

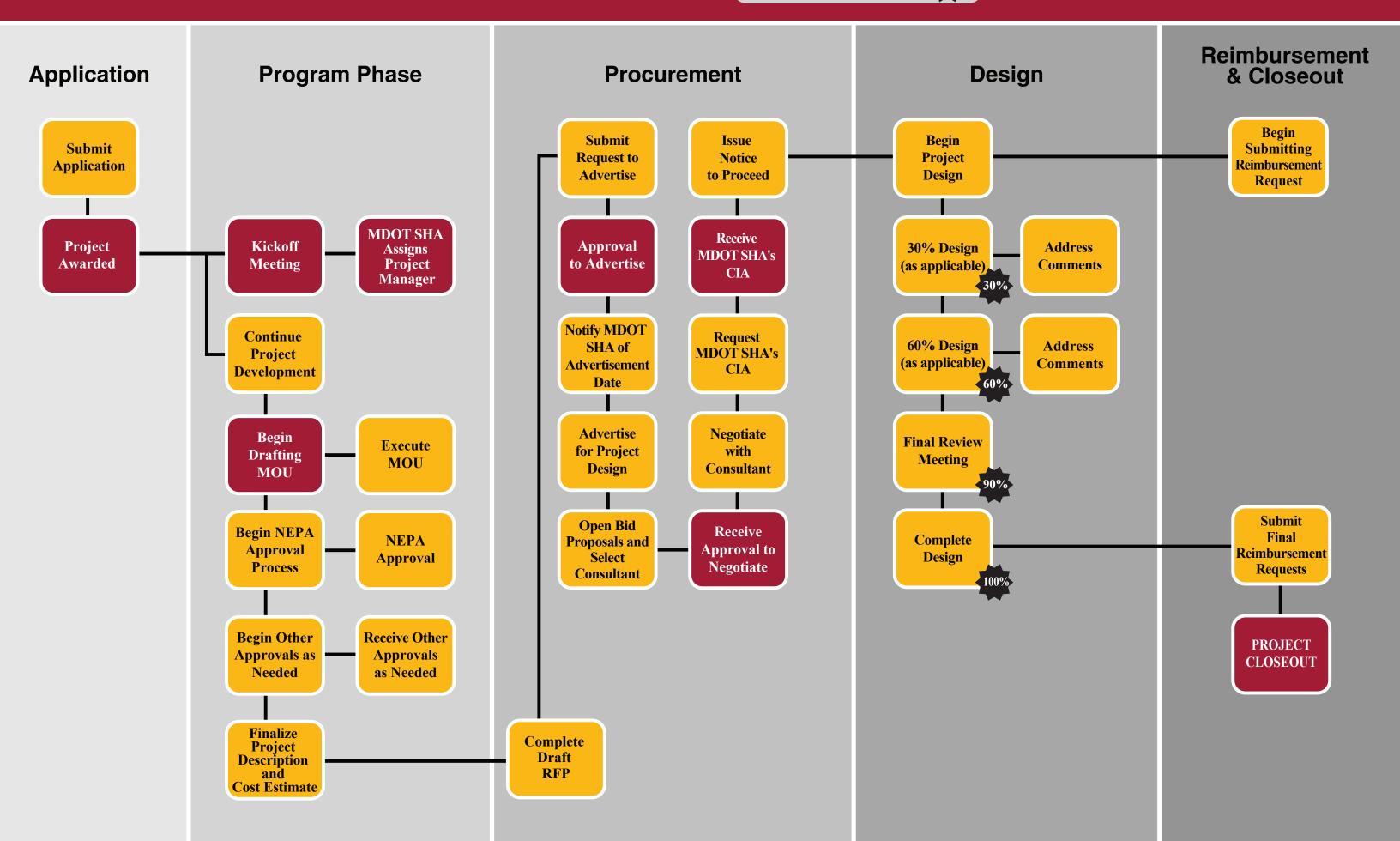
TRANSPORTATION ALTERNATIVES PROGRAM MANUAL

OCTOBER 2021



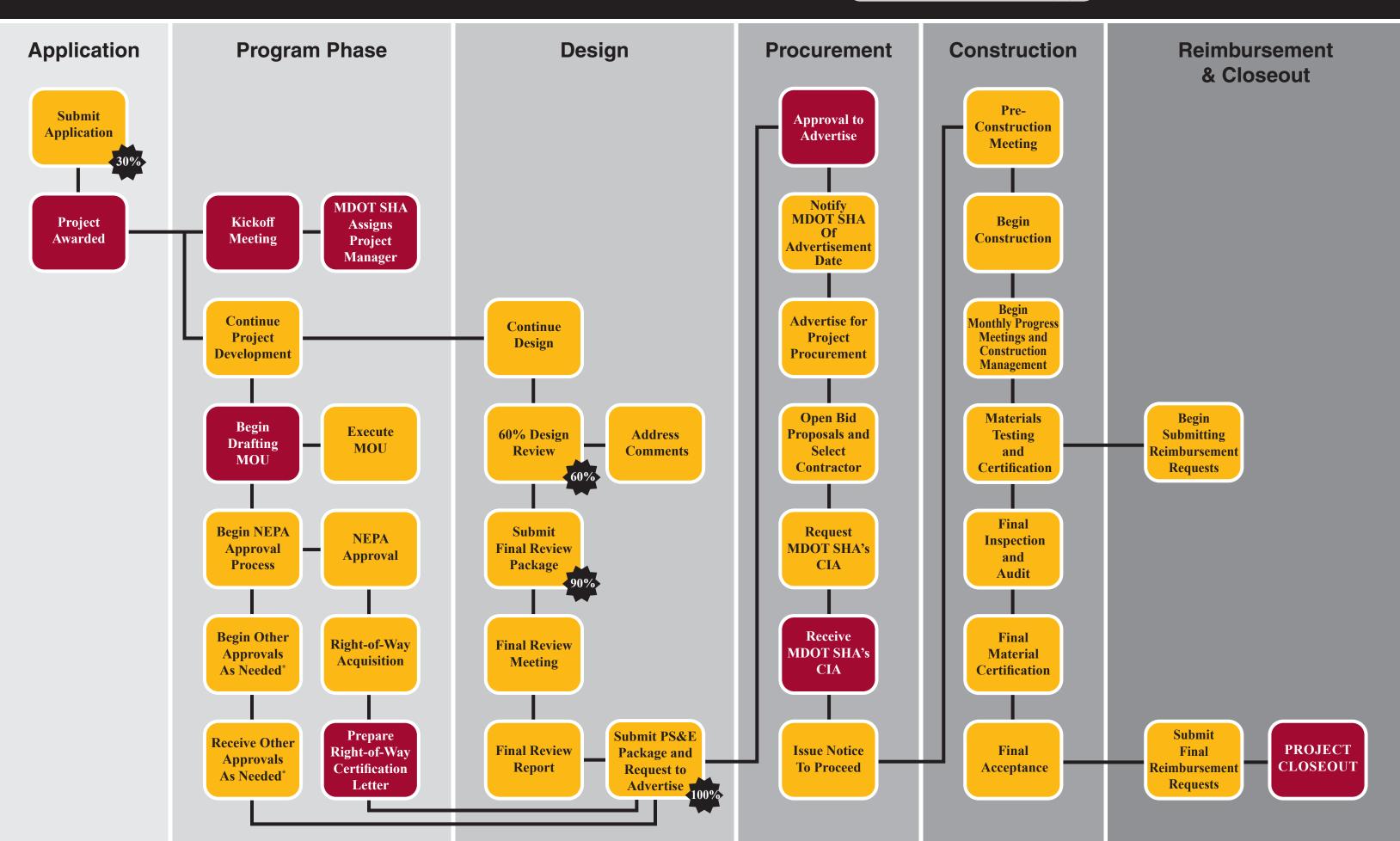
TAP PROCESS MAP DESIGN PROJECTS

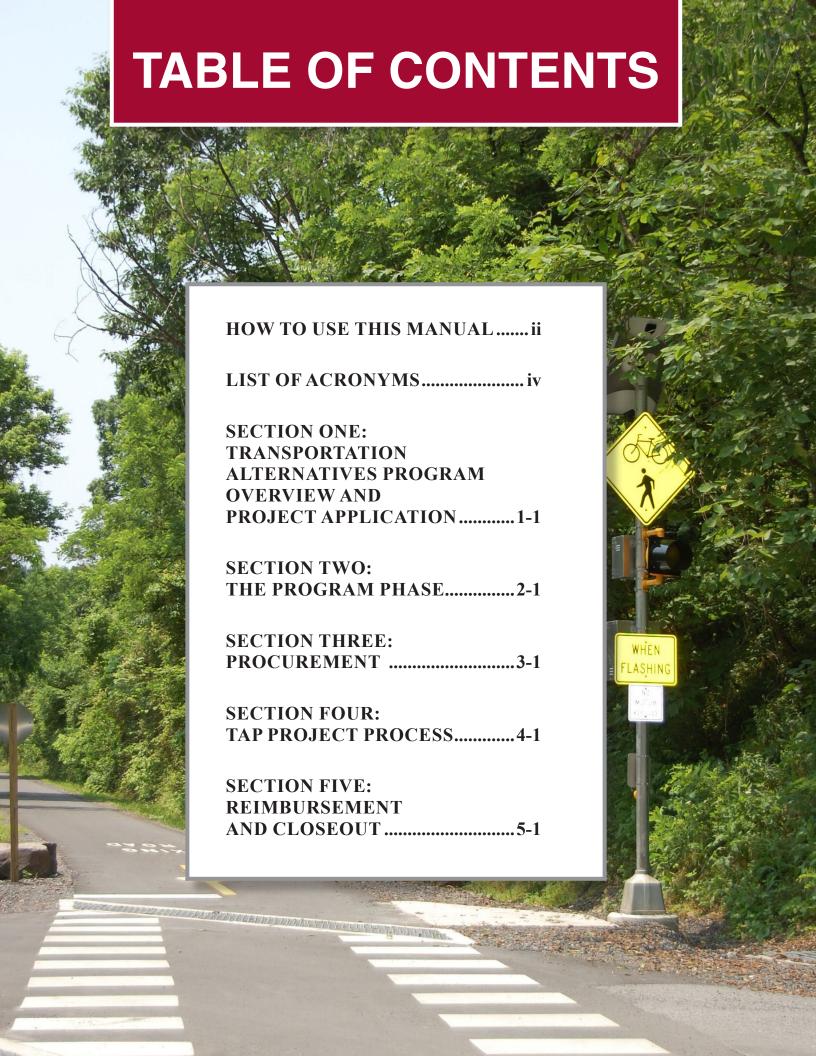




TAP PROCESS MAP CONSTRUCTION PROJECTS







HOW TO USE THIS MANUAL

This manual is intended for the Local Public Agencies (LPAs) applying for and navigating the Maryland Department of Transportation State Highway Administration's (MDOT SHA) Transportation Alternatives Set-Aside (referred to as the Transportation Alternatives Program). It guides project sponsors through the process of fulfilling the federal and state requirements associated with the Transportation Alternatives Program (TAP).

The manual is divided into five sections with each section covering a different phase of the project process.

Section One provides an overview of the TAP and the application process.

Section Two covers the steps after the project application has been accepted and awarded. This Program Phase sets the stage for the work that will be undertaken to fulfill TAP requirements.

Section Three outlines the procurement and advertising process that most TAP projects must undergo to acquire goods and services in support of the project.

Section Four details the main components of TAP project work by outlining design, design review processes, construction, and other project requirements.

Section Five represents the last stages of TAP projects, covering the reimbursement and closeout processes.

Supporting materials including checklists and sample forms are in the appendix. All appendix documents are available on the MDOT SHA TAP webpage.

Each section can be used independently or sequentially. At the beginning of each section, a process flow chart is provided, highlighting the relevant steps covered in the corresponding section.

Throughout this manual, the local public agency leading and implementing the TAP project will be referred to as the "project sponsor." In other MDOT SHA documents, the project sponsor may be referred to as the "subrecipient," referring to the project sponsor's receipt of federal funding via MDOT SHA.

When using this manual, project sponsors will find that the TAP process and requirements will be identified by the type of work initiated by a project. The four project types are "planning and feasibility," "design," "construction," and "other".

- Planning and Feasibility Projects: Often the first step before design and construction, planning and feasibility projects assess project goals and practicality. Planning and feasibility may include public engagement or work with stakeholders to determine project benefits, cost estimates, or engineering requirements. If the planning and feasibility outcomes are positive, these projects may move into design.
- **Design Projects:** Design projects develop an idea or concept by preparing plans, reports, calculations, estimates, and drawings. Design projects can be scoped for a full design (from concept to construction-ready) or partial design (i.e. concept to 60-percent design). Partial design is beneficial to further verify a project is viable and permittable.
- Construction Projects: Construction projects generally involve the labor and materials to create, modify, install, or preserve buildings and infrastructure.
- Other Projects: Every other type of work will be categorized as "other" in this manual. Examples of other projects include archaeological research and documentation, Safe Routes to School (SRTS) educational programs, and wildlife habitat data collection. The type of project determines many of the processes that project sponsors will undertake. Project types will be highlighted, when relevant, with the graphic style used on this page.

References to the four project types will be highlighted by four different colors throughout the manual. It is recommended the document be viewed or printed in color.

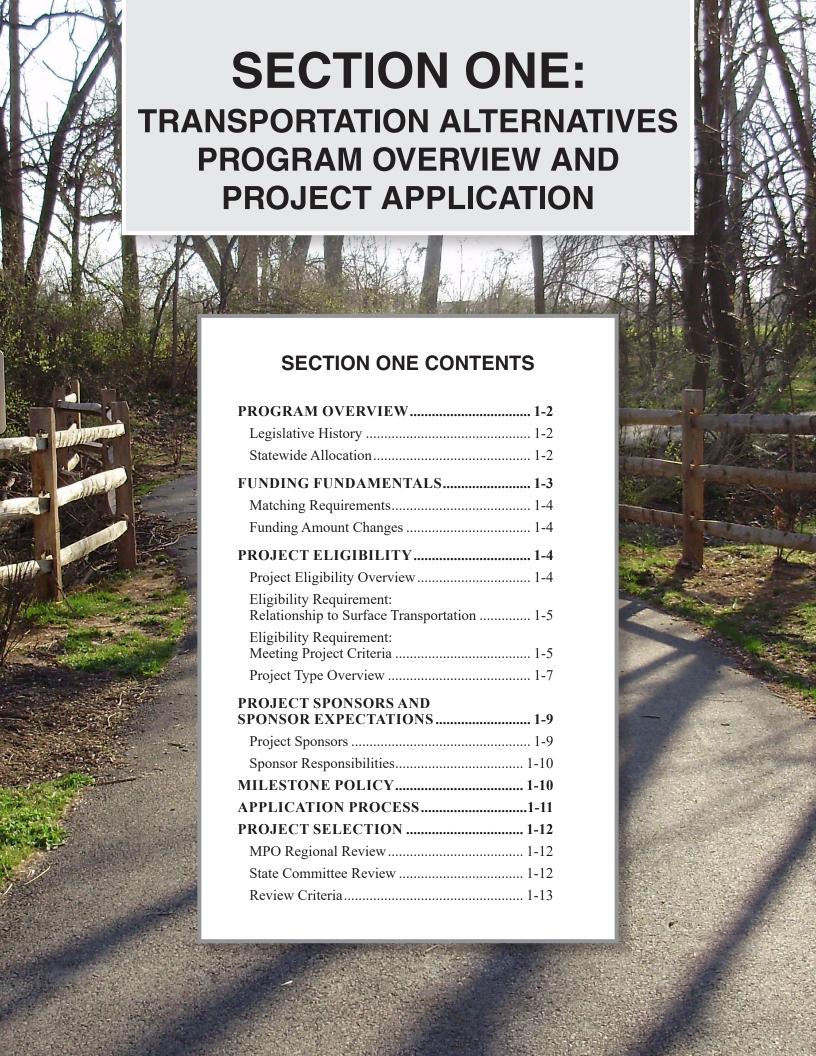
The TAP staff team (which consists of staff from the Regional and Intermodal Planning Division (RIPD) of the MDOT SHA Office of Planning and Preliminary Engineering (OPPE)), is a valuable source of support throughout the TAP process. The TAP staff will be the main point of contact for all TAP project sponsors.

TAP project sponsors are working to strengthen the intermodal transportation network for their communities and MDOT SHA is proud to be a key partner in their work. This program manual endeavors to help project sponsors advance their projects efficiently through the TAP process and clarify steps for achieving project success.



LIST OF ACRONYMS

ADA	Amoulogue with Dissister A.	MDC	Makenalitan Diagratica Oursel
ADA	Americans with Disabilities Act	MPO	Metropolitan Planning Organization
ADAAG	ADA Accessibility Guidelines for Buildings and Facilities	MPR	Monthly Progress Report
ADE-C	Assistant District Engineer of Construction	MTA	Maryland Transit Administration
ADE-T	Assistant District Engineer of Traffic	NEPA	National Environmental Policy Act
AME	Area Material Engineer	NOI	Notice of Intent
APE	Area of Potential Effect	NPDES	National Pollutant Discharge Elimination System
ВРО	Blanket Purchase Order	NTP	Notice to Proceed
BRTB	Baltimore Regional Transportation Board	OHD	Office of Highway Development
CE	Categorical Exclusion	OMT	Office of Materials Technology
CIA	Concurrence in Award	000	Office of Construction
COMAR	Code of Maryland Regulations	oos	Office of Structures
DBE	Disadvantaged Business Enterprise	OPPE	Office of Planning and Preliminary Engineering
DNR	Department of Natural Resources	PCE	Programmatic Categorical Exclusion
EA	Environmental Assessment	PS&E	Plans, Specifications Book, and Engineer's Estimate
EIS	Environmental Impact Statement	RFP	Request for Proposals
EM	Environmental Manager	RIPD	Regional and Intermodal Planning Division
EMMA	eMaryland Marketplace Advantage	ROW	Right-of-Way
FHWA	Federal Highway Administration	RTE	Rare, threatened, or endangered
FONSI	Finding of No Significant Impact	SHA	State Highway Administration
IDR	Inspector Daily Report	SHPO	State Historic Preservation Office
IFB	Invitation for Bids	SOS	Source of supply
LPA	Local Public Agencies	SRTS	Safe Routes to School
MAP-21	Moving Ahead for Progress in the 21st Century	TAP	Transportation Alternatives Program
MDE	Maryland Department of Environment	TCM	Traffic Control Manager
MDOT	Maryland Department of Transportation	TCP	Traffic Control Plan
MDMUTCD	Maryland Manual on Uniform Traffic Control Device	TPB	National Capital Region Transportation Planning Board
MHT	Maryland Historic Trust	USACE	United States Army Corps of Engineers
MMS	Materials Management System	USFWS	United States Fish and Wildlife Service
MOU	Memorandum of Understanding	WILMAPCO	Wilmington Area Planning Council



SECTION ONE: TRANSPORTATION ALTERNATIVES PROGRAM OVERVIEW AND PROJECT APPLICATION

PROGRAM OVERVIEW

As part of the Federal Highway Administration (FHWA) Surface Transportation Block Grant Program, the Transportation Alternatives Set-Aside (referred to in this manual as the Transportation Alternatives Program) is a reimbursable federal aid funding program for transportation-related community projects that strengthen the intermodal transportation system.

The Transportation Alternatives Program (TAP) funds projects that strive to enhance the cultural, aesthetic, historic, and environmental aspects of the transportation system. A TAP project may create bicycle and pedestrian facilities, restore historic transportation buildings, convert abandoned railway corridors into pedestrian trails, or mitigate highway runoff.

The TAP sits at a unique intersection of federal, state, and local partners. The program is funded with FHWA resources, administered by the Maryland Department of Transportation State Highway Administration (MDOT SHA), and is geared toward supporting projects led by local governments and public agencies. The involvement of federal, state, and local entities provides significant financing and support to projects that may not otherwise be funded. However, engagement from multiple levels of government also requires coordinated administration of projects in order to adhere to multiple levels of governmental regulations.

Legislative History

In 2012, the Moving Ahead for Progress in the 21st Century Act (MAP-21) established the TAP to provide funding for a variety of non-motorized and non-highway projects. This legislation combined and replaced previous funding programs such as Transportation Enhancements, Safe Routes to School (SRTS), and several other discretionary programs into a single funding source.

In late 2015, the Fixing America's Surface Transportation Act (FAST Act) federal legislation eliminated the TAP as established under MAP-21 and replaced it with the Transportation Alternatives Set-Aside of the Surface Transportation Block Grant Program. These set-aside funds are eligible to all projects and activities that were previously eligible under MAP-21. Administratively, the FHWA now refers to this fund as the Transportation Alternatives Set-Aside or TA Set-Aside. For the purposes of this manual and administration through MDOT SHA, the program and funding will be referred to as the TAP.

Statewide Allocation

As required under current federal legislation, approximately 40 percent of funds allotted to Maryland's TAP are distributed to three Metropolitan Planning Organizations (MPO). The Baltimore Regional Transportation Board (BRTB), National Capital Region Transportation Planning Board (TPB) and Wilmington Area Planning Council (WILMAPCO) review and approve projects within their area.

MDOT SHA encourages the development of and provides support services for TAP projects working with the remaining 60 percent of the state-apportioned funds. These funds are available to any area in the State.

FUNDING FUNDAMENTALS

The TAP is a competitive federal reimbursement program.

To apply for the program, sponsors must first submit an application with an eligible project. Projects submitted for consideration are reviewed through a competitive selection process that is based upon criteria including project readiness and expected benefit to the community.

Because TAP is a reimbursement program, the project sponsor must pay for project costs up front before requesting reimbursement for eligible costs.

During the application process, project sponsors request funding by outlining estimated project costs. In Maryland, TAP funding can be requested for up to 80 percent of total reimbursable costs and the remaining balance includes the 20 percent (or more) funding of eligible costs, which is called the local "match." The project sponsor is responsible for proving the match funding. Additionally, the sponsor may have ineligible costs that are not eligible for reimbursement or the local match (see example ineligible costs in table below).

TAP will **reimburse** project sponsors for funds spent on eligible activities

Project sponsors
can request
reimbursement
for up to 80% of
eligible costs

Projects sponsors must fund the remaining 20% of eligible costs and all ineligible costs.

FUNDING EXAMPLE			
Ineligible Cost #1 (Example: Pre-Application Project Development)	\$50,000		
Ineligible Cost # 2 (Example: Design Costs incurred before application)	\$200,000		
Eligible Costs #1 (Example: construction, construction management and inspection costs or design costs)	\$1,000,000		
Total Project Costs	\$1,250,000		
Maximum TAP Request (not to exceed 80 percent of total reimbursable costs)	\$800,000		
Minimum Project Sponsor Cash Match (20 percent of total reimbursable costs)	\$200,000		
Other Project Sponsor Responsibility (for ineligible project costs)	\$250,000		

Matching Requirements

Project sponsors must provide a non-federal match of at least 20 percent of a project's total reimbursable costs. Project sponsors may provide more than 20 percent.

What Counts Towards the Match?

Funding from local and state agencies

What Does Not Count Towards the Match?

- Costs of adjacent, past, or future project activities
- Costs from a similar project or another phase of the project
- Project components ineligible for TAP funding
- Funding from federal transportation agencies

A Memorandum of Understanding (MOU) between the project sponsor and MDOT SHA will document the reimbursable project costs, the costs that can be used as a match, and the project costs that are neither reimbursable nor considered as match.

Funding Amount Changes

Projects selected for award are funded based on the estimated project costs presented in the application.

If the final cost of the project is less than the estimate in the application, the TAP award and required match will decrease proportionally. If the final cost of the project is more than the amount presented in the application, the award will not be increased automatically. Instead, the project sponsor must come up with a plan to address the funding gap and discuss options with the TAP staff. The MDOT SHA TAP staff will consider requests for additional TAP funding up to ten percent above the original award amount. Requests for increases greater than ten percent will require approval by the Selection Committee. To request additional funding, the request must be made before a contractor or consultant is selected. The request for additional funding must be in writing and contain a clear and reasonable justification for additional funding.

PROJECT ELIGIBILITY

Project Eligibility Overview

To be eligible for TAP funding, a project must first meet two essential requirements.

- 1. The project must relate to surface transportation.
- 2. The project must meet the criteria for one of the qualifying TAP categories outlined in the federal legislation (Appendix A-1).

Additionally, projects in Maryland must:

- 3. Benefit all potential users and allow free use by a broad segment of the public.
- 4. Maintain a reasonable duration of the intended public use, as determined by MDOT SHA.
- 5. Be located on publicly owned right-of-way or on right-of-way encumbered with a permanent easement held by a state agency or the government agency sponsoring or co-sponsoring the project; and
- 6. Comply with the Americans with Disabilities Act (ADA), National Environmental Policy Act (NEPA), and all other applicable state and federal regulations (e.g. pedestrian and bicycle facilities must meet state and federal standards for width, grade, signing, and materials).

Eligibility Requirement: Relationship to Surface Transportation

All TAP projects must be related to **surface** transportation. Aviation-related projects are not eligible. To be eligible, a project must relate to surface transportation through its function, impact, and proximity, as described in **Table 1.2**.

Table 1.2: Project Eligibility and Relation to Surface Transportation

THE PROJECT MUST/MUST HAVE	CATEGORY DESCRIPTION
Function with current or past transportation purpose	The facility was, is part of, or is closely related to Maryland's intermodal transportation system. Examples include a project restoring an historic railroad depot because the building has a past transportation function, or the construction of a new pedestrian path that links a Metrorail station with an existing pedestrian path because the path connects one transportation facility to another.
Impact on the aesthetic, cultural, or historical aspects of the travel experience	The facility will positively affect users of Maryland's intermodal transportation system. Examples include the construction of a sidewalk to provide alternative access to a school (which may have a safety impact) or the creation of a wetland to aid in managing stormwater runoff (which will have a positive environmental impact).
Proximity to an existing or planned roadway or a pedestrian/bicycle corridor	The project is close to Maryland's intermodal transportation system and can be enjoyed by its users. Proximity to a transportation facility alone (e.g., a historic site that is close to a major roadway) is not usually sufficient to establish a relationship to surface transportation except for environmental mitigation. Demonstrate that a project substantially enhances the travel experience through function or impact.

Eligibility Requirement: Meeting Project Criteria

The federal legislation governing the TAP defines ten qualifying categories of TAP projects. The ten categories are outlined in **Table 1.3** and include a brief definition. Eligible and ineligible project activities are outlined in a full table in **Appendix A-1**.



Table 1.3: Project Eligibility Categories Overview

CATEGORY	NAME	OVERVIEW		
CATEGORY	NAIVIE			
1	New Walking and Biking Connections	Construction, planning, and design of on-road and off-road trail facilities for pedestrians, bicyclists, and other nonmotorized forms of transportation. Projects must connect or support links to the intermodal transportation		
	and Facilities	system. No stand-alone, exclusive, or recreational use-only projects.		
2	Infrastructure- Related Improvements for Safe Walking and Biking Routes	Construction, planning, and design of infrastructure-related projects and systems that will provide safe routes for non-drivers, including children, older adults, and individuals with disabilities to access daily needs.		
3	Converting Rail	Conversion and use of abandoned railroad corridors for trails for pedestrians, bicyclists, or other nonmotorized transportation users.		
J	Corridors to Trails	Projects must connect to the intermodal transportation system or support links to significant land uses. No recreational use-only projects.		
4	Road-side Scenic Overlooks	Construction of turnouts, overlooks, and viewing areas within or immediately adjacent to the right-of-way of, and directly related to, the scenic byway.		
5	Outdoor Advertising Control	Inventory, control, or removal of outdoor advertising. Projects should contribute to the viewshed of the traveling public.		
Historic 6 Transportation		Historic preservation and rehabilitation of historic transportation buildings, structures, or facilities that are part of the intermodal transportation system and are listed on or eligible for the National Register of Historic Places.		
	Facilities	These projects will need to coordinate with the Maryland Historical Trust during application and beyond.		
7	Vegetation Management	Vegetation management practices in transportation rights-of-way to improve roadway safety, prevent against invasive species, and provide erosion control.		
8	Transportation Archaeology	Archaeological activities relating to impacts from implementation of a transportation project eligible under United States Code Title 23.		
9	Environmental Mitigation Activities:	Any environmental mitigation activity, including pollution prevention and pollution abatement activities and mitigation to: address stormwater management, control, and water pollution prevention or abatement related to highway construction or due to highway runoff, including activities		
9a	Stormwater Management	described in sections 23 U.S.C. 133(b)(3). Any environmental mitigation activity, including pollution prevention and		
9b	Connecting Wildlife Habitats	pollution abatement activities and mitigation to: reduce vehicle-caused wildlife mortality or to restore and maintain connectivity among terrestrial or aquatic habitats.		
10	Safe Routes to School (SRTS)	Infrastructure-related and non-infrastructure-related activities as well as SRTS coordinator positions that substantially improve the ability of students to walk and bicycle to school or encourage walking and biking to school.		
		SRTS should directly support increased safety and convenience for elementary and middle school children in grades K-8.		

The following activities are ineligible for the TAP:

- X Capital Improvements, including sidewalk repairs, roadway construction, roadway lighting, roadway paving, undergrounding of utilities, and drainage or sewer improvements
- × Streetscape projects
- × Parks or recreation areas or facilities
- ➤ Loop trails within a park or around a facility; especially a trail without a connection to a regional pedestrian/bicycle facility network
- × Parking garages
- **X** Artwork or artistic enhancements, including monuments, sculptures, statues, murals, and historical reproductions
- **X** TAP staff activities of private, non-profit, or for-profit groups or state or local government agencies, unless for SRTS projects
- × Building construction or museum exhibits

Project Type Overview

For ease of navigating this manual, the TAP process and requirements will largely be identified by the type of work initiated by a project rather than the ten TAP Eligibility Categories. The work conducted across the ten project categories falls under one of four types: Planning and Feasibility, Design, Construction, and Other. Many projects will progress through different stages of project work and therefore a single Program Eligibility Category can include multiple or all four project types.

Planning and Feasibility Projects: Often the first stage of design and construction projects, planning and feasibility projects assess project goals and practicality. Planning and feasibility may include public engagement or work with stakeholders to determine project benefits, cost estimates, or engineering requirements. If the planning and feasibility outcomes indicate the potential for project success, these projects may move into design.

Design Projects: Design projects develop an idea or concept by preparing plans, reports, calculations, estimates, and drawings. Design projects can be scoped for a full design (from concept to construction-ready) or partial design (i.e. concept to 60-percent design). Partial design is beneficial to further verify a project is viable and permittable.

Construction Projects: Construction projects involve the labor and materials to create, modify, install, or preserve buildings and infrastructure.

Other Projects: Every other type of work will be categorized as "other" in this manual. Examples of other projects include archaeological research and documentation, SRTS educational programs, and wildlife habitat data collection.

Table 1.4 aligns these four work categories across the TAP Eligibility Categories. Table 1.4 can be found on the following page.

Table 1.4: TAP Categories and Project Work Types

Table 1.4. TAP Categories and Project Work Types					
PROJECT CATEGORY	PLANNING AND FEASIBILITY	DESIGN	CONSTRUCTION	OTHER	
New Walking and Biking Connections and Facilities	X	x	X		
2. Infrastructure-Related Improvements for Safe Walking and Biking Routes	X	х	X	X	
3. Converting Rail Corridors to Trails	X	X	X		
4. Road-side Scenic Overlooks			X		
5. Outdoor Advertising Control				X	
6. Historic Transportation Facilities	X	x	X	X	
7. Vegetation Management				X	
8. Transportation Archaeology				x	
9. Environmental Mitigation Activities					
9a. Stormwater Management		x	X		
9b. Connecting Wildlife Habitats		x	X	x	
10. Safe Routes to School	X	x	х	X	



PROJECT SPONSORS AND SPONSOR EXPECTATIONS

Project Sponsors

Since TAP projects must benefit the public, TAP support is mostly restricted to public, governmental agencies. Eligible project sponsors include:

- Local governments
- Regional transportation authorities
- Transit agencies
- Natural resource and public land agencies
- School districts and local education agencies
- Tribal governments
- Any local and governmental entity with oversight of transportation or recreational trails (other than a metropolitan planning organization or a State agency).

However, these project sponsors may partner with other entities. Project co-sponsors may include:

- Private organizations
- Non-profit organizations
- Community groups
- Private individuals

Any project sponsored by a non-government agency, organization, or individual must have a government agency as a co-sponsor. In such cases, MDOT SHA holds the government agency accountable for all aspects of the project, even if the non-governmental agency executes all or most of the project sponsor's responsibilities.

Non-governmental co-sponsors cannot receive funds directly from MDOT SHA and therefore cannot be named as the intended funding recipient in a project application. Instead, the government agency must reimburse the co-sponsor, and MDOT SHA will reimburse the agency.

Co-sponsorship with a non-governmental entity cannot guarantee work to the non-governmental co-sponsor. Projects will be awarded to the lowest responsive and qualified bidder in accordance with Code of Maryland Regulations procurement procedures. A non-governmental co-sponsor may not bid on the proposed project but may manage it through an agreement with the project sponsor.

All potential projects in the City of Baltimore must be submitted by the Baltimore City Department of Transportation.

Sponsor Responsibilities

TAP project sponsors are required to provide funding for at least 20 percent of reimbursable project costs, maintain the project for its lifespan, and assume liability for the duration of the project's useful life.

The project sponsor's other project responsibilities will be outlined in a MOU between the sponsoring agency and MDOT SHA. Generally, the project sponsor maintains responsibility for all project work including project management, documentation, obtaining the appropriate reviews and permits, and completing the coordination with MDOT SHA.

Lastly, project sponsors are responsible for the timely completion of each phase of a TAP project as indicated on the timelines outlined in the Milestone Policy. Each project phase is discussed in general terms within this manual.

With the wide range of sponsor responsibilities, it is recommended the project sponsor have a team available to support the TAP project. A good project sponsor team could include:

- A dedicated, full-time project manager
- A staff member with federal grant administration and/or TAP experience
- A staff member with engineering experience (for design and construction projects)

A peer network of TAP project sponsors is available and may be useful for project sponsors in navigating TAP.

MILESTONE POLICY

The "Milestone Policy" refers to key points in time when certain work must be completed. All TAP projects must adhere to the Milestone Policy and project sponsors must ensure the schedule milestones are feasible when the project application is being developed. Any projects not meeting the Milestone Policy will be subject to fund withdraw pending a review and vote by the awarding TAP Selection Committee. The Milestone Policy is available in **Appendix A-2** and on the TAP website. Relevant milestones include:

Construction Project sponsors must, at minimum, submit complete 30-percent design plans during application. Design plans beyond 30-percent are preferred and projects cannot drop below 30-percent design after entering the TAP. Construction projects must also reach 60-percent design within one year of kickoff and must advertise within two years of kickoff.

Design Project sponsors must include a completed concept in the application and must advertise within two years of the Kickoff Meeting. Components of a complete design concept are outlined in the Milestone Policy including: plan level drawings demonstrating alignment of project, limits of disturbance and right-of-way impacts, demonstrated direct contact with all affected property owners, and planning-level rough costs and material needs.

Complete design concepts, 30-percent design, and 60-percent design are defined in the Milestone Policy for projects involving streams, wetlands, trails, buildings, and bridges.



APPLICATION PROCESS

The competitive TAP application process is facilitated through MDOT SHA's application website. Prospective project sponsors should first establish project eligibility for TAP funding by determining the project's qualifying category, relationship to surface transportation, and reliable sources of non-federal transportation funding for the 20-percent cash match. Projects that provide more than the minimum 20 percent cash match may be considered stronger applicants during the selection process. Interested applicants can contact TAP staff to review project eligibility.

The following activities should be completed prior to submitting the TAP application. Supporting documentation for these activities will be requested as part of the application.

Determine Project Eligibility	Review schedule of remaining project elements	
Select Project Name	and ensure work can be done within the	
Determine the right-of-way status of the project site	Attain community input and a consensus on	
Identify and secure funding sources and commitments	a concept Obtain official letters of support	
Construction Projects: advance 30% construction design plans	Inform the MPO representative of intent to apply if applicable	
Design Projects: complete project concept	FHWA LPA Evaluation Form	
Prepare a project budget		

The application should state relevant project information clearly and concisely. Applications must provide enough detail in the project description, budget, and schedule for reviewers to establish eligibility and easily understand the project scope.

MDOT SHA will announce the application period for each grant cycle and accept applications for approximately four to six weeks. Often, the application period opens in spring and grant cycles occur annually, but these time frames may fluctuate.¹

Once the application period has closed, review and project selection will require approximately 5 months before applicants are notified of a decision.

¹An Emergency TAP Request may occur as an off-application cycle request for TAP funding. Support as to why this project needs funds before the next call for application cycle with MDOT SHA is required. The applicant should complete the following steps:

^{1.} Contact the Program Manager to discuss the emergency request.

^{2.} Meet all program eligibility requirements.

^{3.} Submit a formal request and application for review by the TA Selection Committee and/or MPO for funding determination. Application must include project details, project costs, project map and cash match requirements.

PROJECT SELECTION

MDOT SHA staff will screen applications for eligibility, completeness, and adherence to program criteria. If time permits, project sponsors may be given the opportunity to clarify portions of their applications. Following MDOT SHA screening, eligible projects will compete for available funding.

Within the TAP, approximately 40 percent of funding is distributed to three Metropolitan Planning Organizations (MPOs). MDOT SHA directly funds the remaining 60 percent of the funds apportioned to the state to projects across the state. Due to this distribution, there is a two-step project selection process.

First, MPOs review the projects in their region and provide awards to their selected projects. Projects not selected by MPOs will then join projects originating outside of the MPO regions to compete for the funds apportioned to the state.

MPO Regional Review

Projects within Maryland's MPO regions will be reviewed by that MPO's selection committee. **Table 1.5** shows the counties included in each MPO region.

Table 1.5: Counties by Maryland MPO Region

MARYLAND MPO REGIONS	COUNTIES INCLUDED
Baltimore Regional Transportation Board (BRTB)	Anne Arundel, Baltimore, Carroll, Harford, and Howard counties; Baltimore City
National Capital Region Transportation Planning Board (TPB)	Charles, Frederick, Montgomery, and Prince George's counties
Wilmington Metropolitan Planning Organization (WILMAPCO)	Cecil County

Each MPO selection committees will review potential projects within their area based on region-specific project criteria. MPOs may select as many projects as funding allows but cannot make partial grant awards unless the cost of the project exceeds the MPO's annual TAP allotment.

State Committee Review

For projects outside the MPO area and projects not selected by the MPOs, eligible applications will be forwarded to the TAP Selection Committee for review. The Selection Committee is made up of the following members: a senior manager from MDOT Secretary's Office (TSO) or MDOT Office of Planning and Capital Programming, Maryland Department of Natural Resources (DNR), MDOT SHA, MDOT Maryland Transit Administration (MDOT MTA), Maryland Historic Trust State Historic Preservation Officer and Maryland Department of Commerce.

The Selection Committee will make recommendations to the Secretary of MDOT. The Selection Committee will make final funding decisions based on several criteria, including a summary of all project applications, the availability of uncommitted program funds, and the categorical and statewide distribution of projects.

Projects awarded TAP funding will receive notification from the Governor, Secretary of MDOT, MDOT SHA Administrator or the applicable MPO.

Review Criteria

There are more requests for TAP funds than there is funding available for distribution. To ensure that their applications are competitive, TAP project sponsors should submit information that proves the project is ready for the next step. Competitive applications will also be aligned with the following TAP goals:



Fostering the links and access that strengthen the intermodal transportation system and connect transportation facilities, towns, communities and recreational or cultural areas.



Enhancing heritage, nature, or eco-tourism opportunities.

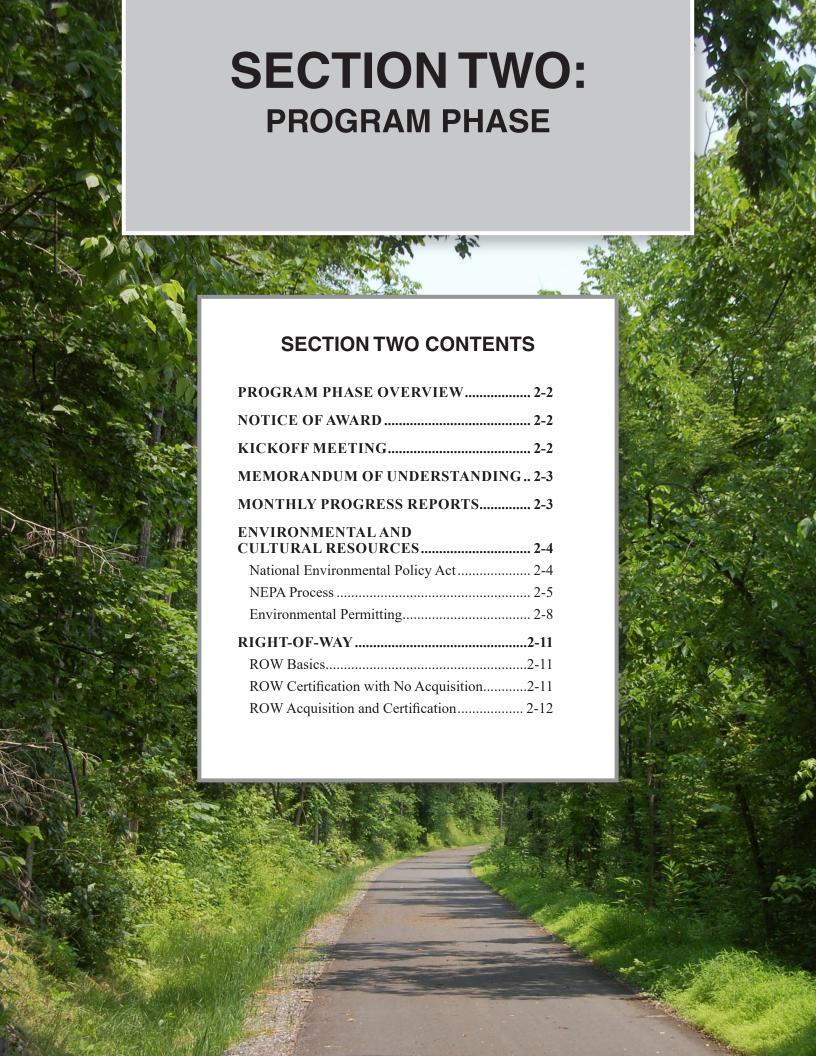


Benefiting a broad segment of Marylanders.

The TAP Selection Committee will also consider the diversity of project categories, types, and the distribution of projects across the state when awarding TAP funds. Projects that provide more than the minimum 20 percent cash match may be considered stronger applicants during the selection process.

Once projects are awarded TAP funding, MDOT SHA recommends that the project sponsor not proceed with design, development, or right-of-way acquisitions until MDOT SHA provides guidance at the project Kickoff Meeting. Any action performed that is not in accordance with federal requirements may make the project or a portion of the project ineligible for TAP funding. The cost of project activities performed before the Kickoff Meeting are not eligible for reimbursement.





SECTION TWO: PROGRAM PHASE

PROGRAM PHASE OVERVIEW

The Program Phase marks the transition of a project from application to initiation in the Transportation Alternatives Program (TAP). This section outlines the first steps and considerations project sponsors will be navigating as they enter the program. The Program Phase is applicable to **planning and feasibility projects**, **design projects**, **construction projects**, and **other projects**.

NOTICE OF AWARD

The entry point into the TAP is the Notice of Award. After applying, project sponsors awarded TAP funding will receive notification from the Secretary of the Maryland Department of Transportation (MDOT) or the applicable Metropolitan Planning Organization (MPO). This notification (referred to as the Notice of Award) is important for project sponsors through the life of their project. The Notice of Award serves as the starting date from which subsequent milestones are measured.

From Notice of Award onward, project progress and sponsor actions must also meet federal requirements. Work performed after the Notice of Award that does not meet federal requirements may be ineligible for reimbursement. To avoid ineligible work, it is recommended that project sponsors pause design, development, and right-of-way acquisition until after the project Kickoff Meeting. In the event work must continue, project sponsors are strongly encouraged to contact the MDOT SHA TAP staff before proceeding with any project activities before the Kickoff Meeting.

KICKOFF MEETING

The Kickoff Meeting marks the start of a project's advancement through the TAP and serves as an introduction to the program for project sponsors. The Kickoff Meeting is an extremely valuable resource for the project sponsor team. At this meeting, MDOT SHA staff will introduce the relevant state and federal requirements and will provide sponsors with contact information of departments and individuals that will take part in the process.

PROJECT TYPES: All TAP projects

PARTICIPANTS: Project sponsor, project manager, and any others who may play a major role in the project.

STEPS:

- 1. MDOT SHA TAP staff will reach out to find available time. First contact will usually occur within one month of the Notice of Award.
- 2. The project sponsor team goes to the MDOT SHA office.
- 3. During the Kickoff Meeting, the project sponsor team will discuss the project scope in detail, update TAP staff on any changes since the initial project application, and meet relevant MDOT SHA staff.
- 4. After the Kickoff Meeting, the project sponsor must submit monthly progress reports. MDOT SHA will also begin to work on the Memorandum of Understanding (MOU).

MEMORANDUM OF UNDERSTANDING

The Memorandum of Understanding (MOU) is a formal agreement between the project sponsor and MDOT SHA. The MOU will include:

- project description
- activities eligible for reimbursement
- responsibilities of MDOT SHA and the project sponsor
- TAP award and matching requirements

- the project closeout and reimbursement process
- general program provisions
- other provisions as applicable, including construction projects requirements such as progress meetings, materials testing, material clearance, and change-order requirements

The MOU must be executed before FHWA can obligate federal TAP funds. Failure to comply with conditions set forth in the MOU may result in the loss of federal TAP funds for the project.

PROJECT TYPES: All TAP projects

STEPS:

- 1. MDOT SHA prepares a draft MOU following the Kickoff Meeting. (**Construction projects** will receive their MOUs closer to advertisement date to allow for inclusion of full project design and to align TAP milestones with project construction.)
- 2. MDOT SHA provides the draft MOU for project sponsor review and comment.
- 3. The project sponsor initiates an internal review of the MOU. Once the internal review is complete, the project sponsor will send the draft back to TAP staff with comments. All state and federal requirements are non-negotiable.
- 4. MDOT SHA makes edits to produce a final MOU.
- 5. MDOT SHA provides electronic copies of the MOU for signature.
- 6. The project sponsor signs the document and returns a signed copy to MDOT SHA.

While the MOU is being developed, reviewed, and executed, the project sponsor may continue some Program Phase activities. An executed MOU, however, will be needed before a project can begin procurement.

If an MOU requires amendment while the project is underway, the project sponsor must contact TAP staff at least 90 days before the MOU is set to expire.

MONTHLY PROGRESS REPORTS

The Kickoff Meeting will mark the beginning of the Monthly Progress Report (MPR) preparation. The MPR details staffing and project updates, changes to the schedule, project issues, and upcoming milestones. Project sponsors will submit the MPR to the TAP staff by email by the fifth day of each month.

PROJECT TYPES: All TAP projects

STEPS:

- 1. Submit the MPR to TAP staff via email by the fifth day of each month.
 - An MPR form is available in **Appendix B-1**.
- 2. Repeat every month until the project reaches closeout.

After the Notice of Award and Kickoff Meeting, the project sponsor should initiate two processes: 1) attaining environmental and cultural resource permits and permissions, and 2) undertaking right-of-way acquisitions. These two processes can alter the scope of the project or take significant time if sensitive resources or property challenges arise. The project sponsor should begin this work early and communicate with the TAP staff if issues or questions arise. This work can be undertaken while MOU development is underway.

The environmental and cultural resources process is relevant for **all projects** including **planning and feasibility studies**, **design projects**, **construction projects**, and **other projects**. The right-of-way process will be relevant for **construction projects** to follow and for both **planning and feasibility** and **design projects** to incorporate into future work.

ENVIRONMENTAL AND CULTURAL RESOURCES

The TAP is funded with federal resources; as a result, all projects using these resources must comply with the National Environmental Policy Act (NEPA) of 1969. NEPA is a law that requires documentation of the potential environmental and related social and economic impacts of a federal agency's proposed actions. It can be thought of as an "umbrella" environmental policy under which several federal and state laws and regulations fall. NEPA compliance is required for all TAP projects, no matter the type. In addition to NEPA, environmental permits and mitigation are needed when a project impacts natural resources such as established trees, forested areas, wetlands, and waterways.

These requirements, which are outlined in the following section, can be addressed while the MOU is being executed and while the project is proceeding through design or development phases. Starting the NEPA and permitting processes early is critical to avoiding delays. MDOT SHA and FHWA work together to review environmental impacts of the TAP project.

National Environmental Policy Act

It is mandatory for all TAP projects to complete NEPA approval. In order to provide proof of completion, the project sponsor must prepare documentation that provides details about a project's environmental impacts, a summary of coordination with environmental agencies, public involvement, and any corresponding mitigation plans. The MDOT SHA NEPA Liaison and the TAP staff will help determine the level of NEPA documentation needed and if additional coordination will be required based on environmental findings and impacts.



2-4

NEPA Process

MDOT SHA's process for securing NEPA compliance for TAP-funded projects is outlined below. There is also a checklist in **Appendix B-2** that will help ensure that each stage of the NEPA process is completed appropriately. Generally, the NEPA process will include the following steps:

- 1 Getting started, includes working with MDOT SHA and Maryland Historical Trust
- 2 Assessing the project site and coordinating with resource agencies
- 3 Planning for public involvement
- 4 Supplying NEPA documentation
- 5 Navigating approval

Further guidance on the process for NEPA approval is also available in MDOT SHA's <u>Development Guide</u> <u>For Local and Public Agencies and Other Sub-Recipients of Federal Funds</u> (referred to as the LPA Manual in this document).

1 Getting Started

The NEPA process can seem daunting but there are numerous resources and MDOT SHA staff available to help project sponsors navigate the required steps. To get the NEPA process started:

- 1. Gather the following project information:
 - Project location map
 - Scope of work
 - Area of Potential Effect (APE), includes direct physical impacts to an area as well as indirect impacts like noise and visual intrusions
 - List of potentially significant historic structures or archaeological resources in the APE (see **Appendix A-1** for additional details on eligible historic transportation facilities)
 - List of effects, if any, of the project on any historic resources eligible or listed on the National Register of Historic Places
- 2. Submit the project to the <u>Maryland Historical Trust</u> (MHT) (online) for review and comment. Coordination with MHT is required for all TAP-funded projects.
- 3. Complete the United States Fish and Wildlife Service (USFWS) online environmental review by following the steps in the USFWS's step-by-step <u>online tool</u>. USFWS review is required for all TAP-funded projects.
- 4. Contact the MDOT SHA NEPA Liaison and any member of the TAP staff. They will guide project sponsors through the NEPA clearance process and assist with any required documentation.

2 Assessing the Project Site and Coordinating with Resource Agencies

The steps in the next two sections can occur concurrently and in no particular order. The project sponsor will need to contact the coordinating environmental agencies and may ask the MDOT SHA NEPA Liaison to review draft coordination request letters before they are submitted to external agencies. Typically, it takes 30-60 days to receive responses from coordinating agencies. Project sponsors should send responses to the MDOT SHA NEPA Liaison as they are received. Please refer to the LPA Manual for more detail, including corresponding links to agency websites.

Coordinate with the United States Fish and Wildlife Service (USFWS) and the Maryland Department of Natural Resources (DNR) – Wildlife and Heritage Service and Integrated Policy and Review Unit. Contact MDOT SHA NEPA Liaison regarding coordination with the DNR through the DNR Online Trilogy Application.

All projects with **construction** outside paved areas must prepare letters requesting information about the presence of rare, threatened, or endangered species (RTE) or habitat or anadromous fish species in the project area. A habitat assessment or species survey will be needed if RTE species or species of special concern are present.

Find out if any wetlands, waterways, or floodplains are present. If so, determine whether or not they will be impacted by the project. If such impacts are anticipated, coordinate with the Maryland Department of Environment (MDE) and the U.S. Army Corp of Engineers (USACE).

For more information on impacts to wetlands, waterways, and floodplains, refer to <u>Chapter 4</u> of the SHA Environmental Guide for Access and District Permit Applicants environmental guide.

Determine whether the project is within or immediately adjacent to the coastal bay Critical Area or Critical Area Buffer. If so, coordinate with the Critical Area Commission and the local planning and zoning agency. Mitigation may be required for projects impacting these areas. The MDOT SHA NEPA Liaison is available to assist in both determining relationships to Critical Areas and Critical Area Buffers and coordinating with the appropriate parties.

- The Critical Area is all land within 1,000 feet of Maryland's tidal wetlands. It also includes the waters of the Chesapeake Bay, the Atlantic Coastal Bays, their tidal tributaries, and the lands underneath those tidal areas.
- The Critical Area Buffer is the land immediately adjacent to tidal waters, tidal wetlands, and tributary streams.

Determine whether a Section 4(f) resource(s) is impacted. Coordinate with the MDOT SHA NEPA Liaison to determine the appropriate Section 4(f) coordination required, if necessary. A Section 4(f) Evaluation will need to be completed if a project "uses" a Section 4(f) resource such as publicly-owned parks, recreation areas, wildlife or waterfowl refuges, or historic sites. If avoidance of these areas is determined to be feasible, the project sponsor must select the avoidance alternative.

More information on Section 4(f) compliance and evaluation methods is available in the <u>Environmental Documentation for Local Government Projects</u>.

Determine whether there are impacts to publicly-owned parks, recreation areas, or wildlife or waterfowl refuges purchased with funds from the Land and Water Conservation Fund. If so, the impacted areas are also subject to Section 6(f) requirements and the project sponsor must get approval from the National Park Service.

Impacts to Section 6(f) lands require mitigation activities and must be replaced with land of equal value, location, and usefulness. Project sponsors must provide a written agreement with DNR outlining the mitigation activities as proof of compliance.

Once the above steps are completed, coordination with the MDOT SHA NEPA Liaison will continue. The MDOT SHA NEPA Liaison will provide assistance once responses are received from the above agencies, in addition to determining impacts to Section 4(f) resources. If any are identified, the MDOT SHA NEPA Liaison will provide guidance for additional coordination.

3 Planning for Public Involvement

A public involvement plan should be developed in consultation with the MDOT SHA NEPA Liaison. It is important that project sponsors contact the MDOT SHA NEPA Liaison early in the project to determine what is reasonable and appropriate public involvement for the project. The requirements for a project's public involvement will depend on the scope and the potential for community impacts.

Determine a physical location and/or virtual environment to offer public involvement opportunities. These activities provide the public with an opportunity to comment on the TAP project. If roadway detours are planned during the construction stage, the project sponsor may need to hold a community meeting.

The project sponsor should complete the following steps to fulfill the public involvement requirement:

- 1. Conduct outreach and public involvement activities.
- 2. Address public concerns.
- 3. Document all public involvement activities and evidence of compliance such as meeting minutes, flyers, or online notices.

Consult the LPA Manual for further detail on public involvement requirements for TAP projects.

4 Supply Documentation

The amount of NEPA documentation needed for each TAP project varies. The project sponsor should contact the MDOT SHA NEPA Liaison to discuss the required documentation.

5 Navigating Approval

Once project sponsors submit all required NEPA documentation, the MDOT SHA NEPA Liaison will summarize NEPA coordination efforts and impacts in a Categorical Exclusion (CE) or a Programmatic Categorical Exclusion (PCE) on behalf of the project sponsor.

CEs are written for projects that do not result in significant environmental effects, while PCEs are generally applied to projects that have little or no environmental impact. If it is uncertain whether a project will have significant environmental impacts, sponsors are required to undertake an Environmental Assessment (EA). An EA can lead to a finding of no significant impact (FONSI) or the requirement to undertake an Environmental Impact Statement (EIS). An EIS is needed for projects anticipated to have significant environmental impacts. Needing to undertake an EA or EIS is rare for TAP projects. Full descriptions of CEs and PCEs are available in **Appendix B-3**.

The draft CE or PCE will be reviewed by MDOT SHA and FHWA. FHWA approval of a CE or MDOT SHA approval of a PCE serves as NEPA completion.



Environmental Permitting

While NEPA requires the identification and documentation of federally-protected environmental resources, additional work may be needed to incorporate state and local requirements regarding environmental and cultural resources into a TAP project. Permitting may require additional project reviews or define specific design features in the project.

Environmental permits may be required for the disturbance or development of land, or when a TAP project impacts natural resources such as established trees, forested areas, wetlands, or waterways. Additionally, any project sponsor developing land must provide stormwater management controls to manage runoff from development.

Table 2.1 provides a list of permits that may be required before the project can break ground. TAP projects that impact these resources will need to acquire environmental permits. Project sponsors should contact the MDOT SHA NEPA Liaison for information on how to work with appropriate issuing agencies.

Table 2.1: Environmental Permit Summary

Impacted Resource or Issue	Type of Permit or Approval Required		
WETLANDS AND WATERWAYS			
Wetlands, waters, floodplains, and wetland buffers	Wetland and waterway permits		
STORMWATER MANAGEMENT AND EROSION AND SEDIMENT CONTROL			
Disturbing more than 5,000 square feet or 100 cubic yards of excavation	Erosion and Sediment Control and Stormwater Management Approval		
Disturbing more than one acre of earth	National Pollutant Discharge Elimination System (NPDES) Construction Notice of Intent (NOI)		
Outfalls in areas with populations of 100,000 or more	Municipal National Pollutant Discharge Elimination System Permit		
Any earth disturbance in the Severn River Watershed	Anne Arundel County Erosion and Sediment Control Approval		
Changes to the 100-year floodplain elevation	Federal Emergency Management Agency (FEMA) Approval		
Modifications or restoration of man-made dams across streams or man-made dams at stormwater management facilities	Dam Safety MD Code 378 Approval		

Table 2.1: Environmental Permit Summary

LANDSCAPING		
Pruning or felling individual trees in the right-of-way and/or forested areas less than one acre	Roadside Tree Permit	
Impacting one acre or more of a forest in a linear highway project in or outside SHA right-of-way	Maryland Reforestation Law Approval	
Grading activity of 40,000 square feet or more in a non-linear facility project such as building construction	Forest Conservation Act Approval	
Growth of prohibited noxious weeds	Maryland Noxious Weed Law Approval	
Pesticide storage, mixing, and application	Pesticide Applicators Law Approval	
Fertilizer application to state land	Nutrient Management Plan	
HAZARDOUS	S MATERIALS	
Encounter or exposure of any hazardous or toxic material, spill, or abnormal conditions	Maryland Department of the Environment (MDE) Approval	
RECYCLED	MATERIALS	
Recycled materials	Material Management Division Approval	
NAVIGABLE WATERS		
Changes to restrictions and guidelines established in the Coast Guard permit or additional impacts to navigable waters	United States Coast Guard Bridge Permit	
HISTORIC SITES		
Historic site or structure	Design review by State Historic Preservation Office (SHPO) through the Maryland Historical Trust (MHT)	
MDOT SHA RIGHT-OF-WAY		
Any TAP project located within the MDOT SHA right-of-way	MDOT SHA Access Permit (Refer to Section Four)	
OTHER PERMITS		
Project sponsors should be sure to reference local ordinances for information about additional permit requirements.		

Construction project sponsors must submit a completed Certification of Environmental Permits form with the Design Plans, Specification, and Estimate (PS&E) detailed in Section Four. A sample Certification of Environmental Permits form is included in **Appendix B-4**.

KEEP IN MIND

- Environmental permits are required before projects can be advertised for bidding.
 However, final permits are not required for the NEPA process.
- For projects involving historic sites or structures, project sponsors should begin coordination with the Maryland Historic Trust (MHT) at the same time the TAP application is submitted



RIGHT-OF-WAY

Right-of-way (ROW) refers to physical property or the legal right to pass through property. All TAP project activities must be located on public ROW to ensure federal and state funds are supporting the public good. Public ROW may mean the ROW is on a publicly owned property or that a public agency holds a permanent easement. An easement is the right to use land owned by others.

The term "right-of-way" encompasses not only the property on which the project will be constructed but also any property needed for temporary use and other property rights required to complete the project. ROW includes land used for water drainage, land entered upon to adjust terrain slopes, land used for stormwater management outfalls, and land needed for construction staging or access.

TAP project sponsors will need to certify that public ROW requirements have been fulfilled. If a project's intended location is not on a public ROW, the ROW must be acquired by fee-simple ownership or permanent easement by the public agency sponsoring or co-sponsoring the project. In these cases, ROW acquisition is governed by federal requirements intended to protect and treat fairly those who are affected by a federal TAP project.

ROW Basics

All **construction projects** will need to certify the project is located on a public ROW. **Planning and feasibility projects** and **design projects** should also be aware of the ROW process as they may need to identify ROW ownership and account for acquisition during planning.

Some **construction projects** may also undergo a process to acquire public ROW. The project sponsor should know their acquisition needs before submitting the TAP application. ROW acquisition is not reimbursable unless it was outlined in the application and resulting MOU.

If ROW acquisition is outlined in the project application and included in the MOU, and is, therefore, a reimbursable expense, **NEPA must be completed** before the acquisition process begins.

ROW Certification with No Acquisition

The project sponsor is responsible for requesting ROW certification from MDOT SHA. If ROW acquisition is not required, the project sponsor should submit a letter noting property ownership. The letter should also list the parties responsible for the maintenance of the project and must be on letterhead.

PROJECT TYPES: All construction projects not requiring ROW acquisition.

STEPS:

- 1. The project sponsor will submit a letter requesting certification to the TAP staff who will send it to the MDOT SHA ROW Liaison. The project sponsor should submit the letter on letterhead and include:
- A statement on property ownership
 - All property has been acquired
 - No property has been acquired and/or
 - All property is in the ROW of the municipality or county
- A statement on maintenance responsibility
- ROW Plans/Plats

ROW Acquisition and Certification

Acquiring ROW can take considerable time. To acquire ROW, sponsors need to conduct appraisals and negotiations and reach an agreement with those affected by a project. Project sponsors can help prevent unnecessary delays or costs with early and complete coordination. Some property owners may require ongoing coordination throughout project design and construction. Special care and significant time will be needed if working with railroads, the United States Army Corps of Engineers (USACE), ROW that crosses utilities, and MDOT SHA ROW.

Sponsors may take primary responsibility for completing the ROW process or they may utilize a private consultant. Before acquisition begins, the project sponsor should contact TAP staff and the MDOT SHA ROW Liaison for guidance. Understanding the correct timing and process will be critical for maintaining a compliant project. Throughout ROW acquisition, the project sponsor should keep detailed records of the process and negotiations.

PROJECT TYPES: Construction projects requiring ROW acquisition.

KEY MILESTONES:

- Before Application
 - The project sponsor should identify ROW ownerships and needs before applying.
 - A project sponsor may not negotiate for or acquire property before applying if they will be seeking reimbursement for the acquisition.
- After Application
 - Once the application is submitted the project must follow the Federal Uniform Assistance and Real Property Acquisition Policies Act.
- After Notice of Award
 - ROW acquisition efforts, if they were being undertaken for land that a sponsor is not seeking reimbursement for, should pause between notice of award and the kickoff meeting.
- After Kickoff Meeting
 - Once NEPA is completed, the sponsor may continue ROW acquisition after the Kickoff Meeting.



2-12

STEPS:

These steps highlight the acquisition process and requirements. Additional details are included in the LPA Manual.

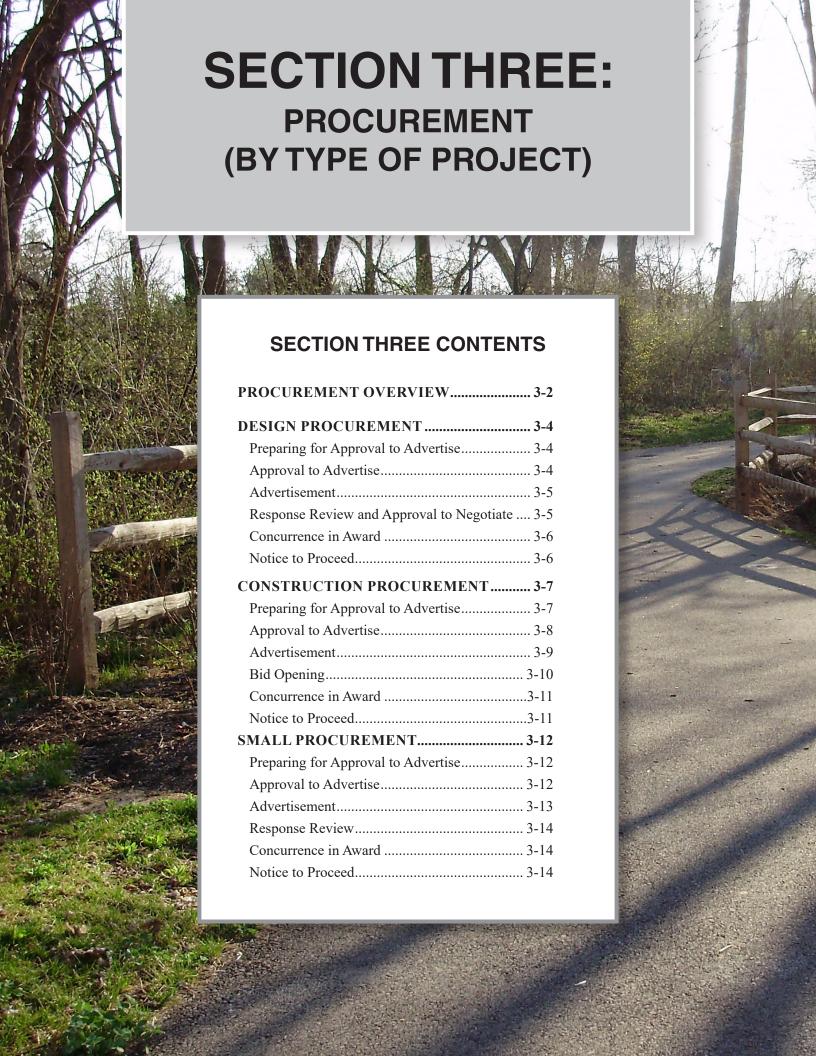
- 1. The property must be appraised by an MDOT SHA-certified appraiser.
- 2. The appraisal is reviewed and accepted by a second appraiser.
- 3. A Notification of Uniform Act Provisions letter should be sent to all impacted property owners. A sample notification letter is in **Appendix B-5**.
- 4. The negotiator may begin making offers to property owners. Offers must be:
 - Made with a written Letter of Offer,
 - Based on fair market value, and
 - Made in person or by certified mail after in-person attempts fail.
 - If the project sponsor is asking the property owner to donate the right-of-way, the property owners must be informed that they have the right to be compensated for any use of their property, and by donating their property, they are waiving their right to compensation.
- 5. After successful negotiations, the property owner will sign a deed, option contract, or easement agreement to transfer property rights.
- 6. The negotiator must sign Negotiator's Certificate.
- 7. The process and all communications should be summarized in a Record of Negotiations.
- 8. The project sponsor will submit a letter to the MDOT SHA ROW Liaison requesting certification and stating who will maintain the property after acquisition.

• With the letter, the project sponsor should submit the following. A checklist for the ROW

	Certification request is available in Appendix B-6 .		
	☐ NEPA Certification	Certified Record of Negotiations	
	☐ Right of Way Plans/Plats	☐ Signed and approved Option Contract	
	☐ Appraisal	☐ Waivers	
	☐ Appraisal Review	☐ Relocation (if necessary)	
	☐ Title Search	☐ Administrative Settlement Letter	
	☐ Written Offer Letter	☐ Deed	
9.	If the ROW acquisition process complies with all prepare a ROW Certification Letter.	federal regulations, MDOT SHA ROW Liaison will	

SPECIAL CIRCUMSTANCES:

- If the project sponsor is acquiring property from another public agency, a Letter of Permission may be used.
- Special care and significant time will be needed if working with railroads. Project sponsors that anticipate working with railroads should review the LPA Manual chapter on this topic.



SECTION THREE: PROCUREMENT BY TYPE OF PROJECT

This section outlines the steps necessary to meet federal and state procurement and advertising requirements. Most TAP project sponsors will require the public sector to provide goods and/or services to the project. When federal-aid funds are used to procure these goods and services, project sponsors must follow federal and state requirements intended to ensure the procurement process is fair, reasonable, and clear for all potential providers. Sponsors must follow these requirements to ensure the project remains reimbursable and in good standing. A series of reviews is built into the procurement process to ensure project sponsor activities are in line with federal and state regulations. Procurement is applicable to planning and feasibility studies, design projects, construction projects, and other projects.

PROCUREMENT OVERVIEW

TAP sponsors should pause project work until the Kickoff Meeting has been held. Goods or services procured after the Notice of Award and prior to the Kickoff Meeting will likely not meet the necessary federal and state requirements and are likely not reimbursable. If the project plans to request reimbursement for design, construction, and/or materials, procurement of those goods and services must follow federal and state procurement regulations. These regulations include but are not limited to the Code of Maryland Regulations (COMAR), the Brooks Act, the Disadvantaged Business Enterprise (DBE) Program, and the Federal Highway Administration's (FHWA) Procurement Guidelines. Counties and/or municipalities procurement requirements should also be followed, though the state and federal guidelines are likely more stringent.

TAP projects will likely fall into one of three procurement types:

- Design: The design procurement process is used to describe procurement and advertisement for architectural and engineering services intended to advance a project concept up to any point before construction. This may include feasibility studies or project design at any milestone process (30 percent, 60 percent, 90-percent or construction-ready design). The design procurement process is most relevant for planning and feasibility studies, design projects, and other projects.
- Construction: The construction procurement process is used to describe procurement for projects requiring labor and materials such as infrastructure construction and building preservation or rehabilitation. The construction procurement process is most relevant for construction projects and a range of other projects such as historic preservation, stormwater management, and more.
- Small Procurement: The small procurement process is used to describe procurement for projects under \$50,000. This often includes other projects such as Safe Routes to School (SRTS) education and engagement activities and projects with a small scope of work.

Checklists to help project sponsors navigate these three procurement processes are available in **Appendix C**.

FOR ALL THREE TYPES OF PROCUREMENT, THE PROCESS WILL FOLLOW THE FOLLOWING STEPS.



<u>Preparation for Advertisement:</u> Before the project is ready for advertisement, the project sponsor should have an executed Memorandum of Understanding (MOU), National Environmental Policy Act (NEPA) clearance, and documents with the advertisement information prepared for MDOT SHA review.



Approval to Advertise: The project sponsor must get approval from MDOT SHA before the project is advertised to potential vendors. MDOT SHA review and approval will ensure materials follow all necessary regulations.



<u>Advertisement:</u> Advertisement covers the period where the project is available for vendors to find and submit their responses. TAP projects must follow requirements regarding what is posted, where the solicitation is posted, and the length of time it is posted. All projects must advertise within 24 months (2 years) of the date of the Kickoff Meeting.



Response Review: Reviewing solicitation responses requires documentation, scoresheets, and tabulations. For projects that allow rate negotiation (design), review tabulation and documentation will need to be shared with MDOT SHA before negotiations can begin and the negotiated rate will need to be approved.



<u>Concurrence in Award (CIA):</u> After evaluation and before the selected vendor is notified, TAP project sponsors must receive concurrence from MDOT SHA. Concurrence requires submission of documentation from the entire process to ensure all regulations were followed.



Notice to Proceed (NTP): Once the project sponsor has received Concurrence in Award, they may issue an NTP to the selected vendor.

DESIGN PROCUREMENT

Design procurement is relevant for all **planning and feasibility studies**, **design projects**, as well as **other projects** that must solicit professional architectural or engineering services. If project design is being reimbursed in the project, the design should be solicited through the process outlined in this section.

The consultants selected through design procurement will need to work through MDOT SHA reviews and with MDOT SHA standards.

The design procurement process follows the six basic steps outlined in the procurement overview. When advancing through design procurement, work with the TAP staff and be prepared to submit all materials **electronically**.



Design Procurement: Preparing for Approval to Advertise

Before soliciting a design consultant, the project must have an executed MOU, NEPA clearance, right-of-way (ROW) certification (if applicable), environmental permits (if applicable), and a project description with a cost estimate.

When these materials are underway or complete, the project sponsor may proceed to develop the Request for Proposals (RFP) and determination of DBE requirements. MDOT SHA has created and will share a design services RFP template for TAP project sponsor use. The project sponsor should:

- 1. Draft the RFP and determine DBE requirements. These may occur simultaneously.
 - Determine DBE requirements by submitting the cost estimate, detailed scope of work, and draft RFP to the MDOT SHA Procurement Review Group who will identify a DBE goal. The goal is determined by the scope of work, project location and past projects in the same location.
 - Complete the MDOT SHA RFP template.
- 2. Send the RFP template to the TAP staff for review and feedback.
- 3. Address any changes or recommendations.

With those four steps, and the previous MOU, ROW, and permit work, the project is ready to submit for approval to advertise.



Design Procurement: Approval to Advertise

Receiving signed Approval to Advertise is required before solicitations are publicly listed or promoted. To receive approval, the project sponsor should electronically submit the following items for review.

- □ Executed MOU
- □ Permits
- □ NEPA
- □ ROW Certification Letter
- □ Cost Estimate
- ☐ Final RFP

MDOT SHA will review the advertising packet and provide approval or provide feedback on what needs to be changed. When the complete package is submitted, the MDOT SHA review should take approximately 4-6 weeks.

When Approval to Advertise is granted, the project sponsor will receive a letter indicating their project has received approval to advertise.



Design Procurement: Advertisement

After receiving Approval to Advertise, the project sponsor may continue with advertisement. As stated in the Milestone Policy (**Appendix A-2**) advertisement for design services **must occur** within 24 months (2 years) of the date of the Kickoff Meeting but ideally **should occur** within months of the Kickoff Meeting. Project sponsors should notify MDOT SHA when the solicitation has been posted and if the advertisement date changes. The following guidelines apply to design procurements:

Where to Advertise

- All advertisements must be listed on the eMaryland Marketplace Advantage (EMMA), for a minimum of 28 calendar days.
- Posting the advertisement in other locations is encouraged. Additional locations to consider:
 - A newspaper with the primary circulation in a major metropolitan area;
 - A newspaper with a project local circulation;
 - A newspaper that is certified by MDOT as an MBE; and
 - Direct and indirect notices.

What to Advertise

- The advertisement must include the project title, the MDOT SHA and FHWA project numbers, and the project sponsor's contact information.
- Advertising materials must match what was reviewed and approved by MDOT SHA. Changes in the RFP, project concept, cost estimate, etc. will require another review by MDOT SHA.

During Advertisement

- Project sponsors are encouraged, but not required, to conduct pre-bid meeting(s) with potential consultants. Attendance at any pre-bid meeting cannot be mandatory but should be strongly recommended. Records of all pre-bid meetings must be shared with all interested vendors and included in the project document.
- After the project has received Approval to Advertise, any modifications to the contract must be approved by MDOT SHA before the modification or addendum is issued. If approved, addendums must be provided to all bidders and made part of the contract document. The bidders must also sign a verification of receipt of the addendum to include with the proposal.

Sponsors must also follow all local requirements for advertisement.



Design Procurement: Response Review and Approval to Negotiate

At the end of the advertising period, the project sponsor will have responses to review.

- 1. After the solicitation period has ended, the sponsors should read all proposals.
- 2. The project sponsors should rank proposals as described in the solicitation.
- 3. With all responses ranked, the project sponsor should tabulate proposals for MDOT SHA staff review.
 - Tabulation will include DBE evaluation. This comparison ensures the DBE goal will be met.
- 4. The project sponsor should submit the tabulation and score sheets to the TAP staff.
- 5. The TAP staff will provide Approval to Negotiate or provide feedback and questions for clarification.
- 6. With approval, the project sponsor can negotiate with the highest rated proposer.
- 7. Following negotiation, the project sponsor should submit the negotiated price (in the same format as the cost estimate) to the TAP staff with a drafted contract. TAP staff can provide a draft contract template for project sponsors, if desired.



Design Procurement: Concurrence in Award

Concurrence in Award (CIA) is MDOT SHA's written agreement that the project sponsor followed appropriate state and federal regulations in selecting the consultant and the corresponding proposal. Project sponsors must request MDOT SHA's CIA **after** responses have been evaluated and **before** the contract is awarded and the consultant NTP is issued. The process to request CIA is as follows:

- 1. The advertisement has closed and responses have been reviewed.
- 2. The project sponsor should electronically submit requests to TAP staff for CIA with a package of advertising and evaluation documents. The checklist for the CIA package is included in **Appendix C-4**. The CIA package should include the following items:

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- ☐ MDOT DBE Form C, DBE Form D, and DBE Affirmative Action Plan
 - DBE Forms C and D are standard MDOT forms. MDOT SHA staff will work with the project sponsor on the DBE plan.
- ☐ Copy of Advertisement, as posted
- ☐ Proof of advertisement
- ☐ Draft contract
- ☐ Copy of consultant-signed Proposal
- ☐ Score tabulation
- ☐ Non-collusion affidavit form
- ☐ Negotiated price document
- 3. MDOT SHA will review when all documents have been received.
 - If a full package has been submitted, review may take up to two weeks.
- 4. If approved, MDOT SHA will provide written CIA.



Design Procurement: Notice to Proceed

After receiving the CIA from MDOT SHA, project sponsors should send the signed contract to the TAP staff and may issue the NTP to the consultant.

CONSTRUCTION PROCUREMENT

Construction procurement will be relevant for all **construction projects** including infrastructure projects or historic rehabilitation/preservation. If construction is being reimbursed in the project, the work should be solicited through the process outlined in this section.

The consultants selected through construction procurement will need to follow federal and state regulations related to maintaining the construction site, keeping records, testing materials, and undertaking other construction management processes outlined in Section Four.

The construction procurement process follows the same six steps outlined in the procurement overview. When advancing through construction procurement, sponsors should work with the TAP staff and be prepared to submit all materials with **multiple hard copies**.

While most construction procurement will be best suited for the process outlined in this section, note that TAP project sponsors may use a Design-Build approach to construct their projects. The Design-Build method differs from the more typical Design-Build method in that it shifts the responsibility of completing the final design and construction to a Design-Build Team. In a Design-Build project, the project sponsor advertises design plans that are completed to about the 30-percent stage to establish bidding, product, and construction requirements. For more information on an approach to Design-Build projects, please contact the TAP Staff. This approach should be carefully evaluated. It may not meet the needs of the project and will require extensive project sponsor participation as design and construction progress. The following processes apply to the typical Design-Bid-Build procurement only.



Construction Procurement: Preparing for Approval to Advertise

Before soliciting a contractor, the project must have an executed MOU, NEPA clearance, right-of-way (ROW) certification, and other relevant certifications, permits and design documents. Before preparing for approval to advertise, project sponsors should have:

☐ An executed MOU	☐ Invitation for Bids (IFB)
 □ NEPA Clearance □ ROW Certification □ Environmental Permit Form □ Environmental Permits (as applicable) 	 An IFB example cover sheet is available via the dropdown menu at the bottom of the MDOT SHA Construction Standards and Specifications webpage to demonstrate all that should be included.
 Utility Statement Utility Coordination Certificate Work with the District Utility Engineer 	 The IFB set will include contract provisions and specifications required for the project, including:
 to complete The Utility Coordination Certificate is available in Appendix D-2. Railroad Certification Statement 	☐ Federal contract provisions applicable to a project and any special provisions needed to complete the construction of the project
(if applicable)	☐ The scope of work
☐ A complete Plans, Specifications & Estimates (PS&E packet)	The qualifications, responsibilities, and deliverables required from a contractor
 The PS&E submission packet is outlined in Section Four (Part One: Design Reviews) The PS&E checklist is located in Appendix C-5. 	 □ An estimated schedule to perform and deliver services □ Method of contract payment □ Clearly defined evaluation criteria

Construction projects may require special services to be provided. These services should be identified in the design and planning process and should be considered for inclusion in the IFB. TAP projects must determine requirements for a field office and inspectors. Whether or not a field office is required will be based on the size and duration of the project. If necessary, the project sponsor will need to determine the size of the office and the need for supplies and include this information in a bid item for the field office. In regards to an inspector, the selected individual must have the experience, training, applicable certifications, and knowledge to ensure that project construction and administration follows all requirements as described in the project documents and standard construction practice. Some project sponsors may have certified inspectors available within their organization while others may need to hire an inspector.

Construction Procurement: Approval to Advertise

Receiving Approval to Advertise is required before solicitations can be publicly listed or promoted. If a project is advertised before this approval is received, the project sponsor will be required to cancel the advertisement or reject bids and re-advertise to maintain eligibility for reimbursement of federal funds. To receive approval to advertise, the project sponsor should submit two hard copy packets and one electronic copy with the following items to the TAP staff:

Executed MOU			
Permits			
NEPA			
ROW Certification Letter			
MDOT SHA Access Permit (if applicable)			
Cost Estimate			
PS&E including			
☐ 100% Design Plans	Traffic Control Plan Concurrence		
☐ Specifications Book	Utilities Statement Concurrence		
☐ Engineer's Estimate	Design Exception Approval (if needed)		
Environmental Permitting Form	Office of Structures (OOS) Concurrence		
☐ Public Awareness Letter/Documentation	Utility Coordination Certification		
☐ Final Review Report			
Final IFB			
Bid Submittal Form			

MDOT SHA TAP staff and the MDOT SHA Federal-Aid Programming Division will review the request for advertisement package. When the **complete package** is submitted, MDOT SHA review should **take 8-10 weeks**. If the documents are sufficient, FHWA will obligate the federal funds and MDOT SHA will issue written approval. If the package is incomplete or there is an error in the documentation, MDOT SHA will provide feedback on what needs to be changed.

Construction Procurement: Advertisement

Once Approval to Advertise has been received, the project sponsor may continue through the process. Advertisement for construction services must occur within 24 months (two years) of the date of the Kickoff Meeting. Project sponsors should notify the TAP staff and the local Assistant District Engineer of Construction (ADE-C) of the advertisement date and bid opening date when it has been decided. The following guidelines apply to construction procurements.

Where to Advertise

- All advertisements must be listed on the eMaryland Marketplace (EMMA), for a minimum of 21 continuous days with the bid opening held on the 22nd day.
- Posting the advertisement in other locations is encouraged. Additional locations to consider:
 - A newspaper with the primary circulation in a major metropolitan area;
 - A newspaper with a project local circulation;
 - A newspaper that is certified by MDOT as an DBE; and
 - Direct and indirect notices.

What to Advertise

- The advertisement must include the project title, the MDOT SHA and FHWA project numbers, and the project sponsor's contact information.
- Advertising materials must match what was reviewed and approved by MDOT SHA. Changes in the IFB, cost estimate, etc. will require another review by MDOT SHA.

During Advertisement

- Project sponsors are encouraged, but not required, to conduct pre-bid meeting(s) with potential contractors. Attendance at any pre-bid meeting cannot be mandatory but should be strongly recommended. Records of all pre-bid meetings must be shared with all interested vendors and included in the project document.
- After the project has received Approval to Advertise, any modifications to the contract must be approved by MDOT SHA before the modification or addendum is issued. If approved, addendums must be provided to all purchasers of bid documents and made part of the contract document.

Please note that local processes may include additional requirements; sponsors should ensure that these local requirements have also been met.



Construction Procurement: Bid Opening

At the end of the advertising period, the project sponsor will publicly open the bids.

- 1. Ensure MDOT SHA staff will be in attendance at bid opening.
 - The TAP staff and local ADE-C should have been notified of the time and date when the project was advertised.
- 2. Review proposals and determine the lowest bidder.
- 3. Review the lowest bid for responsiveness and satisfaction that the bidder is responsible.
 - "Responsible" means the bid submitted conforms to the requirements contained in the specifications book and design plans, including DBE requirements.
 - Complete bid analysis
- 4. Select the lowest **responsive** and **responsible** bidder for award. The project sponsor may also choose to reject all bids.
 - If the lowest bidder is accepted, the project sponsor should seek CIA.
 - If all bids are rejected, the project must be re-advertised. Before re-advertisement, project sponsors must submit a written request for MDOT SHA's approval. An updated PS&E packet, copies of rejection letters for the previous bids, and justification for those rejections must accompany the written request. The updated PS&E packet should:
 - Be modified to address the reasons for the rejection of all bids;
 - Be modified to improve competitive bidding; and
 - Include an outline of all PS&E modifications.

For more information, review the MDOT SHA Development Guide for Local Public Agencies and Other Sub-Recipients of Federal Funds (the LPA Manual).





Construction Procurement: Concurrence in Award

Concurrence in Award (CIA) is MDOT SHA's written agreement that the project sponsor followed appropriate state and federal regulations in selecting a contractor and corresponding proposal. Project sponsors must request MDOT SHA's CIA **after** responses have been evaluated and **before** the contract is awarded and NTP is issued to the contractor.

The project sponsor should submit two hard copies of the packet (one original and one copy) to TAP staff. The checklist for the CIA package is included in **Appendix C-4**. The CIA request package should include:

Ч	Cover Letter
	MDOT DBE Form C, DBE Form D, and DBE Affirmative Action Plan
	■ DBE Forms C and D are standard MDOT forms. MDOT SHA staff will work with the project sponsor on the DBE plan.
	Copy of Advertisement, as posted
	Copy of contractor-signed Bid Proposal
	Certified bid tabulation
	■ The tabulation should show the bids, by unit price, of all bidders and information announced or inventoried (e.g., bid bond) at opening.
	■ The project sponsor should request a bid tabulation form from their local municipality.
	Certified bid analysis
	Non-collusion affidavit form
	Experience and equipment form
	■ This is a standard MDOT form.
	Clear ROW Cert (two copies)
	Proof of registration on https://www.sam.gov/SAM/ with 'No Active Exclusions'
	Bid justification (if applicable)
	Exception request (if applicable)

MDOT SHA will review the full package when all documents have been received. The review period for a full package may take up to seven weeks. If approved, MDOT SHA will provide written CIA.



Construction Procurement: Notice to Proceed

After receiving the CIA from MDOT SHA, project sponsors should issue the NTP to the contractor and send a copy of the NTP to the appropriate, local MDOT SHA District Office. A sample NTP letter is included in **Appendix C-6**.

SMALL PROCUREMENT

Small procurement will be relevant for some **other projects** including SRTS projects requiring supplies and projects with a small scope of work. Small procurement includes three cost categories based on the cost of procurement.

• Category I: <\$5,000

Category II: \$5,000-\$14,999

Category III: \$15,000 to \$50,000

Project sponsors should identify the appropriate procurement category to determine the appropriate procurement steps. The small procurement process follows the same six basic steps outlined in the procurement overview. When advancing through small procurement, work with the TAP staff and be prepared to submit all materials **electronically**.



Small Procurement: Preparing for Approval to Advertise

Before proceeding into small procurement, the project sponsor should have:

- ☐ An executed MOU
- ☐ Project scope and cost estimate
- □ NEPA clearance
- ROW certification
- ☐ Any relevant permits or reviews

When these materials are underway or complete, the project sponsor may begin to develop the Procurement Package. The Procurement Package will outline the solicitation and describe what work is needed. Project sponsors can request a small procurement template from TAP staff to aid in package development.



Small Procurement: Approval to Advertise

Receiving signed Approval to Advertise is required before solicitations can be publicly listed or promoted. To receive approval, the project sponsor should electronically submit the Procurement Package to the TAP staff for review. The Package must include:

- □ Cost estimate
- ☐ Project scope, specification, and design plans (when applicable)
- □ Bid submittal form
- ☐ List of potential bidders
- Environmental Permit Certification form
- ☐ Federal Form Packet (excluding solicitations for supplies, materials, and signage)
 - The Federal Form Packet includes the contract provisions applicable to a project and is available on the MDOT SHA Standard and Supplemental Specifications webpage.
- ☐ Preferred vendor disclosure form

The preferred vendor disclosure form will require the project sponsor to determine whether the solicitation must first be sent to a Maryland Preferred Vendor. State preferred vendors must be given the opportunity to fulfill project needs for those items in the vendor catalog. The preferred vendors are Maryland Correctional Enterprises, Maryland Blind Industries, and Maryland Works. Additional guidance will be provided when the project sponsor enters the procurement phase.

If a state preferred vendor passes on the opportunity to fulfill the project need, or if they do not provide the goods or services in question, minority firms, disadvantaged business enterprises, and women's business enterprises should be used whenever possible. Qualified businesses should be placed on solicitation lists whenever they are potential sources.

MDOT SHA will review the Procurement Package and provide approval or feedback on what needs to be changed. When the **complete package is submitted**, MDOT SHA review should take **4-6 weeks**.

When accepted, the project sponsor will receive an email indicating their project has received Approval to Advertise.



Small Procurement: Advertisement

Once a project sponsor has Approval to Advertise, the project sponsor may continue through the process. Advertisement for small procurement **must occur** within 24 months (2 years) of the date of the Kickoff Meeting but ideally **should occur** within months of the Kickoff Meeting. The following guidelines apply to small procurements:

- Determine if the solicitation needs to use a preferred vendor.
- If the sponsor must contact a Preferred Vendor with the solicitation, the Preferred Vendor will either provide an offer or issue a waiver.
- If the Sponsor determines the solicitation does not need to be sent to a Preferred Vendor or if the Preferred Vendor issues a waiver, the Sponsor can solicit for additional bids following the requirements outlined below:

Category I: No formal advertisement required.

- Advertisement Requirements: The sponsor should solicit at least two (2) vendors. Offers can be oral or in writing. However, documentation is required.
 - Verbal solicitations: Documentation (called 'tabulation') must include the date and time of the call, the name, and address of the vendor, the name of the person providing the bid, and the amount of the bid. Tabulation must be signed and dated by the project sponsor.
 - Written solicitations will be sent directly to vendors via email. The email will act as documentation that the request for bids went to multiple vendors.

Category II: No formal advertisement is required.

- Advertisement Requirements: The sponsor should solicit at least three (3) vendors. The solicitation must be in writing.
 - Written solicitations will be sent directly to vendors via email. The email will act as
 documentation that the request for bids went to multiple vendors.

Category III: Formal advertisement required.

• Advertisement Requirements: The sponsor should post the solicitation on eMaryland Marketplace Advantage for a minimum of three (3) working days before the bids are due and opened (at a time specified in the solicitation).

Sponsors should also be sure to follow any county and/or municipal requirements for small procurement.



Small Procurement: Response Review

In order to proceed, at the end of the advertising period, the project sponsor should select a recommended vendor from among the offers received based on the lowest **responsive** and **responsible** bid. If the sponsor received only one bid, the sponsor should contact TAP staff for guidance.



Small Procurement: Concurrence in Award

Concurrence in Award (CIA) is MDOT SHA's written agreement that the project sponsor followed appropriate state and federal regulations in selecting the contractor and the corresponding proposal. Project sponsors must request MDOT SHA's CIA **after** responses have been evaluated and **before** the contract is awarded and the contractor NTP is issued. To request a CIA, the sponsor should submit a request to MDOT SHA with the bid tabulation, bid submittal sheets, and contractor qualifications (when applicable). Once the full package has been received, MDOT SHA review will take 4-6 weeks.



Small Procurement: Notice to Proceed

After receiving the CIA from MDOT SHA, project sponsors should issue NTP to the contractor.



SECTION FOUR: PROCESS

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SECTION FOUR: PROCESS

Work conducted under the TAP will fall under the categories of planning and feasibility, design, construction, and others. The processes in this section define the work and outline the reviews and requirements that occur at critical stages. To successfully navigate the TAP process, sponsors should review the relevant parts of this section.

Part One: Design and Design Reviews is relevant for some planning and feasibility projects and all design projects and construction projects. It outlines the reviews that occur from early project concept through to construction-ready design. All projects with a design component will experience design review, even if a project is submitted with a 90-percent or complete design.

Part Two: Construction is relevant for construction projects. It outlines tasks such as construction management and material inspection.

Part Three: Other is relevant for all **other projects** that do not fall into Parts One and Two.

PART ONE: DESIGN AND DESIGN REVIEW

Design Overview

The standards and reviews outlined in this part apply to **design projects** and **construction projects**. Some **planning and feasibility projects** may also be subject to design standards at a less detailed level.

As federally-funded projects administered by MDOT SHA, TAP projects are held to many federal, state, and local standards. Designs will be reviewed for all TAP projects to ensure these standards and requirements are met. Project sponsors should review this section before design begins to ensure all relevant standards are included in the project.

Design reviews will most often be conducted when a project reaches the 30-percent, 60-percent, 90-percent, and final design (equivalent to 100-percent, submission of the Plans, Specifications Book, and Engineer's Estimate (PS&E)) completion milestones. Please reference **Appendix D-1** for a checklist for the design project process.



4-2

Each individual design review generally consists of three steps:

1. Submitting the project for review.

- At each milestone, project sponsors will submit design documents to the TAP staff who will subsequently share the project with all relevant MDOT SHA parties.
- MDOT SHA review will take several weeks to ensure all have adequate time to review.

2. Receiving MDOT SHA comments.

- Sponsors will receive all design review comments in one memo package.
- Sponsors should not contact reviewers directly. All questions should go to TAP staff to be directed to the right department or reviewer.

3. Responding to and integrating comments.

- After receiving comments from MDOT SHA, the project sponsor will be responsible for addressing all required changes. Project sponsors should expect to receive comments about required changes as well as comments about recommended changes. Language such as "must," "need," and "shall" indicates required changes while recommendations will be made with words such as "consider." Sponsors should work with the TAP staff if the distinction is not clear.
- Project sponsors should be prepared to address comments in the project description and should respond to MDOT SHA with a point-by-point response letter.
- Reviews will continue until all required comments are addressed.

The Milestone Policy (**Appendix A-2**) defines 30-percent design and 60-percent design for stream, wetland, trail, building, and bridge projects. Project sponsors should use the Milestone Policy as a checklist to ensure their project is appropriately complete at each stage.

Construction project sponsors should be aware that design review is required for all projects. If a construction project sponsor enters the TAP with a 90-percent design, design reviews will be required in order to meet all stages of design review and ensure MDOT SHA standards are met. This may result in multiple reviews and comments for the project sponsor to address. Construction project sponsors should account for the time and cost of submitting for and addressing comments.

Milestones

Milestones refer to the stages of design progress and serve as the most common points of review for any projects involving design. The Milestones outlined in this manual include 30-percent, 60-percent, and final design (100-percent).

Planning and feasibility projects will likely not advance past the 30-percent design milestone. However, project sponsors will want to consider design standards when studying future work. If a planning and feasibility project reaches 30-percent design, project sponsors should be prepared for design review.

Design project sponsors may apply with a concept and be funded for **portions** of design (up to a certain percent) and therefore only some milestones and reviews outlined in this manual may not apply. Many **design projects**, however, are funded for construction-ready design. In these cases, all milestone stages are relevant.

Construction projects must apply with a 30-percent design and will need to complete (100 percent) design for project construction. Since the final design is required to advertise a construction project, the reviews outlined in this part will be completed *before procurement* for construction projects only. Design projects and planning and feasibility project sponsors will be completing this work after a design consultant is procured.

30-Percent Design

Thirty-percent is the first milestone for design review. **Construction project** sponsors must include 30-percent design plans with their TAP applications. The 30-percent plans are the starting point of further project development and plans should not drop below this 30-percent stage after the 30-percent design has been approved.

For planning and feasibility project and design projects, a 30-percent design may be the first opportunity for design review. Project sponsors should review the Milestone Policy to ensure all items listed are prepared to MDOT SHA standards. When plans have reached 30-percent completion, project sponsors should provide electronic plans to the TAP staff for MDOT SHA review.



60-Percent Design

Construction project and some design project sponsors will be expected to bring projects to the 60-percent design stage within one year of the kickoff meeting. The 60-percent design builds upon the 30-percent design plans, maintains the same scope, and provides more detail. The Milestone Policy describes 60-percent design for stream, wetland, trail, building, and bridge projects.

At the 60-percent design milestone, project sponsors should submit electronic plans with all relevant materials to the MDOT SHA TAP staff.



90-Percent Design

This milestone represents nearly a complete design and may be expressed as 90- or 95-percent design though for the purposes of this manual, 90-percent will be used.

All **construction projects** and some **design projects** will reach this milestone and submit the 90-percent design for review.

For **design projects**, submission of the 90-percent design and the subsequent addressing of comments may be the last steps of the project before project closeout. Like the previous design milestones, **design project** sponsors should electronically submit a full design plan to the TAP staff who will work with other MDOT SHA departments to review, as necessary.

Construction projects, on the other hand, are required to host a **Final Review Meeting** to facilitate peer review of the proposed design and provide a final opportunity for MDOT SHA and other stakeholders to comment before a project is advertised. General topics of discussion include design, engineer's estimate, constructability, project goals or restrictions, permitting, contracting, advertisement, construction, and future maintenance of the project.



Final Design

Final design represents complete, 100-percent design. This milestone indicates design is construction-ready. All **construction projects** and some **design projects** will reach this milestone. **Construction project** will submit final design with the Design Plans, Specifications Book, and Engineer's Estimate (PS&E).

Final Review Meeting

PROJECT TYPES: All construction projects.

PURPOSE: Peer review. An opportunity for stakeholders to provide comments.

PARTICIPANTS: The Final Review Meeting should include key persons on the project sponsor team, MDOT SHA staff involved in the project, and other stakeholders or interested parties whose participation would not affect the bidding process.

STEPS:

- 1. The project sponsor schedules the meeting and provides participants with a full design package four to five weeks before the meeting.
- 2. Participants provide complete comments to project sponsors prior to the meeting.
- 3. During the meeting, comments received from participants will be addressed and discussed. All participants should be prepared to discuss project details and offer comments.
- 4. Following the meeting, the project sponsor should address received comments, if applicable.
- 5. With all comments resolved, the project sponsor must develop and provide a **Final Review Report**. The report must reflect a summary of all comments, recommendations, and edits presented at the Final Review Meeting, and indicate how the project manager addressed and resolved each comment or recommendation following the meeting.
- 6. The project sponsor should submit the Final Review Report to the TAP staff for review and concurrence.
- 7. A Final Review Report will need to be submitted with the PS&E.

Project-Specific Reviews

The plans submitted at 30-percent, 60-percent, 90-percent, and final design will need to meet a variety of state and federal standards. Each TAP project is unique, and the applicable standards are dependent on the project scope. Table 4.1 describes some of the specific design reviews that may be applicable. Project sponsors may also refer to the <u>Development Guide For Local Public Agencies and Other Sub-Recipients of Federal Funds</u> (referred to as the LPA Manual in this document).



Table 4.1 Design Review Summary

REVIEW TYPE	WHEN NEEDED	SUPPORTING ENTITY (Project Sponsors may need to work with these departments/ entities to work through review and comment)
Access Permit	Change to an existing MDOT SHA access point; addition of new access point	MDOT SHA District Office; local planning/zoning office
American with Disabilities Act (ADA) Compliance	Applicable to all projects	MDOT SHA ADA and Bicycle Compliance Team
Bicycle Compliance Review	Projects that disturb the paved roadway area or adjacent curb line, projects that adjust striping, projects with shared-use paths	Office of Highway Development (OHD) Bicycle Compliance Team; Assistant District Engineer of Traffic (ADE-T)
Bridge and Structures Review	Involves construction of a new structure, alteration of an existing structure, or improvement that may impact existing MDOT SHA structure	MDOT SHA Office of Structures (OOS)
Bridge: Scour Analysis	Involves structure over a waterway	MDOT SHA Office of Structures (OOS)
Environmental Resources	Involves environmental permits (in excess of NEPA)	Various, including the MDOT SHA NEPA Liaison
State Historic Preservation Office (SHPO) Review Historic site or structure is impacted Vehicular, bicycle, or pedestrian movement is affected during construction		Maryland Historical Trust (MHT)
		MDOT SHA District Office
Traffic Signing & Marking, Lighting and Signalization	All projects that add or alter roadway signing and marking, lighting, and signalization	MDOT SHA Office of Traffic and Safety
Utility Relocations	Need to relocate utilities	MDOT SHA District Office
Other: Design Exceptions	Cannot meet guidelines/regulations	MDOT SHA TAP staff
Other: Local Ordinances and Standards Involves processes and locations dictated by local ordinances or standards		Local Municipality
CONSTRUCTION PROJECTS ONLY		
Right-of-Way (ROW)	Construct within or to cross MDOT SHA right-of-way	MDOT SHA District Office
PS&E	All construction projects	Various, including MDOT SHA Office of Construction

Access Permit

If the project modifies or creates new access points across an MDOT SHA ROW, the project sponsor should bring the design to the MDOT SHA District Engineer as early as possible. Access point modification may include repair or replacement of entrances, curb and gutter, or pavement; construction repair or replacement of sidewalk or other pedestrian facilities; grading; or landscaping. Otherwise, access points will be reviewed through the local development process within the County or municipality where the project is located. More information about MDOT SHA Access Management Permits can be found at the MDOT SHA Access Management/Permits webpage.

PROJECT TYPES: Any project that will modify or create new access points to or across MDOT SHA ROW.

DESIGN STANDARDS: MDOT SHA to provide guidance, when applicable.

STEPS: Access reviews will occur with the design milestone submissions at the District level. After receiving approval on design from the District, the sponsor's project engineer must submit a complete permit package. Once received, the MDOT SHA District Engineer or Designee will prepare and issue a permit.

Americans with Disabilities Act

All TAP projects are required to comply with the Americans with Disabilities Act of 1990 (ADA), which prohibits discrimination on the basis of disability. TAP project sponsors should use the ADA Accessibility Guidelines for Buildings and Facilities (ADAAG) to ensure that their project complies with ADA. If the project links to or includes an MDOT SHA transportation facility, such as a shared-use trail, walkway, driveway, or access path, or is located along or intersects with a state roadway, MDOT SHA's Accessibility Policy & Guidelines for Pedestrian Facilities along State Highways must be followed.

The ADAAG recognizes that some requirements may be technically infeasible. Project sponsors should refer to ADAAG to for guidance on technical infeasibility.

PROJECT TYPES: Review is required for all projects. Facilities that may be reviewed include shared-use trails, walkways, driveways, access paths, restrooms, water fountains, or intersections with or adjacent to a state roadway.

DESIGN STANDARDS: ADA and ABA Accessibility Guidelines for Buildings and Facilities (2005), ADA Standards for Transportation Facilities (2006), ADA Standards for Accessible Design (2010), Proposed Guidelines for Public Rights-of-Ways (2011), MDOT SHA's Accessibility Policy & Guidelines for Pedestrian Facilities along State Highways.

PROCESS: ADA reviews will occur with the design milestone submissions. Additionally, all construction projects will be inspected for adherence to ADA at project closeout.

Bicycle Compliance

TAP projects are expected to follow the <u>Bicycle Policy Design Guidelines</u>. If a TAP project disturbs the paved roadway area or adjacent curb line, if it adjusts line striping, or if it includes a shared-use path, **it must be reviewed for bicycle accommodations**. Projects will be reviewed at each milestone by the Office of Highway Development (OHD) ADA and Bicycle Compliance Team to ensure that mandatory conditions for bicycle design are met. Prior to advertisement, the lead design office shall request the ADA and Bicycle Compliance Team to certify that the bicycle accommodations meet the mandatory conditions or any necessary waivers have been approved and that the appropriate engineering solutions have been provided as part of the project. The Assistant District Engineer of Traffic (ADE-T) will provide a signed waiver that will accompany the PS&E Checklist in preparation of advertisement.

PROJECT TYPES: Projects that disturb the paved roadway area or adjacent curb line, projects that adjust striping, projects that include replacing and/or modifying lane widths or shoulder widths, projects with shared-use paths.

PROCESS: Bicycle Compliance review will occur at the design milestone submissions. A Compliance Certification signed by the ADE-T must accompany the PS&E Checklist in preparation for advertisement.

Bridge and Structures

The TAP design process for all bridge and structural construction projects should be guided by the latest version of the Bridge Replacement and Rehabilitation Program Guidelines for Local Governments. A copy of these guidelines is available at each county's Department of Public Works. Additional policies and publications that provide bridge and structure design guidance include:

- AASHTO's Guide for Development of Bicycle Facilities
- Standards, and Guidelines for Archeology and Historic Preservation
- ADA Accessibility Guidelines
- MDOT SHA Bicycle Policy and Design Guidelines
- Federal Highway Bridge Program Guidelines
- The International Code Council publications, including the International Building Code
- The Maryland Stormwater Design Manual
- The Manual on Uniform Traffic Control Devices
- MDOT's Standard Specifications for Construction and Materials
- MDOT SHA's Accessibility Policy & Guidelines for Pedestrian Facilities Along State Highways
- MDOT SHA's Standards for Highways, Incidental Structures and Traffic Control Applications by and for the Maryland State Highway Administration
- USDOT's Rails-with-Trails: Lessons Learned Literature Review, Current Practices, Conclusions

All projects that involve the construction or alteration of bridges, retaining walls, boardwalks, large culverts, structure foundations, or improvement to an MDOT SHA structure will need to submit their designs for review by the Office of Structures (OOS).

Bridge and Structures Review

PROJECT TYPES: All projects that involve the construction or alteration of bridges, retaining walls, boardwalks, large culverts, structure foundations, or improvement to MDOT SHA structure.

DESIGN STANDARDS: Many different standards. Review the list provided in this section.

PROCESS: Bridge and Structure reviews will occur with the design milestone submissions.

- 1. Submit a complete set of design plans, specifications, and estimates to the TAP staff for OOS review at 60-percent and 95-percent complete.
- 2. Project sponsors must address the 60-percent design comments before submitting 95-percent

Scour Analysis

PROJECT TYPES: Scour Analysis is an additional evaluation required for projects involving rehabilitation or replacement of any bridge or a bottomless culvert over a waterway.

DESIGN STANDARDS: OOS Manual of Hydrologic and Hydraulic Design.

PROCESS: The project sponsor will work with the Office of Structures to complete the scour analysis using the policies and procedures outlined in the OOS Manual of Hydrologic and Hydraulic Design.

Environmental and Cultural Resources

Section Two describes the process for the National Environmental Policy Act (NEPA) review and clearance as well as environmental permitting. In addition to NEPA, TAP projects may be required to incorporate mitigation or special design elements to meet standards or stay in compliance with environmental and historic preservation permits. Project sponsors should work with the MDOT SHA NEPA Liaison to identify appropriate processes and contact points during the design and design review process. Environmental and historic processes may be concurrent with other MDOT SHA milestone reviews or may require additional coordination with other state or local departments.

Environmental Reviews

PROJECT TYPES: Table 2.2 in Section Two outlines project conditions that may require an environmental permit.

DESIGN STANDARDS: Many resources exist to guide environmental compliance. MDOT SHA will provide guidance, if applicable.

STEPS: Project sponsors should work with the MDOT SHA NEPA Liaison to identify appropriate processes and contact points.



State Historic Preservation Office (SHPO) Review

PROJECT TYPES: Any projects that involve a historic site or structure.

DESIGN STANDARDS: The Maryland Historical Trust (MHT) will guide any design or preservation standards.

STEPS: The project sponsor should start coordinating with the MHT before submitting a TAP application and should continue coordination throughout the design process.

- 1. Submit 30-percent design to MHT.
 - Refer to the MHT website for submission details.
 - Design plans should be developed to a stage at which, at a minimum, the location and size of all proposed improvements are shown.
- 2. MHT must be invited to the Final Review Meeting with MDOT SHA.

Traffic Control Plan and MDOT SHA District Office Concurrence of Traffic Control Plan

Project sponsors must prepare a Traffic Control Plan (TCP) for all projects that will affect vehicular, bicycle or pedestrian movement during construction. MDOT SHA District Office concurrence on the traffic control plan is required. If a project is not along an MDOT SHA roadway, approval from the roadway owner is also required. All **construction projects** will be required to submit a Traffic Control Plan as part of the PS&E.

PROJECT TYPES: All projects that affect vehicular, bicycle or pedestrian movement during construction.

DESIGN STANDARDS: Plans shall conform with all necessary standards and regulations, including but not limited to: the Book of Standards, the Accessibility Policy and Guidelines for Pedestrians along State Highways, Bicycle Policy & Design Guidelines, and the Maryland Manual on Uniform Traffic Control Devices (MDMUTCD).

STEPS: Traffic Control Plan reviews will occur with the design milestone submissions.

- 1. Submit to TAP staff who will submit the traffic control plan to the appropriate MDOT SHA District Office.
- 2. MDOT SHA District Office will sign off on the Traffic Control Plan.

Traffic Signing & Marking, Lighting and Signalization

Roadway improvements and associated signing, marking, lighting, and signalization will be reviewed at the indicated milestones. Project sponsors should be aware of all relevant design standards and work with MDOT SHA to ensure design elements are appropriate and feasible.

PROJECT TYPES: All projects that add or alter roadway signing and marking, lighting, and signalization.

DESIGN STANDARDS: Maryland Standard Sign Book, Maryland Manual on Uniform Traffic, Traffic Control Devices, all other applicable standards and guidelines.

STEPS: Reviews will occur with the design milestone submissions.

Utility Permitting

TAP project sponsors are required to coordinate projects with utility owners. Early coordination is critical as utility delays can impact the project's cost and schedule. If utilities are present, involvement by utility owners can range from simply marking utility locations within the project area to relocating utilities due to conflicts with the scope of the project.

A utility certification statement is a standard requirement that applies to all projects, even if utilities are not affected. If the project is impacting utilities on MDOT SHA right-of-way, the project sponsor must coordinate with the MDOT SHA District Office. If utility relocation is required, significant work and funding may be needed. Project sponsors will also need to certify coordination with known utilities by working with the District Utility Engineer to complete the Utility Coordination Certification. The Utility Coordinate Certification form is available in **Appendix D-2**. All **construction projects** must submit the Utility Coordinate Certification as part of the PS&E.

PROJECT TYPES: All projects will need to review utility impacts and coordinate with utility owners.

DESIGN STANDARDS: Project sponsors will need to work with utility companies and right-of-way owners (if applicable). Other coordination steps and procurement requirements (such as the FHWA Buy America requirements) may apply in addition to design coordination if utility work is undertaken during the project.

STEPS: A 15-step process is outlined in the **LPA Manual**. Some of those steps may not apply but, at minimum, a project sponsor should be prepared to:

- 1. Identify all utilities in the project area early in the design process.
- 2. Share and verify design plans with each utility company.
- 3. Write the utility statement and work with the District Utility Engineer to fill out the Utility Coordination Certificate.
- 4. Receive concurrence of the utility certification statement from the MDOT SHA District Office.

Other

Other MDOT SHA approvals and concurrences may be necessary, depending upon the scope of the project. Project sponsors may need to address:

Design exceptions or waivers. A design exception is a documented decision to design a project element to criteria that does not meet minimum values or ranges established for that project. Requests for design exceptions shall be made when the need first arises and as early as possible but not until reasonable and feasible alternatives have been evaluated to meet the controlling design criteria. Design exceptions will be addressed on a case-by-case basis. Project sponsors should work with MDOT SHA and refer to the **LPA Manual** for process details.

Railroads. Section Two highlighted the need for railroad coordination and certification with railroads. Early coordination is critical as railroad delays can impact the project's cost and schedule. If the TAP project involves a railroad, regular coordination will need to be continued as design advances.

Other jurisdictions. Any other design reviews for standards required by federal, state, or local authorities.

Construction-Specific Design Reviews and Permits

While many design elements and reviews will apply to both construction and design projects, a few are required specifically and only for **construction projects**.

Right-of-Way (ROW) Certification

A right-of-way certification statement is a standard requirement that applies to all Federal-aid projects, even those that do not involve the acquisition of any right-of-way. Sponsors must certify that requirements related to ROW have been fulfilled before authorizing a project for construction.

Section Two outlines the process for the ROW Coordination Certification. ROW acquisition and coordination should occur early in the project as right-of-way coordination and requirements can become very complex.

While not specifically a design element, ROW certification should continue while the sponsor advances through the design and design reviews outlined in this section. The ROW Certification will also be required for the Design Plans, Specifications Book, and Engineer's Estimate (PS&E).

The Design Plans, Specifications Book, and Engineer's Estimate (PS&E)

Upon completion of all Final Design activities, the Design Plans, Specifications, and Estimates (PS&E) package will be assembled for all **construction projects**. The PS&E is a critical resource in summarizing the project and project design for advertisement.

PROJECT TYPES: All construction projects after the final design.			
STAN	NDARDS: A PS&E Checklist is available in Appendix C-5. The PS&E must include:		
	☐ Executed MOU		
	FHWA-Approved Environmental Clearance		
	Title Sheet		
	 Including the project title, description, limits with a location map, and the design year designation informational chart including traffic data, design speeds, functional classification, and control of access. 		
	 A signed Title Sheet is required in the final PS&E submittal 		
	☐ 100-percent complete design plans and specifications book		
	 The final PS&E will include all details necessary to bid on and construct the proposed project 		
	☐ Engineer's Estimate		
	 The Engineer's Estimate should itemize all construction items, anticipated bid cost, and associated funding source. 		
	The estimate should be presented in a spreadsheet that lists all construction elements, their quantities, the predicted bid unit price, and the total project cost.		
	 The estimate should identify which elements will and will not use TAP funding and the amount of funding for each element. 		

Reinforced structures (retaining walls, bridge, etc..), lump sums, and/or grouped items may need a breakout of cost and quantities for review of the project's recommended DBE percentage goal.

☐ Environmental Permit Form
 A form to indicate the status of all required permits for the project.
• See Appendix B-4 for the template.
☐ Public Awareness Letter/Documentation
 Public Awareness documentation should explain how the public was informed of the proposed construction and state the majority position on the project.
 Letters of support from elected representatives are recommended.
☐ Traffic Control Plan Concurrence
☐ Utilities Statement Concurrence
☐ Utility Coordination Certification
See Appendix D-2
□ ROW Certification Letter
☐ Final Review Report
 Required after Final Review Meeting.
☐ Design Exception Approval, if applicable
☐ OOS Concurrence of Structural Design, if applicable
☐ Other MDOT SHA Approvals and Concurrences, if applicable

STEPS:

- 1. After all comments are addressed from previous reviews, a draft PS&E package should be submitted to the TAP staff in advance of the Final Review Meeting.
- 2. Following the Final Review Meeting, the sponsor should submit a final, ready-to-advertise PS&E with an approved Final Review Report with the request for approval to advertise.
 - Incomplete PS&E packages will result in a delay in processing the approval to advertise.



PART TWO: CONSTRUCTION

Construction Overview

The requirements outlined in this part will apply to **construction projects** only, covering the process which begins after the project has been bid, a contractor has been selected, and the project moves into the construction phase. Thus far in the process, the TAP staff have been the primary point of contact for the project sponsor. After receiving the CIA letter and moving into construction, the project sponsor will be working more closely with the MDOT SHA District Office that administers and manages MDOT SHA construction in Maryland's 23 counties and Baltimore City. Moving forward, project sponsors should include the TAP staff and MDOT SHA District Liaison (who may be the District Engineer or another representative) and Assistant District Engineer of Construction (ADE-C) on all construction-related work. Please reference **Appendix D-3** for a checklist for the construction project process.

In addition to the details outlined in this manual, TAP construction project sponsors should consult the Office of Construction (OOC) Sub-recipient Construction Manual and the Development Guide for Local Public Agencies and Other Sub-Recipients of Federal Funds (referred to as the LPA Manual), both of which provide greater detail on the construction process.

Preconstruction

TAP **construction project** sponsors will complete significant work before entering the construction phase. Having navigated the program phase, design, and procurement, the sponsor now has completed project designs and selected a contractor to perform the work.

Before construction gets started, the project sponsor should contact the MDOT SHA District Office to share relevant documents. The district will provide general oversight for MDOT SHA during construction to verify that the project is adhering to its scope, to confirm that the project sponsor is meeting their responsibilities, and to ensure that MDOT SHA's interests are being addressed.

Throughout the construction process, project sponsors should contact the District Liaison (who could be the ADE-C or another designated staff) regarding certified inspection, questions on materials that must be sampled or tested, and the types of changes that require a change order.



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Preconstruction Meeting

The preconstruction meeting is a required and valuable step to ensure the project sponsor, district, contractor, and all relevant parties are up-to-date and aware of the next steps in the construction process.

PROJECT TYPES: All **construction projects** require a preconstruction meeting.

PURPOSE: Ensure all parties understand and are aligned with the goals of the construction process.

PARTICIPANTS: Project sponsor, MDOT SHA TAP staff, MDOT SHA District Office, winning contractor, partners and property owners with a stake in the project.

STEPS:

- 1. The project sponsor will schedule the meeting and invite relevant parties.
 - The invite for the MDOT SHA District Office should go to the ADE-C.
- 2. Conduct the preconstruction meeting reviewing the project, construction schedule, communication, and all other standards and requirements. For a sample agenda for the preconstruction meeting is included in **Appendix D-4**.
- 3. Record and then distribute meeting minutes.
- 4. In addition to the MDOT SHA preconstruction meeting, there may also be preconstruction requirements for local municipalities or environmental permitting. Project sponsors should ensure these preconstruction steps are met before moving to construction.

Construction Inspection

Project sponsors awarded construction funding must employ a construction inspector for the entirety of construction.

MDOT SHA is not responsible for providing a construction inspector.

Municipal TAP project sponsors may have a certified construction inspector within their forces. TAP project sponsors may use in-house forces, if available, or may need to contract an inspector. Additionally, please note that the construction inspector hired for the project must be from a different company than the firm that completed the design.

The construction inspector must be supplied by the project sponsor.

Project sponsors are responsible for ensuring the inspector is MDOT SHA-certified with applicable experience, credentials, and certifications. Applicable certifications include:

- Mid-Atlantic Region Technician Certification Program (concrete, asphalt, soils and aggregates including nuclear gauge, pavement markings)
- Sediment and Erosion Control
- Maryland Department of the Environment (MDE) Responsible Personnel Certification, formally called Green Card
- MDOT SHA Erosion and Sediment Control Yellow Card (when on MDOT SHA ROW)
- Temporary Traffic Control Manager
- OSHA 10-hour Construction Safety

Adequate construction inspection staff must be present during all construction activities.

PROJECT TYPES: All construction projects.

STEPS:

- 1. Determine who will be inspecting the work on the project. Ideally, this will be determined before a project is advertised.
- 2. Ensure the assigned inspector has all the proper experience, credentials, and certifications necessary for the project.

Record Keeping

As a federally funded program, TAP projects must maintain records for quick and clear access. Missing or insufficient documentation could jeopardize reimbursement and release of the retainage. The retainage is an amount that is withheld from the contractor's monthly invoice. Referenced in the MOU, the retainage for TAP projects is a minimum of five percent but may be higher. Retainage amounts can be discussed prior to the execution of the MOU. Retainage should be released in a timely manner to the contractor based on MDOT SHA guidelines.

All project files must be complete, available at a single location, and organized in a concise, orderly manner that permits inspection by MDOT SHA and FHWA personnel during project inspections, process reviews, or random checks.

Project sponsors are expected to complete and maintain:

- Inspector Daily Report (IDR)
 - The IDR should include a thorough and accurate recording of the day's activities.
 - A sample IDR and the directives describing the requirements are available in the OOC Sub-recipient Construction Manual and the LPA Manual.
- Item Ledgers and Item Summary
 - Item Ledgers and Item Summary document items that are used and paid for during construction.
 - The Item Summary Book must have a title sheet page, Inspector Signature Sheet, and an Item Summary Page for each Item.
- An organized document filing system following the format outlined by the <u>Office of Construction</u>.

Construction Management

Project sponsors are responsible for the management of their projects. A construction manager should oversee the project and have the capacity to approve minor modifications to the original design to facilitate construction with oversight from the MDOT SHA OOC.

Managing the construction project will require managing people, paperwork, and numerous processes. Project sponsors should refer to the OOC Sub-recipient Construction Manual for additional detail on all construction management expectations.



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Monthly Progress Meetings

It is strongly recommended that the project sponsor hold biweekly or monthly meetings with the contractor to discuss construction progress while the project is active. During the winter or other slow periods, less frequently held meetings may be appropriate. The project sponsor should invite the District Liaison and any other partners to these progress meetings. Following each meeting, meeting minutes must be sent to the District Office and TAP staff.

Progress meetings are an excellent way to provide updates to all those involved in a project and should be scheduled well in advance to ensure staff availability and participation. The agenda should include a review of the project schedule, material inspection updates, and upcoming inspection reviews. A sample monthly progress meeting agenda and sample minutes are included in **Appendix D-5**.

PROJECT TYPES: All construction projects.

STEPS:

- 1. Set biweekly or monthly progress review meetings with project sponsor, contractor, MDOT SHA District Office and any relevant partners.
- 2. Following each meeting, send meeting minutes to the District Office and TAP staff.

Construction Schedule

Project sponsors are required to submit an approved construction schedule before work can begin. The project sponsor is responsible for reviewing and approving the schedule. The schedule should be maintained and updated monthly and posted in the field office.

Field Office

The field office is an approved location in the vicinity of the project that is maintained and functional for project administration and record storage. A field office must be established before construction work can begin. TAP construction projects may be able to use a municipal building as the field office.



Additional Construction Management

Project sponsors will also be responsible for maintaining:

- Compliance requirements. Project sponsors must ensure and record compliance with the terms and conditions in the contract documents.
- Disadvantage Business Enterprise (DBE). The DBE Program is a federal mandate with strict requirements. Project sponsors must ensure the overall wage / labor rates and program requirements are followed, all required forms are completed and submitted when due, and proper documentation is kept in an organized filing system. Requirements apply to the following:
 - Schedule of Participation
 - Field Meeting
 - Posting Chart
 - Inspector's Daily Report
 - Subcontractor Request

- Trucking Activities
- Supplies
- Commercially Useful Function
- Monthly Subcontractor / DBE Subcontractor Payment Report
- Labor and Prevailing Wage Rates. Applies to all federally funded projects when the prime contract value is over \$2,000. Project sponsors must ensure the program requirements are followed and forms are complete and submitted when due. Mandates with applicable requirements may include:
 - Contractor and Subcontractor Payrolls
 - Additional Classifications
 - Project Bulletin Board

- Payroll Compliance Requirements
- Work Force Analysis
- Maintenance of Traffic. Traffic control for motorists, transit, pedestrians, and bicyclists must be considered for every project. Maintaining a safe flow of traffic is critical. The contractor is required to submit the name and qualifying credentials of their designated Traffic Control Manager (TCM) before the start of any work involving traffic control.
- On-site permits. Project sponsors should ensure all permits are active and available in project files at the construction site and all work follows the permit terms and conditions
- On-site ROW documents. ROW documents such as plats, easements, and right of entry agreements should be available at the construction site.
- Safety. Safety, in a variety of forms, must be the highest priority on any project. The project sponsor should be aware of safety requirements and inspect the construction site to ensure the proper measures are being taken.
- Subcontractors. All subcontractors must be approved by the project sponsor and forwarded to OOC for concurrence. Subcontractors should not begin work until approved by the project sponsor.



Material Testing and Approval

Material testing and approval are required to assure the materials used during construction are designed, produced, and placed to meet federal requirements and maintain community safety.

A TAP project cannot be closed out until it receives "Final Material Clearance." There are four steps for material clearance: submission, source approval, testing, and reporting.

- 1. Submission: Materials are submitted through MDOT SHA's Material Management System (MMS).
- 2. **Source Approval:** MDOT SHA's Office of Materials Technology (OMT) will review MMS submissions and accept or reject the material.
- 3. **Testing:** Approval through MMS will include quality assurance, quality control, sampling, inspection, or verification protocol.
- 4. **Reporting:** Project sponsors should submit regular Material Clearance Reports documenting material invoicing, clearance, and use.

All materials must be submitted and receive approval PRIOR to use. Project sponsors must submit a list of materials for approval **30 days in advance** of the construction schedule. Not submitting materials into MMS or source approvals can delay payment of invoices.

Source Submission and Approval: Material Management System (MMS) Process

Material source submission is the first step of the material clearance process. If the source of supply (SOS) is approved, OMT will provide the quality assurance procedure the project sponsor will need to follow to clear contract.

MDOT SHA uses the <u>MMS</u> for material submission. If the sponsor's contractor is not familiar with MMS, the TAP staff can help arrange a meeting with project sponsor and OMT Materials Engineer. An <u>MMS user guide</u> is available on the OMT website along with frequently asked questions.

PROJECT TYPES: All construction projects.

STEPS:

- 1. Project sponsors or their contractor should work with an MDOT SHA Area Material Engineer (AME) to create an MMS account and designate authorized company representatives (if needed).
- 2. The contractor or sponsor should add SOS information to MMS.
 - Many materials are already logged in MMS. If the material has been documented in the system, product information will be listed and can be selected by the user.
 - If an item is not in the database, it will need to be added. Sponsors or their contractors should contact the AME to receive a template for the information needed. Using the engineer's estimate, complete the template and send to OMT for input into MMS. Contact the AME with any questions.
- 3. Submit materials for review.
- 4. OMT reviews submittals.
- 5. OMT will accept or reject the submission. If rejected, OMT will provide an explanation for what needs to be changed or included.
- 6. The sponsor will continue to work through the submittal process for each material.

Any questions on MMS should be directed to the AME based on the location and district of the project. **Appendix D-6** provides a map and list of AMEs for reference.

Material Testing

Some materials require quality assurance tasks to be performed before the material is delivered to the project site. Other materials may require action once the material arrives on site (such as material sampling, inspection, and verification).

Project sponsors should follow the testing processes outlined in the source approval provided by OMT and MMS, as well as the procedures outlined in the State Quality Assurance Manual.

Materials testing is done in an MDOT SHA-certified lab or in the field by an inspector. The MDOT SHA District Office may be available to perform inspections for a cost, but this coordination should be discussed with MDOT SHA before construction.

Materials Tickets and Invoices

Records of all materials used on the project must be kept on file including material tickets and invoices. The Inspector Daily Report (IDR) shall document any material received as well as the quantity received and record ticket numbers. Material tickets document the item number, description, payment, date, and location where the material is installed. All tickets should be signed and dated by the inspector and filed appropriately. The sponsor is responsible for ensuring tickets and invoices are collected and stored.

Material Clearance Reporting

Project sponsors must submit regular reports for OMT to review and ensure the material assurance processes are being followed. Each month during construction, project sponsors should submit a Material Clearance Report detailing the materials that have been placed and any information relevant to the material quality as noted in the source submission stage. A sample of the Monthly Material Clearance Report is included in **Appendix D-7**. If Materials Clearance is NOT Obtained, reimbursement requests will not be processed.

Change Orders

All TAP project sponsors will encounter a time when construction or costs deviate from the final contract and construction plan. When these deviations are moderate or significant, a change order is needed to document and approve project changes **before** the contractor can continue the new work.

Change orders must be approved by MDOT SHA before being issued to a contractor. **Change order approval does not signify additional reimbursement.** The TAP award cannot be increased

Change orders must be approved by MDOT SHA before being issued to a contractor.

after the contractor is awarded notice to proceed. However, change orders are relevant to MDOT SHA project documentation and MDOT SHA staff can offer support to project sponsors in addressing the issues that created a need for the change order.

PROJECT TYPES: All construction projects.

STEPS1:

- 1. Project sponsors should notify the District Liaison and TAP staff as soon as it becomes evident that a change order may be necessary.
- 2. The District Engineer will provide concurrence if the project sponsor should continue with the change order process.
- 3. The contractor informs the sponsor of the need for a change order through a written request with prices and/ or schedule impacts.
- 4. The project sponsor should compile an independent cost estimate (the MDOT SHA Price Index often useful).
- 5. The project sponsor should share the estimate with the District Engineer. The district can help ensure costs are reasonable and in line with the contract (step #6) before an agreement is made with the contractor.
- 6. The project sponsor compares price estimates. If the contractor's estimate is:
 - Low the sponsor should make sure the scope is clear.
 - High and a lower price will be sought the sponsor should send a request letter to the contractor.
 - High but reasonable the sponsor must note justification of the higher price.
- 7. The project sponsor should prepare MDOT SHA Change Order forms, including:
 - Change Order Cost Estimate (located in **Appendix D-8**)
 - Change Order Form (located in **Appendix D-9**)
 - Change Order Prior Approval Form (located in **Appendix D-10**)
 - Required for any single change order > \$500,000
 - Any change order with cumulative change orders > \$500,000
 - Any change order > 10% of bid amount and every CO after that
 - Any change order > 10% of contract time and every CO after that
- 8. The project sponsor submits the forms to the District Engineer (copying TAP staff) for review via email.
 - In the case of Prior Approval, forms must be submitted to the district for OOC review.
 - Scan and email change order package to the district.
 - The District Engineer conducts a brief review and sends the package to the MDOT SHA Engineering Support Section.
 - MDOT SHA Engineering Support Section full review and approval.
 - If there is no prior approval, submitting paperwork for a brief district review is highly recommended. If paperwork is done incorrectly, the paperwork will need to be redone.
- 9. The project sponsor sends change order forms to the contractor for signature.
- 10. Send original, hardcopy (with contractor signature) to District Office.
- 11. MDOT SHA will review and provided final signatures if all materials are correct. The review should take two to four weeks.
- 12. MDOT SHA will notify the project sponsor in writing if accepted.
- 13. Following acceptance, project sponsors should attach the authorized change order to future invoices.

In addition to the outlined steps, change orders may trigger additional materials clearance. The project sponsor may also need change order approval through local leadership. The project sponsor should follow all county and local municipal policies.

Note the change order process outlined in this manual will differ slightly from the change order process in the LPA Manual and OOC Sub-recipient Construction since the change order does not result in federal funding adjustments.

Final Inspection and Audit

When the project is nearing completion, final inspection with the District Office will be needed to validate all work has been completed as planned. Other stakeholders may need to be part of the inspection. Often, the local jurisdiction conducts a final inspection in addition to the MDOT SHA ADA and Bicycle Compliance team and other partners with high involvement (a project impacting a park, for example, will have a final inspection with local or state park representatives). Additionally, the project goes through an audit to review records kept throughout the process before the retainage can be released.

PROJECT TYPES: All construction projects.

STEPS:

- 1. As the project nears completion, the project engineer should be generating a project punch list (the list of outstanding items) in coordination with the contractor.
- 2. The contractor will work to complete these items.
- 3. The project sponsor should schedule a final inspection in coordination with the District Office and invite the local jurisdiction or others conducting a final inspection.
 - If there are too many open items of work remaining, a more formal punch list will be developed and provided to the contractor for follow-up and completion.
 - If there is minor work remaining or if all work has been completed, the project will enter Final Acceptance.
- 4. The project sponsor should contact their District Engineer or Liaison to obtain a checklist that shows the records needed for the project to enter contract finals.
- 5. Once it is placed in contract finals, the District conducts an audit to check for estimates, IDRs, pay quantities, and other applicable closeout records.
 - If there are discrepancies, they must be addressed.
 - If there are no discrepancies and the quantities are completed and agreed upon, the final is requested.
- 6. Paperwork is signed by the contractor and reviewed by the Office of Construction.
- 7. Project sponsor should notify TAP staff for concurrence before deciding to release retainage to contractor.

Final Material Certification

Before a project can be closed, all materials must be cleared as discussed in Materials Testing and Approval. If materials have been reported regularly, final material certification will be easier. Final material certification will take much longer if material clearance reports have not been submitted regularly.

Final material certification will be issued by MDOT SHA OMT with a Material Clearance letter. Project sponsors should request final certification from the AME (copy the TAP staff) with form OOC26, available in **Appendix D-11**.

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Final Acceptance

Based on the final inspection, final acceptance will be provided for work that is complete or very near completion. Two final inspection outcomes can result in final acceptance:

Partial Acceptance for the project can be granted if the work completed is found to be satisfactory and only inconsequential or minor work items remain. The job would likely be substantially complete at this point, and time charges would be stopped. The contractor would be given a timeframe to make the required corrections and complete the remaining items.

Final Acceptance for Maintenance is granted if there are no remaining work items at the time of the walk-through or when these items are completed. The job would be substantially complete at this point and time charges would have stopped previously.

After partial or final acceptance, the project sponsor should send a notification to the contractor and the TAP staff.



PART THREE: OTHER

Other Projects Process Overview

Other projects, as outlined in Section One, cover a variety of TAP project categories that do not follow a design or construction timeline. Nonetheless, other projects will still need to comply with applicable federal, state, and local regulations. Since the range of applicable regulations for other projects is wide, TAP sponsors working on projects that fall into this category should work with the TAP staff to outline the process and refer to the MOU for clarification on deliverables and timelines. Please reference **Appendix D-12** for a checklist for other projects process.

Other Project Considerations

Project sponsors of other projects should be aware of a few broad requirements.

Procurement

Many **other projects** will require support in the form of contracted goods and/or services. The processes outlined in Section Three are still applicable to **other projects**.

Milestones

Like the timeline milestones governing design and construction projects, **other projects** will also need to complete work within a specified time frame. The project sponsor should work with the TAP staff to prepare a list of milestones related to the project schedule.

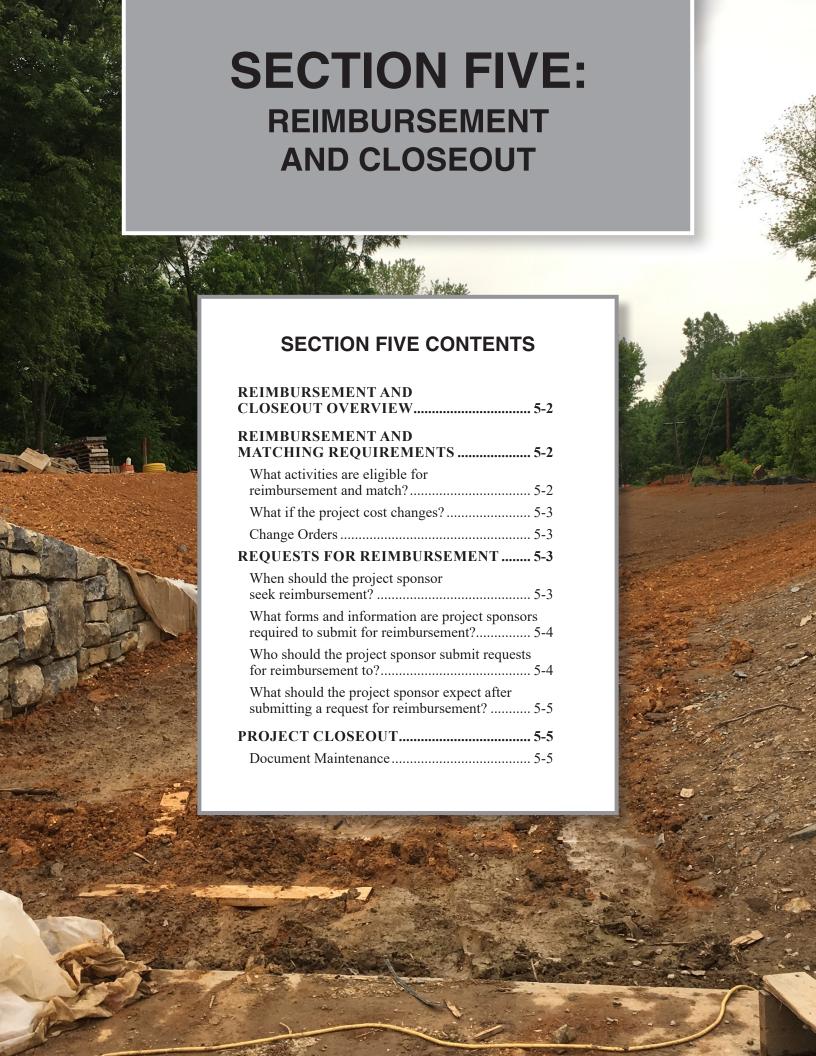
Publication Requirements

Project sponsors producing public publications or program material (such as advertisements for Safe Routes to School events) must contact the TAP staff before publicizing materials. All publications must comply with the Americans with Disabilities Act (ADA), which prohibits discrimination based on disability and may require alternative publication formats. All publications or program materials should be reviewed by MDOT SHA when they are approximately 50-percent complete. Subsequent MDOT SHA reviews and reviews by other agencies may be necessary and will vary depending on the type of project.

Additionally, any publications that intend to use the MDOT SHA logo must be reviewed by the MDOT SHA Office of Communications. The use of the MDOT SHA logo is not required for internal documents such as plans but public materials such as informational signage should include acknowledgement of MDOT SHA and Federal Highway Administration (FHWA) involvement. The project sponsor should account for the additional review time in their project timeline.

Public Events

All project-related promotional materials, including press releases and public event materials must include funding credit for MDOT SHA and FHWA. The project sponsor must notify MDOT SHA at least 30 days before scheduling any public event.



SECTION FIVE: REIMBURSEMENT AND CLOSEOUT

REIMBURSEMENT AND CLOSEOUT OVERVIEW

The final stage of a Transportation Alternatives Program (TAP) Project is reimbursement and closeout, where project sponsors seek reimbursement for project costs and complete documentation related to finalizing the project. The project sponsor should seek reimbursement monthly or quarterly throughout the project process but Final Reimbursement and Closeout will only occur when the project work has **finished**.

REIMBURSEMENT AND MATCHING REQUIREMENTS

The TAP is a reimbursable program. Project sponsors may request reimbursement for up to 80 percent of the total eligible project cost outlined in the Memorandum of Understanding (MOU). The remaining 20 percent of the project's costs must be funded by the project sponsor. This is called the "match." The match may be more than 20 percent but 20 percent is the minimum. Because TAP is a reimbursement program, the project sponsor is required to pay the up-front costs before submitting reimbursement requests for eligible activities.

The activities funded by the project sponsor match must be directly related to the proposed TAP project. Costs of past, adjacent, or future project activities are not considered a

Important Reminders

- ☐ Provide a 20% match
- □ Follow the MOU
- ☐ Be sure project activities are eligible for reimbursement and match before submitting requests
- ☐ Maintain the project for its lifespan
- ☐ Assume liability for the duration of the project's useful life

match, nor are the costs of any similar project activities or project activities from a future phase of the proposed project. Finally, project activities completed before the Kickoff Meeting with the Maryland Department of Transportation State Highway Administration (MDOT SHA) and other major project participants are not eligible for reimbursement.

The project sponsor must refer and adhere to the MOU with MDOT SHA. It will include documentation on the reimbursable project costs, the costs that are eligible for the match, and project costs that are not eligible for reimbursement or match.

What activities are eligible for reimbursement and match?

In Maryland, TAP funding is available for 80 percent of a project's total reimbursable cost. The activities eligible for reimbursement depend on the project category and type discussed in Section One of this manual. The project activities that are eligible for reimbursement and sources of match are clearly defined in the MOU. Where there is uncertainty, MDOT SHA, with Federal Highway Administration (FHWA) guidance, will make final determinations regarding what activities are eligible for reimbursement.

Funding from local and state agencies can be counted toward the cash match. Private, in-kind donations including donated materials or services can also be used, but they require prior approval.

Contact a member of the MDOT SHA TAP staff with questions concerning reimbursable activities.

What if the project cost changes?

Project sponsors must submit project cost estimates as accurately as possible. Once a project has been approved for TAP funding, award amounts are based on these estimates. Additional project costs that are higher than those presented on the application are the project sponsor's responsibility.

A project sponsor may request additional TAP funding after the original award is given, but **before the project is awarded to a contractor**. MDOT SHA will consider increases up to an additional ten percent above the original award amount. Any requests greater than ten percent require TAP Selection Committee approval.

KEEP IN MIND

- If the actual final cost of the project is more than the amount submitted on the application, the TAP funding award will not be automatically increased. Additional TAP funding can be requested after the original award but is dependent on funding available.
- Significant scope and schedule changes are strongly discouraged once a proposed TAP project is approved for funding.
 Such changes may result in project funding withdrawal. If funds are withdrawn, the project sponsor may resubmit an application during a subsequent application cycle.
- Project sponsors are responsible for increased costs, regardless of the match identified in the original TAP application and the MOU.

Change Orders

For **construction projects**, a change order must be submitted any time there is moderate to significant deviations from the contract. All change orders or extra work orders required during construction must be approved by MDOT SHA before they will be issued.

The project sponsor should follow the change order process outlined in Section Four and attach approved change orders to all requests for reimbursement afterward. Reimbursement requests may be delayed if change orders are not yet approved by the MDOT SHA District Office.

REQUESTS FOR REIMBURSEMENT

When should the project sponsor seek reimbursement?

The project sponsor should submit requests for reimbursement in a timely manner. The frequency of reimbursement requests could be biweekly, monthly, or quarterly depending on the duration of the project and the project scope. MDOT SHA prefers monthly or quarterly requests. Details about the expectations of reimbursement request frequency are outlined in the project sponsor's MOU.

If reimbursement requests are delayed and not submitted at the regular frequency, the project sponsor should send a progress report or email to the TAP staff noting the project status and justification for the delayed request. Examples of a project status include 'still active,' 'in the process of closing,' or 'no activity.' Examples of delays may include environmental reviews or permits, right-of-way acquisition, or utility relocations.

Note that, for construction projects, the retainage will be withheld from the contractor's monthly invoice. The retainage for TAP projects is referenced in each project MOU and is a minimum of five percent.

What forms and information are project sponsors required to submit for reimbursement?

The documentation and information needed for a reimbursement request depend on the project type. In all cases, costs should be clearly and carefully documented and thoroughly evaluated before making payments and seeking reimbursement. Again, the project sponsor should consult the MOU for specific details on what activity costs are eligible for reimbursement and how to go about submitting a reimbursement request.

The project sponsor should send a letter to the TAP staff requesting reimbursement. A sample reimbursement request form is in **Appendix E-1**. With the request letter, project sponsors should, at minimum, supply the following information for all project reimbursement requests:

	MDOT SHA TAP Reimbursement request form. Available in Appendix E-1 .
	Basic project information including project name, sponsor's name, federal and state contract numbers, Blanket Purchase Order (BPO) number, total project cost, TAP award, and match amount (can be 20% or more)
	Any change order information
	Clearly documented costs, including the federal ID number, request amount by project category and correct approvals for each project cost, if appropriate
Des	ign and Construction projects should also include:
	Cost Breakdown: Showing costs the project sponsor is responsible for and what costs are being requested as reimbursement
	Description of the material or labor supplied for this portion of the project
	☐ Match documentation
	☐ Copy of invoice from contractor/vendor
	Proof of Payment: Copy of canceled check paid to contractor/vendor or a bank sheet identifying the bank, the project sponsor as the source of the payment, the vendor as the recipient, the amount of, and the date of the transfer
	Payment method: details of the payment MDOT SHA should use for reimbursement.
	(Construction Only) Materials Clearance Reports – Material Clearance should be up-to-date when requesting reimbursement.

Who should the project sponsor submit requests for reimbursement to?

When submitting the last reimbursement request, project sponsors should note if the request is for final

The project sponsor should email requests for reimbursement to the MDOT SHA TAP staff for all project types. The TAP Manager will review the requests and send them to the appropriate district and OMT Engineer, if necessary, for approval to proceed with invoice reimbursement.

reimbursement in the request letter.

What should the project sponsor expect after submitting a request for reimbursement?

After the MDOT SHA review and approval of the reimbursement request, the project sponsor will be reimbursed by MDOT SHA for the 80 percent federal share of eligible costs. If all the information on a request for reimbursement is correct and all supporting documentation has been provided, project sponsors can expect the funds within 30 days.

The project sponsor should provide a method of payment with the reimbursement request. This information normally includes at least:

- Bank name
- Routing number

- Account number
- Federal tax identification number

PROJECT CLOSEOUT

The project sponsor should contact the MDOT SHA District office and TAP staff, 30 to 60 days in advance of closeout to advise that the project is almost complete.

Different project types have different milestones that require review before closeout can occur.

- Planning and Feasibility Projects: The final study or plan must be shared and reviewed by MDOT SHA.
- **Design Projects:** Design plans for a specified milestone (30-percent, 60-percent, 90-percent, 100-percent design) must be shared and reviewed by MDOT SHA.
- Construction projects: Final Inspection and Audit and Final Material Clearance must be complete as described in Section Four of this manual. The final inspection will ensure the project was constructed according to the MOU and the final advertised plan, and the MDOT SHA ADA and Bicycle Compliance team will verify that the project was built to be ADA compliant. Final Inspection compliance will be confirmed via letter from the MDOT SHA District. Additionally, after a final audit of closeout records (including estimates, Inspector Daily Reports, and pay quantities) by the District, paperwork will be reviewed by the Office of Construction. The project sponsor should then request concurrence from TAP staff and when received, will submit an invoice for payment of retainage.
- Additionally, projects with landscaping and those involving a historic structure may require additional
 work before the project is eligible for closeout.
 - Landscaping The project sponsor must wait to ensure that any landscaping work has been maintained under the 1-year warranty. MDOT SHA will hold project sponsor's retainage until the warranty deadline has been met.
 - **Historic Structure** The project sponsor may be required to further coordinate with the Maryland Historic Trust for projects involving renovations or archaeology.
- Other Projects: Final deliverables should be shared and reviewed by MDOT SHA.

When these final milestones have been met and final reimbursement has been processed, the project sponsor will receive a closeout letter as a formal acknowledgment that the project has successfully been closed.

Document Maintenance

It is important that the project sponsor maintain documentation for five years, or the duration of the MOU, following project closeout.



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APPENDIX A-1: TAP PROJECT CATEGORIES - ELIGIBLE AND INELIGIBLE PROJECT ACTIVITIES

CATEGORY	NAME	OVERVIEW
1	New Walking and Biking Connections and Facilities	Construction, planning, and design of on-road and off-road trail facilities for pedestrians, bicyclists, and other nonmotorized forms of transportation. Projects must connect or support links to the intermodal transportation system. No stand-alone, exclusive, or recreational use-only projects.
2	Infrastructure- Related Improvements for Safe Walking and Biking Routes	Construction, planning, and design of infrastructure-related projects and systems that will provide safe routes for non-drivers, including children, older adults, and individuals with disabilities to access daily needs.
3	Converting Rail Corridors to Trails	Conversion and use of abandoned railroad corridors for trails for pedestrians, bicyclists, or other nonmotorized transportation users. Projects must connect to the intermodal transportation system or support links to significant land uses. No recreational use-only projects
4	Road-side Scenic Overlooks	Construction of turnouts, overlooks, and viewing areas within or immediately adjacent to the right-of-way of, and directly related to, the scenic byway.

TYPICAL ACTIVITIES ELIGIBLE FOR TAP FUNDING	TYPICAL INELIGIBLE ACTIVITIES	
 On- and off-road shared-use trails Sidewalks and sidewalk improvements such as widening, gap closures, curbs, gutters, and curb ramps Trailheads Bike parking Bike lane striping that is part of an off-road system, and Bike and pedestrian bridges and underpasses Facilities that provide traffic-calming techniques, lighting, and other safety-related infrastructure Replacement of existing pedestrian signals with LED and audible- countdown signals. 	 Construction of a closed-loop running track or bike trail. Installation of amenities for non-transportation use, including gazebos, playground equipment, flagpoles, streetlights, monuments, etc. Construction portion of an eligible trailhead building that will be used for commercial activities. Construction of general parking, parking exceeding that required for trail use, or parking lots for a future use. Marketing, staffing, maintenance, or operations costs of a trailhead facility. 	
 Traffic calming and speed-reduction improvements ADA pedestrian- and bicycle-crossing improvements. On-street bicycle facilities Off-street bicycle and pedestrian facilities: exclusive multiuse bicycle and pedestrian trails and pathways that are separated from a roadway. Secure bicycle-parking facilities 	 The development and implementation of safety-related activities or programs designed to promote pedestrian and bicycle safety, unless in connection with Safe Routes to School. The development of promotional or education materials, unless in connection with Safe Routes to School. 	
 Construction of pedestrian or bicycle trails adjacent to abandoned railroad corridors. Installation of pedestrian and bicycle amenities at intermodal nodes or trailheads 	Any activities on ineligible railway corridors. Corridor must be officially abandoned, have abandonment proceedings pending, or be available for purchase from the legal owner of the property.	
 New building or existing building renovation or improvement construction, including restrooms Construction including the necessary water, sewerage, electrical, and telecommunications connections/services. Interpretive signs, displays, structures, or other elements that describe, explain, interpret or that are otherwise necessary. Functional enhancements and related improvements. 	• All other unrelated activities. The project should serve the state's economic development, preservation, and conservation efforts by providing opportunities for travelers to learn more about Maryland's unique cultural and natural resources, or providing the conveniences, safety, and services necessary for the traveler's rest and relaxation.	



CATEGORY	NAME	OVERVIEW
5	Outdoor Advertising Control	Inventory, control, or removal of outdoor advertising. Projects should contribute to the viewshed of the traveling public.
6	Historic Transportation Facilities	Historic preservation and rehabilitation of historic transportation buildings, structures, or facilities that are part of the intermodal transportation system and are listed on or eligible for the National Register of Historic Places. These projects will need to coordinate with the Maryland Historical Trust during application and beyond. Rehabilitation and restoration can be accomplished by returning the property to a condition that makes a contemporary use possible, while preserving the significant historic features of the property. Eligible structures include railroad depots, bus stations, lighthouses, railcars, tunnels, and bridges. Projects must comply with the Secretary of the Interior's Standards for Rehabilitation of Historic Properties. All proposed rehabilitation must be consistent with the historic character of the site and restore the historic site to a condition that will permit or enhance public use. Only improvements intended to serve a transportation-related use are eligible for funding. All facilities must be non-profit; any funds raised must be used primarily for the maintenance and improvement of the facility. Documentation from the State Historic Preservation Office (SHPO) or other appropriate agency with evidence of the historic nature of the site must be provided with the application. All improvements are subject to approval by the SHPO. Projects must improve or preserve an historic transportation site by documentation, recording, restoration, rehabilitation, stabilization, or other means to protect the site. The site may have had a significant transportation-related function in the past, may currently serve a transportation-related function, or may serve a transportation function after the project is completed.

TYPICAL ACTIVITIES ELIGIBLE FOR TAP FUNDING	TYPICAL INELIGIBLE ACTIVITIES
 Activities associated with billboard inventory-control measures including data collection and developing and maintaining an inventory and control database of outdoor advertising Removal of billboards that are not in compliance with existing zoning ordinances and removal of billboards placed on private property without property-owner approval. Transaction costs associated with the removal of billboards (only eligible if based on an equitable estimate). 	 Any projects not consistent with the Outdoor Advertising Control requirements found in 23 CFR 750 Subpart G. Contact the SHA Office of Real Estate Outdoor Advertising Representative about items potentially ineligible under Category 5.
 Construction associated with the restoration or rehabilitation of railway depots, bridges, trestles, railways, lighthouses, tunnels, canal viaducts, bus stations, ferry terminals, etc., that are listed on or eligible for the National Register of Historic Places and will be operable and serve a transportation-related use after construction. Construction associated with the historic preservation of a transportation-related historic site, district, structure, or object for public use. Preservation of historic building facades. Tasks associated with identification, restoration, documentation, interpretation, rehabilitation, or stabilization of an historic transportation structure. 	 Construction associated with the restoration or rehabilitation of a transportation-related structure not listed on or eligible for the National Register of Historic Places. Construction of improvements to an historic transportation-related structure intended to serve a non-transportation use, such as a barn, post office, museum, house, etc. Any work that would risk the historic status of a structure, site, or object. Staffing, maintenance, or operation costs of an eligible transportation facility. Replication or duplication of an historic site, object, or structure.

CATEGORY	NAME	OVERVIEW
7	Vegetation Management	Vegetation management practices in transportation rights-of-way to improve roadway safety, prevent against invasive species, and provide erosion control
8	Transportation Archaeology	Archaeological activities relating to impacts from implementation of a transportation project eligible under title 23
9a	Stormwater Management	Any environmental mitigation activity, including pollution prevention and pollution abatement activities and mitigation to address stormwater management, control, and water pollution prevention or abatement related to highway construction or due to highway runoff, including activities described in sections 23 U.S.C. 133(b)(3)
9b	Connecting Wildlife Habitats	Any environmental mitigation activity, including pollution prevention and pollution abatement activities and mitigation to reduce vehicle-caused wildlife mortality or to restore and maintain connectivity among terrestrial or aquatic habitats
10	Safe Routes to School	Infrastructure-related and non-infrastructure-related activities that substantially improve the ability of students to walk and bicycle to school or encourage walking and biking to school. SRTS projects should directly support increased safety and convenience for elementary and middle school children in grades K-8.

Any project that creates or alters pedestrian and/or bicycle facilities must adhere to ADA and the latest versions of MDOT SHA's Accessibility Guidelines for Pedestrian Facilities along State Highways, MDOT SHA's Bicycle and Pedestrian Design Guidelines, and the American Association of State Highway and Transportation Officials (AASHTO) Guide for Development of New Bicycle Facilities. These documents provide information on upgrading existing facilities, developing new facilities, planning considerations, design and construction guidelines, and operation and maintenance recommendations.

TYPICAL ACTIVITIES ELIGIBLE FOR TAP FUNDING	TYPICAL INELIGIBLE ACTIVITIES
 Restoration of an historic lighthouse, boat, railcar, or other transportation-related object. Creation of an archive of surface-transportation history. Production of books, scholarly documents, films, website information, or CDs/DVDs. Documentation of production to preserve an historic transportation site. 	 Acquisition of historic artifact collections or exhibits.
 Reintroduction of native or endangered plants or trees along a highway. Removal of invasive species. 	 Maintenance activities, such as mowing, tree pruning or removal, erosion control, etc. Landscaping associated with an existing reforestation project.
 Research, preservation, and interpretation of archeological sites impacted by transportation projects. Preparation and cataloguing for exhibition of artifacts related to transportation or transportation projects. Archeological research, planning, or data recovery associated with or required by an existing or planned transportation project. 	 Archeological research or studies unrelated to surface transportation. Development of a project guide that documents for future use the rationale, methods, and results of the current study.
 Restoration and creation of wetlands, improvements to stream channels, installation of erosion-control measures, and other methods to address water pollution linked to highway runoff. Creation of vegetative ditches, detention basins, or other filtering systems for highway runoff. Installation of or improvements to drainage facilities degraded by highway construction. 	
 Installation and/or construction costs of fencing, overpasses, culverts, or underpasses for wildlife passage. Monitoring and collection of data on habitat fragmentation and vehicle-caused wildlife mortality. Activities to encourage walking and bicycling to school: Public-awareness campaigns and outreach to the media and community leaders, traffic education and enforcement in the vicinity of schools, and student assemblies or curriculum on bicycle and pedestrian safety, health, and the environment. Funding for training, volunteers, and managers of safe routes to school programs. The development of promotional or education materials Sidewalk improvements, traffic calming and speed reduction improvements, pedestrian and bicycle crossing improvements, on-street bicycle facilities, off-street bicycle and pedestrian facilities, secure bicycle parking facilities, and traffic diversion improvements in the vicinity (2 mile radius) of schools (K-8) 	 Installation and construction of wildlife passages along roadways with no documented evidence of wildlife crossing and wildlife mortality caused by vehicles.

All other appendices are available on the MDOT SHA TAP website.