

Maryland Department of Transportation
State Highway Administration
2025 HNI Listing for Montgomery County

HNI OVERVIEW

1.0 BACKGROUND

The Highway Needs Inventory (HNI) is a technical reference and planning document which identifies highway improvements to serve existing and projected population and economic activity in the State as well as address safety and structural problems that warrant major construction or reconstruction.

The projects identified in this document represent only an acknowledgment of need based on technical analysis and adopted local and regional transportation plans. **The HNI is not a construction program, and the inclusion of a project does not represent a commitment to implementation.** The HNI is not financially constrained, nor is it based on revenue forecasts.

The HNI may be considered as a compilation of projected major highway deficiencies. It is important to note that only a portion of the projects in this document will be addressed in the future through selective capital improvements. Many of these needs will remain unfulfilled because the Department does not anticipate that the gap between needs and resources can ever be completely closed, even with the infusion of new revenue.

2.0 LEGAL BASIS OF THE HNI

The development of the HNI is required under Transportation Article 8 of the Annotated Code of Maryland. Title 8, section 610 defines the HNI as "...an identification of needs for highway projects, based on the latest evaluation of highway conditions and transportation needs..."

Section 611 further requires that "in calendar year 1979 and in each second year following, the Administration, following an assessment of the highway conditions and transportation needs of this State, shall prepare those proposed modifications of the highway needs inventory that it considers necessary."

3.0 SCOPE OF HNI

The HNI is based on a technical evaluation of highway conditions. The general scope and approximate cost of needed highway improvements in this document are based on the application of reasonable design standards. However, this does not preclude further considerations of alternative solutions to the problem, or the "no build" option. Ultimately, more detailed project planning studies would be conducted on potential projects to determine more precise cost estimates and acceptable solutions to the identified need. The HNI lists only major capital construction projects that entail a significant increase in traffic capacity, extensive right-of-way, high cost, or major impact.

Low-cost capital improvements, otherwise known as “system preservation projects” such as resurfacing, safety and spot improvements, commuter parking, beautification, bridge rehabilitation/reconstruction, drainage improvements, rail crossing elimination, traffic control improvements, and emergency work are not included in the HNI. These projects are included in the annual update of the Department’s Consolidated Transportation Program (CTP). Often, these relatively low-cost improvements serve to correct localized problems and to extend the time before major modernization of the facility becomes necessary. System preservation projects may, in some cases, result in an indefinite deferral of a major project.

4.0 ROLE OF THE HNI IN THE PLANNING PROCESS

The Maryland Department of Transportation’s planning process affects all modes and covers all aspects from policy/system planning and program development through detailed project planning and implementation. The key planning documents developed by the Department to establish the priority of various proposed highway improvements are as follows: (1) State Report on Transportation (SRT); (2) Maryland Transportation Plan (MTP); and (3) the Consolidated Transportation Program (CTP).

The HNI serves as a technical reference and reflection of these planning documents. In addition, the Department participates in the development of local and regional transportation plans, which are the responsibility of local and regional planning agencies.

5.0 HNI TERMINOLOGY

There are 31,670 miles of center-line roadway in the state of Maryland. Of this total, the Maryland Department of Transportation State Highway Administration (MDOT SHA) maintains 5,230 center line miles (16.5%). Although this represents less than 20 percent of the total miles of roadways in the state, these highways account for approximately 70% of the total vehicle miles of travel in the state. The 5,230 miles of highways maintained by the MDOT SHA are categorized for funding purposes as Primary and Secondary highways.

5.1 Primary System

The State Primary System consists of approximately 23 percent of the total State-maintained road mileage. The State Primary System was originally adopted in 1972 and revised in 1978 under the provisions of State law. The Primary System serves the state in the same manner as the Interstate System serves the nation. It has been a policy of the Department to develop the Primary System with a maximum practical degree of access control to provide safety for the motorist.

5.2 Secondary System

The Secondary System is a network of State routes that serve inter-regional and localized traffic. This network consists of approximately 77% of the total state-maintained roadways and provides feeder and support functions to the Primary System. It also complements the county highway systems.

6.0 IMPROVEMENT TYPES

For projects in the Consolidated Transportation Plan (CTP), the specific improvement type identified is also shown in the HNI. Improvement types shown for other projects in the HNI are categorical rather than specific, pending project planning studies. The project planning studies may lead to the selection of a “no build” option or a different improvement type than shown in the HNI.

The improvement types used in the HNI may entail significant right-of-way acquisition, significant increases in capacity, and/or significant environmental impact. The basic improvement types used in the HNI are described as follows:

6.1 Reconstruction

These are improvements where old pavement and appurtenances, such as drainage structures, are removed and replaced or substantially modified. Such reconstruction may apply to the existing number of lanes or dualization, adding or modifying interchanges or existing highway on the same alignment.

6.2 Construction

These are improvements to a new facility and appurtenances, including bridges. A new facility will generally provide a highway where none exists, or an alternate facility to an existing highway that will remain open and continue to serve through traffic.

6.3 Access Control Improvement

Control of access is where the ingress and egress to abutting land, onto and/or across the highway, is fully or partially restricted by public authority. Highway access can be controlled as follows:

6.3.1 Full Control

This gives preference to through traffic by providing grade separation interchanges with selected public roads only and by prohibiting intersecting at-grade and direct private driveway connections.

6.3.2 Partial Control

This gives preference to traffic to the degree that, in addition to or in lieu of interchanges with major public roads, there may be selected at-grade intersections to public streets only.

6.3.3 Uncontrolled Access

This allows the number of points of ingress and egress to be limited only by control over the placement and the geometric design of connections as necessary for the safety of the traveling public.

6.4 Lane Definitions

The specific number of lanes is referenced only for two-lane highways in the HNI, and any highway improvement needing more than two lanes is generally referred to as “multi-lane”. Where the case for a multi-lane improvement is more firmly established, the following terms may be used:

6.4.1 Divided Highway.

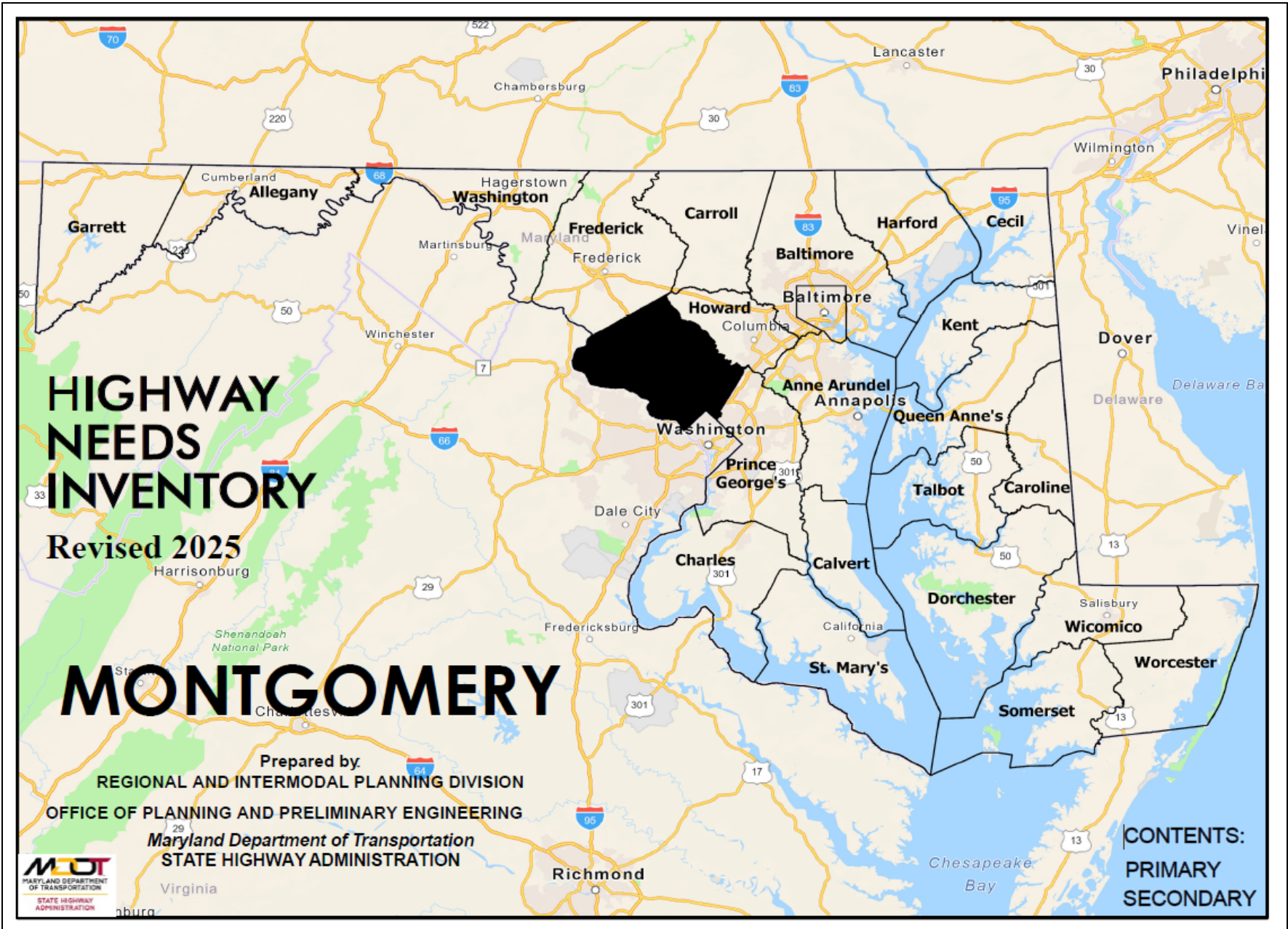
This is a multi-lane highway where opposing roadways are separated by a median or barrier.

6.4.2 Freeway.

This is a divided highway, usually serving a principal arterial function, providing for unrestricted through traffic movement and full control of access (called an expressway under current Maryland law).

7.0 COST ESTIMATES

Cost estimates for prospective improvements are approximate and are based on likely improvement types. The estimates are not detailed engineering estimates, nor do they reflect substantive engineering analysis. These cost estimates do not imply fixed decisions, nor do they preclude alternative solutions to the problem. They merely provide the basis for a general appraisal of the total cost of all highway needs, as well as some idea of the distribution of highway needs across the State.



**HIGHWAY
NEEDS
INVENTORY**

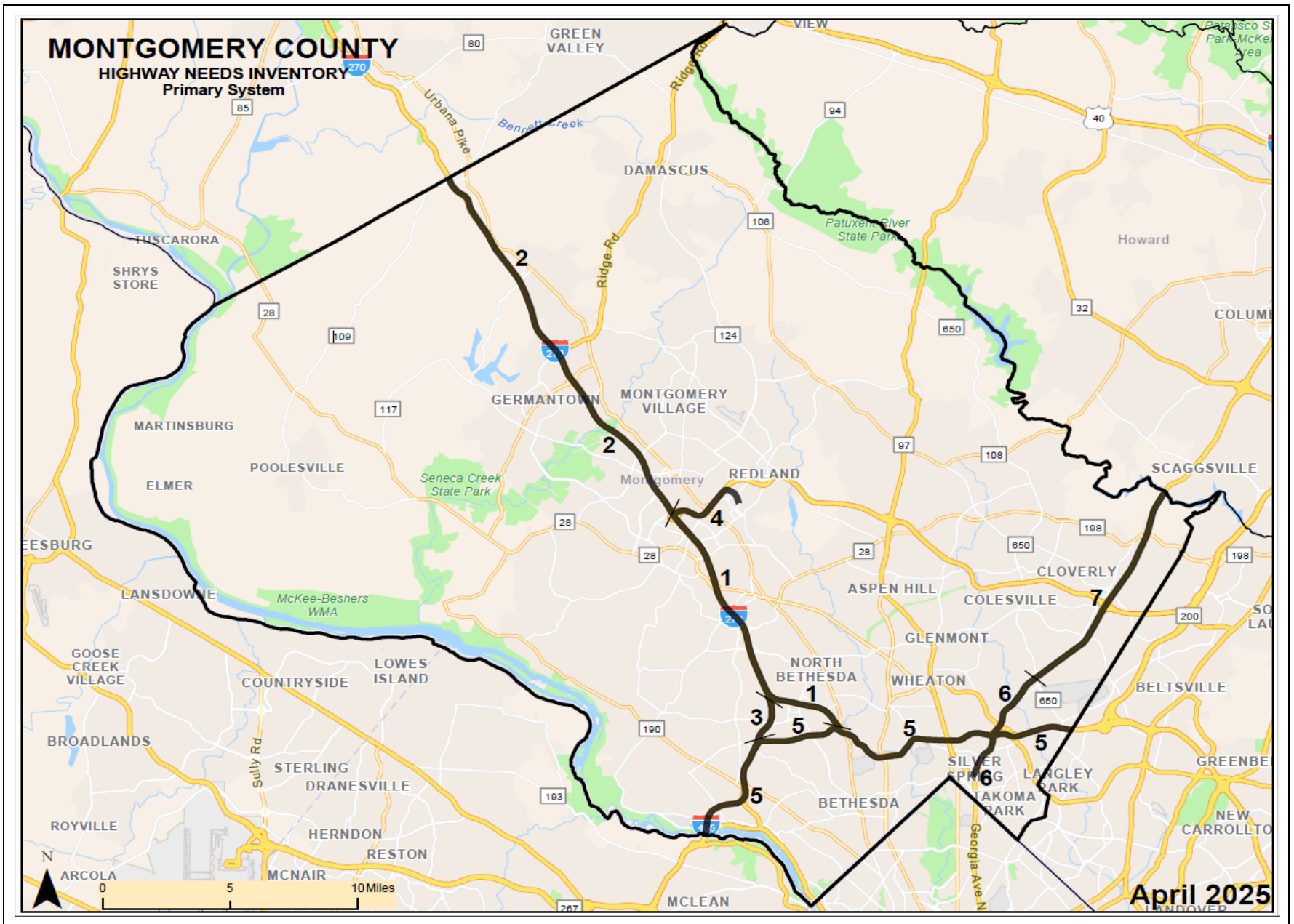
Revised 2025

MONTGOMERY

Prepared by
REGIONAL AND INTERMODAL PLANNING DIVISION
OFFICE OF PLANNING AND PRELIMINARY ENGINEERING
Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION



CONTENTS:
PRIMARY
SECONDARY



HIGHWAY NEEDS INVENTORY
MONTGOMERY COUNTY – PRIMARY ROUTES
REVISED 2025

Map Reference 1, IS 270, Eisenhower Memorial Highway from I-495 to I-370, 9.3 miles in length, to be reconstructed as a freeway including managed lanes and interchange improvements at a cost of \$1,461,700,000.

Map Reference 2, IS 270, Eisenhower Memorial Highway from I-370 to the Frederick County line, 13.2 miles in length, to be reconstructed as a freeway including managed lanes and interchange improvements at a cost of \$897,600,000.

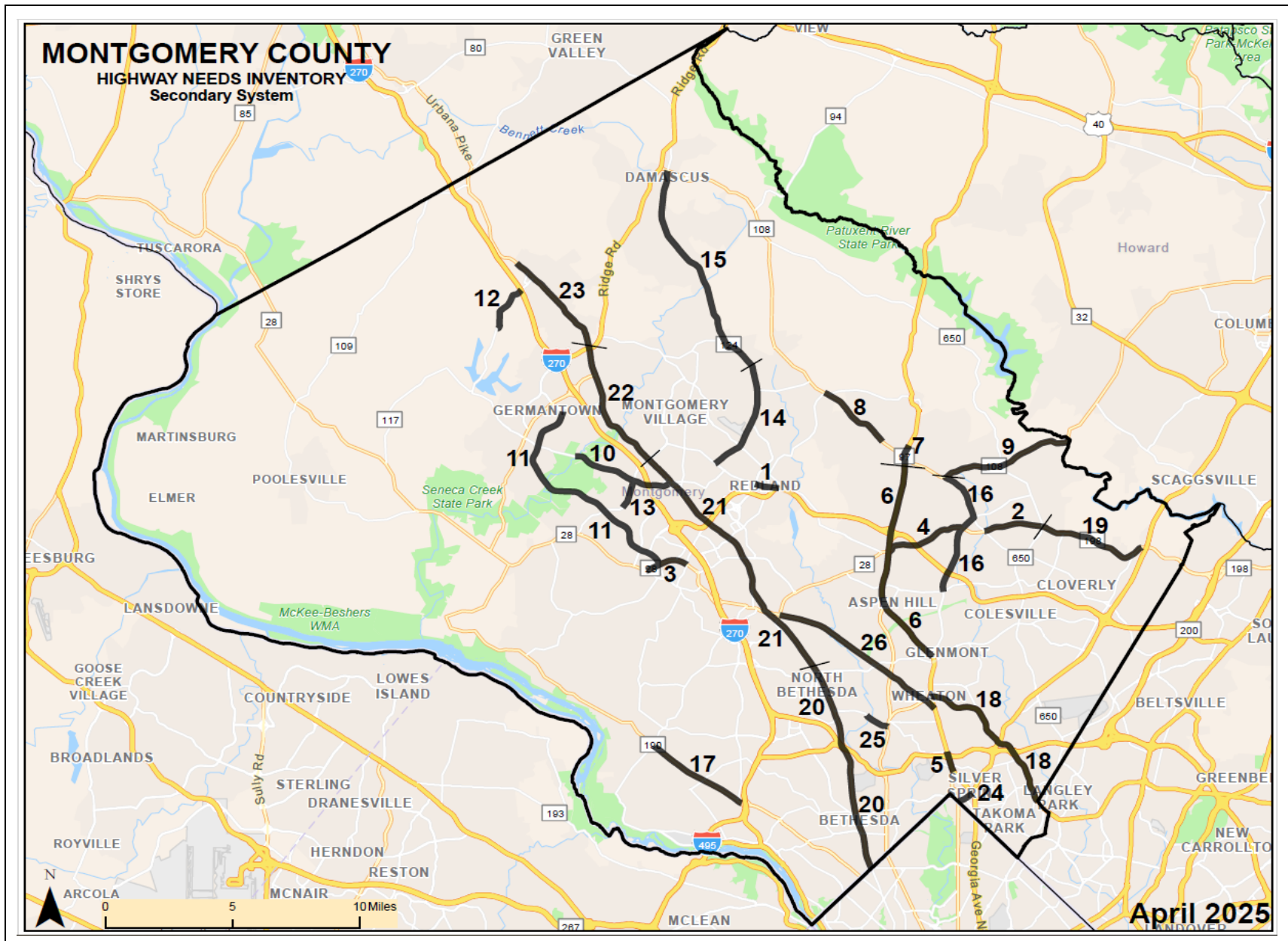
Map Reference 3, IS 270 Y, Eisenhower Memorial Highway from I-495 to I-270, 2.1 miles in length, to be reconstructed as a freeway including managed lanes and interchange improvements at a cost of \$642,600,000.

Map Reference 4, IS 370 from I-270 to MD 200, 2.1 miles in length, to be reconstructed as a freeway including managed lanes at a cost of \$511,500,000.

Map Reference 5, IS 495, Capital Beltway from the American Legion Bridge to the Prince George's County line, 14.4 miles in length, to be reconstructed as a freeway including managed lanes at a cost of \$1,142,500,000.

Map Reference 6, US Route 29, Colesville Road from MD 97 to MD 650, 3.9 miles in length, to undergo divided highway reconstruction including managed lanes and bus lanes at a cost of \$211,300,000.

Map Reference 7, US Route 29, Columbia Pike from MD 650 to the Howard County line, 7.5 miles in length, to undergo freeway reconstruction including managed lanes, bus lanes, and interchanges at a cost of \$836,600,000.



HIGHWAY NEEDS INVENTORY
MONTGOMERY COUNTY – SECONDARY ROUTES
REVISED 2025

Map Reference 1, County Route 5221 Extended, Midcounty Highway Extension–Western Connector from Shady Grove Road to MD 200, 1.8 miles in length, to be constructed as a divided highway at a cost of \$225,200,000.

Map Reference 2, County Route 7445, Norbeck Road from Norwood Road to MD 650, 1.8 miles in length, to undergo divided highway reconstruction at a cost of \$82,000,000.

Map Reference 3, MD Route 28, Key West Avenue from Darnestown Road to Shady Grove Road, 1.3 miles in length, to undergo multi-lane reconstruction including the Shady Grove Road interchange at a cost of \$187,000,000.

Map Reference 4, MD Route 28, Norbeck Road from MD 97 to MD 182, 2.6 miles in length, to undergo divided highway reconstruction at a cost of \$68,400,000.

Map Reference 5, MD Route 97, Georgia Avenue from MD 390 to MD 192, 0.7 miles in length, to undergo urban divided highway reconstruction at a cost of \$50,185,000.

Map Reference 6, MD Route 97, Georgia Avenue from MD 182 to MD 108, 7.1 miles in length, to undergo divided highway reconstruction including interchanges and transit facilities at a cost of \$307,600,000.

Map Reference 7, MD Route 97, Georgia Avenue from MD 108 to Prince Phillip Drive, 0.4 miles in length, to undergo divided highway reconstruction at a cost of \$12,400,000.

Map Reference 8, MD Route 108, Olney-Laytonsville Road from Muncaster Road to Bowie Mill Road, 2.4 miles in length, to undergo divided highway reconstruction at a cost of \$76,700,000.

Map Reference 9, MD Route 108, Sandy Spring/Ashton Road from MD 182 to the Howard County line, 4.2 miles in length, to be reconstructed as a 2-lane roadway at a cost of \$128,700,000.

Map Reference 10, MD Route 117, Clopper Road/Diamond Avenue from Waring Station Road to MD 117A, 3.0 miles in length, to undergo urban divided highway reconstruction at a cost of \$134,200,000.

Map Reference 11, MD Route 119, Great Seneca Highway from MD 28 to Middlebrook Road, 7.5 miles in length, to undergo urban divided reconstruction including interchanges at a cost of \$470,600,000.

Map Reference 12, MD Route 121, Clarksburg Road from West Old Baltimore Road to I-270, 1.6 miles in length, to undergo divided highway reconstruction at a cost of \$48,800,000.

Map Reference 13, MD Route 124, Quince Orchard Road from Dosh Drive to MD 117, 1.0 miles in length, to undergo urban divided highway reconstruction including transit accommodations at a cost of \$25,500,000.

Map Reference 14, MD Route 124, Woodfield Road from Midcounty Highway to Warfield Road, 3.6 miles in length, to undergo urban divided highway reconstruction at a cost of \$105,500,000.

Map Reference 15, MD Route 124, Woodfield Road from Warfield Road to MD 108, 7.5 miles in length, to undergo 4-lane divided highway reconstruction at a cost of \$251,400,000.

Map Reference 16, MD Route 182, Layhill/Norwood/Dr. Bird Road from Bel Pre Road to MD 108, 4.3 miles in length, to undergo divided highway reconstruction at a cost of \$132,600,000.

Map Reference 17, MD Route 190, River Road from MD 189 to the beginning of the divided section west of I-495 at Rising Ridge Road, 3.0 miles in length, to be reconstructed as a 2-lane roadway at a cost of \$45,800,000.

Map Reference 18, MD Route 193, University Boulevard from MD 97 to the Prince George's County line, 5.2 miles in length, to undergo multi-lane reconstruction including transit improvements at a cost of \$151,700,000.

Map Reference 19, MD Route 198, Spencerville Road from MD 650 to US 29A, 3.5 miles in length, to undergo divided highway reconstruction at a cost of \$104,800,000.

Map Reference 20, MD Route 355, Wisconsin Avenue from the District of Columbia line to Josiah Henson Parkway, 6.6 miles in length, to undergo multi-lane reconstruction including interchanges and transit accommodations at a cost of \$344,200,000.

Map Reference 21, MD Route 355, Rockville/Frederick Road from Josiah Henson Parkway to MD 124, 8.8 miles in length, to undergo multi-lane reconstruction including interchanges and transit accommodations at a cost of \$561,000,000.

Map Reference 22, MD Route 355, Frederick Road from MD 124 to MD 27, 4.3 miles in length, to undergo divided highway reconstruction including interchange and transit improvements at a cost of \$343,800,000.

Map Reference 23, MD Route 355, Frederick Road from MD 27 to Snowden Farm Parkway, 3.7 miles in length, to undergo multi-lane reconstruction/construct including bus rapid transit at a cost of \$240,400,000.

Map Reference 24, MD Route 384, Colesville Road from MD 390 to US 29/MD 97, 0.5 miles in length, to undergo urban divided highway reconstruction including transit and BRT features at a cost of \$15,700,000.

Map Reference 25, MD Route 547, Knowles Avenue from Weymouth Street to MD 185, 0.8 miles in length, to undergo 2-lane urban reconstruction at a cost of \$18,100,000.

Map Reference 26, MD Route 586, Veirs Mill Road from MD 911 to MD 97, 5.8 miles in length, to undergo divided highway reconstruction including an interchange and Bus Rapid Transit (BRT) accommodations at a cost of \$287,500,000.