

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 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 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 which 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 29,265 center line miles of roadway in the state of Maryland. Of this total, the Maryland Department of Transportation State Highway Administration (MDOT SHA) maintains 5,243 center line miles (17.92%). 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 5,243 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 Systems consists of approximately 1,288 miles of state maintained routes or 25 percent of the total State maintained road mileage. The State Primary System was originally adopted in 1972 and revised in 1978 in accordance with 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 in order to provide safety to the motorist.

5.2 Secondary System

The Secondary System is a network of State routes which serve inter-regional and localized traffic. This network consists of 3,955 miles (75.45%) of the total state maintained roadways and provides feeder and support functions to the Primary System. It also complements 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 follow:

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 of a totally 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 by definition 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 through traffic to a 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-lanes improvement is more firmly established; the following terms may be used:

6.4.1 Divided Highway.

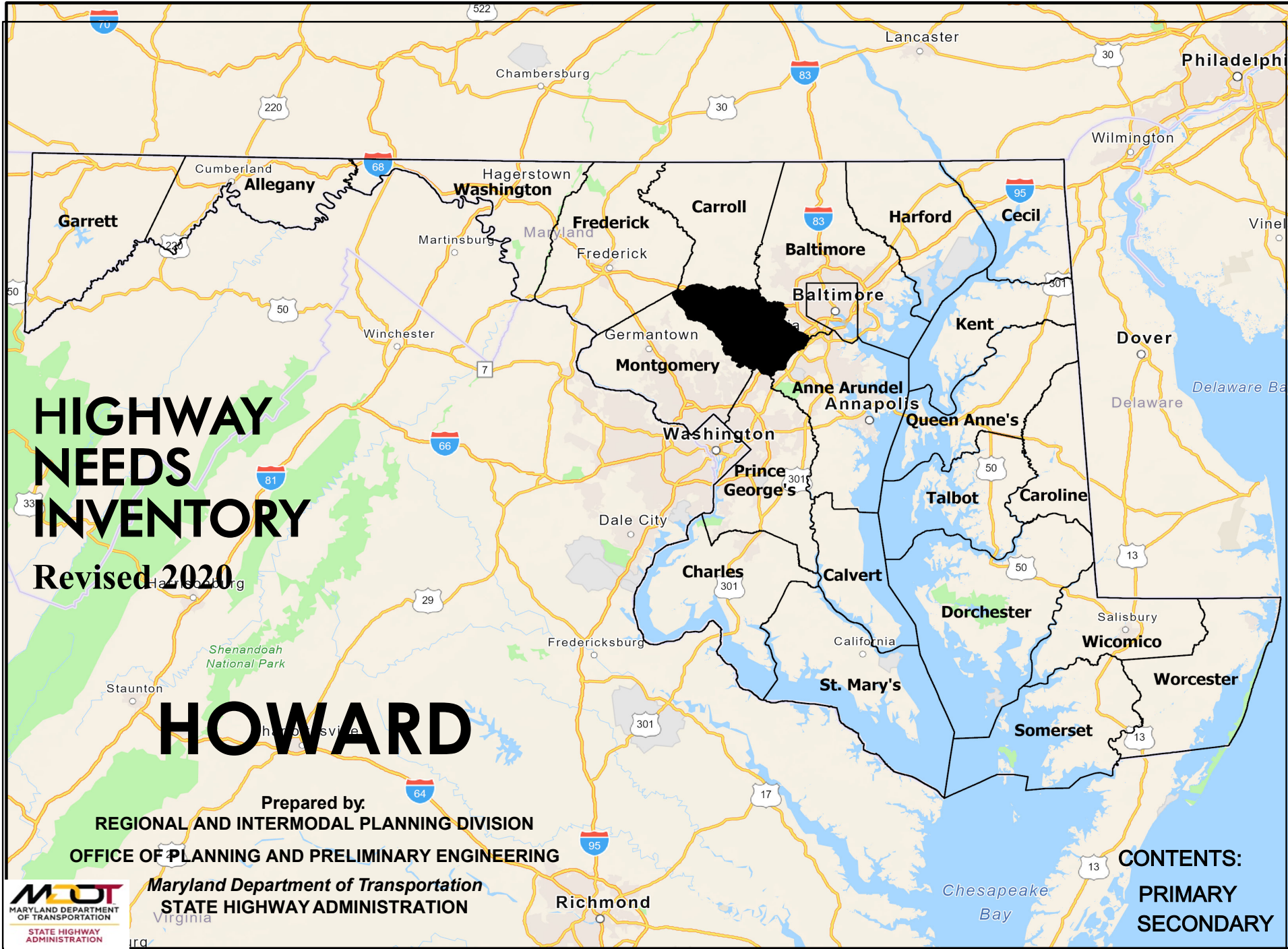
This is a multi-lane highway where opposing roadways are separated by a median or barrier.

6.4.2 Freeway.

This is 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 2020

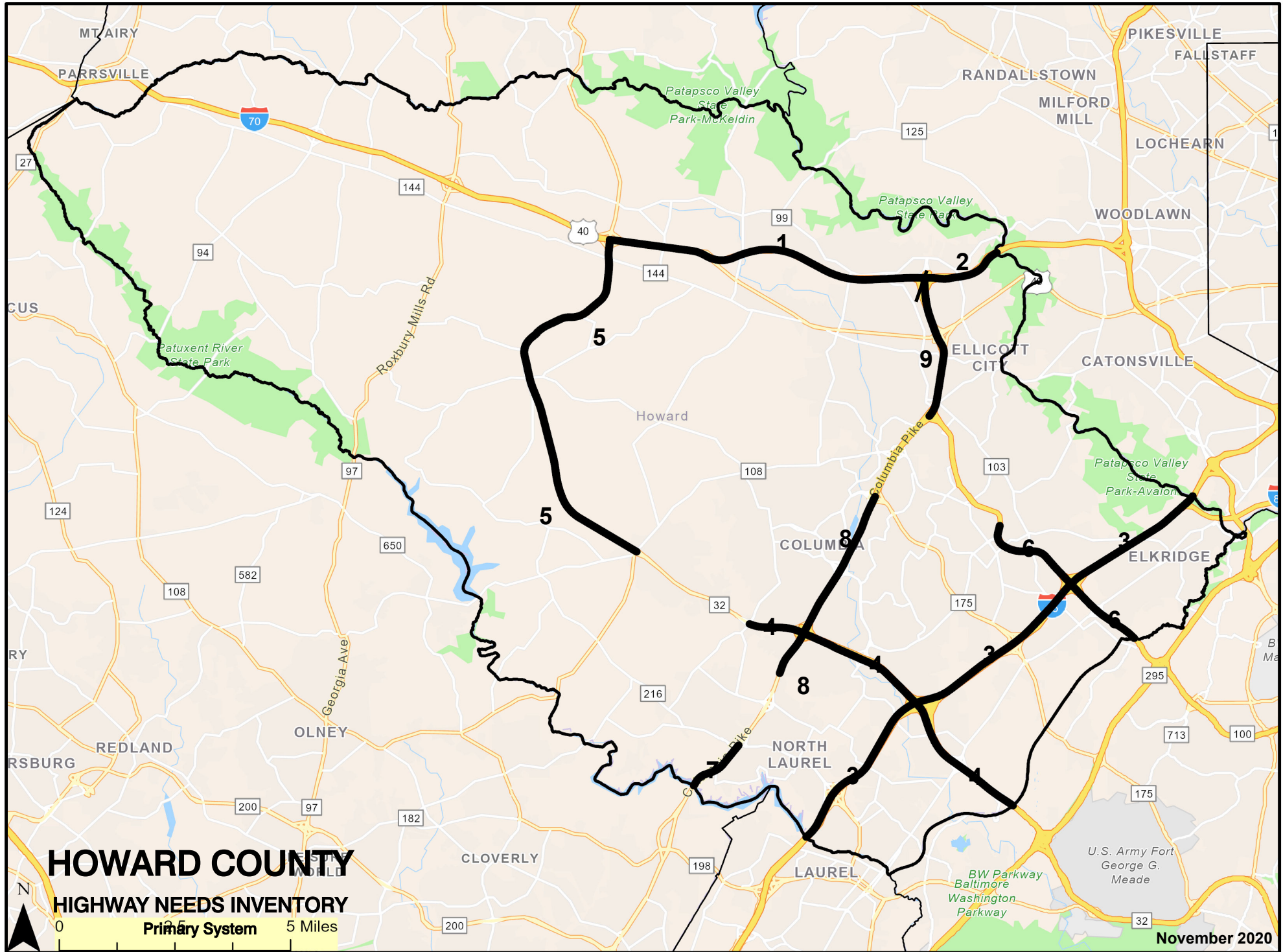
HOWARD

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Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION

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PRIMARY
SECONDARY

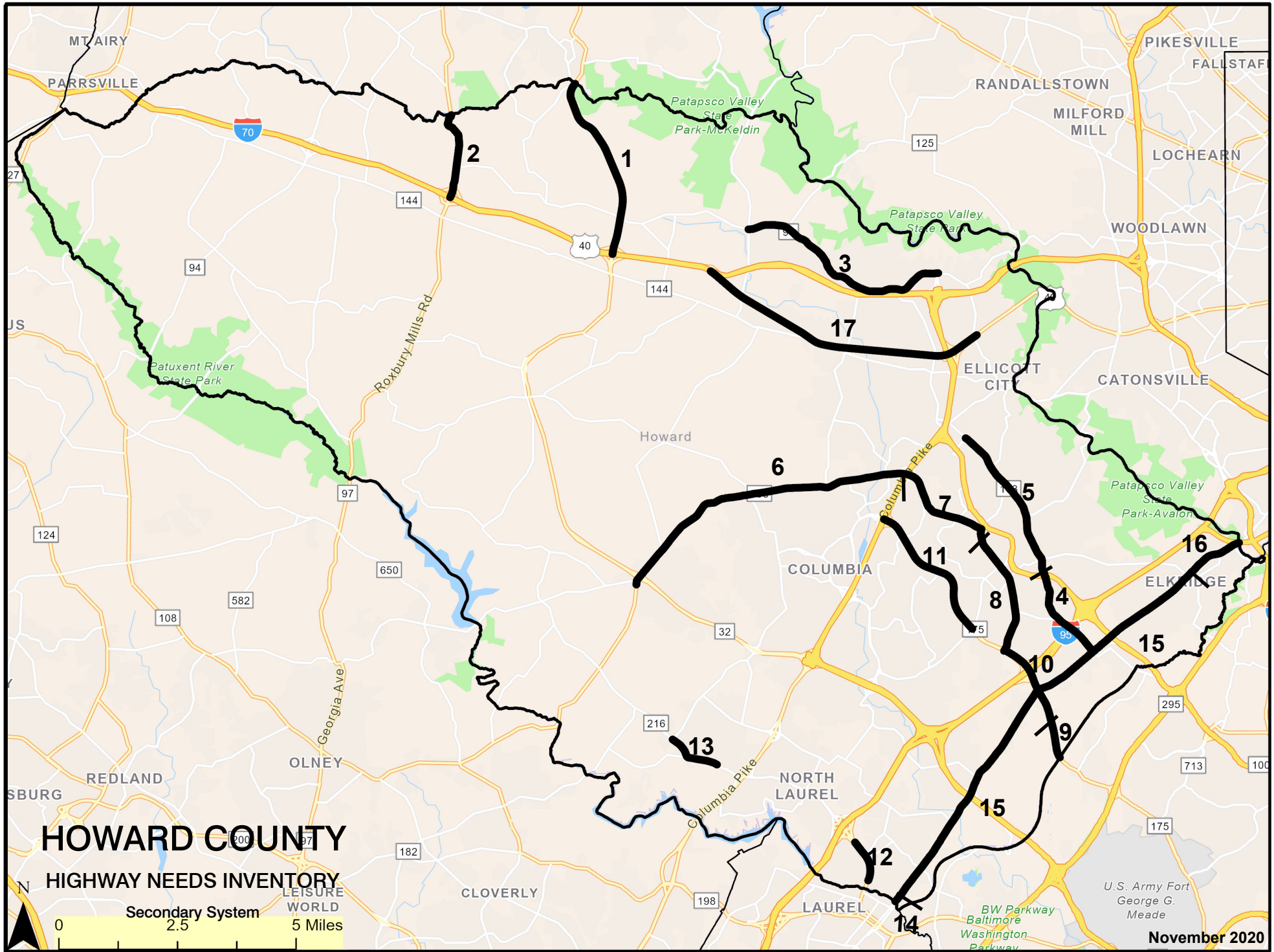


HIGHWAY NEEDS INVENTORY

Howard County - Primary

(Revised 2018)

Map Ref.	Route-Route Name Limits	County Length	Priority	Improvement Type Cost (\$000)
1	IS 70 MD 32 to US 29	7.0	Yes	Freeway reconstruct (includes interchange at Marriottsville Rd; US 29) \$562,058
2	IS 70 US 29 to Baltimore County line	1.8	No	Freeway reconstruct \$33,100
3	IS 95 Prince George's County to Baltimore County line	11.6	No	Freeway reconstruct (includes Managed lanes, interchanges) \$1,066,800
4	MD 32 Patuxent Parkway Anne Arundel County line to Cedar Lane	7.5	No	Freeway reconstruct \$929,900
5	MD 32 Sykesville Road MD 108 to I-70	9.1	Yes	Freeway reconstruct (includes new interchanges) \$740,600
6	MD 100 West of Snowden River Parkway to Anne Arundel County line	3.9	No	Freeway reconstruct (includes interchange at I-95) \$254,600
7	US 29 Columbia Pike Montgomery County line to MD 216	1.4	No	Freeway reconstruct (includes access control improvements) \$165,600
8	US 29 Columbia Pike Middle Patuxent River to MD 175	4.5	Yes	Freeway reconstruct (includes interchanges/access control improvements) \$121,300
9	US 29 Columbia Pike MD 100 to I-70	3.0	No	Freeway reconstruct \$479,100



HIGHWAY NEEDS INVENTORY

Howard County - Secondary

(Revised 2018)

Map Ref.	Route-Route Name Limits	County	Priority Length	Improvement Type Cost (\$000)
1	MD 32 Sykesville Road I-70 to Carroll County line	No	4.1	Divided highway reconstruct (includes access control improvements) \$58,200
2	MD 97 Hoods Mill Road I-70 to Carroll Co. line	No	1.9	2 lane reconstruct \$27,200
3	MD 99 Old Frederick Road Marriottsville Road to US 29	No	4.7	Multi-lane reconstruct (include Complete Streets Design) \$63,000
4	MD 103 Meadowridge Road US 1 to Montgomery Road	No	2.5	Multi-lane reconstruct (include Complete Streets Design) \$27,800
5	MD 103 Montgomery Road Montgomery Road to Long Gate Parkway	No	3.1	Multi-lane reconstruct (include Complete Streets Design) \$38,400
6	MD 108 Clarksville Pike West of MD 32 to US 29	Yes	6.8	Multi-lane reconstruct (include Complete Streets Design) \$118,400
7	MD 108 Old Annapolis Road East of US 29 to MD 104	No	2.2	Multi-lane reconstruct (include Complete Streets Design) \$64,000
8	MD 108 Waterloo Road MD 104 to MD 175	No	2.9	Multi-lane reconstruct \$68,600
9	MD 175 Waterloo Road Anne Arundel County line to Pocomoke Ave	Yes	1.3	Multi-lane reconstruct (include Complete Streets Design) \$39,600
10	MD 175 Waterloo Road Pocomoke Avenue to Snowden River Parkway	Yes	2.3	Divided highway reconstruct (include Complete Streets Design) \$34,600
11	MD 175 Patuxent Parkway Snowden River Parkway to US 29	No	3.2	Divided highway reconstruct (include Complete Streets Design) \$46,900
12	MD 216 Scaggsville Road 0.1 mile N. of PG County line to E. of I-95	No	0.8	Divided highway reconstruct \$14,000

HIGHWAY NEEDS INVENTORY

Howard County - Secondary

(Revised 2018)

Map Ref.	Route-Route Name Limits	County	Priority Length	Improvement Type Cost (\$000)
13	MD 216 Scaggsville Road West of US 29 to Pindell School Road	No	1.8	Multi-lane reconstruct \$25,000
14	US 1 Washington Boulevard Prince George's County line to Wilbert Lane	No	0.7	Multi-lane reconstruct \$22,500
15	US 1 Washington Boulevard Wilbert Lane to Bonnie View Lane	No	9.2	Divided highway reconstruct (includes interchange at MD 175, & Complete St Des) \$305,800
16	US 1 Washington Boulevard Bonnie View Lane to Baltimore County line	No	1.1	Divided highway reconstruct (includes Complete Streets Design) \$30,000
17	US 40 Baltimore National Pike I-70 to East of Rogers Avenue	No	6.2	Divided highway reconstruct (includes Complete Streets Design) \$183,000