

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.

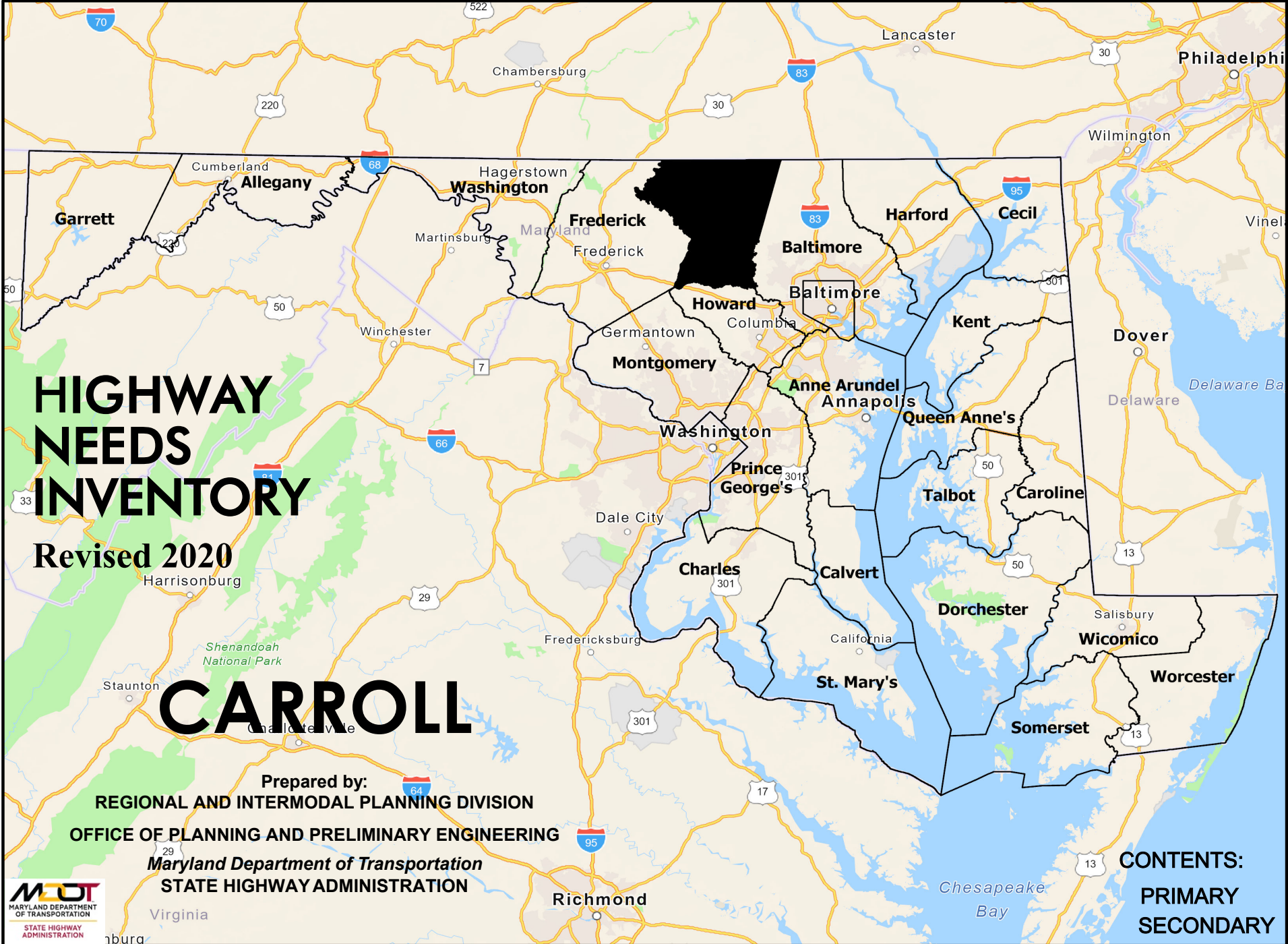
This is a multi-lane highway where opposing roadways are separated by a median or barrier.

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

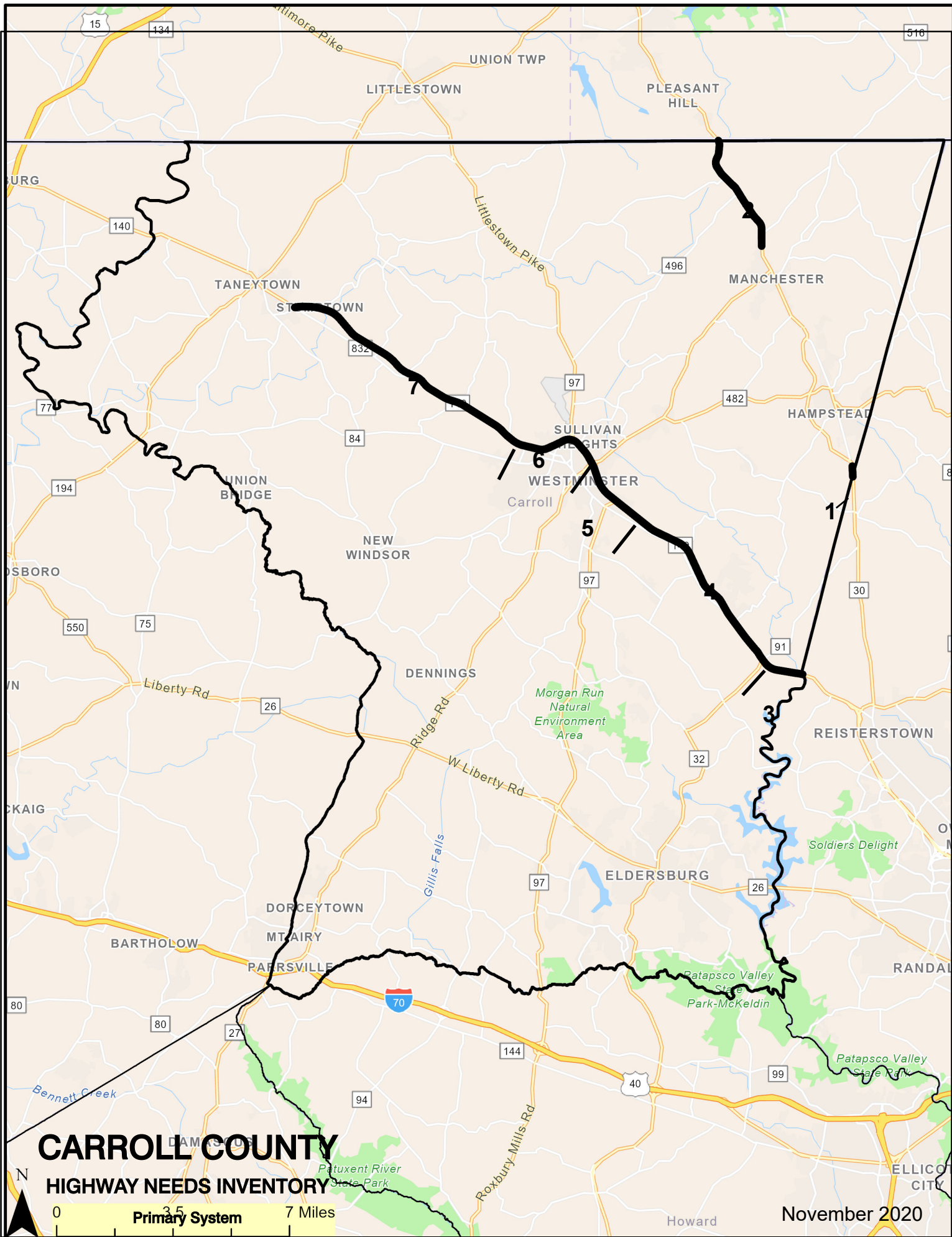
Revised 2020

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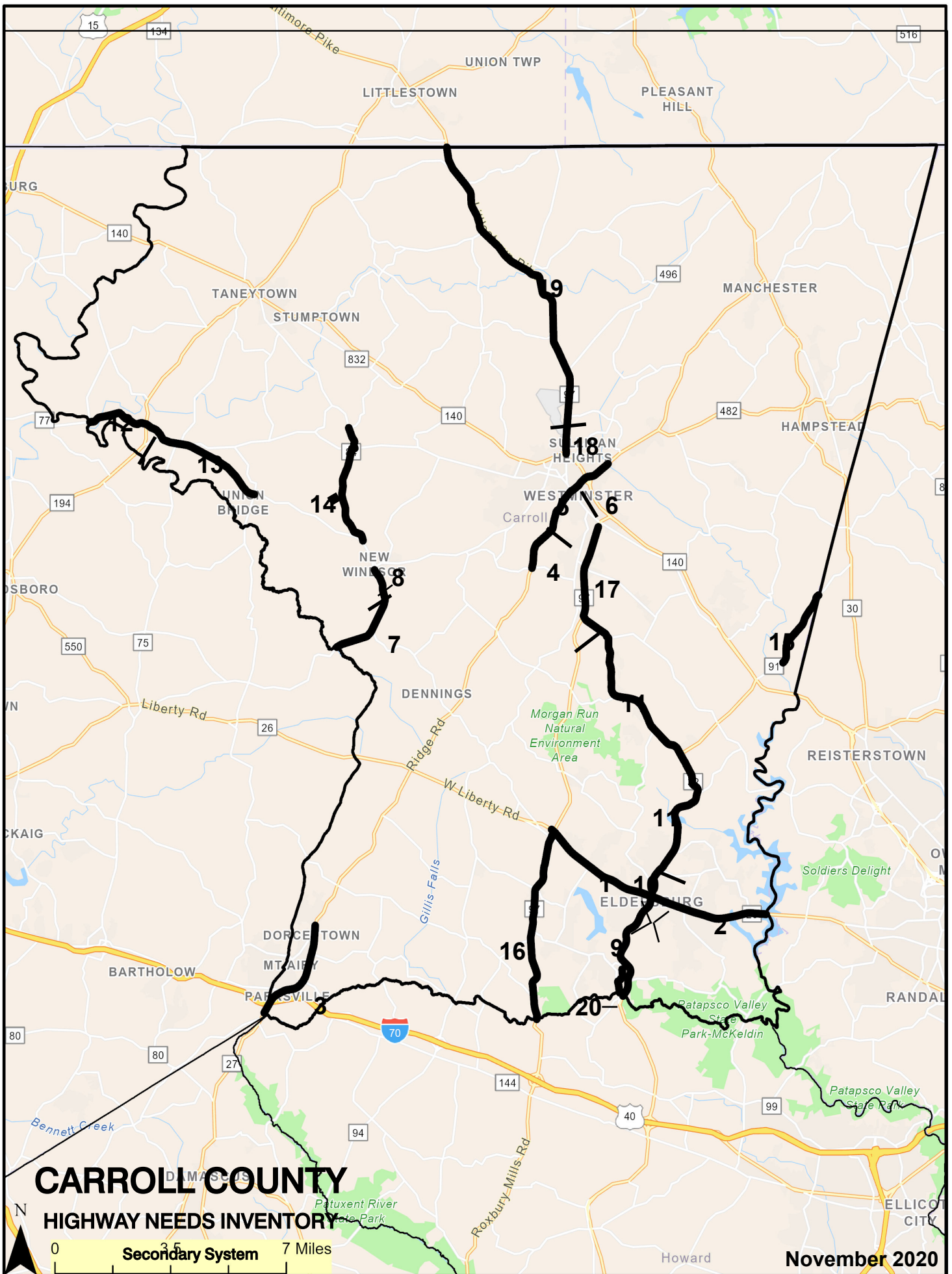


HIGHWAY NEEDS INVENTORY

Carroll County - Primary

(Revised 2018)

Map Ref.	Route-Route Name Limits	County	Priority Length	Improvement Type Cost (\$000)
1	MD 30 Hanover Pike Baltimore County line to Wolf Hill Drive	No	0.3	2 lane urban reconstruct \$4,400
2	MD 30 Hanover Pike North of Manchester to Pennsylvania State line	No	4.4	2 lane reconstruct \$57,900
3	MD 140 Baltimore Boulevard Baltimore County line to West of MD 91	No	1.4	Divided highway reconstruct (includes access controls and interchange at MD 91) \$132,000
4	MD 140 Baltimore Boulevard West of MD 91 to Market Street	No	6.2	Divided highway reconstruct (includes access controls) \$87,100
5	MD 140 Baltimore Boulevard Market Street to Sullivan Road	No	2.5	Divided highway reconstruct (includes interchanges) \$218,612
6	MD 140 College View Boulevard Sullivan Road to Meadow Branch Road	No	1.7	6 lane divided highway reconstruct \$54,000
7	MD 140 Taneytown Pike Meadow Branch Road to MD 832G at Taneytown limits	No	8.3	Divided highway reconstruct \$108,900



HIGHWAY NEEDS INVENTORY

Carroll County - Secondary

(Revised 2018)

Map Ref.	Route-Route Name Limits	County	Priority Length	Improvement Type Cost (\$000)
1	MD 26 Liberty Road MD 97 to MD 32	No	3.6	Divided highway reconstruct (includes access controls) \$51,900
2	MD 26 Liberty Road MD 32 to Liberty Reservoir	Yes	2.5	Urban divided highway reconstruct \$67,790
3	MD 27 Ridge Road Frederick County line to MD 808A	No	3.2	Divided highway reconstruct \$36,500
4	MD 27 Ridge Road Kate Wagner Road to Bond Street	No	1.9	Multi-lane reconstruct \$27,900
5	MD 27 Liberty Street/Rail Road Avenue/Manchester Road Bond Street to MD 140	No	1.3	2 lane urban reconstruct \$127,600
6	MD 27 Manchester Road MD 140 to MD 852G	No	0.8	Urban divided highway reconstruct \$12,700
7	MD 31 New Windsor Road Frederick County line to Coe Drive	No	2.9	2 lane reconstruct \$41,800
8	MD 31 New Windsor Road Lambert Avenue to east of Church Street	Yes	0.8	2 lane urban reconstruct \$4,400
9	MD 32 Sykesville Road Howard County line to MD 26	Yes	3.4	Divided highway reconstruct \$48,500
10	MD 32 Sykesville Road MD 26 to Pine Knob Road	No	1.6	Urban divided highway reconstruct \$22,500
11	MD 32 Sykesville Road Pine Knob Road to MD 97	No	8.9	2 lane reconstruct \$138,500
12	MD 77 Middleburg Road East of Frederick County line to MD 194 at Keymar	No	1.5	2 lane reconstruct \$20,900
13	MD 77 EX MD 77 Extended MD 194 at Keymar to MD 75 at Union Bridge	No	4.1	2 lane construct/reconstruct \$56,600
14	MD 84 Clear Ridge Road MD 75 to Baust Church Rd.	No	3.8	2 lane reconstruct \$50,600

HIGHWAY NEEDS INVENTORY

Carroll County - Secondary

(Revised 2018)

Map Ref.	Route-Route Name Limits	County Priority Length	Improvement Type Cost (\$000)
15	MD 91 Emory Road 1.3 mile N. MD 140 to Baltimore County line	No 1.9	2 lane reconstruct \$25,500
16	MD 97 Old Washington Road Howard County line to 0.2 mile south of MD 26	No 5.7	2 lane reconstruct \$70,400
17	MD 97 New Washington Rd/Malcolm Dr. MD 32 to 0.15 mile south of Main Street	No 2.7	Divided highway reconstruct \$142,600
18	MD 97 Littlestown Pike MD 140 to Pleasant Valley Road	Yes 1.6	Multi-lane reconstruct \$261,800
19	MD 97 Littlestown Pike Pleasant Valley Road to Pennsylvania State line	No 8.7	2 lane reconstruct \$115,500
20	MD 851 Main Street Howard County line to Cooper Dr	Yes 0.8	2 lane urban reconstruct \$13,500