

## **Commitments and Mitigation Measures**

This attachment to the Purple Line ROD describes the Commitments and Mitigation Measures that will be undertaken by MTA and FTA for the project. The commitments and mitigation measures identified for the project in the FEIS, ROD and PA must be implemented by FTA and MTA if the project proceeds with FTA financial assistance. These mitigation measures are now incorporated into the definition of the project. MTA is prohibited from withdrawing or substantially changing any of the mitigation commitments identified in the FEIS, ROD and PA for the project without written approval by FTA. In addition, any changes to the project that are inconsistent with this ROD must be evaluated in accordance with 23 CFR Sections 771.129 and 771.130, and if required therein, they must be approved by FTA in writing before the MTA can proceed with the change.

Upon FTA's signing of the ROD, FTA will require that MTA establish a mitigation monitoring program to monitor and track the commitments and mitigation measures. The commitment and mitigation measures will be communicated to the team(s) working on design, construction, and operation of the project. The mitigation monitoring program will provide a means for MTA and FTA to track progress in accomplishing the commitments and mitigation measures. The mitigation monitoring program will also describe the timing of the commitments and mitigation measures and the close-out procedures. The mitigation monitoring program will consist of these activities:

- MTA will maintain and update the list or database of the commitments and mitigation
  measures provided in this attachment. MTA will immediately add to the list environmental
  commitments resulting from consultations and coordination, from permits and/or approvals
  issued by Federal, State, County, or City agencies, and from new information or project
  changes that become available and known during design or construction;
- MTA will track the status of implementation of each commitment and mitigation measure;
   and
- FTA and MTA will conduct quarterly reviews of the mitigation monitoring program.

The table of commitments and mitigation measures in this attachment will assist MTA in meeting its commitments and responsibilities by providing an easy reference summary list of the commitments and mitigation measures stipulated in the project's environmental record. The FEIS, PA and other parts of the ROD, however, provide the details about each item listed in this table and reflect the specifics of the commitments and mitigation measures. MTA will incorporate these commitments and mitigation measures into the project's design drawings, specifications, and contract documents during design. Using its monitoring program, MTA will track the implementation and completion of each commitment and mitigation measure during the appropriate design, construction and/or operational action periods.

Mitigation ID and Reference			Responsible Party	
Transportation (TR)				
TRO1 FEIS Ch. 5.3	Construction — Management			
TR02 FEIS Ch. 3.4	Construction — Detours	MTA will work with Montgomery County to designate, communicate, and sign detour routes for the Interim Capital Crescent Trail throughout project construction. MTA will also minimize the time of trail closure. MTA will identify trail detours in the TMP during design.	MTA with Montgomery County	
TRO3 FEIS Ch. 3.8	Construction — Access	MTA will maintain pedestrian movements and pedestrian access in the project corridor to the extent reasonably feasible during project construction. Where it is not possible to maintain existing movements during construction, MTA will designate alternate routing with appropriate signing.	MTA	
TRO4 FEIS Ch. 3.8	Long-term — Parking	During design, MTA will coordinate with Montgomery County to identify specific mitigation strategies to address permanent loss of on-street parking along Bonifant Street. MTA will implement the specific mitigation strategies during construction.	MTA with Montgomery County	
TR05 FEIS Ch. 3.8	Long-term — Parking	MTA will design approximately 200 permanent parking spaces to replace the parking used by Montgomery County Department of Transportation employees at Lyttonsville. MTA will implement the replacement parking during project construction.		
TRO6 FEIS Ch. 3.8	Construction — Business Impacts	Prior to construction, MTA will work with stakeholders and local businesses affected by the temporary loss of loading zones, or access to loading zones during construction, to identify alternate or temporary loading areas. MTA will implement the alternate or temporary loading areas during construction.		
TR07 Resp. to Comments	Construction and Long- term — Safety	During design, MTA will develop a safety education program for citizens. The program, to be implemented during construction and operation, will address construction as well as operational safety.		
TRO8 Resp. to Comments	Long-term — Green Trail	During design, MTA and Montgomery County will consider widening the Sligo Creek bridge to accommodate a wider Green Trail than currently proposed.	MTA with counties	
TR09 Resp. to Comments	Long-term — Bicycle and Pedestrian	During design, MTA will work with the counties, MD SHA and the local jurisdictions to identify bicycle and pedestrian improvement opportunities associated with the Purple Line, such as bike lanes, bike facilities at stations, additional bike parking in the corridor, wider sidewalks, crosswalks, and landscaped buffers.	MTA with counties, MD SHA and local jurisdictions	
Land Use, Public Polic	y and Zoning (LU)			
LU01 FEIS Ch. 4.2	Long-term — Land Use Effects	MTA will coordinate with Maryland National Capital Park and Planning Commission (M-NCPPC), county planning departments, and developers as the project design advances to avoid or minimize adverse project effects on corridor communities.	MTA with M-NCPPC, counties and developers	

Mitigation ID and Reference	Construction or Long- term Issue	Commitment or Mitigation Measure	Responsible Party	
Neighborhoods and Co	ommunity Facilities (NE)			
NEO1 FEIS Ch. 4.3	Construction and Long- term — Emergency Response	term — Emergency resolve potential issues arising from construction, operation, and emergency response.		
NEO2 FEIS Ch. 4.3	Long-term — Maintenance Facility Design	MTA will provide a landscape buffer between the Glenridge Maintenance Facility and the adjacent school and developed portion of the park; MTA will install retaining walls to minimize the limits of disturbance.	МТА	
NEO3 FEIS Ch. 4.3	Construction — Access and Parking	During design, MTA will coordinate with the counties to identify alternative access or temporary off-site parking for community facilities where access or parking may be temporarily affected during construction. At the end of construction, MTA will restore parking as well as access to parking that it temporarily affected.	MTA with counties	
NEO4 FEIS Ch. 4.3	Construction — Schools	During design and construction, MTA will coordinate with the University of Maryland, Rosemary Hills Elementary School, Sligo Creek Elementary School, and Silver Spring International Middle School to minimize disruptions due to project construction during school operations to the extent reasonably feasible.	MTA with schools	
NE05 Resp. to Comments	Construction — Talbot Avenue Bridge	MTA will implement heavy construction of the Talbot Avenue Bridge abutments and retaining walls adjacent to the Rosemary Hills Elementary School during the summer months when school is not in session. MTA will coordinate the schedule for work on the retaining walls and bridge with Montgomery County Department of Transportation, Montgomery County Public Schools, and the community.	MTA with Montgomery County	
NEO6 Resp. to Comments	Construction — Community Facilities	During construction, MTA will work with Montgomery County and local residents to monitor use of local community facilities by project construction workers, and will provide additional resources such as policing or maintenance, if necessary.		
Property Acquisitions	and Displacement( AD)			
ADO1 FEIS Ch. 4.4	Long-term — Relocation Assistance	MTA will conduct property acquisition and relocation activities in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act) as amended, the Federal Transit Administration (FTA) Circular 5010.1D, Grants Management Requirements (or its successor), the Real Property Annotated Code of Maryland, MTA's Relocation Assistance Program, and other applicable Maryland State laws that establish the process through which the State may acquire real property. Benefits include advisory services, moving and reestablishment costs, and other payments and services as provided by law.	MTA with FTA	
AD02 Resp. to Comments	Construction — Displacements	MTA will endeavor to enable tenants and owners of property it acquires to remain on the properties as long as reasonable prior to construction.		
AD03 FEIS Ch. 4.4	Construction — Construction Areas	MTA will restore properties it temporarily occupies to reasonably similar pre-construction condition at the end of construction activities, in accordance with easement agreements.		
AD04 FEIS Ch. 3.5	Construction and Long- term — CSX	MTA will continue to coordinate with CSX as the project design advances regarding use of their right-of-way, the nature and extent of activities affecting CSX right-of-way, and compliance with CSX safety requirements during construction as well as future Purple Line operations.		
AD05 FEIS Ch. 4.4	Long-term — Permanent Right-of-way	During design, MTA will coordinate with affected property owners and tenants to develop means to reduce the area of permanent right-of-way and displacements for the project.	MTA with property owners and tenants	

Mitigation ID and Construction or Long-Reference term Issue Commitment or Mitigation Measure		Commitment or Mitigation Measure	Responsible Party
Economic Activity (EC)	)		
ECO1 FEIS Chs. 4.5 and 4.19	Construction — Business Impacts	Prior to construction, MTA will implement a corridor-wide Business Impact Minimization Plan, which it will implement during construction. As described in the FEIS Chapter 4.19.5 Short-term Construction Effects, MTA will develop this plan after evaluating best management practices and lessons learned from other light rail construction projects regarding communications, construction staging, maintaining access for customers and deliveries during construction, and providing directional signage.	
Parks, Recreational L	and and Open Space (PR)		
PRO1 ROD Attachments D and E	Construction and Long- term — Section 4(f) Commitments	MTA will implement the commitments and mitigation identified in the Final Section 4(f) Evaluation and FTA's Section 4(f) de minimis and temporary occupancy exception concurrence letters signed by the officials with jurisdiction, which includes the National Park Service and M-NCPPC (ROD Attachments D and E).	MTA with M-NCPPC, National Park Service (NPS) and NCPC
Historic Properties and	d Archeological Sites (HP)		
HPO1 ROD Attachment B	Construction and Long- term — Section 106 Commitments	MTA will implement the project in accordance with the Section 106 of the National Historic Preservation Act (NHPA) Programmatic Agreement (ROD Attachment B), including any amendments to that Agreement.	FTA with MTA, NPS, and Maryland Historical Trust (MHT)
Visual Resources (VI)	Note: See "Habitat and Wildlit	fe" section below for tree loss commitments and mitigation measures	
VIO1 FEIS Ch. 4.9	Long-term — Capital Crescent Trail During design and using context sensitive design practices, MTA will coordinate and consult with Montgomery County, the Town of Chevy Chase Mitigation Advisory Committee, and affected communities regarding the design of the permanent Capital Crescent Trail, including the finishes of walls and fences, while meeting safety and Americans with Disability Act (ADA) requirements.		MTA with Montgomery County, Chevy Chase Committee and public
VI02 FEIS Ch. 4.9	Long-term — Connecticut Avenue Bridges	During design, MTA will coordinate and consult with Montgomery County and the surrounding communities, such as Chevy Chase and the neighborhoods along Chevy Chase Lake Drive, regarding the aesthetic treatment of the bridge structures over Connecticut Avenue.	MTA with Montgomery County and public
VIO3 FEIS Ch. 4.9	Construction and Long- term — Rock Creek Bridges	MTA will coordinate with M-NCPPC and the National Capital Planning Commission (NCPC) regarding the design and construction of the Rock Creek bridges.	MTA with M-NCPPC and NCPC
VIO4 FEIS Ch. 4.9	Long-term — Aesthetic Treatments	MTA will continue to coordinate and consult with the counties and communities during design regarding the aesthetic treatments of the Preferred Alternative elements: station design, location and design of traction powered substations and other ancillary structures, and landscaping.	
VIO5 FEIS Ch. 4.9	Construction — Work Zones	MTA will maintain an orderly appearance of active work zones and staging areas during construction.	MTA
VIO6 FEIS Ch. 4.9	Long-term — Art-in-Transit	During design, MTA will incorporate art in elements of the project, such as stations, retaining walls and bridges. Working with counties, MTA will identify an Artist Selection Committee, which will include community members and arts professionals.	MTA

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Air Quality (AQ)			,
AQ01 FEIS Ch. 4.10	Construction — Dust Control	During construction, MTA will implement dust control measures in accordance with Maryland Department of Environment (MDE) requirements and assure that construction equipment complies with the U.S. Environmental Protection Agency's (EPA) Tier 2 engine emission standards. Possible dust and emission control measures are listed in the air quality portion of FEIS Chapter 4.20.	МТА
Noise (NO)			
N001 FEIS Ch. 4.11	Long-term — Noise Wall	Between Bethesda Terminal Station and Jones Mill Road, MTA will provide a minimum four-foot noise wall or retaining wall adjacent to residential areas.	MTA
N002 FEIS Ch. 4.11	Long-term — Vehicle Design	LRT vehicles will include vehicle skirt panels, or an equivalent, to reduce the noise caused by the vehicles on the track.	MTA
N003 FEIS Ch. 4.11	Long-term — Public Address Systems	Public address systems at each station will have volume adjustment controls to maintain announcement volumes at specific sound levels in consideration of the surrounding community and safety requirements.	MTA
N004 FEIS Ch. 4.11	Long-term — Traction Power Substations	The traction power substations will be designed in accordance with design criteria intended to minimize the noise from transformer hum.	MTA
N005 FEIS Ch. 4.11	Construction — Noise	As design advances and prior to construction, MTA will develop construction phase noise minimization measures. Typical measures MTA will consider include conducting construction activities during the daytime as reasonably feasible; designating construction vehicle routes to minimize disturbance to residents; locating stationary equipment away from residential areas to the extent reasonably feasible; employing noise control technologies to limit excessive noise when working near residences; and adequately notifying the public of construction operations and schedules.	МТА
Vibration (VB)	1		
VB01 FEIS Ch. 4.12	Long-term — Vibration	Prior to construction, MTA will perform a more detailed assessment of the potential for operational vibration impacts in those areas identified in the FEIS as being potentially impacted by project-related vibration. Where this assessment indicates potential for vibration impact, MTA will design minimization measures that are appropriate to the specific condition.	МТА
VB02 FEIS Ch. 4.12	Construction — Vibration	Prior to construction, MTA will identify measures to minimize the potential for project-related vibration impacts in the corridor during construction. Possible vibration control measures are listed in FEIS Chapter 4.12.3.	
VB03 FEIS Ch. 4.20	Long-term — Vibration	Prior to construction, MTA will analyze extremely vibration sensitive buildings located within the University of Maryland (UMD) campus as agreed upon by MTA and UMD; and identify control measures to be incorporated into the project design to minimize the potential for vibration impacts.	
VB04 FEIS Ch. 4.12	Construction — Vibration	As design advances and prior to construction, MTA will determine if rock blasting will be required to construct the Plymouth Tunnel. If blasting is required, MTA will develop and implement a blasting plan that provides measures to minimize the effects of blasting on the surrounding communities. Typical measures MTA will consider are described in FEIS Chapter 4.12.3 and include community notification in advance of blasting events; scheduling events during least community-sensitive hours; specifying heavy equipment routes to limit community impact; hiring an expert blasting consultant with experience in controlled blasting; setting vibration level limits; monitoring blast events; conducting test blasts to validate methodology; and conducting pre- and post- blasting surveys.	МТА

Mitigation ID and Reference	Construction or Long- term Issue	Commitment or Mitigation Measure	Responsible Party
Habitat and Wildlife (	HW)		
HW01 FEIS Ch. 4.13	Long-term — Forest Conservation Plan	Prior to construction and in compliance with the MD Forest Conservation Act, MTA will prepare a Forest Conservation Plan to offset project-related tree loss along the Georgetown Branch Trail and at other corridor locations. At the end of construction, MTA will implement the plan which will detail specific forest retention, tree-planting and/or forest mitigation banking.	MTA
HW02 FEIS Ch. 4.13	Long-term — Natural Environment	During design, MTA will coordinate with federal and state regulatory agencies to identify measures to avoid or minimize natural environment impacts as part of obtaining applicable permits.	MTA with agencies listed in FEIS Table 4-54
HW03 FEIS Ch. 4.13	Long-term — Streams	As design advances, MTA will avoid creating in-stream barriers that block migratory fish from upstream spawning grounds.	МТА
HW04 FEIS Ch. 4.13	Long-term — Streams	As design advances, MTA will minimize alterations of stream configuration, characteristics, and hydrology.	МТА
HW05 FEIS Ch. 4.13	Long-term — Streams	As design advances, MTA will work to avoid or minimize incremental changes to in-stream water quality from deforestation of the riparian zone.	MTA
HW06 Resp. to Comments	Long-term — Streams	MTA will implement mitigation for project-related stream impacts in accordance with permits it will obtain during design from the U.S. Army Corps of Engineers (USACE) and MDE.	MTA
HW07 FEIS Ch. 4.13	Construction — Materials	MTA will prepare and implement a spill management plan and water quality and quantity controls for construction area containment, use and storage of fuels and other potential contaminants based on current regulations and project permit conditions.	MTA
HW08 FEIS Ch. 4.13	Long-term — Habitat	As design advances, MTA will design culverts and bridges to MDE standards to avoid or minimize secondary and cumulative impacts to migratory fish and the alteration of habitat.	MTA
HW09 FEIS Ch. 4.13	Construction — Habitat	MTA will restore and stabilize temporarily disturbed aquatic habitat at the end of construction according to a restoration plan to be developed during design by MTA in coordination with the USACE and MDE permits.	MTA with USACE and MDE
HW10 FEIS Ch. 4.13	Construction — Streams	MTA will not undertake in-stream construction during state-mandated stream closure periods.	МТА
HW11 FEIS Ch. 4.13	Construction — Habitat	During design, MTA will coordinate with the Maryland Department of Natural Resources (MDNR) regarding the heron colony located within Coquelin Run. During construction and in accordance with the U. S. Migratory Bird Treaty Act, MTA will minimize potential impacts to migratory birds and forest interior dwelling species using time of year construction restrictions (April-August) for forest clearing operations.	MTA with MDNR

Mitigation ID and Reference	Construction or Long- term Issue	Commitment or Mitigation Measure	Responsible Party
Water Resources, Topo	ography and Soils (WT)		
WT01 FEIS Ch. 4.14	Long-term — Wetlands	MTA will coordinate with federal and state regulatory agencies to develop and implement a project-wide compensatory mitigation strategy to offset impacts to wetlands and aquatic resources. MTA will comply with the Federal Compensatory Mitigation Rule, as well as stipulations in federal and state agency-issued permits.	MTA with USACE and MDE
WT02 FEIS Ch. 4.14	Construction — Scenic and Wild Rivers	MTA will minimize the area of disturbance to Maryland-designated scenic and wild rivers by clearly identifying the areas on project design drawings, marking and fencing the work area prior to construction, and prohibiting activity outside the work area. Prior to construction, MTA will submit project plans to MDNR for evaluation in compliance with the Maryland Scenic and Wild Rivers Act to assure that the project will not jeopardize the scenic value of the designated rivers.	MTA with MDNR
WT03 FEIS Ch. 4.14	Long-term — Floods	MTA will perform hydraulic and hydrologic studies during design. If these studies find that flood elevation would change as a result of the project, MTA will develop and implement floodplain storage mitigation in coordination with MDE. As required, MTA will submit project plans to MDE for approval of structural evaluations, fill volumes, proposed grading elevations, structural flood-proofing, and flood protection measures in compliance with Federal Emergency Management Agency (FEMA) requirements, USDOT Order 5650.2 "Floodplain Management and Protection," and Executive Order 11988.	MTA with MDE
WT04 FEIS Ch. 4.22	Construction and Long- term — Permits	Subsequent to the ROD and prior to construction, MTA will obtain applicable environmental permits for water resources. A list of applicable permits is provided in FEIS Table 4-54.	МТА
WT05 FEIS Ch. 4.14	Construction and Long- term — Permits	Prior to construction, MTA will develop an Erosion and Sediment Control Plan, in accordance with the Stormwater Management Act of 2007 (and the Energy Independence and Security Act, Section 438, as it relates to the Baltimore-Washington Parkway), which will specify proper slope and soil stabilization techniques, erosion and sediment controls, and stormwater management facilities.	MTA with MDE and M- NCPPC
WT06 FEIS Ch. 4.14	Long-term — Water Quality	During design and construction, MTA will strive to avoid long-term water quality and quantity impacts to aquatic biota by minimizing the amount of new impervious surfaces associated with the transitway, yard, and maintenance facility.	МТА

Mitigation ID and Reference	Construction or Long- term Issue	Commitment or Mitigation Measure	Responsible Party
Hazardous Materials (	(HM)		
HM01 FEIS Ch. 4.16	Long-term — Materials Prior to and during operations, MTA will establish procedures and staff training for proper storage and maintenance of equipment and hazardous materials.		МТА
HM02 FEIS Ch. 4.16	Construction — Health and Safety	MTA will develop a site-specific health and safety plan including equipment and procedures to protect workers and general public during construction, procedures for monitoring contaminant exposures, and identification of the chain of command.	МТА
HM03 FEIS Ch. 4.16	Construction — Contamination	MTA will perform a Phase II Environmental Site Assessment (ESA) prior to acquisition of any property with a high potential for concern (sites ranked 1 or 2 in the Phase I ESA; FEIS Table 4-38) unless the property can be classified accurately by other means or methods. MTA also will perform further records research on sites with a ranking of 4 to determine potential presence of PCBs.	МТА
HM04 FEIS Ch. 4.16	Construction — Contamination	MTA will identify remediation actions to implement, as needed, if unexpected soil or groundwater contamination is encountered during construction.	МТА
HM05 FEIS Ch. 4.16	Construction — Contamination	Prior to construction, MTA will develop an action plan to be used if contaminated soils are identified or encountered prior to or during construction. The plan will describe procedures for evaluating off-site remediation, chemical stabilization, or other treatments and disposal options, in cooperation with MDE. MTA will implement the plan during construction.	МТА
HM06 FEIS Ch. 4.16	Long-term — Contamination	MTA will coordinate with MDE to determine the mitigation response and reporting required should a release of hazardous materials occur during operations.	MTA with MDE
Utilities (UT)			,
UTO1 FEIS Ch. 4.17	Design and Construction — Utilities	During design, MTA will coordinate with utility owners regarding project-related work in the area of utilities.	MTA with utility owners
Environmental Justice	(EJ) Note: See also Constructi	ion Commitments and Mitigation Measures below	,
EJ01 FEIS Ch. 4.19	Construction — Business MTA will implement a corridor-wide Business Impact Minimization Plan before construction begins. MTA will develop this plan after evaluating		MTA with local business owners
EJ02 FEIS Ch. 4.19	Long-term — Businesses	During design, construction and operations, MTA will support efforts by counties and other stakeholders to leverage additional resources to support and strengthen small businesses in the corridor.	
EJ03 FEIS Ch. 4.19	Long-term — Workforce Development	During design, construction and operations, MTA and the counties will design and implement programs to create project-related local economic benefits, including workforce development programs.	
EJ04 FEIS Ch. 4.19	Long-term — Affordable Housing	During design, construction and operations, MTA will support county-led efforts to protect and expand the corridor-wide supply of affordable housing.	MTA with counties and advocacy groups

Mitigation ID and Reference	Construction or Long- term Issue	Commitment or Mitigation Measure	Responsible Party
Construction (CO)			
C001 FEIS Ch. 5.4	Construction — Planning	MTA will develop and implement an Environmental Compliance Plan (ECP) for the project after the project's ROD is issued and prior to the initiation of project construction activities. The purpose of the plan is to identify and employ means and methods during construction to avoid or minimize impact to the environment and general public in compliance with construction contract documents (for example maintaining secure construction sites, minimizing noise, dust, and vibration, pest control, and meeting applicable ordinances and requirements).  The plan will identify and describe how MTA will implement the environmental commitments and mitigation measures in the FEIS, ROD, Section 4(f) Evaluation and other documents such as environmental permits as the project design advances. MTA will consider suggestions made by the U.S. Environmental Protection agency in its October 29, 2013 letter regarding elements of the ECP and coordinate with them where appropriate.  A component of the plan will describe how MTA will implement the environmental commitments and mitigation measures for properties encumbered by Capper Cramton Act funds. This portion of the draft plan will be provided to National Capital Planning Commission in MTA's 60% design package submission.	MTA with NCPC
CO02 FEIS Ch. 5	Construction — Duration	MTA will work to minimize construction impacts and the amount of time required to build the Purple Line and Capital Crescent Trail.	MTA
COO3 Resp. to Comments	Construction — Outreach	MTA will work with affected communities, including enhanced outreach to environmental justice communities, during the design and construction phases of the project. The project's public involvement plan includes community liaisons who will serve as the point of contact for local residents and businesses prior to and during the construction process.	MTA