

# MDOT BIKEWAYS NETWORK PROGRAM

## APPLICATION RECOMMENDATIONS & PROJECT DELIVERABLES

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The Maryland Department of Transportation (MDOT) Bikeways Network Program supports state agencies and local jurisdictions in successfully designing and implementing bicycle infrastructure. As bicycle projects vary by facility (e.g., unprotected bike lanes, protected bike lanes, shared-use trails) and context (urban settings, suburban or rural), no two projects are exactly alike. This document provides guidance for agencies interested in applying for Bikeways Program funding and for project sponsors. The document has two sections:

1. Recommended application elements: Adhering to these guidelines will help ensure applicants include all information with their submission.
2. Required deliverables for each project type: Adhering to these guidelines will help ensure applications are prepared for potential grant awards and for additional project phases. They may also be used after a project is awarded to help develop a scope of work.

### 1. APPLICATION ELEMENTS PER PROJECT TYPE

MDOT recommends that applicants include specific items in their applications, with are detailed below. **This list is not comprehensive; MDOT may request additional information from project sponsors during the application evaluation period.**

**Note that as of FY2026, all applications must include a Complete Streets objective statement in their application.** These statements are required for all projects in the MDOT right-of-way to demonstrate how the project prioritizes multimodal options and improves accessibility. Review [Maryland Transportation Article § 2-112](#) for more information on Complete Streets design features.

### ELEMENTS FOR FEASIBILITY STUDIES & PRELIMINARY (30%) DESIGN PROJECT APPLICATIONS

The MDOT Bikeways program provides funding to initiate project development with a feasibility study and preliminary design. Feasibility studies are the initial step in bicycle project development, followed by the 30% design engineering milestone (often referred to as preliminary design). As feasibility studies and preliminary design can be combined in the project development process, both elements are combined in the MDOT Bikeways Program application process. Elements of the application may include:

- Any work or conceptual designs completed for the project. This may be survey or aerial photography delineating preferred alignment of project or completed feasibility studies to advance to preliminary design.
- Itemized cost estimates for the feasibility study, to include existing conditions documentation, alternative alignment investigation, community outreach, preferred alignment identification, and design considerations for subsequent project development.
- Cost estimates to complete preliminary (30%) design, including necessary survey and design services.

- Letters of support from affected property owners. If a project significantly encroaches on private property, a letter of support is recommended from the property owner. Letters of support are recommended from homeowners' associations, chambers of commerce, and business improvement districts.

### **ELEMENTS FOR SEMI-FINAL (65%) DESIGN PROJECT APPLICATIONS**

The Bikeways Program funds semi-final (65%) design of projects, which represents a significant design effort for most bicycle facility design projects. Prior to applying for semi-final (65%) design, the following elements should be included in the MDOT Bikeways application:

- Completed feasibility study and preliminary (30%) design drawings. Include the design elements from the preliminary (30%) design checklist for shared-use paths and more complex projects.
- Cost estimates to complete semi-final (65%) design.
- Letters of support from affected property owners. If a project significantly encroaches on private property, a letter of support is required from the property owner. Transfer of property or easement establishment does not have to be included, but an expression of cooperation is required. A letter of support may be substituted for a documented status of property transfer in the form of survey and draft deed agreements.

Please note that the Bikeways Program does not fund projects for design past 65%, unless projects are granted an exception prior to applying. Funds for final design will only be approved for projects which certify that they do not intend to pursue federal funding or future Bikeways funding for construction. A letter of intent and meeting with Bikeways staff in advance of the application submission is required for any project pursuing final design.

### **ELEMENTS FOR MINOR RETROFIT PROJECT APPLICATIONS**

Minor retrofit projects are intended to fund low-cost bicycle facility projects with limited curb relocations and no stormwater management requirements, state of good repair projects on existing routes, and Complete Streets intersection treatments where bicycle facilities are present. While other types of projects such as bike parking and bicycle counters are also considered Minor Retrofit projects, elements of the application may include:

- Title sheet with location map, legend for existing and proposed items including shading, scale, north arrow.
- Design plan sheets:
  - Survey line with benchmarks and datum used to locate existing facilities and topography for the project's design; if applicable
  - Geometric values and stationing, on a table and on/near the alignment
  - Existing topography
    - Roadway traffic direction arrow
    - Identify existing facilities, buildings,
  - Utility designations and horizontal location
  - Existing and proposed right-of-way lines

- All necessary dimensions and stations to identify and locate existing features, including topography and underground utilities
- Size and location of all major improvements
- Proposed edge of pavement and curb lines
- Existing and proposed signing and pavement markings
- Existing right-of-way. (If adjacent right-of-way is affected, consider a Design or Construction project)
- Match lines
- Any needed demolition identified
- Typical Sections (with existing and proposed surfaces) with applicable station limits
- Preliminary pavement section
- Limit of work
- Detailed drawing of proposed, non-standard elements.
- Preliminary maintenance of traffic plans or plate references.
- For projects that will influence traffic operations, such as lane removal or intersection redesign, a traffic analysis must be completed. Results of the analysis will be used for the final design of the project.
- If railroad property or operations are affected by the project, land acquisition and design coordination with the owner and operator of the railroad as well as Maryland Department of Transportation, State Highway Administration, Office of Traffic Safety is required.
- For state of good repair projects, applicants should provide the original design/ as-built, along with a detailed list of maintenance and repairs. This should include the number, location, or, at a minimum, the calculations performed to estimate the quantity of repairs.

## ELEMENTS FOR CONSTRUCTION PROJECT APPLICATIONS

Construction awards are primarily used for constructing new bicycle facilities, although a portion of the award may be used for design (from 65% to final design). For bicycle facility projects applying for construction funding, the following items are to be included in the application:

- Approved semi-final (65%) designs including all deliverables for semi-final design projects.
- Property acquisition complete or nearing completion.
- Public outreach conducted and documentation of public consensus in support of the project.
- Required permits for construction.

## 2. DELIVERABLE ELEMENTS PER PROJECT TYPE

MDOT anticipates the following deliverables at the completion of the project. The information requested per project type ensures that applicants are better prepared for the current and next phase of the project. The deliverables should be included in any Request for Proposal (RFP) issued for a Bikeways project. **This list is not comprehensive; MDOT may request additional information from project sponsors during the application evaluation period.**

## DELIVERABLES FOR FEASIBILITY STUDIES & PRELIMINARY (30%) DESIGN PROJECTS

Projects seeking a feasibility study and preliminary (30%) design should expect to include some or all of the following as deliverables by the completion of the project:

- For feasibility studies, a completed technical memorandum including planning process, alignments evaluated, and a preferred alignment. The feasibility study should include conceptual (10%) design based on aerial photography delineating the preferred alignment of the project.
- For 30% design plans, include a title sheet with location map, legend for existing and proposed items including shading, scale, north arrow.
- Typical Sections (with existing and proposed surfaces) with applicable station limits
- Design plan sheets:
  - Survey line with benchmarks and datum used to locate existing facilities and topography for the project's design
  - A feasible horizontal and vertical alignment of proposed primary trail, spurs trails and destination/connector trails
  - Geometric values and stationing, on a table and on/near the alignment
  - Existing topography
    - Roadway traffic direction arrow
    - Identify existing facilities, buildings
    - Floodplain, streams, ditches, storm drain systems, etc.
  - Utilities designation and horizontal location
  - Existing and proposed right-of-way lines
  - All necessary dimensions and stations to identify and locate existing features, including topography and underground utilities.
  - Size and location of all major improvements
  - Proposed edge of pavement and curb lines
  - Match lines
  - Any needed demolition identified
  - Construction access location identified
  - Limits of toe/top of fill/cut slopes
  - Grade and cross slope
  - Preliminary pavement section
  - Existing and proposed signing and pavement markings
  - Limit of work
  - Proposed stormwater management location and devices
- Detail sheets:
  - Details drawing of proposed, non-standard elements
  - Projects that propose boardwalks (elevated walkways), bridges, and retaining walls will include information noted on applicable status lists
- Property needs identified.

- If railroad property or operations are affected by the project, documentation with the owner and operator of the railroad as well as Maryland Department of Transportation, State Highway Administration, Office of Traffic Safety is required.
- Quantity estimates with specific line items for known elements such as light fixtures, traffic barrier, structures, building, utility relocations.
- Traffic analysis for projects that will influence traffic operations, such as lane removal or intersection redesign. Results of the analysis should be used to provide guidance for subsequent design phases of the project.
- For projects including bridges, boardwalks or retaining walls, additional structure elements should be completed including TS&L design and a soil boring request.
- Final report summarizing project costs, funding sources, general feedback, and detailed project achievements.

### **DELIVERABLES FOR SEMI-FINAL (65%) DESIGN PROJECTS**

By the completion of the semi-final (65%) design the following items, in addition to those listed in preliminary (30%) design, are to be presented:

- All design items and associated baselines.
- Plan sheets with connecting design details to adjoining/intersection properties entrances, roads, trails and spur that demonstrate compliance with ADA guidelines.
- Typical sections with proposed elements such as traffic barriers, fencing and structures.
- Utility designation with horizontal and vertical locations.
- All geotechnical investigation for structural foundations and stormwater management.
- Existing and proposed right-of-way lines. Boundary survey for proposed right-of-way complete.
- Existing and proposed signing and pavement marking plans.
- Erosion and sediment control (ESC) design plans and preliminary ESC permit approval .
- Design of stormwater management facilities; closed storm drainage system; culverts and preliminary permit approval.
- Preliminary maintenance of traffic plans or plate references.
- Cross sections at 50-foot intervals.
- Trail projects that propose structures (bridges, box culverts, retaining walls, elevated walkways) have obtained concurrence for TS&L; Foundation Design; Soil Boring Report and; Scour Analysis Report.
- Line-item construction estimate with breakdown of lump sum items.
- Property acquisition underway or complete.
- Location of proposed staging areas.
- If railroad property or operations are affected by the project, land acquisition and design coordination with the owner and operator of the railroad as well as Maryland Department of Transportation, State Highway Administration, Office of Traffic Safety is required.
- Concurrence of ADA compliance.
- Vertical alignment with underground utilities and location of structures.
- Proposed landscaping details and location.

- Detail sheets demonstrating all proposed elements noted on design plans such as pedestrian and traffic lighting plans, structures, regulatory and informational signage.
- Refined construction cost estimate.
- Final report summarizing project costs, funding sources, general feedback, and detailed project achievements.

### **DELIVERABLES FOR MINOR RETROFIT PROJECTS**

Minor retrofit projects should include some or all of the following as deliverables by the completion of the project:

- Approved final (100%) designs.
- Photographs, GIS files, and documentation of all funded activities,
- Final report summarizing project costs, funding sources, general feedback, and detailed project achievements.

### **DELIVERABLES FOR CONSTRUCTION PROJECTS**

Construction projects should include some or all of the following as deliverables by the completion of the project:

- Approved final (100%) designs, including all deliverables for semi-final (65%) design projects.
- Required permits for construction secure.
- Final installation in accordance with the approved design and inspected as required.
- Photographs, GIS files, and documentation of all funded activities.
- Final report summarizing project costs, funding sources, general feedback, and detailed project achievements.