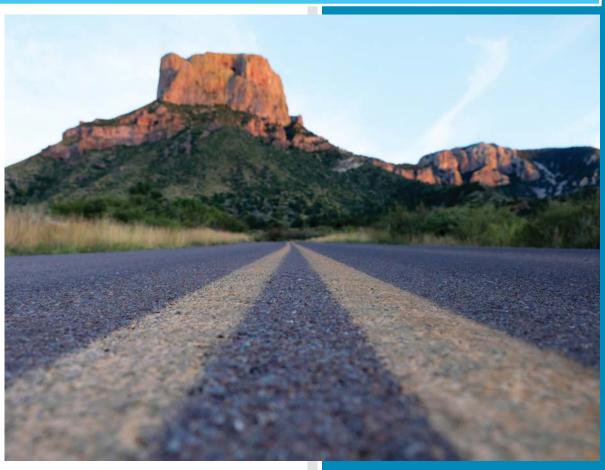
# BIBE Cycle 6

# **Final Report**

# Road Inventory and Condition Assessment of Paved Routes Big Bend National Park







Federal Lands Highway
Road Inventory Program

#### **Prepared By:**

Federal Highway Administration Eastern Federal Lands Highway Division Road Inventory Program (RIP)

**Report Date: October 2017** 

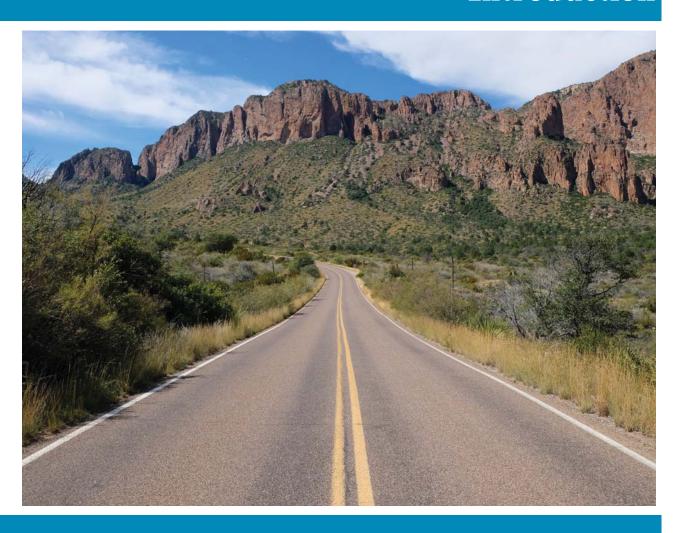
# Big Bend National Park in Texas



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# **Section 1 Introduction**





#### Introduction

The Federal Highway Administration's (FHWA), Road Inventory Program (RIP) inventories all roads and parking areas in the National Park System, and performs condition inspections on all paved roads and parking areas for the National Park Service (NPS). This report contains the results of the Cycle 6 condition assessment of paved roads and parking lots for this park unit. This assessment was done using an automated, state-of-the-art pavement inspection vehicle as well as manual ratings. This information represents the condition of the paved assets at the time of the inspection. The pavement management system utilized by FHWA and the NPS uses these assessments to estimate future conditions and help prioritize pavement maintenance and rehabilitation projects. Further information about RIP data and its role in managing paved roads and bridges can be obtained by contacting the NPS Regional Transportation Program Manager.

#### A History of the Road Inventory Program:

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

The FHWA completed the initial phase of inventory in the early 1980s. As a result of this effort, each NPS unit included in the collection received a RIP Report known as the "Brown Book" which contained information that was inventoried during this first RIP phase. In the 1990s, a cyclical program was developed, and since then five cycles of collection have been completed. Cycle 6 is currently in progress. A summary of the RIP collection cycles is shown in the table below.

Cycle	Years	Parks Collected
Cycle 1	1994 - 1997	° 44 Large Parks
Cycle 2	1997 - 2001	<ul><li>79 Large Parks</li><li>5 Small Parks</li></ul>
Cycle 3	2001 - 2004	<ul><li>All Large Parks</li><li>All Small Parks</li></ul>
Cycle 4	2006 - 2010	<ul><li>86 Large Parks</li><li>Several Small Parks</li></ul>
Cycle 5	2010 - 2014	<ul> <li>All Large Parks (Only functional class 1, 2, 7, and new/modified routes collected)</li> <li>All Small Parks (all roads and parking areas collected)</li> </ul>
Cycle 6	2014 – 2020 (±)	<ul> <li>All roads and parking areas collected at all Parks</li> <li>Additional partial collections of functional class 1, 2, and 7 roads at Large Parks</li> <li>Cycle 6 is expected to last 6 years</li> </ul>

Note: Large Parks have ≥ 10 Paved Miles; Small Parks have < 10 Paved Miles

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

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

In 2012, the Moving Ahead for Progress in the 21st Century Act (MAP-21) amended Title 23 U.S.C., and under Section 203(c)(1-2) stated that the National Park Service in cooperation with the DOT/FHWA, shall maintain a comprehensive national inventory of their transportation facilities, with the goal of quantifying transportation infrastructure needs within the National Park System.

#### A History of the Pavement Management System:

In 2005, the FHWA began implementing the use of a pavement management system to assist the NPS in prioritizing Pavement Maintenance and Rehabilitation activities. The system used by FHWA is the Highway Pavement Management Application (HPMA), which has the ability to store inventory and condition data from RIP and forecast future performance using prediction models. Outputs include performance and condition reports at the National, Regional, Park, or Route level. Regional prioritized lists and optimizations have been produced for most regions, and the Service's overall roadway Deferred Maintenance is calculated via the HPMA.

#### Overview of Cycle 6:

Cycle 6 launched in the spring of 2014 and will again comprise all NPS park units that are served by paved roads and/or parking areas. For Cycle 6, all paved roads (approximately 5,700 miles) and parking areas will be collected in all parks at least once, while the primary routes (functional class 1, 2, and 7 roads) at Large Parks will have additional collections. These multiple collections will provide updated condition data on a majority of the NPS's primary road network and help build a better pavement management system, allowing for more accurate pavement performance prediction models.

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

Respectfully,

FHWA RIP Team

FHWA/Eastern Federal Lands 21400 Ridgetop Circle Sterling, VA 20166 (571) 434-1574 FHWA/Central Federal Lands 12300 West Dakota Ave Lakewood, CO 80228 (720) 963-3556

# Section 2 Park Route Inventory





#### Page 1 of 16

# Cycle 6 NPS / RIP Route ID Report

(Numerical By Summary Route and Subcomponent #)



Shading Color Key

Report Date: 10/26/2017

White = Paved Routes, DCV Driven

Grey = Paved Routes, DCV not Driven

Black = Non-NPS Routes

= Concession Route

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Red text denotes:

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DCV = Data Collection Vehicle

MRL = Manually Rated Line

MRP = Manually Rated Polygon

PKG = Parking Areas
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**BIBE** 

	7	75		u o		ROAD INVENTORY (	1100 SERIES FMSS	LOCATION	S)				اما			
Route	cle Ilected	lteration Collected	FMSS	ıcessi		Route Des	cription	Maintenance	FLTP		Unpaved	Total	nction	Area	Surf.	
No.	ပ် ပိ	≗ ပိ	Number	Ŝ	Route Name	From	То	District	균	Miles	Miles	Mileage	Σŏ	(SQ FT)	Туре	Мар
0011	6	1	53230		NORTH ENTRANCE ROAD	FROM INTERSECTION OF ROUTE 0900 (VISITOR PARKING LOT - HQ BUILDING #310), ROUTE 0012 (RIO GRANDE ROAD), AND ROUTE 0013 (WEST ENTRANCE ROAD)	TO NORTH PARK BOUNDARY		YES	27.46	0.00	27.46	1		AS	1,2,2A
0012	6	1	53231		RIO GRANDE ROAD	FROM INTERSECTION OF ROUTE 0900 (VISITOR PARKING LOT - HQ BUILDING #310), ROUTE 0011 (NORTH ENTRANCE ROAD), AND ROUTE 0013 (WEST ENTRANCE ROAD)	TO ROUTE 0201 (RIO GRANDE VILLAGE ROAD) AT RIO GRANDE VILLAGE		YES	20.31	0.00	20.31	1		AS	2,2A,5,5 A
0013	6	1	53232		WEST ENTRANCE ROAD	FROM INTERSECTION OF ROUTE 0900 (VISITOR PARKING LOT - HQ BUILDING #310), ROUTE 0011 (NORTH ENTRANCE ROAD), AND ROUTE 0012 (RIO GRANDE ROAD)	to west park boundary		YES	21.91	0.00	21.91	1		AS	2,2A,3
0014	6	1	53233		CHISOS BASIN ROAD	FROM ROUTE 0013 (WEST ENTRANCE ROAD) AT MP 3.18	TO ROUTE 0919 (BASIN VISITORS CENTER PARKING)		YES	6.34	0.00	6.34	1		AS	2,2B
0015	6	1	53234		ROSS MAXWELL SCENIC DRIVE	FROM ROUTE 0013 (WEST ENTRANCE ROAD) AT MP 12.71	TO BEGINNING OF ROUTE 0016 (SANTA ELENA CANYON ROAD)		YES	23.25	0.00	23.25	1		AS	3,4
0016	6	1	53235		SANTA ELENA CANYON ROAD	FROM END OF ROUTE 0015 (ROSS MAXWELL SCENIC DRIVE)	TO END OF LOOP		YES	7.70	0.00	7.70	1		AS	4
0100	NC		54472		TERLINGUA RANCH ROAD	FROM ROUTE 0011 (NORTH ENTRANCE ROAD) AT MP 21.89 ON LEFT	TO WEST BOUNDARY		NO	0.00	23.89	23.89	2		GR	
0101	NC		54473		DAGGER FLAT ROAD	FROM ROUTE 0011 (NORTH ENTRANCE ROAD) AT MP 12.68 ON RIGHT	TO END		NO	0.00	7.73	7.73	2		GR	

#### Page 2 of 16

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				_		ROAD INVENTORY (	1100 SERIES FMSS	LOCATION	S)				_			
Route No.	Cycle Collected	Iteration Collected	FMSS Number	Concession	Route Name	Route Desc	cription To	Maintenance District	FLTP	Paved Miles	Unpaved Miles	Total Mileage	Function Class	Area (SQ FT)	Surf. Type	
0102	NC		54474		OLD ORE ROAD	FROM ROUTE 0012 (RIO GRANDE ROAD)	TO ROUTE 0101 (DAGGER FLAT ROAD)		NO	0.00	27.35	27.35	2		GR	
0103	6	1	54475		FOSSIL BONE ROAD	,	TO ROUTE 1015 (FOSSIL BONE PARKING)		YES	0.23	0.00	0.23	2		AS	2
0104	NC		54476		GLENN SPRINGS ROAD	FROM ROUTE 0012 (RIO GRANDE ROAD)	TO ROUTE 0106 (RIVER ROAD)		NO	0.00	16.1 <i>7</i>	16.17	2		GR	
0105	NC		54477		DUG OUT WELLS ROAD	FROM ROUTE 0012 (RIO GRANDE ROAD)	TO END		NO	0.00	0.66	0.66	2		GR	
0106	NC		54478		RIVER ROAD	FROM ROUTE 0015 (ROSS MAXWELL SCENIC DRIVE)	TO ROUTE 0012 (RIO GRANDE ROAD)		NO	0.00	53.30	53.30	2		GR	
0107	NC		54479		HOT SPRINGS ROAD	FROM ROUTE 0012 (RIO GRANDE ROAD)	TO HOT SPRINGS PARKING		YES	0.00	1.91	1.91	2		GR	
0109	6	1	54480		BOQUILLAS CANYON ROAD	FROM ROUTE 0012 (RIO GRANDE ROAD) AT MP 19.30	TO ROUTE 0905 (BOQUILLAS CANYON TRAIL PARKING)		YES	3.61	0.00	3.61	2		AS	5,5A
0110	6	1	54481		BOQUILLAS CANYON OVERLOOK ROAD	FROM ROUTE 0109 (BOQUILLAS CANYON ROAD)	TO END OF LOOP		YES	0.57	0.00	0.57	2		AS	5
0111	NC		54482		GRAPEVINE HILLS ROAD	FROM ROUTE 0013 (WEST ENTRANCE ROAD)	TO SPRING		NO	0.00	7.85	7.85	2		GR	
0112	6	1	54483		SOTOL VISTA OVERLOOK ROAD	FROM ROUTE 0015 (ROSS MAXWELL SCENIC DRIVE) AT MP 8.33	TO END OF LOOP		YES	0.41	0.00	0.41	2		AS	3
0113	6	1	54484		BURRO MESA POUROFF ROAD	FROM ROUTE 0015 (ROSS MAXWELL SCENIC DRIVE) AT MP 11.57	TO END OF LOOP		YES	1.86	0.00	1.86	2		AS	3
0114	6	1	54486		MULE EARS OVERLOOK ROAD	FROM ROUTE 0015 (ROSS MAXWELL SCENIC DRIVE) AT MP 15.46	TO END OF LOOP		YES	0.61	0.00	0.61	2		AS	4

#### Page 3 of 16

# Cycle 6 NPS / RIP Route ID Report

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				c		ROAD INVENTORY (	1100 SERIES FMSS	LOCATION	S)				5			
Route No.	Cycle Collected	lteration Collected	FMSS Number	Concession	Route Name	Route Des	cription To	Maintenance District	FLTP	Paved Miles	Unpaved Miles	Total Mileage	Function Class	Area (SQ FT)	Surf. Type	Area Map
0115	NC		54487		OLD MAVERICK ROAD	FROM ROUTE 0016 (SANTA ELENA CANYON ROAD)	TO ROUTE 0013 (WEST ENTRANCE ROAD)		NO	0.00	12.89	12.89	2		GR	
0200	NC		54489		HANNOLD DRAW ROAD	FROM ROUTE 0011 (NORTH ENTRANCE ROAD) AT MP 4.75 ON RIGHT	TO GRAVEL PIT		NO	0.00	0.25	0.25	3		GR	
0201	6	1	54490		RIO GRANDE VILLAGE ROAD	FROM ROUTE 0907 (RIO GRANDE DANIELS RANCH PICNIC AREA PARKING)	TO END		YES	1.41	0.00	1.41	3		AS	5A
0202	NC		54491		BOQUILLAS CROSSING	FROM ROUTE 0109 (BOQUILLAS CANYON ROAD)	TO PARKING		NO	0.00	0.41	0.41	3		GR	
0203ZZ	6	1	54492		RIO GRANDE VILLAGE CAMPGROUND ROADS	FROM ROUTE 0201 (RIO GRANDE VILLAGE ROAD)	THROUGH CAMPGROUND		YES	1.30	0.00	1.30	3		AS	5A
0204	NC		54494		TELEPHONE CANYON ROAD	FROM ROUTE 0102 (OLD ORE ROAD)	TO END		NO	0.00	0.04	0.04	3		GR	
0206	6	1	54495		LOWER BASIN CAMPGROUND ROAD	FROM ROUTE 0014 (CHISOS BASIN ROAD) AT MP 6.17	TO ROUTE 0924 (BASIN REMUDA PARKING) AND ROUTE 1028 (BASIN RESIDENCE PARKING)		YES	0.63	0.00	0.63	2		AS	2В
0207	NC		54496		PAINT GAP ROAD	FROM ROUTE 0013 (WEST ENTRANCE ROAD)	TO SPRING		NO	0.00	3.79	3.79	4		GR	
0208	NC		54497		CROTON SPRING ROAD	FROM ROUTE 0013 (WEST ENTRANCE ROAD)	TO SPRING		NO	0.00	0.52	0.52	3		GR	
0209	NC		90987		CALVARY ROAD (CASTOLON VISITOR CENTER)	FROM ROUTE 0015 (ROSS MAXWELL SCENIC DRIVE) AT MP 22.50	TO CASTOLON HISTORIC DISTRICT		NO	0.00	0.10	0.10	3		GR	
0210	NC		54498		SANTA ELENA CROSSING	FROM ROUTE 0015 (ROSS MAXWELL SCENIC DRIVE) AT MP 22.68	TO PARKING		NO	0.00	0.21	0.21	3		GR	
0211	NC		54499		COTTONWOOD CAMPGROUND ROAD	FROM END OF ROUTE 0015 (ROSS MAXWELL SCENIC DRIVE)	THROUGH CAMPGROUND		NO	0.00	0.82	0.82	3		GR	

#### Page 4 of 16

# Cycle 6 NPS / RIP Route ID Report

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				_		ROAD INVENTORY (	1100 SERIES FMSS	LOCATION	S)				<u> </u>			
Route No.	Cycle Collected	lteration Collected	FMSS Number	Concessio	Route Name	Route Desc	cription To	Maintenance District	FLTP	Paved Miles	Unpaved Miles	Total Mileage	Function Class	Area (SQ FT)	Surf. Type	Area Map
0212	NC		54500		TERLINGUA ABAJA ROAD	FROM ROUTE 0115 (OLD MAVERICK ROAD)	TO GAGING STATION		NO	0.00	1.59	1.59	3		GR	
0213	NC		54501		BUENOS AIRES ROAD	FROM ROUTE 0106 (RIVER ROAD)	TO SOUTH PARK BOUNDARY		NO	0.00	0.60	0.60	3		GR	
0215	NC		54502		SIERRA CHINO ROAD	FROM ROUTE 0106 (RIVER ROAD)	TO SOUTH PARK BOUNDARY		NO	0.00	1.05	1.05	3		GR	
0216	NC		54503		GAUGING STATION ROAD	FROM ROUTE 0106 (RIVER ROAD)	TO SOUTH PARK BOUNDARY		NO	0.00	0.42	0.42	3		GR	
0217	NC		54504		JOHNSON RANCH ROAD	FROM ROUTE 0106 (RIVER ROAD)	TO SOUTH PARK BOUNDARY		NO	0.00	0.37	0.37	3		GR	
0220	NC		54506		WOODSON / PETTITS ROAD	FROM ROUTE 0106 (RIVER ROAD)	TO SOUTH PARK BOUNDARY		NO	0.00	4.50	4.50	3		GR	
0221	NC		54507		TALLEY PLACE	FROM ROUTE 0106 (RIVER ROAD)	TO SOUTH PARK BOUNDARY		NO	0.00	5.99	5.99	3		GR	
0223	NC		54508		SOLIS PLACE	FROM ROUTE 0106 (RIVER ROAD)	TO SOUTH PARK BOUNDARY		NO	0.00	1.55	1.55	3		GR	
0225	NC		54509		ROONEY'S PLACE	FROM ROUTE 0106 (RIVER ROAD)	TO SOUTH PARK BOUNDARY		NO	0.00	0.41	0.41	3		GR	
0226	NC		54510		SAN VICENTE ROAD	FROM ROUTE 0106 (RIVER ROAD)	TO SOUTH PARK BOUNDARY		NO	0.00	1.52	1.52	3		GR	
0228	NC		54511		LA CLOCHA ROAD	FROM ROUTE 0106 (RIVER ROAD)	TO SOUTH PARK BOUNDARY		NO	0.00	0.76	0.76	3		GR	
0229	NC		54512		BLACK GAP ROAD	FROM ROUTE 0106 (RIVER ROAD)	TO ROUTE 0104 (GLENN SPRINGS ROAD)		NO	0.00	8.76	8.76	3		GR	
0230	NC		54513		JUNIPER CANYON ROAD	FROM ROUTE 0104 (GLENN SPRINGS ROAD)	TO END		NO	0.00	5.59	5.59	3		GR	
0232	NC		54514		PINE CANYON ROAD	FROM ROUTE 0104 (GLENN SPRINGS ROAD)	TO END		NO	0.00	4.21	4.21	3		GR	

#### Page 5 of 16

# Cycle 6 NPS / RIP Route ID Report

(Numerical By Summary Route and Subcomponent #)



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				<u>_</u>		ROAD INVENTORY (	1100 SERIES FMSS	LOCATION	S)				nal			
Route No.	Cycle Collected	lteration Collected	FMSS Number	Concessio	Route Name	Route Desc	cription To	Maintenance District	FLTP	Paved Miles	Unpaved Miles	Total Mileage	0	Area (SQ FT)	Surf. Type	
0233ZZ	6	1	54515		CLASS A CAMPGROUND - CHISOS BASIN	FROM ROUTE 0206 (LOWER BASIN CAMPGROUND ROAD) AT MP 0.38	THROUGH CAMPGROUND		YES	0.70	0.00	0.70	3		AS	2В
0234	6	1	54516		BASIN GROUP CAMPGROUND ROAD	FROM ROUTE 0206 (LOWER BASIN CAMPGROUND ROAD) AT MP 0.61	TO END OF LOOP		YES	0.40	0.00	0.40	3		AS	2В
0235	NC		54525		LOOP CAMP ROAD	FROM ROUTE 0106 (RIVER ROAD)	TO SOUTH PARK BOUNDARY		NO	0.00	0.66	0.66	4		GR	
0236	NC		54526		JEWEL'S CAMP ROAD	FROM ROUTE 0106 (RIVER ROAD)	TO SOUTH PARK BOUNDARY		NO	0.00	1.10	1.10	4		GR	
0237	NC		54527		GRAVEL PIT ROAD	FROM ROUTE 0106 (RIVER ROAD)	TO SOUTH PARK BOUNDARY		NO	0.00	0.94	0.94	4		GR	
0238	NC		54528		CHIMNEYS WEST ROAD	FROM ROUTE 0115 (OLD MAVERICK ROAD)	TO END		NO	0.00	0.09	0.09	4		GR	
0239	NC		54529		NINE POINT DRAW ROAD	FROM ROUTE 0011 (NORTH ENTRANCE ROAD) AT MP 21.61 ON RIGHT	TO CAMPSITE		NO	0.00	0.63	0.63	4		GR	
0240	NC		54530		ROYS PEAK ROAD	FROM ROUTE 0102 (OLD ORE ROAD)	TO END		NO	0.00	0.16	0.16	4		GR	
0241	NC		54531		LA NORIA ROAD	FROM ROUTE 0102 (OLD ORE ROAD)	TO END		NO	0.00	0.21	0.21	4		GR	
0242	NC		54532		ERNST TINAJA ROAD	FROM ROUTE 0102 (OLD ORE ROAD)	TO END		NO	0.00	0.48	0.48	4		GR	
0243	NC		54533		RICE TANK ROAD	FROM ROUTE 0104 (GLENN SPRINGS ROAD)	TO END		NO	0.00	0.21	0.21	4		GR	
0244	NC		54535		MARISCAL MINE ROAD	FROM ROUTE 0106 (RIVER ROAD)	TO MARISCAL MINE		NO	0.00	0.22	0.22	4		GR	
0245	NC		54536		PETTITS ROAD	FROM ROUTE 0106 (RIVER ROAD)	TO SOUTH PARK BOUNDARY AT PETTITS		NO	0.00	0.37	0.37	4		GR	

#### Page 6 of 16

# Cycle 6 NPS / RIP Route ID Report

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				Ē		ROAD INVENTORY (	1100 SERIES FMSS	LOCATION	S)				5			
Route No.	Cycle Collected	Iteration Collected	FMSS Number	Concessio	Route Name	Route Desc	cription To	Maintenance District	FLTP	Paved Miles	Unpaved Miles	Total Mileage		Area (SQ FT)	Surf. Type	Area Map
0246	NC		54537		DOMINGUEZ SPRING ROAD	FROM ROUTE 0106 (RIVER ROAD)	TO END		NO	0.00	0.30	0.30	4		GR	
0400	NC		54538		PERSIMMON GAP RANCH ROAD	FROM ROUTE 0011 (NORTH ENTRANCE ROAD) AT MP 25.86 ON LEFT	TO PARK BOUNDARY		NO	0.00	0.47	0.47	5		GR	
0401	NC		54539		ROSILLOS RANCH ROAD	FROM ROUTE 0011 (NORTH ENTRANCE ROAD) AT 12.49 ON LEFT	TO PARK BOUNDARY		NO	0.00	1.35	1.35	5		GR	
0402	NC		54540		PERSIMMON GAP RESIDENTIAL ROAD	FROM ROUTE 0011 (NORTH ENTRANCE ROAD) AT MP 25.93 ON LEFT	TO END		NO	0.00	0.44	0.44	5		GR	
0403	NC		102751		K-BAR MONITORING STATION ROAD	FROM ROUTE 0404 (K-BAR RANCH ROAD)	TO MONITORING STATION		NO	0.00	0.20	0.20	5		GR	
0404	NC		54541		K-BAR RANCH ROAD	FROM ROUTE 0012 (RIO GRANDE ROAD)	TO CAMPSITE		NO	0.00	0.79	0.79	5		GR	
0405ZZ	6	1	54542		HUISACHE DRIVE	FROM ROUTE 0012 (RIO GRANDE ROAD) AT MP 19.63 ON LEFT	TO END OF LOOP		YES	0.51	0.00	0.51	5		AS	5A
0406	NC		54543		RIO GRANDE LAGOON SPUR	FROM ROUTE 0405AZ (HUISACHE DRIVE A)	TO ROUTE 0201 (RIO GRANDE VILLAGE ROAD)		NO	0.00	1.23	1.23	5		GR	
0411	NC		54544		RIO GRANDE WATER TANK ROAD	FROM ROUTE 0201 (RIO GRANDE VILLAGE ROAD)	TO END		NO	0.00	0.87	0.87	5		GR	
0412	NC		54545		RIO GRANDE VILLAGE DUMP ROAD	FROM ROUTE 0109 (BOQUILLAS CANYON ROAD)	TO END		NO	0.00	0.46	0.46	5		GR	
0416	6	1	54546		LOWER BASIN LAGOON ROAD	FROM ROUTE 0233ZZ (CLASS A CAMPGROUND - CHISOS BASIN)	TO LAGOONS		YES	0.19	0.38	0.57	5		AS	2В
0418	6	1	54548		CHISOS BASIN RESIDENCE ROAD	FROM ROUTE 0920 (BASIN MOTEL PARKING)	TO END		YES	0.05	0.00	0.05	5		AS	2В
0419	NC		54549		OAK SPRINGS ROAD	FROM ROUTE 0015 (ROSS MAXWELL SCENIC DRIVE)	TO WATER TANK		NO	0.00	2.22	2.22	5		GR	

#### Page 7 of 16

# Cycle 6 NPS / RIP Route ID Report

(Numerical By Summary Route and Subcomponent #)



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**BIBE** 

						ROAD INVENTORY (	1100 SEDIES EMSS	LOCATION	۲2							
Route No.	Cycle Collected	lteration Collected	FMSS Number	Concession	Route Name	Route Des		Maintenance District	를 를	Paved Miles	Unpaved Miles	Total Mileage	Functional Class	Area (SQ FT)	Surf. Type	Area Map
0422	NC		54550		BLUE CREEK DRIVE	FROM END OF ROUTE 0015 (ROSS MAXWELL SCENIC DRIVE)	TO END OF LOOP		NO	0.00	0.19	0.19	5		GR	
0423	NC		54551		BLUE CREEK GRAVEL PIT ROAD	FROM ROUTE 0016 (SANTA ELENA CANYON ROAD), NORTH	TO END		NO	0.00	0.48	0.48	5		GR	
0426	6	1	54553		MESA DRIVE	FROM ROUTE 0015 (ROSS MAXWELL SCENIC DRIVE)AT MP 21.87	TO ROUTE 0932 (CASTOLON MAINTENANCE PARKING)		YES	0.47	0.00	0.47	5		AS	4
0427	6	1	54554		PALO VERDE DRIVE	FROM ROUTE 0426 (MESA DRIVE)	TO END		YES	0.09	0.00	0.09	5		AS	4
0428	6	1	53087		ALSATE AVENUE	FROM ROUTE 0012 (RIO GRANDE ROAD) AT MP 0.07	TO ROUTE 0939 (MAINTENANCE AREA PARKING LOT)		YES	0.53	0.00	0.53	5		AS	2A
0429	6	1	53088		BOBCAT LOOP	FROM ROUTE 0428 (ALSATE AVENUE)	TO ROUTE 0428 (ALSATE AVENUE)		YES	0.44	0.00	0.44	5		AS	2A
0430	6	1	53094		JAVELINA DRIVE	FROM ROUTE 0428 (ALSATE AVENUE)	TO ROUTE 0429 (BOBCAT LOOP)		YES	0.13	0.00	0.13	5		AS	2A
0431	6	1	53102		QUAIL RUN ROAD	FROM ROUTE 0429 (BOBCAT LOOP) AT MP 0.21	TO END		YES	0.02	0.00	0.02	5		AS	2A
0432	6	1	53091		CHUPAROSA ROAD	FROM ROUTE 0429 (BOBCAT LOOP) AT MP 0.26	TO END		YES	0.02	0.00	0.02	5		AS	2A
0433	6	1	53103		TECOLOTE DRIVE	FROM END OF ROUTE 0428 (ALSATE AVENUE)	to route 0436 (nolina drive)		YES	0.35	0.00	0.35	5		AS	2A
0434	6	1	53096		LA JUNTA CIRCLE	FROM ROUTE 0435 (OCOTILLO LOOP)	TO ROUTE 0433 (TECOLOTE DRIVE)		YES	0.05	0.00	0.05	5		AS	2A
0435	6	1	53099		OCOTILLO LOOP	FROM ROUTE 0433 (TECOLOTE DRIVE)	TO ROUTE 0433 (TECOLOTE DRIVE)		YES	0.13	0.00	0.13	5		AS	2A
0436	6	1	53098		NOLINA DRIVE	FROM ROUTE 0429 (BOBCAT LOOP)	TO END		YES	0.36	0.00	0.36	5		AS	2A

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**BIBE** 

				u		ROAD INVENTORY (	1100 SERIES FMSS	LOCATION	S)				اعر			
Route No.	ycle	lteration Collected	FMSS Number	Concessio	Route Name	Route Desc	cription To	Maintenance District	FLTP	Paved Miles	Unpaved Miles	Total Mileage		Area (SQ FT)	Surf. Type	Area Map
0440	6	1	53101		PANTHER CANYON DRIVE	FROM ROUTE 0436 (NOLINA DRIVE) AT MP 0.27	TO ROUTE 0440 (PANTHER CANYON DRIVE) AT MP 0.14 ON LEFT		YES	0.18	0.00	0.18	5		AS	2A
0443	6	1	90989		ESCUELA ROAD	FROM ROUTE 0429 (BOBCAT LOOP) AT MP 0.40	TO ROUTE 0937 (ESCUELA VISTA PARKING LOT)		YES	0.06	0.00	0.06	5		AS	2A
0444	6	1	54556		PJ SEWAGE TREATMENT PLANT ROAD	FROM ROUTE 0012 (RIO GRANDE ROAD) AT MP 0.27	TO ROUTE 1020 (PJ SEWAGE TREATMENT PLANT PARKING)		YES	0.12	0.00	0.12	5		AS	2A
0445	NC		54557		MAPLE CANYON ROAD	FROM ROUTE 0014 (CHISOS BASIN ROAD)	TO END		NO	0.00	0.40	0.40	6		GR	
0446	NC		54558		HARTE RANCH ROAD	FROM ROUTE 0100 (TERLINGUA RANCH ROAD)	TO AIRPORT LODGE		NO	0.00	3.50	3.50	6		GR	
0447	NC		54559		MOUNTAIN LODGE ROAD	FROM ROUTE 0100 (TERLINGUA RANCH ROAD)	TO MOUNTAIN LODGE		NO	0.00	0.50	0.50	6		GR	
0448	NC		54560		LONE MOUNTAIN ROAD	FROM ROUTE 0011 (NORTH ENTRANCE ROAD) AT MP 1.05 ON LEFT	TO END		NO	0.00	0.25	0.25	6		GR	
0449	NC		54561		NUGENT MOUNTAIN GRAVEL PIT ROAD	FROM ROUTE 0012 (RIO GRANDE ROAD)	TO END		NO	0.00	0.20	0.20	6		GR	
0450	NC		54769		MAVERICK GRAVEL PIT ROAD	FROM ROUTE 0115 (OLD MAVERICK ROAD)	TO END		NO	0.00	0.23	0.23	6		GR	
0451	NC		54597		TORNILLO CREEK SERVICE ROAD	FROM ROUTE 0011 (NORTH ENTRANCE ROAD)	TO END		NO	0.00	0.38	0.38	6		GR	
0452	NC		54598		MILE 19 GRAVEL PIT ROAD	FROM ROUTE 0013 (WEST ENTRANCE ROAD)	TO END		NO	0.00	0.21	0.21	6		GR	
0453	NC		54600		TIN ACCESS ROAD	FROM INTERSECTION OF ROUTE 0013 (WEST ENTRANCE ROAD) AND ROUTE 0115 (OLD MAVERICK ROAD)	TO END		NO	0.00	0.33	0.33	6		GR	

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# **BIBE**

# **Big Bend National Park**

				_		ROAD INVENTORY	(1100 SERIES FMSS	LOCATION	S)				=			
Route	lected :	ation lected	FMSS	cessio		Route De	scription	Maintenance	<u>e</u>		Unpaved		nction ISS	Area	Surf.	Area
No.	. د د	ខ្មី	Number	ទំ	Route Name	From	То	District	듄	Miles	Miles	Mileage	≥ົວ	(SQ FT)	Туре	Мар
0455	NC		54602		BONEYARD/CORRAL ROAD	FROM ROUTE 0428 (ALSATE	TO ROUTE 0436 (NOLINA		NO	0.00	0.81	0.81	6		GR	
	1 1					AVENUE)	DRIVE)									

DADVING ADEA INIVENTODY (1200 SEDIES EMSS LOCATIONS)

				_	PAR	KING AREA INVENTORY (	1300 SERIES FMSS LOCATI	ONS)					
Route No.	ected	rtion ected	FMSS	cession		Route De	scription	Maintenance	<u>e</u>	Access	Area	Surf.	Area
No.	\$ §	S era	Number	Ŝ	Route Name	From	То	District	FLTP	Level	(SQ FT)	Туре	Мар
0900	6	1	53078		VISITOR PARKING LOT - HQ BUILDING #310	FROM INTERSECTION OF ROUTE 0011 (NORTH ENTRANCE ROAD), ROUTE 0012 (RIO GRANDE ROAD), AND ROUTE 0013 (WEST ENTRANCE ROAD)	TO ROUTE 0013 (WEST ENTRANCE ROAD)		YES	PUBLIC	21,698	AS	2A
0901	6	1	54604		PERSIMMON GAP VISITOR CENTER PARKING	FROM ROUTE 0011 (NORTH ENTRANCE ROAD) AT MP 25.95 ON LEFT	TO ROUTE 0011 (NORTH ENTRANCE ROAD) AT MP 26.01 ON LEFT		YES	PUBLIC	11,322	AS	1
0902	6	1	54606		RIO GRANDE OVERLOOK PARKING	FROM ROUTE 0012 (RIO GRANDE ROAD) AT MP 18.62 ON RIGHT	TO PARKING		YES	PUBLIC	14,962	AS	5A
0903	NC		54607		RIO GRANDE VILLAGE MAINTENANCE AREA	ADJACENT TO ROUTE 0405AZ (HUISACHE DRIVE A)			NO	NONPUBLIC	36,000	GR	
0905	6	1	54609		BOQUILLAS CANYON TRAIL PARKING	FROM END OF ROUTE 0109 (BOQUILLAS CANYON ROAD)	TO PARKING		YES	PUBLIC	14,953	AS	5
0906	6	1	54610		RIO GRANDE VISITOR CENTER PARKING	FROM ROUTE 0012 (RIO GRANDE ROAD) AT MP 20.12, NEAR RIO GRANDE VILLAGE	TO ROUTE 0012 (RIO GRANDE ROAD) AT MP 20.21		YES	PUBLIC	39,178	AS	5A
0907	6	1	54612		RIO GRANDE DANIELS RANCH PICNIC AREA PARKING	FROM BEGINNING OF ROUTE 0201 (RIO GRANDE VILLAGE ROAD)	TO PARKING		YES	PUBLIC	7,377	AS	5A
0908	6	1	54613		RIO GRANDE TRAILER PARKING RV PARK	FROM ROUTE 0201 (RIO GRANDE VILLAGE ROAD) AT MP 0.52	TO ROUTE 0909 (RIO GRANDE STORE PARKING)		YES	PUBLIC	38,638	AS	5A
0909	6	1	54615		RIO GRANDE STORE PARKING	FROM ROUTE 0201 (RIO GRANDE VILLAGE ROAD) AT MP 0.71	TO ROUTE 0908 (RIO GRANDE TRAILER PARKING RV PARK)		YES	PUBLIC	46,921	AS	5A

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# Cycle 6 NPS / RIP Route ID Report

(Numerical By Summary Route and Subcomponent #)



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# **BIBE**

	PARKING AREA INVENTORY (1300 SERIES FMSS LOCATIONS)												
Route	e ected	lteration Collected	FMSS	essior		Route De	scription	Maintenance	۵	Access	Area	Surf.	Area
No.	ζς	Coll	Number	Ç	Route Name	From	То	District	FLTP	Level	(SQ FT)	Туре	Мар
0910	6	1	54617		RIO GRANDE AMPHITHEATER PARKING	FROM ROUTE 0201 (RIO GRANDE VILLAGE ROAD) AT MP 0.91	TO PARKING		YES	PUBLIC	40,917	AS	5A
0912	6	1	90991		PANTHER JUNCTION GAS STATION PARKING LOT	FROM ROUTE 0013 (WEST ENTRANCE ROAD) AT MP 0.18	TO ROUTE 0013 (WEST ENTRANCE ROAD) AT MP 0.21		YES	PUBLIC	10,438	AS	2A
0913	6	1	54620		BADLANDS PARKING AREA	FROM ROUTE 0013 (WEST ENTRANCE ROAD) AT MP 20.69	TO ROUTE 0013 (WEST ENTRANCE ROAD) AT MP 20.73		YES	PUBLIC	7,563	AS	3
0914	6	1	54622		MAVERICK INFORMATION KIOSK PARKING	FROM ROUTE 0013 (WEST ENTRANCE ROAD) AT MP 20.81	TO PARKING		YES	PUBLIC	6,472	AS	3
0915	6	1	54623		WEST ENTRANCE CONTACT STATION PARKING	FROM ROUTE 0013 (WEST ENTRANCE ROAD) AT MP 20.75	TO PARKING		YES	PUBLIC	3,115	AS	3
0917	6	1	54625		LOST MINE TRAIL PARKING	ADJACENT TO ROUTE 0014 (CHISOS BASIN ROAD) AT MP 5.17			YES	PUBLIC	7,022	AS	2
0918	6	1	54627		BASIN RANGER STATION PARKING	FROM ROUTE 0014 (CHISOS BASIN ROAD) ON RIGHT	TO PARKING		NO	NONPUBLIC	16,769	AS	2В
0919	6	1	54629		BASIN VISITORS CENTER PARKING	FROM END OF ROUTE 0014 (CHISOS BASIN ROAD)	TO ROUTE 0920 (BASIN MOTEL PARKING)		YES	PUBLIC	45,943	AS	2В
0920	6	1	54631		BASIN MOTEL PARKING	FROM THE BEGINNING OF ROUTE 0418 (CHISOS BASIN RESIDENCE ROAD)	TO ROUTE 0919 (BASIN VISITORS CENTER PARKING), ROUTE 0921 (CHISOS MOUNTAIN LODGE PARKING), AND ROUTE 0922 (CHISOS COTTAGE PARKING)		YES	PUBLIC	17,774	AS	2В
0921	6	1	54634		CHISOS MOUNTAIN LODGE PARKING	FROM ROUTE 0920 (BASIN MOTEL PARKING)	TO PARKING		YES	PUBLIC	29,088	AS	2В
0922	6	1	54637		CHISOS COTTAGE PARKING	FROM ROUTE 0920 (BASIN MOTEL PARKING)	TO PARKING		YES	PUBLIC	22,576	AS	2В
0923	6	1	54639		BASIN AMPHITHEATER PARKING	FROM INTERSECTION OF ROUTE 0206 (LOWER BASIN CAMPGROUND ROAD) AND ROUTE 0233Z (CLASS A CAMPGROUND - CHISOS BASIN MAIN LOOP)	TO ROUTE 0206 (LOWER BASIN CAMPGROUND ROAD)		YES	PUBLIC	22,991	AS	2В

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**BIBE** 

					PAR	KING AREA INVENTORY (	1300 SERIES FMSS	LOCATIONS)					
Route	cle Ilected	lteration Collected	FMSS	ncession		Route De		Maintenance District	FLTP	Access Level	Area (SQ FT)	Surf.	Area
No.	ပဲပိ	≗్ర	Number	Ŝ	Route Name	From	То	District	ш.	Level	(SQ FI)	Туре	Мар
0924	6	1	54641		BASIN REMUDA PARKING	FROM END OF ROUTE 0206 (LOWER BASIN CAMPGROUND ROAD)	TO PARKING		NO	NONPUBLIC	6,692	AS	2В
0925	6	1	54643		BLUE CREEK OVERLOOK PARKING	ADJACENT TO ROUTE 0015 (ROSS MAXWELL SCENIC DRIVE) AT MP 8.11			YES	PUBLIC	6,090	AS	3
0926ZZ	6	1	54644		SOTOL VISTA OVERLOOK PARKING	ADJACENT TO ROUTE 0112 (SOTOL VISTA OVERLOOK ROAD) AT END OF LOOP			YES	PUBLIC	5,518	AS	3
0927	6	1	54646		BURRO MESA POUROFF PARKING	ADJACENT TO ROUTE 0113 (BURRO MESA POUROFF ROAD) AT END OF LOOP			YES	PUBLIC	5,349	AS	3
0928	6	1	54647		CHIMNEY TRAILS PARKING	ADJACENT TO ROUTE 0015 (ROSS MAXWELL SCENIC DRIVE) AT MP 12.75			YES	PUBLIC	<i>4,</i> 719	AS	4
0929	6	1	54649		GOAT MOUNTAIN PARKING	ADJACENT TO ROUTE 0015 (ROSS MAXWELL SCENIC DRIVE) AT MP 14.82			YES	PUBLIC	4,499	AS	4
0930	6	1	54651		MULE EARS OVERLOOK PARKING	ADJACENT TO ROUTE 0114 (MULE EARS OVERLOOK ROAD) AT END OF LOOP			YES	PUBLIC	6,448	AS	4
0931	6	1	54652		TUFF CANYON OVERLOOK PARKING	ADJACENT TO ROUTE 0015 (ROSS MAXWELL SCENIC DRIVE) AT MP 19.84			YES	PUBLIC	4,523	AS	4
0932	6	1	54654		CASTOLON MAINTENANCE PARKING	FROM END OF ROUTE 0426 (MESA DRIVE)	TO PARKING		NO	NONPUBLIC	15,953	AS	4
0933	6	1	54655		DESERT MOUNTAIN OVERLOOK PARKING	ADJACENT TO ROUTE 0016 (SANTA ELENA CANYON ROAD) AT MP 1.09			YES	PUBLIC	2,493	AS	4
0934	6	1	54669		SANTA ELENA CANYON RIVER ACCESS PARKING	FROM ROUTE 0016 (SANTA ELENA CANYON ROAD) AT MP 5.72	TO PARKING		YES	PUBLIC	40,891	AS	4
0935	6	1	54670		SANTA ELENA CANYON OVERLOOK PARKING	FROM ROUTE 0016 (SANTA ELENA CANYON ROAD) AT MP 6.82	TO PARKING		YES	PUBLIC	27,753	AS	4
0936	6	1	54672		SANTA ELENA CANYON PICNIC AREA	ADJACENT TO ROUTE 0016 (SANTA ELENA CANYON ROAD) AT END OF LOOP			YES	PUBLIC	7,849	AS	4

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Route No.	Cycle Collected	ration	FMSS Number	oncession	Route Name	Route D	escription	Maintenance District	FLTP	Access Level	Area (SQ FT)	Surf. Type	Area Map
140.	ΰŭ	≚ŏ	Nomber	ů	Koute Name	From	То			2010.	(5411)	. , , ,	
0937	6	1	53154		ESCUELA VISTA PARKING LOT	FROM END OF ROUTE 0443 (ESCUELA ROAD)	TO PARKING		NO	NONPUBLIC	5,310	AS	2A
0938	6	1	53073		EMPLOYEE PARKING LOT - HQ BUILDING #310	FROM ROUTE 0428 (ALSATE AVENUE)	TO ROUTE 0428 (ALSATE AVENUE)		NO	NONPUBLIC	12,079	AS	2A
0939	6	1	53159		MAINTENANCE AREA PARKING LOT	FROM END OF ROUTE 0428 (ALSATE AVENUE)	TO PARKING		NO	NONPUBLIC	29,767	AS	2A
1000	6	1	54674		ANIMAL HIGHWAYS INTERPRETIVE PULLOFF	FROM ROUTE 0014 (CHISOS BASIN ROAD) AT MP 0.16	TO ROUTE 0014 (CHISOS BASIN ROAD) AT MP 0.21		YES	PUBLIC	8,674	AS	2
1001	6	1	54675		CHISOS MOUNTAIN INTERPRETIVE PULLOFF	ADJACENT TO ROUTE 0015 (ROSS MAXWELL SCENIC DRIVE) AT MP 2.00			YES	PUBLIC	4,416	AS	3
1002	6	1	54676		SAM NAIL INTERPRETIVE PULLOFF	ADJACENT TO ROUTE 0015 (ROSS MAXWELL SCENIC DRIVE) AT MP 3.33			YES	PUBLIC	3,019	AS	3
1003	6	1	54677		FINS OF FIRE INTERPRETIVE PULLOFF	ADJACENT TO ROUTE 0015 (ROSS MAXWELL SCENIC DRIVE) AT MP 4.15			YES	PUBLIC	3,667	AS	3
1004	6	1	54678		THE CAMEL EXPERIMENT INTERPRETIVE PULLOFF	ADJACENT TO ROUTE 0011 (NORTH ENTRANCE ROAD) AT MP 22.57			YES	PUBLIC	2,664	AS	1
1005	6	1	54679		INVISIBLE WILDLIFE INTERPRETIVE PULLOFF	ADJACENT TO ROUTE 0013 (WEST ENTRANCE ROAD) AT MP 6.47			YES	PUBLIC	1,756	AS	2
1006	6	1	54680		VERTICAL SCENERY PULLOFF	ADJACENT TO ROUTE 0013 (WEST ENTRANCE ROAD) AT MP 19.32			YES	PUBLIC	2,164	AS	3
1007	NC		54681		CHIHUAHUAN DESERT INTERPRETIVE PULLOFF	ADJACENT TO ROUTE 0012 (RIO GRANDE ROAD) AT MP 5.94			NO	PUBLIC	4,655	GR	
1008	6	1	54682		A DESERT GRAVE INTERPRETIVE PULLOFF	ADJACENT TO ROUTE 0011 (NORTH ENTRANCE ROAD) AT MP 3.91			YES	PUBLIC	1,164	AS	2
1009	6	1	54684		FLASH FLOOD INTERPRETIVE PULLOFF	ADJACENT TO ROUTE 0011 (NORTH ENTRANCE ROAD) AT MP 21.00			YES	PUBLIC	1,589	AS	1
1010	NC		54685		MOVE A MOUNTAIN INTERPRETIVE PULLOFF	ADJACENT TO ROUTE 0109 (BOQUILLAS CANYON ROAD) AT MP 3.45			NO	PUBLIC	1,602	GR	

#### Page 13 of 16

Report Date: 10/26/2017

# Cycle 6 NPS / RIP Route ID Report

(Numerical By Summary Route and Subcomponent #)



Shading Color Key

White = Paved Routes, DCV Driven

Grey = Paved Routes, DCV not Driven

Black = Non-NPS Routes

= Concession Route

Yellow = Unpaved Routes, DCV not Driven

Blue = Paved Parking Areas

Green = Unpaved Parking Areas

Red text denotes:

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

DCV = Data Collection Vehicle

MRL = Manually Rated Line

MRP = Manually Rated Polygon

PKG = Parking Areas
NC = Not Collected

# **BIBE**

	PARKING AREA INVENTORY (1300 SERIES FMSS LOCATIONS)												
Route	e ected	lteration Collected	FMSS	cessior		Route De	scription	Maintenance	ے	Access	Area	Surf.	Area
No.	S C	Coll	Number	S	Route Name	From	То	District	FLTP	Level	(SQ FT)	Туре	Мар
1011	NC		54686		BOQUILLAS CANYON INTERPRETIVE PULLOFF	ADJACENT TO ROUTE 0110 (BOQUILLAS CANYON OVERLOOK ROAD) AT END OF LOOP			NO	PUBLIC	5,490	GR	
1012	NC		54687		BOQUILLAS MEXICO INTERPRETIVE PULLOFF	ADJACENT TO ROUTE 0109 (BOQUILLAS CANYON ROAD) AT MP 2.40			NO	NONPUBLIC	12,968	GR	
1013	6	1	54689		BEAR & MOUNTAIN LION COUNTRY INTERPRETIVE PULLOFF	ADJACENT TO ROUTE 0014 (CHISOS BASIN ROAD) AT MP 2.23			YES	PUBLIC	2,064	AS	2
1014	6	1	54690		TREE ZONE INTERPRETIVE PULLOFF	ADJACENT TO ROUTE 0014 (CHISOS BASIN ROAD) AT MP 4.25			YES	PUBLIC	2,509	AS	2
1015	6	1	54691		FOSSIL BONE PARKING	FROM END OF ROUTE 0103 (FOSSIL BONE ROAD)	TO PARKING		YES	PUBLIC	11,929	AS	2
1016	NC		54692		CERRO VISTA COURT	ADJACENT TO ROUTE 0426 (MESA DRIVE) AT APARTMENTS			NO	NONPUBLIC	7,500	GR	
1017	NC		53146		BBNHA OFFICE PARKING LOT	FROM ROUTE 0428 (ALSATE AVENUE)	TO PARKING		NO	NONPUBLIC	333	GR	
1018	NC		53166		EMERGENCY SERVICES PARKING AREA	FROM ROUTE 0433 (TECOLOTE DRIVE)	TO PARKING		NO	NONPUBLIC	29,997	GR	
1020	6	1	236705		PJ SEWAGE TREATMENT PLANT PARKING	FROM END OF ROUTE 0444 (PJ SEWAGE TREATMENT PLANT ROAD)	TO PARKING		NO	NONPUBLIC	1,863	AS	2A
1021	NC		236700		CATTAIL FALLS PARKING AREA	FROM ROUTE 0419 (OAK SPRINGS ROAD)	TO PARKING		NO	PUBLIC	1,600	GR	
1022	6	1	53090		CHINO COURT PARKING	FROM ROUTE 0436 (NOLINA DRIVE) AT MP 0.06	TO PARKING		NO	NONPUBLIC	9 <i>,77</i> 1	AS	2A
1023	6	1	53093		HOLLY LANE PARKING	FROM ROUTE 0436 (NOLINA DRIVE) AT MP 0.14	TO PARKING		NO	NONPUBLIC	10,580	AS	2A
1024	6	1	53092		DESERT WILLOW STREET PARKING	FROM ROUTE 0436 (NOLINA DRIVE) AT MP 0.21 ON RIGHT	TO PARKING		NO	NONPUBLIC	5,466	AS	2A

#### Page 14 of 16

Report Date: 10/26/2017

# Cycle 6 NPS / RIP Route ID Report

(Numerical By Summary Route and Subcomponent #)



Shading Color Key

White = Paved Routes, DCV Driven

Grey = Paved Routes, DCV not Driven

Black = Non-NPS Routes

= Concession Route

Yellow = Unpaved Routes, DCV not Driven

Blue = Paved Parking Areas

Green = Unpaved Parking Areas

Red text denotes:

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

 $\mathsf{DCV} = \mathsf{Data}$  Collection Vehicle

MRL = Manually Rated Line

MRP = Manually Rated Polygon

PKG = Parking Areas
NC = Not Collected

**BIBE** 

				_	PAR	KING AREA INVENTORY (	1300 SERIES FMSS LOCAT	IONS)					
Route	le ected	ation ected	FMSS	cession		Route De	scription	Maintenance	i.TP	Access	Area	Surf.	Area
No.	Ş. Ş. Ş.	ltera Colle	Number	ទឹ	Route Name	From	То	District	5	Level	(SQ FT)	Туре	Мар
1025	6	1	53097		MESQUITE STREET PARKING	FROM ROUTE 0436 (NOLINA DRIVE) AT MP 0.10	TO PARKING		NO	NONPUBLIC	3,91 <i>7</i>	AS	2A
1026ZZ	6	1	238380		GROUP CAMPSITE PARKING AREAS	ADJACENT TO ROUTE 0234 (BASIN GROUP CAMPGROUND ROAD)			YES	PUBLIC	1,910	AS	2В
1027	NC		238164		BOQUILLAS CROSSING PARKING LOT	FROM END OF ROUTE 0202 (BOQUILLAS CROSSING)	TO PARKING		NO	PUBLIC	6,572	GR	
1028	6	1	54547		BASIN RESIDENCE PARKING	FROM END OF ROUTE 0206 (LOWER BASIN CAMPGROUND ROAD) ON LEFT	TO PARKING		YES	PUBLIC	16,988	AS	2В
1029	6	1	53100		PAISANO PLACE PARKING	FROM ROUTE 0436 (NOLINA DRIVE) AT MP 0.21 ON LEFT	TO PARKING		YES	PUBLIC	14,229	AS	2A

#### Page 15 of 16

Report Date: 10/26/2017

# Cycle 6 NPS / RIP Route ID Report

(Numerical By Summary Route and Subcomponent #)



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White = Paved Routes, DCV Driven

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Green = Unpaved Parking Areas

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 $\mathsf{DCV} = \mathsf{Data} \ \mathsf{Collection} \ \mathsf{Vehicle}$ 

MRL = Manually Rated Line

MRP = Manually Rated Polygon

PKG = Parking Areas
NC = Not Collected

Cycle 6 Summary Totals for Big Bend National Park

#### **Cycle 6 Route Totals**

	NPS Maintained	Concessionaire Maintained	Park Totals
Paved Roads, Data Collection Vehicle Rated (Miles)	122.14	0.05	122.19
Paved Roads, Manually Rated Length (Miles)	0.19	0	0.19
Paved Roads, Manually Rated Area (Sq. Ft.)	0	0	0
Unpaved Roads (Miles)	216.47	0	216.47
Paved Parking (Sq. Ft.)	521,049	200,940	721,989
Unpaved Parking (Sq. Ft.)	106,717	0	106,717

#### Cycle 6 Lane Miles and Overall Pavement Condition

	Lanes Miles*	Pavement Condition Rating**
Data Collection Vehicle Routes	249.59	91
Manually Rated Roads	0.19	90
Parking Areas	12.43	82

<sup>\*</sup> Equivalent Lane Miles are calculated by route using the following equations:

- DCV and MRLs =  $(PAVE\_WIDTH \times PAVED\_MI) / 11$  foot lane

- MRPs and PKGs =  $SQ_FEET / 5280 / 11$  foot lane

-Excellent = 97

-Good = 90

-Fair = 73

-Poor = 53, 30, or 0

-Construction / Not Rated = -1

<sup>\*\*</sup>Parking and Manually Rated Routes are assigned the following PCR values based on the type of observed distresses:

#### Page 16 of 16

Report Date: 10/26/2017

# Cycle 6 NPS / RIP Route ID Report

(Numerical By Summary Route and Subcomponent #)



Shading Color Key

White = Paved Routes, DCV Driven

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= Concession Route

Yellow = Unpaved Routes, DCV not Driven

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MRL = Manually Rated Line

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PKG = Parking Areas NC = Not Collected

### General Park Road Functional Classification (FC) Table

FC	Туре	User Access	Description	Route Numbers
1	Principal Park Road Rural Parkway	Public	Roads which constitute the main access route, circulatory tour, or thoroughfare for park visitors. Rural Parkways (e.g. Natchez Trace) are numbered 0001 - 0009.	0001 - 0009 0010 - 0099
2	Connector Park Road	Public	Roads which provide access within a park to areas of scenic, scientific, recreational or cultural interest, such as overlooks, campgrounds, etc.	0100 - 0199
3	Special Purpose Park Road	Public	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.	0200 - 0299
4	Primitive Park Road	Public	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. Note: Functional Classes 3 and 4 have the same route numbers because, historically, they were numbered similarly.	0200 - 0299
5	Administrative Park Road	Public	All public roads intended for access to administrative developments or structures such as park offices, employee quarters, or utility areas.	0400 - 0499
6	Administrative Park Road (Restricted Access)	Nonpublic	All roads normally closed to the public, including patrol roads, truck trails, and other similar roads. 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.	0400 - 0499
7	Urban Parkway	Public	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.	0001 - 0009
8	City Street	Public	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.	0600 - 0699
N/A	Non-NPS Roads	Public	State, County, or City owned roads which border, traverse, or provide access to Park Facilities or Locations. Non-NPS roads are not assigned functional classes and are driven for GPS and Video Log only.	5000 - 5999

Jonacc
Types
Asphaltic Concrete Pavemen

Surface

AS -

BR - Brick or Pavers Road Bed

CB - Cobble Stone Road Bed

CO - Portland Cement Concrete Pavement

GR - Gravel Road Bed

NV - Native or Dirt Material Road Bed

OT - Other Materials Road Bed

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 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.

#### Page 1 of 3

# NPS / RIP Subcomponent Details for BIBE

(Numerical By Summary Route and Subcomponent #)



Shading Color Key

Report Date: 10/23/2017

White = Paved Routes, DCV Driven

Grey = Paved Routes, DCV not Driven

Black = Paved Routes, Non-NPS

= Concession Route

Yellow = Unpaved Routes, DCV not Driven

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MRL = Manually Rated Line

MRP = Manually Rated Polygon

PKG = Parking Areas NC = Not Collected

# **BIBE**

SUMMARY ROUTE INVENTORY FOR ROADS (1100 SERIES FMSS LOCATIONS)													
Route Number	FMSS Number	Cycle Collected	Iteration Collected	Concessi	Route Name	Route Des	cription To	FITE	Paved Miles	Unpaved Miles	Total Mileage	Function	Area (SQ FT)
0203ZZ	54492	6	1		RIO GRANDE VILLAGE CAMPGROUND ROADS	FROM ROUTE 0201 (RIO GRANDE VILLAGE ROAD)	THROUGH CAMPGROUND	YES	1.30	0.00	1.30	3	
0233ZZ	54515	6	1		CLASS A CAMPGROUND - CHISOS BASIN	FROM ROUTE 0206 (LOWER BASIN CAMPGROUND ROAD) AT MP 0.38	THROUGH CAMPGROUND	YES	0.70	0.00	0.70	3	
0405ZZ	54542	6	1		HUISACHE DRIVE	FROM ROUTE 0012 (RIO GRANDE ROAD) AT MP 19.63 ON LEFT	TO END OF LOOP	YES	0.51	0.00	0.51	5	

SUMMARY ROUTE INVENTORY FOR PARKING AREAS (1300 SERIES FMSS LOCATIONS)												
Route	FMSS	le ected	ation ected	cessi		Route Desc	ription	_ ^	User	Area		
Number	FMSS Number	ς Σ Β	S E	S	Route Name	From	То	Ē	Access	(SQ FT)		
0926ZZ	54644	6	1		SOTOL VISTA OVERLOOK PARKING	ADJACENT TO ROUTE 0112 (SOTOL VISTA OVERLOOK ROAD) AT END OF LOOP		YES	PUBLIC	5,518		
1026ZZ	238380	6	1		GROUP CAMPSITE PARKING AREAS	ADJACENT TO ROUTE 0234 (BASIN GROUP CAMPGROUND ROAD)		YES	PUBLIC	1,910		

#### Page 2 of 3

# NPS / RIP Subcomponent Details for BIBE

(Numerical By Summary Route and Subcomponent #)



Shading Color Key

Report Date: 10/23/2017

White = Paved Routes, DCV Driven

Grey = Paved Routes, DCV not Driven

Black = Paved Routes, Non-NPS

= Concession Route

Yellow = Unpaved Routes, DCV not Driven

Blue = Paved Parking Areas

Green = Unpaved Parking Areas

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DCV = Data Collection Vehicle MRL = Manually Rated Line

MRP = Manually Rated Polygon PKG = Parking Areas

NC = Not Collected

# **BIBE**

BIBE-0	203ZZ	Sub	con	npo	nent Breakdown							_	
Route Number	FMSS Number	Cycle Collected	Iteration Collected	Concession	Route Name	Route Des	scription To	FLTP	Paved Miles	Unpaved Miles	Total Mileage	Functions	Area (SQ FT)
0203AZ	54492	6	1		RIO GRANDE VILLAGE CAMPGROUND LOOP A	FROM ROUTE 0201 (RIO GRANDE VILLAGE ROAD) AT MP 0.98	TO ROUTE 0203AZ (RIO GRANDE VILLAGE CAMPGROUND LOOP A) AT MP 0.02	YES	0.73	0.00	0.73	3	
0203BZ	54492	6	1		RIO GRANDE VILLAGE CAMPGROUND LOOP B	FROM ROUTE 0203AZ (RIO GRANDE VILLAGE CAMPGROUND LOOP A)	TO ROUTE 0203AZ (RIO GRANDE VILLAGE CAMPGROUND LOOP A)	YES	0.29	0.00	0.29	3	
0203CZ	54492	6	1		RIO GRANDE VILLAGE CAMPGROUND LOOP C	FROM ROUTE 0203AZ (RIO GRANDE VILLAGE CAMPGROUND LOOP A)	TO ROUTE 0203AZ (RIO GRANDE VILLAGE CAMPGROUND LOOP A)	YES	0.07	0.00	0.07	3	
0203DZ	54492	6	1		RIO GRANDE VILLAGE CAMPGROUND LOOP D	FROM ROUTE 0203AZ (RIO GRANDE VILLAGE CAMPGROUND LOOP A)	TO ROUTE 0203AZ (RIO GRANDE VILLAGE CAMPGROUND LOOP A)	YES	0.08	0.00	0.08	3	
0203EZ	54492	6	1		RIO GRANDE VILLAGE CAMPGROUND LOOP E	FROM ROUTE 0203AZ (RIO GRANDE VILLAGE CAMPGROUND LOOP A)	TO ROUTE 0203AZ (RIO GRANDE VILLAGE CAMPGROUND LOOP A)	YES	0.14	0.00	0.14	3	

BIBE-0	233ZZ	Sub	con	ηpo	nent Breakdown							_	
Route Number	FMSS Number	Cycle Collected	lteration Collected	Concession	Route Name	Route Des	To	- 분	Paved Miles	Unpaved Miles	Total Mileage	Function Class	Area (SQ FT)
0233AZ	54515	6	1		CLASS A CAMPGROUND - CHISOS BASIN LOOP A	FROM ROUTE 0233Z (CLASS A CAMPGROUND - CHISOS BASIN MAIN LOOP )	TO ROUTE 0233Z (CLASS A CAMPGROUND - CHISOS BASIN MAIN LOOP)	YES	0.20	0.00	0.20	3	
0233BZ	54515	6	1		CLASS A CAMPGROUND - CHISOS BASIN LOOP B	FROM ROUTE 0233Z (CLASS A CAMPGROUND - CHISOS BASIN MAIN LOOP)	TO ROUTE 0233Z (CLASS A CAMPGROUND - CHISOS BASIN MAIN LOOP)	YES	0.17	0.00	0.17	3	
0233Z	54515	6	1		CLASS A CAMPGROUND - CHISOS BASIN MAIN LOOP	FROM ROUTE 0206 (LOWER BASIN CAMPGROUND ROAD) AT MP 0.38	TO END OF LOOP	YES	0.34	0.00	0.34	3	

#### Page 3 of 3

# NPS / RIP Subcomponent Details for BIBE

(Numerical By Summary Route and Subcomponent #)



Shading Color Key

Report Date: 10/23/2017

White = Paved Routes, DCV Driven

Grey = Paved Routes, DCV not Driven

Black = Paved Routes, Non-NPS

= Concession Route

Yellow = Unpaved Routes, DCV not Driven

Blue = Paved Parking Areas

Green = Unpaved Parking Areas

DCV = Data Collection Vehicle

MRL = Manually Rated Line MRP = Manually Rated Polygon

PKG = Parking Areas

NC = Not Collected

Red text denotes:

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

# BIBE Big Be

BIBE-0	405ZZ	Sub	com	рo	nent Breakdown							=	
Route	FMSS Number	cle lected	ation lected	ncessio		Route Des	cription	. <u>p</u> .		Unpaved		nction 1SS	Area
Number	Number	نٌ نَ	를 S	ů	Route Name	From	То	듄	Miles	Miles	Mileage	Ēΰ	(SQ FT)
0405AZ	54542	6	1		HUISACHE DRIVE A	FROM ROUTE 0012 (RIO GRANDE ROAD) AT MP 19.63 ON LEFT	TO ROUTE 0405AZ (HUISACHE DRIVE A) AT 0.37 ON RIGHT	YES	0.45	0.00	0.45	5	
0405BZ	54542	6	1		HUISACHE DRIVE B	FROM ROUTE 0405AZ (HUISACHE DRIVE A) AT MP 0.33 ON LEFT	TO END AT CULDESAC	YES	0.06	0.00	0.06	5	

BIBE-0926ZZ Subcomponent Breakdown										
Route	FMSS	le lected	ation lected	cessio		Route Desc	ription		User	Area
Number	FMSS Number	δ̈́δ	S S	ů	Route Name	From	То	Ē	Access	(SQ FT)
0926AZ	54644	6	1		SOTOL VISTA OVERLOOK PARKING A	ADJACENT TO ROUTE 0112 (SOTOL VISTA OVERLOOK ROAD) AT END OF LOOP ON LEFT		YES	PUBLIC	1,663
0926BZ	54644	6	1		SOTOL VISTA OVERLOOK PARKING B	ADJACENT TO ROUTE 0112 (SOTOL VISTA OVERLOOK ROAD) AT END OF LOOP ON RIGHT		YES	PUBLIC	3,855

BIBE-10	026ZZ	Sub	com	po	nent Breakdown					
Route Number	FMSS	le lected	ation lected	cessio		Route Desc	ription		User	Area
Number	Number	δō	0 <u>F</u>	ŝ	Route Name	From	То	Ē	Access	(SQ FT)
1026AZ	238380	6	1			ADJACENT TO ROUTE 0234 (BASIN GROUP CAMPGROUND ROAD)		YES	PUBLIC	756
1026BZ	238380	6	1			ADJACENT TO ROUTE 0234 (BASIN GROUP CAMPGROUND ROAD)		YES	PUBLIC	1,154

# Route Identification Changes to Paved Routes from Previous Cycle Big Bend National Park

	ROUTE	CS ADDED FROM PREVI	OUS INVENTORY:
Route No.	Route Name	Type of Change	Comments
0405ZZ	HUISACHE DRIVE	OTHER	ROUTE 0405BZ (HUISACHE DRIVE B) ADDED DURING CYCLE 6.
1026ZZ	GROUP CAMPSITE PARKING AREAS	OTHER	ROUTE 1026AZ (GROUP CAMPSITE PARKING A) ADDED DURING CYCLE 6.

	ROUTES	MODIFIED FROM PREV	VIOUS INVENTORY:
Route No.	Route Name	Type of Change	Comments
0433	TECOLOTE DRIVE	REALIGNED	ROUTE WAS REALIGNED AFTER CYCLE 4. UPDATED GIS COLLECTED IN CYCLE 6.
0900	VISITOR PARKING LOT - HQ BUILDING #310	OTHER	ROUTE NAME CHANGED FROM "PANTHER JUNCTION VISITOR CENTER PARKING" TO "VISITOR PARKING LOT - HQ BUILDING #310" TO ALIGN WITH FMSS.
0924	BASIN REMUDA PARKING	SQ FEET CHANGE	IMPROVED GPS AND SQUARE FOOTAGE COLLECTED IN CYCLE 6. EXTENDED END OF ROUTE 0206 TO PARKING AREA.
0932	CASTOLON MAINTENANCE PARKING	SQ FEET CHANGE	IMPROVED GPS AND SQUARE FOOTAGE COLLECTED IN CYCLE 6.
0933	DESERT MOUNTAIN OVERLOOK PARKING	SQ FEET CHANGE	IMPROVED GPS AND SQUARE FOOTAGE COLLECTED IN CYCLE 6.
0937	ESCUELA VISTA PARKING LOT	OTHER	ROUTE NAME CHANGED FROM "PANTHER JUNCTION SCHOOL PARKING" TO "ESCUELA VISTA PARKING LOT" TO ALIGN WITH FMSS. IMPROVED GPS AND SQUARE FOOTAGE COLLECTED IN CYCLE 6.
0938	EMPLOYEE PARKING LOT - HQ BUILDING #310	ROUTE NAME	ROUTE NAME CHANGED FROM "PANTHER JUNCTION HEADQUARTERS PARKING" TO "EMPLOYEE PARKING LOT - HQ BUILDING #310" TO ALIGN WITH FMSS.
1005	INVISIBLE WILDLIFE INTERPRETIVE PULLOFF	SQ FEET CHANGE	IMPROVED GPS AND SQUARE FOOTAGE COLLECTED IN CYCLE 6.
1009	FLASH FLOOD INTERPRETIVE PULLOFF	SQ FEET CHANGE	IMPROVED GPS AND SQUARE FOOTAGE COLLECTED IN CYCLE 6.

# Section 3 Park Summary Information





# Parkwide Paved Route Condition Summary Big Bend National Park

Table 1: Paved Route Miles and Parking Area Square Footages by Access Level and PCR

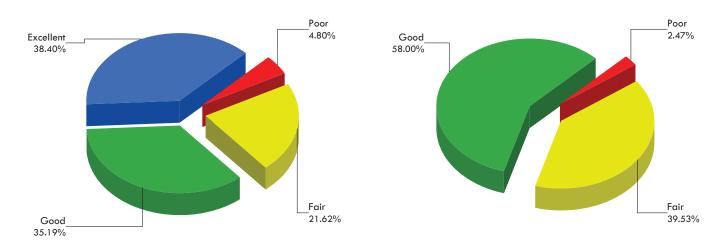
#### Breakdown of Pavement Condition Rating (PCR) Based on Access Level

	POOR	FAIR	GOOD	EXCELLENT	
	(PCR of 0 - 60)	(PCR of 61 - 84)	(PCR of 85 - 94)	(PCR of 95 -100)	
		PAVED	ROADS		
Functional Class	Length (miles)	Length (miles)	Length (miles)	Length (miles)	Total Mileage by FC
1	2.42	20.58	39.91	44.06	106.97
2	1.08	3.31	1.32	2.21	7.92
3	0.55	1.96	0.86	0.44	3.81
4					
5	1.82	0.61	0.98	0.28	3.69
6					
7					
8					
Total Mileage by PCR	5.87	26.45	43.07	46.99	122.38
		PAVED P	ARKING		
Access Level	Area (sq. ft.)	Area (sq. ft.)	Area (sq. ft.)	Area (sq. ft.)	Total Area
PUBLIC		217,720	386,102		603,822
NONPUBLIC	1 <i>7</i> ,816	67,663	32,688		118,167
Total Area by PCR	17,816	285,383	418,790	0	721,989

#### NOTES:

- 1. Data are reported in the table only for paved roads and parking lots that received a condition rating.
- 2. Non-linear roads (MRP collected routes) are measured by area and converted to equivalent route miles based on a 22-ft pavement width in order to be included in the mileage totals for paved roads shown above.
- 3. Quantities in the table above are derived from the route condition data within the PMS\_20, PMS\_MRL, PMS\_MRP, and PMS\_PKG tables in the Park geodatabase.

#### **Parkwide Condition Percentages**



#### **Road Condition Percentages**

**Parking Area Condition Percentages** 

Figure 1: Pavement Condition Rating Breakdown for Paved Roads and Parking Areas

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

The Road Inventory Program aims to provide assistance in translating the excellent / good / fair / poor rating categories into pavement needs categories. The PCR can be used to indicate the place in the Pavement Life Cycle and the type of treatments that should be considered now and into the future.

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

# CONDITION CATEGORIES AND TREATMENTS EXCELLENT / Localized Repairs Only GOOD / Preventive Maintenance FAIR / Light Rehabilitation POOR / Heavy Rehabilitation Reconstruction Payement Age

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



Road Condition Summary Report for Data Collection Vehicle (DCV) Rated Roads

# **Big Bend National Park**

Condition (Rating / Index) Legend

**EXCELLENT (95 - 100)** 

GOOD (85 - 94) FAIR (61 - 84)

**POOR (0 - 60)** 

NR = NOT RATED

#### Notes:

- This condition summary report contains only the roads rated with the Data Collection Vehicle (DCV).
- Condition on roads that were manually rated and parking areas are shown in separate reports.
- Additional details on individual road ratings can be found in Section 5 of the Cycle 6 RIP Report.
- Refer to the RIP Report Appendix for an explanation of the rating system and rating methods.

	<u>Route-</u>	Level Condition for Roads Rated with the Data Collection Vehicle	e (DCV)  Functions	ıl Surf.	Paved Length	Pavement Condition Rating (PCR)	Roughness Condition Index (RCI)	face Condition ing (SCR)	Structural Crack Index	支	gitudinal C ex	nsverse Cracking ex	ch / Pothole Index	Rutting Index
Route No.	FMSS No.	Route Name	Class	Type	(Miles)	Pa Raf	Ro Ind	Surfa Rating	Stru	₹	Lon Ind	Trans	Patch	R <sub>C</sub>
BIBE-0011	53230	NORTH ENTRANCE ROAD	1	AS	27.46	88	92	85	92	100	92	85	100	98
BIBE-0012	53231	RIO GRANDE ROAD	1	AS	20.31	97	100	95	95	100	95	97	100	98
BIBE-0013	53232	WEST ENTRANCE ROAD	1	AS	21.91	93	100	88	97	100	97	88	100	99
BIBE-0014	53233	CHISOS BASIN ROAD	1	AS	6.34	88	98	82	82	100	82	88	100	98
BIBE-0015	53234	ROSS MAXWELL SCENIC DRIVE	1	AS	23.25	96	99	94	98	100	98	94	100	100
BIBE-0016	53235	SANTA ELENA CANYON ROAD	1	AS	7.70	93	88	96	98	100	98	96	100	98
BIBE-0103	54475	FOSSIL BONE ROAD	2	AS	0.23	83	NR	83	84	100	84	83	100	98
BIBE-0109	54480	BOQUILLAS CANYON ROAD	2	AS	3.61	68	59	74	81	100	81	74	100	89
BIBE-0110	54481	BOQUILLAS CANYON OVERLOOK ROAD	2	AS	0.57	73	49	89	90	100	90	89	99	92
BIBE-0112	54483	SOTOL VISTA OVERLOOK ROAD	2	AS	0.41	98	NR	98	100	100	100	100	100	98
BIBE-0113	54484	BURRO MESA POUROFF ROAD	2	AS	1.86	98	100	96	100	100	100	96	100	99
BIBE-0114	54486	MULE EARS OVERLOOK ROAD	2	AS	0.61	93	91	95	97	100	97	95	100	96
BIBE-0201	54490	RIO GRANDE VILLAGE ROAD	3	AS	1.41	77	60	88	90	100	90	88	97	94
BIBE-0203AZ	54492	RIO GRANDE VILLAGE CAMPGROUND LOOP A	3	AS	0.73	82	NR	82	89	100	89	82	98	87
BIBE-0203BZ	54492	RIO GRANDE VILLAGE CAMPGROUND LOOP B	3	AS	0.29	78	NR	78	89	100	89	78	98	86
BIBE-0203CZ	54492	RIO GRANDE VILLAGE CAMPGROUND LOOP C	3	AS	0.07	75	NR	75	93	100	93	82	100	75
BIBE-0203DZ	54492	RIO GRANDE VILLAGE CAMPGROUND LOOP D	3	AS	0.08	79	NR	79	84	97	87	79	98	86
BIBE-0203EZ	54492	RIO GRANDE VILLAGE CAMPGROUND LOOP E	3	AS	0.14	82	NR	82	89	100	89	82	100	87
BIBE-0206	54495	LOWER BASIN CAMPGROUND ROAD	2	AS	0.63	82	NR	82	92	100	92	82	100	98

Data Collection Date: 03/2017



Road Condition Summary Report for Data Collection Vehicle (DCV) Rated Roads

## **Big Bend National Park**

Condition (Rating / Index) Legend

**EXCELLENT (95 - 100)** 

GOOD (85 - 94) FAIR (61 - 84)

**POOR (0 - 60)** 

NR = NOT RATED

#### Notes:

- This condition summary report contains only the roads rated with the Data Collection Vehicle (DCV).
- Condition on roads that were manually rated and parking areas are shown in separate reports.
- Additional details on individual road ratings can be found in Section 5 of the Cycle 6 RIP Report.
- Refer to the RIP Report Appendix for an explanation of the rating system and rating methods.

Route No.	Route-	Level Condition for Roads Rated with the Data Collect  Route Name	ion Vehicle (DCV)  Functiona Class	l Surf. Type	Paved Length (Miles)	Pavement Condition Rating (PCR)	Roughness Condition Index (RCI)	Surface Condition Rating (SCR)	Structural Crack Index	Alligator Crack Index	Longitudinal Cracking Index	Transverse Cracking Index	Patch / Pothole Index	Rutting Index
BIBE-0233AZ	54515	CLASS A CAMPGROUND - CHISOS BASIN LOOP A	3	AS	0.20	93	NR	93	97	99	98	98	100	93
BIBE-0233BZ	54515	CLASS A CAMPGROUND - CHISOS BASIN LOOP B	3	AS	0.17	90	NR	90	98	100	98	98	98	90
BIBE-0233Z	54515	CLASS A CAMPGROUND - CHISOS BASIN MAIN LOOP	3	AS	0.34	96	NR	96	97	100	97	97	100	96
BIBE-0234	54516	BASIN GROUP CAMPGROUND	3	AS	0.40	51	NR	51	51	99	52	54	100	93
BIBE-0405AZ	54542	HUISACHE DRIVE A	5	AS	0.45	42	NR	42	46	98	48	42	99	94
BIBE-0405BZ	54542	HUISACHE DRIVE B	5	AS	0.06	56	NR	56	56	85	71	95	100	88
BIBE-0418	54548	CHISOS BASIN RESIDENCE ROAD	5	AS	0.05	53	NR	53	53	100	53	69	99	88
BIBE-0426	54553	MESA DRIVE	5	AS	0.47	50	NR	50	79	100	79	50	100	97
BIBE-0427	54554	PALO VERDE DRIVE	5	AS	0.09	69	NR	69	92	100	92	69	100	96
BIBE-0428	53087	ALSATE AVENUE	5	AS	0.53	91	NR	91	91	100	91	96	100	91
BIBE-0429	53088	BOBCAT LOOP	5	AS	0.44	94	NR	94	95	100	95	94	99	94
BIBE-0430	53094	JAVELINA DRIVE	5	AS	0.13	46	NR	46	46	100	46	58	100	93
BIBE-0431	53102	QUAIL RUN ROAD	5	AS	0.02	23	NR	23	23	100	23	53	100	65
BIBE-0432	53091	CHUPAROSA ROAD	5	AS	0.02	0	NR	0	0	100	0	9	100	91
BIBE-0433	53103	TECOLOTE DRIVE	5	AS	0.35	0	NR	0	0	93	6	46	100	94
BIBE-0434	53096	LA JUNTA CIRCLE	5	AS	0.05	91	NR	91	93	100	93	99	100	91
BIBE-0435	53099	OCOTILLO LOOP	5	AS	0.13	84	NR	84	84	100	84	90	99	92
BIBE-0436	53098	NOLINA DRIVE	5	AS	0.36	0	NR	0	0	96	0	32	98	97
BIBE-0440	53101	PANTHER CANYON DRIVE	5	AS	0.18	53	NR	53	53	100	53	82	99	92

Data Collection Date: 03/2017



Road Condition Summary Report for Data Collection Vehicle (DCV) Rated Roads

# EXCELLENT (95 - 100) GOOD (85 - 94) FAIR (61 - 84) POOR (0 - 60) NR = NOT RATED

Condition (Rating / Index) Legend

# **Big Bend National Park**

#### Notes:

- This condition summary report contains only the roads rated with the Data Collection Vehicle (DCV).
- Condition on roads that were manually rated and parking areas are shown in separate reports.
- Additional details on individual road ratings can be found in Section 5 of the Cycle 6 RIP Report.
- Refer to the RIP Report Appendix for an explanation of the rating system and rating methods.

Route No.	Route-	Level Condition for Roads Rated with the Data Colle  Route Name	ction Vehicle (DCV)  Functional Surf	=0.1.9.11	Pavement Condition Rating (PCR)	Roughness Condition Index (RCI)	Surface Condition Rating (SCR)	Structural Crack Index	Alligator Crack Index	Longitudinal Cracking Index	Transverse Cracking Index	Patch / Pothole Index	Rutting Index
BIBE-0443	90989	ESCUELA ROAD	5 AS	0.06	63	NR	63	63	100	63	70	100	95
BIBE-0444	54556	PJ SEWAGE TREATMENT PLANT ROAD	5 AS	0.12	73	NR	73	73	100	73	82	100	89

Data Collection Date: 03/2017



Road Condition Summary Report for Manually Rated Roads

# EXCELLENT (95 - 100) GOOD (85 - 94) FAIR (61 - 84) POOR (0 - 60) NR = NOT RATED

Condition (Rating / Index) Legend

## **Big Bend National Park**

#### Notes:

- This condition summary report contains only the roads that were manually rated.
  - MRL = Manually Rated Line (a linear road)
  - MRP = Manually Rated Polygon (a non-linear road)
- Condition on roads that were rated with the Data Collection Vehicle (DCV) are shown in a separate report.
- A road is manually rated when it is determined to be unsuitable for the DCV to drive.
- Additional details on individual road ratings can be found in Section 5 of the Cycle 6 RIP Report.
- Refer to the RIP Report Appendix for an explanation of the rating system and rating methods.

		Route-Level Condition for Manually Rated Line (MRL) Roads			D I	ent Condition (PCR)	ness Condition RCI)	Condition (SCR)	ral Crack Index	or Crack Index	ıdinal Cracking	erse Cracking	Pothole Index	Index
Route No.	FMSS No.	Route Name	Functiona Class	l Surf. Type	Paved Length (Miles)	Pavem Rating	Rough Index (	Surface Rating	Structu	Alligat	Longitu Index	Transv Index	Patch /	Rutting
BIBE-0416	54546	LOWER BASIN LAGOON ROAD	5	AS	0.19	90	NR	90	NR	90	97	90	97	90



Data Collection Date: 02/2017

# Cycle 6 - Road Inventory Program

**Parking Area Condition Summary Report** 

# Big Bend National Park

# EXCELLENT (97) GOOD (90) FAIR (73) POOR\* (0, 30, 53) NR = NOT RATED

Condition (Rating / Index) Legend

#### Notes:

- A PCR of 0 indicates a paved parking area in very poor condition. Individual distresses could not be identified.
- Additional details on individual parking areas can be found in Section 6 of the Cycle 6 RIP Report.
- Refer to the RIP Report Appendix for an explanation of the rating system and rating methods.

							<u>As</u>	sphalt	<u>Surfa</u>	ce Dis	tress	<u>es</u>	Conc	rete Su	<u>ırface</u>	Distres	ses
Route No.	FMSS No.	Condition Rating Details for Parking Areas  Route Name	User Access	Surf. Type	Area (Sq. Ft.)	Pavement Condition Rating (PCR)	Alligator Cracking	Longitudinal / Tranverse Cracking	Rutting / Distortions	Potholes / Patching	HMA Patching	Surface Raveling / Bleeding	Joint Faulting	Slab Cracking	Joint Distresses	elaminatio op-Outs	otholes / Patching
BIBE-0900	53078	VISITOR PARKING LOT - HQ BUILDING #310	PUBLIC	AS		_	73		90	97	97	90		S	7	Δ 4	۵
BIBE-0901	54604	PERSIMMON GAP VISITOR CENTER PARKING	PUBLIC	AS	21,698	73 90	90		90	97	97	90					
BIBE-0901	54606	RIO GRANDE OVERLOOK PARKING	PUBLIC	AS	14,962	90	90		90	97	97	97					
BIBE-0905	54609	BOQUILLAS CANYON TRAIL PARKING	PUBLIC	AS	14,953	90	90		90	90	97	90					
BIBE-0906	54610	RIO GRANDE VISITOR CENTER PARKING	PUBLIC	AS	39,178	73	73		90	97	97	90					—
BIBE-0907	54612	RIO GRANDE DANIELS RANCH PICNIC AREA PARKING	PUBLIC	AS	7,377	73	73		90	97	97	90					—
BIBE-0908	54613	RIO GRANDE TRAILER PARKING RV PARK	PUBLIC	AS	38,638	73	73	90	90	90	97	90					
BIBE-0909	54615	RIO GRANDE STORE PARKING	PUBLIC	AS	46,921	73	73	90	90	90	97	90					
BIBE-0910	54617	RIO GRANDE AMPHITHEATER PARKING	PUBLIC	AS	40,917	73	73	90	90	97	97	90					
BIBE-0912	90991	PANTHER JUNCTION GAS STATION PARKING LOT	PUBLIC	AS	10,438	90	90	90	97	90	97	90					
BIBE-0913	54620	BADLANDS PARKING AREA	PUBLIC	AS	7,563	90	97	90	97	97	97	97					
BIBE-0914	54622	MAVERICK INFORMATION KIOSK PARKING	PUBLIC	AS	6,472	90	97	90	97	97	97	97					
BIBE-0915	54623	WEST ENTRANCE CONTACT STATION PARKING	PUBLIC	AS	3,115	90	97	90	97	97	97	97					
BIBE-0917	54625	LOST MINE TRAIL PARKING	PUBLIC	AS	7,022	90	97	90	97	97	97	90					
BIBE-0918	54627	BASIN RANGER STATION PARKING	NONPUBLIC	C AS	16,769	90	90	90	90	90	97	90					_
BIBE-0919	54629	BASIN VISITORS CENTER PARKING	PUBLIC	AS	45,943	90	90	90	90	97	97	90					
BIBE-0920	54631	BASIN MOTEL PARKING	PUBLIC	AS	17,774	90	90	90	90	97	97	90					
BIBE-0921	54634	CHISOS MOUNTAIN LODGE PARKING	PUBLIC	AS	29,088	90	90	90	90	97	97	90					
BIBE-0922	54637	CHISOS COTTAGE PARKING	PUBLIC	AS	22,576	90	90	90	90	97	97	90					
BIBE-0923	54639	BASIN AMPHITHEATER PARKING	PUBLIC	AS	22,991	73	90	90	90	97	97	73					
BIBE-0924	54641	BASIN REMUDA PARKING	NONPUBLIC	C AS	6,692	90	90	90	97	97	97	90					
BIBE-0925	54643	BLUE CREEK OVERLOOK PARKING	PUBLIC	AS	6,090	90	97	90	97	97	97	90					
BIBE-0926AZ	54644	SOTOL VISTA OVERLOOK PARKING A	PUBLIC	AS	1,663	90	97	90	97	97	97	90					
BIBE-0926BZ	54644	SOTOL VISTA OVERLOOK PARKING B	PUBLIC	AS	3,855	90	97	90	97	97	97	90					
BIBE-0927	54646	BURRO MESA POUROFF PARKING	PUBLIC	AS	5,349	90	97	90	97	97	97	90					
BIBE-0928	54647	CHIMNEY TRAILS PARKING	PUBLIC	AS	4,719	90	97	97	97	97	97	90					

3-7



Data Collection Date: 02/2017

# Cycle 6 - Road Inventory Program

**Parking Area Condition Summary Report** 

EXCELLENT (97)	
GOOD (90)	
FAIR (73)	
POOR* (0, 30, 53)	
NR = NOT RATED	

Condition (Rating / Index) Legend

# **Big Bend National Park**

#### Notes:

- A PCR of 0 indicates a paved parking area in very poor condition. Individual distresses could not be identified.
- Additional details on individual parking areas can be found in Section 6 of the Cycle 6 RIP Report.
- Refer to the RIP Report Appendix for an explanation of the rating system and rating methods.

				<u>Asphalt Surface Distresses</u> <u>Concrete</u>									Concrete Surface Distres				
Route No.	FMSS No.	Condition Rating Details for Parking Areas  Route Name	User Access	Surf. Type	Area (Sq. Ft.)	Pavement Condition Rating (PCR)	Alligator Cracking	Longitudinal / Tranverse Cracking	Rutting / Distortions	Potholes / Patching	HMA Patching	Surface Raveling / Bleeding	Joint Faulting	Slab Cracking	Joint Distresses	Έ Ι	Potholes / Patching
BIBE-0929	54649	GOAT MOUNTAIN PARKING	PUBLIC	AS	4,499	90	97	90	97	97	97	90					
BIBE-0930	54651	MULE EARS OVERLOOK PARKING	PUBLIC	AS	6,448	90	97	97	97	97	97	90					
BIBE-0931	54652	TUFF CANYON OVERLOOK PARKING	PUBLIC	AS	4,523	90	97	90	97	97	97	90					
BIBE-0932	54654	CASTOLON MAINTENANCE PARKING	NONPUBLIC	: AS	15,953	53	90	53	90	97	97	90					
BIBE-0933	54655	DESERT MOUNTAIN OVERLOOK PARKING	PUBLIC	AS	2,493	90	97	97	97	97	97	90					
BIBE-0934	54669	SANTA ELENA CANYON RIVER ACCESS PARKING	PUBLIC	AS	40,891	90	90	90	90	97	97	97					
BIBE-0935	54670	SANTA ELENA CANYON OVERLOOK PARKING	PUBLIC	AS	27,753	90	97	90	97	97	97	97					
BIBE-0936	54672	SANTA ELENA CANYON PICNIC AREA	PUBLIC	AS	7 <b>,</b> 849	90	97	90	97	97	97	90					
BIBE-0937	53154	ESCUELA VISTA PARKING LOT	NONPUBLIC		5,310	90	90	90	97	97	97	90					
BIBE-0938	53073	EMPLOYEE PARKING LOT - HQ BUILDING #310	NONPUBLIC	: AS	12,079	73	73	90	90	97	97	90					
BIBE-0939	53159	MAINTENANCE AREA PARKING LOT	NONPUBLIC	: AS	29,767	73	73	90	90	90	97	90					
BIBE-1000	54674	ANIMAL HIGHWAYS INTERPRETIVE PULLOFF	PUBLIC	AS	8,674	90	97	90	97	97	97	90					
BIBE-1001	54675	CHISOS MOUNTAIN INTERPRETIVE PULLOFF	PUBLIC	AS	4,416	90	97	90	97	97	97	90					
BIBE-1002	54676	SAM NAIL INTERPRETIVE PULLOFF	PUBLIC	AS	3,019	90	97	90	97	97	97	90					
BIBE-1003	54677	FINS OF FIRE INTERPRETIVE PULLOFF	PUBLIC	AS	3,667	90	97	90	97	97	97	90					
BIBE-1004	54678	THE CAMEL EXPERIMENT INTERPRETIVE PULLOFF	PUBLIC	AS	2,664	90	90	90	97	97	97	90					
BIBE-1005	54679	INVISIBLE WILDLIFE INTERPRETIVE PULLOFF	PUBLIC	AS	1 <b>,</b> 756	90	97	90	97	97	97	90					
BIBE-1006	54680	VERTICAL SCENERY PULLOFF	PUBLIC	AS	2,164	90	97	90	97	97	97	90					
BIBE-1008	54682	A DESERT GRAVE INTERPRETIVE PULLOFF	PUBLIC	AS	1,164	90	97	90	97	97	97	90					
BIBE-1009	54684	FLASH FLOOD INTERPRETIVE PULLOFF	PUBLIC	AS	1,589	90	97	90	97	97	97	90					
BIBE-1013	54689	BEAR & MOUNTAIN LION COUNTRY INTERPRETIVE PULLOFF	PUBLIC	AS	2,064	90	97	90	97	97	97	90					
BIBE-1014	54690	TREE ZONE INTERPRETIVE PULLOFF	PUBLIC	AS	2,509	90	97	90	90	97	97	90					
BIBE-1015	54691	FOSSIL BONE PARKING	PUBLIC	AS	11,929	90	97	90	90	97	97	90					
BIBE-1020	236705	PJ SEWAGE TREATMENT PLANT PARKING	NONPUBLIC	: AS	1,863	53	53	53	90	73	97	73					
BIBE-1022	53090	CHINO COURT PARKING	NONPUBLIC	: AS	9,771	73	73	90	90	90	97	90					
BIBE-1023	53093	HOLLY LANE PARKING	NONPUBLIC	AS	10,580	73	73	90	97	90	97	90					



#### Cycle 6 - Road Inventory Program

**Parking Area Condition Summary Report** 

# EXCELLENT (97) GOOD (90) FAIR (73) POOR\* (0, 30, 53) NR = NOT RATED

Condition (Rating / Index) Legend

#### **Big Bend National Park**

#### Notes:

- A PCR of 0 indicates a paved parking area in very poor condition. Individual distresses could not be identified.
- Additional details on individual parking areas can be found in Section 6 of the Cycle 6 RIP Report.
- Refer to the RIP Report Appendix for an explanation of the rating system and rating methods.

Condition Rating Details for Parking Areas							<u>A</u>	<u>sphalt</u>	Surfo	ce Dis	tresse	<u>es</u>	Concr	ete Su	rface	<u>Distre</u>	<u>esses</u>
Route No.	FMSS No.	Condition Rating Details for Parking Areas  Route Name	User Access	Surf. Type	Area (Sq. Ft.)	Pavement Condition Rating (PCR)	Alligator Cracking	Longitudinal / Tranverse Cracking	Rutting / Distortions	Potholes / Patching	HMA Patching	Surface Raveling / Bleeding	Joint Faulting	Slab Cracking		Delamination / Pop-Outs	Potholes / Patching
BIBE-1024	53092	DESERT WILLOW STREET PARKING	NONPUBLIC	AS	5,466	73	90	90	73	90	97	90					
BIBE-1025	53097	MESQUITE STREET PARKING	NONPUBLIC	AS	3,917	90	90	90	97	97	97	90					
BIBE-1026AZ	238380	GROUP CAMPSITE PARKING A	PUBLIC	AS	756	90	90	90	90	97	97	97					
BIBE-1026BZ	238380	GROUP CAMPSITE PARKING B	PUBLIC	AS	1,154	90	90	90	90	97	97	97					
BIBE-1028	54547	BASIN RESIDENCE PARKING	PUBLIC	AS	16,988	90	90	90	90	90	97	90					
BIBE-1029	53100	PAISANO PLACE PARKING	PUBLIC	AS	14,229	90	90	90	90	97	97	90					

Data Collection Date: 02/2017

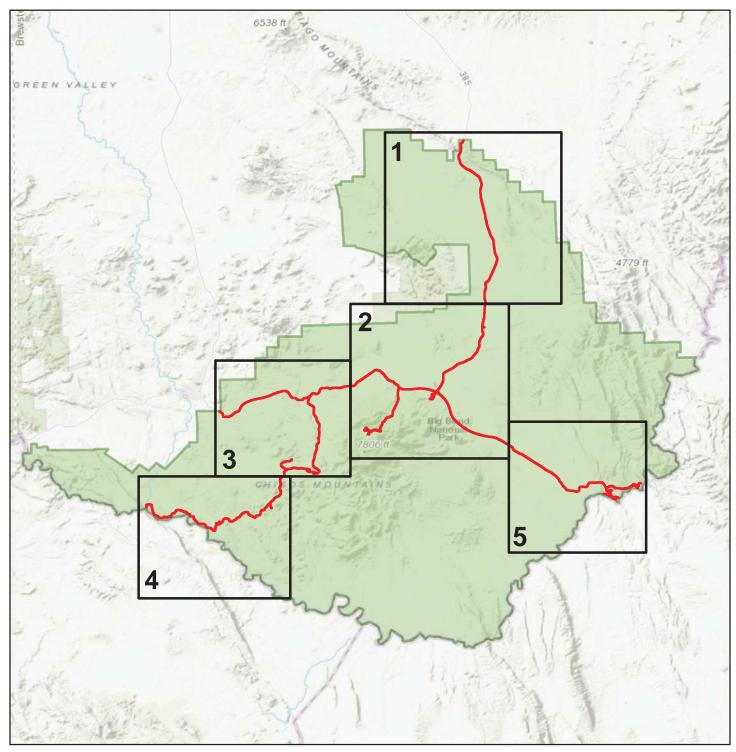
# Section 4 Park Route Location Maps



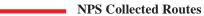
**Big Bend National Park** 



**Key Map** 

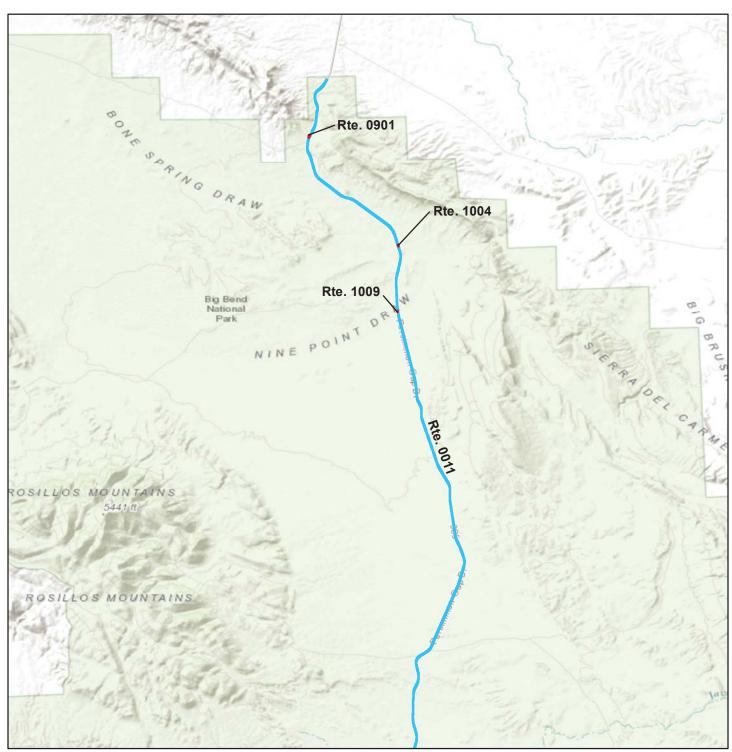


Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community





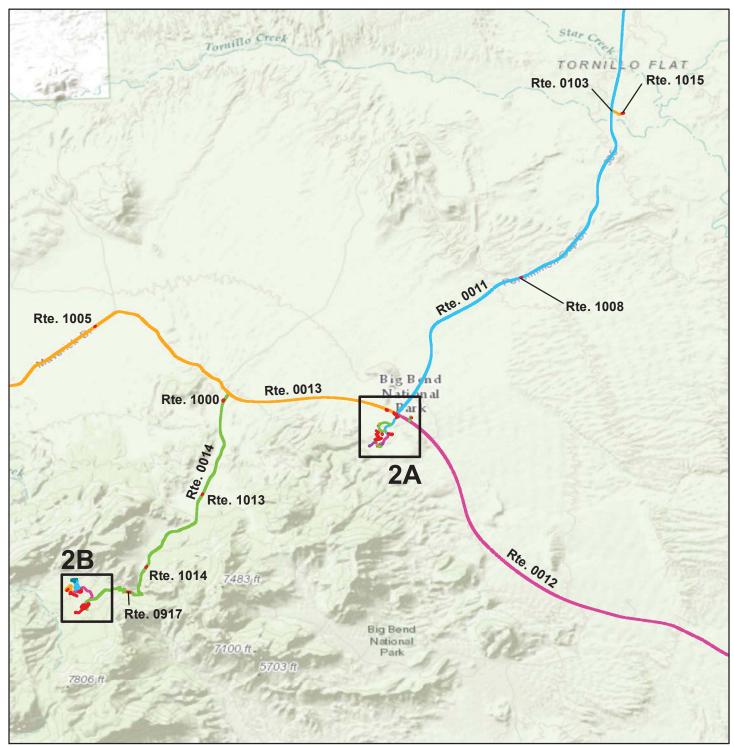
Area Map 1



Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, Mapmylndia, © OpenStreetMap contributors, and the GIS User Community



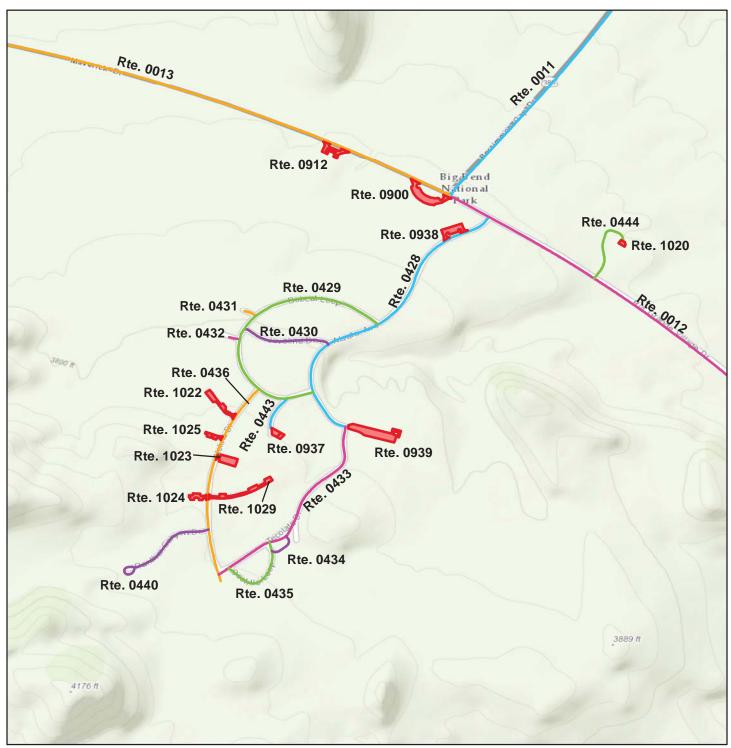
ROUTE LOCATION MAP Area Map 2



Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, Mapmylndia, © OpenStreetMap contributors, and the GIS User Community



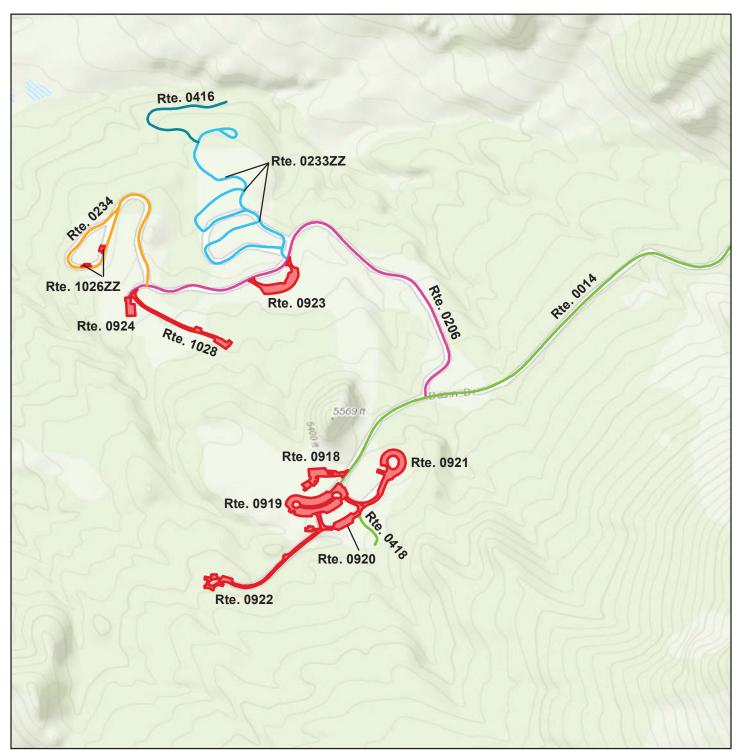
ROUTE LOCATION MAP Area Map 2A



Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community

	Miles	
0	0.25	0.5

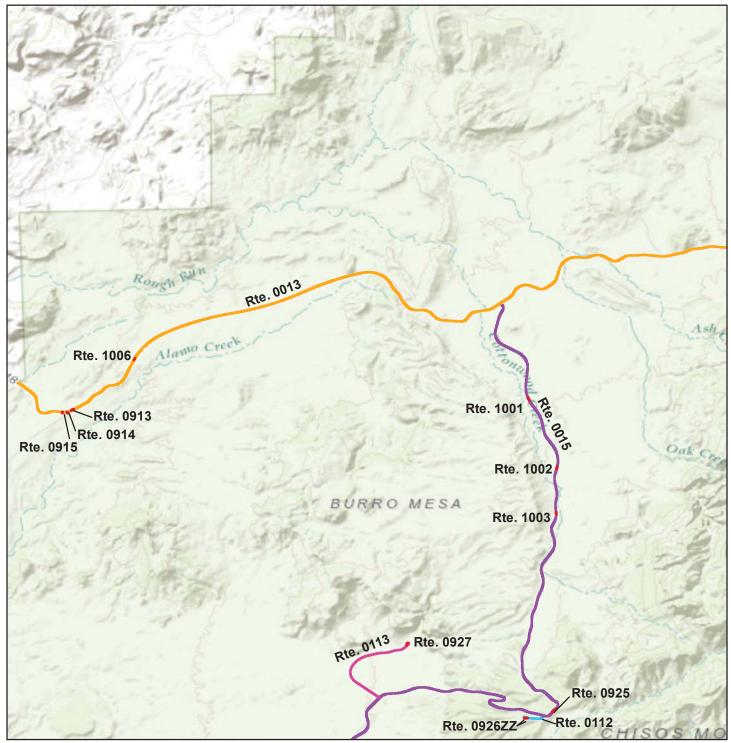
Area Map 2B



Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

	Miles	
0	0.25	0.5

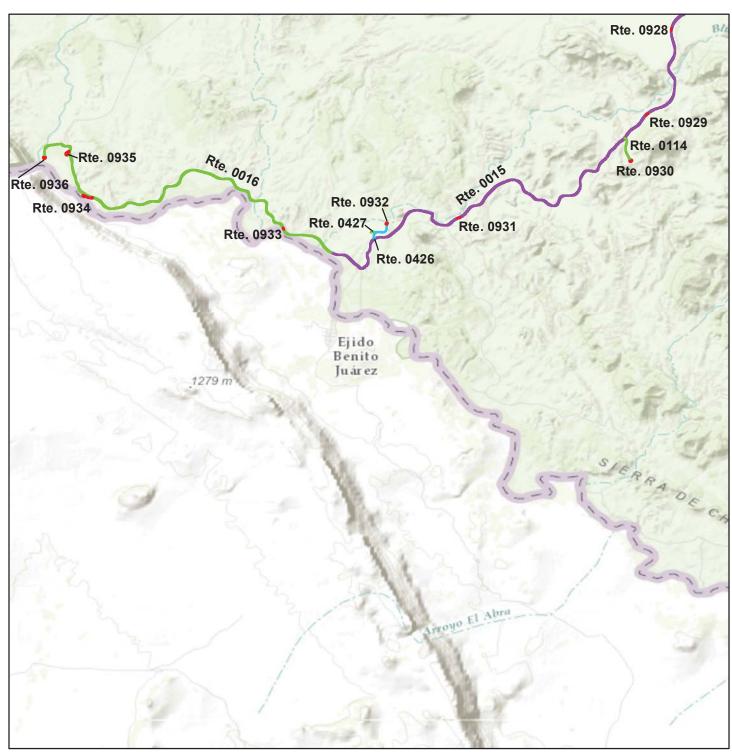
ROUTE LOCATION MAP Area Map 3



Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community



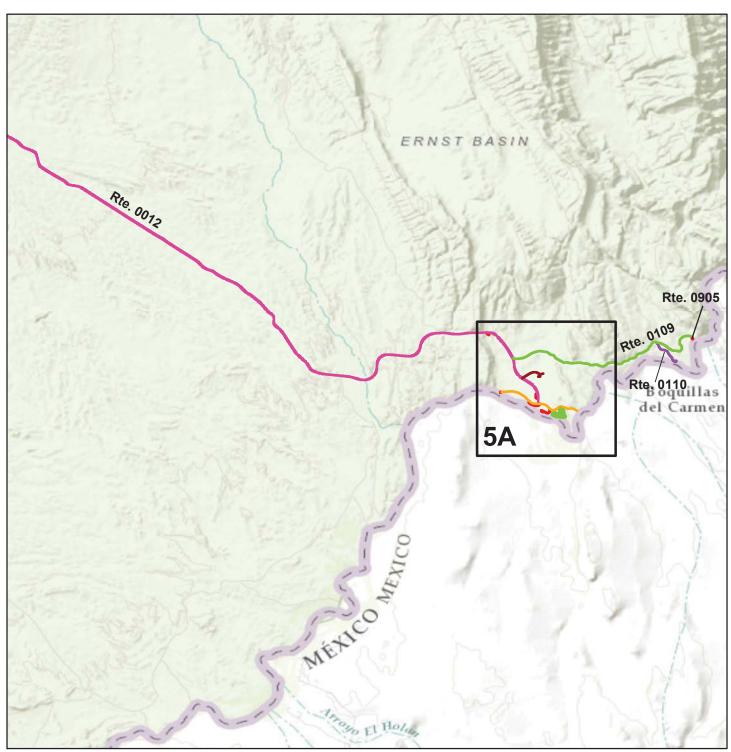
Area Map 4



Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community



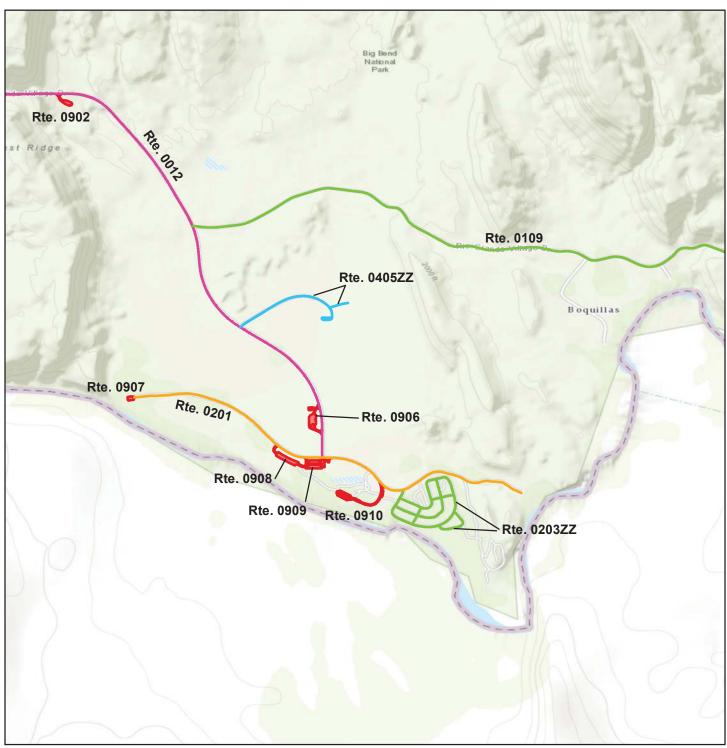
Area Map 5



Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, Mapmylndia, © OpenStreetMap contributors, and the GIS User Community



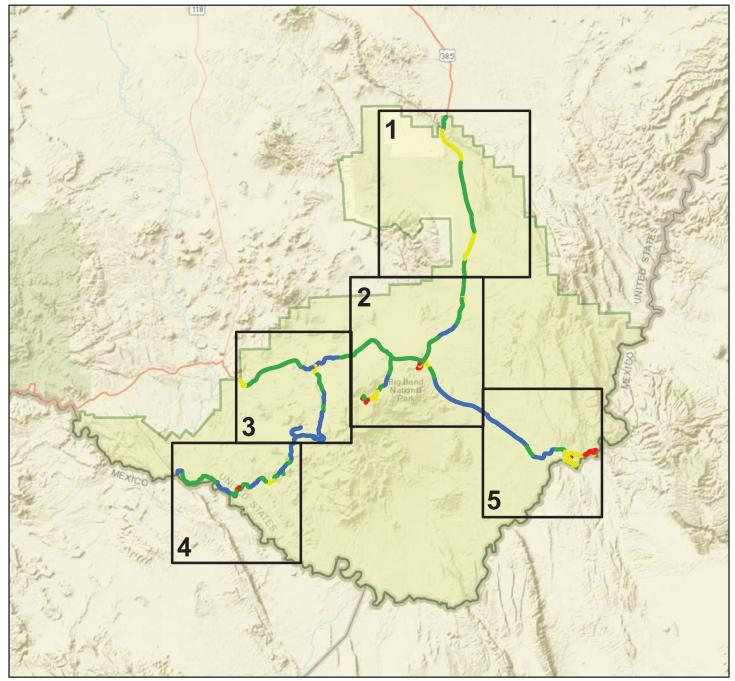
Area Map 5A



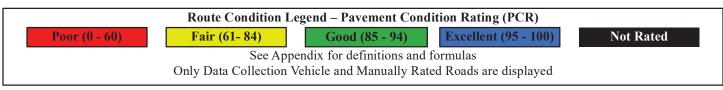
Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, Mapmylndia, © OpenStreetMap contributors, and the GIS User Community

	Miles	
0	0.5	1

ROUTE CONDITION MAP PCR - MILE BY MILE Key Map

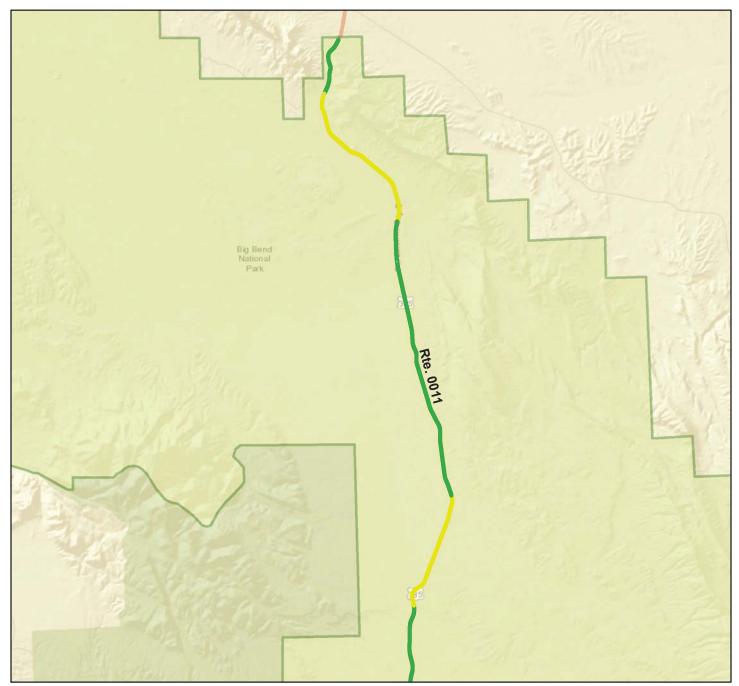


Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community

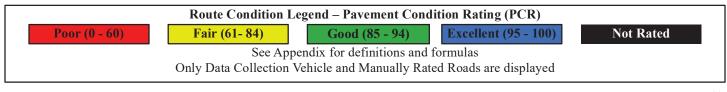


Miles
20 40

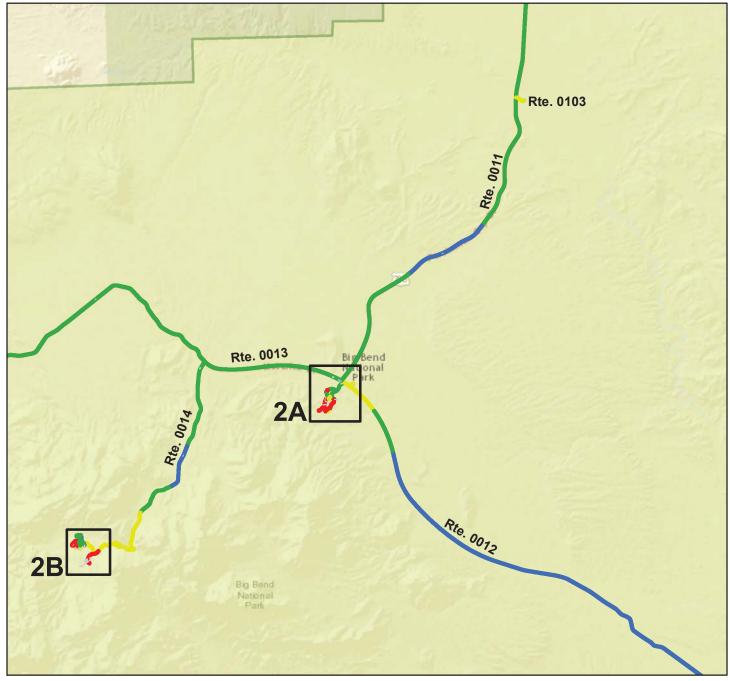




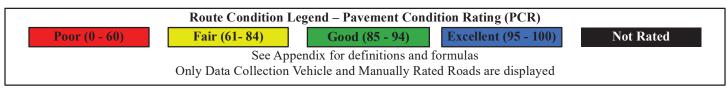
Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community





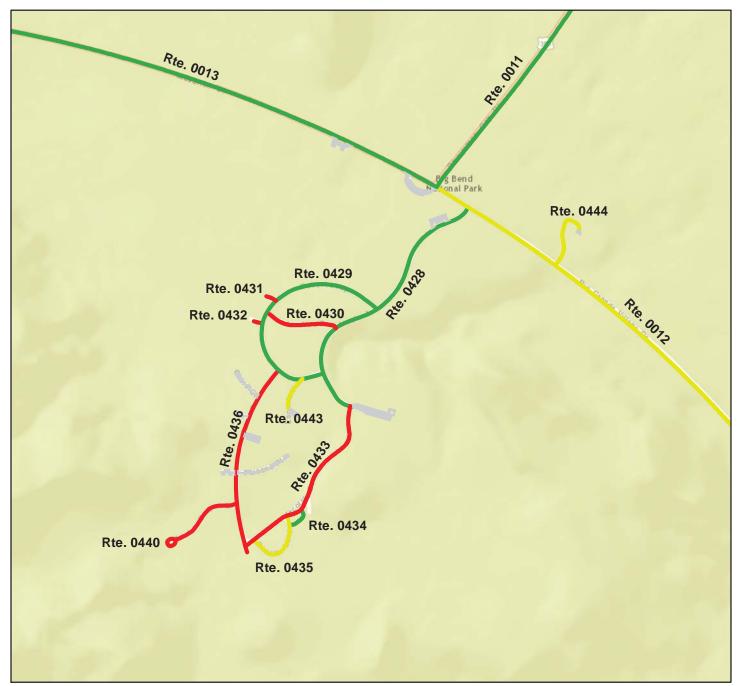


Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community

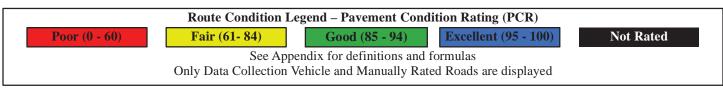




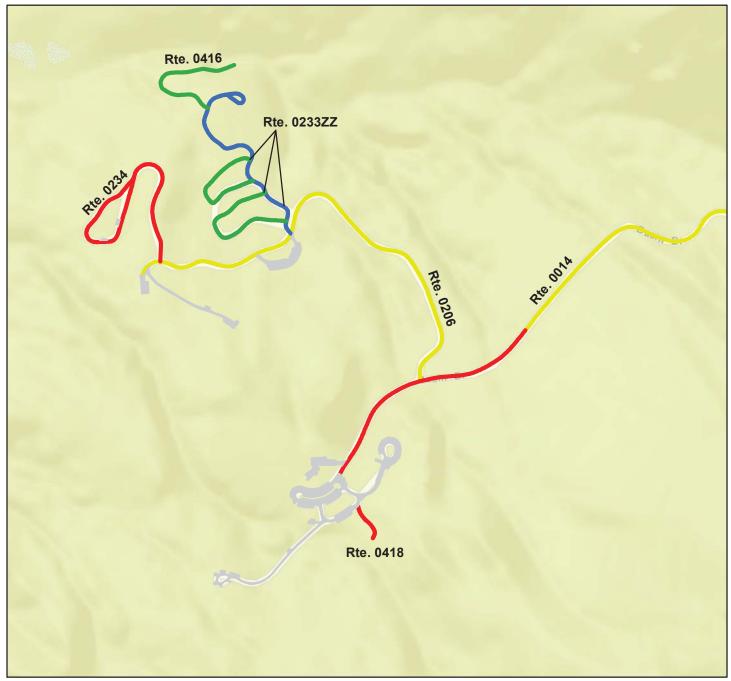
ROUTE CONDITION MAP PCR - MILE BY MILE Area Map 2A



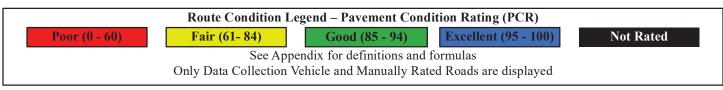
Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community



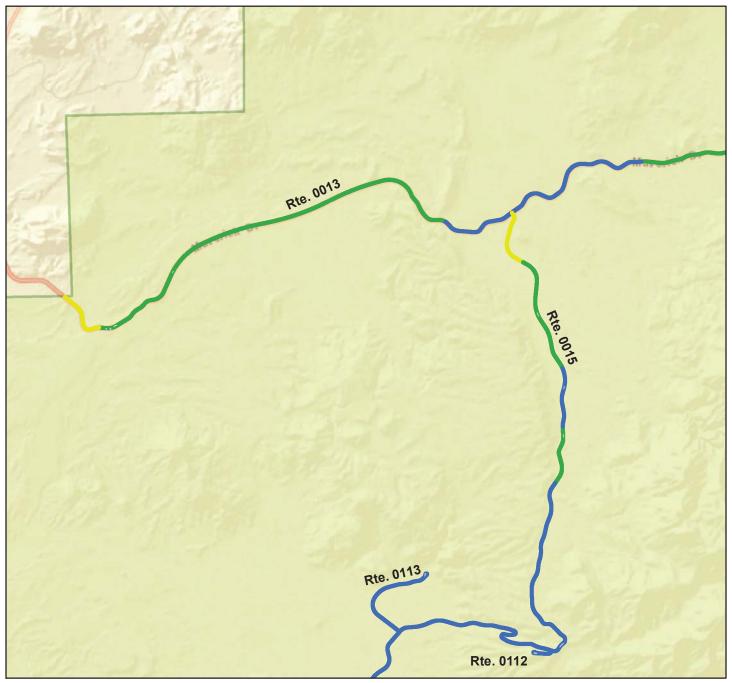
	Miles	
0	0.25	0.5



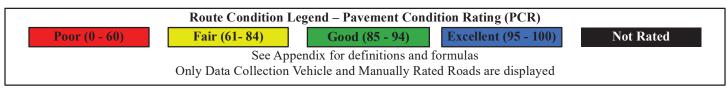
Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community



	Miles	
0	0.25	0.5



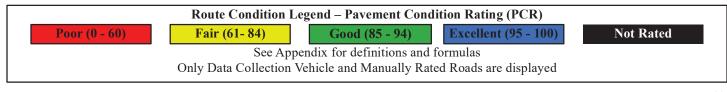
Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community



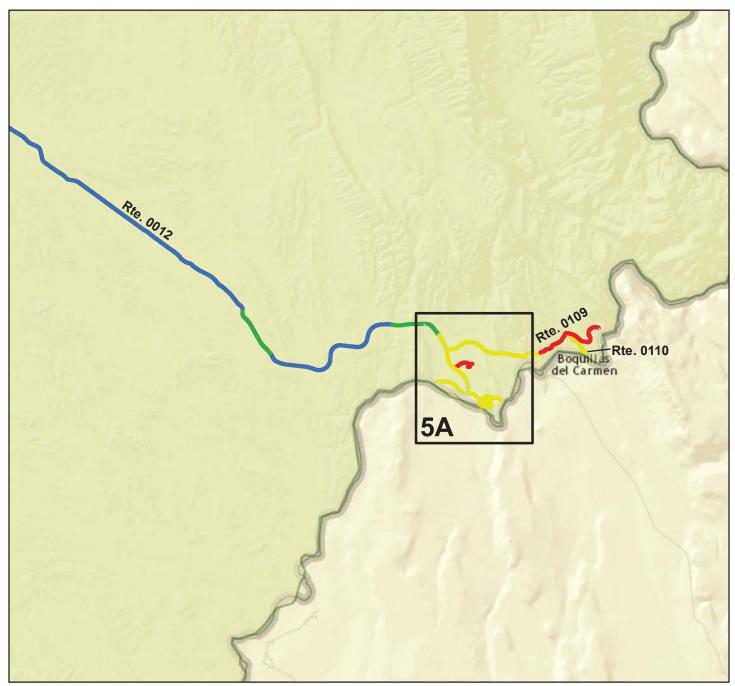




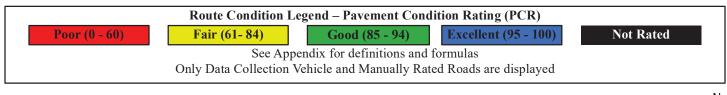
Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community



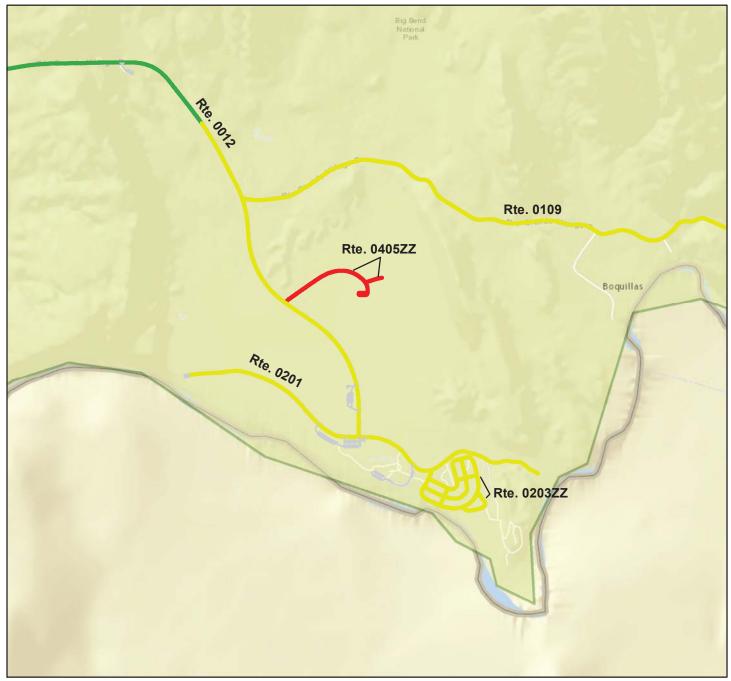




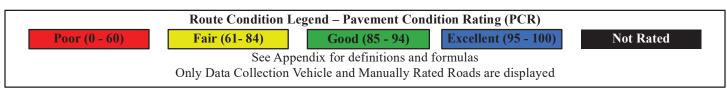
Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community







Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community





# Section 5 Paved Road Condition Rating Sheets

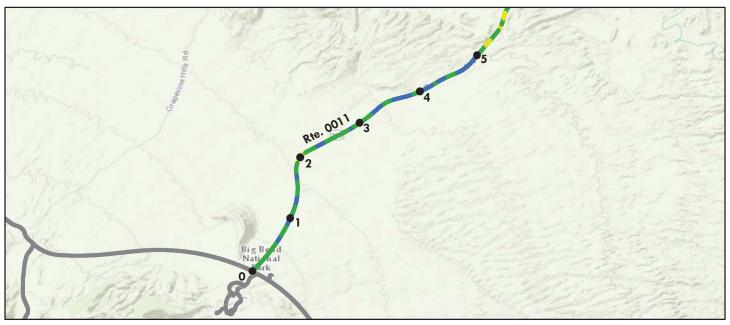


**Big Bend National Park** 



ROUTE 0011: NORTH ENTRANCE ROAD

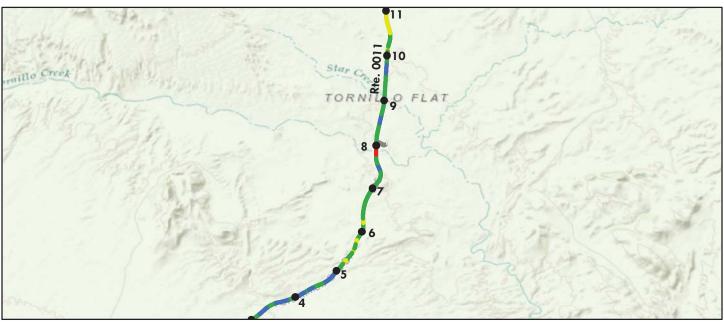
#### Data Collection Vehicle (DCV) Rating



Route C	Condition Legend – Pavo	ement Condi	tion Rating (	PCR)		
Poor (0 - 60) Fair (6)	1-84) Good (	85 - 94)	Excellent (	95 - 100)	Not Ra	ted
	See Appendix for def	initions and f	ormulas			_
<b>Inspection Date:</b> 3/20/2017	Beginning Section MP	0	1	2	3	4
Paved Length (Miles): 27.46	Section Length (MI)	1	1	1	1	1
Surface Type: ASPHALT	Route Summary					
Roadway Condition Information						
Pavement Condition Rating (PCR)	88	91	90	90	95	96
Surface Condition Rating (SCR)	85	95	93	94	96	96
Roughness Condition Index (RCI)	92	86	86	84	93	95
Distress Index Values						
Structural Crack Index	92	100	100	99	100	100
Alligator Crack Index	100	100	100	100	100	100
Longitudinal Crack Index	92	100	100	99	100	100
Transverse Cracking Index	85	100	100	100	100	100
Patching Index	100	100	100	100	100	100
Rutting Index	98	95	93	94	96	96
International Roughness Index (IRI)	135	152	152	157	133	126
Lane & Width Information						
Number of Lanes	2	2	2	2	2	2
Paved Width (ft)	23	24.9	24.7	23.9	24.3	24.3
Lane Width (ft)	9.9	10.3	10.4	10	9.9	10.1

ROUTE 0011: NORTH ENTRANCE ROAD

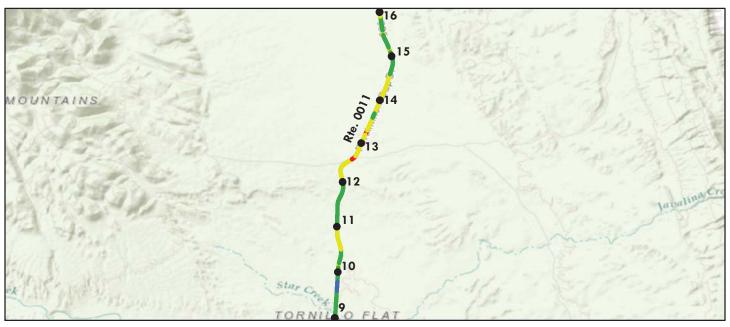
#### Data Collection Vehicle (DCV) Rating



Route (	Condition Legend – Pav	ement Condi	tion Rating (	PCR)		
Poor (0 - 60) Fair (6	1- 84) Good (	(85 - 94)	Excellent (	95 - 100)	Not Ra	ted
	See Appendix for def	initions and f	ormulas			
<b>Inspection Date:</b> 3/20/2017	<b>Beginning Section MP</b>	5	6	7	8	9
Paved Length (Miles): 27.46	Section Length (MI)	1	1	1	1	1
Surface Type: ASPHALT	Route Summary					
Roadway Condition Information						
Pavement Condition Rating (PCR)	88	87	88	90	93	93
Surface Condition Rating (SCR)	85	92	92	94	88	89
Roughness Condition Index (RCI)	92	80	81	83	100	98
Distress Index Values						
Structural Crack Index	92	99	98	99	93	95
Alligator Crack Index	100	100	100	100	100	100
Longitudinal Crack Index	92	99	98	99	93	95
Transverse Cracking Index	85	100	99	98	88	89
Patching Index	100	100	100	100	100	100
Rutting Index	98	92	92	94	100	100
International Roughness Index (IRI)	135	169	167	161	111	119
Lane & Width Information						
Number of Lanes	2	2	2	2	2	2
Paved Width (ft)	23	24.3	24.2	25.2	23.2	22.3
Lane Width (ft)	9.9	10.1	10.2	9.9	9.8	9.7

ROUTE 0011: NORTH ENTRANCE ROAD

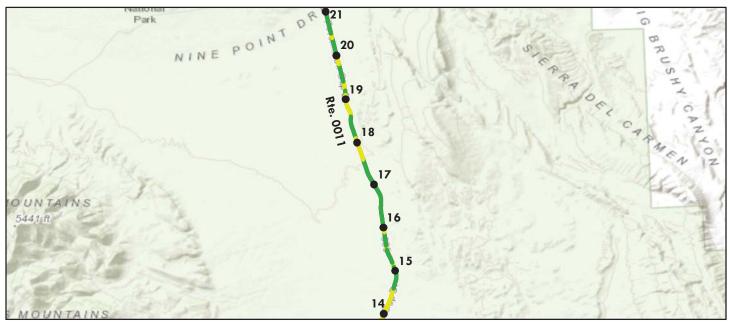
#### Data Collection Vehicle (DCV) Rating



Rou	Route Condition Legend – Pavement Condition Rating (PCR)								
		(85 - 94)	Excellent (		Not Ra	ted			
	See Appendix for de	finitions and f	ormulas						
<b>Inspection Date:</b> 3/20/2017	Beginning Section MP	10	11	12	13	14			
Paved Length (Miles): 27.46	Section Length (MI)	1	1	1	1	1			
Surface Type: ASPHALT	Route Summary			•	•	•			
Roadway Condition Information									
Pavement Condition Rating (PCR)	88	86	89	77	74	84			
Surface Condition Rating (SCR)	85	79	82	75	74	81			
Roughness Condition Index (RCI)	92	97	100	81	74	88			
Distress Index Values									
Structural Crack Index	92	79	90	80	75	89			
Alligator Crack Index	100	100	100	100	100	100			
Longitudinal Crack Index	92	79	90	80	75	89			
Transverse Cracking Index	85	83	82	75	74	81			
Patching Index	100	100	100	100	100	100			
Rutting Index	98	100	100	99	97	98			
International Roughness Index (IRI)	135	123	98	167	188	145			
Lane & Width Information									
Number of Lanes	2	2	2	2	2	2			
Paved Width (ft)	23	22.4	22.5	23	22.2	22.7			
Lane Width (ft)	9.9	9.8	9.9	9.8	9.6	9.6			

#### ROUTE 0011: NORTH ENTRANCE ROAD

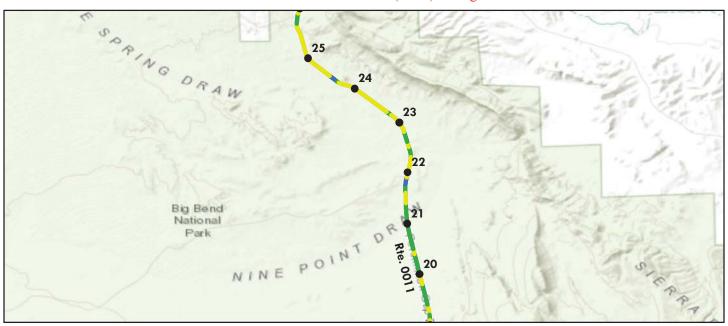
#### Data Collection Vehicle (DCV) Rating



Route C	Route Condition Legend – Pavement Condition Rating (PCR)								
Poor (0 - 60) Fair (6	1- 84) Good (	(85 - 94)	Excellent (	95 - 100)	Not Ra	ted			
	See Appendix for def	initions and f	ormulas			_			
<b>Inspection Date:</b> 3/20/2017	<b>Beginning Section MP</b>	15	16	17	18	19			
Paved Length (Miles): 27.46	Section Length (MI)	1	1	1	1	1			
Surface Type: ASPHALT	Route Summary								
Roadway Condition Information									
Pavement Condition Rating (PCR)	88	87	89	86	86	85			
Surface Condition Rating (SCR)	85	79	81	78	78	78			
Roughness Condition Index (RCI)	92	100	100	98	98	95			
Distress Index Values									
Structural Crack Index	92	98	98	94	92	84			
Alligator Crack Index	100	100	100	100	100	100			
Longitudinal Crack Index	92	98	98	94	92	84			
Transverse Cracking Index	85	79	81	78	78	78			
Patching Index	100	100	100	100	100	100			
Rutting Index	98	100	100	100	100	99			
International Roughness Index (IRI)	135	114	93	121	120	128			
Lane & Width Information									
Number of Lanes	2	2	2	2	2	2			
Paved Width (ft)	23	22.3	22.3	22.4	22.2	22.5			
Lane Width (ft)	9.9	9.6	9.8	9.5	9.6	10			

#### ROUTE 0011: NORTH ENTRANCE ROAD

#### Data Collection Vehicle (DCV) Rating



	Route (	Condition Legend – Pav	ement Condi	tion Rating (	PCR)		
Poor (0 - 60	_		(85 - 94)	Excellent (		Not Ra	ted
		See Appendix for def	finitions and f	ormulas			
Inspection Date:	3/20/2017	<b>Beginning Section MP</b>	20	21	22	23	24
Paved Length (Mile	es): 27.46	Section Length (MI)	1	1	1	1	1
Surface Type:	ASPHALT	Route Summary				!	
Roadway Condition	Information						
Pavement Condition	n Rating (PCR)	88	89	91	82	78	81
Surface Condition R	ating (SCR)	85	82	87	74	71	81
Roughness Condition	n Index (RCI)	92	100	96	93	89	80
Distress Index Value	es						
Structural Crack In-	dex	92	91	89	87	83	85
Alligator Crack Ind	lex	100	100	100	100	100	100
Longitudinal Crack	Index	92	91	89	87	83	85
Transverse Crackin	g Index	85	82	87	74	71	81
Patching Index		100	100	100	100	100	100
Rutting Index		98	100	99	99	99	99
International Rough	nness Index (IRI)	135	108	123	133	143	169
Lane & Width Info	rmation						
Number of Lanes		2	2	2	2	2	2
Paved Width (ft)		23	22.5	22.3	22.6	21.9	21.8
Lane Width (ft)		9.9	10	9.8	9.8	9.7	9.8

#### ROUTE 0011: NORTH ENTRANCE ROAD

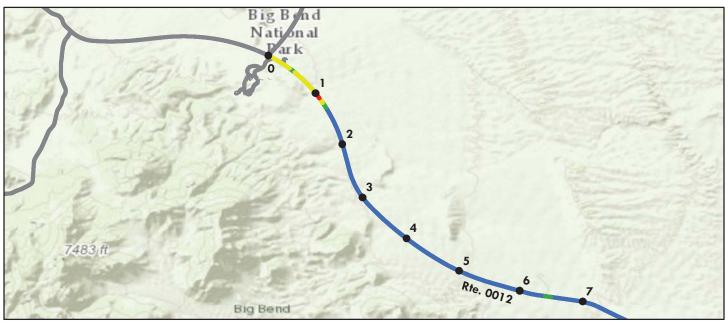
#### Data Collection Vehicle (DCV) Rating



	Route (	Condition Legend – Pav	ement Condi	tion Rating (	PCR)		
Poor (0 - 60			(85 - 94)	Excellent (		Not Rate	d
		See Appendix for def	initions and f	ormulas			
Inspection Date:	3/20/2017	<b>Beginning Section MP</b>	25	26	27		
Paved Length (Mile	es): 27.46	Section Length (MI)	1	1	0.46		
Surface Type:	ASPHALT	Route Summary					
Roadway Condition	n Information						
Pavement Condition	on Rating (PCR)	88	77	85	86		
Surface Condition R	Rating (SCR)	85	65	75	76		
Roughness Condition	on Index (RCI)	92	94	100	100		
Distress Index Valu	ies						
Structural Crack In	ıdex	92	88	97	99		
Alligator Crack Inc	dex	100	100	100	100		
Longitudinal Crack	x Index	92	88	97	99		
Transverse Crackin	ng Index	85	65	75	76		
Patching Index		100	100	100	100		
Rutting Index		98	99	99	100		
International Roug	hness Index (IRI)	135	130	108	98		
Lane & Width Info	rmation						•
Number of Lanes		2	2	2	2		
Paved Width (ft)		23	22.4	22.9	22.2	1	
Lane Width (ft)		9.9	9.7	9.8	9.5		

ROUTE 0012: RIO GRANDE ROAD

#### Data Collection Vehicle (DCV) Rating



	Route (	Condition Legend – Pav	ement Condi	tion Rating (	PCR)		
Poor (0 - 6	_			<b>Excellent (95 - 100)</b>		Not Rated	
		See Appendix for def	initions and f	ormulas			
Inspection Date:	3/20/2017	<b>Beginning Section MP</b>	0	1	2	3	4
Paved Length (Mile	es): 20.31	Section Length (MI)	1	1	1	1	1
Surface Type:	ASPHALT	Route Summary		•	•	•	
Roadway Condition	n Information						
Pavement Condition	on Rating (PCR)	97	75	92	99	99	98
Surface Condition F	Rating (SCR)	95	66	86	99	99	97
Roughness Condition Index (RCI)		100	89	100	100	100	100
Distress Index Valu	ies						
Structural Crack In	ıdex	95	66	86	100	100	100
Alligator Crack Inc	dex	100	99	100	100	100	100
Longitudinal Cracl	k Index	95	67	86	100	100	100
Transverse Crackin	ng Index	97	81	91	100	100	100
Patching Index		100	100	100	100	100	100
Rutting Index		98	97	99	99	99	97
International Roug	hness Index (IRI)	112	142	104	74	81	90
Lane & Width Info	rmation						
Number of Lanes		2	2	2	2	2	2
Paved Width (ft)		24.2	23.9	24.2	24.6	24.4	24.6
Lane Width (ft)		10.4	11.4	11	10.1	10.2	10.4

ROUTE 0012: RIO GRANDE ROAD

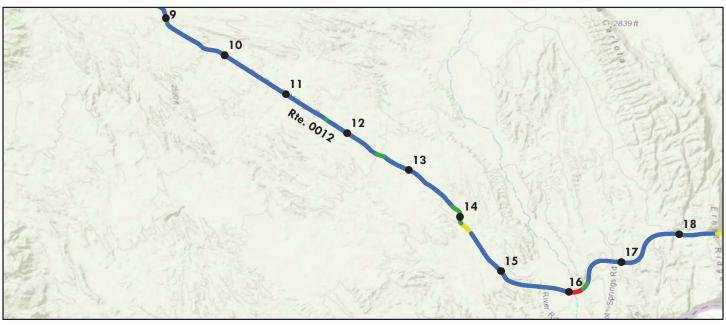
#### Data Collection Vehicle (DCV) Rating



Route Condition Legend – Pavement Condition Rating (PCR)								
				Excellent (95 - 100)		ted		
See Appendix for definitions and formulas								
<b>Inspection Date:</b> 3/20/2017	Beginning Section MF	5	6	7	8	9		
Paved Length (Miles): 20.31	Section Length (MI)	1	1	1	1	1		
Surface Type: ASPHALT	Route Summary							
Roadway Condition Information								
Pavement Condition Rating (PCR)	97	99	99	99	99	99		
Surface Condition Rating (SCR)	95	98	99	99	98	98		
Roughness Condition Index (RCI)	100	100	100	100	100	100		
Distress Index Values								
Structural Crack Index	95	100	100	100	100	100		
Alligator Crack Index	100	100	100	100	100	100		
Longitudinal Crack Index	95	100	100	100	100	100		
Transverse Cracking Index	97	100	100	100	100	100		
Patching Index	100	100	100	100	100	100		
Rutting Index	98	98	99	99	98	98		
International Roughness Index (IR	112	101	101	91	102	98		
Lane & Width Information								
Number of Lanes	2	2	2	2	2	2		
Paved Width (ft)	24.2	24.4	24.2	24.2	24	24		
Lane Width (ft)	10.4	10.4	10.4	10.3	10.3	10.3		

ROUTE 0012: RIO GRANDE ROAD

#### Data Collection Vehicle (DCV) Rating



Route Condition Legend – Pavement Condition Rating (PCR)								
Poor (0 - 60) Fair (61- 84) Go		(85 - 94) Excellent (95 - 100)		95 - 100)	Not Rated			
	See Appendix for definitions and formulas							
<b>Inspection Date:</b> 3/20/2017	<b>Beginning Section MP</b>	10	11	12	13	14		
Paved Length (Miles): 20.31	Section Length (MI)	1	1	1	1	1		
Surface Type: ASPHALT	Route Summary							
Roadway Condition Information								
Pavement Condition Rating (PCR)	97	99	99	98	95	94		
Surface Condition Rating (SCR)	95	98	98	97	96	97		
Roughness Condition Index (RCI)	100	100	100	100	94	90		
Distress Index Values								
Structural Crack Index	95	100	100	100	100	100		
Alligator Crack Index	100	100	100	100	100	100		
Longitudinal Crack Index	95	100	100	100	100	100		
Transverse Cracking Index	97	100	100	100	100	100		
Patching Index	100	100	100	100	100	100		
Rutting Index	98	98	98	97	96	97		
International Roughness Index (IRI)	112	107	99	104	131	140		
Lane & Width Information								
Number of Lanes	2	2	2	2	2	2		
Paved Width (ft)	24.2	24.7	24.7	24.9	24.9	24.5		
Lane Width (ft)	10.4	10.2	10.3	10.2	10.1	10.2		

ROUTE 0012: RIO GRANDE ROAD

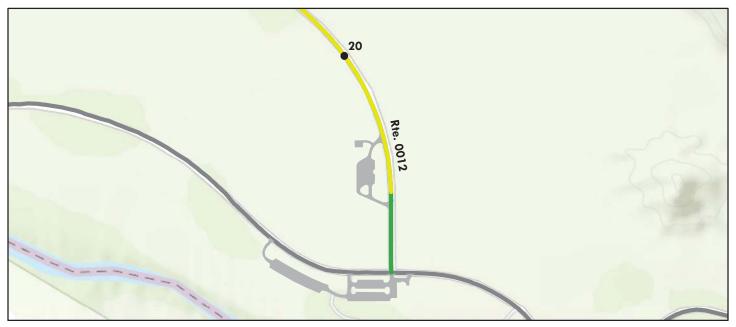
#### Data Collection Vehicle (DCV) Rating



Route Condition Legend – Pavement Condition Rating (PCR)								
				Excellent (95 - 100)		ted		
See Appendix for definitions and formulas								
<b>Inspection Date:</b> 3/20/2017	Beginning Section MP	15	16	17	18	19		
Paved Length (Miles): 20.31	Section Length (MI)	1	1	1	1	1		
Surface Type: ASPHALT	Route Summary		•		•			
Roadway Condition Information								
Pavement Condition Rating (PCR)	97	99	96	99	86	73		
Surface Condition Rating (SCR)	95	99	98	99	85	75		
Roughness Condition Index (RCI)	100	100	93	100	88	71		
Distress Index Values								
Structural Crack Index	95	100	99	100	85	75		
Alligator Crack Index	100	100	100	100	100	100		
Longitudinal Crack Index	95	100	99	100	85	75		
Transverse Cracking Index	97	100	100	100	89	78		
Patching Index	100	100	100	100	100	99		
Rutting Index	98	99	98	99	96	96		
International Roughness Index (IRI)	112	87	132	88	147	200		
Lane & Width Information								
Number of Lanes	2	2	2	2	2	2		
Paved Width (ft)	24.2	24.9	25.1	24.1	23.4	21.6		
Lane Width (ft)	10.4	10.1	11	10.3	10.8	10.3		

ROUTE 0012: RIO GRANDE ROAD

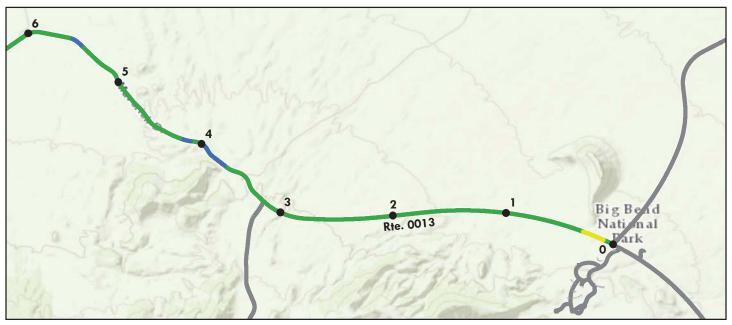
#### Data Collection Vehicle (DCV) Rating



	Route (	Condition Legend – Pav	ement Cond	ition Rating (	PCR)			
Poor (0 - 60) Fair (61			(85 - 94)	<b>Excellent (95 - 100)</b>		Not Rated		
		See Appendix for def	finitions and f	formulas				
Inspection Date:	3/20/2017	<b>Beginning Section MP</b>	20					
Paved Length (Mil	es): 20.31	Section Length (MI)	0.31					
Surface Type:	ASPHALT	Route Summary		•				
Roadway Conditio	n Information							
Pavement Condition	on Rating (PCR)	97	84					
Surface Condition I	Rating (SCR)	95	88					
Roughness Condition	on Index (RCI)	100	77					
Distress Index Valu	ies							
Structural Crack In	ndex	95	88					
Alligator Crack In	dex	100	100					
Longitudinal Crac	k Index	95	88					
Transverse Cracking	ng Index	97	90					
Patching Index		100	100					
Rutting Index		98	95					
International Roughness Index (IRI)		112	179					
Lane & Width Info	ormation							
Number of Lanes		2	2					
Paved Width (ft)		24.2	20.8					
Lane Width (ft)		10.4	10.2					

#### ROUTE 0013: WEST ENTRANCE ROAD

#### Data Collection Vehicle (DCV) Rating



Route Condition Legend – Pavement Condition Rating (PCR)								
Poor (0 - 60) Fair (6	1- 84) Good (85 - 94)		<b>Excellent (95 - 100)</b>		Not Rated			
See Appendix for definitions and formulas								
Inspection Date: 3/20/2017 Beginning Section MP 0 1 2 3 4								
Paved Length (Miles): 21.91	Section Length (MI)	1	1	1	1	1		
Surface Type: ASPHALT	Route Summary							
Roadway Condition Information								
Pavement Condition Rating (PCR)	93	87	88	90	92	94		
Surface Condition Rating (SCR)	88	78	80	83	86	90		
Roughness Condition Index (RCI)	100	100	100	100	100	100		
Distress Index Values								
Structural Crack Index	97	91	98	97	97	100		
Alligator Crack Index	100	100	100	100	100	100		
Longitudinal Crack Index	97	91	98	97	97	100		
Transverse Cracking Index	88	78	80	83	86	90		
Patching Index	100	100	100	100	100	100		
Rutting Index	99	100	100	100	99	100		
International Roughness Index (IRI)	88	73	67	71	80	58		
Lane & Width Information								
Number of Lanes	2	2	2	2	2	2		
Paved Width (ft)	23.4	23.8	23.4	23.4	23	22.5		
Lane Width (ft)	10	10.4	10.2	10	9.9	9.5		

ROUTE 0013: WEST ENTRANCE ROAD

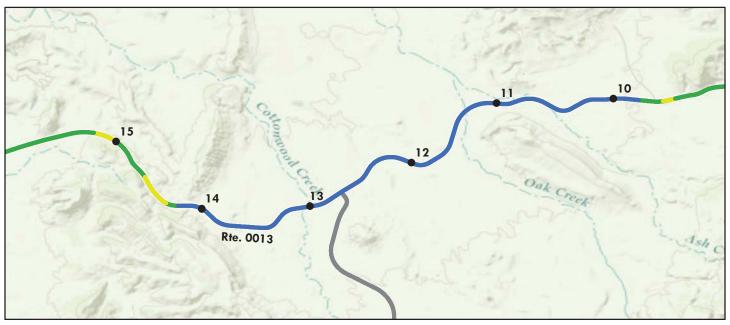
#### Data Collection Vehicle (DCV) Rating



Route Condition Legend – Pavement Condition Rating (PCR)									
Poor (0 - 60) Fair (6	1- 84) Good (85 - 94)		<b>Excellent (95 - 100)</b>		Not Rated				
See Appendix for definitions and formulas									
Inspection Date:         3/20/2017         Beginning Section MP         5         6         7         8         9									
Paved Length (Miles): 21.91	Section Length (MI)	1	1	1	1	1			
Surface Type: ASPHALT	Route Summary								
Roadway Condition Information									
Pavement Condition Rating (PCR)	93	93	90	91	91	93			
Surface Condition Rating (SCR)	88	88	84	85	85	88			
Roughness Condition Index (RCI)	100	100	100	100	100	100			
Distress Index Values									
Structural Crack Index	97	100	96	97	94	96			
Alligator Crack Index	100	100	100	100	100	100			
Longitudinal Crack Index	97	100	96	97	94	96			
Transverse Cracking Index	88	88	84	85	85	88			
Patching Index	100	100	100	100	100	100			
Rutting Index	99	100	97	99	98	97			
International Roughness Index (IRI)	88	65	84	80	109	113			
Lane & Width Information									
Number of Lanes	2	2	2	2	2	2			
Paved Width (ft)	23.4	22.3	22.4	22.1	26.5	22.2			
Lane Width (ft)	10	9.6	10	10	9.8	9.7			

#### ROUTE 0013: WEST ENTRANCE ROAD

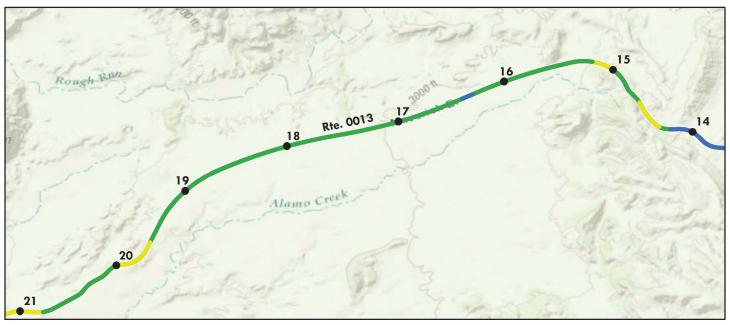
#### Data Collection Vehicle (DCV) Rating



	Route (	Condition Legend – Pav	ement Condi	tion Rating (	PCR)				
Poor (0 - 60	_				Excellent (95 - 100)		ted		
	See Appendix for definitions and formulas								
Inspection Date:	3/20/2017	<b>Beginning Section MP</b>	10	11	12	13	14		
Paved Length (Mile	es): 21.91	Section Length (MI)	1	1	1	1	1		
Surface Type:	ASPHALT	Route Summary				!			
Roadway Condition Information									
Pavement Condition	n Rating (PCR)	93	100	99	100	99	90		
Surface Condition R	ating (SCR)	88	100	99	100	99	83		
Roughness Condition Index (RCI)		100	100	100	100	100	100		
Distress Index Values									
Structural Crack In-	dex	97	100	99	100	99	94		
Alligator Crack Ind	lex	100	100	100	100	100	100		
Longitudinal Crack	Index	97	100	99	100	99	94		
Transverse Crackin	g Index	88	100	100	100	99	83		
Patching Index		100	100	100	100	100	100		
Rutting Index		99	100	100	100	100	98		
International Rough	nness Index (IRI)	88	71	68	69	81	114		
Lane & Width Info	rmation								
Number of Lanes		2	2	2	2	2	2		
Paved Width (ft)		23.4	23.4	23.2	24.7	24.5	23.8		
Lane Width (ft)		10	10	9.8	10	10.2	10.2		

ROUTE 0013: WEST ENTRANCE ROAD

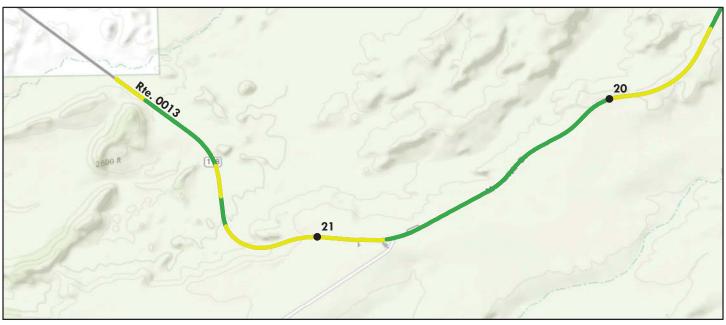
#### Data Collection Vehicle (DCV) Rating



Route Condition Legend – Pavement Condition Rating (PCR)									
Poor (0 - 60) Fair (6	1-84) Good (85 - 94)		<b>Excellent (95 - 100)</b>		Not Rated				
See Appendix for definitions and formulas									
Inspection Date:         3/20/2017         Beginning Section MP         15         16         17         18         19									
Paved Length (Miles): 21.91	Section Length (MI)	1	1	1	1	1			
Surface Type: ASPHALT	Route Summary								
Roadway Condition Information									
Pavement Condition Rating (PCR)	93	90	92	93	92	91			
Surface Condition Rating (SCR)	88	84	87	88	87	85			
Roughness Condition Index (RCI)	100	100	100	100	100	100			
Distress Index Values									
Structural Crack Index	97	97	95	96	97	96			
Alligator Crack Index	100	100	100	100	100	100			
Longitudinal Crack Index	97	97	95	96	97	96			
Transverse Cracking Index	88	84	87	88	87	85			
Patching Index	100	100	100	100	100	100			
Rutting Index	99	100	98	98	99	99			
International Roughness Index (IRI)	88	97	78	78	72	113			
Lane & Width Information									
Number of Lanes	2	2	2	2	2	2			
Paved Width (ft)	23.4	22.6	22.6	22.4	22.2	23.5			
Lane Width (ft)	10	10	10.4	10.5	10.2	10			

### ROUTE 0013: WEST ENTRANCE ROAD

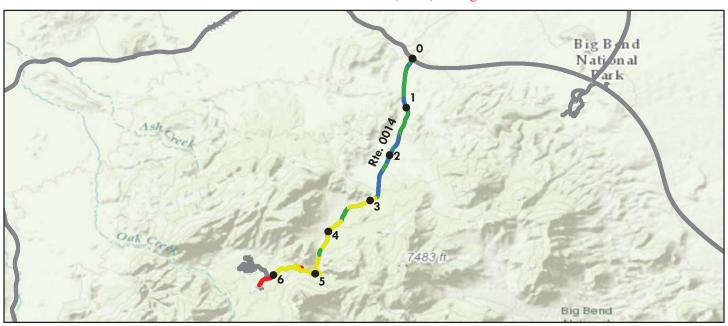
### Data Collection Vehicle (DCV) Rating



	Route (	Condition Legend – Pav	ement Condi	tion Rating (	PCR)		
Poor (0 - 60			(85 - 94)	Excellent (		Not Rat	ed
		See Appendix for def	finitions and f	ormulas			
Inspection Date:	3/20/2017	<b>Beginning Section MP</b>	20	21			
Paved Length (Mile	es): 21.91	Section Length (MI)	1	0.91			
Surface Type:	ASPHALT	Route Summary				'	
Roadway Condition	n Information						
Pavement Condition	n Rating (PCR)	93	92	80			
Surface Condition R	Surface Condition Rating (SCR)		87	84			
Roughness Condition	n Index (RCI)	100	100	75			
Distress Index Valu	es						
Structural Crack In	dex	97	97	86			
Alligator Crack Inc	lex	100	100	100			
Longitudinal Crack	Index	97	97	86			
Transverse Crackin	ig Index	88	87	84			
Patching Index		100	100	100			
Rutting Index		99	99	95			
International Roug	hness Index (IRI)	88	114	185			
Lane & Width Info	rmation						
Number of Lanes		2	2	2			
Paved Width (ft)		23.4	25	25			
Lane Width (ft)		10	10.3	10.2			

ROUTE 0014: CHISOS BASIN ROAD

### Data Collection Vehicle (DCV) Rating



Ro	ıte Condition Legend – Pav	ement Condi	ition Rating (	PCR)		
		(85 - 94)	Excellent (		Not Ra	ted
	See Appendix for de	finitions and f	ormulas			
<b>Inspection Date:</b> 3/20/2017	Beginning Section MP	0	1	2	3	4
Paved Length (Miles): 6.34	Section Length (MI)	1	1	1	1	1
Surface Type: ASPHALT	Route Summary		•	•	•	•
Roadway Condition Information						
Pavement Condition Rating (PCR)	88	93	93	95	86	81
Surface Condition Rating (SCR)	82	89	89	91	76	73
Roughness Condition Index (RCI)	98	100	100	100	100	92
Distress Index Values						
Structural Crack Index	82	98	94	93	76	73
Alligator Crack Index	100	100	100	100	100	100
Longitudinal Crack Index	82	98	94	93	76	73
Transverse Cracking Index	88	89	89	91	90	91
Patching Index	100	100	100	100	100	100
Rutting Index	98	100	100	98	99	98
International Roughness Index (IRI)	119	76	78	80	104	134
Lane & Width Information						
Number of Lanes	2	2	2	2	2	2
Paved Width (ft)	20.8	22	20	20.2	20.6	21.1
Lane Width (ft)	9.2	10	8.8	9.1	8.8	9

ROUTE 0014: CHISOS BASIN ROAD

### Data Collection Vehicle (DCV) Rating



	Route (	Condition Legend – Pav	ement Condi	tion Rating (	PCR)	
Poor (0 - 6			(85 - 94)	Excellent (9		Not Rated
		See Appendix for def	initions and f	ormulas		
Inspection Date:	3/20/2017	<b>Beginning Section MP</b>	5	6		
Paved Length (Mile	es): 6.34	Section Length (MI)	1	0.34		
Surface Type:	ASPHALT	Route Summary				'
Roadway Condition	n Information					
Pavement Condition	on Rating (PCR)	88	69	54		
Surface Condition I	Rating (SCR)	82	66	62		
Roughness Condition	on Index (RCI)	98	73	41		
Distress Index Valu	ies					
Structural Crack Ir	ndex	82	66	62		
Alligator Crack Inc	dex	100	100	100		
Longitudinal Cracl	k Index	82	66	62		
Transverse Crackin	ng Index	88	76	90		
Patching Index		100	100	100		
Rutting Index		98	97	93		
International Roug	hness Index (IRI)	119	192	330		
Lane & Width Info	ormation					
Number of Lanes		2	2	2		
Paved Width (ft)		20.8	21	21.2		
Lane Width (ft)		9.2	9.2	9.2		

### ROUTE 0015: ROSS MAXWELL SCENIC DRIVE

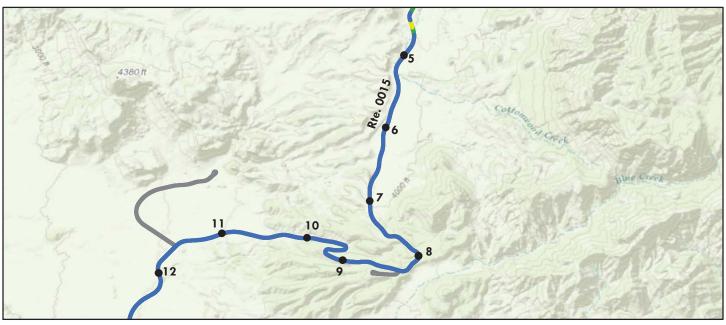
### Data Collection Vehicle (DCV) Rating



Route Condition Legend – Pavement Condition Rating (PCR)							
Poor (0 - 60) Fair (6	1- 84) Good (	85 - 94)	Excellent (	95 - 100)	Not Ra	ted	
	See Appendix for def	initions and f	ormulas			_	
<b>Inspection Date:</b> 3/20/2017	Beginning Section MP	0	1	2	3	4	
Paved Length (Miles): 23.25	Section Length (MI)	1	1	1	1	1	
Surface Type: ASPHALT	Route Summary						
Roadway Condition Information							
Pavement Condition Rating (PCR)	96	82	88	88	97	93	
Surface Condition Rating (SCR)	94	94	95	97	97	94	
Roughness Condition Index (RCI)	99	64	77	74	96	92	
Distress Index Values							
Structural Crack Index	98	96	98	99	100	100	
Alligator Crack Index	100	100	100	100	100	100	
Longitudinal Crack Index	98	96	98	99	100	100	
Transverse Cracking Index	94	94	95	97	97	94	
Patching Index	100	100	100	100	100	100	
Rutting Index	100	98	100	100	100	100	
International Roughness Index (IRI)	118	225	178	190	125	136	
Lane & Width Information							
Number of Lanes	2	2	2	2	2	2	
Paved Width (ft)	22.2	22.6	21.3	20.9	21.4	21.1	
Lane Width (ft)	9.2	9.3	9.1	9.1	9.1	8.9	

### ROUTE 0015: ROSS MAXWELL SCENIC DRIVE

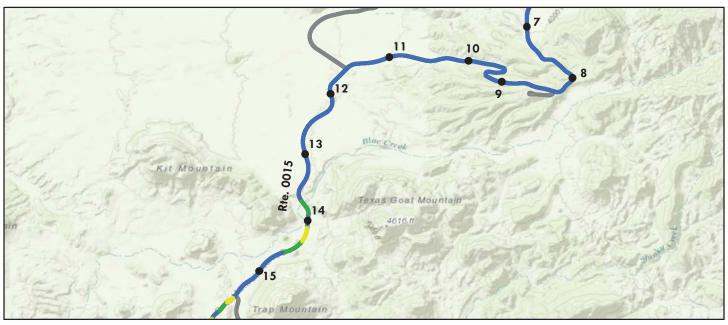
### Data Collection Vehicle (DCV) Rating



Route Condition Legend – Pavement Condition Rating (PCR)							
Poor (0 - 60) Fair (6	1- 84) Good (	85 - 94)	Excellent (	95 - 100)	Not Ra	ted	
	See Appendix for def	initions and f	ormulas			_	
<b>Inspection Date:</b> 3/20/2017	Beginning Section MP	5	6	7	8	9	
Paved Length (Miles): 23.25	Section Length (MI)	1	1	1	1	1	
Surface Type: ASPHALT	Route Summary						
Roadway Condition Information							
Pavement Condition Rating (PCR)	96	99	99	99	99	100	
Surface Condition Rating (SCR)	94	98	98	98	99	100	
Roughness Condition Index (RCI)	99	100	100	100	100	100	
Distress Index Values							
Structural Crack Index	98	100	100	100	100	100	
Alligator Crack Index	100	100	100	100	100	100	
Longitudinal Crack Index	98	100	100	100	100	100	
Transverse Cracking Index	94	98	98	98	99	100	
Patching Index	100	100	100	100	100	100	
Rutting Index	100	100	100	99	100	100	
International Roughness Index (IRI)	118	92	100	94	85	81	
Lane & Width Information							
Number of Lanes	2	2	2	2	2	2	
Paved Width (ft)	22.2	21.4	21.8	21.7	22.2	24	
Lane Width (ft)	9.2	9	9.2	9.3	9.1	9.5	

### ROUTE 0015: ROSS MAXWELL SCENIC DRIVE

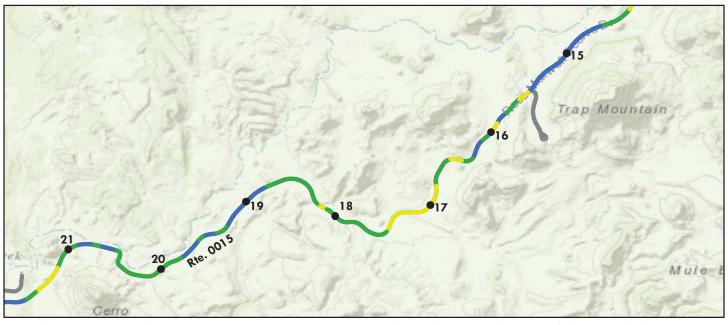
### Data Collection Vehicle (DCV) Rating



Route Condition Legend – Pavement Condition Rating (PCR)							
Poor (0 - 60) Fair (6	1- 84) Good (	85 - 94)	Excellent (	95 - 100)	Not Ra	ted	
	See Appendix for def	initions and f	ormulas			_	
<b>Inspection Date:</b> 3/20/2017	Beginning Section MP	10	11	12	13	14	
Paved Length (Miles): 23.25	Section Length (MI)	1	1	1	1	1	
Surface Type: ASPHALT	Route Summary						
Roadway Condition Information							
Pavement Condition Rating (PCR)	96	100	99	99	98	90	
Surface Condition Rating (SCR)	94	100	98	99	97	94	
Roughness Condition Index (RCI)	99	100	100	100	100	84	
Distress Index Values							
Structural Crack Index	98	100	100	100	100	94	
Alligator Crack Index	100	100	100	100	100	100	
Longitudinal Crack Index	98	100	100	100	100	94	
Transverse Cracking Index	94	100	98	99	97	96	
Patching Index	100	100	100	100	100	100	
Rutting Index	100	100	100	100	100	99	
International Roughness Index (IRI)	118	65	69	62	97	157	
Lane & Width Information							
Number of Lanes	2	2	2	2	2	2	
Paved Width (ft)	22.2	21.4	22.1	21.7	22.3	23.2	
Lane Width (ft)	9.2	9.1	9.4	9.1	9.6	9.2	

### ROUTE 0015: ROSS MAXWELL SCENIC DRIVE

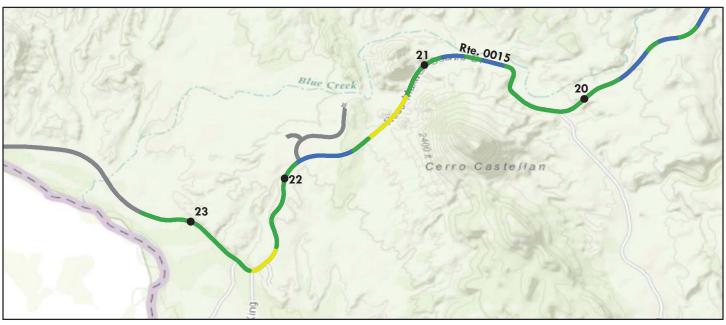
### Data Collection Vehicle (DCV) Rating



Route Condition Legend – Pavement Condition Rating (PCR)							
Poor (0 - 60) Fair (6)	1- 84) Good (	(85 - 94)	Excellent (	95 - 100)	Not Ra	ted	
	See Appendix for def	initions and f	ormulas			_	
<b>Inspection Date:</b> 3/20/2017	Beginning Section MP	15	16	17	18	19	
Paved Length (Miles): 23.25	Section Length (MI)	1	1	1	1	1	
Surface Type: ASPHALT	Route Summary						
Roadway Condition Information							
Pavement Condition Rating (PCR)	96	96	87	80	92	95	
Surface Condition Rating (SCR)	94	97	92	80	87	91	
Roughness Condition Index (RCI)	99	94	80	81	100	100	
Distress Index Values							
Structural Crack Index	98	98	96	94	98	100	
Alligator Crack Index	100	100	100	100	100	100	
Longitudinal Crack Index	98	98	96	94	98	100	
Transverse Cracking Index	94	97	92	80	87	91	
Patching Index	100	100	100	100	100	100	
Rutting Index	100	100	99	99	100	100	
International Roughness Index (IRI)	118	128	168	165	86	77	
Lane & Width Information							
Number of Lanes	2	2	2	2	2	2	
Paved Width (ft)	22.2	22.6	24.3	22.7	22.3	21.8	
Lane Width (ft)	9.2	9.1	9.7	9.3	9.4	9.3	

### ROUTE 0015: ROSS MAXWELL SCENIC DRIVE

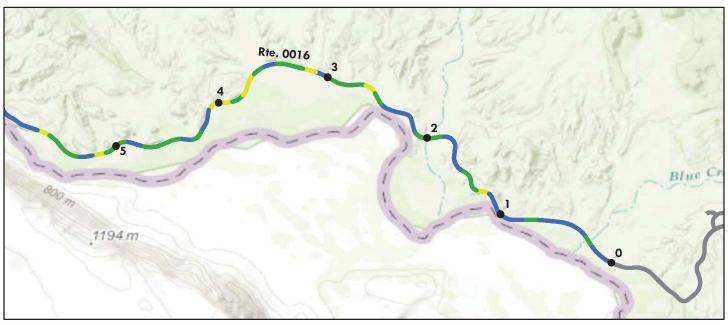
### Data Collection Vehicle (DCV) Rating



Route Condition Legend – Pavement Condition Rating (PCR)							
Poor (0 - 60) Fair (6	1-84) Good (	(85 - 94)	Excellent (	95 - 100)	Not Ra	ted	
	See Appendix for def	initions and f	ormulas				
<b>Inspection Date:</b> 3/20/2017	<b>Beginning Section MP</b>	20	21	22	23		
Paved Length (Miles): 23.25	Section Length (MI)	1	1	1	0.25		
Surface Type: ASPHALT	Route Summary						
Roadway Condition Information							
Pavement Condition Rating (PCR)	96	92	89	91	92		
Surface Condition Rating (SCR)	94	86	87	85	87		
Roughness Condition Index (RCI)	99	100	93	100	100		
Distress Index Values							
Structural Crack Index	98	96	98	97	97		
Alligator Crack Index	100	100	100	100	100		
Longitudinal Crack Index	98	96	98	97	97		
Transverse Cracking Index	94	86	87	85	87		
Patching Index	100	100	100	100	100		
Rutting Index	100	100	100	100	100		
International Roughness Index (IRI)	118	106	131	112	104		
Lane & Width Information							
Number of Lanes	2	2	2	2	2		
Paved Width (ft)	22.2	22.6	22.7	22.3	22.2		
Lane Width (ft)	9.2	9.3	9.2	9.4	9.1		

### ROUTE 0016: SANTA ELENA CANYON ROAD

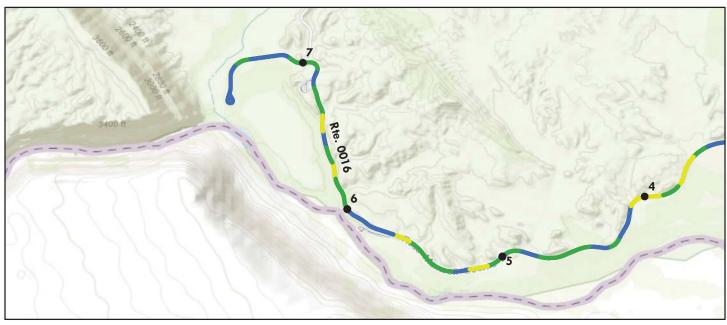
### Data Collection Vehicle (DCV) Rating



Route	Condition Legend – Pav	ement Condi	ition Rating (	PCR)		
Poor (0 - 60) Fair (6		(85 - 94)	Excellent (		Not Ra	ted
	See Appendix for def	initions and f	ormulas			
<b>Inspection Date:</b> 3/20/2017	<b>Beginning Section MP</b>	0	1	2	3	4
Paved Length (Miles): 7.70	Section Length (MI)	1	1	1	1	1
Surface Type: ASPHALT	Route Summary			•		•
Roadway Condition Information						
Pavement Condition Rating (PCR)	93	97	95	94	85	93
Surface Condition Rating (SCR)	96	98	97	96	90	97
Roughness Condition Index (RCI)	88	95	92	91	78	86
Distress Index Values						
Structural Crack Index	98	99	99	99	94	99
Alligator Crack Index	100	100	100	100	100	100
Longitudinal Crack Index	98	99	99	99	94	99
Transverse Cracking Index	96	98	97	96	90	97
Patching Index	100	100	100	100	100	100
Rutting Index	98	99	99	99	98	98
International Roughness Index (IRI)	146	128	135	138	174	151
Lane & Width Information						
Number of Lanes	2	2	2	2	2	2
Paved Width (ft)	22.9	22.8	22.4	22.7	22.7	23.1
Lane Width (ft)	9.5	9.4	9.1	9.2	9.2	9.2

### ROUTE 0016: SANTA ELENA CANYON ROAD

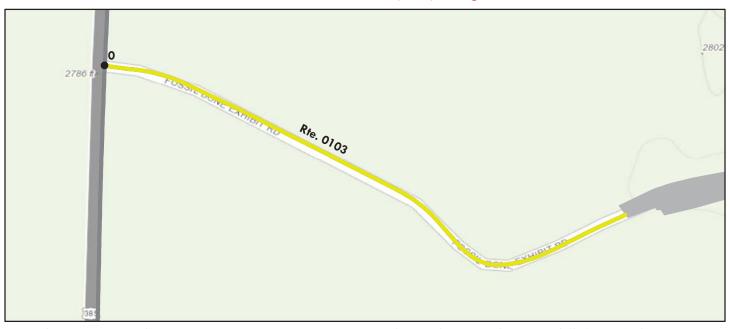
### Data Collection Vehicle (DCV) Rating



Route Condition Legend – Pavement Condition Rating (PCR)								
Poor (0 - 60) Fair (6	1-84) Good (	85 - 94)	Excellent (	95 - 100)	Not Rated			
	See Appendix for def	initions and f	ormulas					
<b>Inspection Date:</b> 3/20/2017	<b>Beginning Section MP</b>	5	6	7				
Paved Length (Miles): 7.70	Section Length (MI)	1	1	0.70				
Surface Type: ASPHALT	Route Summary							
Roadway Condition Information								
Pavement Condition Rating (PCR)	93	94	90	97				
Surface Condition Rating (SCR)	96	97	97	98				
Roughness Condition Index (RCI)	88	90	80	96				
Distress Index Values								
Structural Crack Index	98	99	97	100				
Alligator Crack Index	100	100	100	100				
Longitudinal Crack Index	98	99	97	100				
Transverse Cracking Index	96	98	97	100				
Patching Index	100	100	100	100				
Rutting Index	98	97	98	98				
International Roughness Index (IRI)	146	140	168	126				
Lane & Width Information								
Number of Lanes	2	2	2	2				
Paved Width (ft)	22.9	22.7	22.4	24.4				
Lane Width (ft)	9.5	9.2	9.1	12.9				

**ROUTE 0103: FOSSIL BONE ROAD** 

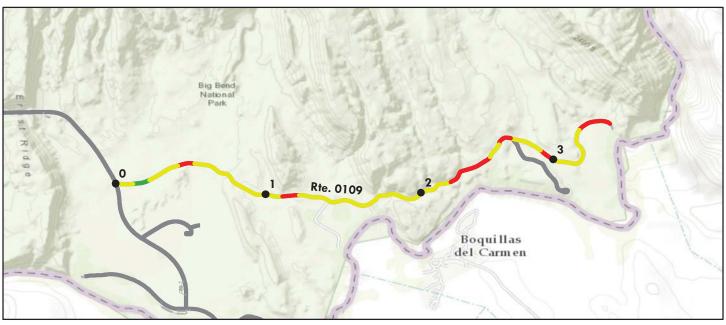
### Data Collection Vehicle (DCV) Rating



Route C	Condition Legend – Pav	ement Condi	tion Rating (PCR)	
Poor (0 - 60) Fair (6	1- 84) Good (	(85 - 94)	<b>Excellent (95 - 100)</b>	Not Rated
	See Appendix for def	initions and f	ormulas	,
<b>Inspection Date:</b> 3/20/2017	<b>Beginning Section MP</b>	0		
Paved Length (Miles): 0.23	Section Length (MI)	0.23		
Surface Type: ASPHALT	Route Summary			
Roadway Condition Information				
Pavement Condition Rating (PCR)	83	83		
Surface Condition Rating (SCR)	83	83		
Roughness Condition Index (RCI)	N/A	N/A		
Distress Index Values				
Structural Crack Index	84	84		
Alligator Crack Index	100	100		
Longitudinal Crack Index	84	84		
Transverse Cracking Index	83	83		
Patching Index	100	100		
Rutting Index	98	98		
International Roughness Index (IRI)	N/A	N/A		
Lane & Width Information				
Number of Lanes	2	2		
Paved Width (ft)	22.5	22.5		
Lane Width (ft)	11.3	11.3		

### ROUTE 0109: BOQUILLAS CANYON ROAD

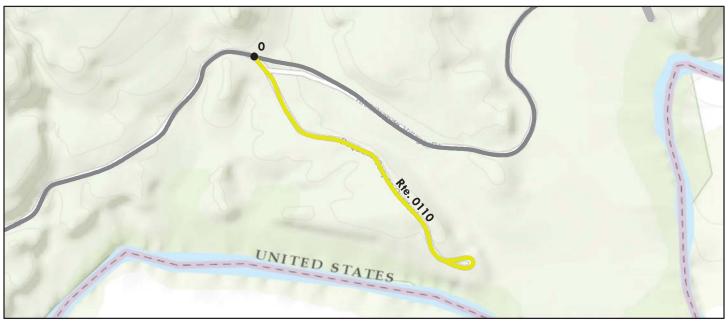
### Data Collection Vehicle (DCV) Rating



Route C	Route Condition Legend – Pavement Condition Rating (PCR)							
Poor (0 - 60) Fair (6)	1-84) Good (	85 - 94)	Excellent (	95 - 100)	Not Ra	ted		
	See Appendix for def	initions and f	ormulas					
<b>Inspection Date:</b> 3/20/2017	Beginning Section MP	0	1	2	3			
Paved Length (Miles): 3.61	Section Length (MI)	1	1	1	0.61			
Surface Type: ASPHALT	Route Summary							
Roadway Condition Information								
Pavement Condition Rating (PCR)	68	76	75	58	51			
Surface Condition Rating (SCR)	74	80	87	66	40			
Roughness Condition Index (RCI)	59	70	58	47	67			
Distress Index Values								
Structural Crack Index	81	80	87	79	77			
Alligator Crack Index	100	100	99	100	100			
Longitudinal Crack Index	81	80	88	79	77			
Transverse Cracking Index	74	86	92	66	40			
Patching Index	100	100	100	100	100			
Rutting Index	89	90	88	88	90			
International Roughness Index (IRI)	242	200	247	298	214			
Lane & Width Information								
Number of Lanes	2	2	2	2	2			
Paved Width (ft)	18.9	19	18.7	18.9	19.1			
Lane Width (ft)	8.6	8.7	8.6	8.5	8.7			

### ROUTE 0110: BOQUILLAS CANYON OVERLOOK

### Data Collection Vehicle (DCV) Rating



	Route (	Condition Legend – Pav	ement Cond	ition Rating (	PCR)		
Poor (0 - 6			(85 - 94)	Excellent (9		Not Ra	ted
		See Appendix for def	finitions and f	Formulas			
Inspection Date:	3/20/2017	<b>Beginning Section MP</b>	0				
Paved Length (Mil	es): 0.57	Section Length (MI)	0.57				
Surface Type:	ASPHALT	Route Summary					
Roadway Conditio	n Information						
Pavement Condition	on Rating (PCR)	73	73				
Surface Condition I	Rating (SCR)	89	89				
Roughness Condition	on Index (RCI)	49	49				
Distress Index Valu	ies						
Structural Crack In	ndex	90	90				
Alligator Crack In	dex	100	100				
Longitudinal Crac	k Index	90	90				
Transverse Cracking	ng Index	89	89				
Patching Index		99	99				
Rutting Index		92	92				
International Roug	ghness Index (IRI)	289	289				
Lane & Width Info	ormation						
Number of Lanes		2	2				
Paved Width (ft)		17.8	17.8				
Lane Width (ft)		9.5	9.5				

### ROUTE 0112: SOTOL VISTA OVERLOOK ROAD

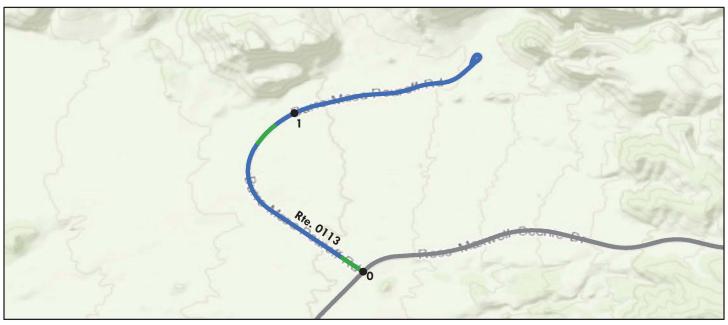
### Data Collection Vehicle (DCV) Rating



	Route (	Condition Legend – Pav	ement Condi	ition Rating (	PCR)		
Poor (0 - 6			(85 - 94)	Excellent (		Not Ra	ted
		See Appendix for def	initions and f	ormulas			
Inspection Date:	3/20/2017	<b>Beginning Section MP</b>	0				
Paved Length (Mile	<b>es):</b> 0.41	Section Length (MI)	0.41				
Surface Type:	ASPHALT	Route Summary					
Roadway Condition	n Information						
Pavement Condition	on Rating (PCR)	98	98				
Surface Condition I	Rating (SCR)	98	98				
Roughness Condition	on Index (RCI)	N/A	N/A				
Distress Index Valu	ies						
Structural Crack Ir	ndex	100	100				
Alligator Crack Inc	dex	100	100				
Longitudinal Cracl	k Index	100	100				
Transverse Crackin	ng Index	100	100				
Patching Index		100	100				
Rutting Index		98	98				
International Roug	hness Index (IRI)	N/A	N/A				
Lane & Width Info	ormation						
Number of Lanes		2	2				
Paved Width (ft)		19.7	19.7				
Lane Width (ft)		10.2	10.2				

### ROUTE 0113: BURRO MESA POUROFF ROAD

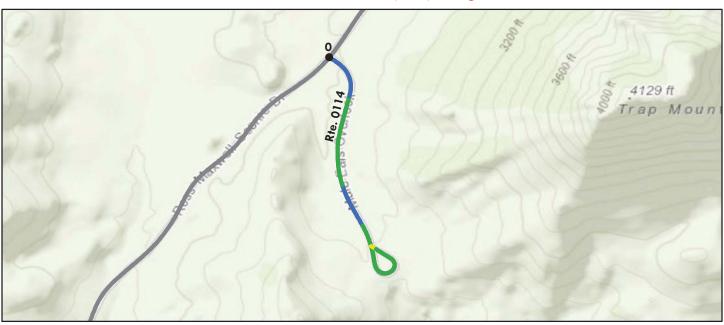
### Data Collection Vehicle (DCV) Rating



Route	Condition Legend – Pav	ement Condi	tion Rating (P	PCR)	
Poor (0 - 60) Fair (6	Good (	(85 - 94)	Excellent (9	5 - 100)	Not Rated
	See Appendix for def	initions and f	ormulas		
<b>Inspection Date:</b> 3/20/2017	<b>Beginning Section MP</b>	0	1		
Paved Length (Miles): 1.86	Section Length (MI)	1	0.86		
Surface Type: ASPHALT	Route Summary				
Roadway Condition Information					
Pavement Condition Rating (PCR)	98	98	98		
Surface Condition Rating (SCR)	96	96	97		
Roughness Condition Index (RCI)	100	100	100		
Distress Index Values					
Structural Crack Index	100	100	100		
Alligator Crack Index	100	100	100		
Longitudinal Crack Index	100	100	100		
Transverse Cracking Index	96	96	97		
Patching Index	100	100	100		
Rutting Index	99	99	99		
International Roughness Index (IRI)	95	104	82		
Lane & Width Information					
Number of Lanes	2	2	2		
Paved Width (ft)	22.1	22.6	21.5		
Lane Width (ft)	11.5	11.3	11.7		

### ROUTE 0114: MULE EARS OVERLOOK ROAD

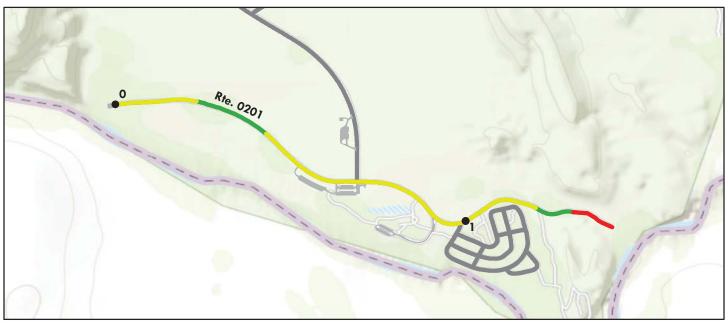
### Data Collection Vehicle (DCV) Rating



Route	Condition Legend – Pav	ement Condi	tion Rating (PCR)	
Poor (0 - 60) Fair (6	Good (	(85 - 94)	<b>Excellent (95 - 100)</b>	Not Rated
	See Appendix for def	finitions and f	ormulas	
<b>Inspection Date:</b> 3/20/2017	<b>Beginning Section MP</b>	0		
Paved Length (Miles): 0.61	Section Length (MI)	0.61		
Surface Type: ASPHALT	Route Summary		•	•
Roadway Condition Information				
Pavement Condition Rating (PCR)	93	93		
Surface Condition Rating (SCR)	95	95		
Roughness Condition Index (RCI)	91	91		
Distress Index Values				
Structural Crack Index	97	97		
Alligator Crack Index	100	100		
Longitudinal Crack Index	97	97		
Transverse Cracking Index	95	95		
Patching Index	100	100		
Rutting Index	96	96		
International Roughness Index (IRI)	138	138		
Lane & Width Information				
Number of Lanes	2	2		
Paved Width (ft)	22	22		
Lane Width (ft)	13.8	13.8		

ROUTE 0201: RIO GRANDE VILLAGE ROAD

### Data Collection Vehicle (DCV) Rating



	Route (	Condition Legend – Pav	ement Condi	tion Rating (	PCR)		
Poor (0 - 60			(85 - 94)	Excellent (		Not Rat	ed
		See Appendix for def	finitions and f	ormulas			
Inspection Date:	3/20/2017	<b>Beginning Section MP</b>	0	1		Ĭ	
Paved Length (Mile	es): 1.41	Section Length (MI)	1	0.41			
Surface Type:	ASPHALT	Route Summary					
Roadway Condition	n Information						
Pavement Condition	n Rating (PCR)	77	82	63			
Surface Condition R	tating (SCR)	88	94	63			
Roughness Condition	n Index (RCI)	60	63	N/A			
Distress Index Valu	es						
Structural Crack In	dex	90	95	71			
Alligator Crack Inc	lex	100	100	100			
Longitudinal Crack	Index	90	95	71			
Transverse Crackin	ig Index	88	95	63			
Patching Index		97	96	100			
Rutting Index		94	94	94			
International Roug	hness Index (IRI)	240	226	N/A			
Lane & Width Info	rmation						
Number of Lanes		2	2	2			
Paved Width (ft)		16.6	16.7	15.9			
Lane Width (ft)		8.4	8.3	8.4			

### ROUTE 0203ZZ: RIO GRANDE VILLAGE CAMPGROUND

**Summary Route** 



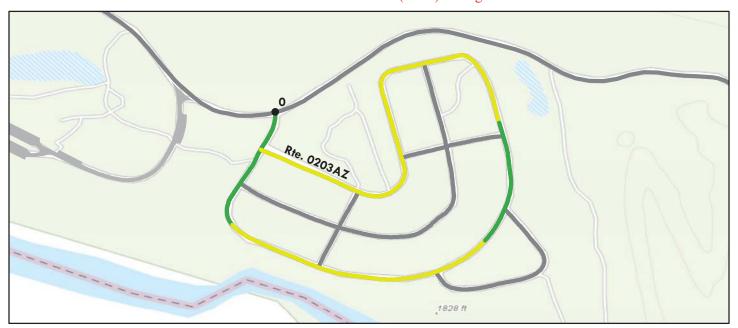
Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

Note: The weighted average summary PCR value is calculated from only the sections of road where the PCR was collected. The overall PCR for the summary route may not reflect individual subcomponent ratings

summary route may not re	Ticct marvidual subcom	ponent ratings.						
	Route C	Condition Lege	end – Pav	ement Condi	ition Rating (	PCR)		
Poor (0 - 60)	Fair (6)	1- 84) Good (		(85 - 94)	<b>Excellent (95 - 100)</b>		Not Ra	ted
See Appendix for definitions and formulas								
Inspection Date:	3/20/2017							
Paved Length (Miles)	<b>):</b> 1.31							
Surface Type:	ASPHALT	Route Summ	ary					
Roadway Condition I	Information							
Pavement Condition	Rating (PCR)	81						
Lane & Width Inform	nation							
Number of Lanes		1						
Paved Width (ft)		15.3						
Lane Width (ft)		9						

### ROUTE 0203AZ: RIO GRANDE VILLAGE CAMPGROUND LOOP A

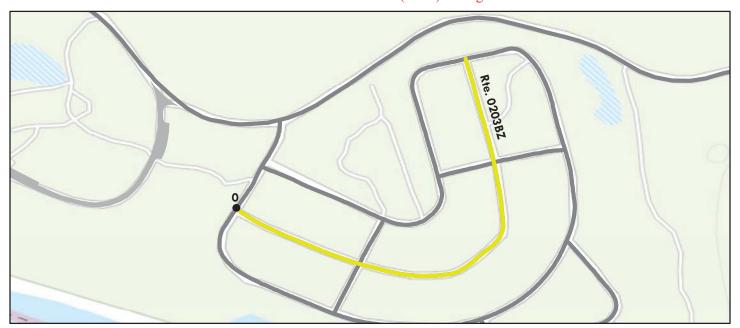
Subcomponent of Route BIBE-0203ZZ Data Collection Vehicle (DCV) Rating



	Route C	Condition Legend – Pav	ement Condi	tion Rating (	PCR)		
Poor (0 - 6			(85 - 94)	Excellent (		Not Ra	ted
		See Appendix for def	finitions and f	ormulas			
Inspection Date:	3/20/2017	<b>Beginning Section MP</b>	0				
Paved Length (Mil	<b>(es):</b> 0.73	Section Length (MI)	0.73				
Surface Type:	ASPHALT	Route Summary					
Roadway Conditio	n Information						
Pavement Condition	on Rating (PCR)	82	82				
Surface Condition I	Rating (SCR)	82	82				
Roughness Condition	on Index (RCI)	N/A	N/A				
Distress Index Valu	ies						
Structural Crack In	ndex	89	89				
Alligator Crack In	dex	100	100				
Longitudinal Crac	k Index	89	89				
Transverse Cracking	ng Index	82	82				
Patching Index		98	98				
Rutting Index		87	87				
International Roug	ghness Index (IRI)	N/A	N/A				
Lane & Width Info	ormation						
Number of Lanes		2	2				
Paved Width (ft)		16.3	16.3				
Lane Width (ft)		8.2	8.2				

### ROUTE 0203BZ: RIO GRANDE VILLAGE CAMPGROUND LOOP B

Subcomponent of Route BIBE-0203ZZ Data Collection Vehicle (DCV) Rating



	Route (	Condition Legend – Pav	ement Condi	tion Rating (	PCR)		
Poor (0 - 6			(85 - 94)	Excellent (		Not Ra	ted
		See Appendix for def	finitions and f	ormulas			
Inspection Date:	3/20/2017	<b>Beginning Section MP</b>	0				
Paved Length (Mil	les): 0.29	Section Length (MI)	0.29				
Surface Type:	ASPHALT	Route Summary					
Roadway Conditio	n Information						
Pavement Condition	on Rating (PCR)	78	78				
Surface Condition l	Rating (SCR)	78	78				
Roughness Condition	on Index (RCI)	N/A	N/A				
Distress Index Valu	ues						
Structural Crack In	ndex	89	89				
Alligator Crack In	dex	100	100				
Longitudinal Crac	k Index	89	89				
Transverse Cracki	ng Index	78	78				
Patching Index		98	98				
Rutting Index		86	86				
International Roug	ghness Index (IRI)	N/A	N/A				
Lane & Width Info	ormation						
Number of Lanes		2	2				
Paved Width (ft)		15.3	15.3				
Lane Width (ft)		7.6	7.6				

### ROUTE 0203CZ: RIO GRANDE VILLAGE CAMPGROUND LOOP C

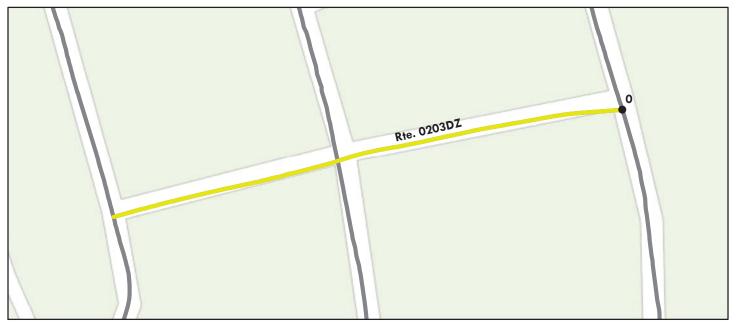
Subcomponent of Route BIBE-0203ZZ Data Collection Vehicle (DCV) Rating



	Route (	Condition Legend – Pav	ement Condi	ition Rating (	PCR)		
Poor (0 - 6			(85 - 94)	Excellent (		Not Ra	ted
		See Appendix for def	initions and f	ormulas			
Inspection Date:	3/20/2017	<b>Beginning Section MP</b>	0				
Paved Length (Mil	<b>es):</b> 0.07	Section Length (MI)	0.07				
Surface Type:	ASPHALT	Route Summary					
Roadway Conditio	n Information						
Pavement Condition	on Rating (PCR)	75	75				
Surface Condition I	Rating (SCR)	75	75				
Roughness Condition	on Index (RCI)	N/A	N/A				
Distress Index Valu	ies						
Structural Crack In	ndex	93	93				
Alligator Crack In	dex	100	100				
Longitudinal Crac	k Index	93	93				
Transverse Crackin	ng Index	82	82				
Patching Index		100	100				
Rutting Index		75	75				
International Roug	hness Index (IRI)	N/A	N/A				
Lane & Width Info	ormation						
Number of Lanes		1	1				
Paved Width (ft)		13.3	13.3				
Lane Width (ft)		13.3	13.3				

### ROUTE 0203DZ: RIO GRANDE VILLAGE CAMPGROUND LOOP D

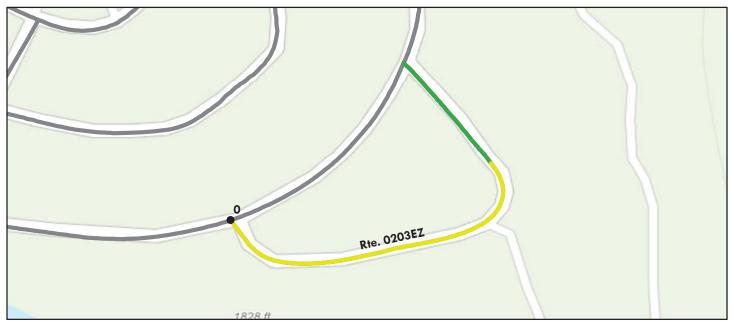
Subcomponent of Route BIBE-0203ZZ Data Collection Vehicle (DCV) Rating



Route C	Condition Legend – Pav	ement Condi	tion Rating (PCR)	
Poor (0 - 60) Fair (6	1- 84) Good (	(85 - 94)	<b>Excellent (95 - 10</b>	0) Not Rated
	See Appendix for def	initions and f	ormulas	
<b>Inspection Date:</b> 3/20/2017	<b>Beginning Section MP</b>	0		
Paved Length (Miles): 0.08	Section Length (MI)	0.08		
Surface Type: ASPHALT	Route Summary			
Roadway Condition Information				
Pavement Condition Rating (PCR)	79	79		
Surface Condition Rating (SCR)	79	79		
Roughness Condition Index (RCI)	N/A	N/A		
Distress Index Values				
Structural Crack Index	84	84		
Alligator Crack Index	97	97		
Longitudinal Crack Index	87	87		
Transverse Cracking Index	79	79		
Patching Index	98	98		
Rutting Index	86	86		
International Roughness Index (IRI)	N/A	N/A		
Lane & Width Information				
Number of Lanes	1	1		
Paved Width (ft)	11.5	11.5		
Lane Width (ft)	11.5	11.5		

### ROUTE 0203EZ: RIO GRANDE VILLAGE CAMPGROUND LOOP E

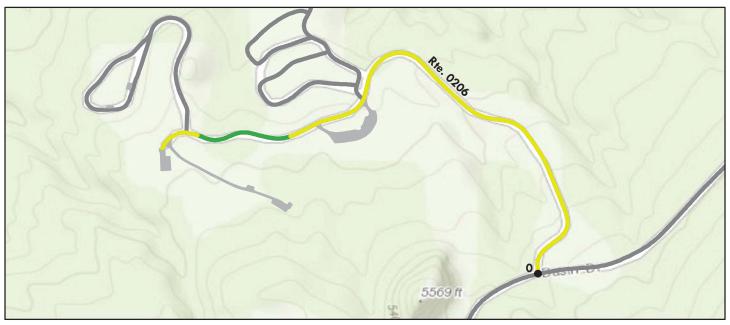
Subcomponent of Route BIBE-0203ZZ Data Collection Vehicle (DCV) Rating



	Route (	Condition Legend – Pav	ement Condi	ition Rating (	PCR)		
Poor (0 - 6			(85 - 94)	Excellent (		Not Ra	ted
		See Appendix for def	finitions and f	ormulas			
Inspection Date:	3/20/2017	<b>Beginning Section MP</b>	0				
Paved Length (Mil	<b>es):</b> 0.14	Section Length (MI)	0.14				
Surface Type:	ASPHALT	Route Summary					
Roadway Conditio	n Information						
Pavement Condition	on Rating (PCR)	82	82				
Surface Condition I	Rating (SCR)	82	82				
Roughness Condition	on Index (RCI)	N/A	N/A				
Distress Index Valu	ies						
Structural Crack In	ndex	89	89				
Alligator Crack In	dex	100	100				
Longitudinal Crac	k Index	89	89				
Transverse Cracking	ng Index	82	82				
Patching Index		100	100				
Rutting Index		87	87				
International Roug	hness Index (IRI)	N/A	N/A				
Lane & Width Info	ormation						
Number of Lanes		1	1				
Paved Width (ft)		12.8	12.8				
Lane Width (ft)		12.8	12.8				

### ROUTE 0206: LOWER BASIN CAMPGROUND ROAD

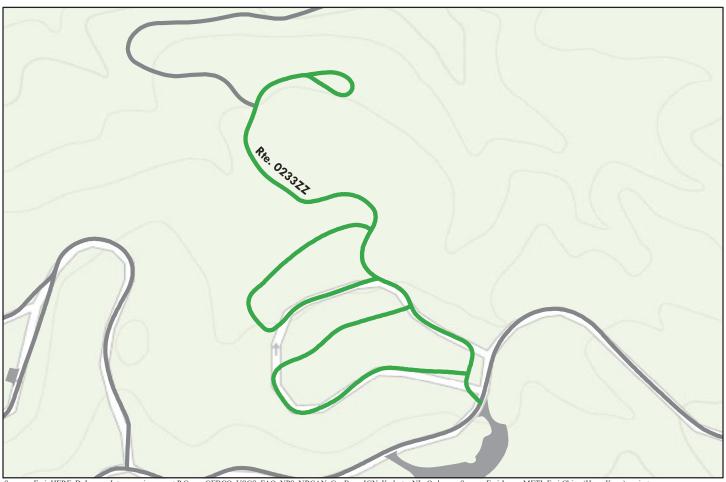
### Data Collection Vehicle (DCV) Rating



	Route (	Condition Legend – Pav	ement Condi	tion Rating (	PCR)		
Poor (0 - 6			(85 - 94)	Excellent (		Not Ra	ted
		See Appendix for det	finitions and f	ormulas			
Inspection Date:	3/20/2017	<b>Beginning Section MP</b>	0				
Paved Length (Mil	<b>es):</b> 0.63	Section Length (MI)	0.63				
Surface Type:	ASPHALT	Route Summary					
Roadway Conditio	n Information						
Pavement Condition	on Rating (PCR)	82	82				
Surface Condition I	Rating (SCR)	82	82				
Roughness Condition	on Index (RCI)	N/A	N/A				
Distress Index Valu	ies						
Structural Crack In	ndex	92	92				
Alligator Crack In	dex	100	100				
Longitudinal Crac	k Index	92	92				
Transverse Cracking	ng Index	82	82				
Patching Index		100	100				
Rutting Index		98	98				
International Roug	ghness Index (IRI)	N/A	N/A				
Lane & Width Info	ormation						
Number of Lanes		2	2				
Paved Width (ft)		20.9	20.9				
Lane Width (ft)		9	9				

### ROUTE 0233ZZ: CLASS A CAMPGROUND - CHISOS BASIN

**Summary Route** 



Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

Note: The weighted average summary PCR value is calculated from only the sections of road where the PCR was collected. The overall PCR for the summary route may not reflect individual subcomponent ratings

summary route may not re	cricci marviduai subcom	ponent ratings.						
	Route Condition Legend – Pavement Condition Rating (PCR)							
Poor (0 - 60)	Fair (6)	1-84)	Good	(85 - 94)	Excellent (	95 - 100)	Not Ra	ted
		See Apper	ndix for def	initions and f	ormulas			
Inspection Date:	3/20/2017							
Paved Length (Miles)	<b>):</b> 0.71							
Surface Type:	ASPHALT	Route Sumn	nary					
Roadway Condition 1	Information							
Pavement Condition	Rating (PCR)	94	ļ					
Lane & Width Inform	mation							
Number of Lanes		1						
Paved Width (ft)		18.	3					
Lane Width (ft)		14.	2					

### ROUTE 0233AZ: CLASS A CAMPGROUND - CHISOS BASIN LOOP A

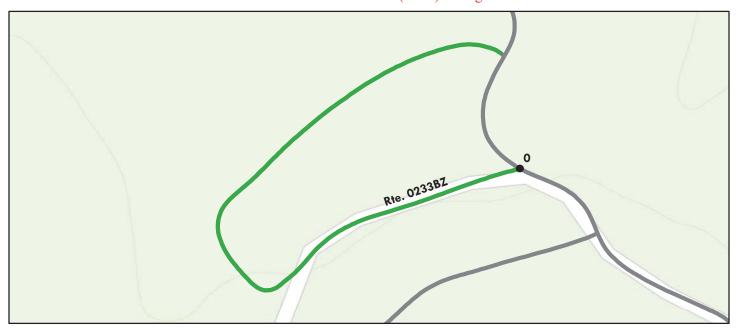
Subcomponent of Route BIBE-0233ZZ Data Collection Vehicle (DCV) Rating



	Route (	Condition Legend – Pav	ement Cond	ition Rating (	PCR)		
Poor (0 - 6			(85 - 94)	Excellent (		Not Ra	ted
		See Appendix for def	finitions and	formulas			
Inspection Date:	3/20/2017	<b>Beginning Section MP</b>	0				
Paved Length (Mil	es): 0.20	Section Length (MI)	0.20				
Surface Type:	ASPHALT	Route Summary					
Roadway Conditio	n Information						
Pavement Condition	on Rating (PCR)	93	93				
Surface Condition I	Rating (SCR)	93	93				
Roughness Condition	on Index (RCI)	N/A	N/A				
Distress Index Valu	ies						
Structural Crack In	ndex	97	97				
Alligator Crack In	dex	99	99				
Longitudinal Crac	k Index	98	98				
Transverse Cracking	ng Index	98	98				
Patching Index		100	100				
Rutting Index		93	93				
International Roug	ghness Index (IRI)	N/A	N/A				
Lane & Width Info	ormation						
Number of Lanes		1	1				
Paved Width (ft)		18.8	18.8				
Lane Width (ft)		18.8	18.8				

### ROUTE 0233BZ: CLASS A CAMPGROUND - CHISOS BASIN LOOP B

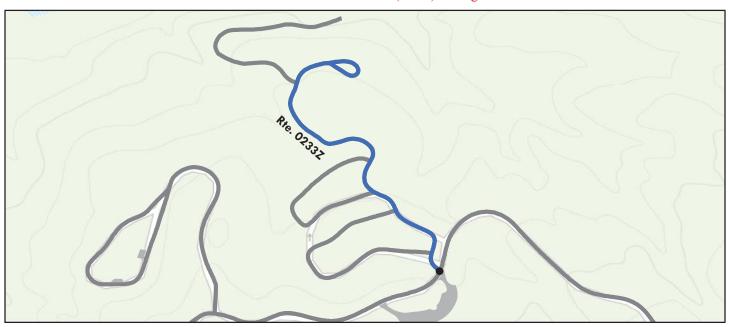
Subcomponent of Route BIBE-0233ZZ Data Collection Vehicle (DCV) Rating



	Route (	Condition Legend – Pav	ement Condi	ition Rating (	PCR)		
Poor (0 - 6			(85 - 94)	Excellent (		Not Rated	
		See Appendix for def	finitions and f	ormulas			
Inspection Date:	3/20/2017	<b>Beginning Section MP</b>	0				
Paved Length (Mil	<b>es):</b> 0.17	Section Length (MI)	0.17				
Surface Type:	ASPHALT	Route Summary				•	
Roadway Conditio	n Information						
Pavement Condition	on Rating (PCR)	90	90				
Surface Condition I	Rating (SCR)	90	90				
Roughness Condition	on Index (RCI)	N/A	N/A				
Distress Index Valu	ies						
Structural Crack In	ndex	98	98				
Alligator Crack In	dex	100	100				
Longitudinal Crac	k Index	98	98				
Transverse Crackin	ng Index	98	98				
Patching Index		98	98				
Rutting Index		90	90				
International Roug	hness Index (IRI)	N/A	N/A				
Lane & Width Info	ormation						
Number of Lanes		1	1				
Paved Width (ft)		17.1	17.1				
Lane Width (ft)		17.1	17.1				

### ROUTE 0233Z: CLASS A CAMPGROUND - CHISOS BASIN MAIN LOOP

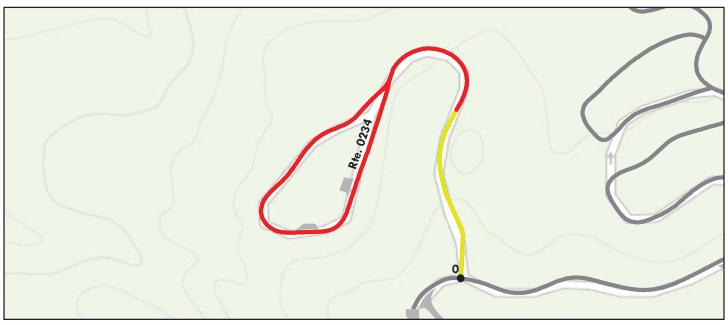
Subcomponent of Route BIBE-0233ZZ Data Collection Vehicle (DCV) Rating



Route C	Condition Legend – Pav	ement Condi	tion Rating (PCR)	
Poor (0 - 60) Fair (6	1-84) Good (	(85 - 94)	<b>Excellent (95 - 100)</b>	Not Rated
	See Appendix for def	initions and f	ormulas	
<b>Inspection Date:</b> 3/20/2017	<b>Beginning Section MP</b>	0		
Paved Length (Miles): 0.34	Section Length (MI)	0.34		
Surface Type: ASPHALT	Route Summary			
Roadway Condition Information				
Pavement Condition Rating (PCR)	96	96		
Surface Condition Rating (SCR)	96	96		
Roughness Condition Index (RCI)	N/A	N/A		
Distress Index Values				
Structural Crack Index	97	97		
Alligator Crack Index	100	100		
Longitudinal Crack Index	97	97		
Transverse Cracking Index	97	97		
Patching Index	100	100		
Rutting Index	96	96		
International Roughness Index (IRI)	N/A	N/A		
Lane & Width Information				
Number of Lanes	2	2		
Paved Width (ft)	18.7	18.7		
Lane Width (ft)	10	10		

### ROUTE 0234: BASIN GROUP CAMPGROUND

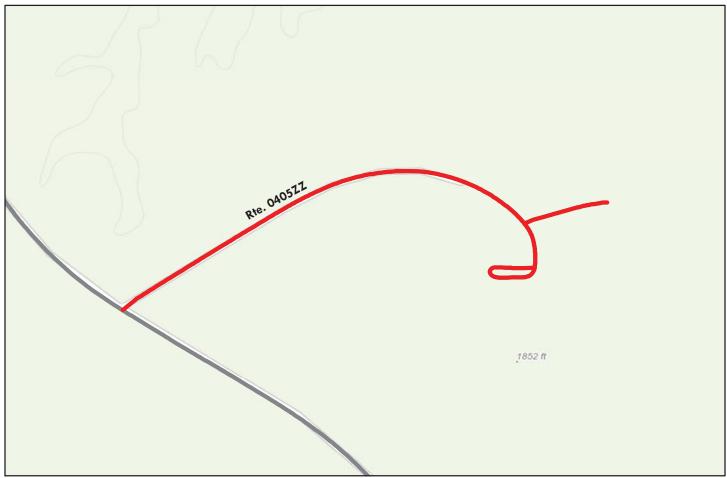
### Data Collection Vehicle (DCV) Rating



	Route (	Condition Legend – Pav	ement Cond	ition Rating (	PCR)		
Poor (0 - 6			(85 - 94)	Excellent (		Not Ra	ted
		See Appendix for def	finitions and	formulas			
Inspection Date:	3/20/2017	<b>Beginning Section MP</b>	0				
Paved Length (Mil	<b>es):</b> 0.40	Section Length (MI)	0.40				
Surface Type:	ASPHALT	Route Summary		•			
Roadway Conditio	n Information						
Pavement Condition	on Rating (PCR)	51	51				
Surface Condition I	Rating (SCR)	51	51				
Roughness Condition	on Index (RCI)	N/A	N/A				
Distress Index Valu	ies						
Structural Crack In	ndex	51	51				
Alligator Crack In	dex	99	99				
Longitudinal Crac	k Index	52	52				
Transverse Crackin	ng Index	54	54				
Patching Index		100	100				
Rutting Index		93	93				
International Roug	ghness Index (IRI)	N/A	N/A				
Lane & Width Info	ormation						
Number of Lanes		2	2				
Paved Width (ft)		18.8	18.8				
Lane Width (ft)		12.4	12.4				

**ROUTE 0405ZZ: HUISACHE DRIVE** 

**Summary Route** 



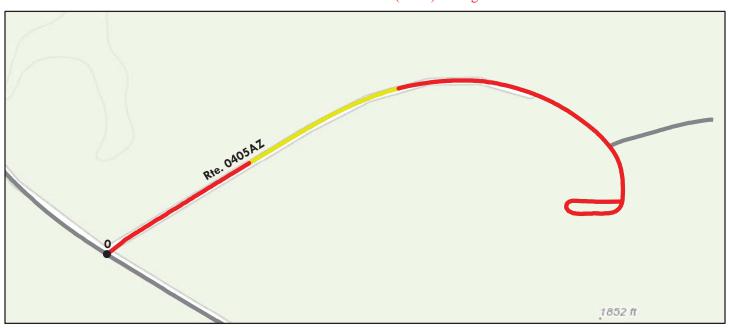
Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

Note: The weighted average summary PCR value is calculated from only the sections of road where the PCR was collected. The overall PCR for the summary route may not reflect individual subcomponent ratings.

summary route may not re	cheet marvidual subcom	ponent ratings.						
	Route Condition Legend – Pavement Condition Rating (PCR)							
Poor (0 - 60)	Fair (6)	1-84)	Good	(85 - 94)	Excellent (	95 - 100)	Not Ra	ted
		See Apper	ndix for def	initions and f	ormulas			
Inspection Date:	3/20/2017							
Paved Length (Miles)	<b>):</b> 0.51							
Surface Type:	ASPHALT	Route Sumn	nary					
Roadway Condition 1	Information							
Pavement Condition	Rating (PCR)	44	•					
Lane & Width Inform	nation							
Number of Lanes		1						
Paved Width (ft)		17.	3					
Lane Width (ft)		8.7	7					

ROUTE 0405AZ: HUISACHE DRIVE A

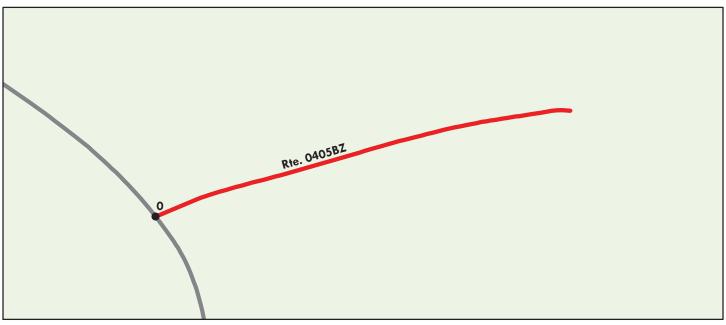
Subcomponent of Route BIBE-0405ZZ Data Collection Vehicle (DCV) Rating



Route C	Condition Legend – Pav	ement Condi	tion Rating (PCR)	
Poor (0 - 60) Fair (6	1- 84) Good (	(85 - 94)	<b>Excellent (95 - 100</b>	Not Rated
	See Appendix for def	initions and f	ormulas	
<b>Inspection Date:</b> 3/20/2017	<b>Beginning Section MP</b>	0		
Paved Length (Miles): 0.45	Section Length (MI)	0.45		
Surface Type: ASPHALT	Route Summary			
Roadway Condition Information				
Pavement Condition Rating (PCR)	42	42		
Surface Condition Rating (SCR)	42	42		
Roughness Condition Index (RCI)	N/A	N/A		
Distress Index Values				
Structural Crack Index	46	46		
Alligator Crack Index	98	98		
Longitudinal Crack Index	48	48		
Transverse Cracking Index	42	42		
Patching Index	99	99		
Rutting Index	94	94		
International Roughness Index (IRI)	N/A	N/A		
Lane & Width Information				
Number of Lanes	2	2		
Paved Width (ft)	17	17		
Lane Width (ft)	8.5	8.5		

**ROUTE 0405BZ: HUISACHE DRIVE B** 

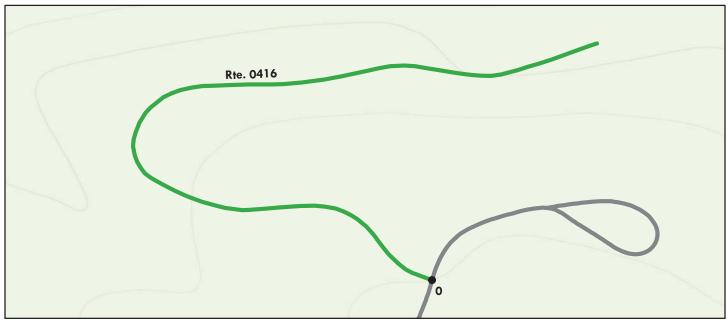
Subcomponent of Route BIBE-0405ZZ Data Collection Vehicle (DCV) Rating



Route C	Condition Legend – Pav	ement Condi	ition Rating (PCR)	
Poor (0 - 60) Fair (6	1- 84) Good (	(85 - 94)	<b>Excellent (95 - 10</b>	0) Not Rated
	See Appendix for def	initions and f	ormulas	
<b>Inspection Date:</b> 3/20/2017	<b>Beginning Section MP</b>	0		
Paved Length (Miles): 0.06	Section Length (MI)	0.06		
Surface Type: ASPHALT	Route Summary			·
Roadway Condition Information				
Pavement Condition Rating (PCR)	56	56		
Surface Condition Rating (SCR)	56	56		
Roughness Condition Index (RCI)	N/A	N/A		
Distress Index Values				
Structural Crack Index	56	56		
Alligator Crack Index	85	85		
Longitudinal Crack Index	71	71		
Transverse Cracking Index	95	95		
Patching Index	100	100		
Rutting Index	88	88		
International Roughness Index (IRI)	N/A	N/A		
Lane & Width Information				
Number of Lanes	2	2		
Paved Width (ft)	19.8	19.8		
Lane Width (ft)	9.9	9.9		

### ROUTE 0416: LOWER BASIN LAGOON ROAD

#### Manual Rating



Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

	Route C	Condition Legend – Pav	ement Condi	tion Rating (	PCR)		
Poor (0 - 60)	Fair (6)	1- 84) Good (	(85 - 94)	Excellent (9	95 - 100)	Not Ra	ted
		See Appendix for def	initions and f	ormulas			
Inspection Date:	2/23/2017	<b>Beginning Section MP</b>	0.00				
Paved Length (Miles):	0.19	Section Length (MI)	0.19				
Surface Type:	ASPHALT	Route Summary					
Roadway Condition In	formation						
Pavement Condition R	ating (PCR)	90	90				
Surface Condition Ratin	ng (SCR)	90	90				
Roughness Condition In	ndex (RCI)	N/A	N/A				
Distress Index Values							
Structural Crack Index		N/A	N/A				
Alligator Crack Index		90	90				
Longitudinal Crack Inc	dex	97	97				
Transverse Cracking In	ndex	90	90				
Patching Index		97	97				
Rutting Index		90	90				
International Roughne	ss Index (IRI)	N/A	N/A				
Lane & Width Informa	ation						
Number of Lanes		1	1				
Paved Width (ft)		10.9	10.9				
Lane Width (ft)		10.9	10.9				

Note: Route 0416 is made up of both a paved and unpaved section. The 0.38-mile unpaved section was not rated.

### ROUTE 0416: LOWER BASIN LAGOON ROAD

#### **Condition Photos**

Condition photos are shown only for manually rated roads. Use the PathView program to see images of DCV rated roads.



BIBE\_0416\_6959.JPG



BIBE\_0416\_6960.JPG



BIBE\_0416\_6961.JPG



BIBE\_0416\_6962.JPG



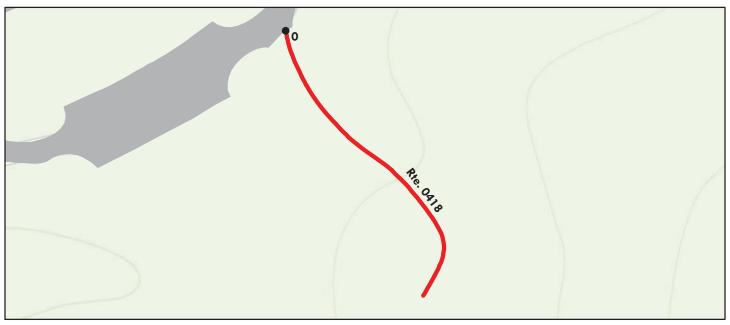
BIBE\_0416\_6963.JPG



BIBE\_0416\_6968.JPG

### ROUTE 0418: CHISOS BASIN RESIDENCE ROAD

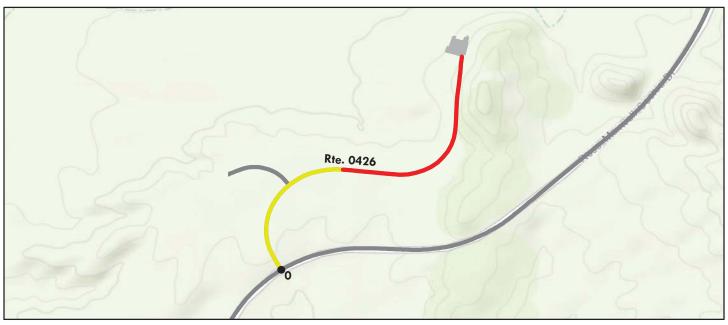
### Data Collection Vehicle (DCV) Rating



	Route (	Condition Legend – Pav	ement Condi	tion Rating (	PCR)		
Poor (0 - 6			(85 - 94)	Excellent (		Not Ra	ted
		See Appendix for def	finitions and f	ormulas			
Inspection Date:	3/20/2017	<b>Beginning Section MP</b>	0				
Paved Length (Mil	<b>es):</b> 0.05	Section Length (MI)	0.05				
Surface Type:	ASPHALT	Route Summary					
Roadway Conditio	n Information						
Pavement Condition	on Rating (PCR)	53	53				
Surface Condition I	Rating (SCR)	53	53				
Roughness Condition	on Index (RCI)	N/A	N/A				
Distress Index Valu	ies						
Structural Crack In	ndex	53	53				
Alligator Crack In	dex	100	100				
Longitudinal Crac	k Index	53	53				
Transverse Cracking	ng Index	69	69				
Patching Index		99	99				
Rutting Index		88	88				
International Roug	ghness Index (IRI)	N/A	N/A				
Lane & Width Info	ormation						
Number of Lanes		2	2				
Paved Width (ft)		17.1	17.1				
Lane Width (ft)		8.6	8.6				

ROUTE 0426: MESA DRIVE

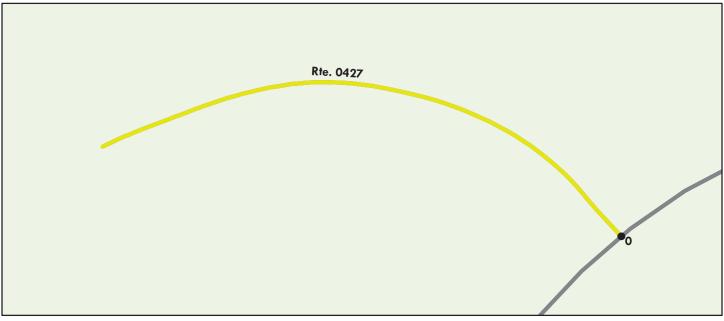
### Data Collection Vehicle (DCV) Rating



	Route (	Condition Legend – Pav	ement Condi	tion Rating (	PCR)		
Poor (0 - 6			(85 - 94)	Excellent (		Not Ra	ted
		See Appendix for det	finitions and f	ormulas			
Inspection Date:	3/20/2017	<b>Beginning Section MP</b>	0				
Paved Length (Mil	<b>es):</b> 0.47	Section Length (MI)	0.47				
Surface Type:	ASPHALT	Route Summary					
Roadway Conditio	n Information						
Pavement Condition	on Rating (PCR)	50	50				
Surface Condition I	Rating (SCR)	50	50				
Roughness Condition	on Index (RCI)	N/A	N/A				
Distress Index Valu	ies						
Structural Crack In	ndex	79	79				
Alligator Crack In	dex	100	100				
Longitudinal Crac	k Index	79	79				
Transverse Cracking	ng Index	50	50				
Patching Index		100	100				
Rutting Index		97	97				
International Roug	ghness Index (IRI)	N/A	N/A				
Lane & Width Info	ormation						
Number of Lanes		2	2				
Paved Width (ft)		21.9	21.9				
Lane Width (ft)		10.9	10.9				

**ROUTE 0427: PALO VERDE DRIVE** 

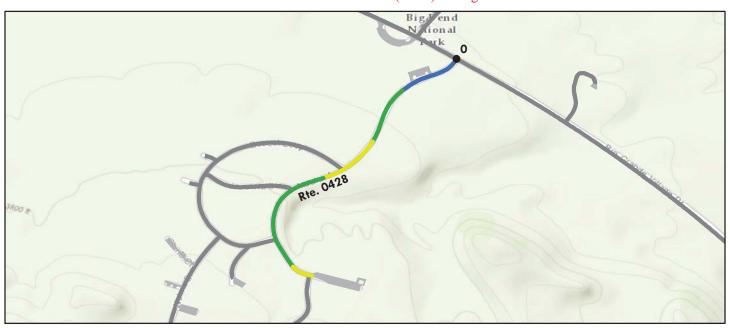
### Data Collection Vehicle (DCV) Rating



Route C	Condition Legend – Pav	ement Condi	tion Rating (PCR)	
Poor (0 - 60) Fair (6	1- 84) Good (	(85 - 94)	<b>Excellent (95 - 100)</b>	Not Rated
	See Appendix for def	initions and f	ormulas	
<b>Inspection Date:</b> 3/20/2017	<b>Beginning Section MP</b>	0		
Paved Length (Miles): 0.09	Section Length (MI)	0.09		
Surface Type: ASPHALT	Route Summary			
Roadway Condition Information				
Pavement Condition Rating (PCR)	69	69		
Surface Condition Rating (SCR)	69	69		
Roughness Condition Index (RCI)	N/A	N/A		
Distress Index Values				
Structural Crack Index	92	92		
Alligator Crack Index	100	100		
Longitudinal Crack Index	92	92		
Transverse Cracking Index	69	69		
Patching Index	100	100		
Rutting Index	96	96		
International Roughness Index (IRI)	N/A	N/A		
Lane & Width Information				
Number of Lanes	1	1		
Paved Width (ft)	13.6	13.6		
Lane Width (ft)	13.6	13.6		

ROUTE 0428: ALSATE AVENUE

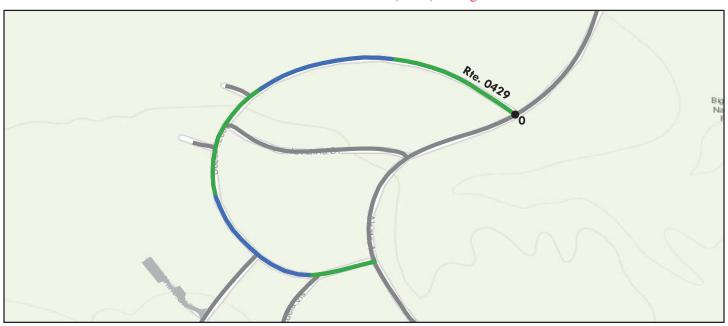
### Data Collection Vehicle (DCV) Rating



	Route (	Condition Legend – Pav	ement Condi	tion Rating (	PCR)			
Poor (0 - 6						Not Rated		
		See Appendix for def	initions and f	ormulas				
Inspection Date:	3/20/2017	<b>Beginning Section MP</b>	0					
Paved Length (Mile	<b>es):</b> 0.53	Section Length (MI)	0.53					
Surface Type:	ASPHALT	Route Summary						
Roadway Condition	n Information							
Pavement Condition	on Rating (PCR)	91	91					
Surface Condition F	Rating (SCR)	91	91					
Roughness Condition	on Index (RCI)	N/A	N/A					
Distress Index Valu	ies							
Structural Crack Ir	ndex	91	91					
Alligator Crack Inc	dex	100	100					
Longitudinal Cracl	k Index	91	91					
Transverse Crackin	ng Index	96	96					
Patching Index		100	100					
Rutting Index		91	91					
International Roug	hness Index (IRI)	N/A	N/A					
Lane & Width Info	ormation							
Number of Lanes		2	2					
Paved Width (ft)		19.8	19.8					
Lane Width (ft)		9.9	9.9					

**ROUTE 0429: BOBCAT LOOP** 

### Data Collection Vehicle (DCV) Rating



	Route (	Condition Legend – Pav	ement Cond	ition Rating (	PCR)		
Poor (0 - 6			(85 - 94)	Excellent (		Not Ra	ted
		See Appendix for def	finitions and f	ormulas			
Inspection Date:	3/20/2017	<b>Beginning Section MP</b>	0				
Paved Length (Mile	es): 0.44	Section Length (MI)	0.44				
Surface Type:	ASPHALT	Route Summary				•	
Roadway Condition	n Information						
Pavement Condition	on Rating (PCR)	94	94				
Surface Condition F	Rating (SCR)	94	94				
Roughness Condition	on Index (RCI)	N/A	N/A				
Distress Index Valu	ies						
Structural Crack In	ndex	95	95				
Alligator Crack Inc	dex	100	100				
Longitudinal Cracl	k Index	95	95				
Transverse Crackin	ng Index	94	94				
Patching Index		99	99				
Rutting Index		94	94				
International Roug	hness Index (IRI)	N/A	N/A				
Lane & Width Info	ormation						
Number of Lanes		2	2				
Paved Width (ft)		17.4	17.4				
Lane Width (ft)		8.7	8.7				

ROUTE 0430: JAVELINA DRIVE

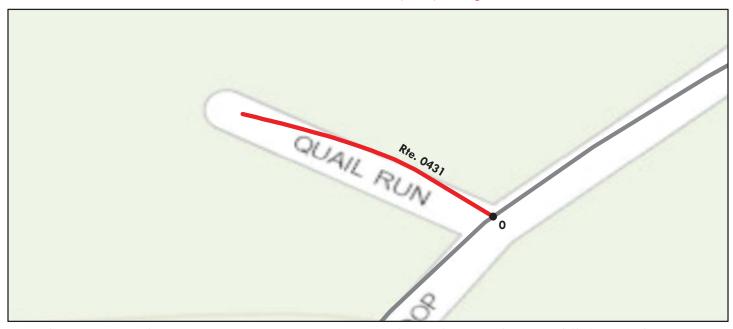
### Data Collection Vehicle (DCV) Rating



	Route C	Condition Leg	end – Pavo	ement Condi	ition Rating (	PCR)		
Poor (0 - 60)	Fair (6			85 - 94)	Excellent (		Not Ra	ted
		7	`	initions and f	`			
<b>Inspection Date:</b> 3/20	/2017	Beginning Se	ction MP	0				
Paved Length (Miles): 0.13		Section Leng	th (MI)	0.13				
Surface Type: ASF	HALT	Route Summ	ary					
Roadway Condition Inform	nation							
Pavement Condition Rating	g (PCR)	46		46				
Surface Condition Rating (S	CR)	46		46				
Roughness Condition Index	(RCI)	N/A		N/A				
Distress Index Values								
Structural Crack Index		46		46				
Alligator Crack Index		100		100				
Longitudinal Crack Index		46		46				
Transverse Cracking Index		58		58				
Patching Index		100		100				
Rutting Index		93		93				
International Roughness In	dex (IRI)	N/A		N/A				
Lane & Width Information	1							
Number of Lanes		2		2				
Paved Width (ft)		17.1		17.1				
Lane Width (ft)		8.6		8.6				

**ROUTE 0431: QUAIL RUN** 

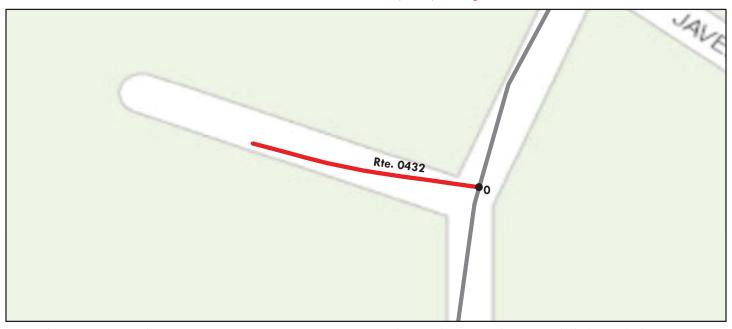
### Data Collection Vehicle (DCV) Rating



Route C	Condition Legend – Pav	ement Condi	tion Rating (PCR)	
Poor (0 - 60) Fair (6	1- 84) Good (	(85 - 94)	Excellent (95 - 1	Not Rated
	See Appendix for def	initions and f	ormulas	
<b>Inspection Date:</b> 3/20/2017	<b>Beginning Section MP</b>	0		
Paved Length (Miles): 0.02	Section Length (MI)	0.02		
Surface Type: ASPHALT	Route Summary			•
Roadway Condition Information				
Pavement Condition Rating (PCR)	23	23		
Surface Condition Rating (SCR)	23	23		
Roughness Condition Index (RCI)	N/A	N/A		
Distress Index Values				
Structural Crack Index	23	23		
Alligator Crack Index	100	100		
Longitudinal Crack Index	23	23		
Transverse Cracking Index	53	53		
Patching Index	100	100		
Rutting Index	65	65		
International Roughness Index (IRI)	N/A	N/A		
Lane & Width Information				
Number of Lanes	2	2		
Paved Width (ft)	20.6	20.6		
Lane Width (ft)	10.3	10.3		

ROUTE 0432: CHUPAROSA

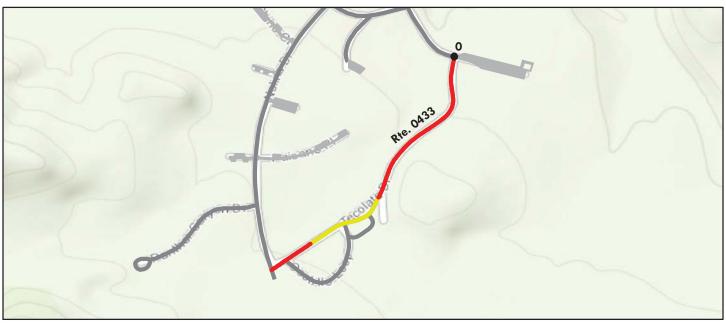
### Data Collection Vehicle (DCV) Rating



Route	Condition Legend – Pav	ement Condi	tion Rating (PCR)	
Poor (0 - 60) Fair (6	Good (	(85 - 94)	<b>Excellent (95 - 10</b>	Not Rated
	See Appendix for det	finitions and f	ormulas	
<b>Inspection Date:</b> 3/20/2017	<b>Beginning Section MP</b>	0		
Paved Length (Miles): 0.02	Section Length (MI)	0.02		
Surface Type: ASPHALT	Route Summary			•
Roadway Condition Information				
Pavement Condition Rating (PCR)	0	0		
Surface Condition Rating (SCR)	0	0		
Roughness Condition Index (RCI)	N/A	N/A		
Distress Index Values				
Structural Crack Index	0	0		
Alligator Crack Index	100	100		
Longitudinal Crack Index	0	0		
Transverse Cracking Index	9	9		
Patching Index	100	100		
Rutting Index	91	91		
International Roughness Index (IRI)	N/A	N/A		
Lane & Width Information				
Number of Lanes	2	2		
Paved Width (ft)	19.3	19.3		
Lane Width (ft)	9.6	9.6		

ROUTE 0433: TECOLOTE DRIVE

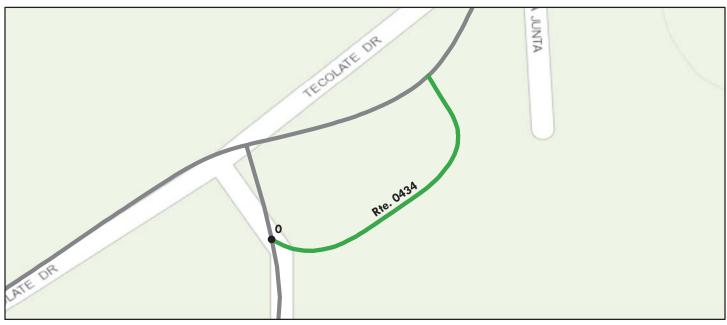
### Data Collection Vehicle (DCV) Rating



	Route (	Condition Legend – Pav	ement Condi	tion Rating (	PCR)			
Poor (0 - 6			Good (85 - 94) Excellent (95 - 100)			Not Rated		
		See Appendix for def	initions and f	ormulas				
Inspection Date:	3/20/2017	<b>Beginning Section MP</b>	0					
Paved Length (Mil	es): 0.35	Section Length (MI)	0.35					
Surface Type:	ASPHALT	Route Summary						
Roadway Conditio	n Information							
Pavement Condition	on Rating (PCR)	0	0					
Surface Condition I	Rating (SCR)	0	0					
Roughness Condition	on Index (RCI)	N/A	N/A					
Distress Index Valu	ies							
Structural Crack In	ndex	0	0					
Alligator Crack In	dex	93	93					
Longitudinal Crac	k Index	6	6					
Transverse Crackin	ng Index	46	46					
Patching Index		100	100					
Rutting Index		94	94					
International Roug	hness Index (IRI)	N/A	N/A					
Lane & Width Info	ormation							
Number of Lanes		1	1					
Paved Width (ft)		14	14					
Lane Width (ft)		14	14					

ROUTE 0434: LA JUNTA CIRCLE

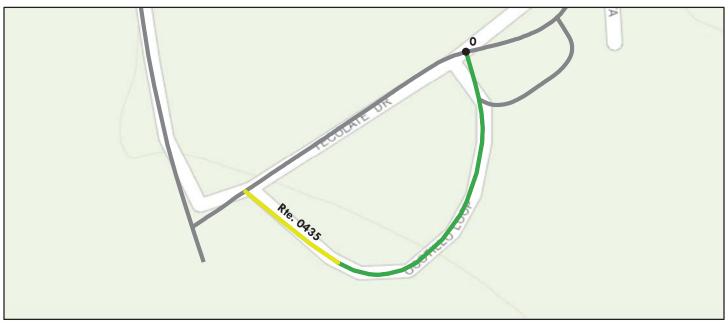
### Data Collection Vehicle (DCV) Rating



Route C	Condition Legend – Pav	ement Condi	tion Rating (PCR)	
Poor (0 - 60) Fair (6	1- 84) Good (	(85 - 94)	<b>Excellent (95 - 10</b>	Not Rated
	See Appendix for def	initions and f	ormulas	
<b>Inspection Date:</b> 3/20/2017	<b>Beginning Section MP</b>	0		
Paved Length (Miles): 0.05	Section Length (MI)	0.05		
Surface Type: ASPHALT	Route Summary			·
Roadway Condition Information				
Pavement Condition Rating (PCR)	91	91		
Surface Condition Rating (SCR)	91	91		
Roughness Condition Index (RCI)	N/A	N/A		
Distress Index Values				
Structural Crack Index	93	93		
Alligator Crack Index	100	100		
Longitudinal Crack Index	93	93		
Transverse Cracking Index	99	99		
Patching Index	100	100		
Rutting Index	91	91		
International Roughness Index (IRI)	N/A	N/A		
Lane & Width Information				
Number of Lanes	2	2		
Paved Width (ft)	16.8	16.8		
Lane Width (ft)	8.4	8.4		

**ROUTE 0435: OCOTILLO LOOP** 

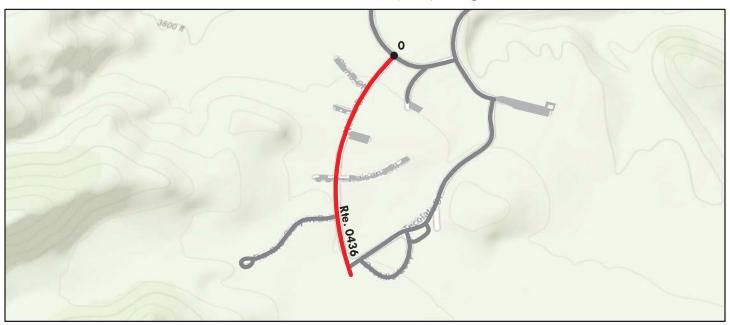
### Data Collection Vehicle (DCV) Rating



	Route (	Condition Legend – Pav	ement Condi	ition Rating (	PCR)		
Poor (0 - 6			(85 - 94)	Excellent (9		Not Ra	ted
		See Appendix for def	initions and f	ormulas			
Inspection Date:	3/20/2017	<b>Beginning Section MP</b>	0				
Paved Length (Mil	<b>es):</b> 0.13	Section Length (MI)	0.13				
Surface Type:	ASPHALT	Route Summary					
Roadway Conditio	n Information						
Pavement Condition	on Rating (PCR)	84	84				
Surface Condition I	Rating (SCR)	84	84				
Roughness Condition	on Index (RCI)	N/A	N/A				
Distress Index Valu	ies						
Structural Crack In	ndex	84	84				
Alligator Crack In	dex	100	100				
Longitudinal Crac	k Index	84	84				
Transverse Crackin	ng Index	90	90				
Patching Index		99	99				
Rutting Index		92	92				
International Roug	hness Index (IRI)	N/A	N/A				
Lane & Width Info	ormation						
Number of Lanes		2	2				
Paved Width (ft)		20.2	20.2				
Lane Width (ft)		10.1	10.1				

ROUTE 0436: NOLINA DRIVE

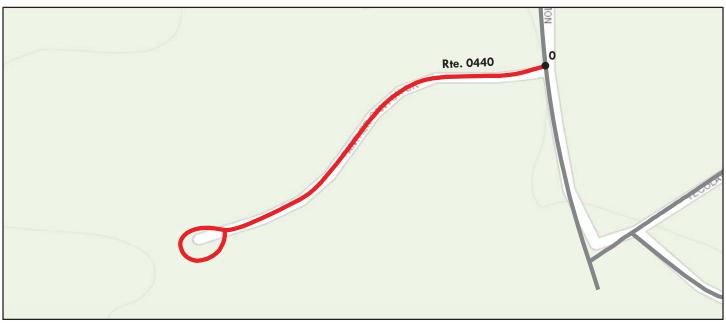
### Data Collection Vehicle (DCV) Rating



	Route (	Condition Legend – Pav	ement Condi	ition Rating (	PCR)			
Poor (0 - 6			Excellent (95 - 100)			Not Rated		
		See Appendix for def	initions and f	ormulas				
Inspection Date:	3/20/2017	<b>Beginning Section MP</b>	0					
Paved Length (Mile	<b>es):</b> 0.36	Section Length (MI)	0.36					
Surface Type:	ASPHALT	Route Summary						
Roadway Condition	n Information							
Pavement Condition	on Rating (PCR)	0	0					
Surface Condition F	Rating (SCR)	0	0					
Roughness Condition	on Index (RCI)	N/A	N/A					
Distress Index Valu	ies							
Structural Crack Ir	ndex	0	0					
Alligator Crack Inc	dex	96	96					
Longitudinal Cracl	k Index	0	0					
Transverse Crackin	ng Index	32	32					
Patching Index		98	98					
Rutting Index		97	97					
International Roug	hness Index (IRI)	N/A	N/A					
Lane & Width Info	ormation							
Number of Lanes		2	2					
Paved Width (ft)		18.1	18.1					
Lane Width (ft)		9	9					

ROUTE 0440: PANTHER CANYON DRIVE

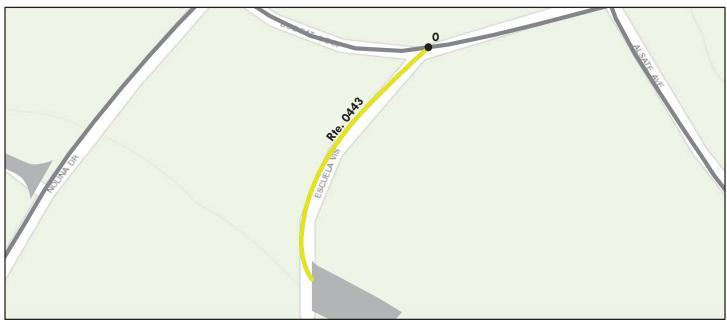
### Data Collection Vehicle (DCV) Rating



Route (	Condition Legend – Pav	ement Condi	ition Rating (PCR)	
Poor (0 - 60) Fair (6	1- 84) Good (	(85 - 94)	<b>Excellent (95 - 100)</b>	Not Rated
	See Appendix for def	finitions and f	ormulas	
<b>Inspection Date:</b> 3/20/2017	<b>Beginning Section MP</b>	0		
Paved Length (Miles): 0.18	Section Length (MI)	0.18		
Surface Type: ASPHALT	Route Summary			•
Roadway Condition Information				
Pavement Condition Rating (PCR)	53	53		
Surface Condition Rating (SCR)	53	53		
Roughness Condition Index (RCI)	N/A	N/A		
Distress Index Values				
Structural Crack Index	53	53		
Alligator Crack Index	100	100		
Longitudinal Crack Index	53	53		
Transverse Cracking Index	82	82		
Patching Index	99	99		
Rutting Index	92	92		
International Roughness Index (IRI)	N/A	N/A		
Lane & Width Information				
Number of Lanes	2	2		
Paved Width (ft)	17.3	17.3		
Lane Width (ft)	10.5	10.5		

**ROUTE 0443: ESCUELA ROAD** 

### Data Collection Vehicle (DCV) Rating



	Route (	Condition Legend – Pav	ement Cond	ition Rating (	PCR)		
Poor (0 - 6			(85 - 94)	Excellent (		Not Ra	ted
		See Appendix for def	finitions and f	formulas			
Inspection Date:	3/20/2017	<b>Beginning Section MP</b>	0				
Paved Length (Mil	es): 0.06	Section Length (MI)	0.06				
Surface Type:	ASPHALT	Route Summary					
Roadway Conditio	n Information						
Pavement Condition	on Rating (PCR)	63	63				
Surface Condition I	Rating (SCR)	63	63				
Roughness Condition	on Index (RCI)	N/A	N/A				
Distress Index Valu	ies						
Structural Crack In	ndex	63	63				
Alligator Crack In	dex	100	100				
Longitudinal Crac	k Index	63	63				
Transverse Cracking	ng Index	70	70				
Patching Index		100	100				
Rutting Index		95	95				
International Roug	ghness Index (IRI)	N/A	N/A				
Lane & Width Info	ormation						
Number of Lanes		1	1				
Paved Width (ft)		13.2	13.2				
Lane Width (ft)		13.2	13.2				

### ROUTE 0444: PJ SEWAGE TREATMENT PLANT ROAD

### Data Collection Vehicle (DCV) Rating



Route Condition Legend – Pavement Condition Rating (PCR)					
Poor (0 - 60) Fair (6	1- 84) Good (	(85 - 94)	<b>Excellent (95 - 100</b>	Not Rated	
	See Appendix for definitions and formulas				
<b>Inspection Date:</b> 3/20/2017	<b>Beginning Section MP</b>	0			
Paved Length (Miles): 0.12	Section Length (MI)	0.12			
Surface Type: ASPHALT	Route Summary				
Roadway Condition Information					
Pavement Condition Rating (PCR)	73	73			
Surface Condition Rating (SCR)	73	73			
Roughness Condition Index (RCI)	N/A	N/A			
Distress Index Values					
Structural Crack Index	73	73			
Alligator Crack Index	100	100			
Longitudinal Crack Index	73	73			
Transverse Cracking Index	82	82			
Patching Index	100	100			
Rutting Index	89	89			
International Roughness Index (IRI)	N/A	N/A			
Lane & Width Information					
Number of Lanes	1	1			
Paved Width (ft)	13.5	13.5			
Lane Width (ft)	13.5	13.5			

# Section 6 Paved Parking Area Condition Rating Sheets



**Big Bend National Park** 



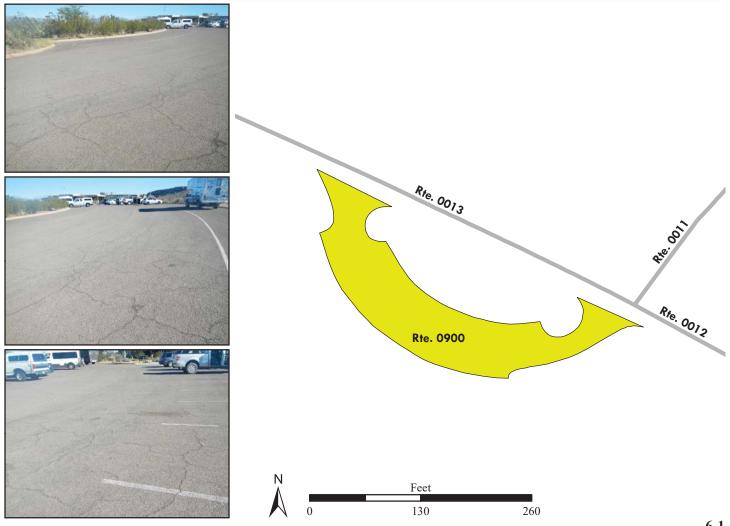
ROUTE 0900: VISITOR PARKING LOT - HQ BUILDING #310

#### Manual Rating

FROM INTERSECTION OF ROUTE 0011 (NORTH ENTRANCE ROAD), ROUTE 0012 (RIO GRANDE ROAD), AND ROUTE 0013 (WEST ENTRANCE ROAD)

TO ROUTE 0013 (WEST ENTRANCE ROAD)

<b>Inspection Date</b>	FMSS Number	User Access	Surface Type		
2/22/2017	53078	PUBLIC	ASPHALT		
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation		
21,698	0.374	NOT APPLICABLE	DO NOTHING		
Curb Type		Curb & Gutter Type			
NO CURB		CONCRETE			
Pavement Recommendation Con		Condition R	ating / PCR		
LIGHT 3R TREATMENTS		FAIR / 73			
	Route Condition Legend – Pavement Condition Rating (PCR)				
Poor (0 - 60)	Poor (0 - 60)				
See Appendix for definitions and formulas					



### ROUTE 0901: PERSIMMON GAP VISITOR CENTER PARKING

### Manual Rating

### FROM ROUTE 0011 (NORTH ENTRANCE ROAD) AT MP 25.95 ON LEFT TO

#### ROUTE 0011 (NORTH ENTRANCE ROAD) AT MP 26.01 ON LEFT

<b>Inspection Date</b>	FMSS Number	User Access	Surface Type	
2/22/2017	54604	PUBLIC	ASPHALT	
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation	
11,322	0.195	NOT APPLICABLE	DO NOTHING	
Curb	Curb Type		Curb & Gutter Type	
NO CURB		CONCRETE		
Pavement Recommendation Condition Rating / PCR		ating / PCR		
PREVENTIVE N	PREVENTIVE MAINTENANCE GOOD / 90		O / 90	
Route Condition Legend – Pavement Condition Rating (PCR)				
Poor (0 - 60)				
	See Appendix for definitions and formulas			





## Big Bend National Park ROUTE 0902: RIO GRANDE OVERLOOK PARKING

### Manual Rating

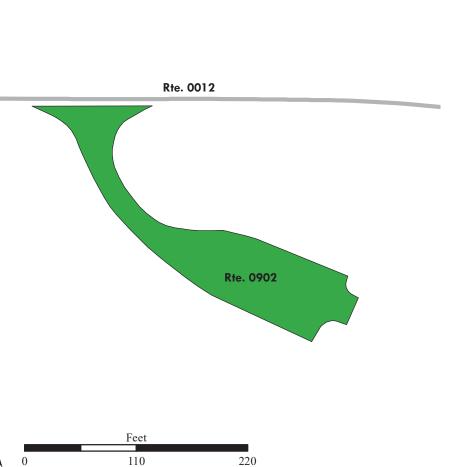
### FROM ROUTE 0012 (RIO GRANDE ROAD) AT MP 18.62 ON RIGHT

### TO PARKING

<b>Inspection Date</b>	FMSS Number	User Access	Surface Type	
2/23/2017	54606	PUBLIC	ASPHALT	
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation	
14,962	0.258	NOT APPLICABLE	NOT APPLICABLE	
Curb Type		Curb & Gutter Type		
NO CURB		NO CURB AND GUTTER		
Pavement Recommendation Condition Rating / PCR		ating / PCR		
PREVENTIVE N	MAINTENANCE	AINTENANCE GOOD / 90		
Route Condition Legend – Pavement Condition Rating (PCR)				
Poor (0 - 60)	Fair (61- 84) Good (	(85 - 94) Excellent (95 - 10	0) Not Rated	
See Appendix for definitions and formulas				







### ROUTE 0905: BOQUILLAS CANYON TRAIL PARKING

#### Manual Rating

### FROM END OF ROUTE 0109 (BOQUILLAS CANYON ROAD)

#### TO PARKING

Inspection Date	FMSS Number	User Access	Surface Type	
2/23/2017	54609	PUBLIC	ASPHALT	
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation	
14,953	0.257	NOT APPLICABLE	NOT APPLICABLE	
Curb	Curb Type		Curb & Gutter Type	
NO C	CURB	NO CURB AND GUTTER		
Pavement Recommendation		Condition Rating / PCR		
PREVENTIVE N	PREVENTIVE MAINTENANCE		O / 90	
Route Condition Legend – Pavement Condition Rating (PCR)				

Poor (0 - 60)

Fair (61- 84)

Good (85 - 94)

**Excellent (95 - 100)** 

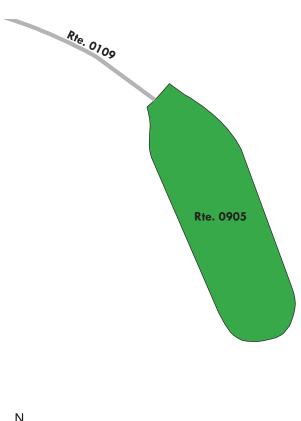
Not Rated

See Appendix for definitions and formulas









### ROUTE 0906: RIO GRANDE VISITOR CENTER PARKING

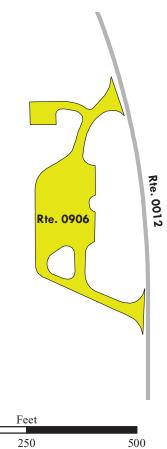
### **Manual Rating**

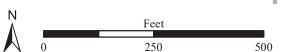
### FROM ROUTE 0012 (RIO GRANDE ROAD) AT MP 20.12, NEAR RIO GRANDE VILLAGE

### TO ROUTE 0012 (RIO GRANDE ROAD) AT MP 20.21

<b>Inspection Date</b>	FMSS Number	User Access	Surface Type	
2/23/2017	54610	PUBLIC	ASPHALT	
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation	
39,178	0.675	6	DO NOTHING	
Curb Type		Curb & Gutter Type		
CONCRETE		NO CURB AND GUTTER		
Pavement Recommendation Condition Rating / PCR		ating / PCR		
LIGHT 3R TREATMENTS		FAIR	/ 73	
Route Condition Legend – Pavement Condition Rating (PCR)				
Poor (0 - 60)	Fair (61- 84) Good (	(85 - 94) Excellent (95 - 10	0) Not Rated	
See Appendix for definitions and formulas				







### ROUTE 0907: RIO GRANDE DANIELS RANCH PICNIC AREA PARKING

#### Manual Rating

### FROM BEGINNING OF ROUTE 0201 (RIO GRANDE VILLAGE ROAD)

#### TO PARKING

Inspection Date	FMSS Number	User Access	Surface Type
2/23/2017	54612	PUBLIC	ASPHALT
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation
7,377	0.127	NOT APPLICABLE	NOT APPLICABLE
Curb	Curb Type		utter Type
NO (	NO CURB		ND GUTTER
Pavement Rec	Pavement Recommendation		Rating / PCR
LIGHT 3R T	LIGHT 3R TREATMENTS		. / 73
Route Condition Legend – Payement Condition Rating (PCR)			

Route Condition Legend - Pavement Condition Rating (PCR)

Poor (0 - 60)

Fair (61-84)

Good (85 - 94)

**Excellent (95 - 100)** 

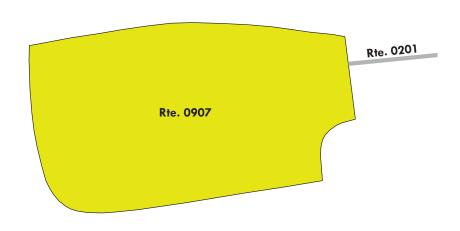
**Not Rated** 

See Appendix for definitions and formulas











### ROUTE 0908: RIO GRANDE TRAILER PARKING RV PARK

### **Manual Rating**

### FROM ROUTE 0201 (RIO GRANDE VILLAGE ROAD) AT MP 0.52

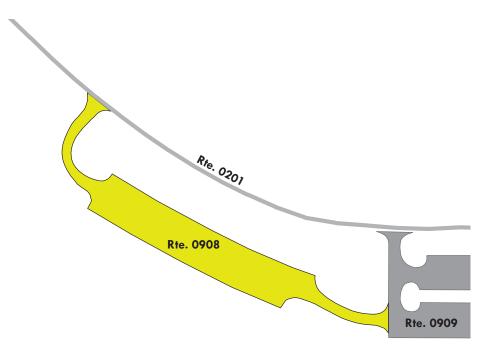
### TO ROUTE 0909 (RIO GRANDE STORE PARKING)

<b>Inspection Date</b>	FMSS Number	User Access	Surface Type	
2/23/2017	54613	PUBLIC	ASPHALT	
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation	
38,638	0.665	NOT APPLICABLE	DO NOTHING	
Curb Type Curb & Gutter Ty		utter Type		
NO CURB		CONCRETE		
Pavement Rec	commendation	Condition Rating / PCR		
LIGHT 3R TE	LIGHT 3R TREATMENTS		/ 73	
Route Condition Legend – Pavement Condition Rating (PCR)				
Poor (0 - 60)			0) Not Rated	
Poor (0 - 60)  Fair (61- 84)  Good (85 - 94)  Excellent (95 - 100)  Not Rated  See Appendix for definitions and formulas				











### ROUTE 0909: RIO GRANDE STORE PARKING

#### Manual Rating

### FROM ROUTE 0201 (RIO GRANDE VILLAGE ROAD) AT MP 0.71

#### TO ROUTE 0908 (RIO GRANDE TRAILER PARKING RV PARK)

<b>Inspection Date</b>	FMSS Number	User Access	Surface Type	
2/23/2017	54615	PUBLIC	ASPHALT	
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation	
46,921	0.808	NOT APPLICABLE	DO NOTHING	
Curb Type		Curb & Gutter Type		
NO CURB		CONCRETE		
Pavement Recommendation		Condition R	ating / PCR	
LIGHT 3R T	LIGHT 3R TREATMENTS FAIR / 73		/ 73	
Route Condition Legend – Pavement Condition Rating (PCR)				
Poor (0 - 60)	Fair (61- 84) Good (	(85 - 94) Excellent (95 - 10	0) Not Rated	
See Appendix for definitions and formulas				

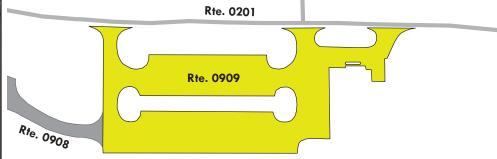


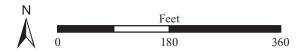
Note: Parking area consists of multiple surface types: 1 part Asphalt at 45,865 square feet; 1 part Concrete at 1,056 square feet.

Rte. 0012









## Big Bend National Park ROUTE 0910: RIO GRANDE AMPHITHEATER PARKING

### **Manual Rating**

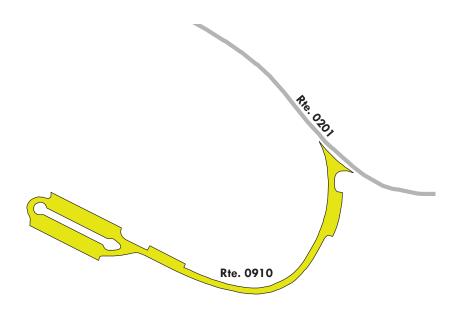
### FROM ROUTE 0201 (RIO GRANDE VILLAGE ROAD) AT MP 0.91

### TO PARKING

<b>Inspection Date</b>	FMSS Number	User Access	Surface Type	
2/23/2017	54617	PUBLIC	ASPHALT	
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation	
40,917	0.704	NOT APPLICABLE	DO NOTHING	
Curb Type		Curb & Gutter Type		
NO CURB		CONCRETE		
Pavement Recommendation		Condition R	ating / PCR	
LIGHT 3R TREATMENTS		FAIR / 73		
Route Condition Legend – Pavement Condition Rating (PCR)				
Poor (0 - 60)				
See Appendix for definitions and formulas				









#### ROUTE 0912: PANTHER JUNCTION GAS STATION PARKING LOT

#### Manual Rating

#### FROM ROUTE 0013 (WEST ENTRANCE ROAD) AT MP 0.18

### TO ROUTE 0013 (WEST ENTRANCE ROAD) AT MP 0.21

Inspection Date	FMSS Number	User Access	Surface Type
2/23/2017	90991	PUBLIC	ASPHALT
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation
10,438	0.18	4	DO NOTHING
Curb	Curb Type		utter Type
CONC	CONCRETE		ND GUTTER
Pavement Rec	Pavement Recommendation		Rating / PCR
PREVENTIVE MAINTENANCE		GOOD / 90	
Route Condition Legend - Payament Condition Rating (PCR)			

Route Condition Legend - Pavement Condition Rating (PCR)

**Poor** (0 - 60) Fair (61- 84)

Good (85 - 94)

**Excellent (95 - 100)** 

**Not Rated** 

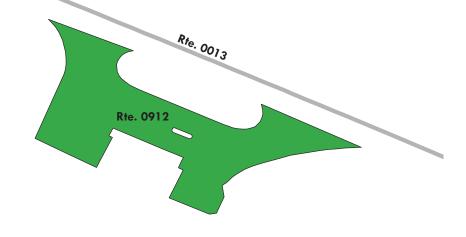
See Appendix for definitions and formulas



Note: Parking area consists of multiple surface types: 1 part Asphalt at 8,687 square feet; 1 part Concrete at 1,751 square feet.









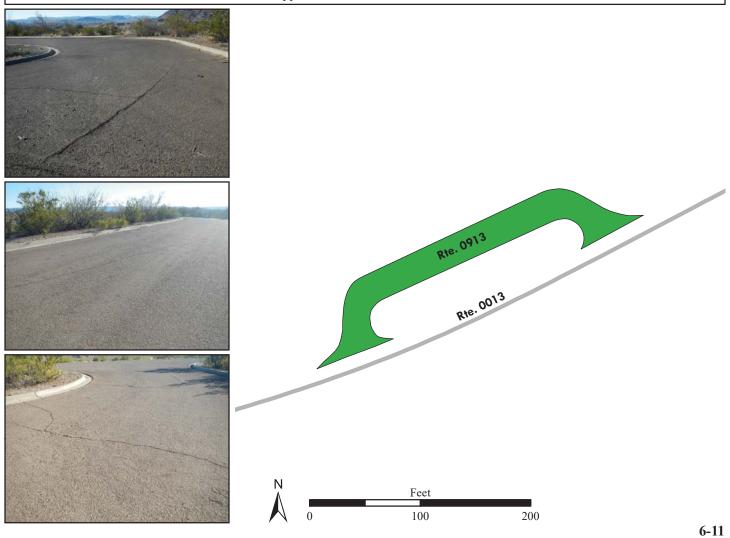
ROUTE 0913: BADLANDS PARKING AREA

### Manual Rating

### FROM ROUTE 0013 (WEST ENTRANCE ROAD) AT MP 20.69

### TO ROUTE 0013 (WEST ENTRANCE ROAD) AT MP 20.73

<b>Inspection Date</b>	FMSS Number	User Access	Surface Type		
2/24/2017	54620	PUBLIC	ASPHALT		
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation		
7,563	0.13	NOT APPLICABLE	DO NOTHING		
Curb Type		Curb & Gutter Type			
NO CURB		CONCRETE			
Pavement Recommendation		Condition R	ating / PCR		
PREVENTIVE MAINTENANCE		GOOD / 90			
	Route Condition Legend – Pavement Condition Rating (PCR)				
Poor (0 - 60)	Fair (61- 84) Good (85 - 94) Excellent (95 - 100) Not Rated				
See Appendix for definitions and formulas					



### ROUTE 0914: MAVERICK INFORMATION KIOSK PARKING

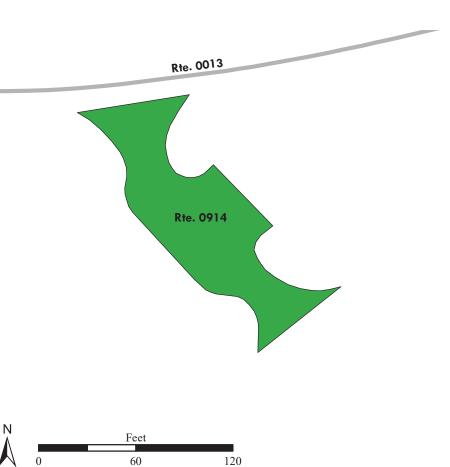
### Manual Rating

### FROM ROUTE 0013 (WEST ENTRANCE ROAD) AT MP 20.81

### TO PARKING

<b>Inspection Date</b>	FMSS Number	User Access	Surface Type	
2/24/2017	54622	PUBLIC	ASPHALT	
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation	
6,472	0.111	NOT APPLICABLE	DO NOTHING	
Curb Type		Curb & Gutter Type		
NO CURB		CONCRETE		
Pavement Recommendation		Condition Rating / PCR		
PREVENTIVE N	PREVENTIVE MAINTENANCE GOOD / 90		<b>)</b> / 90	
Route Condition Legend – Pavement Condition Rating (PCR)				
Poor (0 - 60)	Fair (61- 84) Good (	(85 - 94) Excellent (95 - 10	0) Not Rated	
See Appendix for definitions and formulas				





### ROUTE 0915: WEST ENTRANCE CONTACT STATION PARKING

### **Manual Rating**

### FROM ROUTE 0013 (WEST ENTRANCE ROAD) AT MP 20.75

#### TO PARKING

Inspection Date	FMSS Number	User Access	Surface Type	
2/24/2017	54623	PUBLIC	ASPHALT	
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation	
3,115	0.054	NOT APPLICABLE	DO NOTHING	
Curb	Curb Type		Curb & Gutter Type	
NO CURB		CONCRETE		
Pavement Recommendation		Condition Rating / PCR		
PREVENTIVE MAINTENANCE		GOOD / 90		
Route Condition Legend – Pavement Condition Rating (PCR)				

Poor (0 - 60)

Fair (61- 84)

Good (85 - 94)

**Excellent (95 - 100)** 

Not Rated

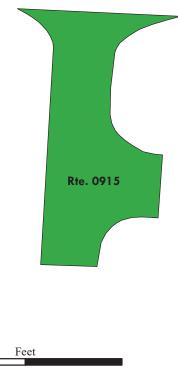
See Appendix for definitions and formulas













### ROUTE 0917: LOST MINE TRAIL PARKING

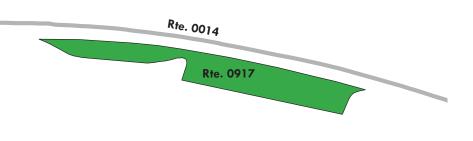
### Manual Rating

### ADJACENT TO ROUTE 0014 (CHISOS BASIN ROAD) AT MP 5.17

<b>Inspection Date</b>	FMSS Number	User Access	Surface Type	
2/23/2017	54625	PUBLIC	ASPHALT	
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation	
7,022	0.121	NOT APPLICABLE	DO NOTHING	
Curb Type		Curb & Gutter Type		
NO CURB		CONCRETE		
Pavement Recommendation		Condition R	ating / PCR	
PREVENTIVE MAINTENANCE		GOOI	<b>)</b> / 90	
Route Condition Legend – Pavement Condition Rating (PCR)				
Poor (0 - 60)	Fair (61- 84) Good (	(85 - 94) Excellent (95 - 10	0) Not Rated	
See Appendix for definitions and formulas				









### ROUTE 0918: BASIN RANGER STATION PARKING

#### Manual Rating

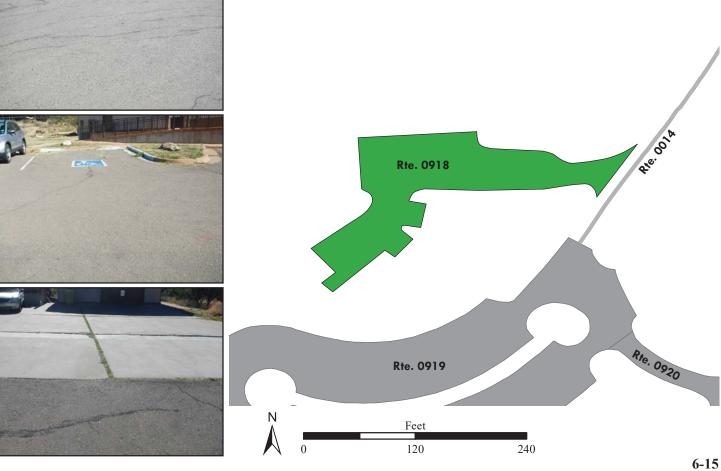
### FROM ROUTE 0014 (CHISOS BASIN ROAD) ON RIGHT

#### TO PARKING

<b>Inspection Date</b>	FMSS Number	User Access	Surface Type	
2/23/2017	54627	NONPUBLIC	ASPHALT	
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation	
16,769	0.289	NOT APPLICABLE	DO NOTHING	
Curb Type		Curb & Gutter Type		
NO CURB		CONCRETE		
Pavement Recommendation		Condition Rating / PCR		
PREVENTIVE N	PREVENTIVE MAINTENANCE		GOOD / 90	
Route Condition Legend – Pav		ement Condition Rating (PCR)		
Poor (0 - 60)	Fair (61- 84) Good (	(85 - 94) Excellent (95 - 10	0) Not Rated	
See Appendix for definitions and formulas				



Note: Parking area consists of multiple surface types: 1 part Asphalt at 13,734 square feet; 2 parts Concrete at 3,035 square feet.



### ROUTE 0919: BASIN VISITORS CENTER PARKING

#### Manual Rating

### FROM END OF ROUTE 0014 (CHISOS BASIN ROAD)

#### TO ROUTE 0920 (BASIN MOTEL PARKING)

<b>Inspection Date</b>	FMSS Number	User Access	Surface Type
2/23/2017	54629	PUBLIC	ASPHALT
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation
45,943	0.791	NOT APPLICABLE	DO NOTHING
Curb Type		Curb & Gutter Type	
NO CURB		CONC	RETE
Pavement Recommendation		Condition Rating / PCR	
PREVENTIVE MAINTENANCE GOOD / 90		) / 90	
Route Condition Legend – Pavement Condition Rating (PCR)			

Poor (0 - 60)

Fair (61-84)

Good (85 - 94)

**Excellent (95 - 100)** 

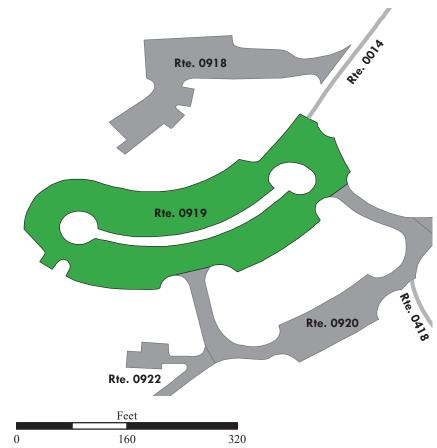
Not Rated

See Appendix for definitions and formulas









ROUTE 0920: BASIN MOTEL PARKING

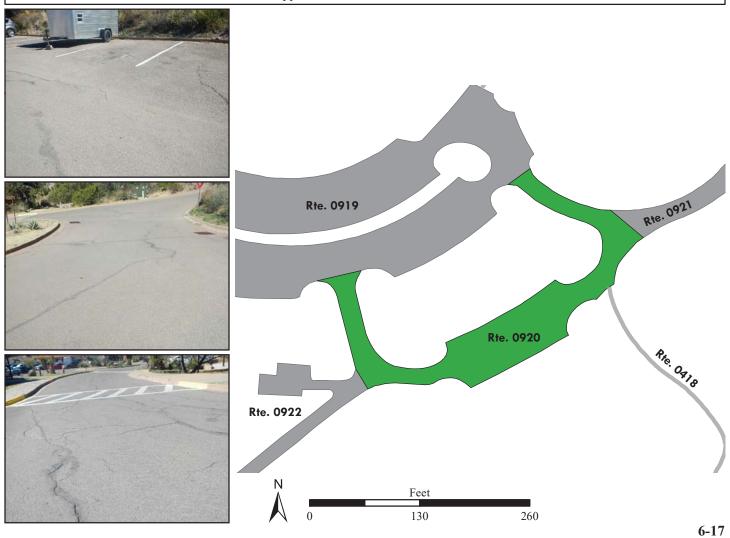
#### Manual Rating

### FROM THE BEGINNING OF ROUTE 0418 (CHISOS BASIN RESIDENCE ROAD)

#### TO ROUTE 0919 (BASIN VISITORS CENTER PARKING), ROUTE 0921 (CHISOS MOUNTAIN

LODGE PARKING), AND ROUTE 0922 (CHISOS COTTAGE PARKING)

<b>Inspection Date</b>	FMSS Number	User Access	Surface Type
2/23/2017	54631	PUBLIC	ASPHALT
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation
17,774	0.306	NOT APPLICABLE	DO NOTHING
Curb Type		Curb & Gutter Type	
NO CURB		CONCRETE	
Pavement Recommendation		Condition R	Rating / PCR
PREVENTIVE N	PREVENTIVE MAINTENANCE GOOD / 90		O / 90
Route Condition Legend – Pavement Condition Rating (PCR)			
Poor (0 - 60)	0 - 60) Fair (61- 84) Good (85 - 94) Excellent (95 - 100) Not Rated		0) Not Rated
See Appendix for definitions and formulas			



ROUTE 0921: CHISOS MOUNTAIN LODGE PARKING

#### Manual Rating

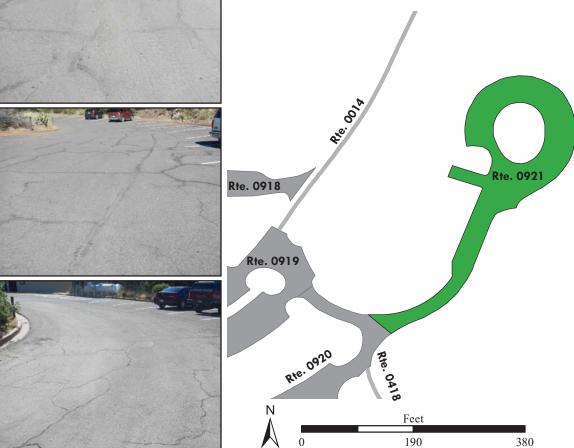
### FROM ROUTE 0920 (BASIN MOTEL PARKING)

#### TO PARKING

Inspection Date	FMSS Number	User Access	Surface Type	
2/23/2017	54634	PUBLIC	ASPHALT	
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation	
29,088	0.501	NOT APPLICABLE	DO NOTHING	
Curb	Curb Type		Curb & Gutter Type	
NO CURB		CONCRETE		
Pavement Recommendation		Condition R	ating / PCR	
PREVENTIVE N	TTIVE MAINTENANCE GOOD / 90		<b>)</b> / 90	
Route Condition Legend – Pavement Condition Rating (PCR)				
Poor (0 - 60)	Fair (61- 84) Good (	(85 - 94) Excellent (95 - 10	0) Not Rated	
See Appendix for definitions and formulas				



Note: Parking area consists of multiple surface types: 1 part Asphalt at 28,161 square feet; 1 part Concrete at 927 square feet.



### ROUTE 0922: CHISOS COTTAGE PARKING

### Manual Rating

### FROM ROUTE 0920 (BASIN MOTEL PARKING)

#### TO PARKING

Inspection Date	FMSS Number	User Access	Surface Type
2/23/2017	54637	PUBLIC	ASPHALT
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation
22,576	0.389	6	DO NOTHING
Curb Type		Curb & Gutter Type	
WOOD		NO CURB A	ND GUTTER
Pavement Recommendation		Condition Rating / PCR	
PREVENTIVE MAINTENANCE		GOOD / 90	
	Route Condition Legend Pov	ament Condition Rating (PCR)	

Route Condition Legend – Pavement Condition Rating (PCR)

Poor (0 - 60)

Fair (61- 84)

Good (85 - 94)

**Excellent (95 - 100)** 

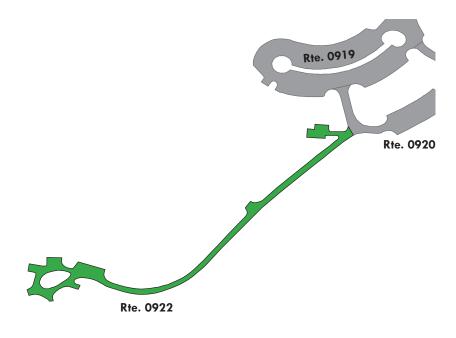
**Not Rated** 

See Appendix for definitions and formulas











### ROUTE 0923: BASIN AMPHITHEATER PARKING

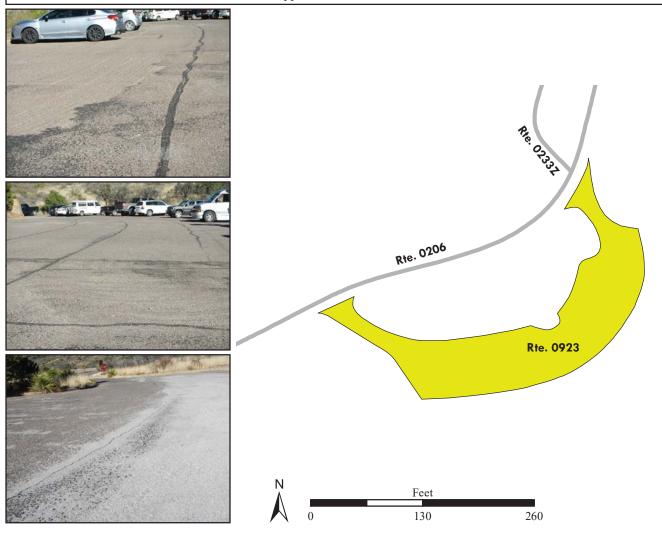
### **Manual Rating**

FROM INTERSECTION OF ROUTE 0206 (LOWER BASIN CAMPGROUND ROAD)

AND ROUTE 0233Z (CLASS A CAMPGROUND - CHISOS BASIN MAIN LOOP)

TO ROUTE 0206 (LOWER BASIN CAMPGROUND ROAD)

<b>Inspection Date</b>	FMSS Number	User Access	Surface Type	
2/23/2017	54639	PUBLIC	ASPHALT	
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation	
22,991	0.396	NOT APPLICABLE	DO NOTHING	
Curb Type		Curb & Gutter Type		
NO CURB		CONCRETE		
Pavement Recommendation Condition Rating / PCR		ating / PCR		
LIGHT 3R TI	REATMENTS	FAIR / 73		
Route Condition Legend – Pavement Condition Rating (PCR)				
Poor (0 - 60)	Fair (61- 84) Good (	(85 - 94) Excellent (95 - 10	0) Not Rated	
See Appendix for definitions and formulas				



### ROUTE 0924: BASIN REMUDA PARKING

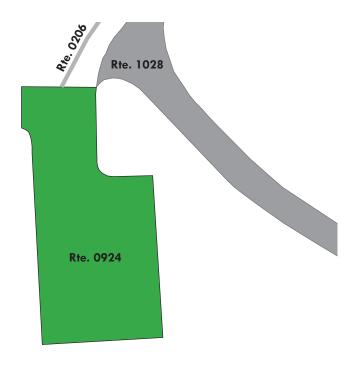
### **Manual Rating**

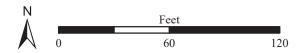
### FROM END OF ROUTE 0206 (LOWER BASIN CAMPGROUND ROAD)

### TO PARKING

<b>Inspection Date</b>	FMSS Number	User Access	Surface Type
2/23/2017	54641	NONPUBLIC	ASPHALT
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation
6,692	0.115	NOT APPLICABLE	DO NOTHING
Curb Type		Curb & Gutter Type	
NO CURB		CONCRETE	
Pavement Recommendation		Condition R	ating / PCR
PREVENTIVE MAINTENANCE		GOOD / 90	
Route Condition Legend – Pavement Condition Rating (PCR)			
Poor (0 - 60)	, ,	(85 - 94) Excellent (95 - 10	0) Not Rated
See Appendix for definitions and formulas			







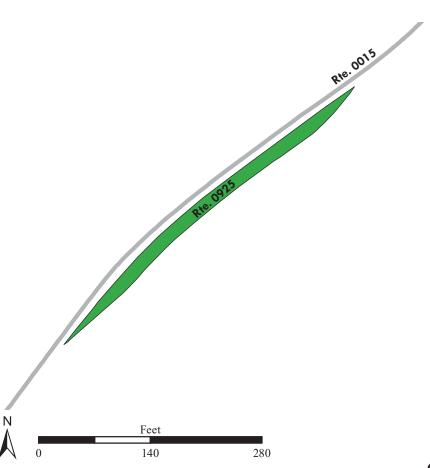
### ROUTE 0925: BLUE CREEK OVERLOOK PARKING

### Manual Rating

### ADJACENT TO ROUTE 0015 (ROSS MAXWELL SCENIC DRIVE) AT MP 8.11

<b>Inspection Date</b>	FMSS Number	User Access	Surface Type	
2/24/2017	54643	PUBLIC	ASPHALT	
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation	
6,090	0.105	NOT APPLICABLE	DO NOTHING	
Curb Type		Curb & Gutter Type		
NO CURB		CONCRETE		
Pavement Recommendation		Condition R	ating / PCR	
PREVENTIVE MAINTENANCE		GOOI	<b>D</b> / 90	
Route Condition Legend – Pavement Condition Rating (PCR)				
Poor (0 - 60)				
See Appendix for definitions and formulas				





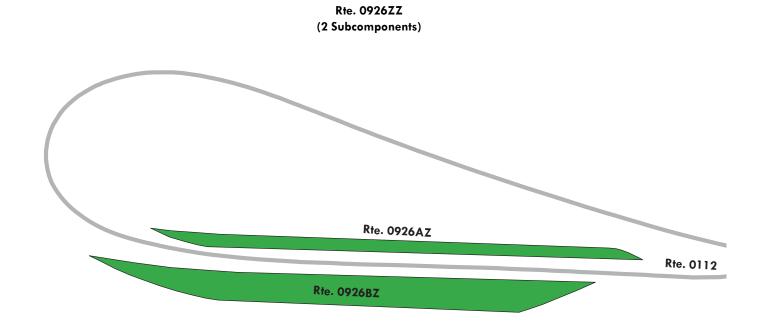
#### ROUTE 0926ZZ: SOTOL VISTA OVERLOOK PARKING

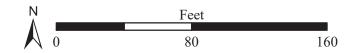
Summary Route Manual Rating

#### ADJACENT TO ROUTE 0112 (SOTOL VISTA OVERLOOK ROAD) AT END OF LOOP

Inspection Date	FMSS Number	User Access	Surface Type
2/24/2017	54644	PUBLIC	ASPHALT
Area (Sq. Ft.)	Lane Miles (11' Widths)	Condition R	ating / PCR
5,518	0.095	SUMMA	RY / 90
Route Condition Legend – Pavement Condition Rating (PCR)			
Poor (0 - 60)	Fair (61- 84) Good (	(85 - 94) Excellent (95 - 10	0) Not Rated
See Appendix for definitions and formulas			

The condition shown on this page reflects the overall route condition and may not reflect individual subcomponent ratings.





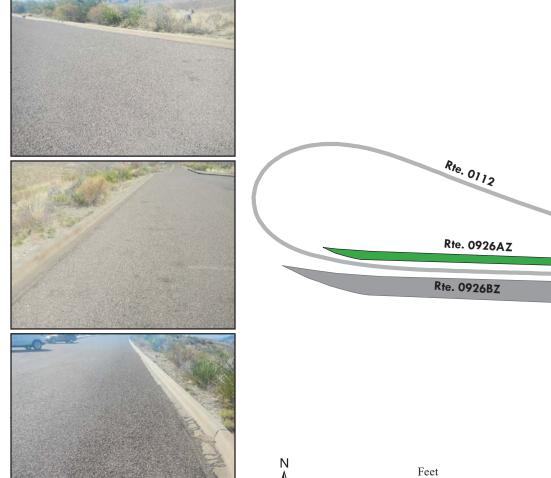
### ROUTE 0926AZ: SOTOL VISTA OVERLOOK PARKING A

Subcomponent of Route BIBE-0926ZZ

#### **Manual Rating**

ADJACENT TO ROUTE 0112 (SOTOL VISTA OVERLOOK ROAD) AT END OF LOOP ON LEFT

<b>Inspection Date</b>	FMSS Number	User Access	Surface Type	
2/24/2017	54644	PUBLIC	ASPHALT	
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation	
1,663	0.029	NOT APPLICABLE	DO NOTHING	
Curb	Curb Type		Curb & Gutter Type	
NO C	NO CURB		CONCRETE	
Pavement Rec	Pavement Recommendation Condition Rating / PCR		ating / PCR	
PREVENTIVE MAINTENANCE		GOOL	<b>)</b> / 90	
Route Condition Legend – Pavement Condition Rating (PCR)				
Poor (0 - 60)	Fair (61- 84) Good (	(85 - 94) Excellent (95 - 10	0) Not Rated	
See Appendix for definitions and formulas				





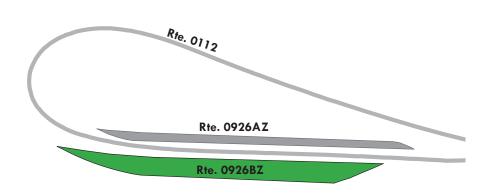
#### ROUTE 0926BZ: SOTOL VISTA OVERLOOK PARKING B

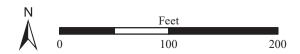
Subcomponent of Route BIBE-0926ZZ Manual Rating

#### ADJACENT TO ROUTE 0112 (SOTOL VISTA OVERLOOK ROAD) AT END OF LOOP ON RIGHT

54644	PUBLIC	ASPHALT	
T M (111 XV 1/1)			
Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation	
0.066	NOT APPLICABLE	DO NOTHING	
Curb Type		Curb & Gutter Type	
NO CURB		CONCRETE	
Pavement Recommendation Condition Rating / PCR		ating / PCR	
PREVENTIVE MAINTENANCE GOOD / 90		0 / 90	
Route Condition Legend – Pavement Condition Rating (PCR)			
		Not Rated	
	Type URB ommendation MAINTENANCE Route Condition Legend – Pav Fair (61-84) Good	Type Curb & G URB CONC  ommendation Condition R  MAINTENANCE GOOD  Route Condition Legend – Pavement Condition Rating (PCR)	







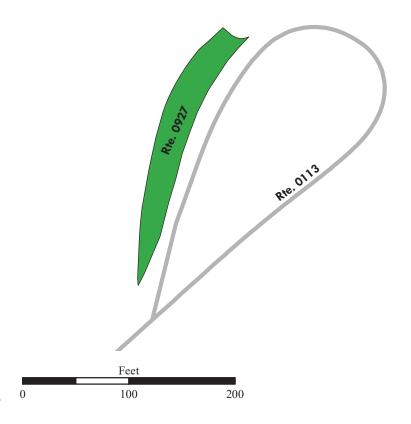
### ROUTE 0927: BURRO MESA POUROFF PARKING

#### Manual Rating

#### ADJACENT TO ROUTE 0113 (BURRO MESA POUROFF ROAD) AT END OF LOOP

<b>Inspection Date</b>	FMSS Number	User Access	Surface Type	
2/24/2017	54646	PUBLIC	ASPHALT	
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation	
5,349	0.092	NOT APPLICABLE	DO NOTHING	
Curb Type		Curb & G	Curb & Gutter Type	
NO CURB		CONCRETE		
Pavement Recommendation Condition Rating / PCR		ating / PCR		
PREVENTIVE I	PREVENTIVE MAINTENANCE GOOD / 90		) / 90	
Route Condition Legend – Pavement Condition Rating (PCR)				
Poor (0 - 60)	, ,	(85 - 94) Excellent (95 - 10	0) Not Rated	
See Appendix for definitions and formulas				





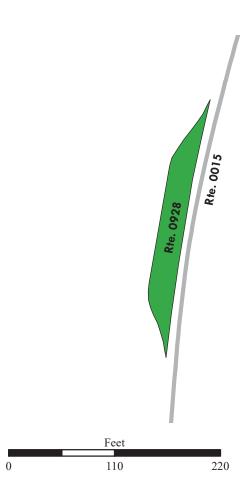
### ROUTE 0928: CHIMNEY TRAILS PARKING

#### Manual Rating

#### ADJACENT TO ROUTE 0015 (ROSS MAXWELL SCENIC DRIVE) AT MP 12.75

<b>Inspection Date</b>	FMSS Number	User Access	Surface Type	
2/24/2017	54647	PUBLIC	ASPHALT	
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation	
4,719	0.081	NOT APPLICABLE	NOT APPLICABLE	
Curb	Curb Type		Curb & Gutter Type	
NO CURB		NO CURB AND GUTTER		
Pavement Recommendation Condition Rating / PCR		Rating / PCR		
PREVENTIVE MAINTENANCE		GOOI	O / 90	
Route Condition Legend – Pavement Condition Rating (PCR)				
Poor (0 - 60)	· /	(85 - 94) Excellent (95 - 10	0) Not Rated	
	See Appendix for definitions and formulas			



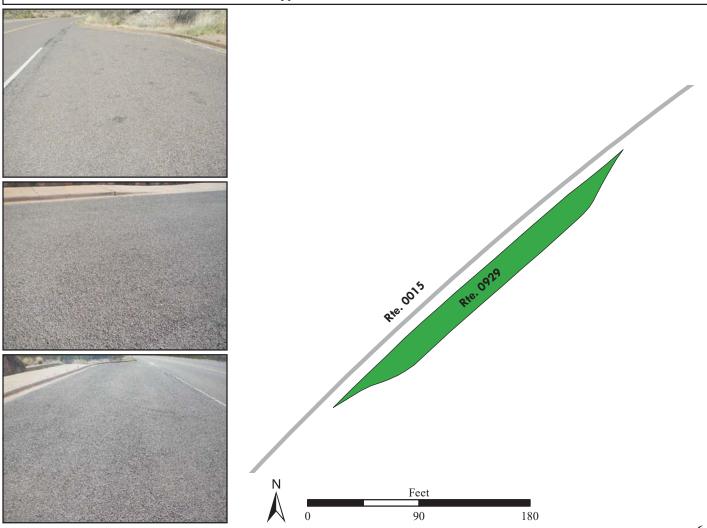


### ROUTE 0929: GOAT MOUNTAIN PARKING

#### Manual Rating

#### ADJACENT TO ROUTE 0015 (ROSS MAXWELL SCENIC DRIVE) AT MP 14.82

<b>Inspection Date</b>	FMSS Number	User Access	Surface Type	
2/24/2017	54649	PUBLIC	ASPHALT	
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation	
4,499	0.077	NOT APPLICABLE	DO NOTHING	
Curb Type		Curb & Gutter Type		
NO CURB		CONCRETE		
Pavement Recommendation		Condition Rating / PCR		
PREVENTIVE N	MAINTENANCE	GOOI	) / 90	
	Route Condition Legend – Pavement Condition Rating (PCR)			
Poor (0 - 60) Fair (61- 84) Good (85 - 94) Excellent (95 - 100) Not Rated			0) Not Rated	
See Appendix for definitions and formulas				



### ROUTE 0930: MULE EARS OVERLOOK PARKING

#### Manual Rating

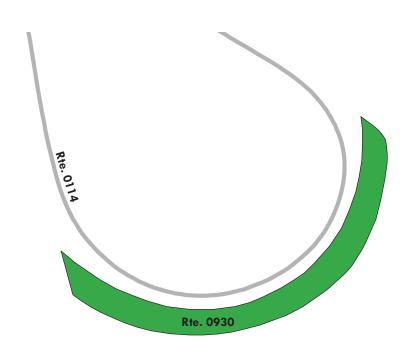
#### ADJACENT TO ROUTE 0114 (MULE EARS OVERLOOK ROAD) AT END OF LOOP

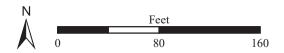
<b>Inspection Date</b>	FMSS Number	User Access	Surface Type	
2/24/2017	54651	PUBLIC	ASPHALT	
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation	
6,448	0.111	NOT APPLICABLE	DO NOTHING	
Curb Type		Curb & G	Curb & Gutter Type	
NO (	NO CURB		CONCRETE	
Pavement Recommendation Condition Rating / PCR		ating / PCR		
PREVENTIVE	PREVENTIVE MAINTENANCE GOOD / 90		) / 90	
Route Condition Legend – Pavement Condition Rating (PCR)				
Poor (0 - 60)		(85 - 94) Excellent (95 - 10	0) Not Rated	
1	See Appendix for def	finitions and formulas		











### ROUTE 0931: TUFF CANYON OVERLOOK PARKING

#### Manual Rating

#### ADJACENT TO ROUTE 0015 (ROSS MAXWELL SCENIC DRIVE) AT MP 19.84

<b>Inspection Date</b>	FMSS Number	User Access	Surface Type
2/24/2017	54652	PUBLIC	ASPHALT
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation
4,523	0.078	NOT APPLICABLE	DO NOTHING
	Туре	Curb & Gutter Type	
NO (	CURB	CONC	RETE
	commendation	Condition R	
PREVENTIVE N	MAINTENANCE	GOOD	0 / 90
Poor (0 - 60)		(85 - 94) Excellent (95 - 10) initions and formulas	0) Not Rated
	Rie. 0015	Feet	
		100 200	

#### ROUTE 0932: CASTOLON MAINTENANCE PARKING

#### Manual Rating

#### FROM END OF ROUTE 0426 (MESA DRIVE)

#### TO PARKING

<b>Inspection Date</b>	FMSS Number	User Access	Surface Type
2/24/2017	54654	NONPUBLIC	ASPHALT
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation
15,953	0.275	NOT APPLICABLE	NOT APPLICABLE
Curb Type		Curb & Gutter Type	
NO CURB		NO CURB AND GUTTER	
Pavement Recommendation		Condition Rating / PCR	
HEAVY 3R T	HEAVY 3R TREATMENTS		2 / 53
Route Condition Legend – Pavement Condition Rating (PCR)			

Poor (0 - 60)

Fair (61- 84)

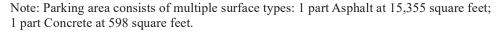
Good (85 - 94)

**Excellent (95 - 100)** 

Not Rated

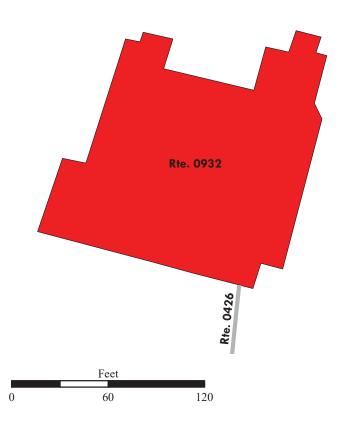
See Appendix for definitions and formulas











### ROUTE 0933: DESERT MOUNTAIN OVERLOOK PARKING

#### Manual Rating

#### ADJACENT TO ROUTE 0016 (SANTA ELENA CANYON ROAD) AT MP 1.09

Inspection Date	FMSS Number	User Access	Surface Type	
2/24/2017	54655	PUBLIC	ASPHALT	
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation	
2,493	0.043	5	DO NOTHING	
Curb Type		Curb & Gutter Type		
CONCRETE		NO CURB AND GUTTER		
Pavement Recommendation Cond		Condition R	ating / PCR	
PREVENTIVE I	PREVENTIVE MAINTENANCE		GOOD / 90	
Route Condition Legend – Pavement Condition Rating (PCR)				
Poor (0 - 60)	• •	(85 - 94) Excellent (95 - 10	0) Not Rated	
See Appendix for definitions and formulas				





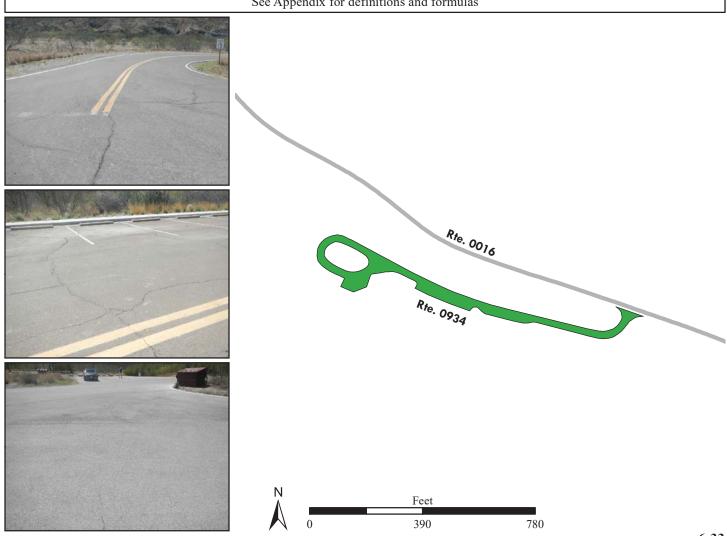
### ROUTE 0934: SANTA ELENA CANYON RIVER ACCESS PARKING

#### **Manual Rating**

#### FROM ROUTE 0016 (SANTA ELENA CANYON ROAD) AT MP 5.72

#### TO PARKING

<b>Inspection Date</b>	FMSS Number	User Access	Surface Type	
2/24/2017	54669	PUBLIC	ASPHALT	
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation	
40,891	0.704	NOT APPLICABLE	DO NOTHING	
Curb	Curb Type		Curb & Gutter Type	
NO CURB		CONCRETE		
Pavement Recommendation		Condition Rating / PCR		
PREVENTIVE N	MAINTENANCE	GOOI	) / 90	
	Route Condition Legend – Pavement Condition Rating (PCR)			
Poor (0 - 60) Fair (61- 84) Good (85 - 94) Excellent (95 - 100) Not Rated			0) Not Rated	
See Appendix for definitions and formulas				



### ROUTE 0935: SANTA ELENA CANYON OVERLOOK PARKING

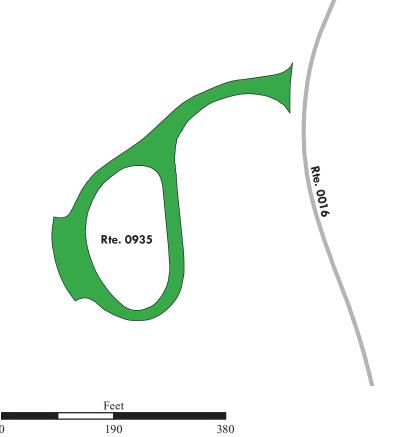
#### **Manual Rating**

### FROM ROUTE 0016 (SANTA ELENA CANYON ROAD) AT MP 6.82

#### TO PARKING

Inspection Date	FMSS Number	User Access	Surface Type	
2/24/2017	54670	PUBLIC	ASPHALT	
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation	
27,753	0.478	7	DO NOTHING	
Curb Type		Curb & Gutter Type		
CONCRETE		CONCRETE		
Pavement Recommendation		Condition R	Condition Rating / PCR	
PREVENTIVE N	PREVENTIVE MAINTENANCE GOOD / 90		<b>)</b> / 90	
Route Condition Legend – Pavement Condition Rating (PCR)				
Poor (0 - 60)	Fair (61- 84) Good (	(85 - 94) Excellent (95 - 10	0) Not Rated	
See Appendix for definitions and formulas				





### ROUTE 0936: SANTA ELENA CANYON PICNIC AREA

#### **Manual Rating**

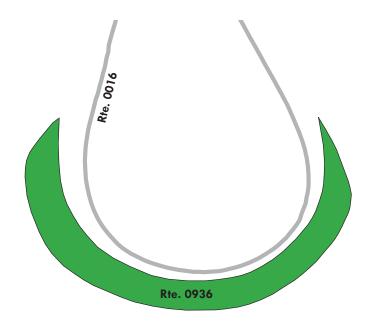
#### ADJACENT TO ROUTE 0016 (SANTA ELENA CANYON ROAD) AT END OF LOOP

<b>Inspection Date</b>	FMSS Number	User Access	Surface Type		
2/24/2017	54672	PUBLIC	ASPHALT		
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation		
7,849	0.135	NOT APPLICABLE	NOT APPLICABLE		
Curb Type		Curb & Gutter Type			
NO CURB		NO CURB AND GUTTER			
Pavement Recommendation		Condition R	ating / PCR		
PREVENTIVE N	MAINTENANCE	GOOD / 90			
	Route Condition Legend – Pavement Condition Rating (PCR)				
Poor (0 - 60)	Fair (61- 84) Good (	(85 - 94) Excellent (95 - 10	0) Not Rated		
See Appendix for definitions and formulas					











#### ROUTE 0937: ESCUELA VISTA PARKING LOT

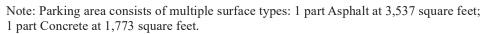
#### **Manual Rating**

#### FROM END OF ROUTE 0443 (ESCUELA ROAD)

#### TO PARKING

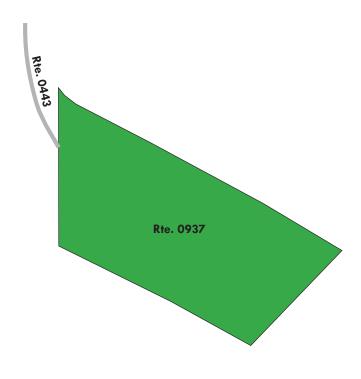
<b>Inspection Date</b>	FMSS Number	User Access	Surface Type	
2/24/2017	53154	NONPUBLIC	ASPHALT	
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation	
5,310	0.091	7	DO NOTHING	
Curb Type		Curb & Gutter Type		
WOOD		NO CURB AND GUTTER		
Pavement Recommendation		Condition Rating / PCR		
PREVENTIVE N	MAINTENANCE	GOOD / 90		
	Route Condition Legend – Pavement Condition Rating (PCR)			
Poor (0 - 60)  Fair (61- 84)  Good (85 - 94)  Excellent (95 - 100)  Not Rated  See Appendix for definitions and formulas				
See Appendix for definitions and formulas				













### ROUTE 0938: EMPLOYEE PARKING LOT - HQ BUILDING #310

#### Manual Rating

#### FROM ROUTE 0428 (ALSATE AVENUE)

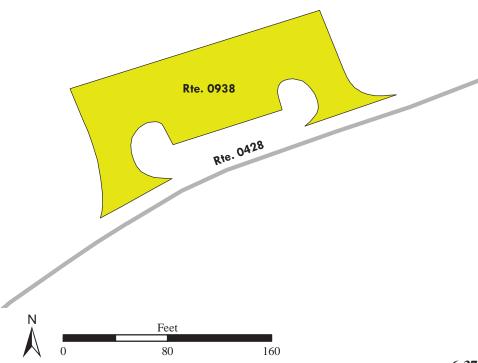
#### TO ROUTE 0428 (ALSATE AVENUE)

<b>Inspection Date</b>	FMSS Number	User Access	Surface Type		
2/24/2017	53073	NONPUBLIC	ASPHALT		
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation		
12,079	0.208	NOT APPLICABLE	DO NOTHING		
Curb Type		Curb & Gutter Type			
NO CURB		CONCRETE			
Pavement Recommendation		Condition R	ating / PCR		
LIGHT 3R TREATMENTS FAIR / 73		/ 73			
	Route Condition Legend – Pavement Condition Rating (PCR)				
Poor (0 - 60)	Fair (61- 84) Good (	(85 - 94) Excellent (95 - 10	0) Not Rated		
See Appendix for definitions and formulas					









### ROUTE 0939: MAINTENANCE AREA PARKING LOT

#### **Manual Rating**

#### FROM END OF ROUTE 0428 (ALSATE AVENUE)

#### TO PARKING

Inspection Date	FMSS Number	User Access	Surface Type
2/22/2017	53159	NONPUBLIC	ASPHALT
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation
29,767	0.513	5	LIGHT REPAIR
Curb Type		Curb & Gutter Type	
WC	WOOD NO CURB AND GUTTER		ND GUTTER
Pavement Recommendation		Condition Rating / PCR	
LIGHT 3R TREATMENTS		FAIR / 73	
Route Condition Legend – Pavement Condition Rating (PCR)			

Poor (0 - 60)

Fair (61-84)

Good (85 - 94)

**Excellent (95 - 100)** 

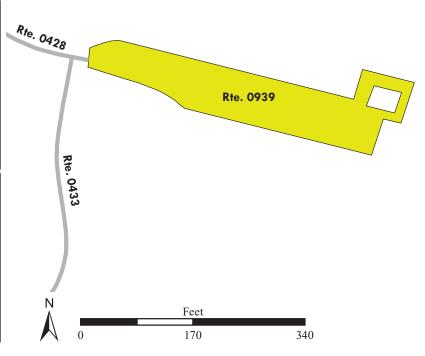
Not Rated

See Appendix for definitions and formulas









#### ROUTE 1000: ANIMAL HIGHWAYS INTERPRETIVE PULLOFF

#### Manual Rating

#### FROM ROUTE 0014 (CHISOS BASIN ROAD) AT MP 0.16

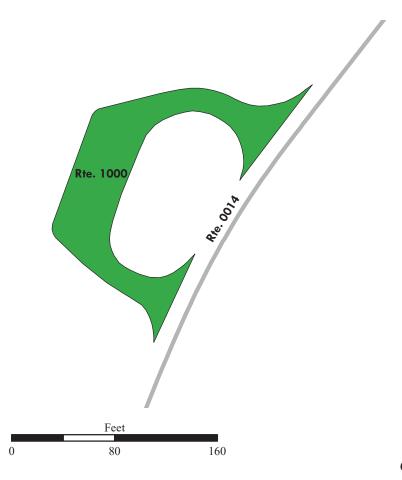
#### TO ROUTE 0014 (CHISOS BASIN ROAD) AT MP 0.21

<b>Inspection Date</b>	FMSS Number	User Access	Surface Type	
2/23/2017	54674	PUBLIC	ASPHALT	
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation	
8,674	0.149	NOT APPLICABLE	DO NOTHING	
Curb Type		Curb & Gutter Type		
NO CURB		CONCRETE		
Pavement Recommendation		Condition R	ating / PCR	
PREVENTIVE I	PREVENTIVE MAINTENANCE		GOOD / 90	
Route Condition Legend – Pavement Condition Rating (PCR)				
Poor (0 - 60)	Fair (61- 84) Good (	(85 - 94) Excellent (95 - 10	0) Not Rated	
See Appendix for definitions and formulas				









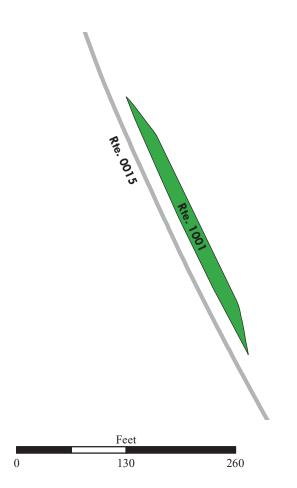
### ROUTE 1001: CHISOS MOUNTAIN INTERPRETIVE PULLOFF

#### Manual Rating

### ADJACENT TO ROUTE 0015 (ROSS MAXWELL SCENIC DRIVE) AT MP 2.00

<b>Inspection Date</b>	FMSS Number	User Access	Surface Type		
2/24/2017	54675	PUBLIC	ASPHALT		
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation		
4,416	0.076	NOT APPLICABLE	NOT APPLICABLE		
Curb Type		Curb & Gutter Type			
NO CURB		NO CURB AND GUTTER			
Pavement Recommendation		Condition R	ating / PCR		
PREVENTIVE N	PREVENTIVE MAINTENANCE		GOOD / 90		
	Route Condition Legend – Pavement Condition Rating (PCR)				
Poor (0 - 60)	Fair (61- 84) Good (	(85 - 94) Excellent (95 - 10	0) Not Rated		
See Appendix for definitions and formulas					





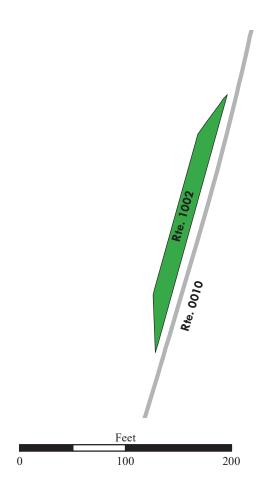
# Big Bend National Park ROUTE 1002: SAM NAIL INTERPRETIVE PULLOFF

#### Manual Rating

### ADJACENT TO ROUTE 0015 (ROSS MAXWELL SCENIC DRIVE) AT MP 3.33

<b>Inspection Date</b>	FMSS Number	User Access	Surface Type	
2/24/2017	54676	PUBLIC	ASPHALT	
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation	
3,019	0.052	NOT APPLICABLE	NOT APPLICABLE	
Curb Type		Curb & Gutter Type		
NO CURB		NO CURB AND GUTTER		
Pavement Recommendation		Condition R	ating / PCR	
PREVENTIVE N	MAINTENANCE	GOOD / 90		
Route Condition Legend – Pavement Condition Rating (PCR)				
Poor (0 - 60)	Fair (61- 84) Good (	(85 - 94) Excellent (95 - 10	0) Not Rated	
See Appendix for definitions and formulas				





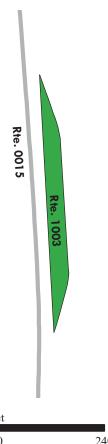
### ROUTE 1003: FINS OF FIRE INTERPRETIVE PULLOFF

#### Manual Rating

#### ADJACENT TO ROUTE 0015 (ROSS MAXWELL SCENIC DRIVE) AT MP 4.15

<b>Inspection Date</b>	FMSS Number	User Access	Surface Type	
2/24/2017	54677	PUBLIC	ASPHALT	
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation	
3,667	0.063	NOT APPLICABLE	NOT APPLICABLE	
Curb Type		Curb & Gutter Type		
NO (	NO CURB		NO CURB AND GUTTER	
Pavement Recommendation Condition Rating / PCR		ating / PCR		
PREVENTIVE I	PREVENTIVE MAINTENANCE		GOOD / 90	
Route Condition Legend – Pavement Condition Rating (PCR)				
Poor (0 - 60)	Fair (61- 84) Good	(85 - 94) Excellent (95 - 10	0) Not Rated	
See Appendix for definitions and formulas				





### ROUTE 1004: THE CAMEL EXPERIMENT INTERPRETIVE PULLOFF

#### Manual Rating

#### ADJACENT TO ROUTE 0011 (NORTH ENTRANCE ROAD) AT MP 22.57

<b>Inspection Date</b>	FMSS Number	User Access	Surface Type		
2/22/2017	54678	PUBLIC	ASPHALT		
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation		
2,664	0.046	NOT APPLICABLE	DO NOTHING		
Curb Type		Curb & Gutter Type			
NO CURB		CONCRETE			
Pavement Recommendation		Condition Rating / PCR			
PREVENTIVE N	PREVENTIVE MAINTENANCE		GOOD / 90		
	Route Condition Legend – Pavement Condition Rating (PCR)				
Poor (0 - 60)	, ,	(85 - 94) Excellent (95 - 10	0) Not Rated		
See Appendix for definitions and formulas					



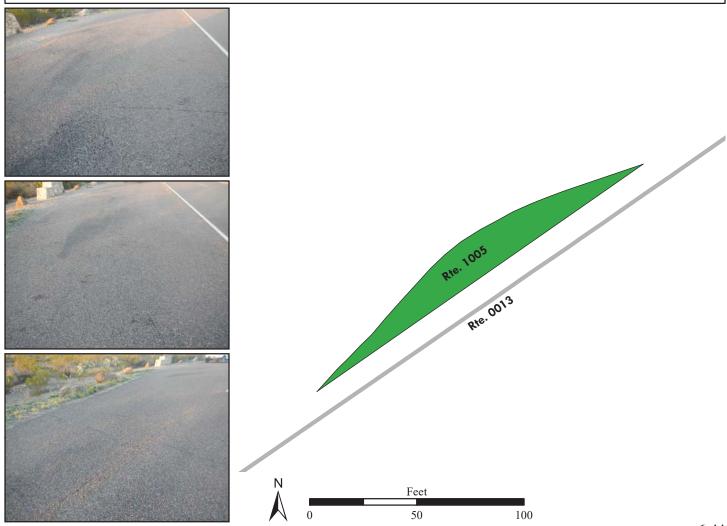


# Big Bend National Park ROUTE 1005: INVISIBLE WILDLIFE INTERPRETIVE PULLOFF

#### Manual Rating

ADJACENT TO ROUTE 0013 (WEST ENTRANCE ROAD) AT MP 6.47

Inspection Date	FMSS Number	User Access	Surface Type	
2/23/2017	54679	PUBLIC	ASPHALT	
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation	
1,756	0.03	NOT APPLICABLE	NOT APPLICABLE	
Curb Type		Curb & Gutter Type		
NO CURB		NO CURB AND GUTTER		
Pavement Recommendation Condition Rating / PCR		ating / PCR		
PREVENTIVE I	PREVENTIVE MAINTENANCE		) / 90	
Route Condition Legend – Pavement Condition Rating (PCR)				
Poor (0 - 60)	Fair (61- 84) Good (	(85 - 94) Excellent (95 - 10	0) Not Rated	
See Appendix for definitions and formulas				



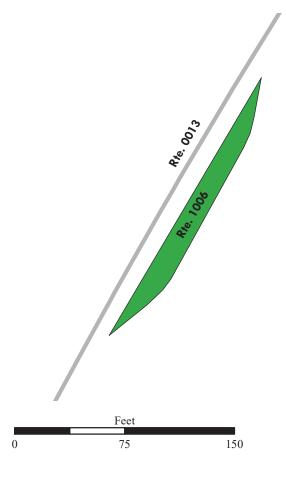
ROUTE 1006: VERTICAL SCENERY PULLOFF

#### Manual Rating

#### ADJACENT TO ROUTE 0013 (WEST ENTRANCE ROAD) AT MP 19.32

<b>Inspection Date</b>	FMSS Number	User Access	Surface Type	
2/24/2017	54680	PUBLIC	ASPHALT	
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation	
2,164	0.037	NOT APPLICABLE	DO NOTHING	
Curb Type		Curb & Gutter Type		
NO CURB		CONCRETE		
Pavement Recommendation		Condition R	ating / PCR	
PREVENTIVE I	PREVENTIVE MAINTENANCE		GOOD / 90	
Route Condition Legend – Pavement Condition Rating (PCR)				
Poor (0 - 60)	• •	ood (85 - 94)		
See Appendix for definitions and formulas				



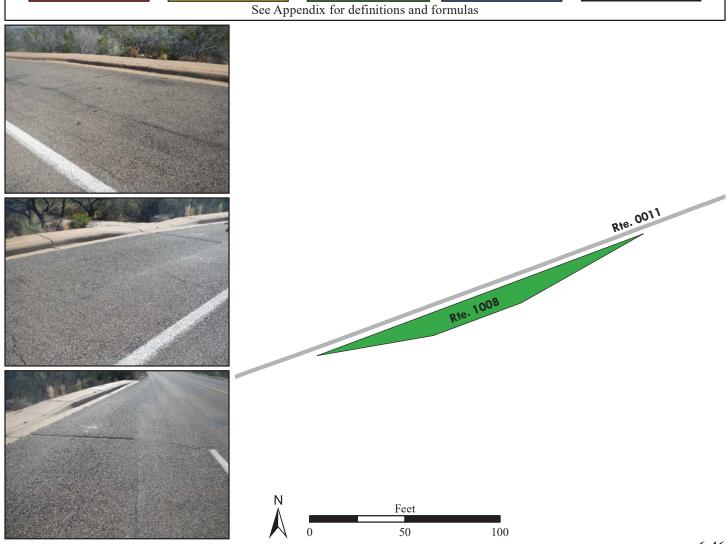


### ROUTE 1008: A DESERT GRAVE INTERPRETIVE PULLOFF

#### Manual Rating

#### ADJACENT TO ROUTE 0011 (NORTH ENTRANCE ROAD) AT MP 3.91

<b>Inspection Date</b>	FMSS Number	User Access	Surface Type
2/22/2017	54682	PUBLIC	ASPHALT
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation
1,164	0.02	NOT APPLICABLE	DO NOTHING
Curb Type		Curb & Gutter Type	
NO CURB		CONCRETE	
Pavement Recommendation		Condition Rating / PCR	
PREVENTIVE MAINTENANCE		GOOD / 90	
	Route Condition Legend - Pav	ement Condition Rating (PCR)	
Poor (0 - 60) Fair (61- 84) Good		d (85 - 94) Excellent (95 - 100) Not Rated	
See Appendix for definitions and formulas			



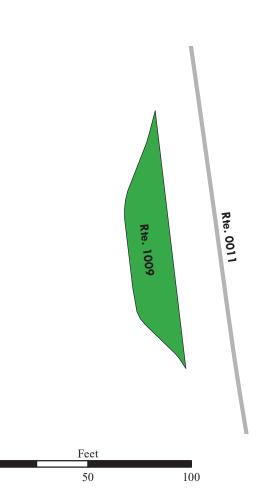
### ROUTE 1009: FLASH FLOOD INTERPRETIVE PULLOFF

#### Manual Rating

### ADJACENT TO ROUTE 0011 (NORTH ENTRANCE ROAD) AT MP 21.00

<b>Inspection Date</b>	FMSS Number	User Access	Surface Type	
2/22/2017	54684	PUBLIC	ASPHALT	
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation	
1,589	0.027	NOT APPLICABLE	DO NOTHING	
Curb Type		Curb & Gutter Type		
NO CURB		CONCRETE		
Pavement Recommendation		Condition Rating / PCR		
PREVENTIVE	PREVENTIVE MAINTENANCE		GOOD / 90	
Route Condition Legend – Pavement Condition Rating (PCR)				
Poor (0 - 60)			0) Not Rated	
See Appendix for definitions and formulas				



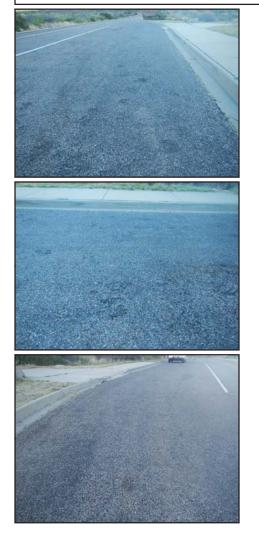


### ROUTE 1013: BEAR & MOUNTAIN LION COUNTRY INTERPRETIVE PULLOFF

#### Manual Rating

#### ADJACENT TO ROUTE 0014 (CHISOS BASIN ROAD) AT MP 2.23

<b>Inspection Date</b>	FMSS Number	User Access	Surface Type		
2/23/2017	54689	PUBLIC	ASPHALT		
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation		
2,064	0.036	NOT APPLICABLE	DO NOTHING		
Curb Type		Curb & Gutter Type			
NO CURB		CONCRETE			
Pavement Recommendation		Condition R	ating / PCR		
PREVENTIVE N	MAINTENANCE	GOOD / 90			
	Route Condition Legend – Pavement Condition Rating (PCR)				
Poor (0 - 60)	, ,	(85 - 94) Excellent (95 - 10	0) Not Rated		
See Appendix for definitions and formulas					





# Big Bend National Park ROUTE 1014: TREE ZONE INTERPRETIVE PULLOFF

#### Manual Rating

#### ADJACENT TO ROUTE 0014 (CHISOS BASIN ROAD) AT MP 4.25

<b>Inspection Date</b>	FMSS Number	User Access	Surface Type	
2/23/2017	54690	PUBLIC	ASPHALT	
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation	
2,509	0.043	NOT APPLICABLE	DO NOTHING	
Curl	Curb Type		Curb & Gutter Type	
NO CURB		CONCRETE		
Pavement Recommendation		Condition R	ating / PCR	
PREVENTIVE I	PREVENTIVE MAINTENANCE		GOOD / 90	
Route Condition Legend – Pavement Condition Rating (PCR)				
Poor (0 - 60)	<u> </u>	(85 - 94) Excellent (95 - 10	0) Not Rated	
See Appendix for definitions and formulas				





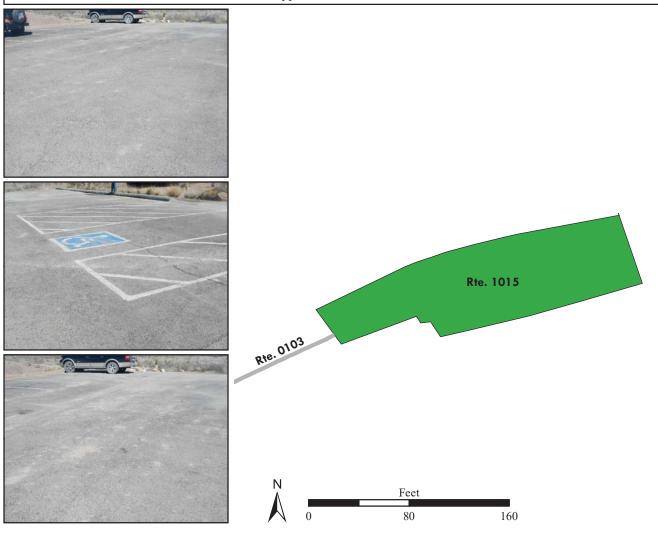
ROUTE 1015: FOSSIL BONE PARKING

#### Manual Rating

## FROM END OF ROUTE 0103 (FOSSIL BONE ROAD)

#### TO PARKING

<b>Inspection Date</b>	FMSS Number	User Access	Surface Type	
2/22/2017	54691	PUBLIC	ASPHALT	
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation	
11,929	0.205	NOT APPLICABLE	DO NOTHING	
Curb Type		Curb & Gutter Type		
NO CURB		CONCRETE		
Pavement Recommendation (		Condition R	ating / PCR	
PREVENTIVE N	PREVENTIVE MAINTENANCE GOOD / 90		<b>)</b> / 90	
Route Condition Legend – Pavement Condition Rating (PCR)				
Poor (0 - 60)	Fair (61- 84) Good (	(85 - 94) Excellent (95 - 10	0) Not Rated	
See Appendix for definitions and formulas				



### ROUTE 1020: PJ SEWAGE TREATMENT PLANT PARKING

#### Manual Rating

### FROM END OF ROUTE 0444 (PJ SEWAGE TREATMENT PLANT ROAD)

#### TO PARKING

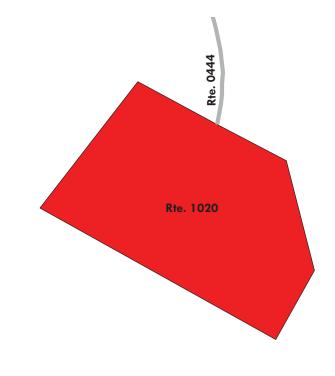
<b>Inspection Date</b>	FMSS Number	User Access	Surface Type
2/23/2017	236705	NONPUBLIC	ASPHALT
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation
1,863	0.032	NOT APPLICABLE	NOT APPLICABLE
Curb Type		Curb & Gutter Type	
NO CURB		NO CURB AND GUTTER	
Pavement Recommendation		Condition Rating / PCR	
HEAVY 3R TREATMENTS		POOR / 53	
Route Condition Legend – Pavement Condition Rating (PCR)			
Page (0 (6)   Fair (61 94)   Cond (95 04)   Evaplent (05 100)   Not Pated			Not Dated

See Appendix for definitions and formulas











ROUTE 1022: CHINO COURT PARKING

#### **Manual Rating**

#### FROM ROUTE 0436 (NOLINA DRIVE) AT MP 0.06

#### TO PARKING

Inspection Date	FMSS Number	User Access	Surface Type
2/24/2017	53090	NONPUBLIC	ASPHALT
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation
9,771	0.168	5	DO NOTHING
Curb Type		Curb & Gutter Type	
CONCRETE AND WOOD		NO CURB AND GUTTER	
Pavement Recommendation		Condition Rating / PCR	
LIGHT 3R TREATMENTS		FAIR / 73	
Route Condition Legend – Pavement Condition Rating (PCR)			

Fair (61- 84) Poor (0 - 60)

Good (85 - 94)

**Excellent (95 - 100)** 

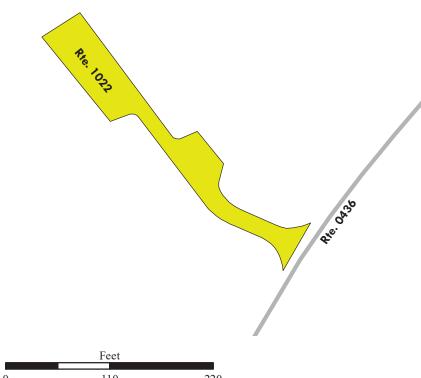
**Not Rated** 

See Appendix for definitions and formulas









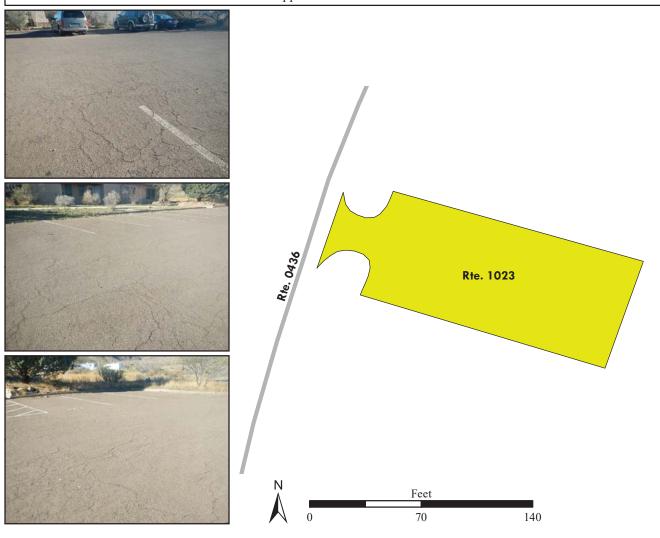
**ROUTE 1023: HOLLY LANE PARKING** 

### Manual Rating

### FROM ROUTE 0436 (NOLINA DRIVE) AT MP 0.14

#### TO PARKING

<b>Inspection Date</b>	FMSS Number	User Access	Surface Type	
2/24/2017	53093	NONPUBLIC	ASPHALT	
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation	
10,580	0.182	NOT APPLICABLE	DO NOTHING	
Curb Type		Curb & Gutter Type		
NO C	NO CURB		CONCRETE	
Pavement Recommendation Condition Rating / PCR		ating / PCR		
LIGHT 3R TI	TREATMENTS FAIR / 73		/ 73	
Route Condition Legend – Pavement Condition Rating (PCR)				
Poor (0 - 60)	Fair (61- 84) Good (	(85 - 94) Excellent (95 - 10	0) Not Rated	
See Appendix for definitions and formulas				



### ROUTE 1024: DESERT WILLOW STREET PARKING

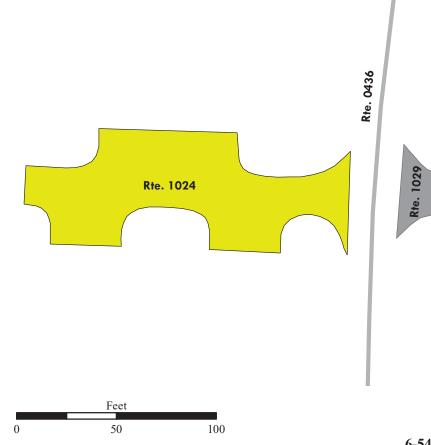
#### **Manual Rating**

#### FROM ROUTE 0436 (NOLINA DRIVE) AT MP 0.21 RIGHT

#### TO PARKING

<b>Inspection Date</b>	FMSS Number	User Access	Surface Type	
2/22/2017	53092	NONPUBLIC	ASPHALT	
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation	
5,466	0.094	NOT APPLICABLE	DO NOTHING	
Curb	Curb Type		Curb & Gutter Type	
NO C	NO CURB		CONCRETE	
Pavement Recommendation		Condition Rating / PCR		
LIGHT 3R TI	LIGHT 3R TREATMENTS		FAIR / 73	
Route Condition Legend – Pavement Condition Rating (PCR)				
Poor (0 - 60)	Fair (61- 84) Good (	(85 - 94) Excellent (95 - 10	0) Not Rated	
See Appendix for definitions and formulas				





### ROUTE 1025: MESQUITE STREET PARKING

#### **Manual Rating**

#### FROM ROUTE 0436 (NOLINA DRIVE) AT MP 0.10

#### TO PARKING

<b>Inspection Date</b>	FMSS Number	User Access	Surface Type
2/24/2017	53097	NONPUBLIC	ASPHALT
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation
3,917	0.067	NOT APPLICABLE	DO NOTHING
Curb Type		Curb & Gutter Type	
NO CURB		CONCRETE	
Pavement Recommendation		Condition Rating / PCR	
PREVENTIVE MAINTENANCE		GOOD / 90	
Pouts Condition Logand Present Condition Pating (PCP)			

**Route Condition Legend – Pavement Condition Rating (PCR)** 

Poor (0 - 60)

Fair (61-84)

Good (85 - 94)

**Excellent (95 - 100)** 

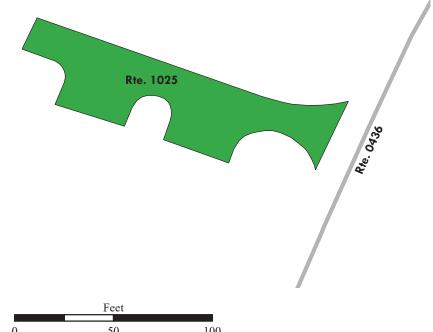
**Not Rated** 

See Appendix for definitions and formulas











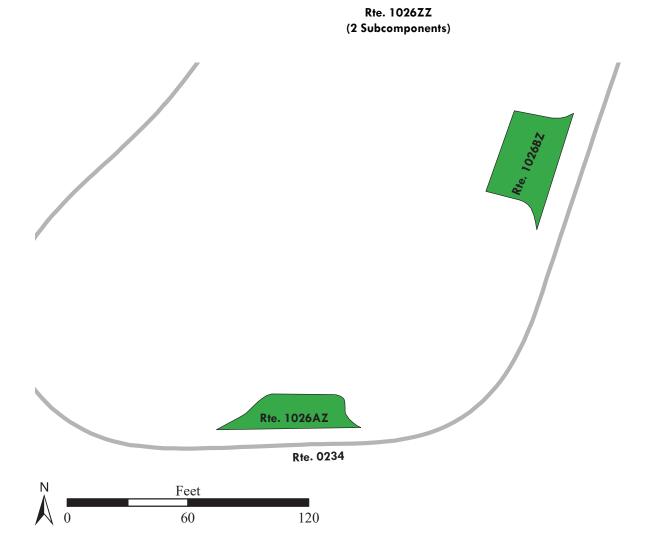
#### **ROUTE 1026ZZ: GROUP CAMPSITE PARKINGS**

Summary Route Manual Rating

ADJACENT TO ROUTE 0234 (BASIN GROUP CAMPGROUND)

<b>Inspection Date</b>	FMSS Number	User Access	Surface Type	
2/23/2017	238380	PUBLIC	ASPHALT	
Area (Sq. Ft.)	Lane Miles (11' Widths)	Condition R	ating / PCR	
1,910	0.033	SUMMA	RY / 90	
Route Condition Legend – Pavement Condition Rating (PCR)				
Poor (0 - 60)	Fair (61- 84) Good (	(85 - 94) Excellent (95 - 10	0) Not Rated	
See Appendix for definitions and formulas				

The condition shown on this page reflects the overall route condition and may not reflect individual subcomponent ratings.



#### ROUTE 1026AZ: GROUP CAMPSITE PARKING A

Subcomponent of Route BIBE-1026ZZ Manual Rating

ADJACENT TO ROUTE 0234 (BASIN GROUP CAMPGROUND)

<b>Inspection Date</b>	FMSS Number	User Access	Surface Type
2/23/2017	238380	PUBLIC	ASPHALT
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation
756	0.013	NOT APPLICABLE	NOT APPLICABLE
Curb Type		Curb & Gutter Type	
NO C	NO CURB AND GUTTER		ND GUTTER
Pavement Recommendation		Condition Rating / PCR	
PREVENTIVE MAINTENANCE		GOOD / 90	

Route Condition Legend – Pavement Condition Rating (PCR)

Poor (0 - 60)

Fair (61- 84)

Good (85 - 94)

**Excellent (95 - 100)** 

Not Rated

See Appendix for definitions and formulas









Rte. 0234



#### ROUTE 1026BZ: GROUP CAMPSITE PARKING B

Subcomponent of Route BIBE-1026ZZ Manual Rating

ADJACENT TO ROUTE 0234 (BASIN GROUP CAMPGROUND)

Inspection Date	FMSS Number	User Access	Surface Type
2/23/2017	238380	PUBLIC	ASPHALT
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation
1,154	0.02	NOT APPLICABLE	NOT APPLICABLE
Curb Type		Curb & Gutter Type	
NO CURB		NO CURB AND GUTTER	
Pavement Recommendation		Condition Rating / PCR	
PREVENTIVE MAINTENANCE		GOOD / 90	
Route Condition Legend – Pavement Condition Rating (PCR)			

Poor (0 - 60)

Fair (61- 84)

Good (85 - 94)

**Excellent (95 - 100)** 

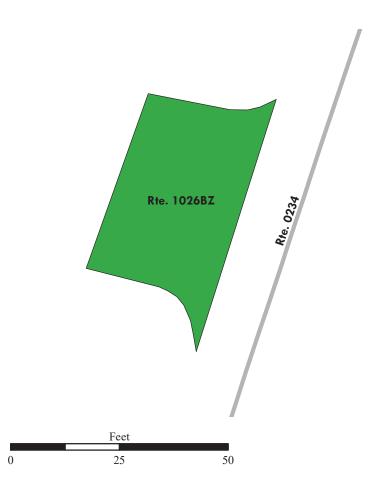
Not Rated

See Appendix for definitions and formulas









# **Big Bend National Park**

### ROUTE 1028: BASIN RESIDENCE PARKING

#### **Manual Rating**

#### FROM END OF ROUTE 0206 (LOWER BASIN CAMPGROUND ROAD) ON LEFT

#### TO PARKING

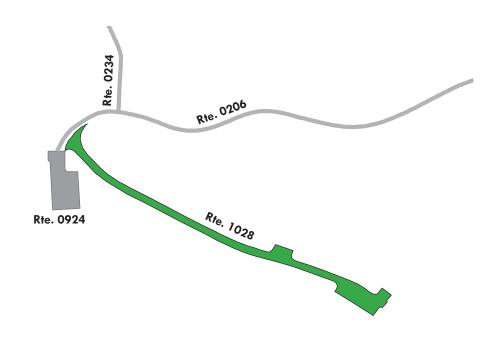
Inspection Date	FMSS Number	User Access	Surface Type	
2/23/2017	54547	PUBLIC	ASPHALT	
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation	
16,988	0.292	NOT APPLICABLE	DO NOTHING	
Curb	Туре	Curb & Gutter Type		
NO C	CURB	CONCRETE		
Pavement Rec	commendation	Condition R	ating / PCR	
PREVENTIVE N	MAINTENANCE	GOOI	) / 90	
	Route Condition Legend - Pav	ement Condition Rating (PCR)		
Poor (0 - 60)	Fair (61- 84) Good (	(85 - 94) Excellent (95 - 10	0) Not Rated	

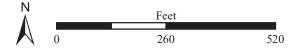
See Appendix for definitions and formulas











# **Big Bend National Park**

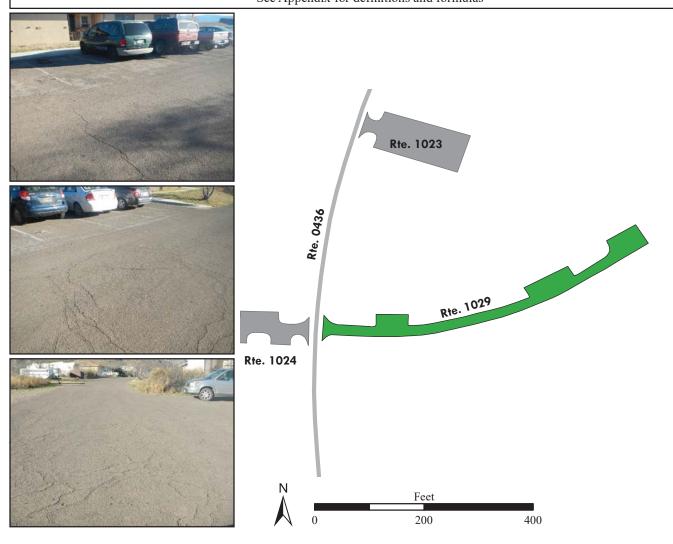
ROUTE 1029: PAISANO PLACE PARKING

#### Manual Rating

### FROM ROUTE 0436 (NOLINA DRIVE) AT MP 0.21 ON LEFT

#### TO PARKING

<b>Inspection Date</b>	FMSS Number	User Access	Surface Type	
2/24/2017	53100	PUBLIC	ASPHALT	
Area (Sq. Ft.)	Lane Miles (11' Widths)	Curb Reveal (Inches)	Curb Recommendation	
14,229	0.245	NOT APPLICABLE	DO NOTHING	
Curb	Туре	Curb & Gutter Type		
NO C	CURB	CONCRETE		
Pavement Rec	commendation	Condition R	ating / PCR	
PREVENTIVE N	MAINTENANCE	GOOD / 90		
	Route Condition Legend - Pav	ement Condition Rating (PCR)		
Poor (0 - 60)	<u> </u>	(85 - 94) Excellent (95 - 10	0) Not Rated	
	See Appendix for def	finitions and formulas		



# Section 7 Road Milepost Information



**Big Bend National Park** 



### **Road Milepost Information**

This report section contains road milepost information for all paved roads in the park that were collected with the Data Collection Vehicle (DCV). The milepost data is obtained from the DCV by using a distance measuring instrument (DMI) that is calibrated to record mileage to the nearest thousandth of a mile. Park roads that were manually rated did not have milepost data collected, and thus are not included in this report section.

For Cycle 6, the information presented in this section differs from previous RIP cycles in that it does not contain the roadside features inventories for the paved park roads. Some examples of the features previously collected are signs, culverts/drop inlets, guardrails, curbing, pullouts, etc. If the park was collected in a previous RIP cycle, then the latest features data can be obtained by referencing the following:

#### **Where to find the latest Features Inventories for NPS Parks:**

- For Small Parks (parks with less than 10 miles of paved roads):
  - o Refer to Cycle 5 data (collected 2010 2014)
    - Features were reported in Section 9 of the *Cycle 5* RIP report
    - Video of features can be viewed using the PathViewVO program and Cycle 5 data
- For Large Parks (parks with more than 10 miles of paved roads):
  - o Refer to Cycle 4 data (collected 2006 2009)
    - Features were reported in Section 9 of the *Cycle 4* RIP report
    - Video of features can be viewed using the VisiData program and Cycle 4 data
  - O Note: Features inventories were updated in Large Parks in *Cycle 5* only on a route by route basis if the route was new or modified in *Cycle 5*. If this is the case for a particular route, then features for the route can be obtained using the *PathViewVO* program and *Cycle 5* data (same as above for Small parks).

#### Milepost Events Verified in Cycle 6

In Cycle 6, the following events were collected and reported in Section 7 of this report:

- Intersections with roads and parking areas
- All bridges and culverts with BIP Numbers (bridge inspection program numbers)
- Mile Marker Signs
- One-Way travel directions
- Overpasses
- Tunnels
- Low Water Crossings (LWCR)
- Surface type changes
- Construction areas where no pavement condition data was obtained

#### **GPS Mileage Matching**

A consistent survey milepost and constant route length as recorded by the Data Collection Vehicle (DCV) is a challenge to maintain from one collection cycle to the next. The challenge is due to many factors such as driver characteristics, DMI calibration, tire pressure etc. After Cycle 4 (~2010), a decision was made to hold constant the length of roads so long as there was no physical change from reconstruction projects or realignments that would result in a change to the length of a road. Consequently, the "GPS Mileage Match" was implemented to specify which cycle the route length is being matched. Route mileages and GPS are matched to a previous collection whenever there is no physical change to a route alignment. The route mileage and GPS is not matched to previous cycles whenever it is determined that a road length and GPS needs to be updated. When this happens the GPS and length is updated to the cycle that displays the change, and that collection cycle is used as the matching cycle in subsequent collections of the road. Thus, the Cycle 6 GIS could be either the survey length collected in Cycle 4, Cycle 5, or Cycle 6 and therefore, may not match the survey milepost displayed in the latest Cycle 6 DCV video which is viewable in *PathView VO*.

The features inventories and road logs collected on NPS routes contain mileposts that are determined from the corresponding cycle that the GPS is matched to. Therefore, the mileposts contained in the Cycle 4 or 5 features inventories or the Cycle 6 road logs may not exactly match the survey milepost collected in the latest Cycle 6 video of the road.

#### **Locating Mile Marker Signs**

For routes that have mile marker signs along them, the milepost reported by RIP will most likely not line up exactly with the sign located in the field. This could be happening for many reasons, most likely due to either the error falling within the acceptable calibration range of the vehicle, or the level of accuracy that the mile marker signs were placed in the field.

Because mile marker signs are important features in many project plans and location descriptions, RIP is reporting locations of mile marker signs in three ways in Cycle 6:

- 1. Mileposts from Cycle 6 GIS: the official RIP milepost taken from the features inventories and the matching GPS/mileage cycle as described above. This is the milepost that should be used on project plans and when finding locations in the field
- 2. Mileposts from Cycle 6 Video: milepost shown to help locate the mile marker sign in the latest *PathView VO* video.
- 3. Latitude / Longitude: a constant way of locating a mile marker sign so long as the park has not moved the sign

The mileposts from Cycle 6 Video and GIS should be nearly the same, but on longer roads it has been observed that the Video milepost deviates more from the official GIS milepost that comes from the matching cycle.

### **ROUTE 0011: NORTH ENTRANCE ROAD**

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.00	0.00	INTERSECTION	R	ROUTE 0012 (RIO GRANDE ROAD)
0.00	0.00	INTERSECTION	L	ROUTE 0013 (WEST ENTRANCE ROAD)
0.00	0.00	INTERSECTION	N/A	ROUTE 0900 (VISITOR PARKING LOT - HQ BUILDING #310)
0.99	0.99	MILE MARKER	L	MILE MARKER 1
1.05	1.05	INTERSECTION	L	ROUTE 0448 (LONE MOUNTAIN ROAD)
1.97	1.97	MILE MARKER	L	MILE MARKER 2
2.95	2.95	MILE MARKER	L	MILE MARKER 3
3.91	3.91	INTERSECTION	R	ROUTE 1008 (A DESERT GRAVE INTERPRETIVE PULLOFF)
3.93	3.93	MILE MARKER	L	MILE MARKER 4
4.75	4.75	INTERSECTION	R	ROUTE 0200 (HANNOLD DRAW ROAD)
4.91	4.91	MILE MARKER	L	MILE MARKER 5
5.87	5.87	MILE MARKER	L	MILE MARKER 6
6.85	6.85	MILE MARKER	L	MILE MARKER 7
7.70	7.70	INTERSECTION	L	ROUTE 0451 (TORNILLO CREEK SERVICE ROAD)
7.78	7.78	MILE MARKER	L	MILE MARKER 8
7.81	7.99	BRIDGE	N/A	7130-002 (UPPER TORNILLO CREEK BRIDGE)
8.09	8.09	INTERSECTION	R	ROUTE 0103 (FOSSIL BONE ROAD)
8.80	8.80	MILE MARKER	L	MILE MARKER 9
9.08	9.08	CULVERT	N/A	7130-007 (STAR CREEK CULVERT)
9.58	9.58	CULVERT	N/A	7130-008 (NORTH ENTRANCE ROAD CULVERT #1)
9.77	9.77	MILE MARKER	L	MILE MARKER 10
10.75	10.75	MILE MARKER	L	MILE MARKER 11
10.86	10.86	CULVERT	N/A	7130-009 (NORTH ENTRANCE ROAD CULVERT #2)
11.73	11.73	MILE MARKER	L	MILE MARKER 12
11.73	11.73	CULVERT	N/A	7130-010 (NORTH ENTRANCE ROAD CULVERT #3)
12.49	12.49	INTERSECTION	L	ROUTE 0401 (ROSILLOS RANCH ROAD)
12.68	12.68	INTERSECTION	R	ROUTE 0101 (DAGGER FLAT ROAD)
12.70	12.70	MILE MARKER	L	MILE MARKER 13
13.68	13.68	MILE MARKER	L	MILE MARKER 14

### **ROUTE 0011: NORTH ENTRANCE ROAD**

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
13.88	13.88	CULVERT	N/A	7130-011 (NORTH ENTRANCE ROAD CULVERT #4)
14.63	14.63	MILE MARKER	L	MILE MARKER 15
15.26	15.26	CULVERT	N/A	7130-012 (NORTH ENTRANCE ROAD CULVERT #5)
15.64	15.64	MILE MARKER	L	MILE MARKER 16
16.62	16.62	MILE MARKER	L	MILE MARKER 17
17.58	17.58	MILE MARKER	L	MILE MARKER 18
18.51	18.51	MILE MARKER	L	MILE MARKER 19
19.51	19.51	MILE MARKER	L	MILE MARKER 20
20.59	20.59	MILE MARKER	L	MILE MARKER 21
20.97	20.99	BRIDGE	N/A	7130-001 (NINE POINT DRAW BRIDGE)
21.46	21.46	MILE MARKER	L	MILE MARKER 22
21.61	21.61	INTERSECTION	R	ROUTE 0239 (NINE POINT DRAW ROAD)
21.89	21.89	INTERSECTION	L	ROUTE 0100 (TERLINGUA RANCH ROAD)
22.20	22.23	BRIDGE	N/A	7130-003 (BONE SPRING DRAW BRIDGE)
22.44	22.44	MILE MARKER	L	MILE MARKER 23
22.57	22.57	INTERSECTION	R	ROUTE 1004 (THE CAMEL EXPERIMENT INTERPRETIVE PULLOFF)
23.42	23.42	MILE MARKER	L	MILE MARKER 24
24.38	24.38	MILE MARKER	L	MILE MARKER 25
25.36	25.36	MILE MARKER	L	MILE MARKER 26
25.86	25.86	INTERSECTION	L	ROUTE 0400 (PERSIMMON GAP RANCH ROAD)
25.93	25.93	INTERSECTION	L	ROUTE 0402 (PERSIMMON GAP RESIDENTIAL ROAD)
25.95	25.95	INTERSECTION	L	ROUTE 0901 (PERSIMMON GAP VISITOR CENTER PARKING)
26.01	26.01	INTERSECTION	L	ROUTE 0901 (PERSIMMON GAP VISITOR CENTER PARKING)
26.37	26.37	MILE MARKER	L	MILE MARKER 27
27.46	27.46	PARK BOUNDARY	N/A	N/A

### **ROUTE 0012: RIO GRANDE ROAD**

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.00	0.00	INTERSECTION	R	ROUTE 0900 (VISITOR PARKING LOT - HQ BUILDING #310)
0.00	0.00	INTERSECTION	L	ROUTE 0013 (WEST ENTRANCE ROAD)
0.00	0.00	INTERSECTION	N/A	ROUTE 0011 (NORTH ENTRANCE ROAD)
0.07	0.07	INTERSECTION	R	ROUTE 0428 (ALSATE AVENUE)
0.27	0.27	INTERSECTION	L	ROUTE 0444 (PJ SEWAGE TREATMENT PLANT ROAD)
1.00	1.00	MILE MARKER	R	MILE MARKER 1
1.89	1.89	INTERSECTION	L	ROUTE 0404 (K-BAR RANCH ROAD)
1.97	1.97	MILE MARKER	R	MILE MARKER 2
2.96	2.96	MILE MARKER	R	MILE MARKER 3
3.92	3.92	MILE MARKER	R	MILE MARKER 4
4.94	4.94	MILE MARKER	R	MILE MARKER 5
4.98	4.98	INTERSECTION	R	ROUTE 0449 (NUGENT MOUNTAIN GRAVEL PIT ROAD)
5.38	5.38	INTERSECTION	R	ROUTE 0104 (GLENN SPRINGS ROAD)
5.88	5.88	MILE MARKER	R	MILE MARKER 6
5.94	5.94	INTERSECTION	R	ROUTE 1007 (CHIHUAHUAN DESERT INTERPRETIVE PULLOFF)
6.38	6.38	INTERSECTION	L	ROUTE 0105 (DUG OUT WELLS ROAD)
6.86	6.86	MILE MARKER	R	MILE MARKER 7
7.84	7.84	MILE MARKER	R	MILE MARKER 8
8.81	8.81	MILE MARKER	R	MILE MARKER 9
9.79	9.79	MILE MARKER	R	MILE MARKER 10
10.77	10.77	MILE MARKER	R	MILE MARKER 11
11.74	11.74	MILE MARKER	R	MILE MARKER 12
12.71	12.71	MILE MARKER	R	MILE MARKER 13
13.68	13.68	MILE MARKER	R	MILE MARKER 14
14.66	14.66	MILE MARKER	R	MILE MARKER 15
15.58	15.58	MILE MARKER	R	MILE MARKER 16
15.63	15.63	INTERSECTION	R	ROUTE 0106 (RIVER ROAD)
16.01	16.22	BRIDGE	N/A	7130-004 (TORNILLO CREEK BRIDGE)
16.62	16.62	MILE MARKER	R	MILE MARKER 17

### **ROUTE 0012: RIO GRANDE ROAD**

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
16.81	16.81	INTERSECTION	R	ROUTE 0107 (HOT SPRINGS ROAD)
17.59	17.59	MILE MARKER	R	MILE MARKER 18
17.87	17.87	INTERSECTION	L	ROUTE 0102 (OLD ORE ROAD)
18.52	18.58	TUNNEL	N/A	7130-005 (RIO GRANDE OVERLOOK TUNNEL)
18.62	18.62	INTERSECTION	R	ROUTE 0902 (RIO GRANDE OVERLOOK PARKING)
18.66	18.66	MILE MARKER	R	MILE MARKER 19
19.30	19.30	INTERSECTION	L	ROUTE 0109 (BOQUILLAS CANYON ROAD)
19.70	19.70	MILE MARKER	R	MILE MARKER 20
19.72	19.72	INTERSECTION	L	ROUTE 0405AZ (HUISACHE DRIVE A)
20.12	20.12	INTERSECTION	R	ROUTE 0906 (RIO GRANDE VISITOR CENTER PARKING)
20.22	20.22	INTERSECTION	R	ROUTE 0906 (RIO GRANDE VISITOR CENTER PARKING)
20.31	20.31	INTERSECTION	L	ROUTE 0201 (RIO GRANDE VILLAGE ROAD)
20.31	20.31	INTERSECTION	R	ROUTE 0201 (RIO GRANDE VILLAGE ROAD)
20.31	20.31	INTERSECTION	N/A	ROUTE 0909 (RIO GRANDE STORE PARKING)

### **ROUTE 0013: WEST ENTRANCE ROAD**

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.00	0.00	INTERSECTION	L	ROUTE 0900 (VISITOR PARKING LOT - HQ BUILDING #310)
0.00	0.00	INTERSECTION	R	ROUTE 0011 (NORTH ENTRANCE ROAD)
0.00	0.00	INTERSECTION	N/A	ROUTE 0012 (RIO GRANDE ROAD)
0.06	0.06	INTERSECTION	L	ROUTE 0900 (VISITOR PARKING LOT - HQ BUILDING #310)
0.18	0.18	INTERSECTION	L	ROUTE 0912 (PANTHER JUNCTION GAS STATION PARKING LOT)
0.21	0.21	INTERSECTION	L	ROUTE 0912 (PANTHER JUNCTION GAS STATION PARKING LOT)
1.01	1.01	MILE MARKER	L	MILE MARKER 1
1.90	1.90	INTERSECTION	L	UNPAVED ROAD (SERVICE ROAD)
2.02	2.02	MILE MARKER	L	MILE MARKER 2
2.99	2.99	MILE MARKER	L	MILE MARKER 3
3.18	3.18	INTERSECTION	L	ROUTE 0014 (CHISOS BASIN ROAD)
3.49	3.49	INTERSECTION	R	ROUTE 0111 (GRAPEVINE HILLS ROAD)
4.00	4.00	MILE MARKER	L	MILE MARKER 4
4.96	4.96	MILE MARKER	L	MILE MARKER 5
5.90	5.90	MILE MARKER	L	MILE MARKER 6
6.07	6.07	INTERSECTION	R	ROUTE 0207 (PAINT GAP ROAD)
6.47	6.47	INTERSECTION	R	ROUTE 1005 (INVISIBLE WILDLIFE INTERPRETIVE PULLOFF)
6.87	6.87	MILE MARKER	L	MILE MARKER 7
7.84	7.84	MILE MARKER	L	MILE MARKER 8
8.77	8.77	MILE MARKER	L	MILE MARKER 9
9.66	9.66	INTERSECTION	R	ROUTE 0208 (CROTON SPRING ROAD)
9.84	9.84	MILE MARKER	L	MILE MARKER 10
10.68	10.68	CULVERT	N/A	7130-013 (ASH CREEK CULVERT)
10.70	10.70	MILE MARKER	L	MILE MARKER 11
11.27	11.31	BRIDGE	N/A	7130-014 (OAK CREEK WASH BRIDGE)
11.66	11.66	MILE MARKER	L	MILE MARKER 12
12.68	12.68	MILE MARKER	L	MILE MARKER 13
12.71	12.71	INTERSECTION	L	ROUTE 0015 (ROSS MAXWELL SCENIC DRIVE)

### **ROUTE 0013: WEST ENTRANCE ROAD**

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
13.03	13.03	CULVERT	N/A	7130-015 (COTTONWOOD CREEK CULVERT)
13.57	13.57	MILE MARKER	L	MILE MARKER 14
14.54	14.54	MILE MARKER	L	MILE MARKER 15
15.49	15.49	MILE MARKER	L	MILE MARKER 16
16.50	16.50	MILE MARKER	L	MILE MARKER 17
17.40	17.40	MILE MARKER	L	MILE MARKER 18
18.35	18.35	MILE MARKER	L	MILE MARKER 19
19.35	19.35	MILE MARKER	L	MILE MARKER 20
20.28	20.28	MILE MARKER	L	MILE MARKER 21
20.69	20.69	INTERSECTION	R	ROUTE 0913 (BADLANDS PARKING AREA)
20.74	20.74	INTERSECTION	R	ROUTE 0913 (BADLANDS PARKING AREA)
20.79	20.79	INTERSECTION	L	ROUTE 0115 (OLD MAVERICK ROAD)
20.81	20.81	INTERSECTION	L	ROUTE 0914 (MAVERICK INFORMATION KIOSK PARKING)
20.88	20.88	INTERSECTION	L	ROUTE 0915 (WEST ENTRANCE CONTACT STATION PARKING)
21.26	21.26	MILE MARKER	L	MILE MARKER 22
21.91	21.91	INTERSECTION	N/A	STATE HIGHWAY 118
21.91	21.91	PARK BOUNDARY	N/A	N/A

### **ROUTE 0014: CHISOS BASIN ROAD**

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.00	0.00	INTERSECTION	R	ROUTE 0013 (WEST ENTRANCE ROAD)
0.00	0.00	INTERSECTION	L	ROUTE 0013 (WEST ENTRANCE ROAD)
0.16	0.16	INTERSECTION	R	ROUTE 1000 (ANIMAL HIGHWAYS INTERPRETIVE PULLOFF)
0.19	0.19	INTERSECTION	R	ROUTE 1000 (ANIMAL HIGHWAYS INTERPRETIVE PULLOFF)
1.03	1.03	MILE MARKER	L	MILE MARKER 1
2.05	2.05	MILE MARKER	L	MILE MARKER 2
3.06	3.06	MILE MARKER	L	MILE MARKER 3
3.34	3.34	INTERSECTION	R	ROUTE 0445 (MAPLE CANYON ROAD)
4.08	4.08	MILE MARKER	L	MILE MARKER 4
4.66	4.66	CULVERT	N/A	7130-016 (GREEN GULCH CULVERT)
5.08	5.08	MILE MARKER	L	MILE MARKER 5
5.17	5.17	INTERSECTION	L	ROUTE 0917 (LOST MINE TRAIL PARKING)
6.07	6.07	MILE MARKER	L	MILE MARKER 6
6.17	6.17	INTERSECTION	R	ROUTE 0206 (LOWER BASIN CAMPGROUND ROAD)
6.33	6.33	INTERSECTION	R	ROUTE 0918 (BASIN RANGER STATION PARKING)
6.34	6.34	INTERSECTION	N/A	ROUTE 0919 (BASIN VISITORS CENTER PARKING)

### **ROUTE 0015: ROSS MAXWELL SCENIC DRIVE**

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.00	0.00	INTERSECTION	R	ROUTE 0013 (WEST ENTRANCE ROAD)
0.00	0.00	INTERSECTION	L	ROUTE 0013 (WEST ENTRANCE ROAD)
0.46	0.51	LOW WATER CROSSING	N/A	HIGH WATER FLOW AREA
1.02	1.02	MILE MARKER	L	MILE MARKER 1
2.00	2.00	INTERSECTION	L	ROUTE 1001 (CHISOS MOUNTAIN INTERPRETIVE PULLOFF)
2.02	2.02	MILE MARKER	L	MILE MARKER 2
3.00	3.00	INTERSECTION	R	ROUTE 1002 (SAM NAIL INTERPRETIVE PULLOFF)
3.02	3.02	MILE MARKER	L	MILE MARKER 3
3.31	3.31	INTERSECTION	L	ROUTE 0419 (OAK SPRINGS ROAD)
3.61	3.65	LOW WATER CROSSING	N/A	HIGH WATER FLOW AREA
4.00	4.00	MILE MARKER	L	MILE MARKER 4
4.14	4.14	INTERSECTION	L	ROUTE 1003 (FINS ON FIRE INTERPRETIVE PULLOFF)
4.59	4.64	LOW WATER CROSSING	N/A	HIGH WATER FLOW AREA
5.00	5.00	MILE MARKER	L	MILE MARKER 5
6.00	6.00	MILE MARKER	L	MILE MARKER 6
7.01	7.01	MILE MARKER	L	MILE MARKER 7
8.00	8.00	MILE MARKER	L	MILE MARKER 8
8.11	8.11	INTERSECTION	L	ROUTE 0925 (BLUE CREEK OVERLOOK PARKING)
8.33	8.33	INTERSECTION	L	ROUTE 0112 (SOTOL VISTA OVERLOOK ROAD)
8.99	8.99	MILE MARKER	L	MILE MARKER 9
9.97	9.97	MILE MARKER	L	MILE MARKER 10
10.98	10.98	MILE MARKER	L	MILE MARKER 11
11.57	11.57	INTERSECTION	R	ROUTE 0113 (BURRO MESA POUROFF ROAD)
11.93	11.93	MILE MARKER	L	MILE MARKER 12
12.75	12.75	INTERSECTION	R	ROUTE 0928 (CHIMNEY TRAILS PARKING)
12.97	12.97	MILE MARKER	L	MILE MARKER 13
13.73	13.75	LOW WATER CROSSING	N/A	HIGH WATER FLOW AREA

### **ROUTE 0015: ROSS MAXWELL SCENIC DRIVE**

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
13.99	13.99	MILE MARKER	L	MILE MARKER 14
14.60	14.63	LOW WATER CROSSING	N/A	HIGH WATER FLOW AREA
14.82	14.82	INTERSECTION	L	ROUTE 0929 (GOAT MOUNTAIN PARKING)
14.94	14.94	MILE MARKER	L	MILE MARKER 15
15.46	15.46	INTERSECTION	L	ROUTE 0114 (MULE EARS OVERLOOK ROAD)
15.97	15.97	MILE MARKER	L	MILE MARKER 16
16.96	16.96	MILE MARKER	L	MILE MARKER 17
17.37	17.46	LOW WATER CROSSING	N/A	HIGH WATER FLOW AREA
17.97	17.97	MILE MARKER	L	MILE MARKER 18
18.13	18.14	LOW WATER CROSSING	N/A	HIGH WATER FLOW AREA
18.95	18.95	MILE MARKER	L	MILE MARKER 19
19.84	19.84	INTERSECTION	R	ROUTE 0931 (TUFF CANYON OVERLOOK PARKING)
19.91	19.91	MILE MARKER	L	MILE MARKER 20
20.15	20.15	INTERSECTION	L	ROUTE 0106 (RIVER ROAD)
20.94	20.94	MILE MARKER	L	MILE MARKER 21
21.17	21.19	LOW WATER CROSSING	N/A	HIGH WATER FLOW AREA
21.30	21.31	LOW WATER CROSSING	N/A	HIGH WATER FLOW AREA
21.87	21.87	INTERSECTION	R	ROUTE 0426 (MESA DRIVE)
21.92	21.92	MILE MARKER	L	MILE MARKER 22
22.50	22.50	INTERSECTION	L	ROUTE 0209 (CALVARY ROAD (CASTOLON VISITOR CENTER)
22.68	22.68	INTERSECTION	L	ROUTE 0210 (SANTA ELENA CROSSING)
22.92	22.92	MILE MARKER	L	MILE MARKER 23
23.17	23.17	INTERSECTION	R	ROUTE 0422 (BLUE CREEK DRIVE)
23.17	23.17	INTERSECTION	L	ROUTE 0211 (COTTONWOOD CAMPGROUND)
23.22	23.22	INTERSECTION	L	ROUTE 0423 (BLUE CREEK GRAVEL PIT ROAD)
23.24	23.24	MILE MARKER	L	MILE MARKER 0
23.25	23.25	INTERSECTION	N/A	ROUTE 0016 (SANTA ELENA CANYON ROAD)

### **ROUTE 0016: SANTA ELENA CANYON ROAD**

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.00	0.00	INTERSECTION	N/A	ROUTE 0015 (ROSS MAXWELL SCENIC DRIVE)
0.04	0.04	INTERSECTION	L	ROUTE 0423 (BLUE CREEK GRAVEL PIT ROAD)
0.26	0.29	LOW WATER CROSSING	N/A	HIGH WATER FLOW AREA
0.32	0.32	INTERSECTION	R	SERVICE ROAD (UNPAVED)
1.00	1.00	MILE MARKER	L	MILE MARKER 1
1.09	1.09	INTERSECTION	R	ROUTE 0933 (DESERT MOUNTAIN OVERLOOK PARKING)
1.72	1.80	LOW WATER CROSSING	N/A	HIGH WATER FLOW AREA
1.96	1.96	MILE MARKER	L	MILE MARKER 2
2.63	2.65	BRIDGE	N/A	7130-006 (CASTOLON WASH BRIDGE)
2.98	2.98	MILE MARKER	L	MILE MARKER 3
3.96	3.96	MILE MARKER	L	MILE MARKER 4
4.50	4.50	INTERSECTION	R	DORGAN SUBLETT TRAIL PULLOFF
4.99	4.99	MILE MARKER	L	MILE MARKER 5
5.72	5.72	INTERSECTION	L	ROUTE 0934 (SANTA ELENA CANYON RIVER ACCESS PARKING)
5.96	5.96	MILE MARKER	L	MILE MARKER 6
6.82	6.82	INTERSECTION	L	ROUTE 0935 (SANTA ELENA CANYON OVERLOOK PARKING)
6.99	6.99	MILE MARKER	L	MILE MARKER 7
6.99	6.99	INTERSECTION	R	ROUTE 0115 (OLD MAVERICK ROAD)
7.54	7.54	INTERSECTION	L	ROUTE 0016 (SANTA ELENA CANYON ROAD)
7.54	7.54	ONE-WAY START	N/A	N/A
7.62	7.62	INTERSECTION	R	ROUTE 0936 (SANTA ELENA CANYON PICNIC AREA)
7.70	7.70	INTERSECTION	L	ROUTE 0016 (SANTA ELENA CANYON ROAD)
7.70	7.70	INTERSECTION	R	ROUTE 0016 (SANTA ELENA CANYON ROAD)
7.70	7.70	ONE-WAY END	N/A	N/A

### **ROUTE 0103: FOSSIL BONE ROAD**

Road logs are verified in Cycle 6 and mileposts for this route are matched to GPS collected in Cycle 5.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.00	0.00	INTERSECTION	R	ROUTE 0011 (NORTH ENTRANCE ROAD)
0.00	0.00	INTERSECTION	L	ROUTE 0011 (NORTH ENTRANCE ROAD)
0.23	0.23	INTERSECTION	N/A	ROUTE 1015 (FOSSIL BONE PARKING)

### **ROUTE 0109: BOQUILLAS CANYON ROAD**

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.00	0.00	INTERSECTION	R	ROUTE 0012 (RIO GRANDE ROAD)
0.00	0.00	INTERSECTION	L	ROUTE 0012 (RIO GRANDE ROAD)
0.04	0.04	INTERSECTION	L	ROUTE 0412 (RIO GRANDE VILLAGE DUMP)
1.39	1.39	INTERSECTION	R	ROUTE 0202 (BOQUILLAS CROSSING)
1.64	1.64	INTERSECTION	R	RESEARCH STATION ROAD (PAVED)
2.40	2.40	INTERSECTION	R	ROUTE 1012 (BOQUILLAS MEXICO INTERPRETIVE PULLOFF)
2.71	2.71	INTERSECTION	R	ROUTE 0110 (BOQUILLAS CANYON OVERLOOK ROAD)
3.45	3.45	INTERSECTION	R	ROUTE 1010 (MOVE A MOUNTAIN INTERPRETIVE PULLOFF)
3.61	3.61	INTERSECTION	N/A	ROUTE 0905 (BOQUILLAS CANYON TRAIL PARKING)

### ROUTE 0110: BOQUILLAS CANYON OVERLOOK ROAD

Road logs are verified in Cycle 6 and mileposts for this route are matched to GPS collected in Cycle 4.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.00	0.00	INTERSECTION	L	ROUTE 0109 (BOQUILLAS CANYON ROAD)
0.00	0.00	INTERSECTION	R	ROUTE 0109 (BOQUILLAS CANYON ROAD)
0.47	0.47	INTERSECTION	L	ROUTE 0110 (BOQUILLAS CANYON OVERLOOK ROAD)
0.47	0.47	ONE-WAY START	N/A	N/A
0.51	0.51	INTERSECTION	R	ROUTE 1011 (BOQUILLAS CANYON INTERPRETIVE PULLOFF)
0.57	0.57	INTERSECTION	R	ROUTE 0110 (BOQUILLAS CANYON OVERLOOK ROAD)
0.57	0.57	INTERSECTION	L	ROUTE 0110 (BOQUILLAS CANYON OVERLOOK ROAD)
0.57	0.57	ONE-WAY END	N/A	N/A

### **ROUTE 0112: SOTOL VISTA OVERLOOK ROAD**

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.00	0.00	INTERSECTION	L	ROUTE 0015 (ROSS MAXWELL SCENIC DRIVE)
0.00	0.00	INTERSECTION	R	ROUTE 0015 (ROSS MAXWELL SCENIC DRIVE)
0.26	0.26	INTERSECTION	L	ROUTE 0112 (SOTOL VISTA OVERLOOK ROAD)
0.26	0.26	ONE-WAY START	N/A	N/A
0.37	0.37	INTERSECTION	L	ROUTE 0926AZ (SOTOL VISTA OVERLOOK PARKING A)
0.38	0.38	INTERSECTION	R	ROUTE 0926BZ (SOTOL VISTA OVERLOOK PARKING B)
0.41	0.41	INTERSECTION	L	ROUTE 0112 (SOTOL VISTA OVERLOOK ROAD)
0.41	0.41	INTERSECTION	N/A	ROUTE 0112 (SOTOL VISTA OVERLOOK ROAD)
0.41	0.41	ONE-WAY END	N/A	N/A

### **ROUTE 0113: BURRO MESA POUROFF ROAD**

Road logs are verified in Cycle 6 and mileposts for this route are matched to GPS collected in Cycle 4.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.00	0.00	INTERSECTION	L	ROUTE 0015 (ROSS MAXWELL SCENIC DRIVE)
0.00	0.00	INTERSECTION	R	ROUTE 0015 (ROSS MAXWELL SCENIC DRIVE)
1.10	1.10	INTERSECTION	L	BURRO SPRING OVERLOOK PULLOFF
1.74	1.74	INTERSECTION	L	ROUTE 0113 (BURRO MESA POUROFF ROAD)
1.74	1.74	ONE-WAY START	N/A	N/A
1.84	1.84	INTERSECTION	R	ROUTE 0927 (BURRO MESA POUROFF PARKING)
1.86	1.86	INTERSECTION	L	ROUTE 0113 (BURRO MESA POUROFF ROAD)
1.86	1.86	INTERSECTION	R	ROUTE 0113 (BURRO MESA POUROFF ROAD)
1.86	1.86	ONE-WAY END	N/A	N/A

### **ROUTE 0114: MULE EARS OVERLOOK ROAD**

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.00	0.00	INTERSECTION	L	ROUTE 0015 (ROSS MAXWELL SCENIC DRIVE)
0.00	0.00	INTERSECTION	R	ROUTE 0015 (ROSS MAXWELL SCENIC DRIVE)
0.45	0.45	INTERSECTION	L	ROUTE 0114 (MULE EARS OVERLOOK ROAD)
0.45	0.45	ONE-WAY START	N/A	N/A
0.52	0.52	INTERSECTION	R	ROUTE 0930 (MULE EARS OVERLOOK PARKING)
0.61	0.61	INTERSECTION	R	ROUTE 0114 (MULE EARS OVERLOOK ROAD)
0.61	0.61	INTERSECTION	L	ROUTE 0114 (MULE EARS OVERLOOK ROAD)
0.61	0.61	ONE-WAY END	N/A	N/A

### **ROUTE 0201: RIO GRANDE VILLAGE ROAD**

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.00	0.00	INTERSECTION	N/A	ROUTE 0907 (RIO GRANDE DANIELS RANCH PICNIC AREA PARKING)
0.17	0.17	INTERSECTION	R	TENT CAMPGROUND ACCESS (UNPAVED)
0.17	0.17	INTERSECTION	L	TENT CAMPGROUND ACCESS (UNPAVED)
0.52	0.52	INTERSECTION	R	ROUTE 0908 (RIO GRANDE TRAILER PARKING RV PARK)
0.63	0.63	INTERSECTION	R	ROUTE 0909 (RIO GRANDE STORE PARKING)
0.68	0.68	INTERSECTION	L	ROUTE 0012 (RIO GRANDE ROAD)
0.68	0.68	INTERSECTION	R	ROUTE 0909 (RIO GRANDE STORE PARKING)
0.71	0.71	INTERSECTION	R	ROUTE 0909 (RIO GRANDE STORE PARKING)
0.82	0.82	INTERSECTION	L	DUMP STATION
0.84	0.84	INTERSECTION	L	DUMP STATION
0.85	0.85	INTERSECTION	R	UNPAVED ROAD
0.87	0.87	INTERSECTION	L	ROUTE 0411 (RIO GRANDE WATER TANK ROAD)
0.88	0.88	INTERSECTION	L	SEWAGE TREATMENT ACCESS ROAD
0.91	0.91	INTERSECTION	R	ROUTE 0910 (RIO GRANDE AMPHITHEATER PARKING)
0.99	0.99	INTERSECTION	R	ROUTE 0203ZZ (RIO GRANDE VILLAGE CAMPGROUND)
1.11	1.11	INTERSECTION	R	ROUTE 0203AZ (RIO GRANDE VILLAGE CAMPGROUND LOOP A)
1.20	1.20	INTERSECTION	L	UNPAVED ROAD
1.21	1.21	INTERSECTION	R	UNPAVED ROAD
1.26	1.26	SURFACE TYPE	N/A	GRAVEL
1.36	1.36	SURFACE TYPE	N/A	ASPHALT
1.40	1.40	INTERSECTION	L	UNPAVED ROAD
1.41	1.41	INTERSECTION	N/A	UNPAVED ROAD

### ROUTE 0203AZ: RIO GRANDE VILLAGE CAMPGROUND LOOP A

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.00	0.00	INTERSECTION	R	ROUTE 0201 (RIO GRANDE VILLAGE ROAD)
0.00	0.00	INTERSECTION	L	ROUTE 0201 (RIO GRANDE VILLAGE ROAD)
0.01	0.01	INTERSECTION	L	ROUTE 0203AZ (RIO GRANDE VILLAGE CAMPGROUND LOOP A) SPUR
0.02	0.02	INTERSECTION	L	ROUTE 0203AZ (RIO GRANDE VILLAGE CAMPGROUND LOOP A)
0.06	0.06	INTERSECTION	L	ROUTE 0203BZ (RIO GRANDE VILLAGE CAMPGROUND LOOP B)
0.17	0.17	INTERSECTION	L	ROUTE 0203CZ (RIO GRANDE VILLAGE CAMPGROUND LOOP C)
0.26	0.26	INTERSECTION	R	ROUTE 0203EZ (RIO GRANDE VILLAGE CAMPGROUND LOOP E)
0.33	0.33	INTERSECTION	R	ROUTE 0203EZ (RIO GRANDE VILLAGE CAMPGROUND LOOP E)
0.39	0.39	INTERSECTION	L	ROUTE 0203DZ (RIO GRANDE VILLAGE CAMPGROUND LOOP D)
0.49	0.49	INTERSECTION	L	ROUTE 0203BZ (RIO GRANDE VILLAGE CAMPGROUND LOOP B)
0.59	0.59	INTERSECTION	L	ROUTE 0203DZ (RIO GRANDE VILLAGE CAMPGROUND LOOP D)
0.65	0.65	INTERSECTION	L	ROUTE 0203CZ (RIO GRANDE VILLAGE CAMPGROUND LOOP C)
0.71	0.71	INTERSECTION	R	ROUTE 0203AZ (RIO GRANDE VILLAGE CAMPGROUND LOOP A) SPUR
0.73	0.73	INTERSECTION	L	ROUTE 0203AZ (RIO GRANDE VILLAGE CAMPGROUND LOOP A)
0.73	0.73	INTERSECTION	R	ROUTE 0203AZ (RIO GRANDE VILLAGE CAMPGROUND LOOP A)

#### ROUTE 0203BZ: RIO GRANDE VILLAGE CAMPGROUND LOOP B

Road logs are verified in Cycle 6 and mileposts for this route are matched to GPS collected in Cycle 5.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.00	0.00	INTERSECTION	L	ROUTE 0203AZ (RIO GRANDE VILLAGE CAMPGROUND LOOP A)
0.00	0.00	INTERSECTION	R	ROUTE 0203AZ (RIO GRANDE VILLAGE CAMPGROUND LOOP A)
0.08	0.08	INTERSECTION	L	ROUTE 0203CZ (RIO GRANDE VILLAGE CAMPGROUND LOOP C)
0.08	0.08	INTERSECTION	R	ROUTE 0203CZ (RIO GRANDE VILLAGE CAMPGROUND LOOP C)
0.22	0.22	INTERSECTION	L	ROUTE 0203DZ (RIO GRANDE VILLAGE CAMPGROUND LOOP D)
0.22	0.22	INTERSECTION	R	ROUTE 0203DZ (RIO GRANDE VILLAGE CAMPGROUND LOOP D)
0.29	0.29	INTERSECTION	R	ROUTE 0203AZ (RIO GRANDE VILLAGE CAMPGROUND LOOP A)
0.29	0.29	INTERSECTION	L	ROUTE 0203AZ (RIO GRANDE VILLAGE CAMPGROUND LOOP A)

#### ROUTE 0203CZ: RIO GRANDE VILLAGE CAMPGROUND LOOP C

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.00	0.00	INTERSECTION	R	ROUTE 0203AZ (RIO GRANDE VILLAGE CAMPGROUND LOOP A)
0.00	0.00	INTERSECTION	L	ROUTE 0203AZ (RIO GRANDE VILLAGE CAMPGROUND LOOP A)
0.04	0.04	INTERSECTION	R	ROUTE 0203BZ (RIO GRANDE VILLAGE CAMPGROUND LOOP B)
0.04	0.04	INTERSECTION	L	ROUTE 0203BZ (RIO GRANDE VILLAGE CAMPGROUND LOOP B)
0.07	0.07	INTERSECTION	L	ROUTE 0203AZ (RIO GRANDE VILLAGE CAMPGROUND LOOP A)
0.07	0.07	INTERSECTION	R	ROUTE 0203AZ (RIO GRANDE VILLAGE CAMPGROUND LOOP A)

### ROUTE 0203DZ: RIO GRANDE VILLAGE CAMPGROUND LOOP D

Road logs are verified in Cycle 6 and mileposts for this route are matched to GPS collected in Cycle 5.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.00	0.00	INTERSECTION	R	ROUTE 0203AZ (RIO GRANDE VILLAGE CAMPGROUND LOOP A)
0.00	0.00	INTERSECTION	L	ROUTE 0203AZ (RIO GRANDE VILLAGE CAMPGROUND LOOP A)
0.04	0.04	INTERSECTION	R	ROUTE 0203BZ (RIO GRANDE VILLAGE CAMPGROUND LOOP B)
0.04	0.04	INTERSECTION	L	ROUTE 0203BZ (RIO GRANDE VILLAGE CAMPGROUND LOOP B)
0.08	0.08	INTERSECTION	R	ROUTE 0203AZ (RIO GRANDE VILLAGE CAMPGROUND LOOP A)
0.08	0.08	INTERSECTION	L	ROUTE 0203AZ (RIO GRANDE VILLAGE CAMPGROUND LOOP A)

#### ROUTE 0203EZ: RIO GRANDE VILLAGE CAMPGROUND LOOP E

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.00	0.00	INTERSECTION	R	ROUTE 0203AZ (RIO GRANDE VILLAGE CAMPGROUND LOOP A)
0.00	0.00	INTERSECTION	L	ROUTE 0203AZ (RIO GRANDE VILLAGE CAMPGROUND LOOP A)
0.14	0.14	INTERSECTION	R	ROUTE 0203AZ (RIO GRANDE VILLAGE CAMPGROUND LOOP A)
0.14	0.14	INTERSECTION	L	ROUTE 0203AZ (RIO GRANDE VILLAGE CAMPGROUND LOOP A)

### **ROUTE 0206: LOWER BASIN CAMPGROUND ROAD**

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.00	0.00	INTERSECTION	L	ROUTE 0014 (CHISOS BASIN ROAD)
0.00	0.00	INTERSECTION	R	ROUTE 0014 (CHISOS BASIN ROAD)
0.41	0.41	INTERSECTION	R	ROUTE 0233Z (CLASS A CAMPGROUND - CHISOS BASIN MAIN LOOP)
0.42	0.42	INTERSECTION	L	ROUTE 0923 (BASIN AMPHITHEATER PARKING)
0.47	0.47	INTERSECTION	L	ROUTE 0923 (BASIN AMPHITHEATER PARKING)
0.61	0.61	INTERSECTION	R	ROUTE 0234 (BASIN GROUP CAMPGROUND)
0.63	0.63	INTERSECTION	L	ROUTE 1028 (BASIN RESIDENCE PARKING)
0.63	0.63	INTERSECTION	N/A	ROUTE 0924 (BASIN REMUDA PARKING)

### ROUTE 0233AZ: CLASS A CAMPGROUND - CHISOS BASIN LOOP A

Road logs are verified in Cycle 6 and mileposts for this route are matched to GPS collected in Cycle 5.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.00	0.00	ONE-WAY START	N/A	N/A
0.00	0.00	INTERSECTION	R	ROUTE 0233Z (CLASS A CAMPGROUND - CHISOS BASIN MAIN LOOP)
0.00	0.00	INTERSECTION	L	ROUTE 0233Z (CLASS A CAMPGROUND - CHISOS BASIN MAIN LOOP)
0.20	0.20	ONE-WAY END	N/A	N/A
0.20	0.20	INTERSECTION	R	ROUTE 0233Z (CLASS A CAMPGROUND - CHISOS BASIN MAIN LOOP)
0.20	0.20	INTERSECTION	L	ROUTE 0233Z (CLASS A CAMPGROUND - CHISOS BASIN MAIN LOOP)

#### ROUTE 0233BZ: CLASS A CAMPGROUND - CHISOS BASIN LOOP B

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.00	0.00	INTERSECTION	R	ROUTE 0233Z (CLASS A CAMPGROUND - CHISOS BASIN MAIN LOOP)
0.00	0.00	INTERSECTION	L	ROUTE 0233Z (CLASS A CAMPGROUND - CHISOS BASIN MAIN LOOP)
0.00	0.00	ONE-WAY START	N/A	N/A
0.17	0.17	ONE-WAY END	N/A	N/A
0.17	0.17	INTERSECTION	R	ROUTE 0233Z (CLASS A CAMPGROUND - CHISOS BASIN MAIN LOOP)
0.17	0.17	INTERSECTION	L	ROUTE 0233Z (CLASS A CAMPGROUND - CHISOS BASIN MAIN LOOP)

### ROUTE 0233Z: CLASS A CAMPGROUND - CHISOS BASIN MAIN LOOP

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.00	0.00	INTERSECTION	L	ROUTE 0206 (LOWER BASIN CAMPGROUND ROAD)
0.00	0.00	INTERSECTION	R	ROUTE 0206 (LOWER BASIN CAMPGROUND ROAD)
0.00	0.00	INTERSECTION	N/A	ROUTE 0923 (BASIN AMPHITHEATER PARKING)
0.02	0.02	INTERSECTION	L	ROUTE 0233AZ (CLASS A CAMPGROUND - CHISOS BASIN LOOP A)
0.07	0.07	INTERSECTION	L	ROUTE 0233AZ (CLASS A CAMPGROUND - CHISOS BASIN LOOP A)
0.10	0.10	INTERSECTION	L	ROUTE 0233BZ (CLASS A CAMPGROUND - CHISOS BASIN LOOP B)
0.13	0.13	INTERSECTION	L	ROUTE 0233BZ (CLASS A CAMPGROUND - CHISOS BASIN LOOP B)
0.25	0.25	INTERSECTION	L	ROUTE 0416 (LOWER BASIN LAGOON ROAD)
0.28	0.28	ONE-WAY START	N/A	N/A
0.28	0.28	INTERSECTION	L	ROUTE 0233Z (CLASS A CAMPGROUND - CHISOS BASIN MAIN LOOP)
0.34	0.34	ONE-WAY END	N/A	N/A
0.34	0.34	INTERSECTION	L	ROUTE 0233Z (CLASS A CAMPGROUND - CHISOS BASIN MAIN LOOP)
0.34	0.34	INTERSECTION	R	ROUTE 0233Z (CLASS A CAMPGROUND - CHISOS BASIN MAIN LOOP)

### **ROUTE 0234: BASIN GROUP CAMPGROUND ROAD**

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.00	0.00	INTERSECTION	R	ROUTE 0206 (LOWER BASIN CAMPGROUND ROAD)
0.00	0.00	INTERSECTION	L	ROUTE 0206 (LOWER BASIN CAMPGROUND ROAD)
0.18	0.18	INTERSECTION	L	ROUTE 0234 (BASIN GROUP CAMPGROUND ROAD)
0.18	0.18	ONE-WAY START	N/A	N/A
0.20	0.20	INTERSECTION	R	ROUTE 0234 (BASIN GROUP CAMPGROUND ROAD) CUT THROUGH
0.30	0.30	INTERSECTION	L	ROUTE 1026AZ (GROUP CAMPSITE PARKING A)
0.35	0.35	INTERSECTION	L	ROUTE 1026BZ (GROUP CAMPSITE PARKING B)
0.38	0.38	INTERSECTION	L	CUT THROUGH ROUTE 0234 (BASIN GROUP CAMPGROUND)
0.40	0.40	INTERSECTION	L	ROUTE 0234 (BASIN GROUP CAMPGROUND ROAD)
0.40	0.40	INTERSECTION	R	ROUTE 0234 (BASIN GROUP CAMPGROUND ROAD)
0.40	0.40	ONE-WAY END	N/A	N/A

### **ROUTE 0405AZ: HUISACHE DRIVE A**

Road logs are verified in Cycle 6 and mileposts for this route are matched to GPS collected in Cycle 5.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.00	0.00	INTERSECTION	R	ROUTE 0012 (RIO GRANDE ROAD)
0.00	0.00	INTERSECTION	L	ROUTE 0012 (RIO GRANDE ROAD)
0.34	0.34	INTERSECTION	L	ROUTE 0405BZ (HUISACHE DRIVE B)
0.37	0.37	INTERSECTION	R	ROUTE 0405AZ (HUISACHE DRIVE A)
0.45	0.45	INTERSECTION	R	ROUTE 0405AZ (HUISACHE DRIVE A)
0.45	0.45	INTERSECTION	L	ROUTE 0405AZ (HUISACHE DRIVE A)

#### **ROUTE 0405BZ: HUISACHE DRIVE B**

]	FROM	TO			
]	MILEPOST	MILEPOST	FEATURE	SIDE	COMMENT
	0.00	0.00	INTERSECTION	R	ROUTE 0405AZ (HUISACHE DRIVE A)
	0.00	0.00	INTERSECTION	L	ROUTE 0405AZ (HUISACHE DRIVE A)
	0.06	0.06	INTERSECTION	N/A	DEAD END

#### **ROUTE 0418: CHISOS BASIN RESIDENCE ROAD**

Road logs are verified in Cycle 6 and mileposts for this route are matched to GPS collected in Cycle 6.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.00	0.00	INTERSECTION	L	ROUTE 0920 (BASIN MOTEL PARKING)
0.00	0.00	INTERSECTION	R	ROUTE 0920 (BASIN MOTEL PARKING)
0.05	0.05	INTERSECTION	N/A	DEAD END AT WALL

#### **ROUTE 0426: MESA DRIVE**

Road logs are verified in Cycle 6 and mileposts for this route are matched to GPS collected in Cycle 4.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.00	0.00	INTERSECTION	L	ROUTE 0015 (ROSS MAXWELL SCENIC DRIVE)
0.00	0.00	INTERSECTION	R	ROUTE 0015 (ROSS MAXWELL SCENIC DRIVE)
0.13	0.13	INTERSECTION	L	ROUTE 0427 (PALO VERDE DRIVE)
0.16	0.16	INTERSECTION	L	ROUTE 1016 (CERRO VISTA COURT)
0.47	0.47	INTERSECTION	N/A	ROUTE 0932 (CASTOLON MAINTENANCE PARKING)

#### **ROUTE 0427: PALO VERDE DRIVE**

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.00	0.00	INTERSECTION	L	ROUTE 0426 (MESA DRIVE)
0.00	0.00	INTERSECTION	R	ROUTE 0426 (MESA DRIVE)
0.09	0.09	INTERSECTION	N/A	END OF PAVEMENT

### **ROUTE 0428: ALSATE AVENUE**

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.00	0.00	INTERSECTION	R	ROUTE 0012 (RIO GRANDE ROAD)
0.00	0.00	INTERSECTION	L	ROUTE 0012 (RIO GRANDE ROAD)
0.05	0.05	INTERSECTION	R	ROUTE 0938 (EMPLOYEE PARKING LOT - HQ BUILDING #310)
0.08	0.08	INTERSECTION	R	ROUTE 0938 (EMPLOYEE PARKING LOT - HQ BUILDING #310)
0.09	0.09	INTERSECTION	R	BIG BEND NATIONAL HISTORIC ASSOCIATION PARKING
0.27	0.27	INTERSECTION	R	ROUTE 0429 (BOBCAT LOOP)
0.35	0.35	INTERSECTION	R	ROUTE 0430 (JAVELINA DRIVE)
0.45	0.45	INTERSECTION	R	ROUTE 0429 (BOBCAT LOOP)
0.53	0.53	INTERSECTION	R	ROUTE 0433 (TECOLOTE DRIVE)
0.53	0.53	INTERSECTION	N/A	ROUTE 0939 (MAINTENANCE AREA PARKING LOT)

### **ROUTE 0429: BOBCAT LOOP**

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.00	0.00	INTERSECTION	L	ROUTE 0428 (ALSATE AVENUE)
0.00	0.00	INTERSECTION	R	ROUTE 0428 (ALSATE AVENUE)
0.21	0.21	INTERSECTION	R	ROUTE 0431 (QUAIL RUN ROAD)
0.24	0.24	INTERSECTION	L	ROUTE 0430 (JAVELINA DRIVE)
0.26	0.26	INTERSECTION	R	ROUTE 0432 (CHUPAROSA ROAD)
0.36	0.36	INTERSECTION	R	ROUTE 0436 (NOLINA DRIVE)
0.40	0.40	INTERSECTION	R	ROUTE 0443 (ESCUELA ROAD)
0.44	0.44	INTERSECTION	R	ROUTE 0428 (ALSATE AVENUE)
0.44	0.44	INTERSECTION	L	ROUTE 0428 (ALSATE AVENUE)

#### **ROUTE 0430: JAVELINA DRIVE**

Road logs are verified in Cycle 6 and mileposts for this route are matched to GPS collected in Cycle 4.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.00	0.00	INTERSECTION	R	ROUTE 0428 (ALSATE AVENUE)
0.00	0.00	INTERSECTION	L	ROUTE 0428 (ALSATE AVENUE)
0.13	0.13	INTERSECTION	L	ROUTE 0429 (BOBCAT LOOP)
0.13	0.13	INTERSECTION	R	ROUTE 0429 (BOBCAT LOOP)

#### **ROUTE 0431: QUAIL RUN**

Road logs are verified in Cycle 6 and mileposts for this route are matched to GPS collected in Cycle 6.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.00	0.00	INTERSECTION	L	ROUTE 0429 (BOBCAT LOOP)
0.00	0.00	INTERSECTION	R	ROUTE 0429 (BOBCAT LOOP)
0.02	0.02	INTERSECTION	N/A	DEAD END

#### **ROUTE 0432: CHUPAROSA**

FROM	TO			
MILEPOST	MILEPOST	FEATURE	SIDE	COMMENT
0.00	0.00	INTERSECTION	L	ROUTE 0429 (BOBCAT LOOP)
0.00	0.00	INTERSECTION	R	ROUTE 0429 (BOBCAT LOOP)
0.02	0.02	INTERSECTION	N/A	DEAD END

### **ROUTE 0433: TECOLOTE DRIVE**

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.00	0.00	INTERSECTION	L	ROUTE 0428 (ALSATE AVENUE)
0.00	0.00	INTERSECTION	R	ROUTE 0428 (ALSATE AVENUE)
0.04	0.04	INTERSECTION	L	ROUTE 1018 (EMERGENCY SERVICES PARKING AREA)
0.20	0.20	INTERSECTION	L	ROUTE 0434 (LA JUNTA CIRCLE)
0.24	0.24	INTERSECTION	L	TRAILS OFFICE (UNPAVED)
0.25	0.25	INTERSECTION	L	ROUTE 0435 (OCOTILLO LOOP)
0.26	0.26	INTERSECTION	L	ROUTE 0435 (OCOTILLO LOOP) SPUR
0.33	0.33	INTERSECTION	L	ROUTE 0435 (OCOTILLO LOOP)
0.35	0.35	INTERSECTION	R	ROUTE 0436 (NOLINA DRIVE)
0.35	0.35	INTERSECTION	L	ROUTE 0436 (NOLINA DRIVE)

### **ROUTE 0434: LA JUNTA CIRCLE**

Road logs are verified in Cycle 6 and mileposts for this route are matched to GPS collected in Cycle 6.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.00	0.00	INTERSECTION	N/A	ROUTE 0435 (OCOTILLO LOOP)
0.00	0.00	INTERSECTION	R	ROUTE 0435 (OCOTILLO LOOP)
0.05	0.05	INTERSECTION	L	ROUTE 0433 (TECOLOTE DRIVE)
0.05	0.05	INTERSECTION	R	ROUTE 0433 (TECOLOTE DRIVE)

### **ROUTE 0435: OCOTILLO LOOP**

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.00	0.00	INTERSECTION	L	ROUTE 0433 (TECOLOTE DRIVE)
0.00	0.00	INTERSECTION	R	ROUTE 0433 (TECOLOTE DRIVE)
0.01	0.01	INTERSECTION	R	ROUTE 0435 (OCOTILLO LOOP) SPUR
0.03	0.03	INTERSECTION	L	ROUTE 0434 (LA JUNTA CIRCLE)
0.13	0.13	INTERSECTION	L	ROUTE 0433 (TECOLOTE DRIVE)
0.13	0.13	INTERSECTION	R	ROUTE 0433 (TECOLOTE DRIVE)

### **ROUTE 0436: NOLINA DRIVE**

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.00	0.00	INTERSECTION	L	ROUTE 0429 (BOBCAT LOOP)
0.00	0.00	INTERSECTION	R	ROUTE 0429 (BOBCAT LOOP)
0.06	0.06	INTERSECTION	R	ROUTE 1022 (CHINO COURT PARKING)
0.10	0.10	INTERSECTION	R	ROUTE 1025 (MESQUITE STREET PARKING)
0.14	0.14	INTERSECTION	L	ROUTE 1023 (HOLLY LANE PARKING)
0.18	0.18	INTERSECTION	R	UNPAVED PARKING
0.21	0.21	INTERSECTION	L	ROUTE 1029 (PAISANO PLACE PARKING)
0.21	0.21	INTERSECTION	R	ROUTE 1024 (DESERT WILLOW STREET PARKING)
0.27	0.27	INTERSECTION	R	ROUTE 0440 (PANTHER CANYON DRIVE)
0.35	0.35	INTERSECTION	L	ROUTE 0433 (TECOLOTE DRIVE)
0.36	0.36	INTERSECTION	N/A	UNPAVED ROAD

#### **ROUTE 0440: PANTHER CANYON DRIVE**

Road logs are verified in Cycle 6 and mileposts for this route are matched to GPS collected in Cycle 4.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.00	0.00	INTERSECTION	R	ROUTE 0436 (NOLINA DRIVE)
0.00	0.00	INTERSECTION	L	ROUTE 0436 (NOLINA DRIVE)
0.14	0.14	INTERSECTION	L	ROUTE 0440 (PANTHER CANYON DRIVE)
0.18	0.18	INTERSECTION	L	ROUTE 0440 (PANTHER CANYON DRIVE)
0.18	0.18	INTERSECTION	N/A	ROUTE 0440 (PANTHER CANYON DRIVE)

#### **ROUTE 0443: ESCUELA ROAD**

Road logs are verified in Cycle 6 and mileposts for this route are matched to GPS collected in Cycle 6.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.00	0.00	INTERSECTION	L	ROUTE 0429 (BOBCAT LOOP)
0.00	0.00	INTERSECTION	R	ROUTE 0429 (BOBCAT LOOP)
0.06	0.06	INTERSECTION	N/A	ROUTE 0937 (ESCUELA VISTA PARKING LOT)

#### **ROUTE 0444: PJ SEWAGE TREATMENT PLANT ROAD**

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.00	0.00	INTERSECTION	L	ROUTE 0012 (RIO GRANDE ROAD)
0.00	0.00	INTERSECTION	R	ROUTE 0012 (RIO GRANDE ROAD)
0.09	0.09	INTERSECTION	L	UNPAVED ROUTE
0.12	0.12	INTERSECTION	N/A	ROUTE 1020 (PJ SEWAGE TREATMENT PLANT PARKING)

# Section 8 Appendix



**Big Bend National Park** 



# Improvements to the RIP Index Equations and Determination of PCR

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

In an effort to improve the accuracy of treatment recommendations and pavement condition descriptions the distresses and indexes that comprise the Pavement Condition Rating (PCR), an extensive study was completed throughout 2010 that has resulted in changes to the RIP condition reporting method and specifically, the calculation of PCR. It was determined that a better representation of PCR could be achieved by modifying the relative impact certain distresses would have on the overall rating.

Through the use of HPMA data, it was noted that false failure indicators existed with the existing PCR model, and that it would be necessary to reduce their impact. The distresses affected in this way were Rutting and Roughness. Conversely, experience showed that roadways with extensive cracking present were often shown to have a high PCR. Therefore, the crack index models were adjusted to be more sensitive to changes in crack severity or quantity. It was also determined that these issues were not due to a problem with data acquisition (i.e. the RIP "van"), but with the way the collected data was processed. The final change was to provide guidance on when to use the Roughness Condition Index (RCI) in the PCR calculation. Roughness data is of little value to determining overall condition on routes that, due to their length or geometrics, have lower vehicle operating speeds. Therefore, in Cycle 5, only routes that have lengths of one half mile or greater and posted speed limits of 25 mph or greater will have RCI reported and included in the PCR calculations.

Additionally, methodologies were updated in 2013 for Manually Rated Routes (paved routes that the collection vehicle is unable to drive) as well as Parking Areas to provide more accurate condition data to the HPMA. These updated methodologies allow for the efficient assessment of pavement conditions using a visual inspection method to denote specific distresses. These distresses are indicative of current conditions, the causes for current and future deterioration, and identify the level of targeted repair and rehabilitation practices required.

The changes that were implemented were endorsed by management at both the FHWA and NPS. In order to show the effectiveness of these changes, several sites were ground truth tested in early 2014 to ensure that an improvement was achieved between the relationship of PCR and the actual Maintenance and Rehabilitation needs that were represented. The changes will allow greater use of RIP and HPMA data for not simply condition data reporting, but also as a reliable tool for project identification and selection.

# **Description of the Rating System**

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

The FHWA RIP is implemented based on the premise that an accurate pavement surface condition assessment can be accomplished using automated crack detection technology as applied to digital images. Various methods of pavement condition assessment have been developed over the years with varying degrees of accuracy and acceptance. The use of digital photography to record pavement images and subsequent crack detection and classification has undergone continuous improvements over the past decade. Digital cameras with increasingly superior resolution and high definition have become more affordable, and the proprietary programming code and algorithms have been improved in crack detection software.

With the use of quality digital photography and automated crack detection software, FHWA RIP is tasked with executing a pavement condition assessment on a network of roughly 5,700 miles of National Park Service roads and parkways. Because a subset of roads will be collected multiple times this cycle, the total collection length will be around 13,000 miles. Foremost in setting up the basis of pavement distress identification is employing the distress identification protocols used by FHWA. There is no single distress identification system that is universal among entities conducting a program of distress identification. For the purpose of the NPS RIP, FHWA employs distress identification protocols that are specific to this program.

FHWA has referenced the "Distress Identification Manual for the Long-Term Pavement Performance Program", Publication No. FHWA-RD 03-031, June 2003, as the point-of- reference for distress types on NPS pavement. In truth, the FHWA RIP distress types are similar to those described in the LTPP manual with some modifications. This document, "Distress Identification Manual for the NPS Road Inventory Program, Cycle 6, 2014-2020" was developed using the "Distress Identification Manual for the Long-Term Pavement Performance Program" as a guideline. Definitions of severity levels based on crack width contained in this document adhere to the LTPP Distress ID Manual. Modifications have been made to the definition of Alligator and Longitudinal Cracking and determination of Alligator Cracking severity. This manual also addresses Rutting and Roughness and its application to RIP.

Cycle 6 has launched in the spring of 2014 and will again comprise all parks, large and small, that are served by paved roads and/or parking areas. For Cycle 6, roughly 333 large and small parks will have all paved routes and parking areas collected at least once in the cycle, some will have multiple collections depending on the size of the park and the functional class of the route.

This "Distress Identification Manual for the NPS Road Inventory Program, Cycle 6, 2014-2020" will be used as a reference resource in crack detection and classification, determination of distress severity and extent, and in the calculation of distress index values for the FHWA RIP Cycle 6.

# **Explanation of the Condition Descriptions**

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

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

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

# **Condition Categories and Treatments**



**Pavement Age** 

# **Description of Pavement Treatment Types**

- 1. **Preventive Maintenance** is a planned strategy of cost-effective treatments to an existing roadway system and its appurtenances that preserves the system, retards future deterioration, and maintains or improves the functional condition of the system (without significantly increasing the structural capacity). Preventive maintenance is typically applied to pavements in good condition having significant remaining service life. As a major component of pavement preservation, preventive maintenance is a strategy of extending the service life by applying cost-effective treatments to the surface or near-surface of structurally sound pavements. Examples of preventive treatments include asphalt crack sealing, chip sealing, slurry or micro-surfacing, thin and ultrathin hot-mix asphalt overlay, concrete joint sealing, diamond grinding, dowel-bar retrofit, and isolated, partial and/or full-depth concrete repairs to restore functionality of individual slabs.
- 2. Pavement Rehabilitation consists of structural enhancements that extend the service life of an existing pavement and/or improve its load carrying capacity. Rehabilitation techniques include restoration treatments and structural overlays. Rehabilitation projects extend the life of existing pavement structures either by restoring existing structural capacity through the elimination of age-related, environmental cracking of embrittled pavement surface or by increasing pavement thickness to strengthen existing pavement sections to accommodate existing or projected traffic loading conditions. Two sub-categories result from these distinctions, which are directly related to the restoration or increase of structural capacity.
  - **Light Rehabilitation** (**L3R**) Examples include single-lift overlays up to 2.5 inches in total thickness and milling and overlays for flexible pavements
  - **Heavy Rehabilitation (H3R)** Requires rehabilitation with grade improvement. H3R stands for resurfacing, restoration, and rehabilitation projects. H3R projects typically involve multi-depth (overlays greater than 2.5 inches) pavement improvement work (short of full-depth replacement) and targeted safety improvements. H3R projects generally involve retention of the existing three-dimensional alignment.
- 3. **Reconstruction** (4R) is defined as the replacement of the entire existing pavement structure by the placement of the equivalent or increased pavement structure. Reconstruction usually requires the complete removal and replacement of the existing pavement structure. Reconstruction may utilize either new or recycled materials incorporated into the materials used for the reconstruction of the complete pavement section. Reconstruction is required when a pavement has either failed or has become functionally obsolete.

# **Appendix A**

Methodology for Determining Condition Ratings with the Data Collection Vehicle (DCV)

# **Surface Distresses Identified by the Data Collection Vehicle**

## **Surface Condition Rating – SCR**

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

Surface distresses and rutting are determined from digital images that provide both the longitudinal and transverse profile. The images also provide an elevation profile of the road, creating a 3-dimensional image of the paved surface.

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

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

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

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

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

#### **Roughness Condition Index - RCI**

Additional condition data measured by DCV (lasers and accelerometers)

• Roughness (IRI)

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

#### **Pavement Condition Rating - PCR**

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

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

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

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

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

**POOR** = (less than or equal to 60), FAIR= (61 – 84), GOOD= (85 - 94), EXCELLENT= (95 - 100)

Index values are generally computed based on cumulative deducts of the measured severities. As shown in the index formulas below, as any single severity reaches or exceeds MAE, the index computes to a value of 60 or less, and the road fails for that 0.02 interval.

Note: As a result of a unique combination of measured surface distresses and IRI, index values occasionally compute to less than 0 or greater than 100. In this instance, an index value less than 0 defaults to 0. Index values greater than 100 defaults to 100. For all indices, a higher value indicates a better road condition, and a lower value indicates a poorer road condition.

On the following page, Table 1 summarizes the different types of distresses measured.

ASPHALT-SURFACED PAVEMENT DISTRESS TYPES WITH RUTTING AND ROUGHNESS				
Distress Type	Units Of Measure	Converted To	Defined Severity Levels?	Measured By
Alligator Cracking	Square Feet	Percent of Lane Per 0.02 Mile	Yes	3 Dimensional pavement imaging system
Transverse Cracking	Linear feet	Number of Cracks Per 0.02 Mile	Yes	3 Dimensional pavement imaging system
Longitudinal Cracking	Linear feet	Percent of Lane Length Per 0.02 Mile	Yes	3 Dimensional pavement imaging system
Patching / Potholes	Square Feet	Percent of Lane Per 0.02 Mile	No	3 Dimensional pavement imaging system
Rutting	Inches	Rut Depth Per 0.02 Mile	Yes	3 Dimensional pavement imaging system
Roughness	IRI	*RCI Per 0.02 Mile	No	DCV – Lasers / Accelerometers

<sup>\*</sup>Note: Roughness is measured on concrete roadways, but surface distresses and rutting are not measured.

For concrete, PCR = RCI

Table 1. Distress summary

# **Alligator Cracking**

#### **Description:**

Alligator cracking is considered a combination of fatigue and block cracking. It is a series of interconnected cracks in various stages of development. Alligator cracking develops into a many-sided pattern that resembles chicken wire or alligator skin. It can occur anywhere in the road lane. Alligator cracking must have a quantifiable area.

### **Severity Levels:**

#### LOW

An area with little to no interconnecting cracks with no visible spalling. Cracks are less than or equal to a mean width of 0.25 in. (6mm). Cracks in the pattern are no further apart than 1 foot (0.328 m). May be sealed cracks with sealant in good condition and a crack width that cannot be determined.

#### **MEDIUM**

An area of interconnected cracks that form a complete pattern. Cracks may be slightly spalled. Cracks are greater than 0.25 in. (6 mm) but less than or equal to 0.75 in. (19 mm) or any crack with a mean width less than or equal to 0.75 in. (19 mm) and adjacent low severity cracking. Cracks in the pattern are no further apart than 6 in. (150 mm).

#### HIGH

An area of interconnected cracks forming a complete pattern. Cracks are moderately or severely spalled. Cracks are greater than 0.75 in. (19mm) or any crack with a mean width less than or equal to 0.75 in. (19mm) and adjacent medium to high severity random cracking.

A combination of observed crack width and crack pattern is used to determine overall severity of alligator cracking. Based on above description of each severity, the highest level of crack width and crack pattern determines overall severity as shown in Table 2.

ALLIGATOR CRACKING SEVERITY LEVELS				
	CRACK CRACK PATTERN			ERN
	SEVERITY	LOW	MED	HIGH
CD A CIZ	LOW	LOW	MED	HIGH
CRACK WIDTH	MED	MED	MED	HIGH
	HIGH	HIGH	HIGH	HIGH

**Table 2. Alligator Crack Severity Levels** 

#### **Longitudinal Cracking**

#### **Description:**

Longitudinal cracking occurs predominantly parallel to the pavement centerline. It can occur anywhere within the lane. Longitudinal cracks occurring in the wheelpath may be noteworthy.

#### **Severity Levels:**

#### LOW

Cracks with a mean width less than or equal to 0.25 in. (6 mm). This also includes sealed cracks with sealant in good condition and a width that cannot be determined.

#### **MEDIUM**

Cracks with a mean width greater than 0.25 in. (6 mm) but less than 0.75 in. (19 mm). Also, any crack with a mean width less than 0.75 in. (19 mm) and adjacent random low severity cracking.

#### HIGH

Cracks with a mean width greater than 0.75 in. (19 mm). Also, any crack with a mean width less than 0.75 in. (19 mm) and adjacent random medium to high severity cracking.

# **Transverse Cracking**

#### **Description:**

Transverse cracking occurs predominantly perpendicular to the pavement centerline. It can occur anywhere within the lane.

#### **Severity Levels:**

#### LOW

Cracks with a mean width of less than or equal to 0.25 in. (6 mm). Sealed cracks with sealant in good condition and a width that cannot be determined.

#### **MEDIUM**

Cracks with a mean width greater 0.25 in. (6 mm) and less than or equal to 0.75 in. (19 mm). Also, any crack with a mean width less than 0.75 in. (19 mm) and adjacent random low severity cracking.

#### HIGH

Cracks with a mean width greater than 0.75 in. (19 mm). Also, any crack with a mean width less than 0.75 in. (19 mm) and adjacent random medium to high severity cracking.

#### **Patching and Potholes**

#### **Description:**

Patching is an area of pavement surface that has been removed and replaced with patching material or an area of pavement surface that has had additional patching material applied. Patching may encompass partial lane or full lane width. On full lane width patching; the total, contiguous length of patch may not exceed 0.100 mi. (0.161 km). (Any full-lane patch exceeding 0.100 mi. in length is considered a pavement change). Patching must have a quantifiable area.

Potholes are bowl-shaped holes of various sizes occurring in the pavement surface.

Manhole covers should not be rated as patches unless there is obvious patching around the manhole.

Speed bumps should not be rated as patches

#### **Severity Levels:**

There are no stratified severities for Patching and Potholes. They either are present or they are not.

## **RUTTING**

#### **Description:**

Rutting is a longitudinal surface depression in the wheelpath.

#### **Severity Levels:**

#### LOW

Ruts with a measured depth of 0.20 inches to 0.49 inches Ruts less than 0.20 in. are not included in the distress calculations.

#### **MEDIUM**

Ruts with a measured depth of 0.50 inches to 0.99 inches

#### HIGH

Ruts with a measured depth greater than 1.00 inch

#### **ROUGHNESS**

#### **Description:**

Roughness is the measurement of the unevenness of the pavement in the direction of travel. It is measured in units of IRI (International Roughness Index), inches per mile, and is indicative of ride comfort.

#### **Severity Levels:**

There are no stratified severity levels for roughness. The roughness (or smoothness) of a road surface can be defined by IRI in the following table.

IRI DESCRIPTIONS		
Type of Road	Typical IRI (in/mile)	
New Road, no noticeable roughness	<90	
Small level of roughness	90 – 126	
Road of average roughness	126 – 190	
Road with above average roughness	190 – 253	
Road with severe roughness	253 – 380	
Nearly impassable	>380	

**Table 3. International Roughness Index** 

#### **Roughness Collection Parameters**

On shorter roads with a lower speed limit the usefulness in collecting and reporting IRI is negligible. Lower, inconsistent speeds can lead to a less accurate IRI value. Therefore RIP has put in place the following protocols for reporting IRI.

International Roughness Index (IRI) is not reported on routes with the following criteria:

- Posted speed limit is less than 25 mph
- Length of route is less than 0.50 miles

When a collected route has a posted speed limit of at least 25 mph and length of at least 0.50 miles, IRI will be collected except on road sections where the speed is less than 20 mph

Other situations may arise where the speed and length factors are met, but reporting IRI could lead to an inaccurate PCR. RIP will determine whether or not it is reasonable to report IRI on these routes on a case by case basis.

#### **Index Formulas**

Note: All index formulas listed below contain MAE applicable to 0.02 mile (105.6 feet) interval.

## **Alligator Crack Index**

```
AC INDEX = 100 - 40 * [(\%LOW / 35) + (\%MED / 15) + (\%HI / 5)]
```

#### Where:

The values %LOW, %MED and %HI report the percentage of the observed pavement (0.02 mile, primary lane) that contains alligator cracking within the respective severities. These values range from 0 to 100.

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

Percent of total area is computed as:

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

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

#### **Longitudinal Crack Index**

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

#### Where:

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

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

Percent of interval length is computed as:

length of respective longitudinal cracking (0.02 mile)\*(105.6 ft.)

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

# **Structural Crack Index**

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

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

#### **Transverse Crack Index**

$$TC_{INDEX} = 100 - 40 * [(LOW / 21.1) + (MED / 4.4) + (HI / 2.6)]$$

#### Where:

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

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

Number of cracks is computed as:

Total length of transverse cracks
Lane width

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

#### **Patching Index**

**PATCH\_INDEX** = 
$$(100 - 40) * (\% PATCHING / 80)$$

#### Where:

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

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

Percent of total area is computed as:

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

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

There are no severity levels for patching. It either exists or does not. In PATCH\_INDEX, the denominator 80 is the Maximum Allowable Extent (MAE) for each severity. In other words, we will allow up to 80% patching for a 0.02 interval before failure. As you can see, if patching/potholes reaches MAE the resulting index value is 60, or failure.

#### **Rutting Index**

**RUT\_INDEX** = 
$$100 - 40 * [(\%LOW / 535) + (\%MED / 205) + (\%HI / 40)]$$

#### Where:

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

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

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

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

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

$$\frac{(total\ number\ of\ ruts\ within\ each\ severity\ in\ both\ wheelpaths)}{20} \times 100$$

In RUT\_INDEX, the denominators 535, 205, and 40 are the Maximum Allowable Extents for each severity; Low, Medium, and High, respectively. Only the MAE for high severity rutting can fail a section, since 200% of *only* low severity ruts would yield a rut index of 85 and 200% of *only* medium severity ruts would yield a rut index of 61.

# **Roughness Condition Index (Asphalt)**

$$RCI = 32 * [5 * (2.718282^{(-.0041 * AVG IRI)})]$$

#### Where:

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

Average IRI is computed as:

There is no applicable threshold for failure for this index.

#### **Roughness Condition Index (Concrete)**

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

For concrete, PCR = RCI

# **Surface Condition Rating Index**

**SCR** = Lowest Index Value Of: [SC\_INDEX, TC\_INDEX, PATCH\_INDEX, RUT\_INDEX]

**Note:** The modified SCR equation above combines AC\_INDEX and LC\_INDEX, and considers that a single AC/LC index value of the Structural Crack Index (SC\_INDEX). The lowest of the four computed index values (SC\_INDEX, TC\_INDEX, PATCH\_INDEX, or RUT\_INDEX) becomes the SCR.

#### Where:

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

The threshold for failure for this index is SCR = 60.Data Collection Vehicle Subsystems

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

#### **Cameras**

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

Two forward-facing cameras are mounted above the vehicle cab, one pointed straight ahead and the other to the right shoulder providing seamless roughly 120 degree viewing. A third camera is mounted in the rear of the vehicle, recording the left shoulder.

CAMERA SPECIFICATIONS TWO FORWARD / ONE REAR FACING CAMERA		
Camera lens/type	Prosilica GT 2750 (GigE Technology)	
Image format	*.jpg	
Image resolution	2750 x 2200, 18 frames/second	
Image pixel size	depends on distance	
Zoom ratio	16mm Fixed	
	Aperture Range F 1.8 – Infinity (P-Iris,	
Iris range	Automatic	

#### **Pavement Imaging and Rutting**

High resolution rutting data and surface imaging are collected in a single data stream using a three-dimensional (3D) pavement surface transverse profile data acquisition system. The 3D camera captures a laser line as it is projected over the pavement surface and uses the location of this line to measure the height deviations of the pavement surface. These height deviations can be used to calculate rutting in both wheelpaths. These deviations also provide a grayscale image detailing the change in height throughout the surface, i.e. providing depth measurements for cracking.

THREE-DIMENSIONAL PAVEMENT SURFACE AND TRANSVERSE PROFILE DATA ACQUISITION SYSTEM		
Surface Image Specifications		
Image size	1536 pixels/scan @3000 Hz	
Image width	4 meters (3950 mm nominal)	
Laser class	3B	
Power	16W (Two lasers @ 8W Ea)	
Vehicle speed limitations	62 mph	
Environment	Dry pavement, day or night	
Sensor size (approximate)	1536 pixels x 512 pixels	
Image display length	26.4 feet	
<b>Rutting Specifications</b>		
Reported rut depth units	Inches	
Vehicle speed limitations	Up to 62 mph	
Sampling rate	3000 profiles/second	
Transverse resolution	1536 points/profile	
Transverse field-of-view	14 feet	
Depth accuracy (nominal)	<1mm	
Environment	Dry pavement, day or night, above 32 degrees F	
Adherence to specifications	ASTM E1703M-95 (reapproved 2005)	

# **Distance Measuring Instrument (DMI)**

The DMI (Distance Measuring Instrument) obtains road length measurements that are accurate to 0.15% for speeds up to 60 mph. The DMI is connected to the hub of the rear wheel on the driver's side, and is calibrated to the revolutions of the rear vehicle axle on a regular basis.

# Roughness (IRI)

IRI SPECIFICATIONS		
Reported IRI units	Inches/mile	
Vehicle speed limitations	12-62 mph	
IRI equipment certification	Texas Transportation Institute (TTI)	
Wavelengths accommodated	0.5 feet to 300 feet	
IRI computed & reported	World Bank Technical Paper Number 46	
Environment	Dry pavement, day or night, above 32 degrees	
Adherence to specifications	ASTM E950 Class 1 & AASHTO M 328	

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

#### **GPS & Inertial Systems**

GPS is collected by an onboard system employing Omnistar real time correction and a spinning gyroscope to provide accurate positioning data in instances of satellite obstruction. All GPS coordinates are tied to an image and linear distance measurements.

GPS SPECIFICATIONS		
Static accuracy	Sub-meter	
Dynamic accuracy	2-3 meters	
Receiver	12 satellite tracking	
Coordinate system	Lat Lon WGS 84	
Environment	Day or night	
Cross-slope	± 1.75%	
Grade	± 1.75%	
Adherence to specifications	ASTM E1703M-95 (reapproved 2005)	

\*NOTE – GPS accuracy is dependent on many different factors. Satellite constellation, tree coverage, GPS receiver quality, and real-time correction availability can all affect the locational and elevation accuracies. The elevation (z coordinate) accuracy is less dependable than locational or horizontal accuracy (x/y coordinates or latitude/longitude). In areas of heavy tree coverage or poor satellite constellations, elevation data can vary by as much as +/- 100 feet.

# Appendix B

Methodology for Determining Condition Ratings Using Manual Rating Procedures

# **Description of Manual Rating Methods**

In 2013, the Federal Highway Administration updated existing Manual Rating Procedures in an effort to better align pavement conditions for Manually Rated Routes and Parking with the Highway Pavement Management Application (HPMA). HPMA is the Pavement Management System used by the FHWA to store inventory and condition data from the Road Inventory Program (RIP) and forecast future performance using prediction models. HPMA uses pavement condition data (collected by the Road Inventory Program) to develop life cycles for pavements and recommend treatments to maximize useable pavement life while minimizing costs associated with maintenance and repair.

The Federal Highway Administration (FHWA) developed a set of manual rating methods for pavement that are appropriate for Federal Roadways. Two different methods were developed for linear roads and a separate method was developed for parking areas and nonlinear roads. These methods employ a 0 to 100 rating scale and improve consistency and objectivity in the manual evaluation of surface distresses. They are compatible with ratings that are collected by the automated Data Collection Vehicle (DCV).

- The first of the two manual evaluation methods for roads uses rating criteria to assign index values to each distress type based on a visual evaluation of severity and extent.
- The second manual evaluation method for roads is very time demanding and is best employed on only a select set of routes which may have the highest visitor use and require a more intensive assessment. This method will be used for the Manual Rating of Function Class 1, 2, 7, and 8 Roads. This method is based on measurements that are recorded for each instance of a surface distress. These measurements are converted into index values using conversion formulas.
- Parking areas and non-linear roads are rated similar to the first method shown above, however, there are some slight differences due to the non-linear nature.

The details and criteria used for each of these rating methods are outlined below.

# **Visual Inspection Method for Manually Rating Secondary Roads**

The visual inspection method for manually rated roads uses condition rating criteria that have been developed by FHWA. This criteria is based on a visual evaluation of the severity and extent of distresses to determine the overall condition of the roadway. This method is used for secondary roads that are Functional Class 3, 4, 5, and 6. This constitutes the majority of manually rated roads collected by the Road Inventory Program.

#### **Rating Section Lengths**

For this method, Manually Rated Roads are rated in sections. These sections may be made based on length of changes in surface type or condition as described below. The ratings are then aggregated to give an overall rating for the Route:

- Rating sections should be no longer than 0.25 miles in order to keep the area being rated manageable.
- A new rating section may be started based on changes in condition, width, or surface type if these changes represent a significant portion of the route (are not isolated instances).
- If the road condition, width, and surface type remain constant then new sections do not need to be created unless the road exceeds 0.25 miles.

#### **Rating Criteria**

For this method, Manually Rated Roads are evaluated using a visual inspection of the six distress types listed below. Each distress is assigned one of five index values. An overall Surface Condition Rating (SCR) and Pavement Condition Rating (PCR) are calculated based on these index values.

- Alligator Cracking
  - o Rating based on percentage of road surface affected
- Longitudinal Cracking
  - o Rating based on severity level (crack width) and percentage of road section length of longitudinal cracks
- Transverse Cracking
  - o Rating based on crack width, crack spacing, and percentage of surface affected
- Patching
  - o Rating based on percentage of road surface affected
- Rutting
  - o Rating based on percentage of road section length affected by visible rutting (>1 inch depth) that requires remediation
- Roughness
  - o Manual assessments of roughness are not made due to the subjectivity of the measurement. Therefore, roughness is not incorporated into the PCR calculation of manually rated roads.

Concrete Routes also receive a PCR rating based on visual evaluation of the following six distress types.

- Slab Faulting at Joints
- Slab Cracking and breakup
- Surface Delamination and Pop-outs
- Joint Distresses
- Patching

# **Distress Measurement Method for Manually Rating Primary Roads**

A more intensive and time demanding assessment than our standard method was developed for Primary roads that are functional class 1, 2, 7, or 8. These high visitation roads are usually accessible by the automated Data Collection Vehicle but in rare instances may need to be manually rated. The method developed is based on measuring each instance of a distress. These measurements are totaled over each section length being measured and are then converted into index values between 0 and 100 (100 being a road with no distress) using index formula equations outlined below. The goal of this method is to produce measured index values which are directly comparable to the automated DCV.

#### **Rating Section Lengths**

For the distress measurement method roads are broken into sections in order to rate. Distress measurements are totaled for each section separately in order to determine the index value for that particular section. The section length to be rated is determined based on the following rules:

- Rating sections are between 0.25 and 0.50 miles long
- A new rating section is created if there is a significant change in condition or pavement width
- If there are no significant changes in condition or pavement width, rating sections are broken at equal intervals, typically 0.50 miles

#### **Manual Distress Measurements**

#### **Alligator Cracking**

- Alligator cracking is measured by area (square feet). Instances of Alligator cracking are measured along the length and multiplied by the average width of the distressed area.
- The index for alligator cracking takes the total area of cracking compared to the interval length and converts it to a percentage. That percentage is then input into an index formula that yields a value between 0 and 100 (0 being the most distressed).
- Severity levels are not defined for manually measured Alligator cracks. The Alligator Crack Index formula is calculated based on an assumption of medium severity.

#### **Longitudinal Cracking**

- Longitudinal cracking (cracking in the direction parallel to the roadway) is measured by length (ft.).
- The index for longitudinal cracking takes the total length of cracking compared to the interval length and converts it to a percentage broken down by severity. That percentage is then input into a formula that yields a value between 0 and 100 (0 being the most distressed).
- Two severity levels are defined for manually measured Longitudinal Cracks. Lower severity cracks are those with a mean width of less than 0.25 inches. Sealed cracks with sealant in good condition are also considered lower severity. Higher severity cracks are those with a mean width of greater than 0.25 inches.

# **Transverse Cracking**

- Transverse cracking (cracking in the direction perpendicular to the roadway) is measured by length (ft).
- The index for transverse cracking takes the total number of cracks (1 crack would encompass the full lane) broken down by severity. The total numbers of each severity are then put into a formula that yields a value between 0 and 100 (0 being the most distressed).
- Two severity levels are defined for manually measured Transverse Cracks. Lower severity cracks are those with a mean width of less than or equal to 0.25 inches. Sealed cracks with sealant in

good condition are also considered lower severity. Higher severity cracks are those with a mean width of greater than 0.25 inches.

#### **Patching and Potholes**

- Patching and Potholes are measured by area (square feet). Instances of Patching are measured along the length and multiplied by the average width of the patch.
- Instances of full lane width patching cannot be longer than 0.100 miles, otherwise is should be considered a pavement change rather than a distress.
- There are no stratified severities for Patching. It is either present or it is not.

#### Rutting

- Visible rutting is measured by length (ft.) in each wheel path. Only visible ruts are rated, which are ruts greater than 1 inch deep.
- All rutting recorded in a manual rating is considered to be high severity (> 1 inch). Lesser severities are generally not distinguishable in a visual inspection.

#### Roughness

• Manual assessments of roughness are not made due to the subjectivity of the measurement. Therefore, roughness is not incorporated into the PCR calculation of manually rated roads.

#### **Index Formulas for Distress Measurement Method:**

The method used to convert distress measurements into index values is shown below. The Surface Condition Rating and Pavement Condition Rating are calculated based on these index values.

#### **Alligator Crack Index for Manual Rating:**

**AC INDEX** = 
$$100 - 40 * (\% ALLIGATOR / 15)$$

#### Where:

% ALLIGATOR = Percent of total area of section being rated that contains Alligator cracking.

#### **Longitudinal Crack Index for Manual Rating:**

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

#### Where:

%LOW = Percent length of longitudinal cracks where crack width less than or equal to 0.25 inches

%HIGH = Percent length of longitudinal cracks where crack width greater than 0.25 inches

#### **Transverse Crack Index for Manual Rating:**

$$TC_{INDEX} = (100 - 40) * [(LOW / 21.1) + (MED / 4.4)]$$

#### Where:

LOW = Count of the total number of transverse cracks within the section length where one transverse crack is equal to the lane width and the crack width  $\leq 0.25$  inches HIGH = Count of the total number of transverse cracks within the section length where one transverse crack is equal to the lane width and the crack width  $\geq 0.25$  inches

Number of cracks is computed as:

Total length of transverse cracks/Lane width

# **Patching Index for Manual Rating:**

Where:

**%PATCHING** = Percentage of pavement section that contains patching/potholes.

# **Rutting Index for Manual Rating:**

$$RUT_INDEX = 100 - 40 * (\% RUTTING / 40)$$

Where:

%RUTTING = Percentage length of high severity rutting within the section being measured.

# **Method for Manually Rating Paved Parking Areas and Non-Linear Roads**

Parking areas are evaluated based on a visual inspection using condition rating criteria that has been developed by FHWA. This criteria is based on a visual evaluation of the severity and extent of distresses to determine the overall condition of the parking area. This overall condition rating is linked to the level of repair and rehabilitation practices required.

A distress index is determined for each of the distresses listed below for Asphalt and Concrete Parking areas. The overall Pavement Condition Rating (PCR) of the parking lot is driven by the most severe distress present.

#### **Rating Criteria:**

#### **Asphalt Parking Distress Types**

- Alligator Cracking
  - o Rating based on percentage of road surface affected
- Longitudinal, Transverse and Block cracking
  - o Rating based on crack width, crack spacing, and percentage of surface affected
- Rutting and Distortions
  - o Rating based on percentage of road surface affected
- Hot Mix Asphalt Patches
  - o Rating based on overall percentage of HMA patches
- Potholes and Cold Patches
  - o Rating based on percentage of road surface affected
- Surface Raveling and Bleeding
  - o Rating based on percentage of road surface affected

#### **Concrete Parking Distress Types**

- Slab Faulting at Joints
  - o Rating based on height differential between adjacent slabs or pieces of broken slabs
- Slab Cracking and breakup
  - o Rating based on quantity of cracks and if slab is acting to able distribute load as designed
- Surface Delamination and Pop-outs
  - o Rating based on percentage of road surface affected to include pop-outs, spalls and surface delamination
- Joint Distresses
  - o Rating based on sealant condition and concrete distresses at/or adjacent to joints
- Patching
  - o Rating based on percentage of road surface affected

# **Curb Inspection and Treatments**

During inspections of manually rated parking lots and routes, the curb reveal and overall curb condition are evaluated. The curb condition is used to determine a recommendation.

#### **Curb Reveal**

The vertical distance on the curb face from the gutter flow line or pavement surface to the top of curb. When resurfacing adjacent to curb, the resulting curb reveal should be no less than 4 inches. Additionally, when resurfacing adjacent to a gutter, the resulting pavement surface should be flush with the gutter pan. In cases where a resurfacing would violate either of these parameters, the surface may need to be milled or removed to adjust to these field conditions.

#### **Curb Recommendations**

The following treatment categories are based on the overall percentage of distresses along the entire curb structure for a specific pavement structure. Distresses include spalling, cracking, loss of material and any other damage which prevents the curb from conveying storm runoff or failing to perform in its intended function.

- Overall curb damage ranging 0%-5%:
  - o DO NOTHING
- Overall curb damage ranging 5%-20%
  - o LIGHT REPAIR
- Overall curb damage ranging 20%-50%
  - o MODERATE REPAIR
- Overall curb damage greater than 50%:
  - o REPLACE

# **GPS for Manually Rated Roads and Parking**

GPS information for Manually Collected Cycle 6 Routes will be recorded using the latest hardware and software by TRIMBLE 6000 Series GeoXT. Cycle 6 GPS collection units will allow access to GPS and GLONASS, improving overall GPS reliability, accuracy and precision to submeter accuracy. Additionally, the new GPS units have an enhanced ability to collect accurate signals underneath tree cover or adjacent to buildings or natural terrain with extreme vertical gradations that typically reduce GPS accuracy. Trees and buildings create "satellite shadows", limiting the areas where you can reliably collect high-accuracy GPS data. The updated GPS receiver will deliver improved usable data under tree canopy or in natural or urban canyons. Routes that were previously collected accurately will not be recollected in Cycle 6.

TRIMBLE 6000 SERIES GeoXT GPS SPECIFICATIONS		
Receiver	Trimble Maxwell™ 6 GNSS chipset	
Channels	220 channels	
Systems	GPS / GLONASS / WAAS	
Accuracy	Sub-meter	
Operation Temperature	-20 °C to +60 °C (-4 °F to +140 °F)	
Cellular and Wireless	UMTS / HSDPA / GPRS / EDGE / Wi-Fi / Bluetooth	
Internal Still Camera w/ GEOTAG ability	Autofocus 5 MP (JPG) and WMV w/ Audio	

# Appendix C Description of Cycle 6 Deliverables

# **Interim Report Delivery**

Partial report will be primarily focused on manually collected routes. The report will be released approximately four months after manual collection of parking lots and other manually collected routes to provide NPS an immediate report on the condition of routes collected manually.

The Interim Report Delivery consists of an Interim Report PDF that contains the following:

- Parking lot and manually rated route conditions
- Route ID Reports
- Route ID Changes Report.

Please note that since the Data Collection Vehicle will have not collected data at this point in time, the following will not be in the Interim Report:

- No park summary information will be provided in the report
- No DCV data will be provided in report
- No road logs will be provided in report
- No maps will be provided in report
- Any mileages collected will be approximate

All data provided in the Interim Report will also be included in the Final Report.

# **Final Report Delivery**

The Final Report will contain all data collected by Manual Inspection and the Data Collection Vehicle. All information provided in the Interim Report will be included in the Final report. Manually collected information reported in the Interim Report may be updated in the Final Report if pavement conditions have substantially changed between the Manual Inspection and Data Collection Vehicle Inspection or other unforeseen circumstances.

The final report will be released approximately 8 months after the Data Collection Vehicle completes its collection of that specific park.

Data included in the Final Report package consists of the following:

- Condition Photos: All photos taken during Cycle 6.
- **Data Video:** Data and video of each route collected by the DCV will viewable through PATHVIEW software. PATHVIEW Software and training will be provided to NPS personnel by Eastern Federal Lands.
- **GPS on All Rated Routes:** All GPS data collected from the DCV will be provided. Parking areas, some roads, and other paved areas that are not fully drivable with the DCV are collected manually by field technicians. GPS is collected for these routes using portable Trimble GPS units.
  - o GPS will be provided as Shapefiles and KMLs
  - o All GPS data related to road collection with be linear referenced to the collected length
- **Geodatabase Background and Metadata:** In addition to this park report, a geodatabase containing both tabular and spatial data specific to this park has been provided.
  - o All data disseminated in the preceding report has been obtained from the tables and fields within said geodatabase. The geodatabase can be referenced for tabular data via Microsoft Access or for both tabular and spatial data via ESRI's ArcGIS Suite of software which consists of; ArcMap, ArcCatalog and ArcExplorer.
  - o Consolidating the RIP data into one database creates a seamless relationship of tables and geographic data. It allows RIP to facilitate easier updates and enhancements in the future. A geodatabase can be thought of as simply a database containing spatial data. A complete and thorough description of the tables and fields contained within this geodatabase can be found in the metadata. The metadata is attached directly within the geodatabase and can be accessed via ESRI's ArcCatalog.
- **Report (RIP Report and Route ID):** A PDF report will be provided that includes a list of all routes and key data. Condition reports for each route will be included. All changes, additions and deletions to any route will be included in the report. Features along routes will not be collected in Cycle 6.

#### **Partial DCV Collections**

Additional Partial DCV Collections may be done on specific parks depending on their size and overall mileage of routes within its boundaries during Cycle 6. Parks with greater than 10 miles of paved roadways will receive at least one additional Partial DCV collection during Cycle 6. Data collected during these Partial DCV Collections will not result in the delivery of an additional report to the park.

Data collected by the DCV during Partial DCV Collection will be used to improve HPMA modeling by providing additional "snapshots in time" of park pavement conditions. This improved HMPA modeling will assist in the programing and budgeting of future projects which will help maximize the life of pavement infrastructures.

Instead of receiving a report of conditions collected during the Partial DCV collection, the park will receive a formal letter from the Road Inventory Program requesting coordination for the additional Partial DCV collection, identifying the dates of the Partial DCV Collection and will reinforce the purpose and importance of the Partial DCV Collection.

# Appendix D Glossary of Terms and Abbreviations

# **Glossary of Terms and Abbreviations**

TERM OR ABBREVIATION	DESCRIPTION OR DEFINITION
AC	Alligator Cracking
CRS	Condition Rating Sheets (Section 5)
Curb Recommendation	Curb remediation based on overall percentage of curb distress
Curb Reveal	Height of curb exposed from gutter flow line to top of curb
DCV	Data Collection Vehicle
Excellent	Excellent rating with an index value of 95 to 100
Fair	Fair rating with an index value from 61 to 84
FUNCT_CLASS	Functional Classification (see Route ID, Section 2)
Good	Good rating with an index value from 85 to 94
IRI	International Roughness Index
HPMA	Highway Pavement Management Application
Lane Width	Width from road centerline to fogline, or from centerline to edge- of-pavement when no fogline exists
LC	Longitudinal Cracking
MRR	Manually Rated Route
MRL	Manually Rated Line
MRP	Manually Rated Polygon
N/A	Not Applicable
NC	Not Collected
PATCH	Patching and Potholes
Paved Width	Width from edge-of-pavement to edge-of-pavement
PCR	Pavement Condition Rating
PKG	Parking Area
Poor	Poor rating with an index value of 0 to 60
RCI	Roughness Condition Index
SC	Structural Cracking
SCR	Surface Condition Rating
TC	Transverse Cracking