



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

MCPB
Item # 1
9-22-08

September 10, 2008

TO: Montgomery County Planning Board

VIA: Daniel K. Hardy, Acting Chief *DKH*
Transportation Planning Division

Bill Barron, Silver Spring/Takoma Park Team Leader *BB*
Community-Based Planning Division

Larry Cole, Highway Coordinator *LC*
Transportation Planning Division

FROM: David Paine, Coordinator (301) 495-2191 *DP*
Transportation Planning Division

SUBJECT: Seminary Road Intersection Improvement, Phase I Facility Planning Study
Project Prospectus Recommendations, Silver Spring Policy Area

RECOMMENDATION: Transmit the following comments to the Montgomery County Department of Transportation (MCDOT):

1. The Seminary Road Intersection Improvement Facility Planning Study should proceed to Phase II of the Facility Planning process to develop a detailed design for the completion of the Recommended Alternative, with the modifications listed below.
2. The new road code dimensions for a 4 lane arterial should be used for the section of Linden Lane between Brookville Road and Second Avenue.
3. The new road code dimensions for outside lane widths of 14' should be used throughout the project to accommodate bikes on-road, consistent with the master plan as signed, shared roadways.
4. During the Phase II Facility Planning Study, DPWT must submit a Natural Resources Inventory/Forest Stand Delineation (NRI/FSD) for approval. The NRI/FSD will determine whether a full forest conservation plan will be required.
5. During the Phase II Facility Planning Study, DPWT should confirm the need to obtain a park construction permit for any work resulting in park impacts.

PURPOSE OF THIS BRIEFING

The Purpose of this briefing is to present findings of the Draft Project Prospectus of the Seminary Road Intersection Facility Planning Study to the Montgomery County Planning Board and solicit comments.

These comments will be considered by MCDOT in preparation of the Final Project Prospectus, which will then be forwarded to the County Council for approval.

SUMMARY OF THE PROJECT

The Seminary Road/Linden Lane series of intersections is a complex combination of vehicular movements and intersections. Characteristic of this combination is the Seminary Road “sweep,” which crosses the a diagonal to a traditional roadway grid. The project location is shown in Figure 1. The diagonal intersections and irregular geometry of the existing condition can be hazardous to unfamiliar motorists and pedestrians. There is a mix of signal controlled, sign controlled, and uncontrolled intersections, intersections occurring at angles, insufficient sight distance, and with insufficient spacing between intersections.

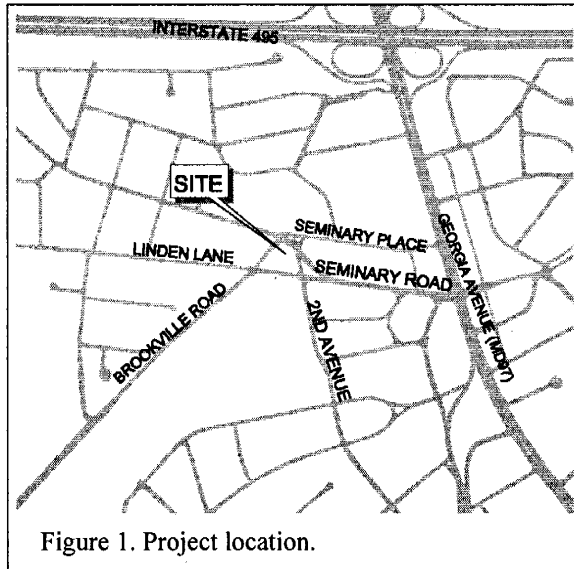


Figure 1. Project location.

The project would simplify the vehicular movements and improve overall safety in the study area. The study area with recommended alternative is shown in Figure 2. Typical sections for the Recommended Alternative are shown in Figure 3. The Recommended Alternative proposes:

- Consolidation from six to four intersections
- Elimination of the Seminary Road “sweep”
- Continuous on-street bicycle accommodations
- Continuous sidewalk facilities on all segments

Linden Lane from Brookville Road to Second Avenue would remain four lanes, but a median would be added to create a pedestrian refuge.

Seminary Road/Second Avenue between Seminary Place and Linden Lane would be reconstructed as a three lane section to allow for turning movements at Seminary Place and Linden Lane.

Brookville Road south of Seminary Road would be converted to two way travel, with a parking lane added on the west side.

The Recommended Alternative for these improvements was developed based on the North and West Silver Spring Master Plan vision and objectives, public comment, and study team review. This recommendation takes into consideration existing and planned development in the study area.

PUBLIC OUTREACH

Two public meetings were held for the project at Woodlin Elementary School on November 15, 2007 and March 18, 2008, and were both well attended. The purpose of these meetings was to introduce the project alternatives, process, schedule, background, and receive community input, answer questions, and later to present the alternatives and follow-up. Staff characterizes the majority of responses at the meeting as supportive of a project in this location and generally supportive of the Recommended Alternative, but

with concerns expressed about the scale of some of the alternatives, impact of two way traffic on Brookville Road, and projected traffic volume resulting from one alternative over another.

Residents perceive non-local traffic traveling on the arterial roads in the project area negatively. Residents would prefer to see a design that does not encourage through traffic. We believe the Recommended Alternative's scale and layout balances those concerns. Growth in vehicle trips, represented in the traffic study for the project, is forecast to be modest. For example Seminary Road west of the project is forecast to increase by approximately 15% from 2005 levels, but this is expected from growth in local traffic as well as non-local. To be conservative, the study team used the same through-trip assumptions for all geometries evaluated.

Residents were very interested in coordination with the State Highway Administration's project for the Montgomery Hills stretch of Georgia Avenue (MD 97) immediately to the east of the MCDOT project area. That project has been funded and is just now starting its planning phase.

MASTER PLAN CONSISTENCY

The Seminary Road Intersection Improvements proposed by MCDOT are consistent with the recommendations in the approved and adopted North and West Silver Spring Master Plan (2000) and Countywide Bikeways Functional Master Plan (2005). The Master Plan recommended that this series of intersections "...be improved to eliminate potentially hazardous traffic and pedestrian conditions and ease traffic flow along Seminary Road" (Pg 56). An illustration of the base concept for consolidation of the intersections is included in the master plan on page 57. The following is a summary of the Master Plan recommendations for the roads affected by this project:

Seminary Road is classified as an arterial road, with an 80-foot wide minimum right-of-way, two travel lanes and on-road bike accommodation.

Seminary Place is classified as an arterial road with an 80-foot wide minimum right-of-way, two travel lanes and on-road bike accommodation.

Linden Lane between Brookville Road and Second Avenue is classified as an arterial road with an 80-foot wide minimum right-of-way, four travel lanes and on-road bike accommodation. West of Brookville Road, Linden Lane is classified as a primary residential road with a 50-foot wide minimum right-of-way, two travel lanes and on-road bike accommodation.

Second Avenue between Seminary Place and Linden Lane is classified as an arterial road with an 80-foot wide minimum right-of-way, two travel lanes and on-road bike accommodation.

Brookville Road south of Linden Lane is classified as an arterial road, with an 80-foot wide minimum right-of-way, two travel lanes and on-road bike accommodation. Brookville Road between Seminary Road and Linden Lane is not classified. Brookville Road south of Seminary Road is proposed as a Shared Use Path.¹

Staff finds that the Recommended Alternative for the Seminary Road Intersection Improvements project is consistent with the intent of the North and West Silver Spring Master Plan and Countywide Bikeways Functional Master Plan.

¹ There is a discrepancy between the map and the bike classification table in the Master plan for Brookville Road. We believe that the table is correct and that a shared use path would be more appropriate than bike lanes for the full segment of Brookville between Linden Lane and Albert Stewart Lane.

ALTERNATIVES CONSIDERED

The Phase I study evaluated several concept alternatives. The MCDOT study team presented seven alternatives to the public:

Concept I - No-Build Alternative: No improvements would be made, no impacts result, and no benefits are accrued.

Concept II - Master Plan Alternative: This alternative is based on a strict reading of the illustration on page 57 of the Master Plan. While it would result in elimination of the Seminary Road “sweep” and consolidation of turning movements, it does not accommodate existing or projected traffic volumes satisfactorily. It would also have significant impact to the Silver Spring Church of God.

Concept III: A roundabout would be constructed at the convergence of all the affected roads. While this alternative maintains an adequate flow of vehicles, traversing roundabouts is difficult for pedestrians and cyclists. The location and scale of the roundabout also have significant impacts to the Montgomery Hills Neighborhood Park.

Concepts 4A and 4B: These alternatives are refinements of the Master Plan alternative of 4 intersections. 4A shows Brookville road in its current configuration, with a single southbound lane. 4B showed Brookville Road as a Cul-de-sac, closed at the intersection with Linden Lane. Both alternatives result in the need for a 5 lane wide cross section on Second Avenue to accommodate the turning movements in the plan area. A 5 lane cross section on Second Avenue is seen as out of scale with the neighborhood character, and would result in a considerable amount of traffic weaving on the short segment of Second Avenue to make turning movements.

Concept 5: consolidates turn movements to three intersections from the six existing with movements concentrated in a large intersection at Seminary Road and Seminary Place/Brookville Road. This option would significantly simplify the multiple intersections and would reflect the natural intersection of the two master planned arterial roadways, the desired path of cars and trucks in the area. It also creates some amount of green space from removed roadway. However, it is seen as too drastic of a change from the established community fabric, and results in a large intersection next to Montgomery Hills Neighborhood Park, which is seen as undesirable by residents. It would also result in one home displacement. Concept 5 was contributed to the study team by residents of the immediate neighborhood.

Ultimately, the review team chose Alternate 4C, which provides some consolidation of intersections and elimination of the Seminary Road “sweep” for an improved traffic and pedestrian condition to the project area, while avoiding significant impacts. The Recommended Alternative would result in additional traffic on the short section of Brookville road north of Linden Lane from conversion to two way traffic from its present one-way southbound operation, but the study team believes that this is outweighed by the benefit of not having a five lane section on Second Avenue north of Linden Lane. The recommendation includes an additional parking lane on Brookville Road south of Seminary Road to mitigate the impact to parking the single house fronting this segment of road would experience.

STAFF ANALYSIS

Many alternatives were evaluated by the study team, including alternatives proposed by the public midway through the process. The option chosen consolidates the number of intersections from six to four, significantly simplifies the complex combination of vehicular movements and reduces the number of conflict points for turning vehicles. It is a considerable improvement over the existing conditions. We concur that the Recommended Alternative achieves the master plan transportation objectives.

The study team used Montgomery County design standards from the road code as the basis for the dimensions used for lane widths and curbside width. The cross section chosen for the roadways is still in the development stage, however, and should be revised to the new road code dimensions. The County Executive's proposed roadway standards are scheduled to be reviewed by the Planning Board on September 18, 2008.

This project proposes Linden Lane between Brookville Road and Second Avenue to have a cross section with 5' sidewalk and 5' landscape panel (10' curbside width), 4' bike lanes, two 11' thru lanes, two 11' turn lanes, and a 6' median. A median is proposed for pedestrian refuge. However, the proposed Road Code standard for a 4-lane Arterial roadway design is as follows: 2' offset, 5' sidewalk, 8' buffer width (a 15' curbside width), two 14' wide outside lanes, and 11' wide inside lanes, and no median.

The Master Plan does not call for a divided roadway at this location and the space for a median should not come at the expense of the curbside width. The new Road Code cross section would still accommodate cyclists on-road, but provide a better buffer for pedestrians, one that could be planted with street trees. The prospectus illustrates the cross section as having 5' wide buffer areas with trees, but this does not match current County practice of requiring a minimum 6' wide panel for planting street trees. The new standards should be adopted by the end of 2008. **We therefore recommend that the new road code dimension for a 4 lane arterial, be used for the section of Linden Lane between Brookville Road and Second Avenue.** Further, we support the planting of street trees throughout the project, as shown in the prospectus, and will look to the design in phase II to include sufficient space to do so.

Throughout the project, bike accommodations are shown as a demarcated 4' wide space labeled 'bikeway.' This occurs on Linden Lane between Brookville Road and Second Avenue, on Second Avenue between Seminary Place and Linden Lane, and on Seminary Road between Brookville Road and Second Avenue. 4' is not wide enough to be considered a full bike lane. On street accommodation can be adequately provided in this area through a shared roadway due to the design nature proposed: low design speeds and fully controlled intersections, if additional space is provided to allow trucks and buses enough space to pass a cyclist. Second Avenue is listed as a signed, shared roadway in the Countywide Bikeways Functional Master Plan. **The new road code dimensions for Arterials, with outside lane widths of 14', should be used throughout the project to accommodate bike on street, consistent with the master plan as signed, shared roadways.**

Additional modifications should be made in Phase II when more detailed survey and designs are available, including:

- The westbound lane of Seminary Place as it transitions to Seminary Road should maintain a straight bearing, rather than present three angle points to drivers continuing west through the intersections.
- Second Avenue needs to be lined up so that the northbound lanes on the south side of the intersection point at northbound lanes on the north side of the intersection, rather than southbound lanes as shown.
- The curb radius on the southeast quadrant of the intersection of Second Avenue and Seminary Place appears to be too wide and should be reduced.
- Brookeville Road at the north end needs to be made more perpendicular at its intersection with Seminary Road.
- Further investigation into the issue of road names and addresses should be done for Seminary Road or Second Avenue to determine whether the realigned segment of roadway should be called Seminary Road or Second Avenue.

These changes should be reflected in the plans that are submitted to the Planning Board in a Mandatory Referral of this project at the completion of Phase II.

Environmental Impacts

The Project Prospectus identifies little environmental impact of the Recommended Alternative. This preliminary assessment will be refined in Phase II when an NRI/FSD is required and more facility design details are developed. MCDOT will need to document these impacts through submission of a Natural Resource Inventory and Forest Stand Delineation (NRI/FSD) and a Forest Conservation Plan (FCP) during Phase II activity, or seek an exemption. The Prospectus states that approximately 0.1 acres of right-of-way impact may be made, principally from the Yeshiva School on Brookville Road. No buildings will be directly impacted. **During the Phase II Facility Planning Study, MCDOT must submit a Natural Resources Inventory/Forest Stand Delineation (NRI/FSD) for approval. The NRI/FSD will determine whether a full forest conservation plan will be required.**

MCDOT should take steps during the design and layout to protect large trees from grading close to the critical root zone of existing trees. Stormwater treatment is also a concern. The design should use vegetated integrated management practices (IMP) for stormwater management for infiltration and biofiltration where possible, perhaps in the median proposed for Linden Lane. Some of the infiltration requirements would change under the proposed Executive regulations if adopted and should be used in Phase II. For example one goal of IMP's for closed-section roads such as these is to treat 25% of the water quality volume (WQv) or to the extent physically possible within the right-of-way, with additional IMPs outside the ROW. Of less desire, but still useful are structural underground water quality facilities placed within the ROW without displacing IMPs and additional non IMP stormwater treatment placed outside the ROW.

The Recommended Alternative is not projected to impact the Montgomery Hills Neighborhood Park, however, should any impact occur, **during Phase II, MCDOT should confirm the need to obtain a park construction permit for any work resulting in impacts to parkland.**

DP:tc

Attachments

C:\Tree\0410 Phase I\seminary\mmo to mcpb re seminary.doc

Figure ES-1. Concept 4: Option C Revised Typical Sections

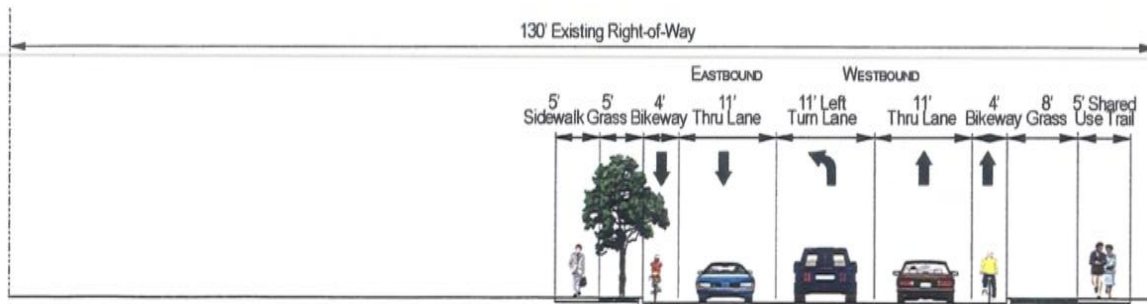
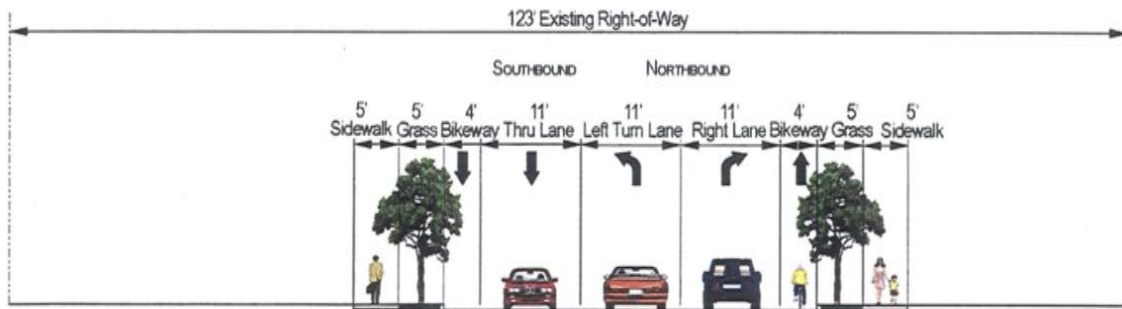
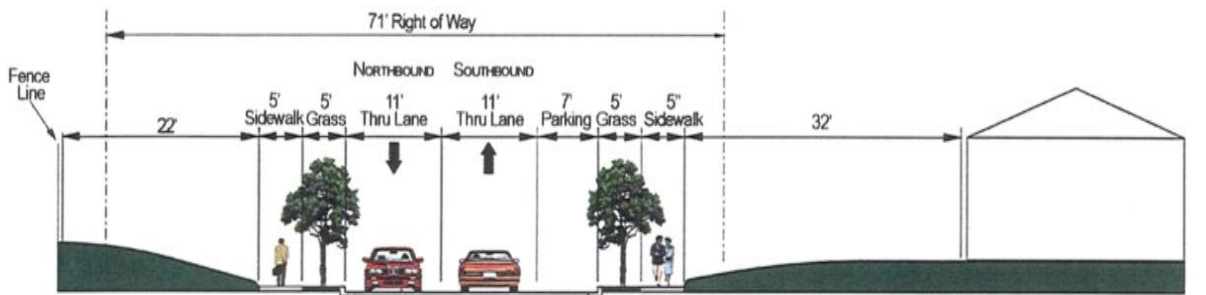
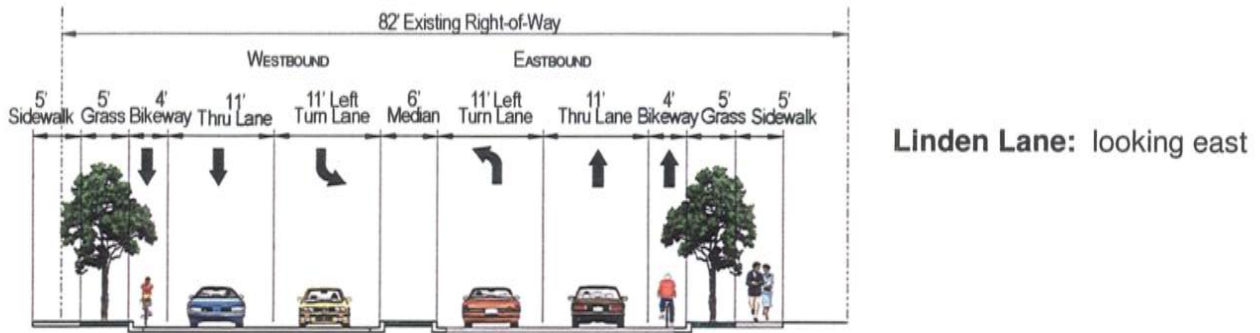
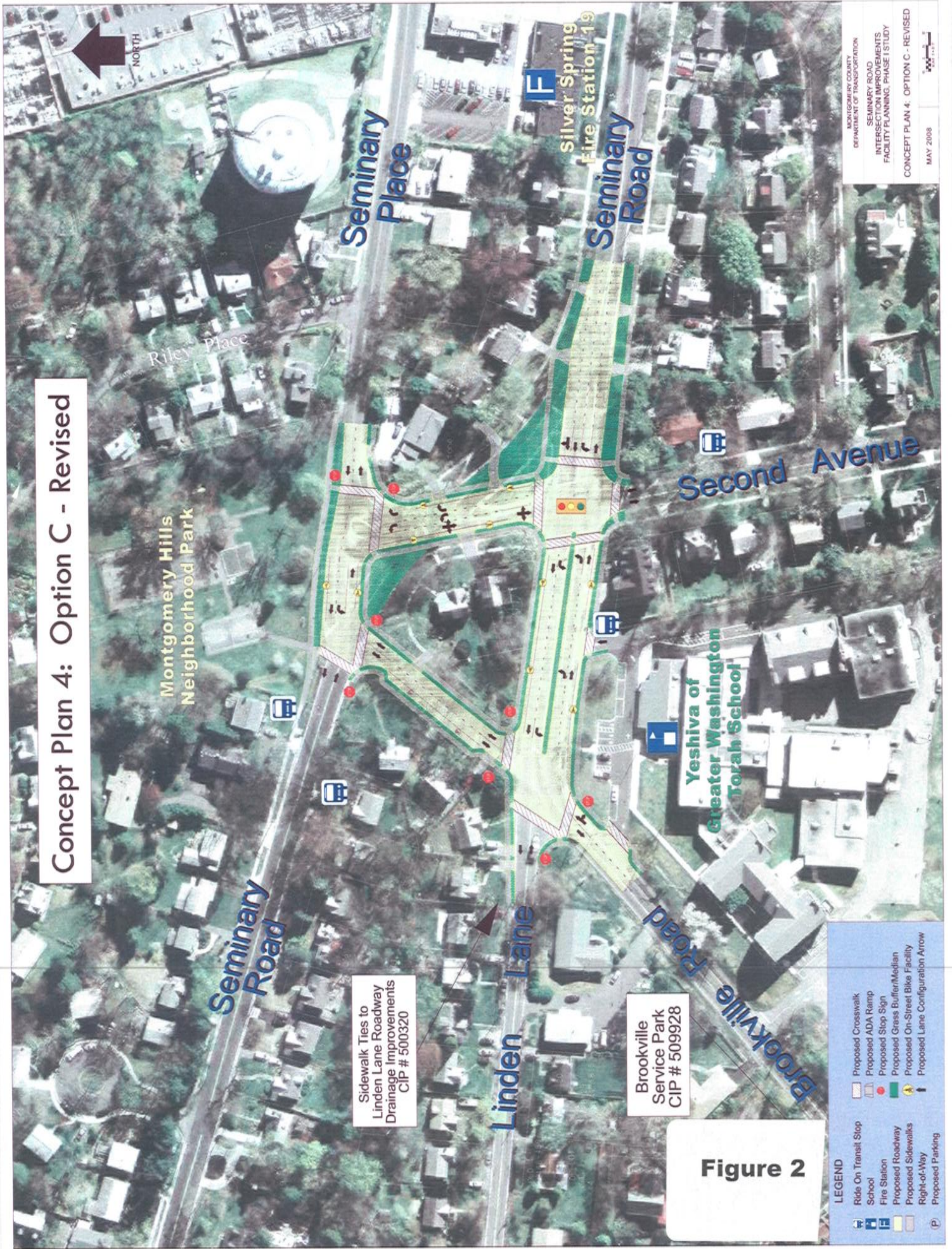


Figure 3

Concept Plan 4: Option C - Revised



Sidewalk Ties to Linden Lane Roadway Drainage Improvements CIP # 500320

Brookville Service Park CIP # 509928

Figure 2

- LEGEND**
- Ride On Transit Stop
 - School
 - Fire Station
 - Proposed Parking
 - Proposed ADA Ramp
 - Proposed Stop Sign
 - Proposed Grass Buffer/Median
 - Proposed On-Street Bike Facility
 - Right-of-Way
 - Proposed Lane Configuration Arrow

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
SEMINARY ROAD
INTERSECTION IMPROVEMENTS
FACILITY PLANNING PHASE 1 STUDY
CONCEPT PLAN 4 - OPTION C - REVISED
MAY 2008