

Federal Lands Highway Road Inventory Program

Road Inventory and Condition Assessment



Kings Canyon National Park KICA

Cycle 5 Report

Prepared By: Federal Highway Administration Road Inventory Program (RIP) Data Collected: 09/2011 Report Date: 01/2013

Kings Canyon National Park in California





TABLE OF CONTENTS

	<u>SECTION</u>	<u>PAGE</u>
1.	INTRODUCTION	1 - 1
2.	PARK ROUTE INVENTORY Route IDs, Subcomponents & Changes Report (As Applicable)	2 – 1
3.	PARK SUMMARY INFORMATION Paved Route Miles and Percentages by Functional Class and PCR DCV Road Condition Summary	3 - 1 3 - 3
4.	PARK ROUTE LOCATION MAPS Route Location Key Map Route Location Area Map Route Condition Key Map – PCR Mile by Mile Route Condition Area Map – PCR Mile by Mile	4 - 1 4 - 2 4 - 4 4 - 5
5.	PAVED ROUTE CONDITION RATING SHEETS CRS Pages	5 – 1
6.	MANUALLY RATED PAVED ROUTE CONDITION RATING SHEETS MRR Pages	6 – 1
7.	PARKING AREA CONDITION RATING SHEETS Paved Parking Area Pages	7 – 1
8.	ROUTE MAINTENANCE FEATURES SUMMARIES DCV Route Maintenance Features Summary Structure List	8 - 1 8 - 2
9.	ROUTE MAINTENANCE FEATURES ROAD LOGS Route Maintenance Features Road Logs	9 – 1
10.	 APPENDIX Explanation of Changes to the RIP Index Equations and Determination of PCR Explanation of the Excellent, Good, Fair and Poor Condition Descriptions Description of Rating System Surface Distresses Index Formulas Data Collection Vehicle Subsystems Geodatabase – Background and Metadata Glossary of Terms and Abbreviations 	10 - 1 10 - 2 10 - 3 10 - 5 10 - 12 10 - 16 10 - 19 10 - 20

<u>Section 1</u> Introduction



Kings Canyon 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 168 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) 963-3560

Section 2 Park Route Inventory



Kings Canyon National Park



Cycle 5 NPS/RIP Route ID Report (Numerical By Route #) Road Inventory Program 01/08/2013 Page 1 of 7 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 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). *** Only Functional Class 1, 2, & 7 routes, and previously uncollected routes were collected in Cycle 5 ** DCV - Data Collection Vehicle **KICA KINGS CANYON NATIONAL PARK**

Rte. No.	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
0010	5	73857		GENERALS HIGHWAY	FROM BORDER OF SEQUOIA NATIONAL PARK AND NATIONAL FOREST	TO ROUTE 0015 (GRANT GROVE ROAD)	N/A	13.21	0.00	13.21	1		AS	1
0011	5	73050		CEDAR GROVE ROAD	FROM WEST PARK BOUNDARY	TO END OF LOOP	N/A	7.58	0.00	7.58	1		AS	2
0015	5	73052		GRANT GROVE ROAD	FROM SOUTHWEST PARK BOUNDARY	TO NORTH PARK BOUNDARY	N/A	4.70	0.00	4.70	1		AS	1
0101	5	73054		PANORAMIC POINT ROAD	FROM ROUTE 0015 (GRANT GROVE ROAD) AT MP 3.36 ON RIGHT	TO ROUTE 0932 PANORAMIC POINT PARKING	N/A	2.34	0.00	2.34	2		AS	1
0200	NC	73084		CEDAR GROVE MOTOR NATURE ROAD	FROM ROUTE 0011 (CEDAR GROVE ROAD)	TO END OF ROUTE 0400 (CEDAR GROVE RESIDENCE ROAD)	N/A	0.00	3.30	3.30	4		GR	
0205	5	73056		CEDAR GROVE NORTH SIDE ROAD	FROM ROUTE 0011 (CEDAR GROVE ROAD) AT MP 0.70 ON LEFT	TO ROUTE 0011 (CEDAR GROVE ROAD) AT MP 1.78	N/A	1.56	0.00	1.56	2		AS	2
0206ZZ	5	73059		SHEEP CREEK CAMPGROUND ROADS	FROM ROUTE 0011 (CEDAR GROVE ROAD) AT MP 1.29 ON LEFT	THROUGH CAMPGROUND	N/A	1.43	0.00	1.43	3		AS	2
0207ZZ	4	73060		SENTINEL CAMPGROUND ROADS	FROM ROUTE 0205 (CEDAR GROVE NORTH SIDE ROAD) ON RIGHT		N/A	1.16	0.00	1.16	3		AS	2
0208ZZ	4	73062		CANYON VIEW CAMPGROUND ROADS	FROM ROUTE 0011 (CEDAR GROVE ROAD) AT MP 2.23 ON LEFT	THROUGH CAMPGROUND	N/A	0.84	0.00	0.84	3		AS	2
0209ZZ	5	73063		MORAINE CAMPGROUND ROADS	FROM ROUTE 0011 (CEDAR GROVE ROAD) AT MP 2.53 ON LEFT	THROUGH CAMPGROUND	N/A	1.49	0.00	1.49	3		AS	2
0212	5	73065		GRANT TREE ROAD	FROM ROUTE 0015 (GRANT GROVE ROAD) AT MP 3.58 ON LEFT	TO ROUTE 0912 (GRANT TREE PARKING)	N/A	0.77	0.00	0.77	2		AS	1
0216ZZ	4	73066		AZALEA CAMPGROUND ROADS	FROM ROUTE 0212 (GRANT TREE ROAD) AT MP 0.03 ON LEFT	THROUGH CAMPGROUND	N/A	1.60	0.00	1.60	3		AS	1
0217	5	73067		CRYSTAL SPRINGS ROAD	FROM ROUTE 0015 (GRANT GROVE ROAD) AT MP 3.58 ON RIGHT	TO ROUTE 0101 (PANORAMIC POINT ROAD)	N/A	0.28	0.00	0.28	2		AS	1
0218ZZ	5	73068		CRYSTAL SPRINGS CAMPGROUND ROADS	FROM ROUTE 0217 (CRYSTAL SPRINGS ROAD) ON LEFT	THROUGH CAMPGROUND	N/A	1.15	0.00	1.15	3		AS	1

Koau I	nventor	y Program	n 01/	08/2013	1)	Numerical By Route #)							Pag	e 2 of :
	ing Color ext denote	.,	ite = Pa	ved Routes, DCV Driven	Yellow = Unpaved Rou	tes, DCV not Driven Blue	= All Paved Park	ing Areas	G	ireen = All	Unpaved	Parking Area	s	
appro	x. mileag	e Gre *Un ** D	paved r	ed Routes, DCV not Drive oute data was obtained fro ata Collection Vehicle	Black = State, Local or	, , ,		sion Route F 2, & 7 routes	-	iously unc	ollected rc	outes were co	llected in	Cycle
K .		KI		CANYON NATIONAL					11-	Total	1		1	
Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Des From	To	Maint. District	Paved Miles	Un- Paved Miles	Route	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
220ZZ	5	73069		SUNSET CAMPGROUND ROADS	FROM ROUTE 0015 (GRANT GROVE ROAD) AT MP 3.17 ON LEFT	THROUGH CAMPGROUND	N/A	1.31	0.00	1.31	3		AS	1
0231	NC	73086		REDWOOD SADDLE ROAD	FROM ROUTE 0010 (GENERALS HIGHWAY)	TO WEST PARK BOUNDARY	N/A	0.00	1.29	1.29	4		GR	
0400	4	73070		CEDAR GROVE RESIDENCE ROAD	FROM ROUTE 0205 (CEDAR GROVE NORTH SIDE ROAD) ON LEFT	TO ROUTE 0200 (CEDAR GROVE MOTOR NATURE ROAD)	N/A	0.73	0.00	0.73	5		AS	2
0401	4	73071		CEDAR GROVE RESIDENCE LOOP	FROM ROUTE 0400 (CEDAR GROVE RESIDENCE ROAD) AT MP 0.59 ON LEFT	GROVE RESIDENCE ROAD)	N/A	0.24	0.00	0.24	5		AS	2
9402ZZ	4	73072		PICNIC ESTATES LOOP ROADS	FROM ROUTE 0205 (CEDAR GROVE NORTH SIDE ROAD) ON LEFT	AREA	N/A	0.48	0.00	0.48	5		AS	2
0403	NC	73088		HELIPORT SERVICE ROAD	FROM ROUTE 0011 (CEDAR GROVE ROAD) AT MP 2.31 ON RIGHT	TO HELIPORT	N/A	0.00	0.76	0.76	6		GR	
0404	NC	73090		CANYON VIEW SERVICE ROAD	FROM ROUTE 0011 (CEDAR GROVE ROAD) AT MP 3.27 ON RIGHT	TO END	N/A	0.00	0.20	0.20	6		GR	
0408	NC	73093		LEWIS CREEK RESIDENCE ROAD	FROM ROUTE 0011 (CEDAR GROVE ROAD) AT MP 0.23 ON LEFT	TO END	N/A	0.00	0.20	0.20	6		GR	
0411	4	73074		GRANT GROVE RESIDENCE EAST WIRTH WAY	LOWER LOOP ROADS)	TO ROUTE 0417ZZ (GRANT GROVE RESIDENCE LOWER LOOP ROADS)	N/A	0.43	0.00	0.43	5		AS	1
414ZZ	4	73075		SWALE WORK CENTER ROUTES	FROM END OF ROUTE 0212 (GRANT TREE ROAD)	THROUGH WORK CENTER AREA	N/A	0.88	0.00	0.88	6		AS	1
0415	4	73078		GRANT GROVE RESIDENCE UPPER LOOP	FROM ROUTE 0411 (GRANT GROVE RESIDENCE EAST LOOP) AT MP 0.10 ON RIGHT	TO END OF LOOP	N/A	0.12	0.00	0.12	5		AS	1
417ZZ	4	73079		GRANT GROVE RESIDENCE LOWER LOOP ROADS	FROM ROUTE 0015 (GRANT GROVE ROAD) AT MP 3.1 ON RIGHT	THROUGH RESIDENCE LOOP	N/A	0.47	0.00	0.47	5		AS	1
0418	4	73080		GRANT GROVE WATER TOWER ACCESS ROAD	FROM ROUTE 0101 (PANORAMIC POINT ROAD) AT MP 0.17 ON RIGHT	TO WATER TOWER	N/A	0.41	0.00	0.41	6		AS	1
0419	4	73082		PETER SPRINGS TRAILER RESIDENCE	FROM ROUTE 0101 (PANORAMIC POINT ROAD)	TO END	N/A	0.00	0.00	0.00	5	15,227	AS	1

Cycle 5 NPS/RIP Route ID Report (Numerical By Route #) Road Inventory Program 01/08/2013 Page 3 of 7 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 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

KICA

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

KINGS CANYON NATIONAL PARK

Rte.	e Ged	FMSS	ess		Route Des	cription	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
0425	NC	73097		PARK RIDGE ROAD	FROM ROUTE 0101 (PANORAMIC POINT ROAD)	TO LOOKOUT TOWER	N/A	0.00	2.86	2.86	6		GR	
0426	NC	114561		LEWIS CREEK SEWAGE TREATMENT PLANT SERVICE ROAD	FROM ROUTE 0011 (CEDAR GROVE ROAD) AT MP 0.2 ON LEFT	TO END	N/A	0.00	0.14	0.14	6		GR	
0900	4	73099		BIG STUMP PICNIC AREA	ADJACENT TO ROUTE 0015 (GRANT GROVE ROAD) (SOUTH) AT MP 0.88 ON LEFT		N/A	0.00	0.00	0.00		35,947	AS	1
0901	4	73101		KINGS CANYON OVERLOOK	ADJACENT TO ROUTE 0010 (GENERALS HIGHWAY) AT MP 8.58 ON RIGHT		N/A	0.00	0.00	0.00		8,097	AS	1
0902	4	73103		GRANT GROVE MAINTENANCE AREA	ADJACENT TO ROUTE 0417ZZ (GRANT GROVE RESIDENCE LOWER LOOP ROADS)		N/A	0.00	0.00	0.00		38,101	AS	1
0903	4	73104		SUNSET AMPHITHEATER PARKING	FROM ROUTE 0220ZZ (SUNSET CAMPGROUND ROADS)	TO PARKING	N/A	0.00	0.00	0.00		24,948	AS	1
0904	4	73105		GRANT GROVE PLAZA PARKING	ADJACENT TO ROUTE 0015 (GRANT GROVE ROAD) AT MP 3.40 ON RIGHT		N/A	0.00	0.00	0.00		16,445	AS	1
0905	4	73107		GRANT GROVE CONCESSION SERVICE ACCESS	FROM ROUTE 0904 (GRANT GROVE CONCESSION PARKING)	TO LOADING AREA	N/A	0.00	0.00	0.00		8,263	AS	1
0906ZZ	4	73108		GRANT GROVE VISITOR CENTER PARKING AREAS	ADJACENT TO ROUTE 0101 (PANORAMIC POINT ROAD) AT MP 0.0 ON LEFT AND RIGHT		N/A	0.00	0.00	0.00		13,197	AS	1
0907	4	73109		MANZANITA TRAIL PARKING	ADJACENT TO ROUTE 0101 (PANORAMIC POINT ROAD) AT MP 0.09 ON RIGHT		N/A	0.00	0.00	0.00		6,324	AS	1
0908ZZ	4	73110		GRANT GROVE OLD MARKET PARKING AREAS	ADJACENT TO ROUTE 0101 (PANORAMIC POINT ROAD) AT MP 0.1 ON LEFT AND RIGHT		N/A	0.00	0.00	0.00		7,277	AS	1
0909	4	73111		JOHN MUIR LODGE PARKING	ADJACENT TO ROUTE 0101 (PANORAMIC POINT ROAD) AT MP 0.22		N/A	0.00	0.00	0.00		21,840	AS	1
0910	4	73112		MEADOW CAMP CABINS ROAD	FROM ROUTE 0217 (CRYSTAL SPRINGS ROAD) AT MP 0.2	THROUGH CABIN AREA	N/A	0.00	0.00	0.00		9,246	AS	1

Cycle 5 NPS/RIP Route ID Report (Numerical By Route #) Road Inventory Program 01/08/2013 Page 4 of 7 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 Grey = Paved Routes, DCV not Driven Black = State, Local or Private non-NPS Routes

approx. mileage

KICA

= 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

KINGS CANYON NATIONAL PARK

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
0911	4	73135		COLUMBINE PICNIC PARKING	ADJACENT TO ROUTE 0212 (GRANT TREE ROAD) AT MP 0.24 ON LEFT		N/A	0.00	0.00	0.00		8,282	AS	1
0912	4	73136		GRANT TREE PARKING	FROM END OF ROUTE 0212 (GRANT TREE ROAD)	TO PARKING	N/A	0.00	0.00	0.00		54,511	AS	1
0913	4	73137		CEDAR GROVE WASTE WATER TREATMENT FACILITY ACCESS	FROM ROUTE 0011 (CEDAR GROVE ROAD) ON LEFT	TO END	N/A	0.00	0.00	0.00		11,320	AS	2
0914	4	73139		CEDAR GROVE MAINTENANCE AREA	FROM ROUTE 0401 (CEDAR GROVE RESIDENCE LOOP) AT MP 0.01	TO ROUTE 0400 (CEDAR GROVE RESIDENCE ROAD)	N/A	0.00	0.00	0.00		15,442	AS	2
0915	NC	104963		CEDAR GROVE CORRAL PARKING	ADJACENT TO ROUTE 0400 (CEDAR GROVE RESIDENCE ROAD)		N/A	0.00	0.00	0.00			GR	
0916	4	73140		CEDAR GROVE VILLAGE PARKING	FROM ROUTE 0205 (CEDAR GROVE NORTH SIDE ROAD)	TO ROUTE 0402ZZ (CEDAR GROVE VILLAGE RESIDENCE LOOP ROADS)	N/A	0.00	0.00	0.00		60,206	AS	2
0917	4	73141		CEDAR GROVE VILLAGE PICNIC PARKING	ADJACENT TO ROUTE 0916 (CEDAR GROVE VILLAGE PARKING)		N/A	0.00	0.00	0.00		24,253	AS	2
0918ZZ	4	73142		CEDAR GROVE VISITOR CENTER PARKING AREAS	ADJACENT TO ROUTE 0207ZZ (SENTINEL CAMPGROUND ROADS)		N/A	0.00	0.00	0.00		45,872	AS	2
0919	4	73144		CEDAR GROVE VISITOR CENTER SERVICE LOOP	ADJACENT TO ROUTE 0918ZZ BEHIND VISITOR CENTER		N/A	0.00	0.00	0.00		3,078	AS	2
0921	4	73146		SHEEP CREEK DUMP STATION	ADJACENT TO ROUTE 0011 (CEDAR GROVE ROAD) AT MP 1.21 ON LEFT		N/A	0.00	0.00	0.00		4,242	AS	2
0922	4	73147		CANYON VIEW PARKING	ADJACENT TO ROUTE 0011 (CEDAR GROVE ROAD) AT MP 2.79 ON LEFT		N/A	0.00	0.00	0.00		5,983	AS	2
0923	4	73148		KNAPP'S CABIN PARKING	ADJACENT TO ROUTE 0011 (CEDAR GROVE ROAD) AT MP 3.94 ON LEFT		N/A	0.00	0.00	0.00		8,570	AS	2
0927	4	73604		ZUMWALT MEADOW PARKING	ADJACENT TO ROUTE 0011 (CEDAR GROVE ROAD) AT MP 6.34 ON RIGHT		N/A	0.00	0.00	0.00		17,653	AS	2
0928	4	73606		ROAD'S END INFORMATION PARKING	ADJACENT TO ROUTE 0011 (CEDAR GROVE ROAD) AT MP 7.17 ON RIGHT		N/A	0.00	0.00	0.00		46,034	AS	2

Cycle 5 NPS/RIP Route ID Report (Numerical By Route #) Road Inventory Program 01/08/2013 Page 5 of 7 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 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

KINGS CANYON NATIONAL PARK

KICA

Rte.	Cycle ollected	FMSS	Concess Route	Route Name	Route De	scription	Maint.	Paved	Un- Paved	Total Route	Func.	Manual Rated	Surf.	Area
No.	Cyc	No.	Ro Co Ro		From	То	District	Miles	Miles	Length	Class	SQ/FT	Туре	Maps
0929	4	73608		ROAD'S END RESTROOM PARKING	ADJACENT TO ROUTE 0011 (CEDAR GROVE ROAD) AT MP 7.24 ON LEFT		N/A	0.00	0.00	0.00		2,522	AS	2
0930	4	73609		ROAD'S END COPPER CREEK TRAIL PARKING	ADJACENT TO ROUTE 0011 (CEDAR GROVE ROAD) AT MP 7.33 ON RIGHT		N/A	0.00	0.00	0.00		20,298	AS	2
0931	4	73611		ROAD'S END LONG TERM PARKING	ADJACENT TO ROUTE 0011 (CEDAR GROVE ROAD) AT MP 7.49 ON RIGHT		N/A	0.00	0.00	0.00		43,704	AS	2
0932	4	73613		PANORAMIC POINT PARKING	FROM END OF ROUTE 0101 (PANORAMIC POINT ROAD)	TO PARKING	N/A	0.00	0.00	0.00		6,390	AS	1
0933	NC	104961		GRANT GROVE CORRAL PARKING	ADJACENT TO ROUTE 0015 (GRANT GROVE ROAD) AT MP 3.73 ON LEFT		N/A	0.00	0.00	0.00			GR	
0934	4	73614		REDWOOD CANYON OVERLOOK PARKING	ADJACENT TO ROUTE 0010 (GENERALS HIGHWAY) AT MP 10.20 ON LEFT		N/A	0.00	0.00	0.00		13,650	AS	1
0936ZZ	5			SWALE WORK CENTER AND ARROWHEAD INTERAGENCY PARKING AREAS	FROM ROUTE 0414ZZ (SWALE WORK CENTER ROUTES) ON LEFT AND RIGHT	TO PARKING AREAS	N/A	0.00	0.00	0.00		4,734	AS	1
5000	4			PARK ROAD / WILSONIA ROAD	FROM ROUTE 0010 (GENERALS HIGHWAY)	TO ROUTE 0417AZ (GRANT GROVE RESIDENCE LOWER LOOP ROAD A)	N/A	0.63	0.00	0.63			AS	1
5001	4			LILAC LANE	FROM WILSONIA ROAD	TO END OF PAVEMENT	N/A	0.23	0.00	0.23			AS	1
5002	4			HAZEL LANE	FROM LAUREL LANE	TO FERN LANE	N/A	0.29	0.00	0.29			AS	1

Road Inventory Pro	ogram 01/08/2013	-	P ROU	e #)		Page 6 of 7
Shading Color Key:	White = Paved Routes, DCV Driven	Yellow = Unpaved Routes, DC	V 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 Rout	es = Concession Route Flag ON		
	*Unpaved route data was obtained from NPS ** DCV - Data Collection Vehicle	and was not inventoried by the		bry Program (RIP). Inly Functional Class 1, 2, & 7 routes, and p	reviously uncollected routes we	re collected in Cycle 5
	CYCLE 5 COLLECTER	SUMMARY TOT	ALS FO	<u>R KINGS CANYON NATI</u>	<u>ONAL PARK</u>	
CYC	LE 5 COLLECTED ROUTE 1	OTALS		CYCLE 5 COLLECTED C	ONCESSION TOT	ALS
	DCV Driven Route Mi	les 34.94		Conces	sion Paved Route Miles	0.00
	Manually Rated Route Mi	les 0.00		Concession Pa	aved Parking Area SQFT	0
TOTAL PAR	K ROUTE MILES COLLECTED IN CYCL	E 5 34.94		Concession Man	ually Rated Rotes SQFT	0
	Manually Rated Routes (SQI		CYCLE	5 COLLECTED WEIGHT	ED AVERAGE PAI	RK VALUES
* <u>CYCLE 5</u>	COLLECTED PARKING A	REA TOTALS			DCV Driven PCR	83
	Paved Parking (SQI	T) 4,734		**Man	ually Rated Routes PCR	N/A
					**Parking PCR	54
				***Tota	I Equivalent Lane Miles	68.62

TOTAL PARK SUMMARY FOR KINGS CANYON NATIONAL PARK

ROUTE TOTALS	
TOTAL PAVED PARK ROUTE MILES	43.18
TOTAL PAVED PARKING (SQFT)	586,429

* - 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 Inver	ntory Pro	ogram 01/08/2013	e 5 NPS/RIP ROU (Numerical By Rout		eport	Page 7 of
Shading C Red text de approx. mi	enotes	White = Paved Routes, DCV Driven Grey = Paved Routes, DCV not Driven *Unpaved route data was obtained from N	Yellow = Unpaved Routes, DCV not Driven Black = State, Local or Private non-NPS Rout		' <mark>arking Areas</mark> cession Route Flag ON	Green = All Unpaved Parking Areas
		** DCV - Data Collection Vehicle	,	, ,	a 1, 2, & 7 routes, and p	reviously uncollected routes were collected in Cycle
<u>Class 2</u>	Route Numb Connector Pa campground	- k Road/Rural Parkway (Public Roads) Roads which vers 1 - 99. Note: Rural parkways (e.g. Natchez Tr ark Road (Public Roads) - Roads which provide acces ls, etc. Route Numbers 100-199.	constitute the main access route, circulatory tour, or thace) are numbered 1 - 9. State Routes Inventoried for as within a park to areas of scenic, scientific, recreation	oroughfare for park visit Park. Route Numbers 50 al or cultural interest, su	00-5999 Ich as overlooks,	Surface Type Abbreviations: AS - Asphaltic Concrete Pavement CO - Portland Cement Concrete Pavement BR - Brick or Pavers Road Bed CB - Cobble Stone Road Bed
<u>Class 4</u>	concessionai Primitive Par roads freque Note: Funct	ire facilities, etc. These roads generally serve low-spick Roads (Public Roads) - Roads which provide circuently have no minimum design standards and their unional Classes 3 and 4 have the same route numbers	circulation within public areas, such as campgrounds, seed traffic and are often designed for one-way circulat lation through remote areas and/or access to primitive use may be limited to specially equipped vehicles. Rout because, historically, they were numbered similarly. boads intended for access to administrative developmen	on. Route Numbers 200 campgrounds and undev e Numbers 200-299.	0-299. veloped areas. These	GR - Gravel Road Bed SA - Sand Road Bed NV - Native or Dirt Material Road Bed OT - Other Materials Road Bed
<u>Class 6</u>	quarters, or Restricted Re Note: Func	utility areas. Route Numbers 400-499. oad (Administrative Roads) - All roads normally clos tional Classes 5 and 6 have the same route number	ed to the public, including patrol roads, truck trails, and s because historically they were numbered similarly an nousing are often closed to the public, this restriction w	l other similar roads. Ri d often there is little disl	oute Numbers 400-499. cinction between	
	an urban are		ies serve high volumes of park and non-park related tr e major parkways which serve as gateways to our natio sers 1-9.			
**************************************	Service. Th ********** k road syster	e construction and/or reconstruction should conforr	usually extensions of the adjoining street system that n with accepted local engineering practice and local cor ************************************	ditions. Route Numbers	5 600-699.	
The hi nationwide one-way rou 5000	which are de utes are not a route numbe	signated by the 300 and 500 series. The numbers fractional class, the 300 as clearly tied to a specific functional class, the 300	s for interpretive roads, and a 500 series for one-way r or these roads will be maintained for reporting consiste and 500 series will be discontinued for future use. County or City owned which border, traverse, or provide	ncy. However, since the	ese interpretive and	

Road Inventory Pro	gram 01/08/2013	(Numerical By Subco	mponent #)	Р	age 1 of 8
• •	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		
	*Unpaved route data was obtained from NF	S and was not inventoried by the Road Inventor	y Program (RIP).		

KINGS CANYON NATIONAL PARK

KICA

Rte.	FMSS No.	Cycle Collected	Davida Nama	Route De	•	Concess Route	Func. Class	Paved	Un- Paved	Total Route	Manual Rated
No.	NO.	δŭ	Route Name	From	То	<u> </u>	щщ	Miles	Miles	Length	SQ/FT
0206ZZ	73059	5	SHEEP CREEK CAMPGROUND ROADS	FROM ROUTE 0011 (CEDAR GROVE ROAD) AT MP 1.29 ON LEFT	THROUGH CAMPGROUND		3	1.43	0.00	1.43	
0207ZZ	73060	4	SENTINEL CAMPGROUND ROADS	FROM ROUTE 0205 (CEDAR GROVE NORTH SIDE ROAD) ON RIGHT	THROUGH CAMPGROUND		3	1.16	0.00	1.16	
0208ZZ	73062	4	CANYON VIEW CAMPGROUND ROADS	FROM ROUTE 0011 (CEDAR GROVE ROAD) AT MP 2.23 ON LEFT	THROUGH CAMPGROUND		3	0.84	0.00	0.84	
0209ZZ	73063	5	MORAINE CAMPGROUND ROADS	FROM ROUTE 0011 (CEDAR GROVE ROAD) AT MP 2.53 ON LEFT	THROUGH CAMPGROUND		3	1.49	0.00	1.49	
0216ZZ	73066	4	AZALEA CAMPGROUND ROADS	FROM ROUTE 0212 (GRANT TREE ROAD) AT MP 0.03 ON LEFT	THROUGH CAMPGROUND		3	1.60	0.00	1.60	
0218ZZ	73068	5	CRYSTAL SPRINGS CAMPGROUND ROADS	FROM ROUTE 0217 (CRYSTAL SPRINGS ROAD) ON LEFT	THROUGH CAMPGROUND		3	1.15	0.00	1.15	
0220ZZ	73069	5	SUNSET CAMPGROUND ROADS	FROM ROUTE 0015 (GRANT GROVE ROAD) AT MP 3.17 ON LEFT	THROUGH CAMPGROUND		3	1.31	0.00	1.31	
0402ZZ	73072	4	PICNIC ESTATES LOOP ROADS	FROM ROUTE 0205 (CEDAR GROVE NORTH SIDE ROAD) ON LEFT	THROUGH RESIDENTIAL AREA		5	0.48	0.00	0.48	
0414ZZ	73075	4	SWALE WORK CENTER ROUTES	FROM END OF ROUTE 0212 (GRANT TREE ROAD)	THROUGH WORK CENTER AREA		6	0.88	0.00	0.88	
0417ZZ	73079	4	GRANT GROVE RESIDENCE LOWER LOOP ROADS	FROM ROUTE 0015 (GRANT GROVE ROAD) AT MP 3.1 ON RIGHT	THROUGH RESIDENCE LOOP		5	0.47	0.00	0.47	
0906ZZ	73108	4	GRANT GROVE VISITOR CENTER PARKING AREAS	ADJACENT TO ROUTE 0101 (PANORAMIC POINT ROAD) AT MP 0.0 ON LEFT AND RIGHT				0.00	0.00	0.00	13,197
0908ZZ	73110	4	GRANT GROVE OLD MARKET PARKING AREAS	ADJACENT TO ROUTE 0101 (PANORAMIC POINT ROAD) AT MP 0.1 ON LEFT AND RIGHT				0.00	0.00	0.00	7,277
0918ZZ	73142	4	CEDAR GROVE VISITOR CENTER PARKING AREAS	ADJACENT TO ROUTE 0207ZZ (SENTINEL CAMPGROUND ROADS)				0.00	0.00	0.00	45,872
0936ZZ	N/A	5	SWALE WORK CENTER AND ARROWHEAD INTERAGENCY PARKING AREAS	FROM ROUTE 0414ZZ (SWALE WORK CENTER ROUTES) ON LEFT AND RIGHT	TO PARKING AREAS			0.00	0.00	0.00	4,734

Road Inventory Program 01/08/2013

(Numerical By Subcomponent #)

Page 2 of 8

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	

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

KICA KINGS CANY

KINGS CANYON NATIONAL PARK

KICA-0206ZZ Subcomponent Breakdown

Rte.	FMSS	rcle ollected		Route D	escription	Concess Route	Func. Class	Paved	Un- Paved	Total Route	Manual Rated
No.	No.	δS	Route Name	From	То	ŭĕ	ЪЭ	Miles	Miles	Length	SQ/FT
0206AZ	73059	5	SHEEP CREEK CAMPGROUND ROAD A	FROM ROUTE 0206BZ (SHEEP CREEK CAMPGROUND ROAD B) (SHEEP CREEK CAMPGROUND ROAD B) ON RIGHT	TO END OF LOOP		3	0.49	0.00	0.49	
0206BZ	73059	5	SHEEP CREEK CAMPGROUND ROAD B	FROM ROUTE 0011 (CEDAR GROVE ROAD)	TO END OF LOOP		3	0.47	0.00	0.47	
0206CZ	73059	5	SHEEP CREEK CAMPGROUND ROAD C	FROM ROUTE 0206AZ (SHEEP CREEK CAMPGROUND ROAD A) ON LEFT	TO ROUTE 0206BZ (SHEEP CREEK CAMPGROUND ROAD B)		3	0.07	0.00	0.07	
0206DZ	73059	5	SHEEP CREEK CAMPGROUND ROAD D	FROM ROUTE 0206AZ (SHEEP CREEK CAMPGROUND ROAD A) ON RIGHT	TO ROUTE 0206AZ (SHEEP CREEK CAMPGROUND ROAD A)		3	0.08	0.00	0.08	
0206EZ	73059	5	SHEEP CREEK CAMPGROUND ROAD E	FROM ROUTE 0206AZ (SHEEP CREEK CAMPGROUND ROAD A) ON LEFT	TO ROUTE 0206BZ (SHEEP CREEK CAMPGROUND ROAD B)		3	0.11	0.00	0.11	
0206FZ	73059	5	SHEEP CREEK CAMPGROUND ROAD F	FROM ROUTE 0206AZ (SHEEP CREEK CAMPGROUND ROAD A) ON LEFT	TO ROUTE 0206BZ (SHEEP CREEK CAMPGROUND ROAD B)		3	0.14	0.00	0.14	
0206GZ	73059	5	SHEEP CREEK CAMPGROUND ROAD G	FROM ROUTE 0206BZ (SHEEP CREEK CAMPGROUND ROAD B) ON RIGHT	TO ROUTE 0206BZ (SHEEP CREEK CAMPGROUND ROAD B)		3	0.09	0.00	0.09	

Road Inventory Program 01/08/2013

KICA

(Numerical By Subcomponent #)

Page 3 of 8

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	= Concession Route Flag ON	

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

KINGS CANYON NATIONAL PARK

KICA-0207ZZ Subcomponent Breakdown

FMSS	cle llected		Route Des	scription	ncess ute	SS SS	Paved	Un- Paved	Total Route	Manual Rated
No.	δõ	Route Name	From	То	S S S	Fur Cla	Miles	Miles	Length	SQ/FT
73060	4	SENTINEL CAMPGROUND ROAD A	FROM ROUTE 0205 (CEDAR GROVE NORTH SIDE ROAD) ON LEFT	TO END OF LOOP		3	0.60	0.00	0.60	
73060	4	SENTINEL CAMPGROUND ROAD B	FROM ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD A) AT MP 0.05 ON LEFT	TO ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD A)		3	0.22	0.00	0.22	
73060	4	SENTINEL CAMPGROUND ROAD C	FROM ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD A) AT MP 0.10 ON LEFT	TO ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD A)		3	0.12	0.00	0.12	
73060	4	SENTINEL CAMPGROUND ROAD D	FROM ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD A) AT MP 0.13 ON LEFT	TO ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD A)		3	0.12	0.00	0.12	
73060	4	SENTINEL CAMPGROUND ROAD E	FROM ROUTE 0207BZ (SENTINEL CAMPGROUND ROAD B) AT MP 0.15 ON LEFT	TO ROUTE 0207BZ (SENTINEL CAMPGROUND ROAD B)		3	0.10	0.00	0.10	
	No. 73060 73060 73060 73060 73060	No. So So	No.SoSoRoute Name730604SENTINEL CAMPGROUND ROAD A730604SENTINEL CAMPGROUND ROAD C730604SENTINEL CAMPGROUND ROAD C730604SENTINEL CAMPGROUND ROAD D	FMSS No.SolutionRoute NameFrom730604SENTINEL CAMPGROUND ROAD AFROM ROUTE 0205 (CEDAR GROVE NORTH SIDE ROAD) ON LEFT730604SENTINEL CAMPGROUND ROAD BFROM ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD A) AT MP 0.05 ON LEFT730604SENTINEL CAMPGROUND ROAD CFROM ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD A) AT MP 0.10 ON LEFT730604SENTINEL CAMPGROUND ROAD DFROM ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD A) AT MP 0.13 ON LEFT730604SENTINEL CAMPGROUND ROAD DFROM ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD A) AT MP 0.13 ON LEFT730604SENTINEL CAMPGROUND ROAD EFROM ROUTE 0207BZ (SENTINEL CAMPGROUND ROAD B) AT MP 0.15	No. $\frac{2}{\sqrt{50}}$ Route NameFromTo730604SENTINEL CAMPGROUND ROAD AFROM ROUTE 0205 (CEDAR GROVE NORTH SIDE ROAD) ON LEFTTO END OF LOOP730604SENTINEL CAMPGROUND ROAD BFROM ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD A) AT MP 0.05 ON LEFTTO ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD A) AT MP 0.05 ON LEFT730604SENTINEL CAMPGROUND ROAD CFROM ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD A) AT MP 0.10 ON LEFTTO ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD A)730604SENTINEL CAMPGROUND ROAD DFROM ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD A) AT MP 0.13 ON LEFTTO ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD A)730604SENTINEL CAMPGROUND ROAD EFROM ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD A) AT MP 0.13 ON LEFTTO ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD A)730604SENTINEL CAMPGROUND ROAD EFROM ROUTE 0207BZ (SENTINEL CAMPGROUND ROAD B) AT MP 0.15TO ROUTE 0207BZ (SENTINEL CAMPGROUND ROAD B)	FMSS No. </td <td>FMSS No.<!--</td--><td>FMSS No.<!--</td--><td>FMSS No.9 8 5 89 8 5 89 8 5 89 8 5 89 8 6 8 89 8 8 89 8 8 89 8 8 89 8 8 89 8 8 89 8 8 8 89 8 8 8 89 8 8 8 8 89 8 8 8 8 89 8</td><td>FMSS No.98 5698 Route NameFromTo98 5698 5698 56Paved MilesPaved MilesRoute Length730604SENTINEL CAMPGROUND ROAD AFROM ROUTE 0205 (CEDAR GROVE NORTH SIDE ROAD) ON LEFTTO END OF LOOP30.600.000.60730604SENTINEL CAMPGROUND ROAD BFROM ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD A) AT MP 0.05 ON LEFTTO ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD A)30.220.000.22730604SENTINEL CAMPGROUND ROAD CFROM ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD A) AT MP 0.10 ON LEFTTO ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD A)0.120.000.12730604SENTINEL CAMPGROUND ROAD DFROM ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD A) AT MP 0.13 ON LEFTTO ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD A)30.120.000.12730604SENTINEL CAMPGROUND ROAD DFROM ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD A) AT MP 0.13 ON LEFTTO ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD A)30.120.000.12730604SENTINEL CAMPGROUND ROAD EFROM ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD B) AT MP 0.15TO ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD B)30.100.000.10</td></td></td>	FMSS No. </td <td>FMSS No.<!--</td--><td>FMSS No.9 8 5 89 8 5 89 8 5 89 8 5 89 8 6 8 89 8 8 89 8 8 89 8 8 89 8 8 89 8 8 89 8 8 8 89 8 8 8 89 8 8 8 8 89 8 8 8 8 89 8</td><td>FMSS No.98 5698 Route NameFromTo98 5698 5698 56Paved MilesPaved MilesRoute Length730604SENTINEL CAMPGROUND ROAD AFROM ROUTE 0205 (CEDAR GROVE NORTH SIDE ROAD) ON LEFTTO END OF LOOP30.600.000.60730604SENTINEL CAMPGROUND ROAD BFROM ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD A) AT MP 0.05 ON LEFTTO ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD A)30.220.000.22730604SENTINEL CAMPGROUND ROAD CFROM ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD A) AT MP 0.10 ON LEFTTO ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD A)0.120.000.12730604SENTINEL CAMPGROUND ROAD DFROM ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD A) AT MP 0.13 ON LEFTTO ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD A)30.120.000.12730604SENTINEL CAMPGROUND ROAD DFROM ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD A) AT MP 0.13 ON LEFTTO ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD A)30.120.000.12730604SENTINEL CAMPGROUND ROAD EFROM ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD B) AT MP 0.15TO ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD B)30.100.000.10</td></td>	FMSS No. </td <td>FMSS No.9 8 5 89 8 5 89 8 5 89 8 5 89 8 6 8 89 8 8 89 8 8 89 8 8 89 8 8 89 8 8 89 8 8 8 89 8 8 8 89 8 8 8 8 89 8 8 8 8 89 8</td> <td>FMSS No.98 5698 Route NameFromTo98 5698 5698 56Paved MilesPaved MilesRoute Length730604SENTINEL CAMPGROUND ROAD AFROM ROUTE 0205 (CEDAR GROVE NORTH SIDE ROAD) ON LEFTTO END OF LOOP30.600.000.60730604SENTINEL CAMPGROUND ROAD BFROM ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD A) AT MP 0.05 ON LEFTTO ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD A)30.220.000.22730604SENTINEL CAMPGROUND ROAD CFROM ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD A) AT MP 0.10 ON LEFTTO ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD A)0.120.000.12730604SENTINEL CAMPGROUND ROAD DFROM ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD A) AT MP 0.13 ON LEFTTO ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD A)30.120.000.12730604SENTINEL CAMPGROUND ROAD DFROM ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD A) AT MP 0.13 ON LEFTTO ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD A)30.120.000.12730604SENTINEL CAMPGROUND ROAD EFROM ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD B) AT MP 0.15TO ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD B)30.100.000.10</td>	FMSS No.9 8 5 89 8 5 89 8 5 89 8 5 89 8 6 8 89 8 8 89 8 8 89 8 8 89 8 8 89 8 8 89 8 8 8 89 8 8 8 89 8 8 8 8 89 8 8 8 8 89 8	FMSS No.98 5698 Route NameFromTo98 5698 5698 56Paved MilesPaved MilesRoute Length730604SENTINEL CAMPGROUND ROAD AFROM ROUTE 0205 (CEDAR GROVE NORTH SIDE ROAD) ON LEFTTO END OF LOOP30.600.000.60730604SENTINEL CAMPGROUND ROAD BFROM ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD A) AT MP 0.05 ON LEFTTO ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD A)30.220.000.22730604SENTINEL CAMPGROUND ROAD CFROM ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD A) AT MP 0.10 ON LEFTTO ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD A)0.120.000.12730604SENTINEL CAMPGROUND ROAD DFROM ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD A) AT MP 0.13 ON LEFTTO ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD A)30.120.000.12730604SENTINEL CAMPGROUND ROAD DFROM ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD A) AT MP 0.13 ON LEFTTO ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD A)30.120.000.12730604SENTINEL CAMPGROUND ROAD EFROM ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD B) AT MP 0.15TO ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD B)30.100.000.10

KICA-0208ZZ Subcomponent Breakdown

Rte.	FMSS	cle llected		Route De	scription	ncess ute	IC. SS	Paved	Un- Paved	Total Route	Manual Rated
No.	No.	<u>х в</u>	Route Name	From	То	Ŝ	Func. Class	Miles	Miles	Length	SQ/FT
0208AZ	73062	4	CANYON VIEW CAMPGROUND ROAD A	FROM ROUTE 0011 (CEDAR GROVE ROAD) AT MP 2.23 ON LEFT	TO END OF LOOP		3	0.31	0.00	0.31	
0208BZ	73062	4	CANYON VIEW CAMPGROUND ROAD B	FROM ROUTE 0208AZ (CANYON VIEW CAMPGROUND ROAD A) AT MP 0.15 ON RIGHT	TO ROUTE 0208CZ (CANYON VIEW CAMPGROUND ROAD C)		3	0.18	0.00	0.18	
0208CZ	73062	4	CANYON VIEW CAMPGROUND ROAD C	FROM ROUTE 0208AZ (CANYON VIEW CAMPGROUND ROAD A) AT MP 0.28 ON RIGHT	TO ROUTE 0208AZ (CANYON VIEW CAMPGROUND ROAD A)		3	0.35	0.00	0.35	

Road Inventory Program 01/08/2013

(Numerical By Subcomponent #)

Page 4 of 8 Green = All Unpaved Parking Areas Yellow = Unpaved Routes, DCV not Driven lue = All Paved Parking Areas

= Concession Route Flag ON

Shading Color Key: Red text denotes approx. mileage

KICA

Black = State, Local or Private non-NPS Routes

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

KINGS CANYON NATIONAL PARK

KICA-0209ZZ Subcomponent Breakdown

White = Paved Routes, DCV Driven

Grey = Paved Routes, DCV not Driven

Rte.	FMSS	Cycle Collected		Route Des	cription	Concess Route	Func. Class	Paved	Un- Paved	Total Route	Manual Rated
No.	No.	ავ	Route Name	From	То	ပိမိ	Fu Cla	Miles	Miles	Length	SQ/FT
0209AZ	73063	5	MORAINE CAMPGROUND ROAD A	FROM ROUTE 0011 (CEDAR GROVE ROAD) AT MP 2.53 ON LEFT	TO END OF LOOP		3	0.61	0.00	0.61	
0209BZ	73063	4	MORAINE CAMPGROUND ROAD B	FROM ROUTE 0209AZ (MORAINE CAMPGROUND ROAD A) ON LEFT	TO ROUTE 0209AZ (MORAINE CAMPGROUND ROAD A)		3	0.10	0.00	0.10	
0209CZ	73063	4	MORAINE CAMPGROUND ROAD C	FROM ROUTE 0209BZ (MORAINE CAMPGROUND ROAD B) AT MP 0.03 ON LEFT	TO ROUTE 0209AZ (MORAINE CAMPGROUND ROAD A)		3	0.16	0.00	0.16	
0209DZ	73063	4	MORAINE CAMPGROUND ROAD D	FROM ROUTE 0209AZ (MORAINE CAMPGROUND ROAD A) ON RIGHT	TO ROUTE 0209AZ (MORAINE CAMPGROUND ROAD A)		3	0.37	0.00	0.37	
0209EZ	73063	4	MORAINE CAMPGROUND ROAD E	FROM ROUTE 0209DZ (MORAINE CAMPGROUND ROAD D) AT MP 0.12 ON RIGHT	TO ROUTE 0209AZ (MORAINE CAMPGROUND ROAD A)		3	0.12	0.00	0.12	
0209FZ	73063	4	MORAINE CAMPGROUND ROAD F	FROM ROUTE 0209DZ (MORAINE CAMPGROUND ROAD D) AT MP 0.18 ON RIGHT	TO ROUTE 0209AZ (MORAINE CAMPGROUND ROAD A)		3	0.13	0.00	0.13	

KICA-0216ZZ Subcomponent Breakdown

Π

Rte.	FMSS	Cy cle Collected		Route Des	cription	ncess ute	SS SS	Paved	Un- Paved	Total Route	Manual Rated
No.	No.	δõ	Route Name	From	То	Ro Ro	Func. Class	Miles	Miles	Length	SQ/FT
0216AZ	73066	4	AZALEA CAMPGROUND ROAD A	FROM ROUTE 0212 (GRANT TREE ROAD) AT MP 0.03 ON LEFT	TO END OF LOOP		3	0.77	0.00	0.77	
0216BZ	73066	4	AZALEA CAMPGROUND ROAD B	FROM ROUTE 0216AZ (AZALEA CAMPGROUND ROAD A) AT MP 0.34 ON RIGHT	TO END OF LOOP		3	0.34	0.00	0.34	
0216CZ	73066	4	AZALEA CAMPGROUND ROAD C	FROM ROUTE 0216BZ (AZALEA CAMPGROUND ROAD B) AT MP 0.15 ON LEFT	TO ROUTE 0216BZ (AZALEA CAMPGROUND ROAD B)		3	0.03	0.00	0.03	
0216DZ	73066	4	AZALEA CAMPGROUND ROAD D	FROM ROUTE 0216AZ (AZALEA CAMPGROUND ROAD A) AT MP 0.25 ON LEFT	TO ROUTE 0216AZ (AZALEA CAMPGROUND ROAD A)		3	0.26	0.00	0.26	
0216EZ	73066	4	AZALEA CAMPGROUND ROAD E	FROM ROUTE 0216AZ (AZALEA CAMPGROUND ROAD A) AT MP 0.34 ON LEFT	TO ROUTE 0216AZ (AZALEA CAMPGROUND ROAD A)		3	0.20	0.00	0.20	

(Numerical By Subcomponent #) Road Inventory Program 01/08/2013 Page 5 of 8 Yellow = Unpaved Routes, DCV not Driven Green = All Unpaved Parking Areas Shading Color Key: White = Paved Routes, DCV Driven Blue = All Paved Parking Areas 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). KICA KINGS CANYON NATIONAL PARK KICA-0218ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Name	Route De	escription To	Concess Route	Func. Class	Paved Miles	Un- Paved Miles	Total Route Length	Manual Rated SQ/FT
0218AZ	73068	5	CRYSTAL SPRINGS CAMPGROUND ROAD A	FROM ROUTE 0217 (CRYSTAL SPRINGS ROAD)	TO END OF LOOP		3	0.47	0.00	0.47	
0218BZ	73068	5	CRYSTAL SPRINGS CAMPGROUND ROAD B	FROM ROUTE 0218AZ (CRYSTAL SPRINGS CAMPGROUND ROAD A)	TO END OF LOOP		3	0.38	0.00	0.38	
0218CZ	73068	5	CRYSTAL SPRINGS CAMPGROUND ROAD C	FROM ROUTE 0218AZ (CRYSTAL SPRINGS CAMPGROUND ROAD A)	TO ROUTE 0218AZ (CRYSTAL SPRINGS CAMPGROUND ROAD A)		3	0.21	0.00	0.21	
0218DZ	73068	5	CRYSTAL SPRINGS CAMPGROUND ROAD D	FROM ROUTE 0218AZ (CRYSTAL SPRINGS CAMPGROUND ROAD A)	TO ROUTE 0218AZ (CRYSTAL SPRINGS CAMPGROUND ROAD A)		3	0.10	0.00	0.10	

KICA-(0220Z	ΖS	ubcomponent Breakd	own							
Rte. No.	FMSS No.	Cycle Collected	Route Name	Route De From	scription To	Concess Route	Func. Class	Paved Miles	Un- Paved Miles	Total Route Length	Manual Rated SQ/FT
0220AZ	73069	5	SUNSET CAMPGROUND ROAD A	FROM ROUTE 0015 (GRANT GROVE ROAD) AT MP 3.17 ON LEFT	TO END OF LOOP		3	0.50	0.00	0.50	
0220BZ	73069	5	SUNSET CAMPGROUND ROAD B	FROM ROUTE 0220AZ (SUNSET CAMPGROUND ROAD A) AT MP 0.2 ON LEFT	TO ROUTE 0220AZ (SUNSET CAMPGROUND ROAD A)		3	0.41	0.00	0.41	
0220CZ	73069	5	SUNSET CAMPGROUND ROAD C	FROM ROUTE 0220AZ (SUNSET CAMPGROUND ROAD A)	TO ROUTE 0220AZ (SUNSET CAMPGROUND ROAD A)		3	0.05	0.00	0.05	
0220DZ	73069	5	SUNSET CAMPGROUND ROAD D	FROM ROUTE 0220AZ (SUNSET CAMPGROUND ROAD A)	TO ROUTE 0220AZ (SUNSET CAMPGROUND ROAD A)		3	0.08	0.00	0.08	
0220EZ	73069	5	SUNSET CAMPGROUND ROAD E	FROM ROUTE 0220BZ (SUNSET CAMPGROUND ROAD B)	TO ROUTE 0220AZ (SUNSET CAMPGROUND ROAD A)		3	0.08	0.00	0.08	
0220FZ	73069	5	SUNSET CAMPGROUND ROAD F	FROM ROUTE 0220BZ (SUNSET CAMPGROUND ROAD B)	TO ROUTE 0220BZ (SUNSET CAMPGROUND ROAD B)		3	0.09	0.00	0.09	
0220GZ	73069	5	SUNSET CAMPGROUND ROAD G	FROM ROUTE 0220BZ (SUNSET CAMPGROUND ROAD B)	TO ROUTE 0220BZ (SUNSET CAMPGROUND ROAD B)		3	0.10	0.00	0.10	

Road Inventory Program 01/08/2013 (Numerical By Subcomponent #) Page 6 of 8 Green = All Unpayed Parking Areas Shading Color Key: White = Paved Routes, DCV Driven Yellow = Unpaved Routes, DCV not Driven lue = All Paved Parking Areas 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). **KICA** KINGS CANYON NATIONAL PARK KICA-0402ZZ Subcomponent Breakdown Concess Route Total Un-Manual Cycle Collect **Route Description** Func. Class FMSS Route Rte. Paved Rated Paved No. Length Route Name Miles SQ/FT No. From То Miles 0402AZ 73072 4 PICNIC ESTATES LOOP ROAD A FROM ROUTE 0205 (CEDAR GROVE TO END OF LOOP 5 0.39 0.00 0.39 NORTH SIDE ROAD) ON LEFT 5 0402BZ 73072 4 PICNIC ESTATES LOOP ROAD B FROM ROUTE 0402AZ (CEDAR TO ROUTE 0402AZ (CEDAR GROVE 0.09 0.00 0.09 GROVE VILLAGE RESIDENCE LOOP VILLAGE RESIDENCE LOOP ROAD A) ROAD A) (CEDAR GROVE VILLAGE (CEDAR GROVE VILLAGE RESIDENCE RESIDENCE LOOP ROAD A) AT MP LOOP ROAD A) .17 ON LEFT

KICA-0414ZZ Subcomponent Breakdown Concess Route Total Un-Manual **Route Description** FMSS Cycle Collec cle Func. Class Route Rte. Paved Rated Paved No. **Route Name** Length Miles SQ/FT No. То Miles From 0414AZ 4 FROM ROUTE 0414Z (SWALE WORK TO ROUTE 0414Z (SWALE WORK 73075 SWALE WORK CENTER LOOP A 6 0.06 0.00 0.06 CENTER ROAD) AT MP 0.46 CENTER ROAD) AT MP 0.4 0414Z 73075 4 SWALE WORK CENTER ROAD FROM END OF ROUTE 0212 (GRANT TO END OF LOOP 6 0.82 0.00 0.82 TREE ROAD)

KICA-	0417Z	z s	ubcomponent Breakd	own							
Rte. No.	FMSS No.	Cycle Collected	Route Name	Route De	escription To	Concess Route	Func. Class	Paved Miles	Un- Paved Miles	Total Route Length	Manual Rated SQ/FT
0417AZ	73079	4	GRANT GROVE RESIDENCE LOWER LOOP ROAD A	FROM ROUTE 0015 (GRANT GROVE ROAD) AT MP 3.10 ON RIGHT	END OF LOOP		5	0.42	0.00	0.42	
0417BZ	73079	4	GRANT GROVE RESIDENCE LOWER LOOP ROAD B	FROM ROUTE 0417AZ (GRANT GROVE RESIDENCE LOWER LOOP ROAD A) AT MP 0.24 ON RIGHT	TO ROUTE 0417AZ (GRANT GROVE RESIDENCE LOWER LOOP ROAD A)		5	0.05	0.00	0.05	
				ROAD A) AT MP 0.24 ON RIGHT	·						

Road Inv	entory P	rogra	MPS/R am 01/08/2013	(Numerical By Subcompo	onent #)						Page 7 of 8
-	Color Key	W	hite = Paved Routes, DCV Driven	Yellow = Unpaved Routes, DCV not Driven	e = All Paved Parking A	reas	Gr	een = All Un	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	Route Flag	ON				
		*U	Inpaved route data was obtained from NP	S and was not inventoried by the Road Inventory Pro	ogram (RIP).						
KI			KINGS CANYON NATIONAL	PARK							
(ICA-(0906Z	ΖS	ubcomponent Breakdo	own							
Rte. No.	FMSS No.	Cycle Collected	Route Name	Route Description From	То	Concess Route	Func. Class	Paved Miles	Un- Paved Miles	Total Route Length	Manual Rated SQ/FT
0906AZ	73108	4	GRANT GROVE VISITOR CENTER PARKING AREA A	ADJACENT TO ROUTE 0101 (PANORAMIC POINT ROAD) AT MP 0.06 ON RIGHT				0.00	0.00	0.00	7,63
0906BZ	73108	4	GRANT GROVE VISITOR CENTER PARKING AREA B	ADJACENT TO ROUTE 0101 (PANORAMIC POINT ROAD) AT MP 0.05 ON LEFT				0.00	0.00	0.00	3,12
0906CZ			CDANT CDOVE VICITOD CENTED	ADJACENT TO ROUTE 0101						0.00	2,442
	73108	4	GRANT GROVE VISITOR CENTER PARKING AREA C	(PANORAMIC POINT ROAD) AT MP 0.08 ON LEFT				0.00	0.00	0.00	2,44
			PARKING AREA C	(PANORAMIC POINT ROAD) AT MP 0.08 ON LEFT				0.00	0.00	0.00	2,442
				(PANORAMIC POINT ROAD) AT MP 0.08 ON LEFT		s		0.00			
(ICA-(Rte.	0908Z FMSS	T S	PARKING AREA C	(PANORAMIC POINT ROAD) AT MP 0.08 ON LEFT		incess	nc. ass	0.00 Paved	Un- Paved	Total Route	Manual Rated
(ICA-(Rte. No.	0908Z FMSS No.		PARKING AREA C Subcomponent Breakde Route Name	(PANORAMIC POINT ROAD) AT MP 0.08 ON LEFT OWN Route Description From	То	Concess Route	Func. Class	Paved Miles	Un- Paved Miles	Total Route Length	Manual Rated SQ/FT
(ICA-(Rte.	0908Z FMSS	T S	PARKING AREA C	(PANORAMIC POINT ROAD) AT MP 0.08 ON LEFT OWN Route Description From ADJACENT TO ROUTE 0101 (PANORAMIC POINT ROAD) AT MP	То	Concess Route	Func. Class	Paved	Un- Paved	Total Route	Manual Rated SQ/FT
(ICA-(Rte. No.	0908Z FMSS No.	T S	PARKING AREA C Subcomponent Breakde Route Name GRANT GROVE OLD MARKET PARKING	(PANORAMIC POINT ROAD) AT MP 0.08 ON LEFT OWN Route Description From ADJACENT TO ROUTE 0101	То	Concess Route	Func. Class	Paved Miles	Un- Paved Miles	Total Route Length	Manual Rated SQ/FT 3,584
(ICA-(Rte. No. 0908AZ	0908Z FMSS No. 73110	T S	PARKING AREA C Subcomponent Breakde Route Name GRANT GROVE OLD MARKET PARKING AREA A GRANT GROVE OLD MARKET PARKING	(PANORAMIC POINT ROAD) AT MP 0.08 ON LEFT OWN Route Description From ADJACENT TO ROUTE 0101 (PANORAMIC POINT ROAD) AT MP 0.14 ON RIGHT ADJACENT TO ROUTE 0101 (PANORAMIC POINT ROAD) AT MP	То	Concess Route	Func. Class	Paved Miles 0.00	Un- Paved Miles 0.00	Total Route Length	Manual Rated SQ/FT 3,584
(ICA-(Rte. No. 0908AZ 0908BZ	0908Z FMSS No. 73110 73110	P Cycle P Collected	PARKING AREA C Subcomponent Breakde Route Name GRANT GROVE OLD MARKET PARKING AREA A GRANT GROVE OLD MARKET PARKING	(PANORAMIC POINT ROAD) AT MP 0.08 ON LEFT OWN ADJACENT TO ROUTE 0101 (PANORAMIC POINT ROAD) AT MP 0.14 ON RIGHT ADJACENT TO ROUTE 0101 (PANORAMIC POINT ROAD) AT MP 0.13 ON LEFT	То	Concess Route	Func. Class	Paved Miles 0.00	Un- Paved Miles 0.00	Total Route Length	Manual Rated SQ/FT 3,584
(ICA-(Rte. No. 0908AZ 0908BZ	0908Z FMSS No. 73110 73110 0918Z	ted Z Z	PARKING AREA C Subcomponent Breakde Route Name GRANT GROVE OLD MARKET PARKING AREA A GRANT GROVE OLD MARKET PARKING AREA B	(PANORAMIC POINT ROAD) AT MP 0.08 ON LEFT OWN ADJACENT TO ROUTE 0101 (PANORAMIC POINT ROAD) AT MP 0.14 ON RIGHT ADJACENT TO ROUTE 0101 (PANORAMIC POINT ROAD) AT MP 0.13 ON LEFT	То	9		Paved Miles 0.00 0.00	Un- Paved Miles 0.00 0.00	Total Route Length 0.00 0.00	Manual Rated SQ/FT 3,584 3,693
(ICA-(Rte. No. 0908AZ 0908BZ	0908Z FMSS No. 73110 73110 0918Z	Coclected Collected Collected	PARKING AREA C Subcomponent Breakde Route Name GRANT GROVE OLD MARKET PARKING AREA A GRANT GROVE OLD MARKET PARKING AREA B	(PANORAMIC POINT ROAD) AT MP 0.08 ON LEFT OWN Route Description From ADJACENT TO ROUTE 0101 (PANORAMIC POINT ROAD) AT MP 0.14 ON RIGHT ADJACENT TO ROUTE 0101 (PANORAMIC POINT ROAD) AT MP 0.13 ON LEFT	То	9	Func. Class	Paved Miles 0.00	Un- Paved Miles 0.00 0.00	Total Route Length 0.00 0.00	Manual Rated SQ/FT 3,584
(ICA-(Rte. No. 0908AZ 0908BZ (ICA-(Rte.	0908Z FMSS No. 73110 73110 0918Z	ted Z Z	PARKING AREA C Subcomponent Breakde Route Name GRANT GROVE OLD MARKET PARKING AREA A GRANT GROVE OLD MARKET PARKING AREA B	(PANORAMIC POINT ROAD) AT MP 0.08 ON LEFT OWN Route Description From ADJACENT TO ROUTE 0101 (PANORAMIC POINT ROAD) AT MP 0.14 ON RIGHT ADJACENT TO ROUTE 0101 (PANORAMIC POINT ROAD) AT MP 0.13 ON LEFT OWN Route Description		9		Paved Miles 0.00 0.00	Un- Paved Miles 0.00 0.00 0.00	Total Route Length 0.00 0.00 Total Route	Manual Rated SQ/FT 3,584 3,693 Manual Rated

NPS/RIP Subcomponent Details for KICA												
Road Inven	ntory Pr	ogra	m 01/08/2013	(Numerical By Subo	compo	onent #)						Page 8 of 8
Shading Co	,	Wł	nite = Paved Routes, DCV Driven	Yellow = Unpaved Routes, DCV not Driven	Blue	e = All Paved Parking Area	S		Green = All Unj	paved Par	king Areas	
Red text de approx. mile		Gr	ey = Paved Routes, DCV not Driven	Black = State, Local or Private non-NPS Rou	utes	= Concession Rou	te Flag	ON				
		*U	npaved route data was obtained from NP	S and was not inventoried by the Road Inven	tory Pro	gram (RIP).						
KICA-09		ZS	KINGS CANYON NATIONAL									
		Cycle Collected	Route Name	Route Descri From	ption	То	Concess Route	Func. Class	Paved Miles	Un- Paved Miles	Total Route Length	Manual Rated SQ/FT
0936AZ	N/A	5	SWALE WORK CENTER PARKING A	FROM ROUTE 0414Z (SWALE WORK CENTER ROAD) ON LEFT		TO PARKING			0.00	0.00	0.00	1,614

TO PARKING

TO PARKING

1,621

1,499

0.00

0.00

0.00

0.00

0.00

0.00

FROM ROUTE 0414Z (SWALE WORK CENTER ROAD) ON RIGHT

FROM ROUTE 0414Z (SWALE WORK CENTER ROAD)

0936BZ

0937Z

N/A

N/A

5

5

SWALE WORK CENTER PARKING B

ARROWHEAD INTERAGENCY

HOTSHOT CREW PARKING

OTHER CHANGES FROM PREVIOUS INVENTORY:											
Route #	Route Name	Type of Change	Comments								
0205	CEDAR GROVE NORTH SIDE ROAD	FUNCTIONAL CLASS CHANGE	THE FUNCTIONAL CLASSIFICATION WAS CHANGED FROM 3 TO 2 IN CYCLE 5 PER THE PARK'S REQUEST. ROUTE WAS MANUALLY RATED IN CYCLE 4 AND DRIVEN WITH THE DATA COLLECTION VEHICLE IN CYCLE 5.								
0206ZZ	SHEEP CREEK CAMPGROUND ROADS	COLLECTION METHOD CHANGE	ROUTE WAS MANUALLY RATED IN CYCLE 4 AND DRIVEN WITH THE DATA COLLECTION VEHICLE IN CYCLE 5.								
0209ZZ	MORAINE CAMPGROUND ROADS	OTHER	A PORTION OF THIS ROUTE (SUBCOMPONENT 0209AZ) WAS MANUALLY RATED IN CYCLE 4 AND DRIVEN WITH THE DATA COLLECTION VEHICLE IN CYCLE 5. ALL OTHER SUBCOMPONENTS HAD NO CHANGES IN CYCLE 5.								
0212	GRANT TREE ROAD	FUNCTIONAL CLASS CHANGE	FUNCTIONAL CLASSIFICATION CHANGED FROM 3 TO 2 IN CYCLE 5 PER THE PARK'S REQUEST.								
0217	CRYSTAL SPRINGS ROAD	FUNCTIONAL CLASS CHANGE	THE FUNCTIONAL CLASSIFICATION WAS CHANGED FROM 3 TO 2 IN CYCLE 5 PER THE PARK'S REQUEST. ROUTE WAS MANUALLY RATED IN CYCLE 4 AND DRIVEN WITH THE DATA COLLECTION VEHICLE IN CYCLE 5.								
0218ZZ	CRYSTAL SPRINGS CAMPGROUND ROADS	COLLECTION METHOD CHANGE	ROUTE WAS MANUALLY RATED IN CYCLE 4 AND DRIVEN WITH THE DATA COLLECTION VEHICLE IN CYCLE 5.								
0220ZZ	SUNSET CAMPGROUND ROADS	COLLECTION METHOD CHANGE	ROUTE WAS MANUALLY RATED IN CYCLE 4 AND DRIVEN WITH THE DATA COLLECTION VEHICLE IN CYCLE 5.								
0402ZZ	PICNIC ESTATES LOOP ROADS	OTHER	ROUTE NAME CHANGED PER THE PARK'S REQUEST; WAS "CEDAR GROVE VILLAGE RESIDENCE LOOP ROADS".								
0411	GRANT GROVE RESIDENCE EAST WIRTH WAY	FUNCTIONAL CLASS CHANGE	FUNCTIONAL CLASSIFICATION WAS CHANGED FROM 6 TO 5 IN CYCLE 5 PER THE PARK'S REQUEST.								
0414ZZ	SWALE WORK CENTER ROUTES	ROUTES COMBINED	CYCLE 4 ROUTES 0414 AND 0414A WERE COMBINED DURING THE CYCLE 5 ROUTE ID MEETING PER THE PARK'S REQUEST.								

OTHER CHANGES FROM PREVIOUS INVENTORY:								
Route #	Route Name	Type of Change	Comments					
0415	GRANT GROVE RESIDENCE UPPER LOOP	FUNCTIONAL CLASS CHANGE	FUNCTIONAL CLASSIFICATION WAS CHANGED FROM 6 TO 5 IN CYCLE 5 PER THE PARK'S REQUEST.					
0936ZZ	SWALE WORK CENTER AND ARROWHEAD INTERAGENCY PARKING AREAS	ROUTES COMBINED	ROUTES 0936A, 0936B, AND 0937 WERE COMBINED INTO ROUTE 0936ZZ DURING THE CYCLE 5 ROUTE ID MEETING PER TH PARK'S REQUEST. THESE PARKING AREAS WERE RECOLLECTED IN CYCLE 5 TO UPDATE GPS.					
	ROUTES REMOVED FROM PREVIOUS INVENTORY:							
Route #	Route Name	Reason for Removal	Comments					
0920	ROUTE 0011 (CEDAR GROVE ROAD) PARKING AT MP 0.81	OTHER	ROUTE REMOVED DURING THE CYCLE 5 ROUTE ID MEETING PER THE PARK'S REQUEST. IT'S A PULLOUT THAT IS MAINTAINED WITH THE ROAD.					
0924	ROARING RIVER FALLS PARKING	OTHER	ROUTE REMOVED DURING THE CYCLE 5 ROUTE ID MEETING PER THE PARK'S REQUEST. THIS PARKING AREA IS MANAGED ALONG WITH THE ROAD RATHER THAN AS A SEPARATE LOCATION.					
0925	ROUTE 0011 (CEDAR GROVE ROAD) PARKING AT MP 5.02	OTHER	ROUTE REMOVED DURING THE CYCLE 5 ROUTE ID MEETING PER THE PARK'S REQUEST. IT'S A TURNOUT AND IS MANAGED WITH THE ROAD.					
0926	ROUTE 0011 (CEDAR GROVE ROAD) PARKING AT MP 5.42	OTHER	ROUTE REMOVED DURING THE CYCLE 5 ROUTE ID MEETING PER THE PARK'S REQUEST. IT'S A TURNOUT AND IS MANAGED WITH THE ROAD.					
0935	ROUTE 0010 (GENERALS HIGHWAY) PARKING AT MP 11.72	OTHER	ROUTE REMOVED DURING THE CYCLE 5 ROUTE ID MEETING PER THE PARK'S REQUEST. IT'S A TURNOUT AND IS MANAGED WITH THE ROAD.					

Section 3 Park Summary Information



Kings Canyon National Park



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

	Pavement Condition Rating (PCR)								
	Poor (0-60)		Fair (61-84)		Good (85-94)		Excellent (95-100)		TOTAL
F.C.	MILES	%	MILES	%	MILES	%	MILES	%	MILES
1	0.16	0.46%	9.54	27.30%	8.21	23.50%	7.58	21.69%	25.49
2	1.52	4.35%	0.60	1.72%	1.66	4.75%	1.17	3.35%	4.95
3	0.95	2.72%	0.64	1.83%	2.52	7.21%	0.39	1.12%	4.50
4									
5									
6									
7									
8									
Totals	2.63	7.53%	10.78	30.85%	12.39	35.46%	9.14	26.16%	34.94

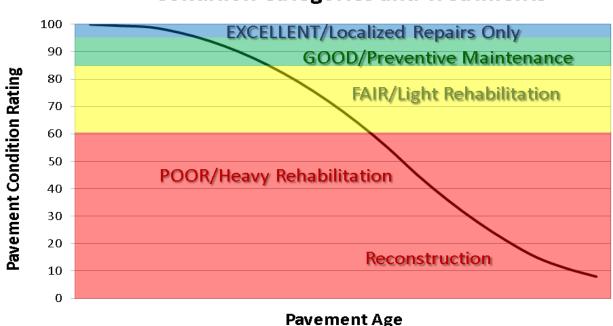
Note: The information in this table is derived from the PMS_20 table in the Park database, which only contains processed data from routes collected with the Data Collection Vehicle (DCV). Information for Manually Rated Routes (MRR) and Parking Areas is not reported in this table. Only Functional Class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

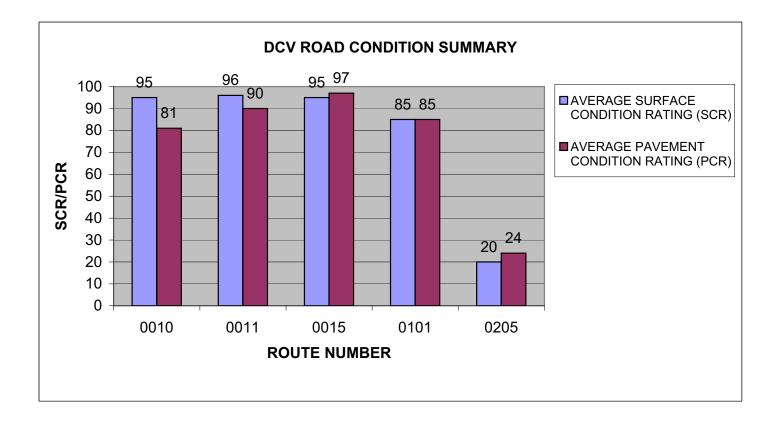


Condition Categories and Treatments

KICA: DCV ROAD CONDITION SUMMARY

DCV - Data Collection Vehicle

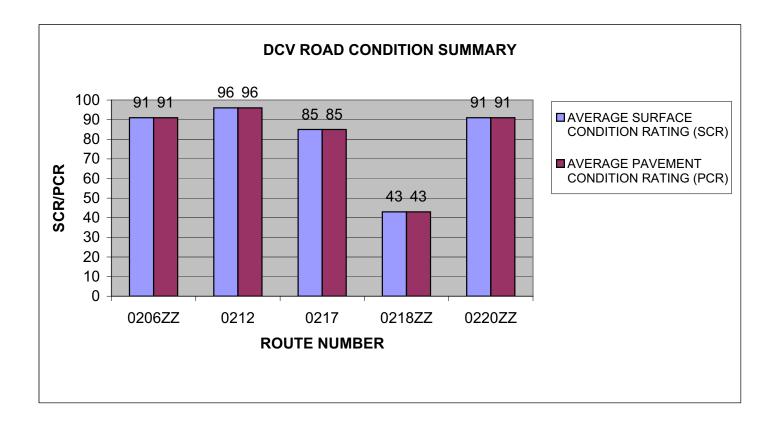
ROUTE NUMBER	ROUTE NAME	101101	PAVED LENGTH		AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE PAVEMENT CONDITION RATING (PCR)
0010	GENERALS HIGHWAY	1	13.21	ASPHALT	95	81
0011	CEDAR GROVE ROAD	1	7.58	ASPHALT	96	90
0015	GRANT GROVE ROAD	1	4.70	ASPHALT	95	97
0101	PANORAMIC POINT ROAD	2	2.34	ASPHALT	85	85
0205	CEDAR GROVE NORTH SIDE ROAD	2	1.56	ASPHALT	20	24



KICA: DCV ROAD CONDITION SUMMARY

DCV - Data Collection Vehicle

ROUTE NUMBER	ROUTE NAME	FUNCT CLASS	PAVED LENGTH		AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE PAVEMENT CONDITION RATING (PCR)
0206ZZ	SHEEP CREEK CAMPGROUND ROADS	3	1.43	ASPHALT	91	91
0212	GRANT TREE ROAD	2	0.77	ASPHALT	96	96
0217	CRYSTAL SPRINGS ROAD	2	0.28	ASPHALT	85	85
0218ZZ	CRYSTAL SPRINGS CAMPGROUND ROADS	3	1.15	ASPHALT	43	43
0220ZZ	SUNSET CAMPGROUND ROADS	3	1.31	ASPHALT	91	91



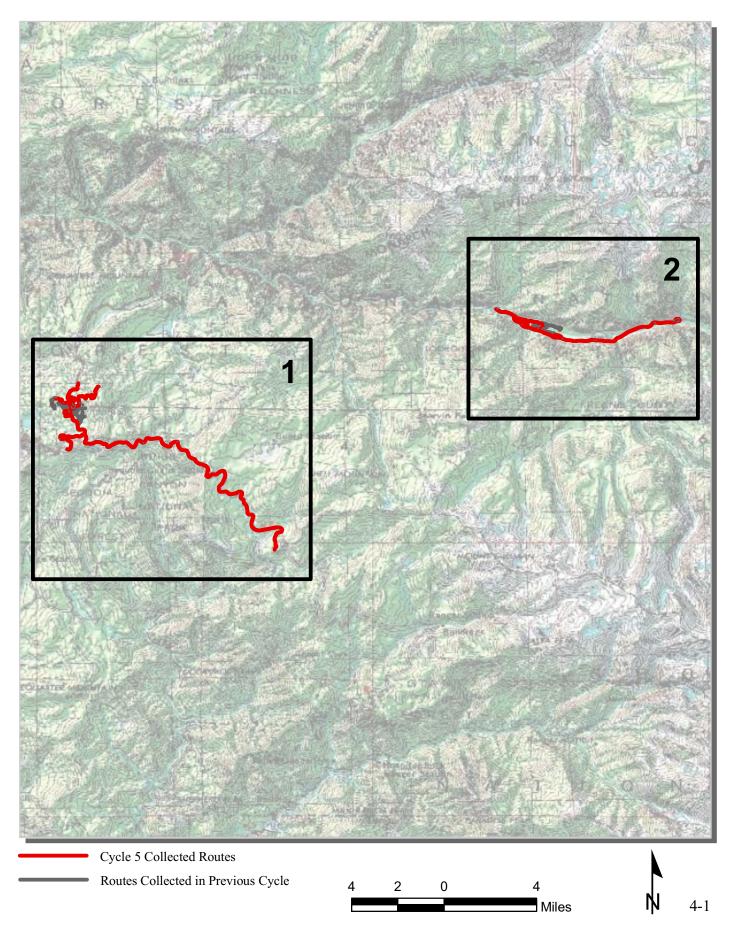
<u>Section 4</u> Park Route Location Maps



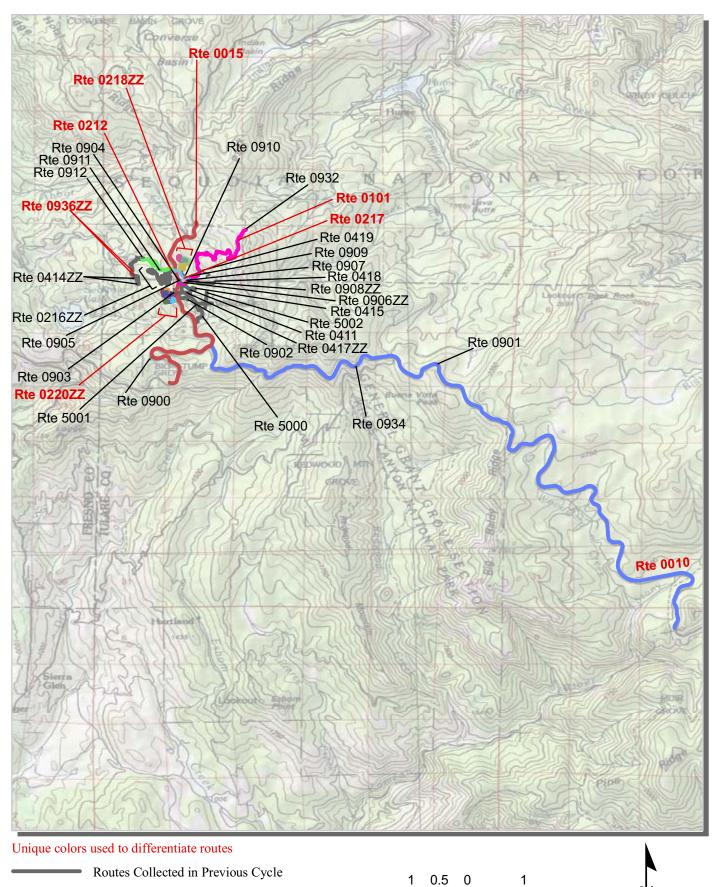
Kings Canyon National Park



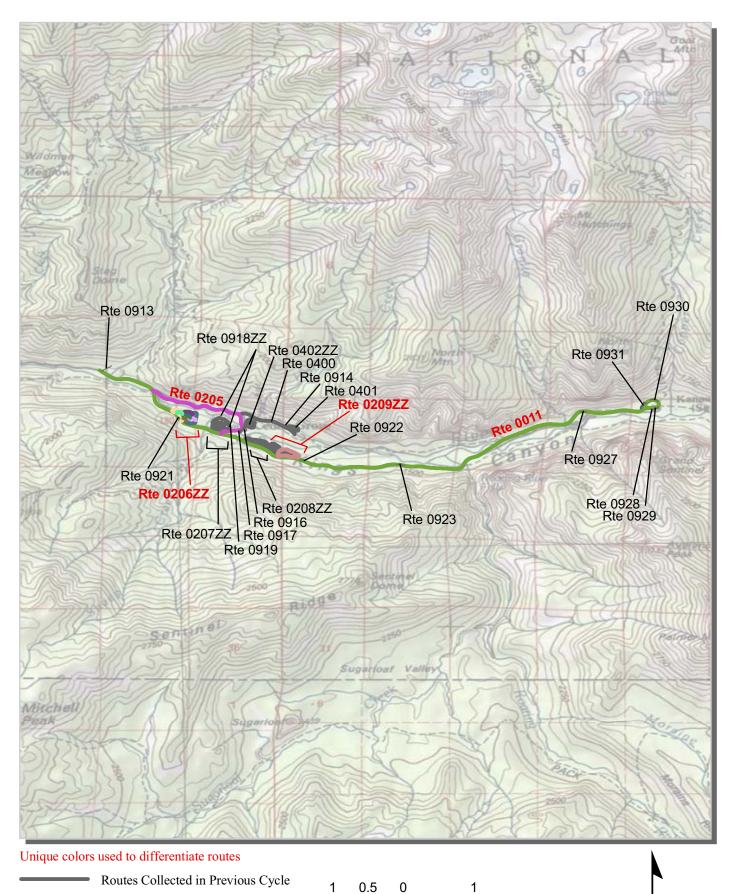
Kings Canyon National Park Route Location Map Key Map



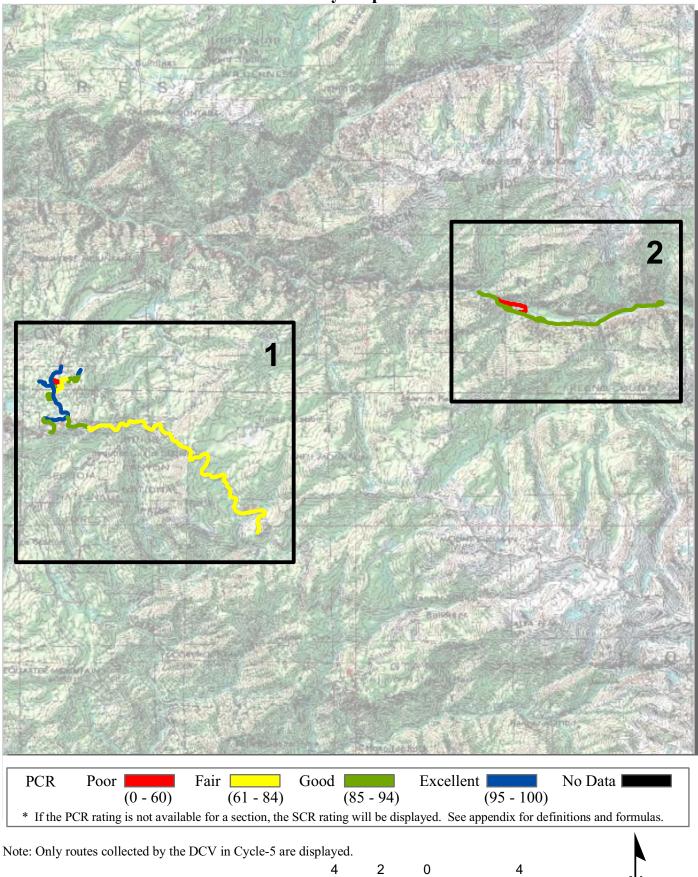
Kings Canyon National Park Route Location Map Area 1



Kings Canyon National Park Route Location Map Area 2



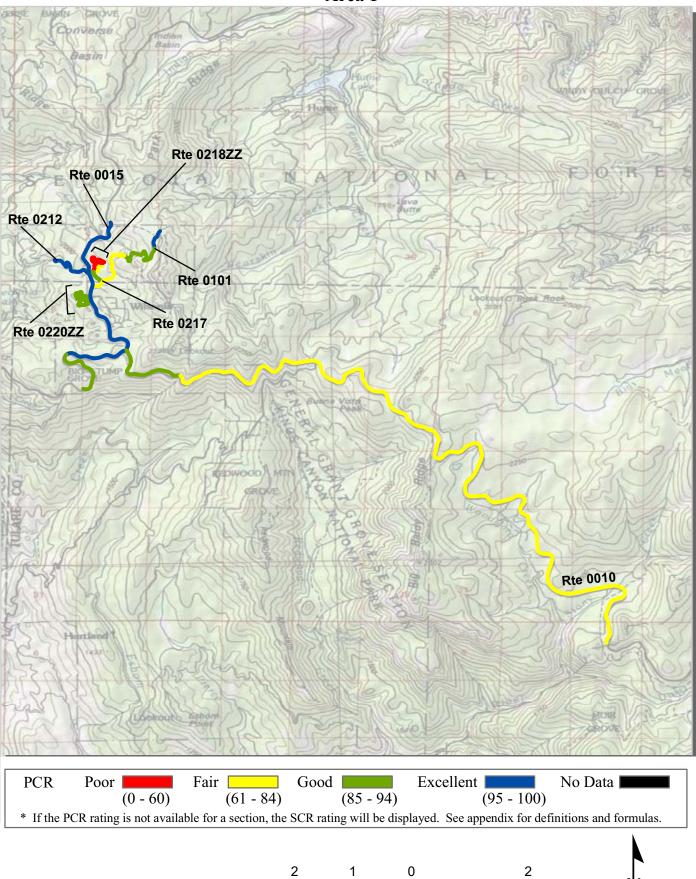
Kings Canyon National Park Route Condition Map PCR - Mile by Mile Key Map



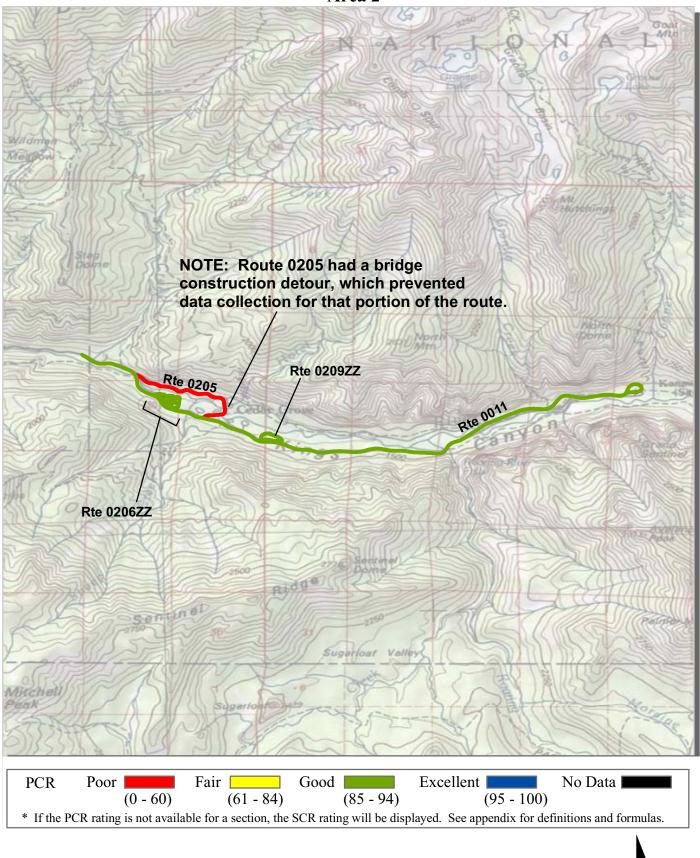
4-4

Kings Canyon National Park Route Condition Map PCR - Mile by Mile





Kings Canyon National Park Route Condition Map PCR - Mile by Mile Area 2





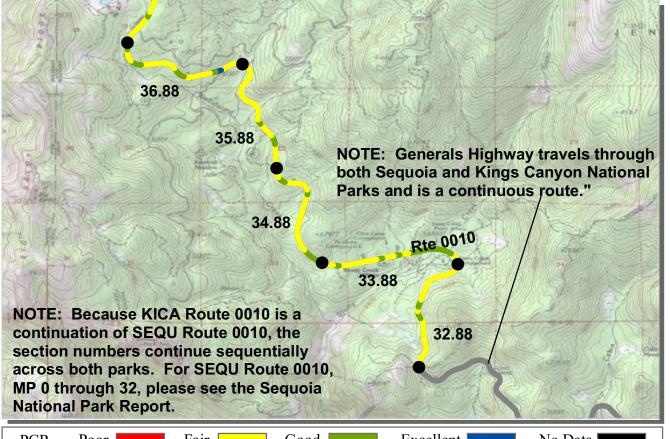
4-6

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



Kings Canyon National Park





	PCR	Poor	F	air 📃	Good	Excellent	No Data
			(0 - 60)	(61 - 84)	(85 - 94)	(95 - 100))
I	* If the PC	R rating is	not available f	for a section, the	SCR rating will be disp	played. See appendix for	definitions and formulas.

ROUTE: 0010 GENERALS HIGHWAY KICA: KINGS CANYON NATIONAL PARK

				COLLECTED:	9/17/2011
PACIFIC WEST REGION			ТОТ	TAL LENGTH:	13.21 Miles
Section Number	32.88	33.88	34.88	35.88	36.88
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)	22	22	23	22	21
Lane Width (ft)	9	10	10	10	10
Roadway Condition Information					
SCR (Surface Condition Rating)	96	97	95	96	96
PCR (Pavement Condition Rating)	76	79	80	81	81
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	96	97	95	96	96
Roughness Condition Index (RCI)	47	52	58	58	59

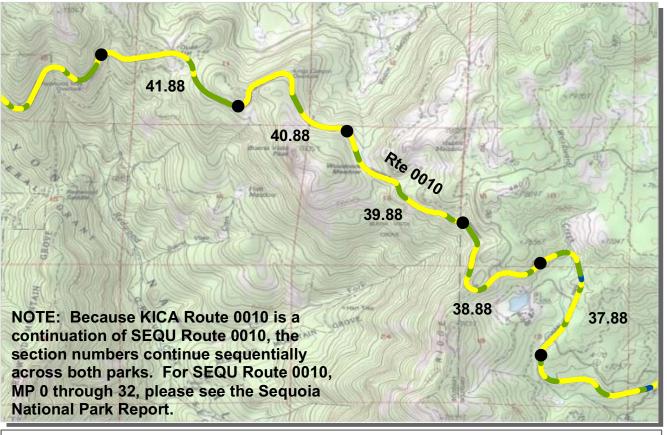
ROUTE: 0010 GENERALS HIGHWAY

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 PC	R rating is not availab	ble for a section, the	SCR rating will be disp	played. See appendix fo	r definitions and formulas.

ROUTE: 0010 GENERALS HIGHWAY KICA: KINGS CANYON NATIONAL PARK

DA CIERCI MIECT DE CLON				COLLECTED:	,
PACIFIC WEST REGION Section Number	37.88	38.88	39.88	TAL LENGTH: 40.88	13.21 Miles 41.88
Section Length (mi)	1.00	1.00	1.00	1.00	1.00
Cross Section Information	1100				1.00
Number of Lanes	2	2	2	2	2
Paved Width (ft)	22	21	22	23	23
Lane Width (ft)	10	10	10	10	9
Roadway Condition Information					
SCR (Surface Condition Rating)	95	97	96	95	95
PCR (Pavement Condition Rating)	81	82	79	80	83
Distress Index Values					
Structural Crack Index	100	99	100	100	100
Transverse Cracking Index	100	100	100	100	100
Patching Index	100	100	100	100	100
Rutting Index	95	97	96	95	95
Roughness Condition Index (RCI)	61	59	54	58	64

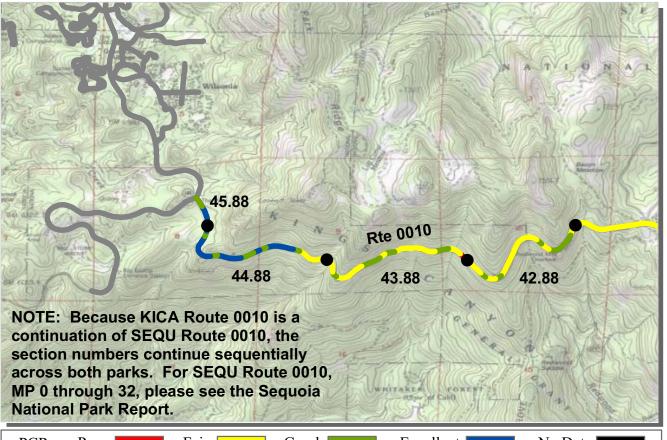
ROUTE: 0010 GENERALS HIGHWAY

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 P	CR rating is not availal	ble for a section, the	SCR rating will be disp	played. See appendix fo	r definitions and formulas.

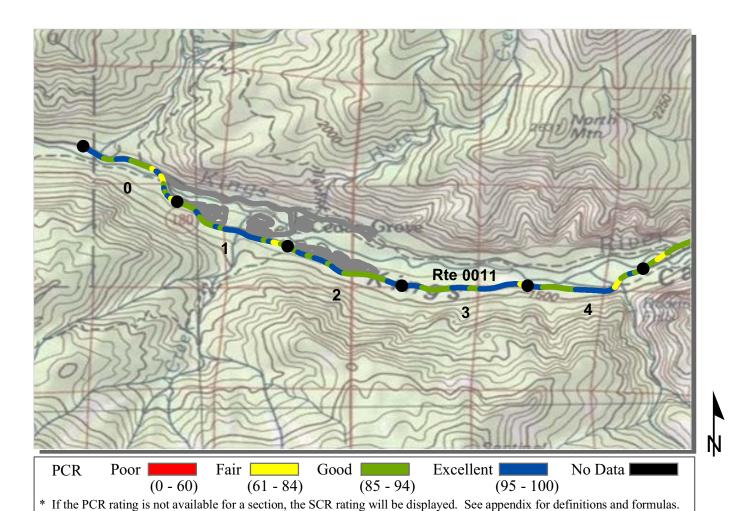
ROUTE: 0010 GENERALS HIGHWAY KICA: KINGS CANYON NATIONAL PARK

				COLLECTED:	9/17/2011
PACIFIC WEST REGION			ТОТ	TAL LENGTH:	13.21 Miles
Section Number	42.88	43.88	44.88	45.88	
Section Length (mi)	1.00	1.00	1.00	0.21	
Cross Section Information					
Number of Lanes	2	2	2	2	
Paved Width (ft)	24	26	23	24	
Lane Width (ft)	10	12	10	10	
Roadway Condition Information					
SCR (Surface Condition Rating)	93	92	95	95	
PCR (Pavement Condition Rating)	79	79	91	94	
Distress Index Values					
Structural Crack Index	98	92	100	100	
Transverse Cracking Index	100	100	100	100	
Patching Index	100	100	100	100	
Rutting Index	93	93	95	95	
Roughness Condition Index (RCI)	59	60	84	93	

ROUTE: 0010 GENERALS HIGHWAY

NOTES:

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



ROUTE: 0011 CEDAR GROVE ROAD KICA: KINGS CANYON NATIONAL PARK

DA CIERCI MIECE DE CLON			TO	COLLECT	
PACIFIC WEST REGION Section Number	0	1	2	TAL LENGT	<u>TH: 7.58 Miles</u>
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	25	25	25
Lane Width (ft)	12	12	12	11	12
Roadway Condition Information					
SCR (Surface Condition Rating)	96	98	95	97	96
PCR (Pavement Condition Rating)	91	93	93	92	92
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	96	98	95	97	96
Roughness Condition Index (RCI)	84	85	91	85	87

NOTES:

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

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

NC - Not Collected N/A - Not Applicable

ROUTE: 0011 CEDAR GROVE ROAD



PCR	Poor 📕	Fair		Good		Excellent		No Data
	((0 - 60)	(61 - 84)		(85 - 94)	(95 -	100)	
* If the PC	R rating is n	ot available for a	a section, the S	SCR ratin	g will be disp	layed. See appendix	for de	efinitions and formulas.

ROUTE: 0011 CEDAR GROVE ROAD KICA: KINGS CANYON NATIONAL PARK

COLLECTED: 9/19/2011 FOTAL LENGTH: 7.58 Miles

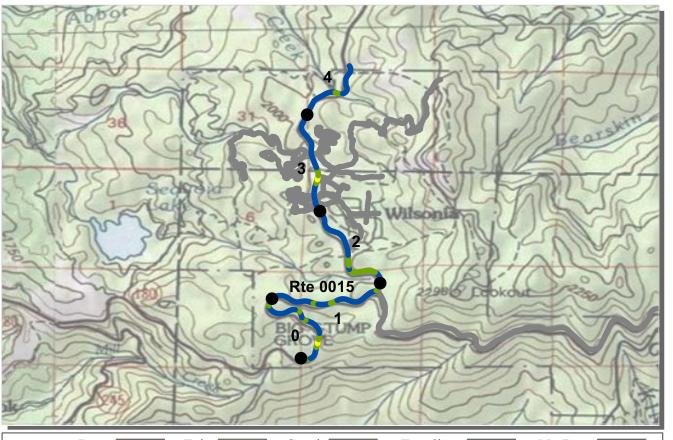
PACIFIC WEST REGION			тот	TOTAL LENGTH:		
Section Number	5	6	7		7.58 Miles	
Section Length (mi)	1.00	1.00	0.58			
Cross Section Information						
Number of Lanes	2	2	2			
Paved Width (ft)	22	22	22			
Lane Width (ft)	11	10	10			
Roadway Condition Information						
SCR (Surface Condition Rating)	97	96	96			
PCR (Pavement Condition Rating)	88	87	89			
Distress Index Values						
Structural Crack Index	100	100	100			
Transverse Cracking Index	100	100	100			
Patching Index	100	100	100			
Rutting Index	97	96	96			
Roughness Condition Index (RCI)	75	73	78			

ROUTE: 0011 CEDAR GROVE ROAD

ſŅ

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: 0015 GRANT GROVE ROAD KICA: KINGS CANYON NATIONAL PARK

DACIEIC WEST DECION			TO	COLLECTED:	
PACIFIC WEST REGION Section Number	0	1	2	TAL LENGTH:	4.70 Miles
Section Length (mi)	1.00	1.00	1.00	1.00	0.70
Cross Section Information					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	26	26	27	26	27
Lane Width (ft)	11	10	10	11	11
Roadway Condition Information					
SCR (Surface Condition Rating)	95	93	94	96	97
PCR (Pavement Condition Rating)	94	96	96	98	98
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	93	94	96	97
Roughness Condition Index (RCI)	93	100	100	100	100

ROUTE: 0015 GRANT GROVE ROAD

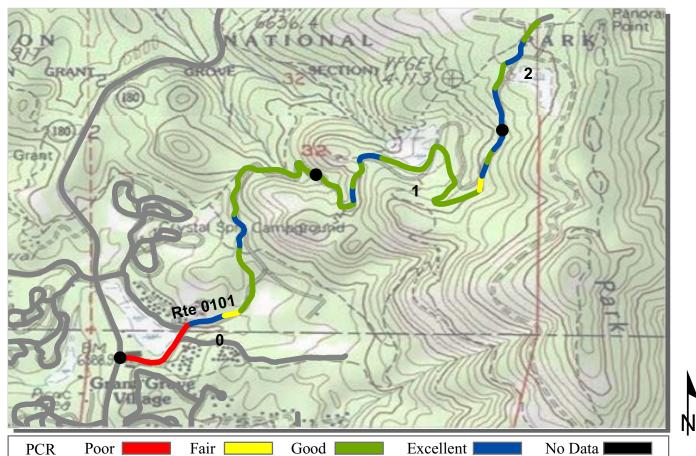
ſŅ

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



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

COLLECTED.

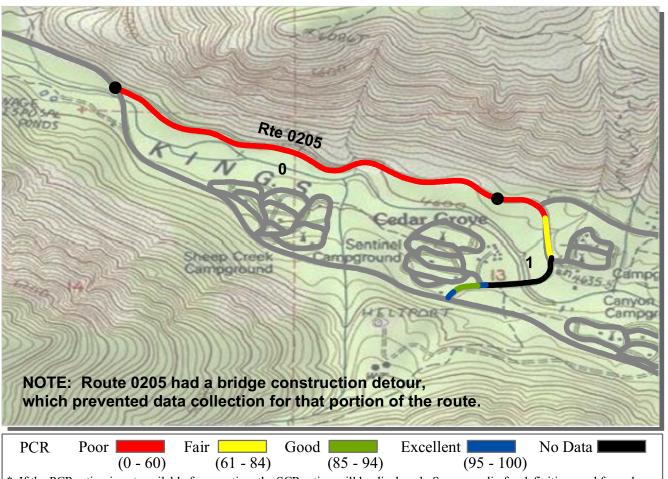
0/17/2011

ROUTE: 0101 PANORAMIC POINT ROAD KICA: KINGS CANYON NATIONAL PARK

			COLLECTED:	9/17/2011
PACIFIC WEST REGION			TOTAL LENGTH:	2.34 Miles
Section Number	0	1	2	
Section Length (mi)	1.00	1.00	0.34	
Cross Section Information				
Number of Lanes	1	1	1	
Paved Width (ft)	16	13	13	
Lane Width (ft)	12	12	13	
Roadway Condition Information				
SCR (Surface Condition Rating)	77	90	95	
PCR (Pavement Condition Rating)	77	90	95	
Distress Index Values				
Structural Crack Index	77	93	100	
Transverse Cracking Index	98	100	100	
Patching Index	100	100	100	
Rutting Index	91	90	95	
Roughness Condition Index (RCI)	NC	NC	NC	

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: 0205 CEDAR GROVE NORTH SIDE ROAD KICA : KINGS CANYON NATIONAL PARK

PACIFIC WEST REGION			LLECTED: LENGTH:	9/19/2011 1.56 Miles
Section Number	0	1		
Section Length (mi)	1.00	0.56		
Cross Section Information				
Number of Lanes	2	2		
Paved Width (ft)	18	19		
Lane Width (ft)	9	10		
Roadway Condition Information				
SCR (Surface Condition Rating)	0	57		
PCR (Pavement Condition Rating)	10	48		
Distress Index Values				
Structural Crack Index	0	57		
Transverse Cracking Index	99	99		
Patching Index	96	99		
Rutting Index	83	91		
Roughness Condition Index (RCI)	26	34		

ROUTE: 0205 CEDAR GROVE NORTH SIDE ROAD

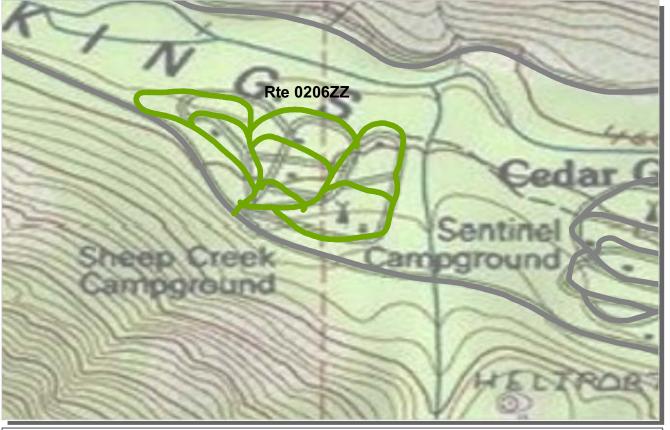
Ŵ

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



PC	CR	Poor		Fair	Good	Excellent	No Data
			(0 - 60)	(61 - 84)	(85 - 94)	(95 - 1	100)
* If t	he PCF	R rating is	s not availabl	e for a section, the	SCR rating will be dis	played. See appendix	for definitions and formulas.

ROUTE: 0206ZZ SHEEP CREEK CAMPGROUND ROADS KICA : KINGS CANYON NATIONAL PARK

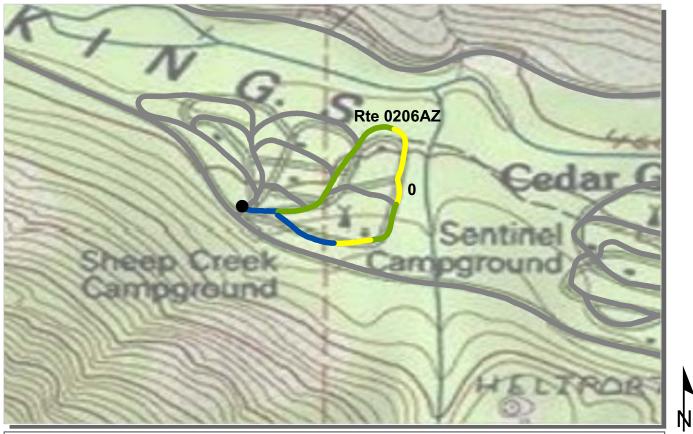
COLLECTED: 9/19/2011 Summary Record PACIFIC WEST REGION **TOTAL LENGTH:** 1.43 Miles Section Number Section Length (mi) **Cross Section Information** Number of Lanes N/A Paved Width (ft) N/A Lane Width (ft) N/A **Roadway Condition Information** SCR (Surface Condition Rating) 91 PCR (Pavement Condition Rating) 91 **Distress Index Values** Structural Crack Index N/A N/A Transverse Cracking Index Patching Index N/A Rutting Index N/A Roughness Condition Index (RCI) N/A

ROUTE: 0206ZZ SHEEP CREEK CAMPGROUND ROADS

Ŵ

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	0)
* If the PCI	R rating i	s not availab	le for a section, the	SCR rating will be dis	splayed. See appendix for	definitions and formulas.

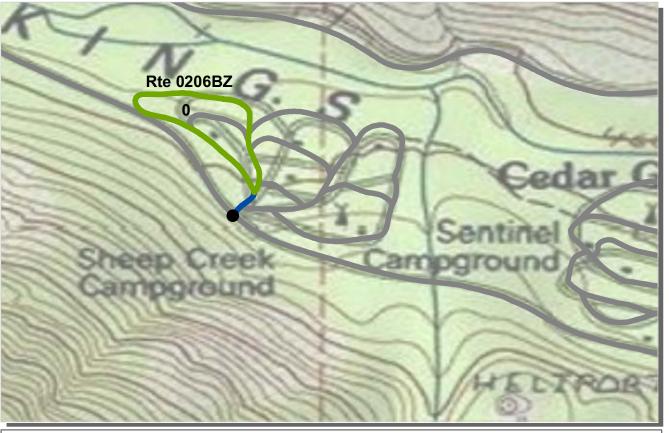
ROUTE: 0206AZ SHEEP CREEK CAMPGROUND ROAD A KICA : KINGS CANYON NATIONAL PARK

Subcomponent Record		COI	COLLECTED:		
PACIFIC WEST REGION		TOTAL LENGTH			0.49 Miles
Section Number	0				
Section Length (mi)	0.49				
Cross Section Information					
Number of Lanes	1				
Paved Width (ft)	12				
Lane Width (ft)	11				
Roadway Condition Information					
SCR (Surface Condition Rating)	89				
PCR (Pavement Condition Rating)	89				
Distress Index Values					
Structural Crack Index	99				
Transverse Cracking Index	95				
Patching Index	100				
Rutting Index	89				
Roughness Condition Index (RCI)	NC				

ROUTE: 0206AZ SHEEP CREEK CAMPGROUND ROAD A

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 i	s not availab	le for a section, the	SCR rating will be dis	splayed. See appendix for	r definitions and formulas.

ROUTE: 0206BZ SHEEP CREEK CAMPGROUND ROAD B KICA : KINGS CANYON NATIONAL PARK

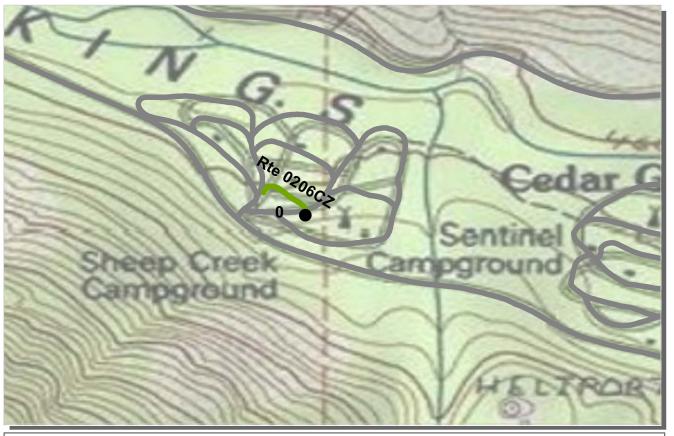
COLLECTED: 9/19/2011 Subcomponent Record PACIFIC WEST REGION **TOTAL LENGTH:** 0.47 Miles Section Number 0 Section Length (mi) 0.47 **Cross Section Information** Number of Lanes 1 Paved Width (ft) 14 Lane Width (ft) 12 **Roadway Condition Information** SCR (Surface Condition Rating) 93 PCR (Pavement Condition Rating) 93 **Distress Index Values** 99 Structural Crack Index 96 Transverse Cracking Index 100 Patching Index 93 Rutting Index Roughness Condition Index (RCI) NC

ROUTE: 0206BZ SHEEP CREEK CAMPGROUND ROAD B

Ŵ

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 i	is not availab	ble for a section, the	SCR rating will be dis	played. See appendix for	definitions and formulas.

ROUTE: 0206CZ SHEEP CREEK CAMPGROUND ROAD C KICA: KINGS CANYON NATIONAL PARK

COLLECTED: 9/19/2011 Subcomponent Record PACIFIC WEST REGION **TOTAL LENGTH:** 0.07 Miles Section Number 0 Section Length (mi) 0.07 **Cross Section Information** Number of Lanes 1 Paved Width (ft) 15 Lane Width (ft) 15 **Roadway Condition Information** SCR (Surface Condition Rating) 90 PCR (Pavement Condition Rating) 90 **Distress Index Values** Structural Crack Index 100 99 Transverse Cracking Index 100 Patching Index 90 Rutting Index Roughness Condition Index (RCI) NC

ROUTE: 0206CZ SHEEP CREEK CAMPGROUND ROAD C

Ŵ

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 PC	R rating is not avai	lable for a section, the	SCR rating will be dis	splayed. See appendix fo	r definitions and formulas.

ROUTE: 0206DZ SHEEP CREEK CAMPGROUND ROAD D KICA: KINGS CANYON NATIONAL PARK

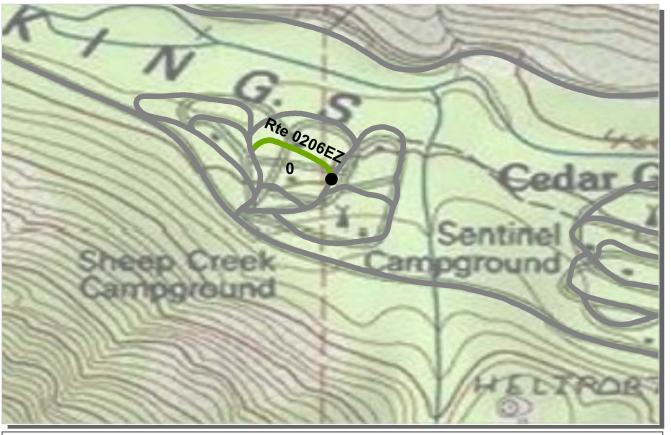
COLLECTED: 9/19/2011 Subcomponent Record PACIFIC WEST REGION **TOTAL LENGTH:** 0.08 Miles Section Number 0 Section Length (mi) 0.08 **Cross Section Information** Number of Lanes 1 Paved Width (ft) 12 Lane Width (ft) 12 **Roadway Condition Information** SCR (Surface Condition Rating) 90 PCR (Pavement Condition Rating) 90 **Distress Index Values** Structural Crack Index 98 96 Transverse Cracking Index 100 Patching Index 90 Rutting Index Roughness Condition Index (RCI) NC

ROUTE: 0206DZ SHEEP CREEK CAMPGROUND ROAD D

Ŵ

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 PC	R rating is	not available	e for a section, the	SCR rating will be disp	played. See appendix fo	r definitions and formulas.

ROUTE: 0206EZ SHEEP CREEK CAMPGROUND ROAD E KICA : KINGS CANYON NATIONAL PARK

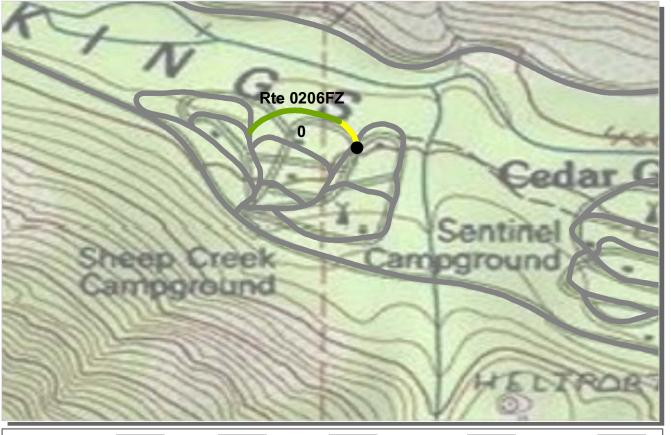
COLLECTED: 9/19/2011 Subcomponent Record PACIFIC WEST REGION **TOTAL LENGTH:** 0.11 Miles Section Number 0 Section Length (mi) 0.11 **Cross Section Information** Number of Lanes 1 Paved Width (ft) 12 Lane Width (ft) 12 **Roadway Condition Information** SCR (Surface Condition Rating) 91 PCR (Pavement Condition Rating) 91 **Distress Index Values** Structural Crack Index 100 99 Transverse Cracking Index 100 Patching Index 91 Rutting Index Roughness Condition Index (RCI) NC

ROUTE: 0206EZ SHEEP CREEK CAMPGROUND ROAD E

Ŵ

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 PC	R rating is not availa	able for a section, the	SCR rating will be dis	played. See appendix fo	r definitions and formulas.

ROUTE: 0206FZ SHEEP CREEK CAMPGROUND ROAD F KICA: KINGS CANYON NATIONAL PARK

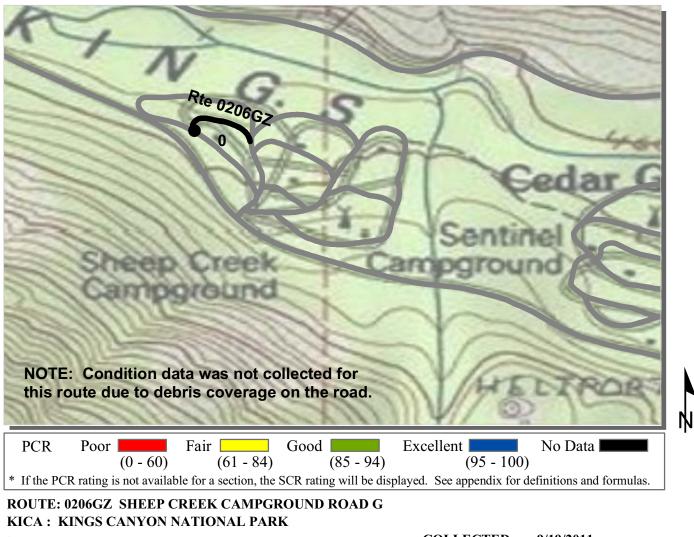
COLLECTED: 9/19/2011 Subcomponent Record PACIFIC WEST REGION **TOTAL LENGTH:** 0.14 Miles Section Number 0 Section Length (mi) 0.14 **Cross Section Information** Number of Lanes 1 Paved Width (ft) 14 Lane Width (ft) 14 **Roadway Condition Information** SCR (Surface Condition Rating) 88 PCR (Pavement Condition Rating) 88 **Distress Index Values** Structural Crack Index 97 93 Transverse Cracking Index 99 Patching Index 88 Rutting Index Roughness Condition Index (RCI) NC

ROUTE: 0206FZ SHEEP CREEK CAMPGROUND ROAD F

Ŵ

NOTES:

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



Subcomponent Record			CO	9/19/2011		
PACIFIC WEST REGION		TOTAL LENGTH			0.09 Miles	
Section Number	0					
Section Length (mi)	0.09					
Cross Section Information						
Number of Lanes	1					
Paved Width (ft)	10					
Lane Width (ft)	10					
Roadway Condition Information						
SCR (Surface Condition Rating)	NC					
PCR (Pavement Condition Rating)	NC					
Distress Index Values						
Structural Crack Index	NC					
Transverse Cracking Index	NC					
Patching Index	NC					
Rutting Index	NC					
Roughness Condition Index (RCI)	NC					

ROUTE: 0206GZ SHEEP CREEK CAMPGROUND ROAD G

NOTES:

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

Campground			Rte 02	09ZZ	/ Mall Cur	orain	HA We our View
NOTE: Of the six subcomp 0209 (AZ, BZ, CZ, DZ, EZ, F up Route 0209ZZ, only one route 0209AZ was collected	Z) that m subcom	ake ponent		E		7	
PCR Poor Fair	(61 - 84)	Good (85	5 - 94) ill be dis	Excell	(95 - 10	·	
ROUTE: 0209ZZ MORAINE CAM				spiayou. S			a iominatas.
KICA : KINGS CANYON NATIO							
Summary Record				CO	LLECTED:	9/19/2011	
PACIFIC WEST REGION					LENGTH:	1.49 Miles	
Section Number							
Section Length (mi)							
Cross Section Information							
Number of Lanes	N/A						
Paved Width (ft)	N/A						
Lane Width (ft)	N/A						
Roadway Condition Information							
SCR (Surface Condition Rating)	N/A						
PCR (Pavement Condition Rating)							
Distress Index Values							
Structural Crack Index	N/A						
Transverse Cracking Index	N/A						

NOTES:

Patching Index

Rutting Index

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

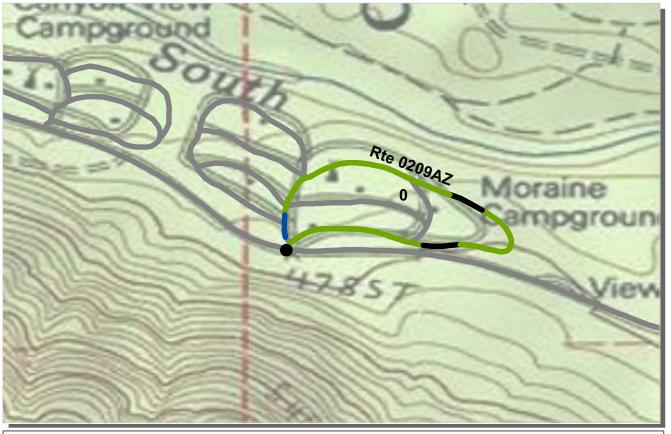
N/A

N/A

N/A

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

Roughness Condition Index (RCI)



١.
Ν

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

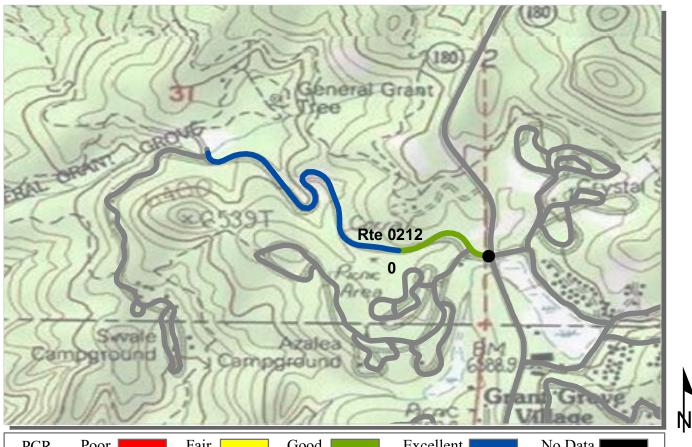
ROUTE: 0209AZ MORAINE CAMPGROUND ROAD A KICA: KINGS CANYON NATIONAL PARK

COLLECTED: 9/19/2011 Subcomponent Record PACIFIC WEST REGION **TOTAL LENGTH:** 0.61 Miles Section Number 0 Section Length (mi) 0.61 **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 100 100 Transverse Cracking Index Patching Index 100 89 Rutting Index Roughness Condition Index (RCI) NC

ROUTE: 0209AZ MORAINE CAMPGROUND ROAD A

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 PCH	R rating is not avai	lable for a section, the	e SCR rating will be dis	played. See appendix fo	r definitions and formulas.

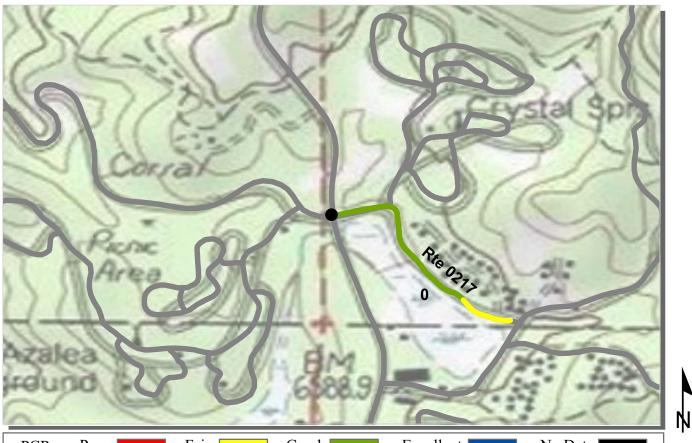
ROUTE: 0212 GRANT TREE ROAD KICA: KINGS CANYON NATIONAL PARK

		CO	LLECTED:	9/17/2011
PACIFIC WEST REGION		ΤΟΤΑΙ	LENGTH:	0.77 Miles
Section Number	0			
Section Length (mi)	0.77			
Cross Section Information				
Number of Lanes	2			
Paved Width (ft)	27			
Lane Width (ft)	13			
Roadway Condition Information				
SCR (Surface Condition Rating)	96			
PCR (Pavement Condition Rating)	96			
Distress Index Values				
Structural Crack Index	100			
Transverse Cracking Index	100			
Patching Index	100			
Rutting Index	96			
Roughness Condition Index (RCI)	NC			

ROUTE: 0212 GRANT TREE 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 PC	R rating is not availa	able for a section, the	SCR rating will be dis	played. See appendix for	definitions and formulas.

ROUTE: 0217 CRYSTAL SPRINGS ROAD KICA: KINGS CANYON NATIONAL PARK

			CO	LLECTED:	9/17/2011	
PACIFIC WEST REGION		TOTAL LENGTH			0.28 Miles	
Section Number	0					
Section Length (mi)	0.28					
Cross Section Information						
Number of Lanes	2					
Paved Width (ft)	21					
Lane Width (ft)	11					
Roadway Condition Information						
SCR (Surface Condition Rating)	85					
PCR (Pavement Condition Rating)	85					
Distress Index Values						
Structural Crack Index	100					
Transverse Cracking Index	100					
Patching Index	100					
Rutting Index	85					
Roughness Condition Index (RCI)	NC					

ROUTE: 0217 CRYSTAL SPRINGS ROAD

NOTES:

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



Ņ

PCR	Poor	Fair	Good Good	Excellent	No Data
	(0 - 60	0) (61 - 84	k) (85 - 94)	(95 - 10	00)
* If the PC	R rating is not ava	ailable for a section, the	he SCR rating will be di	splayed. See appendix fo	or definitions and formulas.

ROUTE: 0218ZZ CRYSTAL SPRINGS CAMPGROUND ROADS KICA : KINGS CANYON NATIONAL PARK

Summary Record		COLLECTED:			9/17/2011	
PACIFIC WEST REGION			TOTAI	1.15 Miles		
Section Number						
Section Length (mi)						
Cross Section Information						
Number of Lanes	N/A					
Paved Width (ft)	N/A					
Lane Width (ft)	N/A					
Roadway Condition Information						
SCR (Surface Condition Rating)	43					
PCR (Pavement Condition Rating)	43					
Distress Index Values						
Structural Crack Index	N/A					
Transverse Cracking Index	N/A					
Patching Index	N/A					
Rutting Index	N/A					
Roughness Condition Index (RCI)	N/A					

ROUTE: 0218ZZ CRYSTAL SPRINGS CAMPGROUND ROADS

NOTES:

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



_	١.
ſ	N
•	•

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

ROUTE: 0218AZ CRYSTAL SPRINGS CAMPGROUND ROAD A KICA: KINGS CANYON NATIONAL PARK

Subcomponent Record		COLLECTED:			9/17/2011	
PACIFIC WEST REGION		TOTAL LENGTH:			0.47 Miles	
Section Number	0					
Section Length (mi)	0.47					
Cross Section Information						
Number of Lanes	2					
Paved Width (ft)	19					
Lane Width (ft)	12					
Roadway Condition Information						
SCR (Surface Condition Rating)	24					
PCR (Pavement Condition Rating)	24					
Distress Index Values						
Structural Crack Index	24					
Transverse Cracking Index	97					
Patching Index	98					
Rutting Index	87					
Roughness Condition Index (RCI)	NC					

ROUTE: 0218AZ CRYSTAL SPRINGS CAMPGROUND ROAD A

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 P	CR rating is not availa	ble for a section, the	SCR rating will be dis	played. See appendix for	definitions and formulas.

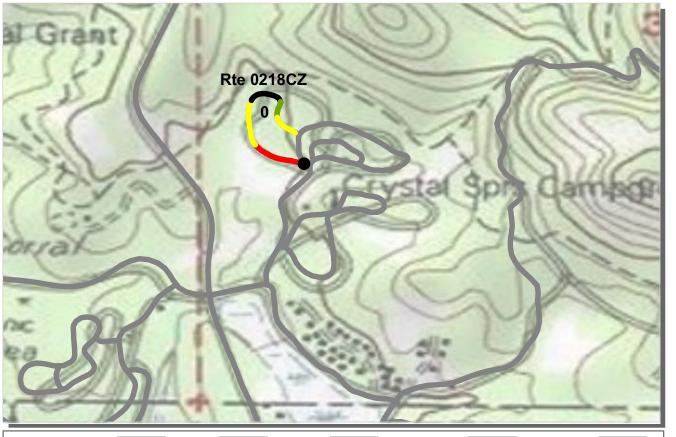
ROUTE: 0218BZ CRYSTAL SPRINGS CAMPGROUND ROAD B KICA: KINGS CANYON NATIONAL PARK

Subcomponent Record			COLLECTED	: 9/17/2011
PACIFIC WEST REGION	TOTAL LENGTH:			: 0.38 Miles
Section Number	0			
Section Length (mi)	0.38			
Cross Section Information				
Number of Lanes	1			
Paved Width (ft)	14			
Lane Width (ft)	14			
Roadway Condition Information				
SCR (Surface Condition Rating)	72			
PCR (Pavement Condition Rating)	72			
Distress Index Values				
Structural Crack Index	72			
Transverse Cracking Index	98			
Patching Index	96			
Rutting Index	83			
Roughness Condition Index (RCI)	NC			

ROUTE: 0218BZ CRYSTAL SPRINGS CAMPGROUND ROAD B

NOTES:

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



PCR	Poor		Fair	Good Good	Excel	lent	No Data
		(0 - 60)	(61 - 84	4) (85 - 9	94)	(95 - 100)
* If the PC	R rating is	not availab	le for a section, t	he SCR rating will b	e displayed. S	see appendix for	definitions and formulas.

ROUTE: 0218CZ CRYSTAL SPRINGS CAMPGROUND ROAD C KICA: KINGS CANYON NATIONAL PARK

Subcomponent Record	COLLECTEI			LLECTED:	9/17/2011
PACIFIC WEST REGION			TOTAL	LENGTH:	0.21 Miles
Section Number	0				
Section Length (mi)	0.21				
Cross Section Information					
Number of Lanes	1				
Paved Width (ft)	9				
Lane Width (ft)	9				
Roadway Condition Information					
SCR (Surface Condition Rating)	47				
PCR (Pavement Condition Rating)	47				
Distress Index Values					
Structural Crack Index	47				
Transverse Cracking Index	96				
Patching Index	99				
Rutting Index	80				
Roughness Condition Index (RCI)	NC				

ROUTE: 0218CZ CRYSTAL SPRINGS CAMPGROUND ROAD C

NOTES:

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



Ņ

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 disp	played. See appendix for	definitions and formulas.

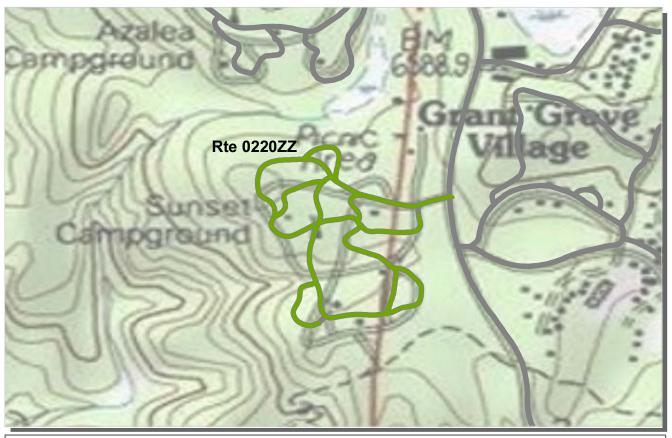
ROUTE: 0218DZ CRYSTAL SPRINGS CAMPGROUND ROAD D KICA: KINGS CANYON NATIONAL PARK

Subcomponent Record		COLLECTED			9/17/2011
PACIFIC WEST REGION		TOTAL LENGTH:		LENGTH:	0.10 Miles
Section Number	0				
Section Length (mi)	0.10				
Cross Section Information					
Number of Lanes	1				
Paved Width (ft)	12				
Lane Width (ft)	12				
Roadway Condition Information					
SCR (Surface Condition Rating)	52				
PCR (Pavement Condition Rating)	52				
Distress Index Values					
Structural Crack Index	52				
Transverse Cracking Index	94				
Patching Index	100				
Rutting Index	92				
Roughness Condition Index (RCI)	NC				

ROUTE: 0218DZ CRYSTAL SPRINGS CAMPGROUND ROAD D

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 PC	R rating is	not availabl	e for a section, the	SCR rating will be d	lisplayed. See appendix for	r definitions and formulas.

ROUTE: 0220ZZ SUNSET CAMPGROUND ROADS KICA: KINGS CANYON NATIONAL PARK

Summary Record

PACIFIC	WEST REGION	
D CITIC	WEGT DECION	

PACIFIC WEST REGION		TOTAL	LENGTH:	1.31 Miles
Section Number				
Section Length (mi)				
Cross Section Information				
Number of Lanes	N/A			
Paved Width (ft)	N/A			
Lane Width (ft)	N/A			
Roadway Condition Information				
SCR (Surface Condition Rating)	91			
PCR (Pavement Condition Rating)	91			
Distress Index Values				
Structural Crack Index	N/A			
Transverse Cracking Index	N/A			
Patching Index	N/A			
Rutting Index	N/A			
Roughness Condition Index (RCI)	N/A			

ROUTE: 0220ZZ SUNSET CAMPGROUND ROADS

ſψ

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 - 9	94) (95 - 1	00)
* If the PC	R rating i	is not availal	ble for a section, the	e SCR rating will b	e displayed. See appendix f	for definitions and formulas.

ROUTE: 0220AZ SUNSET CAMPGROUND ROAD A KICA: KINGS CANYON NATIONAL PARK

Subcomponent Record		COLLECTE		LLECTED:	9/17/2011
PACIFIC WEST REGION			TOTAL	LENGTH:	0.50 Miles
Section Number	0				
Section Length (mi)	0.50				
Cross Section Information					
Number of Lanes	1				
Paved Width (ft)	16				
Lane Width (ft)	16				
Roadway Condition Information					
SCR (Surface Condition Rating)	91				
PCR (Pavement Condition Rating)	91				
Distress Index Values					
Structural Crack Index	99				
Transverse Cracking Index	99				
Patching Index	100				
Rutting Index	91				
Roughness Condition Index (RCI)	NC				

ROUTE: 0220AZ SUNSET CAMPGROUND ROAD A

ſΝ

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: 0220BZ SUNSET CAMPGROUND ROAD B KICA: KINGS CANYON NATIONAL PARK

Subcomponent Record			CO	LLECTED:	9/17/2011
PACIFIC WEST REGION		TOTAL LENGTH			0.41 Miles
Section Number	0				
Section Length (mi)	0.41				
Cross Section Information					
Number of Lanes	1				
Paved Width (ft)	14				
Lane Width (ft)	14				
Roadway Condition Information					
SCR (Surface Condition Rating)	90				
PCR (Pavement Condition Rating)	90				
Distress Index Values					
Structural Crack Index	99				
Transverse Cracking Index	99				
Patching Index	100				
Rutting Index	90				
Roughness Condition Index (RCI)	NC				

ROUTE: 0220BZ SUNSET CAMPGROUND ROAD B

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 avail	lable for a section, the	SCR rating will be disp	played. See appendix for	definitions and formulas.

ROUTE: 0220CZ SUNSET CAMPGROUND ROAD C KICA: KINGS CANYON NATIONAL PARK

Subcomponent Record		CO	LLECTED:	9/17/2011
PACIFIC WEST REGION		TOTAL	LENGTH:	0.05 Miles
Section Number	0			
Section Length (mi)	0.05			
Cross Section Information				
Number of Lanes	1			
Paved Width (ft)	15			
Lane Width (ft)	15			
Roadway Condition Information				
SCR (Surface Condition Rating)	88			
PCR (Pavement Condition Rating)	88			
Distress Index Values				
Structural Crack Index	99			
Transverse Cracking Index	99			
Patching Index	100			
Rutting Index	88			
Roughness Condition Index (RCI)	NC			

ROUTE: 0220CZ SUNSET CAMPGROUND ROAD C

ſΝ

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: 0220DZ SUNSET CAMPGROUND ROAD D KICA: KINGS CANYON NATIONAL PARK

Subcomponent Record		CO	LLECTED:	9/17/2011
PACIFIC WEST REGION		TOTAL	LENGTH:	0.08 Miles
Section Number	0			
Section Length (mi)	0.08			
Cross Section Information				
Number of Lanes	1			
Paved Width (ft)	16			
Lane Width (ft)	16			
Roadway Condition Information				
SCR (Surface Condition Rating)	92			
PCR (Pavement Condition Rating)	92			
Distress Index Values				
Structural Crack Index	99			
Transverse Cracking Index	96			
Patching Index	100			
Rutting Index	92			
Roughness Condition Index (RCI)	NC			

ROUTE: 0220DZ SUNSET CAMPGROUND ROAD D

ſŊ

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	able for a section, the	SCR rating will be disj	played. See appendix for d	efinitions and formulas.

ROUTE: 0220EZ SUNSET CAMPGROUND ROAD E KICA: KINGS CANYON NATIONAL PARK

Subcomponent Record		CO	LLECTED:	9/17/2011
PACIFIC WEST REGION		TOTAL	LENGTH:	0.08 Miles
Section Number	0			
Section Length (mi)	0.08			
Cross Section Information				
Number of Lanes	1			
Paved Width (ft)	15			
Lane Width (ft)	15			
Roadway Condition Information				
SCR (Surface Condition Rating)	91			
PCR (Pavement Condition Rating)	91			
Distress Index Values				
Structural Crack Index	99			
Transverse Cracking Index	99			
Patching Index	100			
Rutting Index	91			
Roughness Condition Index (RCI)	NC			

ROUTE: 0220EZ SUNSET CAMPGROUND ROAD E

ſŅ

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 PC	R rating i	is not availat	ole for a section, the	SCR rating will be di	splayed. See appendix fo	r definitions and formulas.

ROUTE: 0220FZ SUNSET CAMPGROUND ROAD F KICA: KINGS CANYON NATIONAL PARK

Subcomponent Record		CO	LLECTED:	9/17/2011
PACIFIC WEST REGION		TOTAL	LENGTH:	0.09 Miles
Section Number	0			
Section Length (mi)	0.09			
Cross Section Information				
Number of Lanes	1			
Paved Width (ft)	11			
Lane Width (ft)	11			
Roadway Condition Information				
SCR (Surface Condition Rating)	92			
PCR (Pavement Condition Rating)	92			
Distress Index Values				
Structural Crack Index	100			
Transverse Cracking Index	100			
Patching Index	100			
Rutting Index	92			
Roughness Condition Index (RCI)	NC			

ROUTE: 0220FZ SUNSET CAMPGROUND ROAD F

ſŊ

NOTES:

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



PCR	Poor	F	air 📃	Good	Excellent	No Data
	((0 - 60)	(61 - 84)	(85 - 94) (95 - 10	0)
* If the PCI	R rating is	not available f	or a section, the	SCR rating will be o	lisplayed. See appendix fo	r definitions and formulas.

ROUTE: 0220GZ SUNSET CAMPGROUND ROAD G KICA: KINGS CANYON NATIONAL PARK

Subcomponent Record		CO	LLECTED:	9/17/2011
PACIFIC WEST REGION		TOTAL	LENGTH:	0.10 Miles
Section Number	0			
Section Length (mi)	0.10			
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: 0220GZ SUNSET CAMPGROUND ROAD G

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



Kings Canyon 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



Kings Canyon National Park



KINGS CANYON NATIONAL PARK Route 0936ZZ

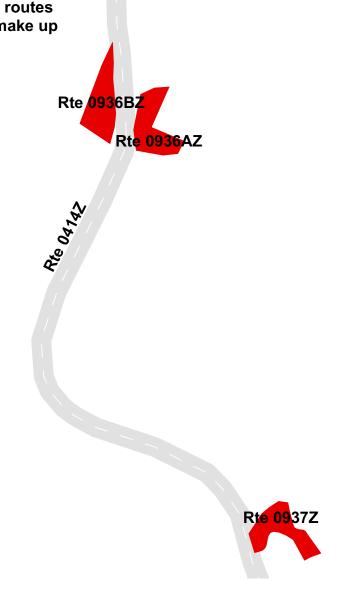
SWALE WORK CENTER AND ARROWHEAD INTERAGENCY PARKING AREAS FROM ROUTE 0414ZZ (SWALE WORK CENTER ROUTES) ON LEFT AND RIGHT

TO PARKING AREAS Summary Record

Route	Public /				
Number	NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0936ZZ	NONPUBLIC	9/19/2011	4,734	0.08	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
			NO CURB AND		
I					

* Lane miles are based on 11' lane widths

NOTE: Three subcomponent routes 0936AZ, 0936BZ, and 0937Z make up the summary route 0936ZZ.



0

85

170

KINGS CANYON NATIONAL PARK Route 0936AZ

SWALE WORK CENTER PARKING A

FROM ROUTE 0414Z (SWALE WORK CENTER ROAD) ON LEFT

TO PARKING

Subcomponent	Record

Route	Public /				
Number	NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0936AZ	NONPUBLIC	9/19/2011	1,614	0.03	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
			NO CURB AND		
0	0	0	GUTTER	NO CURB	POOR/45

* Lane miles are based on 11' lane widths









KINGS CANYON NATIONAL PARK Route 0936BZ

SWALE WORK CENTER PARKING B

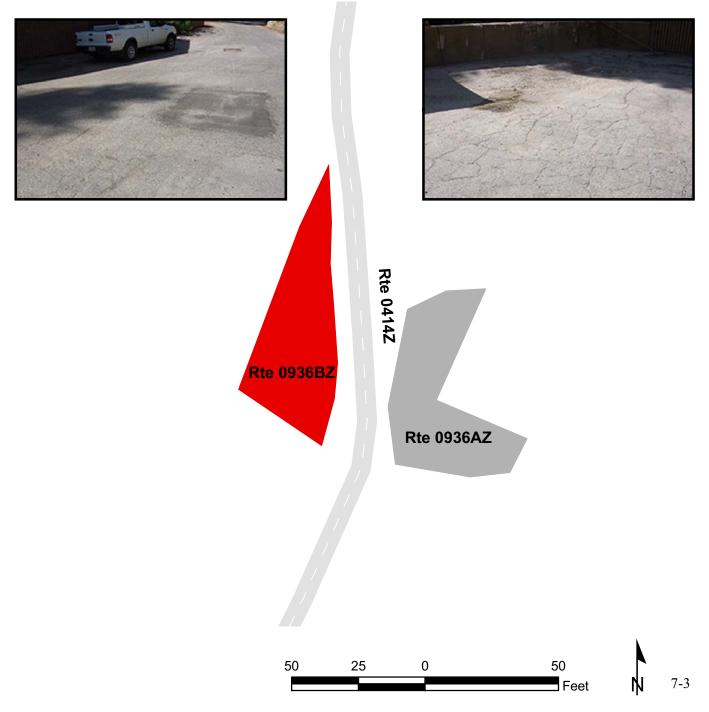
FROM ROUTE 0414Z (SWALE WORK CENTER ROAD) ON RIGHT

TO PARKING

Subcomponent Record

Route	Public /				
Number	NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0936BZ	NONPUBLIC	9/19/2011	1,621	0.03	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



KINGS CANYON NATIONAL PARK Route 0937Z

ARROWHEAD INTERAGENCY HOTSHOT CREW PARKING

FROM ROUTE 0414Z (SWALE WORK CENTER ROAD)

TO PARKING

Subcomponent Record

Route	Public /				
Number	NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0937Z	NONPUBLIC	9/19/2011	1,499	0.03	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
			NO CURB AND		
0	0	0	GUTTER	NO CURB	FAIR/73

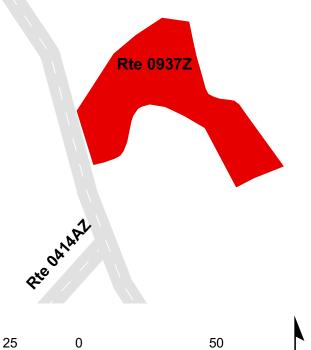
* Lane miles are based on 11' lane widths

Rte 04142

50









7-4

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



Kings Canyon National Park



KICA: DCV ROUTE MAINTENANCE FEATURES SUMMARY

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

FEATURE	ROUTE 0205 CEDAR GROVE NORTH SIDE ROAD	ROUTE 0206ZZ SHEEP CREEK CAMPGROUND ROADS	ROUTE 0217 CRYSTAL SPRINGS ROAD	ROUTE 0218ZZ CRYSTAL SPRINGS CAMPGROUND ROADS	ROUTE 0220ZZ SUNSET CAMPGROUND ROADS	UNIT
BRIDGE	1	0	0	0	0	EACH
CATTLE GUARD	0	0	0	0	0	EACH
CULVERT	0	0	0	0	0	EACH
CURB	0	0	63	0	0	LINEAR FEET
DROP INLET	0	0	0	0	0	EACH
GATE	0	1	0	1	1	EACH
GUARD/GUIDE RAIL	0	0	0	0	0	LINEAR FEET
CABLE	0	0	0	0	0	LINEAR FEET
NON-CABLE	0	0	0	0	0	LINEAR FEET
GUARD/GUIDE WALL	0	0	0	0	0	LINEAR FEET
BOLLARD	0	0	0	0	0	LINEAR FEET
TEMPORARY BARRIER	0	0	0	0	0	LINEAR FEET
NON TEMP/BOLLARD	0	0	0	0	0	LINEAR FEET
INTERSECTION	9	41	8	27	46	EACH
LOW WATER CROSSING	0	0	0	0	0	EACH
LOW WATER CROSSING	0	0	0	0	0	LINEAR FEET
MILE MARKER	0	0	0	0	0	EACH
OVERPASS	0	0	0	0	0	EACH
PARK BOUNDARY	0	0	0	0	0	EACH
PAVED DITCH	0	0	63	0	0	LINEAR FEET
PULLOUT	0	0	0	0	0	EACH
PULLOUT	0	0	0	0	0	LINEAR FEET
RAILROAD CROSSING	0	0	0	0	0	EACH
RETAINING WALL	0 0	0 0	0	0 0	0 0	EACH
RETAINING WALL SIGN	0 21	23	0	0 17	35	LINEAR FEET EACH
SIGN STATE BOUNDARY	0	<u>23</u> 0	4 0	0	<u> </u>	EACH
TRAFFIC LIGHT		0	0	0		
TUNNEL	0 0	0	0	0	0 0	EACH EACH
TUNNEL	0	0	0	0	0	LINEAR FEET
TOMMEL	U	0	U	U	U	LINEARTEEL

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



Kings Canyon National Park



ROUTE 0205: CEDAR GROVE NORTH SIDE ROAD

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0011 (CEDAR GROVE ROAD) AT MP 0.70 ON LEFT
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0011 (CEDAR GROVE ROAD)
0.000	0.000	INTERSECTION	N/A	ROUTE 0011 (CEDAR GROVE ROAD)
0.004	0.004	SIGN	LEFT	REGULATORY, STOP
0.011	0.011	SIGN	RIGHT	GUIDE, CEDAR GROVE VILLAGE LODGE, MARKET, PACK STATION VISITOR CENTER RANGER STATION
0.020	0.020	SIGN	RIGHT	REGULATORY, UNABLE TO READ FROM VIDEO
0.035	0.035	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN NO TEXT
0.039	0.039	SIGN	RIGHT	REGULATORY, SPEED LIMIT 25
0.045	0.045	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN NO TEXT
0.058	0.058	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN NO TEXT
0.076	0.076	SIGN	RIGHT	REGULATORY, UNABLE TO READ FROM VIDEO
0.095	0.095	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
1.053	1.053	SIGN	RIGHT	REGULATORY, BRIDGE OUT AHEAD CEDAR GROVE VILLAGE ACCESS ONLY
1.053	1.053	SIGN	RIGHT	GUIDE, GRAPHIC SIGN NO TEXT
1.101	1.101	INTERSECTION	LEFT	ROUTE 0400 (CEDAR GROVE RESIDENCE ROAD)
1.102	1.102	SIGN	LEFT	GUIDE, CEDAR LANE
1.118	1.118	SIGN	LEFT	GUIDE, PACK STATION GRANT GROVE 31MI.
1.254	1.254	SIGN	RIGHT	GUIDE, FOOD LODGING
1.258	1.258	INTERSECTION	LEFT	ROUTE 0402AZ (PICNIC ESTATES LOOP ROAD A)
1.258	1.258	INTERSECTION	N/A	ROUTE 0205 (CEDAR GROVE ROAD) UNCOLLECTED SECTION
1.318	1.400	BRIDGE	N/A	A BIP STRUCTURE NUMBER HAS NOT BEEN ASSIGNED TO THIS BRIDGE
1.456	1.456	INTERSECTION	N/A	ROUTE 0205 (CEDAR GROVE ROAD) UNCOLLECTED SECTION
1.465	1.465	INTERSECTION	RIGHT	ROUTE 0207AZ (SENTINEL CAMPGROUND ROAD A)
1.484	1.484	SIGN	LEFT	GUIDE, RANGER STATION AMPHITHEATER SENTINEL
1.509	1.509	SIGN	LEFT	REGULATORY, SPEED LIMIT 25
1.556	1.556	SIGN	RIGHT	GUIDE, NORTH SIDE DRIVE
1.556	1.556	SIGN	RIGHT	REGULATORY, STOP
1.556	1.556	SIGN	N/A	GUIDE, ROADS END GRANT GROVE

ROUTE 0205: CEDAR GROVE NORTH SIDE ROAD

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
1.556	1.556	SIGN	LEFT	REGULATORY, BRIDGE OUT AHEAD VISITOR CENTER RANGER STATION CAMPGROUND ACCESS ONLY
1.556	1.556	INTERSECTION	RIGHT	ROUTE 0011 (CEDAR GROVE ROAD)
1.556	1.556	INTERSECTION	LEFT	ROUTE 0011 (CEDAR GROVE ROAD)
1.556	1.556	SIGN	RIGHT	GUIDE, LOOP CANYON ROAD
1.556	1.556	ROUTE END	N/A	TO ROUTE 0011 (CEDAR GROVE ROAD) AT MP 1.78

ROUTE 0206AZ: SHEEP CREEK CAMPGROUND ROAD A

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0206BZ (SHEEP CREEK CAMPGROUND ROAD B) (SHEEP CREEK CAMPGROUND ROAD B) ON RIGHT
0.000	0.000	INTERSECTION	LEFT	ROUTE 0206BZ (SHEEP CREEK CAMPGROUND ROAD B)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0206BZ (SHEEP CREEK CAMPGROUND ROAD B)
0.018	0.018	SIGN	RIGHT	REGULATORY, SPEED LIMIT 10
0.027	0.027	INTERSECTION	RIGHT	ROUTE 0206AZ (SHEEP CREEK CAMPGROUND ROAD A)
0.027	0.491	ONE-WAY	N/A	N/A
0.032	0.032	SIGN	RIGHT	REGULATORY, DO NOT ENTER
0.033	0.033	SIGN	RIGHT	REGULATORY, ONE WAY
0.068	0.068	INTERSECTION	LEFT	ROUTE 0206CZ (SHEEP CREEK CAMPGROUND ROAD C)
0.073	0.073	SIGN	LEFT	GUIDE, 39-42
0.092	0.092	INTERSECTION	RIGHT	ROUTE 0206DZ (SHEEP CREEK CAMPGROUND ROAD D)
0.093	0.093	SIGN	RIGHT	GUIDE, 43-4-47
0.120	0.120	INTERSECTION	LEFT	ROUTE 0206EZ (SHEEP CREEK CAMPGROUND ROAD E)
0.125	0.125	SIGN	LEFT	GUIDE, 48-55
0.166	0.166	INTERSECTION	LEFT	ROUTE 0206FZ (SHEEP CREEK CAMPGROUND ROAD F)
0.175	0.175	SIGN	LEFT	GUIDE, 10-38 56-67
0.221	0.233	DEBRIS ON ROAD	N/A	N/A
0.308	0.317	DEBRIS ON ROAD	N/A	N/A
0.321	0.321	INTERSECTION	LEFT	ROUTE 0206DZ (SHEEP CREEK CAMPGROUND ROAD D)
0.322	0.322	SIGN	RIGHT	REGULATORY, ONE WAY
0.491	0.491	INTERSECTION	RIGHT	ROUTE 0206AZ (SHEEP CREEK CAMPGROUND ROAD A)
0.491	0.491	INTERSECTION	N/A	ROUTE 0206AZ (SHEEP CREEK CAMPGROUND ROAD A)
0.491	0.491	ROUTE END	N/A	TO END OF LOOP

ROUTE 0206BZ: SHEEP CREEK CAMPGROUND ROAD B

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0011 (CEDAR GROVE ROAD)
0.000	0.000	INTERSECTION	LEFT	ROUTE 0011 (CEDAR GROVE ROAD)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0011 (CEDAR GROVE ROAD)
0.004	0.004	SIGN	LEFT	REGULATORY, STOP
0.009	0.009	GATE	N/A	N/A
0.010	0.010	SIGN	RIGHT	GUIDE, UNABLE TO READ FROM VIDEO
0.016	0.016	INTERSECTION	RIGHT	ROUTE 0206AZ (SHEEP CREEK CAMPGROUND ROAD A)
0.016	0.465	ONE-WAY	N/A	N/A
0.018	0.018	SIGN	LEFT	GUIDE, CAUTION ACTIVE BEAR AREA PROPER FOOD STORAGE IS THE LAW AND YOUR RESPONSIBILITY INSTRUCTIONS ARE P
0.021	0.021	SIGN	RIGHT	GUIDE, 1-67 68-111
0.038	0.038	INTERSECTION	RIGHT	ROUTE 0206BZ (SHEEP CREEK CAMPGROUND ROAD B)
0.039	0.039	INTERSECTION	RIGHT	ROUTE 0206CZ (SHEEP CREEK CAMPGROUND ROAD C)
0.039	0.039	SIGN	RIGHT	REGULATORY, SPEED LIMIT 10
0.042	0.042	SIGN	RIGHT	REGULATORY, ONE WAY
0.043	0.043	SIGN	RIGHT	REGULATORY, WRONG WAY
0.044	0.044	SIGN	RIGHT	REGULATORY, DO NOT ENTER
0.154	0.154	INTERSECTION	RIGHT	ROUTE 0206GZ (SHEEP CREEK CAMPGROUND ROAD G)
0.154	0.154	SIGN	RIGHT	GUIDE, 103- 111
0.381	0.381	INTERSECTION	LEFT	ROUTE 0206FZ (SHEEP CREEK CAMPGROUND ROAD F)
0.390	0.390	INTERSECTION	RIGHT	ROUTE 0206GZ (SHEEP CREEK CAMPGROUND ROAD G)
0.390	0.390	SIGN	RIGHT	REGULATORY, ONE WAY
0.405	0.405	INTERSECTION	LEFT	ROUTE 0206EZ (SHEEP CREEK CAMPGROUND ROAD E)
0.458	0.458	SIGN	LEFT	REGULATORY, UNABLE TO READ FROM VIDEO
0.465	0.465	INTERSECTION	LEFT	ROUTE 0206CZ (SHEEP CREEK CAMPGROUND ROAD C)
0.465	0.465	INTERSECTION	N/A	ROUTE 0206BZ (SHEEP CREEK CAMPGROUND ROAD B)
0.465	0.465	ROUTE END	N/A	TO END OF LOOP

ROUTE 0206CZ: SHEEP CREEK CAMPGROUND ROAD C

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0206AZ (SHEEP CREEK CAMPGROUND ROAD A) ON LEFT
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0206AZ (SHEEP CREEK CAMPGROUND ROAD A)
0.000	0.000	INTERSECTION	LEFT	ROUTE 0206AZ (SHEEP CREEK CAMPGROUND ROAD A)
0.000	0.065	ONE-WAY	N/A	N/A
0.065	0.065	INTERSECTION	LEFT	ROUTE 0206BZ (SHEEP CREEK CAMPGROUND ROAD B)
0.065	0.065	INTERSECTION	RIGHT	ROUTE 0206BZ (SHEEP CREEK CAMPGROUND ROAD B)
0.065	0.065	ROUTE END	N/A	TO ROUTE 0206BZ (SHEEP CREEK CAMPGROUND ROAD B)

ROUTE 0206DZ: SHEEP CREEK CAMPGROUND ROAD D

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0206AZ (SHEEP CREEK CAMPGROUND ROAD A) ON RIGHT
0.000	0.000	INTERSECTION	LEFT	ROUTE 0206AZ (SHEEP CREEK CAMPGROUND ROAD A)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0206AZ (SHEEP CREEK CAMPGROUND ROAD A)
0.000	0.079	ONE-WAY	N/A	N/A
0.079	0.079	INTERSECTION	RIGHT	ROUTE 0206AZ (SHEEP CREEK CAMPGROUND ROAD A)
0.079	0.079	SIGN	LEFT	REGULATORY, ONE WAY
0.079	0.079	INTERSECTION	LEFT	ROUTE 0206AZ (SHEEP CREEK CAMPGROUND ROAD A)
0.079	0.079	ROUTE END	N/A	TO ROUTE 0206AZ (SHEEP CREEK CAMPGROUND ROAD A)

ROUTE 0206EZ: SHEEP CREEK CAMPGROUND ROAD E

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0206AZ (SHEEP CREEK CAMPGROUND ROAD A) ON LEFT
0.000	0.000	INTERSECTION	LEFT	ROUTE 0206AZ (SHEEP CREEK CAMPGROUND ROAD A)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0206AZ (SHEEP CREEK CAMPGROUND ROAD A)
0.000	0.106	ONE-WAY	N/A	N/A
0.106	0.106	SIGN	RIGHT	REGULATORY, ONE WAY
0.106	0.106	INTERSECTION	LEFT	ROUTE 0206BZ (SHEEP CREEK CAMPGROUND ROAD B)
0.106	0.106	INTERSECTION	RIGHT	ROUTE 0206BZ (SHEEP CREEK CAMPGROUND ROAD B)
0.106	0.106	ROUTE END	N/A	TO ROUTE 0206BZ (SHEEP CREEK CAMPGROUND ROAD B)

ROUTE 0206FZ: SHEEP CREEK CAMPGROUND ROAD F

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0206AZ (SHEEP CREEK CAMPGROUND ROAD A) ON LEFT
0.000	0.143	ONE-WAY	N/A	N/A
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0206AZ (SHEEP CREEK CAMPGROUND ROAD A)
0.000	0.000	INTERSECTION	LEFT	ROUTE 0206AZ (SHEEP CREEK CAMPGROUND ROAD A)
0.142	0.142	SIGN	RIGHT	REGULATORY, ONE WAY
0.143	0.143	INTERSECTION	LEFT	ROUTE 0206BZ (SHEEP CREEK CAMPGROUND ROAD B)
0.143	0.143	INTERSECTION	RIGHT	ROUTE 0206BZ (SHEEP CREEK CAMPGROUND ROAD B)
0.143	0.143	ROUTE END	N/A	TO ROUTE 0206BZ (SHEEP CREEK CAMPGROUND ROAD B)

ROUTE 0206GZ: SHEEP CREEK CAMPGROUND ROAD G

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0206BZ (SHEEP CREEK CAMPGROUND ROAD B) ON RIGHT
0.000	0.085	ONE-WAY	N/A	N/A
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0206BZ (SHEEP CREEK CAMPGROUND ROAD B)
0.000	0.000	INTERSECTION	LEFT	ROUTE 0206BZ (SHEEP CREEK CAMPGROUND ROAD B)
0.008	0.085	DEBRIS ON ROAD	N/A	N/A
0.085	0.085	INTERSECTION	LEFT	ROUTE 0206BZ (SHEEP CREEK CAMPGROUND ROAD B)
0.085	0.085	INTERSECTION	RIGHT	ROUTE 0206BZ (SHEEP CREEK CAMPGROUND ROAD B)
0.085	0.085	SIGN	N/A	REGULATORY, ONE WAY
0.085	0.085	ROUTE END	N/A	TO ROUTE 0206BZ (SHEEP CREEK CAMPGROUND ROAD B)

ROUTE 0209AZ: MORAINE CAMPGROUND ROAD A

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0011 (CEDAR GROVE ROAD) AT MP 2.53 ON LEFT
0.000	0.000	INTERSECTION	LEFT	ROUTE 0011 (CEDAR GROVE ROAD)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0011 (CEDAR GROVE ROAD)
0.008	0.008	INTERSECTION	LEFT	ROUTE 0209AZ (MORAINE CAMPGROUND ROAD A)
0.008	0.610	ONE-WAY	N/A	N/A
0.010	0.010	SIGN	N/A	GUIDE, CEDAR GROVE
0.016	0.016	SIGN	LEFT	GUIDE, 1-68 69-120
0.016	0.016	SIGN	RIGHT	REGULATORY, ROADS
0.017	0.017	GATE	N/A	N/A
0.018	0.018	SIGN	LEFT	GUIDE, CAMPGROUND CLOSED
0.141	0.141	INTERSECTION	LEFT	ROUTE 0209BZ (MORAINE CAMPGROUND ROAD B)
0.144	0.144	SIGN	LEFT	GUIDE, SITES 15-49 50-68
0.179	0.196	DEBRIS ON ROAD	N/A	N/A
0.335	0.356	DEBRIS ON ROAD	N/A	N/A
0.404	0.404	INTERSECTION	LEFT	ROUTE 0209BZ (MORAINE CAMPGROUND ROAD B)
0.508	0.518	DEBRIS ON ROAD	N/A	N/A
0.529	0.529	INTERSECTION	LEFT	ROUTE 0209FZ (MORAINE CAMPGROUND ROAD F)
0.530	0.530	INTERSECTION	LEFT	ROUTE 0209DZ (MORAINE CAMPGROUND ROAD D)
0.534	0.534	SIGN	RIGHT	REGULATORY, ONE WAY
0.571	0.571	INTERSECTION	LEFT	ROUTE 0209CZ (MORAINE CAMPGROUND ROAD C)
0.571	0.571	INTERSECTION	RIGHT	ROUTE 0209EZ (MORAINE CAMPGROUND ROAD E)
0.574	0.574	SIGN	RIGHT	REGULATORY, ONE WAY
0.589	0.589	SIGN	RIGHT	REGULATORY, UNABLE TO READ FROM VIDEO
0.590	0.590	SIGN	LEFT	REGULATORY, UNABLE TO READ FROM VIDEO
0.592	0.592	INTERSECTION	RIGHT	ROUTE 0209DZ (MORAINE CAMPGROUND ROAD D)
0.601	0.601	SIGN	RIGHT	REGULATORY, UNABLE TO READ FROM VIDEO
0.609	0.609	GATE	N/A	N/A
0.609	0.609	SIGN	RIGHT	GUIDE, CAMPGROUND
0.610	0.610	INTERSECTION	LEFT	ROUTE 0209AZ (MORAINE CAMPGROUND ROAD A)
0.610	0.610	INTERSECTION	N/A	ROUTE 0209AZ (MORAINE CAMPGROUND ROAD A)

ROUTE 0209AZ: MORAINE CAMPGROUND ROAD A

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.610	0.610	ROUTE END	N/A	TO END OF LOOP

ROUTE 0217: CRYSTAL SPRINGS ROAD

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0015 (GRANT GROVE ROAD) AT MP 3.58 ON RIGHT
0.000	0.000	INTERSECTION	LEFT	ROUTE 0015 (GRANT GROVE ROAD)
0.000	0.000	INTERSECTION	N/A	ROUTE 0212 (GRANT TREE ROAD)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0015 (GRANT GROVE ROAD)
0.003	0.015	CURB	LEFT	N/A
0.004	0.004	SIGN	LEFT	REGULATORY, STOP
0.052	0.052	SIGN	LEFT	GUIDE, CRYSTAL SPRINGS CAMPGROUND
0.052	0.052	SIGN	LEFT	GUIDE, CRYSTAL SPRINGS CAMPGROUND
0.061	0.061	INTERSECTION	LEFT	ROUTE 0218AZ (CRYSTAL SPRINGS CAMPGROUND ROAD A)
0.240	0.240	INTERSECTION	LEFT	ROUTE 0910 (MEADOW CAMP CABINS ROAD)
0.256	0.268	PAVED DITCH	LEFT	N/A
0.267	0.267	SIGN	LEFT	GUIDE, MEADOW CAMP CABINS 84100
0.268	0.268	INTERSECTION	RIGHT	PAVED SPUR
0.280	0.280	INTERSECTION	RIGHT	ROUTE 0101 (PANORAMIC POINT ROAD)
0.280	0.280	INTERSECTION	LEFT	ROUTE 0101 (PANORAMIC POINT ROAD)
0.280	0.280	ROUTE END	N/A	TO ROUTE 0101 (PANORAMIC POINT ROAD)

ROUTE 0218AZ: CRYSTAL SPRINGS CAMPGROUND ROAD A

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0217 (CRYSTAL SPRINGS ROAD)
0.000	0.000	INTERSECTION	LEFT	ROUTE 0217 (CRYSTAL SPRINGS ROAD)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0217 (CRYSTAL SPRINGS ROAD)
0.004	0.004	SIGN	LEFT	REGULATORY, STOP
0.007	0.007	GATE	N/A	N/A
0.007	0.007	SIGN	N/A	GUIDE, CAMPGROUND CLOSED
0.039	0.039	SIGN	RIGHT	GUIDE, CAMPERS STOP AHEAD READ REGISTRATION-FEE INSTRUCTIONS
0.050	0.050	SIGN	LEFT	WARNING, CAUTION ACTIVE BEAR AREA
0.050	0.050	SIGN	LEFT	GUIDE, PROPER FOOD STORAGE IS THE LAW AND RESPONSIBILITY INSTRUCTIONS ARE POSTED AT YOUR CAMPSITE.
0.174	0.174	INTERSECTION	LEFT	ROUTE 0218AZ (CRYSTAL SPRINGS CAMPGROUND ROAD A)
0.174	0.470	ONE-WAY	N/A	N/A
0.181	0.231	DEBRIS ON ROAD	N/A	N/A
0.185	0.185	INTERSECTION	LEFT	ROUTE 0218DZ (CRYSTAL SPRINGS CAMPGROUND ROAD D)
0.190	0.190	SIGN	LEFT	REGULATORY, ONE WAY
0.229	0.229	INTERSECTION	LEFT	ROUTE 0218DZ (CRYSTAL SPRINGS CAMPGROUND ROAD D)
0.282	0.308	DEBRIS ON ROAD	N/A	N/A
0.382	0.407	DEBRIS ON ROAD	N/A	N/A
0.424	0.424	SIGN	RIGHT	REGULATORY, ONE WAY
0.426	0.426	INTERSECTION	RIGHT	ROUTE 0218CZ (CRYSTAL SPRINGS CAMPGROUND ROAD C)
0.435	0.446	DEBRIS ON ROAD	N/A	N/A
0.459	0.459	INTERSECTION	RIGHT	ROUTE 0218CZ (CRYSTAL SPRINGS CAMPGROUND ROAD C)
0.460	0.460	SIGN	LEFT	REGULATORY, DO NOT ENTER
0.470	0.470	INTERSECTION	LEFT	ROUTE 0218AZ (CRYSTAL SPRINGS CAMPGROUND ROAD A)
0.470	0.470	INTERSECTION	RIGHT	ROUTE 0218AZ (CRYSTAL SPRINGS CAMPGROUND ROAD A)
0.470	0.470	ROUTE END	N/A	TO END OF LOOP

ROUTE 0218BZ: CRYSTAL SPRINGS CAMPGROUND ROAD B

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0218AZ (CRYSTAL SPRINGS CAMPGROUND ROAD A)
0.000	0.000	INTERSECTION	LEFT	ROUTE 0218AZ (CRYSTAL SPRINGS CAMPGROUND ROAD A)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0218AZ (CRYSTAL SPRINGS CAMPGROUND ROAD A)
0.005	0.375	ONE-WAY	N/A	N/A
0.005	0.005	INTERSECTION	LEFT	ROUTE 0218BZ (CRYSTAL SPRINGS CAMPGROUND ROAD B)
0.053	0.063	DEBRIS ON ROAD	N/A	N/A
0.130	0.155	DEBRIS ON ROAD	N/A	N/A
0.144	0.144	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN NO TEXT
0.157	0.157	INTERSECTION	LEFT	ROUTE 0218BZ (CRYSTAL SPRINGS CAMPGROUND ROAD B)
0.170	0.170	INTERSECTION	LEFT	ROUTE 0218BZ (CRYSTAL SPRINGS CAMPGROUND ROAD B)
0.179	0.179	SIGN	LEFT	REGULATORY, DO NOT ENTER
0.180	0.180	SIGN	LEFT	REGULATORY, ONE WAY
0.294	0.294	INTERSECTION	LEFT	ROUTE 0218BZ (CRYSTAL SPRINGS CAMPGROUND ROAD B)
0.309	0.309	SIGN	LEFT	REGULATORY, GRAPHIC SIGN NO TEXT
0.311	0.311	INTERSECTION	LEFT	ROUTE 0218BZ (CRYSTAL SPRINGS CAMPGROUND ROAD B)
0.374	0.374	SIGN	LEFT	REGULATORY, WRONG WAY
0.375	0.375	INTERSECTION	RIGHT	ROUTE 0218BZ (CRYSTAL SPRINGS CAMPGROUND ROAD B)
0.375	0.375	INTERSECTION	LEFT	ROUTE 0218BZ (CRYSTAL SPRINGS CAMPGROUND ROAD B)
0.375	0.375	ROUTE END	N/A	TO END OF LOOP

ROUTE 0218CZ: CRYSTAL SPRINGS CAMPGROUND ROAD C

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0218AZ (CRYSTAL SPRINGS CAMPGROUND ROAD A)
0.000	0.000	INTERSECTION	LEFT	ROUTE 0218AZ (CRYSTAL SPRINGS CAMPGROUND ROAD A)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0218AZ (CRYSTAL SPRINGS CAMPGROUND ROAD A)
0.000	0.209	ONE-WAY	N/A	N/A
0.005	0.005	SIGN	RIGHT	REGULATORY, ONE WAY
0.058	0.058	INTERSECTION	RIGHT	ROUTE 0218BZ (CRYSTAL SPRINGS CAMPGROUND ROAD B)
0.128	0.153	DEBRIS ON ROAD	N/A	N/A
0.209	0.209	INTERSECTION	LEFT	ROUTE 0218AZ (CRYSTAL SPRINGS CAMPGROUND ROAD A)
0.209	0.209	INTERSECTION	RIGHT	ROUTE 0218AZ (CRYSTAL SPRINGS CAMPGROUND ROAD A)
0.209	0.209	ROUTE END	N/A	TO ROUTE 0218AZ (CRYSTAL SPRINGS CAMPGROUND ROAD A)

ROUTE 0218DZ: CRYSTAL SPRINGS CAMPGROUND ROAD D

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0218AZ (CRYSTAL SPRINGS CAMPGROUND ROAD A)
0.000	0.000	INTERSECTION	LEFT	ROUTE 0218AZ (CRYSTAL SPRINGS CAMPGROUND ROAD A)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0218AZ (CRYSTAL SPRINGS CAMPGROUND ROAD A)
0.000	0.095	ONE-WAY	N/A	N/A
0.021	0.021	SIGN	RIGHT	GUIDE, UNABLE TO READ FROM VIDEO
0.032	0.032	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
0.034	0.055	DEBRIS ON ROAD	N/A	N/A
0.073	0.073	SIGN	RIGHT	GUIDE, UNABLE TO READ FROM VIDEO
0.095	0.095	INTERSECTION	RIGHT	ROUTE 0218AZ (CRYSTAL SPRINGS CAMPGROUND ROAD A)
0.095	0.095	INTERSECTION	LEFT	ROUTE 0218AZ (CRYSTAL SPRINGS CAMPGROUND ROAD A)
0.095	0.095	ROUTE END	N/A	TO ROUTE 0218AZ (CRYSTAL SPRINGS CAMPGROUND ROAD A)

ROUTE 0220AZ: SUNSET CAMPGROUND ROAD A

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0015 (GRANT GROVE ROAD) AT MP 3.17 ON LEFT
0.000	0.000	INTERSECTION	LEFT	ROUTE 0015 (GRANT GROVE ROAD)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0015 (GRANT GROVE ROAD)
0.005	0.005	SIGN	LEFT	REGULATORY, STOP
0.017	0.017	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.022	0.022	SIGN	LEFT	GUIDE, GRAPHIC SIGN NO TEXT
0.023	0.023	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
0.023	0.023	SIGN	RIGHT	WARNING, CAUTION ACTIVE BEAR AREA
0.023	0.023	SIGN	RIGHT	GUIDE, MOVE ALL FOOD, COOLERS, TOILETRIES AND TRASH FROM YOUR VEHICLE TO FOOD STORAGE LOCKERS DAY AND NIGH
0.026	0.026	GATE	N/A	N/A
0.026	0.026	SIGN	N/A	GUIDE, CAMPGROUND CLOSED
0.032	0.032	INTERSECTION	RIGHT	ROUTE 0903 (SUNSET AMPHITHEATER PARKING)
0.040	0.040	INTERSECTION	LEFT	ROUTE 0220AZ (SUNSET CAMPGROUND ROAD A)
0.040	0.500	ONE-WAY	N/A	N/A
0.050	0.050	SIGN	RIGHT	REGULATORY, SPEED LIMIT 15
0.056	0.056	SIGN	RIGHT	GUIDE, CAMP ONLY IN DESIGNATED SITES 6 PERSONS PER SITE 14 DAY CAMPING LIMIT
0.057	0.057	SIGN	RIGHT	GUIDE, AMPHITHEATER PARKING GROUP CAMPSITES
0.104	0.104	INTERSECTION	LEFT	ROUTE 0220CZ (SUNSET CAMPGROUND ROAD C)
0.108	0.108	SIGN	RIGHT	REGULATORY, ONE WAY
0.109	0.109	SIGN	LEFT	GUIDE, 153-157 ONE WAY
0.130	0.130	INTERSECTION	RIGHT	ROUTE 0220DZ (SUNSET CAMPGROUND ROAD D)
0.137	0.137	SIGN	RIGHT	GUIDE, 11-25
0.141	0.141	INTERSECTION	LEFT	ROUTE 0220BZ (SUNSET CAMPGROUND ROAD B)
0.146	0.146	SIGN	LEFT	GUIDE, 26-41
0.161	0.161	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN NO TEXT
0.174	0.174	INTERSECTION	RIGHT	ROUTE 0220DZ (SUNSET CAMPGROUND ROAD D)
0.179	0.179	SIGN	RIGHT	REGULATORY, ONE WAY
0.253	0.253	INTERSECTION	LEFT	ROUTE 0220EZ (SUNSET CAMPGROUND ROAD E)

ROUTE 0220AZ: SUNSET CAMPGROUND ROAD A

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.254	0.254	SIGN	RIGHT	REGULATORY, ONE WAY
0.349	0.349	SIGN	RIGHT	REGULATORY, UNABLE TO READ FROM VIDEO
0.365	0.365	INTERSECTION	LEFT	ROUTE 0220BZ (SUNSET CAMPGROUND ROAD B)
0.365	0.365	INTERSECTION	RIGHT	ROUTE 0220BZ (SUNSET CAMPGROUND ROAD B)
0.368	0.368	SIGN	LEFT	REGULATORY, ONE WAY
0.368	0.368	SIGN	RIGHT	GUIDE, 57-72
0.368	0.368	SIGN	RIGHT	GUIDE, EXIT
0.414	0.414	SIGN	LEFT	REGULATORY, DO NOT ENTER
0.418	0.418	INTERSECTION	LEFT	ROUTE 0220CZ (SUNSET CAMPGROUND ROAD C)
0.426	0.426	INTERSECTION	RIGHT	ROUTE 0220BZ (SUNSET CAMPGROUND ROAD B)
0.428	0.428	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
0.500	0.500	INTERSECTION	RIGHT	ROUTE 0220AZ (SUNSET CAMPGROUND ROAD A)
0.500	0.500	INTERSECTION	LEFT	ROUTE 0220AZ (SUNSET CAMPGROUND ROAD A)
0.500	0.500	ROUTE END	N/A	TO END OF LOOP

ROUTE 0220BZ: SUNSET CAMPGROUND ROAD B

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0220AZ (SUNSET CAMPGROUND ROAD A) AT MP 0.2 ON LEFT
0.000	0.000	INTERSECTION	LEFT	ROUTE 0220AZ (SUNSET CAMPGROUND ROAD A)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0220AZ (SUNSET CAMPGROUND ROAD A)
0.000	0.412	ONE-WAY	N/A	N/A
0.003	0.003	INTERSECTION	RIGHT	ROUTE 0220EZ (SUNSET CAMPGROUND ROAD E)
0.075	0.075	INTERSECTION	RIGHT	ROUTE 0220AZ (SUNSET CAMPGROUND ROAD A)
0.075	0.075	INTERSECTION	LEFT	ROUTE 0220AZ (SUNSET CAMPGROUND ROAD A)
0.094	0.094	SIGN	RIGHT	REGULATORY, DO NOT ENTER
0.149	0.149	INTERSECTION	RIGHT	ROUTE 0220FZ (SUNSET CAMPGROUND ROAD F)
0.157	0.157	SIGN	RIGHT	GUIDE, 83-88 89-152
0.200	0.200	INTERSECTION	RIGHT	ROUTE 0220FZ (SUNSET CAMPGROUND ROAD F)
0.253	0.253	SIGN	LEFT	REGULATORY, GRAPHIC SIGN NO TEXT
0.265	0.265	INTERSECTION	RIGHT	ROUTE 0220GZ (SUNSET CAMPGROUND ROAD G)
0.268	0.268	SIGN	RIGHT	REGULATORY, ONE WAY
0.273	0.273	SIGN	RIGHT	GUIDE, 119-130 131-152
0.323	0.323	INTERSECTION	RIGHT	ROUTE 0220GZ (SUNSET CAMPGROUND ROAD G)
0.412	0.412	INTERSECTION	RIGHT	ROUTE 0220AZ (SUNSET CAMPGROUND ROAD A)
0.412	0.412	SIGN	RIGHT	REGULATORY, WRONG WAY
0.412	0.412	INTERSECTION	LEFT	ROUTE 0220AZ (SUNSET CAMPGROUND ROAD A)
0.412	0.412	SIGN	LEFT	GUIDE, 61-72 EXIT
0.412	0.412	ROUTE END	N/A	TO ROUTE 0220AZ (SUNSET CAMPGROUND ROAD A)

ROUTE 0220CZ: SUNSET CAMPGROUND ROAD C

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0220AZ (SUNSET CAMPGROUND ROAD A)
0.000	0.000	INTERSECTION	LEFT	ROUTE 0220AZ (SUNSET CAMPGROUND ROAD A)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0220AZ (SUNSET CAMPGROUND ROAD A)
0.000	0.046	ONE-WAY	N/A	N/A
0.046	0.046	SIGN	LEFT	REGULATORY, UNABLE TO READ FROM VIDEO
0.046	0.046	INTERSECTION	LEFT	ROUTE 0220AZ (SUNSET CAMPGROUND ROAD A)
0.046	0.046	INTERSECTION	RIGHT	ROUTE 0220AZ (SUNSET CAMPGROUND ROAD A)
0.046	0.046	ROUTE END	N/A	TO ROUTE 0220AZ (SUNSET CAMPGROUND ROAD A)

ROUTE 0220DZ: SUNSET CAMPGROUND ROAD D

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0220AZ (SUNSET CAMPGROUND ROAD A)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0220AZ (SUNSET CAMPGROUND ROAD A)
0.000	0.080	ONE-WAY	N/A	N/A
0.000	0.000	INTERSECTION	LEFT	ROUTE 0220AZ (SUNSET CAMPGROUND ROAD A)
0.080	0.080	INTERSECTION	LEFT	ROUTE 0220AZ (SUNSET CAMPGROUND ROAD A)
0.080	0.080	INTERSECTION	RIGHT	ROUTE 0220AZ (SUNSET CAMPGROUND ROAD A)
0.080	0.080	SIGN	RIGHT	REGULATORY, ONE WAY
0.080	0.080	ROUTE END	N/A	TO ROUTE 0220AZ (SUNSET CAMPGROUND ROAD A)

ROUTE 0220EZ: SUNSET CAMPGROUND ROAD E

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0220BZ (SUNSET CAMPGROUND ROAD B)
0.000	0.000	INTERSECTION	N/A	ROUTE 0220BZ (SUNSET CAMPGROUND ROAD B)
0.000	0.000	INTERSECTION	LEFT	ROUTE 0220BZ (SUNSET CAMPGROUND ROAD B)
0.000	0.081	ONE-WAY	N/A	N/A
0.018	0.018	SIGN	LEFT	GUIDE, 42-72 73-157
0.081	0.081	INTERSECTION	LEFT	ROUTE 0220AZ (SUNSET CAMPGROUND ROAD A)
0.081	0.081	INTERSECTION	RIGHT	ROUTE 0220AZ (SUNSET CAMPGROUND ROAD A)
0.081	0.081	SIGN	N/A	REGULATORY, ONE WAY
0.081	0.081	ROUTE END	N/A	TO ROUTE 0220AZ (SUNSET CAMPGROUND ROAD A)

ROUTE 0220FZ: SUNSET CAMPGROUND ROAD F

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0220BZ (SUNSET CAMPGROUND ROAD B)
0.000	0.089	ONE-WAY	N/A	N/A
0.000	0.000	INTERSECTION	LEFT	ROUTE 0220BZ (SUNSET CAMPGROUND ROAD B)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0220BZ (SUNSET CAMPGROUND ROAD B)
0.089	0.089	SIGN	LEFT	REGULATORY, ONE WAY
0.089	0.089	INTERSECTION	LEFT	ROUTE 0220BZ (SUNSET CAMPGROUND ROAD B)
0.089	0.089	INTERSECTION	N/A	ROUTE 0220BZ (SUNSET CAMPGROUND ROAD B)
0.089	0.089	ROUTE END	N/A	TO ROUTE 0220BZ (SUNSET CAMPGROUND ROAD B)

ROUTE 0220GZ: SUNSET CAMPGROUND ROAD G

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0220BZ (SUNSET CAMPGROUND ROAD B)
0.000	0.000	INTERSECTION	LEFT	ROUTE 0220BZ (SUNSET CAMPGROUND ROAD B)
0.000	0.000	INTERSECTION	N/A	ROUTE 0220BZ (SUNSET CAMPGROUND ROAD B)
0.000	0.102	ONE-WAY	N/A	N/A
0.102	0.102	INTERSECTION	LEFT	ROUTE 0220BZ (SUNSET CAMPGROUND ROAD B)
0.102	0.102	INTERSECTION	RIGHT	ROUTE 0220BZ (SUNSET CAMPGROUND ROAD B)
0.102	0.102	ROUTE END	N/A	TO ROUTE 0220BZ (SUNSET CAMPGROUND ROAD B)

Section 10 Appendix



Kings Canyon 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 vis a vis the distresses and indexes that comprise the Pavement Condition Rating (PCR), an extensive study was completed throughout 2010 that has 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.

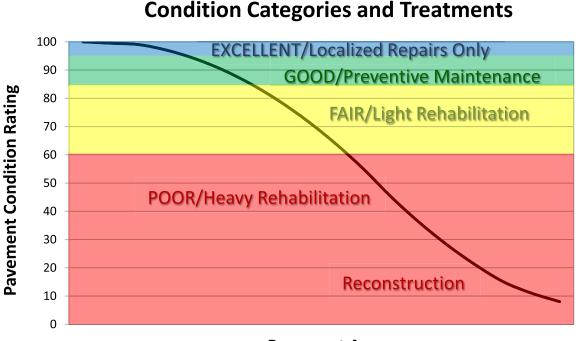
The changes that were implemented were endorsed by management at both the FHWA and NPS. In order to show the effectiveness of these changes, several sites were ground truth tested to ensure that an improvement was achieved between the relationship of PCR and the actual Maintenance and Rehabilitation needs that were represented. The 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 will be implemented in Cycle 5, we will also aim to 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.

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.



Pavement Age

DESCRIPTION OF RATING SYSTEM

The Federal Highway Administration (FHWA), Road Inventory Program (RIP) for the National Park Service (NPS), collects roadway condition data on paved surfaces (asphalt, concrete, brick, and cobblestone) on roads, parkways, and parking areas in national parks nationwide. The road surface condition data is collected using an automated Data Collection Vehicle (DCV). Roads having brick or cobblestone surfacing are not normally surveyed with the DCV, but are manually rated for condition rating.

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 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. In truth, the FHWA RIP distress types are similar to those described in the LTPP manual with some modifications. This 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 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, 168 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 23.

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.

Г

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.

ALLIGATOR CRACKING SEVERITY LEVELS		Crack Pattern		
		LOW	MED	HIGH
	LOW	L	M	Н
rack /idth	MED	M	M	Н
Čr.	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 patch may not exceed 0.30 mi. (0.48 km). (Any full-lane patch exceeding 0.30 mi. in length is considered a pavement change). 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:

total number of ruts within each severity in both wheelpaths 20 * 100

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

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

Roughness Condition Index (Asphalt)

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

Where:

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

Average IRI is computed as:

Left wheelpath IRI + Right wheelpath IRI 2

There is no applicable threshold for failure for this index.

Roughness Condition Index (Concrete)

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

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 Inertial Measuring Unit (IMU) to provide accurate positioning data 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	+- 0.1 degrees
Grade	+- 0.1 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.

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 tables 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.

GLOSSARY OF TERMS AND ABBREVIATIONS

TERM ORABBREVIATIONDESCRIPTION OR DEFINITION

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