Montgomery County Council

Committee: Directly to Council
Committee Review: N/A
Staff: Glenn Orlin, Senior Analyst
Purpose: preliminary decisions – straw vote expected
Keywords: #transportationcip

AGENDA ITEM #15
April 30, 2020
Worksession

SUBJECT

FY21-26 Capital Improvements Program: Transportation-selected projects

EXPECTED ATTENDEES

Chris Conklin, Director, Department of Transportation (DOT)
Tim Cupples, Chief, Division of Transportation Engineering, DOT
Brady Goldsmith, Office of Management & Budget (OMB)
Mary Beck, Capital Budget Manager, OMB

COUNCIL STAFF RECOMMENDATIONS (BY PROJECT)

- Changes from the Executive's recommendations are: to not fund, or to delay by one year, the $1.5 million Ride On Bus Route Restructuring Study, to delay by one year (to FYs22-24) the newly proposed $15 million for preliminary engineering for Bus Rapid Transit: MD 355, and to fund $46 million in FYs24-26 the value-engineered alternative for the Capital Crescent Trail tunnel in Bethesda.
- Concur with the Executive's recommendations for: Intelligent Transit System, White Flint Traffic Analysis and Mitigation, Advanced Transportation Management System, Street Tree Preservation, Master Leases: Transit Radio System Replacement, Ride On Bus Fleet, Bridge Renovation, Bus Rapid Transit: US 29, Bus Rapid Transit: Veirs Mill Road, and Bus Rapid Transit: System Development.

This report contains:

Alternative format requests for people with disabilities. If you need assistance accessing this report you may submit alternative format requests to the ADA Compliance Manager. The ADA Compliance Manager can also be reached at 240-777-6197 (TTY 240-777-6196) or at adacompliance@montgomerycountymd.gov

AGENDA ITEM #15
April 30, 2020
Worksession

MEMORANDUM

April 27, 2020

TO: County Council

FROM: Glenn Orlin, Senior Analyst

SUBJECT: FY21-26 Capital Improvements Program (CIP)—transportation, selected projects[1]

PURPOSE: Worksession

This worksession will review projects deferred from this winter by the Transportation and Environment (T&E) Committee to wait for more information, as well as revisions recommended by the Executive on March 16. Parking Lot District (PLD) projects are reviewed with the PLD Operating Budgets in a separate staff report.

Intelligent Transit System. This project primarily funds the replacement of Ride On's Computer Aided Dispatch/Automatic Vehicle Locator (CAD/AVL) system, which has reached the end of its useful life. This part of the project is funded with Short-Term Financing. The work began in FY19 and was to be completed in FY21. However, the Executive's March 16 revision reflects the updated schedule, which now would have it completed in FY22. The overall cost of the project is unchanged. **Council staff concurs with the Executive's recommendation (©1).**

White Flint Traffic Analysis and Mitigation. This project has three components: (A) cut-through traffic monitoring and mitigation; (B) identifying capacity improvements to address congested intersections affected by the White Flint development but outside the White Flint Sector Plan Area; and (C) studying strategies to meet the Sector Plan's aggressive mode share goals.

Most of the work under this program is completed. The Executive continues to recommend budgeting $81,000 annually to continue the cut-through traffic monitoring and mitigation. The only change in his March 16 revision is to recognize a $40,000 cost savings in FY20 for traffic counts and analysis. **Council staff concurs with the Executive's recommendation (©2-3).**

---

[1] Key word: #transportationcip

Advanced Transportation Management System. The Executive's March 16 revision would not spend $66,000 (3.1%) of the $2,114,000 initially budgeted in FY20. **Council staff concurs with the Executive's recommendation (©4-5).**

Street Tree Preservation. This program funds block tree pruning to help preserve the long-term viability of the tree canopy in neighborhoods. The Approved CIP would have funded this project at $3.1 million in FY21. The Executive's March 16 revision would reduce the spending in FY21 by $200,000. The project is funded with Current Revenue, so this reduction would have the fiscal effect as a similar reduction in the Operating Budget.

Given the present budget constraints imposed by the effects of the COVID-19 pandemic, Council staff has received guidance that any reduction in cash expenditures proposed by the Executive—whether in the operating or capital budget—should be approved, unless there is a legal reason or some other extenuating circumstance that would warrant otherwise. **Council staff concurs with the Executive's recommendation (©6).**

Master Leases: Transit Radio System Replacement. The Executive recommends this new $1,750,000 project to replace the current Ride On radio system with radios, consoles, and network infrastructure needed to connect with the new public safety radio system, which would be more cost effective than creating a new system solely for transit's use.

The funding would be through a short-term lease in FY21. The payback will occur over five years (FYs22-26) and will cost less than $100,000 in interest. **Council staff concurs with the Executive's recommendation (©7).**

Ride On Bus Fleet. The FY19-24 CIP had programmed funds for 22 electric/diesel hybrid buses in FY21. The Executive's March 16 revision instead recommends funding for 10 electric buses and 15 small diesel buses. The cost of each electric bus is $890,000 ($8.9 million for the 10 buses), plus another $1.6 million for the electric lines and charging stations to power them.

The revised PDF continues the recommendation from the Approved CIP to fund 13 electric/hybrid buses in FY22 to replace 13 Year 2009-vintage hybrids that will reach the end of their useful life in 2021. However, DOT is now applying for a $7,818,000 Federal grant for 13 electric buses and supportive infrastructure instead. If approved by the Federal Transit Administration, funds from this PDF would provide the required 50% match to enable this purchase instead of new hybrids.

More detail about the cost/bus and the types of buses planned for acquisition each year in FYs21-26 is shown on ©8. Overall, the six-year cost of this program is $88,625,000, $19,521,000 (18%) down up from the $108,146,000 in the Approved CIP. **Council staff concurs with the Executive's recommendation (©9-10).**

Ride On Bus Route Restructuring Study. On March 16 the Executive recommended this new study to revaluate the Ride On route system. The study would cost $1.5 million over two years, starting in FY21, and would be funded with Current Revenue. DOT provided the following justification:

Ride On makes regular adjustments to service to account for changes in traffic conditions, new development, changes in ridership and changes in equipment and staff availability. Although the service is routinely evaluated and adjusted, Montgomery County would benefit from a comprehensive assessment of the system and how well it meets the anticipated transportation needs in a 5 to 10 year scenario. A comprehensive scope for this study has not been developed at this time, the order of magnitude for the effort has been estimated from Transit Development Plans (TDP's) routinely conducted by other agencies. Specifically, the most recent Arlington County TDP has been considered as an example of the scope of effort anticipated for Montgomery County. Specific elements of the plan are anticipated to include:

- Confirmation of mid-term transit goals and objectives
- Assessments of performance metrics used in route planning and analysis
- Performance assessment of the current transit network
- Review of changes implied by approved master plans
- Integration of the Purple Line into the bus network
- Integration of US 29 Flash and Priority BRT Corridors into the transit network
- Assessment of the suitability of new transit service models like the extRa, Flex, branded routes to different locations
- Analysis of route structure changes needed to support battery electric bus expansion
- Analysis of alternative network and route structure models
- Assessment of the fleet suitability to meet projected transit needs
- Assessment of staffing, training, and facility needs
- Customer service and communications recommendations
- Recommendation Scenarios (reduced funding, level funding, increased funding) and implementation requirements
- Performance monitoring plan

Council staff is skeptical about the utility of this study. DOT already evaluates the path, frequency, and duration of each route three times a year to respond to the issues raised. Bus route integration with the US 29 FLASH, the Purple Line, and future BRT lines will be determined based on the facts on the ground at those times, not from a one-time study. Regarding racial equity, just two years ago the Council approved three Federal Transit Administration-mandated studies ("Title VI Policies," "Title VI Implementation Plan 2018-2020," and "Title VI Compliance Monitoring Report") that demonstrates Ride On's compliance with Title VI, and the route structure has not changed significantly since then. Route adjustments due to replacing diesel or hybrid buses with battery-powered electric buses are being made as each tranche of electric buses are put into service.

For these reasons, Council staff's primary recommendation is not to include this project in the CIP. Should the Council wish to fund the study, however, Council staff's secondary recommendation is to postpone its start until FY22 (©11). Our guidance regarding the Operating Budget is not to include items that would be beyond Continuity of Services. That guidance also applies to the CIP where Current Revenue is the source of funding.

Bridge Renovation. There is no change to this project since the Council last reviewed it. On April 21 the Council approved a $2.1 million FY20 supplemental appropriation and FY19-24 CIP amendment for emergency bridge repairs, and it concurred with the T&E Committee's recommendation

to increase funding by $18,660,000 (+156%) in FYs21-26. The Executive's recommends combining these actions in one place. **Council staff recommends concurring with the Executive (©12-13).**

Bus Rapid Transit (BRT) projects. There are four BRT projects, described below:

Bus Rapid Transit: US 29. This project designed and built the US 29 FLASH service that is now planned to begin service in the early summer. $550,000 has been added in FY21 to account for the portion of the water and sewer relocation cost that will be paid by the Washington Suburban Sanitary Commission under a 50% cost sharing arrangement with the County. The previous project cost estimate only accounted for the County-funded portion of water/sewer relocation cost. **Council staff concurs with the Executive (©14-15).**

The FLASH service will run in general-use lanes with the rest of the traffic, except in Fairland and northern White Oak where it will run on the shoulder. At the Council's direction DOT has been studying the potential for creating a much longer dedicated lane from White Oak south to the Silver Spring CBD. Called the "US 29 Mobility Study" and funded under the Facility Planning-Transportation project, this analysis is nearly complete, and DOT presented a summary of its results to the T&E Committee in early March (©16-19). DOT evaluated two alternatives:

1. A median, reversible bus lane: southbound in the morning peak, northbound in the evening peak. The conceptual cost is $106 million and would require about 10 acres of land.
2. Repurposing the innermost lane (i.e., the lane closest to the median), as a combination bus/high-occupancy vehicle (HOV) lane. The conceptual cost is $75 million and would require about 2.5 acres of land.

The study has found that the travel time results for the reversible bus lane option was mixed, while the repurposed bus/HOV lanes showed improvement.

The T&E Committee wished to defer its recommendations on this project until this spring to staff could have the opportunity to explore the analysis and results in more detail. Later in March DOT responded to requests for information with the following:

> The memo we provided to Council on March 5th is a summary of the technical work completed because project documentation has not been completed. At this time all technical work (planning work, conceptual layouts, traffic analysis, and conceptual cost estimates) has concluded. Draft materials of the results have been developed in preparation for a public workshop and are under review by staff to finalize. Once those materials are finalized, we can share them prior to the public workshop, which has not been scheduled at this time due to the current COVID 19 situation. At the conclusion of the public workshop a final report will be prepared documenting all the work completed, results, and public feedback. We are also happy to schedule a conference call to review the memo and answer any questions at this time.

Given the pandemic, therefore, the opportunity for further analysis of the results, and ultimately a review by the T&E Committee, has been postponed until circumstances allow, hopefully this summer.

Bus Rapid Transit: Veirs Mill Road. The concept the Council approved as the Preferred Alternative for this line would have BRT vehicles run in mixed traffic except at about a dozen intersections, where Veirs Mill Road would we widened to create queue jumpers. This alternative

would provide nearly as much of a travel time advantage for buses as there would be if there were a continuous dedicated lane, but at cost of about $76 million, about 50% less. Last summer the Council approved a CIP amendment that would fund the completion of preliminary engineering for this line, following this concept; the cost was $3 million ($1 million in FY20, $2 million in FY21) and the funds have been fully appropriated. By the end of FY21 the County could be in position to request Federal aid to help fund construction of the line. **Council staff concurs with the Executive (©20-21).**

Bus Rapid Transit: MD 355. Last summer the Council reviewed the conceptual options for the line, that would run from Bethesda to Clarksburg. There was a general agreement among Councilmembers for the median busway option, but at the Executive's request the Council held off from declaring a Preferred Alternative. Over the past year DOT has been soliciting ideas from the private sector; in addition, DOT was budgeted $3 million in FY20 to conduct surveys along MD 355 that would be needed regardless of the final alternative selected. The Executive is now recommending adding to the CIP $15 million to complete preliminary engineering for this line during FYs21-23: $5 million in each year, with Recordation Tax Premium as the funding source. Once completed, the County would be in position to request Federal aid to construct this line, too.

Recordation Tax Premium is a form of Current Revenue. Under the guidance Council staff has received regarding preparation of a Continuity of Services budget, this $15 million expenditure should either (1) not be included in the CIP, or (2) delayed by one year, programming the funds in FYs22-24 instead. In either case this would free up $5 million in FY21 to help address the County's anticipated budget shortfall due to the pandemic. **Council staff recommends the second option: delaying study funds by one year (©22-23).** If the budget situation should suddenly improve in early FY21, however, the Council should entertain a supplemental appropriation and CIP amendment to program these funds on the Executive's recommended schedule.

Bus Rapid Transit: System Development. This project funds planning studies developing BRT lines not yet in design or construction. The Executive recommends no change to the schedule of the planning studies for the New Hampshire Avenue BRT (FYs22-24) and the North Bethesda Transitway (FYs24-25). He is recommending $500,000 annually ($3 million over the six-year period) to fund the personnel costs of the three Executive Branch employees leading the BRT work. **Council staff concurs with the Executive (©24-25).**

Capital Crescent Trail. This project funds the contribution to the State for it to construct the Capital Crescent Trail (CCT) alongside the Purple Line, as well as the design cost of a relocated CCT tunnel beneath Bethesda. For several years there has been the commitment to create this tunnel on a schedule coinciding with the opening of the Purple Line, which now is estimated to occur in mid-2023. In the spring of 2017 the Council programmed $3.8 million in FYs18-20 for the design of the tunnel, which at the time had a rough cost estimate of $25 million. However, that estimate was not based on any engineering analysis.

DOT and its consultant have now completed 70% of the design of the tunnel, and the cost estimate is $54 million.[2] The 1,000'-long tunnel would begin near the north end of Elm Street Park, pass beneath

[2] Although there will always be some uncertainty about the estimate of underground construction, it should be noted that the design to date is much further along than that normally completed before a project is programmed for construction. For example, the programmed Forest Glen Pedestrian Underpass has not yet completed 35% design.

47th Street and the east leg of Elm Street, continue under Wisconsin Avenue and the new Carr Buildings, and emerge at the planned Woodmont Avenue plaza. It would be 16' wide, containing a 12'-wide trail with 2' to either side as shoulders/shy areas to the side walls. It would have about 12'6" of headroom. It would have two underground curved sections: a slight curve near the west end beneath the Carr Buildings and a tighter curve near the east end beneath Elm Street Park. The steepest grade would be 4.9%, within the 5% grade required to meet ADA standards. The tunnel would be well lit and be outfitted with security cameras and emergency phones. A plan view of the portion of the tunnel east of the Carr Buildings is shown on ©26.

The design team also prepared a "value-engineered" alternative that has a $46 million cost estimate (see ©27). Under this option the covered trail—partly in tunnel and partly under a canopy—would be about 700' long and emerge just west of 47th Street, meaning the hikers and bikers would cross this one-way business district street at grade. The width and grade of the trail would be the same as for the primary alternative, but the headroom would be about 10'6", 2' feet less. Because part of Elm Street's width would be needed for the canopied section, 9 on-street parking and 6 street trees on the north side of Elm Street would be removed. The alternative would have just the one underground curved section beneath the Carr Buildings; the curve within Elm Street Park would be on the surface. The underground section under this alternative would also be well lit and outfitted with security cameras and emergency phones, but with fewer of them since the covered section is 300' less.

The right-of-way take for each alternative is relatively small, given that the space beneath the Carr Buildings was secured as part of the agreement to pay $8 million to facilitate the replacement of the former Apex Building. A law office parking lot on the south side of Elm Street would need to be closed under the value-engineered alternative, but the lot owner will still have the ground available for development. Part of the cost under each alternative is to reshape the northwest portion of Elm Street Park to accommodate the trail.

DOT does not recommend the value-engineered alternative, because it would cause the at-grade crossing at 47th Street, which the Planning Department anticipates will become busier once development of the Farmer's Market site occurs. The believe this would create an unsafe condition by increasing potential for conflicts between cyclists, pedestrians and motorists and due to limitations on sight distances associated with its geometry. It also results in less headroom in the tunnel.

However, Council staff believes the value-engineered alternative is viable. While there would be more traffic on 47th Street, it will remain a local street with low speed and a modest traffic volume. Sight distance for drivers would be more than satisfactory, and since 47th Street is a one-way street, hikers and bikers would only have to check traffic coming from the south. This alternative would be 300' shorter and only have the one slight bend, and so it should be more comfortable for bikers and pedestrians concerned about security, although the smaller headroom would be less desirable.

The duration of construction for either alternative is 30 months. Given the competition for funding in what is already a fiscally constrained CIP—especially for MCPS projects—it is not realistic that the Council can fund either a new $54 million or $46 million commitment in FYs21-23. The Executive found this to be the case, which is why he did not propose it in his Recommended CIP, although he has publicly expressed that he would have liked to do so. At his request MDOT/MTA

reportedly agreed to evaluate the potential for single-tracking the Purple Line through the existing tunnel, which would then leave space for the CCT, but at this writing there has not been a response. Single-tracking could conceivably have serious implications for the Purple Line to be able to maintain its planned ultimate 6-minute peak period headway, and it could bring much of the line to a halt if a train were to break down or be delayed in the Bethesda Station.

Council staff recommends programming the $46 million value-engineered alternative in FYs24-26, with construction beginning in the winter of 2024 and completion by the summer of 2026 (©28-29). This alternative could be considered a placeholder; should the Council ultimately decide that the primary alternative is worth the added expenditure in FYs24-26, it could still pivot to that should funds become available in the upcoming FY23-28 CIP.

This recommendation does not achieve the prior commitment to have this tunnel open when the Purple Line opens; instead, it would open 3 years later. However, in the meantime hikers and bikers will be able to use the CCT Surface Trail, most of which will be constructed this summer. The Surface Trail consists of a separated bike path parallel to 47th Street, Willow Lane, and Bethesda Avenue, and a protected at-grade crossing at Wisconsin Avenue, a large improvement over what exists today.

Even programming this amount likely will not be feasible unless the Council can accept a smaller G.O. bond set-aside (i.e., reserve) in the Approved FY21-26 than had been assumed when it set the initial CIP assumptions in early February. The chart below shows the set-aside, by year, most recently proposed by the Executive, and what the set-aside would be if the $46 million were to be taken entirely from it:

General Obligation (G.O.) Bond Set-Aside in FY21-26 CIP ($ millions)

	FY21	FY22	FY23	FY24	FY25	FY26	Total
Exec rec set-aside	10.317	18.673	24.688	30.237	34.200	52.887	171.002
With the CCT tunnel	10.317	18.673	24.688	21.037	15.900	34.387	135.002

Over the six-year period, the Executive's set-aside amounts to 9.0% of the funds available for programming. With the CCT tunnel coming out of the reserve, the remaining set-aside would represent 7.1% of the funds available: smaller than normal, but not unreasonable. This means, however, that the FY23-28 CIP will have less funds available for programming for new projects.

f:\orlin\fy20\t&e\fy21-26 cip\200430cc.doc

Intelligent Transit System
(P501801)

Category	Transportation	**Date Last Modified**	03/10/20
SubCategory	Mass Transit (MCG)	**Administering Agency**	Transportation
Planning Area	Countywide	**Status**	Ongoing

	Total	Thru FY19	Est FY20	Total 6 Years	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	Beyond 6 Years
EXPENDITURE SCHEDULE ($000s)											
Site Improvements and Utilities	16,800	1,179	2,654	12,967	6,851	3,916	500	500	600	600	-
TOTAL EXPENDITURES	**16,800**	**1,179**	**2,654**	**12,967**	**6,851**	**3,916**	**500**	**500**	**600**	**600**	**-**
FUNDING SCHEDULE ($000s)											
Current Revenue: Mass Transit	4,700	154	1,146	3,400	700	500	500	500	600	600	-
Short-Term Financing	12,100	1,025	1,508	9,567	6,151	3,416	-	-	-	-	-
TOTAL FUNDING SOURCES	**16,800**	**1,179**	**2,654**	**12,967**	**6,851**	**3,916**	**500**	**500**	**600**	**600**	**-**

APPROPRIATION AND EXPENDITURE DATA ($000s)

Appropriation FY 21 Request	700	Year First Appropriation	FY18
Appropriation FY 22 Request	500	Last FY's Cost Estimate	15,600
Cumulative Appropriation	13,400		
Expenditure / Encumbrances	11,146		
Unencumbered Balance	2,254		

PROJECT DESCRIPTION

The purpose of this project is to replace vital transit technology systems, enhance system accountability, and maintain electronic information signs throughout the county. This is part of the Division of Transit Services IT plan to maintain and expand our intelligent transit systems for compatibility, accountability, and safety.

ESTIMATED SCHEDULE

Replacement of the Computer Aided Dispatch/Automatic Vehicle Locator (CAD/AVL) system in FY19-22; maintenance of Real Time informational signs in FY21-26.

COST CHANGE

Cost increase due to addition of FY25-FY26 to this ongoing level of effort project.

PROJECT JUSTIFICATION

The CAD/AVL system has reached the end of its useful life, and the system is experiencing critical operational issues such as gaps when no information is available to dispatch and on field operations. The upgrade from radio to cellular technology will eliminate dead zones and allow vehicle locations to be updated every 10 seconds rather than the current three minutes. The CAD/AVL is a crucial driver to continue with the Real Time sign program both in LED Ride On/WMATA stop signs and multimodal signs in buildings around the county.

OTHER

Expenditures will continue indefinitely.

COORDINATION

Department of Technology Services, Washington Metropolitan Area Transit Authority, and regional local transit operators.

White Flint Traffic Analysis and Mitigation
(P501202)

Category	Transportation	**Date Last Modified**	03/13/20
SubCategory	Traffic Improvements	**Administering Agency**	Transportation
Planning Area	North Bethesda-Garrett Park	**Status**	Planning Stage

	Total	Thru FY19	Est FY20	Total 6 Years	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	Beyond 6 Years
EXPENDITURE SCHEDULE ($000s)											
Planning, Design and Supervision	1,537	651	400	486	81	81	81	81	81	81	-
Site Improvements and Utilities	196	196	-	-	-	-	-	-	-	-	-
TOTAL EXPENDITURES	**1,733**	**847**	**400**	**486**	**81**	**81**	**81**	**81**	**81**	**81**	**-**
FUNDING SCHEDULE ($000s)											
Current Revenue: General	1,048	162	400	486	81	81	81	81	81	81	-
Impact Tax	685	685	-	-	-	-	-	-	-	-	-
TOTAL FUNDING SOURCES	**1,733**	**847**	**400**	**486**	**81**	**81**	**81**	**81**	**81**	**81**	**-**

APPROPRIATION AND EXPENDITURE DATA ($000s)

Appropriation FY 21 Request	41	Year First Appropriation	FY12
Appropriation FY 22 Request	81	Last FY's Cost Estimate	1,949
Cumulative Appropriation	1,287		
Expenditure / Encumbrances	1,090		
Unencumbered Balance	197		

PROJECT DESCRIPTION

This project is in direct response to requirements of the approved White Flint Sector Plan. It is composed of three components with the overall goal of mitigating the traffic impacts on communities and major intersections outside of and surrounding the White Flint Sector Plan area that will occur as a result of redevelopment densities approved under the new White Flint Sector Plan. These components include: (A) Cut-through traffic monitoring and mitigation; (B) Capacity improvements to address congested intersections; and (C) A study of strategies and implementation techniques to achieve the Sector Plan's modal split goals. The modal split study will plan and implement specific infrastructure projects to create an improved transit, pedestrian, and biking infrastructure, and programs needed to accomplish the mode share goals; determine funding sources for these strategies; and determine the scope and cost of project components.

ESTIMATED SCHEDULE

Component A-access restrictions: ongoing bi-annual data collection: site specific studies are conducted when traffic data indicates need. Component B- Intersection Mitigation: site specific preliminary engineering and concept plan development commenced in FY12 based on M-NCPPC Comprehensive Local Area Transportation Review (CLATR) evaluation. Component C- Modal Split Activities: transit, pedestrian, bicycle access, and safety studies in FY 12; data collection and updating Transportation Demand Management (TDM) information in FY12-13.

COST CHANGE

Cost decrease reflects traffic count and analysis schedule adjustments.

PROJECT JUSTIFICATION

Component A: The new White Flint Sector Plan area was approved on March 23, 2010. The plan allows for significantly higher density than the existing development. As a result neighborhoods surrounding the Sector Plan area could be potentially impacted by an increase in cut-through traffic. The approved Sector Plan states: Before any additional development can be approved, the following actions must be taken: Initiate development of plans for through-traffic access restrictions for the residential neighborhoods abutting the Sector Plan area, including traffic from future development in White Flint, and implement these plans if sufficient neighborhood consensus is attained. Component B: The approved plan did not address the possible negative impact on the roads/intersections outside of the Sector Plan boundary but the plan recognized that those impacts could occur. Therefore, major intersections along primary corridors leading into the Sector Plan area need to be evaluated and appropriate safety and capacity improvements identified and implemented to fulfill the vision of the plan. This component is not part of the phasing process but needs to be addressed to mitigate impacts from the Sector Plan. Component C: The plan also recognized that capacity improvements alone would not be sufficient to manage the increased traffic resulting from the higher densities within the Sector Plan area. The Sector Plan states: The following prerequisites must be met during Phase 1 before moving to Phase 2: Achieve thirty-four percent non-auto mode share for the Sector Plan area. Increasing the modal split within the White Flint Sector Plan boundary is an integral component to the overall success of the Plan's vision. Transit, pedestrian, bicycle access, safety improvements, and TDM planning and implementation efforts are required to facilitate White Flint's transition from a highly automobile oriented environment to a more transit, pedestrian, and bicycle friendly environment. A monitoring mechanism for the modal split will also be developed.

FISCAL NOTE

Programmed impact taxes have already been collected from the White Flint Metro Station Policy Area (MSPA).

DISCLOSURES

A pedestrian impact analysis will be performed during design or is in progress.

COORDINATION

Maryland-National Capital Park and Planning Commission, Maryland State Highway Administration, U.S. Army Corps of Engineers, Montgomery County Department of Permitting Services, Montgomery County Department of Environmental Protection, Montgomery County Pedestrian and Traffic Safety Advisory Committee, Citizen's Advisory Boards, Neighborhood Homeowner's Associations, Utility Companies, Civic Associations, White Flint Transportation Management District (TMD)

Advanced Transportation Management System
(P509399)

Category	Transportation	**Date Last Modified**	03/12/20
SubCategory	Traffic Improvements	**Administering Agency**	Transportation
Planning Area	Countywide	**Status**	Ongoing

	Total	Thru FY19	Est FY20	Total 6 Years	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	Beyond 6 Years
EXPENDITURE SCHEDULE ($000s)											
Planning, Design and Supervision	16,260	15,172	26	1,062	177	177	177	177	177	177	-
Land	1	1	-	-	-	-	-	-	-	-	-
Site Improvements and Utilities	41,505	31,989	1,530	7,986	1,331	1,331	1,331	1,331	1,331	1,331	-
Construction	194	194	-	-	-	-	-	-	-	-	-
Other	7,555	7,063	492	-	-	-	-	-	-	-	-
TOTAL EXPENDITURES	**65,515**	**54,419**	**2,048**	**9,048**	**1,508**	**1,508**	**1,508**	**1,508**	**1,508**	**1,508**	**-**
FUNDING SCHEDULE ($000s)											
Contributions	95	95	-	-	-	-	-	-	-	-	-
Current Revenue: Cable TV	2,241	2,241	-	-	-	-	-	-	-	-	-
Current Revenue: General	24,316	17,696	572	6,048	1,008	1,008	1,008	1,008	1,008	1,008	-
Current Revenue: Mass Transit	8,564	8,564	-	-	-	-	-	-	-	-	-
Federal Aid	2,504	2,504	-	-	-	-	-	-	-	-	-
G.O. Bonds	8,396	8,396	-	-	-	-	-	-	-	-	-
PAYGO	2,226	2,226	-	-	-	-	-	-	-	-	-
Recordation Tax Premium (MCG)	5,800	1,324	1,476	3,000	500	500	500	500	500	500	-
State Aid	10,873	10,873	-	-	-	-	-	-	-	-	-
Transportation Improvement Credit	500	500	-	-	-	-	-	-	-	-	-
TOTAL FUNDING SOURCES	**65,515**	**54,419**	**2,048**	**9,048**	**1,508**	**1,508**	**1,508**	**1,508**	**1,508**	**1,508**	**-**

OPERATING BUDGET IMPACT ($000s)							
Maintenance	549	25	50	81	106	131	156
Energy	105	5	10	15	20	25	30
Program-Staff	600	50	50	100	100	150	150
Program-Other	36	3	3	6	6	9	9
NET IMPACT	**1,290**	**83**	**113**	**202**	**232**	**315**	**345**
FULL TIME EQUIVALENT (FTE)		**1**	**1**	**2**	**2**	**3**	**3**

APPROPRIATION AND EXPENDITURE DATA ($000s)			
Appropriation FY 21 Request	1,442	Year First Appropriation	FY93
Appropriation FY 22 Request	1,508	Last FY's Cost Estimate	62,565
Cumulative Appropriation	56,533		
Expenditure / Encumbrances	54,959		
Unencumbered Balance	1,574		

PROJECT DESCRIPTION

This project provides for the Advanced Transportation Management System (ATMS) in the County. The ATMS deploys the infrastructure elements to conduct real-time management and operations of the County's transportation system. Twenty-two National Intelligent Transportation Architecture market packages have been identified for deployment of the ATMS. Each of these market packages is considered a subsystem of the ATMS program and may include several elements. These subsystems are identified in the ATMS Strategic Deployment Plan dated February 2001, revised July 2011. One aspect of this project will focus on improving pedestrian walkability by creating a safer walking environment, utilizing selected technologies, and ensuring Americans with Disabilities Act (ADA) compliance.

COST CHANGE

Cost increase due to the addition of FY25 and FY26 to this ongoing level-of-effort project partially offset by FY20 affordability adjustments.

PROJECT JUSTIFICATION

ATMS provides real-time monitoring, control, and traveler information in an effort to reduce traffic congestion and travel time, improve safety, and defer the need to construct new roads. ATMS emphasizes safety and efficiency of mobility to include mode, route, and travel time choices. ATMS supports public safety and directly impacts the movement of people and goods throughout the County's transportation system. This project was initiated in response to a growing demand to enhance options and amenities within the County's transportation network.

OTHER

This project includes the traffic element that focuses on reducing traffic congestion and travel time and improving safety. This project will help the County achieve its Vision Zero goals to reduce deaths and serious injuries on County roadways to zero by 2030.

FISCAL NOTE

Reduce current revenue in FY20 for fiscal capacity. Funding switch in FY21 between Current Revenue: General and Recordation Tax Premium for $500,000,

DISCLOSURES

Expenditures will continue indefinitely. The County Executive asserts that this project conforms to the requirement of relevant local plans, as required by the Maryland Economic Growth, Resource Protection and Planning Act.

COORDINATION

Developers, Department of Technology Services, Department of Police, Federal Transit Administration (FTA), Federal Highway Administration (FHWA), Fibernet, Maryland State Highway Administration, Virginia Department of Transportation, Other Local Governments, Other Private Entities, Traffic Signals project, Traffic Signal System Modernization Project, Montgomery County Pedestrian Safety Advisory Committee, Citizen's Advisory Boards, and Montgomery County Planning Board.

(5)

Street Tree Preservation
(P500700)

Category	Transportation	**Date Last Modified**	03/12/20
SubCategory	Highway Maintenance	**Administering Agency**	Transportation
Planning Area	Countywide	**Status**	Ongoing

	Total	Thru FY19	Est FY20	Total 6 Years	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	Beyond 6 Years
EXPENDITURE SCHEDULE ($000s)											
Planning, Design and Supervision	3,698	59	879	2,760	450	450	465	465	465	465	-
Construction	45,673	28,108	1,925	15,640	2,450	2,650	2,635	2,635	2,635	2,635	-
Other	29	29	-	-	-	-	-	-	-	-	-
TOTAL EXPENDITURES	**49,400**	**28,196**	**2,804**	**18,400**	**2,900**	**3,100**	**3,100**	**3,100**	**3,100**	**3,100**	-
FUNDING SCHEDULE ($000s)											
Current Revenue: General	39,632	19,784	1,448	18,400	2,900	3,100	3,100	3,100	3,100	3,100	-
Land Sale	458	458	-	-	-	-	-	-	-	-	-
Recordation Tax Premium (MCG)	9,310	7,954	1,356	-	-	-	-	-	-	-	-
TOTAL FUNDING SOURCES	**49,400**	**28,196**	**2,804**	**18,400**	**2,900**	**3,100**	**3,100**	**3,100**	**3,100**	**3,100**	-

APPROPRIATION AND EXPENDITURE DATA ($000s)

Appropriation FY 21 Request	2,900	Year First Appropriation	FY07
Appropriation FY 22 Request	3,100	Last FY's Cost Estimate	43,400
Cumulative Appropriation	31,000		
Expenditure / Encumbrances	28,216		
Unencumbered Balance	2,784		

PROJECT DESCRIPTION

This project provides for the preservation of the street tree canopy through tree maintenance that will reduce hazardous situations to pedestrians and motorists, help reduce outages in the County, preserve health and longevity of trees, decrease property damage incurred from tree debris during storms, correct structural imbalances/defects that cause future hazardous conditions and that shorten the lifespan of the trees, improve aesthetics and adjacent property values, improve sight distance for increased safety, and provide clearance from street lights for a safer environment.

COST CHANGE

Cost increase due to the addition of FY25-26 to this ongoing level of effort project. Reduce scope by $200,000 in FY21.

PROJECT JUSTIFICATION

In FY97, the County eliminated the Suburban District Tax and expanded its street tree maintenance program from the old Suburban District to include the entire County. The street tree population has now increased from an estimated 200,000 trees to about 350,000 trees, with a typical life span of 60 years. Since that time, only pruning in reaction to emergency/safety concerns has been provided. The preservation of the street tree canopy through tree maintenance provides a reduction in hazardous situations and a healthier urban forest canopy. Tree maintenance will decrease storm damage and cleanup costs, right-of-way obstruction and safety hazards to pedestrians and motorists, strengthen structural integrity, decrease public security risk, and decrease liability claims. The Forest Preservation Task Force Report (October, 2000) recommended the development of a green infrastructure CIP project for street tree maintenance. The Forest Preservation Strategy Update (July, 2004) reinforced the need for a CIP project that addresses street trees (Recommendations in the inter-agency study of tree management practices by the Office of Legislative Oversight (Report #2004-8 - September, 2004) and the Tree Inventory Report and Management Plan by Appraisal, Consulting, Research, and Training Inc. (November, 1995). Studies have shown that healthy trees provide significant year-round energy saving. Winter windbreaks can lower heating costs by 10 to 20 percent, and summer shade can lower cooling costs by 15 to 35 percent. Every tree that is planted and maintained saves $20 in energy costs per year. In addition, a healthy street tree canopy captures the first 0.5 inch of rainfall reducing the need for storm water management facilities.

DISCLOSURES

Expenditures will continue indefinitely.

COORDINATION

Maryland-National Capital Park and Planning Commission, Montgomery County Department of Environmental Protection, Maryland Department of Natural Resources, Utility companies.

Master Leases: Transit Radio System Replacement (P502110)

Category	Transportation	**Date Last Modified**	03/12/20
SubCategory	Mass Transit (MCG)	**Administering Agency**	Transportation
Planning Area	Countywide	**Status**	Planning Stage

	Total	Thru FY19	Est FY20	Total 6 Years	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	Beyond 6 Years
EXPENDITURE SCHEDULE ($000s)											
Other	1,750	-	-	1,750	1,750	-	-	-	-	-	-
TOTAL EXPENDITURES	**1,750**	**-**	**-**	**1,750**	**1,750**	**-**	**-**	**-**	**-**	**-**	**-**
FUNDING SCHEDULE ($000s)											
Short-Term Lease Financing	1,750	-	-	1,750	1,750	-	-	-	-	-	-
TOTAL FUNDING SOURCES	**1,750**	**-**	**-**	**1,750**	**1,750**	**-**	**-**	**-**	**-**	**-**	**-**

APPROPRIATION AND EXPENDITURE DATA ($000s)

Appropriation FY 21 Request	1,750	Year First Appropriation	
Appropriation FY 22 Request	-	Last FY's Cost Estimate	-
Cumulative Appropriation	-		
Expenditure / Encumbrances	-		
Unencumbered Balance	-		

PROJECT DESCRIPTION

This project will replace the current stand-alone Transit Radio System with radios, consoles, and networking necessary to incorporate Transit Services radio operations into the new state-of-the-art public safety radio system. This will ensure that the federally required emergency communications systems for transit operations are continued between bus operators and central communications in a reliable and consistent manner. In addition, it will maintain and integrate Transit Services into regional operability and provide enhanced features pursuant to national standards for radio devices.

PROJECT JUSTIFICATION

The current 450 MHz Transit Radio system can no longer be supported by the manufacturer as equipment production ceased over a decade ago. Rather than replace the Transit Radio system entirely, the Intelligent Transportation System (ITS) Computer Aided Dispatch/Automatic Vehicle Location (CAD/AVL) currently in implementation using cellular data capability provides an opportunity to move Transit voice radio communications to the public safety system. Moving Transit voice radio operations to the Public Safety network will cost significantly less than replacing the entire system. In addition, the new Public Safety radio system will provide much higher reliability and much lower maintenance costs than support for the existing older outdated technology 450 MHz system. By moving Transit voice radio to the public safety system concurrent with the implementation of the new CAD/AVL system, additional cost savings for the radio integration portion of the CAD/AVL system will occur in the long term. By upgrading the voice radio used in the new CAD/AVL system, development of a unique and obsolete radio interface is no longer required.

FISCAL NOTE

The total cost for this project is estimated to be $3.5 million, so an additional $1.75 million will be needed in FY22. A decision will be made at that time whether to continue with a Master Lease or to fund the costs in the operating budget.

COORDINATION

Department of Technology Services

Ride On Bus Fleet (P500821)
CE Rec Amended (03/14/20)

FY21 thru FY26	FY21	FY22	FY23	FY24	FY25	FY26
Buses:						
Full-Size (40') Clean Diesel	**0**	**0**	**0**	**0**	**12**	**0**
Price	525,000	525,000	525,000	525,000	525,000	525,000
Full-Size CNG	0	0	0	0	0	18
Price	555,000	555,000	555,000	555,000	555,000	555,000
Full Size Hybrid	0	13	12	8	0	0
Price	786,000	786,000	786,000	786,000	786,000	786,000
Small (30')Clean Diesel	15	0	28	32	0	1
Price	477,000	477,000	477,000	477,000	477,000	477,000
Delivery						
Rte 52 30' reduction (4)						
Price						
Cutaways			7			
Price			175,000			
Electric	10					
Price	890,000	890,000	890,000	890,000	890,000	890,000
LoNo/Bus						
FacilitiesPlanning/Design	-				-	-
Electric Infrastructure	1,000,000.00	-	-	-	-	-
Electric Chargers	600,000.00	-	-	-	-	-
Total Expenditures	16,791,000.00	9,432,000.00	24,083,000.00	21,552,000.00	6,300,000.00	10,467,000.00
FY21_FY26 Appr. Request	16,791,000.00	9,432,000.00	24,083,000.00	21,552,000.00	6,300,000.00	10,467,000.00

Ride On Bus Fleet
(P500821)

Category	Transportation	**Date Last Modified**	03/14/20
SubCategory	Mass Transit (MCG)	**Administering Agency**	Transportation
Planning Area	Countywide	**Status**	Ongoing

	Total	Thru FY19	Est FY20	Total 6 Years	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	Beyond 6 Years
EXPENDITURE SCHEDULE ($000s)											
Other	279,354	152,415	38,314	88,625	16,791	9,432	24,083	21,552	6,300	10,467	-
TOTAL EXPENDITURES	**279,354**	**152,415**	**38,314**	**88,625**	**16,791**	**9,432**	**24,083**	**21,552**	**6,300**	**10,467**	**-**
FUNDING SCHEDULE ($000s)											
Contributions	820	430	390	-	-	-	-	-	-	-	-
Current Revenue: Mass Transit	118,737	24,938	17,174	76,625	14,791	7,432	22,083	19,552	4,300	8,467	-
Fed Stimulus (State Allocation)	6,550	6,550	-	-	-	-	-	-	-	-	-
Federal Aid	51,880	32,966	9,314	9,600	1,600	1,600	1,600	1,600	1,600	1,600	-
G.O. Bonds	956	956	-	-	-	-	-	-	-	-	-
Impact Tax	2,350	2,350	-	-	-	-	-	-	-	-	-
Short-Term Financing	81,321	74,685	6,636	-	-	-	-	-	-	-	-
State Aid	16,740	9,540	4,800	2,400	400	400	400	400	400	400	-
TOTAL FUNDING SOURCES	**279,354**	**152,415**	**38,314**	**88,625**	**16,791**	**9,432**	**24,083**	**21,552**	**6,300**	**10,467**	**-**

APPROPRIATION AND EXPENDITURE DATA ($000s)

Appropriation FY 21 Request	16,791	Year First Appropriation	FY09
Appropriation FY 22 Request	9,432	Last FY's Cost Estimate	263,088
Cumulative Appropriation	190,729		
Expenditure / Encumbrances	168,609		
Unencumbered Balance	22,120		

PROJECT DESCRIPTION

This project provides for the purchase of replacement and additional buses in the Ride On fleet in accordance with the Division of Transit Services' bus replacement plan and the Federal Transportation Administration's service guidelines.

ESTIMATED SCHEDULE

FY21: 10 electric and 15 small diesel; FY22: 13 full-size hybrid; FY23: 12 full-size hybrid, 28 small diesel, and 7 microtransit; FY24: 8 full-size hybrid and 32 small diesel; FY25: 12 large diesel; FY26: 18 CNG and 1 small diesel

COST CHANGE

Increase due to the addition of FY25 and FY26.

PROJECT JUSTIFICATION

The full-size transit buses have an expected useful life of twelve years. Smaller buses have an expected useful life of ten years. Microtransit buses have an expected life of four years.

OTHER

MCDOT has applied for grants to cover the incremental cost of additional electric buses. If successful, it is expected that the number of small diesels in FY21 would be reduced in favor of electric buses. Electric buses comprise 40 percent of new bus purchases in FY21 and could increase further if the Department of Transportation is successful on two (Federal and State) bus grant applications. This exceeds standards compared to most other transit agencies. For example, California, considered a leader in zero bus emissions implementation, recently enacted a regulation that will require all large transit agencies to include at least 25 percent zero emission buses in their new bus purchases beginning in 2023.

DISCLOSURES

Expenditures will continue indefinitely. The County Executive asserts that this project conforms to the requirement of relevant local plans, as required by the Maryland Economic Growth, Resource Protection and Planning Act.

COORDINATION

Advanced Transportation Management System. The Executive's March 16 revision would not spend $66,000 (3.1%) of the $2,114,000 initially budgeted in FY20. **Council staff concurs with the Executive's recommendation (©4-5).**

Street Tree Preservation. This program which funds block tree pruning to help preserve the long-term viability of the tree canopy in neighborhoods. Recently it has been funded at $3.1 million annually. The Executive's March 16 revision would reduce the spending in FY21 by $200,000. The project is funded with Current Revenue, so this reduction would have the fiscal effect as a similar reduction in the Operating Budget.

Given the present budget constraints imposed by the effects of the COVID-19 pandemic, Council staff has received guidance that any reduction in cash expenditures proposed by the Executive—whether in the operating or capital budget—should be approved, unless there is a legal some other extenuating circumstance that would warrant otherwise. **Council staff concurs with the Executive's recommendation (©6).**

Master Leases: Transit Radio System Replacement. The Executive recommends this new $1,750,000 project to replace the current Ride On radio system with radios, consoles, and network infrastructure needed to connect with the new public safety radio system, which would be more cost effective than creating a new system solely for transit's use.

The funding would be through a short-term lease in FY21. The payback will occur over five years (FYs22-26) and will cost less than $100,000 in interest. **Council staff concurs with the Executive's recommendation (©7).**

Ride On Bus Fleet. The FY19-24 CIP had programmed funds for 22 electric/diesel hybrid buses in FY21. The Executive's March 16 revision instead recommends funds for 10 electric buses and 15 small diesel buses. The cost of each electric bus is $890,000 ($8.9 million for the 10 buses), plus another $1.6 million for the electric lines and charging stations to power them.

The revised PDF continues the recommendation from the Approved CIP to fund 13 electric/hybrid buses in FY22 to replace 13 Year 2009-vintage hybrids that will reach the end of their useful life in 2021. However, DOT is now applying for a $7,818,000 Federal grant for 13 electric buses and supportive infrastructure instead that; if approved, funds from this PDF will provide the required 50% match to enable this purchase instead of new hybrids.

More detail about the cost/bus and the types of buses planned for acquisition each year in FYs21-26 is shown on ©8. Overall, the six-year cost of this program is $88,625,000, $19,521,000 (18%) down up from the $108,146,000 in the Approved CIP. **Council staff concurs with the Executive's recommendation (©9-10).**

Ride On Bus Route Restructuring Study. On March 16 the Executive recommended this new study to revaluate the Ride On route system. The study would cost $1.5 million over two years, starting in FY21, and would be funded with Current Revenue. DOT provided the following justification:

Ride On Bus Route Restructuring Study
(P502107)

Category	Transportation	**Date Last Modified**	03/13/20
SubCategory	Mass Transit (MCG)	**Administering Agency**	Transportation
Planning Area	Countywide	**Status**	Planning Stage

	Total	Thru FY19	Est FY20	Total 6 Years	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	Beyond 6 Years
EXPENDITURE SCHEDULE ($000s)											
Planning, Design and Supervision	1,500	-	-	1,500	~~750~~ 0	750	750	-	-	-	-
TOTAL EXPENDITURES	**1,500**	-	-	**1,500**	~~750~~ 0	**750**	750	-	-	-	-
FUNDING SCHEDULE ($000s)											
Current Revenue: Mass Transit	1,500	-	-	1,500	~~750~~ 0	750	750	-	-	-	-
TOTAL FUNDING SOURCES	**1,500**	-	-	**1,500**	~~750~~ 0	**750**	750	-	-	-	-

APPROPRIATION AND EXPENDITURE DATA ($000s)

Appropriation FY 21 Request	~~750~~ 0	Year First Appropriation	
Appropriation FY 22 Request	750	Last FY's Cost Estimate	-
Cumulative Appropriation	-		
Expenditure / Encumbrances	-		
Unencumbered Balance	-		

PROJECT DESCRIPTION

This route restructuring study will examine the entire Ride On transit system's route network, looking at changes to the County population, demographics, employment centers, and residential networks to determine enhanced optimization of current and proposed transit services and provide recommended changes for a more equitable, efficient, effective, and environmentally sustainable service delivery of transit services to meet the evolving needs of the community. A variety of route features and models will be examined including route structure, connectivity, route span and frequency of service, plus the introduction of electric buses to the fleet.

PROJECT JUSTIFICATION

Transit is facing a period of industry disruption that requires thoughtful study and a strategic response. Bus ridership has declined nationally, and Ride On has experienced similar challenges. The current route structure has grown over the past four decades and will benefit from a comprehensive reevaluation to maximize service delivery. This study aims to develop a plan for service provision that includes evaluation and recommendations for route structures, service levels, and vehicle fleets to meet anticipated transportation needs. In order to provide the best possible service, it is critical that MCDOT develop a plan to address emerging priorities, such as equity of service provision; population aging trends; and shifting residential growth, employment, and commuter patterns. Future planning must also consider opportunities and challenges associated with technological advancements, such as matching routes with electric vehicle capabilities and infrastructure, automated vehicles, and costs and benefits of emerging safety technologies.

COORDINATION

Washington Metropolitan Area Transit Authority, Maryland Transit Administration

Bridge Renovation
(P509753)

Category	Transportation	**Date Last Modified**	03/06/20
SubCategory	Bridges	**Administering Agency**	Transportation
Planning Area	Countywide	**Status**	Ongoing

	Total	Thru FY19	Est FY20	Total 6 Years	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	Beyond 6 Years
EXPENDITURE SCHEDULE ($000s)											
Planning, Design and Supervision	18,463	9,706	2,337	6,420	1,000	2,720	600	600	1,250	250	-
Land	66	66	-	-	-	-	-	-	-	-	-
Site Improvements and Utilities	21	21	-	-	-	-	-	-	-	-	-
Construction	37,208	7,175	5,693	24,340	4,980	4,060	4,700	4,300	2,550	3,750	-
Other	83	83	-	-	-	-	-	-	-	-	-
TOTAL EXPENDITURES	**55,841**	**17,051**	**8,030**	**30,760**	**5,980**	**6,780**	**5,300**	**4,900**	**3,800**	**4,000**	**-**
FUNDING SCHEDULE ($000s)											
G.O. Bonds	52,635	15,484	7,753	29,398	5,753	6,553	5,073	4,673	3,573	3,773	-
State Aid	3,206	1,567	277	1,362	227	227	227	227	227	227	-
TOTAL FUNDING SOURCES	**55,841**	**17,051**	**8,030**	**30,760**	**5,980**	**6,780**	**5,300**	**4,900**	**3,800**	**4,000**	**-**

APPROPRIATION AND EXPENDITURE DATA ($000s)

Appropriation FY 21 Request	12,760	Year First Appropriation	FY97
Appropriation FY 22 Request	-	Last FY's Cost Estimate	26,981
Cumulative Appropriation	25,085		
Expenditure / Encumbrances	18,949		
Unencumbered Balance	6,136		

PROJECT DESCRIPTION

This project provides for the renovation of County roadway and pedestrian bridges that have been identified as needing repair work beyond routine maintenance levels to assure continued safe functioning. Renovation work involves planning, preliminary engineering, project management, inspection, and construction. Construction is performed on various components of the bridge structures. Superstructure repair or replacement items include decking, support beams, bearing assemblies, and expansion joints. Substructure repair or replacement items include concrete abutments, backwalls, and wingwalls. Culvert repairs include concrete headwalls, structural steel plate pipe arch replacements, installation of concrete inverts, and placement of stream scour protection. Other renovation work includes paving of bridge deck surfaces, bolted connection replacements, stone slope protection, reconstruction of approach roadways, concrete crack injection, deck joint material replacement, scour protection, and installation of traffic safety barriers. The community outreach program informs the public when road closures or major lane shifts are necessary. Projects are reviewed and scheduled to reduce community impacts as much as possible, especially to school bus routes.

COST CHANGE

Increase due to the addition of three emergency projects (Alderton Road Steel Culvert failure, Turkey Branch Parkway Steel Culvert failure, and Clarksburg Road Steel Culvert failure), the addition of construction funds for 50 deteriorating steel culverts to prevent imminent failure, the addition of FY25 and FY26 to this ongoing level-of-effort project, and for an FY20 supplemental for emergency culvert repairs.

PROJECT JUSTIFICATION

The Biennial Bridge Inspection Program, a Federally mandated program, provides specific information to identify deficient bridge elements. The bridge renovation program also provides the ability for quick response and resolution to citizen public concerns for highway and pedestrian bridges throughout the County.

OTHER

The objective of this program is to identify bridges requiring extensive structural repairs and perform the work in a timely manner to avoid emergency situations and major public inconvenience. Construction work under this project is typically performed by the County's Division of Highway Services.

FISCAL NOTE

An FY20 supplemental was approved for $2,100,000 for emergency culvert repairs.

DISCLOSURES

Expenditures will continue indefinitely. The County Executive asserts that this project conforms to the requirement of relevant local plans, as required by the Maryland Economic Growth, Resource Protection and Planning Act.

COORDINATION

Department of Transportation, Maryland State Highway Administration, Maryland Department of Natural Resources, Maryland Historic Trust, and U.S. Fish and Wildlife Service.

Bus Rapid Transit: US 29
(P501912)

Category	Transportation	**Date Last Modified**	01/03/20
SubCategory	Mass Transit (MCG)	**Administering Agency**	Transportation
Planning Area	Kemp Mill-Four Corners and Vicinity	**Status**	Final Design Stage

EXPENDITURE SCHEDULE ($000s)

Cost Elements	Total	Thru FY19	Est FY20	Total 6 Years	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	Beyond 6 Years
Planning, Design and Supervision	1,335	7	778	550	550	-	-	-	-	-	-
Land	2,000	109	1,891	-	-	-	-	-	-	-	-
Site Improvements and Utilities	3,215	-	3,215	-	-	-	-	-	-	-	-
Construction	11,000	4,206	6,794	-	-	-	-	-	-	-	-
Other	14,000	-	14,000	-	-	-	-	-	-	-	-
TOTAL EXPENDITURES	**31,550**	**4,322**	**26,678**	**550**	**550**	**-**	**-**	**-**	**-**	**-**	**-**

FUNDING SCHEDULE ($000s)

Funding Source	Total	Thru FY19	Est FY20	Total 6 Years	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	Beyond 6 Years
Federal Aid	9,500	4,322	5,178	-	-	-	-	-	-	-	-
G.O. Bonds	5,500	-	5,500	-	-	-	-	-	-	-	-
Impact Tax	2,000	-	2,000	-	-	-	-	-	-	-	-
Intergovernmental	550	-	-	550	550	-	-	-	-	-	-
Short-Term Financing	14,000	-	14,000	-	-	-	-	-	-	-	-
TOTAL FUNDING SOURCES	**31,550**	**4,322**	**26,678**	**550**	**550**	**-**	**-**	**-**	**-**	**-**	**-**

APPROPRIATION AND EXPENDITURE DATA ($000s)

Appropriation FY 21 Request	550	Year First Appropriation	FY19
Appropriation FY 22 Request	-	Last FY's Cost Estimate	31,000
Cumulative Appropriation	31,000		
Expenditure / Encumbrances	27,834		
Unencumbered Balance	3,166		

PROJECT DESCRIPTION

This project will construct a new Bus Rapid Transit (BRT) line on US 29 from Burtonsville Park-and-Ride lot to the Silver Spring Transit Center. The project will build 18 new BRT station platforms with level boarding and off-board fare payment, purchase 14 new 60-foot articulated vehicles, implement Transit Signal Priority at 15 intersections, and construct improved bicycle and pedestrian infrastructure, including 10 new Capital Bikeshare stations. The new BRT service will use the existing bus-on-shoulder lanes on US 29 in the northern section of the corridor and operate in mixed traffic in the southern section of US 29 and along Lockwood Drive, Stewart Lane, Briggs Chaney Road, and Castle Boulevard.

ESTIMATED SCHEDULE

Project planning was completed in FY18 in project #501318 and design was completed in early FY19. Construction commenced in FY19 and will be completed in FY20, with revenue service starting in FY20. WSSC water line work to continue into FY21.

COST CHANGE

$550,000 has been added in FY21 to account for the portion of the water and sewer relocation cost that will be paid by the Washington Suburban Sanitary Commission under a 50% cost sharing arrangement with the County. The previous project cost estimate only accounted for the County-funded portion of water/sewer relocation cost.

PROJECT JUSTIFICATION

The project will transform mobility options with the implementation of a 14-mile, premium, branded, limited-stop BRT service along US 29. This new service will improve transit travel time and increase opportunity for a broad range of users, including a significant number of minority and low-income riders living along a highly congested corridor. The project will improve passenger transit mobility by connecting riders to high density housing and employment centers. This project is vital to the success of significant new private development and employment in the adopted White Oak Science Gateway Master Plan.Plans & Studies: MCDOT Countywide Bus Rapid Transit Study, Final Report (July 2011); County Executive's Transit Task Force (May 2012); Countywide Transit Corridors Functional Master Plan (November 2013); MCDOT US 29 Bus Rapid Transit Project Description Report (March 2017); Maryland Department of Transportation/Maryland Transit Administration US 29 Bus Rapid Transit Corridor Planning Study (April 2017).

OTHER

Prior to FY19, $6.5 million for Planning and Design and $500,000 in grant management was included in PDF 501318: Rapid Transit System (renamed to Bus Rapid Transit System Development in FY19). Since Planning and Design were close to completion at the end of FY18, only funds for the construction phase of the project (FY19 and 20) have been moved to this new PDF.

FISCAL NOTE

The project is receiving $10 million of Federal funds through the Transportation Infrastructure Generating Economic Recovery (TIGER) program. The Federal funds will be used towards station and pedestrian/bicycle infrastructure construction. The Maryland Department of Transportation Consolidated Transportation Program (CTP) for 2014-2019 provided $10 million for County Rapid Transit System planning, a portion of which was used to begin facility planning on the US 29 corridor. Reflects reallocation of $1.3 million in GO Bonds from the ADA Compliance: Transportation project (#509325) to cover ADA sidewalk upgrades.In FY20, Funding switch of $2 million from Contributions to GO Bonds.

DISCLOSURES

A pedestrian impact analysis will be performed during design or is in progress.

COORDINATION

Maryland Department of Transportation, Washington Metropolitan Area Transit Authority, Maryland-National Capital Park and Planning Commission. Special Projects Legislation (Expedited Bill No. 20-18) was adopted by Council June 19, 2018.

DEPARTMENT OF TRANSPORTATION

Marc Elrich
County Executive

Christopher R. Conklin
Director

MEMORANDUM

March 3, 2020

TO: Tom Hucker, Chair
Transportation and Environment Committee
Montgomery County Council

FROM: Christopher R. Conklin, Director
Montgomery County Department of Transportation

The US 29 Mobility Study's focus was to identify improvement(s) on US 29 to complement the investment the County made in the US 29 FLASH project and improve transit, carpool, and overall corridor travel time and reliability performance. In addition, the study identified additional pedestrian and bicycle access improvements to the US 29 corridor beyond those included as part of the US 29 FLASH project.

The study examined two corridor alternatives. The first is a Median Busway alternative from Tech Road to Sligo Creek Parkway. This alternative sought to add dedicated bus lane(s) in the median of US 29. Dual and single-lane guideway segments were added through a combination of median reconstruction, lane repurposing, and lane narrowing. The concept also requires the addition of six traffic signals as well as turn restrictions/prohibitions. North of Tech Road the US 29 FLASH would continue to utilize the bus on shoulder currently in place and south of Sligo Creek it would travel in mixed traffic.

The second alternative examined the implementation of a Peak Period Bus/HOV lane concept. This concept would create a bus and HOV lane in the innermost lane of US 29 from Musgrove Road to Southwood Avenue and from Sligo Creek Parkway to Spring Street. The Bus/HOV lane would be created through peak period shoulder conversion and peak period lane repurposing. In addition, targeted intersection improvements were also identified to resolve critical hot spots. These improvements are located at Greencastle Road, Tech Road, Stewart Lane, MD 650, I-495, and Sligo Creek.

(16)

The results of the alternatives comparison show that results for the Median busway are mixed while the Bus/HOV lane concept provides substantial improvement over the No-Action conditions. In the morning peak direction (southbound), the Median Busway and Bus/HOV lane concepts provide travel time savings for transit. However, travel times for general traffic are increased by nearly 50 percent in the Median Busway alternative and only marginally increased in the Bus/HOV lane alternative. The Bus/HOV lane alternative also improves HOV vehicle travel times.

Travel times in the evening peak direction (northbound) increase for all modes in the Median Busway alternative; a result of the backup created by repurposing lanes in the Four Corners area. The amount of additional travel time for buses (and all traffic) resulting from congestion between Silver Spring and Sligo Creek Parkway is greater than the time saved in the Median busway. In the Bus/HOV lane concept, travel times are improved for all modes.

Figure 1: AM Peak Travel Time (Southbound)

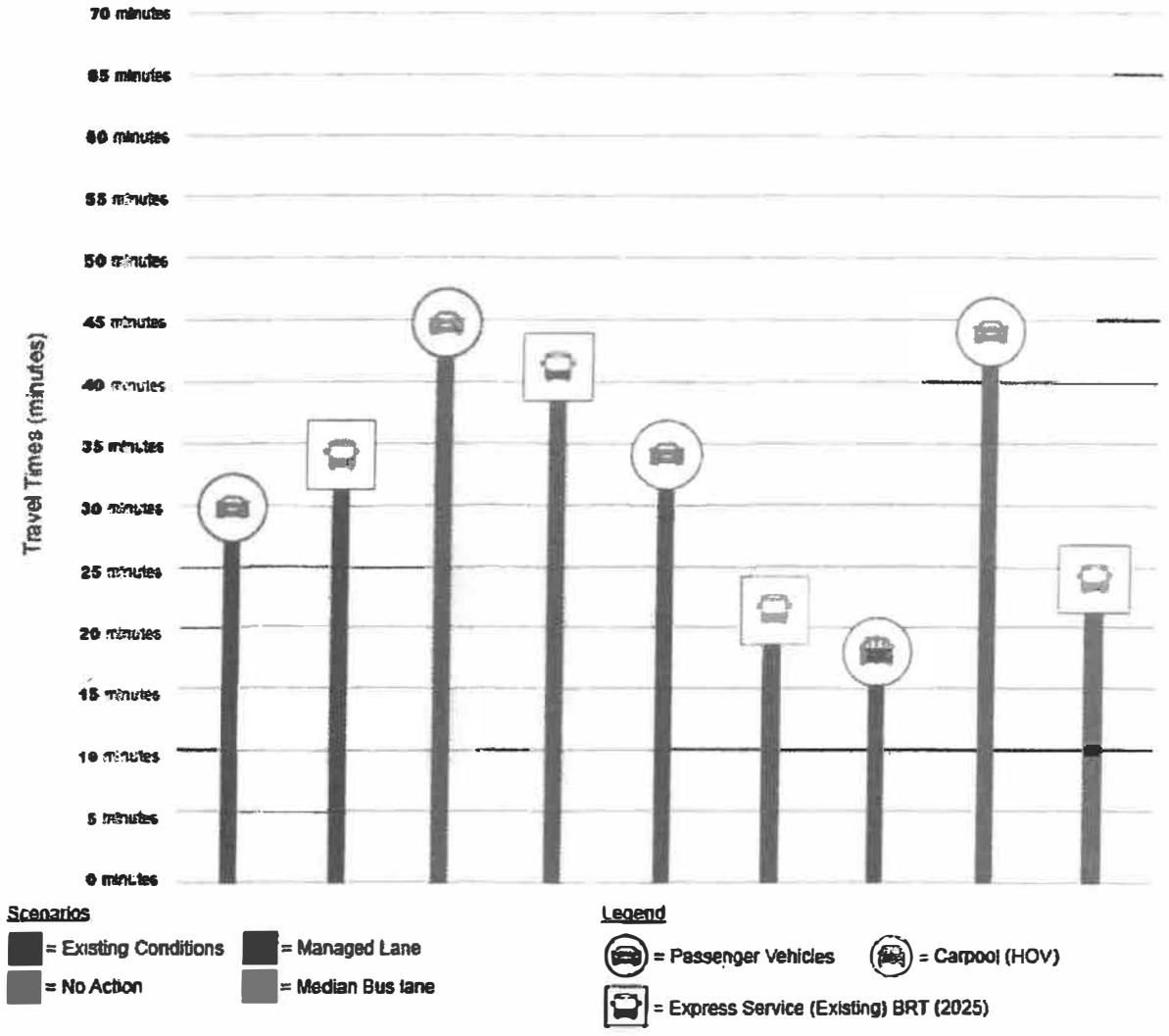
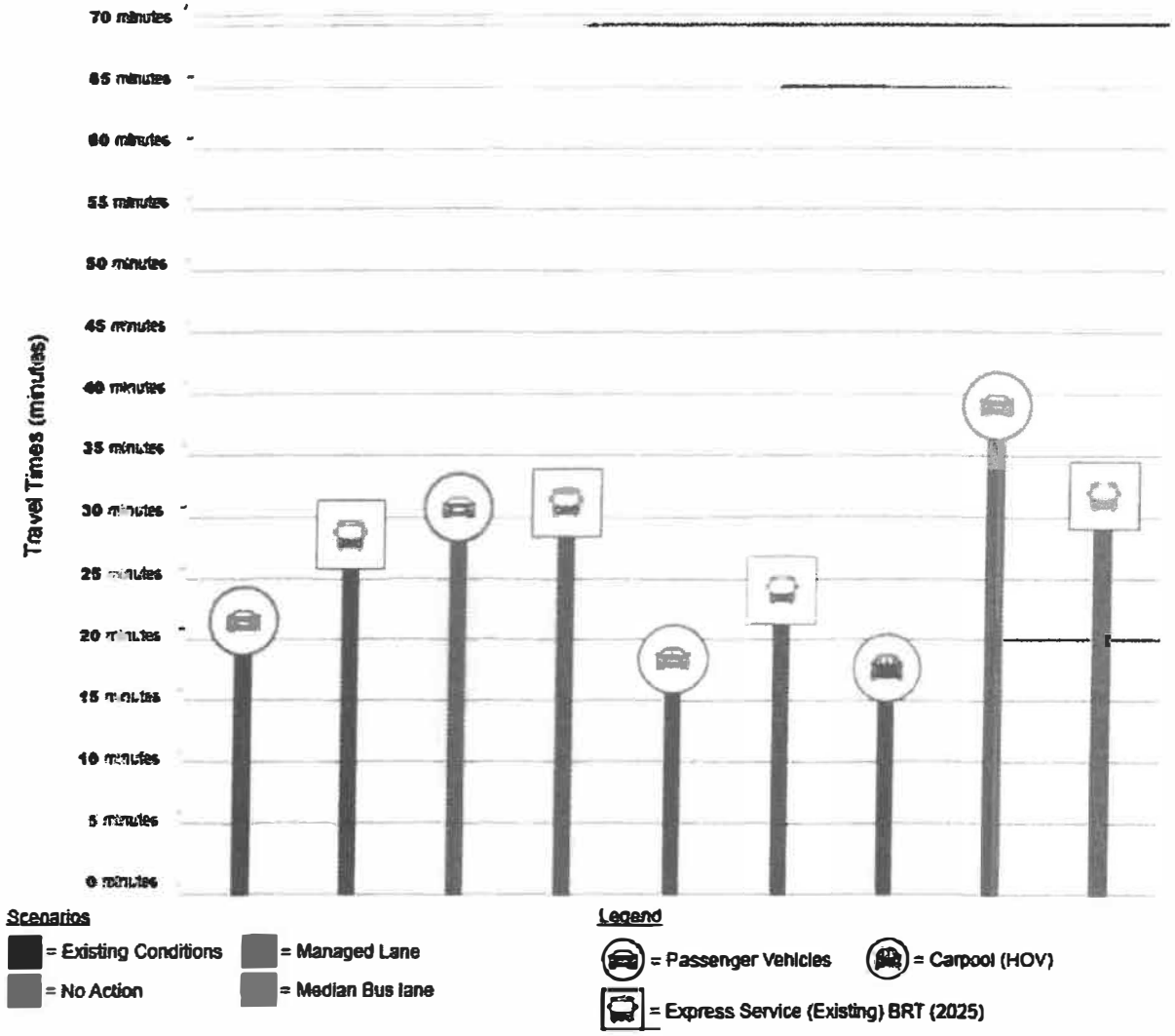


Figure 2: PM Peak Travel Time (Northbound)



Conceptual costs and impacts were identified for each of the alternatives. The Median Busway alternative has a conceptual construction cost of $106 million to provide 4.6 miles of guideway. The alternative would require approximately 10 acres of additional right-of-way. This alternative would also require design waivers from MDOT for the reduced lane widths as well as additional environmental permitting for the new bridge over the Paint Branch and Northwest Branch. The Bus/HOV lane alternative would cost $75 million to implement the Bus/HOV lanes ($50M) and intersection and spot improvements estimated at $25M over 4.6 miles. The Bus/HOV lane alternative would have significantly less right-of-way needs (2.5 acres). Both alternatives would require some utility relocations, a design waiver for not providing a bicycle facility along US 29 south of MD 650, and other various permit approvals.

Next Steps

At this time the study findings have not been shared with the community to collect feedback on a preferred alternative. We plan to hold a public workshop this Spring to share these results, answer questions, and collect feedback on the community preference.

A draft report is being prepared to document the study purpose, alternatives, analysis, and results. Results of the Spring public workshop will be incorporated into the report after it occurs. The study report will be added to the project website and shared publicly.

Initial conversations with MDOT/SHA have occurred during the study and the reaction to concepts have been positive. MCDOT is looking to schedule a follow up to discuss the results. Upon identifying a preferred alternative MCDOT would like to discuss opportunities for coordination and State funding participation on this project.

Ultimately, if a project(s) is identified at the conclusion of this work MCDOT would then seek County funding for design and implementation. No funding strategy has been identified at this stage, but potential sources include County, State, and potentially Federal funds.

We are encouraged by the preliminary results of this study. Given the status of the work, the need for public engagement, and the need for more specific conversations with MDOT/SHA regarding the design and implementation of a project like this on US 29, we anticipate that a funding request for design would be included as a CIP amendment sometime in FY21 or for FY22. If the project were to advance, a request for construction funding would likely occur as part of the FY23-29 Capital Improvements Program.

Bus Rapid Transit: Veirs Mill Road
(P501913)

Category	Transportation	**Date Last Modified**	01/07/20
SubCategory	Mass Transit (MCG)	**Administering Agency**	Transportation
Planning Area	Kensington-Wheaton	**Status**	Preliminary Design Stage

EXPENDITURE SCHEDULE ($000s)

Cost Elements	Total	Thru FY19	Est FY20	Total 6 Years	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	Beyond 6 Years
Planning, Design and Supervision	3,000	-	1,000	2,000	2,000	-	-	-	-	-	-
TOTAL EXPENDITURES	**3,000**	**-**	**1,000**	**2,000**	**2,000**	**-**	**-**	**-**	**-**	**-**	**-**

FUNDING SCHEDULE ($000s)

Funding Source	Total	Thru FY19	Est FY20	Total 6 Years	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	Beyond 6 Years
Impact Tax	3,000	-	1,000	2,000	2,000	-	-	-	-	-	-
TOTAL FUNDING SOURCES	**3,000**	**-**	**1,000**	**2,000**	**2,000**	**-**	**-**	**-**	**-**	**-**	**-**

APPROPRIATION AND EXPENDITURE DATA ($000s)

Appropriation FY 21 Request	-	Year First Appropriation	FY20
Appropriation FY 22 Request	-	Last FY's Cost Estimate	7,000
Cumulative Appropriation	3,000		
Expenditure / Encumbrances	-		
Unencumbered Balance	3,000		

PROJECT DESCRIPTION

This project will design and construct a new Bus Rapid Transit (BRT) line on Veirs Mill Road (MD 586) between the Wheaton and Rockville Metrorail Stations. Planning conducted by the Maryland Department of Transportation State Highway Administration (MDOT SHA) resulted in a Recommended Alternative in late 2017. The recommended alternative includes queue jumps for use by BRT and other buses at congested intersections along the corridor, new BRT stations with level boarding and off-board payment, Transit Signal Priority, purchase of new 60-foot articulated vehicles, and other associated pedestrian and bicycle improvements along the corridor. The study retains curbside dedicated lanes as the long-term BRT alternative for Veirs Mill Road.

LOCATION

Veirs Mill Road

ESTIMATED SCHEDULE

Project planning was completed in FY18. Preliminary Engineering will begin in FY20 and is anticipated to be complete in FY21.

COST CHANGE

Design costs removed.

PROJECT JUSTIFICATION

The project will transform mobility options with the implementation of a seven-mile, premium, branded, limited-stop BRT service along Veirs Mill Road. This new service will improve transit travel time and increase opportunity for a broad range of users, including a significant number of minority and low-income riders living along a highly congested corridor. The project will improve passenger transit mobility by connecting riders to high density housing and employment centers. Plans & Studies: MCDOT Countywide Bus Rapid Transit Study, Final Report (July 2011); County Executive's Transit Task Force (May 2012); Countywide Transit Corridors Functional Master Plan (November 2013); Maryland Department of Transportation/Maryland State Highway Administration MD 586/Veirs Mill Road Draft Corridor Planning Study (September 2016); Veirs Mill Corridor Master Plan (April 2019)

FISCAL NOTE

$3 million in FY20 and FY21 will be used to complete Preliminary Engineering. The current estimate for project completion is an additional $76 million for Final Design and Construction.

DISCLOSURES

A pedestrian impact analysis will be performed during design or is in progress.

COORDINATION

Maryland Department of Transportation, Washington Metropolitan Area Transit Authority, Maryland-National Capital Park and Planning Commission, City of Rockville

Bus Rapid Transit: MD 355
(P502005)

Category	Transportation	**Date Last Modified**	01/09/20
SubCategory	Mass Transit (MCG)	**Administering Agency**	Transportation
Planning Area	Bethesda-Chevy Chase and Vicinity	**Status**	Planning Stage

EXPENDITURE SCHEDULE ($000s)

Cost Elements	Total	Thru FY19	Est FY20	Total 6 Years	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	Beyond 6 Years
Planning, Design and Supervision	18,000	-	3,000	15,000	~~5,000~~ 0	5,000	5,000	5000	-	-	-
TOTAL EXPENDITURES	**18,000**	**-**	**3,000**	**15,000**	**~~5,000~~ 0**	**5,000**	**5,000**	5000	**-**	**-**	**-**

FUNDING SCHEDULE ($000s)

Funding Source	Total	Thru FY19	Est FY20	Total 6 Years	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	Beyond 6 Years
Impact Tax	3,000	-	3,000	-	-	-	-	-	-	-	-
Recordation Tax Premium (MCG)	15,000	-	-	15,000	~~5,000~~ 0	5,000	5,000	5000	-	-	-
TOTAL FUNDING SOURCES	**18,000**	**-**	**3,000**	**15,000**	**~~5,000~~ 0**	**5,000**	**5,000**	5000	**-**	**-**	**-**

APPROPRIATION AND EXPENDITURE DATA ($000s)

Appropriation FY 21 Request	~~5,000~~ 0	Year First Appropriation	FY20
Appropriation FY 22 Request	5,000	Last FY's Cost Estimate	3,000
Cumulative Appropriation	3,000		
Expenditure / Encumbrances	-		
Unencumbered Balance	3,000		

PROJECT DESCRIPTION

This project will design and construct a new Bus Rapid Transit (BRT) line on MD355 between Clarkburg and Bethesda. Planning conducted by the Maryland Department of Transportation Maryland Transit Administration (MDOT MTA) resulted in several Alternatives Retained for Detailed Study in 2017. In 2019, MCDOT completed the planning phase. The project includes dedicated BRT lanes, new BRT stations with level boarding and off-board payment, Transit Signal Priority, purchase of new 60-foot articulated vehicles, and other associated pedestrian and bicycle improvements along the corridor.

LOCATION

MD 355 between Clarksburg and Bethesda

ESTIMATED SCHEDULE

Project planning was completed in FY19. Preliminary engineering began in FY20 and will be completed in ~~FY23~~ FY24.

COST CHANGE

Funds are added in ~~FY21-23~~ FY22-24 to complete preliminary engineering.

PROJECT JUSTIFICATION

The project will transform mobility options with the implementation of a 22-mile, premium, branded, limited-stop BRT service along MD355 between Clarksburg and Bethesda. This new service will improve transit travel time and increase opportunity for a broad range of users along a highly congested corridor. The project will improve passenger transit mobility by connecting riders to high density housing and employment centers.

FISCAL NOTE

This project was created as a supplemental in FY20 for $3 million.

DISCLOSURES

A pedestrian impact analysis will be performed during design or is in progress.

COORDINATION

Maryland Department of Transportation, Washington Metropolitan Area Transit Authority, Maryland-National Capital Park and Planning Commission, City of Rockville, City of Gaithersburg

Bus Rapid Transit: System Development
(P501318)

Category	Transportation	**Date Last Modified**	01/03/20
SubCategory	Mass Transit (MCG)	**Administering Agency**	Transportation
Planning Area	Countywide	**Status**	Planning Stage

EXPENDITURE SCHEDULE ($000s)

Cost Elements	Total	Thru FY19	Est FY20	Total 6 Years	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	Beyond 6 Years
Planning, Design and Supervision	32,201	14,879	3,322	14,000	500	2,500	2,500	5,500	2,500	500	-
Land	48	48	-	-	-	-	-	-	-	-	-
Site Improvements and Utilities	122	122	-	-	-	-	-	-	-	-	-
Construction	4	4	-	-	-	-	-	-	-	-	-
TOTAL EXPENDITURES	**32,375**	**15,053**	**3,322**	**14,000**	**500**	**2,500**	**2,500**	**5,500**	**2,500**	**500**	**-**

FUNDING SCHEDULE ($000s)

Funding Source	Total	Thru FY19	Est FY20	Total 6 Years	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	Beyond 6 Years
Current Revenue: Mass Transit	19,875	3,474	2,401	14,000	500	2,500	2,500	5,500	2,500	500	-
Federal Aid	500	500	-	-	-	-	-	-	-	-	-
G.O. Bonds	6,321	5,400	921	-	-	-	-	-	-	-	-
Impact Tax	2,000	2,000	-	-	-	-	-	-	-	-	-
Revenue Bonds: Liquor Fund	3,179	3,179	-	-	-	-	-	-	-	-	-
State Aid	500	500	-	-	-	-	-	-	-	-	-
TOTAL FUNDING SOURCES	**32,375**	**15,053**	**3,322**	**14,000**	**500**	**2,500**	**2,500**	**5,500**	**2,500**	**500**	**-**

APPROPRIATION AND EXPENDITURE DATA ($000s)

Appropriation FY 21 Request	500	Year First Appropriation	FY13
Appropriation FY 22 Request	2,500	Last FY's Cost Estimate	29,375
Cumulative Appropriation	18,375		
Expenditure / Encumbrances	16,703		
Unencumbered Balance	1,672		

PROJECT DESCRIPTION

This project provides for the initial steps and detailed studies related to a Bus Rapid Transit (BRT) system in the County, supplementing the Metrorail Red Line and master-planned Purple Line and Corridor Cities Transitway (CCT). The County Council approved the Countywide Transit Corridors Functional Master Plan, an amendment to the Master Plan of Highways and Transportation, on November 26, 2013. The amendment authorizes the Department of Transportation to study enhanced transit options and Bus Rapid Transit for 10 transit corridors, including: Georgia Avenue North, Georgia Avenue South, MD 355 North, MD 355 South, New Hampshire Avenue, North Bethesda Transitway, Randolph Road, University Boulevard, US 29, and Veirs Mill Road.

ESTIMATED SCHEDULE

Planning for the MD 355 corridor occurred in FY15 through FY19. Preliminininary Engineering will commence in FY20 in Project #502005. Planning and design for US 29 was completed in FY18, and construction commenced in FY19 in Project #501912. Planning for the New Hampshire Avenue BRT corridor will begin in FY22 and will be complete in FY24. Planning for the North Bethesda Transitway will begin in FY24 and be complete in FY25.

COST CHANGE

$500,000 per year has been added to support programmatic Bus Rapid Transit system efforts.

PROJECT JUSTIFICATION

The proposed BRT will reduce congestion on County and State roadways, increase transit ridership, and improve air quality. The BRT will enhance the County's ability to meet transportation demands for existing and future land uses. Plans & Studies: MCDOT Countywide Bus Rapid Transit Study, Final Report (July 2011); County Executive's Transit Task Force (May 2012); and Countywide Transit Corridors Functional Master Plan (November 2013); MCDOT US 29 Bus Rapid Transit Project Description Report (March 2017); Maryland Transit Administration, MD 355 Bus Rapid Transit Corridor Planning Study (April 2017); Maryland Transit Administration, US 29 Bus Rapid Transit Corridor Planning Study (April 2017); MDOT MD 586 (Veirs Mill Road) Draft Corridor Study Report (September 2016); MD 355 Phase 2 Corridor Study Report (June 2019).

OTHER

The County programmed funds for the Maryland Department of Transportation (MDOT) to conduct preliminary engineering for a master-planned BRT line on Veirs Mill Road between the Rockville and Wheaton Metrorail Stations ($6 million). This study was funded in the State Transportation Participation project, PDF #500722, and a recommended alternative was selected in FY18. Funds for Preliminary Engineering (PE) for the Veirs Mill BRT have been programmed in Bus Rapid Transit: Veirs Mill Road (#501913), and preliminary engineering will commence in FY20.

FISCAL NOTE

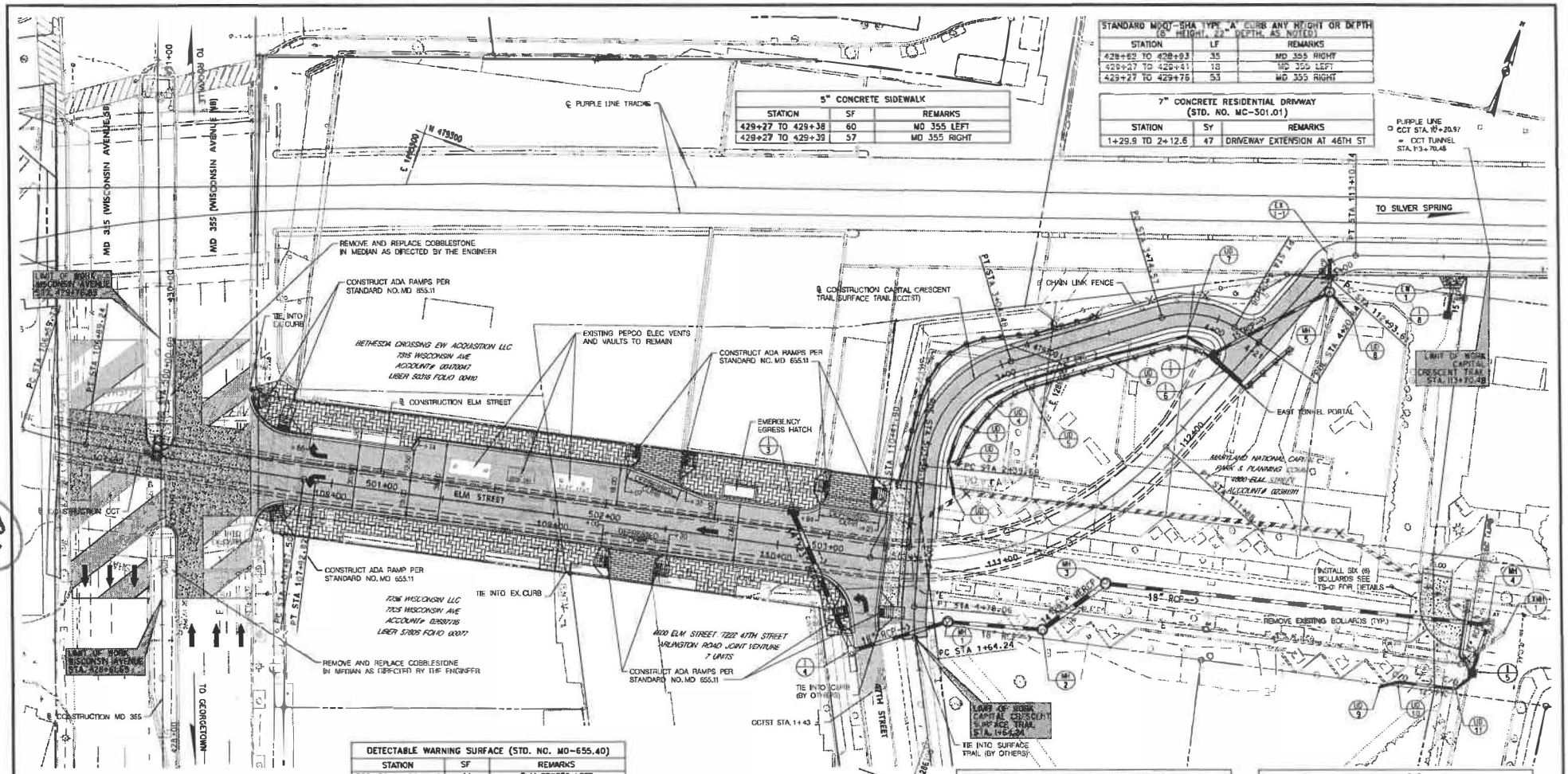
Base programmatic expenditures will continue indefinitely.

DISCLOSURES

The County Executive asserts that this project conforms to the requirement of relevant local plans, as required by the Maryland Economic Growth, Resource Protection and Planning Act.

COORDINATION

Maryland Department of Transportation, Washington Metropolitan Area Transit Authority, Maryland-National Capital Park and Planning Commission, City of Rockville, City of Gaithersburg, Prince George's County.



STANDARD MDOT-SHA TYPE "A" CURB ANY HEIGHT OR DEPTH (6" HEIGHT, 22" DEPTH, AS NOTED)		
STATION	LF	REMARKS
428+62 TO 428+93	35	MD 355 RIGHT
429+27 TO 429+41	18	MD 355 LEFT
429+27 TO 429+76	53	MD 355 RIGHT

5" CONCRETE SIDEWALK		
STATION	SF	REMARKS
429+27 TO 429+38	60	MD 355 LEFT
429+27 TO 429+39	57	MD 355 RIGHT

7" CONCRETE RESIDENTIAL DRIVWAY (STD. NO. MC-301.01)		
STATION	SY	REMARKS
1+29.9 TO 2+12.6	47	DRIVEWAY EXTENSION AT 46TH ST

DETECTABLE WARNING SURFACE (STD. NO. MD-655.40)		
STATION	SF	REMARKS
500+38 TO 500+42	11	ELM STREET LEFT
500+50 TO 500+55	11	ELM STREET LEFT
502+02 TO 502+05	10	ELM STREET RIGHT
502+25 TO 502+27	10	ELM STREET RIGHT
502+10 TO 502+12	10	ELM STREET LEFT
502+31 TO 502+34	10	ELM STREET LEFT
502+94 TO 502+97	11	ELM STREET LEFT
503+17 TO 503+19	10	ELM STREET LEFT
503+10 TO 503+13	11	ELM STREET RIGHT
503+26 TO 503+29	10	ELM STREET RIGHT

3" SCHEDULE 40 ROOF DRAIN PIPE*			
STATION	OFFSET	LF	REMARKS
501+81.15	18' RT	15	SEE DETAIL SHEET TS-01

*ROOF DRAIN STATIONS AND OFFSETS GIVEN ARE TO THE FACE OF CURB

TYPE D COMBINATION CONCRETE CURB AND GUTTER (STD. NO. MD 620.02-01)		
STATION	LF	REMARKS
500+36 TO 503+26	321	ELM STREET LEFT
500+57 TO 503+16	272	ELM STREET RIGHT
503+26 TO 503+27	38	ELM STREET RIGHT
1+16.7 TO 2+02.3	36	CCTST ℄ 242.5 RT TO 245.4' RT

BRICK PAVER DRIVEWAY - SEE PVMNT DETAIL G ON TS-01		
STATION	SF	REMARKS
502+09 TO 502+32	238	ELM STREET LEFT
502+95 TO 503+19	285	ELM STREET LEFT
502+02 TO 502+27	255	ELM STREET RIGHT

BRICK PAVER SIDEWALK - SEE PVMNT DETAIL F ON TS-01		
STATION	SF	REMARKS
500+36 TO 502+12	1743	ELM STREET LEFT
502+31 TO 502+97	1068	ELM STREET LEFT
500+57 TO 502+05	1665	ELM STREET RIGHT
502+25 TO 503+15	827	ELM STREET RIGHT

TYPE D CONCRETE CURB (STD. NO. MD 620.02-01)		
STATION	LF	REMARKS
502+09 TO 502+12	13	ELM STREET LEFT
502+31 TO 502+33	18	ELM STREET LEFT
502+95 TO 502+97	18	ELM STREET LEFT
503+16 TO 503+19	18	ELM STREET LEFT
501+86 TO 502+06	36	ELM STREET RIGHT
502+24 TO 502+29	16	ELM STREET RIGHT

LEGEND

- FULL DEPTH ASPHALT PAVEMENT
- FULL DEPTH PAVEMENT WITH CONCRETE BASE - SEE PAVEMENT DETAIL B OR C ON TS-01
- GRINDING AND RESURFACING
- CONCRETE SIDEWALK
- BRICK PAVER SIDEWALK - SEE TS-01 FOR DETAILS
- BRICK PAVER DRIVEWAY - SEE TS-01 FOR DETAILS

NOTES

1. SEE THE ELM STREET PARK DRAWINGS FOR IMPROVEMENTS IN ELM STREET PARK.
2. SEE CL-01 FOR CURB LAYOUT DETAILS.

SCALE: 1" = 20'

PS-01

PROFESSIONAL CERTIFICATION.
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. _____ EXPIRATION DATE: _____

Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION
GAITHERSBURG, MARYLAND

RECOMMENDED FOR APPROVAL:
Chief, Transportation Planning and Design Section — Date
APPROVED:
Chief, Division of Transportation Engineering — Date

Designed by: ___ Drawn By: ___ Checked by: ___

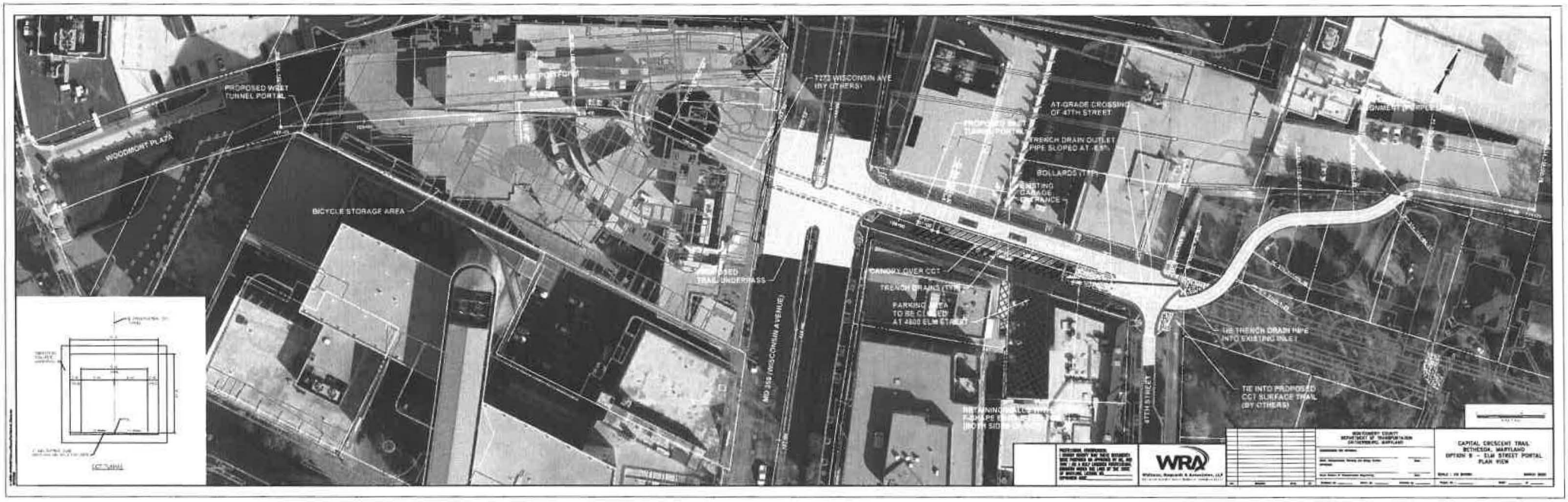
TRAIL AND ROADWAY PLAN

CAPITAL CRESCENT TRAIL
UNDER MD 355
BETHESDA, MARYLAND

SCALE : 1" = 20' FEBRUARY 2020

Project No. : 501316 SHEET 8 of 169

26


PROPOSED WEST TUNNEL PORTAL
WOODMONT PLAZA
BICYCLE STORAGE AREA
7272 WISCONSIN AVE (BY OTHERS)
AT-GRADE CROSSING OF 47TH STREET
TRENCH DRAIN OUTLET PIPE SLOPED AT 4.5%
BOLLARDS (TYP.)
EXISTING GARAGE ENTRANCE
CANOPY OVER CCT
TRENCH DRAIN (TYP.)
PARKING AREA TO BE CLOSED AT 4800 ELM STREET
MD 355 (WISCONSIN AVENUE)
47TH STREET
TIE TRENCH DRAIN PIPE INTO EXISTING INLET
TIE INTO PROPOSED CCT SURFACE TRAIL (BY OTHERS)
WRA
CAPITAL CRESCENT TRAIL
BETHESDA, MARYLAND
OPTION 9 – ELM STREET PORTAL
PLAN VIEW

27

Capital Crescent Trail
(P501316)

Category	Transportation	**Date Last Modified**	01/05/20
SubCategory	Pedestrian Facilities/Bikeways	**Administering Agency**	Transportation
Planning Area	Countywide	**Status**	Under Construction

EXPENDITURE SCHEDULE ($000s)

Cost Elements	Total	Thru FY19	Est FY20	Total 6 Years	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	Beyond 6 Years
Planning, Design and Supervision	9,741 ~~3,941~~	1,090	2,731	5920 ~~420~~	40	40	40	1,200	2,300	2,300	-
Land	873	415	458	-	-	-	-	-	-	-	-
Site Improvements and Utilities	2308 ~~8~~	8	-	2300	-	-	-	100	1900	1200	-
Construction	89,925 ~~52,025~~	33,576	14,375	41974 ~~4,074~~	2,848	1,167	59	7900	15000	15000	-
Other	4,350	-	-	4,350	1,350	3,000	-	-	-	-	-
TOTAL EXPENDITURES	~~61,497~~ 107,197	**35,089**	**17,564**	~~8,544~~ 54,544	**4,238**	**4,207**	**99**	9200	18,300	18,500	-

FUNDING SCHEDULE ($000s)

Funding Source	Total	Thru FY19	Est FY20	Total 6 Years	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	Beyond 6 Years
G.O. Bonds	96099 ~~50,099~~	27,470	14,085	~~8,644~~ 54,544	4,238	4,207	99	9,200	18,300	18,500	-
Impact Tax	11,098	7,619	3,479	-	-	-	-	-	-	-	-
TOTAL FUNDING SOURCES	~~61,497~~ 107,197	**35,089**	**17,564**	**~~8,644~~ 54,544**	**4,238**	**4,207**	**99**	9200	18,300	18,500	-

OPERATING BUDGET IMPACT ($000s)

Impact Type	Total 6 Years	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26
Maintenance	35	-	-	5	10	10	10
Energy	35	-	-	5	10	10	10
NET IMPACT	**70**	**-**	**-**	**10**	**20**	**20**	**20**

APPROPRIATION AND EXPENDITURE DATA ($000s)

Appropriation FY 21 Request	4,238	Year First Appropriation	FY15
Appropriation FY 22 Request	4,207	Last FY's Cost Estimate	61,197
Cumulative Appropriation	52,653		
Expenditure / Encumbrances	44,926		
Unencumbered Balance	7,727		

PROJECT DESCRIPTION

This project provides for the funding of the Capital Crescent trail, including the main trail from Woodmont Avenue in Bethesda to

Silver Spring as a largely 12-foot-wide hard-surface hiker-biker path, connector paths at several locations, a new bridge over Connecticut Avenue, a new underpass beneath Jones Mill Road, supplemental landscaping and amenities, and lighting at trail junctions, underpasses, and other critical locations, and a new tunnel in the Bethesda CBD.

ESTIMATED SCHEDULE

The surface trail is scheduled for construction in FY21. The tunnel in the Bethesda CBD is scheduled for construction in FYs 24-26.

PROJECT JUSTIFICATION

This trail will be part of a larger system to enable non-motorized traffic in the Washington, DC region. This trail will connect to the existing Capital Crescent Trail from Bethesda to Georgetown, the Metropolitan Branch Trail from Silver Spring to Union Station, and the Rock Creek Bike Trail from northern Montgomery County to Georgetown. The trail will serve pedestrians, bicyclists, joggers, and skaters, and will be compliant with the Americans with Disabilities Act of 1990 (ADA), the Bethesda CBD Sector Plan, and the Purple Line Functional Master Plan. The project will help the County achieve its Vision Zero goals to reduce deaths and serious injuries on County roadways to zero by 2030.

OTHER

The County will continue to coordinate with the Maryland Transit Administration (MTA) to identify options to build a sidewalk or path alongside the Purple Line beneath Wisconsin Avenue and the Air Rights and Apex buildings in Bethesda. If the County and the MTA identify feasible options, the County will consider adding them to the scope of this project in the future. However, no funding for a tunnel under Wisconsin Avenue is included as cost estimates continue to increase significantly.

FISCAL NOTE

The project schedule and cost estimates were updated in FY17 as a result of the MTA's proposed public-private partnership for the Purple Line and reflects the actual bid by the Concessionaire.

DISCLOSURES

A pedestrian impact analysis has been completed for this project.

COORDINATION

Maryland Transit Administration, Maryland Department of Transportation, State Highway Administration, Maryland-National Capital Park and Planning Commission, Bethesda Bikeway and Pedestrian Facilities, Coalition for the Capital Crescent Trail, CSX Transportation, Washington Metropolitan Area Transit Authority. Special Capital Projects Legislation [Bill No. 32-14] was adopted by Council by June 17, 2014.