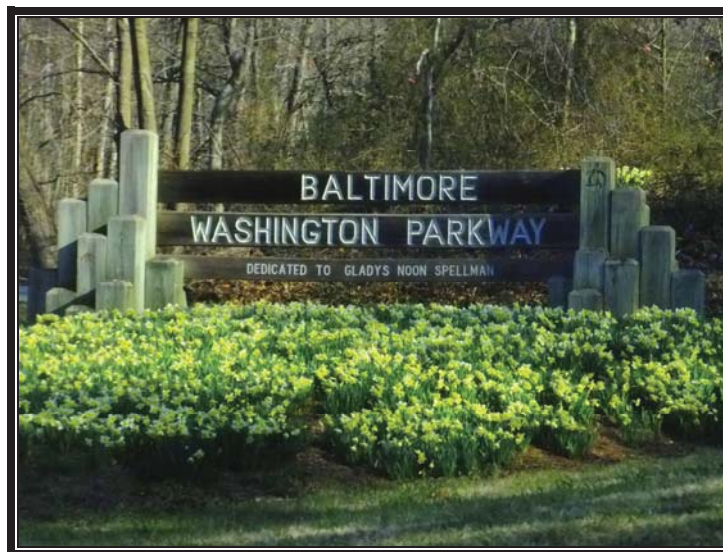




# Federal Lands Highway Road Inventory Program

Road Inventory and Condition Assessment

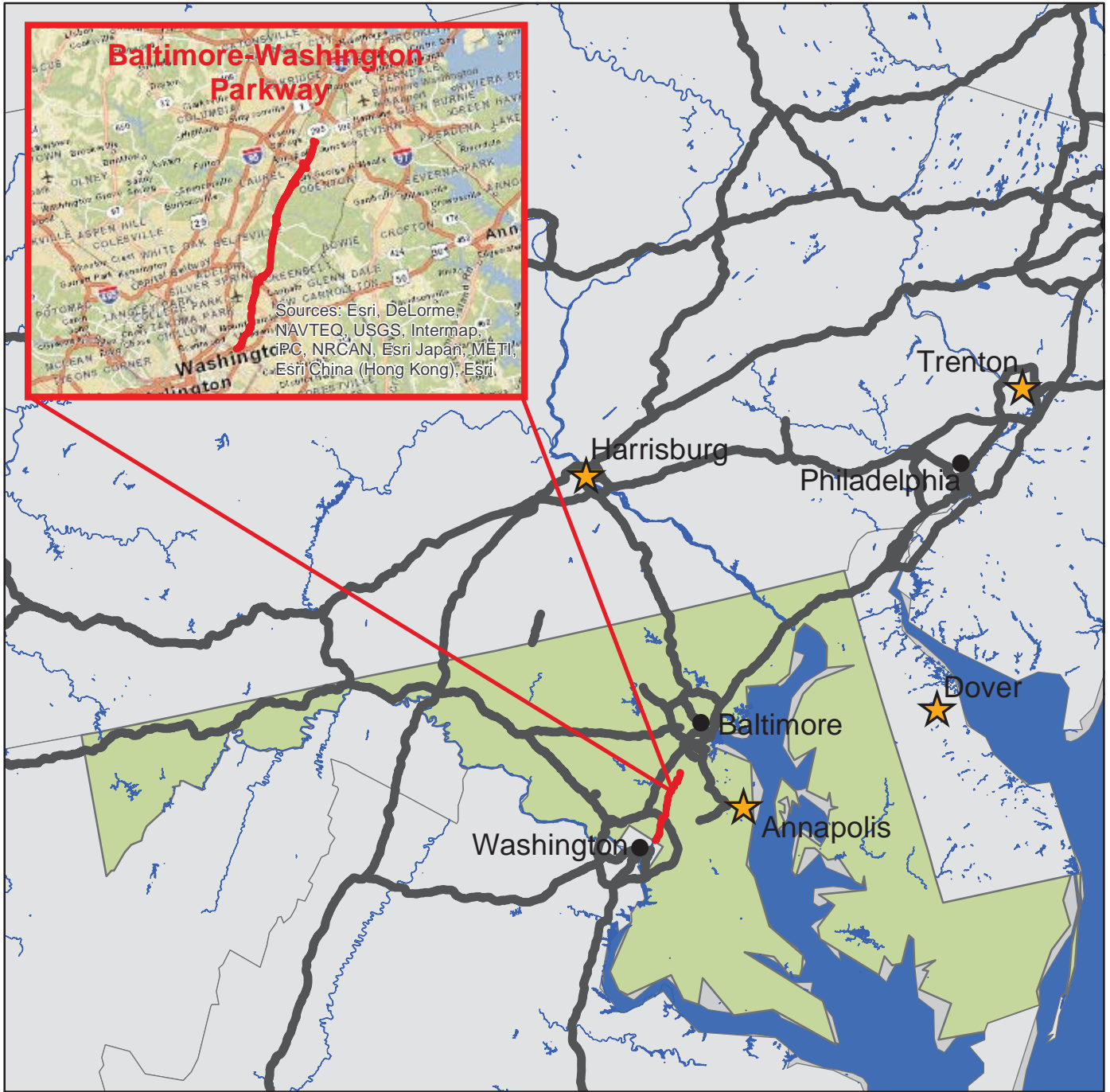


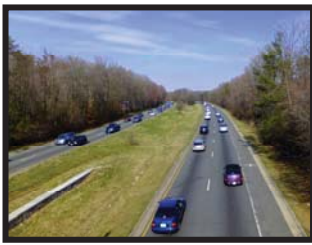
**National Capital Parks – East  
Baltimore-Washington Parkway  
BAWA**

**Cycle 5 Report**

**Prepared By: Federal Highway Administration  
Road Inventory Program (RIP)  
Data Collected: 02/2013  
Report Date: 09/2013**

# Baltimore-Washington Parkway in Maryland





DCV = Data Collection Vehicle

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# Section 1 Introduction



## Baltimore-Washington Parkway



**Federal Lands Highway  
Road Inventory Program**



## INTRODUCTION

The Federal Highway Administration, (FHWA), in the mid 1970s, was charged with the task of identifying surface condition deficiencies and corrective priorities on National Park Service (NPS) roads and parkways. Additionally, FHWA was tasked with establishing an integrated maintenance features inventory, locating features such as culverts, guardrails, and signs, among others, along NPS roads and parkways. As a result, in 1976 the NPS and FHWA entered into an MOA (Memorandum Of Agreement) which established the RIP (Road Inventory Program). This MOA was terminated and revised in 1980 to establish a new MOA aiming to update RIP data and develop a long-range program to improve and maintain NPS roads to designated condition standards and establish a maintenance management program.

The FHWA completed this initial phase of the RIP in the early 1980s. As a result of this effort, each NPS site included in the study received a RIP Report known as the “Brown Book” which included the information collected during this first RIP phase.

In the 1990s, the effort was again renewed to update and maintain the RIP data. By this time the computer age was upon us and a process was employed that relied heavily on electronic data collection and computer technology. A cyclical program was developed and the RIP completed two cycles of data collection from 1994 to 2001. Cycle 1, starting in 1994, was conducted in 44 “large parks” (parks containing 10 or more paved route miles). Cycle 2 began in 1997 and comprised 79 large parks and 5 small parks totaling 4,874 paved route miles. Each of these parks received a RIP Report known as the “Blue Book”. Cycle 3, from 2001 to 2004, was conducted in all parks, large and small, that contained any paved routes, including parking areas and, again, each park received a RIP Report and associated electronic files.

Cycle 4 was initiated in the spring of 2006 covering 86 large parks and several associated small parks consisting of 5,553 paved route miles and 6,232 paved parking areas. Data collection has been completed for Cycle 4 and all data has been delivered to the NPS.

In 2005, the FHWA began implementing the use of a Pavement Management System (PMS) to assist the NPS in prioritizing Pavement Maintenance and Rehabilitation activities. The PMS used by FHWA is the Highway Pavement Management Application (HPMA) and this software has the ability to store inventory and condition data from RIP and forecast future performance using prediction models. Outputs include performance and condition reports at the National, Regional, Park, or Route level. A regional prioritized list and optimization have been produced for most regions and the Federal Highway Deferred Maintenance is calculated via the HPMA.

In an effort to improve the accuracy of treatment recommendations and pavement condition descriptions, an extensive study was completed throughout 2010 that has resulted in changes to the RIP condition reporting method, specifically the distresses and indexes that comprise the Pavement Condition Rating (PCR). It was determined that a better representation of PCR could

be achieved by modifying the relative impact certain distresses would have on the overall rating. The changes that were implemented were endorsed by management at both the FHWA and NPS in October 2010. These changes will allow greater use of RIP and HPMA data for not simply condition data reporting, but also as a reliable tool for project identification and selection. Because of these changes, the PCR Condition ratings reported in Cycle 5 do not directly relate to the condition ratings reported in previous cycle RIP Reports. For more detailed information about the changes, see Section 3 and Section 10 in this RIP Report.

Cycle 5 has launched in the summer of 2010 and will again comprise all parks, large and small, that are served by paved roads and/or parking areas. For Cycle 5, the decision was made to collect condition data in large parks on Functional Class 1, 2, and 7 paved routes only, as well as any new routes that were previously not collected. In small parks, all paved routes and parking areas will be collected. As a result, this will include 81 large parks with 4,459 paved route miles and 231 small parks with 529 paved route miles and associated paved parking areas.

Since 1984, the Road Inventory Program has been funded through the Federal Lands Highway Park Roads and Parkways (PRP) Program. Currently, coordination of the RIP with FLH is under the NPS Washington Headquarters Park Facility Management Division. The FLH Washington office coordinates policy and prepares national reports and needs assessment studies for Congress.

In 1998, the Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21) amended Title 23 U.S.C., and inserted Section 204(a)(6) requiring the FHWA and NPS, to develop by rule, a Pavement Management System (PMS) applied to park roads and parkways serving the National Park System.

FLH is responsible for the accuracy of all data presented in this report. Any questions or comments concerning the contents of this report should be directed to the national RIP Coordinator located in Sterling, Virginia.

Respectfully,

FHWA RIP Team

FHWA/Eastern Federal Lands  
21400 Ridgetop Circle  
Sterling, VA 20166  
(703) 404-6371

FHWA/Central Federal Lands  
12300 West Dakota Ave  
Lakewood, CO 80228  
(720) 963-3556

# Section 2

## Park Route Inventory



Baltimore-Washington Parkway



Federal Lands Highway  
Road Inventory Program

# Cycle 5 NPS/RIP Route ID Report

Road Inventory Program 09/24/2013

(Numerical By Route #)

Page 1 of 5

Shading Color Key:

Red text denotes approx. mileage

White = Paved Routes, DCV Driven

Grey = Paved Routes, DCV not Driven

Yellow = Unpaved Routes, DCV not Driven

Black = State, Local or Private non-NPS Routes

Blue = All Paved Parking Areas

■ = Concession Route Flag ON

Green = All Unpaved Parking Areas

\*Unpaved route data was obtained from NPS and was not inventoried by the Road Inventory Program (RIP).

\*\* DCV - Data Collection Vehicle

\*\*\* Only Functional Class 1, 2, & 7 routes, and previously uncollected routes were collected in Cycle 5

## BAWA

### BALTIMORE-WASHINGTON PARKWAY

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Description From	To	Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0001	5	18479		BALTIMORE-WASHINGTON PARKWAY (NB)	FROM MD/DC LINE (EAST SIDE OF BRIDGE OVER ANACOSTIA RIVER)	TO PAVEMENT CHANGE SOUTH OF ROUTE 0510ZZ (JESSUP ROAD INTERCHANGE RAMP (MD ROUTE 175 INTERCHANGE))	N/A	18.67	0.00	18.67	7		AS	1,2,3,4,5
0002	5	52143		BALTIMORE-WASHINGTON PARKWAY (SB)	FROM PAVEMENT CHANGE SOUTH OF ROUTE 0510ZZ (JESSUP ROAD INTERCHANGE RAMP (MD ROUTE 175 INTERCHANGE))	TO MD/DC LINE (EAST SIDE OF BRIDGE OVER ANACOSTIA RIVER)	N/A	18.62	0.00	18.62	7		AS	1,2,3,4,5
0003	5	108491		SPRINGFIELD ROAD WEST	FROM POWDER MILL ROAD	TO PARK BOUNDARY	N/A	0.44	0.00	0.44	1		AS	3
0500ZZ	5	52145		U.S. ROUTE 50, MD ROUTE 201 INTERCHANGE RAMP	FROM BALTIMORE-WASHINGTON PARKWAY AND U.S. ROUTE 50	TO BALTIMORE-WASHINGTON PARKWAY AND U.S. ROUTE 50	N/A	0.19	0.00	0.19	7		AS	5
0501ZZ	5	52149		KENILWORTH AVENUE INTERCHANGE RAMP	FROM BALTIMORE-WASHINGTON PARKWAY AND KENILWORTH AVENUE	TO BALTIMORE-WASHINGTON PARKWAY AND KENILWORTH AVENUE	N/A	1.01	0.00	1.01	7		AS	5
0502ZZ	5	52152		LANDOVER ROAD RAMP (MD ROUTE 202 INTERCHANGE)	FROM BALTIMORE-WASHINGTON PARKWAY, HOSPITAL DRIVE, AND LANDOVER ROAD	TO BALTIMORE-WASHINGTON PARKWAY AND LANDOVER ROAD	N/A	0.76	0.00	0.76	7		AS	5
0503ZZ	5	52154		ANNAPOLIS ROAD RAMP (MD ROUTE 450 INTERCHANGE)	FROM BALTIMORE-WASHINGTON PARKWAY AND ANNAPOLIS ROAD	TO BALTIMORE-WASHINGTON PARKWAY AND ANNAPOLIS ROAD	N/A	0.96	0.00	0.96	7		AS	5
0504ZZ	5	52155		RIVERDALE ROAD RAMP (MD ROUTE 410 INTERCHANGE)	FROM BALTIMORE-WASHINGTON PARKWAY AND RIVERDALE ROAD	TO BALTIMORE-WASHINGTON PARKWAY AND RIVERDALE ROAD	N/A	0.68	0.00	0.68	7		AS	4
0505ZZ	5	52157		GREENBELT ROAD RAMP (MD ROUTE 193 INTERCHANGE)	FROM BALTIMORE-WASHINGTON PARKWAY, SOUTHWAY AND GREENBELT ROAD	TO BALTIMORE-WASHINGTON PARKWAY, SOUTHWAY AND GREENBELT ROAD	N/A	0.82	0.00	0.82	7		AS	4



# Cycle 5 NPS/RIP Route ID Report

Road Inventory Program 09/24/2013

(Numerical By Route #)

Page 2 of 5

Shading Color Key:  
Red text denotes approx. mileage

White = Paved Routes, DCV Driven	Yellow = Unpaved Routes, DCV not Driven	Blue = All Paved Parking Areas	Green = All Unpaved Parking Areas
Grey = Paved Routes, DCV not Driven	Black = State, Local or Private non-NPS Routes	= Concession Route Flag ON	

\*Unpaved route data was obtained from NPS and was not inventoried by the Road Inventory Program (RIP).

\*\* DCV - Data Collection Vehicle

\*\*\* Only Functional Class 1, 2, & 7 routes, and previously uncollected routes were collected in Cycle 5

## BAWA

### BALTIMORE-WASHINGTON PARKWAY

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Description From	To	Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0506ZZ	5	52158		POWDER MILL ROAD RAMP (MD ROUTE 212 INTERCHANGE)	FROM BALTIMORE-WASHINGTON PARKWAY AND POWDER MILL ROAD	TO BALTIMORE-WASHINGTON PARKWAY AND POWDER MILL ROAD	N/A	0.88	0.00	0.88	7		AS	3
0507ZZ	5	52161		LAUREL-BOWIE ROAD RAMP (MD ROUTE 197 INTERCHANGE)	FROM BALTIMORE-WASHINGTON PARKWAY AND LAUREL-BOWIE ROAD	TO BALTIMORE-WASHINGTON PARKWAY AND LAUREL-BOWIE ROAD	N/A	1.62	0.00	1.62	7		AS	3
0508ZZ	5	52165		LAUREL FORT MEADE ROAD RAMP (MD ROUTE 198 INTERCHANGE)	FROM BALTIMORE-WASHINGTON PARKWAY AND LAUREL FORT MEADE ROAD	TO BALTIMORE-WASHINGTON PARKWAY AND LAUREL FORT MEADE ROAD	N/A	1.89	0.00	1.89	7		AS	2
0509ZZ	5	52169		PATUXENT FREEWAY RAMP (MD ROUTE 32 INTERCHANGE)	FROM BALTIMORE-WASHINGTON PARKWAY AND PATUXENT FREEWAY	TO BALTIMORE-WASHINGTON PARKWAY AND PATUXENT FREEWAY	N/A	2.83	0.00	2.83	7		AS	1
0510ZZ	5	52171		JESSUP ROAD INTERCHANGE RAMP (MD ROUTE 175 INTERCHANGE)	FROM BALTIMORE-WASHINGTON PARKWAY AND JESSUP ROAD	TO BALTIMORE-WASHINGTON PARKWAY AND JESSUP ROAD	N/A	0.49	0.00	0.49	7		AS	1
5000	5			W/B U.S. ROUTE 50 RAMP TO S/B INTERSTATE 295 (I-295)	FROM U.S. HIGHWAY ROUTE 50 EASTBOUND	TO ROUTE 0501ZZ (KENILWORTH AVENUE INTERCHANGE RAMP)	N/A	0.12	0.00	0.12			AS	5
5001	5			BW PARKWAY N/B RAMP TO E/B INTERSTATE 95 (I-95)	FROM ROUTE 0001 (BALTIMORE-WASHINGTON PARKWAY (N/B))	TO E/B INTERSTATE 95 (I-95)	N/A	0.30	0.00	0.30			AS	4
5002	5			W/B INTERSTATE 95 (I-95) RAMP TO N/B BW PARKWAY	FROM W/B INTERSTATE 95 (I-95)	TO ROUTE 0001 (BALTIMORE-WASHINGTON PARKWAY (N/B))	N/A	0.33	0.00	0.33			AS	4
5003	5			BW PARKWAY S/B RAMP TO W/B INTERSTATE 95 (I-95)	FROM ROUTE 0002 (BALTIMORE-WASHINGTON PARKWAY (S/B))	TO W/B INTERSTATE 95 (I-95)	N/A	0.29	0.00	0.29			AS	4
5004	5			E/B INTERSTATE 95 (I-95) RAMP TO S/B BW PARKWAY	FROM E/B INTERSTATE 95 (I-95)	TO ROUTE 0002 (BALTIMORE-WASHINGTON PARKWAY (S/B))	N/A	0.32	0.00	0.32			AS	4
5005	5			E/B INTERSTATE 95 (I-95) RAMP TO N/B BW PARKWAY	FROM E/B INTERSTATE 95 (I-95)	TO ROUTE 0001 (BALTIMORE-WASHINGTON PARKWAY (N/B))	N/A	0.18	0.00	0.18			AS	4
5006	5			BW PARKWAY N/B RAMP TO W/B INTERSTATE 95 (I-95)	FROM ROUTE 0001 (BALTIMORE-WASHINGTON PARKWAY (N/B))	TO W/B INTERSTATE 95 (I-95)	N/A	0.22	0.00	0.22			AS	4

# Cycle 5 NPS/RIP Route ID Report

Shading Color Key:  
Red text denotes approx. mileage

White = Paved Routes, DCV Driven	Yellow = Unpaved Routes, DCV not Driven	Blue = All Paved Parking Areas	Green = All Unpaved Parking Areas
Grey = Paved Routes, DCV not Driven	Black = State, Local or Private non-NPS Routes	■ = Concession Route Flag ON	

\*Unpaved route data was obtained from NPS and was not inventoried by the Road Inventory Program (RIP).

\*\* DCV - Data Collection Vehicle

\*\*\* Only Functional Class 1, 2, & 7 routes, and previously uncollected routes were collected in Cycle 5

## BAWA

### BALTIMORE-WASHINGTON PARKWAY

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name		Route Description	Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
				From	To									
5007	5			W/B INTERSTATE 95 (I-95) RAMP TO S/B BW PARKWAY	FROM W/B INTERSTATE 95 (I-95)	TO ROUTE 0002 (BALTIMORE-WASHINGTON PARKWAY (S/B))	N/A	0.19	0.00	0.19			AS	4
5008	5			BW PARKWAY S/B RAMP TO E/B INTERSTATE 95 (I-95)	FROM ROUTE 0002 (BALTIMORE-WASHINGTON PARKWAY (S/B))	TO E/B INTERSTATE 95 (I-95)	N/A	0.21	0.00	0.21			AS	4
5009	5			W/B INTERSTATE 95 (I-95) RAMP TO GREENBELT ROAD (ROUTE 193) (EB)	FROM ROUTE 5002 (W/B INTERSTATE 95 (I-95) RAMP TO N/B BW PARKWAY)	TO GREENBELT ROAD (ROUTE 193) (E/B)	N/A	0.32	0.00	0.32			AS	4

# Cycle 5 NPS/RIP Route ID Report

Road Inventory Program 09/24/2013

(Numerical By Route #)

Page 4 of 5

Shading Color Key:

Red text denotes approx. mileage

White = Paved Routes, DCV Driven
Grey = Paved Routes, DCV not Driven

Yellow = Unpaved Routes, DCV not Driven
Black = State, Local or Private non-NPS Routes

Blue = All Paved Parking Areas
Red = Concession Route Flag ON

Green = All Unpaved Parking Areas
-----------------------------------

\*Unpaved route data was obtained from NPS and was not inventoried by the Road Inventory Program (RIP).

\*\* DCV - Data Collection Vehicle

\*\*\* Only Functional Class 1, 2, & 7 routes, and previously uncollected routes were collected in Cycle 5

## CYCLE 5 COLLECTED SUMMARY TOTALS FOR BALTIMORE-WASHINGTON PARKWAY

<b>CYCLE 5 COLLECTED ROUTE TOTALS</b>	
DCV Driven Route Miles	49.85
Manually Rated Route Miles	0.00
<b>TOTAL PARK ROUTE MILES COLLECTED IN CYCLE 5</b>	<b>49.85</b>
Manually Rated Routes (SQFT)	0

<b>* CYCLE 5 COLLECTED PARKING AREA TOTALS</b>	
Paved Parking (SQFT)	0

<b>CYCLE 5 COLLECTED CONCESSION TOTALS</b>	
Concession Paved Route Miles	0.00
Concession Paved Parking Area SQFT	0
Concession Manually Rated Routes SQFT	0

<b>CYCLE 5 COLLECTED WEIGHTED AVERAGE PARK VALUES</b>	
DCV Driven PCR	88
**Manually Rated Routes PCR	N/A
**Parking PCR	N/A
***Total Equivalent Lane Miles	146.65

## TOTAL PARK SUMMARY FOR BALTIMORE-WASHINGTON PARKWAY

<b>ROUTE TOTALS</b>	
<b>TOTAL PAVED PARK ROUTE MILES</b>	<b>49.85</b>
<b>TOTAL PAVED PARKING (SQFT)</b>	<b>0</b>

\* - The Parking Area Totals SQFT value represents all parking areas collected in Cycle 5, both park and concessionaire.

\*\* - Parking and Manually Rated Routes are assigned the following PCR values based on their observed condition: Construction=-1, Excellent=97, Good=90, Fair=73, and Poor=45.

\*\*\* - Equivalent Lane Miles are calculated by route using the following equations : DCV and Manually Rated Lines Routes=( PAVE\_WIDTHxPAVED\_MI)/11 foot lane. Parking Areas=SQ\_FEET/5280/11. Manually Rated Polygons=SQ\_FEET/5280/11.

# Cycle 5 NPS/RIP Route ID Report

Shading Color Key:

Red text denotes approx. mileage

White = Paved Routes, DCV Driven

Yellow = Unpaved Routes, DCV not Driven

Blue = All Paved Parking Areas

Green = All Unpaved Parking Areas

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Black = State, Local or Private non-NPS Routes

= Concession Route Flag ON

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\*\* DCV - Data Collection Vehicle

\*\*\* Only Functional Class 1, 2, & 7 routes, and previously uncollected routes were collected in Cycle 5

## General Park Road Functional Classification Table

- Class 1** Principal Park Road/Rural Parkway (Public Roads) Roads which constitute the main access route, circulatory tour, or thoroughfare for park visitors. Route Numbers 1 - 99. Note: Rural parkways (e.g. Natchez Trace) are numbered 1 - 9. State Routes Inventoried for Park. Route Numbers 5000-5999
- Class 2** Connector Park Road (Public Roads) - Roads which provide access within a park to areas of scenic, scientific, recreational or cultural interest, such as overlooks, campgrounds, etc. Route Numbers 100-199.
- Class 3** Special Purpose Park Road (Public Roads) - Roads which provide circulation within public areas, such as campgrounds, picnic areas, visitor center complexes, concessionaire facilities, etc. These roads generally serve low-speed traffic and are often designed for one-way circulation. Route Numbers 200-299.
- Class 4** Primitive Park Roads (Public Roads) - Roads which provide circulation through remote areas and/or access to primitive campgrounds and undeveloped areas. These roads frequently have no minimum design standards and their use may be limited to specially equipped vehicles. Route Numbers 200-299. Note: Functional Classes 3 and 4 have the same route numbers because, historically, they were numbered similarly.
- Class 5** Administrative Access Road (Administrative Roads) - All public roads intended for access to administrative developments or structures such as park offices, employee quarters, or utility areas. Route Numbers 400-499.
- Class 6** Restricted Road (Administrative Roads) - All roads normally closed to the public, including patrol roads, truck trails, and other similar roads. Route Numbers 400-499. Note: Functional Classes 5 and 6 have the same route numbers because historically they were numbered similarly and often there is little distinction between these routes. For example, because utility areas and employee housing are often closed to the public, this restriction would result in classification of FC 6 rather than FC 5.
- Class 7** Urban Parkway (Urban Parkways and City Streets) - These facilities serve high volumes of park and non-park related traffic and are restricted, limited-access facilities in an urban area. This category of roads primarily encompasses the major parkways which serve as gateways to our nation's capital. Other major park roads or portions thereof, however, may be included in this category. Route Numbers 1-9.
- Class 8** City Streets (Urban Parkways and City Streets) - City streets are usually extensions of the adjoining street system that are owned and maintained by the National Park Service. The construction and/or reconstruction should conform with accepted local engineering practice and local conditions. Route Numbers 600-699.

\*\*\*\*\*

A park road system contains those roads within or giving access to a park or other unit of the NPS which are administered by the NPS, or by the Service in cooperation with other agencies. The assignment of a functional classification (FC) to a park road is not based on traffic volumes or design speed, but on the intended use or function of that road or route.

The historic route numbering system also included a 300 number series for interpretive roads, and a 500 series for one-way roads. There are approximately 250 roads nationwide which are designated by the 300 and 500 series. The numbers for these roads will be maintained for reporting consistency. However, since these interpretive and one-way routes are not as clearly tied to a specific functional class, the 300 and 500 series will be discontinued for future use.

5000 route numbers are assigned to Non-NPS Routes that are State, County or City owned which border, traverse, or provide access to Park Facilities or Locations. 5000 Routes are driven for GPS and Video Log only.

## Surface Type Abbreviations:

- AS - Asphaltic Concrete Pavement**
- CO - Portland Cement Concrete Pavement**
- BR - Brick or Pavers Road Bed**
- CB - Cobble Stone Road Bed**
- GR - Gravel Road Bed**
- SA - Sand Road Bed**
- NV - Native or Dirt Material Road Bed**
- OT - Other Materials Road Bed**

# NPS/RIP Subcomponent Details for BAWA

Road Inventory Program 09/20/2013

(Numerical By Subcomponent #)

Page 1 of 9

Shading Color Key:

Red text denotes approx. mileage

White = Paved Routes, DCV Driven

Yellow = Unpaved Routes, DCV not Driven

Blue = All Paved Parking Areas

Green = All Unpaved Parking Areas

Grey = Paved Routes, DCV not Driven

Black = State, Local or Private non-NPS Routes

■ = Concession Route Flag ON

\*Unpaved route data was obtained from NPS and was not inventoried by the Road Inventory Program (RIP).

## BAWA

### BALTIMORE-WASHINGTON PARKWAY

Rte. No.	FMSS No.	Cycle Collected	Route Name	From	To	Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
0500ZZ	52145	5	U.S. ROUTE 50, MD ROUTE 201 INTERCHANGE RAMPS	FROM BALTIMORE-WASHINGTON PARKWAY AND U.S. ROUTE 50	TO BALTIMORE-WASHINGTON PARKWAY AND U.S. ROUTE 50		7	0.19	0.00	0.19	
0501ZZ	52149	5	KENILWORTH AVENUE INTERCHANGE RAMPS	FROM BALTIMORE-WASHINGTON PARKWAY AND KENILWORTH AVENUE	TO BALTIMORE-WASHINGTON PARKWAY AND KENILWORTH AVENUE		7	1.01	0.00	1.01	
0502ZZ	52152	5	LANDOVER ROAD RAMPS (MD ROUTE 202 INTERCHANGE)	FROM BALTIMORE-WASHINGTON PARKWAY, HOSPITAL DRIVE, AND LANDOVER ROAD	TO BALTIMORE-WASHINGTON PARKWAY AND LANDOVER ROAD		7	0.76	0.00	0.76	
0503ZZ	52154	5	ANNAPOLIS ROAD RAMPS (MD ROUTE 450 INTERCHANGE)	FROM BALTIMORE-WASHINGTON PARKWAY AND ANNAPOLIS ROAD	TO BALTIMORE-WASHINGTON PARKWAY AND ANNAPOLIS ROAD		7	0.96	0.00	0.96	
0504ZZ	52155	5	RIVERDALE ROAD RAMPS (MD ROUTE 410 INTERCHANGE)	FROM BALTIMORE-WASHINGTON PARKWAY AND RIVERDALE ROAD	TO BALTIMORE-WASHINGTON PARKWAY AND RIVERDALE ROAD		7	0.68	0.00	0.68	
0505ZZ	52157	5	GREENBELT ROAD RAMPS (MD ROUTE 193 INTERCHANGE)	FROM BALTIMORE-WASHINGTON PARKWAY, SOUTHWAY AND GREENBELT ROAD	TO BALTIMORE-WASHINGTON PARKWAY, SOUTHWAY AND GREENBELT ROAD		7	0.82	0.00	0.82	
0506ZZ	52158	5	POWDER MILL ROAD RAMPS (MD ROUTE 212 INTERCHANGE)	FROM BALTIMORE-WASHINGTON PARKWAY AND POWDER MILL ROAD	TO BALTIMORE-WASHINGTON PARKWAY AND POWDER MILL ROAD		7	0.88	0.00	0.88	
0507ZZ	52161	5	LAUREL-BOWIE ROAD RAMPS (MD ROUTE 197 INTERCHANGE)	FROM BALTIMORE-WASHINGTON PARKWAY AND LAUREL-BOWIE ROAD	TO BALTIMORE-WASHINGTON PARKWAY AND LAUREL-BOWIE ROAD		7	1.62	0.00	1.62	
0508ZZ	52165	5	LAUREL FORT MEADE ROAD RAMPS (MD ROUTE 198 INTERCHANGE)	FROM BALTIMORE-WASHINGTON PARKWAY AND LAUREL FORT MEADE ROAD	TO BALTIMORE-WASHINGTON PARKWAY AND LAUREL FORT MEADE ROAD		7	1.89	0.00	1.89	
0509ZZ	52169	5	PATUXENT FREEWAY RAMPS (MD ROUTE 32 INTERCHANGE)	FROM BALTIMORE-WASHINGTON PARKWAY AND PATUXENT FREEWAY	TO BALTIMORE-WASHINGTON PARKWAY AND PATUXENT FREEWAY		7	2.83	0.00	2.83	
0510ZZ	52171	5	JESSUP ROAD INTERCHANGE RAMPS (MD ROUTE 175 INTERCHANGE)	FROM BALTIMORE-WASHINGTON PARKWAY AND JESSUP ROAD	TO BALTIMORE-WASHINGTON PARKWAY AND JESSUP ROAD		7	0.49	0.00	0.49	



# NPS/RIP Subcomponent Details for BAWA

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## BAWA

### BALTIMORE-WASHINGTON PARKWAY

#### BAWA-0500ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Name	From	To	Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
0500AZ	52145	5	RAMP FROM N/B BW PARKWAY TO E/B U.S. HIGHWAY 50	FROM ROUTE 0001 (BALTIMORE-WASHINGTON PARKWAY (N/B)) AT MP 0.19	TO U.S. HIGHWAY ROUTE 50 EASTBOUND		7	0.11	0.00	0.11	
0500BZ	52145	5	RAMP FROM W/B ROUTE 50 TO S/B BW PARKWAY	FROM U.S. HIGHWAY ROUTE 50 EASTBOUND	TO ROUTE 0002 (BALTIMORE-WASHINGTON PARKWAY (S/B)) AT MP 18.49		7	0.08	0.00	0.08	

#### BAWA-0501ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Name	From	To	Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
0501AZ	52149	5	RAMP FROM N/B KENILWORTH AVENUE TO N/B BW PARKWAY	FROM PARK BOUNDARY	TO ROUTE 0001 (BALTIMORE-WASHINGTON PARKWAY (N/B)) AT MP 0.66		7	0.16	0.00	0.16	
0501BZ	52149	5	BW PARKWAY S/B RAMP TO S/B 295	FROM ROUTE 0002 (BALTIMORE-WASHINGTON PARKWAY (S/B))	TO END OF ROUTE 5000 (W/B U.S. ROUTE 50 RAMP TO S/B INTERSTATE 295 (I-295))		7	0.33	0.00	0.33	
0501CZ	52149	5	RAMP FROM S/B KENILWORTH AVENUE TO S/B BW PARKWAY	FROM KENILWORTH AVENUE AT PAVEMENT CHANGE	TO ROUTE 0002 (BALTIMORE-WASHINGTON PARKWAY (S/B))		7	0.52	0.00	0.52	

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## BAWA

### BALTIMORE-WASHINGTON PARKWAY

#### BAWA-0502ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Description		Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
			Route Name	From To						
0502AZ	52152	5	RAMP FROM N/B BW PARKWAY TO ROUTE 202	FROM ROUTE 0001 (BALTIMORE-WASHINGTON PARKWAY (N/B)) TO LANDOVER ROAD		7	0.19	0.00	0.19	
0502BZ	52152	5	RAMP FROM HOSPITAL DRIVE TO N/B BW PARKWAY	FROM HOSPITAL DRIVE AT PAVEMENT CHANGE TO ROUTE 0001 (BALTIMORE-WASHINGTON PARKWAY (N/B))		7	0.16	0.00	0.16	
0502CZ	52152	5	RAMP FROM ROUTE 202 TO S/B BW PARKWAY	FROM LANDOVER ROAD TO ROUTE 0002 (BALTIMORE-WASHINGTON PARKWAY (S/B))		7	0.12	0.00	0.12	
0502DZ	52152	5	S/B BW PARKWAY RAMP TO ROUTE 202	FROM ROUTE 0002 (BALTIMORE-WASHINGTON PARKWAY (S/B)) TO LANDOVER ROAD		7	0.16	0.00	0.16	
0502EZ	52152	5	RAMP FROM ROUTE 202 TO RAMP FROM HOSPITAL DRIVE	FROM LANDOVER ROAD TO ROUTE 0502BZ (RAMP FROM HOSPITAL DRIVE TO N/B BW PARKWAY)		7	0.13	0.00	0.13	

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## BAWA

### BALTIMORE-WASHINGTON PARKWAY

#### BAWA-0503ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Description			Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
			Route Name	From	To						
0503AZ	52154	5	N/B BW PARKWAY N/B RAMP TO W/B ROUTE 450	FROM ROUTE 0001 (BALTIMORE-WASHINGTON PARKWAY (N/B))	TO ANNAPOLIS ROAD		7	0.20	0.00	0.20	
0503BZ	52154	5	N/B BW PARKWAY RAMP TO E/B ROUTE 450 SPUR	FROM ROUTE 0503AZ (N/B BW PARKWAY N/B RAMP TO W/B ROUTE 450)	TO ANNAPOLIS ROAD EASTBOUND		7	0.08	0.00	0.08	
0503CAZ	52154	5	S/B BW PARKWAY RAMP TO ROUTE 450 (EB AND WB)	FROM ROUTE 0002 (BALTIMORE-WASHINGTON PARKWAY (S/B))	TO ANNAPOLIS ROAD EASTBOUND AND WESTBOUND		7	0.22	0.00	0.22	
0503CBZ	52154	5	S/B BW PARKWAY RAMP TO ROUTE 450 (WB)	FROM ROUTE 0503CAZ (S/B BW PARKWAY RAMP TO ROUTE 450 (E/B AND W/B))	TO ANNAPOLIS ROAD WESTBOUND		7	0.03	0.00	0.03	
0503DAZ	52154	5	RAMP FROM W/B ROUTE 450 TO S/B BW PARKWAY	FROM ANNAPOLIS ROAD WESTBOUND	TO ROUTE 0002 (BALTIMORE-WASHINGTON PARKWAY (S/B))		7	0.20	0.00	0.20	
0503DBZ	52154	5	RAMP FROM E/B AND W/B ROUTE 450 TO S/B BW PARKWAY	FROM ANNAPOLIS ROAD EASTBOUND AND WESTBOUND	TO ROUTE 0503DAZ (RAMP FROM W/B ROUTE 450 TO S/B BW PARKWAY)		7	0.03	0.00	0.03	
0503EZ	52154	5	RAMP FROM E/B ROUTE 450 TO N/B BW PARKWAY	FROM ANNAPOLIS ROAD	TO ROUTE 0001 (BALTIMORE-WASHINGTON PARKWAY (N/B))		7	0.15	0.00	0.15	
0503FZ	52154	5	RAMP FROM W/B ROUTE 450 TO N/B BW PARKWAY SPUR	FROM ANNAPOLIS ROAD WESTBOUND	TO ROUTE 0503EZ (RAMP FROM E/B ROUTE 450 TO N/B BW PARKWAY)		7	0.06	0.00	0.06	

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## BAWA

### BALTIMORE-WASHINGTON PARKWAY

#### BAWA-0504ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Name	From	To	Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
0504AZ	52155	5	N/B BW PARKWAY RAMP TO RIVERDALE ROAD (RT. 410)	FROM ROUTE 0001 (BALTIMORE-WASHINGTON PARKWAY (N/B))	TO RIVERDALE ROAD		7	0.21	0.00	0.21	
0504BZ	52155	5	S/B BW PARKWAY RAMP TO RIVERDALE ROAD (RT. 410)	FROM ROUTE 0002 (BALTIMORE-WASHINGTON PARKWAY (S/B))	TO RIVERDALE ROAD		7	0.18	0.00	0.18	
0504CZ	52155	5	RAMP FROM RIVERDALE ROAD (RT. 410) TO N/B BW PARKWAY	FROM RIVERDALE ROAD	TO ROUTE 0001 (BALTIMORE-WASHINGTON PARKWAY (N/B))		7	0.14	0.00	0.14	
0504DZ	52155	5	RAMP FROM RIVERDALE ROAD (RT. 410) TO S/B BW PARKWAY	FROM RIVERDALE ROAD	TO ROUTE 0002 (BALTIMORE-WASHINGTON PARKWAY (S/B))		7	0.15	0.00	0.15	

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## BAWA

### BALTIMORE-WASHINGTON PARKWAY

#### BAWA-0505ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Description			Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
			Route Name	From	To						
0505AAZ	52157	5	N/B BW PARKWAY RAMP TO GREENBELT ROAD (ROUTE 193) (WB)	FROM ROUTE 0001 (BALTIMORE-WASHINGTON PARKWAY (N/B))	TO GREENBELT ROAD WESTBOUND		7	0.27	0.00	0.27	
0505ABZ	52157	5	N/B BW PARKWAY RAMP TO GREENBELT ROAD (ROUTE 193) (EB AND WB)	FROM ROUTE 0505AAZ (N/B BW PARKWAY RAMP TO GREENBELT ROAD (ROUTE 193) (W/B))	TO GREENBELT ROAD EASTBOUND AND WESTBOUND		7	0.04	0.00	0.04	
0505BAZ	52157	5	RAMP FROM GREENBELT ROAD (ROUTE 193) TO N/B BW PARKWAY	FROM GREENBELT ROAD WESTBOUND	TO ROUTE 0001 (BALTIMORE-WASHINGTON PARKWAY (N/B))		7	0.19	0.00	0.19	
0505BBZ	52157	5	RAMP FROM GREENBELT ROAD (ROUTE 193) (EB AND WB) TO N/B BW PARKWAY	FROM GREENBELT ROAD EASTBOUND AND WESTBOUND	TO ROUTE 0505BAZ (RAMP FROM GREENBELT ROAD (ROUTE 193) TO N/B BW PARKWAY)		7	0.02	0.00	0.02	
0505CZ	52157	5	S/B BW PARKWAY RAMP TO SOUTHWAY	FROM ROUTE 0002 (BALTIMORE-WASHINGTON PARKWAY (S/B))	TO SOUTHWAY ROAD		7	0.15	0.00	0.15	
0505DAZ	52157	5	RAMP FROM SOUTHWAY (EB AND WB) TO S/B BW PARKWAY	FROM SOUTHWAY ROAD	TO ROUTE 0002 (BALTIMORE-WASHINGTON PARKWAY (S/B))		7	0.12	0.00	0.12	
0505DBZ	52157	5	RAMP FROM SOUTHWAY TO S/B BW PARKWAY	FROM SOUTHWAY ROAD	TO ROUTE 0505DAZ (RAMP FROM SOUTHWAY (E/B AND W/B) TO S/B BW PARKWAY)		7	0.03	0.00	0.03	



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## BAWA

### BALTIMORE-WASHINGTON PARKWAY

#### BAWA-0506ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Description			Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
			Route Name	From	To						
0506AZ	52158	5	N/B BW PARKWAY RAMP TO POWDER MILL ROAD (ROUTE 212)	FROM ROUTE 0001 (BALTIMORE-WASHINGTON PARKWAY (N/B))	TO POWDER MILL ROAD		7	0.22	0.00	0.22	
0506BZ	52158	5	S/B BW PARKWAY RAMP TO POWDER MILL ROAD (ROUTE 212)	FROM ROUTE 0002 (BALTIMORE-WASHINGTON PARKWAY (S/B))	TO POWDER MILL ROAD		7	0.26	0.00	0.26	
0506CZ	52158	5	RAMP FROM POWDER MILL ROAD (ROUTE 212) TO N/B BW PARKWAY	FROM POWDER MILL ROAD	TO ROUTE 0001 (BALTIMORE-WASHINGTON PARKWAY (N/B))		7	0.22	0.00	0.22	
0506DZ	52158	5	RAMP FROM POWDER MILL ROAD (ROUTE 212) TO S/B BW PARKWAY	FROM POWDER MILL ROAD	TO ROUTE 0002 (BALTIMORE-WASHINGTON PARKWAY (S/B))		7	0.18	0.00	0.18	

#### BAWA-0507ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Description			Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
			Route Name	From	To						
0507AZ	52161	5	N/B BW PARKWAY RAMP TO S/B ROUTE 197	FROM ROUTE 0001 (BALTIMORE-WASHINGTON PARKWAY (N/B))	TO S/B LAUREL-BOWIE ROAD		7	0.31	0.00	0.31	
0507CZ	52161	5	RAMP FROM ROUTE 197 TO N/B BW PARKWAY	FROM LAUREL-BOWIE ROAD	TO ROUTE 0001 (BALTIMORE-WASHINGTON PARKWAY (N/B))		7	0.26	0.00	0.26	
0507DZ	52161	5	RAMP FROM ROUTE 197 N/B TO S/B BW PARKWAY	FROM N/B LAUREL-BOWIE ROAD	TO ROUTE 0002 (BALTIMORE-WASHINGTON PARKWAY (S/B))		7	0.23	0.00	0.23	
0507EZ	52161	5	S/B BW PARKWAY RAMP TO ROUTE 197	FROM ROUTE 0002 (BALTIMORE-WASHINGTON PARKWAY (S/B))	TO LAUREL-BOWIE ROAD		7	0.21	0.00	0.21	
0507FZ	52161	5	RAMP FROM ROUTE S/B 197 TO S/B BW PARKWAY	FROM S/B LAUREL-BOWIE ROAD	TO ROUTE 0002 (BALTIMORE-WASHINGTON PARKWAY (S/B))		7	0.35	0.00	0.35	
0507GZ	52161	5	N/B BW PARKWAY RAMP TO N/B ROUTE 197 SPUR	FROM ROUTE 0507AZ (N/B BW PARKWAY RAMP TO S/B ROUTE 197)	TO N/B LAUREL-BOWIE ROAD		7	0.26	0.00	0.26	

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## BAWA

### BALTIMORE-WASHINGTON PARKWAY

#### BAWA-0508ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Name	From	To	Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
0508AZ	52165	5	N/B BW PARKWAY RAMP TO E/B ROUTE 198	FROM ROUTE 0001 (BALTIMORE-WASHINGTON PARKWAY (N/B))	TO E/B LAUREL FORT MEADE ROAD		7	0.51	0.00	0.51	
0508BZ	52165	5	RAMP FROM W/B ROUTE 198 TO N/B BW PARKWAY	FROM W/B LAUREL FORT MEADE ROAD	TO ROUTE 0001 (BALTIMORE-WASHINGTON PARKWAY (N/B))		7	0.32	0.00	0.32	
0508CAZ	52165	5	S/B BW PARKWAY RAMP TO ROUTE 198 (EB AND WB)	FROM ROUTE 0002 (BALTIMORE-WASHINGTON PARKWAY (S/B))	TO LAUREL FORT MEADE ROAD EASTBOUND AND WESTBOUND		7	0.20	0.00	0.20	
0508CBZ	52165	5	S/B BW PARKWAY RAMP TO ROUTE 198 (WB)	FROM ROUTE 0508CAZ (S/B BW PARKWAY RAMP TO ROUTE 198) (E/B AND W/B)	TO FORT MEADE ROAD WESTBOUND		7	0.03	0.00	0.03	
0508DZ	52165	5	RAMP FROM ROUTE 198 TO S/B BW PARKWAY	FROM LAUREL FORT MEADE ROAD	TO ROUTE 0002 (BALTIMORE-WASHINGTON PARKWAY (S/B))		7	0.21	0.00	0.21	
0508EZ	52165	5	N/B BW PARKWAY RAMP TO W/B ROUTE 198	FROM ROUTE 0001 (BALTIMORE-WASHINGTON PARKWAY (N/B))	TO W/B LAUREL FORT MEADE ROAD		7	0.24	0.00	0.24	
0508FZ	52165	5	RAMP FROM E/B ROUTE 198 TO N/B BW PARKWAY	FROM E/B LAUREL FORT MEADE ROAD	TO ROUTE 0001 (BALTIMORE-WASHINGTON PARKWAY (N/B))		7	0.38	0.00	0.38	

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## BAWA

### BALTIMORE-WASHINGTON PARKWAY

#### BAWA-0509ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Name	Route Description		Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
				From	To						
0509AZ	52169	5	N/B BW PARKWAY RAMP TO W/B ROUTE 32	FROM ROUTE 0001 (BALTIMORE-WASHINGTON PARKWAY (N/B))	TO W/B PATUXENT FREEWAY		7	0.22	0.00	0.22	
0509BZ	52169	5	RAMP FROM W/B ROUTE 32 TO S/B BW PARKWAY	FROM W/B PATUXENT FREEWAY	TO ROUTE 0002 (BALTIMORE-WASHINGTON PARKWAY (S/B))		7	0.26	0.00	0.26	
0509CZ	52169	5	S/B BW PARKWAY RAMP TO E/B ROUTE 32	FROM ROUTE 0002 (BALTIMORE-WASHINGTON PARKWAY (S/B))	TO E/B PATUXENT FREEWAY		7	0.29	0.00	0.29	
0509DZ	52169	5	RAMP FROM E/B ROUTE 32 TO N/B BW PARKWAY	FROM E/B PATUXENT FREEWAY	TO ROUTE 0001 (BALTIMORE-WASHINGTON PARKWAY (N/B))		7	0.24	0.00	0.24	
0509EZ	52169	5	RAMP FROM W/B ROUTE 32 TO N/B BW PARKWAY	FROM W/B PATUXENT FREEWAY	TO ROUTE 0001 (BALTIMORE-WASHINGTON PARKWAY (N/B))		7	0.28	0.00	0.28	
0509FZ	52169	5	S/B BW PARKWAY RAMP TO W/B ROUTE 32	FROM ROUTE 0002 (BALTIMORE-WASHINGTON PARKWAY (S/B))	TO W/B PATUXENT FREEWAY		7	0.43	0.00	0.43	
0509GZ	52169	5	RAMP FROM E/B ROUTE 32 TO S/B BW PARKWAY	FROM E/B PATUXENT FREEWAY	TO ROUTE 0002 (BALTIMORE-WASHINGTON PARKWAY (S/B))		7	0.58	0.00	0.58	
0509HZ	52169	5	N/B BW PARKWAY RAMP TO E/B ROUTE 32	FROM ROUTE 0001 (BALTIMORE-WASHINGTON PARKWAY (N/B))	TO E/B PATUXENT FREEWAY		7	0.53	0.00	0.53	

#### BAWA-0510ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Name	Route Description		Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
				From	To						
0510AZ	52171	5	N/B BW PARKWAY RAMP TO MD ROUTE 175	FROM ROUTE 0001 (BALTIMORE-WASHINGTON PARKWAY (N/B))	TO JESSUP ROAD/ANNAPOLIS ROAD		7	0.24	0.00	0.24	
0510BZ	52171	5	S/B BW PARKWAY RAMP FROM MD ROUTE 175	FROM JESSUP ROAD	TO ROUTE 0002 (BALTIMORE-WASHINGTON PARKWAY (S/B))		7	0.25	0.00	0.25	

<b>ROUTES ADDED FROM PREVIOUS INVENTORY:</b>			
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Route #	Route Name	Reason for Addition	Comments
5000	W/B U.S. ROUTE 50 RAMP TO S/B INTERSTATE 295 (I-295)	OTHER	RAMP WAS ADDED AS A 5000 ROUTE BECAUSE THE U.S. PARK POLICE RESPONDS TO ACCIDENTS ON THE RAMP.
5001	BW PARKWAY N/B RAMP TO E/B INTERSTATE 95 (I-95)	OTHER	RAMP WAS ADDED AS A 5000 ROUTE BECAUSE THE U.S. PARK POLICE RESPONDS TO ACCIDENTS ON THE RAMP.
5002	W/B INTERSTATE 95 (I-95) RAMP TO N/B BW PARKWAY	OTHER	RAMP WAS ADDED AS A 5000 ROUTE BECAUSE THE U.S. PARK POLICE RESPONDS TO ACCIDENTS ON THE RAMP.
5003	BW PARKWAY S/B RAMP TO W/B INTERSTATE 95 (I-95)	OTHER	RAMP WAS ADDED AS A 5000 ROUTE BECAUSE THE U.S. PARK POLICE RESPONDS TO ACCIDENTS ON THE RAMP.
5004	E/B INTERSTATE 95 (I-95) RAMP TO S/B BW PARKWAY	OTHER	RAMP WAS ADDED AS A 5000 ROUTE BECAUSE THE U.S. PARK POLICE RESPONDS TO ACCIDENTS ON THE RAMP.
5005	E/B INTERSTATE 95 (I-95) RAMP TO N/B BW PARKWAY	OTHER	RAMP WAS ADDED AS A 5000 ROUTE BECAUSE THE U.S. PARK POLICE RESPONDS TO ACCIDENTS ON THE RAMP.
5006	BW PARKWAY N/B RAMP TO W/B INTERSTATE 95 (I-95)	OTHER	RAMP WAS ADDED AS A 5000 ROUTE BECAUSE THE U.S. PARK POLICE RESPONDS TO ACCIDENTS ON THE RAMP.
5007	W/B INTERSTATE 95 (I-95) RAMP TO S/B BW PARKWAY	OTHER	RAMP WAS ADDED AS A 5000 ROUTE BECAUSE THE U.S. PARK POLICE RESPONDS TO ACCIDENTS ON THE RAMP.
5008	BW PARKWAY S/B RAMP TO E/B INTERSTATE 95 (I-95)	OTHER	RAMP WAS ADDED AS A 5000 ROUTE BECAUSE THE U.S. PARK POLICE RESPONDS TO ACCIDENTS ON THE RAMP.
5009	W/B INTERSTATE 95 (I-95) RAMP TO GREENBELT ROAD (ROUTE 193) (EB)	OTHER	RAMP WAS ADDED AS A 5000 ROUTE BECAUSE THE U.S. PARK POLICE RESPONDS TO ACCIDENTS ON THE RAMP.

## OTHER CHANGES FROM PREVIOUS INVENTORY:

Route #	Route Name	Type of Change	Comments
0003	SPRINGFIELD ROAD WEST	ROUTE NAME	ROUTE NAME CHANGED FROM "SPRINGFIELD ROAD".
0501ZZ	KENILWORTH AVENUE INTERCHANGE RAMPS	OTHER	ROUTE LENGTH INCREASED IN CYCLE 5 DUE TO TWO OF THE RAMPS (SUBCOMPONENTS 0501AZ AND 0501BZ) BEING EXTENDED TO PARK BOUNDARY.
0503ZZ	ANNAPOLIS ROAD RAMPS (MD ROUTE 450 INTERCHANGE)	OTHER	ROUTE LENGTH INCREASED IN CYCLE 5 DUE TO ADDITION OF TWO ROUTE SPURS (SUBCOMPONENT ROUTES 0503CBZ AND 0503DBZ).
0505ZZ	GREENBELT ROAD RAMPS (MD ROUTE 193 INTERCHANGE)	OTHER	ROUTE LENGTH INCREASED IN CYCLE 5 DUE TO ADDITION OF THREE ROUTE SPURS (SUBCOMPONENT ROUTES 0505ABZ, 0505BBZ, AND 0505DBZ).
0508ZZ	LAUREL FORT MEADE ROAD RAMPS (MD ROUTE 198 INTERCHANGE)	OTHER	ROUTE LENGTH INCREASED IN CYCLE 5 DUE TO ADDITION OF ONE ROUTE SPUR (SUBCOMPONENT ROUTE 0508CBZ).



# Section 3

## Park Summary Information



Baltimore-Washington Parkway



Federal Lands Highway  
Road Inventory Program

## BAWA: PAVED ROUTE MILES AND PERCENTAGES BY FUNCTIONAL CLASS AND PCR

F.C.	Pavement Condition Rating (PCR)								TOTAL MILES
	Poor (0-60)		Fair (61-84)		Good (85-94)		Excellent (95-100)		
	MILES	%	MILES	%	MILES	%	MILES	%	
1					0.02	0.04%	0.42	0.84%	0.44
2									
3									
4									
5									
6									
7	4.71	9.45%	2.55	5.12%	12.33	24.73%	29.82	59.82%	49.41
8									
<b>Totals</b>	<b>4.71</b>	<b>9.45%</b>	<b>2.55</b>	<b>5.12%</b>	<b>12.35</b>	<b>24.77%</b>	<b>30.24</b>	<b>60.66%</b>	<b>49.85</b>

**Note:** The information in this table is derived from the PMS\_20 table in the Park database, which only contains processed data from routes collected with the Data Collection Vehicle (DCV). Information for Manually Rated Routes (MRR) and Parking Areas is not reported in this table. Only Functional Class 1, 2, & 7 routes, and any new routes not previously collected by RIP, are collected in Large Parks.

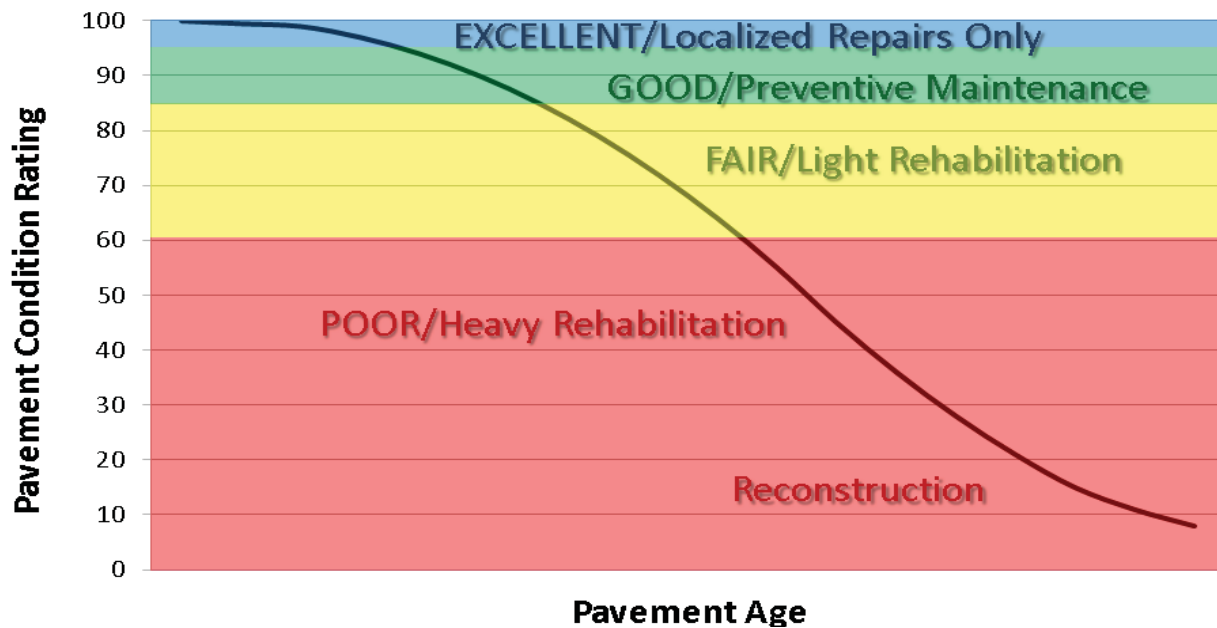
### Explanation of the Excellent, Good, Fair and Poor Condition Descriptions

In addition to the RIP Index changes that have been implemented in Cycle 5, we will also aim to provide greater assistance in translating excellent/good/fair/poor categories into pavement needs categories. The PCR can be used to indicate the place in the Pavement Life Cycle and the types of treatments that should be considered now and into the future.

- Excellent/New: PCR of 95-100. Pavements in this range will require only spot repairs
- Good: PCR of 85-94. Pavements in this range will likely be candidates for Preventive Maintenance. Examples include Chip and Slurry Seals, Micro Surfacing and Thin Overlays.
- Fair: PCR of 61-84. Pavements in this range will likely be candidates of Light Rehabilitation (L3R). Examples include single-lift overlays up to 2.5 inches in total thickness, milling and overlays.
- Poor: PCR of 0-60. Pavements in this range will likely be candidates of Heavy Rehabilitation or Reconstruction (H3R or 4R). Examples include Pulverization, Multiple Lift Overlays, and Reconstruction.

At this time, specific Maintenance and Rehabilitation activities should be evaluated and recommended at the project level. Site-specific conditions that influence treatment type should be determined based on performing a subsurface investigation and/or pavement condition survey, and not be based solely on RIP data. Additionally, RIP produces a snapshot of conditions the year in which the data was collected. For further information or to obtain additional Pavement Management System's data from our Highway Pavement Management Application (HPMA) please contact the Eastern Federal Lands pavement team.

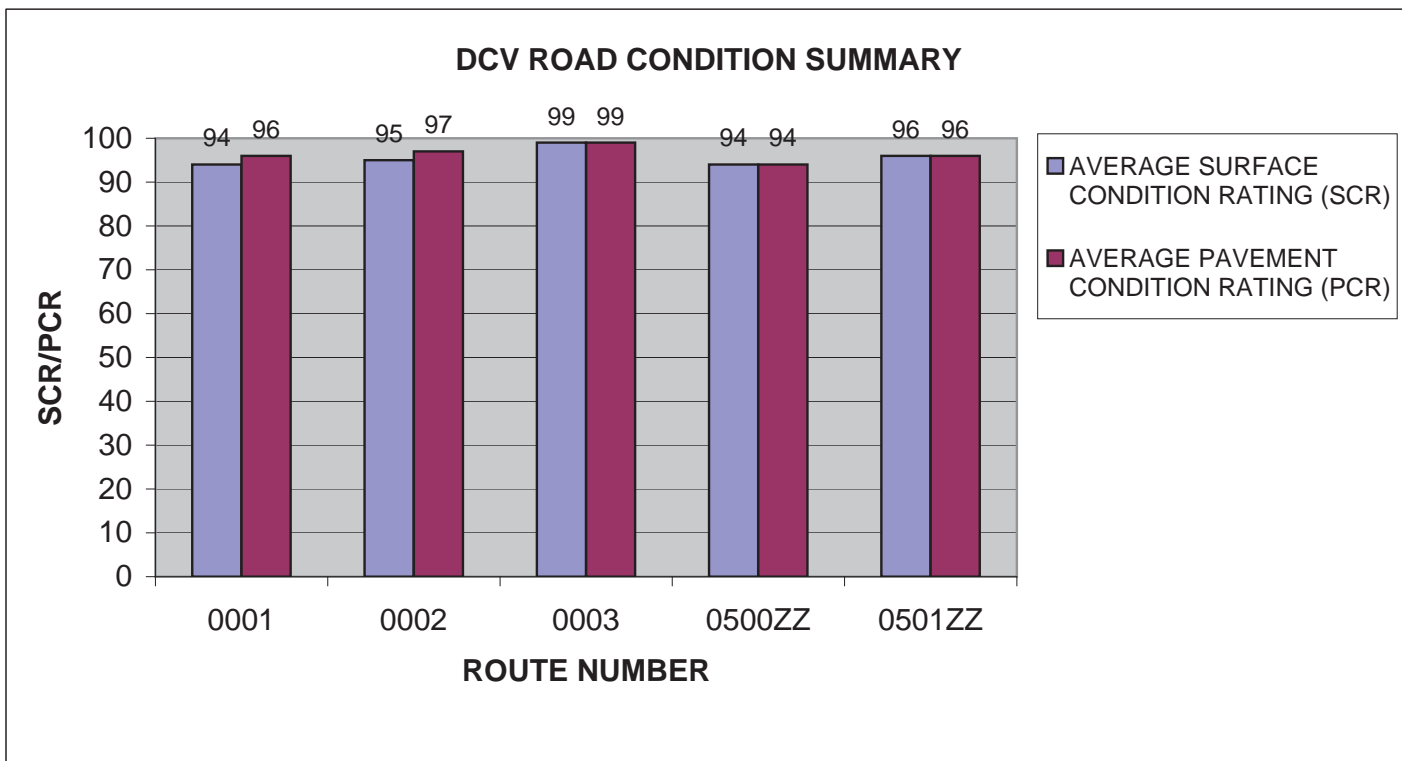
### Condition Categories and Treatments



# BAWA: DCV ROAD CONDITION SUMMARY

DCV - Data Collection Vehicle

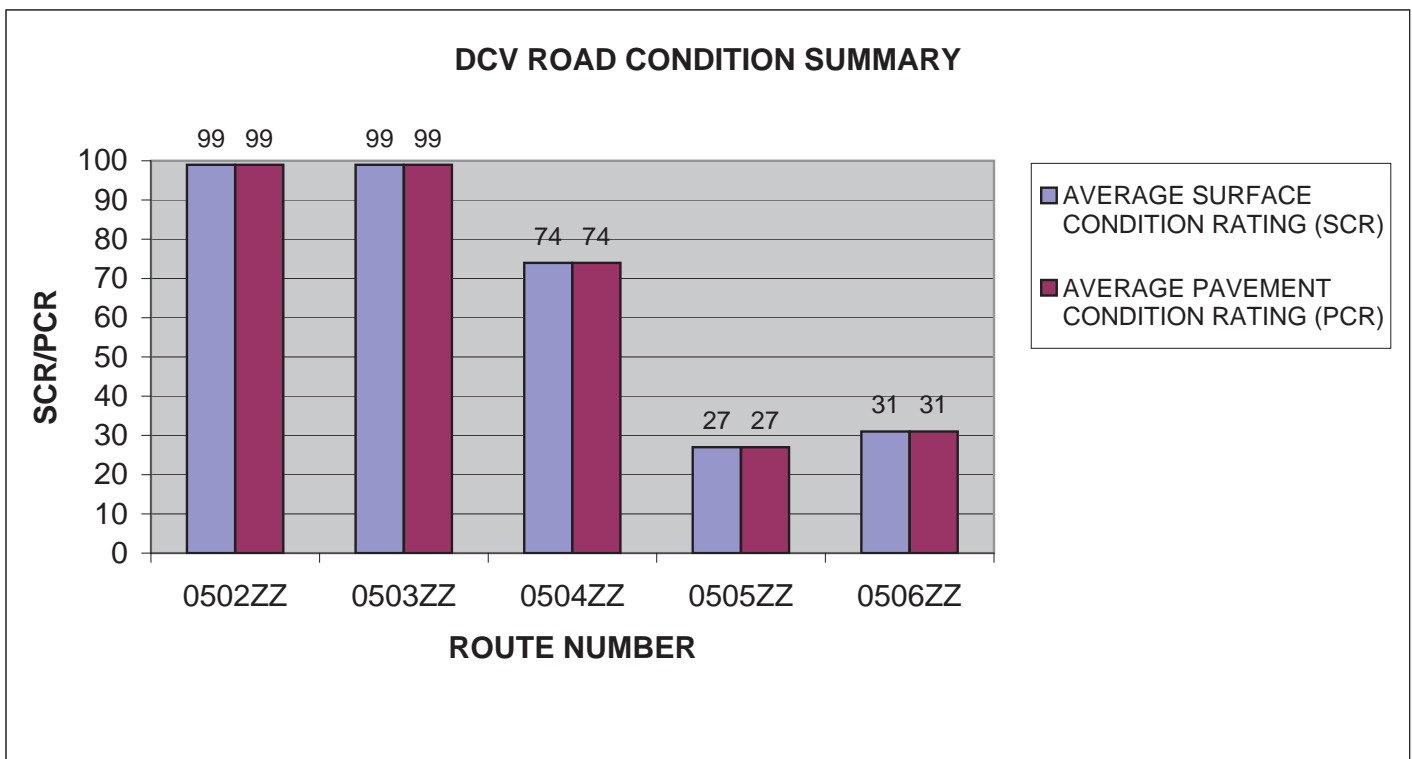
ROUTE NUMBER	ROUTE NAME	FUNCT CLASS	PAVED LENGTH	SURFACE TYPE	AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE PAVEMENT CONDITION RATING (PCR)
0001	BALTIMORE-WASHINGTON PARKWAY (NB)	7	18.67	ASPHALT	94	96
0002	BALTIMORE-WASHINGTON PARKWAY (SB)	7	18.62	ASPHALT	95	97
0003	SPRINGFIELD ROAD WEST	1	0.44	ASPHALT	99	99
0500ZZ	U.S. ROUTE 50, MD ROUTE 201 INTERCHANGE RAMPS	7	0.19	ASPHALT	94	94
0501ZZ	KENILWORTH AVENUE INTERCHANGE RAMPS	7	1.01	ASPHALT	96	96



# BAWA: DCV ROAD CONDITION SUMMARY

DCV - Data Collection Vehicle

ROUTE NUMBER	ROUTE NAME	FUNCT CLASS	PAVED LENGTH	SURFACE TYPE	AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE PAVEMENT CONDITION RATING (PCR)
0502ZZ	LANDOVER ROAD RAMPS (MD ROUTE 202 INTERCHANGE)	7	0.76	ASPHALT	99	99
0503ZZ	ANNAPOLIS ROAD RAMPS (MD ROUTE 450 INTERCHANGE)	7	0.96	ASPHALT	99	99
0504ZZ	RIVERDALE ROAD RAMPS (MD ROUTE 410 INTERCHANGE)	7	0.68	ASPHALT	74	74
0505ZZ	GREENBELT ROAD RAMPS (MD ROUTE 193 INTERCHANGE)	7	0.82	ASPHALT	27	27
0506ZZ	POWDER MILL ROAD RAMPS (MD ROUTE 212 INTERCHANGE)	7	0.88	ASPHALT	31	31

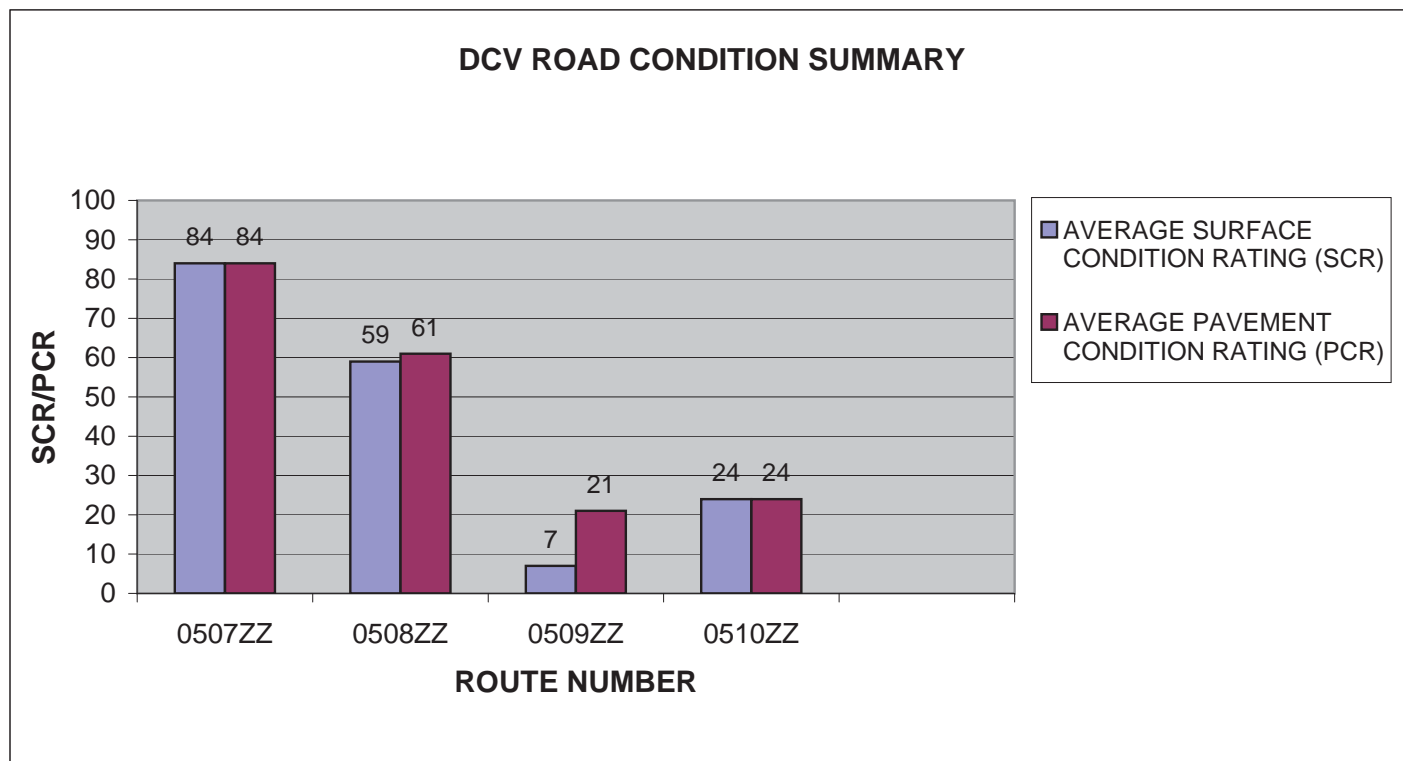




# BAWA: DCV ROAD CONDITION SUMMARY

DCV - Data Collection Vehicle

ROUTE NUMBER	ROUTE NAME	FUNCT CLASS	PAVED LENGTH	SURFACE TYPE	AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE PAVEMENT CONDITION RATING (PCR)
0507ZZ	LAUREL-BOWIE ROAD RAMPS (MD ROUTE 197 INTERCHANGE)	7	1.62	ASPHALT	84	84
0508ZZ	LAUREL FORT MEADE ROAD RAMPS (MD ROUTE 198 INTERCHANGE)	7	1.89	ASPHALT	59	61
0509ZZ	PATUXENT FREEWAY RAMPS (MD ROUTE 32 INTERCHANGE)	7	2.83	ASPHALT	7	21
0510ZZ	JESSUP ROAD INTERCHANGE RAMPS (MD ROUTE 175 INTERCHANGE)	7	0.49	ASPHALT	24	24



# Section 4

## Park Route Location Maps

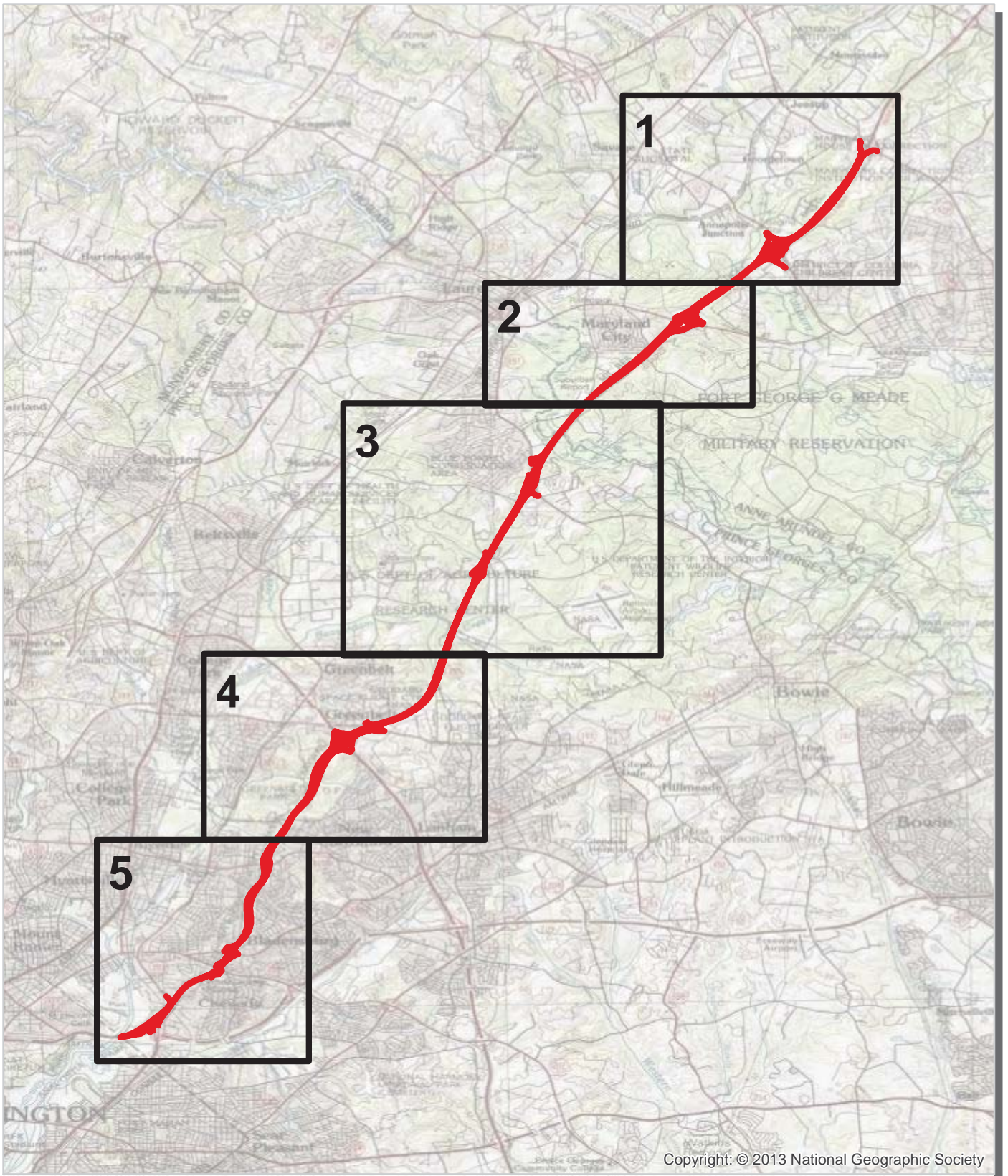


Baltimore-Washington Parkway

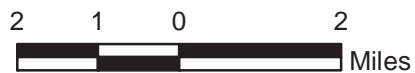


Federal Lands Highway  
Road Inventory Program

# Baltimore-Washington Parkway Route Location Map Key Map

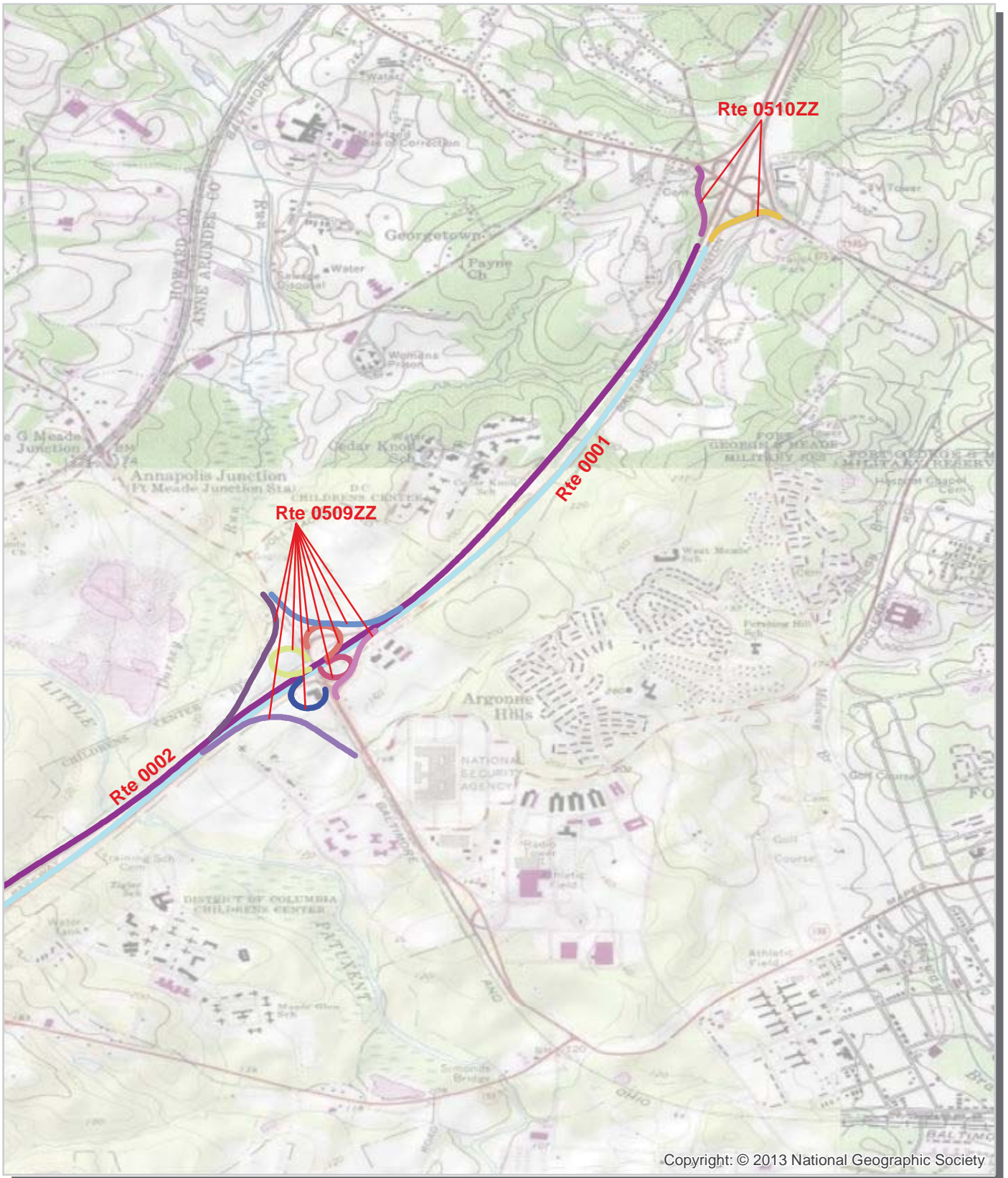


 Cycle 5 Collected Routes  
 Routes Collected in Previous Cycle



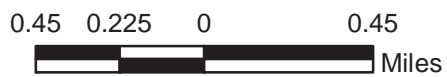


# Baltimore-Washington Parkway Route Location Map Area 1

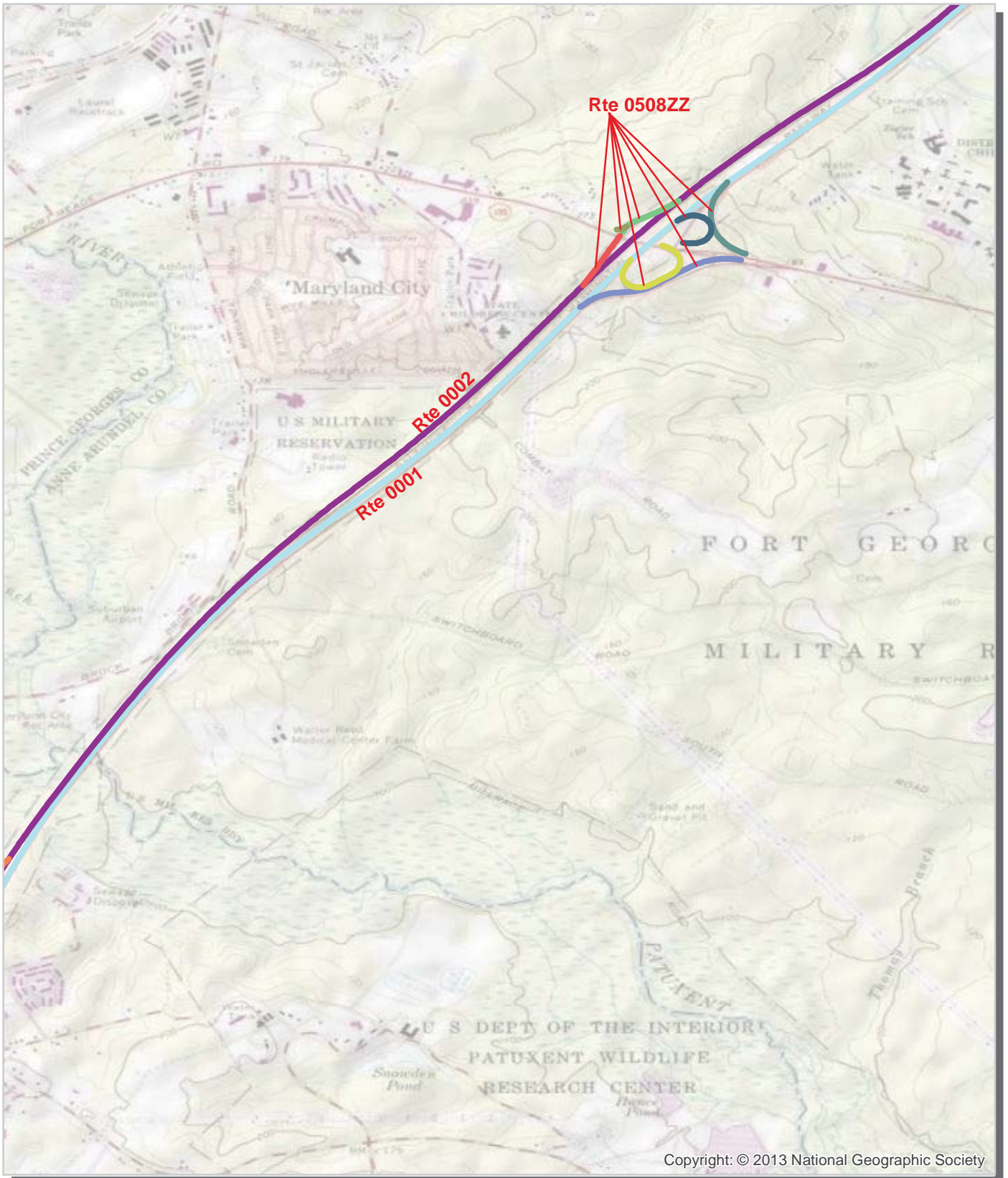


Unique colors used to differentiate routes

— Routes Collected in Previous Cycle

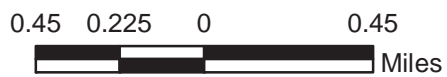


# Baltimore-Washington Parkway Route Location Map Area 2



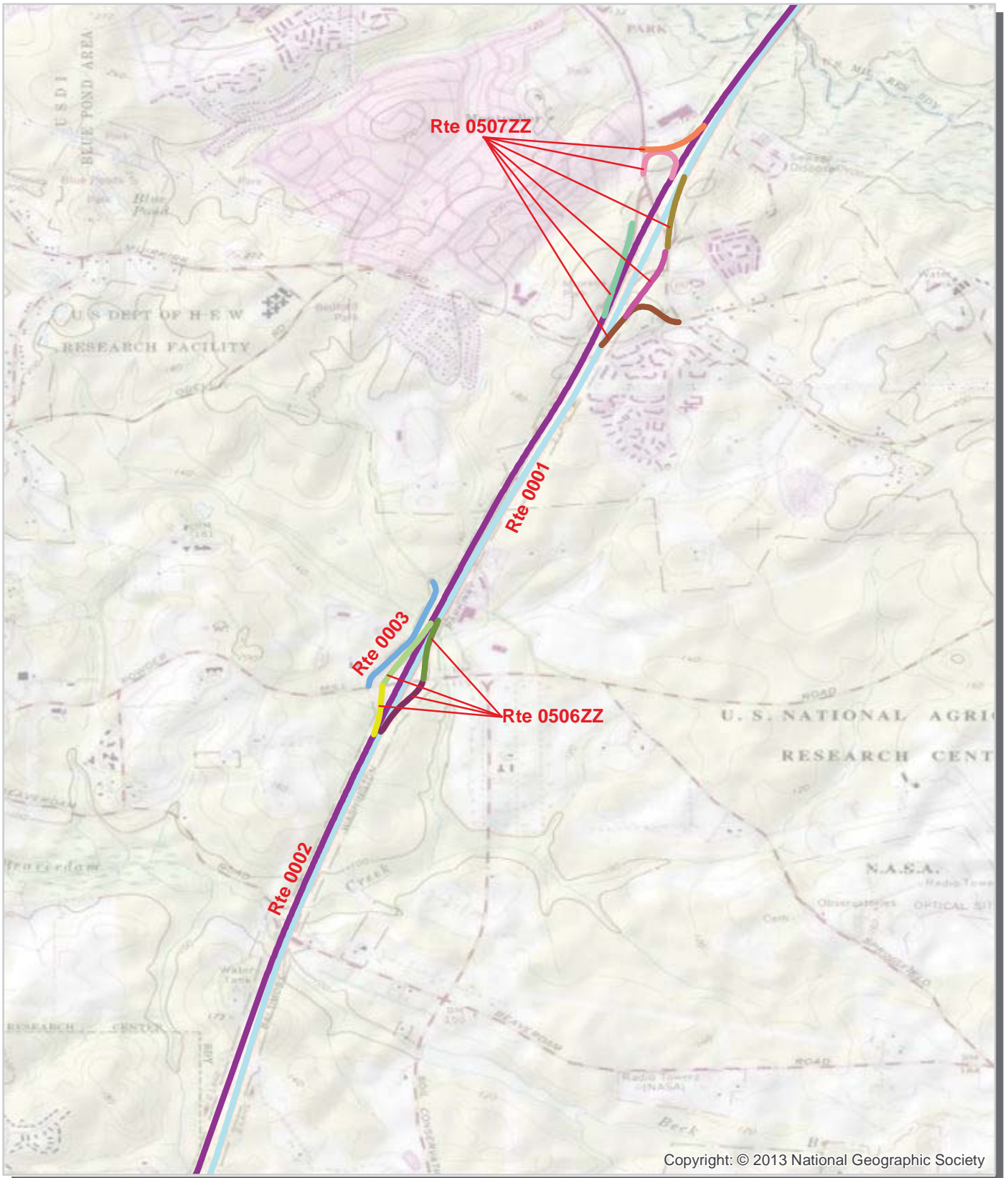
Unique colors used to differentiate routes

— Routes Collected in Previous Cycle



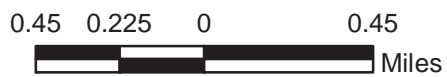


# Baltimore-Washington Parkway Route Location Map Area 3



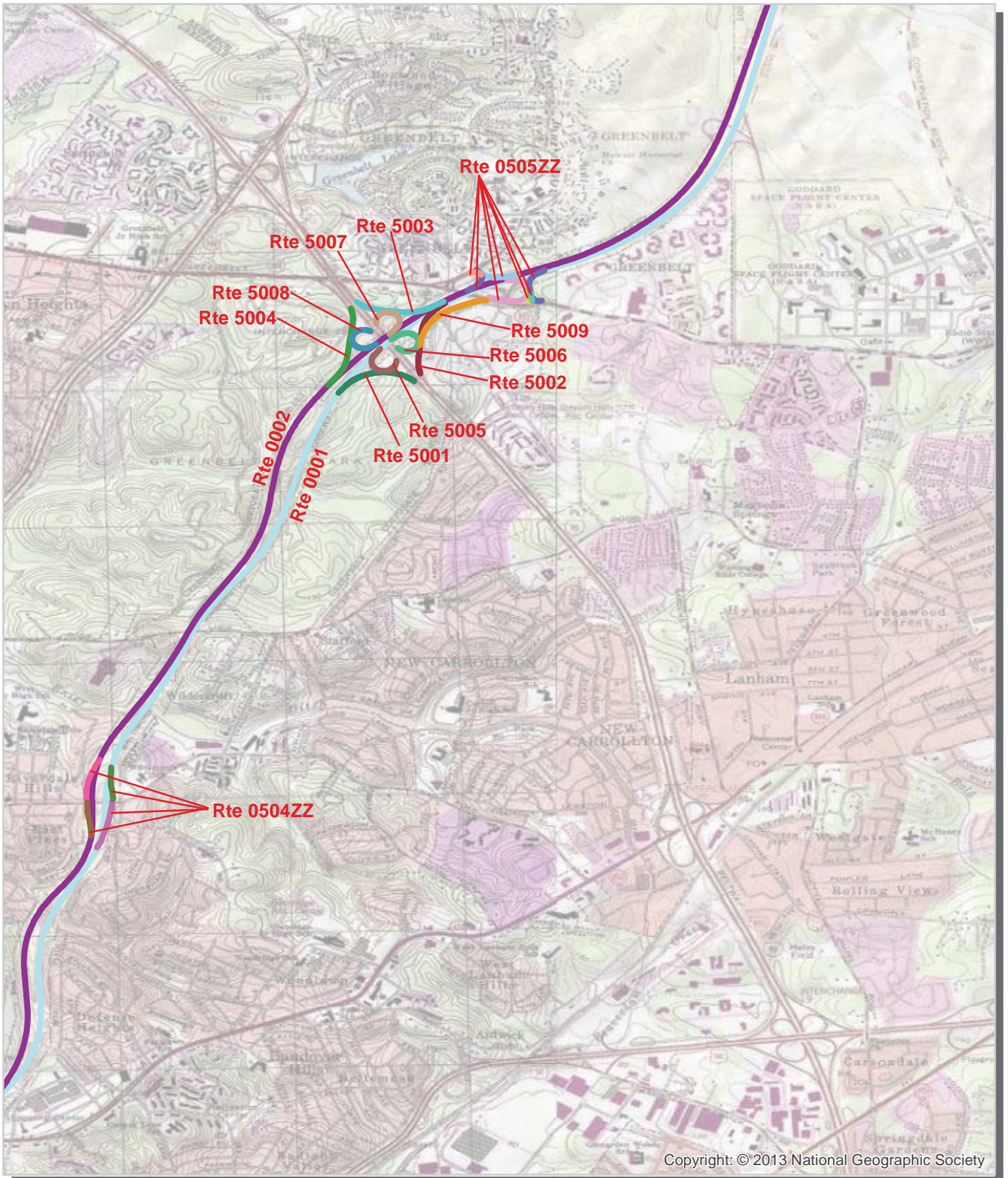
Unique colors used to differentiate routes

— Routes Collected in Previous Cycle





# Baltimore-Washington Parkway Route Location Map Area 4



Unique colors used to differentiate routes

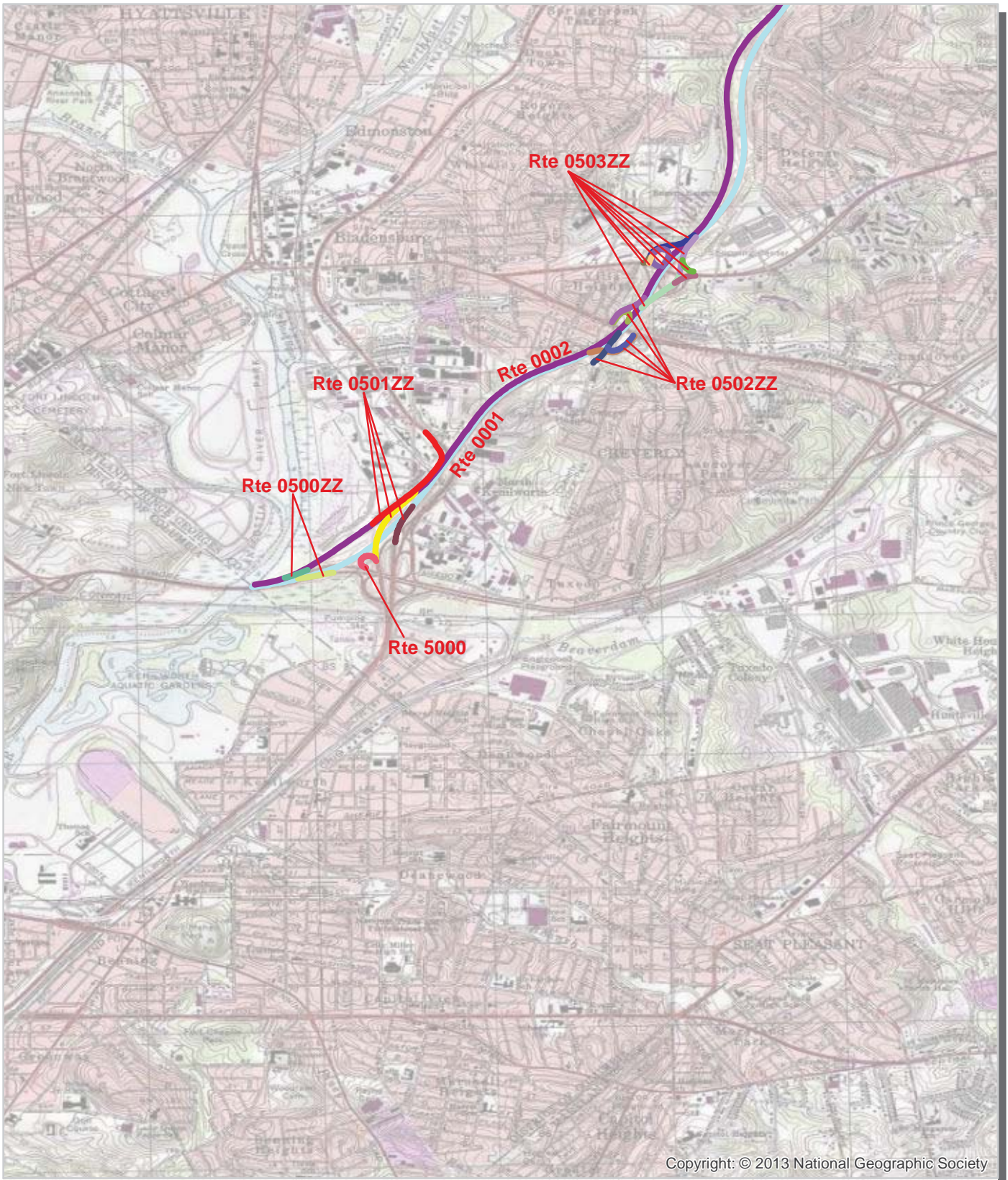
— Routes Collected in Previous Cycle

0.55 0.275 0 0.55  
Miles



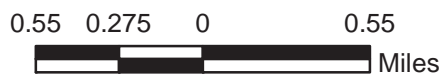


# Baltimore-Washington Parkway Route Location Map Area 5



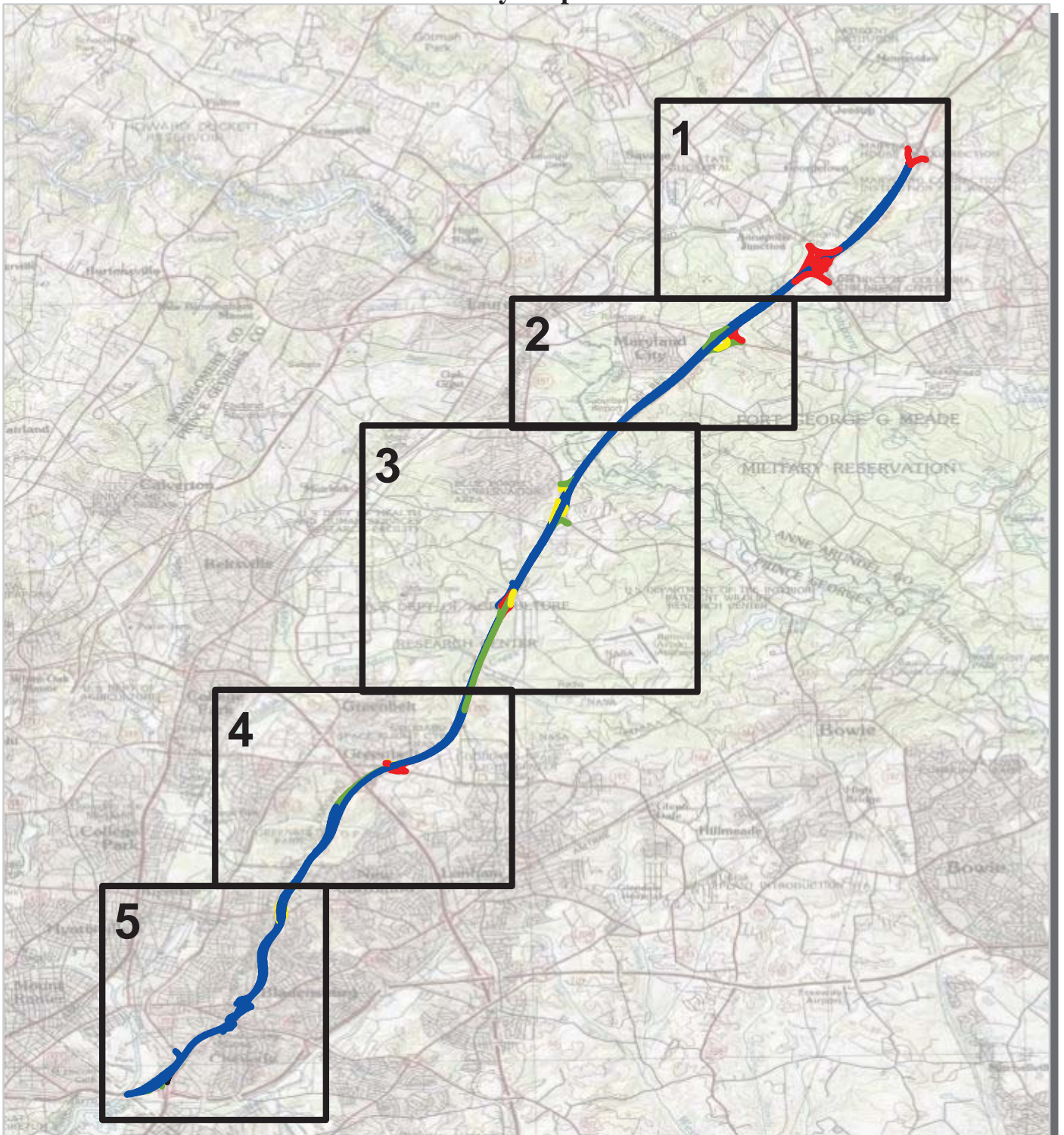
Unique colors used to differentiate routes

— Routes Collected in Previous Cycle





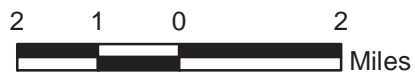
# Baltimore-Washington Parkway Route Condition Map PCR - Mile by Mile Key Map



PCR	Poor	Fair	Good	Excellent	No Data
	(0 - 60)	(61 - 84)	(85 - 94)	(95 - 100)	

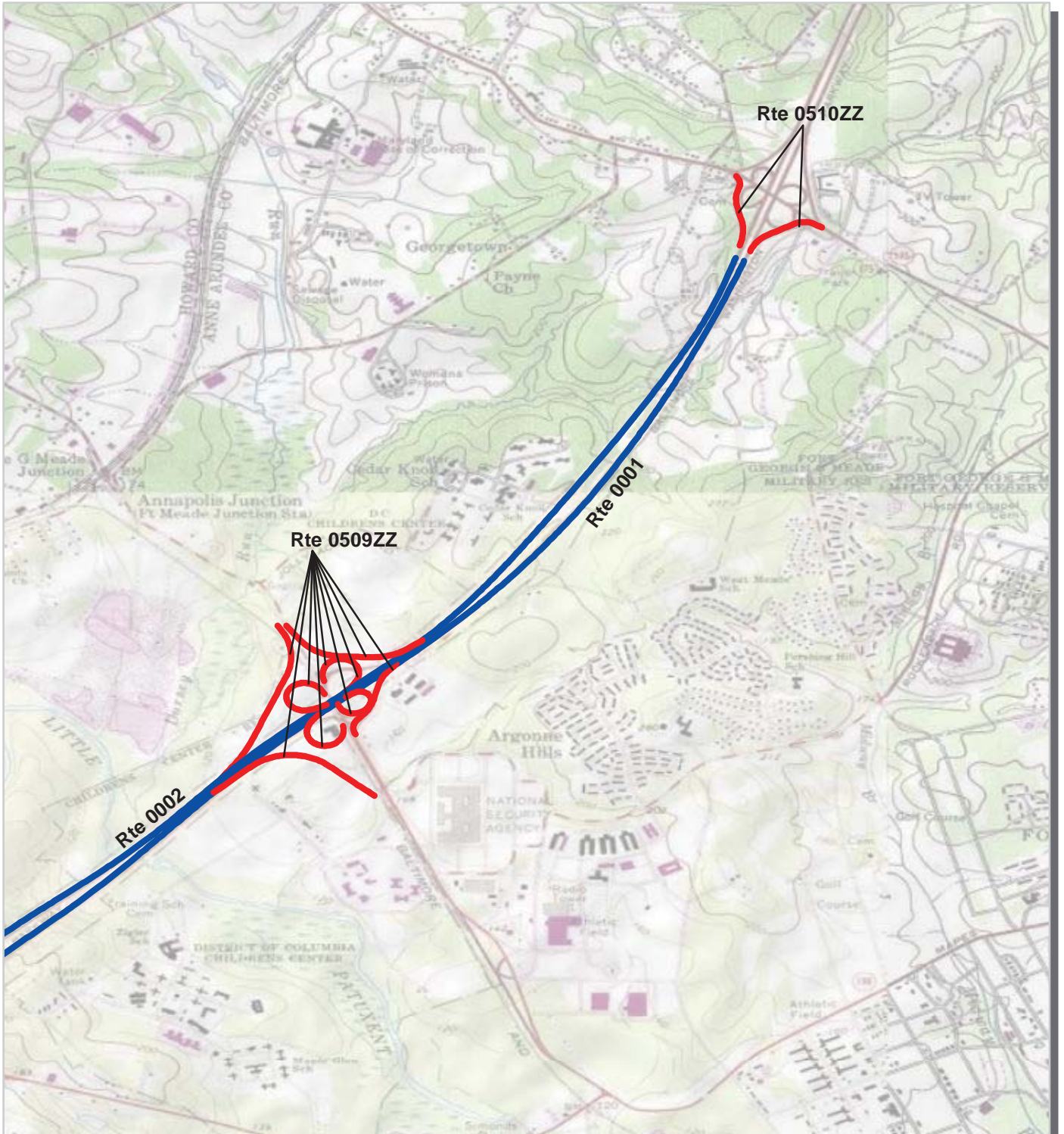
\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

Note: Only routes collected by the DCV in Cycle-5 are displayed.





# Baltimore-Washington Parkway Route Condition Map PCR - Mile by Mile Area 1

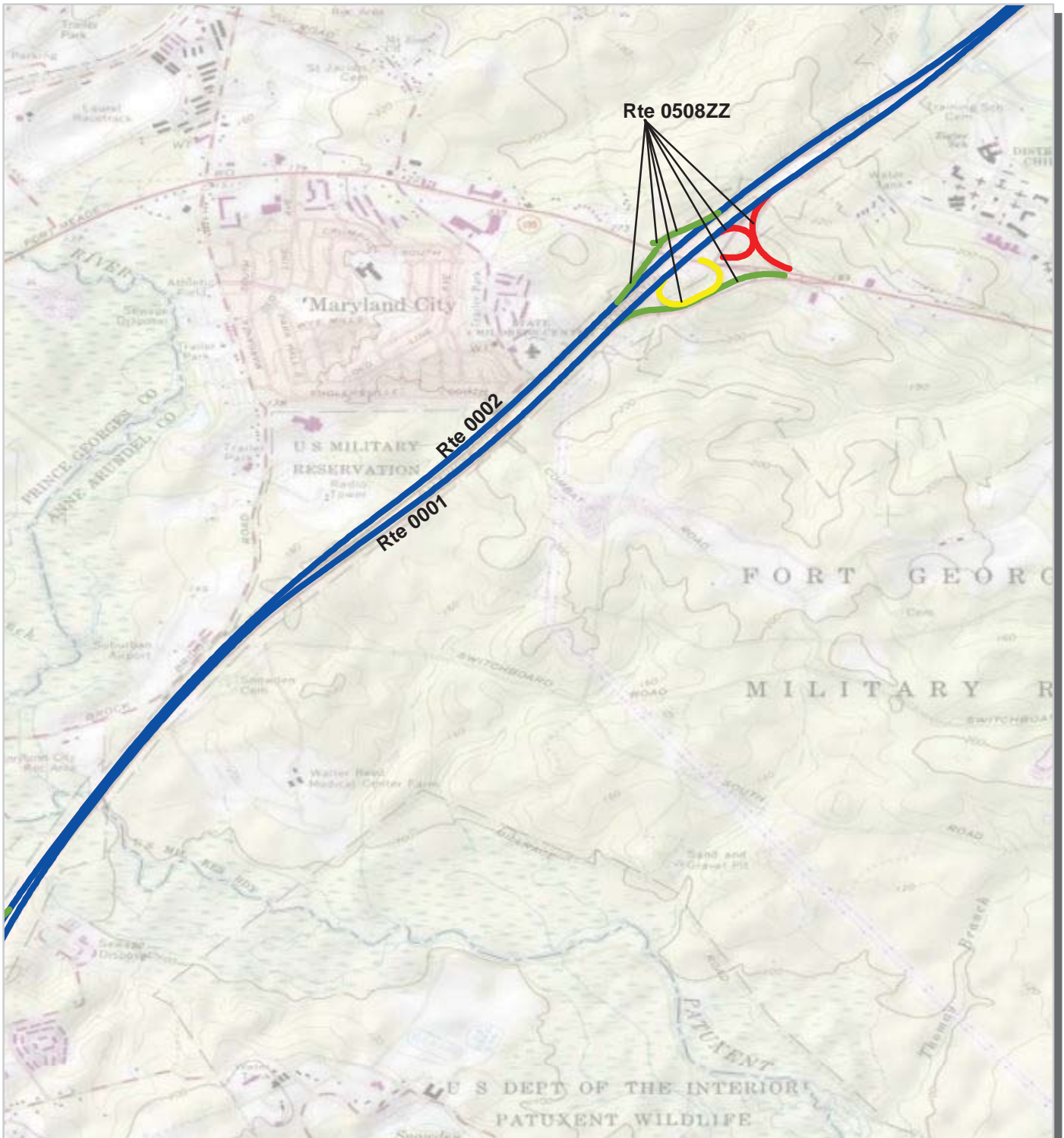


PCR	Poor	Fair	Good	Excellent	No Data
	(0 - 60)	(61 - 84)	(85 - 94)	(95 - 100)	

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

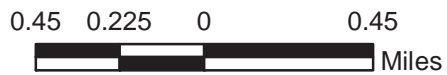


# Baltimore-Washington Parkway Route Condition Map PCR - Mile by Mile Area 2



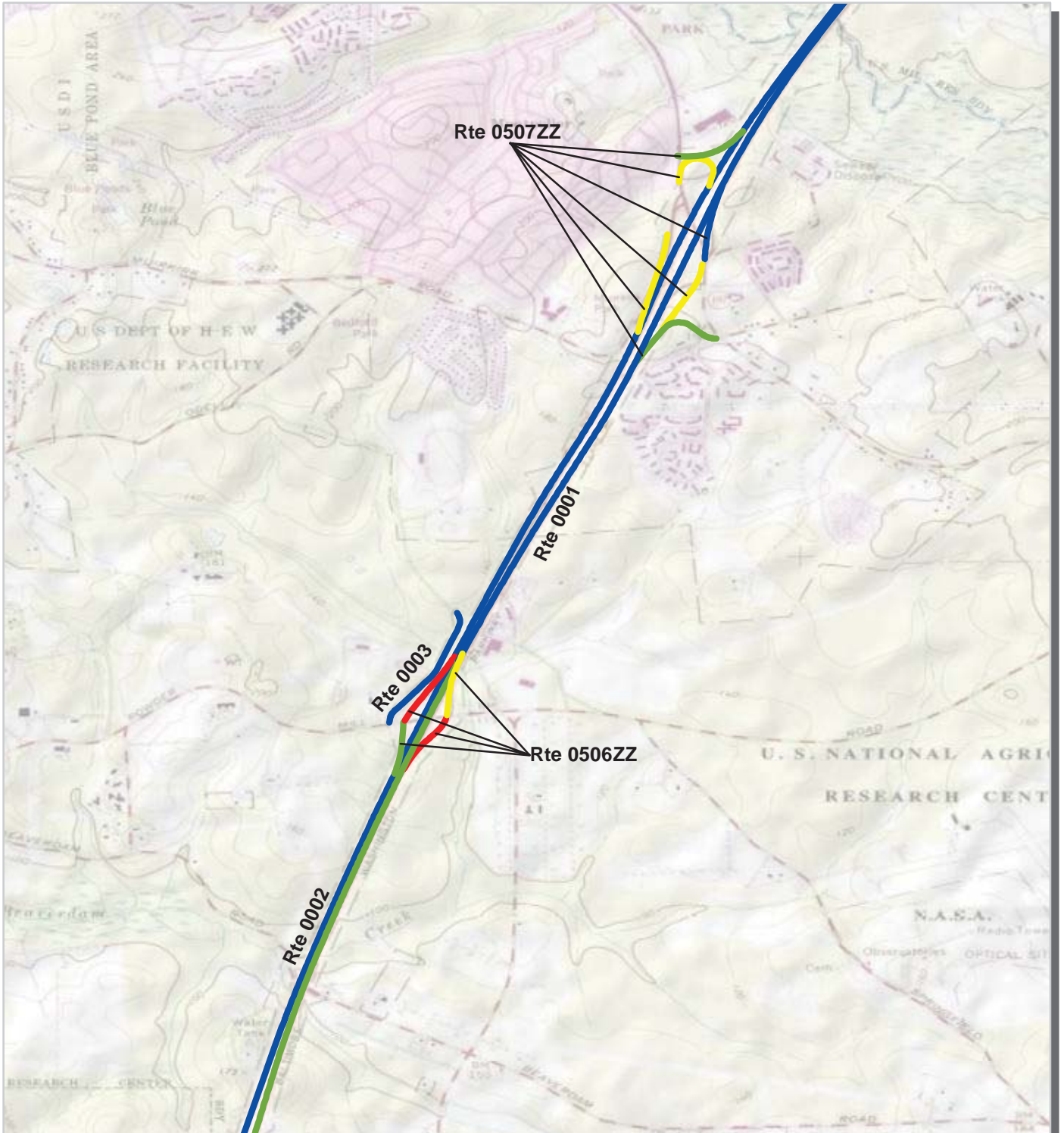
PCR	Poor	Fair	Good	Excellent	No Data
	(0 - 60)	(61 - 84)	(85 - 94)	(95 - 100)	

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.



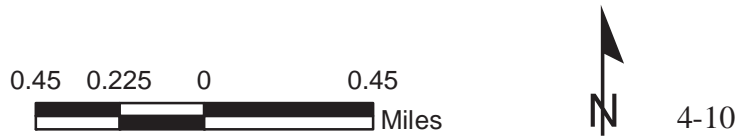


# Baltimore-Washington Parkway Route Condition Map PCR - Mile by Mile Area 3



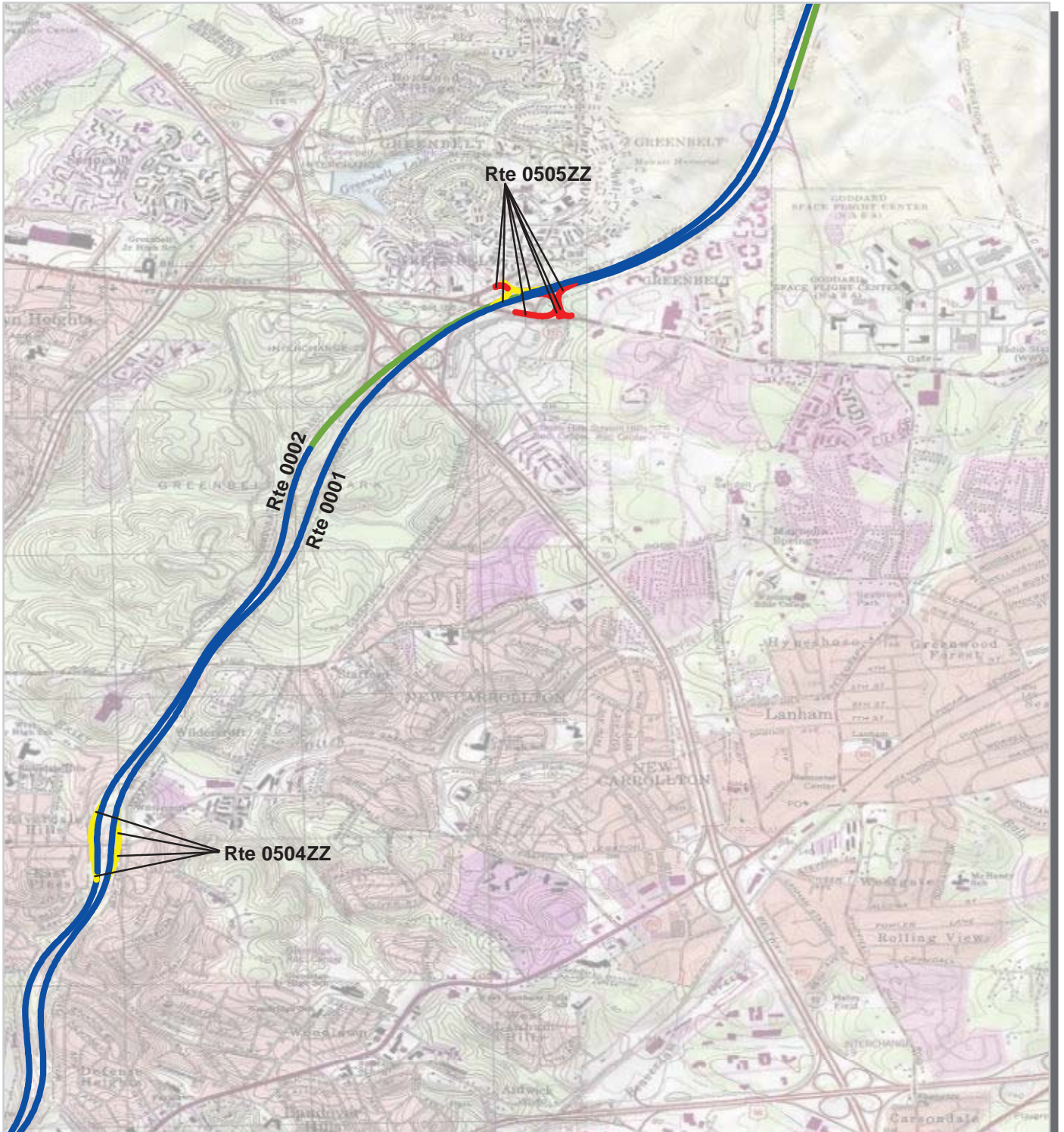
PCR	Poor	<span style="display: inline-block; width: 20px; height: 10px; background-color: red; border: 1px solid black;"></span>	Fair	<span style="display: inline-block; width: 20px; height: 10px; background-color: yellow; border: 1px solid black;"></span>	Good	<span style="display: inline-block; width: 20px; height: 10px; background-color: green; border: 1px solid black;"></span>	Excellent	<span style="display: inline-block; width: 20px; height: 10px; background-color: blue; border: 1px solid black;"></span>	No Data	<span style="display: inline-block; width: 20px; height: 10px; background-color: black; border: 1px solid black;"></span>
	(0 - 60)		(61 - 84)	(85 - 94)	(95 - 100)					

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.



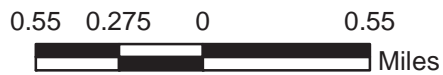


# Baltimore-Washington Parkway Route Condition Map PCR - Mile by Mile Area 4



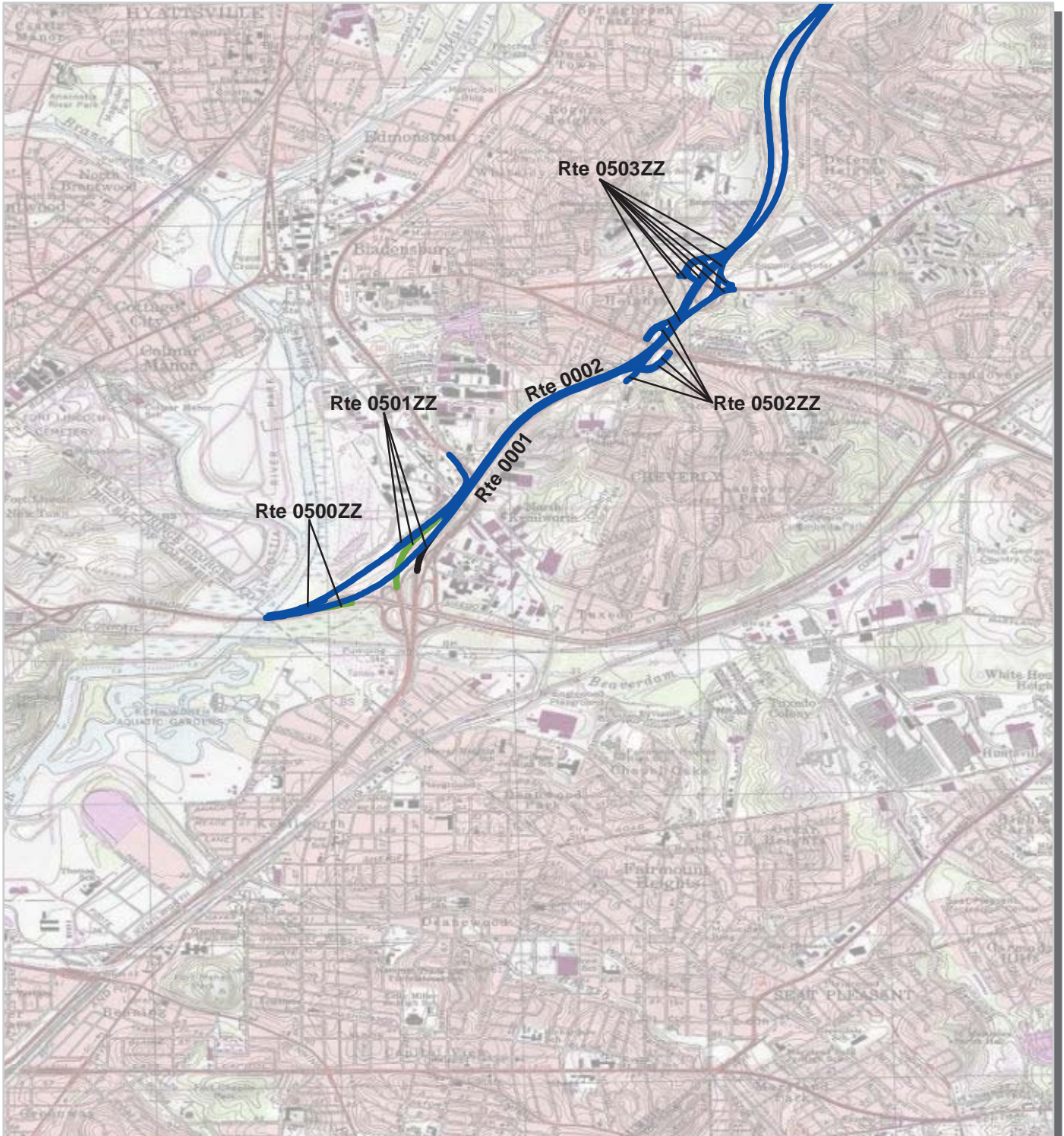
PCR	Poor	Fair	Good	Excellent	No Data
	(0 - 60)	(61 - 84)	(85 - 94)	(95 - 100)	

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.



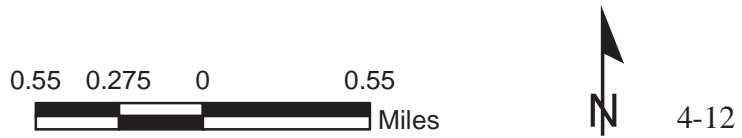


# Baltimore-Washington Parkway Route Condition Map PCR - Mile by Mile Area 5



PCR	Poor	<span style="display: inline-block; width: 20px; height: 10px; background-color: red; border: 1px solid black;"></span>	Fair	<span style="display: inline-block; width: 20px; height: 10px; background-color: yellow; border: 1px solid black;"></span>	Good	<span style="display: inline-block; width: 20px; height: 10px; background-color: green; border: 1px solid black;"></span>	Excellent	<span style="display: inline-block; width: 20px; height: 10px; background-color: blue; border: 1px solid black;"></span>	No Data	<span style="display: inline-block; width: 20px; height: 10px; background-color: black; border: 1px solid black;"></span>
	(0 - 60)		(61 - 84)	(85 - 94)		(95 - 100)				

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.





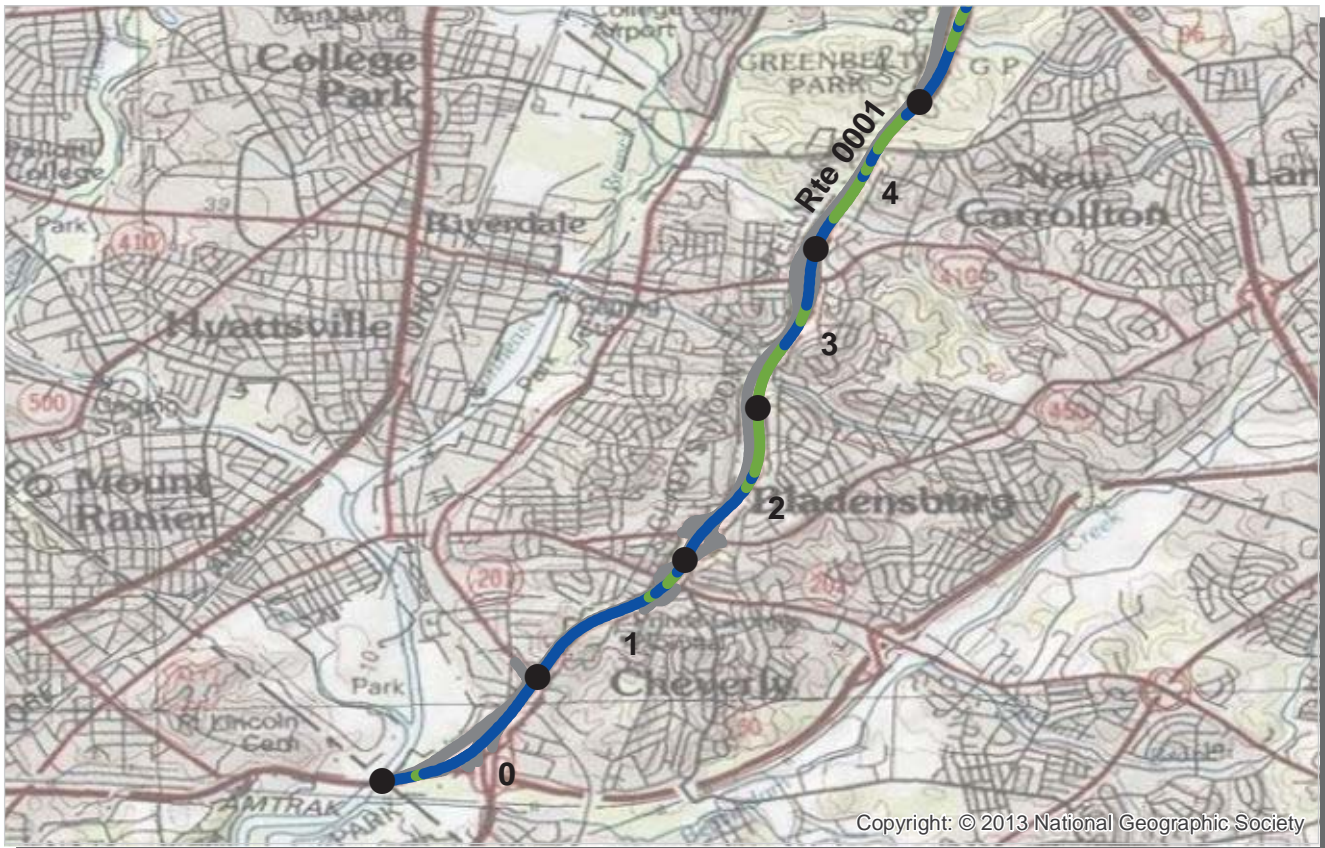
# Section 5 Paved Route Condition Rating Sheets



Baltimore-Washington Parkway



Federal Lands Highway  
Road Inventory Program



PCR Poor (0 - 60) Fair (61 - 84) Good (85 - 94) Excellent (95 - 100) No Data

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

**ROUTE: 0001 BALTIMORE-WASHINGTON PARKWAY (NB)**  
**BAWA : BALTIMORE-WASHINGTON PARKWAY**

**COLLECTED: 2/14/2013**  
**TOTAL LENGTH: 18.67 Miles**

**NATIONAL CAPITAL REGION**

Section Number	0	1	2	3	4
Section Length (mi)	1.00	1.00	1.00	1.00	1.00
<b>Cross Section Information</b>					
Number of Lanes	2	3	2	2	2
Paved Width (ft)	40	48	38	35	34
Lane Width (ft)	12	12	14	12	13
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	99	97	93	92	93
PCR (Pavement Condition Rating)	99	98	96	95	96
<b>Distress Index Values</b>					
Structural Crack Index	99	97	98	99	98
Transverse Cracking Index	100	100	93	92	93
Patching Index	100	100	100	100	100
Rutting Index	100	100	98	97	95
Roughness Condition Index (RCI)	100	100	100	100	100

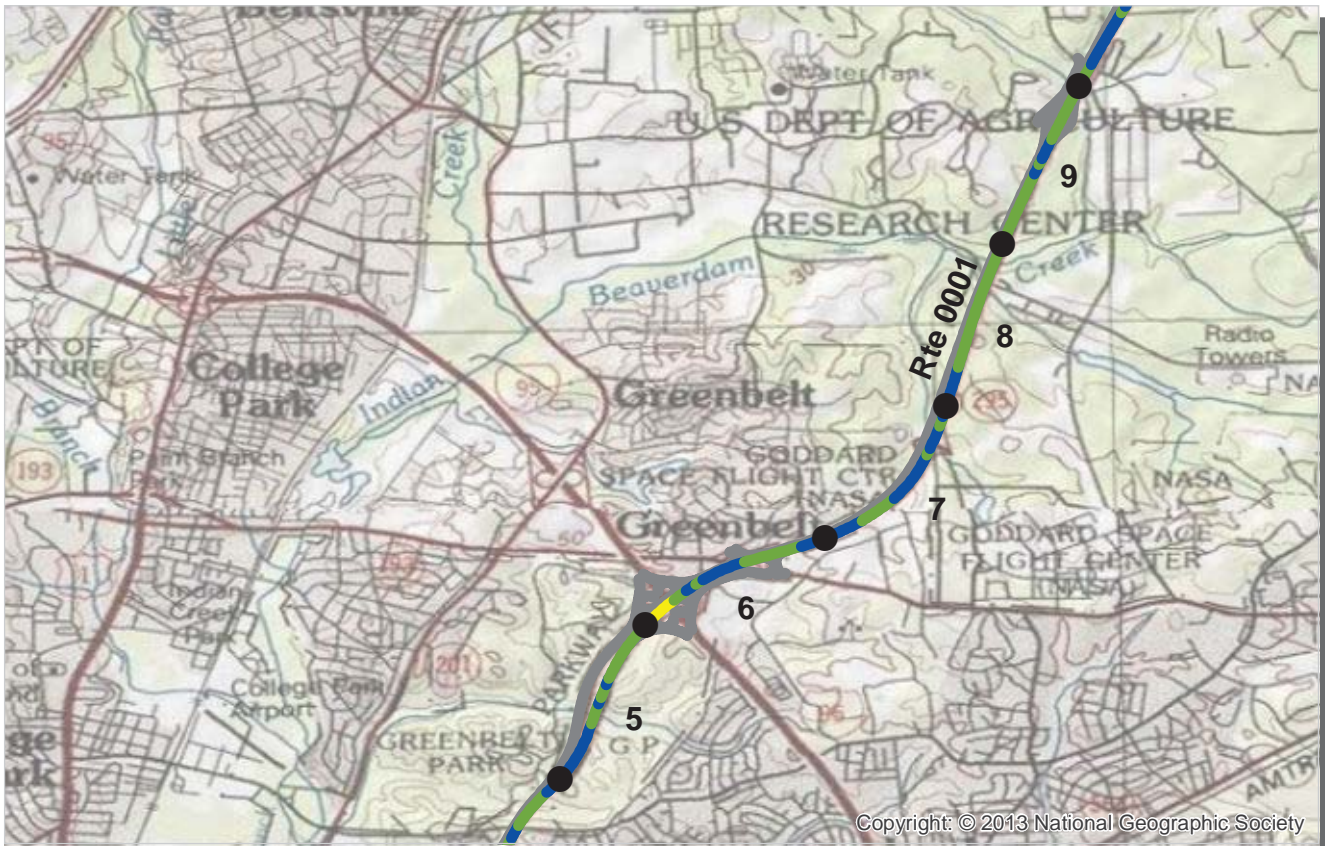
**NOTES:**

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.  
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.  
 NC - Not Collected N/A - Not Applicable



**ROUTE: 0001 BALTIMORE-WASHINGTON PARKWAY (NB)**





PCR    Poor ■    Fair ■    Good ■    Excellent ■    No Data ■  
           (0 - 60)           (61 - 84)           (85 - 94)           (95 - 100)

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

**ROUTE: 0001 BALTIMORE-WASHINGTON PARKWAY (NB)**  
**BAWA : BALTIMORE-WASHINGTON PARKWAY**

**COLLECTED: 2/14/2013**  
**TOTAL LENGTH: 18.67 Miles**

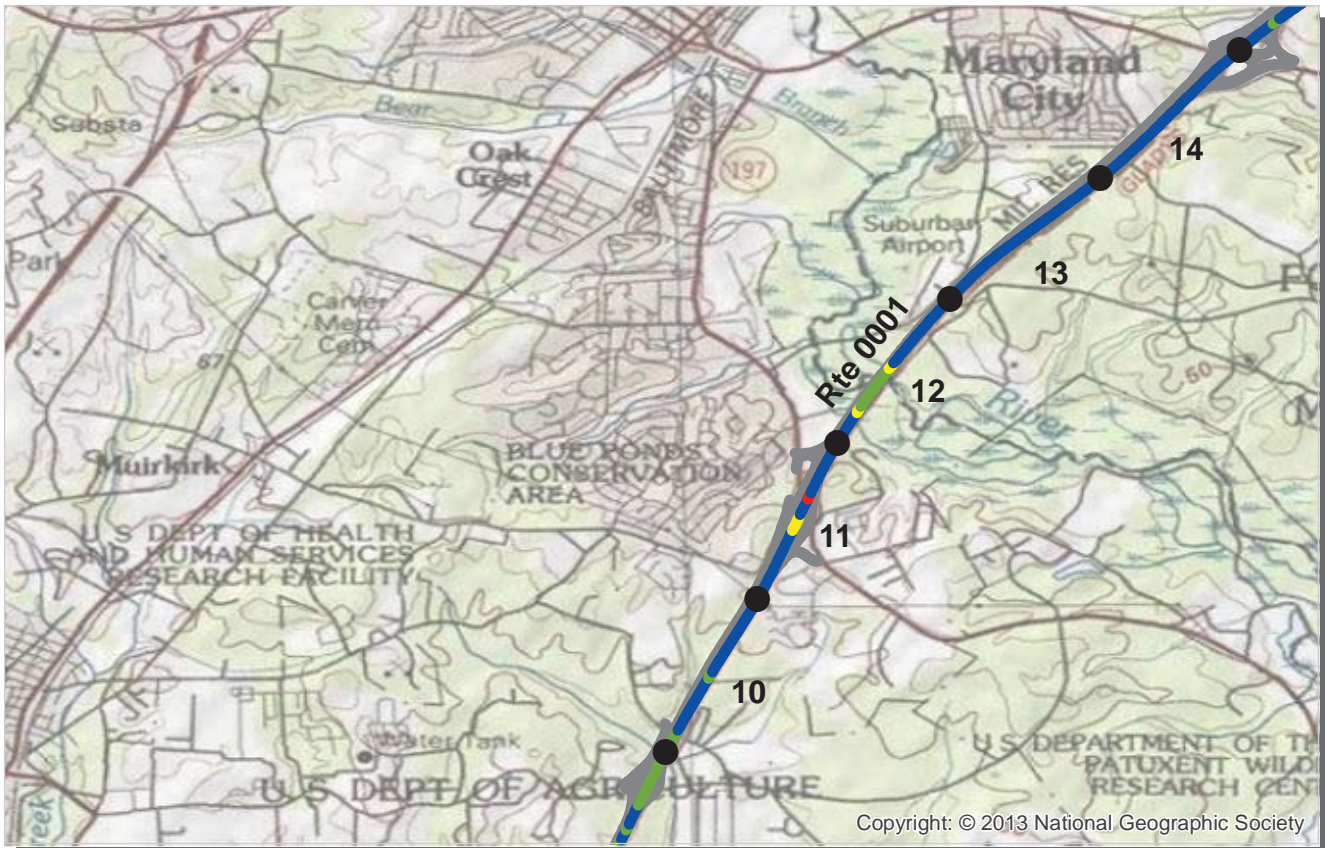
**NATIONAL CAPITAL REGION**

<i>Section Number</i>	5	6	7	8	9
<i>Section Length (mi)</i>	1.00	1.00	1.00	1.00	1.00
<i>Cross Section Information</i>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	34	42	35	33	34
Lane Width (ft)	12	13	12	13	12
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	91	93	93	90	90
PCR (Pavement Condition Rating)	95	96	96	94	94
<i>Distress Index Values</i>					
Structural Crack Index	98	96	100	100	98
Transverse Cracking Index	91	96	98	99	98
Patching Index	100	100	100	100	100
Rutting Index	96	93	93	90	90
Roughness Condition Index (RCI)	100	100	100	100	100

NOTES:  
 Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.  
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.  
 NC - Not Collected    N/A - Not Applicable



**ROUTE: 0001 BALTIMORE-WASHINGTON PARKWAY (NB)**



PCR    Poor ■    Fair ■    Good ■    Excellent ■    No Data ■  
           (0 - 60)           (61 - 84)           (85 - 94)           (95 - 100)

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

**ROUTE: 0001 BALTIMORE-WASHINGTON PARKWAY (NB)**  
**BAWA : BALTIMORE-WASHINGTON PARKWAY**

**COLLECTED: 2/14/2013**  
**TOTAL LENGTH: 18.67 Miles**

**NATIONAL CAPITAL REGION**

<i>Section Number</i>	10	11	12	13	14
<i>Section Length (mi)</i>	1.00	1.00	1.00	1.00	1.00
<i>Cross Section Information</i>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	39	37	33	32	35
Lane Width (ft)	13	13	12	12	12
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	97	96	95	97	97
PCR (Pavement Condition Rating)	98	98	97	98	98
<i>Distress Index Values</i>					
Structural Crack Index	97	100	99	99	99
Transverse Cracking Index	97	98	95	98	98
Patching Index	100	100	100	100	100
Rutting Index	97	96	97	97	97
Roughness Condition Index (RCI)	100	100	100	100	100

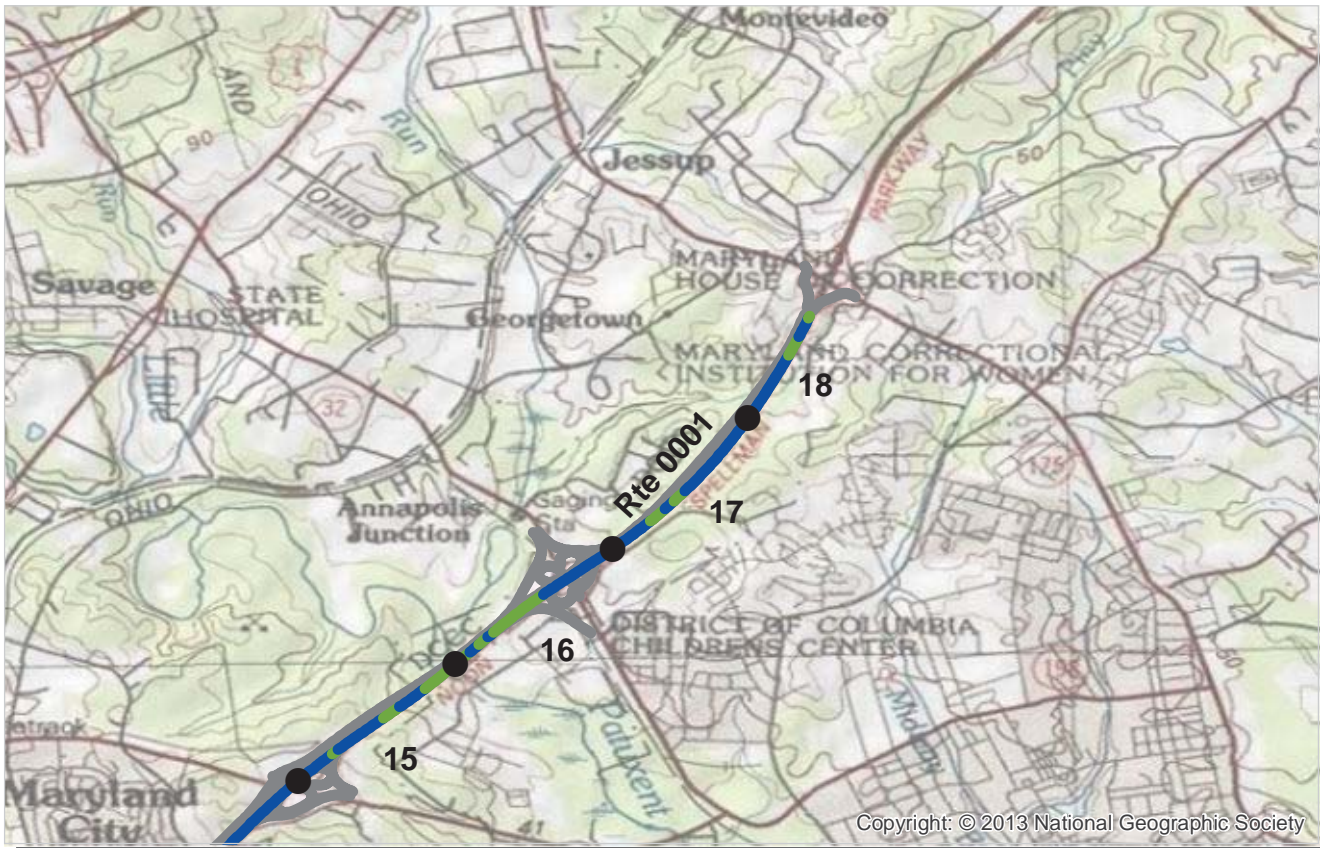
**NOTES:**

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.  
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.  
 NC - Not Collected    N/A - Not Applicable



**ROUTE: 0001 BALTIMORE-WASHINGTON PARKWAY (NB)**





PCR    Poor ■    Fair ■    Good ■    Excellent ■    No Data ■  
 (0 - 60)    (61 - 84)    (85 - 94)    (95 - 100)

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

**ROUTE: 0001 BALTIMORE-WASHINGTON PARKWAY (NB)**  
**BAWA : BALTIMORE-WASHINGTON PARKWAY**

**COLLECTED: 2/14/2013**  
**TOTAL LENGTH: 18.67 Miles**

**NATIONAL CAPITAL REGION**

Section Number	15	16	17	18
Section Length (mi)	1.00	1.00	1.00	0.67
<b>Cross Section Information</b>				
Number of Lanes	2	2	2	2
Paved Width (ft)	38	40	35	33
Lane Width (ft)	13	12	14	12
<b>Roadway Condition Information</b>				
SCR (Surface Condition Rating)	93	92	97	94
PCR (Pavement Condition Rating)	96	95	98	96
<b>Distress Index Values</b>				
Structural Crack Index	100	99	98	100
Transverse Cracking Index	98	98	100	97
Patching Index	100	100	100	100
Rutting Index	93	92	97	94
Roughness Condition Index (RCI)	100	100	100	100

**ROUTE: 0001 BALTIMORE-WASHINGTON PARKWAY (NB)**

**NOTES:**

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.  
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.  
 NC - Not Collected    N/A - Not Applicable



PCR    Poor ■    Fair ■    Good ■    Excellent ■    No Data ■  
           (0 - 60)           (61 - 84)           (85 - 94)           (95 - 100)

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

**ROUTE: 0002 BALTIMORE-WASHINGTON PARKWAY (SB)**  
**BAWA : BALTIMORE-WASHINGTON PARKWAY**

**COLLECTED: 2/14/2013**  
**TOTAL LENGTH: 18.62 Miles**

**NATIONAL CAPITAL REGION**

<i>Section Number</i>	0	1	2	3	4
<i>Section Length (mi)</i>	1.00	1.00	1.00	1.00	1.00
<i>Cross Section Information</i>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	33	38	37	33	34
Lane Width (ft)	13	12	13	12	13
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	96	94	94	97	98
PCR (Pavement Condition Rating)	98	96	96	98	99
<i>Distress Index Values</i>					
Structural Crack Index	99	99	99	98	99
Transverse Cracking Index	98	98	97	98	98
Patching Index	100	100	100	100	100
Rutting Index	96	94	94	97	98
Roughness Condition Index (RCI)	100	100	100	100	100

**NOTES:**

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.

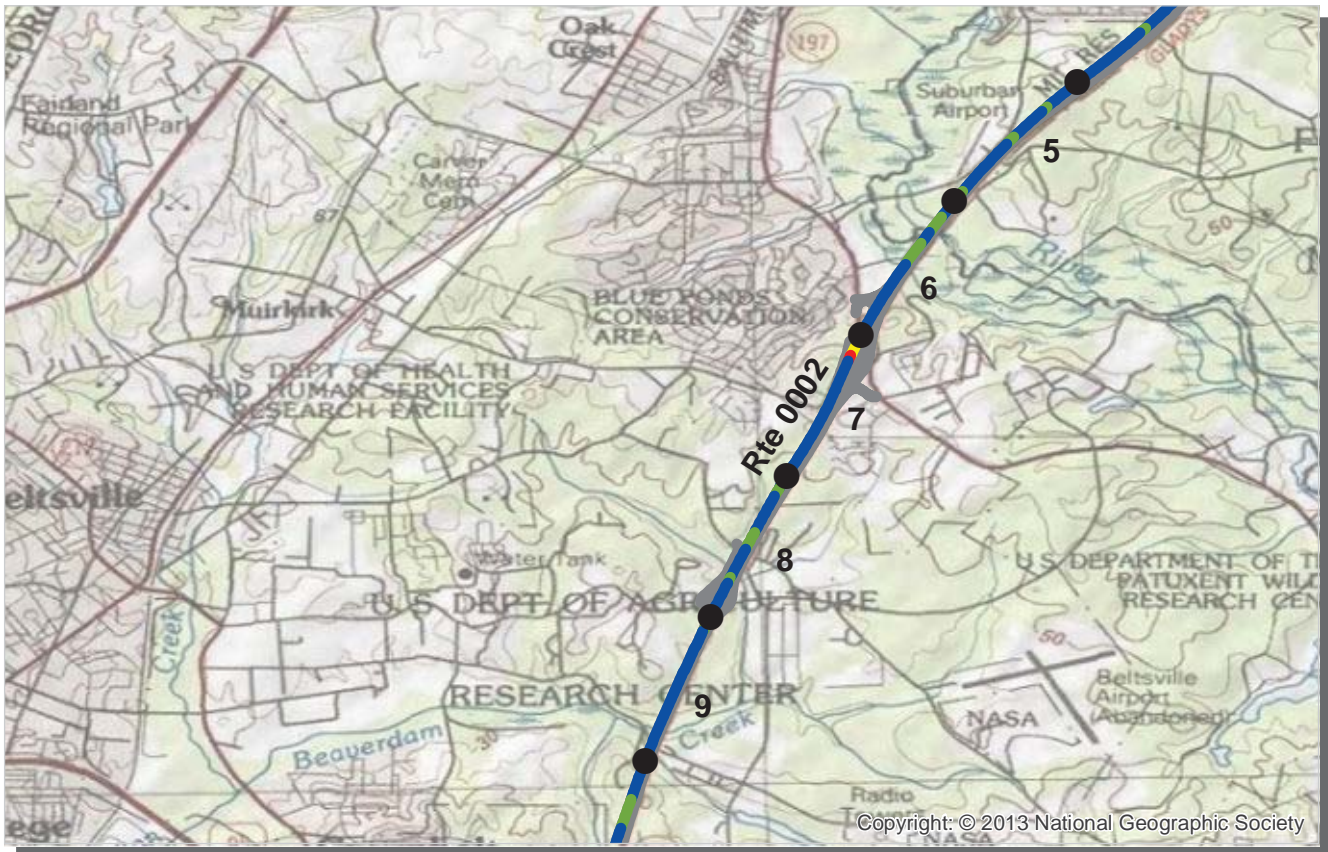
See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected    N/A - Not Applicable



**ROUTE: 0002 BALTIMORE-WASHINGTON PARKWAY (SB)**





PCR    Poor ■    Fair ■    Good ■    Excellent ■    No Data ■  
 (0 - 60)    (61 - 84)    (85 - 94)    (95 - 100)

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

**ROUTE: 0002 BALTIMORE-WASHINGTON PARKWAY (SB)**  
**BAWA : BALTIMORE-WASHINGTON PARKWAY**

**COLLECTED: 2/14/2013**  
**TOTAL LENGTH: 18.62 Miles**

**NATIONAL CAPITAL REGION**

Section Number	5	6	7	8	9
Section Length (mi)	1.00	1.00	1.00	1.00	1.00
<b>Cross Section Information</b>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	32	38	35	34	34
Lane Width (ft)	12	12	14	12	13
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	97	96	97	94	93
PCR (Pavement Condition Rating)	98	98	98	96	96
<b>Distress Index Values</b>					
Structural Crack Index	98	99	99	100	100
Transverse Cracking Index	97	96	97	97	99
Patching Index	100	100	100	100	100
Rutting Index	97	97	99	94	93
Roughness Condition Index (RCI)	100	100	100	100	100

**NOTES:**

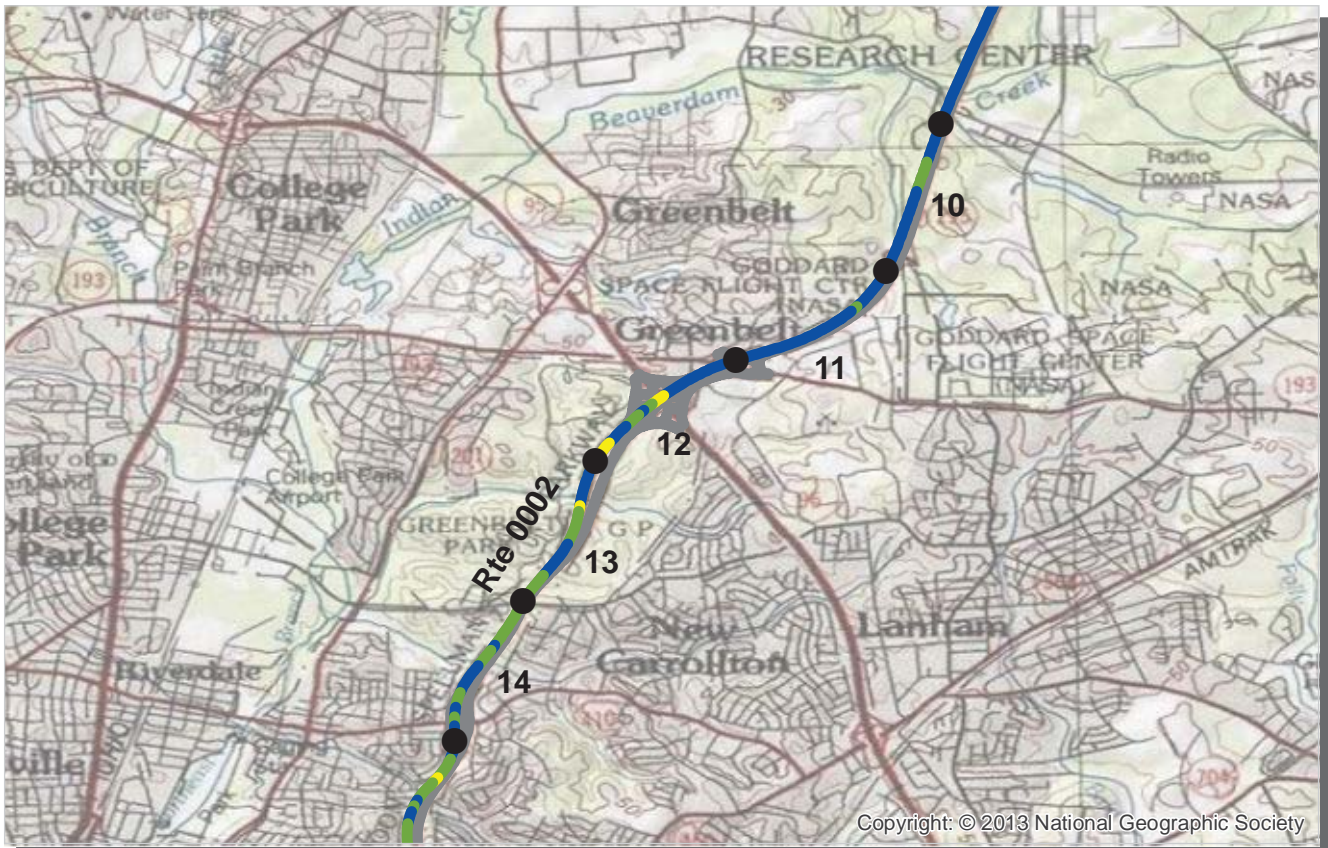
Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.

See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected    N/A - Not Applicable

**ROUTE: 0002 BALTIMORE-WASHINGTON PARKWAY (SB)**





PCR    Poor ■    Fair ■    Good ■    Excellent ■    No Data ■  
 (0 - 60)    (61 - 84)    (85 - 94)    (95 - 100)

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

**ROUTE: 0002 BALTIMORE-WASHINGTON PARKWAY (SB)**  
**BAWA : BALTIMORE-WASHINGTON PARKWAY**

**COLLECTED: 2/14/2013**  
**TOTAL LENGTH: 18.62 Miles**

**NATIONAL CAPITAL REGION**

Section Number	10	11	12	13	14
Section Length (mi)	1.00	1.00	1.00	1.00	1.00
<b>Cross Section Information</b>					
Number of Lanes	2	2	3	2	2
Paved Width (ft)	34	36	43	35	35
Lane Width (ft)	12	14	11	14	12
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	95	97	88	91	93
PCR (Pavement Condition Rating)	97	98	93	95	96
<b>Distress Index Values</b>					
Structural Crack Index	99	97	88	91	93
Transverse Cracking Index	99	97	96	93	94
Patching Index	100	100	100	100	100
Rutting Index	95	97	99	99	95
Roughness Condition Index (RCI)	100	100	100	100	100

**NOTES:**

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.  
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected    N/A - Not Applicable



**ROUTE: 0002 BALTIMORE-WASHINGTON PARKWAY (SB)**



PCR    Poor ■    Fair ■    Good ■    Excellent ■    No Data ■  
 (0 - 60)    (61 - 84)    (85 - 94)    (95 - 100)

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

**ROUTE: 0002 BALTIMORE-WASHINGTON PARKWAY (SB)**  
**BAWA : BALTIMORE-WASHINGTON PARKWAY**

**COLLECTED: 2/14/2013**  
**TOTAL LENGTH: 18.62 Miles**

**NATIONAL CAPITAL REGION**

Section Number	15	16	17	18	
Section Length (mi)	1.00	1.00	1.00	0.62	
<b>Cross Section Information</b>					
Number of Lanes	2	2	3	2	
Paved Width (ft)	35	45	44	35	
Lane Width (ft)	13	12	12	13	
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	91	97	100	100	
PCR (Pavement Condition Rating)	95	98	100	100	
<b>Distress Index Values</b>					
Structural Crack Index	95	97	100	100	
Transverse Cracking Index	91	98	100	100	
Patching Index	100	100	100	100	
Rutting Index	97	99	100	100	
Roughness Condition Index (RCI)	100	100	100	100	

**NOTES:**

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.

See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected    N/A - Not Applicable

**ROUTE: 0002 BALTIMORE-WASHINGTON PARKWAY (SB)**





PCR    Poor ■    Fair ■    Good ■    Excellent ■    No Data ■  
           (0 - 60)           (61 - 84)           (85 - 94)           (95 - 100)

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

**ROUTE: 0003 SPRINGFIELD ROAD WEST**  
**BAWA : BALTIMORE-WASHINGTON PARKWAY**

**COLLECTED: 2/14/2013**  
**TOTAL LENGTH: 0.44 Miles**

**NATIONAL CAPITAL REGION**

<b>Section Number</b>	0				
<b>Section Length (mi)</b>	0.44				
<b>Cross Section Information</b>					
Number of Lanes	2				
Paved Width (ft)	21				
Lane Width (ft)	11				
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	99				
PCR (Pavement Condition Rating)	99				
<b>Distress Index Values</b>					
Structural Crack Index	99				
Transverse Cracking Index	100				
Patching Index	100				
Rutting Index	100				
Roughness Condition Index (RCI)	NC				

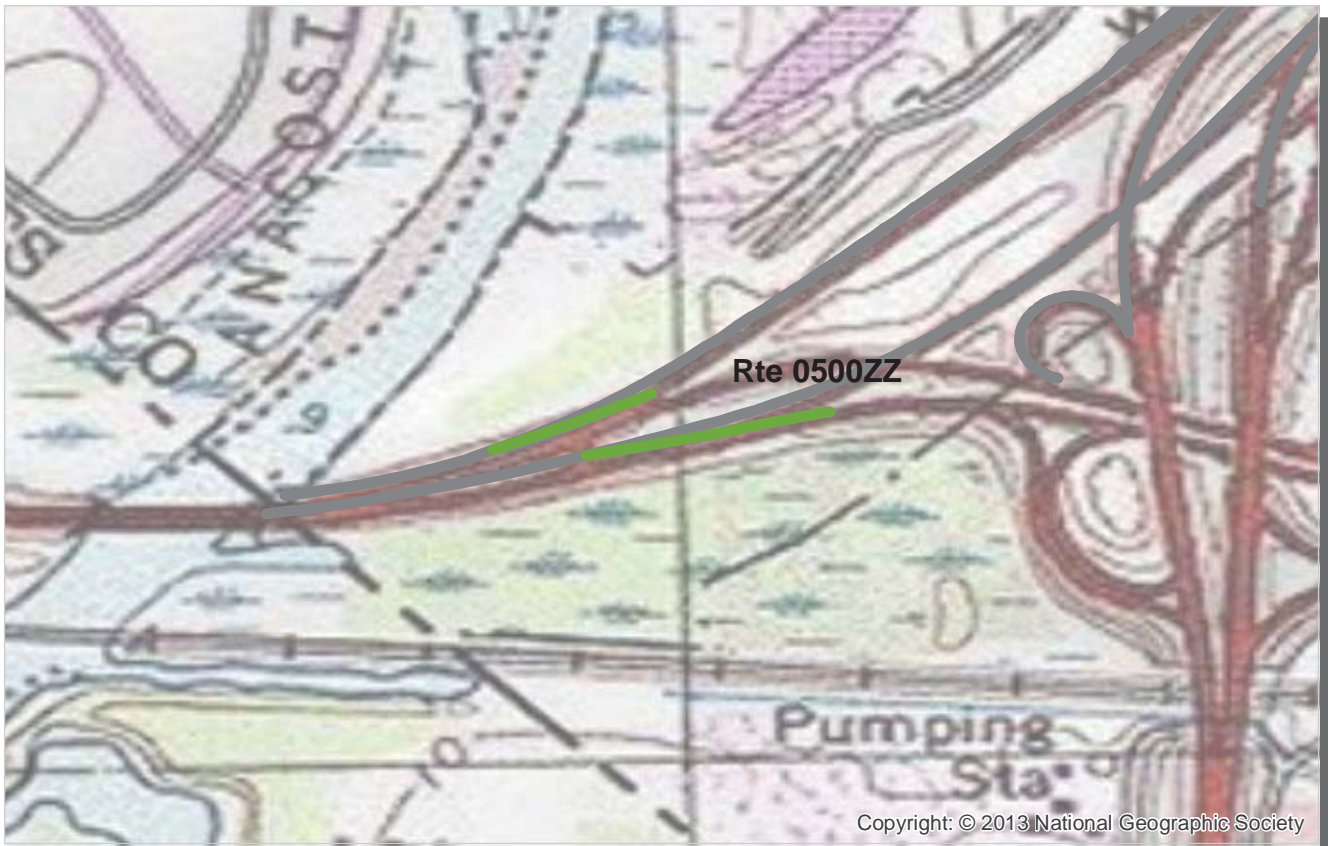
**NOTES:**

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.

See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected    N/A - Not Applicable

**ROUTE: 0003 SPRINGFIELD ROAD WEST**



PCR	Poor	<span style="display:inline-block; width:15px; height:15px; background-color:red;"></span>	Fair	<span style="display:inline-block; width:15px; height:15px; background-color:yellow;"></span>	Good	<span style="display:inline-block; width:15px; height:15px; background-color:green;"></span>	Excellent	<span style="display:inline-block; width:15px; height:15px; background-color:blue;"></span>	No Data	<span style="display:inline-block; width:15px; height:15px; background-color:black;"></span>
		(0 - 60)		(61 - 84)		(85 - 94)		(95 - 100)		

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

**ROUTE: 0500ZZ U.S. ROUTE 50, MD ROUTE 201 INTERCHANGE RAMPS**  
**BAWA : BALTIMORE-WASHINGTON PARKWAY**

Summary Record COLLECTED: 2/14/2013  
 NATIONAL CAPITAL REGION TOTAL LENGTH: 0.19 Miles

<b>Section Number</b>					
<b>Section Length (mi)</b>					
<b>Cross Section Information</b>					
Number of Lanes	N/A				
Paved Width (ft)	N/A				
Lane Width (ft)	N/A				
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	94				
PCR (Pavement Condition Rating)	94				
<b>Distress Index Values</b>					
Structural Crack Index	N/A				
Transverse Cracking Index	N/A				
Patching Index	N/A				
Rutting Index	N/A				
Roughness Condition Index (RCI)	N/A				

NOTES:

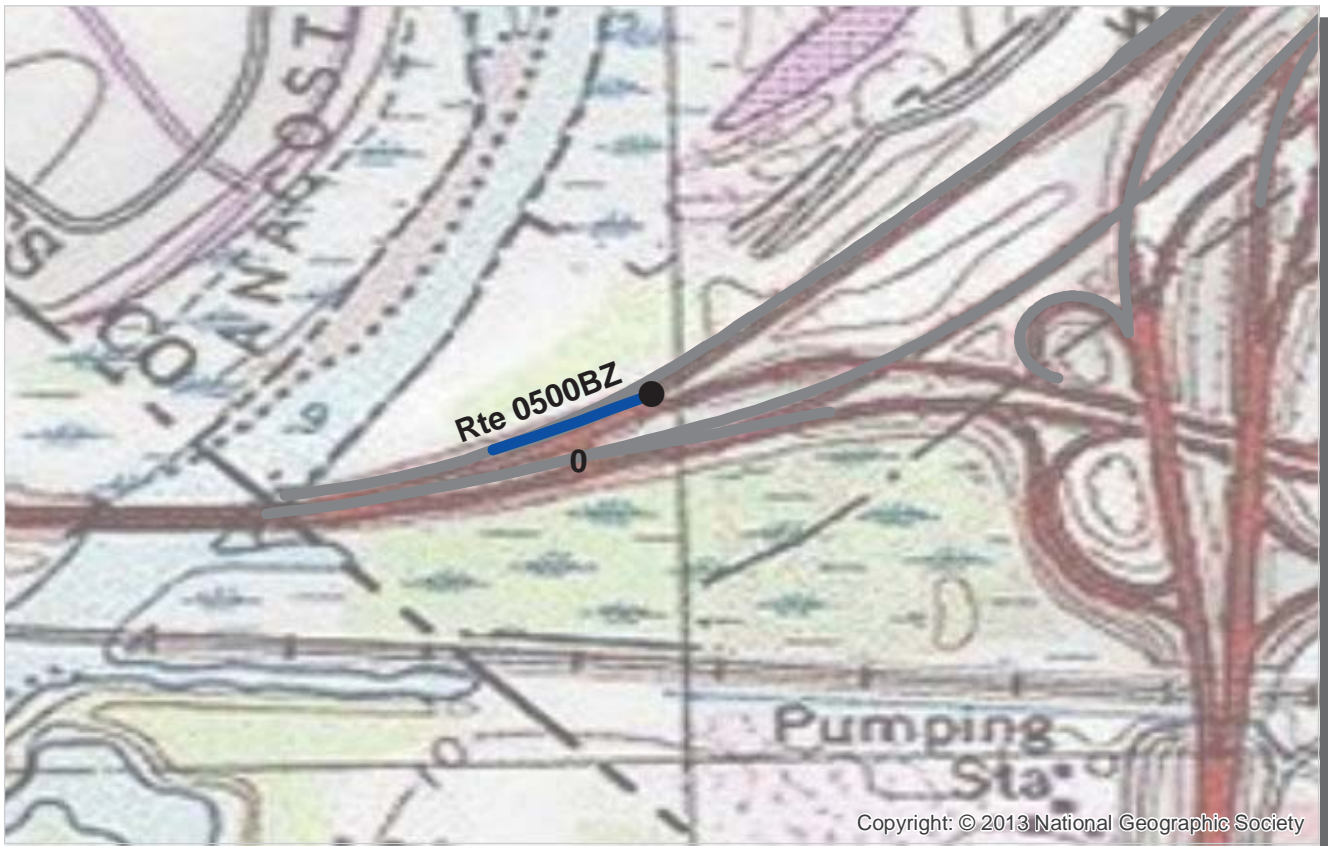
Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.  
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

ROUTE: 0500ZZ U.S. ROUTE 50, MD ROUTE 201 INTERCHANGE RAMPS







PCR	Poor	<span style="display:inline-block; width:15px; height:15px; background-color:red;"></span>	Fair	<span style="display:inline-block; width:15px; height:15px; background-color:yellow;"></span>	Good	<span style="display:inline-block; width:15px; height:15px; background-color:green;"></span>	Excellent	<span style="display:inline-block; width:15px; height:15px; background-color:blue;"></span>	No Data	<span style="display:inline-block; width:15px; height:15px; background-color:black;"></span>
		(0 - 60)		(61 - 84)		(85 - 94)		(95 - 100)		

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

**ROUTE: 0500BZ RAMP FROM W/B ROUTE 50 TO S/B BW PARKWAY**  
**BAWA : BALTIMORE-WASHINGTON PARKWAY**

Subcomponent Record COLLECTED: 2/14/2013  
 NATIONAL CAPITAL REGION TOTAL LENGTH: 0.08 Miles

<b>Section Number</b>	0				
<b>Section Length (mi)</b>	0.08				
<b>Cross Section Information</b>					
Number of Lanes	2				
Paved Width (ft)	37				
Lane Width (ft)	11				
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	99				
PCR (Pavement Condition Rating)	99				
<b>Distress Index Values</b>					
Structural Crack Index	99				
Transverse Cracking Index	100				
Patching Index	100				
Rutting Index	100				
Roughness Condition Index (RCI)	NC				

ROUTE: 0500BZ RAMP FROM W/B ROUTE 50 TO S/B BW PARKWAY

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.  
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

**NOTE: A combination of the presence of Concrete, and the absence of roughness data has resulted in the absence of condition data for a portion of this route.**



PCR	Poor (0 - 60)	Fair (61 - 84)	Good (85 - 94)	Excellent (95 - 100)	No Data

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

**ROUTE: 0501ZZ KENILWORTH AVENUE INTERCHANGE RAMPS**  
**BAWA : BALTIMORE-WASHINGTON PARKWAY**

Summary Record COLLECTED: 2/14/2013  
 NATIONAL CAPITAL REGION TOTAL LENGTH: 1.01 Miles

<b>Section Number</b>					
<b>Section Length (mi)</b>					
<b>Cross Section Information</b>					
Number of Lanes	N/A				
Paved Width (ft)	N/A				
Lane Width (ft)	N/A				
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	96				
PCR (Pavement Condition Rating)	96				
<b>Distress Index Values</b>					
Structural Crack Index	N/A				
Transverse Cracking Index	N/A				
Patching Index	N/A				
Rutting Index	N/A				
Roughness Condition Index (RCI)	N/A				

NOTES:  
 Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.  
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.  
 NC - Not Collected N/A - Not Applicable

ROUTE: 0501ZZ KENILWORTH AVENUE INTERCHANGE RAMPS



**NOTE: A combination of the presence of Concrete, and the absence of roughness data has resulted in the absence of condition data for a portion of this route.**



PCR    Poor ■    Fair ■    Good ■    Excellent ■    No Data ■  
 (0 - 60)    (61 - 84)    (85 - 94)    (95 - 100)

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

**ROUTE: 0501AZ RAMP FROM N/B KENILWORTH AVENUE TO N/B BW PARKWAY**  
**BAWA : BALTIMORE-WASHINGTON PARKWAY**

Subcomponent Record

NATIONAL CAPITAL REGION

COLLECTED: 2/14/2013  
 TOTAL LENGTH: 0.16 Miles

<b>Section Number</b>	0				
<b>Section Length (mi)</b>	0.16				
<b>Cross Section Information</b>					
Number of Lanes	2				
Paved Width (ft)	31				
Lane Width (ft)	12				
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	NC				
PCR (Pavement Condition Rating)	NC				
<b>Distress Index Values</b>					
Structural Crack Index	NC				
Transverse Cracking Index	NC				
Patching Index	NC				
Rutting Index	NC				
Roughness Condition Index (RCI)	NC				

ROUTE: 0501AZ RAMP FROM N/B KENILWORTH AVENUE TO N/B BW PARKWAY

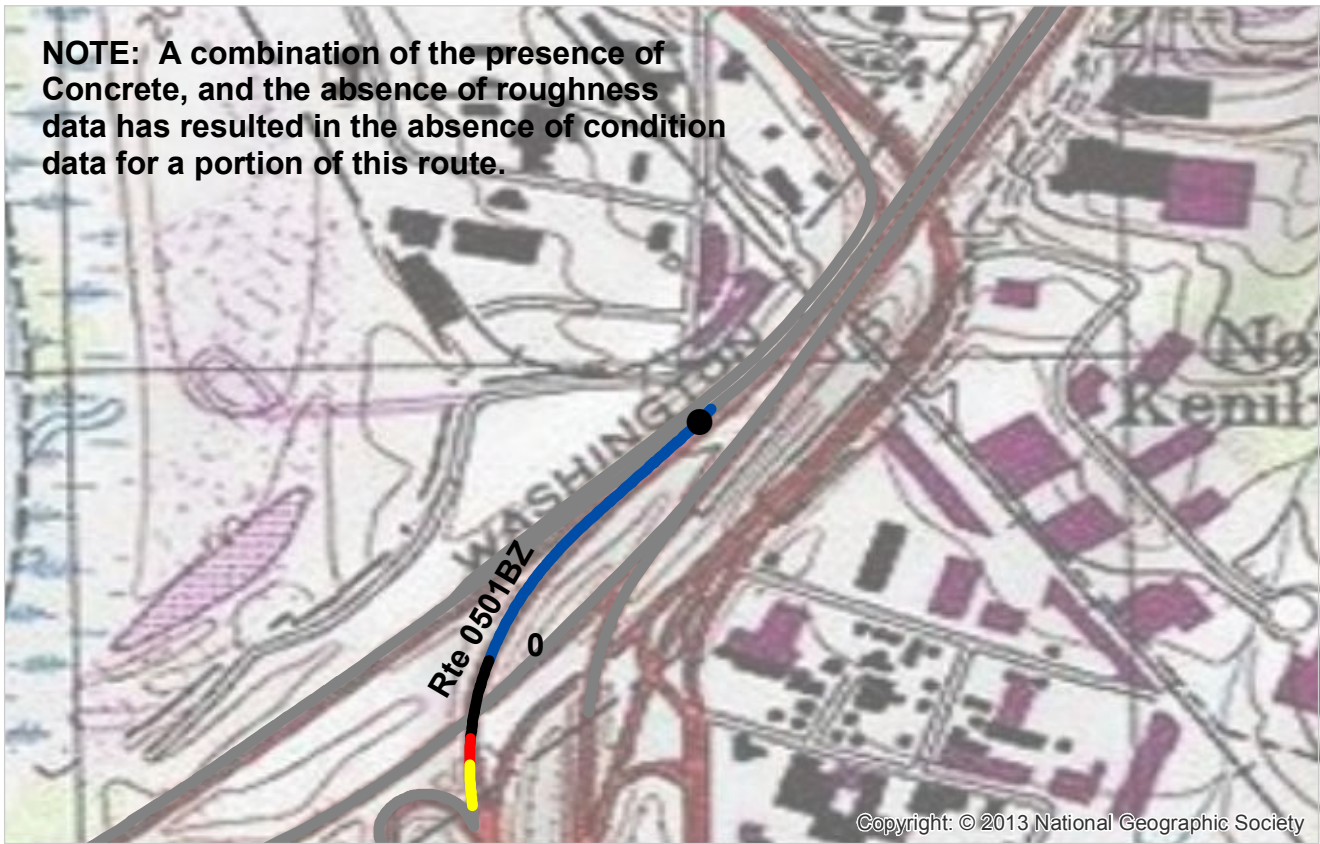
NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.

See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected    N/A - Not Applicable

**NOTE: A combination of the presence of Concrete, and the absence of roughness data has resulted in the absence of condition data for a portion of this route.**



PCR	Poor	Fair	Good	Excellent	No Data
	(0 - 60)	(61 - 84)	(85 - 94)	(95 - 100)	

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

**ROUTE: 0501BZ BW PARKWAY S/B RAMP TO S/B 295**  
**BAWA : BALTIMORE-WASHINGTON PARKWAY**

Subcomponent Record COLLECTED: 2/14/2013  
 NATIONAL CAPITAL REGION TOTAL LENGTH: 0.33 Miles

<b>Section Number</b>	0				
<b>Section Length (mi)</b>	0.33				
<b>Cross Section Information</b>					
Number of Lanes	2				
Paved Width (ft)	32				
Lane Width (ft)	12				
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	94				
PCR (Pavement Condition Rating)	94				
<b>Distress Index Values</b>					
Structural Crack Index	94				
Transverse Cracking Index	97				
Patching Index	100				
Rutting Index	99				
Roughness Condition Index (RCI)	NC				

**NOTES:**

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.

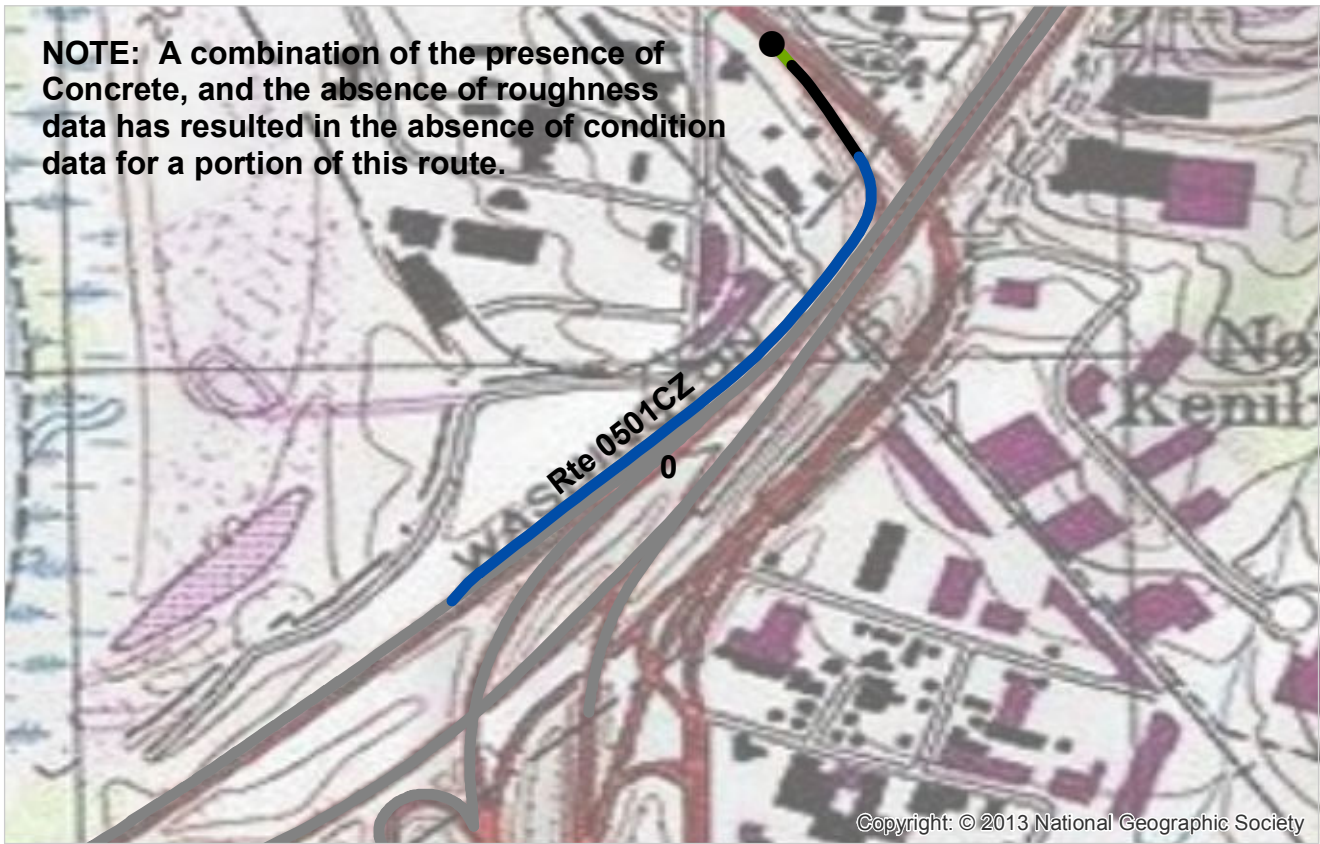
See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

**ROUTE: 0501BZ BW PARKWAY S/B RAMP TO S/B 295**



**NOTE: A combination of the presence of Concrete, and the absence of roughness data has resulted in the absence of condition data for a portion of this route.**



PCR	Poor	Fair	Good	Excellent	No Data
	(0 - 60)	(61 - 84)	(85 - 94)	(95 - 100)	

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

**ROUTE: 0501CZ RAMP FROM S/B KENILWORTH AVENUE TO S/B BW PARKWAY**  
**BAWA : BALTIMORE-WASHINGTON PARKWAY**

Subcomponent Record

NATIONAL CAPITAL REGION

COLLECTED: 2/14/2013  
 TOTAL LENGTH: 0.52 Miles

<b>Section Number</b>	0				
<b>Section Length (mi)</b>	0.52				
<b>Cross Section Information</b>					
Number of Lanes	1				
Paved Width (ft)	17				
Lane Width (ft)	14				
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	99				
PCR (Pavement Condition Rating)	99				
<b>Distress Index Values</b>					
Structural Crack Index	99				
Transverse Cracking Index	100				
Patching Index	100				
Rutting Index	100				
Roughness Condition Index (RCI)	NC				

ROUTE: 0501CZ RAMP FROM S/B KENILWORTH AVENUE TO S/B BW PARKWAY

NOTES:

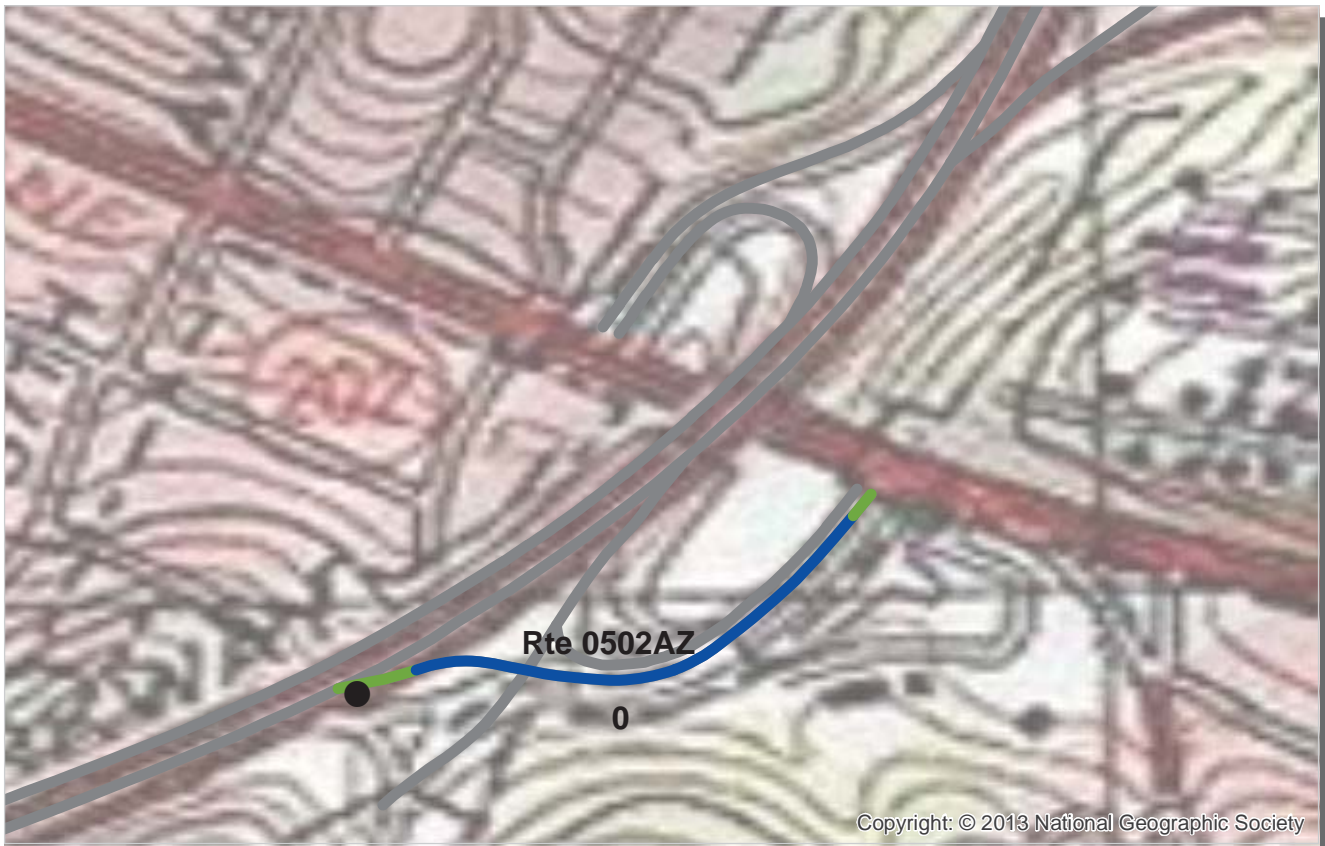
Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.

See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable







PCR	Poor	Fair	Good	Excellent	No Data
	(0 - 60)	(61 - 84)	(85 - 94)	(95 - 100)	

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

**ROUTE: 0502AZ RAMP FROM N/B BW PARKWAY TO ROUTE 202**  
**BAWA : BALTIMORE-WASHINGTON PARKWAY**

Subcomponent Record COLLECTED: 2/14/2013  
**NATIONAL CAPITAL REGION** TOTAL LENGTH: 0.19 Miles

<b>Section Number</b>	0				
<b>Section Length (mi)</b>	0.19				
<b>Cross Section Information</b>					
Number of Lanes	1				
Paved Width (ft)	19				
Lane Width (ft)	15				
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	99				
PCR (Pavement Condition Rating)	99				
<b>Distress Index Values</b>					
Structural Crack Index	99				
Transverse Cracking Index	100				
Patching Index	100				
Rutting Index	99				
Roughness Condition Index (RCI)	NC				

**NOTES:**

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.  
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

**ROUTE: 0502AZ RAMP FROM N/B BW PARKWAY TO ROUTE 202**



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PCR	Poor	<span style="color: red;">■</span>	Fair	<span style="color: yellow;">■</span>	Good	<span style="color: green;">■</span>	Excellent	<span style="color: blue;">■</span>	No Data	<span style="background-color: black; color: black;">■</span>
		(0 - 60)		(61 - 84)		(85 - 94)		(95 - 100)		

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

**ROUTE: 0502BZ RAMP FROM HOSPITAL DRIVE TO N/B BW PARKWAY**  
**BAWA : BALTIMORE-WASHINGTON PARKWAY**

Subcomponent Record

NATIONAL CAPITAL REGION

COLLECTED: 2/14/2013

TOTAL LENGTH: 0.16 Miles

<b>Section Number</b>	0				
<b>Section Length (mi)</b>	0.16				
<b>Cross Section Information</b>					
Number of Lanes	1				
Paved Width (ft)	20				
Lane Width (ft)	14				
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	98				
PCR (Pavement Condition Rating)	98				
<b>Distress Index Values</b>					
Structural Crack Index	98				
Transverse Cracking Index	100				
Patching Index	100				
Rutting Index	100				
Roughness Condition Index (RCI)	NC				

ROUTE: 0502BZ RAMP FROM HOSPITAL DRIVE TO N/B BW PARKWAY

NOTES:  
 Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.  
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.  
 NC - Not Collected N/A - Not Applicable







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PCR	Poor	Fair	Good	Excellent	No Data
	(0 - 60)	(61 - 84)	(85 - 94)	(95 - 100)	

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

**ROUTE: 0502DZ S/B BW PARKWAY RAMP TO ROUTE 202**  
**BAWA : BALTIMORE-WASHINGTON PARKWAY**

Subcomponent Record

NATIONAL CAPITAL REGION

COLLECTED: 2/14/2013  
 TOTAL LENGTH: 0.16 Miles

<b>Section Number</b>	0				
<b>Section Length (mi)</b>	0.16				
<b>Cross Section Information</b>					
Number of Lanes	1				
Paved Width (ft)	19				
Lane Width (ft)	16				
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	99				
PCR (Pavement Condition Rating)	99				
<b>Distress Index Values</b>					
Structural Crack Index	99				
Transverse Cracking Index	100				
Patching Index	100				
Rutting Index	99				
Roughness Condition Index (RCI)	NC				

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.

See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

ROUTE: 0502DZ S/B BW PARKWAY RAMP TO ROUTE 202

















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PCR	Poor	Fair	Good	Excellent	No Data
	(0 - 60)	(61 - 84)	(85 - 94)	(95 - 100)	

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

**ROUTE: 0503CAZ S/B BW PARKWAY RAMP TO ROUTE 450 (EB AND WB)**  
**BAWA : BALTIMORE-WASHINGTON PARKWAY**

Subcomponent Record COLLECTED: 2/14/2013  
 NATIONAL CAPITAL REGION TOTAL LENGTH: 0.22 Miles

<b>Section Number</b>	0				
<b>Section Length (mi)</b>	0.22				
<b>Cross Section Information</b>					
Number of Lanes	1				
Paved Width (ft)	13				
Lane Width (ft)	11				
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	100				
PCR (Pavement Condition Rating)	100				
<b>Distress Index Values</b>					
Structural Crack Index	100				
Transverse Cracking Index	100				
Patching Index	100				
Rutting Index	100				
Roughness Condition Index (RCI)	NC				

NOTES:  
 Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.  
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.  
 NC - Not Collected N/A - Not Applicable

ROUTE: 0503CAZ S/B BW PARKWAY RAMP TO ROUTE 450 (EB AND WB)











PCR	Poor	<span style="display:inline-block; width:15px; height:15px; background-color:red;"></span>	Fair	<span style="display:inline-block; width:15px; height:15px; background-color:yellow;"></span>	Good	<span style="display:inline-block; width:15px; height:15px; background-color:green;"></span>	Excellent	<span style="display:inline-block; width:15px; height:15px; background-color:blue;"></span>	No Data	<span style="display:inline-block; width:15px; height:15px; background-color:black;"></span>
		(0 - 60)		(61 - 84)		(85 - 94)		(95 - 100)		

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

**ROUTE: 0503EZ RAMP FROM E/B ROUTE 450 TO N/B BW PARKWAY**  
**BAWA : BALTIMORE-WASHINGTON PARKWAY**

Subcomponent Record

NATIONAL CAPITAL REGION

COLLECTED: 2/13/2013  
TOTAL LENGTH: 0.15 Miles

<b>Section Number</b>	0				
<b>Section Length (mi)</b>	0.15				
<b>Cross Section Information</b>					
Number of Lanes	1				
Paved Width (ft)	15				
Lane Width (ft)	14				
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	99				
PCR (Pavement Condition Rating)	99				
<b>Distress Index Values</b>					
Structural Crack Index	99				
Transverse Cracking Index	100				
Patching Index	100				
Rutting Index	100				
Roughness Condition Index (RCI)	NC				

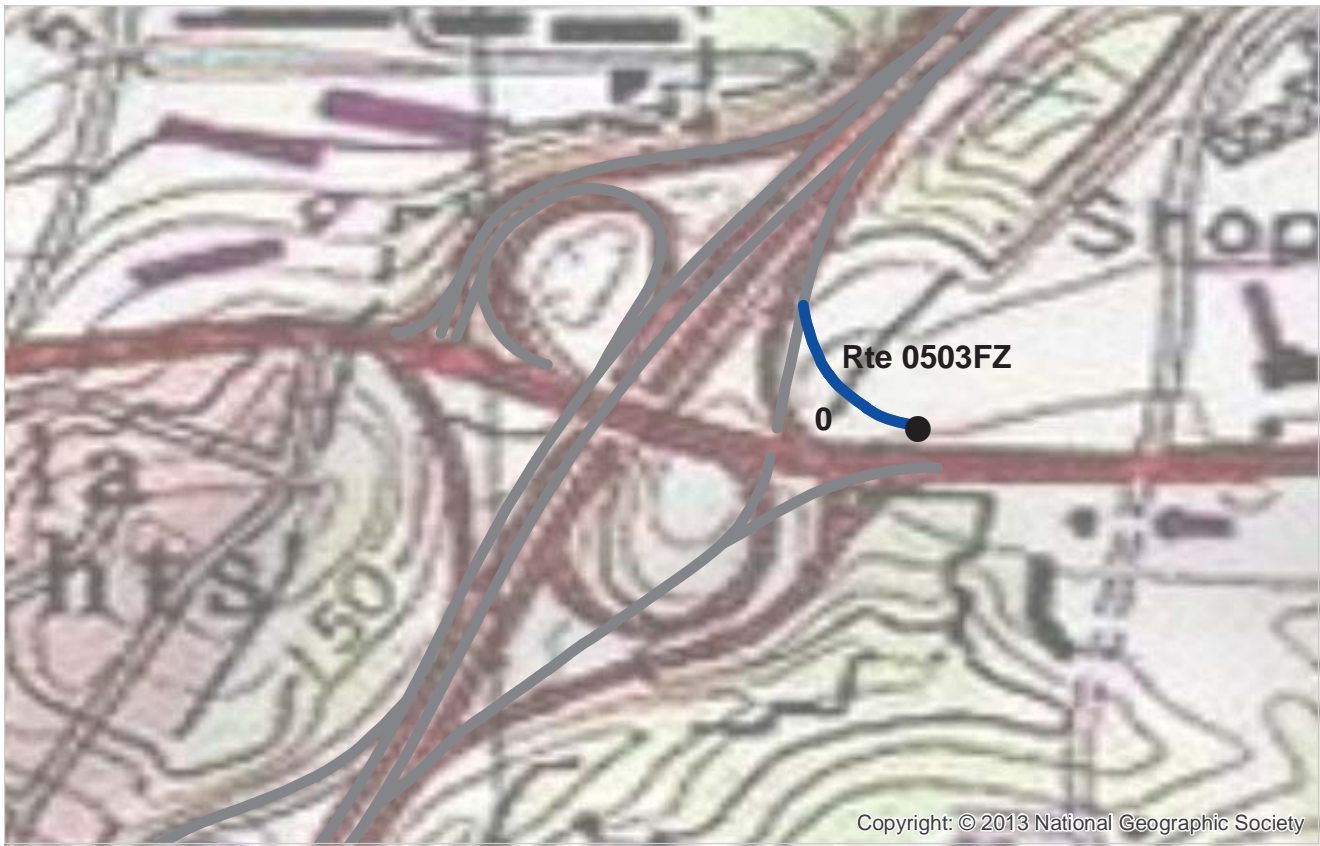
ROUTE: 0503EZ RAMP FROM E/B ROUTE 450 TO N/B BW PARKWAY

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.

See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable



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PCR	Poor	Fair	Good	Excellent	No Data
	(0 - 60)	(61 - 84)	(85 - 94)	(95 - 100)	

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

**ROUTE: 0503FZ RAMP FROM W/B ROUTE 450 TO N/B BW PARKWAY SPUR**  
**BAWA : BALTIMORE-WASHINGTON PARKWAY**

Subcomponent Record COLLECTED: 2/14/2013  
**NATIONAL CAPITAL REGION** TOTAL LENGTH: 0.06 Miles

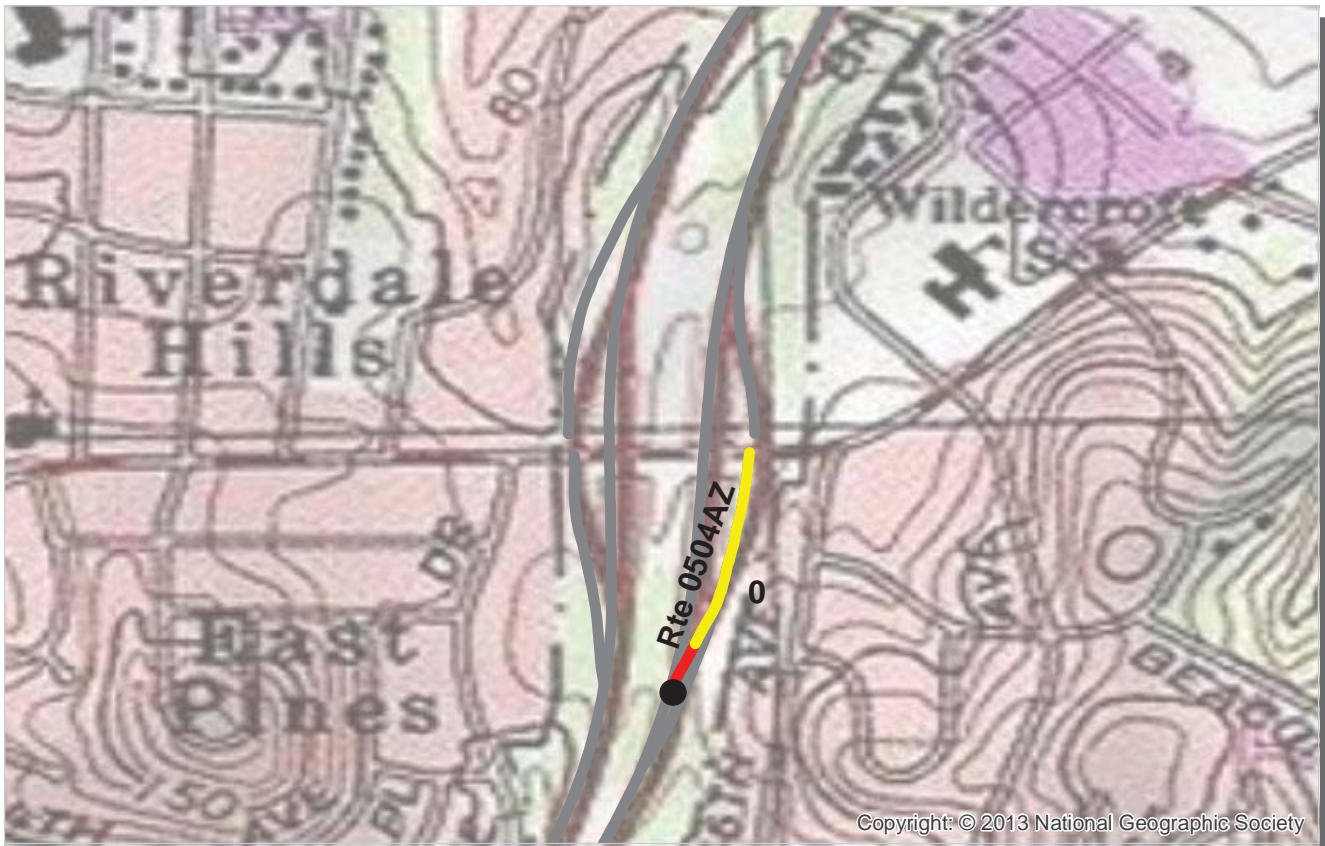
<b>Section Number</b>	0				
<b>Section Length (mi)</b>	0.06				
<b>Cross Section Information</b>					
Number of Lanes	1				
Paved Width (ft)	15				
Lane Width (ft)	13				
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	99				
PCR (Pavement Condition Rating)	99				
<b>Distress Index Values</b>					
Structural Crack Index	99				
Transverse Cracking Index	100				
Patching Index	100				
Rutting Index	99				
Roughness Condition Index (RCI)	NC				

**ROUTE: 0503FZ RAMP FROM W/B ROUTE 450 TO N/B BW PARKWAY SPUR**

NOTES:  
 Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.  
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.  
 NC - Not Collected N/A - Not Applicable







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PCR	Poor	<span style="display:inline-block; width:15px; height:15px; background-color:red;"></span>	Fair	<span style="display:inline-block; width:15px; height:15px; background-color:yellow;"></span>	Good	<span style="display:inline-block; width:15px; height:15px; background-color:green;"></span>	Excellent	<span style="display:inline-block; width:15px; height:15px; background-color:blue;"></span>	No Data	<span style="display:inline-block; width:15px; height:15px; background-color:black;"></span>
		(0 - 60)		(61 - 84)		(85 - 94)		(95 - 100)		

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

**ROUTE: 0504AZ N/B BW PARKWAY RAMP TO RIVERDALE ROAD (RT. 410)**  
**BAWA : BALTIMORE-WASHINGTON PARKWAY**

Subcomponent Record COLLECTED: 2/14/2013  
 NATIONAL CAPITAL REGION TOTAL LENGTH: 0.21 Miles

<b>Section Number</b>	0				
<b>Section Length (mi)</b>	0.21				
<b>Cross Section Information</b>					
Number of Lanes	1				
Paved Width (ft)	26				
Lane Width (ft)	16				
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	77				
PCR (Pavement Condition Rating)	77				
<b>Distress Index Values</b>					
Structural Crack Index	77				
Transverse Cracking Index	99				
Patching Index	100				
Rutting Index	86				
Roughness Condition Index (RCI)	NC				

NOTES:

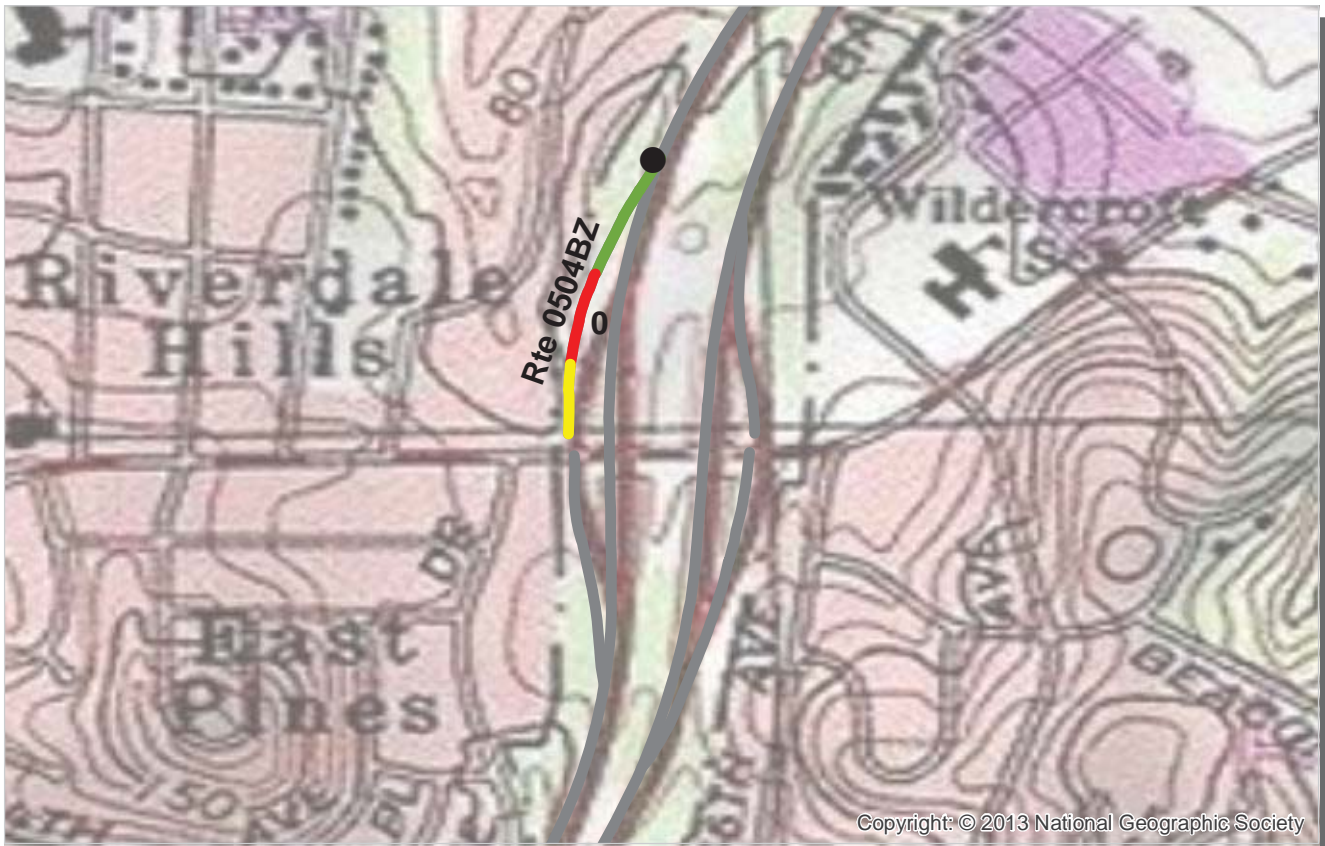
Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.

See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

ROUTE: 0504AZ N/B BW PARKWAY RAMP TO RIVERDALE ROAD (RT. 410)





PCR	Poor	Fair	Good	Excellent	No Data
	(0 - 60)	(61 - 84)	(85 - 94)	(95 - 100)	

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

**ROUTE: 0504BZ S/B BW PARKWAY RAMP TO RIVERDALE ROAD (RT. 410)**  
**BAWA : BALTIMORE-WASHINGTON PARKWAY**

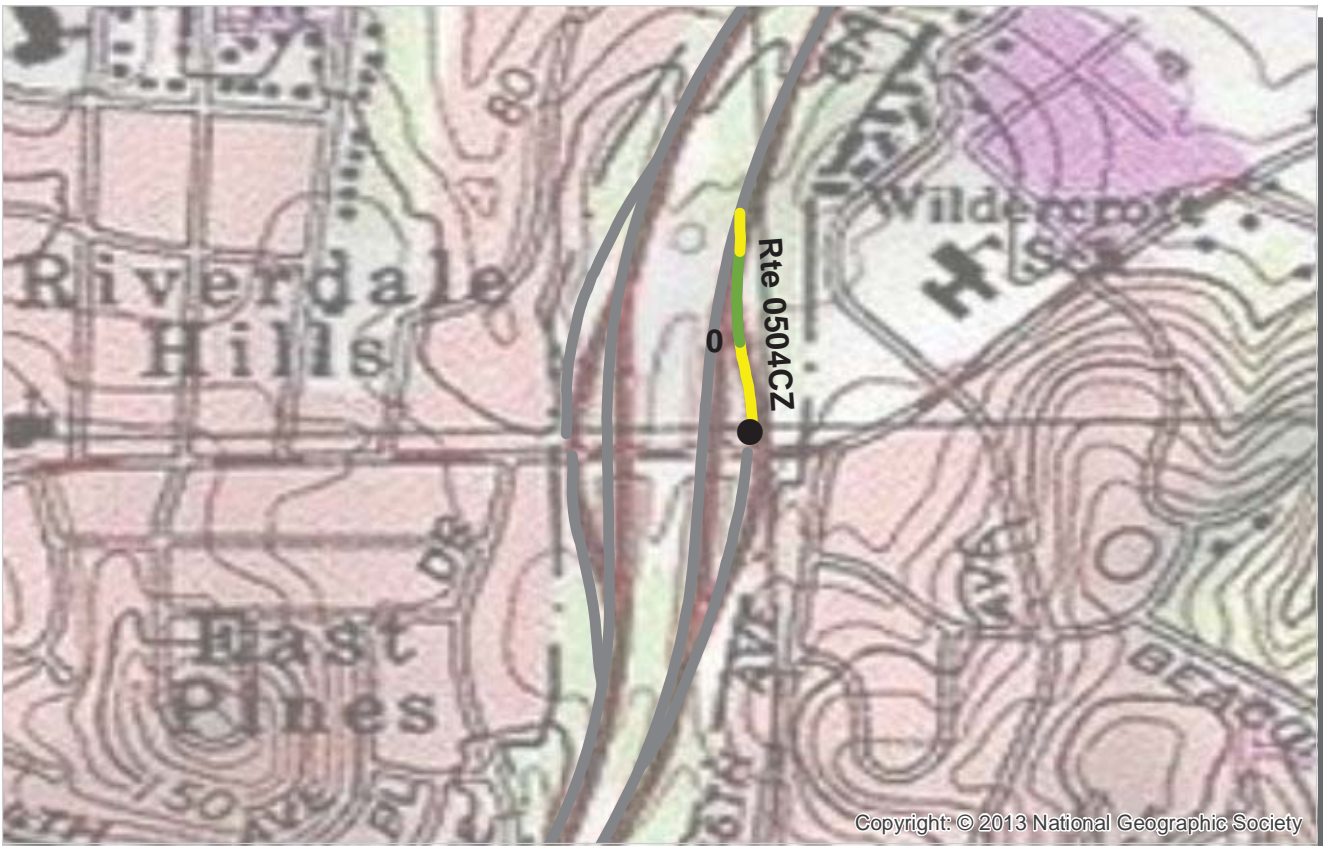
Subcomponent Record COLLECTED: 2/14/2013  
 NATIONAL CAPITAL REGION TOTAL LENGTH: 0.18 Miles

<b>Section Number</b>	0				
<b>Section Length (mi)</b>	0.18				
<b>Cross Section Information</b>					
Number of Lanes	1				
Paved Width (ft)	27				
Lane Width (ft)	15				
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	62				
PCR (Pavement Condition Rating)	62				
<b>Distress Index Values</b>					
Structural Crack Index	62				
Transverse Cracking Index	98				
Patching Index	100				
Rutting Index	92				
Roughness Condition Index (RCI)	NC				

NOTES:  
 Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.  
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.  
 NC - Not Collected N/A - Not Applicable

ROUTE: 0504BZ S/B BW PARKWAY RAMP TO RIVERDALE ROAD (RT. 410)





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PCR	Poor	<span style="display:inline-block; width:15px; height:15px; background-color:red;"></span>	Fair	<span style="display:inline-block; width:15px; height:15px; background-color:yellow;"></span>	Good	<span style="display:inline-block; width:15px; height:15px; background-color:green;"></span>	Excellent	<span style="display:inline-block; width:15px; height:15px; background-color:blue;"></span>	No Data	<span style="display:inline-block; width:15px; height:15px; background-color:black;"></span>
		(0 - 60)		(61 - 84)		(85 - 94)		(95 - 100)		

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

**ROUTE: 0504CZ RAMP FROM RIVERDALE ROAD (RT. 410) TO N/B BW PARKWAY**  
**BAWA : BALTIMORE-WASHINGTON PARKWAY**

Subcomponent Record

NATIONAL CAPITAL REGION

COLLECTED: 2/14/2013  
 TOTAL LENGTH: 0.14 Miles

<b>Section Number</b>	0				
<b>Section Length (mi)</b>	0.14				
<b>Cross Section Information</b>					
Number of Lanes	1				
Paved Width (ft)	16				
Lane Width (ft)	14				
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	82				
PCR (Pavement Condition Rating)	82				
<b>Distress Index Values</b>					
Structural Crack Index	89				
Transverse Cracking Index	97				
Patching Index	100				
Rutting Index	82				
Roughness Condition Index (RCI)	NC				

ROUTE: 0504CZ RAMP FROM RIVERDALE ROAD (RT. 410) TO N/B BW PARKWAY

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.

See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable



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PCR	Poor	Fair	Good	Excellent	No Data
	(0 - 60)	(61 - 84)	(85 - 94)	(95 - 100)	

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

**ROUTE: 0504DZ RAMP FROM RIVERDALE ROAD (RT. 410) TO S/B BW PARKWAY**  
**BAWA : BALTIMORE-WASHINGTON PARKWAY**

Subcomponent Record

NATIONAL CAPITAL REGION

COLLECTED: 2/14/2013  
 TOTAL LENGTH: 0.15 Miles

<b>Section Number</b>	0				
<b>Section Length (mi)</b>	0.15				
<b>Cross Section Information</b>					
Number of Lanes	1				
Paved Width (ft)	16				
Lane Width (ft)	14				
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	82				
PCR (Pavement Condition Rating)	82				
<b>Distress Index Values</b>					
Structural Crack Index	98				
Transverse Cracking Index	99				
Patching Index	100				
Rutting Index	82				
Roughness Condition Index (RCI)	NC				

ROUTE: 0504DZ RAMP FROM RIVERDALE ROAD (RT. 410) TO  
 S/B BW PARKWAY

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.

See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable









PCR	Poor	<span style="color: red;">■</span>	Fair	<span style="color: yellow;">■</span>	Good	<span style="color: green;">■</span>	Excellent	<span style="color: blue;">■</span>	No Data	<span style="background-color: black; color: black;">■</span>
		(0 - 60)		(61 - 84)		(85 - 94)		(95 - 100)		

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

**ROUTE: 0505AAZ N/B BW PARKWAY RAMP TO GREENBELT ROAD (ROUTE 193) (WB)**  
**BAWA : BALTIMORE-WASHINGTON PARKWAY**

Subcomponent Record COLLECTED: 2/14/2013  
 NATIONAL CAPITAL REGION TOTAL LENGTH: 0.27 Miles

<b>Section Number</b>	0				
<b>Section Length (mi)</b>	0.27				
<b>Cross Section Information</b>					
Number of Lanes	1				
Paved Width (ft)	23				
Lane Width (ft)	16				
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	14				
PCR (Pavement Condition Rating)	14				
<b>Distress Index Values</b>					
Structural Crack Index	14				
Transverse Cracking Index	98				
Patching Index	100				
Rutting Index	96				
Roughness Condition Index (RCI)	NC				

NOTES:  
 Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.  
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.  
 NC - Not Collected N/A - Not Applicable

ROUTE: 0505AAZ N/B BW PARKWAY RAMP TO GREENBELT ROAD (ROUTE 193) (WB)



PCR	Poor	<span style="display:inline-block; width:15px; height:15px; background-color:red;"></span>	Fair	<span style="display:inline-block; width:15px; height:15px; background-color:yellow;"></span>	Good	<span style="display:inline-block; width:15px; height:15px; background-color:green;"></span>	Excellent	<span style="display:inline-block; width:15px; height:15px; background-color:blue;"></span>	No Data	<span style="display:inline-block; width:15px; height:15px; background-color:black;"></span>
		(0 - 60)		(61 - 84)		(85 - 94)		(95 - 100)		

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

**ROUTE: 0505ABZ N/B BW PARKWAY RAMP TO GREENBELT ROAD (ROUTE 193) (EB AND WB)**  
**BAWA : BALTIMORE-WASHINGTON PARKWAY**

Subcomponent Record COLLECTED: 2/14/2013  
 NATIONAL CAPITAL REGION TOTAL LENGTH: 0.04 Miles

<b>Section Number</b>	0				
<b>Section Length (mi)</b>	0.04				
<b>Cross Section Information</b>					
Number of Lanes	3				
Paved Width (ft)	47				
Lane Width (ft)	13				
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	24				
PCR (Pavement Condition Rating)	24				
<b>Distress Index Values</b>					
Structural Crack Index	24				
Transverse Cracking Index	95				
Patching Index	100				
Rutting Index	76				
Roughness Condition Index (RCI)	NC				

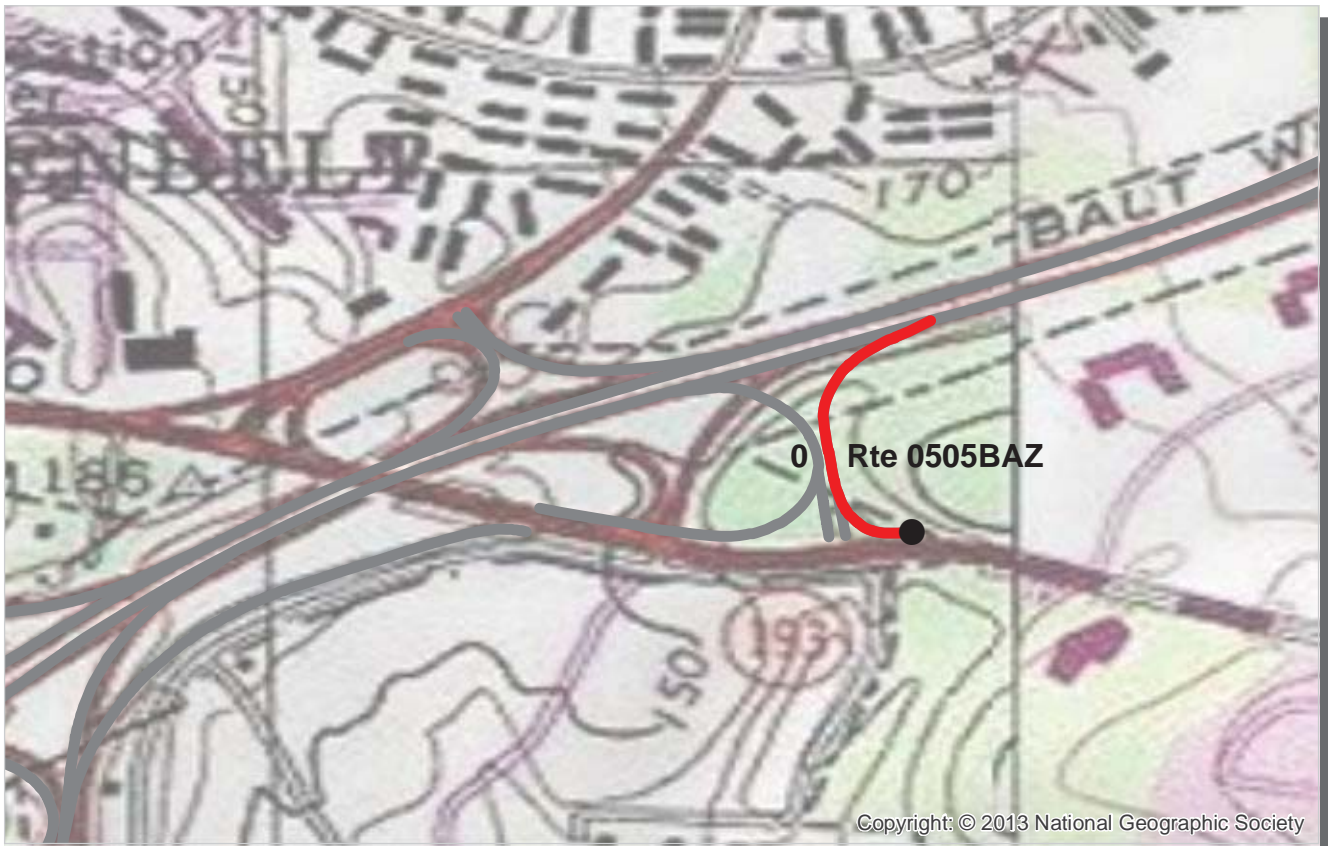
NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.

See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

ROUTE: 0505ABZ N/B BW PARKWAY RAMP TO GREENBELT ROAD (ROUTE 193) (EB AND WB)



PCR	Poor	Fair	Good	Excellent	No Data
	(0 - 60)	(61 - 84)	(85 - 94)	(95 - 100)	

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

**ROUTE: 0505BAZ RAMP FROM GREENBELT ROAD (ROUTE 193) TO N/B BW PARKWAY**  
**BAWA : BALTIMORE-WASHINGTON PARKWAY**

Subcomponent Record COLLECTED: 2/14/2013  
**NATIONAL CAPITAL REGION** TOTAL LENGTH: 0.19 Miles

<b>Section Number</b>	0				
<b>Section Length (mi)</b>	0.19				
<b>Cross Section Information</b>					
Number of Lanes	1				
Paved Width (ft)	20				
Lane Width (ft)	17				
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	0				
PCR (Pavement Condition Rating)	0				
<b>Distress Index Values</b>					
Structural Crack Index	0				
Transverse Cracking Index	98				
Patching Index	100				
Rutting Index	97				
Roughness Condition Index (RCI)	NC				

NOTES:  
 Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.  
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.  
 NC - Not Collected N/A - Not Applicable

ROUTE: 0505BAZ RAMP FROM GREENBELT ROAD (ROUTE 193) TO N/B BW PARKWAY





PCR	Poor	<span style="display:inline-block; width:15px; height:15px; background-color:red;"></span>	Fair	<span style="display:inline-block; width:15px; height:15px; background-color:yellow;"></span>	Good	<span style="display:inline-block; width:15px; height:15px; background-color:green;"></span>	Excellent	<span style="display:inline-block; width:15px; height:15px; background-color:blue;"></span>	No Data	<span style="display:inline-block; width:15px; height:15px; background-color:black;"></span>
		(0 - 60)		(61 - 84)		(85 - 94)		(95 - 100)		

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

**ROUTE: 0505BBZ RAMP FROM GREENBELT ROAD (ROUTE 193) (EB AND WB) TO N/B BW PARKWAY BAWA : BALTIMORE-WASHINGTON PARKWAY**

Subcomponent Record COLLECTED: 2/14/2013  
 NATIONAL CAPITAL REGION TOTAL LENGTH: 0.02 Miles

<b>Section Number</b>	0				
<b>Section Length (mi)</b>	0.02				
<b>Cross Section Information</b>					
Number of Lanes	2				
Paved Width (ft)	26				
Lane Width (ft)	12				
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	0				
PCR (Pavement Condition Rating)	0				
<b>Distress Index Values</b>					
Structural Crack Index	0				
Transverse Cracking Index	94				
Patching Index	100				
Rutting Index	92				
Roughness Condition Index (RCI)	NC				

NOTES:  
 Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.  
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.  
 NC - Not Collected N/A - Not Applicable

ROUTE: 0505BBZ RAMP FROM GREENBELT ROAD (ROUTE 193) (EB AND WB) TO N/B BW PARKWAY





PCR	Poor	Fair	Good	Excellent	No Data
	(0 - 60)	(61 - 84)	(85 - 94)	(95 - 100)	

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

**ROUTE: 0505DAZ RAMP FROM SOUTHWAY (EB AND WB) TO S/B BW PARKWAY**  
**BAWA : BALTIMORE-WASHINGTON PARKWAY**

Subcomponent Record COLLECTED: 2/14/2013  
 NATIONAL CAPITAL REGION TOTAL LENGTH: 0.12 Miles

<b>Section Number</b>	0				
<b>Section Length (mi)</b>	0.12				
<b>Cross Section Information</b>					
Number of Lanes	1				
Paved Width (ft)	17				
Lane Width (ft)	15				
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	75				
PCR (Pavement Condition Rating)	75				
<b>Distress Index Values</b>					
Structural Crack Index	84				
Transverse Cracking Index	100				
Patching Index	75				
Rutting Index	85				
Roughness Condition Index (RCI)	NC				

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.  
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

ROUTE: 0505DAZ RAMP FROM SOUTHWAY (EB AND WB) TO S/B BW PARKWAY









PCR    Poor ■    Fair ■    Good ■    Excellent ■    No Data ■  
           (0 - 60)           (61 - 84)           (85 - 94)           (95 - 100)

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

**ROUTE: 0506AZ N/B BW PARKWAY RAMP TO POWDER MILL ROAD (ROUTE 212)**  
**BAWA : BALTIMORE-WASHINGTON PARKWAY**

Subcomponent Record

NATIONAL CAPITAL REGION

COLLECTED: 2/14/2013  
 TOTAL LENGTH: 0.22 Miles

<b>Section Number</b>	0				
<b>Section Length (mi)</b>	0.22				
<b>Cross Section Information</b>					
Number of Lanes	1				
Paved Width (ft)	23				
Lane Width (ft)	16				
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	0				
PCR (Pavement Condition Rating)	0				
<b>Distress Index Values</b>					
Structural Crack Index	0				
Transverse Cracking Index	100				
Patching Index	100				
Rutting Index	91				
Roughness Condition Index (RCI)	NC				

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.

See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected    N/A - Not Applicable

ROUTE: 0506AZ N/B BW PARKWAY RAMP TO POWDER MILL ROAD (ROUTE 212)





PCR	Poor	Fair	Good	Excellent	No Data
	(0 - 60)	(61 - 84)	(85 - 94)	(95 - 100)	

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

**ROUTE: 0506BZ S/B BW PARKWAY RAMP TO POWDER MILL ROAD (ROUTE 212)**  
**BAWA : BALTIMORE-WASHINGTON PARKWAY**

Subcomponent Record

NATIONAL CAPITAL REGION

COLLECTED: 2/14/2013  
TOTAL LENGTH: 0.26 Miles

<b>Section Number</b>	0				
<b>Section Length (mi)</b>	0.26				
<b>Cross Section Information</b>					
Number of Lanes	1				
Paved Width (ft)	23				
Lane Width (ft)	17				
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	0				
PCR (Pavement Condition Rating)	0				
<b>Distress Index Values</b>					
Structural Crack Index	0				
Transverse Cracking Index	100				
Patching Index	100				
Rutting Index	97				
Roughness Condition Index (RCI)	NC				

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.

See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

ROUTE: 0506BZ S/B BW PARKWAY RAMP TO POWDER MILL ROAD (ROUTE 212)





PCR    Poor ■    Fair ■    Good ■    Excellent ■    No Data ■  
           (0 - 60)           (61 - 84)           (85 - 94)           (95 - 100)

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

**ROUTE: 0506DZ RAMP FROM POWDER MILL ROAD (ROUTE 212) TO S/B BW PARKWAY**  
**BAWA : BALTIMORE-WASHINGTON PARKWAY**

Subcomponent Record

NATIONAL CAPITAL REGION

COLLECTED: 2/14/2013  
 TOTAL LENGTH: 0.18 Miles

<b>Section Number</b>	0				
<b>Section Length (mi)</b>	0.18				
<b>Cross Section Information</b>					
Number of Lanes	1				
Paved Width (ft)	16				
Lane Width (ft)	15				
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	86				
PCR (Pavement Condition Rating)	86				
<b>Distress Index Values</b>					
Structural Crack Index	86				
Transverse Cracking Index	100				
Patching Index	100				
Rutting Index	99				
Roughness Condition Index (RCI)	NC				

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.

See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected    N/A - Not Applicable

ROUTE: 0506DZ RAMP FROM POWDER MILL ROAD (ROUTE 212) TO S/B BW PARKWAY







PCR	Poor	<span style="color: red;">■</span>	Fair	<span style="color: yellow;">■</span>	Good	<span style="color: green;">■</span>	Excellent	<span style="color: blue;">■</span>	No Data	<span style="background-color: black; color: black;">■</span>
		(0 - 60)		(61 - 84)		(85 - 94)		(95 - 100)		

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

**ROUTE: 0507AZ N/B BW PARKWAY RAMP TO S/B ROUTE 197**  
**BAWA : BALTIMORE-WASHINGTON PARKWAY**

Subcomponent Record COLLECTED: 2/14/2013  
 NATIONAL CAPITAL REGION TOTAL LENGTH: 0.31 Miles

<b>Section Number</b>	0				
<b>Section Length (mi)</b>	0.31				
<b>Cross Section Information</b>					
Number of Lanes	2				
Paved Width (ft)	30				
Lane Width (ft)	13				
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	91				
PCR (Pavement Condition Rating)	91				
<b>Distress Index Values</b>					
Structural Crack Index	98				
Transverse Cracking Index	99				
Patching Index	100				
Rutting Index	91				
Roughness Condition Index (RCI)	NC				

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.  
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable



ROUTE: 0507AZ N/B BW PARKWAY RAMP TO S/B ROUTE 197











PCR	Poor	Fair	Good	Excellent	No Data
	(0 - 60)	(61 - 84)	(85 - 94)	(95 - 100)	

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

**ROUTE: 0507FZ RAMP FROM ROUTE S/B 197 TO S/B BW PARKWAY**  
**BAWA : BALTIMORE-WASHINGTON PARKWAY**

Subcomponent Record COLLECTED: 2/14/2013  
 NATIONAL CAPITAL REGION TOTAL LENGTH: 0.35 Miles

<b>Section Number</b>	0				
<b>Section Length (mi)</b>	0.35				
<b>Cross Section Information</b>					
Number of Lanes	1				
Paved Width (ft)	16				
Lane Width (ft)	14				
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	77				
PCR (Pavement Condition Rating)	77				
<b>Distress Index Values</b>					
Structural Crack Index	77				
Transverse Cracking Index	99				
Patching Index	100				
Rutting Index	100				
Roughness Condition Index (RCI)	NC				

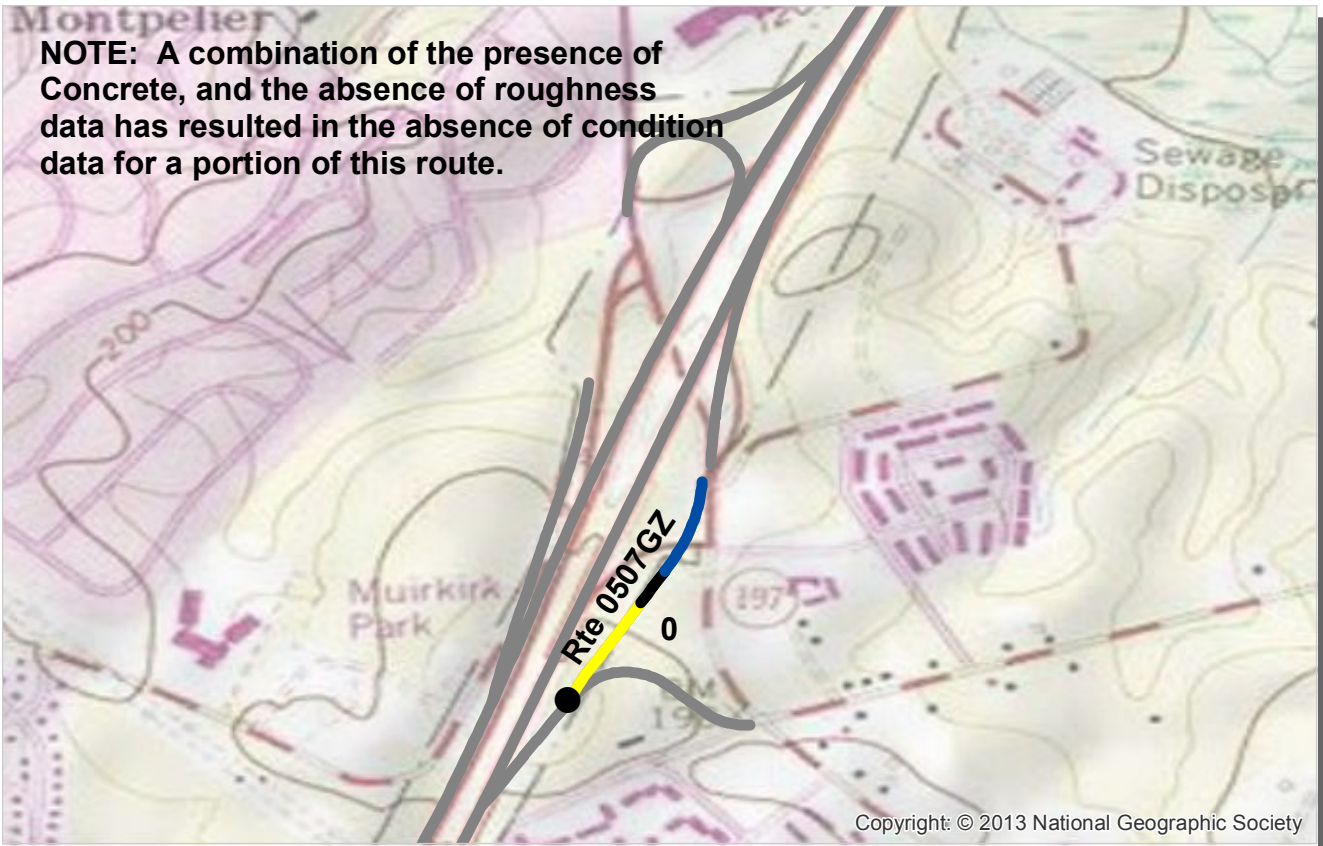
NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.  
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

ROUTE: 0507FZ RAMP FROM ROUTE S/B 197 TO S/B BW PARKWAY





PCR    Poor ■    Fair ■    Good ■    Excellent ■    No Data ■  
 (0 - 60)    (61 - 84)    (85 - 94)    (95 - 100)

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

**ROUTE: 0507GZ N/B BW PARKWAY RAMP TO N/B ROUTE 197 SPUR**  
**BAWA : BALTIMORE-WASHINGTON PARKWAY**

Subcomponent Record

NATIONAL CAPITAL REGION

COLLECTED: 2/14/2013  
 TOTAL LENGTH: 0.26 Miles

<b>Section Number</b>	0				
<b>Section Length (mi)</b>	0.26				
<b>Cross Section Information</b>					
Number of Lanes	2				
Paved Width (ft)	29				
Lane Width (ft)	14				
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	83				
PCR (Pavement Condition Rating)	83				
<b>Distress Index Values</b>					
Structural Crack Index	83				
Transverse Cracking Index	100				
Patching Index	100				
Rutting Index	91				
Roughness Condition Index (RCI)	NC				

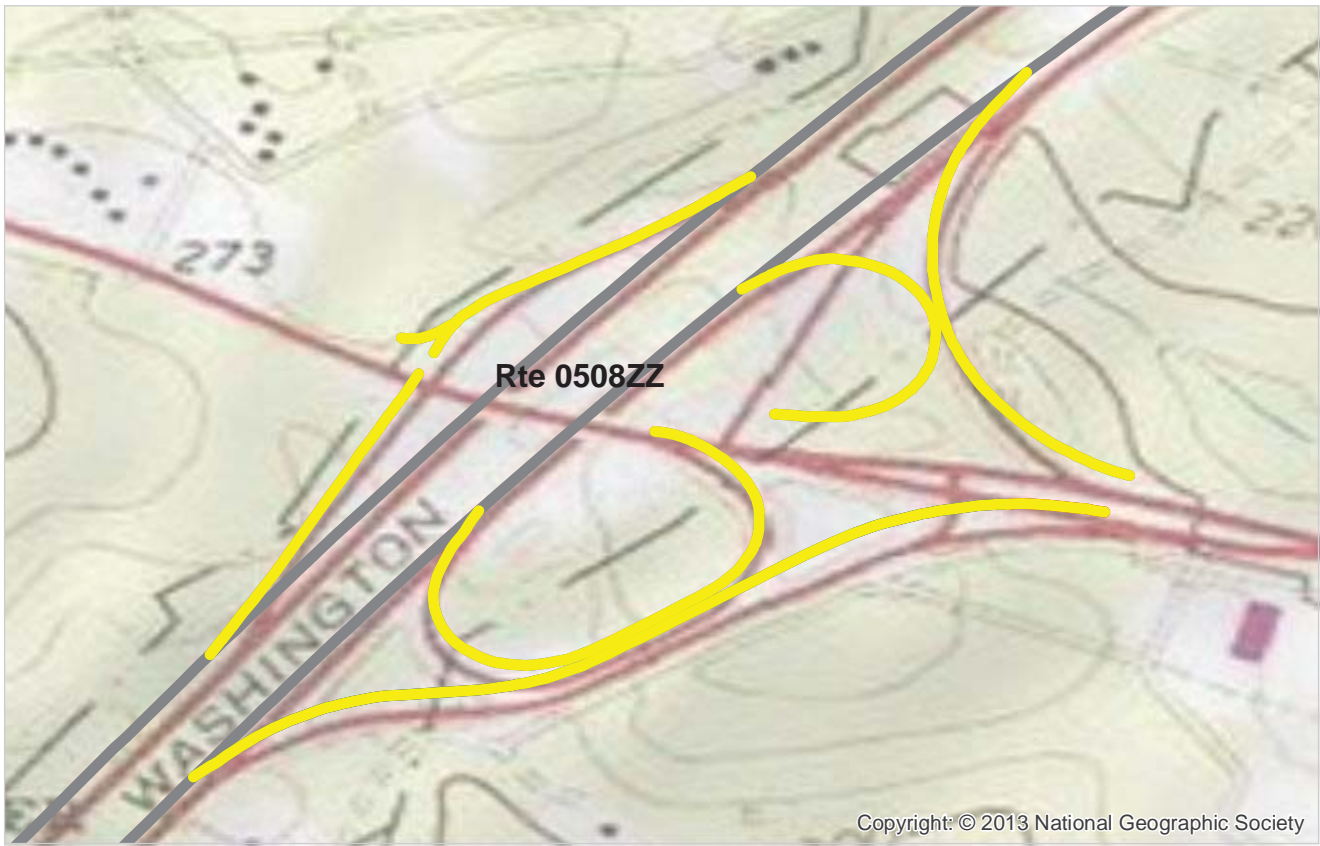
NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.

See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected    N/A - Not Applicable

ROUTE: 0507GZ N/B BW PARKWAY RAMP TO N/B ROUTE 197 SPUR



PCR	Poor	Fair	Good	Excellent	No Data
	(0 - 60)	(61 - 84)	(85 - 94)	(95 - 100)	

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

**ROUTE: 0508ZZ LAUREL FORT MEADE ROAD RAMPS (MD ROUTE 198 INTERCHANGE)**  
**BAWA : BALTIMORE-WASHINGTON PARKWAY**

Summary Record COLLECTED: 2/14/2013  
 NATIONAL CAPITAL REGION TOTAL LENGTH: 1.89 Miles

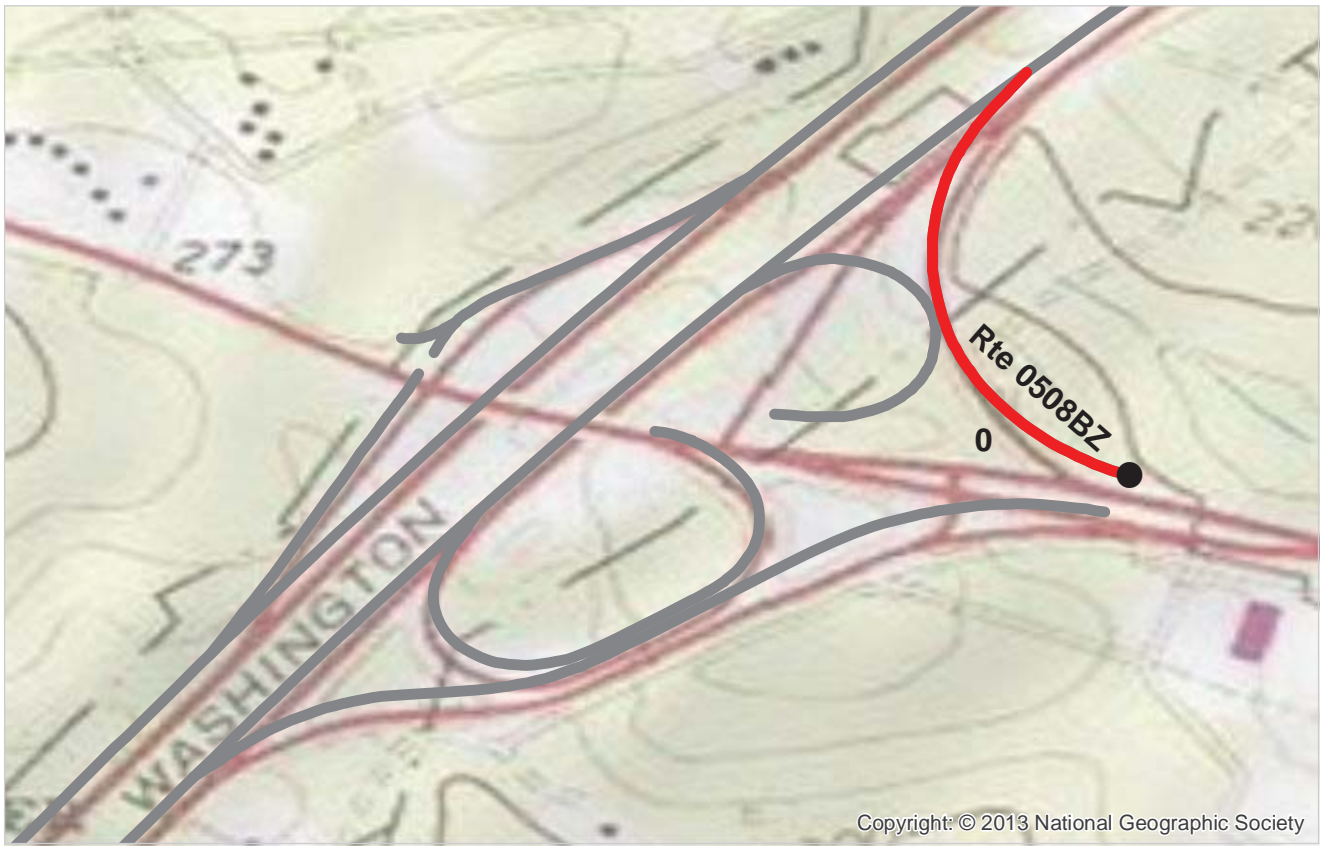
<b>Section Number</b>					
<b>Section Length (mi)</b>					
<b>Cross Section Information</b>					
Number of Lanes	N/A				
Paved Width (ft)	N/A				
Lane Width (ft)	N/A				
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	59				
PCR (Pavement Condition Rating)	61				
<b>Distress Index Values</b>					
Structural Crack Index	N/A				
Transverse Cracking Index	N/A				
Patching Index	N/A				
Rutting Index	N/A				
Roughness Condition Index (RCI)	N/A				

NOTES:  
 Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.  
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.  
 NC - Not Collected N/A - Not Applicable

ROUTE: 0508ZZ LAUREL FORT MEADE ROAD RAMPS (MD ROUTE 198 INTERCHANGE)







PCR	Poor	Fair	Good	Excellent	No Data
	(0 - 60)	(61 - 84)	(85 - 94)	(95 - 100)	

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

**ROUTE: 0508BZ RAMP FROM W/B ROUTE 198 TO N/B BW PARKWAY**  
**BAWA : BALTIMORE-WASHINGTON PARKWAY**

Subcomponent Record

NATIONAL CAPITAL REGION

COLLECTED: 2/14/2013  
 TOTAL LENGTH: 0.32 Miles

<b>Section Number</b>	0				
<b>Section Length (mi)</b>	0.32				
<b>Cross Section Information</b>					
Number of Lanes	1				
Paved Width (ft)	17				
Lane Width (ft)	14				
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	0				
PCR (Pavement Condition Rating)	0				
<b>Distress Index Values</b>					
Structural Crack Index	0				
Transverse Cracking Index	100				
Patching Index	100				
Rutting Index	98				
Roughness Condition Index (RCI)	NC				

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.

See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

ROUTE: 0508BZ RAMP FROM W/B ROUTE 198 TO N/B BW PARKWAY









PCR	Poor	Fair	Good	Excellent	No Data
	(0 - 60)	(61 - 84)	(85 - 94)	(95 - 100)	

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

**ROUTE: 0508DZ RAMP FROM ROUTE 198 TO S/B BW PARKWAY**  
**BAWA : BALTIMORE-WASHINGTON PARKWAY**

Subcomponent Record COLLECTED: 2/14/2013  
**NATIONAL CAPITAL REGION** TOTAL LENGTH: 0.21 Miles

<b>Section Number</b>	0				
<b>Section Length (mi)</b>	0.21				
<b>Cross Section Information</b>					
Number of Lanes	1				
Paved Width (ft)	17				
Lane Width (ft)	14				
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	92				
PCR (Pavement Condition Rating)	92				
<b>Distress Index Values</b>					
Structural Crack Index	92				
Transverse Cracking Index	98				
Patching Index	100				
Rutting Index	98				
Roughness Condition Index (RCI)	NC				

NOTES:  
 Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.  
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.  
 NC - Not Collected N/A - Not Applicable



ROUTE: 0508DZ RAMP FROM ROUTE 198 TO S/B BW PARKWAY



PCR	Poor	Fair	Good	Excellent	No Data
	(0 - 60)	(61 - 84)	(85 - 94)	(95 - 100)	

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

**ROUTE: 0508EZ N/B BW PARKWAY RAMP TO W/B ROUTE 198**  
**BAWA : BALTIMORE-WASHINGTON PARKWAY**

Subcomponent Record COLLECTED: 2/14/2013  
 NATIONAL CAPITAL REGION TOTAL LENGTH: 0.24 Miles

<b>Section Number</b>	0				
<b>Section Length (mi)</b>	0.24				
<b>Cross Section Information</b>					
Number of Lanes	1				
Paved Width (ft)	17				
Lane Width (ft)	15				
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	0				
PCR (Pavement Condition Rating)	0				
<b>Distress Index Values</b>					
Structural Crack Index	0				
Transverse Cracking Index	98				
Patching Index	100				
Rutting Index	95				
Roughness Condition Index (RCI)	NC				

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.  
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

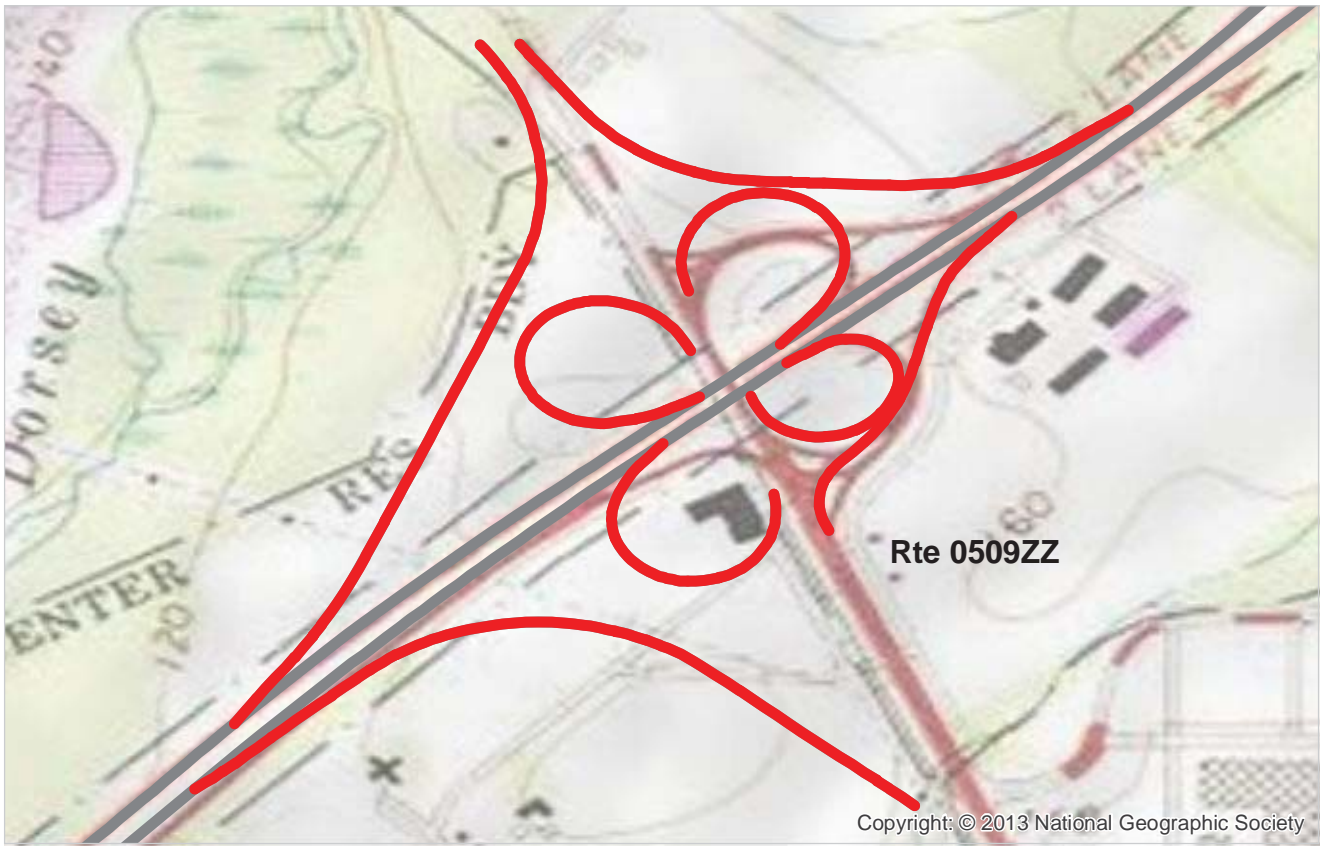
NC - Not Collected N/A - Not Applicable



ROUTE: 0508EZ N/B BW PARKWAY RAMP TO W/B ROUTE 198







PCR	Poor (0 - 60)	Fair (61 - 84)	Good (85 - 94)	Excellent (95 - 100)	No Data

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

**ROUTE: 0509ZZ PATUXENT FREEWAY RAMPS (MD ROUTE 32 INTERCHANGE)**  
**BAWA : BALTIMORE-WASHINGTON PARKWAY**

Summary Record COLLECTED: 2/14/2013  
 NATIONAL CAPITAL REGION TOTAL LENGTH: 2.83 Miles

<b>Section Number</b>					
<b>Section Length (mi)</b>					
<b>Cross Section Information</b>					
Number of Lanes	N/A				
Paved Width (ft)	N/A				
Lane Width (ft)	N/A				
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	7				
PCR (Pavement Condition Rating)	21				
<b>Distress Index Values</b>					
Structural Crack Index	N/A				
Transverse Cracking Index	N/A				
Patching Index	N/A				
Rutting Index	N/A				
Roughness Condition Index (RCI)	N/A				

NOTES:  
 Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.  
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.  
 NC - Not Collected N/A - Not Applicable

ROUTE: 0509ZZ PATUXENT FREEWAY RAMPS (MD ROUTE 32 INTERCHANGE)



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PCR	Poor	Fair	Good	Excellent	No Data
	(0 - 60)	(61 - 84)	(85 - 94)	(95 - 100)	

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

**ROUTE: 0509AZ N/B BW PARKWAY RAMP TO W/B ROUTE 32**  
**BAWA : BALTIMORE-WASHINGTON PARKWAY**

Subcomponent Record COLLECTED: 2/13/2013  
 NATIONAL CAPITAL REGION TOTAL LENGTH: 0.22 Miles

<b>Section Number</b>	0				
<b>Section Length (mi)</b>	0.22				
<b>Cross Section Information</b>					
Number of Lanes	1				
Paved Width (ft)	21				
Lane Width (ft)	15				
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	0				
PCR (Pavement Condition Rating)	0				
<b>Distress Index Values</b>					
Structural Crack Index	0				
Transverse Cracking Index	97				
Patching Index	100				
Rutting Index	98				
Roughness Condition Index (RCI)	NC				

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.  
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

ROUTE: 0509AZ N/B BW PARKWAY RAMP TO W/B ROUTE 32



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PCR	Poor	Fair	Good	Excellent	No Data
	(0 - 60)	(61 - 84)	(85 - 94)	(95 - 100)	

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

**ROUTE: 0509BZ RAMP FROM W/B ROUTE 32 TO S/B BW PARKWAY**  
**BAWA : BALTIMORE-WASHINGTON PARKWAY**

Subcomponent Record

NATIONAL CAPITAL REGION

COLLECTED: 2/13/2013  
TOTAL LENGTH: 0.26 Miles

<b>Section Number</b>	0				
<b>Section Length (mi)</b>	0.26				
<b>Cross Section Information</b>					
Number of Lanes	1				
Paved Width (ft)	20				
Lane Width (ft)	17				
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	25				
PCR (Pavement Condition Rating)	25				
<b>Distress Index Values</b>					
Structural Crack Index	25				
Transverse Cracking Index	94				
Patching Index	100				
Rutting Index	95				
Roughness Condition Index (RCI)	NC				

ROUTE: 0509BZ RAMP FROM W/B ROUTE 32 TO S/B BW PARKWAY

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.

See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable









PCR	Poor	Fair	Good	Excellent	No Data
	(0 - 60)	(61 - 84)	(85 - 94)	(95 - 100)	

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

**ROUTE: 0509EZ RAMP FROM W/B ROUTE 32 TO N/B BW PARKWAY**  
**BAWA : BALTIMORE-WASHINGTON PARKWAY**

Subcomponent Record

NATIONAL CAPITAL REGION

COLLECTED: 2/13/2013  
TOTAL LENGTH: 0.28 Miles

<b>Section Number</b>	0				
<b>Section Length (mi)</b>	0.28				
<b>Cross Section Information</b>					
Number of Lanes	1				
Paved Width (ft)	18				
Lane Width (ft)	13				
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	22				
PCR (Pavement Condition Rating)	22				
<b>Distress Index Values</b>					
Structural Crack Index	22				
Transverse Cracking Index	100				
Patching Index	100				
Rutting Index	100				
Roughness Condition Index (RCI)	NC				

ROUTE: 0509EZ RAMP FROM W/B ROUTE 32 TO N/B BW PARKWAY

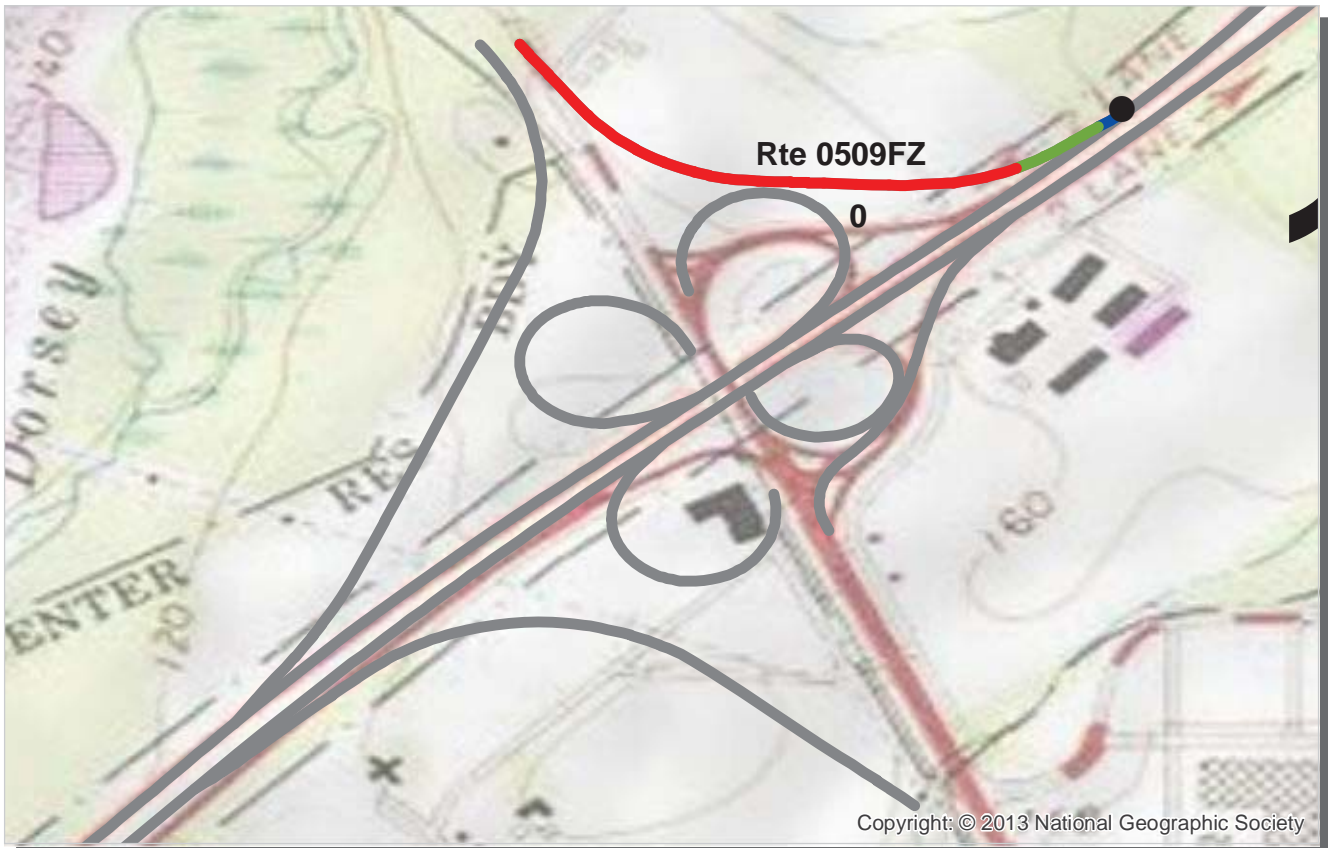
NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.

See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable





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PCR    Poor ■    Fair ■    Good ■    Excellent ■    No Data ■  
           (0 - 60)           (61 - 84)           (85 - 94)           (95 - 100)

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

**ROUTE: 0509FZ S/B BW PARKWAY RAMP TO W/B ROUTE 32**  
**BAWA : BALTIMORE-WASHINGTON PARKWAY**

Subcomponent Record

NATIONAL CAPITAL REGION

COLLECTED: 2/13/2013  
 TOTAL LENGTH: 0.43 Miles

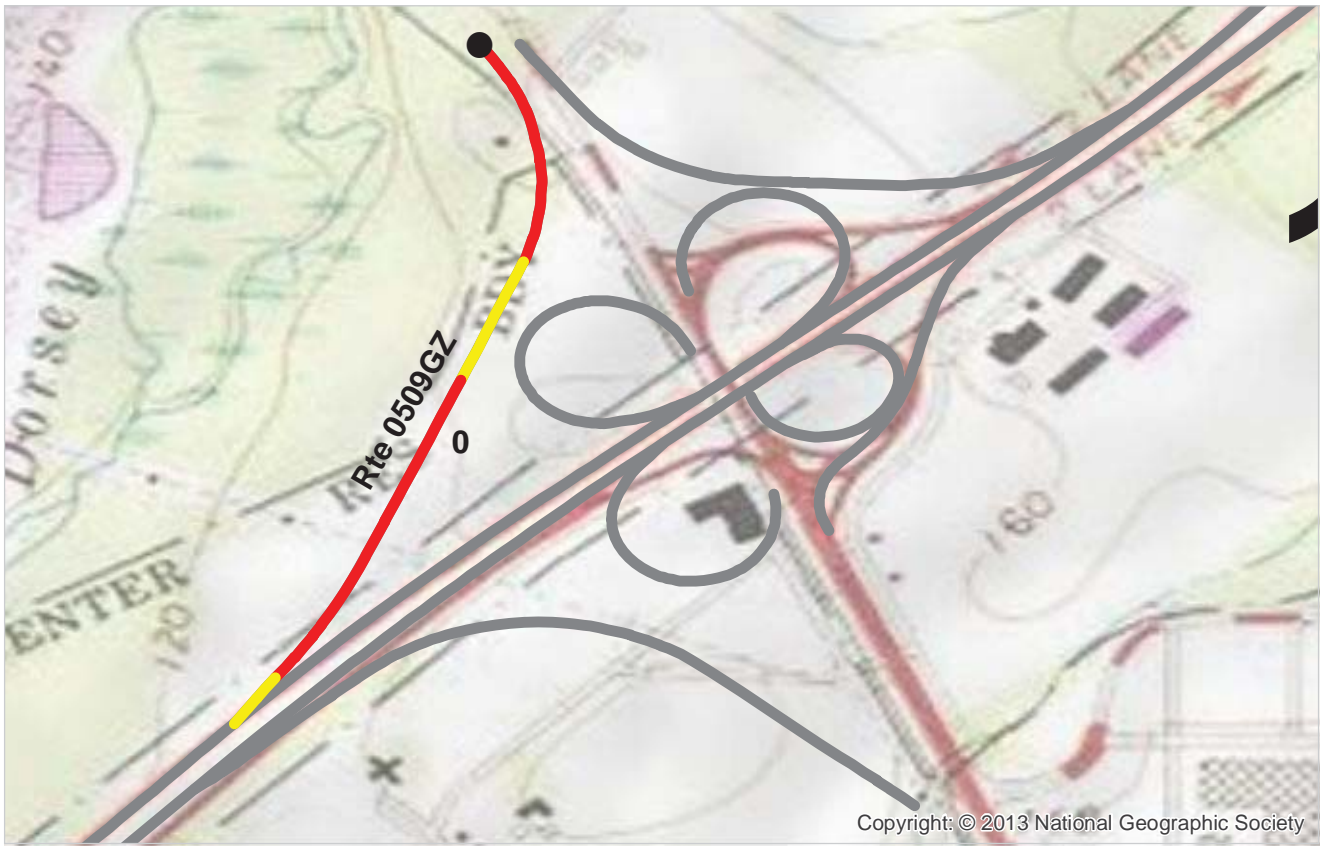
<b>Section Number</b>	0				
<b>Section Length (mi)</b>	0.43				
<b>Cross Section Information</b>					
Number of Lanes	1				
Paved Width (ft)	20				
Lane Width (ft)	14				
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	0				
PCR (Pavement Condition Rating)	0				
<b>Distress Index Values</b>					
Structural Crack Index	0				
Transverse Cracking Index	100				
Patching Index	100				
Rutting Index	98				
Roughness Condition Index (RCI)	NC				

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.  
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected    N/A - Not Applicable

ROUTE: 0509FZ S/B BW PARKWAY RAMP TO W/B ROUTE 32



PCR	Poor	Fair	Good	Excellent	No Data
	(0 - 60)	(61 - 84)	(85 - 94)	(95 - 100)	

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

**ROUTE: 0509GZ RAMP FROM E/B ROUTE 32 TO S/B BW PARKWAY**  
**BAWA : BALTIMORE-WASHINGTON PARKWAY**

Subcomponent Record

NATIONAL CAPITAL REGION

COLLECTED: 2/13/2013  
TOTAL LENGTH: 0.58 Miles

<b>Section Number</b>	0				
<b>Section Length (mi)</b>	0.58				
<b>Cross Section Information</b>					
Number of Lanes	1				
Paved Width (ft)	20				
Lane Width (ft)	15				
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	0				
PCR (Pavement Condition Rating)	31				
<b>Distress Index Values</b>					
Structural Crack Index	0				
Transverse Cracking Index	97				
Patching Index	100				
Rutting Index	99				
Roughness Condition Index (RCI)	78				

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.

See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

ROUTE: 0509GZ RAMP FROM E/B ROUTE 32 TO S/B BW PARKWAY







PCR	Poor	Fair	Good	Excellent	No Data
	(0 - 60)	(61 - 84)	(85 - 94)	(95 - 100)	

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

**ROUTE: 0510ZZ JESSUP ROAD INTERCHANGE RAMPS (MD ROUTE 175 INTERCHANGE)**  
**BAWA : BALTIMORE-WASHINGTON PARKWAY**

Summary Record COLLECTED: 2/13/2013  
 NATIONAL CAPITAL REGION TOTAL LENGTH: 0.49 Miles

<b>Section Number</b>					
<b>Section Length (mi)</b>					
<b>Cross Section Information</b>					
Number of Lanes	N/A				
Paved Width (ft)	N/A				
Lane Width (ft)	N/A				
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	24				
PCR (Pavement Condition Rating)	24				
<b>Distress Index Values</b>					
Structural Crack Index	N/A				
Transverse Cracking Index	N/A				
Patching Index	N/A				
Rutting Index	N/A				
Roughness Condition Index (RCI)	N/A				

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.

See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

ROUTE: 0510ZZ JESSUP ROAD INTERCHANGE RAMPS (MD ROUTE 175 INTERCHANGE)





PCR	Poor	Fair	Good	Excellent	No Data
	(0 - 60)	(61 - 84)	(85 - 94)	(95 - 100)	

\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

**ROUTE: 0510BZ S/B BW PARKWAY RAMP FROM MD ROUTE 175**  
**BAWA : BALTIMORE-WASHINGTON PARKWAY**

Subcomponent Record COLLECTED: 2/13/2013  
**NATIONAL CAPITAL REGION** TOTAL LENGTH: 0.25 Miles

<b>Section Number</b>	0				
<b>Section Length (mi)</b>	0.25				
<b>Cross Section Information</b>					
Number of Lanes	1				
Paved Width (ft)	25				
Lane Width (ft)	15				
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	24				
PCR (Pavement Condition Rating)	24				
<b>Distress Index Values</b>					
Structural Crack Index	24				
Transverse Cracking Index	84				
Patching Index	100				
Rutting Index	100				
Roughness Condition Index (RCI)	NC				

NOTES:  
 Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.  
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.  
 NC - Not Collected N/A - Not Applicable

ROUTE: 0510BZ S/B BW PARKWAY RAMP FROM MD ROUTE 175



**Section 6**  
**Manually Rated Paved Route  
Condition Rating Sheets**



Baltimore-Washington Parkway



Federal Lands Highway  
Road Inventory Program

## **MANUALLY RATED ROUTE CONDITION RATING SHEETS**

This park is classified as a Large Park. Therefore, in Cycle 5, no manually rated routes were collected unless the route was modified or previously uncollected by RIP.

**Section 7**  
**Parking Area**  
**Condition Rating Sheets**



Baltimore-Washington Parkway



**Federal Lands Highway  
Road Inventory Program**



## **PARKING AREA CONDITION RATING SHEETS**

This park is classified as a Large Park. Therefore, in Cycle 5, no parking area routes were collected unless the route was modified or previously uncollected by RIP.

# Section 8

## Route Maintenance Features Summaries



Baltimore-Washington Parkway



Federal Lands Highway  
Road Inventory Program

## **DCV ROUTE MAINTENANCE FEATURES SUMMARY**

This park is classified as a Large Park. Therefore, in Cycle 5, no features asset inventory was conducted unless the route was modified or previously uncollected by RIP.



## BAWA: STRUCTURE LIST

<b>ROUTE NUMBER</b>	<b>FUNCTIONAL CLASS</b>	<b>MILEPOST START</b>	<b>MILEPOST END</b>	<b>FEATURE</b>	<b>STRUCTURE NUMBER</b>
0501AZ	7	0.012	0.059	BRIDGE	3530-020

# Section 9

## Route Maintenance Features

### Road Logs



Baltimore-Washington Parkway



Federal Lands Highway  
Road Inventory Program

## BAWA: ROUTE MAINTENANCE FEATURES ROAD LOG

### ROUTE 0500AZ: RAMP FROM N/B BW PARKWAY TO E/B U.S. HIGHWAY 50

**Notice:** Culverts and drop inlets were NOT marked by NPS nor inventoried by RIP in Cycle 5 on any new or re-aligned DCV driven routes. Therefore no culverts or drop inlets are reported in Section 9, unless a culvert has a BIP structure number attached to it.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	INTERSECTION	N/A	ROUTE 0001 (BALTIMORE-WASHINGTON PARKWAY (NB))
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0001 (BALTIMORE-WASHINGTON PARKWAY (N/B)) AT MP 0.19
0.000	0.057	GUARD/GUIDE RAIL	LEFT	N/A
0.000	0.096	CURB-AND-GUTTER	RIGHT	N/A
0.000	0.096	GUARD/GUIDE WALL	RIGHT	N/A
0.000	0.108	ONE-WAY	N/A	N/A
0.000	0.000	INTERSECTION	LEFT	ROUTE 0001 (BALTIMORE-WASHINGTON PARKWAY (NB))
0.039	0.039	SIGN	RIGHT	GUIDE, TO INTERSTATE 295 SOUTH RICHMOND
0.057	0.104	CURB-AND-GUTTER	LEFT	N/A
0.096	0.108	GUARD/GUIDE RAIL	RIGHT	N/A
0.108	0.108	INTERSECTION	N/A	PAVED ROUTE (U.S. HIGHWAY 50 / NON NPS)
0.108	0.108	ROUTE END	N/A	TO U.S. HIGHWAY ROUTE 50 EASTBOUND
0.108	0.108	SIGN	RIGHT	GUIDE, 201 SOUTH TO INTERSTATE 295 KENILWORTH AVE ALEXANDRIA



## BAWA: ROUTE MAINTENANCE FEATURES ROAD LOG

### ROUTE 0501AZ: RAMP FROM N/B KENILWORTH AVENUE TO N/B BW PARK

**Notice:** Culverts and drop inlets were NOT marked by NPS nor inventoried by RIP in Cycle 5 on any new or re-aligned DCV driven routes. Therefore no culverts or drop inlets are reported in Section 9, unless a culvert has a BIP structure number attached to it.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.013	GUARD/GUIDE RAIL	RIGHT	N/A
0.000	0.074	GUARD/GUIDE RAIL	LEFT	N/A
0.000	0.160	ONE-WAY	N/A	N/A
0.000	0.000	PARK BOUNDARY	N/A	N/A
0.000	0.000	INTERSECTION	N/A	PAVED ROUTE (KENWORTH AVENUE (N/B) / NON NPS)
0.000	0.000	ROUTE BEGIN	N/A	FROM PARK BOUNDARY
0.012	0.059	BRIDGE	N/A	3530-020 (ROUTE 201 ACCESS RAMP BRIDGE - NORTHBOUND)
0.013	0.087	GUARD/GUIDE RAIL	RIGHT	N/A
0.074	0.106	CURB-AND-GUTTER	LEFT	N/A
0.087	0.160	CURB-AND-GUTTER	RIGHT	N/A
0.087	0.160	GUARD/GUIDE WALL	RIGHT	N/A
0.160	0.160	INTERSECTION	LEFT	ROUTE 0001 (BALTIMORE-WASHINGTON PARKWAY (NB))
0.160	0.160	INTERSECTION	N/A	ROUTE 0001 (BALTIMORE-WASHINGTON PARKWAY (NB))
0.160	0.160	ROUTE END	N/A	TO ROUTE 0001 (BALTIMORE-WASHINGTON PARKWAY (N/B)) AT MP 0.66

# BAWA: ROUTE MAINTENANCE FEATURES ROAD LOG

## ROUTE 0501BZ: BW PARKWAY S/B RAMP TO S/B 295

**Notice:** Culverts and drop inlets were NOT marked by NPS nor inventoried by RIP in Cycle 5 on any new or re-aligned DCV driven routes. Therefore no culverts or drop inlets are reported in Section 9, unless a culvert has a BIP structure number attached to it.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	INTERSECTION	N/A	ROUTE 0001 (BALTIMORE-WASHINGTON PARKWAY (NB))
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0001 (BALTIMORE-WASHINGTON PARKWAY (NB))
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0002 (BALTIMORE-WASHINGTON PARKWAY (S/B))
0.000	0.017	GUARD/GUIDE WALL	RIGHT	N/A
0.000	0.051	CURB-AND-GUTTER	RIGHT	N/A
0.000	0.224	CURB-AND-GUTTER	LEFT	N/A
0.000	0.331	ONE-WAY	N/A	N/A
0.017	0.080	GUARD/GUIDE RAIL	LEFT	N/A
0.051	0.233	CURB-AND-GUTTER	RIGHT	N/A
0.099	0.276	GUARD/GUIDE WALL	LEFT	N/A
0.110	0.110	SIGN	LEFT	REGULATORY, SPEED LIMIT 45
0.111	0.111	SIGN	RIGHT	REGULATORY, SPEED LIMIT 45
0.125	0.125	SIGN	RIGHT	GUIDE, 50 EAST ANNAPOLIS 1/4 MILE
0.151	0.233	GUARD/GUIDE WALL	RIGHT	N/A
0.233	0.286	GUARD/GUIDE RAIL	RIGHT	N/A
0.237	0.276	BRIDGE	N/A	A BIP STRUCTURE NUMBER HAS NOT BEEN ASSIGNED TO THIS BRIDGE (I-40 BRIDGE)
0.276	0.316	GUARD/GUIDE RAIL	LEFT	N/A
0.285	0.331	CURB	RIGHT	N/A
0.286	0.318	GUARD/GUIDE RAIL	RIGHT	N/A
0.291	0.291	SIGN	RIGHT	GUIDE, TO 50 EAST ANNAPOLIS
0.299	0.299	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.331	0.331	INTERSECTION	N/A	PAVED ROUTE (KENWORTH AVENUE (S/B) / NON NPS)
0.331	0.331	INTERSECTION	RIGHT	ROUTE 5000 (W/B U.S. ROUTE 50 RAMP TO S/B INTERSTATE 295 (I-295))
0.331	0.331	ROUTE END	N/A	TO PARK BOUNDARY

# BAWA: ROUTE MAINTENANCE FEATURES ROAD LOG

## ROUTE 0503CBZ: S/B BW PARKWAY RAMP TO ROUTE 450 (WB)

**Notice:** Culverts and drop inlets were NOT marked by NPS nor inventoried by RIP in Cycle 5 on any new or re-aligned DCV driven routes. Therefore no culverts or drop inlets are reported in Section 9, unless a culvert has a BIP structure number attached to it.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	INTERSECTION	LEFT	ROUTE 0503CAZ (S/B BW PARKWAY RAMP TO ROUTE 450 (EB AND WB))
0.000	0.026	ONE-WAY	N/A	N/A
0.000	0.026	GUARD/GUIDE RAIL	RIGHT	N/A
0.000	0.000	INTERSECTION	N/A	ROUTE 0503CAZ (S/B BW PARKWAY RAMP TO ROUTE 450 (EB AND WB))
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0503CAZ (S/B BW PARKWAY RAMP TO ROUTE 450 (E/B AND W/B))
0.000	0.026	CURB-AND-GUTTER	RIGHT	N/A
0.005	0.020	CURB-AND-GUTTER	N/A	N/A
0.007	0.007	SIGN	N/A	REGULATORY, DO NOT ENTER
0.015	0.015	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.015	0.015	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.016	0.016	SIGN	RIGHT	REGULATORY, YIELD
0.017	0.017	SIGN	N/A	WARNING, GRAPHIC SIGN NO TEXT
0.017	0.017	SIGN	N/A	WARNING, GRAPHIC SIGN NO TEXT
0.026	0.026	INTERSECTION	LEFT	PAVED ROUTE (ANNAPOLIS ROAD / NON NPS)
0.026	0.026	INTERSECTION	N/A	PAVED ROUTE (ANNAPOLIS ROAD / NON NPS)
0.026	0.026	ROUTE END	N/A	TO ANNAPOLIS ROAD WESTBOUND



## BAWA: ROUTE MAINTENANCE FEATURES ROAD LOG

### ROUTE 0503DBZ: RAMP FROM E/B AND W/B ROUTE 450 TO S/B BW PARKWA

**Notice:** Culverts and drop inlets were NOT marked by NPS nor inventoried by RIP in Cycle 5 on any new or re-aligned DCV driven routes. Therefore no culverts or drop inlets are reported in Section 9, unless a culvert has a BIP structure number attached to it.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	TRAFFIC LIGHT	N/A	X3
0.000	0.000	INTERSECTION	LEFT	PAVED ROUTE (ANNAPOLIS ROAD / NON NPS)
0.000	0.000	INTERSECTION	RIGHT	PAVED ROUTE (ANNAPOLIS ROAD / NON NPS)
0.000	0.000	SIGN	N/A	REGULATORY, GRAPHIC SIGN NO TEXT
0.000	0.000	TRAFFIC LIGHT	N/A	X3
0.000	0.026	ONE-WAY	N/A	N/A
0.000	0.000	ROUTE BEGIN	N/A	FROM ANNAPOLIS ROAD EASTBOUND AND WESTBOUND
0.003	0.020	CURB-AND-GUTTER	RIGHT	N/A
0.003	0.026	CURB-AND-GUTTER	N/A	N/A
0.006	0.006	SIGN	N/A	REGULATORY, DO NOT ENTER
0.026	0.026	ROUTE END	N/A	TO ROUTE 0503DAZ (RAMP FROM W/B ROUTE 450 TO S/B BW PARKWAY)
0.026	0.026	SIGN	RIGHT	REGULATORY, PEDESTRIANS AND BICYCLES PROHIBITED
0.026	0.026	INTERSECTION	RIGHT	ROUTE 0503DAZ (RAMP FROM W/B ROUTE 450 TO S/B BW PARKWAY)
0.026	0.026	INTERSECTION	N/A	ROUTE 0503DAZ (RAMP FROM W/B ROUTE 450 TO S/B BW PARKWAY)

# BAWA: ROUTE MAINTENANCE FEATURES ROAD LOG

## ROUTE 0505ABZ: N/B BW PARKWAY RAMP TO GREENBELT ROAD (ROUTE 1

**Notice:** Culverts and drop inlets were NOT marked by NPS nor inventoried by RIP in Cycle 5 on any new or re-aligned DCV driven routes. Therefore no culverts or drop inlets are reported in Section 9, unless a culvert has a BIP structure number attached to it.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0505AAZ (N/B BW PARKWAY RAMP TO GREENBELT ROAD (ROUTE 193) (WB))
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0505AAZ (N/B BW PARKWAY RAMP TO GREENBELT ROAD (ROUTE 193) (W/B))
0.000	0.038	CURB-AND-GUTTER	LEFT	N/A
0.000	0.038	ONE-WAY	N/A	N/A
0.000	0.000	INTERSECTION	N/A	ROUTE 0505AAZ (N/B BW PARKWAY RAMP TO GREENBELT ROAD (ROUTE 193) (WB))
0.016	0.038	CURB-AND-GUTTER	RIGHT	N/A
0.024	0.024	SIGN	N/A	REGULATORY, MARYLAND 193
0.024	0.024	SIGN	N/A	REGULATORY, GRAPHIC SIGN NO TEXT
0.024	0.024	SIGN	N/A	REGULATORY, EAST
0.024	0.024	SIGN	N/A	REGULATORY, MARYLAND 193
0.024	0.024	SIGN	N/A	WARNING, GRAPHIC SIGN NO TEXT
0.024	0.024	SIGN	N/A	REGULATORY, WEST
0.025	0.025	SIGN	N/A	WARNING, AHEAD
0.025	0.025	SIGN	N/A	WARNING, GRAPHIC SIGN NO TEXT
0.036	0.036	SIGN	N/A	REGULATORY, H
0.036	0.036	SIGN	N/A	REGULATORY, UNABLE TO READ FROM VIDEO
0.036	0.036	SIGN	N/A	GUIDE, SHO
0.038	0.038	TRAFFIC LIGHT	N/A	X3
0.038	0.038	SIGN	N/A	REGULATORY, ONLY
0.038	0.038	SIGN	N/A	REGULATORY, ONLY
0.038	0.038	ROUTE END	N/A	TO GREENBELT ROAD EASTBOUND AND WESTBOUND
0.038	0.038	INTERSECTION	LEFT	PAVED ROUTE (GREENBELT ROAD / NON NPS)
0.038	0.038	TRAFFIC LIGHT	N/A	X3
0.038	0.038	INTERSECTION	RIGHT	PAVED ROUTE (GREENBELT ROAD / NON NPS)

## BAWA: ROUTE MAINTENANCE FEATURES ROAD LOG

### ROUTE 0505BBZ: RAMP FROM GREENBELT ROAD (ROUTE 193) (EB AND WB)

**Notice:** Culverts and drop inlets were NOT marked by NPS nor inventoried by RIP in Cycle 5 on any new or re-aligned DCV driven routes. Therefore no culverts or drop inlets are reported in Section 9, unless a culvert has a BIP structure number attached to it.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.018	ONE-WAY	N/A	N/A
0.000	0.018	CURB-AND-GUTTER	N/A	N/A
0.000	0.000	INTERSECTION	LEFT	PAVED ROUTE (GREENBELT ROAD / NON NPS)
0.000	0.000	INTERSECTION	RIGHT	PAVED ROUTE (GREENBELT ROAD / NON NPS)
0.000	0.000	ROUTE BEGIN	N/A	FROM GREENBELT ROAD EASTBOUND AND WESTBOUND
0.007	0.007	SIGN	N/A	REGULATORY, UNABLE TO READ FROM VIDEO
0.018	0.018	INTERSECTION	N/A	ROUTE 0505BBZ (RAMP FROM GREENBELT ROAD (ROUTE 193) (EB AND WB) TO N/B BW PARKWAY)
0.018	0.018	INTERSECTION	RIGHT	ROUTE 0505BBZ (RAMP FROM GREENBELT ROAD (ROUTE 193) (EB AND WB) TO N/B BW PARKWAY)
0.018	0.018	ROUTE END	N/A	TO ROUTE 0505BAZ (RAMP FROM GREENBELT ROAD (ROUTE 193) TO N/B BW PARKWAY)



## BAWA: ROUTE MAINTENANCE FEATURES ROAD LOG

### ROUTE 0505DBZ: RAMP FROM SOUTHWAY TO S/B BW PARKWAY

**Notice:** Culverts and drop inlets were NOT marked by NPS nor inventoried by RIP in Cycle 5 on any new or re-aligned DCV driven routes. Therefore no culverts or drop inlets are reported in Section 9, unless a culvert has a BIP structure number attached to it.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	INTERSECTION	LEFT	PAVED ROUTE (SOUTHWAY ROAD / NON NPS)
0.000	0.032	ONE-WAY	N/A	N/A
0.000	0.032	CURB-AND-GUTTER	RIGHT	N/A
0.000	0.017	CURB-AND-GUTTER	N/A	N/A
0.000	0.000	INTERSECTION	N/A	PAVED ROUTE (SOUTHWAY ROAD / NON NPS)
0.000	0.000	ROUTE BEGIN	N/A	FROM SOUTHWAY ROAD
0.011	0.011	SIGN	RIGHT	REGULATORY, PEDESTRIANS AND BICYCLES PROHIBITED
0.011	0.011	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN NO TEXT
0.011	0.011	SIGN	RIGHT	REGULATORY, NO COMMERCIAL VEHICLES
0.017	0.029	CURB-AND-GUTTER	N/A	N/A
0.027	0.027	SIGN	RIGHT	REGULATORY, YIELD
0.032	0.032	INTERSECTION	LEFT	ROUTE 0505DAZ (RAMP FROM SOUTHWAY (EB AND WB) TO S/B BW PARKWAY)
0.032	0.032	INTERSECTION	N/A	ROUTE 0505DAZ (RAMP FROM SOUTHWAY (EB AND WB) TO S/B BW PARKWAY)
0.032	0.032	ROUTE END	N/A	TO ROUTE 0505DAZ (RAMP FROM SOUTHWAY (E/B AND W/B) TO S/B BW PARKWAY)

# BAWA: ROUTE MAINTENANCE FEATURES ROAD LOG

## ROUTE 0508CBZ: S/B BW PARKWAY RAMP TO ROUTE 198 (WB)

**Notice:** Culverts and drop inlets were NOT marked by NPS nor inventoried by RIP in Cycle 5 on any new or re-aligned DCV driven routes. Therefore no culverts or drop inlets are reported in Section 9, unless a culvert has a BIP structure number attached to it.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.025	CURB-AND-GUTTER	RIGHT	N/A
0.000	0.025	ONE-WAY	N/A	N/A
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0508CAZ (S/B BW PARKWAY RAMP TO ROUTE 198) (E/B AND W/B)
0.000	0.000	INTERSECTION	N/A	ROUTE 0508CAZ (S/B BW PARKWAY RAMP TO ROUTE 198 (EB AND WB))
0.000	0.000	INTERSECTION	LEFT	ROUTE 0508CAZ (S/B BW PARKWAY RAMP TO ROUTE 198 (EB AND WB))
0.004	0.013	CURB-AND-GUTTER	N/A	N/A
0.005	0.005	SIGN	N/A	WARNING, GRAPHIC SIGN NO TEXT
0.007	0.007	SIGN	LEFT	REGULATORY, DO NOT ENTER
0.007	0.007	SIGN	N/A	REGULATORY, DO NOT ENTER
0.007	0.007	SIGN	N/A	REGULATORY, ONE WAY
0.025	0.025	ROUTE END	N/A	TO FORT MEADE ROAD WESTBOUND
0.025	0.025	INTERSECTION	LEFT	PAVED ROUTE (FORT MEADE ROAD / NON NPS)
0.025	0.025	INTERSECTION	N/A	PAVED ROUTE (FORT MEADE ROAD / NON NPS)

# Section 10 Appendix



Baltimore-Washington Parkway



Federal Lands Highway  
Road Inventory Program



## **Explanation of Changes to the RIP Index Equations and Determination of PCR**

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In 2005, the FHWA began implementing the use of a Pavement Management System to assist the National Park Service in prioritizing Pavement Maintenance and Rehabilitation activities. The PMS used by FHWA is the Highway Pavement Management Application (HPMA) and this software has the ability to store inventory and condition data from RIP and forecast future performance using prediction models. Outputs include performance and condition reports at the National, Region, Park, or Route level. A regional prioritized list and optimization have been produced for most regions and the Federal Highway Deferred Maintenance is calculated via the HPMA as well.

In an effort to improve the accuracy of treatment recommendations and pavement condition descriptions in relation to the distresses and indexes that comprise the Pavement Condition Rating (PCR), an extensive study was completed throughout 2010 that resulted in changes to the Road Inventory Program condition reporting method and specifically, the calculation of PCR. It was determined that a better representation of PCR could be achieved by modifying the relative impact certain distresses would have on the overall rating.

Through the use of HPMA data, it was noted that false failure indicators existed with the existing PCR model, and that it would be necessary to reduce their impact. The distresses affected in this way were Rutting and Roughness. Conversely, experience showed that roadways with extensive cracking present were often shown to have a high PCR. Therefore, the crack index models were adjusted to be more sensitive to changes in crack severity or quantity. It was also determined that these issues were not due to a problem with data acquisition (i.e. the RIP “van”), but with the way the collected data was processed. The final change was to provide guidance on when to use the Roughness Condition Index (RCI) in the PCR calculation. Roughness data is of little value to determining overall condition on routes that, due to their length or geometrics, have lower vehicle operating speeds. Therefore, in Cycle 5, only routes that have lengths of one half mile or greater and posted speed limits of 25 mph or greater will have RCI reported and included in the PCR calculations.

The changes that were implemented were endorsed by management at both the FHWA and NPS. In order to show the effectiveness of these changes, several sites were ground truth tested to ensure that an improvement was achieved between the relationship of PCR and the actual Maintenance and Rehabilitation needs that were represented. These changes will allow greater use of RIP and HPMA data for not simply condition data reporting, but also as a reliable tool for project identification and selection.

# Explanation of the Excellent, Good, Fair and Poor Condition Descriptions

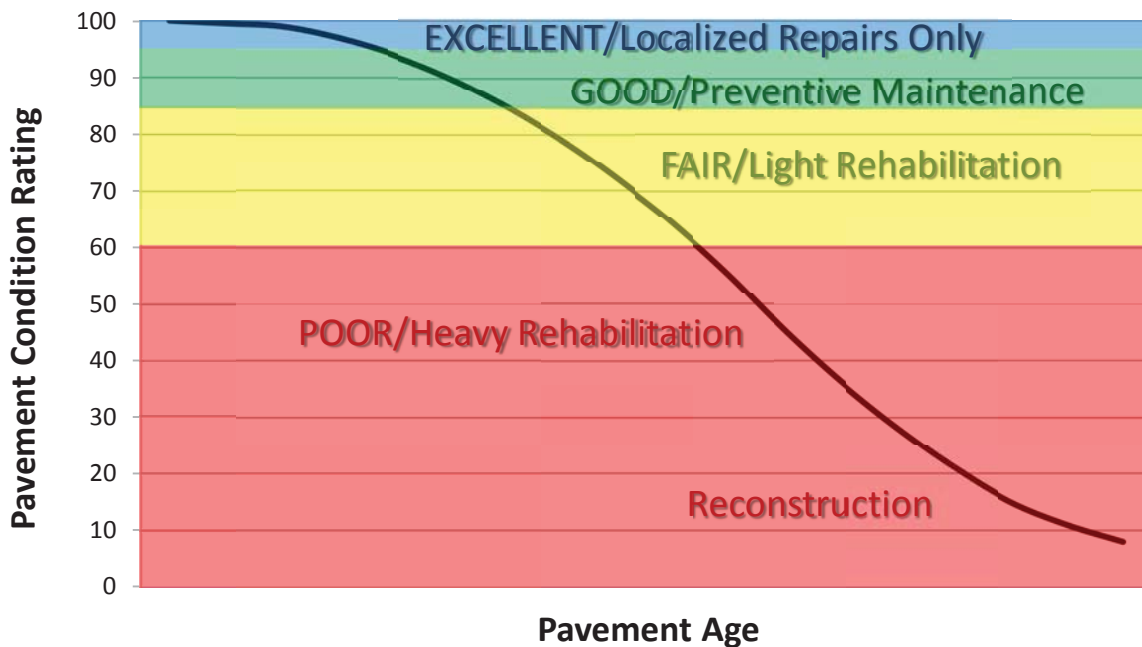
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In addition to the RIP Index changes that were implemented in Cycle 5, we will provide greater assistance in translating good/fair/poor categories into pavement needs categories. The PCR can be used to indicate the place in the Pavement Life Cycle and the types of treatments that should be considered now and into the future.

- Excellent/New: PCR of 95-100. Pavements in this range will require only spot repairs.
- Good: PCR of 85-94. Pavements in this range will likely be candidates for Preventive Maintenance. Examples include Chip and Slurry Seals, Micro Surfacing and Thin Overlays.
- Fair: PCR of 61-84. Pavements in this range will likely be candidates of Light Rehabilitation (L3R). Examples include single-lift overlays up to 2.5 inches in total thickness, milling and overlays.
- Poor: PCR of 60 or below. Pavements in this range will likely be candidates of Heavy Rehabilitation or Reconstruction (H3R or 4R). Examples include Pulverization, Multiple Lift Overlays, and Reconstruction.

Specific Maintenance and Rehabilitation activities should be evaluated and recommended at the project level. Site-specific conditions that influence treatment type should be determined based on performing a subsurface investigation and/or pavement condition survey, and not be based solely on RIP data. Additionally, RIP produces a snapshot of conditions the year in which the data was collected. For further information or to obtain additional Pavement Management System's data from our Highway Pavement Management Application (HPMA) please contact the Eastern Federal Lands pavement team.

## Condition Categories and Treatments



## DESCRIPTION OF RATING SYSTEM

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The Federal Highway Administration (FHWA), National Park Service Road Inventory Program (NPS-RIP), collects condition data on paved roads, parkways, and parking areas in park units nationwide. Road surface condition data is collected using an automated Data Collection Vehicle (DCV). Roads having brick, cobblestone, or wood surfaces are not normally surveyed with the DCV, but are manually rated for the purpose of assigning a condition rating. Unpaved roads, parkways, and parking areas are not currently being evaluated for condition. Paved campground pads and driveways are also not currently being evaluated for condition.

The FHWA RIP is implemented based on the premise that an accurate pavement surface condition assessment can be accomplished using automated crack detection technology as applied to digital images. Various methods of pavement condition assessment have been developed over the years with varying degrees of accuracy and acceptance. The use of digital photography to record pavement images and subsequent crack detection and classification has undergone continuous improvements over the past decade. Digital cameras with increasingly superior resolution and high definition have become more affordable, and the proprietary programming code and algorithms have been improved in crack detection software.

With the use of high quality digital photography and automated crack detection software, FHWA RIP is tasked with executing a pavement condition assessment on about 5000 miles of National Park Service roads and parkways. Foremost in setting up the basis of pavement distress identification is employing the distress identification protocols used by FHWA. There is no single distress identification system that is universal among entities conducting a program of distress identification. For the purpose of the NPS-RIP, FHWA employs distress identification protocols that are specific to this program.

FHWA has referenced the “*Distress Identification Manual for the Long-Term Pavement Performance Program*”, Publication No. FHWA-RD 03-031, June 2003, as the point-of-reference for distress types on NPS pavement. The FHWA RIP distress types are similar to those described in the LTPP manual with some modifications. The document, “*Distress Identification Manual for the NPS Road Inventory Program, Cycle 5, 2010-2013*” was developed using the “*Distress Identification Manual for the Long-Term Pavement Performance Program*” as a guideline. Definitions of severity levels based on crack width contained in this document adhere to the LTPP Distress ID Manual. Modifications have been made to the definition of Alligator and Longitudinal Cracking and determination of Alligator Cracking severity. This manual also addresses Rutting and Roughness and its application to NPS-RIP.

In 2010, FHWA RIP began the fifth cycle of data collection in national parks. For Cycle 5, data will be collected in approximately 81 large parks (10 or more paved route miles) on Functional Class 1, 2, and 7 routes plus any new routes or parking areas previously not collected, totaling an estimated 4,459 paved route miles. Additionally, 231 small parks will be collected comprising approximately 529 paved route miles and associated paved parking areas. The data is used to support the National Park Service road maintenance program and Pavement Management System (PMS) developed and maintained by FHWA.



This “*Distress Identification Manual for the NPS Road Inventory Program, Cycle 5, 2010-2013*” will be used as a reference resource in crack detection and classification, determination of distress severity and extent, and in the calculation of distress index values for the FHWA RIP Cycle 5.

# **SURFACE DISTRESSES**

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## **Surface Condition Rating - SCR**

Surface distresses are measured in the primary lane only. In the classification and measurement of all paved surface condition data, results will be reported in the database in record intervals of 0.02 miles (105.6 feet) (smallest granularity) along the route.

### **Surface distresses determined from digital images**

- Transverse Cracks
- Longitudinal Cracks
- Alligator Cracks
- Patching/Potholes

### **Surface distress measured by DCV (Data Collection Vehicle) LRMS (Laser Rut Measuring System)**

- Rutting

### **Each of the five surface distresses is assigned a computed surface distress index**

- Transverse Crack Index
- Longitudinal Crack Index
- Alligator Crack Index
- Patching/Pothole Index
- Rutting Index

Surface distress data are classified as listed above, measured for severity, and quantified for extent. Classification, severity, and extent of these five surface distresses comprise the three main elements for calculation of SCR (Surface Condition Rating).

In addition to the five surface distresses, a **Structural Crack Index** is computed, which is a combination of the Longitudinal Crack Index and the Alligator Crack Index. The Structural Crack Index is then used in lieu of the LC and AC indices to compute SCR.

## **Roughness Condition Index - RCI**

### **Additional condition data measured by DCV (lasers and accelerometers)**

- Roughness (IRI)

Roughness is measured by FHWA's DCV and reported as International Roughness Index (IRI) in inches/mile. Using IRI, the Roughness Condition Index (RCI) is computed.

## **Pavement Condition Rating - PCR**

Using the SCR (computed from the five surface distresses) and the RCI, an overall Pavement Condition Rating (PCR) is computed. The formula for PCR is:

$$\text{Asphalt PCR} = (0.60 * \text{SCR}) + (0.40 * \text{RCI})$$

$$\text{Concrete PCR} = \text{RCI}$$

A detailed description of each distress index formula, roughness index formula, SCR and PCR is provided in this document beginning on page 8.

Each classified surface distress will fall into one or more *severity*...LOW, MEDIUM, or HIGH based on criteria listed. For each severity, an *extent* is established based on the measured quantity of the distress within that severity. Within each *severity* individual distresses are assigned a *Maximum Allowable Extent* (MAE). For example, LOW severity transverse cracking may be allowed up to 21.1 cracks within a 0.02 interval before it reaches MAE and fails.

The index formulas are based on a scale of 0-100. A PCR index value of 100 would indicate a “new” road with no measurable distresses or rough ride. A PCR value of 60 is determined to be *terminable serviceability* and the road is considered failed. The range of index values with condition descriptors is:

POOR ( $\leq 60$ ), FAIR (61 - 84), GOOD (85 - 94), EXCELLENT (95 - 100)

Index values are generally computed based on cumulative deducts of the measured severities. As shown in the index formulas below, as any single severity reaches or exceeds MAE, the index computes to a value of 60 or less, and the road fails for that 0.02 interval.

**Note:** As a result of a unique combination of measured surface distresses and IRI, index values occasionally compute to less than 0 or greater than 100. In this instance, an index value  $< 0$  defaults to 0. Index values  $> 100$  default to 100. For all indices, a higher value indicates a better road condition, and a lower value indicates a poorer road condition.

On the following page, Table 1 summarizes the different types of distresses measured.



**TABLE 1: Distress Summary**

<b>ASPHALT-SURFACED PAVEMENT DISTRESS TYPES with RUTTING and ROUGHNESS</b>				
<b>DISTRESS TYPE</b>	<b>UNIT OF MEASURE...</b>	<b>...CONVERTED TO</b>	<b>DEFINED SEVERITY LEVELS?</b>	<b>MEASURED BY</b>
<b>Alligator Cracking</b>	<b>Square Feet</b>	<b>Percent of Lane Per 0.02 Mile</b>	<b>Yes</b>	<b>Digital Image Crack Detection Software</b>
<b>Transverse Cracking</b>	<b>Linear Feet</b>	<b>Number of Cracks Per 0.02 Mile</b>	<b>Yes</b>	<b>Digital Image Crack Detection Software</b>
<b>Longitudinal Cracking</b>	<b>Linear feet</b>	<b>Percent of Lane Length Per 0.02 Mile</b>	<b>Yes</b>	<b>Digital Image Crack Detection Software</b>
<b>Patching/Potholes</b>	<b>Square Feet</b>	<b>Percent of Lane Per 0.02 Mile</b>	<b>No</b>	<b>Digital Image Crack Detection Software</b>
<b>Rutting</b>	<b>Inches</b>	<b>Rut Depth Per 0.02 Mile</b>	<b>Yes</b>	<b>DCV – Laser Rut Measuring System (LRMS)</b>
<b>Roughness</b>	<b>IRI</b>	<b>*RCI Per 0.02 Mile</b>	<b>No</b>	<b>DCV – Lasers /Accelerometers</b>

**\*Note: Roughness is measured on concrete roadways, but surface distresses and rutting are not measured. For concrete, PCR = RCI**

# **ALLIGATOR CRACKING**

## **Description**

Alligator cracking is considered a combination of fatigue and block cracking. It is a series of interconnected cracks in various stages of development. Alligator cracking develops into a many-sided pattern that resembles chicken wire or alligator skin. It can occur anywhere in the road lane. Alligator cracking must have a quantifiable area.

## **Severity Levels**

### **LOW**

An area of cracks with no or very few interconnecting cracks and the cracks are not spalled. Cracks are  $\leq 0.25$  in (6mm) in mean width. Cracks in the pattern are no further apart than 1 foot (0.328 m). May be sealed cracks with sealant in good condition and a crack width that cannot be determined.

### **MEDIUM**

An area of interconnected cracks that form a complete pattern. Cracks may be slightly spalled. Cracks are  $>0.25$  in. (6 mm) and  $\leq 0.75$  in. (19 mm) or any crack with a mean width  $\leq 19$  mm and adjacent low severity cracking. Cracks in the pattern are no further apart than 6 in. (150 mm).

### **HIGH**

An area of interconnected cracks forming a complete pattern. Cracks are moderately or severely spalled. Cracks are  $>0.75$  in (19mm) or any crack with a mean width  $\leq 0.75$  in (19mm) and adjacent medium to high severity random cracking.

A combination of observed crack width and crack pattern is used to determine overall severity of alligator cracking. Based on above description of each severity, the highest level of crack width and crack pattern determines overall severity. Table 2 illustrates this.

**TABLE 2: Alligator Crack Severity Levels**

<b>ALLIGATOR CRACKING SEVERITY LEVELS</b>		<b>Crack Pattern</b>		
		<b>LOW</b>	<b>MED</b>	<b>HIGH</b>
<b>Crack Width</b>	<b>LOW</b>	L	M	H
	<b>MED</b>	M	M	H
	<b>HI</b>	H	H	H

## **LONGITUDINAL CRACKING**

### **Description**

Longitudinal cracking occurs predominantly parallel to the pavement centerline. It can occur anywhere within the lane. Longitudinal cracks occurring in the wheelpath may be noteworthy.

### **Severity Levels**

#### **LOW**

Cracks with a mean width of  $< 0.25$  in. (6 mm). Sealed cracks with sealant in good condition and a width that cannot be determined.

#### **MED**

Cracks with a mean width  $> 0.25$  in. (6 mm) and  $\leq 0.75$  in. (19 mm). Also, any crack with a mean width  $< 0.75$  in. (19 mm) and adjacent random low severity cracking.

#### **HIGH**

Cracks with a mean width  $> 0.75$  in. (19 mm). Also, any crack with a mean width  $< 0.75$  in. (19 mm) and adjacent random medium to high severity cracking.

## **TRANSVERSE CRACKING**

### **Description**

Transverse cracking occurs predominantly perpendicular to the pavement centerline. It can occur anywhere within the lane.

### **Severity Levels**

#### **LOW**

Cracks with a mean width of  $< 0.25$  in. (6 mm). Sealed cracks with sealant in good condition and a width that cannot be determined.

#### **MED**

Cracks with a mean width  $> 0.25$  in. (6 mm) and  $\leq 0.75$  in. (19 mm). Also, any crack with a mean width  $< 0.75$  in. (19 mm) and adjacent random low severity cracking.

#### **HIGH**

Cracks with a mean width  $> 0.75$  in. (19 mm). Also, any crack with a mean width  $< 0.75$  in. (19 mm) and adjacent random medium to high severity cracking.



## **PATCHING AND POTHOLES**

### **Description**

Patching is an area of pavement surface that has been removed and replaced with patching material or an area of pavement surface that has had additional patching material applied. Patching may encompass partial-lane or full-lane width. On full-lane width patching; the total, contiguous length of a patch may not exceed 0.30 mi. (0.48 km). Any full-lane width patch exceeding 0.30 mi. in length is considered a pavement change, not a patch for the purposes of distress analysis. Patching must have a quantifiable area.

Potholes are bowl-shaped holes of various sizes occurring in the pavement surface.

### **Severity Levels**

There are no stratified severities for Patching/Potholes. They either are present or they are not.

## **RUTTING**

### **Description**

Rutting is a longitudinal surface depression in the wheelpath.

### **Severity Levels**

#### **LOW**

Ruts with a measured depth  $\geq 0.20''$  and  $\leq 0.49''$

#### **MED**

Ruts with a measured depth  $\geq 0.50''$  and  $\leq 0.99''$

#### **HIGH**

Ruts with a measured depth  $\geq 1.00''$

Ruts  $< 0.20''$  are not included in the distress calculations.

## **ROUGHNESS**

### **Description**

Roughness is the measurement of the unevenness of the pavement in the direction of travel. It is measured in units of IRI (International Roughness Index), inches per mile, and is indicative of ride comfort.

### **Severity Levels**

There are no stratified severity levels for roughness. The roughness (or smoothness) of a road surface can be defined by IRI in the following table.

**TABLE 3: IRI**

<b>IRI Descriptions</b>	
<b>Type of Road</b>	<b>Typical IRI ( in/mile )</b>
New Road, no noticeable roughness	<90
Small level of roughness	90 – 126
Road of average roughness	126 – 190
Road with above average roughness	190 – 253
Road with severe roughness	253 – 380
Nearly impassable	>380

## INDEX FORMULAS

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Note: All index formulas listed below contain MAE applicable to 0.02 mile (105.6 feet) interval.

### Alligator Crack Index

$$AC\_INDEX = 100 - 40 * [(\%LOW / 35) + (\%MED / 15) + (\%HI / 5)]$$

Where:

The values *%LOW*, *%MED* and *%HI* report the percentage of the observed pavement (0.02 mile, primary lane) that contains alligator cracking within the respective severities. These values range from 0 to 100.

*%LOW* = Percent of total area (primary lane, 0.02 in length), low severity

*%MED* = Percent of total area (primary lane, 0.02 in length), medium severity

*%HI* = Percent of total area (primary lane, 0.02 in length), high severity

Percent of total area is computed as:

$$\frac{\text{square foot area of alligator crack severity}}{0.02 \text{ mile} * \text{lane width}}$$

In AC\_INDEX, the denominators 35, 15, and 5 are the Maximum Allowable Extents (MAE) for each severity. In other words, we will allow up to 35% of low severity alligator cracking for a 0.02 interval before failure, 15% for medium severity, and so on. As you can see, if any single severity reaches MAE the resulting index value is 60, or failure.

### Longitudinal Crack Index

$$LC\_INDEX = 100 - 40 * [(\%LOW / 175) + (\%MED / 75) + (\%HI / 25)]$$

Where:

The values *%LOW*, *%MED*, and *%HI* report the length of longitudinal cracking within each severity as a percent of the section length (0.02 mile, primary lane).

These values are  $\geq 0$  and can exceed 100.

*%LOW* = Percent of interval length (primary lane, 0.02 in length), low severity

*%MED* = Percent of interval length (primary lane, 0.02 in length), medium severity

*%HI* = Percent of interval length (primary lane, 0.02 in length), high severity

Percent of interval length is computed as:

$$\frac{\text{length of respective longitudinal cracking}}{0.02 \text{ mile (105.6 feet)}}$$



In LC\_INDEX, the denominators 175, 75, and 25 are the Maximum Allowable Extents (MAE) for each severity. In other words, we will allow up to 175% of low severity alligator cracking for a 0.02 interval before failure, 75% for medium severity, and so on. As you can see, if any single severity reaches MAE the resulting index value is 60, or failure.

### **Structural Crack Index**

$$SC\_INDEX = [100 - ((100 - AC\_INDEX) + (100 - LC\_INDEX))]$$

**Structural Crack Index** is a combination of Alligator Cracking and Longitudinal Cracking, and is used in the SCR formula in lieu of AC and LC separately.

### **Transverse Crack Index**

$$TC\_INDEX = 100 - 40 * [(LOW / 21.1) + (MED / 4.4) + (HI / 2.6)]$$

Where:

The values *LOW*, *MED* and *HI* report a count of the total number of transverse cracks (reported to three decimals) within each severity level, where one transverse crack is equal to the lane width. These values are  $\geq 0$ .

LOW = Number of cracks in interval (primary lane, 0.02 in length), low severity

MED = Number of cracks in interval (primary lane, 0.02 in length), medium severity

HI = Number of cracks in interval (primary lane, 0.02 in length), high severity

Number of cracks is computed as:

$$\frac{\text{Total length of transverse cracks}}{\text{Lane width}}$$

In TC\_INDEX, the denominators 21.1, 4.4, and 2.6 are the Maximum Allowable Extents (MAE) for each severity. In other words, we will allow up to 21.1 low severity transverse cracks for a 0.02 interval before failure, 4.4 cracks for medium severity, and so on. As you can see, if any single severity reaches MAE the resulting index value is 60, or failure.

## **Patching Index**

$$\text{PATCH\_INDEX} = 100 - 40 * (\% \text{PATCHING} / 80)$$

Where:

The value *%PATCHING* reports the percentage of the observed pavement (0.02 mile, primary lane) that contains patching/potholes. This value ranges from 0 to 100.

*%PATCHING* = Percent of total area (primary lane, 0.02 in length)

Percent of total area is computed as:

$$\frac{\text{square foot area of patching/potholes}}{0.02 \text{ mile} * \text{lane width}}$$

There are no severity levels for patching. It either exists or does not.

In *PATCH\_INDEX*, the denominator 80 is the Maximum Allowable Extent (MAE) for each severity. In other words, we will allow up to 80% patching for a 0.02 interval before failure. As you can see, if patching/potholes reaches MAE the resulting index value is 60, or failure.

## **Rutting Index**

$$\text{RUT\_INDEX} = 100 - 40 * [(\% \text{LOW} / 535) + (\% \text{MED} / 205) + (\% \text{HI} / 40)]$$

Where:

20 rut depth measurements are taken per 0.02 interval for each of 2 wheel paths (left and right), resulting in a total of 40 measurements taken for both wheel paths. *Each wheelpath is analyzed independently for rut severities.* The values *%LOW*, *%MED* and *%HI* are a *total percentage* of left wheelpath percentage and right wheelpath percentage added together for the respective severity. These values range from 0 to 200.

*%LOW* = Percent of LOW ruts in left wheelpath based on 20 ruts, plus percent of LOW ruts in right wheelpath based on 20 ruts.

*%MED* = Percent of MED ruts in left wheelpath based on 20 ruts, plus percent of MED ruts in right wheelpath based on 20 ruts.

*%HI* = Percent of HI ruts in left wheelpath based on 20 ruts, plus percent of HI ruts in right wheelpath based on 20 ruts.

Percent of rut measurements within each severity can also be computed as:

$$\frac{\text{total number of ruts within each severity in both wheelpaths}}{20} * 100$$

In *RUT\_INDEX*, the denominators 535, 205, and 40 are the Maximum Allowable Extents for each severity. In other words, the formula allows up to 535% low severity

ruts for a 0.02 interval before. However, since 200 is the highest measurable percentage allowed, 535% is unattainable and therefore, no amount of LOW severity rutting will cause the RUT\_INDEX to fail a road. Similarly, since the MAE for MED severity rutting is 205, no amount of MED severity rutting will cause the RUT\_INDEX to reach 60 and fail the road. As you can see, LOW severity rutting reaches MAE the resulting index value is 60, or failure. This formula was intentionally designed to minimize the impact of LOW and MED severity rutting on RUT\_INDEX.

### **Roughness Condition Index (Asphalt)**

$$RCI = 32 * [5 * (2.718282 ^ {(-0.0041 * AVG IRI)})]$$

Where:

The value *AVG IRI* reports the average value of the Left IRI and Right IRI measurements for the interval (0.02 mile, primary lane). This value can range from approximately 40 to 999.0.

Average IRI is computed as:

$$\frac{\text{Left wheelpath IRI} + \text{Right wheelpath IRI}}{2}$$

There is no applicable threshold for failure for this index.

### **Roughness Condition Index (Concrete)**

$$RCI = -0.0012(IRI^2) + 0.0499(IRI) + 99.542$$

For concrete, PCR = RCI

### **Surface Condition Rating Index**

**SCR** = *Lowest* Index Value Of: [SC\_INDEX, TC\_INDEX, PATCH\_INDEX, RUT\_INDEX]

*Note: The modified SCR equation above combines AC\_INDEX and LC\_INDEX, and considers that a single AC/LC index value of the Structural Crack Index (SC\_INDEX). The lowest of the four computed index values (SC\_INDEX, TC\_INDEX, PATCH\_INDEX, or RUT\_INDEX) becomes the SCR.*

Where:

See above for determinations of SC\_INDEX, TC\_INDEX, PATCH\_INDEX and RUT\_INDEX.

The threshold for failure for this index is SCR = 60.



## Data Collection Vehicle Subsystems

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Data on paved roads in Cycle 5 is collected by FHWA using a Pathway Services Inc. Data Collection Vehicle (DCV), called PathRunner. The DCV is driven in the primary-direction lane at posted speed limits and less.

### CAMERAS

Forward-facing and rear-facing video is collected as .jpg digital imagery at a frequency of 26.4 feet.

Two forward-facing cameras are mounted above the vehicle cab, one pointed straight ahead and the other to the right shoulder providing seamless 120 degree viewing.

<b>CAMERA SPECIFICATIONS</b> <b>Two Forward/ One Rear Facing</b>	
Camera lens/type	FUJINON CCTV LENS H16x10B-Y41
Focal length	10 mm – 160 mm
Image size	8.8 mm x 6.6mm
Image format	*.jpg
Image resolution	HD 2000 X 1200
Image pixel size	depends on distance
Zoom ratio	16x
Max Relative Aperture	1:2.5
Iris range	F25-T800 (Equivalent to F800)

Pavement images are created using a Laser Scan Imaging System. This system is composed of a single high resolution line-scan camera and two lasers configured to image an approximate 11-foot wide lane with 1 mm resolution.

<b>CAMERA SPECIFICATIONS</b> <b>Pavement Line Scan</b>	
Image size	4280 pixels/line
Image width	4 meters (3950 mm nominal)
Laser class	3B
Power	250W
Vehicle speed limitations	62 mph
Environment	Dry pavement, day or night
Sensor size (approx)	300 mm(H) x 375 mm(L) x 200 mm(D)
Image frame length	26.4 feet

### **DMI (Distance Measuring Instrument)**

The DMI (Distance Measuring Instrument) obtains road length measurements that are accurate to 0.1% for speeds up to 60 mph. The DMI is connected to the hub of the rear wheel on the driver's side, and is calibrated to the revolutions of the rear vehicle axle on a regular basis.

### **ROUGHNESS (IRI)**

The collection system includes a South Dakota type laser profiler manufactured based on active Class 1 ASTM E950 standards. The dynamic profile of the pavement surface is collected from which the IRI roughness data is computed. The sensors include one accelerometer on each wheelpath, one height sensor (laser) on each wheelpath, and a distance transducer.

<b>IRI SPECIFICATIONS</b>	
Reported IRI units	Inches/mile
Vehicle speed limitations	12-62 mph
IRI equipment certification	Texas Transportation Institute (TTI)
Wavelengths accommodated	6 in. – 300 feet
IRI computed & reported	World Bank Technical Paper Number 46
Environment	Dry pavement, day or night, above 32 degrees F
Adherence to specifications	ASTM E950-98 (2004), ASTM E 1926-08, AASHTO MP 11-08, AASHTO PP 49-08

### **RUTTING**

Rutting depths are measured using an INO Laser Rut Measurement System (LRMS). This system is a transverse profiling device that detects and characterizes pavement rutting. The LRMS can acquire full 4 meter width profiles of a pavement lane at normal traffic speeds and uses two laser profilers that digitize transverse sections of the pavement.

<b>RUTTING SPECIFICATIONS</b>	
Reported rut depth units	Inches
Vehicle speed limitations	Up to 62 mph
Sampling rate	30-150 profiles/second
Transverse resolution	1280 points/profile
Transverse field-of-view	4 m
Depth accuracy (nominal)	+/- 1 mm
Environment	Dry pavement, day or night, above 32 degrees F
Adherence to specifications	ASTM E1703M-95 (reapproved 2005)

## **GPS & INERTIAL SYSTEMS**

GPS is collected by an onboard system employing OmniSTAR real-time correction and a gyroscope (spin-type) to provide accurate positioning data (pitch/roll/heading) in instances of satellite obstruction. All GPS coordinates are tied to image and linear distance measurements.

<b>GPS SPECIFICATIONS</b>	
Static accuracy	Sub-meter
Dynamic accuracy	2-3 meters
Receiver	12 satellite tracking
Coordinate system	Lat Lon WGS 84
Environment	Day or night
Cross-slope	+ - 0.5 degrees
Grade	+ - 0.5 degrees

### **GPS on Manually Rated Roads (MRR)**

Parking areas, some roads, and other paved areas that are not fully drivable with the DCV are collected manually by field technicians. GPS is collected for these routes using portable Trimble GPS backpack units. Paved campground pads and driveways are not typically included in the inventory or GPS.



## Geodatabase – Background and Metadata

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In addition to this park report, a *geodatabase* containing both tabular and spatial data specific to this park has been provided. All data disseminated in the preceding report has been obtained from the tables and fields within said geodatabase. The geodatabase can be referenced for tabular data via Microsoft Access or for both tabular and spatial data via ESRI's ArcGIS Suite of software which consists of; ArcMap, ArcCatalog and ArcExplorer. Consolidating the RIP data into one database creates a seamless relationship of tabular and geographic data. It will allow RIP to facilitate easier updates and enhancements in the future.

A geodatabase can be thought of as simply a database containing spatial data. Many different tables are contained with the park's geodatabase. A complete and thorough description of the tables and fields contained within this geodatabase can be found in the *metadata*. The metadata is attached directly within the geodatabase and can be accessed via ESRI's ArcCatalog. The metadata portion of the geodatabase also includes data dictionary report functionality that formats the metadata into an easy to read report.

## **GLOSSARY OF TERMS AND ABBREVIATIONS**

<b><u>TERM OR ABBREVIATION</u></b>	<b><u>DESCRIPTION OR DEFINITION</u></b>
AC	Alligator Cracking
CRS	Condition Rating Sheets (Section 5)
DCV	Data Collection Vehicle
Excellent	Excellent rating with an index value of 95 to 100
Fair	Fair rating with an index value from 61 to 84
FUNCT_CLASS	Functional Classification (see Route ID, Section 2)
Good	Good rating with an index value from 85 to 94
IRI	International Roughness Index
Lane Width	Width from road centerline to fogline, or from centerline to edge-of-pavement when no fogline exists
LC	Longitudinal Cracking
MRR	Manually Rated Route
MRL	Manually Rated Line
MRP	Manually Rated Polygon
N/A	Not Applicable
NC	Not Collected
PATCH	Patching and Potholes
Paved Width	Width from edge-of-pavement to edge-of-pavement
PCR	Pavement Condition Rating
PKG	Parking Area
Poor	Poor rating with an index value of 0 to 60
RCI	Roughness Condition Index
SC	Structural Cracking
SCR	Surface Condition Rating
TC	Transverse Cracking