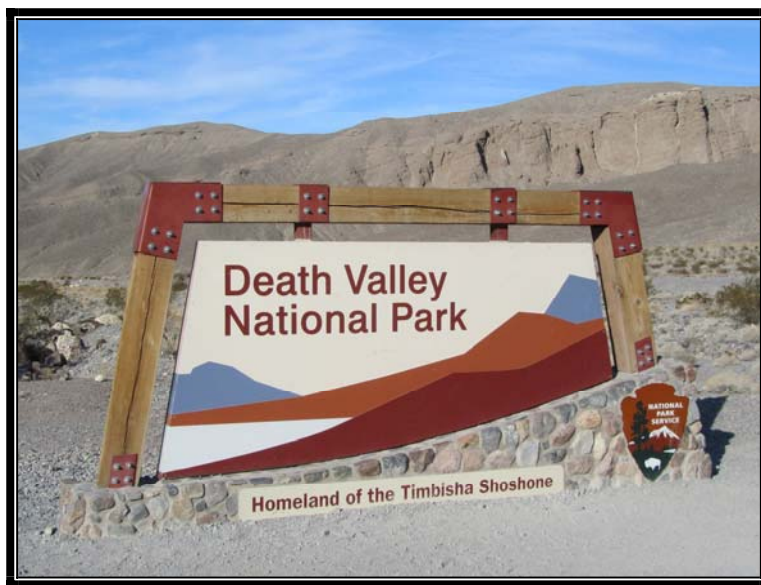




Federal Lands Highway Road Inventory Program

Road Inventory and Condition Assessment

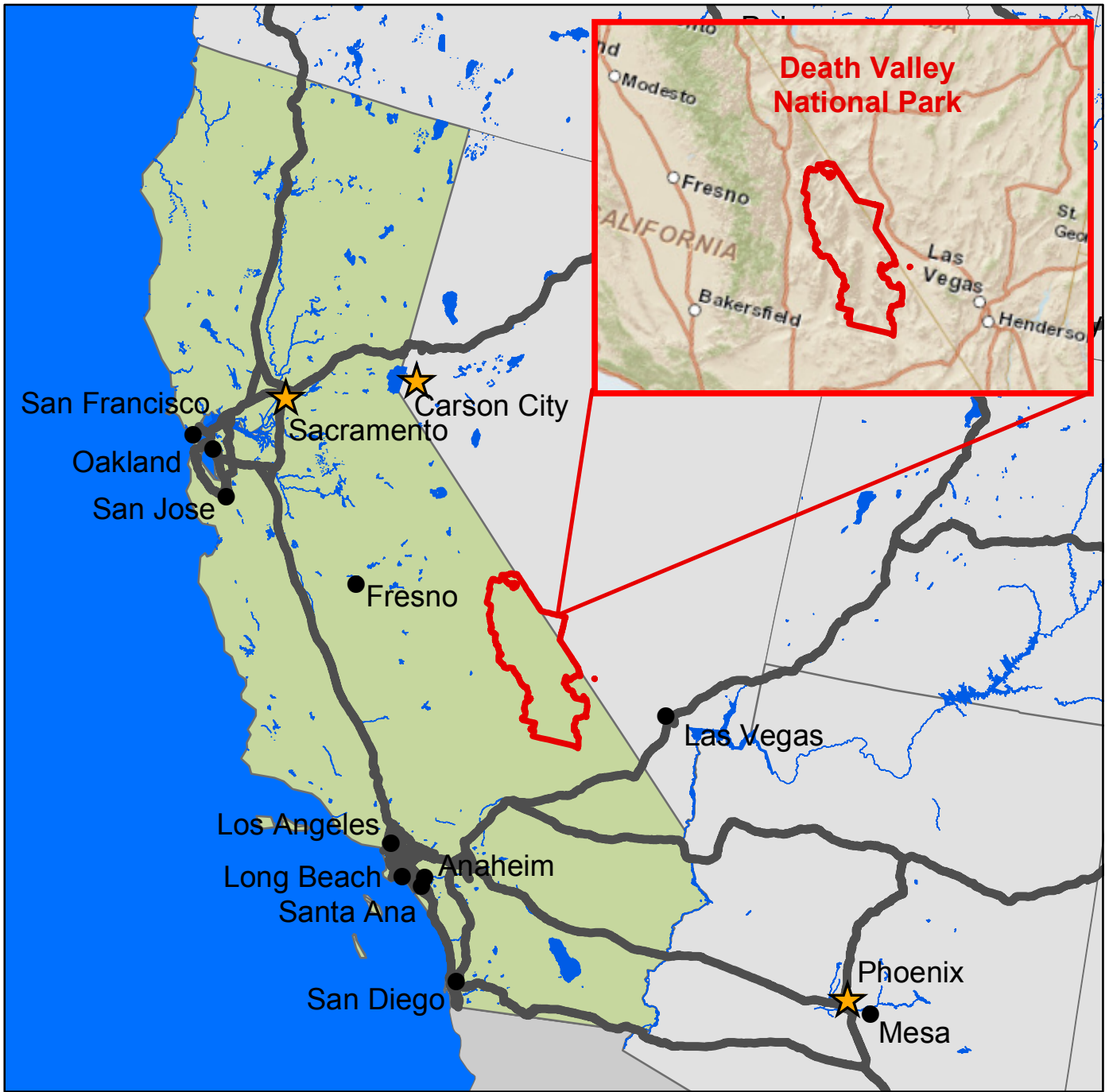


Death Valley National Park DEVA

Cycle 5 Report

**Prepared By: Federal Highway Administration
Road Inventory Program (RIP)
Data Collected: 06/2012
Report Date: 01/2013**

Death Valley National Park in California and Nevada





DCV = Data Collection Vehicle

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Section 1 Introduction



Death Valley National Park



Federal Lands Highway
Road Inventory Program

INTRODUCTION

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

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

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

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

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

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

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

Cycle 5 has launched in the summer of 2010 and will again comprise all parks, large and small, that are served by paved roads and/or parking areas. For Cycle 5, the decision was made to collect condition data in large parks on Functional Class 1, 2, and 7 paved routes only, as well as any new routes that were previously not collected. In small parks, all paved routes and parking areas will be collected. As a result, this will include 81 large parks with 4,459 paved route miles and 168 small parks with 529 paved route miles and associated paved parking areas.

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

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

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

Respectfully,

FHWA RIP Team

FHWA/Eastern Federal Lands
21400 Ridgetop Circle
Sterling, VA 20166
(703) 404-6371

FHWA/Central Federal Lands
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Lakewood, CO 80228
(720) 963-3560

Section 2

Park Route Inventory



Death Valley National Park



Federal Lands Highway
Road Inventory Program

Cycle 5 NPS/RIP Route ID Report

Road Inventory Program 01/28/2013

(Numerical By Route #)

Page 1 of 19

Shading Color Key:
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■ = Concession Route Flag ON

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

** DCV - Data Collection Vehicle

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

DEVA

DEATH VALLEY NATIONAL PARK

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Description From To	Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0010	5	51714		DAYLIGHT PASS (MUD CANYON) ROAD	FROM ROUTE 0011 (SCOTTYS CASTLE (BONNIE CLAIRE) ROAD) AT MP 0.59 (ON RIGHT) TO EAST PARK BOUNDARY AND NEVADA STATE ROUTE 374	N/A	17.36	0.00	17.36	1		AS	2
0011	5	51717		SCOTTYS CASTLE (BONNIE CLAIRE) ROAD	FROM ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY)) AT MP 35.10 (ON RIGHT) TO EAST PARK BOUNDARY AT CALIFORNIA AND NEVADA STATE LINE / NEVADA STATE ROUTE 267	N/A	41.25	0.00	41.25	1		AS	1,2
0012	5	51496		BEATTY CUTOFF ROAD	FROM ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY)) AT MP 28.56 (ON RIGHT) TO ROUTE 0010 (DAYLIGHT PASS (MUD CANYON) ROAD) AT MP 6.77 (ON RIGHT)	N/A	10.07	0.00	10.07	1		AS	2
0014ZZ	5	51715		EMIGRANT CANYON ROAD	FROM ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY)) AT MP 51.70 (ON LEFT) TO BEGINNING OF ROUTE 5004 (EMIGRANT CANYON ROAD (NON NPS)) AT MP 0.00	N/A	25.15	0.00	25.15	2		AS	3
0015	5	51502		BADWATER ROAD	FROM ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY)) AT MP 16.55 (ON LEFT) TO BEGINNING OF ROUTE 5003 (BADWATER ROAD (NON NPS)) AT MP 0.00 (SIDE N/A)	N/A	56.28	0.00	56.28	1		AS	4,5,6
0100	NC	103242		OLD STOVEPIPE ROAD / SAND DUNES ACCESS ROAD	FROM ROUTE 0011 (SCOTTYS CASTLE (BONNIE CLAIRE) ROAD) AT MP 3.02 (ON LEFT) TO END	N/A	0.00	0.78	0.78	2		GR	
0101	NC	60873		SALT CREEK ROAD	FROM ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY)) TO END	N/A	0.00	1.31	1.31	2		GR	
0103	5	51503		DANTE'S VIEW ROAD	FROM ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY)) TO ROUTE 0920 (DANTE'S VIEW PARKING)	N/A	13.26	0.00	13.26	2		AS	5
0107	NC	60874		HARRY WADE ROAD	FROM SOUTH PARK BOUNDARY TO ROUTE 0015 (BADWATER ROAD) AT MP 45.94 (ON RIGHT)	N/A	0.00	24.49	24.49	2		GR	
0108	NC	60875		DEATH VALLEY / BIG PINE ROAD	FROM NORTH PARK BOUNDARY TO ROUTE 0109 (UBEHEBE CRATER ROAD) AT MP 2.84 (ON RIGHT)	N/A	0.00	35.11	35.11	2		GR	

Cycle 5 NPS/RIP Route ID Report

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DEVA

DEATH VALLEY NATIONAL PARK

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Description From To	Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0109	5	51718		UBEHEBE CRATER ROAD	FROM ROUTE 0011 (SCOTTYS CASTLE (BONNIE CLAIRE) ROAD) AT MP 33.70 (ON LEFT) TO END OF LOOP	N/A	6.28	0.00	6.28	2		AS	1
0110	NC	60876		WEST SIDE ROAD	FROM ROUTE 0015 (BADWATER ROAD) AT MP 5.98 (ON RIGHT) TO ROUTE 0015 (BADWATER ROAD) AT MP 42.14 (ON RIGHT)	N/A	0.00	36.18	36.18	2		GR	
0112	5	60877		CHARCOAL KILNS ROAD	FROM ROUTE 0014ZZ (EMIGRANT CANYON ROAD) AT MP 21.25 (ON LEFT) TO BEGINNING OF ROUTE 0231 (MAHOGANY FLATS ROAD) AT MP 0.00 (SIDE N/A)	N/A	5.09	5.45	10.54	2		AS	3
0116	5	102575		WILDROSE CAMPGROUND ROAD	FROM ROUTE 0112 (CHARCOAL KILNS ROAD) AT MP 0.08 (ON LEFT) TO END OF LOOP IN WILDROSE CAMPGROUND	N/A	0.09	0.13	0.22	2		AS	3
0201	4	47986		FURNACE CREEK CAMPGROUND ROAD	FROM ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY)) AT MP 18.22 (ON LEFT) THROUGH FURNACE CREEK CAMPGROUND	N/A	0.00	0.00	0.00	3	153,629	AS	4
0202	4	51677		FURNACE CREEK AIRPORT ROAD	FROM ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY)) AT MP 17.84 (ON LEFT) TO ROUTE 0930 (FURNACE CREEK AIRPORT PARKING)	N/A	0.78	0.00	0.78	3		AS	4
0203ZZ	4	102576		SUNSET CAMPGROUND	FROM ROUTE 0204A (TEXAS SPRING / SUNSET CAMPGROUND ACCESS ROAD) AT MP 0.28 (ON LEFT) THROUGH SUNSET CAMPGROUND	N/A	1.97	0.00	1.97	3		AS	4
0204A	5	60878		TEXAS SPRING / SUNSET CAMPGROUND ACCESS ROAD	FROM ROUTES 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY)) AT MP 17.28 (ON RIGHT) AND 0206 (TIMBISHA SHOSHONE VILLAGE ROAD) TO ROUTE 0204BZZ (TEXAS SPRING CAMPGROUND LOOPS)	N/A	0.66	0.00	0.66	2		AS	4
0204BZZ	4	103243		TEXAS SPRING CAMPGROUND LOOPS	FROM END OF ROUTE 0204A (TEXAS SPRING / SUNSET CAMPGROUND ACCESS ROAD) THROUGH TEXAS SPRING CAMPGROUND	N/A	1.40	0.00	1.40	3		AS	4

Cycle 5 NPS/RIP Route ID Report

Road Inventory Program 01/28/2013

(Numerical By Route #)

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DEVA

DEATH VALLEY NATIONAL PARK

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Description From To	Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0205	NC	107635		OWL'S HEAD MOUNTAINS / MICROWAVE TOWER ROAD	FROM ROUTE 0107 (HARRY WADE ROAD) TO END	N/A	0.00	15.78	15.78	4		GR	
0206	4	102577		TIMBISHA SHOSHONE VILLAGE ROAD	FROM ROUTE 5001 (CA-190 DEATH VALLEY SCENIC BYWAY) AT MP 17.28 (ON LEFT) TO VILLAGE ENTRANCE	N/A	0.61	0.00	0.61	3		AS	4
0208	NC	102797		DESOLATION CANYON ROAD	FROM ROUTE 0015 (BADWATER ROAD) TO END	N/A	0.00	0.56	0.56	4		GR	
0209	NC	60879		NATURAL BRIDGE ROAD	FROM ROUTE 0015 (BADWATER ROAD) AT MP 13.06 (ON RIGHT) TO PARKING	N/A	0.00	1.55	1.55	4		GR	
0210	NC	107634		OWL'S HEAD SPRING ROAD	FROM ROUTE 0107 (HARRY WADE ROAD) TO OWL'S HEAD SPRING	N/A	0.00	11.20	11.20	4		GR	
0211	NC	60880		KEANE WONDER MINE ROAD	FROM ROUTE 0012 (BEATTY CUTOFF ROAD) AT MPS 5.70 AND 5.76 (ON RIGHT) TO PARKING	N/A	0.00	2.89	2.89	4		GR	
0212A	5	60882		MESQUITE SPRING CAMPGROUND ACCESS ROAD	FROM ROUTE 0011 (SCOTTYS CASTLE (BONNIE CLAIRE) ROAD) AT MP 33.07 (ON LEFT) TO ROUTE 0212B (MESQUITE SPRING CAMPGROUND)	N/A	1.88	0.00	1.88	2		AS	1
0212B	4	103474		MESQUITE SPRING CAMPGROUND	FROM END OF ROUTE 0212A (MESQUITE SPRING CAMPGROUND ACCESS ROAD) THROUGH MESQUITE SPRING CAMPGROUND	N/A	0.00	0.00	0.00	3	74,351	AS	1
0213	NC	107631		IBEX SPRINGS ROAD	FROM ROUTE 0107 (HARRY WADE ROAD) TO ROUTE 0214 (BUCKWHEAT WASH ROAD)	N/A	0.00	3.12	3.12	4		NV	
0214	NC	107632		BUCKWHEAT WASH ROAD	FROM ROUTE 0213 (IBEX SPRINGS ROAD) TO END	N/A	0.00	5.47	5.47	4		NV	
0215	NC	60883		MOSAIC CANYON ROAD	FROM ROUTE 5001 (CA-190 DEATH VALLEY SCENIC BYWAY) TO PARKING	N/A	0.00	2.40	2.40	4		GR	
0216	NC	60884		AGUEREBERRY POINT ROAD	FROM ROUTE 0014ZZ (EMIGRANT CANYON ROAD) AT MP 11.95 TO PARKING	N/A	0.00	7.21	7.21	4		GR	
0217	NC	103953		THORNDIKE CAMPGROUND	FROM ROUTE 0231 (MAHOGANY FLATS ROAD) THROUGH CAMPGROUND	N/A	0.00	0.11	0.11	3		GR	
0218	NC	107633		GIANT MINE ROAD	FROM PARK BOUNDARY TO PARK BOUNDARY (SE CORNER OF PARK)	N/A	0.00	1.40	1.40	4		NV	

Cycle 5 NPS/RIP Route ID Report

Road Inventory Program 01/28/2013

(Numerical By Route #)

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DEVA

DEATH VALLEY NATIONAL PARK

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Description From To	Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0219	NC	60885		SKIDOO ROAD	FROM ROUTE 0014ZZ (EMIGRANT CANYON ROAD) AT MP 9.53 (ON LEFT) TO SKIDOO MILL	N/A	0.00	14.54	14.54	4		GR	
0220	NC	107619		UPPER CONFIDENCE WASH ROAD	FROM CALIFORNIA STATE HIGHWAY 178 TO END	N/A	0.00	1.74	1.74	4		NV	
0221	NC	107618		RHODES SPRINGS ROAD	FROM ROUTE 0015 (BADWATER ROAD) TO END (2 SPURS)	N/A	0.00	2.41	2.41	4		NV	
0222	NC	107609		VIRGIN SPRINGS ROAD	FROM ROUTE 0015 (BADWATER ROAD) TO END	N/A	0.00	1.40	1.40	4		NV	
0223	NC	103241		CHLORIDE CLIFFS ROAD	FROM ROUTE 0010 (DAYLIGHT PASS (MUD CANYON) ROAD) TO CHLORIDE CITY	N/A	0.00	10.30	10.30	4		GR	
0224	NC	107608		ASHFORD CANYON ROAD	FROM ROUTE 0015 (BADWATER ROAD) TO END	N/A	0.00	2.75	2.75	4		NV	
0225	NC	60318		RACETRACK VALLEY ROAD	FROM ROUTE 0109 (UBEHEBE CRATER ROAD) AT MP 5.72 (ON RIGHT) TO ROUTE 0265 (UBEHEBE CRATER ROAD / LIPPENCOTT ROAD)	N/A	0.00	29.21	29.21	4		GR	
0226	NC	103265		FURNACE CREEK WASH / GREENWATER VALLEY ROAD	FROM STATE ROUTE 178 TO ROUTE 0103 (DANTE'S VIEW ROAD)	N/A	0.00	28.90	28.90	2		GR	
0227	NC	103270		GOLD VALLEY ROAD	FROM ROUTE 0226 (FURNACE CREEK WASH / GREENWATER VALLEY ROAD (NON-NPS)) TO END (MULTIPLE SPURS)	N/A	0.00	19.48	19.48	4		NV	
0228	NC	54792		DEVIL'S GOLF COURSE ROAD	FROM ROUTE 0015 (BADWATER ROAD) AT MP 11.02 (ON RIGHT) TO END	N/A	0.00	1.27	1.27	4		GR	
0229	NC	107630		SARATOGA SPRINGS / IBEX DUNES ROAD	FROM SOUTH PARK BOUNDARY TO PARKING	N/A	0.00	11.91	11.91	4		GR	
0230	4	102583		STOVEPIPE WELLS LANDING STRIP ROAD	FROM ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY)) TO STOVEPIPE WELLS LANDING STRIP	N/A	0.51	0.00	0.51	3		AS	2
0231	NC	51720		MAHOGANY FLATS ROAD	FROM END OF ROUTE 0112 (CHARCOAL KILNS ROAD) TO MAHOGANY FLATS CAMPGROUND	N/A	0.00	0.73	0.73	4		GR	
0236	NC	103272		DEADMAN PASS ROAD	FROM ROUTE 0226 (FURNACE CREEK WASH / GREENWATER VALLEY ROAD (NON-NPS)) TO EAST PARK BOUNDARY	N/A	0.00	9.84	9.84	4		NV	

Cycle 5 NPS/RIP Route ID Report

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DEVA

DEATH VALLEY NATIONAL PARK

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Description From To	Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0237	NC	103275		GREENWATER / FURNACE CONNECTING ROAD	FROM ROUTE 0226 (FURNACE CREEK WASH / GREENWATER VALLEY ROAD (NON-NPS)) TO ROUTE 0244 (FURNACE MINE ROAD)	N/A	0.00	5.61	5.61	4		NV	
0238	NC	103277		KUNZE ROAD	FROM ROUTE 0226 (FURNACE CREEK WASH / GREENWATER VALLEY ROAD (NON-NPS)) TO ROUTE 0244 (FURNACE MINE ROAD)	N/A	0.00	7.68	7.68	4		NV	
0239	NC	105566		COFFIN MINE ROAD	FROM ROUTE 0244 (FURNACE MINE ROAD) TO END	N/A	0.00	2.75	2.75	4		NV	
0240	NC	105568		KUNZE SOUTH SPUR	FROM ROUTE 0237 (GREENWATER / FURNACE CONNECTING ROAD) TO ROUTE 0238 (KUNZE ROAD)	N/A	0.00	0.77	0.77	4		NV	
0241	NC	105569		KUNZE MINE SPUR	FROM ROUTE 0237 (GREENWATER / FURNACE CONNECTING ROAD) TO ROUTE 0238 (KUNZE ROAD)	N/A	0.00	1.65	1.65	4		NV	
0242	NC	105570		GREENWATER CEMETERY ROAD	FROM ROUTE 0237 (GREENWATER / FURNACE CONNECTING ROAD) TO ROUTE 0238 (KUNZE ROAD)	N/A	0.00	2.14	2.14	4		NV	
0243	NC	105565		FURNACE VIEW ROAD	FROM ROUTE 0244 (FURNACE MINE ROAD) TO END	N/A	0.00	0.34	0.34	4		NV	
0244	NC	103296		FURNACE MINE ROAD	FROM ROUTE 0226 (FURNACE CREEK WASH / GREENWATER VALLEY ROAD (NON-NPS)) TO ROUTE 0243 (FURNACE VIEW ROAD)	N/A	0.00	4.07	4.07	4		NV	
0245	NC	106941		HOLE IN THE WALL ROAD	FROM ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY)) TO END	N/A	0.00	6.33	6.33	4		NV	
0246	NC	107853		ECHO CANYON ROAD	FROM ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY)) TO ROUTE 0247 (INYO MINE ROAD / UPPER ECHO CANYON)	N/A	0.00	12.22	12.22	4		NV	
0247	NC	107621		INYO MINE ROAD / UPPER ECHO CANYON	FROM ROUTE 0246 (ECHO CANYON ROAD) TO END / PARK BOUNDARY	N/A	0.00	1.80	1.80	4		NV	
0248	NC	107786		CAVE ROCK SPRINGS ROAD	FROM ROUTE 0249 (MCDONALD SPRING ROAD) TO END	N/A	0.00	3.30	3.30	4		NV	
0249	NC	107787		MCDONALD SPRING ROAD	FROM EAST PARK BOUNDARY TO END	N/A	0.00	11.19	11.19	4		NV	
0250	NC	107788		CURRIE WELL ROAD	FROM ROUTE 0312 (MUD SUMMIT ROAD [NV TRIANGLE]) TO END	N/A	0.00	0.50	0.50	4		NV	

Cycle 5 NPS/RIP Route ID Report

Road Inventory Program 01/28/2013

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DEVA

DEATH VALLEY NATIONAL PARK

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Description From To	Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0251	NC	107789		STROZZI RANCH ROAD	FROM ROUTE 0252 (PHINNEY CANYON ROAD) TO END	N/A	0.00	7.60	7.60	4		NV	
0252	NC	107791		PHINNEY CANYON ROAD	FROM EAST PARK BOUNDARY TO END	N/A	0.00	28.90	28.90	4		NV	
0253	NC	107637		SAND SPRING / ORIENTAL WASH (BIG PINE ROAD)	FROM ROUTE 0108 (DEATH VALLEY / BIG PINE ROAD) TO EAST PARK BOUNDARY	N/A	0.00	4.34	4.34	4		NV	
0254	NC	107640		LAST CHANCE SPRING ROAD	FROM ROUTE 0308 (TULE CANYON ROAD [BIG PINE ROAD]) TO END	N/A	0.00	2.77	2.77	4		NV	
0255	NC	107643		EUREKA VALLEY ROAD	FROM ROUTE 0108 (DEATH VALLEY / BIG PINE ROAD) TO STATE ROUTE 168 (FISH LAKE)	N/A	0.00	7.20	7.20	4		GR	
0256	NC	107644		SOUTH EUREKA ROAD	FROM ROUTE 0108 (DEATH VALLEY / BIG PINE ROAD) TO ROUTE 0261 (SALINE VALLEY ROAD (NON-NPS))	N/A	0.00	11.40	11.40	4		GR	
0257	NC	107645		EUREKA VALLEY WELL SITE ROAD	FROM ROUTE 0256 (SOUTH EUREKA ROAD (NON-NPS)) TO END	N/A	0.00	2.37	2.37	4		NV	
0259	NC	107896		STEEL PASS ROAD	FROM ROUTE 0256 (SOUTH EUREKA ROAD (NON-NPS)) TO ROUTE 0262 (LOWER WARM SPRINGS ROAD)	N/A	0.00	26.60	26.60	4		NV	
0260	NC	107783		JACKASS FLATS ROAD	FROM ROUTE 0261 (SALINE VALLEY ROAD (NON-NPS)) (NORTH) TO END OF SPURS	N/A	0.00	6.00	6.00	4		NV	
0261	NC	107627		SALINE VALLEY ROAD	FROM ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY)) TO STATE ROUTE 168	N/A	0.00	43.36	43.36	4		GR	
0262	NC	107628		LOWER WARM SPRINGS ROAD	FROM ROUTE 0261 (SALINE VALLEY ROAD (NON-NPS)) TO ROUTE 0256 (SOUTH EUREKA ROAD (NON-NPS))	N/A	0.00	9.60	9.60	4		NV	
0263	NC	107784		ARTESIAN WELL ROAD	FROM ROUTE 0261 (SALINE VALLEY ROAD (NON-NPS)) TO END	N/A	0.00	1.96	1.96	4		NV	
0264	NC	107785		BIG SILVER MINE ROAD	FROM ROUTE 0261 (SALINE VALLEY ROAD (NON-NPS)) TO END	N/A	0.00	1.53	1.53	4		NV	
0265	NC	107629		UBEHEBE CRATER ROAD / LIPPENCOTT ROAD	FROM ROUTE 0225 (RACETRACK VALLEY ROAD) TO ROUTE 0261 (SALINE VALLEY ROAD (NON-NPS))	N/A	0.00	7.37	7.37	4		NV	
0266	NC	107641		WHITE TOP MOUNTAIN ROAD	FROM ROUTE 0272 (HUNTER MOUNTAIN ROAD) TO END	N/A	0.00	9.97	9.97	4		NV	
0267	NC	107642		LOST BURRO MINE ROAD	FROM ROUTE 0272 (HUNTER MOUNTAIN ROAD) TO END	N/A	0.00	1.11	1.11	4		NV	

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DEVA

DEATH VALLEY NATIONAL PARK

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Description From To	Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0268	NC	107781		QUAKENBUSH MINE ROAD	FROM ROUTE 0273 (GOLDBELT SPRINGS ROAD) TO ROUTE 0272 (HUNTER MOUNTAIN ROAD)	N/A	0.00	1.60	1.60	4		NV	
0269	NC	107780		UBEHEBE TALC MINE ROAD	FROM ROUTE 0272 (HUNTER MOUNTAIN ROAD) TO ROUTE 0272 (HUNTER MOUNTAIN ROAD)	N/A	0.00	3.27	3.27	4		NV	
0270	NC	108048		J.O. MINE ROAD	FROM ROUTE 0272 (HUNTER MOUNTAIN ROAD) TO END	N/A	0.00	5.45	5.45	4		NV	
0271	NC	108049		SPANISH SPRING ROAD	FROM ROUTE 0270 (J.O. MINE ROAD) TO END	N/A	0.00	3.80	3.80	4		NV	
0272	NC	106503		HUNTER MOUNTAIN ROAD	FROM ROUTE 0261 (SALINE VALLEY ROAD (NON-NPS)) TO ROUTE 0225 (RACETRACK VALLEY ROAD)	N/A	0.00	24.60	24.60	4		NV	
0273	NC	107778		GOLDBELT SPRINGS ROAD	FROM ROUTE 0272 (HUNTER MOUNTAIN ROAD) TO END	N/A	0.00	1.50	1.50	4		NV	
0274	NC	108051		HUNTER CABIN SPUR ROAD	FROM ROUTE 0272 (HUNTER MOUNTAIN ROAD) TO END	N/A	0.00	0.76	0.76	4		NV	
0275	NC	107800		WHITE MOUNTAIN TALC ROAD / LEE FLAT	FROM ROUTE 0261 (SALINE VALLEY ROAD (NON-NPS)) TO END AT WHITE MOUNTAIN	N/A	0.00	7.02	7.02	4		GR	
0276	NC	107801		LEE TO SALINE CONNECTOR ROAD	FROM ROUTE 0275 (WHITE MOUNTAIN TALC ROAD / LEE FLAT (NON-NPS)) TO ROUTE 0261 (SALINE VALLEY ROAD (NON-NPS))	N/A	0.00	1.42	1.42	4		NV	
0277	NC	107802		BLACKROCK WELL ROAD	FROM ROUTE 0275 (WHITE MOUNTAIN TALC ROAD / LEE FLAT (NON-NPS)) TO END	N/A	0.00	2.50	2.50	4		NV	
0278	NC	107803		LEE FLAT OVERLOOK ROAD	FROM ROUTE 0275 (WHITE MOUNTAIN TALC ROAD / LEE FLAT (NON-NPS)) TO END OF SPURS	N/A	0.00	6.00	6.00	4		NV	
0279	NC	106504		MARBLE CANYON ROAD	FROM ROUTE 0280 (COTTONWOOD CANYON ROAD) TO END	N/A	0.00	2.69	2.69	4		NV	
0280	NC	106505		COTTONWOOD CANYON ROAD	FROM SPW AIRSTRIP ROAD TO END	N/A	0.00	19.46	19.46	4		NV	
0281	NC	106526		LEMOIGNE CANYON ROAD	FROM ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY)) TO END	N/A	0.00	5.36	5.36	4		NV	
0282	NC	107804		LAKE HILL ROAD	FROM ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY)) TO LAKE HILL	N/A	0.00	7.18	7.18	4		GR	

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DEVA

DEATH VALLEY NATIONAL PARK

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0283	NC	107625		DARWIN FALLS / OLD TOLL ROAD	FROM ROUTE 5001 (CA-190 TO DARWIN FALLS (DEATH VALLEY SCENIC BYWAY))	N/A	0.00	4.10	4.10	4		GR	
0284	NC	107605		TUCKI MOUNTAIN ROAD / TELEPHONE CANYON ROAD	FROM ROUTE 0014ZZ (EMIGRANT CANYON ROAD) TO END	N/A	0.00	11.03	11.03	4		NV	
0285	NC	107626		WOOD CANYON ROAD	FROM ROUTE 0014ZZ (EMIGRANT CANYON ROAD) TO END	N/A	0.00	3.00	3.00	4		NV	
0286	NC	107607		PINYON MESA ROAD	FROM ROUTE 0112 (CHARCOAL KILNS ROAD) TO END	N/A	0.00	1.90	1.90	4		NV	
0287	NC	107606		TUBER CANYON ROAD	FROM ROUTE 0014ZZ (EMIGRANT CANYON ROAD) TO END	N/A	0.00	3.10	3.10	4		NV	
0288	NC	107794		JAIL CANYON ROAD	FROM WEST PARK BOUNDARY TO END	N/A	0.00	3.49	3.49	4		NV	
0289	NC	106943		TRAIL CANYON ROAD	FROM ROUTE 0110 (WEST SIDE ROAD) TO END	N/A	0.00	11.02	11.02	4		NV	
0290	NC	106944		HANAUPAH CANYON ROAD	FROM ROUTE 0110 (WEST SIDE ROAD) TO END	N/A	0.00	8.50	8.50	4		NV	
0291	NC	107795		SOUTH PARK / PLEASANT CANYON LOOP ROAD	FROM WEST PARK BOUNDARY TO WEST PARK BOUNDARY	N/A	0.00	20.00	20.00	4		NV	
0292	NC	106945		JOHNSON CANYON ROAD [WEST SIDE]	FROM ROUTE 0110 (WEST SIDE ROAD) TO END	N/A	0.00	9.80	9.80	4		NV	
0293	NC	107849		REDLANDS CANYON ROAD [BUTTE VALLEY]	FROM ROUTE 0296 (RUSSELS CAMP ROAD [BUTTE VALLEY]) TO WEST PARK BOUNDARY	N/A	0.00	3.80	3.80	4		NV	
0294	NC	107848		GOLER WASH ROAD (COYOTE CANYON)	FROM ROUTE 0298 (BUTTE VALLEY/WARM SPRINGS ROAD) TO ROUTE 0295 (MYERS RANCH / BARKER RANCH ROAD [BUTTE VALLEY])	N/A	0.00	5.20	5.20	4		GR	
0295	NC	107846		MYERS RANCH / BARKER RANCH ROAD [BUTTE VALLEY]	FROM ROUTE 0294 (GOLER WASH ROAD (COYOTE CANYON) (NON-NPS)) TO END	N/A	0.00	0.80	0.80	4		NV	
0296	NC	107838		RUSSELS CAMP ROAD [BUTTE VALLEY]	FROM ROUTE 0293 (REDLANDS CANYON ROAD [BUTTE VALLEY]) TO ROUTE 0294 (GOLER WASH ROAD (COYOTE CANYON) (NON-NPS))	N/A	0.00	1.40	1.40	4		NV	
0297	NC	107840		WILLOW SPRING / ANVIL SPRINGS ROAD [BUTTE VALLEY]	FROM ROUTE 0298 (BUTTE VALLEY/WARM SPRINGS ROAD) TO END	N/A	0.00	1.50	1.50	4		NV	

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DEVA

DEATH VALLEY NATIONAL PARK

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Description From To	Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0298	NC	107837		BUTTE VALLEY/WARM SPRINGS ROAD	FROM ROUTE 0110 (WEST SIDE ROAD) TO ROUTE 0294 (GOLER WASH ROAD (COYOTE CANYON) (NON-NPS))	N/A	0.00	22.60	22.60	4		NV	
0299	NC	107833		ARRASTRE SPRING ROAD [BUTTE VALLEY]	FROM ROUTE 0321 (GOLD HILL ROAD [BUTTE VALLEY]) TO END	N/A	0.00	2.10	2.10	4		NV	
0300	NC	107850		STRIPED BUTTE SPUR ROAD [BUTTE VALLEY]	FROM ROUTE 0298 (BUTTE VALLEY/WARM SPRINGS ROAD) TO ROUTE 0293 (REDLANDS CANYON ROAD [BUTTE VALLEY])	N/A	0.00	1.70	1.70	4		NV	
0301	NC	107796		MORMON GULCH ROAD [PLEASANT CANYON]	FROM ROUTE 0291 (SOUTH PARK / PLEASANT CANYON LOOP ROAD) TO END	N/A	0.00	1.23	1.23	4		NV	
0302	NC	107798		WORLD BEATER MINE OVERLOOK ROAD [MIDDLE PARK]	FROM ROUTE 0303 (MIDDLE PARK SHORTCUT ROAD) TO END	N/A	0.00	1.60	1.60	4		NV	
0303	NC	107799		MIDDLE PARK SHORTCUT ROAD	FROM ROUTE 0316 (MIDDLE PARK ROAD [MAIN]) TO ROUTE 0291 (SOUTH PARK / PLEASANT CANYON LOOP ROAD)	N/A	0.00	2.90	2.90	4		NV	
0304	NC	108362		COOPER MINE ROAD [PLEASANT CANYON]	FROM ROUTE 0291 (SOUTH PARK / PLEASANT CANYON LOOP ROAD) TO END	N/A	0.00	3.07	3.07	4		NV	
0305	NC	107851		INDIAN PASS ROAD [FURNACE CREEK]	FROM EAST PARK BOUNDARY TO END	N/A	0.00	5.37	5.37	4		NV	
0306	NC	108363		LANDING STRIP ROAD [SOUTH PARK]	FROM ROUTE 0291 (SOUTH PARK / PLEASANT CANYON LOOP ROAD) TO ROUTE 0291 (SOUTH PARK / PLEASANT CANYON LOOP ROAD)	N/A	0.00	1.20	1.20	4		NV	
0307	NC	108090		MONARCH CANYON ROAD [CHLORIDE CLIFFS]	FROM ROUTE 0309 (CHLORIDE CITY WITH SPURS ROAD) TO END	N/A	0.00	0.69	0.69	4		NV	
0308	NC	107639		TULE CANYON ROAD [BIG PINE ROAD]	FROM ROUTE 0108 (DEATH VALLEY / BIG PINE ROAD) TO EAST PARK BOUNDARY	N/A	0.00	5.47	5.47	4		NV	
0309	NC	108091		CHLORIDE CITY WITH SPURS ROAD	FROM ROUTE 0010 (DAYLIGHT PASS (MUD CANYON) ROAD) TO EAST PARK BOUNDARY	N/A	0.00	6.64	6.64	4		NV	
0310	NC	107782		LOST BURRO TAIL MINE ROAD [HUNTER MOUNTAIN]	FROM ROUTE 0268 (QUAKENBUSH MINE ROAD) TO END	N/A	0.00	3.80	3.80	4		NV	
0311	NC	107790		BULLFROG DISTRICT ROAD [NV TRIANGLE]	FROM EAST PARK BOUNDARY TO END	N/A	0.00	9.97	9.97	4		NV	

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DEVA

DEATH VALLEY NATIONAL PARK

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0312	NC	108504		MUD SUMMIT ROAD [NV TRIANGLE]	FROM ROUTE 0311 (BULLFROG DISTRICT ROAD [NV TRIANGLE]) TO EAST PARK BOUNDARY	N/A	0.00	13.90	13.90	4		NV	
0313	NC	107792		COWHORN VALLEY ROAD [SALINE VALLEY]	FROM WEST PARK BOUNDARY TO END	N/A	0.00	2.00	2.00	4		NV	
0314	NC	110303		DEVIL'S HOLE ACCESS ROAD	FROM NON-NPS NEVADA ASH MEADOWS NWR ROAD (UNPAVED) TO END	N/A	0.00	0.17	0.17	4		NV	
0316	NC	107797		MIDDLE PARK ROAD [MAIN]	FROM ROUTE 0291 (SOUTH PARK / PLEASANT CANYON LOOP ROAD) TO ROUTE 0291 (SOUTH PARK / PLEASANT CANYON LOOP ROAD)	N/A	0.00	4.46	4.46	4		NV	
0317	NC	107806		EAST PANAMINT DRY LAKE BED ROAD	FROM ROUTE 5001 (CA-190 DEATH VALLEY SCENIC BYWAY) TO WEST PARK BOUNDARY	N/A	0.00	5.85	5.85	4		NV	
0318	NC	111171		PADRE POINT ROAD	FROM ROUTE 0945 (FATHER CROWLEY PARKING AREA) TO END AT PANAMINT VALLEY OVERLOOK	N/A	0.00	0.60	0.60	4		NV	
0319	NC	107807		MINNIETA-WILDROSE CONNECTOR ROAD [PANAMINT VALLEY]	FROM ROUTE 0014ZZ (EMIGRANT CANYON ROAD) TO WEST PARK BOUNDARY	N/A	0.00	4.74	4.74	4		NV	
0320	NC	111168		UBEHEBE LEAD MINE ROAD	FROM ROUTE 0225 (RACETRACK VALLEY ROAD) TO END	N/A	0.00	0.70	0.70	4		NV	
0321	NC	107832		GOLD HILL ROAD [BUTTE VALLEY]	FROM ROUTE 0298 (BUTTE VALLEY/WARM SPRINGS ROAD) TO END	N/A	0.00	3.30	3.30	4		NV	
0322	NC	106947		GALENA CANYON ROAD [WEST SIDE]	FROM ROUTE 0110 (WEST SIDE ROAD) TO END	N/A	0.00	5.47	5.47	4		NV	
0323	NC	106948		QUEEN OF SHEBA MINE ROAD [WEST SIDE]	FROM ROUTE 0110 (WEST SIDE ROAD) TO END	N/A	0.00	4.38	4.38	4		NV	
0324	NC	107844		NEMO CANYON/CHRISTMAS MINE ROAD [WILDROSE AREA] [ADMIN CLOSED]	FROM ROUTE 0014ZZ (EMIGRANT CANYON ROAD) TO END	N/A	0.00	2.83	2.83	4		NV	
0325	NC	107845		NEMO CANYON SERVICE ROAD [WILDROSE AREA]	FROM ROUTE 0014ZZ (EMIGRANT CANYON ROAD) TO END	N/A	0.00	0.73	0.73	4		NV	
0326	NC	108011		BALD PEAK MINE ROAD [WILDROSE AREA] [ADMIN CLOSED]	FROM ROUTE 0014ZZ (EMIGRANT CANYON ROAD) TO END	N/A	0.00	2.42	2.42	6		NV	

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DEVA

DEATH VALLEY NATIONAL PARK

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0327	NC	108010		GREENE-DETLOFF MINE ROAD [WILDROSE AREA] [ADMIN CLOSED]	FROM ROUTE 0014ZZ (EMIGRANT CANYON ROAD) TO END	N/A	0.00	1.04	1.04	6		NV	
0328	NC	107852		ANTIMONY MINE ROAD [WILDROSE]	FROM ROUTE 0112 (CHARCOAL KILNS ROAD) TO END	N/A	0.00	1.20	1.20	4		NV	
0329	5	238449		STOVEPIPE WELLS HOUSING ROAD	FROM ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY)) TO PARK SERVICE HOUSING	N/A	0.21	0.00	0.21	3		AS	2
0330	NC	107636		BLACK MAGIC MINE ROAD	FROM ROUTE 0107 (HARRY WADE ROAD) TO BLACK MAGIC MINE	N/A	0.00	2.40	2.40	4		GR	
0400ZZ	4	51497		COW CREEK SERVICE ROADS	FROM ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY)) TO COW CREEK PARKING AREAS	N/A	0.61	0.00	0.61	5		AS	4
0401	4	47981		OLD GHOST ROAD	FROM ROUTE 0400ZZ (COW CREEK SERVICE ROADS) TO ROUTE 0402 (SKYLINE ROAD) AND ROUTE 0405 (NEVARES ROAD)	N/A	1.30	0.00	1.30	5		AS	4
0402	4	47985		SKYLINE ROAD	FROM ROUTES 0401 (OLD GHOST ROAD) AND 0405 (NEVARES ROAD) TO INTERSECTION OF ROUTES 0401 (OLD GHOST ROAD) AND 0405 (NEVARES ROAD)	N/A	0.83	0.00	0.83	5		AS	4
0403	4	47984		COYOTE LOOP ROAD	FROM ROUTE 0402 (SKYLINE ROAD) AT MP 0.24 (ON LEFT) TO END OF LOOP	N/A	0.28	0.00	0.28	5		AS	4
0404	NC	103240		LANDFILL ROAD	FROM ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY)) TO LANDFILL	N/A	0.00	1.22	1.22	6		GR	
0405	4	47983		NEVARES ROAD	FROM ROUTES 0401 (OLD GHOST ROAD) AND 0402 (SKYLINE ROAD) TO END OF PAVEMENT	N/A	0.07	2.27	2.34	5		AS	4
0407ZZ	4	102579		GRAPEVINE SERVICE AND RESIDENCE ROADS	FROM ROUTE 0011 (SCOTTYS CASTLE (BONNIE CLAIRE) ROAD) TO END	N/A	0.06	0.00	0.06	5		AS	1
0408	4	64578		SALT PAN VISTA ROAD	FROM ROUTE 0400ZZ (COW CREEK SERVICE ROADS) TO END OF LOOP	N/A	0.30	0.00	0.30	5		AS	4
0410	NC	103239		GRAPEVINE BONEYARD ROAD	FROM ROUTE 0011 (SCOTTYS CASTLE (BONNIE CLAIRE) ROAD) AT MP 33.33 (ON RIGHT) TO BONEYARD	N/A	0.00	2.00	2.00	6		GR	
0412	4	102581		WILDROSE RESIDENCE ROAD	FROM ROUTE 0112 (CHARCOAL KILNS ROAD) AT MP 0.35 (ON RIGHT) TO ROUTE 0112 (CHARCOAL KILNS ROAD) AT MP 0.48 (ON RIGHT)	N/A	0.00	0.00	0.00	5	9,132	AS	3

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DEVA

DEATH VALLEY NATIONAL PARK

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Description From To	Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0415	4	47987		SIMS CIRCLE RV PARK ROAD	FROM ROUTE 0401 (OLD GHOST ROAD) AT MP 0.03 (ON RIGHT) TO END OF PAVEMENT	N/A	0.00	0.00	0.00	6	8,758	AS	4
0416	NC	102981		BREAKFAST CANYON ROAD	FROM ROUTE 0015 (BADWATER ROAD) AT MP 0.56 (ON LEFT) TO END	N/A	0.00	0.43	0.43	6		GR	
0417	NC	105812		FURNACE CREEK SBC SERVICE ROAD	FROM ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY)) TO END	N/A	0.00	0.18	0.18	5		NV	
0419	NC	107623		TRAVERTINE SPRINGS SERVICE ROAD [FURNACE CREEK]	FROM ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY)) TO ROUTE 0204A (TEXAS SPRING / SUNSET CAMPGROUND ACCESS ROAD)	N/A	0.00	2.80	2.80	4		NV	
0421	NC	107793		SCOTTY'S CASTLE WATER SYSTEM SERVICE ROAD	FROM ROUTE 0011 (SCOTTYS CASTLE (BONNIE CLAIRE) ROAD) TO END	N/A	0.00	0.06	0.06	4		NV	
0422	NC	105804		GROTTO CANYON ROAD [SPW AREA]	FROM ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY)) TO END	N/A	0.00	1.98	1.98	4		NV	
0423	NC	107805		SPW LAGOONS SERVICE ROAD	FROM SPW CONCESSIONS RV CAMPGROUND (NOT IN AS A ROAD) TO END	N/A	0.00	0.14	0.14	4		NV	
0424	NC	106607		ROGERS PEAK SERVICE ROAD [WILDROSE AREA]	FROM ROUTE 0231 (MAHOGANY FLATS ROAD) TO END	N/A	0.00	2.39	2.39	5		NV	
0425	NC	108008		FURNACE CREEK 2 MILLION GALLON TANK ROAD	FROM ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY)) TO ROUTE 0419 (TRAVERTINE SPRINGS SERVICE ROAD [FURNACE CREEK])	N/A	0.00	0.50	0.50	6		NV	
0426	NC	108087		STOVEPIPE WELLS RO SYSTEM ROAD	FROM ROUTE 0215 (MOAIC CANYON ROAD) TO END OF ROUTE 0329 (STOVEPIPE WELLS HOUSING ROAD)	N/A	0.00	0.43	0.43	4		NV	
0427	NC	108494		DAYLIGHT PASS SERVICE ROAD	FROM ROUTE 0010 (DAYLIGHT PASS (MUD CANYON) ROAD) TO EAST PARK BOUNDARY	N/A	0.00	0.70	0.70	4		NV	
0428	NC	111169		COW CREEK MIXING TABLE ROAD	FROM ROUTE 0408 (SALT PAN VISTA ROAD) TO END	N/A	0.00	0.60	0.60	5		NV	
0429	NC	108214		FURNACE CREEK WASH SERVICE ROAD	FROM ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY)) TO END	N/A	0.00	0.30	0.30	4		NV	
0430	5	238451		SKYLINE LOOP ROAD	FROM ROUTE 0402 (SKYLINE ROAD) TO ROUTE 0405 (NEVARES ROAD)	N/A	0.08	0.00	0.08	5		AS	4

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DEVA

DEATH VALLEY NATIONAL PARK

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Description From To	Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0500	5	51678		ARTISTS DRIVE	FROM ROUTE 0015 (BADWATER ROAD) AT MP 8.61 (ON LEFT) TO ROUTE 0015 (BADWATER ROAD) AT MP 4.82 (ON LEFT)	N/A	8.89	0.00	8.89	2		AS	5
0501	4	102584		HARMONY BORAX WORKS ROAD	FROM ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY)) TO BEGINNING OF ROUTE 0504 (MUSTARD CANYON ROAD)	N/A	0.23	0.00	0.23	3		AS	4
0502	NC	60886		TWENTY MULE TEAM CANYON ROAD	FROM ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY)) TO ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY)) EAST	N/A	0.00	2.69	2.69	4		GR	
0503	NC	51719		TITUS CANYON ROAD	FROM EAST PARK BOUNDARY TO ROUTE 0011 (SCOTTYS CASTLE (BONNIE CLAIRE) ROAD) AT MP 15.00 (ON RIGHT)	N/A	0.00	26.50	26.50	4		GR	
0504	NC	60887		MUSTARD CANYON ROAD	FROM END OF ROUTE 0501 (HARMONY BORAX WORKS ROAD) TO ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY))	N/A	0.00	1.49	1.49	4		GR	
0505	NC	103246		LOWER VINE RANCH ROAD	FROM ROUTE 0109 (UBEHEBE CRATER ROAD) AT MP 1.60 (ON RIGHT) TO END	N/A	0.00	1.10	1.10	4		GR	
0506	4	115293		DONNIE LANE	FROM ROUTE 0402 (SKYLINE ROAD) TO RESIDENCE AREA	N/A	0.00	0.00	0.00	5	1,200	AS	4
0507	4	115294		CANYON VIEW COURT	FROM ROUTE 0401 (OLD GHOST ROAD) TO RESIDENCE AREA	N/A	0.00	0.00	0.00	5	3,578	AS	4
0900	4	60888		SCOTTYS CASTLE PARKING	FROM ROUTE 0011 (SCOTTYS CASTLE (BONNIE CLAIRE) ROAD) AT MP 36.59 (ON LEFT) TO ROUTE 0011 (SCOTTYS CASTLE (BONNIE CLAIRE) ROAD) AT MP 36.68 (ON LEFT)	N/A	0.00	0.00	0.00		92,440	AS	1
0901ZZ	5	60889		UBEHEBE CRATER PARKING LOTS	ADJACENT TO ROUTE 0109 (UBEHEBE CRATER ROAD) AT MP 6.05 (ON LEFT AND RIGHT)	N/A	0.00	0.00	0.00		7,986	AS	1
0903	4	60890		EMIGRANT REST AREA PARKING	FROM ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY)) TO ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY))	N/A	0.00	0.00	0.00		23,511	AS	3
0906	4	102624		WILDROSE UTILITY AREA	FROM ROUTE 0112 (CHARCOAL KILNS ROAD) AT MP 0.39 (ON LEFT) TO PARKING	N/A	0.00	0.00	0.00		7,888	AS	3
0908	4	103952		SIMS CIRCLE PARKING	FROM ROUTE 0401 (OLD GHOST ROAD) AT MP 0.08 (ON RIGHT) TO PARKING	N/A	0.00	0.00	0.00		18,605	AS	4

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DEVA

DEATH VALLEY NATIONAL PARK

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Description From To	Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0908A	NC	102626		SIMS CIRCLE [UNPAVED RV SITE PARKING]	FROM ROUTE 0415 (SIMS CIRCLE RV PARK ROAD) TO PARKING	N/A	0.00	0.00	0.00		18,600	GR	
0909ZZ	4	51498		COW CREEK RESOURCE PARKING LOTS	ADJACENT TO ROUTE 0400ZZ (COW CREEK SERVICE ROADS) AT MP 0.32 (ON LEFT AND RIGHT)	N/A	0.00	0.00	0.00		14,370	AS	4
0910ZZ	4	102628		COW CREEK PARKING AREAS	FROM ROUTE 0400ZZ (COW CREEK SERVICE ROADS) TO ROUTE 0400ZZ (COW CREEK SERVICE ROADS)	N/A	0.00	0.00	0.00		58,382	AS	4
0911	4	103950		FIRE RESERVOIR PARKING	FROM ROUTE 0400ZZ (COW CREEK SERVICE ROADS) TO PARKING	N/A	0.00	0.00	0.00		3,002	AS	4
0912	5	51499		FURNACE CREEK ADMINISTRATIVE PARKING	FROM ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY)) TO ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY))	N/A	0.00	0.00	0.00		26,790	AS	4
0913	5	51675		FURNACE CREEK VISITOR CENTER PARKING	FROM ROUTE 0202 (FURNACE CREEK AIRPORT ROAD) AT MP 0.02 (ON RIGHT) TO PARKING	N/A	0.00	0.00	0.00		54,706	AS	4
0915	4	102629		GOLDEN CANYON PARKING	FROM ROUTE 0015 (BADWATER ROAD) AT MP 2.03 (ON LEFT) TO PARKING	N/A	0.00	0.00	0.00		19,549	AS	5
0917	4	102630		BADWATER PARKING	FROM ROUTE 0015 (BADWATER ROAD) AT MP 16.56 (ON RIGHT) TO ROUTE 0015 (BADWATER ROAD) AT MP 16.65 (ON RIGHT)	N/A	0.00	0.00	0.00		31,101	AS	5
0918	4	65516		ZABRISKIE POINT PARKING	FROM ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY)) TO PARKING	N/A	0.00	0.00	0.00		29,261	AS	5
0919	4	51506		DANTE'S VIEW TRAILER PARKING	FROM ROUTE 0103 (DANTE'S VIEW ROAD) AT MP 7.58 (ON RIGHT) TO PARKING	N/A	0.00	0.00	0.00		20,193	AS	5
0920	4	51505		DANTE'S VIEW PARKING	FROM END OF ROUTE 0103 (DANTE'S VIEW ROAD) TO PARKING	N/A	0.00	0.00	0.00		25,117	AS	5
0921	NC	103955		TULE SPRING PARKING	ADJACENT TO ROUTE 0110 (WEST SIDE ROAD)	N/A	0.00	0.00	0.00		9,775	GR	
0922	NC	103956		SHORTY'S WELL PARKING	ADJACENT TO ROUTE 0110 (WEST SIDE ROAD)	N/A	0.00	0.00	0.00		2,016	GR	
0923	NC	103245		EAGLE BORAX PARKING	ADJACENT TO ROUTE 0110 (WEST SIDE ROAD)	N/A	0.00	0.00	0.00		18,096	GR	
0924	NC	103960		BENNETT'S WELL PARKING	ADJACENT TO ROUTE 0110 (WEST SIDE ROAD)	N/A	0.00	0.00	0.00		2,304	GR	

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DEVA

DEATH VALLEY NATIONAL PARK

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Description From To	Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0925	NC	103957		ASHFORD MILL RUINS PARKING	ADJACENT TO ROUTE 0015 (BADWATER ROAD) AT MP 43.52 (ON RIGHT)	N/A	0.00	0.00	0.00		23,760	GR	
0926	4	51504		DANTE'S VIEW REST AREA PARKING	FROM ROUTE 0103 (DANTE'S VIEW ROAD) AT MP 12.72 (ON LEFT) TO ROUTE 0103 (DANTE'S VIEW ROAD) AT MP 12.75 (ON LEFT)	N/A	0.00	0.00	0.00		8,823	AS	5
0927	4	102632		ARTIST PALETTE PARKING	FROM ROUTE 0500 (ARTISTS DRIVE) AT MP 4.37 (ON RIGHT) TO PARKING	N/A	0.00	0.00	0.00		22,453	AS	5
0928	4	59189		GRAPEVINE MAINTENANCE AREA PARKING	FROM END OF ROUTE 0407ZZ (GRAPEVINE SERVICE AND RESIDENCE ROADS) TO PARKING	N/A	0.00	0.00	0.00		8,466	AS	1
0929	4	102640		GRAPEVINE RANGER STATION PARKING	FROM ROUTE 0011 (SCOTTYS CASTLE (BONNIE CLAIRE) ROAD) AT MP 33.51 (ON LEFT) TO ROUTE 0011 (SCOTTYS CASTLE (BONNIE CLAIRE) ROAD) AT MP 33.56 (ON LEFT)	N/A	0.00	0.00	0.00		12,847	AS	1
0930	4	60260		FURNACE CREEK AIRPORT PARKING	FROM END OF ROUTE 0202 (FURNACE CREEK AIRPORT ROAD) TO PARKING	N/A	0.00	0.00	0.00		237,799	AS	4
0931	4	60891		HARMONY BORAX WORKS PARKING	FROM ROUTE 0501 (HARMONY BORAX WORKS ROAD) AT MP 0.19 TO ROUTE 0501 (HARMONY BORAX WORKS ROAD) AT MP 0.22	N/A	0.00	0.00	0.00		20,818	AS	4
0932	5	102641		MUD CANYON MUSHROOM (INFORMATION KIOSK) PARKING	ADJACENT TO ROUTE 0011 (SCOTTYS CASTLE (BONNIE CLAIRE) ROAD) AT MP 0.72 (ON RIGHT)	N/A	0.00	0.00	0.00		19,888	AS	2
0933	4	102646		STOVEPIPE WELLS RANGER STATION PARKING	FROM ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY)) TO PARKING	N/A	0.00	0.00	0.00		7,092	AS	2
0934	4	51689		RYAN KIOSK PARKING	FROM ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY)) NEAR ROUTE 0103 TO ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY)) NEAR ROUTE 0103	N/A	0.00	0.00	0.00		12,141	AS	5
0935	4	102644		TEXAS SPRING CAMPGROUND DUMP STATION	FROM ROUTE 0204A (TEXAS SPRING / SUNSET CAMPGROUND ACCESS ROAD) AT MP 0.52 (ON LEFT) TO ROUTE 0204A (TEXAS SPRING / SUNSET CAMPGROUND ACCESS ROAD) AT MP 0.55 (ON LEFT)	N/A	0.00	0.00	0.00		2,884	AS	4

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DEVA

DEATH VALLEY NATIONAL PARK

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Description From To	Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0936	4	102645		FURNACE CREEK DUMP STATION PARKING	FROM ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY)) NEAR FURNACE CREEK VISITOR CENTER TO ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY))	N/A	0.00	0.00	0.00		7,211	AS	4
0937	4	112451		BEATTY ENTRANCE PARKING	ADJACENT TO ROUTE 0010 (DAYLIGHT PASS (MUD CANYON) ROAD) AT MP 17.29	N/A	0.00	0.00	0.00		2,426	AS	2
0938	4	112452		HELL'S GATE PARKING	ADJACENT TO ROUTE 0010 (DAYLIGHT PASS (MUD CANYON) ROAD) AT MP 6.79	N/A	0.00	0.00	0.00		11,738	AS	2
0939ZZ	5	112450	■	STOVE PIPE WELLS VILLAGE PARKING LOTS	FROM ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY)) AND ROUTE 0329 (STOVEPIPE WELLS HOUSING ROAD) TO PARKING	N/A	0.00	0.00	0.00		114,406	AS	2
0941	NC	102627		COW CREEK MAINTENANCE ADMINISTRATIVE PARKING	FROM ROUTE 0909ZZ (COW CREEK RESOURCE PARKING LOTS) TO PARKING	N/A	0.00	0.00	0.00		11,500	GR	
0942	4	238454		SUNSET CAMPGROUND DUMPSTATION	FROM ROUTE 0203ZZ (SUNSET CAMPGROUND) TO ROUTE 0203ZZ (SUNSET CAMPGROUND)	N/A	0.00	0.00	0.00		2,177	AS	4
0943	5	114308		SALT PAN VISTA DORM PARKING	FROM ROUTE 0408 (SALT PAN VISTA ROAD) TO PARKING	N/A	0.00	0.00	0.00		5,226	AS	4
0944	5	111688		SPW SAND DUNES PARKING AREA	FROM ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY)) TO PARKING	N/A	0.00	0.00	0.00		55,102	AS	2
0945	5	238452		FATHER CROWLEY PARKING AREA	FROM ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY)) TO ROUTE 0318 (PADRE POINT ROAD)	N/A	0.00	0.00	0.00		30,345	AS	3
0946	NC	113440		BREAKFAST CANYON PARKING AREA	FROM ROUTE 0416 (BREAKFAST CANYON ROAD) TO PARKING	N/A	0.00	0.00	0.00		1,440	GR	
0947	NC	112445		FURNACE CREEK DAY USE AREA PARKING	FROM ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY)) TO PARKING	N/A	0.00	0.00	0.00		58,890	GR	
0948	NC	111170		EMIGRANT CAMPGROUND PARKING	FROM ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY)) TO PARKING	N/A	0.00	0.00	0.00		3,168	NV	

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DEATH VALLEY NATIONAL PARK

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Description From To	Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
5001	4			CA-190 (DEATH VALLEY SCENIC BYWAY)	FROM EAST PARK BOUNDARY TO WEST PARK BOUNDARY	N/A	85.97	0.00	85.97			AS	2,3,4,5
5002	4			PANAMINT VALLEY ROAD	FROM ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY)) TO INTERSECTION OF ROUTE 5004 (EMIGRANT CANYON ROAD (NON NPS)) AND TRONA-WILDROSE ROAD	N/A	14.03	0.00	14.03			AS	3
5003	4			BADWATER ROAD (NON NPS)	FROM END OF ROUTE 0015 (BADWATER ROAD) TO JUNCTION OF CA-127 AND CA-178	N/A	14.94	0.00	14.94			AS	6
5004	4			EMIGRANT CANYON ROAD (NON NPS)	FROM END OF ROUTE 0014ZZ (EMIGRANT CANYON ROAD) AT MP 25.15 (SIDE N/A) TO INTERSECTION OF ROUTE 5002 (PANAMINT VALLEY ROAD) AND TRONA-WILDROSE ROAD	N/A	5.75	0.00	5.75			AS	3

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CYCLE 5 COLLECTED SUMMARY TOTALS FOR DEATH VALLEY NATIONAL PARK

CYCLE 5 COLLECTED ROUTE TOTALS

DCV Driven Route Miles	182.64
Manually Rated Route Miles	3.90
TOTAL PARK ROUTE MILES COLLECTED IN CYCLE 5	186.54
Manually Rated Routes (SQFT)	0.00

* CYCLE 5 COLLECTED PARKING AREA TOTALS

Paved Parking (SQFT)	230,484
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CYCLE 5 COLLECTED CONCESSION TOTALS

Concession Paved Route Miles	0.00
Concession Paved Parking Area SQFT	30,441
Concession Manually Rated Routes SQFT	0

CYCLE 5 COLLECTED WEIGHTED AVERAGE PARK VALUES

DCV Driven PCR	86
**Manually Rated Routes PCR	45
**Parking PCR	95
***Total Equivalent Lane Miles	356.14

TOTAL PARK SUMMARY FOR DEATH VALLEY NATIONAL PARK

ROUTE TOTALS

TOTAL PAVED PARK ROUTE MILES	195.49
TOTAL PAVED PARKING (SQFT)	1,014,743

* - The Parking Area Totals SQFT value represents all parking areas collected in Cycle 5, both park and concessionaire.

** - Parking and Manually Rated Routes are assigned the following PCR values based on their observed condition: Construction=-1, Excellent=97, Good=90, Fair=73, and Poor=45.

*** - Equivalent Lane Miles are calculated by route using the following equations : DCV and Manually Rated Lines Routes=(PAVE_WIDTHxPAVED_MI)/11 foot lane. Parking Areas=SQ_FEET/5280/11. Manually Rated Polygons=SQ_FEET/5280/11.

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General Park Road Functional Classification Table

- Class 1** Principal Park Road/Rural Parkway (Public Roads) - Roads which constitute the main access route, circulatory tour, or thoroughfare for park visitors. Route Numbers 1 - 99. Note: Rural parkways (e.g. Natchez Trace) are numbered 1 - 9. State Routes Inventoried for Park. Route Numbers 5000-5999
- Class 2** Connector Park Road (Public Roads) - Roads which provide access within a park to areas of scenic, scientific, recreational or cultural interest, such as overlooks, campgrounds, etc. Route Numbers 100-199.
- Class 3** Special Purpose Park Road (Public Roads) - Roads which provide circulation within public areas, such as campgrounds, picnic areas, visitor center complexes, concessionaire facilities, etc. These roads generally serve low-speed traffic and are often designed for one-way circulation. Route Numbers 200-299.
- Class 4** Primitive Park Roads (Public Roads) - Roads which provide circulation through remote areas and/or access to primitive campgrounds and undeveloped areas. These roads frequently have no minimum design standards and their use may be limited to specially equipped vehicles. Route Numbers 200-299. Note: Functional Classes 3 and 4 have the same route numbers because, historically, they were numbered similarly.
- Class 5** Administrative Access Road (Administrative Roads) - All public roads intended for access to administrative developments or structures such as park offices, employee quarters, or utility areas. Route Numbers 400-499.
- Class 6** Restricted Road (Administrative Roads) - All roads normally closed to the public, including patrol roads, truck trails, and other similar roads. Route Numbers 400-499. Note: Functional Classes 5 and 6 have the same route numbers because historically they were numbered similarly and often there is little distinction between these routes. For example, because utility areas and employee housing are often closed to the public, this restriction would result in classification of FC 6 rather than FC 5.
- Class 7** Urban Parkway (Urban Parkways and City Streets) - These facilities serve high volumes of park and non-park related traffic and are restricted, limited-access facilities in an urban area. This category of roads primarily encompasses the major parkways which serve as gateways to our nation's capital. Other major park roads or portions thereof, however, may be included in this category. Route Numbers 1-9.
- Class 8** City Streets (Urban Parkways and City Streets) - City streets are usually extensions of the adjoining street system that are owned and maintained by the National Park Service. The construction and/or reconstruction should conform with accepted local engineering practice and local conditions. Route Numbers 600-699.

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

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

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

Surface Type Abbreviations:

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

NPS/RIP Subcomponent Details for DEVA

Road Inventory Program 01/28/2013

(Numerical By Subcomponent #)

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Shading Color Key:

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Red text denotes approx. mileage

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Black = State, Local or Private non-NPS Routes

■ = Concession Route Flag ON

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DEVA

DEATH VALLEY NATIONAL PARK

Rte. No.	FMSS No.	Cycle Collected	Route Name	From	To	Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
0014ZZ	51715	5	EMIGRANT CANYON ROAD	FROM ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY)) AT MP 51.70 (ON LEFT)	TO BEGINNING OF ROUTE 5004 (EMIGRANT CANYON ROAD (NON NPS)) AT MP 0.00		2	25.15	0.00	25.15	
0203ZZ	102576	4	SUNSET CAMPGROUND	FROM ROUTE 0204A (TEXAS SPRING / SUNSET CAMPGROUND ACCESS ROAD) AT MP 0.28 (ON LEFT)	THROUGH SUNSET CAMPGROUND		3	1.97	0.00	1.97	
0204BZZ	103243	4	TEXAS SPRING CAMPGROUND LOOPS	FROM END OF ROUTE 0204A (TEXAS SPRING / SUNSET CAMPGROUND ACCESS ROAD)	THROUGH TEXAS SPRING CAMPGROUND		3	1.40	0.00	1.40	
0400ZZ	51497	4	COW CREEK SERVICE ROADS	FROM ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY))	TO COW CREEK PARKING AREAS		5	0.61	0.00	0.61	
0407ZZ	102579	4	GRAPEVINE SERVICE AND RESIDENCE ROADS	FROM ROUTE 0011 (SCOTTYS CASTLE (BONNIE CLAIRE) ROAD)	TO END		5	0.06	0.00	0.06	
0901ZZ	60889	5	UBEHEBE CRATER PARKING LOTS	ADJACENT TO ROUTE 0109 (UBEHEBE CRATER ROAD) AT MP 6.05 (ON LEFT AND RIGHT)				0.00	0.00	0.00	7,986
0909ZZ	51498	4	COW CREEK RESOURCE PARKING LOTS	ADJACENT TO ROUTE 0400ZZ (COW CREEK SERVICE ROADS) AT MP 0.32 (ON LEFT AND RIGHT)				0.00	0.00	0.00	14,370
0910ZZ	102628	4	COW CREEK PARKING AREAS	FROM ROUTE 0400ZZ (COW CREEK SERVICE ROADS)	TO ROUTE 0400ZZ (COW CREEK SERVICE ROADS)			0.00	0.00	0.00	58,382
0939ZZ	112450	5	STOVE PIPE WELLS VILLAGE PARKING LOTS	FROM ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY)) AND ROUTE 0329 (STOVEPIPE WELLS HOUSING ROAD)	TO PARKING	■		0.00	0.00	0.00	114,406

NPS/RIP Subcomponent Details for DEVA

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(Numerical By Subcomponent #)

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Black = State, Local or Private non-NPS Routes

■ = Concession Route Flag ON

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DEVA

DEATH VALLEY NATIONAL PARK

DEVA-0014ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Name	Route Description		Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
				From	To						
0014AZ	51715	5	EMIGRANT CANYON ROAD (SECTION A)	FROM ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY)) AT MP 51.70 (ON LEFT)	TO BEGINNING OF ROUTE 0014BZ (EMIGRANT CANYON ROAD (SECTION B)) AND INTERSECTION WITH ROUTE 0112 (CHARCOAL KILNS ROAD)		2	21.25	0.00	21.25	
0014BZ	51715	5	EMIGRANT CANYON ROAD (SECTION B)	FROM END OF ROUTE 0014AZ (EMIGRANT CANYON ROAD (SECTION A)) AND INTERSECTION WITH ROUTE 0112 (CHARCOAL KILNS ROAD)	TO BEGINNING OF ROUTE 5004 (EMIGRANT CANYON ROAD (NON NPS)) AT MP 0.00		2	3.90	0.00	3.90	337,709

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DEVA

DEATH VALLEY NATIONAL PARK

DEVA-0203ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Name	Route Description		Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
				From	To						
0203AZ	102576	4	SUNSET CAMPGROUND ROAD A	FROM ROUTE 0203Z (SUNSET CAMPGROUND ACCESS ROAD) AT MP 0.19 (ON LEFT)	TO ROUTE 0203Z (SUNSET CAMPGROUND ACCESS ROAD) AT MP 0.61 (ON LEFT)		3	0.15	0.00	0.15	
0203BZ	102576	4	SUNSET CAMPGROUND ROAD B	FROM ROUTE 0203Z (SUNSET CAMPGROUND ACCESS ROAD) AT MP 0.60 (ON LEFT)	TO ROUTE 0203Z (SUNSET CAMPGROUND ACCESS ROAD) AT MP 0.21 (ON LEFT)		3	0.14	0.00	0.14	
0203CZ	102576	4	SUNSET CAMPGROUND ROAD C	FROM ROUTE 0203Z (SUNSET CAMPGROUND ACCESS ROAD) AT MP 0.23 (ON LEFT)	TO ROUTE 0203Z (SUNSET CAMPGROUND ACCESS ROAD) AT MP 0.58 (ON LEFT)		3	0.14	0.00	0.14	
0203DZ	102576	4	SUNSET CAMPGROUND ROAD D	FROM ROUTE 0203Z (SUNSET CAMPGROUND ACCESS ROAD) AT MP 0.56 (ON LEFT)	TO ROUTE 0203Z (SUNSET CAMPGROUND ACCESS ROAD) AT MP 0.25 (ON LEFT)		3	0.14	0.00	0.14	
0203EZ	102576	4	SUNSET CAMPGROUND ROAD E	FROM ROUTE 0203Z (SUNSET CAMPGROUND ACCESS ROAD) AT MP 0.26 (ON LEFT)	TO ROUTE 0203Z (SUNSET CAMPGROUND ACCESS ROAD) AT MP 0.55 (ON LEFT)		3	0.13	0.00	0.13	
0203FZ	102576	4	SUNSET CAMPGROUND ROAD F	FROM ROUTE 0203Z (SUNSET CAMPGROUND ACCESS ROAD) AT MP 0.53 (ON LEFT)	TO ROUTE 0203Z (SUNSET CAMPGROUND ACCESS ROAD) AT MP 0.28 (ON LEFT)		3	0.13	0.00	0.13	
0203GZ	102576	4	SUNSET CAMPGROUND ROAD G	FROM ROUTE 0203Z (SUNSET CAMPGROUND ACCESS ROAD) AT MP 0.31 (ON LEFT)	TO ROUTE 0203Z (SUNSET CAMPGROUND ACCESS ROAD) AT MP 0.51 (ON LEFT)		3	0.12	0.00	0.12	
0203HZ	102576	4	SUNSET CAMPGROUND ROAD H	FROM ROUTE 0203Z (SUNSET CAMPGROUND ACCESS ROAD) AT MP 0.49 (ON LEFT)	TO ROUTE 0203Z (SUNSET CAMPGROUND ACCESS ROAD) AT MP 0.33 (ON LEFT)		3	0.11	0.00	0.11	
0203IZ	102576	4	SUNSET CAMPGROUND ROAD I	FROM ROUTE 0203Z (SUNSET CAMPGROUND ACCESS ROAD) AT MP 0.36 (ON LEFT)	TO ROUTE 0203Z (SUNSET CAMPGROUND ACCESS ROAD) AT MP 0.48 (ON LEFT)		3	0.08	0.00	0.08	
0203JZ	102576	4	SUNSET CAMPGROUND ROAD J	FROM ROUTE 0203Z (SUNSET CAMPGROUND ACCESS ROAD) AT MP 0.38 (ON LEFT)	TO ROUTE 0203Z (SUNSET CAMPGROUND ACCESS ROAD) AT MP 0.46 (ON LEFT)		3	0.06	0.00	0.06	
0203Z	102576	4	SUNSET CAMPGROUND ACCESS ROAD	FROM ROUTE 0204A (TEXAS SPRING / SUNSET CAMPGROUND ACCESS ROAD) AT MP 0.28 (ON LEFT)	TO END OF LOOP		3	0.77	0.00	0.77	

NPS/RIP Subcomponent Details for DEVA

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DEVA

DEATH VALLEY NATIONAL PARK

DEVA-0204BZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Name	From	To	Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
0204BAZ	103243	4	TEXAS SPRING CAMPGROUND LOOP A	FROM END OF ROUTE 0204A (TEXAS SPRING / SUNSET CAMPGROUND ACCESS ROAD)	TO END OF LOOP		3	0.56	0.00	0.56	
0204BBZ	103243	4	TEXAS SPRING CAMPGROUND LOOP B	FROM ROUTES 0204BAZ (TEXAS SPRING CAMPGROUND LOOP A) AND 0204A (TEXAS SPRING / SUNSET CAMPGROUND ACCESS ROAD)	TO ROUTE 0204BIZ (TEXAS SPRING CAMPGROUND LOOP I) AT MP 0.04 (ON RIGHT)		3	0.14	0.00	0.14	
0204BCZ	103243	4	TEXAS SPRING CAMPGROUND LOOP C	FROM ROUTE 0204BAZ (TEXAS SPRING CAMPGROUND LOOP A) AT MP 0.10	TO ROUTE 0204BAZ (TEXAS SPRING CAMPGROUND LOOP A) AT MP 0.16		3	0.10	0.00	0.10	
0204BDZ	103243	4	TEXAS SPRING CAMPGROUND LOOP D	FROM ROUTE 0204BAZ (TEXAS SPRING CAMPGROUND LOOP A) AT MP 0.23	TO ROUTE 0204BAZ (TEXAS SPRING CAMPGROUND LOOP A) AT MP 0.33		3	0.09	0.00	0.09	
0204BEZ	103243	4	TEXAS SPRING CAMPGROUND LOOP E	FROM ROUTE 0204BAZ (TEXAS SPRING CAMPGROUND LOOP A) AT MP 0.20	TO ROUTE 0204BAZ (TEXAS SPRING CAMPGROUND LOOP A) AT MP 0.35		3	0.10	0.00	0.10	
0204BFZ	103243	4	TEXAS SPRING CAMPGROUND LOOP F	FROM ROUTE 0204BAZ (TEXAS SPRING CAMPGROUND LOOP A) AT MP 0.18	TO ROUTE 0204BAZ (TEXAS SPRING CAMPGROUND LOOP A) AT MP 0.36		3	0.11	0.00	0.11	
0204BGZ	103243	4	TEXAS SPRING CAMPGROUND LOOP G	FROM ROUTE 0204BAZ (TEXAS SPRING CAMPGROUND LOOP A) AT MP 0.41	TO ROUTE 0204BFZ (TEXAS SPRING CAMPGROUND LOOP F) AT MP 0.03		3	0.08	0.00	0.08	
0204BHZ	103243	4	TEXAS SPRING CAMPGROUND LOOP H	FROM ROUTE 0204BAZ (TEXAS SPRING CAMPGROUND LOOP A) AT MP 0.43	TO ROUTE 0204BFZ (TEXAS SPRING CAMPGROUND LOOP F) AT MP 0.02		3	0.09	0.00	0.09	
0204BIZ	103243	4	TEXAS SPRING CAMPGROUND LOOP I	FROM ROUTE 0204BAZ (TEXAS SPRING CAMPGROUND LOOP A) AT MP 0.01 (ON LEFT)	TO ROUTE 0204BAZ (TEXAS SPRING CAMPGROUND LOOP A) AT MP 0.12		3	0.13	0.00	0.13	

NPS/RIP Subcomponent Details for DEVA

Road Inventory Program 01/28/2013

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DEVA

DEATH VALLEY NATIONAL PARK

DEVA-0400ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Name	From	To	Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
0400AZ	51497	4	COW CREEK SERVICE ROAD	FROM ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY))	TO ROUTE 0911 (FIRE RESERVOIR PARKING)		5	0.53	0.00	0.53	
0400BZ	51497	4	COW CREEK SERVICE ROAD SPUR	FROM ROUTE 0400AZ (COW CREEK SERVICE ROAD) AT MP 0.48 (ON RIGHT)	TO END (NON-NPS PARKING LOT-CALTRANS MAINTENANCE STATION PARKING)		5	0.08	0.00	0.08	

DEVA-0407ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Name	From	To	Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
0407Z	102579	4	GRAPEVINE SERVICE ROAD	FROM ROUTE 0011 (SCOTTYS CASTLE (BONNIE CLAIRE) ROAD) AT MP 33.39 (ON RIGHT)	TO ROUTE 0928 (GRAPEVINE MAINTENANCE AREA PARKING)		5	0.06	0.00	0.06	
0409Z	102579	4	GRAPEVINE RESIDENCE ROAD	FROM ROUTE 0407Z (GRAPEVINE SERVICE ROAD) AT MP 0.03 (ON RIGHT)	TO END OF PAVEMENT		5	0.00	0.00	0.00	12,447

DEVA-0901ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Name	From	To	Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
0901AZ	60889	5	UBEHEBE CRATER PARKING A	ADJACENT TO ROUTE 0109 (UBEHEBE CRATER ROAD) AT MP 6.05 (ON RIGHT)				0.00	0.00	0.00	4,944
0901BZ	60889	5	UBEHEBE CRATER PARKING B	ADJACENT TO ROUTE 0109 (UBEHEBE CRATER ROAD) AT MP 6.05 (ON LEFT)				0.00	0.00	0.00	3,042

NPS/RIP Subcomponent Details for DEVA

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DEVA

DEATH VALLEY NATIONAL PARK

DEVA-0909ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Name	From	To	Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
0909AZ	51498	4	COW CREEK RESOURCE PARKING A	ADJACENT TO ROUTE 0400AZ (COW CREEK SERVICE ROAD) AT MP 0.31 (ON RIGHT)				0.00	0.00	0.00	3,596
0909BZ	51498	4	COW CREEK RESOURCE PARKING B	ADJACENT TO ROUTE 0400AZ (COW CREEK SERVICE ROAD) AT MP 0.35 (ON RIGHT)				0.00	0.00	0.00	3,094
0909CZ	51498	4	COW CREEK RESOURCE PARKING C	ADJACENT TO ROUTE 0400AZ (COW CREEK SERVICE ROAD) AT MP 0.33 (ON LEFT)				0.00	0.00	0.00	4,529
0909DZ	51498	4	COW CREEK RESOURCE PARKING D	ADJACENT TO ROUTE 0400AZ (COW CREEK SERVICE ROAD) AT MP 0.39 (ON LEFT)				0.00	0.00	0.00	3,151

DEVA-0910ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Name	From	To	Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
0910AZ	102628	4	COW CREEK MAINTENANCE YARD PARKING	FROM ROUTE 0400AZ (COW CREEK SERVICE ROAD) AT MP 0.40 (ON RIGHT)	TO ROUTE 0400BZ (COW CREEK SERVICE ROAD SPUR)			0.00	0.00	0.00	55,702
0910BZ	102628	4	COW CREEK CURATORIAL PARKING	ADJACENT TO ROUTE 0400BZ (COW CREEK SERVICE ROAD SPUR) AT MP 0.02 (ON LEFT)				0.00	0.00	0.00	2,680

NPS/RIP Subcomponent Details for DEVA

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DEVA

DEATH VALLEY NATIONAL PARK

DEVA-0939ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Name	From	To	Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
0939AZ	112450	4	STOVE PIPE WELLS VILLAGE HOTEL PARKING	FROM ROUTES 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY)) AT MP 42.47 (ON LEFT) AND 0230 (STOVEPIPE WELLS LANDING STRIP ROAD)	TO PARKING	■		0.00	0.00	0.00	30,693
0939BZ	112450	4	STOVE PIPE WELLS VILLAGE SALOON PARKING	FROM ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY))	TO PARKING	■		0.00	0.00	0.00	20,035
0939CZ	112450	4	STOVE PIPE WELLS VILLAGE GAS STATION	FROM ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY))	TO PARKING	■		0.00	0.00	0.00	14,815
0939DZ	112450	4	STOVE PIPE WELLS VILLAGE GENERAL STORE PARKING	FROM ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY))	TO PARKING	■		0.00	0.00	0.00	18,422
0939EZ	112450	5	STOVE PIPE WELLS VILLAGE 49ER ROOMS PARKING	FROM ROUTE 0329 (STOVEPIPE WELLS HOUSING ROAD) ON RIGHT	TO PARKING	■		0.00	0.00	0.00	6,547
0939FZ	112450	5	STOVE PIPE WELLS VILLAGE ROADRUNNER PARKING	FROM ROUTE 0329 (STOVEPIPE WELLS HOUSING ROAD) ON LEFT	TO PARKING	■		0.00	0.00	0.00	23,894

ROUTE IDENTIFICATION CHANGES TO PAVED ROUTES FROM PREVIOUS CYCLE - DEVA

ROUTES ADDED FROM PREVIOUS INVENTORY:

Route #	Route Name	Reason for Addition	Comments
0329	STOVEPIPE WELLS HOUSING ROAD	RECENTLY CONSTRUCTED ROUTE	NEW ROUTE ADDED TO INVENTORY IN CYCLE 5.
0430	SKYLINE LOOP ROAD	RECENTLY CONSTRUCTED ROUTE	NEW ROUTE ADDED TO INVENTORY IN CYCLE 5.
0943	SALT PAN VISTA DORM PARKING	RECENTLY CONSTRUCTED ROUTE	NEW PARKING AREA ADDED TO INVENTORY IN CYCLE 5.
0944	SPW SAND DUNES PARKING AREA	RECENTLY CONSTRUCTED ROUTE	NEW PARKING AREA ADDED TO INVENTORY IN CYCLE 5.
0945	FATHER CROWLEY PARKING AREA	RECENTLY CONSTRUCTED ROUTE	NEW PARKING AREA ADDED TO INVENTORY IN CYCLE 5.

ROUTES MODIFIED FROM PREVIOUS INVENTORY:

Route #	Route Name	Type of Modification	Comments
0901ZZ	UBEHEBE CRATER PARKING LOTS	RECONSTRUCTED	ROUTE 0901ZZ WAS RECOLLECTED IN CYCLE 5 DUE TO THE PARKING AREA BEING RECONSTRUCTED SINCE CYCLE 4.
0912	FURNACE CREEK ADMINISTRATIVE PARKING	RECONSTRUCTED	ROUTE 0912 WAS RECOLLECTED IN CYCLE 5 DUE TO THE PARKING AREA BEING RECONSTRUCTED SINCE CYCLE 4.
0913	FURNACE CREEK VISITOR CENTER PARKING	RECONSTRUCTED	ROUTE 0913 WAS RECOLLECTED IN CYCLE 5 DUE TO THE PARKING AREA BEING RECONSTRUCTED SINCE CYCLE 4.
0932	MUD CANYON MUSHROOM (INFORMATION KIOSK) PARKING	RECONSTRUCTED	ROUTE 0932 WAS RECOLLECTED IN CYCLE 5 DUE TO THE PARKING AREA BEING RECONSTRUCTED SINCE CYCLE 4.
0939ZZ	STOVE PIPE WELLS VILLAGE PARKING LOTS	OTHER	TWO NEW SUBCOMPONENT ADDITIONS (0939EZ AND 0939FZ) WERE ADDED TO ROUTE 0939ZZ IN CYCLE 5.

ROUTE IDENTIFICATION CHANGES TO PAVED ROUTES FROM PREVIOUS CYCLE - DEVA

OTHER CHANGES FROM PREVIOUS INVENTORY:			
Route #	Route Name	Type of Change	Comments
0014ZZ	EMIGRANT CANYON ROAD	OTHER	CYCLE 4 ROUTE 0014 WAS COLLECTED AS TWO SUBCOMPONENTS IN CYCLE 5 BECAUSE SECTION 0014BZ WAS IN TOO POOR CONDITION FOR THE DATA COLLECTION VEHICLE (DCV) TO DRIVE. SECTION 0014AZ WAS COLLECTED BY THE DCV WHILE SECTION 0014BZ WAS MANUALLY RATED. THE FUNCTIONAL CLASS WAS CHANGED FROM 1 TO 2 BECAUSE THIS ROUTE IS A CONNECTOR ROAD.
0116	WILDROSE CAMPGROUND ROAD	COLLECTION METHOD CHANGE	IN CYCLE 4 THIS ROUTE WAS MANUALLY RATED. IN CYCLE 5 IT WAS COLLECTED WITH THE DATA COLLECTION VEHICLE.

Section 3

Park Summary Information



Death Valley National Park



Federal Lands Highway
Road Inventory Program

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

F.C.	Pavement Condition Rating (PCR)								TOTAL MILES
	Poor (0-60)		Fair (61-84)		Good (85-94)		Excellent (95-100)		
	MILES	%	MILES	%	MILES	%	MILES	%	
1	6.94	3.80%	25.07	13.73%	24.21	13.25%	68.74	37.63%	124.96
2	11.71	6.41%	16.62	9.10%	19.08	10.45%	9.99	5.47%	57.40
3			0.03	0.02%	0.06	0.03%	0.12	0.07%	0.21
4									
5			0.04	0.02%	0.04	0.02%			0.08
6									
7									
8									
Totals	18.65	10.21%	41.76	22.86%	43.39	23.75%	78.85	43.17%	182.65

Note: The information in this table is derived from the PMS_20 table in the Park database, which only contains processed data from routes collected with the Data Collection Vehicle (DCV). Information for Manually Rated Routes (MRR) and Parking Areas is not reported in this table. Only Functional Class 1, 2, & 7 routes, and any new routes not previously collected by RIP, are collected in Large Parks.

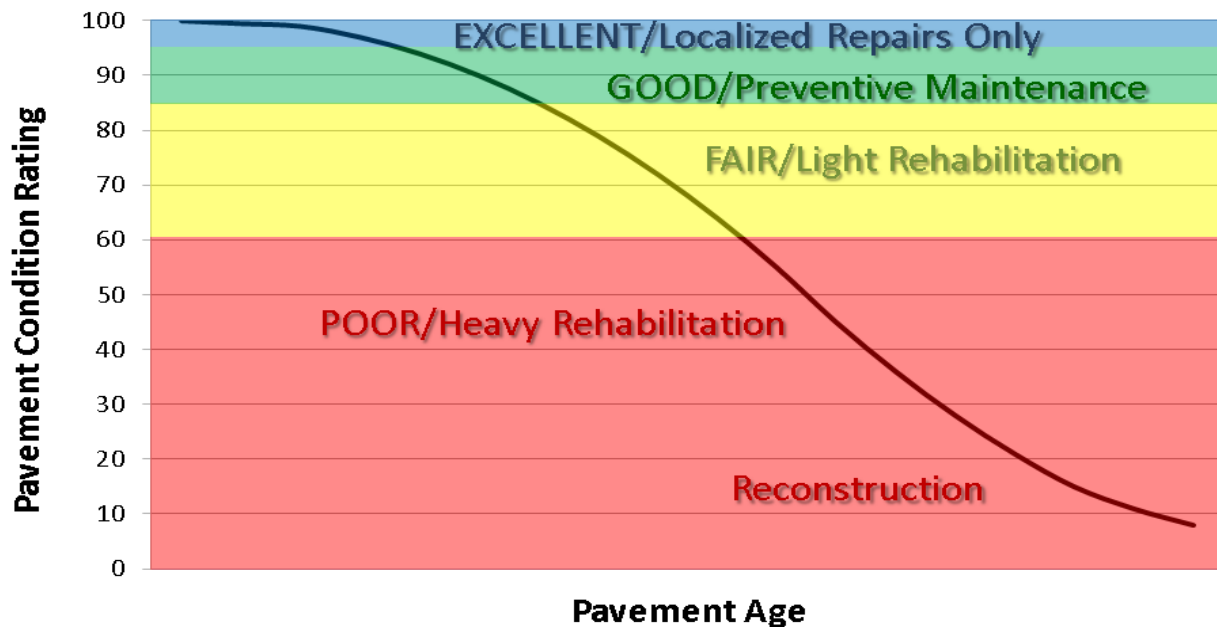
Explanation of the Excellent, Good, Fair and Poor Condition Descriptions

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

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

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

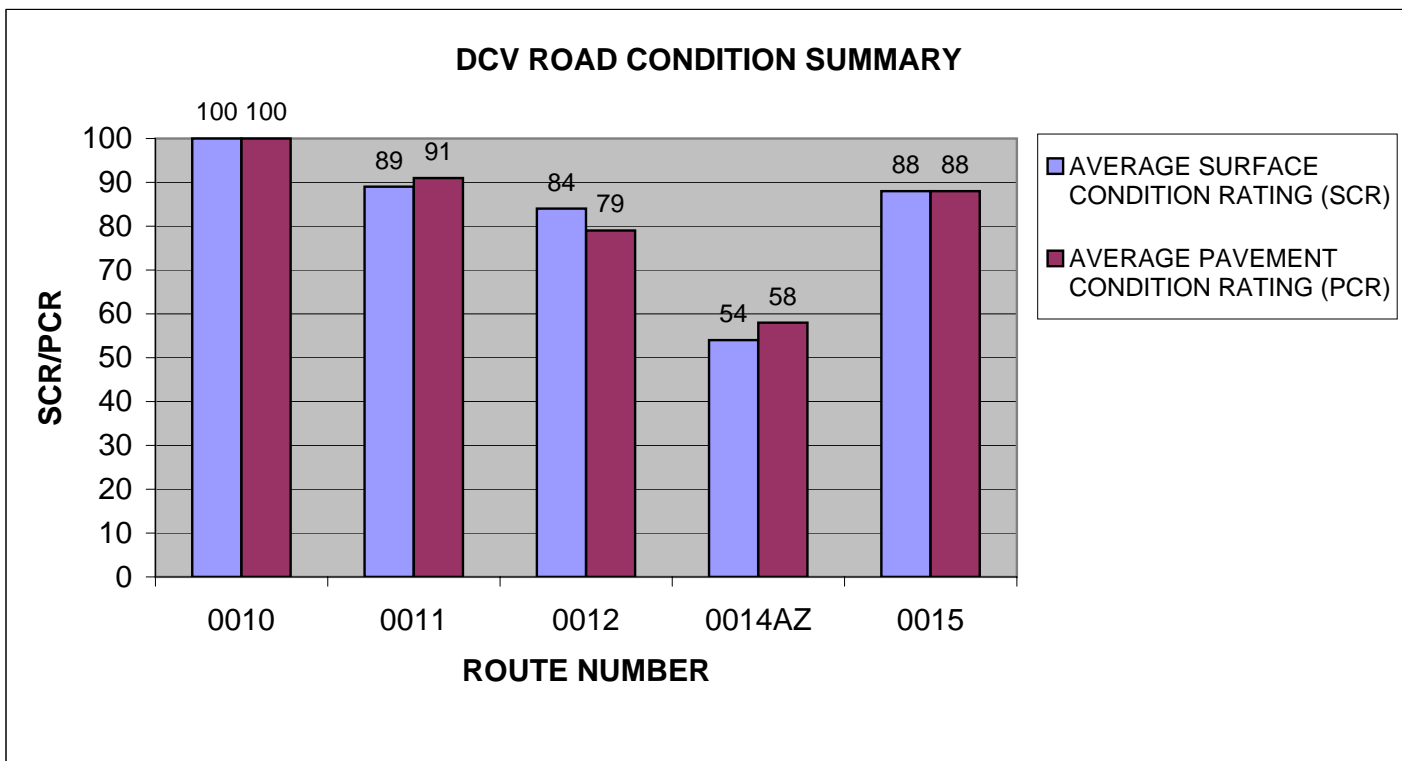
Condition Categories and Treatments



DEVA: DCV ROAD CONDITION SUMMARY

DCV - Data Collection Vehicle

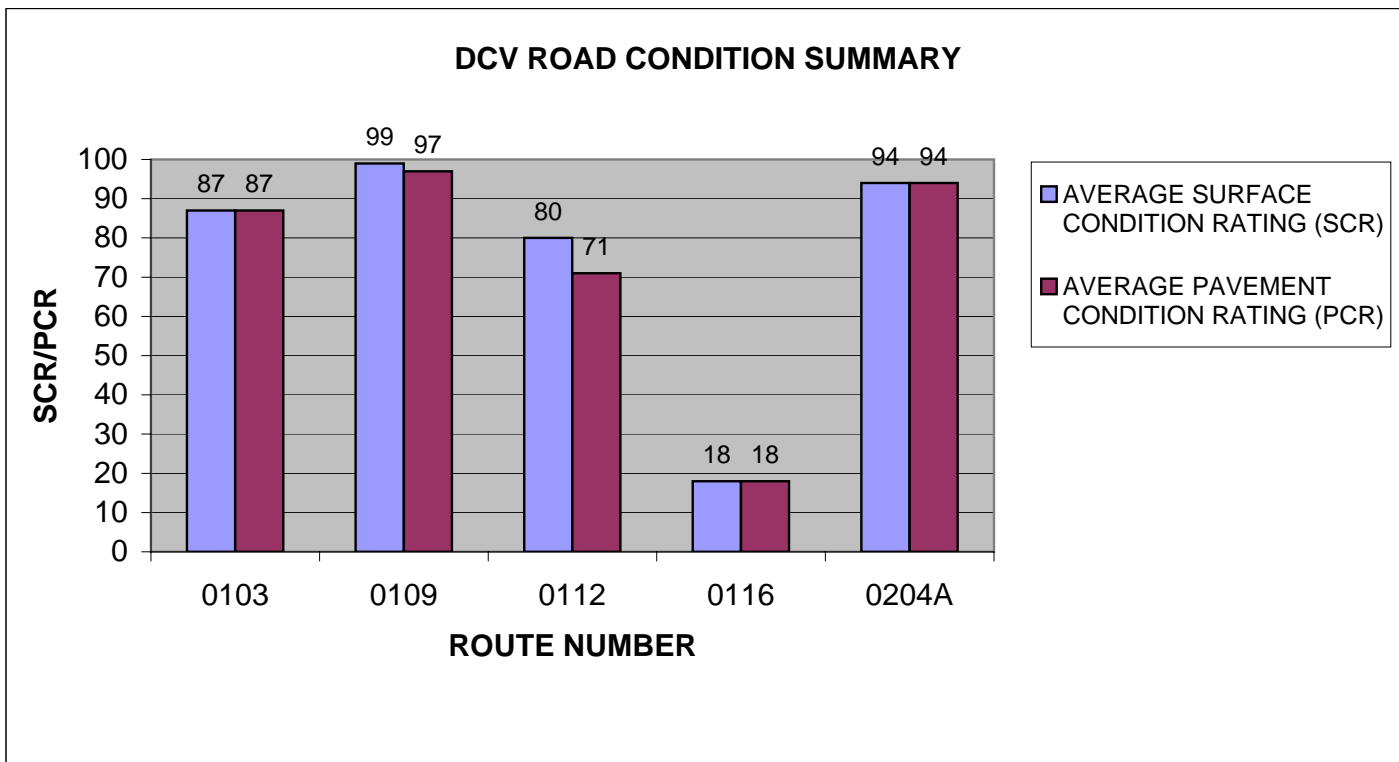
ROUTE NUMBER	ROUTE NAME	FUNCT CLASS	PAVED LENGTH	SURFACE TYPE	AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE PAVEMENT CONDITION RATING (PCR)
0010	DAYLIGHT PASS (MUD CANYON) ROAD	1	17.36	ASPHALT	100	100
0011	SCOTTYS CASTLE (BONNIE CLAIRE) ROAD	1	41.25	ASPHALT	89	91
0012	BEATTY CUTOFF ROAD	1	10.07	ASPHALT	84	79
0014AZ	EMIGRANT CANYON ROAD (SECTION A)	2	21.25	ASPHALT	54	58
0015	BADWATER ROAD	1	56.28	ASPHALT	88	88



DEVA: DCV ROAD CONDITION SUMMARY

DCV - Data Collection Vehicle

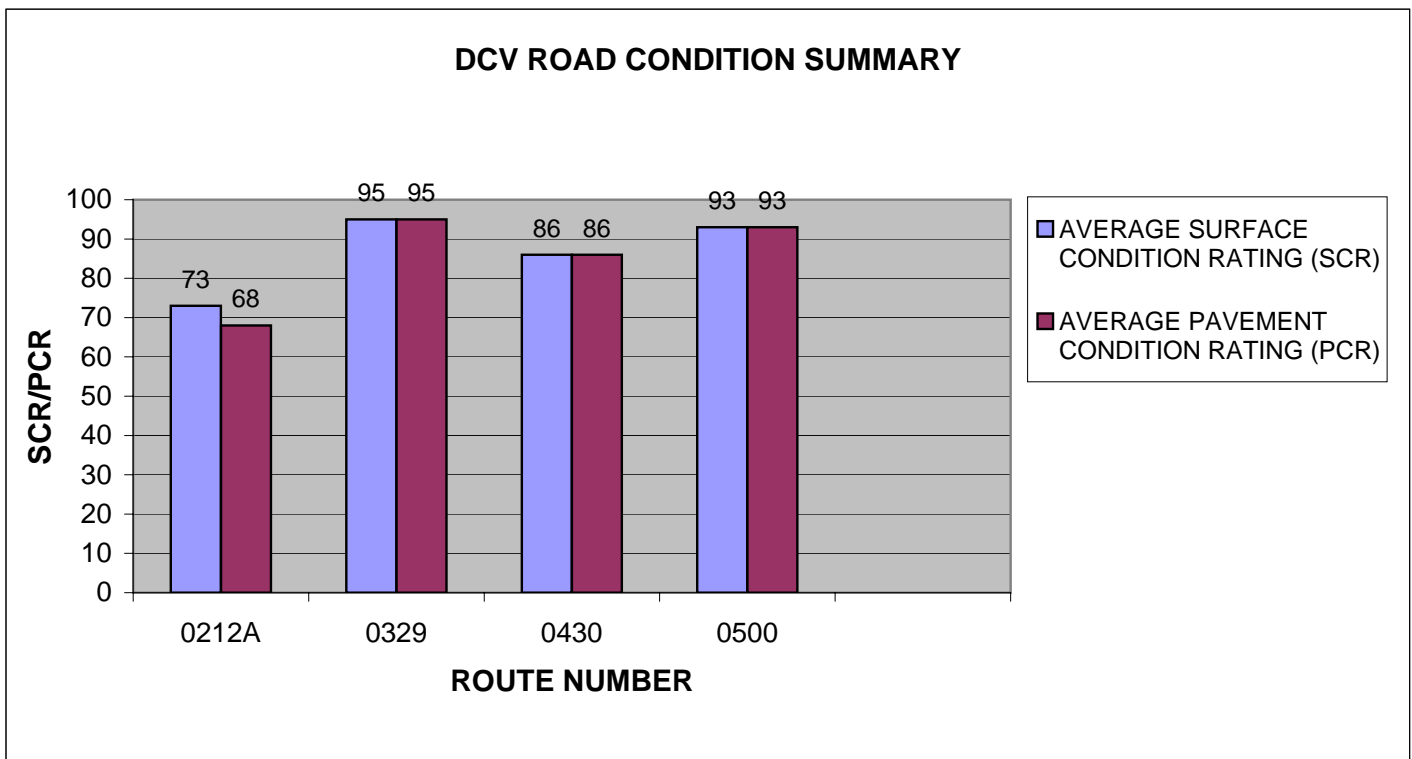
ROUTE NUMBER	ROUTE NAME	FUNCT CLASS	PAVED LENGTH	SURFACE TYPE	AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE PAVEMENT CONDITION RATING (PCR)
0103	DANTE'S VIEW ROAD	2	13.26	ASPHALT	87	87
0109	UBEHEBE CRATER ROAD	2	6.28	ASPHALT	99	97
0112	CHARCOAL KILNS ROAD	2	5.09	ASPHALT	80	71
0116	WILDROSE CAMPGROUND ROAD	2	0.09	ASPHALT	18	18
0204A	TEXAS SPRING / SUNSET CAMPGROUND ACCESS	2	0.66	ASPHALT	94	94



DEVA: DCV ROAD CONDITION SUMMARY

DCV - Data Collection Vehicle

ROUTE NUMBER	ROUTE NAME	FUNCT CLASS	PAVED LENGTH	SURFACE TYPE	AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE PAVEMENT CONDITION RATING (PCR)
0212A	MESQUITE SPRING CAMPGROUND ACCESS ROAD	2	1.88	ASPHALT	73	68
0329	STOVEPIPE WELLS HOUSING ROAD	3	0.21	ASPHALT	95	95
0430	SKYLINE LOOP ROAD	5	0.08	ASPHALT	86	86
0500	ARTISTS DRIVE	2	8.89	ASPHALT	93	93



Section 4

Park Route Location Maps

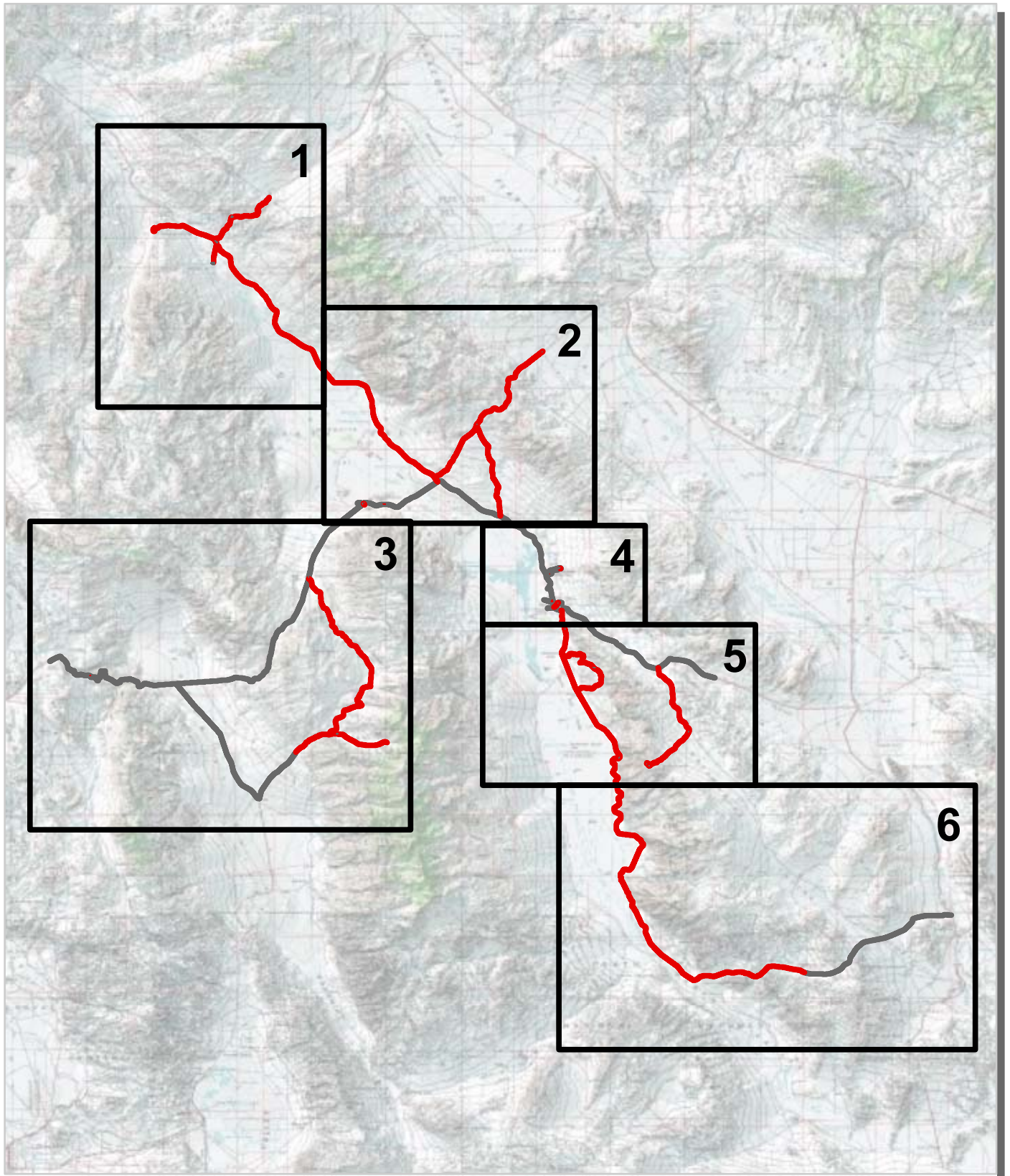




Death Valley National Park



Federal Lands Highway
Road Inventory Program

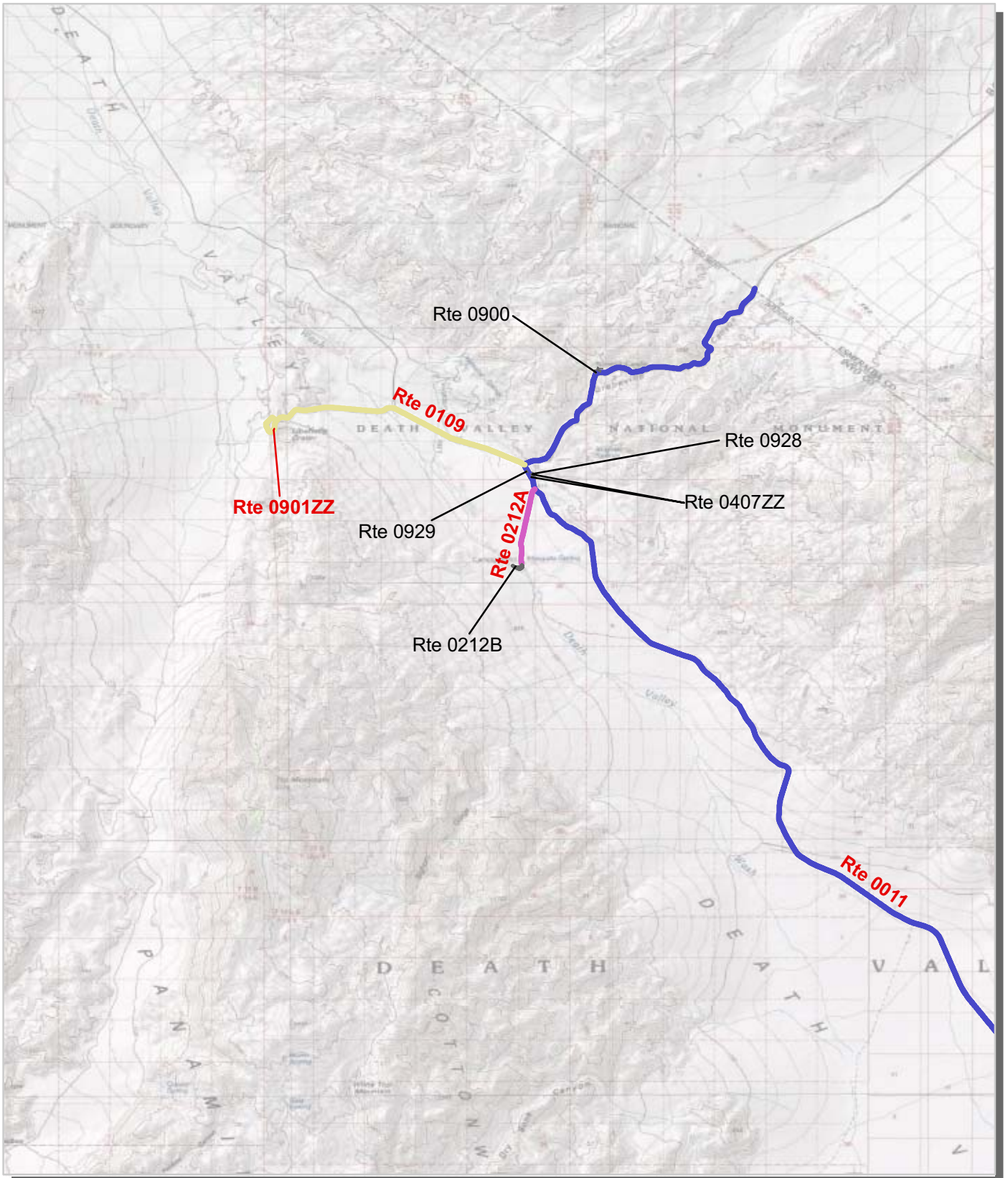
**Death Valley National Park
Route Location Map
Key Map**



 Cycle 5 Collected Routes
 Routes Collected in Previous Cycle

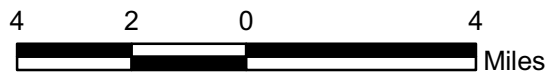


Death Valley National Park Route Location Map Area 1

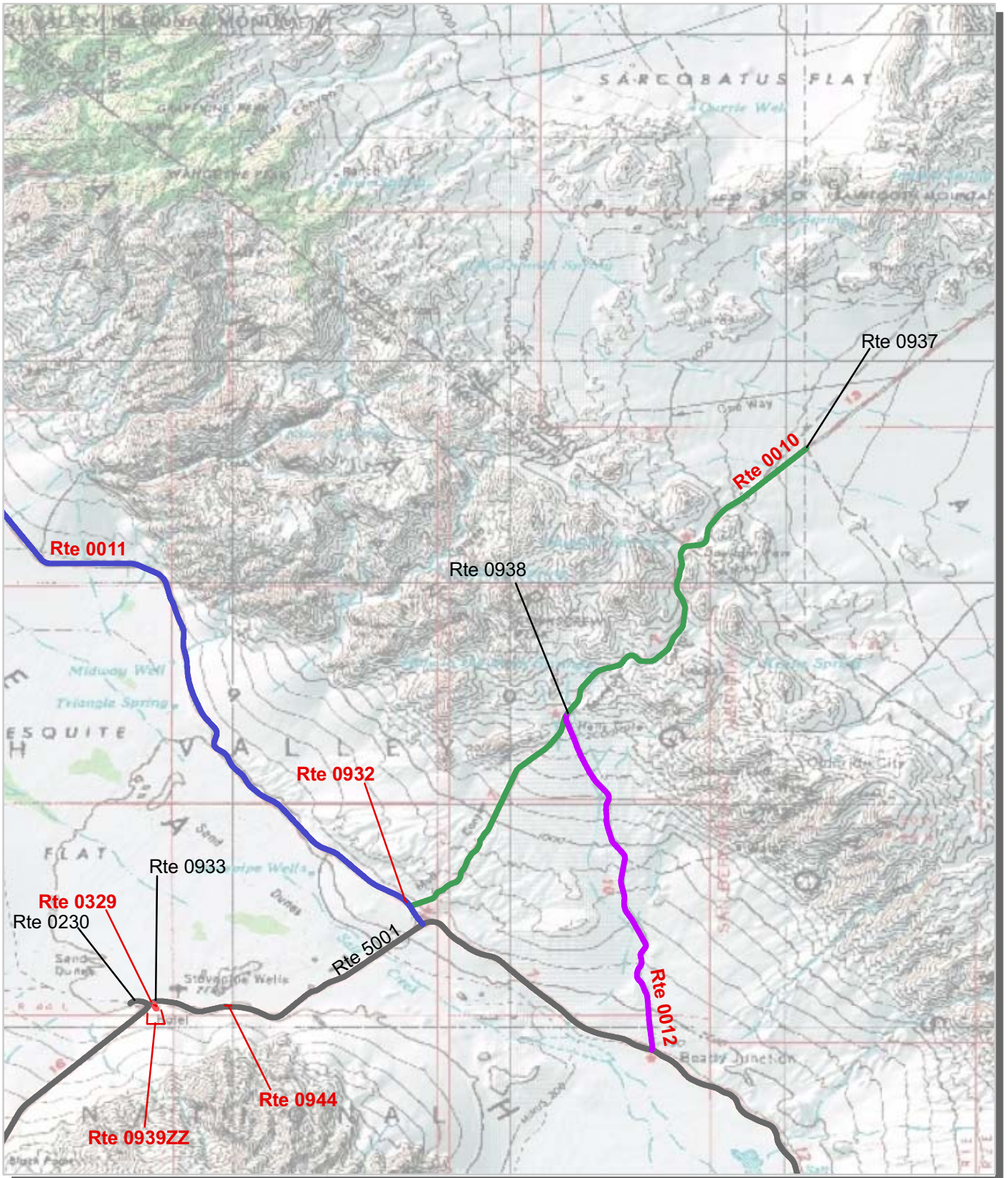


Unique colors used to differentiate routes

— Routes Collected in Previous Cycle

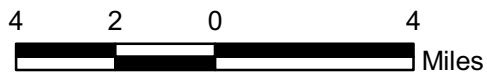


Death Valley National Park Route Location Map Area 2

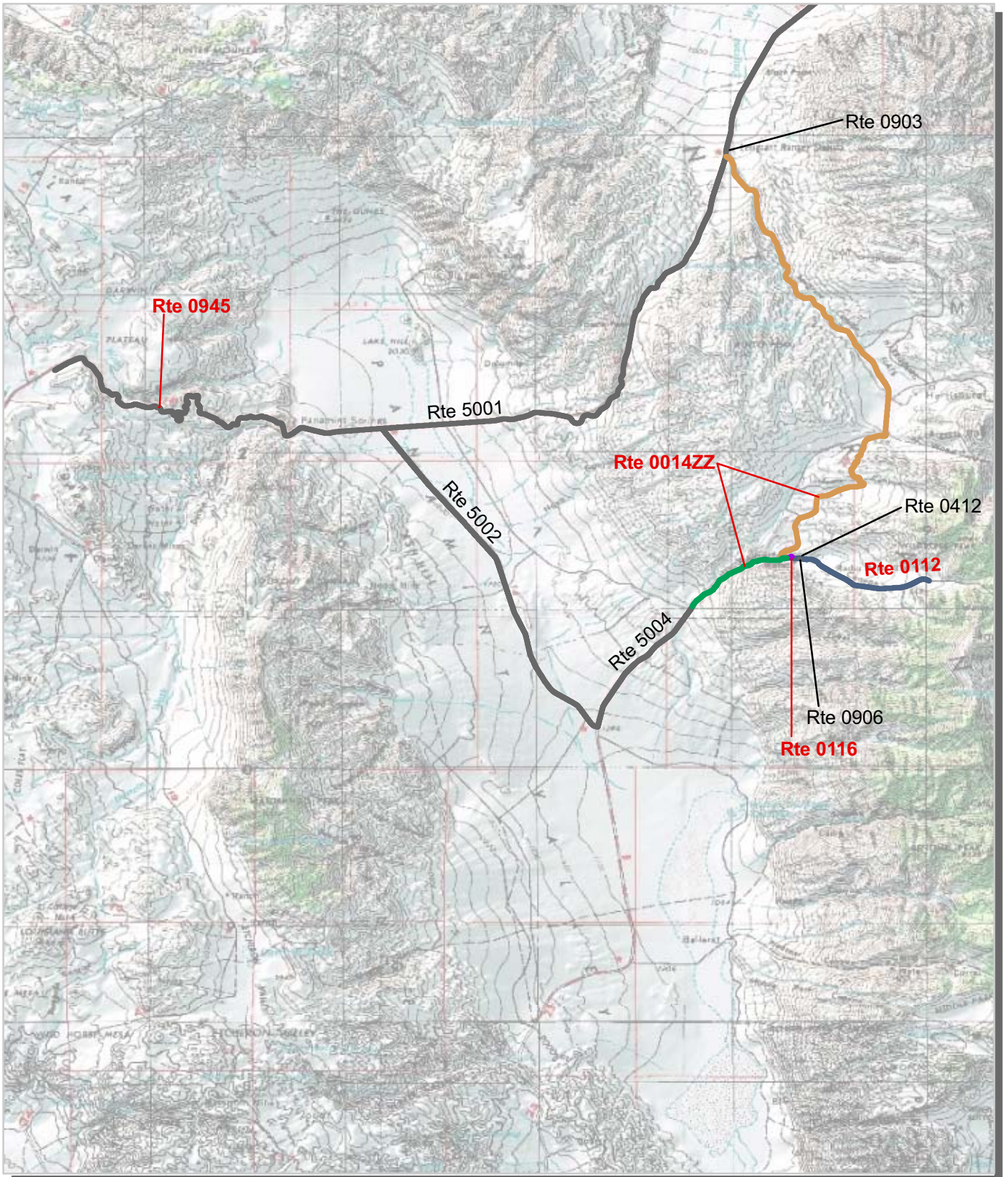


Unique colors used to differentiate routes

— Routes Collected in Previous Cycle

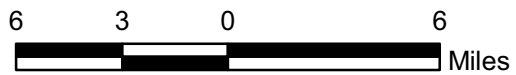


Death Valley National Park Route Location Map Area 3

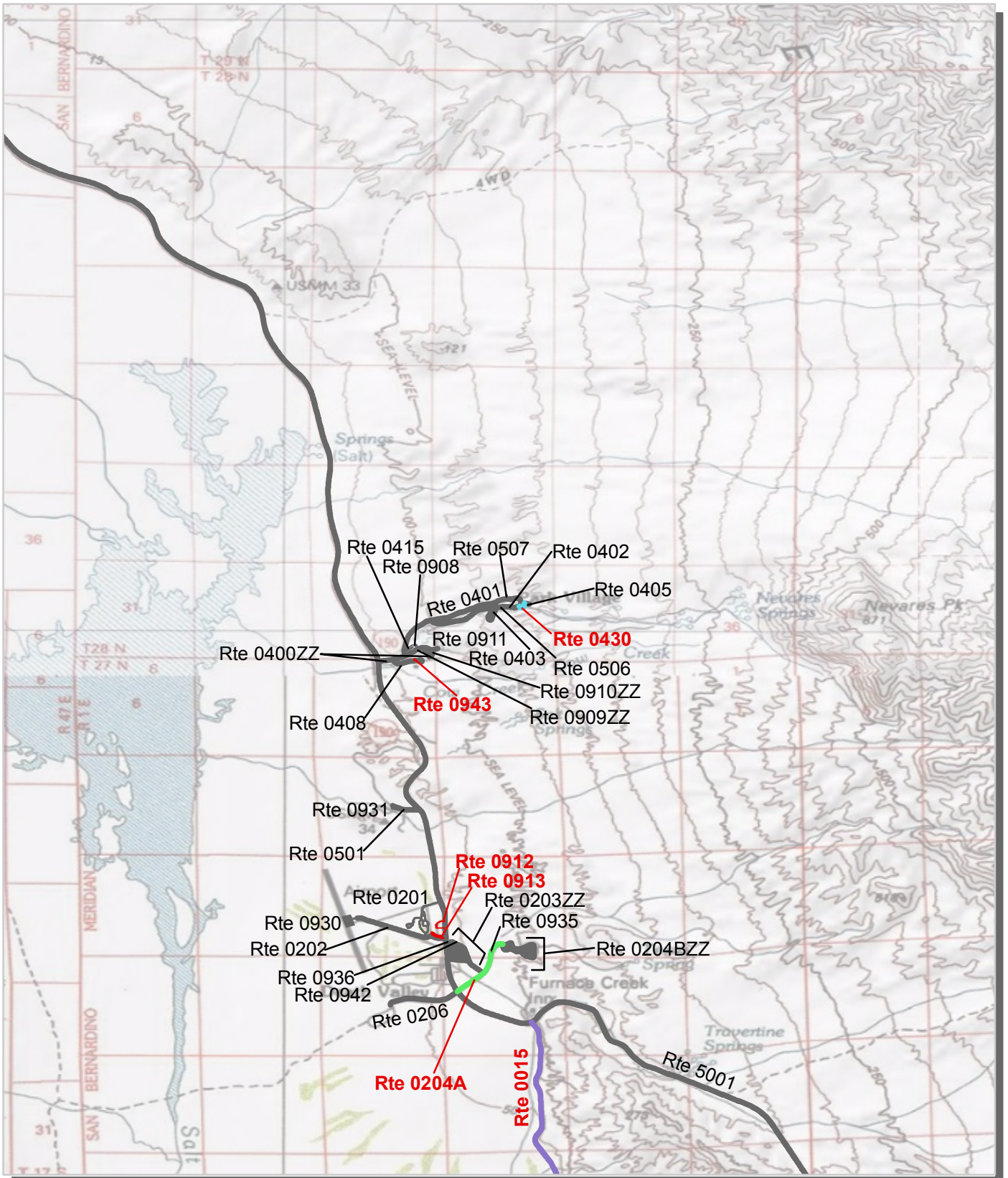


Unique colors used to differentiate routes

— Routes Collected in Previous Cycle

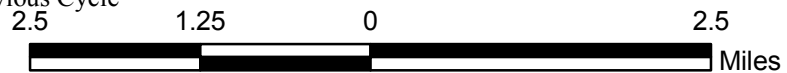


Death Valley National Park Route Location Map Area 4

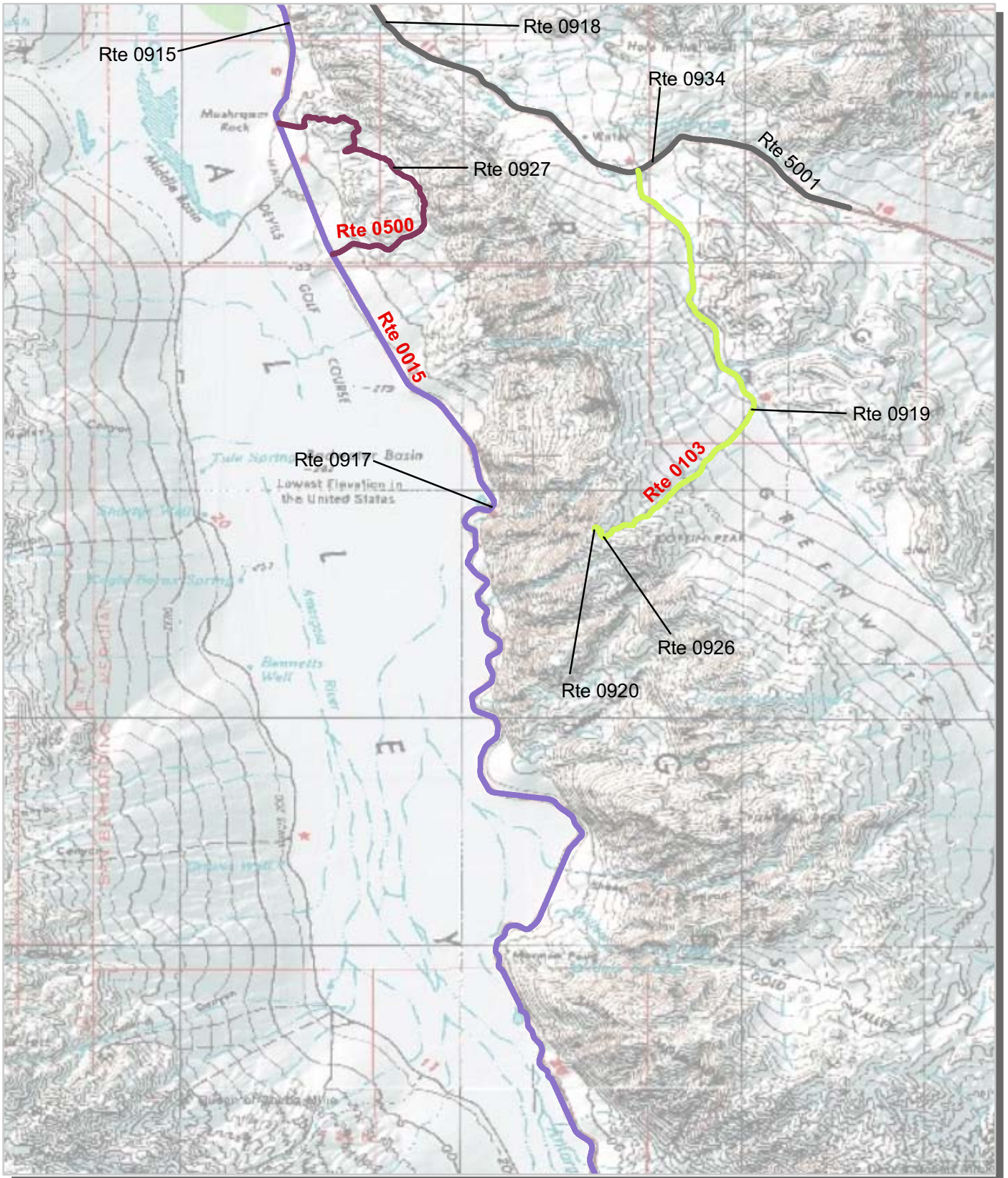


Unique colors used to differentiate routes

— Routes Collected in Previous Cycle



Death Valley National Park Route Location Map Area 5

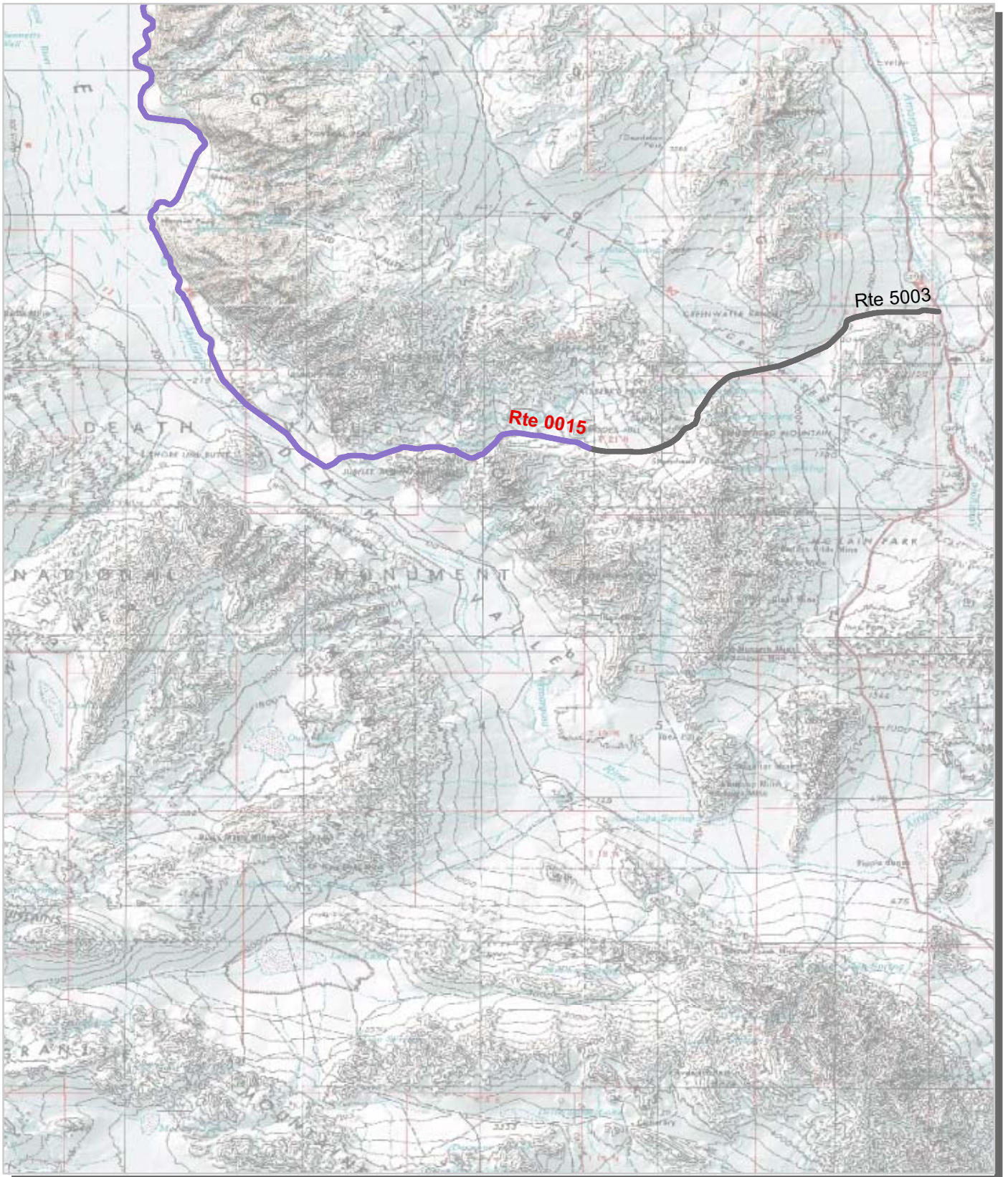


Unique colors used to differentiate routes

— Routes Collected in Previous Cycle

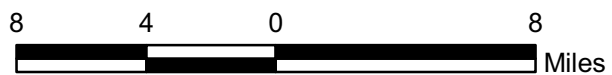


Death Valley National Park Route Location Map Area 6

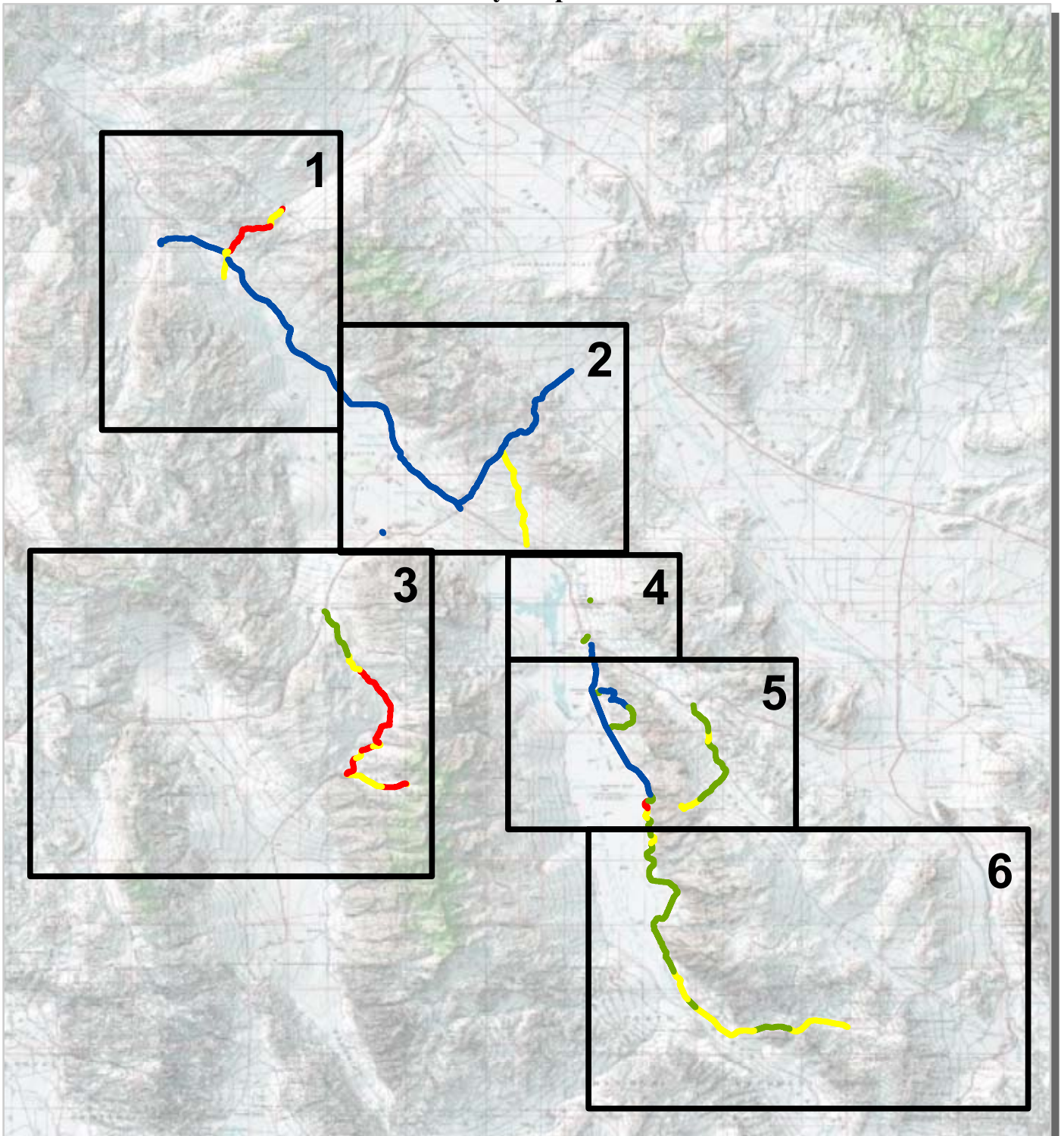


Unique colors used to differentiate routes

— Routes Collected in Previous Cycle



Death Valley National Park Route Condition Map PCR - Mile by Mile Key Map



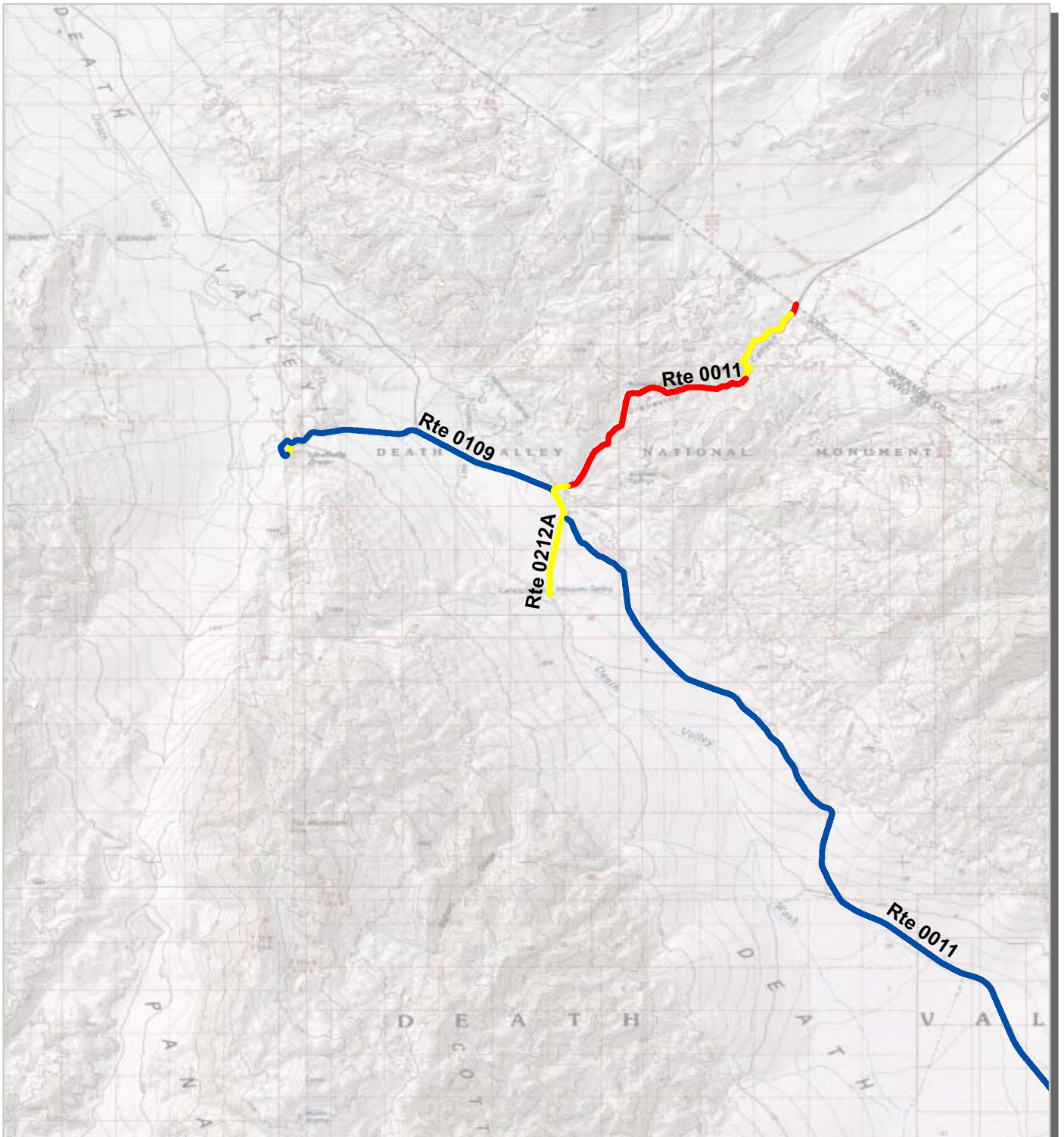
PCR	Poor		Fair		Good		Excellent		No Data	
	(0 - 60)		(61 - 84)	(85 - 94)	(95 - 100)					

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

Note: Only routes collected by the DCV in Cycle-5 are displayed.



Death Valley National Park Route Condition Map PCR - Mile by Mile Area 1

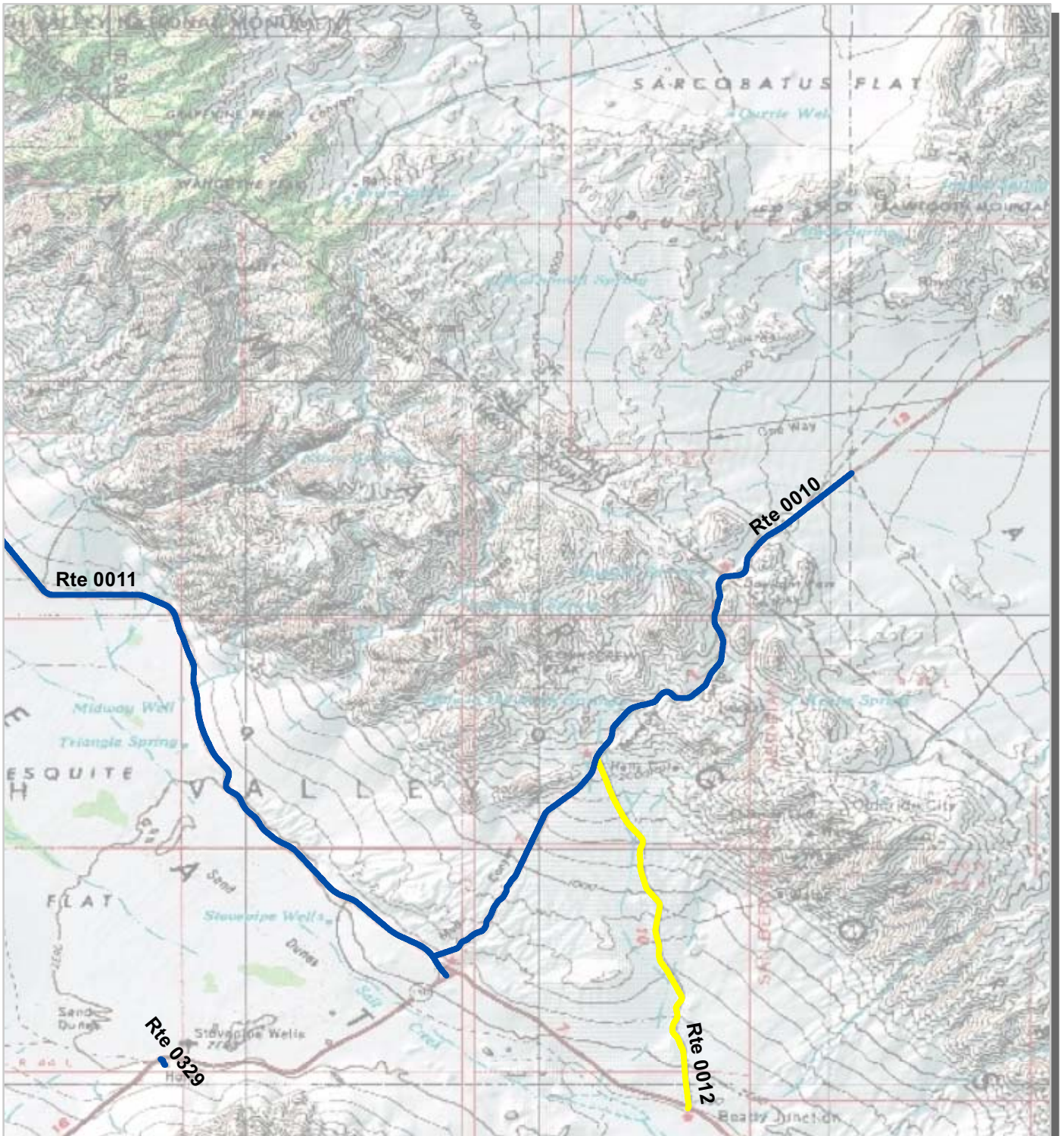


PCR	Poor	Fair	Good	Excellent	No Data
	■	■	■	■	■
	(0 - 60)	(61 - 84)	(85 - 94)	(95 - 100)	

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



Death Valley National Park Route Condition Map PCR - Mile by Mile Area 2

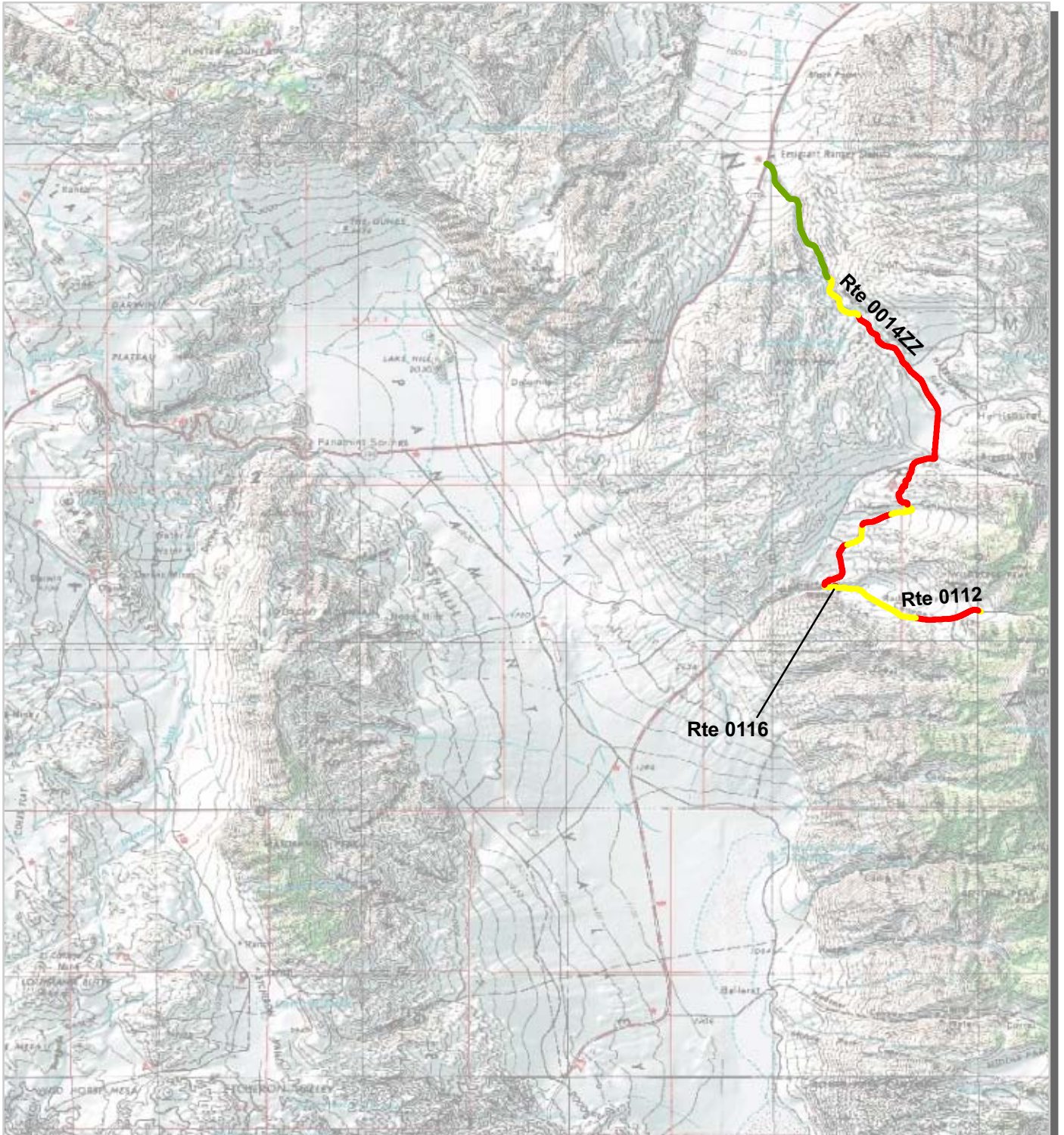


PCR	Poor		Fair		Good		Excellent		No Data	
	(0 - 60)		(61 - 84)	(85 - 94)	(95 - 100)					

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



Death Valley National Park Route Condition Map PCR - Mile by Mile Area 3



PCR	Poor	Fair	Good	Excellent	No Data
	(0 - 60)	(61 - 84)	(85 - 94)	(95 - 100)	

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

Death Valley National Park Route Condition Map PCR - Mile by Mile Area 4

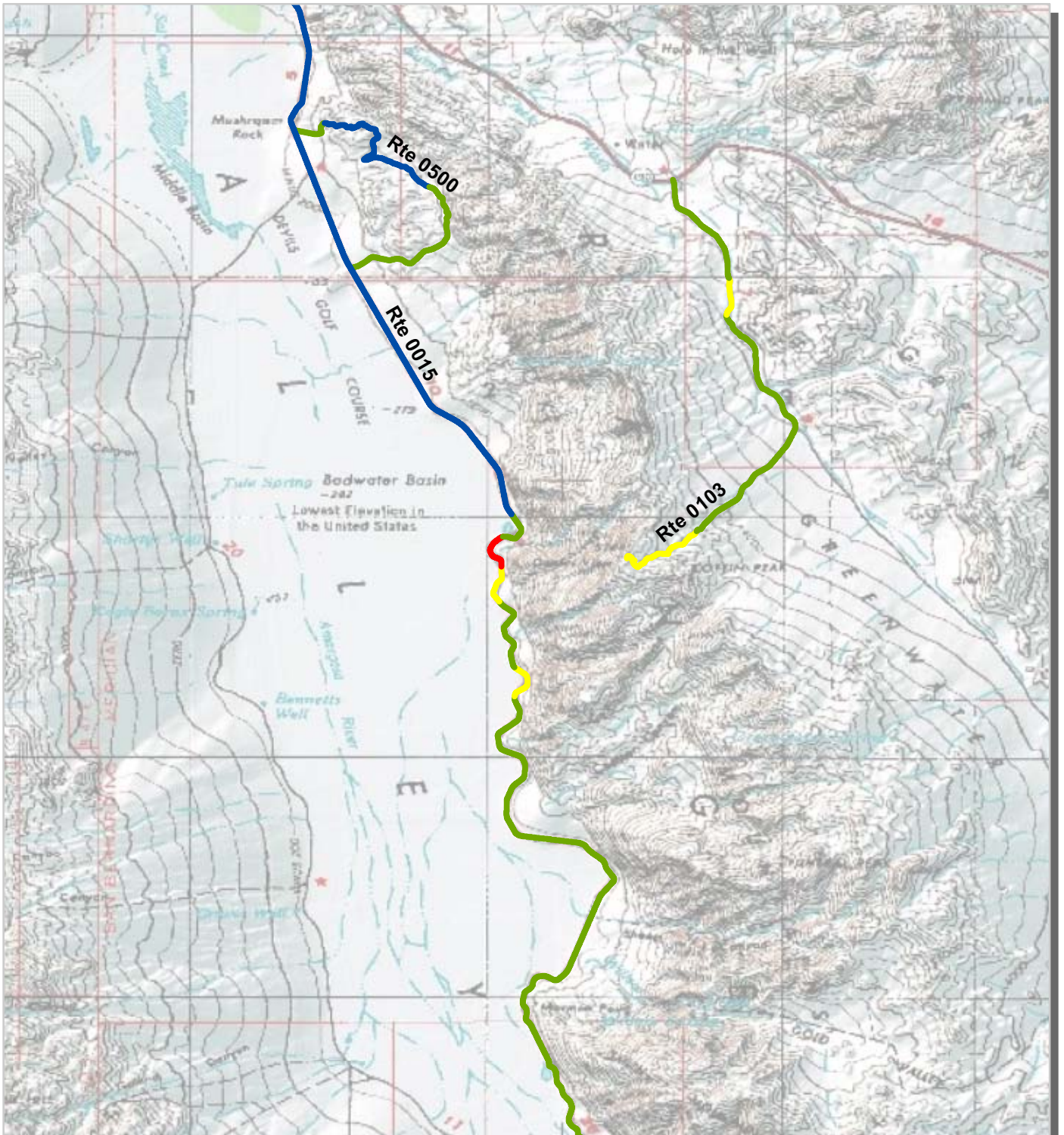


PCR	Poor	Fair	Good	Excellent	No Data
	■	■	■	■	■
	(0 - 60)	(61 - 84)	(85 - 94)	(95 - 100)	

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



Death Valley National Park Route Condition Map PCR - Mile by Mile Area 5

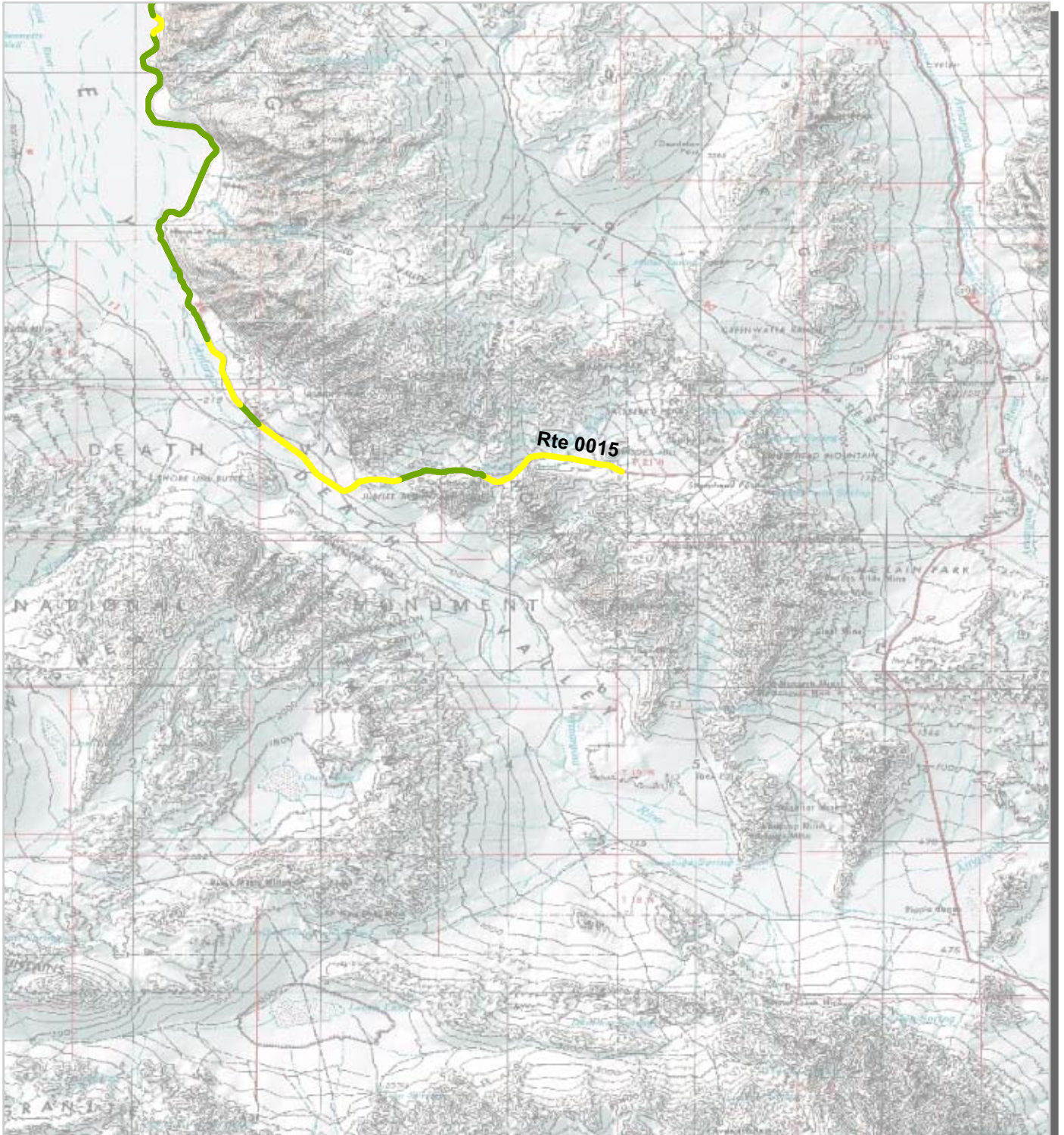


PCR	Poor	Fair	Good	Excellent	No Data
	(0 - 60)	(61 - 84)	(85 - 94)	(95 - 100)	

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

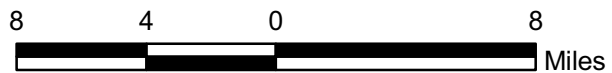


Death Valley National Park Route Condition Map PCR - Mile by Mile Area 6



PCR	Poor		Fair		Good		Excellent		No Data	
	(0 - 60)		(61 - 84)	(85 - 94)		(95 - 100)				

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

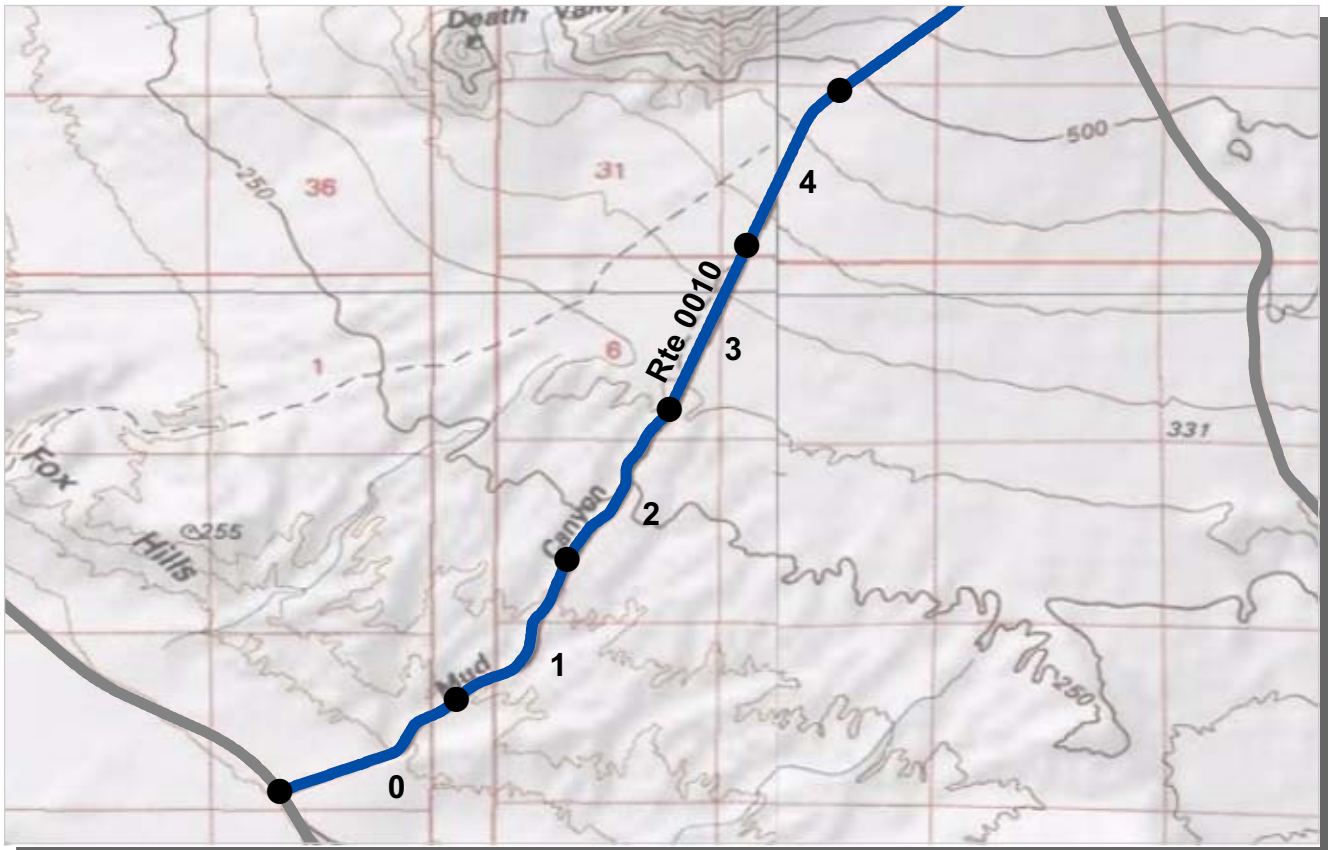


Section 5
Paved Route
Condition Rating Sheets



Death Valley National Park





PCR Poor ■ Fair ■ Good ■ Excellent ■ No Data ■
 (0 - 60) (61 - 84) (85 - 94) (95 - 100)

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

ROUTE: 0010 DAYLIGHT PASS (MUD CANYON) ROAD
DEVA : DEATH VALLEY NATIONAL PARK

COLLECTED: 6/5/2012
TOTAL LENGTH: 17.36 Miles

PACIFIC WEST REGION

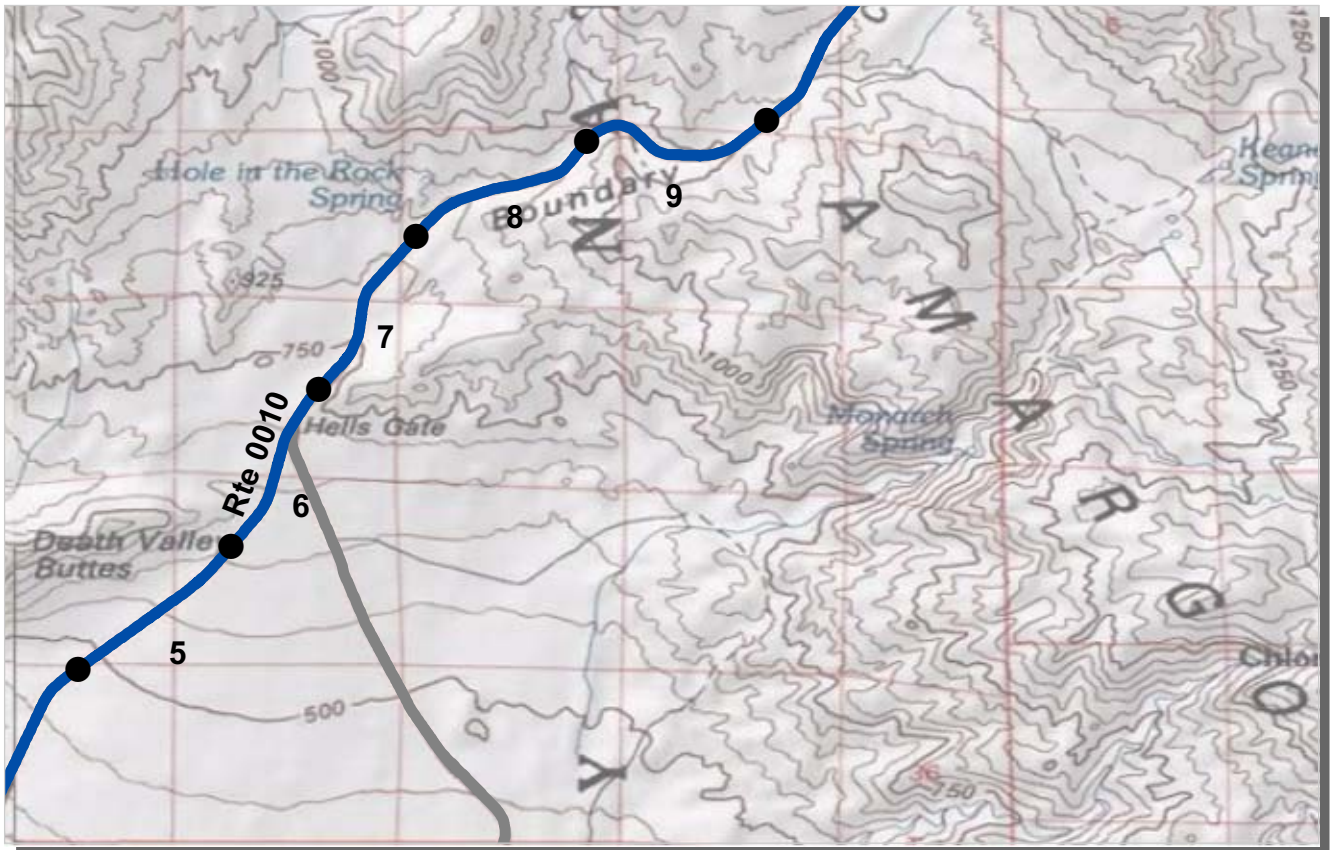
<i>Section Number</i>	0	1	2	3	4
<i>Section Length (mi)</i>	1.00	1.00	1.00	1.00	1.00
<i>Cross Section Information</i>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	24	26	26	25	25
Lane Width (ft)	10	10	10	10	10
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	100	100	100	100	100
PCR (Pavement Condition Rating)	100	100	100	100	100
<i>Distress Index Values</i>					
Structural Crack Index	100	100	100	100	100
Transverse Cracking Index	100	100	100	100	100
Patching Index	100	100	100	100	100
Rutting Index	100	100	100	100	100
Roughness Condition Index (RCI)	100	100	100	100	100

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

ROUTE: 0010 DAYLIGHT PASS (MUD CANYON) ROAD



PCR Poor ■ (0 - 60) Fair ■ (61 - 84) Good ■ (85 - 94) Excellent ■ (95 - 100) No Data ■

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

ROUTE: 0010 DAYLIGHT PASS (MUD CANYON) ROAD
DEVA : DEATH VALLEY NATIONAL PARK

COLLECTED: 6/5/2012
TOTAL LENGTH: 17.36 Miles

PACIFIC WEST REGION

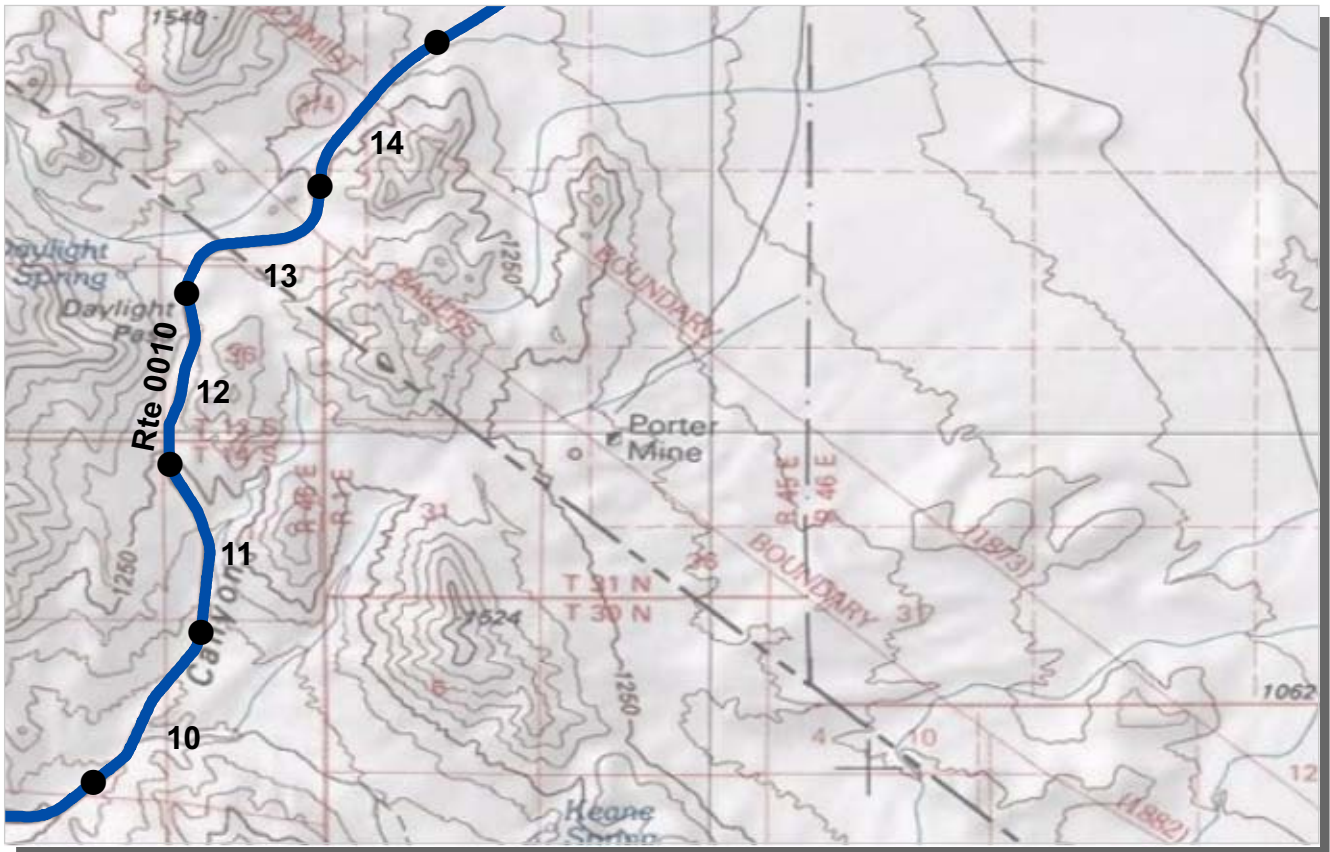
<i>Section Number</i>	5	6	7	8	9
<i>Section Length (mi)</i>	1.00	1.00	1.00	1.00	1.00
<i>Cross Section Information</i>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	25	26	25	24	27
Lane Width (ft)	11	11	10	10	10
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	100	100	100	100	100
PCR (Pavement Condition Rating)	100	100	100	100	100
<i>Distress Index Values</i>					
Structural Crack Index	100	100	100	100	100
Transverse Cracking Index	100	100	100	100	100
Patching Index	100	100	100	100	100
Rutting Index	100	100	100	100	100
Roughness Condition Index (RCI)	100	100	100	100	100

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

ROUTE: 0010 DAYLIGHT PASS (MUD CANYON) ROAD



PCR Poor ■ (0 - 60) Fair ■ (61 - 84) Good ■ (85 - 94) Excellent ■ (95 - 100) No Data ■

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

ROUTE: 0010 DAYLIGHT PASS (MUD CANYON) ROAD
DEVA : DEATH VALLEY NATIONAL PARK

COLLECTED: 6/5/2012
TOTAL LENGTH: 17.36 Miles

PACIFIC WEST REGION

<i>Section Number</i>	10	11	12	13	14
<i>Section Length (mi)</i>	1.00	1.00	1.00	1.00	1.00
<i>Cross Section Information</i>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	24	24	24	26	24
Lane Width (ft)	10	10	10	10	10
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	100	100	99	99	98
PCR (Pavement Condition Rating)	100	100	99	99	99
<i>Distress Index Values</i>					
Structural Crack Index	100	100	100	100	100
Transverse Cracking Index	100	100	100	100	100
Patching Index	100	100	100	100	100
Rutting Index	100	100	99	99	98
Roughness Condition Index (RCI)	100	100	100	100	100

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

ROUTE: 0010 DAYLIGHT PASS (MUD CANYON) ROAD



PCR Poor ■ Fair ■ Good ■ Excellent ■ No Data ■
 (0 - 60) (61 - 84) (85 - 94) (95 - 100)

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

ROUTE: 0010 DAYLIGHT PASS (MUD CANYON) ROAD
DEVA : DEATH VALLEY NATIONAL PARK

COLLECTED: 6/5/2012
TOTAL LENGTH: 17.36 Miles

PACIFIC WEST REGION

<i>Section Number</i>	15	16	17		
<i>Section Length (mi)</i>	1.00	1.00	0.36		
<i>Cross Section Information</i>					
Number of Lanes	2	2	2		
Paved Width (ft)	24	24	25		
Lane Width (ft)	11	10	10		
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	99	98	98		
PCR (Pavement Condition Rating)	99	99	99		
<i>Distress Index Values</i>					
Structural Crack Index	100	100	100		
Transverse Cracking Index	100	100	100		
Patching Index	100	100	100		
Rutting Index	99	98	98		
Roughness Condition Index (RCI)	100	100	100		

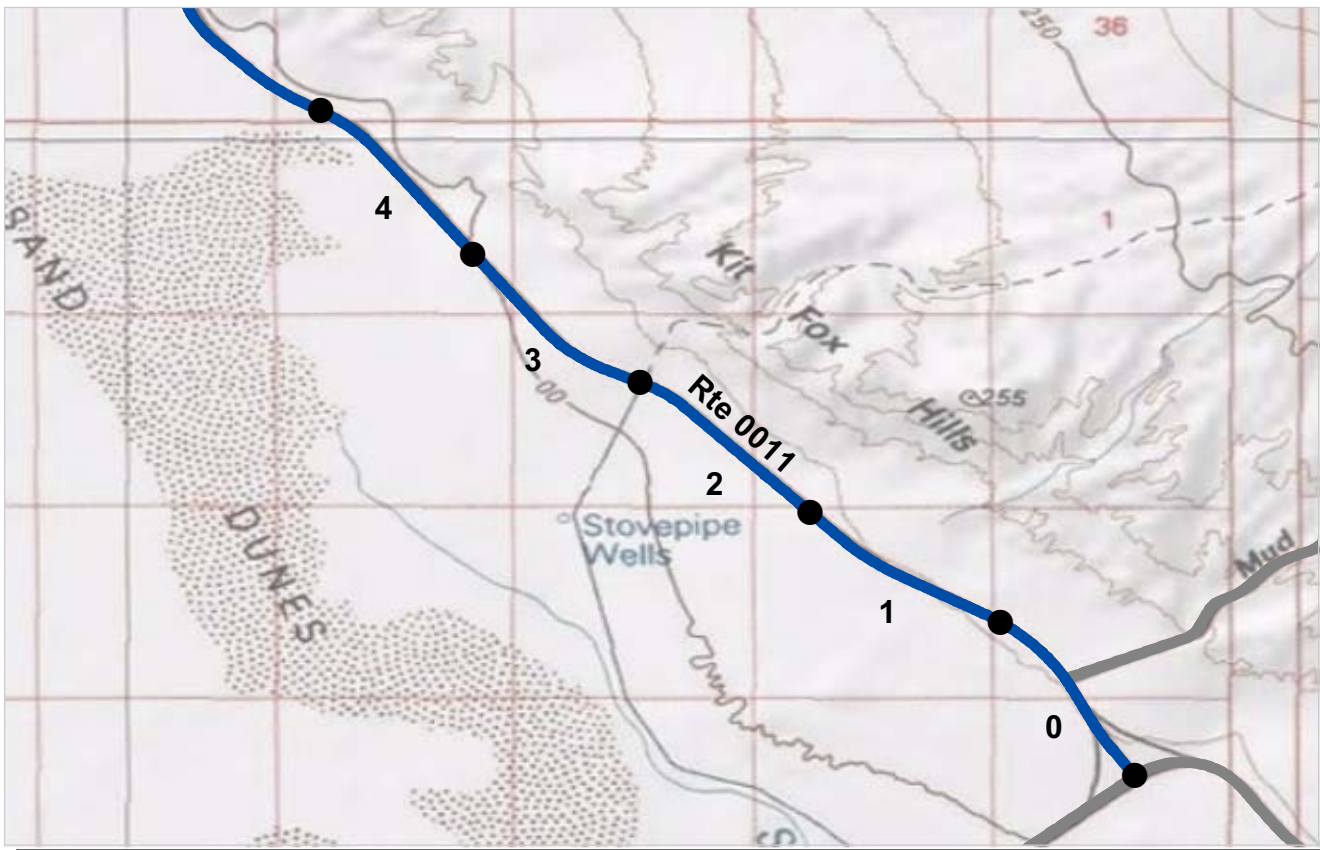
NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable



ROUTE: 0010 DAYLIGHT PASS (MUD CANYON) ROAD



PCR Poor ■ Fair ■ Good ■ Excellent ■ No Data ■
 (0 - 60) (61 - 84) (85 - 94) (95 - 100)

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

ROUTE: 0011 SCOTTYS CASTLE (BONNIE CLAIRE) ROAD
DEVA : DEATH VALLEY NATIONAL PARK

COLLECTED: 6/5/2012
TOTAL LENGTH: 41.25 Miles

PACIFIC WEST REGION

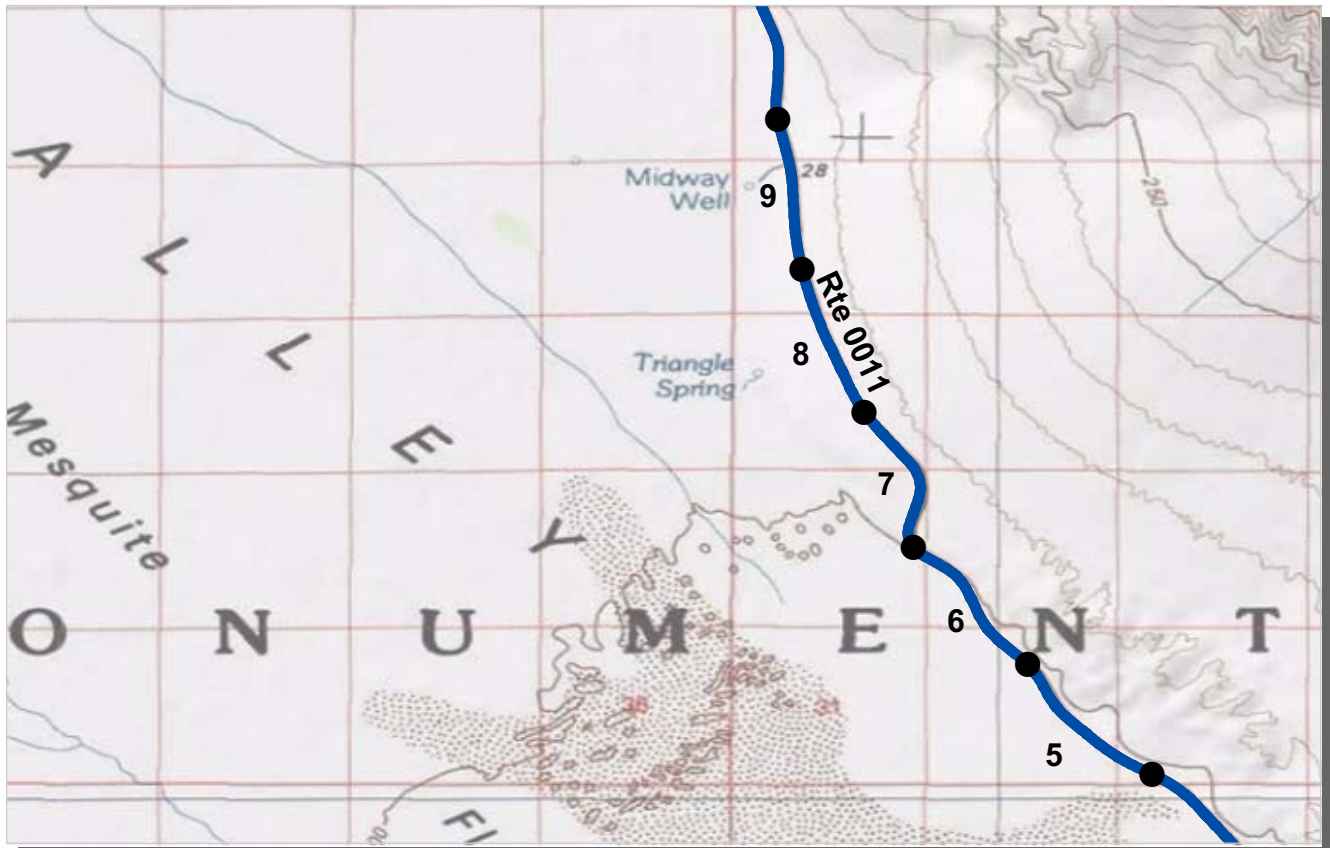
<i>Section Number</i>	0	1	2	3	4
<i>Section Length (mi)</i>	1.00	1.00	1.00	1.00	1.00
<i>Cross Section Information</i>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	19	20	20	20	20
Lane Width (ft)	9	9	9	9	10
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	100	100	100	100	100
PCR (Pavement Condition Rating)	100	100	100	100	100
<i>Distress Index Values</i>					
Structural Crack Index	100	100	100	100	100
Transverse Cracking Index	100	100	100	100	100
Patching Index	100	100	100	100	100
Rutting Index	100	100	100	100	100
Roughness Condition Index (RCI)	100	100	100	100	100

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

ROUTE: 0011 SCOTTYS CASTLE (BONNIE CLAIRE) ROAD



PCR Poor ■ Fair ■ Good ■ Excellent ■ No Data ■
 (0 - 60) (61 - 84) (85 - 94) (95 - 100)

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

ROUTE: 0011 SCOTTYS CASTLE (BONNIE CLAIRE) ROAD
DEVA : DEATH VALLEY NATIONAL PARK

COLLECTED: 6/5/2012
TOTAL LENGTH: 41.25 Miles

PACIFIC WEST REGION

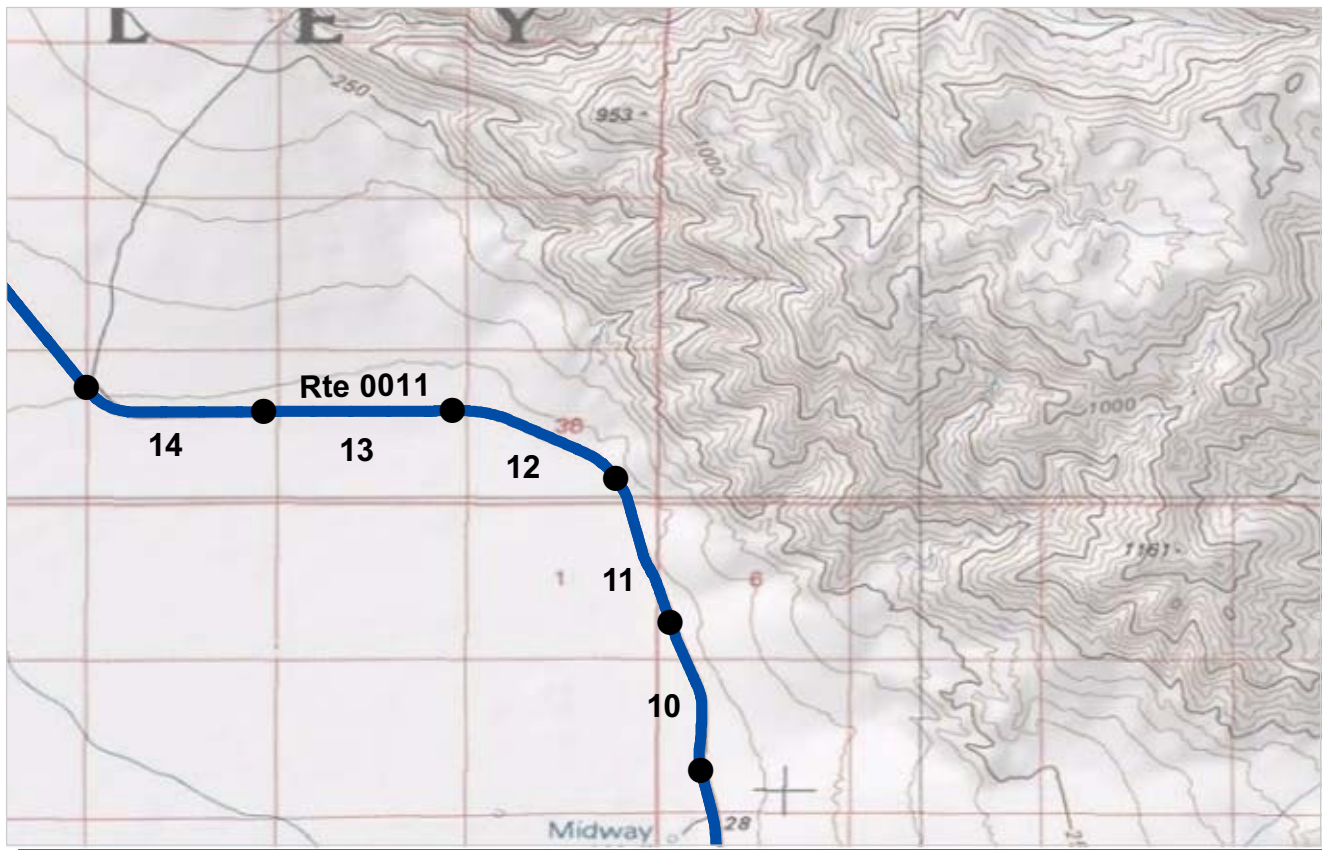
<i>Section Number</i>	5	6	7	8	9
<i>Section Length (mi)</i>	1.00	1.00	1.00	1.00	1.00
<i>Cross Section Information</i>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	20	20	21	22	21
Lane Width (ft)	10	9	9	9	9
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	100	100	100	100	100
PCR (Pavement Condition Rating)	100	100	100	100	100
<i>Distress Index Values</i>					
Structural Crack Index	100	100	100	100	100
Transverse Cracking Index	100	100	100	100	100
Patching Index	100	100	100	100	100
Rutting Index	100	100	100	100	100
Roughness Condition Index (RCI)	100	100	100	100	100

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

ROUTE: 0011 SCOTTYS CASTLE (BONNIE CLAIRE) ROAD



PCR Poor ■ Fair ■ Good ■ Excellent ■ No Data ■
 (0 - 60) (61 - 84) (85 - 94) (95 - 100)

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

ROUTE: 0011 SCOTTYS CASTLE (BONNIE CLAIRE) ROAD
DEVA : DEATH VALLEY NATIONAL PARK

COLLECTED: 6/5/2012
TOTAL LENGTH: 41.25 Miles

PACIFIC WEST REGION

<i>Section Number</i>	10	11	12	13	14
<i>Section Length (mi)</i>	1.00	1.00	1.00	1.00	1.00
<i>Cross Section Information</i>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	22	23	21	21	20
Lane Width (ft)	9	9	9	9	9
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	100	100	100	100	100
PCR (Pavement Condition Rating)	100	100	100	100	100
<i>Distress Index Values</i>					
Structural Crack Index	100	100	100	100	100
Transverse Cracking Index	100	100	100	100	100
Patching Index	100	100	100	100	100
Rutting Index	100	100	100	100	100
Roughness Condition Index (RCI)	100	100	100	100	100

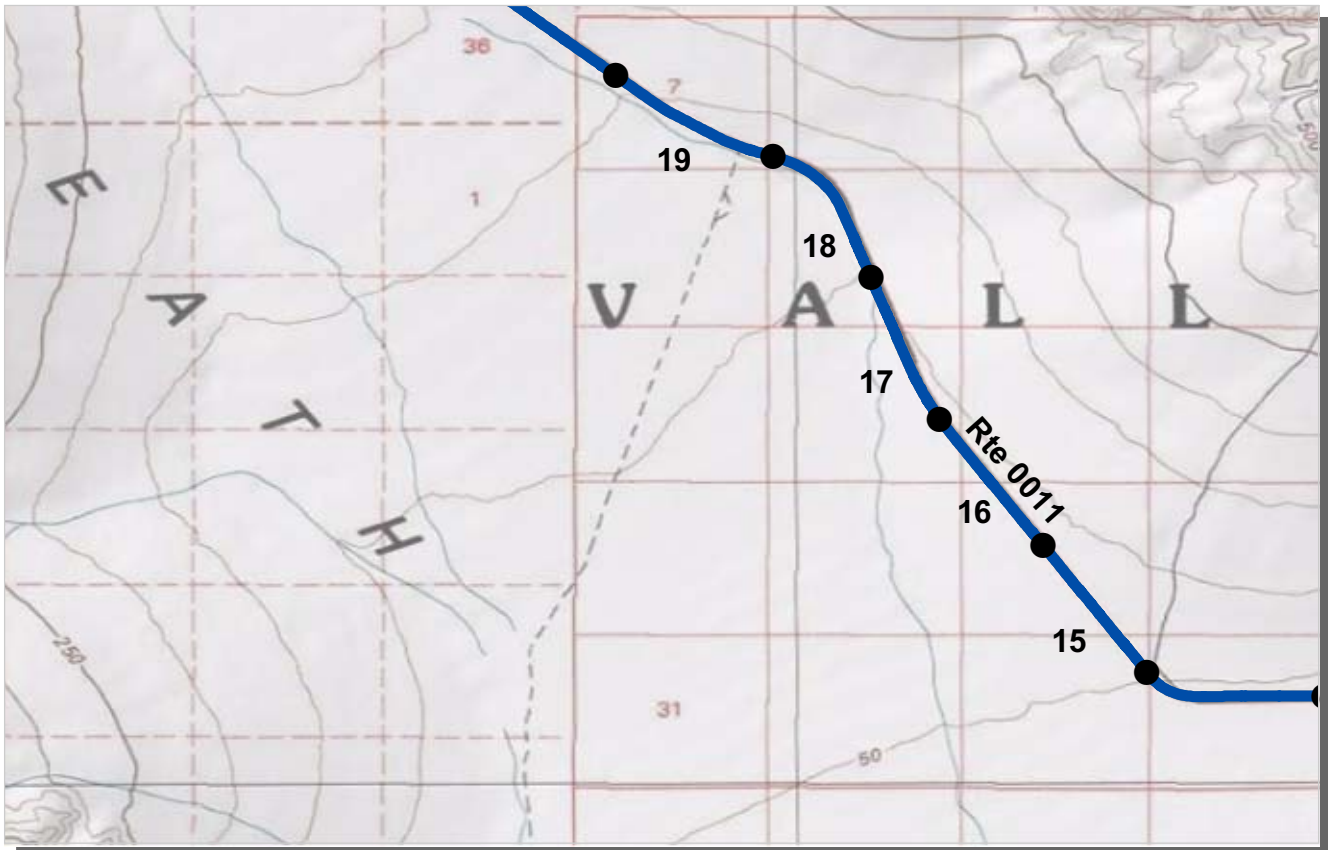
NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable



ROUTE: 0011 SCOTTYS CASTLE (BONNIE CLAIRE) ROAD



PCR Poor ■ Fair ■ Good ■ Excellent ■ No Data ■
 (0 - 60) (61 - 84) (85 - 94) (95 - 100)

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

ROUTE: 0011 SCOTTYS CASTLE (BONNIE CLAIRE) ROAD
DEVA : DEATH VALLEY NATIONAL PARK

COLLECTED: 6/5/2012
TOTAL LENGTH: 41.25 Miles

PACIFIC WEST REGION

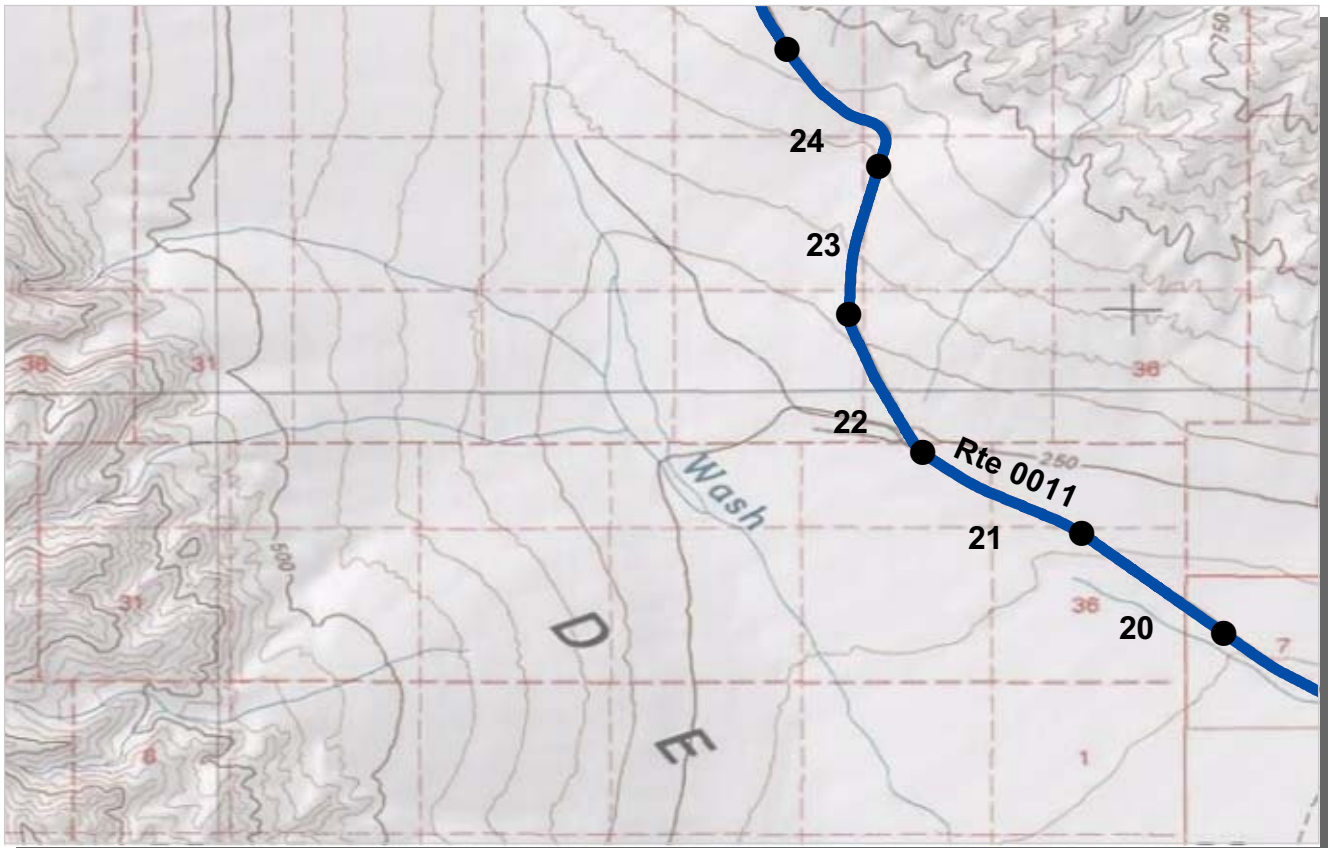
<i>Section Number</i>	15	16	17	18	19
<i>Section Length (mi)</i>	1.00	1.00	1.00	1.00	1.00
<i>Cross Section Information</i>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	19	20	20	20	20
Lane Width (ft)	9	9	10	9	9
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	100	100	100	100	100
PCR (Pavement Condition Rating)	100	100	100	100	100
<i>Distress Index Values</i>					
Structural Crack Index	100	100	100	100	100
Transverse Cracking Index	100	100	100	100	100
Patching Index	100	100	100	100	100
Rutting Index	100	100	100	100	100
Roughness Condition Index (RCI)	100	100	100	100	100

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

ROUTE: 0011 SCOTTYS CASTLE (BONNIE CLAIRE) ROAD



PCR Poor ■ Fair ■ Good ■ Excellent ■ No Data ■
 (0 - 60) (61 - 84) (85 - 94) (95 - 100)

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

ROUTE: 0011 SCOTTYS CASTLE (BONNIE CLAIRE) ROAD
DEVA : DEATH VALLEY NATIONAL PARK

COLLECTED: 6/5/2012
TOTAL LENGTH: 41.25 Miles

PACIFIC WEST REGION

<i>Section Number</i>	20	21	22	23	24
<i>Section Length (mi)</i>	1.00	1.00	1.00	1.00	1.00
<i>Cross Section Information</i>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	20	20	20	20	21
Lane Width (ft)	10	10	10	9	10
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	100	100	100	100	100
PCR (Pavement Condition Rating)	100	100	100	100	100
<i>Distress Index Values</i>					
Structural Crack Index	100	100	100	100	100
Transverse Cracking Index	100	100	100	100	100
Patching Index	100	100	100	100	100
Rutting Index	100	100	100	100	100
Roughness Condition Index (RCI)	100	100	100	100	100

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

ROUTE: 0011 SCOTTYS CASTLE (BONNIE CLAIRE) ROAD



PCR Poor ■ Fair ■ Good ■ Excellent ■ No Data ■
 (0 - 60) (61 - 84) (85 - 94) (95 - 100)

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

ROUTE: 0011 SCOTTYS CASTLE (BONNIE CLAIRE) ROAD
DEVA : DEATH VALLEY NATIONAL PARK

COLLECTED: 6/5/2012
TOTAL LENGTH: 41.25 Miles

PACIFIC WEST REGION

<i>Section Number</i>	25	26	27	28	29
<i>Section Length (mi)</i>	1.00	1.00	1.00	1.00	1.00
<i>Cross Section Information</i>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	21	22	20	21	21
Lane Width (ft)	10	10	9	10	10
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	100	100	100	100	100
PCR (Pavement Condition Rating)	100	100	100	100	100
<i>Distress Index Values</i>					
Structural Crack Index	100	100	100	100	100
Transverse Cracking Index	100	100	100	100	100
Patching Index	100	100	100	100	100
Rutting Index	100	100	100	100	100
Roughness Condition Index (RCI)	100	100	100	100	100

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable



ROUTE: 0011 SCOTTYS CASTLE (BONNIE CLAIRE) ROAD



PCR Poor ■ Fair ■ Good ■ Excellent ■ No Data ■
 (0 - 60) (61 - 84) (85 - 94) (95 - 100)

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

ROUTE: 0011 SCOTTYS CASTLE (BONNIE CLAIRE) ROAD
DEVA : DEATH VALLEY NATIONAL PARK

COLLECTED: 6/5/2012
TOTAL LENGTH: 41.25 Miles

PACIFIC WEST REGION

<i>Section Number</i>	30	31	32	33	34
<i>Section Length (mi)</i>	1.00	1.00	1.00	1.00	1.00
<i>Cross Section Information</i>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	20	21	22	24	22
Lane Width (ft)	9	10	10	9	10
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	100	100	100	66	40
PCR (Pavement Condition Rating)	100	100	100	79	57
<i>Distress Index Values</i>					
Structural Crack Index	100	100	100	83	50
Transverse Cracking Index	100	100	100	66	40
Patching Index	100	100	100	100	100
Rutting Index	100	100	100	97	94
Roughness Condition Index (RCI)	100	100	100	98	82

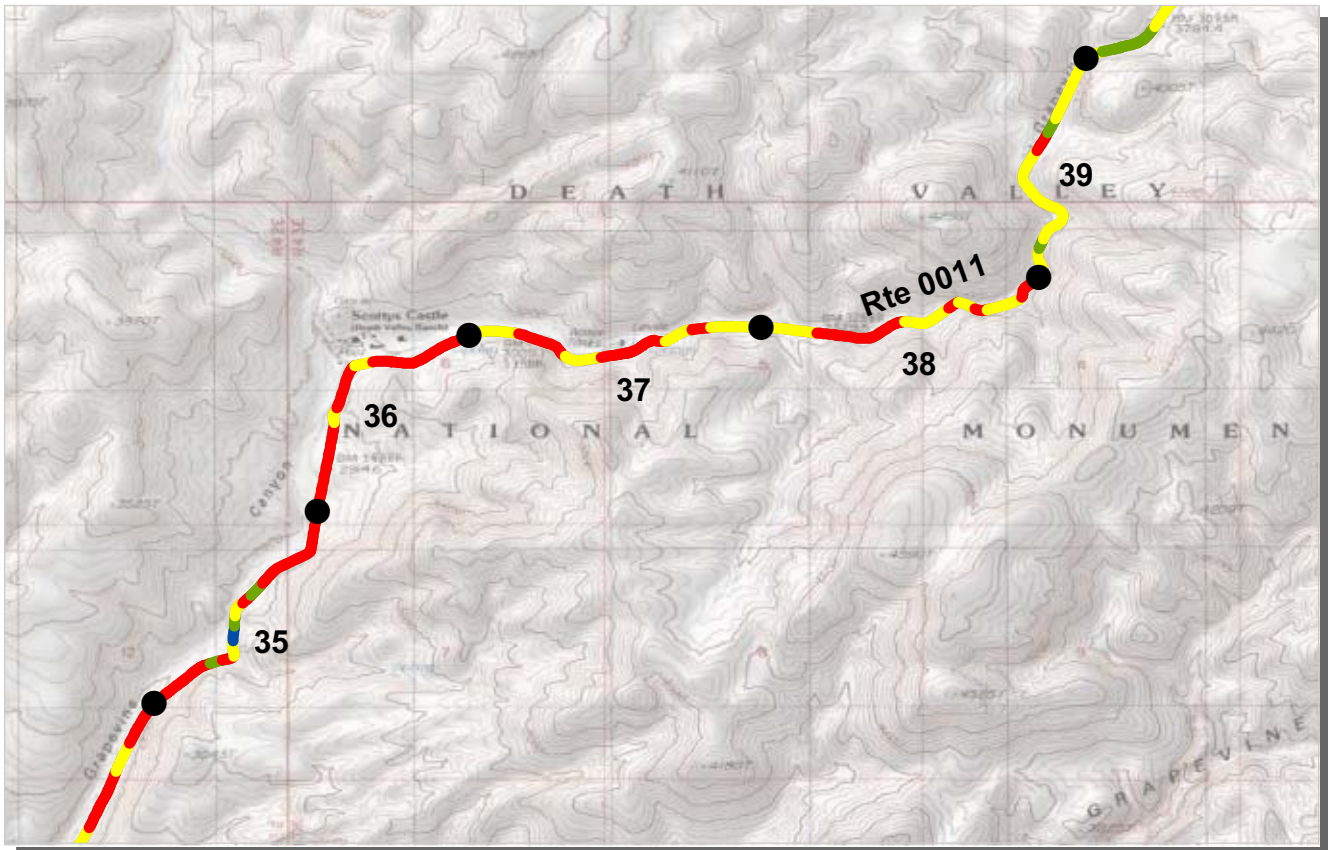
NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable



ROUTE: 0011 SCOTTYS CASTLE (BONNIE CLAIRE) ROAD



PCR Poor ■ Fair ■ Good ■ Excellent ■ No Data ■
 (0 - 60) (61 - 84) (85 - 94) (95 - 100)

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

ROUTE: 0011 SCOTTYS CASTLE (BONNIE CLAIRE) ROAD
DEVA : DEATH VALLEY NATIONAL PARK

COLLECTED: 6/5/2012
TOTAL LENGTH: 41.25 Miles

PACIFIC WEST REGION

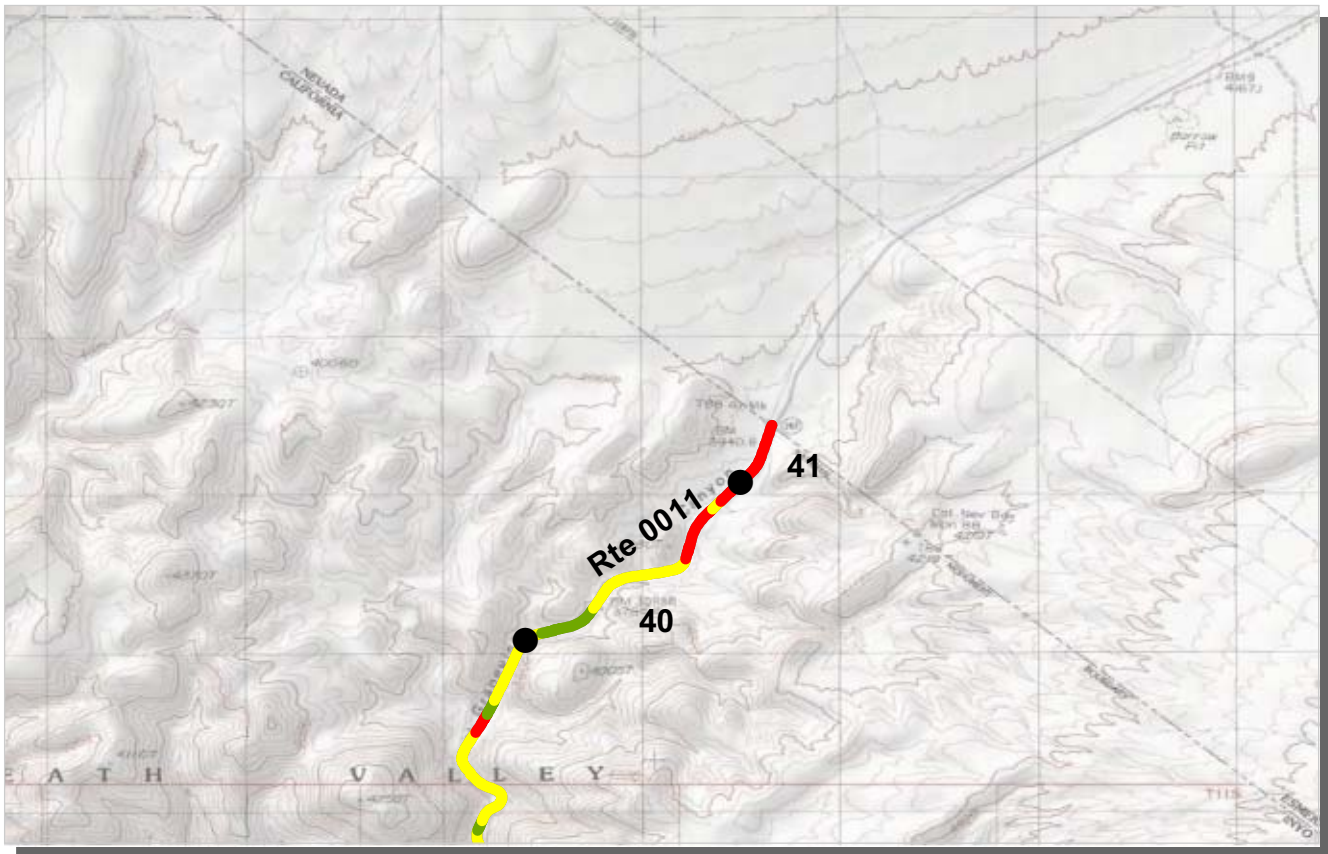
<i>Section Number</i>	35	36	37	38	39
<i>Section Length (mi)</i>	1.00	1.00	1.00	1.00	1.00
<i>Cross Section Information</i>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	20	20	21	21	21
Lane Width (ft)	10	9	9	9	9
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	17	0	47	40	86
PCR (Pavement Condition Rating)	42	28	53	51	77
<i>Distress Index Values</i>					
Structural Crack Index	17	0	47	40	86
Transverse Cracking Index	78	85	70	74	89
Patching Index	100	100	100	100	100
Rutting Index	93	91	90	89	92
Roughness Condition Index (RCI)	79	69	62	67	63

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

ROUTE: 0011 SCOTTYS CASTLE (BONNIE CLAIRE) ROAD



PCR Poor ■ Fair ■ Good ■ Excellent ■ No Data ■
 (0 - 60) (61 - 84) (85 - 94) (95 - 100)

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

ROUTE: 0011 SCOTTYS CASTLE (BONNIE CLAIRE) ROAD
DEVA : DEATH VALLEY NATIONAL PARK

COLLECTED: 6/5/2012
TOTAL LENGTH: 41.25 Miles

PACIFIC WEST REGION

<i>Section Number</i>	40	41			
<i>Section Length (mi)</i>	1.00	0.25			
<i>Cross Section Information</i>					
Number of Lanes	2	2			
Paved Width (ft)	22	22			
Lane Width (ft)	10	10			
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	55	45			
PCR (Pavement Condition Rating)	61	56			
<i>Distress Index Values</i>					
Structural Crack Index	55	50			
Transverse Cracking Index	82	45			
Patching Index	100	100			
Rutting Index	90	90			
Roughness Condition Index (RCI)	69	72			

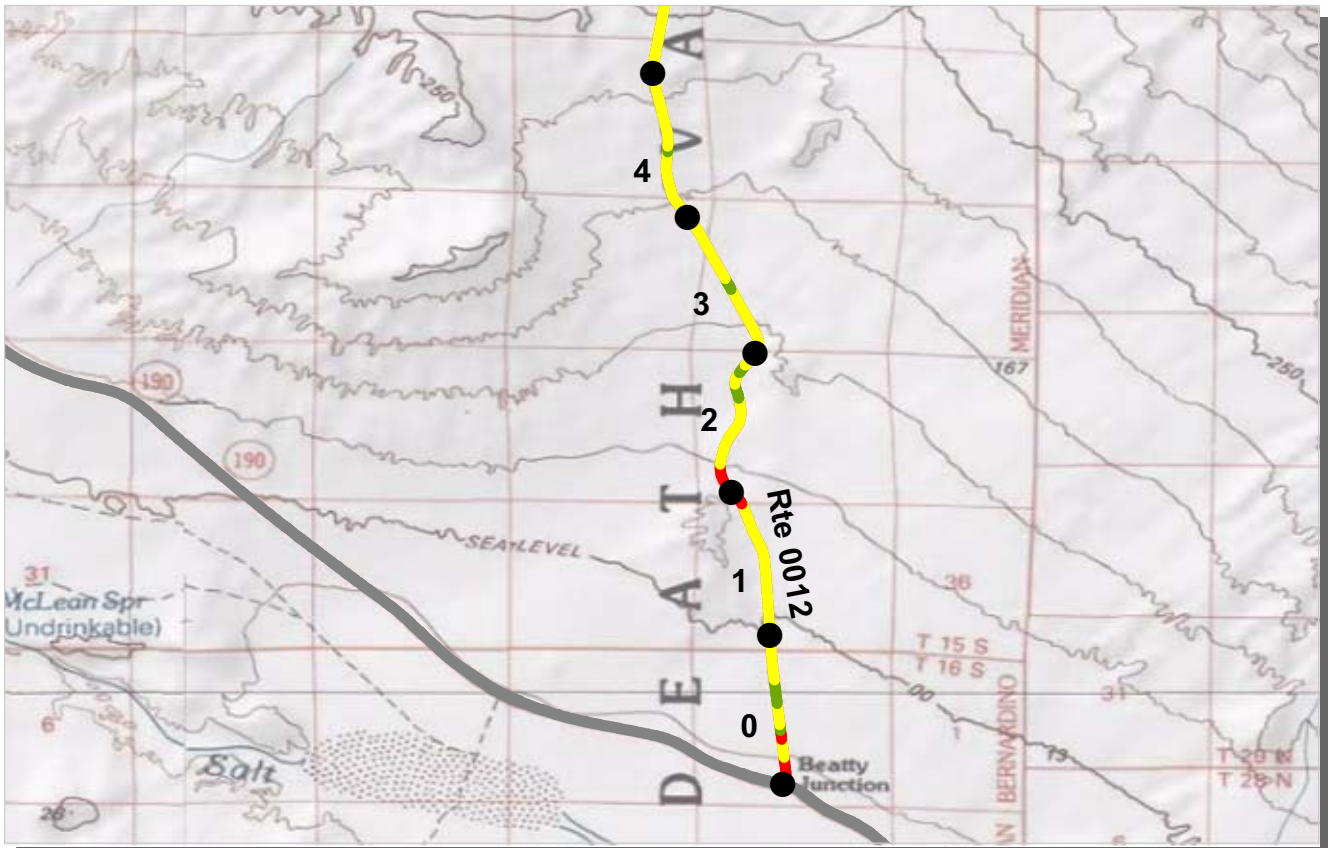
NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable



ROUTE: 0011 SCOTTYS CASTLE (BONNIE CLAIRE) ROAD



PCR Poor ■ Fair ■ Good ■ Excellent ■ No Data ■
 (0 - 60) (61 - 84) (85 - 94) (95 - 100)

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

ROUTE: 0012 BEATTY CUTOFF ROAD
DEVA : DEATH VALLEY NATIONAL PARK

COLLECTED: 6/5/2012
TOTAL LENGTH: 10.07 Miles

PACIFIC WEST REGION

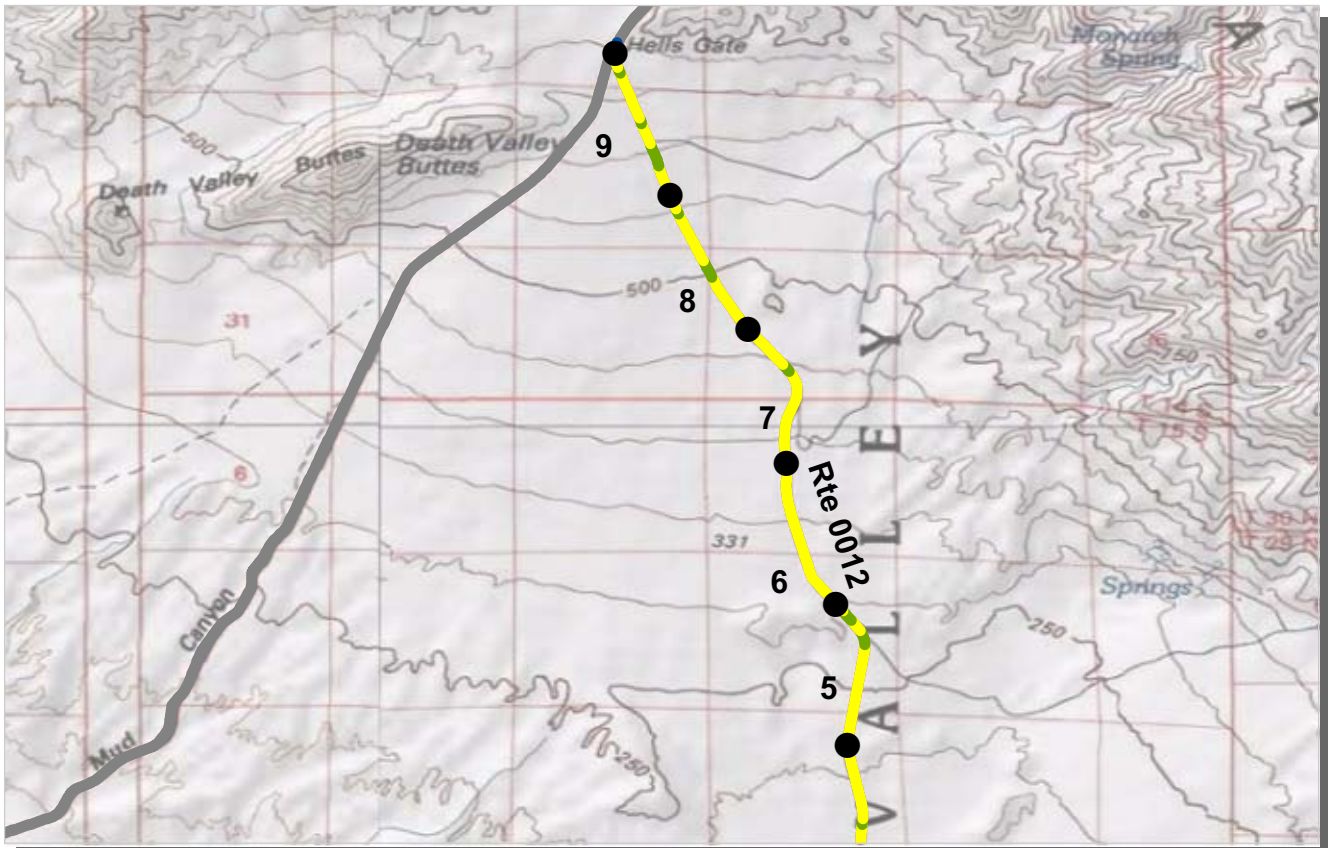
<i>Section Number</i>	0	1	2	3	4
<i>Section Length (mi)</i>	1.00	1.00	1.00	1.00	1.00
<i>Cross Section Information</i>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	20	19	20	19	20
Lane Width (ft)	10	9	9	9	10
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	75	81	81	84	85
PCR (Pavement Condition Rating)	75	77	79	77	79
<i>Distress Index Values</i>					
Structural Crack Index	75	85	81	86	98
Transverse Cracking Index	83	81	82	84	85
Patching Index	100	99	100	100	100
Rutting Index	87	85	88	90	89
Roughness Condition Index (RCI)	76	72	75	67	69

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

ROUTE: 0012 BEATTY CUTOFF ROAD



PCR Poor ■ Fair ■ Good ■ Excellent ■ No Data ■
 (0 - 60) (61 - 84) (85 - 94) (95 - 100)

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

ROUTE: 0012 BEATTY CUTOFF ROAD
DEVA : DEATH VALLEY NATIONAL PARK

COLLECTED: 6/5/2012
TOTAL LENGTH: 10.07 Miles

PACIFIC WEST REGION

<i>Section Number</i>	5	6	7	8	9
<i>Section Length (mi)</i>	1.00	1.00	1.00	1.00	1.00
<i>Cross Section Information</i>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	20	21	21	20	20
Lane Width (ft)	9	9	10	10	10
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	89	85	87	85	86
PCR (Pavement Condition Rating)	79	77	81	83	82
<i>Distress Index Values</i>					
Structural Crack Index	95	95	95	97	96
Transverse Cracking Index	89	88	88	89	90
Patching Index	99	100	100	100	100
Rutting Index	90	85	87	85	86
Roughness Condition Index (RCI)	65	66	73	79	76

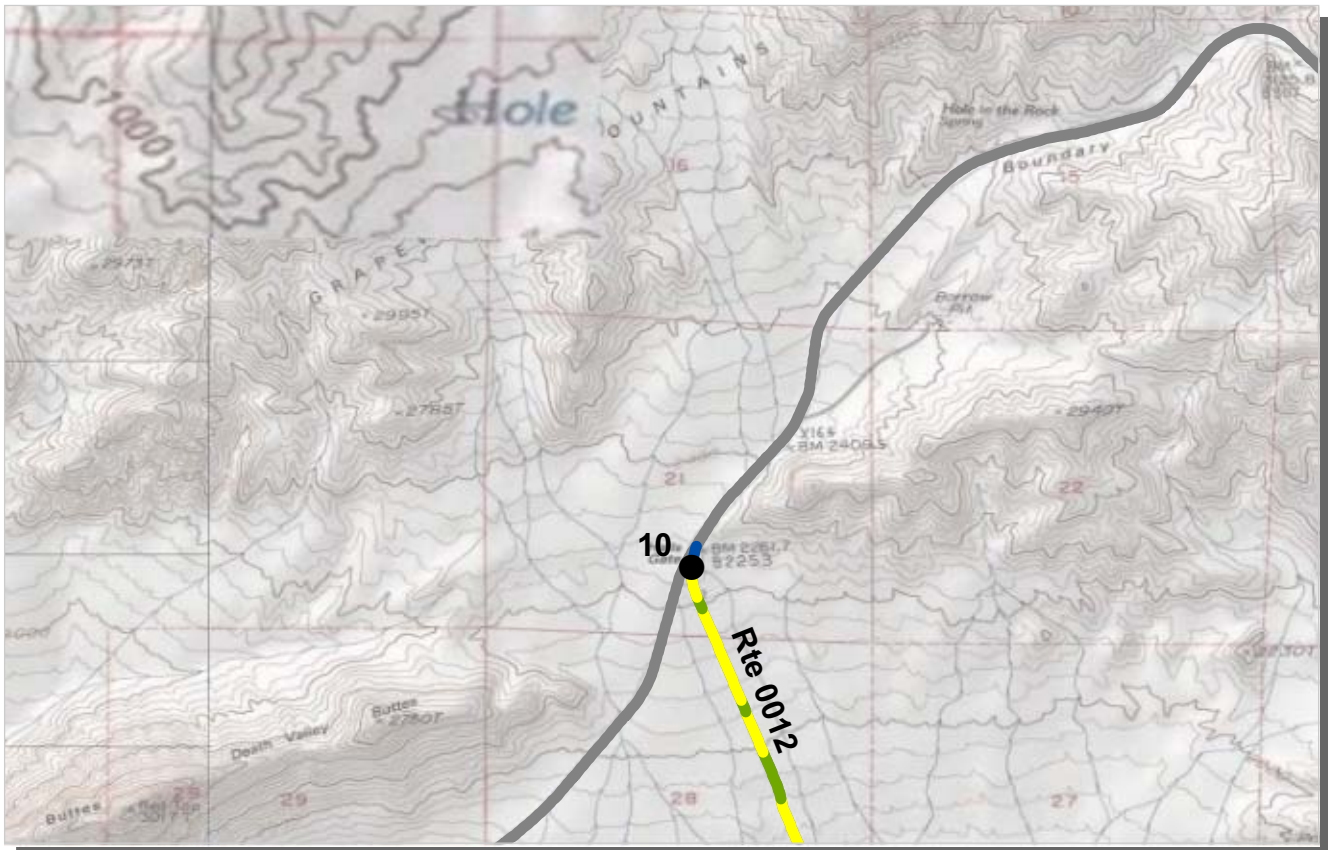
NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable



ROUTE: 0012 BEATTY CUTOFF ROAD



PCR Poor ■ Fair ■ Good ■ Excellent ■ No Data ■
 (0 - 60) (61 - 84) (85 - 94) (95 - 100)

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

ROUTE: 0012 BEATTY CUTOFF ROAD
DEVA : DEATH VALLEY NATIONAL PARK

COLLECTED: 6/5/2012
TOTAL LENGTH: 10.07 Miles

PACIFIC WEST REGION

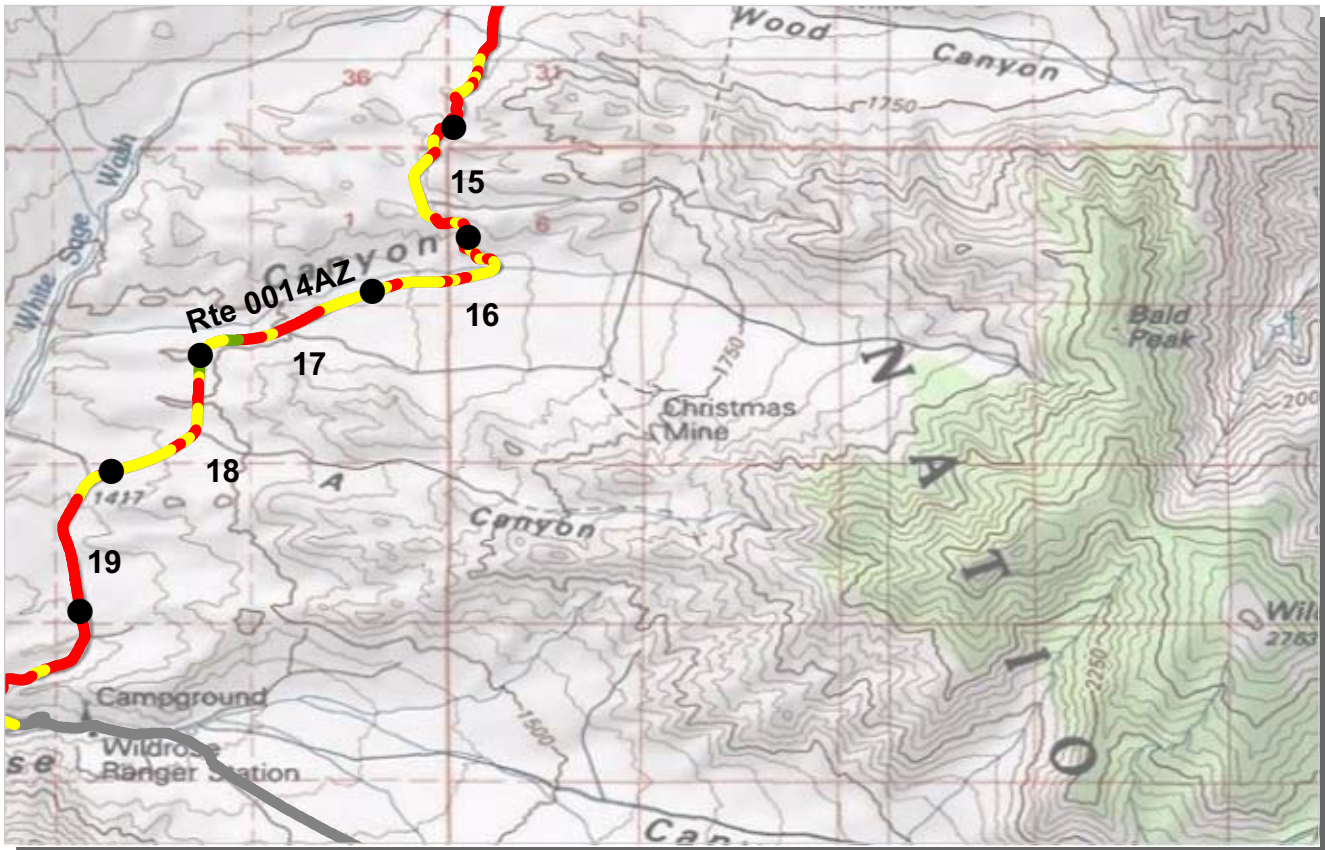
Section Number	10				
Section Length (mi)	0.07				
Cross Section Information					
Number of Lanes	2				
Paved Width (ft)	24				
Lane Width (ft)	10				
Roadway Condition Information					
SCR (Surface Condition Rating)	97				
PCR (Pavement Condition Rating)	91				
Distress Index Values					
Structural Crack Index	100				
Transverse Cracking Index	100				
Patching Index	100				
Rutting Index	97				
Roughness Condition Index (RCI)	81				

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

ROUTE: 0012 BEATTY CUTOFF ROAD



PCR Poor ■ (0 - 60) Fair ■ (61 - 84) Good ■ (85 - 94) Excellent ■ (95 - 100) No Data ■

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

ROUTE: 0014AZ EMIGRANT CANYON ROAD (SECTION A)
DEVA : DEATH VALLEY NATIONAL PARK

Subcomponent Record

PACIFIC WEST REGION

COLLECTED: 6/6/2012
 TOTAL LENGTH: 21.25 Miles

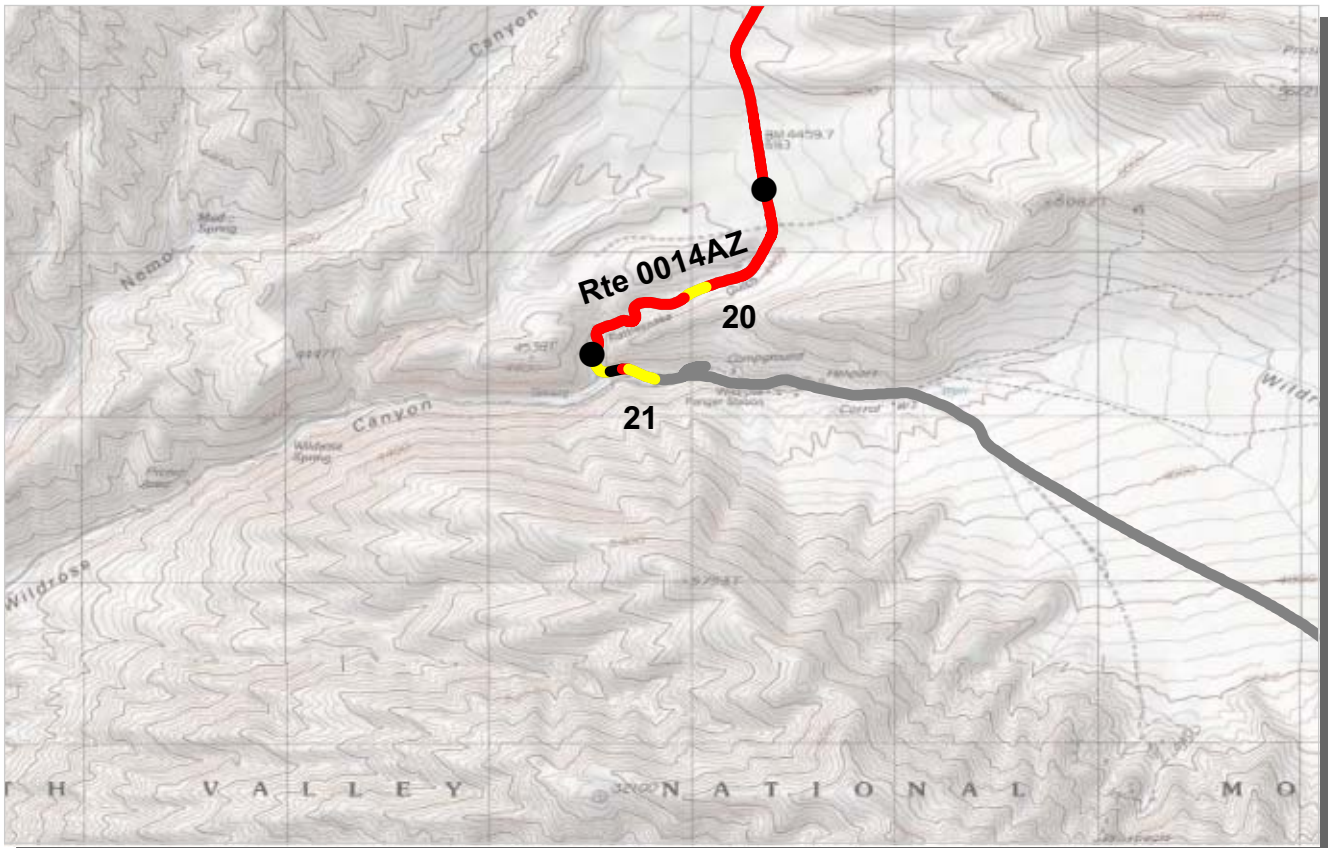
Section Number	15	16	17	18	19
Section Length (mi)	1.00	1.00	1.00	1.00	1.00
Cross Section Information					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	20	20	20	21	21
Lane Width (ft)	10	10	10	10	10
Roadway Condition Information					
SCR (Surface Condition Rating)	69	71	59	67	24
PCR (Pavement Condition Rating)	60	65	59	67	37
Distress Index Values					
Structural Crack Index	69	71	59	67	24
Transverse Cracking Index	92	88	88	92	95
Patching Index	100	100	100	100	100
Rutting Index	83	87	84	87	85
Roughness Condition Index (RCI)	46	55	58	68	57

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

ROUTE: 0014AZ EMIGRANT CANYON ROAD (SECTION A)



PCR	Poor	Fair	Good	Excellent	No Data
	(0 - 60)	(61 - 84)	(85 - 94)	(95 - 100)	

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

ROUTE: 0014AZ EMIGRANT CANYON ROAD (SECTION A)
DEVA : DEATH VALLEY NATIONAL PARK

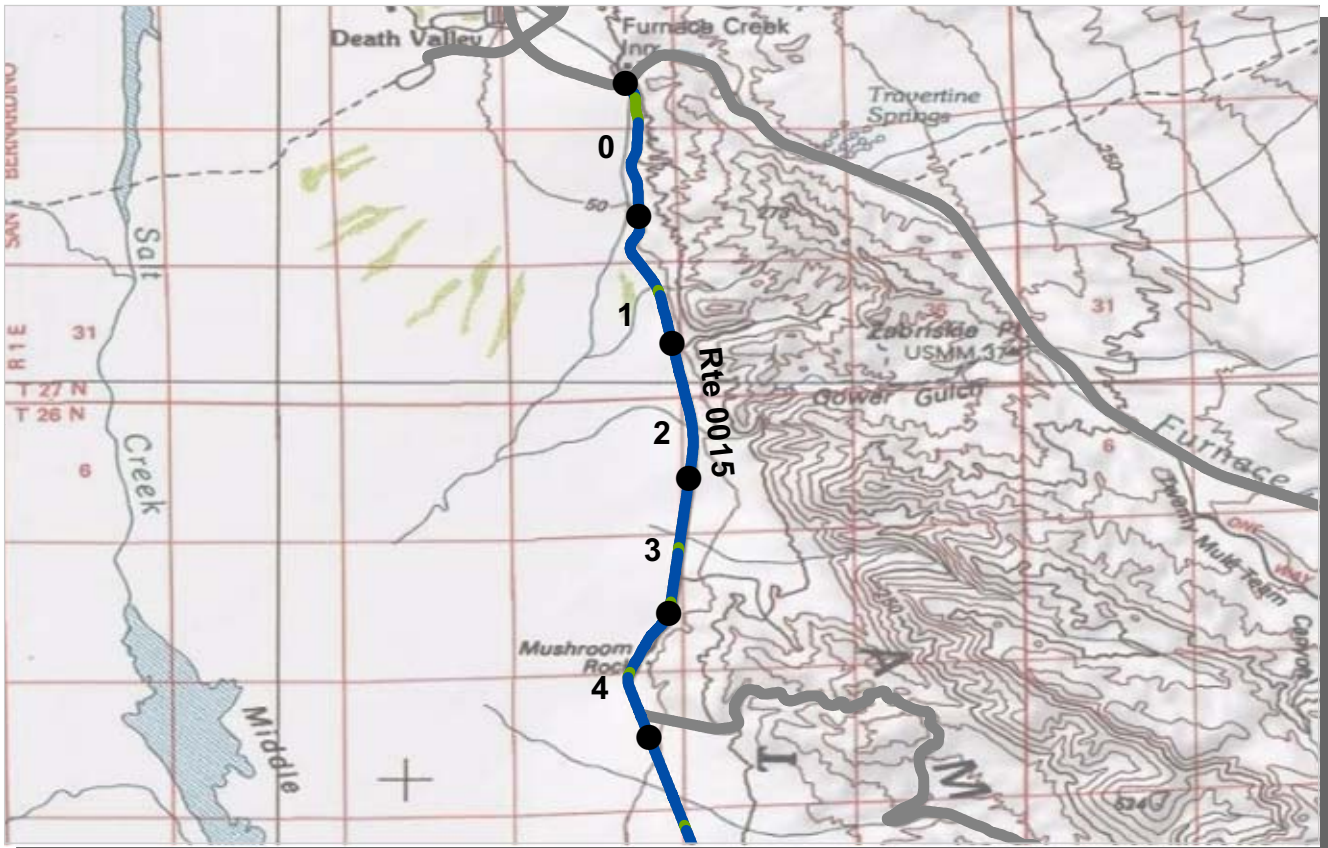
Subcomponent Record COLLECTED: 6/6/2012
PACIFIC WEST REGION TOTAL LENGTH: 21.25 Miles

Section Number	20	21			
Section Length (mi)	1.00	0.25			
Cross Section Information					
Number of Lanes	2	2			
Paved Width (ft)	20	20			
Lane Width (ft)	10	9			
Roadway Condition Information					
SCR (Surface Condition Rating)	17	81			
PCR (Pavement Condition Rating)	34	73			
Distress Index Values					
Structural Crack Index	17	81			
Transverse Cracking Index	96	90			
Patching Index	100	100			
Rutting Index	88	92			
Roughness Condition Index (RCI)	60	60			

NOTES:
 Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.
 NC - Not Collected N/A - Not Applicable



ROUTE: 0014AZ EMIGRANT CANYON ROAD (SECTION A)



PCR Poor ■ Fair ■ Good ■ Excellent ■ No Data ■
 (0 - 60) (61 - 84) (85 - 94) (95 - 100)

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

ROUTE: 0015 BADWATER ROAD
DEVA : DEATH VALLEY NATIONAL PARK

COLLECTED: 6/7/2012
TOTAL LENGTH: 56.28 Miles

PACIFIC WEST REGION

<i>Section Number</i>	0	1	2	3	4
<i>Section Length (mi)</i>	1.00	1.00	1.00	1.00	1.00
<i>Cross Section Information</i>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	26	25	25	24	25
Lane Width (ft)	10	10	10	10	10
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	98	99	99	99	99
PCR (Pavement Condition Rating)	98	99	99	99	98
<i>Distress Index Values</i>					
Structural Crack Index	100	100	100	100	100
Transverse Cracking Index	100	100	99	100	100
Patching Index	100	100	100	100	100
Rutting Index	98	99	99	99	99
Roughness Condition Index (RCI)	97	100	100	100	97

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

ROUTE: 0015 BADWATER ROAD



PCR Poor ■ (0 - 60) Fair ■ (61 - 84) Good ■ (85 - 94) Excellent ■ (95 - 100) No Data ■

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

ROUTE: 0015 BADWATER ROAD
DEVA : DEATH VALLEY NATIONAL PARK

COLLECTED: 6/7/2012
TOTAL LENGTH: 56.28 Miles

PACIFIC WEST REGION

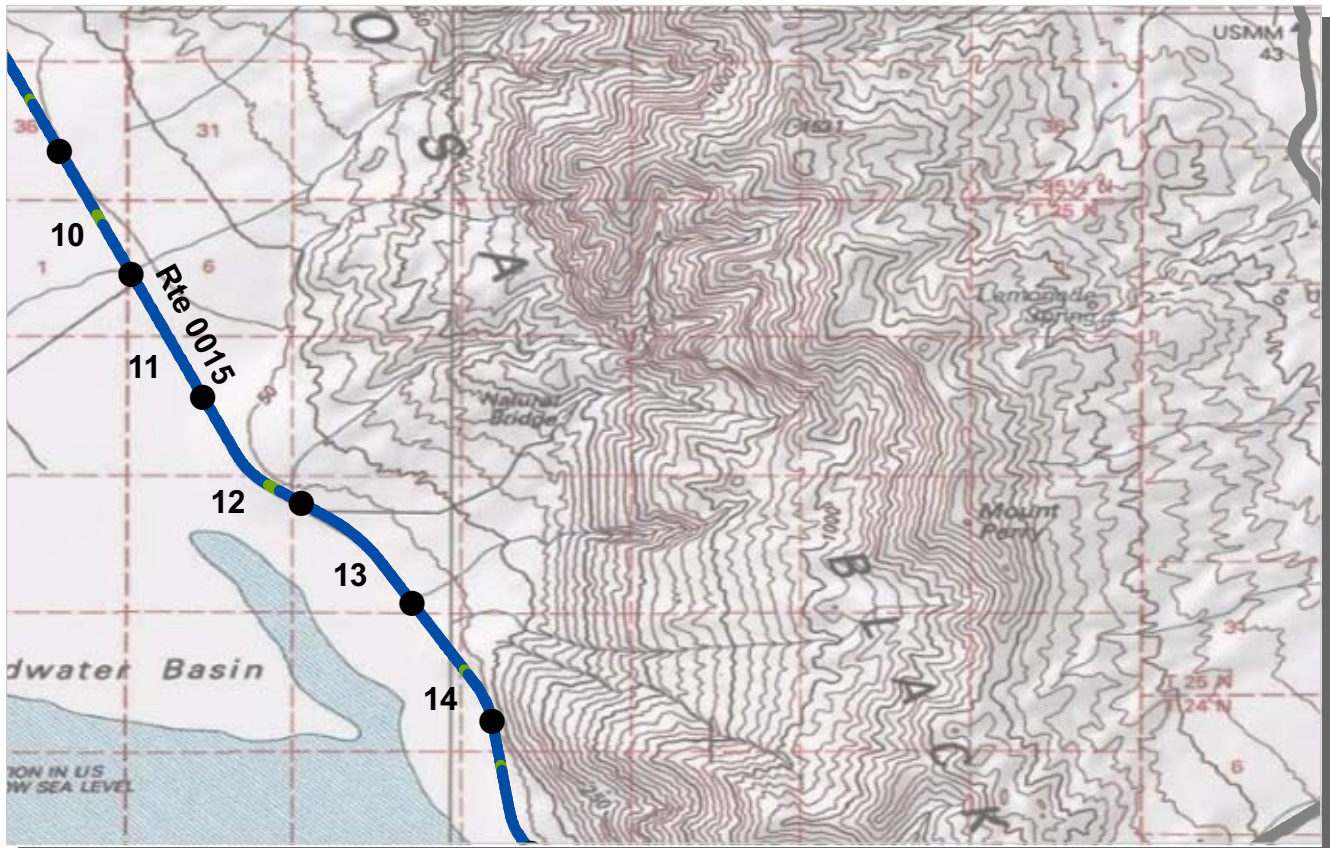
<i>Section Number</i>	5	6	7	8	9
<i>Section Length (mi)</i>	1.00	1.00	1.00	1.00	1.00
<i>Cross Section Information</i>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	25	25	25	26	25
Lane Width (ft)	10	10	10	10	10
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	98	99	99	98	97
PCR (Pavement Condition Rating)	99	99	99	99	98
<i>Distress Index Values</i>					
Structural Crack Index	100	100	100	100	100
Transverse Cracking Index	100	100	100	100	100
Patching Index	100	100	100	100	100
Rutting Index	98	99	99	98	97
Roughness Condition Index (RCI)	100	100	100	100	100

ROUTE: 0015 BADWATER ROAD

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable



PCR Poor ■ Fair ■ Good ■ Excellent ■ No Data ■
 (0 - 60) (61 - 84) (85 - 94) (95 - 100)

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

ROUTE: 0015 BADWATER ROAD
DEVA : DEATH VALLEY NATIONAL PARK

COLLECTED: 6/7/2012
TOTAL LENGTH: 56.28 Miles

PACIFIC WEST REGION

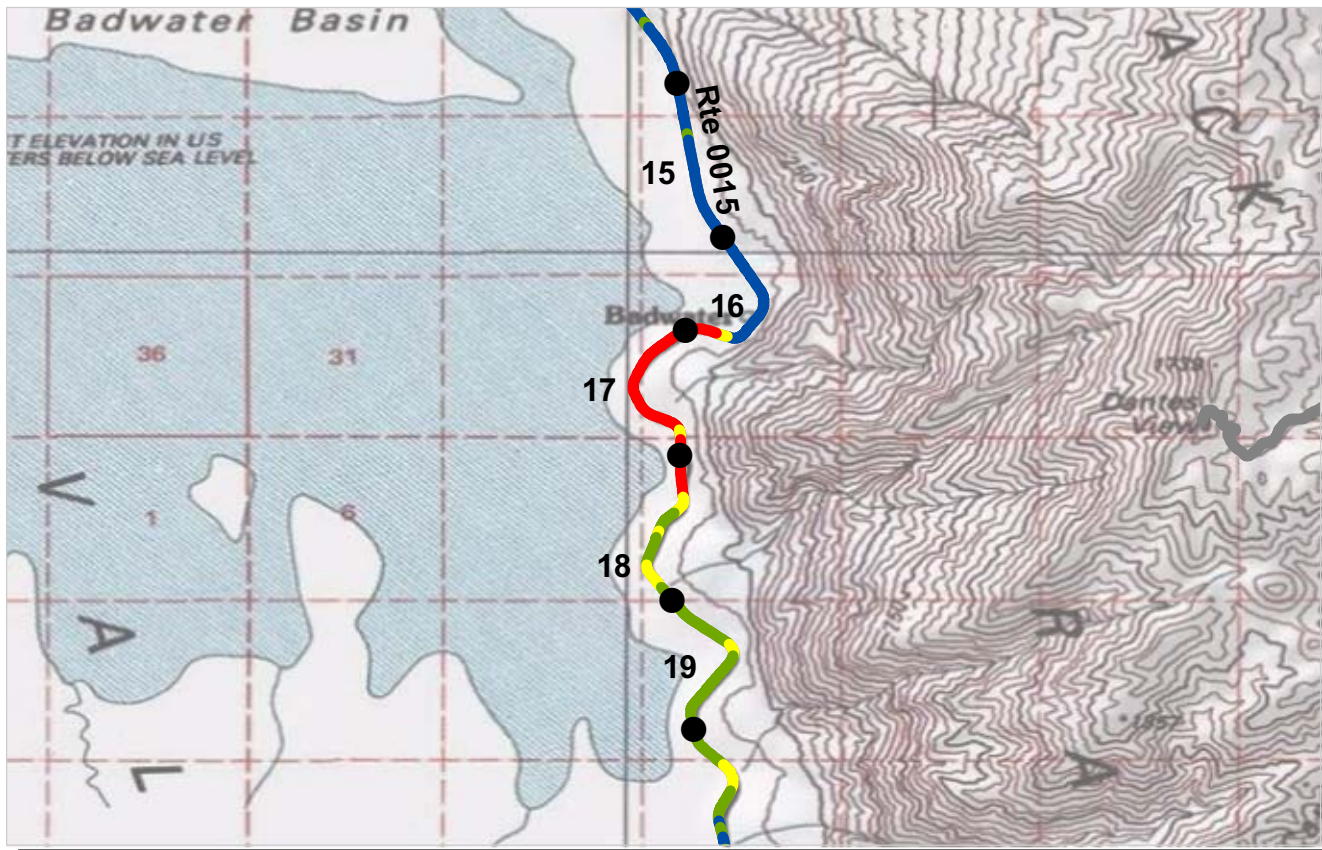
<i>Section Number</i>	10	11	12	13	14
<i>Section Length (mi)</i>	1.00	1.00	1.00	1.00	1.00
<i>Cross Section Information</i>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	25	26	26	26	25
Lane Width (ft)	10	10	10	10	10
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	97	99	99	99	98
PCR (Pavement Condition Rating)	98	99	99	99	99
<i>Distress Index Values</i>					
Structural Crack Index	100	100	100	100	100
Transverse Cracking Index	99	100	100	100	100
Patching Index	100	100	100	100	100
Rutting Index	97	99	99	99	98
Roughness Condition Index (RCI)	100	100	100	100	100

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

ROUTE: 0015 BADWATER ROAD



PCR Poor ■ Fair ■ Good ■ Excellent ■ No Data ■
 (0 - 60) (61 - 84) (85 - 94) (95 - 100)

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

ROUTE: 0015 BADWATER ROAD
DEVA : DEATH VALLEY NATIONAL PARK

COLLECTED: 6/7/2012
TOTAL LENGTH: 56.28 Miles

PACIFIC WEST REGION

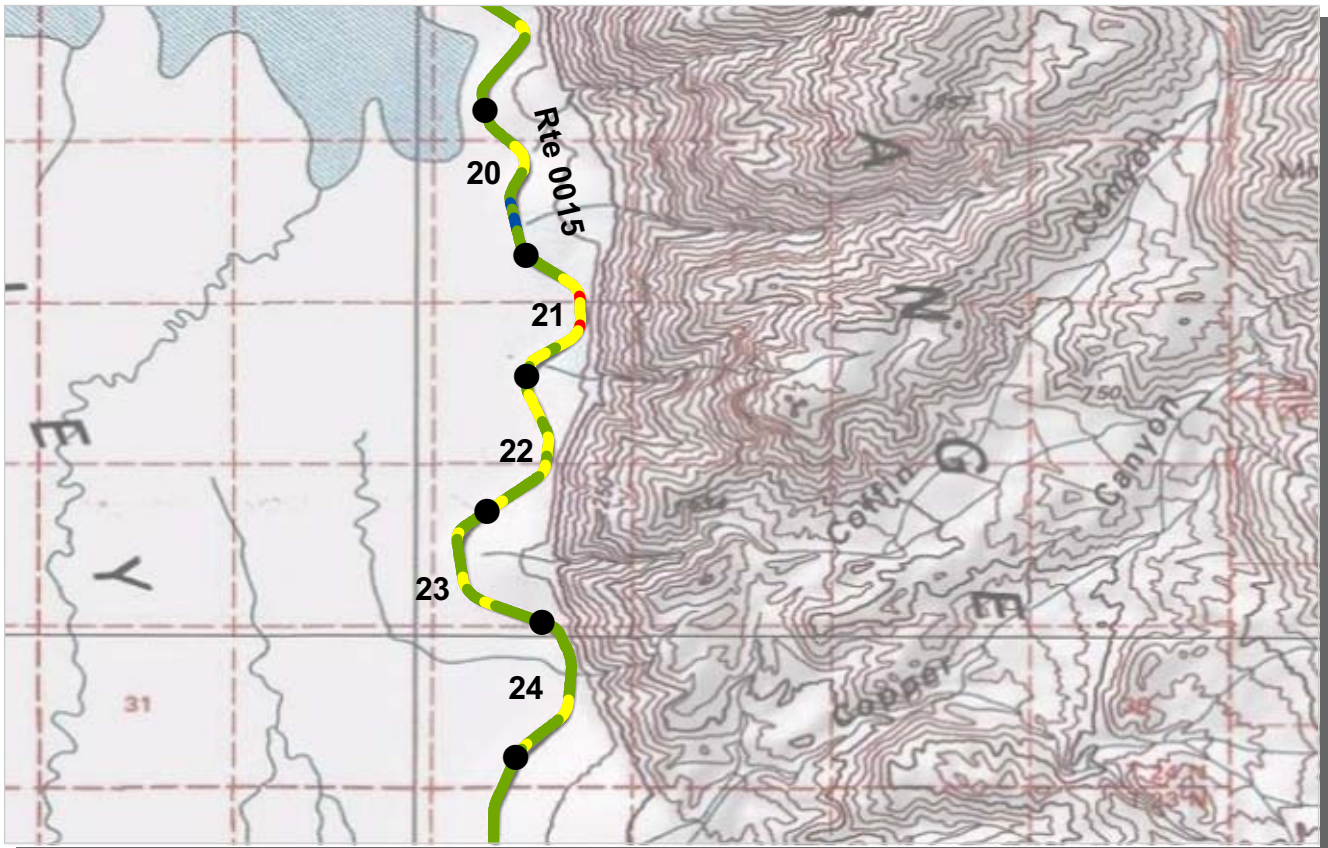
<i>Section Number</i>	15	16	17	18	19
<i>Section Length (mi)</i>	1.00	1.00	1.00	1.00	1.00
<i>Cross Section Information</i>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	25	25	20	20	20
Lane Width (ft)	10	10	9	10	9
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	98	84	19	75	83
PCR (Pavement Condition Rating)	99	90	42	79	89
<i>Distress Index Values</i>					
Structural Crack Index	100	84	19	75	96
Transverse Cracking Index	100	98	94	85	83
Patching Index	100	100	100	100	100
Rutting Index	98	99	96	98	99
Roughness Condition Index (RCI)	100	98	77	86	97

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

ROUTE: 0015 BADWATER ROAD



PCR Poor ■ Fair ■ Good ■ Excellent ■ No Data ■
 (0 - 60) (61 - 84) (85 - 94) (95 - 100)

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

ROUTE: 0015 BADWATER ROAD
DEVA : DEATH VALLEY NATIONAL PARK

COLLECTED: 6/7/2012
TOTAL LENGTH: 56.28 Miles

PACIFIC WEST REGION

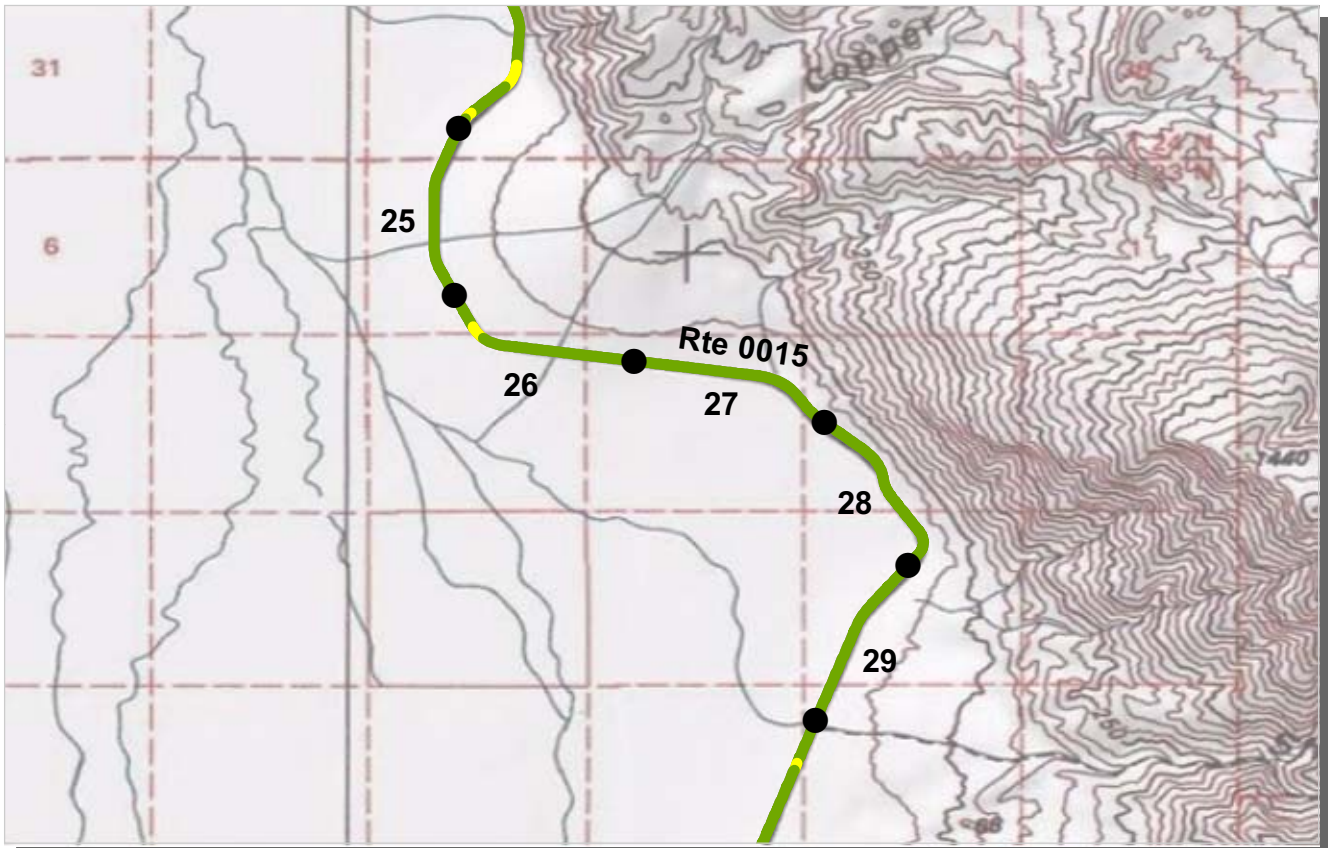
<i>Section Number</i>	20	21	22	23	24
<i>Section Length (mi)</i>	1.00	1.00	1.00	1.00	1.00
<i>Cross Section Information</i>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	20	20	20	20	20
Lane Width (ft)	9	9	9	9	10
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	84	78	82	82	84
PCR (Pavement Condition Rating)	89	83	85	88	88
<i>Distress Index Values</i>					
Structural Crack Index	94	78	90	92	94
Transverse Cracking Index	84	81	82	82	84
Patching Index	100	100	100	100	100
Rutting Index	99	98	99	98	98
Roughness Condition Index (RCI)	96	91	90	96	93

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

ROUTE: 0015 BADWATER ROAD



PCR Poor ■ Fair ■ Good ■ Excellent ■ No Data ■
 (0 - 60) (61 - 84) (85 - 94) (95 - 100)

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

ROUTE: 0015 BADWATER ROAD
DEVA : DEATH VALLEY NATIONAL PARK

COLLECTED: 6/7/2012
TOTAL LENGTH: 56.28 Miles

PACIFIC WEST REGION

<i>Section Number</i>	25	26	27	28	29
<i>Section Length (mi)</i>	1.00	1.00	1.00	1.00	1.00
<i>Cross Section Information</i>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	20	20	20	20	20
Lane Width (ft)	10	9	9	9	9
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	85	85	83	85	84
PCR (Pavement Condition Rating)	91	90	90	91	90
<i>Distress Index Values</i>					
Structural Crack Index	99	98	97	99	97
Transverse Cracking Index	85	85	83	85	84
Patching Index	100	100	100	100	100
Rutting Index	98	99	98	99	99
Roughness Condition Index (RCI)	100	97	100	100	100

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable



ROUTE: 0015 BADWATER ROAD



PCR Poor ■ Fair ■ Good ■ Excellent ■ No Data ■
 (0 - 60) (61 - 84) (85 - 94) (95 - 100)

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

ROUTE: 0015 BADWATER ROAD
DEVA : DEATH VALLEY NATIONAL PARK

COLLECTED: 6/7/2012
TOTAL LENGTH: 56.28 Miles

PACIFIC WEST REGION

<i>Section Number</i>	30	31	32	33	34
<i>Section Length (mi)</i>	1.00	1.00	1.00	1.00	1.00
<i>Cross Section Information</i>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	21	20	21	20	20
Lane Width (ft)	9	9	10	10	10
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	87	85	87	94	93
PCR (Pavement Condition Rating)	91	91	92	92	94
<i>Distress Index Values</i>					
Structural Crack Index	97	96	96	99	100
Transverse Cracking Index	87	85	87	96	99
Patching Index	100	100	100	100	100
Rutting Index	98	99	98	94	93
Roughness Condition Index (RCI)	98	100	100	89	95

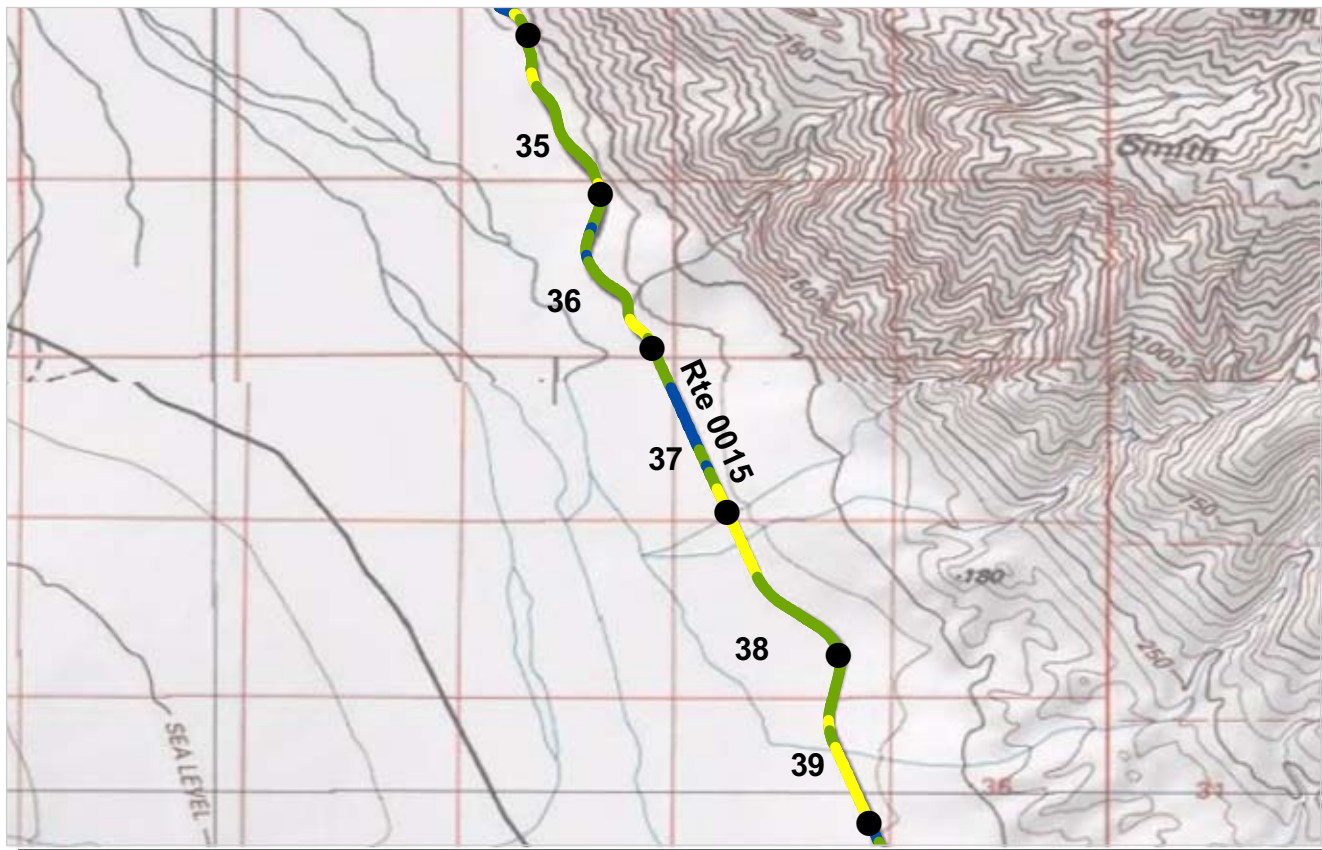
NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable



ROUTE: 0015 BADWATER ROAD



PCR Poor ■ Fair ■ Good ■ Excellent ■ No Data ■
 (0 - 60) (61 - 84) (85 - 94) (95 - 100)

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

ROUTE: 0015 BADWATER ROAD
DEVA : DEATH VALLEY NATIONAL PARK

COLLECTED: 6/7/2012
TOTAL LENGTH: 56.28 Miles

PACIFIC WEST REGION

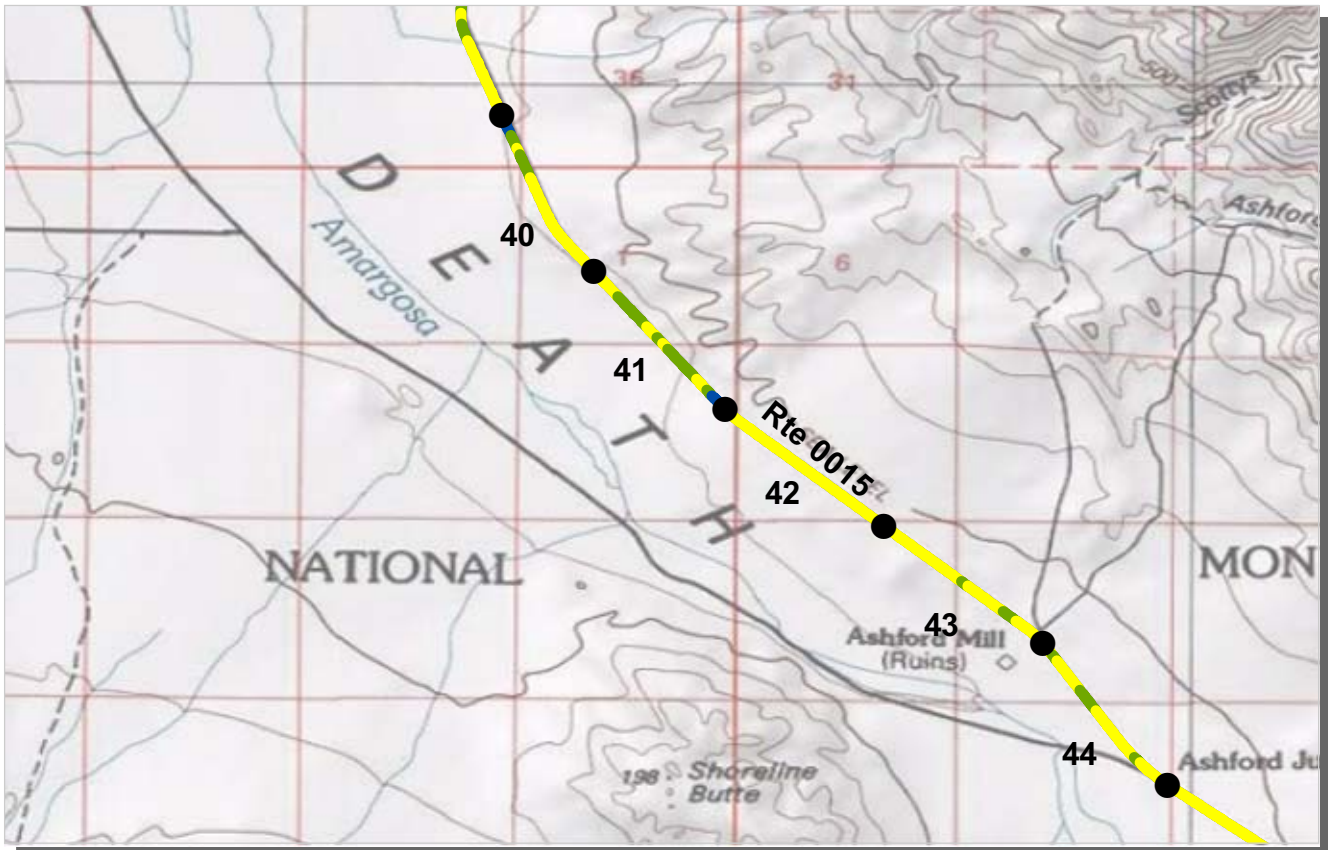
<i>Section Number</i>	35	36	37	38	39
<i>Section Length (mi)</i>	1.00	1.00	1.00	1.00	1.00
<i>Cross Section Information</i>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	21	21	20	20	20
Lane Width (ft)	11	11	10	9	10
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	91	91	93	92	90
PCR (Pavement Condition Rating)	89	88	91	84	80
<i>Distress Index Values</i>					
Structural Crack Index	100	99	100	100	100
Transverse Cracking Index	99	99	98	99	100
Patching Index	100	99	100	100	100
Rutting Index	91	91	93	92	90
Roughness Condition Index (RCI)	85	84	88	73	66

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

ROUTE: 0015 BADWATER ROAD



PCR Poor ■ Fair ■ Good ■ Excellent ■ No Data ■
 (0 - 60) (61 - 84) (85 - 94) (95 - 100)

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

ROUTE: 0015 BADWATER ROAD
DEVA : DEATH VALLEY NATIONAL PARK

COLLECTED: 6/7/2012
TOTAL LENGTH: 56.28 Miles

PACIFIC WEST REGION

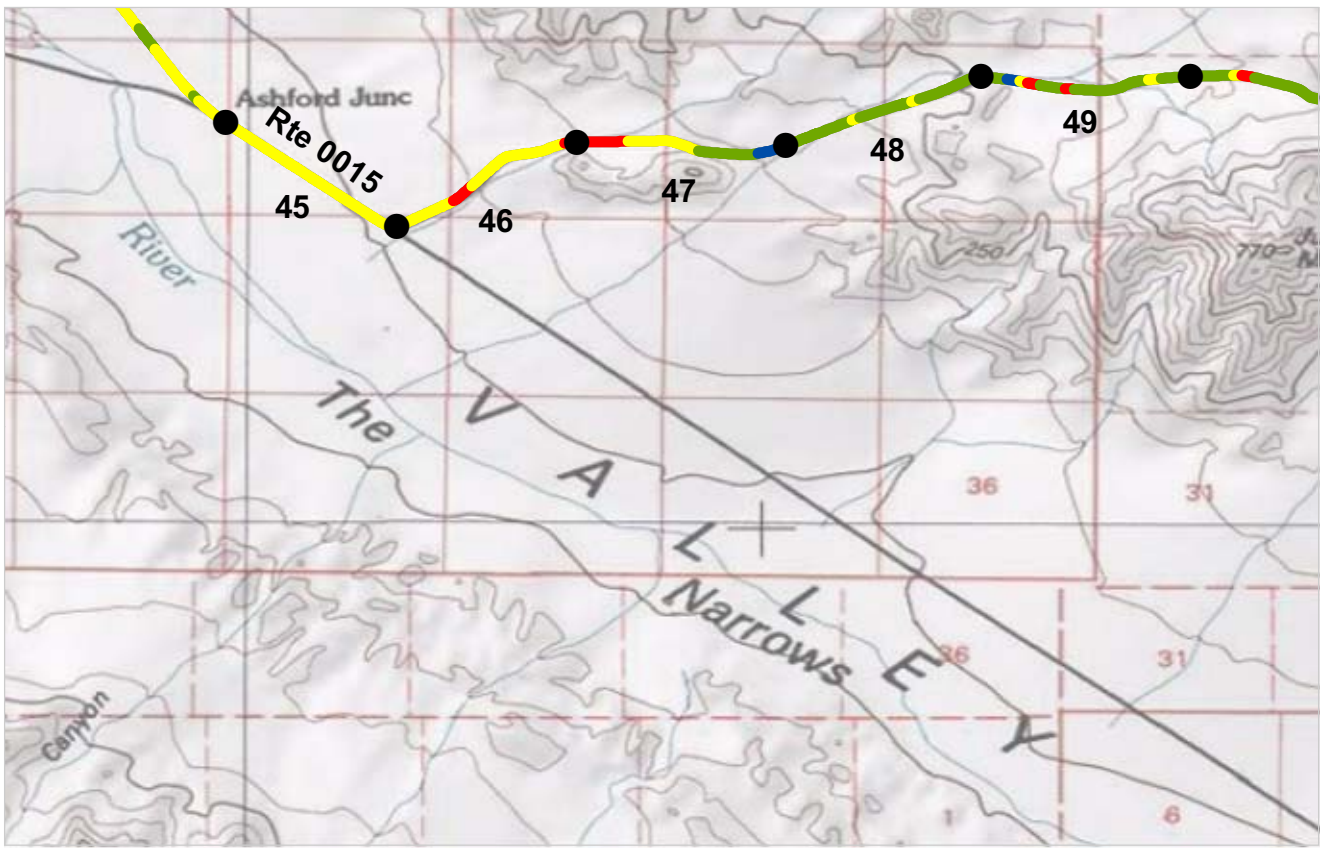
<i>Section Number</i>	40	41	42	43	44
<i>Section Length (mi)</i>	1.00	1.00	1.00	1.00	1.00
<i>Cross Section Information</i>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	20	20	20	21	22
Lane Width (ft)	10	10	10	11	11
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	89	92	90	90	91
PCR (Pavement Condition Rating)	80	86	77	80	81
<i>Distress Index Values</i>					
Structural Crack Index	100	97	94	100	97
Transverse Cracking Index	100	97	94	99	98
Patching Index	100	100	100	100	100
Rutting Index	89	92	90	90	91
Roughness Condition Index (RCI)	67	77	58	64	65

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

ROUTE: 0015 BADWATER ROAD



PCR Poor ■ Fair ■ Good ■ Excellent ■ No Data ■
 (0 - 60) (61 - 84) (85 - 94) (95 - 100)

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

ROUTE: 0015 BADWATER ROAD
DEVA : DEATH VALLEY NATIONAL PARK

COLLECTED: 6/7/2012
TOTAL LENGTH: 56.28 Miles

PACIFIC WEST REGION

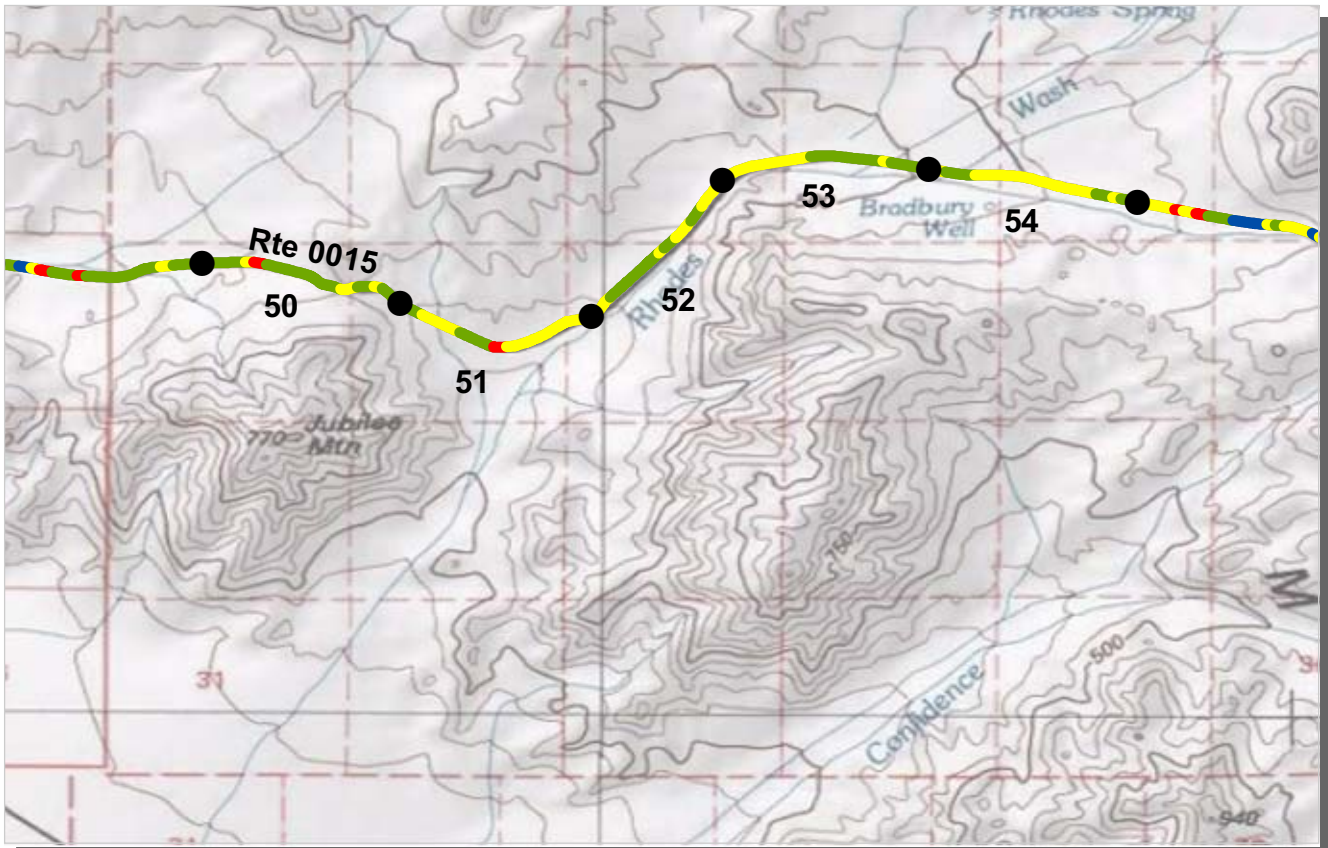
<i>Section Number</i>	45	46	47	48	49
<i>Section Length (mi)</i>	1.00	1.00	1.00	1.00	1.00
<i>Cross Section Information</i>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	23	21	22	23	23
Lane Width (ft)	11	10	11	11	12
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	87	82	77	90	84
PCR (Pavement Condition Rating)	76	72	76	88	88
<i>Distress Index Values</i>					
Structural Crack Index	98	82	77	99	84
Transverse Cracking Index	87	85	92	98	88
Patching Index	100	100	100	100	100
Rutting Index	87	86	89	90	90
Roughness Condition Index (RCI)	60	57	74	86	94

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

ROUTE: 0015 BADWATER ROAD



PCR Poor ■ (0 - 60) Fair ■ (61 - 84) Good ■ (85 - 94) Excellent ■ (95 - 100) No Data ■

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

ROUTE: 0015 BADWATER ROAD
DEVA : DEATH VALLEY NATIONAL PARK

COLLECTED: 6/7/2012
TOTAL LENGTH: 56.28 Miles

PACIFIC WEST REGION

<i>Section Number</i>	50	51	52	53	54
<i>Section Length (mi)</i>	1.00	1.00	1.00	1.00	1.00
<i>Cross Section Information</i>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	21	21	22	21	21
Lane Width (ft)	10	10	11	10	11
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	90	81	81	82	86
PCR (Pavement Condition Rating)	86	80	82	83	81
<i>Distress Index Values</i>					
Structural Crack Index	91	81	91	89	94
Transverse Cracking Index	92	85	81	82	86
Patching Index	100	100	100	100	100
Rutting Index	90	91	91	89	91
Roughness Condition Index (RCI)	81	78	84	85	74

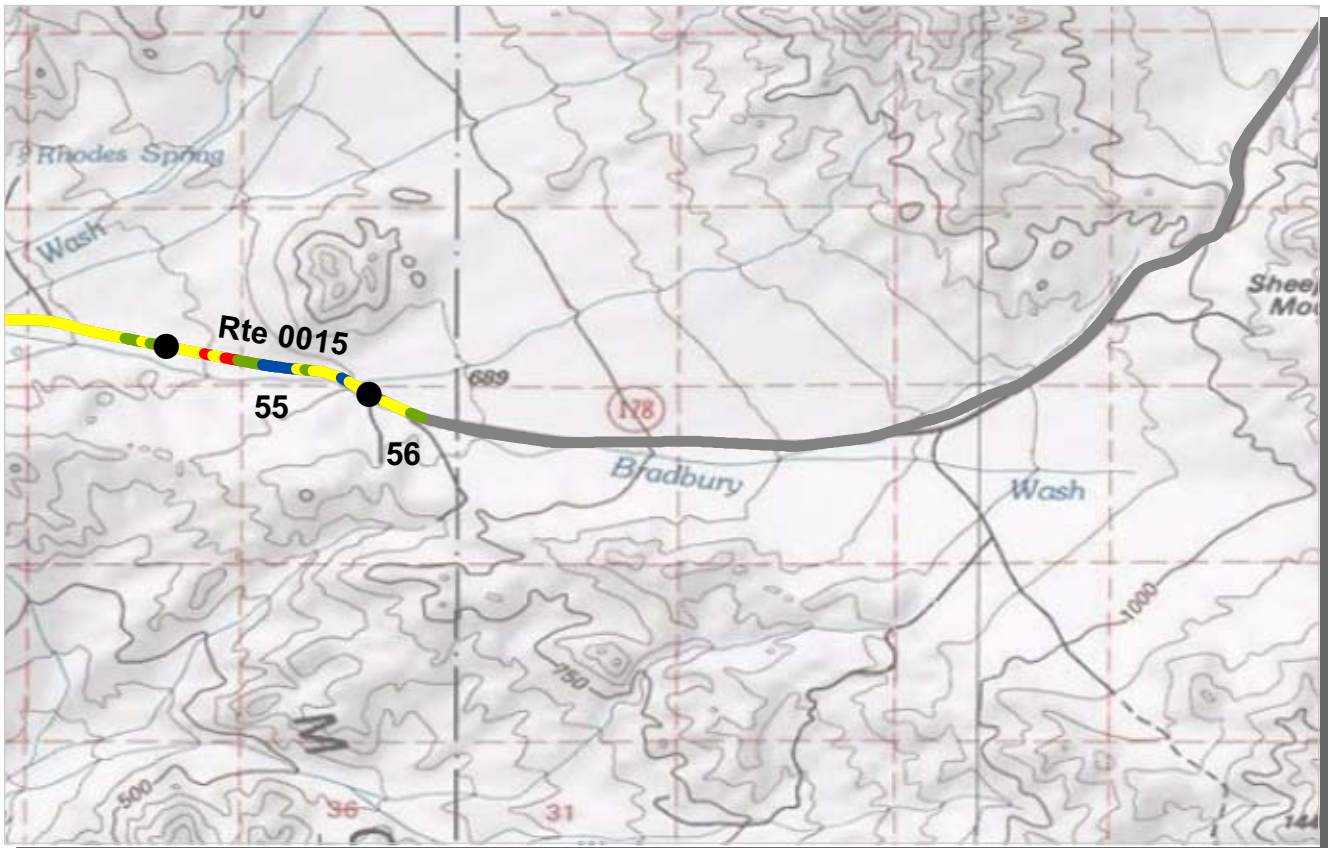
NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable



ROUTE: 0015 BADWATER ROAD



PCR	Poor		Fair		Good		Excellent		No Data	
		(0 - 60)		(61 - 84)		(85 - 94)		(95 - 100)		

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

ROUTE: 0015 BADWATER ROAD
DEVA : DEATH VALLEY NATIONAL PARK

COLLECTED: 6/7/2012
TOTAL LENGTH: 56.28 Miles

PACIFIC WEST REGION

<i>Section Number</i>	55	56			
<i>Section Length (mi)</i>	1.00	0.28			
<i>Cross Section Information</i>					
Number of Lanes	2	2			
Paved Width (ft)	21	21			
Lane Width (ft)	10	10			
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	83	93			
PCR (Pavement Condition Rating)	81	79			
<i>Distress Index Values</i>					
Structural Crack Index	83	99			
Transverse Cracking Index	92	94			
Patching Index	100	100			
Rutting Index	93	93			
Roughness Condition Index (RCI)	79	57			

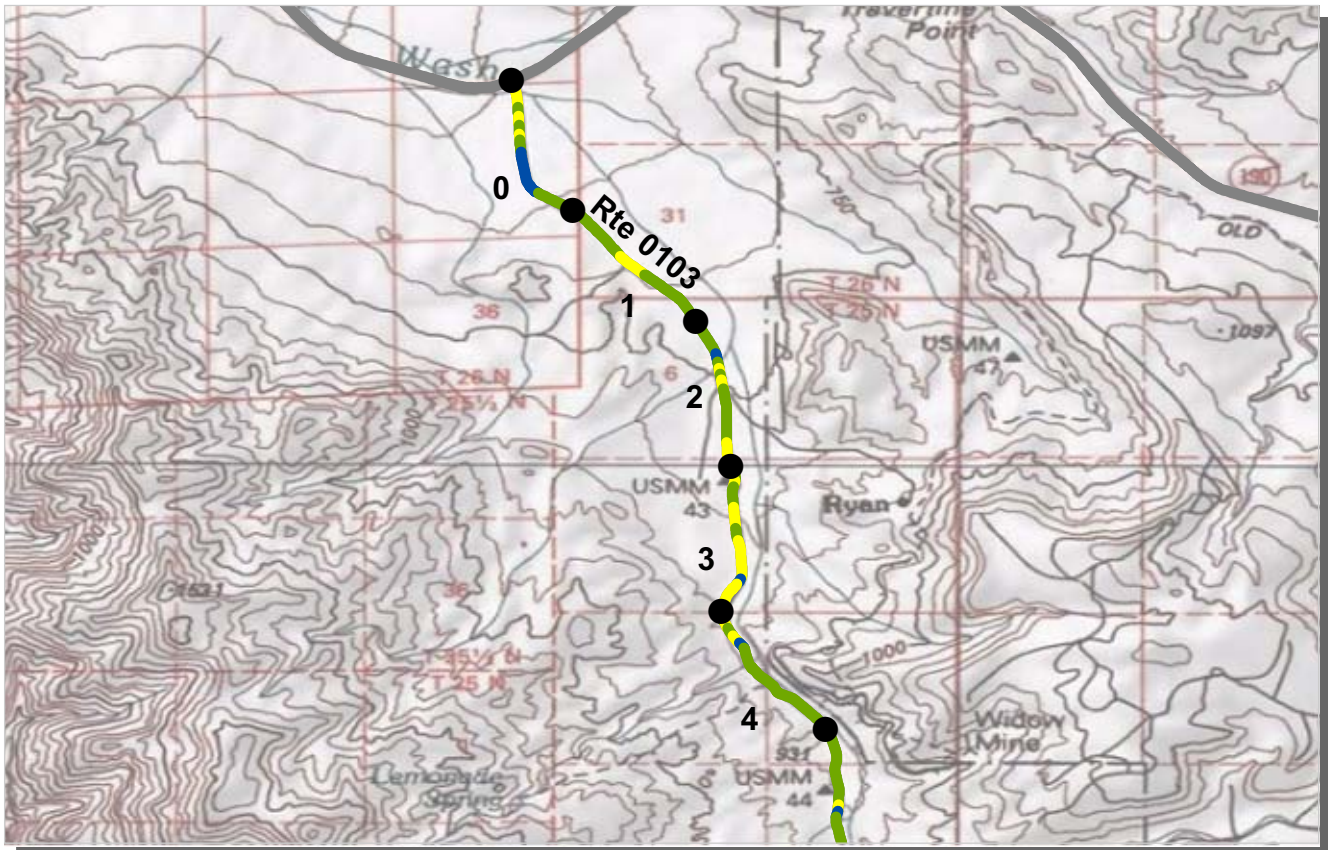
NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable



ROUTE: 0015 BADWATER ROAD



PCR Poor ■ Fair ■ Good ■ Excellent ■ No Data ■
 (0 - 60) (61 - 84) (85 - 94) (95 - 100)

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

ROUTE: 0103 DANTE'S VIEW ROAD
DEVA : DEATH VALLEY NATIONAL PARK

COLLECTED: 6/5/2012
TOTAL LENGTH: 13.26 Miles

PACIFIC WEST REGION

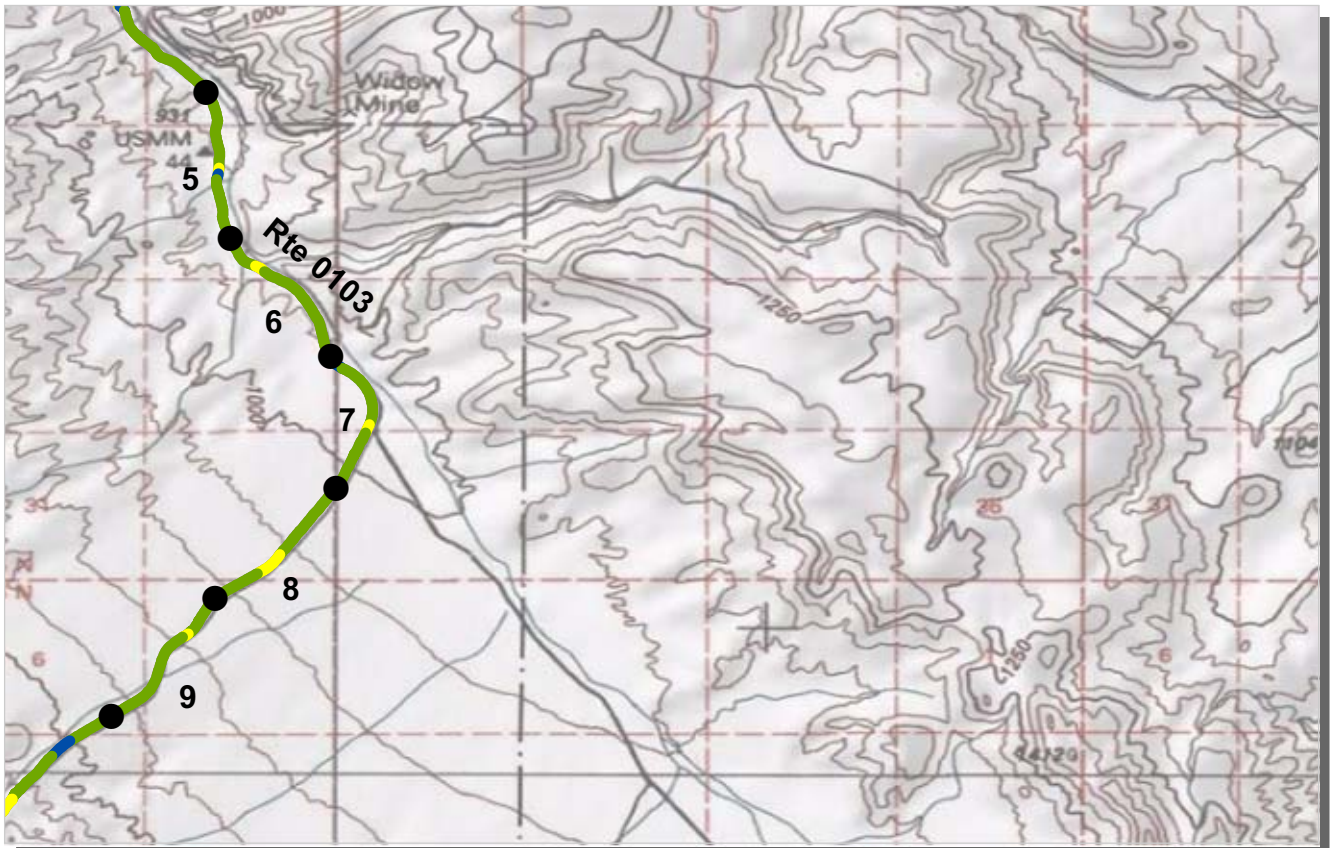
<i>Section Number</i>	0	1	2	3	4
<i>Section Length (mi)</i>	1.00	1.00	1.00	1.00	1.00
<i>Cross Section Information</i>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	22	23	22	21	22
Lane Width (ft)	11	11	11	11	10
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	91	89	89	84	87
PCR (Pavement Condition Rating)	90	89	85	83	87
<i>Distress Index Values</i>					
Structural Crack Index	95	96	100	97	99
Transverse Cracking Index	95	97	100	100	98
Patching Index	100	100	100	100	100
Rutting Index	91	89	89	84	87
Roughness Condition Index (RCI)	89	88	80	82	88

ROUTE: 0103 DANTE'S VIEW ROAD

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable



PCR Poor ■ (0 - 60) Fair ■ (61 - 84) Good ■ (85 - 94) Excellent ■ (95 - 100) No Data ■

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

ROUTE: 0103 DANTE'S VIEW ROAD
DEVA : DEATH VALLEY NATIONAL PARK

COLLECTED: 6/5/2012
TOTAL LENGTH: 13.26 Miles

PACIFIC WEST REGION

<i>Section Number</i>	5	6	7	8	9
<i>Section Length (mi)</i>	1.00	1.00	1.00	1.00	1.00
<i>Cross Section Information</i>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	21	22	21	21	20
Lane Width (ft)	11	11	10	10	10
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	87	86	88	83	86
PCR (Pavement Condition Rating)	91	92	90	87	90
<i>Distress Index Values</i>					
Structural Crack Index	97	96	94	93	98
Transverse Cracking Index	95	94	96	96	97
Patching Index	100	100	100	100	100
Rutting Index	87	86	88	83	86
Roughness Condition Index (RCI)	97	100	94	94	95

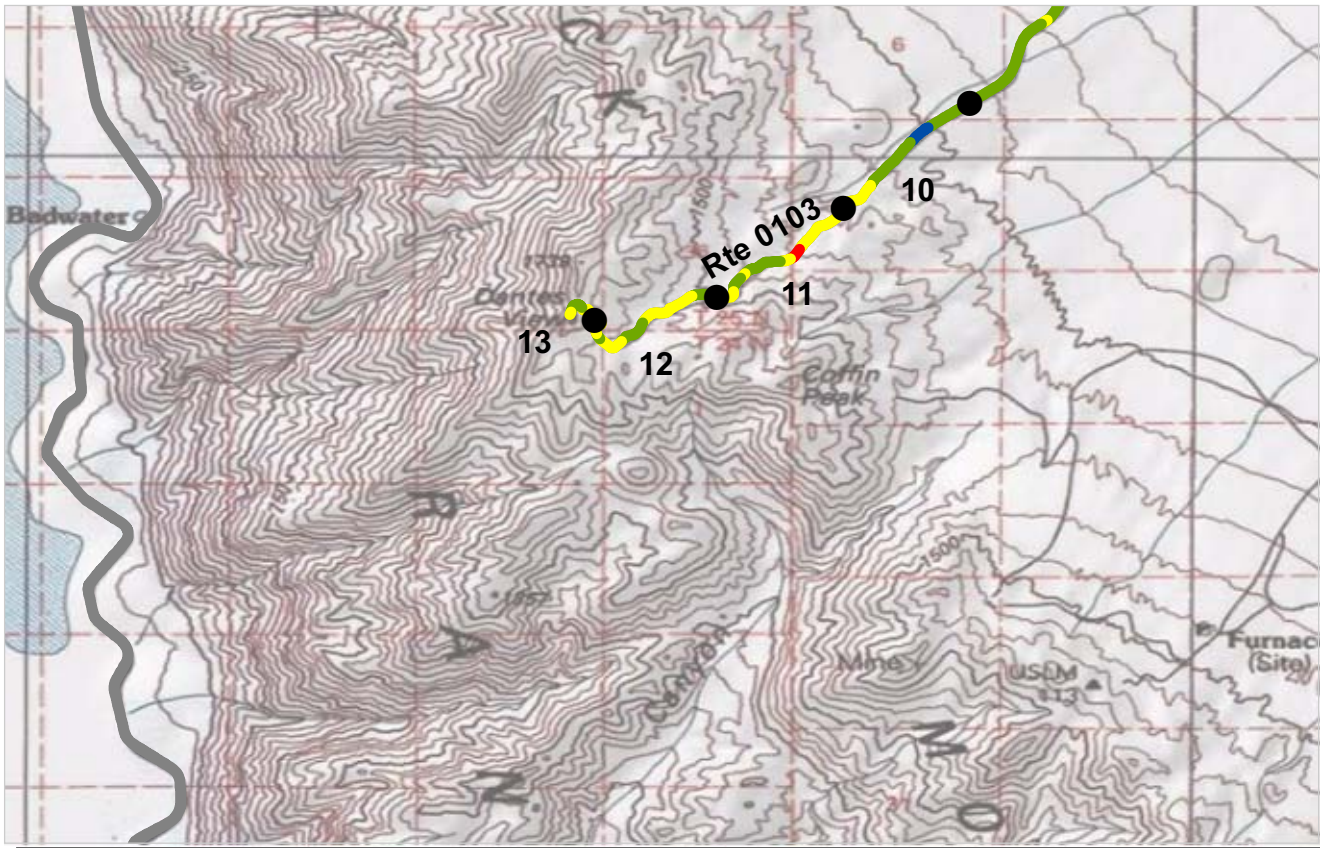
NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable



ROUTE: 0103 DANTE'S VIEW ROAD



PCR Poor ■ Fair ■ Good ■ Excellent ■ No Data ■
 (0 - 60) (61 - 84) (85 - 94) (95 - 100)

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

ROUTE: 0103 DANTE'S VIEW ROAD
DEVA : DEATH VALLEY NATIONAL PARK

COLLECTED: 6/5/2012
TOTAL LENGTH: 13.26 Miles

PACIFIC WEST REGION

<i>Section Number</i>	10	11	12	13	
<i>Section Length (mi)</i>	1.00	1.00	1.00	0.26	
<i>Cross Section Information</i>					
Number of Lanes	2	2	2	2	
Paved Width (ft)	21	21	22	22	
Lane Width (ft)	10	11	11	10	
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	88	82	88	93	
PCR (Pavement Condition Rating)	90	82	78	76	
<i>Distress Index Values</i>					
Structural Crack Index	97	98	99	99	
Transverse Cracking Index	97	96	94	94	
Patching Index	92	82	100	100	
Rutting Index	88	85	88	93	
Roughness Condition Index (RCI)	94	83	63	51	

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable



ROUTE: 0103 DANTE'S VIEW ROAD



PCR Poor ■ Fair ■ Good ■ Excellent ■ No Data ■
 (0 - 60) (61 - 84) (85 - 94) (95 - 100)

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

ROUTE: 0109 UBEHEBE CRATER ROAD
DEVA : DEATH VALLEY NATIONAL PARK

COLLECTED: 6/5/2012
TOTAL LENGTH: 6.28 Miles

PACIFIC WEST REGION

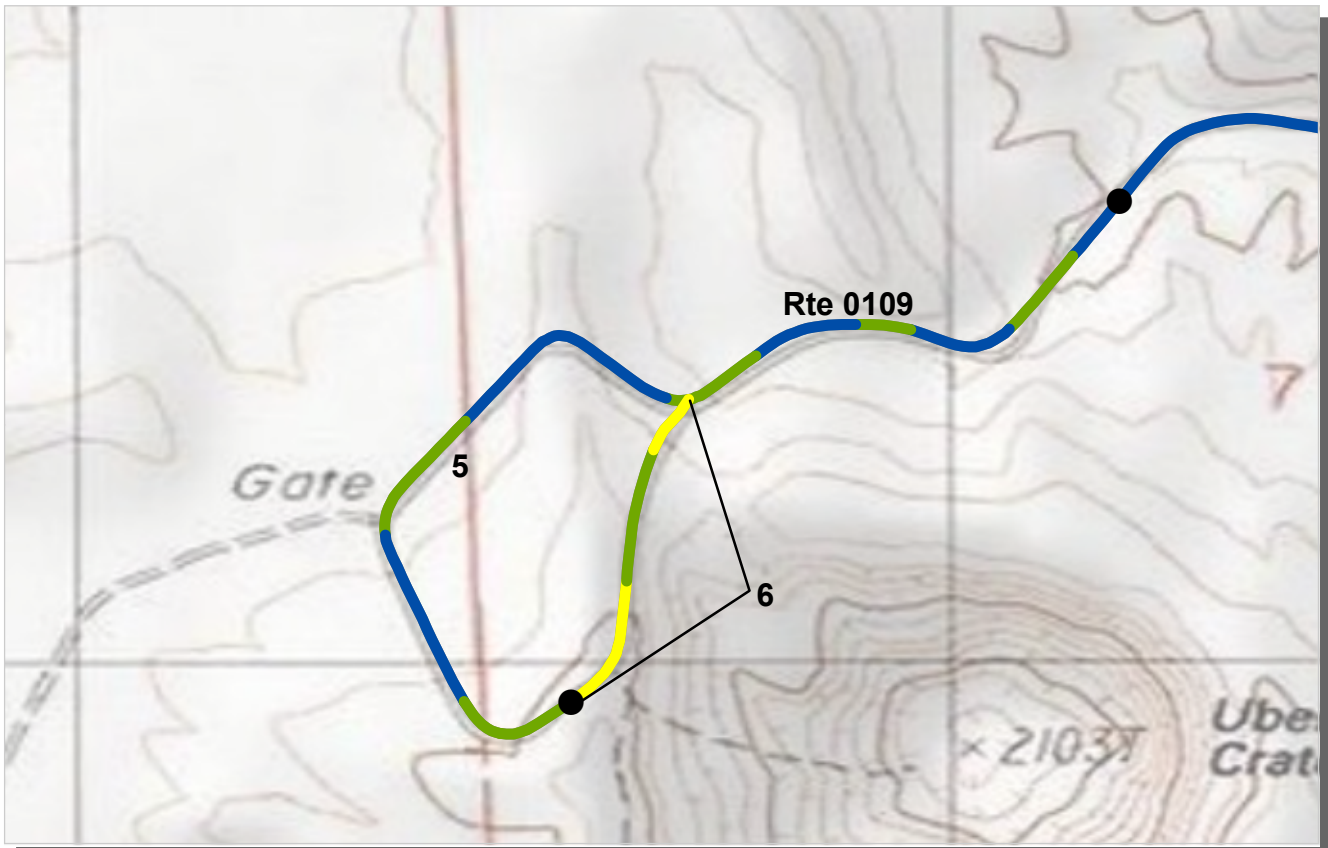
<i>Section Number</i>	0	1	2	3	4
<i>Section Length (mi)</i>	1.00	1.00	1.00	1.00	1.00
<i>Cross Section Information</i>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	19	20	18	18	17
Lane Width (ft)	10	10	9	8	8
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	99	99	99	99	99
PCR (Pavement Condition Rating)	97	99	99	99	97
<i>Distress Index Values</i>					
Structural Crack Index	100	100	100	100	100
Transverse Cracking Index	100	100	100	100	100
Patching Index	100	100	100	100	100
Rutting Index	99	99	99	99	99
Roughness Condition Index (RCI)	94	100	98	100	94

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

ROUTE: 0109 UBEHEBE CRATER ROAD



PCR Poor ■ Fair ■ Good ■ Excellent ■ No Data ■
 (0 - 60) (61 - 84) (85 - 94) (95 - 100)

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

ROUTE: 0109 UBEHEBE CRATER ROAD
DEVA : DEATH VALLEY NATIONAL PARK

COLLECTED: 6/5/2012
TOTAL LENGTH: 6.28 Miles

PACIFIC WEST REGION

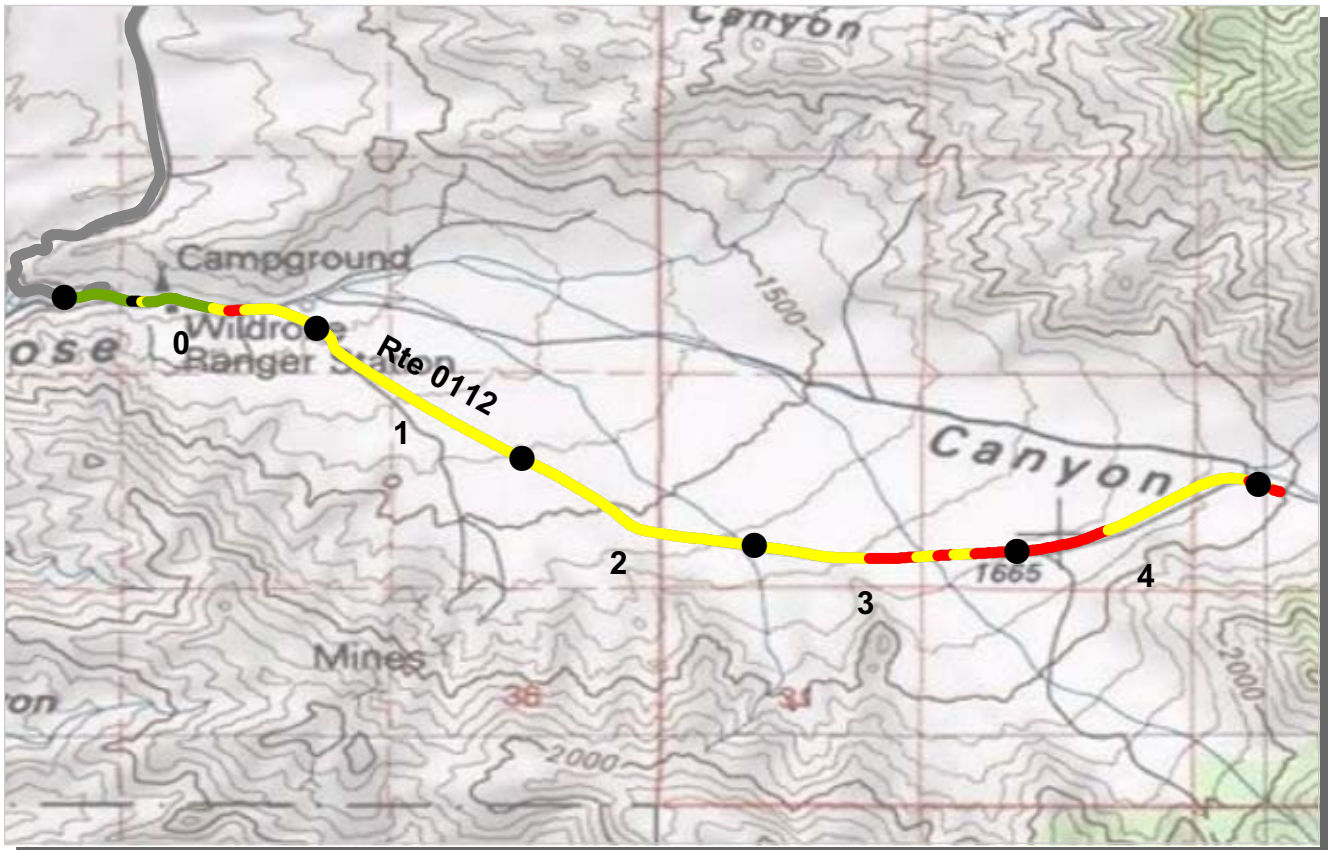
<i>Section Number</i>	5	6			
<i>Section Length (mi)</i>	1.00	0.28			
<i>Cross Section Information</i>					
Number of Lanes	1	1			
Paved Width (ft)	13	10			
Lane Width (ft)	10	10			
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	99	99			
PCR (Pavement Condition Rating)	95	83			
<i>Distress Index Values</i>					
Structural Crack Index	100	100			
Transverse Cracking Index	100	100			
Patching Index	100	100			
Rutting Index	99	99			
Roughness Condition Index (RCI)	89	58			

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

ROUTE: 0109 UBEHEBE CRATER ROAD



PCR Poor ■ Fair ■ Good ■ Excellent ■ No Data ■
 (0 - 60) (61 - 84) (85 - 94) (95 - 100)

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

ROUTE: 0112 CHARCOAL KILNS ROAD
DEVA : DEATH VALLEY NATIONAL PARK

COLLECTED: 6/6/2012
TOTAL LENGTH: 5.09 Miles

PACIFIC WEST REGION

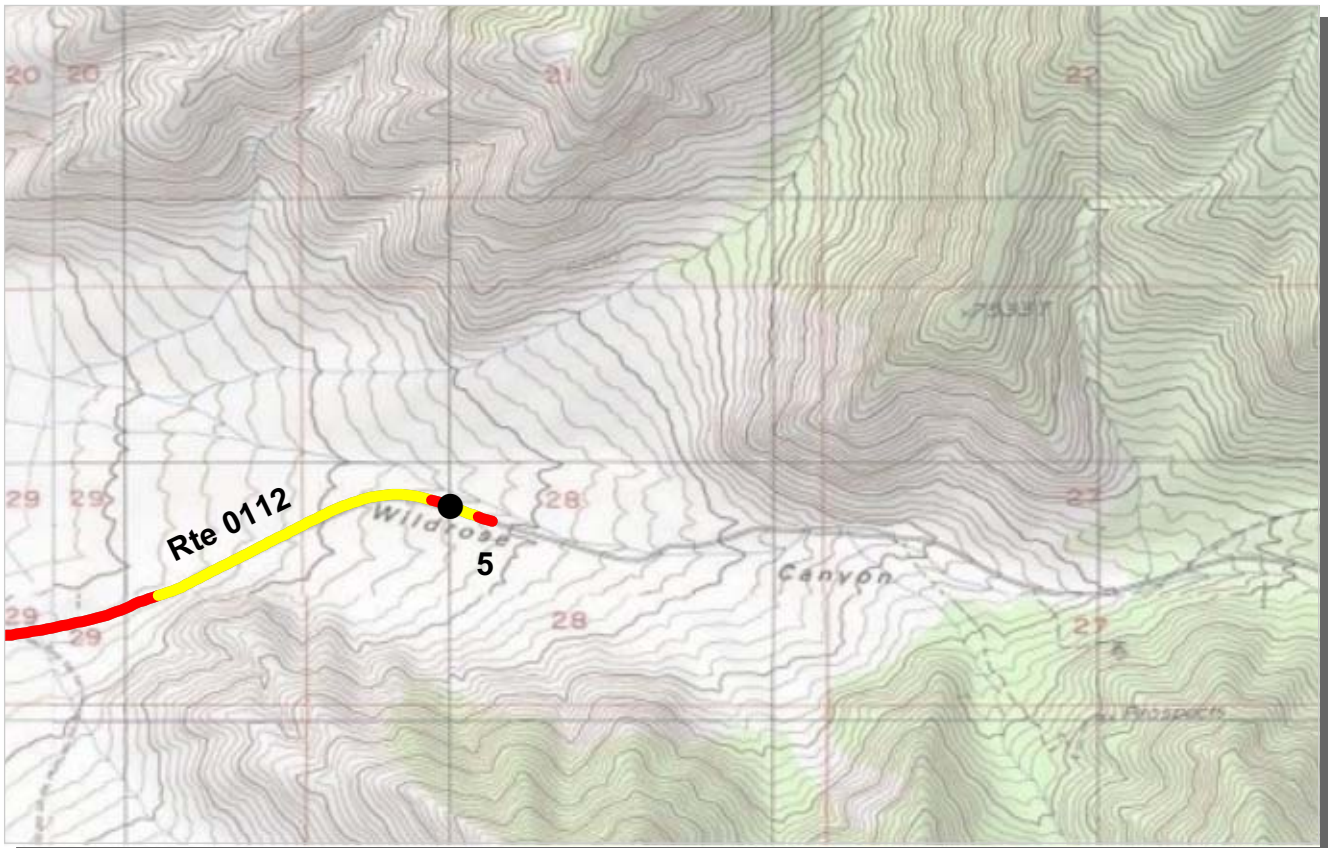
<i>Section Number</i>	0	1	2	3	4
<i>Section Length (mi)</i>	1.00	1.00	1.00	1.00	1.00
<i>Cross Section Information</i>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	21	19	17	17	18
Lane Width (ft)	10	9	8	9	9
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	85	90	90	65	68
PCR (Pavement Condition Rating)	81	82	75	56	60
<i>Distress Index Values</i>					
Structural Crack Index	94	95	97	65	68
Transverse Cracking Index	85	91	99	99	98
Patching Index	100	93	90	89	82
Rutting Index	94	90	92	86	83
Roughness Condition Index (RCI)	74	69	53	43	48

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

ROUTE: 0112 CHARCOAL KILNS ROAD



PCR Poor ■ Fair ■ Good ■ Excellent ■ No Data ■
 (0 - 60) (61 - 84) (85 - 94) (95 - 100)

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

ROUTE: 0112 CHARCOAL KILNS ROAD
DEVA : DEATH VALLEY NATIONAL PARK

COLLECTED: 6/6/2012
TOTAL LENGTH: 5.09 Miles

PACIFIC WEST REGION

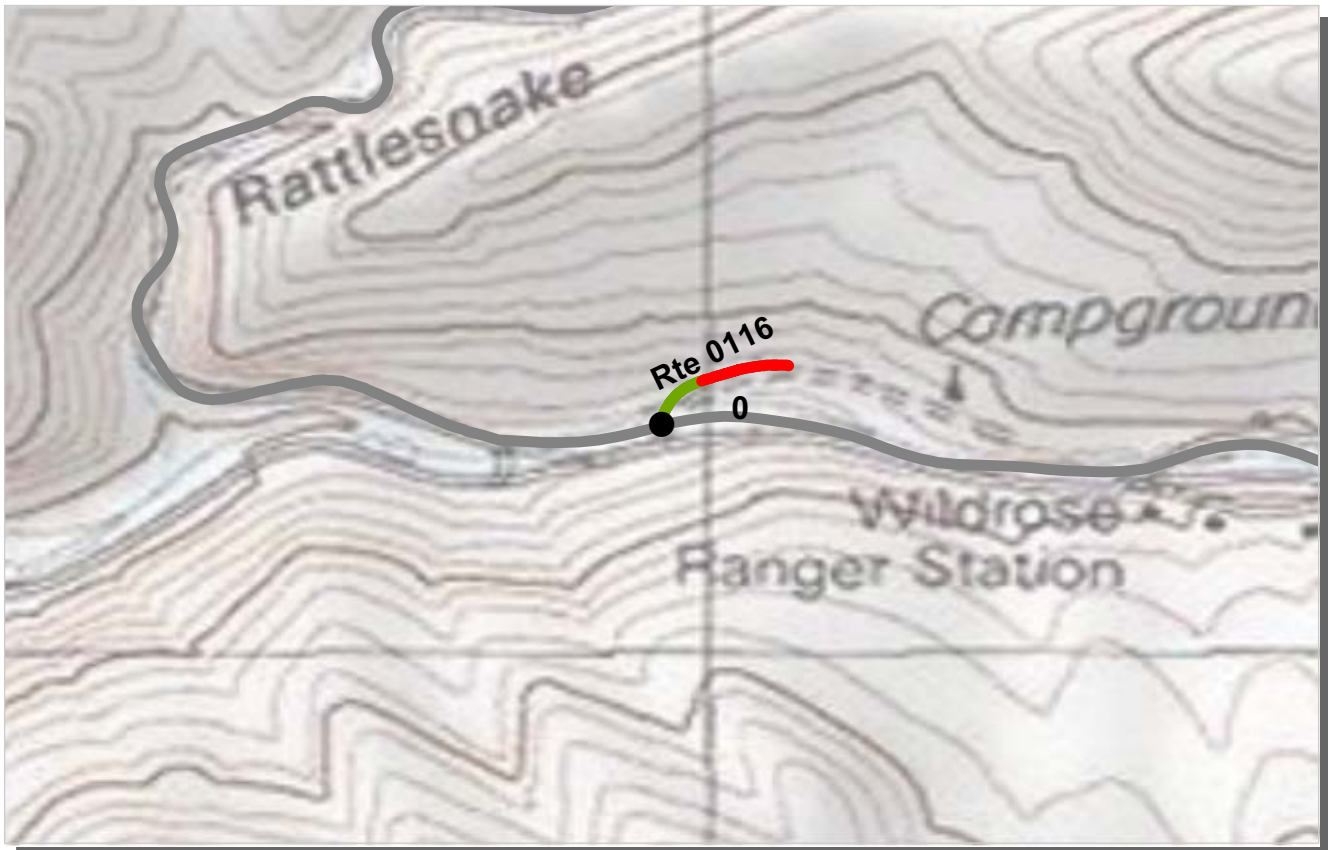
Section Number	5				
Section Length (mi)	0.09				
Cross Section Information					
Number of Lanes	2				
Paved Width (ft)	17				
Lane Width (ft)	8				
Roadway Condition Information					
SCR (Surface Condition Rating)	81				
PCR (Pavement Condition Rating)	65				
Distress Index Values					
Structural Crack Index	81				
Transverse Cracking Index	97				
Patching Index	83				
Rutting Index	85				
Roughness Condition Index (RCI)	40				

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

ROUTE: 0112 CHARCOAL KILNS ROAD



PCR Poor ■ Fair ■ Good ■ Excellent ■ No Data ■
 (0 - 60) (61 - 84) (85 - 94) (95 - 100)

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

ROUTE: 0116 WILDROSE CAMPGROUND ROAD
DEVA : DEATH VALLEY NATIONAL PARK

COLLECTED: 6/6/2012
TOTAL LENGTH: 0.09 Miles

PACIFIC WEST REGION

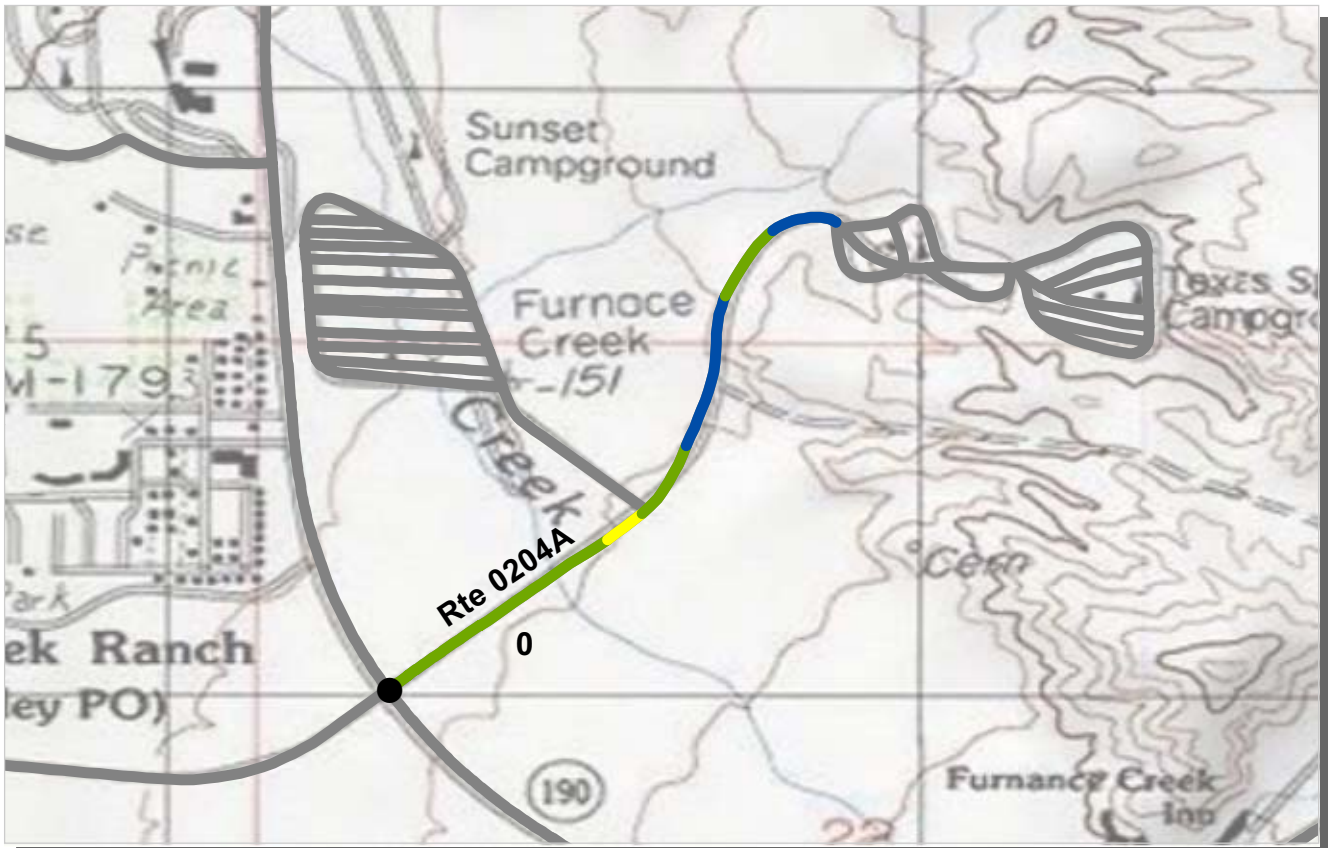
Section Number	0				
Section Length (mi)	0.09				
Cross Section Information					
Number of Lanes	1				
Paved Width (ft)	13				
Lane Width (ft)	13				
Roadway Condition Information					
SCR (Surface Condition Rating)	18				
PCR (Pavement Condition Rating)	18				
Distress Index Values					
Structural Crack Index	18				
Transverse Cracking Index	98				
Patching Index	99				
Rutting Index	85				
Roughness Condition Index (RCI)	NC				

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

ROUTE: 0116 WILDROSE CAMPGROUND ROAD



PCR Poor ■ (0 - 60) Fair ■ (61 - 84) Good ■ (85 - 94) Excellent ■ (95 - 100) No Data ■

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

ROUTE: 0204A TEXAS SPRING / SUNSET CAMPGROUND ACCESS ROAD
DEVA : DEATH VALLEY NATIONAL PARK

COLLECTED: 6/5/2012
TOTAL LENGTH: 0.66 Miles

PACIFIC WEST REGION

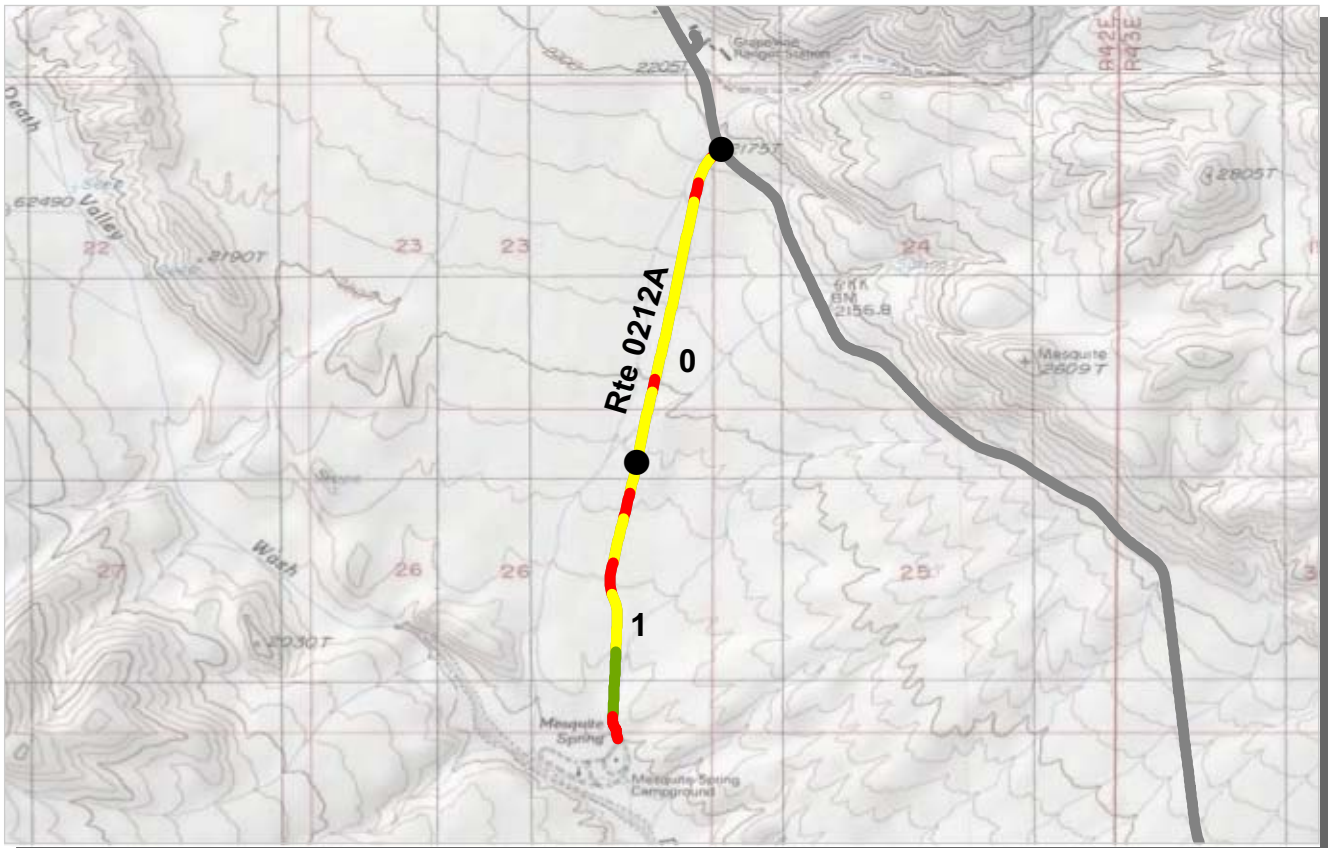
Section Number	0				
Section Length (mi)	0.66				
Cross Section Information					
Number of Lanes	2				
Paved Width (ft)	25				
Lane Width (ft)	13				
Roadway Condition Information					
SCR (Surface Condition Rating)	94				
PCR (Pavement Condition Rating)	94				
Distress Index Values					
Structural Crack Index	94				
Transverse Cracking Index	96				
Patching Index	100				
Rutting Index	94				
Roughness Condition Index (RCI)	NC				

ROUTE: 0204A TEXAS SPRING / SUNSET CAMPGROUND ACCESS ROAD

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable



PCR	Poor (0 - 60)	Fair (61 - 84)	Good (85 - 94)	Excellent (95 - 100)	No Data
-----	---------------	----------------	----------------	----------------------	---------

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

ROUTE: 0212A MESQUITE SPRING CAMPGROUND ACCESS ROAD
DEVA : DEATH VALLEY NATIONAL PARK

COLLECTED: 6/5/2012
TOTAL LENGTH: 1.88 Miles

PACIFIC WEST REGION

Section Number	0	1			
Section Length (mi)	1.00	0.88			
Cross Section Information					
Number of Lanes	2	2			
Paved Width (ft)	17	16			
Lane Width (ft)	9	8			
Roadway Condition Information					
SCR (Surface Condition Rating)	71	75			
PCR (Pavement Condition Rating)	68	69			
Distress Index Values					
Structural Crack Index	71	75			
Transverse Cracking Index	96	92			
Patching Index	100	100			
Rutting Index	87	90			
Roughness Condition Index (RCI)	64	59			

NOTES:
 Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.
 NC - Not Collected N/A - Not Applicable

ROUTE: 0212A MESQUITE SPRING CAMPGROUND ACCESS ROAD



PCR Poor ■ Fair ■ Good ■ Excellent ■ No Data ■
 (0 - 60) (61 - 84) (85 - 94) (95 - 100)

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

ROUTE: 0329 STOVEPIPE WELLS HOUSING ROAD
DEVA : DEATH VALLEY NATIONAL PARK

COLLECTED: 6/6/2012
TOTAL LENGTH: 0.21 Miles

PACIFIC WEST REGION

Section Number	0				
Section Length (mi)	0.21				
Cross Section Information					
Number of Lanes	2				
Paved Width (ft)	19				
Lane Width (ft)	9				
Roadway Condition Information					
SCR (Surface Condition Rating)	95				
PCR (Pavement Condition Rating)	95				
Distress Index Values					
Structural Crack Index	98				
Transverse Cracking Index	100				
Patching Index	100				
Rutting Index	95				
Roughness Condition Index (RCI)	NC				

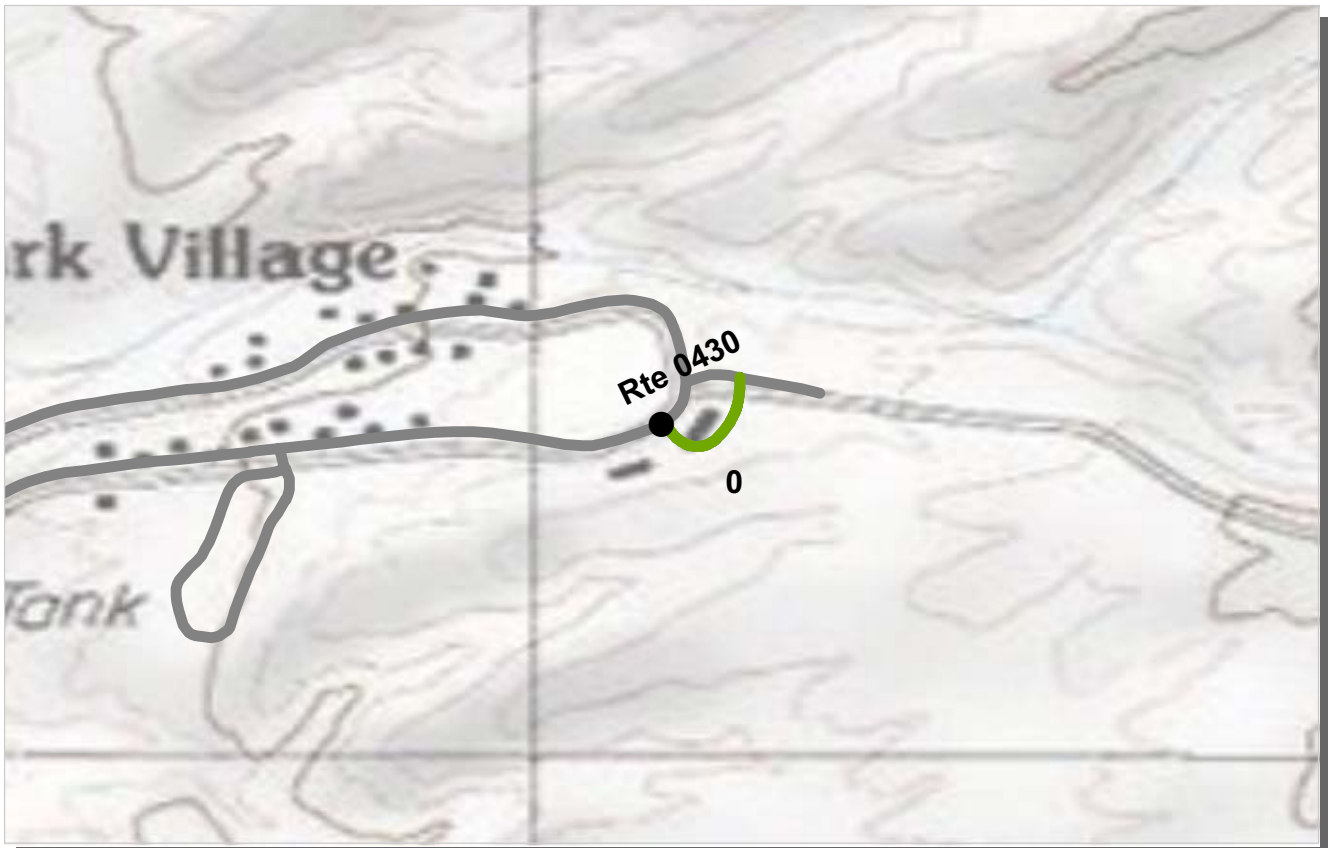
NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable



ROUTE: 0329 STOVEPIPE WELLS HOUSING ROAD



PCR Poor ■ Fair ■ Good ■ Excellent ■ No Data ■
 (0 - 60) (61 - 84) (85 - 94) (95 - 100)

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

ROUTE: 0430 SKYLINE LOOP ROAD
DEVA : DEATH VALLEY NATIONAL PARK

COLLECTED: 6/5/2012
TOTAL LENGTH: 0.08 Miles

PACIFIC WEST REGION

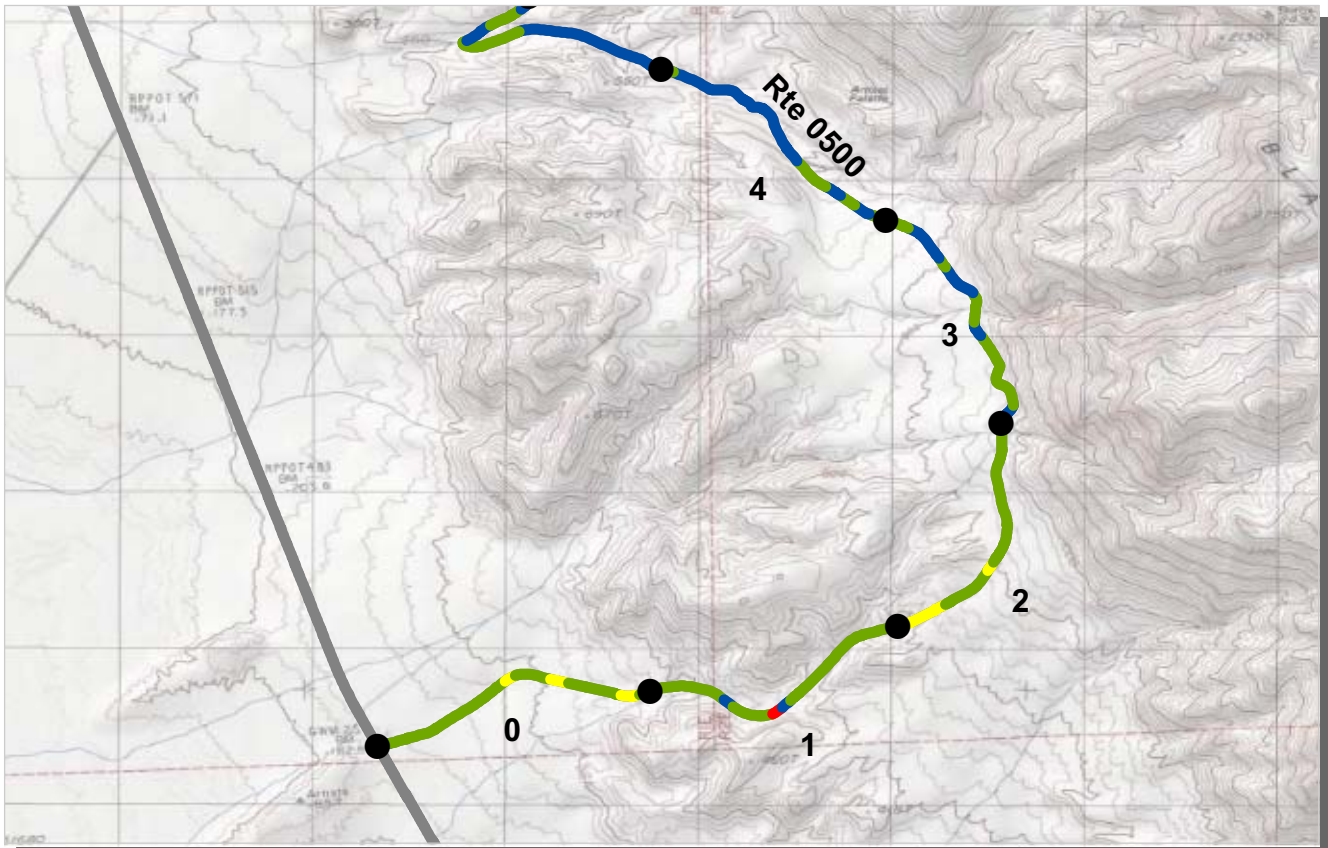
Section Number	0				
Section Length (mi)	0.08				
Cross Section Information					
Number of Lanes	2				
Paved Width (ft)	21				
Lane Width (ft)	11				
Roadway Condition Information					
SCR (Surface Condition Rating)	86				
PCR (Pavement Condition Rating)	86				
Distress Index Values					
Structural Crack Index	100				
Transverse Cracking Index	99				
Patching Index	100				
Rutting Index	86				
Roughness Condition Index (RCI)	NC				

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

ROUTE: 0430 SKYLINE LOOP ROAD



PCR Poor ■ (0 - 60) Fair ■ (61 - 84) Good ■ (85 - 94) Excellent ■ (95 - 100) No Data ■

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

ROUTE: 0500 ARTISTS DRIVE
DEVA : DEATH VALLEY NATIONAL PARK

COLLECTED: 6/5/2012
TOTAL LENGTH: 8.89 Miles

PACIFIC WEST REGION

<i>Section Number</i>	0	1	2	3	4
<i>Section Length (mi)</i>	1.00	1.00	1.00	1.00	1.00
<i>Cross Section Information</i>					
Number of Lanes	1	1	1	1	1
Paved Width (ft)	13	12	13	13	14
Lane Width (ft)	13	12	13	13	14
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	89	89	89	93	96
PCR (Pavement Condition Rating)	89	89	89	93	96
<i>Distress Index Values</i>					
Structural Crack Index	100	96	99	100	99
Transverse Cracking Index	100	98	97	99	100
Patching Index	100	100	100	100	100
Rutting Index	89	89	89	93	96
Roughness Condition Index (RCI)	NC	NC	NC	NC	NC

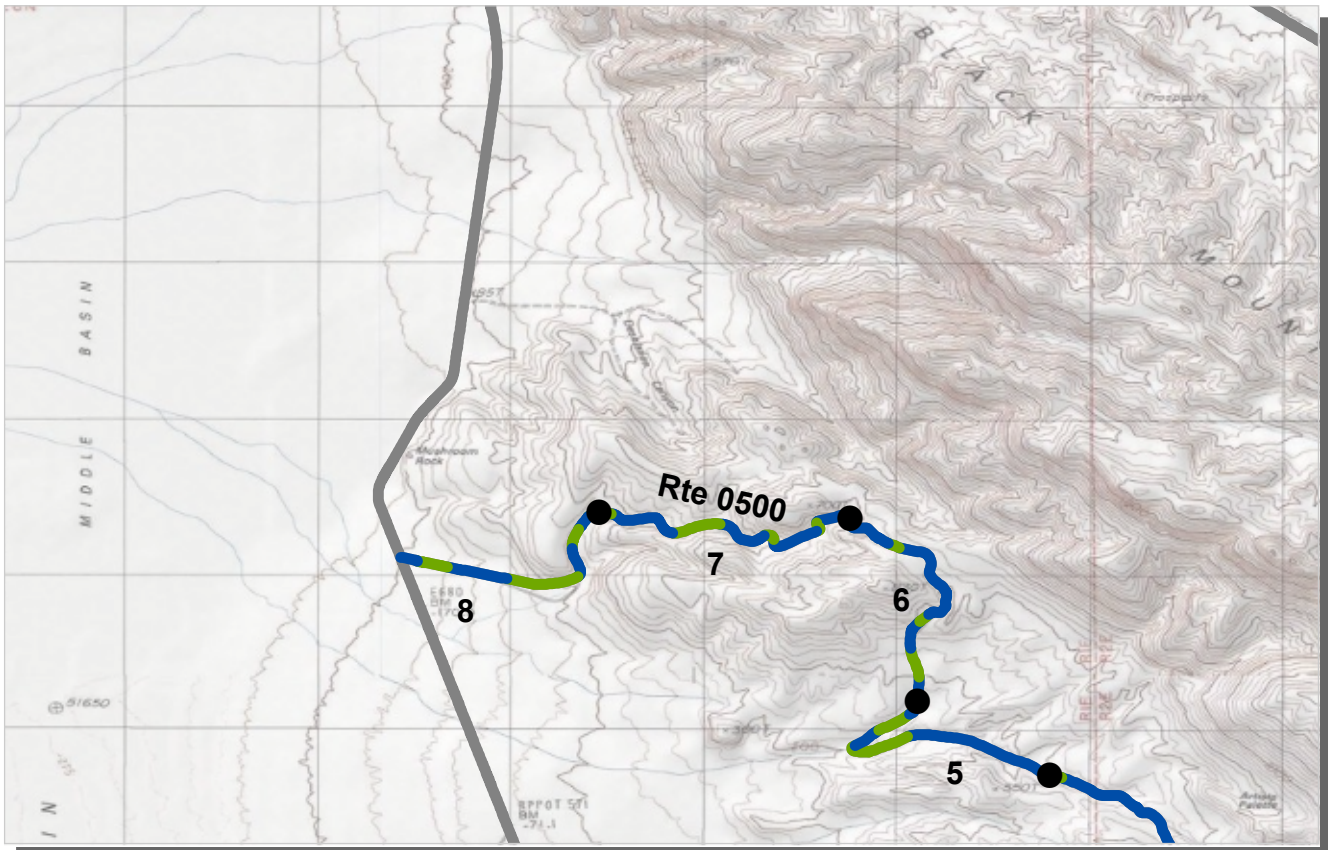
NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable



ROUTE: 0500 ARTISTS DRIVE



PCR Poor ■ Fair ■ Good ■ Excellent ■ No Data ■
 (0 - 60) (61 - 84) (85 - 94) (95 - 100)

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

ROUTE: 0500 ARTISTS DRIVE
DEVA : DEATH VALLEY NATIONAL PARK

COLLECTED: 6/5/2012
TOTAL LENGTH: 8.89 Miles

PACIFIC WEST REGION

<i>Section Number</i>	5	6	7	8	
<i>Section Length (mi)</i>	1.00	1.00	1.00	0.89	
<i>Cross Section Information</i>					
Number of Lanes	1	1	1	1	
Paved Width (ft)	15	15	15	15	
Lane Width (ft)	15	15	15	15	
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	96	96	96	94	
PCR (Pavement Condition Rating)	96	96	96	94	
<i>Distress Index Values</i>					
Structural Crack Index	100	100	100	100	
Transverse Cracking Index	100	100	100	100	
Patching Index	100	100	100	100	
Rutting Index	96	96	96	94	
Roughness Condition Index (RCI)	NC	NC	NC	NC	

NOTES:

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

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

NC - Not Collected N/A - Not Applicable

ROUTE: 0500 ARTISTS DRIVE

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



Death Valley National Park



DEATH VALLEY NATIONAL PARK

Route 0014ZZ

EMIGRANT CANYON ROAD

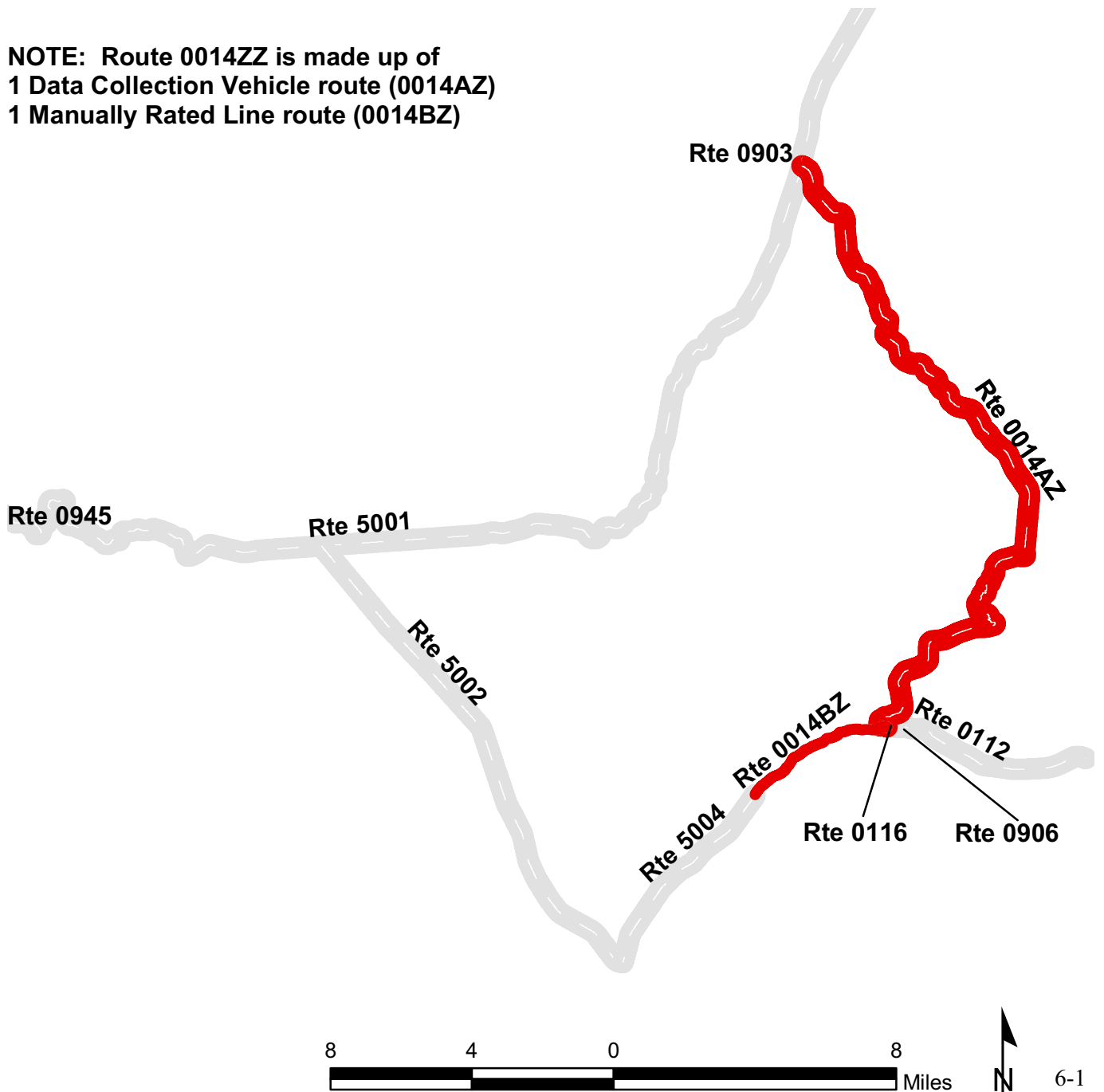
FROM ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY)) AT MP 51.70 (ON LEFT)
TO BEGINNING OF ROUTE 5004 (EMIGRANT CANYON ROAD (NON NPS)) AT MP 0.00

Summary Record

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Paved Length (mi)	Paved Width (ft)
0014ZZ	PUBLIC	6/6/2012	N/A	44.69	25.15	19.5
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR	Surface Type
N/A	N/A	N/A	N/A	N/A	SUMMARY/56	AS

* Lane miles are based on 11' lane widths

NOTE: Route 0014ZZ is made up of
1 Data Collection Vehicle route (0014AZ)
1 Manually Rated Line route (0014BZ)



DEATH VALLEY NATIONAL PARK

Route 0014BZ

EMIGRANT CANYON ROAD (SECTION B)

FROM END OF ROUTE 0014AZ (EMIGRANT CANYON ROAD (SECTION A))

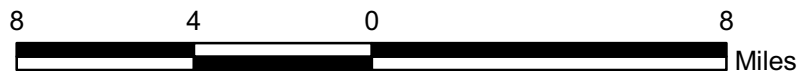
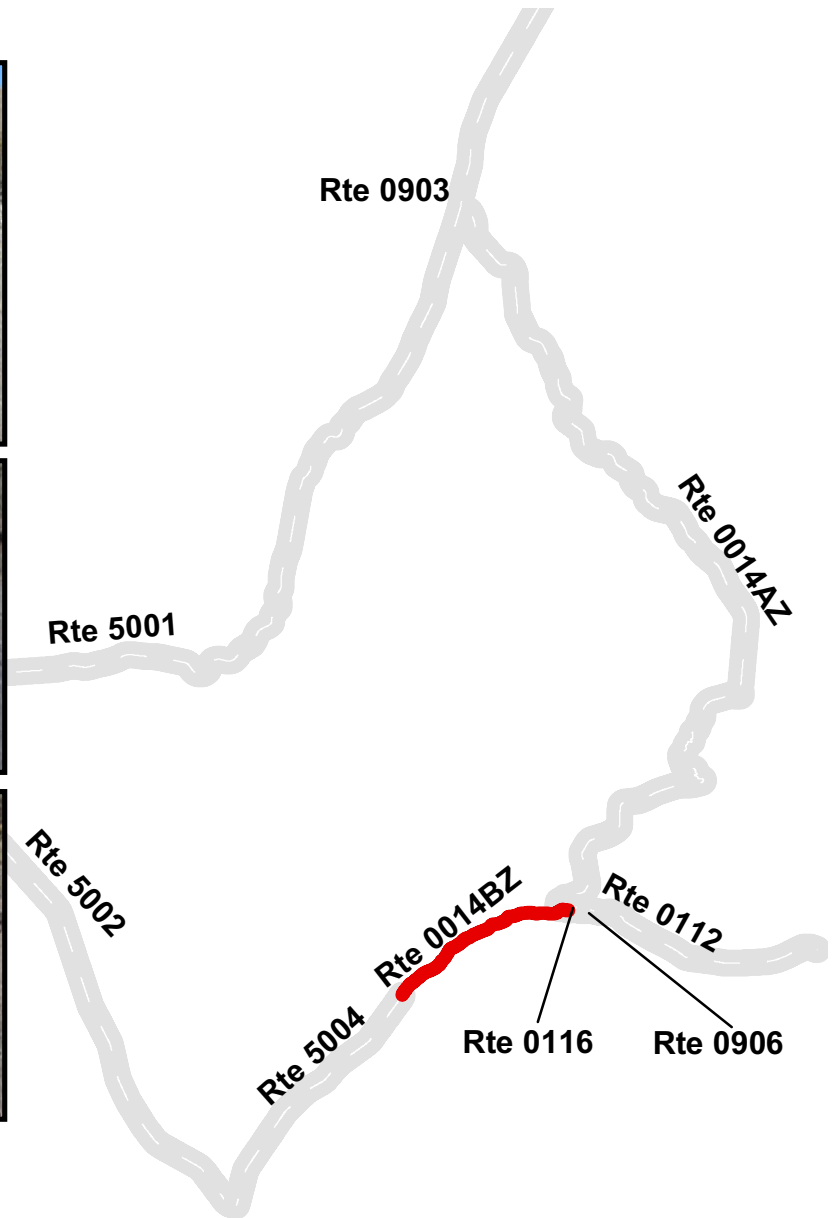
AND INTERSECTION WITH ROUTE 0112 (CHARCOAL KILNS ROAD)

TO BEGINNING OF ROUTE 5004 (EMIGRANT CANYON ROAD (NON NPS)) AT MP 0.00

Subcomponent Record

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Paved Length (mi)	Paved Width (ft)
0014BZ	PUBLIC	12/11/2011	337,709	5.82	3.90	16.4
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR	Surface Type
0	0	0	NO CURB AND GUTTER	NO CURB	POOR/45	AS

* Lane miles are based on 11' lane widths



Section 7
Parking Area
Condition Rating Sheets



Death Valley National Park



**Federal Lands Highway
Road Inventory Program**

DEATH VALLEY NATIONAL PARK

Route 0901ZZ

UBEHEBE CRATER PARKING LOTS

ADJACENT TO ROUTE 0109 (UBEHEBE CRATER ROAD) AT MP 6.05 (ON LEFT AND RIGHT)

Summary Record

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0901ZZ	PUBLIC	12/12/2011	7,986	0.14	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
0	0	0	CONCRETE CURB AND GUTTER	CONCRETE CURB	SUMMARY/97

* Lane miles are based on 11' lane widths



DEATH VALLEY NATIONAL PARK

Route 0901AZ

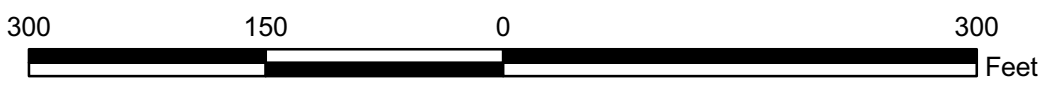
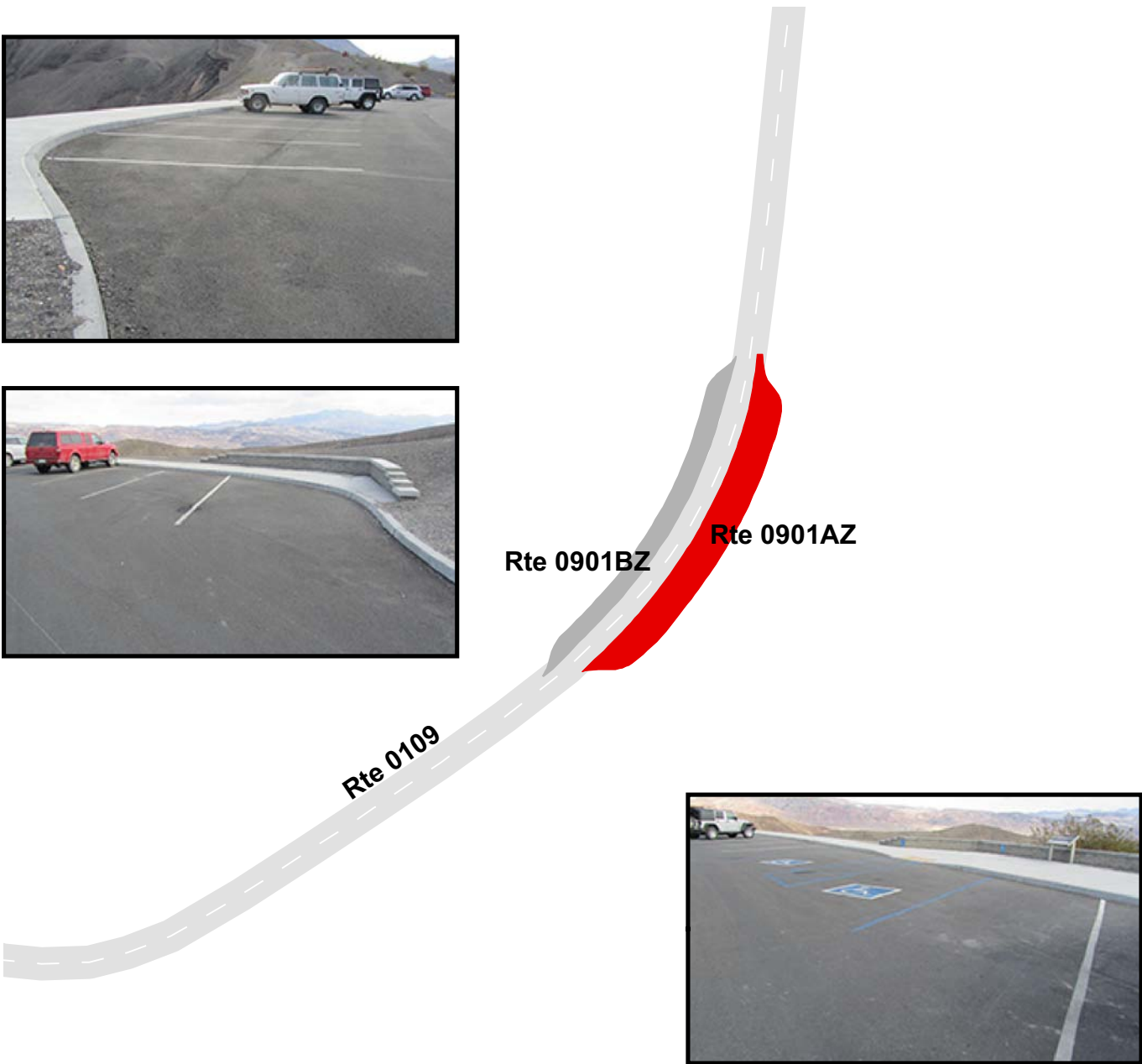
UBEHEBE CRATER PARKING A

ADJACENT TO ROUTE 0109 (UBEHEBE CRATER ROAD) AT MP 6.05 (ON RIGHT)

Subcomponent Record

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0901AZ	PUBLIC	12/12/2011	4,944	0.09	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
0	0	0	NO CURB AND GUTTER	CONCRETE CURB	EXCELLENT/97

* Lane miles are based on 11' lane widths



DEATH VALLEY NATIONAL PARK

Route 0901BZ

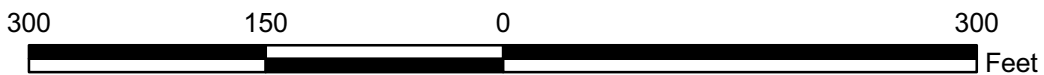
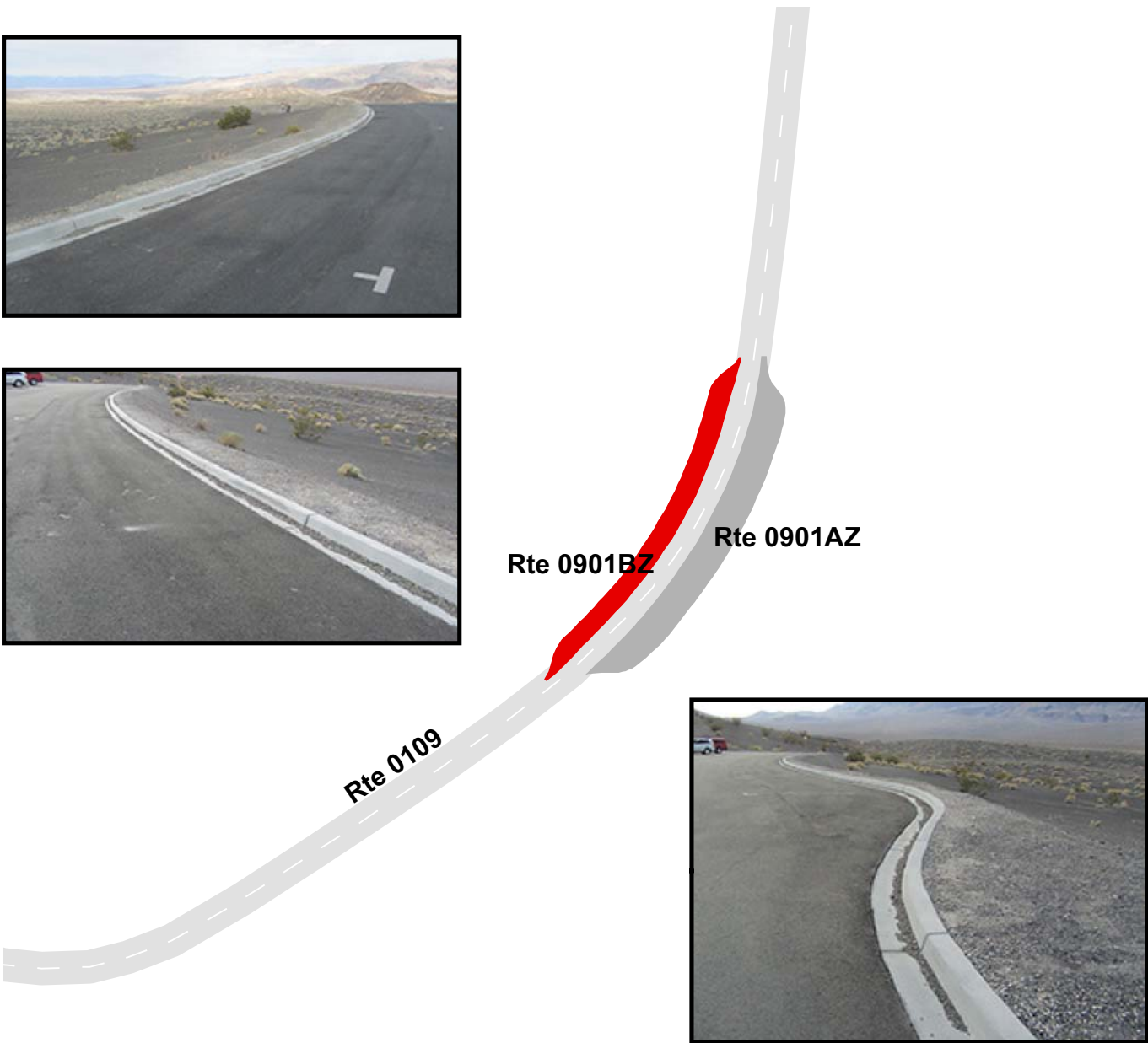
UBEHEBE CRATER PARKING B

ADJACENT TO ROUTE 0109 (UBEHEBE CRATER ROAD) AT MP 6.05 (ON LEFT)

Subcomponent Record

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0901BZ	PUBLIC	12/12/2011	3,042	0.05	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
0	0	0	CONCRETE CURB AND GUTTER	NO CURB	EXCELLENT/97

* Lane miles are based on 11' lane widths



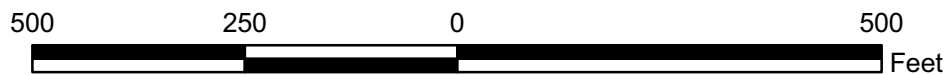
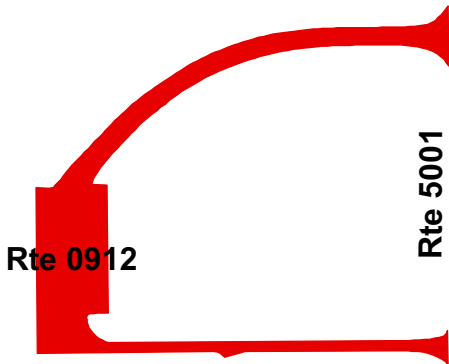
DEATH VALLEY NATIONAL PARK

Route 0912

FURNACE CREEK ADMINISTRATIVE PARKING
 FROM ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY))
 TO ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY))

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0912	NONPUBLIC	12/12/2011	26,790	0.46	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
0	0	0	NO CURB AND GUTTER	CONCRETE CURB	EXCELLENT/97

* Lane miles are based on 11' lane widths



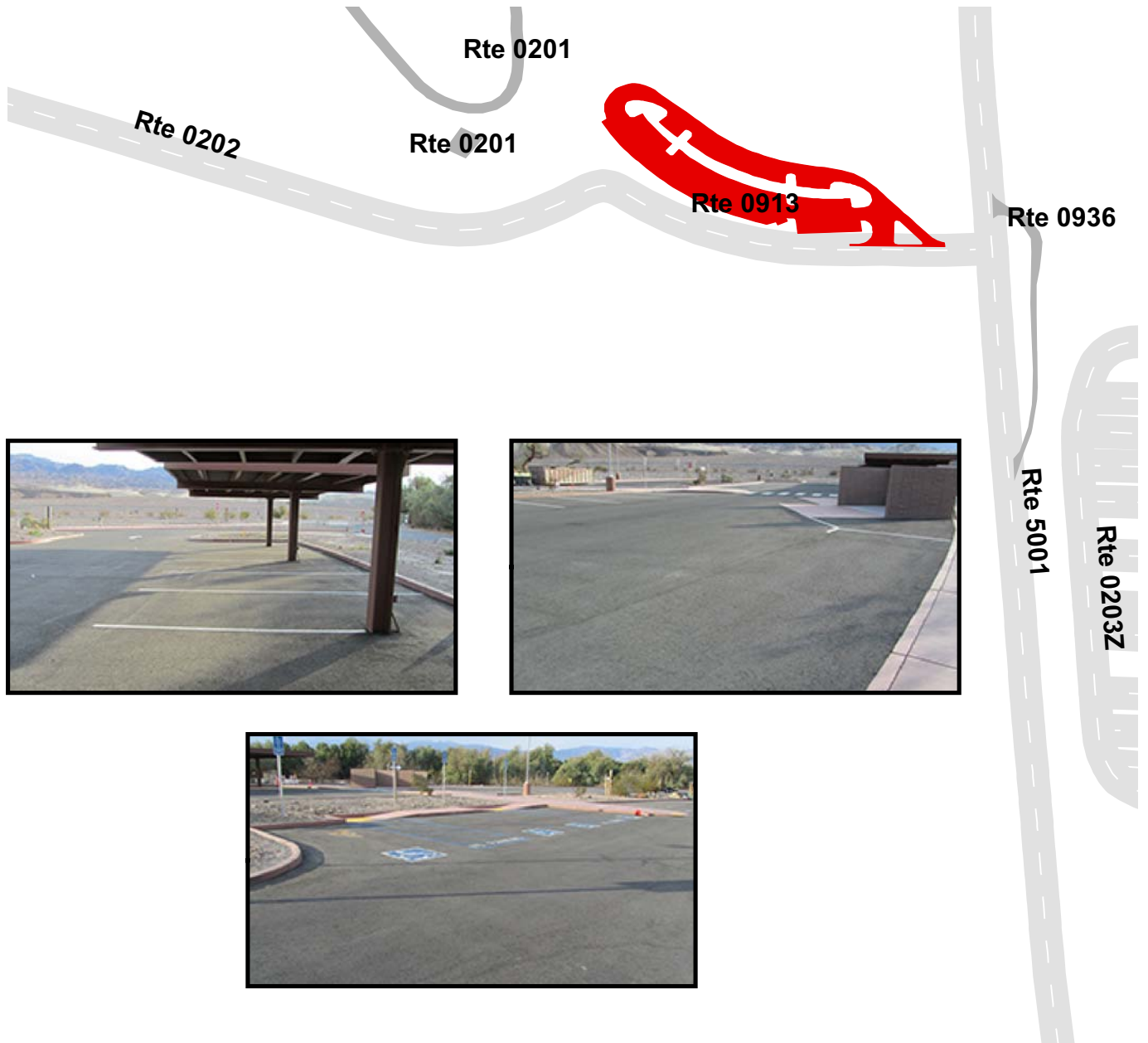
DEATH VALLEY NATIONAL PARK

Route 0913

FURNACE CREEK VISITOR CENTER PARKING
 FROM ROUTE 0202 (FURNACE CREEK AIRPORT ROAD) AT MP 0.02 (ON RIGHT)
 TO PARKING

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0913	PUBLIC	12/12/2011	54,706	0.94	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
0	0	0	CONCRETE CURB AND GUTTER	CONCRETE CURB	EXCELLENT/97

* Lane miles are based on 11' lane widths



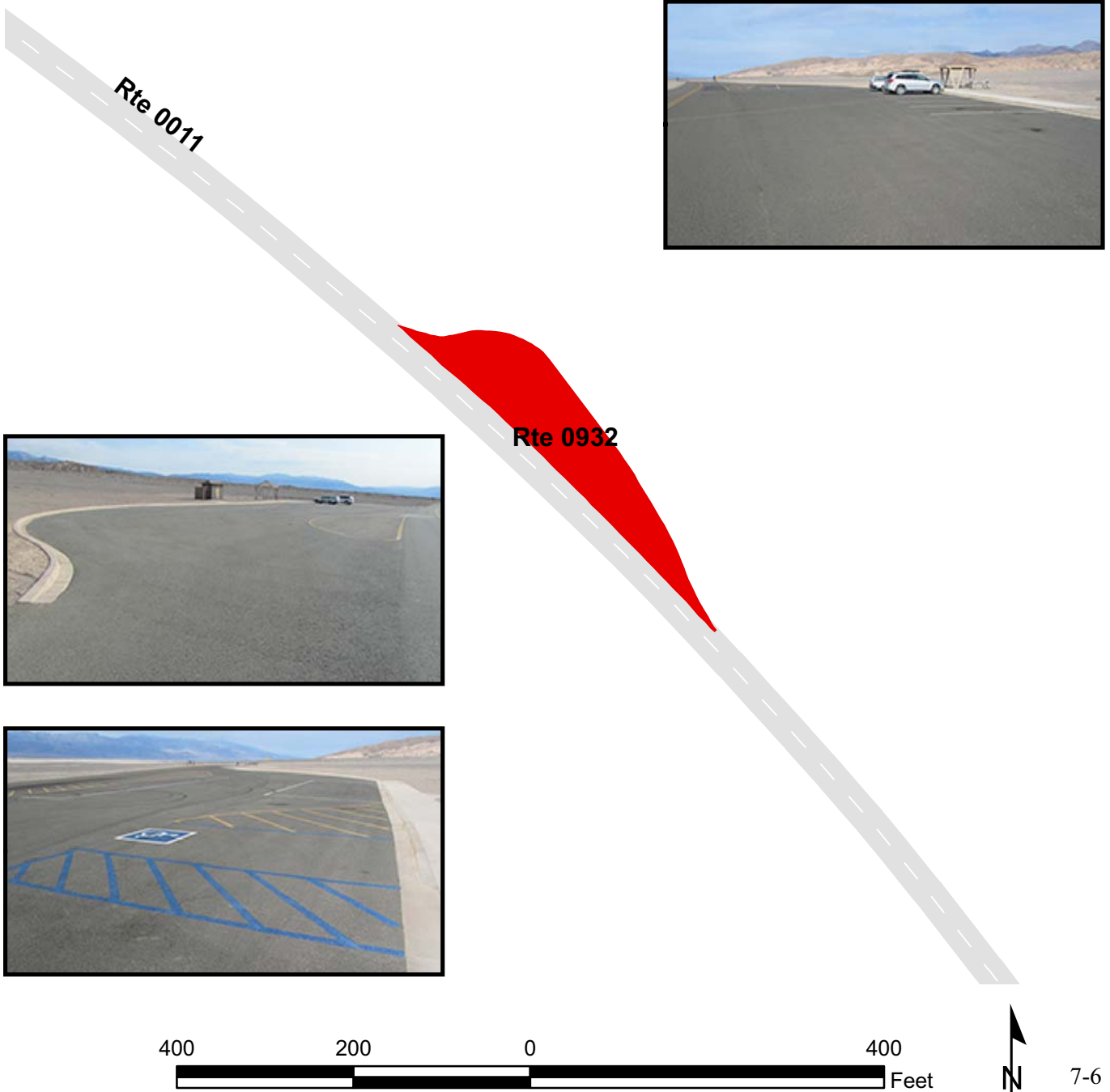
DEATH VALLEY NATIONAL PARK

Route 0932

MUD CANYON MUSHROOM (INFORMATION KIOSK) PARKING
 ADJACENT TO ROUTE 0011 (SCOTTYS CASTLE (BONNIE CLAIRE) ROAD) AT MP 0.72 (ON RIGHT)

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0932	PUBLIC	12/12/2011	19,888	0.34	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
0	0	0	CONCRETE CURB AND GUTTER	NO CURB	GOOD/90

* Lane miles are based on 11' lane widths



DEATH VALLEY NATIONAL PARK

Route 0939ZZ

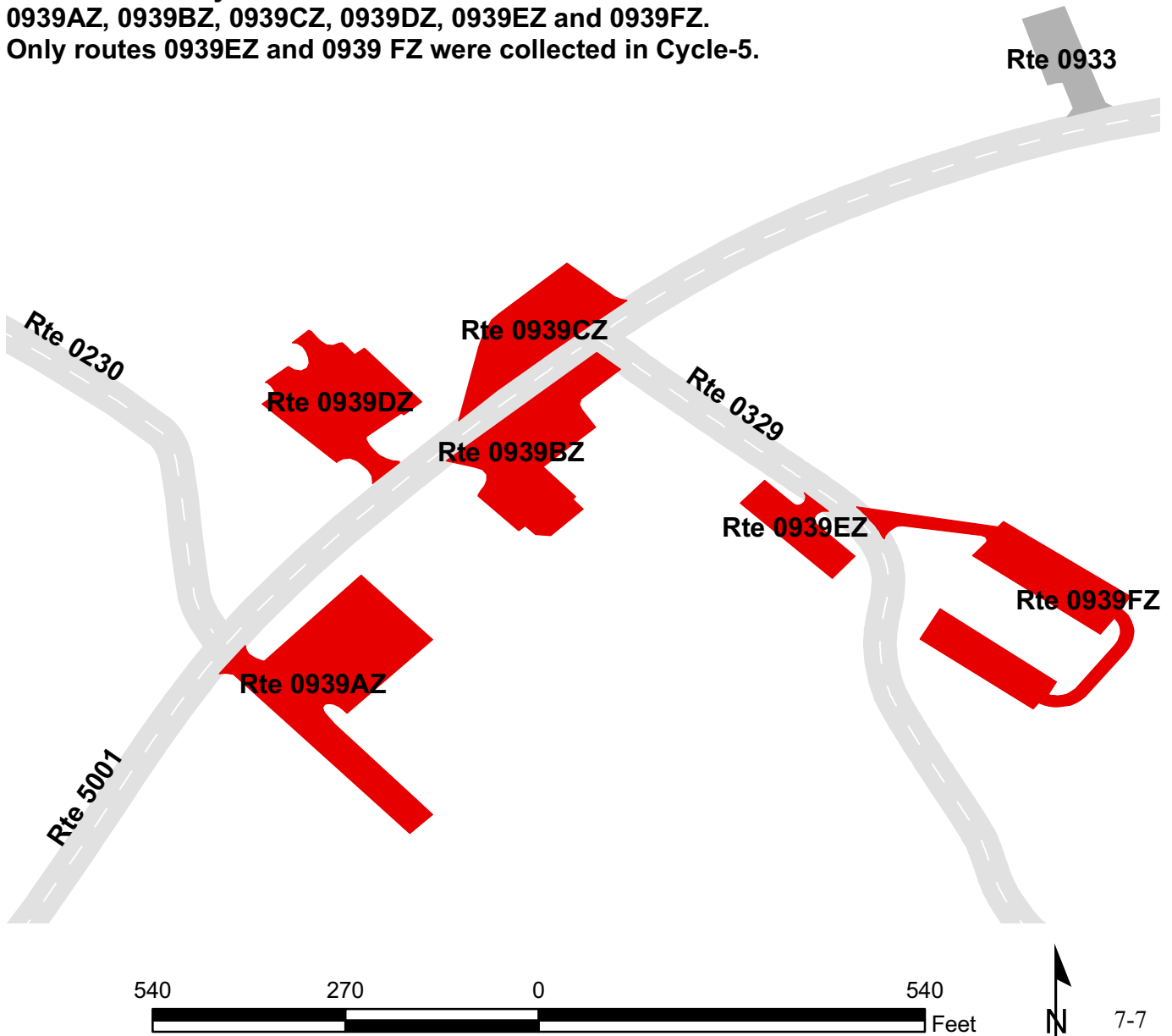
STOVE PIPE WELLS VILLAGE PARKING LOTS
 FROM ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY))
 AND ROUTE 0329 (STOVEPIPE WELLS HOUSING ROAD)

TO PARKING
 Summary Record

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0939ZZ	PUBLIC	12/11/2011	114,406	1.97	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
N/A	N/A	N/A	N/A	N/A	SUMMARY/N/A

* Lane miles are based on 11' lane widths

NOTE: Summary Route 0939ZZ consists of routes 0939AZ, 0939BZ, 0939CZ, 0939DZ, 0939EZ and 0939FZ. Only routes 0939EZ and 0939 FZ were collected in Cycle-5.



DEATH VALLEY NATIONAL PARK

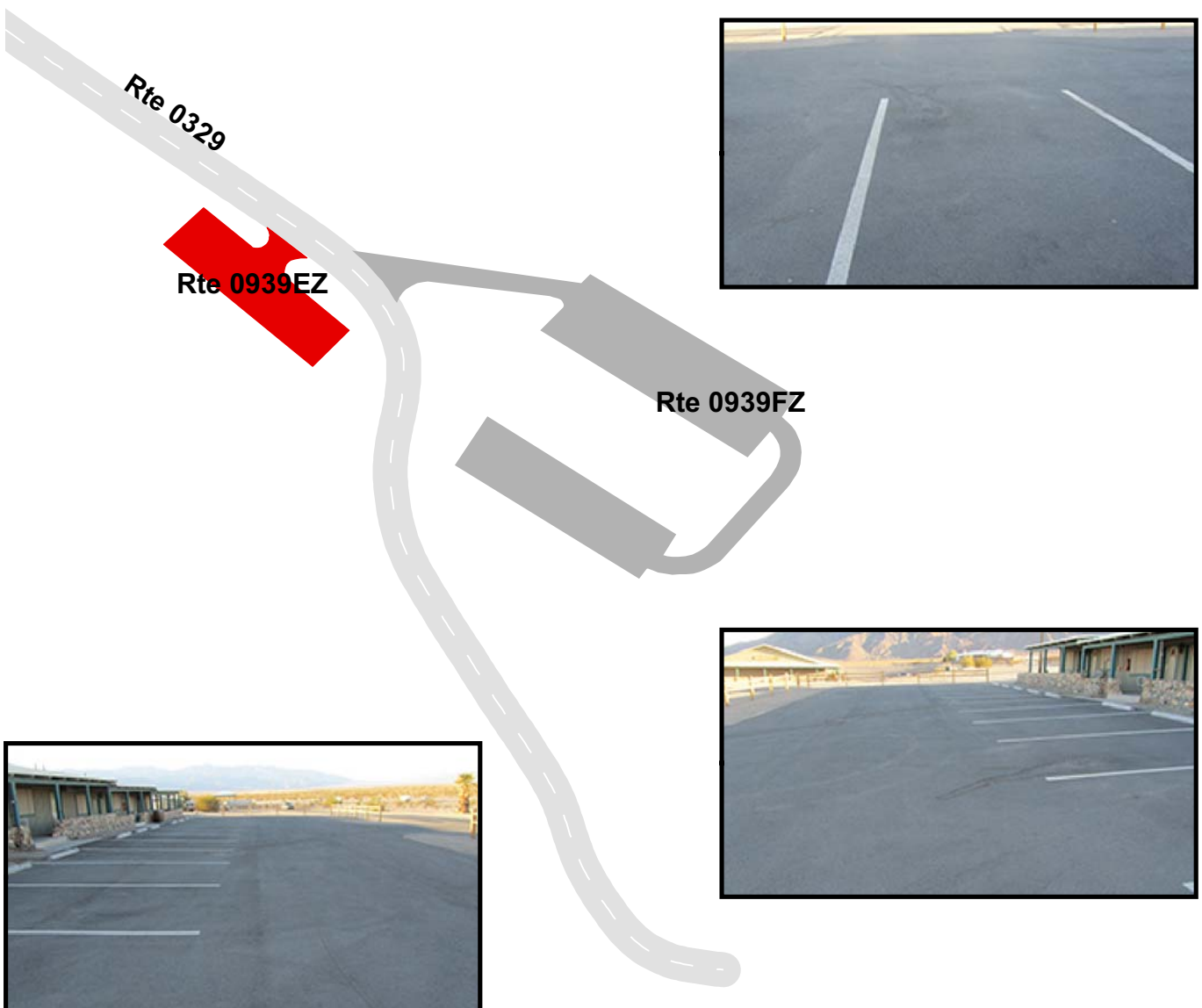
Route 0939EZ

STOVE PIPE WELLS VILLAGE 49ER ROOMS PARKING
 FROM ROUTE 0329 (STOVEPIPE WELLS HOUSING ROAD) ON RIGHT
 TO PARKING

Subcomponent Record

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0939EZ	PUBLIC	12/11/2011	6,547	0.11	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
0	0	0	NO CURB AND GUTTER	NO CURB	EXCELLENT/97

* Lane miles are based on 11' lane widths



DEATH VALLEY NATIONAL PARK

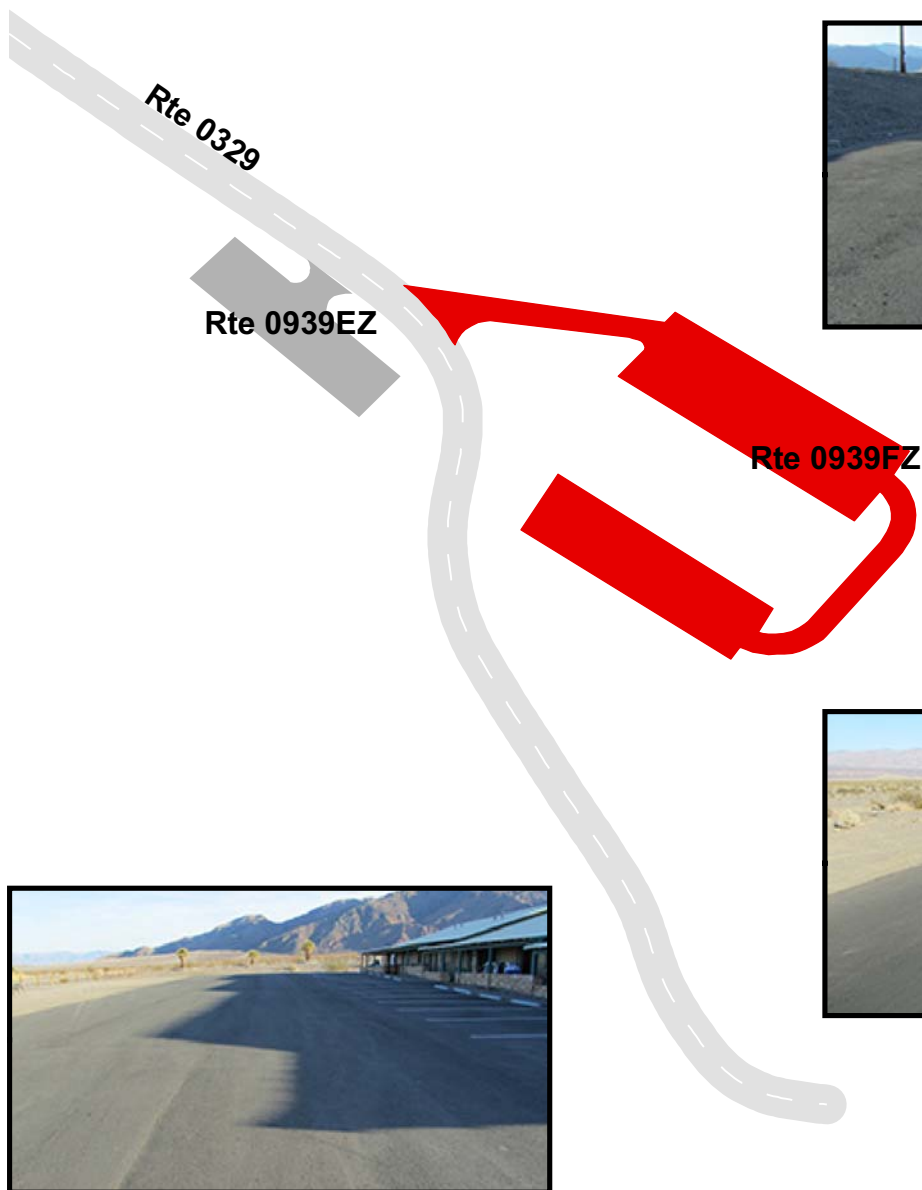
Route 0939FZ

STOVE PIPE WELLS VILLAGE ROADRUNNER PARKING
 FROM ROUTE 0329 (STOVEPIPE WELLS HOUSING ROAD) ON LEFT
 TO PARKING

Subcomponent Record

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0939FZ	PUBLIC	12/11/2011	23,894	0.41	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
0	0	0	NO CURB AND GUTTER	NO CURB	EXCELLENT/97

* Lane miles are based on 11' lane widths



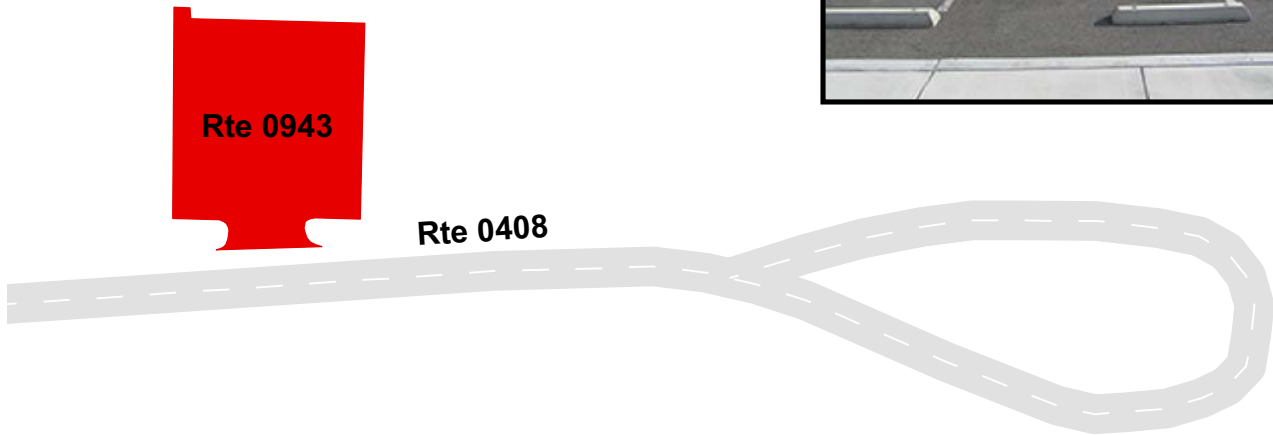
DEATH VALLEY NATIONAL PARK

Route 0943

SALT PAN VISTA DORM PARKING
 FROM ROUTE 0408 (SALT PAN VISTA ROAD)
 TO PARKING

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0943	PUBLIC	12/12/2011	5,226	0.09	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
0	0	0	NO CURB AND GUTTER	CONCRETE CURB	EXCELLENT/97

* Lane miles are based on 11' lane widths



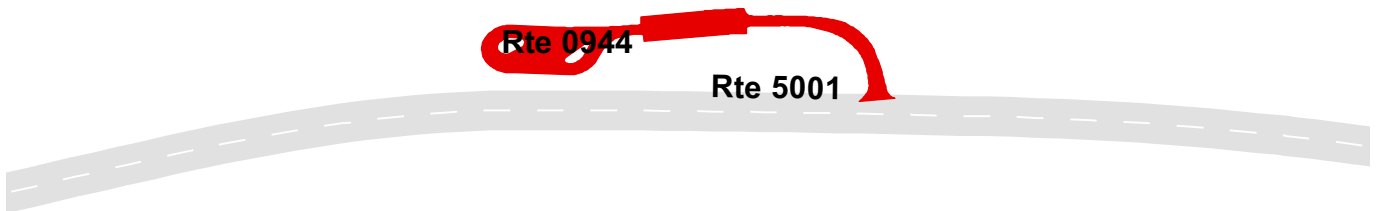
DEATH VALLEY NATIONAL PARK

Route 0944

SPW SAND DUNES PARKING AREA
 FROM ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY))
 TO PARKING

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0944	PUBLIC	12/12/2011	55,102	0.95	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
0	0	0	CONCRETE CURB AND GUTTER	CONCRETE CURB	GOOD/90

* Lane miles are based on 11' lane widths



DEATH VALLEY NATIONAL PARK

Route 0945

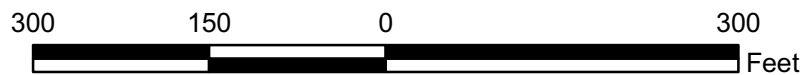
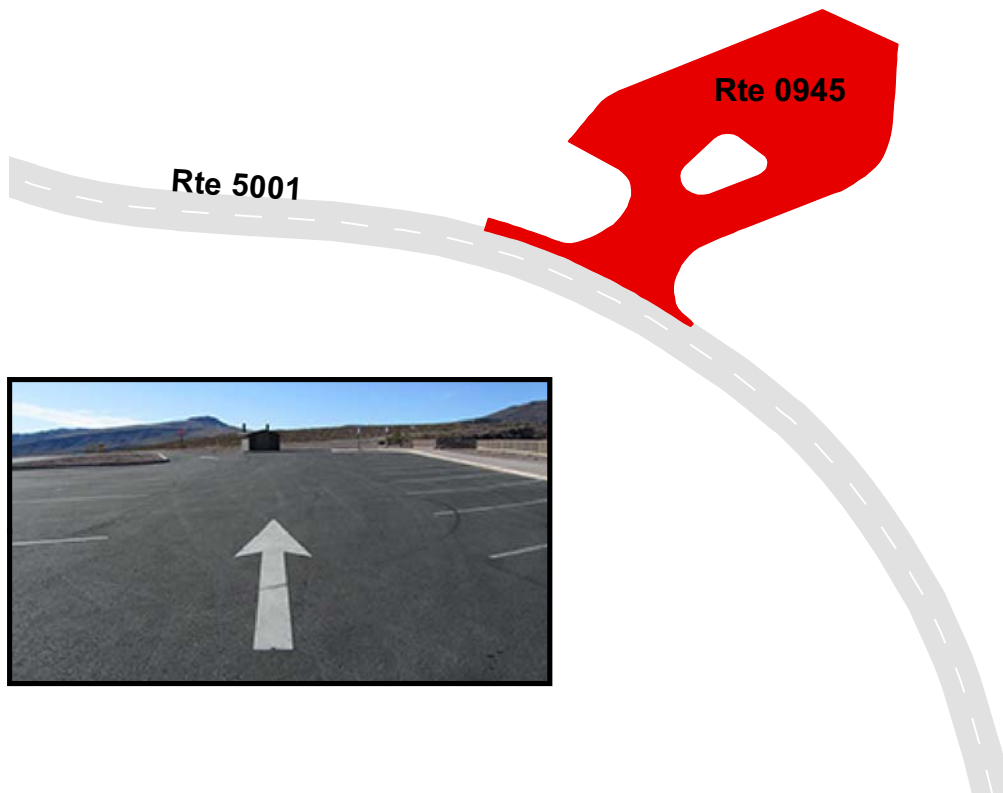
FATHER CROWLEY PARKING AREA

FROM ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY))

TO ROUTE 0318 (PADRE POINT ROAD)

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0945	PUBLIC	12/11/2011	30,345	0.52	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
0	0	0	CONCRETE CURB AND GUTTER	CONCRETE CURB	EXCELLENT/97

* Lane miles are based on 11' lane widths



Section 8

Route Maintenance Features Summaries



Death Valley National Park



Federal Lands Highway
Road Inventory Program

DEVA: DCV ROUTE MAINTENANCE FEATURES SUMMARY

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

FEATURE	ROUTE 0116 WILDROSE CAMPGROUND ROAD	ROUTE 0329 STOVEPIPE WELLS HOUSING ROAD	ROUTE 0430 SKYLINE LOOP ROAD	UNIT
BRIDGE	0	0	0	EACH
CATTLE GUARD	0	0	0	EACH
CULVERT	0	0	0	EACH
CURB	0	0	106	LINEAR FEET
DROP INLET	0	0	0	EACH
GATE	0	0	0	EACH
GUARD/GUIDE RAIL	0	0	0	LINEAR FEET
CABLE	0	0	0	LINEAR FEET
NON-CABLE	0	0	0	LINEAR FEET
GUARD/GUIDE WALL	0	0	0	LINEAR FEET
BOLLARD	0	0	0	LINEAR FEET
TEMPORARY BARRIER	0	0	0	LINEAR FEET
NON TEMP/BOLLARD	0	0	0	LINEAR FEET
INTERSECTION	3	9	4	EACH
LOW WATER CROSSING	0	0	0	EACH
LOW WATER CROSSING	0	0	0	LINEAR FEET
MILE MARKER	0	0	0	EACH
OVERPASS	0	0	0	EACH
PARK BOUNDARY	0	0	0	EACH
PAVED DITCH	0	0	0	LINEAR FEET
PULLOUT	0	0	0	EACH
PULLOUT	0	0	0	LINEAR FEET
RAILROAD CROSSING	0	0	0	EACH
RETAINING WALL	0	0	0	EACH
RETAINING WALL	0	0	0	LINEAR FEET
SIGN	4	3	1	EACH
STATE BOUNDARY	0	0	0	EACH
TRAFFIC LIGHT	0	0	0	EACH
TUNNEL	0	0	0	EACH
TUNNEL	0	0	0	LINEAR FEET

STRUCTURE LIST

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

Section 9
Route Maintenance Features
Road Logs



Death Valley National Park



Federal Lands Highway
Road Inventory Program

DEVA: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0116: WILDROSE CAMPGROUND ROAD

Notice: Culverts and drop inlets were NOT marked by NPS nor inventoried by RIP in Cycle 5 on any new or re-aligned DCV driven routes. Therefore no culverts or drop inlets are reported in Section 9, unless a culvert has a BIP structure number attached to it.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0112 (CHARCOAL KILNS ROAD) AT MP 0.08 (ON LEFT)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0112 (CHARCOAL KILNS ROAD)
0.000	0.000	INTERSECTION	LEFT	ROUTE 0112 (CHARCOAL KILNS ROAD)
0.005	0.005	SIGN	LEFT	REGULATORY, STOP
0.080	0.080	SIGN	LEFT	GUIDE, GRAPHIC SIGN NO TEXT
0.082	0.082	SIGN	RIGHT	GUIDE, GRAPHIC SIGN NO TEXT
0.082	0.082	SIGN	RIGHT	GUIDE, NO WOOD GATHERING
0.087	0.087	INTERSECTION	N/A	ROUTE 0116 (WILDROSE CAMPGROUND ROAD) UNPAVED SECTION
0.087	0.087	ROUTE END	N/A	TO END OF LOOP IN WILDROSE CAMPGROUND

DEVA: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0329: STOVEPIPE WELLS HOUSING ROAD

Notice: Culverts and drop inlets were NOT marked by NPS nor inventoried by RIP in Cycle 5 on any new or re-aligned DCV driven routes. Therefore no culverts or drop inlets are reported in Section 9, unless a culvert has a BIP structure number attached to it.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY))
0.000	0.000	INTERSECTION	LEFT	ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY))
0.000	0.000	INTERSECTION	N/A	ROUTE 0939CZ (STOVE PIPE WELLS VILLAGE GAS STATION)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 5001 (CA-190 (DEATH VALLEY SCENIC BYWAY))
0.005	0.005	INTERSECTION	RIGHT	ROUTE 0939BZ (STOVE PIPE WELLS VILLAGE SALOON PARKING)
0.060	0.060	SIGN	LEFT	GUIDE, GRAPHIC SIGN NO TEXT
0.060	0.060	INTERSECTION	RIGHT	ROUTE 0939EZ (STOVE PIPE WELLS VILLAGE 49ER ROOMS PARKING)
0.075	0.075	INTERSECTION	LEFT	ROUTE 0939FZ (STOVE PIPE WELLS VILLAGE ROADRUNNER PARKING)
0.100	0.100	INTERSECTION	RIGHT	UNPAVED ROAD
0.130	0.130	INTERSECTION	RIGHT	UNPAVED ROAD
0.153	0.153	SIGN	RIGHT	REGULATORY, DO NOT ENTER
0.159	0.159	SIGN	RIGHT	GUIDE, AUTHORIZED VEHICLES ONLY
0.209	0.209	INTERSECTION	N/A	DEAD END AT HOUSING AREA
0.209	0.209	ROUTE END	N/A	TO PARK SERVICE HOUSING

DEVA: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0430: SKYLINE LOOP ROAD

Notice: Culverts and drop inlets were NOT marked by NPS nor inventoried by RIP in Cycle 5 on any new or re-aligned DCV driven routes. Therefore no culverts or drop inlets are reported in Section 9, unless a culvert has a BIP structure number attached to it.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0402 (SKYLINE ROAD)
0.000	0.000	INTERSECTION	LEFT	ROUTE 0402 (SKYLINE ROAD)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0402 (SKYLINE ROAD)
0.054	0.074	CURB	RIGHT	N/A
0.055	0.055	SIGN	RIGHT	GUIDE, UNABLE TO READ FROM VIDEO
0.076	0.076	INTERSECTION	LEFT	ROUTE 0405 (NEVARES ROAD)
0.076	0.076	INTERSECTION	RIGHT	ROUTE 0405 (NEVARES ROAD)
0.076	0.076	ROUTE END	N/A	TO ROUTE 0405 (NEVARES ROAD)

Section 10 Appendix



Death Valley National Park



Federal Lands Highway
Road Inventory Program

Explanation of Changes to the RIP Index Equations and Determination of PCR

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

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

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

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

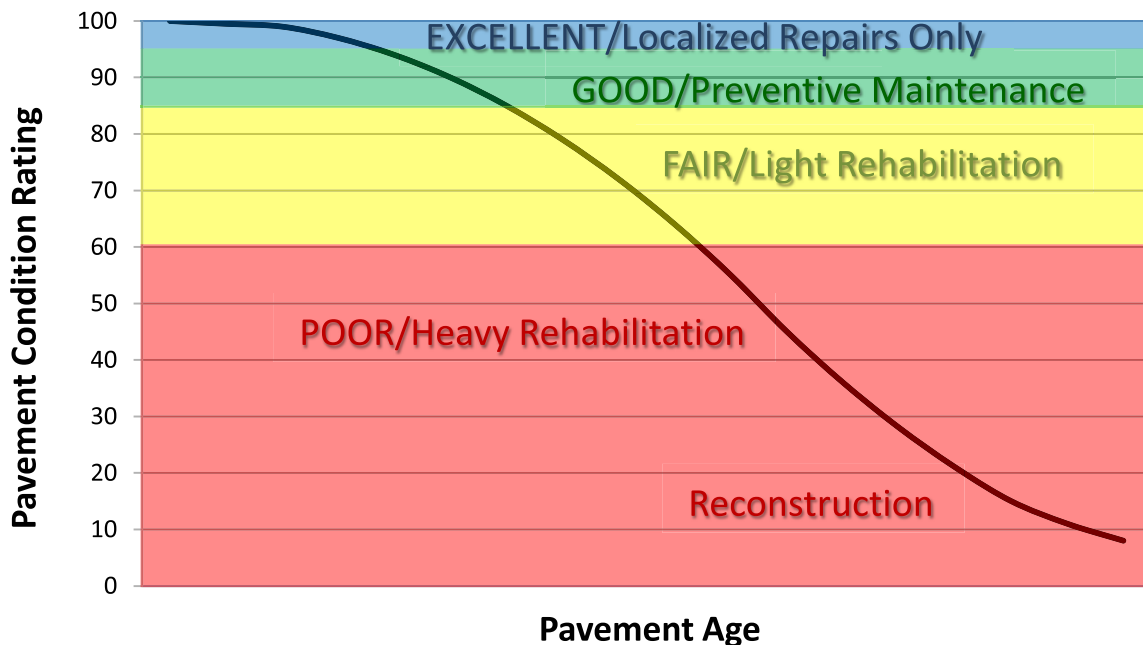
Explanation of the Excellent, Good, Fair and Poor Condition Descriptions

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

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

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

Condition Categories and Treatments



DESCRIPTION OF RATING SYSTEM

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

The FHWA RIP is implemented based on the premise that an accurate pavement surface condition assessment can be accomplished using automated crack detection technology as applied to digital images. Various methods of pavement condition assessment have been developed over the years with varying degrees of accuracy and acceptance. The use of digital photography to record pavement images and subsequent crack detection and classification has undergone continuous improvements over the past decade. Digital cameras with increasingly superior resolution and high definition have 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 about 5000 miles of National Park Service roads and parkways. Foremost in setting up the basis of pavement distress identification is employing the distress identification protocols used by FHWA. There is no single distress identification system that is universal among entities conducting a program of distress identification. For the purpose of the NPS RIP, FHWA employs distress identification protocols that are specific to this program.

FHWA has referenced the “*Distress Identification Manual for the Long-Term Pavement Performance Program*”, Publication No. FHWA-RD 03-031, June 2003, as the point-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 5, 2010-2013*” was developed using the “*Distress Identification Manual for the Long-Term Pavement Performance Program*” as a guideline. Definitions of severity levels based on crack width contained in this document adhere to the LTPP Distress ID Manual. Modifications have been made to the definition of Alligator and Longitudinal Cracking and determination of Alligator Cracking severity. This manual also addresses Rutting and Roughness and its application to RIP.

In 2010, FHWA RIP began the fifth cycle of data collection in national parks. For Cycle 5, data will be collected in approximately 81 large parks (10 or more paved route miles) on Functional Class 1, 2, and 7 routes plus any new routes or parking areas previously not collected, totaling an estimated 4,459 paved route miles. Additionally, 168 small parks will be collected comprising approximately 529 paved route miles and associated paved parking areas. The data is used to support the National Park Service road maintenance program and Pavement Management System (PMS) developed and maintained by FHWA.

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

SURFACE DISTRESSES

Surface Condition Rating - SCR

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

Surface distresses determined from digital images

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

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

- Rutting

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

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

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

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

Roughness Condition Index - RCI

Additional condition data measured by DCV (lasers and accelerometers)

- Roughness (IRI)

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

Pavement Condition Rating - PCR

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

$$\text{Asphalt PCR} = (0.60 * \text{SCR}) + (0.40 * \text{RCI})$$

$$\text{Concrete PCR} = \text{RCI}$$

A detailed description of each distress index formula, roughness index formula, SCR and PCR is provided in this document beginning on page 23.

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

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

POOR (<=60), FAIR (61 - 84), GOOD (85 - 94), EXCELLENT (95 - 100)

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

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

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

TABLE 1: Distress Summary

ASPHALT-SURFACED PAVEMENT DISTRESS TYPES with RUTTING and ROUGHNESS				
DISTRESS TYPE	UNIT OF MEASURE...	...CONVERTED TO	DEFINED SEVERITY LEVELS?	MEASURED BY
Alligator Cracking	Square Feet	Percent of Lane Per 0.02 Mile	Yes	Digital Image Crack Detection Software
Transverse Cracking	Linear Feet	Number of Cracks Per 0.02 Mile	Yes	Digital Image Crack Detection Software
Longitudinal Cracking	Linear feet	Percent of Lane Length Per 0.02 Mile	Yes	Digital Image Crack Detection Software
Patching/Potholes	Square Feet	Percent of Lane Per 0.02 Mile	No	Digital Image Crack Detection Software
Rutting	Inches	Rut Depth Per 0.02 Mile	Yes	DCV – Laser Rut Measuring System (LRMS)
Roughness	IRI	*RCI Per 0.02 Mile	No	DCV – Lasers /Accelerometers

***Note: Roughness is measured on concrete roadways, but surface distresses and rutting are not measured. For concrete, PCR = RCI**

ALLIGATOR CRACKING

Description

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

Severity Levels

LOW

An area of cracks with no or very few interconnecting cracks and the cracks are not spalled. Cracks are ≤ 0.25 in (6mm) in mean width. Cracks in the pattern are no further apart than 1 foot (0.328 m). May be sealed cracks with sealant in good condition and a crack width that cannot be determined.

MEDIUM

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

HIGH

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

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

TABLE 2: Alligator Crack Severity Levels

ALLIGATOR CRACKING SEVERITY LEVELS		Crack Pattern		
		LOW	MED	HIGH
Crack Width	LOW	L	M	H
	MED	M	M	H
	HI	H	H	H

LONGITUDINAL CRACKING

Description

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

Severity Levels

LOW

Cracks with a mean width of < 0.25 in. (6 mm). Sealed cracks with sealant in good condition and a width that cannot be determined.

MED

Cracks with a mean width > 0.25 in. (6 mm) and ≤ 0.75 in. (19 mm). Also, any crack with a mean width < 0.75 in. (19 mm) and adjacent random low severity cracking.

HIGH

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

TRANSVERSE CRACKING

Description

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

Severity Levels

LOW

Cracks with a mean width of < 0.25 in. (6 mm). Sealed cracks with sealant in good condition and a width that cannot be determined.

MED

Cracks with a mean width > 0.25 in. (6 mm) and ≤ 0.75 in. (19 mm). Also, any crack with a mean width < 0.75 in. (19 mm) and adjacent random low severity cracking.

HIGH

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

PATCHING AND POTHOLES

Description

Patching is an area of pavement surface that has been removed and replaced with patching material or an area of pavement surface that has had additional patching material applied. Patching may encompass partial lane or full lane width. On full lane width patching; the total, contiguous length of patch may not exceed 0.30 mi. (0.48 km). (Any full-lane patch exceeding 0.30 mi. in length is considered a pavement change). Patching must have a quantifiable area.

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

Severity Levels

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

RUTTING

Description

Rutting is a longitudinal surface depression in the wheelpath.

Severity Levels

LOW

Ruts with a measured depth $\geq 0.20''$ and $\leq 0.49''$

MED

Ruts with a measured depth $\geq 0.50''$ and $\leq 0.99''$

HIGH

Ruts with a measured depth $\geq 1.00''$

Ruts $< 0.20''$ are not included in the distress calculations.

ROUGHNESS

Description

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

Severity Levels

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

TABLE 3: IRI

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

INDEX FORMULAS

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

Alligator Crack Index

$$AC_INDEX = 100 - 40 * [(\%LOW / 35) + (\%MED / 15) + (\%HI / 5)]$$

Where:

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

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

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

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

Percent of total area is computed as:

$$\frac{\text{square foot area of alligator crack severity}}{0.02 \text{ mile} * \text{lane width}}$$

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

Longitudinal Crack Index

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

Where:

The values *%LOW*, *%MED*, and *%HI* report the length of longitudinal cracking within each severity as a percent of the section length (0.02 mile, primary lane).

These values are ≥ 0 and can exceed 100.

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

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

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

Percent of interval length is computed as:

$$\frac{\text{length of respective longitudinal cracking}}{0.02 \text{ mile (105.6 feet)}}$$

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

Structural Crack Index

$$SC_INDEX = [100 - ((100 - AC_INDEX) + (100 - LC_INDEX))]$$

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

Transverse Crack Index

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

Where:

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

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

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

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

Number of cracks is computed as:

$$\frac{\text{Total length of transverse cracks}}{\text{Lane width}}$$

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

$$\text{PATCH_INDEX} = 100 - 40 * (\% \text{PATCHING} / 80)$$

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:

$$\frac{\text{square foot area of patching/potholes}}{0.02 \text{ mile} * \text{lane width}}$$

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

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

Rutting Index

$$\text{RUT_INDEX} = 100 - 40 * [(\% \text{LOW} / 535) + (\% \text{MED} / 205) + (\% \text{HI} / 40)]$$

Where:

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

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

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

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

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

$$\frac{\text{total number of ruts within each severity in both wheelpaths}}{20} * 100$$

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

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

Roughness Condition Index (Asphalt)

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

Where:

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

Average IRI is computed as:

$$\frac{\text{Left wheelpath IRI} + \text{Right wheelpath IRI}}{2}$$

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

CAMERAS

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

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

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

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

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

DMI (Distance Measuring Instrument)

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

ROUGHNESS (IRI)

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

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

RUTTING

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

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

GPS & INERTIAL SYSTEMS

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

GPS SPECIFICATIONS	
Static accuracy	Sub-meter
Dynamic accuracy	2-3 meters
Receiver	12 satellite tracking
Coordinate system	Lat Lon WGS 84
Environment	Day or night
Cross-slope	+ - 0.1 degrees
Grade	+ - 0.1 degrees

GPS on Manually Rated Roads (MRR)

Parking areas, some roads, and other paved areas that are not fully drivable with the DCV are collected manually by field technicians. GPS is collected for these routes using portable Trimble GPS backpack units.

Geodatabase – Background and Metadata

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

A geodatabase can be thought of as simply a database containing spatial data. Many different tables are contained with the park's geodatabase. A complete and thorough description of the tables and fields contained within this geodatabase can be found in the *metadata*. The metadata is attached directly within the geodatabase and can be accessed via ESRI's ArcCatalog.

GLOSSARY OF TERMS AND ABBREVIATIONS

<u>TERM OR ABBREVIATION</u>	<u>DESCRIPTION OR DEFINITION</u>
AC	Alligator Cracking
CRS	Condition Rating Sheets (Section 5)
DCV	Data Collection Vehicle
Excellent	Excellent rating with an index value of 95 to 100
Fair	Fair rating with an index value from 61 to 84
FUNCT_CLASS	Functional Classification (see Route ID, Section 2)
Good	Good rating with an index value from 85 to 94
IRI	International Roughness Index
Lane Width	Width from road centerline to fogline, or from centerline to edge-of-pavement when no fogline exists
LC	Longitudinal Cracking
MRR	Manually Rated Route
MRL	Manually Rated Line
MRP	Manually Rated Polygon
N/A	Not Applicable
NC	Not Collected
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