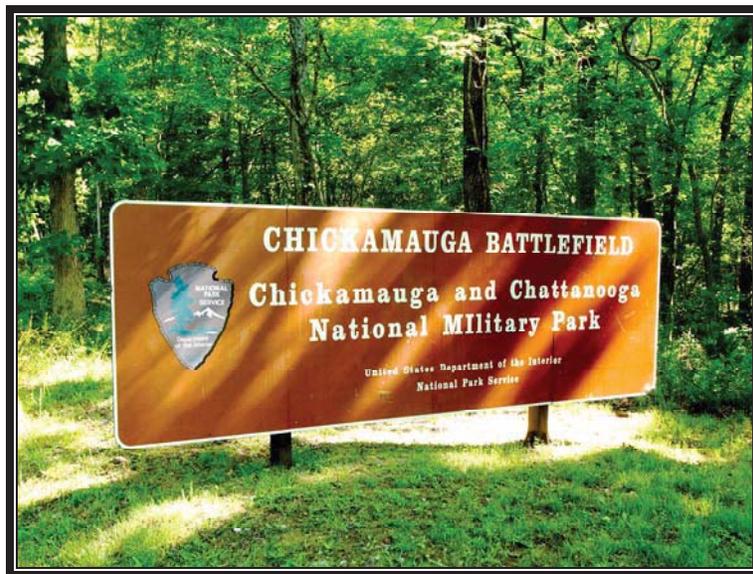




Federal Lands Highway Road Inventory Program

Road Inventory and Condition Assessment

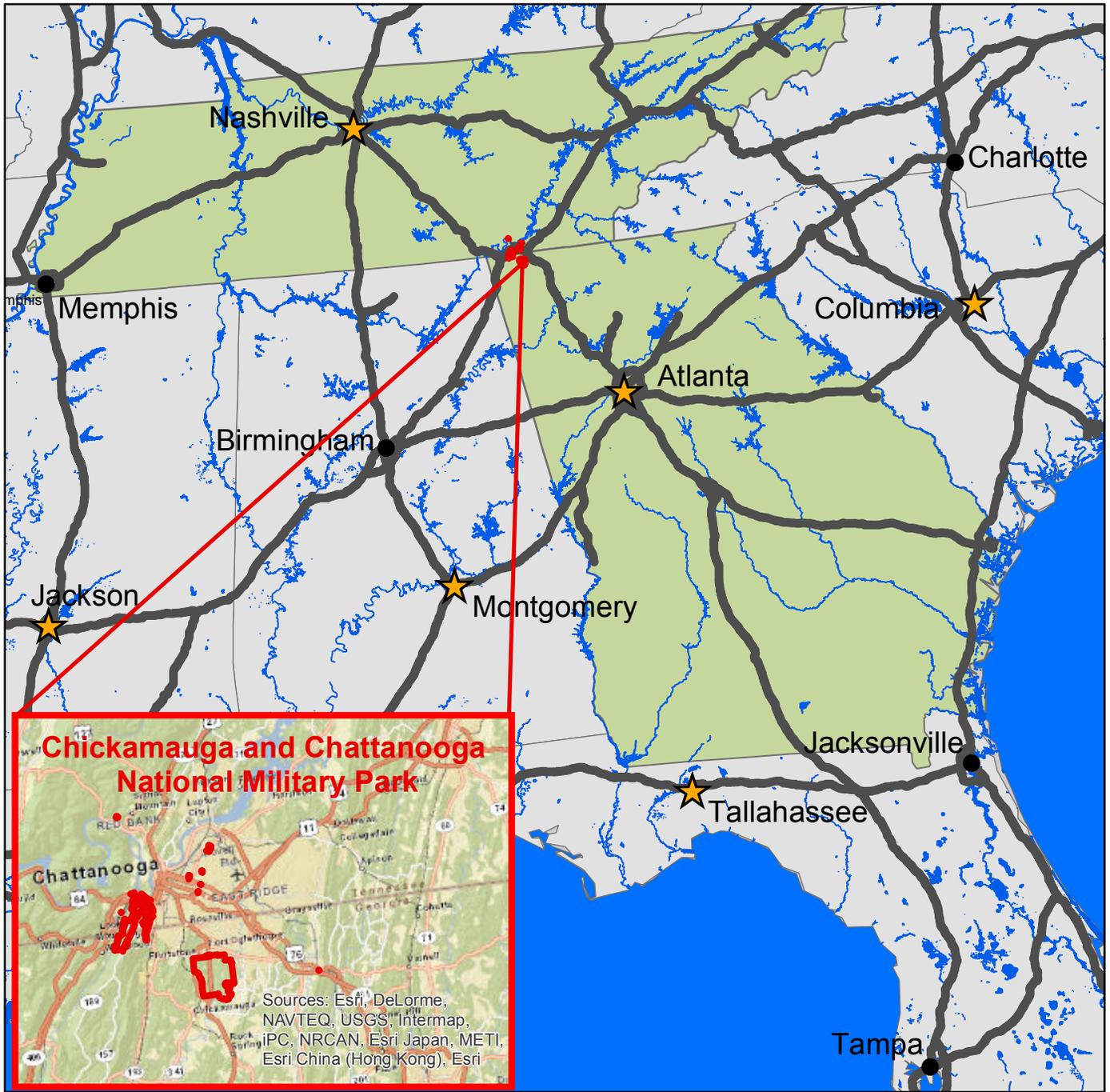


Chickamauga and Chattanooga National Military Park CHCH

Cycle 5 Report

Prepared By: Federal Highway Administration
Road Inventory Program (RIP)
Data Collected: 11/2012
Report Date: 06/2013

Chickamauga and Chattanooga National Military Park in Tennessee and Georgia





DCV = Data Collection Vehicle

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Section 1 Introduction



Chickamauga and Chattanooga National Military 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
(703) 404-6371

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

Section 2

Park Route Inventory



Chickamauga and Chattanooga National Military Park



Federal Lands Highway
Road Inventory Program

Cycle 5 NPS/RIP Route ID Report

Road Inventory Program 06/05/2013

(Numerical By Route #)

Page 1 of 9

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

** DCV - Data Collection Vehicle

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

CHCH

CHICKAMAUGA AND CHATTANOOGA NATIONAL MILITARY PARK

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Description From To	Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0010	5	61664		MCFARLAND GAP ROAD	FROM PARK BOUNDARY TO INTERSECTION OF ROUTE 0011 (LAFAYETTE ROAD) AND ROUTE 0014 (REEDS BRIDGE ROAD)	N/A	0.91	0.00	0.91	1		AS	4
0011	5	61665		LAFAYETTE ROAD	FROM HARKER ROAD TO SOUTH PARK BOUNDARY	N/A	3.38	0.00	3.38	1		AS	4
0012	5	61684		VISITOR CENTER ACCESS ROAD	FROM ROUTE 0011 (LAFAYETTE ROAD) AT MP 0.20 TO ROUTE 0011 (LAFAYETTE ROAD) AT MP 0.27	N/A	0.10	0.00	0.10	2		AS	4
0013	5	61669		ALEXANDER BRIDGE ROAD	FROM ROUTE 0011 (LAFAYETTE ROAD) AT MP 0.49 TO PARK BOUNDARY	N/A	2.91	0.00	2.91	2		AS	4
0013A	5	104785		ALEXANDER BRIDGE ROAD SPUR	FROM INTERSECTION OF ROUTE 0011 (LAFAYETTE ROAD) AND ROUTE 0014 (REEDS BRIDGE ROAD) TO ROUTE 0013 (ALEXANDER BRIDGE ROAD)	N/A	0.03	0.00	0.03	2		AS	4
0014	5	225734		REEDS BRIDGE ROAD	FROM INTERSECTION OF ROUTE 0010 (MCFARLAND GAP ROAD) AND ROUTE 0011 (LAFAYETTE ROAD) TO BEGIN ROUTE 0100 (JAYS MILL ROAD) AT PARK BOUNDARY	N/A	1.98	0.00	1.98	1		AS	4
0100	5	61667		JAYS MILL ROAD	FROM END OF ROUTE 0014 (REEDS BRIDGE ROAD) TO ROUTE 0013 (ALEXANDER BRIDGE ROAD)	N/A	1.10	0.00	1.10	2		AS	4
0101	5	61674		DYER ROAD	FROM ROUTE 0105 (CHICK-VITTETOE ROAD) AT MP 0.87 TO ROUTE 0011 (LAFAYETTE ROAD)	N/A	0.76	0.00	0.76	2		AS	4
0102	5	61670		BROTHERTON ROAD	FROM ROUTE 0011 (LAFAYETTE ROAD) AT MP 1.82 TO ROUTE 0100 (JAYS MILL ROAD)	N/A	1.96	0.00	1.96	2		AS	4
0103	5	66860		VINYARD ALEXANDER ROAD	FROM ROUTE 0011 (LAFAYETTE ROAD) AT MP 2.80 TO ROUTE 0013 (ALEXANDER BRIDGE ROAD)	N/A	2.02	0.00	2.02	2		AS	4
0103A	5	104786		VINYARD ALEXANDER ROAD SPUR	FROM ROUTE 0013 (ALEXANDER BRIDGE ROAD) TO ROUTE 0103 (VINYARD ALEXANDER ROAD)	N/A	0.06	0.00	0.06	2		AS	4
0104	4	61683		VITTETOE ROAD	FROM ROUTE 0112 (SNODGRASS ROAD) TO ROUTE 0112 (SNODGRASS ROAD) AT MP 0.65	N/A	0.05	0.60	0.65	6		AS	4

Cycle 5 NPS/RIP Route ID Report

Road Inventory Program 06/05/2013

(Numerical By Route #)

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CHCH

CHICKAMAUGA AND CHATTANOOGA NATIONAL MILITARY PARK

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Description From To	Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0105	5	61672		CHICK-VITTETOE ROAD	FROM NORTHWEST PARK BOUNDARY TO SOUTH PARK BOUNDARY	N/A	2.53	0.00	2.53	2		AS	4
0106	5	61743		SANDERS ROAD	FROM TENNESSEE STATE ROUTE 58 TO TENNESSEE STATE ROUTE 148	N/A	0.77	0.00	0.77	2		AS	3
0108	5	61739		MILITARY ROAD	FROM INTERSECTION OF ROUTE 0113 (CRAVENS TERRACE ROAD) AND SHINGLE ROAD TO TENNESSEE STATE ROUTE 148	N/A	0.29	0.00	0.29	2		AS	3
0109	5	61741		CAROLINE ROAD	FROM ROUTE 0108 (MILITARY ROAD) TO END OF PAVEMENT	N/A	0.17	0.00	0.17	2		AS	3
0112	5	61675		SNODGRASS ROAD	FROM ROUTE 0500 (GLENN KELLEY ROAD) AT MP 1.29 TO END OF LOOP	N/A	0.45	0.00	0.45	1		AS	4
0113	5	61736		CRAVENS TERRACE ROAD	FROM INTERSECTION OF ROUTE 0108 (MILITARY ROAD) AND SHINGLE ROAD TO TENNESSEE STATE ROUTE 148	N/A	0.84	0.00	0.84	1		AS	3
0201	4	61744		SANDERS ROAD PICNIC AREA ACCESS ROAD	FROM ROUTE 0106 (SANDERS ROAD) AT MP 0.55 TO ROUTE 0106 (SANDERS ROAD) AT MP 0.26	N/A	0.38	0.00	0.38	3		AS	3
0203	NC	101927		MOBE ACCESS ROAD BLUE BLAZES	FROM PINEVILLE ROAD TO END	N/A	0.00	0.08	0.08	4		GR	
0205	4	61940		ACCESS ROAD ORCHARD KNOB RESERVATION	FROM NORTH ORCHARD KNOB AVENUE TO ORCHARD KNOB RESERVATION	N/A	0.00	0.00	0.00	3	3,791	AS	2
0400	NC	61691		MULLIS VITTETOE ROAD	FROM ROUTE 0010 (MCFARLAND GAP ROAD) TO PARK BOUNDARY	N/A	0.00	0.15	0.15	6		GR	
0404	NC	61676		SNODGRASS ACCESS ROAD	FROM ROUTE 0400 (MULLIS VITTETOE ROAD) TO ROUTE 0112 (SNODGRASS ROAD)	N/A	0.00	0.25	0.25	6		GR	
0405	NC	61686		SAVANNAH ROAD	FROM ROUTE 0112 (SNODGRASS ROAD) TO END	N/A	0.00	0.66	0.66	6		GR	
0406	NC	61690		SOUTH POST ROAD	FROM ROUTE 0500 (GLENN KELLEY ROAD) TO END	N/A	0.00	0.25	0.25	6		GR	
0407	4	61687		MAINTENANCE COMPOUND ACCESS ROAD	FROM ROUTE 0937 (PARKING MAINTENANCE AREA) TO ROUTE 0101 (DYER ROAD) AT MP 0.26	N/A	0.16	0.10	0.26	6		AS	4
0408	NC	61689		SOUTH CAROLINA ACCESS ROAD	FROM ROUTE 0104 (VITTETOE ROAD) TO MONUMENT	N/A	0.00	0.13	0.13	6		GR	

Cycle 5 NPS/RIP Route ID Report

Road Inventory Program 06/05/2013

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CHCH

CHICKAMAUGA AND CHATTANOOGA NATIONAL MILITARY PARK

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Description From To	Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0409	NC	61681		DALTON FORD ROAD	FROM ROUTE 0103 (VINYARD ALEXANDER ROAD) TO END	N/A	0.00	1.04	1.04	6		GR	
0410	NC	61680		THEDFORD FORD ROAD	FROM ROUTE 0409 (DALTON FORD ROAD) TO FORD	N/A	0.00	0.42	0.42	6		GR	
0411	4	61732		POINT PARK ACCESS ROAD	FROM POINT PARK ENTRANCE GATE TO END OF LOOP	N/A	0.00	0.00	0.00	6	18,105	AS	3
0412	NC	109915		SERVICE ROAD WILLIAMS HOUSE PROPERTIES	FROM CRAVEN'S TERRACE ROAD TO END	N/A	0.00	0.10	0.10	5		GR	
0413	NC	101398		MOBE MOCCASIN BEND SERVICE ROAD	FROM PINEVILLE ROAD TO ARCHEOLOGICAL SITES	N/A	0.00	1.50	1.50	6		GR	
0414	4	225808		ACCESS ROAD HQ ADMINISTRATION	FROM ROUTE 0011 (LAFAYETTE ROAD) TO END OF LOOP	N/A	0.00	0.00	0.00	5	8,698	AS	4
0500	5	61673		GLENN KELLEY ROAD	FROM ROUTE 0105 (CHICK-VITTETOE ROAD) AT MP 1.39 TO INTERSECTION OF ROUTE 0011 (LAFAYETTE ROAD) AND ROUTE 0013A (ALEXANDER BRIDGE ROAD SPUR)	N/A	2.01	0.00	2.01	1		AS	4
0501	5	61666		BATTLELINE ROAD	FROM ROUTE 0013 (ALEXANDER BRIDGE ROAD) AT MP 0.36 TO INTERSECTION OF ROUTE 0011 (LAFAYETTE ROAD) AND ROUTE 0502 (POE ROAD)	N/A	0.82	0.00	0.82	1		AS	4
0502	5	61682		POE ROAD	FROM ROUTE 0011 (LAFAYETTE ROAD) AND ROUTE 0501 (BATTLELINE ROAD) TO ROUTE 0011 (LAFAYETTE ROAD) MP 1.63	N/A	0.34	0.00	0.34	1		AS	4
0503	5	61671		GLEN VINYARD ROAD	FROM ROUTE 0011 (LAFAYETTE ROAD) AT MP 2.97 TO ROUTE 0105 (CHICK-VITTETOE ROAD)	N/A	0.78	0.00	0.78	1		AS	4
0600	4	104777		DRY VALLEY ROAD	FROM ROUTE 0105 (CHICK-VITTETOE ROAD) AT MP 0.35 TO PARK BOUNDARY AT RAILROAD	N/A	0.04	0.00	0.04	8		AS	4
0601	4	104773		LYTLE STATION ROAD	FROM ROUTE 0105 (CHICK-VITTETOE ROAD) AT MP 0.95 TO PARK BOUNDARY AT RAILROAD	N/A	0.06	0.00	0.06	8		AS	4
0602	4	104783		TOWER ROAD	FROM ROUTE 0105 (CHICK-VITTETOE ROAD) AT MP 1.70 TO PARK BOUNDARY AT RAILROAD	N/A	0.04	0.00	0.04	8		AS	4

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CHICKAMAUGA AND CHATTANOOGA NATIONAL MILITARY PARK

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Description		Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
					From	To								
0900	4	75216		PARKING MULLIS VITTETOE	FROM ROUTE 0010 (MCFARLAND GAP ROAD) AT MP 0.28	TO ROUTE 0400 (MULLIS VITTETOE ROAD)	N/A	0.00	0.00	0.00		3,328	AS	4
0901	4	75223		PARKING MULLIS ROAD	FROM ROUTE 0010 (MCFARLAND GAP ROAD) AT MP 0.50	TO ROUTE 0010 (MCFARLAND GAP ROAD)	N/A	0.00	0.00	0.00		7,446	AS	4
0902	4	75225		PARKING TENNESSEE ARTILLERY	ADJACENT TO ROUTE 0014 (REEDS BRIDGE ROAD) ON RIGHT		N/A	0.00	0.00	0.00		763	AS	4
0903	4	75226		PARKING AREA ON LEFT REEDS BRIDGE ROAD	ADJACENT TO ROUTE 0014 (REEDS BRIDGE ROAD) ON LEFT		N/A	0.00	0.00	0.00		2,644	AS	4
0904	4	75228		PARKING AREA ON RIGHT (BRANNANS DIVISION MONUMENT)	ADJACENT TO ROUTE 0014 (REEDS BRIDGE ROAD) ON RIGHT		N/A	0.00	0.00	0.00		1,819	AS	4
0905	4	75232		PARKING AREA ILLINOIS	ADJACENT TO ROUTE 0014 (REEDS BRIDGE ROAD) ON RIGHT		N/A	0.00	0.00	0.00		1,225	AS	4
0906	4	75234		VISITOR CENTER PARKING CHCH	FROM ROUTE 0012 (VISITOR CENTER ACCESS ROAD)	TO ROUTE 0907 (VISITOR CENTER OVERFLOW PARKING CHCH)	N/A	0.00	0.00	0.00		15,875	AS	4
0907	4	75237		VISITOR CENTER OVERFLOW PARKING CHCH	FROM ROUTE 0012 (VISITOR CENTER ACCESS ROAD)	TO ROUTE 0906 (VISITOR CENTER PARKING CHCH)	N/A	0.00	0.00	0.00		31,108	AS	4
0908	NC	75240		PARKING TOUR STOP #1	FROM ROUTE 0011 (LAFAYETTE ROAD)	TO PARKING	N/A	0.00	0.00	0.00		6,462	GR	
0909	4	75243		BROTHERTON CABIN PARKING AREA	ADJACENT TO ROUTE 0011 (LAFAYETTE ROAD) ON RIGHT		N/A	0.00	0.00	0.00		822	AS	4
0910	4	75245		KENTUCKY MONUMENT PARKING AREA	ADJACENT TO ROUTE 0013 (ALEXANDER BRIDGE ROAD) ON RIGHT		N/A	0.00	0.00	0.00		1,517	AS	4
0911	4	75249		GEORGIA MONUMENT PARKING AREA	ADJACENT TO ROUTE 0013 (ALEXANDER BRIDGE ROAD) ON LEFT		N/A	0.00	0.00	0.00		781	AS	4
0912	4	75251		HELM / COLQUITT MONUMENTS PARKING	ADJACENT TO ROUTE 0013 (ALEXANDER BRIDGE ROAD) ON LEFT		N/A	0.00	0.00	0.00		453	AS	4
0913	4	75252		PARKING AREA ON LEFT ALEXANDER BRIDGE ROAD	ADJACENT TO ROUTE 0013 (ALEXANDER BRIDGE ROAD) ON LEFT		N/A	0.00	0.00	0.00		705	AS	4

Cycle 5 NPS/RIP Route ID Report

Road Inventory Program 06/05/2013

(Numerical By Route #)

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CHCH

CHICKAMAUGA AND CHATTANOOGA NATIONAL MILITARY PARK

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Description From To	Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0914	4	75255		PARKING AREA ON RIGHT ALEXANDER BRIDGE ROAD	ADJACENT TO ROUTE 0013 (ALEXANDER BRIDGE ROAD) ON RIGHT	N/A	0.00	0.00	0.00		662	AS	4
0915	4	75259		PARKING COST OF CHICKAMAUGA	ADJACENT TO ROUTE 0013 (ALEXANDER BRIDGE ROAD) ON RIGHT	N/A	0.00	0.00	0.00		715	AS	4
0916	4	75262		SMITH MONUMENT PARKING	ADJACENT TO ROUTE 0013 (ALEXANDER BRIDGE ROAD) ON RIGHT	N/A	0.00	0.00	0.00		707	AS	4
0917	4	75264		PARKING ALEXANDER BRIDGE ON LEFT AT HORSE TRAIL	ADJACENT TO ROUTE 0013 (ALEXANDER BRIDGE ROAD) ON LEFT	N/A	0.00	0.00	0.00		9,103	AS	4
0918	4	75266		PARKING ALEXANDER BRIDGE ON RIGHT AT HORSE TRAIL	ADJACENT TO ROUTE 0013 (ALEXANDER BRIDGE ROAD) ON RIGHT	N/A	0.00	0.00	0.00		7,712	AS	4
0919	4	75267		PARKING AREA MP 2.5 (VINYARD ALEXANDER ROAD)	ADJACENT TO ROUTE 0013 (ALEXANDER BRIDGE ROAD) ACROSS FROM ROUTE 0103 (VINYARD ALEXANDER ROAD)	N/A	0.00	0.00	0.00		487	AS	4
0920	5	75271		ALEXANDER BRIDGE PARKING	ADJACENT TO ROUTE 0013 (ALEXANDER BRIDGE ROAD) ON RIGHT	N/A	0.00	0.00	0.00		1,048	AS	4
0921	4	75273		PARKING ON RIGHT CONFEDERATE CREEK CROSSING	ADJACENT TO ROUTE 0100 (JAYS MILL ROAD) ON RIGHT	N/A	0.00	0.00	0.00		437	AS	4
0922	4	75277		JAY'S MILL PARKING ON RIGHT	ADJACENT TO ROUTE 0100 (JAYS MILL ROAD) ON RIGHT	N/A	0.00	0.00	0.00		840	AS	4
0923	4	75280		DYER HOUSE PARKING ON LEFT	ADJACENT TO ROUTE 0101 (DYER ROAD) ON LEFT	N/A	0.00	0.00	0.00		699	AS	4
0924	4	75283		PARKING BROTHERTON PICNIC AREA	FROM ROUTE 0102 (BROTHERTON ROAD) ON RIGHT TO ROUTE 0102 (BROTHERTON ROAD)	N/A	0.00	0.00	0.00		7,906	AS	4
0925	4	75286		WILDER BRIGADE MONUMENT PARKING	ADJACENT TO ROUTE 0105 (CHICK-VITTETOE ROAD) ON LEFT	N/A	0.00	0.00	0.00		2,245	AS	4
0926	4	75289		CRAVENS HOUSE PARKING	FROM ROUTE 0113 (CRAVENS TERRACE ROAD) TO PARKING	N/A	0.00	0.00	0.00		9,411	AS	3

Cycle 5 NPS/RIP Route ID Report

Road Inventory Program 06/05/2013

(Numerical By Route #)

Page 6 of 9

Shading Color Key:

White = Paved Routes, DCV Driven

Yellow = Unpaved Routes, DCV not Driven

Blue = All Paved Parking Areas

Green = All Unpaved Parking Areas

Red text denotes approx. mileage

Grey = Paved Routes, DCV not Driven

Black = State, Local or Private non-NPS Routes

■ = Concession Route Flag ON

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

** DCV - Data Collection Vehicle

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

CHCH

CHICKAMAUGA AND CHATTANOOGA NATIONAL MILITARY PARK

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Description From To	Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0927	4	75292		POINT PARK VISITOR CENTER PARKING	FROM POINT PARK ROAD / EAST BROW ROAD TO PARKING	N/A	0.00	0.00	0.00		11,562	AS	3
0928	4	75295		SNODGRASS CABIN PARKING	ADJACENT TO ROUTE 0112 (SNODGRASS ROAD) AT SNODGRASS CABIN	N/A	0.00	0.00	0.00		5,642	AS	4
0929	4	75298		SNODGRASS HILL PARKING	ADJACENT TO ROUTE 0112 (SNODGRASS ROAD) ON RIGHT	N/A	0.00	0.00	0.00		3,190	AS	4
0930	4	75300		PARKING TOUR STOP 7 (GLENN KELLY ROAD)	ADJACENT TO ROUTE 0500 (GLENN KELLEY ROAD)	N/A	0.00	0.00	0.00		1,501	AS	4
0931	4	75301		PARKING ON RIGHT GLENN KELLY & DYER ROAD	ADJACENT TO ROUTE 0500 (GLENN KELLEY ROAD) ON RIGHT	N/A	0.00	0.00	0.00		1,873	AS	4
0932	4	75303		SOUTH CAROLINA MONUMENT PARKING	ADJACENT TO ROUTE 0500 (GLENN KELLEY ROAD) AT SOUTH CAROLINA MONUMENT	N/A	0.00	0.00	0.00		1,182	AS	4
0933	4	75305		PARKING SOUTH POST GATE	ADJACENT TO PAVED NON NPS ROAD NEAR ROUTE 0500 (GLENN KELLEY ROAD) AT MP 1.40	N/A	0.00	0.00	0.00		826	AS	4
0934	4	75308		PARKING TOUR STOP 2 (BATTLELINE ROAD)	ADJACENT TO ROUTE 0501 (BATTLELINE ROAD) AT THE BATTLE LINE MONUMENT	N/A	0.00	0.00	0.00		638	AS	4
0935	4	75310		PARKING TOUR STOP 3 (POE ROAD)	ADJACENT TO ROUTE 0502 (POE ROAD) AT MIX UP IN UNION COMMAND MONUMENT	N/A	0.00	0.00	0.00		777	AS	4
0936	4	75313		PARKING TOUR STOP 6 (WILDER TOWER)	FROM ROUTE 0503 (GLEN VINYARD ROAD) AT WILDER BRIGADE MONUMENT TO PARKING	N/A	0.00	0.00	0.00		23,966	AS	4
0937	4	75318		PARKING MAINTENANCE AREA	FROM ROUTE 0407 (MAINTENANCE COMPOUND ACCESS ROAD) TO PARKING	N/A	0.00	0.00	0.00		26,256	AS	4
0938	4	75321		PARKING DELONG RESERVATION	ADJACENT TO NORTH CREST ROAD	N/A	0.00	0.00	0.00		3,277	CO	2
0941	NC	101838		MOBE PARKING BLUE BLAZES TRAIL	ADJACENT TO MOBE ACCESS ROAD	N/A	0.00	0.00	0.00			GR	

Cycle 5 NPS/RIP Route ID Report

Road Inventory Program 06/05/2013

(Numerical By Route #)

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Shading Color Key:

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Blue = All Paved Parking Areas

Green = All Unpaved Parking Areas

Red text denotes approx. mileage

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Black = State, Local or Private non-NPS Routes

■ = Concession Route Flag ON

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** DCV - Data Collection Vehicle

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

CHCH

CHICKAMAUGA AND CHATTANOOGA NATIONAL MILITARY PARK

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Description		Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
					From	To								
0943	NC	109886		RECREATION FIELD PARKING AREA	ADJACENT TO ROUTE 0500 (GLENN KELLEY ROAD)		N/A	0.00	0.00	0.00			GR	
0944	4	109887		LOM PARKING BRIDGE OVERLOOK	FROM TENNESSEE ROUTE 318	TO GARDEN ROAD	N/A	0.00	0.00	0.00		12,061	AS	3
0945	NC	101575		LOM PARKING LAST BATTLE OF THE REVOLUTION	ADJACENT TO STATE ROUTE 148		N/A	0.00	0.00	0.00			GR	
0946	4	101573		LOM PARKING SUNSET ROCK	ADJACENT TO WEST BROW ROAD		N/A	0.00	0.00	0.00		2,095	AS	3
0952	NC	101574		LOM PARKING OCHS GATEWAY	ADJACENT TO FRONTIER LANE (SR-DADE COUNTY 157)		N/A	0.00	0.00	0.00			GR	
0953	4	89502		REEDS BRIDGE PICNIC AREA PARKING	FROM ROUTE 0014 (REEDS BRIDGE ROAD)	TO PARKING	N/A	0.00	0.00	0.00		11,330	AS	4
0954	4	61939		SIGNAL POINT PARKING	FROM SIGNAL POINT ROAD	TO PARKING	N/A	0.00	0.00	0.00		12,261	AS	1
0955ZZ	4	225753		SANDERS PICNIC AREA PARKING AREAS	ADJACENT TO ROUTE 0201 (SANDERS ROAD PICNIC AREA ACCESS ROAD)		N/A	0.00	0.00	0.00		6,759	AS	3
0956	4	109889		U.S. 27 PICNIC AREA PARKING	FROM U.S. 27 BYPASS (BATTLEFIELD BYPASS)	TO PARKING	N/A	0.00	0.00	0.00		22,063	AS	4

Cycle 5 NPS/RIP Route ID Report

Road Inventory Program 06/05/2013

(Numerical By Route #)

Page 8 of 9

Shading Color Key:
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Grey = Paved Routes, DCV not Driven

Yellow = Unpaved Routes, DCV not Driven

Black = State, Local or Private non-NPS Routes

Blue = All Paved Parking Areas

■ = Concession Route Flag ON

Green = All Unpaved Parking Areas

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

** DCV - Data Collection Vehicle

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

CYCLE 5 COLLECTED SUMMARY TOTALS FOR CHICKAMAUGA AND CHATTANOOGA NATIONAL MILITARY PARK

<u>CYCLE 5 COLLECTED ROUTE TOTALS</u>	
DCV Driven Route Miles	24.20
Manually Rated Route Miles	0.00
TOTAL PARK ROUTE MILES COLLECTED IN CYCLE 5	24.20
Manually Rated Routes (SQFT)	0

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

* <u>CYCLE 5 COLLECTED PARKING AREA TOTALS</u>	
Paved Parking (SQFT)	1,048

<u>CYCLE 5 COLLECTED WEIGHTED AVERAGE PARK VALUES</u>	
DCV Driven PCR	68
**Manually Rated Routes PCR	N/A
**Parking PCR	90
***Total Equivalent Lane Miles	41.96

TOTAL PARK SUMMARY FOR CHICKAMAUGA AND CHATTANOOGA NATIONAL MILITARY PARK

<u>ROUTE TOTALS</u>	
TOTAL PAVED PARK ROUTE MILES	24.93
TOTAL PAVED PARKING (SQFT)	257,717

* - 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	

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** DCV - Data Collection Vehicle

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

General Park Road Functional Classification Table

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

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

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

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

Surface Type Abbreviations:

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

NPS/RIP Subcomponent Details for CHCH

Road Inventory Program 06/05/2013

(Numerical By Subcomponent #)

Page 1 of 1

Shading Color Key:

White = Paved Routes, DCV Driven

Yellow = Unpaved Routes, DCV not Driven

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Green = All Unpaved Parking Areas

Red text denotes approx. mileage

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).

CHCH

CHICKAMAUGA AND CHATTANOOGA NATIONAL MILITARY PARK

Rte. No.	FMSS No.	Cycle Collected	Route Name	From	To	Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
0955ZZ	225753	4	SANDERS PICNIC AREA PARKING AREAS	ADJACENT TO ROUTE 0201 (SANDERS ROAD PICNIC AREA ACCESS ROAD)				0.00	0.00	0.00	6,759

CHCH-0955ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Name	From	To	Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
0955AZ	225753	4	SANDERS PICNIC PARKING A	ADJACENT TO ROUTE 0201 (SANDERS ROAD PICNIC AREA ACCESS ROAD) ON RIGHT				0.00	0.00	0.00	2,235
0955BZ	225753	4	SANDERS PICNIC PARKING B	ADJACENT TO ROUTE 0201 (SANDERS ROAD PICNIC AREA ACCESS ROAD) ON LEFT				0.00	0.00	0.00	4,524

ROUTE IDENTIFICATION CHANGES TO PAVED ROUTES FROM PREVIOUS CYCLE - CHCH

OTHER CHANGES FROM PREVIOUS INVENTORY:			
Route #	Route Name	Type of Change	Comments
0013	ALEXANDER BRIDGE ROAD	LENGTH CHANGE	ROUTE LENGTH INCREASED IN CYCLE 5 BECAUSE THE DATA COLLECTION VEHICLE WAS ABLE TO DRIVE THE ENTIRE LENGTH OF THE ROUTE; ROUTE DRIVEN SHORT IN CYCLE 4 DUE TO BRIDGE CLOSURE.
0013A	ALEXANDER BRIDGE ROAD SPUR	COLLECTION METHOD CHANGE	ROUTE COLLECTED WITH THE DATA COLLECTION VEHICLE IN CYCLE 5; WAS MANUALLY RATED IN CYCLE 4.
0108	MILITARY ROAD	COLLECTION METHOD CHANGE	ROUTE COLLECTED WITH THE DATA COLLECTION VEHICLE IN CYCLE 5; WAS MANUALLY RATED IN CYCLE 4.
0109	CAROLINE ROAD	COLLECTION METHOD CHANGE	ROUTE COLLECTED WITH THE DATA COLLECTION VEHICLE IN CYCLE 5; WAS MANUALLY RATED IN CYCLE 4.
0113	CRAVENS TERRACE ROAD	COLLECTION METHOD CHANGE	ROUTE COLLECTED WITH THE DATA COLLECTION VEHICLE IN CYCLE 5; WAS MANUALLY RATED IN CYCLE 4.
0908	PARKING TOUR STOP #1	SURFACE TYPE CHANGE	ROUTE CHANGED FROM PAVED TO UNPAVED IN CYCLE 5.
0920	ALEXANDER BRIDGE PARKING	OTHER	ROUTE COLLECTED IN CYCLE 5 BECAUSE IT WAS NOT ACCESSIBLE DURING CYCLE 4 DATA COLLECTION.

Section 3

Park Summary Information



Chickamauga and Chattanooga National Military Park



Federal Lands Highway
Road Inventory Program

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

F.C.	Pavement Condition Rating (PCR)								TOTAL MILES
	Poor (0-60)		Fair (61-84)		Good (85-94)		Excellent (95-100)		
	MILES	%	MILES	%	MILES	%	MILES	%	
1	3.28	13.55%	3.09	12.77%	3.26	13.47%	1.88	7.77%	11.51
2	3.20	13.22%	2.91	12.02%	2.75	11.36%	3.83	15.83%	12.69
3									
4									
5									
6									
7									
8									
Totals	6.48	26.78%	6.00	24.79%	6.01	24.83%	5.71	23.59%	24.20

Note: The information in this table is derived from the PMS_20 table in the Park database, which only contains processed data from routes collected with the Data Collection Vehicle (DCV). Information for Manually Rated Routes (MRR) and Parking Areas is not reported in this table. Only Functional Class 1, 2, & 7 routes, and any new routes not previously collected by RIP, are collected in Large Parks.

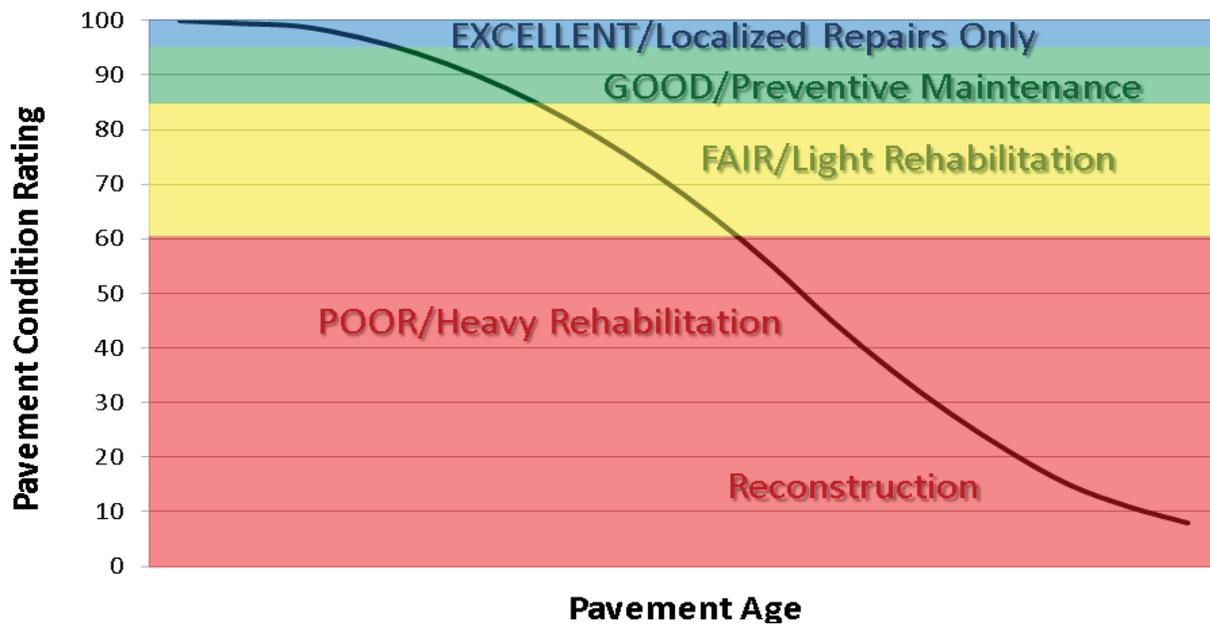
Explanation of the Excellent, Good, Fair and Poor Condition Descriptions

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

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

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

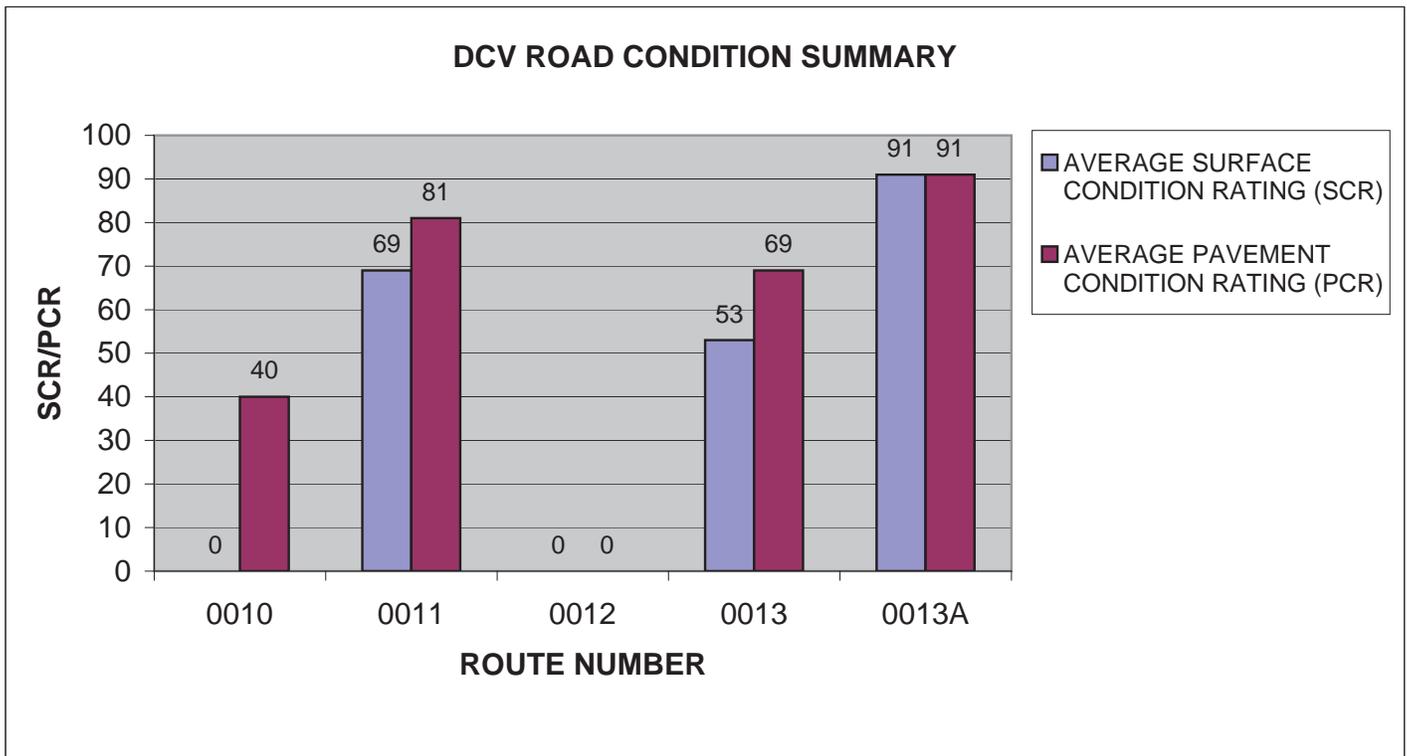
Condition Categories and Treatments



CHCH: DCV ROAD CONDITION SUMMARY

DCV - Data Collection Vehicle

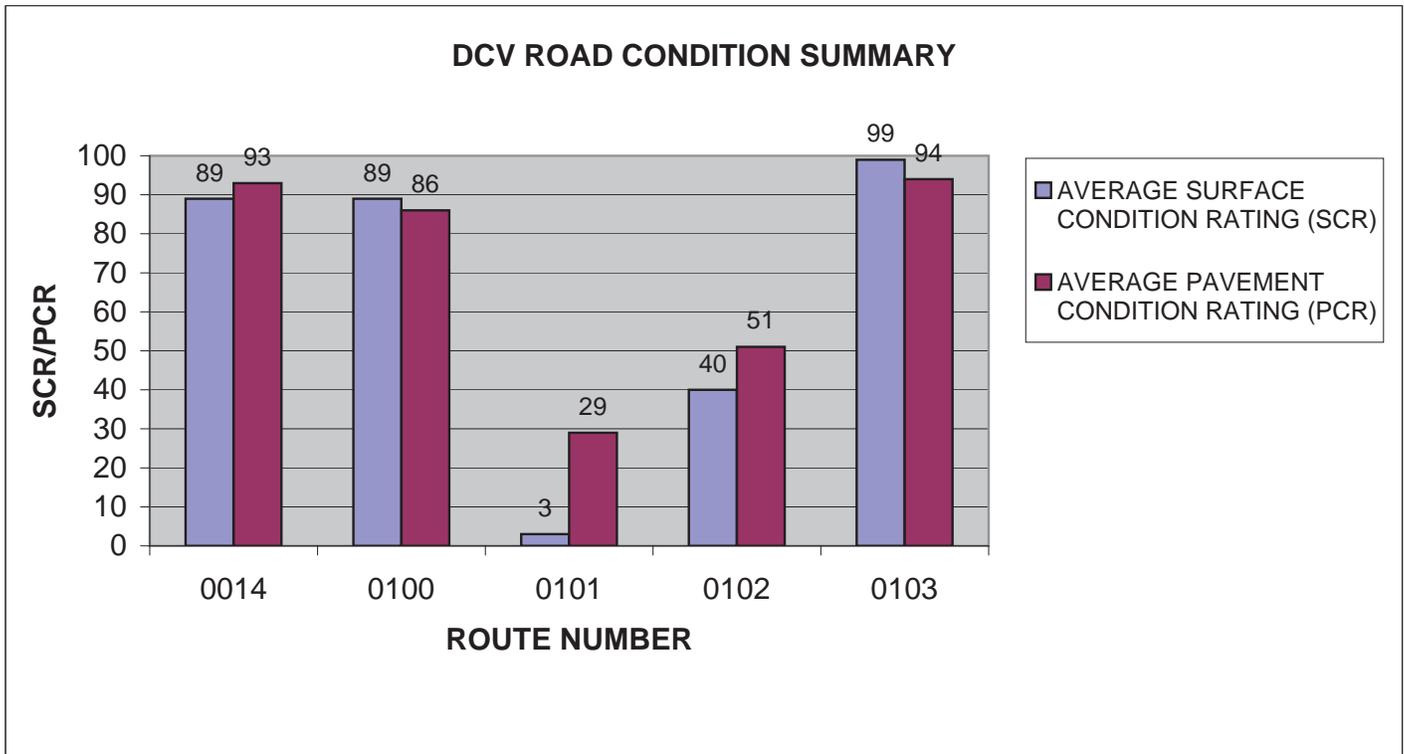
ROUTE NUMBER	ROUTE NAME	FUNCT CLASS	PAVED LENGTH	SURFACE TYPE	AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE PAVEMENT CONDITION RATING (PCR)
0010	MCFARLAND GAP ROAD	1	0.91	ASPHALT	0	40
0011	LAFAYETTE ROAD	1	3.38	ASPHALT	69	81
0012	VISITOR CENTER ACCESS ROAD	2	0.10	ASPHALT	0	0
0013	ALEXANDER BRIDGE ROAD	2	2.91	ASPHALT	53	69
0013A	ALEXANDER BRIDGE ROAD SPUR	2	0.03	ASPHALT	91	91



CHCH: DCV ROAD CONDITION SUMMARY

DCV - Data Collection Vehicle

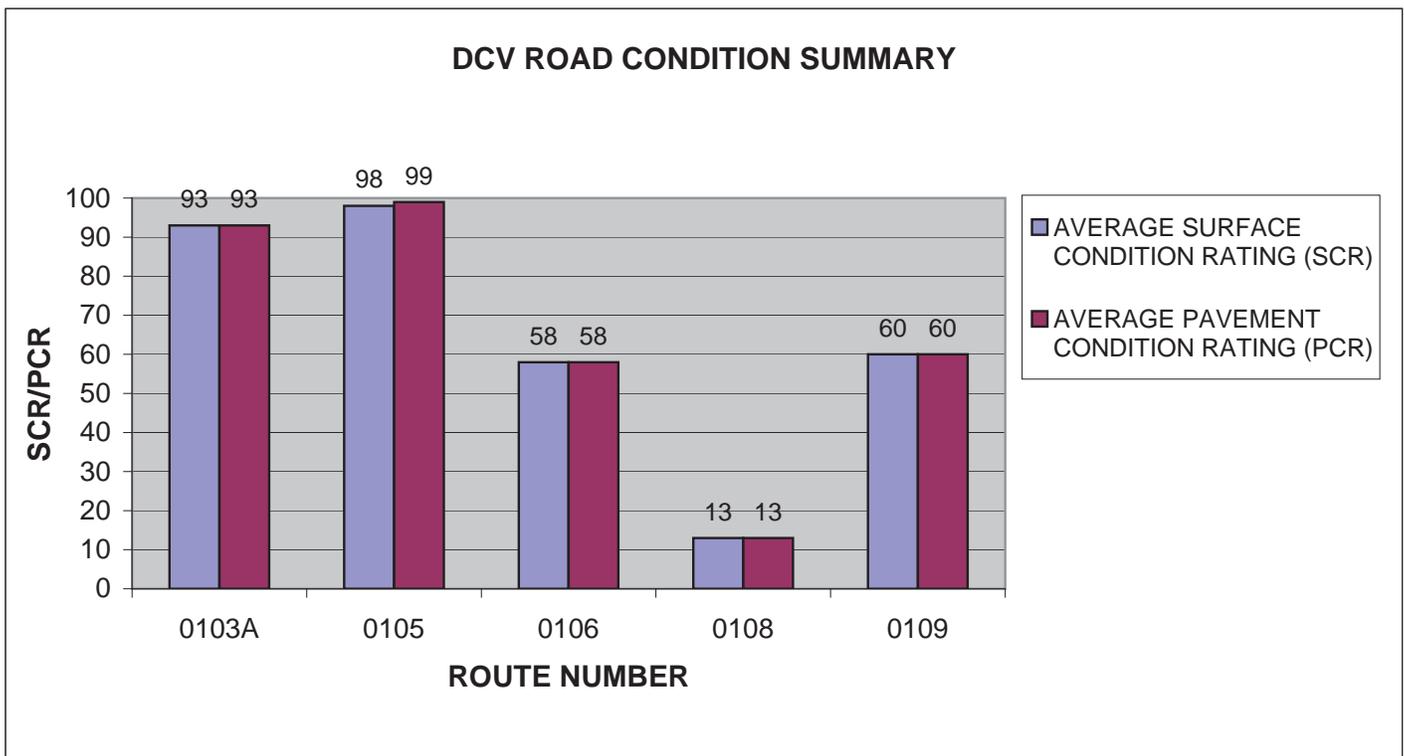
ROUTE NUMBER	ROUTE NAME	FUNCT CLASS	PAVED LENGTH	SURFACE TYPE	AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE PAVEMENT CONDITION RATING (PCR)
0014	REEDS BRIDGE ROAD	1	1.98	ASPHALT	89	93
0100	JAYS MILL ROAD	2	1.10	ASPHALT	89	86
0101	DYER ROAD	2	0.76	ASPHALT	3	29
0102	BROTHERTON ROAD	2	1.96	ASPHALT	40	51
0103	VINYARD ALEXANDER ROAD	2	2.02	ASPHALT	99	94



CHCH: DCV ROAD CONDITION SUMMARY

DCV - Data Collection Vehicle

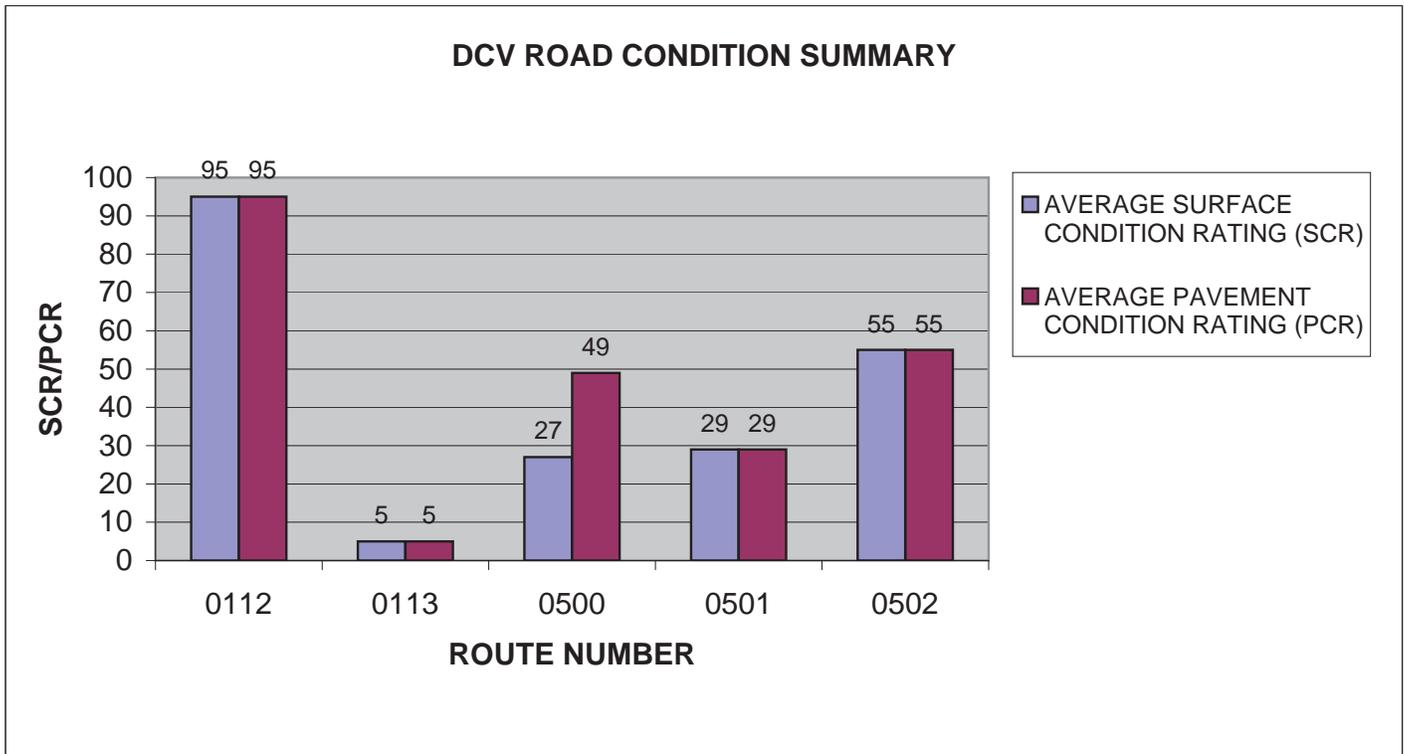
ROUTE NUMBER	ROUTE NAME	FUNCT CLASS	PAVED LENGTH	SURFACE TYPE	AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE PAVEMENT CONDITION RATING (PCR)
0103A	VINYARD ALEXANDER ROAD SPUR	2	0.06	ASPHALT	93	93
0105	CHICK-VITTETOE ROAD	2	2.53	ASPHALT	98	99
0106	SANDERS ROAD	2	0.77	ASPHALT	58	58
0108	MILITARY ROAD	2	0.29	ASPHALT	13	13
0109	CAROLINE ROAD	2	0.17	ASPHALT	60	60



CHCH: DCV ROAD CONDITION SUMMARY

DCV - Data Collection Vehicle

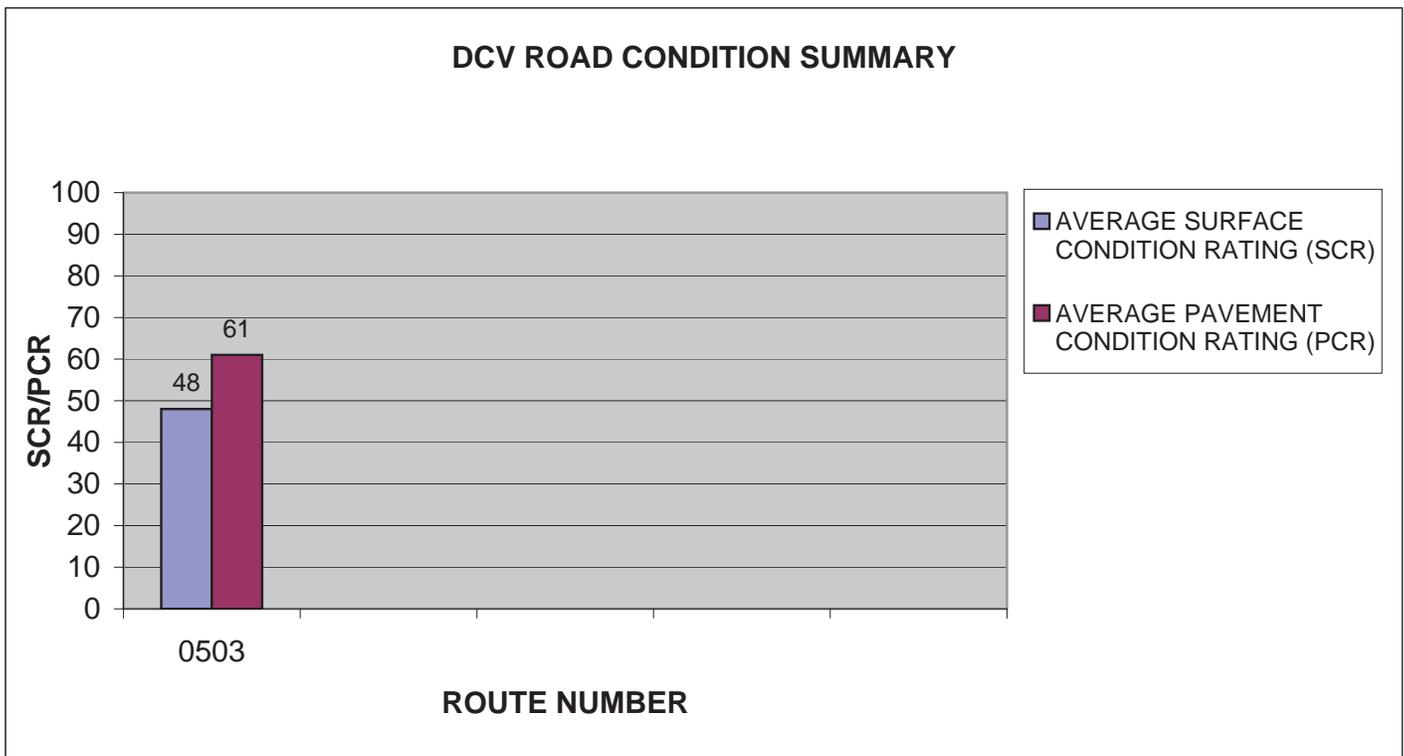
ROUTE NUMBER	ROUTE NAME	FUNCT CLASS	PAVED LENGTH	SURFACE TYPE	AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE PAVEMENT CONDITION RATING (PCR)
0112	SNODGRASS ROAD	1	0.45	ASPHALT	95	95
0113	CRAVENS TERRACE ROAD	1	0.84	ASPHALT	5	5
0500	GLENN KELLEY ROAD	1	2.01	ASPHALT	27	49
0501	BATTLELINE ROAD	1	0.82	ASPHALT	29	29
0502	POE ROAD	1	0.34	ASPHALT	55	55



CHCH: 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)
0503	GLEN VINYARD ROAD	1	0.78	ASPHALT	48	61



Section 4

Park Route Location Maps

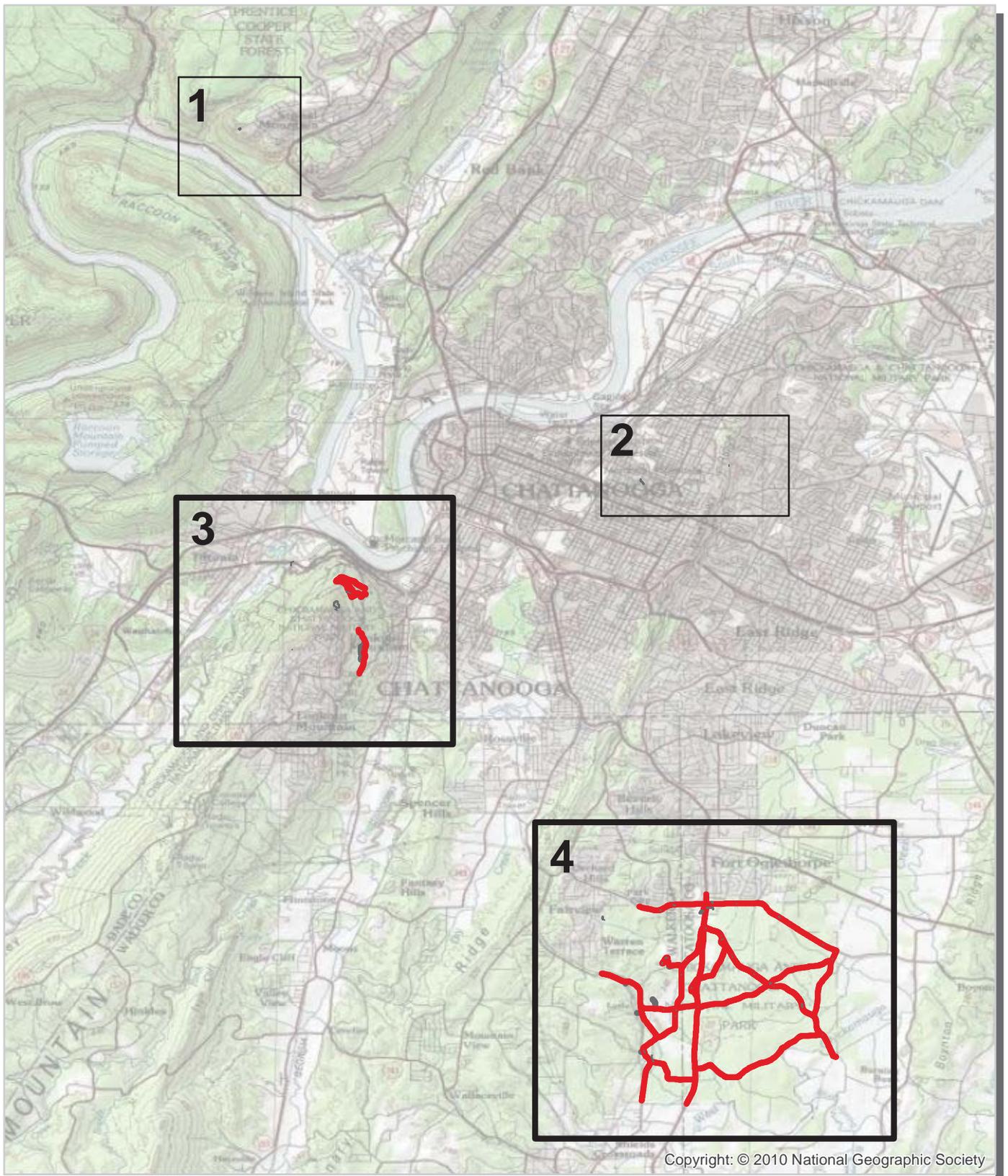


Chickamauga and Chattanooga
National Military Park



Federal Lands Highway
Road Inventory Program

Chickamauga and Chattanooga National Military Park Route Location Map Key Map

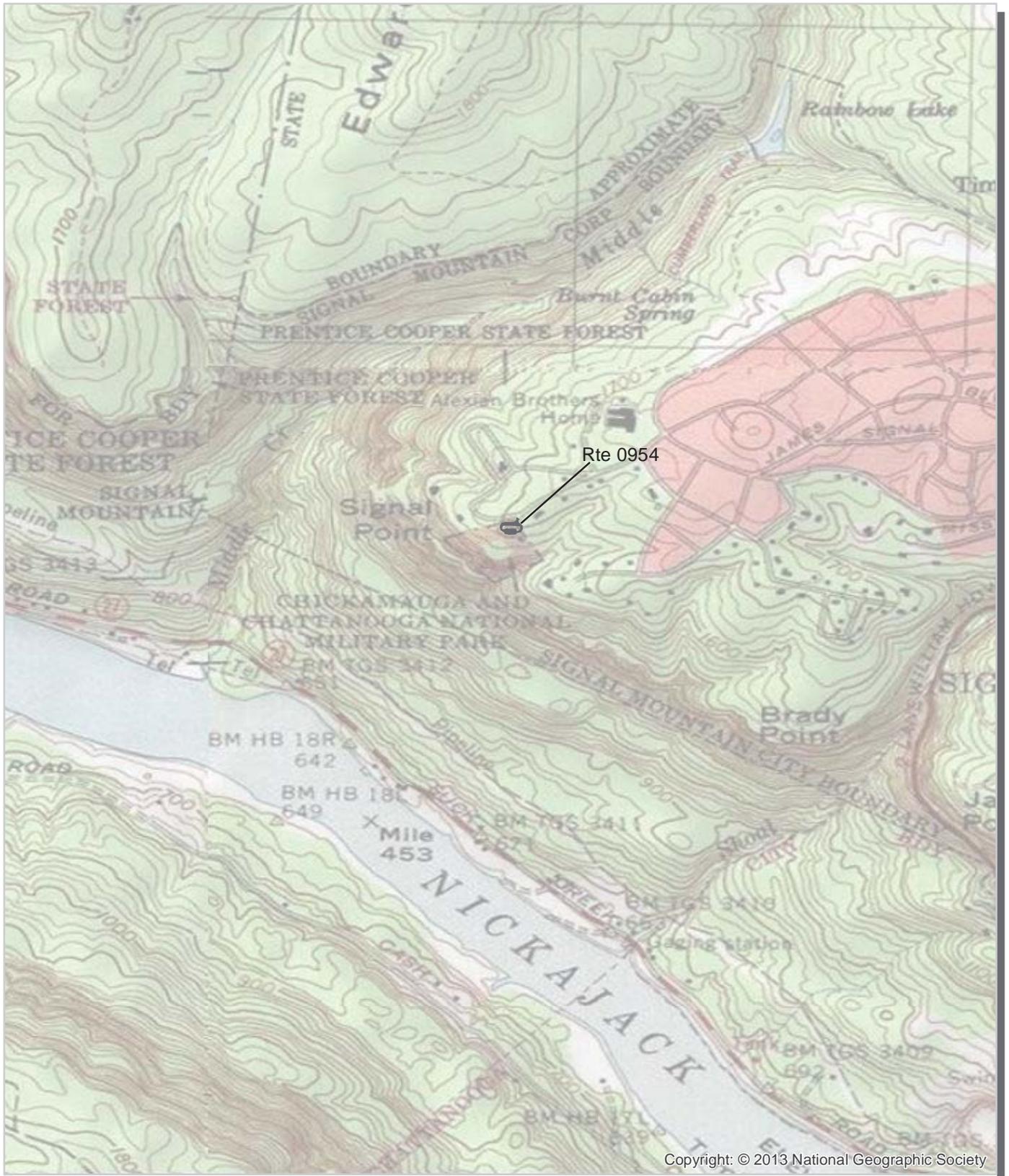


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-  Cycle 5 Collected Routes
-  Routes Collected in Previous Cycle



Chickamauga and Chattanooga National Military Park Route Location Map Area 1



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Unique colors used to differentiate routes

— Routes Collected in Previous Cycle

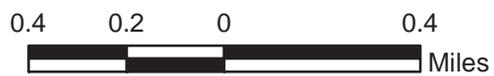


Chickamauga and Chattanooga National Military Park Route Location Map Area 2

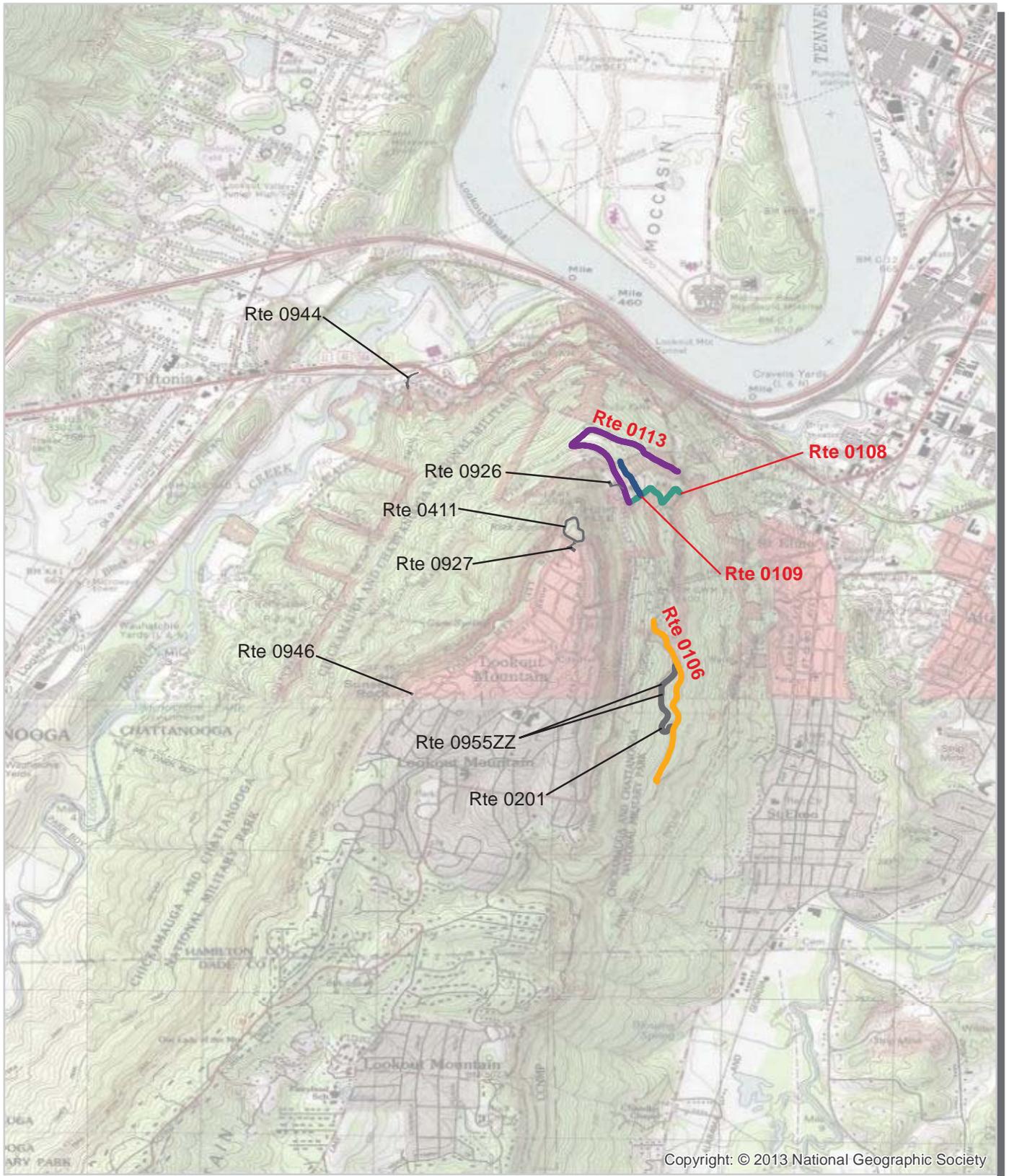


Unique colors used to differentiate routes

— Routes Collected in Previous Cycle



Chickamauga and Chattanooga National Military Park Route Location Map Area 3

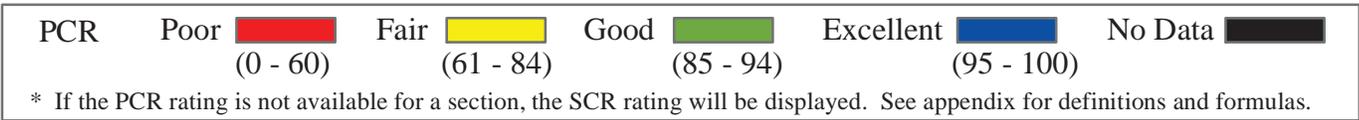
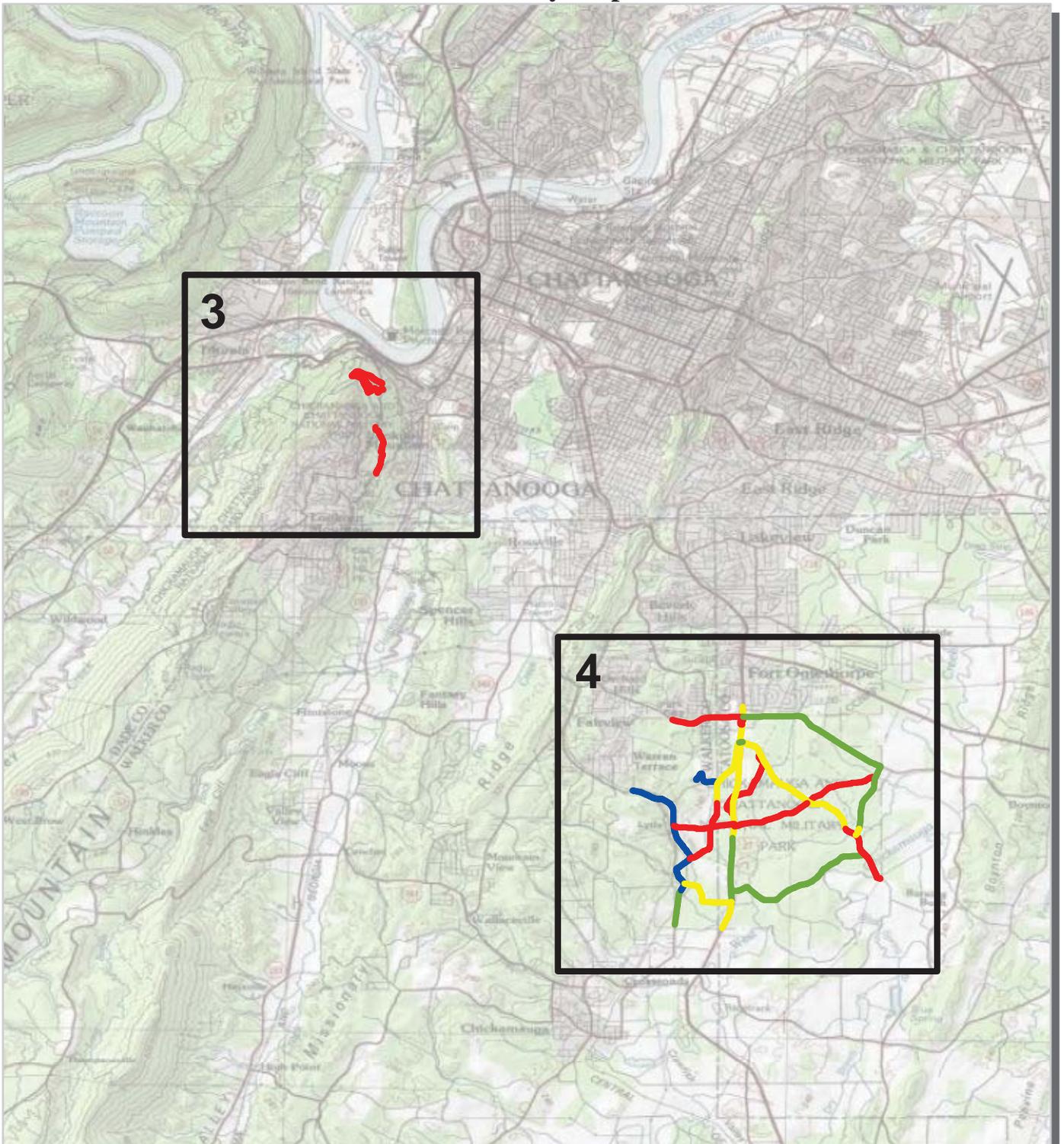


Unique colors used to differentiate routes

— Routes Collected in Previous Cycle



Chickamauga and Chattanooga National Military Park Route Condition Map PCR - Mile by Mile Key Map



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

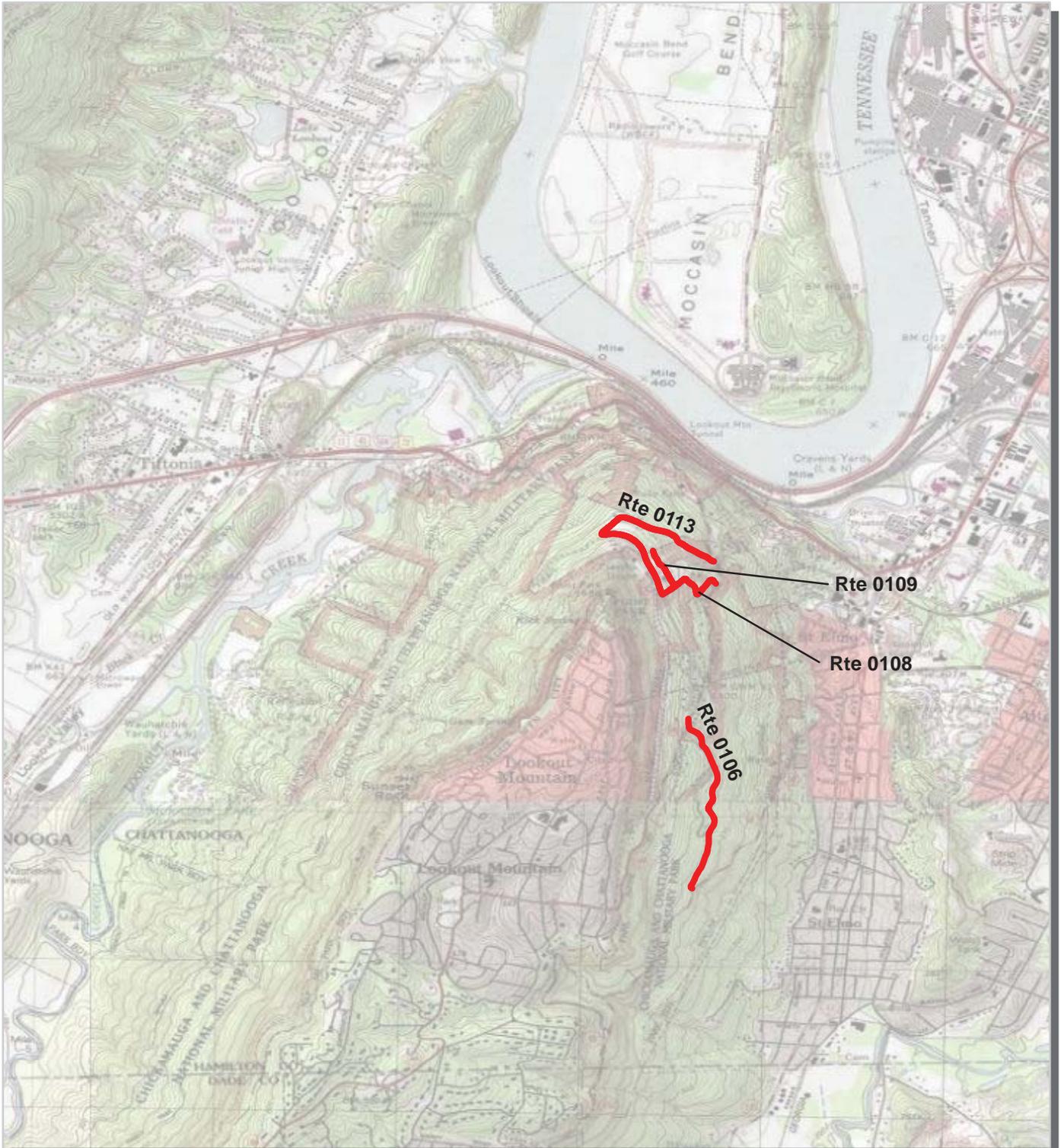


Chickamauga and Chattanooga National Military Park

Route Condition Map

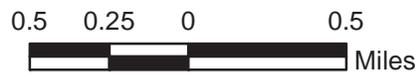
PCR - Mile by Mile

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.

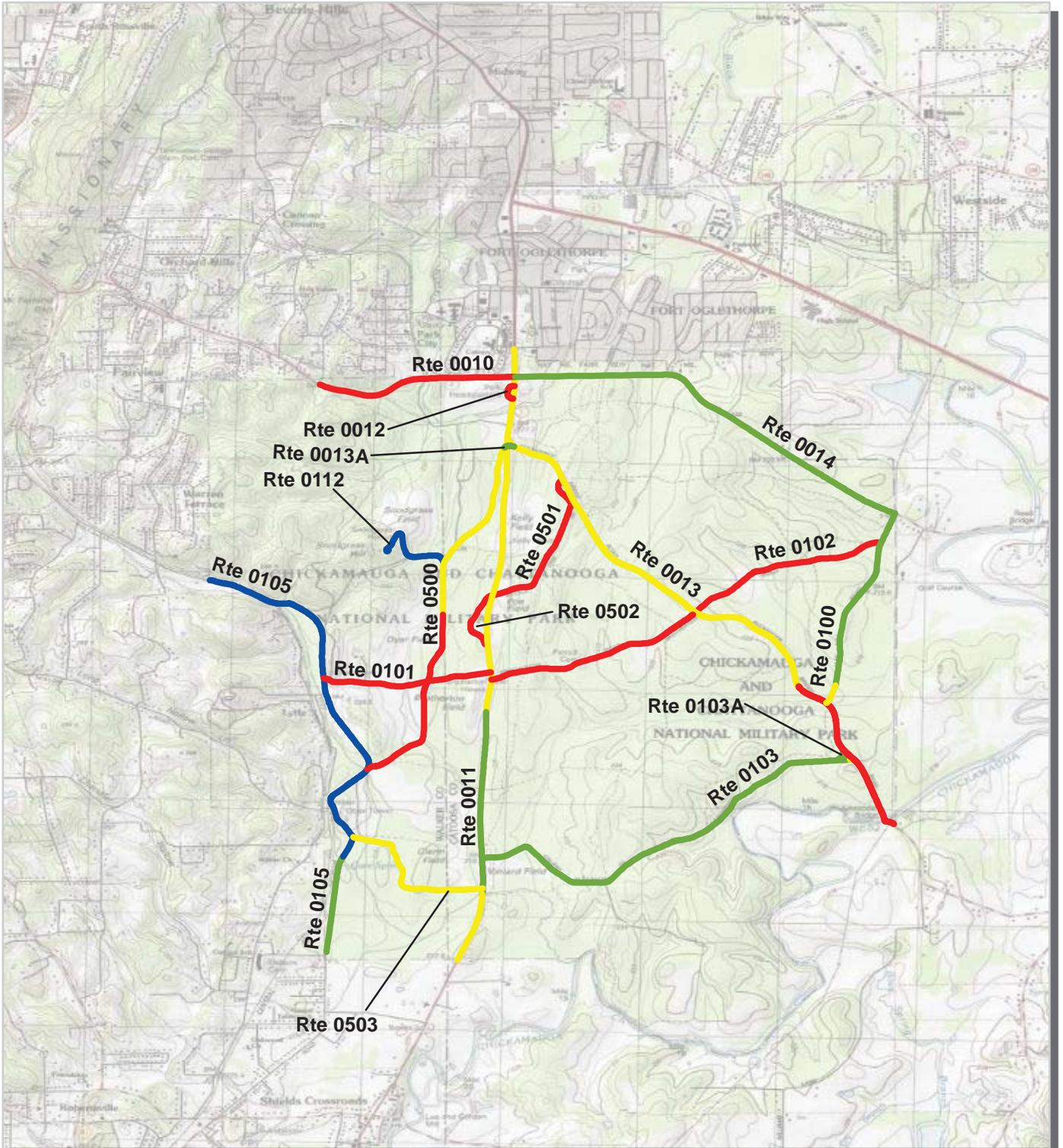


Chickamauga and Chattanooga National Military Park

Route Condition Map

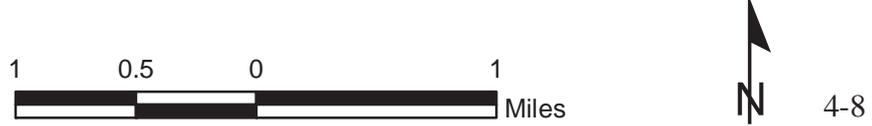
PCR - Mile by Mile

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.



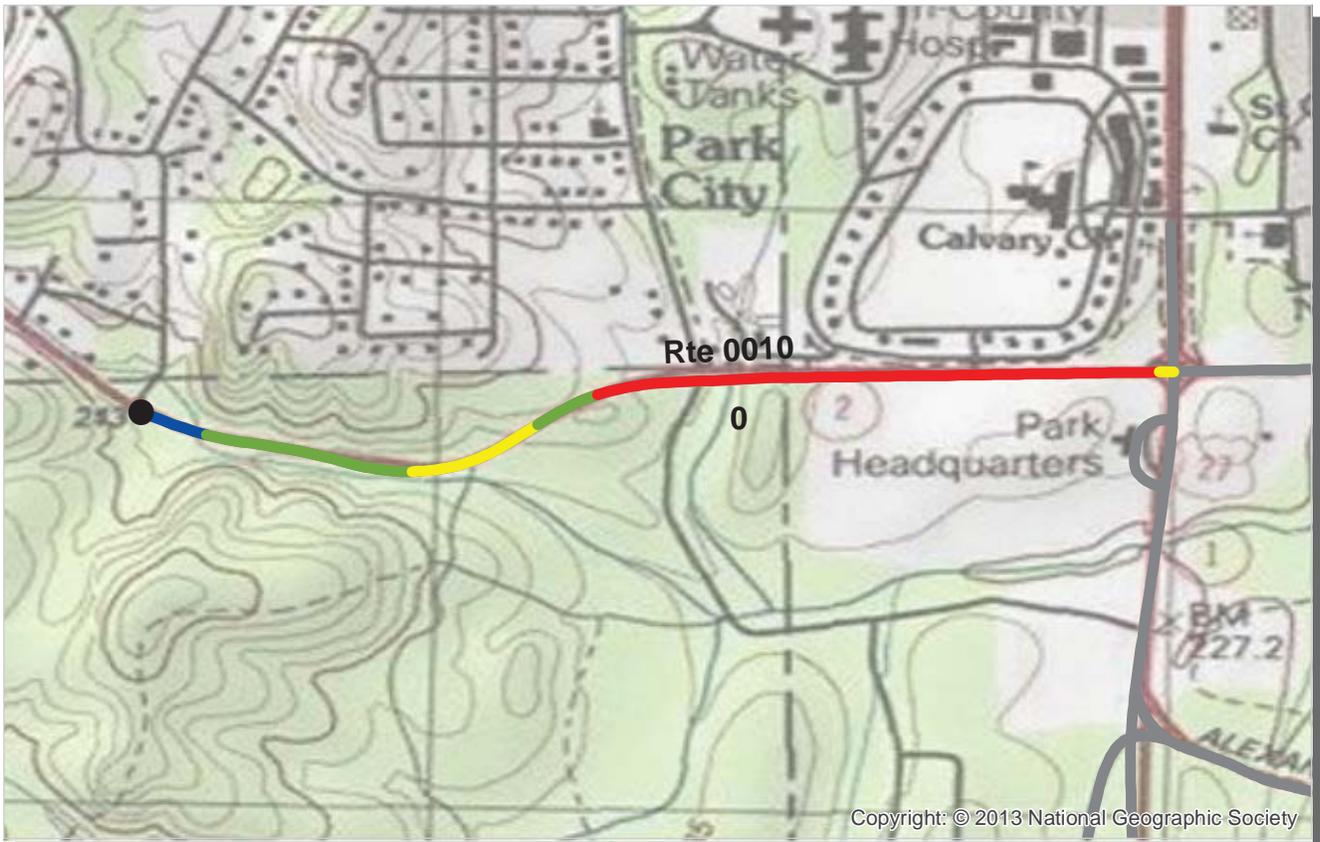
Section 5
Paved Route
Condition Rating Sheets



Chickamauga and Chattanooga
National Military Park



Federal Lands Highway
Road Inventory Program



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

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

ROUTE: 0010 MCFARLAND GAP ROAD

CHCH : CHICKAMAUGA AND CHATTANOOGA NATIONAL MILITARY PARK

COLLECTED: 11/4/2012
TOTAL LENGTH: 0.91 Miles

SOUTHEAST REGION

Section Number	0				
Section Length (mi)	0.91				
Cross Section Information					
Number of Lanes	2				
Paved Width (ft)	27				
Lane Width (ft)	11				
Roadway Condition Information					
SCR (Surface Condition Rating)	0				
PCR (Pavement Condition Rating)	40				
Distress Index Values					
Structural Crack Index	0				
Transverse Cracking Index	94				
Patching Index	100				
Rutting Index	96				
Roughness Condition Index (RCI)	100				

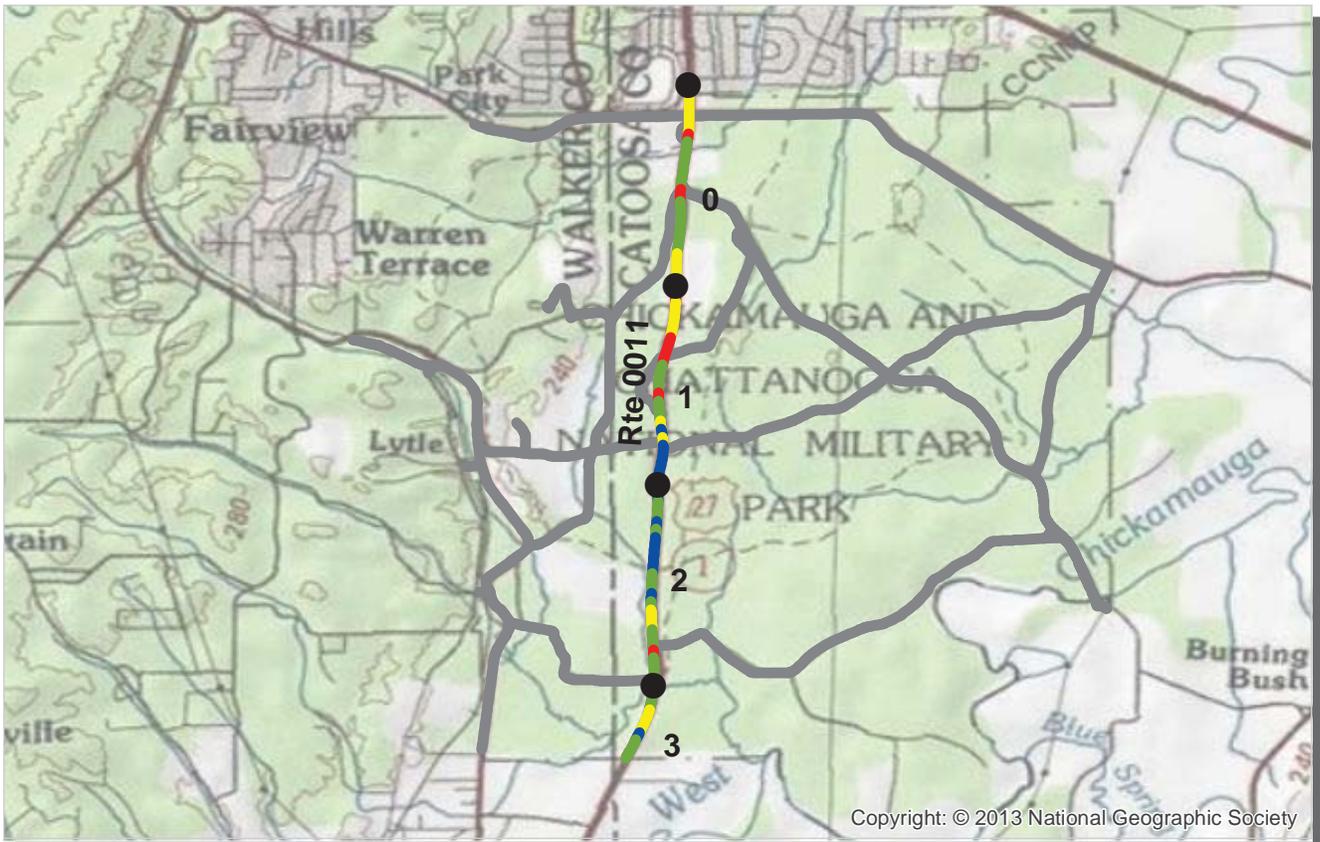
NOTES:

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

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

NC - Not Collected N/A - Not Applicable

ROUTE: 0010 MCFARLAND GAP ROAD



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

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

ROUTE: 0011 LAFAYETTE ROAD

CHCH : CHICKAMAUGA AND CHATTANOOGA NATIONAL MILITARY PARK

COLLECTED: 11/3/2012
TOTAL LENGTH: 3.38 Miles

SOUTHEAST REGION

<i>Section Number</i>	0	1	2	3
<i>Section Length (mi)</i>	1.00	1.00	1.00	0.38
<i>Cross Section Information</i>				
Number of Lanes	2	2	2	2
Paved Width (ft)	28	24	24	26
Lane Width (ft)	11	11	11	11
<i>Roadway Condition Information</i>				
SCR (Surface Condition Rating)	64	59	81	73
PCR (Pavement Condition Rating)	78	75	89	84
<i>Distress Index Values</i>				
Structural Crack Index	64	59	81	73
Transverse Cracking Index	94	93	93	91
Patching Index	100	100	100	100
Rutting Index	99	100	100	100
Roughness Condition Index (RCI)	100	100	100	100

NOTES:

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

NC - Not Collected N/A - Not Applicable

ROUTE: 0011 LAFAYETTE ROAD



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

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

ROUTE: 0012 VISITOR CENTER ACCESS ROAD

CHCH : CHICKAMAUGA AND CHATTANOOGA NATIONAL MILITARY PARK

COLLECTED: 11/3/2012
TOTAL LENGTH: 0.10 Miles

SOUTHEAST REGION

Section Number	0				
Section Length (mi)	0.10				
Cross Section Information					
Number of Lanes	1				
Paved Width (ft)	20				
Lane Width (ft)	19				
Roadway Condition Information					
SCR (Surface Condition Rating)	0				
PCR (Pavement Condition Rating)	0				
Distress Index Values					
Structural Crack Index	0				
Transverse Cracking Index	92				
Patching Index	100				
Rutting Index	97				
Roughness Condition Index (RCI)	NC				

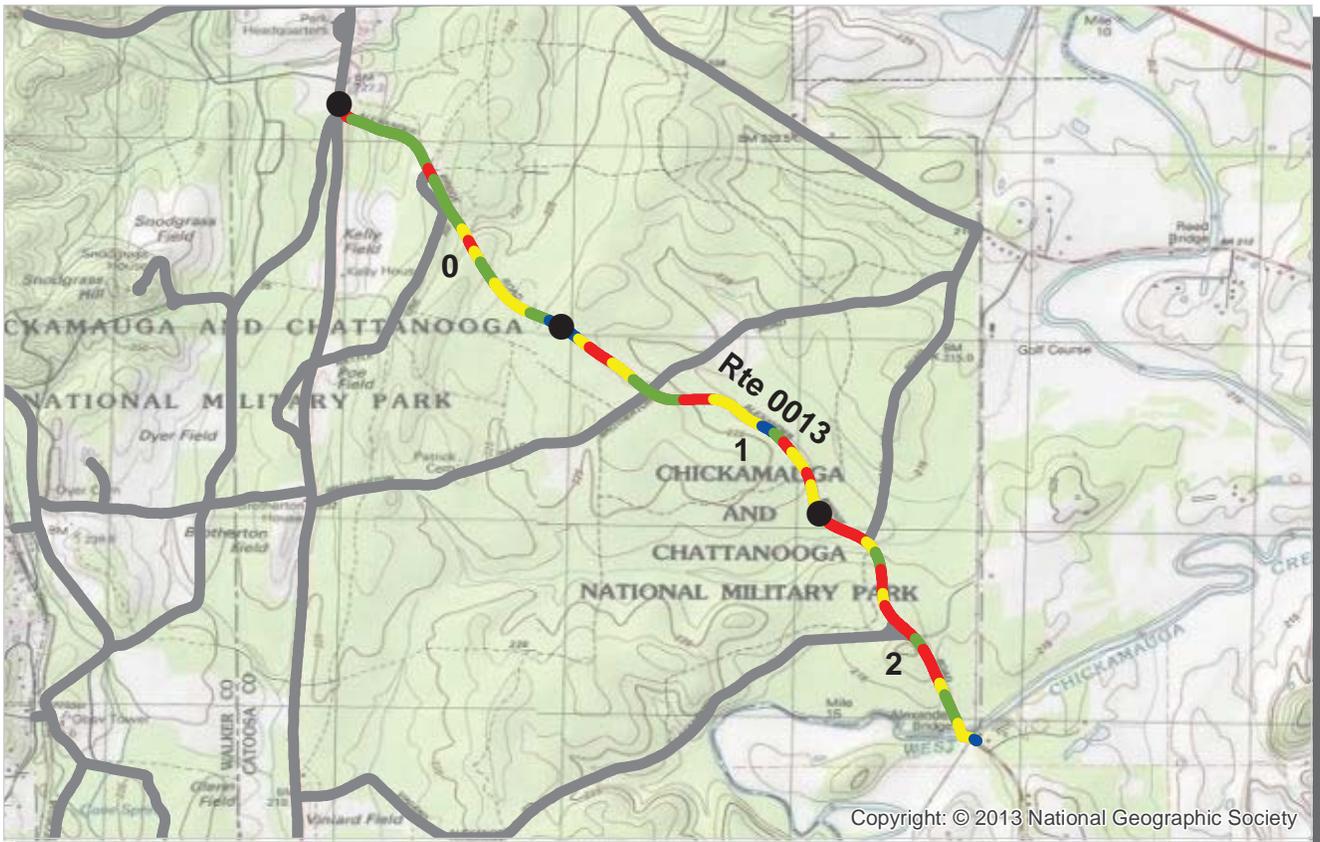
NOTES:

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

NC - Not Collected N/A - Not Applicable



ROUTE: 0012 VISITOR CENTER ACCESS ROAD



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

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

ROUTE: 0013 ALEXANDER BRIDGE ROAD

CHCH : CHICKAMAUGA AND CHATTANOOGA NATIONAL MILITARY PARK

COLLECTED: 11/3/2012
TOTAL LENGTH: 2.91 Miles

SOUTHEAST REGION

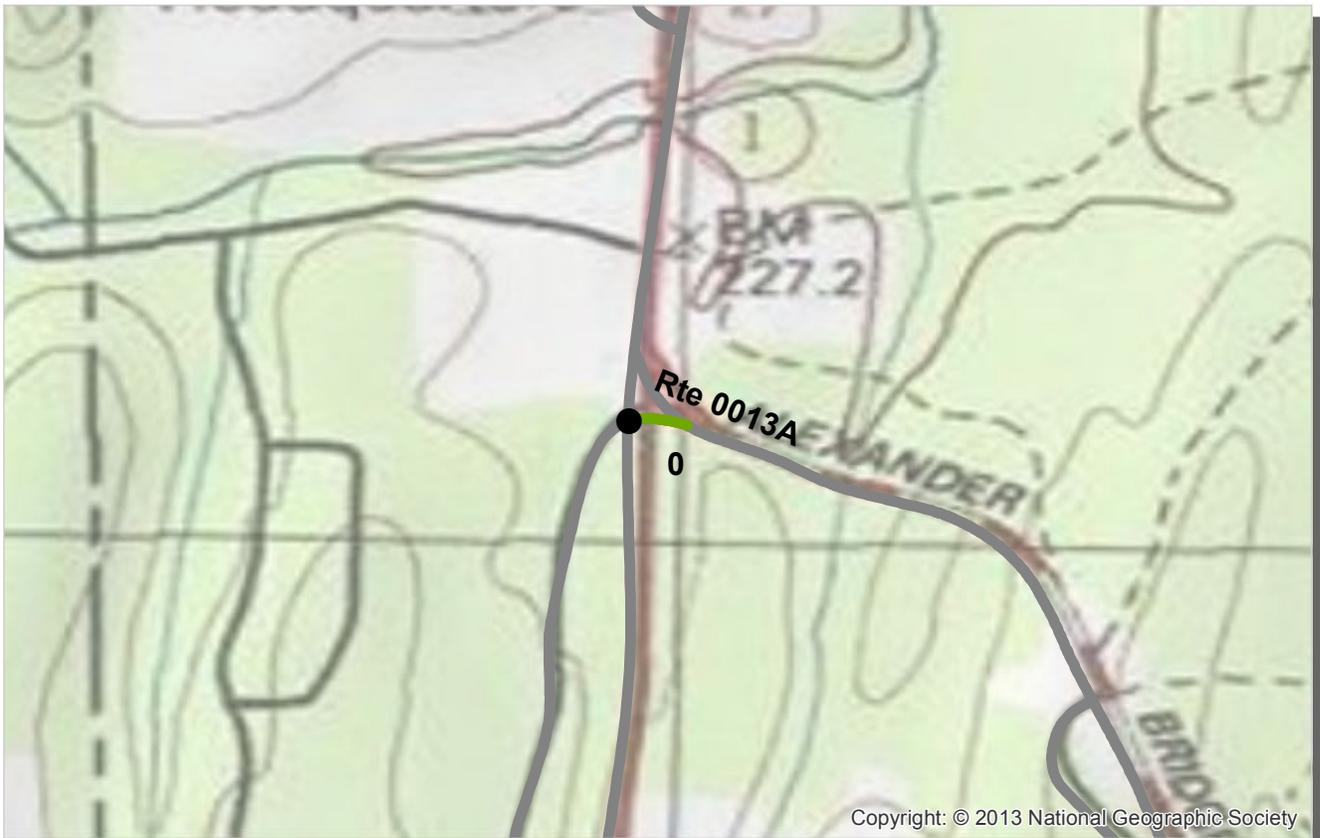
<i>Section Number</i>	0	1	2		
<i>Section Length (mi)</i>	1.00	1.00	0.91		
<i>Cross Section Information</i>					
Number of Lanes	2	2	2		
Paved Width (ft)	21	20	19		
Lane Width (ft)	9	9	9		
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	65	58	33		
PCR (Pavement Condition Rating)	78	71	56		
<i>Distress Index Values</i>					
Structural Crack Index	65	58	33		
Transverse Cracking Index	98	98	96		
Patching Index	100	100	99		
Rutting Index	98	99	99		
Roughness Condition Index (RCI)	98	90	91		

NOTES:

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

NC - Not Collected N/A - Not Applicable

ROUTE: 0013 ALEXANDER BRIDGE ROAD



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

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

ROUTE: 0013A ALEXANDER BRIDGE ROAD SPUR

CHCH : CHICKAMAUGA AND CHATTANOOGA NATIONAL MILITARY PARK

COLLECTED: 11/3/2012

SOUTHEAST REGION

TOTAL LENGTH: 0.03 Miles

Section Number	0				
Section Length (mi)	0.03				
Cross Section Information					
Number of Lanes	2				
Paved Width (ft)	24				
Lane Width (ft)	9				
Roadway Condition Information					
SCR (Surface Condition Rating)	91				
PCR (Pavement Condition Rating)	91				
Distress Index Values					
Structural Crack Index	98				
Transverse Cracking Index	91				
Patching Index	100				
Rutting Index	98				
Roughness Condition Index (RCI)	NC				

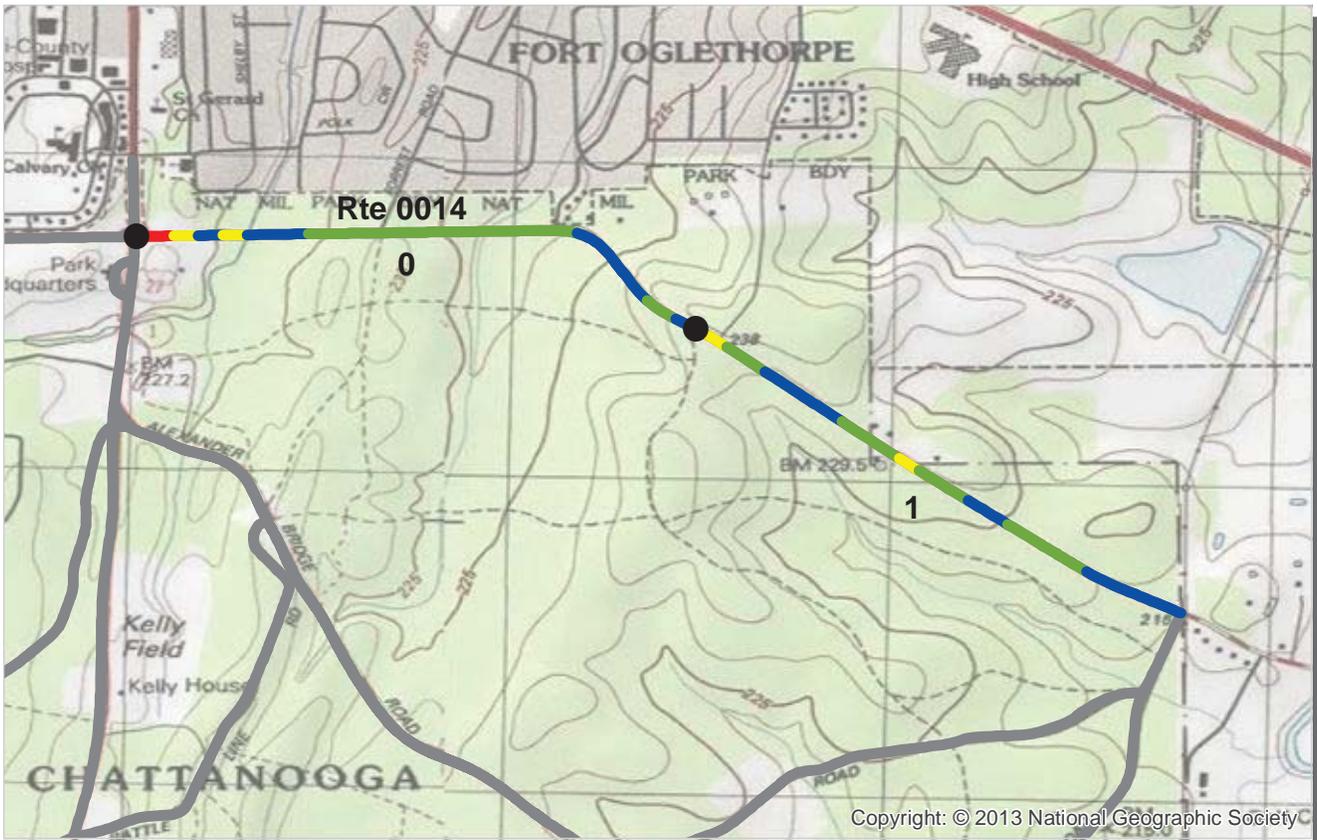
NOTES:

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

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

NC - Not Collected N/A - Not Applicable

ROUTE: 0013A ALEXANDER BRIDGE ROAD SPUR



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

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

ROUTE: 0014 REEDS BRIDGE ROAD

CHCH : CHICKAMAUGA AND CHATTANOOGA NATIONAL MILITARY PARK

COLLECTED: 11/3/2012

SOUTHEAST REGION

TOTAL LENGTH: 1.98 Miles

<i>Section Number</i>	0	1			
<i>Section Length (mi)</i>	1.00	0.98			
<i>Cross Section Information</i>					
Number of Lanes	2	2			
Paved Width (ft)	21	20			
Lane Width (ft)	9	9			
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	89	90			
PCR (Pavement Condition Rating)	93	94			
<i>Distress Index Values</i>					
Structural Crack Index	93	97			
Transverse Cracking Index	89	90			
Patching Index	100	100			
Rutting Index	99	99			
Roughness Condition Index (RCI)	100	100			

NOTES:

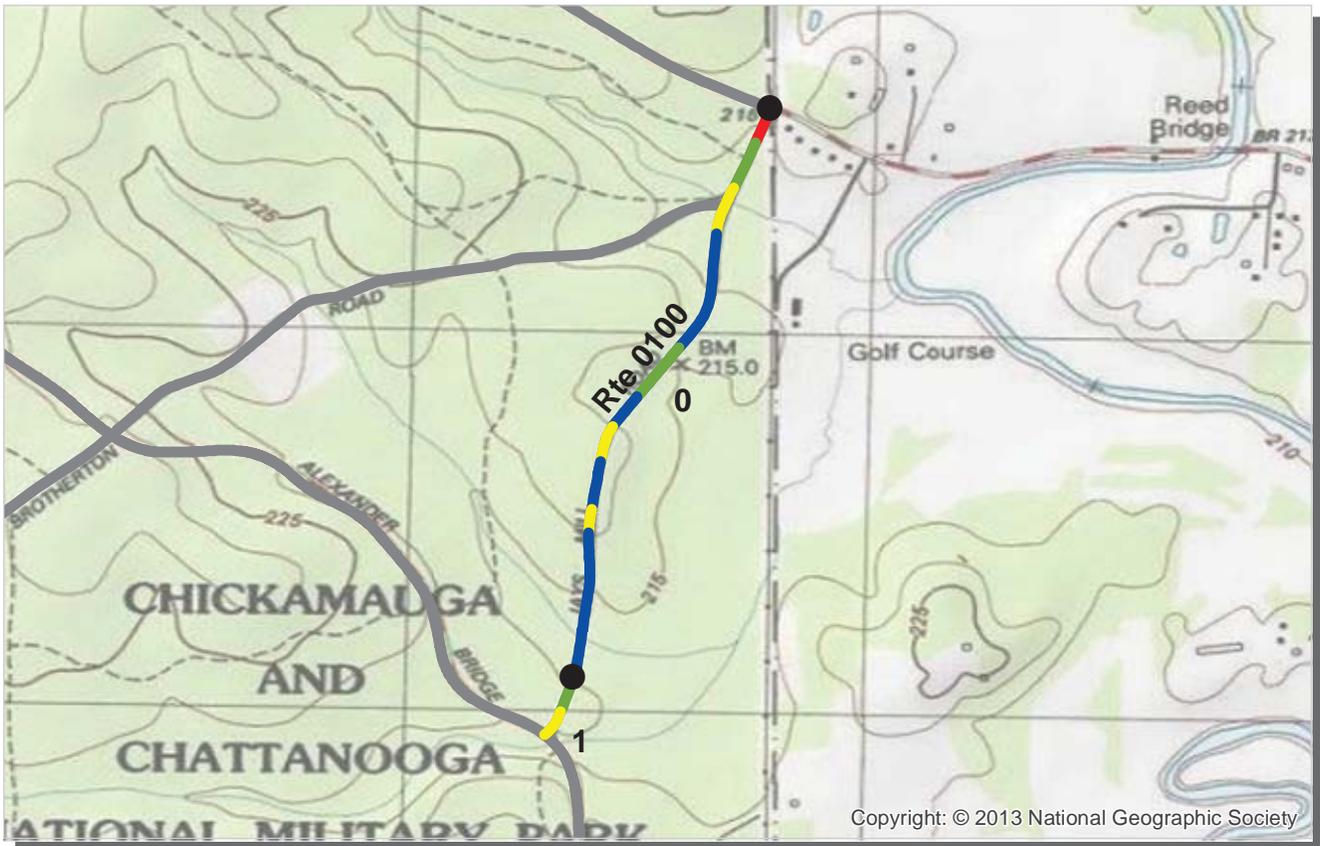
Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.

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

NC - Not Collected N/A - Not Applicable



ROUTE: 0014 REEDS BRIDGE ROAD



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

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

ROUTE: 0100 JAYS MILL ROAD

CHCH : CHICKAMAUGA AND CHATTANOOGA NATIONAL MILITARY PARK

COLLECTED: 11/3/2012

SOUTHEAST REGION

TOTAL LENGTH: 1.10 Miles

Section Number	0	1			
Section Length (mi)	1.00	0.10			
Cross Section Information					
Number of Lanes	2	2			
Paved Width (ft)	16	17			
Lane Width (ft)	8	8			
Roadway Condition Information					
SCR (Surface Condition Rating)	90	78			
PCR (Pavement Condition Rating)	87	79			
Distress Index Values					
Structural Crack Index	90	78			
Transverse Cracking Index	100	95			
Patching Index	100	100			
Rutting Index	99	99			
Roughness Condition Index (RCI)	82	81			

NOTES:

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

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

NC - Not Collected N/A - Not Applicable

ROUTE: 0100 JAYS MILL ROAD



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

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

ROUTE: 0101 DYER ROAD

CHCH : CHICKAMAUGA AND CHATTANOOGA NATIONAL MILITARY PARK

COLLECTED: 11/3/2012

SOUTHEAST REGION

TOTAL LENGTH: 0.76 Miles

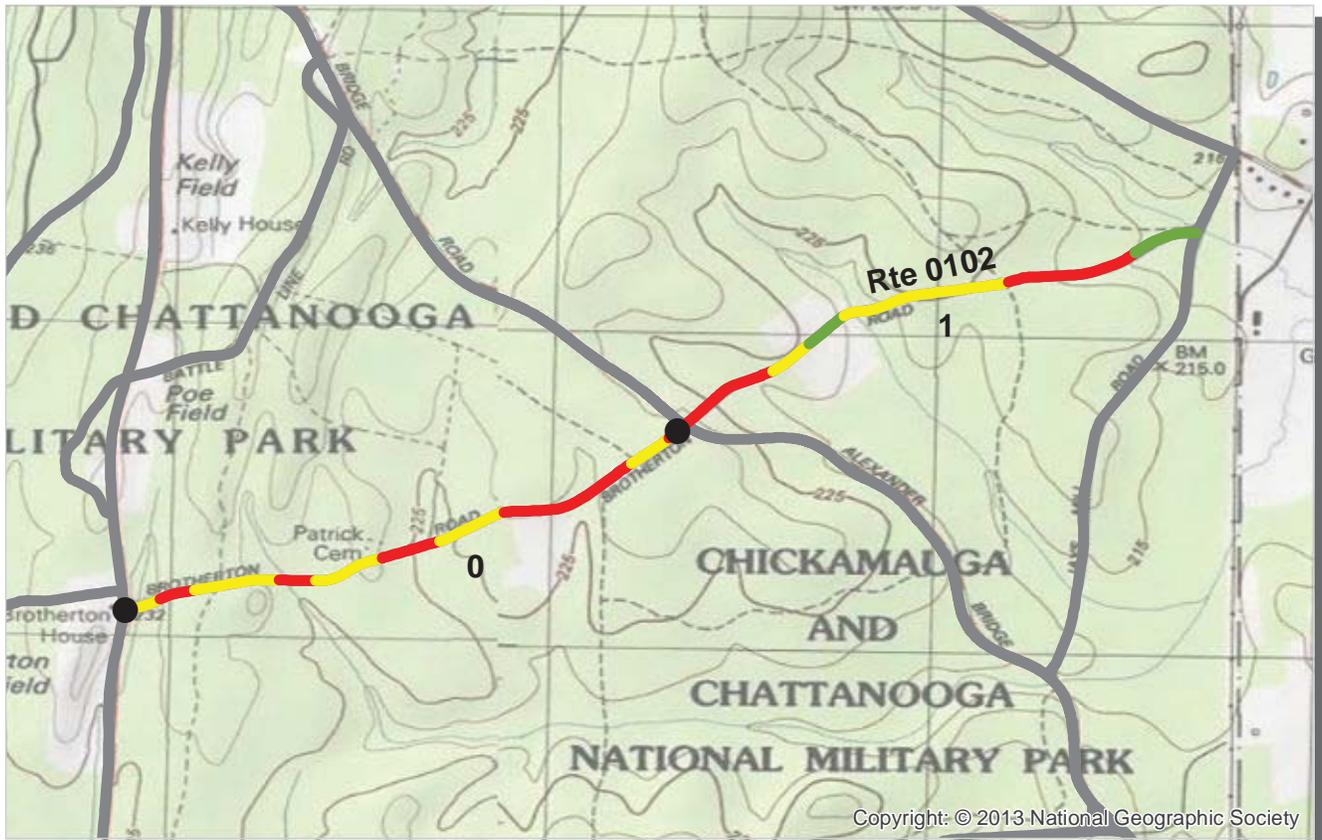
<i>Section Number</i>	0				
<i>Section Length (mi)</i>	0.76				
<i>Cross Section Information</i>					
Number of Lanes	2				
Paved Width (ft)	17				
Lane Width (ft)	9				
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	3				
PCR (Pavement Condition Rating)	29				
<i>Distress Index Values</i>					
Structural Crack Index	3				
Transverse Cracking Index	90				
Patching Index	100				
Rutting Index	100				
Roughness Condition Index (RCI)	69				

NOTES:

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

NC - Not Collected N/A - Not Applicable

ROUTE: 0101 DYER ROAD



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

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

ROUTE: 0102 BROTHERTON ROAD

CHCH : CHICKAMAUGA AND CHATTANOOGA NATIONAL MILITARY PARK

COLLECTED: 11/3/2012

SOUTHEAST REGION

TOTAL LENGTH: 1.96 Miles

Section Number	0	1			
Section Length (mi)	1.00	0.96			
Cross Section Information					
Number of Lanes	2	2			
Paved Width (ft)	15	15			
Lane Width (ft)	8	7			
Roadway Condition Information					
SCR (Surface Condition Rating)	40	40			
PCR (Pavement Condition Rating)	47	55			
Distress Index Values					
Structural Crack Index	40	40			
Transverse Cracking Index	96	96			
Patching Index	100	100			
Rutting Index	97	99			
Roughness Condition Index (RCI)	58	77			

NOTES:

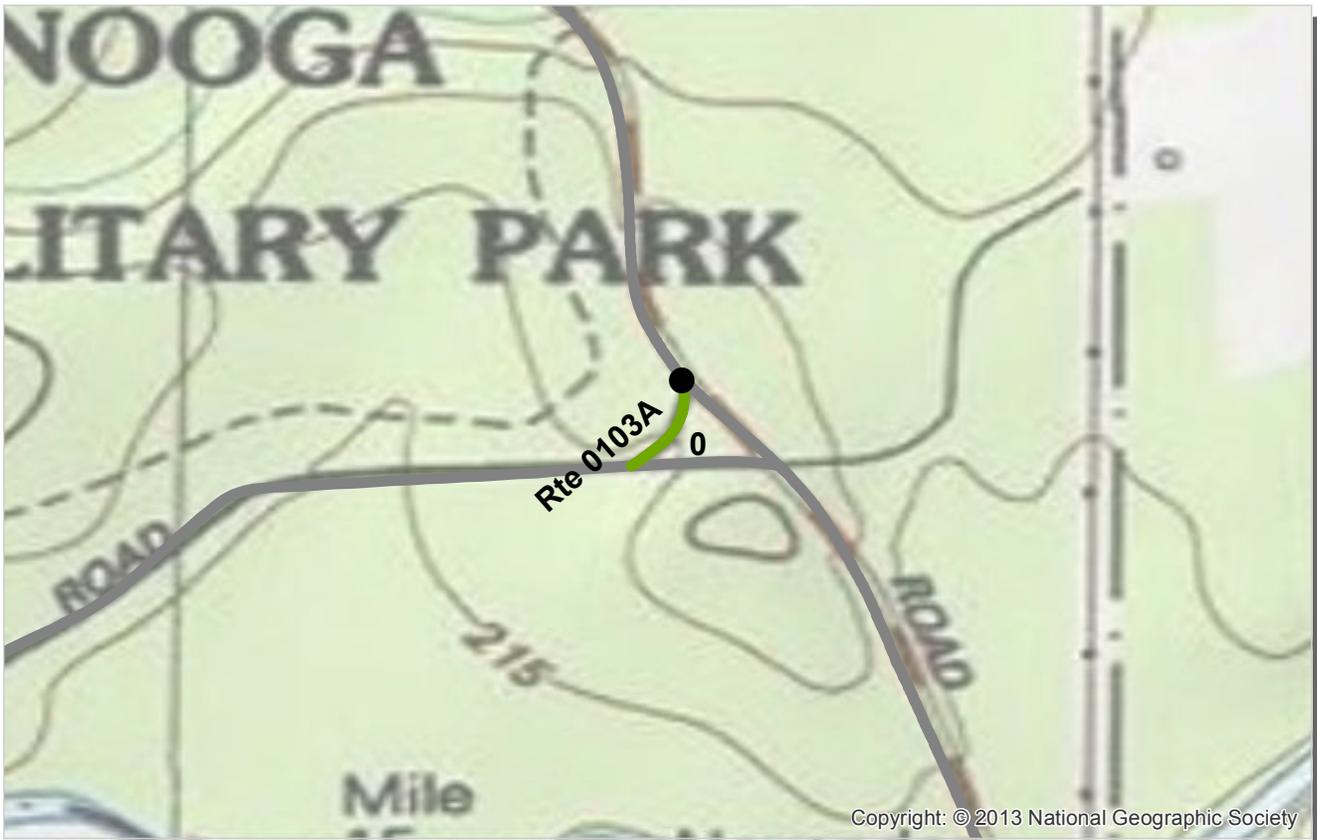
Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.

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

NC - Not Collected N/A - Not Applicable



ROUTE: 0102 BROTHERTON ROAD



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

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

ROUTE: 0103A VINYARD ALEXANDER ROAD SPUR

CHCH : CHICKAMAUGA AND CHATTANOOGA NATIONAL MILITARY PARK

COLLECTED: 11/3/2012

SOUTHEAST REGION

TOTAL LENGTH: 0.06 Miles

Section Number	0				
Section Length (mi)	0.06				
Cross Section Information					
Number of Lanes	2				
Paved Width (ft)	16				
Lane Width (ft)	8				
Roadway Condition Information					
SCR (Surface Condition Rating)	93				
PCR (Pavement Condition Rating)	93				
Distress Index Values					
Structural Crack Index	93				
Transverse Cracking Index	100				
Patching Index	100				
Rutting Index	99				
Roughness Condition Index (RCI)	NC				

NOTES:

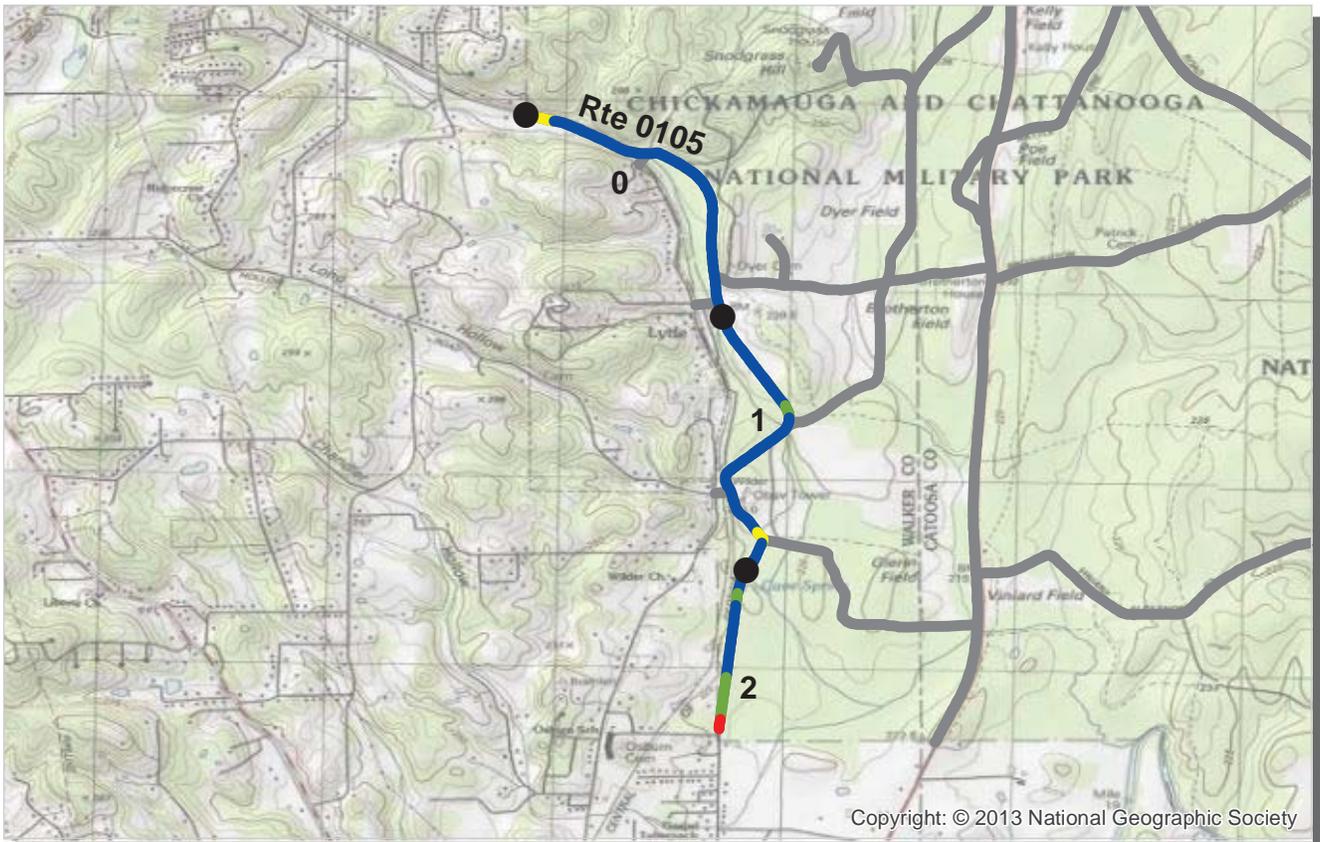
Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.

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

NC - Not Collected N/A - Not Applicable



ROUTE: 0103A VINYARD ALEXANDER ROAD SPUR



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

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

ROUTE: 0105 CHICK-VITTETOE ROAD

CHCH : CHICKAMAUGA AND CHATTANOOGA NATIONAL MILITARY PARK

COLLECTED: 11/3/2012
TOTAL LENGTH: 2.53 Miles

SOUTHEAST REGION

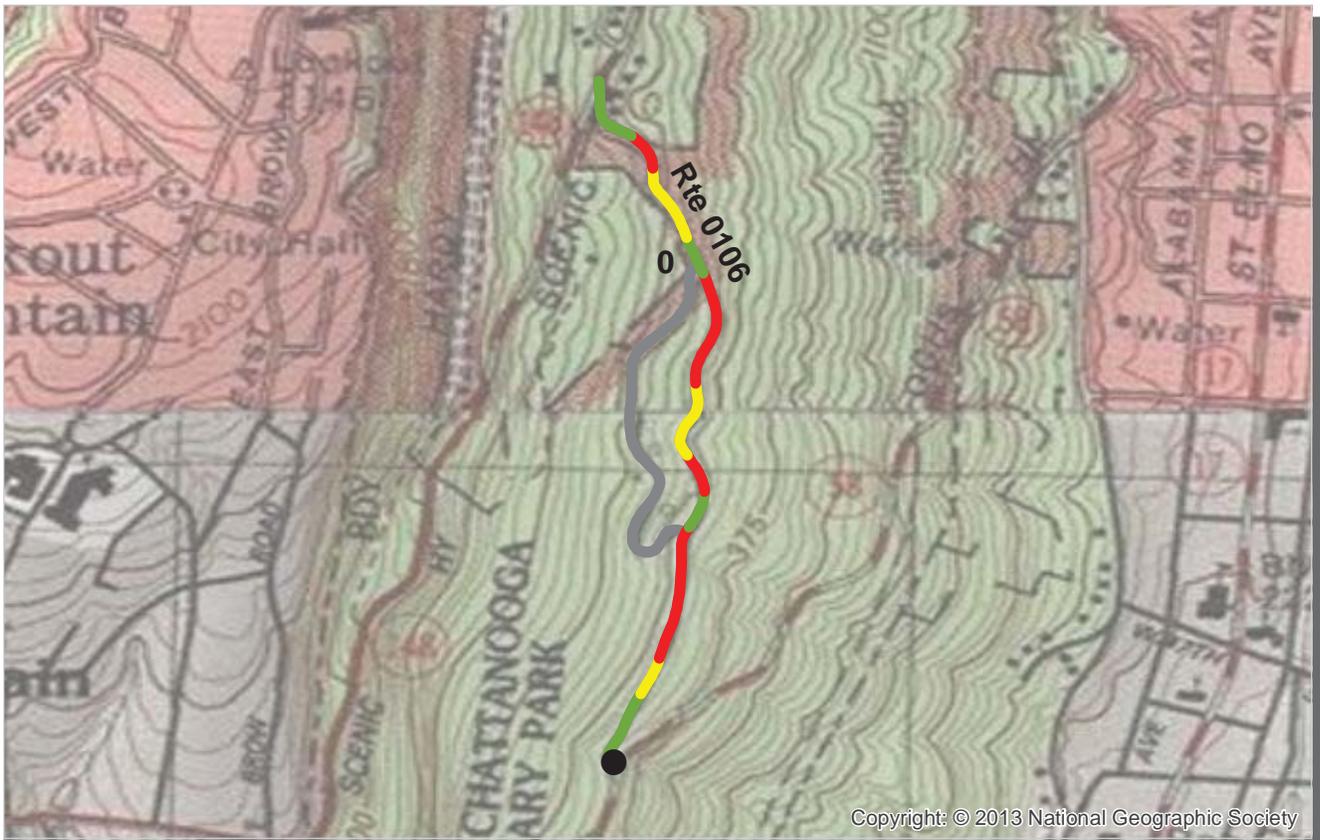
<i>Section Number</i>	0	1	2		
<i>Section Length (mi)</i>	1.00	1.00	0.53		
<i>Cross Section Information</i>					
Number of Lanes	2	2	2		
Paved Width (ft)	19	19	20		
Lane Width (ft)	9	10	10		
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	99	99	92		
PCR (Pavement Condition Rating)	99	99	94		
<i>Distress Index Values</i>					
Structural Crack Index	99	99	92		
Transverse Cracking Index	100	100	100		
Patching Index	100	100	100		
Rutting Index	99	100	99		
Roughness Condition Index (RCI)	100	100	98		

NOTES:

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

NC - Not Collected N/A - Not Applicable

ROUTE: 0105 CHICK-VITTETOE ROAD



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

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

ROUTE: 0106 SANDERS ROAD

CHCH : CHICKAMAUGA AND CHATTANOOGA NATIONAL MILITARY PARK

COLLECTED: 11/3/2012

SOUTHEAST REGION

TOTAL LENGTH: 0.77 Miles

Section Number	0				
Section Length (mi)	0.77				
Cross Section Information					
Number of Lanes	2				
Paved Width (ft)	22				
Lane Width (ft)	9				
Roadway Condition Information					
SCR (Surface Condition Rating)	58				
PCR (Pavement Condition Rating)	58				
Distress Index Values					
Structural Crack Index	58				
Transverse Cracking Index	97				
Patching Index	100				
Rutting Index	89				
Roughness Condition Index (RCI)	NC				

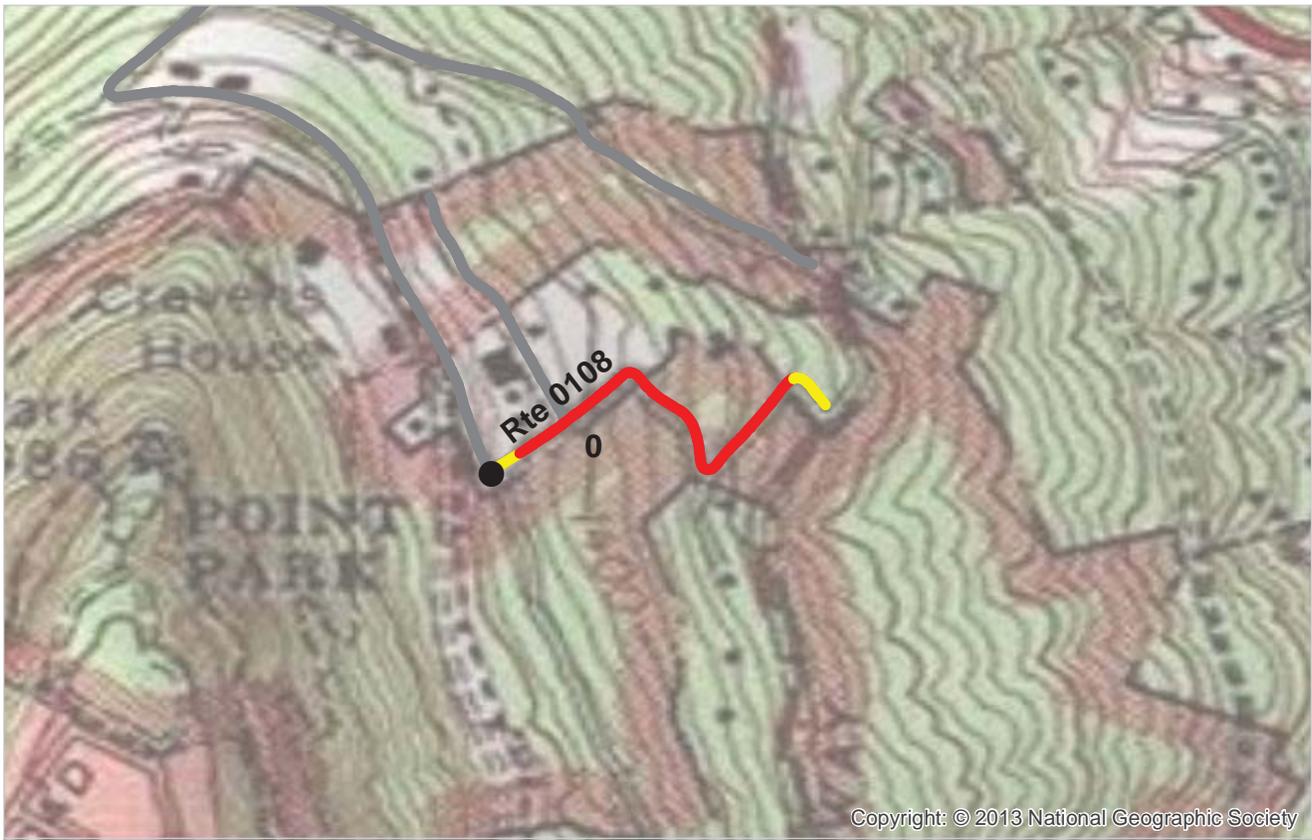
NOTES:

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

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

NC - Not Collected N/A - Not Applicable

ROUTE: 0106 SANDERS ROAD



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

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

ROUTE: 0108 MILITARY ROAD

CHCH : CHICKAMAUGA AND CHATTANOOGA NATIONAL MILITARY PARK

COLLECTED: 11/3/2012

SOUTHEAST REGION

TOTAL LENGTH: 0.29 Miles

Section Number	0				
Section Length (mi)	0.29				
Cross Section Information					
Number of Lanes	2				
Paved Width (ft)	13				
Lane Width (ft)	7				
Roadway Condition Information					
SCR (Surface Condition Rating)	13				
PCR (Pavement Condition Rating)	13				
Distress Index Values					
Structural Crack Index	13				
Transverse Cracking Index	99				
Patching Index	92				
Rutting Index	67				
Roughness Condition Index (RCI)	NC				

NOTES:

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

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

NC - Not Collected N/A - Not Applicable

ROUTE: 0108 MILITARY ROAD



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

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

ROUTE: 0109 CAROLINE ROAD

CHCH : CHICKAMAUGA AND CHATTANOOGA NATIONAL MILITARY PARK

COLLECTED: 11/3/2012
TOTAL LENGTH: 0.17 Miles

SOUTHEAST REGION

Section Number	0				
Section Length (mi)	0.17				
Cross Section Information					
Number of Lanes	2				
Paved Width (ft)	9				
Lane Width (ft)	4				
Roadway Condition Information					
SCR (Surface Condition Rating)	60				
PCR (Pavement Condition Rating)	60				
Distress Index Values					
Structural Crack Index	60				
Transverse Cracking Index	98				
Patching Index	100				
Rutting Index	63				
Roughness Condition Index (RCI)	NC				

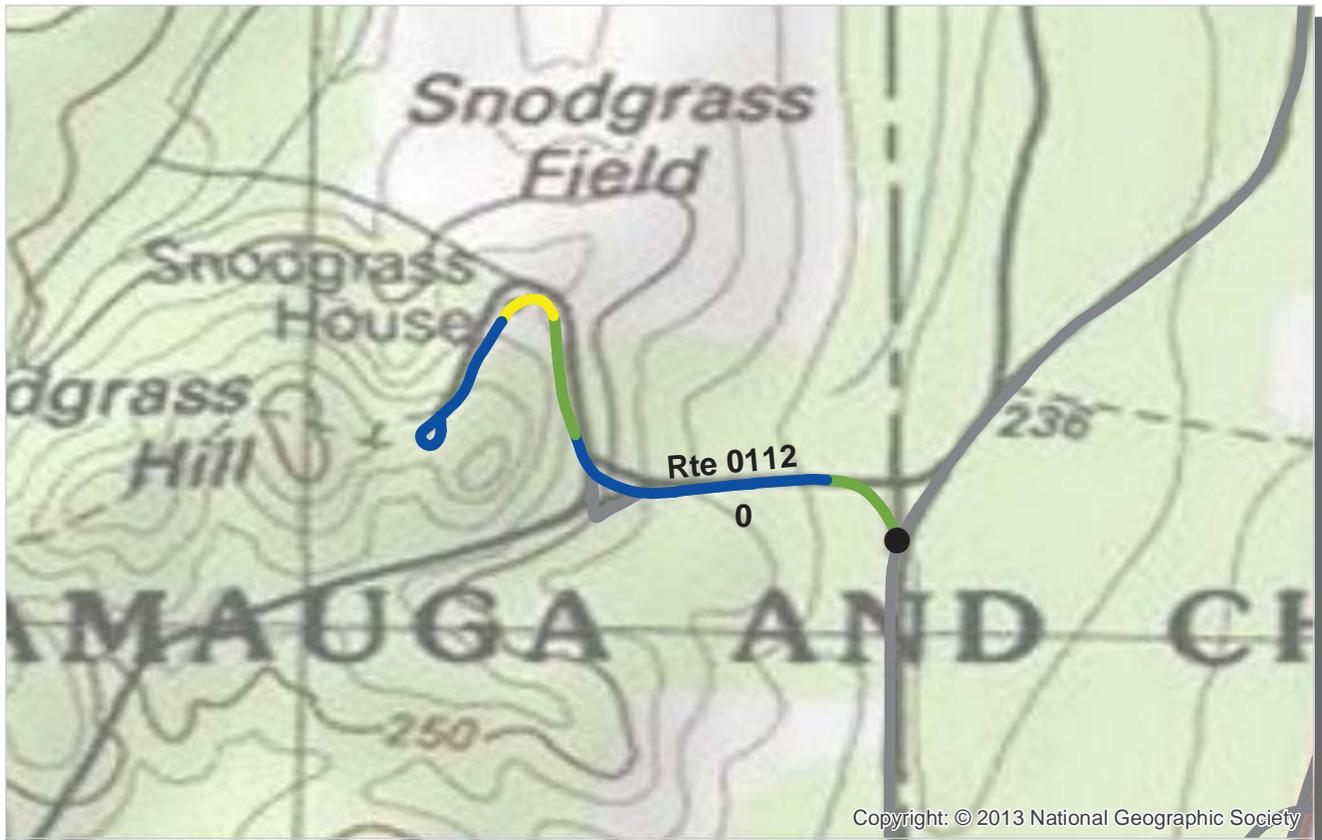
NOTES:

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

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

NC - Not Collected N/A - Not Applicable

ROUTE: 0109 CAROLINE ROAD



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

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

ROUTE: 0112 SNODGRASS ROAD

CHCH : CHICKAMAUGA AND CHATTANOOGA NATIONAL MILITARY PARK

COLLECTED: 11/3/2012

SOUTHEAST REGION

TOTAL LENGTH: 0.45 Miles

Section Number	0				
Section Length (mi)	0.45				
Cross Section Information					
Number of Lanes	2				
Paved Width (ft)	18				
Lane Width (ft)	9				
Roadway Condition Information					
SCR (Surface Condition Rating)	95				
PCR (Pavement Condition Rating)	95				
Distress Index Values					
Structural Crack Index	95				
Transverse Cracking Index	98				
Patching Index	100				
Rutting Index	98				
Roughness Condition Index (RCI)	NC				

NOTES:

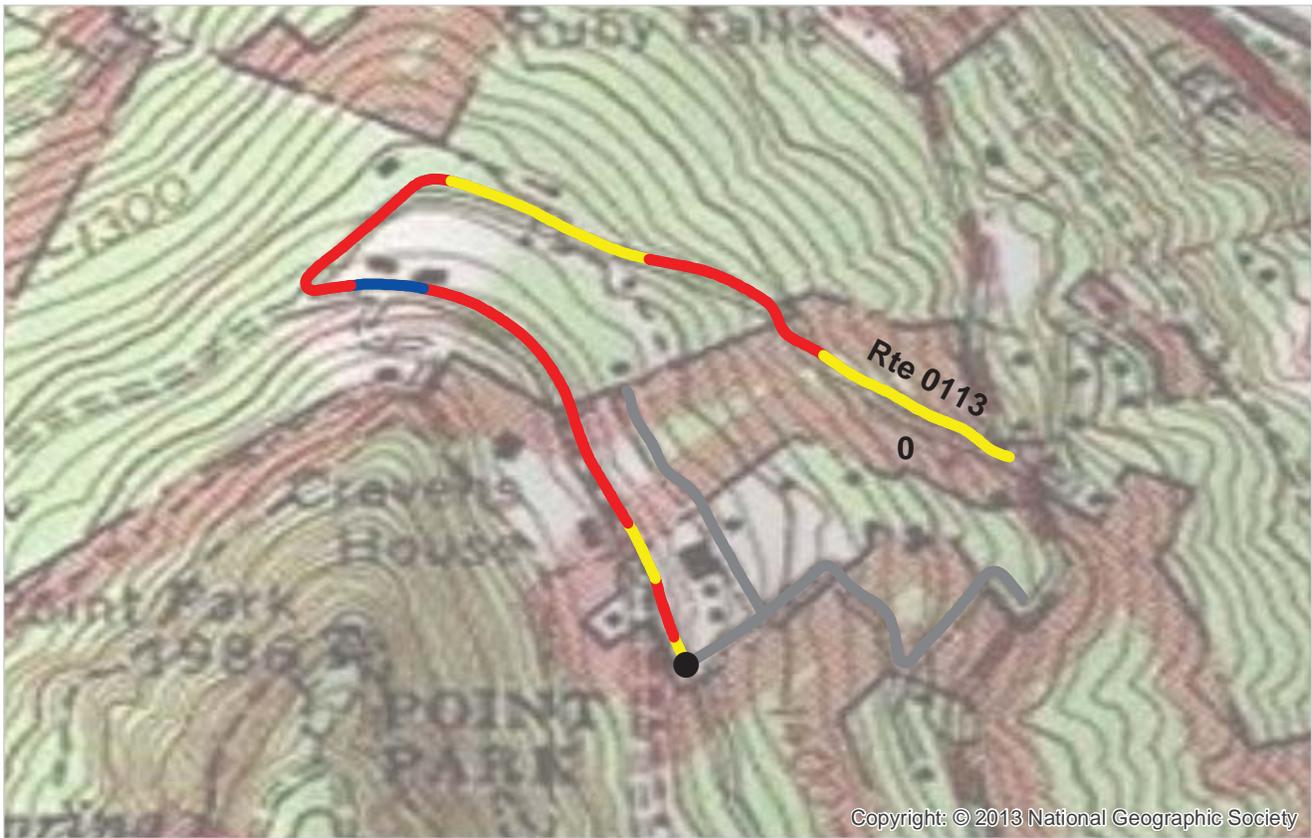
Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.

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

NC - Not Collected N/A - Not Applicable



ROUTE: 0112 SNODGRASS ROAD



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

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

ROUTE: 0113 CRAVENS TERRACE ROAD

CHCH : CHICKAMAUGA AND CHATTANOOGA NATIONAL MILITARY PARK

COLLECTED: 11/3/2012
TOTAL LENGTH: 0.84 Miles

SOUTHEAST REGION

Section Number	0				
Section Length (mi)	0.84				
Cross Section Information					
Number of Lanes	2				
Paved Width (ft)	16				
Lane Width (ft)	11				
Roadway Condition Information					
SCR (Surface Condition Rating)	5				
PCR (Pavement Condition Rating)	5				
Distress Index Values					
Structural Crack Index	5				
Transverse Cracking Index	99				
Patching Index	95				
Rutting Index	84				
Roughness Condition Index (RCI)	NC				

NOTES:

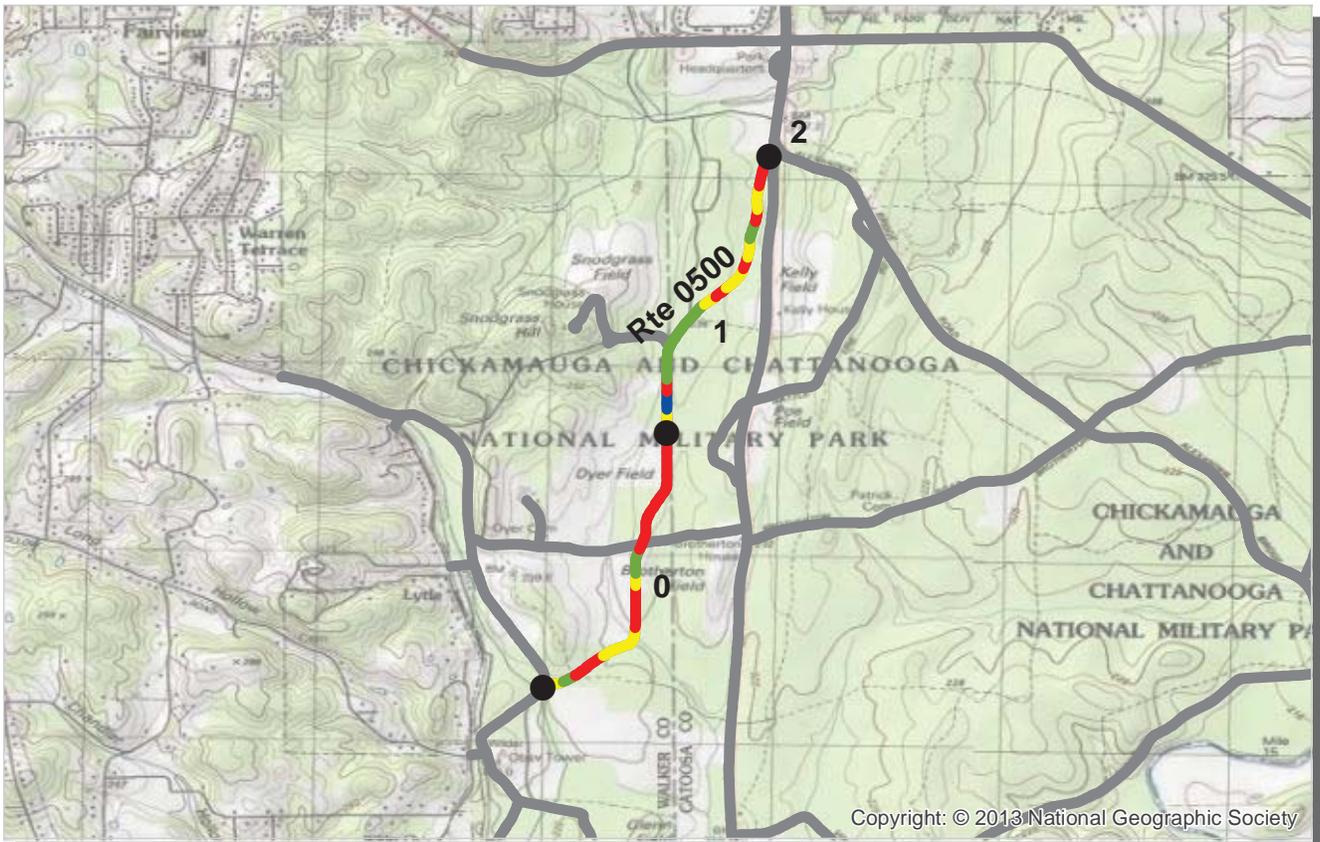
Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.

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

NC - Not Collected N/A - Not Applicable



ROUTE: 0113 CRAVENS TERRACE ROAD



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

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

ROUTE: 0500 GLENN KELLEY ROAD

CHCH : CHICKAMAUGA AND CHATTANOOGA NATIONAL MILITARY PARK

COLLECTED: 11/3/2012
TOTAL LENGTH: 2.01 Miles

SOUTHEAST REGION

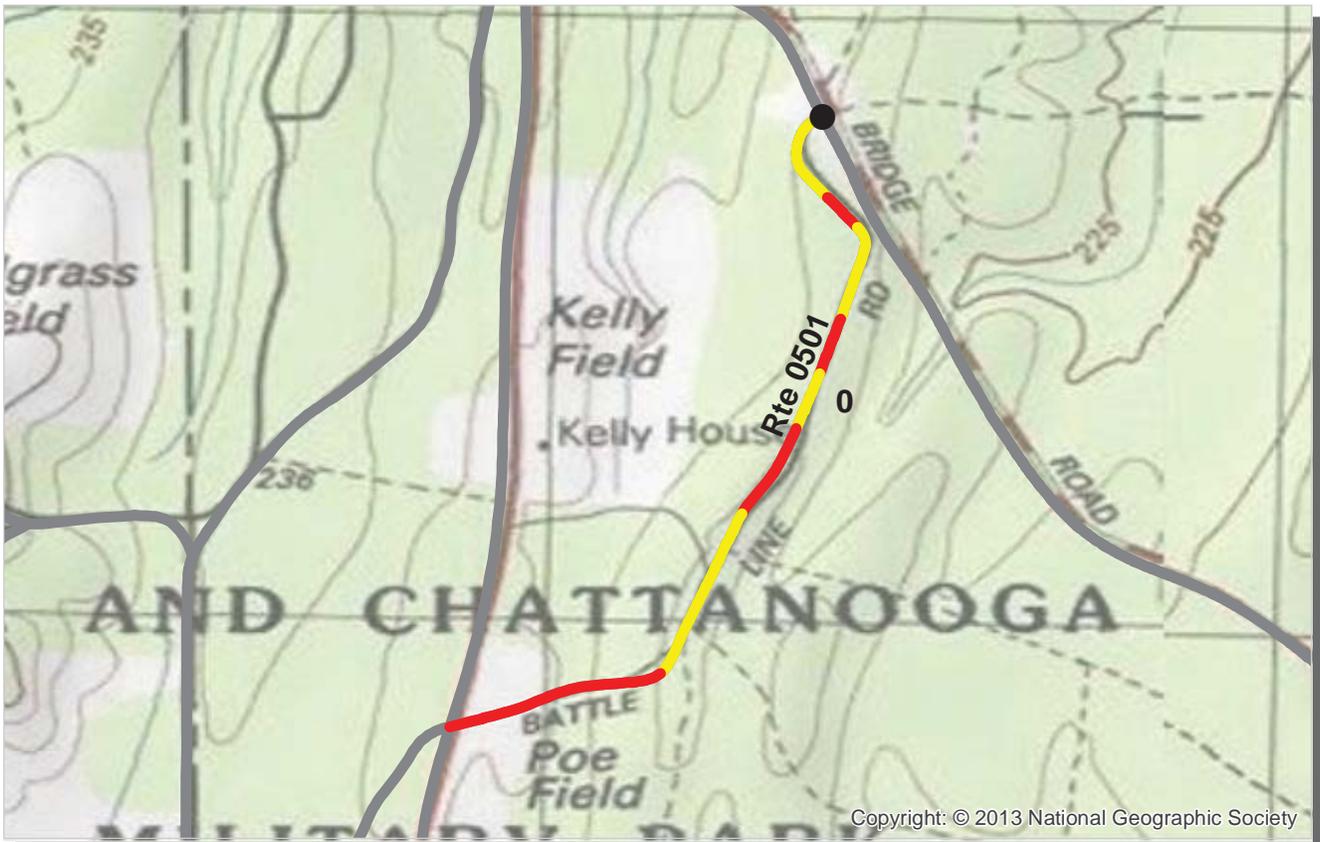
<i>Section Number</i>	0	1	2		
<i>Section Length (mi)</i>	1.00	1.00	0.01		
<i>Cross Section Information</i>					
Number of Lanes	1	1	1		
Paved Width (ft)	18	18	20		
Lane Width (ft)	18	18	20		
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	0	53	92		
PCR (Pavement Condition Rating)	31	66	92		
<i>Distress Index Values</i>					
Structural Crack Index	0	53	92		
Transverse Cracking Index	95	99	100		
Patching Index	100	100	100		
Rutting Index	99	99	100		
Roughness Condition Index (RCI)	78	86	NC		

NOTES:

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

NC - Not Collected N/A - Not Applicable

ROUTE: 0500 GLENN KELLEY ROAD



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

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

ROUTE: 0501 BATTLELINE ROAD

CHCH : CHICKAMAUGA AND CHATTANOOGA NATIONAL MILITARY PARK

COLLECTED: 11/3/2012
TOTAL LENGTH: 0.82 Miles

SOUTHEAST REGION

Section Number	0				
Section Length (mi)	0.82				
Cross Section Information					
Number of Lanes	1				
Paved Width (ft)	16				
Lane Width (ft)	16				
Roadway Condition Information					
SCR (Surface Condition Rating)	29				
PCR (Pavement Condition Rating)	29				
Distress Index Values					
Structural Crack Index	29				
Transverse Cracking Index	92				
Patching Index	100				
Rutting Index	96				
Roughness Condition Index (RCI)	NC				

NOTES:

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

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

NC - Not Collected N/A - Not Applicable

ROUTE: 0501 BATTLELINE ROAD



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

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

ROUTE: 0502 POE ROAD

CHCH : CHICKAMAUGA AND CHATTANOOGA NATIONAL MILITARY PARK

COLLECTED: 11/3/2012
TOTAL LENGTH: 0.34 Miles

SOUTHEAST REGION

Section Number	0				
Section Length (mi)	0.34				
Cross Section Information					
Number of Lanes	1				
Paved Width (ft)	15				
Lane Width (ft)	15				
Roadway Condition Information					
SCR (Surface Condition Rating)	55				
PCR (Pavement Condition Rating)	55				
Distress Index Values					
Structural Crack Index	55				
Transverse Cracking Index	93				
Patching Index	100				
Rutting Index	93				
Roughness Condition Index (RCI)	NC				

NOTES:

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

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

NC - Not Collected N/A - Not Applicable

ROUTE: 0502 POE ROAD



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

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

ROUTE: 0503 GLEN VINYARD ROAD

CHCH : CHICKAMAUGA AND CHATTANOOGA NATIONAL MILITARY PARK

COLLECTED: 11/3/2012

SOUTHEAST REGION

TOTAL LENGTH: 0.78 Miles

Section Number	0				
Section Length (mi)	0.78				
Cross Section Information					
Number of Lanes	1				
Paved Width (ft)	18				
Lane Width (ft)	17				
Roadway Condition Information					
SCR (Surface Condition Rating)	48				
PCR (Pavement Condition Rating)	61				
Distress Index Values					
Structural Crack Index	48				
Transverse Cracking Index	98				
Patching Index	100				
Rutting Index	99				
Roughness Condition Index (RCI)	80				

NOTES:

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

NC - Not Collected N/A - Not Applicable

ROUTE: 0503 GLEN VINYARD ROAD

Section 6
Manually Rated Paved Route
Condition Rating Sheets



Chickamauga and Chattanooga
National Military Park



Federal Lands Highway
Road Inventory Program

MANUALLY RATED ROUTE CONDITION RATING SHEETS

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

Section 7

Parking Area

Condition Rating Sheets



Chickamauga and Chattanooga
National Military Park



Federal Lands Highway
Road Inventory Program

CHICKAMAUGA AND CHATTANOOGA NATIONAL MILITARY PARK

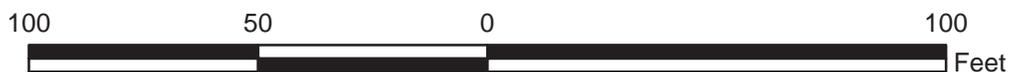
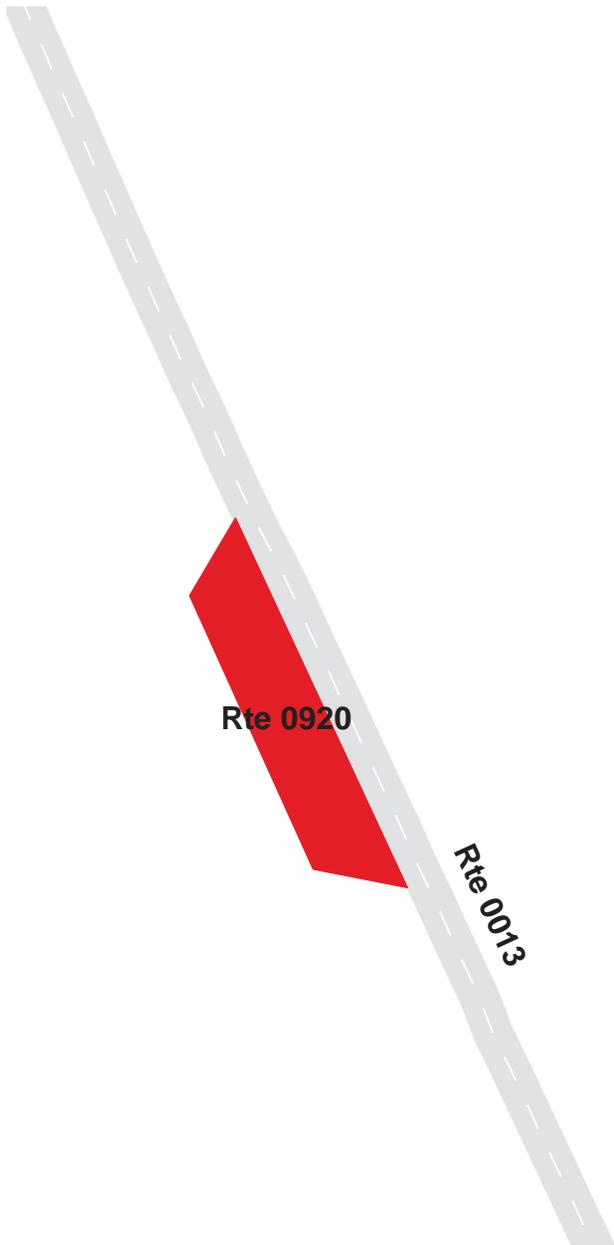
Route 0920

ALEXANDER BRIDGE PARKING

ADJACENT TO ROUTE 0013 (ALEXANDER BRIDGE ROAD) ON RIGHT

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0920	PUBLIC	11/3/2012	1,048	0.02	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
0	0	0	CONCRETE CURB AND GUTTER	NO CURB	GOOD/90

* Lane miles are based on 11' lane widths



Section 8

Route Maintenance Features Summaries



Chickamauga and Chattanooga National Military Park



Federal Lands Highway
Road Inventory Program

CHCH: DCV ROUTE MAINTENANCE FEATURES SUMMARY

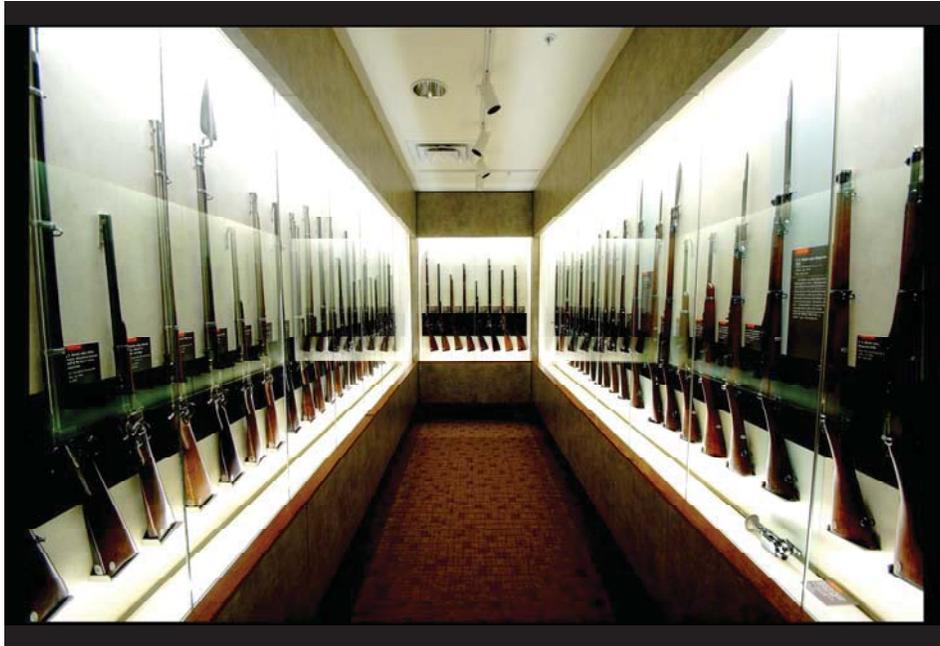
Notice: Culverts and drop inlets were NOT marked by NPS in Cycle 5 along new or re-aligned DCV driven routes.

FEATURE	ROUTE 0013 ALEXANDER BRIDGE ROAD	ROUTE 0013A ALEXANDER BRIDGE ROAD SPUR	ROUTE 0108 MILITARY ROAD	ROUTE 0109 CAROLINE ROAD	ROUTE 0113 CRAVENS TERRACE ROAD	UNIT
BRIDGE	2	0	0	0	0	EACH
CATTLE GUARD	0	0	0	0	0	EACH
CULVERT	0	0	0	0	0	EACH
CURB	0	0	0	0	401	LINEAR FEET
DROP INLET	0	0	0	0	0	EACH
GATE	0	0	0	0	0	EACH
GUARD/GUIDE RAIL	855	0	0	0	0	LINEAR FEET
CABLE	0	0	0	0	0	LINEAR FEET
NON-CABLE	855	0	0	0	0	LINEAR FEET
GUARD/GUIDE WALL	58	0	32	190	0	LINEAR FEET
BOLLARD	0	0	0	0	0	LINEAR FEET
TEMPORARY BARRIER	0	0	0	0	0	LINEAR FEET
NON TEMP/BOLLARD	58	0	32	190	0	LINEAR FEET
INTERSECTION	21	4	5	3	6	EACH
LOW WATER CROSSING	0	0	0	0	0	EACH
LOW WATER CROSSING	0	0	0	0	0	LINEAR FEET
MILE MARKER	0	0	0	0	0	EACH
OVERPASS	0	0	0	0	0	EACH
PARK BOUNDARY	1	0	0	0	0	EACH
PAVED DITCH	0	0	0	0	0	LINEAR FEET
PULLOUT	0	0	0	0	0	EACH
PULLOUT	0	0	0	0	0	LINEAR FEET
RAILROAD CROSSING	0	0	0	0	0	EACH
RETAINING WALL	0	0	0	0	0	EACH
RETAINING WALL	0	0	0	0	0	LINEAR FEET
SIGN	31	1	4	3	25	EACH
STATE BOUNDARY	0	0	0	0	0	EACH
TRAFFIC LIGHT	0	0	0	0	0	EACH
TUNNEL	0	0	0	0	0	EACH
TUNNEL	0	0	0	0	0	LINEAR FEET

CHCH: STRUCTURE LIST

ROUTE NUMBER	FUNCTIONAL CLASS	MILEPOST START	MILEPOST END	FEATURE	STRUCTURE NUMBER
0013	2	2.834	2.850	BRIDGE	5220-001
0013	2	2.876	2.879	BRIDGE	5220-002

Section 9
Route Maintenance Features
Road Logs



Chickamauga and Chattanooga
National Military Park



Federal Lands Highway
Road Inventory Program

CHCH: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0013: ALEXANDER BRIDGE ROAD

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

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0011 (LAFAYETTE ROAD) AT MP 0.49
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0011 (LAFAYETTE ROAD)
0.000	0.000	INTERSECTION	N/A	ROUTE 0011 (LAFAYETTE ROAD)
0.005	0.005	SIGN	LEFT	REGULATORY, STOP
0.014	0.014	SIGN	RIGHT	GUIDE, ALEXANDER BRIDGE ROAD
0.035	0.035	SIGN	LEFT	REGULATORY, NO PARKING ANY TIME
0.046	0.046	INTERSECTION	RIGHT	ROUTE 0013A (ALEXANDER BRIDGE ROAD SPUR)
0.050	0.050	INTERSECTION	RIGHT	ROUTE 0910 (KENTUCKY MONUMENT PARKING AREA)
0.053	0.053	SIGN	RIGHT	REGULATORY, SPEED LIMIT 25
0.298	0.298	INTERSECTION	LEFT	ROUTE 0911 (GEORGIA MONUMENT PARKING AREA)
0.346	0.346	SIGN	RIGHT	GUIDE, BATTLELINE
0.358	0.358	SIGN	RIGHT	GUIDE, GRAPHIC SIGN NO TEXT
0.358	0.358	INTERSECTION	LEFT	ROUTE 0912 (HELM / COLQUITT MONUMENTS PARKING)
0.358	0.358	INTERSECTION	RIGHT	ROUTE 0501 (BATTLELINE ROAD)
0.358	0.358	SIGN	RIGHT	GUIDE, TOUR
0.414	0.414	SIGN	RIGHT	REGULATORY, WEIGHT LIMIT 3 TONS
0.634	0.634	INTERSECTION	LEFT	ROUTE 0913 (PARKING AREA ON LEFT ALEXANDER BRIDGE ROAD)
0.669	0.669	INTERSECTION	RIGHT	ROUTE 0914 (PARKING AREA ON RIGHT ALEXANDER BRIDGE ROAD)
1.074	1.074	INTERSECTION	RIGHT	ROUTE 0915 (PARKING COST OF CHICKAMAUGA)
1.273	1.273	SIGN	LEFT	REGULATORY, SPEED LIMIT 25
1.318	1.318	INTERSECTION	LEFT	ROUTE 0102 (BROTHERTON ROAD)
1.318	1.318	INTERSECTION	RIGHT	ROUTE 0102 (BROTHERTON ROAD)
1.331	1.331	SIGN	RIGHT	REGULATORY, SPEED LIMIT 25
1.400	1.400	INTERSECTION	RIGHT	ROUTE 0916 (SMITH MONUMENT PARKING)
1.403	1.403	SIGN	RIGHT	GUIDE, SMITH MONUMENT
1.908	1.908	INTERSECTION	LEFT	ROUTE 0918 (PARKING ALEXANDER BRIDGE ON RIGHT AT HORSE TRAIL)
1.910	1.910	INTERSECTION	RIGHT	ROUTE 0917 (PARKING ALEXANDER BRIDGE ON LEFT AT HORSE TRAIL)

CHCH: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0013: ALEXANDER BRIDGE ROAD

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

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
2.107	2.107	SIGN	LEFT	REGULATORY, SPEED LIMIT 25
2.154	2.154	SIGN	LEFT	GUIDE, JAY'S
2.156	2.156	INTERSECTION	LEFT	ROUTE 0100 (JAYS MILL ROAD)
2.158	2.182	GUARD/GUIDE RAIL	RIGHT	N/A
2.165	2.187	GUARD/GUIDE RAIL	LEFT	N/A
2.209	2.209	SIGN	RIGHT	REGULATORY, SPEED LIMIT 25
2.434	2.434	INTERSECTION	RIGHT	ROUTE 0103A (VINYARD ALEXANDER ROAD SPUR)
2.482	2.482	SIGN	RIGHT	GUIDE, VINIARD ALEXANDER
2.504	2.504	INTERSECTION	RIGHT	ROUTE 0103 (VINYARD ALEXANDER ROAD)
2.514	2.514	INTERSECTION	LEFT	ROUTE 0919 (PARKING AREA MP 2.5 (VINYARD ALEXANDER ROAD))
2.518	2.518	SIGN	RIGHT	GUIDE, NO TRUCKS OR BUSES
2.696	2.696	SIGN	LEFT	GUIDE, CHICKAMAUGA BATTLEFIELD CHICKAMAUGA AND CHATTANOOGA NATIONAL MILITARY PARK UNITED STATES DEPARTMENT
2.729	2.729	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
2.729	2.729	SIGN	RIGHT	WARNING, 15 M.P.H.
2.743	2.743	SIGN	LEFT	REGULATORY, SPEED LIMIT 25
2.779	2.779	SIGN	RIGHT	WARNING, ONE LANE BRIDGE
2.795	2.795	INTERSECTION	RIGHT	ROUTE 0920 (ALEXANDER BRIDGE PARKING)
2.821	2.858	GUARD/GUIDE RAIL	RIGHT	N/A
2.826	2.860	GUARD/GUIDE RAIL	LEFT	N/A
2.829	2.829	SIGN	RIGHT	REGULATORY, TO ONCOMING TRAFFIC
2.829	2.829	SIGN	RIGHT	REGULATORY, YIELD
2.834	2.850	BRIDGE	N/A	5220-001 (ALEXANDER'S BRIDGE)
2.860	2.871	GUARD/GUIDE WALL	LEFT	N/A
2.868	2.891	GUARD/GUIDE RAIL	RIGHT	N/A
2.869	2.869	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
2.870	2.870	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
2.871	2.893	GUARD/GUIDE RAIL	LEFT	N/A
2.876	2.879	BRIDGE	N/A	5220-002 (SLOUGH BRIDGE)

CHCH: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0013: ALEXANDER BRIDGE ROAD

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

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
2.888	2.888	SIGN	LEFT	WARNING, BRIDGE ICES BEFORE ROAD
2.888	2.888	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
2.894	2.894	SIGN	LEFT	REGULATORY, NO NIGHT PARKING
2.894	2.894	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
2.897	2.897	SIGN	LEFT	REGULATORY, TO ONCOMING TRAFFIC
2.897	2.897	SIGN	LEFT	REGULATORY, YIELD
2.910	2.910	PARK BOUNDARY	N/A	N/A
2.910	2.910	INTERSECTION	N/A	PAVED ROUTE (ALEXANDER BRIDGE ROAD / NON NPS)
2.910	2.910	ROUTE END	N/A	TO PARK BOUNDARY

CHCH: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0013A: ALEXANDER BRIDGE ROAD SPUR

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

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM INTERSECTION OF ROUTE 0011 (LAFAYETTE ROAD) AND ROUTE 0014 (REEDS BRIDGE ROAD)
0.000	0.000	INTERSECTION	LEFT	ROUTE 0011 (LAFAYETTE ROAD)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0011 (LAFAYETTE ROAD)
0.006	0.006	SIGN	LEFT	REGULATORY, STOP
0.028	0.028	INTERSECTION	LEFT	ROUTE 0013 (ALEXANDER BRIDGE ROAD)
0.028	0.028	INTERSECTION	RIGHT	ROUTE 0013 (ALEXANDER BRIDGE ROAD)
0.028	0.028	ROUTE END	N/A	TO ROUTE 0013 (ALEXANDER BRIDGE ROAD)

CHCH: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0108: MILITARY ROAD

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

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM INTERSECTION OF ROUTE 0113 (CRAVENS TERRACE ROAD) AND SHINGLE ROAD
0.000	0.000	INTERSECTION	LEFT	ROUTE 0113 (CRAVENS TERRACE ROAD)
0.000	0.000	INTERSECTION	RIGHT	PAVED ROUTE (SHINGLE ROAD / NON NPS)
0.004	0.010	GUARD/GUIDE WALL	LEFT	N/A
0.005	0.005	SIGN	LEFT	REGULATORY, STOP
0.055	0.055	INTERSECTION	LEFT	ROUTE 0109 (CAROLINE ROAD)
0.056	0.056	SIGN	LEFT	GUIDE, CAROLINE
0.285	0.285	SIGN	RIGHT	REGULATORY, STOP
0.286	0.286	SIGN	RIGHT	GUIDE, SCENIC
0.286	0.286	INTERSECTION	LEFT	PAVED ROUTE (LOOKOUT MOUNTAIN SCENIC HIGHWAY / STATE ROUTE 148 / NON NPS)
0.286	0.286	INTERSECTION	RIGHT	PAVED ROUTE (LOOKOUT MOUNTAIN SCENIC HIGHWAY / STATE ROUTE 148 / NON NPS)
0.286	0.286	ROUTE END	N/A	TO TENNESSEE STATE ROUTE 148

CHCH: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0109: CAROLINE ROAD

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

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0108 (MILITARY ROAD)
0.000	0.000	INTERSECTION	LEFT	ROUTE 0108 (MILITARY ROAD)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0108 (MILITARY ROAD)
0.008	0.008	SIGN	LEFT	REGULATORY, STOP
0.034	0.034	SIGN	LEFT	WARNING, CAUTION SLOW DOWN PEDESTRIAN TRAFFIC
0.040	0.040	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.040	0.073	GUARD/GUIDE WALL	RIGHT	N/A
0.077	0.080	GUARD/GUIDE WALL	RIGHT	N/A
0.165	0.165	INTERSECTION	N/A	DEAD END
0.165	0.165	ROUTE END	N/A	TO END OF PAVEMENT

CHCH: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0113: CRAVENS TERRACE ROAD

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

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM INTERSECTION OF ROUTE 0108 (MILITARY ROAD) AND SHINGLE ROAD
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0108 (MILITARY ROAD)
0.000	0.000	SIGN	N/A	WARNING, NO TURN AROUND
0.000	0.000	INTERSECTION	N/A	PAVED ROUTE (SHINGLE ROAD / NON NPS)
0.003	0.003	SIGN	LEFT	REGULATORY, SPEED LIMIT 20
0.006	0.006	SIGN	RIGHT	GUIDE, CRAVENS HOUSE
0.052	0.052	SIGN	RIGHT	WARNING, SHARE THE ROAD
0.052	0.052	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.053	0.053	SIGN	RIGHT	GUIDE, CAUTION BLIND INTERSECTION
0.053	0.053	SIGN	LEFT	REGULATORY, UNABLE TO READ FROM VIDEO
0.055	0.055	SIGN	LEFT	GUIDE, HARDY TRAIL SCENIC HWY. 1.1ML
0.056	0.056	SIGN	LEFT	GUIDE, GRAPHIC SIGN NO TEXT
0.056	0.056	SIGN	LEFT	GUIDE, GRAPHIC SIGN NO TEXT
0.056	0.056	SIGN	LEFT	GUIDE, GRAPHIC SIGN NO TEXT
0.056	0.056	SIGN	LEFT	GUIDE, GRAPHIC SIGN NO TEXT
0.061	0.061	SIGN	LEFT	GUIDE, BIKE ROUTE
0.061	0.061	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN NO TEXT
0.063	0.063	INTERSECTION	LEFT	ROUTE 0926 (CRAVENS HOUSE PARKING)
0.065	0.141	CURB-AND-GUTTER	LEFT	N/A
0.065	0.065	SIGN	LEFT	GUIDE, CRAVENS HOUSE PARKING CARS HIKERS & RVS
0.071	0.071	SIGN	RIGHT	GUIDE, GUILD TRAIL
0.071	0.071	SIGN	RIGHT	GUIDE, BIKE ROUTE
0.071	0.071	SIGN	RIGHT	WARNING, CAUTION SLOW DOWN PEDESTRIAN TRAFFIC
0.159	0.159	INTERSECTION	LEFT	PAVED PARKING
0.357	0.357	SIGN	LEFT	REGULATORY, UNABLE TO READ FROM VIDEO
0.357	0.357	SIGN	LEFT	REGULATORY, UNABLE TO READ FROM VIDEO
0.374	0.374	SIGN	LEFT	WARNING, UNABLE TO READ FROM VIDEO
0.375	0.375	SIGN	LEFT	GUIDE, BIKE ROUTE
0.842	0.842	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT

CHCH: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0113: CRAVENS TERRACE ROAD

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

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.842	0.842	INTERSECTION	LEFT	PAVED ROUTE (LOOKOUT MOUNTAIN SCENIC HIGHWAY / STATE ROUTE 148 / NON NPS)
0.842	0.842	INTERSECTION	RIGHT	PAVED ROUTE (LOOKOUT MOUNTAIN SCENIC HIGHWAY / STATE ROUTE 148 / NON NPS)
0.842	0.842	SIGN	N/A	WARNING, DEAD END
0.842	0.842	SIGN	RIGHT	REGULATORY, STOP
0.842	0.842	ROUTE END	N/A	TO TENNESSEE STATE ROUTE 148

Section 10 Appendix



Chickamauga and Chattanooga National Military 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.

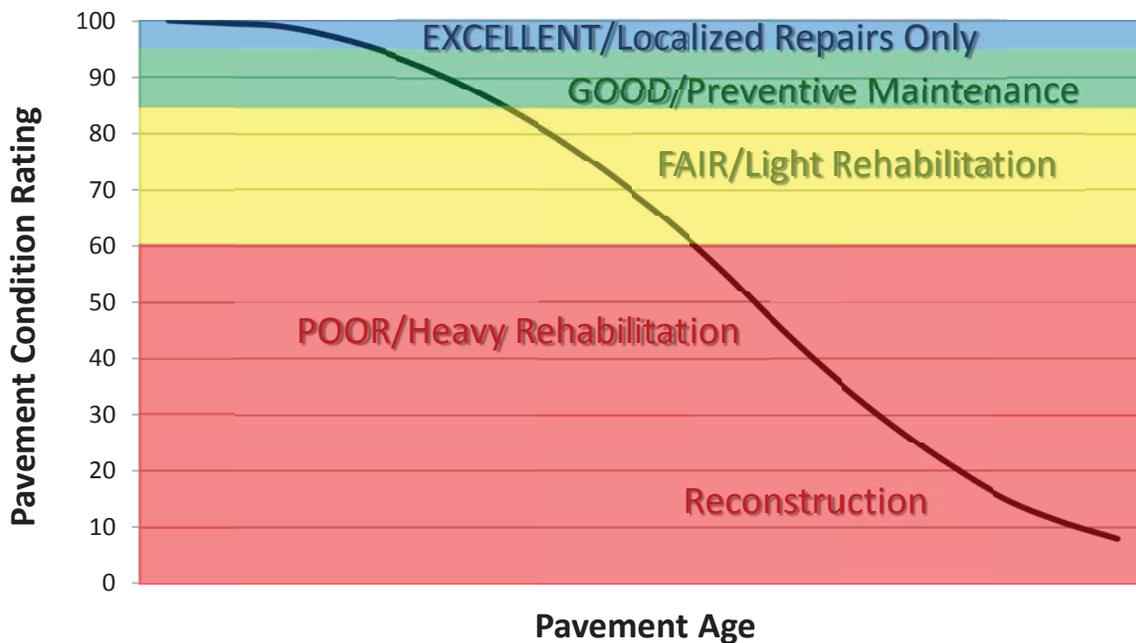
Explanation of the Excellent, Good, Fair and Poor Condition Descriptions

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.

Condition Categories and Treatments



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:

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

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

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

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

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

POOR (<=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:

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

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

Longitudinal Crack Index

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

Where:

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

These values are ≥ 0 and can exceed 100.

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

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

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

Percent of interval length is computed as:

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

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

Structural Crack Index

$$SC_INDEX = [100 - ((100 - AC_INDEX) + (100 - LC_INDEX))]$$

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

Transverse Crack Index

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

Where:

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

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

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

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

Number of cracks is computed as:

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

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

Patching Index

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

Where:

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

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

Percent of total area is computed as:

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

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

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

Rutting Index

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

Where:

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

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

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

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

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

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

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

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

Roughness Condition Index (Asphalt)

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

Where:

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

Average IRI is computed as:

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

There is no applicable threshold for failure for this index.

Roughness Condition Index (Concrete)

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

For concrete, PCR = RCI

Surface Condition Rating Index

SCR = *Lowest* Index Value Of: [SC_INDEX, TC_INDEX, PATCH_INDEX, RUT_INDEX]

Note: The modified SCR equation above combines AC_INDEX and LC_INDEX, and considers that a single AC/LC index value of the Structural Crack Index (SC_INDEX). The lowest of the four computed index values (SC_INDEX, TC_INDEX, PATCH_INDEX, or RUT_INDEX) becomes the SCR.

Where:

See above for determinations of SC_INDEX, TC_INDEX, PATCH_INDEX and RUT_INDEX.

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

Data Collection Vehicle Subsystems

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

<u>TERM OR ABBREVIATION</u>	<u>DESCRIPTION OR DEFINITION</u>
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