

## The Road Inventory of Arches National Park ARCH – 1348 Cycle 4



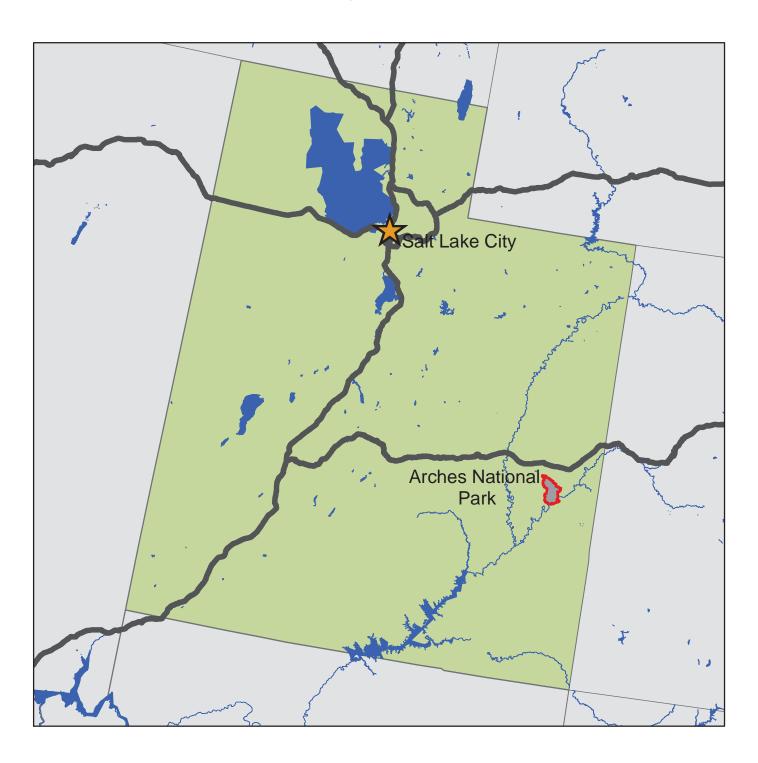




Prepared By: Federal Highway Administration Road Inventory Program Cycle 4



## Arches National Park in Utah





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## Arches National Park



**Section 1 Introduction** 

#### INTRODUCTION

**Background:** In 1976, the National Park Service (NPS) and the Federal Highway Administration (FHWA) entered into a Memorandum of Agreement (MOA), establishing the Road Inventory Program (RIP). In 1980, the NPS and the FHWA terminated the 1976 MOA and entered into a new MOA that provided for the completion of the initial phase of the RIP. The purpose of the RIP, per the 1980 MOA was to maintain and update RIP data in order to develop long-range costs and programs to bring National Park Service (NPS) roads up to, or to maintain, designated standards, and establish a maintenance management program.

The FHWA's Federal Lands Highway (FLH) was assigned the task of identifying condition deficiencies and corrective priorities along with associated corrective costs, inventorying maintenance features (e.g., culverts, signs, guardrail, etc.), summarizing the data and findings in a report and providing a photographic record of the road system.

The FLH completed the initial phase of the RIP in the early 1980's. As a result of this effort, each park received a RIP book, also known as the "Brown Book," that included the information collected during this initial RIP phase.

In an effort to maintain and update the RIP data, a cyclical data collection and reporting process was reestablished in the 1990's. The FLH completed two cycles of RIP data collection between 1994 and 2001. Cycle 1 was collected in 44 large parks from 1994 to 1996. This data was found to be unusable for comparison to future cycles. Cycle 2 data was collected from March 1997 to January 2001 in 79 large parks and 5 small parks containing 4,874 route miles. Each park received a copy of a Cycle 2 RIP Report, also known as the "Blue Book". Cycle 3 was completed from 2001 through 2004, and included data collection in all parks that contain pavement.

Since 1984, the RIP Program has been funded through the Federal Lands Highway Program's Park Roads and Parkways (PRP) Program. Currently, the NPS Washington Headquarters' Park Facility Management Division is responsible for coordinating the RIP program with the FLH. The FLH Washington office coordinates policy and prepares national reports and needs assessment studies for congress.

In 1998, the Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21) amended Title 23 U.S.C., and inserted Section 204(a)(6) which requires the Federal Highway Administration and the National Park Service, to develop, by rule, a Pavement Management System (PMS) for the park roads and parkways serving the National Park System. As a result of the requirements in TEA-21, the NPS and FHWA are in the process of developing a PMS. The PMS will assist the decision-makers in effectively spending limited PRP Program funds. The PMS

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will provide information for planning and programming road maintenance, rehabilitation, and reconstruction activities. RIP data will provide the basic information for this system.

Key information included in the RIP is the mileage inventory and condition assessments accomplished by the RIP Program. The mileage and condition data are used in the current allocation formula of PRP Program funds.

**RIP Cycle 4:** Cycle 4 data collection was initiated in spring 2006, where 86 large parks, consisting of 5,553 route miles and 6,232 paved parking areas, were selected as a representative sample of the entire NPS paved road network. Cycle 4 is scheduled for completion in spring 2009 and will serve the PMS in further development of its pavement preservation techniques.

In the Cycle 4 Reports, a general condition rating of excellent, good, fair and poor is ascribed to each one-mile section of paved roadway, and to each paved parking area. This condition rating system provides a realistic means of assessing the general funding needs for road improvements. Along with these descriptive condition ratings, a numerical rating between 0 and 100 is ascribed to each mile of road and to each parking area. This numerical rating is called a Pavement Condition Rating (PCR). The PCR rating system is described in Section 10 of this report.

All of the fieldwork required for obtaining inventory, condition, and maintenance feature information is coordinated with each park and the regional offices to ensure that the information in the RIP reports is accurate.

The FLH is responsible for all the data presented in this report. Anyone having questions or comments regarding the contents of this report is encouraged to contact the FHWA RIP Coordinator. It is our aim to provide exceptional customer satisfaction in our delivery of the RIP program.

The FHWA RIP Team

FHWA/EFLHD 21400 Ridgetop Circle Sterling, VA 20166 (703) 404-6371 FHWA/CFLHD 12300 West Dakota Ave. Lakewood, CO 80228 (720) 963-3560

## Arches National Park



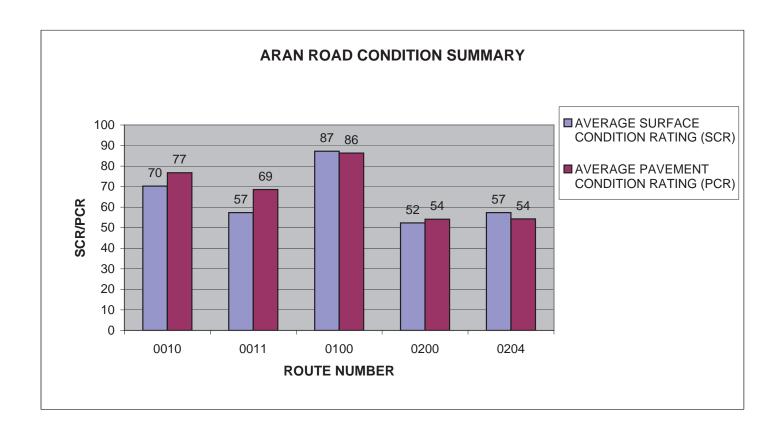
Section 2
Park Summary Information

# ARCH: PAVED ROUTE MILES AND PERCENTAGES BY FUNCTIONAL CLASS AND PCR

		P	avement C	Condition R	ating (PCF	₹)			
	Poor (	<=60)	Fair (6	1-84)	Good	(85-94)	Excellent	(95-100)	TOTAL
F.C.	MILES	%	MILES	%	MILES	%	MILES	%	MILES
1	2.00	7.65%	16.84	64.37%	4.26	16.28%	0.68	2.60%	23.78
2	0.15	0.57%	0.69	2.64%	0.28	1.07%	0.01	0.04%	1.13
3	0.06	0.23%	0.68	2.60%	0.04	0.15%			0.78
4	0.08	0.31%	0.04	0.15%					0.12
5									
6	0.05	0.19%	0.21	0.80%	0.09	0.34%			0.35
7									
8									
Totals	2.34	8.94%	18.46	70.56%	4.67	17.85%	0.69	2.64%	26.16

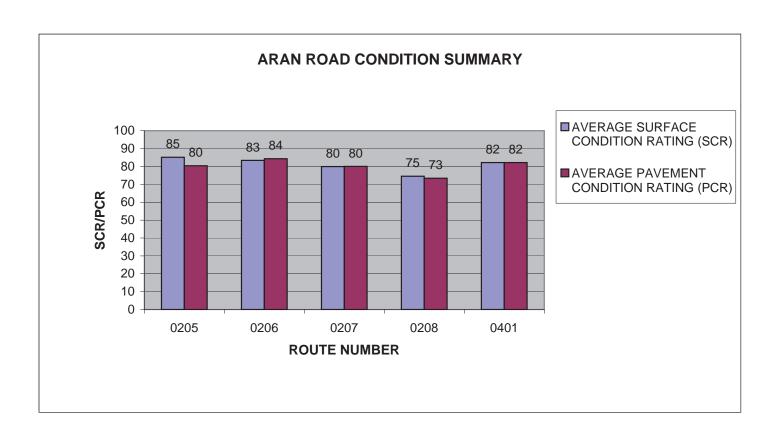
#### ARCH: ARAN ROAD CONDITION SUMMARY

ROUTE NUMBER	ROUTE NAME	FUNCT CLASS	ROUTE LENGTH		AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE PAVEMENT CONDITION RATING (PCR)
0010	MAIN PARK ROAD	1	18.02	ASPHALT	70	77
0011	WINDOWS ROAD	1	2.14	ASPHALT	57	69
0100	DELICATE ARCH ROAD	1	2.22	ASPHALT	87	86
0200	LA SAL MOUNTAIN VIEW ROAD	2	0.15	ASPHALT	52	54
0204	GARDEN OF EDEN OVERLOOK ROAD	2	0.11	ASPHALT	57	54



### ARCH: ARAN ROAD CONDITION SUMMARY

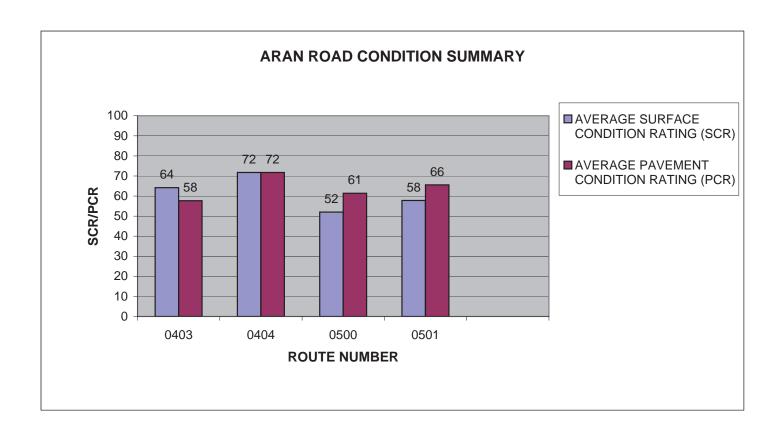
ROUTE NUMBER	ROUTE NAME	FUNCT CLASS	ROUTE LENGTH		AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE PAVEMENT CONDITION RATING (PCR)
0205	PANORAMA OVERLOOK ROAD	2	0.31	ASPHALT	. ,	80
0206	SALT VALLEY OVERLOOK ROAD	2	0.25	ASPHALT		84
0207	FIERY FURNACE ROAD	2	0.31	ASPHALT	80	80
0208	DEVIL'S GARDEN CAMPGROUND ROAD	3	0.78	ASPHALT	75	73
0401	ADMINISTRATIVE MAINTENANCE ROAD	6	0.27	ASPHALT	82	82



Data Collected 10/29/2009

#### ARCH: ARAN ROAD CONDITION SUMMARY

					AVERAGE SURFACE	AVERAGE PAVEMENT
ROUTE		FUNCT	ROUTE	SURFACE	CONDITION	CONDITION
NUMBER	ROUTE NAME	CLASS	LENGTH	TYPE	RATING (SCR)	RATING (PCR)
0403	ARCHES RESIDENCE AREA ROAD	4	0.12	ASPHALT	64	58
0404	ADMINISTRATION ROAD	6	0.08	ASPHALT	72	72
0500	WINDOWS LOOP ROAD	1	0.59	ASPHALT	52	61
0501	DEVIL'S GARDEN LOOP	1	0.81	ASPHALT	58	66



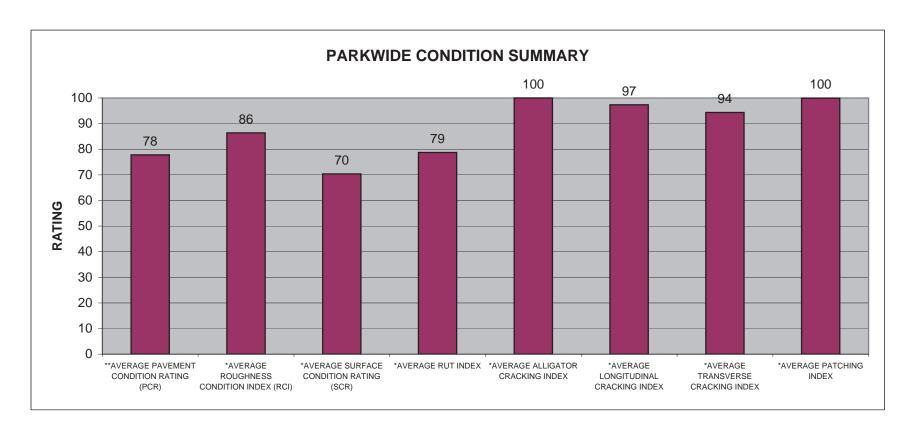
Data Collected 10/29/2009

#### **ARCH: PARKWIDE CONDITION SUMMARY**

**AVERAGE	*AVERAGE	*AVERAGE		*AVERAGE	*AVERAGE	*AVERAGE	
<b>PAVEMENT</b>	ROUGHNESS	SURFACE		ALLIGATOR	LONGITUDINAL	TRANSVERSE	*AVERAGE
CONDITION	CONDITION	CONDITION	*AVERAGE	CRACKING	CRACKING	CRACKING	PATCHING
RATING (PCR)	INDEX (RCI)	RATING (SCR)	RUT INDEX	INDEX	INDEX	INDEX	INDEX
78	86	70	79	100	97	94	100

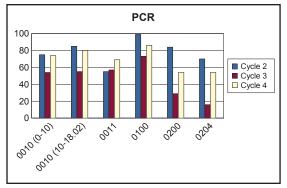
<sup>\*\*</sup> PCR Index is based on all ARAN-driven roads, parking areas, and manually rated routes.

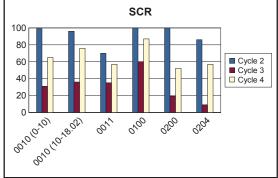
<sup>\*</sup> Index values are based on ARAN-driven roads only.

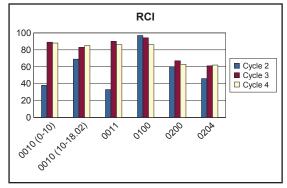


#### ARCH CYCLE 2 vs CYCLE 3 vs CYCLE 4 CONDITION COMPARISONS

				PAVEMENT CONDITION RATING (PCR)					ACE CO	ONDITION (SCR)	ROUGHNESS CONDITION INDEX (RCI)				N	
ROUTE NUMBER	PAVED MILES	FROM MILEPOST	TO MILEPOST	CYCLE 2	CYCLE 3	CYCLE 4	PERCENT CHANGE	CYCLE 2	CYCLE 3	CYCLE 4	PERCENT CHANGE	CYCLE 2	CYCLE 3	CYCLE 4	PERCENT CHANGE	COMMENT
0010	10.00	0.00	10.00	75	54	74	+37%	99	31	65	+110%	38	89	88	-1%	
0010	8.02	10.00	18.02	85	55	80	+45%	96	36	76	+111%	69	83	85	+2%	
0011	2.14	0.00	2.14	55	57	69	+21%	70	35	57	+63%	33	90	86	-4%	
0100	2.22	0.00	2.22	99	73	86	+18%	100	60	87	+45%	97	94	86	-9%	
0200	0.15	0.00	0.15	84	29	54	+86%	100	19	52	+174%	60	67	63	-6%	
0204	0.11	0.00	0.11	70	16	54	+238%	86	9	57	+533%	46	61	62	+2%	





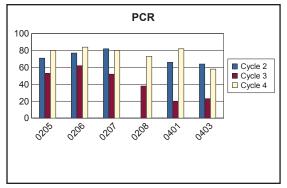


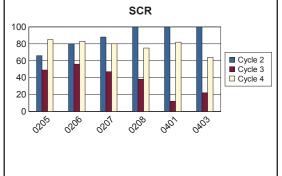
Cycle 4 Data Collected 10/29/2009 - 10/29/2009

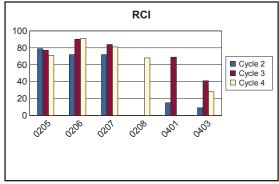
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#### ARCH CYCLE 2 vs CYCLE 3 vs CYCLE 4 CONDITION COMPARISONS

				PAV	PAVEMENT CONDITIO RATING (PCR)			SURFACE CONDITION RATING (SCR)				ROUG		S CONDITI X (RCI)	ON	
ROUTE NUMBER	PAVED MILES	FROM MILEPOST	TO MILEPOST	CYCLE 2	CYCLE 3	CYCLE 4	PERCENT CHANGE	CYCLE 2	CYCLE 3	CYCLE 4	PERCENT CHANGE	CYCLE 2	CYCLE 3	CYCLE 4	PERCENT CHANGE	COMMENT
0205	0.31	0.00	0.31	71	53	80	+51%	66	49	85	+73%	79	77	71	-8%	
0206	0.25	0.00	0.25	77	62	84	+35%	80	56	83	+48%	72	90	91	+1%	
0207	0.31	0.00	0.31	82	52	80	+54%	88	47	80	+70%	72	84	81	-4%	
0208	0.78	0.00	0.78	N/A	38	73	+92%	100	38	75	+97%	N/A	N/A	68	N/A	RCI was not collected in Cycle 3.
0401	0.27	0.00	0.27	66	20	82	+310%	100	12	82	+583%	15	69	N/A	N/A	RCI was not collected in Cycle 4.
0403	0.12	0.00	0.12	64	23	58	+152%	100	22	64	+191%	9	41	28	-32%	





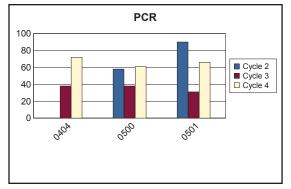


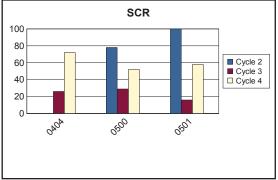
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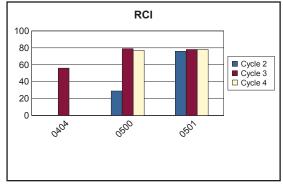
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#### ARCH CYCLE 2 vs CYCLE 3 vs CYCLE 4 CONDITION COMPARISONS

				l .		Γ CON NG (PC	DITION CR)	S		ACE CO ATING	ONDITION (SCR)		ROUG		CONDITION (RCI)	ON
ROUTE NUMBER	PAVED MILES	FROM MILEPOST	TO MILEPOST	CYCLE 2	CYCLE 3	CYCLE 4	PERCENT CHANGE	CYCLE 2	CYCLE 3	CYCLE 4	PERCENT CHANGE	CYCLE 2	CYCLE 3	CYCLE 4	PERCENT CHANGE	COMMENT
0404	0.08	0.00	0.08	N/A	38	72	+89%	N/A	26	72	+177%	N/A	56	N/A	N/A	RCI was not collected in Cycle 4.
0500	0.59	0.00	0.59	58	38	61	+61%	78	29	52	+79%	29	79	77	-3%	
0501	0.81	0.00	0.81	90	31	66	+113%	100	16	58	+262%	76	78	78	0%	







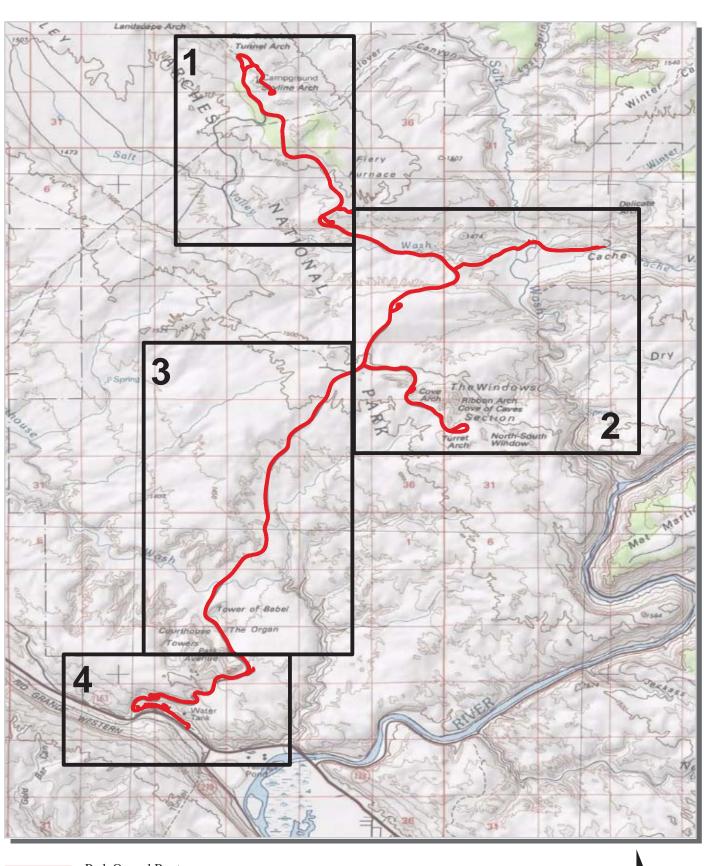
Cycle 4 Data Collected 10/29/2009 - 10/29/2009

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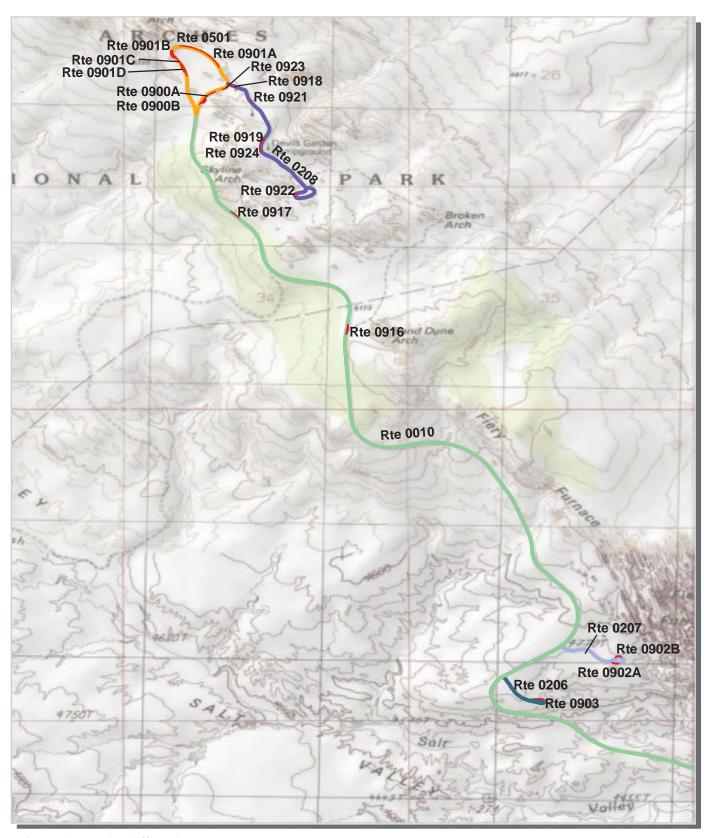
## Arches National Park

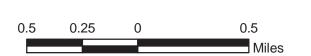


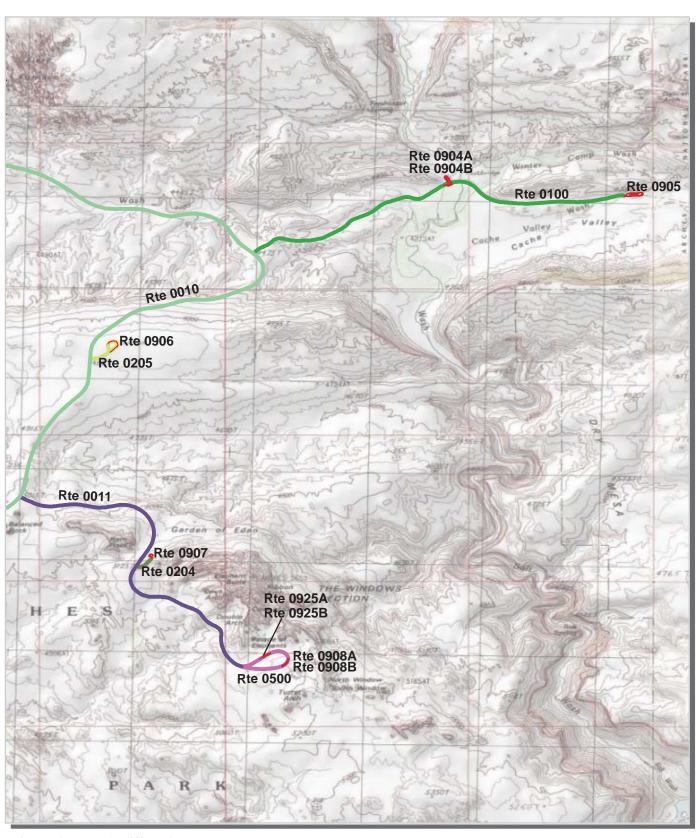
Section 3
Park Route Location / Condition
Maps

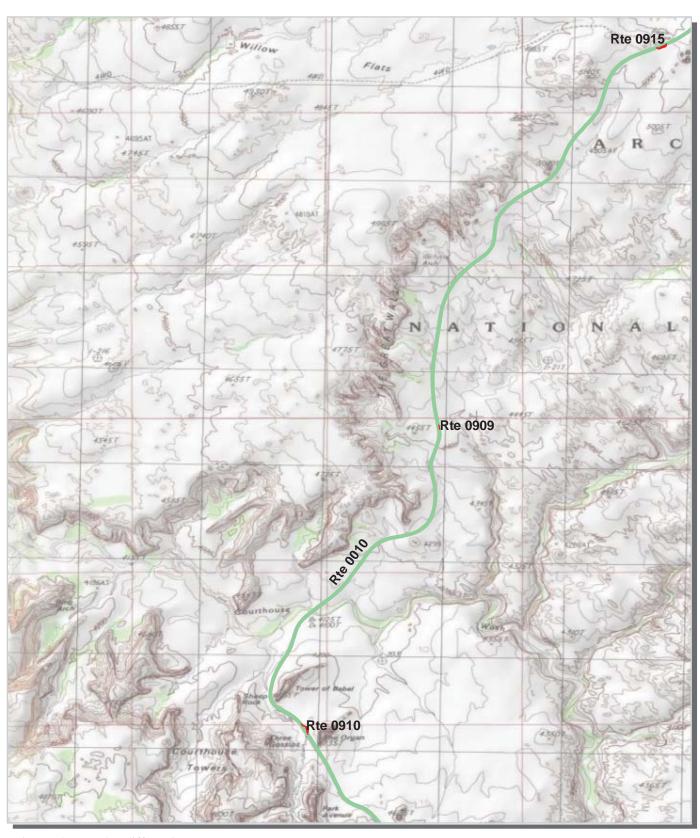


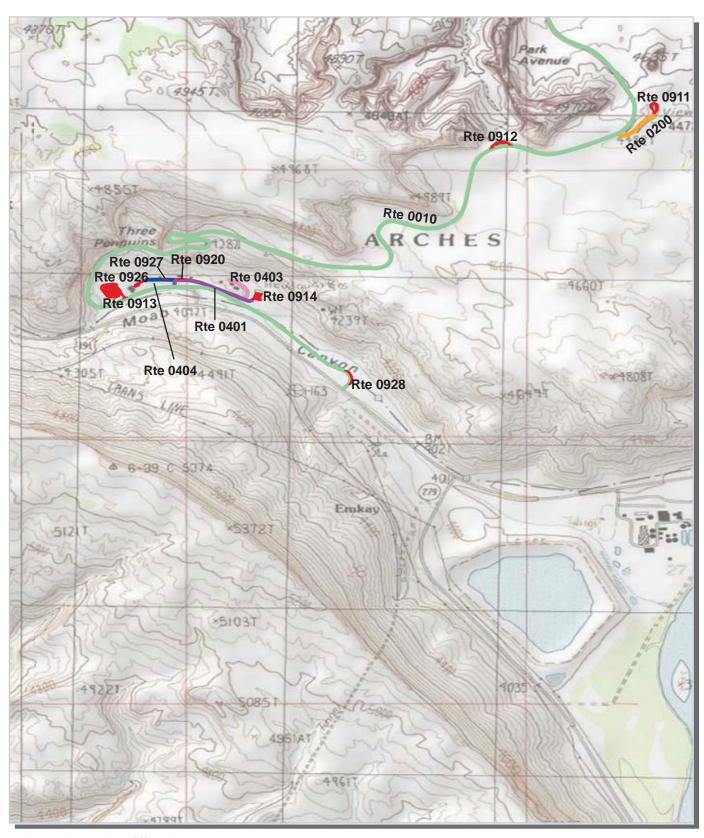
0.5 0 Miles

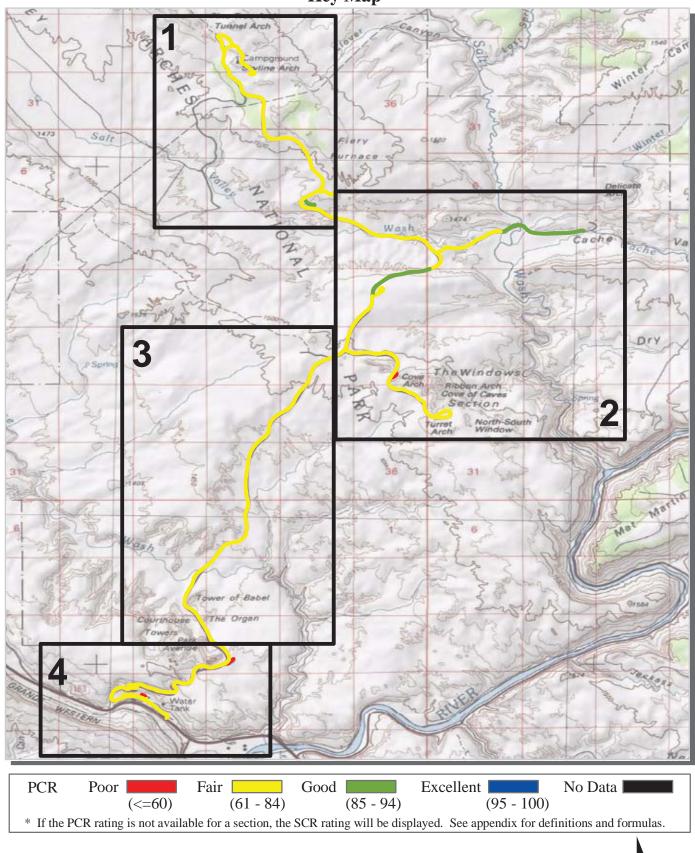




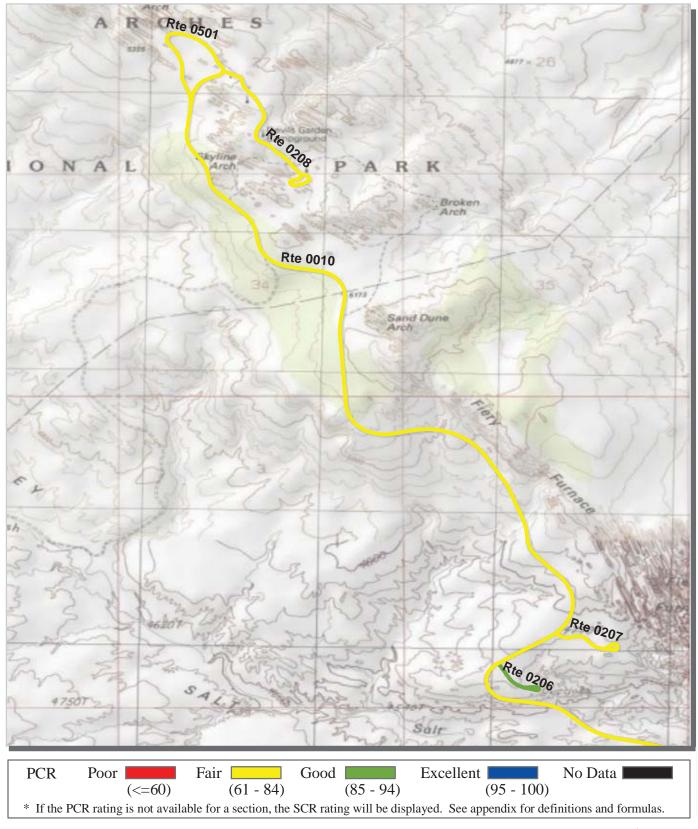




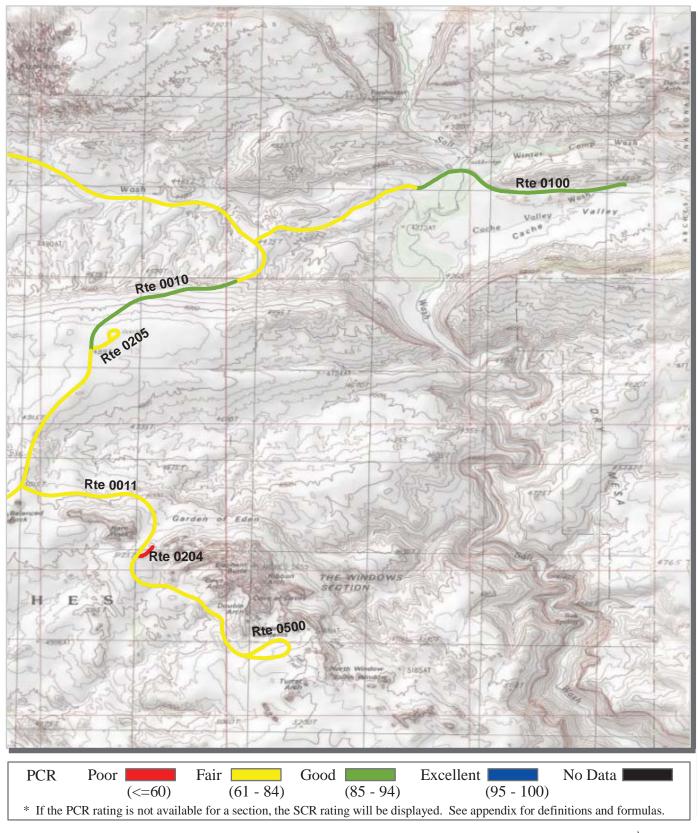




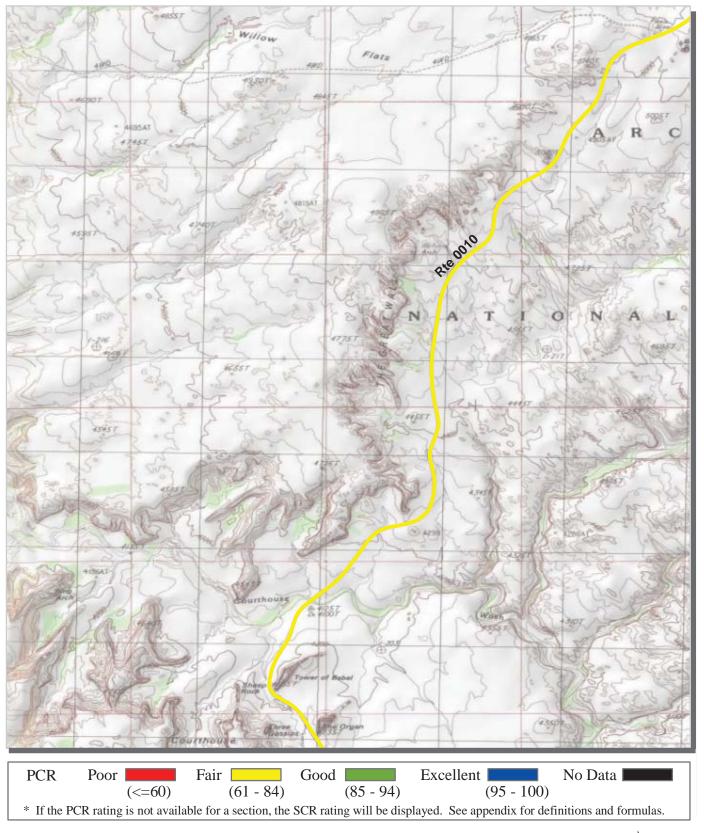


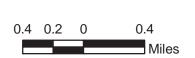


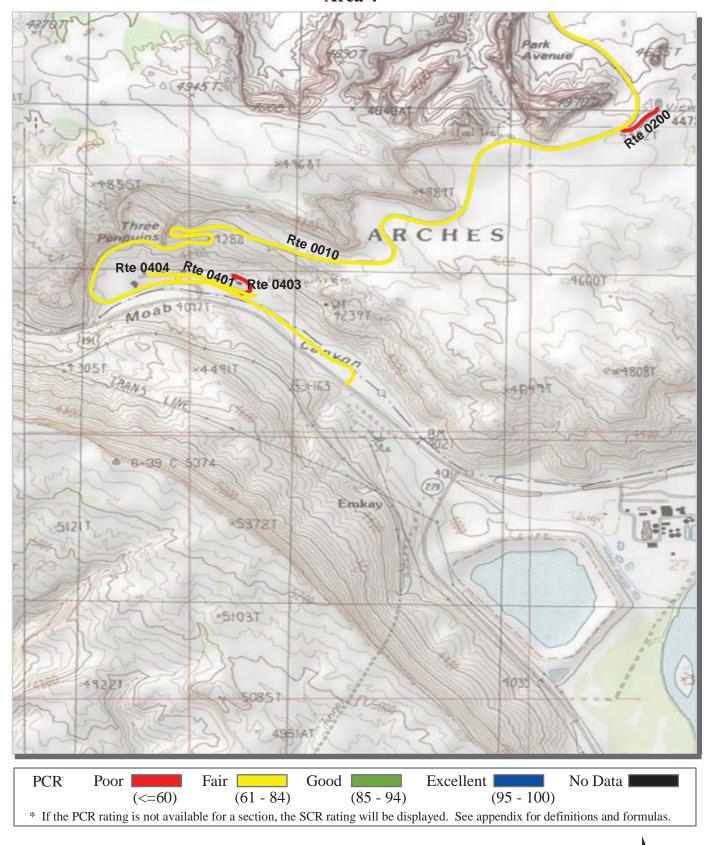


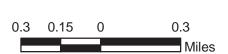












## Arches National Park



Section 4
Park Route Inventory

Road Inventory Program 08/24/2010

(Numerical By Route #)

Shading Color Key: Red text denotes approx. mileage White = Paved Routes, ARAN Driven Yellow = Unpaved Routes, ARAN not Driven

\*\* Unpaved Routes displayed on report were obtained from FMSS database and not inventoried by Road Inventory Program (RIP)

Blue = All Paved Parking Areas

Green = All Unpaved Parking Areas

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Grey = Paved Routes, ARAN not Driven

Black = Paved State, Local or Private non-NPS Routes, ARAN Driven

=

= Concession Route Flag ON

#### **ARCH**

#### ARCHES NATIONAL PARK

Rte.	FMSS	ess te	Route Name	Route De	Maint.	Paved	Un- Paved	Total Route	Func.	Rte.	Manual	Surf.	Area	
No.	No.	Concess	Route Name	From	То	District	Miles	Miles	Length	Class	Lanes	Rated SQ/FT	Туре	Maps
0010	63901		MAIN PARK ROAD	FROM U.S. HIGHWAY 191	TO ROUTE 0501 (DEVIL'S GARDEN LOOP)	N/A	18.020	0.000	18.020	1		0	AS	1,2,3,4
0011	63902		WINDOWS ROAD	FROM ROUTE 0010 (MAIN PARK ROAD) AT MP 9.97	TO ROUTE 0500 (WINDOWS LOOP ROAD)	N/A	2.140	0.000	2.140	1		0	AS	2
0100	63903		DELICATE ARCH ROAD	FROM ROUTE 0010 (MAIN PARK ROAD) AT MP 12.36	TO ROUTE 0905 (DELICATE ARCH ROAD VIEWPOINT PARKING)	N/A	2.220	0.000	2.220	1		0	AS	2
0101	63904		SALT VALLEY ROAD	FROM ROUTE 0010 (MAIN PARK ROAD)	TO NORTH PARK BOUNDARY	N/A	0.000	9.150	9.150	1		0	GR	
0200	63905		LA SAL MOUNTAIN VIEW ROAD	FROM ROUTE 0010 (MAIN PARK ROAD) AT MP 3.41	TO ROUTE 0911 (LA SAL MOUNTAIN VIEW PARKING)	N/A	0.150	0.000	0.150	2		0	AS	4
0201	63906		CACHE VALLEY ROAD	FROM ROUTE 0905 (DELICATE ARCH ROAD VIEWPOINT PARKING)	TO EAST PARK BOUNDARY	N/A	0.000	0.660	0.660	2		0	GR	
0203	63907		TOWER ARCH TRAILHEAD ROAD	FROM ROUTE 0101 (SALT VALLEY ROAD)	TO END	N/A	0.000	1.020	1.020	2		0	GR	
0204	63908		GARDEN OF EDEN OVERLOOK ROAD	FROM ROUTE 0011 (WINDOWS ROAD)	TO ROUTE 0907 (GARDEN OF EDEN PARKING)	N/A	0.110	0.000	0.110	2		0	AS	2
0205	63910		PANORAMA OVERLOOK ROAD	FROM ROUTE 0010 (MAIN PARK ROAD) AT MP 11.02	TO END OF LOOP	N/A	0.310	0.000	0.310	2		0	AS	2
0206	63911		SALT VALLEY OVERLOOK ROAD	FROM ROUTE 0010 (MAIN PARK ROAD) AT MP 14.63	TO END OF LOOP	N/A	0.250	0.000	0.250	2		0	AS	1
0207	63912		FIERY FURNACE ROAD	FROM ROUTE 0010 (MAIN PARK ROAD) AT MP 14.88	TO END OF LOOP	N/A	0.310	0.000	0.310	2		0	AS	1
0208	63913		DEVIL'S GARDEN CAMPGROUND ROAD	FROM ROUTE 0501 (DEVIL'S GARDEN LOOP)	TO END OF LOOP	N/A	0.780	0.000	0.780	3		0	AS	1
0209	63914		WEST SALT VALLEY JEEP ROAD	FROM NORTH ACCESS ROAD	TO END OF ROUTE 0201 (CACHE VALLEY ROAD)	N/A	0.000	11.310	11.310	2		0	GR	
0210	63915		TOWER ARCH ROAD	FROM ROUTE 0209 (WEST SALT VALLEY JEEP ROAD)	TO END OF ROUTE 0011 (WINDOWS ROAD)	N/A	0.000	1.530	1.530	2		0	GR	
0213	63916		WILLOW SPRING ROAD	FROM ROUTE 0010 (MAIN PARK ROAD) AT MP 9.72 ON LEFT	TO WEST BOUNDARY	N/A	0.000	4.050	4.050	2		0	GR	
0401	63917		ADMINISTRATIVE MAINTENANCE ROAD	FROM ROUTE 0010 (MAIN PARK ROAD) AT MP 0.69	TO ROUTE 0914 (MAINTENANCE PARKING)	N/A	0.270	0.000	0.270	6		0	AS	4
0402	63918		MIXING TABLE SPUR ROAD	FROM ROUTE 0213 (WILLOW SPRING ROAD)	TO ROUTE 0010 (MAIN PARK ROAD)	N/A	0.000	0.090	0.090	4		0	GR	
0403	63919		ARCHES RESIDENCE AREA ROAD	FROM ROUTE 0010 (MAIN PARK ROAD)	TO DEAD END	N/A	0.120	0.000	0.120	4		0	AS	4

Road Inventory Program 08/24/2010

Shading Color Key:

**ARCH** 

Red text denotes

approx. mileage

(Numerical By Route #)

White = Paved Routes, ARAN Driven

Yellow = Unpaved Routes, ARAN not Driven

\*\* Unpaved Routes displayed on report were obtained from FMSS database and not inventoried by Road Inventory Program (RIP)

Blue = All Paved Parking Areas

Green = All Unpaved Parking Areas

Grey = Paved Routes, ARAN not Driven

Black = Paved State, Local or Private non-NPS Routes, ARAN Driven

= (

= Concession Route Flag ON

#### ARCHES NATIONAL PARK

Rte.	FMSS	ess	Doute Name	Route De	scription	Maint.	Paved	Un-	Total	Func.	Rte.	Manual	Surf.	Area
No.	No.	Concess	Route Name	From	То	District	Miles	Paved Miles	Route Length	Class	Lanes	Rated SQ/FT	Туре	Maps
0404	100082		ADMINISTRATION ROAD	FROM ROUTE 0401 (ADMINISTRATIVE MAINTENANCE ROAD)	TO ROUTE 0926 (VISITOR CENTER STAFF PARKING)	N/A	0.080	0.000	0.080	6		0	AS	4
0500	63920		WINDOWS LOOP ROAD	FROM END OF ROUTE 0011 (WINDOWS ROAD)	TO END OF LOOP	N/A	0.590	0.000	0.590	1		0	AS	2
0501	63921		DEVIL'S GARDEN LOOP	FROM END OF ROUTE 0010 (MAIN PARK ROAD)	TO END OF LOOP	N/A	0.810	0.000	0.810	1		0	AS	1
0900A	63922		DEVIL'S GARDEN PICNIC PARKING A	FROM ROUTE 0501 (DEVIL'S GARDEN LOOP)	TO ROUTE 0501 (DEVIL'S GARDEN LOOP)	N/A	0.000	0.000	0.000			8,588	AS	1
0900B	100083		DEVIL'S GARDEN PICNIC PARKING B	ADJACENT TO ROUTE 0501 (DEVIL'S GARDEN LOOP) AT MP 0.13		N/A	0.000	0.000	0.000			2,403	AS	1
0901A	63923		DEVIL'S GARDEN PARKING A	ADJACENT TO ROUTE 0501 (DEVIL'S GARDEN LOOP) AT MP .38 ON RIGHT		N/A	0.000	0.000	0.000			13,619	AS	1
0901B	100084		DEVIL'S GARDEN PARKING B	ADJACENT TO ROUTE 0501 (DEVIL'S GARDEN LOOP) AT MP 0.51 ON RIGHT		N/A	0.000	0.000	0.000			4,194	AS	1
0901C	100086		DEVIL'S GARDEN PARKING C	ADJACENT TO ROUTE 0501 (DEVIL'S GARDEN LOOP) AT MP 0.56 ON LEFT		N/A	0.000	0.000	0.000			11,604	AS	1
0901D	100088		DEVIL'S GARDEN PARKING D	ADJACENT TO ROUTE 0501 (DEVIL'S GARDEN LOOP) AT MP 0.59 ON RIGHT		N/A	0.000	0.000	0.000			2,892	AS	1
0902A	63924		FIERY FURNACE PARKING A	ADJACENT TO ROUTE 0207 (FIERY FURNACE ROAD)		N/A	0.000	0.000	0.000			3,452	AS	1
0902B	100089		FIERY FURNACE PARKING B	ADJACENT TO ROUTE 0207 (FIERY FURNACE ROAD)		N/A	0.000	0.000	0.000			3,088	AS	1
0903	64004		SALT VALLEY OVERLOOK PARKING	ADJACENT TO ROUTE 0206 (SALT VALLEY OVERLOOK ROAD)		N/A	0.000	0.000	0.000			3,054	AS	1
0904A	64005		WOLFE RANCH PARKING NORTH	FROM ROUTE 0100 (DELICATE ARCH ROAD) ON LEFT	TO ROUTE 0100 (DELICATE ARCH ROAD)	N/A	0.000	0.000	0.000			24,573	AS	2
0904B	100090		WOLFE RANCH PARKING SOUTH	FROM ROUTE 0100 (DELICATE ARCH ROAD) ON RIGHT	TO ROUTE 0100 (DELICATE ARCH ROAD)	N/A	0.000	0.000	0.000			14,857	AS	2
0905	64006		DELICATE ARCH ROAD VIEWPOINT PARKING	FROM END OF ROUTE 0100 (DELICATE ARCH ROAD)	TO PARKING	N/A	0.000	0.000	0.000			56,768	AS	2
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Road Inventory Program 08/24/2010

(Numerical By Route #)

Shading Color Key: Red text denotes approx. mileage White = Paved Routes, ARAN Driven

Yellow = Unpaved Routes, ARAN not Driven

\*\* Unpaved Routes displayed on report were obtained from FMSS database and not inventoried by Road Inventory Program (RIP)

Blue = All Paved Parking Areas

Green = All Unpaved Parking Areas

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Grey = Paved Routes, ARAN not Driven

Black = Paved State, Local or Private non-NPS Routes, ARAN Driven

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**ARCH** 

#### ARCHES NATIONAL PARK

Rte.	FMSS	ess	Route Name	Route De	Maint.	Paved	Un- Paved	Total Route	Func.	Rte.	Manual	Surf.	Area	
No.	No.	Concess	Route Name	From	То	District	Miles	Miles	Length	Class	Lanes	Rated SQ/FT	Туре	Maps
0906	64007		PANORAMA POINT PARKING	ADJACENT TO ROUTE 0205 (PANORAMA OVERLOOK ROAD) AT END LOOP		N/A	0.000	0.000	0.000			10,745	AS	2
0907	64008		GARDEN OF EDEN PARKING	FROM END OF ROUTE 0204 (GARDEN OF EDEN OVERLOOK ROAD)	TO PARKING	N/A	0.000	0.000	0.000			10,329	AS	2
0908A	64010		WINDOWS PARKING A	ADJACENT TO ROUTE 0500 (WINDOWS LOOP ROAD) ON RIGHT		N/A	0.000	0.000	0.000			6,783	AS	2
0908B	100091		WINDOWS PARKING B	ADJACENT TO ROUTE 0500 (WINDOWS LOOP ROAD) ON LEFT		N/A	0.000	0.000	0.000			4,007	AS	2
0909	64011		PETRIFIED DUNES PARKING	ADJACENT TO ROUTE 0010 (MAIN PARK ROAD) AT MP 6.81		N/A	0.000	0.000	0.000			1,901	AS	3
0910	64013		COURTHOUSE TOWERS PARKING	ADJACENT TO ROUTE 0010 (MAIN PARK ROAD) AT MP 4.37		N/A	0.000	0.000	0.000			14,726	AS	3
0911	64015		LA SAL MOUNTAIN VIEW PARKING	FROM END OF ROUTE 0200 (LA SAL MOUNTAIN VIEW ROAD)	TO PARKING	N/A	0.000	0.000	0.000			16,555	AS	4
0912	64016		PARK AVENUE PARKING	ADJACENT TO ROUTE 0010 (MAIN PARK ROAD) AT MP 3.02		N/A	0.000	0.000	0.000			16,960	AS	4
0913	64018		VISITOR CENTER PARKING	FROM ROUTE 0010 (MAIN PARK ROAD) AT MP 0.85	TO PARKING	N/A	0.000	0.000	0.000			73,846	AS	4
0914	64019		MAINTENANCE PARKING	FROM END OF ROUTE 0401 (ADMINISTRATIVE MAINTENANCE ROAD)	TO PARKING	N/A	0.000	0.000	0.000			18,586	AS	4
0915	64021		BALANCED ROCK PARKING	FROM ROUTE 0010 (MAIN PARK ROAD)	TO ROUTE 0010 (MAIN PARK ROAD)	N/A	0.000	0.000	0.000			13,406	AS	3
0916	64022		SAND DUNES ARCH PARKING	ADJACENT TO ROUTE 0010 (MAIN PARK ROAD) AT MP 16.79	, ,	N/A	0.000	0.000	0.000			5,894	AS	1
0917	64023		SKYLINE ARCH TRAILHEAD PARKING	ADJACENT TO ROUTE 0010 (MAIN PARK ROAD) AT MP 17.53		N/A	0.000	0.000	0.000			3,040	AS	1
0918	64026		CAMPGROUND REGISTRATION PARKING	ADJACENT TO ROUTE 0208 (DEVIL'S GARDEN CAMPGROUND ROAD)		N/A	0.000	0.000	0.000			1,122	AS	1

Road Inventory Program 08/24/2010 (Numerical By Route #) Page 4 of 6

Shading Color Key: Red text denotes approx. mileage

White = Paved Routes, ARAN Driven Yellow = Unpaved Routes, ARAN not Driven

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**ARCH** 

#### ARCHES NATIONAL PARK

Rte. No.	FMSS No.	Concess Route	Route Name	Route Desc	ription To	Maint. District	Paved Miles	Un- Paved Miles	Total Route Length	Func. Class	Rte. Lanes	Manual Rated SQ/FT	Surf. Type	Area Maps
0919	64028		CANYON WREN GROUP CAMPGROUND PARKING	ADJACENT TO ROUTE 0208 (DEVIL'S GARDEN CAMPGROUND ROAD)		N/A	0.000	0.000	0.000			3,867	AS	1
0920	64032		RESIDENTIAL PARKING	ADJACENT TO ROUTE 0401 (ADMINISTRATIVE MAINTENANCE ROAD)		N/A	0.000	0.000	0.000			2,361	AS	4
0921	64034		CAMPGROUND RESTROOM PARKING	ADJACENT TO ROUTE 0208 (DEVIL'S GARDEN CAMPGROUND ROAD)		N/A	0.000	0.000	0.000			849	AS	1
0922	64035		JUNIPER BASIN GROUP CAMPGROUND PARKING	ADJACENT TO ROUTE 0208 (DEVIL'S GARDEN CAMPGROUND ROAD)		N/A	0.000	0.000	0.000			2,109	AS	1
0923	100092		CAMPGROUND PARKING	ADJACENT TO ROUTE 0501 (DEVIL'S GARDEN LOOP)		N/A	0.000	0.000	0.000			1,999	AS	1
0924	100093		AMPHITHEATER PARKING	ADJACENT TO ROUTE 0208 (DEVIL'S GARDEN CAMPGROUND ROAD)		N/A	0.000	0.000	0.000			2,449	AS	1
0925A	100094		DOUBLE ARCH PARKING A	ADJACENT TO ROUTE 0500 (WINDOWS LOOP ROAD) ON RIGHT		N/A	0.000	0.000	0.000			6,307	AS	2
0925B	100095		DOUBLE ARCH PARKING B	ADJACENT TO ROUTE 0500 (WINDOWS LOOP ROAD) ON LEFT		N/A	0.000	0.000	0.000			4,747	AS	2
0926	100105		VISITOR CENTER STAFF PARKING	FROM END OF ROUTE 0404 (ADMINISTRATION ROAD)	TO PARKING	N/A	0.000	0.000	0.000			9,000	AS	4
0927	100106		ADMINISTRATIVE PARKING	ADJACENT TO ROUTE 0404 (ADMINISTRATION ROAD)		N/A	0.000	0.000	0.000			1,354	AS	4
0928			ENTRANCE ROAD PARKING	ADJACENT TO ROUTE 0010 (MAIN PARK ROAD)		N/A	0.000	0.000	0.000			9,545	AS	4

Road Inventory Program 08/24/2010 (Numerical By Route #) Page 5 of 6

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SUMMARY TOTALS FOR ARCHES NATIONAL PARK											
ROUTE TOTAL	LANE MILE TOTALS				CONCESSION TOTALS						
ARAN Driven Route Miles	ARAN Driven Route Miles 26.160			Miles	54.872	Concession Paved Route Miles		e Miles	0.000		
All Paved Route Miles	All Paved Route Miles 26.160		Paved Parking Lane Miles		6.742	Concession Unpaved Route Miles		e Miles	0.000		
All Unpaved Route Miles	All Unpaved Route Miles 27.810		Paved MRR Lane Miles		0.000	Concession Paved Parking Area SQFT		a SQFT	0		
TOTAL PARK ROUTE MILES	53.970	TOTAL PAVED LANE MILES		1ILES	61.614	Concession Unpaved Parking Area SQFT			a SQFT	0	
All Manually Rated Roads (SQFT)	All Manually Rated Roads (SQFT) 0			Concession Paved MRR SQFT					0		
PARKING AREA TO	WEIGHTED AVERAGE PARK VALUES										
All Paved Parking (SQFT)	391,580	PCR (Rating)	SCR (Rating)	RCI (Rating)	RUT (Index)	AC (Index)	LC (Index)	TC (Index)	PATCH (Index)	PCR (Concession)	
All Unpaved Parking (SQFT)  TOTAL ALL PARKING (SQFT)	391,580	77.79	70.36	86.38	78.73	100.00	97.35	94.35	99.93	N/A	

Road Inventory Program 08/24/2010 (Numerical By Route #) Page 6 of 6

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#### **General Park Road Functional Classification Table**

Class 1	Principal Park Road/Rural Parkway (Public Roads)	Roads which constitute the main access route, circulatory tou	r, or thoroughfare for park visitors.
	Route Numbers 1 - 99. Note: Rural parkways (e.	g. Natchez Trace) are numbered 1 - 9.	State Routes Inventoried for Park. Route Numbers 5000-5999

- Class 2 Connector Park Road (Public Roads) Roads which provide access within a park to areas of scenic, scientific, recreational or cultural interest, such as overlooks, campgrounds, etc. Route Numbers 100-199.
- Class 3 Special Purpose Park Road (Public Roads) Roads which provide circulation within public areas, such as campgrounds, picnic areas, visitor center complexes, concessionaire facilities, etc. These roads generally serve low-speed traffic and are often designed for one-way circulation. Route Numbers 200-299.
- Class 4 Primitive Park Roads (Public Roads) Roads which provide circulation through remote areas and/or access to primitive campgrounds and undeveloped areas. These roads frequently have no minimum design standards and their use may be limited to specially equipped vehicles. Route Numbers 200-299.
  Note: Functional Classes 3 and 4 have the same route numbers because, historically, they were numbered similarly.
- Class 5 Administrative Access Road (Administrative Roads) All public roads intended for access to administrative developments or structures such as park offices, employee quarters, or utility areas. Route Numbers 400-499.
- Class 6 Restricted Road (Administrative Roads) All roads normally closed to the public, including patrol roads, truck trails, and other similar roads. Route Numbers 400-499.

  Note: Functional Classes 5 and 6 have the same route numbers because historically they were numbered similarly and often there is little distinction between these routes. For example, because utility areas and employee housing are often closed to the public, this restriction would result in classification of FC 6 rather than FC 5.
- Class 7 Urban Parkway (Urban Parkways and City Streets) These facilities serve high volumes of park and non-park related traffic and are restricted, limited-access facilities in an urban area. This category of roads primarily encompasses the major parkways which serve as gateways to our nation's capital. Other major park roads or portions thereof, however, may be included in this category. Route Numbers 1-9.
- Class 8 City Streets (Urban Parkways and City Streets) City streets are usually extensions of the adjoining street system that are owned and maintained by the National Park Service. The construction and/or reconstruction should conform with accepted local engineering practice and local conditions. Route Numbers 600-699.

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

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

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

#### **Surface Type Abbreviations:**

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

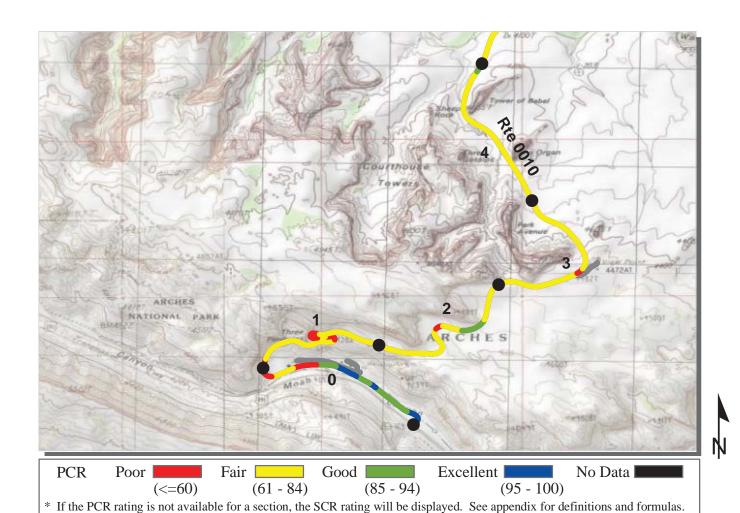
<sup>\*\*</sup> Unpaved Routes displayed on report were obtained from FMSS database and not inventoried by Road Inventory Program (RIP)

## Arches National Park



Section 5
Paved Route Condition Rating Sheets
(CRS)

**COLLECTED: 10/29/2009** 

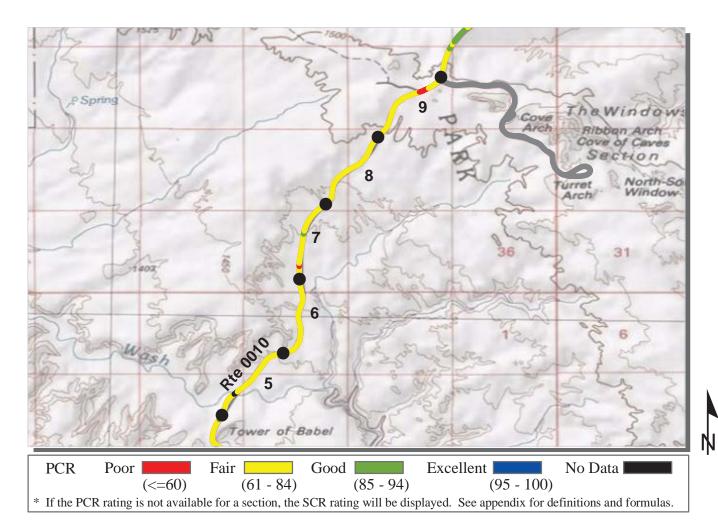


**ROUTE: 0010 MAIN PARK ROAD ARCH: ARCHES NATIONAL PARK** 

INTERMOUNTAIN REGION			TOTAL	LENGTH:	18.02 Miles	
Section Number	0	1	2	3	4	
Section Length (mi)	1.00	1.00	1.00	1.00	1.00	
Traffic  AADT  SADT  ADT Date	Traffic data may be found at www.efl.fhwa.dot.gov Click on PROGRAMS / NPS Traffic Data (Note: Not all parks have traffic data)					
Cross Section Information						
Number of Lanes	2	2	2	2	2	
Paved Width (ft)	29	29	24	21	21	
Lane Width (ft)	11	10	10	10	10	
Shoulder Width Right (ft)	NC	NC	NC	NC	NC	
Shoulder Width Left (ft)	NC	NC	NC	NC	NC	
Roadway Condition Information						
SCR (Surface Condition Rating)	80	58	67	65	66	
PCR (Pavement Condition Rating)	83	66	75	74	75	
Distress Index Values						
Alligator Cracking Index	100	100	100	100	100	
Longitudinal Cracking Index	98	94	98	95	94	
Tranverse Cracking Index	97	90	91	92	92	
Patching Index	100	100	100	100	100	
Rutting Index	85	74	78	78	80	
Roughness Condition Index (RCI)	88	77	88	88	89	

NC - Not Collected 5-1

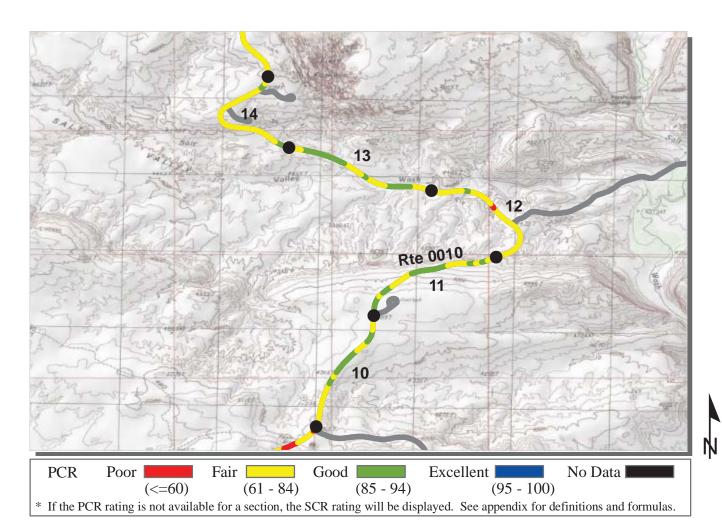
**COLLECTED: 10/29/2009** 



ROUTE: 0010 MAIN PARK ROAD ARCH: ARCHES NATIONAL PARK

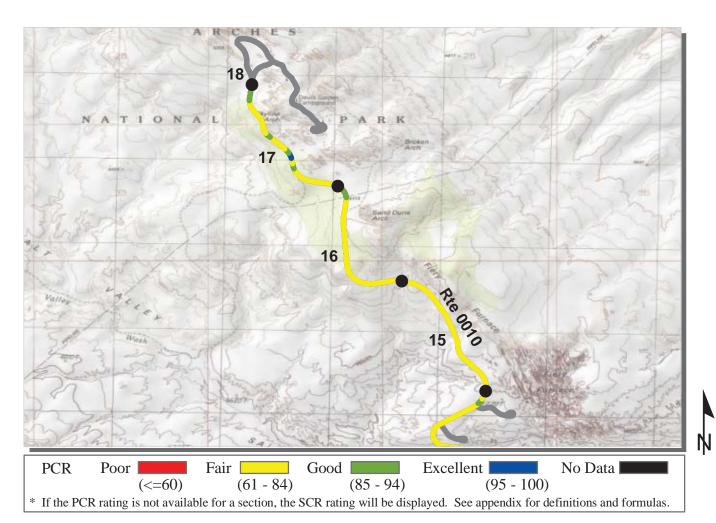
INTERMOUNTAIN REGION			TOTAL	18.02 Miles			
Section Number	5	6	7	8	9		
Section Length (mi)	1.00	1.00	1.00	1.00	1.00		
Traffic AADT SADT ADT Date	Traffic data may be found at www.efl.fhwa.dot.gov Click on PROGRAMS / NPS Traffic Data (Note: Not all parks have traffic data)						
Cross Section Information							
Number of Lanes	2	2	2	2	2		
Paved Width (ft)	26	24	23	26	21		
Lane Width (ft)	10	9	9	9	9		
Shoulder Width Right (ft)	NC	NC	NC	NC	NC		
Shoulder Width Left (ft)	NC	NC	NC	NC	NC		
Roadway Condition Information							
SCR (Surface Condition Rating)	66	64	63	63	61		
PCR (Pavement Condition Rating)	75	75	75	73	72		
Distress Index Values							
Alligator Cracking Index	100	100	100	100	100		
Longitudinal Cracking Index	96	95	96	96	96		
Tranverse Cracking Index	92	91	91	92	88		
Patching Index	100	100	100	100	100		
Rutting Index	79	79	76	76	76		
Roughness Condition Index (RCI)	88	91	92	89	89		

NC - Not Collected 5-2



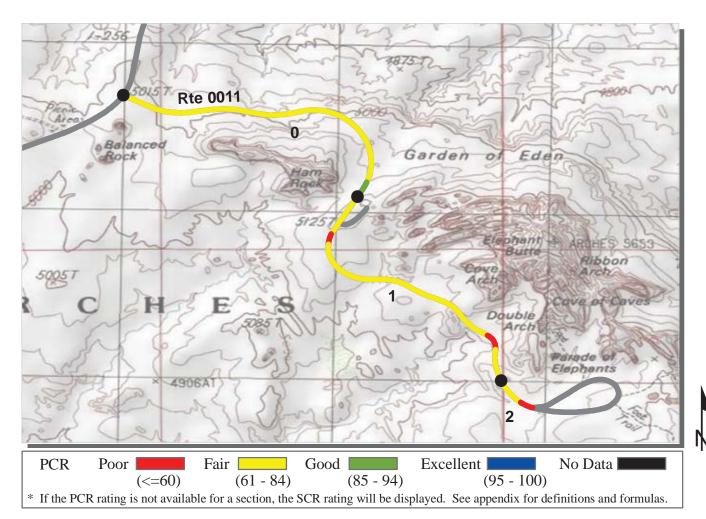
ROUTE: 0010 MAIN PARK ROAD ARCH: ARCHES NATIONAL PARK

INTERMOUNTAIN REGION			TOTAL	LENGTH:	18.02 Miles		
Section Number	10	11	12	13	14		
Section Length (mi)	1.00	1.00	1.00	1.00	1.00		
Traffic  AADT  SADT  ADT Date	Traffic data may be found at www.efl.fhwa.dot.gov Click on PROGRAMS / NPS Traffic Data (Note: Not all parks have traffic data)						
Cross Section Information							
Number of Lanes	2	2	2	2	2		
Paved Width (ft)	21	24	26	24	24		
Lane Width (ft)	8	9	9	9	9		
Shoulder Width Right (ft)	NC	NC	NC	NC	NC		
Shoulder Width Left (ft)	NC	NC	NC	NC	NC		
Roadway Condition Information							
SCR (Surface Condition Rating)	77	84	76	80	72		
PCR (Pavement Condition Rating)	80	86	75	83	76		
Distress Index Values							
Alligator Cracking Index	100	100	100	100	100		
Longitudinal Cracking Index	98	100	100	100	99		
Tranverse Cracking Index	95	99	98	99	99		
Patching Index	100	100	100	99	100		
Rutting Index	83	85	78	82	74		
Roughness Condition Index (RCI)	85	89	72	88	81		



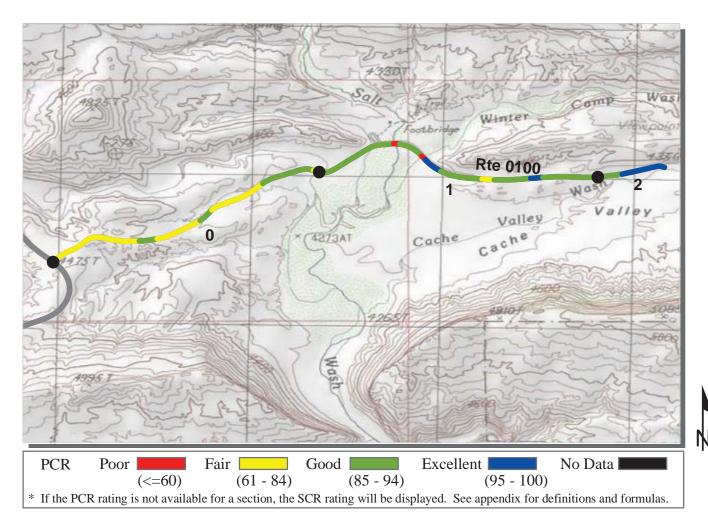
ROUTE: 0010 MAIN PARK ROAD ARCH: ARCHES NATIONAL PARK

INTERMOUNTAIN REGION	TERMOUNTAIN REGION TOTAL LENGTH:						
Section Number	15	16	17	18			
Section Length (mi)	1.00	1.00	1.00	0.02			
Traffic  AADT  SADT  ADT Date	Traffic data may be found at www.efl.fhwa.dot.gov Click on PROGRAMS / NPS Traffic Data (Note: Not all parks have traffic data)						
Cross Section Information							
Number of Lanes	2	2	2	2			
Paved Width (ft)	23	24	22	22			
Lane Width (ft)	9	9	9	9			
Shoulder Width Right (ft)	NC	NC	NC	NC			
Shoulder Width Left (ft)	NC	NC	NC	NC			
Roadway Condition Information							
SCR (Surface Condition Rating)	72	74	77	85			
PCR (Pavement Condition Rating)	78	78	82	80			
Distress Index Values							
Alligator Cracking Index	100	100	100	100			
Longitudinal Cracking Index	99	99	98	100			
Tranverse Cracking Index	98	98	97	100			
Patching Index	100	100	100	100			
Rutting Index	74	76	82	85			
Roughness Condition Index (RCI)	88	84	90	72			



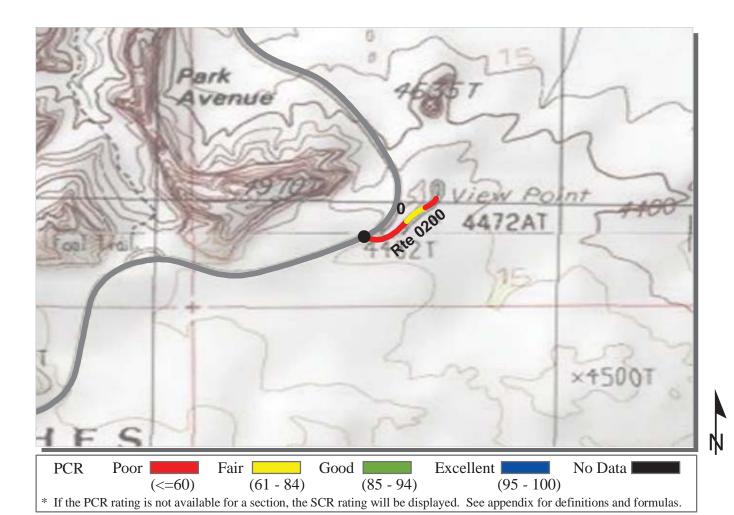
**ROUTE: 0011 WINDOWS ROAD ARCH: ARCHES NATIONAL PARK** 

INTERMOUNTAIN REGION			TOTAL	LENGTH:	<b>2.14 Miles</b>	
Section Number	0	1	2			
Section Length (mi)	1.00	1.00	0.14			
Traffic  AADT  SADT  ADT Date	Traffic data may be found at www.efl.fhwa.dot.gov Click on PROGRAMS / NPS Traffic Data (Note: Not all parks have traffic data)					
Cross Section Information						
Number of Lanes	2	2	2			
Paved Width (ft)	22	23	25			
Lane Width (ft)	9	9	9			
Shoulder Width Right (ft)	NC	NC	NC			
Shoulder Width Left (ft)	NC	NC	NC			
Roadway Condition Information						
SCR (Surface Condition Rating)	59	56	51			
PCR (Pavement Condition Rating)	70	68	64			
Distress Index Values						
Alligator Cracking Index	100	100	100			
Longitudinal Cracking Index	95	94	92			
Tranverse Cracking Index	90	88	88			
Patching Index	100	100	100			
Rutting Index	74	74	72			
Roughness Condition Index (RCI)	88	85	82			



**ROUTE: 0100 DELICATE ARCH ROAD ARCH: ARCHES NATIONAL PARK** 

INTERMOUNTAIN REGION	TOTAI	<b>2.22 Miles</b>					
Section Number	0	1	2				
Section Length (mi)	1.00	1.00	0.22				
Traffic	Traffic data r	nav be found at	www.efl.fhwa.do	ot gov			
AADT	Traffic data may be found at www.efl.fhwa.dot.gov Click on PROGRAMS / NPS Traffic Data						
SADT	(Note: Not all parks have traffic data)						
ADT Date							
Cross Section Information							
Number of Lanes	2	2	2				
Paved Width (ft)	25	28	28				
Lane Width (ft)	9	10	10				
Shoulder Width Right (ft)	NC	NC	NC				
Shoulder Width Left (ft)	NC	NC	NC				
Roadway Condition Information							
SCR (Surface Condition Rating)	84	90	89				
PCR (Pavement Condition Rating)	82	88	91				
Distress Index Values							
Alligator Cracking Index	100	100	100				
Longitudinal Cracking Index	100	100	100				
Tranverse Cracking Index	99	100	100				
Patching Index	100	100	100				
Rutting Index	85	90	89				
Roughness Condition Index (RCI)	77	91	94				

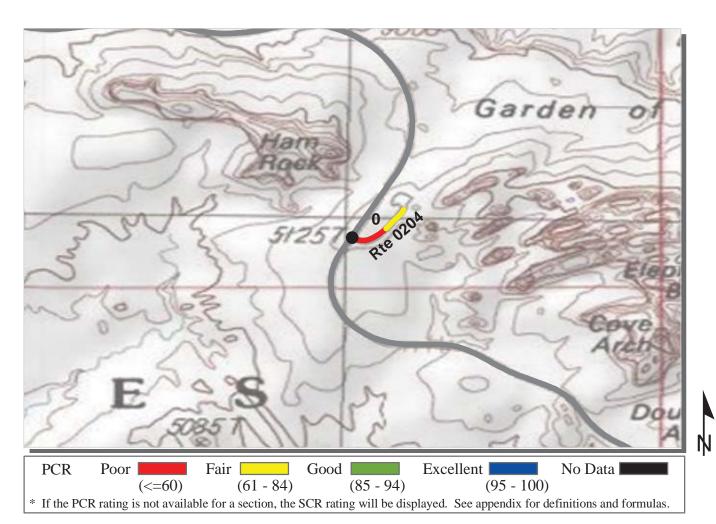


**ROUTE: 0200 LA SAL MOUNTAIN VIEW ROAD** 

**ARCH: ARCHES NATIONAL PARK** 

#### INTERMOUNTAIN REGION

INTERMOUNTAIN REGION	TOTAL LENGTH: 0					
Section Number	0					
Section Length (mi)	0.15					
Traffic  AADT  SADT  ADT Date	Traffic data may be found at www.efl.fhwa.dot.gov Click on PROGRAMS / NPS Traffic Data (Note: Not all parks have traffic data)					
Cross Section Information						
Number of Lanes	2					
Paved Width (ft)	21					
Lane Width (ft)	10					
Shoulder Width Right (ft)	NC					
Shoulder Width Left (ft)	NC					
Roadway Condition Information						
SCR (Surface Condition Rating)	53					
PCR (Pavement Condition Rating)	54					
Distress Index Values						
Alligator Cracking Index	100					
Longitudinal Cracking Index	96					
Tranverse Cracking Index	92					
Patching Index	100					
Rutting Index	65					
Roughness Condition Index (RCI)	59					

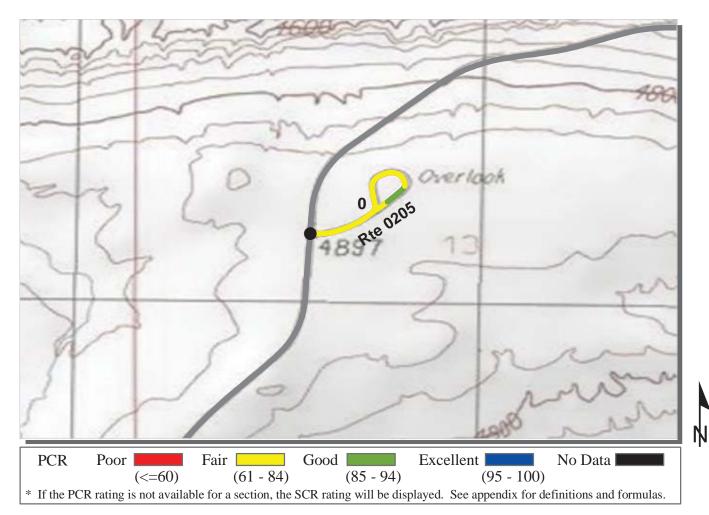


ROUTE: 0204 GARDEN OF EDEN OVERLOOK ROAD

**ARCH: ARCHES NATIONAL PARK** 

COLLECTED: 10/29/2009
NTERMOUNTAIN REGION TOTAL LENGTH: 0.11 Miles

INTERMOUNTAIN REGION			TOTAL	LENGTH:	<b>0.11 Miles</b>		
Section Number	0						
Section Length (mi)	0.11						
Traffic							
AADT	Traffic data may be found at www.efl.fhwa.dot.gov Click on PROGRAMS / NPS Traffic Data (Note: Not all parks have traffic data)						
SADT							
ADT Date							
Cross Section Information							
Number of Lanes	2						
Paved Width (ft)	21						
Lane Width (ft)	10						
Shoulder Width Right (ft)	NC						
Shoulder Width Left (ft)	NC						
Roadway Condition Information							
SCR (Surface Condition Rating)	60						
PCR (Pavement Condition Rating)	57						
Distress Index Values							
Alligator Cracking Index	100						
Longitudinal Cracking Index	97						
Tranverse Cracking Index	94						
Patching Index	97						
Rutting Index	72						
Roughness Condition Index (RCI)	64						

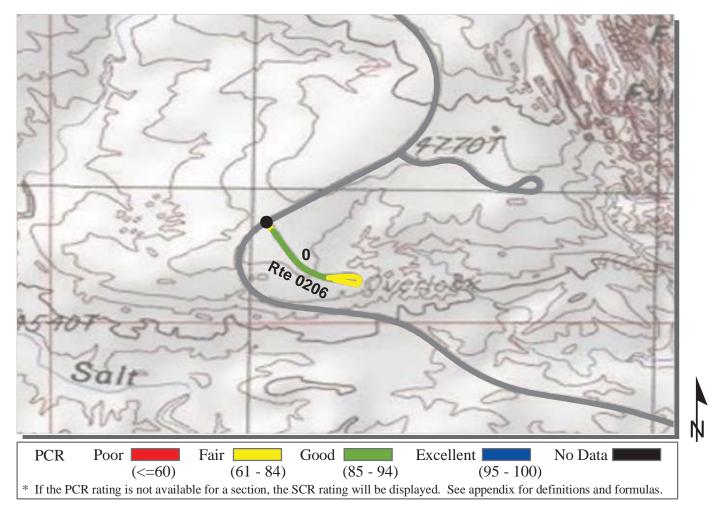


**ROUTE: 0205 PANORAMA OVERLOOK ROAD** 

**ARCH: ARCHES NATIONAL PARK** 

	COLLECTED:			
INTERMOUNTAIN REGION	TOTAL LENGTH:	0.31 M		

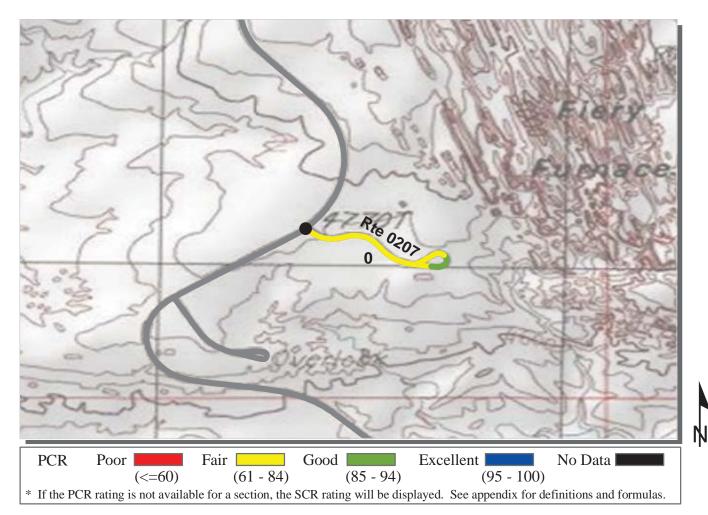
INTERMOUNTAIN REGION			TOTAL	<b>0.31 Miles</b>		
Section Number	0					
Section Length (mi)	0.31					
Traffic AADT SADT ADT Date	Traffic data may be found at www.efl.fhwa.dot.gov Click on PROGRAMS / NPS Traffic Data (Note: Not all parks have traffic data)					
Cross Section Information			l			
Number of Lanes	1					
Paved Width (ft) Lane Width (ft)	18 15					
Shoulder Width Right (ft) Shoulder Width Left (ft)	NC NC					
Roadway Condition Information						
SCR (Surface Condition Rating)	85					
PCR (Pavement Condition Rating)	80					
Distress Index Values						
Alligator Cracking Index	100					
Longitudinal Cracking Index	99					
Tranverse Cracking Index	99					
Patching Index	100					
Rutting Index	87					
Roughness Condition Index (RCI)	69					
<u> </u>		· · · · · · · · · · · · · · · · · · ·				



ROUTE: 0206 SALT VALLEY OVERLOOK ROAD

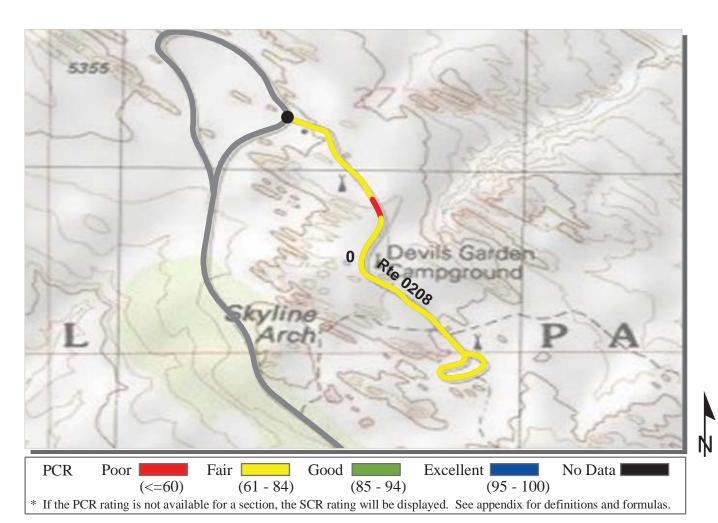
**ARCH: ARCHES NATIONAL PARK** 

INTERMOUNTAIN REGION			TOTAL	LENGTH:	0.25 Miles
Section Number	0				
Section Length (mi)	0.25				
Traffic AADT SADT ADT Date	Click on PRO	nay be found at OGRAMS / NPS I parks have traf		ot.gov	
Cross Section Information					
Number of Lanes	2				
Paved Width (ft)	18				
Lane Width (ft)	8				
Shoulder Width Right (ft)	NC				
Shoulder Width Left (ft)	NC				
Roadway Condition Information					
SCR (Surface Condition Rating)	84				
PCR (Pavement Condition Rating)	85				
Distress Index Values					
Alligator Cracking Index	100				
Longitudinal Cracking Index	100				
Tranverse Cracking Index	99				
Patching Index	100				
Rutting Index	84				
Roughness Condition Index (RCI)	91				



**ROUTE: 0207 FIERY FURNACE ROAD ARCH: ARCHES NATIONAL PARK** 

***************************************			TOTAL	T ENGETT	0.24.7.50	
INTERMOUNTAIN REGION			TOTAL	LENGTH:	0.31 Miles	
Section Number	0					
Section Length (mi)	0.31					
Traffic AADT	Traffic data n	nay be found at v	www.efl.fhwa.do	t.gov		
SADT	Click on PROGRAMS / NPS Traffic Data (Note: Not all parks have traffic data)					
ADT Date	(Note: Not all	i parks nave tran	iic data)			
Cross Section Information						
Number of Lanes	2					
Paved Width (ft)	18					
Lane Width (ft)	11					
Shoulder Width Right (ft)	NC					
Shoulder Width Left (ft)	NC					
Roadway Condition Information						
SCR (Surface Condition Rating)	80					
PCR (Pavement Condition Rating)	80					
Distress Index Values						
Alligator Cracking Index	100					
Longitudinal Cracking Index	99					
Tranverse Cracking Index	96					
Patching Index	100					
Rutting Index	85					
Roughness Condition Index (RCI)	81					

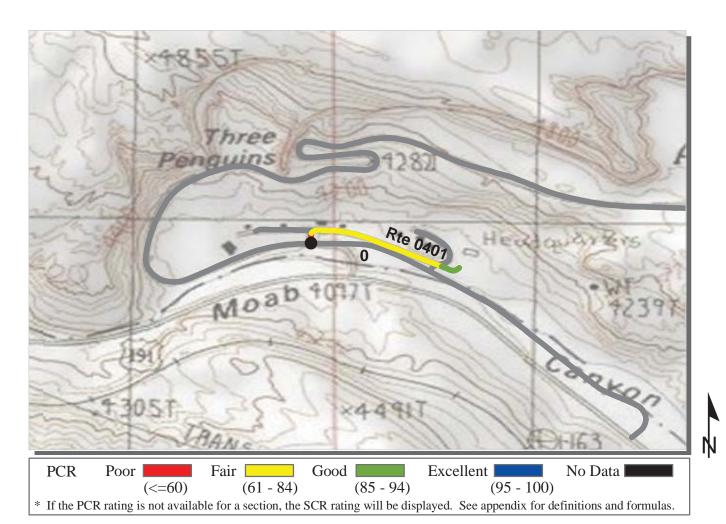


ROUTE: 0208 DEVIL'S GARDEN CAMPGROUND ROAD

**ARCH: ARCHES NATIONAL PARK** 

INTERMOUNTAIN REGION COLLECTED: 10/29/2009
TOTAL LENGTH: 0.78 Miles

INTERMOUNTAIN REGION	MOUNTAIN REGION			TOTAL LENGTH:		
Section Number	0					
Section Length (mi)	0.78					
Traffic AADT SADT	Traffic data may be found at www.efl.fhwa.dot.gov Click on PROGRAMS / NPS Traffic Data (Note: Not all parks have traffic data)					
ADT Date						
Cross Section Information						
Number of Lanes	2					
Paved Width (ft)	17					
Lane Width (ft)	8					
Shoulder Width Right (ft)	NC					
Shoulder Width Left (ft)	NC					
Roadway Condition Information						
SCR (Surface Condition Rating)	75					
PCR (Pavement Condition Rating)	73					
Distress Index Values						
Alligator Cracking Index	100					
Longitudinal Cracking Index	98					
Tranverse Cracking Index	92					
Patching Index	100					
Rutting Index	85					
Roughness Condition Index (RCI)	68					

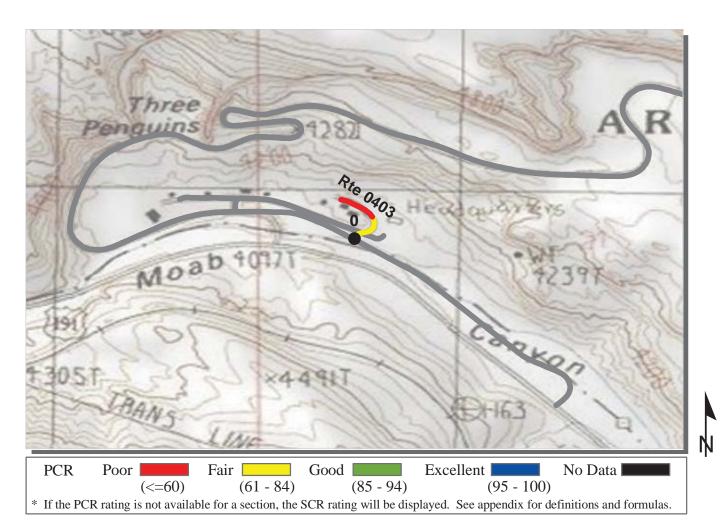


ROUTE: 0401 ADMINISTRATIVE MAINTENANCE ROAD

**ARCH: ARCHES NATIONAL PARK** 

COLLECTED: 10/29/2009
INTERMOUNTAIN REGION TOTAL LENGTH: 0.27 Miles

ERMOUNTAIN REGION			LENGTH:	<b>0.27 Miles</b>	
0					
0.27					
Traffic data may be found at www.efl.fhwa.dot.gov Click on PROGRAMS / NPS Traffic Data (Note: Not all parks have traffic data)					
2					
18					
8					
NC					
NC					
83					
83					
100					
100					
100					
100					
83					
NC					
	0.27  Traffic data n Click on PRC (Note: Not all  2 18 8 NC NC 83 83 100 100 100 100 100 83	Traffic data may be found at v Click on PROGRAMS / NPS (Note: Not all parks have traff)  2 18 8 NC NC NC 83 83 100 100 100 100 100 100 83	Traffic data may be found at www.efl.fhwa.do Click on PROGRAMS / NPS Traffic Data (Note: Not all parks have traffic data)  2 18 8 NC NC NC 83 83 100 100 100 100 100 100 83	Traffic data may be found at www.efl.fhwa.dot.gov Click on PROGRAMS / NPS Traffic Data (Note: Not all parks have traffic data)  2 18 8 NC NC NC 83 83 100 100 100 100 100 100 83	

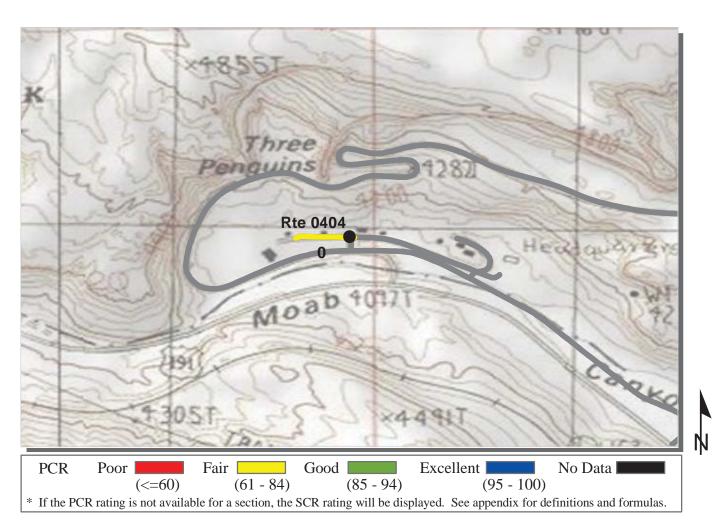


ROUTE: 0403 ARCHES RESIDENCE AREA ROAD

**ARCH: ARCHES NATIONAL PARK** 

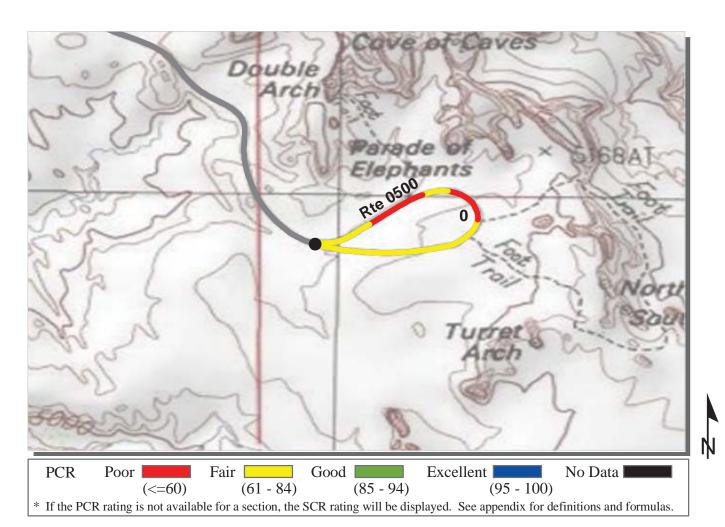
COLLECTED: 10/29/2009
NTERMOUNTAIN REGION TOTAL LENGTH: 0.12 Miles

INTERMOUNTAIN REGION			TOTAL	LENGTH:	0.12 Miles
Section Number	0				
Section Length (mi)	0.12				
Traffic  AADT  SADT  ADT Date	Traffic data may be found at www.efl.fhwa.dot.gov Click on PROGRAMS / NPS Traffic Data (Note: Not all parks have traffic data)				
Cross Section Information					
Number of Lanes	2				
Paved Width (ft)	19				
Lane Width (ft)	9				
Shoulder Width Right (ft)	NC				
Shoulder Width Left (ft)	NC				
Roadway Condition Information					
SCR (Surface Condition Rating)	64				
PCR (Pavement Condition Rating)	58				
Distress Index Values					
Alligator Cracking Index	100				
Longitudinal Cracking Index	100				
Tranverse Cracking Index	94				
Patching Index	100				
Rutting Index	70				
Roughness Condition Index (RCI)	28				



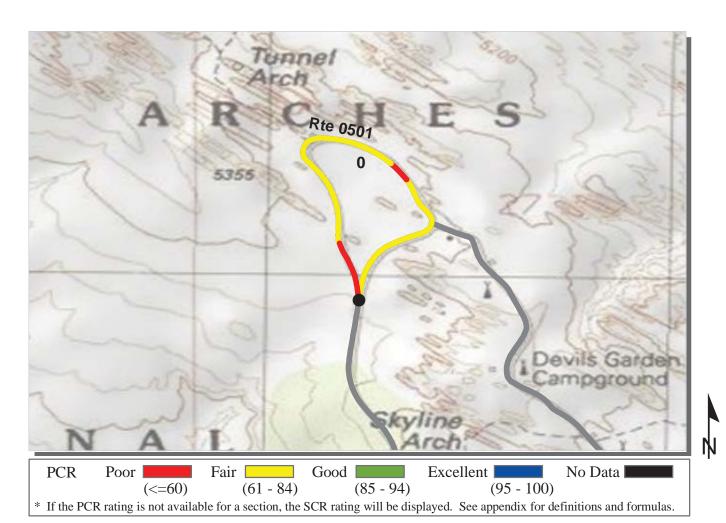
**ROUTE: 0404 ADMINISTRATION ROAD ARCH: ARCHES NATIONAL PARK** 

INTERMOUNTAIN REGION			TOTAL	LENGTH:	<b>0.08 Miles</b>
Section Number	0				
Section Length (mi)	0.08				
Traffic AADT SADT ADT Date	Traffic data may be found at www.efl.fhwa.dot.gov Click on PROGRAMS / NPS Traffic Data (Note: Not all parks have traffic data)				
Cross Section Information					
Number of Lanes	2				
Paved Width (ft)	18				
Lane Width (ft)	8				
Shoulder Width Right (ft)	NC				
Shoulder Width Left (ft)	NC				
Roadway Condition Information					
SCR (Surface Condition Rating)	72				
PCR (Pavement Condition Rating)	72				
Distress Index Values					
Alligator Cracking Index	100				
Longitudinal Cracking Index	100				
Tranverse Cracking Index	97				
Patching Index	100				
Rutting Index	75				
Roughness Condition Index (RCI)	NC				



ROUTE: 0500 WINDOWS LOOP ROAD ARCH: ARCHES NATIONAL PARK

INTERMOUNTAIN REGION			TOTAL	LENGTH:	<b>0.59 Miles</b>
Section Number	0				
Section Length (mi)	0.59				
Traffic AADT SADT ADT Date	Traffic data may be found at www.efl.fhwa.dot.gov Click on PROGRAMS / NPS Traffic Data (Note: Not all parks have traffic data)				
Cross Section Information					
Number of Lanes	1				
Paved Width (ft)	16				
Lane Width (ft)	11				
Shoulder Width Right (ft)	NC				
Shoulder Width Left (ft)	NC				
Roadway Condition Information					
SCR (Surface Condition Rating)	52				
PCR (Pavement Condition Rating)	62				
Distress Index Values					
Alligator Cracking Index	100				
Longitudinal Cracking Index	92				
Tranverse Cracking Index	90				
Patching Index	100				
Rutting Index	70				
Roughness Condition Index (RCI)	77				



**ROUTE: 0501 DEVIL'S GARDEN LOOP ARCH: ARCHES NATIONAL PARK** 

		001	ELLCTLD.	10/2//200/		
INTERMOUNTAIN REGION			TOTAL	LENGTH:	<b>0.81 Miles</b>	
Section Number	0					
Section Length (mi)	0.81					
Traffic						
AADT	Traffic data may be found at www.efl.fhwa.dot.gov Click on PROGRAMS / NPS Traffic Data					
SADT		l parks have traff				
ADT Date	(110te: 110t ar	parks have train	ie data)			
Cross Section Information						
Number of Lanes	1					
Paved Width (ft)	16					
Lane Width (ft)	12					
Shoulder Width Right (ft)	NC					
Shoulder Width Left (ft)	NC					
Roadway Condition Information						
SCR (Surface Condition Rating)	58					
PCR (Pavement Condition Rating)	66					
Distress Index Values						
Alligator Cracking Index	100					
Longitudinal Cracking Index	94					
Tranverse Cracking Index	91					
Patching Index	100					
Rutting Index	73					
Roughness Condition Index (RCI)	78					

# **Arches National Park**



Section 6
Manually Rated Paved Route
Condition Rating Sheets (MRR)

# **Section 6: Manually Rated Paved Route Condition Rating Sheets**

No data available for this section.

# Arches National Park



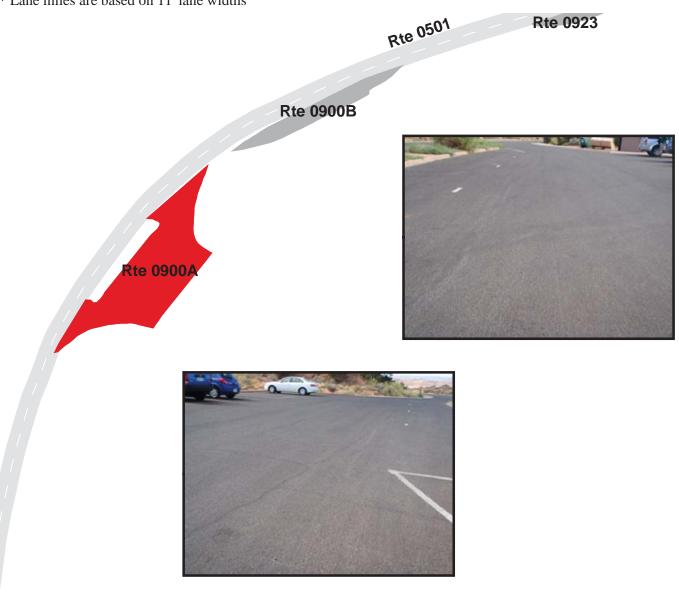
Section 7
Parking Area Condition Rating Sheets

## ARCHES NATIONAL PARK Route 0900A

DEVIL'S GARDEN PICNIC PARKING A FROM ROUTE 0501 (DEVIL'S GARDEN LOOP) TO ROUTE 0501 (DEVIL'S GARDEN LOOP)

Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0900A	PUBLIC	8/25/2009		8,588	0.15	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				CONCRETE CURB		
0	0	0	0	AND GUTTER	NO CURB	GOOD/90

<sup>\*</sup> Lane miles are based on 11' lane widths



150

75

150

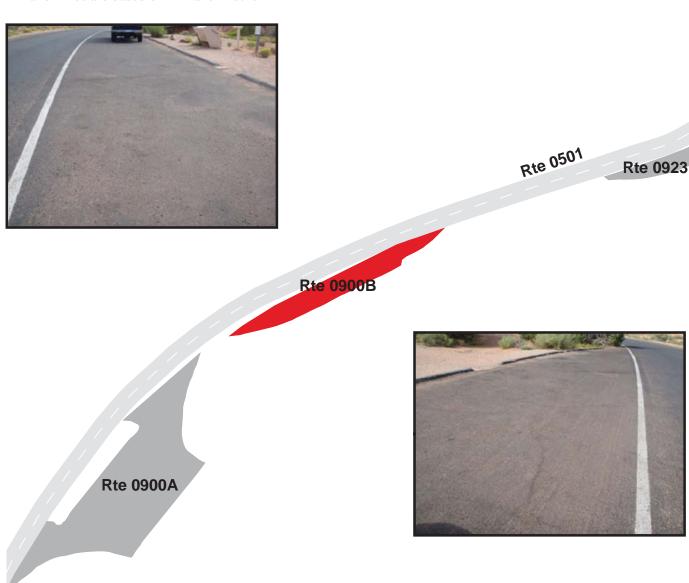
Feet

## ARCHES NATIONAL PARK Route 0900B

#### DEVIL'S GARDEN PICNIC PARKING B ADJACENT TO ROUTE 0501 (DEVIL'S GARDEN LOOP) AT MP 0.13

Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0900B	PUBLIC	8/25/2009		2,403	0.04	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND	ASPHALT	
0	0	0	0	GUTTER	CURB	GOOD/90

<sup>\*</sup> Lane miles are based on 11' lane widths



120

## ARCHES NATIONAL PARK Route 0901A

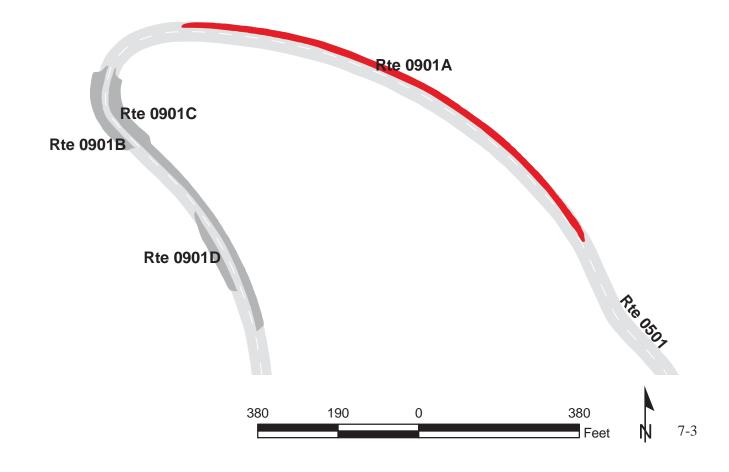
# DEVIL'S GARDEN PARKING A ADJACENT TO ROUTE 0501 (DEVIL'S GARDEN LOOP) AT MP .38 ON RIGHT

Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0901A	PUBLIC	8/25/2009		13,619	0.23	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND		
0	0	0	0	GUTTER	NO CURB	GOOD/90

<sup>\*</sup> Lane miles are based on 11' lane widths







# ARCHES NATIONAL PARK Route 0901B

#### DEVIL'S GARDEN PARKING B

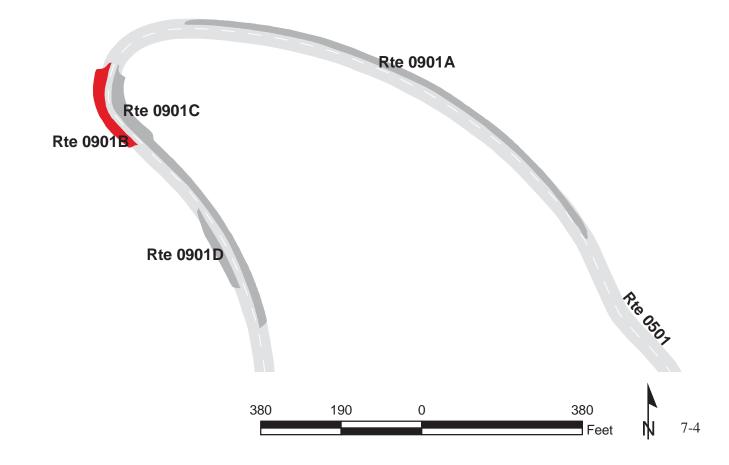
ADJACENT TO ROUTE 0501 (DEVIL'S GARDEN LOOP) AT MP 0.51 ON RIGHT

Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0901B	PUBLIC	8/25/2009		4,194	0.07	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				CONCRETE CURB		
0	0	0	0	AND GUTTER	NO CURB	GOOD/90

<sup>\*</sup> Lane miles are based on 11' lane widths







## ARCHES NATIONAL PARK Route 0901C

# DEVIL'S GARDEN PARKING C

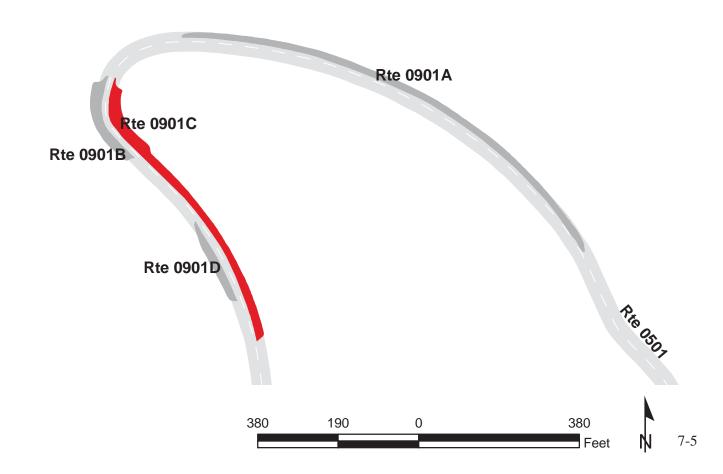
ADJACENT TO ROUTE 0501 (DEVIL'S GARDEN LOOP) AT MP 0.56 ON LEFT

Route	Public /					
Number	NonPublic	Date	Visited	Area (sq ft)	Lane Miles *	Surface Type
0901C	PUBLIC	8/2.	5/2009	11,604	0.20	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				CONCRETE CURB	ASPHALT	
0	0	0	0	AND GUTTER	CURB	GOOD/90

<sup>\*</sup> Lane miles are based on 11' lane widths







## ARCHES NATIONAL PARK Route 0901D

#### DEVIL'S GARDEN PARKING D

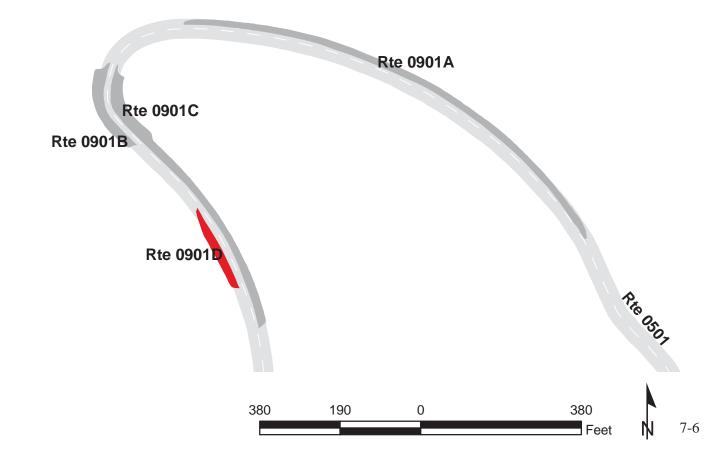
ADJACENT TO ROUTE 0501 (DEVIL'S GARDEN LOOP) AT MP 0.59 ON RIGHT

Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0901D	PUBLIC	8/25/2009		2,892	0.05	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND		
0	0	0	0	GUTTER	NO CURB	GOOD/90

<sup>\*</sup> Lane miles are based on 11' lane widths





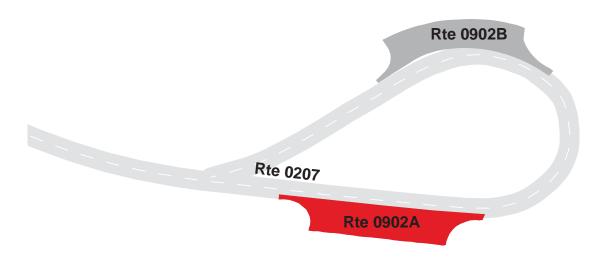


# ARCHES NATIONAL PARK Route 0902A

# FIERY FURNACE PARKING A ADJACENT TO ROUTE 0207 (FIERY FURNACE ROAD)

Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0902A	PUBLIC	8/25/2009		3,452	0.06	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				CONCRETE CURB		
0	0	0	0	AND GUTTER	NO CURB	FAIR/73

<sup>\*</sup> Lane miles are based on 11' lane widths





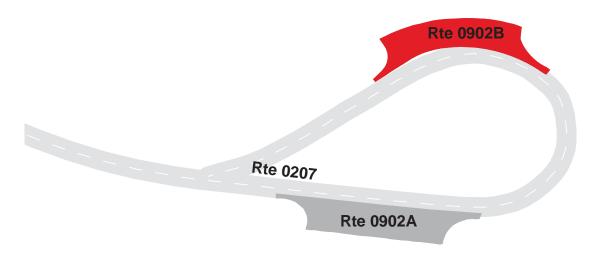


# ARCHES NATIONAL PARK Route 0902B

# FIERY FURNACE PARKING B ADJACENT TO ROUTE 0207 (FIERY FURNACE ROAD)

Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0902B	PUBLIC	8/25/2009		3,088	0.05	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				CONCRETE CURB		
0	0	0	0	AND GUTTER	NO CURB	FAIR/73

<sup>\*</sup> Lane miles are based on 11' lane widths







#### SALT VALLEY OVERLOOK PARKING

ADJACENT TO ROUTE 0206 (SALT VALLEY OVERLOOK ROAD)

Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0903	PUBLIC	8/2.	5/2009	3,054	0.05	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				CONCRETE CURB		
0	0	0	0	AND GUTTER	NO CURB	GOOD/90

<sup>\*</sup> Lane miles are based on 11' lane widths







## ARCHES NATIONAL PARK Route 0904A

#### WOLFE RANCH PARKING NORTH

FROM ROUTE 0100 (DELICATE ARCH ROAD) ON LEFT TO ROUTE 0100 (DELICATE ARCH ROAD)

Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0904A	PUBLIC	8/2.	5/2009	24,573	0.42	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND		
0	0	0	0	GUTTER	NO CURB	GOOD/90

<sup>\*</sup> Lane miles are based on 11' lane widths







Rte 0100



## ARCHES NATIONAL PARK Route 0904B

#### WOLFE RANCH PARKING SOUTH

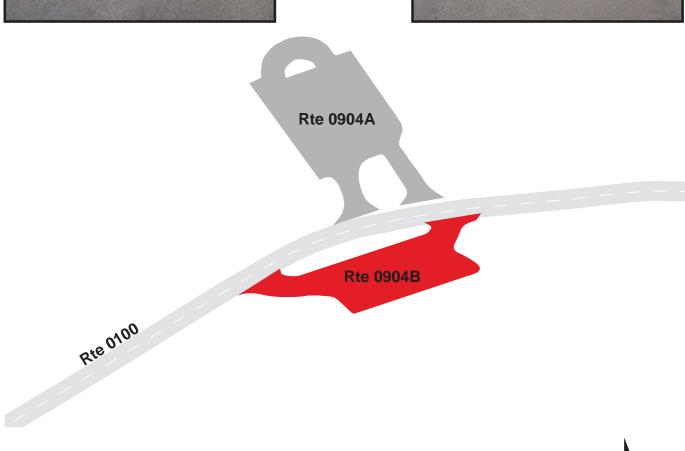
FROM ROUTE 0100 (DELICATE ARCH ROAD) ON RIGHT TO ROUTE 0100 (DELICATE ARCH ROAD)

Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0904B	PUBLIC	8/2	5/2009	14,857	0.26	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND		
2	0	0	0	GUTTER	NO CURB	GOOD/90

<sup>\*</sup> Lane miles are based on 11' lane widths







# DELICATE ARCH ROAD VIEWPOINT PARKING FROM END OF ROUTE 0100 (DELICATE ARCH ROAD ) TO PARKING

Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0905	PUBLIC	8/2	5/2009	56,768	0.98	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				CONCRETE CURB		
0	0	0	0	AND GUTTER	NO CURB	EXCELLENT/97

<sup>\*</sup> Lane miles are based on 11' lane widths





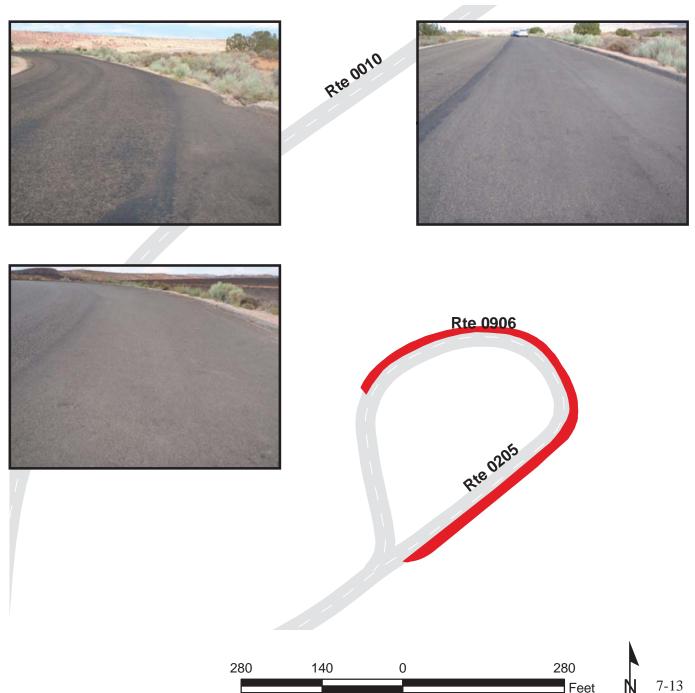


#### PANORAMA POINT PARKING

ADJACENT TO ROUTE 0205 (PANORAMA OVERLOOK ROAD) AT END LOOP

Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0906	PUBLIC	8/2.	5/2009	10,745	0.19	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND	ASPHALT	
0	0	0	0	GUTTER	CURB	GOOD/90

<sup>\*</sup> Lane miles are based on 11' lane widths



#### GARDEN OF EDEN PARKING

#### FROM END OF ROUTE 0204 (GARDEN OF EDEN OVERLOOK ROAD) TO PARKING

Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0907	PUBLIC	8/2.	5/2009	10,329	0.18	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				CONCRETE CURB		
0	1	0	0	AND GUTTER	NO CURB	GOOD/90

<sup>\*</sup> Lane miles are based on 11' lane widths



120

60

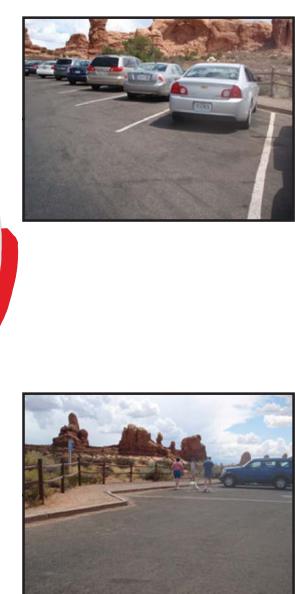
# ARCHES NATIONAL PARK Route 0908A

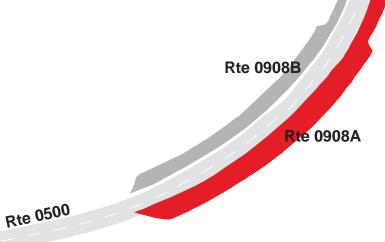
#### WINDOWS PARKING A

ADJACENT TO ROUTE 0500 (WINDOWS LOOP ROAD) ON RIGHT

Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0908A	PUBLIC	8/2	5/2009	6,783	0.12	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				CONCRETE CURB		
0	0	0	0	AND GUTTER	NO CURB	GOOD/90

<sup>\*</sup> Lane miles are based on 11' lane widths





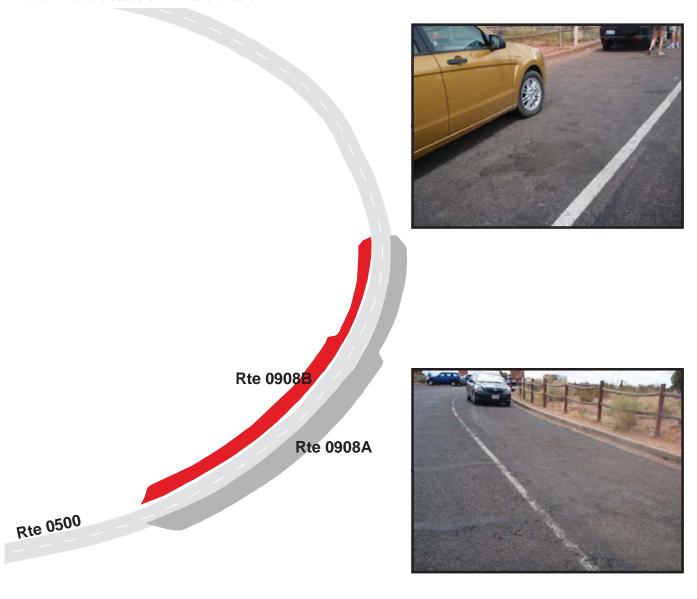
# ARCHES NATIONAL PARK Route 0908B

#### WINDOWS PARKING B

ADJACENT TO ROUTE 0500 (WINDOWS LOOP ROAD) ON LEFT

Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0908B	PUBLIC	8/2	5/2009	4,007	0.07	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				CONCRETE CURB		
0	0	0	0	AND GUTTER	NO CURB	GOOD/90

<sup>\*</sup> Lane miles are based on 11' lane widths

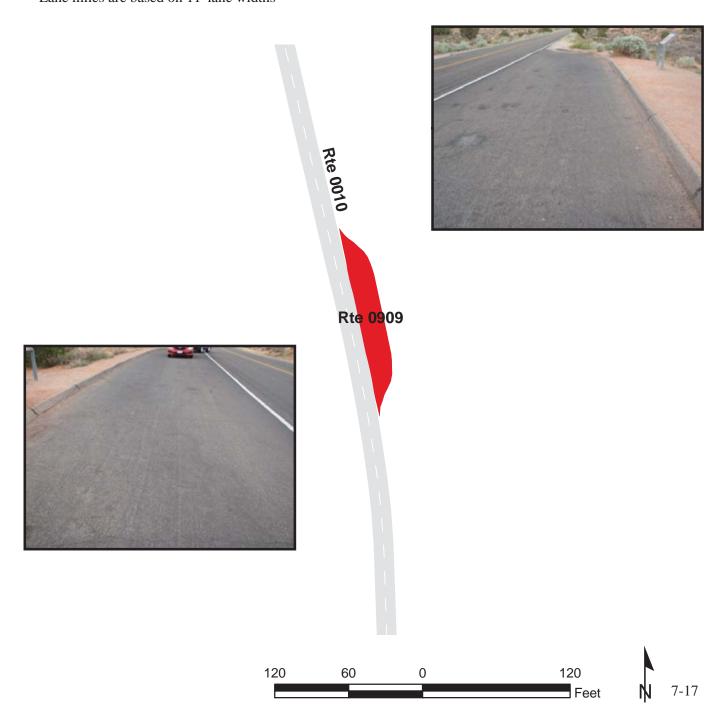


#### PETRIFIED DUNES PARKING

ADJACENT TO ROUTE 0010 (MAIN PARK ROAD) AT MP 6.81

Route	Public /					
Number	NonPublic	Date	Visited	Area (sq ft)	Lane Miles *	Surface Type
0909	PUBLIC	8/2	5/2009	1,901	0.03	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND	ASPHALT	
0	0	0	0	GUTTER	CURB	FAIR/73

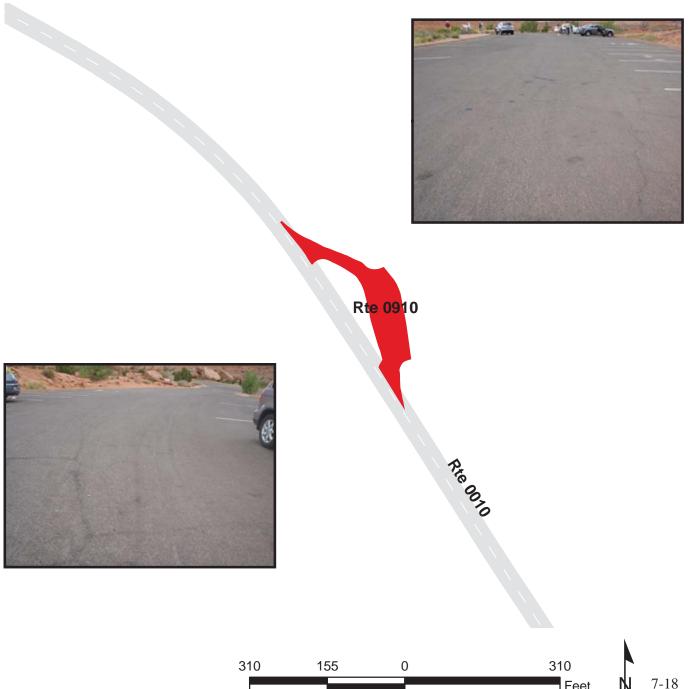
<sup>\*</sup> Lane miles are based on 11' lane widths



#### COURTHOUSE TOWERS PARKING ADJACENT TO ROUTE 0010 (MAIN PARK ROAD) AT MP 4.37

Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0910	PUBLIC	8/2.	5/2009	14,726	0.25	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				CONCRETE CURB		
0	0	0	0	AND GUTTER	NO CURB	FAIR/73

<sup>\*</sup> Lane miles are based on 11' lane widths

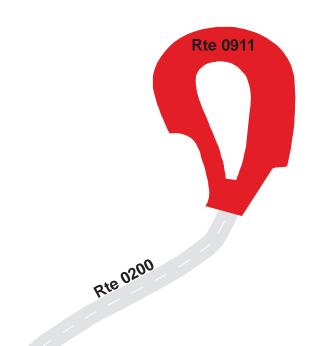


#### LA SAL MOUNTAIN VIEW PARKING

FROM END OF ROUTE 0200 (LA SAL MOUNTAIN VIEW ROAD)  ${\rm TO\ PARKING}$ 

Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0911	PUBLIC	8/2.	5/2009	16,555	0.29	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				CONCRETE CURB		
0	0	0	0	AND GUTTER	NO CURB	GOOD/90

<sup>\*</sup> Lane miles are based on 11' lane widths









#### PARK AVENUE PARKING

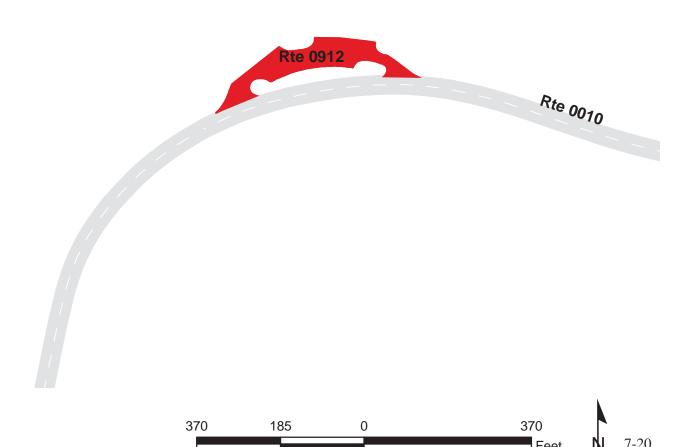
ADJACENT TO ROUTE 0010 (MAIN PARK ROAD) AT MP 3.02

Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0912	PUBLIC	8/2.	5/2009	16,960	0.29	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				CONCRETE CURB		
0	0	0	0	AND GUTTER	NO CURB	GOOD/90

<sup>\*</sup> Lane miles are based on 11' lane widths







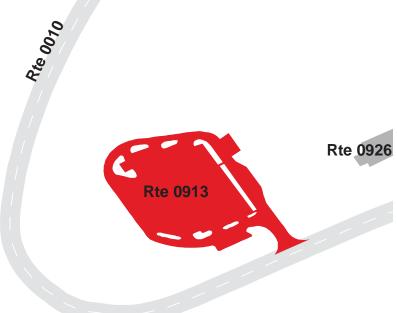
#### VISITOR CENTER PARKING

FROM ROUTE 0010 (MAIN PARK ROAD) AT MP 0.85 TO PARKING

Route	Public /					
Number	NonPublic	Date	Visited	Area (sq ft)	Lane Miles *	Surface Type
0913	PUBLIC	8/2	5/2009	73,846	1.27	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				CONCRETE CURB		
0	6	0	1	AND GUTTER	NO CURB	GOOD/90

<sup>\*</sup> Lane miles are based on 11' lane widths







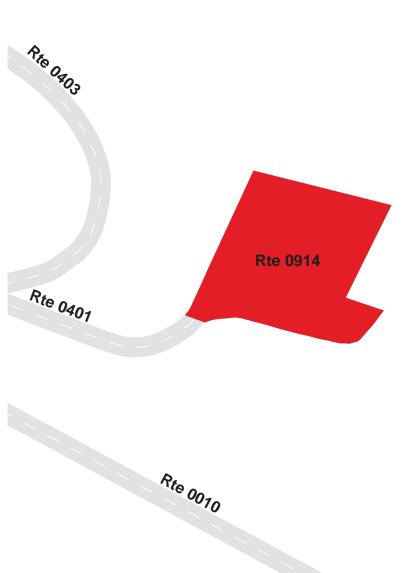


#### MAINTENANCE PARKING

# FROM END OF ROUTE 0401 (ADMINISTRATIVE MAINTENANCE ROAD) TO PARKING

Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0914	PUBLIC	8/25/2009		18,586	0.32	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND		
0	0	1	0	GUTTER	NO CURB	GOOD/90

<sup>\*</sup> Lane miles are based on 11' lane widths







#### BALANCED ROCK PARKING

FROM ROUTE 0010 (MAIN PARK ROAD) TO ROUTE 0010 (MAIN PARK ROAD)

Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0915	PUBLIC	8/25/2009		13,406	0.23	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				CONCRETE CURB		
0	1	0	0	AND GUTTER	NO CURB	GOOD/90

<sup>\*</sup> Lane miles are based on 11' lane widths



Rte 0915

Rte 0010





## SAND DUNES ARCH PARKING

ADJACENT TO ROUTE 0010 (MAIN PARK ROAD) AT MP 16.79

Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0916	PUBLIC	8/2	5/2009	5,894	0.10	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND	ASPHALT	
0	0	0	0	GUTTER	CURB	GOOD/90

<sup>\*</sup> Lane miles are based on 11' lane widths





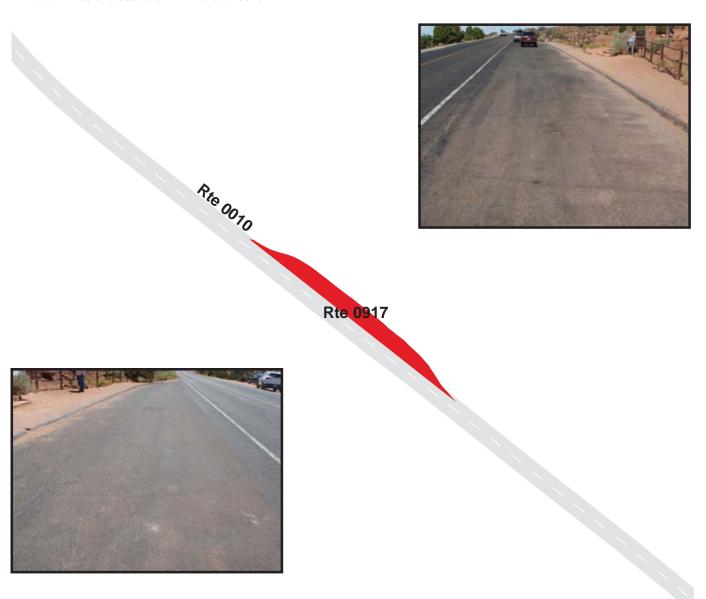




# SKYLINE ARCH TRAILHEAD PARKING ADJACENT TO ROUTE 0010 (MAIN PARK ROAD) AT MP 17.53

Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0917	PUBLIC	8/2	5/2009	3,040	0.05	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND	ASPHALT	
0	0	0	0	GUTTER	CURB	FAIR/73

<sup>\*</sup> Lane miles are based on 11' lane widths



160

80

160

## CAMPGROUND REGISTRATION PARKING

ADJACENT TO ROUTE 0208 (DEVIL'S GARDEN CAMPGROUND ROAD)

Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0918	PUBLIC	8/2	5/2009	1,122	0.02	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND	CONCRETE	
0	0	0	0	GUTTER	CURB	GOOD/90

<sup>\*</sup> Lane miles are based on 11' lane widths

Ate 0507



Rte 0208

Rte 0918

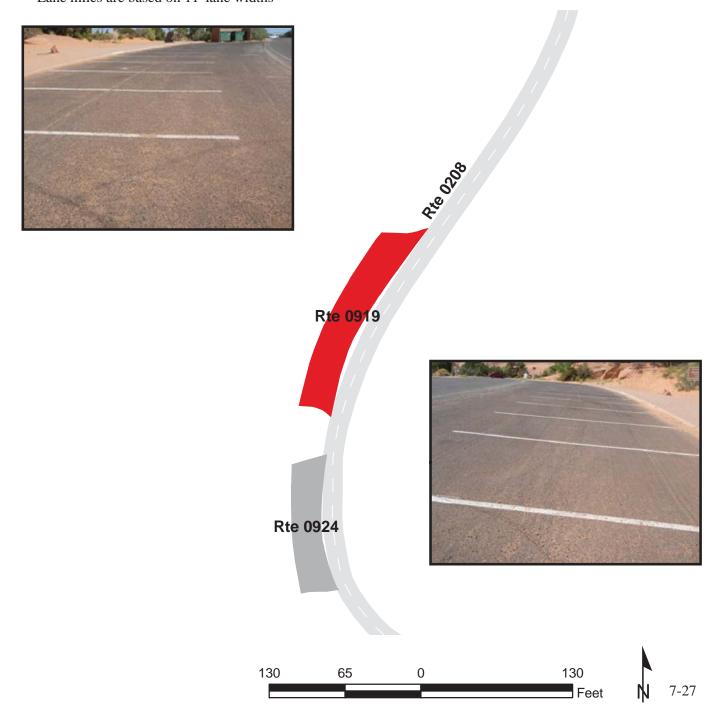
Rte 0923



# CANYON WREN GROUP CAMPGROUND PARKING ADJACENT TO ROUTE 0208 (DEVIL'S GARDEN CAMPGROUND ROAD)

Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0919	PUBLIC	8/2.	5/2009	3,867	0.07	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND	CONCRETE	
0	0	0	0	GUTTER	CURB	GOOD/90

<sup>\*</sup> Lane miles are based on 11' lane widths



#### RESIDENTIAL PARKING

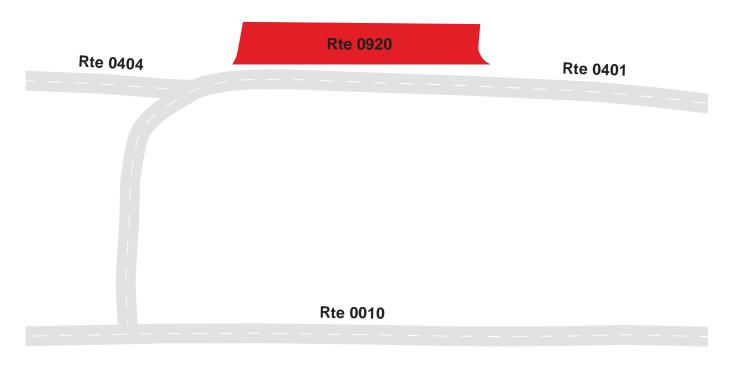
ADJACENT TO ROUTE 0401 (ADMINISTRATIVE MAINTENANCE ROAD)

Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0920	NONPUBLIC	8/25/2009		2,361	0.04	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				CONCRETE CURB		
0	0	0	0	AND GUTTER	NO CURB	GOOD/90

<sup>\*</sup> Lane miles are based on 11' lane widths





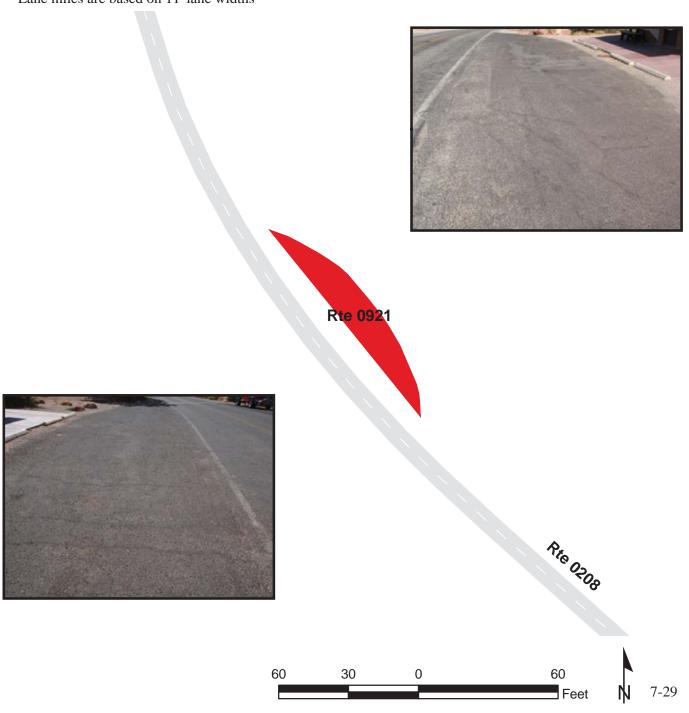


#### CAMPGROUND RESTROOM PARKING

ADJACENT TO ROUTE 0208 (DEVIL'S GARDEN CAMPGROUND ROAD)

Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0921	PUBLIC	8/2.	5/2009	849	0.02	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND		
0	0	0	0	GUTTER	NO CURB	POOR/45

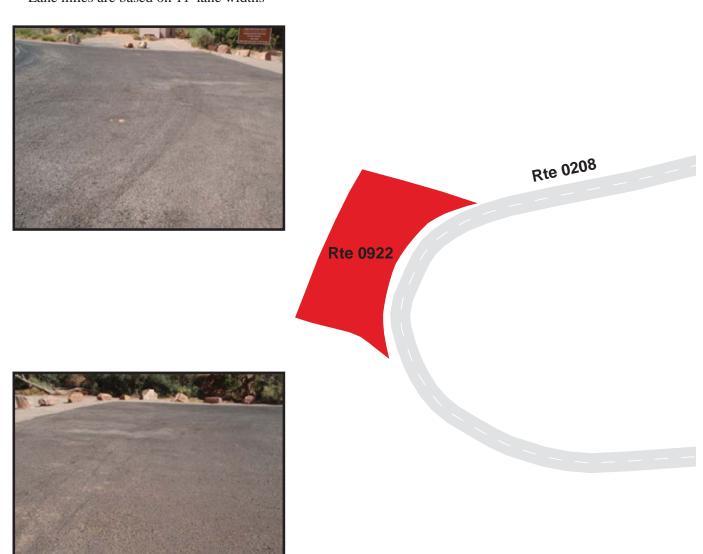
<sup>\*</sup> Lane miles are based on 11' lane widths



# JUNIPER BASIN GROUP CAMPGROUND PARKING ADJACENT TO ROUTE 0208 (DEVIL'S GARDEN CAMPGROUND ROAD)

Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0922	PUBLIC	8/2.	5/2009	2,109	0.04	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND		
0	0	0	0	GUTTER	NO CURB	GOOD/90

<sup>\*</sup> Lane miles are based on 11' lane widths

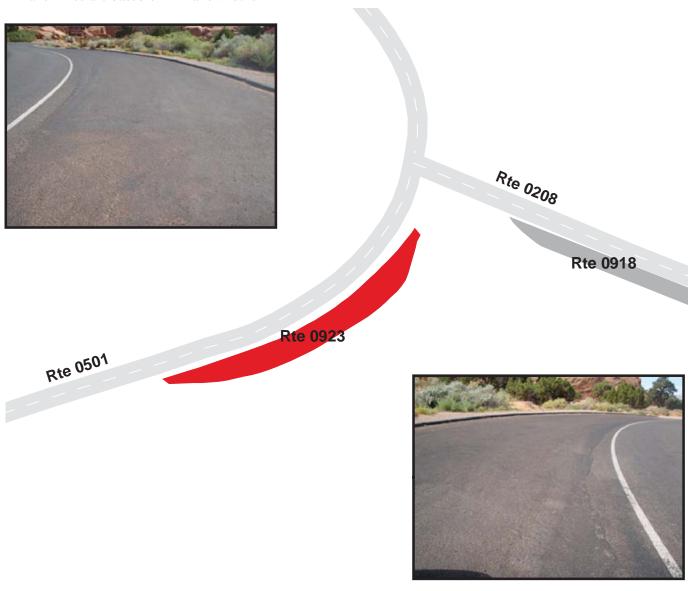


## CAMPGROUND PARKING

ADJACENT TO ROUTE 0501 (DEVIL'S GARDEN LOOP)

Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0923	PUBLIC	8/2	5/2009	1,999	0.03	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND	ASPHALT	
0	0	0	0	GUTTER	CURB	GOOD/90

<sup>\*</sup> Lane miles are based on 11' lane widths



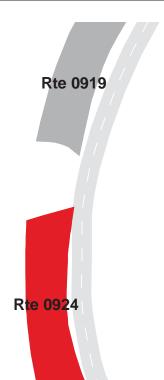
#### AMPHITHEATER PARKING

ADJACENT TO ROUTE 0208 (DEVIL'S GARDEN CAMPGROUND ROAD)

Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0924	PUBLIC	8/25/2009		2,449	0.04	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND	CONCRETE	
0	0	0	0	GUTTER	CURB	GOOD/90

<sup>\*</sup> Lane miles are based on 11' lane widths







Rte 0208

## ARCHES NATIONAL PARK **Route 0925A**

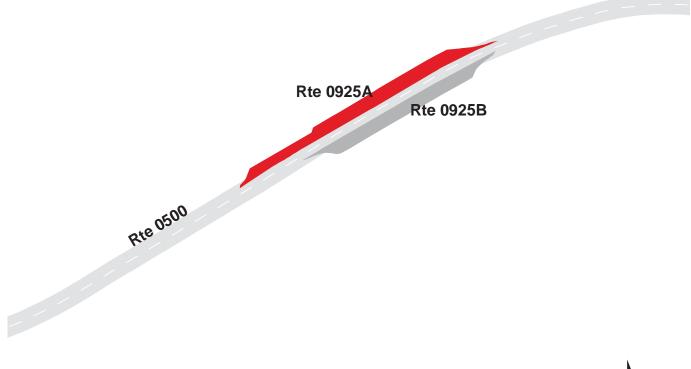
#### DOUBLE ARCH PARKING A ADJACENT TO ROUTE 0500 (WINDOWS LOOP ROAD) ON RIGHT

Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0925A	PUBLIC	8/2.	5/2009	6,307	0.11	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				CONCRETE CURB		
0	1	0	0	AND GUTTER	NO CURB	GOOD/90

<sup>\*</sup> Lane miles are based on 11' lane widths







## ARCHES NATIONAL PARK Route 0925B

#### DOUBLE ARCH PARKING B

ADJACENT TO ROUTE 0500 (WINDOWS LOOP ROAD) ON LEFT

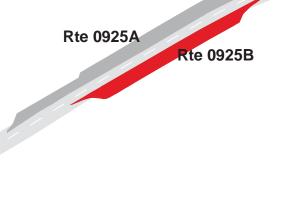
Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0925B	PUBLIC	8/25/2009		4,747	0.08	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				CONCRETE CURB		
0	0	0	0	AND GUTTER	NO CURB	GOOD/90

<sup>\*</sup> Lane miles are based on 11' lane widths



Rte 0500





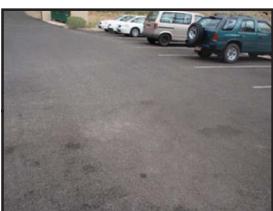


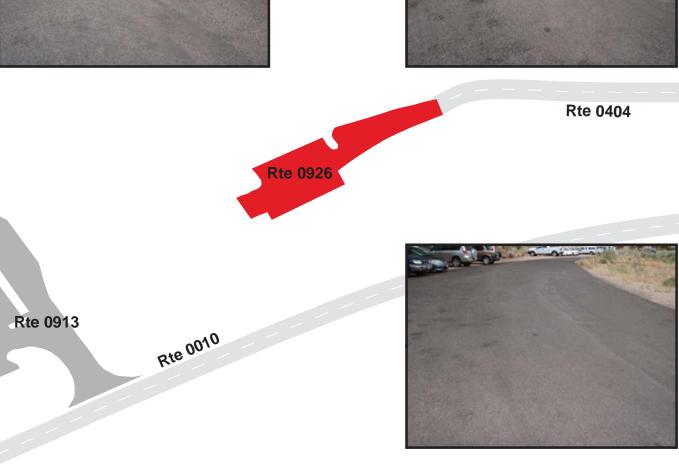
#### VISITOR CENTER STAFF PARKING FROM END OF ROUTE 0404 (ADMINISTRATION ROAD) TO PARKING

Route	Public /					
Number	NonPublic	Date	Visited	Area (sq ft)	Lane Miles *	Surface Type
0926	NONPUBLIC	8/25/2009		9,000	0.16	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				CONCRETE CURB		
0	0	0	0	AND GUTTER	NO CURB	FAIR/73

<sup>\*</sup> Lane miles are based on 11' lane widths







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#### ADMINISTRATIVE PARKING

ADJACENT TO ROUTE 0404 (ADMINISTRATION ROAD)

Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0927	NONPUBLIC	8/25/2009		1,354	0.02	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND		
0	0	0	1	GUTTER	NO CURB	FAIR/73

<sup>\*</sup> Lane miles are based on 11' lane widths





Rte 0404

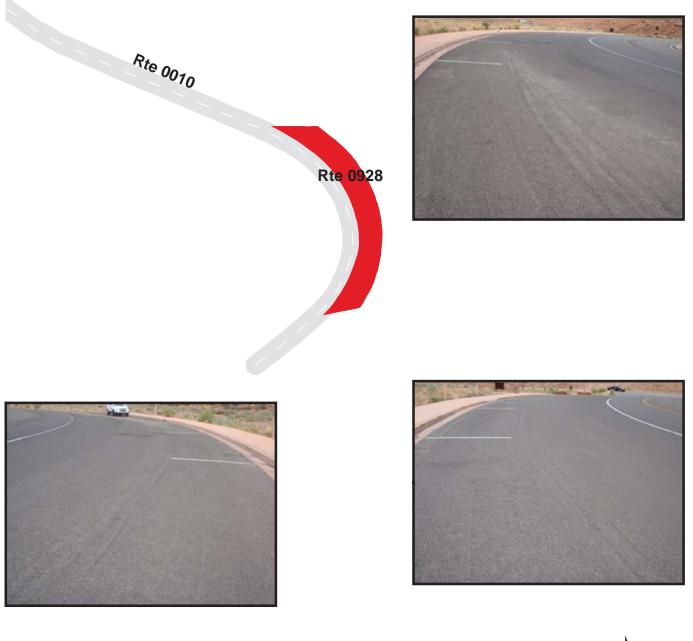
Rte 0927



#### ENTRANCE ROAD PARKING ADJACENT TO ROUTE 0010 (MAIN PARK ROAD)

Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0928	NONPUBLIC	8/25/2009		9,545	0.16	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				CONCRETE CURB		
0	1	0	0	AND GUTTER	NO CURB	GOOD/90

<sup>\*</sup> Lane miles are based on 11' lane widths



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## Arches National Park



Section 8
Parkwide / Route Maintenance
Features Summaries

#### ARCH: PARKWIDE MAINTENANCE FEATURES SUMMARY

Notice: Drop Inlets along ARAN-driven routes were NOT marked by NPS nor were they inventoried by RIP. Culverts that lack a BIP assigned Structure Number along ARAN-driven routes were NOT marked by NPS nor were they inventoried by RIP. Culverts that have a BIP assigned Structure Number along ARAN-driven routes were inventoried by RIP. Culverts and Drop Inlets that are associated with Manually Rated Routes and Paved Parking Areas are included in the Cycle 4 counts. To view the Cycle 3 culvert and drop inlet inventory, please refer to the Cycle 3 RIP Report.

FEATURE	LINEAR FEET	COUNT		
BARRIER	17,588			
BOLLARD	17,060			
BRIDGE		1		
CABLE	0			
CATTLE GUARD		0		
CULVERT		4		
CURB	32,810			
DROP INLET		10		
FIRE HYDRANT		8		
GATE		5		
GUARD/GUIDE RAIL	433			
GUARD/GUIDE WALL	17,155			
INTERSECTION		113		
LOW WATER CROSSING	190	5		
MILE MARKER		34		
OVERPASS		0		
OVERHEAD SIGN		0		
PARK BOUNDARY		0		
PAVED DITCH	3,876			
PULLOUT		24		
RAILROAD CROSSING		0		
RETAINING WALL	0	0		
SIGN		315		
STATE BOUNDARY		0		
TEMPORARY BARRIER	0			
TRAFFIC LIGHT		0		
TUNNEL	0	0		
TURNOUT	0			

ARCH: ROUTE MAINTENANCE FEATURES SUMMARY

ROUTE 0010  MAIN PARK ROAD  ROUTE 0011  WINDOWS ROAD  ROUTE 0100  DELICATE ARCH ROAD  ROUTE 0200  LA SAL MOUNTAIN VIEW ROAD  ROUTE 0204  GARDEN OF EDEN OVERLOOK  ROAD  ROUTE 0205  PANORAMA OVERLOOK ROAD	U <b>NIT</b>
	LINEAR FEET
	LINEAR FEET
	EACH
	LINEAR FEET
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PAVED DITCH 3,876 0 0 0 0 0 L	LINEAR FEET
	EACH
	EACH
	EACH
	LINEAR FEET
	EACH
	EACH
	LINEAR FEET
	EACH
	EACH
	LINEAR FEET
TURNOUT 0 0 0 0 0 0 1	LINEAR FEET

Notice: Drop Inlets along ARAN-driven routes were NOT marked by NPS nor were they inventoried by RIP. Culverts that lack a BIP assigned Structure Number along ARAN-driven routes were NOT marked by NPS nor were they inventoried by RIP. Culverts that have a BIP assigned Structure Number along ARAN-driven routes were inventoried by RIP. Culverts and Drop Inlets that are associated with Manually Rated Routes and Paved Parking Areas are included in the Cycle 4 counts. To view the Cycle 3 culvert and drop inlet inventory, please refer to the Cycle 3 RIP Report.

ARCH: ROUTE MAINTENANCE FEATURES SUMMARY

FEATURE	ROUTE 0206 SALT VALLEY OVERLOOK ROAD	ROUTE 0207 FIERY FURNACE ROAD	ROUTE 0208 DEVIL'S GARDEN CAMPGROUND ROAD	ROUTE 0401 ADMINISTRATIVE MAINTENANCE ROAD	ROUTE 0403 ARCHES RESIDENCE AREA ROAD	ROUTE 0404 ADMINISTRATION ROAD	UNIT
BARRIER	0	0	0	0	0	0	LINEAR FEET
BOLLARD	0	0	0	0	0	0	LINEAR FEET
BRIDGE	0	0	0	0	0	0	EACH
CABLE	0	0	0	0	0	0	LINEAR FEET
CATTLE GUARD	0	0	0	0	0	0	EACH
CULVERT	0	0	0	0	0	0	EACH
CURB	0	127	0	0	0	0	LINEAR FEET
DROP INLET	0	0	0	0	0	0	EACH
FIRE HYDRANT	0	0	0	2	1	2	EACH
GATE	0	0	1	0	0	0	EACH
GUARD/GUIDE RAIL	0	0	0	0	0	0	LINEAR FEET
GUARD/GUIDE WALL	0	0	0	0	0	0	LINEAR FEET
INTERSECTION	6	7	11	7	5	5	EACH
LOW WATER CROSSING	0	0	0	3	0	0	EACH
LOW WATER CROSSING	0	0	0	26	0	0	LINEAR FEET
MILE MARKER	0	0	0	0	0	0	EACH
OVERHEAD SIGN	0	0	0	0	0	0	EACH
OVERPASS	0	0	0	0	0	0	EACH
PARK BOUNDARY	0	0	0	0	0	0	EACH
PAVED DITCH	0	0	0	0	0	0	LINEAR FEET
PULLOUT	0	0	1	0	0	0	EACH
RAILROAD CROSSING	0	0	0	0	0	0	EACH
RETAINING WALL	0	0	0	0	0	0	EACH
RETAINING WALL	0	0	0	0	0	0	LINEAR FEET
SIGN	2	4	22	8	2	2	EACH
STATE BOUNDARY	0	0	0	0	0	0	EACH
TEMPORARY BARRIER	0	0	0	0	0	0	LINEAR FEET
TRAFFIC LIGHT	0	0	0	0	0	0	EACH
TUNNEL	0	0	0	0	0	0	EACH
TUNNEL	0	0	0	0	0	0	LINEAR FEET
TURNOUT	0	0	0	0	0	0	LINEAR FEET

Notice: Drop Inlets along ARAN-driven routes were NOT marked by NPS nor were they inventoried by RIP. Culverts that lack a BIP assigned Structure Number along ARAN-driven routes were NOT marked by NPS nor were they inventoried by RIP. Culverts that have a BIP assigned Structure Number along ARAN-driven routes were inventoried by RIP. Culverts and Drop Inlets that are associated with Manually Rated Routes and Paved Parking Areas are included in the Cycle 4 counts. To view the Cycle 3 culvert and drop inlet inventory, please refer to the Cycle 3 RIP Report.

### ARCH: ROUTE MAINTENANCE FEATURES SUMMARY

FEATURE	ROUTE 0500 WINDOWS LOOP ROAD	ROUTE 0501 DEVIL'S GARDEN LOOP	UNIT
BARRIER	11	0	LINEAR FEET
BOLLARD	11	0	LINEAR FEET
BRIDGE	0	0	EACH
CABLE	0	0	LINEAR FEET
CATTLE GUARD	0	0	EACH
CULVERT	0	0	EACH
CURB	2,249	834	LINEAR FEET
DROP INLET	0	0	EACH
FIRE HYDRANT	0	0	EACH
GATE	0	0	EACH
GUARD/GUIDE RAIL	0	0	LINEAR FEET
GUARD/GUIDE WALL	11	0	LINEAR FEET
INTERSECTION	7	14	EACH
LOW WATER CROSSING	0	0	EACH
LOW WATER CROSSING	0	0	LINEAR FEET
MILE MARKER	0	0	EACH
OVERHEAD SIGN	0	0	EACH
OVERPASS	0	0	EACH
PARK BOUNDARY	0	0	EACH
PAVED DITCH	0	0	LINEAR FEET
PULLOUT	0	0	EACH
RAILROAD CROSSING	0	0	EACH
RETAINING WALL	0	0	EACH
RETAINING WALL	0	0	LINEAR FEET
SIGN	7	21	EACH
STATE BOUNDARY	0	0	EACH
TEMPORARY BARRIER	0	0	LINEAR FEET
TRAFFIC LIGHT	0	0	EACH
TUNNEL	0	0	EACH
TUNNEL	0	0	LINEAR FEET
TURNOUT	0	0	LINEAR FEET

Notice: Drop Inlets along ARAN-driven routes were NOT marked by NPS nor were they inventoried by RIP. Culverts that lack a BIP assigned Structure Number along ARAN-driven routes were NOT marked by NPS nor were they inventoried by RIP. Culverts that have a BIP assigned Structure Number along ARAN-driven routes were inventoried by RIP. Culverts and Drop Inlets that are associated with Manually Rated Routes and Paved Parking Areas are included in the Cycle 4 counts. To view the Cycle 3 culvert and drop inlet inventory, please refer to the Cycle 3 RIP Report.

## ARCH: STRUCTURE LIST

ROUTE	FUNCTIONAL	MILEPOST	MILEPOST		STRUCTURE
NUMBER	CLASS	START	END	FEATURE	NUMBER
0010	1	0.496	0.496	CULVERT	1348-006
0010	1	5.293	5.327	BRIDGE	1348-001
0010	1	13.328	13.328	CULVERT	1348-004

## Arches National Park



Section 9
Park Route Maintenance Features
Road Logs

**ROUTE 0010: MAIN PARK ROAD** 

<u>Notice:</u> Culverts and drop inlets were NOT marked by NPS nor inventoried by RIP in Cycle 4, therefore no culverts or drop inlets are reported in any Road Log. Culverts and drop inlets were inventoried in paved parking areas and can be found in the Parking Lot Condition Rating Sheets (Section 7) and Parkwide Maintenance Features Summary (Section 8).

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM U.S. HIGHWAY 191
0.000	0.000	INTERSECTION	RIGHT	U.S. HIGHWAY 191 (NON NPS)
0.000	0.000	SIGN	N/A	GUIDE, MOAB I-70
0.000	0.000	INTERSECTION	LEFT	U.S. HIGHWAY 191 (NON NPS)
0.003	0.003	SIGN	RIGHT	REGULATORY, STOP
0.020	0.680	CURB-AND-GUTTER	LEFT	
0.026	0.026	SIGN	RIGHT	GUIDE, ARCHES NATIONAL PARK
0.041	0.041	INTERSECTION	RIGHT	ROUTE 0928 (ENTRANCE ROAD PARKING)
0.072	0.072	SIGN	RIGHT	REGULATORY, RIGHT LANE MUST TURN RIGHT
0.080	0.490	CURB-AND-GUTTER	RIGHT	
0.080	0.080	SIGN	RIGHT	GUIDE, U.S. FEE AREA
0.121	0.121	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
0.169	0.169	SIGN	RIGHT	REGULATORY, SPEED LIMIT 25
0.171	0.171	SIGN	RIGHT	REGULATORY, SPEED LIMIT 15
0.207	0.207	SIGN	RIGHT	WARNING, BIGHORN SHEEP CROSSING NEXT 3 MILES
0.207	0.207	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
0.361	0.361	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
0.482	0.482	SIGN	RIGHT	REGULATORY, SPEED LIMIT 15
0.483	0.483	SIGN	RIGHT	REGULATORY, SPEED LIMIT 25
0.489	0.489	SIGN	RIGHT	REGULATORY, AUTHORIZED PERSONNEL ONLY
0.489	0.489	SIGN	RIGHT	REGULATORY, DO NOT ENTER
0.493	0.493	INTERSECTION	RIGHT	ROUTE 0403 (ARCHES RESIDENCE AREA ROAD)
0.496	0.496	CULVERT	N/A	
0.497	0.497	SIGN	RIGHT	REGULATORY, AUTHORIZED PERSONNEL ONLY
0.497	0.497	SIGN	RIGHT	REGULATORY, DO NOT ENTER
0.497	0.680	CURB-AND-GUTTER	RIGHT	
0.585	0.585	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN, NO TEXT
0.593	0.593	SIGN	RIGHT	GUIDE, FIERY FURNACE FEE AREA INQUIRE INSIDE VISITOR CENTER
0.623	0.623	INTERSECTION	LEFT	ROUTE 0010 (MAIN PARK ROAD) OPPOSITE LANE
0.624	0.645	CURB	N/A	

**ROUTE 0010: MAIN PARK ROAD** 

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FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.625	0.645	CURB	LEFT	
0.630	0.630	SIGN	LEFT	REGULATORY, DO NOT ENTER
0.630	0.630	SIGN	N/A	GUIDE, ARCHES NATIONAL PARK ENTRANCE FEES
0.630	0.630	SIGN	LEFT	GUIDE, ARCHES NATIONAL PARK ENTRANCE FEES
0.633	0.633	SIGN	N/A	REGULATORY, STOP
0.633	0.633	SIGN	LEFT	REGULATORY, STOP
0.649	0.649	INTERSECTION	LEFT	ROUTE 0010 (MAIN PARK ROAD) OPPOSITE LANE
0.649	0.649	SIGN	RIGHT	REGULATORY, YIELD
0.649	0.649	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
0.681	0.681	SIGN	RIGHT	REGULATORY, EXIT ONLY
0.681	0.681	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN, NO TEXT
0.693	0.693	INTERSECTION	RIGHT	ROUTE 0401 (ADMINISTRATIVE MAINTENANCE ROAD)
0.706	0.706	SIGN	RIGHT	GUIDE, VISITOR CENTER
0.751	0.751	SIGN	RIGHT	REGULATORY, SPEED LIMIT 15
0.761	0.761	SIGN	RIGHT	WARNING, SLOW CONGESTED AREA
0.788	0.821	CURB-AND-GUTTER	RIGHT	
0.807	0.807	FIRE HYDRANT	RIGHT	
0.808	0.808	SIGN	RIGHT	WARNING, BIGHORN SHEEP CROSSING NEXT 3 MILES
0.808	0.808	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
0.833	0.841	CURB-AND-GUTTER	RIGHT	
0.844	0.844	SIGN	LEFT	GUIDE, VISITOR CENTER HOURS 7:30 AM TO 6:30 PM
0.845	0.845	SIGN	RIGHT	GUIDE, VISITOR CENTER HOURS 7:30 AM TO 6:30 PM
0.846	0.846	INTERSECTION	RIGHT	ROUTE 0913 (VISITOR CENTER PARKING)
0.859	0.859	SIGN	RIGHT	GUIDE, NO TRASH CANS ON ROADSIDES PLEASE TAKE YOUR TRASH BACK OUT WITH YOU
0.861	0.861	GATE	N/A	
0.861	0.861	SIGN	N/A	REGULATORY, ROAD CLOSED
0.861	0.861	SIGN	N/A	REGULATORY, STOP
0.865	0.865	SIGN	RIGHT	REGULATORY, SPEED LIMIT 15
0.879	0.879	SIGN	RIGHT	REGULATORY, SPEED LIMIT 30
0.892	0.892	SIGN	RIGHT	WARNING, 3+ FEET

**ROUTE 0010: MAIN PARK ROAD** 

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FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.892	0.892	SIGN	RIGHT	WARNING, SHARE THE ROAD
0.994	0.994	SIGN	RIGHT	REGULATORY, REDUCED SPEED AHEAD
1.007	1.160	CURB	RIGHT	
1.018	1.152	GUARD/GUIDE WALL	RIGHT	
1.115	1.115	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
1.115	1.115	SIGN	RIGHT	WARNING, 25 M.P.H.
1.144	1.145	GUARD/GUIDE WALL	LEFT	
1.224	1.255	GUARD/GUIDE WALL	LEFT	
1.311	1.311	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
1.321	1.339	GUARD/GUIDE WALL	RIGHT	
1.343	1.406	PULLOUT	RIGHT	
1.356	1.391	CURB	RIGHT	
1.376	1.377	GUARD/GUIDE WALL	LEFT	
1.403	1.479	GUARD/GUIDE WALL	RIGHT	
1.426	1.426	SIGN	RIGHT	WARNING, 15 M.P.H.
1.426	1.426	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
1.562	1.562	SIGN	RIGHT	WARNING, 15 M.P.H.
1.562	1.562	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
1.568	1.616	GUARD/GUIDE WALL	LEFT	
1.578	1.578	SIGN	RIGHT	WARNING, 15 M.P.H.
1.578	1.578	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
1.602	1.602	MILE MARKER	RIGHT	
1.603	1.603	MILE MARKER	LEFT	
1.657	1.658	GUARD/GUIDE WALL	LEFT	
1.665	1.733	GUARD/GUIDE WALL	RIGHT	
1.733	1.733	SIGN	RIGHT	WARNING, 15 M.P.H.
1.733	1.733	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
1.764	1.764	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
1.764	1.764	SIGN	RIGHT	WARNING, BIGHORN SHEEP CROSSING NEXT 3 MILES
1.839	1.940	GUARD/GUIDE WALL	LEFT	

**ROUTE 0010: MAIN PARK ROAD** 

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FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
1.875	2.012	GUARD/GUIDE WALL	RIGHT	
1.965	1.965	SIGN	RIGHT	GUIDE, MOAB FAULT
2.015	2.071	PULLOUT	RIGHT	
2.027	2.069	CURB	RIGHT	
2.158	2.158	SIGN	RIGHT	GUIDE, GATHER NO WOOD IN PARK
2.164	2.164	SIGN	RIGHT	GUIDE, MOAB FAULT
2.179	2.208	GUARD/GUIDE WALL	RIGHT	
2.188	2.227	GUARD/GUIDE WALL	LEFT	
2.190	2.190	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
2.216	2.216	SIGN	RIGHT	GUIDE, CAMP ONLY IN CAMPGROUND
2.269	2.269	SIGN	RIGHT	WARNING, 20 M.P.H.
2.269	2.269	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
2.534	2.534	SIGN	RIGHT	WARNING, BIGHORN SHEEP CROSSING NEXT 3 MILES
2.534	2.534	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
2.558	2.558	SIGN	RIGHT	WARNING, 20 M.P.H.
2.558	2.558	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
2.605	2.605	MILE MARKER	LEFT	
2.605	2.605	MILE MARKER	RIGHT	
2.937	2.937	SIGN	RIGHT	GUIDE, PARK AVENUE
3.020	3.020	INTERSECTION	LEFT	ROUTE 0912 (PARK AVENUE PARKING)
3.072	3.072	INTERSECTION	LEFT	ROUTE 0912 (PARK AVENUE PARKING)
3.147	3.147	SIGN	RIGHT	GUIDE, PARK AVENUE
3.239	3.239	SIGN	RIGHT	REGULATORY, SPEED LIMIT 30
3.269	3.347	PULLOUT	RIGHT	
3.277	3.341	CURB	RIGHT	
3.333	3.333	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
3.367	3.367	SIGN	RIGHT	GUIDE, LASAL MOUNTAIN VIEW POINT
3.410	3.410	INTERSECTION	RIGHT	ROUTE 0200 (LA SAL MOUNTAIN VIEW ROAD)
3.456	3.456	SIGN	RIGHT	GUIDE, LASAL MOUNTAIN VIEW POINT
3.542	3.542	SIGN	RIGHT	WARNING, 500 FEET

**ROUTE 0010: MAIN PARK ROAD** 

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FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
3.542	3.542	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
3.548	3.620	GUARD/GUIDE WALL	RIGHT	
3.564	3.611	GUARD/GUIDE WALL	LEFT	
3.589	3.589	MILE MARKER	RIGHT	
3.589	3.589	MILE MARKER	LEFT	
3.700	3.700	SIGN	RIGHT	REGULATORY, SPEED LIMIT 45
4.014	4.032	CURB	RIGHT	
4.014	4.033	PULLOUT	RIGHT	
4.183	4.183	SIGN	RIGHT	WARNING, 1000 FEET
4.183	4.183	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
4.312	4.312	SIGN	RIGHT	GUIDE, COURTHOUSE TOWERS VIEWPOINT
4.361	4.361	SIGN	RIGHT	GUIDE, UNABLE TO READ FROM VIDEO
4.361	4.361	SIGN	RIGHT	GUIDE, PETS ON LEASH
4.361	4.361	SIGN	RIGHT	GUIDE, PICK UP PARK AVE. HIKERS HERE
4.365	4.365	SIGN	RIGHT	GUIDE, UNABLE TO READ FROM VIDEO
4.372	4.372	INTERSECTION	RIGHT	ROUTE 0910 (COURTHOUSE TOWERS PARKING)
4.427	4.427	INTERSECTION	RIGHT	ROUTE 0910 (COURTHOUSE TOWERS PARKING)
4.461	4.461	SIGN	RIGHT	WARNING, 500 FEET
4.461	4.461	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
4.478	4.478	SIGN	RIGHT	GUIDE, COURTHOUSE TOWERS VIEWPOINT
4.542	4.542	MILE MARKER	RIGHT	
4.543	4.543	MILE MARKER	LEFT	
4.544	4.544	SIGN	RIGHT	WARNING, 40 M.P.H.
4.544	4.544	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
4.770	4.770	SIGN	RIGHT	WARNING, 40 M.P.H.
4.770	4.770	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
5.284	5.284	SIGN	RIGHT	GUIDE, COURTHOUSE WASH
5.285	5.286	GUARD/GUIDE WALL	LEFT	
5.287	5.328	GUARD/GUIDE RAIL	LEFT	
5.289	5.289	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT

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FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
5.289	5.330	GUARD/GUIDE RAIL	RIGHT	
5.293	5.327	BRIDGE	N/A	1348-001 (COURTHOUSE WASH BRIDGE)
5.331	5.375	GUARD/GUIDE WALL	LEFT	
5.339	5.387	GUARD/GUIDE WALL	RIGHT	
5.368	5.368	SIGN	RIGHT	GUIDE, COURTHOUSE WASH
5.376	5.441	PULLOUT	LEFT	
5.548	5.548	MILE MARKER	RIGHT	
5.548	5.548	MILE MARKER	LEFT	
5.679	5.679	SIGN	RIGHT	GUIDE, ENTRADA SANDSTONE
5.858	5.921	CURB	RIGHT	
5.862	5.909	GUARD/GUIDE WALL	RIGHT	
5.865	5.923	GUARD/GUIDE WALL	LEFT	
6.159	6.309	PAVED DITCH	LEFT	
6.510	6.510	MILE MARKER	LEFT	
6.510	6.510	MILE MARKER	RIGHT	
6.724	6.724	SIGN	RIGHT	GUIDE, PETRIFIED DUNES
6.805	6.805	INTERSECTION	RIGHT	ROUTE 0909 (PETRIFIED DUNES PARKING)
6.908	6.908	SIGN	RIGHT	GUIDE, PETRIFIED DUNES
7.552	7.552	MILE MARKER	RIGHT	
7.552	7.552	MILE MARKER	LEFT	
7.822	7.871	GUARD/GUIDE WALL	LEFT	
7.824	7.872	GUARD/GUIDE WALL	RIGHT	
8.019	8.110	PULLOUT	RIGHT	
8.031	8.098	CURB	RIGHT	
8.300	8.437	PAVED DITCH	LEFT	
8.461	8.547	GUARD/GUIDE WALL	LEFT	
8.463	8.530	GUARD/GUIDE WALL	RIGHT	
8.544	8.544	MILE MARKER	RIGHT	
8.544	8.544	MILE MARKER	LEFT	
8.583	8.685	PAVED DITCH	LEFT	

**ROUTE 0010: MAIN PARK ROAD** 

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8.733	8.748	CURB	RIGHT	
8.733	8.748	PULLOUT	RIGHT	
8.734	8.741	PAVED DITCH	LEFT	
8.748	8.765	PAVED DITCH	LEFT	
9.297	9.324	PULLOUT	RIGHT	
9.299	9.323	CURB	RIGHT	
9.342	9.342	SIGN	RIGHT	WARNING, 2000 FEET
9.342	9.342	SIGN	RIGHT	WARNING, SLOW CONGESTED AREA
9.408	9.408	SIGN	RIGHT	GUIDE, ELEV. 1524 M 5000 FT
9.520	9.520	SIGN	RIGHT	WARNING, 3+ FEET
9.520	9.520	SIGN	RIGHT	WARNING, SHARE THE ROAD
9.535	9.535	MILE MARKER	RIGHT	
9.535	9.535	MILE MARKER	LEFT	
9.548	9.548	SIGN	RIGHT	REGULATORY, SPEED LIMIT 30
9.548	9.548	SIGN	RIGHT	REGULATORY, SPEED LIMIT 45
9.693	9.693	SIGN	RIGHT	GUIDE, BALANCED ROCK
9.707	9.707	SIGN	RIGHT	REGULATORY, ONE WAY
9.717	9.717	INTERSECTION	LEFT	ROUTE 0213 (WILLOW SPRING ROAD)
9.717	9.717	INTERSECTION	RIGHT	ROUTE 0915 (BALANCED ROCK PARKING)
9.722	9.762	CURB-AND-GUTTER	RIGHT	
9.740	9.740	SIGN	RIGHT	GUIDE, BALANCED ROCK
9.750	9.750	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN, NO TEXT
9.761	9.761	SIGN	RIGHT	GUIDE, GRAPHIC SIGN, NO TEXT
9.761	9.761	SIGN	RIGHT	GUIDE, PARKING
9.764	9.764	SIGN	RIGHT	REGULATORY, EXIT ONLY
9.766	9.766	INTERSECTION	RIGHT	ROUTE 0915 (BALANCED ROCK PARKING)
9.773	9.773	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN, NO TEXT
9.796	9.796	SIGN	RIGHT	GUIDE, ENTRADA SANDSTONE NAVAJO SANDSTONE
9.869	9.869	SIGN	RIGHT	REGULATORY, SPEED LIMIT 30
9.871	9.871	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT

**ROUTE 0010: MAIN PARK ROAD** 

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9.899	9.899	SIGN	RIGHT	REGULATORY, NO TRASH CANS ON ROADSIDES PLEASE TAKE YOUR TRASH BACK OUT WITH YOU
9.917	9.917	SIGN	RIGHT	GUIDE, DELICATE ARCH CAMPGROUND WINDOWS
9.967	9.967	INTERSECTION	RIGHT	ROUTE 0011 (WINDOWS ROAD)
10.005	10.005	SIGN	RIGHT	GUIDE, VISITOR CENTER WINDOWS
10.048	10.048	SIGN	RIGHT	REGULATORY, SPEED LIMIT 45
10.056	10.056	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
10.063	10.063	SIGN	RIGHT	WARNING, 3+ FEET
10.063	10.063	SIGN	RIGHT	WARNING, SHARE THE ROAD
10.183	10.183	SIGN	RIGHT	WARNING, 2000 FEET
10.183	10.183	SIGN	RIGHT	WARNING, CONGESTED INTERSECTION AHEAD
10.200	10.219	GUARD/GUIDE WALL	LEFT	
10.200	10.220	GUARD/GUIDE WALL	RIGHT	
10.275	10.304	GUARD/GUIDE WALL	LEFT	
10.286	10.324	GUARD/GUIDE WALL	RIGHT	
10.356	10.385	GUARD/GUIDE WALL	RIGHT	
10.360	10.370	GUARD/GUIDE WALL	LEFT	
10.525	10.525	MILE MARKER	LEFT	
10.525	10.525	MILE MARKER	RIGHT	
10.701	10.809	CURB	LEFT	
10.922	10.922	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
10.980	10.980	SIGN	RIGHT	GUIDE, PANORAMA POINT
11.019	11.019	INTERSECTION	RIGHT	ROUTE 0205 (PANORAMA OVERLOOK ROAD)
11.054	11.054	SIGN	RIGHT	GUIDE, PANORAMA POINT
11.082	11.082	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
11.103	11.103	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
11.186	11.215	GUARD/GUIDE WALL	LEFT	
11.197	11.310	CURB	RIGHT	
11.286	11.329	GUARD/GUIDE WALL	LEFT	
11.404	11.567	GUARD/GUIDE WALL	LEFT	
11.444	11.489	PULLOUT	RIGHT	

**ROUTE 0010: MAIN PARK ROAD** 

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11.447	11.487	CURB	RIGHT	
11.504	11.504	MILE MARKER	LEFT	
11.504	11.504	MILE MARKER	RIGHT	
11.586	11.604	CURB	RIGHT	
11.652	11.697	CURB	RIGHT	
11.698	11.699	GUARD/GUIDE WALL	RIGHT	
11.746	11.804	GUARD/GUIDE WALL	LEFT	
11.747	11.748	GUARD/GUIDE WALL	RIGHT	
11.811	11.868	CURB	RIGHT	
11.869	11.870	GUARD/GUIDE WALL	RIGHT	
11.893	11.957	CURB	RIGHT	
11.897	11.938	PULLOUT	LEFT	
11.898	11.934	CURB	LEFT	
11.956	11.957	GUARD/GUIDE WALL	RIGHT	
12.134	12.134	SIGN	RIGHT	GUIDE, CACHE VALLEY OVERLOOK
12.136	12.192	GUARD/GUIDE WALL	RIGHT	
12.203	12.247	PULLOUT	RIGHT	
12.205	12.245	CURB	RIGHT	
12.219	12.219	SIGN	RIGHT	WARNING, ICY ROAD
12.263	12.263	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
12.264	12.344	CURB	LEFT	
12.276	12.276	SIGN	RIGHT	REGULATORY, SPEED LIMIT 45
12.314	12.314	SIGN	RIGHT	GUIDE, DELICATE ARCH WOLFE RANCH
12.362	12.362	INTERSECTION	RIGHT	ROUTE 0100 (DELICATE ARCH ROAD)
12.386	12.591	CURB	RIGHT	
12.386	12.705	CURB	LEFT	
12.421	12.421	SIGN	RIGHT	GUIDE, DELICATE ARCH WOLFE RANCH
12.477	12.477	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
12.505	12.505	MILE MARKER	LEFT	
12.505	12.505	MILE MARKER	RIGHT	

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FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
12.543	12.543	SIGN	RIGHT	WARNING, ROUGH ROAD
12.554	12.555	GUARD/GUIDE WALL	RIGHT	
12.601	12.605	PAVED DITCH	LEFT	
12.606	12.628	GUARD/GUIDE WALL	RIGHT	
12.628	12.628	SIGN	RIGHT	WARNING, BUMP
12.638	12.660	CURB	RIGHT	
12.719	12.719	SIGN	RIGHT	REGULATORY, SPEED LIMIT 45
12.790	12.855	CURB	LEFT	
12.877	12.895	CURB	RIGHT	
13.069	13.140	CURB	LEFT	
13.301	13.383	CURB	RIGHT	
13.321	13.398	GUARD/GUIDE WALL	LEFT	
13.328	13.328	CULVERT	N/A	
13.496	13.496	MILE MARKER	LEFT	
13.496	13.496	MILE MARKER	RIGHT	
13.611	13.663	CURB	LEFT	
13.687	14.035	CURB	LEFT	
13.692	13.745	CURB	RIGHT	
13.918	14.104	CURB	RIGHT	
14.025	14.091	GUARD/GUIDE WALL	RIGHT	
14.050	14.088	GUARD/GUIDE WALL	LEFT	
14.106	14.148	CURB	RIGHT	
14.149	14.196	GUARD/GUIDE WALL	RIGHT	
14.273	14.330	GUARD/GUIDE WALL	LEFT	
14.308	14.308	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
14.309	14.452	CURB	RIGHT	
14.358	14.378	GUARD/GUIDE WALL	LEFT	
14.405	14.454	GUARD/GUIDE WALL	LEFT	
14.499	14.499	MILE MARKER	LEFT	
14.499	14.499	MILE MARKER	RIGHT	

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14.604	FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
14.632	14.603	14.622	GUARD/GUIDE WALL	LEFT	
14.641	14.604	14.604	SIGN	RIGHT	GUIDE, SALT VALLEY OVERLOOK
14.641   14.641   SIGN	14.632	14.632	INTERSECTION	RIGHT	ROUTE 0206 (SALT VALLEY OVERLOOK ROAD)
14.690	14.641	14.641	SIGN	RIGHT	WARNING, 40 M.P.H.
14.748	14.641	14.641	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
14.751	14.690	14.690	SIGN	RIGHT	GUIDE, SALT VALLEY OVERLOOK
14.830	14.748	14.748	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
14.877         14.877         INTERSECTION         RIGHT         ROUTE 0207 (FIERY FURNACE ROAD)           14.908         14.957         GUARD/GUIDE WALL         RIGHT           14.936         14.936         SIGN         RIGHT         GUIDE, FIERY FURNACE HIKING PERMIT REQUIRED           14.942         14.942         SIGN         RIGHT         WARNING, GRAPHIC SIGN, NO TEXT           14.970         14.970         SIGN         RIGHT         WARNING, GRAPHIC SIGN, NO TEXT           14.976         15.107         PAVED DITCH         LEFT           15.099         15.100         GUARD/GUIDE WALL         RIGHT           15.158         15.186         GUARD/GUIDE WALL         LEFT           15.432         15.433         GUARD/GUIDE WALL         RIGHT           15.482         MILE MARKER         LEFT           15.482         MILE MARKER         RIGHT           15.489         15.529         CURB         RIGHT           15.604         15.651         PULLOUT         LEFT           15.736         15.781         PULLOUT         RIGHT           15.791         15.848         GUARD/GUIDE WALL         RIGHT           15.795         15.982         GUARD/GUIDE WALL         RIGHT	14.751	14.751	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
14.908         14.957         GUARD/GUIDE WALL         RIGHT           14.936         14.936         SIGN         RIGHT         GUIDE, FIERY FURNACE HIKING PERMIT REQUIRED           14.942         14.942         SIGN         RIGHT         WARNING, GRAPHIC SIGN, NO TEXT           14.970         14.970         SIGN         RIGHT         WARNING, GRAPHIC SIGN, NO TEXT           14.976         15.107         PAVED DITCH         LEFT           15.099         15.100         GUARD/GUIDE WALL         RIGHT           15.158         15.186         GUARD/GUIDE WALL         LEFT           15.432         15.433         GUARD/GUIDE WALL         RIGHT           15.482         15.482         MILE MARKER         LEFT           15.482         MILE MARKER         RIGHT           15.489         15.529         CURB         RIGHT           15.604         15.651         PULLOUT         LEFT           15.736         15.781         PULLOUT         RIGHT           15.739         15.778         CURB         RIGHT           15.791         15.848         GUARD/GUIDE WALL         RIGHT           15.975         15.982         GUARD/GUIDE WALL         RIGHT	14.830	14.830	SIGN	RIGHT	GUIDE, FIERY FURNACE HIKING PERMIT REQUIRED
14.936       14.936       SIGN       RIGHT       GUIDE, FIERY FURNACE HIKING PERMIT REQUIRED         14.942       14.942       SIGN       RIGHT       WARNING, GRAPHIC SIGN, NO TEXT         14.970       14.970       SIGN       RIGHT       WARNING, GRAPHIC SIGN, NO TEXT         14.976       15.107       PAVED DITCH       LEFT         15.099       15.100       GUARD/GUIDE WALL       RIGHT         15.158       15.186       GUARD/GUIDE WALL       LEFT         15.432       15.272       GUARD/GUIDE WALL       RIGHT         15.432       15.433       GUARD/GUIDE WALL       RIGHT         15.482       MILE MARKER       LEFT         15.482       MILE MARKER       RIGHT         15.489       15.529       CURB       RIGHT         15.604       15.651       PULLOUT       LEFT         15.608       15.648       CURB       LEFT         15.736       15.781       PULLOUT       RIGHT         15.791       15.848       GUARD/GUIDE WALL       RIGHT         15.975       15.982       GUARD/GUIDE WALL       RIGHT	14.877	14.877	INTERSECTION	RIGHT	ROUTE 0207 (FIERY FURNACE ROAD)
14.942	14.908	14.957	GUARD/GUIDE WALL	RIGHT	
14.970       14.970       SIGN       RIGHT       WARNING, GRAPHIC SIGN, NO TEXT         14.976       15.107       PAVED DITCH       LEFT         15.099       15.100       GUARD/GUIDE WALL       RIGHT         15.158       15.186       GUARD/GUIDE WALL       LEFT         15.215       15.272       GUARD/GUIDE WALL       LEFT         15.432       15.433       GUARD/GUIDE WALL       RIGHT         15.482       MILE MARKER       LEFT         15.482       MILE MARKER       RIGHT         15.489       15.529       CURB       RIGHT         15.604       15.651       PULLOUT       LEFT         15.608       15.648       CURB       LEFT         15.736       15.781       PULLOUT       RIGHT         15.791       15.848       GUARD/GUIDE WALL       RIGHT         15.975       15.982       GUARD/GUIDE WALL       RIGHT	14.936	14.936	SIGN	RIGHT	GUIDE, FIERY FURNACE HIKING PERMIT REQUIRED
14.976       15.107       PAVED DITCH       LEFT         15.099       15.100       GUARD/GUIDE WALL       RIGHT         15.158       15.186       GUARD/GUIDE WALL       LEFT         15.215       15.272       GUARD/GUIDE WALL       LEFT         15.432       15.433       GUARD/GUIDE WALL       RIGHT         15.482       MILE MARKER       LEFT         15.482       15.482       MILE MARKER       RIGHT         15.489       15.529       CURB       RIGHT         15.604       15.651       PULLOUT       LEFT         15.608       15.648       CURB       LEFT         15.736       15.781       PULLOUT       RIGHT         15.791       15.848       GUARD/GUIDE WALL       RIGHT         15.975       15.982       GUARD/GUIDE WALL       RIGHT	14.942	14.942	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
15.099       15.100       GUARD/GUIDE WALL       RIGHT         15.158       15.186       GUARD/GUIDE WALL       LEFT         15.215       15.272       GUARD/GUIDE WALL       LEFT         15.432       15.433       GUARD/GUIDE WALL       RIGHT         15.482       MILE MARKER       LEFT         15.482       MILE MARKER       RIGHT         15.489       15.529       CURB       RIGHT         15.604       15.651       PULLOUT       RIGHT         15.608       15.648       CURB       LEFT         15.736       15.781       PULLOUT       RIGHT         15.739       15.778       CURB       RIGHT         15.791       15.848       GUARD/GUIDE WALL       RIGHT         15.975       15.982       GUARD/GUIDE WALL       RIGHT	14.970	14.970	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
15.158     15.186     GUARD/GUIDE WALL     LEFT       15.215     15.272     GUARD/GUIDE WALL     LEFT       15.432     15.433     GUARD/GUIDE WALL     RIGHT       15.482     15.482     MILE MARKER     LEFT       15.482     15.482     MILE MARKER     RIGHT       15.489     15.529     CURB     RIGHT       15.604     15.651     PULLOUT     LEFT       15.608     15.648     CURB     LEFT       15.736     15.781     PULLOUT     RIGHT       15.739     15.778     CURB     RIGHT       15.791     15.848     GUARD/GUIDE WALL     RIGHT       15.975     15.982     GUARD/GUIDE WALL     RIGHT	14.976	15.107	PAVED DITCH	LEFT	
15.215 15.272 GUARD/GUIDE WALL LEFT 15.432 15.433 GUARD/GUIDE WALL RIGHT 15.482 15.482 MILE MARKER LEFT 15.482 15.482 MILE MARKER RIGHT 15.489 15.529 CURB RIGHT 15.489 15.532 PULLOUT RIGHT 15.604 15.651 PULLOUT LEFT 15.608 15.648 CURB LEFT 15.736 15.781 PULLOUT RIGHT 15.739 15.778 CURB RIGHT 15.791 15.848 GUARD/GUIDE WALL RIGHT 15.975 15.982 GUARD/GUIDE WALL RIGHT	15.099	15.100	GUARD/GUIDE WALL	RIGHT	
15.432 15.433 GUARD/GUIDE WALL RIGHT  15.482 15.482 MILE MARKER LEFT  15.482 15.482 MILE MARKER RIGHT  15.489 15.529 CURB RIGHT  15.489 15.532 PULLOUT RIGHT  15.604 15.651 PULLOUT LEFT  15.608 15.648 CURB LEFT  15.736 15.781 PULLOUT RIGHT  15.739 15.778 CURB RIGHT  15.791 15.848 GUARD/GUIDE WALL RIGHT  15.975 15.982 GUARD/GUIDE WALL RIGHT	15.158	15.186	GUARD/GUIDE WALL	LEFT	
15.482       15.482       MILE MARKER       LEFT         15.482       15.482       MILE MARKER       RIGHT         15.489       15.529       CURB       RIGHT         15.489       15.532       PULLOUT       RIGHT         15.604       15.651       PULLOUT       LEFT         15.608       15.648       CURB       LEFT         15.736       15.781       PULLOUT       RIGHT         15.739       15.778       CURB       RIGHT         15.791       15.848       GUARD/GUIDE WALL       RIGHT         15.975       15.982       GUARD/GUIDE WALL       RIGHT	15.215	15.272	GUARD/GUIDE WALL	LEFT	
15.482       15.482       MILE MARKER       RIGHT         15.489       15.529       CURB       RIGHT         15.489       15.532       PULLOUT       RIGHT         15.604       15.651       PULLOUT       LEFT         15.608       15.648       CURB       LEFT         15.736       15.781       PULLOUT       RIGHT         15.739       15.778       CURB       RIGHT         15.791       15.848       GUARD/GUIDE WALL       RIGHT         15.975       15.982       GUARD/GUIDE WALL       RIGHT	15.432	15.433	GUARD/GUIDE WALL	RIGHT	
15.489       15.529       CURB       RIGHT         15.489       15.532       PULLOUT       RIGHT         15.604       15.651       PULLOUT       LEFT         15.608       15.648       CURB       LEFT         15.736       15.781       PULLOUT       RIGHT         15.739       15.778       CURB       RIGHT         15.791       15.848       GUARD/GUIDE WALL       RIGHT         15.975       15.982       GUARD/GUIDE WALL       RIGHT	15.482	15.482	MILE MARKER	LEFT	
15.489	15.482	15.482	MILE MARKER	RIGHT	
15.604       15.651       PULLOUT       LEFT         15.608       15.648       CURB       LEFT         15.736       15.781       PULLOUT       RIGHT         15.739       15.778       CURB       RIGHT         15.791       15.848       GUARD/GUIDE WALL       RIGHT         15.975       15.982       GUARD/GUIDE WALL       RIGHT	15.489	15.529	CURB	RIGHT	
15.608       15.648       CURB       LEFT         15.736       15.781       PULLOUT       RIGHT         15.739       15.778       CURB       RIGHT         15.791       15.848       GUARD/GUIDE WALL       RIGHT         15.975       15.982       GUARD/GUIDE WALL       RIGHT	15.489	15.532	PULLOUT	RIGHT	
15.736       15.781       PULLOUT       RIGHT         15.739       15.778       CURB       RIGHT         15.791       15.848       GUARD/GUIDE WALL       RIGHT         15.975       15.982       GUARD/GUIDE WALL       RIGHT	15.604	15.651	PULLOUT	LEFT	
15.739	15.608	15.648	CURB	LEFT	
15.791 15.848 GUARD/GUIDE WALL RIGHT 15.975 15.982 GUARD/GUIDE WALL RIGHT	15.736	15.781	PULLOUT	RIGHT	
15.975 15.982 GUARD/GUIDE WALL RIGHT	15.739	15.778	CURB	RIGHT	
	15.791	15.848	GUARD/GUIDE WALL	RIGHT	
15.989 16.031 PULLOUT RIGHT	15.975	15.982	GUARD/GUIDE WALL	RIGHT	
	15.989	16.031	PULLOUT	RIGHT	

**ROUTE 0010: MAIN PARK ROAD** 

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FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
15.992	16.025	CURB	RIGHT	
16.021	16.087	GUARD/GUIDE WALL	LEFT	
16.037	16.038	GUARD/GUIDE WALL	RIGHT	
16.084	16.085	GUARD/GUIDE WALL	RIGHT	
16.093	16.121	PULLOUT	RIGHT	
16.096	16.119	CURB	RIGHT	
16.205	16.216	GUARD/GUIDE WALL	LEFT	
16.216	16.402	PAVED DITCH	RIGHT	
16.381	16.428	PULLOUT	LEFT	
16.386	16.427	CURB	LEFT	
16.387	16.387	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
16.472	16.472	MILE MARKER	LEFT	
16.472	16.472	MILE MARKER	RIGHT	
16.523	16.601	CURB	RIGHT	
16.661	16.661	SIGN	RIGHT	WARNING, 15 M.P.H.
16.661	16.661	SIGN	RIGHT	WARNING, CONGESTED AREA AHEAD
16.701	16.701	SIGN	RIGHT	GUIDE, TRAIL HEAD PARKING 300 FT
16.725	16.770	CURB	RIGHT	
16.794	16.794	INTERSECTION	RIGHT	ROUTE 0916 (SAND DUNES ARCH PARKING)
16.839	16.895	GUARD/GUIDE WALL	RIGHT	
16.867	16.867	SIGN	RIGHT	GUIDE, TRAIL HEAD PARKING 300 FT
16.901	16.901	SIGN	RIGHT	WARNING, 15 M.P.H.
16.901	16.901	SIGN	RIGHT	WARNING, CONGESTED AREA AHEAD
16.909	16.909	SIGN	RIGHT	GUIDE, GRAPHIC SIGN, NO TEXT
17.111	17.111	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
17.160	17.160	SIGN	RIGHT	REGULATORY, SPEED LIMIT 30
17.163	17.163	SIGN	RIGHT	REGULATORY, SPEED LIMIT 45
17.219	17.237	GUARD/GUIDE WALL	LEFT	
17.247	17.247	INTERSECTION	LEFT	ROUTE 0101 (SALT VALLEY ROAD)
17.276	17.304	GUARD/GUIDE WALL	LEFT	
	·	·	· · · · · · · · · · · · · · · · · · ·	

**ROUTE 0010: MAIN PARK ROAD** 

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FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
17.334	17.334	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
17.454	17.454	SIGN	RIGHT	GUIDE, TRAIL HEAD PARKING 300 FT
17.456	17.457	GUARD/GUIDE WALL	LEFT	
17.468	17.468	MILE MARKER	LEFT	
17.468	17.468	MILE MARKER	RIGHT	
17.527	17.527	INTERSECTION	RIGHT	ROUTE 0917 (SKYLINE ARCH TRAILHEAD PARKING)
17.542	17.608	GUARD/GUIDE WALL	LEFT	
17.609	17.609	SIGN	RIGHT	GUIDE, TRAILHEAD PARKING 300 FT.
17.856	17.856	SIGN	RIGHT	WARNING, SHARE THE ROAD
17.856	17.856	SIGN	RIGHT	WARNING, 3+ FEET
17.866	17.866	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
17.946	17.946	SIGN	RIGHT	REGULATORY, SPEED LIMIT 30
18.020	18.020	INTERSECTION	LEFT	ROUTE 0501 (DEVIL'S GARDEN LOOP)
18.020	18.020	INTERSECTION	N/A	ROUTE 0501 (DEVIL'S GARDEN LOOP)
18.020	18.020	SIGN	RIGHT	GUIDE, DEVILS GARDEN
18.020	18.020	ROUTE END	N/A	TO ROUTE 0501 (DEVIL'S GARDEN LOOP)

**ROUTE 0011: WINDOWS ROAD** 

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FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0010 (MAIN PARK ROAD) AT MP 9.97
0.000	0.000	INTERSECTION	LEFT	ROUTE 0010 (MAIN PARK ROAD)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0010 (MAIN PARK ROAD)
0.000	0.000	SIGN	N/A	GUIDE, DEVILS GARDEN VISITOR CENTER
0.006	0.006	SIGN	RIGHT	REGULATORY, STOP
0.053	0.053	SIGN	RIGHT	WARNING, SHARE THE ROAD
0.053	0.053	SIGN	RIGHT	WARNING, 3+ FEET
0.079	0.079	SIGN	RIGHT	REGULATORY, SPEED LIMIT 35
0.079	0.079	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
0.298	0.338	PULLOUT	LEFT	
0.304	0.330	CURB	LEFT	
0.343	0.422	GUARD/GUIDE WALL	LEFT	
0.458	0.516	CURB	LEFT	
0.470	0.513	GUARD/GUIDE WALL	LEFT	
0.536	0.565	PULLOUT	LEFT	
0.541	0.559	CURB	LEFT	
0.543	0.543	SIGN	RIGHT	GUIDE, POTHOLE ARCH
0.577	0.577	SIGN	RIGHT	GUIDE, POTHOLE ARCH VIEWPOINT
0.603	0.670	GUARD/GUIDE WALL	LEFT	
0.651	0.783	CURB	RIGHT	
0.764	0.793	PULLOUT	LEFT	
0.769	0.788	CURB	LEFT	
0.823	0.860	GUARD/GUIDE WALL	LEFT	
1.019	1.019	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
1.057	1.057	SIGN	RIGHT	GUIDE, GARDEN OF EDEN VIEWPOINT
1.112	1.112	INTERSECTION	LEFT	ROUTE 0204 (GARDEN OF EDEN OVERLOOK ROAD)
1.166	1.166	SIGN	RIGHT	GUIDE, GARDEN OF EDEN VIEWPOINT
1.184	1.184	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
1.254	1.336	CURB	LEFT	
1.363	1.458	GUARD/GUIDE WALL	RIGHT	

**ROUTE 0011: WINDOWS ROAD** 

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FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
1.415	1.477	CURB	RIGHT	
1.439	1.468	GUARD/GUIDE WALL	LEFT	
1.568	1.569	GUARD/GUIDE WALL	RIGHT	
1.723	1.780	GUARD/GUIDE WALL	RIGHT	
1.733	1.780	GUARD/GUIDE WALL	LEFT	
1.762	1.762	SIGN	RIGHT	WARNING, 25 M.P.H.
1.762	1.762	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
1.850	1.888	CURB	RIGHT	
1.855	1.938	GUARD/GUIDE WALL	LEFT	
1.858	1.889	GUARD/GUIDE WALL	RIGHT	
1.891	2.000	CURB	LEFT	
1.935	1.935	SIGN	RIGHT	WARNING, 25 M.P.H.
1.935	1.935	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
1.978	1.978	SIGN	RIGHT	GUIDE, COVE OF CAVES VIEWPOINT
2.034	2.071	PULLOUT	RIGHT	
2.035	2.035	SIGN	RIGHT	GUIDE, TRAIL
2.039	2.062	CURB	RIGHT	
2.057	2.128	CURB	LEFT	
2.063	2.101	GUARD/GUIDE WALL	RIGHT	
2.070	2.070	SIGN	RIGHT	REGULATORY, SPEED LIMIT 35
2.074	2.112	GUARD/GUIDE WALL	LEFT	
2.140	2.140	INTERSECTION	LEFT	ROUTE 0500 (WINDOWS LOOP ROAD)
2.140	2.140	INTERSECTION	N/A	ROUTE 0500 (WINDOWS LOOP ROAD)
2.140	2.140	ROUTE END	N/A	TO ROUTE 0500 (WINDOWS LOOP ROAD)

**ROUTE 0100: DELICATE ARCH ROAD** 

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FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0010 (MAIN PARK ROAD) AT MP 12.36
0.000	0.000	INTERSECTION	LEFT	ROUTE 0010 (MAIN PARK ROAD)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0010 (MAIN PARK ROAD)
0.000	0.000	SIGN	N/A	GUIDE, DEVILS GARDEN VISITOR CENTER
0.010	0.010	SIGN	RIGHT	REGULATORY, STOP
0.057	0.057	GATE	N/A	
0.057	0.057	SIGN	N/A	REGULATORY, ROAD CLOSED
0.057	0.057	SIGN	N/A	REGULATORY, STOP
0.063	0.063	SIGN	RIGHT	REGULATORY, SPEED LIMIT 25
0.101	0.101	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
0.110	0.110	SIGN	RIGHT	WARNING, 3+ FEET
0.110	0.110	SIGN	RIGHT	WARNING, SHARE THE ROAD
0.118	0.127	GUARD/GUIDE WALL	LEFT	
0.454	0.454	SIGN	RIGHT	WARNING, 25 M.P.H.
0.454	0.454	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
0.455	0.455	SIGN	RIGHT	REGULATORY, SPEED LIMIT 35
0.911	0.911	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
0.911	0.911	SIGN	RIGHT	WARNING, 25 M.P.H.
0.952	0.952	SIGN	RIGHT	WARNING, DO NOT ENTER WHEN FLOODING
1.037	1.037	SIGN	RIGHT	WARNING, DO NOT ENTER WHEN FLOODING
1.043	1.043	SIGN	RIGHT	WARNING, 25 M.P.H.
1.043	1.043	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
1.052	1.052	SIGN	RIGHT	WARNING, SLOW 15 MPH
1.142	1.142	SIGN	RIGHT	REGULATORY, SPEED LIMIT 15
1.154	1.154	SIGN	RIGHT	REGULATORY, SPEED LIMIT 35
1.180	1.180	SIGN	RIGHT	GUIDE, DELICATE ARCH TRAIL PARKING OVERSIZE VEHICLE PARKING
1.188	1.188	INTERSECTION	RIGHT	ROUTE 0904B (WOLFE RANCH PARKING SOUTH)
1.196	1.196	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
1.196	1.196	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
1.205	1.205	SIGN	LEFT	REGULATORY, NO PARKING ANY TIME

**ROUTE 0100: DELICATE ARCH ROAD** 

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FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
1.213	1.213	SIGN	LEFT	REGULATORY, DO NOT ENTER
1.214	1.214	SIGN	RIGHT	REGULATORY, NO PARKING ANY TIME
1.217	1.217	INTERSECTION	LEFT	ROUTE 0904A (WOLFE RANCH PARKING NORTH)
1.220	1.220	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
1.225	1.225	SIGN	LEFT	REGULATORY, ONE WAY
1.225	1.225	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
1.228	1.228	INTERSECTION	LEFT	ROUTE 0904A (WOLFE RANCH PARKING NORTH)
1.230	1.230	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
1.230	1.230	SIGN	LEFT	WARNING, GRAPHIC SIGN, NO TEXT
1.230	1.230	SIGN	RIGHT	REGULATORY, DO NOT ENTER
1.233	1.233	INTERSECTION	RIGHT	ROUTE 0904B (WOLFE RANCH PARKING SOUTH)
1.234	1.275	CURB-AND-GUTTER	LEFT	
1.237	1.237	SIGN	RIGHT	REGULATORY, ONE WAY
1.239	1.275	CURB	RIGHT	
1.244	1.244	SIGN	RIGHT	REGULATORY, NO PARKING
1.247	1.247	SIGN	RIGHT	GUIDE, DELICATE ARCH VIEWPOINT 1.1MI
1.249	1.249	SIGN	RIGHT	REGULATORY, NO PARKING
1.249	1.249	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
1.254	1.254	SIGN	RIGHT	REGULATORY, NO PARKING
1.256	1.256	SIGN	N/A	REGULATORY, STOP
1.256	1.256	GATE	N/A	
1.260	1.260	SIGN	RIGHT	REGULATORY, NO PARKING
1.265	1.265	SIGN	RIGHT	WARNING, DO NOT ENTER WHEN FLOODING
1.265	1.265	SIGN	RIGHT	REGULATORY, NO PARKING
1.270	1.270	SIGN	RIGHT	REGULATORY, NO PARKING
1.275	1.275	SIGN	RIGHT	REGULATORY, NO PARKING
1.275	1.292	LOW WATER CROSSING	N/A	
1.292	1.312	CURB	LEFT	
1.292	1.321	CURB	RIGHT	
1.307	1.307	SIGN	RIGHT	WARNING, DANGER FLOOD WATER CROSSING

**ROUTE 0100: DELICATE ARCH ROAD** 

EDOM

TO

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FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
1.335	1.335	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
1.335	1.335	SIGN	RIGHT	WARNING, SLOW CONGESTED AREA
1.359	1.389	CURB	RIGHT	
1.373	1.373	SIGN	RIGHT	WARNING, DANGER FLOOD WATER CROSSING
1.389	1.403	LOW WATER CROSSING	N/A	
1.404	1.416	CURB	RIGHT	
1.425	1.425	SIGN	RIGHT	WARNING, DO NOT ENTER WHEN FLOODING
1.428	1.428	SIGN	RIGHT	REGULATORY, SPEED LIMIT 35
1.446	1.446	SIGN	RIGHT	REGULATORY, SPEED LIMIT 15
1.475	1.475	SIGN	RIGHT	WARNING, SLOW 15 MPH
1.654	1.715	CURB	LEFT	
1.672	1.696	CURB	RIGHT	
1.855	1.901	CURB	RIGHT	
1.967	1.984	CURB	LEFT	
2.101	2.195	CURB	LEFT	
2.132	2.179	CURB	RIGHT	
2.155	2.155	SIGN	RIGHT	REGULATORY, SPEED LIMIT 15
2.158	2.158	SIGN	RIGHT	REGULATORY, SPEED LIMIT 35
2.220	2.220	INTERSECTION	N/A	ROUTE 0905 (DELICATE ARCH ROAD VIEWPOINT PARKING)
2.220	2.220	SIGN	RIGHT	REGULATORY, KEEP RIGHT
2.220	2.220	ROUTE END	N/A	TO ROUTE 0905 (DELICATE ARCH ROAD VIEWPOINT PARKING)

### ROUTE 0200: LA SAL MOUNTAIN VIEW ROAD

Notice: Culverts and drop inlets were NOT marked by NPS nor inventoried by RIP in Cycle 4, therefore no culverts or drop inlets are reported in any Road Log. Culverts and drop inlets were inventoried in paved parking areas and can be found in the Parking Lot Condition Rating Sheets (Section 7) and Parkwide Maintenance Features Summary (Section 8).

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0010 (MAIN PARK ROAD) AT MP 3.41
0.000	0.000	INTERSECTION	LEFT	ROUTE 0010 (MAIN PARK ROAD)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0010 (MAIN PARK ROAD)
0.012	0.012	SIGN	RIGHT	REGULATORY, STOP
0.125	0.150	CURB	RIGHT	
0.150	0.150	INTERSECTION	N/A	ROUTE 0911 (LA SAL MOUNTAIN VIEW PARKING)
0.150	0.150	SIGN	LEFT	REGULATORY, ONE WAY
0.150	0.150	ROUTE END	N/A	TO ROUTE 0911 (LA SAL MOUNTAIN VIEW PARKING)

9-19 Data Collected 10/29/2009

### ROUTE 0204: GARDEN OF EDEN OVERLOOK ROAD

<u>Notice:</u> Culverts and drop inlets were NOT marked by NPS nor inventoried by RIP in Cycle 4, therefore no culverts or drop inlets are reported in any Road Log. Culverts and drop inlets were inventoried in paved parking areas and can be found in the Parking Lot Condition Rating Sheets (Section 7) and Parkwide Maintenance Features Summary (Section 8).

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0011 (WINDOWS ROAD)
0.000	0.000	INTERSECTION	LEFT	ROUTE 0011 (WINDOWS ROAD)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0011 (WINDOWS ROAD)
0.004	0.004	SIGN	RIGHT	REGULATORY, STOP
0.022	0.051	PULLOUT	RIGHT	
0.027	0.044	CURB	RIGHT	
0.110	0.110	INTERSECTION	N/A	ROUTE 0907 (GARDEN OF EDEN PARKING)
0.110	0.110	ROUTE END	N/A	TO ROUTE 0907 (GARDEN OF EDEN PARKING)

### **ROUTE 0205: PANORAMA OVERLOOK ROAD**

<u>Notice:</u> Culverts and drop inlets were NOT marked by NPS nor inventoried by RIP in Cycle 4, therefore no culverts or drop inlets are reported in any Road Log. Culverts and drop inlets were inventoried in paved parking areas and can be found in the Parking Lot Condition Rating Sheets (Section 7) and Parkwide Maintenance Features Summary (Section 8).

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0010 (MAIN PARK ROAD) AT MP 11.02
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0010 (MAIN PARK ROAD)
0.000	0.000	INTERSECTION	LEFT	ROUTE 0010 (MAIN PARK ROAD)
0.009	0.009	SIGN	RIGHT	REGULATORY, STOP
0.114	0.186	PULLOUT	RIGHT	
0.115	0.115	INTERSECTION	LEFT	ROUTE 0205 (PANORAMA OVERLOOK ROAD)
0.115	0.310	ONE-WAY	N/A	
0.117	0.184	CURB	RIGHT	
0.121	0.121	SIGN	LEFT	REGULATORY, ONE WAY
0.204	0.204	INTERSECTION	RIGHT	ROUTE 0906 (PANORAMA POINT PARKING)
0.310	0.310	INTERSECTION	LEFT	ROUTE 0205 (PANORAMA OVERLOOK ROAD)
0.310	0.310	INTERSECTION	RIGHT	ROUTE 0205 (PANORAMA OVERLOOK ROAD)
0.310	0.310	ROUTE END	N/A	TO END OF LOOP

### **ROUTE 0206: SALT VALLEY OVERLOOK ROAD**

<u>Notice:</u> Culverts and drop inlets were NOT marked by NPS nor inventoried by RIP in Cycle 4, therefore no culverts or drop inlets are reported in any Road Log. Culverts and drop inlets were inventoried in paved parking areas and can be found in the Parking Lot Condition Rating Sheets (Section 7) and Parkwide Maintenance Features Summary (Section 8).

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0010 (MAIN PARK ROAD) AT MP 14.63
0.000	0.000	INTERSECTION	LEFT	ROUTE 0010 (MAIN PARK ROAD)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0010 (MAIN PARK ROAD)
0.008	0.008	SIGN	RIGHT	REGULATORY, STOP
0.153	0.153	INTERSECTION	LEFT	ROUTE 0206 (SALT VALLEY OVERLOOK ROAD)
0.153	0.250	ONE-WAY	N/A	
0.160	0.160	SIGN	LEFT	REGULATORY, ONE WAY
0.220	0.220	INTERSECTION	RIGHT	ROUTE 0903 (SALT VALLEY OVERLOOK PARKING)
0.250	0.250	INTERSECTION	LEFT	ROUTE 0206 (SALT VALLEY OVERLOOK ROAD)
0.250	0.250	INTERSECTION	N/A	ROUTE 0206 (SALT VALLEY OVERLOOK ROAD)
0.250	0.250	ROUTE END	N/A	TO END OF LOOP

**ROUTE 0207: FIERY FURNACE ROAD** 

Notice: Culverts and drop inlets were NOT marked by NPS nor inventoried by RIP in Cycle 4, therefore no culverts or drop inlets are reported in any Road Log. Culverts and drop inlets were inventoried in paved parking areas and can be found in the Parking Lot Condition Rating Sheets (Section 7) and Parkwide Maintenance Features Summary (Section 8).

FROM	TO				
MILEPOST		FEATURE	SIDE	COMMENT	
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0010 (MAIN PARK ROAD) AT MP 14.88	
0.000	0.000	INTERSECTION	LEFT	ROUTE 0010 (MAIN PARK ROAD)	
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0010 (MAIN PARK ROAD)	
0.009	0.009	SIGN	RIGHT	REGULATORY, STOP	
0.095	0.107	CURB	RIGHT		
0.197	0.197	INTERSECTION	LEFT	ROUTE 0207 (FIERY FURNACE ROAD)	
0.197	0.310	ONE-WAY	N/A		
0.204	0.204	SIGN	LEFT	REGULATORY, ONE WAY	
0.205	0.207	CURB	RIGHT		
0.207	0.207	SIGN	RIGHT	GUIDE, VIEWPOINT	
0.217	0.217	INTERSECTION	RIGHT	ROUTE 0902A (FIERY FURNACE PARKING A)	
0.229	0.232	CURB	RIGHT		
0.259	0.263	CURB	RIGHT		
0.260	0.260	SIGN	RIGHT	GUIDE, DO NOT GO BEYOND	
0.269	0.269	INTERSECTION	RIGHT	ROUTE 0902B (FIERY FURNACE PARKING B)	
0.279	0.282	CURB	RIGHT		
0.310	0.310	INTERSECTION	LEFT	ROUTE 0207 (FIERY FURNACE ROAD)	
0.310	0.310	INTERSECTION	RIGHT	ROUTE 0207 (FIERY FURNACE ROAD)	
0.310	0.310	ROUTE END	N/A	TO END OF LOOP	

### ROUTE 0208: DEVIL'S GARDEN CAMPGROUND ROAD

<u>Notice:</u> Culverts and drop inlets were NOT marked by NPS nor inventoried by RIP in Cycle 4, therefore no culverts or drop inlets are reported in any Road Log. Culverts and drop inlets were inventoried in paved parking areas and can be found in the Parking Lot Condition Rating Sheets (Section 7) and Parkwide Maintenance Features Summary (Section 8).

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0501 (DEVIL'S GARDEN LOOP)
0.000	0.000	SIGN	N/A	REGULATORY, ONE WAY
0.000	0.000	SIGN	N/A	GUIDE, DEVILS GARDEN TRAIL HEAD 0.3MI (0.5KM)
0.000	0.000	INTERSECTION	LEFT	ROUTE 0501 (DEVIL'S GARDEN LOOP)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0501 (DEVIL'S GARDEN LOOP)
0.002	0.002	SIGN	RIGHT	REGULATORY, STOP
0.007	0.038	PULLOUT	LEFT	
0.019	0.019	INTERSECTION	RIGHT	ROUTE 0918 (CAMPGROUND REGISTRATION PARKING)
0.035	0.035	SIGN	RIGHT	REGULATORY, SPEED LIMIT 15
0.035	0.035	SIGN	RIGHT	WARNING, SPEED BUMP AHEAD
0.047	0.047	SIGN	RIGHT	WARNING, SLOW 15 MPH
0.073	0.073	SIGN	LEFT	GUIDE, NO WOOD GATHERING NO GROUND FIRES
0.120	0.120	INTERSECTION	LEFT	ROUTE 0921 (CAMPGROUND RESTROOM PARKING)
0.135	0.135	SIGN	LEFT	GUIDE, GRAPHIC SIGN, NO TEXT
0.203	0.203	SIGN	RIGHT	GUIDE, NO WOOD GATHERING NO GROUND FIRES
0.288	0.288	SIGN	RIGHT	GUIDE, FIRE IN GRILLS ONLY NO WOOD GATHERING
0.327	0.327	INTERSECTION	RIGHT	ROUTE 0919 (CANYON WREN GROUP CAMPGROUND PARKING)
0.346	0.346	GATE	N/A	
0.346	0.346	SIGN	N/A	REGULATORY, ROAD CLOSED
0.346	0.346	SIGN	RIGHT	GUIDE, RESERVED CAMPING ONLY BEYOND THIS POINT
0.364	0.364	INTERSECTION	RIGHT	ROUTE 0924 (AMPHITHEATER PARKING)
0.472	0.472	SIGN	RIGHT	GUIDE, FIRE IN GRILLS ONLY NO WOOD GATHERING
0.513	0.513	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
0.513	0.513	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
0.536	0.536	SIGN	RIGHT	REGULATORY, SPEED LIMIT 15
0.536	0.536	SIGN	RIGHT	WARNING, SPEED BUMP AHEAD
0.549	0.549	INTERSECTION	LEFT	UNPAVED PARKING (BROKEN ARCH TRAILHEAD)
0.594	0.594	SIGN	RIGHT	GUIDE, FIRE IN GRILLS ONLY NO WOOD GATHERING
0.598	0.598	INTERSECTION	LEFT	ROUTE 0208 (DEVIL'S GARDEN CAMPGROUND ROAD)
0.598	0.780	ONE-WAY	N/A	

### ROUTE 0208: DEVIL'S GARDEN CAMPGROUND ROAD

<u>Notice:</u> Culverts and drop inlets were NOT marked by NPS nor inventoried by RIP in Cycle 4, therefore no culverts or drop inlets are reported in any Road Log. Culverts and drop inlets were inventoried in paved parking areas and can be found in the Parking Lot Condition Rating Sheets (Section 7) and Parkwide Maintenance Features Summary (Section 8).

TO MILEPOST	FEATURE	SIDE	COMMENT
0.606	SIGN	LEFT	REGULATORY, KEEP RIGHT
0.654	INTERSECTION	RIGHT	ROUTE 0922 (JUNIPER BASIN GROUP CAMPGROUND PARKING)
0.722	SIGN	RIGHT	GUIDE, BROKEN ARCH AND SAND
0.723	SIGN	RIGHT	GUIDE, UNABLE TO READ FROM VIDEO
0.723	SIGN	RIGHT	GUIDE, PETS ON LEASH
0.780	INTERSECTION	RIGHT	ROUTE 0208 (DEVIL'S GARDEN CAMPGROUND ROAD)
0.780	INTERSECTION	LEFT	ROUTE 0208 (DEVIL'S GARDEN CAMPGROUND ROAD)
0.780	ROUTE END	N/A	TO END OF LOOP
	0.606 0.654 0.722 0.723 0.723 0.780	MILEPOST         FEATURE           0.606         SIGN           0.654         INTERSECTION           0.722         SIGN           0.723         SIGN           0.723         SIGN           0.780         INTERSECTION           0.780         INTERSECTION	MILEPOST FEATURE SIDE  0.606 SIGN LEFT  0.654 INTERSECTION RIGHT  0.722 SIGN RIGHT  0.723 SIGN RIGHT  0.723 SIGN RIGHT  0.780 INTERSECTION RIGHT  0.780 INTERSECTION LEFT

### **ROUTE 0401: ADMINISTRATIVE MAINTENANCE ROAD**

<u>Notice:</u> Culverts and drop inlets were NOT marked by NPS nor inventoried by RIP in Cycle 4, therefore no culverts or drop inlets are reported in any Road Log. Culverts and drop inlets were inventoried in paved parking areas and can be found in the Parking Lot Condition Rating Sheets (Section 7) and Parkwide Maintenance Features Summary (Section 8).

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0010 (MAIN PARK ROAD) AT MP 0.69
0.000	0.000	INTERSECTION	LEFT	ROUTE 0010 (MAIN PARK ROAD)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0010 (MAIN PARK ROAD)
0.007	0.007	SIGN	RIGHT	REGULATORY, DO NOT ENTER
0.007	0.007	SIGN	RIGHT	REGULATORY, STOP
0.013	0.013	SIGN	RIGHT	GUIDE, SERVICE AREA AUTHORIZED VEHICLES ONLY
0.013	0.013	SIGN	RIGHT	WARNING, NO OUTLET
0.024	0.024	INTERSECTION	LEFT	ROUTE 0404 (ADMINISTRATION ROAD)
0.041	0.041	INTERSECTION	LEFT	ROUTE 0920 (RESIDENTIAL PARKING)
0.064	0.064	FIRE HYDRANT	LEFT	
0.077	0.077	SIGN	RIGHT	WARNING, DIP
0.094	0.096	LOW WATER CROSSING	N/A	
0.112	0.112	SIGN	RIGHT	REGULATORY, SPEED LIMIT 15
0.128	0.130	LOW WATER CROSSING	N/A	
0.186	0.187	LOW WATER CROSSING	N/A	
0.208	0.208	SIGN	RIGHT	WARNING, DIP
0.226	0.226	INTERSECTION	RIGHT	ROUTE 0403 (ARCHES RESIDENCE AREA ROAD)
0.235	0.235	INTERSECTION	LEFT	ROUTE 0403 (ARCHES RESIDENCE AREA ROAD)
0.265	0.265	FIRE HYDRANT	RIGHT	
0.267	0.267	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
0.270	0.270	INTERSECTION	N/A	ROUTE 0914 (MAINTENANCE PARKING)
0.270	0.270	ROUTE END	N/A	TO ROUTE 0914 (MAINTENANCE PARKING)

### **ROUTE 0403: ARCHES RESIDENCE AREA ROAD**

<u>Notice:</u> Culverts and drop inlets were NOT marked by NPS nor inventoried by RIP in Cycle 4, therefore no culverts or drop inlets are reported in any Road Log. Culverts and drop inlets were inventoried in paved parking areas and can be found in the Parking Lot Condition Rating Sheets (Section 7) and Parkwide Maintenance Features Summary (Section 8).

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0010 (MAIN PARK ROAD)
0.000	0.000	INTERSECTION	LEFT	ROUTE 0010 (MAIN PARK ROAD)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0010 (MAIN PARK ROAD)
0.003	0.003	SIGN	RIGHT	REGULATORY, STOP
0.014	0.014	SIGN	RIGHT	REGULATORY, YIELD
0.015	0.015	INTERSECTION	LEFT	ROUTE 0401 (ADMINISTRATIVE MAINTENANCE ROAD)
0.015	0.015	INTERSECTION	RIGHT	ROUTE 0401 (ADMINISTRATIVE MAINTENANCE ROAD)
0.098	0.098	FIRE HYDRANT	RIGHT	
0.120	0.120	INTERSECTION	N/A	DEAD END (DRIVEWAY)
0.120	0.120	ROUTE END	N/A	TO DEAD END

### **ROUTE 0404: ADMINISTRATION ROAD**

Notice: Culverts and drop inlets were NOT marked by NPS nor inventoried by RIP in Cycle 4, therefore no culverts or drop inlets are reported in any Road Log. Culverts and drop inlets were inventoried in paved parking areas and can be found in the Parking Lot Condition Rating Sheets (Section 7) and Parkwide Maintenance Features Summary (Section 8).

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0401 (ADMINISTRATIVE MAINTENANCE ROAD)
0.000	0.000	INTERSECTION	N/A	ROUTE 0401 (ADMINISTRATIVE MAINTENANCE ROAD)
0.000	0.000	INTERSECTION	LEFT	ROUTE 0401 (ADMINISTRATIVE MAINTENANCE ROAD)
0.008	0.008	SIGN	RIGHT	REGULATORY, UNABLE TO READ FROM VIDEO
0.008	0.008	SIGN	RIGHT	WARNING, UNABLE TO READ FROM VIDEO
0.018	0.018	FIRE HYDRANT	RIGHT	
0.027	0.027	INTERSECTION	RIGHT	ROUTE 0927 (ADMINISTRATIVE PARKING)
0.060	0.060	INTERSECTION	RIGHT	UNPAVED PARKING
0.076	0.076	FIRE HYDRANT	RIGHT	
0.080	0.080	INTERSECTION	N/A	ROUTE 0926 (VISITOR CENTER STAFF PARKING)
0.080	0.080	ROUTE END	N/A	TO ROUTE 0926 (VISITOR CENTER STAFF PARKING)

9-28 Data Collected 10/29/2009

**ROUTE 0500: WINDOWS LOOP ROAD** 

Notice: Culverts and drop inlets were NOT marked by NPS nor inventoried by RIP in Cycle 4, therefore no culverts or drop inlets are reported in any Road Log. Culverts and drop inlets were inventoried in paved parking areas and can be found in the Parking Lot Condition Rating Sheets (Section 7) and Parkwide Maintenance Features Summary (Section 8).

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM END OF ROUTE 0011 (WINDOWS ROAD)
0.000	0.000	INTERSECTION	N/A	ROUTE 0011 (WINDOWS ROAD)
0.000	0.590	ONE-WAY	N/A	
0.010	0.010	SIGN	LEFT	REGULATORY, ONE WAY
0.012	0.013	GUARD/GUIDE WALL	LEFT	
0.013	0.013	SIGN	LEFT	REGULATORY, DO NOT ENTER
0.015	0.047	CURB	LEFT	
0.045	0.045	SIGN	RIGHT	REGULATORY, SPEED LIMIT 15
0.049	0.219	CURB	LEFT	
0.065	0.065	SIGN	RIGHT	GUIDE, THE WINDOWS
0.147	0.147	SIGN	RIGHT	GUIDE, PARK ONLY IN DESIGNATED PARKING SPACES STRICTLY ENFORCED
0.178	0.178	SIGN	LEFT	WARNING, SLOW CONGESTED AREA
0.240	0.240	INTERSECTION	LEFT	ROUTE 0908B (WINDOWS PARKING B)
0.240	0.240	INTERSECTION	RIGHT	ROUTE 0908A (WINDOWS PARKING A)
0.288	0.360	CURB	LEFT	
0.304	0.408	CURB	RIGHT	
0.309	0.309	SIGN	RIGHT	GUIDE, PARK ONLY IN DESIGNATED PARKING SPACES STRICTLY ENFORCED
0.447	0.447	INTERSECTION	LEFT	ROUTE 0925B (DOUBLE ARCH PARKING B)
0.447	0.447	INTERSECTION	RIGHT	ROUTE 0925A (DOUBLE ARCH PARKING A)
0.531	0.579	CURB	LEFT	
0.581	0.582	GUARD/GUIDE WALL	LEFT	
0.590	0.590	INTERSECTION	LEFT	ROUTE 0500 (WINDOWS LOOP ROAD)
0.590	0.590	INTERSECTION	N/A	ROUTE 0011 (WINDOWS ROAD)
0.590	0.590	ROUTE END	N/A	TO END OF LOOP

9-29 Data Collected 10/29/2009

**ROUTE 0501: DEVIL'S GARDEN LOOP** 

<u>Notice:</u> Culverts and drop inlets were NOT marked by NPS nor inventoried by RIP in Cycle 4, therefore no culverts or drop inlets are reported in any Road Log. Culverts and drop inlets were inventoried in paved parking areas and can be found in the Parking Lot Condition Rating Sheets (Section 7) and Parkwide Maintenance Features Summary (Section 8).

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM END OF ROUTE 0010 (MAIN PARK ROAD)
0.000	0.000	INTERSECTION	LEFT	ROUTE 0501 (DEVIL'S GARDEN LOOP)
0.000	0.000	INTERSECTION	N/A	ROUTE 0010 (MAIN PARK ROAD)
0.000	0.810	ONE-WAY	N/A	
0.025	0.025	SIGN	LEFT	REGULATORY, ONE WAY
0.033	0.033	SIGN	LEFT	REGULATORY, DO NOT ENTER
0.043	0.043	SIGN	RIGHT	REGULATORY, SPEED LIMIT 15
0.064	0.064	SIGN	LEFT	REGULATORY, ONE WAY
0.068	0.068	INTERSECTION	RIGHT	ROUTE 0900A (DEVIL'S GARDEN PICNIC PARKING A)
0.074	0.074	SIGN	RIGHT	GUIDE, PICNIC AREA PARKING ONLY
0.074	0.093	CURB	RIGHT	
0.098	0.098	SIGN	LEFT	REGULATORY, ONE WAY
0.099	0.099	INTERSECTION	RIGHT	ROUTE 0900A (DEVIL'S GARDEN PICNIC PARKING A)
0.100	0.100	SIGN	LEFT	REGULATORY, NO PARKING ANY TIME
0.115	0.115	SIGN	LEFT	GUIDE, PICNIC AREA PARKING ONLY
0.115	0.115	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
0.127	0.127	INTERSECTION	RIGHT	ROUTE 0900B (DEVIL'S GARDEN PICNIC PARKING B)
0.184	0.184	INTERSECTION	RIGHT	ROUTE 0923 (CAMPGROUND PARKING)
0.197	0.197	SIGN	RIGHT	GUIDE, DEVILS GARDEN TRAIL HEAD 0.3MI (0.5KM)
0.197	0.197	SIGN	RIGHT	GUIDE, CAMPGROUND
0.203	0.203	INTERSECTION	RIGHT	ROUTE 0208 (DEVIL'S GARDEN CAMPGROUND ROAD)
0.230	0.230	SIGN	RIGHT	REGULATORY, SPEED LIMIT 15
0.251	0.251	SIGN	RIGHT	WARNING, CONGESTED AREA AHEAD
0.261	0.261	SIGN	LEFT	GUIDE, TO DEVILS GARDEN TRAIL
0.335	0.360	CURB	LEFT	
0.380	0.380	INTERSECTION	RIGHT	ROUTE 0901A (DEVIL'S GARDEN PARKING A)
0.468	0.468	SIGN	RIGHT	REGULATORY, NO PARKING ANY TIME
0.492	0.492	SIGN	LEFT	GUIDE, DEVILS GARDEN TRAILHEAD PARKING
0.514	0.514	INTERSECTION	RIGHT	ROUTE 0901B (DEVIL'S GARDEN PARKING B)
0.547	0.547	SIGN	RIGHT	GUIDE, BUSES & OVERSIZED VEHICLES

**ROUTE 0501: DEVIL'S GARDEN LOOP** 

<u>Notice:</u> Culverts and drop inlets were NOT marked by NPS nor inventoried by RIP in Cycle 4, therefore no culverts or drop inlets are reported in any Road Log. Culverts and drop inlets were inventoried in paved parking areas and can be found in the Parking Lot Condition Rating Sheets (Section 7) and Parkwide Maintenance Features Summary (Section 8).

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.555	0.555	INTERSECTION	LEFT	ROUTE 0901C (DEVIL'S GARDEN PARKING C)
0.590	0.590	INTERSECTION	RIGHT	ROUTE 0901D (DEVIL'S GARDEN PARKING D)
0.627	0.678	CURB	LEFT	
0.684	0.684	SIGN	LEFT	REGULATORY, NO PARKING ANY TIME
0.691	0.691	SIGN	RIGHT	REGULATORY, NO PARKING ANY TIME
0.695	0.695	INTERSECTION	RIGHT	UNPAVED ROUTE (SERVICE ROAD)
0.700	0.704	CURB	RIGHT	
0.705	0.705	SIGN	RIGHT	REGULATORY, NO PARKING ANY TIME
0.714	0.773	CURB	RIGHT	
0.716	0.716	SIGN	LEFT	REGULATORY, NO PARKING ANY TIME
0.810	0.810	INTERSECTION	LEFT	ROUTE 0501 (DEVIL'S GARDEN LOOP)
0.810	0.810	INTERSECTION	N/A	ROUTE 0010 (MAIN PARK ROAD)
0.810	0.810	ROUTE END	N/A	TO END OF LOOP

# Arches National Park



Section 10 Appendix

#### APPENDIX A: GLOSSARY OF TERMS AND ABBREVIATIONS

### **TERM OR**

#### ABBREVIATION DESCRIPTION OR DEFINITION

AADT (Annual Average Daily Traffic) The estimate of typical daily traffic

on a road segment for all days of the week over the period of one

year.

CRS Condition Rating Sheets. (Section 5)

Excellent rating with an index value of 95 or greater

Fair Fair rating with an index value from 61 to 84

Func. Class Funtional Classification (see Route ID, Section 4)

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

MRR Manually Rated Route

N/A Not Applicable

NC Not Collected

Paved Width Width from edge-of-pavement to edge-of-pavement

PCR Pavement Condition Rating (Appendix B, Section 10)

Poor Poor Rating with an index value of 60 or less

RCI Roughness Condition Index

SADT (Seasonal Annual Daily Traffic) The AADT adjusted to represent

just the period of the year containing 80 percent of the total annual

traffic.

SCR Surface Condition Rating (Appendix B, Section 10)

Shoulder Width Distance from fogline to hinge point, or if no fogline, from edge-of-

pavement to hinge point.

### **APPENDIX B: DESCRIPTION OF RATING SYSTEM**

A numerical roadway rating system is used to describe the overall condition of the paved roadways and paved parking areas. In this system, a numerical rating between 0 and 100 is ascribed to each 0.02 miles of road. This numerical rating is called a Pavement Condition Rating (PCR). A "perfect" road, newly constructed with no surface distresses and a smooth surface, would be assigned a PCR rating of 100. Based on the type, severity, and extent of surface distresses points are deducted from 100 to arrive at the final PCR.

Data is collected on the following distresses and conditions:

- Alligator Cracking a series of interconnecting cracks resembling alligator skin or chicken wire, which can occur anywhere in the lane.
- **Longitudinal Cracking** cracks which are parallel to the pavement centerline or asphalt lay-down direction.
- **Transverse Cracking** cracks perpendicular to the pavement centerline.
- **Pothole (patch)** a bowl-shaped hole in the pavement surface. May be patched or not.
- **Rutting** surface depressions in the wheel paths.
- Roughness is collected as International Roughness Index (IRI) and is used in the PCR formula. Roughness is measured in inches of vertical displacement of the vehicle per mile traveled.

A Distress Rating Index value is calculated for each of the individual distresses at the 0.02 mile, or every 105.6 feet.

#### **Calculation of Index Values**

**Note:** Index values < 0 default 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.

All severity protocols are taken from the SHRP Distress Identification Manual.

#### **Condition Ranges for all Indices**

Excellent >=95
Good >=85 and <95
Fair >60 and <85
Poor <=60

#### **Alligator Crack Index**

```
AC_{INDEX} = 100 - 40 * [(\%LOW / 70) + (\%MED / 30) + (\%HI / 10)]
```

#### Where:

The values %LOW, %MED and %HI describe the percent of the total WX measured area that is affected by alligator cracking of each severity level. These values range from  $\geq 0$  to  $\leq 100$ .

%LOW = (Total square area WX measured low severity alligator cracking) / (Section length \* WX measured lane width)

%MED = (Total square area WX measured medium severity alligator cracking) / (Section length \* WX measured lane width)

% HI = (Total square area WX measured high severity alligator cracking) / (Section length \* WX measured lane width)

The denominators 70, 30, and 10 are the maximum allowable extents for the numerator value in the same units. For example, low severity alligator cracking totaling 70% of the measured section area would alone fail that section of road for this index.

The threshold for failure for this index is  $AC_{INDEX} = 60$ .

#### Severity Levels:

Low severity alligator cracking describes an area of cracks with no or only a few connecting cracks; cracks are not spalled (cracked, broken, chipped, frayed along the cracks); pumping (water seepage from beneath the pavement through the cracks) is not evident. Any sealed alligator cracks are low severity alligator cracks, as long as the sealant is still in good condition. If the sealant has reopened, and the crack is visible and can be measured, the crack severity is assigned according to that measurement.

Medium severity alligator cracking describes an area of interconnected cracks forming a complete pattern; cracks may be slightly spalled; pumping is not evident.

High severity alligator cracking describes an area of moderately or severely spalled interconnected cracks forming a complete pattern; pieces may move when subjected to traffic; pumping may be evident.

#### **Longitudinal Crack Index**

```
LC_{INDEX} = 100 - 40 * [(\%LOW / 350) + (\%MED / 200) + (\%HI / 75)]
```

#### Where:

The values %LOW, %MED and %HI describe the length of longitudinal cracking of each severity as a percent of the section length. These values are  $\geq 0$  and can exceed 100.

%LOW = (Total linear feet WX measured low severity longitudinal cracking) / (Section length in linear feet)

%MED = (Total linear feet WX measured medium severity longitudinal cracking) / (Section length in linear feet)

%HI = (Total linear feet WX measured high severity longitudinal cracking) / (Section length in linear feet)

The denominators 350, 200, and 75 are the maximum allowable extents for the numerator value in the same units. For example, medium severity longitudinal cracking with a total length that is 200% of the length of the section would alone fail that section of road for this index.

The threshold for failure for this index is  $LC_INDEX = 60$ .

#### Severity Levels:

Low severity longitudinal cracks have a mean width  $\leq \frac{1}{4}$ ", or are sealed cracks of indeterminate width whose sealant material is in good condition.

Medium severity longitudinal cracks have a mean width  $> \frac{1}{4}$ " and  $\le \frac{3}{4}$ ".

High severity longitudinal cracks have a mean width  $> \frac{3}{4}$ ".

#### **Transverse Crack Index**

```
TC_{INDEX} = 100 - \{ [20 * ((LOW / 15.1) + (MED / 7.5))] + [40 * (HI / 1.9)] \}
```

Where:

The values LOW, MED and HI describe a count of the total number of transverse cracks of each severity level, where one transverse crack unit is equal to the WX measured lane width. These values are  $\geq 0$ .

LOW = (Total linear feet WX measured low severity transverse cracking) / (WX measured lane width)
MED = (Total linear feet WX measured medium severity transverse cracking) / (WX measured lane width)
HI = (Total linear feet WX measured high severity transverse cracking) / (WX measured lane width)

The denominators 15.1, 7.5, and 1.9 are the maximum allowable extents for the numerator value in the same units. For example, high severity transverse cracking with a total length that amounts to 1.9 times the WX measured lane width would alone fail that section of road for this index.

The threshold for failure for this index is TC\_INDEX = 60.

Severity Levels:

Low severity transverse cracks have a mean width  $\leq \frac{1}{4}$ ", or are sealed cracks of indeterminate width whose sealant material is in good condition.

Medium severity transverse cracks have a mean width  $> \frac{1}{4}$ " and  $\leq \frac{3}{4}$ ".

High severity transverse cracks have a mean width  $> \frac{3}{4}$ ".

### **Patching Index**

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

Where:

The value %PATCHING describes the percent of the total WX measured area that is affected by patching. This value ranges from  $\geq 0$  to  $\leq 100$ .

```
%PATCHING = (Total area WX measured patching) / (Section length * WX measured lane width)
```

The denominator 80 is the maximum allowable extent for the numerator value in the same units. Patching totaling 80% or more of the measured section area fails a section of road for this index.

The threshold for failure for this index is PATCH INDEX = 60.

There are no severity levels for patching.

#### **Rutting Index**

```
RUT_INDEX = 100 - 40 * [(%LOW / 160) + (%MED / 80) + (%HI / 40)]
```

Where:

10 ARAN rut depth measurements are taken per full .02 section for each of 2 wheel paths (left and right), resulting in a total of 20 measurements taken for both wheel paths. The values %LOW, %MED and %HI describe the number of ARAN rut depth measurements of both wheel paths in the section whose values are of each severity level, calculated as a percentage of the total number of ARAN rut depth measurements taken for a single wheel path in the section. These values range from  $\geq 0$  to  $\leq 200$ .

%LOW = (Total number of ARAN measured low severity ruts in section for both wheel paths) / (Total number of ARAN rut measurements in section for a single wheel path)

%MED = (Total number of ARAN measured medium severity ruts in section for both wheel paths) / (Total number of ARAN rut measurements in section for a single wheel path)

%HI = (Total number of ARAN measured high severity ruts in section for both wheel paths) / (Total number of ARAN rut measurements in section for a single wheel path)

The denominators 160, 80, and 40 are the maximum allowable extents for the numerator value in the same units. For example, low severity ruts recorded in 16 of the 20 total readings (or 160% of a full wheel path's worth of readings) for a full .02 section would fail that section for this index.

The threshold for failure for this index is  $RUT_INDEX = 60$ .

Severity Levels:

Ruts with an ARAN measured depth < 0.20" are not included in the distress calculations.

Low severity ruts have an ARAN measured depth  $\geq 0.20$ " and  $\leq 0.49$ ".

Medium severity ruts have an ARAN measured depth  $\geq 0.50$ " and  $\leq 0.99$ ".

High severity ruts have an ARAN measured depth  $\geq 1.00$ ".

### **Roughness Condition Index**

```
RCI = 32 * [5 * (2.718282 ^ (-0.0041 * AVG IRI))]
```

#### Where:

The value AVG IRI describes the average value of the Left IRI and Right IRI measurements for the section. This value can range from approximately 40 to over 1000.

```
AVG IRI = (ARAN measured Left IRI + ARAN measured Right IRI) / 2
```

There is no applicable threshold for failure for this index.

NOTE: Collection of roughness data is dependent on the data collection vehicle traveling at a minimum speed of 12 mph. In the event that a route cannot be safely traveled at this minimum speed, and results in no roughness data, the SCR only will be calculated.

#### **Surface Condition Rating Index**

```
\mathbf{SCR} = 100 - [(100 - AC\_INDEX) + (100 - LC\_INDEX) + (100 - TC\_INDEX) + (100 - PATCH\_INDEX) + (100 - RUT\_INDEX)]
```

Where:

See above for determinations of AC\_INDEX, LC\_INDEX, TC\_INDEX, PATCH\_INDEX and RUT\_INDEX.

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

#### Pavement Condition Rating Index Asphaltic Concrete Pavement (AS)

```
PCR = (0.60 * SCR) + (0.40 * RCI)
```

Where:

See above for determinations of SCR and RCI.

The values 0.60 and 0.40 function as weights within the formula.

If SCR equals zero (which means that the road surface condition is very poor), then the formula simply reduces to: PCR = 0.40 \* RCI.

If RCI equals zero (which means that this value was not available for some reason), then the formula becomes: PCR = SCR.

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

#### **Pavement Condition Rating Index Portland Cement Concrete Pavement (CO)**

**Concrete PCR** =  $-0.0012(IRI^2)+0.0499(IRI)+99.542$ 

Where:

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

### Parking Lot and Manually Rated Road Condition Rating

#### **Surface Condition Distresses- Chip Seal:**

Raveling – loss of surface rock chips revealing previous surface

Bleeding – asphalt or tar is bleeding through to the surface where surface looks slick with asphalt

Rutting

Potholes/Patching

### **Ratings - Chip Seal:**

Excellent – None of the surface affected by the above (recently constructed)

Good – Less than 10% of surface affected by the above

Fair – Between 10% and 40% of surface affected by the above

Poor – More than 40% of surface affected by the above

#### **Surface Condition - Asphalt:**

Cracking of any type

Rutting

Potholes/Patching

### **Ratings - Asphalt:**

Excellent – None of the surface affected by the above (recently constructed)

Good – Less than 10% of surface affected by the above

Fair – Between 10% and 40% of surface affected by the above

Poor – More than 40% of surface affected by the above

### **Index Values of Visual Ratings on Parking Lots and Manually Rated Roads**

**Under Construction 100** 

Excellent 97

Good 90

Fair 73

Poor 45

### APPENDIX C: GENERAL INFORMATION ON RIP SYSTEMS

### **DMI (Distance Measuring Instrument)**

The DMI (Distance Measuring Instrument) obtains road length measurements that are highly accurate (to 0.001 miles). The DMI is connected to the outside of the rear wheel on the driver's side, and is wired into the antilock braking system (ABS). The number of pulses recorded for each wheel rotation by the ABS is registered by the DMI, which transmits a measurement of distance traveled to the processing computers in the ARAN. The DMI distance measurements are the foundation to which all the other subsystems are tied.

### **Digital Image Information**

All images collected in Cycle 4 are digital images in .jpg format. These images provide adequate resolution for identifying sign and feature inventories and pavement evaluations. The images can be viewed with an interactive software program called VisiData. Each park will receive a copy of the VisiData program. Cycle 4 data, as well as Cycle 3 data, can be viewed using the Visi-Data software program. This program is a data presentation and analysis tool that can be accessed either at the individual park, park region or at NPS headquarters. The data is organized in a hierarchical manner and presented in tabular and graphical formats. The user is able to perform queries and drill down through the data to find the particular information they are looking for. Associated digital right-of-way images from either the LAN, USB port, individual DVD can be presented along with GPS locations.

### Right-of-way (ROW) Video

Three digital cameras are mounted above the vehicle's windshield that point directly forward and slightly to the left and right. These cameras each collect one image every 0.002 miles (10.56 feet) in the primary-direction lane, to give a panoramic field-of-view of about 160 degrees. (Forward-facing video from the center camera only is collected in the opposite-direction lane of travel.)

If data collection speed exceeds 35-40 mph, the network and storage computers may become overwhelmed and may begin to drop individual video frames. Occasional common video quality issues include sun glare and rapid changes between sunlight and shadow. The camera system is equipped with auto risers that sometimes cannot adjust quickly enough to collect optimal video images.

FHWA ARAN CAMERA SPECIFICATIONS Forward Fooing Comoros (ROW)					
Forward-Facing Cameras (ROW) Focal length 10 mm					
Chip size	8.71mm X 6.90mm				
Naming convention of each image	chainage.jpg				
Image resolution	1300 X 1030				
Image pixel size	depends on distance				
Relative position of the GPS unit to each	2.104 meters from front-center rutbar to				
camera					
The ARAN has a lever arm setting which te	ells the POS system where the center of the				

The ARAN has a lever arm setting which tells the POS system where the center of the rutbar is with respect to the GPS antennas.

#### **Pavement Video**

Pavement video images are collected by the data collection vehicle to use in later analysis to determine extents and severities of different types of pavement distress. The pavement in the primary-direction road lane is filmed continuously by two analog cameras attached to booms extended from the rear of the ARAN on the left and right sides. Strobe lights fire synchronously with the opening of the camera shutters to eliminate shadows and motion blur. The images from the two cameras overlap, and are stitched together in real time to create a continuous strip image of the pavement in the primary direction lane. This strip has a maximum width of 3.0 meters (actual width depends on pavement camera calibration) and is sectioned for ease of file management every 0.010 miles (52.8 feet).

The cameras both have a resolution of 640 x 480, making the threshold of visible pavement cracks about 3 mm. Because the cameras are triggered by time and not distance traveled, this subsystem requires a minimum operating speed of 6 mph, otherwise images are taken on top of one another and result in checkered or black pavement video.

FHWA ARAN CAMERA SPECIFICATIONS Pavement Cameras					
Image Pixel size	3.135 mm /side				
Image Resolution	640 X 480				
Area that images cover	1.5 m X 1.2 m				
Full color or grayscale	grayscale				
Vehicle speed limitations	80km/h				
Aperture setting	Auto-iris				
Exposure setting	1/50000				

### FHWA ARAN GPS & Inertial System

GPS is collected by a NovAtel MiLLenium, 12 channel, dual frequency L1/L2, DGPS ready receiver with a MiLLennium 502 GPS antenna. An OmniStar 3000 LR provides real-time differential correction. An Applanix POS/LV is the inertial system that fills in when GPS is unavailable. The antenna is mounted in the center of the roof, slightly toward the rear of the vehicle, but a lever arm is applied to place the operational location of GPS recording at the center of the rutbar on the front bumper of the vehicle. Expected accuracy under ideal conditions is sub meter.

#### **GPS Collected on Manually Rated Routes**

Parking areas and roads that are not fully drivable with the ARAN data collection vehicle are collected manually by field technicians. GPS is collected for these routes using GPS field data collection utilizes Trimble ProXRS or ProXH Receivers matched with Trimble TSC1 or Ranger handheld Data Loggers, connected to Trimble Hurricane Antennas giving sub meter accuracy in ideal conditions. This collection equipment has varied as technology has improved over the years of RIP data collection. Some GPS files collected as early as 1998 have been verified for accuracy and perpetuated through the current cycle of data collection.

#### **GPS SHAPEFILES**

Type of Route and Collection Shape Filename		
Roads driven by ARAN	Line	park_road_04.dbf/.shp/.shx
Parking Areas	Polygon	park_pkg_04.dbf/.shp/.shx
Roads Manually Rated as Lines	Line	park_mrl_04.dbf/.shp/.shx
(not in every park)		
Roads Manually Rated as Polygons	Polygon	park_mrp_04.dbf/.shp/.shx
(not in every park)		

- Datum for all GPS shapefiles is LL\_WGS84\_DD (Latitude Longitude \_World Geodetic Survey 1984\_Decimal Degrees)
- In filename, "park" is NPS four-letter alphabetic code.
- The source for route data required for data processing and report production is the PARK RouteInfo.mdb.

### **Condition Photos Taken of Manually Rated Roads**

One or more digital photos are taken by Canon Power Shot G2 4.0 Mega Pixel digital camera for each manually rated route in a National Park. They are stored in .jpg format named with the four-letter NPS park alphabetic code, route number, and the photo number assigned by the camera. For example, YOSE\_0900\_4434.jpg is the filename of the photo named 4434 by the camera that was taken of Yosemite National Park route 0900.

### **Scenic Photos**

Scenic photos are taken by Canon Power Shot G2 4.0 Mega Pixel digital camera throughout each park and are named with the four-letter NPS park alphabetic code and the count of the photo taken in that park. For example, GRCA003.jpg is the filename of the third scenic photo taken in Grand Canyon National Park. The number of scenic photos provided will vary between parks.

### **APPENDIX D: METADATA**

### FHWA – NPS Road Inventory Program Cycle 4 Metadata

The purpose of these sheets is to provide users of the Road Inventory Program's data with data accuracies and tolerances to help users define ways in which the RIP data can and cannot be used. For further information on specifics of data collection equipment, data collection procedures, equipment calibrations, or quality control/quality assurance procedures, please contact Jim Kennedy, Project Manager, Data Quality Assurance, at 720-963-3560 or jim.kennedy@fhwa.dot.gov.

All Road Inventory Program data undergoes quality control and quality assurance testing. This document represents the known data accuracies and tolerances for the data collection equipment, data collection procedures, and data processing procedures currently in use. Many additional tests conducted on the park databases during the quality assurance phase to ensure data integrity are not listed as a part of this document. Before it is delivered, a park database undergoes a large set of table design consistency, field data format consistency, data completeness, uniqueness of key fields, data reasonableness, acceptable data range, within-field data consistency, between-field data consistency, and between-table data consistency tests. Additional data sampling checks are conducted to ensure proper data upload from raw files into the park database and to quality check the pavement crack analysis. Further information is detailed in the FHWA – NPS RIP Quality Assurance Manual, available upon request.

This description of metadata includes only the known accuracies with which a data field matches its expected value. The tables that follow this page show each database field's:

- Field field name
- Format data type and number of characters of field
- Expected Value meaning of value assigned to field
- Source when in process field value obtained
- Validation how field value obtained
- Expected Accuracy accuracy with which contents of field match Expected Value

Verifying and continually improving the accuracy of Road Inventory Program data is an ongoing goal of the Federal Highway Administration and the National Park Service. Field testing and post-collection analysis of ARAN (Automatic Road ANalyzer) -collected data will continue in Cycle 4. Data quality is expected to improve as the FHWA – NPS Road Inventory Program continues to operate, due to the fact that future data collection cycles will consist in large part of data updates. Also, technological improvements are expected to render the data increasingly consistent with actual roadway conditions as data collection cycles progress.

### **Specific Caveats**

- MUTCD based on contents & colors of sign, not on size
- Database records that show a Portland Cement Concrete (CO) surface type sometimes include distress
  index values that seem to show a perfect roadway. Condition assessments on concrete pavements are not
  conducted for Alligator Cracking, Transverse or Longitudinal Cracking, Patching, or Rutting. Perfect
  values for concrete road sections for these indexes are default values and do not represent a condition
  assessment of the concrete surfaces.
- On the USB drive, in the Database folder, parks are provided with intersection lists and exceptions lists. These documents should be treated as raw files and are not accurate. Refer to the final database for accurately post-processed intersection data.
- Most roadway data is collected in the primary direction lane of a roadway. To save data storage space and to reduce data analysis efforts, the assumption was made that the paved surface condition of a route's primary lane adequately represents the surface condition of the full roadway. Therefore, in the database, opposite-direction records in the PMS\_Tenth table do not include assessed values for roadway surface distresses. Values such as 0, N/A, -1, or a repeat of the primary-direction assessed value indicate that no assessment was performed. The PMS\_20 and PMS\_Mile tables simply exclude all opposite routes.

- Roadway Data is collected in intervals of 0.010 miles (52.8feet) constituting a "station".
- Most roadway features are collected relative to the primary direction lane of a roadway, using the primary
  direction video and mileage. Signs and Mile Markers are the only features collected using the oppositedirection video with mileage location referenced to the primary direction lane of the roadway.
- Route\_GPS table contains GPS positional information collected by the ARAN and post processed with Applanix POSPac Land 5.0 post-processing software. No manual adjustments have occurred on this table.
- Modifications to the Park ROAD 04.dbf/.shp/.shx files may have been necessary for report esthetics.
- Modifications to the Park\_PKG\_04. dbf/.shp/.shx files may have been necessary for report esthetics.
- Cycle 4 utilizes the Microsoft Office 2003 suite of products and Crystal Reports XI for document and data file generation and reporting.
- All PDF files are in Adobe Acrobat 7.0 Professional format.
- All ArcGIS files are created using ESRI Version 9.x software.
- Thumbnail images are created at 1/10 original image size for Right-of-Way and Pavement Images.
- FHWA is investigating the rutting methodology and calculated values it currently reports. Equipment limitations and analysis methods may be over reporting, low severity rutting.

#### **Key to Notes in Tables**

- (1): Note that only one value fits in field, so even if this value varies throughout the route, only predominant value is recorded here.
- (2): Shoulder width is measured at route start and every half-mile along the route in the primary direction. Width is the entire width of the drivable shoulder, regardless of the presence or absence of pavement, from the fog line to the shoulder hinge point, or if no fog line exists, from the edge of pavement to the hinge point. Identification of shoulder hinge point can be problematic using video analysis. Some paved ditches may be mistakenly recorded as shoulders where the shoulder hinge point and change in slope are not easily distinguished from the video.
- (3): Mileage is measured by the ARAN (Automatic Road ANalyzer) data collection vehicle out to the 0.001 decimal place. The DMI (distance measuring instrument) is very accurate, with extremely slight variations in measurement due to air temperature, tire inflation, curves, hills, and equipment calibration.
- (4): Features are measured differently depending on whether they are visible in the forward-facing video of the roadway, but every feature milepost measurement depends on the baseline measurement of the data collection vehicle's mileage. The ARAN (Automatic Road ANalyzer) data collection vehicle's mileage is measured by the DMI (distance measuring instrument) out to the 0.001 decimal place. The DMI is very accurate, with extremely slight variations in measurement due to air temperature, tire inflation, curves, hills, and equipment calibration. If a feature will not be visible in the forward-facing video, its milepost is determined by the data collectors' key press tagging the milepost when the ARAN passes the feature. Key presses are entered into the ARAN software when the vehicle travels typically between 15 and 45 miles/hour, so a delay of a single second as the vehicle passes a feature would result in an inaccuracy of 0.004 miles (22 feet) to 0.012 miles (66 feet). If a feature is visible in the video, its milepost is determined during post-processing using a video measurement software called Surveyor.
- (5): Condition assessments on concrete (PCC) pavements are not conducted for Alligator Cracking, Transverse or Longitudinal Cracking, Patching, or Rutting. Perfect values for concrete road sections for these indexes are default values and do not represent a condition assessment of the concrete surfaces.
- (6): Roadway cracking presence, type, severity, and extent are determined by filming the roadway in the primary lane continuously with two overlapping analog cameras of 640 x 480 resolutions. The images from both cameras are stitched together in real time to create a continuous strip image of the roadway pavement in the primary lane. Cracks 3 mm or greater in width are visible in this video. A semi-automatic process running the WiseCrax software with additional input by human operators provides the cracking quantities recorded in these database fields. Quality checks have determined that a consistent 80% or better of the visible cracks are recorded.

### Access Database Metadata

### **MASTER Table Metadata**:

						EXPECTED
	FIELD	FORMAT	EXPECTED VALUE	SOURCE	VALIDATION	ACCURACY
						100% Referenced to
1	RIP_CYCLE	XX	4, for data collection cycle 4	Route ID Meeting	FHWA Determination	other tables
	GT 4 TT	****		B		100%, Referenced to
2	STATE	XX	State where route is located	Route ID Meeting	Park Input / FHWA Determination	other tables (1)
3	DADIZ ALDIIA	XXXX	Doubs almba anda	Route ID Meeting	NPS References	100%, Referenced to other tables
3	PARK_ALPHA	ΛΛΛΛ	Park alpha code	Route ID Weeting	NFS References	100%, Referenced to
4	PARK_NO	XXXX	Park numeric code	Route ID Meeting	NPS References	other tables
-	1711(11_110	717171	Tark numeric code	Route 1D Weeting	THE References	100%, Referenced to
5	RTE_NO	9999XXX	Route number	Route ID Meeting	Park Input / FHWA Classification	other tables
	1112_1			Trouble 12 Trouble		100%, Referenced to
						other tables. 100
6	RTE_NAME	(Text)	Route name	Route ID Meeting	Park Input	characters fit in field
						100%, Referenced to
7	FUNCT_CLASS	X	Route functional classification	Route ID Meeting	Park Input / FHWA Classification	other tables
			Survey lane: PRI (primary) or			
8	DIRECTION	XXX	OPP (opposite)	Route ID Meeting	Park Input / FHWA Determination	100%,
	DEG 16 F6F	000 000 / 11 )		D 1011		Estimated before data
9	BEG_MP_EST	999.999 (miles)	Estimated starting MP	Route ID Meeting	Park Input / FHWA Determination	collected
10	END_MP_EST	999.999 (miles)	Estimated ending MP	Route ID Meeting	Park Input / FHWA Determination	Estimated before data collected
		999.999 (miles)	9	ARAN Data Collection	·	100%
11	RTE_LENGTH	999.999 (miles)	Collected route length	ARAN Data Collection	Automatic Output	100% 100% Referenced to
12	FROM_DESC	(Text)	Beginning terminus of route	Route ID Meeting	Park Input / FHWA Determination	other tables
12	TROW_DLSC	(TCAt)	Degining terminus of foute	Route ID Weeting	Tark input / TTWA Determination	100% Referenced to
13	TO_DESC	(Text)	Ending terminus of route	Route ID Meeting	Park Input / FHWA Determination	other tables
14	NO_LANES	X	Number of lanes in route	ARAN Data Collection	Survey Crew Input	Untested. (1)
						100%, Referenced to
15	SURF_TYPE	XX	Surface type of route	ARAN Data Collection	Survey Crew Input	other tables (1)
			Compass direction of route's			
			primary lane (nearest cardinal			
16	COMP_DIR	XX	direction)	Route ID Meeting	Park Input / FHWA Determination	Untested
17	COMMENTS	(Text)	Special information, if any	Contractor Post-processing	Contractor Input	Untested
18	FILENAME	(Text)	Filename of raw data files	ARAN Data Collection	Automatic Output	100%
				Route ID Meeting/ARAN	Survey Crew Input/Automatic	
19	SECTION	(Text)	Route section ID	Data Collection	Output	100%

20	FKEY	9999999	Unique record ID	Contractor Post-processing	Database Processing	100%
21	DATE	MM/DD/YY	Data collection date	ARAN Data Collection	Automatic Output	100%
22	BEG_MP	999.999 (miles)	Beginning MP collected	ARAN Data Collection	Automatic Output	100% (3)
23	END_MP	999.999 (miles)	Ending MP collected	ARAN Data Collection	Automatic Output	100% (3)

## PMS\_FEATURE Table Metadata:

				g 0 + 1 + 0 + 0 + 0 + 0 + 0 + 0 + 0 + 0 +		EXPECTED
	FIELD	FORMAT	EXPECTED VALUE	SOURCE	VALIDATION	ACCURACY
1	DID CYCLE	3737	4.6.1.11.11.11.11.11	D ( IDM )	EINMA D	100% Referenced to
1	RIP_CYCLE	XX	4, for data collection cycle 4	Route ID Meeting	FHWA Determination	other tables
	CT A TE	WW	State of home words in least of	Daniel ID Markins	Park Input / FHWA	H-4-4-1(1)
2	STATE	XX	State where route is located	Route ID Meeting	Determination	Untested (1) 100% Referenced to
3	DADK ALDHA	XXXX	Dorle alpha anda	Route ID Meeting	NPS References	other tables
3	PARK_ALPHA	ΛΛΛΛ	Park alpha code	Route ID Meeting	NPS References	100% Referenced to
4	PARK_NO	XXXX	Park numeric code	Route ID Meeting	NPS References	other tables
4	FARK_NO	ΛΛΛΛ	Fark numeric code	Route ID Meeting	Park Input / FHWA	100% Referenced to
5	RTE_NO	9999XXX	Route number	Route ID Meeting	Classification	other tables
5	KIE_NO	JJJJAAA	Facility Management	Route ID Meeting	Classification	other tables
			Software System Equipment			
6	FMSS_EQUIP	XXXXXXX	number	NPS FMSS application	NPS References	Untested
	TWISS_EQUI		number	THE THISE application	Park Input / FHWA	100% Referenced to
7	FUNCT_CLASS	X	Route functional class	Route ID Meeting	Classification	other tables
			Survey lane: PRI (primary)		Park Input / FHWA	
8	DIRECTION	XXX	or OPP (opposite)	Route ID Meeting	Determination	100%
				ARAN Data		
				Collection/Contractor Post-		
9	MP	999.999 (miles)	Feature location along route	processing	Video Analysis	<=0.001 mile
			Feature Beginning location			
10	BEG_MP	999.999 (miles)	along route	Contractor Post-processing	Video Analysis	<=0.001 mile
			Feature Ending location			
11	END_MP	999.999 (miles)	along route	Contractor Post-processing	Video Analysis	<=0.001 mile
12	FEATURE_LENGTH	999.99 (Feet)	Linear Feature Length	Contractor Post-processing	Database Processing	100%
13	EVENT	XXXX	Event category of feature	Contractor Post-processing	Video Analysis	Untested
			Event sub-category of			
14	EVENT_CODE	XXXX	feature	Contractor Post-processing	Video Analysis	Untested
			Feature designation:			
15	FEATURE_TYPE	(Text)	LINEAR or POINT	Contractor Post-processing	Video Analysis	Untested
1	ELIENT DEGG	<b>(T)</b>	Description of		X7' 1	<b>T</b>
16	EVENT_DESC	(Text)	feature/contents of sign	Contractor Post-processing	Video Analysis	Untested
17	MUTCD	(Text)	MUTCD Code of Sign	Contractor Post-processing	Database Processing	95%
1.0	GOVIDALIAON	(OT / A 33	Sign condition. N/A. Not to		X7' 1	Values inaccurate,
18	CONDITION	"N/A"	be populated	Contractor Post-processing	Video Analysis	defaulted to "N/A"
19	COMMENT	(T4)	Sign label, intersecting	Contractor Doct	Dotoboso Ducassina	Untested
19	COMMENT	(Text)	route, etc.  Offset from Road Edge.	Contractor Post-processing	Database Processing	Values inaccurate,
20	OFFSET	"N/A"	N/A. Not to be populated	Contractor Post-processing	Database Processing	defaulted to "N/A"
20	OFFSEI	1N/A	IN/A. Not to be populated	Contractor Post-processing	Database Processing	uerauneu to IN/A

						EXPECTED
	FIELD	FORMAT	EXPECTED VALUE	SOURCE	VALIDATION	ACCURACY
21	GIDE.		Side of route relative to lane		X7' 1 A 1 '	050/
21	SIDE	(Text)	driven FHWA bridge structure	Contractor Post-processing	Video Analysis	95%
22	STR_NUMBER	(Text)	number	FHWA Post-processing	Database Processing	Untested
23	BARR_MAT	(Text)	Barrier Material Type	Contractor Post-processing	Video Analysis	Untested
24	BARR_TYPE	(Text)		Contractor Post-processing	Video Analysis  Video Analysis	Untested
25	BARR_POST_MAT	(Text)	Barrier Type	Barrier Post Materials Contractor Post-processing Video Analysis  Video Analysis		Untested
26		` '	<del>-</del>	i	-	
<b>—</b>	BARR_BEG_TERM	(Text)	Barrier Approach Treatment	Contractor Post-processing	Video Analysis	Untested
27	BARR_END_TERM	(Text)	Barrier End Treatment	Contractor Post-processing	Video Analysis	Untested
28	CURB_MAT	(Text)	Curb Material Type	Contractor Post-processing	Video Analysis	Untested
29	PAVED_DITCH_MAT	(Text)	Paved Ditch Material Type	Contractor Post-processing	Video Analysis	Untested (2)
30	GATE_MAT	(Text)	Gate Material Type	Contractor Post-processing	Video Analysis	Untested
31	GATE_STYLE	(Text)	Gate Style	Contractor Post-processing	Video Analysis	Untested
22		000 00000	GPS Latitude Co-ordinate			0.00.0
32	BEG_GPS_LAT	999.999999	(decimal degrees)	Contractor Post-processing	Video Analysis	<= 3.00 feet
33	BEG_GPS_LON	-999.999999	GPS Longitude Co-ordinate	Contractor Post-processing	Video Analysis	<= 3.00 feet
34	BEG_GPS_ELEV	9999999	(-decimal degrees)  GPS Elevation Feet			Vntested
			<u> </u>	Contractor Post-processing Video Analysis		Untested
35	BEG_GPS_MODE	(Text)	GPS Satellite Mode GPS Latitude Co-ordinate	Contractor Post-processing	ntractor Post-processing Video Analysis	
36	END_GPS_LAT	999.999999	(decimal degrees)	Contractor Post-processing	Video Analysis	<= 3.00 feet
30	LIVD_GIS_LAT	777.777777	GPS Longitude Co-ordinate	Contractor 1 ost-processing	Video Anarysis	<= 5.00 feet
37	END_GPS_LON	-999.999999	(-decimal degrees)	Contractor Post-processing	Video Analysis	<= 3.00 feet
38	END GPS ELEV	99999.9	GPS Elevation Feet	Contractor Post-processing	Video Analysis	Untested
39	END_GPS_MODE	(Text)	GPS Satellite Mode	Contractor Post-processing	Video Analysis	Untested
40	DATUM	(Text)	LL WGS84 DD	Contractor Post-processing	Database Processing	100%
	-	( /	Removable USB video hard	8	6	
41	VIDEO	< <i>Park</i> >C04VID<#>	drive number	Contractor Post-processing	Database Processing	Untested
			Filename of .jpg image			
42	IMAGE	(Text)	showing feature	Contractor Post-processing	Automatic Output	Untested
43	DATE	MM/DD/YY	Data collection date	ARAN Data Collection	Automatic Output	100%
44	FILENAME	(Text)	Filename of raw data files	ARAN Data Collection	Automatic Output	100%
				Route ID Meeting/ARAN	Survey Crew	
45	SECTION	(Text)	Route section ID	Data Collection	Input/Automatic Output	100%
46	FKEY	(Numeric)	Unique record ID	Contractor Post-processing	Database Processing	100%
1	And Ebon	000000 / 1111 11 11	Raw MP of first video frame		D. I. D.	
47	VISI_FROM	999999 (millimiles)	showing feature	Contractor Post-processing	Database Processing	Untested
48	VISI_TO	999999 (millimiles)	Raw MP of last video frame	Contractor Dest masses:	Database Processing	Untostad
48	V131_1U	(IIIIIIIIIes)	showing feature	Contractor Post-processing	Database Processing	Untested

						EXPECTED
	FIELD	FORMAT	EXPECTED VALUE	SOURCE	VALIDATION	ACCURACY
			Unique record ID used by			
49	IDKEY	(Text)	VisiData	Contractor Post-processing	Database Processing	Untested
			Range of mileage to play in			
50	MP_REF	(Text)	VisiData	Contractor Post-processing	Database Processing	Untested

	List of Roadway Features									
#	EVENT	EVENT_CODE	FEATURE_TYPE	EVENT_DESC	STRUCTURE #	COLLECTED BY				
1	BRIDGE	BRDG	LINEAR	BRIDGE ALWA'		ARAN				
2	CATTLE GUARD	CGD	POINT	CATTLE GUARD	-	VIDEO RATING				
3	CONSTRUCTION	CNST	LINEAR	CONSTRUCTION WORK ZONE	-	ARAN				
4	CULVERT	CUL	POINT	CULVERT	SOMETIMES	ARAN				
5	CURB	CRBL	LINEAR	CURB ON LEFT	-	VIDEO RATING				
	""	CRBR	LINEAR	CURB ON RIGHT	-	VIDEO RATING				
6	CURB-AND- GUTTER	CAGL	LINEAR	CURB-AND-GUTTER ON LEFT	-	VIDEO RATING				
	""	CAGR	LINEAR	CURB-AND-GUTTER ON RIGHT	-	VIDEO RATING				
7	DROP INLET	DINL	POINT	DROP INLET ON LEFT	-	ARAN				
	""	DINR	POINT	DROP INLET ON RIGHT	NLET ON RIGHT -					
8	GATE	GATE	POINT	GATE	-	VIDEO RATING				
9	FIRE HYDRANT	FHDL	POINT	FIRE HYDRANT ON LEFT	-	VIDEO RATING				
	""	FHDR	POINT	FIRE HYDRANT ON RIGHT	-	VIDEO RATING				
10	GUARD/GUIDE WALL	GGWL	LINEAR	GUARD/GUIDE WALL ON LEFT	-	VIDEO RATING				
	""	GGWR	LINEAR	GUARD/GUIDE WALL ON RIGHT	-	VIDEO RATING				
11	GUARD/GUIDE RAIL	GGRL	LINEAR	GUARD/GUIDE RAIL ON LEFT	-	VIDEO RATING				
	""	GGRR	LINEAR	GUARD/GUIDE RAIL ON RIGHT	-	VIDEO RATING				
12	INTERSECTION	INTL	POINT	INTERSECTION ON LEFT	-	ARAN				
	""	INTR	POINT	INTERSECTION ON RIGHT	-	ARAN				
	""	INTN	POINT	INTERSECTION SIDE N/A	-	ARAN				

	LANE					
13	DEVIATION	LADV	LINEAR	LANE DEVIATION	-	ARAN
14	LOW WATER CROSSING	LWCR	LINEAR	LOW WATER CROSSING	SOMETIMES	VIDEO RATING
15	MILE MARKER	MML	POINT	MILE MARKER ON LEFT	-	VIDEO RATING
	""	MMR	POINT	MILE MARKER ON RIGHT	-	VIDEO RATING
16	OVERPASS	OPV	POINT	OVERPASS VEHICULAR	SOMETIMES	ARAN
	""	OPP	POINT	OVERPASS PEDESTRIAN	SOMETIMES	ARAN
	""	OPRX	POINT	OVERPASS RAILROAD CROSSING	SOMETIMES	ARAN
17	PARK BOUNDARY	PRK	POINT	PARK BOUNDARY	-	ARAN
18	PAVED DITCH	PVDL	LINEAR	PAVED DITCH ON LEFT	-	VIDEO RATING
	""	PVDR	LINEAR	PAVED DITCH ON RIGHT	-	VIDEO RATING
19	PULLOUT	PLOL	LINEAR	PULLOUT ON LEFT	-	VIDEO RATING
	""	PLOR	LINEAR	PULLOUT ON RIGHT	-	VIDEO RATING
20	RAILROAD CROSSING	RRX	POINT	RAILROAD CROSSING	-	VIDEO RATING
21	RETAINING WALL	RTWL	LINEAR	RETAINING WALL ON LEFT	-	VIDEO RATING
	""	RTWR	LINEAR	RETAINING WALL ON RIGHT	-	VIDEO RATING
22	ROUTE BEGIN	RBEG	POINT	ROUTE BEGIN	-	ARAN
23	ROUTE END	REND	POINT	ROUTE END	-	ARAN
24	SIGN	REGU, WARN, GUID, UNKN	POINT	DOCUMENT CONTENTS OF SIGN. (WHAT THE SIGN SAYS) FOR GRAPHICS ONLY SIGNS POPULATED WITH ("GRAPHIC SIGN, NO TEXT") FOR UNREADABLE TEXT POPULATED WITH ("UNABLE TO READ FROM VIDEO")	-	VIDEO RATING
24	STATE	GUID, UNKN	FOINT	TROW VIDEO )	-	VIDEO KATINO
25	BOUNDARY	STB	POINT	STATE BOUNDARY	-	ARAN
26	TRAFFIC LIGHT	TRF	POINT	TRAFFIC LIGHT	-	VIDEO RATING
27	TUNNEL	TUN	LINEAR	TUNNEL	ALWAYS	ARAN

# PMS\_20, PMS\_MILE, & PMS\_TENTH Tables Metadata:

	FIELD	FORMAT	EXPECTED VALUE	SOURCE	VALIDATION	EXPECTED ACCURACY
			4, for RIP data collection			100% Referenced to other
1	RIP_CYCLE	XX	Cycle 4	Route ID Meeting	FHWA Determination	tables
					Park Input/FHWA	
2	STATE	XX	State where route is located	Route ID Meeting	Determination	Untested. (1)
						100% Referenced to other
3	PARK_ALPHA	XXXX	Park alpha code	Route ID Meeting	NPS References	tables
						100% Referenced to other
4	PARK_NO	XXXX	Park numeric code	Route ID Meeting	NPS References	tables
					Park Input/FHWA	100% Referenced to other
5	RTE_NO	9999XXX	Route number	Route ID Meeting	Classification	tables
					Park Input/FHWA	100% Referenced to other
6	FUNCT_CLASS	X	Route functional class	Route ID Meeting	Classification	tables
			Survey lane: PRI (primary)		Park Input/FHWA	
7	DIRECTION	XXX	or OPP (opposite)	Route ID Meeting	Determination	100%
			MP at start of road interval			
	DEC 10	000 000 ( 11 )	described by database			1000/ (2)
8	BEG_MP	999.999 (miles)	record	Contractor Post-processing	Database Processing	100% (3)
			MP at end of road interval			
9	END MP	999.999 (miles)	described by database record	Contractor Post-processing	Database Processing	100% (3)
9	END_MF	999.999 (IIIIles)	Length of road interval as	Collitación Fost-processing	Database Flocessing	100% (3)
10	INT_LENGTH	999.9 (ft)	aggregated for data table	Contractor Post-processing	Database Processing	100%
11	RTE LENGTH	999.999 (miles)	Collected route length	ARAN Data Collection	Automatic Output	100% (3)
12	NO LANES	99	Number of lanes in route	ARAN Data Collection	Survey Crew Input	Untested. (1)
13	_	99	Data collection lane	<del> </del>	Database Processing	Untested. (1)
13	LANE_NO	99	WiseCrax (crack detection	Contractor Post-processing	Database Processing	Untested
14	D_LANE_WIDTH	99.999 (ft)	software) analysis width	Contractor Post-processing	Automatic Output	Untested
15	LANE_WIDTH	99.9 (ft)	Width of lane	Contractor Post-processing	Video Analysis	95%, <=1.0 foot
16	PAVE_WIDTH	99.9 (ft)		Contractor Post-processing  Contractor Post-processing	Video Analysis  Video Analysis	95%, <=1.0 foot
-	_	` ′	Full pavement width	1 0	ž	
17	SHLD_WIDTH_L	99.9 (ft)	Left shoulder width	Contractor Post-processing	Video Analysis	95%, <=1.0 foot (2)
18	SHLD_WIDTH_R	99.9 (ft)	Right shoulder width	Contractor Post-processing	Video Analysis	95%, <=1.0 foot (2)
1.0	CITED COND I	NT/A	N/A. Intended to be Left	ADAND (CIL C		Values inaccurate, defaulted
19	SHLD_COND_L	N/A	shoulder condition	ARAN Data Collection	Survey Crew Input	to "N/A"
20	CHI D COND D	NT/A	N/A. Intended to be Right	AD AN Data Calledian	Comment Comment	Values inaccurate, defaulted
20	SHLD_COND_R	N/A	shoulder condition N/A. Intended to be Left	ARAN Data Collection	Survey Crew Input	to "N/A"
21	DDAIN COND I	NT/A		APAN Data Callaction	Survey Cray Innut	Values inaccurate, defaulted to "N/A"
21	DRAIN_COND_L	N/A	drainage condition N/A. Intended to be Right	ARAN Data Collection	Survey Crew Input	Values inaccurate, defaulted
22	DRAIN_COND_R	N/A	drainage condition	ARAN Data Collection	Survey Crew Input	to "N/A"
22	DRAIN_COND_R	1 <b>V</b> / <i>F</i> <b>1</b>	dramage condition	ANAN Data Collection	Survey Crew Input	io IN/A

	FIELD	FORMAT	EXPECTED VALUE	SOURCE	VALIDATION	EXPECTED ACCURACY
23	SURF_TYPE	XX	Surface type of route	ARAN Data Collection	Survey Crew Input	Untested. (1)
24	PCR	999	Pavement Condition Rating	Contractor Post-processing	Database Processing	100% for calculation (6)
			Roughness Condition Index;			
25	RCI	999	-1 if invalid IRI	Contractor Post-processing	Database Processing	100% for calculation
26	SCR	999	Surface Condition Rating	Contractor Post-processing	Database Processing	100% for calculation (5) (6)
27	IRI_AVG	999.9 (inches/mile)	Average IRI	Contractor Post-processing	Database Processing	Untested
28	IRI_SD	999.9 (inches/mile)	IRI standard deviation	Contractor Post-processing	Database Processing	Untested
29	IRI_L	999.9 (inches/mile)	Left wheel path IRI	ARAN Data Collection	Automatic Output	Untested
30	IRI_R	999.9 (inches/mile)	Right wheel path IRI	ARAN Data Collection	Automatic Output	Untested
31	IRI_FLAG	0 or -1	-1 if invalid IRI data	Contractor Post-processing	Database Processing	Untested
32	RUT_INDEX	999	Rut index	Contractor Post-processing	Database Processing	100% for calculation (5)
			Average rut depth of both			
33	RUT_AVG	99.99 (inches)	wheelpaths	Contractor Post-processing	Database Processing	Untested (5)
			Maximum rut depth of both			
34	RUT_MAX	99.99 (inches)	wheelpaths	Contractor Post-processing	Database Processing	Untested (5)
35	RUT_SD	9.9	Rut depth standard deviation	Contractor Post-processing	Database Processing	Untested (5)
			Percent of low severity ruts			
36	RUT_LOW	999 (%)	(on a 0-200% scale) in both wheelpaths	Contractor Post-processing	Database Processing	Untested (5)
30	KU1_LOW	999 (%)	Percent of medium severity	Contractor Post-processing	Database Processing	Official (3)
			ruts (on a 0-200% scale) in			
37	RUT MED	999 (%)	both wheelpaths	Contractor Post-processing	Database Processing	Untested (5)
		222 (14)	Percent of high severity ruts			(2)
			(on a 0-200% scale) in both			
38	RUT_HI	999 (%)	wheelpaths	Contractor Post-processing	Database Processing	Untested (5)
			Cross fall at start of road			
39	XFALL	999.9 (% slope)	interval	ARAN Data Collection	Automatic Output	Untested
40	GRADE	000 0 (0/ -1)	Grade at start of road	ARAN Data Collection	A damentic O day	TI-4-4-4
40		999.9 (% slope)	interval		Automatic Output	Untested
41	AC_INDEX	999	Alligator cracking index Percent of WiseCrax	Contractor Post-processing	Database Processing	100% for calculation (5) (6)
			measured lane area with			
			low-severity alligator			As a Computed 95%
42	AC LOW	999.9999 (%)	cracking	Contractor Post-processing	Pavement Video Analysis	Confidence Level (5) (6)
	_	. ,	Percent of WiseCrax			
			measured lane area with			
			medium-severity alligator			As a Computed 95%
43	AC_MED	999.9999 (%)	cracking	Contractor Post-processing	Pavement Video Analysis	Confidence Level (5) (6)
			Percent of WiseCrax			1050
1 4 4	AC III	000 0000 (0/)	measured lane area with	Company of the Dord Company of the C	Design and Wide A and a de	As a Computed 95%
44	AC_HI	999.9999 (%)	high-severity alligator	Contractor Post-processing	Pavement Video Analysis	Confidence Level (5) (6)

	FIELD	FORMAT	EXPECTED VALUE	SOURCE	VALIDATION	EXPECTED ACCURACY
			cracking			
45	LC_INDEX	999	Longitudinal cracking index	Contractor Post-processing	Database Processing	100% for calculation (5) (6)
46	LC_LOW	999.99 (%)	Low-severity longitudinal cracking in lane as a percentage of road interval length	Contractor Post-processing	Pavement Video Analysis	As a Computed 95% Confidence Level (5) (6)
47	LC_MED	999.99 (%)	Medium-severity longitudinal cracking in lane as a percentage of road interval length High-severity longitudinal	Contractor Post-processing	Pavement Video Analysis	As a Computed 95% Confidence Level (5) (6)
48 49	LC_HI TC_INDEX	999.99 (%) 999	cracking in lane as a percentage of road interval length Transverse cracking index	Contractor Post-processing Contractor Post-processing	Pavement Video Analysis Database Processing	As a Computed 95% Confidence Level (5) (6) 100% for calculation (5) (6)
50	TC_LOW	999.99 (cracks)	Count of low-severity transverse cracks, where one crack unit equals the WiseCrax measured lane width	Contractor Post-processing	Pavement Video Analysis	As a Computed 95% Confidence Level (5) (6)
51	TC_MED	999.99 (cracks)	Count of medium-severity transverse cracks, where one crack unit equals the WiseCrax measured lane width	Contractor Post-processing	Pavement Video Analysis	As a Computed 95% Confidence Level (5) (6)
52	TC_HI	999.99 (cracks)	Count of high-severity transverse cracks, where one crack unit equals the WiseCrax measured lane width	Contractor Post-processing	Pavement Video Analysis	As a Computed 95% Confidence Level (5) (6)
53	PATCH_INDEX	999	Patching index	Contractor Post-processing	Database Processing	100% for calculation (5) (6)
54	PATCHING	999.9999 (%)	Percent of WiseCrax measured lane area affected by patching	Contractor Post-processing	Pavement Video Analysis	As a Computed 95% Confidence Level (5) (6)
55	GPS_LAT	999.999999	Latitude coordinate	ARAN Data Collection	Automatic Output	<= 3.00 feet
56	GPS_LON	-999.999999	Longitude coordinate	ARAN Data Collection	Automatic Output	<= 3.00 feet
57	GPS_ELEV	99999.9	Elevation	ARAN Data Collection	Automatic Output	Untested
58	GPS_MODE	XXX	GPS Satellite Mode during collection	ARAN Data Collection	Automatic Output	Untested
59	DATUM	(Text)	LL_WGS84_DD	ARAN Data Collection	Database Processing	100%
60	VIDEO	< <i>Park</i> >C04VID<#>	Removable USB video hard	Contractor Post-processing	Database Processing	Untested

	FIELD	FORMAT	EXPECTED VALUE	SOURCE	VALIDATION	EXPECTED ACCURACY
			drive number			
			Filename of .jpg image			
61	IMAGE	(Text)	showing road interval	Contractor Post-processing	Automatic Output	Untested
			Average ARAN speed			
62	SPEED	999 (miles/hour)	during data collection	ARAN Data Collection	Automatic Output	Untested
			Flag indicating presence of			
63	BRIDGE_FLAG	0 or 1	bridge in interval	ARAN Data Collection	Survey Crew Input	Untested
			Flag indicating construction			
64	CONSTR_FLAG	0 or 1	in interval	ARAN Data Collection	Survey Crew Input	Untested
			Flag indicating lane			
65	LANEDEV_FLAG	0 or 1	deviation in interval	ARAN Data Collection	Survey Crew Input	Untested
66	DATE	MM/DD/YY	Data collection date	ARAN Data Collection	Automatic Output	100%
			Flag indicating absence of			
67	NODISTRESS	0 OR 1	pavement distress	Contractor Post-processing	Database Processing	100%
68	FILENAME	(Text)	Filename of raw data files	ARAN Data Collection	Automatic Output	100%
				Route ID Meeting/ARAN Data	Survey Crew Input/Automatic	
69	SECTION	(Text)	Route section ID	Collection	Output	100%
70	FKEY	(Numeric)	Unique record ID	Contractor Post-processing	Database Processing	100%
			Raw MP of first video frame		-	
71	CONTRACTOR1	(Numeric)	in section	Contractor Post-processing	Database Processing	Untested
			Raw MP of last video frame			
72	CONTRACTOR2	(Numeric)	in section	Contractor Post-processing	Database Processing	Untested
			Unique record ID used by			
73	CONTRACTOR3	(Text)	VisiData	Contractor Post-processing	Database Processing	Untested
			Range of mileage to play in			
74	CONTRACTOR4	(Text)	VisiData	Contractor Post-processing	Database Processing	Untested

## **ROUTE\_GPS** table metadata:

	FIELD	FORMAT	EXPECTED VALUE	SOURCE	VALIDATION	EXPECTED ACCURACY
						100% referenced to other
1	RIP_CYCLE	XX	4, for RIP data collection Cycle 4	Route ID Meeting	FHWA Determination	tables
					Park Input/FHWA	
2	STATE	XX	State where route is located	Route ID Meeting	Determination	Untested
	DADIZ ALDILA	VVVV	Dowle alaba and a	Danta ID Mastina	NIDC Defenses	100% Referenced to other
3	PARK_ALPHA	XXXX	Park alpha code	Route ID Meeting	NPS References	tables 100% Referenced to other
4	PARK_NO	XXXX	Park numeric code	Route ID Meeting	NPS References	tables
H	17HKK_110	71777	Tark numeric code	Route 15 Weeting	Park Input/FHWA	100% Referenced to other
5	RTE_NO	9999XXX	Route number	Route ID Meeting	Classification	tables
					Park Input/FHWA	100% Referenced to other
6	FUNCT_CLASS	X	Route functional classification	Route ID Meeting	Classification	tables
						100% Referenced to other
						tables . 100 characters fit in
7	RTE_NAME	(Text)	Route name	Route ID Meeting	Park Input	field
8	LANE_NUMBER	99	Data collection lane	Contractor Post-processing	Database Processing	Untested
	DIDECTION	373737	Survey lane: PRI (primary) or		Park Input/FHWA	TT 1
9	DIRECTION	XXX	OPP (opposite)	Route ID Meeting	Determination	Untested
10	MP	999.999	Mile Post (at 0.01 record)	ARAN Data Collection, Contractor Post-processing	Survey Crew Input/GPS Processing	Untested (3)
10	IVII	777.777	GPS Latitude Co-ordinate	ARAN Data Collection,	Trocessing	Ontested (3)
11	GPS LAT	999.999999	(decimal degrees)	Contractor Post-processing	Automatic Output	<= 3.00 feet
	00%_====		GPS Longitude Co-ordinate	ARAN Data Collection,		
12	GPS_LON	-999.999999	(-decimal degrees)	Contractor Post-processing	Automatic Output	<= 3.00 feet
				ARAN Data Collection,		
13	GPS_ELEV	99999.9	Elevation	Contractor Post-processing	Automatic Output	Untested
			GPS Satellite Mode	ARAN Data Collection,		
14	GPS_MODE	XXX	during collection	Contractor Post-processing	Automatic Output	Untested
			Cross Fall: % Slope at GPS	ADAMB CHI C		
1.5	VEALI	000.0	Location (Caution, Data not	ARAN Data Collection,	Ataati Otat	I Interest of
15	XFALL	999.9	Validated) Grade: % Slope at GPS Location	Contractor Post-processing ARAN Data Collection,	Automatic Output	Untested
16	GRADE	999.9	(Caution, Data not Validated)	Contractor Post-processing	Automatic Output	Untested
17	HEADING	999.9	Heading Relative to True North	ARAN Data Collection	Automatic Output	Untested
18	DATUM		LL_WGS84_DD	ARAN Data Collection  ARAN Data Collection	•	_
		(Text)			Database Processing	Untested
19	FILENAME	(Text)	Filename of raw data files	ARAN Data Collection	Automatic Output	Untested
20	FKEY	9999999	Unique record ID	Contractor Post-processing	Database Processing	Untested

21	DATE	MM/DD/YY	ARAN Data Collection Date	ARAN Data Collection	Automatic Output	Untested
22	COMMENT	(Text)	Source of Any Digitized Data	ARAN Data Collection	Database Processing	Untested
23	CONTRACTOR1	(Numeric)	Visi_from	Contractor Post-processing	Database Processing	Untested
24	CONTRACTOR2	(Numeric)	Visi_to	Contractor Post-processing	Database Processing	Untested
25	CONTRACTOR3	(Text)	Visi_dir (ipdated to chapter 1)	Contractor Post-processing	Database Processing	Untested
26	CONTRACTOR4	(Text)	Comments/exceptions	Contractor Post-processing	Database Processing	Untested

FHWA "Route ID Program" Database Database Name: ROUTEINFO.mdb Table Name: ROUTE\_ID

	FIELD	FORMAT	EXPECTED VALUE	SOURCE	VALIDATION	EXPECTED ACCURACY
. 1			The Park's Alpha Code + "-" +			100%, Reference source for all
1	ROUTE_IDENT	XXXX-9999XXX	RTE_NO (below).	Route ID Meeting	Automatic Output	tables
						100%, Reference source for all
2	RIP_CYCLE	99	4, for RIP data collection Cycle 4	Route ID Meeting	FHWA Determination	tables
						100%, Reference source for all
3	PARK_ALPHA	XXXX	Park Alpha Code	Route ID Meeting	NPS References	tables
	111111_11111	717171	Tun Tipiu Code	Troute 12 Treeting	THE References	100%, Reference source for all
4	GROUP_ALPHA	XXXX	Group Alpha Code	Route ID Meeting	NPS References	tables
	_		• •	, and the second		100%, Reference source for all
5	PARK_NO	9999	Park Numeric Code	Route ID Meeting	NPS References	tables
						100%, Reference source for all
6	PARK_NAME	(text)	NPS Name of Park	Route ID Meeting	NPS References	tables
						100%, Reference source for all
7	RTE NO	9999XXX	Route Number	Route ID Meeting	Park Input	tables
$\stackrel{\prime}{-}$	KIL_NO	<i>,,,,,</i> ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Rode Pullion	Route 1D Weeting	Tuk iiput	100%, Reference source for all
8	RTE_NAME	(Text)	Route Name	Route ID Meeting	Park Input	tables
	_			Ŭ		100%, Reference source for all
9	FROM_DESC	(Text)	Beginning terminus of route	Route ID Meeting	Park Input/FHWA Determination	tables
						100%, Reference source for all
10	TO_DESC	(Text)	Ending terminus of route	Route ID Meeting	Park Input/FHWA Determination	tables
	nyan nyan			ARAN Data		100%, Reference source for all
11	INSP_DATE	MM/DD/YYYY	Collection Date	Collection	FHWA Determination	tables
12	FUNCT_CLASS	XX	Functional Class	Route ID Meeting	Park Input/FHWA Determination	100%, Reference source for all tables
					<u> </u>	
13	STATE	XX	State where route is located	Route ID Meeting	Park Input/FHWA Determination	Untested (1)
	CE A EEC	3737	Additional State Park Route	D ( ID M (	D 11 (FINAD : : :	11.4.4.171
14	STATE2	XX	traverses	Route ID Meeting	Park Input/FHWA Determination	Untested (1)
			NPS's Facility Management Software System (FMSS) Asset			100%, Reference source for all
15	FMSS_NO	(Text)	number	Route ID Meeting	Park Input	tables
15	11.100_110	(10At)	FMSS Surface Equipment	Troute ID Miceting	I mix iliput	the state of the s
16	FMSS_SUR_EQP	(Text)	Number	Route ID Meeting	Park Input	Untested
	`	` '	Park Maintenance District Route		1	100%, Reference source for all
17	M_DISTRICT	(Text)	resides in	Route ID Meeting	Park Input	tables (1)
18	TOPOGRAPHY	(Text)	Predominate Terrain condition for	Route ID Meeting	FHWA Determination	100%, Reference source for all

	FIELD	FORMAT	EXPECTED VALUE	SOURCE	VALIDATION	EXPECTED ACCURACY
			Route. (FLAT, ROLLING, MOUNTAINOUS, or URBAN)			tables (1)
			Posted Speed Limit for Route			
19	POSTED_SPEED	99	(Value is Predominate Speed Limit along Route)	Route ID Meeting	Park Input/FHWA Determination	Untested (1)
						100%, Reference source for all
20	ARAN_ROUTE	XXX	Yes/No	Route ID Meeting	Park Input/FHWA Determination	tables 100%, Reference source for all
21	PARKING_AREA	XXX	Yes/No	Route ID Meeting	Park Input/FHWA Determination	tables
22	CONCESSION	XXX	Yes/No	Route ID Meeting	Park Input	100%, Reference source for all tables
	CONCLUSION	717171	Paved mileage (to the nearest	ARAN Data	Tark Input	100%, Reference source for all
23	PAVED_MI	999.999	0.001)	Collection	Automatic Output	tables
24	UNPAVED_MI	999.999	Unpaved mileage (to the nearest 0.001)	Route ID Meeting	Automatic Output	100%, Reference source for all tables
				Contractor Post-		100%, Reference source for all
25	RTE_LENGTH	999.999	Official Route Length Surface type (PAVED: AS	processing	Automatic Output	tables
			(asphalt, includes composite), CO			
			(concrete), BR (brick/pavers), CB			100%, Reference source for all
26	SURF_TYPE	XX	(cobblestone), OT (other))	Route ID Meeting	Survey Crew Input	tables (1)
27	UNPAVED	XXXX	Unpaved Route (Yes/No/Both)	Route ID Meeting	Automatic Output	100%, Reference source for all tables
28	UNPAVED_CAT	XXX	Unpaved Road Category	Route ID Meeting	Automatic Output	Untested
20	CLIDD	<b>(T</b> )	Parking Area with Curb around	D ( IDM (		TT 4 4 1
29	CURB	(Text)	perimeter.  Parking Area with Curb and	Route ID Meeting	Park Input/FHWA Determination	Untested
30	CURB_GUTTER	(Text)	Gutter around perimeter.	Route ID Meeting	Park Input/FHWA Determination	Untested
		, ,				100%, Reference source for all
31	ADJ_ROUTE	9999XXX	Route number	Route ID Meeting	Automatic Output	tables
32	USER_ACCESS	(Text)	Access Designation for Parking	Route ID Meeting	Park Input/FHWA Determination	100%, Reference source for all tables
		(16.10)	Trees Besignation for Farming	Troute 12 Trouting		100%, Reference source for all
33	PHOTO_NO	(Text)	Photo or Image	Route ID Meeting	Survey Crew Input	tables
34	PLOT_SIZE	(Text)	Unpaved Parking Area Size	Route ID Meeting	Automatic Output	100%, Reference source for all tables
34	TLOI_SILE	(TEXI)	Onpaved I arking Area Size	Contractor Post-	Automatic Output	100%, Reference source for all
35	SQ_FEET	999.999	Route Square Footage	processing	Automatic Output	tables
26	M. DATING	(T : -1)	Manual Dating	Danta ID Martin	Automotic Oute	100%, Reference source for all
36	M_RATING	(Text)	Manual Rating	Route ID Meeting	Automatic Output	tables

	FIELD	FORMAT	EXPECTED VALUE	SOURCE	VALIDATION	EXPECTED ACCURACY
				Contractor Post-		100%, Reference source for all
37	SQ_YARDS	999.999	Route Square Yardage	processing	Automatic Output	tables
38	LANES	XX	Route travel lanes	Route ID Meeting	Automatic Output	Untested (1)
39	PAVE_WIDTH	999.99	Pavement Width (Weighted average)	RIP Post-processing	Automatic Output	100% Referenced to other tables
39	FAVE_WIDTH	777.77	average)	Kir Fost-processing	Automatic Output	100% Referenced to other tables
40	LANE_MILES	999.999	Route Equivalent Lane Miles	RIP Post-processing	Automatic Output	100%, Reference source for all tables
41	AREA_MAP	(Text)	1 or 2-digit number	Contractor Post- processing	FHWA/Contractor Input	100%, Reference source for all tables
42	REMARKS	(Memo)	General remarks on Park route and data collection operations.	Contractor Post- processing	FHWA/Contractor Input	Untested
43	SUMMARY_REC	XXXX-9999XXX	ROUTE_IDENT of summary Park Asset	Route ID Meeting	Park Input/FHWA Determination	100%, Reference source for all tables
44	NPS_REGION	(Text)	Park Region	Route ID Meeting	Park Input/FHWA Determination	100%, Reference source for all tables
45	DIVISION	(Text)	FHWA Division	Route ID Meeting	Park Input/FHWA Determination	100%, Reference source for all tables
46	PCR	999.99	Route Weighted Average PCR value	RIP Post-processing	Automatic Output	100% Referenced to other tables
47	SCR	999.99	Route Weighted Average SCR value	RIP Post-processing	Automatic Output	100% Referenced to other tables
48	AADT	999	Average Adjusted Daily Traffic	RIP	Automatic Output	Untested
49	SADT	999	Seasonal Adjusted Daily Traffic	RIP	Automatic Output	Untested
50	ADT_DATE	MM/DD/YYYY	Traffic Date of Collection	RIP	Automatic Output	Untested
51	BEG_LAT	999.999999	Route Begin GPS Latitude Co- ordinate (decimal degrees)	ARAN Data Collection	Automatic Output	<= 3.00 feet, Referenced from other tables
52	BEG_LON	-999.999999	Route Begin GPS Longitude Co- ordinate (-decimal degrees)	ARAN Data Collection	Automatic Output	<= 3.00 feet, Referenced from other tables
53	BEG_ELEV	99999.9	Route Begin Elevation	ARAN Data Collection	Automatic Output	100% Referenced to other tables
54	BEG_MODE	XXX	Route Begin GPS Satellite Mode during collection	ARAN Data Collection	Automatic Output	100% Referenced to other tables
55	END_LAT	999.999999	Route End GPS Latitude Co- ordinate (decimal degrees)	ARAN Data Collection	Automatic Output	<= 3.00 feet, Referenced from other tables

	FIELD	FORMAT	EXPECTED VALUE	SOURCE	VALIDATION	EXPECTED ACCURACY
56	END_LON	-999.999999	Route End GPS Longitude Co- ordinate (-decimal degrees)	ARAN Data Collection	Automatic Output	<= 3.00 feet, Referenced from other tables
57	END_ELEV	99999.9	Route End Elevation	ARAN Data Collection	Automatic Output	100% Referenced to other tables
58	END_MODE	XXX	Route End GPS Satellite Mode during collection	ARAN Data Collection	Automatic Output	100% Referenced to other tables
59	DATUM	(Text)	LL_WGS84_DD	ARAN Data Collection	Automatic Output	100% Referenced to other tables
60	CHILD_ROUTE	XXX	Yes/No	Route ID Meeting	Automatic Output	100% Reference source for all tables
61	CULVERT_CNT	999	Route Culvert Count	RIP Post-processing	Automatic Output	100% Referenced to other tables
62	DROP_INLET_CNT	999	Route Drop Inlet Count	RIP Post-processing	Automatic Output	100% Referenced to other tables
63	GATE_CNT	999	Route Gate Count	RIP Post-processing	Automatic Output	100% Referenced to other tables
64	TRAFLIGHT_CNT	999	Route Traffic Light Count	RIP Post-processing	Automatic Output	100% Referenced to other tables
65	SIGN_CNT	999	Route Sign Count	RIP Post-processing	Automatic Output	100% Referenced to other tables
66	LWCROSS_CNT	999	Route Low Water Crossing Count	RIP Post-processing	Automatic Output	100% Referenced to other tables
67	BRIDGE_CNT	999	Route Bridge Count	RIP Post-processing	Automatic Output	100% Referenced to other tables
68	TUNNEL_CNT	999	Route Tunnel Count	RIP Post-processing	Automatic Output	100% Referenced to other tables
69	PULLOUT_CNT	999	Route Pullout Count	RIP Post-processing	Automatic Output	100% Referenced to other tables
70	INTERSEC_CNT	999	Route Intersection Count	RIP Post-processing	Automatic Output	100% Referenced to other tables
71	ST_BNDRY_CNT	999	Route State Boundary Count	RIP Post-processing	Automatic Output	100% Referenced to other tables
72	PRK_BNDRY_CNT	999	Route Park Boundary Count	RIP Post-processing	Automatic Output	100% Referenced to other tables
73	RETWALL_CNT	999	Route Retaining Wall Count	RIP Post-processing	Automatic Output	100% Referenced to other tables
74	RR_CROSS_CNT	999	Route RR Crossing Count	RIP Post-processing	Automatic Output	100% Referenced to other tables
75	CATTLE_CNT	999	Route Cattle Guard Count	RIP Post-processing	Automatic Output	100% Referenced to other tables
76	OVHDSIGN_CNT	999	Route Overhead Sign Count	RIP Post-processing	Automatic Output	100% Referenced to other tables
77	MILEMARK_CNT	999	Route Mile Marker Count	RIP Post-processing	Automatic Output	100% Referenced to other tables
78	FHYD_CNT	999	Route Fire Hydrant Count	RIP Post-processing	Automatic Output	100% Referenced to other tables
79	OVERPASS_CNT	999	Route Overpass Count	RIP Post-processing	Automatic Output	100% Referenced to other tables
80	CABLE_TLNG	9999.999 (ft)	Route Total Length Cable Barriers	RIP Post-processing	Automatic Output	100% Referenced to other tables

	FIELD	FORMAT	EXPECTED VALUE	SOURCE	VALIDATION	EXPECTED ACCURACY
			Route Total Length Guard/Guide			
81	GDRAIL_TLNG	9999.999 (ft)	Rail Barriers	RIP Post-processing	Automatic Output	100% Referenced to other tables
			Route Total Length Guard/Guide			
82	GDWALL_TLNG	9999.999 (ft)	Wall Barriers	RIP Post-processing	Automatic Output	100% Referenced to other tables
			Route Total Length Temporary		1	
83	TEMP_BARR_TLNG	9999.999 (ft)	Barriers	RIP Post-processing	Automatic Output	100% Referenced to other tables
			Route Total Length Bollard		1	
84	BOLLARD_TLNG	9999.999 (ft)	Barriers	RIP Post-processing	Automatic Output	100% Referenced to other tables
85	BARRIER_TLNG	9999.999 (ft)	Route Total Length All Barriers	RIP Post-processing	Automatic Output	100% Referenced to other tables
			Route Total Length Curbing			
86	CURB_TLNG	9999.999 (ft)	(excludes Parking Areas)	RIP Post-processing	Automatic Output	100% Referenced to other tables
			Route Total Length Low Water			
87	LWCROSS_TLNG	9999.999 (ft)	Crossings	RIP Post-processing	Automatic Output	100% Referenced to other tables
						100% Referenced to other tables
88	PAVDITCH_TLNG	9999.999 (ft)	Route Total Length Paved Ditch	RIP Post-processing	Automatic Output	(2)
89	TURNOUT_TLNG	9999.999 (ft)	Route Total Length Turnouts	RIP Post-processing	Automatic Output	100% Referenced to other tables
90	LANE_NUMBER	99	Number of Lane Tested	RIP Post-processing	Automatic Output	100% Referenced to other tables
						100% Reference source for all
91	LOCAL_FACTOR	9.9999	Park Location Factor	NPS Partner	Automatic Output	tables
						100% Reference source for all
92	E_ZONE	XXX	Route Environmental Zone	FHWA HPMA	Automatic Output	tables
						100% Reference source for all
93	PAVEMENT_DM	\$99,999,999.99	Pavement Deferred Maintenance	FHWA HPMA	Automatic Output	tables
						100% Reference source for all
94	CRV	\$99,999,999.99	Current Replacement Value	RIP Post-processing	Automatic Output	tables

Database Name: ROUTEINFO.mdb Table Name: PARK\_TOTALS

	FIELD	FORMAT	EXPECTED VALUE	SOURCE	VALIDATION	EXPECTED ACCURACY
	TIEED	TORMIT	EM ECTED VILLEE	BOCKCE	VILLIDITION	100% Referenced to other
1	RIP_CYCLE	99	4, for RIP data collection Cycle 4	Route ID Meeting	FHWA Determination	tables
			1,			100% Referenced to other
2	PARK_ALPHA	XXXX	Park Alpha Code	Route ID Meeting	FHWA Determination	tables
			<u> </u>			100% Referenced to other
3	GROUP_ALPHA	XXXX	Group Alpha Code	Route ID Meeting	NPS References	tables
						100% Referenced to other
4	PARK_NO	9999	Park Numeric Code	Route ID Meeting	NPS References	tables
						100% Referenced to other
5	PARK_NAME	XXXX	NPS Name of Park	Route ID Meeting	NPS References	tables
				Route ID Meeting and		1000170
	DIGD DATE	MARDANAN	Date that data was collected in the park	ARAN Data		100% Referenced to other
6	INSP_DATE	MM/DD/YYYY	(completion date).	Collection	FHWA Determination	tables
						100% Referenced to other
7	NPS_REGION	XXXX	Park Region	Route ID Meeting	Park Input	tables
						100% Referenced to other
8	DIVISION	XXXX	FHWA Division	Route ID Meeting	FHWA Determination	tables
	T DAVED M	000 000	T . 15 15 116	DIDD		100% Referenced to other
9	T_PAVED_MI	999.999	Total Park Paved Miles	RIP Post-processing	Automatic Output	tables
10	T IMPANED MI	000 000	Total Doub Hungard Miles	DID Doot annouse in a	Automotic Outmot	100% Referenced to other
10	T_UNPAVED_MI	999.999	Total Park Unpaved Miles	RIP Post-processing	Automatic Output	tables 100% Referenced to other
11	T_ROUTE_MILES	999.999	Total Park Route Miles	RIP Post-processing	Automatic Output	tables
11	1_ROUTE_WILES	777.777	Total Fark Route Willes	Kir rost-processing	Automatic Output	100% Referenced to other
12	T_ARAN_DRIVEN	999.999	Total Park ARAN Driven Miles	RIP Post-processing	Automatic Output	tables
12	1_7H7H\_DH\VEI\	777.777	Total Lark Michael Wiles	Kii Tost processing	Tutomatic Output	100% Referenced to other
13	T_ARAN_LMILES	999.999	Total Park ARAN Lane Miles	RIP Post-processing	Automatic Output	tables
						100% Referenced to other
14	T_CONCESS_PAVED	999.999	Total Park Concession Paved Miles	RIP Post-processing	Automatic Output	tables
				•	•	100% Referenced to other
15	T_CONCESS_UNPAVED	999.999	Total Park Concession Unpaved Miles	RIP Post-processing	Automatic Output	tables
						100% Referenced to other
16	T_PRK_PAVEDSQFT	999.999	Total Park Parking Paved Square Feet	RIP Post-processing	Automatic Output	tables
			Total Park Parking Unpaved Square			100% Referenced to other
17	T_PRK_UNPAVEDSQFT	999.999	Feet	RIP Post-processing	Automatic Output	tables
			Total Park Concession Parking Paved			100% Referenced to other
18	T_CPRK_PAVEDSQFT	999.999	Square Feet	RIP Post-processing	Automatic Output	tables

						EXPECTED
	FIELD	FORMAT	EXPECTED VALUE	SOURCE	VALIDATION	ACCURACY
1.0			Total Park Concession Parking Unpaved			100% Referenced to other
19	T_CPRK_UNPAVEDSQFT	999.999	Square Feet	RIP Post-processing	Automatic Output	tables
20	T DARWING GOTT	000 000				100% Referenced to other
20	T_PARKING_SQFT	999.999	Total Park Parking Square Feet	RIP Post-processing	Automatic Output	tables
	T DADWING AND TO	000 000	Total Park Parking Equivalent Lane			100% Referenced to other
21	T_PARKING_LMILES	999.999	Miles	RIP Post-processing	Automatic Output	tables
22	T MDD GOET	000 000	Total Park Manually Rated Road Square	DIDD		100% Referenced to other
22	T_MRR_SQFT	999.999	Feet	RIP Post-processing	Automatic Output	tables
22	T CMPP COET	000 000	Total Park Concession Manually Rated	DID D		100% Referenced to other
23	T_CMRR_SQFT	999.999	Road Square Feet	RIP Post-processing	Automatic Output	tables
2.4	T MDD ANGER	000 000	Total Park Manually Rated Road	DIDD		100% Referenced to other
24	T_MRR_LMILES	999.999	Equivalent Lane Miles	RIP Post-processing	Automatic Output	tables
2.5		000 000	T. 15 17 30			100% Referenced to other
25	T_LMILES	999.999	Total Park Lane Miles	RIP Post-processing	Automatic Output	tables
						100% Referenced to other
26	T_CULVERT_CNT	999	Total Park Culvert Count	RIP Post-processing	Automatic Output	tables
						100% Referenced to other
27	T_DROP_INLET_CNT	999	Total Park Drop Inlet Count	RIP Post-processing	Automatic Output	tables
						100% Referenced to other
28	T_GATE_CNT	999	Total Park Gate Count	RIP Post-processing	Automatic Output	tables
						100% Referenced to other
29	T_TRAFLIGHT_CNT	999	Total Park Traffic light Count	RIP Post-processing	Automatic Output	tables
						100% Referenced to other
30	T_SIGN_CNT	999	Total Park Sign Count	RIP Post-processing	Automatic Output	tables
						100% Referenced to other
31	T_LWCROSS_CNT	999	Total Park Low Water Count	RIP Post-processing	Automatic Output	tables
						100% Referenced to other
32	T_BRIDGE_CNT	999	Total Park Bridge Count	RIP Post-processing	Automatic Output	tables
						100% Referenced to other
33	T_TUNNEL_CNT	999	Total Park Tunnel Count	RIP Post-processing	Automatic Output	tables
						100% Referenced to other
34	T_PULLOUT_CNT	999	Total Park Pullout Count	RIP Post-processing	Automatic Output	tables
						100% Referenced to other
35	T_INTERSEC_CNT	999	Total Park Intersections Count	RIP Post-processing	Automatic Output	tables
						100% Referenced to other
36	T_ST_BNDRY_CNT	999	Total Park State Boundaries Count	RIP Post-processing	Automatic Output	tables
						100% Referenced to other
37	T_PRK_BNDRY_CNT	999	Total Park Boundaries Count	RIP Post-processing	Automatic Output	tables
						100% Referenced to other
38	T_RETWALL_CNT	999	Total Park Retaining Wall Count	RIP Post-processing	Automatic Output	tables
20		000		1	•	1000/ D C 11 17
39	T_RR_CROSS_CNT	999	Total Park RR Crossing Count	RIP Post-processing	Automatic Output	100% Referenced to other

	EIELD	EODMAT		COLIDGE	WALIDATION	EXPECTED
	FIELD	FORMAT	EXPECTED VALUE	SOURCE	VALIDATION	tables
						tables
						100% Referenced to other
40	T_CATTLE_CNT	999	Total Park Cattle Guard Count	RIP Post-processing	Automatic Output	tables
						100% Referenced to other
41	T_OVHDSIGN_CNT	999	Total Park Overhead Sign Count	RIP Post-processing	Automatic Output	tables
		0.00				100% Referenced to other
42	T_MILEMARK_CNT	999	Total Park Mile Marker Count	RIP Post-processing	Automatic Output	tables
12	T FIND ONT	000	T (ID IF' HI ) C	DIDD		100% Referenced to other
43	T_FHYD_CNT	999	Total Park Fire Hydrant Count	RIP Post-processing	Automatic Output	tables
44	T OVEDDACS ONT	999	Total Park Overpass Count	RIP Post-processing	Automatic Output	100% Referenced to other tables
44	T_OVERPASS_CNT	999	Total Fark Overpass Count	Kir rost-processing	Automatic Output	100% Referenced to other
45	T_CABLE_TLNG	9999.999 (ft)	Total Length Park Cable Barriers	RIP Post-processing	Automatic Output	tables
7.5	1_C/\DEE_1E\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	)))),))) (It)	Total Length Park Guard/Guide Rail	Kii Tost processing	Tutomatic Output	100% Referenced to other
46	T_GDRAIL_TLNG	9999.999 (ft)	Barriers	RIP Post-processing	Automatic Output	tables
	1_GDTGTIL_TERVO	))))))))(It)	Total Length Park Guard/Guide Wall	Tan Tost processing	Tutomatic output	100% Referenced to other
47	T_GDWALL_TLNG	9999.999 (ft)	Barriers	RIP Post-processing	Automatic Output	tables
		. ,			•	100% Referenced to other
48	T_TEMP_BARR_TLNG	9999.999 (ft)	Total Length Park Temporary Barriers	RIP Post-processing	Automatic Output	tables
						100% Referenced to other
49	T_BOLLARD_TLNG	9999.999 (ft)	Total Length Park Bollard Barriers	RIP Post-processing	Automatic Output	tables
						100% Referenced to other
50	T_BARRIER_TLNG	9999.999 (ft)	Total Length All Park Barriers	RIP Post-processing	Automatic Output	tables
						100% Referenced to other
51	T_CURB_TLNG	9999.999 (ft)	Total Length Park Curbing	RIP Post-processing	Automatic Output	tables
						100% Referenced to other
52	T_LWCROSS_TLNG	9999.999 (ft)	Total Length Park Low Water Crossings	RIP Post-processing	Automatic Output	tables
		0000 000 (0)				100% Referenced to other
53	T_PAVDITCH_TLNG	9999.999 (ft)	Total Length Park Paved Ditches	RIP Post-processing	Automatic Output	tables (2)
- A	T TUDNOUT TING	0000 000 (%)	Tatal Land Dad Tana	DID De et man es c'an	A - to most of O - to - t	100% Referenced to other
54	T_TURNOUT_TLNG	9999.999 (ft)	Total Length Park Turnouts	RIP Post-processing	Automatic Output	tables 100% Referenced to other
55	PARK_PCR	99.99	Overall Park PCR Rating	RIP Post-processing	Automatic Output	tables
33	TANK_FUN	<b>フブ.ブブ</b>	Overall Falk FCK Kattlig	Kir rost-processing	Automatic Output	100% Referenced to other
56	PARK RCI	99.99	Overall Park RCI Rating	RIP Post-processing	Automatic Output	tables
30	111111_1(0)	77.77	Overall I aik NCI Rating	Territor processing	Tutomatic Output	100% Referenced to other
57	PARK_SCR	99.99	Overall Park SCR Rating	RIP Post-processing	Automatic Output	tables
		22.22				100% Referenced to other
58	PARK_RUT_INDEX	99.99	Overall Park Rutting Index Rating	RIP Post-processing	Automatic Output	tables
			Overall Park Alligator Cracking Index			100% Referenced to other
59	PARK_AC_INDEX	99.99	Rating	RIP Post-processing	Automatic Output	tables

						EXPECTED
	FIELD	FORMAT	EXPECTED VALUE	SOURCE	VALIDATION	ACCURACY
			Overall Park Longitudinal Cracking			100% Referenced to other
60	PARK_LC_INDEX	99.99	Index Rating	RIP Post-processing	Automatic Output	tables
			Overall Park Transverse Cracking Index			100% Referenced to other
61	PARK_TC_INDEX	99.99	Rating	RIP Post-processing	Automatic Output	tables
						100% Referenced to other
62	PARK_PATCH_INDEX	99.99	Overall Park Patching Index Rating	RIP Post-processing	Automatic Output	tables
						100% Referenced to other
63	PARK_CONC_PCR	99.99	Overall Park Concession PCR Rating	RIP Post-processing	Automatic Output	tables

# Business Practices for Route Numbering and Roadway Asset Identification

#### **Introduction and Background:**

Beginning in November 2006, inventory and condition information gathered by the Federal Highway Administration (FHWA) has been stored in FMSS to enable NPS to report Deferred Maintenance (DM) and Current Replacement Value (CRV) for NPS paved roads, paved parking areas, bridges, and tunnels. The NPS Roads Working Group (RWG) has been tasked with developing and implementing the procedures necessary to transfer DM and CRV from FHWA's databases to NPS' Facility Management Software System (FMSS).

Current business practices for roadway definition in national parks involve face-to-face meetings between FHWA personnel and individual park staff known as "Route ID" meetings. These meetings have been ongoing for several years and have been performed within the context of the Road Inventory Program (RIP) executed mainly by FHWA. The primary focus of these meetings has been on defining roadway static information such as route names, numbers, functional class, etc. The FHWA personnel are the primary individuals responsible for implementing the RIP and the route ID meetings are an integral and fundamental part of that process. The RIP process provides route numbers for each individual road and parking area in each park. After the route ID meetings establish a given park's roadway asset base, various types of condition and inventory data are collected either manually or with a data collection van that drives each individual road with an individual route number.

The FMSS requires asset numbers as unique identifiers for all asset types including roadways. The current practice is that all roadways that are assigned a route number at route ID, also are defined as assets and therefore also receive an FMSS asset number (Route names and functional classes are also collaboratively assigned during the face-to-face route ID meetings). This practice began midway through the third RIP data collection cycle (ending in 2003) and was further reinforced during an asset alignment process conducted in the summer of 2006. The alignment process ensured that each route number in RIP and each asset number in FMSS were matched to the correct road and parking area.

#### **Issue Statement:**

As a result of various pre-existing business practices associated with the RIP, which predates FMSS by several years, route numbers are assigned for routes that are often very small. In tandem with the current business practice that all routes with route numbers are considered assets, this has caused a proliferation of asset numbers within FMSS. Over the past year, the RWG has learned that this business practice has significantly increased time and resources that parks must dedicate to administering FMSS data entry and management. This additional work effort is due to the fact that tying FMSS asset records to the more detailed, granular RIP route numbers has generated numerous new assets that require additional database and work order management. This has led to a situation where assets are not being defined the way they are managed.

The following proposed practices seek to create an asset definition process that is dictated by to how road assets are managed at the park level, not according to the pre-existing practices used in RIP for collecting detailed road information. RIP practices assign route numbers mainly based on how data are collected and driven with a data collection device. These procedures will disassociate the driving of roads with the data collection van from the process of assigning them asset status. **The end goal is to only assign asset numbers based on how parks manage their facilities within guidelines set up within FMSS and herein.** Driving the road with the data collection van allows for the collection of higher quality data as well as the ability to view road segments with video viewing software (Visidata). By de-linking driving the roads with the assignment of "asset status", we are able to get the best quality data without the proliferation of assets that has serious negative ramifications for managing roadways in parks using asset management tools.

#### **Proposed Actions:**

- 1. Make a distinction within the route number field in the RIP database between those route numbers that represent assets, those that are subcomponents of assets and those that are groups of sub-components. The route number field in the RIP database will be expanded from 6 to 7 characters. The additional character will denote the asset status of the route in question. Combined routes will be designated with a double "zz", while subcomponents will be designated with one "z". Whenever possible, a combined route should use the lowest route number to be combined as the combined route number.
- 2. Only show assets, whether a group of subcomponents or a single component, on the Route ID report. Assets that are composed of subcomponents will have "zz" in the route number. Individual routes will have no additional characters in the route number. Subcomponents (designated in RIP with a "z") will not be listed on the route ID report. Only assign asset numbers to those routes listed on the route ID report.
- 3. Provide a separate reporting function (other than the Route ID report) to identify and display information for route numbers not representing assets. Specific reporting requirements and format TBD.
- 4. Add a new field to the RIP database to indicate the "asset status" of a route number. The flag will have three possible values:
  - a. Asset with no subcomponents.
  - b. Asset with subcomponents.
  - c. Non-asset (i.e. subcomponent).

Both a change in the route number and a new "asset ID" field in the RIP database are recommended. It is easier to perform queries and other database manipulations using a separate field instead of a character within the route number field. The character in the route number field allows for rapid identification of the asset status of a road without having to access the database as a whole. Even thought non-asset routes will not be included in the route ID report (the primary location for parks to view road information in RIP), there are many other reports as well as the Visidata application where the route number is

- displayed. In these cases, the character in the route number will clearly identify the asset status of the roadway.
- 5. Focus asset definition practices on NPS asset management needs. Create roadway assets based on how parks manage these assets within the following guidelines:
  - a. Individual road segments (asset subcomponents) may be combined into a single asset. Note that all the attributes of individual subcomponents (paved area, equipment, work orders, etc) will be included in the combined asset.
  - b. In general, combination should be used in complex circulatory environments such as campground areas, housing and other administrative areas, maintenance areas, etc.
  - c. Public and non-public segments may not be combined.
  - d. Segments with differing functional classes may not be combined.
  - e. Discrete parking areas may be combined into a single asset where they service the same facility or resource and are within walking distance of each other.
  - f. Parking areas and roads may not be combined. This includes short road segments that may be near or adjacent to parking areas. See 5h below for exceptions to this.
  - g. Where the primary purpose of a road is to provide access to a parking area, and that road segment is approximately 0.25 miles in length or shorter, the access road should be considered part of the parking area (Note that this is an existing RIP business practice).
  - h. Particularly long routes may be divided into multiple assets based on how a park manages the roadway network. This should not be confused with the use of sub-components listed in 5a.
  - i. Roads that are actively managed by concession operations may not be combined with those managed by the NPS.

#### **Discussion:**

The first four items listed above are actions required by FHWA RIP to allow for the adoption of the practices shown in 5a-i. The following will provide additional direction and examples for guidelines listed.

Individual road segments (asset subcomponents) may be combined into a single asset. Where previous route ID practices have generated more assets (routes) than are practical from an asset management standpoint, small, discrete road lengths may be designated as asset subcomponents and then combined into a larger single asset. A subcomponent is NOT an FMSS term. Subcomponents will be used in RIP to indicate which routes are small, drivable individual road segments and which routes may include these segments. Once a piece of road is designated a subcomponent of another route, it will no longer have any individual identity in FMSS. Only those routes listed on the RIP Route ID report will have asset numbers in FMSS. As stated in business rule 2 above, subcomponents will not be listed on the route ID. The quantity information (length, area) will be included into the larger route of which they are a part. See Figures 1 and 2 for an example of how existing assets may be combined using subcomponents. Note that

subcomponents will have an identity in the RIP database and, if driven by RIP team, may be referenced in RIP reports, Visidata, or other RIP documentation.

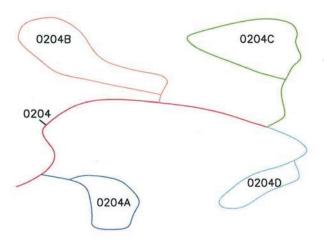


Figure 1: Campground with five routes and five assets

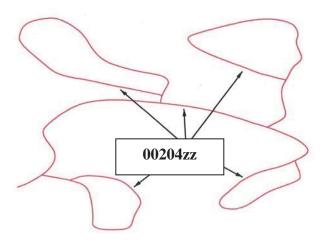


Figure 2: Campground with all loops combined into one route and one asset. This has eliminated four assets.

In general, combination should occur in complex circulatory environments such as campground areas, housing and other administrative areas, maintenance areas, etc.

Typically these complex situations are where too many assets have been used to define roadways. Combining simple "point A to point B" roads that are clearly defined and provide access to different facilities or locations may not be done.

<u>Public and non-public segments may not be combined.</u> Roads that are posted as closed to the public or are intended as administrative access only (maintenance areas, housing areas, fire roads, etc) can not be combined with roads open to the public.

Segments with differing functional classes may not be combined. The roadway functional class is found on the Route ID report. Functional class indicates the type of circulatory function a given road provides. Functional class is used in a variety of applications (engineering, safety, funding) so it is important to maintain the correct functional class attributes of individual roads/assets. There are some cases where functional class was erroneously assigned in prior Route ID meetings such as where campground loops have a different functional class than the campground road. Functional classes of individual roads may be modified to correct discrepancies. The functional class definitions may not be modified.

Discrete parking areas may be combined into a single asset where they service the same facility or resource and are within walking distance of each other. These combined areas should be maintained as one asset. There are many instances where small (5-10 space), discrete parking areas have been separated into individual assets even though they provide parking for the same area or facility. These may be combined into a single asset. Figures 3 and 4 shows examples of combining parking areas.

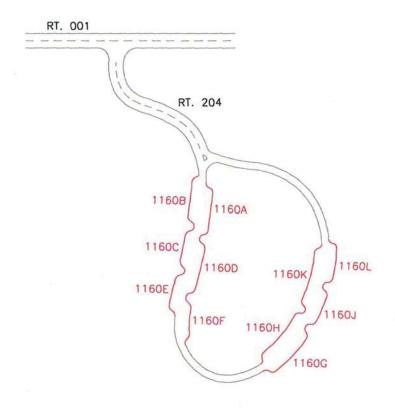


Figure 3: Parking with access route 204 and multiple parking areas (1160 A-L). Currently, this parking area is 12 routes and 12 assets (one 1100 asset and 11 1300 assets).

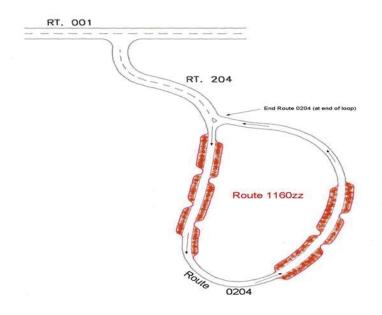


Figure 4: Parking with access route 204 and one parking area 1160zz. Route 204 is assumed longer than 0.25 miles. There are now 2 assets (one 1100 asset, one 1300 asset) instead of 12.

<u>Parking areas and roads may not be combined.</u> Parking areas and roads are tracked as separate asset types (1300 vs. 1100) in FMSS and as such should not be combined except in situations described by 5g. In Figure 5, Route 207 is a spur road from the main route running through parking area 1102. Since the spur road continues through and beyond the parking area, it will remain a separate route.

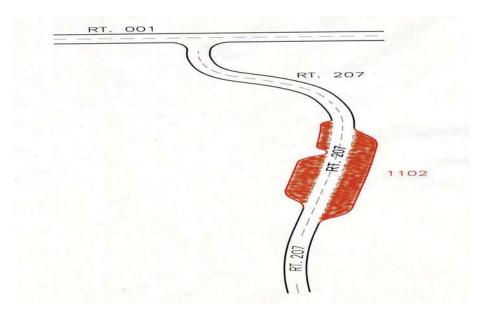


Figure 5: Parking with access route 207 running through and continuing beyond parking 1102. This access route cannot be considered a part of the parking area and two routes and two assets continue to exist.

Where the primary purpose of a road is to provide access to a parking area, and that road segment is less than 0.25 miles in length, the access road should be considered part of the parking area. See Figures 8. Where a road continues on past a parking area to another facility or destination, even if it is less than 0.25 miles to the initial parking area, the road and parking area may not be combined.

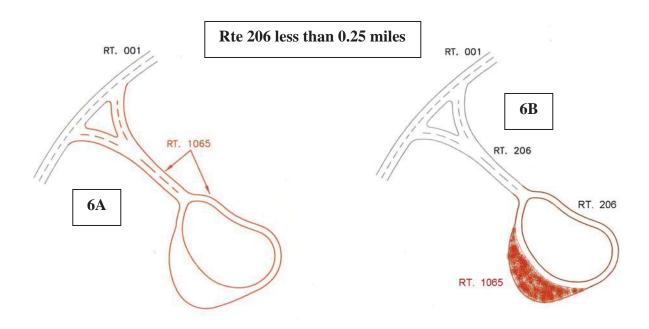


Figure 6: Since the access route is less than .25 miles in length and the only use of the access is to the parking, one route for both the access and the parking area can be established.

Particularly long routes may be divided into multiple assets based on how a park manages the roadway network. This should not be confused with the use of sub-components listed in 5a. Routes like the Blue Ridge Parkway or the Yellowstone Grand Loop may not lend themselves to management as a single asset by virtue of their length. Often management districts are created for sections of these routes and maintenance activities occur primarily within these districts. Parks may break routes up into separate assets during the Route ID process if the road is managed as discrete sections. This should only be done for very long roads.

The following example illustrates a complex road system and how the proposed business practice and several of the guidelines could be applied to create fewer assets that are consistent with local management.

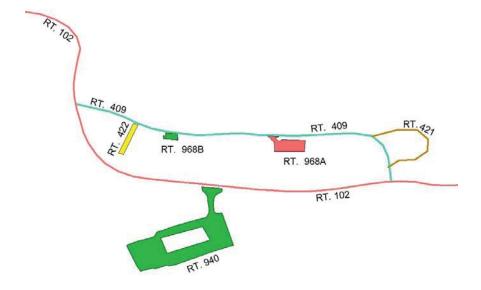


Figure 7 – Current Housing area access configuration. Route 409 is less than 0.25 miles long.

The area serviced by Routes 409, 421, 422, 968A, and 968B is all employee housing. Route 940 provides access to visitor services and not to the housing area. Routes may be combined to create assets that reflect local management. Routes 409, 421, and 422 are all the same functional class, provide access to one type of activity (housing) and are all posted as non-public. These routes may be combined. They should not be combined with any parking areas even though they are all less than 0.25 miles long. This is because their main function is not to provide access to parking. Routes 968A and B provide parking for access to the same facility (housing). Even though these discrete areas may provide parking to different housing units, it's reasonable to manage them as a single asset. They may also be combined.

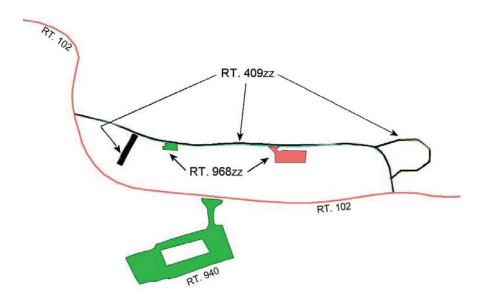


Figure 8 – Combined housing area access configuration – Parking and road assets combined to eliminate 3 assets.