

Federal Lands Highway Road Inventory Program

Road Inventory and Condition Assessment



Mesa Verde National Park MEVE

Cycle 5 Report

Prepared By: Federal Highway Administration Road Inventory Program (RIP) Data Collected: 08/2012 Report Date: 04/2013

Mesa Verde National Park in Colorado

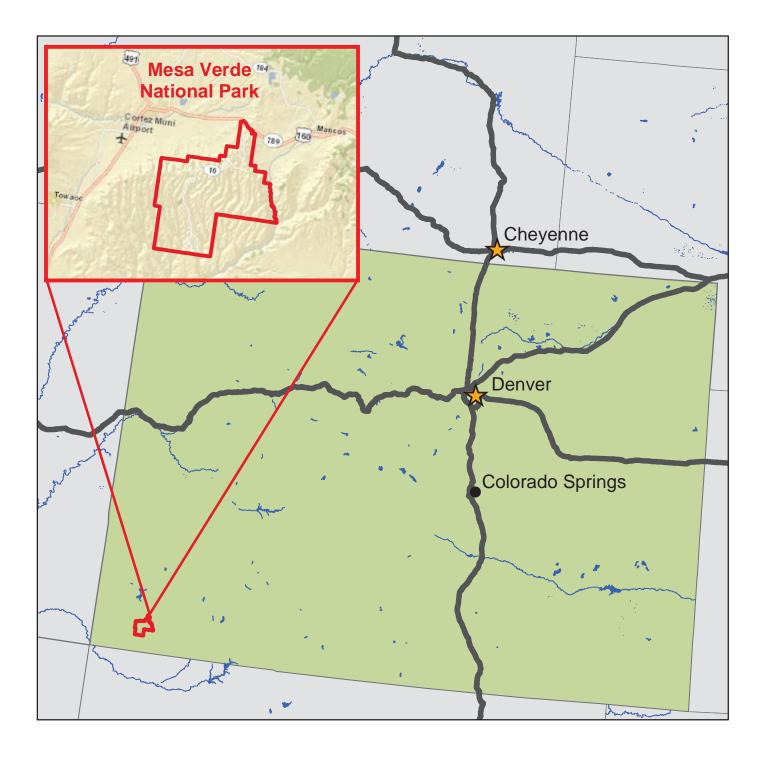




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Section 1 Introduction



Mesa Verde National Park



INTRODUCTION

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

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

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

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

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

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

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

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

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

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

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

Respectfully,

FHWA RIP Team

FHWA/Eastern Federal Lands 21400 Ridgetop Circle Sterling, VA 20166 (703) 404-6371 FHWA/Central Federal Lands 12300 West Dakota Ave Lakewood, CO 80228 (720) 963-3556

<u>Section 2</u> Park Route Inventory



Mesa Verde National Park



** DCV - Data Collection Vehicle

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

Rte.	e ted	FMSS	ess te		Route Des	scription	Maint.	Paved	Un-	Total	Func.	Manual	Surf.	Area
No.	Cycle Collected	No.	Concess Route	Route Name	From	То	District	Miles	Paved Miles	Route Length	Class	Rated SQ/FT	Туре	Maps
0010	5	46531		ENTRANCE ROAD	FROM NORTH PARK BOUNDARY AT US HIGHWAY 160 RAMPS	TO INTERSECTION OF ROUTES 0101 (MESA TOP ROAD) AND 0209 (HEADQUARTERS LOOP ROAD) / FOUR-WAY STOP	CHAPIN & MOREFIELD	19.99	0.00	19.99	1		AS	1,2,3
0100	5	46361		BALCONY HOUSE / CLIFF PALACE ROAD	FROM ROUTE 0101 (MESA TOP ROAD) AT MP 0.39 (ON LEFT)	TO END OF LOOP	CHAPIN	4.23	0.00	4.23	1		AS	3
0101	5	46271		MESA TOP ROAD	FROM INTERSECTION OF ROUTES 0010 (ENTRANCE ROAD) AT MP 20.11 (ON LEFT) AND 0209 (HEADQUARTERS LOOP ROAD) / FOUR-WAY STOP	TO END OF LOOP	CHAPIN	4.29	0.00	4.29	1		AS	3
0200	5	48027		WETHERILL MESA ROAD	FROM ROUTE 0010 (ENTRANCE ROAD) AT MP 15.11 (ON RIGHT)	TO ROUTE 0926 (WETHERILL MAIN AREA PARKING)	CHAPIN	12.44	0.00	12.44	2		AS	2,4
0201	5	47743		WETHERILL TRAM ROAD	FROM ROUTE 0926 (WETHERILL MAIN AREA PARKING)	TO END OF LOOP	CHAPIN	3.82	0.00	3.82	2		AS	4
0202	5	45586		MOREFIELD CAMPGROUND ACCESS ROAD	FROM ROUTE 0010 (ENTRANCE ROAD) AT MP 3.93 (ON RIGHT)	TO ROUTE 0908 (MOREFIELD AMPHITHEATER PARKING)	MOREFIELD	1.63	0.00	1.63	2		AS	1
0204A	4	46020		HEADQUARTERS PICNIC AREA ROAD A	FROM ROUTE 0209 (HEADQUARTERS LOOP ROAD) AT MP 0.23 (ON RIGHT)	TO END OF LOOP	CHAPIN	0.23	0.00	0.23	3		AS	3
0204B	4	102820		HEADQUARTERS PICNIC AREA ROAD B	FROM ROUTE 0204A (HEADQUARTERS PICNIC AREA ROAD A) AT MP 0.14 (ON LEFT)	TO ROUTE 0204A (HEADQUARTERS PICNIC AREA ROAD A) AT MP 0.22 (ON LEFT)	CHAPIN	0.13	0.00	0.13	3		AS	3
0204C	NC	237678		HQ PICNIC AREA ROAD C (NOT USED)	FROM ROUTE 0204A (HEADQUARTERS PICNIC AREA ROAD A)	TO ROUTE 0204B (HEADQUARTERS PICNIC AREA ROAD B)	CHAPIN	0.00	0.24	0.24	6		GR	
0205	5	47626		CEDAR TREE TOWER ROAD	FROM ROUTE 0010 (ENTRANCE ROAD) AT MP 19.72 (ON LEFT)	TO END OF LOOP	CHAPIN	0.37	0.00	0.37	2		AS	3

Cycle 5 NPS/RIP Route ID Report (Numerical By Route #) Road Inventory Program 04/1/2013 Page 2 of 13 White = Paved Routes, DCV Driven Blue = All Paved Parking Areas Green = All Unpaved Parking Areas Shading Color Key: Yellow = Unpaved Routes, DCV not Driven Red text denotes Grey = Paved Routes, DCV not Driven Black = State, Local or Private non-NPS Routes = Concession Route Flag ON approx. mileage *Unpaved route data was obtained from NPS and was not inventoried by the Road Inventory Program (RIP). ** DCV - Data Collection Vehicle *** Only Functional Class 1, 2, & 7 routes, and previously uncollected routes were collected in Cycle 5 MEVE MESA VERDE NATIONAL PARK S C p Un- Total Route Description Manual

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route De From	scription To	Maint. District	Paved Miles	Un- Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0206	5	47567		PARK POINT ROAD	FROM ROUTE 0010 (ENTRANCE ROAD) AT MP 10.56 (ON RIGHT)	TO ROUTE 0929 (PARK POINT PARKING)	MOREFIELD	0.51	0.00	0.51	2		AS	2
0207A	4	103010		MOREFIELD CAMPGROUND NAVAJO LOOP	FROM ROUTE 0202 (MOREFIELD CAMPGROUND ACCESS ROAD) AT MP 0.47 (ON LEFT)	TO END OF LOOP	MOREFIELD	0.37	0.00	0.37	6		AS	1
0207B	4	45707		MOREFIELD CAMPGROUND PUEBLO ROAD	FROM ROUTE 0202 (MOREFIELD CAMPGROUND ACCESS ROAD) AT MP 0.70 (ON RIGHT)	TO ROUTE 0207D (MOREFIELD CAMPGROUND TAOS LOOP) ON LEFT AND STRAIGHT / ROUTE 0207C (MOREFIELD CAMPGROUND ZUNI LOOP) ON RIGHT	MOREFIELD	0.18	0.00	0.18	3		AS	1
0207C	4	103050		MOREFIELD CAMPGROUND ZUNI LOOP	FROM ROUTE 0207B (MOREFIELD CAMPGROUND PUEBLO ROAD) AT MP 0.18 (ON RIGHT)	TO ROUTE 0207D (MOREFIELD CAMPGROUND TAOS LOOP) AT MP 0.14 (ON LEFT)	MOREFIELD	0.39	0.00	0.39	3		AS	1
0207D	5	103063		MOREFIELD CAMPGROUND TAOS LOOP	FROM ROUTE 0207B (MOREFIELD CAMPGROUND PUEBLO LOOP) AT MP 0.18 (ON LEFT)	TO ROUTE 0207B (MOREFIELD CAMPGROUND PUEBLO LOOP)	MOREFIELD	0.40	0.00	0.40	3		AS	1
0207F	4	103072		MOREFIELD CAMPGROUND GROUP CAMPING AREA LOOP A	FROM ROUTE 0202 (MOREFIELD CAMPGROUND ACCESS ROAD) AT MP 0.76 (ON LEFT)	TO END OF LOOP	MOREFIELD	0.26	0.00	0.26	3		AS	1
0207G	4	103075		MOREFIELD CAMPGROUND GROUP CAMPING AREA LOOP B	FROM ROUTE 0207F (MOREFIELD CAMPGROUND GROUP CAMPING AREA LOOP A) AT MP 0.10 ON LEFT	TO END OF LOOP	MOREFIELD	0.13	0.00	0.13	3		AS	1
0207H	4	103023		MOREFIELD CAMPGROUND UTE LOOP	FROM ROUTE 0202 (MOREFIELD CAMPGROUND ACCESS ROAD) AT MP 0.83 (ON RIGHT)	TO END OF LOOP	MOREFIELD	0.65	0.00	0.65	3		AS	1
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Cycle 5 NPS/RIP Route ID Report (Numerical By Route #) Road Inventory Program 04/1/2013 Page 3 of 13 White = Paved Routes, DCV Driven Blue = All Paved Parking Areas Green = All Unpaved Parking Areas Shading Color Key: Yellow = Unpaved Routes, DCV not Driven Red text denotes Grey = Paved Routes, DCV not Driven Black = State, Local or Private non-NPS Routes = Concession Route Flag ON approx. mileage *Unpaved route data was obtained from NPS and was not inventoried by the Road Inventory Program (RIP). ** DCV - Data Collection Vehicle *** Only Functional Class 1, 2, & 7 routes, and previously uncollected routes were collected in Cycle 5 MEVE

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Des From	scription To	Maint. District	Paved Miles	Un- Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
02071	4	102545		Morefield Campground Hopi Road / Oraibi Loop	FROM ROUTE 0202 (MOREFIELD CAMPGROUND ACCESS ROAD) AT MP 1.03 (ON RIGHT)	TO END OF LOOP	MOREFIELD	0.50	0.00	0.50	3		AS	1
0207J	4	102539		MOREFIELD CAMPGROUND WALPI LOOP	FROM ROUTE 0207I (MOREFIELD CAMPGROUND HOPI ROAD / ORAIBI LOOP) AT MP 0.02 (ON LEFT)	TO ROUTE 0207I (MOREFIELD CAMPGROUND HOPI ROAD / ORAIBI LOOP) AT MP 0.32 (ON RIGHT)	MOREFIELD	0.27	0.00	0.27	3		AS	1
0207K	4	103027		Morefield Campground Hano Loop	FROM ROUTE 0207J (MOREFIELD CAMPGROUND WALPI LOOP) AT MP 0.15 (ON LEFT)	TO ROUTE 0207J (MOREFIELD CAMPGROUND WALPI LOOP) AT MP 0.24 (ON LEFT)	MOREFIELD	0.13	0.00	0.13	3		AS	1
0207L	4	103068		MOREFIELD CAMPGROUND APACHE LOOP	FROM ROUTE 0202 (MOREFIELD CAMPGROUND ACCESS ROAD) AT MP 1.12 (ON RIGHT)	TO ROUTE 0202 (MOREFIELD CAMPGROUND ACCESS ROAD) AT MP 1.39 (ON RIGHT)	MOREFIELD	0.30	0.00	0.30	3		AS	1
0209	5	46019		HEADQUARTERS LOOP ROAD	FROM INTERSECTION OF ROUTES 0010 (ENTRANCE ROAD), 0101 (MESA TOP ROAD) AND 0101 (MESA TOP ROAD) / FOUR-WAY STOP	TO END OF LOOP	CHAPIN	1.20	0.00	1.20	1		AS	3
0210	5	47577		FAR VIEW RUINS ROAD	FROM ROUTE 0010 (ENTRANCE ROAD) AT MP 16.44 (ON LEFT)	TO END OF LOOP	CHAPIN	0.15	0.00	0.15	2		AS	2
0211	5	46277		SUN TEMPLE ROAD	FROM ROUTE 0101 (MESA TOP ROAD) AT MP 3.67 (ON RIGHT)	TO END OF LOOP	CHAPIN	0.42	0.00	0.42	2		AS	3
0212	NC	237672		EMPLOYEE PICNIC ROAD	FROM ROUTE 0010 (ENTRANCE ROAD) AT MP 1	TO END	MOREFIELD	0.00	0.08	0.08	6		GR	
0400	5	46124		UTILITY AREA ROAD	FROM ROUTE 0010 (ENTRANCE ROAD)	TO ROUTE 0945 (MAINTENANCE AREA PARKING)	CHAPIN	0.08	0.00	0.08	6		AS	3
0401	4	46200		CCC AREA ROAD	FROM ROUTE 0010 (ENTRANCE ROAD) AT MP 19.34 (ON RIGHT)	TO END OF LOOP	CHAPIN	0.45	0.00	0.45	3		AS	3

Road Inventory Program 04/1/2013 Cycle S ROSPS (RDE ROBLE DE Report) (Numerical By Route #) Page 4 of 13 Shading Color Key: Red text denotes approx. mileage White = Paved Routes, DCV Driven Yellow = Unpaved Routes, DCV not Driven Blue = All Paved Parking Areas Green = All Unpaved Parking Areas Grey = Paved Routes, DCV not Driven Black = State, Local or Private non-NPS Routes Image Concession Route Flag ON *Unpaved route data was obtained from NPS and was not inventoried by the Road Inventory Program (RIP). Image Concession Route Flag ON

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

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Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route De From	scription To	Maint. District	Paved Miles	Un- Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0402	5	47695		FAR VIEW LODGE ROAD	FROM ROUTE 0010 (ENTRANCE ROAD) AT MP 14.77 (ON RIGHT)	TO ROUTE 0913 (FAR VIEW LODGE PARKING)	CHAPIN	0.13	0.00	0.13	3		AS	2
0403	NC	48044		TWO MILLION GALLON WATER TANK ROAD	FROM ROUTE 0907 (PARKING AT MP 1.89)	TO END	CHAPIN	0.00	0.34	0.34	6		GR	
0404	4	47697		FAR VIEW RESIDENCE ROAD	FROM ROUTE 0010 (ENTRANCE ROAD) AT MP 15.19 (ON RIGHT)	TO ROUTE 0200 (WETHERILL MESA ROAD) AT MP 0.03 (ON LEFT)	CHAPIN	0.35	0.00	0.35	5		AS	2
0405	NC	46344		HELICOPTER PAD ROAD	FROM ROUTE 0101 (MESA TOP ROAD) AT MP 2.27 (ON RIGHT)	TO LANDING PAD	CHAPIN	0.00	1.80	1.80	6		GR	
0407	NC	49225		QUARRY ROAD	FROM ROUTE 0010 (ENTRANCE ROAD) AT MP 19.13 (ON RIGHT)	TO END	CHAPIN	0.00	0.79	0.79	6		GR	
0408	4	46034		HOGAN ACCESS ROAD	FROM ROUTE 0209 (HEADQUARTERS LOOP ROAD) AT MP 0.07 (ON RIGHT)	TO END OF LOOP	CHAPIN	0.12	0.00	0.12	6		AS	3
0409A	4	46092		STONE HOUSE ROAD A	FROM ROUTE 0209 (HEADQUARTERS LOOP ROAD) AT MP 0.46 (ON LEFT)	TO END OF LOOP	CHAPIN	0.12	0.00	0.12	6		AS	3
0409B	4	102822		STONE HOUSE ROAD B	FROM ROUTE 0409A (STONE HOUSE ROAD A) AT MP 0.04 (ON LEFT)	TO DEAD END	CHAPIN	0.06	0.00	0.06	6		AS	3
0410	4	45560		WATER TREATMENT PLANT ROAD	FROM ROUTE 0010 (ENTRANCE ROAD) AT MP 0.03 (ON RIGHT)	TO DEAD END	CHAPIN	0.13	0.00	0.13	6		AS	1
0412	NC	48040		WETHERILL HELIPORT SPUR	FROM END OF ROUTE 0451 (WETHERILL MESA WATER 300K GAL TANK ROAD)	TO HELIPORT SITE	CHAPIN	0.00	0.04	0.04	6		GR	
0413	5	47749		WETHERILL TRAM SHELTER ROAD	FROM ROUTE 0200 (WETHERILL MESA ROAD) AT MP 12.27 (ON LEFT)	TO TRAM SHELTER	CHAPIN	0.13	0.00	0.13	6		AS	4
0415	5	56726		WHITE HOUSE RESIDENCE ROAD	FROM ROUTE 0400 (UTILITY AREA ROAD)	TO END OF LOOP	CHAPIN	0.38	0.00	0.38	6		AS	3
0416	4	57772		FIRE CACHE ROAD	FROM ROUTE 0401 (CCC AREA ROAD) AT MP 0.17 (ON RIGHT)	TO END OF LOOP	CHAPIN	0.13	0.00	0.13	6		AS	3

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0 ,	White = Paved Routes, DCV Driven	Yellow = Unpaved Routes, DCV not Driven	Blue = All Paved Parking Areas	Green = All Unpaved Parking Areas
Red text denotes approx. mileage	Grey = Paved Routes, DCV not Driven	Black = State, Local or Private non-NPS Route	es = Concession Route Flag ON	
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Rte.	Cycle Collected	FMSS	Concess Route		Route De		Maint.	Paved	Un- Paved	Total Route	Func.	Manual Rated	Surf.	Area
No.	Cyc Colle	No.	Con Ro	Route Name	From	То	District	Miles	Miles	Length	Class	SQ/FT	Туре	Maps
0417	NC	83057		CHAPIN MESA SEWER LAGOON ROAD	FROM ROUTE 0205 (CEDAR TREE TOWER ROAD) AT MP 0.07 (ON LEFT)	TO DEAD END	CHAPIN	0.00	0.08	0.08	6		GR	
0418	NC	83345		WATER INTAKE ROAD	FROM FOREST SERVICE ROAD 561	TO WATER INTAKE STRUCTURE	MOREFIELD	0.00	3.20	3.20	6		GR	
0419	NC	83351		CHAPIN MESA WATER TANK ROAD	FROM ROUTE 0010 (ENTRANCE ROAD)	TO END	CHAPIN	0.00	0.55	0.55	6		GR	
0420	NC	83376		MOREFIELD WATER TANK ROAD	FROM ROUTE 0207H (MOREFIELD CAMPGROUND UTE LOOP)	TO END	MOREFIELD	0.00	0.25	0.25	6		GR	
0421	NC	83395		SPRUCE TREE TERRACE STORE ROAD	FROM ROUTE 0209 (HEADQUARTERS LOOP ROAD)	TO END	CHAPIN	0.00	0.20	0.20	6		GR	
0431	NC	111038		ROCK SPRINGS ROAD	FROM ROUTE 0200 (WETHERILL MESA ROAD)	TO ROUTE 0451 (WETHERILL MESA WATER 300K GAL TANK ROAD)	CHAPIN	0.00	1.06	1.06	6		GR	
0434	NC	111039		WETHERILL MESA SEWER LAGOON ROAD	FROM ROUTE 0201 (WETHERILL TRAM ROAD)	TO LAGOONS	CHAPIN	0.00	0.06	0.06	6		GR	
0440	NC	83348		LONG MESA PATROL/FIRE ROAD	FROM ROUTE 0200 (WETHERILL MESA ROAD)	TO END	CHAPIN	0.00	5.10	5.10	6		GR	
0450	NC	110739		NAVAJO MESA ROAD	FROM ROUTE 0200 (WETHERILL MESA ROAD)	TO END	CHAPIN	0.00	3.19	3.19	6		GR	
0451	NC	83320		WETHERILL MESA WATER 300K GAL TANK ROAD	FROM ROUTE 0200 (WETHERILL MESA ROAD)	TO WATER TANK	CHAPIN	0.00	0.10	0.10	6		GR	
0452	NC	83007		FAR VIEW SEWER LAGOON ROAD	FROM ROUTE 0010 (ENTRANCE ROAD)	TO SEWAGE TREATMENT PLANT	CHAPIN	0.00	0.53	0.53	6		GR	
0460	NC	47555		MOCCASIN MESA FIRE ROAD	FROM ROUTE 0010 (ENTRANCE ROAD)	TO PARK BOUNDARY	CHAPIN	0.00	5.94	5.94	6		GR	
0470	5	81449		MOREFIELD CANYON ROAD	FROM ROUTE 0010 (ENTRANCE ROAD)	TO DEAD END AT MP 7.74	MOREFIELD	0.13	7.61	7.74	6		AS	1
0471	NC	111040		OLD TOURIST TRAILHEAD ROAD	FROM ROUTE 0470 (MOREFIELD CANYON ROAD)	TO ROUTE 0475 (BIG MESA ROAD)	MOREFIELD	0.00	3.79	3.79	6		GR	
0472	NC	83342		SOUTH PRATER CANYON ROAD	FROM	то	MOREFIELD	0.00	4.10	4.10	6		GR	
0473	NC	45730		WHITES MESA ROAD	FROM ROUTE 0470 (MOREFIELD CANYON ROAD)	TO PARK BOUNDARY	MOREFIELD	0.00	7.25	7.25	6		GR	

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(Numerical By Route #)

 Shading Color Key:
 White = Paved Routes, DCV Driven
 Yellow = Unpaved Routes, DCV not Driven
 Blue = All Paved Parking Areas
 Green = All Unpaved Parking Areas

 Red text denotes approx. mileage
 Grey = Paved Routes, DCV not Driven
 Black = State, Local or Private non-NPS Routes
 = Concession Route Flag ON

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Rte.	le ted	FMSS	cess Ite		Route Des	scription	Maint.	Paved	Un- Paved	Total Route	Func.	Manual	Surf.	Area
No.	Cycle Collected	No.	Concess Route	Route Name	From	То	District	Miles	Miles	Length	Class	Rated SQ/FT	Туре	Maps
0474	NC	110544		MOREFIELD RIDGE ROAD	FROM ROUTE 0471 (OLD TOURIST TRAILHEAD ROAD)	TO PARK BOUNDARY	MOREFIELD	0.00	1.94	1.94	6		GR	
0475	NC	110524		BIG MESA ROAD	FROM ROUTE 0473 (WHITES MESA ROAD)	TO ROUTE 0477 (BIG MESA TRAILHEAD ROAD)	MOREFIELD	0.00	4.29	4.29	6		GR	
0476	NC	110673		WEAVER CANYON ROAD	FROM ROUTE 0473 (WHITES MESA ROAD)	TO DEAD END	MOREFIELD	0.00	1.42	1.42	6		GR	
0477	NC	110674		BIG MESA TRAILHEAD ROAD	FROM ROUTE 0476 (WEAVER CANYON ROAD)	TO PARK BOUNDARY	MOREFIELD	0.00	0.44	0.44	6		GR	
0478	NC	110675		SWIFT CANYON ROAD	FROM ROUTE 0475 (BIG MESA ROAD)	TO DEAD END	MOREFIELD	0.00	0.88	0.88	6		GR	
0480	NC	82744		NUESBAUM CUT WATER LINE ROAD	FROM ROUTE 0010 (ENTRANCE ROAD)	TO COUNTY ROAD H.5	MOREFIELD	0.00	3.35	3.35	6		GR	
0481	NC	83401		MANCOS RIVER ROAD	FROM COUNTY ROAD 38	TO END	MOREFIELD	0.00	2.30	2.30	6		GR	
0490	NC	48345		NORTH WATER LINE ROAD	FROM ROUTE 0953 (FEE OFFICE AREA PARKING)	TO PIPELINE VALVE	MOREFIELD	0.00	6.60	6.60	6		NV	
0491	NC	237679		H.5 ACCESS ROAD	FROM ROUTE 0957 (VRC ROAD AND PARKING AREA)	TO COUNTY ROAD H.5	MOREFIELD	0.00	0.53	0.53	6		GR	
0493	NC	56725		HQ PICNIC SPUR ROAD	FROM ROUTE 0204A (HEADQUARTERS PICNIC AREA ROAD A)	TO END	CHAPIN	0.00	0.10	0.10	6		GR	
0900	4	46620		ENTRANCE TRAILER AREA	FROM ROUTE 0010 (ENTRANCE ROAD) AT MP 0.53 ON LEFT	TO ROUTE 0010 (ENTRANCE ROAD)	MOREFIELD	0.00	0.00	0.00		33,986	AS	1
0901	4	45562		WATER TREATMENT PLANT PARKING AREA	FROM END OF ROUTE 0410 (TREATMENT PLANT ROAD)	TO PARKING	MOREFIELD	0.00	0.00	0.00		4,798	AS	1
0902	4	46534		MANCOS VALLEY OVERLOOK PARKING	FROM ROUTE 0010 (ENTRANCE ROAD) AT MP 3.37 ON LEFT	TO ROUTE 0010 (ENTRANCE ROAD)	MOREFIELD	0.00	0.00	0.00		10,822	AS	1
0903	4	48030		MESA BURN PARKING AREA	FROM ROUTE 0200 (WETHERILL MESA ROAD) AT MP 10.05 ON RIGHT	TO ROUTE 0200 (WETHERILL MESA ROAD)	CHAPIN	0.00	0.00	0.00		6,661	AS	4
0904	4	48034		MCELMO CANYON PARKING AREA	FROM ROUTE 0200 (WETHERILL MESA ROAD) AT MP 7.53 ON RIGHT	TO ROUTE 0200 (WETHERILL MESA ROAD)	CHAPIN	0.00	0.00	0.00		9,619	AS	4
0905	4	48036		PARKING AT MP 5.88	FROM ROUTE 0200 (WETHERILL MESA ROAD) AT MP 5.96 ON RIGHT	TO ROUTE 0200 (WETHERILL MESA ROAD)	MOREFIELD	0.00	0.00	0.00		9,362	AS	4

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(Numerical By Route #)

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Shading Color Key: Red text denotes approx. mileage

MEVE

Blue = All Paved Parking Areas Gr

Green = All Unpaved Parking Areas

Grey = Paved Routes, DCV not Driven Black = State, Local or Private non-NPS Routes

= Concession Route Flag ON

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

Yellow = Unpaved Routes, DCV not Driven

** DCV - Data Collection Vehicle

White = Paved Routes, DCV Driven

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

Dta	e ted	FMCC	ess		Route Des	scription	Maint.	Paved	Un-	Total	Func.	Manual	Surf.	Area
Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	From	То	District	Miles	Paved Miles	Route Length	Class	Rated SQ/FT	Туре	Maps
0906	4	48037		PARKING AT MP 2.68	FROM ROUTE 0200 (WETHERILL MESA ROAD) AT MP 2.72	TO ROUTE 0200 (WETHERILL MESA ROAD)	MOREFIELD	0.00	0.00	0.00		7,070	AS	2
0907	4	48038		PARKING AT MP 1.89	FROM ROUTE 0200 (WETHERILL MESA ROAD) AT MP 1.90	TO ROUTE 0200 (WETHERILL MESA ROAD)	MOREFIELD	0.00	0.00	0.00		9,851	AS	2
0908	4	45737		MOREFIELD AMPHITHEATER PARKING	FROM END OF ROUTE 0202 (MOREFIELD CAMPGROUND ACCESS ROAD)	TO PARKING	MOREFIELD	0.00	0.00	0.00		83,992	AS	1
0909	4	45734		KNIFE EDGE TRAIL PARKING	FROM ROUTE 0202 (MOREFIELD CAMPGROUND ACCESS ROAD) AT MP 1.21	TO ROUTE 0202 (MOREFIELD CAMPGROUND ACCESS ROAD)	MOREFIELD	0.00	0.00	0.00		12,465	AS	1
0910	4	45736		MOREFIELD STORE PARKING	FROM ROUTE 0202 (MOREFIELD CAMPGROUND ACCESS ROAD) AT MP 0.14	TO PARKING	MOREFIELD	0.00	0.00	0.00		80,052	AS	1
0911	4	45735		MOREFIELD DUMPSTATION #1	FROM ROUTE 0202 (MOREFIELD CAMPGROUND ACCESS ROAD) AT MP 0.52 ON RIGHT	TO ROUTE 0202 (MOREFIELD CAMPGROUND ACCESS ROAD)	MOREFIELD	0.00	0.00	0.00		7,622	AS	1
0912ZZ	4	47704		FAR VIEW TERRACE PARKING AREAS	FROM ROUTE 0200 (WETHERILL MESA ROAD) / ROUTE 0404 (FAR VIEW RESIDENCE ROAD)	TO PARKING	CHAPIN	0.00	0.00	0.00		61,024	AS	2
0913	5	47696		FAR VIEW LODGE PARKING	FROM END OF ROUTE 0402 (FAR VIEW LODGE ROAD)	TO PARKING	CHAPIN	0.00	0.00	0.00		212,517	AS	2
0914	4	46621		MONTEZUMA VALLEY OVERLOOK PARKING	FROM ROUTE 0010 (ENTRANCE ROAD) AT MP 6.57 ON RIGHT	TO ROUTE 0010 (ENTRANCE ROAD)	MOREFIELD	0.00	0.00	0.00		14,971	AS	1
0915	NC	46062		BUS AND RV OVERFLOW PARKING	FROM ROUTE 0209 (HEADQUARTERS LOOP ROAD) AT MP 0.59	TO ROUTE 0209 (HEADQUARTERS LOOP ROAD)	CHAPIN	0.00	0.00	0.00		27,105	GR	
0916	4	46063		HEADQUARTERS ROUND LOT	FROM ROUTE 0209 (HEADQUARTERS LOOP ROAD) AT MP 0.70 ON LEFT	TO PARKING	CHAPIN	0.00	0.00	0.00		16,923	AS	3

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0 ,	White = Paved Routes, DCV Driven	Yellow = Unpaved Routes, DCV not Driven	Blue = All Paved Parking Areas	Green = All Unpaved Parking Areas
Red text denotes approx. mileage	Grey = Paved Routes, DCV not Driven	Black = State, Local or Private non-NPS Route	es = Concession Route Flag ON	

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

** DCV - Data Collection Vehicle

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

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Cycle Collected	FMSS No.	Concess Route	Route Name	Route Des From	cription To	Maint. District	Paved Miles	Un- Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
4	50055		VISITOR CENTER EMPLOYEE PARKING	FROM ROUTE 0010 (ENTRANCE ROAD) AT MP 15.03 ON LEFT	TO PARKING	CHAPIN	0.00	0.00	0.00		3,916	AS	2
4	47692		VISITOR CENTER PARKING	FROM ROUTE 0010 (ENTRANCE ROAD) AT MP 15.03 ON RIGHT	TO ROUTE 0402 (FAR VIEW LODGE ROAD)	CHAPIN	0.00	0.00	0.00		63,219	AS	2
4	50056		HEADQUARTERS TOUR BUS PARKING A	FROM ROUTE 0209 (HEADQUARTERS LOOP ROAD)	TO ROUTE 0209 (HEADQUARTERS LOOP ROAD)	CHAPIN	0.00	0.00	0.00		16,250	AS	3
4	102572		HEADQUARTERS TOUR BUS PARKING B	ADJACENT TO ROUTE 0209 (HEADQUARTERS LOOP ROAD) AT MP 0.21 RIGHT		CHAPIN	0.00	0.00	0.00		2,030	AS	3
4	102592		HEADQUARTERS TOUR BUS PARKING C	ADJACENT TO ROUTE 0209 (HEADQUARTERS LOOP ROAD) AT MP 0.26 RIGHT		CHAPIN	0.00	0.00	0.00		2,945	AS	3
4	46064		MUSEUM AND RESTAURANT PARKING AREAS	ADJACENT TO ROUTE 0209 (HEADQUARTERS LOOP ROAD) ON LEFT AND RIGHT		CHAPIN	0.00	0.00	0.00		22,176	AS	3
4	46286		SUN TEMPLE PARKING	ADJACENT TO ROUTE 0211 (SUN TEMPLE ROAD)		CHAPIN	0.00	0.00	0.00		11,084	AS	3
4	46372		CLIFF PALACE PARKING AREAS	ADJACENT TO ROUTE 0100 (BALCONY HOUSE / CLIFF PALACE ROAD) ON LEFT AND RIGHT		CHAPIN	0.00	0.00	0.00		28,905	AS	3
4	46369		BALCONY HOUSE PARKING AREAS	ADJACENT TO ROUTE 0100 (BALCONY HOUSE / CLIFF PALACE ROAD) ON LEFT AND RIGHT		CHAPIN	0.00	0.00	0.00		32,531	AS	3
5	56729		QUARTERS #41 PARKING	FROM ROUTE 0410 (WATER TREATMENT PLANT ROAD)	TO PARKING	MOREFIELD	0.00	0.00	0.00		9,689	AS	1
5	56727		SIDE HEADQUARTERS AND POST OFFICE PARKING	FROM ROUTE 0209 (HEADQUARTERS LOOP ROAD) AT MP 0.67	TO PARKING	CHAPIN	0.00	0.00	0.00		3,948	AS	3
4	48057		WETHERILL MAIN AREA PARKING	FROM END OF ROUTE 0200 (WETHERILL MESA ROAD)	TO ROUTE 0201 (WETHERILL TRAM ROAD)	CHAPIN	0.00	0.00	0.00		119,720	AS	4
4	91107		MESA RECOVERS FROM FIRE PARKING	ADJACENT TO ROUTE 0200 (WETHERILL MESA ROAD) AT MP 6.79 ON LEFT		CHAPIN	0.00	0.00	0.00		3,236	AS	4
	4 4 4 4 4 4 4 4 4 4 4 5 5 5 4	4 50055 4 47692 4 50056 4 50056 4 50056 4 102572 4 102592 4 46064 4 46286 4 46372 4 556729 5 56729 4 48057	4 50055	450055Image: Construction of the synthesize of the	4 50055 VISITOR CENTER EMPLOYEE PARKING FROM ROUTE 0010 (ENTRANCE ROAD) AT MP 15.03 ON LEFT 4 47692 VISITOR CENTER PARKING FROM ROUTE 0010 (ENTRANCE ROAD) AT MP 15.03 ON RIGHT 4 50056 HEADQUARTERS TOUR BUS PARKING A FROM ROUTE 0209 (HEADQUARTERS LOOP ROAD) 4 102572 HEADQUARTERS TOUR BUS PARKING B ADJACENT TO ROUTE 0209 (HEADQUARTERS LOOP ROAD) AT MP 0.21 RIGHT 4 102592 HEADQUARTERS TOUR BUS PARKING C ADJACENT TO ROUTE 0209 (HEADQUARTERS LOOP ROAD) AT MP 0.26 RIGHT 4 46064 MUSEUM AND RESTAURANT PARKING AREAS ADJACENT TO ROUTE 0209 (HEADQUARTERS LOOP ROAD) ON LEFT AND RIGHT 4 46372 CLIFF PALACE PARKING AREAS ADJACENT TO ROUTE 0100 (BALCONY HOUSE / CLIFF PALACE ROAD) ON LEFT AND RIGHT 4 46369 BALCONY HOUSE PARKING AREAS ADJACENT TO ROUTE 0100 (BALCONY HOUSE / CLIFF PALACE ROAD) ON LEFT AND RIGHT 5 56727 SIDE HEADQUARTERS AND POST OFFICE PARKING FROM ROUTE 0209 (HEADQUARTERS LOOP ROAD) AT MP 0.67 PARKING 4 48057 WETHERILL MAIN AREA PARKING FROM ROUTE 0200 (WETHERILL MESA ROAD)	4 50055 VISITOR CENTER EMPLOYEE PARKING FROM ROUTE 0010 (ENTRANCE ROAD) AT MP TO PARKING 4 47692 VISITOR CENTER PARKING FROM ROUTE 0010 (ENTRANCE ROAD) AT MP TO ROUTE 0402 (FAR VIEW LODGE ROAD) 4 50056 HEADQUARTERS TOUR BUS PARKING A FROM ROUTE 0209 (HEADQUARTERS LOOP ROAD) TO ROUTE 0209 (HEADQUARTERS LOOP ROAD) TO ROUTE 0209 (HEADQUARTERS LOOP ROAD) 4 102572 HEADQUARTERS TOUR BUS PARKING B ADJACENT TO ROUTE 0209 (HEADQUARTERS LOOP ROAD) TO ROUTE 0209 (HEADQUARTERS LOOP ROAD) TO ROUTE 0209 (HEADQUARTERS LOOP ROAD) 4 102592 HEADQUARTERS TOUR BUS PARKING C ADJACENT TO ROUTE 0209 (HEADQUARTERS LOOP ROAD) ADJACENT TO ROUTE 0209 (HEADQUARTERS LOOP ROAD) ADJACENT TO ROUTE 0209 (HEADQUARTERS LOOP ROAD) ADJACENT TO ROUTE 0209 (HEADQUARTERS LOOP ROAD) ON LEFT AND RIGHT 4 46064 MUSEUM AND RESTAURANT PARKING AREAS ADJACENT TO ROUTE 0211 (SUN TEMPLE ROAD) ADJACENT TO ROUTE 0211 (SUN TEMPLE ROAD) 4 46372 CLIFF PALACE PARKING AREAS ADJACENT TO ROUTE 0100 (BALCONY HOUSE / CLIFF PALACE ROAD) ON LEFT AND RIGHT TO PARKING 5 56729 QUARTERS #41 PARKING AREAS FROM ROUTE 0100 (BALCONY HOUSE / CLIFF PALACE ROAD) ON LEFT AND RIGHT TO PARKING 4 48057 WETHERILL MAIN AREA PARKING FROM ROUTE 0200 (WETHERILL MESA ROAD) TO PARKING	4 50055 VISITOR CENTER EMPLOYEE PARKING FROM ROUTE 0010 (ENTRANCE ROAD) AT MP 15.03 00 LEFT TO PARKING CHAPIN 4 47692 VISITOR CENTER PARKING FROM ROUTE 0010 (ENTRANCE ROAD) AT MP 15.03 00 NIGHT TO ROUTE 0402 (FAR VIEW LODGE ROAD) CHAPIN 4 50056 HEADQUARTERS TOUR BUS PARKING A FROM ROUTE 0209 (HEADQUARTERS LOOP ROAD) TO ROUTE 0209 (HEADQUARTERS LOOP ROAD) TO ROUTE 0209 (HEADQUARTERS LOOP ROAD) CHAPIN 4 102572 HEADQUARTERS TOUR BUS PARKING B ADJACENT TO ROUTE 0209 (HEADQUARTERS LOOP ROAD) AT MP 0.21 RIGHT CHAPIN 4 102592 HEADQUARTERS TOUR BUS PARKING C ADJACENT TO ROUTE 0209 (HEADQUARTERS LOOP ROAD) AT MP 0.24 RIGHT CHAPIN 4 46064 MUSEUM AND RESTAURANT PARKING AREAS ADJACENT TO ROUTE 0209 (HEADQUARTERS LOOP ROAD) AT MP 0.26 RIGHT CHAPIN 4 46372 CLIFF PALACE PARKING AREAS ADJACENT TO ROUTE 0100 (BALCONY HOUSE / CLIFF PALACE ROAD) ON LEFT AND RIGHT CHAPIN 5 56729 QUARTERS #41 PARKING FROM ROUTE 0209 (HEADQUARTERS LOOP ROAD) ON LEFT AND RIGHT TO PARKING CHAPIN 4 48057 WETHERILL MAIN AREA PARKING FROM ROUTE 0200 (WETHERILL MESA ROAD) (WETHERILL MESA ROAD) TO PARKING CHAPIN	4 50055 VISITOR CENTER EMPLOYEE PARKING FROM ROUTE 0010 (ENTRANCE ROAD) AT MP 15.03 ON LEFT TO PARKING CHAPIN 0.00 4 47692 VISITOR CENTER PARKING FROM ROUTE 0010 (ENTRANCE ROAD) AT MP 15.03 ON RIGHT TO ROUTE 002 (FAR VIEW LODGE ROAD) CHAPIN 0.00 4 50056 HEADQUARTERS TOUR BUS PARKING A FROM ROUTE 0209 (HEADQUARTERS LOOP ROAD) TO ROUTE 0209 (HEADQUARTERS LOOP ROAD) TO ROUTE 0209 (HEADQUARTERS LOOP ROAD) CHAPIN 0.00 4 102572 HEADQUARTERS TOUR BUS PARKING B ADJACENT TO ROUTE 0209 (HEADQUARTERS LOOP ROAD) AT MP 0.21 RIGHT CHAPIN 0.00 4 102592 HEADQUARTERS TOUR BUS PARKING C ADJACENT TO ROUTE 0209 (HEADQUARTERS LOOP ROAD) AT MP 0.20 RIGHT CHAPIN 0.00 4 46064 MUSEUM AND RESTAURANT PARKING AREAS ADJACENT TO ROUTE 0209 (ROAD) AT MP 0.20 RIGHT CHAPIN 0.00 4 46372 CLIFF PALACE PARKING AREAS ADJACENT TO ROUTE 0100 (BALCONY HOUSE / CLIFF ALACE ROAD) ON LEFT AND RIGHT CHAPIN 0.00 5 56729 QUARTERS #41 PARKING AREAS FROM ROUTE 0100 (BALCONY HOUSE / CLIFF PALACE ROAD) ON LEFT AND RIGHT TO PARKING CHAPIN 0.00 4 48057 WETHERLL MAIN AREA PARK	4 50055 VISITOR CENTER EMPLOYEE PARKING FROM ROUTE 0010 (ENTRANCE ROAD) AT MP 15.03 ON LEFT TO PARKING CHAPIN 0.00 0.00 4 47692 VISITOR CENTER PARKING FROM ROUTE 0010 (ENTRANCE ROAD) AT MP 15.03 ON RIGHT TO ROUTE 0402 (FAR VIEW LODGE ROAD) CHAPIN 0.00 0.00 4 50056 HEADQUARTERS TOUR BUS PARKING A FROM ROUTE 0209 (HEADQUARTERS LOOP (HEADQUARTERS LOOP (HEADQUARTERS LOOP ROAD) TO ROUTE 0209 (HEADQUARTERS LOOP ROAD) CHAPIN 0.00 0.00 4 102572 HEADQUARTERS TOUR BUS PARKING B ADJACENT TO ROUTE 0209 (HEADQUARTERS LOOP ROAD) AT MP 0.20 RIGHT CHAPIN 0.00 0.00 4 102592 HEADQUARTERS TOUR BUS PARKING C ADJACENT TO ROUTE 0209 (ROAD) AT MP 0.20 RIGHT CHAPIN 0.00 0.00 4 460264 MUSEUM AND RESTAURANT PARKING AREAS ADJACENT TO ROUTE 0209 (READQUARTERS LOOP ROAD) ON LEFT AND RIGHT CHAPIN 0.00 0.00 0.00 4 46372 CLIFF PALCE PARKING AREAS ADJACENT TO ROUTE 0201 (SUN TEMPLE ROAD) CHAPIN 0.00 0.00 5 56727 BALCONY HOUSE PARKING RAREAS FROM ROUTE 0200	4 50055 VISITOR CENTER EMPLOYEE PARKING FROM ROUTE 0010 (ENTRANCE ROAD) AT MP TO PARKING CHAPIN 0.00 0.00 0.00 4 47692 VISITOR CENTER PARKING FROM ROUTE 0010 (ENTRANCE ROAD) AT MP 15.03 ON RIGHT TO ROUTE 0402 (FAR VIEW LODGE ROAD) CHAPIN 0.00 0.00 0.00 0.00 4 50056 HEADQUARTERS TOUR BUS PARKING A FROM ROUTE 0209 (HEADQUARTERS LOOP ROAD) TO ROUTE 0209 (HEADQUARTERS LOOP ROAD) TO ROUTE 0209 (HEADQUARTERS LOOP ROAD) CHAPIN 0.00 0.00 0.00 4 102592 HEADQUARTERS TOUR BUS PARKING C ADJACENT TO ROUTE 0209 ROAD) AT MP 0.21 RIGHT CHAPIN 0.00 0.00 0.00 0.00 4 102592 HEADQUARTERS TOUR BUS PARKING C ADJACENT TO ROUTE 0209 ROAD) AT MP 0.23 RIGHT CHAPIN 0.00 0.00 0.00 0.00 4 46064 MUSEUM AND READOUARTERS LOOP ROAD) AT MP 0.23 RIGHT CHAPIN 0.00 0.00 0.00 4 46372 CLIFF PALACE PARKING RARAS ADJACENT TO ROUTE 0209 ROAD) AT MP 0.25 RIGHT CHAPIN 0.00 0.00 0.00 0.0	4 50055 VISITOR CENTER EMPLOYEE PARKING FROM ROUTE 0010 (ENTRANCE ROAD) AT MP 15.03 ON LEFT TO PARKING CHAPIN 0.00 0.00 0.00 4 47692 VISITOR CENTER PARKING FROM ROUTE 0010 (ENTRANCE ROAD) AT MP 15.03 ON LEFT TO ROUTE 0402 (FAR VIEW LOGGE ROAD) CHAPIN 0.00 0.00 0.00 0.00 4 50056 HEADQUARTERS TOUR BUS PARKING A FROM ROUTE 0209 (HEADQUARTERS LOOP (ROAD) AT MP 0.21 RIGHT TO ROUTE 0209 (HEADQUARTERS LOOP (ROAD) AT MP 0.21 RIGHT CHAPIN 0.00 0.00 0.00 4 102592 HEADQUARTERS TOUR BUS PARKING B ADJACENT TO ROUTE 0209 (HEADQUARTERS LOOP ROAD) AT MP 0.24 RIGHT CHAPIN 0.00 0.00 0.00 0.00 4 102592 HEADQUARTERS TOUR BUS PARKING C ADJACENT TO ROUTE 0209 (HEADQUARTERS LOOP ROAD) AT MP 0.24 RIGHT CHAPIN 0.00 0.00 0.00 0.00 4 46064 SUN TEMPLE PARKING A ADJACENT TO ROUTE 0209 (READ DUARTERS LOOP ROAD) ON LEFT AND RIGHT CHAPIN 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	4 S0055 VISITOR CENTER EMPLOYE PARKING FROM ROUTE 0010 (ENTRANCE ROAD) AT MP IS.03 ON LEFT EROM ROUTE 0010 (ENTRANCE ROAD) AT MP UEW LODGE ROAD) CHAPIN 0.00	4 50055 VISITOR CENTER EMPLOYEE PARKING FROM ROUTE 0010 (ENTRANCE ROAD) AT MP IS 03 001 LEFT TO PARKING CHAPIN 0.00 </td

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(Numerical By Route #)

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0 ,	White = Paved Routes, DCV Driven	Yellow = Unpaved Routes, DCV not Driven	Blue = All Paved Parking Areas	Green = All Unpaved Parking Areas
Red text denotes approx. mileage	Grey = Paved Routes, DCV not Driven	Black = State, Local or Private non-NPS Route	s = Concession Route Flag ON	

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Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Des From	scription To	Maint. District	Paved Miles	Un- Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0928	4	91108		MONTEZUMA VALLEY WINDOW TO THE PAST PARKING	ADJACENT TO ROUTE 0200 (WETHERILL MESA ROAD) AT MP 3.94 ON RIGHT		CHAPIN	0.00	0.00	0.00		4,922	AS	4
0929	4	91109		PARK POINT PARKING	FROM END OF ROUTE 0206 (PARK POINT ROAD)	TO PARKING	MOREFIELD	0.00	0.00	0.00		29,017	AS	2
0930	4	91110		PARK POINT PULLOUT	ADJACENT TO ROUTE 0010 (ENTRANCE ROAD) AT MP 10.63 ON LEFT		MOREFIELD	0.00	0.00	0.00		6,136	AS	2
0931A	4	102890		FARVIEW RESIDENCE PARKING A	ADJACENT TO ROUTE 0404 (FAR VIEW RESIDENCE ROAD) AT MP 0.14 LEFT		CHAPIN	0.00	0.00	0.00		4,097	AS	2
0931B	4	102908		FARVIEW RESIDENCE PARKING B	ADJACENT TO ROUTE 0404 (FAR VIEW RESIDENCE ROAD) AT MP 0.23 RIGHT		CHAPIN	0.00	0.00	0.00		3,348	AS	2
0931C	4	102902		FARVIEW RESIDENCE PARKING C	ADJACENT TO ROUTE 0404 (FAR VIEW RESIDENCE ROAD) AT MP 0.25 LEFT		CHAPIN	0.00	0.00	0.00		1,594	AS	2
0931D	4	102915		FARVIEW RESIDENCE PARKING D	ADJACENT TO ROUTE 0404 (FAR VIEW RESIDENCE ROAD) AT MP 0.26 RIGHT		CHAPIN	0.00	0.00	0.00		2,175	AS	2
0931E	4	102939		FARVIEW RESIDENCE PARKING E	ADJACENT TO ROUTE 0404 (FAR VIEW RESIDENCE ROAD) AT MP 0.28 LEFT		CHAPIN	0.00	0.00	0.00		954	AS	2
0931F	4	102932		FARVIEW RESIDENCE PARKING F	FROM ROUTE 0404 (FAR VIEW RESIDENCE ROAD) AT MP 0.33 LEFT	TO PARKING	CHAPIN	0.00	0.00	0.00		8,844	AS	2
0932A	4	103347		NATURAL RESOURCE AREA PARKING	ADJACENT TO ROUTE 0401 (CCC AREA ROAD) AT MP 0.07 ON RIGHT		CHAPIN	0.00	0.00	0.00		2,273	AS	3
0932B	4	91088		RESEARCH PARKING	ADJACENT TO ROUTE 0401 (CCC AREA ROAD) AT MP 0.22 ON LEFT		CHAPIN	0.00	0.00	0.00		3,459	AS	3
0933	4	46529		SAFETY ZONE PARKING	FROM ROUTE 0416 (FIRE CACHE ROAD) ON LEFT	TO PARKING	CHAPIN	0.00	0.00	0.00		26,421	AS	3
0934	5	103076		FIRE DORM PARKING	FROM ROUTE 0415 (WHITE HOUSE RESIDENCE ROAD) AT MP 0.11	TO ROUTE 0415 (WHITE HOUSE RESIDENCE ROAD)	CHAPIN	0.00	0.00	0.00		10,440	AS	3
0935	NC	91089		CHAPIN SEWAGE TREATMENT PLANT PARKING	ADJACENT TO ROUTE 0417 (CHAPIN MESA SEWER LAGOON ROAD)		CHAPIN	0.00	0.00	0.00		685	GR	

Road Inventory Program 04/1/2013 Cape of Data Support Read Balance of Data Support Read Balance of Data Support Performance of Data Support

** DCV - Data Collection Vehicle

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MESA VERDE NATIONAL PARK

MEVE

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route De From	scription To	Maint. District	Paved Miles	Un- Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0936	4	91097		PRATER RIDGE TRAIL PARKING	FROM ROUTE 0202 (MOREFIELD CAMPGROUND ACCESS ROAD) AT MP 0.53 ON LEFT	TO ROUTE 0202 (MOREFIELD CAMPGROUND ACCESS ROAD)	MOREFIELD	0.00	0.00	0.00		8,600	AS	1
0937	4	91098		MOREFIELD DUMPSTATION # 2	ADJACENT TO ROUTE 0202 (MOREFIELD CAMPGROUND ACCESS ROAD) AT MP 0.67 ON LEFT		MOREFIELD	0.00	0.00	0.00		6,435	AS	1
0938	4	91099		MUSEUM AND RESTAURANT OVERFLOW PARKING	ADJACENT TO ROUTE 0209 (HEADQUARTERS LOOP ROAD) AT MP 0.97 ON RIGHT		CHAPIN	0.00	0.00	0.00		15,973	AS	3
0939	4	91100		PIT HOUSE PARKING	ADJACENT TO ROUTE 0101 (MESA TOP ROAD) AT MP 1.59 ON LEFT		CHAPIN	0.00	0.00	0.00		4,652	AS	3
0940	4	91101		SQUARE TOWER HOUSE PARKING	ADJACENT TO ROUTE 0101 (MESA TOP ROAD) AT MP 1.80 ON RIGHT		CHAPIN	0.00	0.00	0.00		7,580	AS	3
0941	4	91102		PIT HOUSE AND PUEBLOS PARKING	ADJACENT TO ROUTE 0101 (MESA TOP ROAD) AT MP 2.15 ON RIGHT		CHAPIN	0.00	0.00	0.00		3,343	AS	3
0942	4	91103		MESA TOP SITES PARKING	ADJACENT TO ROUTE 0101 (MESA TOP ROAD) AT MP 2.40 ON RIGHT		CHAPIN	0.00	0.00	0.00		3,396	AS	3
0943	4	91105		SUN PUEBLO PARKING	ADJACENT TO ROUTE 0101 (MESA TOP ROAD) AT MP 2.70 ON LEFT		CHAPIN	0.00	0.00	0.00		4,464	AS	3
0944	4	91106		SUN POINT VIEW PARKING	ADJACENT TO ROUTE 0101 (MESA TOP ROAD) AT MP 3.00 ON RIGHT		CHAPIN	0.00	0.00	0.00		3,361	AS	3
0945	5	231508		MAINTENANCE AREA PARKING	FROM END OF ROUTE 0400 (UTILITY AREA ROAD)	TO PARKING	CHAPIN	0.00	0.00	0.00		44,321	AS	3
0946	5	103228		FITNESS CENTER / MAINTENANCE PARKING	FROM ROUTE 0415 (WHITE HOUSE RESIDENCE ROAD) AT MP 0.36	TO ROUTE 0415 (WHITE HOUSE RESIDENCE ROAD)	CHAPIN	0.00	0.00	0.00		5,022	AS	3

Cycle 5 NPS/RIP Route ID Report (Numerical By Route #) Road Inventory Program 04/1/2013 Page 11 of 13 White = Paved Routes, DCV Driven Yellow = Unpaved Routes, DCV not Driven Blue = All Paved Parking Areas Green = All Unpaved Parking Areas Shading Color Key: Red text denotes Grey = Paved Routes, DCV not Driven Black = State, Local or Private non-NPS Routes = Concession Route Flag ON approx. mileage

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

** DCV - Data Collection Vehicle

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

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Des From	scription To	Maint. District	Paved Miles	Un- Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0947	4	101498		BRAVO CUT PARKING	FROM ROUTE 0010 (ENTRANCE ROAD) AT MP 9.26 ON LEFT	TO ROUTE 0010 (ENTRANCE ROAD)	CHAPIN	0.00	0.00	0.00		15,320	AS	1
0948ZZ	4	103020		MOREFIELD RESIDENCE PARKING AREAS	ADJACENT TO ROUTE 0207A (MOREFIELD CAMPGROUND NAVAJO LOOP) ON LEFT AND RIGHT		MOREFIELD	0.00	0.00	0.00		4,437	AS	1
0949	5	105199		RECREATION HALL PARKING	ADJACENT TO ROUTE 0401 (CCC AREA ROAD) AT MP 0.4 ON LEFT		CHAPIN	0.00	0.00	0.00		3,562	AS	3
0953	5	45570		FEE OFFICE AREA PARKING	FROM ROUTE 0010 (ENTRANCE ROAD) AT MP 0.71 (ON RIGHT)	TO ROUTE 0490 (NORTH WATER LINE ROAD)	MOREFIELD	0.00	0.00	0.00		6,736	AS	1
0955	NC	108069		MAINTENANCE STORAGE LOT / BONE YARD	FROM END OF ROUTE 0405 (HELICOPTER PAD ROAD)	TO PARKING	CHAPIN	0.00	0.00	0.00		40,787	GR	
0956	NC	233839		MOREFIELD HORSE BARN / SAND SHED AREA	ADJACENT TO ROUTE 0470 (MOREFIELD CANYON ROAD)		MOREFIELD	0.00	0.00	0.00		40,855	GR	
0957	5	112449		VRC ROAD AND PARKING AREA	FROM ROUTE 0010 (ENTRANCE ROAD)	TO PARKING	MOREFIELD	0.00	0.00	0.00		121,394	AS	1
0958	5	237677		GEOLOGIC OVERLOOK PARKING	ADJACENT TO ROUTE 0010 (ENTRANCE ROAD)		CHAPIN	0.00	0.00	0.00		8,748	AS	2
0959	5	238163		FAR VIEW LODGE SERVICE PARKING	FROM ROUTE 0913 (FAR VIEW LODGE PARKING)	TO PARKING	CHAPIN	0.00	0.00	0.00		4,567	СО	2
0960	5			VRC EMPLOYEE PARKING AREA	FROM ROUTE 0957 (VRC ROAD AND PARKING AREA)	TO PARKING	MOREFIELD	0.00	0.00	0.00		10,234	СО	1

Road Inventory Pro	-	-	P ROL	Ite ID Report		Page 12 of 13							
Shading Color Key:	White = Paved Routes, DCV Driven	Yellow = Unpaved Routes, DC	/ not Driven	Blue = All Paved Parking Areas	Green = All Unpaved Parking	Areas							
Red text denotes approx. mileage	Grey = Paved Routes, DCV not Driven	Black = State, Local or Private	non-NPS Rou	tes = Concession Route Flag ON	1								
	*Unpaved route data was obtained from NPS and was not inventoried by the Road Inventory Program (RIP). ** DCV - Data Collection Vehicle *** Only Functional Class 1, 2, & 7 routes, and previously uncollected routes were co												
	CYCLE 5 COLLECTED SUMMARY TOTALS FOR MESA VERDE NATIONAL PARK												
CYCLE 5 COLLECTED ROUTE TOTALS CYCLE 5 COLLECTED CONCESSION TOTALS													
	DCV Driven Route Mi	iles 50.29		Conce	ssion Paved Route Miles	4.34							
	Manually Rated Route Mi	les 0.00		217,084									
TOTAL PAR	K ROUTE MILES COLLECTED IN CYCL	E 5 50.29		Concession Mar	nually Rated Rotes SQFT	0							
	Manually Rated Routes (SQI	FT) 0	CYCLE	5 COLLECTED WEIGHT	ED AVERAGE PAI	RK VALUES							
* <u>CYCLE 5</u>	COLLECTED PARKING A	REA TOTALS			DCV Driven PCR	85							
Paved Parking (SQFT) 441,178 **Manually Rated Routes PCR													
					**Parking PCR	76							
				***Tota	al Equivalent Lane Miles	115.27							

TOTAL PARK SUMMARY FOR MESA VERDE NATIONAL PARK

<u>ROUTE TOTALS</u>	
TOTAL PAVED PARK ROUTE MILES	55.19
TOTAL PAVED PARKING (SQFT)	1,287,209

* - 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.

oad Inve	entory Pro	ogram 04/1/2013	e 5 NPS/RIP Route ID Report (Numerical By Route #)	Page 13 of
0	Color Key:	White = Paved Routes, DCV Driven	Green = All Unpaved Parking Areas	
Red text approx. n		Grey = Paved Routes, DCV not Driven *Unpaved route data was obtained from N ** DCV - Data Collection Vehicle	Black = State, Local or Private non-NPS Routes = Concession Route Flag (PS and was not inventoried by the Road Inventory Program (RIP). *** Only Functional Class 1, 2, & 7 routes, and	DN d previously uncollected routes were collected in Cyc
		General Park R	oad Functional Classification Table	Surface Type Abbreviations
<u>Class 1</u>			constitute the main access route, circulatory tour, or thoroughfare for park visitors. race) are numbered 1 - 9. State Routes Inventoried for Park. Route Numbers 5000-5999	AS - Asphaltic Concrete Pavement
<u>Class 2</u>		ark Road (Public Roads) - Roads which provide acce s, etc. Route Numbers 100-199.	ss within a park to areas of scenic, scientific, recreational or cultural interest, such as overlooks,	CO - Portland Cement Concrete Paveme BR - Brick or Pavers Road Bed
<u>Class 3</u>			e circulation within public areas, such as campgrounds, picnic areas, visitor center complexes, peed traffic and are often designed for one-way circulation. Route Numbers 200-299.	CB - Cobble Stone Road Bed GR - Gravel Road Bed
<u>Class 4</u>	roads freque	ntly have no minimum design standards and their	ulation through remote areas and/or access to primitive campgrounds and undeveloped areas. These use may be limited to specially equipped vehicles. Route Numbers 200-299. s because, historically, they were numbered similarly.	SA - Sand Road Bed NV - Native or Dirt Material Road Bed
<u>Class 5</u>		ve Access Road (Administrative Roads) - All public utility areas. Route Numbers 400-499.	roads intended for access to administrative developments or structures such as park offices, employee	OT - Other Materials Road Bed
<u>Class 6</u>	Note: Func	tional Classes 5 and 6 have the same route number	sed to the public, including patrol roads, truck trails, and other similar roads. Route Numbers 400-499. rs because historically they were numbered similarly and often there is little distinction between housing are often closed to the public, this restriction would result in classification of FC 6 rather	
<u>Class 7</u>	an urban are		ties serve high volumes of park and non-park related traffic and are restricted, limited-access facilities i ne major parkways which serve as gateways to our nation's capital. Other major park roads or portions abers 1-9.	
<u>Class 8</u>			e usually extensions of the adjoining street system that are owned and maintained by the National Park m with accepted local engineering practice and local conditions. Route Numbers 600-699.	
******	****	*****	**********	**
			park or other unit of the NPS which are administered by the NPS, or by the Service in cooperation with road is not based on traffic volumes or design speed, but on the intended use or function of that road o	r
nationwide	e which are de		es for interpretive roads, and a 500 series for one-way roads. There are approximately 250 roads for these roads will be maintained for reporting consistency. However, since these interpretive and and 500 series will be discontinued for future use.	
		rs are assigned to Non-NPS Routes that are State, /ideo Log only.	County or City owned which border, traverse, or provide access to Park Facilities or Locations. 5000 Ro	utes

NPS/RIP Subcomponent Details for MEVE

 Road Inventory Program 04/1/2013
 (Numerical By Subcomponent #)
 Page 1 of 3

 Shading Color Key:
 White = Paved Routes, DCV Driven
 Yellow = Unpaved Routes, DCV not Driven
 Blue = All Paved Parking Areas
 Green = All Unpaved Parking Areas

 Grey = Paved Routes, DCV not Driven
 Black = State, Local or Private non-NPS Routes
 = Concession Route Flag ON

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

MESA VERDE NATIONAL PARK

MEVE

Rte. No.	FMSS No.	Cycle Collected	Route Name	Route Desc	•	Concess Route	Func. Class	Paved Miles	Un- Paved Miles	Total Route Length	Manual Rated SQ/FT
NO.		00		From	То	0 2	ĒΟ	Miles	Mies		30/11
0912ZZ	47704	4	FAR VIEW TERRACE PARKING AREAS	FROM ROUTE 0200 (WETHERILL MESA ROAD) / ROUTE 0404 (FAR VIEW RESIDENCE ROAD)	TO PARKING			0.00	0.00	0.00	61,024
0920ZZ	46064	4	MUSEUM AND RESTAURANT PARKING AREAS	ADJACENT TO ROUTE 0209 (HEADQUARTERS LOOP ROAD) ON LEFT AND RIGHT				0.00	0.00	0.00	22,176
0922ZZ	46372	4	CLIFF PALACE PARKING AREAS	ADJACENT TO ROUTE 0100 (BALCONY HOUSE / CLIFF PALACE ROAD) ON LEFT AND RIGHT				0.00	0.00	0.00	28,905
0923ZZ	46369	4	BALCONY HOUSE PARKING AREAS	ADJACENT TO ROUTE 0100 (BALCONY HOUSE / CLIFF PALACE ROAD) ON LEFT AND RIGHT				0.00	0.00	0.00	32,531
0948ZZ	103020	4	MOREFIELD RESIDENCE PARKING AREAS	ADJACENT TO ROUTE 0207A (MOREFIELD CAMPGROUND NAVAJO LOOP) ON LEFT AND RIGHT				0.00	0.00	0.00	4,437

MEVE-0912ZZ Subcomponent Breakdown

Rte.	FMSS	cle lected		Route Descr	ncess ute nc.	Paved	Un- Paved	Total Route	Manual Rated	
No.	No.	Cycle Colle	Route Name	From	То	Cor Rou Clai	Miles	Miles	Length	SQ/FT
0912AZ	47704	4	FAR VIEW TERRACE PARKING A	FROM ROUTE 0404 (FAR VIEW RESIDENCE ROAD)	TO PARKING		0.00	0.00	0.00	55,395
0912BZ	47704	4	FAR VIEW TERRACE PARKING B	FROM ROUTE 0200 (WETHERILL MESA ROAD)	TO PARKING		0.00	0.00	0.00	5,629
							8	<u> </u>		

NPS/RIP Subcomponent Details for MEVE

oad Inv	childry	-									
•	Color Key:	W	hite = Paved Routes, DCV Driven	Yellow = Unpaved Routes, DCV not Driven Blue :	= All Paved Parking Area	IS	G	reen = All Ur	paved Parl	king Areas	
Red text approx.	t denotes mileage	Gr	rey = Paved Routes, DCV not Driven	Black = State, Local or Private non-NPS Routes	= Concession Rou	ute Flag	ON				
	<u> </u>	*U	Inpaved route data was obtained from NP	S and was not inventoried by the Road Inventory Prog	ram (RIP).						
Μ	EVE		MESA VERDE NATIONAL PA	NRK							
EVE-	09202	ZZ S	Subcomponent Breakd	own							
Rte.	FMSS	Cycle Collecte		Route Description		cess te	ວ່າ ຮູ	Paved	Un- Paved	Total Route	Manua Rated
No.	No.	Cyc Coll	Route Name	From	То	Conces: Route	Func. Class	Miles	Miles	Length	SQ/FT
0920AZ	46064	4	MUSEUM AND RESTAURANT PARKING AREA A	ADJACENT TO ROUTE 0209 (HEADQUARTERS LOOP ROAD) AT MP 0.81 ON RIGHT				0.00	0.00	0.00	11,16
0920BZ	46064	4	MUSEUM AND RESTAURANT PARKING AREA B	ADJACENT TO ROUTE 0209 (HEADQUARTERS LOOP ROAD) AT				0.00	0.00	0.00	11,0
		1 1		MP 0.84 ON LEFT							
				MP 0.84 ON LEFT							
EVE-	09222	zz s	Subcomponent Breakd								
Rte.	09222 FMSS No.	þ	Subcomponent Breakd	OWN Route Description	To	Concess	unc. lass	Paved	Un- Paved Miles	Total Route Length	Rated
EVE- Rte. No.	FMSS	Cycle Collected	·	own	То	Concess Route	Func. Class	Paved Miles		Route	Manua Rated SQ/FT 16,8-
Rte. No.	FMSS No.	þ	Route Name	OWN Route Description From ADJACENT TO ROUTE 0100 (BALCONY HOUSE / CLIFF PALACE	То	Concess Route	Func. Class	Miles	Paved Miles	Route Length	Rated SQ/FT
Rte. No. 0922AZ	FMSS No.	þ	Route Name	OWN Route Description From ADJACENT TO ROUTE 0100 (BALCONY HOUSE / CLIFF PALACE ROAD) AT MP 1.73 ON RIGHT ADJACENT TO ROUTE 0100 (BALCONY HOUSE / CLIFF PALACE	То	Concess Route	Func. Class	Miles	Paved Miles	Route Length	Rated SQ/F1 16,8
Rte. No. 0922AZ	FMSS No. 46372	CycleCollected	Route Name	OWN Route Description From ADJACENT TO ROUTE 0100 (BALCONY HOUSE / CLIFF PALACE ROAD) AT MP 1.73 ON RIGHT ADJACENT TO ROUTE 0100	То	Concess	Func. Class	Miles 0.00	Paved Miles	Route Length	Ratec SQ/F
Rte. No. 0922AZ 0922BZ	FMSS No. 46372 46372	P Cycle P Collected	Route Name	OWN Route Description From ADJACENT TO ROUTE 0100 (BALCONY HOUSE / CLIFF PALACE ROAD) AT MP 1.73 ON RIGHT ADJACENT TO ROUTE 0100 (BALCONY HOUSE / CLIFF PALACE ROAD) AT MP 1.73 ON LEFT	То	Concess	Func. Class	Miles 0.00	Paved Miles	Route Length	Rated SQ/F1 16,8
Rte. No. 0922AZ 0922BZ	FMSS No. 46372 46372	A Cycle	Route Name CLIFF PALACE PARKING AREA A CLIFF PALACE PARKING AREA B	OWN Route Description From ADJACENT TO ROUTE 0100 (BALCONY HOUSE / CLIFF PALACE ROAD) AT MP 1.73 ON RIGHT ADJACENT TO ROUTE 0100 (BALCONY HOUSE / CLIFF PALACE ROAD) AT MP 1.73 ON LEFT OWN	То			Miles 0.00	Paved Miles 0.00 0.00	Route Length	Rated SQ/F1 16,8 12,0
Rte. No. 0922AZ 0922BZ EVE- Rte.	FMSS No. 46372 46372	P Cycle P Collected	Route Name CLIFF PALACE PARKING AREA A CLIFF PALACE PARKING AREA B	OWN Route Description From ADJACENT TO ROUTE 0100 (BALCONY HOUSE / CLIFF PALACE ROAD) AT MP 1.73 ON RIGHT ADJACENT TO ROUTE 0100 (BALCONY HOUSE / CLIFF PALACE ROAD) AT MP 1.73 ON LEFT	То	Concess Concess Route		Miles 0.00	Paved Miles	Route 0.00 0.00	Rated SQ/F1 16,8 12,0 Manua Rated
Rte. No. 0922AZ 0922BZ	FMSS No. 46372 46372 09232 FMSS	A Cycle	Route Name CLIFF PALACE PARKING AREA A CLIFF PALACE PARKING AREA B	OWN Route Description From ADJACENT TO ROUTE 0100 (BALCONY HOUSE / CLIFF PALACE ROAD) AT MP 1.73 ON RIGHT ADJACENT TO ROUTE 0100 (BALCONY HOUSE / CLIFF PALACE ROAD) AT MP 1.73 ON LEFT OWN BOWN				Miles 0.00 0.00 0.00	Paved Miles 0.00 0.00	Route Length 0.00 0.00 Total Route	Rated SQ/F1

NPS/RIP Subcomponent De	etails for MEVE
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Road Inv	ventory Pr	ogra	am 04/1/2013	(Numerical By Subco	mponent #	;)						Page 3 of 3
	Color Key:	W	hite = Paved Routes, DCV Driven	Yellow = Unpaved Routes, DCV not Driven	Blue = All Pav	ed Parking Areas		G	reen = All Un	paved Parl	king Areas	
	t denotes mileage	Gı	ey = Paved Routes, DCV not Driven	Black = State, Local or Private non-NPS Routes	=	Concession Route I	Flag	ON				_
		*U	Inpaved route data was obtained from NF	S and was not inventoried by the Road Inventory	Program (RIF	P).						
MEVE MESA VERDE NATIONAL PARK												
MEVE-	0948Z	ZS	Subcomponent Breakd	lown								
Rte. No.	FMSS No.	Cycle Collected	Route Name	Route Descripti From	on To		Route	Func. Class	Paved Miles	Un- Paved Miles	Total Route Length	Manual Rated SQ/FT
0948AZ	103020	4	MOREFIELD RESIDENCE PARKING A	ADJACENT TO ROUTE 0207A (MOREFIELD CAMPGROUND NAVAJO LOOP) AT MP 0.03 ON RIGHT					0.00	0.00	0.00	3,395
0948BZ	103020	4	MOREFIELD RESIDENCE PARKING B	ADJACENT TO ROUTE 0207A (MOREFIELD CAMPGROUND NAVAJO LOOP) AT MP 0.04 ON LEFT					0.00	0.00	0.00	1,042

	ROUTES ADDED FROM PREVIOUS INVENTORY:							
Route #	Route Name	Reason for Addition	Comments					
0957	VRC ROAD AND PARKING AREA	RECENTLY CONSTRUCTED ROUTE	NEW PARKING AREA ADDED TO INVENTORY IN CYCLE 5.					
0958	GEOLOGIC OVERLOOK PARKING	OTHER	PARKING AREA ADDED TO INVENTORY IN CYCLE 5.					
0959	FAR VIEW LODGE SERVICE PARKING	RECENTLY CONSTRUCTED ROUTE	NEW PARKING AREA ADDED TO INVENTORY IN CYCLE 5.					
0960	VRC EMPLOYEE PARKING AREA	RECENTLY CONSTRUCTED ROUTE	NEW PARKING AREA ADDED TO INVENTORY IN CYCLE 5. FMSS NUMBER NOT AVAILABLE TO REPORT IN CYCLE 5.					
	ROUTES	MODIFIED FROM PREVIOUS IN	NVENTORY:					
Route #	Route Name	Type of Modification	Comments					
0010	ENTRANCE ROAD	LENGTH CHANGE	ROUTE LENGTH DECREASED FROM 20.11 TO 19.99 MILES DUE TO RECONSTRUCTION AROUND PARK ENTRANCE STATION. ROUTE NAME CHANGED FROM "CHAPIN MESA ROAD".					
0207D	MOREFIELD CAMPGROUND TAOS LOOP	RECONSTRUCTED	ROUTE NAME CHANGED TO THE ROUTE NAME GIVEN TO ROUTE 0207E, WHICH WAS REMOVED IN CYCLE 5. ROUTE 0207D WAS COMBINED WITH ROUTE 0207E. HALF OF THE CYCLE 4 ROUTE 0207E LOOP WAS PHYSICALLY REMOVED. THE REMOVED SEGMENT USED TO SEPARATE THE D LOOP AND E LOOP, BUT NOW THE D AND E LOOP ARE ONE LOOP.					
0470	MOREFIELD CANYON ROAD	SURFACE TYPE CHANGE	THE BEGINNING PORTION OF THE ROUTE WAS PAVED SINCE CYCLE 4; THE REST REMAINS UNPAVED.					
0924	QUARTERS #41 PARKING	RECONSTRUCTED	GPS WAS UPDATED TO SHOW CHANGES TO THE PARKING AREA SHAPE. ROUTE NAME CHANGED FROM "WATER TREATMENT PLANT PARKING".					
0935	CHAPIN SEWAGE TREATMENT PLANT PARKING	SURFACE TYPE CHANGE	SURFACE TYPE CHANGED FROM ASPHALT TO GRAVEL.					

ROUTE IDENTIFICATION CHANGES TO PAVED ROUTES FROM PREVIOUS CYCLE - MEVE

ROUTES MODIFIED FROM PREVIOUS INVENTORY:							
Route #	Route # Route Name Type of Modification Comments						
0949	RECREATION HALL PARKING	SURFACE TYPE CHANGE	PARKING AREA WAS RECENTLY PAVED. IT WAS UNPAVED IN CYCLE 4.				

	OTHER CHANGES FROM PREVIOUS INVENTORY:								
Route #	Route Name	Type of Change	Comments						
0100	BALCONY HOUSE / CLIFF PALACE ROAD	OTHER	ROUTE NAME CHANGED FROM "BALCONY HOUSE ROAD".						
0201	WETHERILL TRAM ROAD	OTHER	ROUTE NAME CHANGED FROM "LONG HOUSE ROAD".						
0202	MOREFIELD CAMPGROUND ACCESS ROAD	FUNCTIONAL CLASS CHANGE	FUNCTIONAL CLASS CHANGED FROM 3 TO 2 BECAUSE THIS ROAD PROVIDES ACCESS TO THE CAMPGROUND.						
0207A	MOREFIELD CAMPGROUND NAVAJO LOOP	FUNCTIONAL CLASS CHANGE	FUNCTIONAL CLASS CHANGED FROM 3 TO 6 BECAUSE THE ROAD IS NONPUBLIC AND FOR EMPLOYEES ONLY.						
0400	UTILITY AREA ROAD	ROUTE SPLIT	ROUTE WAS IDENTIFIED AS AN UNPAVED ROAD IN CYCLE 4. IN CYCLE 4, ROUTE 0400 AND ROUTE 0415 WERE DRIVEN TOGETHER AS ROUTE 0415. IN CYCLE 5, ROUTE 0415 WAS SPLIT INTO TWO ROUTES: 0400 AND 0415. ROUTE 0400 IS THE ACCESS ROAD TO THE MAINTENANCE AREA AND ROUTE 0415 IS THE LOOP ROAD THAT COMES OFF OF ROUTE 0400.						
0401	CCC AREA ROAD	FUNCTIONAL CLASS CHANGE	FUNCTIONAL CLASS CHANGED FROM 4 TO 3 BECAUSE IT IS NOT A PRIMITIVE ROAD. ROUTE NAME CHANGED FROM "RESEARCH AREA ROAD".						
0402	FAR VIEW LODGE ROAD	ROUTE SPLIT	ROUTE 0402 WAS COLLECTED AS PART OF THE ROUTE 0913 SHAPE IN CYCLE 4. ROUTE 0400 WAS MISTAKEN FOR A GRAVEL ROAD IN CYCLE 4. FUNCTIONAL CLASS CHANGED FROM 4 TO 3 BECAUSE IT IS NOT A PRIMITIVE ROAD.						
0404	FAR VIEW RESIDENCE ROAD	FUNCTIONAL CLASS CHANGE	FUNCTIONAL CLASS CHANGED FROM 4 TO 5 BECAUSE IT IS A PUBLIC, ADMINISTRATIVE ROAD.						
0410	WATER TREATMENT PLANT ROAD	FUNCTIONAL CLASS CHANGE	FUNCTIONAL CLASS CHANGED FROM 5 TO 6 BECAUSE IT IS NONPUBLIC. ROUTE NAME CHANGED FROM "TREATMENT PLANT ROAD".						

	OTHER CHANGES FROM PREVIOUS INVENTORY:								
Route #	Route Name	Type of Change	Comments						
0413	WETHERILL TRAM SHELTER ROAD	COLLECTION METHOD CHANGE	COLLECTED WITH THE DATA COLLECTION VEHICLE (DCV) IN CYCLE 5; WAS MANUALLY RATED IN CYCLE 4. ROUTE NAME CHANGED FROM "WETHERILL MAINTENANCE AREA". THE TRAM BUILDING WAS REMOVED FROM THE COLLECTED AREA.						
0415	WHITE HOUSE RESIDENCE ROAD	ROUTE SPLIT	ROUTE 0415 WAS SHORTENED WHEN ROUTE 0400 WAS SEPARATED FROM ROUTE 0415.						
0417	CHAPIN MESA SEWER LAGOON ROAD	SURFACE TYPE CHANGE	SURFACE TYPE CHANGED FROM ASPHALT TO GRAVEL IN CYCLE 5.						
0910	MOREFIELD STORE PARKING	OTHER	ROUTE NAME CHANGED FROM "MOREFIELD CAMPGROUND SERVICES PARKING".						
0913	FAR VIEW LODGE PARKING	ROUTE SPLIT	THE ACCESS ROAD WAS SEPARATED OUT OF THE PARKING AREA SHAPE IN CYCLE 5 AS ROUTE 0402. ROUTE 0913 HAD A DECREASE IN SQUARE FOOTAGE.						
0917	VISITOR CENTER EMPLOYEE PARKING	OTHER	ROUTE NAME CHANGED FROM "FAR VIEW ADMINISTRATIVE PARKING" FOR IMARS.						
0925	SIDE HEADQUARTERS AND POST OFFICE PARKING	SQ FEET CHANGE	GPS WAS UPDATED TO SHOW THE PARKING AREA SHAPE ACCURATELY.						
0926	WETHERILL MAIN AREA PARKING	OTHER	ROUTE NAME CHANGED FROM "WETHERILL MESA TRAM PARKING".						
0932A	NATURAL RESOURCE AREA PARKING	OTHER	ROUTE NAME CHANGED FROM "STORAGE AREA PARKING A".						
0932B	RESEARCH PARKING	OTHER	ROUTE NAME CHANGED FROM "STORAGE AREA PARKING B".						

	OTHER CHANGES FROM PREVIOUS INVENTORY:							
Route #	Route Name	Type of Change	Comments					
0933	SAFETY ZONE PARKING	OTHER	ROUTE NAME CHANGED FROM "3C RESEARCH PARKING AREA".					
0934	FIRE DORM PARKING	SQ FEET CHANGE	GPS WAS UPDATED TO SHOW THE PARKING AREA SHAPE ACCURATELY.					
0945	MAINTENANCE AREA PARKING	SQ FEET CHANGE	GPS RECOLLECTED TO INCLUDE A LARGE SECTION ON THE EAST SIDE. THE SQUARE FOOTAGE INCREASED.					
0946	FITNESS CENTER / MAINTENANCE PARKING	SQ FEET CHANGE	SHAPE WAS RECOLLECTED BECAUSE THE GPS WAS OFF AND SOME PARKING SPURS HAD BEEN ADJUSTED. ROUTE NAME CHANGED FROM "MAINTENANCE AREA / OLD TRAILER PARKING" FOR IMARS.					
0953	FEE OFFICE AREA PARKING	OTHER	CHANGED FROM A ROAD TO A PARKING AREA (WAS ROUTE 0406 IN CYCLE 4). ROUTE NAME WAS CHANGED FROM "FEE COLLECTION ROAD".					

<u>Section 3</u> Park Summary Information



Mesa Verde National Park



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

	Pavement Condition Rating (PCR)								
	Poor (0)-60)	Fair (6	1-84)	Good	(85-94)	Excellent	: (95-100)	TOTAL
F.C.	MILES	%	MILES	%	MILES	%	MILES	%	MILES
1	1.32	2.62%	5.48	10.90%	6.23	12.39%	16.68	33.17%	29.71
2	0.88	1.75%	12.89	25.63%	4.99	9.92%	0.58	1.15%	19.34
3	0.08	0.16%	0.08	0.16%	0.32	0.64%	0.04	0.08%	0.52
4									
5									
6	0.06	0.12%	0.08	0.16%	0.43	0.86%	0.15	0.30%	0.72
7									
8									
Totals	2.34	4.65%	18.53	36.85%	11.97	23.80%	17.45	34.70%	50.29

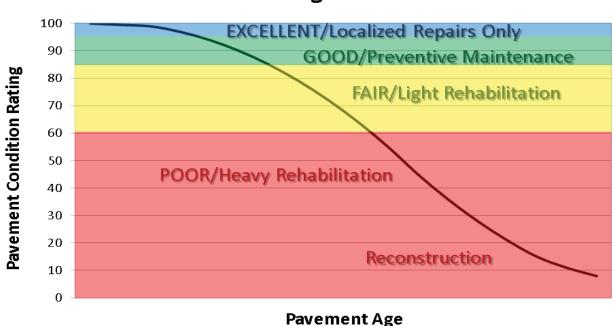
Note: The information in this table is derived from the PMS_20 table in the Park database, which only contains processed data from routes collected with the Data Collection Vehicle (DCV). Information for Manually Rated Routes (MRR) and Parking Areas is not reported in this table. Only Functional Class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

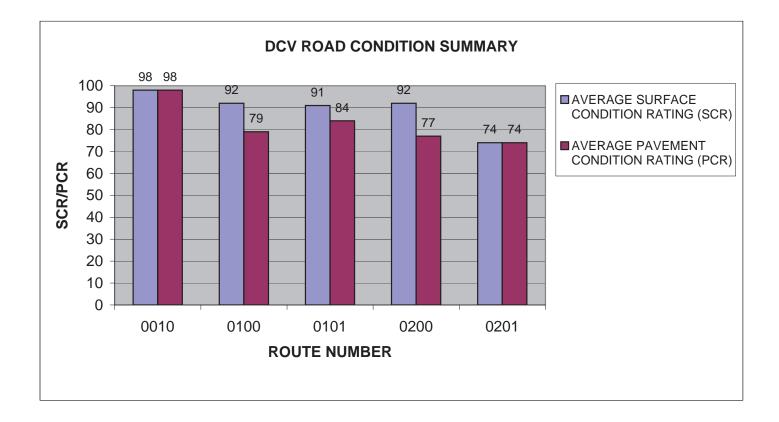
- Excellent/New: PCR of 95-100. Pavements in this range will require only spot repairs
- Good: PCR of 85-94. Pavements in this range will likely be candidates for Preventive Maintenance. Examples include Chip and Slurry Seals, Micro Surfacing and Thin Overlays.
- Fair: PCR of 61-84. Pavements in this 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.

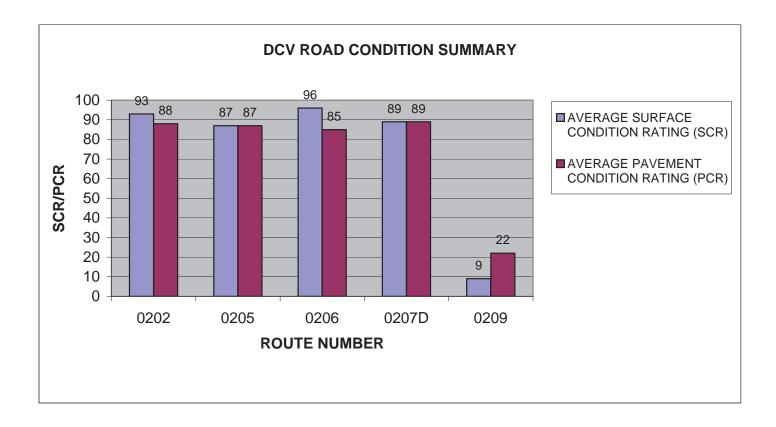


Condition Categories and Treatments

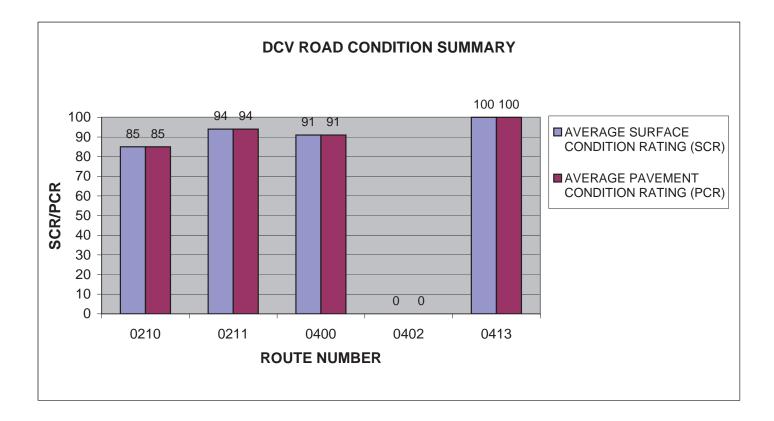
ROUTE NUMBER	ROUTE NAME	101101	PAVED LENGTH		AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE PAVEMENT CONDITION RATING (PCR)
0010	ENTRANCE ROAD	1	19.99	ASPHALT	98	98
0100	BALCONY HOUSE / CLIFF PALACE ROAD	1	4.23	ASPHALT	92	79
0101	MESA TOP ROAD	1	4.29	ASPHALT	91	84
0200	WETHERILL MESA ROAD	2	12.44	ASPHALT	92	77
0201	WETHERILL TRAM ROAD	2	3.82	ASPHALT	74	74



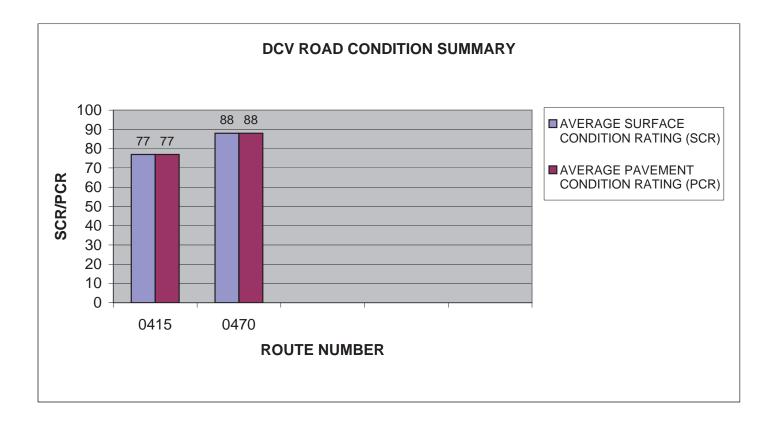
ROUTE NUMBER	ROUTE NAME	101101	PAVED LENGTH		AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE PAVEMENT CONDITION RATING (PCR)
0202	MOREFIELD CAMPGROUND ACCESS ROAD	2	1.63	ASPHALT	93	88
0205	CEDAR TREE TOWER ROAD	2	0.37	ASPHALT	87	87
0206	PARK POINT ROAD	2	0.51	ASPHALT	96	85
0207D	MOREFIELD CAMPGROUND TAOS LOOP	3	0.40	ASPHALT	89	89
0209	HEADQUARTERS LOOP ROAD	1	1.20	ASPHALT	9	22



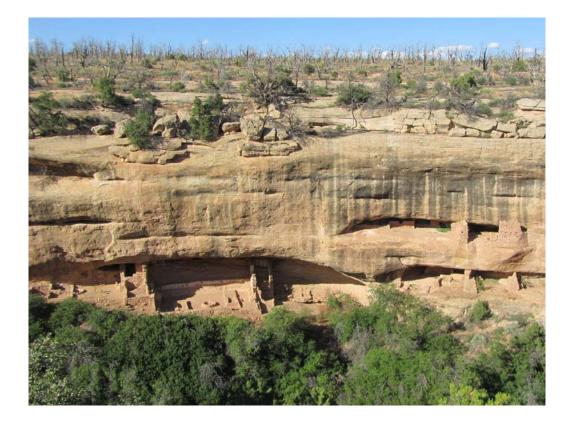
ROUTE NUMBER	ROUTE NAME	101101	PAVED LENGTH		AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE PAVEMENT CONDITION RATING (PCR)
0210	FAR VIEW RUINS ROAD	2	0.15	ASPHALT	85	85
0211	SUN TEMPLE ROAD	2	0.42	ASPHALT	94	94
0400	UTILITY AREA ROAD	6	0.08	ASPHALT	91	91
0402	FAR VIEW LODGE ROAD	3	0.13	ASPHALT	0	0
0413	WETHERILL TRAM SHELTER ROAD	6	0.13	ASPHALT	100	100



					AVERAGE	AVERAGE
					SURFACE	PAVEMENT
ROUTE		FUNCT	PAVED	SURFACE	CONDITION	CONDITION
NUMBER	ROUTE NAME	CLASS	LENGTH	TYPE	RATING (SCR)	RATING (PCR)
0415	WHITE HOUSE RESIDENCE ROAD	6	0.38	ASPHALT	77	77
0470	MOREFIELD CANYON ROAD	6	0.13	ASPHALT	88	88

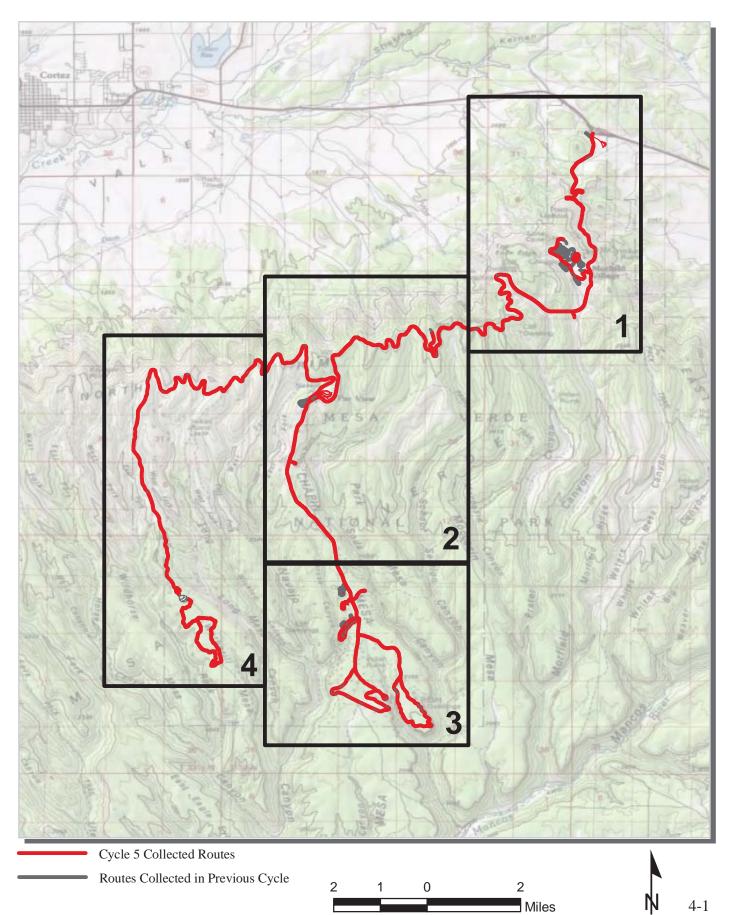


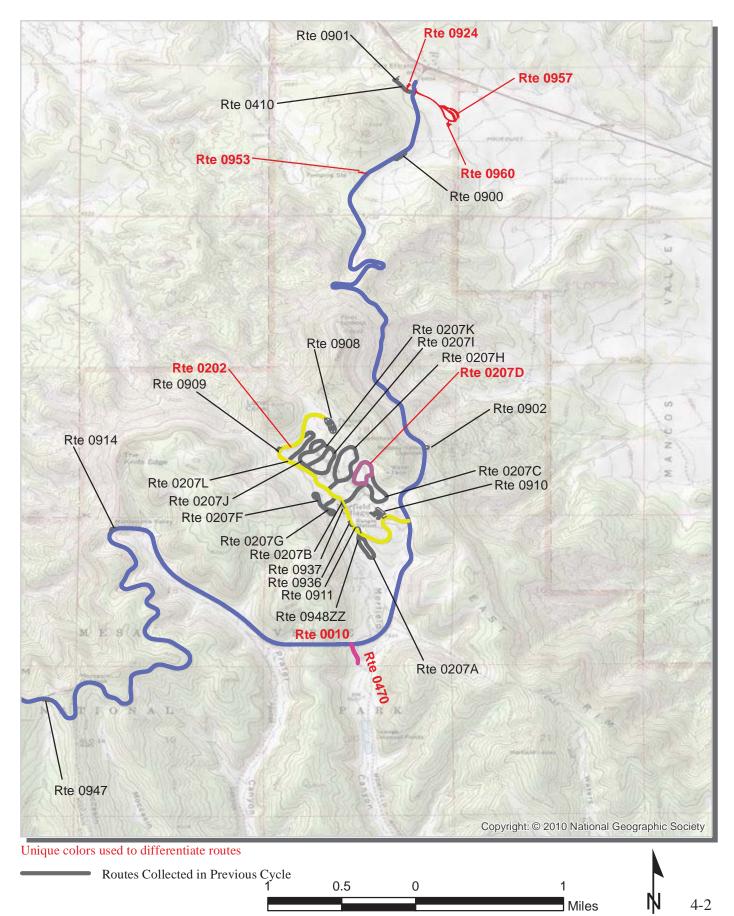
<u>Section 4</u> Park Route Location Maps

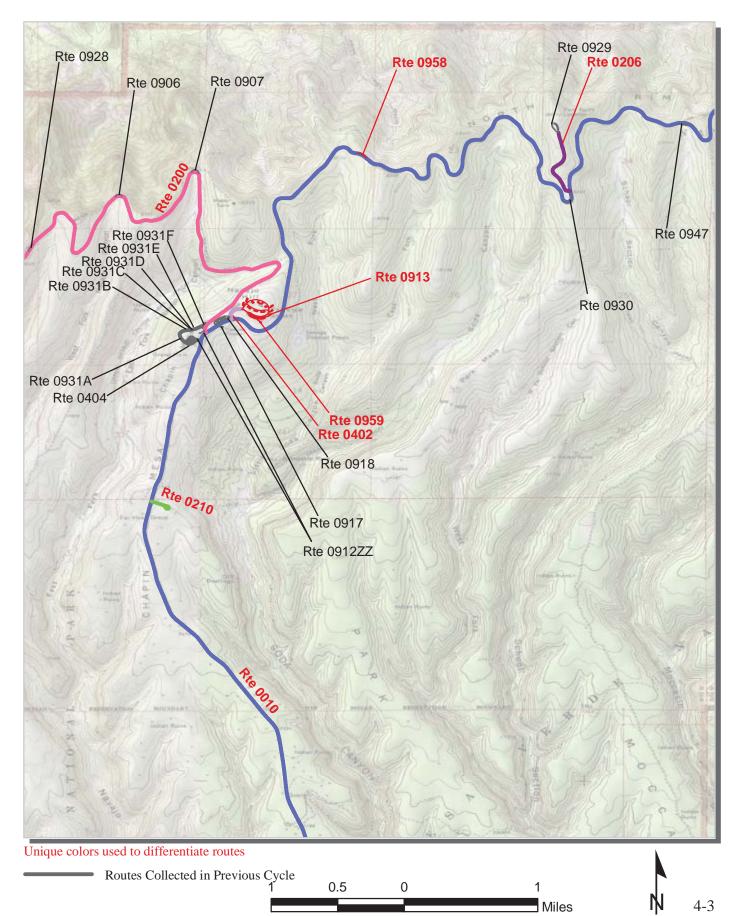


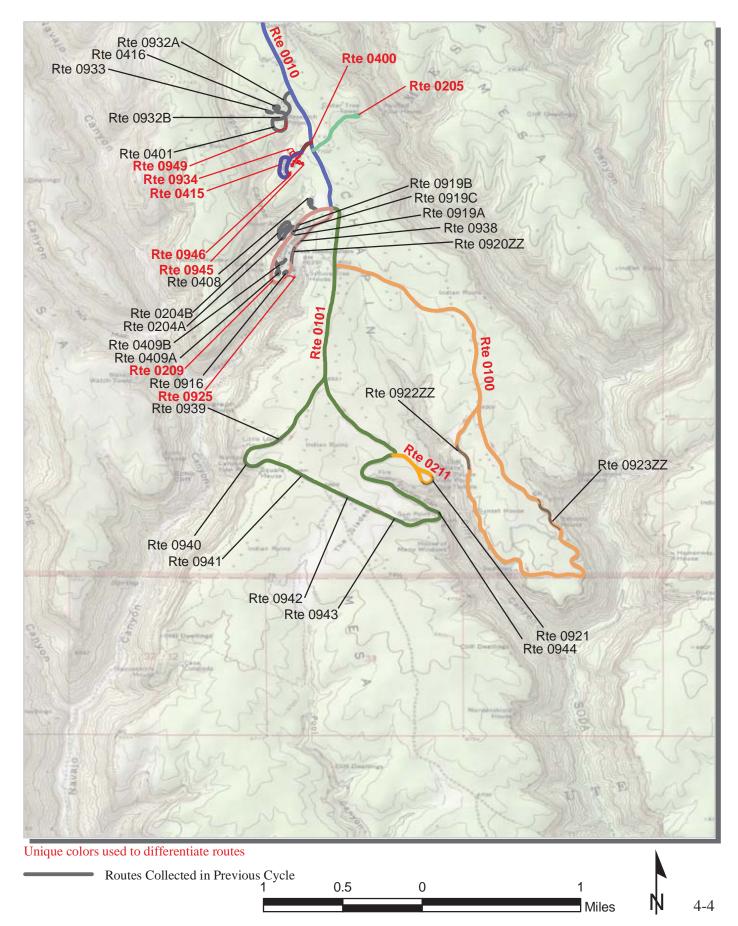
Mesa Verde National Park

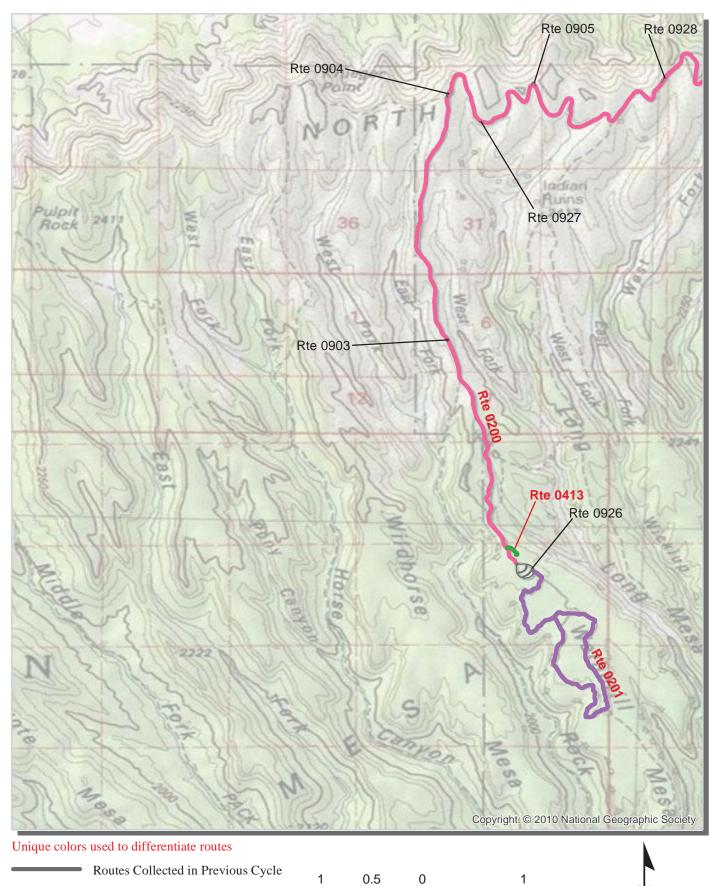






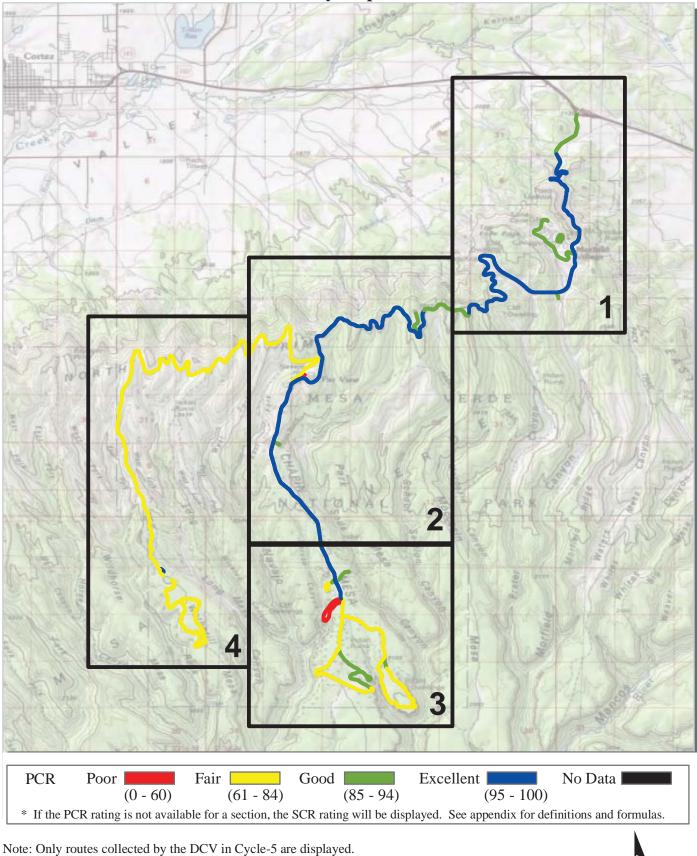






IN

Mesa Verde National Park Route Condition Map PCR - Mile by Mile Key Map

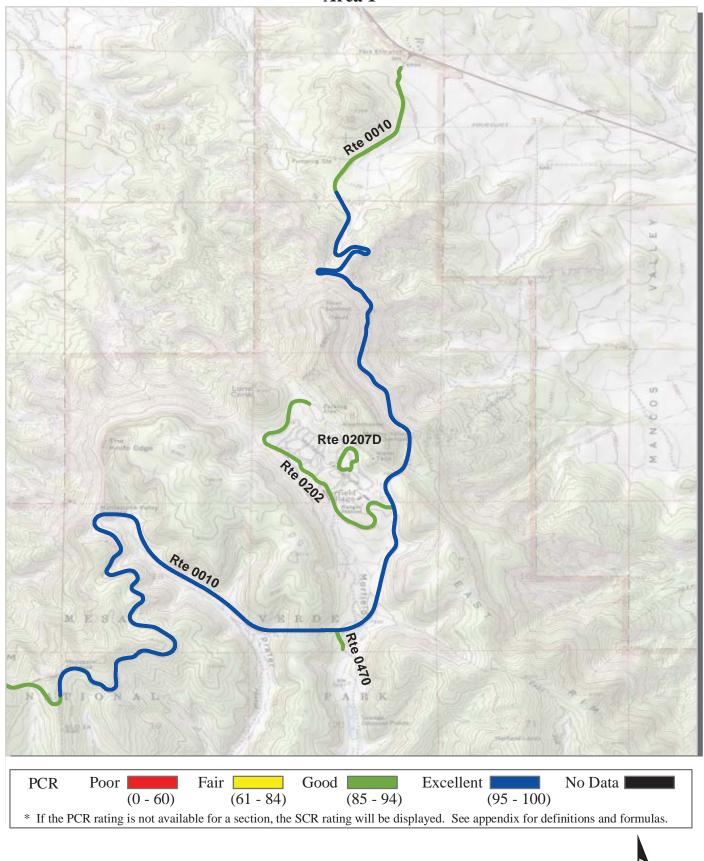


2





Mesa Verde National Park Route Condition Map PCR - Mile by Mile Area 1

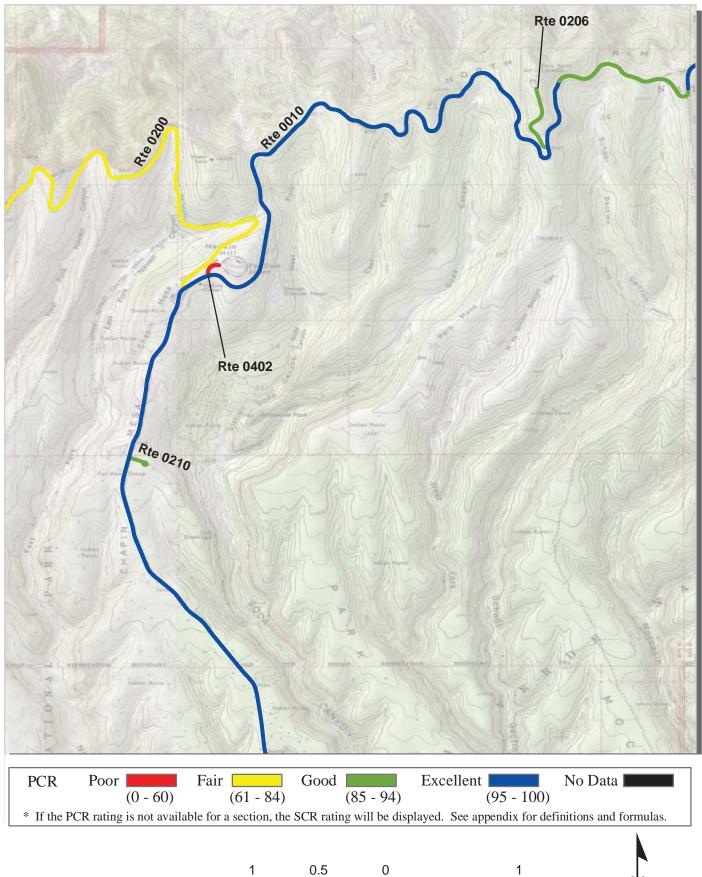


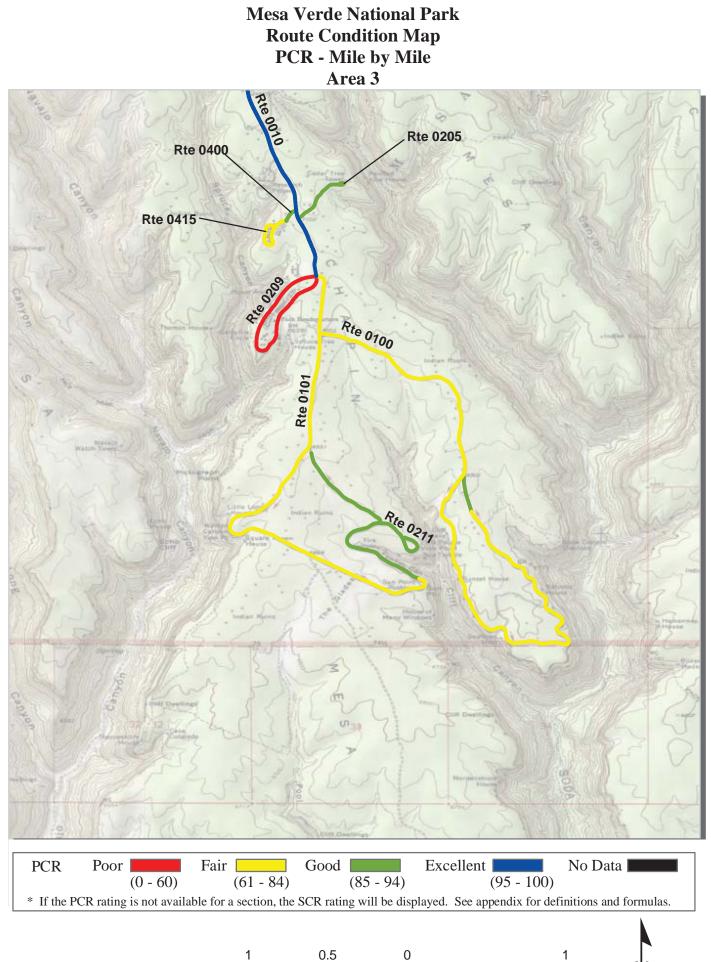
0.5

0

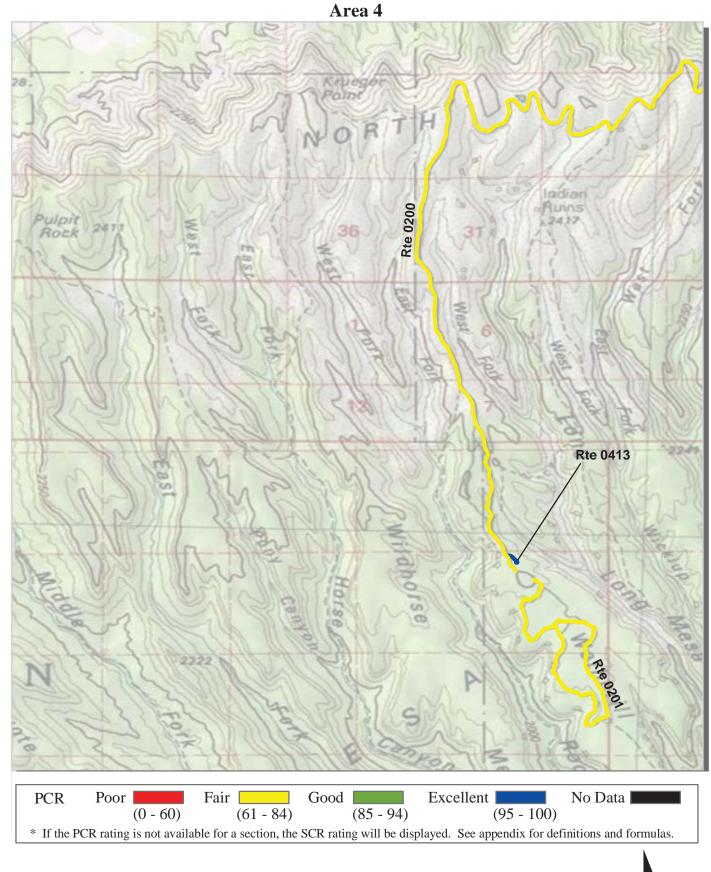
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Mesa Verde National Park Route Condition Map PCR - Mile by Mile Area 2





Mesa Verde National Park Route Condition Map PCR - Mile by Mile



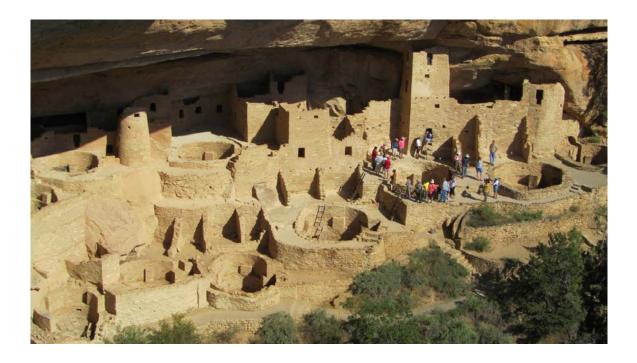
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1

0

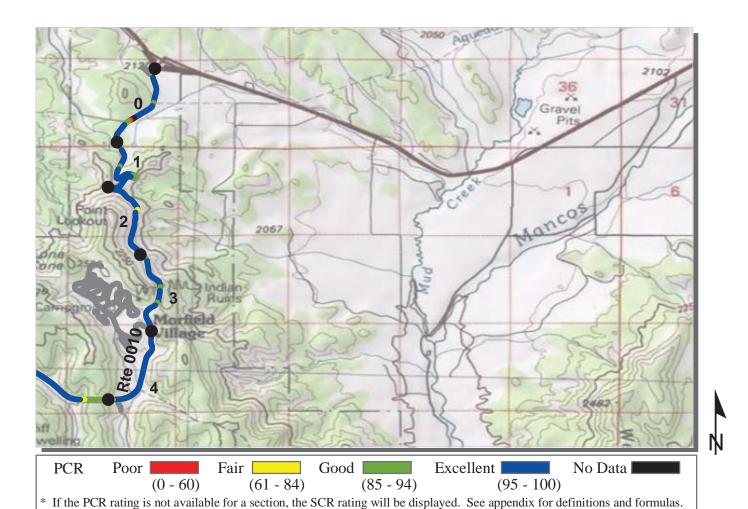
1

<u>Section 5</u> Paved Route Condition Rating Sheets



Mesa Verde National Park





ROUTE: 0010 ENTRANCE ROAD MEVE : MESA VERDE NATIONAL PARK

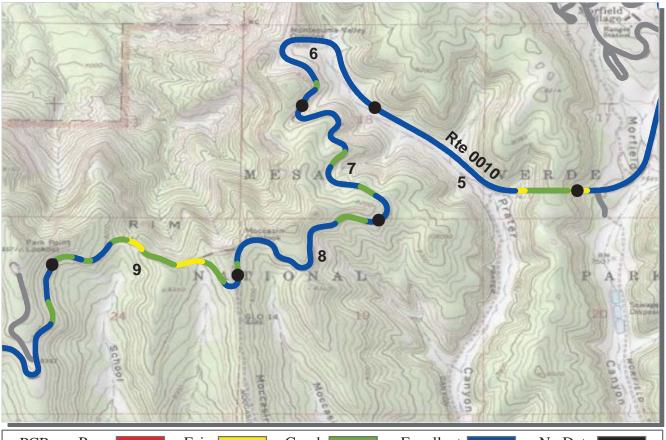
COLLECTED: INTERMOUNTAIN REGION TOTAL LENGTH:						
Section Number	0	1	2	3	4	
Section Length (mi)	1.00	1.00	1.00	1.00	1.00	
Cross Section Information						
Number of Lanes	2	2	2	2	2	
Paved Width (ft)	36	32	32	33	30	
Lane Width (ft)	18	16	16	17	15	
Roadway Condition Information						
SCR (Surface Condition Rating)	95	96	98	96	99	
PCR (Pavement Condition Rating)	93	98	98	98	99	
Distress Index Values						
Structural Crack Index	100	100	100	100	100	
Transverse Cracking Index	100	100	100	100	100	
Patching Index	100	100	100	100	100	
Rutting Index	95	96	98	96	99	
Roughness Condition Index (RCI)	90	100	98	100	100	

NOTES:

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

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

NC - Not Collected N/A - Not Applicable



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

ROUTE: 0010 ENTRANCE ROAD MEVE : MESA VERDE NATIONAL PARK

INTERMOUNTAIN REGION			TO	COLLECTED	
Section Number	5	6	7	8	9
Section Length (mi)	1.00	1.00	1.00	1.00	1.00
Cross Section Information					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	29	31	29	31	32
Lane Width (ft)	14	16	14	16	16
Roadway Condition Information					
SCR (Surface Condition Rating)	98	97	97	97	94
PCR (Pavement Condition Rating)	98	98	98	98	90
Distress Index Values					
Structural Crack Index	100	100	100	100	100
Transverse Cracking Index	100	100	100	100	100
Patching Index	100	100	100	100	100
Rutting Index	98	97	97	97	94
Roughness Condition Index (RCI)	99	100	100	99	83

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.

ROUTE: 0010 ENTRANCE ROAD



 PCR
 Poor
 Fair
 Good
 Excellent
 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 ENTRANCE ROAD MEVE : MESA VERDE NATIONAL PARK

INTERMOUNTAIN REGION			TO	COLLECTED: FAL LENGTH:	8/8/2012 19.99 Miles
Section Number	10	11	12	13	14
Section Length (mi)	1.00	1.00	1.00	1.00	1.00
Cross Section Information					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	30	29	27	27	31
Lane Width (ft)	13	11	10	11	11
Roadway Condition Information					
SCR (Surface Condition Rating)	96	98	98	97	99
PCR (Pavement Condition Rating)	98	99	99	98	99
Distress Index Values					
Structural Crack Index	99	98	98	97	100
Transverse Cracking Index	100	100	100	100	100
Patching Index	100	100	100	100	100
Rutting Index	96	100	100	99	99
Roughness Condition Index (RCI)	100	100	100	100	100

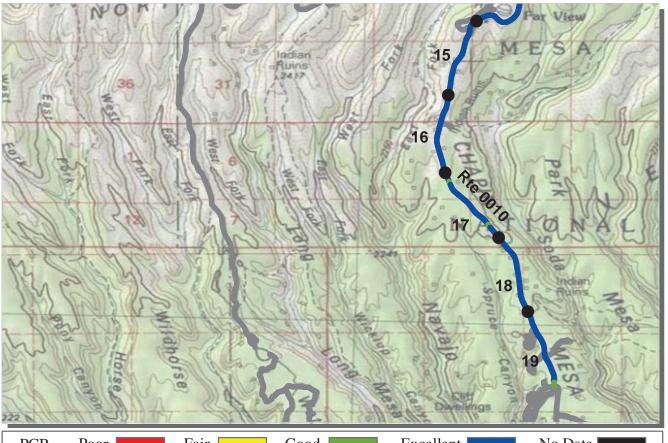
ROUTE: 0010 ENTRANCE ROAD

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 - 10	0)
* If the PCI	R rating is not availa	able for a section, the	SCR rating will be dis	played. See appendix fo	r definitions and formulas.

ROUTE: 0010 ENTRANCE ROAD MEVE : MESA VERDE NATIONAL PARK

COLLECTED: INTERMOUNTAIN REGION TOTAL LENGTH:							
Section Number	15	16	17	18	19		
Section Length (mi)	1.00	1.00	1.00	1.00	0.99		
Cross Section Information							
Number of Lanes	2	2	2	2	2		
Paved Width (ft)	26	25	24	25	26		
Lane Width (ft)	11	11	12	12	13		
Roadway Condition Information							
SCR (Surface Condition Rating)	99	99	99	100	100		
PCR (Pavement Condition Rating)	99	99	99	100	100		
Distress Index Values							
Structural Crack Index	100	100	100	100	100		
Transverse Cracking Index	100	100	100	100	100		
Patching Index	100	100	100	100	100		
Rutting Index	99	99	99	100	100		
Roughness Condition Index (RCI)	100	100	100	100	100		

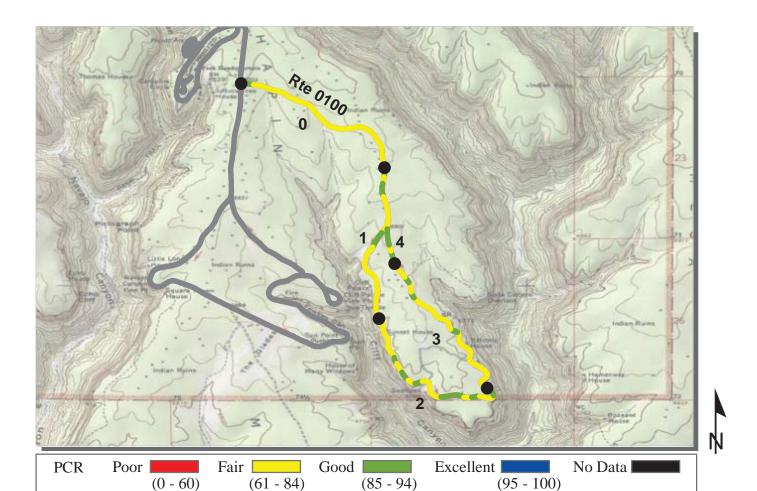
NOTES:

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

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

NC - Not Collected N/A - Not Applicable

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0/0/2012

* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.
ROUTE: 0100 BALCONY HOUSE / CLIFF PALACE ROAD
MEVE : MESA VERDE NATIONAL PARK

				COLLECTI	ED: 8/8/201
INTERMOUNTAIN REGION	FAL LENGT	TH: 4.23 Mile			
Section Number	0	1	2	3	4
Section Length (mi)	1.00	1.00	1.00	1.00	0.23
Cross Section Information					
Number of Lanes	2	1	1	1	1
Paved Width (ft)	20	20	20	19	19
Lane Width (ft)	9	16	20	19	19
Roadway Condition Information					
SCR (Surface Condition Rating)	88	92	94	94	95
PCR (Pavement Condition Rating)	74	78	82	79	87
Distress Index Values					
Structural Crack Index	100	100	100	100	100
Transverse Cracking Index	100	100	100	100	100
Patching Index	100	100	100	100	100
Rutting Index	88	92	94	94	95
Roughness Condition Index (RCI)	53	58	63	57	76

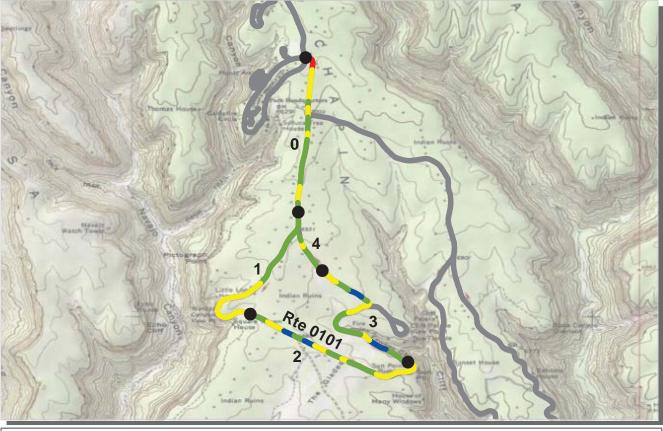
NOTES:

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

5-5



PCR Poo	or Fa	ir Good	d Exc	cellent	No Data
	(0 - 60)	(61 - 84)	(85 - 94)	(95 - 100)	
* If the PCR ratin	ng is not available fo	r a section, the SCR rat	ting will be displayed.	I. See appendix for def	finitions and formulas.

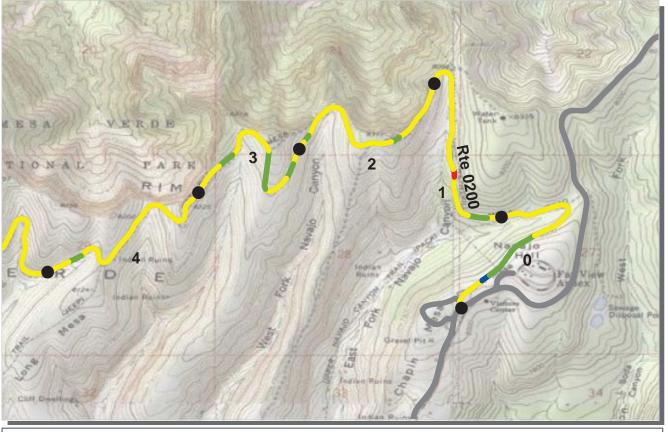
ROUTE: 0101 MESA TOP ROAD MEVE : MESA VERDE NATIONAL PARK

INTERMOUNTAIN REGION				COLLECTED: FAL LENGTH:	8/8/2012 4.29 Miles
Section Number	0	1	2	3	4
Section Length (mi)	1.00	1.00	1.00	1.00	0.29
Cross Section Information					
Number of Lanes	2	1	1	1	1
Paved Width (ft)	20	18	17	16	16
Lane Width (ft)	9	16	17	16	16
Roadway Condition Information					
SCR (Surface Condition Rating)	90	91	92	94	88
PCR (Pavement Condition Rating)	79	84	84	87	88
Distress Index Values					
Structural Crack Index	98	100	100	100	100
Transverse Cracking Index	93	100	100	100	100
Patching Index	100	100	100	100	100
Rutting Index	90	91	92	94	88
Roughness Condition Index (RCI)	63	73	73	77	89

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NOTES:

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



PCR	Poor	Fair	Good	Excellent	No Data
	(0 - 60)	(61 - 84)	(85 - 94)	(95 - 100))
* If the PC	CR rating is not availal	ole for a section, the S	SCR rating will be dis	played. See appendix for	definitions and formulas.

ROUTE: 0200 WETHERILL MESA ROAD MEVE : MESA VERDE NATIONAL PARK

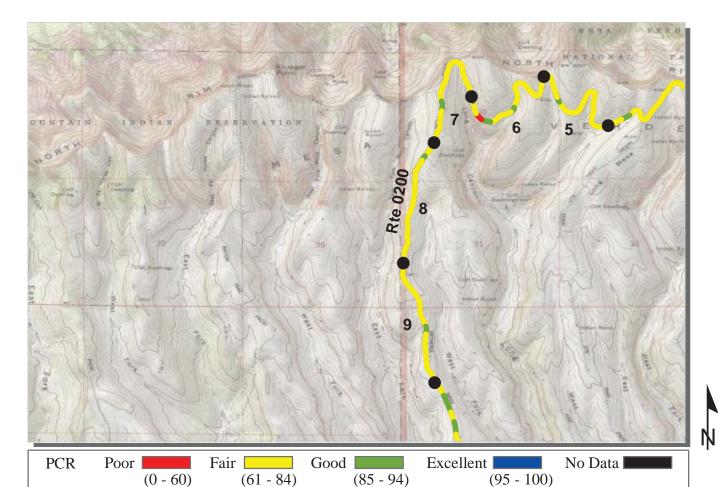
INTERMOUNTAIN REGION			ΤΟ	COLLECTED): 8/8/2012 I: 12.44 Miles
Section Number	0	1	2	3	4
Section Length (mi)	1.00	1.00	1.00	1.00	1.00
Cross Section Information					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	25	25	24	24	24
Lane Width (ft)	9	9	9	8	9
Roadway Condition Information					
SCR (Surface Condition Rating)	89	91	92	90	92
PCR (Pavement Condition Rating)	77	76	77	79	76
Distress Index Values					
Structural Crack Index	100	100	100	100	99
Transverse Cracking Index	100	100	100	100	100
Patching Index	100	100	100	100	100
Rutting Index	89	91	92	90	92
Roughness Condition Index (RCI)	59	53	55	62	52

ROUTE: 0200 WETHERILL MESA ROAD

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NOTES:

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



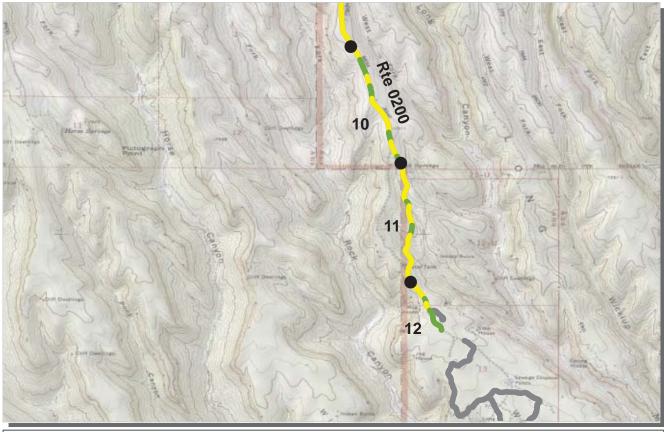
* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.
ROUTE: 0200 WETHERILL MESA ROAD

MEVE : MESA VERDE NATIONAL PARK

INTERMOUNTAIN REGION				LLECTED: LENGTH:	8/8/2012 12.44 Miles
Section Number	5	6	7	8	9
Section Length (mi)	1.00	1.00	1.00	1.00	1.00
Cross Section Information					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	24	24	23	21	22
Lane Width (ft)	8	9	9	8	8
Roadway Condition Information					
SCR (Surface Condition Rating)	95	89	92	92	92
PCR (Pavement Condition Rating)	77	72	74	74	80
Distress Index Values					
Structural Crack Index	100	100	100	100	100
Transverse Cracking Index	100	100	100	100	100
Patching Index	99	100	100	100	100
Rutting Index	95	89	92	92	92
Roughness Condition Index (RCI)	50	46	46	48	61

NOTES:

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



PCR	Poor		Fair	Good	Excellent	No Data
		(0 - 60)	(61 - 84)	(85 - 94)	(95 - 10	0)
* If the PCI	R rating is	s not availab	e for a section, the	SCR rating will be dis	played. See appendix fo	r definitions and formulas.

ROUTE: 0200 WETHERILL MESA ROAD MEVE : MESA VERDE NATIONAL PARK

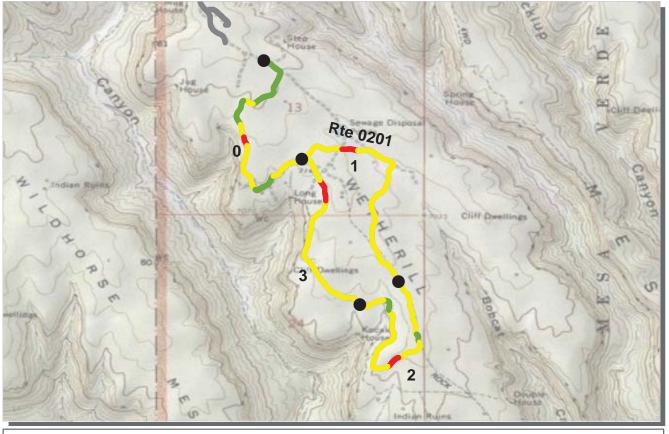
COLLECTED: 8/8/2012

INTERMOUNTAIN REGION			TOT	AL LENGTH:	12.44 Miles
Section Number	10	11	12		
Section Length (mi)	1.00	1.00	0.44		
Cross Section Information					
Number of Lanes	2	2	2		
Paved Width (ft)	21	24	24		
Lane Width (ft)	8	9	8		
Roadway Condition Information					
SCR (Surface Condition Rating)	93	95	95		
PCR (Pavement Condition Rating)	83	79	82		
Distress Index Values					
Structural Crack Index	100	100	100		
Transverse Cracking Index	100	100	100		
Patching Index	100	100	100		
Rutting Index	93	95	95		
Roughness Condition Index (RCI)	69	56	62		

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.

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PCR	Poor		Fair	Good	Excellent	No Data
		(0 - 60)	(61 - 84)	(85 - 94)	(95 - 10	0)
* If the PCI	R rating i	s not availab	ble for a section, the	SCR rating will be dis	splayed. See appendix for	or definitions and formulas.

ROUTE: 0201 WETHERILL TRAM ROAD MEVE : MESA VERDE NATIONAL PARK

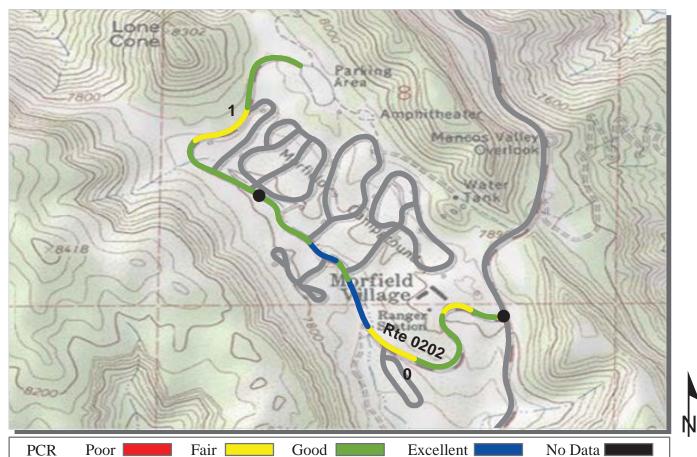
INTERMOUNTAIN REGION			TO	COLLECTED: FAL LENGTH:	8/8/2012 3.82 Miles
Section Number	0	1	2	3	
Section Length (mi)	1.00	1.00	1.00	0.82	
Cross Section Information					
Number of Lanes	1	1	1	1	
Paved Width (ft)	11	11	11	11	
Lane Width (ft)	11	11	11	11	
Roadway Condition Information					
SCR (Surface Condition Rating)	79	71	73	72	
PCR (Pavement Condition Rating)	79	71	73	72	
Distress Index Values					
Structural Crack Index	100	98	100	100	
Transverse Cracking Index	99	99	100	100	
Patching Index	100	100	100	100	
Rutting Index	79	71	73	72	
Roughness Condition Index (RCI)	NC	NC	NC	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.

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* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.	(0 -	- 60) (61 - 8	84) (85 - 94	4) (95 - 100))
	* If the PCR rating is not	available for a section	, the SCR rating will be	displayed. See appendix for a	lefinitions and formulas.

ROUTE: 0202 MOREFIELD CAMPGROUND ACCESS ROAD MEVE : MESA VERDE NATIONAL PARK

INTERMOUNTAIN REGION			COLLECTED: TOTAL LENGTH:	8/8/2012 1.63 Miles
Section Number	0	1		
Section Length (mi)	1.00	0.63		
Cross Section Information				
Number of Lanes	2	2		
Paved Width (ft)	24	21		
Lane Width (ft)	12	10		
Roadway Condition Information				
SCR (Surface Condition Rating)	93	93		
PCR (Pavement Condition Rating)	89	86		
Distress Index Values				
Structural Crack Index	99	100		
Transverse Cracking Index	100	100		
Patching Index	100	100		
Rutting Index	93	93		
Roughness Condition Index (RCI)	82	76		

ROUTE: 0202 MOREFIELD CAMPGROUND ACCESS ROAD

NOTES:

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



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

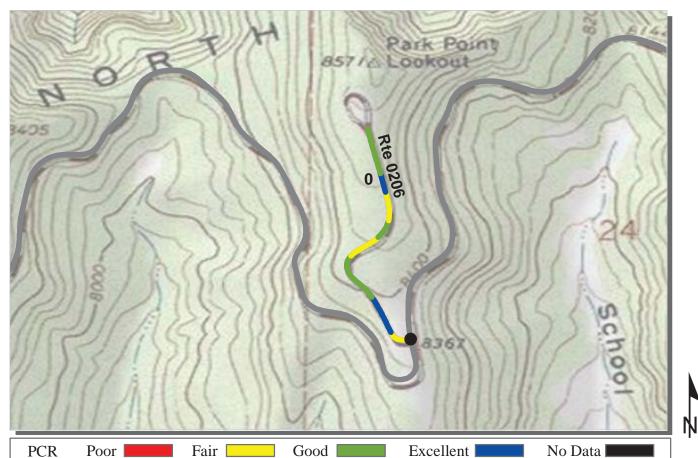
ROUTE: 0205 CEDAR TREE TOWER ROAD MEVE : MESA VERDE NATIONAL PARK

INTERMOUNTAIN REGION			LLECTED: LENGTH:	8/8/2012 0.37 Miles
Section Number	0			
Section Length (mi)	0.37			
Cross Section Information				
Number of Lanes	2			
Paved Width (ft)	16			
Lane Width (ft)	9			
Roadway Condition Information				
SCR (Surface Condition Rating)	87			
PCR (Pavement Condition Rating)	87			
Distress Index Values				
Structural Crack Index	100			
Transverse Cracking Index	100			
Patching Index	99			
Rutting Index	87			
Roughness Condition Index (RCI)	NC			

ROUTE: 0205 CEDAR TREE TOWER ROAD

NOTES:

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



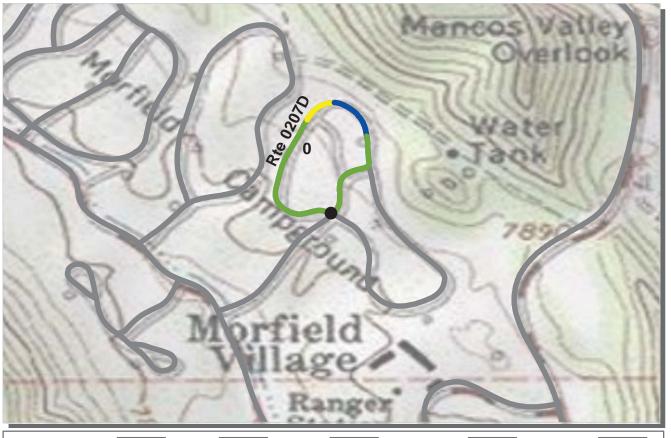
(85 - 94)(95 - 100) (0 - 60)(61 - 84) * If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

ROUTE: 0206 PARK POINT ROAD MEVE : MESA VERDE NATIONAL PARK

INTERMOUNTAIN REGION			LLECTED: LENGTH:	8/8/2012 0.51 Miles
Section Number	0			
Section Length (mi)	0.51			
Cross Section Information				
Number of Lanes	2			
Paved Width (ft)	20			
Lane Width (ft)	10			
Roadway Condition Information				
SCR (Surface Condition Rating)	96			
PCR (Pavement Condition Rating)	85			
Distress Index Values				
Structural Crack Index	100			
Transverse Cracking Index	100			
Patching Index	100			
Rutting Index	96			
Roughness Condition Index (RCI)	69			

NOTES:

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



 PCR
 Poor
 Fair
 Good
 Excellent
 No Data

 * If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.
 No Data

ROUTE: 0207D MOREFIELD CAMPGROUND TAOS LOOP MEVE : MESA VERDE NATIONAL PARK

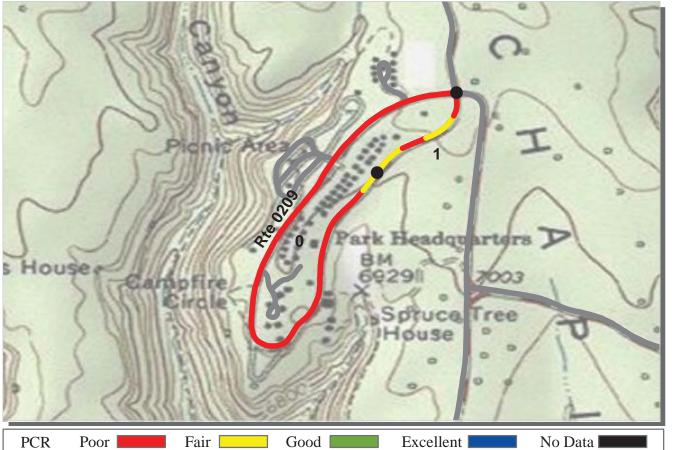
INTERMOUNTAIN REGION			LLECTED: LENGTH:	8/8/2012 0.40 Miles
Section Number	0			
Section Length (mi)	0.40			
Cross Section Information				
Number of Lanes	1			
Paved Width (ft)	13			
Lane Width (ft)	13			
Roadway Condition Information				
SCR (Surface Condition Rating)	89			
PCR (Pavement Condition Rating)	89			
Distress Index Values				
Structural Crack Index	99			
Transverse Cracking Index	100			
Patching Index	100			
Rutting Index	89			
Roughness Condition Index (RCI)	NC			

ROUTE: 0207D MOREFIELD CAMPGROUND TAOS LOOP

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NOTES:

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



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

ROUTE: 0209 HEADQUARTERS LOOP ROAD MEVE : MESA VERDE NATIONAL PARK

INTERMOUNTAIN REGION			COLLECTED: TOTAL LENGTH:	8/8/2012 1.20 Miles
Section Number	0	1		
Section Length (mi)	1.00	0.20		
Cross Section Information				
Number of Lanes	1	1		
Paved Width (ft)	20	22		
Lane Width (ft)	19	19		
Roadway Condition Information				
SCR (Surface Condition Rating)	0	56		
PCR (Pavement Condition Rating)	16	55		
Distress Index Values				
Structural Crack Index	0	56		
Transverse Cracking Index	93	89		
Patching Index	99	100		
Rutting Index	88	95		
Roughness Condition Index (RCI)	40	53		

ROUTE: 0209 HEADQUARTERS LOOP ROAD

NOTES:

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



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

ROUTE: 0210 FAR VIEW RUINS ROAD MEVE : MESA VERDE NATIONAL PARK

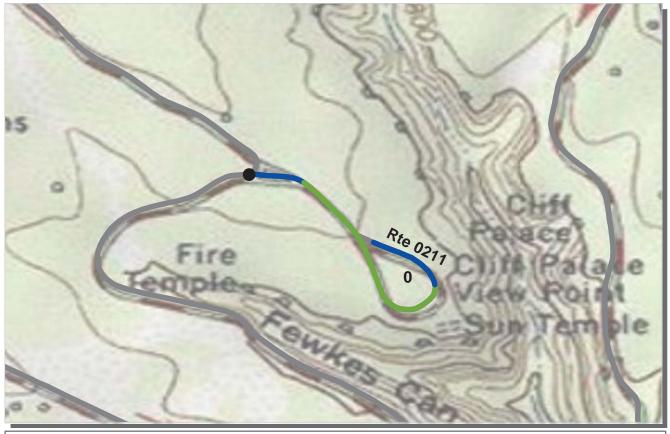
INTERMOUNTAIN REGION			LLECTED: LENGTH:	8/8/2012 0.15 Miles
Section Number	0			
Section Length (mi)	0.15			
Cross Section Information				
Number of Lanes	2			
Paved Width (ft)	17			
Lane Width (ft)	11			
Roadway Condition Information				
SCR (Surface Condition Rating)	85			
PCR (Pavement Condition Rating)	85			
Distress Index Values				
Structural Crack Index	99			
Transverse Cracking Index	100			
Patching Index	100			
Rutting Index	85			
Roughness Condition Index (RCI)	NC			

NOTES:

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

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

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PCR	Poor		Fair	Good	Excellent	No Data
		(0 - 60)	(61 - 84)	(85 - 94)	(95 - 10	0)
* If the PCI	R rating i	s not availab	le for a section, the	SCR rating will be dis	splayed. See appendix for	or definitions and formulas.

ROUTE: 0211 SUN TEMPLE ROAD MEVE : MESA VERDE NATIONAL PARK

INTERMOUNTAIN REGION			LLECTED: LENGTH:	8/8/2012 0.42 Miles
Section Number	0			
Section Length (mi)	0.42			
Cross Section Information				
Number of Lanes	1			
Paved Width (ft)	19			
Lane Width (ft)	14			
Roadway Condition Information				
SCR (Surface Condition Rating)	94			
PCR (Pavement Condition Rating)	94			
Distress Index Values				
Structural Crack Index	100			
Transverse Cracking Index	100			
Patching Index	100			
Rutting Index	94			
Roughness Condition Index (RCI)	NC			

NOTES:

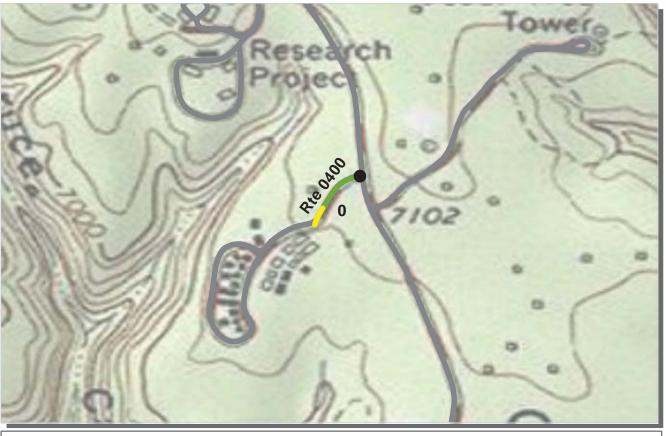
Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.

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

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ROUTE: 0211 SUN TEMPLE ROAD

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PCR	Poor	Fair	Good	Excellent	No Data
	(0 - 6	0) (61 - 84)) (85 - 94)	(95 - 10)0)
* If the PC	R rating is not ava	ailable for a section, the	e SCR rating will be dis	splayed. See appendix for	or definitions and formulas.

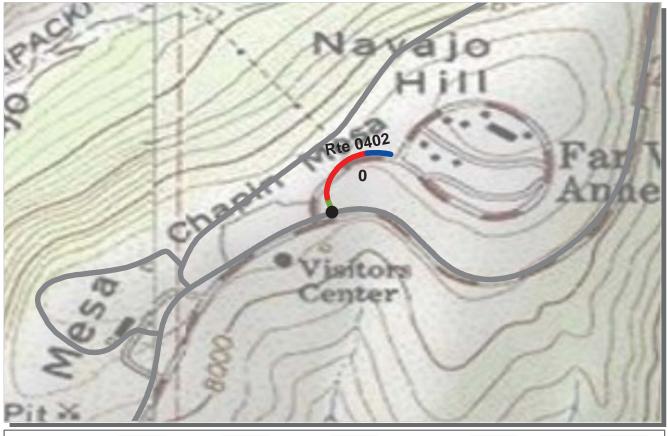
ROUTE: 0400 UTILITY AREA ROAD MEVE : MESA VERDE NATIONAL PARK

INTERMOUNTAIN REGION			LLECTED: LENGTH:	8/8/2012 0.08 Miles
Section Number	0			
Section Length (mi)	0.08			
Cross Section Information				
Number of Lanes	2			
Paved Width (ft)	23			
Lane Width (ft)	11			
Roadway Condition Information				
SCR (Surface Condition Rating)	91			
PCR (Pavement Condition Rating)	91			
Distress Index Values				
Structural Crack Index	92			
Transverse Cracking Index	98			
Patching Index	100			
Rutting Index	91			
Roughness Condition Index (RCI)	NC			

ROUTE: 0400 UTILITY AREA ROAD

NOTES:

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



PCR	Poor		Fair	Good	Excellent	No Data
		(0 - 60)	(61 - 84)	(85 - 94)	(95 - 10)0)
* If the PCI	R rating is	s not availab	le for a section, the	SCR rating will be di	splayed. See appendix for	or definitions and formulas.

ROUTE: 0402 FAR VIEW LODGE ROAD MEVE : MESA VERDE NATIONAL PARK

INTERMOUNTAIN REGION			LLECTED: LENGTH:	8/8/2012 0.13 Miles
Section Number	0			
Section Length (mi)	0.13			
Cross Section Information				
Number of Lanes	2			
Paved Width (ft)	24			
Lane Width (ft)	12			
Roadway Condition Information				
SCR (Surface Condition Rating)	0			
PCR (Pavement Condition Rating)	0			
Distress Index Values				
Structural Crack Index	0			
Transverse Cracking Index	97			
Patching Index	94			
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.

ROUTE: 0402 FAR VIEW LODGE ROAD

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PCR	Poor		Fair	Good	Excellent	No Data
		(0 - 60)	(61 - 84)	(85 - 94)	(95 - 1	00)
* If the PC	R rating i	s not availal	ble for a section, the	SCR rating will be di	splayed. See appendix	for definitions and formulas.

ROUTE: 0413 WETHERILL TRAM SHELTER ROAD MEVE : MESA VERDE NATIONAL PARK

INTERMOUNTAIN REGION			LLECTED: LENGTH:	8/8/2012 0.13 Miles
Section Number	0			
Section Length (mi)	0.13			
Cross Section Information				
Number of Lanes	2			
Paved Width (ft)	20			
Lane Width (ft)	10			
Roadway Condition Information				
SCR (Surface Condition Rating)	100			
PCR (Pavement Condition Rating)	100			
Distress Index Values				
Structural Crack Index	100			
Transverse Cracking Index	100			
Patching Index	100			
Rutting Index	100			
Roughness Condition Index (RCI)	NC			

ROUTE: 0413 WETHERILL TRAM SHELTER ROAD

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NOTES:

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



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

ROUTE: 0415 WHITE HOUSE RESIDENCE ROAD MEVE : MESA VERDE NATIONAL PARK

INTERMOUNTAIN REGION			COLLECTED: TOTAL LENGTH:	
Section Number	0			
Section Length (mi)	0.38			
Cross Section Information				
Number of Lanes	1			
Paved Width (ft)	16			
Lane Width (ft)	11			
Roadway Condition Information				
SCR (Surface Condition Rating)	77			
PCR (Pavement Condition Rating)	77			
Distress Index Values				
Structural Crack Index	77			
Transverse Cracking Index	90			
Patching Index	100			
Rutting Index	97			
Roughness Condition Index (RCI)	NC			

ROUTE: 0415 WHITE HOUSE RESIDENCE ROAD

NOTES:

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



L	гск			0000		
l		(0 - 60)	(61 - 84)	(85 - 94)	(95 - 100)	
	* If the PCR	rating is not availa	able for a section, the	SCR rating will be displ	ayed. See appendix for d	lefinitions and formulas.

ROUTE: 0470 MOREFIELD CANYON ROAD MEVE : MESA VERDE NATIONAL PARK

INTERMOUNTAIN REGION			 COLLECTED: TOTAL LENGTH:	
Section Number	0			
Section Length (mi)	0.13			
Cross Section Information				
Number of Lanes	2			
Paved Width (ft)	15			
Lane Width (ft)	8			
Roadway Condition Information				
SCR (Surface Condition Rating)	88			
PCR (Pavement Condition Rating)	88			
Distress Index Values				
Structural Crack Index	100			
Transverse Cracking Index	100			
Patching Index	100			
Rutting Index	88			
Roughness Condition Index (RCI)	NC			

ROUTE: 0470 MOREFIELD CANYON ROAD

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NOTES:

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

<u>Section 6</u> Manually Rated Paved Route Condition Rating Sheets



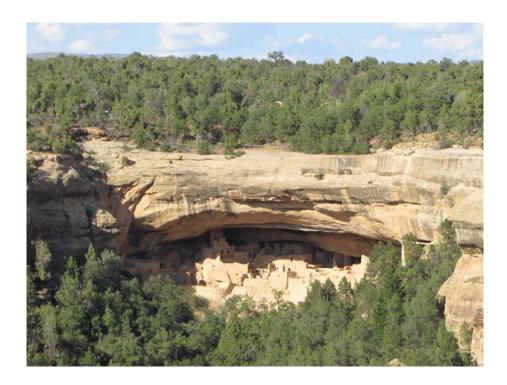
Mesa Verde National Park



MANUALLY RATED ROUTE CONDITION RATING SHEETS

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

<u>Section 7</u> Parking Area Condition Rating Sheets



Mesa Verde National Park



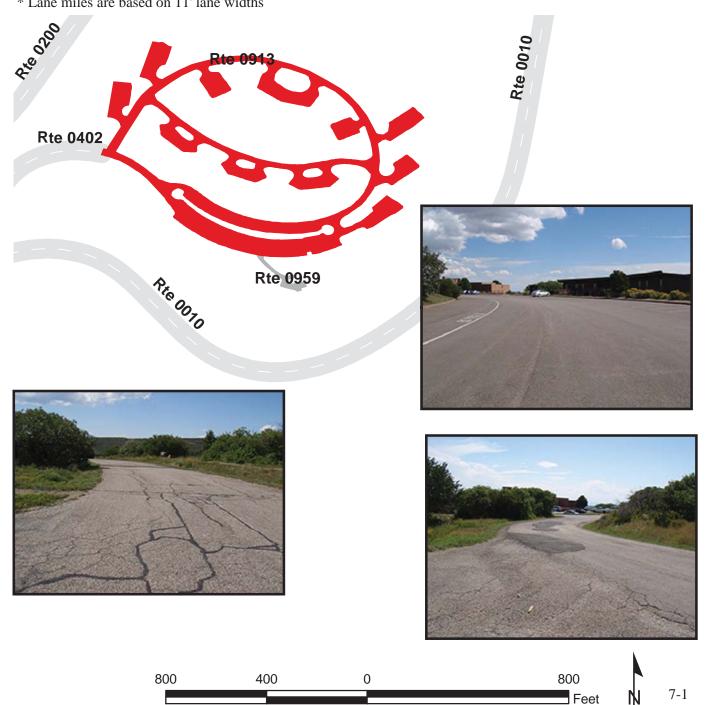
FAR VIEW LODGE PARKING

FROM END OF ROUTE 0402 (FAR VIEW LODGE ROAD)

TO PARKING

Route	Public /				
Number	NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0913	PUBLIC	9/2/2011	212,517	3.66	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
			CONCRETE CURB		
0	14	0	AND GUTTER	NO CURB	FAIR/73

* Lane miles are based on 11' lane widths



QUARTERS #41 PARKING FROM ROUTE 0410 (WATER TREATMENT PLANT ROAD) TO PARKING

Route	Public /				
Number	NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0924	PUBLIC	9/2/2011	9,689	0.17	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
			NO CURB AND		
1	1	0	GUTTER	NO CURB	POOR/45

* Lane miles are based on 11' lane widths



200	100	0	200	
			Feet N	

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SIDE HEADQUARTERS AND POST OFFICE PARKING FROM ROUTE 0209 (HEADQUARTERS LOOP ROAD) AT MP 0.67 TO PARKING

Route	Public /				
Number	NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0925	PUBLIC	9/2/2011	3,948	0.07	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
			NO CURB AND		
0	1	0	GUTTER	NO CURB	POOR/45

* Lane miles are based on 11' lane widths





FIRE DORM PARKING FROM ROUTE 0415 (WHITE HOUSE RESIDENCE ROAD) AT MP 0.11 TO ROUTE 0415 (WHITE HOUSE RESIDENCE ROAD)

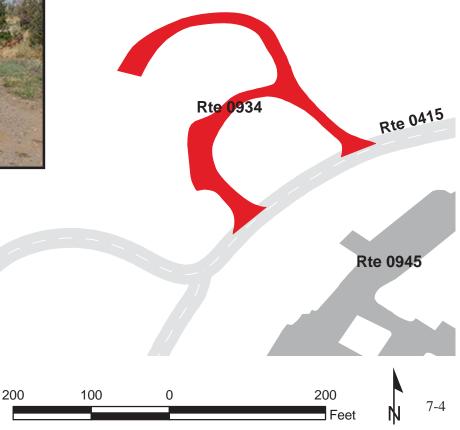
Route	Public /				
Number	NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0934	NONPUBLIC	9/2/2011	10,440	0.18	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
			NO CURB AND		
0	1	0	GUTTER	STONE CURB	POOR/45

* Lane miles are based on 11' lane widths









MAINTENANCE AREA PARKING FROM END OF ROUTE 0400 (UTILITY AREA ROAD) TO PARKING

Route	Public /				
Number	NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0945	NONPUBLIC	9/2/2011	44,321	0.76	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
			CONCRETE CURB		
1	1	1	AND GUTTER	STONE CURB	POOR/45

* Lane miles are based on 11' lane widths



Rte 0934



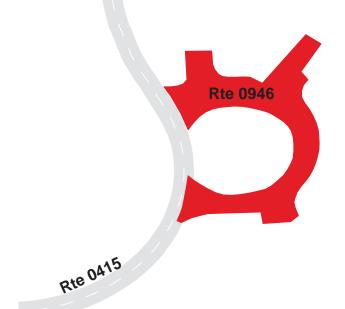




FITNESS CENTER / MAINTENANCE PARKING FROM ROUTE 0415 (WHITE HOUSE RESIDENCE ROAD) AT MP 0.36 TO ROUTE 0415 (WHITE HOUSE RESIDENCE ROAD)

Route	Public /				
Number	NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0946	NONPUBLIC	9/2/2011	5,022	0.09	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
			NO CURB AND		
0	0	0	GUTTER	NO CURB	FAIR/73

* Lane miles are based on 11' lane widths









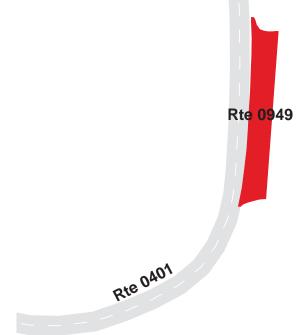


RECREATION HALL PARKING

ADJACENT TO ROUTE 0401 (CCC AREA ROAD) AT MP 0.4 ON LEFT

Route	Public /				
Number	NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0949	PUBLIC	9/2/2011	3,562	0.06	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
			NO CURB AND		
0	0	0	GUTTER	NO CURB	EXCELLENT/97

* Lane miles are based on 11' lane widths











FEE OFFICE AREA PARKING

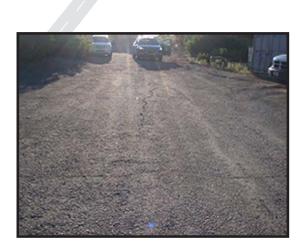
FROM ROUTE 0010 (ENTRANCE ROAD) AT MP 0.71 (ON RIGHT) TO ROUTE 0490 (NORTH WATER LINE ROAD)

Route	Public /				
Number	NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0953	NONPUBLIC	9/2/2011	6,736	0.12	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
			NO CURB AND		
1	0	1	GUTTER	NO CURB	POOR/45

* Lane miles are based on 11' lane widths

Rte 0953





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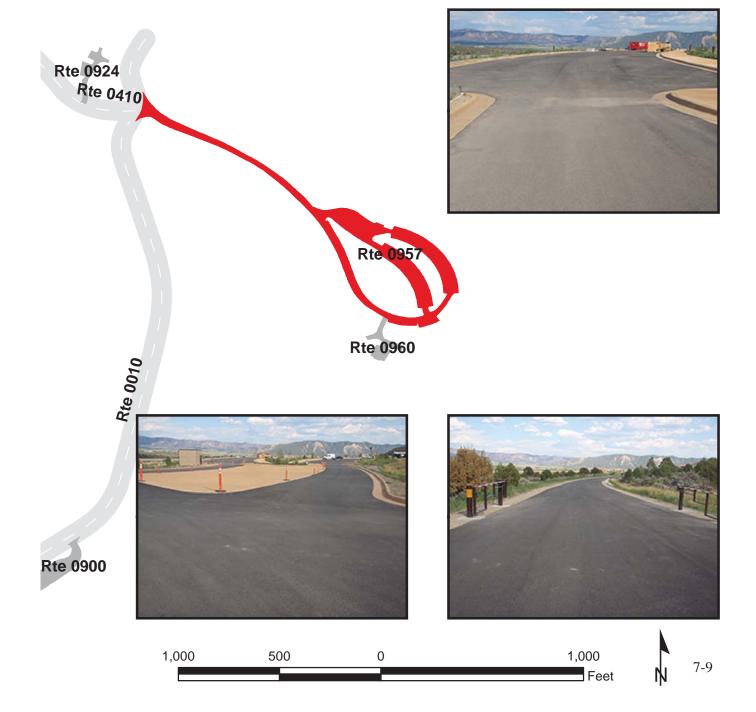




VRC ROAD AND PARKING AREA FROM ROUTE 0010 (ENTRANCE ROAD) TO PARKING

Route	Public /				
Number	NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0957	PUBLIC	8/8/2012	121,394	2.09	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
			CONCRETE CURB		
4	3	1	AND GUTTER	NO CURB	EXCELLENT/97

* Lane miles are based on 11' lane widths

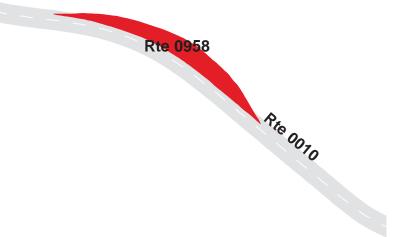


GEOLOGIC OVERLOOK PARKING ADJACENT TO ROUTE 0010 (ENTRANCE ROAD)

Route	Public /				
Number	NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0958	PUBLIC	9/2/2011	8,748	0.15	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
			NO CURB AND		
0	0	0	GUTTER	NO CURB	FAIR/73

* Lane miles are based on 11' lane widths









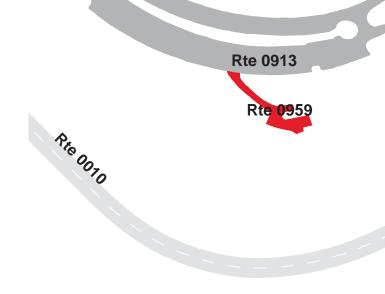


FAR VIEW LODGE SERVICE PARKING FROM ROUTE 0913 (FAR VIEW LODGE PARKING)

TO PARKING

Route	Public /				
Number	NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0959	NONPUBLIC	9/2/2011	4,567	0.08	СО
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
			NO CURB AND		
0	1	0	GUTTER	NO CURB	GOOD/90

* Lane miles are based on 11' lane widths







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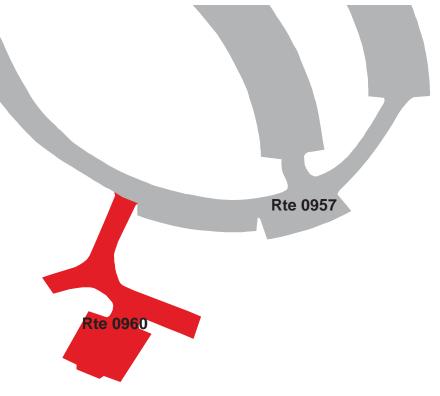
VRC EMPLOYEE PARKING AREA

FROM ROUTE 0957 (VRC ROAD AND PARKING AREA)

TO PARKING

Route	Public /				
Number	NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0960	NONPUBLIC	8/8/2012	10,234	0.18	СО
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
			CONCRETE CURB		
0	0	0	AND GUTTER	NO CURB	EXCELLENT/97

* Lane miles are based on 11' lane widths

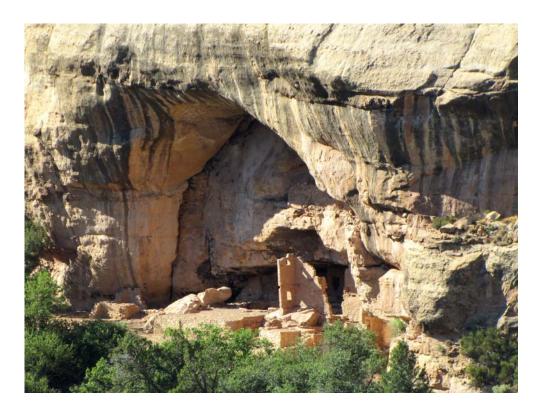








<u>Section 8</u> Route Maintenance Features Summaries



Mesa Verde National Park



MEVE: DCV ROUTE MAINTENANCE FEATURES SUMMARY

FEATURE	ROUTE 0207D MOREFIELD CAMPGROUND TAOS LOOP	ROUTE 0400 UTILITY AREA ROAD	ROUTE 0402 FAR VIEW LODGE ROAD	ROUTE 0413 WETHERILL TRAM SHELTER ROAD	ROUTE 0415 WHITE HOUSE RESIDENCE ROAD	ROUTE 0470 MOREFIELD CANYON ROAD	UNIT
BRIDGE	0	0	0	0	0	0	EACH
CATTLE GUARD	0	0	0	0	0	0	EACH
CULVERT	0	0	0	1	1	0	EACH
CURB	0	0	406	0	0	0	LINEAR FEET
DROP INLET	1	0	0	0	8	0	EACH
GATE	0	0	1	1	0	1	EACH
GUARD/GUIDE RAIL	0	0	0	0	0	0	LINEAR FEET
CABLE	0	0	0	0	0	0	LINEAR FEET
NON-CABLE	0	0	0	0	0	0	LINEAR FEET
GUARD/GUIDE WALL	0	0	0	0	0	0	LINEAR FEET
BOLLARD	0	0	0	0	0	0	LINEAR FEET
TEMPORARY BARRIER	0	0	0	0	0	0	LINEAR FEET
NON TEMP/BOLLARD	0	0	0	0	0	0	LINEAR FEET
INTERSECTION	7	4	4	4	9	4	EACH
LOW WATER CROSSING	0	0	0	0	0	0	EACH
LOW WATER CROSSING	0	0	0	0	0	0	LINEAR FEET
MILE MARKER	0	0	0	0	0	0	EACH
OVERPASS	0	0	0	0	0	0	EACH
PARK BOUNDARY	0	0	0	0	0	0	EACH
PAVED DITCH	760	0	0	0	0	0	LINEAR FEET
PULLOUT	1	0	0	1	0	0	EACH
PULLOUT	48	0	0	100	0	0	LINEAR FEET
RAILROAD CROSSING	0	0	0	0	0	0	EACH
RETAINING WALL	0	0	0	0	0	0	EACH
RETAINING WALL	0	0	0	0	0	0	LINEAR FEET
SIGN	5	4	5	1	5	4	EACH
STATE BOUNDARY	0	0	0	0	0	0	EACH
TRAFFIC LIGHT	0	0	0	0	0	0	EACH
TUNNEL	0	0	0	0	0	0	EACH
TUNNEL	0	0	0	0	0	0	LINEAR FEET

STRUCTURE LIST

This park is classified as a large park. Therefore, in Cycle 5, BIP-Structures were inventoried only if they were located along routes that were modified or previously uncollected by RIP, so this report does not provide an all-inclusive listing of all BIP-Structures in the park.

<u>Section 9</u> Route Maintenance Features Road Logs



Mesa Verde National Park



ROUTE 0207D: MOREFIELD CAMPGROUND TAOS LOOP

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0207B (MOREFIELD CAMPGROUND PUEBLO LOOP) AT MP 0.18 (ON LEFT)
0.000	0.000	INTERSECTION	N/A	ROUTE 0207C (MOREFIELD CAMPGROUND ZUNI LOOP)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0207D (MOREFIELD CAMPGROUND TAOS LOOP)
0.000	0.400	ONE-WAY	N/A	N/A
0.000	0.000	INTERSECTION	LEFT	ROUTE 0207B (MOREFIELD CAMPGROUND PUEBLO ROAD)
0.087	0.087	DROP INLET	RIGHT	N/A
0.153	0.212	PAVED DITCH	LEFT	N/A
0.184	0.184	SIGN	LEFT	GUIDE, JEMEZ LOOP
0.270	0.279	PULLOUT	RIGHT	N/A
0.282	0.319	PAVED DITCH	LEFT	N/A
0.313	0.313	SIGN	RIGHT	REGULATORY, DO NOT ENTER
0.319	0.319	SIGN	N/A	REGULATORY, DO NOT ENTER
0.320	0.320	INTERSECTION	LEFT	ROUTE 0207C (MOREFIELD CAMPGROUND ZUNI LOOP)
0.346	0.346	SIGN	LEFT	REGULATORY, ONE WAY
0.349	0.397	PAVED DITCH	RIGHT	N/A
0.393	0.393	SIGN	LEFT	REGULATORY, DO NOT ENTER
0.400	0.400	INTERSECTION	LEFT	ROUTE 0207C (MOREFIELD CAMPGROUND ZUNI LOOP)
0.400	0.400	INTERSECTION	N/A	ROUTE 0207B (MOREFIELD CAMPGROUND PUEBLO ROAD)
0.400	0.400	INTERSECTION	RIGHT	ROUTE 0207D (MOREFIELD CAMPGROUND TAOS LOOP)
0.400	0.400	ROUTE END	N/A	TO ROUTE 0207B (MOREFIELD CAMPGROUND PUEBLO LOOP

ROUTE 0400: UTILITY AREA ROAD

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0010 (ENTRANCE ROAD)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0010 (ENTRANCE ROAD)
0.000	0.000	INTERSECTION	LEFT	ROUTE 0010 (ENTRANCE ROAD)
0.005	0.005	SIGN	LEFT	REGULATORY, STOP
0.050	0.050	SIGN	RIGHT	WARNING, SLOW
0.084	0.084	INTERSECTION	N/A	ROUTE 0945 (MAINTENANCE AREA PARKING)
0.084	0.084	INTERSECTION	RIGHT	ROUTE 0415 (WHITE HOUSE RESIDENCE ROAD)
0.084	0.084	SIGN	RIGHT	GUIDE, RESIDENCES WAREHOUSE
0.084	0.084	SIGN	RIGHT	GUIDE, SPEED LIMIT 5 MPH
0.084	0.084	ROUTE END	N/A	TO ROUTE 0945 (MAINTENANCE AREA PARKING)

ROUTE 0402: FAR VIEW LODGE ROAD

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0010 (ENTRANCE ROAD) AT MP 14.77 (ON RIGHT)
0.000	0.000	SIGN	RIGHT	GUIDE, FAR VIEW LODGE REGISTRATION METATE ROOM
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0010 (ENTRANCE ROAD)
0.000	0.000	INTERSECTION	LEFT	ROUTE 0010 (ENTRANCE ROAD)
0.000	0.072	CURB	RIGHT	N/A
0.005	0.005	SIGN	LEFT	REGULATORY, STOP
0.008	0.008	SIGN	LEFT	GUIDE, VISITOR CENTER PARKING
0.020	0.020	INTERSECTION	LEFT	ROUTE 0918 (VISITOR CENTER PARKING)
0.024	0.029	CURB	LEFT	N/A
0.028	0.028	SIGN	LEFT	REGULATORY, DO NOT ENTER
0.028	0.028	SIGN	LEFT	REGULATORY, STOP
0.036	0.036	GATE	N/A	N/A
0.125	0.125	INTERSECTION	N/A	ROUTE 0913 (FAR VIEW LODGE PARKING)
0.125	0.125	ROUTE END	N/A	TO ROUTE 0913 (FAR VIEW LODGE PARKING)

ROUTE 0413: WETHERILL TRAM SHELTER ROAD

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0200 (WETHERILL MESA ROAD) AT MP 12.27 (ON LEFT)
0.000	0.000	INTERSECTION	LEFT	ROUTE 0200 (WETHERILL MESA ROAD)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0200 (WETHERILL MESA ROAD)
0.004	0.004	SIGN	LEFT	REGULATORY, STOP
0.009	0.009	GATE	N/A	N/A
0.025	0.025	CULVERT	N/A	N/A
0.062	0.062	INTERSECTION	RIGHT	ENTRANCE TO TRAM GARAGE
0.081	0.100	PULLOUT	LEFT	N/A
0.127	0.127	INTERSECTION	N/A	DEAD END AT TRAM GARAGE
0.127	0.127	ROUTE END	N/A	TO TRAM SHELTER

ROUTE 0415: WHITE HOUSE RESIDENCE ROAD

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0400 (UTILITY AREA ROAD)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0400 (UTILITY AREA ROAD)
0.000	0.000	INTERSECTION	LEFT	ROUTE 0945 (MAINTENANCE AREA PARKING)
0.002	0.002	CULVERT	N/A	N/A
0.008	0.008	SIGN	LEFT	REGULATORY, STOP
0.022	0.022	INTERSECTION	RIGHT	ROUTE 0934 (FIRE DORM PARKING)
0.028	0.028	SIGN	RIGHT	WARNING, SLOW CHILDREN
0.052	0.052	INTERSECTION	RIGHT	ROUTE 0934 (FIRE DORM PARKING)
0.059	0.059	SIGN	RIGHT	REGULATORY, SPEED LIMIT 15
0.070	0.070	INTERSECTION	LEFT	ROUTE 0415 (WHITE HOUSE RESIDENCE ROAD)
0.070	0.070	SIGN	N/A	REGULATORY, ONE WAY
0.070	0.377	ONE-WAY	N/A	N/A
0.071	0.071	SIGN	N/A	REGULATORY, DO NOT ENTER
0.075	0.075	DROP INLET	RIGHT	N/A
0.120	0.120	DROP INLET	LEFT	N/A
0.157	0.157	DROP INLET	LEFT	N/A
0.177	0.177	DROP INLET	LEFT	N/A
0.202	0.202	DROP INLET	LEFT	N/A
0.214	0.214	DROP INLET	LEFT	N/A
0.270	0.270	INTERSECTION	RIGHT	ROUTE 0946 (FITNESS CENTER / MAINTENANCE PARKING)
0.273	0.273	DROP INLET	RIGHT	N/A
0.282	0.282	INTERSECTION	RIGHT	ROUTE 0946 (FITNESS CENTER / MAINTENANCE PARKING)
0.300	0.300	DROP INLET	RIGHT	N/A
0.377	0.377	INTERSECTION	N/A	ROUTE 0415 (WHITE HOUSE RESIDENCE ROAD)
0.377	0.377	INTERSECTION	LEFT	ROUTE 0415 (WHITE HOUSE RESIDENCE ROAD)
0.377	0.377	ROUTE END	N/A	TO END OF LOOP

ROUTE 0470: MOREFIELD CANYON ROAD

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0010 (ENTRANCE ROAD)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0010 (ENTRANCE ROAD)
0.000	0.000	INTERSECTION	LEFT	ROUTE 0010 (ENTRANCE ROAD)
0.008	0.008	SIGN	RIGHT	REGULATORY, DO NOT ENTER
0.033	0.033	SIGN	RIGHT	GUIDE, UNABLE TO READ FROM VIDEO
0.040	0.040	GATE	N/A	N/A
0.041	0.041	SIGN	LEFT	REGULATORY, UNABLE TO READ FROM VIDEO
0.124	0.124	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
0.133	0.133	INTERSECTION	N/A	ROUTE 0470 (MOREFIELD CANYON ROAD) UNPAVED SECTION
0.133	0.133	INTERSECTION	RIGHT	ROUTE 0956 (MOREFIELD HORSE BARN / SAND SHED AREA)
0.133	0.133	ROUTE END	N/A	TO DEAD END AT MP 7.74

Section 10 Appendix



Mesa Verde National Park



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.

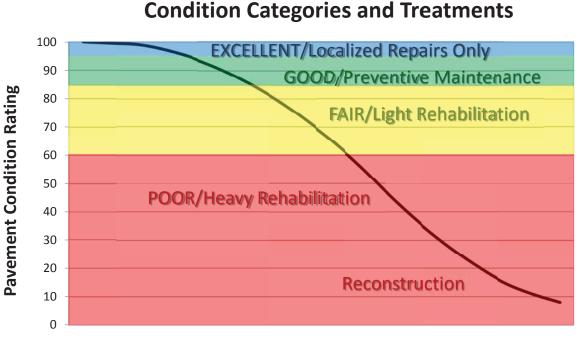
The changes that were implemented were endorsed by management at both the FHWA and NPS. In order to show the effectiveness of these changes, several sites were ground truth tested to ensure that an improvement was achieved between the relationship of PCR and the actual Maintenance and Rehabilitation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



Pavement Age

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 been 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-ofreference for distress types on NPS pavement. The FHWA RIP distress types are similar to those described in the LTPP manual with some modifications. The document, "Distress Identification Manual for the NPS Road Inventory Program, Cycle 5, 2010-2013" was developed using the "Distress Identification Manual for the Long-Term Pavement Performance Program" as a guideline. Definitions of severity levels based on crack width contained in this document adhere to the LTPP Distress ID Manual. Modifications have been made to the definition of Alligator and Longitudinal Cracking and determination of Alligator Cracking severity. This manual also addresses Rutting and Roughness and its application to NPS-RIP.

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

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

SURFACE DISTRESSES

Surface Condition Rating - SCR

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

Surface distresses determined from digital images

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

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

• Rutting

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

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

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

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

Roughness Condition Index - RCI

Additional condition data measured by DCV (lasers and accelerometers)

• Roughness (IRI)

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

Pavement Condition Rating - PCR

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

Asphalt PCR = (0.60 * SCR) + (0.40 * RCI)Concrete PCR = RCI

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

Each classified surface distress will fall into one or more *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.

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ASPHALT-SURFA	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.

		Crack Patt	tern	
ALLIGATOR CRACKING SE LEVELS	LOW	MED	HIGH	
	LOW	L	М	Н
ack idth	MED	М	М	Н
Cr.	HI	Н	Н	Н

TABLE 2: Alligator Crack Severity Levels

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 ≥ 0.20 " and ≤ 0.49 "

MED Ruts with a measured depth ≥ 0.50 " and ≤ 0.99 "

HIGH

Ruts with a measured depth ≥ 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:

square foot area of alligator crack severity 0.02 mile * lane width

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

Longitudinal Crack Index

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

Where:

The values %LOW, %MED, and %HI report the length of longitudinal cracking within each severity as a percent of the section length (0.02 mile, primary lane). These values are ≥ 0 and can exceed 100.

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

Percent of interval length is computed as: <u>length of respective longitudinal cracking</u> 0.02 mile (105.6 feet) In LC_INDEX, the denominators 175, 75, and 25 are the Maximum Allowable Extents (MAE) for each severity. In other words, we will allow up to 175% of low severity alligator cracking for a 0.02 interval before failure, 75% for medium severity, and so on. As you can see, if any single severity reaches MAE the resulting index value is 60, or failure.

Structural Crack Index

 $SC_{INDEX} = [100 - ((100 - AC_{INDEX}) + (100 - LC_{INDEX}))]$

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

Transverse Crack Index

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

Where:

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

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

Number of cracks is computed as: <u>Total length of transverse cracks</u> Lane width

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

Patching Index

PATCH_INDEX = 100 - 40 * (% PATCHING / 80)

Where:

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

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

Percent of total area is computed as:

square foot area of patching/potholes 0.02 mile * lane width

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

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

Rutting Index

RUT_INDEX = 100 - 40 * [(% LOW / 535) + (% MED / 205) + (% HI / 40)]

Where:

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

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

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

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

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

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)

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

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:

Left wheelpath IRI + Right wheelpath IRI 2

There is no applicable threshold for failure for this index.

Roughness Condition Index (Concrete)

 $\mathbf{RCI} = -0.0012(\mathrm{IRI}^2) + 0.0499(\mathrm{IRI}) + 99.542$

For concrete, PCR = RCI

Surface Condition Rating Index

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

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

Where:

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

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

Data Collection Vehicle Subsystems

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

CAMERAS

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

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

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

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

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

DMI (Distance Measuring Instrument)

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

ROUGHNESS (IRI)

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

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

RUTTING

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

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

GPS & INERTIAL SYSTEMS

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

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

GPS on Manually Rated Roads (MRR)

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

Geodatabase - Background and Metadata

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

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

GLOSSARY OF TERMS AND ABBREVIATIONS

TERM ORABBREVIATIONDESCRIPTION OR DEFINITION

Alligator Cracking
Condition Rating Sheets (Section 5)
Data Collection Vehicle
Excellent rating with an index value of 95 to 100
Fair rating with an index value from 61 to 84
Functional Classification (see Route ID, Section 2)
Good rating with an index value from 85 to 94
International Roughness Index
Width from road centerline to fogline, or from centerline to edge- of-pavement when no fogline exists
Longitudinal Cracking
Manually Rated Route
Manually Rated Line
Manually Rated Polygon
Not Applicable
Not Collected
Patching and Potholes
Width from edge-of-pavement to edge-of-pavement
Pavement Condition Rating
Parking Area
Poor rating with an index value of 0 to 60
Roughness Condition Index
Structural Cracking
Surface Condition Rating
Transverse Cracking