poles, and homes positioned close to the roadway **(Figure I-3)**. Consequently, the posted speed limit has been reduced from 40-mph north and south of Brookeville to 20-mph in the Town of Brookeville.

At the T-intersection, large vehicles (school buses and trucks) traveling southbound along MD 97 are unable to make a right turn from Market Street onto High Street without crossing the centerline of the opposing northbound traffic. This is primarily due to the inadequate turning radius (50 feet) on the southwest corner. In order to prevent crossing the centerline, large vehicles making right turns southbound occasionally encroach upon the privately owned historic residential property in the southwest corner of the intersection. **Figure I-3** identifies the limits of the Brookeville Historic District, which coincides with the corporate limits of the Town of Brookeville.

D. PURPOSE FOR PROJECT

The project's purpose is to remove the continually increasing traffic volumes from the Town of Brookeville, improve traffic operations and safety on existing MD 97, and preserve the historic character of the town. The project limits, which extend for approximately two miles on MD 97 from south of Gold Mine Road to north of Holiday Drive **(Figure I-2),** are adequate to address the transportation problems and define logical study limits. The previously mentioned roads (Georgia Avenue, Market Street, Brighton Dam Road, and High Street) comprise the intersecting roads in the immediate vicinity of an existing 90-degree turn in the center of town, which is the major impediment to improving traffic flow.

E. NEED FOR IMPROVEMENT

1. Operations

Within the Town of Brookeville, MD 97 is part of a T-intersection at Market Street and High Street. MD 97 forms the western and southern legs of this intersection while Market Street/Brighton Dam Road forms the eastern leg. Northbound MD 97 traffic is controlled at the intersection by a stop sign **(Figure I-3)**, which allows traffic to enter the intersection from the minor road (Market Street), at the expense of the major road (MD 97). During the evening peak hour, queues (lines) up to 25 vehicles have been observed on northbound High Street waiting to turn left at Market Street.

The poor geometrics of the roadway and the "dog-leg" or "S" curve located along MD 97 (High Street, Market Street, and Georgia Avenue) cause a potentially unsafe condition for drivers. In Brookeville, the inadequate geometrics and roadway operations are incompatible with roadway operations north and south of the town and present a safety problem to motorists who are unfamiliar with the road. These conditions, together with the increasing volume of traffic passing through the Town of Brookeville, continue to affect the tranquility and small town atmosphere that Brookeville has known for nearly 200 years.

2. System Continuity

The continuity of the MD 97 roadway is disrupted upon entering Brookeville. As explained previously, MD 97 transitions from a heavily used, commuter roadway north and south of Brookeville to a quaint and winding road within the historic Town of Brookeville. The large volume of commuter traffic along MD 97, north and south of Brookeville, must pass through the historic district, utilizing High Street and Market Street, which contain substandard geometrics for these volumes **(Figure I-3)**. With the future traffic volumes expected to approximately double, the Town of Brookeville will be divided into two separate sides, east of and west of MD 97. This directly conflicts with the character of the historic town.

MD 97 carries predominantly through traffic and is the only major roadway that links the Town of Brookeville with surrounding towns and other commuting corridors (**Figure I-1** and **Figure I-2**). An Origin and Destination Study was conducted in April 2000 along MD 97 from MD 108 to MD 650 during the morning and evening peak hours of operation. It was found that 84 percent of southbound, morning traffic and 71 percent of northbound, evening traffic passed through the Town of Brookeville. This can be attributed to the roadway's direct connection between many bedroom communities in Carroll, Frederick, Baltimore, Howard, and Montgomery Counties and the businesses in the metropolitan area of Washington D.C. **(Figure I-1)**.

3. Traffic

a. Average Daily Traffic

The ADT volume along the study section for 1995 was approximately 9,000 Vehicles Per Day (VPD) south of Brookeville and 8,500 VPD north of Brookeville. Trucks account for five percent of the traffic volume. The forecasted ADT for the design year, 2020, is approximately 18,000 VPD south of Brookeville and 17,000 VPD north of Brookeville. This represents a doubling in the volumes that MD 97, through Brookeville, would need to accommodate.

b. Level of Service

The Level of Service (LOS) for a roadway is a qualitative measure of the operational conditions within a traffic stream, on that roadway. It describes conditions in terms of speed, travel time, comfort, convenience, and safety. An explanation of the LOS is as follows:

Level A - free traffic flow, low volumes, higher speeds
Level B - stable traffic flow, some speed restrictions
Level C - stable flow, increasing traffic volumes
Level D - approaching unstable flow, heavy traffic volumes, decreasing speeds
Level E - unstable flow, high volumes nearing roadway capacity, delays
Level F - forced flow with traffic delays

Both north and south of Brookeville, MD 97 operates at a LOS D based on 1995 traffic conditions considered to be current (**Figure I-3**). In the design year 2020, the existing roadway will operate at a LOS D north of Brookeville and LOS E south of Brookeville.

Currently, the T-intersection at Market Street and High Street operates at a LOS A but only after the long queues waiting in turn to pass through the intersection arrive at the intersection. However, the LOS is D along High Street south of the T-intersection, thus resulting in the long queues. These long queues together with the stop controlled intersection result in a degradation of Brookeville's historic character and small town ambiance as the vehicles wait in queues contributing to both noise and air pollution. This condition will continue to worsen noise and air quality as the design year approaches with a LOS F in the PM (**Figure I-3**).

4. Accident History

The accident history from January 1996 to October 1999 shows 36 police-reported accidents in the project area. These resulted in an accident rate of 154.1 accidents per 100 million vehicle miles of travel (acc/100mvm). This rate is higher, but not significantly so, than the statewide average accident rate of 140.7 acc/100mvm for all similarly designed highways now under state maintenance. This may be due to the fact that traffic is traveling slowly through the center of town. Approximately 28 percent of all accidents resulted from collisions with fixed objects, 22 percent from rear end collisions, 19 percent from left turn collisions, eight percent from right-angle collisions, and three percent each from collisions with parked cars and opposite direction collisions. Also, 22 percent of the total accidents were truck-related. None of the traffic study rates, with the exception of left turn collisions and truck-related accidents, are significantly higher than the statewide average rate for each type of collision. Of the total number of accidents, 53 percent involved personal injuries and 47 percent involved property damage only. There were no fatal accidents within the project area. Approximately 11 percent of the accidents reported were the result of excessive speed or a failure to reduce speed. The rear end accidents and failure to reduce speed are attributed to the stop condition along MD 97.

F. CONCLUSION

Brookeville is a unique crossroads town because of its relatively unaltered 18th century architecture, its pristine and tranquil setting, and its tie to the history of the United States. The Town of Brookeville is listed as a historic district on the National Register of Historic Places. Brookeville residents are concerned that the increasing traffic volumes will continue to alter the historic character of the town. The numerous driveways, narrow roadway, poor vertical and horizontal alignment along the MD 97 "dog-leg", and the northbound stop condition at the T-intersection of Market Street and High Street all contribute to the transportation problems within the Town of Brookeville. Improvements to MD 97 are necessary to alleviate existing and future congestion and safety problems in town that will, in turn, preserve the historic Town of Brookeville's quality of life, original character, and local charm. The project will also benefit commuters passing through the area by minimizing the congestion and safety problems associated the current roadway configuration along MD 97 within the Town of Brookeville and at the T-intersection of Market and High Streets.

Attachment 4B

TABLE II-1
ENVIRONMENTAL IMPACT SUMMARY

FEATURE	ALTERNATES EVALUATED IN THE FEIS					
	Alternate 1 No-Build	**Alternate 5C East Bypass** [5]	**Alternate 7 West Bypass**	**Alternate7 Modified West Bypass**	**Alternate 8A At-Grade West Bypass**	**Alternate 8B Grade Separated West Bypass**
		Open Section	**Open Section**	**Open Section**	**Open Section**	**Open Section**
Length (miles) [1]	0	2.12	0.72	0.72	0.95	0.95
Cost (millions-2001 dollars)	0	$ 34.2	$ 12.2	Approximately $12.5 (assuming retaining wall along Brookeville Road	$ 13.7	$ 18.0
Socio-Economic Resources						
Residential Relocations (no.)	0	5	0	0	0	0
Business Displacements (no.)	0	1	0	0	0	0
Affected Properties (no.)	0	26	11	11	14	14
Comprehensive Plan Compatibility	No	No	Yes	Yes	Yes	Yes
Recreational Facilities (acres)	0	4.55	6.65	5.62	7.22	7.64
Historic District (acres)	0	0	2.24 [3, 4]	1.66 [3, 4]	1.84 [3, 4]	2.00 [3, 4]
Section 106 Adverse Effects	Yes	Yes	Yes	Yes	Yes	Yes
Total Section 4(f) [6] (acres)	0	4.55 [2 parks]	6.65 [1 park]	5.62 [1 park]	7.22 [1 park]	7.64 [1 park]
Impacted Waste Sites (no.)	0	0	1	1	2	1
Air Quality (SIP Conformance)	0	Yes	Yes	Yes	Yes	Yes
Noise Receptors (no.) [2]	0	8	10	10	10	10
Natural Resources						
Prime Farmland Soils (acres)	0	25.88	4.84	4.53	5.50	5.34
Statewide Important Soils (acres)	0	5.63	1.79	1.63	7.50	8.51
Wetlands (acres)	0	0.21	0.13	0.12	0.11	0.17
Streams [7] (linear feet)	0	482.12	1169.2	1211.8	1067.32	1191.72
FEMA 100-year Floodplains (acres)	0	2.59	3.34	3.22	3.03	3.34
Forest Cover (acres)	0	11.50	10.47	9.02	13.53	14.2

NOTES:

1 Alignment length does not include frontage, access roads and exclude additional length for traffic roundabouts.
2 Noise levels 66 dBA or greater or those which increase 10 dBA or more over ambient levels.
3 Included within Reddy Branch Stream Valley Park Acreages.
4 One park property, two locations.
5 For this alternate, impacts do not include right-of-way needed for storm water management. All other alternates include right-of-way impacts for storm water management ponds.
6 Includes overlapping acreage of the Brookeville Historic District within impacted Public Parkland.
7 Based on re-evaluation, the impact numbers decreased from the Selected Alternate and Conceptual Mitigation Package.

Attachment 5A

Larry Hogan, *Governor*
Boyd K. Rutherford, *Lt. Governor*

State Highway Administration
Maryland Department of Transportation

Pete K. Rahn, *Secretary*
Gregory C. Johnson, P.E., *Administrator*

October 8, 2015

Ms. Elizabeth Hughes
State Historic Preservation Officer
Maryland Historical Trust
100 Community Place
Crownsville MD 21032-2023

Dear Ms. Hughes:

Introduction and Project Description

This letter serves to inform the Maryland Historical Trust (MHT) of the Maryland State Highway Administration's (SHA) findings for two proposed alignments for construction of SHA Project No. MO746M21, MD 97 Brookeville Project from Longwood Park to South of Holiday Drive (Roundabout Connections). The project involves construction of a new roadway on the west side of Brookeville in Montgomery County.

Previous Consultation

SHA consulted with MHT about the bypass project starting in 1996 regarding structures' eligibility. MHT provided comments about the Phase 1B archaeological investigations on August 13, 1997, and concurred with the adverse impact determinations on the Brookeville Historic District for MD 97 Alternatives 3, 4 Modified and 5C on May 5, 1998 and the in-town alternative on December 7, 1998. On February 16, 2001, SHA provided new alternatives called MD 97 Alternative 7 and MD 97 Alternative 8 with two options – 8A was at-grade while 8B was the high bridge over Brookeville Road and Reddy Branch. MHT provided concurrence comments that these alternatives would be adverse on the Brookeville Historic District on April 16, 2001. The most recent correspondence between the agencies occurred when SHA provided final adverse impact determinations for Alternative 7 and 8B on August 19, 2002, and MHT concurred with the determinations on November 6, 2002. The agencies then entered into a Memorandum of Agreement which expired in December 2013.

Alternatives:

Alternative 7M Adjusted: Based on the 2004 Final Environmental Impact Statement/Section 4(f) Evaluation's (FEIS) conclusions, SHA's selected alternative, Alternative 7 Modified consists of a two-lane highway with 11-foot wide lanes and 10-foot shoulders, with two roundabouts between the Reddy Branch Stream Valley Park and the Maryland-National Capital Park and

Planning Commission (M-NCPPC) park property, which is reserved for transportation use, to minimize impacts to the Brookeville Historic District (M:23-65) and the Newlin-Downs Mill Complex (18MO368), which is a contributing resources to the Brookeville Historic District. Since SHA consulted with MHT about the project in 2002, we have shifted the Alternative 7 alignment further west and north in order to avoid impacts to the Newlin-Downs Mill Complex, high quality forest and a stream in the M-NCPPC property. This new alternative is now called MD 97 Alternative 7M Adjusted. Alternative 7M Adjusted uses 40 mph design speed and includes two 11-foot lanes and 8-foot shoulders. Both the southern and northern roundabouts are single lane roundabouts, which can accommodate Interstate Semitrailer (WB-67) Trucks. The southern roundabout has been shifted south toward the Longwood Community Center's ball field to optimize the impacts to a private driveway and the roundabout's entrance and exit. The northern roundabout with Brookeville Road has also been shifted west along Brookeville Road to reduce impacts to the Newlin-Downs Mill Complex. With the shift of the northern roundabout, the MD 97 alignment from the northern roundabout to existing MD 97 has also been shifted to the north, with the bridge crossing at Reddy Branch. The new highway will include two bridges, one over Meadow Branch and the second over Reddy Branch, which will each be 120 feet long single span concrete slab bridges. Both will be 15 to 20 feet above the streams, and will rise to 23 to 25 feet at the top of each structure. SHA Bridge No. 1501200, MD 97 over Reddy Branch, will be removed. SHA has also developed stormwater management (SWM) and wetland mitigation concepts based on the current regulation requirements, which are shown in the attached plans (Attachment 1). Soil borings are also included in the project scope and these are shown in Attachment 2. It is SHA's finding that MD 97 Alternative 7M Adjusted would have no adverse impacts on historic properties, including the Brookeville Historic District and the Newlin-Downs Mill Site.

Alternative 8B Modified: At the request of the M-NCPPC, SHA has agreed to consider whether Alternative 8B Modified would continue to have adverse impacts to the Brookeville Historic District. Alternative 8B Modified has a 40-mph design speed and follows the idea of the 2004 FEIS Alternative 8B, but uses the alignment of the Alternative 7M Adjusted. This Alternative features a typical roadway section of two 11-foot lanes, 8-foot shoulders, and two bridges, the first crossing Meadow Branch via a 120-foot long concrete slab bridge, and the second spanning both Brookeville Road and Meadow Branch, having a 400-foot long, concrete beam bridge that will be on structure to carry the bridge's spans. Both bridges will be between 15 and 20 feet above the streams and/or above Brookeville Road, and 23 to 25-feet at the top of each structure. The northern roundabout has been shifted north of Brookeville Road, meeting MD 97 ¼ mile north of Reddy Branch. With this option, the existing bridge along MD 97 will remain in place. SHA would require similar SWM and wetland mitigation concepts as Alternative 7M Adjusted. The plan included in Attachment 3 is a schematic plan showing the highway's proposed location. It is SHA's finding that MD 97 Alternative 8B Modified would continue to have an adverse impact on the Brookeville Historic District and Newlin-Downs Mill Site.

Brookeville Bypass Stream Restoration Project:

SHA proposes to mitigate wetland impacts from the proposed highway where wetland and stream impacts are proposed by creating a stream restoration project along Reddy Branch on the east side of the Brookeville Historic District. The restoration area includes the valley bottom along approximately 2,500 feet of Reddy Branch. The site is owned entirely by M-NCPPC and the current land use is open parkland. A preliminary plan is included in Attachment 4.

Purpose and Need

The purpose and need for the project is to remove the continually increasing traffic volumes from the Town of Brookeville, improve traffic operations and safety conditions on existing MD 97, and preserve the historic character of the town.

Public Meetings

SHA has conducted a series of public meetings regarding the MD 97 project, including an Information Public Workshop in June 1995, an Alternatives Public Workshop in May 1996, an Informational Public Meeting in June 2000, a combined Location/Public Hearing in October 2001, and a Public Information Meeting on September 29, 2015.

Funding

Federal funds were used during the planning stage and state funds will be used for construction of the project.

Area of Potential Effects

In determining the Area of Potential Effects (APE) for this project, SHA considered possible visual, audible, atmospheric and/or physical impacts to historic properties, both archaeological sites and standing structures that would diminish any National Register of Historic Places (NRHP) qualifying characteristic of the historic property's integrity. The project will require additional right-of-way, as well as perpetual and temporary easements. The highway will be constructed adjacent to the Brookeville Historic District's western boundary, and the district is included in the APE. The archaeology survey area within the APE is defined as the limits of construction where ground disturbance would occur. The APE is indicated on the attached USGS quadrangle map for Sandy Spring in Attachment 5.

Identification Methods and Results

Potentially significant architectural and archaeological resources were both researched as part of the historic investigation instigated by the proposed construction of the bypass highway.

Architecture: SHA Architectural Historian Anne E. Bruder consulted the SHA-GIS Cultural Resources Database, the NRHP form for the Brookeville Historic District, the archaeological site DOE form and the May 2004 FEIS for the MD 97 project, reviewed the Fielding Lucas Map of Maryland from 1836 and Simon Martenet's Map of Maryland from 1865, viewed the 1951 and 1970 aerial photographs of Brookeville, and made a field visit on October 9, 2014 to walk the alignment to consider potential visual and physical impacts to the Brookeville Historic District. A second field visit was made on September 29, 2015, and a public information meeting was held on the same date to discuss the project with concerned citizens in the project area. Ms. Bruder discussed the project and its possible Section 106 impacts to the Brookeville Historic District with several Brookeville residents.

The APE for this project includes the Brookeville Historic District (M:23-65) because the project will be constructed on the west side of the district's boundary. Brookeville is significant as a Quaker town that was established at the end of the 18th century. The town's standing structures date from the late 18th through the early 20th centuries, and the district is significant for its architecture. On August 26, 1814, the town served as the capital of the United States when President James Madison took refuge from the British invasion of Washington, DC and the burning of the White House, so the district is also significant for its association with the President for one day. Other historic properties in the APE include Bordley's Choice (M:23-66), a fieldstone building that began as a school in the 18th century but has been converted to a single family dwelling that is eligible under NRHP Criteria A, B and C. SHA Bridge No. 1501200 (M:23-126), MD 97 (Georgia Avenue) over Reddy Branch at the northwest end of the historic district is not eligible and does not contribute to the historic district. It was determined not eligible for the NRHP by SHA in February 9, 2001 and MHT concurred on April 3, 2001. Locust Grove II, M:23-61, an early-to-mid 19th century house on Brookeville Road west of the historic district is also in the APE, but was determined not eligible by SHA and MHT on October 28, 1996.

SHA found one additional single family dwelling located at 20001 Georgia Avenue north of the historic district. The building appears to be a late 19th century dwelling that has been converted to commercial uses. Based on the field visit and the visible alterations, SHA has determined that 20001 Georgia Avenue is not eligible for inclusion in the NRHP. A Determination of Eligibility short form describing the property and SHA's effect determination along with a photo and a location map are included in Attachment 6. The eligibility determination is summarized in SHA's Hybrid Eligibility and Impacts Table in Attachment 7.

Brookeville is also a site on the Star Spangled Banner National Historic Trail which is a National Park Service heritage trail. The Caleb Bentley House at 205 Market Street in Brookeville served as President Madison's capital in August 1814. The house stands on the east side of the historic district and will not be directly impacted by the construction of the bypass. MD 97 is not a part of the historic trail. Brookeville is also within the Montgomery County Heritage Area.

Impact Assessment:

SHA's Alternative 7M Adjusted has been shifted to the west in an effort to continue to reduce the physical impact of the highway on the Brookeville Historic District. In order to construct Alternative 7M Adjusted, SHA plans to construct two bridges, one over Reddy Branch and a second over Meadow Branch. Both structures will be approximately 15 to 20-feet above the stream, with the structures' tops rising to 23 to 25-feet above the ground. Also, SHA will acquire 1.65 acres of right-of-way or perpetual easements, and 0.61 acres of temporary easements from property within the Brookeville Historic District boundary. The entire historic district boundary consists of 79.45 acres. These right-of-way or easement areas are not takes from residential properties in the Brookeville Historic District. Rather, the takes will be from M-NCPPC parkland where the road will cross Meadow Branch at the southern end of the project, as well as from the area along the south side of Brookeville Road where SHA will place a SWM pond within the Brookeville Historic District boundary adjacent to the Newlin-Downs Mill ruins. According to a 1951 aerial photograph of Brookeville this area was open fields but had become forested when a new aerial was taken in 1970. SHA will also require 0.61 acres of temporary construction impacts in order to construct MD 97 Alternative 7M Adjusted. Since these acquisition areas are small amounts that are removed from the historic buildings in the district, do not impact the yards or other landscape features associated with the houses, and do not impact the important views to or from the historic district, SHA has determined that construction of MD 97 Alternative 7M Adjusted will have no adverse impact on the Brookeville Historic District. Visual impacts from the new road and/or bridges will be obscured by the woods that will remain on the west side of the Brookeville Historic District, and SHA will provide additional landscaping toward the historic district to reduce views from the historic district that would impact the Brookeville Historic District. Under this alternative, Bridge No. 1501200 will be removed and the crossing of Reddy Branch will be relocated to the new highway. There will be no impacts to SHA Bridge No. 1501200 or Locust Grove II since both are not eligible for the NRHP.

In order to construct Alternative 8B Modified, SHA will acquire 0.48 acres of right-of-way or perpetual easements and require 0.31 acre of temporary construction easements from the Brookeville Historic District, which consists of 79.45 acres. Based on the preliminary plans provided these acquisition areas will occur at the far western edge of the Brookeville Historic District, outside the residential area of town in parkland where Meadow Branch will cross the road, as well as from along the south side of Brookeville Road within the Brookeville Historic District boundary adjacent to the Newlin-Downs Mill ruins. This alternative also requires construction of two bridges, including one that would cross both Brookeville Road and Reddy Branch at the north end of the project area. The two bridges will both be 15 to 20 feet above the road and/or the stream, and the structures' tops will rise 23 to 25 feet, and the Reddy Branch crossing will be on structure (piers) since it will have several spans and be 400 feet long. Although SHA has shifted Alternative 8B Modified to the west so that it will be further removed from the historic district, the proposed northern bridge will be at least 400 feet long and the

approach at Brookeville Road will require fill in order to lift the bridge 15 to 20 feet above the road and then will be on structure (piers) in order to cross Reddy Branch and the wetland. At 23 to 25 feet high, this structure will introduce new visual and physical elements at the west and north sides of the historic district for a distance of 400 feet. In this alternative, SHA proposes to retain SHA Bridge No. 1501200, which is the current bridge carrying MD 97 over Reddy Branch at the north end of the Brookeville Historic District. SHA has determined that Alternative 8B Modified will have an adverse impact on the Brookeville Historic District. We make this determination because the alignment, including the high bridge at the north end of the project will introduce new visual and physical elements that will change the views to and from the historic district along its western and northern boundaries.

The Brookeville Stream Restoration Project at Reddy Branch will have no impact on the Brookeville Historic District or Bordley's Choice since the project will be located on the east side of the Brookeville, will be at or below the grade of the highway and outside the boundaries of both the historic district and the historic property. There are no historic standing structures within the stream restoration area.

Under both MD 97 Alternative 7M Adjusted and MD 97 Alternative 8B Modified, Bordley's Choice is well removed from the new construction and there will be no visual or physical impacts to the historic property. We make this determination because the house stands at the rear of the lot, is buffered from the current alignment of MD 97 by trees and shrubbery, and the new alignments end at MD 97 south of the historic property. SHA's findings are summarized in the Hybrid Eligibility and Impacts Table found in Attachment 8.

Archaeology: SHA Consultant Archaeologist Lisa Kraus assessed the potential of the survey area through consultation of the SHA-GIS Cultural Resources Database, previous project correspondence, archaeological reports, historic and environmental maps, site file data, and construction plans. Site visits were made on May 4 and October 1, 2015.

The survey area was included in five prior archaeological investigations (Fehr et al. 1997, 2000, 2008; Meyers 1989; Sorenson 1992), and four sites have been identified there: 18MO368, the Newlin-Downs Mill Complex; 18MO459, a prehistoric lithic scatter; 18MO460, an African-American tenant house site; and 18MO559, a scatter of prehistoric and historic artifacts.

Three of the sites were recommended not eligible for listing in the NRHP, and MHT concurred with these recommendations on August 13, 1997 (18MO459), April 17, 2001 (18MO559) and November 25, 2002 (18MO460). The Phase IB surveys that took place in 1997 and 2000 included subsurface testing and pedestrian survey of multiple alignments originally proposed for the Brookeville Bypass, and according to project maps in the 1997 and 2000 reports, the fieldwork included all high-potential areas within the alignments currently proposed.

The Newlin-Downs Mill Complex was subject to Phase II evaluation studies in 2002, and was determined to be eligible for listing in the NRHP; MHT concurred with this recommendation on November 25, 2002.

Since 2002, a section of the roadway and the northern roundabout have been shifted north and west, to minimize impacts to both cultural and environmental resources. As a result, the anticipated impacts to the Newlin-Downs Mill Complex have been substantially reduced.

Both Alternatives 7M Adjusted and 8B Modified now completely avoid the intact core of the site, which includes the mill and miller's house and associated deposits, but both will impact the large mill race, which extends west from the mill along the Oakley Cabin Trail. According to earlier project correspondence, if impacts to the large race were to occur, excavation was recommended to document its construction technique. However, this work already occurred during the Phase II survey in 2002. Subsurface testing at several locations along the mill race showed that, "The large mill race was formed by excavating a portion of the hillside to form a flat terrace. The excavated material was piled on the streamside of the mill race to form the outer mill race wall" (Fehr et al. 2008, pp.41-42).

In some areas, "it was evident from topography that the original hill slope had been cut and re-contoured to form a level terrace for placement of the mill race. Shovel tests excavated in the portion of the mill race nearest to the stone (miller's house) foundation recorded a deposit of greenish-gray decayed micaceous schist between 5.1 inches below surface and 11 inches below surface…this was tentatively identified as potentially defining the base of the mill race" (Fehr et al. 2008, pp. 60).

Both the large and small mill races were fully mapped, measured drawings of the cross sections were made at regular intervals along the entire course of both the large and small races, photographs were taken, and subsurface excavations were undertaken to document the depth of the races at various points, as well as to record soil profiles and document construction techniques.

During site visits made in May and October of 2015, it was noted that the mill races have been filled in and obscured by soils eroding from surrounding steep slopes, especially in the area immediately surrounding the site's core, where the mill and miller's house are located. The large race has been previously impacted by installation of a sewer line, and the small race, millpond and dam were impacted by a stream channelization project undertaken in the 1930s (Fehr et al. 2008). The 2008 report notes that the large race is most intact and most clearly visible west of the site (between 0.1 and 0.4 km/0.06 and 0.25 miles west). The two alternates will impact approximately 300 linear feet of this section of the mill race, and approximately 450 linear feet overall. In 2002, the mill race impacts were estimated at 700 linear feet for Alternative 7M and 500 feet for Alternative 8B.

In light of the prior disturbance, the races are not currently intact and, since they are invisible for much of their course, do not clearly show the relationship of the mill to the surrounding streams. Given the extent of prior study, it is unlikely that further excavation and study of the mill races would provide additional significant data.

A bioswale is proposed along the northern edge of the site just south of Brookeville Road; however, this area was previously tested and documented in the Phase II evaluation with shovel tests and several test units, and no artifacts were recovered from the proposed bioswale location. Although the worst-case LOD for the bioswale is close to the area defined as the mill platform, it should be noted that none of the five test units (TUs 1, 3, 4, 14 and 15) excavated to document the mill structure contained any architectural or other cultural features, and that only 326 artifacts (less than 6% of the total artifacts recovered at the site) were recovered from these five units. Of these, 208 were recovered from a secondary deposit in TU4, which was interpreted as a fill episode that occurred at some point after the mill was dismantled.

The Brookeville Stream Restoration Project at Reddy Branch is located east of the town of Brookeville. The western end of the wetland mitigation area was included in Fehr et al.'s 1997 Phase I survey for a previous bypass alternate. One fieldstone structural foundation was identified during the survey, but this potential historic site is located 550 feet (approximately 170 meters) north of Brighton Dam Road on a terrace overlooking the floodplain, approximately 250 feet north of the project limits. No sites have been recorded within the APE.

The wetland mitigation will involve the removal of soils that have eroded from surrounding slopes, causing Reddy Branch to cut deep, narrow channels into the floodplain and substantially erode intact floodplain deposits. Soils within the wetland mitigation area's limits of disturbance are classed as poorly drained, occasionally flooded Codorus silt loam, which consists of recently deposited alluvial materials eroded from surrounding uplands. A site visit conducted on October 1, 2015 confirmed that the wetland mitigation area has been extensively disturbed by flooding and dissection by Reddy Branch. The proposed wetland mitigation is unlikely to impact any intact or potentially significant archaeological remains.

Given that the relocation of the roundabout and roadway now completely avoids the intact portion of 18MO368, eliminating impacts to the area including and surrounding the millworker's house, and will impact only areas that have been previously documented and disturbed, and since the wetland mitigation project will take place in the previously-disturbed floodplain of Reddy Branch, SHA recommends that neither Alternative 7M Adjusted nor 8B Modified will have adverse effects on archaeological resources.

Next Steps

Once SHA has a single selected alternative, we will continue consulting with all parties to finalize project details. A consulting parties meeting is not currently planned for the project.

Review Request

Please examine the attached maps, plans and Effects Table. We request your concurrence by November 8, 2015 that there would be no adverse impact on historic properties, including the Brookeville Historic District by Alternative 7M Adjusted, as a result of the construction of the

MD 97 Brookeville Project from Longwood Park to south of Holiday Drive on the west side of Brookeville in Montgomery County. SHA also requests your concurrence by November 8, 2015 that there would be an adverse impact on historic properties, including the Brookeville Historic District by Alternative 8B Modified, as a result of the construction of the MD 97 Brookeville Project from Longwood Park to south of Holiday Drive on the west side of Brookeville in Montgomery County. By carbon copy, we invite the Town of Brookeville Town Commissioners, National Park Service (Star Spangled Banner Trail), Montgomery County Heritage Area, Montgomery Preservation, Inc., Montgomery County Historic Preservation Commission, and Montgomery County Parks to provide comments and participate in the Section 106 process. Pursuant to the requirements of the implementing regulations found at 36 CFR Part 800, SHA seeks their assistance in identifying historic preservation issues as they relate to this specific project (see 36 CFR §800.2(c)(3) and (5), and §800.3(f) for information regarding the identification and participation of consulting parties, and §800.4, and §800.5 regarding the identification of historic properties and assessment of effects). For additional information regarding the Section 106 regulations, see the Advisory Council on Historic Preservation's website, www.achp.gov, or contact the Maryland State Highway Administration or the Maryland Historical Trust. If no response is received by November *, 2015, we will assume that these offices and agencies decline to participate. Please call Anne E. Bruder at 410-545-8559 or via email at abruder@sha.state.md.us with questions regarding standing structures for this project. Lisa Kraus may be reached at 410-545-2884 or via email at lkraus@sha.state.md.us with concerns regarding archaeology.

Sincerely,

April Fehr
For

Digitally signed by April Fehr
DN: cn=April Fehr, o=MD SHA, ou=Cultural Resources Section, email=afehr@sha.state.md.us, c=US
Date: 2015.10.08 08:45:43 -04'00'

Julie M. Schablitsky
Assistant Division Chief
Environmental Planning Division

Attachments:
1) MD 97 Alternative 7M Adjusted Project Plans
2) MD 97 Alternative 7M Adjusted Soil Borings Plan
3) MD 97 Alternative 8B Modified Project Plans
4) Stream Restoration Plan
5) APE Map
6) DOE Short Form w/Attachments
7) Eligibility and Impacts Table

cc: Town of Brookeville Town Commissioners (w/Attachments)
Ms. Joy Liang, FHWA MD Division (w/Attachments)
Mr. Charles Grady, National Park Service (Star Spangled Banner Trail) (w/Attachments)
Ms. Sarah Rogers, Montgomery County Heritage Area (w/Attachments)
Ms. Eileen McGuckian, Montgomery Preservation, Inc. (w/Attachments)
Mr. Scott Whipple, Montgomery County Historic Preservation Commission (w/Attachments)
Ms. Cassandra Michaud, Montgomery County Parks (w/ Attachments)
Ms. Julie Mueller, Montgomery County Parks (w/Attachments)
Ms. Anne E. Bruder, SHA-EPLD (w/Attachments)
Ms. Allison Grooms, SHA- EPLD (w/Attachments)
Dr. Lisa Kraus, SHA-EPLD (w/Attachments)
Dr. Julie M. Schablitsky, SHA-EPLD (w/Attachments)
Ms. Huqin Zhang, SHA-OHD (w/Attachments)

Concurrence with the MD State Highway Administration's
Determination(s) of Eligibility and/or Effects

Project Number: MO745M21 **MHT Log No._____**
Project Name: MD 97 Brookeville Bypass from Longwood Park to South of Holiday Drive (Roundabout Connections)
County: Montgomery
Letter Date: October 8, 2015

The Maryland Historical Trust has reviewed the documentation attached to the referenced letter and concurs with the MD State Highway Administration's determinations as follows:

Eligibility (as noted in the Eligibility Table [Attachment 7]):

[ ] Concur
[ ] Do Not Concur

Impact (as noted in the Impact Table [Attachment 7]):
SHA MD 97 Brookeville Alternative 7M Adjusted:

[ ] No Properties Affected
[ ] No Adverse Effect
[ ] Conditioned upon the following action(s) (see comments below)
[ ] Adverse Effect

SHA MD 97 Brookeville Alternative 8B Modified:

[ ] No Properties Affected
[ ] No Adverse Effect
[ ] Conditioned upon the following action(s) (see comments below)
[ ] Adverse Effect

Comments:

By: _____ _____
MD State Historic Preservation Office/ Maryland Historical Trust — Date

Return by U.S. Mail or Facsimile to:
Dr. Julie M. Schablitsky, Assistant Division Chief, Environmental Planning Division,
MD State Highway Administration, P.O. Box 717, Baltimore, MD 21203-0717
Telephone: 410-545-8870 and Facsimile: 410-209-5046
A-Proj 4925

Attachment 7: Hybrid Eligibility and Impacts Table

Project Name: MD 97 Brookeville Bypass form Longwood Park to South of Holiday Drive (Roundabout Connections) **October 8, 2015**

				Alternative 7M Adjusted		Alternative 8B Modified			
Resource	**Type**	**SHA NR Det.**	**SHPO Opinion**	**Impact**	**SHPO Concur**	**Impact**	**SHPO Concur**	**Attachment**	**Remarks**
Brookeville Historic District, M:23-65	**HD**			**No Adverse**	**Requested 10/2015**	**Adverse**	**Requested 10/2015**		
Bordley's Choice, M:23-66	**S**			**None**	**Requested 10/2015**	**None**	**Requested 10/2015**		**Outside Project APE**
Locust Grove II, M:2361	**S**	**X**	**X 10/28/1996**	**None**	**Requested 10/2015**	**None**	**Requested 10/2015**		
20001 Georgia Avenue	**S**	**X**	**Requested 10/2015**	**None**	**Requested 10/2015**	**None**	**Requested 10/2015**		
Newlin-Downs Mill Complex (18MO368)	**A**			**No Adverse**	**Requested 10/2015**	**No Adverse**	**Requested 10/2015**		
Effect				**NAI**	**Requested 10/2015**	**AI**	**Requested 10/2015**		

Codes:
Resource Types: S (Structure), A (Archaeological Site), HD (Historic District), NHL (National Historic Landmark)
Impact: None, No Adverse, Adverse
Effect: NPA (No Properties Affected), NAE (No Adverse Effect), AE (Adverse Effect)
Bold rows indicate review action requested

Larry Hogan, *Governor*
Boyd K. Rutherford, *Lt. Governor*

State Highway Administration
Maryland Department of Transportation

Pete K. Rahn, *Secretary*
Gregory C. Johnson, P.E., *Administrator*

February 5, 2016

Ms. Elizabeth Hughes
State Historic Preservation Officer
Maryland Historical Trust
100 Community Place
Crownsville MD 21032-2023

Dear Ms. Hughes:

Introduction and Project Description

This letter serves to inform the Maryland Historical Trust (MHT) of the Maryland State Highway Administration's (SHA) impact findings for two proposed alignments for construction of SHA Project No. MO746M21, MD 97 Brookeville Bypass from Longwood Park to South of Holiday Drive (Roundabout Connections). This letter supersedes SHA's October 8, 2015 letter (10/8 SHA Letter), but the attachments to that letter remain pertinent and are referenced below. The project involves construction of a new roadway on the west side of Brookeville in Montgomery County.

Alternatives:

Alternative 7M Adjusted: Based on the 2004 Final Environmental Impact Statement/Section 4(f) Evaluation's (FEIS) conclusions, SHA's selected alternative, Alternative 7 Modified, consists of a two-lane highway with 11-foot wide lanes and 10-foot shoulders, with two roundabouts between the Reddy Branch Stream Valley Park and the Maryland-National Capital Park and Planning Commission (M-NCPPC) park property, which is reserved for transportation use, to minimize impacts to the Brookeville Historic District (M:23-65) and the Newlin-Downs Mill Complex (18MO368), which is a contributing resources to the Brookeville Historic District. Since SHA consulted with MHT about the project in 2002, we have shifted the Alternative 7 alignment further west and north in order to avoid impacts to the Newlin-Downs Mill Complex, high quality forest and a stream in the M-NCPPC property. This new alternative is now called MD 97 Alternative 7M Adjusted.

Alternative 7M Adjusted uses 40 mph design speed and includes two 11-foot lanes and 8-foot shoulders. Both the southern and northern roundabouts are single lane roundabouts, which can accommodate Interstate Semitrailer (WB-67) Trucks. The southern roundabout has been shifted south toward the Longwood Community Center's ball field to optimize the impacts to a private

driveway and the roundabout's entrance and exit. The northern roundabout with Brookeville Road has also been shifted west along Brookeville Road to reduce impacts to the Newlin-Downs Mill Complex. With the shift of the northern roundabout, the MD 97 alignment from the northern roundabout to existing MD 97 has also been shifted to the north, with the bridge crossing at Reddy Branch. The new highway will include two bridges, one over Meadow Branch and the second over Reddy Branch, which will each be 120 feet long single span concrete slab bridges. Both will be 15 to 20 feet above the streams, and will rise to 23 to 25 feet at the top of each structure. SHA Bridge No. 1501200, MD 97 over Reddy Branch, will be removed. SHA also developed stormwater management (SWM) and wetland mitigation concepts based on the current regulation requirements, which are shown in the 10/8 SHA Letter as Attachment 1.

Brookeville Road Removal: As part of Alternative 7M Adjusted, SHA proposes to remove the section of Brookeville Road between the northern roundabout and existing MD 97 from transportation system to further reduce the impacts to parkland, the Brookeville Historic District and its contributing archaeological site, streams and floodplains. The pavement will be removed and replaced with pervious material to help meet SWM requirements for the project. The culvert at Brookeville Road near MD 97 will be replaced with a box culvert maintaining same hydraulics effect. The road would be improved as a pedestrian path that would be owned by the M-NCPPC to use as part of the park. The plan sheet is included here as *Attachment A*. It is SHA's finding that MD 97 Alternative 7M Adjusted would have no adverse impacts on historic properties, including the Brookeville Historic District and the Newlin-Downs Mill Site.

Alternative 8B Modified: At the request of the M-NCPPC, SHA has agreed to consider whether Alternative 8B Modified would continue to have an adverse impact on the Brookeville Historic District. Alternative 8B Modified has a 40-mph design speed and follows the idea of the 2004 FEIS Alternative 8B, but uses the alignment of the Alternative 7M Adjusted. This Alternative features a typical roadway section of two 11-foot lanes, 8-foot shoulders, and two bridges, the first crossing Meadow Branch via a 120-foot long concrete slab bridge, and the second spanning both Brookeville Road and Meadow Branch, having a 400-foot long, concrete beam bridge that will be on structure to carry the bridge's multiple spans. Both bridges will be between 15 and 20 feet above the streams and/or above Brookeville Road, and 23 to 25-feet at the top of each structure. The northern roundabout has been shifted north of Brookeville Road, meeting MD 97 ¼ mile north of Reddy Branch. With this option, the existing bridge along MD 97 will remain in place. SHA would require similar SWM and wetland mitigation concepts as Alternative 7M Adjusted. The plan included in the 10/8 SHA Letter as Attachment 3 is a schematic plan showing the highway's proposed location. It is SHA's finding that MD 97 Alternative 8B Modified would continue to have an adverse impact on the Brookeville Historic District and Newlin-Downs Mill Site.

Brookeville Bypass Stream Restoration Project:

SHA proposes to mitigate wetland impacts by the new highway where wetland and stream impacts may occur by creating a stream restoration project along Reddy Branch on the east side of the Brookeville Historic District. The restoration area includes the valley bottom along

approximately 2,500 feet of Reddy Branch. The site is owned entirely by M-NCPPC and the current land use is open parkland. A preliminary plan is included in the 10/8 SHA Letter as Attachment 4.

Previous Consultation

SHA consulted with MHT about the bypass project starting in 1996 regarding structures' eligibility. MHT provided comments about the Phase 1B archaeological investigations on August 13, 1997, and concurred with the adverse impact determinations on the Brookeville Historic District for MD 97 Alternatives 3, 4 Modified and 5C on May 5, 1998 and the in-town alternative on December 7, 1998. On February 16, 2001, SHA provided new alternatives called MD 97 Alternative 7 and MD 97 Alternative 8 with two options – 8A was at-grade while 8B was the high bridge over Brookeville Road and Reddy Branch. MHT provided concurrence comments that these alternatives would be adverse on the Brookeville Historic District on April 16, 2001. The most recent correspondence between the agencies occurred when SHA provided final adverse impact determinations for Alternative 7 and 8B on August 19, 2002, and MHT concurred with the determinations on November 6, 2002. The agencies then entered into a Memorandum of Agreement on December 10, 2003, which expired in December 2013.

Purpose and Need

The purpose and need for the project is to remove the continually increasing traffic volumes from the Town of Brookeville, improve traffic operations and safety conditions on existing MD 97, and preserve the historic character of the town.

Public Meetings

SHA has conducted a series of public meetings regarding the MD 97 project, including an Information Public Workshop in June 1995, an Alternatives Public Workshop in May 1996, an Informational Public Meeting in June 2000, a combined Location/Public Hearing in October 2001, and a Public Information Meeting on September 29, 2015. SHA also made a presentation at Brookeville's January 11, 2016 Semi-Annual Town Meeting and responded to questions and comments.

Funding

Federal funds were used during the planning stage and state funds will be used for construction of the project.

Area of Potential Effects

In determining the Area of Potential Effects (APE) for this project, SHA considered possible visual, audible, atmospheric and/or physical impacts to historic properties, both archaeological sites and standing structures that would diminish any National Register of Historic Places (NRHP) qualifying characteristic of the historic property's integrity. The project will require additional right-of-way, as well as perpetual and temporary easements. The highway will be constructed within and adjacent to the Brookeville Historic District's western boundary, and the district is included in the APE. The APE also includes a portion of Reddy Branch on the east side of Brookeville where SHA will do a stream restoration project. The archaeology survey area within the APE is defined as the limits of construction where ground disturbance would occur. The APE is indicated on the USGS quadrangle map for Sandy Spring included in the 10/8 SHA Letter as Attachment 5.

Identification Methods and Results

Potentially significant architectural and archaeological resources were both researched as part of the historic investigation instigated by the proposed construction of the bypass highway.

Architecture: SHA Architectural Historian Anne E. Bruder consulted the SHA-GIS Cultural Resources Database, the NRHP form for the Brookeville Historic District, the archaeological site DOE form and the May 2004 FEIS for the MD 97 project, reviewed the Fielding Lucas Map of Maryland from 1836 and Simon Martenet's Map of Maryland from 1865, viewed the 1951 and 1970 aerial photographs of Brookeville, and made a field visit on October 9, 2014 to walk the alignment to consider potential visual and physical impacts to the Brookeville Historic District. A second field visit was made on September 29, 2015, and a public information meeting was held on the same date to discuss the project with concerned citizens in the project area. Ms. Bruder discussed the project and its possible Section 106 impacts to the Brookeville Historic District with several Brookeville residents.

The APE for this project includes the Brookeville Historic District (M:23-65) because the project will be constructed within the district's west side. Brookeville is significant as a Quaker town that was established at the end of the 18th century. The town's standing structures date from the late 18th through the early 20th centuries, and the district is significant for its architecture. On August 26, 1814, the town served as the capital of the United States when President James Madison took refuge from the British invasion of Washington, DC and the burning of the White House, so the district is also significant for its association with the President for one day. Other historic properties in the APE include Bordley's Choice (M:23-66), a fieldstone building that began as a school in the 18th century but has been converted to a single family dwelling that is eligible under NRHP Criteria A, B and C. SHA Bridge No. 1501200 (M:23-126), MD 97 (Georgia Avenue) over Reddy Branch at the northwest end of the historic district is not eligible

and does not contribute to the historic district. It was determined not eligible for the NRHP by SHA in February 9, 2001 and MHT concurred on April 3, 2001. Locust Grove II, M:23-61, an early-to-mid 19th century house on Brookeville Road west of the historic district is also in the APE, but was determined not eligible by SHA and MHT on October 28, 1996.

SHA found one additional single family dwelling located at 20001 Georgia Avenue north of the historic district. The building appears to be a late 19th century dwelling that has been converted to commercial uses. Based on the field visit and the visible alterations, SHA has determined that 20001 Georgia Avenue is not eligible for inclusion in the NRHP. A Determination of Eligibility short form describing the property and SHA's eligibility determination along with a photo and a location map are included in the 10/8 SHA Letter as Attachment 6. The eligibility determination is summarized in SHA's Hybrid Eligibility and Impacts Table in the 10/8 SHA Letter Attachment 7.

Brookeville is also a site on the Star Spangled Banner National Historic Trail which is a National Park Service heritage trail. The Caleb Bentley House at 205 Market Street in Brookeville served as President Madison's capital in August 1814. The house stands on the east side of the historic district and will not be directly impacted by the construction of the bypass. MD 97 is not a part of the historic trail. Brookeville is also within the Montgomery County Heritage Area.

Impact Assessment:

SHA's Alternative 7M Adjusted has been shifted to the west in an effort to continue to reduce the physical impact of the highway on the Brookeville Historic District. In order to construct Alternative 7M Adjusted, SHA plans to construct two bridges, one over Reddy Branch and a second over Meadow Branch. Both structures will be approximately 15 to 20-feet above the stream, with the structures' tops rising to 23 to 25-feet above the ground. Also, SHA will require right-of-way, perpetual easements, and temporary easements from property within the Brookeville Historic District boundary. The entire historic district boundary consists of 79.45 acres. These right-of-way or easement areas are not takes from residential properties in the Brookeville Historic District. Rather, the takes will be from M-NCPPC parkland where the road will cross Meadow Branch at the southern end of the project. According to a 1951 aerial photograph of Brookeville this area was open fields but had become forested by 1970. Also, SHA will remove the pavement of Brookeville Road between the current MD 97 and the new highway alignment, which will reduce the physical and visual impacts of the project on the Brookeville Historic District and the contributing archaeological site since the roadway will be reduced to a pedestrian path with a pervious surface. SHA will also require temporary construction easements in order to construct MD 97 Alternative 7M Adjusted. Since these acquisition areas are small amounts that are removed from the historic buildings in the district, do not impact the yards or other landscape features associated with the houses, and do not impact the important views to or from the historic district, SHA has determined that construction of MD

97 Alternative 7M Adjusted will have no adverse impact on the Brookeville Historic District. Visual impacts from the new road and/or bridges will be obscured by the trees and bushes that will remain on the west side of the Brookeville Historic District, and SHA will provide additional landscaping along the west side of the historic district to reduce views from the historic district that would have the potential to adversely impact the Brookeville Historic District. Under this alternative, Bridge No. 1501200 will be removed and the crossing of Reddy Branch will be relocated to the new highway. There will be no impacts to SHA Bridge No. 1501200 or Locust Grove II since both are not eligible for the NRHP.

In order to construct Alternative 8B Modified, SHA will acquire right-of-way, perpetual easements and temporary construction easements from the Brookeville Historic District, which consists of 79.45 acres. Based on the preliminary plans provided these acquisition areas will occur at the far western edge of the Brookeville Historic District, outside the residential area of town in parkland where Meadow Branch will cross under the road. This alternative also requires construction of two bridges, including one that would cross both Brookeville Road and Reddy Branch at the north end of the project area. The two bridges will both be 15 to 20 feet above the road and/or the stream, and the structures' tops will rise 23 to 25 feet, and the Reddy Branch crossing will be on structure (piers) since it will have several spans and be 400 feet long. Although SHA has shifted Alternative 8B Modified to the west so that it will be further removed from the historic district, the proposed northern bridge will be at least 400 feet long and the approach at Brookeville Road will require fill in order to lift the bridge 15 to 20 feet above the road and then will be on structure (piers) in order to cross Reddy Branch and the wetland. At 23 to 25 feet high, this structure will introduce new visual and physical elements at the west and north sides of the historic district for a distance of 400 feet. In this alternative, SHA proposes to retain SHA Bridge No. 1501200, which is the current bridge carrying MD 97 over Reddy Branch at the north end of the Brookeville Historic District. Brookeville Road between current MD 97 and the bypass would also be retained. SHA has determined that Alternative 8B Modified will have an adverse impact on the Brookeville Historic District. We make this determination because the alignment, including the high bridge at the north end of the project will introduce new visual and physical elements that will change the views to and from the historic district along its western and northern boundaries.

The Brookeville Stream Restoration Project at Reddy Branch will have no impact on the Brookeville Historic District or Bordley's Choice since the project will be located on the east side of the Brookeville, will be at or below the grade of the highway and outside the boundaries of both the historic district and the historic property. There are no historic standing structures within the stream restoration area.

Under both MD 97 Alternative 7M Adjusted and MD 97 Alternative 8B Modified, Bordley's Choice is well removed from the new construction and there will be no visual or physical impacts to the historic property. We make this determination because the house stands at the

rear of the lot, is buffered from the current alignment of MD 97 by trees and shrubbery, and the new alignments end at MD 97 south of the historic property. SHA's findings are summarized in the Hybrid Eligibility and Impacts Table found in the 10/8 SHA Letter Attachment 8.

Archaeology: SHA Consultant Archaeologist Lisa Kraus assessed the potential of the survey area through consultation of the SHA-GIS Cultural Resources Database, previous project correspondence, archaeological reports, historic and environmental maps, site file data, and construction plans. Site visits were made on May 4 and October 1, 2015.

The survey area was included in five prior archaeological investigations (Fehr et al. 1997, 2000, 2008; Meyers 1989; Sorenson 1992), and four sites have been identified there: 18MO368, the Newlin-Downs Mill Complex; 18MO459, a prehistoric lithic scatter; 18MO460, an African-American tenant house site; and 18MO559, a scatter of prehistoric and historic artifacts.

Three of the sites were recommended not eligible for listing in the NRHP, and MHT concurred with these recommendations on August 13, 1997 (18MO459), April 17, 2001 (18MO559) and November 25, 2002 (18MO460). The Phase IB surveys that took place in 1997 and 2000 included subsurface testing and pedestrian survey of multiple alignments originally proposed for the Brookeville Bypass, and according to project maps in the 1997 and 2000 reports, the fieldwork included all high-potential areas within the alignments currently proposed.

The Newlin-Downs Mill Complex was subject to Phase II evaluation studies in 2002, and was determined to be eligible for listing in the NRHP; MHT concurred with this recommendation on November 25, 2002.

Since 2002, a section of the roadway and the northern roundabout have been shifted north and west, to minimize impacts to both cultural and environmental resources. As a result, the anticipated impacts to the Newlin-Downs Mill Complex have been substantially reduced.

Alternative 7M Adjusted now completely avoids the intact core of the site, which includes the mill and miller's house and associated deposits, but both will impact the large mill race, which extends west from the mill along the Oakley Cabin Trail. According to earlier project correspondence, if impacts to the large race were to occur, excavation was recommended to document its construction technique. However, this work already occurred during the Phase II survey in 2002. Subsurface testing at several locations along the mill race showed that, "The large mill race was formed by excavating a portion of the hillside to form a flat terrace. The excavated material was piled on the streamside of the mill race to form the outer mill race wall" (Fehr et al. 2008, pp.41-42).

In some areas, "it was evident from topography that the original hill slope had been cut and re-contoured to form a level terrace for placement of the mill race. Shovel tests excavated in the portion of the mill race nearest to the stone (miller's house) foundation recorded a deposit of greenish-gray decayed micaceous schist between 5.1 inches below surface and 11 inches below surface…this was tentatively identified as potentially defining the base of the mill race" (Fehr et al. 2008, pp. 60).

Both the large and small mill races were fully mapped, measured drawings of the cross sections were made at regular intervals along the entire course of both the large and small races, photographs were taken, and subsurface excavations were undertaken to document the depth of the races at various points, as well as to record soil profiles and document construction techniques.

During site visits made in May and October of 2015, it was noted that the mill races have been filled in and obscured, in several places, by soils eroding from surrounding steep slopes, especially in the area immediately surrounding the site's core, where the mill and miller's house are located. The large race has also been previously impacted in two places by a sewer line easement: about 0.25 to 0.31 miles west of the site, as well as the 1650 feet closest to the mill. This disturbance is documented in the 2008 Phase II report (page 41-42; Figures 13-27), and is visible in LiDAR imagery of the site as well (*Attachment B*). The small race, millpond and dam were impacted by a stream channelization project undertaken in the 1930s (Fehr et al. 2008).

Both Alternatives 7M Adjusted and 8B would impact about 700 feet of the large mill race. In light of the prior disturbance, the races are not currently intact. Given the extent of prior study, it is unlikely that further excavation and study of the mill races would provide additional significant data.

For Alternative 8B, a bioswale is proposed along the northern edge of the site, south of Brookeville Road. The bioswale would destroy the feature interpreted as the mill platform. This would constitute an adverse impact to the site.

Alternative 7M does not include the bioswale along Brookeville Road, and would impact only the large mill race, as described above. It is SHA's opinion that, since the race has been previously disturbed, mapped, and documented, and since the removal of work along Brookeville Road eliminates all other impacts to the site, Alternative 7M would have no adverse impact on the Newlin-Downs Mill Site (see *Attachment C*).

The Brookeville Stream Restoration Project at Reddy Branch is located east of the town of Brookeville. The western end of the wetland mitigation area was included in Fehr et al.'s 1997 Phase I survey for a previous bypass alternative. One fieldstone structural foundation was identified during the survey, but this potential historic site is located 550 feet (approximately 170 meters) north of Brighton Dam Road on a terrace overlooking the floodplain, approximately 250 feet north of the project limits. No sites have been recorded within the APE.

The wetland mitigation will involve the removal of soils that have eroded from surrounding slopes, causing Reddy Branch to cut deep, narrow channels into the floodplain and substantially erode intact floodplain deposits. Soils within the wetland mitigation area's limits of disturbance are classed as poorly drained, occasionally flooded Codorus silt loam, which consists of recently

deposited alluvial materials eroded from surrounding uplands. A site visit conducted on October 1, 2015 confirmed that the wetland mitigation area has been extensively disturbed by flooding and dissection by Reddy Branch. The proposed wetland mitigation is unlikely to impact any intact or potentially significant archaeological remains.

Given that the relocation of the roundabout and roadway now completely avoids the intact portion of 18MO368, eliminating impacts to the area including and surrounding the millworker's house, and will impact only areas that have been previously documented and disturbed, and since the wetland mitigation project will take place in the previously-disturbed floodplain of Reddy Branch, SHA recommends that Alternative 7M Adjusted will have no adverse impact on archaeological resources. Given the impacts to the intact core of the site resulting from SWM requirements, Alternative 8B would have adverse impact.

Next Steps

Once SHA has selected an alternative, we will continue consulting with all parties to finalize project details. SHA will hold a public meeting on February 25, 2016 at the Longwood Community Center to show the public these project changes and discuss the project with interested parties.

Review Request

Please examine the attached maps, plans and Effects Table. We request your concurrence by February 29, 2016 that there would be no adverse impact on historic properties, including the Brookeville Historic District by Alternative 7M Adjusted, as a result of the construction of the MD 97 Brookeville Project from Longwood Park to south of Holiday Drive on the west side of Brookeville in Montgomery County. SHA also requests your concurrence by February 29, 2016 that there would be an adverse impact on historic properties, including the Brookeville Historic District by Alternative 8B Modified, as a result of the construction of the MD 97 Brookeville Project from Longwood Park to south of Holiday Drive on the west side of Brookeville in Montgomery County. By carbon copy, we invite the Town of Brookeville Town Commissioners, National Park Service (Star Spangled Banner Trail), Montgomery County Heritage Area, Montgomery Preservation, Inc., Montgomery County Historic Preservation Commission, and Montgomery County Parks to provide comments and participate in the Section 106 process. Pursuant to the requirements of the implementing regulations found at 36 CFR Part 800, SHA seeks their assistance in identifying historic preservation issues as they relate to this specific project (see 36 CFR §800.2(c)(3) and (5), and §800.3(f) for information regarding the identification and participation of consulting parties, and §800.4, and §800.5 regarding the identification of historic properties and assessment of effects). For additional information regarding the Section 106 regulations, see the Advisory Council on Historic Preservation's website, www.achp.gov, or contact the Maryland State Highway Administration or the Maryland Historical Trust. If no response is received by February 29, 2016, we will assume that these offices and agencies decline to participate. Please call Anne E. Bruder at 410-545-8559 or via

email at abruder@sha.state.md.us with questions regarding standing structures for this project. Lisa Kraus may be reached at 410-545-2884 or via email at lkraus@sha.state.md.us with concerns regarding archaeology.

Sincerely,

April Fehr
For

Digitally signed by April Fehr
DN: cn=April Fehr, o=MD SHA, ou=EPLD-Cultural Resources Section, email=afehr@sha.state.md.us, c=US
Date: 2016.02.05 15:05:59 -05'00'

Julie M. Schablitsky
Assistant Division Chief
Environmental Planning Division

Attachments: A) MD 97 Removal of Brookeville Road
B) Lidar Imagery of Large Mill Race
C) Archaeological Site Map with 7M Adjusted LOD

cc: Town of Brookeville Town Commissioners (w/Attachments)
Ms. Joy Liang, FHWA MD Division (w/Attachments)
Mr. Charles Grady, National Park Service (Star Spangled Banner Trail) (w/Attachments)
Ms. Sarah Rogers, Montgomery County Heritage Area (w/Attachments)
Ms. Eileen McGuckian, Montgomery Preservation, Inc. (w/Attachments)
Mr. Scott Whipple, Montgomery County Historic Preservation Commission (w/Attachments)
Ms. Cassandra Michaud, Montgomery County Parks (w/ Attachments)
Ms. Julie Mueller, Montgomery County Parks (w/Attachments)
Ms. Anne E. Bruder, SHA-EPLD (w/Attachments)
Ms. Allison Grooms, SHA- EPLD (w/Attachments)
Dr. Lisa Kraus, SHA-EPLD (w/Attachments)
Dr. Julie M. Schablitsky, SHA-EPLD (w/Attachments)
Ms. Huqin Zhang, SHA-OHD (w/Attachments)

Concurrence with the MD State Highway Administration's
Determination(s) of Eligibility and/or Effects

Project Number: MO745M21 **MHT Log No._____**
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County: Montgomery
Letter Date: February 5, 2016

The Maryland Historical Trust has reviewed the documentation attached to the referenced letter and concurs with the MD State Highway Administration's determinations as follows:

Eligibility (as noted in the Eligibility Table [10/8 SHA Letter Attachment 7]):

[ ] Concur
[ ] Do Not Concur

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[ ] Adverse Effect

SHA MD 97 Brookeville Alternative 8B Modified:

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[ ] No Adverse Effect
[ ] Conditioned upon the following action(s) (see comments below)
[ ] Adverse Effect

Comments:_____

By: _____ _____
MD State Historic Preservation Office/ Maryland Historical Trust — Date

Return by U.S. Mail or Facsimile to:
Dr. Julie M. Schablitsky, Assistant Division Chief, Environmental Planning Division,
MD State Highway Administration, P.O. Box 717, Baltimore, MD 21203-0717
Telephone: 410-545-8870 and Facsimile: 410-209-5046
A-Proj 4925

Attachment 7: Hybrid Eligibility and Impacts Table

Project Name: MD 97 Brookeville Bypass form Longwood Park to South of Holiday Drive (Roundabout Connections) **February 5, 2016**

				Alternative 7M Adjusted		Alternative 8B Modified			
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Locust Grove II, M:2361	**S**	**X**	**X 10/28/1996**	**None**	**Requested 02/2016**	**None**	**Requested 02/2016**		
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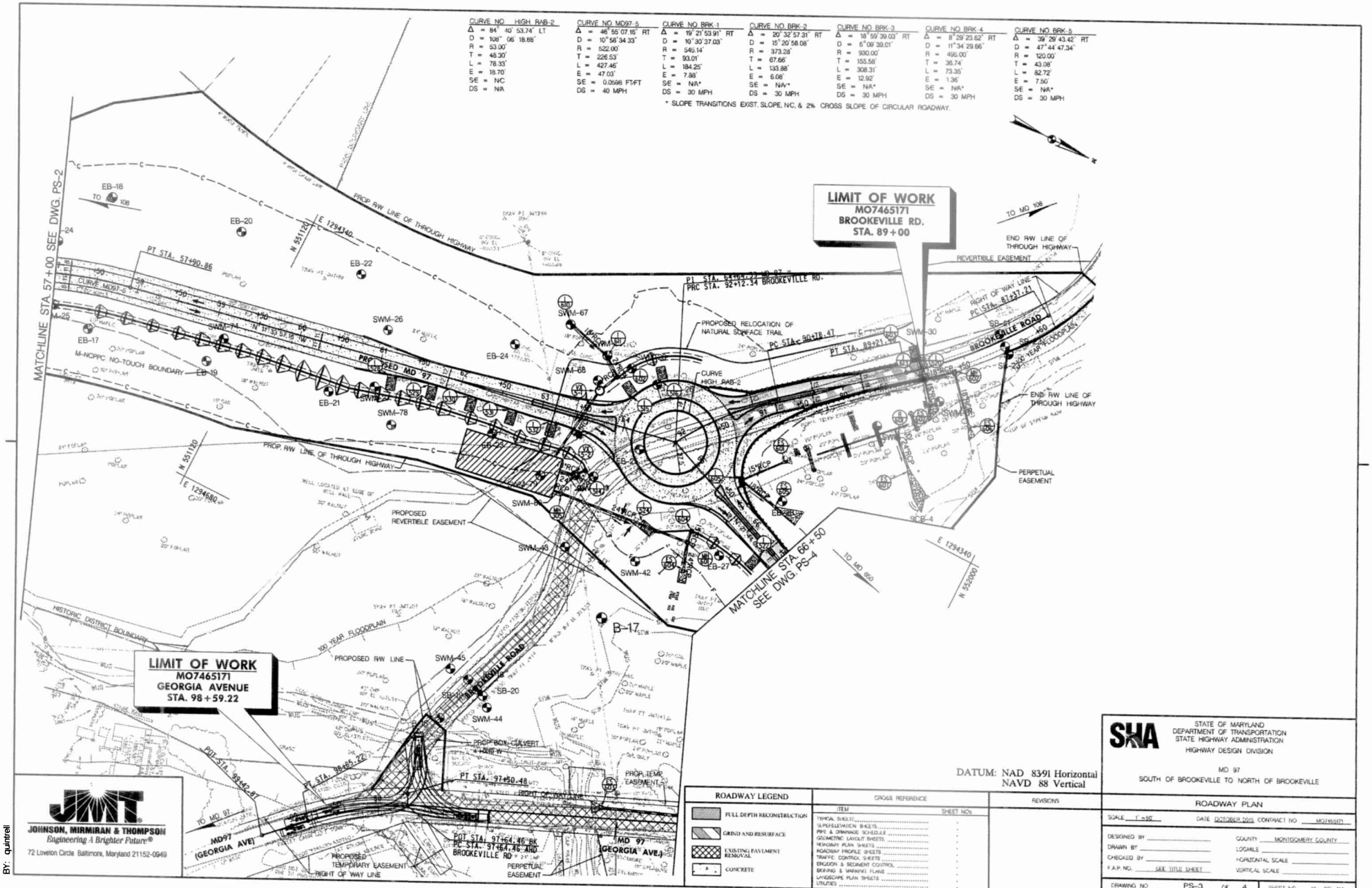
Effect: NPA (No Properties Affected), NAE (No Adverse Effect), AE (Adverse Effect)
Bold rows indicate review action requested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D = 108° 06' 18.88"
R = 53.00'
T = 48.30'
L = 78.33'
E = 18.70'
SE = N/C
DS = N/A
CURVE NO MD97-5
Δ = 46° 55' 07.16" RT
D = 10° 58' 34.33"
R = 522.00'
T = 226.53'
L = 427.46'
E = 47.03'
SE = 0.0598 FT/FT
DS = 40 MPH
CURVE NO BRK-1
Δ = 19° 21' 53.91" RT
D = 10° 30' 37.03"
R = 546.14'
T = 93.01'
L = 184.25'
E = 7.88'
SE = N/A*
DS = 30 MPH
CURVE NO BRK-2
Δ = 20° 32' 57.31" RT
D = 15° 20' 58.08"
R = 373.28'
T = 67.66'
L = 133.88'
E = 6.08'
SE = N/A*
DS = 30 MPH
CURVE NO BRK-3
Δ = 18° 59' 39.03" RT
D = 6° 09' 39.01"
R = 930.00'
T = 155.56'
L = 308.31'
E = 12.92'
SE = N/A*
DS = 30 MPH
CURVE NO BRK-4
Δ = 8° 29' 23.62" RT
D = 11° 34' 29.66"
R = 495.00'
T = 36.74'
L = 73.35'
E = 1.36'
SE = N/A*
DS = 30 MPH
CURVE NO BRK-5
Δ = 39° 29' 43.42" RT
D = 47° 44' 47.34"
R = 120.00'
T = 43.08'
L = 82.72'
E = 7.50
SE = N/A*
DS = 30 MPH
* SLOPE TRANSITIONS EXIST. SLOPE, N.C, & 2% CROSS SLOPE OF CIRCULAR ROADWAY.
LIMIT OF WORK
MO7465171
BROOKEVILLE RD.
STA. 89+00
LIMIT OF WORK
MO7465171
GEORGIA AVENUE
STA. 98+59.22
MATCHLINE STA. 57+00 SEE DWG. PS-2
MATCHLINE STA. 66+50 SEE DWG. PS-4
PROP. RW LINE OF THROUGH HIGHWAY
END RW LINE OF THROUGH HIGHWAY
REVERTIBLE EASEMENT
PERPETUAL EASEMENT
PROPOSED REVERTIBLE EASEMENT
PROPOSED RW LINE
PROPOSED TEMPORARY EASEMENT
RIGHT OF WAY LINE
PROP. TEMP. EASEMENT
PROPOSED RELOCATION OF NATURAL SURFACE TRAIL
CURVE HIGH RAB-2
CURVE MD97-5
M-NCPPC NO-TOUCH BOUNDARY
HISTORIC DISTRICT BOUNDARY
100 YEAR FLOODPLAIN
BROOKEVILLE ROAD
MD97 (GEORGIA AVE)
PROP. BOX CULVERT 4'x6'W
PT STA. 97+50.48
PT STA. 98+65.22
PT STA. 98+92.87
PC STA. 97+64.46 BK
PC STA. 97+64.46 AHD
BROOKEVILLE RD
PT STA. 97+90.86
PC STA. 90+78.47
PT STA. 89+21.21
PC STA. 87+21.21
PI STA. 84+93.21 MD 97
PRC STA. 92+12.34 BROOKEVILLE RD.
PROPOSED MD 97
TO MD 108
TO MD 650
N 551120
E 1294340
N 551120
E 1294680
N 552000
E 1294340
EB-17
EB-18
EB-19
EB-20
EB-21
EB-22
EB-24
EB-25
EB-26
EB-27
SWM-26
SWM-30
SWM-42
SWM-43
SWM-44
SWM-45
SWM-67
SWM-68
SWM-78
SB-20
SB-21
SB-22
SB-23
SB-24
B-17
100 YEAR FLOODPLAIN
15"RCP
24"RCP
18"RCP
SCP-4
DATUM: NAD 8391 Horizontal
NAVD 88 Vertical
ROADWAY LEGEND
FULL DEPTH RECONSTRUCTION
GRIND AND RESURFACE
EXISTING PAVEMENT REMOVAL
CONCRETE
CROSS REFERENCE
ITEM SHEET NOs
TYPICAL SHEETS
SUPERELEVATION SHEETS
PIPE & DRAINAGE SCHEDULE
GEOMETRIC LAYOUT SHEETS
ROADWAY PLAN SHEETS
ROADWAY PROFILE SHEETS
TRAFFIC CONTROL SHEETS
EROSION & SEDIMENT CONTROL
SIGNING & MARKING PLANS
LANDSCAPE PLAN SHEETS
UTILITIES
REVISIONS
JOHNSON, MIRMIRAN & THOMPSON
Engineering A Brighter Future®
72 Loveton Circle Baltimore, Maryland 21152-0949
STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
HIGHWAY DESIGN DIVISION
MD 97
SOUTH OF BROOKEVILLE TO NORTH OF BROOKEVILLE
ROADWAY PLAN
SCALE 1"=50' DATE OCTOBER 2015 CONTRACT NO MO7465171
DESIGNED BY
DRAWN BY
CHECKED BY
F.A.P. NO. SEE TITLE SHEET
COUNTY MONTGOMERY COUNTY
LOGMILE
HORIZONTAL SCALE
VERTICAL SCALE
DRAWING NO PS-3 OF 4
SHEET NO 18 OF 114
PLOTTED: 9/24/2015
BY: quintrell

MARYLAND DEPARTMENT OF
PLANNING
MARYLAND HISTORICAL TRUST

Larry Hogan, Governor
Boyd Rutherford, Lt. Governor

David R. Craig, Secretary
Wendi W. Peters, Deputy Secretary

April 5, 2016

Dr. Julie M. Schablitsky
Assistant Division Chief, Environmental Planning Division
MD State Highway Administration
P.O. Box 717
Baltimore, MD 21203-717

RE: SHA Project No. MO745M21
MD 97 Brookeville Bypass from Longwood Park to South of Holiday Drive
Montgomery County, Maryland

Dear Dr. Schablitsky:

Thank you for providing the Maryland Historical Trust (Trust) with information regarding the above-referenced undertaking. This recent submittal represents ongoing consultation to assess the project's effects on historic properties, pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended, and the Maryland Historical Trust Act of 1985, as amended, State Finance and Procurement Article §§ 5A-325 and 5A-326 of the Annotated Code of Maryland. The comments provided in this letter address the State Highway Administration's (SHA) letters dated October 8, 2015 and February 5, 2016 and take into consideration the thoughtful views and opinions expressed at the Section 106 Consulting Parties Meeting held on March 22, 2016. We are pleased to provide our comments and recommendations regarding the alternatives under consideration for the Brookeville Bypass Project.

The Town of Brookeville is located along MD 97, a major north-south commuter route between Washington D.C. and residential communities in Montgomery, Howard, and Frederick Counties. According to the SHA, the purpose of the project is to reduce traffic congestion and improve safety along MD 97 through the Town of Brookeville, thereby preserving the historic character of the town. The National Register-listed Brookeville Historic District (MIHP No. M: 23-65) retains a high level of historic integrity, with its road network, mature vegetation and assortment of buildings that represent most periods of architecture from the late eighteenth to the twentieth centuries. We continue to fully support the proposed bypass of the town to ensure that the community retains its valuable and unique historic character and identity.

The town of Brookeville was established in the late eighteenth century by the Quaker community and developed as an important center for trade, commerce and education through the nineteenth and early twentieth centuries. Topography, water sources, industrial activity and commercial trade routes shaped the spatial arrangement of this market village. The town developed along a linear plan that directly linked major trade routes and its customer base with buildings clearly oriented toward the road. Like other linear market towns in Maryland, the character, features and alignment of the road contribute to the historic significance of the town and are vital to understanding and illustrating the history and importance of the town to its residents and visitors.

As you are aware, this project has been in the planning stages for many decades and has considered multiple alignments and alternatives. A notable milestone in the planning process was the selection of Alternative 7 Modified in the Final Environmental Impact Statement (FEIS) in 2004. After a hiatus of several years, the process was reinitiated and additional alternatives were evaluated. We have examined the following current alternatives, presented in SHA's letters of dated October 8, 2015 and February 5, 2016, for their impacts on the Brookeville Historic District: Alternative 7M Adjusted without Closure of Brookeville Road, Alternative 7M Adjusted with Closure of Brookeville Road and Alternative 8B. Since some of the alternatives have advanced beyond the conceptual stage, the level of available details varies between the alternatives. However, sufficient information exists to allow our office to evaluate the potential impacts of all three alternatives.

Alternative 7M Adjusted without Closure of Brookeville Road: Since the selection of Alternative 7 Modified in the 2004 FEIS, this alignment has been shifted to minimize impacts to cultural and natural resources. This western bypass alternative consists of a two-lane highway with 11-foot lanes and 8-foot shoulders between two single lane roundabouts at the northern and southern ends of the historic district. The northern roundabout at Brookeville Road has been shifted to the north and west to avoid impacts to the intact core of Newlin-Downs Mill Complex archeological site (18MO368), which contributes to the significance of the Brookeville Historic District, but will still impact sections of the associated mill race. The roundabout provides full access to Brookeville Road and the northern end of the historic district. Beyond the roundabout, the bypass continues north to rejoin existing MD 97. A small segment of existing MD 97 between Brookeville Road and the bypass will be vacated. Under this alternative, Brookeville Road will remain open to maintain the town's historic circulation and development pattern facilitating an authentic experience of the community.

Alternative 7M Adjusted with Closure of Brookeville Road: In an effort to further minimize impacts to cultural and natural resources and in response to a request from Town leaders, the SHA proposes to remove a section of Brookeville Road between the northern roundabout and existing MD 97. Pavement would be removed and replaced with a pedestrian pathway. Under this scenario, a section of MD 97 will also be removed (same as discussed in the above description). This will close all entry points to the north end of the historic district. The historic north-south road through Brookeville (Washington and Brookeville Turnpike) will terminate at a dead-end or cul-de-sac at the north end of the district. This alternative also avoids the intact core of the Newlin Downs Mill archeological site, (18MO368), but will still impact sections of the associated mill race.

Alternative 8B: This alternative follows the western bypass alignment of Alternative 7M Adjusted and also includes two 11-foot travel lanes with 8-foot shoulders. The roadway will cross over Brookeville Road and Ready Branch on a 400-foot long bridge. The bridge will be between 15-20 feet above the surface of the stream/roadway and 23-25 feet in total height. The northern roundabout will be located at the intersection of the bypass and MD 97. Existing MD 97 will remain open and provide access to the northern end of the historic district. Alternative 8B includes substantive impacts to the Newlin Downs Mill archeological site through construction of a bio-swale within the core intact section of the mill site. We understand that SHA will conduct balloon tests to determine the potential visual impact of this bridge on the historic district and we look forward to those results.

Preliminary Assessment of Effects: An historic property is affected when an undertaking may diminish its historic integrity (i.e. those characteristics that convey a resource's significance). Therefore, determining why a property is significant and understanding what characteristics make it so are essential to assessing effects. We believe that a bypass will alleviate traffic congestion and safety concerns while preserving the town's historic character, yet elements of the project may adversely impact the Town. Based on the information presented to date, it is our opinion that all three of the alternatives will likely result in an adverse effect to the Brookeville Historic District and its contributing archeological site. From a cultural resources perspective, the alternatives are differentiated by the level of impact on the Town and the features that contribute to its significance. Additional refinements to the design of the improvements and related environmental requirements would help to further avoid and minimize the potential adverse effects.

Given the importance of the road network to the historic development, understanding and interpretation of Brookeville, the Trust strongly urges SHA to select an alternative that maintains connections to the northern and southern ends of the district. We believe that either Alternative 7M Adjusted Without Brookeville Road Closure or Alternative 8B could accomplish the project's purpose and need with fewer impacts to cultural resources. Conversely, closure of Brookeville Road and the northern spur of MD 97 will adversely alter character-defining elements of the historic district and diminishes the integrity of the district as a whole. Furthermore, closure of these road segments does not meet the project's stated purpose and need which includes *preserving the historic character of the town*. We strongly encourage SHA to further develop its avoidance and minimization efforts pertaining to the project design and storm water management concepts for Alternative 7M Adjusted Without Closure of Brookeville Road.

The SHA should continue consultation with the Trust and other consulting parties to develop and evaluate alternatives that could avoid, minimize or mitigate adverse effects on historic properties, in accordance with 36 CFR 800.6. We await additional information, including the results of visual simulation of the bridge structure for Alternative 8B, as project planning progresses to continue analyzing the project alternatives and developing viable measures to avoid and minimize adverse effects to historic properties. We look forward to working with the SHA and other involved parties to assess the undertaking's effects and complete the Section 106 consultation.

Thank you for providing us this opportunity to comment. If you have questions or require further assistance, please contact Beth Cole (for archeology) at 410-514-7631 / beth.cole@maryland.gov or Tim Tamburrino (for historic built environment) at 410-514-7637 / tim.tamburrino@maryland.gov.

Sincerely,

Elizabeth Hughes
Director / State Historic Preservation Officer

EH/EJC/TJT
201504397 and 201600494

Cc: Town of Brookeville Town Commissioners
Joy Liang (FHWA)
Charles Grady (NPS Star Spangled Banner Trail)
Sarah Rogers (Montgomery County Heritage Area)
Eileen McGuckian (MPI)
Scott Whipple (M-NCPPC)
Cassandra Michaud (Montgomery County Parks)
Julie Mueller (Montgomery County Parks)
Nick Redding (Preservation Maryland)
Sandy Heiler (Brookeville resident)
Catherine Lavoie (Brookeville resident)
Emily Dolbin (MDE)
Kathy Anderson (COE)

Larry Hogan, *Governor*
Boyd K. Rutherford, *Lt. Governor*

State Highway Administration
Maryland Department of Transportation

Pete K. Rahn, *Secretary*
Gregory C. Johnson, P.E., *Administrator*

June 2, 2016

Ms. Elizabeth Hughes
State Historic Preservation Officer
Maryland Historical Trust
100 Community Place
Crownsville MD 21032-2023

Dear Ms. Hughes:

Introduction and Project Description

The Maryland Department of Transportation, State Highway Administration (SHA) is writing to provide the Maryland Historical Trust (MHT) and the other consulting parties with information about SHA Project No. MO746M21, MD 97 Brookeville Bypass from South of Goldmine Road to North of Holiday Drive (Roundabout Connections). This project is in design, since it has already received a Record of Decision (ROD) from the Federal Highway Administration. It is SHA's finding that the MD 97 Brookeville Bypass Project would have an adverse effect on historic properties, including the Brookeville Historic District and the Newlin/Downs Mill Archaeological Site. SHA's Project Plans at 90% (final design) for the project's selected alternative, MD 97 Alternative 7 Modified Adjusted with Brookeville Road are included as Attachment 1. Please note that these sheets are only the roadway plans, and that additional plans for such items as erosion and sediment control, landscaping and bridge design will be forthcoming, and made available to all of the consulting parties.

Funding

Federal funds are anticipated for this project.

Consultation

SHA previously consulted on this undertaking on October 8, 2015 and February 5, 2016. In our February 5, 2016 letter, SHA presented the consulting parties with the option to remove Brookeville Road between MD 97 (Georgia Avenue) and the northern roundabout.

SHA held a consulting parties meeting on March 22, 2016, and at that meeting several parties expressed concern about the removal of Brookeville Road and Georgia Avenue which form part of the historic transportation network for the town. Others provided their views about increasing

traffic and impacts to the livability of the town, and a desire to close Brookeville Road. SHA has also received letters from Brookeville's residents writing in support of either retaining or removing Brookeville Road as part of the bypass project. MHT also provided written comments regarding the project's alternatives and impact on the historic properties. SHA has continued to meet with Maryland-National Capital Park and Planning Commission (M-NCPPC) staff members and the Brookeville Town Commissioners to ensure that we are providing a project that will create a safe route around Brookeville while preserving the historic nature of town.

Following consultation, SHA will retain Brookeville Road between the northern roundabout and Georgia Avenue in Brookeville. The final design plan would remove MD 97 (Georgia Avenue) from north of Brookeville Road to the intersection of the new Bypass with MD 97. This option was part of the original planning study conducted between 1996 and 2003 that resulted in the 2004 Adverse Effect Determination and the Final Environmental Impact Statement/Section 4(f) Evaluation's (FEIS). However, the existing Reddy Branch Bridge (SHA Bridge No. 1501200, M: 23-126) now will remain in place to allow SHA to study the impact of the new highway on the stream and its flow.

Alternatives Considered:

MD 97 Alternative 7 Modified Adjusted with Closure of Brookeville Road: SHA is not pursuing the option to remove Brookeville Road as part of the MD 97 Brookeville Bypass project. We made this decision after considering the possible issues to the Historic District caused by the historic preservation regulations, emergency response time, maintenance of existing MD 97, and improvements to the Brookeville Road culvert that currently causes flooding, as well as the consultation with the MHT, other federal and county agencies, the Town Commissioners, residents, and other consulting parties.

MD 97 Alternative 7 Modified Adjusted without Closure of Brookeville Road: SHA has continued to design MD 97 Brookeville Bypass Alternative 7 Modified Adjusted, while retaining Brookeville Road between Georgia Avenue and the northern roundabout. The alignment has been shifted to the west in order to reduce the impacts to the Brookeville Historic District, and also to avoid high quality stand of trees that are an important part of the Hawlings River Stream Valley Park and the Oakley Cabin Trail. Where the roundabout will cross the Newlin/Downs Mill Site's mill race, SHA proposes to place the road and roundabout structure on fill rather than cutting as a way to preserve the race feature. The roundabout will be 73 feet in diameter, and the center of the roundabout will be approximately 4'-1" higher than existing ground. Within the historic district, SHA anticipates placing 725 square feet of fill. While it will be visible in the landscape along Brookeville Road (see rendering in Attachment 2), the roundabout will be significantly lower than the 25-foot high bridge that would be required by Alternative 8B. SHA would need to raise the west end of Brookeville Road so that it can meet the roundabout lanes, and the road would be reconstructed. Stormwater management requirements have been reduced in the vicinity of the Newlin/Downs Mill Site's boundary on the south side of Brookeville Road. Fill would be placed along the southern side of the road to provide the necessary elevation

leading to the roundabout. A ditch would be placed within this fill to address runoff, thus avoiding ground disturbance within the core of the archaeological site. SHA continues to plan that Georgia Avenue between Brookeville Road and the intersection of MD 97 with the new bypass will be removed, although the Reddy Branch Bridge will be retained in order to study the stream impacts.

MD 97 Alternative 8B: In 2014, M-NCPPC Staff requested that SHA undertake an investigation to determine if Alternative 8B would have less impact than other alternatives despite the 2004 FEIS conclusions that showed it would not. Although SHA developed a preliminary plan in 2015 to show the alignment, we have not fully pursued the alternative since we have limited funding and staff available to develop an alternative that was not formally agreed upon and selected by all the agencies including the Federal Highway Administration in 2004. However, SHA has prepared renderings of the alternative's appearance, showing the Alternative 8B bridge as it crosses Brookeville Road. Please be aware that since SHA has not identified all of the trees that would be removed from this vicinity in order to construct the bridge, these images are an approximation of the appearance of the highway in this location. The renderings are included in Attachment 3. SHA has also determined that no stormwater management facility or bioswale will be necessary on the south side of Brookeville Road. Although SHA's assessment is based on a preliminary analysis, a bridge would require an abutment within the Brookeville Historic District Boundary that would impact the ground where the Newlin/Downs Mill Race is located. For these reasons, SHA is not pursuing Alternative 8B.

SHA has also conducted traffic studies for the three alternatives, 7 Modified Adjusted with Brookeville Road, 7 Modified Adjusted without Brookeville Road, and 8B. Listed below are SHA's 2018 traffic figures for MD 97 Bypass with Brookeville Road but without Georgia Avenue, without Brookeville Road or Georgia Avenue, and with both Brookeville Road and Georgia Avenue. These figures indicate that Alternative 7 Modified (retaining Brookeville Road, but removing Georgia Avenue) will reduce traffic within the historic district more than the other two build alternatives. The results of SHA's traffic studies are as follows:

MD 97 Brookeville Bypass Traffic Studies Summary

ALTERNATIVE	TRAFFIC ON EXISTING MD 97	TRAFFIC ON NEW BYPASS	TRAFFIC ON MARKET STREET	TRAFFIC ON BROOKEVILLE ROAD	TRAFFIC ON GEORIA AVENUE
Current Alignment 2015	10,400	0	925	2,325	11,200
No Build 2018	10,700	0	975	2,375	11,550
Alternative 7 Modified with	750	10,150	975	525	25

Brookeville Road					
Alternative 7 Modified-Adjusted without Brookeville Road	1,025	10,575	975	0	0
Alternative 8B	900	9,875	975	2,375	2,175

Area of Potential Effects

The Area of Potential Effects (APE) for this project includes possible visual, audible, atmospheric and/or physical impacts to historic properties, both archaeological sites and standing structures that would diminish any National Register of Historic Places (NRHP) qualifying characteristic of the historic property's integrity. The project will require additional right-of-way, as well as perpetual and temporary easements. The highway will be constructed adjacent to the Brookeville Historic District's western boundary, and the District is included in the APE. The archaeology survey area within the APE is defined as the limits of construction where ground disturbance would occur. The APE is indicated on the attached USGS quadrangle map for Sandy Spring in Attachment 4.

Identification Methods and Results

Potentially significant architectural and archaeological resources were both researched as part of the historic investigation instigated by the proposed construction of the bypass highway.

Architecture: SHA Architectural Historian Anne E. Bruder reviewed previous project correspondence and attended the September 29, 2015 and February 25, 2016 public meetings and the March 22, 2016 consulting parties meeting, as well as meetings with the M-NCPPC on April 25, 2016, and the Brookeville Town Commissioners on May 4, 2016. A field visit was last made on March 4, 2016. SHA has considered three possible build alternatives: MD 97 Alternative 7 Modified Adjusted with Brookeville Road, MD 97 Alternative 7 Modified Adjusted without Brookeville Road, and MD 97 Alternative 8B. MHT has provided SHA with a preliminary assessment of effect for the three alternatives, determined that MD 97 Alternative 7 Modified Adjusted with Brookeville Road and MD 97 Alternative 8B would be adverse, but would accomplish the project's Purpose and Need with fewer impacts to the cultural resources. MHT also determined that Alternative 7 Modified Adjusted without Brookeville Road would remove character defining elements of the historic district's transportation system that would adversely affect the Brookeville Historic District.

SHA has determined that construction of MD 97 Alternative 7 Modified Adjusted with Closure of Brookeville Road is likely to lengthen the schedule and delay construction of the project, and we are not pursing this alternative.

Since MD 97 Alternative 7 Modified Adjusted without closure of Brookeville Road reduces the physical and visual impacts to the Brookeville Historic District, SHA has determined that this remains our selected alternative for construction. SHA has determined that this alternative will cause adverse impacts to the Brookeville Historic District, but the alternative would retain Brookeville Road.

SHA's 2004 consultation with MHT as documented in the FEIS concluded that MD 97 Alternative 8B would have an adverse effect on the Brookeville Historic District including the Newlin/Downs Mill Site. Based on the 2004 findings, designing and constructing the two-lane highway with the 400-foot long bridge resulted in a cost of approximately $18M for the project, as compared to the $12.5M for the selected MD 97 Alternative 7 Modified Adjusted without Closure of Brookeville Road. Recent studies have shown that the figure has not changed. Additionally, Alternative 8B requires that both Brookeville Road and MD 97 north of Brookeville Road remain open. While some have argued that maintaining the historic transportation routes is important to the Historic District's significance, reducing traffic in the historic district is also part of the Project's Purpose and Need, which was agreed to by the state and federal agencies as part of the NEPA process. SHA's study showed that Alternative 8B would not meet the project's Purpose and Need, causes adverse impacts to historic properties, has a large bridge that would increase the physical impacts to the Brookeville Historic District and likely add visual impacts, places one bridge abutment within the archaeological site, and costs more to construct, SHA did not select the alternative in 2004. Since that time, no new information has been identified to indicate that Alternative 8B would significantly avoid or reduce impacts to the Brookeville Historic District, and SHA is not pursing Alternative 8B.

Archaeology: SHA Consultant Archaeologist Lisa Kraus assessed the potential of the survey area through consultation of the SHA-GIS Cultural Resources Database, previous project correspondence, archaeological reports, historic and environmental maps, site file data, and construction plans. Site visits were made on May 4 and October 1, 2015 and April 6, 2016.

The current design of MD 97 Alternative 7 Modified Adjusted without Closure of Brookeville Road now completely avoids the intact core of the archaeological site, which includes the mill and miller's house and associated deposits, but will impact the large mill race, which extends west from the mill along the Oakley Cabin Trail. According to earlier project correspondence, if impacts to the large race were to occur, excavation was recommended to document its construction technique. This work was completed during the Phase II survey in 2002. Subsurface testing at several locations along the mill race showed that the large mill race was formed by excavating a portion of the hillside to form a flat terrace. The excavated material was piled on the streamside of the mill race to form the outer mill race wall (Fehr et al. 2008, pp.41-42).

Both the large and small mill races were fully mapped, and measured drawings of the cross sections were made at regular intervals along the entire course of both the large and small races. Photographs were taken and subsurface excavations were undertaken to document the depth of the races at various points, and to record soil profiles and document construction techniques. Given the extent of prior study, it is unlikely that further excavation and study of the mill race would provide additional information important in history.

MD 97 Alternative 7 Modified Adjusted without Closure of Brookeville Road would impact about 800 feet of the large mill race, approximately 0.7 acres. The impacts will result from filling, which will occur along the length of the race within the project's LOD. Guardrail will be installed within fill, and the roundabout will be constructed on fill throughout this part of the archaeological site. This would not impact the site's potential to yield significant data. However, given that the site is considered eligible under Criteria A and C as well as D, the impacts to the mill race would constitute an adverse effect to 18MO368. The mitigation outlined below and described in the attached MOA is intended as mitigation for the impacts to the archaeological site, as well as to other parts of the Brookeville Historic District.

Wetland Mitigation Area

SHA proposes to mitigate wetland impacts by the new highway where wetland and stream impacts may occur by creating a stream restoration project along Reddy Branch on the east side of the Brookeville Historic District. The restoration area includes the valley bottom along approximately 2,500 feet of Reddy Branch. The site is owned entirely by M-NCPPC and the current land use is open parkland.

The Brookeville Stream Restoration Project at Reddy Branch is located east of the town of Brookeville, as shown on the attached APE map (Attachment 4). The western end of the wetland mitigation area was included in Fehr et al.'s 1997 Phase I survey for a previous bypass alternative. One fieldstone structural foundation was identified during the survey, but this potential historic site is located 550 feet (approximately 170 meters) north of Brighton Dam Road on a terrace overlooking the floodplain, approximately 250 feet north of the project limits. No sites have been recorded within the APE.

The wetland mitigation will involve the removal of soils that have eroded from surrounding slopes, causing Reddy Branch to cut deep, narrow channels into the floodplain and substantially erode intact floodplain deposits. Soils within the wetland mitigation area's limits of disturbance are classed as poorly drained, occasionally flooded Codorus silt loam, which consists of recently deposited alluvial materials eroded from surrounding uplands. A site visit conducted on October 1, 2015 confirmed that the wetland mitigation area has been extensively disturbed by flooding and dissection by Reddy Branch. The proposed wetland mitigation is unlikely to impact significant archaeological remains.

The Brookeville Stream Restoration Project at Reddy Branch will have no impact on the Brookeville Historic District or Bordley's Choice since the project will be located on the east

side of the Brookeville, will be at or below the grade of the highway and outside the boundaries of both the historic district and the historic property. There are no historic standing structures within the stream restoration area.

Parkland Mitigation

SHA proposes to mitigate its takes within existing parkland at a rate of 2:1, and is currently considering the following parcels for purchase:

The Nash Property, 3415 Brookeville Road, Brookeville

Historic Name: Locust Grove II (Howard House), M:23-61; included in the MIHP in 1974, included but then removed from the Montgomery county Locational Atlas, and determined not eligible for inclusion in the National Register of Historic Places by SHA and MHT on October 28, 1996. It was evaluated under NRHP Criterion C (architecture) but the changes made by the property owners starting in 1970 removed historic elements and changed fenestration and exterior cladding in an unsympathetic manner,. The entire historic parcel consists of 336 acres. No new information about the property has been identified and no additional architectural investigations are recommended. The property was partially included in earlier archaeological surveys, but would likely require additional Phase I survey if improvements are planned.

The Becker Property, 4920 Griffith Road, Gaithersburg

Historic Name: Edgehill, MIHP No. M:23-17; identified in 1999 and evaluated for inclusion in the National Register of Historic Places and recommended as eligible for inclusion under Criteria A (events) and C (architecture). The boundary includes the entire 282 acre parcel, and extends to the north side of Griffith Road where SHA is looking at acreage for park land. Edgehill is in the County Master Plan for Historic Preservation, and is a county historic site. A determination of eligibility will be needed for the property. Phase I archaeology would likely be needed if any improvements are planned for this parcel.

The Mitchell Property, 5701 Sundown Road, Laytonsville

This is a 33.45 acre agricultural parcel with no buildings standing on it. The 1879 Atlas does not show any standing structures on the parcel. No additional architectural investigations are recommended. Phase I archaeology would likely be needed if any improvements are planned for this parcel.

The Dufresne Property, 21510 Georgia Avenue, Brookeville

The parcel is on the north side of the Hawlings River, north of Brookeville. According to the tax records, there is a dwelling house dating to 1800 on the parcel. It does not appear to have been previously included in the Maryland Inventory of Historic Properties or evaluated for inclusion in the National Register of Historic Places. It was likely the O.P. Watkins Property as shown on the 1879 Hopkins Montgomery County Atlas. If this property remains under consideration, it will be necessary for SHA to make a field visit and determine if it would be eligible for inclusion

in the NRHP. Phase I archaeology would likely be needed if any improvements are planned for this parcel.

SHA will continue to consult with MHT and the consulting parties once the parcels are identified for purchase as required by 36 CFR Part 800.

Impact Assessment: MD 97 Brookeville Bypass Alternative 7 Modified Adjusted without Closure of Brookeville Road remains SHA's selected alternative. It is SHA's determination that this alternative would cause an adverse impact to the Brookeville Historic District, including the Newlin/Downs Mill Archaeological Site. The Bypass would cross the Brookeville Historic District near the southern roundabout and cross at the northwest end of the historic district at Brookeville Road, away from the buildings that form the center of the historic property. At the Newlin/Downs Mill, the former race is visible in some locations, but obscured in others due to the erosion and infill along the race's course. The new highway, including the roundabout, would cross the mill race on fill, which will allow the mill race to remain in place. Right-of-way amounts for MD 97 Alternative 7 Modified Adjusted without Brookeville Road Closure would require 1.59 acres from the historic district, including 0.23 acres from the archaeological site. SHA's Effect Finding is summarized in Attachment 4, Effects Table.

Section 106 Mitigation:

Since the anticipated project impacts are to both the Newlin/Down Mill Site and to the Brookeville Historic District, SHA proposes the following measures to mitigate the impacts of the undertaking under Section 106:

1. Create 2 sets of 36" x 24" interpretive panels regarding the history of Brookeville's milling industry and the transportation system;
2. Place the panels along the Oakley Cabin Trail and at the Brookeville Academy in Brookeville;
3. Create a walking tour brochure for the Oakley Cabin Trail and the Brookeville Historic District;
4. Obtain a QR Code to imbed in the brochure, on the panels in the park and at the Brookeville Academy, as well as the houses in the Brookeville Historic District, that will link to webpage(s) maintained by M-NCPPC Parks Department and the Town of Brookeville regarding the history of the area.
5. The archaeological site, 18MO368, will be fenced off during construction, and will be designated as an environmentally sensitive area on project plans.

A draft Memorandum of Agreement (MOA) is included here as Attachment 6. SHA will work with the Federal Highway Administration to determine if the Advisory Council on Historic Preservation will participate in the MOA. SHA requests that MHT and the consulting parties provide comments about the MOA. A meeting will be necessary to discuss the document and is anticipated for late June 2016.

Review Request

Please examine the attached maps, plans, draft MOA, and Effects Table. We request your comments on the MOA by June 25, 2016, along with your concurrence that there would be an adverse effect on historic properties, including the Brookeville Historic District by Alternative 7 Modified, as a result of the construction of the MD 97 Brookeville Project from Longwood Park to south of Holiday Drive on the west side of Brookeville in Montgomery County. By carbon copy, we invite the Town of Brookeville Town Commissioners, National Park Service (Star Spangled Banner Trail), Montgomery County Heritage Area, Montgomery Preservation, Inc., Montgomery County Historic Preservation Commission, Montgomery County Parks, Montgomery County Department of Public Works, Preservation Maryland, Ms. Sandra Heiler, Mr. Robert Hines, and Ms. Catherine Lavoie to provide comments and participate in the Section 106 process. Pursuant to the requirements of the implementing regulations found at 36 CFR Part 800, SHA seeks their assistance in identifying historic preservation issues as they relate to this specific project (see 36 CFR §800.2(c)(3) and (5), and §800.3(f) for information regarding the identification and participation of consulting parties, and §800.4, and §800.5 regarding the identification of historic properties and assessment of effects). For additional information regarding the Section 106 regulations, see the Advisory Council on Historic Preservation's website, www.achp.gov, or contact the Maryland State Highway Administration or the Maryland Historical Trust. If no response is received by June 25, 2016, we will assume that these offices and agencies decline to participate. Please call Anne E. Bruder at 410-545-8559 or via email at abruder@sha.state.md.us with questions regarding standing structures for this project. Lisa Kraus may be reached at 410-545-2884 or via email at lkraus@sha.state.md.us with concerns regarding archaeology.

Sincerely,

Julie M. Schablitsky
Assistant Division Chief
Environmental Planning Division

Attachments: 1) Project Plans
2) Brookeville Road with Roundabout Rendering
3) Brookeville Road with Alt. 8B Bridge Rendering
4) APE Map
5) Effects Table
6) Draft MOA

cc: Mr. Andrew Bossi, Montgomery County Department of Public Works (w/Attachments)
Ms. Katherine Farquhar, Ms. Susan Daley, Mr. Buck Bartley, Town of Brookeville Town Commissioners (w/Attachments)
Mr. Charles Grady, National Park Service (Star Spangled Banner Trail) (w/Attachments)
Ms. Sandra Heiler (w/Attachments)
Mr. Robert Hines (w/Attachments)
Ms. Catherine Lavoie (w/Attachments)
Ms. Joy Liang, FHWA MD Division (w/Attachments)
Ms. Eileen McGuckian, Montgomery Preservation, Inc. (w/Attachments)
Ms. Cassandra Michaud, Montgomery County Parks (w/ Attachments)
Mr. Nicholas Redding, Preservation Maryland (w/Attachments)
Ms. Sarah Rogers, Montgomery County Heritage Area (w/Attachments)
Mr. Scott Whipple, Montgomery County Historic Preservation Commission (w/Attachments)
Ms. Anne E. Bruder, SHA-EPLD (w/Attachments)
Ms. Allison Grooms, SHA- EPLD (w/Attachments)
Dr. Lisa Kraus, SHA-EPLD (w/Attachments)
Mr. Jamie Lake, SHA-EPLD (w/Attachments)
Dr. Julie M. Schablitsky, SHA-EPLD (w/Attachments)
Ms. Huqin Zhang, SHA-OHD (w/Attachments)

Concurrence with the MD State Highway Administration's
Determination(s) of Eligibility and/or Effects

Project Number: MO746M21 **MHT Log No._____**
Project Name: MD 97 Brookeville Bypass from South of Goldmine Road to North of Holiday Drive
County: Montgomery
Letter Date: June 2, 2016

The Maryland Historical Trust has reviewed the documentation attached to the referenced letter and concurs with the MD State Highway Administration's determinations as follows:

Eligibility (as noted in the Eligibility Table [N/A]):

[ ] Concur
[ ] Do Not Concur

Effect (as noted in the Effects Table [Attachment 5]):

[ ] No Properties Affected
[ ] No Adverse Effect
[ ] Conditioned upon the following action(s) (see comments below)
[ ] Adverse Effect

Comments:_____

_____

_____

_____

_____

_____

By: _____ _____
MD State Historic Preservation Office/ Date
Maryland Historical Trust

Return by U.S. Mail or Facsimile to:
Dr. Julie M. Schablitsky, Assistant Division Chief, Environmental Planning Division,
MD State Highway Administration, P.O. Box 717, Baltimore, MD 21203-0717
Telephone: 410-545-8870 and Facsimile: 410-209-5046
A_proj 4212

Attachment 5: Effects Table

Project Name: MD 97 Brookeville Bypass **June 2, 2016**

		Alternative 7 Mod. Adjust w/out Brookeville Road		Alternative 7 Mod. Adjust w/Brookeville Road		Alternative 8B			
Resource	**Type**	**Impact**	**SHPO Concur**	**Impact**	**SHPO Concur**	**Impact**	**SHPO Concur**	**Attachment**	**Remarks**
Brookeville Historic District	**HD**	**Adverse**	**Requested 6/2016**	**Adverse**	**Requested 6/2016**	**Adverse**	**Requested 6/2016**		
Newlin/Downs Mill Site	**A**	**Adverse**	**Requested 6/2016**	**Adverse**	**Requested 6/2016**	**Adverse**	**Requested 6/2016**		
Effect		**AE**	**Requested 6/2016**	**AE**	**Requested 6/2016**	**AE**	**Requested 6/2016**		

Codes:
Resource Types: S (Structure), A (Archaeological Site), HD (Historic District), NHL (National Historic Landmark)
Impact: None, No Adverse, Adverse
Effect: NPA (No Properties Affected), NAE (No Adverse Effect), AE (Adverse Effect)
Bold rows indicate review action requested

Alternative description

Alternative 7M Adjusted: Alternative 7M Adjusted is an adjusted alignment based on the selected alternative 7M in the 2004 Final Environmental Impact Statement (FEIS). At the request of M-NCPPC, Alternative 7 M was shifted west to avoid impacts to high quality forest and this shift also helps to avoid the impacts to watercourse 4 in the Reddy Branch Stream Valley Park. This alignment consists of a two-lane highway with 11-foot wide lanes and 8-foot shoulders, two roundabouts, and two bridges.

Alternative 8B Modified (also called the "high bridge option"): Alternative 8B Modified follows the idea of Alternative 8B in the 2004 FEIS, but uses the horizontal alignment of Alternative 7M Adjusted. This alignment adopts the 7M horizontal alignment from the southern limit to about Sta. 56+00 and has a 400-foot bridge spanning both Brookeville Road and Reddy Branch. The typical section is the same as Alternative 7M Adjusted.

Attached includes the alignment comparison and the profile comparison.

Environmental Impacts

The attached form shows the environmental impacts comparison between the two alternatives.

Note:

The impacts include both permanent and temporary impacts.

The impact for Alternative 7M Adjusted is based on post Semi-Final Review (65% design level) design. The impacts assume Brookeville Road will remain open to traffic. With recent consideration for the typical section of Brookeville Road, we anticipate to further avoid the impact to the archeological site. Filling in the archeological site is not counted as impact.

Alternative 8B Modified is at 10% design level. Conceptual level ESD were included. Water quality treatment was considered and quantity management was not fully considered. Filling in the archeological site is not counted as impact.

Environmental Resources	Alternative 7M Adjusted	Alternative 8B Modified
Wetlands (acres)	2.02	1.74
Streams (acres)	2159	2214
100-year floodplain (acres)	4.64	1.98
Forest cover (acres)	19.76	17.87
Archeological site (acres)	0	0
Historic District (acres)	1.59	0.79
M-NCPPC No-Touch Zone (acres)	1.2	1.1

Construction cost

Due to the longer bridge spanning Brookeville Road and Meadow Branch, Alternative 8B Modified costs $3.4 million more than Alternative 7M Adjusted, which accounts for a reduction in earthwork for Alternative 8B Modified.

Visual Impacts

The visibility is being evaluated for the roundabout in Alternative 7M Adjusted and the bridge in Alternative 8B Modified.

In addition, the Record of Decision, the environmental impacts in the FEIS and the recent Maryland Historic Trust's response letter are attached.

permitted to continue. Should the plumbing or accounting businesses cease to exist, the HVC zone permits other commercial uses to continue in those locations provided the use is of equal or less nuisance with regard to traffic generation, noise, visual impact, and related factors.

With regard to the few ancillary uses in Town that are non-residential in character, their status is more problematic. As noted, depending on the size of these operations, the use may either have been permitted "by right" or by "special exception" under the County's previous R-200 zoning. As there is no record with either the County or Town of any special exception applications, it shall be assumed that those uses began at a scale, which permitted them "by right" under the R-200 zoning. As a practical matter, the Town Commissioners shall take no exception to current ancillary uses at present scales of operation by owners of record providing that such uses are otherwise in accordance with local and State laws. Any future changes of existing uses or any proposals for new ancillary uses shall need to conform to the requirements of the HVR and HVC zoning districts.

Transportation Element

The purpose of the transportation element is to address concerns related to State and County roads within the Town. Further, the transportation element of a comprehensive plan examines the existing transportation infrastructure and any deficiencies that could potentially arise due to additional development. Finally, the relationship between current and future land use and necessary transportation improvements is examined. Since Brookeville has limited capacity for growth over the duration of this plan, existing transportation infrastructure within the town is anticipated to be adequate. However, the Town's main objective resides in the implementation of the Brookeville Bypass. The bypass will allow the Town to preserve its historic character as well as provide opportunities for increased pedestrian and non-automobile links to areas south along Route 97 such as Olney.

Public Transportation

Public transportation in Montgomery County is provided by the WMATA Metro Bus system and the Montgomery County Ride On system. However, neither system extends north to the Town of Brookeville. A Ride on stop is located approximately ½ mile south of the Town limits, at the intersection of Gold Mine Road and Route 97. The Town is not aware of any plans by either system to provide public transportation service to the Town limits.

Georgia Avenue - Brookeville Bypass

With the Town's limited capacity for expansion due to a scarcity of lots eligible for subdivision, the Town's current transportation infrastructure is sufficient to meet its current and future needs. While the existing roadway system is

adequate, it is by no means desirable to the Town's residents. The residents of Brookeville are well aware of the onerous impact of commuter and commercial traffic on the Town's quality of life. The Town's historical pattern of development has resulted in an uncomfortably close relationship between the Town's main road, Route 97 (Georgia Avenue) and residents' houses. The fact that most of the houses along the Town's main roads were constructed long before Georgia Avenue became a heavily traveled thoroughfare makes the Town particularly vulnerable to the adverse effects of contemporary vehicular traffic. This traffic was exacerbated by the lane expansion of Route 97 from 108 to Route 28 in the 1990's and has worsened with the build-out of northern Montgomery County as well as the continued growth of neighboring Frederick, Howard, and Carroll Counties.

While a number of improvements have been made in order to mitigate concerns regarding traffic and safety within the Town, the increase in use of Route 97 has led to a need for a more permanent solution to the negative effects of traffic on the Town. The planned solution for providing relief to the Town as well as for the efficient and safe flow of traffic through this corridor has been the Georgia Avenue Bypass – also referred to as the Brookeville Bypass. The present alignment of the Bypass is outside the Town's limits. The State and Federally-approved Bypass alignment and design (2005) realigns Route 97 to the west of the Town and would eliminate a majority of through commuter north-south traffic and some east-west traffic in Town. [Exhibit 3] This would also allow Route 97 to more effectively function as an emergency evacuation corridor as provided for in the District of Columbia's Homeland Security Plan. The Town would like to express its concern about potential impacts due to the completion of the Inter County Connector and desires that any increase in vehicular traffic be addressed should it arise.

To assure that the Bypass is fully optimized as a community asset, the Plan recommends continued coordination and partnership with the State and County during the design, engineering, and construction of the road improvement to achieve the following objectives:

- Innovative roadway design that while providing a delineating boundary for the Town which reinforces its identity as a distinct "place," presents no barriers to pedestrian, bicycle, and inter-community movement and in fact effectively interfaces with them.

- Landscaping and noise mitigation measures that will continue the sense of green open space and parkland that currently buffer the Town and the adjoining subdivision. The road should be planned as a two-lane "parkway" with integrated "bikeway" and pedestrian ways.
- Adequate and safe access for local traffic that will recognize new intersections and their function as "gateways' into the Town.

- Resolution of the appropriate classification for the bypassed roadway through Town (the "old" Route 97) and the determination of responsibility for its long-term maintenance.

- Minimize the impact on Longwood Recreation Center's parking and ball fields and provisions for at least equivalent replacement at a suitable nearby site.

- The chosen alignment and right-of-way comes close to a number of historic assets – the remains of the Newlin Mill and mill race, the Oakley Cabin, and the Reddy Branch Stream Valley Park. Every effort must be made to mitigate any negative effects and to enhance and protect those assets where possible.

It is appropriate to note that when the Brookeville Bypass is funded and design and construction is projected to commence, it would be timely for the Town to initiate its own review and evaluation of how it might effectively and positively adjust and provide for a dramatic change in the Town's dynamics. The Town has received assurances from the State Highway Administration that the bypass will be designated a through-highway to ensure that no future widening or additional connection to the bypass is possible.

Management of East-West Traffic

Closely related to the significant relief that a Georgia Avenue - Brookeville Bypass would provide for north-south traffic has been the need for the diversion of east-west through traffic entering the Town from Brighton Dam Road on the east and Brookeville Road on the west.

When the Abrams Farm was developed as a subdivision, Bordley Drive was built as its primary road, basically extending Brighton Dam road west toward Route 97 but not connecting to it. The Town Commissioners lobbied the County to build the Bordley Drive connection through to Route 97 to provide traffic relief to Town residents and in support of more east-west options that would enhance public safety. Montgomery County successfully completed that build-out project in 2004.

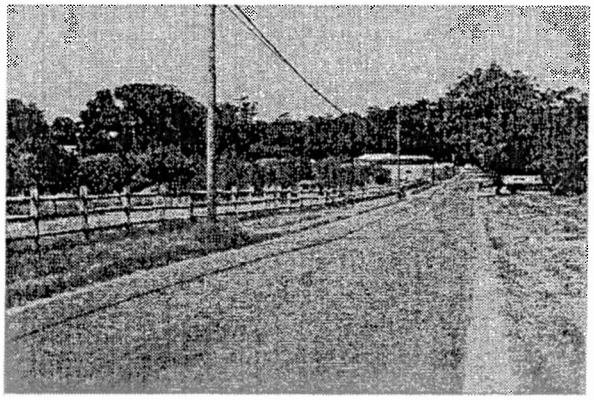
Impact of the Inter County Connector

The Town is very concerned about any impact the completion and opening of the Inter County Connector will have on traffic conditions within its boundaries. The Town's consultant, Doug Lohmeyer, contacted the State Highway Administration regarding this concern and received the response that can be found in Exhibit 5. The State informed the Town that Brookeville falls outside of the boundaries of any study regarding the impact of the ICC on local traffic. The nearest location included was the MD 97 / MD 108 intersection approximately two

Attachment 8

Brookeville Road

A Rustic Road



Brookeville Road has outstanding natural features and historic value.

Recommended as a *rustic road.*

Significant Features:

- Historic alignment

History:

This road was an early east-west route to Brookeville, a Quaker community founded in 1794. In the early 1800s, Brookeville was a center of commerce and education in an area that played an important role in the development of the science of agriculture. Many of the houses in the vicinity were built during this period of prosperity.

Driving Experience:

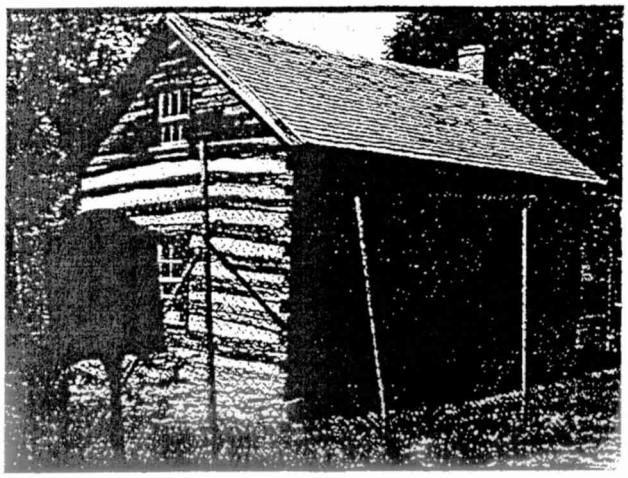
From the west (Olney-Laytonsville Road, MD 108), the road crosses Mount Zion Road where a crossroads community was established by freed slaves after the Civil War. The road next passes the Gustavus Jones Farm on the right, a log and frame house, parts of which date to the 1850s when the farm was established. The farm also includes a fine collection of agricultural outbuildings representative of the increasing prosperity of its middle-class owner. To the north is Bon Secours, a spacious frame house built c1855 as a summer residence for Baltimore tobacco broker Nicholas Griffith, and Locust Hill, a substantial stone dwelling built in 1868 and associated with the locally prominent Riggs family. Continuing past farm fields, the road then goes into a forest area and passes the Oakley Log House, which archeological digs have revealed was probably built c1870 as a residence for African American slaves or tenant farmers. Brookeville Road crosses two tributaries of the Reddy Branch in the forest. These bridges were recently reconstructed and have very unattractive and inappropriate white Jersey barrier parapets along their sides. The road ends at Georgia Avenue just north of the town of Brookeville.

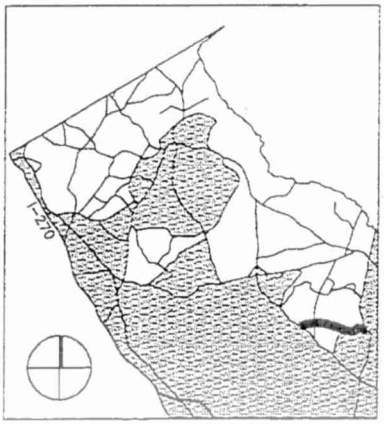
Notes:

The designation of this road as a rustic road is not to be used to affect in any way the Brookeville Bypass when that road is constructed.

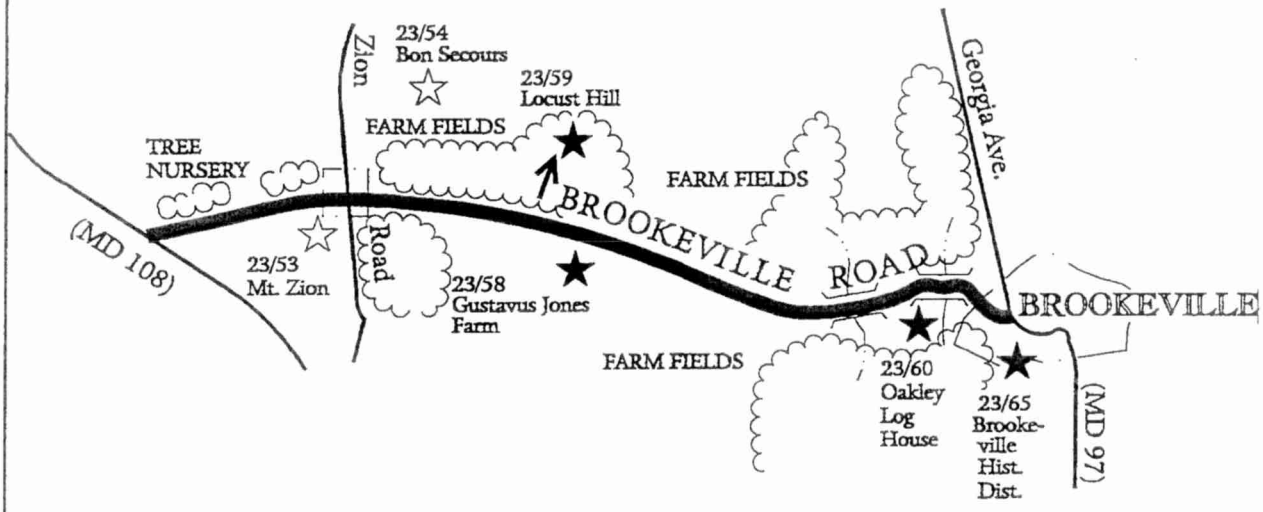
The Olney Master Plan includes a potential relocation of Brookeville Road slightly north of its current intersection with Georgia Avenue. That relocated road will not be a rustic road.

Figure 22





Location Map 2



Roadway Characteristics:

Length:	2.7 miles
Width:	18-20 feet paved
Lanes:	center line and edge markings
Shoulders:	none

LEGEND

☆ Potential Historic Resource

★ Historic Resource

← Scenic View

M-NCPPC

Attachment 9

MD 97 Brookeville Project Smart Growth Package

Maryland Department of Transportation

SHA State Highway Administration
Maryland Department of Transportation

MDP

Prepared by:
Maryland Department of Transportation
Maryland State Highway Administration
Maryland Department of Planning

July 2013

Review Request

Maryland Department of Transportation (MDOT) and the State Highway Administration (SHA) are formally requesting that the Board of Public Works (BPW) determine that the Brookeville Project presents an "extraordinary circumstance" as defined in the State Finance and Procurement Article 5-7B-05. The Brookeville Project is a proposed new roadway alignment in the Town of Brookeville, in Montgomery County, Maryland, of which approximately 45% would be located outside of the designated "Priority Funding Area." The project was presented to the Smart Growth Sub-Cabinet on September 21, 2011, but must receive a determination by the Board of Public Works as presenting an "extraordinary circumstance" to receive state funding for construction.

Specifically, MDOT and the SHA are requesting from the BPW the approval of this project as an "extraordinary circumstance" under *Article – State Finance and Procurement, §5-7B-05 (a)(1)(i); and §5-7B-05 (a)(2)(i) and (ii):*

(a) In general-

(1) The State may provide funding for a growth-related project not in a priority funding area if:

(i) the Board of Public Works determines that extraordinary circumstances exist in accordance with the requirements of paragraph (2) of this subsection; or

(2) In order to determine that extraordinary circumstances exist under paragraph (1) of this subsection, the Board shall determine by a majority vote that:

(i) the failure to fund the project in question creates an extreme inequity, hardship, or disadvantage that clearly outweighs the benefits from locating a project in a priority funding area; and

(ii) there is no reasonable alternative for the project in a priority funding area in another location within the county or an adjacent county.

Summary

This paper provides background on the MD 97 Brookeville project and presents justification for funding this project as an "extraordinary circumstance" worthy of exception from the Smart Growth and Neighborhood Conservation Act passed in 1997.

This package includes an overview of the project; a justification for smart growth exception; and a review of alternatives analyzed as part of project planning. Relevant documentation of this process is also attached.

The Board's concurrence with the finding that the project presents an "extraordinary circumstance" would allow the project to be considered for state funding assistance. The recommendation that the project be treated as an "extraordinary circumstance" is based on the following factors:

1) Failure to support the project would result in an extreme hardship, inequity, disadvantage, specifically with regard to:

    A. The extensive and long-term coordination effort among the State, Montgomery County, and the Town of Brookeville, who have acted in good faith for over 10 years, for the specific purpose of developing a roadway project that would mitigate the traffic impacts to the Town and potential adverse growth impacts associated with the Project ;
    B. Increasing traffic congestion and associated safety concerns, specifically poor horizontal and vertical geometries on existing MD 97 compounding with increasing traffic volume over the years, have combined to create unsafe conditions for vehicles and pedestrians in the Town. This has resulted in accident rates that are higher than the statewide average for several specific accident types, including fixed-object, opposite direction, trucks, and wet surface;
    C. Residents' concerns on the traffic volume, noise, vibration impacts on the historical characteristics of Brookeville, a historic district listed on the National Register of Historic Places in 1979.

2) There are no reasonable alternatives for the project inside a priority funding area that would meet the purpose and need of the project.

Since 1990, 13 alternatives have been studied, but no viable alternatives could be identified totally within the Priority Funding Area (PFA). Improving the existing MD 97 within the Town of Brookeville which is inside the PFA was deemed inappropriate for detailed study, because this approach would result in significant adverse effect on historic Brookeville. After due consideration, Alternative 7 Modified was selected and would consist of less than 1 mile of a new two-lane roadway with limited capacity expansion. More than fifty percent of the proposed alignment is inside the PFA and the roadway will have controls limiting access to properties outside of the PFA.

Project Overview

The MD 97 Brookeville Project was initiated in January of 1995 to address the effect that increasing traffic volumes were having on the historic Town of Brookeville, by improving safety and traffic operations on existing MD 97 (Georgia Avenue). The project limits extend for approximately 0.72 miles on MD 97 from south of Gold Mine Road to north of Holiday Drive *(Figure 1).*

The project was placed on hold in 1998 due to its incompatibility with the newly passed Smart Growth legislation. The project was reinitiated after Montgomery County and the Governor's office reached agreement on specific criteria that the project would have to meet in order to meet the requirements of the Smart Growth legislation. The Final Environmental Impact Statement (FEIS) was prepared recommending Alternative 7 Modified as the preferred alternative. A Record of Decision was approved and Location Approval was granted by the FHWA in October 2004.

Purpose and Need for the Project

The purpose and need for the project is not to add capacity, but to remove the continually increasing traffic volumes from the Town of Brookeville, improve traffic operations and safety conditions on existing MD 97, and preserve the historic character of the town. This project is also supported by the *Comprehensive Plan for the Town of Brookeville*, October 2010 and the approved *Olney Master Plan* approved and adopted in April 2005 by the Montgomery County Council.

The effects of increasing traffic volumes are exacerbated by the presence of a 90-degree bend in the horizontal alignment of existing MD 97 and an accompanying steep vertical grade in the heart of Brookeville. In order to address these substandard geometrics, the adopted 2005 Olney Comprehensive Plan confirms the 1980 Olney plan recommendation for the relocation of MD 97 (the Brookeville Project) and identifies it as a planned transportation priority.

Project Planning Studies

A total of 13 alternatives were initially investigated as part of a feasibility study performed in 1990. A formal Project Planning Study began in 1995, an Informational Public Workshop was held in June 1995. After public outreach and coordination with state and federal resource agencies in 2000, SHA developed four alternatives which were studied in detail *(see Figure 2).* A Draft Environmental Impact Statement was developed and approved by the FHWA to evaluate the potential impacts and benefits of these alternatives, and a Public Hearing was held on the project in October 2001.

Selected Alternative 7 Modified

Following the Public Hearing, Alternative 7 Modified *(see Figure 3)* was chosen as SHA's Selected Alternative. The Alternative is a less than one-mile long two-lane new road with shoulders, with a 40 mph design speed, and roundabouts at the northern and southern termini, which will help limit traffic capacity and serve as safe traffic calming points. The Town of

Brookeville supports the Alternative 7 Modified, because it is consistent with their local goals, minimizes environmental impacts, is least intrusive to the community, and best addresses the purpose and need of the project *(Attachment A).*

Funding Status

Montgomery County has funded $10 million for engineering, design and right-of-way acquisition beginning in FY13. An MOU between SHA and Montgomery County on November 7, 2012 was executed. The criteria identified in the March 5, 1999 Governor's letter and Smart Growth Exception section were referenced as conditions of the MOU. Pending Smart Growth Approval from the BPW and funding availability, the SHA would be able to move forward with construction on this project.

Justifications for a Determination of "Extraordinary Circumstance"

As a result of the Smart Growth and Neighborhood Conservation Act passed in 1997, State funds cannot be spent on major transportation infrastructure that support or encourages growth outside of established PFA *(Figure 2).* The Town of Brookeville is located within a PFA; however, portions of the Alternative 7 Modified alignment are not. In order to advance this project, the MDOT/SHA will seek to identify remedial actions to the BPW under the "extraordinary circumstances" provision of the 1997 Smart Growth Act that will mitigate the traffic impacts to the Town of Brookeville and the potential adverse growth impacts of the Brookeville Project.

Maryland Department of Transportation (MDOT) and the State Highway Administration (SHA) are formally requesting that the Board of Public Works (BPW) determine that the Brookeville Project presents an "Extraordinary Circumstance" as defined in the State Finance and Procurement Article 5-7B-05. The justification for the "Extraordinary Circumstance" is based on the unique project history and extensive coordination between the State and the local governments acting in good faith over the years to address transportation and land use solutions to mitigate the traffic impacts to the Town and potential adverse growth impacts associated with the project. The concerns resulted from increasing traffic and related safety issues and their impacts on the significant historical characteristics of Brookeville, and the project study conclusion that there isn't an reasonable project alternative locating inside a priority funding area that would meet the purpose and need of the project. Support for a finding of "extraordinary circumstance" is outlined below:

Justification One – Coordination & Planning

Failure to support the project would undermine a sustained and long-standing cooperation between representatives of the State, Montgomery County, and the Town of Brookeville who have acted in good faith over the years to provide transportation and land-use planning policies and regulations, and engineering solutions to mitigate the traffic and growth impacts associated with the project.

Since project planning began prior to passage of the Smart Growth and Neighborhood Conservation Act (1997), there was early recognition that provisions would need to be made to ensure a level of consistency with the proposed intent of this policy. Accordingly, in March 1999,

Governor Parris Glendening and Montgomery County representatives agreed in writing to four conditions that the MD 97 Brookeville Project would be required to meet to ensure that the project would be consistent with the anti-sprawl objectives and requirements of the Act. Since that time Montgomery County and the SHA have acted in good faith to meet the stipulations elaborated in the agreement, to help prevent unintended growth, mitigate environmental impacts, and preserve the historic integrity of the town. Montgomery County agreed to the following four conditions in an MOU executed November 7, 2012 and has advanced $10 million for the design and right-of-way phases of the Brookeville Project, which began in FY 13.

As provided in the MOU, the four conditions have been or shall be met:

Condition #1: Under local ordinance, the County is to adopt through appropriate enforceable action restrictions that will prevent this new road from allowing sprawl development. Any capacity that the project might add to the roadway network cannot be used as a basis to allow development outside the current boundaries of the Town of Brookeville.

> *Action: An amendment to the Annual Growth Policy was adopted on April 16, 1999 by the Montgomery County Council and has been included in each subsequent biennial Growth Policy (most recently adopted as the resolution number 16-1187) clearly stating: "To discourage sprawl development, no capacity for new development may be counted outside the boundary of the Town of Brookeville as of March 9, 1999, as result of relocating MD 97 around Brookeville."*
>
> *Montgomery County also took further action to reduce the ultimate capacity of Georgia Avenue (MD 97) north of Brookeville to two through lanes with a planned right-of-way to 80 feet in width to help to limit development outside PFA. This was stated in its 2005 Olney Master Plan. In addition, the County designated Brookeville Road as a Rustic Road as it connects to the proposed roadway through a roundabout. This designation will help the County to preserve historic and scenic roads, in the area's agricultural character and rural origins.*
>
> *With the limited capacity improvement provided by the relocated MD 97 and provisions of the County land use and transportation policy, the potential for induced sprawl development will be minimal.*

Condition #2: The SHA will designate "Right-of-Way of Through Highway" for the entire new road to help ensure that no future access, widening, or connection to the new road is possible. In addition, the SHA will note on the plat a reference to the eventual agreement and the intent to disallow access.

> *Action: Criteria 2 originally, read as follows: "Permanent easement to be held by an entity such as the Maryland Environmental Trust must border the entire roadway to ensure no future access, widening, or connection to the roadway is possible." The MDOT and MDP now propose that Criterion 2 be modified to identify SHA as the agency which would create a protective "easement" by designating a Right-of-Way of Through Highway for the entire project. This change is proposed because of potential conflict of interest issues that could arise should another State agency, such as the Maryland Environmental Trust, be designated as the easement holder.*

Condition #3: If for any reason these controls fail, Montgomery County will reimburse the State for the full cost of the new road.*

Action: This provision will be included in an MOU with the County. It serves to further ensure that rural areas and open space are preserved, the environment is healthy, and thriving communities enjoy their quality of life.

*To date, SHA has spent approximately $2 million dollars on project planning. Montgomery County has advanced $10 million for the engineering and right-of-way phases.

Condition #4: Montgomery County, the Maryland Department of Transportation, and Howard County government will work out a safe traffic calming point north of the project which limits traffic capacity to the current capacity of MD 97 through Brookeville.

Action: Roundabouts will be constructed at the northern and southern termini of the new road to provide traffic calming. The new roadway will be a 2-lanes (1-lane in each direction) with speed limit of 40 mph. These design features help to ensure that the new roadway will maintain the traffic capacity of the existing segments of MD 97.

Criteria 1, 3 and 4 have remained unchanged. Criteria 2 originally, read as follows: "Permanent easement to be held by an entity such as the Maryland Environmental Trust must border the entire roadway to ensure no future access, widening, or connection to the roadway is possible." The MDOT and MDP now propose that Criterion 2 be modified to identify SHA as the agency which would create a protective "easement" by designating a right-of-way of through highway for the entire project. This change is proposed because of potential conflict of interest issues that could arise should another State agency, such as the Maryland Environmental Trust, be designated as the easement holder. The SHA sent a letter to the County requesting concurrence on the modification for Criteria 2 on April 9, 2010. The County has replied back favorably to the modification on April 30, 2010 *(Attachments E and F).*

The annual Montgomery County Priority Letters to MDOT have consistently placed the MD 97 Brookeville as a top priority and for 2011, placed this project as the third highest priority for Construction. In October 2008, the County committed $10 million for engineering and right-of-way funds. A memorandum of understanding (MOU) with the State Highway Administration (SHA) in November, 2012 to fund up to $10 million toward engineering and right-of-way costs for this project. It is expected that engineering and right-of-way can be fully completed with the County contribution. The criteria identified in the Smart Growth Exception section are included as a part of the MOU.

Justification Two – Traffic & Safety

Without the relocation of the roadway, safety issues on MD 97 cannot be improved without incurring impacts to the Town of Brookeville. The roadway network within the Town of Brookeville conforms to the existing terrain and has evolved, relatively unplanned over time, resulting in poor horizontal and vertical geometry, which limits sight distance. Existing MD 97 through Brookeville is narrow (22 to 24 wide) with intermittent shoulders and sidewalks, frequent driveway access, historic buildings in close proximity to MD 97, and an "S" curve

along High Street and Market Street which requires a stop condition for northbound traffic. The volumes of through traffic on MD 97 passing through Brookeville have been increased over the years. Average Daily Traffic volumes on MD 97 have increased approximately 25% since 1995 to 11,500 vehicles per day and are forecasted to increase another 25% to between 14,000 to 15,000 vehicles per day by 2030. The geometric roadway conditions compounded with increasing traffic and poor-sight distance at the intersection for turning vehicles contribute to accident rates that are higher than the statewide average for the following accident types: fixed-object (collisions with trees, buildings, fences, etc.), opposite direction (due to vehicles crossing the center line), wet surface (resulting from vehicles sliding on wet pavement due to rain, ice, snow, etc.), and trucks (collisions attributed to larger vehicles attempting to maneuver on the narrow, curving roadway).

Justification Three – Historic Character

Without improvements to traffic operation and roadway safety, the historic character of the Town of Brookeville would be significantly compromised as traffic volumes (and associated secondary effects, e.g., noise and vibration) increase. The Town of Brookeville is a 19th century crossroads village with many individually significant historic houses located along the two main streets (Market and High), in close proximity to existing MD 97. Brookeville is distinguished from modern development to the south by its curving, tree lined streets which are unaltered from its original layout. The town is significant for its architecture and as an early commercial service center for the surrounding agricultural areas, but many best known for briefly serving as the nation's capital for a day during the war of 1812 when President James Madison sought refuge in Brookeville when British troops burned the White House. The Town of Brookeville is recognized by Montgomery County as a historic district and was listed on the National Register of Historic Places in 1979.

Justification Four – No Alternatives Inside PFA

SHA has conducted the extensive engineering and planning studies performed in cooperation with the FHWA, have determined that no reasonable alternative exists within the PFA due to geometric limitations inherent in the historic neighborhoods of Brookeville. Furthermore, the SHA does not have any planned or proposed highway projects to the east or west that would offer meaningful congestion relief to Brookeville.

Started in 1990, the Feasibility Study for the project evaluated 13 alternatives. The 1995 project Planning study began with 6 build alternatives. With the passage of the 1997 Smart Growth Legislation, the Project Planning study was placed on hold because there were no viable alternatives within the PFA. The study was reinitiated in 2000 with 4 build alternatives which were studied in detail. These included Alternative 5C proposed east of Brookeville, Alternatives 7, 8A, and 8B west of Brookeville *(Figure 2).* Existing road alternatives were not retained for detailed study, because they would result in an adverse effect on historic Brookeville.

Alternative 7 received the most support at the 2001 Public Hearing. Alternative 7 was revised to address public and agency concerns, was re-designated as Preferred Alternative 7 Modified, and ultimately selected. The Selected Alternative will improve the substandard geometrics and operational capacity of MD 97 while diverting a substantial portion of the anticipated increases

in traffic volume around historic Brookeville. Upon completion, the resulting roadway will be a more efficient facility that supports the Town of Brookeville's efforts to preserve its cultural, historic, and environmental resources.

Conclusion

Based on in-depth review of the past and present transportation and land-use planning processes and proposals associated with this project, MDP, MDOT, and SHA, find that the currently proposed MD 97 Brookeville project meets the anti-sprawl objectives and requirements of the Smart Growth legislation. On these grounds, MDP, MDOT, and SHA recommend that the project be forwarded for final approval by the Board of Public Works, as an "extraordinary circumstance" due to the extensive and long-term coordination efforts between the State, Montgomery County, and the Town of Brookeville to preserve the historic character of the Town of Brookeville, warranting exception from the PFA legislation.

The remaining sections of this paper elaborate further the purpose and need for the MD 97 Brookeville project and identifies remedial or mitigation actions if the project is approved by the Board of Public Works. The Selected Alternative will improve the substandard geometrics and operational conditions of MD 97 while diverting a substantial portion of the anticipated increases in traffic volume around historic Brookeville. Upon completion, the resulting roadway will be a more efficient facility that supports the Town of Brookeville's efforts to preserve its cultural, historic, and environmental resources.

Figure 1: Project Location

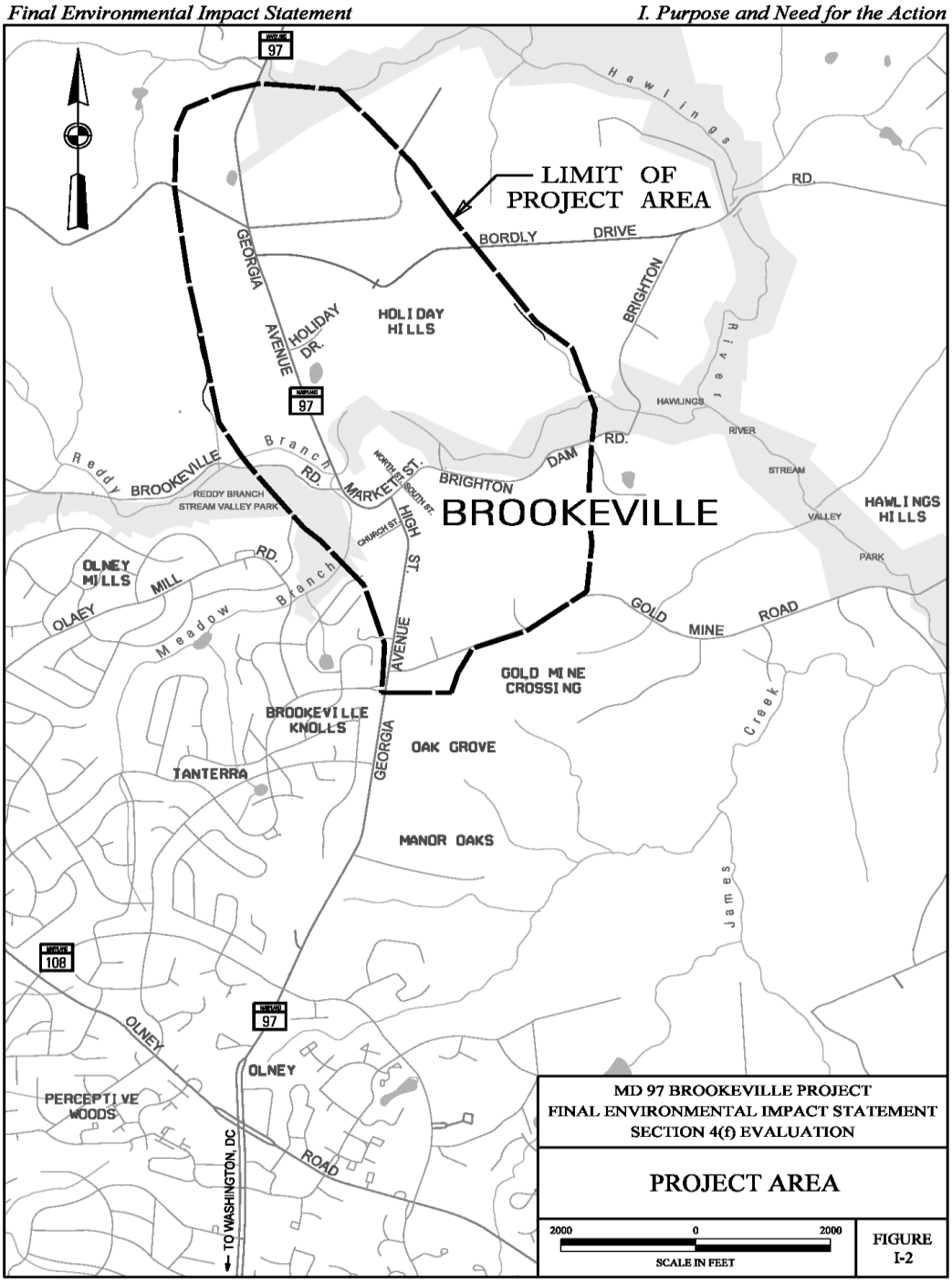
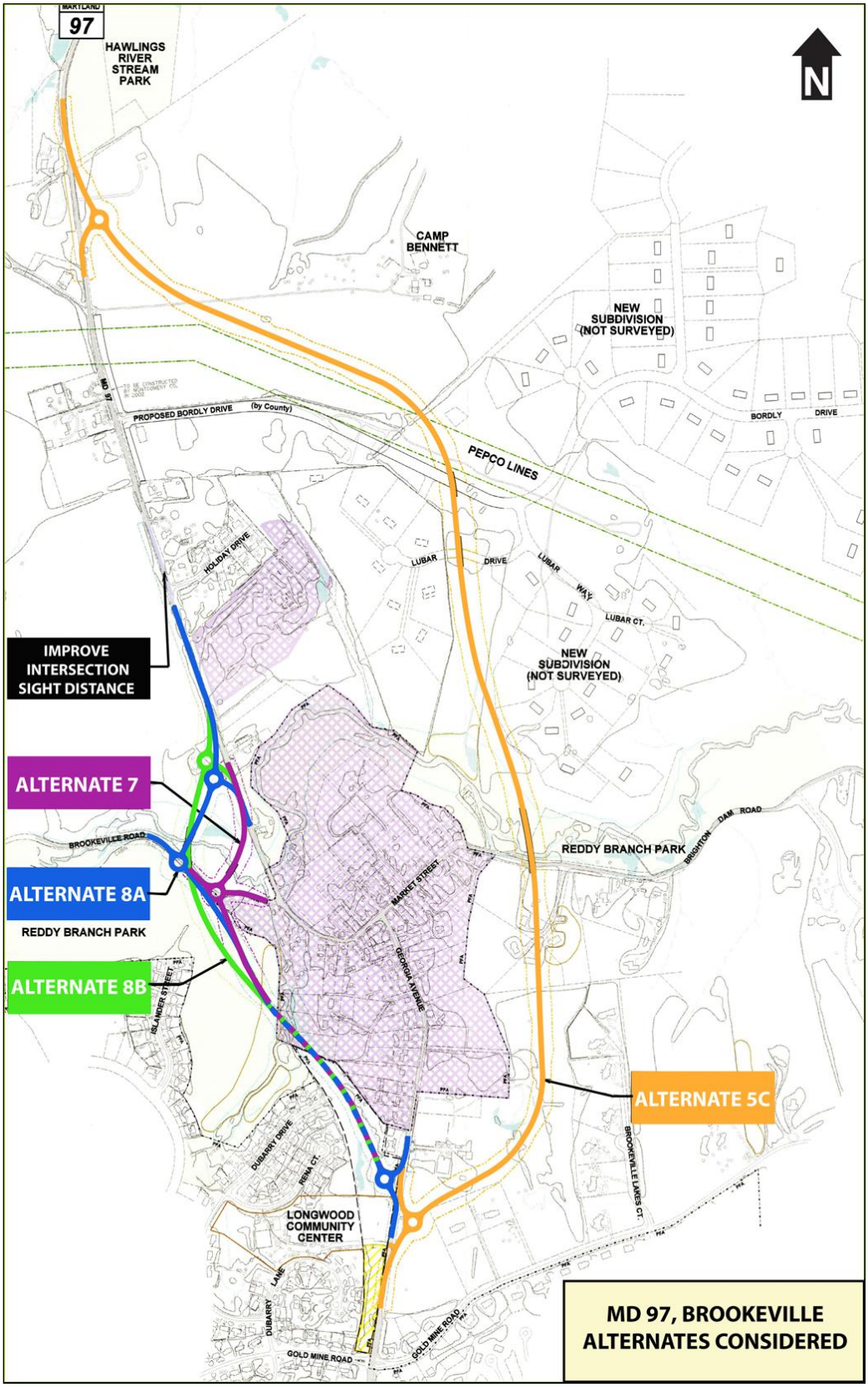
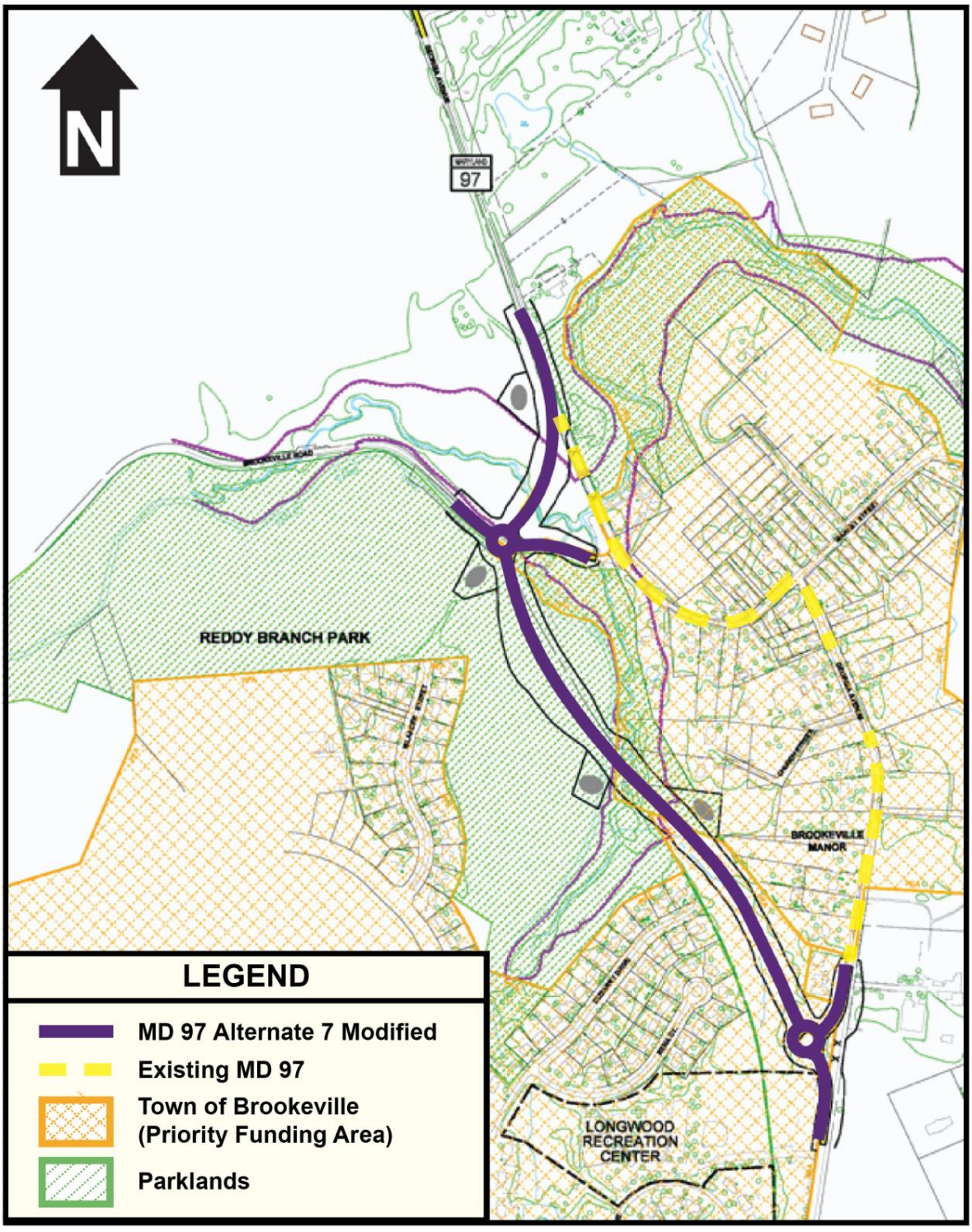


Figure 2: FEIS Alternatives Retained for Detailed Study



MD 97, BROOKEVILLE ALTERNATE 7 MODIFIED



and make the right turn from Market Street to High Street without either crossing over the centerline, or encroaching upon privately owned historic property.
Within the Town of Brookeville, MD 97 is part of a T-intersection at Market Street and High Street. MD 97 forms the western and southern legs of this intersection while Market Street/Brighton Dam Road forms the eastern leg. Northbound MD 97 traffic is controlled at the intersection by a stop sign which allows traffic to enter the intersection from the minor road (Market Street), at the expense of the major road (MD 97). During the evening peak hour, queues (lines) up to 25 vehicles have been observed on northbound High Street waiting to turn left at Market Street.

The crash history dates from January 2008 to December 2009 reveal a total of 16 crashes with no fatalities reported in the project area (MD 97, from Gold Mine Road to Holiday Drive). The study area rate for crashes is 51.5 accidents per 200 million vehicle miles of travel. Although the rate is lower than the state average rate of 148.7 for all similarly designed highways maintained by the State, this lower rate can primarily be attributed to the radical decrease in speed required to pass through the center of town.

Of the 16 reported crashes, seven were fixed object collisions, with five of these being along Church Street to north of Market Street. This fixed object crash rate is higher than the statewide average and although not significantly elevated, reflects the dangerous conditions created by limited sight distance, need for rapid deceleration, and sharp turns. The other significantly high categories were three heavy truck related accidents which represent almost 19% of all crashes.

Final Environmental Impact Statement (FEIS) & Summary of Environmental Impacts

The Project Planning Study was placed on hold after Maryland's Smart Growth Legislation was passed in 1997, because there were no viable alternatives within the PFA. The study was reinitiated in 2000 with 4 build alternatives which were studied in detail. The alternatives improving existing MD 97 within the Town and PFA were not selected for detailed study, because they would result in a significant adverse effect on historic Brookeville. At the end the Alternative 7 Modified, a less than 1 mile and 2-lane new road with limited capacity expansion, as selected for the Project.

A FEIS was prepared, resulting in a Record of Decision and Location Approval granted by the FHWA in October 2004. Table 1 shows a summary of impacts by Alternative. Alternative 7 Modified is located on the west side of Brookeville and proposes a two-lane roadway, which departs from existing MD 97 south of the Longwood Community Center. It passes through a roundabout located near the northern edge of the community center, providing access to existing MD 97 and the Town of Brookeville. The alignment then continues in a northwesterly direction through Montgomery County and Maryland-National Capital Park and Planning Commission (M-NCPPC) property, which is reserved for transportation use, and through the Reddy Branch Park. It intersects Brookeville Road west of existing MD 97 at a roundabout, and then continues in a northeasterly direction. The roundabout at Brookeville Road has four legs, two legs provide for the north and south movements and two legs provide for the east and west movements. The proposed road ties into existing MD 97 north of Brookeville Road. The portion of existing MD 97 between the new connection and the Reddy Branch Park would be closed off to vehicular traffic.

The design speed will be 40 mph with an open typical section consisting of two travel lanes and shoulders. The proposed road includes roundabouts at the northern and southern termini, which will help limit traffic capacity and serve as safe traffic calming points. As the project advances through the design phase, additional evaluation will be required to address and incorporate the new Maryland Department of Environment (MDE) stormwater regulations into the project design.

Table 1: FEIS Summary of Impacts by Alternative

ENVIRONMENTAL IMPACT SUMMARY

FEATURE	ALTERNATES EVALUATED IN THE FEIS					
	Alternate 1 No-Build	Alternate 5C East Bypass [5]	Alternate 7 West Bypass	Alternate7 Modified West Bypass	Alternate 8A At-Grade West Bypass	Alternate 8B Grade Separated West Bypass
		Open Section	Open Section	Open Section	Open Section	Open Section
Length (miles) [1]	0	2.12	0.72	0.72	0.95	0.95
Cost (millions-2001 dollars)	0	$ 34.2	$ 12.2	Approximately $12.5 (assuming retaining wall along Brookeville Road	$ 13.7	$ 18.0
Socio-Economic Resources						
Residential Relocations (no.)	0	5	0	0	0	0
Business Displacements (no.)	0	1	0	0	0	0
Affected Properties (no.)	0	26	11	11	14	14
Comprehensive Plan Compatibility	No	No	Yes	Yes	Yes	Yes
Recreational Facilities (acres)	0	4.55	6.65	5.62	7.22	7.64
Historic District (acres)	0	0	2.24 [3, 4]	1.66 [3, 4]	1.84 [3, 4]	2.00 [3, 4]
Section 106 Adverse Effects	Yes	Yes	Yes	Yes	Yes	Yes
Total Section 4(f) [6] (acres)	0	4.55 [2 parks]	6.65 [1 park]	5.62 [1 park]	7.22 [1 park]	7.64 [1 park]
Impacted Waste Sites (no.)	0	0	1	1	2	1
Air Quality (SIP Conformance)	0	Yes	Yes	Yes	Yes	Yes
Noise Receptors (no.) [2]	0	8	10	10	10	10
Natural Resources						
Prime Farmland Soils (acres)	0	25.88	4.84	4.53	5.50	5.34
Statewide Important Soils (acres)	0	5.63	1.79	1.63	7.50	8.51
Wetlands (acres)	0	0.21	0.13	0.12	0.11	0.17
Streams [7] (linear feet)	0	482.12	1169.2	1211.8	1067.32	1191.72
FEMA 100-year Floodplains (acres)	0	2.59	3.34	3.22	3.03	3.34
Forest Cover (acres)	0	11.50	10.47	9.02	13.53	14.2

NOTES:

1 Alignment length does not include frontage, access roads and exclude additional length for traffic roundabouts.
2 Noise levels 66 dBA or greater or those which increase 10 dBA or more over ambient levels.
3 Included within Reddy Branch Stream Valley Park Acreages.
4 One park property, two locations.
5 For this alternate, impacts do not include right-of-way needed for storm water management. All other alternates include right-of-way impacts for storm water management ponds.
6 Includes overlapping acreage of the Brookeville Historic District within impacted Public Parkland.
7 Based on re-evaluation, the impact numbers decreased from the Selected Alternate and Conceptual Mitigation Package.

Natural Environment

Less than one-quarter acre of wetlands would be impacted with Alternative 7 Modified. The Selected Alternative 7 Modified would cross two streams, Meadow Branch and Reddy Branch, with impacts of approximately 1,211.8 linear feet. These streams in the Hawlings River sub-watershed and the Patuxent River watershed are Use IV waters (Recreational Trout) and may require an in-stream work restriction from March 1 to May 31. SHA's Selected Alternative would impact approximately 3.2 acres of floodplain. The proposed MD 97 structure over Reddy Branch will be designed to accommodate wildlife passage along Reddy Branch by providing an eight-foot vertical and 25-foot horizontal clearance along one side of the stream as agreed to by the agencies. SHA will evaluate the north side passage option during final design when topographic survey of the area is completed. Conceptual design of the Meadow Branch crossing

consists of a box culvert in accordance with the MDE design criteria. Design of the Reddy Branch Bridge and Meadow Branch culvert will be coordinated with the federal and state resource agencies as part of the permitting requirements

Publicly Owned Parks and Recreation Areas

SHA's Selected Alternative would impact 5.6 acres of Reddy Branch Stream Valley Park, compared to 5.3 acres for Alternative 7. SHA met with M-NCPPC on May 5, 2003 to discuss mitigation within Reddy Branch Stream Valley Park. Mitigation for both the temporary and Section 4(f) permanent use of public parkland was addressed in the FEIS. The Section 4(f) Evaluation includes M-NCPPC's signed concurrence of parkland mitigation as presented in the SHA correspondence dated November 25, 2003.

Historic Resources

The Town of Brookeville is a historically significant 19th century crossroads village in Upper Montgomery County, Maryland, approximately 18 miles north of the District of Columbia. The Town was founded in 1794 by Richard Thomas, on land inherited by his wife Deborah Brooke from her father Roger Brooke, IV, son of James Brooke, an influential Quaker settler and the largest land holder in what was to become Montgomery County. In 1979, the entire town was listed on the National Register of Historic Places as a historic district and includes many individually significant historic houses located along the two main streets (Market and High), in close proximity to existing MD 97.

The town is significant for its architecture and as an early commercial service center for the surrounding agricultural areas. For many it is best known, however, for briefly serving as the nation's Capital during the war of 1812 as President James Madison fled Washington, D.C. Brookeville is unique for having largely retained this historic character, and is distinguished from modern development to the south by its curving, tree-lined streets lined with buildings with limited set-backs. Although the road has become a major thoroughfare, the road and right-of-way have been virtually unaltered from their original layout. Brookeville residents maintain that increasing traffic noise, vibration, and congestion are undermining the town's historic character and negatively affecting their quality of life. The proposed bypass project has been designed to help address the effect of increasing traffic volumes on the historic Town of Brookeville, by improving safety and traffic operations on existing MD 97 (Georgia Avenue), and ultimately preserving the historic character of the town. Specifically, because truck traffic represents 12% of the traffic, noise and vibration pose negative impacts to the homes.

Archeological Resources

The SHA Selected Alternative 7 Modified will have an adverse effect on the National Register eligible Newlin/Downs Mill Complex (Site 18MO368), which is significant both individually and as a contributing resource to the Brookeville Historic District. The SHA's Selected Alternative was shifted to the west by 30-40 feet in order to minimize impacts to the site. Approximately 700 linear feet of the millrace system would be affected, but not the identified features and significant archeological deposits associated with the mill and miller's house. A memorandum of agreement between SHA, FHWA, and the MHT was executed to address the

adverse effects of the project on the Brookeville Historic District and identifies measures to mitigate these effects.

Land Use

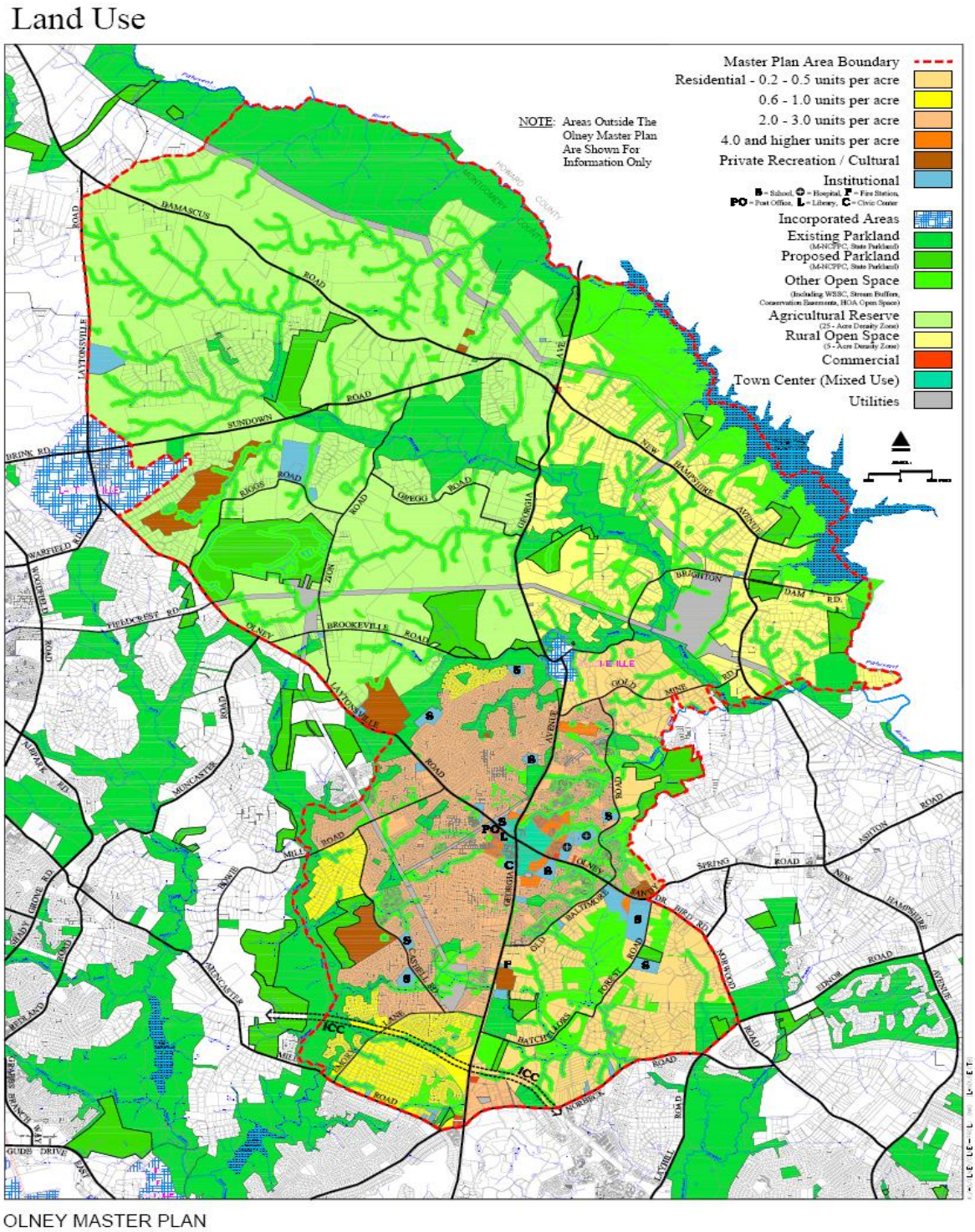
No displacements would occur under SHA's Selected Alternative. No land use changes are anticipated as the result of the project. Land use *(Figure 4)* within the project area includes a mixed use of residential, commercial, parkland, forest, croplands, and open grasslands. Residential areas include the historic Town of Brookeville, the Holiday Drive subdivision, and numerous individual homes throughout the project area. Commercial development in the project area consists of six small businesses located on Georgia Avenue, one located on Brighton Dam Road, and one located on Bordly Drive. The Reddy Branch Stream Valley Park covers a significant percentage of the project area and is located along either side of Reddy Branch. The park is predominantly forested. Within the Town of Brookeville, there are two land use categories: Historic Village Residential and Historic Village Commercial.

The M-NCPPC has adopted a *Functional Master Plan for the Preservation of Agriculture and Rural Open Space* (M-NCPPC, 1980, updated 1986). The plan recommends techniques to protect and preserve farmland and rural open space. The project area is located within two agricultural protection areas of the county. The project area west of the existing MD 97 is within the County's Agricultural Reserve Zone with one dwelling unit per 25 acres of farmland. The project area east of existing MD 97 is located within the Rural Cluster Zone. In this zone, overall density is one dwelling unit per five acres and the tract is 100 acres in size. The number of permitted dwelling units is 20. The cluster option would allow these 20 units to be grouped on lots as small as two acres on approximately 40 percent of the parcel, or 40 acres.

Future land use within the project limits is consistent with the existing land use conditions, in that growth is limited to areas adjoining ongoing development and not within the extensive Reddy Branch Stream Valley Park. The Town of Brookeville Zoning Ordinance is designed to preserve and protect its historic heritage, and allow reasonable flexibility for new development, changes in existing structure, and current and future uses throughout the Town in a manner consistent with the goals and objectives of the Brookeville Comprehensive Plan, adopted by the Town of Brookeville Commissioners on September 17, 2010.

The relocation of MD 97 is identified in the 1980 Olney Master Plan as well as the 2005 Olney Master Plan that is prepared by the M-NCPPC. Because portions of SHA's Selected Alternative would be located outside of the county defined Priority Funding Areas (PFA), the SHA must receive the BPW approval of this project as a special exception before the project can enter final design.

Figure 4: MNCPPC Olney Master Plan Land Use Map



Attachments

A. Testimony from Town of Brookeville, October, 2011
B. Original Smart Growth Criteria from Governor Glendening, March 5, 1999
C. Montgomery County Council Reply – March 9, 1999
D. County Council for Montgomery County Maryland: Resolution #:16-376 - Adopted 13, 2007
E. Letter from SHA to Montgomery County presenting the four conditions - April 9, 2010
F. Letter from Montgomery County accepting all four conditions - April 30, 2010
G. Signed Montgomery County/SHA Design & Right-of-way MOU - November 7, 2012

Attachment A: Testimony from Town of Brookeville, October, 2011

http://www.townofbrookevillemd.org/testimony10_01.html

TESTIMONY
MD 97
BROOKEVILLE TRANSPORTATION STUDY
LOCATION/DESIGN PUBLIC HEARING
BY
RICHARD S. ALLAN
PRESIDENT OF COMMISSIONERS
TOWN OF BROOKEVILLE
OCTOBER 3, 2001

Good evening. My name is Richard S. Allan. I am testifying here tonight in my capacity as President of Commissioners for the Town of Brookeville.

The public record with regard to the Brookeville Bypass Bypass is a lengthy one. The Draft Environmental Impact Statement that has been prepared by the Federal Highway Administration and the Maryland State Highway Administration as a required part of the Bypass study process notes Bypass discussions as far back as the 1960's. Those of us who have had immediate experience with the Bypass project as public officials certainly are acutely aware of the correspondence, town meetings, focus groups, special studies, consultants, bus and walking tours, interviews, videos, telephone calls, letters-to-the-editor, and in-your-face lobbying that has been a significant part of our work and lives for at least, in my case, almost the past twenty years. This location/design public hearing represents a major affirmation in my view of the importance of the values of perseverance and keeping on message.

The Town of Brookeville's message here tonight simply and succinctly put is build the Bypass now, locate it west of town, and take all due care to use whatever necessary resources are reasonably available to mitigate the socio-economic, cultural, and natural environmental impacts that might result. The bypass is crucial to the future of the town and its residents. There can be no argument about this fundamental statement of fact. Without the bypass, the Town of Brookeville will be utterly consumed by commuter and truck traffic gridlock with all its safety and health implications. As a viable community, Brookeville will wither away like a fallen leaf. We therefore strongly urge the State Highway Administrator, the State Secretary of Transportation, and the Governor to do everything within their collective means to expedite this project so that we may proceed with actual construction in the shortest possible timeframe.

I would like to briefly outline our views with respect to our recommendation for a Bypass alternate. The Town Commissioners believe that the Alternate 7 alignment represents the preferred placement or location for the Bypass. We have walked this particular alignment several times with State Highway Administration staff, local residents and representatives of citizen and homeowner associations, elected officials and their staff. We have asked many questions about how it would fit and what it would look like from people's homes, what it might sound like, how it would affect the Longwood ballfield, whether it could be designed to minimize its impact on the woodland and wetlands it would traverse. We have asked to what extent the roadway could be designed to accommodate and integrate the historic Newlin Mill Race and the proposed trailways to the Oakley Cabin with the Brookeville Historic District and its historic and natural assets, including the Reddy Branch Stream Valley Park. We have explored the various roundabout configurations and how they would affect traffic flow, especially east to west. The answers we received to our questions and from our discussions have provided the underlying reasons for our conclusion that Alternate 7 should be recommended to the State Highway Administrator.

We believe that alternate 7 would be least intrusive to residents immediately east and west of the project. I would note at this point a very unusual fact, almost an anomaly, that Town residents whose properties would be adjacent to Alternate 7 nonetheless have been supportive of

building a Bypass from the very beginning. That isn't to imply that if they had their druthers, they wouldn't want the road somewhere else. They have understood realistically, however, that the importance of the project to the wider community transcended any individual concerns about such a road, even one near their own homes. I think that is really what community is all about and their support is commendable.

The Commissioners are satisfied that Alternate 7 can be designed and engineered and enhanced by various mitigation techniques to keep noise and visual impacts at a generally acceptable level to residents on both sides of the project. With regard to concerns raised by the Maryland Historic Trust on Historic District impact, we believe that these too can be reasonably mitigated. The Town itself sought historic preservation protections afforded under the Montgomery County Historic Preservation Ordinance the Town Commissioners enacted in 1985. We sought full inclusion of the Town's corporate boundaries in the resultant Historic District. This action supplemented the voluntary citizen-led efforts in 1979 to have Brookeville designated on the National Register of Historic Places. We did this in full recognition of the fact that we also as a matter of policy supported the western Bypass alternate in both our Comprehensive Master Plan and the Olney Master Plan. We don't see any irresolvable issues here.

The Commissioners also would specifically note their support of a roundabout at grade at Brookeville Road that would ensure smooth east-west and of course north-west traffic flow. We believe this would not have any particular negative impact on Brookeville Road. While Brookeville Road is an attractive rustic road, it has been and still is to some extent a working farm road. The subject roundabout would not make it less so. As Montgomery County plans to commence construction of a Bordly Drive extension to Rt. 97 during the summer of 2001, it is reasonable to speculate that most east- west traffic that now flows through Brookeville will opt to take the extension to Rt. 97 and ultimately the Brookeville Road roundabout south or west.

The Commissioners believe that it is vital that Alternate 7 be designed to maximize its potential to take advantage of, so to speak, to the degree possible, its location in park settings [although the úparkô land was set aside years earlier for use as a transportation corridor] in the midst of historic structures, trails, and archaeological remnants. We believe that through creative design and collaboration among all the different interests and agencies that a road can be constructed that will synergistically and positively impact on its surroundings and not just act as a one-dimensional conduit for vehicles.

Finally, I would be remiss if I didn't acknowledge the truly professional SHA project staff it has been our pleasure to work with over these many years. All have been a credit to the SHA and public employees anywhere.

Thank you very much for this opportunity to testify.

Back to Build The Bypass!

Attachment B: Original Smart Growth Criteria from Governor Glendening, March 5, 1999

ATE OF MARYLAND
ICE OF THE GOVERNOR

PARRIS N. GLENDENIN
GOVERNO

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(202) 624-14
TDD (410) 333-70

March 5, 1999

The Honorable Isiah Leggett
President
Montgomery County Council
100 Maryland Avenue
Rockville MD 20850

Dear Ike:

As a follow up to our conversation last week, I appreciate your desire to find a positive solution to the Brookeville bypass issue. Your recognition of the statewide implication of my decisions about the bypass and the need to control sprawl development across County lines is appreciated.

The ideas we discussed about Montgomery County being able to guarantee that no sprawl development would result from the construction of the bypass speak directly to the real policy issues at stake. We must curtail the unbridled sprawl that has chewed up fertile rural areas and valuable open space, harmed our environment and damaged our quality of life.

Following up on our discussion, I have developed a proposal that could allow the future construction of the bypass without encouraging sprawl development north of Brookeville. If the County could implement the four items listed below, we would meet the anti-sprawl objectives and requirements of the Smart Growth legislation:

(1) Under local ordinance, the County is to adopt through appropriate enforceable action restrictions that will prevent this bypass from allowing sprawl development. Any capacity a bypass might add to the road network cannot be used to allow development outside the current boundaries of the town of Brookeville.

(2) Permanent easement to be held by an entity such as the Maryland Environmental Trust must border the entire roadway to ensure no future access, widening or connection to the bypass is possible.

(3) If for any reason these controls fail, Montgomery County will reimburse the State for the full cost of the bypass.

(4) Montgomery County, the Maryland Department of Transportation and Howard County government will work out a safe traffic calming point north of the bypass which limits traffic capacity to the current capacity of MD 97 through Brookeville.

These four actions will enhance our anti-sprawl effort while allowing the bypass under the Smart Growth law. I realize it will take some time for the County Council to consider these points and implement such ideas. With your leadership, I am confident success will be achieved rapidly. At that point, I could put the bypass back into the Consolidated Transportation Program as it was last year and support a waiver of the funding prohibition. Until these four conditions are assured, I cannot consider funding even the planning monies for the bypass.

Let me reaffirm my commitment to implementing our Smart Growth initiatives. Our children and grandchildren deserve to inherit a State where rural areas and open space are preserved, the environment is healthy, and thriving communities enjoy their quality of life. This is my vision for Maryland

Ike, your willingness to work cooperatively to achieve our shared policy goal of limiting sprawl, and your practical suggestions on how to achieve our goal is very much appreciated. I look forward to your reply.

Sincerely,

Parris N. Glendening
Governor

Attachment C: Montgomery County Council Reply – March 9, 1999

MONTGOMERY COUNTY COUNCIL
ROCKVILLE, MARYLAND

OFFICE OF THE COUNCIL PRESIDENT

March 9, 1999

The Honorable Parris N. Glendening
Governor, State of Maryland
State House
Annapolis, MD 21401

Dear Governor Glendening:

I am writing to express the Montgomery County Council's appreciation for your very favorable response to our request for reconsideration of the Brookeville Bypass study. We were very pleased to receive your March 5, 1999 letter outlining this proposal. The Council unanimously concurs in principle with the conditions you have identified. We are in strong agreement with your anti-sprawl objectives as required in the Smart Growth legislation and want to work with you to accomplish these important goals.

Our staff will proceed immediately to coordinate the details of implementation with officials from the Town of Brookeville, the Maryland Department of Transportation, the County Department of Public Works and Transportation, and the Maryland-National Capital Park and Planning Commission. Our staffs, working together over the next two weeks, will determine the specific steps needed to implement these conditions. Our hope is that at that time the Brookeville Bypass project planning study would proceed.

Once again, thank you for your thoughtful review of this matter. I believe we have the outline of an agreement that will forward our common objectives of discouraging sprawl while promoting the livability and safety of residents in the Town of Brookeville.

Sincerely,

Isiah Leggett
Council President

Copies: The Honorable Kumar Barve, Chair, Montgomery County House Delegation
The Honorable Ida Ruben, Chair, Montgomery County Senate Delegation
The Honorable Douglas Duncan, Montgomery County Executive
Mr. John Porcari, Secretary, Maryland Department of Transportation
Mr. William Hussmann, Chair, Montgomery County Planning Board

Attachment D: County Council for Montgomery County Maryland:
Resolution No.: 16-376 - Adopted 13, 2007

development capacity, it is prudent to approach the additional capacity from these systems conservatively, particularly with respect to the timing of capacity and the amount of the capacity recognized. Therefore, the capacity from any operable segment of any of these transit systems must not be counted until that segment is fully funded in the first 4 years of the County or State capital improvements program.

To discourage sprawl development, no capacity for new development may be counted outside the boundary of the Town of Brookeville as of March 9, 1999, as a result of relocating MD 97 around Brookeville.

Planning staff must keep a record of all previously approved preliminary plans and other data about the status of development projects, and must continuously update the pipeline number of approved preliminary plans. The updated pipeline must be the basis for the annual PAMR.

TP3 Mitigation for Applications in Policy Areas with Inadequate PAMR

The Planning Board, after considering any recommendation of the County Executive, may approve a preliminary plan application in a policy area found by Policy Area Mobility Review to be acceptable with full mitigation or acceptable with partial mitigation, as provided in this section. In approving plans in acceptable with full mitigation policy areas, the Board should ensure that the average level of service for the relevant policy area is not adversely affected. Except as otherwise expressly stated in **TP4**, the same level of service criteria must be used in evaluating an application under this section.

The following options to mitigate the traffic impacts of development approved in a preliminary plan may be used, individually or in combination:

- *Trip Mitigation.* An applicant may sign a binding Trip Mitigation Agreement under which up to 100% of the projected peak hour vehicle trips would be removed from the roadway by using Transportation Demand Management techniques to reduce trips generated by the applicant's development or by other sites, so that an applicant could still generate a certain number of trips if the mitigation program removes an equal number of trips from other sites in the same policy area.
- *Trip Reduction by Providing Non-Auto Facilities.* An applicant may mitigate a limited number of trips by providing non-auto facilities that would make alternative modes of transit, walking, and bicycling safer and more attractive. The Planning Board must specify in its *LATR Guidelines* the allowable actions and number of trips associated with them, as well as the maximum number of trip credits allowable for each action, which will partly depend on the congestion standards for the policy area where the proposed development is located.
- *Adding Roadway Capacity.* An applicant may mitigate trips by building link-based roadway network capacity. The conversion rate between vehicle trips and lane miles of roadway is shown in Table 2. The values in that table are derived from regional estimates of vehicle trip length by trip purposes and uniform per-lane capacities for roadway functional classes that should be applied countywide. Several conditions apply:
    - The number of lane miles in Table 2 reflects total capacity provided, so that if an applicant widens a roadway by one lane in each direction, the total minimum project length would be half the length listed in the table.

Attachment E: Letter from SHA to Montgomery County presenting the four conditions – (April 9, 2010)

Martin O'Malley, *Governor*
Anthony G. Brown, *Lt. Governor*

SHA State Highway Administration
Maryland Department of Transportation

Beverley K. Swaim-Staley, *Secretary*
Neil J. Pedersen, *Administrator*

April 9, 2010

Arthur Holmes, Director
Montgomery County Department of Transportation
5th Floor
101 Monroe Street
Rockville MD 20850-2540

Dear Mr. ~~Holmes~~ Art:

The Maryland State Highway Administration (SHA) appreciates Montgomery County's contribution of $10 million beginning FY 2011, for the design and right-of-way acquisition of the MD 97 Brookeville Bypass project, especially during these tough economic times. In order to advance this project, SHA will seek the Maryland Board of Public Works' (BPW) approval for the MD 97 Brookeville Bypass as a "Special Exception," as required under the Smart Growth Act of 1997.

According to our records, on March 5, 1999, Governor Parris Glendening sent a letter to Montgomery County Council President, Isiah Leggett, outlining four criteria intended to mitigate the potential effects of the proposed MD 97 Brookeville Bypass project. The County responded favorably to these criteria. Recently, SHA, in coordination with the Maryland Department of Planning, reviewed the original criteria and now recommends a change to Criterion 2. That criterion had originally read, "*Permanent easement to be held by an entity such as the MD Environmental Trust must border the entire roadway to ensure no future access, widening, or connection to the bypass is possible.*" We recommend that the wording be modified to identify SHA as that agency. This change would create a stronger protective "easement," by designating a right-of-way through highway, for the entire bypass, that is held by a single state agency. Below are the original criteria and associated actions, as well as the revised version of Criterion 2:

1. Under local ordinance, the County is to adopt through appropriate enforceable action restrictions that will prevent this bypass from allowing sprawl development. Any capacity a bypass might add to the road network cannot be used to allow development outside the current boundaries of the Town of Brookeville.

   Action: An amendment to the Annual Growth Policy was adopted on April 16, 1999 by the Montgomery County Council. Subsequently, the adopted 2007-2008 Growth Policy (resolution number 16-376) also reaffirms this action by clearly stating: "To discourage sprawl development, no capacity for new development may be counted outside the boundary of the Town of Brookeville as of March 9, 1999, as result of relocating MD 97 around Brookeville."

My telephone number/toll-free number is 410-545-0400 or 1-800-206-0770
Maryland Relay Service for Impaired Hearing or Speech 1.800.735.2258 Statewide Toll Free
Street Address: 707 North Calvert Street • Baltimore, Maryland 21202 • *Phone* 410.545.0300 • www.sha.maryland.gov

Mr. Arthur Holmes
Page Two

2. **1999 Version:** Permanent easement to be held by an entity such as the Maryland Environmental Trust must border the entire roadway to ensure no future access, widening or connection to the bypass is possible.

   New: The SHA will designate right-of-way of through highway for the entire new road to help ensure that no future access, widening, or connection to the new road is possible. In addition, the SHA will note on the plat a reference to the eventual agreement and the intent to disallow access.

   Action: This will ensure that no future access, widening, or connection to the bypass is possible.

3. If for any reason these controls fail, Montgomery County will reimburse the State for the full cost of the bypass.*

   Action: This serves to further ensure that rural areas and open space are preserved, the environment is healthy, and thriving communities enjoy their quality of life.

   *To date, SHA has spent approximately $2 million on project planning. Remaining unfunded costs are approximately $6.5 million for Right-of-Way, $3.5 million for engineering, and $21 million for construction. Of this amount, the County is proposing to advance $10 million in FY 11.

4. Montgomery County, the Maryland Department of Transportation and Howard County government will work out a safe traffic calming point north of the bypass which limits traffic capacity to the current capacity of MD 97 through Brookeville.

   Action: Roundabouts will be constructed at the northern and southern termini of the new road to provide traffic calming.

If Montgomery County agrees with the suggested changes to Criterion 2, we would appreciate receiving a formal letter of concurrence. In the coming weeks, SHA also will draft a memorandum of understanding that formalizes these conditions.

Again, thank you for partnering with the State of Maryland to move the Brookeville project forward. If you have any questions, please do not hesitate to contact Mr. Roy Gothie, Assistant Regional Planner, at 410-545-5654, toll-free 1-888 204-4828 or via email at rgothie@sha.state.md.us.

Sincerely,

Neil J. Pedersen

Neil J. Pedersen
Administrator

cc: Mr. Roy Gothie, Assistant Regional Planner, SHA
Mr. Gregory I. Slater, Director of Planning and Preliminary Engineering, SHA

Attachment F: Letter from Montgomery County accepting all four conditions - April 30, 2010

DEPARTMENT OF TRANSPORTATION

Isiah Leggett
County Executive

Arthur Holmes, Jr.
Director

April 30, 2010

Mr. Neil Pedersen, Administrator
Maryland State Highway Administration
707 North Calvert Street,
Baltimore, Maryland 21202

Dear Mr. Pedersen:

Thank you for your letter of April 9, 2010, regarding the Brookeville Bypass. In particular, your letter contained a revised version of one code of the four criteria pertaining to the Brookeville Bypass. We have reviewed the recommended changes to Criterion 2 contained in the letter, and concur with them. We look forward to working with you on the Memorandum of Understanding (MOU) that will formalize all four of the criteria related to the Brookeville Bypass project.

Please contact me, at 240-777-7168, or Edgar Gonzalez, Deputy Director for Transportation Policy, at 240-777-7185, for further coordination on the MOU. Your ongoing assistance with this project is appreciated.

Sincerely,

Arthur Holmes, Jr.
Director

AH:lh

cc: Edgar Gonzalez, MCDOT
Gregory Slater, MSHA

Office of the Director
101 Monroe Street, 10th Floor • Rockville, Maryland 20850 • 240-777-7170 • 240-777-7178 FAX
www.montgomerycountymd.gov
Located one block west of the Rockville Metro Station

Attachment G: Signed Montgomery County/SHA Design & Right-of-way MOU - 11/7/2012

P00 739 C.1

MEMORANDUM OF UNDERSTANDING

for the

MD 97 / BROOKEVILLE PROJECT

by and between

Montgomery County

and

Maryland State Highway Administration

THIS MEMORANDUM OF UNDERSTANDING (MOU), executed in quadruplicate, made and entered into this 7th day of November, 2012, by and between State Highway Administration of the Maryland Department of Transportation acting for and on behalf of the State of Maryland, hereinafter called **"SHA"**, and Montgomery County, Maryland, a body corporate and politic, hereinafter called the **"COUNTY"**.

WHEREAS, the Town of Brookeville is located in northern Montgomery County and is traversed by MD 97; and

WHEREAS, SHA and the COUNTY desire to deter commuter traffic through the Town of Brookeville; and

WHEREAS, SHA and the COUNTY have agreed on an alignment for the construction of a relocation of MD 97 to the west of Brookeville to enhance safety and protect the historic Town of Brookeville, hereinafter called the **"PROJECT"**; and

WHEREAS, in order to comply with the State of Maryland's Smart Growth and Neighborhood Conservation Act (**"Smart Growth Act"**), SHA and the COUNTY have agreed to certain conditions (**"CONDITIONS"**) for the construction of the PROJECT; and

WHEREAS, the COUNTY has agreed to fund the costs of design and right-of-way acquisition of the PROJECT in the amount of Ten Million Dollars ($10,000,000), hereinafter called the **"COUNTY Funding"**; and

WHEREAS, SHA has agreed to design and acquire all of the necessary right-of-way for the PROJECT up to the amount of the COUNTY Funding; and

WHEREAS, the COUNTY has agreed to dedicate to SHA any portion of COUNTY owned land required for the PROJECT separate and apart from the COUNTY Funding; and

WHEREAS, SHA and the COUNTY agree the PROJECT will be a benefit to all parties of this MOU and will promote the health, safety and general welfare of the citizens of the State and COUNTY.

NOW THEREFORE, THIS MEMORANDUM OF UNDERSTANDING

WITNESSETH: that for and in consideration of the mutual covenants and promises between the parties hereto, and in further consideration of the sum of One Dollar ($1.00) paid to each party by the other, the adequacy and receipt of which is hereby acknowledged, the parties hereto agree as follows:

I. CONDITIONS

A. In a letter addressed to then-Montgomery County Council President, Isiah Leggett, dated March 5, 1999, then-Governor Parris N. Glendening set forth the CONDITIONS under which the PROJECT could be constructed to meet the objectives of the Smart Growth Act. The March 5, 1999 letter is attached hereto and incorporated herein as Attachment 1.

B. The CONDITIONS have been, or shall be, met by the following:

1. On November 13, 2007, the COUNTY adopted its 2007-2009 Growth Policy **("Growth Policy")** (Resolution No: 16-376) specifically stating that, "To discourage sprawl development, no capacity for new development may be counted outside the boundary of the Town of Brookeville as of March 9, 1999, as a result of relocating MD 97 around Brookeville."

2. SHA shall designate the right-of-way necessary for the PROJECT as "Right-of-Way of Through Highway" (denial of vehicular access) for the entire limits of the PROJECT to ensure no future access, widening or connection to the PROJECT. SHA shall add notes to the plats referencing the special condition of the Growth Policy and this MOU requiring the Right-of-Way Line of Through Highway.

3. SHA shall place a traffic calming roundabout at the northern end of the PROJECT.

II. DESIGN PHASE

A. SHA Responsibility

1. With respect to paragraphs 2 through 5 of subsection II.A., SHA's responsibility is limited by the amount of COUNTY Funding received.

2. SHA shall perform all activities necessary to design the PROJECT.

3. SHA shall provide the COUNTY with six (6) sets of design plans and estimates for the COUNTY's review and comment at the following stages of design: preliminary, semi-final and final plans.

4. SHA will respond to the County's comments within 20 working days of the State's receipt.

5. In the event the COUNTY desires to revise the PROJECT plans for the PROJECT subsequent to final design plan approval, the COUNTY shall provide such proposed revisions including estimated costs to SHA in writing. SHA may, in its sole discretion, incorporate the COUNTY's revisions into the PROJECT plans provided the revisions comply with SHA's specifications and policies for highway design or SHA may not include the revision, in SHA's discretion. In such case, the SHA will notify the County of the reasons for rejecting the County's revisions within 20 days of receipt.

B. COUNTY Responsibility

1. The COUNTY shall be responsible for reviewing and providing comments to SHA within twenty (20) working days following the COUNTY's receipt of all data, material, and design plans from SHA.

2. In the event the COUNTY desires to revise the PROJECT plans subsequent to SHA'S final design plan approval, the COUNTY shall provide SHA with written notification of the proposed revision including estimated costs. Any additional design costs associated with the COUNTY's revisions shall be paid from the $10 Million funding by the COUNTY.

3. The COUNTY shall provide any and all relevant information and data the COUNTY may have in its possession as may be requested by SHA to assist SHA in the design of the PROJECT.

III. RIGHT-OF-WAY PHASE

A. SHA Responsibility

1. With respect to paragraphs 2 through 4 of subsection III.A., SHA's responsibility is limited by the amount of COUNTY Funding received.

2. In accordance with SHA's standard procedures and all applicable Federal and State laws, SHA shall accomplish all tasks necessary to acquire in SHA's name all rights-of-way and property interests that are not owned by SHA, and that are required for the PROJECT including, but not limited to, payment of the just compensation amount for each property and all property interests, construction easements, drainage easements, rights-of-entry and fee simple property acquisition. These tasks shall include, but not be limited to, title examinations and reports, appraisals, appraisal reviews, plat preparation, negotiation services, possible condemnation proceedings, settlements and deed preparation.

3. SHA shall accomplish all tasks necessary to acquire in SHA's name all rights-of-way and property interests required for any utility relocations necessary for the PROJECT in accordance with SHA's standard utility policy and prior rights.

4. SHA shall designate the necessary right-of-way for the PROJECT as a "Right-of-Way of Through Highway" (denial of vehicular access) for the entire limits of the PROJECT.

B. COUNTY Responsibility

1. In the event any COUNTY owned land, or portion thereof, is required for the PROJECT the COUNTY shall dedicate the necessary land to SHA by Deed of Dedication at no cost to SHA.

IV. PROJECT FUNDING

A. The COUNTY has agreed to provide funding in advance of SHA initiating any work for the costs of design and right-of-way acquisition of the PROJECT in the amount of Ten Million Dollars ($10,000,000) ("COUNTY Funding"). The COUNTY has appropriated the COUNTY Funding in the COUNTY'S State Transportation Participation project, budgeted as follows:

Six Million Five Hundred Thousand Dollars ($6,500,000) for FY 2013 and up to Three Million Five Hundred Thousand Dollars ($3,500,000) for FY 2014.

B. SHA Responsibility

1. To receive the COUNTY Funding for the PROJECT, SHA shall provide invoices to the COUNTY as follows:

a. Within thirty (30) days of execution of this MOU, SHA shall submit an invoice to the COUNTY in the amount of Two Million Dollars ($2,000,000) for FY 2013.

b. After January 1, 2013 (FY2013), SHA shall submit a second invoice to the COUNTY in the amount of Four Million Five Hundred Thousand Dollars ($4,500,000).

d. After July 1, 2013 (FY 2014), SHA shall submit a third invoice to the COUNTY in the amount of One Million Dollars ($1,000,000).

c. The final invoice to the COUNTY will be submitted by SHA with the estimated amount to complete design and right-of-way acquisition portions of the PROJECT. Such amount, which is not to exceed Two Million Five Hundred Thousand Dollars ($2,500,000) will be presented to the COUNTY when SHA has a firm schedule for right of way acquisition of remaining properties, if any; but not earlier than January 1, 2014 (FY 2014).

2. In the event SHA does not receive payment of invoices within thirty (30) days after the COUNTY has received an invoice, SHA will notify the COUNTY of the overdue invoice and provide the COUNTY the opportunity to pay such overdue invoices. If payment of the overdue invoice is not received within thirty (30) days of SHA notification, SHA will discontinue work beyond that for which it has received COUNTY Funding. In no case will SHA continue with any phase of the PROJECT when County Funding has been depleted.

3. The invoices set forth in paragraph 1 will include estimates based on design and acquisition of right-of-way for the PROJECT, including SHA direct salaries, payroll burden and overhead and other direct costs such as consultant services and materials. Once SHA has completed design and right-of-way acquisition, SHA shall make an accounting of all expenditures and notify the COUNTY of any unexpended COUNTY funds that can be used for construction.

4. All invoices received from the COUNTY for COUNTY staff costs (direct salaries, payroll burden and overhead) incurred in conveying any COUNTY-owned property interests to SHA, will be deducted from the COUNTY Funding and such funds returned to the COUNTY.

C. COUNTY Responsibility

1. Within thirty (30) days following the receipt of the invoices set forth in section IV.B.1. above, the COUNTY shall pay such invoices.

2. The COUNTY acknowledges and agrees that if payment of any overdue invoice is not received within thirty (30) days of SHA sending notification to the COUNTY of such overdue invoice, SHA will discontinue work beyond that for which it has received COUNTY Funding.

3. The COUNTY shall submit an invoice to SHA for all COUNTY staff costs (direct salaries, payroll burden and overhead) incurred in conveying any COUNTY-owned property interests to SHA, which amount will be deducted from the COUNTY Funding and such funds returned to the COUNTY.

V. GENERAL

A. The parties hereto acknowledge that completion of the Design and Right-of-Way phases of the PROJECT shall in no way guarantee or imply that further phases of the PROJECT (i.e., construction) shall be funded or performed by either party following completion of the design and Right-of-Way acquisition. However, SHA and the COUNTY may execute additional agreements or make amendments to this MOU to fund additional phases of the PROJECT.

B. The parties hereto acknowledge that the completion of the Design and Right-of-Way phases of the PROJECT are solely funded by the COUNTY and that no SHA or State of Maryland funds are available.

C. The parties hereto acknowledge that future phases of the PROJECT may require the prior approval of the Board of Public Works of Maryland.

D. The recitals (WHEREAS clauses) are incorporated herein as a substantive part of this MOU.

E. The parties hereby agree and affirm that the persons executing this MOU on their respective behalf are authorized and empowered to act on behalf of the respective parties. The parties hereby further warrant and affirm that no cause of action challenging the existence, scope or validity of this MOU shall lie on the grounds that the persons signing on behalf of the respective parties were neither authorized or empowered to do so.

F. This MOU and the obligations and responsibilities herein shall inure to and be binding upon the parties hereto, their respective agents, successors and assigns.

G. Each notice, demand, request, consent, approval, disapproval, designation or other communications (all of the foregoing are herein referred to as "notice") that a party gives to any other party shall be in writing and shall be given or made or

communicated by United States Mail. All notices and/or invoices, if to the COUNTY, shall be addressed to:

Mr. Edgar Gonzalez
Deputy Director for Transportation Policy
Montgomery County
101 Monroe Street, 10th floor
Rockville, MD 20850
Phone: 240-777-7185
E-Mail: edgar.gonzalez@montgomerycountymd.gov

In the case of the SHA, addressed to:

Mr. Gregory Slater, Director
Office of Planning and Preliminary Engineering
State Highway Administration
707 N. Calvert Street
MS CO-411
Baltimore, MD 21202
Phone: (410) 545-0412
Fax: (410) 209-5014
E-mail: gslater@sha.state.md.us

With a copy to:

Mr. E. Glenn Klaverweiden
Agreements Coordinator
State Highway Administration
707 N. Calvert Street
MS C-502
Baltimore, MD 21202
Phone: (410) 545-5675
Fax: (410) 209-5025
E-mail: gklaverweiden@sha.state.md.us

IN WITNESS WHEREOF, the parties hereto have caused this MOU to be executed by their respective duly authorized officers on the day and year first above written.

MARYLAND STATE HIGHWAY ADMINISTRATION

WITNESS

By: _____ (SEAL)
Melinda B. Peters Date
Administrator

APPROVED AS TO FORM AND LEGAL SUFFICIENCY:

Assistant Attorney General

RECOMMENDED FOR APPROVAL:

Gregory D. Welker
Deputy Administrator/Chief Engineer
for Operations

Douglas H. Simmons
Deputy Administrator/Chief Engineer
for Planning, Engineering, Real Estate and Environment

Lisa B. Conners
Director
Office of Finance

MONTGOMERY COUNTY, MARYLAND
a body corporate and politic

WITNESS

BY: _____ (Seal)
for Thomas Street Date
Assistant Chief Administrative Officer

APPROVED AS TO FORM AND LEGALITY
OFFICE OF COUNTY ATTORNEY:

11/5/12
Assistant County Attorney

RECOMMENDED FOR APPROVAL:

11-2-12
for Arthur Holmes, Jr. Date
Director
Department of Transportation

MOU FINAL
2012-10-12

8

Larry Hogan, *Governor*
Boyd K. Rutherford, *Lt. Governor*

State Highway Administration
Maryland Department of Transportation

Pete K. Rahn, *Secretary*
Gregory C. Johnson, P.E., *Administrator*

MEMORANDUM

TO: Ms. Barb Solberg, Chief
Highway Design Division
Office of Highway Development

ATTN: Ms. Huqin (Aimee) Zhang

FROM: Lisa Shemer, Assistant Division Chief
Data Services Engineering Division
Office of Planning and Preliminary Engineering

DATE: May 23, 2016

SUBJECT: MD 97 Brookeville By-Pass
Montgomery County
Project Number: MO746M21
Capacity Analysis

Background/Purpose:

This memorandum is in response to your request to perform a Capacity Analysis for the Existing Conditions, No Build Conditions, Brookeville By-Pass Option 7M Adjusted, the Brookeville By-Pass Option 8B Modified and the Removed Brookeville Road Segment options at MD 97 at Brookeville Road and Market Street in Montgomery County. The following scenarios for the existing (2015) and future (2018 and 2040) years are being considered as part of this analysis:

- Existing Conditions
  - Analyzes the existing conditions for the Existing year (2015)
- No Build
  - Analyzes the existing conditions for the Build year (2018) and Future year (2040)
- Option 7M Adjusted – Preferred Brookeville By-Pass Option for the Build year (2018) and Future year (2040)
  - Diverts MD 97 to the west of the town of Brookeville
    - New three leg, one lane urban compact roundabout south of Market Street
    - New four leg, one lane urban compact roundabout at Brookeville Road
  - Existing MD 97 at Brookeville Road becomes a three way (all way) stop
  - Existing MD 97 at Market Street becomes a four way (all way) stop

- Option 8B Modified – A Brookeville By-Pass Option for the Build Year (2018) and Future (2040) volumes
    - Diverts MD 97 to the west of the town of Brookeville
        - New three leg, one lane urban compact roundabout south of Market Street
        - New three leg, one lane urban compact roundabout north of Brookeville Road
        - The Bypass and Brookeville Road are grade separated
    - Existing MD 97 at Brookeville Road becomes a three way (all way) stop
    - Existing MD 97 at Market Street becomes a four way (all way) stop
- Option Removed Brookeville Road Segment (RBRS) – A Brookeville Bypass Option for the Build Year (2018) and Future (2040) volumes
    - Diverts MD 97 to the west of the town of Brookeville
        - New three leg, one lane urban compact roundabout south of Market Street
        - New three leg, one lane urban compact roundabout at Brookeville Road
        - Brookeville Road is removed from the MD 97 By-Pass to Existing MD 97
    - Existing MD 97 at Brookeville Road no longer exists
    - Existing MD 97 at Market Street becomes a four way (all way) stop

Methodology:

Recent 13-hour turning movement counts were used for the subject intersection and existing intersection geometric information was obtained from recent aerial photographs. The above information was utilized to perform the capacity analyses.

The existing AM and PM peak hour observations and travel time runs were performed by DSED Travel Forecasting to calibrate the Synchro/SimTraffic models, which were used to evaluate corridor operations.

The proposed roundabouts were analyzed using Sidra Intersection 6.1. The roundabouts were calibrated using typical Maryland SHA values for roads similar to MD 97 in consultation with Office of Traffic and Safety (OOTS) staff.

Traffic Volumes

MD 97 currently goes through the Town of Brookeville, carrying an average of over 10,000 vehicles per day. In 2040, under existing conditions, MD 97 will carry over an average of 13,500 vehicles per day. The proposed build alternatives of a bypass will significantly reduce the Annual Average Daily Traffic (AADT) going through the Town of Brookeville west of Water St/ Market Street in 2040 by over 90% (96% for Alternative 7M Adjusted , 93% Alternative 8B Modified, and 99% Alternative RBRS) based on existing traffic volume patterns. The AADT volumes for the different alternatives are shown in Figures 1 through 6. The peak hour traffic volumes used for the analyses are attached to this memorandum.

The bypass carries the most traffic in the RBRS option because the traffic from Brookeville Road enters the Bypass directly instead of going through the Town of Brookeville.

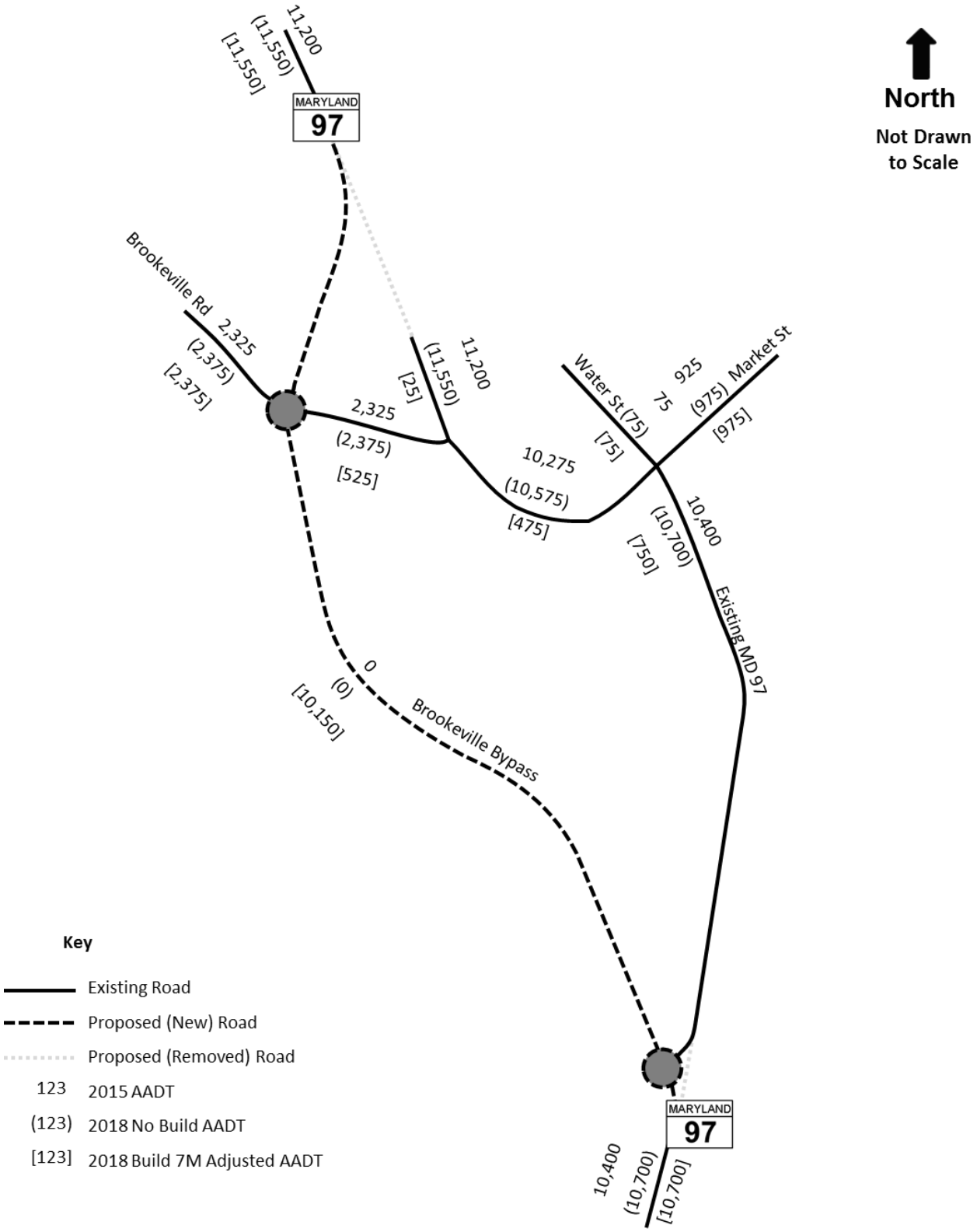


Figure 1 – AADT for Existing Conditions (2015), 2018 No Build, and 2018 7M Adjusted

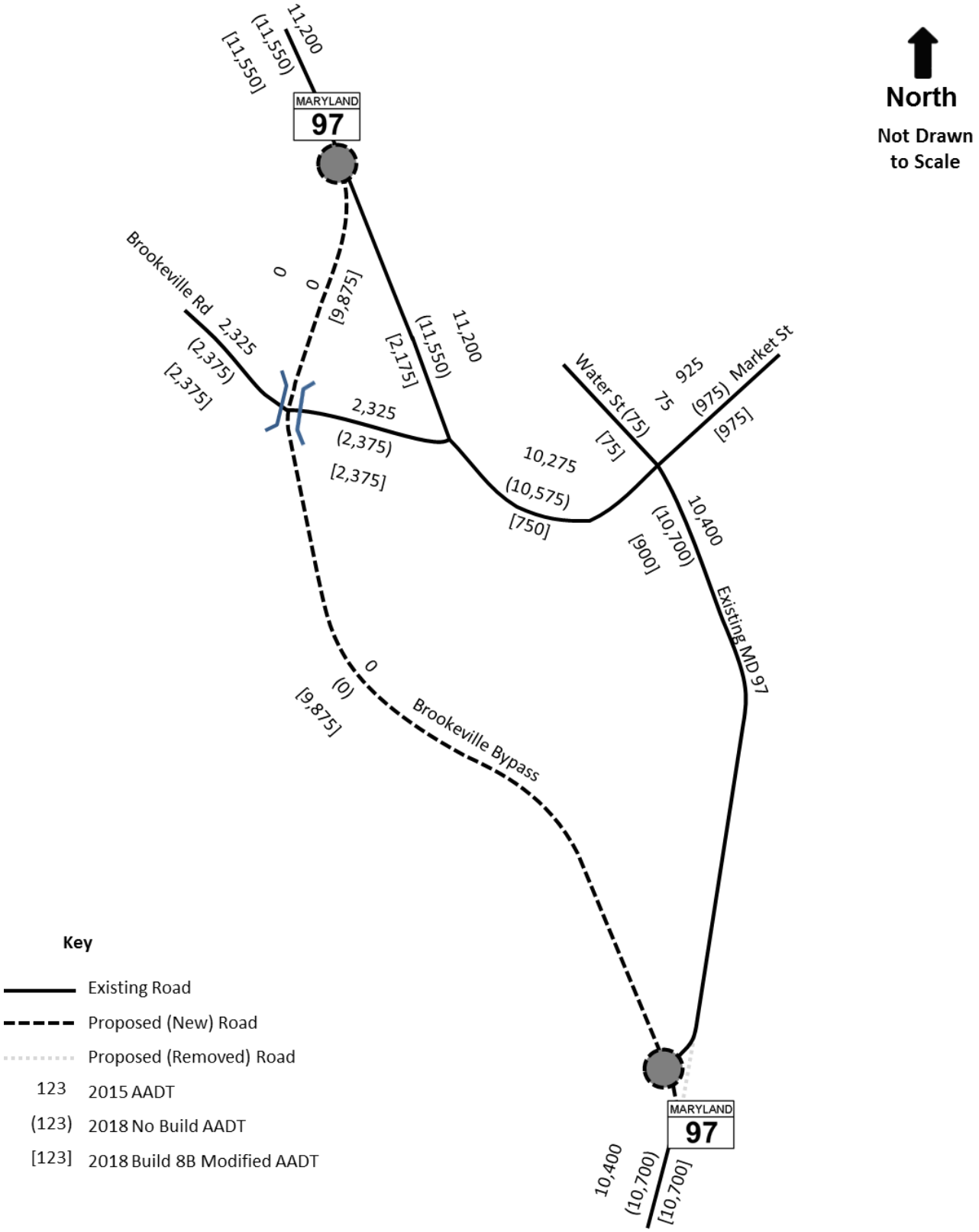


Figure 2 – AADT for Existing Conditions (2015), 2018 No Build, and 2018 8B Modified

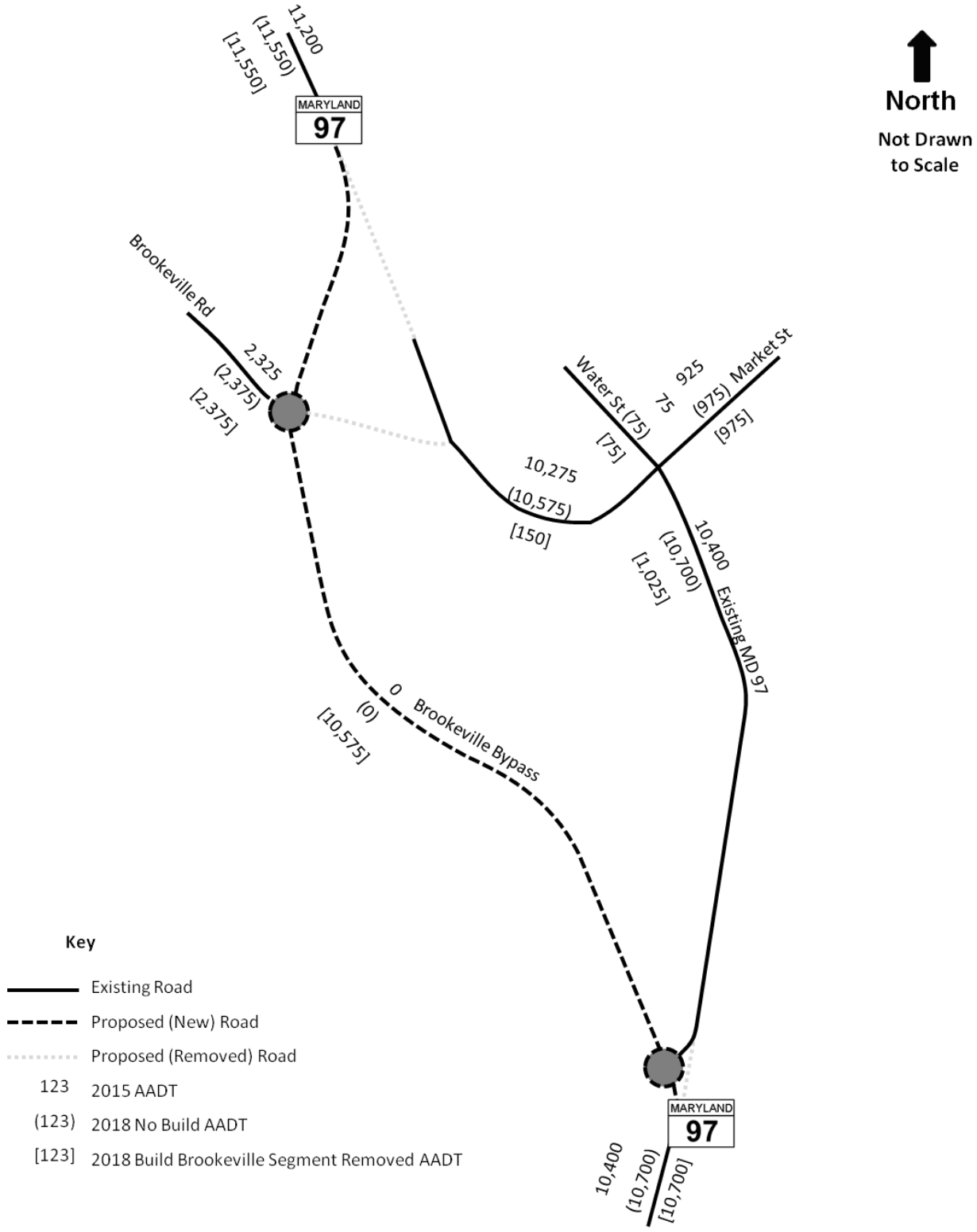


Figure 3 – AADT for Existing Conditions (2015), 2018 No Build, and 2018 Removed Brookeville Road Segment

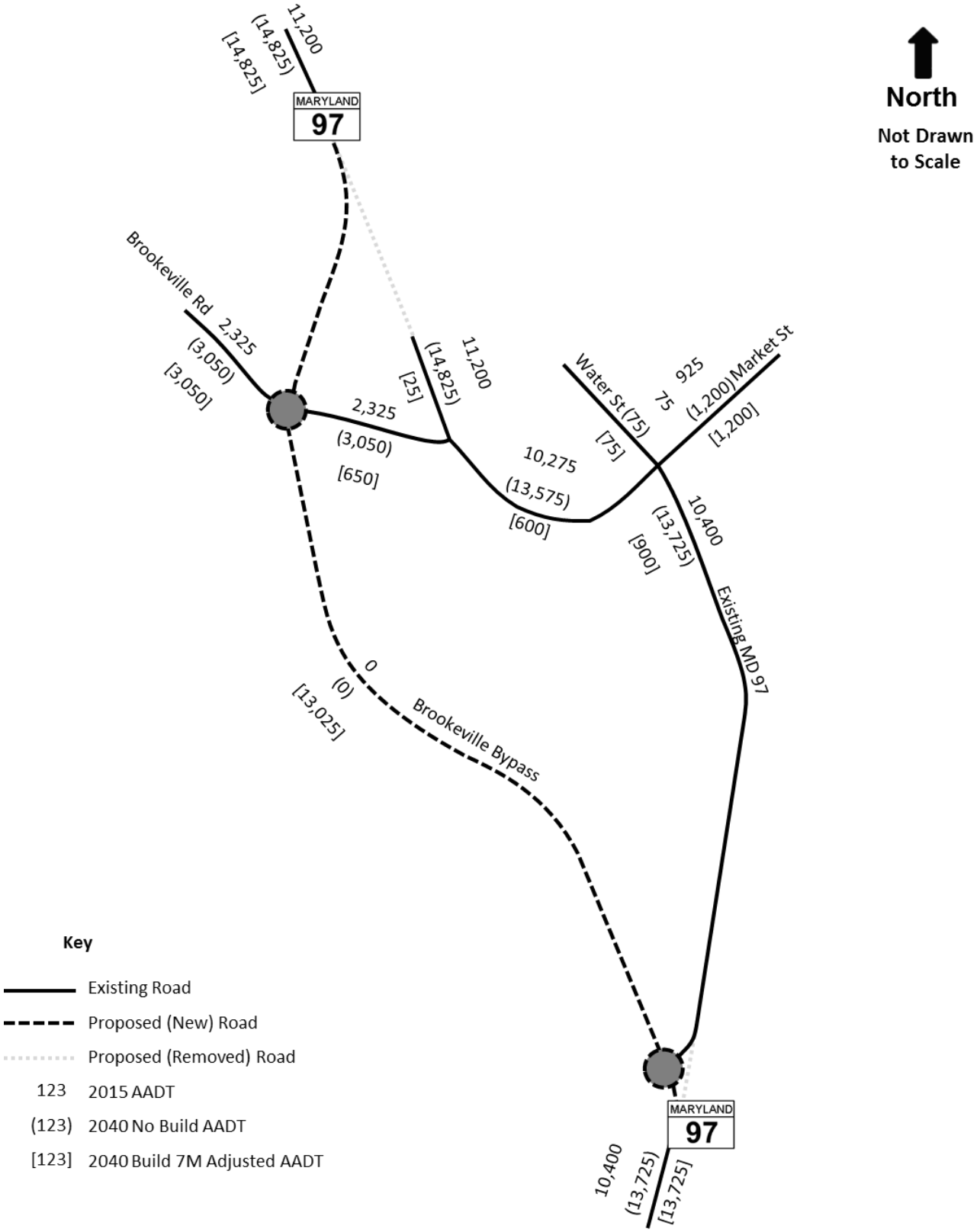


Figure 4 – AADT for Existing Conditions (2015), 2040 No Build, and 2040 7M Adjusted

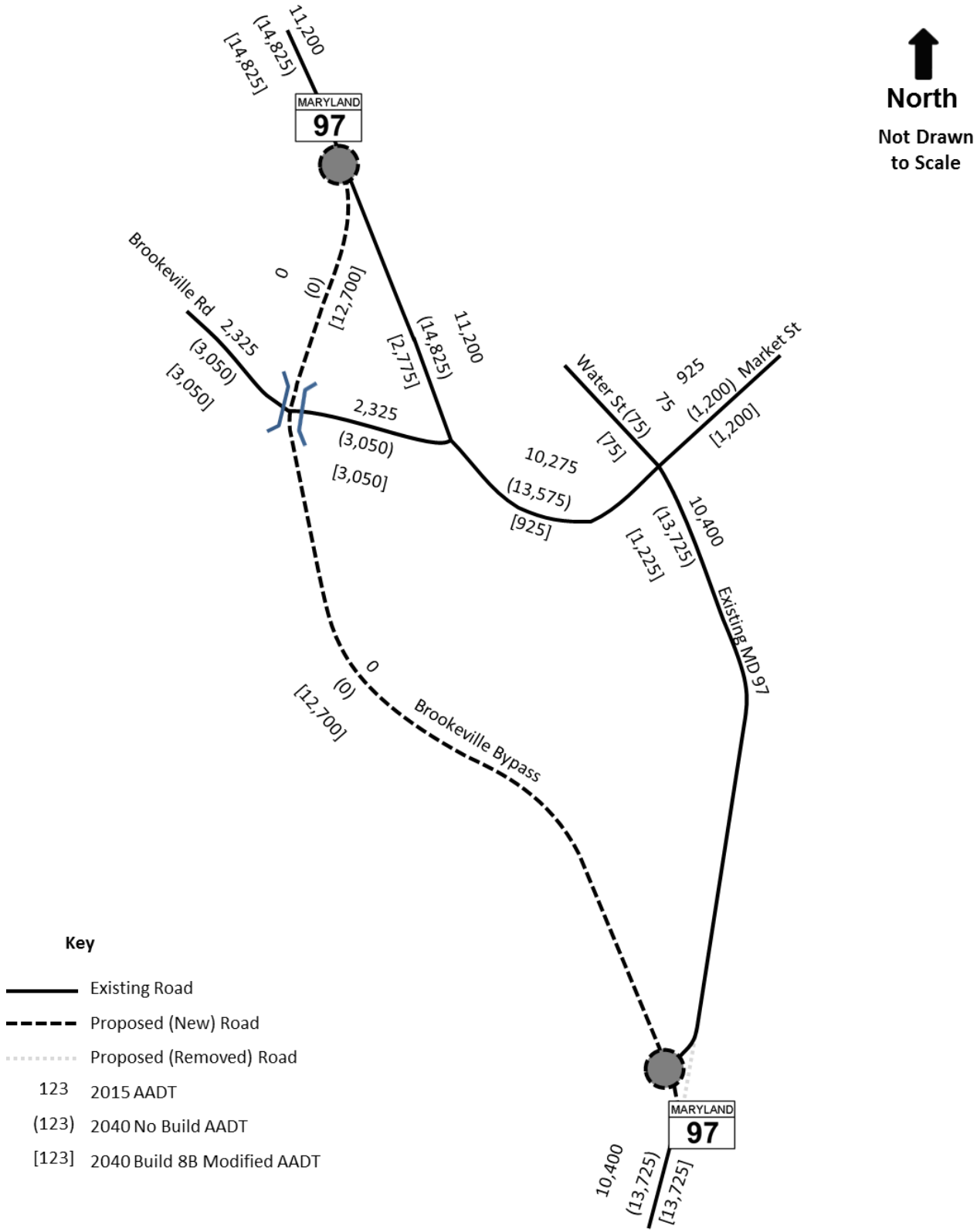


Figure 5 – AADT for Existing Conditions (2015), 2040 No Build, and 2040 8B Modified

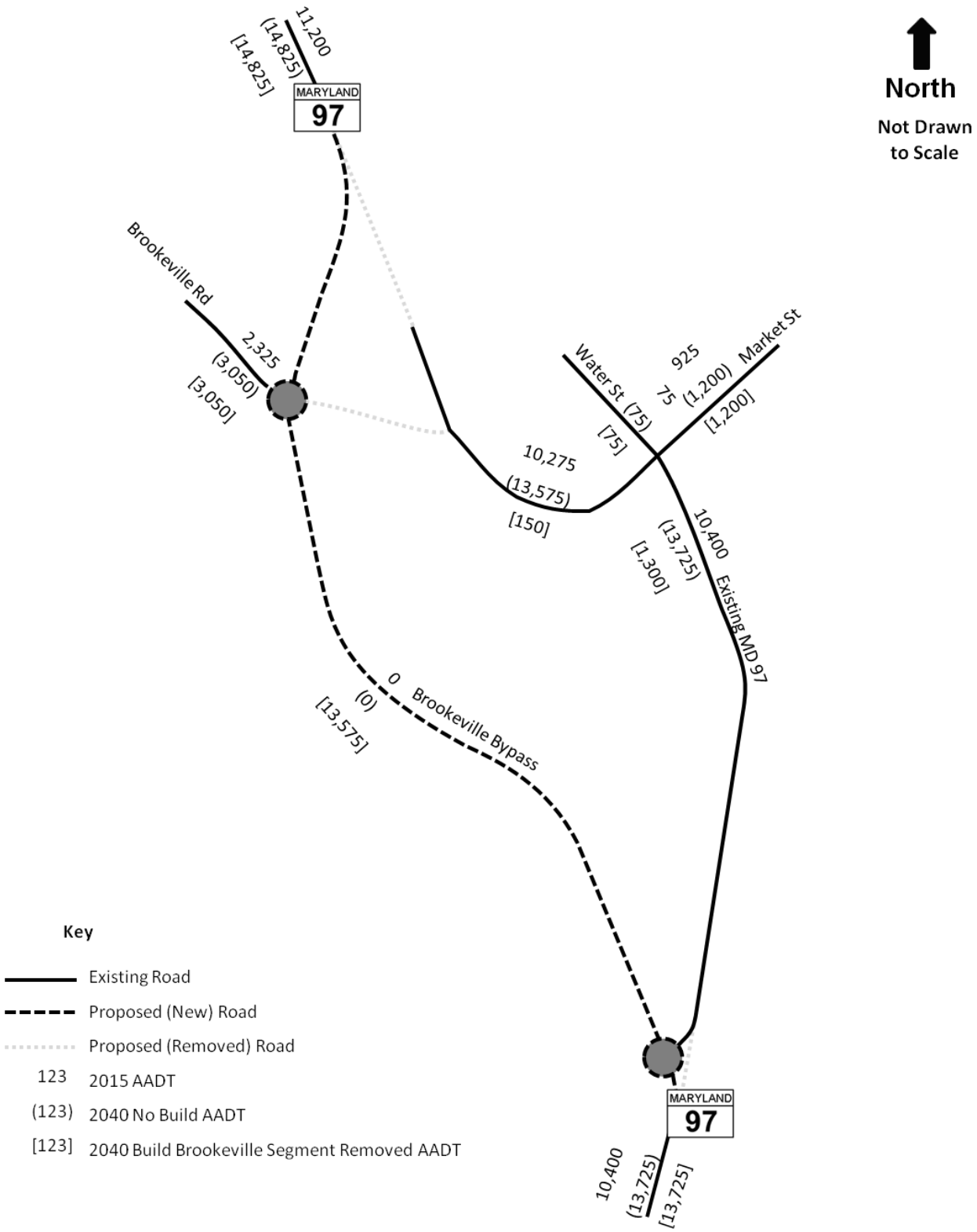


Figure 6 – AADT for Existing Conditions (2015), 2040 No Build, and 2040 Removed Brookeville Road Segment

Capacity Analysis

An intersection capacity analysis was performed for MD 97 at Brookeville Road using the 2010 HCM output from Synchro. HCM does not support the current stop control configuration for MD 97 at Market Street, so no Synchro results are presented for that location for the Existing and No Build. Under the Build scenarios, the roundabouts were analyzed using Sidra Intersection. The unsignalized intersections approach LOS and delays are tabulated in Table 1 for the AM Peak Hour and Table 2 for the PM Peak Hour.

In the Build scenarios it is assumed that the intersections at Existing MD 97 at Market Street and Existing MD 97 at Brookeville Road will become all-way stop controlled intersections.

Queuing Analysis

The queuing analysis for existing conditions and all options for years 2015 and 2040 along the corridor are shown in Tables 3 and 4. The queuing analysis uses the SimTraffic 95th Percentile queue outputs for all intersections except the roundabouts. The queuing analysis for the intersections controlled by a roundabout uses Sidra Intersections 95th percentile outputs.

Truck Percentages

The current percentage of trucks using MD 97 north of Gold Mine Road is 5%. The bypass is expected to carry the majority of the trucks using MD 97.

Conclusions:

The proposed by-pass will reduce the AADT in the Town of Brookeville by over 90% in 2040. All intersections and roundabout approaches are forecast to operate at a LOS of D or better with queues of 500 feet or less for all build alternatives. All alternatives significantly reduce the side street delay experienced at the existing MD 97 and Brookeville Intersection.

It should be noted that this analysis does not take into account the safety benefits associated with the proposed improvements and the diversion of traffic from Existing MD 97, but removing 90% or more of the traffic from this roadway should significantly reduce the conflicts for vehicles entering and exiting the roadway within Brookeville.

Table 1 – Intersection HCM 2010 LOS and Average Delay in Seconds for AM Peak [LOS (Delay)]

Intersection LOS (Delay)	AM Peak								
	2015	2018 No Build	2018 Opt7M Adj	2018 Opt8B Mod	2018 Opt RBRS	2040 No Build	2040 Opt7M Adj	2040 Opt8B Mod	2040 Opt RBRS
Existing MD 97 at Brookeville Rd									
NB			A (7)	A (8)			A (8)	A (8)	
SB			A (7)	A (7)			A (7)	A (8)	
EB	D (32)	E (36)	A (7)	A (8)		F(111)	A (7)	A (9)	
Existing MD 97 at Market St/Water St									
NB			A (7)	A (7)	A (7)		A (7)	A (7)	A (7)
SB			A (7)	A (7)	A (7)		A (7)	A (7)	A (7)
EB			A (7)	A (7)	A (7)		A (7)	A (7)	A (7)
WB			A (7)	A (7)	A (7)		A (7)	A (7)	A (8)
MD 97 Bypass at Brookeville Rd Roundabout			B (12)		B (12)		C (22)		C (25)
NB			A (6)		A (5)		A (6)		A (6)
SB			B (13)		B (13)		D (27)		C (25)
EB			B (12)		B (12)		C (19)		C (19)
WB			A (5)				A (5)		
MD 97 Bypass at Existing MD 97 Roundabout (South of Market St)			B (12)	A (9)	B (12)		B (14)	B (13)	C (14)
NB			A (4)	A (4)	A (5)		A (5)	A (4)	A (6)
SB			B (14)	B (10)	B (15)		C (17)	C (16)	C (17)
WB			A (5)	A (4)	A (5)		A (5)	A (5)	A (5)
MD 97 Bypass at Existing MD 97 Roundabout (North of Brookeville)				B (13)				B (15)	
NB				A (6)				A (6)	
SB				C (15)				C (18)	
NWB				A (6)				A (6)	

*Synchro was used for stop and signal controlled intersections and Sidra Intersection was used for roundabouts

Table 2 – Intersection HCM 2010 LOS and Average Delay in Seconds for PM Peak [LOS (Delay)]

Intersection LOS (Delay)	PM Peak								
	2015	2018 No Build	2018 Opt7M Adj	2018 Opt8B Mod	2018 Opt RBRS	2040 No Build	2040 Opt7M Adj	2040 Opt8B Mod	2040 Opt RBRS
Existing MD 97 at Brookeville Rd									
NB			A (7)	A (8)			A (7)	A (8)	
SB			A (7)	A (7)			A (7)	A (8)	
EB	C (22)	C (24)	A (7)	A (8)		F(51)	A (7)	A (8)	
Existing MD 97 at Market St/Water St									
NB			A (7)	A (7)	A (7)		A (7)	A (7)	A (7)
SB			A (7)	A (7)	A (7)		A (7)	A (7)	A (7)
EB			A (7)	A (7)	A (7)		A (7)	A (8)	A (8)
WB			A (7)	A (7)	A (7)		A (7)	A (7)	A (8)
MD 97 Bypass at Brookeville Rd Roundabout			A (9)		A (9)		B (13)		B (12)
NB			B (12)		B (11)		C (18)		C (17)
SB			A (5)		A (5)		A (6)		A (6)
EB			A (6)		A (6)		A (7)		A (7)
WB			A (8)				A (10)		
MD 97 Bypass at Existing MD 97 Roundabout (South of Market St)			A (6)	A (6)	A (7)		A (7)	A (8)	A (9)
NB			A (7)	A (7)	A (8)		A (8)	A (8)	B (11)
SB			A (5)	A (5)	A (5)		A (5)	A (5)	A (5)
WB			A (7)	A (8)	A (8)		A (9)	A (9)	A (9)
MD 97 Bypass at Existing MD 97 Roundabout (North of Brookeville)				A (8)				B (12)	
NB				A (9)				B (14)	
SB				A (5)				A (6)	
NWB				A (9)				B (13)	

*Synchro was used for stop and signal controlled intersections and Sidra Intersection was used for roundabouts

Table 3 – 95th Percentile Queue Lengths (feet) for AM Peak

Intersection Queues (95th Percentile*)	AM Peak								
	2015	2018 No Build	2018 Opt7M Adj	2018 Opt8B Mod	2018 Opt RBRS	2040 No Build	2040 Opt7M Adj	2040 Opt8B Mod	2040 Opt RBRS
Existing MD 97 at Brookeville Rd									
NB	100	100	50	50		250	50	50	
SB	25	25	25	50		25	25	50	
EB	125	150	50	50		400	50	50	
Existing MD 97 at Market St/Water St									
MD 97 NB	75	75	25	25	50	100	50	50	50
Water Street SB	50	50	25	50	25	25	25	25	50
MD 97 EB	0	0	25	25	50	25	25	50	50
Market Street WB	50	50	50	50	50	50	50	50	50
MD 97 Bypass at Brookeville Rd Roundabout									
NB			25		25		25		25
SB			200		200		500		500
EB			25		25		50		50
WB			25				25		
MD 97 Bypass at Existing MD 97 Roundabout (South of Market St)									
NB			25	25	25		25	25	25
SB			225	125	250		275	250	300
WB			25	25	25		25	25	25
MD 97 Bypass at Existing MD 97 Roundabout (North of Brookeville)									
NB				25				25	
SB				300				375	
WB				25				25	

*95th percentile queue is from SimTraffic for the intersections and from Sidra Intersection for roundabouts.

Table 4 – 95th Percentile Queue Lengths (feet) for PM Peak

Intersection Queues (95th Percentile*)	PM Peak								
	2015	2018 No Build	2018 Opt7M Adj	2018 Opt8B Mod	2018 Opt RBRS	2040 No Build	2040 Opt7M Adj	2040 Opt8B Mod	2040 Opt RBRS
Existing MD 97 at Brookeville Rd									
NB	50	50	50	50		50	50	50	
SB	25	0	25	50		25	25	50	
EB	100	100	50	50		150	50	50	
Existing MD 97 at Market St/Water St									
MD 97 NB	225	225	25	25	50	225	25	50	50
Water Street SB	25	25	25	25	25	25	25	25	25
MD 97 EB	0	0	50	50	50	0	50	50	50
Market Street WB	50	50	50	50	50	50	50	50	50
MD 97 Bypass at Brookeville Rd Roundabout									
NB			100		100		225		200
SB			25		25		50		50
EB			25		25		25		25
WB			25				25		
MD 97 Bypass at Existing MD 97 Roundabout (South of Market St)									
NB			75	75	100		100	100	125
SB			25	25	25		25	25	25
WB			25	25	25		25	25	25
MD 97 Bypass at Existing MD 97 Roundabout (North of Brookeville)									
NB				100				175	
SB				25				50	
WB				25				50	

*95th percentile queue is from SimTraffic for the intersections and from Sidra Intersection for roundabouts.

If you have any questions or concerns, please contact the writer at 410-545-5647 or Lisa Shemer, Assistant Division Chief, Travel Forecasting and Analysis, at 410-545-5640.

By: Tanya M. King

Tanya M. King, P.E.
Travel Forecasting and Analysis
Data Services Engineering Division

Attachment

cc: Mr. Cornelius Barmer
Ms. Samantha Biddle
Mr. Scott Holcomb
Ms. Anyesha Mookherjee
Ms. Lisa Shemer
Mr. Saed Rahwanji
Mr. Steve Rochon
Mr. William Stroud

September 13, 2002

MEMORANDUM

TO: Montgomery County Planning Board

VIA: Jeffrey Zyontz, Chief
County-wide Planning Division

Richard C. Hawthorne, Chief
Transportation Planning
County-wide Planning Division

Judy Daniel, Team Leader
Rural Team
Community-Based Planning Division

FROM: Daniel K. Hardy, Supervisor (301-495-4530)
Transportation Planning
County-wide Planning Division

Khalid Afzal, Team Leader
Georgia Avenue Team
Community-Based Planning Division

SUBJECT: MD 97 Brookeville Bypass DEIS Recommendations

Recommendation: Transmit the following comments to the State Highway Administration

1. The Montgomery County Planning Board recommends that the State Highway Administration (SHA) select Alternate 7 Modified, a western bypass of the Town of Brookeville, as the preferred alternate for the MD 97 Brookeville project planning study.

2. During the preparation of the Final Environmental Impact Statement, SHA should prepare an interagency memoranda of understanding defining the process to achieve the Smart Growth condition that requires a third-party easement to prohibit future access or widening.

3. Subsequent project planning and design activities should incorporate the following, prior to mandatory referral:

   a. Accommodation of safe pedestrian and bicycle crossings for the existing Oakley Cabin Trail and a potential future natural surface trail as described in the County-wide Park Trails Plan.

   b. Preservation of the archeological resources in the core areas of the Newlin/Downs Mill site

   c. Selection of a bridge, rather than a culvert, to cross Meadow Branch

   d. Mitigation strategies for parkland and wetlands impacts

   e. Identification of stormwater management pond locations

   f. Identification of construction impacts, including required staging areas

   g. Determination of ownership and maintenance responsibility for the portions of existing MD 97 to be bypassed

ORGANIZATION OF THIS REPORT

This report contains five sections:

- **Purpose of the briefing** and relationship to SHA decision-making process
- **Study background**
- **Why select a western bypass;** comparison to the eastern bypass (Alternate 5C) and No-Build (Alternate 1) options
- **Comparison of western bypass alternates;** pros and cons of Alternate 7, Alternate 8A, and Alternate 8B, and development of Alternate 7 Modified
- **Relationship to Smart Growth**
- **Next steps**

PURPOSE OF BRIEFING

The purpose of this briefing is to provide comments to SHA in the selection of a preferred alternate for the MD 97 Brookeville study, commonly known as the Brookeville Bypass. SHA completed a Draft Environmental Impact Statement (DEIS) in August 2001 and held a Location and Design Public Hearing on October 3, 2001. The DEIS findings are summarized in the Public Hearing Brochure, attached to copies of this memorandum distributed to Planning Board members. Others may pick up the Brochure at Room 105 in the Montgomery Regional Office, 8787 Georgia Avenue in Silver Spring or request the Brochure from SHA's project manager, Carmeletta Harris, at 1-800-548-5026.

Five alternates are described in the DEIS:

- The No-Build Alternate (Alternate 1)
- An eastern bypass alternate (Alternate 5C)
- Three western bypass alternates (Alternate 7, Alternate 8A, and Alternate 8B)

The locations of these alternates are shown in Exhibit 1. Each of the four build alternates are shown in greater detail in Attachments A through D.

After the October 3, 2001 Public Hearing, SHA performed additional archeological studies at the Newlin/Downs Mill site and the study team developed Alternate 7 Modified, which slightly realigns Alternate 7 to avoid the core areas of archeological interest.

STUDY BACKGROUND

The 1980 Olney Master Plan recommends the realignment of Georgia Avenue to the west of the Town of Brookeville. The Planning Board last reviewed the Brookeville Bypass in worksessions of October 12, 1992 and October 22, 1992. The purpose of these worksessions was to review comments on the M-NCPPC feasibility study of the Brookeville Bypass. The Planning Board recommended that SHA begin a project planning study to investigate conceptual details that the M-NCPPC feasibility study did not have resources to address.

SHA initiated the MD 97 Brookeville project planning study in January 1995. After an Alternates Public Meeting in May 1996, three build alternates (two western bypass alignments and one eastern bypass alignment) were retained for detailed study.

In early 1998, the study was delayed due to concerns regarding consistency with the 1997 Maryland Smart Growth and Neighborhood Conservation Act, which established Priority Funding Areas (PFA) where growth is to be encouraged through investment in public infrastructure. While the Town of Brookeville is located within a

PFA (because it is a municipal corporation), the majority of the bypass alternative alignments are not.

Following an agreement with local elected officials, the Maryland Department of Transportation, and the Governor's office, the study resumed in April 2000, with the establishment of four "smart growth" conditions. These conditions, and the means for meeting them, are described in the section of this memorandum on Relationship to Smart Growth.

WHY SELECT A WESTERN BYPASS

The alternates examined in the DEIS fall into three general categories; No-Build, eastern bypass, and western bypass. Staff believes that the differences among these three categories are substantive enough to briefly summarize the reasons why a western bypass should be selected before describing the more subtle differences between the western bypass alternates.

Staff believes that the purpose and need for a Brookeville Bypass has been established repeatedly from both civic and technical perspectives, through both our own Master Plan process and the NEPA process. Briefly, the purpose and need for the project are to resolve the incompatible nature of an important State highway serving the needs of 21st century travelers within the setting and alignment of an 18th century town. Therefore, the project aims to:

- protect the historic Town of Brookeville from the adverse effects of through traffic, and

- improve safety for travelers on MD 97 through Brookeville

Exhibit 2 provides a summary of the environmental impacts of each of the DEIS alternates. The No-Build alternate does not meet the purpose and need of the study. Each of the build alternates listed in Exhibit 2 do meet the purpose and need.

The eastern bypass alternate, Alternate 5C, was retained for detailed study as it avoids the Brookeville Historic District and minimizes the impacts on parkland resources. As shown in Exhibit 2, Alternate 5C passes through a more narrow portion of Reddy Branch Stream Valley Park, resulting in Section 4(f) resource acreage that is roughly an acre lower than the western bypass alternates.

However, Alternate 5C has several major disadvantages. It is more than twice as long as any of the western bypass alternates, resulting in a much larger project footprint. It requires purchase of five homes, whereas the western bypass alternates do not take any homes. At approximately $35M, Alternate 5C costs more than twice as much as any of the western bypass alternates. Alternate 5C is not consistent with the Olney Master Plan. Staff finds that these disadvantages clearly outweigh the parklands

and historic district minimization/avoidance features of Alternate 5C. Therefore, Alternate 5C should not be recommended.

COMPARISON OF WESTERN BYPASS ALTERNATES

Each of the three western bypass alternates described in the DEIS have relatively similar quantitative impacts, as presented in Exhibit 2. Staff finds that each of these three western bypass alternates would be consistent with the Olney Master Plan. The subtle differences between the western bypasses involve the connections to the existing roadway network and location of the alignment relative to adjacent natural resources, communities, and historic and cultural features.

Staff reviewed the western bypass alternates in a two-stage process. In the first stage, the three DEIS alternates were compared and public testimony was considered. This comparison led to the conclusion that Alternate 7 was generally the preferred alternate. Alternate 7, however, creates undesirable and avoidable impacts to the core areas of the Newlin/Downs Mill archeological site. Therefore, in the second stage of the process, Alternate 7 Modified was developed to realign a portion of the roadway to avoid those core areas.

Comparison of DEIS Alternates

The DEIS describes three western bypass alignment alternates. All three alternates have a similar southern terminus with a three-leg roundabout at Georgia Avenue at the northeast corner of the Longwood Community Center. The designs of these three alternates are influenced by the desire to avoid an area of wetlands (Wetland #12) in the Reddy Branch floodplain.

- Alternate 7, shown in Attachment B, is the easternmost of the western bypass alternates. It meets Brookeville Road at a four-leg roundabout, has a low-profile bridge crossing Reddy Branch, and passes east of Wetland #12. In Alternate 7, a 300' segment of existing Georgia Avenue including the bridge across the Reddy Branch is closed to vehicular traffic. Access to and from the north into Brookeville is provided via the roundabout at Brookeville Road.

- Alternate 8A, shown in Attachment C, follows an alignment to the west of Alternate 7. Like Alternate 7, Alternate 8A also includes a low-profile bridge over Reddy Branch. However, Alternate 8A passes west of Wetland #12. Access to and from the west on Brookeville Road is provided via a three-leg roundabout. Access to and from the north into Brookeville is provided via a three-leg roundabout at the northern bypass terminus. The Alternate 8A alignment requires closure of a 600' segment of existing Brookeville Road. Access to and from the west into Brookeville is achieved via a dog-leg movement between the two three-leg roundabouts on either side of Reddy Branch.

- Alternate 8B, shown in Attachment C, is the westernmost, and highest, of the western bypass alternates. The westerly alignment carries it higher along the western slope of the Meadow Branch valley. From this higher ground, Alternate 8B passes over both Brookeville Road and Reddy Branch with a single, higher-level bridge and travels west of Wetland #12. The northern bypass terminus consists of a three-leg roundabout with Georgia Avenue. No existing roadway segments are closed.

The relative impacts of the three western bypass alternates compared in the DEIS can essentially be summarized as follows:

- Each of the western bypass alternates would appropriately satisfy the study purpose and need

- Alternate 7, following the shortest alignment and with the smallest footprint, provides the least impact to parklands and interior forest cover and has the lowest capital cost

- Alternate 8B, following a more westerly and higher profile including a high-level bridge across Brookeville Road and Reddy Branch, provides the best protection of cultural resources, specifically the Newlin/Downs Mill site and the Oakley Cabin Trail.

Public Comment

SHA held a Location and Design Public Hearing on October 3, 2001. The summary of oral and written Public Hearing testimony is shown in Exhibit 3. The public testimony reinforced the finding that the eastern bypass should not be selected and that either Alternate 7 or Alternate 8B is the preferred western bypass alternative.

Testimony supporting Alternate 7 was received from both representatives of the Town of Brookeville and a representative of the Olney Village Civic Association. This concurrence from communities both east and west of the master plan bypass alignment represents a significant achievement.

SHA has also maintained a Focus Group of local residents, business, and civic representatives. The Focus Group has met on an approximately bi-monthly basis during the past several years.

Development of Alternate 7 Modified

The DEIS states that each of the western bypass alternates have some impact on the Newlin/Downs Mill archeological site. Because of this impact, further study, called a Phase II survey, to determine significance and mitigating action was required for any western bypass alternate selected. Further review suggested that the varying extent of archeological impacts and mitigation might be a determining factor in the

selection of a preferred alternate. SHA therefore postponed the selection of a preferred alternate to complete the Phase II survey work.

The Phase II survey, completed in July 2002, confirmed the hypothesis that Alternate 7 would cause far greater disruption to the core areas of the Newlin/Downs Mill site, specifically the mill site and miller's house, than would Alternate 8B. The Phase II survey also reports that avoidance of the core areas is the most desirable action, but that if these features cannot be avoided, the recommended mitigation is data recovery.

Staff believed that Alternate 7 could be refined to avoid the core areas of Newlin/Downs Mill and requested that SHA examine this possibility. SHA developed Alternate 7 Modified, which is the same as Alternate 7, except for:

- A slight shift of approximately 30' to the west in the vicinity of the Newlin/Downs Mill site, including a slightly sharper turn into the Brookeville Road roundabout

- A retaining wall on the south side of the portion of Brookeville Road adjacent to the Newlin/Downs Mill site.

These refinements protect the core area of the mill and the miller's house.

The Focus Group has continued to meet periodically as the Phase II archeological survey work has been conducted. The attendees at the most recent Focus Group meeting on July 14, 2002, unanimously endorsed the concept of Alternate 7 Modified.

Staff believes the Alternate 7 Modified alignment provides the best compromise between natural and cultural resource impacts for the Brookeville Bypass. Alternate 7 Modified does clip the southwest corner of the Brookeville Historic District (triggering the need for an Historic Area Work Permit), removes a portion of the Newlin/Downs Mill race, and requires realignment of the Oakley Cabin trail with an at-grade trail-crossing of MD 97. However, the primary objective for the Brookeville Bypass project is to preserve the historic resource that is the Town of Brookeville. Staff and Town representatives alike believe that Alternate 7 Modified achieves this objective.

Mitigating Actions

The Brookeville Bypass will create noticeable adverse impacts on the natural environment, parkland, historic and archeological resources. The roadway will divide two large forest stands in a biodiversity area, fragmenting forest interior spaces and accelerating the invasion of non-native species. The roadway will cross the Oakley Cabin Trail and impact portions of the Newlin/Downs Mill archeological site (outside those core areas protected by the development of Alternate 7 Modified).

During development of the FEIS, the study team will conduct subsequent evaluation of means by which SHA can best mitigate the adverse impacts of Alternate 7

Modified on environmental, historic, archeological, and recreational resources. Staff recommends that these means include:

- Acquiring replacement parklands of equivalent natural value, preferably within the Reddy Branch watershed

- Developing wetlands mitigation and stream reforestation areas within Reddy Branch Park, consistent with Policy for Parks guidance on non-park uses that serve the greater public interest.

- Consider extending the length of the structure carrying the Brookeville Bypass across Reddy Branch from approximately 100' in length to approximately 300' in length (to incorporate the entire length of the floodplain) and raising the elevation of the north end of the lengthened structure by approximately 3' to 5'. These changes, while increasing the project cost, would accomplish the following objectives:

    - Better preserve the integrity of the 100-year floodplain

    - Minimize the risk of flooding the bypass roadway

    - Enhance the ability for larger animal species to pass under the roadway

    - Improve opportunities for future natural surface trail connectivity on the north side of Reddy Branch as envisioned in the County-wide Park Trails Plan

- Designing the Brookeville Bypass roundabout junction with Brookeville Road to include the Oakley Cabin Trail connection and emphasize, through signs or landscaping, the location of the historic mill race parallel to and on the south side of Brookeville Road.

- Considering provision of interpretative materials such as information panels at the Newlin/Downs Mill archeological site.

- Providing stream restoration along the Reddy Branch within the stream valley park.

- Providing reforestation where pavement might be removed along the portion of existing Georgia Avenue, north of Reddy Branch, that will be closed to vehicular traffic

- Identifying areas for stormwater management and construction staging that avoid additional impacts to sensitive environmental and archeological resources, including and associated with the Newlin/Downs Mill site.

The current project mapping indicates that the Brookeville Bypass will cross Meadow Branch via a culvert. The DEIS indicates that selection of bridge structures and culverts will be made during the subsequent project design phase. Staff recommends that the Meadow Branch crossing be bridged to reduce impacts on hydrology and wildlife passage.

Other perspectives

Staff considered several other perspectives in weighing the pros and cons of the western bypass alternates.

Network connectivity

The primary objective of the Brookeville Bypass is to remove MD 97 traffic, or north-south traffic, from the Town of Brookeville. Traffic currently traveling east-west into, or through, the Town of Brookeville uses Brookeville Road to and from the west and Brighton Dam Road to and from the east.

The 1980 Olney Master Plan classified Brookeville Road and Brighton Dam Road as primary residential roadways (both with the designation P-23). The 1980 Plan envisioned a relocation of a portion of P-23 slightly to the north. To the east of MD 97, P-23 was reassigned to Bordly Drive as part of the Abrams property subdivision approval in 1993. To the west of MD 97, Brookeville Road was reclassified as a Rustic Road in the 1996 Rustic Roads Master Plan. Brighton Dam Road is currently classified as an Interim Rustic Road.

Staff believes that bypass alternates which either provide a roundabout connection to the bypass at Brookeville Road (Alternates 7, 7 Modified, and 8A) or via existing Georgia Avenue (Alternate 8B) both meet the intent of the master plan and serve local network connectivity needs.

Citizen testimony has raised the concern that the different western bypass alternates being considered could affect the desirability of Brookeville Road, Bordly Drive, and Brighton Dam Road as east-west cut-through routes. Staff recognizes the concern and concurs that the use of either rustic roads or primary residential roads by through traffic should be discouraged.

Staff finds that the effects of each western bypass alternative on east-west traffic will be minor, based on the level of connectivity retained in each option. The different connection options proposed in Alternates 7, 7 Modified, 8A, and 8B, have only minor effects on east-west travel time. For instance, the closure of a portion of existing Brookeville Road to vehicular traffic in Alternate 8A would increase the east-west travel distance by approximately one-fifth of a mile, or about one-half minute at 30 MPH. Similarly, the closure of a portion of Georgia Avenue in Alternates 7 and 7 Modified would increase travel distance for the motorist entering Brookeville from the north by about one-tenth of a mile, or about one-quarter of a minute at 30 MPH.

Rustic Road effects

Brookeville Road is a rustic road based both on its outstanding natural features and its historic value. The 1996 Rustic Roads Master Plan states that "the designation of this road as a rustic road is not to be used to affect in any way the Brookeville Bypass when that road is constructed". Staff believes that the differences in the effects of the different bypass alternatives should nonetheless be noted.

Each of the western bypass alternates has an adverse effect on the rustic nature of Brookeville Road, which is classified as a Rustic Road. Alternates 7, 7 Modified, and 8A both include a roundabout junction between Brookeville Road and the Brookeville Bypass, whereas in Alternate 8B the Brookeville Bypass crosses over Brookeville Road on a structure. Staff believes that neither Alternate 7 Modified nor Alternate 8B offers a clear advantage, as the roundabout construction would have a greater impact on the historic nature of the existing road alignment but the overpass would have a greater impact on the roadway viewshed.

Typical Section

Each of the bypass alternates was evaluated as an open-section (no curb-and-gutter) and as a closed-section (curb-and-gutter) roadway, as shown in Exhibit 4. The basic cross-section includes one travel lane in each direction and a five-foot paved shoulder to accommodate bicycle traffic. Because the curb and gutter act as a means to redirect errant vehicles back onto the roadway, the closed-section option has a smaller footprint in terms of graded area than the open-section. Pedestrian accommodations such as sidewalks are not included because the bypass is intended to have no adjacent land use or future access points.

Because the closed-section option has a more narrow footprint than the open-section option, it also generally has lower environmental impacts as identified in Exhibit 2. However, the capital cost and stormwater management needs are greater with a closed-section roadway. Because the area adjacent to the roadway is generally parkland or other open area, staff concurs with the study team recommendation to select an open-section roadway design.

Treatment of Portions of Existing MD 97 to be Bypassed

The Brookeville Bypass will carry MD 97 around the Town of Brookeville, removing the need for SHA ownership and maintenance of those portions of existing MD 97 that will be bypassed. Staff concurs with the 1980 Olney Master Plan recommendation that the portion of existing MD 97 between the two bypass termini should not be included in the Master Plan of Highways, indicating that the functional classification is lower than primary residential roadway. SHA is coordinating with DPWT and the Town of Brookeville to develop ownership and maintenance agreements for these roadway segments.

Alternate 7 Modified also proposes closure of a portion of MD 97 between Reddy Branch and the northern bypass terminus. As the ownership and maintenance agreements are developed, the desirability of retaining this link as a bikeway will be evaluated. If the pavement and bridge structure are to be removed entirely, staff recommends applying reforestation and stream restoration techniques.

SMART GROWTH CONSISTENCY

As part of the Maryland Smart Growth and Neighborhood Conservation Act passed in October 1997, Montgomery County identified Priority Funding Areas (PFA) where state investment in infrastructure is considered consistent with desired development patterns. By policy, all municipal corporations, such as the Town of Brookeville, are considered PFAs. The alignment for most of the Brookeville Bypass alternates, however, lies outside any PFA.

In 1999, the Maryland Department of Transportation, the Governor's office, and local elected officials agreed that the Brookeville Bypass could be considered consistent with Smart Growth policies if four conditions were met during design and construction:

- Under local ordinance, Montgomery County is to adopt, through appropriate enforceable action, restrictions that will prevent this bypass from allowing sprawl development. Any capacity a bypass might add to the road network cannot be used to allow development outside the current boundaries of the Town of Brookeville.

- Permanent easement to be held by an entity such as the Maryland Environmental Trust must border the entire roadway to ensure no future access, widening, or connection to the bypass is possible.

- If for any reason these controls fail, Montgomery County will reimburse the State for the full cost of the bypass.

- Montgomery County, the Maryland Department of Transportation, and Howard County Government will work out a safe traffic calming point north of the bypass, which limits traffic capacity to the current capacity of MD 97 through Brookeville.

The first condition has been addressed by Montgomery County by incorporation into the Annual Growth Policy. Staff concurs with the State Highway Administration that the last condition is met through the establishment of roundabouts as the traffic control devices for bypass junctions.

The definition of permanent easement and the identification of the entity responsible for maintaining that easement has not yet been developed. SHA has been working with the Maryland Environmental Trust to develop appropriate interagency agreements to ensure that this Smart Growth criterion is met. Staff requests that this

issue be resolved and draft memoranda of understanding be available for review as part of the Final Environmental Impact Statement.

NEXT STEPS

The remaining steps in the implementation process include:

- Development of agency consensus on a preferred alternate during spring 2002, including
    - Presentation to the County Council (scheduled for September 24)
    - Formal designation of a preferred alternate by SHA's Administrator (October 2002)
    - Completion of a Final Environmental Impact Statement identifying the preferred alternate (Winter 2003), and
    - Location and Design Approval of the preferred alternate by the Federal Highway Administration (Spring 2003)
- Engineering, expected to take two to three years, and
- Construction, expected to take two years

The project has only been funded through project planning. The engineering and construction phases will require funding through the state's Consolidated Transportation Plan adoption process.

DKH:cmd

MD 97 Brookeville Bypass DEIS Recommendations.doc

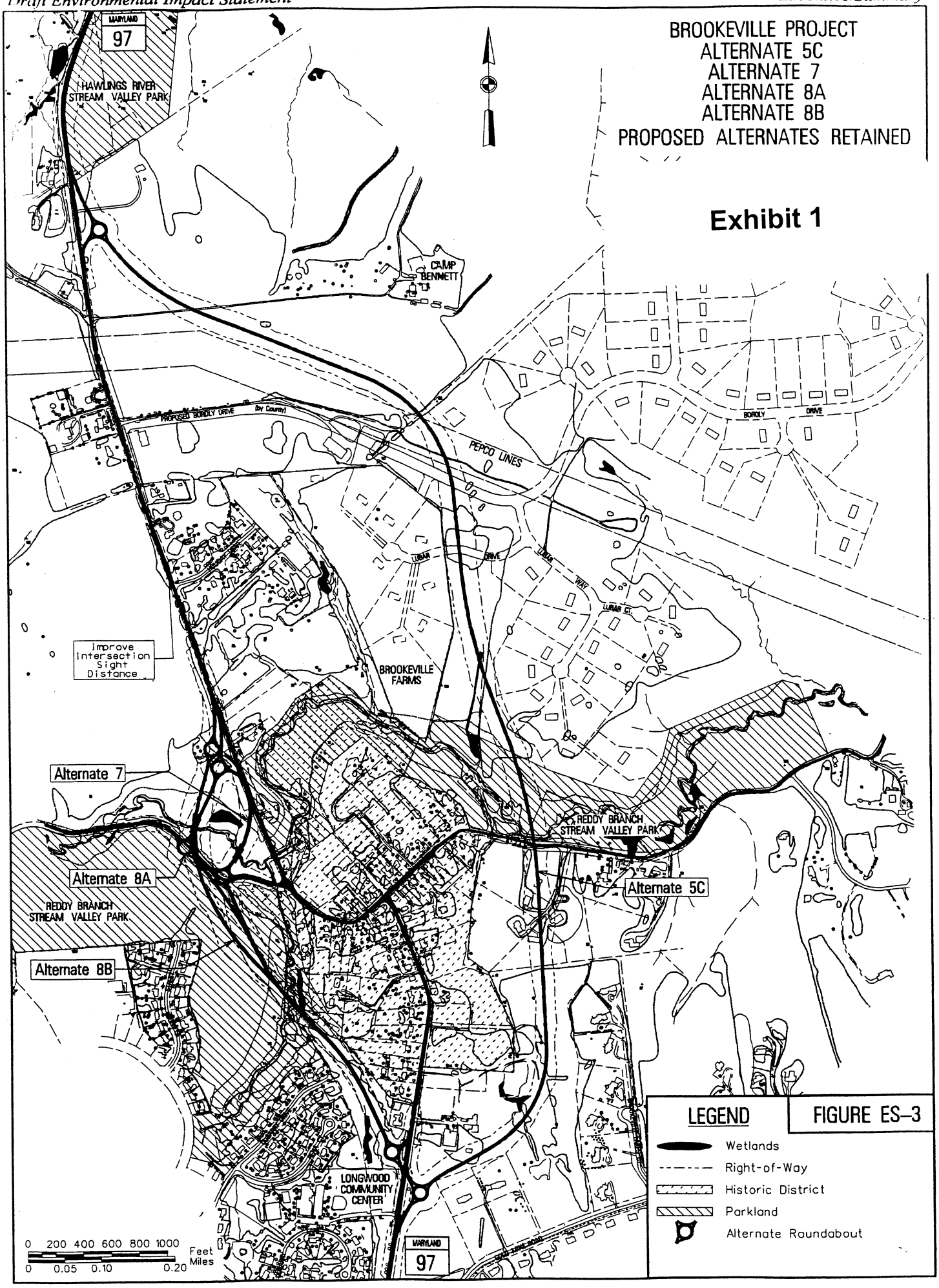

BROOKEVILLE PROJECT
ALTERNATE 5C
ALTERNATE 7
ALTERNATE 8A
ALTERNATE 8B
PROPOSED ALTERNATES RETAINED
Exhibit 1
MARYLAND 97
HAWLINGS RIVER STREAM VALLEY PARK
CAMP BENNETT
PROPOSED BORDLY DRIVE (By County)
PEPCO LINES
BORDLY DRIVE
LUNAR DRIVE
LUNAR WAY
LUNAR CT.
Improve Intersection Sight Distance
BROOKEVILLE FARMS
Alternate 7
Alternate 8A
REDDY BRANCH STREAM VALLEY PARK
Alternate 8B
REDDY BRANCH STREAM VALLEY PARK
Alternate 5C
LONGWOOD COMMUNITY CENTER
MARYLAND 97
0 200 400 600 800 1000 Feet
0 0.05 0.10 0.20 Miles
LEGEND
Wetlands
Right-of-Way
Historic District
Parkland
Alternate Roundabout
FIGURE ES-3

Exhibit 2

ALTERNATES CARRIED FORWARD FOR DETAILED STUDY (October 2000)

	Alternate 5C East Bypass		Alternate 7 West Bypass		Alternate 8A At-Grade West Bypass		Alternate 8B Grade Separated West Bypass	
	Open Section	Closed Section	Open Section	Closed Section	Open Section	Closed Section	Open Section	Closed Section
	2.12	2.12	0.72	0.72	0.85	0.85	0.87	0.87
	$ 34.2	$ 34.8	$ 12.2	$ 12.7	$ 13.4	$ 13.5	$ 16.7	$ 16.9
	Socio-Economic Resources							
	5	5	0	0	0	0	0	0
	1	1	0	0	0	0	0	0
	26	26	11	11	13	13	13	13
	No	No	Yes	Yes	Yes	Yes	Yes	Yes
	4.55	3.80	5.30	4.84	5.87	5.34	6.29	5.64
	0	0	1.82 [3]	1.82 [3]	1.42 [3]	1.42 [3]	1.58 [3]	1.55 [3]
	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	0	0	1	1	2	2	1	1
	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	8	8	10	10	10	10	10	10
	Natural Resources							
	25.88	23.21	4.47	4.25	4.90	4.75	4.64	4.33
	5.63	4.74	1.38	1.24	3.96	3.72	5.28	4.73
	0.21	0.15	0.12	0.13	0.10	0.10	0.16	0.16
	1,590	1,321	1,356	1,358	1,284	1,291	1,449	1,411
	2.59	2.44	3.29	3.27	2.98	2.93	3.29	3.17
	11.50	9.56	8.62	8.04	10.95	10.33	11.79	10.85

clude additional length for traffic roundabouts

Exhibit 3

MD 97 Brookeville Public Hearing
Summary of Citizen Comments

Summary of 23 Testimonies

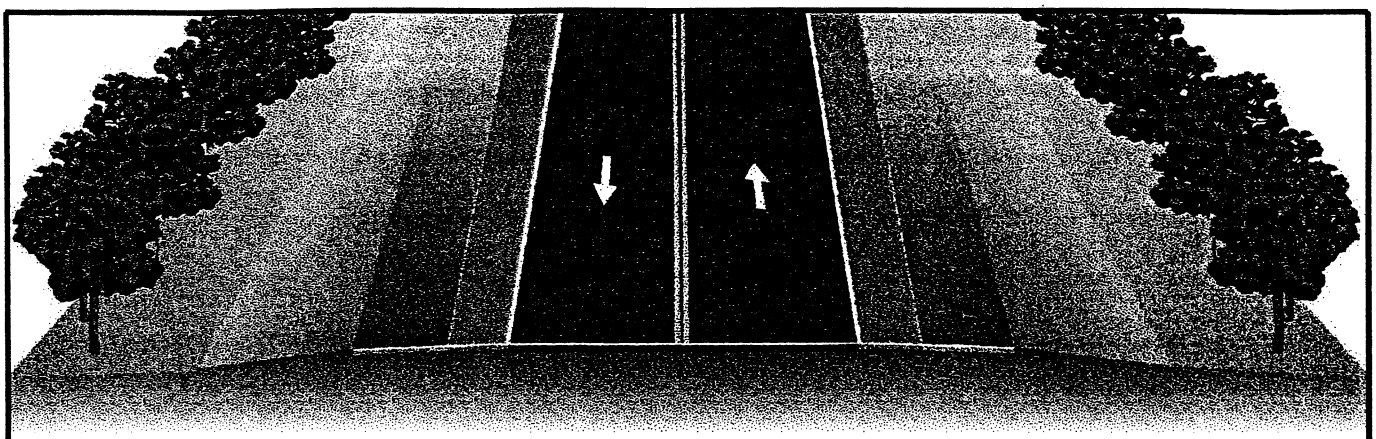
Alternate 1 (No Build)	In Favor of Alternate 2	Against Alternate 0
Alternate 5C (Eastern Alignment)	In Favor of Alternate 0	Against Alternate 9
Alternate 7 (Western Alignment)	In Favor of Alternate 9	Against Alternate 2
Alternate 8A (Western Alignment)	In Favor of Alternate 0	Against Alternate 1
Alternate 8B (Western Alignment)	In Favor of Alternate 2	Against Alternate 0

Summary of 17 Written Comments

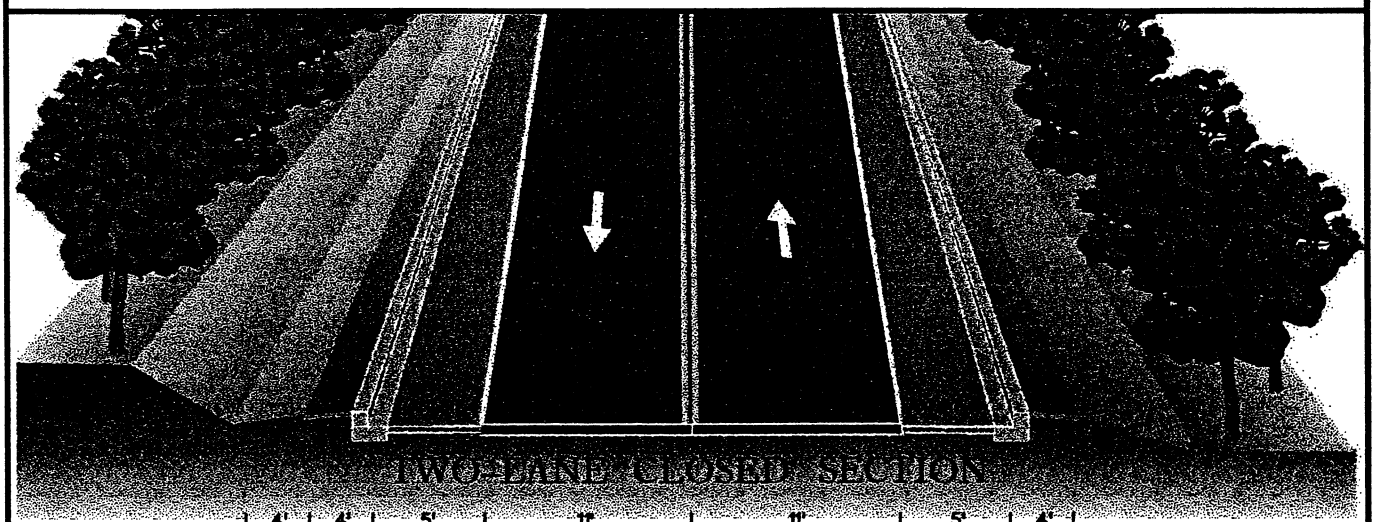
Alternate 1 (No Build)	In Favor of Alternate 2	Against Alternate 0
Alternate 5C (Eastern Alignment)	In Favor of Alternate 2	Against Alternate 3
Alternate 7 (Western Alignment)	In Favor of Alternate 5	Against Alternate 1
Alternate 8A (Western Alignment)	In Favor of Alternate 0	Against Alternate 3
Alternate 8B (Western Alignment)	In Favor of Alternate 6	Against Alternate 2

I. TYPICAL SECTIONS RECOMMENDED FOR DETAILED STUDY

Due to the Smart Growth agreement criteria established to comply with the Smart Growth Legislation, a two-lane typical section was chosen and two options (open section and closed section) are being considered for each of the four Build Alternate (Alternates 5C, 7, 8A and 8B. Impact quantities for both typical sections for each of the four build alternates are provided in Section IV and Section V of this DEIS.



TWO–LANE OPEN SECTION



TWO–LANE CLOSED SECTION

TWO–LANE OPEN SECTION

This typical section consists of two 11–foot travel lanes, 10–foot graded shoulders (5–foot paved), and safety grading (6–foot for 40 mph and 10–foot for 50 mph). The 5–foot paved shoulder is wide enough to safely accommodate bicycle traffic.

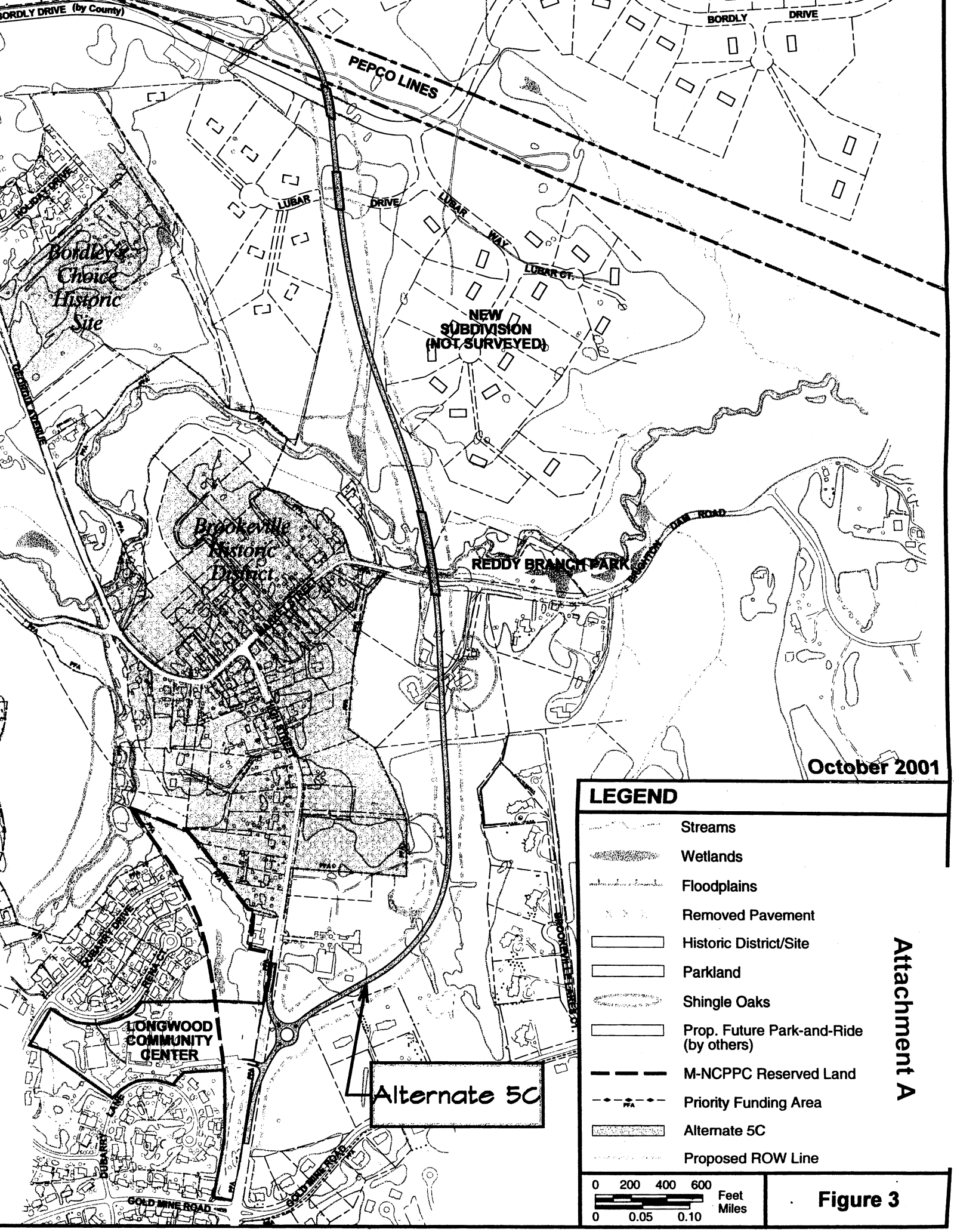
TWO–LANE CLOSED SECTION

This typical section consists of two 11–foot travel lanes, 5–foot paved shoulders with mountable curb and gutter, 4–foot of curb backing and 4–foot slope. Again, the 5–foot paved shoulder is wide enough to safely accommodate bicycle traffic.

MD 97 BROOKEVILLE PROJECT
DRAFT ENVIRONMENTAL IMPACT STATEMENT / SECTION 4(f) EVALUATION

TYPICAL SECTIONS

Exhibit 4


BORDLY DRIVE (by County)
PEPCO LINES
BORDLY
DRIVE
LUBAR
DRIVE
LUBAR
WAY
LUBAR CT.
NEW
SUBDIVISION
(NOT SURVEYED)
Bordley's
Choice
Historic
Site
Brookeville
Historic
District
REDDY BRANCH PARK
BROOKEVILLE
LONGWOOD
COMMUNITY
CENTER
Alternate 5C
GOLD MINE ROAD
October 2001
LEGEND
Streams
Wetlands
Floodplains
Removed Pavement
Historic District/Site
Parkland
Shingle Oaks
Prop. Future Park-and-Ride
(by others)
M-NCPPC Reserved Land
Priority Funding Area
Alternate 5C
Proposed ROW Line
0 200 400 600
Feet
0 0.05 0.10
Miles
Figure 3
Attachment A

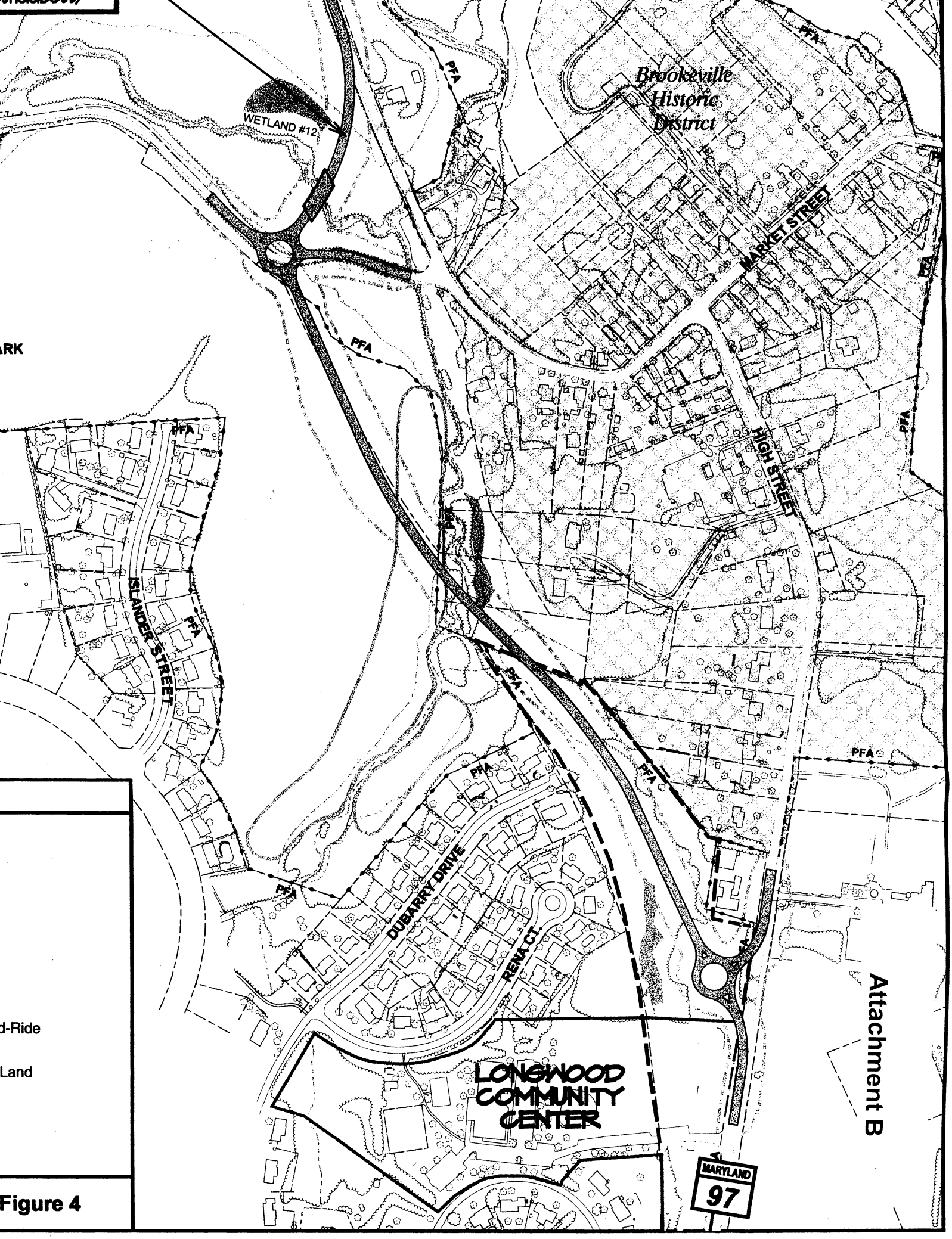
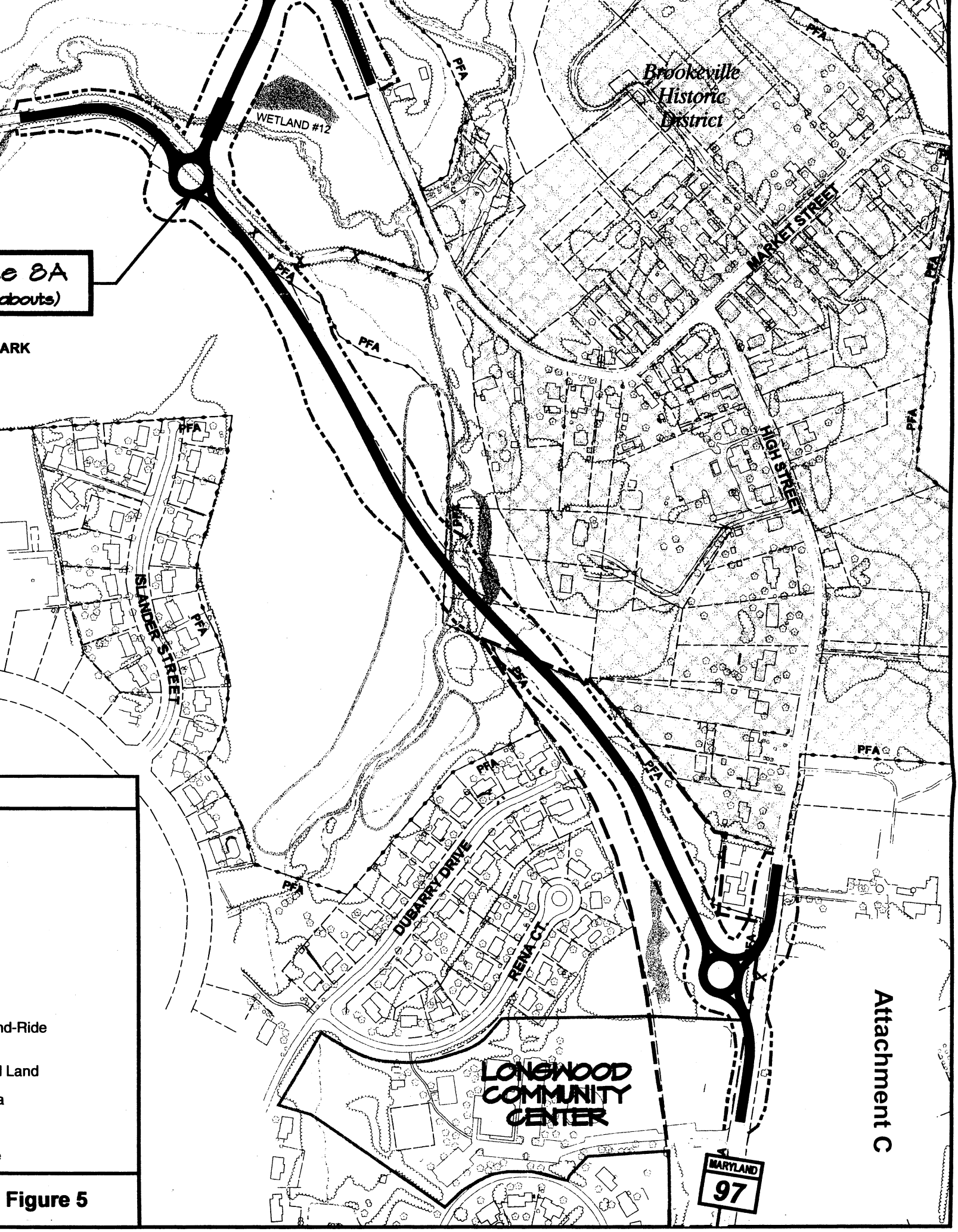
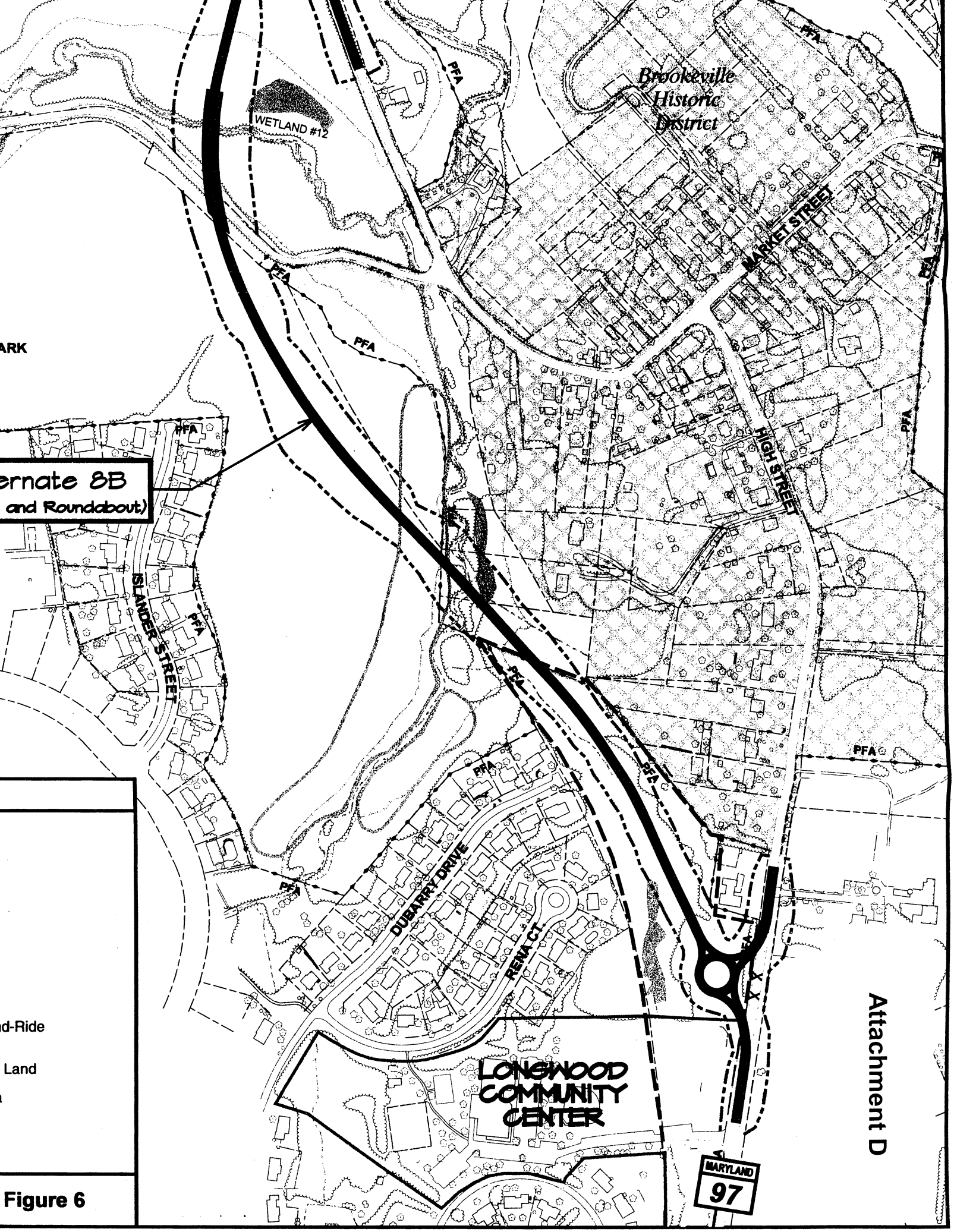

WETLAND #12
PFA
Brookeville Historic District
MARKET STREET
HIGH STREET
ISLANDER STREET
DUBARRY DRIVE
RENA CT.
LONGWOOD COMMUNITY CENTER
MARYLAND 97
Attachment B
d-Ride
Land

Figure 4



Attachment C

Figure 5



Attachment D

Figure 6

Attachment 11B

THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION
Office of the Chairman, Montgomery County Planning Board

October 7, 2002

Parker Williams, Administrator
Maryland Department of Transportation
State Highway Administration
P.O. Box 717
Baltimore, MD 21203-0717

Dear Parker Williams:

The Montgomery County Planning Board reviewed the MD 97 Brookeville project planning study at the regularly scheduled meeting of September 19, 2002. The Board endorsed the staff recommendations (copy enclosed) as described below:

1. The Montgomery County Planning Board recommends that the State Highway Administration select Alternate 7 Modified, a western bypass of the Town of Brookeville, as the preferred alternate for the MD 97 Brookeville project planning study.

2. During the preparation of the Final Environmental Impact Statement, SHA should prepare interagency memoranda of understanding defining the process to achieve the Smart Growth condition which specifies future widening or access to be prohibited via third-party easement.

3. Subsequent project planning and design activities should incorporate the following, prior to mandatory referral:

   a. Accommodation of safe pedestrian and bicycle crossings for the existing Oakley Cabin Trail and a potential future natural surface trail as described in the Countywide Park Trails Plan.

   b. Preservation of the archeological resources in the core areas of the Newlin/Downs Mill site

c. Selection of a bridge, rather than a culvert, to cross Meadow Branch

d. Mitigation strategies for parkland and wetlands impacts

e. Identification of stormwater management pond locations

f. Identification of construction impacts, including required staging areas

g. Determination of ownership and maintenance responsibility for the portions of existing MD 97 to be bypassed

We look forward to continued coordination with your staff on this important project as it moves forward into detailed design.

Sincerely,

Derick P. Berlage
Chairman

DPB:DKH:cmd

MCPB MD 97 Brookeville Recommendations to SHA.doc

MD SHA DRAFT 6-2-2016

**MEMORANDUM OF AGREEMENT AMONG
THE FEDERAL HIGHWAY ADMINISTRATION,
THE MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION,
THE MARYLAND STATE HISTORIC PRESERVATION OFFICER
THE TOWN OF BROOKEVILLE
AND
THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION, DEPARTMENT OF PARKS
PURSUANT TO 36 CFR 800 REGARDING
THE CONSTRUCTION OF THE BROOKEVILLE BYPASS, MD 97 FROM SOUTH OF GOLDMINE ROAD TO NORTH OF HOLIDAY DRIVE,
MONTGOMERY COUNTY, MARYLAND**

WHEREAS, the Federal Highway Administration (FHWA) proposes to assist the Maryland Department of Transportation (MDOT), State Highway Administration (SHA), with the construction of the Brookeville Bypass, MD 97 from Longwood Park to South of Gold Mine Road, Montgomery County, Maryland (Undertaking); and

WHEREAS, the FHWA has established the Undertaking's Area of Potential Effects (APE) as defined under 36 CFR §800.16(d), to encompass areas subject to direct construction impacts and property being acquired for the Undertaking wherein the Undertaking may directly or indirectly cause alterations in the character or use of historic properties; and

WHEREAS, the FHWA has determined that the Undertaking will have an adverse effect on historic properties, including the Brookeville Historic District (M: 23-65), which is listed in the National Register of Historic Places (NRHP), and the Newlin/Downs Mill Archaeological Site (18MO368), a contributing resource to the Brookeville Historic District; and

WHEREAS, the FHWA has consulted with the Maryland State Historic Preservation Officer (MD SHPO) pursuant to 36 CFR Part 800, the regulations implementing Section 106 of the National Historic Preservation Act (54 USC 306108); and

WHEREAS, the MD SHPO agrees that fulfillment of the terms of this Memorandum of Agreement (MOA) will satisfy the responsibilities of any Maryland state agency under the requirements of the Maryland Historical Trust Act of 1985, as amended, State Finance and Procurement Article §§ 5A-325 and 5A-326 of the Annotated Code of Maryland, for any components of the Undertaking that require licensing, permitting, and/or funding actions from Maryland state agencies; and

WHEREAS, the MD SHA has participated in consultation, has responsibilities for implementing stipulations under this MOA, and pursuant to 36 CFR §800.6(c)(2) has been invited to be a signatory to this MOA; and

WHEREAS, the MD SHA held public meetings on September 29, 2015 and February 25, 2016, and held a consulting parties meeting on March 22, 2016; and
WHEREAS, the FHWA has identified and consulted with the following consulting parties in the Section 106 process: Town of Brookeville Town Commissioners and Planning Commission (Brookeville), National Park Service (Star Spangled Banner Trail), Montgomery County Heritage Area, Montgomery Preservation, Inc., Montgomery County Historic Preservation Commission, Maryland-National Capital Park and Planning Commission, Department of Parks (M-NCPPC), Preservation Maryland, Ms. Sandra Heiler, Ms. Catherine Lavoie, and Mr. Robert Hines; and

WHEREAS, the FHWA has invited Brookeville and the M-NCPPC to concur with this MOA; and

WHEREAS, the FHWA notified the Advisory Council on Historic Preservation (Council) of the Undertaking's adverse effect on historic properties on _____ and the Council accepted/declined on DATE to participate in the consultation; and

NOW, THEREFORE, the FHWA, the SHA and the MD SHPO agree that the undertaking shall be implemented in accordance with the following stipulations evidencing that the signatories have taken into account the effect of the undertaking on historic properties.

STIPULATIONS

FHWA and MD SHA shall ensure that the following measures will be implemented:

I. Brookeville Historic District and Archaeological Site Interpretive Panels and Walking Tour

The consulting parties have determined that the history of Brookeville's milling industry and the transportation system are significant aspects of the Brookeville Historic District.

A. Within one (1) year of the execution of this MOA, SHA in consultation with the MD SHPO, M-NCPPC and Brookeville shall complete plans for a walking tour brochure or map, interpretive panels, and QR Code that will discuss the history of Brookeville's milling industry and the town's transportation system.
    a. MD SHA shall provide drafts of the panels and brochure or map to the MD SHPO, Brookeville, and the M-NCPPC for review and comment.
    b. If the MD SHPO, Brookeville and the M-NCPPC do not provide comments within 30 calendar days of receipt, the MD SHA may assume acceptance of the drafts.
    c. MD SHA shall prepare two sets of 36" x 24" interpretive panels consisting of 4 fiberglass embedment panels with frames and bases. MD SHA shall require its contractor to install the interpretive panels in locations selected

by Brookeville at the Brookeville Academy and by the M-NCPPC along the Oakley Cabin Trail. The sites shall be approved by the MD SHPO prior to installation, based on a field meeting of the above-named consulting parties with MD SHA. The work shall be completed as part of the construction contract for the Brookeville Bypass, MD 97 from South of Goldmine Road to North of Holiday Drive.

B. MD SHA shall create walking tour brochure(s) or map(s) about the Newlin/Downs Mill and the houses located in the Brookeville Historic District, based on information about the historic properties that is obtained from *Phase II Archaeological and Historical Investigations at Sites 18MO368 and 18MO460 for MD 97 from Gold Mine Road to North of Holiday Drive, Montgomery County, Maryland* (Fehr et al. 2008), and the pamphlet entitled "Walking Tour Town of Brookeville (Hahn & Unglesbee, 1994), Newlin's Mill (Gilman-Forlini & Bacon 2012), David Newlin (1769-1852) (Gilman-Forlini 2012), Brookeville 1814 (http://msa.marylandgov/brookeville/index.html), and local repositories such as the Sandy Spring Museum and the Montgomery County Historical Society.

C. MD SHA shall provide 500 printed copies of the walking brochure or map to the M-NCPPC and Brookeville each.

D. MD SHA shall provide PDF versions of the walking tour brochure(s) or map(s) to the M-NCPPC and Brookeville to place on website(s) maintained by both the M-NCPPC, such as the Oakley Cabin Trail at MontgomeryParks.org (http://www.montgomeryparks.org/PPSD/ParkTrails/trails_MAPS/oakley_cabin_trail.shtm), and Brookeville (http://townofbrookevillemd.org/).

E. MD SHA shall include a QR Code on the interpretive panels, brochure(s) or map(s) to identify historic sites within the Brookeville Historic District, and the county park(s). The QR code will link to website(s) to be maintained by both the M-NCPPC, such as the Oakley Cabin Trail at Montgomery Parks.org (http://www.montgomeryparks.org/PPSD/ParkTrails/trails_MAPS/oakley_cabin_trail.shtm), and Brookeville (http://townofbrookevillemd.org/) regarding the walking tour(s).

II. Protection of Site 18MO368

A. The boundary of the LOD adjacent to site 18MO368 shall be fenced during construction, and the site will be noted in plans as an environmentally sensitive area where no ground disturbance may occur.

B. No staging areas or materials storage may occur within the archaeological site.

III. Design Plan Review

A. MD SHA shall provide a copy of the 90% (Final Review) highway design plans, including the designs for the new bridges, stormwater management facilities, traffic barriers, utilities and landscaping to the MD SHPO, the M-NCPPC and Brookeville for review and comment within thirty (30) calendar days of receipt.

IV. Design Development, Alignment Modifications and Ancillary Activities

The project may result in unforeseen effects on other historic properties due to changes made during design development, alignment modifications, or as a result of associated ancillary activities including, but not limited to: construction staging areas, stormwater management facilities, wetland mitigation areas, land transfers, reforestation areas, environmental stewardship activities, or other actions. All design and construction elements that may affect historic properties shall be subject to review and concurrence by the MD SHPO. The FHWA and the MD SHA shall use all feasible, prudent, and practicable measures to avoid adverse effects to historic properties.

Should activities be added to the project in areas not previously considered for impacts to cultural resources, the MD SHA shall consult with the MD SHPO, the FHWA, and other relevant consulting parties as appropriate, and shall ensure that all required cultural resources studies are implemented in accordance with the applicable performance standards in Stipulation VI and with the following procedures:

A. Identification: The MD SHA cultural resources staff shall review additions or changes to the project and implement identification investigations as necessary to identify historic properties that may be impacted by the proposed activity or alignment modification. The MD SHA shall provide all findings to the MD SHPO, the FHWA, and relevant consulting parties under this MOA for review and comment. If the MD SHPO does not provide comments within 30 calendar days of receipt, the MD SHA may assume the MD SHPO's acceptance of the results.

B. Evaluation: The MD SHA shall evaluate all cultural resources identified in the survey area resulting from additions or changes to the project in accordance with 36 CFR §800.4(c) to determine their eligibility for the National Register. The MD SHA shall provide the results of the evaluations to the MD SHPO, the FHWA, and relevant consulting parties for review and comment. If the MD SHPO does not provide comments within 30 calendar days of receipt, the MD SHA may assume the MD SHPO's acceptance of the results.

C. Treatment: Should any property eligible for inclusion in the National Register be identified, the MD SHA shall make a reasonable and good-faith effort to avoid adversely impacting the resources by relocating or modifying the proposed action. If adverse effects are unavoidable, the MD SHA, the FHWA, the MD SHPO and relevant consulting parties shall consult in accordance with 36 CFR §800.6 to

resolve adverse effects on NRHP-eligible historic properties. The FHWA shall solicit the participation of the Council. If adverse effects are unavoidable, the MD SHA, the FHWA, the MD SHPO and relevant consulting parties shall develop and implement appropriate treatment options in a Memorandum of Agreement. The FHWA and the MD SHA shall implement the mitigation plan once the MD SHPO concurs with the plan. The MD SHA shall ensure that cultural resources work is completed in accordance with the relevant performance standards in Stipulation VI.

V. Unexpected Discovery of Historic Properties during Construction

If historic properties are discovered or unanticipated effects on historic properties are found after the Undertaking is implemented, the MD SHA shall ensure that reasonable efforts are made to avoid, minimize, or mitigate adverse effects to such properties, and shall consult with the MD SHPO, the FHWA, and other relevant consulting parties to resolve any adverse effects pursuant to 36 CFR §800.13(b). The MD SHA shall ensure that any resulting cultural resources work is accomplished in accordance with the relevant performance standards in Stipulation VI.

VI. Performance Standards

A. Professional Qualifications: the MD SHA shall ensure that all cultural resources work performed pursuant to the MOA is carried out by or under the direct supervision of a person or persons meeting at a minimum the Professional Qualifications Standards set forth in the Secretary of the Interior's Standards for Architectural History and Archeology (36 CFR Part 61).

B. Standards and Guidelines - the MD SHA shall ensure that all cultural resources investigations and work performed pursuant to this MOA shall be conducted in a manner consistent with the principles and standards contained in the documents (and subsequent revisions thereof) listed below:

- *Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation* (1983 and successors);
- *Standards and Guidelines for Archeological Investigations in Maryland* (Shaffer and Cole 1994);
- *Standards and Guidelines for Architectural and Historical Investigations in Maryland* (Maryland Historical Trust, 2000);
- *Guidelines and Resources for Compliance-Generated Determinations of Eligibility (DOEs)* (Maryland Historical Trust, 2009);
- *Standards for Submission of Digital Images to the Maryland Inventory of Historic Properties* (Maryland Historical Trust, 2008)
- *Advisory Council on Historic Preservation – Section 106 Archaeology Guidance* (ACHP 2009);

- *Secretary of the Interior's Standards for the Treatment of Historic Properties* (36 CFR Part 68).

C. Curation

All materials and records, including but not limited to field reports, photographs, field sketches, etc., and records resulting from cultural resources investigations conducted for the project will be curated in accordance with 36 CFR Part 79 at the Maryland Archaeological Conservation Laboratory (MAC Lab). If Deeds of Gift can be obtained from property owners, artifacts will also be curated at the MAC Lab.

VII. Administration

A. Resolution of Objections by the Signatories: Should the MD SHPO, or any of the signatories to this MOA, object in writing within 30 days to any plans or actions proposed pursuant to this MOA, the FHWA shall consult with the objecting party to resolve the objection. If the FHWA determines that such objection cannot be resolved, the FHWA shall:

1) Forward all documentation relevant to the dispute, including the FHWA's proposed resolution, to the Council. The Council shall provide the FHWA with its advice on the resolution of the objection within 30 days of receiving adequate documentation. Prior to reaching a final decision on the dispute, the FHWA shall prepare a written response that takes into account any timely advice or comments regarding the dispute from the Council, signatories and concurring parties, and provide them with a copy of this written response. The FHWA shall then proceed according to its final decision.

2) If the Council does not provide its advice regarding the dispute within the 30 day time period, the FHWA may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, the FHWA shall prepare a written response that takes into account any timely comments regarding the dispute from the signatories and concurring parties to the MOA, and provide them and the Council with a copy of such written response.

3) The FHWA's responsibility to carry out all other actions subject to the terms of this MOA that are not the subject of the dispute remains unchanged.

B. Resolution of Objections by the Public: At any time during implementation of the measures stipulated in this MOA, should an objection pertaining to this agreement or the effect of the undertaking on historic properties be raised by another consulting party, a concurring party to the MOA, or a member of the public, the FHWA shall notify the parties to this agreement and take the

objection into account, consulting with the objector and, should the objector so request, with any of the parties to this MOA to resolve the objection.

C. Amendment: This MOA may be amended when such an amendment is agreed to in writing by all signatories. The amendment will be effective on the date a copy signed by all of the signatories is filed with the Council.

D. Termination: If any signatory to this MOA determines that its terms will not or cannot be carried out, that party shall immediately consult with the other parties to attempt to develop an amendment per Stipulation VI.C, above. If within thirty (30) days (or another time period agreed to by all signatories) an amendment cannot be reached, any signatory may terminate the MOA upon written notification to the other signatories.

Once the MOA is terminated, and prior to work continuing on the undertaking, the FHWA must either (a) execute an MOA pursuant to 36 CFR § 800.6, or (b) request, take into account, and respond to the comments of the Council under 36 CFR § 800.7. The FHWA shall notify the signatories as to the course of action it will pursue.

E. Duration: This MOA shall be null and void if its terms are not carried out within ten (10) years from the date of its execution, unless the signatories agree in writing to an extension for carrying out its terms.

Execution of this MOA by the FHWA, MD SHA and MD SHPO, its subsequent submission to the Council and implementation of its terms, evidence that FHWA and SHA have taken into account the effects of the undertaking on historic properties.

FEDERAL HIGHWAY ADMINISTRATION

By: _____ Date: _____
Gregory Murrill, Division Administrator

MARYLAND STATE HISTORIC PRESERVATION OFFICER

By: _____ Date: _____
Elizabeth Hughes, State Historic Preservation Officer

MARYLAND STATE HIGHWAY ADMINISTRATION

By: _____ Date: _____
Gregory C. Johnson, Administrator

MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

By: _____ Date: _____
NAME/TITLE

TOWN OF BROOKEVILLE, MARYLAND

By: _____ Date: _____
NAME/TITLE

Attachment 2: View from Georgia Avenue at Brookeville Road looking west toward MD 97 north roundabout and bridge over Reddy Branch.

Attachment 3: View from Georgia Avenue at Brookeville Road showing MD 97 Alternative 8B (High Bridge).

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Chesapeake Bay Field Office
177 Admiral Cochrane Drive
Annapolis, Maryland 21401
http://www.fws.gov/chesapeakebay

Attachment 14

April 20, 2016

Mr. Todd Nichols
Chief, Environmental Programs Division
Maryland State Highway Administration
707 North Calvert Street, Mail Stop C-303
Baltimore, MD 21202

RE: MD 97 Brookeville Bypass, Montgomery County, MD (MO7465171)

Dear Mr. Nichols:

The U.S. Fish and Wildlife Service (Service) has reviewed the April 2016 Final Review Plans for the proposed MD 97 Brookeville Bypass project, and offers the following comments pursuant to the Fish and Wildlife Coordination Act (48 Stat. 401; 16 U.S.C. 661 et seq.) for your consideration. The Service has been actively involved with this highway development project and attended several interagency meetings and site-visits since the project was re-initiated in October 2014.

As part of the MD 97 Brookeville Bypass project, two separate roadway sections will be decommissioned and the pavement removed: Georgia Avenue between Brookeville Road and the northern terminus of the proposed MD 97 Brookeville Bypass; and Brookeville Road between Georgia Avenue and the southern roundabout. In addition to pavement removal, the Service strongly recommends the two stream-crossings (Georgia Avenue over Reddy Branch, and Brookeville Road over Meadow Branch) and associated floodplain fill located along these sections be fully removed. Both stream-crossings are undersized, impede fish and wildlife passage, and fragment stream and riparian habitat.

Reddy Branch and Meadow Branch stream corridors are both designated as Green Infrastructure and Targeted Ecological Areas by the Maryland Department of Natural Resources. Full removal of these undersized crossings coupled with removal of the roadway embankment from the floodplain will re-establish more natural stream hydraulic conditions, improve fish and wildlife passage, and provide landscape-level habitat connectivity and function. Furthermore, leaving constricted road-crossing structures in-place is contrary to goals of the 120' long bridge spans being constructed upstream to best avoid stream and floodplain impacts, and maintain habitat connectivity.

The Service recognizes complete removal of stream-crossings and roadway embankments from the floodplain may increase in-stream shear stresses, but it is not clear if changes in shear stresses and their longitudinal limits were modeled. This information is critical to determine where shear stresses would increase, and the extent of stream stabilization needed to comply with Code of Maryland Regulations (COMAR) requirements. In addition, both streams are incised, actively eroding and contributing significant sediments to downstream waters, including the project's mitigation site located within Reddy Branch Stream Valley Park. Any stream stabilization required by COMAR could potentially be leveraged with additional stream restoration work by other Maryland State Highway Administration programs (e.g. TMDL and mitigation) to reduce sediment inputs and improve long-term sustainability of the valley restoration being applied to the mitigation site.

Lastly, the Service recommends use of native pollinating plants over exotic plants. Exotic plants (e.g. Boston ivy) can become invasive and outcompete native plants that are more beneficial to local fish and wildlife. Use of native pollinating plants will support the National Strategy to Promote the Health of Honey Bees and Other Pollinators (Strategy). This Strategy was developed in 2015 and directs Federal departments and agencies including the Departments of the Interior and Transportation to advance use of pollinator-friendly seed mixes in land management, restoration and rehabilitation actions nationwide to increase and improve habitat for pollinators. The Natural Resources Conservation Service has developed native pollinator seed-mixes for upland, wetland and mesic sites in MD, and is attached for your convenience.

The Service appreciates the opportunity to provide comments related to fish and wildlife resources, and look forward to continued coordination with the Maryland State Highway Administration on this project. If you have any questions or concerns, please contact Ray Li at 410-573-4522 or email at Ray_Li@fws.gov.

Sincerely,

Genevieve LaRouche
Field Supervisor

Attachment:

cc: Huqin Zhang (MD SHA)
Jack Dinne (COE)
Kevin Magerr (EPA)
Emily Dolbin (MDE)
Martha Stauss (MD DNR)
Jai Cole (M-NCPPC)

USDA United States Department of Agriculture

Maryland Native Grass and Wildflower Mix for Dry Sites
Conservation Cover Mix 15

Native Mix Developed for Cooperator: _____ **Tract:** _____ **Field(s):** _____

Scientific Name	Common Name	% by Weight	% by Seed	Duration	Grass or Forb	Legume	Flowering Period M	A	M	J	J	A	S	O	N
Andropogon virginicus	Broomsedge	0.4%	2.0%	Perennial	♈										
Asclepias syriaca	Common Milkweed	1.0%	5.0%	Perennial	❀										
Asclepias tuberosa	Butterfly Milkweed	10.2%	5.0%	Perennial	❀										
Chamaecrista fasciculata	Partridge Pea	11.0%	5.0%	Annual	❀	◆									
Desmodium canadense	Showy Tick Trefoil	5.9%	3.0%	Perennial	❀	◆									
Desmodium paniculatum	Panicled Tick-Trefoil	2.1%	3.0%	Perennial	❀	◆									
Heliopsis helianthoides	Smooth Oxeye	6.1%	5.0%	Perennial	❀										
Lespedeza capitata	Round-head Bush-Clover	4.9%	6.0%	Perennial	❀	◆									
Monarda fistulosa	Wild Bergamot	0.6%	5.0%	Perennial	❀										
Monarda punctata	Spotted Bee-balm, Eastern Shoi	0.5%	5.0%	Perennial	❀										
Penstemon digitalis	Tall White Beard-tongue	1.8%	5.0%	Perennial	❀										
Pycnanthemum tenuifolium	Narrow-leaf Mountain Mint	0.2%	5.0%	Perennial	❀										
Rudbeckia hirta	Black-eyed Susan	0.5%	5.0%	Biennial	❀										
Schizachyrium scoparium	Little Bluestem	4.0%	4.0%	Perennial	♈										
Senna marilandica	Maryland Senna	34.9%	5.0%	Perennial	❀	◆									
Silphium trifoliatum	Whorled Rosinweed	11.4%	4.0%	Perennial	❀										
Solidago juncea	Early Goldenrod	0.3%	5.0%	Perennial	❀										
Solidago nemoralis	Gray Goldenrod	0.7%	5.0%	Perennial	❀										
Symphyotrichum oblongifolium	Aromatic Aster	1.0%	5.0%	Perennial	❀										
Symphyotrichum pilosum var. pilosum	White Oldfield Aster	1.0%	5.0%	Perennial	❀										
Tradescantia virginiana	Virginia Spiderwort	0.3%	4.0%	Perennial	❀										
Tridens flavus	Purpletop	1.2%	4.0%	Perennial	♈										

Seeds per Square Foot: 25
LB Pure Live Seed (PLS) per Acre: 7.5

% Grass by Seed: 10%
% Forbs by Seed: 90%

USDA United States Department of Agriculture

Maryland Native Grass and Wildflower Mix for Mesic Sites

Conservation Cover Mix 16

Native Mix Developed for Cooperator: _____ **Tract:** _____ **Field(s):** _____

Scientific Name	Common Name	% by Weight	% by Seed	Duration	Grass or Forb	Legume	Flowering Period M	A	M	J	J	A	S	O	N
Andropogon virginicus	Broomsedge	0.4%	2.0%	Perennial											
Asclepias incarnata	Swamp Milkweed	0.9%	4.0%	Perennial											
Asclepias syriaca	Common Milkweed	0.7%	3.0%	Perennial											
Asclepias tuberosa	Butterfly Milkweed	4.6%	2.0%	Perennial											
Chamaecrista fasciculata	Partridge Pea	9.9%	4.0%	Annual		◆									
Desmodium canadense	Showy Tick Trefoil	11.1%	5.0%	Perennial		◆									
Doellingeria umbellata var. umbellata	Flat-topped White Aster	1.0%	5.0%	Perennial											
Elymus virginicus	Virginia Wildrye	6.4%	4.0%	Perennial											
Eupatorium purpureum	Sweet-scented Joe-Pye Weed	1.2%	5.0%	Perennial											
Helenium flexuosum	Purple Sneezeweed	0.4%	5.0%	Perennial											
Heliopsis helianthoides	Smooth Oxeye	6.9%	5.0%	Perennial											
Lespedeza capitata	Round-head Bush-Clover	4.6%	5.0%	Perennial		◆									
Liatris spicata	Marsh Blazing Star	4.8%	3.0%	Perennial											
Monarda fistulosa	Wild Bergamot	0.8%	6.0%	Perennial											
Monarda punctata	Spotted Bee-balm, Eastern Shoi	0.4%	4.0%	Perennial											
Penstemon digitalis	Tall White Beard-tongue	2.0%	5.0%	Perennial											
Pycnanthemum tenuifolium	Narrow-leaf Mountain Mint	0.2%	5.0%	Perennial											
Rudbeckia hirta	Black-eyed Susan	0.3%	3.0%	Biennial											
Senna marilandica	Maryland Senna	39.3%	5.0%	Perennial		◆									
Solidago nemoralis	Gray Goldenrod	0.6%	4.0%	Perennial											
Symphyotrichum novae-angliae	New England Aster	0.6%	4.0%	Perennial											
Symphyotrichum oblongifolium	Aromatic Aster	0.9%	4.0%	Perennial											
Tridens flavus	Purpletop	1.4%	4.0%	Perennial											
Tradescantia virginiana	Virginia Spiderwort	0.4%	4.0%	Perennial											

Seeds per Square Foot: 25
LB Pure Live Seed (PLS) per Acre: 7.0

% Grass by Seed: 10%
% Forbs by Seed: 90%

USDA United States Department of Agriculture

Maryland Native Grass and Wildflower Mix for Wet Sites

Conservation Cover Mix 17

Native Mix Developed for Cooperator: _____ **Tract:** _____ **Field(s):** _____

Scientific Name	Common Name	% by Weight	% by Seed	Duration	Grass or Forb	Legume	Flowering Period M	A	M	J	J	A	S	O	N
Asclepias incarnata	Swamp Milkweed	1.9%	6.0%	Perennial	Forb										
Bidens aristosa	Bur Marigold	8.6%	5.0%	Annual	Forb										
Bidens cernua	Nodding Bur Marigold	3.4%	2.0%	Annual	Forb										
Desmodium canadense	Showy Tick Trefoil	6.2%	2.0%	Perennial	Forb	◆									
Elymus virginicus	Virginia Wildrye	4.5%	2.0%	Perennial	Grass										
Eupatoriadelphus fistulosus	Joe-Pye Weed	0.8%	7.0%	Perennial	Forb										
Eupatorium perfoliatum	Boneset	0.6%	7.0%	Perennial	Forb										
Eupatorium purpureum	Sweet-scented Joe-Pye Weed	2.3%	7.0%	Perennial	Forb										
Helianthus angustifolius	Swamp Sunflower	4.0%	9.0%	Perennial	Forb										
Lobelia siphilitica	Blue Lobelia	0.1%	4.0%	Perennial	Forb										
Panicum anceps	Beaked Panicgrass	1.6%	4.0%	Perennial	Grass										
Panicum rigidulum	Redtop Panicgrass	1.1%	4.0%	Perennial	Grass										
Penstemon digitalis	Tall White Beard-tongue	2.8%	5.0%	Perennial	Forb										
Pycnanthemum tenuifolium	Narrow-leaf Mountain Mint	0.3%	6.0%	Perennial	Forb										
Senna hebecarpa	American Senna	54.5%	5.0%	Perennial	Forb	◆									
Symphyotrichum lateriflorum var. lateriflorum	Calico Aster	0.9%	3.0%	Perennial	Forb										
Symphyotrichum novae-angliae	New England Aster	0.8%	4.0%	Perennial	Forb										
Tradescantia virginiana	Virginia Spiderwort	0.6%	5.0%	Perennial	Forb										
Verbena hastata	Blue (Swamp) Vervain	1.2%	8.0%	Biennial	Forb										
Vernonia noveboracensis	New York Ironweed	3.7%	5.0%	Perennial	Forb										

Seeds per Square Foot: 30
LB Pure Live Seed (PLS) per Acre: 6.0

% Grass by Seed: 10%
% Forbs by Seed: 90%