BOARD OF SUPERVISORS
TRANSPORTATION AND LAND USE COMMITTEE
INFORMATION ITEM

SUBJECT: Metrorail Financial Obligations

ELECTION DISTRICT: Countywide

STAFF CONTACTS: Joe Kroboth, III and Penny Newquist, Transportation and Capital Infrastructure
Janet Romanchyk and Nikki Speight, Finance and Procurement
Erin McLellan, Management and Budget
John Sandy and Charles Yudd, County Administration

PURPOSE: To provide the Transportation and Land Use Committee (TLUC) with an update regarding Loudoun’s future projected payments (operating and capital) to the WMATA Compact and among other items.

BACKGROUND:

Opt-In Decision

On July 3, 2012, the Board voted to opt-in to the Dulles Corridor Metrorail project now known as the Silver Line. Leading up to this decision, numerous work sessions with the Board of Supervisors (Board) and others including the Washington Metropolitan Area Transit Authority (WMATA) staff were conducted. Research regarding economic development and other impacts resulting from the Silver Line coming to Loudoun were presented and discussed along with the creation of financing scenarios to assist with the decision-making process. As stated in previous Board and Committee items, with the decision to opt-in and subsequent decisions since July 2012, the County committed to the following:

1) fund a proportionate share of construction of the Silver Line;
2) build or cause to have constructed three garages to serve two metro stations; and
3) fund annual operating and capital costs as a member of the WMATA Compact.

On September 13, 2016, and due to a number of assumptions regarding the economic outlook, the start date of revenue service for Phase 2, and other changes over the last four years, staff presented an update to past (2012) assumptions to the Finance/Government Operations and Economic Development Committee. As noted then and now, staff continues to analyze economic factors, land development, construction, and other events as part of the ongoing monitoring and periodic reporting to the Committee.
This item’s primary focus, however, is providing TLUC an update with respect to projections for Loudoun’s future contributions to WMATA as well as other pertinent information.

**Metrorail Extension - Silver Line**

In March 2009, Dulles Transit Partners, under the direction of the Metropolitan Washington Airports Authority (MWAA) started construction on Phase 1 of the Silver Line, a 23-mile rail extension in Fairfax and Loudoun Counties in Virginia. Funded by a TIFIA loan, toll revenues and other revenues from funding partners, the first phase of 11.6 miles and five new stations extending to Reston, Virginia, opened July 26, 2014. Phase 2, an additional 11.4 miles with six new stations will provide service to Dulles International Airport and Loudoun County. Construction on Phase 2 is expected to be completed in 2019 and revenue service is expected to begin in FY 2020.

On May 14, 2013, MWAA awarded the design-build fixed-price contract for the Phase 2 Silver Line extension to Capital Rail Constructors (CRC) in return for their completing their scope of work by July 7, 2018; known as the Substantial Completion date. On April 27, 2015, MWAA announced an update to the construction schedule for Phase 2. Modifications integrated into the design phase to address new storm water management regulations instituted by the Commonwealth, plus modifications to enhance the safety and reliability of the Project, collectively resulted in a 13-month contract extension to CRC’s Substantial Completion date. August 7, 2019 is the new Substantial Completion date.

Phase 1 Silver Line revenue service began in July 2014 with the last stop at the Wiehle Avenue Station in Reston. For Phase 2, the Silver Line is being constructed from the Wiehle Avenue Station through Dulles Airport, to Loudoun Gateway Station and ending at the Ashburn Station in Loudoun County.

**Commuter Parking Garages**

In a November 15, 2011 Memorandum of Agreement (MOA), Loudoun County committed to use its best efforts to secure additional funding sources that will be sufficient to fund the cost of the design and construction of two parking garages at the Ashburn Metrorail Station and a third at the Loudoun Gateway Metrorail Station. In total, the three garages provide 4,939 commuter parking spaces. The number by garage location is summarized in Table 1 below:

<table>
<thead>
<tr>
<th>Table 1 – Parking Spaces by Commuter Parking Garage Location</th>
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<tbody>
<tr>
<td>Parking Garage Location</td>
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<tr>
<td>--------------------------</td>
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<tr>
<td>Ashburn North</td>
</tr>
<tr>
<td>Ashburn South</td>
</tr>
<tr>
<td>Loudoun Gateway</td>
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<tr>
<td>Total</td>
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</table>

To satisfy the MOA commitments, staff recommended, and the Board authorized, the use of the Public-Private Transportation Act (PPTA) of 1995 to seek interest from the private sector to
design, construct, maintain and operate the parking garages on the County’s behalf. In November 2012, a Solicitation for Conceptual Proposal was issued to design, construct, maintain and operate the three parking garages required by the project.

In FY 2014, the Board approved a CIP budget which included $130 million in revenue bonds to fund the construction of the three parking garages. The capital funding was established as a back-stop measure in the event the County was unsuccessful in negotiating an agreement with a private entity for the parking garage(s). Following receipt of the proposals from the PPTA solicitation, the Board authorized staff to enter into negotiations with Comstock Partners for the development of the Ashburn North parking garage and Nexus Properties (Nexus) for the Ashburn South and Loudoun Gateway parking garages.

On December 9, 2015, the Board approved (8-0-1, Reid absent) a Comprehensive Agreement with Comstock for the design, construction, maintenance and operations of the Ashburn North parking garage. Following execution of the agreement Comstock has progressed with the land use approvals, completed the design and the project development is proceeding consistent with the schedule and terms defined in the Comprehensive Agreement. Construction commenced on the Ashburn North parking garage on December 28, 2016. Construction completion will be reached in the spring of 2018, well in advance of the opening of rail service in Loudoun. Under the terms of the Comprehensive Agreement with Comstock, they are permitted to use the parking facility for their private development parking until such time as Metrorail opens for service.

Negotiations with Nexus did not progress in a similar manner as those with Comstock at the Ashburn North garage. Nexus expressed concerns around the number of spaces required to be constructed in the two garages and the anticipated demand at the respective garage(s). Staff finally ended discussions with Nexus due to the inability to reach agreement. Following the decision to discontinue negotiations with Nexus, the Board directed staff to proceed with a self-perform option to deliver the Ashburn South and Loudoun Gateway parking garages.

On September 1, 2016 a Request for Qualifications was issued for a Design-Build contract to deliver the Ashburn South and Loudoun Gateway commuter parking garages. Five Design-Build teams submitted proposals for consideration. Following the review of the proposals and interviews, all five teams were short-listed to submit price and technical proposals. On November 15, 2016 the Procurement Office publicly disclosed the names of the five Design-Build teams. Prior to sending the notice to the short-listed team, one team provided notice of their desire to withdraw from consideration. On December 1, 2016 the final Request for Proposals was issued. Technical and Price proposals are due on February 28, 2017.
WMATA Compact and Metrorail

WMATA, or “Metro,” was created by an interstate compact in 1967 to plan, develop, build, finance, and operate a balanced regional transportation system in the national capital area. In 1967, pursuant to the WMATA Compact of 1966 (Compact) between the State of Maryland, the Commonwealth of Virginia and the District of Columbia as Signatories, the Washington Metropolitan Area Transit Zone was created embracing the District of Columbia, the cities of Alexandria, Falls Church and Fairfax and the counties of Arlington, Fairfax, and Loudoun and political subdivisions of the Commonwealth of Virginia located within those counties and the counties of Montgomery and Prince George’s in the State of Maryland and political subdivisions of the State of Maryland located in said counties. The Compact also created WMATA as an instrumentality and agency of each of the Signatory parties. The Compact requires that any amendments to the Compact must be by legislative action of any Signatory, approved by the other Signatories, and consented to by the Congress.

Construction of the Metrorail system began in 1969 and the first phase of the Metrorail operation began in 1976. Metro added a second transit service to its network in 1973 when, under direction from the United States Congress, it acquired four area bus systems and merged them to create Metrobus. In 1994, Metro added a third transit service when it began providing MetroAccess, paratransit service for people with disabilities who are unable to use fixed route transit service.

Metro completed the originally planned 103-mile Metrorail system in early 2001. In 2004, Metro expanded the system, opening the Blue Line extension to Largo Town Center, as well as the NoMa-Gallaudet U station on the Red Line. These expansions increased the Metrorail system to 86 stations and 106 miles.

Loudoun becomes a contributing member to the compact in advance of the start of revenue service for the Silver Line Phase 2 (Reston Wiehle Station to Ashburn Station). It is anticipated that Loudoun will fund start-up costs of approximately $12 million beginning 18 months (FY 2019) prior to revenue service for the hiring and training of new employees required to support the new stations and miles of rail service. These amounts are expected to escalate steadily due to inclusion of capital costs. Annual WMATA Compact payments cover the operating cost for the Metrorail system (excluding bus service), paratransit service, the capital cost of system preservation (rail cars, equipment, etc.) and maintenance of the system. They will reflect the adopted budgets and capital improvement program of WMATA which is reliant on its compact members and local partners. As a member of the WMATA Compact, jurisdictional members make annual operating and capital payments to sustain the regional Metrorail system.

The Northern Virginia Transportation Commission (NVTC) began in 1964 and currently includes the cities of Alexandria, Falls Church, and Fairfax and the counties of Arlington, Fairfax and Loudoun. Its primary purpose is to collect the tax surcharge on gasoline to fund Virginia’s share of the Metro system and appoint the Virginia representatives to the WMATA Board.

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1 WMATA History (https://www.wmata.com/about/history.cfm)
2 WMATA 2012 Projection Model (referenced in Board of Supervisors Information Item: May 16, 2012)
Attachment 1 includes correspondence supporting the safety and reliability efforts of WMATA, and the work of MWCOG in addition to a recent presentation made to the public on WMATA’s Proposed FY 2018 Budget and CIP. It also supports the Virginia Railway Express system among other transit related programming.

**ISSUES:**

**Loudoun’s Silver Line Contribution**

Following the MWAA’s concurrence that CRC achieved Substantial Completion, WMATA and CRC will jointly perform a 90-day Operational Readiness Test. WMATA’s General Manager makes the determination that Phase 2 is “operationally ready” based on successful test results. The WMATA Board of Directors officially determines the date when Phase 2 of the Silver Line will begin revenue service. Revenue service is anticipated to begin during the first quarter of 2020.

**Cost:** Currently, the total cost of construction of the Silver Line extension (Phases 1 and 2) is $5.8 billion. Loudoun County’s construction funding commitment was established at 4.8%, currently $274.0 million of the total cost. Project total costs are subject to change based on updated information provided by MWAA.

**Sources of Funding:** The County’s plan to fund the $274.0 million obligation for construction of the Silver Line include the following three sources:

1) Federal Transportation Infrastructure Finance and Innovation Act (TIFIA) loan of $195.0 million, and
2) Non-TIFIA debt estimated at $60.0 million, and
3) Metrorail Service Tax District revenues ($19.0 million).

1) TIFIA is a federal loan program through the U.S. Department of Transportation (USDOT). Loudoun secured the loan in the amount of $195.0 million at an interest rate of 2.87% on December 9, 2014. The loan includes deferred interest payments until FY 2019, currently estimated at $3.0 million, and deferred principal payments until FY 2023, currently estimated at $12.2 million. The delayed payments on debt service allows additional time for revenue to be generated in the Metrorail Service Tax District to cash fund a portion of the construction and to pay for debt service and other costs.

2) Non-TIFIA debt estimated at $60.0 million of lease revenue bonds are anticipated to be sold during the Silver Line construction project. This amount has already been appropriated and included in the Capital Improvement Fund and the Debt Service Fund with the original Metrorail project appropriation.

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3 NVTC Website [http://www.novatransit.org/](http://www.novatransit.org/)
4 MWAA, 2016
3) Metrorail Service Tax District revenues estimated at $19.0 million. Metrorail Tax District revenues are anticipated to be available to cash fund a portion of the project construction costs. Since the levy on the Metrorail Service District began in January 2013, through December 2016, the County has collected $24.7 million in revenue. In addition to cash funding a portion of the construction, this revenue will be used to fund the required Revenue Stabilization Fund currently estimated to be $15.6 million, and pay debt service on the TIFIA and non-TIFIA debt.

To date, the County has drawn down $83.0 million on the TIFIA loan, based on invoices submitted by MWAA for Loudoun’s portion of the project, leaving a balance of $112.0 million for draw down. It is unknown when the TIFIA loan will be completely drawn down; however at this time the County plans to issue additional debt ($60.0 million) beginning in FY 2018. The structure of the debt will be determined closer to the actual issuance but may be in the form of five-year interest only Bond Anticipation Notes (BANs) or a line of credit. The projected debt service estimates are listed in Attachment 2.

**Commuter Parking Garages**

Following review of the design-build proposals, staff anticipates a contract award recommendation to be presented to the Finance Government Operations and Economic Development Committee in April 2017, and contract award by the full Board at the first Business Meeting in May 2017. The award is for a Design-Build contract, which means the first few months will be consumed completing the final design. As such, physical construction is anticipated to be initiated in September-October 2017. The contract stipulates a substantial completion date of April 30, 2019 and final completion by May 31, 2019.

**Cost:** The estimated project cost to deliver the Ashburn South and Loudoun Gateway parking garages is summarized in Table 2 below:

<table>
<thead>
<tr>
<th>Garage</th>
<th>Base Cost</th>
<th>Contingency</th>
<th>Total</th>
</tr>
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<tbody>
<tr>
<td>Professional Services</td>
<td>$3,000,000.</td>
<td>$0.</td>
<td>$3,000,000.</td>
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<tr>
<td>Ashburn South</td>
<td>$26,000,000.</td>
<td>$3,900,000.</td>
<td>$29,900,000.</td>
</tr>
<tr>
<td>Loudoun Gateway</td>
<td>$34,000,000.</td>
<td>$5,100,000.</td>
<td>$39,100,000.</td>
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<tr>
<td>Other related expenses</td>
<td></td>
<td></td>
<td>$5,000,000.</td>
</tr>
<tr>
<td>Comstock RSF – Ashburn North</td>
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<td></td>
<td>$600,000.</td>
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<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>$77,600,000.</strong></td>
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<tr>
<td>Additional Contingency</td>
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<td></td>
<td><strong>6,900,000.</strong></td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td></td>
<td></td>
<td><strong>$84,500,000.</strong></td>
</tr>
</tbody>
</table>

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5 DMB - September 13, 2016  
6 DFP  
7 DTCI  
8 Additional contingency for the County’s commuter parking garages CIP project as reflected in the FY 2017-FY 2022 Proposed CIP as Amended (February 2017)
Sources of Funding: The two commuter garages being constructed by the County will be financed using revenue bonds, backed by the garage revenue stream. For planning and budgeting purposes a 20 year term at 5% has been used to estimate the average annual debt service. The projected debt service estimates are listed in Attachment 2. Prior to the actual issuance of the bonds, the Department of Finance and Procurement will develop a debt structure of payments to closely match the anticipated revenues to be received for the garage usage.

Initial rate analysis planning has been conducted by the Department of Management and Budget. Preliminary analysis suggests a starting daily weekday and weekend rate of $7.00 per day and a monthly rate of $196.009. The monthly rate assures a reserved space through a designated time mid-morning, typically around 10:00 am. Beyond that designated time, the monthly rented space becomes available for another commuter. The rates have been established based on garage utilization at the Ashburn South garage starting at 81% increasing to 91% in year four and remaining at that level. The Loudoun Gateway utilization is estimated to start at 71% and increasing to 91% in year four and remaining at that level.

A multi-departmental team has been established to review and recommend the most beneficial automated fare collection system for use in the garages. The team has conducted product research, interviewed other jurisdictions, met with WMATA staff and visited the WMATA Parking Operations Center to gain insight to the best practices. Electronic mobile applications are also being evaluated. The team is considering commuter convenience, maintenance and maximizing revenue as primary goals for the system.

WMATA Compact Annual Payments

As a member of the WMATA Compact, jurisdictional members make annual operating and capital payments to sustain the regional Metrorail system. Each jurisdiction’s share is determined through a formula, with the latest estimate of Loudoun’s share being 4.1%10. Using WMATA’s assumptions for start-up costs, this first payment translates into an estimated annual operating contribution for Loudoun County of approximately $11.1 million11. As part of the Board’s Proposed FY 2017-FY 2022 CIP as Amended (February 2017) staff utilizes a $12 million estimate for FY 2019, $28 million in FY 2020, and $26 million in successive fiscal years for the annual capital payments using a combination of NVTA 30% local funding and general obligation debt financing.

As mentioned, payment for operating costs begin 18 months prior to the start of revenue service of Phase 2 of the Silver Line. According to WMATA, this allows time to hire and train staff prior to the start of revenue service. Additionally, Loudoun will make capital contributions for system-wide preservation projects. Similar to Loudoun County, WMATA prepares a six-year CIP after “negotiations” with its funding partners. The resulting negotiated CIP, pursuant to a Capital Funding Agreement (CFA) among the contributing jurisdictions, uses the first year as the basis for

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9 DMB, September 13, 2017
10 WMATA 2012 Projection Model – Dulles Corridor Metrorail Briefing Finance Meeting #1 Item, May 16, 2012
11 WMATA 2012 Projection Model – Dulles Corridor Metrorail Briefing Finance Meeting #1 Item, May 16, 2012
the annual capital contributions. The estimate of Loudoun’s share of the annual capital costs was recently projected at $11.8 million and includes $4.6 million for the annual formula match as well as $7.2 million for Metro 2025 Investments for the 7000 series rail cars\textsuperscript{12}. This capital payment is due in FY 2020 when revenue service is projected to begin. It is important to note that these numbers although adjusted by staff, are wholly based upon older WMATA projections which have significantly changed.

**Updated Projections for Annual Payments – Operating and Capital**

As referenced, using WMATA models from 2012 and 2015 respectively, Loudoun staff have attempted to provide information from relevant sources regarding projections for the County’s share of operating and capital expenditures respectively as a new WMATA Compact member. These projected figures have been provided to the Committee and the full Board in a multitude of items including but not limited to the successive CIPs leading up to this date.

**WMATA 2012 Projections for Loudoun**

This model projected results for Loudoun County near the time period that the county decided to “opt-in.” The model assumed 11 stations with three stations to be located in Loudoun with the end station being the 772 Station, or Ashburn Station. The model was based upon the Constrained Long Range Plan (CLRP) adjusted to the “then” FY 2013 WMATA Budget. The model did make inflationary adjustments at 3% per year for FY 2013 through FY 2015 and then at 3.8% from FY 2015 through FY 2020 and 2.1% per year from FY 2021 through FY 2025. It also estimated that Phase 2 Silver Line service to the Metrorail stations within Loudoun County would begin in FY 2018. It also included 128 Dulles rail cars and expansion of to 100% eight-car trains in FY 2020. Operating revenue included passenger fares, non-passenger fares including parking and advertising and capital payments for maintenance. Operating costs recovery was assumed at 77% for FY 2018-FY 2019 and 78% for FY 2020-FY 2025. Finally, the maximum fare subsidy allocation was also based upon the Proposed FY 2013 fare structure. Revenue projections for FY 2018 and FY 2025 were based on FY 2013 average fare with a 10% increase by FY 2018 and FY 2025.

For the capital side, the model used the same assumptions as operating and assumed capital revenues including federal grants, federal dedicated funding, local match to federal grants, local system performance funds, local match to federally dedicated funding, a debt strategy and other funds to offset capital expenditures. The new local capital subsidy included a local match to federal formula and system performance funds. It did not include local match to federal dedicated funding. It also assumed the capital rehabilitation and replacement of the Dulles capital items beginning in FY 2020. Beginning in FY 2021, a gap was identified due to a lack of dedicated funding. The CLRP at the time did not solve this gap; and therefore the projected deficit for FY 2025 was then estimated at $333 million.

\textsuperscript{12} WMATA 2015 Modified FY 2016-FY 2021 State & Local Contribs.: Loudoun (FY 2019) - March 9, 2015
As seen in Table 3\textsuperscript{13}, Loudoun’s forecasted amounts were relatively flat as a result of assumed debt financing for WMATA’s projected capital expenditures at the time and continued passenger confidence in Metrorail. Furthermore, it did not include the Safe Track initiative associated with the operating budget since the model pre-dated that program.

**Table 3. - WMATA 2012 Model**

Loudoun Operating and Capital Projections (\$ in millions)

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<tbody>
<tr>
<td>Operating Contribution</td>
<td>11.1</td>
<td>11.4</td>
<td>12.4</td>
<td>12.7</td>
<td>13.0</td>
<td>13.3</td>
<td>13.6</td>
<td>13.8</td>
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<tr>
<td>Capital Contribution</td>
<td>5.1</td>
<td>6.8</td>
<td>6.9</td>
<td>7.1</td>
<td>7.2</td>
<td>7.4</td>
<td>7.5</td>
<td>7.7</td>
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<tr>
<td>TOTAL</td>
<td>16.2</td>
<td>18.2</td>
<td>19.3</td>
<td>19.8</td>
<td>20.2</td>
<td>20.7</td>
<td>21.1</td>
<td>21.5</td>
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**MWCOG Technical Panel 2016 Projections for Loudoun**

Since September 2016, newer estimates have been forecast for Loudoun with respect to what its likely Metro Contribution share would be as a result of considerable work performed at MWCOG under the direction of the Board of Directors’ Technical Panel on Metro. This group comprised of the MWCOG CAOs from the jurisdictions with Metrorail as well as the District of Columbia’s Chief Financial Officer’s Office (DC CFO) and WMATA financial staff, issued an Interim Report to the MWCOG Board in October 2016. The main purpose of the Technical Panel’s work is to estimate the capital investment needed to return WMATA to a safe and reliable system. The preliminary analysis of data on WMATA – focused on safety, reliability, customer experience, and the system’s benefits to the region – to provide the technical foundation necessary to pursue a comprehensive, long-term approach to funding Metro and provide it with a solid financial foundation.\textsuperscript{14} The interim report is Attachment 3 to this item. The final report to the MWCOG Board is expected in March or April of 2017.\textsuperscript{15}

Work was also performed that centered on researching the current and future economic development near Metrorail stations within the National Capital Region. The Panel also provided improved feedback on WMATA’s current internal and external performance metrics and benchmarking against outside urban rail properties.

As part of the Technical Panel’s work, financial staff from the participating local governments, including Loudoun, provided information and critique of revenue and expenditure (capital and operating) modeling performed by the DC CFO using existing WMATA operating and capital cost data to estimate funding needs over a ten-year period. The Panel believed that the modeling could be used to provide support analysis of any future revenue options (i.e., permanent regional funding mechanism).

\textsuperscript{14} MWCOG Technical Panel Interim Report on Metro – October 2016
The DC CFO estimates used to support the MWCOG Technical Panel as presented in Table 4 below used the FY 2017 WMATA Budget and included inflation factors for projecting both operating and capital costs. The model used additional amounts for Safe Track operations which are currently funded as part of their operating budget, and WMATA’s 6-Year CIP as a basis for capital needs. It also added Metro’s 2025 CIP in addition to the baseline CIP.

Federal funding assumptions, in the model, included federal reauthorization beyond FY 2020 of the current Passenger Rail Investment and Improvement Act (PRIIA) program that was funded for a ten year period of FY 2010 through FY 2020 and remains at $150 million per year with local jurisdictions continuing to match federal moneys at current levels. The model projected current jurisdictions’ subsidy contributions to rise approximately 3% per year at FY 2017 levels. With regard to operations and maintenance costs, the DC CFO October 2016 model grew state and local subsidies by 3% per year over FY 2017 and inflated Safe Track by 3% per year using a base of $100 million in FY 2018. It conservatively estimated passenger revenue declines by 10% per year in FY 2017 due to Safe Track and held passenger revenue flat until FY 2022 then inflated it at 3% per year. The model assumes that WMATA will continue to fund its OPEB contributions, estimated at approximately $50 million annually, with FY 2017 being the first year that WMATA included funding for this expense. The model covers a ten year period, and the ten year shortfall, or gap, is estimated at $2.1 billion for the operating budget.

With respect to WMATA’s CIP, the model uses a $12 billion capital plan over a ten (10) year period, which still includes rail car replacements, track system upgrades for eight car trains and passenger system upgrades. Within the $12 billion CIP, the capital funding gap is estimated at $3.3 billion over this ten year period. When the two are added, this equates to a ten (10) year funding gap of $5.4 billion, or an average of $542 million per year. However, the WMATA CIP is currently “Pay-as-you-Go”, meaning that all funds necessary for the CIP need to be raised each year. This means that the gap is not the same amount each year, and in the model, varies from a gap of $333 million in FY 2022 to more than $1.5 billion in FY 2026. This results in dramatic increases and decreases in each jurisdictions’ share of capital cost for each year over the period.

To date, staff has obtained what it believes are reliable breakouts of operating and capital from the MWCOG Panel – DC CFO Model. It will work to obtain these breakouts in the future.

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<tbody>
<tr>
<td>Loudoun Total Projections ($ in millions)</td>
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<tr>
<td>MWCOG (DC CFO 2016 Model)</td>
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<td>na</td>
<td>50.8</td>
<td>48.0</td>
<td>51.7</td>
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<td>50.8</td>
<td>48.0</td>
<td>51.7</td>
<td>55.4</td>
<td>58.5</td>
<td>82.2</td>
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| na - not projected.
Table 5 illustrates the differences between the WMATA 2012 Model and the more recent MWCOG Model (October 2016) for Loudoun. The remarked differences are primarily centered around the newer estimates related to what is needed in capital improvements to return WMATA to a safe and reliable system. Furthermore, the MWCOG Model includes assumptions for both a pay-as-you-go and long-term debt financing of the CIP which would lower the upward levels of capital improvement expenditures over time. Since staff has been unable to obtain reliable estimates to date for operating and capital breakouts, only changes to the total are reported between the two models.

Table 5. - Deltas WMATA 2012 v MWCOG Panel: DC CFO 2016 Models
Loudoun Total Projections ($ in millions)

<table>
<thead>
<tr>
<th></th>
<th>FY 2018</th>
<th>FY 2019</th>
<th>FY 2020</th>
<th>FY 2021</th>
<th>FY 2022</th>
<th>FY 2023</th>
<th>FY 2024</th>
<th>FY 2025</th>
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<tr>
<td>TOTAL</td>
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<td>na</td>
<td>31.5</td>
<td>28.2</td>
<td>31.5</td>
<td>34.7</td>
<td>37.4</td>
<td>60.7</td>
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</table>
| na - not applicable or projected.

**Differences Between Models**

The large differences between the WMATA 2012 Model and the MWCOG Model – October 2016 are primarily due to the advent of SafeTrack and a much more aggressive CIP directed at returning WMATA to a safe and reliable system. The WMATA 2012 Model assumed a level of spending consistent with prior budgets approved up through that time. In the intervening years, significant failures have occurred, including fatalities that have highlighted the impacts of long-term deferrals of capital needs. The WMATA 2012 Model relies on past operation and capital budgets that never built-in completely the needs and requirements for both safety and reliability. The MWCOG Model includes some basic assumptions with regard to budgets and CIPs including these items. Without the certainty of having the capability to finance large CIPs and capital needs at competitive interest rates, it will be difficult to bring the spikes in capital project costs to a more manageable level. WMATA asserts that they are the only large urban rail system that does not have a permanent funding source (regional, or local tax vehicle) to be able to have certainty for their finances. Without such a source, it will be difficult to manage a capital improvement program using the tools usually available to urban rail systems.

The MWCOG Model included projections for both Pay-as-you-Go and debt financing for the system. The tables as shown in Attachment 4 illustrate the differences for the system without Loudoun included and also show the differences in overall costs using pay-as-you-go v. debt financing. Using the City of Alexandria as a comparable for Loudoun due to the number of stations etc., one can see in the Table 6 taken from data from this table, the difference for Alexandria for FY 2022 and FY 2016 and the 10-Year Total.
Table 6. - Deltas for City of Alexandria - Pay-as-You-Go v. Debt Financing: $12B CIP

<table>
<thead>
<tr>
<th></th>
<th>FY 2022</th>
<th>FY 2026</th>
<th>10-Yr</th>
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<tr>
<td>Debt financing</td>
<td>14.1</td>
<td>22.8</td>
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</table>

Loudoun has received only the “Pay-as-you-Go” numbers for Loudoun to date that staff believe are reliable. They will be working with the DC CFO office to obtain more valid and reliable estimates than received to date, which should include detailed breakouts of the DC CFO’s October 2016 projections for both capital and operating and debt financing.

Loudoun’s projected WMATA payments included in the MWCOG Model are designed to show the capital investment needed to return WMATA to a safe and reliable system. It also estimates the maximum number of projects that can be reasonably executed by WMATA over a ten year period. These estimates can be lowered through debt financing of WMATA’s CIP, if a designated funding source can be identified for WMATA. The estimates can also be lowered if Loudoun were to debt finance its payments to WMATA. Further, although the model estimates the projects needed to return WMATA to a safe and reliable system, the projects are subject to negotiation by the member jurisdictions. Together, this means that the actual numbers, particularly for capital, are likely to be lower than shown in the projections.

Finally, it should be noted that the MWCOG projections include costs for both bus and rail. Staff is working with MWCOG to correct the numbers and remove bus costs from these projections.

Notwithstanding, the model does show an order of magnitude amount that is necessary across the region to return WMATA to a safe and reliable system.

**Consequences of Doing Nothing**

The Technical Panel and others including WMATA believe that without developing a funding mechanism across the NCR, delays due to system failures will continue, passenger safety risks will escalate, and traffic congestion could worsen.

**Other Responsibilities**

Although Loudoun has decided to opt-out of the local and regional bus services provided by WMATA, and therefore not responsible for any operating or capital contributions to support that service, Loudoun must pay costs associated with the provision of paratransit services. Accessible bus and train service is not a privilege; it is a right under the Americans with Disabilities Act of 1990 (ADA). The Act requires public transit agencies to offer paratransit service anywhere within ¾ mile of any Metrorail Station to qualifying individuals. It is important to note, the ¾ mile distance is measured from the stations and not linearly along the rail line. This means a paratransit customer could request travel assistance from Ashburn, for example, to any location within ¾ mile of any Metrorail Station on the WMATA system. Staff first met with WMATA on paratransit
services in June 2014. At this meeting WMATA indicated Loudoun will be responsible for cost sharing of any paratransit trip that originates or terminates within Loudoun County.

Loudoun has two options available in regards to the cost sharing arrangements. First, Loudoun can delegate the responsibility of this service to WMATA and pay the costs associated with the provision of this service. Second, to better manage the cost of providing the service, Loudoun could choose to provide the service through one of our operating contracts. In 2014 when staff met with WMATA, their policy for charges to paratransit customers is twice the maximum fare rate, regardless of origin or destination. The revenue received for a trip of this type, does not cover the full cost of the trip. The delta, or uncovered balance is then charged to the local jurisdictions where the trip originates or terminates, as stated. In 2014, WMATA indicated their paratransit operating costs could range between $60 and $90 per hour. As an example, assuming a paratransit trip requires an average of three (3) operating hours to complete and there are an estimated 1,000 trips per year, Loudoun could expect additional charges of $180,000 to $270,000 annually. At this point in time, Loudoun does not have firm projections of the number of paratransit trips that may occur in any given year.

Upon completion of the Metrorail construction and opening of the system for revenue service, Loudoun will assume certain maintenance costs at its garages and station areas as well as capital asset preservation program contributions. These costs will be attributable to the station areas and the commuter parking structures constructed by Loudoun County. Staff from the Departments of Transportation and Capital Infrastructure and General Services are collaborating to prepare estimates for these costs. The operating and maintenance costs associated with the Ashburn North Commuter Garage is the responsibility of Comstock Properties in accordance with the Comprehensive Agreement.

FISCAL IMPACT:

**Future Debt Issuance** – In order to pay for the County’s ongoing capital obligation as a member of the WMATA compact (not the Phase 2 capital construction), supplemental funding is required. For purposes of maintaining a placeholder, staff had added $12 million in debt financing to the Capital Improvement Fund for the FY 2019 – FY 2020 period, and $13 million in FY 2021– FY 2022 as part of the Adopted FY 2017 – FY 2022 CIP (April 2016).

However, upon further evaluation and as part of the FY 2018 budget development process and in part to the MWCOG Model (October 2016) projections, the best financial method for funding this contribution is a combination of Northern Virginia Transportation Authority (NVTA) 30% local funds and general obligation bond financing. As seen in Attachment 2, staff has included NVTA 30% local funding and general obligation bond financing to meet the capital obligation as part of the Board’s Proposed FY 2017-FY 2022 CIP as Amended (February 2017), which will be presented at the February 14, 2017, FGEODC meeting. In FY 2020, $12 million in NVTA 30% funds are programmed. In FY 2021, $13 million in NVTA 30% funds and $15 million in general obligation bond financing are programmed for a total of $28 million, and in FY 2022 through FY 2026, $13 million in NVTA 30% and $13 million in general obligation financing are included totaling $26 million in each year.
The Metro system has experienced service disruptions and maintenance issues which will reportedly require additional future resources to address, the magnitude and source(s) of which are not known at this time. In addition, the revenue service of the Silver Line Phase 2 extension has been delayed from 2018 to 2020. The later in-service date also delays Loudoun’s annual contributions to Metrorail operations; has resulted in a slower drawdown of TIFIA funds; and allows more time for Loudoun to accrue revenue from the special real property tax in the Metrorail Service Tax District.

To date, the Board of Supervisors has endeavored to minimize the cost of the Silver Line extension and to place responsibility for its cost on those who will benefit most from it. Project cost reductions were achieved by removing the Project Labor Agreement from the original proposal and by substituting a surface station for an underground station at Dulles Airport. As mentioned above, the special tax districts will help to ensure that Metro-related costs are borne by the beneficiaries of that system. Likewise, the County has pursued the creation of public-private partnerships to develop and operate the parking garages associated with the Silver Line. As the County updates its projections of the Silver Line’s fiscal implications, staff will return to the Committee for a discussion at least once each year.

ATTACHMENTS:

1. NVTC Correspondence, Actions and Resolutions
2. Loudoun Funding Obligations for Metrorail: FY 2019 – FY 2026
4. COG Technical Panel DC CFO Projections Selected: October 2016 (Loudoun)
Paul Wiedefeld  
General Manager and Chief Executive Officer  
Washington Metropolitan Area Transit Authority (WMATA)  
600 Fifth Street, NW  
Washington, D.C. 20001

Re: Metrorail Hours of Service

Dear Mr. Wiedefeld:

WMATA's proposal to end late-night weekend service and curtail standard service on Sundays has raised concerns about the potential long-term consequences such changes would have on Northern Virginia's jurisdictions, residents and businesses. On behalf of the Northern Virginia Transportation Commission, I am requesting that WMATA consider these concerns as it seeks to establish permanent hours of operation following the completion of SafeTrack.

NVTC both recognizes the importance of and appreciates the intent behind your proposal to modify Metrorail's service hours. We agree that state of good repair should be a priority, as lapses jeopardize the safety of crew and passengers. It is our hope that WMATA will be able to strike an appropriate balance between the need for late-night weekend service and ongoing rail maintenance.

Metrorail is vital to Northern Virginia's economy. Roughly 80,000 jobs are within a quarter-mile of the 25 Metrorail stations west of the Potomac River. Many of these jobs are in the food-and-beverage, hospitality, and tourism industries, which would experience the greatest impact from curtailed service. It is no surprise, for example, that Arlington tops all counties in the Commonwealth in the amount of tax revenues generated from tourism. Visitors depend on the County's 11 Metrorail stations to provide easy access to other parts of the metropolitan region, as do many of the 26,000 individuals working in Arlington's tourism industry. In Alexandria, also home to a significant hospitality and tourism industry, access to Metro and other public transportation was cited by 46.4 percent of visitors as one of the attributes contributing to their decision to stay in the city, according to a recent survey.
Restaurants, bars and clubs in Northern Virginia attract customers from throughout the metropolitan region, many of whom travel by Metro. Conversely, residents of NVTC’s jurisdictions frequent bars, clubs and sporting event venues in the District of Columbia, many of which close after the last train of the evening has departed under Metro’s proposed scenarios. Metrorail’s late-night service allows revelers and fans to travel home in a safe and responsible manner. Termination of such service could lead some to make less responsible travel choices.

WMATA’s plan to provide Metrobus service in place of Metrorail may be an effective option, but we need to be assured that this service will be a reliable and convenient alternative to Metrorail services. Further, NVTC and its jurisdictions which subsidize Metrorail, need to be provided a true understanding of the cost implications of substituting bus for rail under WMATA’s proposal.

I wish to make one other important point. Tens of thousands of our constituents rely on Metro to get to and from their jobs during rush hours. There have already been significant disruptions to this service. We request that in the future you consider these disruptions as well, consistent with the need to upgrade the safety of the system.

There is little doubt that the success of Northern Virginia’s economy is tied to the success of Metrorail. First and foremost, it is in the interest of both NVTC and WMATA to ensure that Metrorail is able to transport passengers safely and reliably. It also is in the interest of both agencies to ensure that Metrorail continues to provide service that allows our businesses to thrive, as the tax revenues they generate support our jurisdictions’ Metrorail subsidies.

Sincerely,

Jay Fisette
Chairman
November 10, 2016

Paul Wiedefeld
General Manager and Chief Executive Officer
Washington Metropolitan Area Transit Authority (WMATA)
600 Fifth Street, NW
Washington, D.C. 20001

Re: Proposed Metrorail Hours of Service

Dear Mr. Wiedefeld:

On behalf of the Northern Virginia Transportation Commission, I submit this follow up to our letter of October 11, 2016 regarding Metrorail service hour changes to allow for preventive maintenance activities. Since our earlier letter, NVTC has received sufficient information to support WMATA’s plan to reduce service hours for up to two years in order to perform preventive maintenance. We remain concerned that WMATA has not proposed sufficient bus capacity to handle these late-night service reductions at key Virginia Metrorail stations and request that WMATA collaborate with our jurisdictions to ensure Metrorail riders have reliable late-night transit alternatives.

A safe and reliable Metrorail system is vital to the Northern Virginia economy as it provides hundreds of thousands of our constituents access to and from work every day. We acknowledge that emergency repairs and single-tracking surges are not an effective way to operate a high-quality transit system. NVTC both recognizes the importance of and appreciates the intent and rationale behind WMATA’s approach to increasing the time for rail preventive maintenance. We believe that the November 3, 2016 briefing to WMATA’s Customer Service, Operations and Security Committee adequately demonstrates how these additional maintenance hours are necessary to restore and maintain Metrorail’s infrastructure. NVTC agrees that the investment of time in preventive maintenance is the best approach to allow the Metrorail system to return to and sustain a state of good repair.
As noted in our previous letter, NVTC remains concerned that reductions in Metrorail’s hours of service would disproportionately affect both patrons and employees of the food-and-beverage, hospitality and tourism industries. NVTC recognizes that the service patterns shown in WMATA’s recent alternative late-night bus service map connect many late-night, high-ridership Metrorail stations in Virginia with late-night Metrobus service. However, several of these Virginia Metro stations with high late-night ridership – specifically Wiehle-Reston East, Ronald Reagan Washington National Airport, and King St-Old Town – appear to lack comprehensive regional connections under WMATA’s current late-night bus proposal. In order to address Metrorail service hour reductions, we ask that WMATA work with NVTC jurisdictions to ensure there is sufficient alternative bus service to meet the demands of high late-night ridership stations in Northern Virginia.

NVTC and its jurisdictions are invested in the success of Metrorail. As such, we must continue to ensure that Metrorail is able to transport passengers safely and reliably. We look forward to continuing to work with you and the WMATA staff to find the right balance between late-night service and preventive maintenance.

Sincerely,

[Signature]

Jay Fisette
Chairman
Northern Virginia’s economic growth and global competitiveness are directly tied to the region’s transit network. Transit links businesses to employees, customers, suppliers and investors and residents to jobs, school, shopping and entertainment. With nearly 60 percent of jobs within a quarter-mile of a rail station or bus stop, Northern Virginia is among the nation’s most transit-accessible areas. For the past five decades, the Northern Virginia Transportation Commission (NVTC) has promoted an efficient, high-quality and innovative transit network in order to fuel the economy and sustain the region’s quality of life.

Each work day 550,000 Northern Virginians commute via transit, saving the region 35.5 million hours of congestion-related delays annually. Virginia Railway Express (VRE) riders, nearly 19,000 daily, take the equivalent of two lanes of traffic – one each on I-66 and I-95 – off the highways during rush hour. With six bus systems extending from Loudoun County to the City of Alexandria and commuter- and fixed-rail systems, Northern Virginia continues to explore new ways to better connect businesses, residents and visitors.

NVTC will support legislation and policies that build our transportation network by:

- Maintaining and expanding opportunities for dedicated, sustainable funding for transit capital and operations;
- Establishing the Metro Safety Commission (MSC) to enhance safety and security of riders and systems in the region through diligent oversight;
- Using metrics to promote efficiency and maximize capital investments;
- Promoting and strengthening regional cooperation and accountability;
- Maximizing use of existing assets to enhance transit performance and safety; and
- Fostering innovation and technological integration that improves transit operations and expands service.

For over 50 years, NVTC has worked to ensure that high-quality transit serves Northern Virginia through:

- Financial and grants management
- Research and technical expertise
- Regional coordination and collaboration
- Regional forum for transit issues
- Virginia forum for transit governance and policy lead for WMATA
- Co-ownership of the Virginia Railway Express

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Tel (703)-524-3322 • Fax (703) 524-1756
Email: nvtc@nvldc.org • www.novatransit.org
NVTC’s top legislative and policy priority is identifying stable, secure and dedicated sources of funding for regional transit systems including WMATA’s Metrorail and Metrobus, the Virginia Railway Express (VRE), the commuter rail service NVTC co-owns with the Potomac and Rappahannock Transportation Commission (PRTC), and local and commuter bus service. Maintaining and expanding stable, dedicated revenue sources for operations and capital is essential to system safety and meeting the region’s transportation need to reduce congestion. This includes a focus on the following items:

Establishing a Floor on Regional Gas Tax Revenues

NVTC supports establishing a floor on the regional gas tax. The monthly revenues collected via the regional gas tax — the only dedicated source of funding for WMATA in Northern Virginia — are down as much as 40 percent since 2013. During calendar year 2015 alone, NVTC lost $13.2 million and PRTC lost $10.6 million in revenue because the regional gas tax lacks the same protective floor as the statewide tax.

Maintaining Long-Standing Funding Commitments and Preparing to Meet Future Needs

To meet the growing funding needs of NVTC’s transit systems, the Commonwealth must continue its financial commitments to WMATA and VRE and work with the region to lay the groundwork for expanded innovative finance and planning. NVTC is committed to working with the Transit Service Delivery Advisory Committee and the Transit Capital Project Revenue Advisory Board to ensure the Commonwealth’s judicious allocation of capital and operating assistance.

NVTC supports:

- Continuing to ensure the Virginia match to the federal Passenger Rail Investment and Improvement Act of 2008 (PRIIA) funding for WMATA;
- Identifying new funding for Virginia’s share of WMATA’s Momentum: Long Term Strategic Plan;
- Identifying additional sources of revenue for operating assistance for regional transit including VRE and WMATA as well as the local providers in the NVTC and PRCD districts; and
- Developing and expanding opportunities for innovative financing of transportation infrastructure.
Addressing the Transportation Capital Funding Bond Expiration

In FY2019, the Commonwealth Transportation Board will allocate the last revenues received from the 2007 Transportation Capital Project Revenue Bonds. When this happens, the Commonwealth’s projected available funds for transit capital projects will drop by approximately $75 million each year unless another source of revenue is identified. The capital funding gap is a significant concern for continuing to invest in all modes of transportation projects. Finding a long-term, sustainable funding solution for the Commonwealth’s transportation needs is imperative if we are to avoid the collapse of Virginia’s transit capital program.

Enhance Safety and Security

Strong oversight, achieving and maintaining state of good repair and emergency preparedness are essential for the safety of all transit riders whether they are customers of WMATA’s Metrorail and Metrobus, VRE or local bus. Additional areas of focus include:

Establishing the Metro Safety Commission (MSC)

FTA has mandated the establishment of a Metro Safety Commission to replace the Tri-State Oversight Commission. The MSC will be an entity with its own investigative and enforcement authority and is financially independent from WMATA. In order to comply with this federal mandate, legislative action is required by Virginia, Maryland and the District of Columbia. On February 8, 2016, USDOT Secretary Anthony Foxx informed the jurisdictions that if the MSC is not established by February 9, 2017, FTA is prepared to begin withholding federal formula funds, which affects local transit systems beyond Metrorail.

Integrating State and Regional Emergency Preparedness Plans

Transit must provide key transportation support in the event of an emergency. To do so successfully, Metrorail, VRE and all bus service must be fully integrated in state and regional emergency planning programs.

Ensuring State of Good Repair

Ensuring that our regional transit systems are maintained in a “state of good repair” is key to providing riders with safe service. To that end, NVTC supports stable state and federal funding of transit capital including the $50 million per year state match required for WMATA to receive $150 million per year in federal state of good repair funding authorized under the Passenger Rail Investment and Improvement Act of 2008 (PRIIA).

Implementing Positive Train Control (PTC)

PTC uses communication and processor-based technology designed to increase the reliability and safety of trains by preventing collisions, overspeed derailments, incursions into work zones, and the incorrect movement of a train through a mainline switch. The Rail Safety Improvement Act of 2008 (RSIA) requires passenger rail service, such as VRE, to have operational PTC. In 2015, Congress extended the original 2015 deadline for Implementation of PTC to December 31, 2018, with the possibility of an additional two-year extension if certain requirements are met. NVTC will continue to monitor all legislation and regulations related to PTC.
Use Metrics to Promote Efficiency and Effectiveness

SMART SCALE Metrics Should Ensure an Even Playing Field for All Modes of Transportation

Passed in the 2014 General Assembly Session, SMART SCALE requires the Commonwealth Transportation Board to develop a statewide prioritization process for capacity expansion projects, starting in the FY 2016-2022 Six Year Improvement Program. SMART SCALE applies only to projects that are new construction for expansion purposes. Transit, along with all other modes, are eligible to compete for highway construction funds and therefore, those specific transit projects will be subject to the same SMART SCALE evaluation factors as any other project. SMART SCALE requires that projects be evaluated based on congestion reduction, environmental quality, economic development, accessibility, land use, and safety, with congestion reduction being given the greatest weight in Northern Virginia and Hampton Roads. NVTC will continue to work with Commonwealth Transportation Secretary Aubrey Layne to ensure that transit continues to be on an even playing field with other modes of transportation.

Development of Distribution Process for Transit Capital and Operating Funds through the Transit Service Delivery Advisory Committee (TSDAC)

NVTC will continue to monitor the implementation of SB1140 to assess how new performance criteria applied to the operating assistance formula are working in practice. In addition, NVTC will analyze the impact of adjustments to the state assistance for capital, including the implementation of changes in the calculation of state participation and the adoption of the tiering structure.

Promote and Strengthen Regional Cooperation and Accountability

NVTC, through regional planning and funding activities, will continue to promote high-quality, high-capacity transit in key corridors including Route 1, Route 7, U.S. 29 and U.S. 50. NVTC partners with other entities such as the Northern Virginia Transportation Authority, the Northern Virginia Regional Commission and the Metropolitan Washington Council of Governments to seek ways to maximize transit investments in the region.

Maximize Use of Existing Facilities to Enhance Transit Performance and Improve Safety

NVTC will continue to work with the General Assembly, the Department of Rail and Public Transportation (DRPT) and the Virginia Department of Transportation (VDOT) to encourage optimal use of existing investments through:

- Investing in multimodal options in key interstate corridors including I-66, I-95, I-495, and I-395;
- Maximizing bus service on existing Express Lanes on I-95, I-395, I-495 and future I-66 Express Lane;
- Evaluating the bus-on-shoulder pilot and other opportunities with the potential to provide safer and faster connections along interstates and roadways in the region;
- Identifying cost-effective vehicle storage solutions for commuter buses;
- Employing full flexibility in the urban design standards for transportation system components;
- Providing training to ensure safe and secure transit operations; and
- Developing and integrating transit into local, regional, and state emergency management plans.
Foster Innovation & Technology Integration to Improve Transit Operations and Service

NVTC will continue to support innovative technological opportunities for transportation including:

- Deploying Transportation Demand Management (TDM) and Intelligent Transportation Systems (ITS);
- Seeking support for the acquisition of a regional electronic fare payment system that will decrease costs and make it seamless to move from VRE to Metro to local bus systems; and
- Expanding telecommuting, ridesharing and transit ridership during peak and off-peak times through innovative incentives.

FEDERAL LEGISLATIVE PROGRAM

Commuter Benefits

NVTC supports legislation to make transit service more attractive to commuters who currently drive alone. We encourage the use of carpools, vanpools, rideshare, bikeshare and TDM as effective tools to eliminate congestion.

Federal Surface Transportation Program

As discussions on future federal legislation continue, NVTC supports Congress:

- Significantly increasing the level of federal investment in the nation’s transportation infrastructure;
- Ensuring that funding structures support all modes of public transportation and uses of innovative funding techniques;
- Highlighting safety and security as key outcomes of transportation projects;
- Affirming that all interstate toll revenues can be used for transit capital and operations;
- Appropriating funding levels for New Start, Small Start, and Core Capacity grants as authorized by the Fixing America’s Surface Transportation (FAST) Act;
- Providing funding for the Transportation Improvements Generating Economic Recovery (TIGER) discretionary grant program;
- Simplifying the distribution of the federal flex funding through programs like the Surface Transportation Program (STP) and the Congestion Mitigation and Air Quality (CMAQ) program in order to provide greater decision-making authority to local government and regional agencies to determine how the funding is spent; and
- Streamlining environmental reviews when multiple federal agencies are involved with a project so that the environmental impacts can be efficiently identified and addressed.
Dedicated Funding for WMATA (PRIIA)

NVTC supports continued annual federal appropriations of $150 million for the Passenger Rail Investment and Improvement Act of 2008 (PRIIA). Under this legislation, Congress committed to $1.5 billion for WMATA over ten years to support critical safety and state of good repair projects. This funding requires Maryland, Virginia and the District of Columbia provide a $1.5 billion match ($500 million per jurisdiction) of the federal funds over the same period. All three signatory jurisdictions have passed the Compact amendments required to receive the federal funding, and the non-Federal matches are in place.

Funding for the Virginia Railway Express (VRE)

As a co-owner of VRE, NVTC supports legislation that increases commuter rail service to meet natural demand growth in Northern Virginia and ensures the long-term financial viability of service. NVTC supports efforts to secure federal funding for the following capital projects:

- Expansion of Long Bridge;
- High-capacity railcars;
- Train storage of rail equipment;
- Station parking expansion; and
- Platform extensions and additions.

Monitoring Surface Transportation Board Policy on Amtrak On-Time Performance

The Surface Transportation Board recently published a final rule for Amtrak on-time performance (OTP) on host railroads. The policy on OTP was amended from being calculated on a terminal station-basis to being calculated at every station. Several railroads and the Association of American Railroads have filed suit in federal court related to the authority to implement the rule. NVTC will continue to monitor the possible impacts of this rule and potential consequences for VRE operations.

Funding for Transportation Emergency Preparedness

NVTC calls upon Congress to provide increased security funding to local and regional transportation agencies in the metropolitan Washington area.

Supporting In-State Collection of Online Retail Sales Tax

NVTC supports passage of legislation to allow the Commonwealth of Virginia to collect sales tax on purchases made with online retailers, such as the Marketplace Fairness Act of 2015. If Marketplace Fairness is enacted in the future, HB2313 ensures the Commonwealth will spend a portion of the collected funds on transit projects.
RESOLUTION #2324

SUBJECT: Support of the Washington Metropolitan Area Transit Authority Metro Safety Commission (MSC)

WHEREAS: NVTC's strategic goals include the promotion of safe, reliable, and financially sound performance of WMATA's Metrorail system;

WHEREAS: NVTC's 2017 Federal and State Legislative and Policy Agenda supports the establishment of the MSC as a means to enhance the safety and security of riders in the region;

WHEREAS: Title 49 Chapter 53 of United States Code contains federal statutory requirements for public transportation safety programs and State Safety Oversight Agencies (SSOAs) that require heavy rail systems to have a legally and financially independent safety oversight agency;

WHEREAS: The Federal Transit Administration (FTA) determined that WMATA's SSOA, the Tri-State Oversight Committee (TOC), does not possess adequate enforcement authority necessary to meet certification requirements for SSOAs;

WHEREAS: On October 15, 2016, the FTA assumed temporary federal oversight of WMATA's State Safety Oversight program until a SSOA is established and certified to meet federal safety requirements;

WHEREAS: If the U.S. Secretary of Transportation determines that a State Safety Oversight program is not being carried out in accordance with federal law, FTA may withhold Section 5307 funding to transit agencies in the state;

WHEREAS: Due to the unique multi-state nature of the WMATA Metrorail system, the MSC must be established through an interstate compact, which will require that identical legislation be passed in the District of Columbia, Maryland and Virginia; and

WHEREAS: In February 2016, United States Secretary of Transportation Anthony Foxx informed the District of Columbia, Maryland and Virginia that if the MSC is not established and certified by February 8, 2017, the FTA is prepared to begin withholding Section 5307 funds until the MSC is certified as the SSOA for WMATA.

NOW, THEREFORE, BE IT RESOLVED that the Northern Virginia Transportation Commission hereby urges the Commonwealth to work collaboratively with the District of Columbia and Maryland to establish the MSC as WMATA's SSOA.

BE IT FURTHER RESOLVED that NVTC encourages the Commonwealth to act expeditiously in order to minimize disruptions to transit operations statewide and prevent the withholding of Section 5307 funds.

Approved this 1st day of December 2016.

[Signatures]

Paul C. Smedberg
Secretary-Treasurer

Jay Fisette
Chairman
January 6, 2017

[Logo: NVTC]

Chairman
Hon. Jeffrey C. McKay

Vice Chairman
Hon. Paul C. Smedberg

Secretary/Treasurer
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Hon. Ron A. Meyer

Commonwealth of Virginia
Hon. Jim Corcoran

Virginia General Assembly
Sen. Adam Ebbin
Sen. Jennifer Wexton
Del. David Albo
Del. David LaRock
Del. James LeMunyon
Del. J. Randall Minchew

Executive Director
Katherine A. Mattice

Paul Wiedefeld
General Manager and Chief Executive Officer
Washington Metropolitan Area Transit Authority (WMATA)
600 Fifth Street, NW
Washington, D.C. 20001

Re: Proposed Fiscal Year 2018 Budget

Dear Mr. Wiedefeld:

On behalf of the Northern Virginia Transportation Commission, I write to convey comments and concerns regarding WMATA’s proposed FY2018 budget. Our comments are more focused on the operating budget, as the capital budget was released later in the budget process and Capital Funding Agreement discussions are early and ongoing. Overall, NVTC agrees with the “shared sacrifice” approach to address WMATA’s FY2018 operating funding needs but remains concerned by the rate of increase in jurisdictional subsidies after FY18 as proposed in the operating and capital budgets.

A safe and reliable Metrorail system is vital to the Northern Virginia economy as it provides hundreds of thousands of our constituents with access to jobs every day. It is in the interest of both of our agencies to ensure that Metrorail continues to provide service that allows businesses to thrive, as the tax revenues they generate support our jurisdictions’ Metrorail subsidies. We believe that the proposed budget’s emphasis on safety, reliability and service is designed to restore public confidence and bring riders back to the system.

Proposed FY2018 Operating Budget

NVTC acknowledges the need for the following components of the proposed FY2018 operating budget:

- A reasonable increase to jurisdictional subsidies for this budget year (recognizing that we remain concerned by the rate of increase in future budget years);
- Management and labor actions that control costs;
- Modest increases to Metrorail and Metrobus fares;
- Right-sizing Metrorail headways to align service with ridership; and,
- An incremental return to the WMATA Board policy of using no more than $31 million in eligible Federal Transit Administration grant funds for preventive maintenance expenses.
The Commission also requests that WMATA make these additional considerations during the budget process:

- Minimize the decrease in regional Metrobus service and ensure that the route changes reflect public comment;
- Work directly with local jurisdictions to determine reductions of non-regional Metrobus service.

**Proposed FY2018 Capital Budget and Capital Improvement Program**

Given limited revenue sources and competing budget priorities, Northern Virginia is troubled by the rate of increase in jurisdictional subsidies after FY18 as proposed in the capital and operating budgets. In Northern Virginia, WMATA operating and capital funding directly competes with parks, schools, public safety, and other municipal priorities. A sustained increase in jurisdictional subsidies presents fiscal challenges. In light of those challenges, we encourage continued advocacy for the renewal of federal funding under the Passenger Rail Investment and Improvement Act and for additional support for capital and operating funding.

NVTC and its jurisdictions are invested in WMATA’s success. As such, we must continue to ensure that the WMATA budget reflects and supports the priorities of safety, reliability and service. We look forward to working with you and WMATA’s other funding jurisdictions to balance needs and resources as part of the FY18 budget process.

Sincerely,

Jeffrey C. McKay
NVTC Chairman
RESOLUTION #2329

SUBJECT: Selection of NVTC Representatives to Various Boards

WHEREAS: NVTC is empowered to make appointments to the Board of Directors of the Washington Metropolitan Area Transit Authority (WMATA), the Virginia Railway Express (VRE) and the Virginia Transit Association (VTA);

WHEREAS: Some of NVTC’s jurisdictions may not formally appoint their NVTC members prior to NVTC’s January meeting and some may not be ready with recommendations for appointment to various boards;

WHEREAS: Secretary Aubrey Layne designated James Corcoran to be the Secretary’s designee on NVTC and the WMATA Board to fill the unexpired term of James W. Dyke, Jr., which expires January 9, 2018 and that appointment became effective February 1, 2015;

WHEREAS: Paul C. Smedberg was appointed to the WMATA Board for a four-year term which expires January 2, 2020; and

WHEREAS: James Corcoran and Paul C. Smedberg will continue to serve their terms on the WMATA Board.

NOW, THEREFORE, BE IT RESOLVED that the Northern Virginia Transportation Commission hereby appoints and confirms the following persons to serve as Principals and Alternates to the WMATA Board, subject to possible subsequent action by NVTC’s jurisdictions that alters their NVTC members for 2017 and their recommendations for members of the various boards:

WMATA Board:

Principals
James Corcoran
(term expires 01/09/2018)

Alternates
Christian Dorsey
(term expires 01/09/2019)

Catherine Hudgins
(term expires 01/05/2021)

Paul Smedberg
(term expires 01/02/2020)
BE IT FURTHER RESOLVED that NVTC hereby appoints the following persons to serve on the VRE Operations Board, subject to possible subsequent action by NVTC’s jurisdictions that alters their NVTC members for 2016 and their recommendations for members of the various boards:

VRE Operations Board:

Principals
Sharon Bulova
John C. Cook
Paul Smedberg
Katie Cristol

Alternates
Jeffrey C. McKay
Libby Garvey

BE IT FURTHER RESOLVED that NVTC hereby appoints the following persons to serve on the Virginia Transit Association Board, subject to possible subsequent action by NVTC’s jurisdictions that alters their NVTC members for 2016 and their recommendations for members of the various boards:

VTA Board:

Principals
David F. Snyder
Katherine A. Mattice

Alternates
Jeffrey C. McKay
Katie Cristol

Approved this 5th day of January, 2017.

Mat Letourneau
Secretary-Treasurer

Jeffrey C. McKay
Chairman
RESOLUTION #2332

SUBJECT: FY2018 State Transit Assistance Applications

WHEREAS: The Northern Virginia Transportation Commission (NVTC) wishes to obtain state and federal grants to help defray NVTC, WMATA, local bus systems and Virginia Railway Express (VRE) operating and capital costs.

NOW, THEREFORE, BE IT RESOLVED that the Northern Virginia Transportation Commission's Executive Director is authorized, for and on behalf of NVTC and as an agent for its members:

1) To execute and file applications to the Virginia Department of Rail and Public Transportation (DRPT) for grants of public transportation assistance for FY2018 commencing July 1, 2017 in the amount of $590.2 million in eligible operating costs to defray a portion of the public transportation cost of NVTC and its members for operations;
2) To accept from DRPT and execute grants in such amounts as may be awarded; and
3) To furnish DRPT such documents and other information as may be required for processing the grant requests.

BE IT FURTHER RESOLVED that NVTC's Executive Director is authorized, for and on behalf of NVTC and its members:

1) To file applications to DRPT for grants of public transportation assistance for FY2018 for capital expenses totaling $221.5 million in costs ($137.0 million non-federal) to defray the costs borne by NVTC and its members for capital expenditures, with a minimum four percent local participation required;
2) To revise the capital portion of the application to reflect refined estimates by WMATA or local governments when they become available;
3) To accept from DRPT and execute grants in such amounts as may be awarded; and
4) To furnish to DRPT such documents and other information as may be required for processing the grant request.

BE IT FURTHER RESOLVED that NVTC's Executive Director is authorized, for and on behalf of NVTC and PRTC and their members:

1) To file FY2018 VRE applications to DRPT in the amount of $52.2 million for operating costs, $89.4 million in total costs for capital ($36.5 million non-federal), and to request $2.9 million from the Rail Enhancement Program;
2) To revise the application to reflect refined estimates by VRE;
3) To accept from DRPT and execute grants in such amounts as may be awarded; and
4) To furnish to DRPT such documents and other information as may be required for processing the grant request.
BE IT FURTHER RESOLVED that NVTC's Executive Director is authorized, for and on behalf of NVTC:

1) To file an application for Technical Assistance with DRPT for the Envision Route 7 project in the amount of $300,000, with state funds anticipated at 50 percent;
2) To accept from DRPT and execute the grant in such amount as may be awarded;
3) To furnish to DRPT such documents and other information as may be required for processing the grant request; and
4) To secure the required local match from the participating NVTC jurisdictions.

BE IT FURTHER RESOLVED that NVTC's Executive Director is authorized, for and on behalf of NVTC:

1) To file an application with DRPT under the Intern Program in the amount of $50,000, with state funds anticipated at 80 percent;
2) To accept from DRPT and execute the grant in such amount as may be awarded; and
3) To furnish to DRPT such documents and other information as may be required for processing the grant request.

BE IT FURTHER RESOLVED that NVTC certifies that the funds for all of the above grants will be used in accordance with the requirements of Section 58.1-638.A.4 of the Code of Virginia, that NVTC will provide matching funds in the ratio required by the Act, that the records of receipts of expenditures of funds granted to NVTC may be subject to audit by DRPT and by the State Auditor of Public Accounts, and that funds granted to NVTC for defraying the public transportation expenses of NVTC shall be used only for such purposes as authorized in the Code of Virginia.

BE IT FURTHER RESOLVED that NVTC's Executive Director is authorized, for and on behalf of NVTC and its members, to furnish to the Transportation Planning Board, the Commonwealth Transportation Board, and other state and federal funding agencies such documents, information, assurances and certifications as may be required for pursuing the above grant requests and continuing previously awarded grants.

BE IT FURTHER RESOLVED that NVTC's Executive Director is authorized to amend the above described applications at the request of NVTC's member jurisdictions to include the most recent information and project costs.

Approved this 2nd day of February, 2017.

Jeffrey E. McKay
Chairman

Matthew F. Letourneau
Secretary-Treasurer
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<th>FY 2019</th>
<th>FY 2020</th>
<th>FY 2021</th>
<th>FY 2022</th>
<th>FY 2023</th>
<th>FY 2024</th>
<th>FY 2025</th>
<th>FY 2026</th>
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<td></td>
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<tr>
<td>Gas Tax Revenue¹</td>
<td>8,852,000</td>
<td>9,795,000</td>
<td>10,519,500</td>
<td>11,383,000</td>
<td>11,619,500</td>
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<td>15,000,000</td>
<td>13,000,000</td>
<td>13,000,000</td>
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<td>80,000,000</td>
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<td>0</td>
<td>15,000,000</td>
<td>13,000,000</td>
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<tr>
<td>Contribution²</td>
<td>0</td>
<td>0</td>
<td>15,000,000</td>
<td>13,000,000</td>
<td>13,000,000</td>
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<td>13,000,000</td>
<td>80,000,000</td>
<td>13,000,000</td>
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<td>Metrorail Tax District Revenue³</td>
<td>9,360,000</td>
<td>9,829,825</td>
<td>10,487,378</td>
<td>11,165,835</td>
<td>11,867,791</td>
<td>12,578,933</td>
<td>13,298,240</td>
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<td>Metrorail Garage Revenue⁴</td>
<td>0</td>
<td>8,244,375</td>
<td>8,033,125</td>
<td>7,821,875</td>
<td>7,610,625</td>
<td>7,399,375</td>
<td>7,188,125</td>
<td>53,274,375</td>
<td></td>
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<tr>
<td></td>
<td>18,212,000</td>
<td>39,869,200</td>
<td>57,040,003</td>
<td>56,118,210</td>
<td>56,861,416</td>
<td>57,597,808</td>
<td>58,268,865</td>
<td>402,966,319</td>
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<td><strong>Expenditures:</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Loudoun County</td>
<td>12,000,000</td>
<td>50,842,000</td>
<td>47,987,000</td>
<td>51,680,000</td>
<td>55,352,000</td>
<td>58,491,000</td>
<td>82,188,000</td>
<td>105,787,000</td>
<td>464,327,000</td>
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<td>Required Contribution to WMATA⁵</td>
<td>3,016,989</td>
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<td>3,925,190</td>
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<td>71,206,654</td>
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<td>TIFIA Debt Service⁶</td>
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<td>8,033,125</td>
<td>7,821,875</td>
<td>7,610,625</td>
<td>7,399,375</td>
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<td>53,274,375</td>
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<tr>
<td>Metrorail Garages Debt Service⁸</td>
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<td>8,244,375</td>
<td>8,033,125</td>
<td>7,821,875</td>
<td>7,610,625</td>
<td>7,399,375</td>
<td>7,188,125</td>
<td>53,274,375</td>
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<tr>
<td></td>
<td>18,044,587</td>
<td>68,183,513</td>
<td>65,100,628</td>
<td>68,590,696</td>
<td>79,145,592</td>
<td>82,073,342</td>
<td>105,559,093</td>
<td>128,946,843</td>
<td>615,644,294</td>
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<tr>
<td>Less Restricted</td>
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<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Metrorail Tax District Revenue</td>
<td>167,413</td>
<td>(28,314,313)</td>
<td>(8,060,625)</td>
<td>(12,472,486)</td>
<td>(22,284,176)</td>
<td>(24,475,534)</td>
<td>(47,290,228)</td>
<td>(69,948,026)</td>
<td>(212,677,975)</td>
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<tr>
<td>Surplus(Deficit)</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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Notes

¹ Projection provided by DMB, February 2, 2017.
² Per the County's Proposed CIP Funding Plan (February 2017)
³ Projections provided by DMB, March 2016; Tax District Revenues to be use Silver Line Construction debt service only
⁴ Projection assumes 100% garage revenue recovery to offset debt service expenditures for the two county garages. Debt service will be structured based on expected revenues
⁵ Numbers provided by DC Chief Financial Officer's Office for the MWCDG CAD Technical Panel (October 2016). FY 2019 Start-up costs provided by WMATA through DTCI - April 2015.
⁶ TIFIA debt service based on the closing model and loan agreement using level debt service
⁷ Projected debt service based on $60M using level debt service. FY 2018-FY 2023 assumes the use of interest only BANS
⁸ Based on projected debt service for revised project cost and additional contingency totaling $84.5M
COG TECHNICAL PANEL INTERIM REPORT ON METRO

October 2016
COG TECHNICAL PANEL INTERIM REPORT ON METRO
Prepared by the COG Chief Administrative Officers Technical Panel on Metro, October 2016

ABOUT COG
The Metropolitan Washington Council of Governments (COG) is an independent, nonprofit association that brings area leaders together to address major regional issues in the District of Columbia, suburban Maryland, and Northern Virginia. COG's membership is comprised of 300 elected officials from 22 local governments, the Maryland and Virginia state legislatures, and U.S. Congress.

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  Jeffrey DeWitt, Chief Financial Officer
Maryland
  Tim Firestine, Chief Administrative Officer, Montgomery County
  Nicholas Majett, Chief Administrative Officer, Prince George’s County
Virginia
  Tim Hemstreet, County Administrator, Loudoun County
  Mark Jinks, City Manager, City of Alexandria
  Ed Long, County Executive, Fairfax County
  Mark Schwartz, County Manager, Arlington County
Washington Metropolitan Area Transit Authority
  Dennis Anosike, Chief Financial Officer
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CONSULTANT
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PURPOSE

The purpose of this Interim Report is to provide a preliminary analysis of data on the Washington Metropolitan Area Transit Authority (WMATA or Metro) - focused on safety, reliability, customer experience and the system’s benefits to the region - to provide the technical foundation necessary to pursue a comprehensive, long-term approach to funding Metro and provide it with a solid financial foundation. It describes the essential role Metro plays in the continued prosperity and livability of the region, and seeks to define regional expectations on system performance focused on customer expectations. The Interim Report incorporates a robust financial forecasting model that enables projecting the long-term (ten year) financial needs of Metro. The model includes a range of revenue, cost and other critical assumptions that are still under active review by the Panel. The model was applied on a preliminary basis using existing operating and capital budget information derived from the currently adopted Metro budget and currently available estimates of capital funding needs. While there is a consensus among the panel members on the validity of the modeling tool, the panel has not reached a consensus on Metro’s financial needs or is ready to provide recommendation regarding revenue options. The panel expects to provide its formal evaluation of needs and revenues later in 2016 after new Metro operating and capital budgets are available.

The Metropolitan Washington Council of Governments (COG) Chief Administrative Officers Technical Panel will present a final report to the COG Board of Directors in the first quarter of 2017.

SUMMARY

The Technical Panel is building a compelling technical picture of Metro’s economic importance, performance goals, and funding needed to restore the system to a safe, reliable system in a state of good repair. Though restoration of Metro will take time and sustained investment, it is already clear that Metro – through its SafeTrack efforts and other actions by the WMATA General Manager and Board – is working hard to restore the system and rebuild the public’s trust.

The entire region has a critical stake in the outcome of Metro’s efforts. While Metro must be held accountable, it must also be supported, politically and financially if it is to be successful and provide metropolitan Washington with the high-performing system needed for the region to prosper and thrive.

Failure is not an option.
The cost of doing nothing is too high. This report builds on the many existing studies and analyses on Metro’s economic value, financial needs, performance metrics and goals – focused on key factors including Metro safety, reliability, and customer service. This information – coupled with ongoing improvements and new analysis planned in the coming months – will enable development of a clear roadmap for restoring public confidence in Metro. The region needs to be confident that Metro will continue to improve, increase ridership, and is worthy of sustainable long-term investment.
BACKGROUND

In January 2016, the COG Board of Directors, led by Chairman Roger Berliner (Montgomery County Council), identified restoring Metro to a world-class transit system as its top priority. To work towards that goal, the COG Board of Directors on June 8, 2016 created the COG Chief Administrative Officers Technical Panel¹ and charged it with three tasks:

- develop performance metrics for Metro, focused on safety and reliability;
- analyze operating and capital funding needs; and
- assess revenue options to meet operating and capital funding needs.

Later, the panel added a fourth task:

- analyze the economic value of Metro and its importance to the region. The panel felt this task was key to support the first three tasks by providing the larger context for the other three tasks.

The panel met on July 6, August 3, September 7, and September 28. The panel worked with WMATA, the District of Columbia Office of the Chief Financial Officer (DC CFO), and coordinated with the Greater Washington Board of Trade. In addition, COG, together with the Board of Trade, convened sessions on March 30 and June 17, to gain information regarding performance metrics and funding of other regional systems in the U.S. and abroad.

The panel has made significant progress on all four tasks. It surveyed reports that clearly illustrate the fundamental role that Metro plays in the region’s economy, and, conversely, how a poorly functioning Metro system poses a threat to the region’s economic prosperity.

Panel members relied on existing data and reports, including recent analysis by the Chief Financial Officer of the District of Columbia. Of particular use have been:


Other reports that have been helpful to the panel have been:

- 2005 report by COG, Board of Trade and Federal City Council on Funding Options for Metro⁴
- 1994 study by KPMG for Northern Virginia Transportation Commission (NVTC): Technical Report: Fiscal Impact of Metrorail on The Commonwealth of Virginia, which evaluated the benefits of Metro to Virginia on development⁵

² Not online; hard copy available from COG staff.
VALUE OF METRO TO THE REGION

Review of the reports reveals the same fundamental conclusion: the Metrorail system is essential to the prosperity of the region. Despite this vital role, Metro is currently subject to a year-to-year funding method, while transit systems of other major cities have more reliable, sustainable (dedicated) funding, which enables use of long-term planning for necessary capital needs. While it is premature to definitively quantify Metro’s long-term funding and financing needs until it completes its operating budget and capital needs inventory later this year, the panel’s review of preliminary operating and capital needs analysis prepared by the District of Columbia’s Chief Financial Officer indicates that the recent pattern of underinvestment in preventative maintenance and capital upgrades will certainly need to change to ensure safe, reliable, high-quality customer service.

Panel members concurred with the December 2015 District of Columbia Office of the Chief Financial Officer’s report, which stated that Metro’s overall health is “absolutely imperative to accommodate business and population growth” across the region. Metro fosters smart growth and without it will encourage more sprawl and a more car-dependent community.

A poorly functioning Metro that is unsafe, unreliable, and lacks adequate capacity harms the region by causing delays that keep workers from getting to their jobs on time; increasing traffic congestion and disrupting the flow of people and commerce in the region; and harming Metro’s ability to operate and improve as it loses riders and fare revenues.

The answer is “focused and prioritized infrastructure investments ... to increase safety,” the Office of the District of Columbia Chief Financial Officer report found.

The 2005 Report of the Metro Funding Panel similarly found: “there is, and will continue to be, an expanding shortfall of revenues available to address both capital needs and operational subsidies of the Metrorail and Metrobus systems.” Noting that Metro not only plays a vital role in carrying federal employees to and from work, but also is a key component of the region’s emergency response system, the report warned that “continued success in this role is at material risk by failure to invest adequately in the system’s capital needs and to provide funding for critical operating requirements with a resulting decline in the system’s condition and unacceptable levels of performance.”

The High Value of Properties Near Metrorail Stations

The 2011 WMATA technical report, Making the Case for Transit, measured and assessed benefits such as avoidance of additional road capacity and parking costs; travel time savings; travel cost savings; accident reduction savings; emissions reduction savings; and land value premium impacts. “With Metro, the region works. Without Metro, the region would be less wealthy, harder to get around, and have less economic activity,” the report found. Furthermore, the report found that properties near Metro stations had higher real estate values and produced more property tax revenues.
Table 1: Real estate value premiums - properties within 1/2 mile of a station

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<tr>
<th>Type of property</th>
<th>Premium value</th>
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<tr>
<td>Residential</td>
<td>6.8%</td>
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<tr>
<td>Multi-family</td>
<td>9.4%</td>
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<tr>
<td>Commercial office</td>
<td>8.9%</td>
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Source: Making the Case for Transit, WMATA

Table 2: Higher property tax revenues from real estate near stations

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<tr>
<th>Distance</th>
<th>Additional revenue</th>
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<tr>
<td>Within 1/4 mile</td>
<td>$133 million</td>
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<tr>
<td>Within 1/2 mile</td>
<td>$224 million</td>
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</table>

Source: Making the Case for Transit, WMATA

Real estate located within 1/4 mile and 1/2 mile of Metrorail stations generated approximately $1.8 billion and $3.1 billion (respectively) in property tax revenues for the Compact area in 2010.

Table 3: Property Tax Revenues – located within 1/2 mile and 1/4 mile of Metrorail stations

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<thead>
<tr>
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<th>Within 1/4 mile</th>
<th>Within 1/2 mile</th>
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<tr>
<td>D.C.</td>
<td>$1.37 billion</td>
<td>$2.26 billion</td>
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<tr>
<td>Virginia</td>
<td>$290 million</td>
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<td>Maryland</td>
<td>$124 million</td>
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<tr>
<td>Totals</td>
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<td>$3.09 billion</td>
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</tbody>
</table>

Source: Making the Case for Transit, WMATA

Researchers at Jones Lang LaSalle estimate that more than 105 million square feet of development is planned within a half-mile of a Metrorail station. Based on square footage, WMATA shows a rough estimate of this projected new construction of $50 billion either under construction or planned.

In 1994, KPMG’s study found that “without Metrorail, the region loses an important attraction: fixed-route, rapid, and reasonably priced transportation.”

This second study (updating a 1985 study) investigated the real estate price premium of properties near Metrorail stations, as reflected in higher property tax revenues. A 2011 study by Metro found that properties within a 1/2 mile of a Metro station command a premium ranging from 6 to 9 percent for commercial and multi-family properties.

Virginia’s investment in the rail system, the KPMG report found, was $941 million for 1978-2000, with a net return in tax revenue of $2.1 billion, for a net gain to the Commonwealth of $1.2 billion on a dollar-for-dollar basis.

The Chief Financial Officer’s December 2015 report based its conclusions on two studies conducted by its Office of Revenue Analysis on the economic and fiscal importance of Metrorail to the region and the District of Columbia. Their main findings:

1. Metro delays impose an economic cost on the region.
2. A reliable Metro system boosts tax revenue to the District and the region.

The D.C. CFO’s report concludes that failure to invest in Metro, to restore it to a safe, reliable system in state of good repair, could reduce regional economic growth by ¼ to ½ percent or more, reducing regional economy and tax revenues by $1 billion to $2 billion.7

**The Cost of Metro Disruptions and Delays**

The first study examined detailed data of disruptions and delays on the system, and then combined that data with income data from a 2012 Metro survey of riders.

The data allowed an estimate of the productivity loss of workers throughout the region due to delays (morning commute only). The report estimated the economic loss of these delays at $51-$61 million.

Between June 2014 and June 2015, there were 1,942 delays during morning rush hours, affecting approximately 9.8 million riders. With an average delay of eight minutes, and 10 percent of delays lasting more than 15 minutes, 1.2 million person hours total were lost – the equivalent of 586 full-time workers’ annual hours. Anecdotal experience over the past year indicates the level of delay has likely increased.

**METRICS**

Metro tracks hundreds of metrics internally and reports a focused set of them publically on a quarterly basis that the panel reviewed to narrow down a few key metrics. Of the many metrics, the panel zeroed in on those relating to safety, reliability, and customer experience as the most critical factors to Metro’s success - and addressing the public’s most important concerns.

The metrics outlined below reflect the current interim analysis by the panel. The panel will continue to examine additional metrics and benchmarking data comparing Metro to other large transit systems. Metro tracks a range of performance metrics, reporting quarterly and annually to its Board of Directors. Those metrics are posted publicly, online in Metro’s “Vital Signs”® reports.

The Key Performance Indicators reported in Vital Signs provide a focused set of metrics, organized by the WMATA Board’s adopted strategic goals, that “align actions to improve performance and deliver results.” The detailed data answers two key questions for the WMATA Board and public: Why did performance change? What actions are being taken to improve it?

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7 How this is calculated: the 1/4% that equals $1.0 billion is the impact of reducing the total tax revenue growth derived from the COG demographic forecast that is estimated at 2.5% annually. In other words, the population, household and employment forecast translates into about 2.5% annual growth in the combined income, property, and sales taxes for the Metro Compact area. Keeping the math simple, that is about $40 billion a year as the total tax base today. If, over 10 years, that grows at 2.5% per year, ignoring compounding, that is $10 billion more in year 10 (2.5% X 40). If growth is reduced from 2.5% to 2.25%, or 0.25 percent, that is a 10% reduction in growth (0.25/2.5). Ten percent of $10 billion in growth is $1.0 billion. This is oversimplified, as the calculation would be a bit larger with compounding. (Source: Office of the Chief Financial Officer, District of Columbia.)

The panel also reviewed WMATA’s Customer Accountability Reports (CARe9) reports, as part of the data review. This online tool enables the public to track Metro’s progress in the areas of safety, service reliability and fiscal accountability.

Safety

The panel focused on identifying metrics defining personal safety - these included crime rate, customer satisfaction which incorporates perceptions of personal safety, and passenger injuries and deaths per million passenger trips. For the purpose of the Interim Report the Crime Rate metric is provided below.

Figure 1: Regional Measures

Safety – How Metro is making safety its first priority and ensuring it will continue to significantly improve in a way that restores the trust of the public and regulators.

As measured by:
- Crime rate
- Customer Satisfaction (incl. perceptions of safety)

Source: WMATA

Additionally, Metro annually tracks safety metrics in the National Transit Database of Reportable Events. Reportable safety events in the following categories are included:
- Fatalities (confirmed within 30 days)
- Injuries
- Property damage
- Collisions
- Evacuations
- Derailments
- Collisions

The panel will work with Metro to further analyze and refine the application of these personal safety metrics to include in the final Technical Panel report.

Reliability

Metro must continue to improve its on-time performance to get riders to their destinations on time and attract riders back to the system.

Metro is tracking quarterly rail customer on-time performance - how often customers get to their destination on time - including factors such as railcar, fare gate, elevator and escalator availability;

http://www.wmata.com/about_metro/general_manager/performanace/CARe.pdf
infrastructure conditions; single-tracking around scheduled track work; railcar delays or delays caused by sick customers.

As of this writing, a performance target has not been established by the WMATA General Manager for reliability, but the panel expects that the target once set will be considerably higher than the current 74 percent for Metrorail to meet the public’s expectations for a dependable system.

**Figure 2: Regional Measures**

**Reliability** – How Metro is ensuring riders will get to destination on time.

As measured by:
- Rail customers on time
- Customer Satisfaction (incl. perceptions of reliability)

[Graph showing rail customer on-time performance with 74% on-time rate]

Source: WMATA

**Customer Experience**

Metro uses a variety of tools to track the system’s ability to deliver a trouble-free riding experience through a variety of means. It reviews the average number of problems a customer experiences in a trip and the percentage of customers who had a comfortable ride (e.g., vehicle temperature, seating availability, crowding on platforms, escalator and elevator performance, etc.) and overall trouble-free experience.
Figure 3: Regional Measures

Customer Experience – How Metro is providing quality customer service.

As measured by:
- Customer Satisfaction

Customer Satisfaction — Bus

78%

Target ≥ 85% of surveyed customers

Customer Satisfaction — Rail

66%

Target ≥ 85% of surveyed customers

Bus customer satisfaction slightly increased compared to Q2/2015 but not significantly. Rail customer’s satisfaction significantly decreased compared to the previous year.

Source: WMATA

Metro also is examining, quarterly, customer feedback on service and the rider experience, using a scientific sampling of the region conducted by phone to residents who have used the bus or rail system in the past 30 days. It is working to rebuild community trust through efficiencies and building ridership.

FINANCIAL MODEL OF WMATA’S OPERATING AND CAPITAL NEEDS

As part of its deliberations, the Technical Panel was briefed on the application of the DC CFO’s recently developed financial model using existing WMATA operating and capital cost data to estimate funding needs over a ten-year period, compare the needs with expected revenues over this time period, and then calculate a potential gap between revenues and operating costs.

The panel concluded that the DC CFO’s model was a very robust tool enabling calculations of operating and capital needs as well as cost allocations to jurisdictions and has the capability to support analysis of revenue options.

The panel notes that while there is a consensus regarding the value of the financial model, it has not reached consensus on the DC CFO needs analysis in recognition that changing assumptions can yield significantly different conclusions.
Application of Financial Model by DC CFO Using Existing WMATA Operating and Capital Budget Data

The assumptions and results of the DC CFO analysis are provided below. The panel emphasizes the preliminary nature of the results, the significant sensitivity of the results to the major assumptions, and the expectation that a far more precise analysis will be prepared by early 2017 using Metro's FY 2018 operating budget and future estimates of operating costs and capital needs.

Key model input assumptions for 10 year needs assessment:

- Sources of data:
  - WMATA's FY 2017 adopted budget
  - Included inflation factors for projecting revenues and costs
  - Added additional amounts for continued Safe Track operations
  - Used WMATA's 6-year CIP as basis for capital needs
  - Added Metro 2025 CIP in addition to the baseline 6-year CIP

- Primary Revenue assumptions:
  - Federal funding (PRITA) is reauthorized in FY 2020 and remains at current levels ($150M annually)
  - Local jurisdictions continue to match federal funding at current levels
  - Existing jurisdictional contributions (local and state) rise 3 percent annually above FY 2017 levels
  - Assumes passenger revenues decline by approximately 10 percent in FY2017 to reflect decrease in ridership and remain flat until FY 2022 - then grow at 3 percent annually

- Primary Cost assumptions – Operating and Maintenance
  - Personnel, services, materials and supplies are grow at 3 percent annually compounded rate.
  - Continued annual Safe Track costs inflated 3 percent per year ($100M base FY 2018)
  - Fuel, propulsion power and utilities are inflated at a 2 percent compounded annual rate.
  - Other Post-employment benefits (OPEB) contributions at recommended levels by WMATA CFO

- Primary Cost assumptions – Capital
  - 6 year CIP from WMATA’s FY 2017 Proposed Budget – Effective July 1, 2016
  - Assumes complete Metro 2025 capital program (power supply and railcars for 8 car trains, core station improvements, new blue line connections, pocket tracks, maintenance facility, etc.)

Projected Operating Funding Gap: FY 2017-FY 2026
Estimated 10-year operating revenues: $18.930 billion
Estimated 10-year operating funding needs: $21.050 billion
Estimated total operating gap is approximately $2.1B - over 10 years

Projected 10-year Capital Funding Gap: FY 2017-FY 2026
Estimated 10-year capital funding revenues: $8.133 billion
Estimated 10-year capital funding needs: $17.980 billion (complete Metro 2025 program; 1BB scenario)
Estimated 10-year capital funding needs: $11.734 billion (most of Metro 2025 deferred beyond 10 year period; $12B scenario)

Estimated 10-year total capital gap is approximately $9.846 billion for an $18 billion CIP scenario (assumes complete Metro 2025 program)

Estimated 10-year total capital gap is approximately $3.303 billion for an $12 billion CIP scenario (assumes majority of Metro 2025 deferred)
The DC CFO concluded based on an assessment of Metro’s historical capacity to expend capital funds that the lower level of capital funding over 10 years of approximately $12 billion is a realistic estimate of what Metro could actually execute for capital projects over 10 years.

Therefore, using the $12B CIP scenario, which the DC CFO views as more realistic, the total combined 10-year operating and capital funding gap using all of the assumptions above would be:

**Figure 2: Application of Financial Model by DC CFO**

<table>
<thead>
<tr>
<th></th>
<th>($ Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIP Funding Gap</td>
<td>$ 3,303.39</td>
</tr>
<tr>
<td>Operating and Maintenance Effort Budget Gap</td>
<td>2,119.16</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>5,422.55</td>
</tr>
<tr>
<td><strong>Annual Average</strong></td>
<td>$ 542.26</td>
</tr>
</tbody>
</table>

Source: DC CFO

**Use of Debt Financing**

Without debt financing, the DC CFO’s analysis results in an annual average funding gap of $542 million. To mitigate the impact of this additional funding requirement, the DC CFO then applied an assumption of the use of bond funding to finance the capital funding gap. He notes that a reliable funding source, such as a dedicated tax or fee could be leveraged to achieve a reasonable borrowing cost. The reliable funding source would also be used to cover the additional annual operating costs.

Additional assumptions applied by the DC CFO for debt financing were an “A” credit rating or higher, 30-year financing term, and a 5 percent long-term borrowing cost, to debt finance the $3.3 billion CIP funding gap. Use of long-term financing spreads the capital costs over the life expectancy of the capital assets as well as extends the repayment costs to the current and future beneficiaries of the projects.

Application of the above assumptions results in a 10-year total funding gap of $2.9 billion or an average of $260 million per year (operating average $210 million plus debt service of $80 million), thereby reducing the total average additional annual funding requirement from $540 million to $290 million, approximately a 54 percent reduction.

On October 12 the DC CFO Jeff DeWitt, presented the above analysis with estimates of Metro’s needs over the next 10 years to a joint meeting of the Mayor of the District of Columbia, the
Governor of Maryland, and the Governor of Virginia. It was characterized as a working draft assessment, to be revised once WMATA provides new updated operating and long-term capital cost needs. WMATA is scheduled to submit their operating and capital needs data by December 2016.

The panel again emphasizes its support for the DC CFO modeling tool, but notes it has not reached consensus on Metro’s financial needs. The panel plans a detailed review of critical assumptions including fares, jurisdictional subsidies, operating costs, and operating efficiencies capital project assumptions, and other factors that will ultimately be considered to enable the panel to provide recommendations on how to meet Metro’s long term financial needs.

NEXT STEPS

The WMATA General Manager is now presenting his proposed FY 2018 operating budget in October 2016. The capital needs inventory will be completed by year-end 2016, and will inform the FY 2018 budget and longer-term capital funding needs. Once WMATA’s updated data is available, the DC CFO’s funding model will be used to provide updated information including funding needs and financing alternatives.

By the end of the first quarter of 2017, the Technical Panel plans to complete its technical foundation work and provide the COG Board of Directors with its final report. The final report will include an update of the analysis of metrics and benchmarking, associated performance goals and targets, updated data on the economic value of Metro, and importance to the regional economic and tax base of a restored Metro system. The report will also provide the COG Board with its conclusions on funding needs, as well as revenue and financing options for regional consideration and action by policymakers.
APPENDIX

Resolution R39-2016
June 8, 2016

METROPOLITAN WASHINGTON COUNCIL OF GOVERNMENTS
777 North Capitol Street, N.E.
Washington, D.C. 20002

RESOLUTION AUTHORIZING THE EXECUTIVE DIRECTOR TO CONVENE A TECHNICAL PANEL TO PREPARE A METRORAIL SAFETY, RELIABILITY AND STATE OF GOOD REPAIR NEEDS AND REVENUE ASSESSMENT AND COORDINATE WITH WMATA ON DEVELOPMENT OF OPERATING BENCHMARKS AND PERFORMANCE METRICS

WHEREAS, the Metro rail system is the most significant regional transportation system and plays a critical role in meeting the National Capital Region’s socio-economic and mobility needs and has served this need for the past 40 years; and

WHEREAS, a series of recent events including the January 12, 2015 L’Enfant Plaza smoke incident, subsequent smoke, fire and other disruptive events in 2015 and 2016 have undermined Metrorail’s reliability and strongly reinforce the urgent need to restore the safety of the aging Metrorail system; and

WHEREAS, these recurring issues led to a 29-hour complete shutdown of the system in March of this year and the region is now faced with an extended period of safety-related repair and maintenance work activities called SafeTrack, which is anticipated to cause significant inconvenience and disruption of socio-economic activities in the region; and

WHEREAS, on March 30, 2016 COG in partnership with the Greater Washington Board of Trade held a summit of the regional elected and business leaders to discuss the importance of restoring Metro rail to a World Class System by addressing the safety and service reliability challenges the system is facing at present; and

WHEREAS, the region’s leaders are unified in their desire to help the Washington Metropolitan Area Transit Authority address the safety and service reliability issues faced by its Metro rail system; and

WHEREAS, the current safety and service reliability issues of Metro are partly due to the funding constraints it faces; and

WHEREAS, on January 6, 2005, COG, the Greater Washington Board of Trade and the Federal City Council issued “The Report of the Metro Funding Panel”, and

WHEREAS, the 2005 report examined and documented Metrorail operating and capital funding needs for 2005-2015, and evaluated a range of financing alternatives for providing funding to meet the needs; and
WHEREAS, the 2005 report concluded that insuring safety, reliability, and state of good repair for the Metrorail system requires stable and predictable funding; and

WHEREAS, in 2008, the United States Congress adopted the Passenger Rail Investment and Improvement Act (PRIIA) which established an annual, ten year dedicated federal appropriation of $1.50 million annually, matched by $50 million each from the District of Columbia, Maryland and Virginia, and such funding has helped address some of the capital cost needs to bring Metrorail into a state of good repair identified in the 2005 study; and

WHEREAS, the current state of safety and service concerns associated with Metrorail and the resultant disruptions to mobility and commerce in the region reaffirms the need to thoroughly explore and address to the best of the region's ability the funding and revenue needs of the Metrorail system;

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE METROPOLITAN WASHINGTON COUNCIL OF GOVERNMENTS THAT:

A. The Board authorizes the Executive Director to convene a Technical Panel of Chief Administrative Officers and Chief Financial Officers, who in partnership with the Washington Metropolitan Area Transit Authority Chief Financial Officer will:

1. Document current funding projections for:
   a. Operating the current Metrorail system in a safe and reliable manner;
   b. Fully implementing the Metrorail system's replacement/rehabilitation program.

2. Provide the Board with an interim report by October 12, 2016 or in a timely manner following release of WMATA's needs assessment; and

3. Explore potential sources for any additional revenue the region may need to meet the above safety and reliability funding needs of the Metrorail system, and

4. Resources to carry out the work of the Technical Panel shall be mainly provided by in-kind contributions, however, the Executive Director is authorized to allocate additional resources to support this initiative drawn from the existing FY 2016 and FY 2017 approved work program and budget.

B. The COG Board further authorizes the Executive Director to coordinate with WMATA on development of operating benchmarks and performance metrics for the Metrorail system for review and input from the Technical Panel with the report issued to the Board.

I HEREBY CERTIFY THAT the foregoing resolution was adopted by the COG Board of Directors on June 8, 2016.

Laura Ambrosio
COG Communications Specialist
HOW WMATA IS FUNDED IN VIRGINIA

NVTC Jurisdictions
- Alexandria Local Funds
- Fairfax Local Funds
- Fairfax General Fund & Bond
- Fairfax Local Funds (General Fund & Bond)
- Falls Church Local Funds (General Fund & Bond)

Jurisdictions instruct NVTC to make payments to WMATA on their behalf out of their respective NVTC Trust fund balance.

WMATA
- Operating Program
- Capital Improvement Program

Checking Escrow:
- Less Operating Revenue
- Equals: Subsidy Requirement
- Calculated by Model and Allocated by WMATA formula to NVTC Jurisdictions, MD and DC

Federal: Formulas

Debt Service:
- Allocated to CIP
- Matches in Current Time of Funding
- To NVTC Jurisdictions, MD and DC

PRIA Matching:
- Allocated 1/3d to VA, MD, and DC
Pay As You Go For Funding Gap - $18 Billion CIP Scenario:

<table>
<thead>
<tr>
<th>(Millions)</th>
<th>FY 2017</th>
<th>FY 2022</th>
<th>FY 2026</th>
<th>10 Year Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIP Funding Gap</td>
<td>$9,846.16</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating and Maintenance Effort</td>
<td>2,119.16</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Budget Gap</td>
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<tr>
<td>Total</td>
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<table>
<thead>
<tr>
<th>Jurisdiction Share of New Funding Needed:</th>
<th>% Contrib.</th>
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<th>FY 2022</th>
<th>FY 2026</th>
<th>10 Year Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>District of Columbia</td>
<td>37.2%</td>
<td>$166,893</td>
<td>$501,279</td>
<td>$880,133</td>
<td>$4,448,797</td>
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<tr>
<td>Montgomery County</td>
<td>17.1%</td>
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<td>230,013</td>
<td>312,074</td>
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<td>Prince George’s</td>
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<td>$4,164,540</td>
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<td>Alexandria</td>
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<td>12,765</td>
<td>59,842</td>
<td>61,220</td>
<td>531,260</td>
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<td>Arlington</td>
<td>8.4%</td>
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<td>112,579</td>
<td>152,744</td>
<td>959,104</td>
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<tr>
<td>City of Fairfax</td>
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<td>748</td>
<td>3,505</td>
<td>4,766</td>
<td>31,110</td>
</tr>
<tr>
<td>Fairfax County</td>
<td>14.7%</td>
<td>42,176</td>
<td>197,788</td>
<td>268,354</td>
<td>1,755,913</td>
</tr>
<tr>
<td>Falls Church</td>
<td>0.3%</td>
<td>520</td>
<td>4,314</td>
<td>5,854</td>
<td>38,789</td>
</tr>
<tr>
<td>Virginia Subtotal</td>
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<td>$512,928</td>
<td>$3,356,077</td>
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<tr>
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<td>$1,848,250</td>
<td>$1,820,271</td>
<td>$11,965,324</td>
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Pay As You Go For Funding Gap - $12 Billion CIP Scenario:

<table>
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<th>(Millions)</th>
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<th>FY 2022</th>
<th>FY 2026</th>
<th>10 Year Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>District of Columbia</td>
<td>37.2%</td>
<td>$59,895</td>
<td>$123,845</td>
<td>$572,279</td>
<td>$2,016,105</td>
</tr>
<tr>
<td>Montgomery County</td>
<td>17.1%</td>
<td>27,004</td>
<td>56,817</td>
<td>262,590</td>
<td>925,087</td>
</tr>
<tr>
<td>Prince George’s</td>
<td>17.7%</td>
<td>28,051</td>
<td>59,023</td>
<td>272,746</td>
<td>960,876</td>
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<tr>
<td>Maryland Subtotal</td>
<td>84.8%</td>
<td>$65,057</td>
<td>$155,812</td>
<td>$536,328</td>
<td>$2,485,964</td>
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<tr>
<td>Alexandria</td>
<td>4.4%</td>
<td>7,029</td>
<td>14,790</td>
<td>68,341</td>
<td>240,761</td>
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<tr>
<td>Arlington</td>
<td>8.4%</td>
<td>13,218</td>
<td>27,814</td>
<td>128,524</td>
<td>452,783</td>
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<tr>
<td>City of Fairfax</td>
<td>0.3%</td>
<td>412</td>
<td>866</td>
<td>4,002</td>
<td>14,099</td>
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<tr>
<td>Fairfax County</td>
<td>14.7%</td>
<td>28,223</td>
<td>48,655</td>
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<td>795,488</td>
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<tr>
<td>Falls Church</td>
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<td>507</td>
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<td>17,352</td>
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<td>Virginia Subtotal</td>
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<td>Total</td>
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<td>$158,900</td>
<td>$344,100</td>
<td>$1,539,213</td>
<td>$5,437,553</td>
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</table>
Impact if Gap for $12 Billion Capital Scenario Is Bond Funded (Borrowed):

- Maximum annual debt Service on borrowing to cover the capital shortfall would be about $215M annually.
  - Assumes $3.3 billion capital gap is borrowed
  - Assumes estimated borrowing costs of 5% and 30 year financings
- With borrowing to cover capital shortfall, the average total funding gap (operating + capital) still exceeds $290M annually, and is just over $500M in FY 2026.

<table>
<thead>
<tr>
<th></th>
<th>FY 2017</th>
<th>FY 2022</th>
<th>FY 2025</th>
<th>10 Year Total</th>
</tr>
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<tbody>
<tr>
<td>Operating and Maintenance Effort Gap</td>
<td>-</td>
<td>247.70</td>
<td>288.54</td>
<td>2,119.16</td>
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<tr>
<td>Potential New Debt Service (to fund 100% of CIP gap)</td>
<td>-</td>
<td>68.85</td>
<td>214.93</td>
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<tr>
<td><strong>Total</strong></td>
<td>$</td>
<td>316.55</td>
<td>513.47</td>
<td>2,922.35</td>
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Jurisdictional Impact of $12B CIP – Assumes Debt Financing for Capital Needs

<table>
<thead>
<tr>
<th>Jurisdictional Share of New Funding Need:</th>
<th>FY 2017</th>
<th>FY 2022</th>
<th>FY 2025</th>
<th>10 Year Total</th>
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<tbody>
<tr>
<td>% Contrb.</td>
<td>Base Line Year</td>
<td>'Base Line Plus 'Add-on's'</td>
<td>Total</td>
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</tr>
<tr>
<td>District of Columbia</td>
<td>37.2%</td>
<td>$0</td>
<td>$117,693</td>
<td>$190,909</td>
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<tr>
<td>Montgomery County</td>
<td>17.1%</td>
<td>$4,003</td>
<td>$30,858</td>
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<tr>
<td>Prince George's</td>
<td>17.7%</td>
<td>$56,052</td>
<td>$20,967</td>
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<tr>
<td>Maryland Subtotal</td>
<td>32.6%</td>
<td>$0</td>
<td>$110,096</td>
<td>$178,588</td>
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<tr>
<td>Alexandria</td>
<td>4.4%</td>
<td>$14,055</td>
<td>$22,758</td>
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<tr>
<td>Arlington</td>
<td>6.4%</td>
<td>$26,432</td>
<td>$42,875</td>
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<tr>
<td>City of Fairfax</td>
<td>0.3%</td>
<td>$823</td>
<td>$1,335</td>
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<tr>
<td>Fairfax County</td>
<td>14.7%</td>
<td>$46,436</td>
<td>$75,326</td>
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<tr>
<td>Falls Church</td>
<td>0.3%</td>
<td>$1,013</td>
<td>$1,643</td>
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<tr>
<td>Virginia Subtotal</td>
<td>28.0%</td>
<td>$0</td>
<td>$88,760</td>
<td>$143,977</td>
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<tr>
<td><strong>Total</strong></td>
<td>100.0%</td>
<td>$0</td>
<td>$316,549</td>
<td>$513,472</td>
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