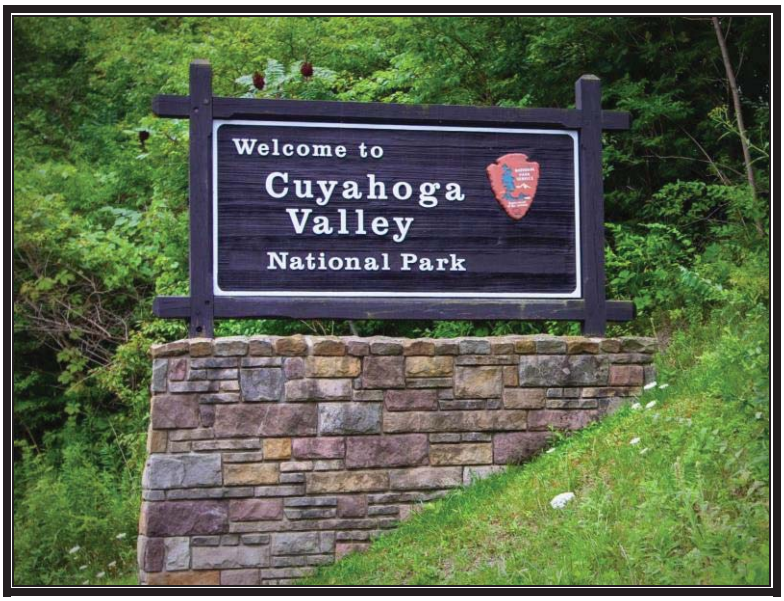
Federal Lands Highway

Road Inventory Program

Road Inventory and Condition Assessment

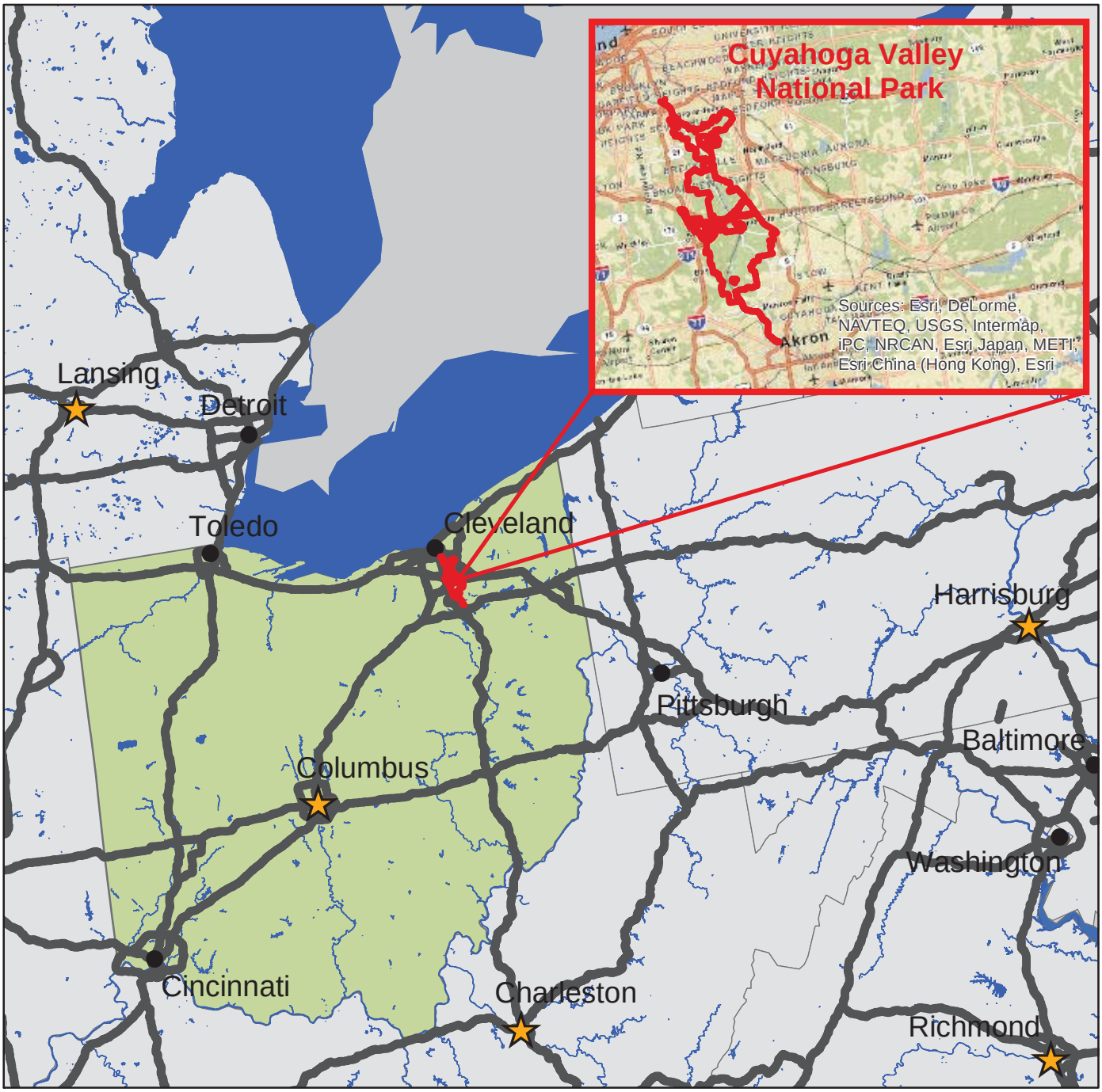


Cuyahoga Valley National Park
CUVA

Cycle 5 Report

Prepared By: Federal Highway Administration
Road Inventory Program (RIP)
Data Collected: 11/2013
Report Date: 07/2014

Cuyahoga Valley National Park
in
Ohio



DCV = Data Collection Vehicle

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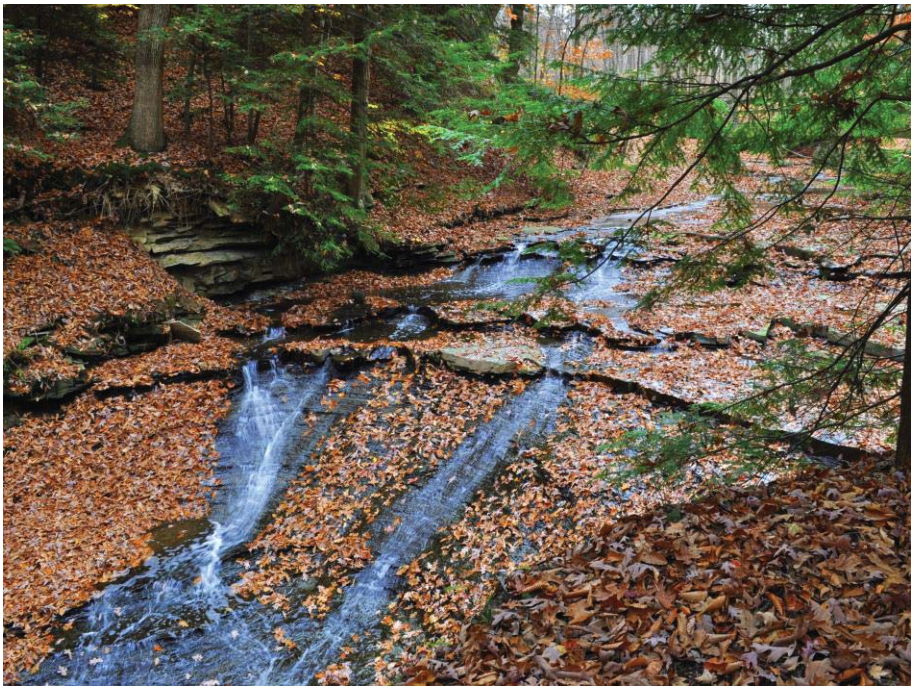
Introduction



Cuyahoga Valley National Park

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 21st 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
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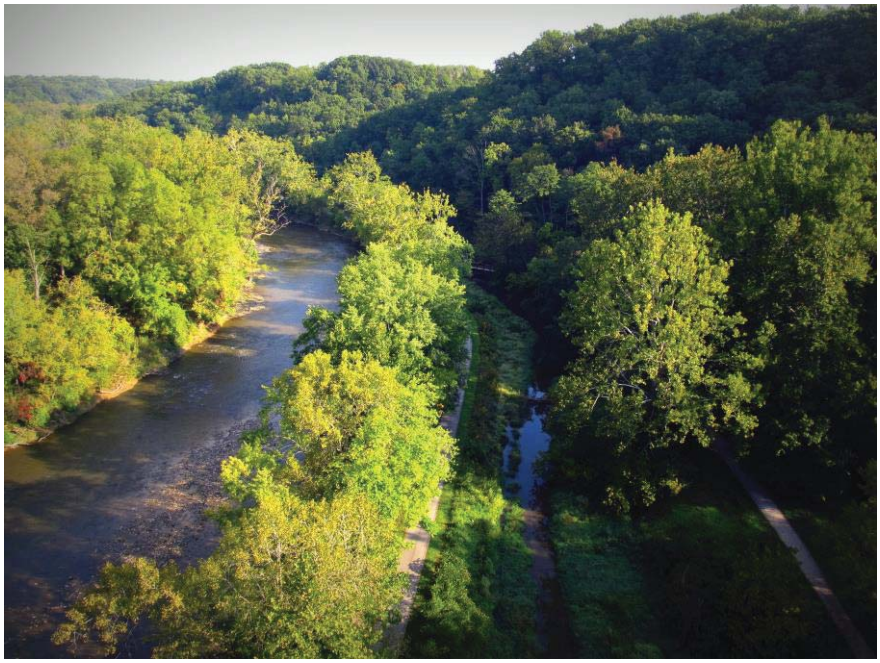
Section 2
Park Route Inventory



Cuyahoga Valley National Park

Federal Lands Highway
Road Inventory Program

Cycle 5 NPS/RIP Route ID Report

Shading Color Key:
Red text denotes approx. mileage

White = Paved Routes, DCV Driven
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Blue = All Paved Parking Areas
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= 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 NC - Not Collected

CUVA

CUYAHOGA VALLEY NATIONAL PARK

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Description From	Route Description To	Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0100	5	42378		ND BRECKSVILLE STATION ROAD	FROM RIVERVIEW ROAD	TO ROUTE 0905 (ND BRECKSVILLE STATION PARKING)	NORTH DISTRICT	0.21	0.00	0.21	2		AS	3
0101	5	42380		SD CUYAHOGA VALLEY EEC ROAD	FROM OAK HILL ROAD	TO ROUTE 0212 (SD CVEEC WHITE PINE CIRCLE ROAD)	SOUTH DISTRICT	0.33	0.00	0.33	2		AS	6
0102	5	69868		SD CVEEC LIPSCOMB PARKING ROAD	FROM ROUTE 0101 (SD CUYAHOGA VALLEY EEC ROAD)	TO ROUTE 0927 (SD EEC LIPSCOMB CAMPUS PARKING)	SOUTH DISTRICT	0.05	0.00	0.05	2		AS	6
0103	5	230352		ND BRANDYWINE FALLS ENTRANCE ROAD	FROM BRANDYWINE ROAD	TO ROUTE 0911 (ND BRANDYWINE FALLS UPPER PARKING)	NORTH DISTRICT	0.08	0.00	0.08	2		AS	4
0200	5	42381		ND OLD ROCKSIDE ROAD	FROM OLD ROCKSIDE ROAD	TO ROUTE 0954 (ND ROCKSIDE ROAD SHELTER PARKING)	NORTH DISTRICT	0.09	0.00	0.09	2		AS	1
0201	5	42382		ND PINE LANE TRAILHEAD ROAD	FROM STATE ROUTE 303 (WEST STREETSBORO ROAD)	TO END OF PAVEMENT	NORTH DISTRICT	0.24	0.00	0.24	2		AS	4
0202	5	24583		SD OCTAGON ROAD	FROM TRUXELL ROAD	TO ROUTE 0918 (SD OCTAGON PARKING)	SOUTH DISTRICT	0.45	0.00	0.45	2		AS	5
0203	5	24494		SD LEDGES ROAD	FROM KENDALL PARK ROAD / TRUXELL ROAD	TO ROUTE 0920 (SD LEDGES PARKING) AND ROUTE 0921 (SD LEDGES OVERFLOW PARKING)	SOUTH DISTRICT	0.33	0.00	0.33	2		AS	5
0204	5	42389		SD EEC LIPSCOMB CAMPUS ROAD	FROM ROUTE 0101 (SD CUYAHOGA VALLEY EEC ROAD)	TO ROUTE 0102 (SD CVEEC LIPSCOMB PARKING ROAD)	SOUTH DISTRICT	0.04	0.00	0.04	3		AS	6
0205	5	25589		SD EEC ADMINISTRATION ROAD	FROM ROUTE 0101 (SD CUYAHOGA VALLEY EEC ROAD)	TO ROUTE 0101 (SD CUYAHOGA VALLEY EEC ROAD)	SOUTH DISTRICT	0.04	0.00	0.04	3		AS	6
0206	NC	25620		SD OAK HILL DAY USE ROAD	FROM QUICK ROAD	TO ROUTE 0937 (OAK HILL DAY USE PARKING)	SOUTH DISTRICT	0.00	0.76	0.76	3		GR	
0207	NC	25682		ND YOUTH HOSTEL ROAD	FROM ROUTE 0214 (ND STANFORD ROAD)	TO HOUSE	NORTH DISTRICT	0.00	0.11	0.11	3		GR	
0209	NC	25627		SD HOWE SITE ROAD	FROM AKRON-PENINSULA ROAD	TO ROUTE 0943 (MAPLEWOOD PICNIC AREA)	SOUTH DISTRICT	0.00	1.13	1.13	3		GR	

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CUYAHOGA VALLEY NATIONAL PARK

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Description From	Route Description To	Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0210	5	69864		SD CVEEC NOVEMBER LODGE ROAD	FROM ROUTE 0927 (SD EEC LIPSCOMB CAMPUS PARKING)	TO END OF LOOP	SOUTH DISTRICT	0.13	0.00	0.13	3		AS	6
0211	NC	25816		ND PINE HILL ROAD	FROM STATE ROUTE 82	TO TOW PATH TRAIL	NORTH DISTRICT	0.00	0.38	0.38	4		GR	
0212	5	69862		SD CVEEC WHITE PINE CIRCLE ROAD	FROM END OF ROUTE 0101 (SD CUYAHOGA VALLEY EEC ROAD)	TO END OF LOOP AT ROUTE 0101 (SD CUYAHOGA VALLEY EEC ROAD)	SOUTH DISTRICT	0.05	0.00	0.05	3		AS	6
0213	NC	102015		ND TEL STATION ROAD (LATTA LANE)	FROM ROUTE 0213 (ND STANFORD ROAD)	TO TEL STATION	NORTH DISTRICT	0.00	0.33	0.33	3		GR	
0214	5	241038		ND STANFORD ROAD	FROM ND STANFORD ROAD (NON NPS)	TO DEAD END	NORTH DISTRICT	1.48	0.00	1.48	3		AS	4
0400	5	42391		ND FITZWATER MAINTENANCE YARD ROAD	FROM CANAL ROAD	TO ROUTE 0903 (ND FITZWATER MAINTENANCE YARD PARKING)	NORTH DISTRICT	0.34	0.00	0.34	5		AS	2
0403	5	42478		SD HINE HOUSE LOOP ROAD	FROM MARTIN ROAD / IRA ROAD	TO END OF LOOP	SOUTH DISTRICT	0.10	0.00	0.10	2		AS	6
0434	5	42392		ND BRANDYWINE FALLS LOWER ROAD	FROM BRANDYWINE ROAD	TO END AT TRAIL	NORTH DISTRICT	0.00	0.00	0.00	3	751	AS	4
0435	NC	231216		SD VIRGINIA KENDALL DAM SERVICE ROAD	FROM TRUSSELL ROAD	TO DAM	SOUTH DISTRICT	0.00	0.17	0.17	6		GR	
0436	NC	24663		ND 120 JAITE MILL ROAD	FROM VAUGHN ROAD	TO JAITE MILL	NORTH DISTRICT	0.00	0.80	0.80	6		GR	
0437	NC	25526		SD AP RADIO TOWER ROAD	FROM AKRON-PENINSULA ROAD	TO RADIO TOWER	SOUTH DISTRICT	0.00	0.28	0.28	6		GR	
0438	NC	25590		SD CVEEC UNPAVED ROADS	FROM NOVEMBER LODGE	TO LAGOONS	SOUTH DISTRICT	0.00	0.11	0.11	6		GR	
0439	NC	25667		SD VK 95 SHULZE ROAD	FROM TRUXELL ROAD	TO BARN	SOUTH DISTRICT	0.00	0.40	0.40	6		GR	
0440	NC	25681		ND 197 CLAYTON STANFORD ROAD	FROM ROUTE 0214 (ND STANFORD ROAD)	TO HOUSE	NORTH DISTRICT	0.00	0.05	0.05	6		GR	
0441	NC	25835		ND 92 HS HUEFNER ROAD	FROM RIVERVIEW ROAD	TO BARN	NORTH DISTRICT	0.00	0.12	0.12	6		GR	
0442	NC	25836		SD VK 209 HAPPY DAYS PUMP HOUSE ROAD	FROM STATE ROUTE 303 (WEST STREETSBORO ROAD)	TO BRIDGE	SOUTH DISTRICT	0.00	0.10	0.10	6		GR	

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CUYAHOGA VALLEY NATIONAL PARK

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0443	NC	69857		ND COONRAD RADIO TOWER ROAD	FROM ROUTE 0910 (ND COONRAD PARKING)	TO RADIO TOWER	NORTH DISTRICT	0.00	0.25	0.25	6		GR	
0900	5	42393		ND LOCK 39 TRAILHEAD PARKING	FROM ROCKSIDE ROAD	TO PARKING	NORTH DISTRICT	0.00	0.00	0.00		21,324	AS	1
0902	5	23304		ND CANAL VISITOR CENTER PARKING	FROM HILLSIDE ROAD	TO PARKING	NORTH DISTRICT	0.00	0.00	0.00		45,828	AS	1
0903	5	42397		ND FITZWATER MAINTENANCE YARD PARKING	FROM END OF ROUTE 0400 (ND FITZWATER MAINTENANCE YARD ROAD)	TO PARKING	NORTH DISTRICT	0.00	0.00	0.00		51,803	AS	2
0904	5	23310		ND FRAZEE HOUSE PARKING	FROM CANAL ROAD	TO PARKING	NORTH DISTRICT	0.00	0.00	0.00		5,021	AS	2
0905	5	42399		ND BRECKSVILLE STATION PARKING	FROM END OF ROUTE 0100 (ND BRECKSVILLE STATION ROAD)	TO PARKING	NORTH DISTRICT	0.00	0.00	0.00		76,550	AS	3
0906	5	24492		ND CENTRAL MAINTENANCE & RECEIVING OFFICE PARKING	FROM RIVERVIEW ROAD	TO RIVERVIEW ROAD	NORTH DISTRICT	0.00	0.00	0.00		51,212	AS	3
0907	5	25882		ND RED LOCK TRAILHEAD PARKING	FROM COUNTY ROUTE 111 (HIGHLAND ROAD)	TO PARKING	NORTH DISTRICT	0.00	0.00	0.00		8,255	AS	4
0908A	5	24659		ND HEADQUARTERS PARKING A	FROM VAUGHN ROAD	TO VAUGHN ROAD	NORTH DISTRICT	0.00	0.00	0.00		6,602	AS	4
0908B	5	42479		ND HEADQUARTERS PARKING B	FROM VAUGHN ROAD	TO PARKING	NORTH DISTRICT	0.00	0.00	0.00		10,641	AS	4
0909	5	24661		ND DUPLEX PARKING	FROM RIVERVIEW ROAD	TO RIVERVIEW ROAD	NORTH DISTRICT	0.00	0.00	0.00		11,716	AS	4
0910	5	24512		ND COONRAD PARKING	FROM RIVERVIEW ROAD	TO ROUTE 0443 (ND COONRAD RADIO TOWER ROAD)	NORTH DISTRICT	0.00	0.00	0.00		16,982	AS	4
0911	5	24488		ND BRANDYWINE FALLS UPPER PARKING	FROM END OF ROUTE 0103 (ND BRANDYWINE FALLS ENTRANCE ROAD)	TO PARKING	NORTH DISTRICT	0.00	0.00	0.00		30,768	AS	4
0912	5	24482		ND BOSTON GENERAL STORE PARKING	FROM BOSTON MILLS ROAD	TO PARKING	NORTH DISTRICT	0.00	0.00	0.00		24,845	AS	4

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CUYAHOGA VALLEY NATIONAL PARK

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0913	5	42401		ND BIKE & HIKE TRAILHEAD PARKING	FROM BOSTON MILLS ROAD	TO BOSTON MILLS ROAD	NORTH DISTRICT	0.00	0.00	0.00		6,781	AS	5
0914	5	25891		ND LOCK 29 TRAILHEAD PARKING	FROM WEST MILL STREET	TO PARKING	NORTH DISTRICT	0.00	0.00	0.00		26,439	CO	4
0915	5	25822		ND SHADY KNOLL PICNIC AREA PARKING	FROM STATE ROUTE 303 (WEST STREETSBORO ROAD)	TO PARKING	NORTH DISTRICT	0.00	0.00	0.00		8,793	AS	5
0916	5	24591		ND HAPPY DAYS VISITOR CENTER PARKING	FROM STATE ROUTE 303 (WEST STREETSBORO ROAD)	TO PARKING	NORTH DISTRICT	0.00	0.00	0.00		45,591	AS	5
0917	5	42403		SD HAPPY DAYS VISITOR HANDICAP PARKING	FROM STATE ROUTE 303 (WEST STREETSBORO ROAD)	TO PARKING	SOUTH DISTRICT	0.00	0.00	0.00		13,687	AS	5
0918	5	24586		SD OCTAGON PARKING	FROM END OF ROUTE 0202 (SD OCTAGON ROAD)	TO PARKING	SOUTH DISTRICT	0.00	0.00	0.00		50,843	AS	5
0919	5	25794		SD HORSESHOE POND PARKING	FROM MAJOR ROAD	TO PARKING	SOUTH DISTRICT	0.00	0.00	0.00		9,032	AS	4
0920	5	24495		SD LEDGES PARKING	FROM ROUTE 0203 (SD LEDGES ROAD)	TO ROUTE 0203 (SD LEDGES ROAD)	SOUTH DISTRICT	0.00	0.00	0.00		60,797	AS	5
0921	5	42405		SD LEDGES OVERFLOW PARKING	FROM END OF ROUTE 0203 (SD LEDGES ROAD)	TO PARKING	SOUTH DISTRICT	0.00	0.00	0.00		19,972	AS	5
0922	5	24497		SD VIRGINIA KENDALL LAKE MAINTENANCE PARKING	FROM TRUXELL ROAD	TO PARKING	SOUTH DISTRICT	0.00	0.00	0.00		17,855	AS	5
0923	5	23311		SD VIRGINIA KENDALL LAKE PARKING	FROM TRUXELL ROAD	TO PARKING	SOUTH DISTRICT	0.00	0.00	0.00		81,263	AS	5
0924	5	25800		SD PINE HOLLOW PARKING	FROM QUICK ROAD	TO QUICK ROAD	SOUTH DISTRICT	0.00	0.00	0.00		75,670	AS	5
0925	5	42468		SD CROW FOOT GULLY PARKING	FROM QUICK ROAD	TO PARKING	SOUTH DISTRICT	0.00	0.00	0.00		23,710	AS	5
0926	5	24582		SD LITTLE MEADOW PARKING	FROM QUICK ROAD	TO PARKING	SOUTH DISTRICT	0.00	0.00	0.00		21,186	AS	5

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0927	5	42470		SD EEC LIPSCOMB CAMPUS PARKING	FROM ROUTE 0102 (SD CVEEC LIPSCOMB PARKING ROAD)	TO ROUTE 0210 (SD CVEEC NOVEMBER LODGE ROAD)	SOUTH DISTRICT	0.00	0.00	0.00		4,293	AS	6
0929	5	25593		SD EEC LIPSCOMB RECEIVING PARKING	FROM ROUTE 0101 (SD CUYAHOGA VALLEY EEC ROAD)	TO PARKING	SOUTH DISTRICT	0.00	0.00	0.00		3,223	AS	6
0931	5	25591		SD EEC ADMINISTRATION PARKING	FROM ROUTE 0101 (SD CUYAHOGA VALLEY EEC ROAD)	TO ROUTE 0101 (SD CUYAHOGA VALLEY EEC ROAD)	SOUTH DISTRICT	0.00	0.00	0.00		22,323	AS	6
0933	5	42476		SD EEC WHITE PINE CAMPUS PARKING	ADJACENT TO ROUTE 0212 (SD CVEEC WHITE PINE CIRCLE ROAD)		SOUTH DISTRICT	0.00	0.00	0.00		2,217	AS	6
0934	5	42477		SD HUNT FARM VISITOR INFORMATION CENTER PARKING	FROM BOLANZ ROAD	TO PARKING	SOUTH DISTRICT	0.00	0.00	0.00		14,253	AS	6
0935	5	25654		SD IRA TRAILHEAD PARKING	FROM RIVERVIEW ROAD	TO PARKING	SOUTH DISTRICT	0.00	0.00	0.00		24,319	AS	6
0936	5	25630		SD BOTZUM PARKING	FROM RIVERVIEW ROAD	TO PARKING	SOUTH DISTRICT	0.00	0.00	0.00		69,737	AS	6
0937	NC	25619		SD OAK HILL DAY USE PARKING	FROM ROUTE 0206 (SD OAK HILL DAY USE ROAD)	TO PARKING	SOUTH DISTRICT	0.00	0.00	0.00		27,000	GR	
0939	NC	25813		SD WETMORE TRAILHEAD PARKING	FROM WETMORE ROAD	TO PARKING	SOUTH DISTRICT	0.00	0.00	0.00		32,787	GR	
0940	NC	25542		SD COVERED BRIDGE PARKING	FROM EVERETT ROAD	TO PARKING	SOUTH DISTRICT	0.00	0.00	0.00		14,300	GR	
0941	NC	86509		SD VALLEY PICNIC AREA PARKING	FROM RIVERVIEW ROAD	TO PARKING	SOUTH DISTRICT	0.00	0.00	0.00		4,320	GR	
0942	NC	104188		ND COLUMBIA RUN PICNIC AREA	FROM RIVERVIEW ROAD	TO PARKING	NORTH DISTRICT	0.00	0.00	0.00		3,225	GR	
0943	NC	25661		SD MAPLEWOOD PICNIC AREA	FROM AKRON-PENINSULA ROAD	TO PARKING	SOUTH DISTRICT	0.00	0.00	0.00		2,856	GR	
0944	NC	49916		ND BLUE HEN FALLS PARKING AREA	FROM BOSTON MILLS ROAD	TO PARKING	NORTH DISTRICT	0.00	0.00	0.00		600	GR	
0945	NC	69860		ND PINE LANE TRAILHEAD PARKING	FROM ROUTE 0201 (ND PINE LANE TRAILHEAD ROAD)	TO PARKING	NORTH DISTRICT	0.00	0.00	0.00		7,605	GR	
0946	NC	24665		ND JAITE OVERFLOW PARKING	FROM VAUGHN ROAD	TO PARKING	NORTH DISTRICT	0.00	0.00	0.00		5,184	GR	

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Grey = Paved Routes, DCV not Driven
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= 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 NC - Not Collected

CUVA

CUYAHOGA VALLEY NATIONAL PARK

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Description From	Route Description To	Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0947	NC	86508		ND BOSTON MILLS TRAILHEAD PARKING	FROM BOSTON MILLS ROAD	TO PARKING	NORTH DISTRICT	0.00	0.00	0.00		4,550	GR	
0950	NC	25825		SD ARMINGTON POND PARKING	FROM QUICK ROAD	TO PARKING	SOUTH DISTRICT	0.00	0.00	0.00		3,900	GR	
0951	NC	24645		ND HINES HILL PARKING AREA	FROM HINES HILL ROAD	TO PARKING	NORTH DISTRICT	0.00	0.00	0.00		4,824	GR	
0952	NC	25831		ND HS SZCZUDLO PARKING (TRACT 106-09)	FROM SNOWVILLE ROAD	TO PARKING	NORTH DISTRICT	0.00	0.00	0.00		1,260	GR	
0953	NC	25881		ND RAILROAD BOSTON SHELTER PARKING	FROM RIVERVIEW ROAD	TO PARKING	NORTH DISTRICT	0.00	0.00	0.00		2,507	GR	
0954	**5**	**25865**		**ND ROCKSIDE ROAD SHELTER PARKING**	**FROM END OF ROUTE 0200 (ND OLD ROCKSIDE ROAD)**	**TO PARKING**	**NORTH DISTRICT**	**0.00**	**0.00**	**0.00**		**52,133**	**AS**	**1**
0955	NC	102017		ND TERRA VISTA PARKING AREA	FROM TINKERS CREEK ROAD	TO PARKING	NORTH DISTRICT	0.00	0.00	0.00		4,890	GR	
0956	NC	25892		ND TOWPATH LOCK 29 OVERFLOW PARKING	FROM WEST MILL STREET	TO PARKING	NORTH DISTRICT	0.00	0.00	0.00		33,375	GR	
0957	NC	25657		SD INDIGO LAKE PARKING AREA	FROM RIVERVIEW ROAD	TO PARKING	SOUTH DISTRICT	0.00	0.00	0.00		3,657	GR	
0959	NC	230909		ND TILDEN DRIVEWAY / PARKING LOT	FROM STINE ROAD	TO PARKING	NORTH DISTRICT	0.00	0.00	0.00		10,956	GR	
0960	**5**	**226198**		**ND CANCASCI DRIVE AND PARKING LOT**	**FROM CHAFFEE ROAD**	**TO PARKING**	**NORTH DISTRICT**	**0.00**	**0.00**	**0.00**		**6,890**	**AS**	**3**
0961	NC	235334		SD SEIFERT DRIVEWAY AND PARKING	FROM STATE ROUTE 303 (WEST STREETSBORO ROAD)	TO HOUSE	SOUTH DISTRICT	0.00	0.00	0.00		3,792	GR	
0962	NC	24648		ND HOMESTEAD PARKING (TRACT 113-02)	FROM STATE ROUTE 303 (WEST STREETSBORO ROAD)	TO PARKING	NORTH DISTRICT	0.00	0.00	0.00		9,568	GR	
0963	**5**	**242362**		**ND FITZWATER ROAD TRAILHEAD PARKING LOT**	**ADJACENT TO ROUTE 0400 (ND FITZWATER MAINTENANCE YARD ROAD)**		**NORTH DISTRICT**	**0.00**	**0.00**	**0.00**		**4,808**	**AS**	**2**

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 NC - Not Collected

CYCLE 5 SUMMARY TOTALS FOR CUYAHOGA VALLEY NATIONAL PARK

CYCLE 5 ROUTE TOTALS

DCV Driven Route Miles	3.94
Manually Rated Route Miles	0.00
TOTAL PARK ROUTE MILES COLLECTED IN CYCLE 5	3.94
Manually Rated Routes (SQFT)	751
TOTAL UNPAVED PARK ROUTE MILES	4.99

CYCLE 5 CONCESSION TOTALS

Concession Paved Route Miles	0.00
Concession Unpaved Route Miles	0.00
TOTAL CONCESSION ROUTE MILES	0.00
Concession Paved Parking Area SQFT	0
Concession Unpaved Parking Area SQFT	0
TOTAL CONCESSION PARKING AREA SQFT	0
Concession Manually Rated Routes SQFT	0

* CYCLE 5 PARKING AREA TOTALS

Paved Parking (SQFT)	1,027,362
Unpaved Parking (SQFT)	181,156
TOTAL PARKING (SQFT)	1,208,518

CYCLE 5 WEIGHTED AVERAGE PARK VALUES

DCV Driven PCR	83
**Manually Rated Routes PCR	45
**Parking PCR	72
***Total Equivalent Lane Miles	24.60

* - 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
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 NC - Not Collected

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

ROUTE IDENTIFICATION CHANGES TO PAVED ROUTES FROM PREVIOUS CYCLE - CUVA

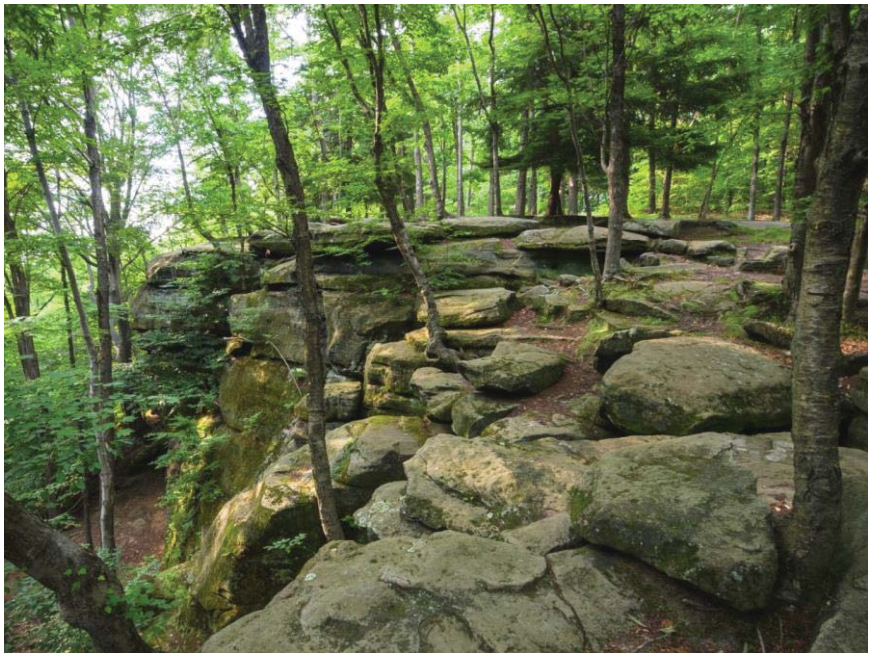
ROUTES ADDED FROM PREVIOUS INVENTORY:			
Route #	**Route Name**	**Reason for Addition**	**Comments**
0102	SD CVEEC LIPSCOMB PARKING ROAD	ROUTE SPLIT	CYCLE 3 ROUTE 0927 WAS SPLIT INTO ROUTE 0102 AND ROUTE 0927 IN JUNE 2010AT REQUEST OF NPS.
0103	ND BRANDYWINE FALLS ENTRANCE ROAD	RECENTLY CONSTRUCTED ROUTE	ROUTE ADDED THROUGH 2012 ALIGNMENT.
0210	SD CVEEC NOVEMBER LODGE ROAD	OTHER	ROUTE ADDED THROUGH 2008 ALIGNMENT.
0212	SD CVEEC WHITE PINE CIRCLE ROAD	ROUTE SPLIT	CYCLE 3 ROUTE 0933 WAS SPLIT IN CYCLE 5 INTO ROUTE 0212 AND ROUTE 0933 AT REQUEST OF NPS.
0214	ND STANFORD ROAD	OTHER	ROUTE ADDED DURING CYCLE 5 ROUTE ID MEETING.
0954	ND ROCKSIDE ROAD SHELTER PARKING	OTHER	ROUTE ADDED TO THE ROUTE ID IN CYCLE 5.
0960	ND CANCASCI DRIVE AND PARKING LOT	OTHER	ROUTE ADDED TO THE ROUTE ID IN CYCLE 5.
0963	ND FITZWATER ROAD TRAILHEAD PARKING LOT	OTHER	ROUTE ADDED TO THE ROUTE ID IN CYCLE 5.

ROUTE IDENTIFICATION CHANGES TO PAVED ROUTES FROM PREVIOUS CYCLE - CUVA

ROUTES MODIFIED FROM PREVIOUS INVENTORY:			
Route #	**Route Name**	**Type of Modification**	**Comments**
0200	ND OLD ROCKSIDE ROAD	FUNCTIONAL CLASS CHANGE	FUNCTIONAL CLASS CHANGED FROM 3 TO 2 BECAUSE ROUTE IS A PARK CONNECTOR ROAD. ROUTE LENGTH IS SHORTER IN CYCLE 5 BECAUSE IT WAS SLIGHTLY REALIGNED WHEN THE PARKING AREA (0954) AT THE END WAS PARTIALLY PAVED.
0400	ND FITZWATER MAINTENANCE YARD ROAD	RECONSTRUCTED	PARTIAL RECONSTRUCTION, THE ROAD SECTION NEAR AND OVER BRIDGE WAS REALIGNED (THE BRIDGE WAS REPLACED AND REALIGNED)
0434	ND BRANDYWINE FALLS LOWER ROAD	RECONSTRUCTED	MOST OF ROUTE 0434 HAS BEEN RECONSTRUCTED AND CONVERTED TO A BIKE PATH SINCE CYCLE 3 DATA COLLECTION. THE SECTION THAT REMAINS IN CYCLE 5 IS A PAVED APRON.
0906	ND CENTRAL MAINTENANCE & RECEIVING OFFICE PARKING	RECONSTRUCTED	ROUTE HAD NORTHWEST ENTRANCE AREA RECONSTRUCTED SINCE CYCLE 3 DATA COLLECTION.
0911	ND BRANDYWINE FALLS UPPER PARKING	RECONSTRUCTED	ROUTE HAS BEEN RECONSTRUCTED SINCE CYCLE 3 DATA COLLECTION.
0927	SD EEC LIPSCOMB CAMPUS PARKING	ROUTE SPLIT	CYCLE 3 ROUTE 0927 WAS SPLIT IN CYCLE 5 INTO ROUTE 0102 AND ROUTE 0927 AT REQUEST OF NPS.
0933	SD EEC WHITE PINE CAMPUS PARKING	ROUTE SPLIT	CYCLE 3 ROUTE 0933 WAS SPLIT IN CYCLE 5 INTO ROUTE 0212 AND ROUTE 0933 AT REQUEST OF NPS.

OTHER CHANGES FROM PREVIOUS INVENTORY:			
Route #	**Route Name**	**Type of Change**	**Comments**
0921	SD LEDGES OVERFLOW PARKING	SQ FEET CHANGE	ROUTE GPS WAS RECOLLECTED IN CYCLE 5 TO ADD EXISTING PAVEMENT TO SHAPE.
0936	SD BOTZUM PARKING	ROUTE NAME	ROUTE NAME CHANGED FROM “INDIAN MOUND TRAILHEAD PARKING".

Section 3
Park Summary Information



Cuyahoga Valley National Park

Federal Lands Highway
Road Inventory Program

CUVA: PAVED ROUTE MILES AND PERCENTAGES BY FUNCTIONAL CLASS AND PCR

F.C.	Pavement Condition Rating (PCR)								TOTAL MILES
	Poor (0-60) MILES	%	Fair (61-84) MILES	%	Good (85-94) MILES	%	Excellent (95-100) MILES	%	
1									
2	0.19	4.81%	0.27	6.84%	0.24	6.08%	1.17	29.62%	**1.87**
3	0.25	6.33%	0.97	24.56%	0.50	12.66%	0.02	0.51%	**1.74**
4									
5	0.12	3.04%	0.02	0.51%	0.04	1.01%	0.16	4.05%	**0.34**
6									
7									
8									
Totals	**0.56**	**14.18%**	**1.26**	**31.90%**	**0.78**	**19.75%**	**1.35**	**34.18%**	**3.95**

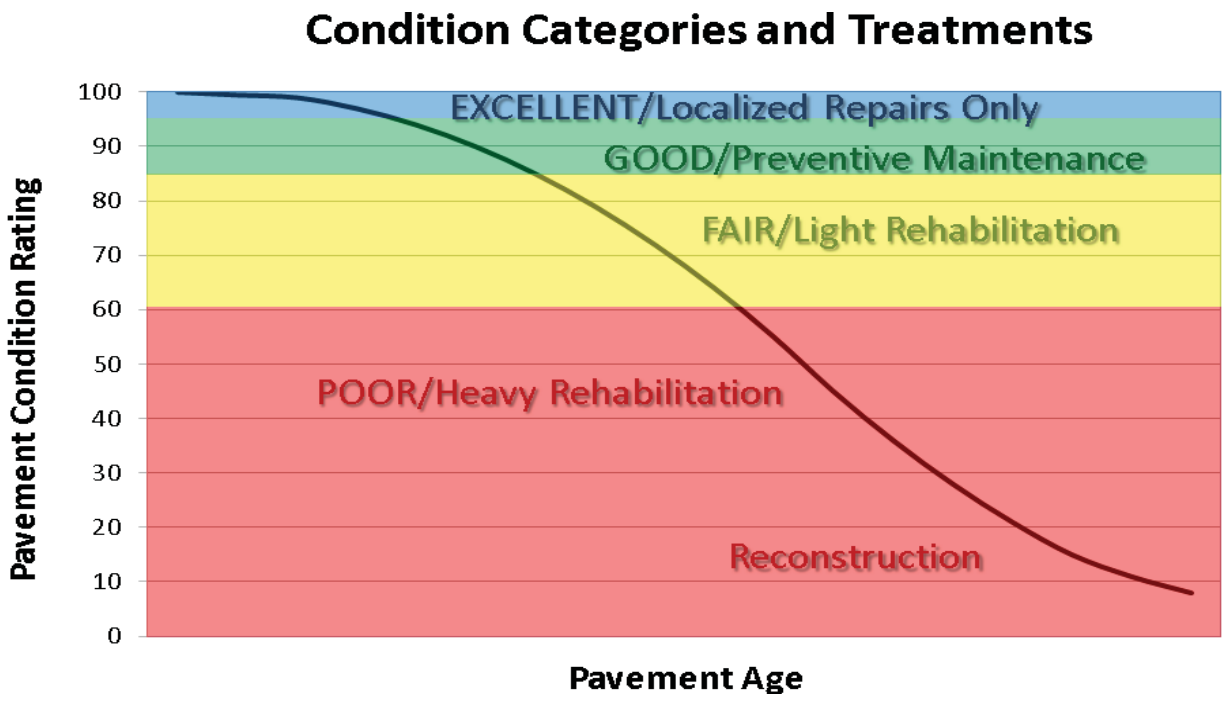
Note: **The information in this table is derived from the PMS_20 table in the Park database, which only contains processed data from routes collected with the Data Collection Vehicle (DCV). Information for Manually Rated Routes (MRR) and Parking Areas is not reported in this table. Only Functional Class 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.

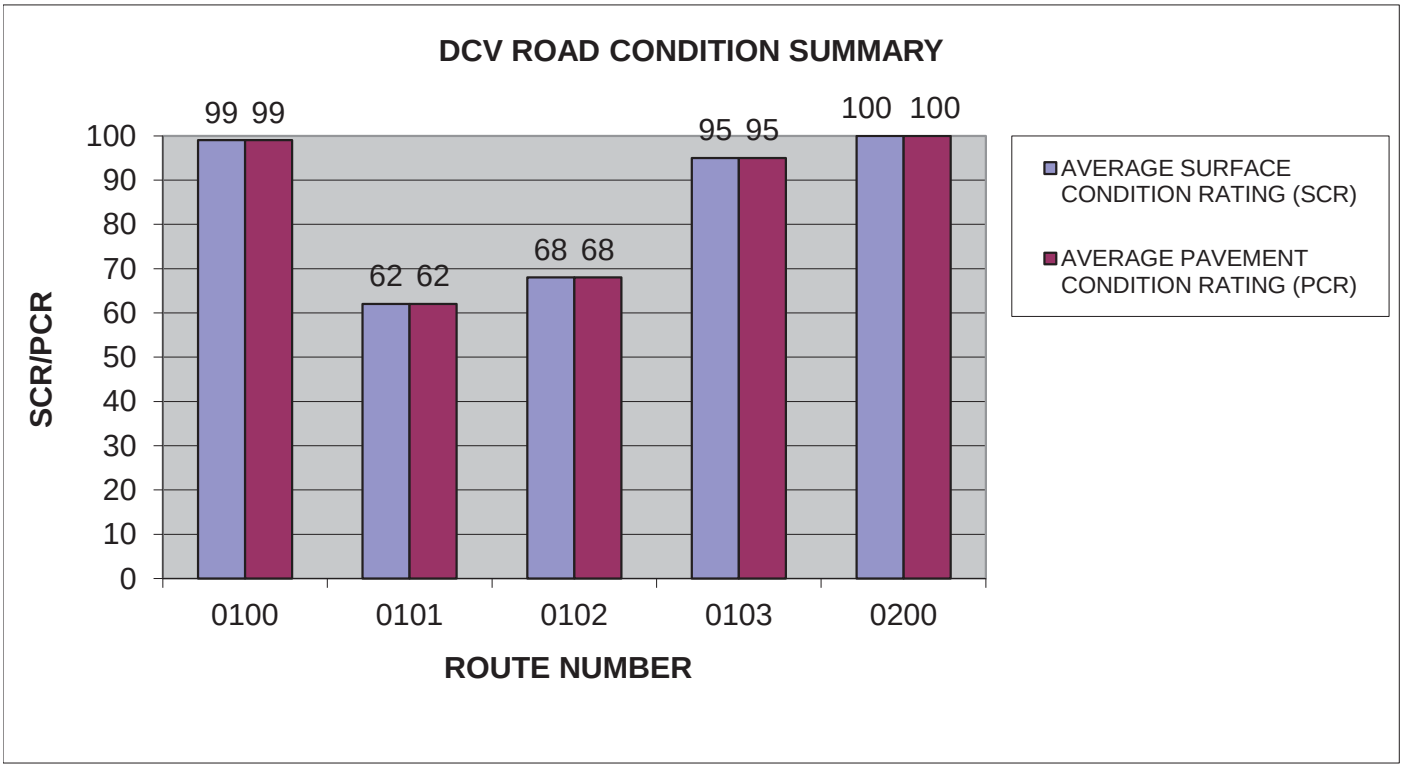
At this time, specific Maintenance and Rehabilitation activities should be evaluated and recommended at the project level. Site-specific conditions that influence treatment type should be determined based on performing a subsurface investigation and/or pavement condition survey, and not be based solely 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.



CUVA: DCV ROAD CONDITION SUMMARY

DCV - Data Collection Vehicle

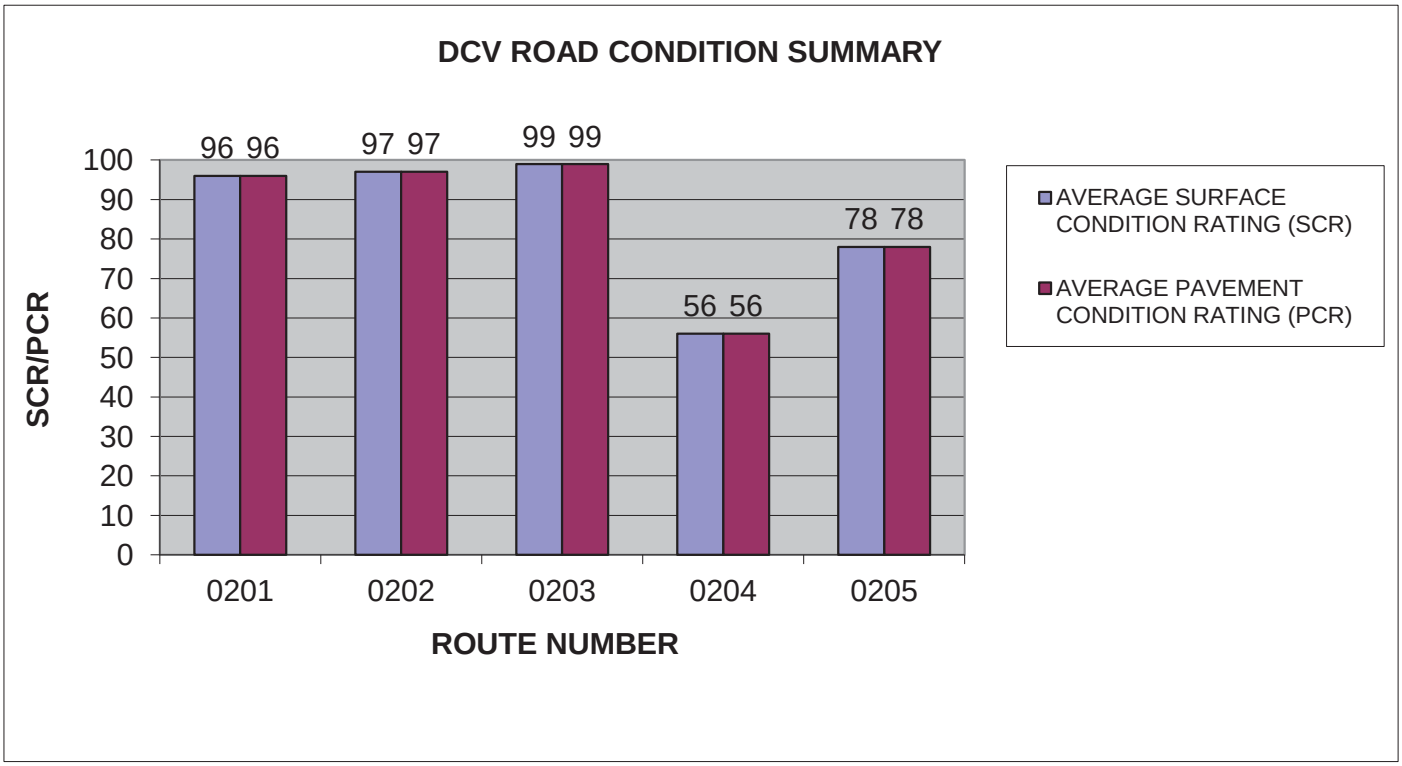
ROUTE NUMBER	ROUTE NAME	FUNCT CLASS	PAVED LENGTH	SURFACE TYPE	AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE PAVEMENT CONDITION RATING (PCR)
0100	ND BRECKSVILLE STATION ROAD	2	0.21	ASPHALT	99	99
0101	SD CUYAHOGA VALLEY EEC ROAD	2	0.33	ASPHALT	62	62
0102	SD CVEEC LIPSCOMB PARKING ROAD	2	0.05	ASPHALT	68	68
0103	ND BRANDYWINE FALLS ENTRANCE ROAD	2	0.08	ASPHALT	95	95
0200	ND OLD ROCKSIDE ROAD	2	0.09	ASPHALT	100	100



CUVA: DCV ROAD CONDITION SUMMARY

DCV - Data Collection Vehicle

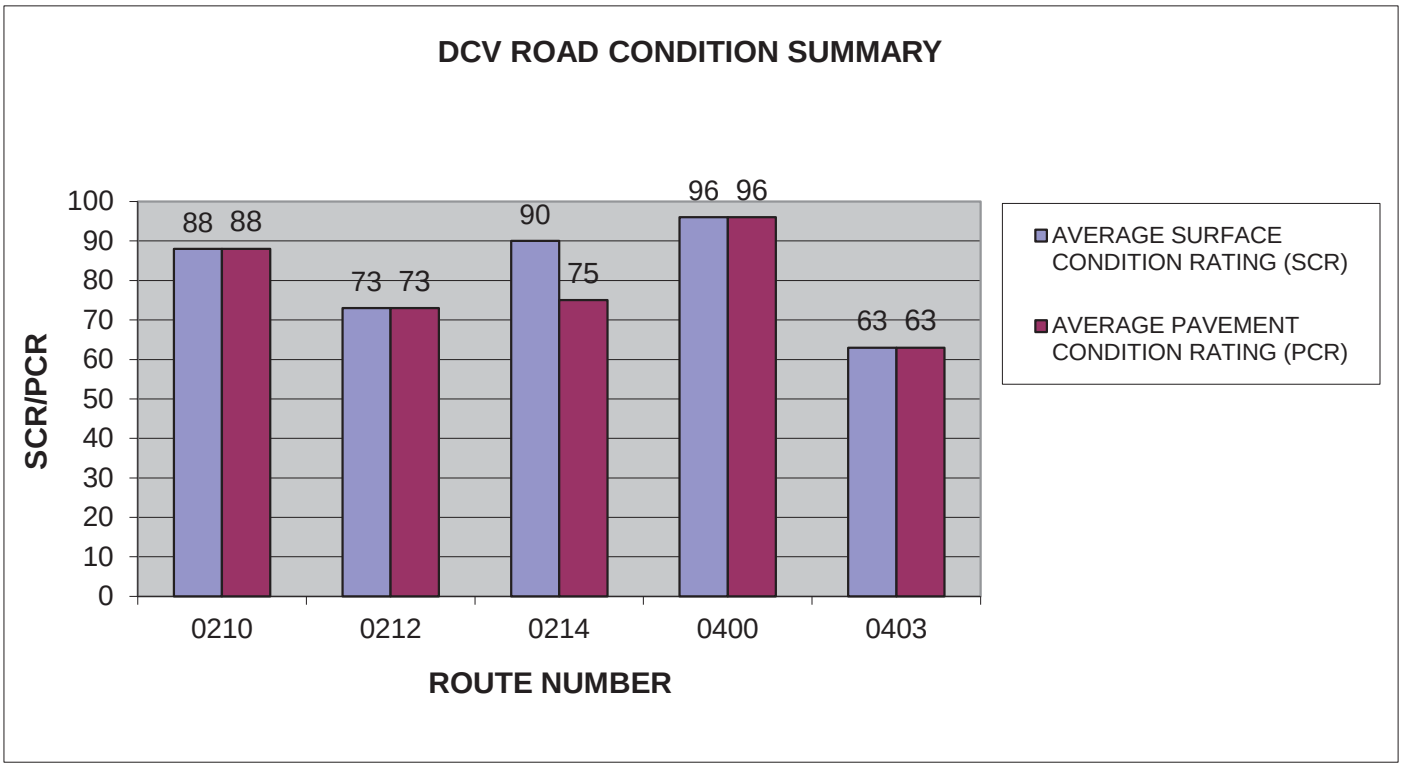
ROUTE NUMBER	ROUTE NAME	FUNCT CLASS	PAVED LENGTH	SURFACE TYPE	AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE PAVEMENT CONDITION RATING (PCR)
0201	ND PINE LANE TRAILHEAD ROAD	2	0.24	ASPHALT	96	96
0202	SD OCTAGON ROAD	2	0.45	ASPHALT	97	97
0203	SD LEDGES ROAD	2	0.33	ASPHALT	99	99
0204	SD EEC LIPSCOMB CAMPUS ROAD	3	0.04	ASPHALT	56	56
0205	SD EEC ADMINISTRATION ROAD	3	0.04	ASPHALT	78	78



CUVA: DCV ROAD CONDITION SUMMARY

DCV - Data Collection Vehicle

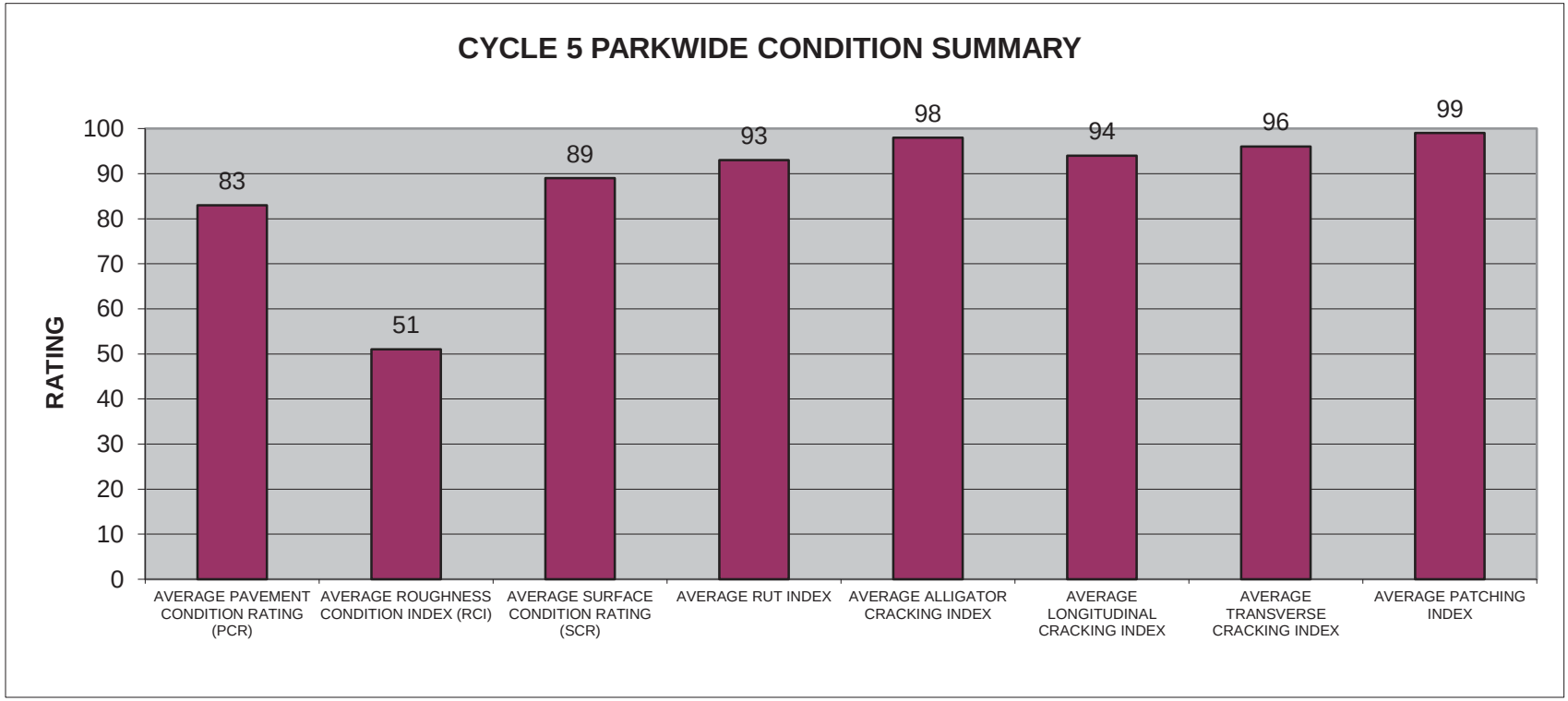
ROUTE NUMBER	ROUTE NAME	FUNCT CLASS	PAVED LENGTH	SURFACE TYPE	AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE PAVEMENT CONDITION RATING (PCR)
0210	SD CVEEC NOVEMBER LODGE ROAD	3	0.13	ASPHALT	88	88
0212	SD CVEEC WHITE PINE CIRCLE ROAD	3	0.05	ASPHALT	73	73
0214	ND STANFORD ROAD	3	1.48	ASPHALT	90	75
0400	ND FITZWATER MAINTENANCE YARD ROAD	5	0.34	ASPHALT	96	96
0403	SD HINE HOUSE LOOP ROAD	2	0.10	ASPHALT	63	63



CUVA: PARKWIDE DCV CONDITION SUMMARY

AVERAGE PAVEMENT CONDITION RATING (PCR)	AVERAGE ROUGHNESS CONDITION INDEX (RCI)	AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE RUT INDEX	AVERAGE ALLIGATOR CRACKING INDEX	AVERAGE LONGITUDINAL CRACKING INDEX	AVERAGE TRANSVERSE CRACKING INDEX	AVERAGE PATCHING INDEX
83	51	89	93	98	94	96	99

All Index values are based on Data Collection Vehicle (DCV) driven roads that were collected in Cycle-5.
Roughness data is only collected on routes with lengths greater than 0.5 miles and a posted speed limit of 25 MPH or greater.

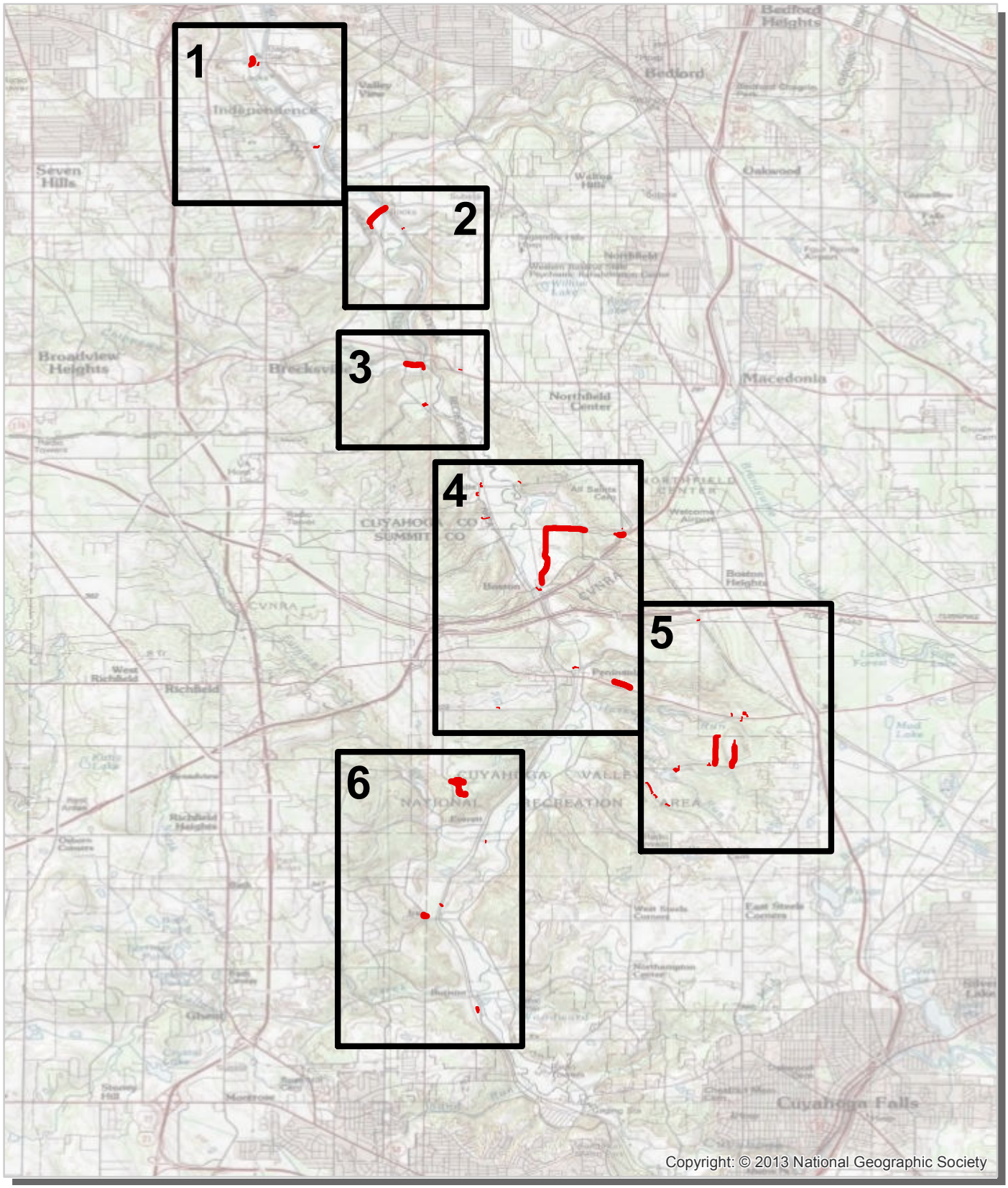


Section 4
Park Route Location Maps

Cuyahoga Valley National Park

Federal Lands Highway
Road Inventory Program

Cuyahoga Valley National Park
Route Location Map
Key Map

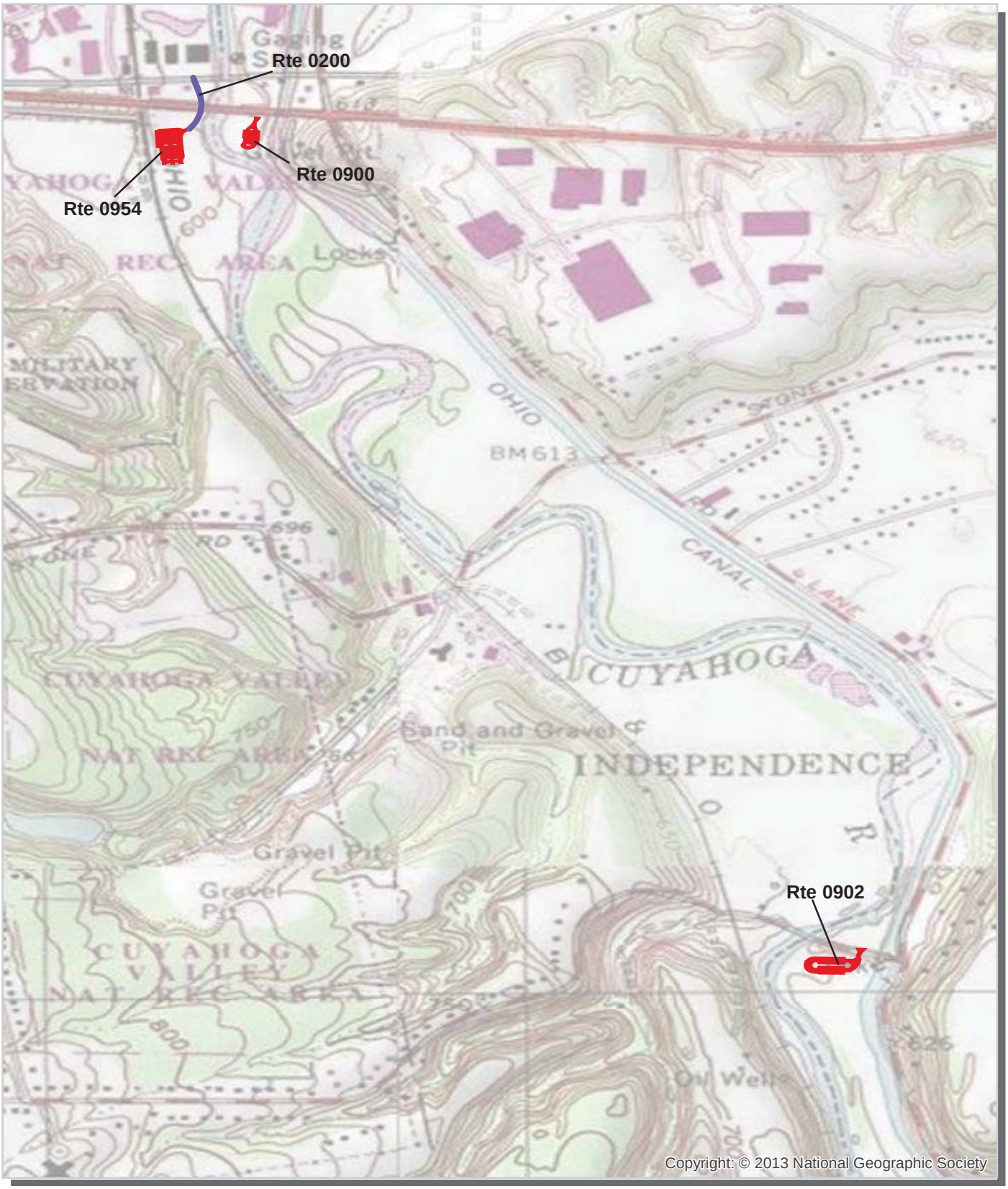


Cycle 5 Collected Routes

3 1.5 0 3 Miles

N

Cuyahoga Valley National Park
Route Location Map
Area 1

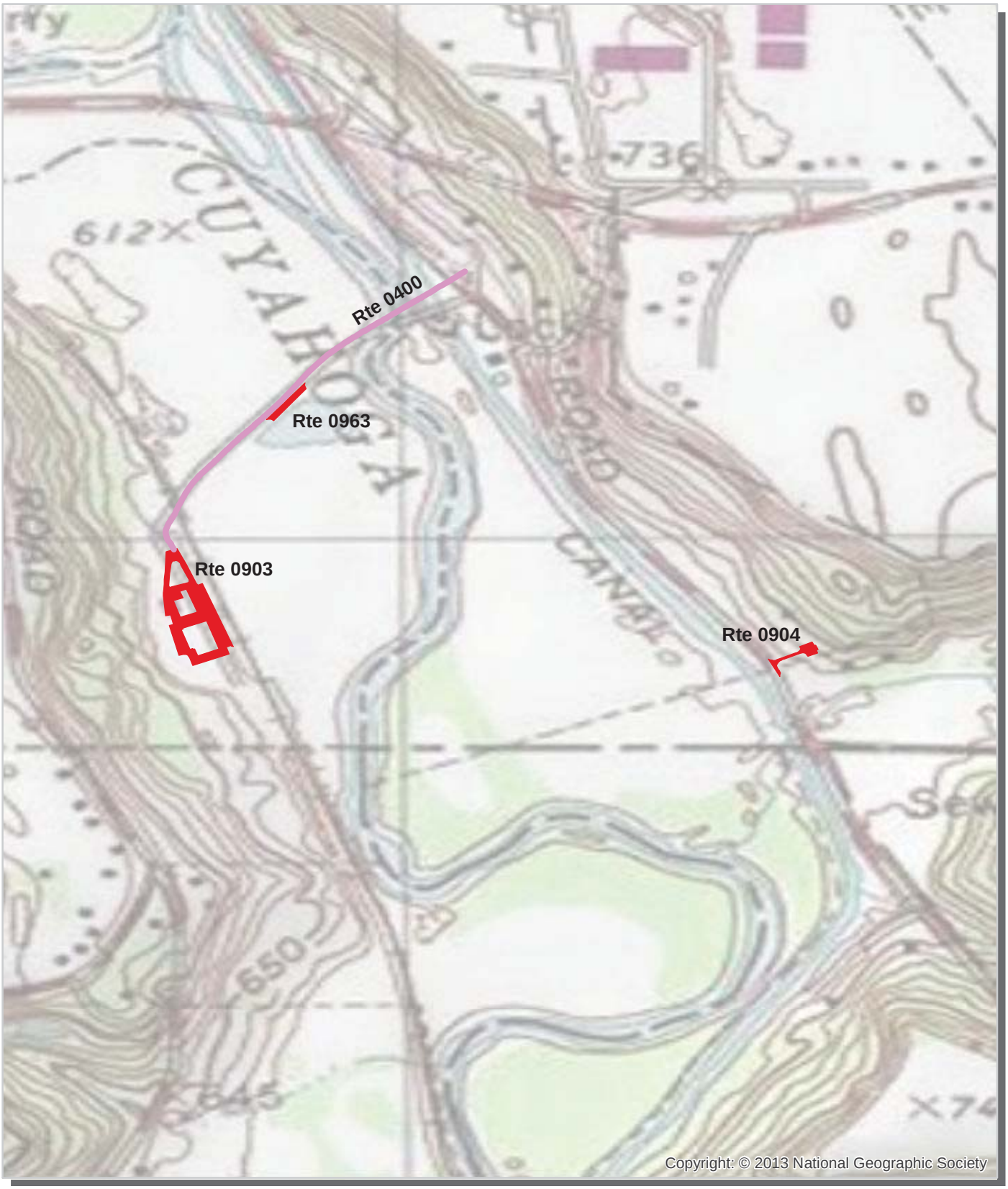


Unique colors used to differentiate routes

0.3 0.15 0 0.3 Miles

N

Cuyahoga Valley National Park
Route Location Map
Area 2

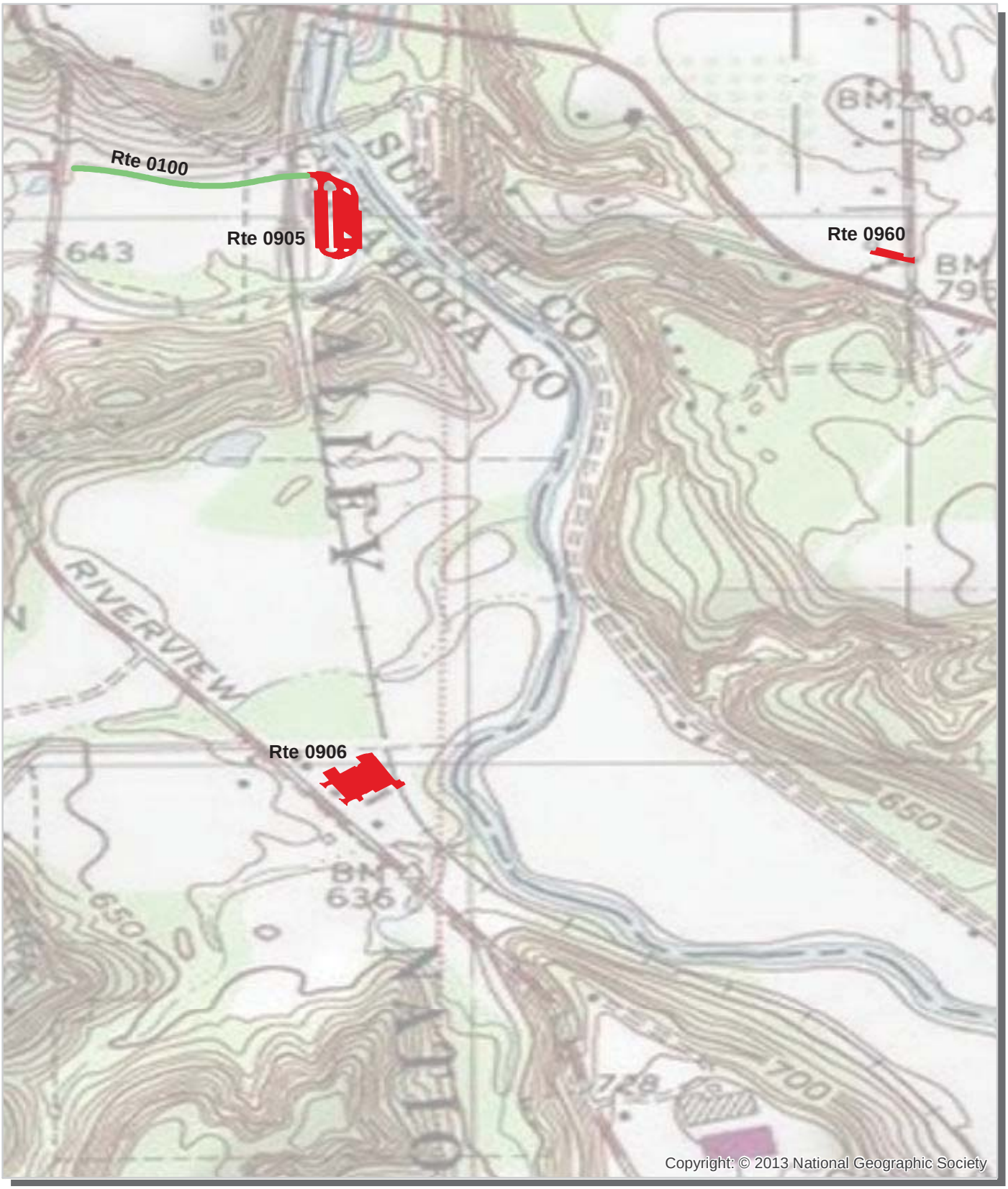


Unique colors used to differentiate routes

0.15 0.075 0 0.15
Miles

N

Cuyahoga Valley National Park
Route Location Map
Area 3

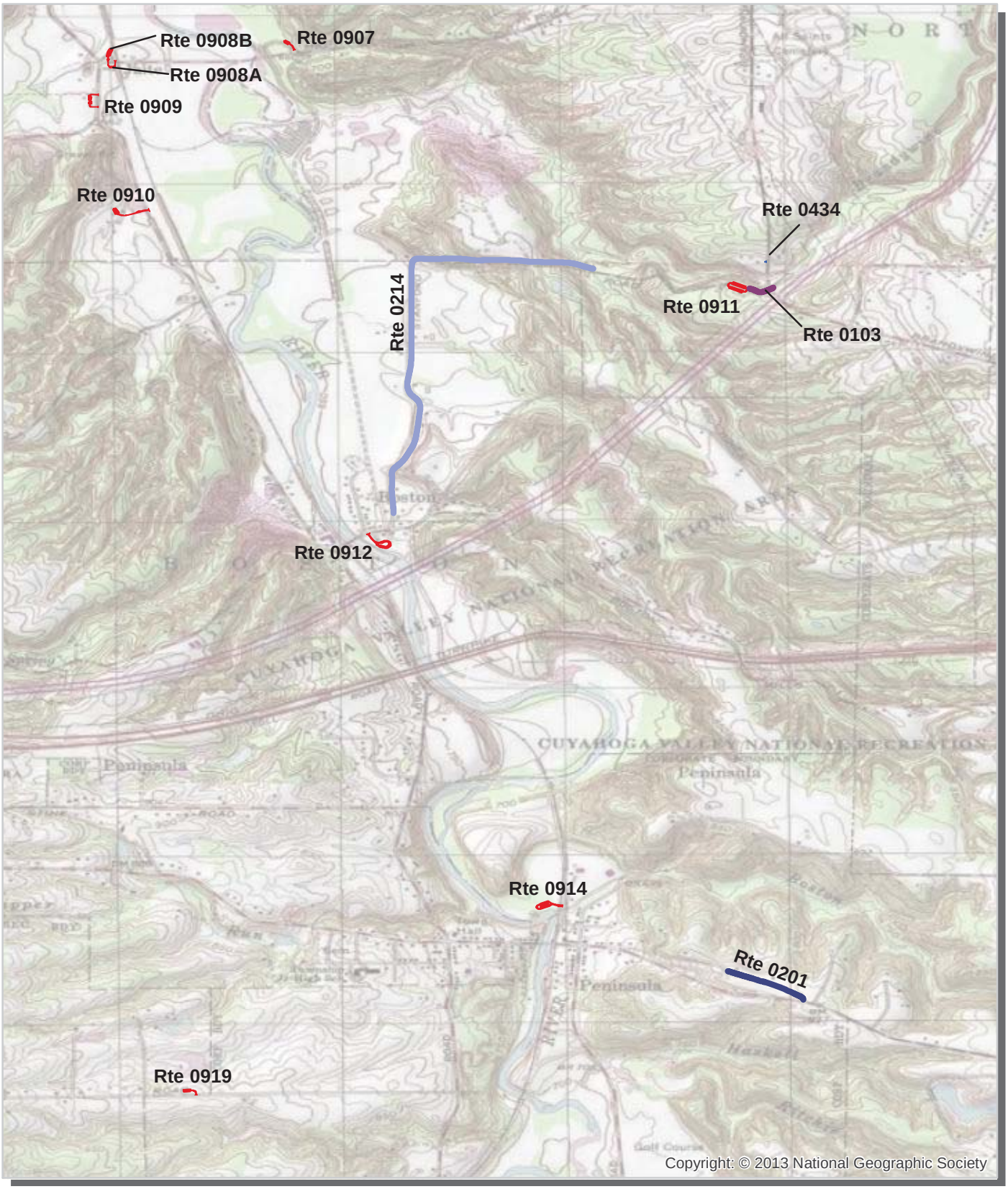


Unique colors used to differentiate routes

0.2 0.1 0 0.2 Miles

N

Cuyahoga Valley National Park
Route Location Map
Area 4

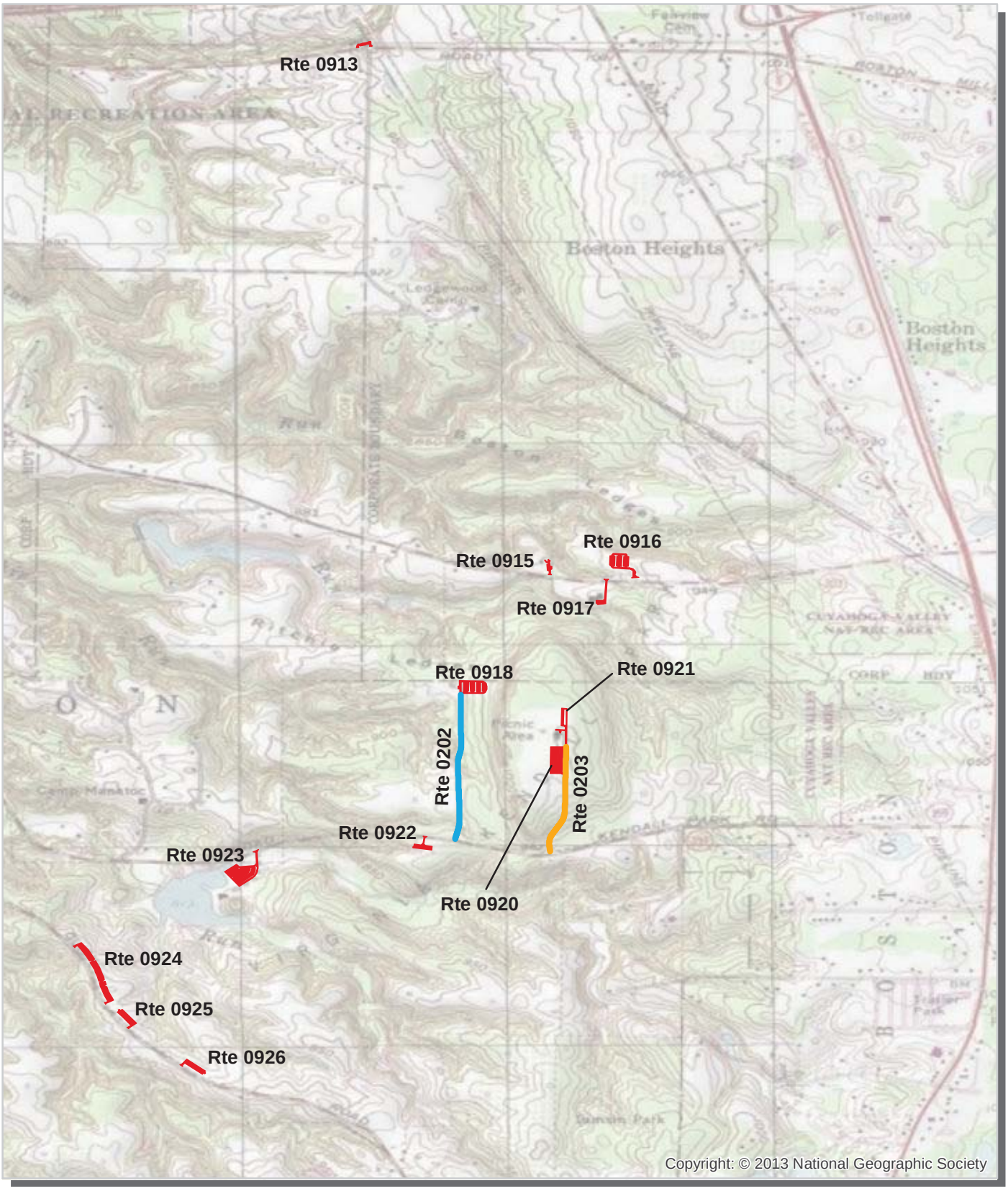


Unique colors used to differentiate routes

0.65 0.325 0 0.65 Miles

N

Cuyahoga Valley National Park
Route Location Map
Area 5

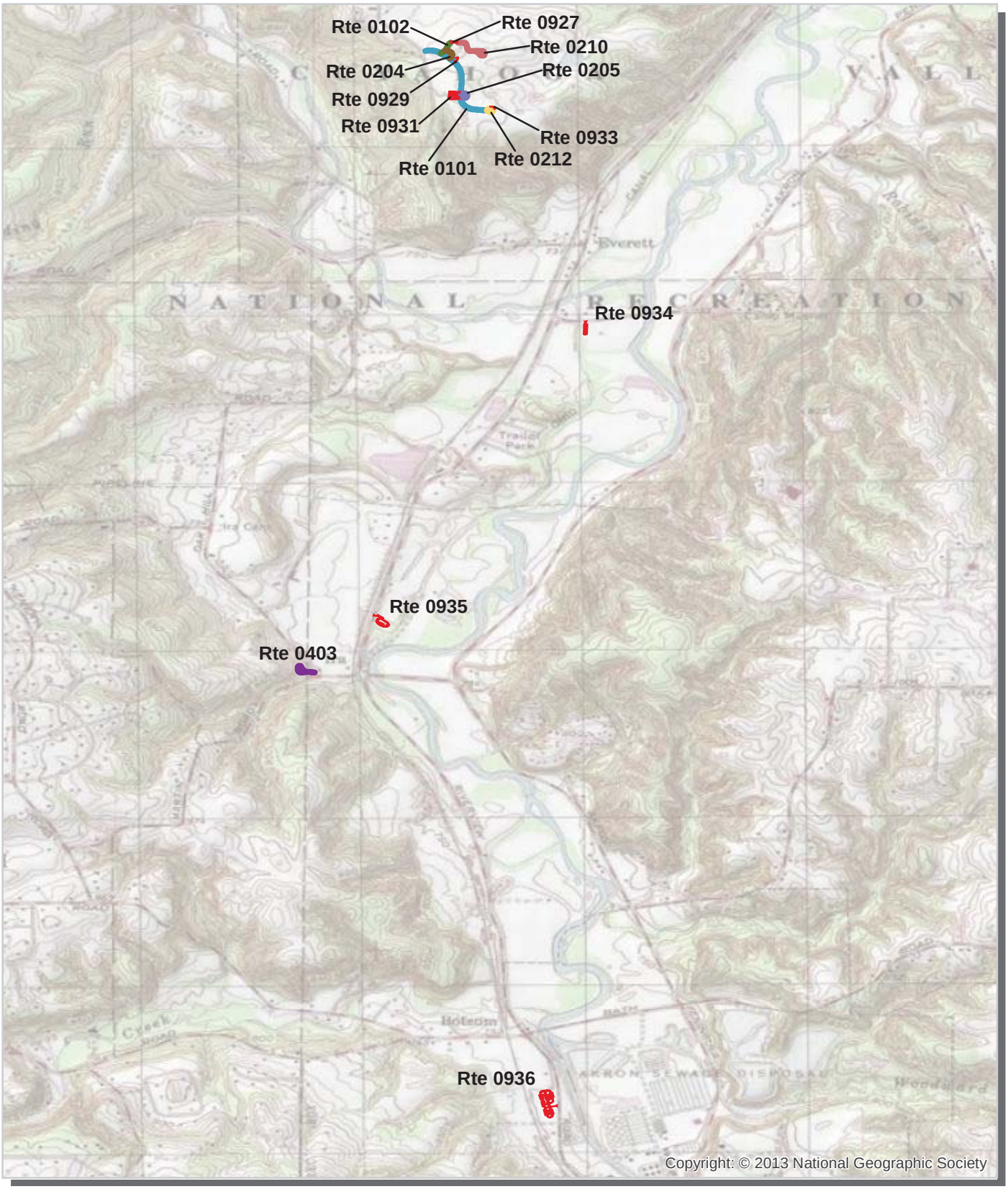


Unique colors used to differentiate routes

0.55 0.275 0 0.55 Miles

N

Cuyahoga Valley National Park
Route Location Map
Area 6

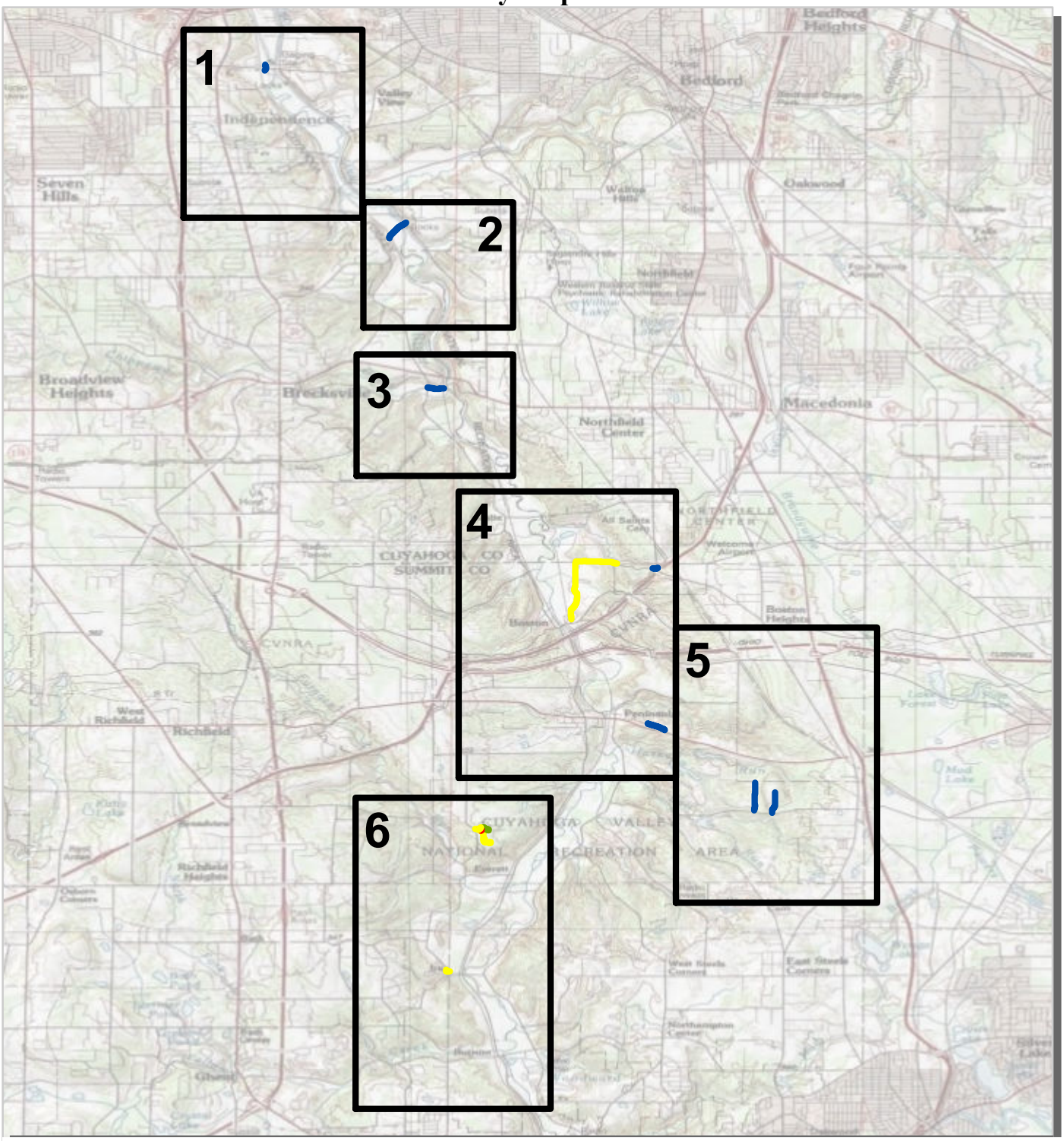


Unique colors used to differentiate routes

0.65 0.325 0 0.65
Miles

N

Cuyahoga Valley National Park
Route Condition Map
PCR - Mile by Key Map



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

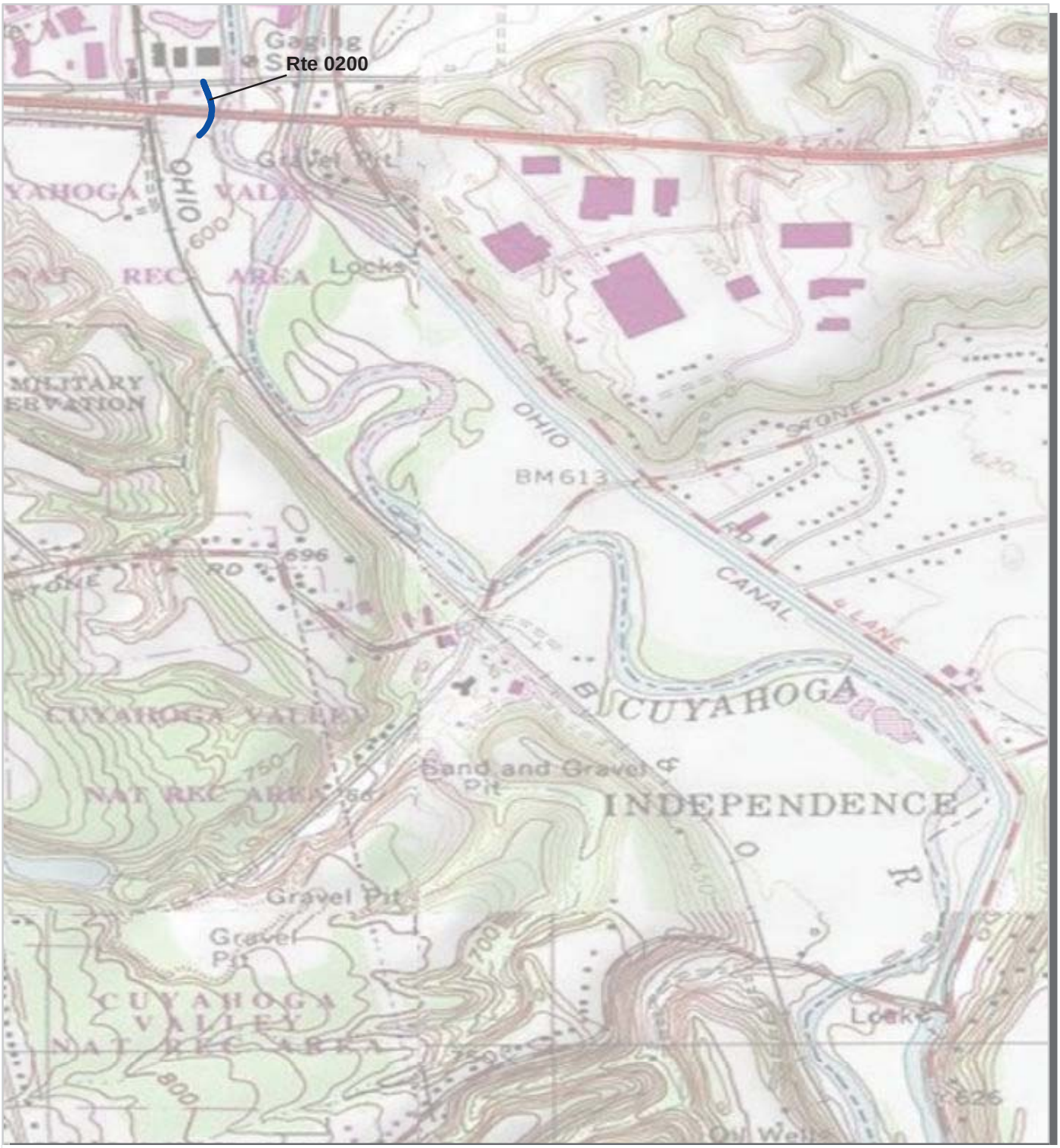
* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

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

3 1.5 0 3 Miles

N

Cuyahoga Valley National Park
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.

0.3 0.15 0 0.3 Miles

N

Cuyahoga Valley National Park
Route Condition Map
PCR - Mile by Mile
Area 2

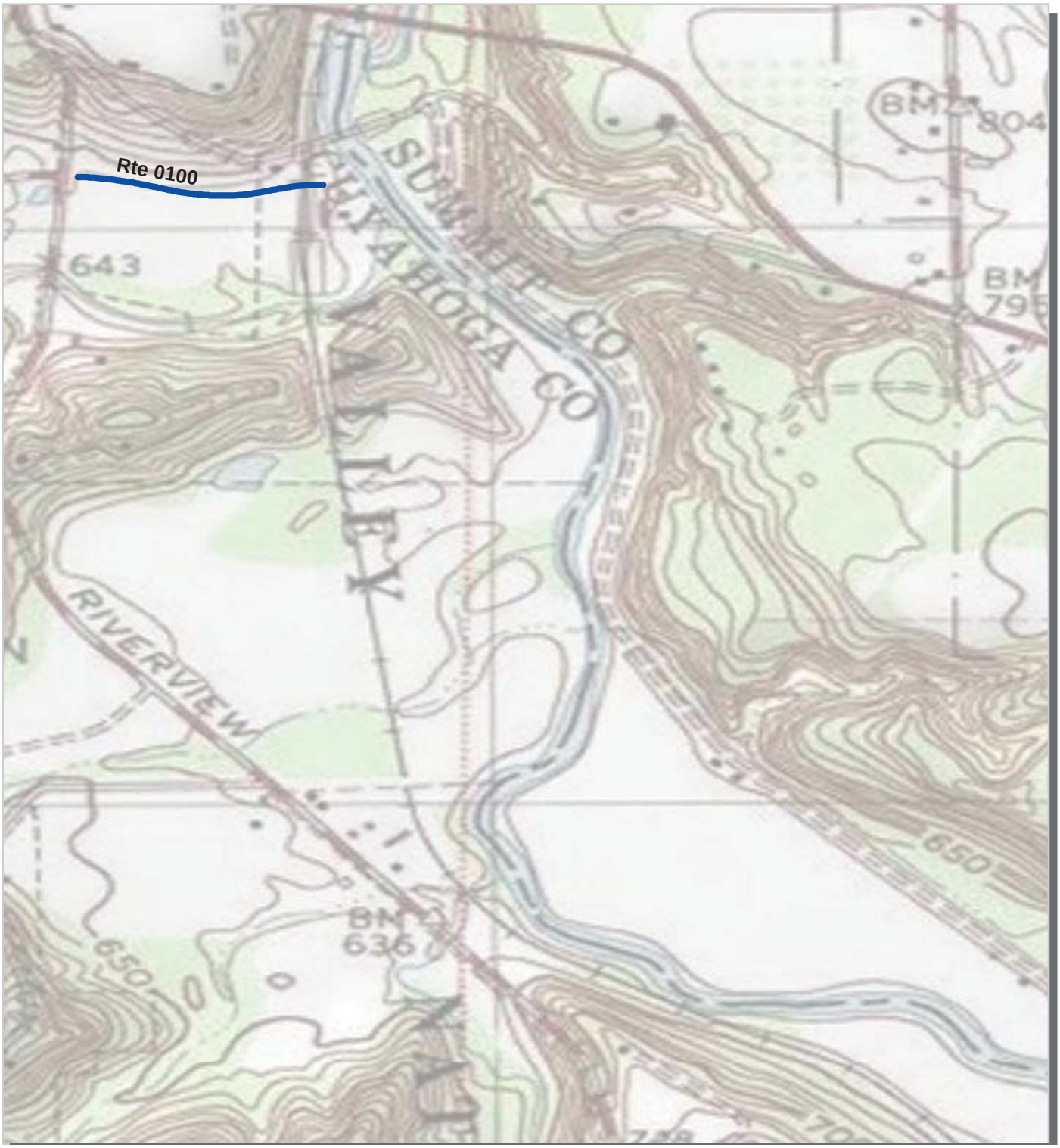
PCR	Poor	Fair	Good	Excellent	No Data
	(0 - 60)	(61 - 84)	(85 - 94)	(95 - 100)	

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

0.15 0.075 0 0.15 Miles

N

Cuyahoga Valley National Park
Route Condition Map
PCR - Mile by Mile
Area 3



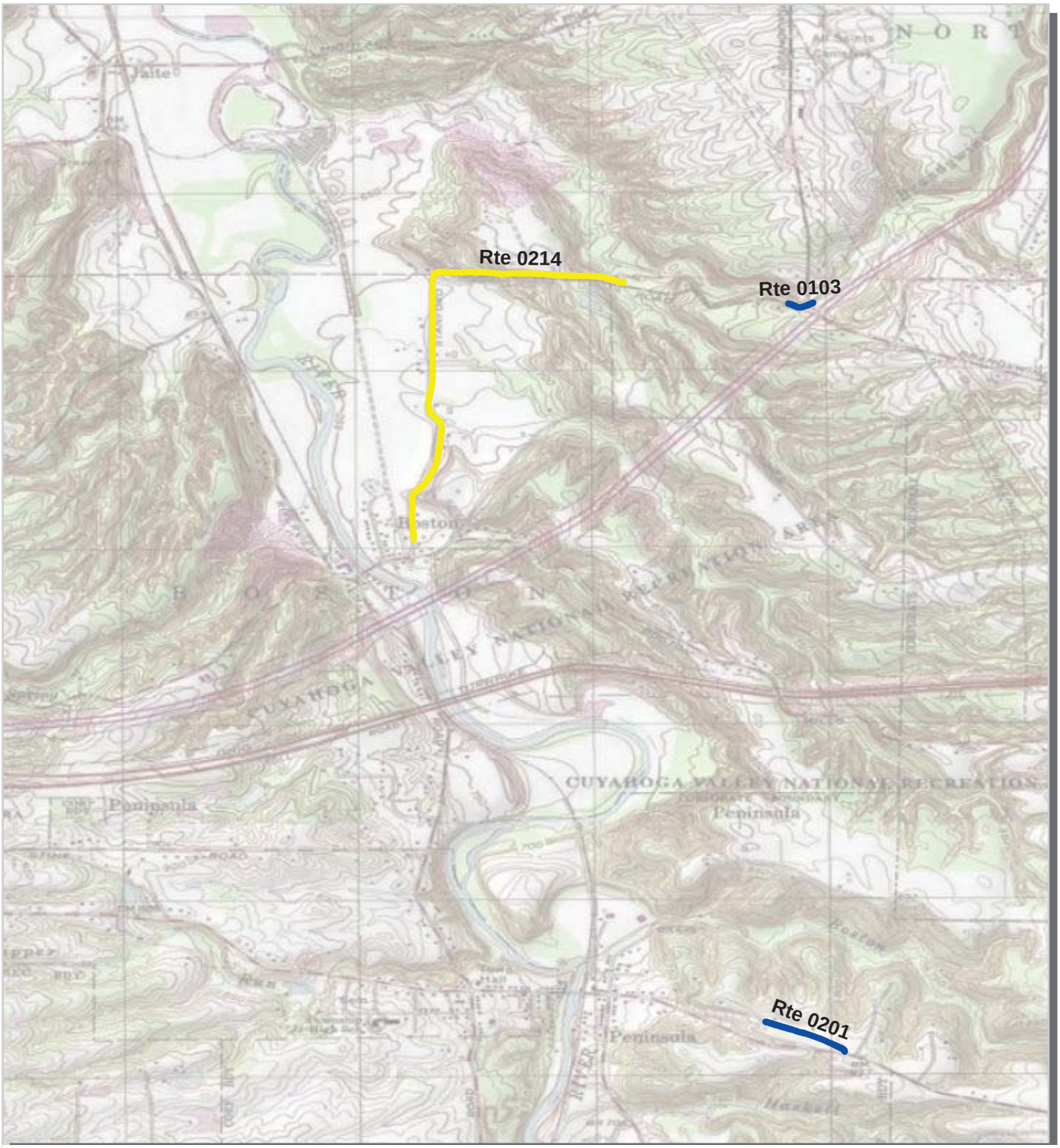
PCR	Poor	Fair	Good	Excellent	No Data
	(0 - 60)	(61 - 84)	(85 - 94)	(95 - 100)	

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

0.2 0.1 0 0.2 Miles

N

Cuyahoga Valley National Park
Route Condition Map
PCR - Mile by Mile
Area 4



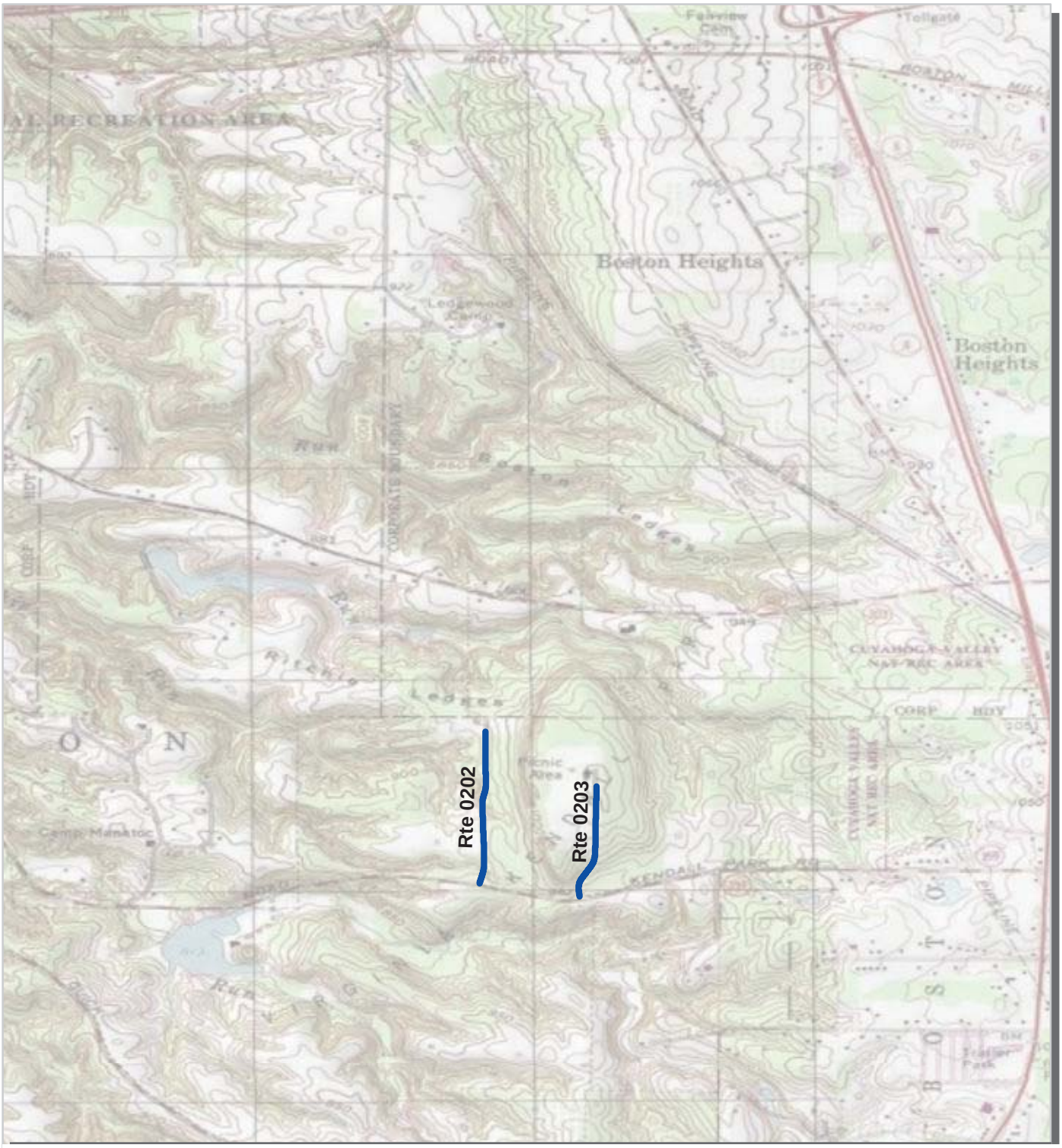
PCR	Poor	Fair	Good	Excellent	No Data
	(0 - 60)	(61 - 84)	(85 - 94)	(95 - 100)	

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

0.65 0.325 0 0.65 Miles

N

Cuyahoga Valley National Park
Route Condition Map
PCR - Mile by Mile
Area 5



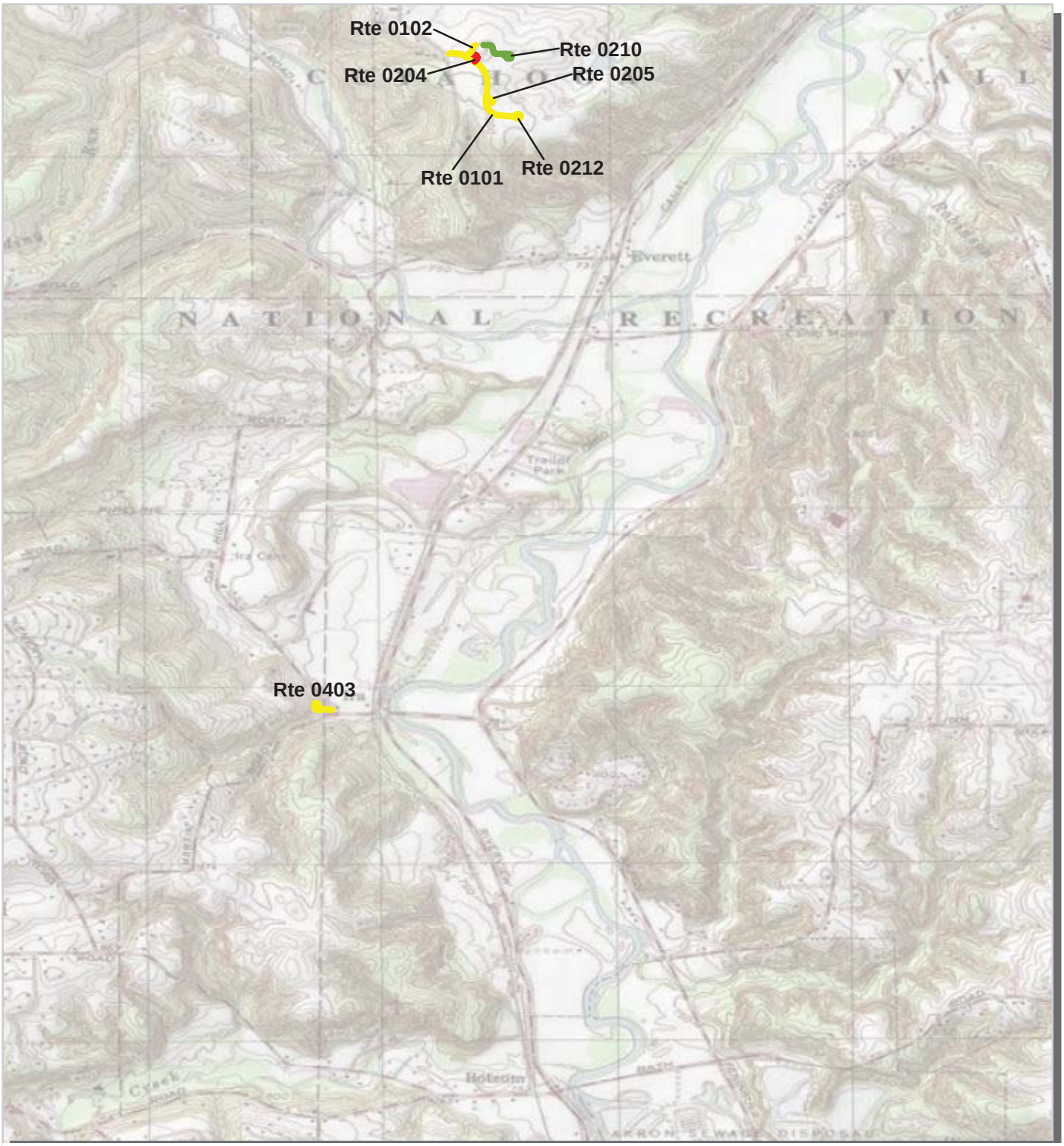
PCR Poor (0 - 60) Fair (61 - 84) Good (85 - 94) Excellent (95 - 100) No Data

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

0.55 0.275 0 0.55 Miles

N

Cuyahoga Valley National Park
Route Condition Map
PCR - Mile by Mile
Area 6



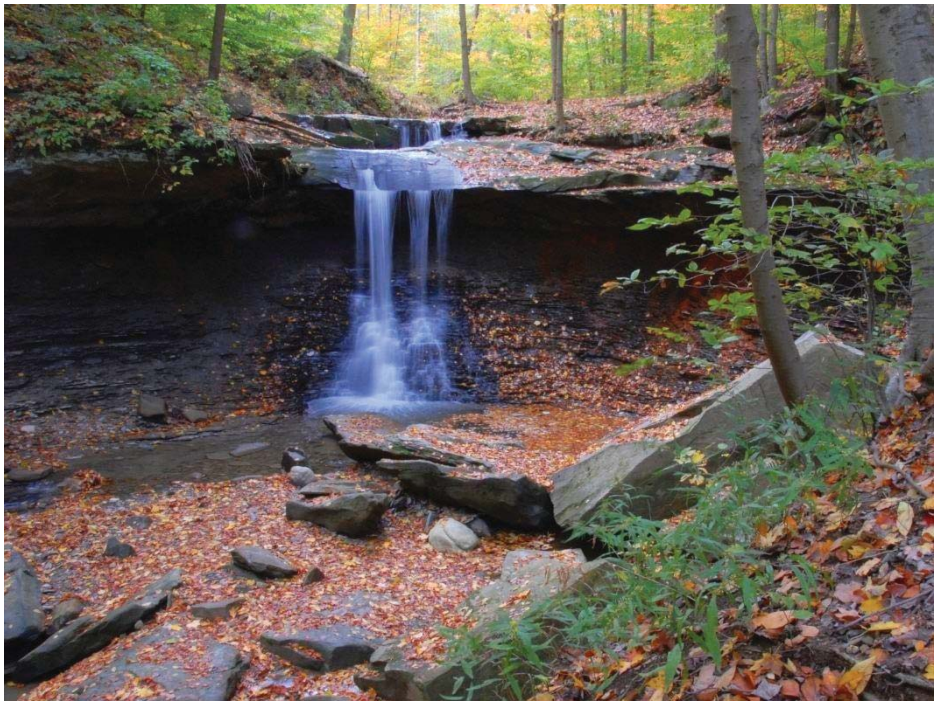
PCR	Poor	Fair	Good	Excellent	No Data
	(0 - 60)	(61 - 84)	(85 - 94)	(95 - 100)	

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

0.65 0.325 0 0.65 Miles

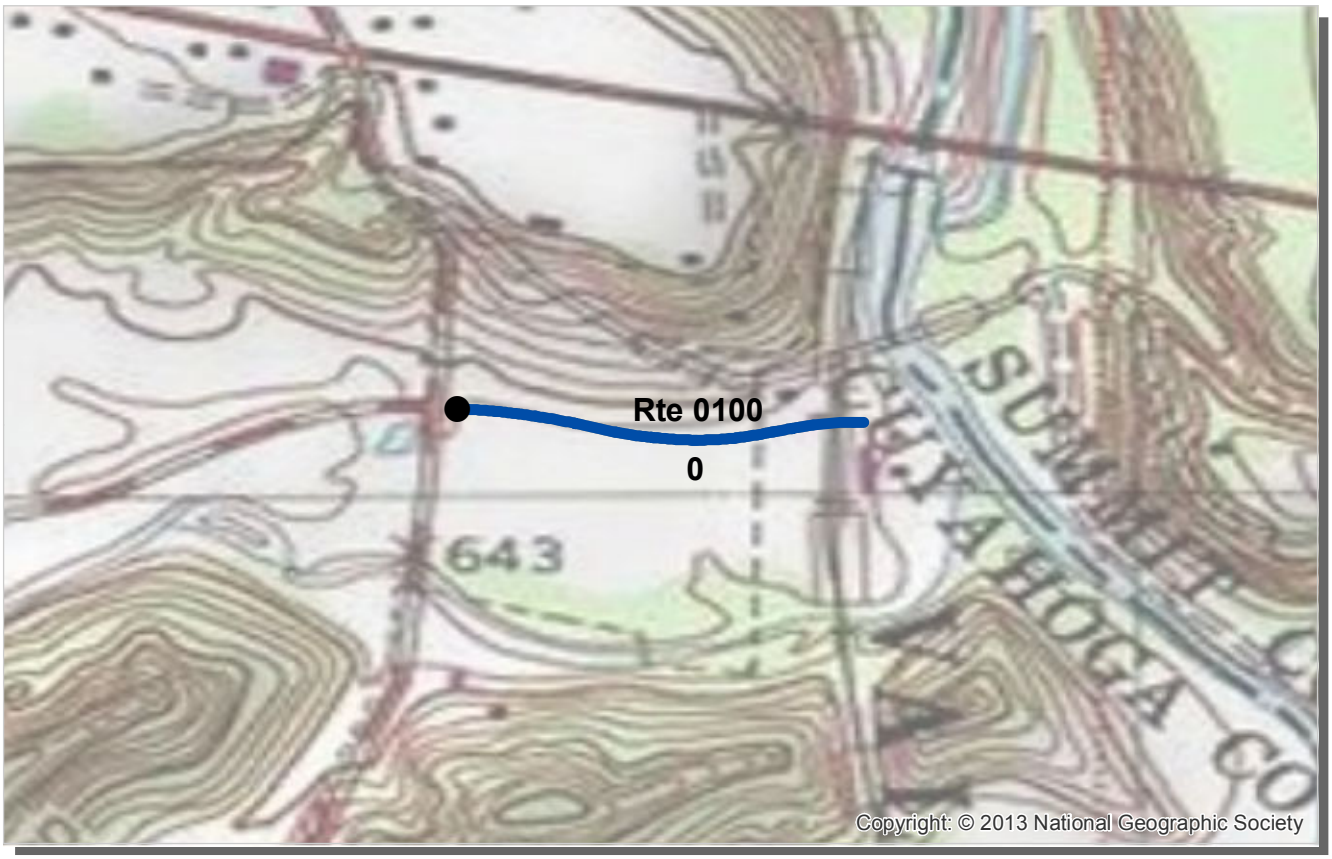
N

Section 5
Paved Route
Condition Rating Sheets



Cuyahoga Valley National Park

Federal Lands Highway
Road Inventory Program



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

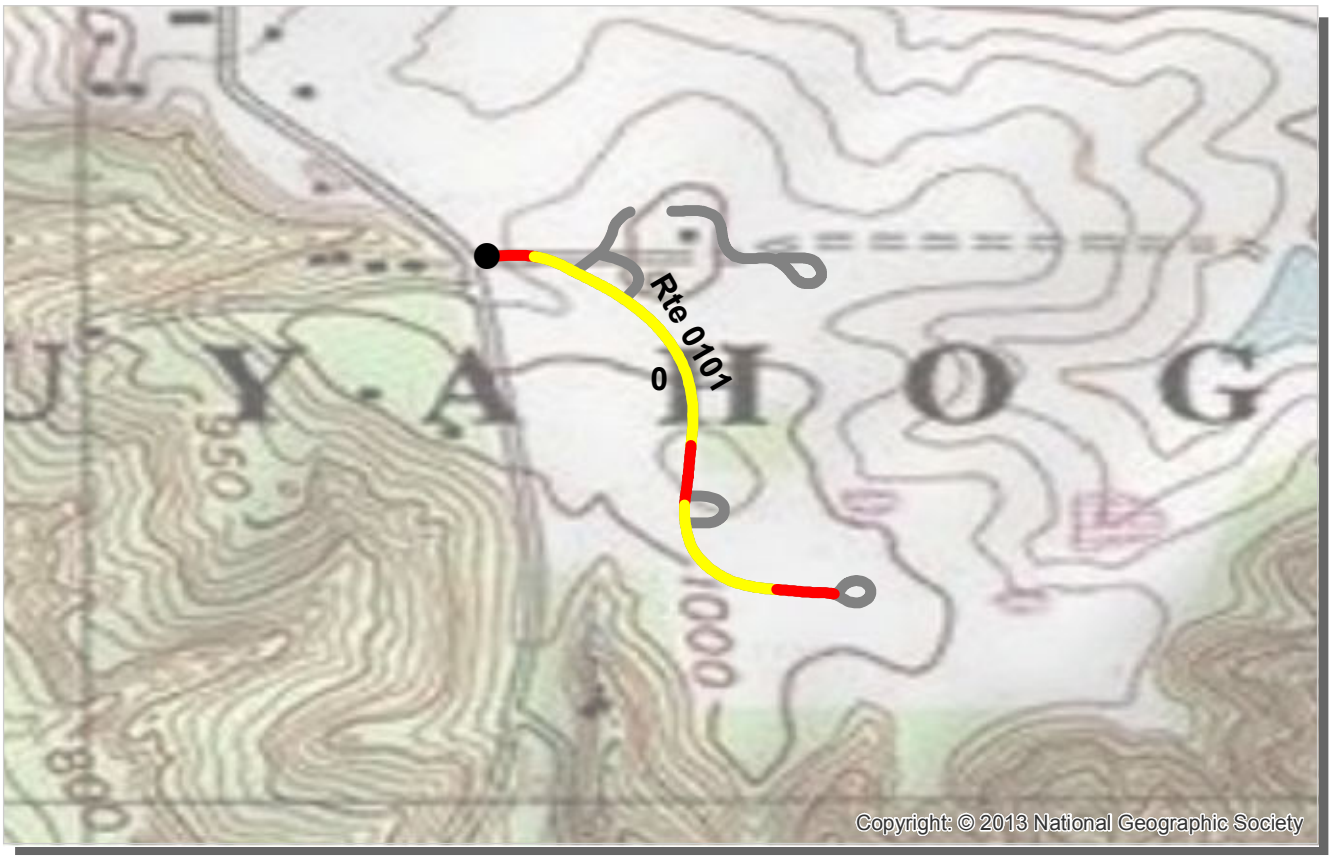
* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

ROUTE: 0100 ND BRECKSVILLE STATION ROAD
CUVA : CUYAHOGA VALLEY NATIONAL PARK

COLLECTED: 11/3/2013
MIDWEST REGION **TOTAL LENGTH: 0.21 Miles**

Section Number	0				
Section Length (mi)	0.21				
Cross Section Information					
Number of Lanes	2				
Paved Width (ft)	24				
Lane Width (ft)	11				
Roadway Condition Information					
SCR (Surface Condition Rating)	99				
PCR (Pavement Condition Rating)	99				
Distress Index Values					
Structural Crack Index	100				
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



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: 0101 SD CUYAHOGA VALLEY EEC ROAD
CUVA : CUYAHOGA VALLEY NATIONAL PARK

COLLECTED: 11/3/2013

MIDWEST REGION **TOTAL LENGTH: 0.33 Miles**

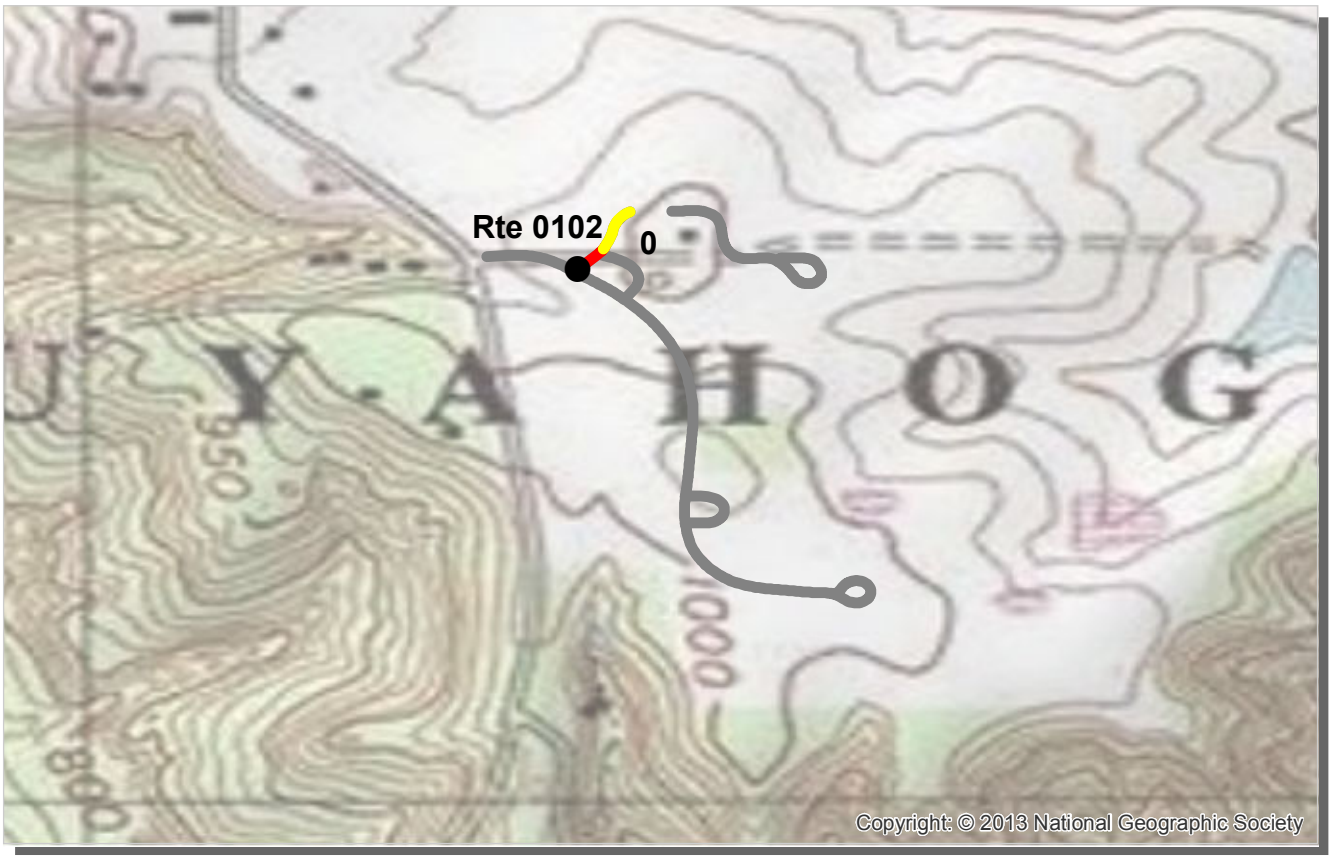
Section Number	0				
Section Length (mi)	0.33				
Cross Section Information					
Number of Lanes	2				
Paved Width (ft)	19				
Lane Width (ft)	10				
Roadway Condition Information					
SCR (Surface Condition Rating)	62				
PCR (Pavement Condition Rating)	62				
Distress Index Values					
Structural Crack Index	62				
Transverse Cracking Index	78				
Patching Index	99				
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



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

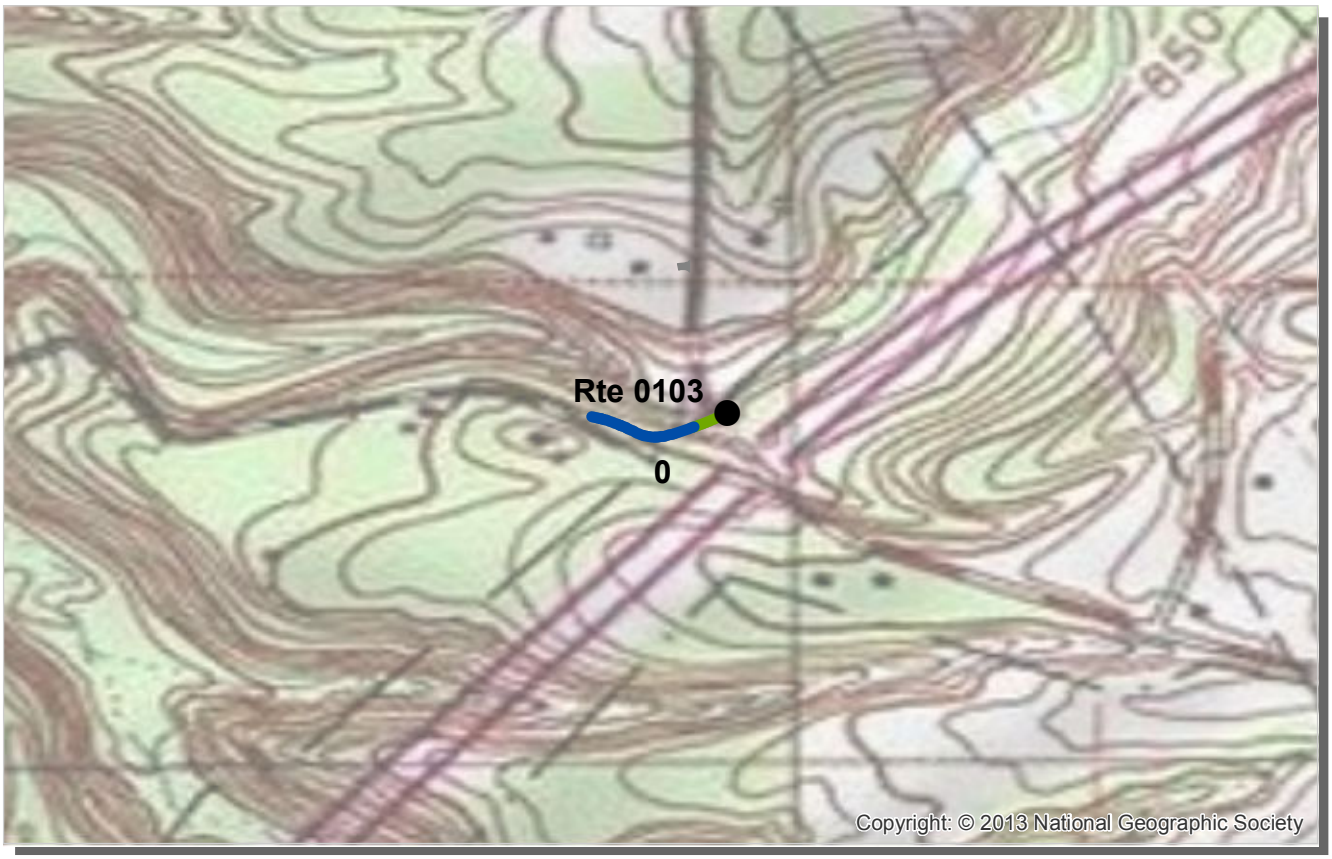
* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

ROUTE: 0102 SD CVEEC LIPSCOMB PARKING ROAD
CUVA : CUYAHOGA VALLEY NATIONAL PARK

COLLECTED: 11/3/2013
MIDWEST REGION **TOTAL LENGTH: 0.05 Miles**

Section Number	0				
Section Length (mi)	0.05				
Cross Section Information					
Number of Lanes	2				
Paved Width (ft)	17				
Lane Width (ft)	9				
Roadway Condition Information					
SCR (Surface Condition Rating)	68				
PCR (Pavement Condition Rating)	68				
Distress Index Values					
Structural Crack Index	86				
Transverse Cracking Index	68				
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



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

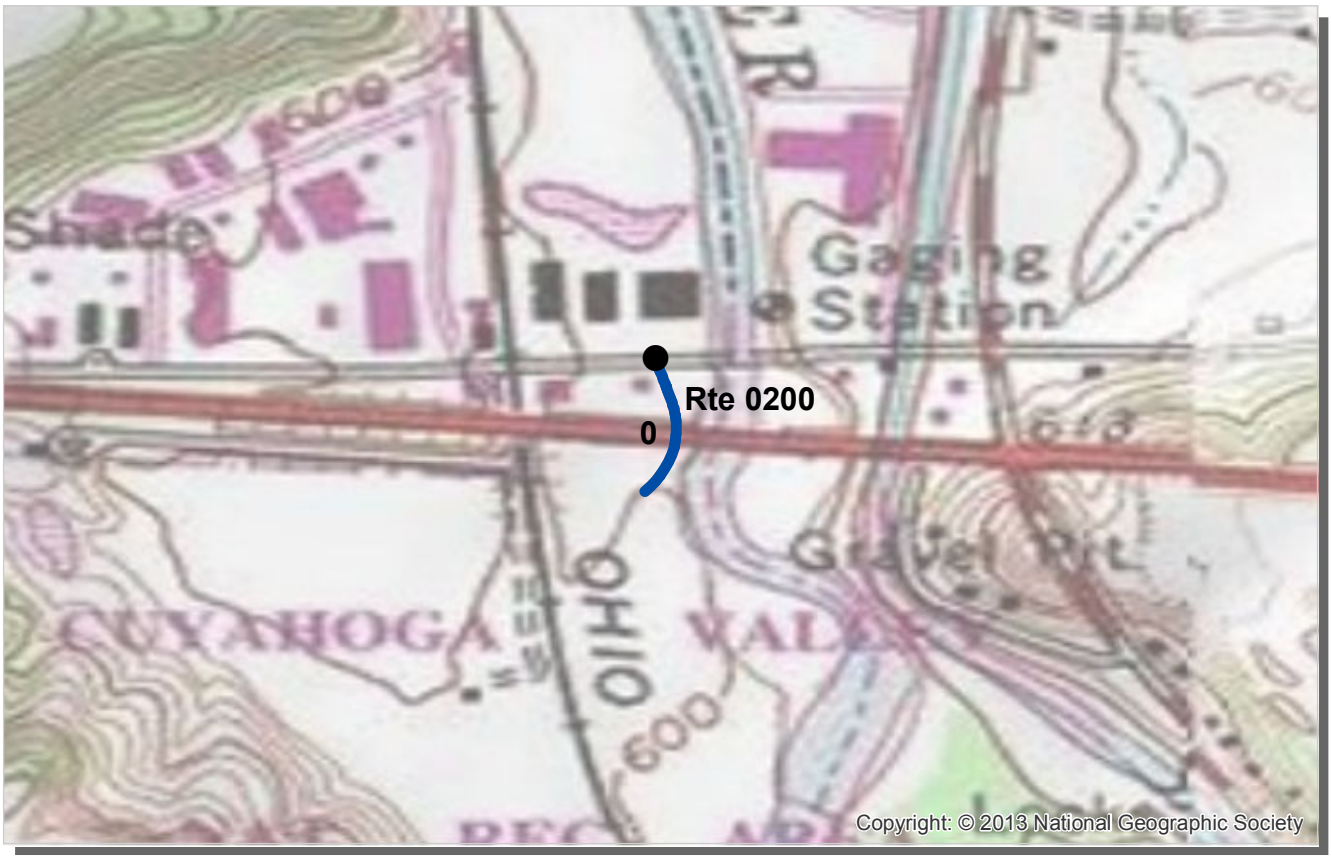
* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

ROUTE: 0103 ND BRANDYWINE FALLS ENTRANCE ROAD
CUVA : CUYAHOGA VALLEY NATIONAL PARK

COLLECTED: 11/3/2013
MIDWEST REGION **TOTAL LENGTH: 0.08 Miles**

Section Number	0				
Section Length (mi)	0.08				
Cross Section Information					
Number of Lanes	2				
Paved Width (ft)	19				
Lane Width (ft)	10				
Roadway Condition Information					
SCR (Surface Condition Rating)	95				
PCR (Pavement Condition Rating)	95				
Distress Index Values					
Structural Crack Index	100				
Transverse Cracking Index	100				
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



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: 0200 ND OLD ROCKSIDE ROAD
CUVA : CUYAHOGA VALLEY NATIONAL PARK

COLLECTED: 11/3/2013
MIDWEST REGION **TOTAL LENGTH: 0.09 Miles**

Section Number	0				
Section Length (mi)	0.09				
Cross Section Information					
Number of Lanes	2				
Paved Width (ft)	21				
Lane Width (ft)	11				
Roadway Condition Information					
SCR (Surface Condition Rating)	100				
PCR (Pavement Condition Rating)	100				
Distress Index Values					
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

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: 0201 ND PINE LANE TRAILHEAD ROAD
CUVA : CUYAHOGA VALLEY NATIONAL PARK

COLLECTED: 11/3/2013
MIDWEST REGION **TOTAL LENGTH: 0.24 Miles**

Section Number	0				
Section Length (mi)	0.24				
Cross Section Information					
Number of Lanes	2				
Paved Width (ft)	16				
Lane Width (ft)	8				
Roadway Condition Information					
SCR (Surface Condition Rating)	96				
PCR (Pavement Condition Rating)	96				
Distress Index Values					
Structural Crack Index	100				
Transverse Cracking Index	100				
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

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: 0202 SD OCTAGON ROAD
CUVA : CUYAHOGA VALLEY NATIONAL PARK

COLLECTED: 11/3/2013
MIDWEST REGION **TOTAL LENGTH: 0.45 Miles**

Section Number	0				
Section Length (mi)	0.45				
Cross Section Information					
Number of Lanes	2				
Paved Width (ft)	20				
Lane Width (ft)	10				
Roadway Condition Information					
SCR (Surface Condition Rating)	97				
PCR (Pavement Condition Rating)	97				
Distress Index Values					
Structural Crack Index	100				
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

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

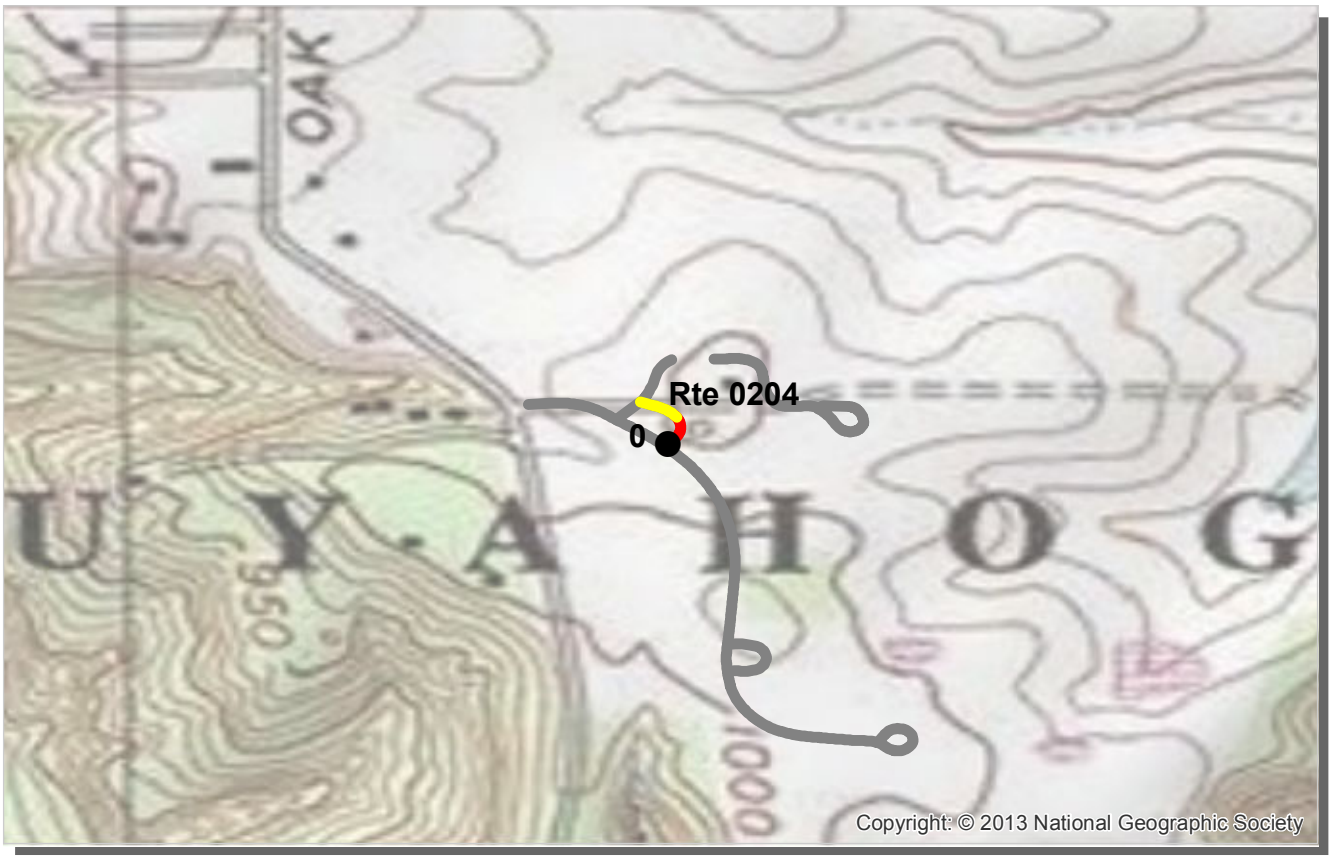
* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

ROUTE: 0203 SD LEDGES ROAD
CUVA : CUYAHOGA VALLEY NATIONAL PARK

COLLECTED: 11/3/2013
MIDWEST REGION **TOTAL LENGTH: 0.33 Miles**

Section Number	0				
Section Length (mi)	0.33				
Cross Section Information					
Number of Lanes	2				
Paved Width (ft)	19				
Lane Width (ft)	9				
Roadway Condition Information					
SCR (Surface Condition Rating)	99				
PCR (Pavement Condition Rating)	99				
Distress Index Values					
Structural Crack Index	100				
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



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

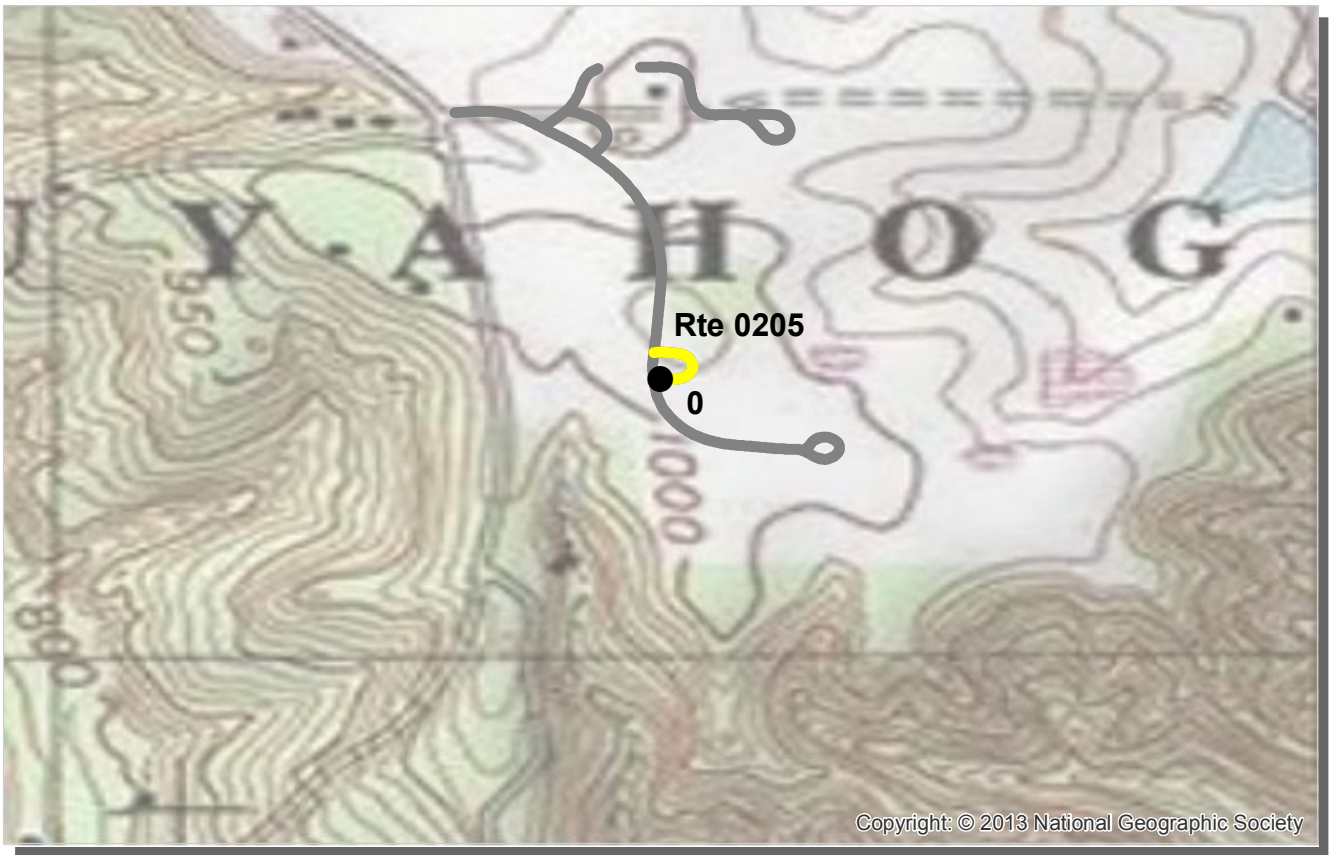
* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

ROUTE: 0204 SD EEC LIPSCOMB CAMPUS ROAD
CUVA : CUYAHOGA VALLEY NATIONAL PARK

COLLECTED: 11/3/2013
MIDWEST REGION **TOTAL LENGTH: 0.04 Miles**

Section Number	0				
Section Length (mi)	0.04				
Cross Section Information					
Number of Lanes	1				
Paved Width (ft)	13				
Lane Width (ft)	13				
Roadway Condition Information					
SCR (Surface Condition Rating)	56				
PCR (Pavement Condition Rating)	56				
Distress Index Values					
Structural Crack Index	56				
Transverse Cracking Index	71				
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



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: 0205 SD EEC ADMINISTRATION ROAD
CUVA : CUYAHOGA VALLEY NATIONAL PARK

COLLECTED: 11/3/2013
MIDWEST REGION **TOTAL LENGTH: 0.04 Miles**

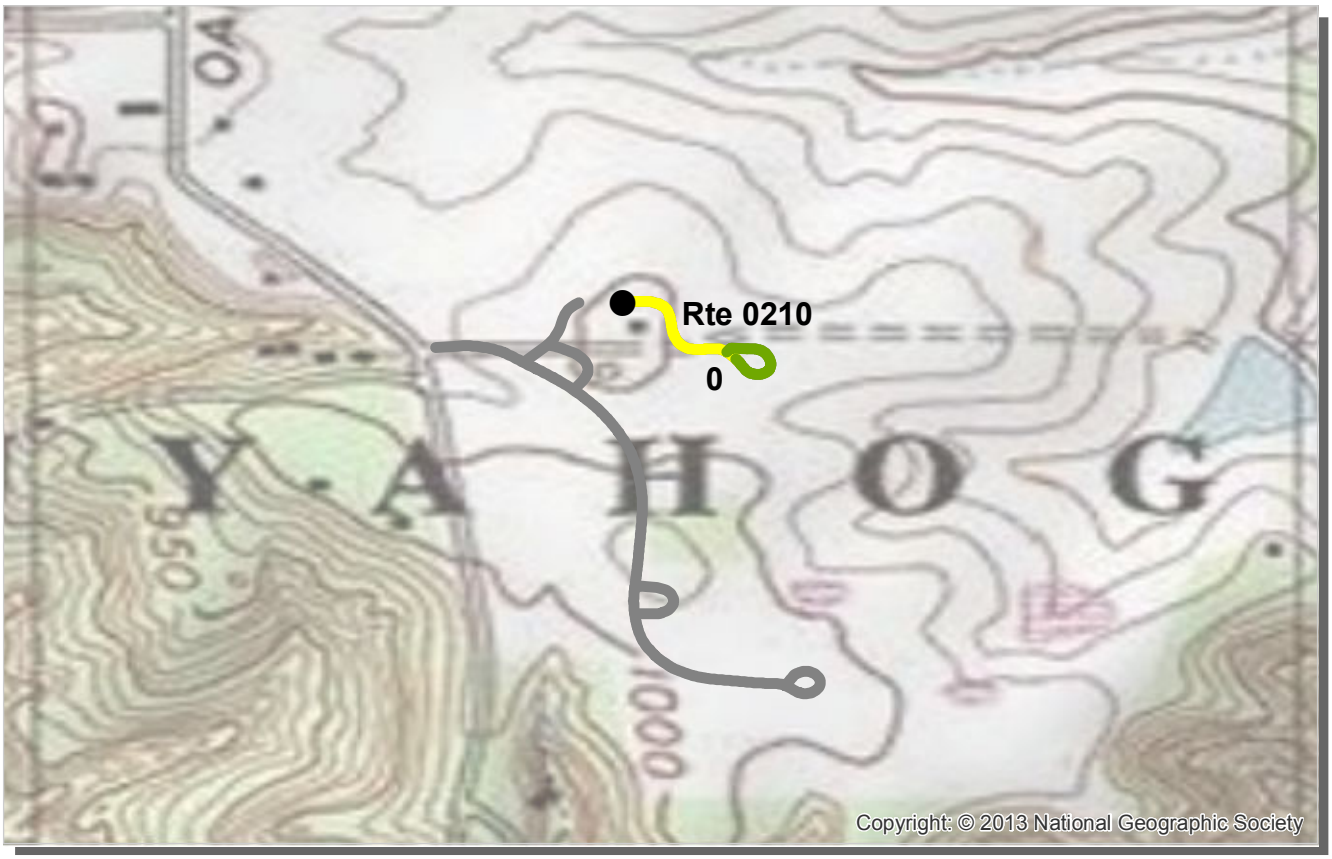
Section Number	0				
Section Length (mi)	0.04				
Cross Section Information					
Number of Lanes	1				
Paved Width (ft)	13				
Lane Width (ft)	13				
Roadway Condition Information					
SCR (Surface Condition Rating)	78				
PCR (Pavement Condition Rating)	78				
Distress Index Values					
Structural Crack Index	94				
Transverse Cracking Index	78				
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



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

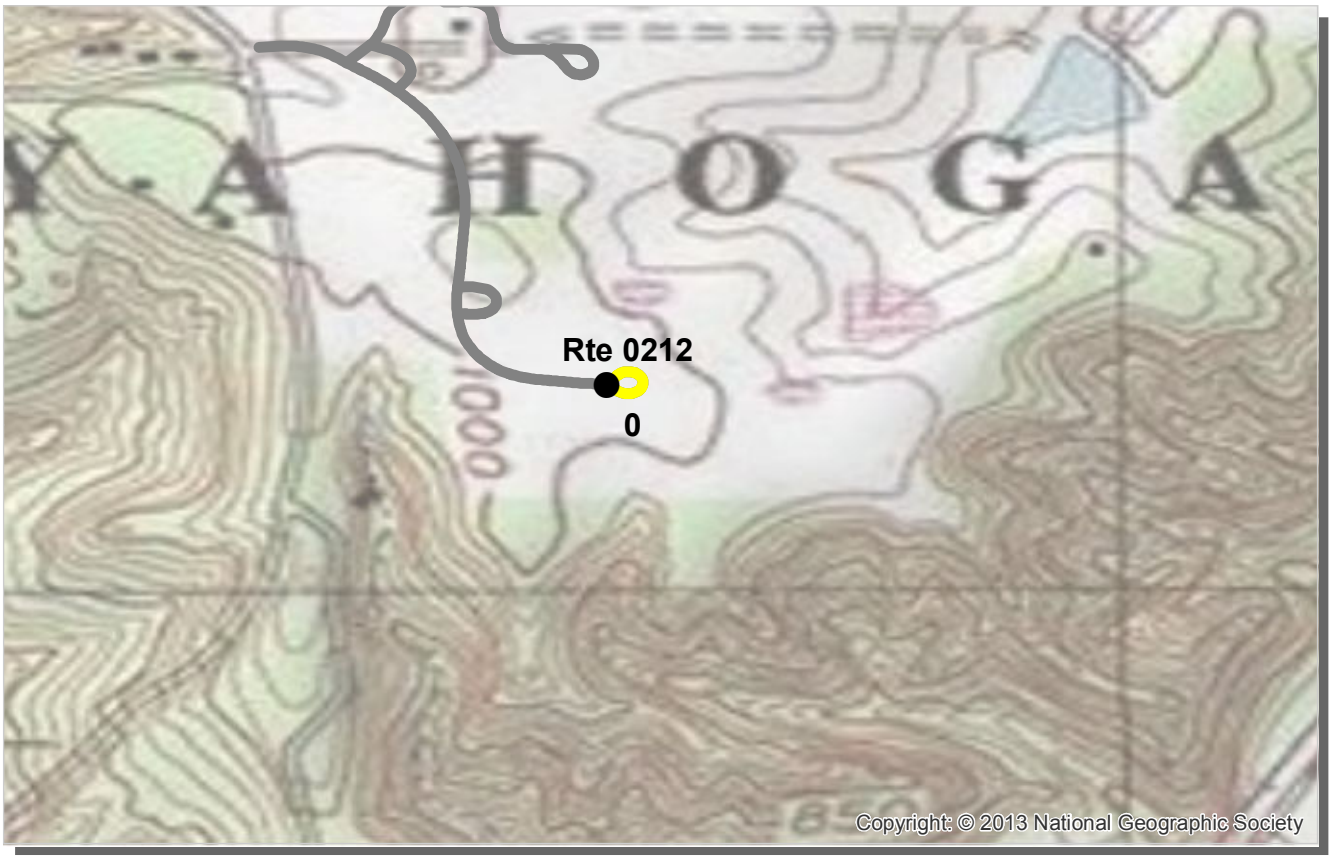
* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

ROUTE: 0210 SD CVEEC NOVEMBER LODGE ROAD
CUVA : CUYAHOGA VALLEY NATIONAL PARK

COLLECTED: 11/3/2013
MIDWEST REGION **TOTAL LENGTH: 0.13 Miles**

Section Number	0				
Section Length (mi)	0.13				
Cross Section Information					
Number of Lanes	1				
Paved Width (ft)	12				
Lane Width (ft)	12				
Roadway Condition Information					
SCR (Surface Condition Rating)	88				
PCR (Pavement Condition Rating)	88				
Distress Index Values					
Structural Crack Index	89				
Transverse Cracking Index	95				
Patching Index	88				
Rutting Index	94				
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



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

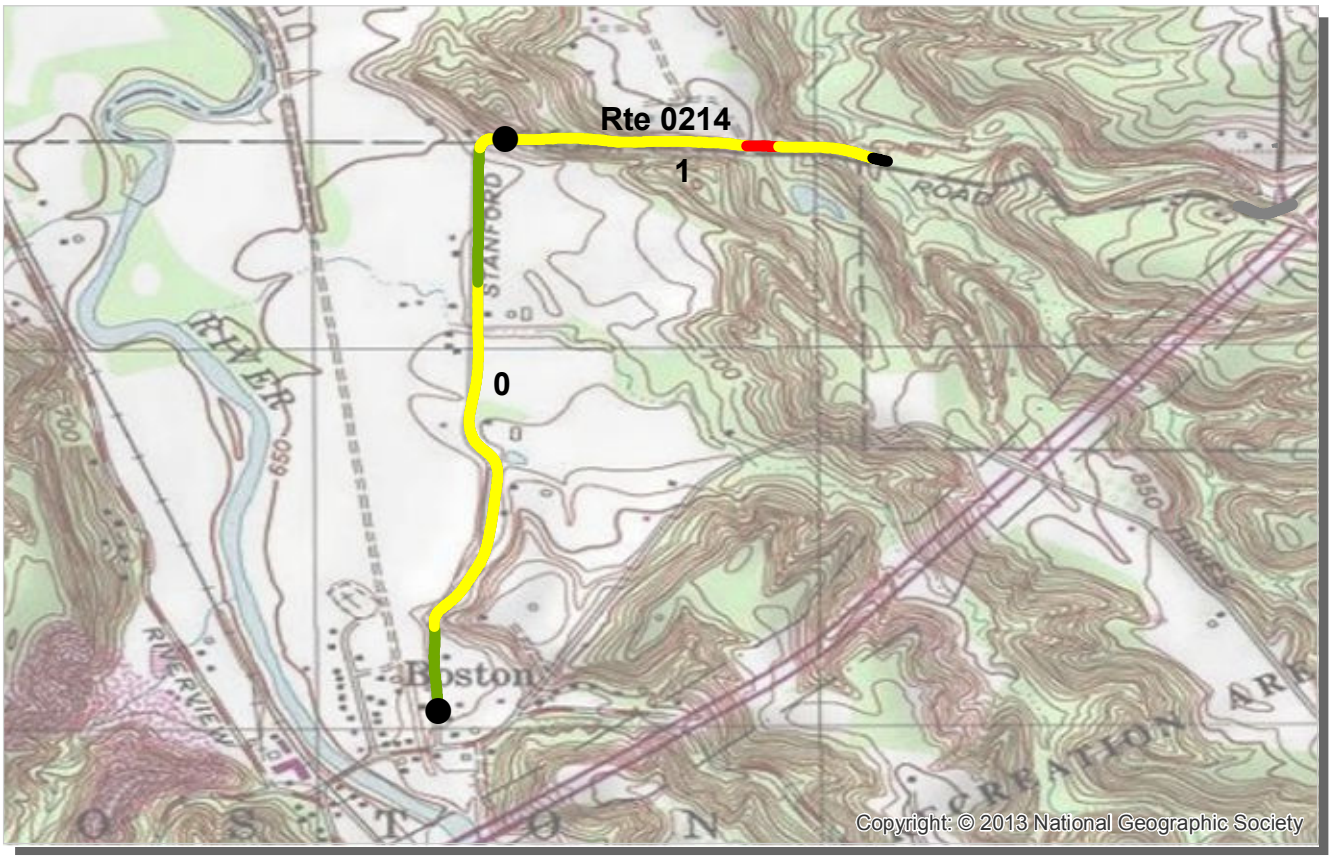
* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

ROUTE: 0212 SD CVEEC WHITE PINE CIRCLE ROAD
CUVA : CUYAHOGA VALLEY NATIONAL PARK

COLLECTED: 11/3/2013
MIDWEST REGION **TOTAL LENGTH: 0.05 Miles**

Section Number	0				
Section Length (mi)	0.05				
Cross Section Information					
Number of Lanes	1				
Paved Width (ft)	23				
Lane Width (ft)	23				
Roadway Condition Information					
SCR (Surface Condition Rating)	73				
PCR (Pavement Condition Rating)	73				
Distress Index Values					
Structural Crack Index	76				
Transverse Cracking Index	73				
Patching Index	98				
Rutting Index	90				
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



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

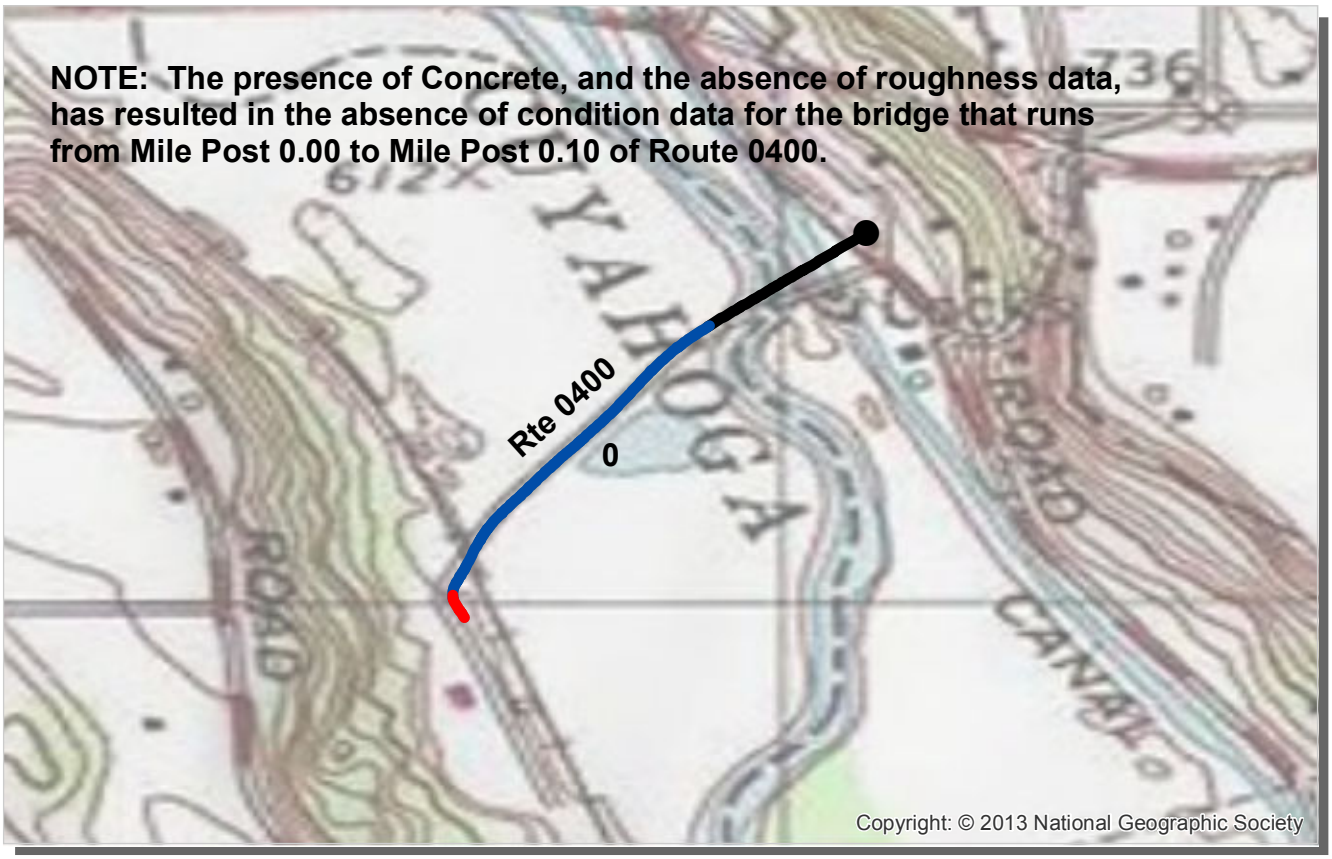
* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

ROUTE: 0214 ND STANFORD ROAD
CUVA : CUYAHOGA VALLEY NATIONAL PARK

COLLECTED: 11/3/2013
MIDWEST REGION **TOTAL LENGTH: 1.48 Miles**

Section Number	0	1			
Section Length (mi)	1.00	0.48			
Cross Section Information					
Number of Lanes	2	2			
Paved Width (ft)	20	17			
Lane Width (ft)	9	9			
Roadway Condition Information					
SCR (Surface Condition Rating)	91	88			
PCR (Pavement Condition Rating)	77	70			
Distress Index Values					
Structural Crack Index	97	88			
Transverse Cracking Index	100	97			
Patching Index	100	100			
Rutting Index	91	88			
Roughness Condition Index (RCI)	55	43			

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 (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: 0400 ND FITZWATER MAINTENANCE YARD ROAD
CUVA : CUYAHOGA VALLEY NATIONAL PARK

COLLECTED: 11/3/2013
MIDWEST REGION **TOTAL LENGTH: 0.34 Miles**

Section Number	0				
Section Length (mi)	0.34				
Cross Section Information					
Number of Lanes	2				
Paved Width (ft)	28				
Lane Width (ft)	11				
Roadway Condition Information					
SCR (Surface Condition Rating)	96				
PCR (Pavement Condition Rating)	96				
Distress Index Values					
Structural Crack Index	99				
Transverse Cracking Index	96				
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

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: 0403 SD HINE HOUSE LOOP ROAD
CUVA : CUYAHOGA VALLEY NATIONAL PARK

COLLECTED: 11/3/2013
MIDWEST REGION **TOTAL LENGTH: 0.10 Miles**

Section Number	0				
Section Length (mi)	0.10				
Cross Section Information					
Number of Lanes	2				
Paved Width (ft)	14				
Lane Width (ft)	9				
Roadway Condition Information					
SCR (Surface Condition Rating)	63				
PCR (Pavement Condition Rating)	63				
Distress Index Values					
Structural Crack Index	63				
Transverse Cracking Index	89				
Patching Index	100				
Rutting Index	79				
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

Section 6
Manually Rated Paved Route Condition Rating Sheets

Cuyahoga Valley National Park

Federal Lands Highway
Road Inventory Program

CUYAHOGA VALLEY NATIONAL PARK

Route 0434

ND BRANDYWINE FALLS LOWER ROAD

FROM BRANDYWINE ROAD

TO END AT TRAIL

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0434	PUBLIC	9/19/2013	751	0.01	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	0	1	NO CURB AND GUTTER	NO CURB	POOR/45

* Lane miles are based on 11' lane widths

180 90 0 180 Feet

N

Section 7
Parking Area
Condition Rating Sheets

Cuyahoga Valley National Park

Federal Lands Highway
Road Inventory Program

CUYAHOGA VALLEY NATIONAL PARK

Route 0900

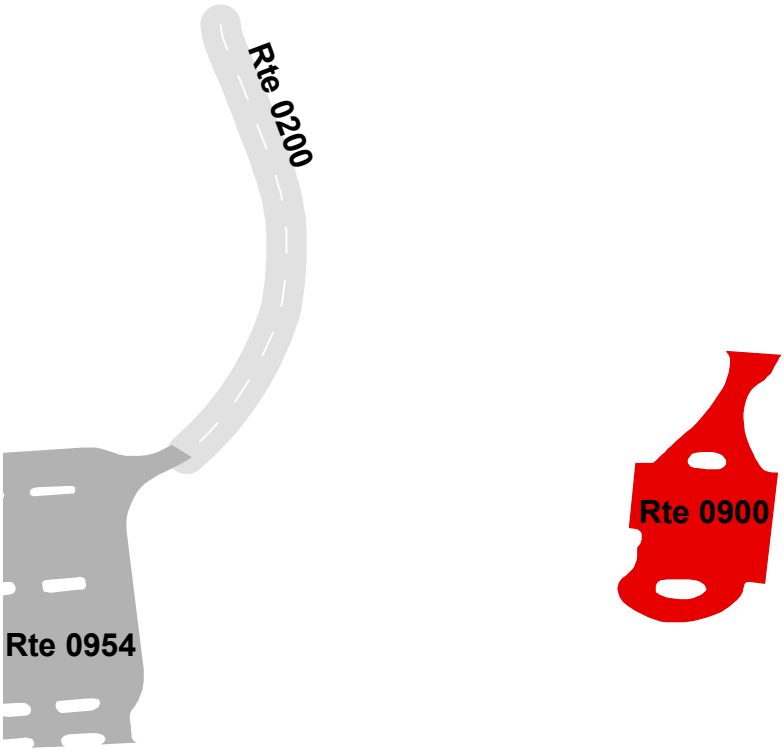
ND LOCK 39 TRAILHEAD PARKING

FROM ROCKSIDE ROAD

TO PARKING

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0900	PUBLIC	9/19/2013	21,324	0.37	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	0	1	NO CURB AND GUTTER	NO CURB	FAIR/73

* Lane miles are based on 11' lane widths



450 225 0 450 Feet

N

CUYAHOGA VALLEY NATIONAL PARK

Route 0902

ND CANAL VISITOR CENTER PARKING

FROM HILLSIDE ROAD

TO PARKING

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0902	PUBLIC	9/19/2013	45,828	0.79	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	0	0	NO CURB AND GUTTER	CONCRETE CURB	FAIR/73

* Lane miles are based on 11' lane widths

360 180 0 360

Feet

CUYAHOGA VALLEY NATIONAL PARK

Route 0903

ND FITZWATER MAINTENANCE YARD PARKING

FROM END OF ROUTE 0400 (ND FITZWATER MAINTENANCE YARD ROAD)
TO PARKING

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0903	NONPUBLIC	9/19/2013	51,803	0.89	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	14	1	NO CURB AND GUTTER	CONCRETE CURB	FAIR/73

* Lane miles are based on 11' lane widths

450 225 0 450
Feet

N

CUYAHOGA VALLEY NATIONAL PARK

Route 0904

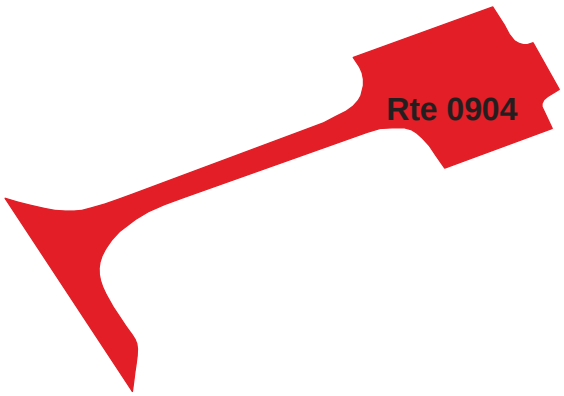
ND FRAZEE HOUSE PARKING

FROM CANAL ROAD

TO PARKING

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0904	PUBLIC	9/19/2013	5,021	0.09	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	0	1	NO CURB AND GUTTER	NO CURB	GOOD/90

* Lane miles are based on 11' lane widths



180 90 0 180

Feet

CUYAHOGA VALLEY NATIONAL PARK

Route 0905

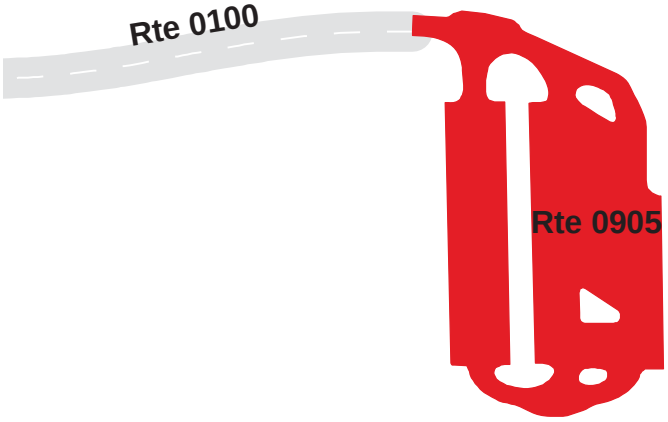
ND BRECKSVILLE STATION PARKING

FROM END OF ROUTE 0100 (ND BRECKSVILLE STATION ROAD)

TO PARKING

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0905	PUBLIC	9/19/2013	76,550	1.32	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	1	0	NO CURB AND GUTTER	ASPHALT CURB	GOOD/90

* Lane miles are based on 11' lane widths



540 270 0 540

Feet

N

CUYAHOGA VALLEY NATIONAL PARK

Route 0906

ND CENTRAL MAINTENANCE & RECEIVING OFFICE PARKING

FROM RIVERVIEW ROAD

TO RIVERVIEW ROAD

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0906	NONPUBLIC	9/19/2013	51,212	0.88	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	7	2	NO CURB AND GUTTER	NO CURB	EXCELLENT/97

* Lane miles are based on 11' lane widths

360 180 0 360

Feet

N

CUYAHOGA VALLEY NATIONAL PARK

Route 0907

ND RED LOCK TRAILHEAD PARKING

FROM COUNTY ROUTE 111 (HIGHLAND ROAD)

TO PARKING

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0907	PUBLIC	9/19/2013	8,255	0.14	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	0	1	NO CURB AND GUTTER	NO CURB	GOOD/90

* Lane miles are based on 11' lane widths

140 70 0 140

Feet

CUYAHOGA VALLEY NATIONAL PARK

Route 0908A

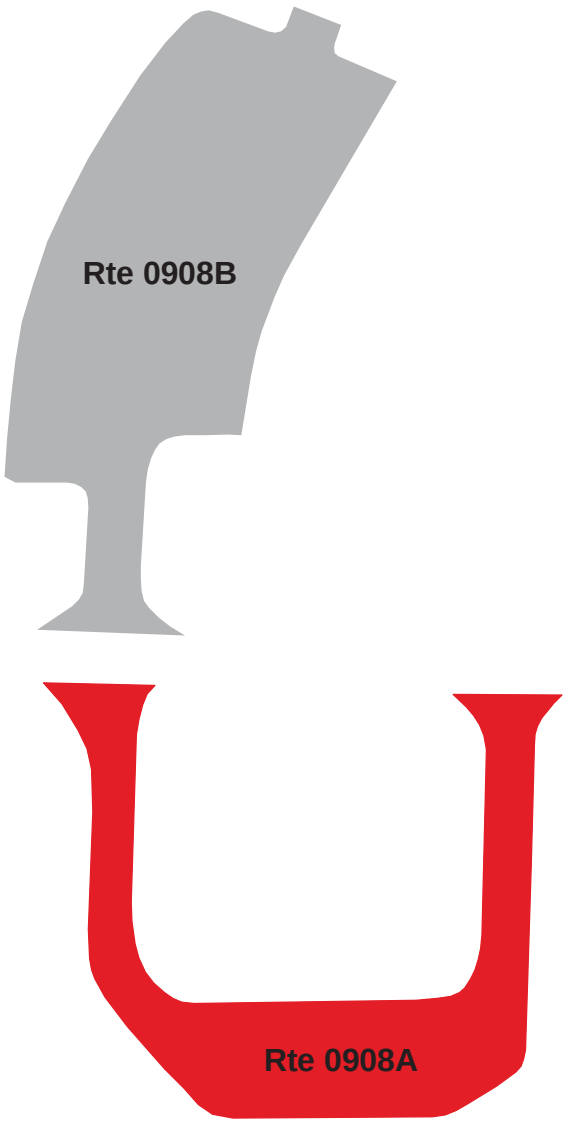
ND HEADQUARTERS PARKING A

FROM VAUGHN ROAD

TO VAUGHN ROAD

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0908A	PUBLIC	9/19/2013	6,602	0.11	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	0	0	NO CURB AND GUTTER	NO CURB	GOOD/90

* Lane miles are based on 11' lane widths



140 70 0 140 Feet

N

CUYAHOGA VALLEY NATIONAL PARK

Route 0908B

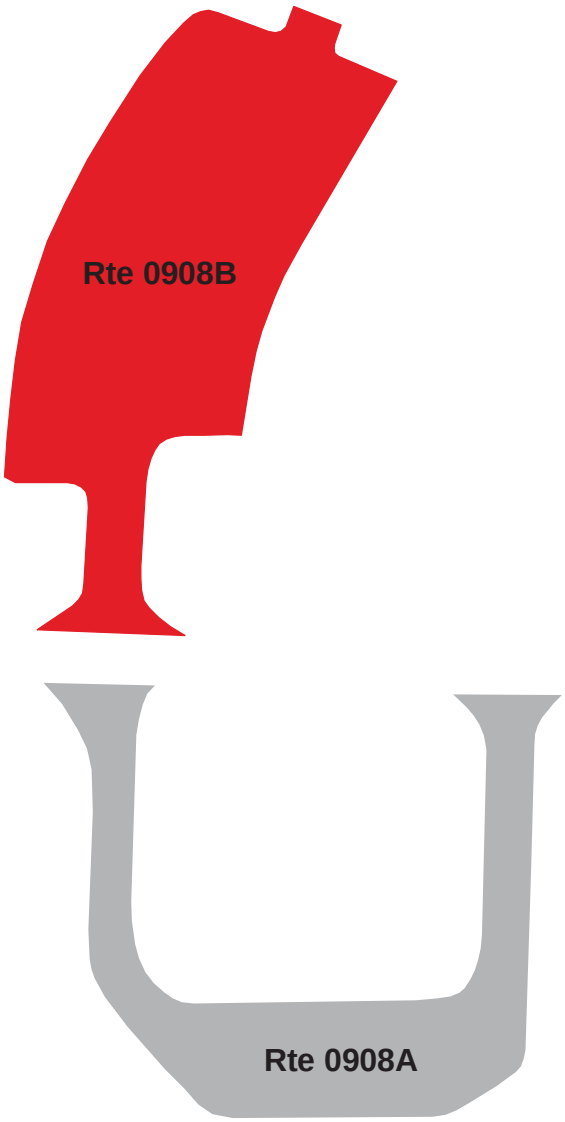
ND HEADQUARTERS PARKING B

FROM VAUGHN ROAD

TO PARKING

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0908B	PUBLIC	9/19/2013	10,641	0.18	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	0	0	NO CURB AND GUTTER	NO CURB	GOOD/90

* Lane miles are based on 11' lane widths



140 70 0 140 Feet

N

CUYAHOGA VALLEY NATIONAL PARK

Route 0909

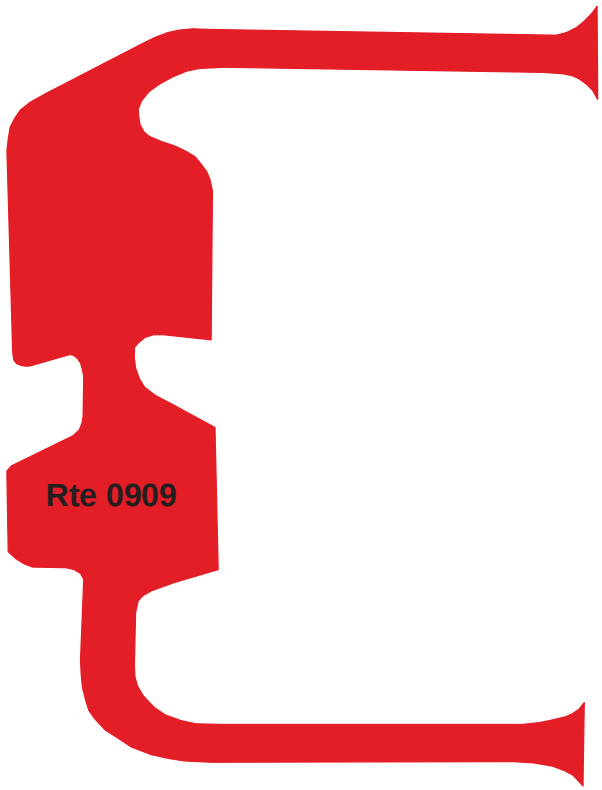
ND DUPLEX PARKING

FROM RIVERVIEW ROAD

TO RIVERVIEW ROAD

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0909	NONPUBLIC	9/19/2013	11,716	0.20	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	0	0	NO CURB AND GUTTER	WOOD CURB	FAIR/73

* Lane miles are based on 11' lane widths



140 70 0 140 Feet

N

CUYAHOGA VALLEY NATIONAL PARK

Route 0910

ND COONRAD PARKING

FROM RIVERVIEW ROAD

TO ROUTE 0443 (ND COONRAD RADIO TOWER ROAD)

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0910	PUBLIC	9/19/2013	16,982	0.29	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
1	0	2	NO CURB AND GUTTER	NO CURB	FAIR/73

* Lane miles are based on 11' lane widths

270 135 0 270

Feet

CUYAHOGA VALLEY NATIONAL PARK

Route 0911

ND BRANDYWINE FALLS UPPER PARKING

FROM END OF ROUTE 0103 (ND BRANDYWINE FALLS ENTRANCE ROAD)
TO PARKING

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0911	PUBLIC	9/19/2013	30,768	0.53	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	1	0	NO CURB AND GUTTER	NO CURB	GOOD/90

* Lane miles are based on 11' lane widths

225 112.5 0 225
Feet

N

CUYAHOGA VALLEY NATIONAL PARK

Route 0912

ND BOSTON GENERAL STORE PARKING

FROM BOSTON MILLS ROAD

TO PARKING

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0912	PUBLIC	9/19/2013	24,845	0.43	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	0	1	NO CURB AND GUTTER	NO CURB	GOOD/90

* Lane miles are based on 11' lane widths

270 135 0 270

Feet

CUYAHOGA VALLEY NATIONAL PARK

Route 0913

ND BIKE & HIKE TRAILHEAD PARKING

FROM BOSTON MILLS ROAD

TO BOSTON MILLS ROAD

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0913	PUBLIC	9/19/2013	6,781	0.12	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
2	0	1	NO CURB AND GUTTER	NO CURB	POOR/45

* Lane miles are based on 11' lane widths

140 70 0 140 Feet

CUYAHOGA VALLEY NATIONAL PARK

Route 0914

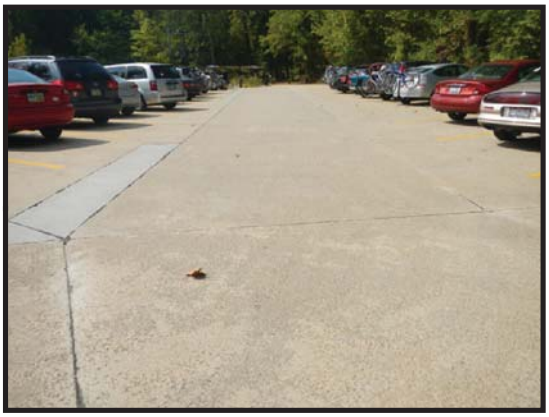
ND LOCK 29 TRAILHEAD PARKING

FROM WEST MILL STREET

TO PARKING

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0914	PUBLIC	9/19/2013	26,439	0.46	CO
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	0	1	NO CURB AND GUTTER	NO CURB	GOOD/90

* Lane miles are based on 11' lane widths



225 112.5 0 225

Feet

N

CUYAHOGA VALLEY NATIONAL PARK

Route 0915

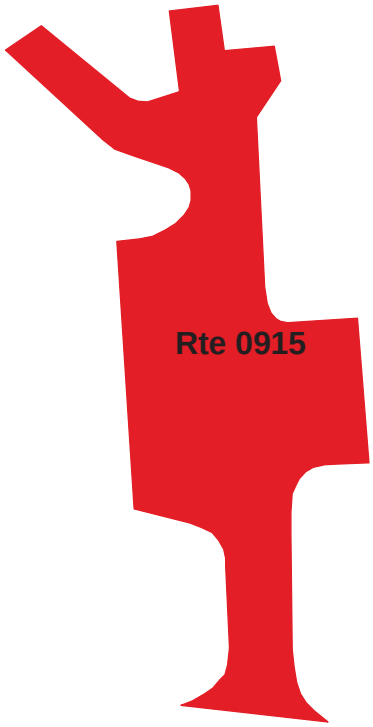
ND SHADY KNOLL PICNIC AREA PARKING

FROM STATE ROUTE 303 (WEST STREETSBORO ROAD)

TO PARKING

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0915	PUBLIC	9/19/2013	8,793	0.15	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	0	1	NO CURB AND GUTTER	NO CURB	GOOD/90

* Lane miles are based on 11' lane widths



140 70 0 140 Feet

N

CUYAHOGA VALLEY NATIONAL PARK

Route 0916

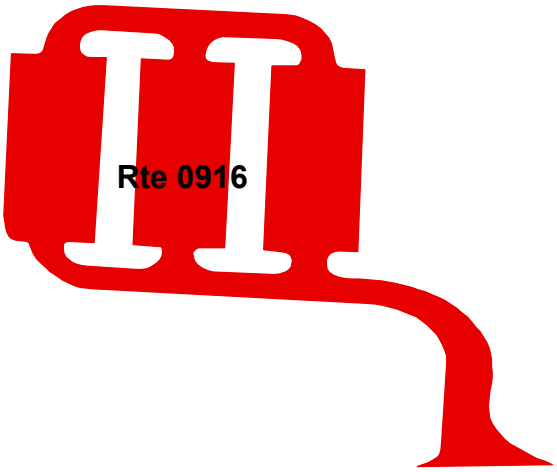
ND HAPPY DAYS VISITOR CENTER PARKING

FROM STATE ROUTE 303 (WEST STREETSBORO ROAD)

TO PARKING

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0916	PUBLIC	9/19/2013	45,591	0.78	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	0	0	NO CURB AND GUTTER	NO CURB	GOOD/90

* Lane miles are based on 11' lane widths



360 180 0 360

Feet

N

CUYAHOGA VALLEY NATIONAL PARK

Route 0917

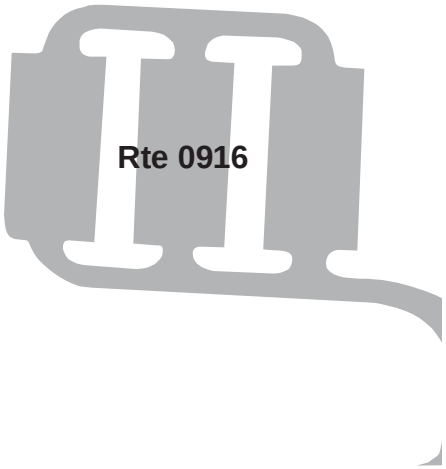
SD HAPPY DAYS VISITOR HANDICAP PARKING

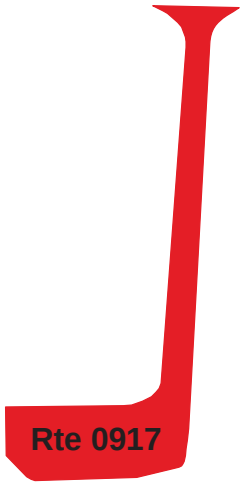
FROM STATE ROUTE 303 (WEST STREETSBORO ROAD)

TO PARKING

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0917	PUBLIC	9/19/2013	13,687	0.24	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
1	1	1	NO CURB AND GUTTER	STONE CURB	POOR/45

* Lane miles are based on 11' lane widths





360 180 0 360

Feet

CUYAHOGA VALLEY NATIONAL PARK

Route 0918

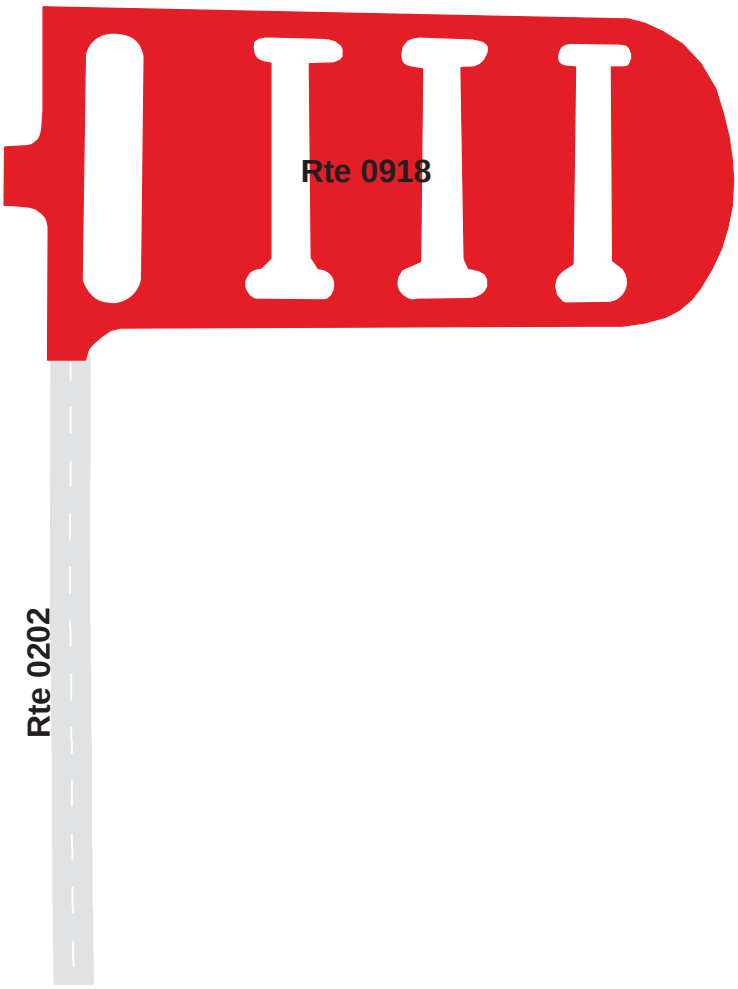
SD OCTAGON PARKING

FROM END OF ROUTE 0202 (SD OCTAGON ROAD)

TO PARKING

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0918	PUBLIC	9/19/2013	50,843	0.88	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	8	1	NO CURB AND GUTTER	NO CURB	POOR/45

* Lane miles are based on 11' lane widths



270 135 0 270

Feet

N

CUYAHOGA VALLEY NATIONAL PARK

Route 0919

SD HORSESHOE POND PARKING

FROM MAJOR ROAD

TO PARKING

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0919	PUBLIC	9/19/2013	9,032	0.16	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	0	1	NO CURB AND GUTTER	NO CURB	GOOD/90

* Lane miles are based on 11' lane widths

180 90 0 180

Feet

N

CUYAHOGA VALLEY NATIONAL PARK

Route 0920

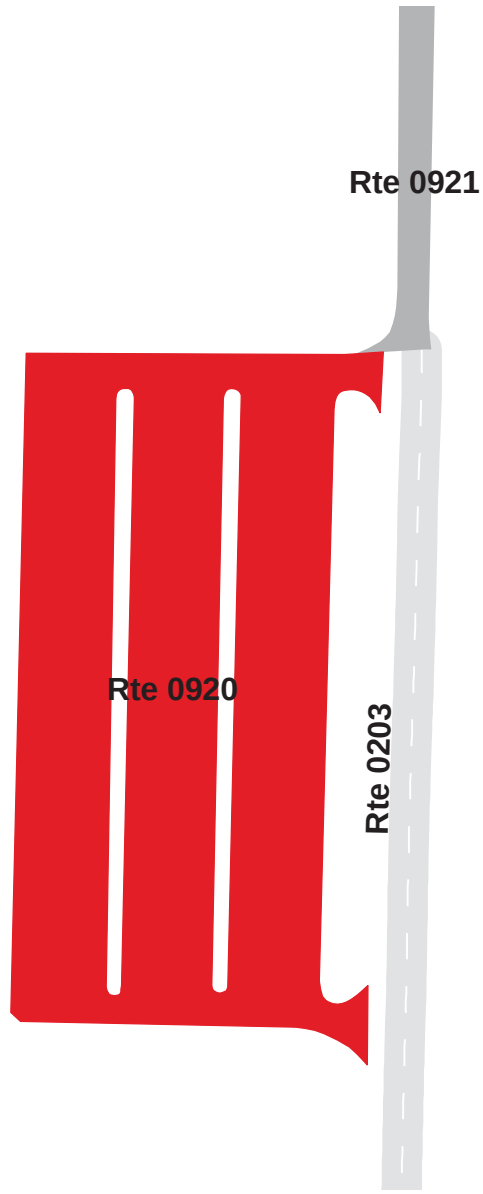
SD LEDGES PARKING

FROM ROUTE 0203 (SD LEDGES ROAD)

TO ROUTE 0203 (SD LEDGES ROAD)

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0920	PUBLIC	9/19/2013	60,797	1.05	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
1	4	0	NO CURB AND GUTTER	NO CURB	POOR/45

* Lane miles are based on 11' lane widths



270 135 0 270

Feet

N

CUYAHOGA VALLEY NATIONAL PARK

Route 0921

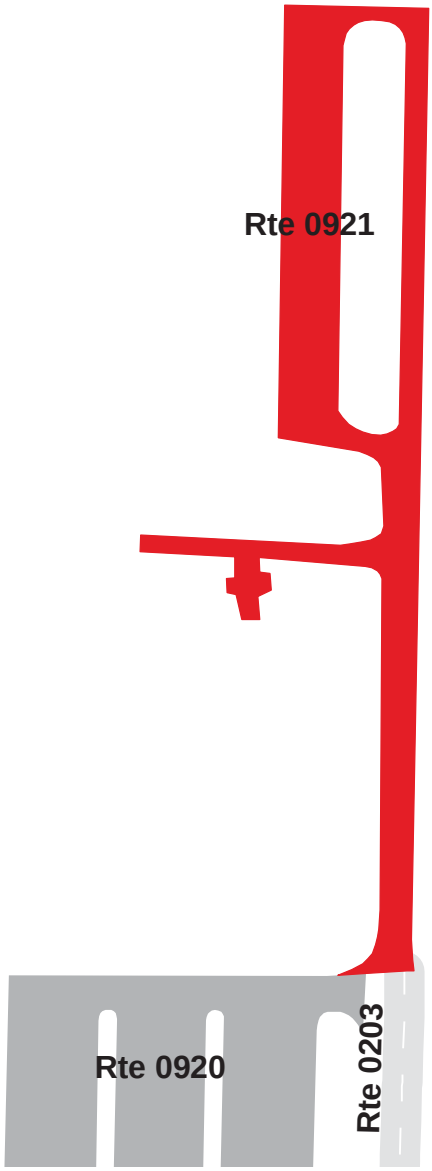
SD LEDGES OVERFLOW PARKING

FROM END OF ROUTE 0203 (SD LEDGES ROAD)

TO PARKING

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0921	NONPUBLIC	9/19/2013	19,972	0.34	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	0	1	NO CURB AND GUTTER	NO CURB	POOR/45

* Lane miles are based on 11' lane widths



270 135 0 270

Feet

N

CUYAHOGA VALLEY NATIONAL PARK

Route 0922

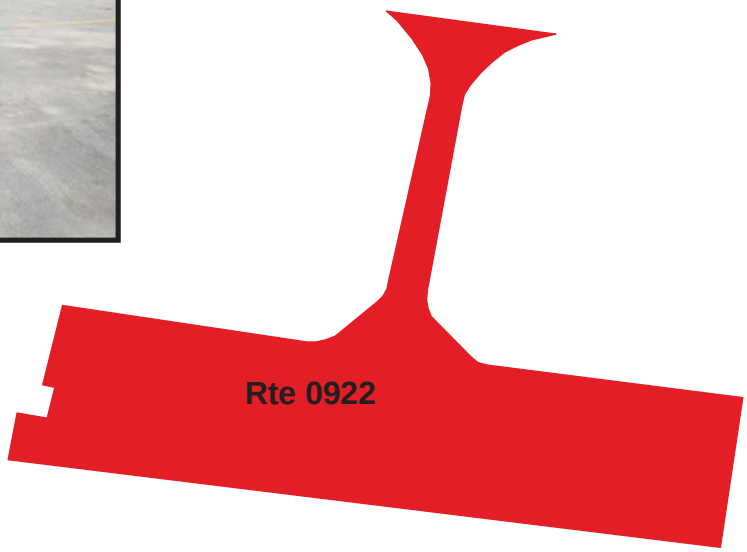
SD VIRGINIA KENDALL LAKE MAINTENANCE PARKING

FROM TRUXELL ROAD

TO PARKING

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0922	NONPUBLIC	9/19/2013	17,855	0.31	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	3	2	NO CURB AND GUTTER	NO CURB	FAIR/73

* Lane miles are based on 11' lane widths



180 90 0 180

Feet

N

CUYAHOGA VALLEY NATIONAL PARK

Route 0923

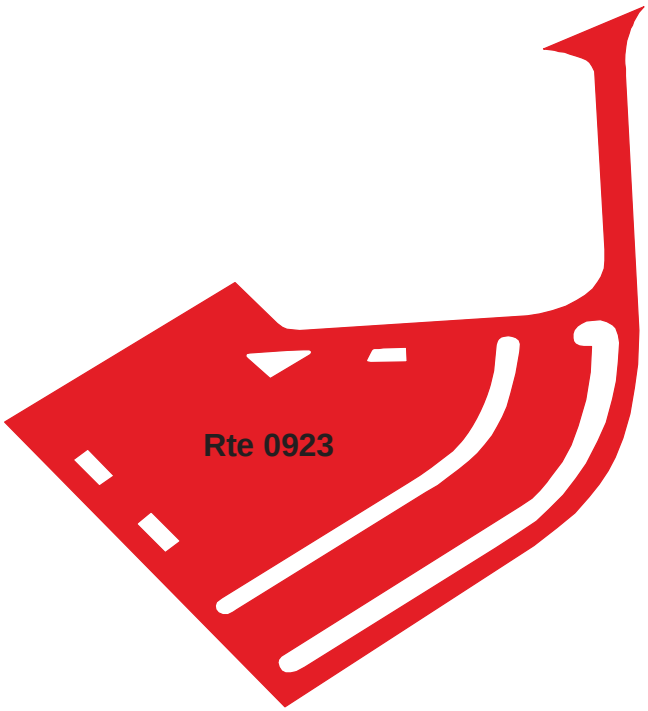
SD VIRGINIA KENDALL LAKE PARKING

FROM TRUXELL ROAD

TO PARKING

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0923	PUBLIC	9/19/2013	81,263	1.40	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	2	2	NO CURB AND GUTTER	NO CURB	GOOD/90

* Lane miles are based on 11' lane widths



360 180 0 360

Feet

N

CUYAHOGA VALLEY NATIONAL PARK

Route 0924

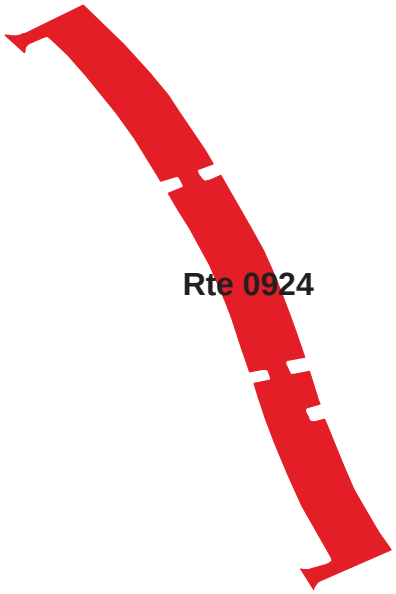
SD PINE HOLLOW PARKING

FROM QUICK ROAD

TO QUICK ROAD

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0924	PUBLIC	9/19/2013	75,670	1.30	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
2	0	2	NO CURB AND GUTTER	NO CURB	POOR/45

* Lane miles are based on 11' lane widths



CUYAHOGA VALLEY NATIONAL PARK

Route 0925

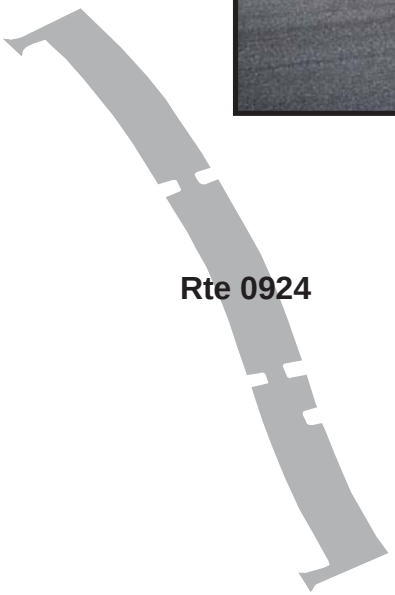
SD CROW FOOT GULLY PARKING

FROM QUICK ROAD

TO PARKING

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0925	PUBLIC	9/19/2013	23,710	0.41	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
1	0	1	NO CURB AND GUTTER	NO CURB	FAIR/73

* Lane miles are based on 11' lane widths



720 360 0 720

Feet

N

CUYAHOGA VALLEY NATIONAL PARK

Route 0926

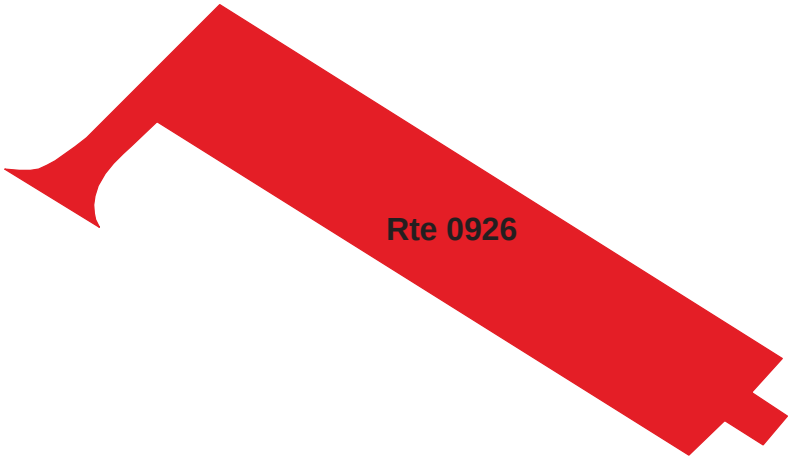
SD LITTLE MEADOW PARKING

FROM QUICK ROAD

TO PARKING

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0926	PUBLIC	9/19/2013	21,186	0.36	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
1	0	1	NO CURB AND GUTTER	NO CURB	POOR/45

* Lane miles are based on 11' lane widths



225 112.5 0 225

Feet

N

CUYAHOGA VALLEY NATIONAL PARK

Route 0927

SD EEC LIPSCOMB CAMPUS PARKING

FROM ROUTE 0102 (SD CVEEC LIPSCOMB PARKING ROAD)

TO ROUTE 0210 (SD CVEEC NOVEMBER LODGE ROAD)

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0927	PUBLIC	9/19/2013	4,293	0.07	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	0	0	NO CURB AND GUTTER	NO CURB	POOR/45

* Lane miles are based on 11' lane widths

CUYAHOGA VALLEY NATIONAL PARK

Route 0929

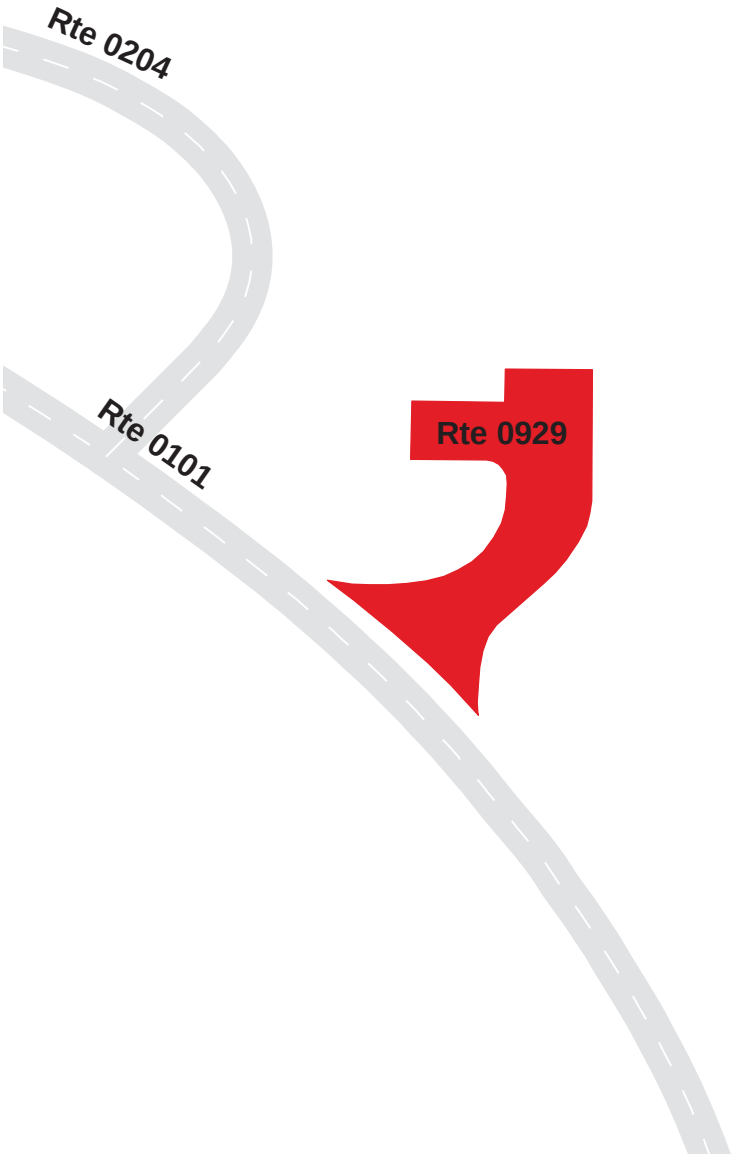
SD EEC LIPSCOMB RECEIVING PARKING

FROM ROUTE 0101 (SD CUYAHOGA VALLEY EEC ROAD)

TO PARKING

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0929	NONPUBLIC	9/19/2013	3,223	0.06	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
1	0	0	NO CURB AND GUTTER	NO CURB	POOR/45

* Lane miles are based on 11' lane widths



140 70 0 140 Feet

N

CUYAHOGA VALLEY NATIONAL PARK

Route 0931

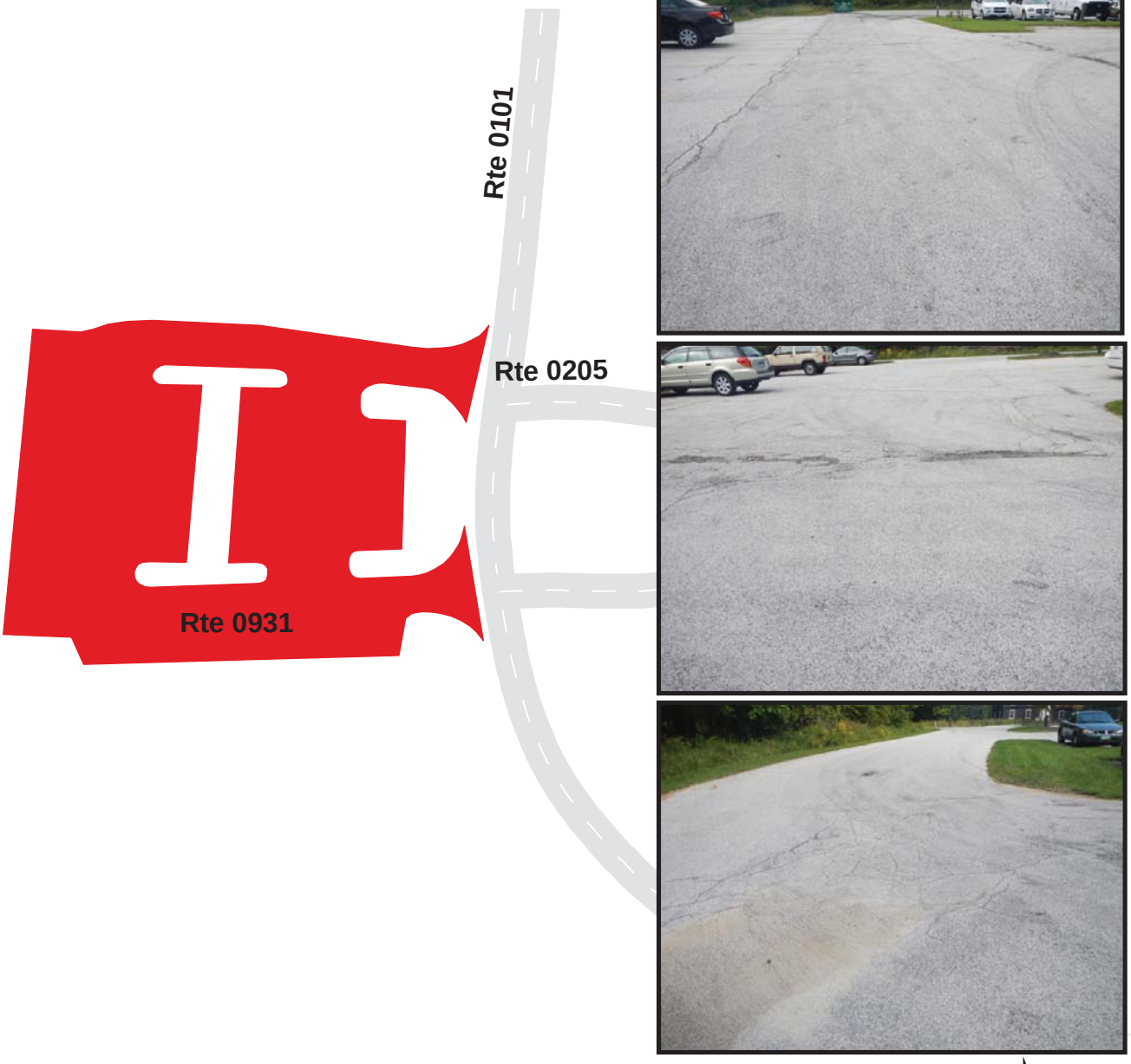
SD EEC ADMINISTRATION PARKING

FROM ROUTE 0101 (SD CUYAHOGA VALLEY EEC ROAD)

TO ROUTE 0101 (SD CUYAHOGA VALLEY EEC ROAD)

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0931	PUBLIC	9/19/2013	22,323	0.38	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	0	0	NO CURB AND GUTTER	NO CURB	POOR/45

* Lane miles are based on 11' lane widths



CUYAHOGA VALLEY NATIONAL PARK

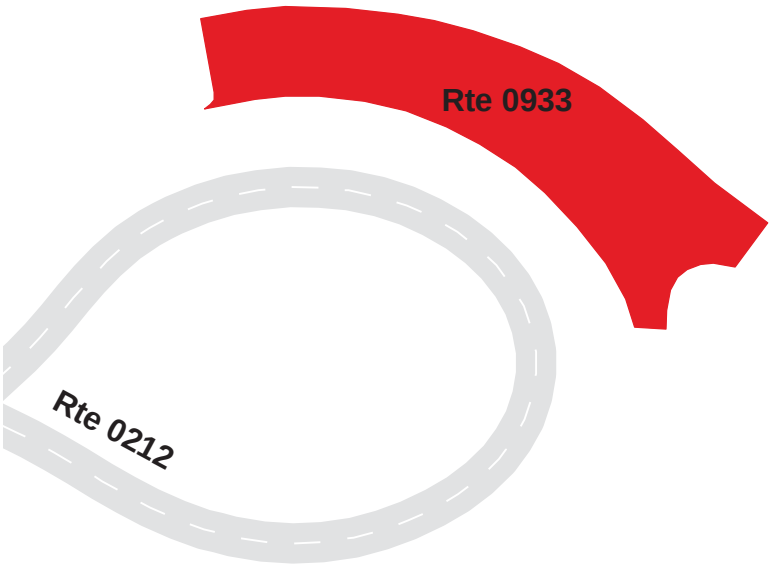
Route 0933

SD EEC WHITE PINE CAMPUS PARKING

ADJACENT TO ROUTE 0212 (SD CVEEC WHITE PINE CIRCLE ROAD)

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0933	PUBLIC	9/19/2013	2,217	0.04	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	0	0	NO CURB AND GUTTER	NO CURB	FAIR/73

* Lane miles are based on 11' lane widths



90 45 0 90 Feet

CUYAHOGA VALLEY NATIONAL PARK

Route 0934

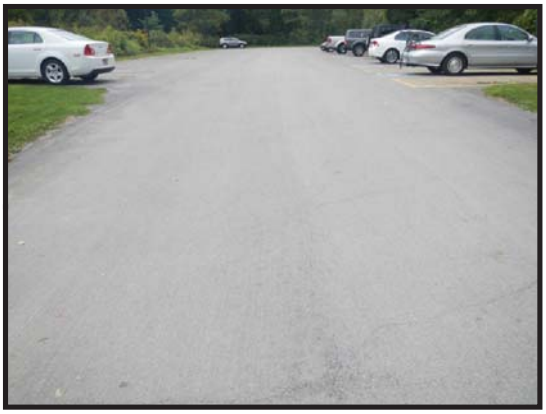
SD HUNT FARM VISITOR INFORMATION CENTER PARKING

FROM BOLANZ ROAD

TO PARKING

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0934	PUBLIC	9/19/2013	14,253	0.25	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	0	1	NO CURB AND GUTTER	NO CURB	FAIR/73

* Lane miles are based on 11' lane widths



140 70 0 140 Feet

N

CUYAHOGA VALLEY NATIONAL PARK

Route 0935

SD IRA TRAILHEAD PARKING

FROM RIVERVIEW ROAD

TO PARKING

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0935	PUBLIC	9/19/2013	24,319	0.42	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	0	1	NO CURB AND GUTTER	NO CURB	GOOD/90

* Lane miles are based on 11' lane widths

225 112.5 0 225

Feet

N

CUYAHOGA VALLEY NATIONAL PARK

Route 0936

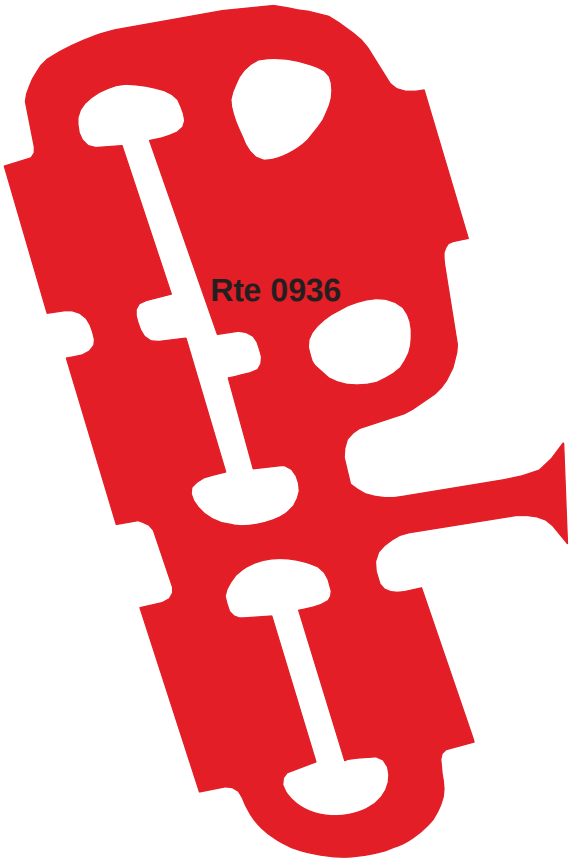
SD BOTZUM PARKING

FROM RIVERVIEW ROAD

TO PARKING

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0936	PUBLIC	9/19/2013	69,737	1.20	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
1	3	1	NO CURB AND GUTTER	CONCRETE CURB	POOR/45

* Lane miles are based on 11' lane widths



270 135 0 270

Feet

N

CUYAHOGA VALLEY NATIONAL PARK

Route 0954

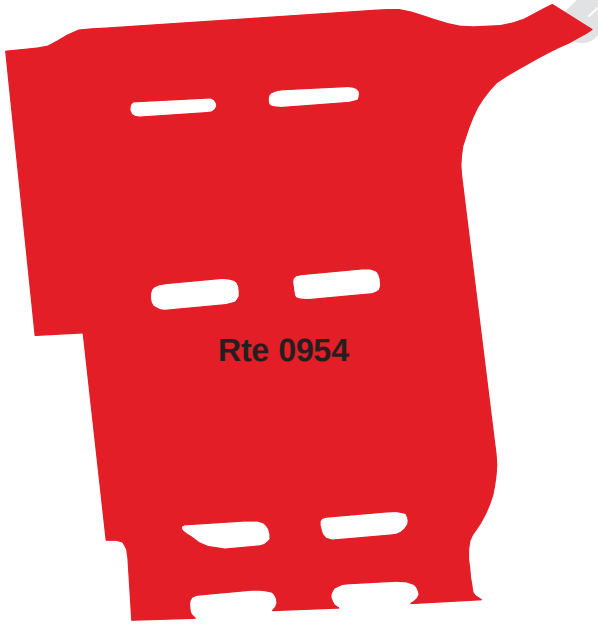
ND ROCKSIDE ROAD SHELTER PARKING

FROM END OF ROUTE 0200 (ND OLD ROCKSIDE ROAD)

TO PARKING

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0954	PUBLIC	9/19/2013	52,133	0.90	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	0	4	NO CURB AND GUTTER	NO CURB	GOOD/90

* Lane miles are based on 11' lane widths



225 112.5 0 225 Feet

N

CUYAHOGA VALLEY NATIONAL PARK

Route 0960

ND CANCASCI DRIVE AND PARKING LOT

FROM CHAFFEE ROAD

TO PARKING

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0960	PUBLIC	9/19/2013	6,890	0.12	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	0	0	NO CURB AND GUTTER	NO CURB	FAIR/73

* Lane miles are based on 11' lane widths

140 70 0 140 Feet

N

CUYAHOGA VALLEY NATIONAL PARK

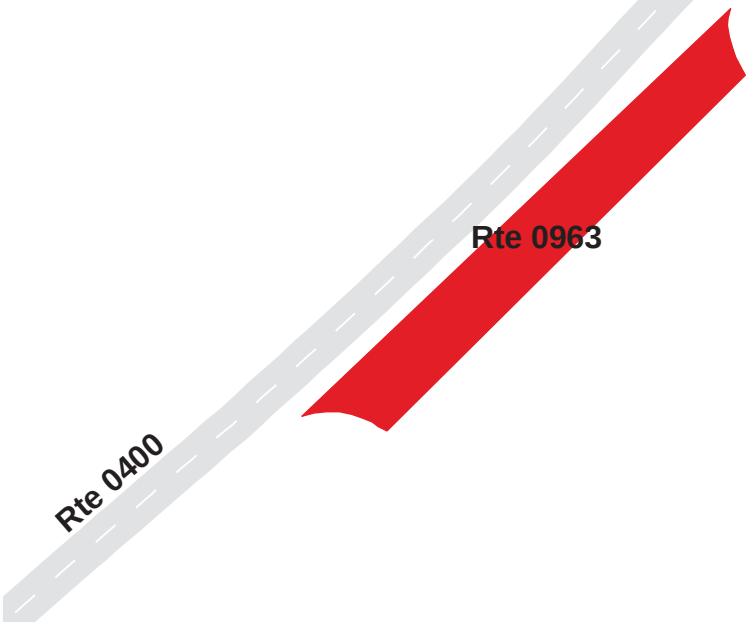
Route 0963

ND FITZWATER ROAD TRAILHEAD PARKING LOT

ADJACENT TO ROUTE 0400 (ND FITZWATER MAINTENANCE YARD ROAD)

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0963	PUBLIC	9/19/2013	4,808	0.08	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	0	0	NO CURB AND GUTTER	NO CURB	GOOD/90

* Lane miles are based on 11' lane widths



180 90 0 180 Feet

N

Section 8
Parkwide/Route
Maintenance Features Summaries

Cuyahoga Valley National Park

Federal Lands Highway
Road Inventory Program

CUVA: PARKWIDE MAINTENANCE FEATURES SUMMARY
Includes DCV, MRL, MRP & PKG routes collected in Cycle-5

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 5 on all DCV driven routes. Culverts and drop inlets were also collected on all Manually Rated Routes and Paved Parking areas. Those totals are reflected below.

FEATURE	LINEAR FEET	COUNT
BRIDGE	--	5
CATTLE GUARD	--	0
CULVERT	--	30
CURB	163	--
DROP INLET	--	48
GATE	--	40
GUARD/GUIDE RAIL	5,219	--
CABLE	0	--
NON-CABLE	5,219	--
GUARD/GUIDE WALL	169	--
BOLLARD	137	--
TEMPORARY BARRIER	0	--
NON TEMP/BOLLARD	32	--
INTERSECTION	--	74
LOW WATER CROSSING	0	0
MILE MARKER	--	0
OVERPASS	--	1
PARK BOUNDARY	--	0
PAVED DITCH	106	--
PULLOUT	460	3
RAILROAD CROSSING	--	3
RETAINING WALL	169	2
SIGN	--	138
STATE BOUNDARY	--	0
TRAFFIC LIGHT	--	6
TUNNEL	0	0

CUVA: DCV ROUTE MAINTENANCE FEATURES SUMMARY

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 5.

FEATURE	ROUTE 0100 ND BRECKSVILLE STATION ROAD	ROUTE 0101 SD CUYAHOGA VALLEY EEC ROAD	ROUTE 0102 SD CVEEC LIPSCOMB PARKING ROAD	ROUTE 0103 ND BRANDYWINE FALLS ENTRANCE ROAD	ROUTE 0200 ND OLD ROCKSIDE ROAD	ROUTE 0201 ND PINE LANE TRAILHEAD ROAD	UNIT
BRIDGE	0	0	0	1	0	0	EACH
CATTLE GUARD	0	0	0	0	0	0	EACH
CULVERT	1	0	1	0	1	1	EACH
CURB	0	0	0	0	0	0	LINEAR FEET
DROP INLET	0	0	0	0	0	1	EACH
GATE	1	1	0	1	1	0	EACH
GUARD/GUIDE RAIL	0	0	0	628	238	0	LINEAR FEET
CABLE	0	0	0	0	0	0	LINEAR FEET
NON-CABLE	0	0	0	628	238	0	LINEAR FEET
GUARD/GUIDE WALL	0	0	0	0	0	0	LINEAR FEET
BOLLARD	0	0	0	0	0	0	LINEAR FEET
TEMPORARY BARRIER	0	0	0	0	0	0	LINEAR FEET
NON TEMP/BOLLARD	0	0	0	0	0	0	LINEAR FEET
INTERSECTION	3	11	4	3	3	4	EACH
LOW WATER CROSSING	0	0	0	0	0	0	EACH
LOW WATER CROSSING	0	0	0	0	0	0	LINEAR FEET
MILE MARKER	0	0	0	0	0	0	EACH
OVERPASS	0	0	0	0	1	0	EACH
PARK BOUNDARY	0	0	0	0	0	0	EACH
PAVED DITCH	0	0	0	0	106	0	LINEAR FEET
PULLOUT	0	2	0	1	0	0	EACH
PULLOUT	0	370	0	90	0	0	LINEAR FEET
RAILROAD CROSSING	1	0	0	0	0	0	EACH
RETAINING WALL	0	0	0	0	1	0	EACH
RETAINING WALL	0	0	0	0	116	0	LINEAR FEET
SIGN	12	14	3	3	4	2	EACH
STATE BOUNDARY	0	0	0	0	0	0	EACH
TRAFFIC LIGHT	0	0	0	0	0	0	EACH
TUNNEL	0	0	0	0	0	0	EACH
TUNNEL	0	0	0	0	0	0	LINEAR FEET

CUVA: DCV ROUTE MAINTENANCE FEATURES SUMMARY

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 5.

FEATURE	ROUTE 0202 SD OCTAGON ROAD	ROUTE 0203 SD LEDGES ROAD	ROUTE 0204 SD EEC LIPSCOMB CAMPUS ROAD	ROUTE 0205 SD EEC ADMINISTRATION ROAD	ROUTE 0210 SD CVEEC NOVEMBER LODGE ROAD	ROUTE 0212 SD CVEEC WHITE PINE CIRCLE ROAD	UNIT
BRIDGE	0	0	0	0	0	0	EACH
CATTLE GUARD	0	0	0	0	0	0	EACH
CULVERT	5	2	0	1	0	0	EACH
CURB	0	0	0	0	0	0	LINEAR FEET
DROP INLET	0	0	0	0	0	0	EACH
GATE	1	1	0	0	0	0	EACH
GUARD/GUIDE RAIL	0	0	0	0	0	0	LINEAR FEET
CABLE	0	0	0	0	0	0	LINEAR FEET
NON-CABLE	0	0	0	0	0	0	LINEAR FEET
GUARD/GUIDE WALL	0	0	53	84	0	0	LINEAR FEET
BOLLARD	0	0	53	84	0	0	LINEAR FEET
TEMPORARY BARRIER	0	0	0	0	0	0	LINEAR FEET
NON TEMP/BOLLARD	0	0	0	0	0	0	LINEAR FEET
INTERSECTION	3	5	4	7	5	5	EACH
LOW WATER CROSSING	0	0	0	0	0	0	EACH
LOW WATER CROSSING	0	0	0	0	0	0	LINEAR FEET
MILE MARKER	0	0	0	0	0	0	EACH
OVERPASS	0	0	0	0	0	0	EACH
PARK BOUNDARY	0	0	0	0	0	0	EACH
PAVED DITCH	0	0	0	0	0	0	LINEAR FEET
PULLOUT	0	0	0	0	0	0	EACH
PULLOUT	0	0	0	0	0	0	LINEAR FEET
RAILROAD CROSSING	0	0	0	0	0	0	EACH
RETAINING WALL	0	0	0	0	0	0	EACH
RETAINING WALL	0	0	0	0	0	0	LINEAR FEET
SIGN	12	12	2	5	1	4	EACH
STATE BOUNDARY	0	0	0	0	0	0	EACH
TRAFFIC LIGHT	0	0	0	0	0	0	EACH
TUNNEL	0	0	0	0	0	0	EACH
TUNNEL	0	0	0	0	0	0	LINEAR FEET

CUVA: DCV ROUTE MAINTENANCE FEATURES SUMMARY

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 5.

FEATURE	ROUTE 0214 ND STANFORD ROAD	ROUTE 0400 ND FITZWATER MAINTENANCE YARD ROAD	ROUTE 0403 SD HINE HOUSE LOOP ROAD		UNIT
BRIDGE	2	2	0		EACH
CATTLE GUARD	0	0	0		EACH
CULVERT	7	0	0		EACH
CURB	0	163	0		LINEAR FEET
DROP INLET	1	2	0		EACH
GATE	0	2	0		EACH
GUARD/GUIDE RAIL	3,275	1,036	42		LINEAR FEET
CABLE	0	0	0		LINEAR FEET
NON-CABLE	3,275	1,036	42		LINEAR FEET
GUARD/GUIDE WALL	0	32	0		LINEAR FEET
BOLLARD	0	0	0		LINEAR FEET
TEMPORARY BARRIER	0	0	0		LINEAR FEET
NON TEMP/BOLLARD	0	32	0		LINEAR FEET
INTERSECTION	5	6	6		EACH
LOW WATER CROSSING	0	0	0		EACH
LOW WATER CROSSING	0	0	0		LINEAR FEET
MILE MARKER	0	0	0		EACH
OVERPASS	0	0	0		EACH
PARK BOUNDARY	0	0	0		EACH
PAVED DITCH	0	0	0		LINEAR FEET
PULLOUT	0	0	0		EACH
PULLOUT	0	0	0		LINEAR FEET
RAILROAD CROSSING	0	2	0		EACH
RETAINING WALL	0	0	1		EACH
RETAINING WALL	0	0	53		LINEAR FEET
SIGN	33	26	5		EACH
STATE BOUNDARY	0	0	0		EACH
TRAFFIC LIGHT	0	6	0		EACH
TUNNEL	0	0	0		EACH
TUNNEL	0	0	0		LINEAR FEET

CUVA: STRUCTURE LIST

ROUTE NUMBER	FUNCTIONAL CLASS	MILEPOST START	MILEPOST END	FEATURE	STRUCTURE NUMBER
0400	5	0.002	0.036	BRIDGE	6160-036
0400	5	0.040	0.091	BRIDGE	6160-035

Section 9
Route Maintenance Features
Road Logs

Cuyahoga Valley National Park

Federal Lands Highway
Road Inventory Program

CUVA: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0100: ND BRECKSVILLE STATION ROAD

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 5 on all paved routes.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM RIVERVIEW ROAD
0.000	0.000	INTERSECTION	RIGHT	PAVED ROUTE (RIVERVIEW ROAD / NON NPS)
0.000	0.000	SIGN	LEFT	GUIDE, RIVERVIEW ROAD
0.000	0.000	INTERSECTION	LEFT	PAVED ROUTE (RIVERVIEW ROAD / NON NPS)
0.006	0.006	GATE	N/A	N/A
0.006	0.006	SIGN	LEFT	REGULATORY, STOP
0.008	0.008	SIGN	RIGHT	REGULATORY, NO PARKING
0.039	0.039	SIGN	RIGHT	GUIDE, STATION ROAD BRIDGE TRAILHEAD CUYAHOGA VALLEY NATIONAL PARK
0.145	0.145	CULVERT	N/A	N/A
0.198	0.198	SIGN	LEFT	REGULATORY, YIELD
0.198	0.198	SIGN	LEFT	REGULATORY, RAILROAD CROSSING
0.204	0.204	SIGN	RIGHT	REGULATORY, RAILROAD CROSSING
0.204	0.204	SIGN	RIGHT	REGULATORY, YIELD
0.204	0.204	RAILROAD CROSSING	N/A	N/A
0.205	0.205	SIGN	RIGHT	GUIDE, GRAPHIC SIGN NO TEXT
0.205	0.205	INTERSECTION	N/A	ROUTE 0905 (ND BRECKSVILLE STATION PARKING)
0.205	0.205	SIGN	LEFT	REGULATORY, YIELD
0.205	0.205	SIGN	LEFT	REGULATORY, RAILROAD CROSSING
0.205	0.205	SIGN	RIGHT	GUIDE, GRAPHIC SIGN NO TEXT
0.205	0.205	ROUTE END	N/A	TO ROUTE 0905 (ND BRECKSVILLE STATION PARKING)

CUVA: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0101: SD CUYAHOGA VALLEY EEC ROAD

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 5 on all paved routes.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM OAK HILL ROAD
0.000	0.000	INTERSECTION	RIGHT	PAVED ROUTE (OAK HILL ROAD / NON NPS)
0.000	0.000	INTERSECTION	LEFT	PAVED ROUTE (OAK HILL ROAD / NON NPS)
0.006	0.006	SIGN	LEFT	REGULATORY, STOP
0.006	0.006	SIGN	RIGHT	GUIDE, CUYAHOGA VALLEY ENVIRONMENTAL EDUCATION CENTER NATIONAL PARK SERVICE
0.008	0.008	GATE	N/A	N/A
0.010	0.010	SIGN	RIGHT	GUIDE, UNABLE TO READ FROM VIDEO
0.010	0.010	SIGN	RIGHT	GUIDE, GRAPHIC SIGN NO TEXT
0.019	0.019	SIGN	RIGHT	GUIDE, AREA CLOSED TO PUBLIC USE RESERVATION REQUIRED
0.019	0.019	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN NO TEXT
0.040	0.040	INTERSECTION	LEFT	ROUTE 0102 (SD CVEEC LIPSCOMB PARKING ROAD)
0.042	0.076	PULLOUT	RIGHT	N/A
0.046	0.046	SIGN	RIGHT	GUIDE, NOVEMBER LODGE LIPSCOMB CAMPUS WHITE PINES CAMPUS PARKING & ADMINISTRATION
0.049	0.049	SIGN	RIGHT	REGULATORY, SPEED LIMIT 15
0.057	0.057	SIGN	RIGHT	GUIDE, BUS PARKING
0.072	0.072	INTERSECTION	LEFT	ROUTE 0204 (SD EEC LIPSCOMB CAMPUS ROAD)
0.095	0.095	INTERSECTION	LEFT	ROUTE 0929 (SD EEC LIPSCOMB RECEIVING PARKING)
0.168	0.204	PULLOUT	LEFT	N/A
0.183	0.183	SIGN	LEFT	GUIDE, BUS PARKING
0.192	0.192	SIGN	RIGHT	GUIDE, ADMINISTRATION PARKING WHITE PINES CAMPUS
0.210	0.210	INTERSECTION	RIGHT	ROUTE 0931 (SD EEC ADMINISTRATION PARKING)
0.214	0.214	INTERSECTION	LEFT	ROUTE 0205 (SD EEC ADMINISTRATION ROAD)
0.230	0.230	INTERSECTION	RIGHT	ROUTE 0931 (SD EEC ADMINISTRATION PARKING)
0.232	0.232	INTERSECTION	LEFT	ROUTE 0205 (SD EEC ADMINISTRATION ROAD)
0.274	0.274	SIGN	LEFT	GUIDE, BUS PARKING
0.275	0.275	SIGN	RIGHT	REGULATORY, UNABLE TO READ FROM VIDEO
0.328	0.328	SIGN	N/A	GUIDE, ONE WAY
0.328	0.328	INTERSECTION	LEFT	ROUTE 0212 (SD CVEEC WHITE PINE CIRCLE ROAD)

CUVA: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0101: SD CUYAHOGA VALLEY EEC ROAD

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 5 on all paved routes.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.328	0.328	INTERSECTION	N/A	ROUTE 0212 (SD CVEEC WHITE PINE CIRCLE ROAD)
0.328	0.328	ROUTE END	N/A	TO ROUTE 0212 (SD CVEEC WHITE PINE CIRCLE ROAD)

CUVA: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0102: SD CVEEC LIPSCOMB PARKING ROAD

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 5 on all paved routes.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0101 (SD CUYAHOGA VALLEY EEC ROAD)
0.000	0.000	INTERSECTION	LEFT	ROUTE 0101 (SD CUYAHOGA VALLEY EEC ROAD)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0101 (SD CUYAHOGA VALLEY EEC ROAD)
0.015	0.015	INTERSECTION	RIGHT	ROUTE 0204 (SD EEC LIPSCOMB CAMPUS ROAD)
0.016	0.016	SIGN	RIGHT	REGULATORY, DO NOT ENTER
0.021	0.021	SIGN	RIGHT	GUIDE, NOVEMBER LODGE
0.021	0.021	SIGN	RIGHT	GUIDE, STAFF PARKING
0.028	0.028	CULVERT	N/A	N/A
0.050	0.050	INTERSECTION	N/A	ROUTE 0927 (SD EEC LIPSCOMB CAMPUS PARKING)
0.050	0.050	ROUTE END	N/A	TO ROUTE 0927 (SD EEC LIPSCOMB CAMPUS PARKING)

CUVA: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0103: ND BRANDYWINE FALLS ENTRANCE ROAD

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 5 on all paved routes.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM BRANDYWINE ROAD
0.000	0.000	INTERSECTION	RIGHT	PAVED ROAD (BRANDYWINE ROAD / NON NPS)
0.000	0.000	INTERSECTION	LEFT	PAVED ROAD (BRANDYWINE ROAD / NON NPS)
0.003	0.006	GUARD/GUIDE RAIL	LEFT	N/A
0.003	0.006	GUARD/GUIDE RAIL	RIGHT	N/A
0.005	0.005	SIGN	LEFT	REGULATORY, STOP
0.007	0.007	GATE	N/A	N/A
0.007	0.007	SIGN	RIGHT	GUIDE, CLOSED AT DUSK ALCOHOLIC BEVERAGES PROHIBITED
0.008	0.066	GUARD/GUIDE RAIL	RIGHT	N/A
0.008	0.008	SIGN	RIGHT	GUIDE, GRAPHIC SIGN NO TEXT
0.008	0.063	GUARD/GUIDE RAIL	LEFT	N/A
0.044	0.052	BRIDGE	N/A	A BIP STRUCTURE NUMBER HAS NOT BEEN ASSIGNED TO THIS BRIDGE
0.056	0.073	PULLOUT	LEFT	N/A
0.075	0.075	INTERSECTION	N/A	ROUTE 0911 (ND BRANDYWINE FALLS UPPER PARKING)
0.075	0.075	ROUTE END	N/A	TO ROUTE 0911 (ND BRANDYWINE FALLS UPPER PARKING)

CUVA: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0200: ND OLD ROCKSIDE ROAD

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 5 on all paved routes.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM OLD ROCKSIDE ROAD
0.000	0.000	INTERSECTION	LEFT	PAVED ROUTE (OLD ROCKSIDE ROAD / NON NPS)
0.000	0.000	INTERSECTION	RIGHT	PAVED ROUTE (OLD ROCKSIDE ROAD / NON NPS)
0.005	0.005	SIGN	RIGHT	GUIDE, ROCKSIDE BOARDING AREA CUYAHOGA VALLEY SCENIC RAILROAD
0.006	0.006	GATE	N/A	N/A
0.007	0.007	SIGN	LEFT	REGULATORY, STOP
0.009	0.009	SIGN	RIGHT	GUIDE, UNABLE TO READ FROM VIDEO
0.047	0.067	PAVED DITCH	RIGHT	N/A
0.049	0.071	RETAINING WALL	RIGHT	N/A
0.052	0.052	OVERPASS	N/A	A BIP STRUCTURE NUMBER HAS NOT BEEN ASSIGNED TO THIS OVERPASS (ROCKSIDE ROAD)
0.063	0.091	GUARD/GUIDE RAIL	LEFT	N/A
0.075	0.092	GUARD/GUIDE RAIL	RIGHT	N/A
0.080	0.080	CULVERT	N/A	N/A
0.094	0.094	SIGN	LEFT	GUIDE, CUYAHOGA VALLEY NATIONAL PARK
0.094	0.094	INTERSECTION	N/A	ROUTE 0954 (ND ROCKSIDE ROAD SHELTER PARKING)
0.094	0.094	ROUTE END	N/A	TO ROUTE 0954 (ND ROCKSIDE ROAD SHELTER PARKING)

CUVA: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0201: ND PINE LANE TRAILHEAD ROAD

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 5 on all paved routes.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM STATE ROUTE 303 (WEST STREETSBORO ROAD)
0.000	0.000	INTERSECTION	LEFT	PAVED ROUTE (STATE ROUTE 303 (WEST STREETSBORO ROAD) / NON NPS)
0.000	0.000	INTERSECTION	RIGHT	PAVED ROUTE (STATE ROUTE 303 (WEST STREETSBORO ROAD) / NON NPS)
0.002	0.002	DROP INLET	RIGHT	N/A
0.010	0.010	SIGN	LEFT	REGULATORY, STOP
0.088	0.088	CULVERT	N/A	N/A
0.149	0.149	SIGN	RIGHT	GUIDE, PINE LANE TRAILHEAD
0.156	0.156	INTERSECTION	RIGHT	ROUTE 0945 (ND PINE LANE TRAILHEAD PARKING)
0.173	0.183	DEBRIS ON ROAD	N/A	N/A
0.189	0.240	DEBRIS ON ROAD	N/A	N/A
0.240	0.240	INTERSECTION	N/A	DEAD END
0.240	0.240	ROUTE END	N/A	TO END OF PAVEMENT

CUVA: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0202: SD OCTAGON ROAD

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 5 on all paved routes.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM TRUXELL ROAD
0.000	0.000	INTERSECTION	LEFT	PAVED ROUTE (TRUXELL ROAD / NON NPS)
0.000	0.000	INTERSECTION	RIGHT	PAVED ROUTE (TRUXELL ROAD / NON NPS)
0.003	0.003	SIGN	LEFT	REGULATORY, STOP
0.004	0.004	GATE	N/A	N/A
0.005	0.005	SIGN	RIGHT	GUIDE, UNABLE TO READ FROM VIDEO
0.011	0.011	SIGN	RIGHT	REGULATORY, SPEED LIMIT 25
0.011	0.011	SIGN	RIGHT	GUIDE, CLOSED AT DUSK ALCOHOLIC BEVERAGES PROHIBITED
0.040	0.040	CULVERT	N/A	N/A
0.059	0.059	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.095	0.095	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.106	0.106	SIGN	RIGHT	GUIDE, CLOSED AT DUSK ALCOHOLIC BEVERAGES PROHIBITED
0.182	0.182	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.235	0.235	CULVERT	N/A	N/A
0.266	0.266	CULVERT	N/A	N/A
0.279	0.279	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.292	0.292	CULVERT	N/A	N/A
0.416	0.416	SIGN	RIGHT	REGULATORY, SPEED LIMIT 15
0.416	0.416	SIGN	LEFT	REGULATORY, SPEED LIMIT 25
0.438	0.438	CULVERT	N/A	N/A
0.448	0.448	INTERSECTION	N/A	ROUTE 0918 (SD OCTAGON PARKING)
0.448	0.448	SIGN	N/A	REGULATORY, ONE WAY
0.448	0.448	ROUTE END	N/A	TO ROUTE 0918 (SD OCTAGON PARKING)

CUVA: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0203: SD LEDGES ROAD

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 5 on all paved routes.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM KENDALL PARK ROAD / TRUXELL ROAD
0.000	0.000	INTERSECTION	LEFT	PAVED ROUTE (KENDALL PARK ROAD / TRUXELL ROAD / NON NPS)
0.000	0.000	INTERSECTION	RIGHT	PAVED ROUTE (KENDALL PARK ROAD / TRUXELL ROAD / NON NPS)
0.005	0.005	SIGN	LEFT	REGULATORY, STOP
0.008	0.008	CULVERT	N/A	N/A
0.018	0.018	GATE	N/A	N/A
0.023	0.023	SIGN	RIGHT	GUIDE, GRAPHIC SIGN NO TEXT
0.031	0.031	SIGN	RIGHT	GUIDE, CLOSED AT DUSK ALCOHOLIC BEVERAGES PROHIBITED
0.031	0.031	SIGN	RIGHT	REGULATORY, SPEED LIMIT 25
0.115	0.115	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.115	0.115	SIGN	RIGHT	GUIDE, ROCK CLIMBING PROHIBITED
0.142	0.142	CULVERT	N/A	N/A
0.186	0.186	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.227	0.227	SIGN	LEFT	REGULATORY, SPEED LIMIT 25
0.227	0.227	SIGN	RIGHT	REGULATORY, SPEED LIMIT 15
0.248	0.248	INTERSECTION	LEFT	ROUTE 0920 (SD LEDGES PARKING)
0.251	0.251	SIGN	LEFT	REGULATORY, DO NOT ENTER
0.330	0.330	INTERSECTION	LEFT	ROUTE 0920 (SD LEDGES PARKING)
0.332	0.332	INTERSECTION	N/A	ROUTE 0921 (SD LEDGES OVERFLOW PARKING)
0.332	0.332	SIGN	LEFT	REGULATORY, ONE WAY
0.332	0.332	SIGN	RIGHT	GUIDE, AUTHORIZED VEHICLES ONLY
0.332	0.332	ROUTE END	N/A	TO ROUTE 0920 (SD LEDGES PARKING) AND ROUTE 0921 (SD LEDGES OVERFLOW PARKING)

CUVA: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0204: SD EEC LIPSCOMB CAMPUS ROAD

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 5 on all paved routes.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0101 (SD CUYAHOGA VALLEY EEC ROAD)
0.000	0.038	ONE-WAY	N/A	N/A
0.000	0.000	INTERSECTION	LEFT	ROUTE 0101 (SD CUYAHOGA VALLEY EEC ROAD)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0101 (SD CUYAHOGA VALLEY EEC ROAD)
0.010	0.010	SIGN	RIGHT	GUIDE, ONE WAY
0.015	0.025	GUARD/GUIDE WALL	RIGHT	N/A
0.018	0.018	SIGN	RIGHT	GUIDE, JAMES S. LIPSCOMB CAMPUS
0.038	0.038	INTERSECTION	LEFT	ROUTE 0102 (SD CVEEC LIPSCOMB PARKING ROAD)
0.038	0.038	INTERSECTION	RIGHT	ROUTE 0102 (SD CVEEC LIPSCOMB PARKING ROAD)
0.038	0.038	ROUTE END	N/A	TO ROUTE 0102 (SD CVEEC LIPSCOMB PARKING ROAD)

CUVA: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0205: SD EEC ADMINISTRATION ROAD

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 5 on all paved routes.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0101 (SD CUYAHOGA VALLEY EEC ROAD)
0.000	0.040	ONE-WAY	N/A	N/A
0.000	0.000	INTERSECTION	LEFT	ROUTE 0101 (SD CUYAHOGA VALLEY EEC ROAD)
0.000	0.000	INTERSECTION	N/A	ROUTE 0931 (SD EEC ADMINISTRATION PARKING)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0101 (SD CUYAHOGA VALLEY EEC ROAD)
0.005	0.005	CULVERT	N/A	N/A
0.007	0.007	SIGN	RIGHT	GUIDE, ONE WAY
0.007	0.007	SIGN	RIGHT	GUIDE, UNABLE TO READ FROM VIDEO
0.016	0.016	INTERSECTION	RIGHT	UNPAVED ROAD (UNMARKED SERVICE ROAD)
0.016	0.016	SIGN	RIGHT	GUIDE, GRAPHIC SIGN NO TEXT
0.016	0.016	SIGN	RIGHT	GUIDE, SERVICE ROAD
0.016	0.032	GUARD/GUIDE WALL	RIGHT	N/A
0.021	0.021	SIGN	RIGHT	GUIDE, ADMINISTRATION
0.040	0.040	INTERSECTION	N/A	ROUTE 0931 (SD EEC ADMINISTRATION PARKING)
0.040	0.040	INTERSECTION	RIGHT	ROUTE 0101 (SD CUYAHOGA VALLEY EEC ROAD)
0.040	0.040	INTERSECTION	LEFT	ROUTE 0101 (SD CUYAHOGA VALLEY EEC ROAD)
0.040	0.040	ROUTE END	N/A	TO ROUTE 0101 (SD CUYAHOGA VALLEY EEC ROAD)

CUVA: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0210: SD CVEEC NOVEMBER LODGE ROAD

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 5 on all paved routes.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0927 (SD EEC LIPSCOMB CAMPUS PARKING)
0.000	0.000	INTERSECTION	N/A	ROUTE 0927 (SD EEC LIPSCOMB CAMPUS PARKING)
0.005	0.005	SIGN	RIGHT	GUIDE, NOVEMBER LODGE
0.072	0.072	INTERSECTION	RIGHT	ROUTE 0210 (SD CVEEC NOVEMBER LODGE ROAD)
0.114	0.114	INTERSECTION	RIGHT	UNPAVED ROUTE
0.130	0.130	INTERSECTION	N/A	ROUTE 0210 (SD CVEEC NOVEMBER LODGE ROAD)
0.130	0.130	INTERSECTION	RIGHT	ROUTE 0210 (SD CVEEC NOVEMBER LODGE ROAD)
0.130	0.130	ROUTE END	N/A	TO END OF LOOP

CUVA: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0212: SD CVEEC WHITE PINE CIRCLE ROAD

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 5 on all paved routes.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM END OF ROUTE 0101 (SD CUYAHOGA VALLEY EEC ROAD)
0.000	0.000	INTERSECTION	LEFT	ROUTE 0212 (SD CVEEC WHITE PINE CIRCLE ROAD)
0.000	0.000	INTERSECTION	N/A	ROUTE 0101 (SD CUYAHOGA VALLEY EEC ROAD)
0.010	0.010	SIGN	RIGHT	GUIDE, GRAPHIC SIGN NO TEXT
0.017	0.017	SIGN	RIGHT	GUIDE, GRAPHIC SIGN NO TEXT
0.019	0.019	SIGN	RIGHT	GUIDE, GRAPHIC SIGN NO TEXT
0.020	0.020	SIGN	RIGHT	GUIDE, WHITE PINES CAMPUS
0.032	0.032	INTERSECTION	RIGHT	ROUTE 0933 (SD EEC WHITE PINE CAMPUS PARKING)
0.048	0.048	INTERSECTION	RIGHT	ROUTE 0101 (SD CUYAHOGA VALLEY EEC ROAD)
0.048	0.048	INTERSECTION	N/A	ROUTE 0212 (SD CVEEC WHITE PINE CIRCLE ROAD)
0.048	0.048	ROUTE END	N/A	TO END OF LOOP AT ROUTE 0101 (SD CUYAHOGA VALLEY EEC ROAD)

CUVA: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0214: ND STANFORD ROAD

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 5 on all paved routes.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ND STANFORD ROAD (NON NPS)
0.000	0.000	INTERSECTION	N/A	PAVED ROAD (STANFORD ROAD) / NON NPS
0.008	0.008	SIGN	LEFT	WARNING, STOP AHEAD
0.008	0.008	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.034	0.034	SIGN	LEFT	GUIDE, GRAPHIC SIGN NO TEXT
0.039	0.039	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.070	0.070	DROP INLET	LEFT	N/A
0.112	0.221	GUARD/GUIDE RAIL	LEFT	N/A
0.112	0.112	SIGN	LEFT	GUIDE, GRAPHIC SIGN NO TEXT
0.112	0.112	SIGN	LEFT	GUIDE, GRAPHIC SIGN NO TEXT
0.112	0.112	CULVERT	N/A	N/A
0.153	0.153	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.154	0.154	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.219	0.219	SIGN	LEFT	REGULATORY, SPEED LIMIT 35
0.304	0.448	GUARD/GUIDE RAIL	LEFT	N/A
0.338	0.338	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.360	0.360	CULVERT	N/A	N/A
0.373	0.373	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.392	0.392	CULVERT	N/A	N/A
0.392	0.392	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.438	0.438	SIGN	RIGHT	GUIDE, STANFORD HOUSE
0.450	0.450	INTERSECTION	RIGHT	ROUTE 0207 (ND YOUTH HOSTEL ROAD)
0.476	0.476	CULVERT	N/A	N/A
0.523	0.523	SIGN	RIGHT	REGULATORY, SPEED LIMIT 35
0.542	0.542	CULVERT	N/A	N/A
0.568	0.568	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.655	0.670	GUARD/GUIDE RAIL	RIGHT	N/A
0.657	0.667	BRIDGE	N/A	A BIP STRUCTURE NUMBER HAS NOT BEEN ASSIGNED TO THIS BRIDGE (NON-NPS BRIDGE)
0.659	0.668	GUARD/GUIDE RAIL	LEFT	N/A

CUVA: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0214: ND STANFORD ROAD

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 5 on all paved routes.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.756	0.756	SIGN	LEFT	REGULATORY, SPEED LIMIT 35
0.884	0.884	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.884	0.884	SIGN	RIGHT	WARNING, 15 MPH
0.920	0.920	SIGN	RIGHT	WARNING, UNABLE TO READ FROM VIDEO
0.925	0.925	CULVERT	N/A	N/A
0.976	0.976	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.977	0.977	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.983	1.042	GUARD/GUIDE RAIL	RIGHT	N/A
1.041	1.041	SIGN	RIGHT	REGULATORY, SPEED LIMIT 35
1.043	1.302	GUARD/GUIDE RAIL	RIGHT	N/A
1.057	1.057	SIGN	LEFT	WARNING, 15 MPH
1.057	1.057	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
1.192	1.192	CULVERT	N/A	N/A
1.244	1.244	SIGN	LEFT	REGULATORY, SPEED LIMIT 35
1.295	1.295	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
1.309	1.309	INTERSECTION	LEFT	ROUTE 0213 (ND TEL STATION ROAD (LATTA LANE))
1.309	1.309	SIGN	RIGHT	REGULATORY, NO PARKING ANY TIME
1.311	1.311	SIGN	RIGHT	REGULATORY, ROAD CLOSED AHEAD
1.312	1.312	SIGN	RIGHT	GUIDE, LATTA LN
1.346	1.346	SIGN	RIGHT	REGULATORY, NO PARKING ANY TIME
1.350	1.350	INTERSECTION	LEFT	ROUTE 0440 (ND 197 CLAYTON STANFORD ROAD)
1.359	1.359	SIGN	RIGHT	REGULATORY, NO PARKING ANY TIME
1.362	1.362	SIGN	RIGHT	REGULATORY, STOP
1.364	1.364	SIGN	RIGHT	REGULATORY, ROAD CLOSED
1.465	1.478	GUARD/GUIDE RAIL	LEFT	N/A
1.466	1.478	GUARD/GUIDE RAIL	RIGHT	N/A
1.468	1.476	BRIDGE	N/A	A BIP STRUCTURE NUMBER HAS NOT BEEN ASSIGNED TO THIS BRIDGE (NON-NPS BRIDGE)
1.478	1.478	INTERSECTION	N/A	DEAD END
1.478	1.478	ROUTE END	N/A	TO DEAD END

CUVA: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0400: ND FITZWATER MAINTENANCE YARD ROAD

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 5 on all paved routes.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM CANAL ROAD
0.000	0.000	TRAFFIC LIGHT	LEFT	X3
0.000	0.000	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.000	0.000	INTERSECTION	RIGHT	PAVED ROUTE (CANAL ROAD / NON NPS)
0.000	0.000	INTERSECTION	LEFT	PAVED ROUTE (CANAL ROAD / NON NPS)
0.000	0.000	TRAFFIC LIGHT	LEFT	X3
0.002	0.036	BRIDGE	N/A	6160-036 (WASTE WIER BRIDGE)
0.002	0.002	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
0.002	0.002	SIGN	LEFT	GUIDE, CANAL RD
0.002	0.002	TRAFFIC LIGHT	N/A	X3
0.002	0.002	TRAFFIC LIGHT	N/A	X3
0.002	0.002	TRAFFIC LIGHT	N/A	X3
0.002	0.002	TRAFFIC LIGHT	N/A	X3
0.003	0.003	SIGN	RIGHT	GUIDE, UNABLE TO READ FROM VIDEO
0.003	0.003	SIGN	RIGHT	GUIDE, CANAL RD SOUTH NORTH
0.004	0.006	GUARD/GUIDE WALL	LEFT	N/A
0.004	0.006	GUARD/GUIDE WALL	RIGHT	N/A
0.006	0.033	GUARD/GUIDE RAIL	LEFT	N/A
0.006	0.033	GUARD/GUIDE RAIL	RIGHT	N/A
0.034	0.034	SIGN	RIGHT	REGULATORY, STOP
0.034	0.034	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.035	0.035	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.037	0.089	GUARD/GUIDE RAIL	LEFT	N/A
0.039	0.094	GUARD/GUIDE RAIL	RIGHT	N/A
0.039	0.039	SIGN	LEFT	REGULATORY, STOP
0.039	0.039	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.040	0.091	BRIDGE	N/A	6160-035 (FITZWATER ROAD BRIDGE)
0.090	0.091	GUARD/GUIDE WALL	LEFT	N/A
0.090	0.091	GUARD/GUIDE WALL	RIGHT	N/A
0.091	0.108	GUARD/GUIDE RAIL	LEFT	N/A

CUVA: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0400: ND FITZWATER MAINTENANCE YARD ROAD

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 5 on all paved routes.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.091	0.109	GUARD/GUIDE RAIL	RIGHT	N/A
0.172	0.172	INTERSECTION	LEFT	ROUTE 0963 (ND FITZWATER ROAD TRAILHEAD PARKING LOT)
0.195	0.195	SIGN	RIGHT	GUIDE, SERVICE ROAD EMPLOYEES ONLY
0.195	0.195	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.195	0.195	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.197	0.197	GATE	N/A	N/A
0.198	0.198	SIGN	RIGHT	REGULATORY, ROAD CLOSED
0.200	0.200	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.268	0.268	INTERSECTION	RIGHT	UNPAVED ROUTE (UNMARKED)
0.279	0.279	SIGN	RIGHT	REGULATORY, RAILROAD CROSSING
0.279	0.279	SIGN	RIGHT	WARNING, RXR
0.279	0.279	SIGN	RIGHT	REGULATORY, YIELD
0.279	0.279	SIGN	RIGHT	REGULATORY, 2 TRACKS
0.284	0.284	INTERSECTION	LEFT	UNPAVED ROUTE (UNMARKED)
0.288	0.288	RAILROAD CROSSING	N/A	N/A
0.292	0.292	RAILROAD CROSSING	N/A	N/A
0.305	0.305	DROP INLET	LEFT	N/A
0.305	0.305	DROP INLET	RIGHT	N/A
0.305	0.305	SIGN	LEFT	REGULATORY, YIELD
0.305	0.305	SIGN	LEFT	REGULATORY, RAILROAD CROSSING
0.305	0.305	SIGN	LEFT	REGULATORY, 2 TRACKS
0.306	0.314	CURB	RIGHT	N/A
0.311	0.334	CURB	LEFT	N/A
0.331	0.331	GATE	N/A	N/A
0.331	0.331	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.332	0.332	SIGN	RIGHT	GUIDE, NO TRESPASSING CUYAHOGA VALLEY NATIONAL PARK
0.332	0.332	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.332	0.332	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.335	0.335	INTERSECTION	N/A	ROUTE 0903 (ND FITZWATER MAINTENANCE YARD PARKING)

CUVA: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0400: ND FITZWATER MAINTENANCE YARD ROAD

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 5 on all paved routes.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.335	0.335	ROUTE END	N/A	TO ROUTE 0903 (ND FITZWATER MAINTENANCE YARD PARKING)

CUVA: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0403: SD HINE HOUSE LOOP ROAD

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 5 on all paved routes.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM MARTIN ROAD / IRA ROAD
0.000	0.000	SIGN	N/A	GUIDE, IRA
0.000	0.000	SIGN	N/A	GUIDE, MARTIN
0.000	0.000	INTERSECTION	RIGHT	PAVED ROUTE (IRA ROAD / NON NPS)
0.000	0.000	INTERSECTION	N/A	PAVED ROUTE (IRA ROAD / NON NPS)
0.000	0.000	INTERSECTION	LEFT	PAVED ROUTE (MARTIN ROAD / NON NPS)
0.000	0.000	SIGN	N/A	WARNING, GRAPHIC SIGN NO TEXT
0.006	0.006	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.006	0.006	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.026	0.026	INTERSECTION	LEFT	ROUTE 0403 (SD HINE HOUSE LOOP ROAD)
0.057	0.067	RETAINING WALL	RIGHT	N/A
0.091	0.099	GUARD/GUIDE RAIL	RIGHT	N/A
0.100	0.100	INTERSECTION	LEFT	ROUTE 0403 (SD HINE HOUSE LOOP ROAD)
0.100	0.100	INTERSECTION	N/A	ROUTE 0403 (SD HINE HOUSE LOOP ROAD)
0.100	0.100	ROUTE END	N/A	TO END OF LOOP

Section 10
Appendix

Cuyahoga Valley National Park

Federal Lands Highway
Road Inventory Program

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

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.

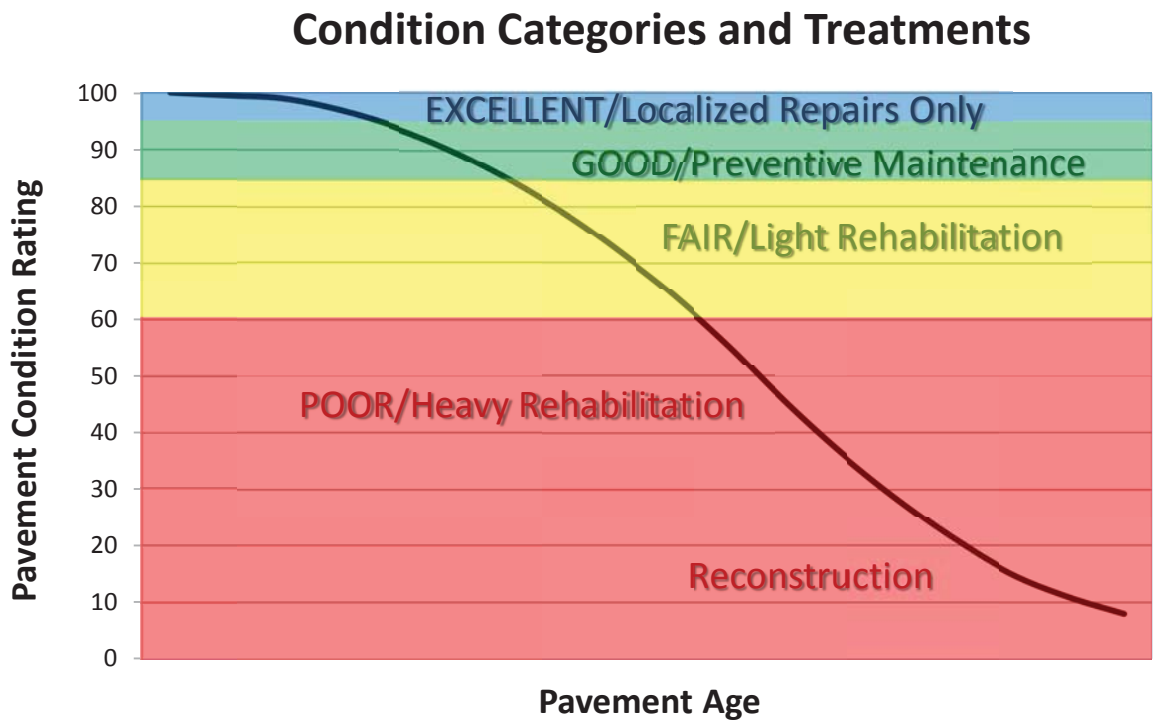
The changes that were implemented were endorsed by management at both the FHWA and NPS. In order to show the effectiveness of these changes, several sites were ground truth tested to ensure that an improvement was achieved between the relationship of PCR and the actual Maintenance and Rehabilitation 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

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.



DESCRIPTION OF RATING SYSTEM

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

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:

Asphalt PCR = (0.60 * SCR) + (0.40 * RCI)
Concrete PCR = 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 s*everity*…LOW, MEDIUM, or HIGH based on criteria listed. For each severity, an e*xtent* 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 (<=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

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

***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 <= 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 <= 0.75 in. (19 mm) or any crack with a mean width <= 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 <= 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

ALLIGATOR CRACKING SEVERITY LEVELS		Crack Pattern		
		LOW	**MED**	**HIGH**
Crack Width	**LOW**	L	M	H
	MED	M	M	H
	HI	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 <= 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 <= 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

IRI Descriptions	
Type of Road	**Typical IRI (in/mile)**
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

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:

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

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 ≥ 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:

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

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 ≥ 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

PATCH_INDEX = 100 – 40 * (%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:

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

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

RUT_INDEX = 100 – 40 * [(%LOW / 535) + (%MED / 205) + (%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:

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

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

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.

CAMERA SPECIFICATIONS **Two Forward/ One Rear Facing**	
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.

CAMERA SPECIFICATIONS **Pavement Line Scan**	
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.

IRI SPECIFICATIONS	
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.

RUTTING SPECIFICATIONS	
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.

GPS SPECIFICATIONS	
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

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

TERM OR ABBREVIATION	DESCRIPTION OR DEFINITION
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