



Federal Lands Highway Road Inventory Program

Road Inventory and Condition Assessment

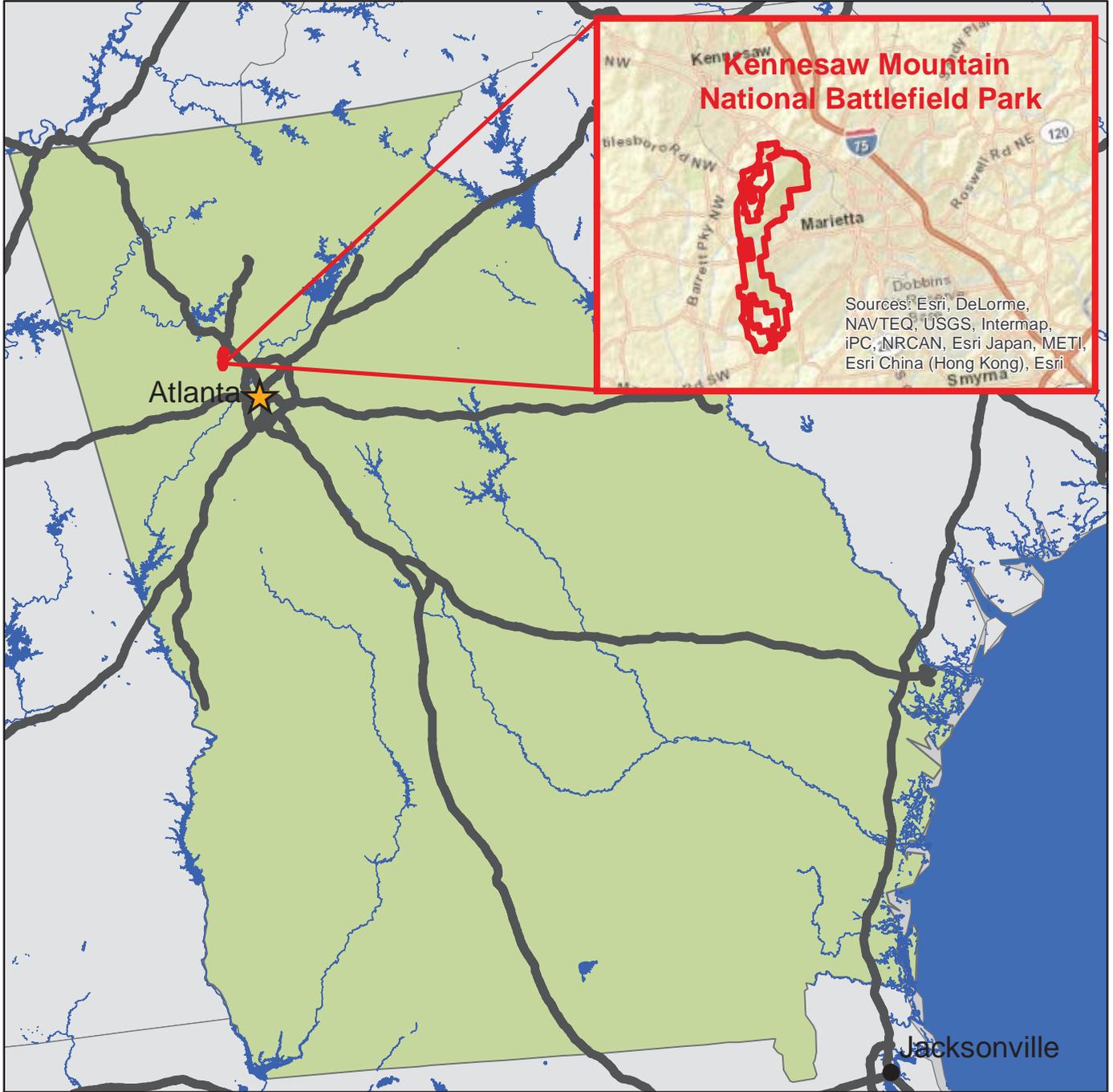


Kennesaw Mountain National Battlefield Park KEMO

Cycle 5 Report

**Prepared By: Federal Highway Administration
Road Inventory Program (RIP)
Data Collected: 11/2012
Report Date: 07/2013**

Kennesaw Mountain National Battlefield Park in Georgia





DCV = Data Collection Vehicle

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Section 1 Introduction



Kennesaw Mountain National Battlefield 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

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Section 2

Park Route Inventory



Kennesaw Mountain National Battlefield Park



Federal Lands Highway
Road Inventory Program

Cycle 5 NPS/RIP Route ID Report

Road Inventory Program 07/06/2013

(Numerical By Route #)

Page 1 of 5

Shading Color Key:
Red text denotes approx. mileage

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

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

Blue = All Paved Parking Areas

Green = All Unpaved Parking Areas

■ = Concession Route Flag ON

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

** DCV - Data Collection Vehicle NC - Not Collected

KEMO

KENNESAW MOUNTAIN NATIONAL BATTLEFIELD 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
0001	5	115206		POWDER SPRINGS ROAD	FROM EAST PARK BOUNDARY LOCATED AT BRICK PARK SIGN NEAR INTERSECTION WITH HAMMOND WOODS CIRCLE TO WEST PARK BOUNDARY LOCATED APPROXIMATELY 200FT BEFORE KROGER SHOPPING CENTER	SOUTH	0.72	0.00	0.72	7		AS	2
0002	5	115203		DALLAS HIGHWAY / WHITLOCK AVENUE	FROM WEST PARK BOUNDARY AT INTERSECTION WITH ROUTE 0014 (JOHN WARD ROAD) TO EAST PARK BOUNDARY	SOUTH	0.68	0.00	0.68	7		AS	2
0010	5	45842		KENNESAW MOUNTAIN DRIVE	FROM ROUTE 0900 (VISITOR CENTER PARKING) TO ROUTE 0902 (KENNESAW MOUNTAIN PARKING)	NORTH	1.53	0.00	1.53	1		AS	1
0011	5	115200		STILESBORO ROAD	FROM ROUTE 0013 (OLD HIGHWAY 41) TO WEST PARK BOUNDARY LOCATED AT INTERSECTION WITH GILBERT ROAD	NORTH	1.33	0.00	1.33	1		AS	1
0012	5	115201		KENNESAW AVENUE	FROM BEGINNING OF ROUTE 0013 (OLD HIGHWAY 41) TO PARK BOUNDARY	NORTH	0.36	0.00	0.36	1		AS	1
0013	5	115198		OLD HIGHWAY 41	FROM EAST PARK BOUNDARY AT INTERSECTION WITH ROUTE 0012 (KENNESAW AVENUE) TO WEST PARK BOUNDARY	NORTH	1.10	0.00	1.10	1		AS	1
0014	5	115204		JOHN WARD ROAD	FROM BEGINNING OF ROUTE 0002 (DALLAS HIGHWAY / WHITLOCK AVENUE) TO INTERSECTION WITH CHEATHAM HILL ROAD	SOUTH	0.57	0.00	0.57	1		AS	2
0015	5	115202		BURNT HICKORY ROAD	FROM WEST PARK BOUNDARY (BRICK PARK SIGN) TO EAST PARK BOUNDARY (BRICK PARK SIGN)	NORTH	1.28	0.00	1.28	1		AS	1
0016	5	115199		RIDENOUR ROAD	FROM INTERSECTON OF ROUTE 0013 (OLD HIGHWAY 41) TO RIDENOUR SUBDIVISION (ON LEFT) AND PRIVATE PROPERTY (ON RIGHT)	NORTH	0.23	0.00	0.23	1		AS	1
0017	5	115207		HARDAGE DRIVE	FROM ROUTE 0002 (DALLAS HIGHWAY / WHITLOCK AVENUE) TO PARK BOUNDARY	SOUTH	0.06	0.00	0.06	1		AS	2

Cycle 5 NPS/RIP Route ID Report

Shading Color Key:
Red text denotes approx. mileage

White = Paved Routes, DCV Driven

Yellow = Unpaved Routes, DCV not Driven

Blue = All Paved Parking Areas

Green = All Unpaved Parking Areas

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= Concession Route Flag ON

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KEMO

KENNESAW MOUNTAIN NATIONAL BATTLEFIELD 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								
0018ZZ	5	115205		CHEATHAM HILL ROADS	FROM PARK BOUNDARY	TO ROUTE 0001 (POWDER SPRINGS ROAD)	SOUTH	0.76	0.00	0.76	1		AS	2
0100	5	45886		CHEATHAM HILL DRIVE	FROM WHITLOCK AVENUE	TO ROUTE 0905 (ILLINOIS MONUMENT PARKING)	SOUTH	0.61	0.00	0.61	2		AS	2
0101	NC	69239		MOUNTAIN TOP UTILITY ROAD	FROM PARKING LOT MOUNTAIN TOP	TO COMMUNICATION TOWER	SOUTH	0.00	0.09	0.09	2		NV	
0200	NC	45897		OLD JOHN WARD ROAD	FROM STATE HIGHWAY 120 (DALLAS HIGHWAY)	TO PRIVATE PROPERTY	SOUTH	0.00	0.75	0.75	4		GR	
0201	NC	46777		GILBERT ROAD	FROM ROUTE 0011 (STILESBORO ROAD)	TO PARK BOUNDARY	NORTH	0.00	0.30	0.30	4		GR	
0400	5	104122		SERVICE ROAD	FROM ROUTE 0010 (KENNESAW MOUNTAIN DRIVE)	TO ROUTE 0904 (MAINTENANCE FACILITY)	NORTH	0.08	0.00	0.08	6		AS	1
0403	NC	69237		FIRE ROAD TO RECREATION FIELD #2	FROM ROUTE 0013 (OLD HIGHWAY 41)	TO RECREATION FIELD 2	NORTH	0.00	0.10	0.10	5		NV	
0404	NC	69259		BURNT HICKORY FIRE ROAD	FROM ROUTE 0015 (BURNT HICKORY ROAD)	TO STATE HIGHWAY 120 (DALLAS HIGHWAY)	NORTH	0.00	1.40	1.40	5		NV	
0405	NC	69263		BURNT HICKORY TO BRAMLETT BOTTOMS FIRE ROAD	FROM ROUTE 0015 (BURNT HICKORY ROAD)	TO BRAMLETT BOTTOMS FIELD	NORTH	0.00	0.50	0.50	5		NV	
0406	NC	69118		CCC FIRE ROAD	FROM ROUTE 0012 (KENNESAW AVENUE)	TO ROUTE 0015 (BURNT HICKORY ROAD)	NORTH	0.00	2.40	2.40	5		NV	
0407	NC	69094		KENNESAW MOUNTAIN FIRE ROAD	FROM ROUTE 0010 (KENNESAW MOUNTAIN DRIVE)	TO DEAD END	NORTH	0.00	0.30	0.30	5		NV	
0600	5	240148		WHITE CIRCLE ROAD	FROM ROUTE 0013 (OLD HIGHWAY 41)	TO PARK BOUNDARY	NORTH	0.05	0.00	0.05	8		AS	1
0601	5	240149		WHITE ROAD COURT	FROM ROUTE 0600 (WHITE CIRCLE ROAD)	TO DEAD END	NORTH	0.18	0.00	0.18	8		AS	1
0602	5	240150		MOSSY ROCK ROAD	FROM ROUTE 0011 (STILESBORO ROAD)	TO RAILROAD TRACKS	NORTH	0.09	0.00	0.09	8		AS	1
0900	5	45841		VISITOR CENTER PARKING	FROM ROUTE 0011 (STILESBORO ROAD)	TO ROUTE 0010 (KENNESAW MOUNTAIN DRIVE)	NORTH	0.00	0.00	0.00		44,495	AS	1
0901	5	104128		VISITOR CENTER SERVICE VEHICLE PARKING	ADJACENT TO ROUTE 0010 (KENNESAW MOUNTAIN DRIVE)		NORTH	0.00	0.00	0.00		2,304	AS	1

Cycle 5 NPS/RIP Route ID Report

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KENNESAW MOUNTAIN NATIONAL BATTLEFIELD 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
0902	5	45844		KENNESAW MOUNTAIN PARKING	FROM END OF ROUTE 0010 (KENNESAW MOUNTAIN DRIVE)	TO PARKING	NORTH	0.00	0.00	0.00		15,326	AS	1
0903	5	104166		HEADQUARTERS ADMINISTRATIVE PARKING	FROM ROUTE 0400 (SERVICE ROAD)	TO PARKING	NORTH	0.00	0.00	0.00		2,969	AS	1
0904	5	104120		MAINTENANCE FACILITY	FROM END OF ROUTE 0400 (SERVICE ROAD)	TO PARKING	NORTH	0.00	0.00	0.00		14,754	AS	1
0905	5	45891		ILLINOIS MONUMENT PARKING	FROM END OF ROUTE 0100 (CHEATHAM HILL DRIVE)	TO PARKING	SOUTH	0.00	0.00	0.00		18,594	AS	2
0906	5	104130		CHEATHAM HILL ROAD PICNIC AREA PARKING	FROM ROUTE 0018ZZ (CHEATHAM HILL ROADS)	TO ROUTE 0018ZZ (CHEATHAM HILL ROADS)	SOUTH	0.00	0.00	0.00		29,717	AS	2
0907	5	104168		KOLB'S FARM PARKING	ADJACENT TO CALLAWAY ROAD		SOUTH	0.00	0.00	0.00		2,143	AS	2
0908	5	104126		BURNT HICKORY PARKING	FROM ROUTE 0015 (BURNT HICKORY ROAD)	TO ROUTE 0015 (BURNT HICKORY ROAD)	NORTH	0.00	0.00	0.00		23,543	AS	1
0909	NC	104170		GILBERT ROAD PARKING	FROM ROUTE 0201 (GILBERT ROAD)	TO PARKING	NORTH	0.00	0.00	0.00		1,300	GR	
0911	NC	111767		HORSE TRAILER PULL OFF LOOP AND PARKING	FROM ROUTE 0018ZZ (CHEATHAM HILL ROADS)	TO PARKING	SOUTH	0.00	0.00	0.00		19,000	GR	
0912	5	238972		OLD HIGHWAY 41 PARKING	FROM ROUTE 0013 (OLD HIGHWAY 41)	TO PARKING	NORTH	0.00	0.00	0.00		90,480	AS	1

Cycle 5 NPS/RIP Route ID Report

Road Inventory Program 07/06/2013

(Numerical By Route #)

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Shading Color Key:
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approx. mileage

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Blue = All Paved Parking Areas
 = Concession Route Flag ON

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CYCLE 5 SUMMARY TOTALS FOR KENNESAW MOUNTAIN NATIONAL BATTLEFIELD PARK

CYCLE 5 ROUTE TOTALS

DCV Driven Route Miles	9.61
Manually Rated Route Miles	0.00
TOTAL PARK ROUTE MILES COLLECTED IN CYCLE 5	9.61
Manually Rated Routes (SQFT)	0
TOTAL UNPAVED PARK ROUTE MILES	5.84

CYCLE 5 CONCESSION TOTALS

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

* CYCLE 5 PARKING AREA TOTALS

Paved Parking (SQFT)	244,325
Unpaved Parking (SQFT)	20,300
TOTAL PARKING (SQFT)	264,625

CYCLE 5 WEIGHTED AVERAGE PARK VALUES

DCV Driven PCR	67
**Manually Rated Routes PCR	N/A
**Parking PCR	88
***Total Equivalent Lane Miles	26.08

* - 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

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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 KEMO

Road Inventory Program 07/06/2013

(Numerical By Subcomponent #)

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White = Paved Routes, DCV Driven

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KEMO

KENNESAW MOUNTAIN NATIONAL BATTLEFIELD PARK

Rte. No.	FMSS No.	Cycle Collected	Route Name	Route Description	Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
0018ZZ	115205	5	CHEATHAM HILL ROADS	FROM PARK BOUNDARY TO ROUTE 0001 (POWDER SPRINGS ROAD)		1	0.76	0.00	0.76	

KEMO-0018ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Name	Route Description	Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
0018AZ	115205	5	CHEATHAM HILL ROAD NORTH	FROM PARK BOUNDARY TO PARK BOUNDARY		1	0.33	0.00	0.33	
0018BZ	115205	5	CHEATHAM HILL ROAD SOUTH	FROM PARK BOUNDARY TO ROUTE 0001 (POWDER SPRINGS ROAD)		1	0.43	0.00	0.43	

ROUTE IDENTIFICATION CHANGES TO PAVED ROUTES FROM PREVIOUS CYCLE - KEMO

ROUTES ADDED FROM PREVIOUS INVENTORY:			
Route #	Route Name	Reason for Addition	Comments
0001	POWDER SPRINGS ROAD	OTHER	ROUTE ADDED TO INVENTORY IN CYCLE 5.
0002	DALLAS HIGHWAY / WHITLOCK AVENUE	OTHER	ROUTE ADDED TO INVENTORY IN CYCLE 5.
0011	STILESBORO ROAD	OTHER	ROUTE ADDED THROUGH ALIGNMENT AFTER CYCLE 3.
0012	KENNESAW AVENUE	OTHER	ROUTE ADDED THROUGH ALIGNMENT AFTER CYCLE 3.
0013	OLD HIGHWAY 41	OTHER	ROUTE ADDED THROUGH ALIGNMENT AFTER CYCLE 3.
0014	JOHN WARD ROAD	OTHER	ROUTE ADDED THROUGH ALIGNMENT AFTER CYCLE 3.
0015	BURNT HICKORY ROAD	OTHER	ROUTE ADDED THROUGH ALIGNMENT AFTER CYCLE 3.
0016	RIDENOUR ROAD	OTHER	ROUTE ADDED THROUGH ALIGNMENT AFTER CYCLE 3.
0017	HARDAGE DRIVE	OTHER	ROUTE ADDED THROUGH ALIGNMENT AFTER CYCLE 3.
0018ZZ	CHEATHAM HILL ROADS	OTHER	ROUTE ADDED THROUGH ALIGNMENT AFTER CYCLE 3.
0600	WHITE CIRCLE ROAD	OTHER	ROUTE ADDED TO INVENTORY IN CYCLE 5.

ROUTE IDENTIFICATION CHANGES TO PAVED ROUTES FROM PREVIOUS CYCLE - KEMO

ROUTES ADDED FROM PREVIOUS INVENTORY:

Route #	Route Name	Reason for Addition	Comments
0601	WHITE ROAD COURT	OTHER	ROUTE ADDED TO INVENTORY IN CYCLE 5.
0602	MOSSY ROCK ROAD	OTHER	ROUTE ADDED TO INVENTORY IN CYCLE 5.
0912	OLD HIGHWAY 41 PARKING	RECENTLY CONSTRUCTED ROUTE	NEW PARKING LOT CONSTRUCTED AND ADDED TO THE RIP INVENTORY IN CYCLE 5.

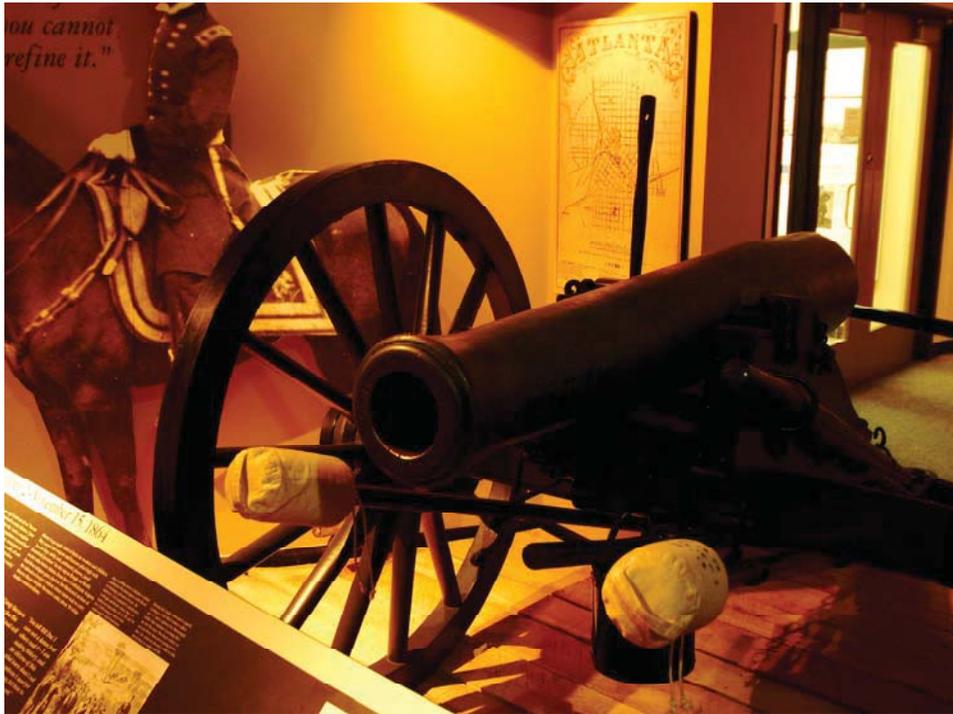
ROUTES MODIFIED FROM PREVIOUS INVENTORY:

Route #	Route Name	Type of Modification	Comments
0906	CHEATHAM HILL ROAD PICNIC AREA PARKING	RECONSTRUCTED	GPS RECOLLECTED TO SHOW THE RECONSTRUCTED PARKING LOT SHAPE.
0907	KOLB'S FARM PARKING	SURFACE TYPE CHANGE	PARKING LOT WAS GRAVEL IN CYCLE 3. GPS WAS COLLECTED IN CYCLE 5 AS IT IS NOW PAVED.
0908	BURNT HICKORY PARKING	RECONSTRUCTED	GPS RECOLLECTED TO SHOW THE RECONSTRUCTED PARKING LOT SHAPE.

OTHER CHANGES FROM PREVIOUS INVENTORY:

Route #	Route Name	Type of Change	Comments
0400	SERVICE ROAD	FUNCTIONAL CLASS CHANGE	FUNCTIONAL CLASS CHANGED FROM 5 TO 6 BECAUSE IT IS A NONPUBLIC ROAD.
0905	ILLINOIS MONUMENT PARKING	ROUTE NAME	ROUTE NAME CHANGED FROM "CHEATHAM HILL PARKING".

Section 3
Park Summary Information



Kennesaw Mountain
National Battlefield Park



**Federal Lands Highway
Road Inventory Program**

KEMO: 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	2.69	27.96%	1.27	13.20%	1.94	20.17%	1.32	13.72%	7.22
2	0.04	0.42%	0.10	1.04%	0.16	1.66%	0.31	3.22%	0.61
3									
4									
5									
6			0.04	0.42%	0.02	0.21%	0.02	0.21%	0.08
7	0.06	0.62%	0.12	1.25%	0.46	4.78%	0.76	7.90%	1.40
8	0.23	2.39%			0.04	0.42%	0.04	0.42%	0.31
Totals	3.02	31.39%	1.53	15.90%	2.62	27.23%	2.45	25.47%	9.62

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.

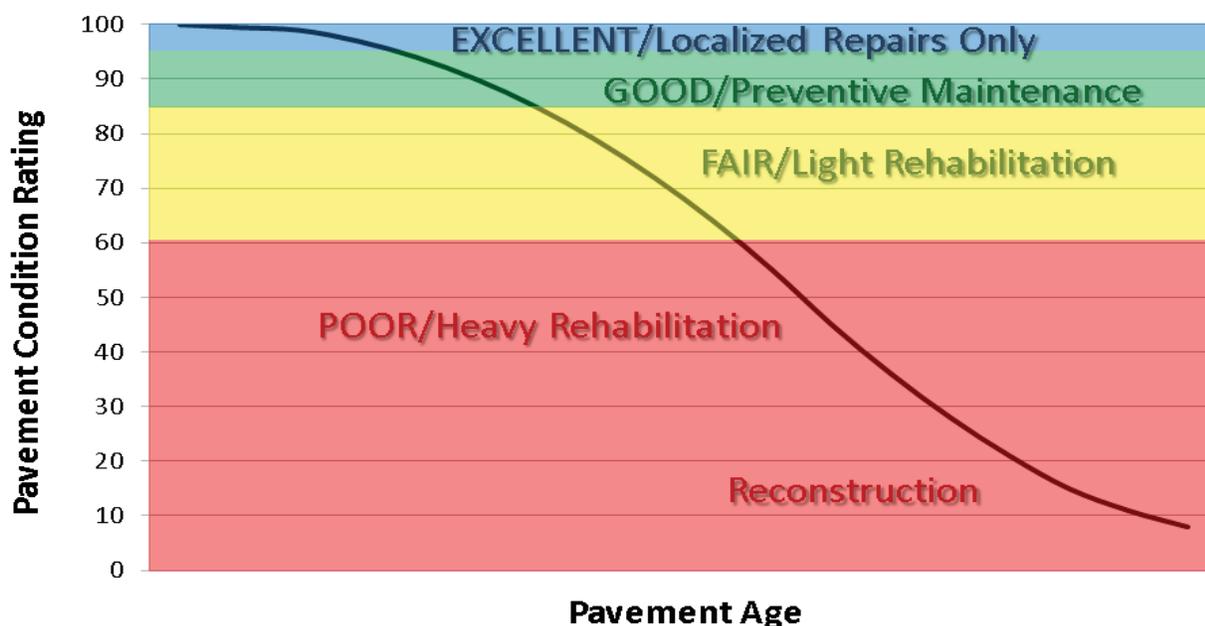
Explanation of the Excellent, Good, Fair and Poor Condition Descriptions

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.

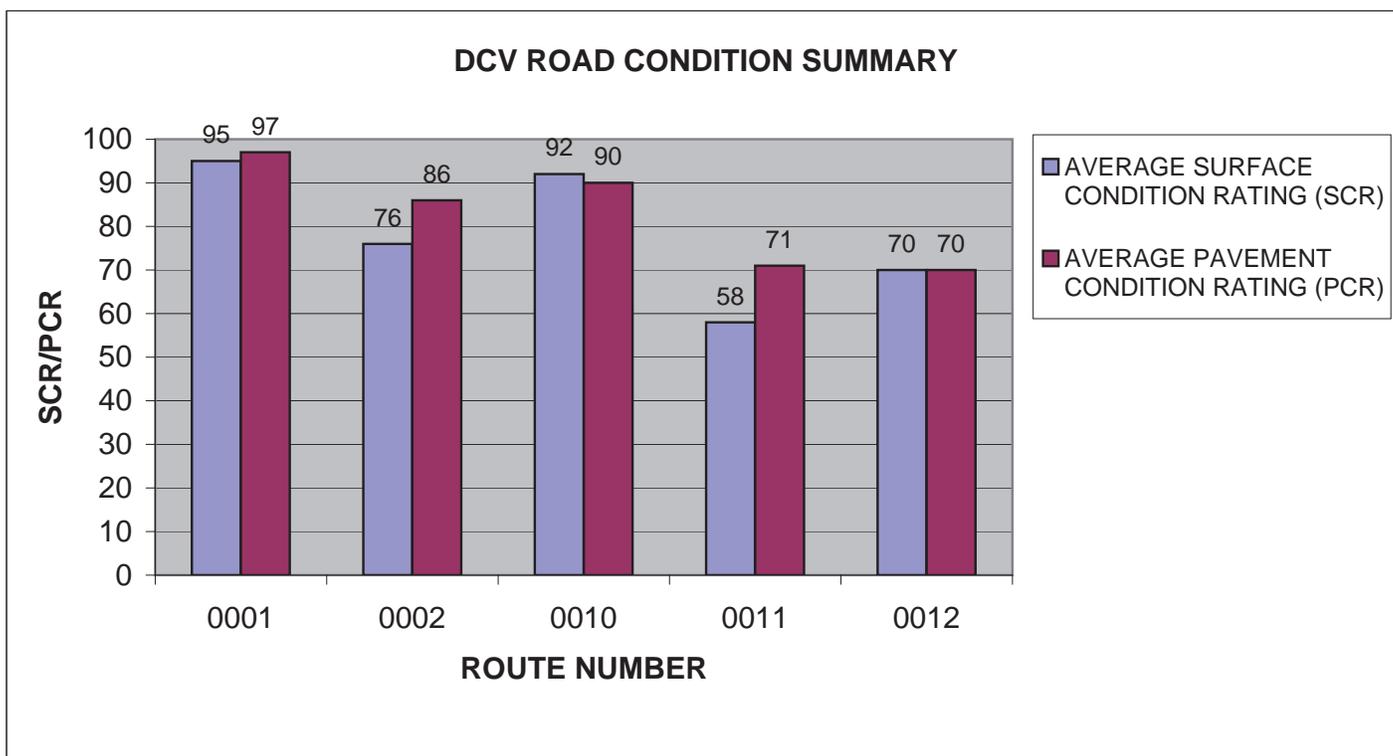
Condition Categories and Treatments



KEMO: DCV ROAD CONDITION SUMMARY

DCV - Data Collection Vehicle

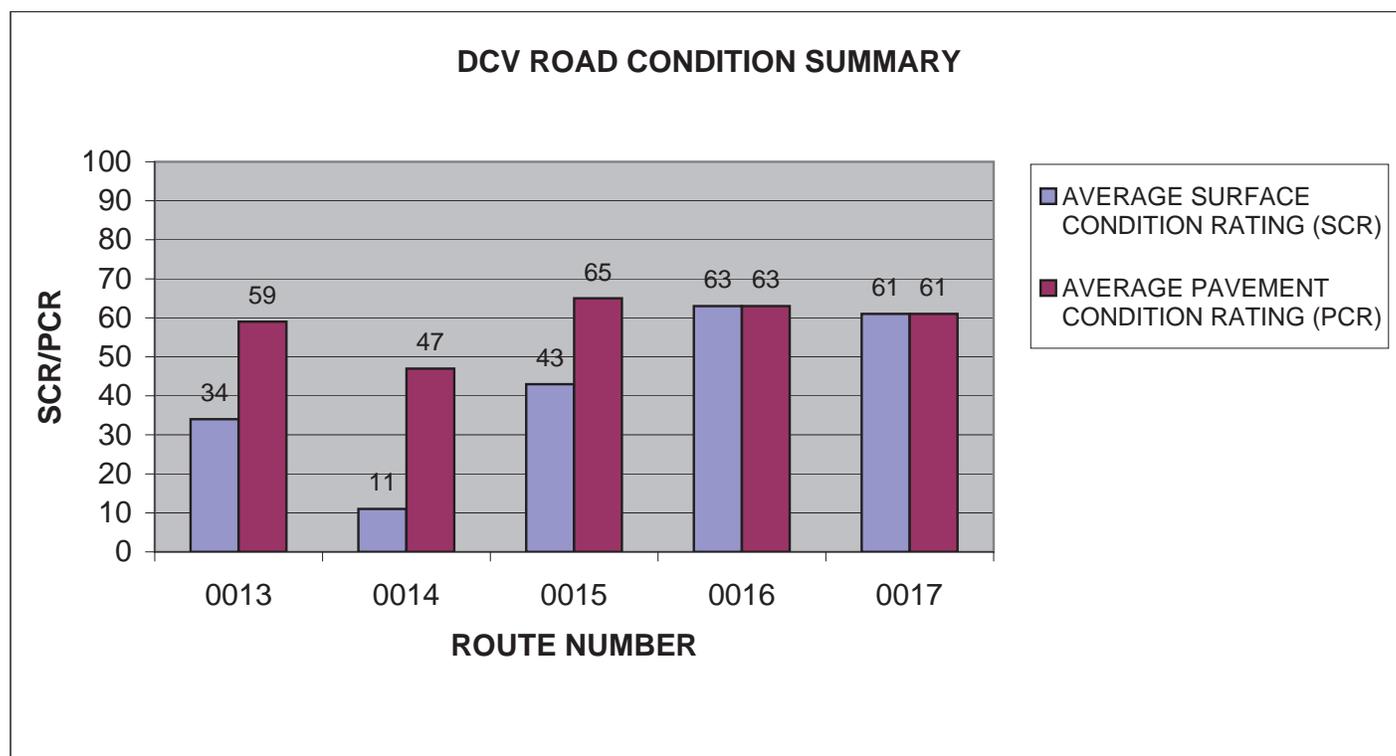
ROUTE NUMBER	ROUTE NAME	FUNCT CLASS	PAVED LENGTH	SURFACE TYPE	AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE PAVEMENT CONDITION RATING (PCR)
0001	POWDER SPRINGS ROAD	7	0.72	ASPHALT	95	97
0002	DALLAS HIGHWAY / WHITLOCK AVENUE	7	0.68	ASPHALT	76	86
0010	KENNESAW MOUNTAIN DRIVE	1	1.53	ASPHALT	92	90
0011	STILESBORO ROAD	1	1.33	ASPHALT	58	71
0012	KENNESAW AVENUE	1	0.36	ASPHALT	70	70



KEMO: DCV ROAD CONDITION SUMMARY

DCV - Data Collection Vehicle

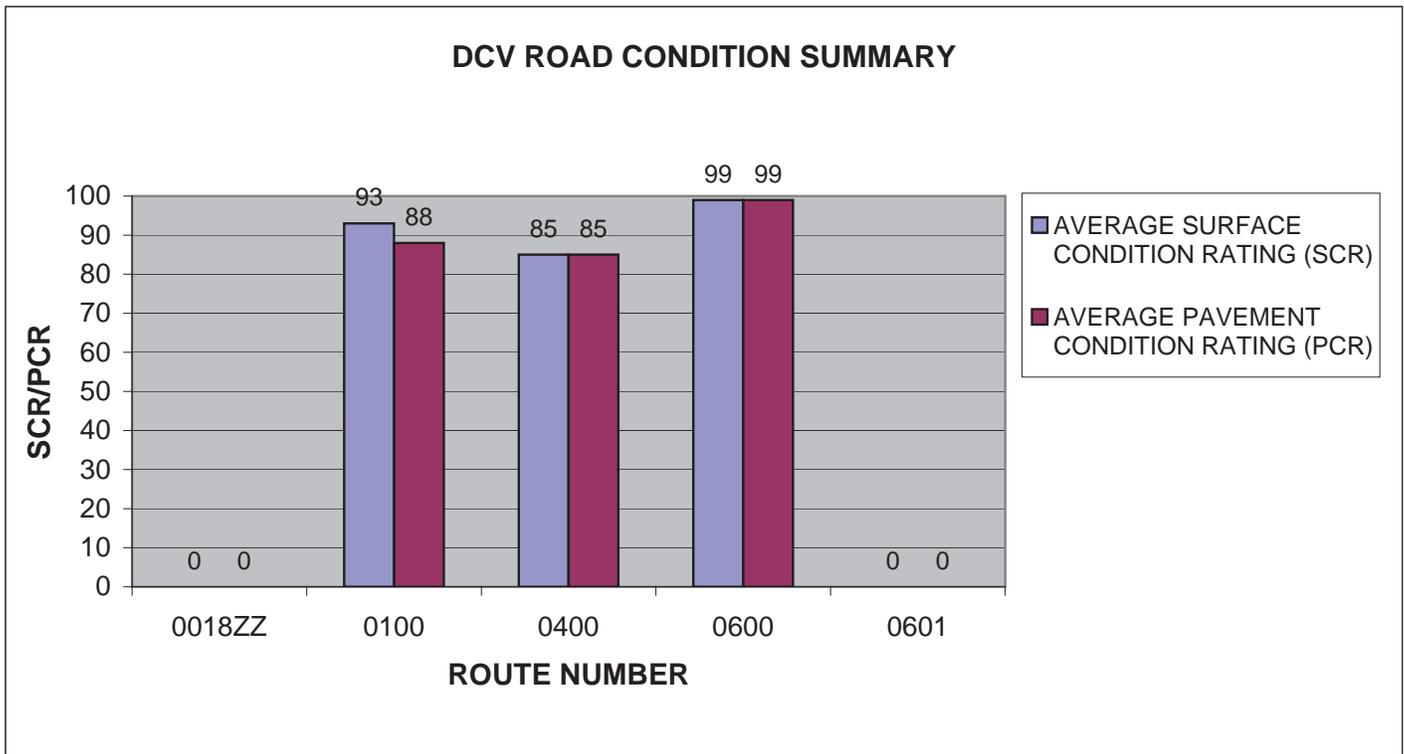
ROUTE NUMBER	ROUTE NAME	FUNCT CLASS	PAVED LENGTH	SURFACE TYPE	AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE PAVEMENT CONDITION RATING (PCR)
0013	OLD HIGHWAY 41	1	1.10	ASPHALT	34	59
0014	JOHN WARD ROAD	1	0.57	ASPHALT	11	47
0015	BURNT HICKORY ROAD	1	1.28	ASPHALT	43	65
0016	RIDENOUR ROAD	1	0.23	ASPHALT	63	63
0017	HARDAGE DRIVE	1	0.06	ASPHALT	61	61



KEMO: DCV ROAD CONDITION SUMMARY

DCV - Data Collection Vehicle

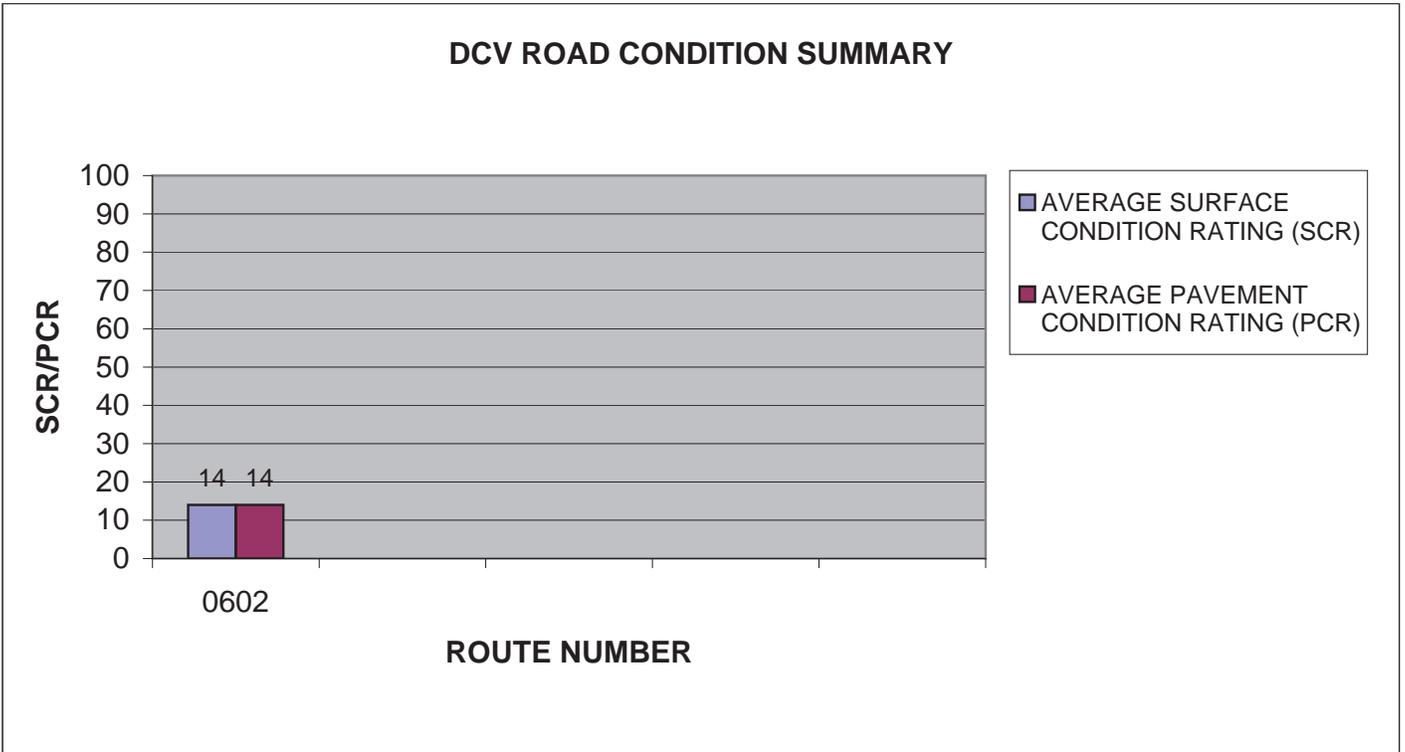
ROUTE NUMBER	ROUTE NAME	FUNCT CLASS	PAVED LENGTH	SURFACE TYPE	AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE PAVEMENT CONDITION RATING (PCR)
0018ZZ	CHEATHAM HILL ROADS	1	0.76	ASPHALT	0	0
0100	CHEATHAM HILL DRIVE	2	0.61	ASPHALT	93	88
0400	SERVICE ROAD	6	0.08	ASPHALT	85	85
0600	WHITE CIRCLE ROAD	8	0.05	ASPHALT	99	99
0601	WHITE ROAD COURT	8	0.18	ASPHALT	0	0



KEMO: DCV ROAD CONDITION SUMMARY

DCV - Data Collection Vehicle

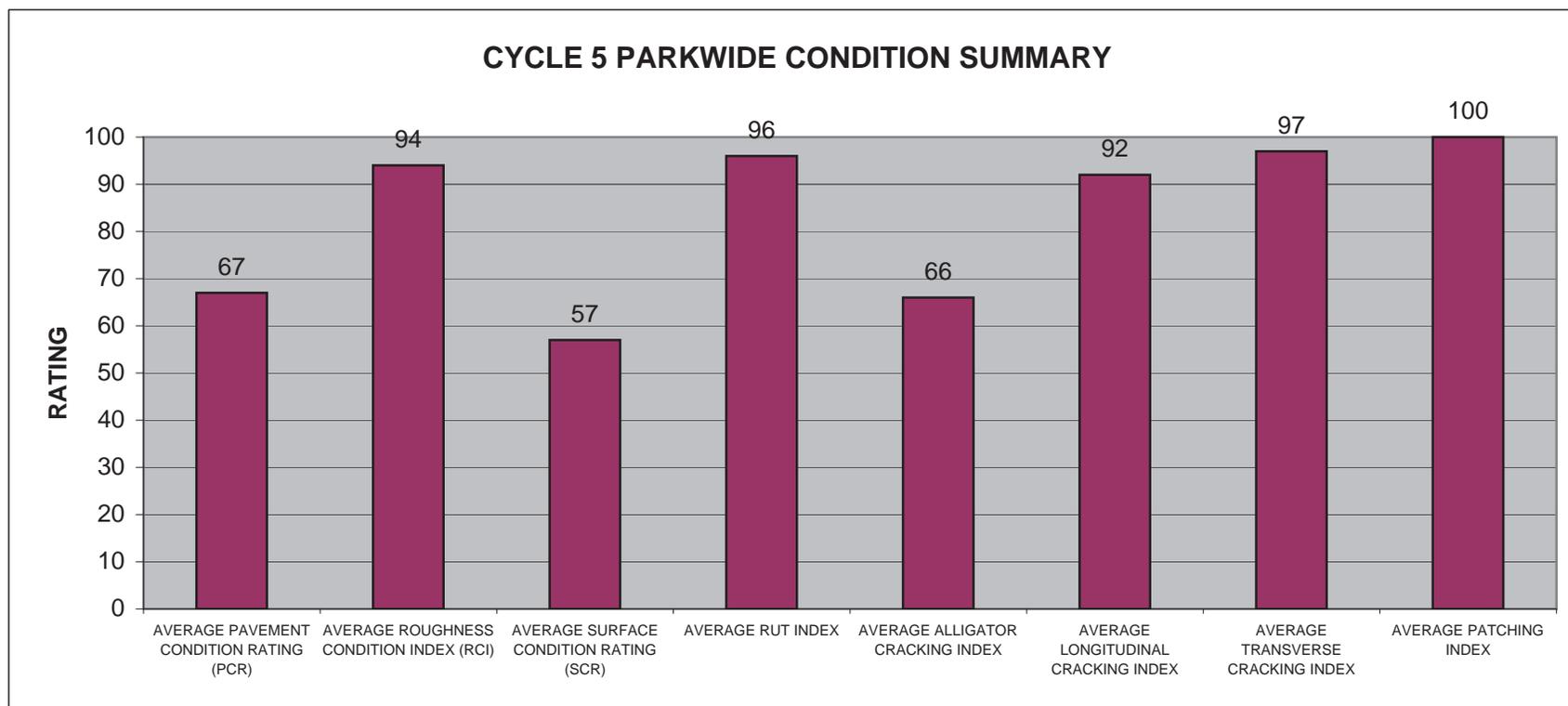
ROUTE NUMBER	ROUTE NAME	FUNCT CLASS	PAVED LENGTH	SURFACE TYPE	AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE PAVEMENT CONDITION RATING (PCR)
0602	MOSSY ROCK ROAD	8	0.09	ASPHALT	14	14



KEMO: PARKWIDE DCV CONDITION SUMMARY

AVERAGE PAVEMENT CONDITION RATING (PCR)	AVERAGE ROUGHNESS CONDITION INDEX (RCI)	AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE RUT INDEX	AVERAGE ALLIGATOR CRACKING INDEX	AVERAGE LONGITUDINAL CRACKING INDEX	AVERAGE TRANSVERSE CRACKING INDEX	AVERAGE PATCHING INDEX
67	94	57	96	66	92	97	100

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



Section 4 Park Route Location Maps

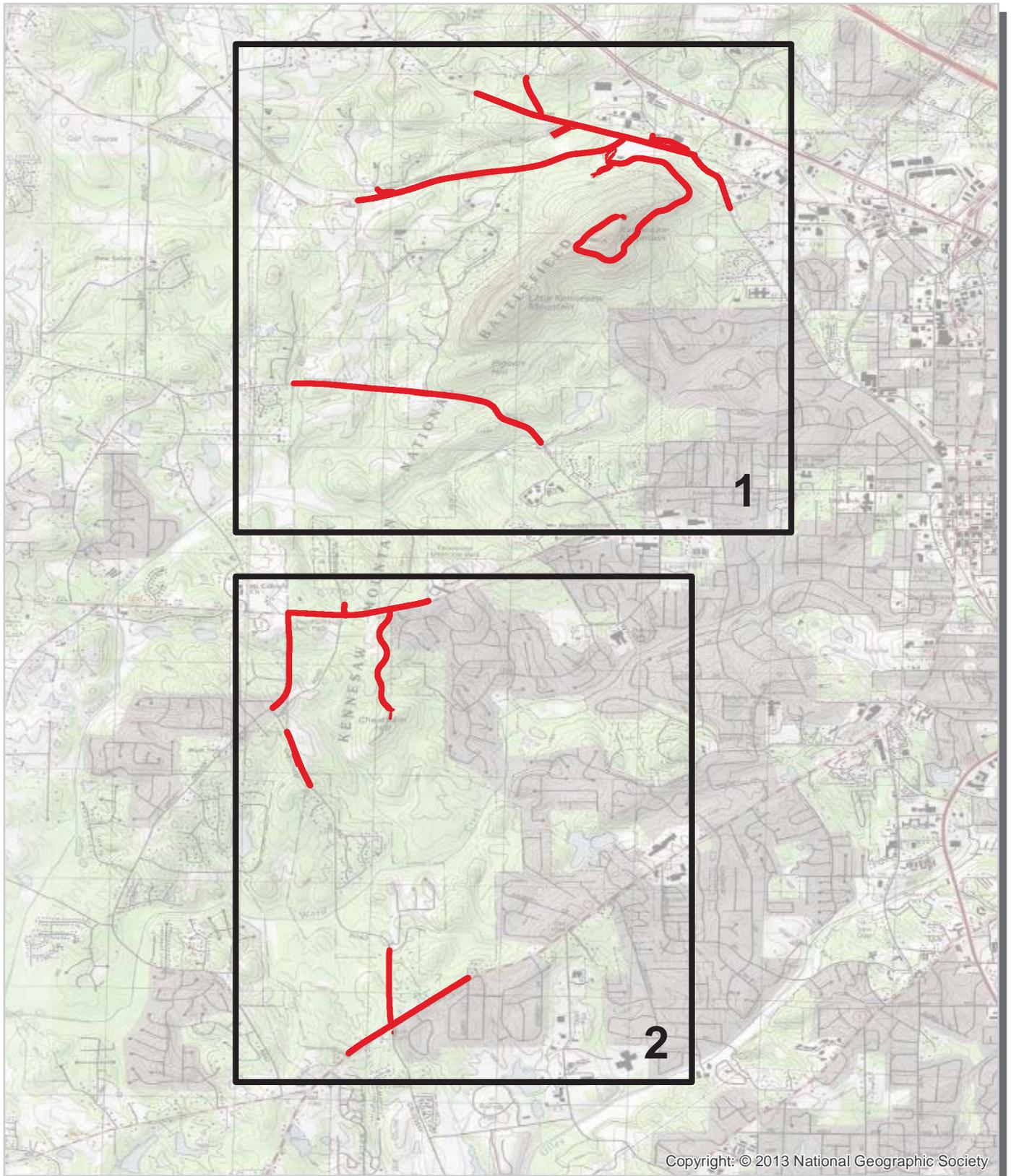


Kennesaw Mountain National Battlefield Park



Federal Lands Highway
Road Inventory Program

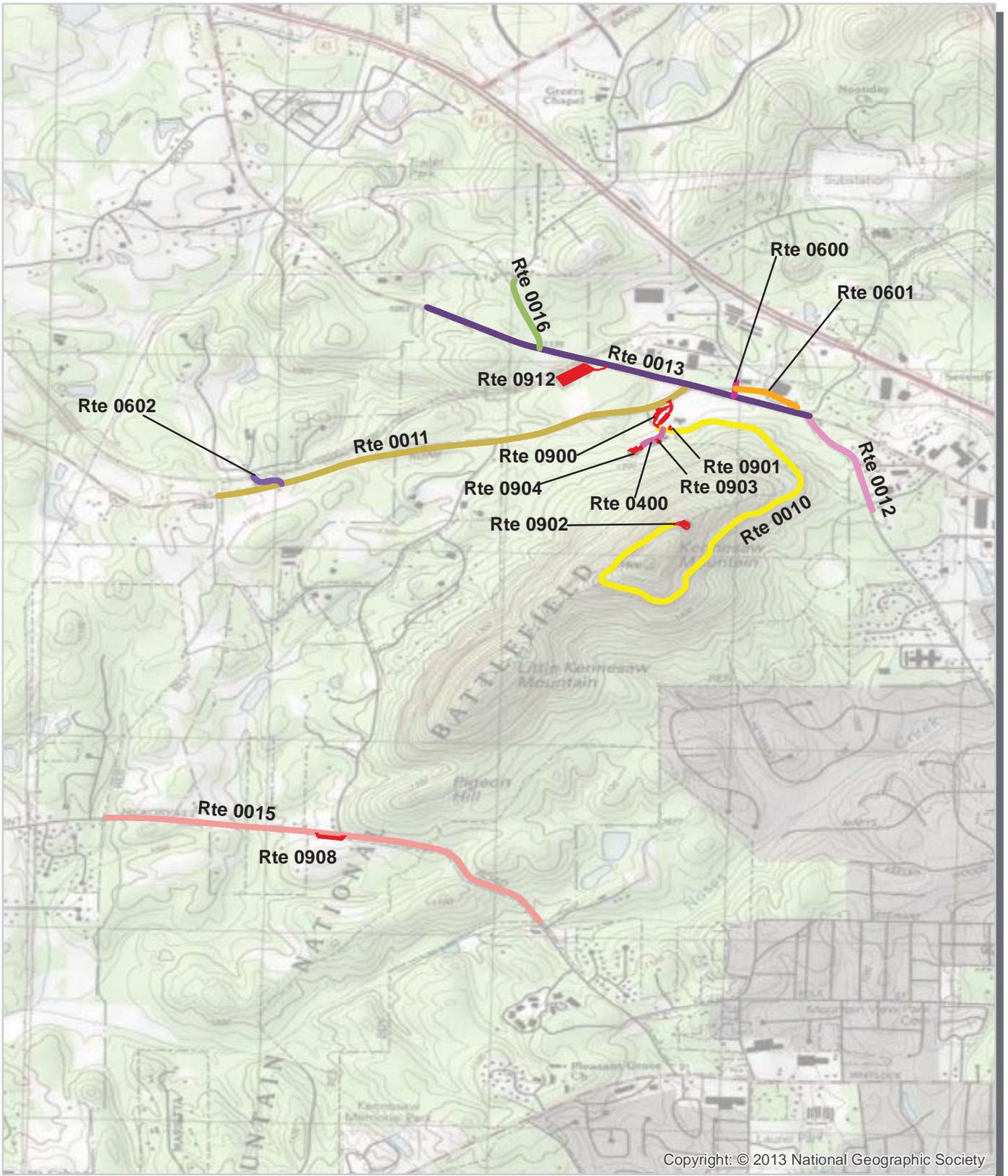
**Kennesaw Mountain National Battlefield Park
Route Location Map
Key Map**



— Cycle 5 Collected Routes



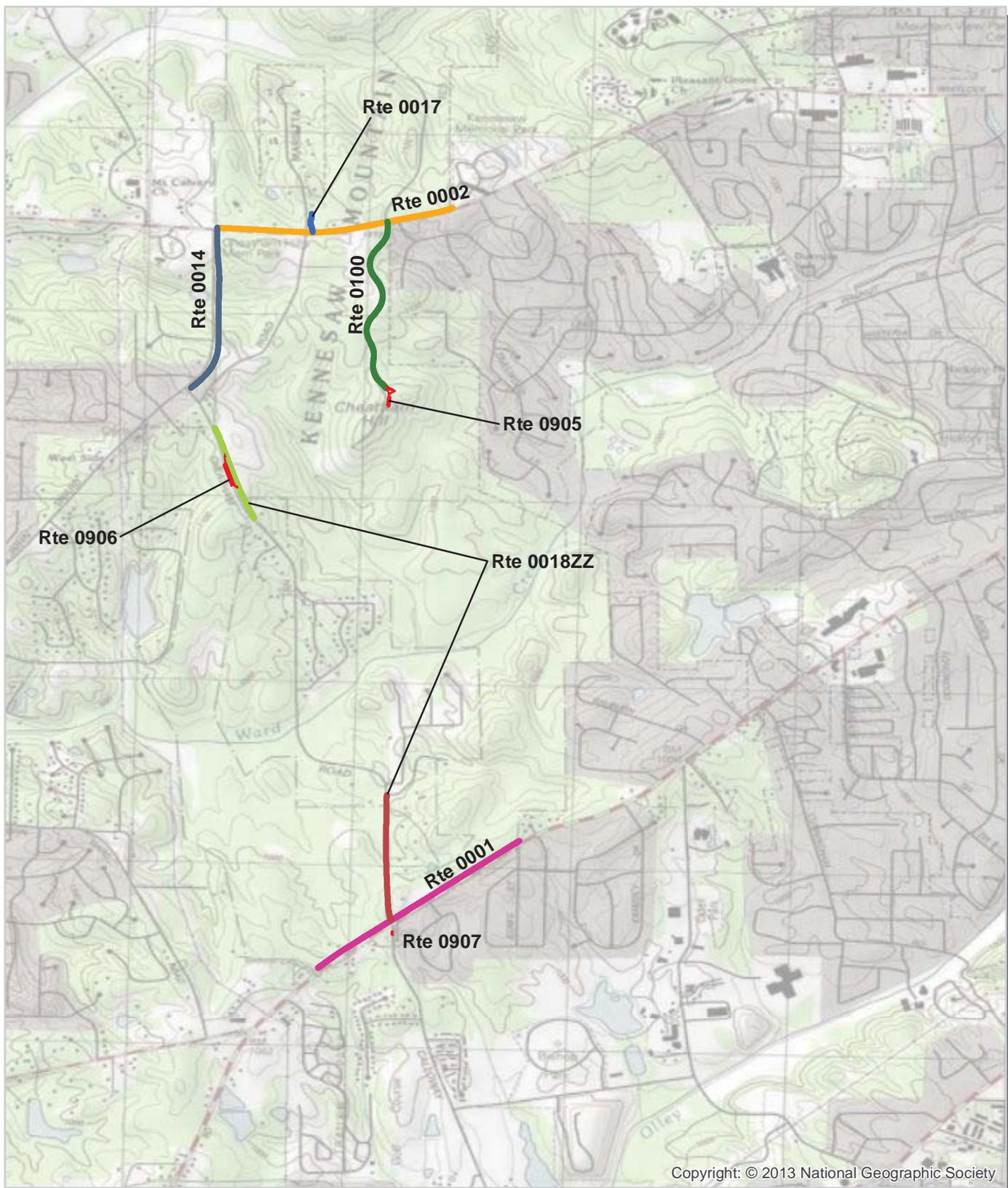
Kennesaw Mountain National Battlefield Park Route Location Map Area 1



Unique colors used to differentiate routes



Kennesaw Mountain National Battlefield Park Route Location Map Area 2



Unique colors used to differentiate routes

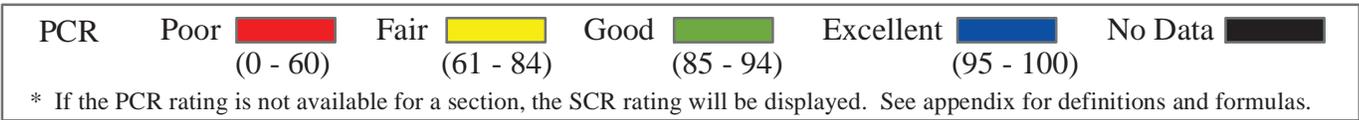
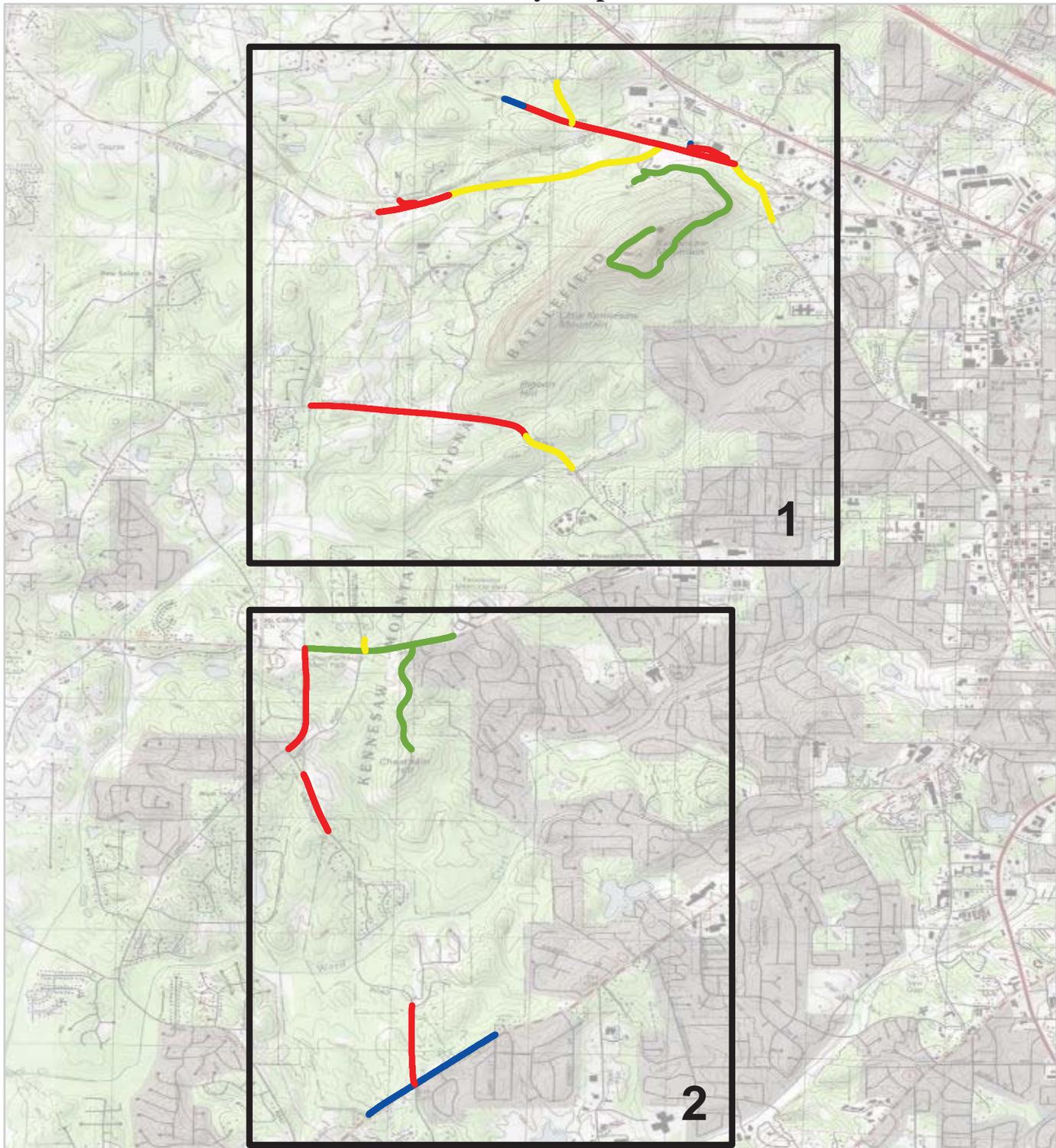


Kennesaw Mountain National Battlefield Park

Route Condition Map

PCR - Mile by Mile

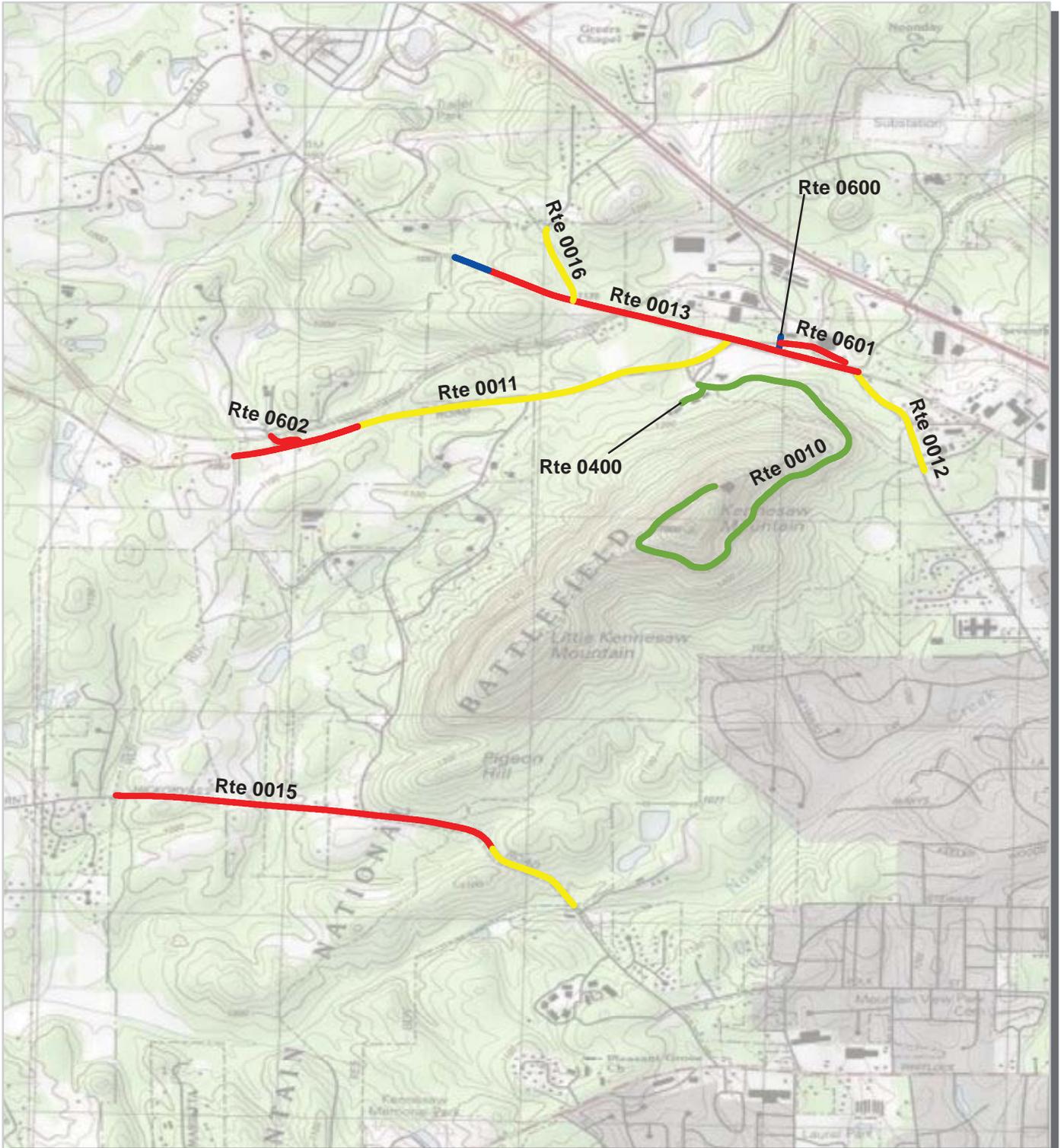
Key Map



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



Kennesaw Mountain National Battlefield Park Route Condition Map PCR - Mile by Mile Area 1



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

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

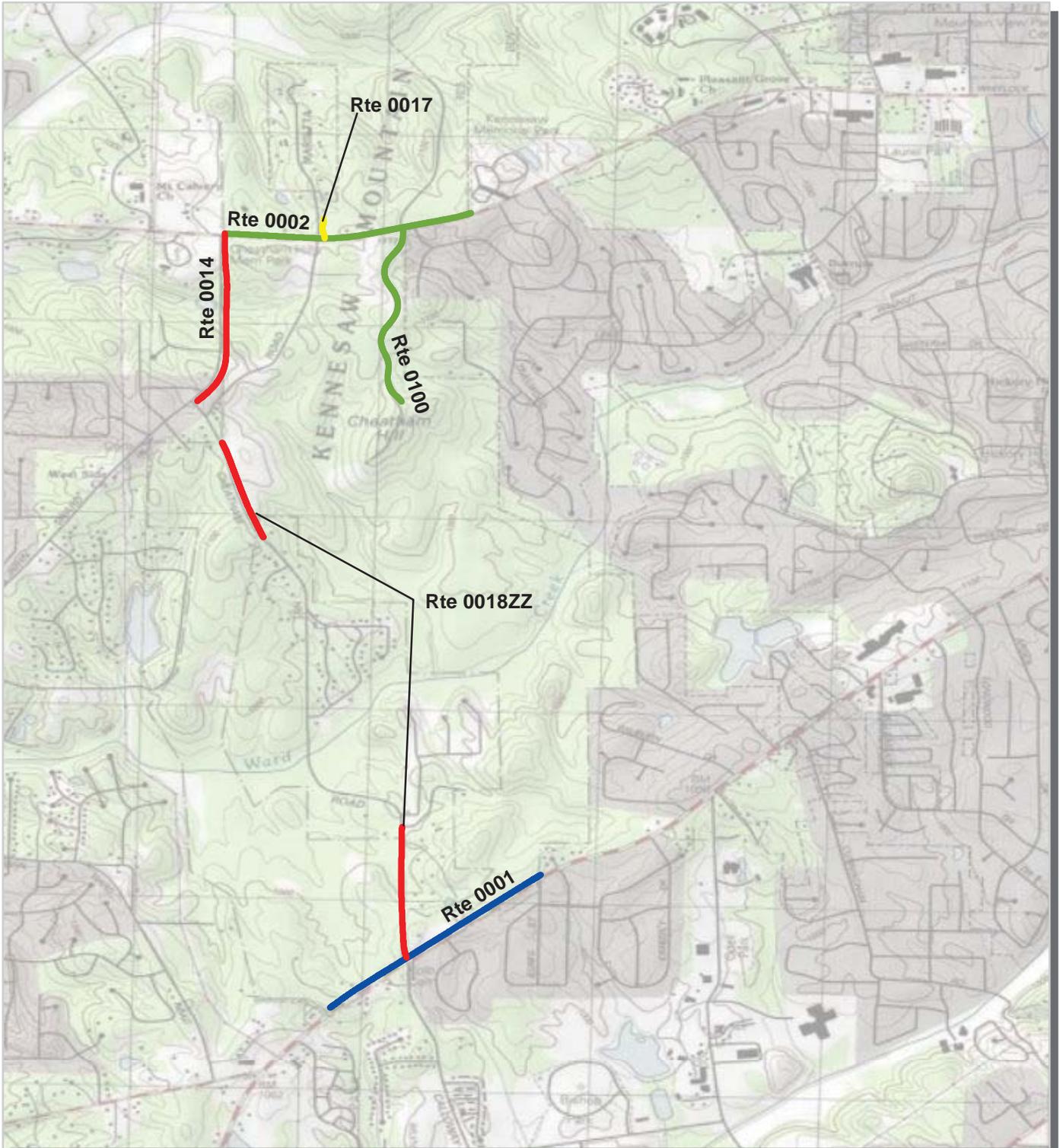


Kennesaw Mountain National Battlefield Park

Route Condition Map

PCR - Mile by Mile

Area 2



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

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

1
0.5
0
1

Miles

4-6

Section 5
Paved Route
Condition Rating Sheets



**Kennesaw Mountain
National Battlefield Park**



**Federal Lands Highway
Road Inventory Program**



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

ROUTE: 0001 POWDER SPRINGS ROAD
KEMO : KENNESAW MOUNTAIN NATIONAL BATTLEFIELD PARK

COLLECTED: 11/5/2012
TOTAL LENGTH: 0.72 Miles

SOUTHEAST REGION

Section Number	0				
Section Length (mi)	0.72				
Cross Section Information					
Number of Lanes	5				
Paved Width (ft)	62				
Lane Width (ft)	11				
Roadway Condition Information					
SCR (Surface Condition Rating)	95				
PCR (Pavement Condition Rating)	97				
Distress Index Values					
Structural Crack Index	97				
Transverse Cracking Index	95				
Patching Index	100				
Rutting Index	100				
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



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

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

ROUTE: 0002 DALLAS HIGHWAY / WHITLOCK AVENUE

KEMO : KENNESAW MOUNTAIN NATIONAL BATTLEFIELD PARK

COLLECTED: 11/5/2012
TOTAL LENGTH: 0.68 Miles

SOUTHEAST REGION

<i>Section Number</i>	0				
<i>Section Length (mi)</i>	0.68				
<i>Cross Section Information</i>					
Number of Lanes	2				
Paved Width (ft)	27				
Lane Width (ft)	11				
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	76				
PCR (Pavement Condition Rating)	86				
<i>Distress Index Values</i>					
Structural Crack Index	76				
Transverse Cracking Index	96				
Patching Index	100				
Rutting Index	99				
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: 0002 DALLAS HIGHWAY / WHITLOCK AVENUE



PCR Poor **■** (0 - 60) Fair **■** (61 - 84) Good **■** (85 - 94) Excellent **■** (95 - 100) No Data **■**
 * If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

ROUTE: 0010 KENNESAW MOUNTAIN DRIVE

KEMO : KENNESAW MOUNTAIN NATIONAL BATTLEFIELD PARK

COLLECTED: 11/5/2012

TOTAL LENGTH: 1.53 Miles

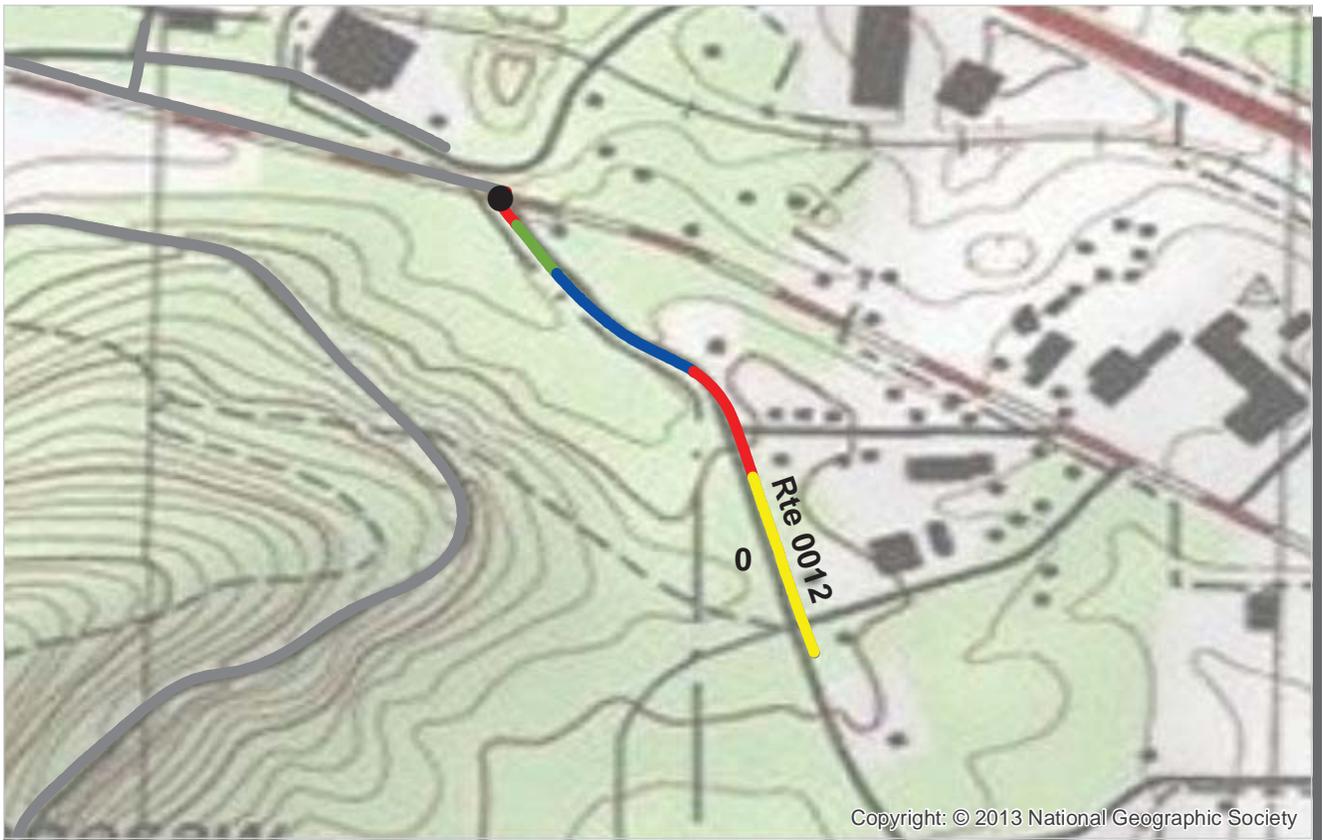
SOUTHEAST REGION

Section Number	0	1			
Section Length (mi)	1.00	0.53			
Cross Section Information					
Number of Lanes	2	2			
Paved Width (ft)	20	21			
Lane Width (ft)	10	10			
Roadway Condition Information					
SCR (Surface Condition Rating)	92	92			
PCR (Pavement Condition Rating)	90	90			
Distress Index Values					
Structural Crack Index	96	96			
Transverse Cracking Index	99	98			
Patching Index	100	100			
Rutting Index	92	92			
Roughness Condition Index (RCI)	88	88			

NOTES:

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

NC - Not Collected N/A - Not Applicable



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

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

ROUTE: 0012 KENNESAW AVENUE
KEMO : KENNESAW MOUNTAIN NATIONAL BATTLEFIELD PARK

COLLECTED: 11/4/2012
TOTAL LENGTH: 0.36 Miles

SOUTHEAST REGION

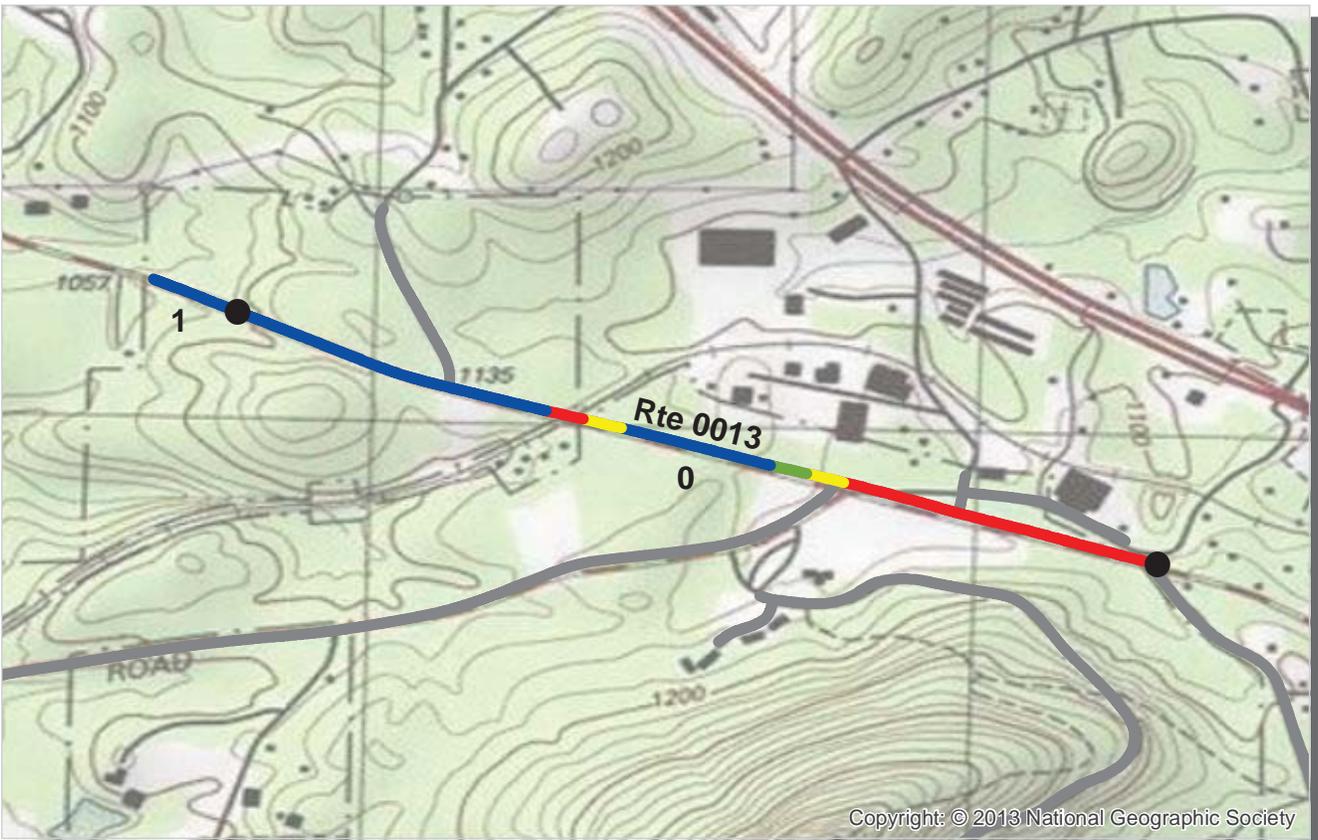
Section Number	0				
Section Length (mi)	0.36				
Cross Section Information					
Number of Lanes	2				
Paved Width (ft)	24				
Lane Width (ft)	11				
Roadway Condition Information					
SCR (Surface Condition Rating)	70				
PCR (Pavement Condition Rating)	70				
Distress Index Values					
Structural Crack Index	70				
Transverse Cracking Index	96				
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: 0012 KENNESAW AVENUE



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

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

ROUTE: 0013 OLD HIGHWAY 41

KEMO : KENNESAW MOUNTAIN NATIONAL BATTLEFIELD PARK

COLLECTED: 11/4/2012
TOTAL LENGTH: 1.10 Miles

SOUTHEAST REGION

Section Number	0	1			
Section Length (mi)	1.00	0.10			
Cross Section Information					
Number of Lanes	2	2			
Paved Width (ft)	24	24			
Lane Width (ft)	11	11			
Roadway Condition Information					
SCR (Surface Condition Rating)	28	99			
PCR (Pavement Condition Rating)	55	99			
Distress Index Values					
Structural Crack Index	28	99			
Transverse Cracking Index	99	100			
Patching Index	100	100			
Rutting Index	98	100			
Roughness Condition Index (RCI)	96	100			

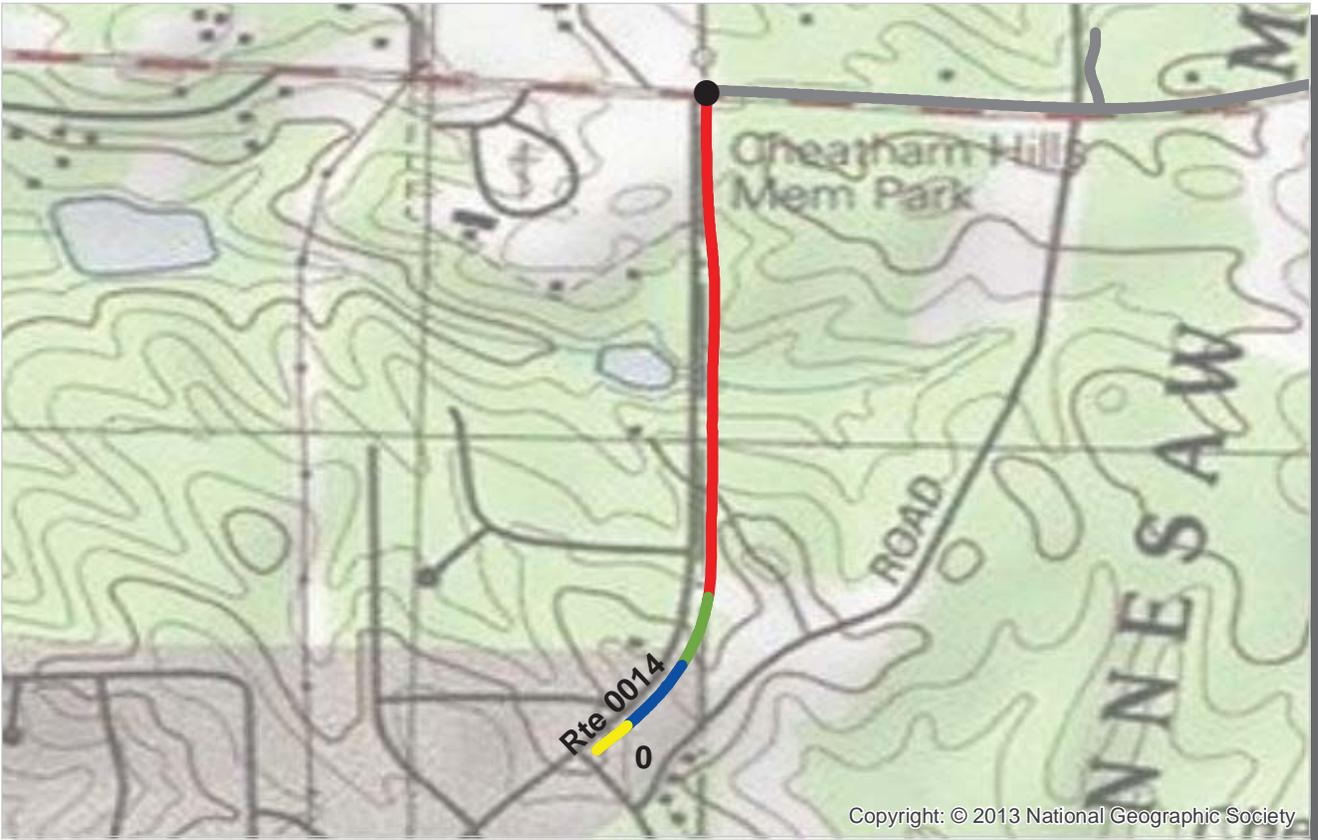
NOTES:

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: 0013 OLD HIGHWAY 41



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 JOHN WARD ROAD
KEMO : KENNESAW MOUNTAIN NATIONAL BATTLEFIELD PARK

COLLECTED: 11/5/2012
TOTAL LENGTH: 0.57 Miles

SOUTHEAST REGION

<i>Section Number</i>	0				
<i>Section Length (mi)</i>	0.57				
<i>Cross Section Information</i>					
Number of Lanes	2				
Paved Width (ft)	23				
Lane Width (ft)	11				
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	11				
PCR (Pavement Condition Rating)	47				
<i>Distress Index Values</i>					
Structural Crack Index	11				
Transverse Cracking Index	98				
Patching Index	100				
Rutting Index	98				
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: 0014 JOHN WARD 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: 0016 RIDENOUR ROAD

KEMO : KENNESAW MOUNTAIN NATIONAL BATTLEFIELD PARK

COLLECTED: 11/4/2012

TOTAL LENGTH: 0.23 Miles

SOUTHEAST REGION

Section Number	0				
Section Length (mi)	0.23				
Cross Section Information					
Number of Lanes	2				
Paved Width (ft)	20				
Lane Width (ft)	9				
Roadway Condition Information					
SCR (Surface Condition Rating)	63				
PCR (Pavement Condition Rating)	63				
Distress Index Values					
Structural Crack Index	63				
Transverse Cracking Index	99				
Patching Index	100				
Rutting Index	99				
Roughness Condition Index (RCI)	NC				

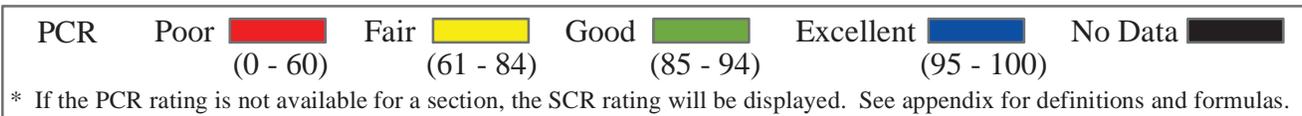
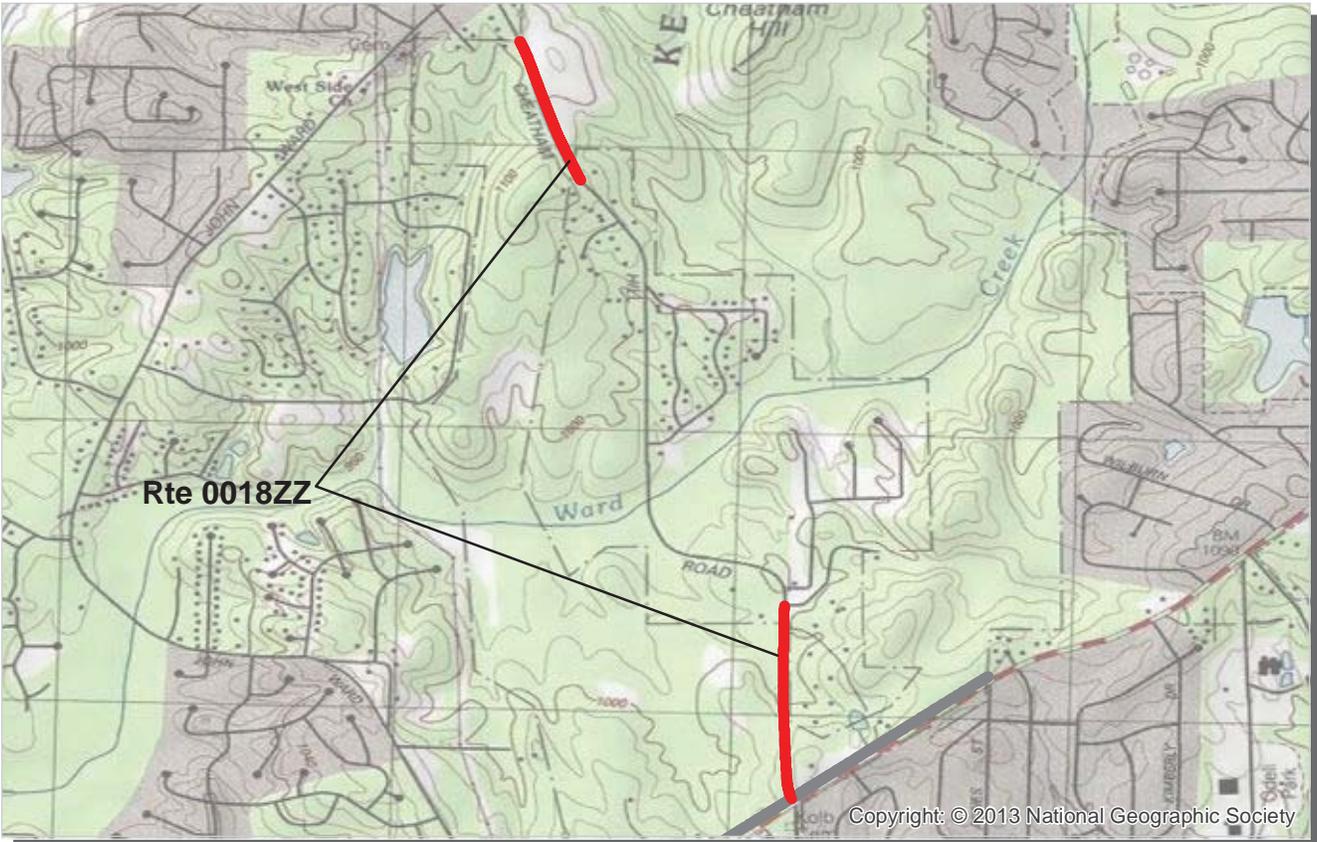
NOTES:

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: 0016 RIDENOUR ROAD



ROUTE: 0018ZZ CHEATHAM HILL ROADS
KEMO : KENNESAW MOUNTAIN NATIONAL BATTLEFIELD PARK
 Summary Record **COLLECTED: 11/5/2012**
SOUTHEAST REGION **TOTAL LENGTH: 0.76 Miles**

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

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

ROUTE: 0018ZZ CHEATHAM HILL ROADS



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: 0018BZ CHEATHAM HILL ROAD SOUTH
KEMO : KENNESAW MOUNTAIN NATIONAL BATTLEFIELD PARK

Subcomponent Record

COLLECTED: 11/5/2012

SOUTHEAST REGION

TOTAL LENGTH: 0.43 Miles

Section Number	0				
Section Length (mi)	0.43				
Cross Section Information					
Number of Lanes	2				
Paved Width (ft)	22				
Lane Width (ft)	9				
Roadway Condition Information					
SCR (Surface Condition Rating)	0				
PCR (Pavement Condition Rating)	0				
Distress Index Values					
Structural Crack Index	0				
Transverse Cracking Index	99				
Patching Index	100				
Rutting Index	95				
Roughness Condition Index (RCI)	NC				

NOTES:

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

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

NC - Not Collected N/A - Not Applicable

ROUTE: 0018BZ CHEATHAM HILL ROAD SOUTH



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: 0400 SERVICE ROAD
KEMO : KENNESAW MOUNTAIN NATIONAL BATTLEFIELD PARK

COLLECTED: 11/5/2012
TOTAL LENGTH: 0.08 Miles

SOUTHEAST REGION

<i>Section Number</i>	0				
<i>Section Length (mi)</i>	0.08				
<i>Cross Section Information</i>					
Number of Lanes	1				
Paved Width (ft)	10				
Lane Width (ft)	10				
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	85				
PCR (Pavement Condition Rating)	85				
<i>Distress Index Values</i>					
Structural Crack Index	85				
Transverse Cracking Index	85				
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: 0400 SERVICE 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: 0602 MOSSY ROCK ROAD

KEMO : KENNESAW MOUNTAIN NATIONAL BATTLEFIELD PARK

COLLECTED: 11/5/2012

SOUTHEAST REGION

TOTAL LENGTH: 0.09 Miles

<i>Section Number</i>	0				
<i>Section Length (mi)</i>	0.09				
<i>Cross Section Information</i>					
Number of Lanes	2				
Paved Width (ft)	18				
Lane Width (ft)	8				
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	14				
PCR (Pavement Condition Rating)	14				
<i>Distress Index Values</i>					
Structural Crack Index	14				
Transverse Cracking Index	84				
Patching Index	100				
Rutting Index	91				
Roughness Condition Index (RCI)	NC				

NOTES:

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

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

NC - Not Collected N/A - Not Applicable

ROUTE: 0602 MOSSY ROCK ROAD

Section 6 Manually Rated Paved Route Condition Rating Sheets



Kennesaw Mountain National Battlefield Park

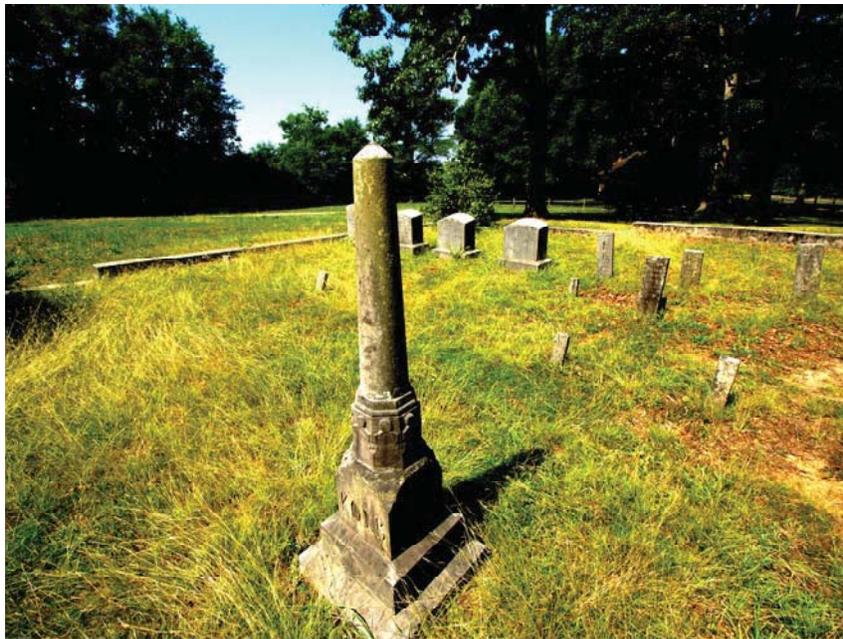


Federal Lands Highway
Road Inventory Program

MANUALLY RATED ROUTE CONDITION RATING SHEETS

No data available for this section.

Section 7
Parking Area
Condition Rating Sheets



Kennesaw Mountain
National Battlefield Park



Federal Lands Highway
Road Inventory Program

KENNESAW MOUNTAIN NATIONAL BATTLEFIELD PARK

Route 0900

VISITOR CENTER PARKING

FROM ROUTE 0011 (STILESBORO ROAD)
TO ROUTE 0010 (KENNESAW MOUNTAIN DRIVE)

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0900	PUBLIC	5/25/2012	44,495	0.77	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
0	3	1	CONCRETE CURB AND GUTTER	NO CURB	FAIR/73

* Lane miles are based on 11' lane widths



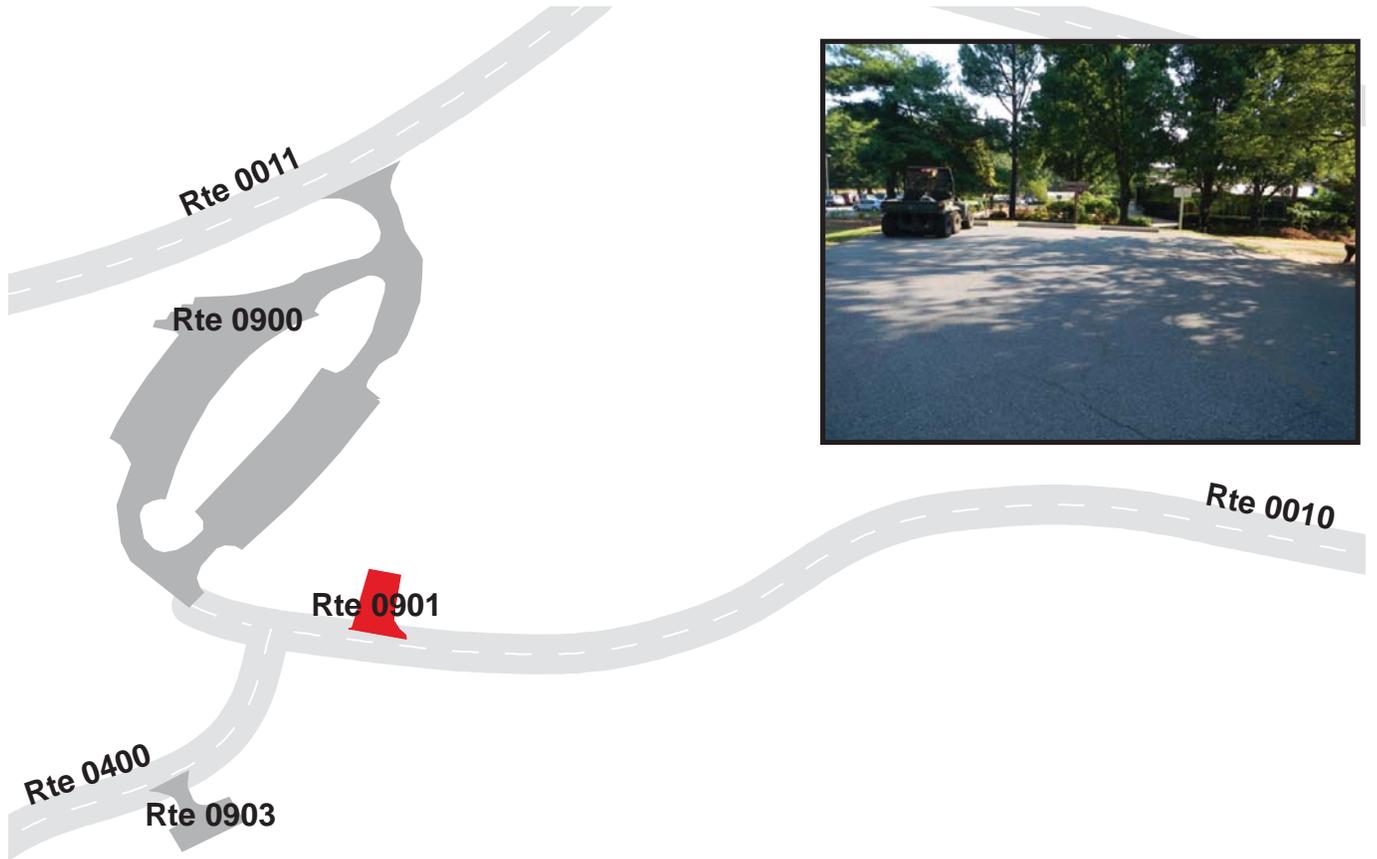
KENNESAW MOUNTAIN NATIONAL BATTLEFIELD PARK

Route 0901

VISITOR CENTER SERVICE VEHICLE PARKING
ADJACENT TO ROUTE 0010 (KENNESAW MOUNTAIN DRIVE)

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0901	NONPUBLIC	5/25/2012	2,304	0.04	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
0	0	0	NO CURB AND GUTTER	NO CURB	FAIR/73

* Lane miles are based on 11' lane widths



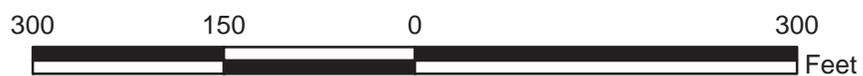
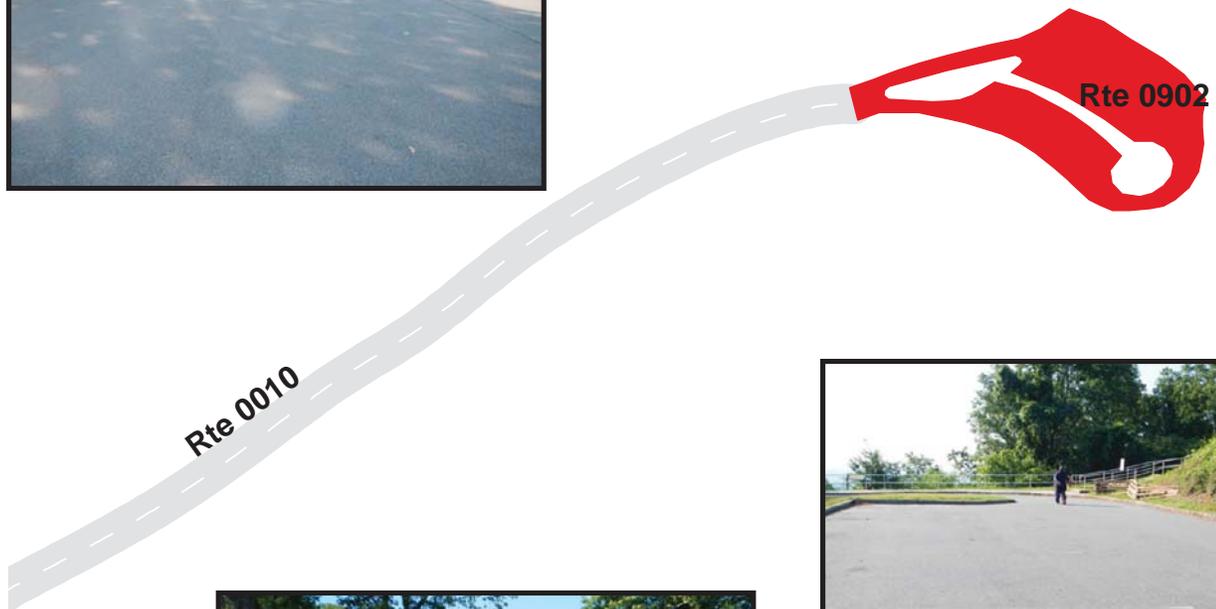
KENNESAW MOUNTAIN NATIONAL BATTLEFIELD PARK

Route 0902

KENNESAW MOUNTAIN PARKING
FROM END OF ROUTE 0010 (KENNESAW MOUNTAIN DRIVE)
TO PARKING

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0902	PUBLIC	5/25/2012	15,326	0.26	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
0	3	0	NO CURB AND GUTTER	STONE CURB	GOOD/90

* Lane miles are based on 11' lane widths



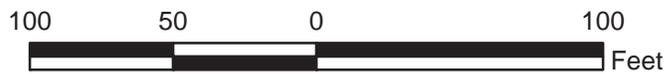
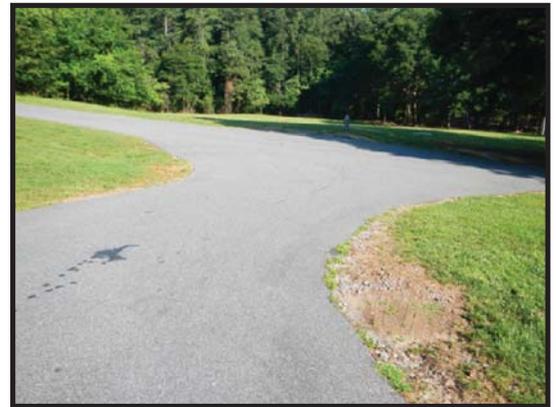
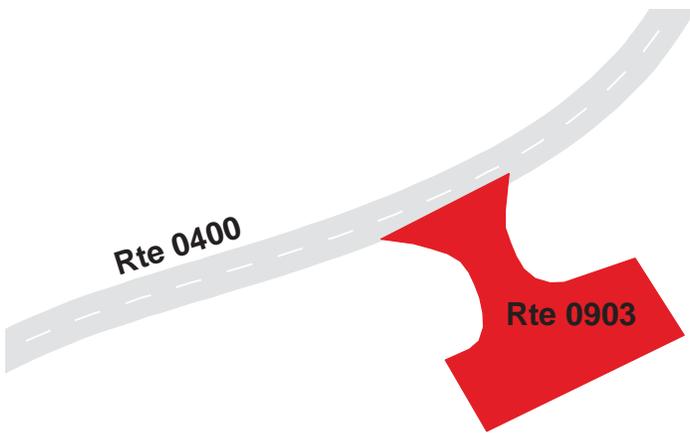
KENNESAW MOUNTAIN NATIONAL BATTLEFIELD PARK

Route 0903

HEADQUARTERS ADMINISTRATIVE PARKING
FROM ROUTE 0400 (SERVICE ROAD)
TO PARKING

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0903	NONPUBLIC	5/25/2012	2,969	0.05	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
1	0	0	NO CURB AND GUTTER	NO CURB	GOOD/90

* Lane miles are based on 11' lane widths



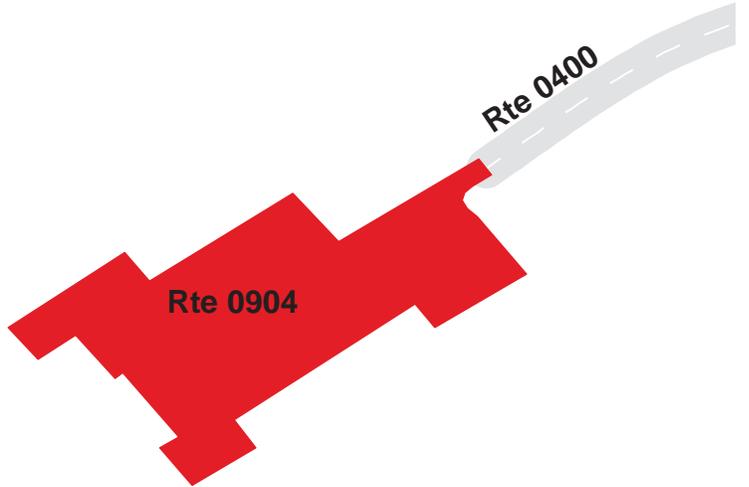
KENNESAW MOUNTAIN NATIONAL BATTLEFIELD PARK

Route 0904

MAINTENANCE FACILITY
FROM END OF ROUTE 0400 (SERVICE ROAD)
TO PARKING

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0904	NONPUBLIC	5/25/2012	14,754	0.25	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
0	1	2	NO CURB AND GUTTER	NO CURB	FAIR/73

* Lane miles are based on 11' lane widths



KENNESAW MOUNTAIN NATIONAL BATTLEFIELD PARK

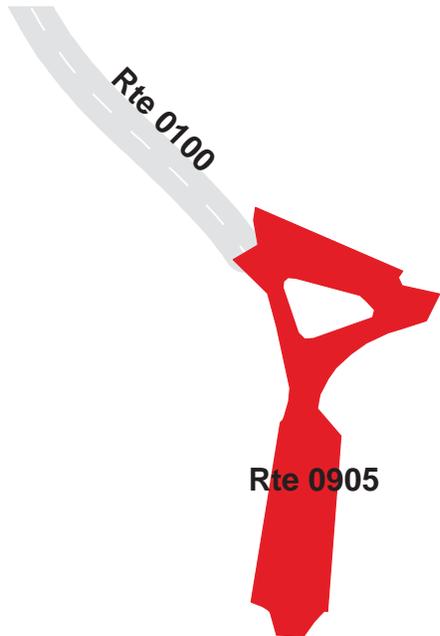
Route 0905

ILLINOIS MONUMENT PARKING

FROM END OF ROUTE 0100 (CHEATHAM HILL DRIVE)
TO PARKING

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0905	PUBLIC	5/25/2012	18,594	0.32	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
0	0	1	NO CURB AND GUTTER	NO CURB	FAIR/73

* Lane miles are based on 11' lane widths



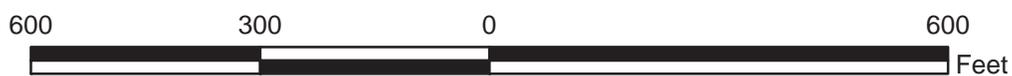
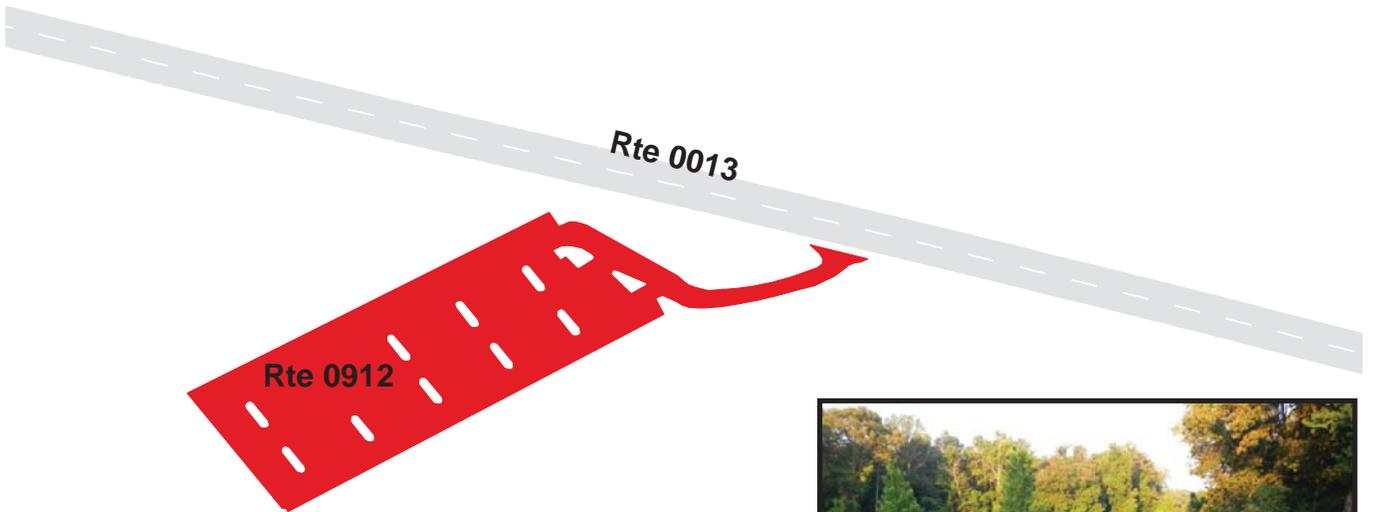
KENNESAW MOUNTAIN NATIONAL BATTLEFIELD PARK

Route 0912

OLD HIGHWAY 41 PARKING
FROM ROUTE 0013 (OLD HIGHWAY 41)
TO PARKING

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0912	PUBLIC	5/25/2012	90,480	1.56	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
2	4	1	CONCRETE CURB AND GUTTER	NO CURB	EXCELLENT/97

* Lane miles are based on 11' lane widths



Section 8

Parkwide/Route

Maintenance Features Summaries



Kennesaw Mountain National Battlefield Park



**Federal Lands Highway
Road Inventory Program**

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

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

FEATURE	LINEAR FEET	COUNT
BRIDGE	--	1
CATTLE GUARD	--	0
CULVERT	--	34
CURB	17,033	--
DROP INLET	--	50
GATE	--	12
GUARD/GUIDE RAIL	2,092	--
CABLE	0	--
NON-CABLE	2,092	--
GUARD/GUIDE WALL	216	--
BOLLARD	0	--
TEMPORARY BARRIER	0	--
NON TEMP/BOLLARD	216	--
INTERSECTION	--	95
LOW WATER CROSSING	0	0
MILE MARKER	--	1
OVERPASS	--	0
PARK BOUNDARY	--	18
PAVED DITCH	216	--
PULLOUT	760	5
RAILROAD CROSSING	--	0
RETAINING WALL	0	0
SIGN	--	616
STATE BOUNDARY	--	0
TRAFFIC LIGHT	--	33
TUNNEL	0	0

KEMO: DCV ROUTE MAINTENANCE FEATURES SUMMARY

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

FEATURE	ROUTE 0400 SERVICE ROAD	ROUTE 0600 WHITE CIRCLE ROAD	ROUTE 0601 WHITE ROAD COURT	ROUTE 0602 MOSSY ROCK ROAD				UNIT
BRIDGE	0	0	0	0				EACH
CATTLE GUARD	0	0	0	0				EACH
CULVERT	2	0	0	0				EACH
CURB	0	0	0	58				LINEAR FEET
DROP INLET	0	0	0	0				EACH
GATE	0	0	0	0				EACH
GUARD/GUIDE RAIL	0	0	0	0				LINEAR FEET
CABLE	0	0	0	0				LINEAR FEET
NON-CABLE	0	0	0	0				LINEAR FEET
GUARD/GUIDE WALL	0	0	0	0				LINEAR FEET
BOLLARD	0	0	0	0				LINEAR FEET
TEMPORARY BARRIER	0	0	0	0				LINEAR FEET
NON TEMP/BOLLARD	0	0	0	0				LINEAR FEET
INTERSECTION	4	4	5	3				EACH
LOW WATER CROSSING	0	0	0	0				EACH
LOW WATER CROSSING	0	0	0	0				LINEAR FEET
MILE MARKER	0	0	0	0				EACH
OVERPASS	0	0	0	0				EACH
PARK BOUNDARY	0	1	0	1				EACH
PAVED DITCH	0	216	0	0				LINEAR FEET
PULLOUT	0	0	0	0				EACH
PULLOUT	0	0	0	0				LINEAR FEET
RAILROAD CROSSING	0	0	0	0				EACH
RETAINING WALL	0	0	0	0				EACH
RETAINING WALL	0	0	0	0				LINEAR FEET
SIGN	0	6	6	7				EACH
STATE BOUNDARY	0	0	0	0				EACH
TRAFFIC LIGHT	0	0	0	5				EACH
TUNNEL	0	0	0	0				EACH
TUNNEL	0	0	0	0				LINEAR FEET

STRUCTURE LIST

No data available for this section.

Section 9

Route Maintenance Features

Road Logs



Kennesaw Mountain
National Battlefield Park



Federal Lands Highway
Road Inventory Program

KEMO: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0001: POWDER SPRINGS ROAD

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

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM EAST PARK BOUNDARY LOCATED AT BRICK PARK SIGN NEAR INTERSECTION WITH HAMMOND WOODS CIRCLE
0.000	0.000	INTERSECTION	N/A	PAVED ROUTE (POWDER SPRINGS ROAD / NON-NPS)
0.000	0.000	PARK BOUNDARY	N/A	N/A
0.000	0.000	INTERSECTION	LEFT	PAVED ROUTE (HAMMOND WOODS CIRCLE / NON-NPS)
0.014	0.014	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
0.015	0.015	SIGN	LEFT	GUIDE, POWDER SPRINGS RD
0.015	0.015	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
0.023	0.023	SIGN	RIGHT	GUIDE, KENNESAW MOUNTAIN NATIONAL BATTLEFIELD PARK
0.026	0.026	SIGN	LEFT	WARNING, CIRCLE
0.026	0.026	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.048	0.048	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.048	0.048	SIGN	LEFT	WARNING, PAMELA CIRCLE
0.049	0.120	GUARD/GUIDE RAIL	LEFT	N/A
0.085	0.085	MILE MARKER	LEFT	N/A
0.086	0.086	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.086	0.086	SIGN	LEFT	WARNING, UNABLE TO READ FROM VIDEO
0.131	0.131	SIGN	N/A	REGULATORY, ONLY
0.154	0.154	SIGN	RIGHT	GUIDE, UNABLE TO READ FROM VIDEO
0.154	0.154	SIGN	RIGHT	GUIDE, UNABLE TO READ FROM VIDEO
0.154	0.154	SIGN	RIGHT	GUIDE, UNABLE TO READ FROM VIDEO
0.201	0.250	GUARD/GUIDE RAIL	RIGHT	N/A
0.232	0.232	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.232	0.232	SIGN	RIGHT	WARNING, PAMELA CIR
0.258	0.274	GUARD/GUIDE RAIL	RIGHT	N/A
0.265	0.265	CULVERT	N/A	N/A
0.320	0.320	INTERSECTION	LEFT	PAVED ROUTE (PAMELA CIRCLE / NON-NPS)
0.326	0.326	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
0.326	0.326	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
0.332	0.332	SIGN	LEFT	GUIDE, PAMELA CIR

KEMO: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0001: POWDER SPRINGS ROAD

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

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.332	0.332	SIGN	LEFT	GUIDE, POWDER SPRINGS RD
0.356	0.356	SIGN	RIGHT	WARNING, CHEATHAM HILL ROAD CALLAWAY RD
0.356	0.356	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.372	0.386	GUARD/GUIDE RAIL	LEFT	N/A
0.378	0.378	SIGN	LEFT	REGULATORY, SPEED LIMIT 45
0.400	0.400	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.400	0.400	SIGN	LEFT	WARNING, PAMELA CIRCLE
0.407	0.407	SIGN	N/A	REGULATORY, ONLY
0.442	0.442	TRAFFIC LIGHT	N/A	X3
0.442	0.442	TRAFFIC LIGHT	N/A	X3
0.442	0.442	TRAFFIC LIGHT	N/A	X5
0.445	0.445	SIGN	N/A	GUIDE, CALLAWAY RD
0.445	0.445	SIGN	N/A	GUIDE, CHEATHAM HILL RD
0.446	0.446	INTERSECTION	LEFT	PAVED ROUTE (CALLAWAY ROAD / NON-NPS)
0.446	0.446	INTERSECTION	RIGHT	ROUTE 0018BZ (CHEATHAM HILL ROAD SOUTH)
0.451	0.451	SIGN	N/A	GUIDE, CHEATHAM HILL RD
0.451	0.451	TRAFFIC LIGHT	N/A	X3
0.451	0.451	TRAFFIC LIGHT	N/A	X5
0.451	0.451	SIGN	N/A	GUIDE, CALLAWAY RD
0.456	0.456	SIGN	RIGHT	REGULATORY, UNABLE TO READ FROM VIDEO
0.457	0.457	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
0.457	0.457	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
0.457	0.457	SIGN	LEFT	REGULATORY, YIELD
0.458	0.462	CURB	RIGHT	N/A
0.462	0.462	SIGN	RIGHT	GUIDE, KOLB FARM CHEATHAM HILL VISITOR CENTER
0.475	0.475	SIGN	RIGHT	REGULATORY, 360
0.475	0.475	SIGN	RIGHT	REGULATORY, WEST
0.501	0.501	SIGN	N/A	REGULATORY, ONLY
0.510	0.510	SIGN	RIGHT	REGULATORY, SPEED LIMIT 45
0.544	0.619	CURB-AND-GUTTER	LEFT	N/A

KEMO: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0002: DALLAS HIGHWAY / WHITLOCK AVENUE

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

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM WEST PARK BOUNDARY AT INTERSECTION WITH ROUTE 0014 (JOHN WARD ROAD)
0.000	0.000	SIGN	N/A	GUIDE, JOHN WARD RD
0.000	0.000	TRAFFIC LIGHT	N/A	X3
0.000	0.000	TRAFFIC LIGHT	N/A	X3
0.000	0.000	TRAFFIC LIGHT	N/A	X1
0.000	0.000	TRAFFIC LIGHT	N/A	X5
0.000	0.000	PARK BOUNDARY	N/A	N/A
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0014 (JOHN WARD ROAD)
0.000	0.000	INTERSECTION	N/A	PAVED ROUTE (DALLAS HIGHWAY / WHITLOCK AVENUE / NON-NPS)
0.000	0.000	SIGN	N/A	REGULATORY, LEFT TURN SIGNAL
0.000	0.000	SIGN	N/A	GUIDE, JOHN WARD RD
0.007	0.007	SIGN	N/A	REGULATORY, DO NOT BLOCK INTERSECTION
0.007	0.007	TRAFFIC LIGHT	N/A	X3
0.007	0.007	TRAFFIC LIGHT	N/A	X3
0.020	0.070	GUARD/GUIDE RAIL	LEFT	N/A
0.022	0.022	SIGN	RIGHT	GUIDE, KENNESAW MOUNTAIN NATIONAL BATTLEFIELD PARK
0.033	0.033	SIGN	RIGHT	GUIDE, UNABLE TO READ FROM VIDEO
0.072	0.072	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.078	0.078	SIGN	RIGHT	REGULATORY, SPEED LIMIT 45
0.088	0.088	SIGN	LEFT	REGULATORY, ONLY ONLY
0.089	0.089	SIGN	LEFT	GUIDE, KOLB FARM
0.108	0.108	SIGN	LEFT	WARNING, JOHN WARD RD
0.108	0.108	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.158	0.158	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.158	0.158	SIGN	RIGHT	WARNING, HARDAGE DR
0.189	0.189	SIGN	RIGHT	GUIDE, UNABLE TO READ FROM VIDEO
0.214	0.214	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.232	0.232	SIGN	RIGHT	GUIDE, UNABLE TO READ FROM VIDEO

KEMO: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0002: DALLAS HIGHWAY / WHITLOCK AVENUE

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

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.482	0.482	INTERSECTION	RIGHT	ROUTE 0100 (CHEATHAM HILL DRIVE)
0.488	0.488	SIGN	RIGHT	GUIDE, CHEATHAM HILL RD
0.488	0.488	SIGN	RIGHT	WARNING, DEAD END
0.488	0.526	CURB-AND-GUTTER	RIGHT	N/A
0.500	0.500	SIGN	LEFT	REGULATORY, STOP
0.503	0.503	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN NO TEXT
0.507	0.507	SIGN	LEFT	REGULATORY, GRAPHIC SIGN NO TEXT
0.512	0.512	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN NO TEXT
0.515	0.551	PULLOUT	LEFT	N/A
0.526	0.526	SIGN	LEFT	WARNING, AHEAD
0.526	0.526	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.531	0.531	INTERSECTION	RIGHT	PAVED ROUTE (DALLAS CIRCLE / NON-NPS)
0.537	0.646	CURB-AND-GUTTER	RIGHT	N/A
0.540	0.540	SIGN	RIGHT	GUIDE, DALLAS CR SW 1490
0.540	0.540	SIGN	RIGHT	GUIDE, UNABLE TO READ FROM VIDEO
0.542	0.542	SIGN	LEFT	WARNING, AHEAD
0.542	0.542	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.542	0.542	SIGN	RIGHT	GUIDE, BATTLEVIEW
0.559	0.559	DROP INLET	RIGHT	N/A
0.572	0.572	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.589	0.589	SIGN	RIGHT	REGULATORY, WELCOME TO US-AMERICA CITY
0.589	0.589	SIGN	RIGHT	REGULATORY, TRAFFIC LAWS PHOTO ENFORCED
0.603	0.603	SIGN	LEFT	WARNING, DALLAS CIR CHEATHAM HILL DR
0.603	0.603	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.606	0.606	SIGN	LEFT	GUIDE, KENNESAW MOUNTAIN NATIONAL BATTLEFIELD PARK
0.640	0.640	SIGN	RIGHT	REGULATORY, SPEED CHECKED BY DETECTION DEVICES
0.640	0.640	SIGN	RIGHT	REGULATORY, UNABLE TO READ FROM VIDEO
0.648	0.648	SIGN	LEFT	GUIDE, COBB COUNTY YOUTH MUSEUM SECOND LEFT
0.650	0.672	CURB-AND-GUTTER	RIGHT	N/A

KEMO: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0002: DALLAS HIGHWAY / WHITLOCK AVENUE

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

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.654	0.654	SIGN	RIGHT	GUIDE, UNABLE TO READ FROM VIDEO
0.661	0.661	SIGN	RIGHT	REGULATORY, SPEED LIMIT 45
0.676	0.676	SIGN	RIGHT	WARNING, DALLAS CIR
0.676	0.676	SIGN	RIGHT	GUIDE, WELCOME TO MARIETTA, GEORGIA SISTERCITY OF LINZ, GERMANY AND HEREDIA, COSTA RICA
0.676	0.676	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.676	0.676	PARK BOUNDARY	N/A	N/A
0.676	0.676	INTERSECTION	N/A	PAVED ROUTE (DALLAS HIGHWAY / WHITLOCK AVENUE / NON-NPS)
0.676	0.676	ROUTE END	N/A	TO EAST PARK BOUNDARY

KEMO: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0010: KENNESAW MOUNTAIN DRIVE

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

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
1.517	1.517	SIGN	LEFT	REGULATORY, SPEED LIMIT 25
1.517	1.517	SIGN	LEFT	REGULATORY, WALKERS KEEP RIGHT
1.517	1.517	SIGN	LEFT	WARNING, UNEVEN ROAD SURFACE AHEAD
1.523	1.527	CURB	N/A	N/A
1.523	1.527	CURB	RIGHT	N/A
1.526	1.526	SIGN	N/A	GUIDE, PARKING LOT CLOSES 5.30 TOW-AWAY ZONE
1.526	1.526	SIGN	N/A	GUIDE, AFTER PARK CLOSING VEHICLES TOWED AT OWNERS EXPENSE
1.527	1.527	INTERSECTION	N/A	ROUTE 0902 (KENNESAW MOUNTAIN PARKING)
1.527	1.527	ROUTE END	N/A	TO ROUTE 0902 (KENNESAW MOUNTAIN PARKING)

KEMO: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0011: STILESBORO ROAD

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

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0013 (OLD HIGHWAY 41)
0.000	0.000	SIGN	N/A	REGULATORY, UNABLE TO READ FROM VIDEO
0.000	0.000	SIGN	N/A	GUIDE, TO U.S. 41 & I-75 THE GENERAL
0.000	0.000	SIGN	N/A	GUIDE, OLD HIGHWAY 41 PARKING LOT
0.000	0.000	INTERSECTION	LEFT	ROUTE 0013 (OLD HIGHWAY 41)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0013 (OLD HIGHWAY 41)
0.004	0.004	SIGN	LEFT	REGULATORY, YIELD
0.004	0.004	SIGN	N/A	REGULATORY, UNABLE TO READ FROM VIDEO
0.006	0.006	TRAFFIC LIGHT	N/A	X4
0.007	0.278	CURB-AND-GUTTER	RIGHT	N/A
0.007	0.007	INTERSECTION	LEFT	PAVED SPUR
0.007	0.007	INTERSECTION	RIGHT	PAVED SPUR
0.007	0.007	SIGN	RIGHT	GUIDE, GRAPHIC SIGN NO TEXT
0.007	0.007	SIGN	RIGHT	GUIDE, GRAPHIC SIGN NO TEXT
0.007	0.007	SIGN	RIGHT	GUIDE, UNABLE TO READ FROM VIDEO
0.007	0.062	CURB-AND-GUTTER	LEFT	N/A
0.016	0.016	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
0.020	0.020	SIGN	RIGHT	REGULATORY, SPEED LIMIT 35
0.023	0.023	SIGN	LEFT	GUIDE, MARIETTA MUSEUM OF HISTORY 3.1 MILES
0.023	0.023	SIGN	LEFT	GUIDE, OLD HWY 41 PARKING LOT
0.023	0.023	SIGN	LEFT	REGULATORY, PARKING
0.037	0.037	SIGN	LEFT	REGULATORY, GRAPHIC SIGN NO TEXT
0.040	0.040	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN NO TEXT
0.048	0.048	DROP INLET	LEFT	N/A
0.063	0.063	SIGN	RIGHT	GUIDE, KENNESAW MOUNTAIN NATIONAL BATTLEFIELD PARK OLD HWY 41 OVERFLOW PARKING
0.063	0.063	SIGN	RIGHT	GUIDE, KENNESAW MOUNTAIN NATIONAL BATTLEFIELD PARK VISITOR CENTER PARK HEADQUARTERS
0.063	0.063	SIGN	RIGHT	REGULATORY, ADDITIONAL PARKING
0.064	0.064	SIGN	RIGHT	REGULATORY, UNABLE TO READ FROM VIDEO
0.068	0.068	INTERSECTION	LEFT	ROUTE 0900 (VISITOR CENTER PARKING)

KEMO: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0011: STILESBORO ROAD

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

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.070	0.073	CURB-AND-GUTTER	LEFT	N/A
0.084	0.084	SIGN	LEFT	REGULATORY, GRAPHIC SIGN NO TEXT
0.087	0.087	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN NO TEXT
0.098	0.098	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.098	0.098	SIGN	LEFT	WARNING, OLD 41 HWY
0.130	0.130	SIGN	LEFT	REGULATORY, GRAPHIC SIGN NO TEXT
0.131	0.131	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN NO TEXT
0.186	0.186	SIGN	LEFT	REGULATORY, GRAPHIC SIGN NO TEXT
0.191	0.191	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN NO TEXT
0.226	0.226	SIGN	LEFT	REGULATORY, GRAPHIC SIGN NO TEXT
0.235	0.235	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN NO TEXT
0.235	0.235	SIGN	RIGHT	REGULATORY, SPEED LIMIT 35
0.235	0.235	SIGN	RIGHT	REGULATORY, UNABLE TO READ FROM VIDEO
0.242	0.242	SIGN	LEFT	REGULATORY, SPEED LIMIT 35
0.266	0.266	SIGN	LEFT	REGULATORY, GRAPHIC SIGN NO TEXT
0.268	0.268	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN NO TEXT
0.276	0.276	SIGN	LEFT	REGULATORY, UNABLE TO READ FROM VIDEO
0.329	0.329	SIGN	LEFT	REGULATORY, UNABLE TO READ FROM VIDEO
0.353	0.353	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN NO TEXT
0.357	0.357	SIGN	LEFT	REGULATORY, GRAPHIC SIGN NO TEXT
0.394	0.394	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN NO TEXT
0.396	0.396	SIGN	LEFT	REGULATORY, GRAPHIC SIGN NO TEXT
0.456	0.456	SIGN	LEFT	REGULATORY, GRAPHIC SIGN NO TEXT
0.456	0.456	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN NO TEXT
0.486	0.486	SIGN	RIGHT	GUIDE, YOUTH MUSEUM
0.486	0.486	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.486	0.486	SIGN	RIGHT	WARNING, OLD MOUNTAIN RD
0.498	0.498	SIGN	LEFT	REGULATORY, GRAPHIC SIGN NO TEXT
0.498	0.498	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN NO TEXT
0.512	0.512	SIGN	RIGHT	GUIDE, CHEATHAM HILL KOLB FARM

KEMO: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0011: STILESBORO ROAD

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

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.523	0.523	SIGN	LEFT	REGULATORY, GRAPHIC SIGN NO TEXT
0.523	0.523	SIGN	LEFT	REGULATORY, SPEED LIMIT 35
0.549	0.549	SIGN	LEFT	GUIDE, OLD MTN RD
0.549	0.549	SIGN	LEFT	GUIDE, STILESBORO RD
0.556	0.556	INTERSECTION	LEFT	PAVED ROUTE (OLD MOUNTAIN ROAD / NON-NPS)
0.606	0.606	SIGN	LEFT	REGULATORY, REDUCED SPEED AHEAD
0.630	0.630	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.630	0.630	SIGN	LEFT	WARNING, OLD MOUNTAIN RD
0.632	0.632	SIGN	RIGHT	REGULATORY, SPEED LIMIT 45
0.784	0.784	SIGN	RIGHT	REGULATORY, UNABLE TO READ FROM VIDEO
0.847	0.847	SIGN	RIGHT	REGULATORY, UNABLE TO READ FROM VIDEO
0.876	0.876	SIGN	LEFT	REGULATORY, UNABLE TO READ FROM VIDEO
0.905	0.905	SIGN	LEFT	REGULATORY, SPEED LIMIT 45
1.009	1.009	SIGN	LEFT	REGULATORY, UNABLE TO READ FROM VIDEO
1.086	1.086	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
1.086	1.086	SIGN	RIGHT	WARNING, MOSSY ROCK RD
1.163	1.163	INTERSECTION	RIGHT	ROUTE 0602 (MOSSY ROCK ROAD)
1.265	1.265	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
1.265	1.265	SIGN	LEFT	WARNING, MOSSY ROCK RD
1.304	1.304	SIGN	LEFT	GUIDE, KENNESAW MOUNTAIN NATIONAL BATTLEFIELD PARK
1.326	1.326	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
1.326	1.326	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
1.330	1.330	INTERSECTION	LEFT	PAVED ROUTE (GILBERT ROAD / NON-NPS)
1.330	1.330	INTERSECTION	N/A	PAVED ROUTE (STILESBORO ROAD / NON-NPS)
1.330	1.330	PARK BOUNDARY	N/A	N/A
1.330	1.330	ROUTE END	N/A	TO WEST PARK BOUNDARY LOCATED AT INTERSECTION WITH GILBERT ROAD

KEMO: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0012: KENNESAW AVENUE

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

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.326	0.326	SIGN	LEFT	GUIDE, KIRK RD
0.330	0.330	SIGN	RIGHT	GUIDE, GRAPHIC SIGN NO TEXT
0.330	0.330	SIGN	RIGHT	GUIDE, GRAPHIC SIGN NO TEXT
0.330	0.330	SIGN	RIGHT	GUIDE, GRAPHIC SIGN NO TEXT
0.331	0.331	DROP INLET	RIGHT	N/A
0.334	0.334	INTERSECTION	LEFT	PAVED ROUTE (KIRK ROAD / NON-NPS)
0.334	0.334	SIGN	RIGHT	REGULATORY, UNABLE TO READ FROM VIDEO
0.361	0.361	INTERSECTION	N/A	PAVED ROUTE (KENNESAW AVENUE / NON-NPS)
0.361	0.361	PARK BOUNDARY	N/A	N/A
0.361	0.361	ROUTE END	N/A	TO PARK BOUNDARY

KEMO: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0013: OLD HIGHWAY 41

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

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.193	0.193	DROP INLET	LEFT	N/A
0.207	0.207	SIGN	RIGHT	GUIDE, UNABLE TO READ FROM VIDEO
0.207	0.207	SIGN	RIGHT	GUIDE, WHITE CIR NW
0.216	0.216	INTERSECTION	RIGHT	ROUTE 0600 (WHITE CIRCLE ROAD)
0.230	0.230	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.230	0.230	SIGN	RIGHT	WARNING, STILESBORO RD
0.230	0.230	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN NO TEXT
0.264	0.264	SIGN	LEFT	REGULATORY, GRAPHIC SIGN NO TEXT
0.264	0.264	SIGN	LEFT	REGULATORY, TO
0.264	0.264	SIGN	LEFT	REGULATORY, 41
0.267	0.267	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN NO TEXT
0.268	0.268	DROP INLET	LEFT	N/A
0.285	0.285	SIGN	LEFT	WARNING, UNABLE TO READ FROM VIDEO
0.285	0.285	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.298	0.298	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
0.306	0.306	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN NO TEXT
0.307	0.307	SIGN	LEFT	REGULATORY, GRAPHIC SIGN NO TEXT
0.307	0.307	SIGN	LEFT	REGULATORY, SPEED LIMIT 35
0.327	0.327	INTERSECTION	LEFT	PAVED SPUR
0.337	0.343	CURB	N/A	N/A
0.339	0.339	SIGN	N/A	GUIDE, STILESBORO
0.339	0.339	TRAFFIC LIGHT	N/A	X3
0.339	0.339	SIGN	RIGHT	REGULATORY, UNABLE TO READ FROM VIDEO
0.339	0.339	TRAFFIC LIGHT	N/A	X3
0.344	0.344	SIGN	RIGHT	GUIDE, VISITOR CENTER PARK HDQTRS.
0.345	0.345	INTERSECTION	LEFT	ROUTE 0011 (STILESBORO ROAD)
0.347	0.352	CURB	N/A	N/A
0.349	0.349	SIGN	N/A	GUIDE, STILESBORO RD
0.349	0.349	TRAFFIC LIGHT	N/A	X3
0.349	0.349	TRAFFIC LIGHT	N/A	X5

KEMO: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0013: OLD HIGHWAY 41

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

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.595	0.595	DROP INLET	RIGHT	N/A
0.610	0.610	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.611	0.625	GUARD/GUIDE RAIL	RIGHT	N/A
0.615	0.629	GUARD/GUIDE RAIL	LEFT	N/A
0.621	0.651	BRIDGE	N/A	A BIP STRUCTURE NUMBER HAS NOT BEEN ASSIGNED TO THIS BRIDGE
0.623	0.646	CURB	RIGHT	N/A
0.625	0.647	GUARD/GUIDE WALL	RIGHT	N/A
0.627	0.649	CURB	LEFT	N/A
0.629	0.648	GUARD/GUIDE WALL	LEFT	N/A
0.646	0.758	CURB-AND-GUTTER	RIGHT	N/A
0.647	0.660	GUARD/GUIDE RAIL	RIGHT	N/A
0.648	0.659	GUARD/GUIDE RAIL	LEFT	N/A
0.649	1.096	CURB-AND-GUTTER	LEFT	N/A
0.660	0.660	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.676	0.676	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.676	0.676	SIGN	RIGHT	WARNING, RIDENOUR RD
0.706	0.706	SIGN	LEFT	REGULATORY, SPEED LIMIT 35
0.714	0.714	DROP INLET	LEFT	N/A
0.714	0.714	DROP INLET	RIGHT	N/A
0.732	0.732	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
0.767	0.767	INTERSECTION	RIGHT	ROUTE 0016 (RIDENOUR ROAD)
0.771	0.812	CURB-AND-GUTTER	RIGHT	N/A
0.773	0.773	SIGN	RIGHT	GUIDE, OLD 41 HWY
0.773	0.773	SIGN	RIGHT	GUIDE, RIDENOUR RD RD
0.802	0.802	SIGN	RIGHT	REGULATORY, SPEED LIMIT 35
0.812	1.096	CURB-AND-GUTTER	RIGHT	N/A
0.862	0.862	DROP INLET	LEFT	N/A
0.862	0.862	DROP INLET	RIGHT	N/A
0.866	0.866	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT

KEMO: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0013: OLD HIGHWAY 41

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

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.866	0.866	SIGN	LEFT	WARNING, RIDENOUR RD
0.910	0.910	DROP INLET	LEFT	N/A
0.910	0.910	DROP INLET	RIGHT	N/A
0.956	0.956	DROP INLET	LEFT	N/A
0.956	0.956	DROP INLET	RIGHT	N/A
1.005	1.005	DROP INLET	LEFT	N/A
1.005	1.005	DROP INLET	RIGHT	N/A
1.051	1.051	DROP INLET	LEFT	N/A
1.051	1.051	DROP INLET	RIGHT	N/A
1.056	1.056	SIGN	LEFT	GUIDE, KENNESAW MOUNTAIN NATIONAL BATTLEFIELD PARK
1.094	1.094	DROP INLET	RIGHT	N/A
1.096	1.096	INTERSECTION	N/A	PAVED ROUTE (OLD HIGHWAY 41 / NON-NPS)
1.096	1.096	PARK BOUNDARY	N/A	N/A
1.096	1.096	SIGN	RIGHT	REGULATORY, UNABLE TO READ FROM VIDEO
1.096	1.096	ROUTE END	N/A	TO WEST PARK BOUNDARY

KEMO: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0014: JOHN WARD ROAD

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

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.513	0.513	SIGN	RIGHT	GUIDE, HAMLIN DR
0.513	0.513	SIGN	RIGHT	GUIDE, JOHN WARD RD
0.515	0.515	INTERSECTION	RIGHT	PAVED ROUTE (HAMLIN DRIVE / NON-NPS)
0.525	0.525	SIGN	RIGHT	WARNING, SCHOOL BUS STOP AHEAD
0.541	0.541	SIGN	RIGHT	GUIDE, KOLB FARM
0.558	0.558	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
0.558	0.558	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
0.560	0.569	GUARD/GUIDE RAIL	RIGHT	N/A
0.563	0.563	SIGN	RIGHT	GUIDE, AL BISHOP SOFTBALL COMPLEX & JIM R. MILLER PARK
0.569	0.569	INTERSECTION	LEFT	PAVED ROUTE (CHEATHAM HILL ROAD / NON-NPS)
0.569	0.569	INTERSECTION	N/A	PAVED ROUTE (JOHN WARD ROAD / NON-NPS)
0.569	0.569	ROUTE END	N/A	TO INTERSECTION WITH CHEATHAM HILL ROAD

KEMO: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0015: BURNT HICKORY ROAD

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

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.475	0.475	SIGN	LEFT	GUIDE, BURNT HICKORY
0.475	0.475	SIGN	LEFT	GUIDE, E. NEW SOLEM
0.475	0.475	SIGN	LEFT	WARNING, UNABLE TO READ FROM VIDEO
0.476	0.476	SIGN	RIGHT	GUIDE, UNABLE TO READ FROM VIDEO
0.476	0.476	SIGN	RIGHT	GUIDE, UNABLE TO READ FROM VIDEO
0.478	0.510	CURB-AND-GUTTER	RIGHT	N/A
0.491	0.491	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN NO TEXT
0.492	0.492	SIGN	LEFT	REGULATORY, RIGHT LANE MUST TURN RIGHT
0.492	0.492	SIGN	LEFT	REGULATORY, UNABLE TO READ FROM VIDEO
0.508	0.508	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.508	0.508	SIGN	LEFT	WARNING, SHARE THE ROAD
0.510	0.552	GUARD/GUIDE RAIL	RIGHT	N/A
0.521	0.521	SIGN	LEFT	REGULATORY, GRAPHIC SIGN NO TEXT
0.522	0.522	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN NO TEXT
0.522	0.522	SIGN	RIGHT	WARNING, AHEAD
0.522	0.522	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.533	0.533	SIGN	RIGHT	REGULATORY, SPEED LIMIT 35
0.547	0.547	SIGN	LEFT	REGULATORY, GRAPHIC SIGN NO TEXT
0.556	0.556	SIGN	RIGHT	GUIDE, PARK HDQTRS VISITOR CENTER
0.556	0.556	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN NO TEXT
0.557	0.566	CURB-AND-GUTTER	RIGHT	N/A
0.570	0.570	INTERSECTION	RIGHT	ROUTE 0908 (BURNT HICKORY PARKING)
0.575	0.575	SIGN	LEFT	REGULATORY, GRAPHIC SIGN NO TEXT
0.575	0.638	CURB-AND-GUTTER	RIGHT	N/A
0.577	0.577	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.577	0.577	SIGN	RIGHT	WARNING, OLD MTN RD
0.601	0.601	SIGN	LEFT	REGULATORY, GRAPHIC SIGN NO TEXT
0.638	0.638	INTERSECTION	LEFT	PAVED ROUTE (OLD MOUNTAIN ROAD NW / NON-NPS)
0.641	0.641	SIGN	RIGHT	REGULATORY, DO NOT ENTER
0.642	0.642	INTERSECTION	RIGHT	ROUTE 0908 (BURNT HICKORY PARKING)

KEMO: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0015: BURNT HICKORY ROAD

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

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.930	0.930	SIGN	RIGHT	WARNING, AHEAD
0.930	0.930	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.930	0.930	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.954	0.954	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.970	0.970	SIGN	LEFT	REGULATORY, GRAPHIC SIGN NO TEXT
0.972	0.972	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN NO TEXT
0.978	0.978	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.978	0.978	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.983	0.983	SIGN	RIGHT	GUIDE, GRAPHIC SIGN NO TEXT
0.983	0.983	SIGN	RIGHT	GUIDE, GRAPHIC SIGN NO TEXT
0.983	0.983	SIGN	RIGHT	GUIDE, GRAPHIC SIGN NO TEXT
0.984	0.984	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.984	0.984	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.985	0.985	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.985	0.985	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.988	0.988	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.988	0.988	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
1.048	1.048	SIGN	LEFT	REGULATORY, GRAPHIC SIGN NO TEXT
1.048	1.048	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN NO TEXT
1.088	1.088	SIGN	LEFT	REGULATORY, GRAPHIC SIGN NO TEXT
1.089	1.089	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN NO TEXT
1.105	1.105	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
1.105	1.105	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
1.105	1.105	SIGN	LEFT	WARNING, AHEAD
1.172	1.172	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN NO TEXT
1.175	1.175	SIGN	LEFT	REGULATORY, GRAPHIC SIGN NO TEXT
1.178	1.178	SIGN	LEFT	GUIDE, KENNESAW MOUNTAIN NATIONAL BATTLEFIELD PARK
1.216	1.216	SIGN	LEFT	REGULATORY, GRAPHIC SIGN NO TEXT
1.216	1.216	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN NO TEXT

KEMO: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0015: BURNT HICKORY ROAD

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

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
1.240	1.240	SIGN	LEFT	REGULATORY, GRAPHIC SIGN NO TEXT
1.257	1.257	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
1.257	1.280	GUARD/GUIDE RAIL	RIGHT	N/A
1.263	1.280	GUARD/GUIDE RAIL	LEFT	N/A
1.277	1.277	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN NO TEXT
1.280	1.280	INTERSECTION	N/A	PAVED ROUTE (BURNT HICKORY ROAD / NON-NPS)
1.280	1.280	PARK BOUNDARY	N/A	N/A
1.280	1.280	INTERSECTION	RIGHT	PAVED ROUTE (NON-NPS)
1.280	1.280	ROUTE END	N/A	TO EAST PARK BOUNDARY (BRICK PARK SIGN)

KEMO: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0016: RIDENOUR ROAD

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

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM INTERSECTON OF ROUTE 0013 (OLD HIGHWAY 41)
0.000	0.000	INTERSECTION	LEFT	ROUTE 0013 (OLD HIGHWAY 41)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0013 (OLD HIGHWAY 41)
0.006	0.012	CURB-AND-GUTTER	LEFT	N/A
0.006	0.012	CURB-AND-GUTTER	RIGHT	N/A
0.007	0.007	SIGN	LEFT	REGULATORY, STOP
0.044	0.044	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
0.047	0.047	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.052	0.052	SIGN	RIGHT	REGULATORY, SPEED LIMIT 35
0.114	0.114	SIGN	LEFT	REGULATORY, UNABLE TO READ FROM VIDEO
0.158	0.158	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.159	0.159	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.193	0.193	SIGN	RIGHT	REGULATORY, UNABLE TO READ FROM VIDEO
0.202	0.202	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.212	0.212	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.225	0.225	SIGN	RIGHT	REGULATORY, ALL WAY
0.225	0.225	SIGN	RIGHT	REGULATORY, STOP
0.227	0.230	CURB	LEFT	N/A
0.229	0.229	SIGN	LEFT	REGULATORY, ALL WAY
0.229	0.229	SIGN	LEFT	REGULATORY, STOP
0.232	0.232	INTERSECTION	LEFT	PAVED ROUTE (RIDENOUR ROAD / NON-NPS)
0.232	0.232	INTERSECTION	N/A	PAVED ROUTE (GREERS CHAPEL ROAD / NON-NPS)
0.232	0.232	PARK BOUNDARY	N/A	N/A
0.232	0.232	ROUTE END	N/A	TO RIDENOUR SUBDIVISION (ON LEFT) AND PRIVATE PROPERTY (ON RIGHT)

KEMO: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0017: HARDAGE DRIVE

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

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0002 (DALLAS HIGHWAY / WHITLOCK AVENUE)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0002 (DALLAS HIGHWAY / WHITLOCK AVENUE)
0.000	0.000	INTERSECTION	LEFT	ROUTE 0002 (DALLAS HIGHWAY / WHITLOCK AVENUE)
0.004	0.004	SIGN	LEFT	REGULATORY, STOP
0.004	0.004	SIGN	LEFT	GUIDE, WHITLOCK AV 1660 NW
0.010	0.010	CULVERT	N/A	N/A
0.063	0.063	INTERSECTION	N/A	PAVED ROUTE (HARDAGE ROAD / NON-NPS)
0.063	0.063	PARK BOUNDARY	N/A	N/A
0.063	0.063	ROUTE END	N/A	TO PARK BOUNDARY

KEMO: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0018AZ: CHEATHAM HILL ROAD NORTH

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

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM PARK BOUNDARY
0.000	0.000	INTERSECTION	N/A	PAVED ROUTE (CHEATHAM HILL ROAD / NON-NPS)
0.000	0.000	PARK BOUNDARY	N/A	N/A
0.023	0.023	SIGN	RIGHT	WARNING, 2 X - WALKS
0.023	0.023	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.023	0.023	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.027	0.027	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN NO TEXT
0.068	0.068	SIGN	LEFT	REGULATORY, GRAPHIC SIGN NO TEXT
0.069	0.069	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN NO TEXT
0.097	0.097	INTERSECTION	RIGHT	ROUTE 0906 (CHEATHAM HILL ROAD PICNIC AREA PARKING)
0.105	0.105	SIGN	RIGHT	REGULATORY, NO PARKING THIS SIDE
0.107	0.107	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN NO TEXT
0.107	0.107	SIGN	RIGHT	REGULATORY, ONE WAY
0.120	0.120	SIGN	LEFT	REGULATORY, GRAPHIC SIGN NO TEXT
0.120	0.120	SIGN	LEFT	REGULATORY, SPEED LIMIT 45
0.142	0.142	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.142	0.142	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.144	0.144	SIGN	LEFT	GUIDE, GRAPHIC SIGN NO TEXT
0.144	0.144	SIGN	LEFT	GUIDE, GRAPHIC SIGN NO TEXT
0.144	0.144	SIGN	LEFT	GUIDE, GRAPHIC SIGN NO TEXT
0.144	0.144	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
0.145	0.145	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.145	0.145	SIGN	RIGHT	GUIDE, UNABLE TO READ FROM VIDEO
0.145	0.145	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.171	0.171	SIGN	LEFT	REGULATORY, GRAPHIC SIGN NO TEXT
0.172	0.172	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN NO TEXT
0.201	0.201	SIGN	LEFT	REGULATORY, GRAPHIC SIGN NO TEXT
0.203	0.203	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN NO TEXT
0.207	0.207	SIGN	RIGHT	REGULATORY, UNABLE TO READ FROM VIDEO
0.214	0.214	INTERSECTION	RIGHT	ROUTE 0906 (CHEATHAM HILL ROAD PICNIC AREA PARKING)

KEMO: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0018AZ: CHEATHAM HILL ROAD NORTH

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

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.216	0.216	SIGN	RIGHT	REGULATORY, UNABLE TO READ FROM VIDEO
0.217	0.217	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN NO TEXT
0.241	0.241	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.241	0.241	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.246	0.246	SIGN	LEFT	REGULATORY, GRAPHIC SIGN NO TEXT
0.251	0.251	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.251	0.251	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.258	0.258	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN NO TEXT
0.274	0.274	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.300	0.300	SIGN	LEFT	REGULATORY, GRAPHIC SIGN NO TEXT
0.300	0.300	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN NO TEXT
0.319	0.319	SIGN	LEFT	WARNING, UNABLE TO READ FROM VIDEO
0.319	0.319	SIGN	LEFT	WARNING, UNABLE TO READ FROM VIDEO
0.319	0.319	SIGN	LEFT	WARNING, UNABLE TO READ FROM VIDEO
0.328	0.328	INTERSECTION	N/A	PAVED ROUTE (CHEATHAM HILL ROAD / NON-NPS)
0.328	0.328	PARK BOUNDARY	N/A	N/A
0.328	0.328	ROUTE END	N/A	TO PARK BOUNDARY

KEMO: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0018BZ: CHEATHAM HILL ROAD SOUTH

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

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM PARK BOUNDARY
0.000	0.000	INTERSECTION	N/A	PAVED ROUTE (CHEATHAM HILL ROAD / NON-NPS)
0.000	0.000	PARK BOUNDARY	N/A	N/A
0.012	0.012	SIGN	LEFT	WARNING, 35 M.P.H.
0.012	0.012	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.048	0.048	SIGN	RIGHT	REGULATORY, SPEED LIMIT 45
0.100	0.100	CULVERT	N/A	N/A
0.122	0.122	SIGN	LEFT	GUIDE, KOLB LN
0.122	0.122	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
0.122	0.122	SIGN	LEFT	WARNING, NO OUTLET
0.128	0.128	INTERSECTION	LEFT	PAVED ROUTE (KOLB LANE / NON-NPS)
0.238	0.238	SIGN	RIGHT	WARNING, 2 X - WALKS
0.238	0.238	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.238	0.238	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.270	0.270	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.270	0.270	SIGN	RIGHT	WARNING, POWDER SPRINGS RD
0.289	0.289	SIGN	RIGHT	REGULATORY, RIGHT LANE MUST TURN RIGHT
0.294	0.294	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN NO TEXT
0.302	0.302	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN NO TEXT
0.307	0.307	SIGN	LEFT	REGULATORY, SPEED LIMIT 45
0.308	0.308	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.308	0.308	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.313	0.313	INTERSECTION	RIGHT	ROUTE 0911 (HORSE TRAILER PULL OFF LOOP AND PARKING)
0.326	0.326	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.326	0.326	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.327	0.327	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN NO TEXT
0.334	0.334	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN NO TEXT
0.342	0.342	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN NO TEXT
0.357	0.357	SIGN	RIGHT	REGULATORY, UNABLE TO READ FROM VIDEO
0.362	0.362	SIGN	LEFT	REGULATORY, UNABLE TO READ FROM VIDEO

KEMO: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0018BZ: CHEATHAM HILL ROAD SOUTH

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

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.383	0.383	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
0.383	0.383	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.383	0.383	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
0.383	0.383	SIGN	LEFT	GUIDE, GRAPHIC SIGN NO TEXT
0.383	0.383	SIGN	LEFT	GUIDE, GRAPHIC SIGN NO TEXT
0.383	0.383	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.384	0.384	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.384	0.384	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.386	0.386	SIGN	RIGHT	GUIDE, UNABLE TO READ FROM VIDEO
0.386	0.386	SIGN	RIGHT	GUIDE, UNABLE TO READ FROM VIDEO
0.386	0.386	SIGN	RIGHT	GUIDE, UNABLE TO READ FROM VIDEO
0.412	0.412	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.412	0.412	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.412	0.412	SIGN	LEFT	WARNING, UNABLE TO READ FROM VIDEO
0.423	0.423	SIGN	RIGHT	REGULATORY, UNABLE TO READ FROM VIDEO
0.425	0.425	TRAFFIC LIGHT	N/A	X3
0.425	0.425	TRAFFIC LIGHT	N/A	X5
0.427	0.427	SIGN	N/A	GUIDE, POWDER SPRINGS RD
0.427	0.427	TRAFFIC LIGHT	N/A	X5
0.427	0.427	TRAFFIC LIGHT	N/A	X3
0.427	0.427	INTERSECTION	LEFT	ROUTE 0001 (POWDER SPRINGS ROAD)
0.427	0.427	SIGN	N/A	GUIDE, UNABLE TO READ FROM VIDEO
0.427	0.427	PARK BOUNDARY	N/A	N/A
0.427	0.427	INTERSECTION	N/A	PAVED ROUTE (CALLOWAY ROAD / NON-NPS)
0.427	0.427	INTERSECTION	RIGHT	ROUTE 0001 (POWDER SPRINGS ROAD)
0.427	0.427	ROUTE END	N/A	TO ROUTE 0001 (POWDER SPRINGS ROAD)

KEMO: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0100: CHEATHAM HILL DRIVE

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

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM WHITLOCK AVENUE
0.000	0.000	INTERSECTION	LEFT	ROUTE 0002 (DALLAS HIGHWAY / WHITLOCK AVENUE)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0002 (DALLAS HIGHWAY / WHITLOCK AVENUE)
0.000	0.000	SIGN	N/A	GUIDE, KOLB FARM PARK HDQTRS. VISITOR CENTER
0.004	0.004	SIGN	RIGHT	GUIDE, GRAPHIC SIGN NO TEXT
0.005	0.005	SIGN	LEFT	REGULATORY, STOP
0.006	0.006	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.006	0.006	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.009	0.009	GATE	N/A	N/A
0.012	0.012	SIGN	RIGHT	REGULATORY, STOP
0.017	0.017	SIGN	RIGHT	GUIDE, AFTER PARK CLOSES VEHICLES TOWED AT OWNERS EXPENSE
0.017	0.017	SIGN	RIGHT	GUIDE, VISITOR HOURS 8:00 - 5:30 PARK CLOSES 6:00
0.017	0.017	SIGN	RIGHT	REGULATORY, TOW-AWAY ZONE
0.036	0.036	CULVERT	N/A	N/A
0.053	0.053	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.054	0.054	SIGN	RIGHT	REGULATORY, SPEED LIMIT 25
0.111	0.127	PULLOUT	RIGHT	N/A
0.122	0.122	SIGN	RIGHT	REGULATORY, UNABLE TO READ FROM VIDEO
0.128	0.128	SIGN	RIGHT	GUIDE, DO NOT ALLOW CHILDREN TO PLAY OR CUMB ON CANNON
0.228	0.228	SIGN	RIGHT	GUIDE, UNABLE TO READ FROM VIDEO
0.261	0.261	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
0.261	0.261	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
0.293	0.293	SIGN	RIGHT	GUIDE, UNABLE TO READ FROM VIDEO
0.293	0.293	SIGN	RIGHT	REGULATORY, UNABLE TO READ FROM VIDEO
0.302	0.326	PULLOUT	RIGHT	N/A
0.374	0.395	PULLOUT	RIGHT	N/A
0.452	0.452	CULVERT	N/A	N/A
0.561	0.561	SIGN	RIGHT	GUIDE, GRAPHIC SIGN NO TEXT
0.561	0.561	SIGN	RIGHT	GUIDE, GRAPHIC SIGN NO TEXT

KEMO: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0100: CHEATHAM HILL DRIVE

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

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.561	0.561	SIGN	RIGHT	GUIDE, GRAPHIC SIGN NO TEXT
0.561	0.561	SIGN	RIGHT	GUIDE, GRAPHIC SIGN NO TEXT
0.563	0.563	SIGN	RIGHT	REGULATORY, UNABLE TO READ FROM VIDEO
0.611	0.611	SIGN	RIGHT	REGULATORY, TOW-AWAY ZONE
0.611	0.611	SIGN	RIGHT	GUIDE, UNABLE TO READ FROM VIDEO
0.611	0.611	SIGN	RIGHT	GUIDE, VISITOR HOURS 8:00 - 5:30 PARK CLOSES 6:00
0.612	0.612	SIGN	N/A	REGULATORY, ONE WAY
0.612	0.612	SIGN	N/A	REGULATORY, DO NOT ENTER
0.612	0.612	INTERSECTION	N/A	ROUTE 0905 (ILLINOIS MONUMENT PARKING)
0.612	0.612	ROUTE END	N/A	TO ROUTE 0905 (ILLINOIS MONUMENT PARKING)

KEMO: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0400: SERVICE ROAD

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

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0010 (KENNESAW MOUNTAIN DRIVE)
0.000	0.000	INTERSECTION	LEFT	ROUTE 0010 (KENNESAW MOUNTAIN DRIVE)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0010 (KENNESAW MOUNTAIN DRIVE)
0.004	0.004	CULVERT	N/A	N/A
0.034	0.034	INTERSECTION	LEFT	ROUTE 0903 (HEADQUARTERS ADMINISTRATIVE PARKING)
0.058	0.058	CULVERT	N/A	N/A
0.080	0.080	INTERSECTION	N/A	ROUTE 0904 (MAINTENANCE FACILITY)
0.080	0.080	ROUTE END	N/A	TO ROUTE 0904 (MAINTENANCE FACILITY)

KEMO: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0600: WHITE CIRCLE ROAD

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

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0013 (OLD HIGHWAY 41)
0.000	0.000	INTERSECTION	LEFT	ROUTE 0013 (OLD HIGHWAY 41)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0013 (OLD HIGHWAY 41)
0.004	0.004	SIGN	LEFT	REGULATORY, STOP
0.006	0.006	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN NO TEXT
0.018	0.044	PAVED DITCH	LEFT	N/A
0.025	0.025	INTERSECTION	RIGHT	ROUTE 0601 (WHITE ROAD COURT)
0.029	0.044	PAVED DITCH	RIGHT	N/A
0.041	0.041	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
0.042	0.042	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN NO TEXT
0.044	0.044	SIGN	LEFT	REGULATORY, UNABLE TO READ FROM VIDEO
0.045	0.045	INTERSECTION	N/A	PAVED ROUTE (WHITE CIRCLE ROAD / NON NPS)
0.045	0.045	PARK BOUNDARY	N/A	N/A
0.045	0.045	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.045	0.045	ROUTE END	N/A	TO PARK BOUNDARY

KEMO: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0601: WHITE ROAD COURT

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

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0600 (WHITE CIRCLE ROAD)
0.000	0.000	SIGN	N/A	GUIDE, UNABLE TO READ FROM VIDEO
0.000	0.000	INTERSECTION	LEFT	ROUTE 0600 (WHITE CIRCLE ROAD)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0600 (WHITE CIRCLE ROAD)
0.007	0.007	SIGN	LEFT	GUIDE, WHITE CIR
0.007	0.007	SIGN	LEFT	REGULATORY, STOP
0.007	0.007	SIGN	RIGHT	REGULATORY, ROAD CLOSED TO THRU TRAFFIC
0.085	0.085	INTERSECTION	LEFT	PAVED ROAD (ASBERRY DRIVE / NON-NPS)
0.094	0.094	SIGN	LEFT	REGULATORY, UNABLE TO READ FROM VIDEO
0.094	0.094	SIGN	LEFT	REGULATORY, UNABLE TO READ FROM VIDEO
0.129	0.129	INTERSECTION	LEFT	PAVED PARKING (NON-NPS)
0.180	0.180	INTERSECTION	N/A	DEAD END
0.180	0.180	ROUTE END	N/A	TO DEAD END

KEMO: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0602: MOSSY ROCK ROAD

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

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0011 (STILESBORO ROAD)
0.000	0.000	INTERSECTION	LEFT	ROUTE 0011 (STILESBORO ROAD)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0011 (STILESBORO ROAD)
0.006	0.006	SIGN	LEFT	GUIDE, MOSSY ROCK RD
0.006	0.006	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
0.006	0.006	SIGN	RIGHT	REGULATORY, SPEED LIMIT 25
0.010	0.010	SIGN	LEFT	REGULATORY, STOP
0.037	0.037	SIGN	RIGHT	REGULATORY, UNABLE TO READ FROM VIDEO
0.073	0.084	CURB	N/A	N/A
0.076	0.076	SIGN	RIGHT	WARNING, NO TRAIN HORN
0.085	0.085	TRAFFIC LIGHT	RIGHT	X1
0.085	0.085	TRAFFIC LIGHT	RIGHT	X1
0.085	0.085	TRAFFIC LIGHT	RIGHT	X1
0.085	0.085	TRAFFIC LIGHT	RIGHT	X1
0.086	0.086	TRAFFIC LIGHT	LEFT	X1
0.086	0.086	INTERSECTION	N/A	PAVED ROUTE (MOSSY ROCKS / NON-NPS)
0.086	0.086	PARK BOUNDARY	N/A	N/A
0.086	0.086	SIGN	RIGHT	REGULATORY, RAILROAD CROSSING
0.086	0.086	ROUTE END	N/A	TO RAILROAD TRACKS

Section 10 Appendix



Kennesaw Mountain National Battlefield 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.

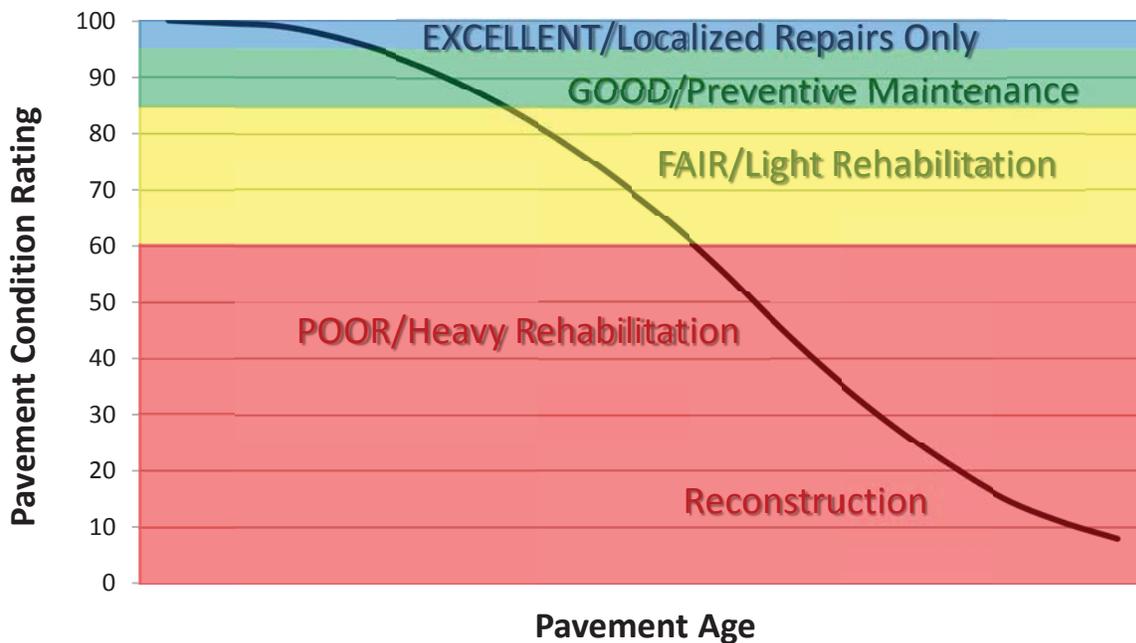
Explanation of the Excellent, Good, Fair and Poor Condition Descriptions

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