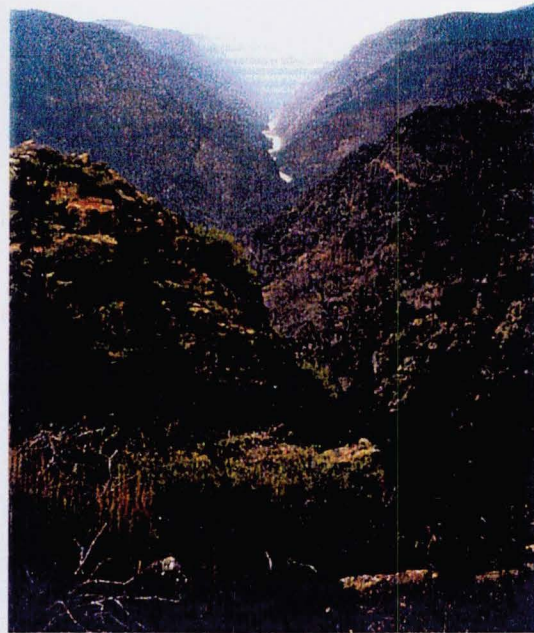
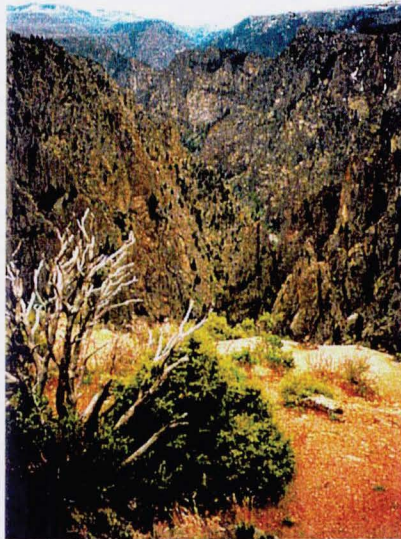
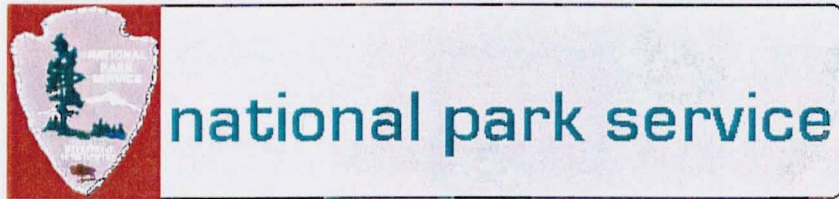


D-15B

THE ROAD INVENTORY  
for  
**BLACK CANYON OF THE GUNNISON  
NATIONAL MONUMENT**  
Colorado



Prepared By:  
Federal Highway Administration  
Eastern Federal Lands Highway Division  
April 1999

PLEASE RETURN TO:  
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NATIONAL PARK SERVICE



SCANNED

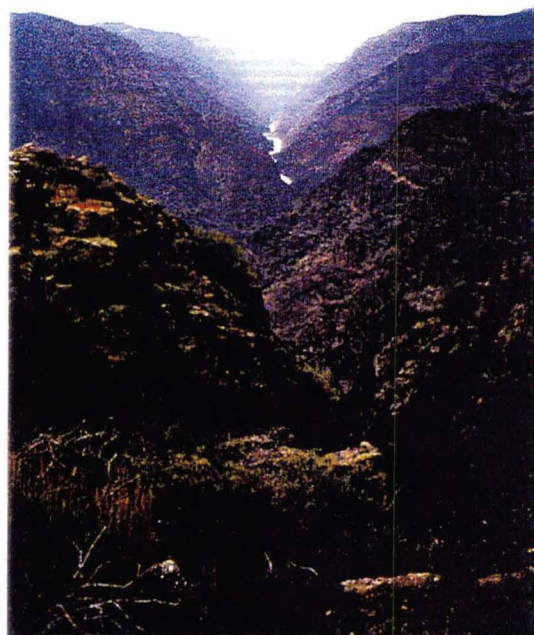
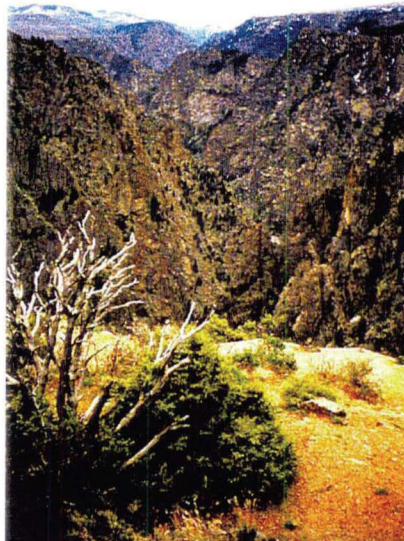


D-15 B

THE ROAD INVENTORY  
for  
**BLACK CANYON OF THE GUNNISON  
NATIONAL MONUMENT**  
Colorado



**national park service**



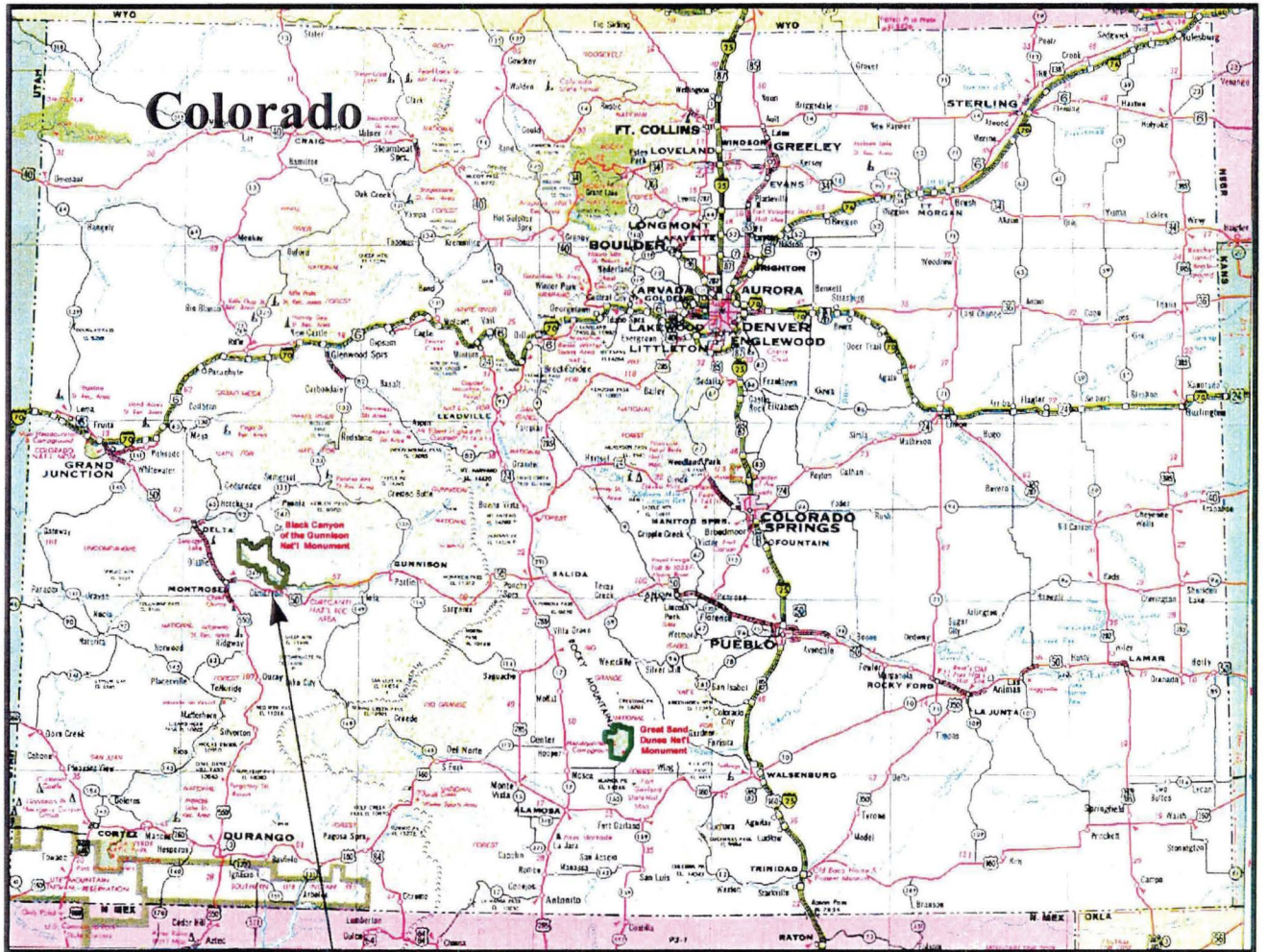
Prepared By:  
Federal Highway Administration  
Eastern Federal Lands Highway Division  
April 1999

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# Black Canyon of the Gunnison National Monument in Colorado



**Black Canyon of the Gunnison  
National Monument**



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## INTRODUCTION

**Background:** In July 1976, amended December 1980, the National Park Service (NPS) and the Federal Highway Administration (FHWA) entered into a Memorandum of Agreement (MOA), establishing the Road Inventory Program (RIP). The purpose of RIP, per the 1980 MOA, was to develop long range and short range costs and programs to bring NPS roads up to, or to maintain, designated standards; as well as provide a database so the NPS can revise their Maintenance Management System, if necessary. A supplementary Project Agreement, Number DTFH71-98-X-00005, was prepared and signed by the FHWA and the NPS to coordinate the project roles and responsibilities, funding requirements, and define the deliverables for the completion of Cycle 2 (January 1998 to January 2000).

Since 1984 the funding has been derived from the NPS FLHP (Title 23) planning funds, and coordinated by the National Park Service Park Facility Management Division. The need for a total road information database was mandated by the requirements for a continuing, comprehensive, and coordinated (3-C) planning process, and Maintenance Management System.

Federal Lands Highway (FLH) was assigned the task to inventory maintenance items (pavement type and quantities, location of culverts, ditches, guardrail, etc.), identify pavement distresses and evaluate the condition of existing park roads, summarize the data and findings in a report, and provide a videolog of the NPS roads system.

**Objective:** The objective of the RIP report is to provide NPS personnel at all levels, with the basic information needed for effective road and road system planning, management, operations, and maintenance.

These reports are prepared in standard format and content with comprehensive data analysis for each park, which will replace the old Brown Books. The data presented in each report will vary greatly from park to park, but the presentation of the report will be uniform in format and will become a seamless document throughout the NPS roads system, displaying site specific data for each park.

**Scope:** RIP is a national program coordinated by the Eastern Federal Lands Highway Division (EFLHD) of the FHWA. The FHWA goal for the paved park roads is to provide timely, cost effective, and accurate roadway inventories and pavement surveys of all the National Park Roads. Dissemination of this data to the NPS will provide them with a data base upon which they can develop a funding and maintenance management program to maintain roadway standards of the National Park System to prevent further deterioration over the next five years.



In an effort to track the condition of the park roads, a cyclic data collection and reporting process was implemented for all parks and regions. Monitoring the condition and system performance of the paved roads over time using a percent good, fair, and poor condition rating provided a realistic means of assessing the funding needs for road improvements. The pavement condition rating system is described in Section VI of this report. This pavement condition performance assessment will determine the level of paved park road deterioration throughout the park road system.

The report will include a Park Summary, a Park Summary Map, a Park Route Inventory, a Maintenance Features Summary, a Paved Route Condition Rating, and a Features Inventory. Also included is a listing of all unpaved routes in each park and various Appendices.

The FHWA RIP team will inspect, rate, inventory the roads, and prepare the final RIP reports for distribution to the NPS. All the field work is coordinated with the site specific park and the regional offices to ensure customer satisfaction. The FHWA Washington Office coordinates policy and prepares national reports and needs assessment studies for Congress.

The FHWA is responsible for all the data presented in this report. Anyone having questions or comments regarding the contents of this report are encouraged to contact the FHWA RIP Coordinator or the NPS RIP Coordinator in your Region.

RIP Coordinator  
Technical Services, HTS-15  
FHWA/EFLHD  
21400 Ridgetop Circle  
Sterling, VA 20166  
(703) 285-0076





# Black Canyon of the Gunnison National Monument Summaries

PARK TOTAL SUMMARY ITEMS	TOTAL	DATE
PAVED ROUTE MILES	8.75	980515
UNPAVED ROUTE ESTIMATED MILES	7.38	980515
PAVED AND UNPAVED ROUTE MILES	16.13	980515
PARKING LOT LANE MILES	1.99	980515
PAVED LANE MILES	18.78	980515
PARK ACRES	20766	980515

Note: Paved Lanes Miles includes parking lot areas which have been converted to lane miles using an 11-foot lane width.

**RED LETTER** denotes estimated mileage.

## Estimated Unpaved Mileage Summary By Functional Class

F. C.	MILEAGE	PERCENTAGE
I	-	-
II	6.30	85.37%
III	0.64	12.74%
IV	-	-
V	0.14	1.90%
VI	-	-
VII	-	-
VIII	-	-

## Paved Route Miles and Percentages by Functional Class and SCR

F. C.	Excellent (95 - 100)		Good (85 - 94)		Fair (61 - 84)		Poor (<= 60)		TOTAL MILES
	MILES	%	MILES	%	MILES	%	MILES	%	
I	6.06	69.28%	0.77	8.84%	0.80	9.18%	-	-	7.64
II	-	-	-	-	-	-	-	-	-
III	-	-	-	-	0.24	2.80%	0.79	9.02%	1.03
IV	-	-	-	-	-	-	-	-	-
V	-	-	-	-	-	-	0.08	0.83%	0.08
VI	-	-	-	-	-	-	-	-	-
VII	-	-	-	-	-	-	-	-	-
VIII	-	-	-	-	-	-	-	-	-
<b>Totals</b>	6.06	69.28%	0.77	8.84%	1.05	11.98%	0.87	9.90%	<b>8.75</b>

**BLACK CANYON OF THE GUNNISON NM - BLCA - 1377**

**SECTIONING AND SAMPLE UNIT LOCATION**

ROUTE NUMBER	SECTION			SAMPLE UNIT			PERCENT SAMPLED	
	NUMBER	START	END	LENGTH	NUMBER	START		LENGTH
010	1	0.000	0.970	0.970	13	0.456	200'	3.9
010	2	0.970	1.822	0.852	2	1.008	200'	4.5
010	3	1.822	2.782	0.960	14	2.316	200'	4.0
010	4	2.782	3.601	0.819	10	3.124	200'	4.6
010	5	3.601	4.473	0.872	10	3.943	200'	4.4
010	6	4.473	5.369	0.896	15	5.005	200'	4.2
010	7	5.369	6.172	0.803	11	5.749	200'	4.7
010	8	6.172	6.864	0.692	17	6.780	200'	5.5
010	9	6.864	7.637	0.773	3	6.940	200'	4.9
200	1	0.000	0.319	0.319	3	0.076	200'	11.9
200	2	0.319	0.565	0.246	3	0.395	200'	15.4
200	3	0.565	0.806	0.241	4	0.679	200'	15.8
200	4	0.806	1.034	0.228	1	0.806	200'	16.7
400	1	0.000	0.077	0.077	2	0.038	200'	49.4

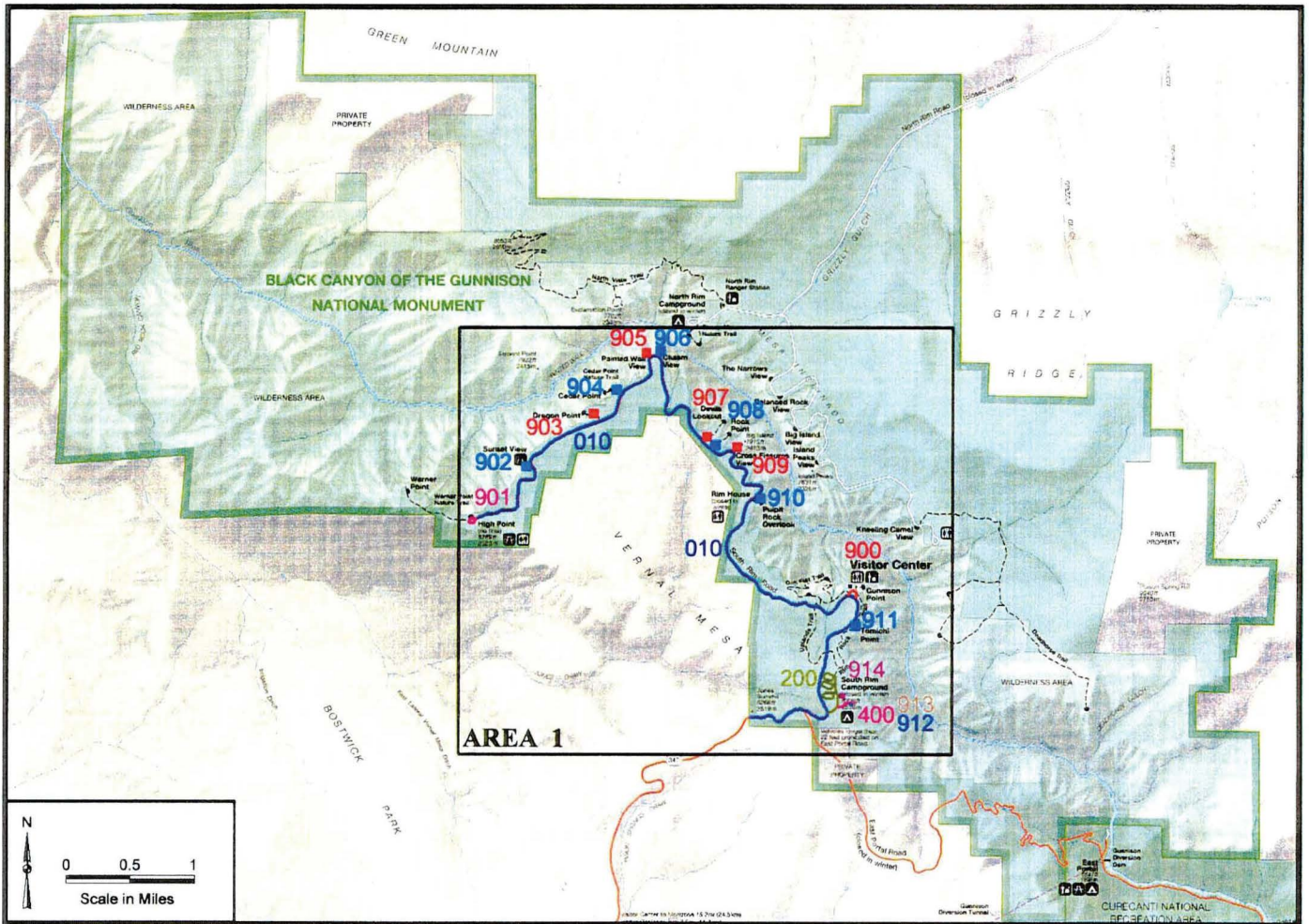
PERCENTAGE OF PARK SAMPLED 6.08%





# BLACK CANYON OF THE GUNNISON NATIONAL MONUMENT

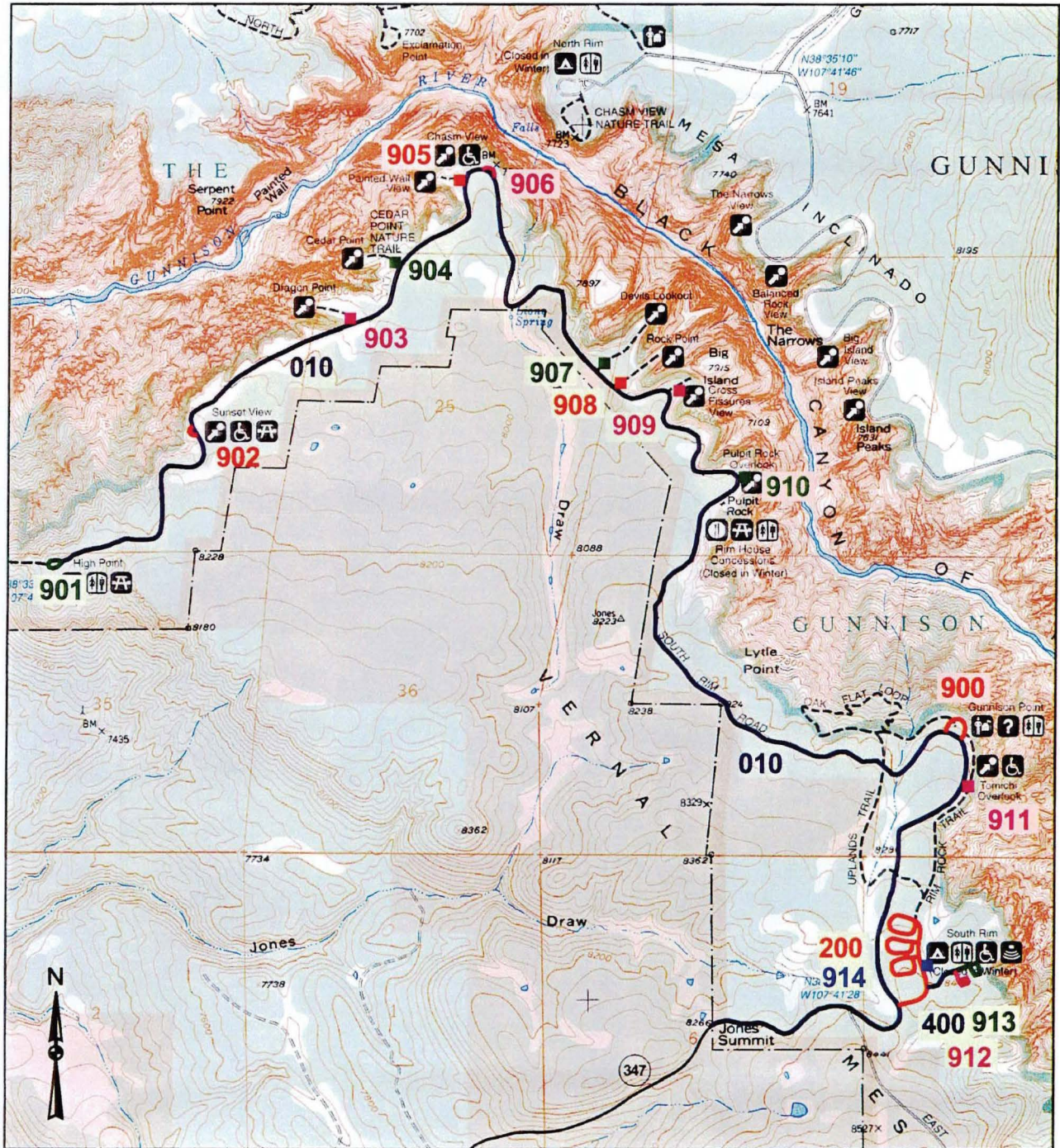
## ROUTE LOCATION KEY MAP





# BLACK CANYON OF THE GUNNISON NATIONAL MONUMENT

## ROUTE LOCATION AREA MAP 1

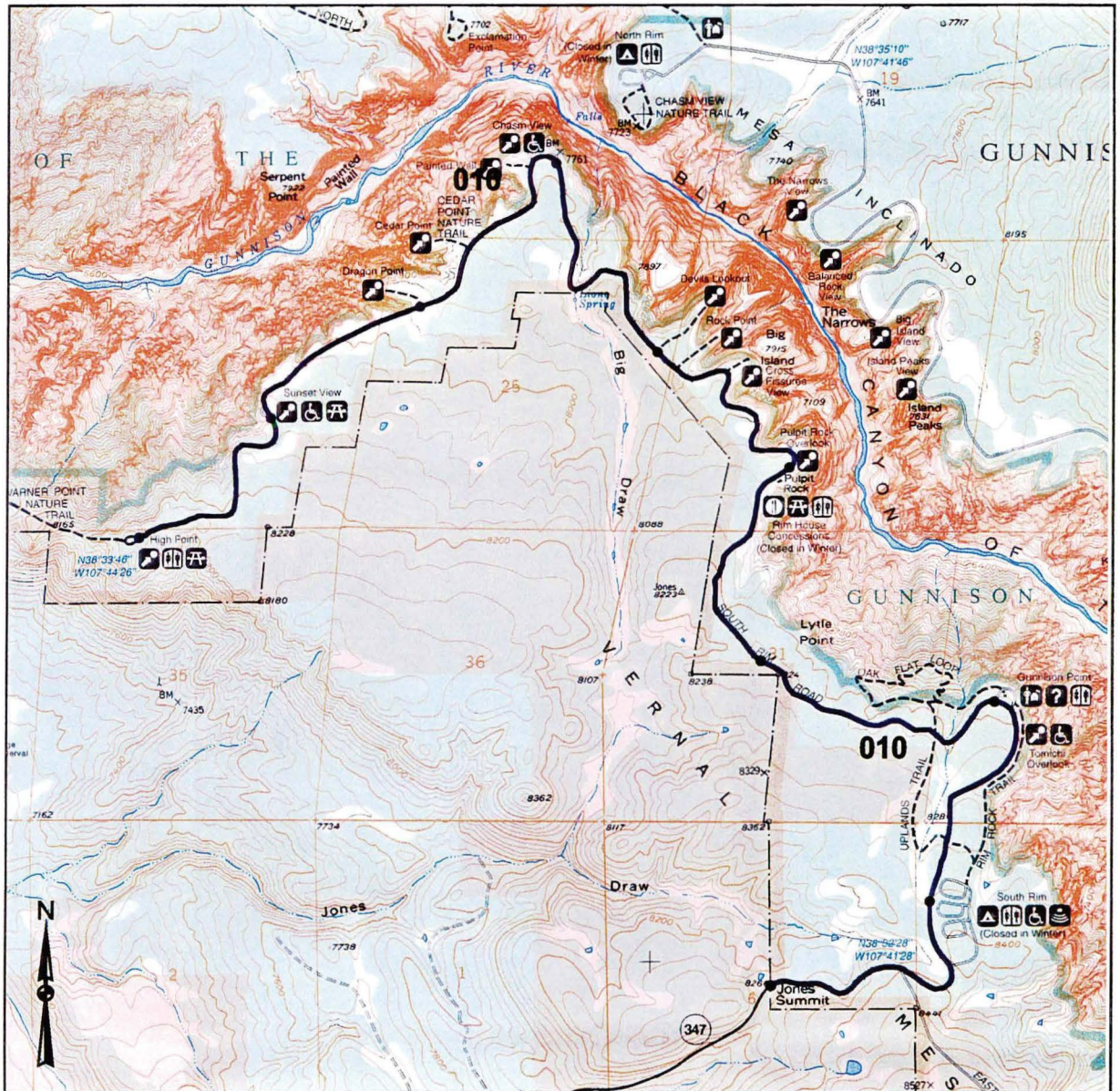




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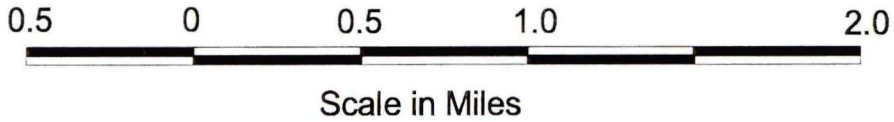
## ROUTE CONDITION AREA MAP 1 SCR/DCR - by Section

FUNCTIONAL CLASSIFICATION I, II, VII, VIII ROADS



SCR Excellent	Good	Fair	Poor	DCR Poor

\* SCR reported in lieu of PCR due to lack of roughness data.







**BLACK CANYON OF THE GUNNISON NM - BLCA - 1377  
ROUTE IDENTIFICATION LIST (NUMERIC)**

RTE NO.	RTE NAME	RTE MILEAGE	RTE DESCRIPTION	PAVED MILES	UNPAVED MILES	NO. OF LANES	FUNC. CLASS
010	SOUTH RIM DRIVE	7.64	FROM SOUTH PARK BDY, NORTH & WEST TO RTE 901	7.64	-	2	I
200	SOUTH RIM CAMPGROUND ROAD	1.03	FROM RTE 10, EAST & NORTH THROUGH CAMPGROUND LOOPS (3)	1.03	-	2	III
201	LAST VIEW ROAD	6.30	FROM NORTH PARK BDY, SOUTH TO END OF LOOP	-	6.30	2	II
202	CHASM VIEW CAMPGROUND (NORTH RIM)	0.94	FROM RTE 201, WEST TO END OF CAMPGROUND LOOP	-	0.94	2	III
400	SOUTH RIM RESIDENCE ROAD	0.08	FROM RTE 200, EAST TO RTE 912 & 913	0.08	-	2	V
401	SOUTH RIM C.G. WATER TANK ROAD	0.08	FROM RTE 200, WEST TO WATER TANK	-	0.08	1	V
402	PULPIT ROCK WATER TANK ROAD	0.06	FROM RTE 10, WEST TO WATER TANK (NEAR PULPIT ROCK)	-	0.06	1	V
900	GUNNISON POINT VISITOR CENTER PARKING AREA	24,760 SF	FROM RTE 10 EAST, TO RTE 10 WEST	0.43	-	-	-
901	HIGH POINT PARKING AREA	17,432 SF	FROM END OF RTE 10, TO END OF LOOP	0.30	-	-	-
902	SUNSET VIEW PARKING	8,420 SF	FROM RTE 10 NORTH, TO RTE 10 SOUTH	0.14	-	-	-
903	DRAGON POINT PARKING	2,530 SF	PARKING PULLOUT ON RTE 10, NORTH SIDE	0.04	-	-	-
904	CEDAR POINT OVERLOOK PARKING	3,320 SF	PARKING PULLOUT ON RTE 10, NORTH SIDE	0.06	-	-	-
905	PAINTED WALL VIEW PARKING	2,150 SF	PARKING PULLOUT ON RTE 10, NORTH SIDE	0.04	-	-	-
906	CHASM VIEW OVERLOOK PARKING	5,380 SF	PARKING PULLOUT ON RTE 10, NORTH SIDE	0.09	-	-	-
907	DEVILS OVERLOOK PARKING	2,290 SF	PARKING PULLOUT ON RTE 10, NORTH SIDE	0.04	-	-	-
908	ROCK POINT PARKING	2,780 SF	PARKING PULLOUT ON RTE 10, NORTH SIDE	0.05	-	-	-
909	CROSS FISSURES OVERLOOKS PARKING	2,865 SF	PARKING PULLOUT ON RTE 10, NORTH SIDE	0.05	-	-	-
910	PULPIT ROCK OVERLOOK PARKING	3,555 SF	PARKING PULLOUT ON RTE 10, EAST SIDE	0.06	-	-	-
911	TOMICHI POINT PARKING	10,260 SF	FROM RTE 10 SOUTH, TO RTE 10 NORTH	0.18	-	-	-
912	SOUTH RIM RESIDENCE ROAD PARKING	5,540 SF	FROM RTE 400 END, SOUTH TO PARKING	0.10	-	-	-
913	SOUTH RIM MAINTENANCE AREA	18,295 SF	FROM RTE 400 END, EAST TO MAINTENANCE AREA	0.31	-	-	-
914	SOUTH RIM CAMPGROUND ROAD PARKING	5,870 SF	PARKING AREA ON RTE 200, EAST SIDE	0.10	-	-	-
915	SOUTH RIM GIFT SHOP PARKING	-	FROM RTE 10, EAST TO PARKING (AT RIM SHOP)	-	-	-	-
916	SOUTH RIM MAINTENANCE UNPAVED PARKING	-	FROM RTE 913, EAST TO PARKING	-	-	-	-

**KEY**

**RED LETTER** DENOTES ESTIMATED MILEAGE

PAVED ROADS
UNPAVED ROADS
PAVED PARKING AREAS
UNPAVED PARKING AREAS



**BLACK CANYON OF THE GUNNISON NM - BLCA - 1377  
ROUTE IDENTIFICATION LIST (ALPHABETIC)**

RTE NO.	RTE NAME	RTE MILEAGE	RTE DESCRIPTION	PAVED MILES	UNPAVED MILES	NO. OF LANES	FUNC. CLASS
904	CEDAR POINT OVERLOOK PARKING	3,320 SF	PARKING PULLOUT ON RTE 10, NORTH SIDE	0.06	-	-	-
202	CHASM VIEW CAMPGROUND (NORTH RIM)	0.94	FROM RTE 201, WEST TO END OF CAMPGROUND LOOP	-	0.94	2	III
906	CHASM VIEW OVERLOOK PARKING	5,380 SF	PARKING PULLOUT ON RTE 10, NORTH SIDE	0.09	-	-	-
909	CROSS FISSURES OVERLOOKS PARKING	2,865 SF	PARKING PULLOUT ON RTE 10, NORTH SIDE	0.05	-	-	-
907	DEVILS OVERLOOK PARKING	2,290 SF	PARKING PULLOUT ON RTE 10, NORTH SIDE	0.04	-	-	-
903	DRAGON POINT PARKING	2,530 SF	PARKING PULLOUT ON RTE 10, NORTH SIDE	0.04	-	-	-
900	GUNNISON POINT VISITOR CENTER PARKING AREA	24,760 SF	FROM RTE 10 EAST, TO RTE 10 WEST	0.43	-	-	-
901	HIGH POINT PARKING AREA	17,432 SF	FROM END OF RTE 10, TO END OF LOOP	0.30	-	-	-
201	LAST VIEW ROAD	6.30	FROM NORTH PARK BDY, SOUTH TO END OF LOOP	-	6.30	2	II
905	PAINTED WALL VIEW PARKING	2,150 SF	PARKING PULLOUT ON RTE 10, NORTH SIDE	0.04	-	-	-
910	PULPIT ROCK OVERLOOK PARKING	3,555 SF	PARKING PULLOUT ON RTE 10, EAST SIDE	0.06	-	-	-
402	PULPIT ROCK WATER TANK ROAD	0.06	FROM RTE 10, WEST TO WATER TANK (NEAR PULPIT ROCK)	-	0.06	1	V
908	ROCK POINT PARKING	2,780 SF	PARKING PULLOUT ON RTE 10, NORTH SIDE	0.05	-	-	-
401	SOUTH RIM C.G. WATER TANK ROAD	0.08	FROM RTE 200, WEST TO WATER TANK	-	0.08	1	V
200	SOUTH RIM CAMPGROUND ROAD	1.03	FROM RTE 10, EAST & NORTH THROUGH CAMPGROUND LOOPS (3)	1.03	-	2	III
914	SOUTH RIM CAMPGROUND ROAD PARKING	5,870 SF	PARKING AREA ON RTE 200, EAST SIDE	0.10	-	-	-
010	SOUTH RIM DRIVE	7.64	FROM SOUTH PARK BDY, NORTH & WEST TO RTE 901	7.64	-	2	I
915	SOUTH RIM GIFT SHOP PARKING	-	FROM RTE 10, EAST TO PARKING (AT RIM SHOP)	-	-	-	-
913	SOUTH RIM MAINTENANCE AREA	18,295 SF	FROM RTE 400 END, EAST TO MAINTENANCE AREA	0.31	-	-	-
916	SOUTH RIM MAINTENANCE UNPAVED PARKING	-	FROM RTE 913, EAST TO PARKING	-	-	-	-
400	SOUTH RIM RESIDENCE ROAD	0.08	FROM RTE 200, EAST TO RTE 912 & 913	0.08	-	2	V
912	SOUTH RIM RESIDENCE ROAD PARKING	5,540 SF	FROM RTE 400 END, SOUTH TO PARKING	0.10	-	-	-
902	SUNSET VIEW PARKING	8,420 SF	FROM RTE 10 NORTH, TO RTE 10 SOUTH	0.14	-	-	-
911	TOMICHI POINT PARKING	10,260 SF	FROM RTE 10 SOUTH, TO RTE 10 NORTH	0.18	-	-	-

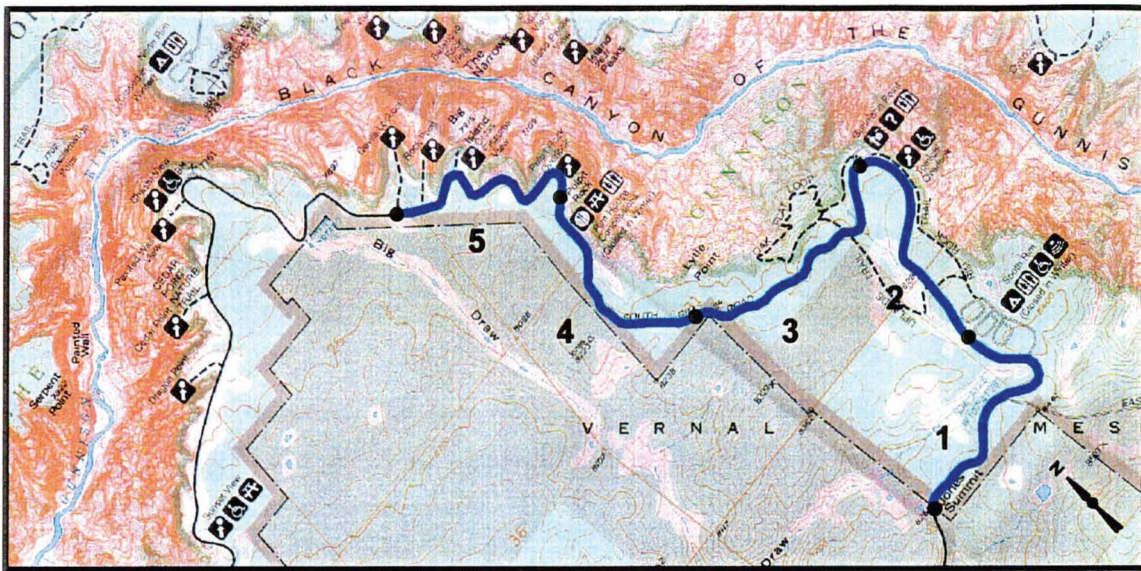
**KEY**

**RED LETTER** DENOTES ESTIMATED MILEAGE

PAVED ROADS
UNPAVED ROADS
PAVED PARKING AREAS
UNPAVED PARKING AREAS







SCR Excellent  Good  Fair  Poor  DCR Poor

\* Roughness data is not available for this park, therefore only the SCR is calculated.

Intermountain Region  
 Rocky Mountain Cluster : BLCA : 1377 : Black Canyon of the Gunnison National Monument

ROUTE: 010 SOUTH RIM DRIVE TOTAL LENGTH: 7.64 Miles

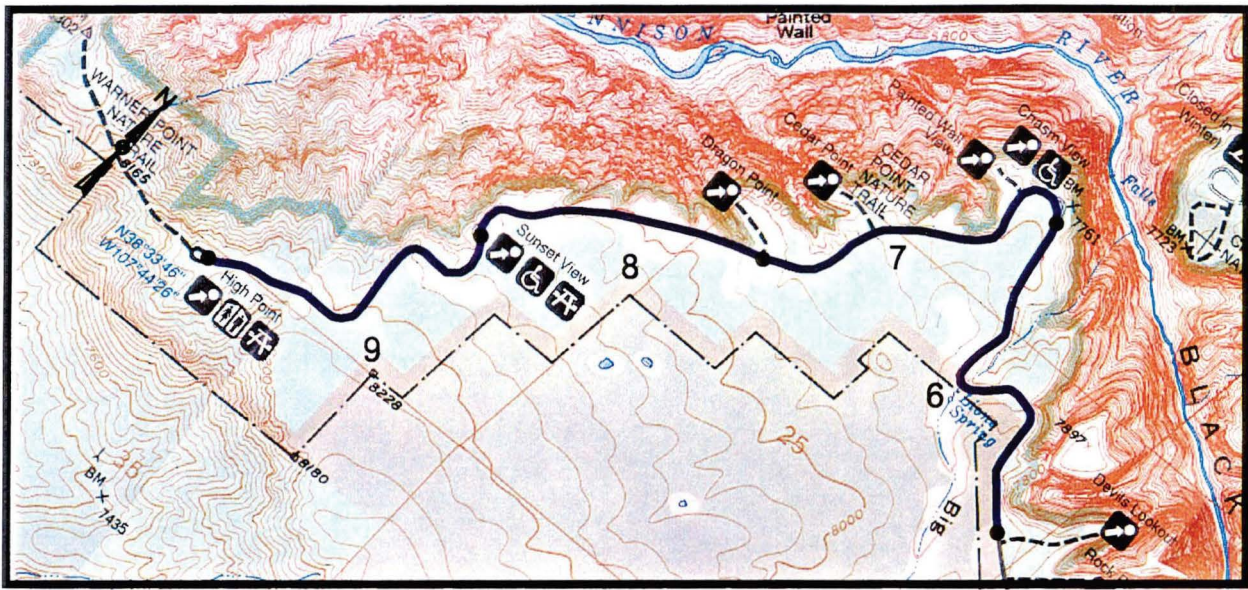
Section Number	1	2	3	4	5
Section Length (mi)	0.97	0.85	0.96	0.82	0.87
AADT	192	192	192	192	192
SADT	NA	NA	NA	NA	NA
ADT Date	04/98	04/98	04/98	04/98	04/98
<b>Cross Section Information</b>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	27	25	25	25	28
Lane Width (ft)	12	12	12	12	12
Shoulder Width (ft)	2	1	2	0	2
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	100	100	100	100	100
Alligator Cracking	100	100	100	100	100
Rutting Index	100	100	100	100	100
Patching Index	100	100	100	100	100
Transverse Cracking	100	100	100	100	100
Longitudinal Cracking	100	97	100	100	100
Shoulder Condition Rating	Good	Good	Good	NA	Excellent
Drainage Condition Rating	Good	Fair	Good	Good	Excellent

COMMENTS:

- Photo #01 - Section 1, Sample Unit 13 (MP 0.46)
- Photo #02 - Section 1, Pavement buckling
- Photo #03 - Section 2, Sample Unit 2 (MP 1.01)
- Photo #04 - Section 3, Sample Unit 14 (MP 2.32)
- Photo #05 - Section 4, Sample Unit 10 (MP 3.12)
- Photo #06 - Section 5, Sample Unit 10 (MP 3.94)

ROUTE: 010 SOUTH RIM DRIVE





SCR Excellent  Good  Fair  Poor  DCR Poor   
 \* Roughness data is not available for this park, therefore only the SCR is calculated.

Intermountain Region  
 Rocky Mountain Cluster : BLCA : 1377 : Black Canyon of the Gunnison National Monument

ROUTE: 010 SOUTH RIM DRIVE TOTAL LENGTH: 7.64 Miles

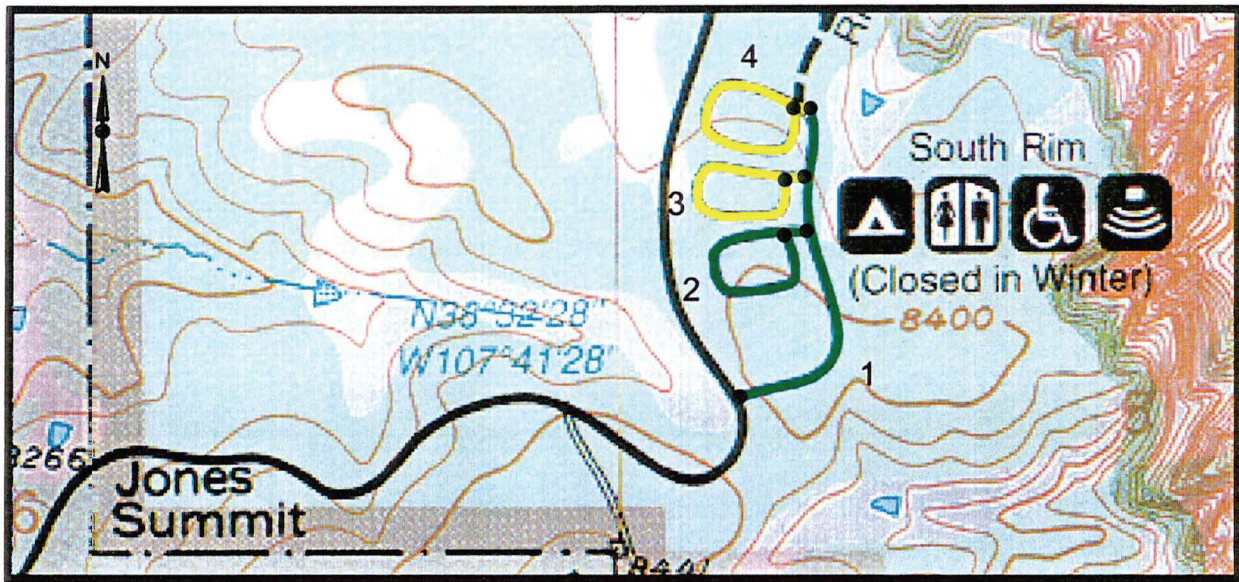
Section Number	6	7	8	9	
Section Length (mi)	0.90	0.80	0.69	0.78	
AADT	192	192	192	192	
SADT	NA	NA	NA	NA	
ADT Date	04/98	04/98	04/98	04/98	
<b>Cross Section Information</b>					
Number of Lanes	2	2	2	2	
Paved Width (ft)	25	24	26	26	
Lane Width (ft)	12	12	12	12	
Shoulder Width (ft)	1	0	1	0	
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	100	96	99	97	
Alligator Cracking	100	100	100	100	
Rutting Index	100	100	100	100	
Patching Index	100	100	100	100	
Transverse Cracking	100	96	99	97	
Longitudinal Cracking	100	100	100	100	
Shoulder Condition Rating	Good	NA	Excellent	NA	
Drainage Condition Rating	Good	Good	Good	Good	

**COMMENTS:**

- Photo #07 - Section 6, Sample Unit 15 (MP 5.01)
- Photo #08 - Section 7, Sample Unit 11 (MP 5.75)
- Photo #09 - Section 8, Sample Unit 17 (MP 6.78)
- Photo #10 - Section 9, Sample Unit 15 (MP 6.94)

ROUTE: 010 SOUTH RIM DRIVE





SCR Excellent ■ Good ■ Fair ■ Poor ■ DCR Poor   
 \* Roughness data is not available for this park, therefore only the SCR is calculated.

Intermountain Region  
 Rocky Mountain Cluster : BLCA : 1377 : Black Canyon of the Gunnison National Monument

ROUTE: 200 SOUTH RIM CAMPGROUND ROAD TOTAL LENGTH: 1.03 Miles

Section Number	1	2	3	4
Section Length (mi)	0.32	0.25	0.24	0.22
AADT	NA	NA	NA	NA
SADT	NA	NA	NA	NA
ADT Date	NA	NA	NA	NA
<b>Cross Section Information</b>				
Number of Lanes	2	1	1	1
Paved Width (ft)	25	12	12	12
Lane Width (ft)	12	12	12	12
Shoulder Width (ft)	5	2	3	1
<b>Roadway Condition Information</b>				
SCR (Surface Condition Rating)	88	92	70	66
Alligator Cracking	100	99	100	100
Rutting Index	100	100	100	100
Patching Index	100	100	100	100
Transverse Cracking	88	93	71	71
Longitudinal Cracking	100	100	99	95
Shoulder Condition Rating	Good	Fair	Good	Fair
Drainage Condition Rating	Excellent	Good	Good	Good

**COMMENTS:**

- Photo #11 - Section 1, Sample Unit 3 (MP 0.08)
- Photo #12 - Section 2, Sample Unit 3 (MP 0.39)
- Photo #13 - Section 3, Sample Unit 4 (MP 0.68)
- Photo #14 - Section 4, Sample Unit 1 (MP 0.81)

ROUTE: 200 SOUTH RIM CAMPGROUND ROAD



SCR Excellent  Good  Fair  Poor  DCR Poor

\* Roughness data is not available for this park, therefore only the SCR is calculated.

Intermountain Region  
 Rocky Mountain Cluster : BLCA : 1377 : Black Canyon of the Gunnison National Monument

ROUTE: 400 SOUTH RIM RESIDENCE ROAD TOTAL LENGTH: 0.08 Miles

Section Number	1				
Section Length (mi)	0.08				
AADT	NA				
SADT	NA				
ADT Date	NA				
<b>Cross Section Information</b>					
Number of Lanes	2				
Paved Width (ft)	18				
Lane Width (ft)	9				
Shoulder Width (ft)	2				
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	86				
Alligator Cracking	100				
Rutting Index	100				
Patching Index	100				
Transverse Cracking	89				
Longitudinal Cracking	97				
Shoulder Condition Rating	Fair				
Drainage Condition Rating	Fair				

COMMENTS:

Photo #15 - Section 1, Sample Unit 2 (MP 0.04)

ROUTE: 400 SOUTH RIM RESIDENCE ROAD



**VI Parking Lot  
Condition/Summary**

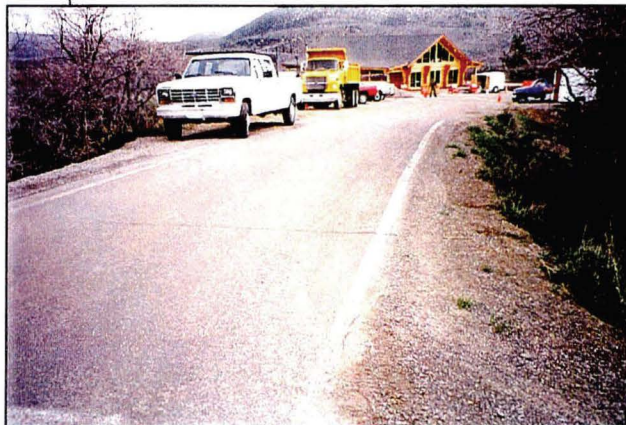
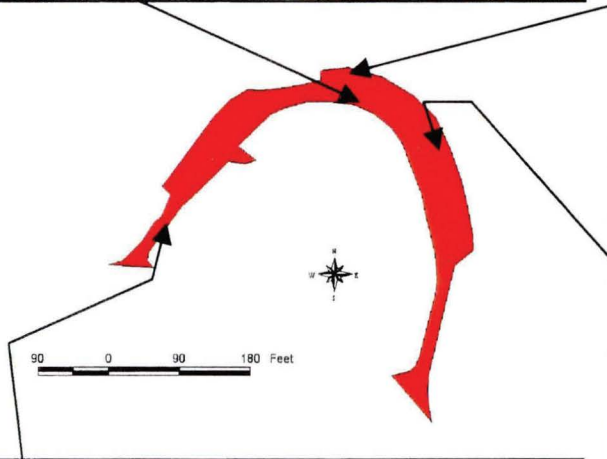
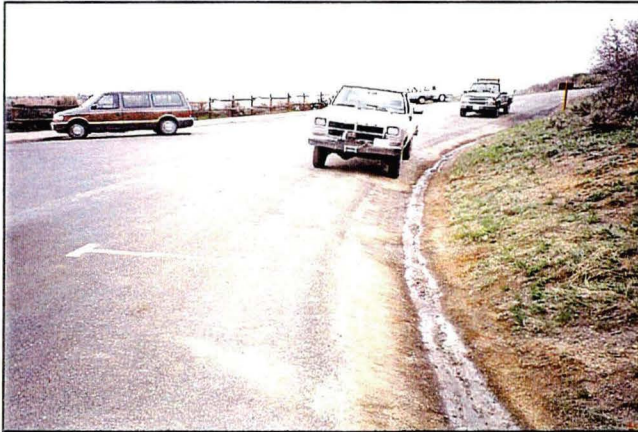
# BLACK CANYON OF THE GUNNISON NATIONAL MONUMENT

Route 900

## GUNNISON POINT VISITOR CENTER PARKING AREA

Route	Date	Length (mi)	Width (ft)	Area (sq ft)	Lane Miles	Condition
900	980515	-	-	24,760	0.43	Excellent

- Length and width will be used when applicable
- Lane miles are based on 11' lane widths



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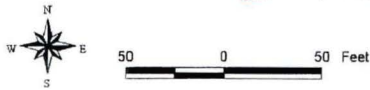
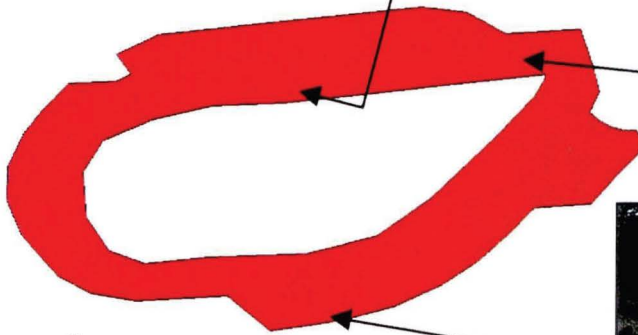
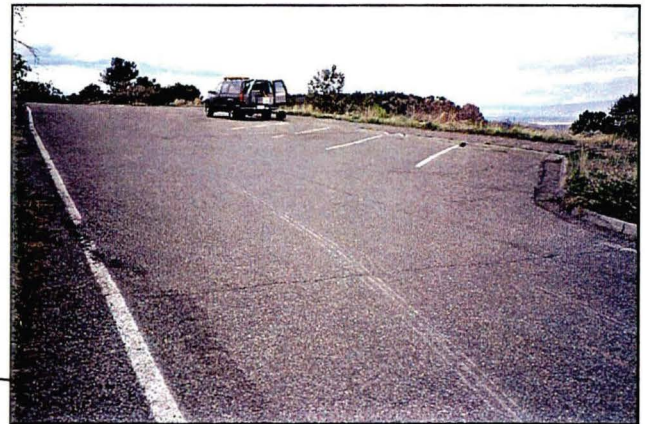
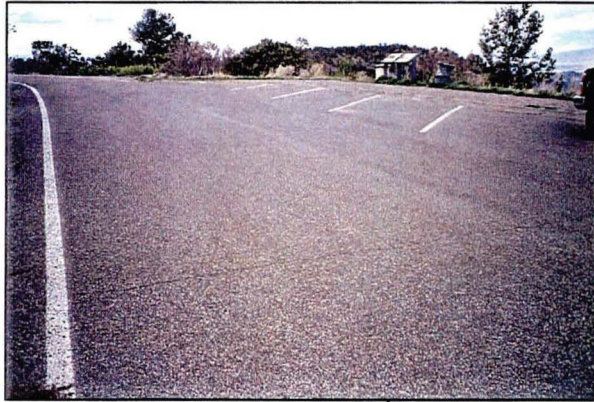
# BLACK CANYON OF THE GUNNISON NATIONAL MONUMENT

Route 901

## HIGH POINT PARKING AREA

Route	Date	Length (mi)	Width (ft)	Area (sq ft)	Lane Miles	Condition
901	980515	-	-	17,432	0.30	Good

- Length and width will be used when applicable
- Lane miles are based on 11' lane widths





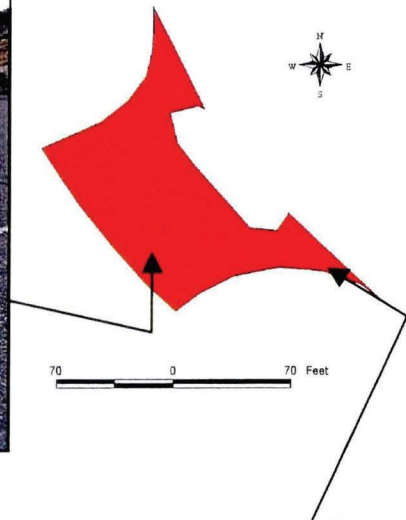
# BLACK CANYON OF THE GUNNISON NATIONAL MONUMENT

Route 902

## SUNSET VIEW PARKING AREA

Route	Date	Length (mi)	Width (ft)	Area (sq ft)	Lane Miles	Condition
902	980515	-	-	8,420	0.14	Excellent

- Length and width will be used when applicable
- Lane miles are based on 11' lane widths





# BLACK CANYON OF THE GUNNISON NATIONAL MONUMENT

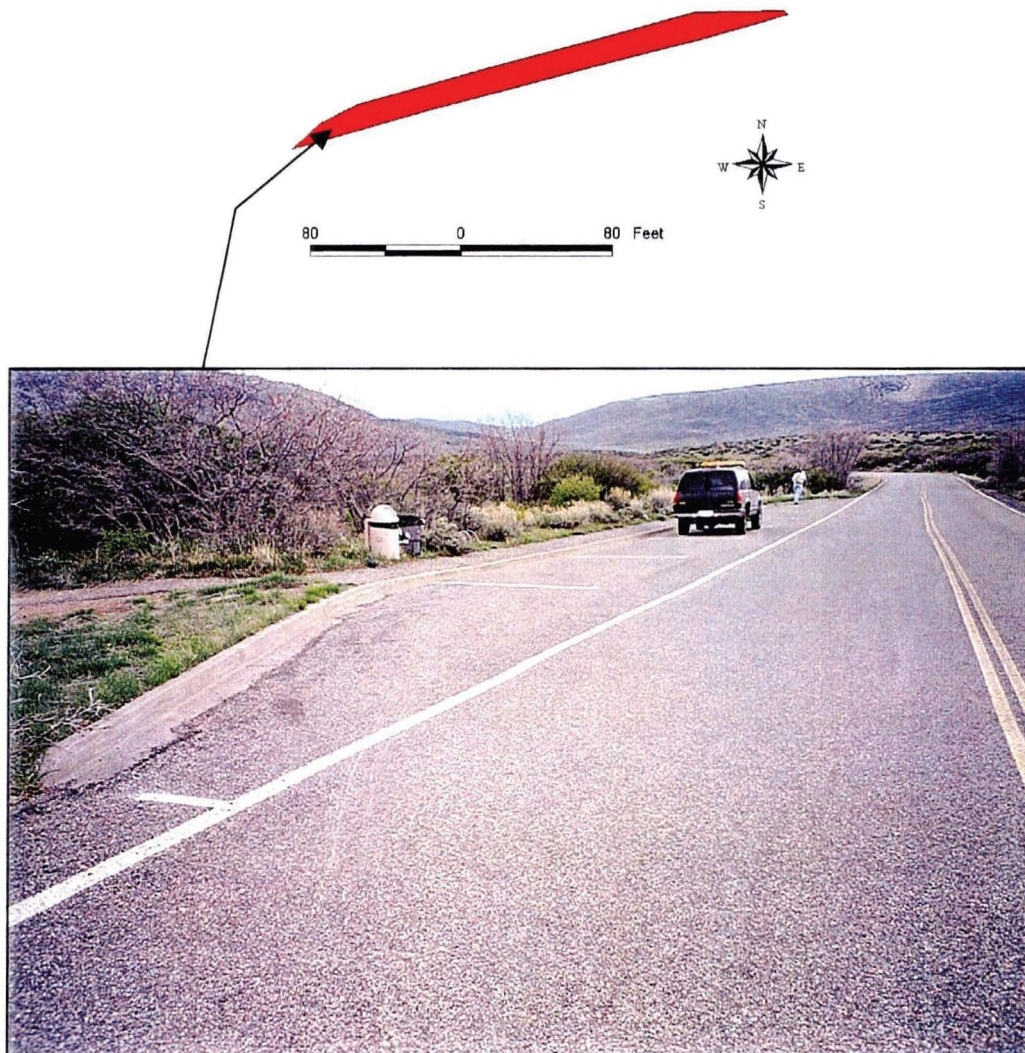
Route 903

## DRAGON POINT PARKING AREA

Route	Date	Length (mi)	Width (ft)	Area (sq ft)	Lane Miles	Condition
903	980515	-	-	2,530	0.04	Excellent

- Length and width will be used when applicable

- Lane miles are based on 11' lane widths





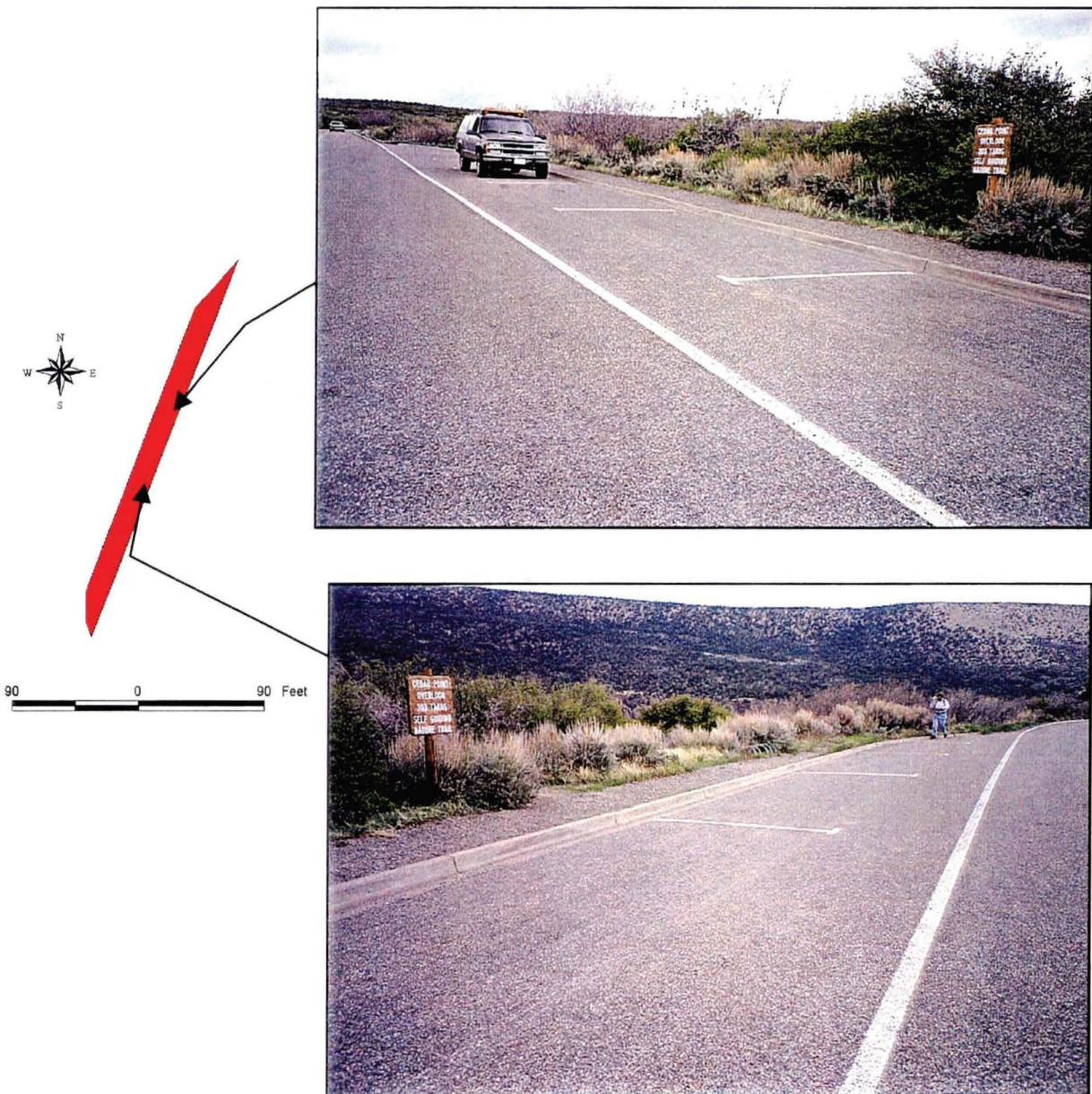
# BLACK CANYON OF THE GUNNISON NATIONAL MONUMENT

Route 904

## CEDAR POINT PARKING AREA

Route	Date	Length (mi)	Width (ft)	Area (sq ft)	Lane Miles	Condition
904	980515	-	-	3,320	0.06	Excellent

- Length and width will be used when applicable
- Lane miles are based on 11' lane widths





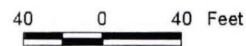
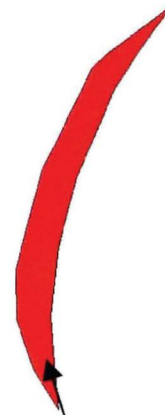
# BLACK CANYON OF THE GUNNISON NATIONAL MONUMENT

Route 905

## PAINTED WALL VIEW PARKING AREA

Route	Date	Length (mi)	Width (ft)	Area (sq ft)	Lane Miles	Condition
905	980515	-	-	2,150	0.04	Excellent

- Length and width will be used when applicable
- Lane miles are based on 11' lane widths



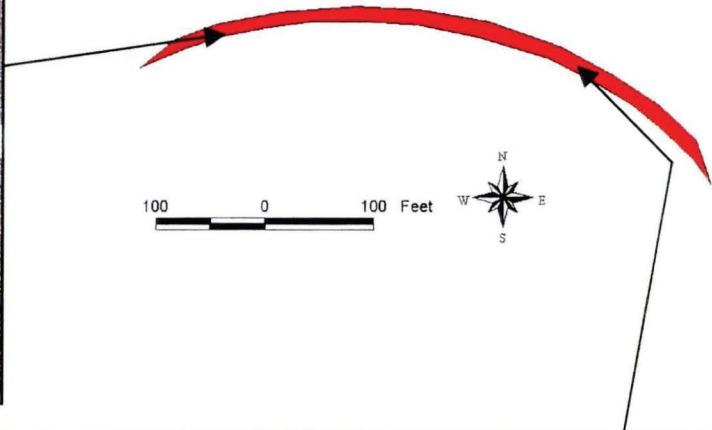
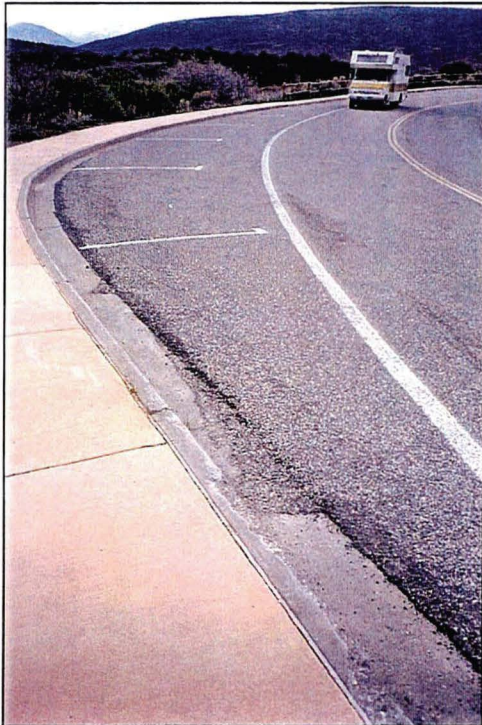
# BLACK CANYON OF THE GUNNISON NATIONAL MONUMENT

Route 906

## CHASM VIEW OVERLOOK PARKING AREA

Route	Date	Length (mi)	Width (ft)	Area (sq ft)	Lane Miles	Condition
906	980515	-	-	5,380	0.09	Excellent

- Length and width will be used when applicable
- Lane miles are based on 11' lane widths





# BLACK CANYON OF THE GUNNISON NATIONAL MONUMENT

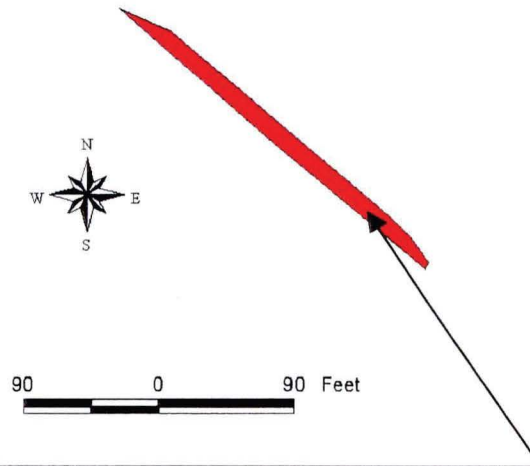
Route 907

## DEVILS OVERLOOK PARKING AREA

Route	Date	Length (mi)	Width (ft)	Area (sq ft)	Lane Miles	Condition
907	980515	-	-	2,290	0.04	Excellent

- Length and width will be used when applicable

- Lane miles are based on 11' lane widths



# BLACK CANYON OF THE GUNNISON NATIONAL MONUMENT

Route 908

## ROCK POINT PARKING AREA

Route	Date	Length (mi)	Width (ft)	Area (sq ft)	Lane Miles	Condition
908	980515	-	-	2,780	0.05	Excellent

- Length and width will be used when applicable
- Lane miles are based on 11' lane widths



80 0 80 Feet



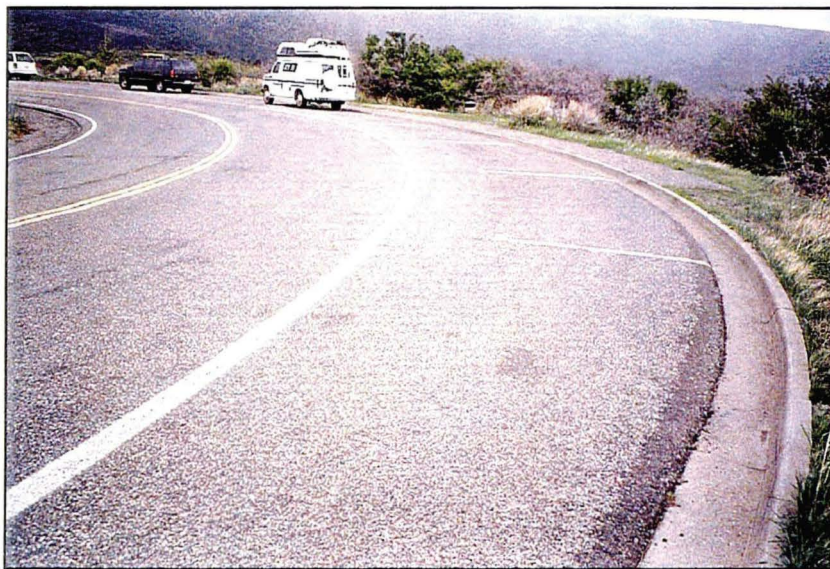
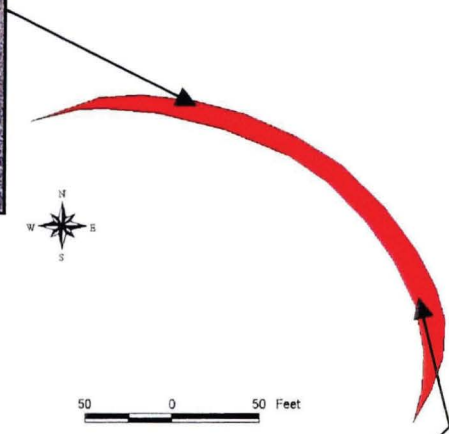
# BLACK CANYON OF THE GUNNISON NATIONAL MONUMENT

Route 909

## CROSS FISSURES OVERLOOK PARKING AREA

Route	Date	Length (mi)	Width (ft)	Area (sq ft)	Lane Miles	Condition
909	980515	-	-	2,865	0.05	Excellent

- Length and width will be used when applicable
- Lane miles are based on 11' lane widths



# BLACK CANYON OF THE GUNNISON NATIONAL MONUMENT

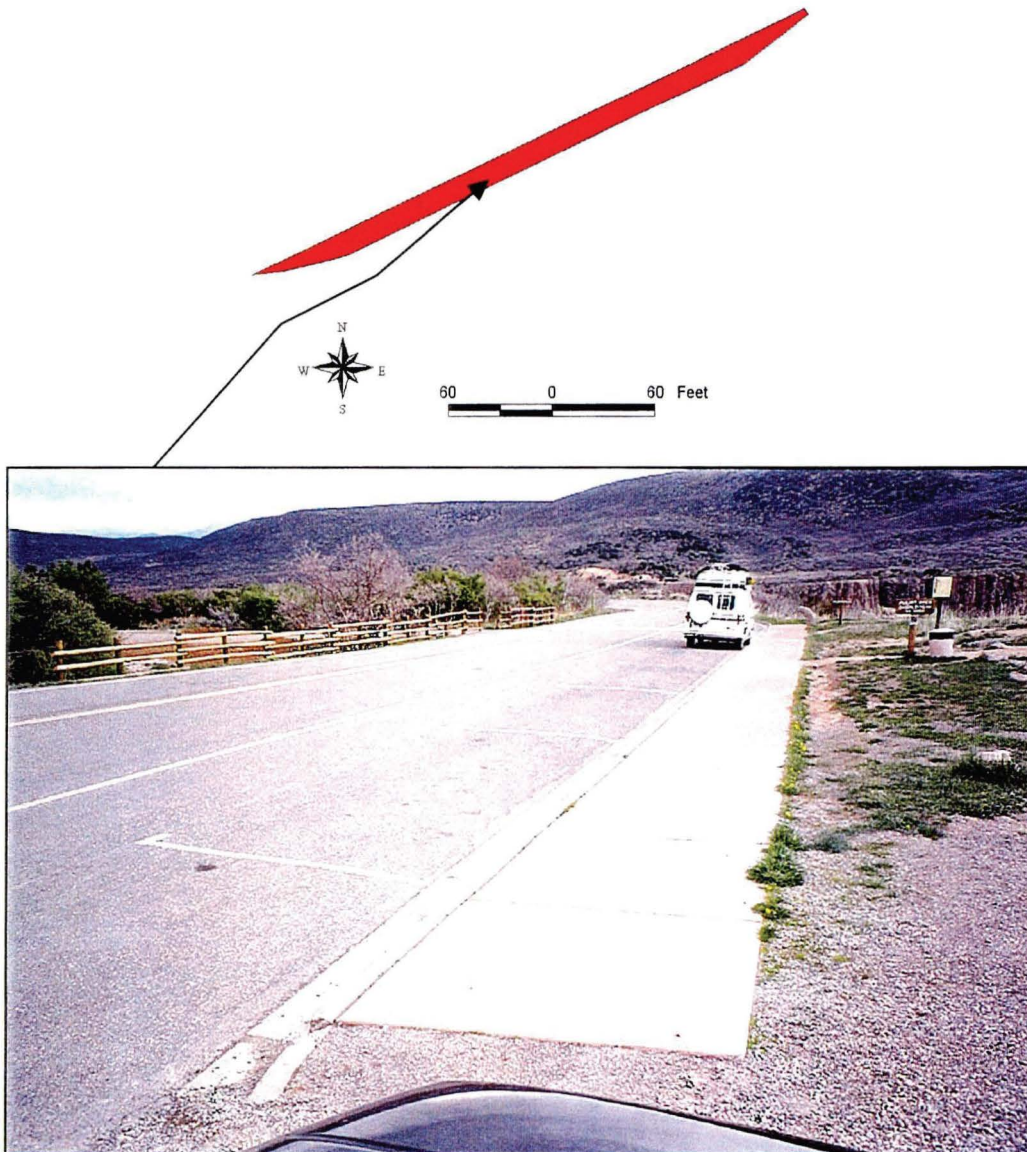
Route 910

## PULPIT ROCK OVERLOOK PARKING AREA

Route	Date	Length (mi)	Width (ft)	Area (sq ft)	Lane Miles	Condition
910	980515	-	-	3,555	0.06	Excellent

- Length and width will be used when applicable

- Lane miles are based on 11' lane widths





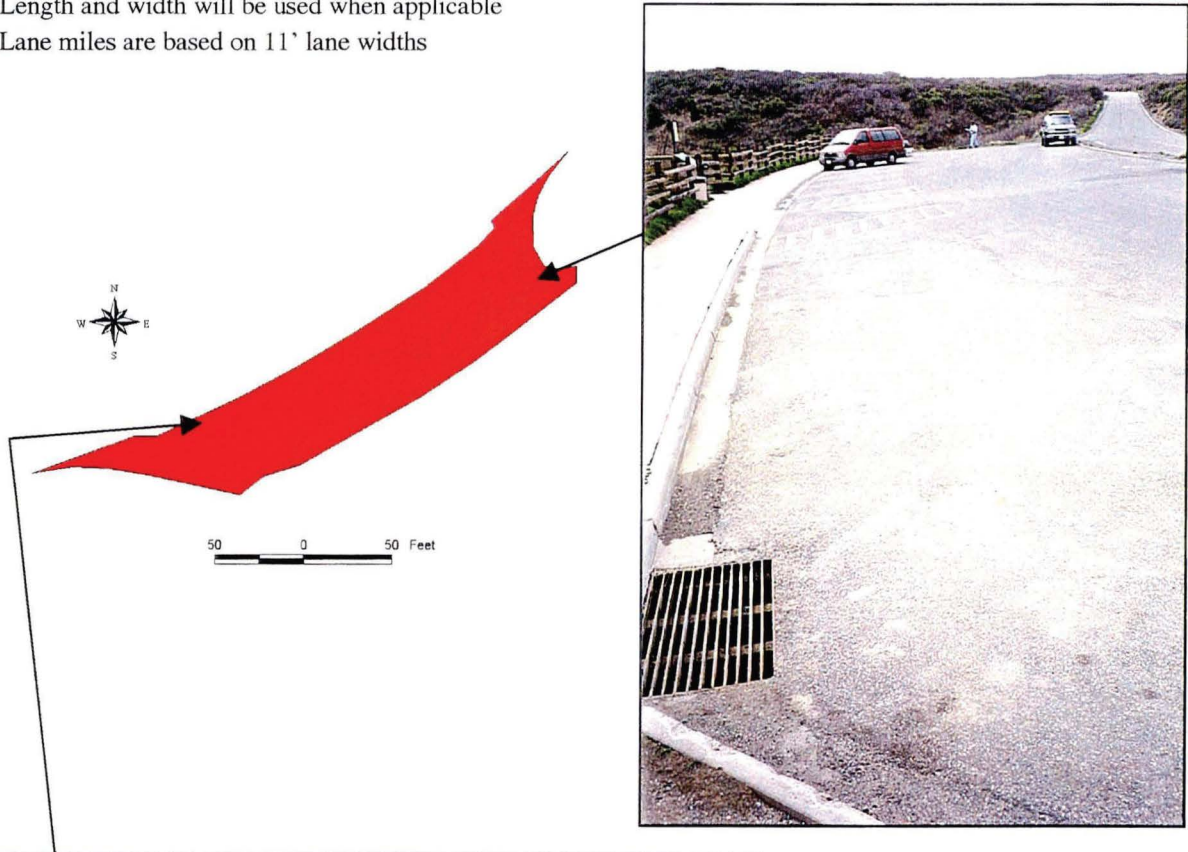
# BLACK CANYON OF THE GUNNISON NATIONAL MONUMENT

Route 911

## TOMICHI POINT PARKING AREA

Route	Date	Length (mi)	Width (ft)	Area (sq ft)	Lane Miles	Condition
911	980515	-	-	10,260	0.18	Excellent

- Length and width will be used when applicable
- Lane miles are based on 11' lane widths



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# BLACK CANYON OF THE GUNNISON NATIONAL MONUMENT

Route 912

## SOUTH RIM RESIDENCE ROAD PARKING AREA

Route	Date	Length (mi)	Width (ft)	Area (sq ft)	Lane Miles	Condition
912	980515	-	-	5,540	0.10	Good

- Length and width will be used when applicable

- Lane miles are based on 11' lane widths





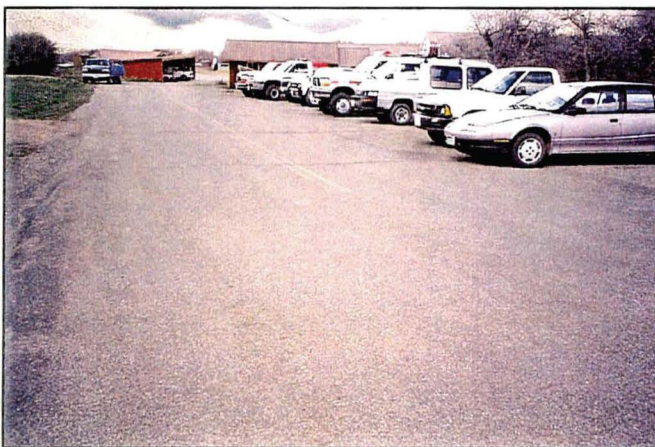
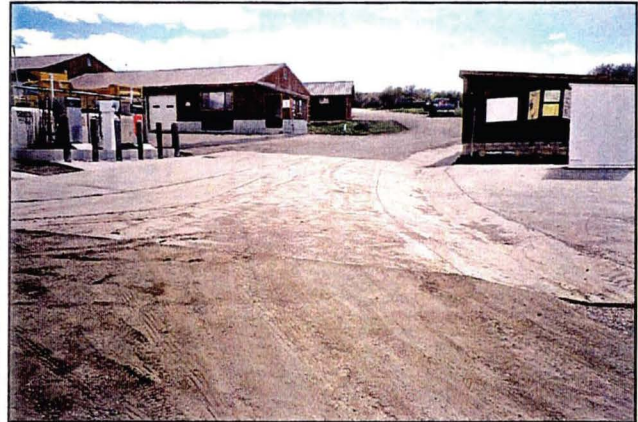
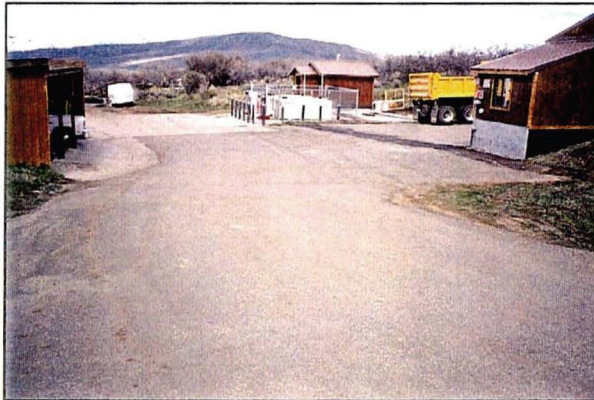
# BLACK CANYON OF THE GUNNISON NATIONAL MONUMENT

Route 913

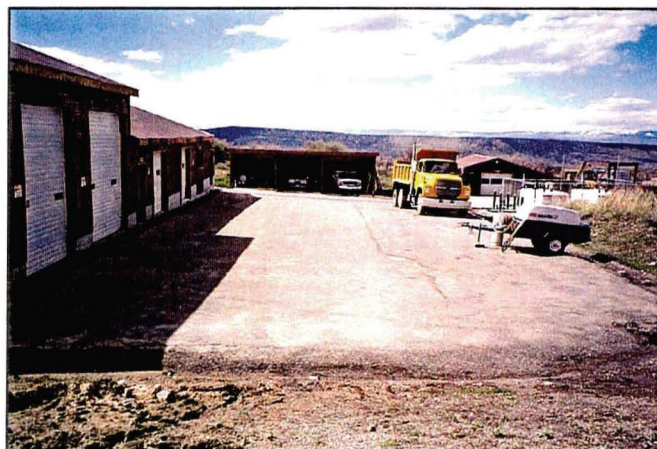
## SOUTH RIM MAINTENANCE AREA

Route	Date	Length (mi)	Width (ft)	Area (sq ft)	Lane Miles	Condition
913	980515	-	-	18,295	0.31	Fair

- Length and width will be used when applicable
- Lane miles are based on 11' lane widths



100 0 100 Feet



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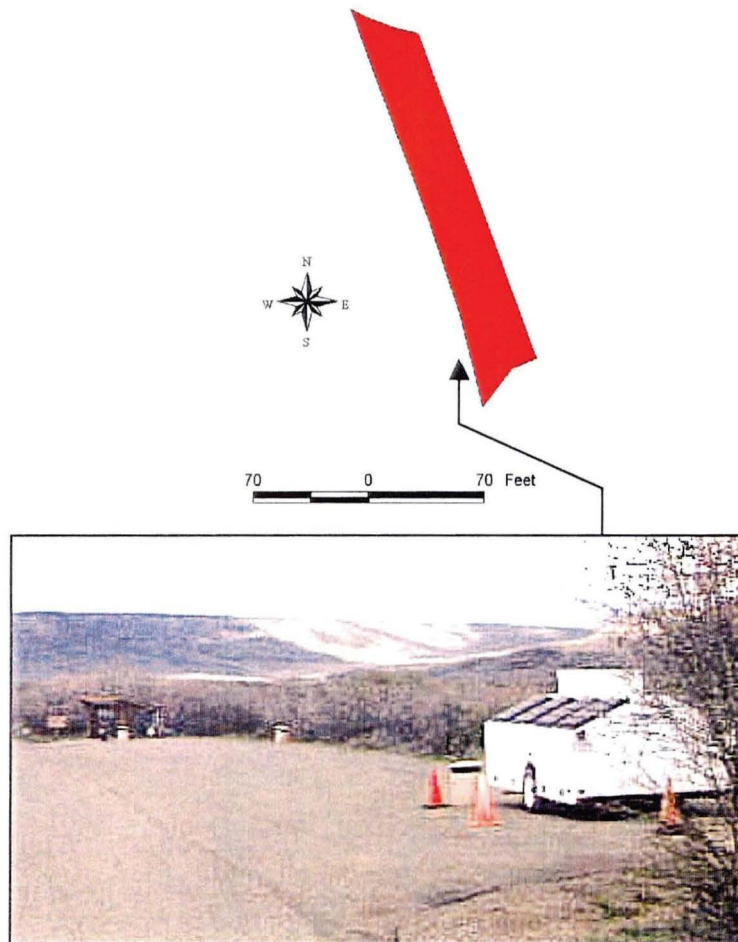
# BLACK CANYON OF THE GUNNISON NATIONAL MONUMENT

## Route 914

### SOUTH RIM CAMPGROUND ROAD PARKING AREA

Route	Date	Length (mi)	Width (ft)	Area (sq ft)	Lane Miles	Condition
914	980515	-	-	5,870	0.10	Good

- Length and width will be used when applicable
- Lane miles are based on 11' lane widths





**VII Parkwide Maintenance  
Features Summary**

**PARKWIDE MAINTENANCE FEATURES SUMMARY**  
**IMR : BLCA : 1377**

<b>ICAP CODE</b>	<b>FEATURE</b>	<b>PARK TOTAL</b>	<b>UNIT</b>
1152	PULLOUT (PAVED)	1	EACH
1153	INTERSECTION	15	EACH
1190	TURNOUT (PASSING LANE)	-	LINEAR FEET
1320	PAVED DITCH	42,203	LINEAR FEET
1331	CULVERT	51	EACH
1333	DROP INLET	19	EACH
1340	CURB	327	LINEAR FEET
1530	TRAFFIC LIGHT	-	EACH
1540	GUARDRAIL	475	LINEAR FEET
1542	GUARDWALL	-	LINEAR FEET
1545	CATTLE GUARD	1	EACH
1720	BRIDGE	-	EACH
1740	TUNNEL	-	EACH
3361	RETAINING WALL	-	EACH
5833	LIGHT POLE	-	EACH
8390	OVERHEAD SIGN	-	EACH
8400	RAILROAD CROSSING	-	EACH
	GATE	2	EACH
	PAVED PARKING AREA	15	EACH
	PARK BOUNDARY	1	EACH



**VIII Park Route  
Maintenance Features  
Summary**

**ROUTE MAINTENANCE FEATURES SUMMARY**

**IMR : BLCA : 1377**

**ROUTE 010**

**SOUTH RIM DRIVE**

<b>ICAP CODE</b>	<b>FEATURE</b>	<b>ROUTE TOTAL</b>	<b>UNIT</b>
1152	PULLOUT (PAVED)	1	EACH
1153	INTERSECTION	10	EACH
1190	TURNOUT (PASSING LANE)	-	LINEAR FEET
1320	PAVED DITCH	41,701	LINEAR FEET
1331	CULVERT	49	EACH
1333	DROP INLET	19	EACH
1340	CURB	327	LINEAR FEET
1530	TRAFFIC LIGHT	-	EACH
1540	GUARDRAIL	475	LINEAR FEET
1542	GUARDWALL	-	LINEAR FEET
1545	CATTLE GUARD	1	EACH
1720	BRIDGE	-	EACH
1740	TUNNEL	-	EACH
3361	RETAINING WALL	-	EACH
5833	LIGHT POLE	-	EACH
8390	OVERHEAD SIGN	-	EACH
8400	RAILROAD CROSSING	-	EACH
	GATE	1	EACH
	PAVED PARKING AREA	12	EACH
	PARK BOUNDARY	1	EACH



**ROUTE MAINTENANCE FEATURES SUMMARY**

**IMR : BLCA : 1377**

**ROUTE 200**

**SOUTH RIM CAMPGROUND ROAD**

<b>ICAP CODE</b>	<b>FEATURE</b>	<b>ROUTE TOTAL</b>	<b>UNIT</b>
1152	PULLOUT (PAVED)	-	EACH
1153	INTERSECTION	5	EACH
1190	TURNOUT (PASSING LANE)	-	LINEAR FEET
1320	PAVED DITCH	502	LINEAR FEET
1331	CULVERT	1	EACH
1333	DROP INLET	-	EACH
1340	CURB	-	LINEAR FEET
1530	TRAFFIC LIGHT	-	EACH
1540	GUARDRAIL	-	LINEAR FEET
1542	GUARDWALL	-	LINEAR FEET
1545	CATTLE GUARD	-	EACH
1720	BRIDGE	-	EACH
1740	TUNNEL	-	EACH
3361	RETAINING WALL	-	EACH
5833	LIGHT POLE	-	EACH
8390	OVERHEAD SIGN	-	EACH
8400	RAILROAD CROSSING	-	EACH
	GATE	-	EACH
	PAVED PARKING AREA	1	EACH
	PARK BOUNDARY	-	EACH

**ROUTE MAINTENANCE FEATURES SUMMARY**

**IMR : BLCA : 1377**

**ROUTE 400**

**SOUTH RIM RESIDENCE ROAD**

<b>ICAP CODE</b>	<b>FEATURE</b>	<b>ROUTE TOTAL</b>	<b>UNIT</b>
1152	PULLOUT (PAVED)	-	EACH
1153	INTERSECTION	-	EACH
1190	TURNOUT (PASSING LANE)	-	LINEAR FEET
1320	PAVED DITCH	-	LINEAR FEET
1331	CULVERT	1	EACH
1333	DROP INLET	-	EACH
1340	CURB	-	LINEAR FEET
1530	TRAFFIC LIGHT	-	EACH
1540	GUARDRAIL	-	LINEAR FEET
1542	GUARDWALL	-	LINEAR FEET
1545	CATTLE GUARD	-	EACH
1720	BRIDGE	-	EACH
1740	TUNNEL	-	EACH
3361	RETAINING WALL	-	EACH
5833	LIGHT POLE	-	EACH
8390	OVERHEAD SIGN	-	EACH
8400	RAILROAD CROSSING	-	EACH
	GATE	1	EACH
	PAVED PARKING AREA	2	EACH
	PARK BOUNDARY	-	EACH



**IX Park Maintenance  
Features Road Log**

## ROUTE MAINTENANCE FEATURES ROAD LOG

**ROUTE 010**

**SOUTH RIM DRIVE**

MILE POST BEGIN END	FEATURE DESCRIPTION LEFT	FEATURE DESCRIPTION RIGHT	REMARKS
0.000		PARK BOUNDARY	WEST PARK BOUNDARY
0.000		CATTLE GUARD	
0.067		CULVERT	
0.094	0.483	DITCH - PAVED	
0.214		DROP INLET	
0.264	PULLOUT		
0.310		DROP INLET	
0.339		DROP INLET	
0.386		DROP INLET	
0.460		DROP INLET	
0.484		CULVERT	
0.498		INTERSECTION	EAST PORTAL RIVER ACCESS ROAD
0.514	0.610	DITCH - PAVED	
0.516		DROP INLET	
0.590		CULVERT	
0.634	0.693	DITCH - PAVED	
0.657	0.683	DITCH - PAVED	
0.704		CULVERT	
0.731		INTERSECTION	RTE 200, SOUTH RIM CAMPGROUND ROAD
0.736	0.826	DITCH - PAVED	
0.744		DROP INLET	
0.748	0.828	DITCH - PAVED	
0.831		CULVERT	
0.849	0.967	DITCH - PAVED	
0.969		CULVERT	
0.977	1.099	DITCH - PAVED	
1.020	1.210	DITCH - PAVED	
1.100		CULVERT	
1.121	1.220	DITCH - PAVED	
1.226		CULVERT	
1.234	1.372	DITCH - PAVED	
1.263	1.326	DITCH - PAVED	
1.384		CULVERT	
1.424	2.040	DITCH - PAVED	
1.499		INTERSECTION	RTE 911, TOMICHI POINT PARKING
1.503	1.539	CURB	
1.520		PARKING AREA - PAVED	RTE 911, TOMICHI POINT PARKING
1.542		INTERSECTION	RTE 911, TOMICHI POINT PARKING
1.634		CULVERT	
1.649	DROP INLET		
1.753		INTERSECTION	RTE 900, GUNNISON POINT VC PARKING AREA
1.780		PARKING AREA - PAVED	RTE 900, GUNNISON POINT VC PARKING AREA
1.816		INTERSECTION	RTE 900, GUNNISON POINT VC PARKING AREA
1.821		GATE	
1.838	DROP INLET		
1.925	1.957	DITCH - PAVED	
1.995		CULVERT	
1.996	DROP INLET		
2.032		CULVERT	



## ROUTE MAINTENANCE FEATURES ROAD LOG

**ROUTE 010**

**SOUTH RIM DRIVE**

MILE POST BEGIN    END	FEATURE DESCRIPTION LEFT	FEATURE DESCRIPTION RIGHT	REMARKS
2.056		CULVERT	
2.059	2.146	DITCH - PAVED	
2.071	2.337	DITCH - PAVED	
2.205		CULVERT	
2.343		CULVERT	
2.382	2.533	DITCH - PAVED	
2.384	2.408	DITCH - PAVED	
2.418		CULVERT	
2.430	2.458	DITCH - PAVED	
2.548		CULVERT	
2.561	2.655	DITCH - PAVED	
2.570	2.646	DITCH - PAVED	
2.659		CULVERT	
2.684	2.770	DITCH - PAVED	
2.690	2.731	DITCH - PAVED	
2.782		CULVERT	
2.804	2.995	DITCH - PAVED	
2.809	2.901	DITCH - PAVED	
2.905		CULVERT	
2.935	3.135	DITCH - PAVED	
3.034		CULVERT	
3.037		DROP INLET	
3.049	3.100	DITCH - PAVED	
3.161	3.503	DITCH - PAVED	
3.161		CULVERT	
3.178	3.210	DITCH - PAVED	
3.245		CULVERT	
3.252		DROP INLET	
3.383		CULVERT	
3.387		DROP INLET	
3.402	3.482	DITCH - PAVED	
3.505		INTERSECTION	RTE 402, PULPIT ROCK WATER TANK ROAD
3.512		CULVERT	
3.539		PARKING AREA - UNPAVE	RTE 915, SOUTH RIM GIFT SHOP PARKING
3.569		PARKING AREA - PAVED	RTE 910, PULPIT ROCK OVERLOOK PARKING
3.622	3.716	DITCH - PAVED	
3.736		CULVERT	
3.752	3.848	DITCH - PAVED	
3.758	3.855	DITCH - PAVED	
3.965		CULVERT	
4.012	4.063	DITCH - PAVED	
4.126	4.261	DITCH - PAVED	
4.165		PARKING AREA - PAVED	RTE 909, CROSS FISSURES OVERLOOKS PARKING
4.264		CULVERT	
4.273	4.328	DITCH - PAVED	
4.320		PARKING AREA - PAVED	RTE 908, ROCK POINT PARKING
4.353		CULVERT	
4.407	4.621	DITCH - PAVED	
4.439		PARKING AREA - PAVED	RTE 907, DEVILS OVERLOOK PARKING
4.485	4.513	DITCH - PAVED	

## ROUTE MAINTENANCE FEATURES ROAD LOG

**ROUTE 010**

**SOUTH RIM DRIVE**

MILE POST BEGIN    END	FEATURE DESCRIPTION LEFT	FEATURE DESCRIPTION RIGHT	REMARKS
4.643    4.676		DITCH - PAVED	
4.651    4.779	DITCH - PAVED		
4.748    4.787		GUARDRAIL	
4.784		CULVERT	
4.802    4.926	DITCH - PAVED		
4.831		CULVERT	
4.837	DROP INLET		
4.929		CULVERT	
4.943    5.165	DITCH - PAVED		
5.186		CULVERT	
5.208    5.287		DITCH - PAVED	
5.229    5.408	DITCH - PAVED		
5.306    5.325		DITCH - PAVED	
5.322    5.325		GUARDRAIL	
5.326    5.343		GUARDRAIL	
5.344    5.364		DITCH - PAVED	
5.390		PARKING AREA - PAVED	RTE 906, CHASM VIEW OVERLOOK PARKING
5.418		CULVERT	
5.430    5.525	DITCH - PAVED		
5.489		PARKING AREA - PAVED	RTE 905, PAINTED WALL VIEW PARKING
5.513    5.524		CURB	
5.536		CULVERT	
5.553    5.671	DITCH - PAVED		
5.591    5.657		DITCH - PAVED	
5.680    5.886	DITCH - PAVED		
5.690		CULVERT	
5.736    5.799		DITCH - PAVED	
5.808		CULVERT	
5.913		PARKING AREA - PAVED	RTE 904, CEDAR POINT OVERLOOK PARKING
5.930    5.950	DITCH - PAVED		
5.962		CULVERT	
6.007    6.076	DITCH - PAVED		
6.009    6.054		DITCH - PAVED	
6.094		CULVERT	
6.119    6.291	DITCH - PAVED		
6.148		PARKING AREA - PAVED	RTE 903, DRAGON POINT PARKING
6.172    6.203		GUARDRAIL	
6.208    6.270		DITCH - PAVED	
6.293		CULVERT	
6.307    6.335	DITCH - PAVED		
6.345		CULVERT	
6.389		CULVERT	
6.418    6.454		DITCH - PAVED	
6.425    6.659	DITCH - PAVED		
6.541    6.568		DITCH - PAVED	
6.574	DROP INLET		
6.575		CULVERT	
6.653		CULVERT	
6.656	DROP INLET		
6.669    6.717		DITCH - PAVED	

## ROUTE MAINTENANCE FEATURES ROAD LOG

**ROUTE 010**

**SOUTH RIM DRIVE**

MILE POST BEGIN END		FEATURE DESCRIPTION LEFT	FEATURE DESCRIPTION RIGHT	REMARKS
6.714	6.865	DITCH - PAVED		
6.746			CULVERT	
6.751		DROP INLET		
6.834			INTERSECTION	RTE 902, SUNSET VIEW PARKING
6.836	6.851		CURB	
6.845			PARKING AREA - PAVED	RTE 902, SUNSET VIEW PARKING
6.856			INTERSECTION	RTE 902, SUNSET VIEW PARKING
6.914	7.035	DITCH - PAVED		
7.022	7.108		DITCH - PAVED	
7.038			CULVERT	
7.079	7.339	DITCH - PAVED		
7.177			CULVERT	
7.192	7.266		DITCH - PAVED	
7.271		DROP INLET		
7.273			CULVERT	
7.287	7.335		DITCH - PAVED	
7.339			CULVERT	
7.354	7.433	DITCH - PAVED		
7.451	7.547		DITCH - PAVED	
7.462	7.501	DITCH - PAVED		
7.517	7.594	DITCH - PAVED		
7.570	7.602		DITCH - PAVED	
7.624	7.637	DITCH - PAVED		
7.637			INTERSECTION	RTE 901, HIGH POINT PARKING AREA
7.637			PARKING AREA - PAVED	RTE 901, HIGH POINT PARKING AREA



# ROUTE MAINTENANCE FEATURES ROAD LOG

**ROUTE 200**

**SOUTH RIM CAMPGROUND ROAD**

MILE POST BEGIN    END	FEATURE DESCRIPTION LEFT	FEATURE DESCRIPTION RIGHT	REMARKS
<b>MAIN ROAD</b>			
0.004    0.099	DITCH - PAVED		
0.103	INTERSECTION		RTE 401, SOUTH RIM C.G. WATER TANK ROAD
0.130		INTERSECTION	RTE 400, SOUTH RIM RESIDENCE ROAD
0.174		PARKING AREA - PAVED	RTE 914, SOUTH RIM C.G. ROAD PARKING
0.204	INTERSECTION		RTE 200, SOUTH RIM C.G. LOOP A
0.270	INTERSECTION		RTE 200, SOUTH RIM C.G. LOOP B
0.319	INTERSECTION		RTE 200, SOUTH RIM C.G. LOOP C
<b>LOOP A**</b>			
0.245		END OF LOOP	
<b>LOOP B**</b>			
0.240		END OF LOOP	
<b>LOOP C**</b>			
0.225		END OF LOOP	

\*\* NOTE: LOOP MILEAGES BEGIN AT THE START OF EACH LOOP

NO FEATURES FOUND ON CAMPGROUND LOOP SECTIONS

# ROUTE MAINTENANCE FEATURES ROAD LOG

**ROUTE 400**

**SOUTH RIM RESIDENCE ROAD**

<b>MILE POST BEGIN    END</b>	<b>FEATURE DESCRIPTION LEFT</b>	<b>FEATURE DESCRIPTION RIGHT</b>	<b>REMARKS</b>
-----------------------------------	---	--	----------------

0.001		CULVERT	
0.006		GATE	
0.080		PARKING AREA - PAVED	RTE 912, SOUTH RIM RESIDENCE ROAD PARKING
0.080		PARKING AREA - PAVED	RTE 913, SOUTH RIM MAINTENANCE AREA





# PHOTOGRAPHIC SHEET

PARK: BLCA/1377

ROUTE: 010 - "SOUTH RIM DRIVE"

DATE: 980513



Photo # 01 - Section 1, Sample Unit 13 (MP 0.46)



Photo # 02 - Section 1, Pavement buckling (MP 0.49)



# PHOTOGRAPHIC SHEET

PARK: BLCA/1377

ROUTE: 010 - "SOUTH RIM DRIVE"

DATE: 980513



Photo # 03 - Section 2, Sample Unit 2 (MP 1.01)

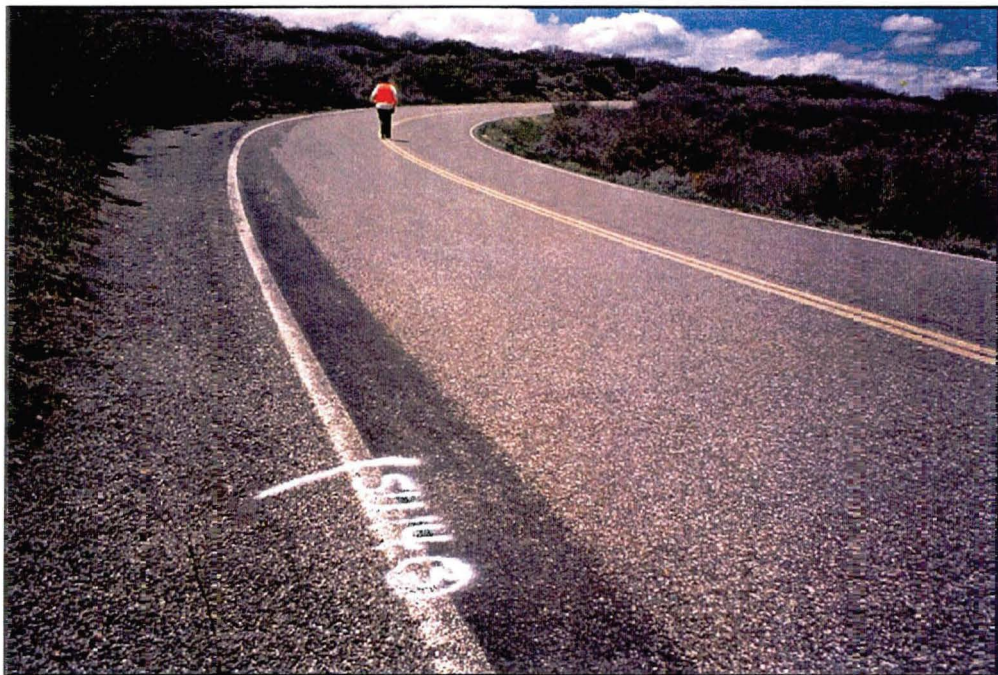


Photo # 04 - Section 3, Sample Unit 14 (MP 2.32)



# PHOTOGRAPHIC SHEET

PARK: BLCA/1377

ROUTE: 010 - "SOUTH RIM DRIVE"

DATE: 980513



Photo # 05 - Section 4, Sample Unit 10 (MP 3.12)



Photo # 06 - Section 5, Sample Unit 10 (MP 3.94)



# PHOTOGRAPHIC SHEET

PARK: BLCA/1377

ROUTE: 010 - "SOUTH RIM DRIVE"

DATE: 980513



Photo # 07 - Section 6, Sample Unit 15 (MP 5.01)

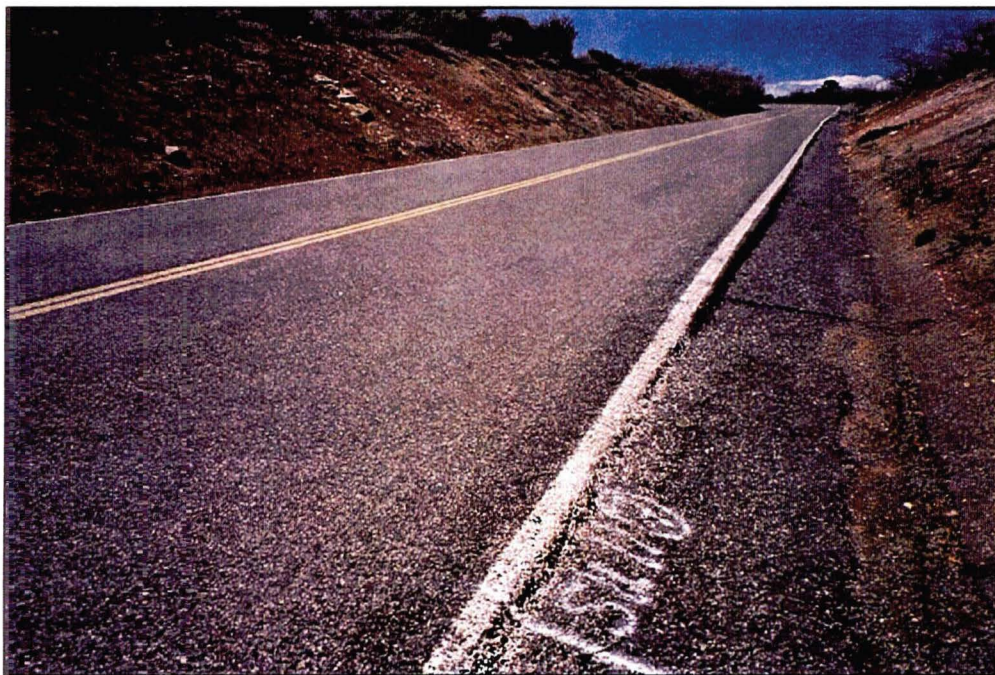


Photo # 08 - Section 7, Sample Unit 11 (MP 5.75)



# PHOTOGRAPHIC SHEET

PARK: BLCA/1377

ROUTE: 010 - "SOUTH RIM DRIVE"

DATE: 980513



Photo # 09 - Section 8, Sample Unit 17 (MP 6.78)



Photo # 10 - Section 9, Sample Unit 15 (MP 6.94)



# PHOTOGRAPHIC SHEET

PARK: BLCA/1377

ROUTE: 200 - "SOUTH RIM CAMPGROUND ROAD

DATE: 980513



Photo # 11 - Section 1, Sample Unit 3 (MP 0.08)



Photo # 12 - Section 2, Sample Unit 3 (MP 0.39)



# PHOTOGRAPHIC SHEET

PARK: BLCA/1377

ROUTE: 200 - "SOUTH RIM CAMPGROUND ROAD

DATE: 980513

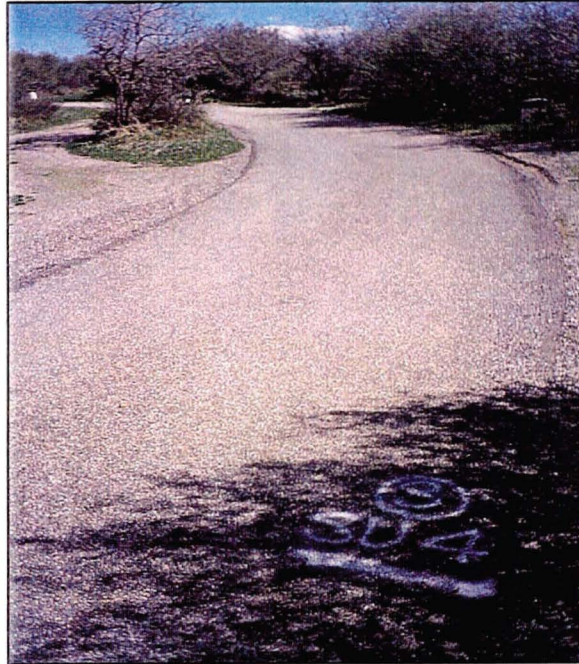


Photo # 13 - Section 3, Sample Unit 4 (MP 0.68)

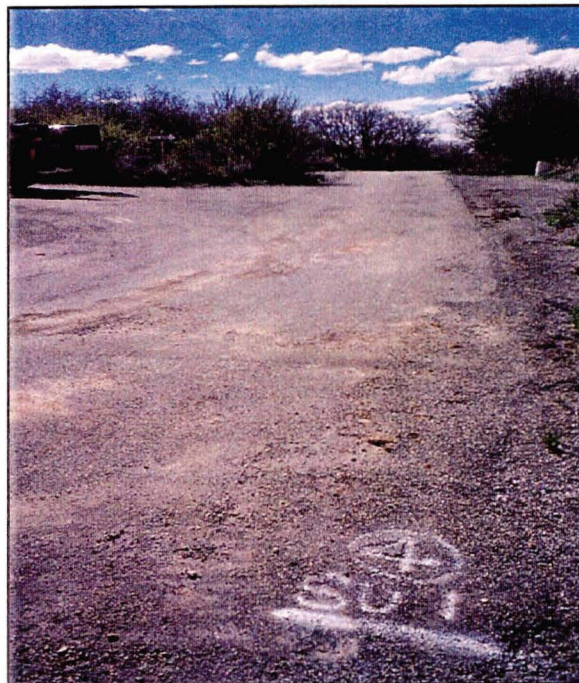


Photo # 14 - Section 4, Sample Unit 1 (MP 0.81)

4/16/99

10-7

# PHOTOGRAPHIC SHEET

PARK: BLCA/1377

ROUTE: 400 - "SOUTH RIM RESIDENCE ROAD

DATE: 980513



Photo # 15 - Section 1, Sample Unit 2 (MP 0.04)





## ***XI. UNPAVED ROUTES***

*Unpaved routes are not addressed in this report at this time. Section "IV. ROUTE INVENTORY" includes a current register of all unpaved routes (name, number, estimated mileage to the nearest 0.01, functional class, number of lanes, and termini description). Any further information will be added post 1997-99 data collection. Data was collected for unpaved routes in numerous parks during the '94-'96 data collection cycle. This data (digital images, GPS traces, features inventory, and condition assessments) may be processed in the future.*



**XII Video Tape Info  
(Digital Image Index)**

**BLACK CANYON OF THE GUNNISON NATIONAL MONUMENT - BLCA - 1377  
R.O.W. DIGITAL PHOTOGRAPH INDEX**

<b>PAVED ROUTE NO.</b>	<b>MILEAGE AT BEGINNING PHOTO</b>	<b>FROM</b>	<b>TO</b>	<b>BEGINNING PHOTO NO.</b>	<b>ENDING PHOTO NO.</b>	<b>COMPACT DISC NO.</b>	<b>DATE</b>	<b>DIR: PRIM/ OPP</b>
010	0.00	S PARK BDY	RTE 901	1	1535	BLCA_980515_01	980515	P
010	7.64	RTE 901	S PARK BDY	1536	3084	BLCA_980515_01	980515	O
200	0.00	RTE 010	LOOP C BEGIN	3085	3151	BLCA_980515_01	980515	P
LOOP A	0.32	RTE 200 MAIN	END OF LOOP	3253	3307	BLCA_980515_01	980515	P
LOOP B	0.57	RTE 200 ( )	END OF LOOP	3201	3252	BLCA_980515_01	980515	P
LOOP C	0.81	RTE 200 ( )	END OF LOOP	3152	3200	BLCA_980515_01	980515	P
200	0.32	LOOP C BEGIN	RTE 010	3308	3374	BLCA_980515_01	980515	O
400	0.00	RTE 200	RTE'S 912,913	3375	3393	BLCA_980515_01	980515	P
400	0.08	RTE'S 912,913	RTE 200	3394	3412	BLCA_980515_01	980515	O





**GLOSSARY OF TERMS  
AND  
ABBREVIATIONS**

<u>TERM OR ABBREVIATION</u>	<u>DESCRIPTION OR DEFINITION</u>
1377	Black Canyon of the Gunnison National Monument numeric code
AADT	Annually Average Daily Traffic. Average daily traffic for the time period comprising 80% of annual visitation.
BLCA	Black Canyon of the Gunnison alphabetic code.
CRS	Condition Rating Sheet. Index rating for pavement distresses, roadway condition and cross section information.
DCR	Drainage Condition Rating
Drainage Condition Rating	A descriptive term (Excellent, Good, Fair, Poor) assigned subjectively on a visual basis.
Excellent	Excellent rating.
Fair	Fair rating.
FUNC. CLASS	Functional Class. See Table 1 in appendix.
Good	Good rating.
IMR	Intermountain Region
Lane	The portion of roadway from centerline to fogline, or to edge of pavement if no fog line exists.
LRUT	Left Rut
NA	Not applicable.
NO. OF LANES	Number of lanes
PAVED MILES	Paved portion of route, length in miles.
Pavement Width	The entire portion of roadway from edge of pavement to edge of pavement.
PCR	Pavement Condition Rating. Numerical rating from 0 (failed) to 100 (excellent), based on the surface condition and the roughness of the road.

**GLOSSARY OF TERMS  
AND  
ABBREVIATIONS**

<u>TERM OR ABBREVIATION</u>	<u>DESCRIPTION OR DEFINITION</u>
Poor	Poor rating.
RMC	Rocky Mountain Cluster
RRUT	Right Rut
RTE DESCRIPTION	Description of the route terminus.
RTE MILEAGE	Total route length in miles.
RTE NAME	Route name.
RTE NO.	FHWA route number
SADT	Seasonal Average Daily Traffic. Average daily traffic for the total "season".
SCR	Surface Condition Rating. Numerical rating from 0 (failed) to 100 (excellent). Based on the extent of alligator cracking, patching, longitudinal cracking, rutting and transverse cracking.
SF	Square Feet
Shoulder Condition Rating	A descriptive term (Excellent, Good, Fair, Poor) assigned subjectively on a visual basis.
Shoulder Width	Portion of road from fogline to hinge point, or from edge of pavement (if no fogline) to hinge point.
UNPAVED MILES	Unpaved portion of route, length in miles.

## GENERAL PARK ROAD FUNCTIONAL CLASSIFICATION - TABLE 1

<b>Class I</b>	Principal Park Road/Rural Parkway (Public Roads) - Roads which constitute the main access route, circulatory tour, or thoroughfare for park visitors. Route Numbers 1-99. Note: Rural parkways (e.g. Natchez Trace) are numbered 1-9. All other FC 1 routes have two digit numbers.
<b>Class II</b>	Connector Park Road (Public Roads) - Roads which provide access within a park to areas of scenic, scientific, recreational or cultural interest, such as overlooks, campgrounds, etc. Route Numbers 100-199.
<b>Class III</b>	Special Purpose Park Road (Public Roads) - Roads which provide circulation within public areas, such as campgrounds, picnic areas, visitor center complexes, concessionaire facilities, etc.  These roads generally serve low-speed traffic and are often designed for one-way circulation. Route Numbers 200-299.
<b>Class IV</b>	Primitive Park Roads (Public Roads) - Roads which provide circulation through remote areas and/or access to primitive campgrounds and undeveloped areas. These roads frequently have no minimum design standards and their use may be limited to specially equipped vehicles. Route Numbers 200-299.  Note: Functional Classes III and IV have the same route numbers because, historically, they were numbered similarly.
<b>Class V</b>	Administrative Access Road (Administrative Roads) - All public roads intended for access to administrative developments or structures such as park offices, employee quarters, or utility areas. Route Numbers 400-499.
<b>Class VI</b>	Restricted Road (Administrative Roads) - All roads normally closed to the public, including patrol roads, truck trails, and other similar roads. Route Numbers 400-499.  Note: Functional Classes V and VI 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 VI rather than FC V.
<b>Class VII</b>	Urban Parkway (Urban Parkways and City Streets) - These facilities serve high volumes of park and non-park related traffic and are restricted, limited-access facilities in an urban area.  This category of roads primarily encompasses the major parkways which serve as gateways to our nation's capital. Other major park roads or portions thereof, however, may be included in this category. Route Numbers 1-9.
<b>Class VIII</b>	City Streets (Urban Parkways and City Streets) - City streets are usually extensions of the adjoining street system that are owned and maintained by the National Park Service.  The construction and/or reconstruction should conform with accepted local engineering practice and local conditions. Route Numbers 600-699.

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

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



## DESCRIPTION OF RATING SYSTEM

Data is collected on the following distresses and conditions:

**Alligator Cracking** - a series of interconnecting cracks resembling alligator skin or chicken wire which usually occur in the wheel path.

**Longitudinal Cracking** - cracks which are parallel to the pavement centerline or asphalt lay down direction.

**Transverse Cracking** - cracks perpendicular to the pavement centerline.

**Pothole (patch)** - a bowl-shaped hole in the pavement surface.

**Rutting** - surface depressions in the wheel paths.

A Rating Index value is calculated for each distress in each section.

### Rating Index Formulas

**Alligator Cracking Index** =  $100 - [40 * ( \%low/70 + \%medium/30 + \%high/10 )]$

**Longitudinal Cracking Index** =  $100 - [40 * ( \%low/350 + \%medium/200 + \%high/75 )]$

**Transverse Cracking Index** =  $100 - [40 * ( low/7.6 + medium/3.8 + high/0.95 )]$

**Patching Index** =  $100 - [40 * ( \%patching / 80 )]$

**Rutting Index** =  $[13.33 * (deepest rut)^2] - [86.67 * deepest rut] + 100$

**Surface Condition Rating (SCR)** =  $100 - [40 * ( LOW ALLIGATOR CRACKING/70 + MEDIUM ALLIGATOR CRACKING/30 + HIGH ALLIGATOR CRACKING/10 + PATCHING/80 + LOW TRANSVERSE CRACKING/28.69 + MEDIUM TRANSVERSE CRACKING/14.25 + HIGH TRANSVERSE CRACKING/3.6 + LOW LONGITUDINAL CRACKING/350 + MEDIUM LONGITUDINAL CRACKING/200 + HIGH LONGITUDINAL CRACKING/75 + AVERAGE RUT VALUE)]$

### Drainage Condition Rating Definitions

**Excellent:** No drainability problem. If funding were available for pavement maintenance, no funds would be required for drainage concerns.

**Good:** Minimal overall drainability problems. If funding were available for pavement maintenance, 25% or less is estimated to correct drainage deficiencies.

**Fair:** Moderate problems with drainability that needs correcting before it deteriorates to a poor rating. If funding were available for pavement maintenance in this section, 25% to 50% is estimated to correct deficiencies.

**Poor:** Severe problems exist that jeopardizes the integrity of the road in this section. If funding were available for pavement maintenance, 50% to 100% is estimated to correct drainage deficiencies.

### **Drainage Rating Criteria**

The following are examples of basic criteria to help the rater to identify the different drainability ratings. While in the field, many other flaws will be discovered, but this criteria should give a feel for where the flaws would apply in the ratings.

#### **A. Excellent Drainability**

All water clears the road prism adequately without any chance of base saturation.

- Pavement drains without interruption.
- Curbs are flawless with the exception of minor cracking.
- Down drains are secure and placed properly.
- Drop inlets are at the correct grade and location with no deficiencies.
- Culverts are adequate in numbers, size, and condition.
- Ditches are constructed of asphalt and are sufficient to carry required volumes of water.

#### **B. Good Drainability**

Most water clears the road prism adequately with little concern of base saturation.

- Pavement has minor deficiencies that interrupt water flow.
- Shoulders are mostly adequate as they relate to surrounding terrain. Shoulder design generally coincides with the drainage design.
- Curbs have deficiencies, but still function without erosion.
- Down drains are placed properly, but show signs of some deterioration.
- Culverts are adequate in numbers and size, however, minor deficiencies are evident.
- Ditches are not paved, but solid and have enough area to maintain and carry required volume of water.

#### **C. Fair Drainability**

Some areas have questionable ability for the water to clear the road prism with an uncomfortable concern for base saturation.

- Pavement shows moderate flaws, such as rutting, and other irregularities that would hold minor amounts of water, interrupting the flow of water.
- Shoulder grades restrict the flow of water, however, water exits after some ponding.
- Down drains show evidence that limited water is causing erosion as a result of deterioration, or other similar flaws (e.g. missing asphalt that guides water to down drain).
- Drop inlet encasements are cracked, iron is bent, or are misaligned to cause limited water to escape,
- Culvert headwalls show moderate damage or are inadequate, the exit shows some damage to fill areas, or entry asphalt is moderately damaged.
- Ditches have some permeable material, unmovable obstructions to interrupt flow obviously hard to maintain due to inconsistencies, or have a less than desirable area to carry required volumes of water.

#### **D. Poor Drainability**

This section has areas of inadequate drainage ability that is causing base saturation that could cause a road failure.

- Pavement grade is irregular and holds dangerous amounts of water (hydroplaning is a concern), or shows massive alligator cracking.
- Shoulder design induces ponding that encroaches on the pavement (drivers try to avoid ponds).
- Portions of curbs are missing, allowing water to escape causing erosion.
- Drop inlets, due to various reasons, are only able to drain 50% or less efficiently.
- Down drains show signs of water exiting in areas by the down drain causing erosion.
- Culverts are functionally deficient including size, installation, location, or grade giving water opportunity to saturate the road base.
- Ditches allow water opportunity to saturate the road base through various reasons such as low places in ditch where design has not allowed for water to drain, little or no room in the road prism for a needed ditch, or water is disappearing within the ditch.

### **Shoulder Condition Rating Definitions**

- Excellent:** Shoulder is new or under construction. It meets or exceeds standards. The curb is new.
- Good:** The shoulder is below standard width for posted speed and grading is required. The curb is functional.
- Fair:** There are variations in the shoulder, irregular width with material replacement required. The curb is in need of repairs or adjustments.
- Poor:** There isn't any shoulder, erosion has removed it. The curb needs replacement.

### **Shoulder Rating Criteria**

The following are examples of basic criteria to help the rater to identify the different shoulder ratings. While in the field, many other flaws will be discovered, but this criteria should give a feel for where the flaws would apply in the ratings. The overall shoulder condition rating for a section is determined by the lowest individual rating for any one of the above categories (width, rutting, cracking, erosion, drop-off, and curbs).

#### **A. Excellent Shoulders**

- If shoulder is unpaved there will not be any drop-offs or erosion.
- If shoulder is paved there isn't any rutting, cracking, or erosion.
- Curbs are flawless with the exception of minor cracking and no erosion behind curb.

#### **B. Good Shoulders**

- If shoulder is unpaved drop-offs are less than 1", but grading is required.
- If shoulder is paved rut depth is less than 1/2", sealed cracks are present, and grading is required.
- If curbs are present they are functional.

#### **C. Fair Shoulders**

- If shoulder is unpaved drop-offs are from 1" to 4" and replacement of material required.
- If shoulder's paved rut depth is less than from 1/2" to 1". Open cracks are present but less than 1/4" deep, replacement of material is needed from erosion.
- If curbs are present they need repairs, and there is erosion behind the curb.

#### **D. Poor Shoulder**

- If shoulder is unpaved drop-offs are greater than 4" and erosion has removed the shoulder.
- If shoulder is paved rut depth is greater than 1". Open cracks are greater than 1/4" deep, and erosion has removed the shoulder.
- If curbs are present they need replacement.
- If curbs are present they need repairs, and there is erosion behind the curb.



