

# The Road Inventory of Colonial National Historical Park COLO - 4290 Cycle 4



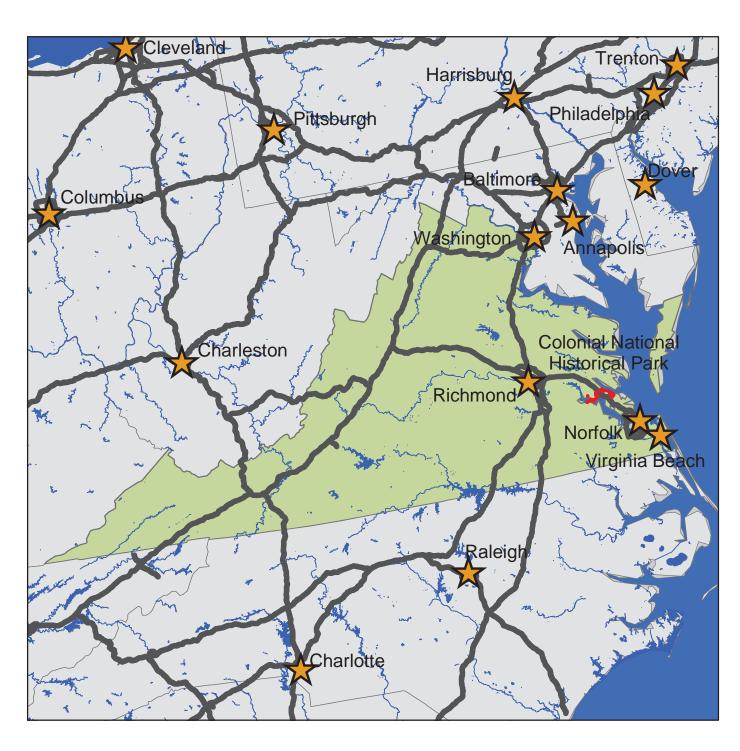




Prepared By: Federal Highway Administration Road Inventory Program Cycle 4



## Colonial National Historical Park in Virginia





#### TABLE OF CONTENTS

|     | <u>SECTION</u>  | <b>PAGE</b>   |
|-----|---|---|
| 1.  | INTRODUCTION  | 1 - 1   |
| 2.  | PARK SUMMARY INFORMATION Paved Route Miles and Percentages by Functional Class and PCR ARAN Road Condition Summary Parkwide Condition Summary Cycle 2 vs Cycle 3 vs Cycle 4 Condition Comparisons | $     \begin{array}{r}       2 - 1 \\       2 - 2 \\       2 - 6 \\       2 - 7     \end{array} $ |
| 3.  | PARK ROUTE LOCATION / CONDITION MAPS Route Location Key Map Route Location Area Map Route Condition Key Map – PCR Mile by Mile Route Condition Area Map – PCR Mile by Mile                        | 3-1 $3-2$ $3-6$ $3-7$   |
| 4.  | PARK ROUTE INVENTORY Route Identification Report  | 4 – 1   |
| 5.  | <b>PAVED ROUTE CONDITION RATING SHEETS (CRS)</b> CRS Pages  | 5 – 1   |
| 6.  | MANUALLY RATED PAVED ROUTE CONDITION RATING SHEETS (MRR) MRR Pages  | 6 – 1   |
| 7.  | PARKING AREA CONDITION RATING SHEETS Paved Parking Area Pages   | 7 – 1   |
| 8.  | PARKWIDE / ROUTE MAINTENANCE FEATURES SUMMARIES Parkwide Maintenance Features Summary Route Maintenance Features Summary Structure List   | 8-1 $8-2$ $8-6$   |
| 9.  | PARK ROUTE MAINTENANCE FEATURES ROAD LOGS Route Maintenance Features Road Logs  | 9 – 1   |
| 10. | APPENDIX A. Glossary of Terms and Abbreviations B. Description of Rating System C. General Information on RIP Systems D. Metadata   | 10 - 1 $10 - 2$ $10 - 8$ $10 - 11$  |

## Colonial National Historical Park



**Section 1 Introduction** 

#### INTRODUCTION

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

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

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

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

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

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

1 - 1

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

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

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

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

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

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

The FHWA RIP Team

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

### Colonial National Historical Park

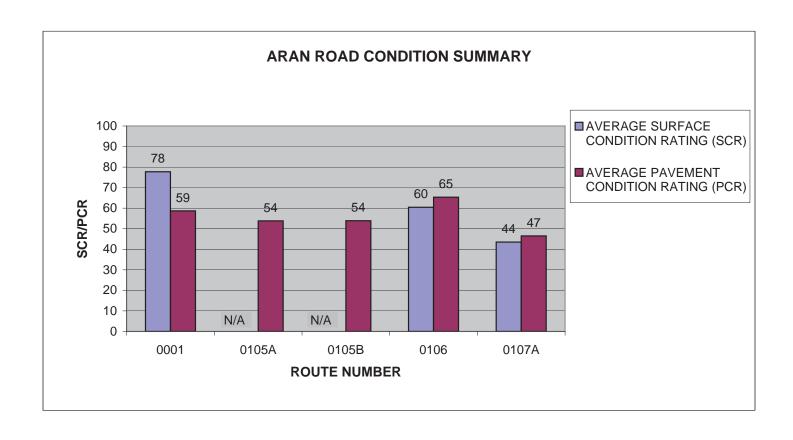


Section 2
Park Summary Information

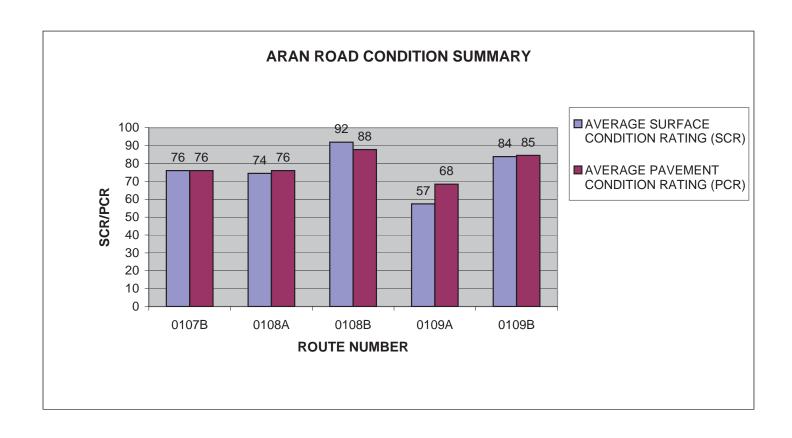
#### COLO: PAVED ROUTE MILES AND PERCENTAGES BY FUNCTIONAL CLASS AND PCR

|        |        | P      | avement C | Condition R | ating (PCF | ₹)      |           |          |       |
|--------|--------|--------|-----------|-------------|------------|---------|-----------|----------|-------|
|        | Poor ( | <=60)  | Fair (6   | 1-84)       | Good (     | (85-94) | Excellent | (95-100) | TOTAL |
| F.C.   | MILES  | %      | MILES     | %           | MILES      | %       | MILES     | %        | MILES |
| 1      | 10.59  | 25.22% | 12.52     | 29.82%      | 1.64       | 3.91%   | 0.19      | 0.45%    | 24.94 |
| 2      | 0.21   | 0.50%  |           |             |            |         |           |          | 0.21  |
| 3      | 1.37   | 3.26%  | 10.85     | 25.84%      | 4.10       | 9.76%   | 0.52      | 1.24%    | 16.84 |
| 4      |        |        |           |             |            |         |           |          |       |
| 5      |        |        |           |             |            |         |           |          |       |
| 6      |        |        |           |             |            |         |           |          |       |
| 7      |        |        |           |             |            |         |           |          |       |
| 8      |        |        |           |             |            |         |           |          |       |
| Totals | 12.17  | 28.98% | 23.37     | 55.66%      | 5.74       | 13.67%  | 0.71      | 1.69%    | 41.99 |

| ROUTE<br>NUMBER | ROUTE NAME                   | FUNCT<br>CLASS | ROUTE<br>LENGTH | SURFACE<br>TYPE | AVERAGE<br>SURFACE<br>CONDITION<br>RATING (SCR) | AVERAGE<br>PAVEMENT<br>CONDITION<br>RATING (PCR) |
|-----------------|------------------------------|----------------|-----------------|-----------------|---|--|
| 0001            | COLONIAL PARKWAY             | 1              | 23.11           | CONCRETE        | 78  | 59   |
| 0105A           | US ROUTE 17 ACCESS ROAD A    | 1              | 0.18            | CONCRETE        | N/A   | 54   |
| 0105B           | US ROUTE 17 ACCESS ROAD B    | 1              | 0.18            | CONCRETE        | N/A   | 54   |
| 0106            | FUSILIER'S ROAD              | 1              | 0.35            | ASPHALT         | 60  | 65   |
| 0107A           | CHEATHAM ANNEX ACCESS ROAD A | 1              | 0.04            | ASPHALT         | 44  | 47   |

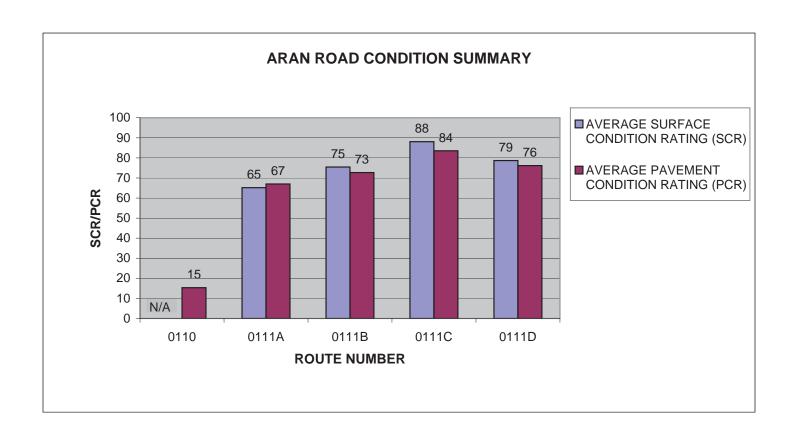


| ROUTE<br>NUMBER | ROUTE NAME                   | FUNCT<br>CLASS | ROUTE<br>LENGTH | SURFACE<br>TYPE | AVERAGE<br>SURFACE<br>CONDITION<br>RATING (SCR) | AVERAGE PAVEMENT CONDITION RATING (PCR) |
|-----------------|------------------------------|----------------|-----------------|-----------------|---|---|
| 0107B           | CHEATHAM ANNEX ACCESS ROAD B | 1              | 0.12            | ASPHALT         | 76  | 76                                      |
| 0108A           | QUEENS LAKE ACCESS A         | 1              | 0.14            | ASPHALT         | 74  | 76                                      |
| 0108B           | QUEENS LAKE ACCESS B         | 1              | 0.13            | ASPHALT         | 92  | 88                                      |
| 0109A           | PARKWAY DRIVE ACCESS ROAD A  | 1              | 0.1             | ASPHALT         | 57  | 68                                      |
| 0109B           | PARKWAY DRIVE ACCESS ROAD B  | 1              | 0.12            | ASPHALT         | 84  | 85                                      |



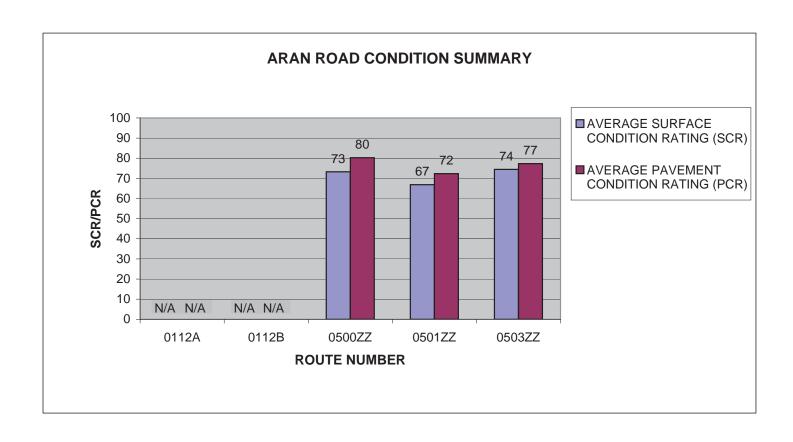
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| ROUTE<br>NUMBER | ROUTE NAME                    | FUNCT<br>CLASS | ROUTE<br>LENGTH | SURFACE<br>TYPE | AVERAGE<br>SURFACE<br>CONDITION<br>RATING (SCR) | AVERAGE PAVEMENT CONDITION RATING (PCR) |
|-----------------|-------------------------------|----------------|-----------------|-----------------|---|---|
| 0110            | TAZEWELL HALL ACCESS ROAD     | 2              | 0.06            | CONCRETE        | N/A   | 15                                      |
| 0111A           | STATE ROUTE 199 INTERCHANGE A | 1              | 0.11            | ASPHALT         | 65  | 67                                      |
| 0111B           | STATE ROUTE 199 INTERCHANGE B | 1              | 0.13            | ASPHALT         | 75  | 73                                      |
| 0111C           | STATE ROUTE 199 INTERCHANGE C | 1              | 0.11            | ASPHALT         | 88  | 84                                      |
| 0111D           | STATE ROUTE 199 INTERCHANGE D | 1              | 0.12            | ASPHALT         | 79  | 76                                      |



Data Collected 04/17/2009

| ROUTE<br>NUMBER | ROUTE NAME                   | FUNCT<br>CLASS | ROUTE<br>LENGTH | SURFACE<br>TYPE | AVERAGE<br>SURFACE<br>CONDITION<br>RATING (SCR) | AVERAGE<br>PAVEMENT<br>CONDITION<br>RATING (PCR) |
|-----------------|------------------------------|----------------|-----------------|-----------------|---|--|
| 0112A           | NEWPORT AVENUE ACCESS ROAD A | 2              | 0.06            | CONCRETE        | N/A   | N/A  |
| 0112B           | NEWPORT AVENUE ACCESS ROAD B | 2              | 0.09            | CONCRETE        | N/A   | N/A  |
| 0500ZZ          | YORKTOWN WEST TOUR ROUTES    | 3              | 9.24            | ASPHALT         | 73  | 80   |
| 0501ZZ          | ISLAND DRIVE ROUTES          | 3              | 4.82            | ASPHALT         | 67  | 72   |
| 0503ZZ          | YORKTOWN EAST TOUR ROUTES    | 3              | 2.78            | ASPHALT         | 74  | 77   |

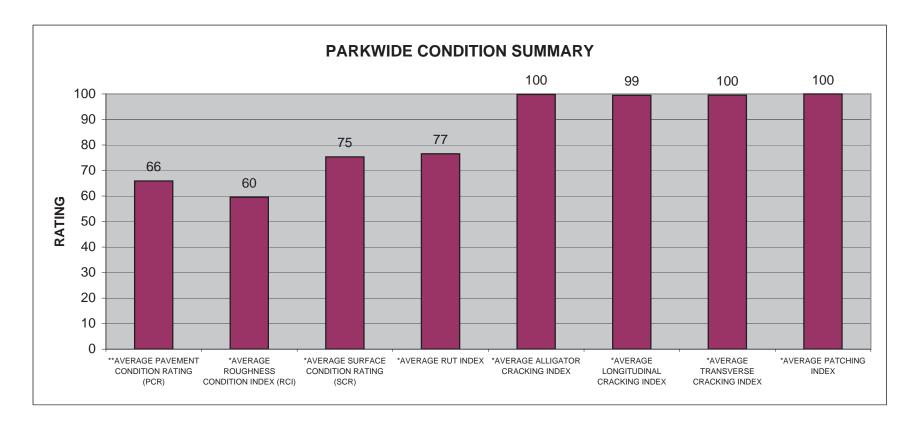


#### **COLO: PARKWIDE CONDITION SUMMARY**

| **AVERAGE       | *AVERAGE    | *AVERAGE     |           | *AVERAGE  | *AVERAGE     | *AVERAGE   |          |
|-----------------|-------------|--------------|-----------|-----------|--------------|------------|----------|
| <b>PAVEMENT</b> | ROUGHNESS   | SURFACE      |           | ALLIGATOR | LONGITUDINAL | TRANSVERSE | *AVERAGE |
| CONDITION       | CONDITION   | CONDITION    | *AVERAGE  | CRACKING  | CRACKING     | CRACKING   | PATCHING |
| RATING (PCR)    | INDEX (RCI) | RATING (SCR) | RUT INDEX | INDEX     | INDEX        | INDEX      | INDEX    |
| 66              | 60          | 75           | 77        | 100       | 99           | 100        | 100      |

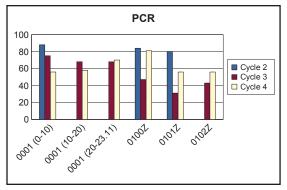
<sup>\*\*</sup> PCR Index is based on all ARAN-driven roads, parking areas, and manually rated routes.

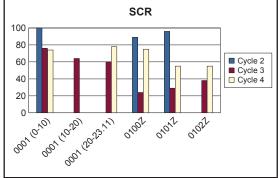
<sup>\*</sup> Index values are based on ARAN-driven roads only.

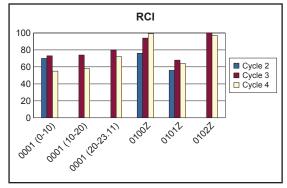


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|                 |                |                  |                | 1       | EMENT<br>RATIN |         | DITION<br>CR)     | S       |         | ACE CO<br>ATING | NDITION<br>(SCR)  |         | ROUG    | HNESS<br>INDEX | CONDITION<br>(RCI) | 1  |
|-----------------|----------------|------------------|----------------|---------|----------------|---------|-------------------|---------|---------|-----------------|-------------------|---------|---------|----------------|--------------------|--|
| ROUTE<br>NUMBER | PAVED<br>MILES | FROM<br>MILEPOST | TO<br>MILEPOST | CYCLE 2 | CYCLE 3        | CYCLE 4 | PERCENT<br>CHANGE | CYCLE 2 | CYCLE 3 | CYCLE 4         | PERCENT<br>CHANGE | CYCLE 2 | CYCLE 3 | CYCLE 4        | PERCENT<br>CHANGE  | COMMENT  |
| 0001            | 10.00          | 0.00             | 10.00          | 88      | 75             | 56      | -25%              | 100     | 76      | 74              | -3%               | 70      | 73      | 55             | -25%               |  |
| 0001            | 10.00          | 10.00            | 20.00          | N/A     | 68             | 58      | -15%              | N/A     | 64      | N/A             | N/A               | N/A     | 74      | 58             | -22%               | No SCR collected in C4 for this portion of Route 0001.   |
| 0001            | 10.00          | 20.00            | 23.11          | N/A     | 68             | 70      | +3%               | N/A     | 60      | 78              | +30%              | N/A     | 80      | 72             | -10%               |  |
| 0100Z           | 0.30           | 0.00             | 0.30           | 84      | 47             | 81      | +72%              | 89      | 24      | 75              | +212%             | 76      | 94      | 99             | +5%                | Route 0100Z was<br>Route 0100 in Cycle<br>2 and Cycle 3. |
| 0101Z           | 0.20           | 0.00             | 0.20           | 80      | 31             | 56      | +81%              | 96      | 29      | 55              | +90%              | 56      | 68      | 64             | -6%                | Route 0101Z was<br>Route 0101 in Cycle<br>2 and Cycle 3. |
| 0102Z           | 0.07           | 0.00             | 0.07           | N/A     | 43             | 56      | +30%              | N/A     | 38      | 55              | +45%              | N/A     | 100     | 97             | -3%                | Route 0102Z was<br>Route 0102 in Cycle<br>2 and Cycle 3. |



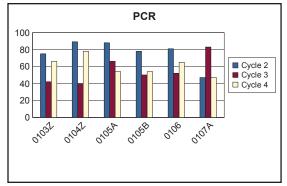


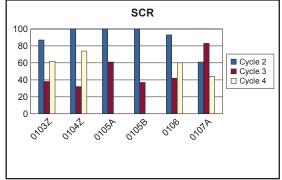


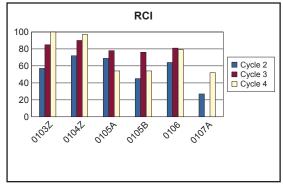
Cycle 4 Data Collected 4/15/2009 - 4/17/2009

Page 2 - 7

|                 |                |                  |                | PAVI    | EMENT<br>RATIN |         | DITION<br>CR)     | \$      |         | ACE CO<br>ATING | ONDITION<br>(SCR) |         | ROUG    |         | CONDITION<br>(RCI) | N  |
|-----------------|----------------|------------------|----------------|---------|----------------|---------|-------------------|---------|---------|-----------------|-------------------|---------|---------|---------|--------------------|--|
| ROUTE<br>NUMBER | PAVED<br>MILES | FROM<br>MILEPOST | TO<br>MILEPOST | CYCLE 2 | CYCLE 3        | CYCLE 4 | PERCENT<br>CHANGE | CYCLE 2 | CYCLE 3 | CYCLE 4         | PERCENT<br>CHANGE | CYCLE 2 | CYCLE 3 | CYCLE 4 | PERCENT<br>CHANGE  | COMMENT  |
| 0103Z           | 0.22           | 0.00             | 0.22           | 75      | 42             | 66      | +57%              | 87      | 38      | 62              | +63%              | 57      | 85      | 100     | +18%               | Route 0103Z was<br>Route 0103 in Cycle<br>2 and Cycle 3. |
| 0104Z           | 0.53           | 0.00             | 0.53           | 89      | 40             | 78      | +95%              | 100     | 32      | 74              | +131%             | 72      | 90      | 97      | +8%                | Route 0104Z was<br>Route 0104 in Cycle<br>2 and Cycle 3. |
| 0105A           | 0.19           | 0.00             | 0.19           | 88      | 66             | 54      | -18%              | 100     | 61      | N/A             | N/A               | 69      | 78      | 54      | -31%               | No SCR data available in Cycle 4.                        |
| 0105B           | 0.20           | 0.00             | 0.20           | 78      | 50             | 54      | +8%               | 100     | 37      | N/A             | N/A               | 45      | 76      | 54      | -29%               | No SCR data available in Cycle 4.                        |
| 0106            | 0.35           | 0.00             | 0.35           | 81      | 52             | 65      | +25%              | 93      | 42      | 60              | +43%              | 64      | 81      | 79      | -2%                |  |
| 0107A           | 0.05           | 0.00             | 0.05           | 47      | 83             | 47      | -43%              | 61      | 83      | 44              | -47%              | 27      | N/A     | 52      | N/A                | No RCI data available in Cycle 3.                        |

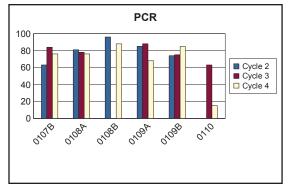


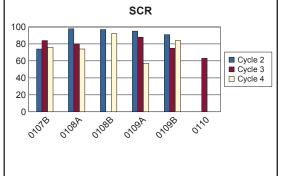


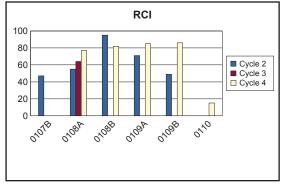


Cycle 4 Data Collected 4/15/2009 - 4/17/2009

|                 |                |                  |                | PAV     | EMENT<br>RATIN |         | DITION<br>CR)     | ;       |         | ACE CO<br>ATING | ONDITION<br>(SCR) |         | ROUG    | HNESS<br>INDEX | CONDITION<br>(RCI) | N   |
|-----------------|----------------|------------------|----------------|---------|----------------|---------|-------------------|---------|---------|-----------------|-------------------|---------|---------|----------------|--------------------|---|
| ROUTE<br>NUMBER | PAVED<br>MILES | FROM<br>MILEPOST | TO<br>MILEPOST | CYCLE 2 | CYCLE 3        | CYCLE 4 | PERCENT<br>CHANGE | CYCLE 2 | CYCLE 3 | CYCLE 4         | PERCENT<br>CHANGE | CYCLE 2 | CYCLE 3 | CYCLE 4        | PERCENT<br>CHANGE  | COMMENT   |
| 0107B           | 0.12           | 0.00             | 0.12           | 63      | 84             | 76      | -10%              | 74      | 84      | 76              | -10%              | 47      | N/A     | N/A            | N/A                | No RCI data available in Cycle 3 and Cycle 4.     |
| 0108A           | 0.14           | 0.00             | 0.14           | 81      | 78             | 76      | -3%               | 98      | 80      | 74              | -7%               | 55      | 64      | 77             | +20%               |   |
| 0108B           | 0.13           | 0.00             | 0.13           | 96      | N/A            | 88      | N/A               | 97      | N/A     | 92              | N/A               | 95      | N/A     | 82             | N/A                | Route not collected in Cycle 3.                   |
| 0109A           | 0.11           | 0.00             | 0.11           | 85      | 88             | 68      | -23%              | 95      | 88      | 57              | -35%              | 71      | N/A     | 85             | N/A                | No RCI data available in Cycle 3.                 |
| 0109B           | 0.12           | 0.00             | 0.12           | 74      | 75             | 85      | +13%              | 91      | 75      | 84              | +12%              | 49      | N/A     | 86             | N/A                | No RCI data available in Cycle 3.                 |
| 0110            | 0.06           | 0.00             | 0.06           | N/A     | 63             | 15      | -76%              | N/A     | 63      | N/A             | N/A               | N/A     | N/A     | 15             | N/A                | No SCR data in Cycle 4; no RCI data in C2 and C3. |



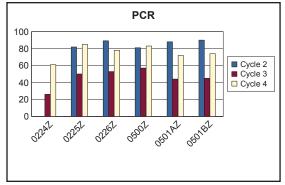


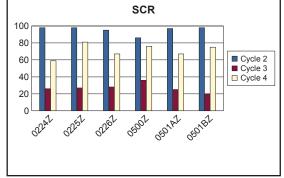


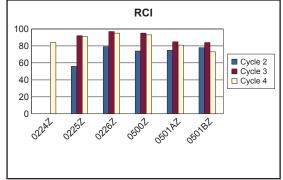
Cycle 4 Data Collected 4/15/2009 - 4/17/2009

Page 2 -9

|                 |                |                  |                | 1       | EMENT<br>RATIN |         | DITION<br>CR)     |         |         | ACE CO  | ONDITION<br>(SCR) |         | ROUG    | HNESS<br>INDEX | CONDITION<br>(RCI) | N   |
|-----------------|----------------|------------------|----------------|---------|----------------|---------|-------------------|---------|---------|---------|-------------------|---------|---------|----------------|--------------------|---|
| ROUTE<br>NUMBER | PAVED<br>MILES | FROM<br>MILEPOST | TO<br>MILEPOST | CYCLE 2 | CYCLE 3        | CYCLE 4 | PERCENT<br>CHANGE | CYCLE 2 | CYCLE 3 | CYCLE 4 | PERCENT<br>CHANGE | CYCLE 2 | CYCLE 3 | CYCLE 4        | PERCENT<br>CHANGE  | COMMENT   |
| 0224Z           | 0.28           | 0.00             | 0.28           | N/A     | 26             | 61      | +135%             | 98      | 26      | 59      | +127%             | N/A     | N/A     | 84             | N/A                | No RCI data in C2<br>and C3. Route was<br>0224 in C2, C3. |
| 0225Z           | 1.27           | 0.00             | 1.27           | 82      | 50             | 85      | +70%              | 98      | 27      | 81      | +200%             | 56      | 92      | 91             | -1%                | Route 0225Z was<br>Route 0225 in Cycle<br>2 and Cycle 3.  |
| 0226Z           | 2.49           | 0.00             | 2.49           | 89      | 53             | 78      | +47%              | 95      | 28      | 67      | +139%             | 79      | 97      | 95             | -2%                | Route 0226Z was<br>Route 0226 in Cycle<br>2 and Cycle 3.  |
| 0500Z           | 4.28           | 0.00             | 4.28           | 81      | 57             | 83      | +46%              | 86      | 36      | 76      | +111%             | 74      | 95      | 93             | -2%                | Route 0500Z was<br>Route 0500 in Cycle<br>2 and Cycle 3.  |
| 0501AZ          | 4.67           | 0.00             | 4.67           | 88      | 44             | 72      | +64%              | 97      | 25      | 67      | +168%             | 75      | 85      | 81             | -5%                | Route is composed of C3 Routes 0501A and 0501B.           |
| 0501BZ          | 0.15           | 0.00             | 0.15           | 90      | 45             | 74      | +64%              | 98      | 20      | 75      | +275%             | 78      | 84      | 73             | -13%               | Route 0501BZ is composed of a portion of C3 Route 0501A.  |



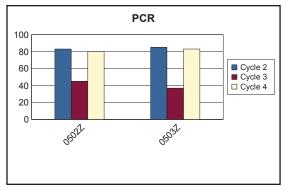


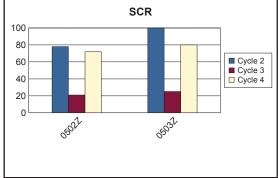


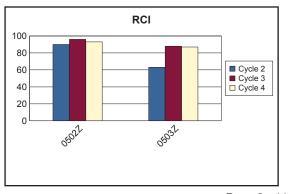
Cycle 4 Data Collected 4/15/2009 - 4/17/2009

Page 2 - 10

|                 |                |                  |                | I       | EMENT<br>RATIN |         | DITION<br>CR)     |         |         |         | ONDITION<br>(SCR) |         | RO |         | HNESS<br>INDEX | CONDITION<br>(RCI) | ſ  |
|-----------------|----------------|------------------|----------------|---------|----------------|---------|-------------------|---------|---------|---------|-------------------|---------|----|---------|----------------|--------------------|--|
| ROUTE<br>NUMBER | PAVED<br>MILES | FROM<br>MILEPOST | TO<br>MILEPOST | CYCLE 2 | CYCLE 3        | CYCLE 4 | PERCENT<br>CHANGE | CYCLE 2 | CYCLE 3 | CYCLE 4 | PERCENT<br>CHANGE | CYCLE 2 |    | CYCLE 3 | CYCLE 4        | PERCENT<br>CHANGE  | COMMENT  |
| 0502Z           | 0.55           | 0.00             | 0.55           | 83      | 45             | 80      | +78%              | 78      | 21      | 72      | +243%             | 9       | 0  | 96      | 93             | -3%                | Route 0502Z was<br>Route 0502 in Cycle<br>2 and Cycle 3. |
| 0503Z           | 1.83           | 0.00             | 1.83           | 85      | 37             | 83      | +124%             | 100     | 25      | 80      | +220%             | 6       | 3  | 88      | 87             | -1%                | Route 0503Z was<br>Route 0503 in Cycle<br>2 and Cycle 3. |







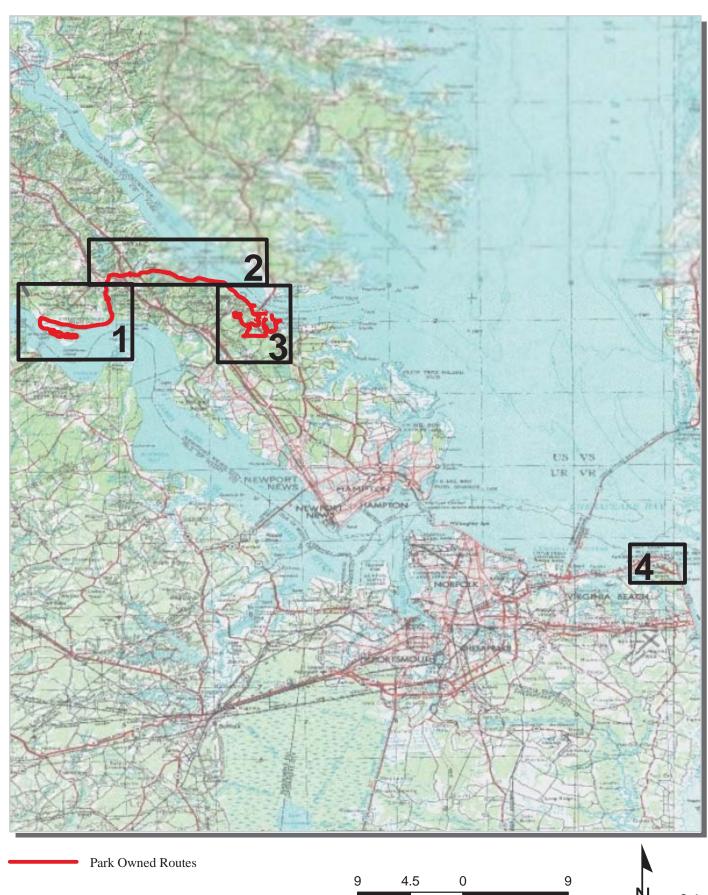
Cy cle 4 Data Collected 4/15/2009 - 4/17/2009

Page 2 - 11

### Colonial National Historical Park

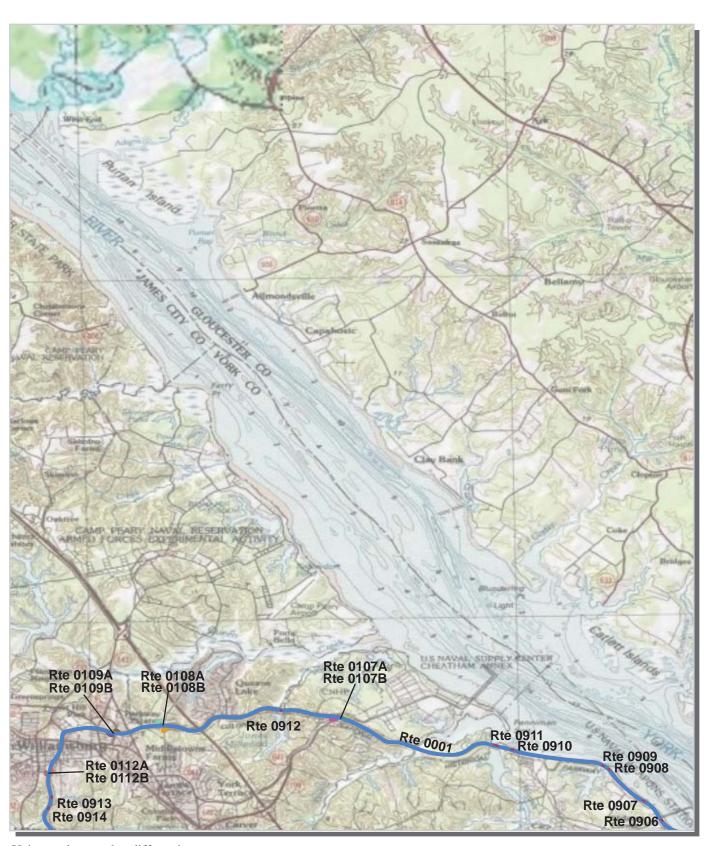


## Section 3 Park Route Location / Condition Maps

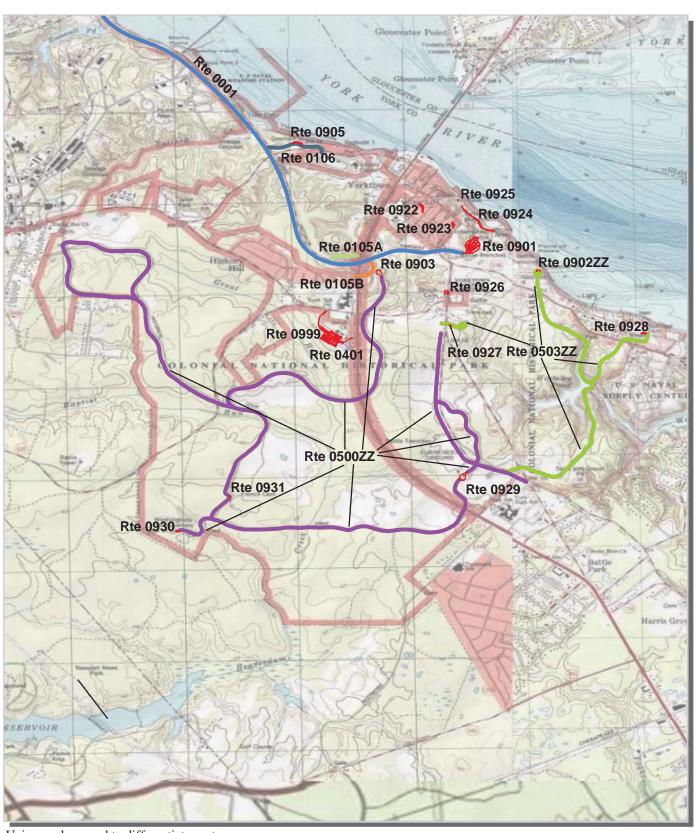




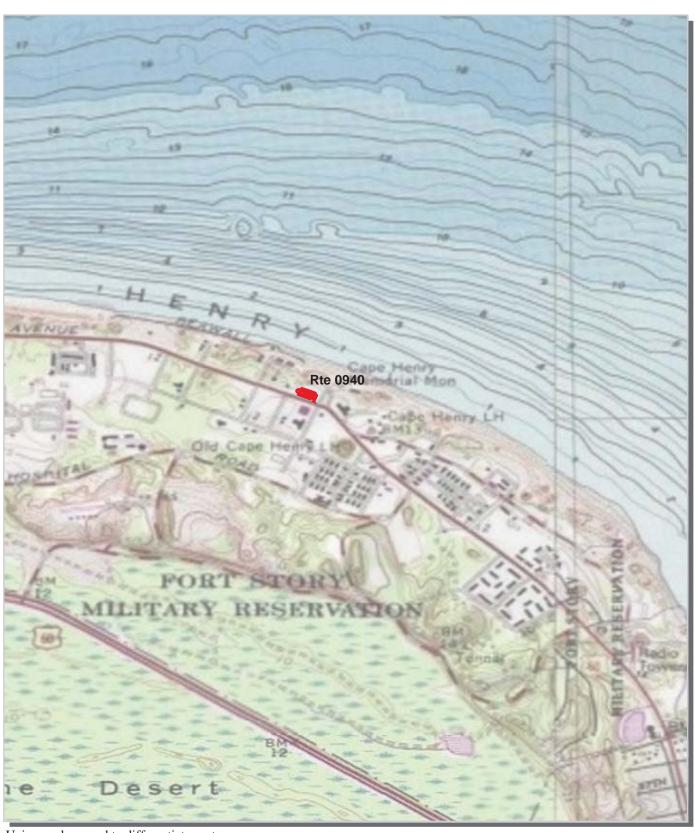
Unique colors used to differentiate routes



Unique colors used to differentiate routes



Unique colors used to differentiate routes

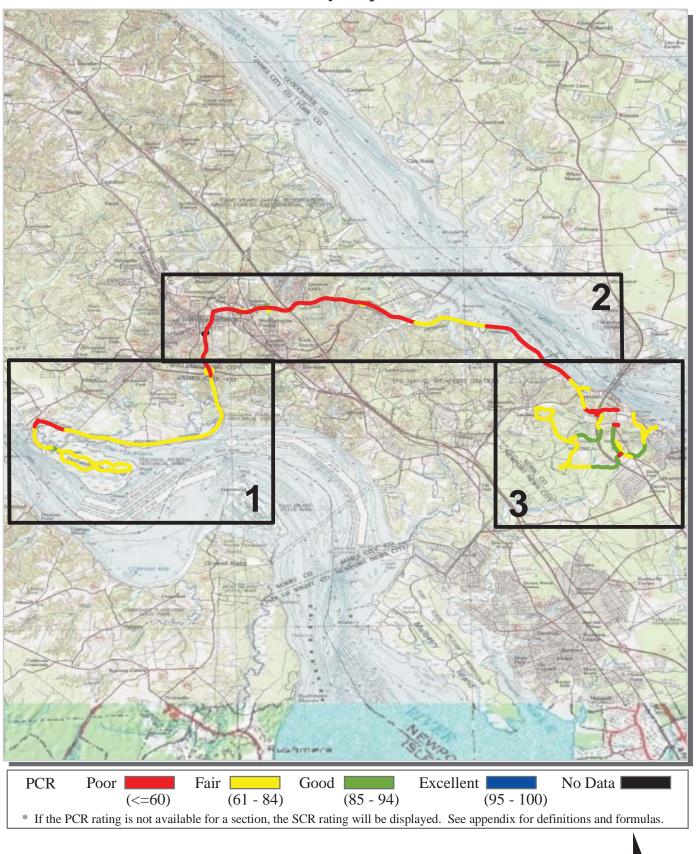


Unique colors used to differentiate routes

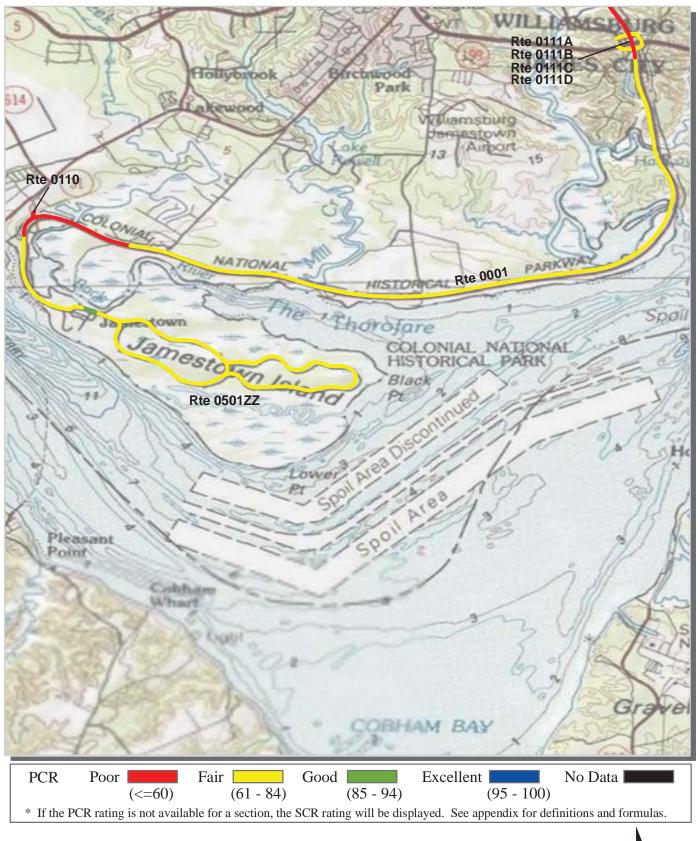


3-5

#### Colonial National Historical Park Route Condition Map PCR - Mile by Mile Key Map



#### Colonial National Historical Park Route Condition Map PCR - Mile by Mile Area 1



3-7

#### Colonial National Historical Park Route Condition Map PCR - Mile by Mile Area 2

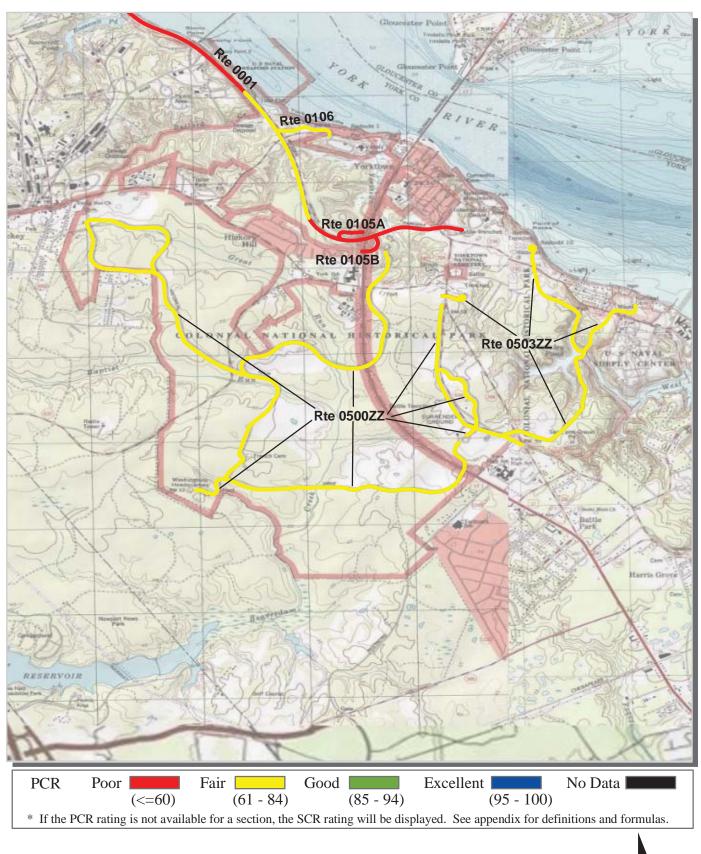


2

Miles

0

#### Colonial National Historical Park Route Condition Map PCR - Mile by Mile Area 3



0.4

8.0

0

8.0

Miles

## Colonial National Historical Park



Section 4
Park Route Inventory

Road Inventory Program 03/17/2010

(Numerical By Route #)

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#### COLONIAL NATIONAL HISTORICAL PARK

| Rte.  | FMSS  | ess     | Route Name                       | Route De  | scription  | Maint.   | Paved  | Un-<br>Paved | Total<br>Route | Func. | Rte.  | Manual         | Surf. | Area  |
|-------|-------|---------|----------------------------------|---|--|----------|--------|--------------|----------------|-------|-------|----------------|-------|-------|
| No.   | No.   | Concess | Route Name                       | From  | То   | District | Miles  | Miles        | Length         | Class | Lanes | Rated<br>SQ/FT | Туре  | Maps  |
| 0001  | 49952 |         | COLONIAL PARKWAY                 | FROM ROUTE 0901<br>(YORKTOWN VISITOR<br>CENTER PARKING)         | TO JAMESTOWN AT ROUTE 0501AZ (ISLAND DRIVE) AND ROUTE 0950 (JAMESTOWN VISITOR'S CENTER PARKING) ON RIGHT | N/A      | 23.110 | 0.000        | 23.110         | 1     |       | 0              | СО    | 1,2,3 |
| 0105A | 99196 |         | US ROUTE 17 ACCESS<br>ROAD A     | FROM ROUTE 0001<br>(COLONIAL PARKWAY) AT MP<br>0.75 (ON RIGHT)  | TO US ROUTE 17   | N/A      | 0.180  | 0.000        | 0.180          | 1     |       | 0              | CO    | 3     |
| 0105B | 99197 |         | US ROUTE 17 ACCESS<br>ROAD B     | FROM US ROUTE 17  | TO ROUTE 0001 (COLONIAL<br>PARKWAY) AT MP 0.54 (ON<br>LEFT)  | N/A      | 0.180  | 0.000        | 0.180          | 1     |       | 0              | СО    | 3     |
| 0106  | 99198 |         | FUSILIER'S ROAD                  | FROM ROUTE 0001<br>(COLONIAL PARKWAY) AT MP<br>1.66 (ON RIGHT)  | TO WATER STREET  | N/A      | 0.350  | 0.000        | 0.350          | 1     |       | 0              | AS    | 3     |
| 0107A | 99199 |         | CHEATHAM ANNEX<br>ACCESS ROAD A  | FROM ROUTE 0001<br>(COLONIAL PARKWAY) AT MP<br>8.39 (ON RIGHT)  | TO PENNIMAN ROAD   | N/A      | 0.040  | 0.000        | 0.040          | 1     |       | 0              | AS    | 2     |
| 0107B | 99200 |         | CHEATHAM ANNEX<br>ACCESS ROAD B  | FROM PENNIMAN ROAD  | TO ROUTE 0001 (COLONIAL<br>PARKWAY) AT MP 8.51 (ON<br>LEFT)  | N/A      | 0.120  | 0.000        | 0.120          | 1     |       | 0              | AS    | 2     |
| 0108A | 99201 |         | QUEENS LAKE ACCESS<br>A          | FROM ROUTE 0001<br>(COLONIAL PARKWAY) AT MP<br>11.21 (ON LEFT)  | TO HUBBARD LANE  | N/A      | 0.140  | 0.000        | 0.140          | 1     |       | 0              | AS    | 2     |
| 0108B | 99202 |         | QUEENS LAKE ACCESS<br>B          | FROM ROUTE 0001<br>(COLONIAL PARKWAY) AT MP<br>11.31 (ON RIGHT) | TO HUBBARD LANE  | N/A      | 0.130  | 0.000        | 0.130          | 1     |       | 0              | AS    | 2     |
| 0109A | 99203 |         | PARKWAY DRIVE<br>ACCESS ROAD A   | FROM ROUTE 0001<br>(COLONIAL PARKWAY) AT MP<br>11.90 (ON RIGHT) | TO PARKWAY DRIVE   | N/A      | 0.100  | 0.000        | 0.100          | 1     |       | 0              | AS    | 2     |
| 0109B | 99204 |         | PARKWAY DRIVE<br>ACCESS ROAD B   | FROM ROUTE 0001<br>(COLONIAL PARKWAY) AT MP<br>12.09 (ON LEFT)  | TO PARKWAY DRIVE   | N/A      | 0.120  | 0.000        | 0.120          | 1     |       | 0              | AS    | 2     |
| 0110  | 99205 |         | TAZEWELL HALL<br>ACCESS ROAD     | FROM ROUTE 0001<br>(COLONIAL PARKWAY) AT MP<br>21.81            | TO GREENSPRINGS ROAD AT PAVEMENT CHANGE  | N/A      | 0.060  | 0.000        | 0.060          | 2     |       | 0              | СО    | 1     |
| 0111A | 99206 |         | STATE ROUTE 199<br>INTERCHANGE A | FROM ROUTE 0001<br>(COLONIAL PARKWAY) AT MP<br>14.76            | TO SOUTH HENRY STREET  | N/A      | 0.110  | 0.000        | 0.110          | 1     |       | 0              | AS    | 1     |
| 0111B | 99207 |         | STATE ROUTE 199<br>INTERCHANGE B | FROM STATE ROUTE 199  | TO ROUTE 0001 (COLONIAL<br>PARKWAY)  | N/A      | 0.130  | 0.000        | 0.130          | 1     |       | 0              | AS    | 1     |
| 0111C | 99208 |         | STATE ROUTE 199<br>INTERCHANGE C | FROM STATE ROUTE 199  | TO ROUTE 0001 (COLONIAL<br>PARKWAY)  | N/A      | 0.110  | 0.000        | 0.110          | 1     |       | 0              | AS    | 1     |

Page 1 of 7

Road Inventory Program 03/17/2010

(Numerical By Route #)

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#### COLONIAL NATIONAL HISTORICAL PARK

| Rte.<br>No. | FMSS<br>No. | Concess<br>Route | Route Name                                     | Route De<br>From   | scription<br>To  | Maint.<br>District | Paved<br>Miles | Un-<br>Paved<br>Miles | Total<br>Route<br>Length | Func.<br>Class | Rte.<br>Lanes | Manual<br>Rated<br>SQ/FT | Surf.<br>Type | Area<br>Maps |
|-------------|-------------|------------------|--|--|--|--------------------|----------------|-----------------------|--------------------------|----------------|---------------|--------------------------|---------------|--------------|
| 0111D       | 99209       |                  | STATE ROUTE 199<br>INTERCHANGE D               | FROM ROUTE 0001<br>(COLONIAL PARKWAY) AT MP<br>14.93                   | TO STATE ROUTE 199   | N/A                | 0.120          | 0.000                 | 0.120                    | 1              |               | 0                        | AS            | 1            |
| 0112A       | 102864      |                  | NEWPORT AVENUE<br>ACCESS ROAD A                | FROM NEWPORT AVENUE  | TO ROUTE 0001 (COLONIAL<br>PARKWAY) (TOWARDS<br>YORKTOWN)                | N/A                | 0.060          | 0.000                 | 0.060                    | 2              |               | 0                        | СО            | 2            |
| 0112B       | 102867      |                  | NEWPORT AVENUE<br>ACCESS ROAD B                | FROM NEWPORT AVENUE  | FROM NEWPORT AVENUE TO ROUTE 0001 (COLONIAL PARKWAY) (TOWARDS JAMESTOWN) |                    | 0.090          | 0.000                 | 0.090                    | 2              |               | 0                        | СО            | 2            |
| 0204        | 99212       |                  | RINGFIELD PICNIC<br>ACCESS ROAD                | FROM ROUTE 0001<br>(COLONIAL PARKWAY)                                  | TO END OF LOOP   | N/A                | 0.000          | 1.245                 | 1.245                    | 2              |               | 0                        | GR            |              |
| 0205        | 99213       |                  | GREAT NECK PICNIC<br>ACCESS ROAD               | FROM ROUTE 0001<br>(COLONIAL PARKWAY)                                  | TO END OF LOOP   | N/A                | 0.000          | 0.520                 | 0.520                    | 6              |               | 0                        | NV            | 1            |
| 0401        | 99102       |                  | YORKTOWN<br>MAINTENANCE AREA<br>RESIDENCE ROAD | FROM ROUTE 0999<br>(YORKTOWN MAINTENANCE<br>PARKING)                   | TO DEAD END  | N/A                | 0.000          | 0.000                 | 0.000                    | 6              |               | 7,467                    | AS            | 3            |
| 0402        | 102878      |                  | APVA ACCESS/SKIP'S<br>DIRT ROAD                | FROM ROUTE 0001<br>(COLONIAL PARKWAY) AT MP<br>22.81 (ON RIGHT)        | TO END   | N/A                | 0.000          | 0.310                 | 0.310                    | 6              |               | 0                        | GR            |              |
| 0411        | 99214       |                  | LACKEY FIRE ROAD                               | FROM STATE HIGHWAY 238   | TO ROUTE 0500Z<br>(BATTLEFIELD TOUR ROAD)                                | N/A                | 0.000          | 0.174                 | 0.174                    | 6              |               | 0                        | GR            |              |
| 0412        | 99215       |                  | D'ADOUVILLE ACCESS<br>ROAD                     | FROM ROUTE 0500Z<br>(BATTLEFIELD TOUR ROAD)                            | TO CRAWFORD ROAD   | N/A                | 0.000          | 0.309                 | 0.309                    | 6              |               | 0                        | GR            |              |
| 0414        | 99216       |                  | BACK FIRE ROAD                                 | FROM SIEGE LANE  | TO PARK BOUNDARY   | N/A                | 0.000          | 1.900                 | 1.900                    | 6              |               | 0                        | GR            |              |
| 0415        | 99217       |                  | OLD HARRELLS ROAD                              | FROM ROUTE 0225Z<br>(SURRENDER ROAD)                                   | TO END OF LOOP   | N/A                | 0.000          | 2.760                 | 2.760                    | 6              |               | 0                        | GR            |              |
| 0500ZZ      | 54852       |                  | YORKTOWN WEST<br>TOUR ROUTES                   | FROM ROUTE 0929<br>(SURRENDER FIELD ACCESS<br>PARKING)                 | THROUGH TOUR BUS<br>ROUTES   | N/A                | 9.240          | 0.000                 | 9.240                    | 3              |               | 0                        | AS            | 3            |
| 0501ZZ      | 54573       |                  | ISLAND DRIVE ROUTES                            | FROM ROUTE 0001<br>(COLONIAL PARKWAY) AT<br>END                        | TO END OF LOOP   | N/A                | 4.820          | 0.000                 | 4.820                    | 3              |               | 0                        | AS            | 1            |
| 0503ZZ      | 54924       |                  | YORKTOWN EAST TOUR<br>ROUTES                   | FROM STATE HIGHWAY 238   | TO ROUTE 0225Z<br>(SURRENDER ROAD)                                       | N/A                | 2.780          | 0.000                 | 2.780                    | 3              |               | 0                        | AS            | 3            |
| 0901        | 54907       |                  | YORKTOWN VISITOR<br>CENTER PARKING             | FROM BEGINNING OF ROUTE<br>0001 (COLONIAL PARKWAY)                     | TO PARKING   | N/A                | 0.000          | 0.000                 | 0.000                    |                |               | 129,963                  | AS            | 3            |
| 0902ZZ      | 54914       |                  | REDOUBT 9, 10<br>ACCESS ROAD<br>PARKING AREAS  | ADJACENT TO ROUTE 0103Z<br>(REDOUBT ACCESS ROAD )<br>ON LEFT AND RIGHT |  | N/A                | 0.000          | 0.000                 | 0.000                    |                |               | 2,484                    | AS            | 3            |
|             |             |                  |  |  |  |                    |                |                       |                          |                |               |                          |               |              |
|             |             | l                |  | J  |  |                    | <u> </u>       |                       | !<br>                    |                | 1             |                          | J             |              |

Page 2 of 7

Road Inventory Program 03/17/2010 (Numerical By Route #) Page 3 of 7

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#### COLONIAL NATIONAL HISTORICAL PARK

| Rte.<br>No. | FMSS<br>No. | Concess | Route Name                                 | Route Description From To                                       |   | Maint.<br>District | Paved<br>Miles | Un-<br>Paved<br>Miles | Total<br>Route<br>Length | Func.<br>Class | Rte.<br>Lanes | Manual<br>Rated<br>SQ/FT | Surf.<br>Type | Area<br>Maps |
|-------------|-------------|---------|--|---|---|--------------------|----------------|-----------------------|--------------------------|----------------|---------------|--------------------------|---------------|--------------|
| 0903        | 54916       |         | UNTOUCHED REDOUBT<br>LOOP/PARKING          | FROM ROUTE 0100Z<br>(UNTOUCHED REDOUBT<br>ROAD) AT END          | TO PARKING  | N/A                | 0.000          | 0.000                 | 0.000                    |                |               | 10,364                   | AS            | 3            |
| 0904        | 54917       |         | GLASSHOUSE ACCESS<br>ROAD PARKING          | FROM ROUTE 0001<br>(COLONIAL PARKWAY) AT MP<br>22.03 (ON RIGHT) | TO PARKING  | N/A                | 0.000          | 0.000                 | 0.000                    |                |               | 42,058                   | AS            | 1            |
| 0905        | 54918       |         | FUSILIER'S PARKING                         | FROM ROUTE 0106<br>(FUSILIER'S ROAD) AT MP<br>0.16 (ON LEFT)    | TO ROUTE 0106 (FUSILIER'S<br>ROAD) AT MP 0.20 (ON LEFT)       | N/A                | 0.000          | 0.000                 | 0.000                    |                |               | 14,173                   | AS            | 3            |
| 0906        | 54919       |         | NAVAL WEAPONS<br>STATION PARKING           | FROM ROUTE 0001<br>(COLONIAL PARKWAY) AT MP<br>2.98 (ON RIGHT)  | TO ROUTE 0001 (COLONIAL<br>PARKWAY) AT MP 3.02 (ON<br>RIGHT)  | N/A                | 0.000          | 0.000                 | 0.000                    |                |               | 10,832                   | СО            | 2            |
| 0907        | 54920       |         | YORKTOWN RIVER<br>PARKING                  | FROM ROUTE 0001<br>(COLONIAL PARKWAY) AT MP<br>3.43 (ON RIGHT)  | TO ROUTE 0001 (COLONIAL<br>PARKWAY) AT MP 3.47 (ON<br>RIGHT)  | N/A                | 0.000          | 0.000                 | 0.000                    |                |               | 7,261                    | СО            | 2            |
| 0908        | 54921       |         | POWHATAN PARKING                           | FROM ROUTE 0001<br>(COLONIAL PARKWAY) AT MP<br>4.20 (ON RIGHT)  | TO ROUTE 0001 (COLONIAL<br>PARKWAY) AT MP 4.24 (ON<br>RIGHT)  | N/A                | 0.000          | 0.000                 | 0.000                    |                |               | 10,048                   | СО            | 2            |
| 0909        | 54927       |         | INDIAN FIELD CREEK<br>PARKING              | FROM ROUTE 0001<br>(COLONIAL PARKWAY) AT MP<br>4.32 (ON LEFT)   | TO ROUTE 0001 (COLONIAL<br>PARKWAY) AT MP 4.35 (ON<br>LEFT)   | N/A                | 0.000          | 0.000                 | 0.000                    |                |               | 10,005                   | СО            | 2            |
| 0910        | 54931       |         | BELLFIELD<br>PLANTATION PARKING            | FROM ROUTE 0001<br>(COLONIAL PARKWAY) AT MP<br>5.68 (ON RIGHT)  | TO ROUTE 0001 (COLONIAL<br>PARKWAY) AT MP 5.72 (ON<br>RIGHT)  | N/A                | 0.000          | 0.000                 | 0.000                    |                |               | 9,653                    | СО            | 2            |
| 0911        | 54932       |         | RINGFIELD<br>PLANTATION PARKING            | FROM ROUTE 0001<br>(COLONIAL PARKWAY) AT MP<br>5.93 (ON RIGHT)  | TO ROUTE 0001 (COLONIAL<br>PARKWAY) AT MP 5.98 (ON<br>RIGHT)  | N/A                | 0.000          | 0.000                 | 0.000                    |                |               | 15,026                   | СО            | 2            |
| 0912        | 56258       |         | JAMES MILL PARKING                         | FROM ROUTE 0001<br>(COLONIAL PARKWAY) AT MP<br>9.35 (ON LEFT)   | TO ROUTE 0001 (COLONIAL<br>PARKWAY) AT MP 9.37 (ON<br>LEFT)   | N/A                | 0.000          | 0.000                 | 0.000                    |                |               | 8,305                    | СО            | 2            |
| 0913        | 56259       |         | PALISADES GREAT<br>OAKS PARKING            | FROM ROUTE 0001<br>(COLONIAL PARKWAY) AT MP<br>13.97 (ON LEFT)  | TO ROUTE 0001 (COLONIAL<br>PARKWAY) AT MP 14.01 (ON<br>LEFT)  | N/A                | 0.000          | 0.000                 | 0.000                    |                |               | 11,481                   | СО            | 2            |
| 0914        | 56260       |         | GREAT NECK PARKING                         | FROM ROUTE 0001<br>(COLONIAL PARKWAY) AT MP<br>14.17 (ON LEFT)  | TO ROUTE 0001 (COLONIAL<br>PARKWAY) AT MP 14.21 (ON<br>LEFT)  | N/A                | 0.000          | 0.000                 | 0.000                    |                |               | 9,817                    | СО            | 2            |
| 0915        | 56261       |         | ATTEMPTED SETTLEMENT/COLLEGE CREEK PARKING | FROM ROUTE 0001<br>(COLONIAL PARKWAY) AT MP<br>16.56 (ON RIGHT) | TO ROUTE 0001 (COLONIAL<br>PARKWAY) AT MP 16.65 (ON<br>RIGHT) | N/A                | 0.000          | 0.000                 | 0.000                    |                |               | 22,688                   | СО            | 1            |
| 0916        | 56262       |         | JAMES RIVER PARKING                        | FROM ROUTE 0001<br>(COLONIAL PARKWAY) AT MP<br>16.93 (ON LEFT)  | TO ROUTE 0001 (COLONIAL<br>PARKWAY) AT MP 16.96 (ON<br>LEFT)  | N/A                | 0.000          | 0.000                 | 0.000                    |                |               | 11,405                   | СО            | 1            |

Road Inventory Program 03/17/2010 (Numerical By Route #) Page 4 of 7

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#### COLO

#### COLONIAL NATIONAL HISTORICAL PARK

| Rte.<br>No. | FMSS<br>No. | Concess | Route Name                                   | Route Description From To  |  | Maint.<br>District | Paved<br>Miles | Un-<br>Paved<br>Miles | Total<br>Route<br>Length | Func.<br>Class | Rte.<br>Lanes | Manual<br>Rated<br>SQ/FT | Surf.<br>Type | Area<br>Maps |
|-------------|-------------|---------|--|--|--|--------------------|----------------|-----------------------|--------------------------|----------------|---------------|--------------------------|---------------|--------------|
| 0917        | 56263       |         | ARCHER'S HOPE<br>PARKING                     | FROM ROUTE 0001<br>(COLONIAL PARKWAY) AT MP<br>17.91 (ON LEFT)                     | TO ROUTE 0001 (COLONIAL<br>PARKWAY) AT MP 18.01 (ON<br>LEFT) | N/A                | 0.000          | 0.000                 | 0.000                    |                |               | 20,519                   | СО            | 1            |
| 0918        | 56264       |         | JAMESTOWN<br>ISLAND/GLEBE LAND<br>PARKING    | FROM ROUTE 0001<br>(COLONIAL PARKWAY) AT MP<br>19.37 (ON LEFT)                     | TO ROUTE 0001 (COLONIAL<br>PARKWAY) AT MP 19.46 (ON<br>LEFT) | N/A                | 0.000          | 0.000                 | 0.000                    |                |               | 26,075                   | СО            | 1            |
| 0919        | 56265       |         | REAL ESTATE PARKING                          | FROM ROUTE 0001<br>(COLONIAL PARKWAY) AT MP<br>19.77 (ON LEFT)                     | TO ROUTE 0001 (COLONIAL<br>PARKWAY) AT MP 19.80 (ON<br>LEFT) | N/A                | 0.000          | 0.000                 | 0.000                    |                |               | 10,473                   | СО            | 1            |
| 0920        | 56266       |         | NECK OF LAND<br>PARKING                      | FROM ROUTE 0001<br>(COLONIAL PARKWAY) AT MP<br>20.24 (ON LEFT)                     | TO ROUTE 0001 (COLONIAL<br>PARKWAY) AT MP 20.31 (ON<br>LEFT) | N/A                | 0.000          | 0.000                 | 0.000                    |                |               | 24,053                   | СО            | 1            |
| 0921        | 56267       |         | JAMESTOWN<br>ENTRANCE PARKING                | FROM ROUTE 0001<br>(COLONIAL PARKWAY) AT MP<br>21.81 (ON LEFT)                     | TO ROUTE 0001 (COLONIAL<br>PARKWAY) AT MP 21.93 (ON<br>LEFT) | N/A                | 0.000          | 0.000                 | 0.000                    |                |               | 25,464                   | СО            | 1            |
| 0922        | 56269       |         | YORKTOWN VISITOR PARKING                     | FROM CHURCH STREET   | TO READ STREET   | N/A                | 0.000          | 0.000                 | 0.000                    |                |               | 20,476                   | AS            | 3            |
| 0923        | 56272       |         | YORKTOWN VICTORY<br>MONUMENT PARKING         | FROM BACON STREET  | TO ZWEYBRUCKEN ROAD  | N/A                | 0.000          | 0.000                 | 0.000                    |                |               | 10,624                   | AS            | 3            |
| 0924        | 56273       |         | YORKTOWN BEACH<br>PARKING                    | FROM WATER STREET  | TO PARKING   | N/A                | 0.000          | 0.000                 | 0.000                    |                |               | 47,830                   | AS            | 3            |
| 0925        | 56274       |         | CORNWALLIS' CAVE<br>PARKING                  | ADJACENT TO WATER<br>STREET  |  | N/A                | 0.000          | 0.000                 | 0.000                    |                |               | 1,124                    | AS            | 3            |
| 0926        | 56275       |         | NATIONAL<br>CEMETERY/SECOND<br>SIEGE PARKING | FROM STATE ROUTE 238   | TO STATE ROUTE 238   | N/A                | 0.000          | 0.000                 | 0.000                    |                |               | 9,706                    | AS            | 3            |
| 0927        | 56276       |         | GRAND FRENCH<br>BATTERY PARKING              | ADJACENT TO ROUTE 0101Z<br>(GRAND FRENCH BATTERY<br>ROAD) AT MP 0.05 (ON<br>RIGHT) |  | N/A                | 0.000          | 0.000                 | 0.000                    |                |               | 2,235                    | AS            | 3            |
| 0928        | 56277       |         | MOORE HOUSE<br>PARKING                       | FROM ROUTE 0104Z (MOORE<br>HOUSE ACCESS ROAD) AT<br>END                            | TO MOORE HOUSE ROAD  | N/A                | 0.000          | 0.000                 | 0.000                    |                |               | 7,892                    | AS            | 3            |
| 0929        | 56279       |         | SURRENDER FIELD<br>ACCESS PARKING            | FROM ROUTE 0102Z<br>(SURRENDER FIELD ROAD)<br>AT END                               | TO ROUTE 0500Z<br>(BATTLEFIELD TOUR ROAD)<br>AT START        | N/A                | 0.000          | 0.000                 | 0.000                    |                |               | 17,292                   | AS            | 3            |
| 0930        | 56280       |         | WASHINGTON'S<br>HEADQUARTERS<br>PARKING      | FROM ROUTE 0224Z<br>(WASHINGTON'S<br>HEADQUARTERS ROAD) AT<br>END                  | TO PARKING   | N/A                | 0.000          | 0.000                 | 0.000                    |                |               | 4,788                    | AS            | 3            |
|             |             |         |  |  |  |                    |                |                       |                          |                |               |                          |               |              |

Road Inventory Program 03/17/2010 (Numerical By Route #) Page 5 of 7

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= Concession Route Flag ON

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

#### **COLO**

#### COLONIAL NATIONAL HISTORICAL PARK

| Rte.<br>No. | FMSS<br>No. | Concess<br>Route | Route Name                             | Route De<br>From   | scription<br>To  | Maint.<br>District | Paved<br>Miles | Un-<br>Paved<br>Miles | Total<br>Route<br>Length | Func.<br>Class | Rte.<br>Lanes | Manual<br>Rated<br>SQ/FT | Surf.<br>Type | Area<br>Maps |
|-------------|-------------|------------------|--|--|--|--------------------|----------------|-----------------------|--------------------------|----------------|---------------|--------------------------|---------------|--------------|
| 0931        | 56281       |                  | FRENCH CEMETERY<br>PARKING             | FROM ROUTE 0500Z<br>(BATTLEFIELD TOUR ROAD)<br>AT MP 1.90 (ON RIGHT) | TO ROUTE 0500Z<br>(BATTLEFIELD TOUR ROAD)<br>AT MP 1.91 (ON RIGHT)                 | N/A                | 0.000          | 0.000                 | 0.000                    |                |               | 1,726                    | AS            | 3            |
| 0932        | 99128       |                  | NECK O LAND VISITOR<br>CONTACT PARKING | FROM ROUTE 0001<br>(COLONIAL PARKWAY) AT MP<br>21.04 (ON LEFT)       | TO PARKING   | N/A                | 0.000          | 0.000                 | 0.000                    |                |               | 76,962                   | AS            | 1            |
| 0940        | 102877      |                  | CAPE HENRY<br>MEMORIAL PARKING         | FROM ATLANTIC AVENUE   | TO PARKING   | N/A                | 0.000          | 0.000                 | 0.000                    |                |               | 31,058                   | AS            | 4            |
| 0950        | 56282       |                  | JAMESTOWN VISITOR'S<br>CENTER PARKING  | FROM ROUTE 0001<br>(COLONIAL PARKWAY) AT MP<br>22.88 (ON RIGHT)      | TO ROUTE 0001 (COLONIAL<br>PARKWAY) AND ROUTE<br>0501AZ (ISLAND DRIVE) AT<br>START | N/A                | 0.000          | 0.000                 | 0.000                    |                |               | 132,987                  | AS            | 1            |
| 0990        | 56283       |                  | JAMESTOWN<br>MAINTENANCE<br>PARKING    | FROM ROUTE 0001<br>(COLONIAL PARKWAY) AT MP<br>20.88 (ON RIGHT)      | TO PARKING   | N/A                | 0.000          | 0.000                 | 0.000                    |                |               | 23,645                   | AS            | 1            |
| 0999        | 56284       |                  | YORKTOWN<br>MAINTENANCE<br>PARKING     | FROM US ROUTE 17   | TO STATE HIGHWAY 238   | N/A                | 0.000          | 0.000                 | 0.000                    |                |               | 236,606                  | AS            | 3            |
| 5000        | N/A         |                  | CENTERVILLE ROAD                       | FROM MONTICELLO AVENUE   | JOHN TYLER MEMORIAL<br>HIGHWAY   | N/A                | 0.730          | 0.000                 | 0.730                    | 0              |               | 0                        | AS            | 2            |
|             |             |                  |  |  |  |                    |                |                       |                          |                |               |                          |               |              |

Road Inventory Program 03/17/2010 (Numerical By Route #) Page 6 of 7

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

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Green = All Unpaved Parking Areas

Grey = Paved Routes, ARAN not Driven

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

= Concession Route Flag ON

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| SUMMARY TOTALS FOR COLONIAL NATIONAL HISTORICAL PARK |              |                              |                        |              |                |                                      |               |              |               |                  |  |  |  |
|--|--------------|------------------------------|------------------------|--------------|----------------|--------------------------------------|---------------|--------------|---------------|------------------|--|--|--|
| ROUTE TOTAL  | ROUTE TOTALS |                              |                        |              |                | CONCESSION TOTALS                    |               |              |               |                  |  |  |  |
| ARAN Driven Route Miles                              | 41.990       | ARA                          | ARAN Driven Lane Miles |              |                |                                      | Concessi      | e Miles      | 0.000         |                  |  |  |  |
| All Paved Route Miles                                | 58.830       | Paved                        | Parking Lane           | Miles        | 18.200         |                                      | Concession    | Unpaved Rout | e Miles       | 0.000            |  |  |  |
| All Unpaved Route Miles                              | 7.218        | Pa                           | ved MRR Lane           | Miles        | 0.129          | Concession Paved Parking Area SQFT   |               |              |               | 0                |  |  |  |
| TOTAL PARK ROUTE MILES                               | 66.048       | TOTAL                        | PAVED LANE M           | ILES         | 112.613        | Concession Unpaved Parking Area SQFT |               |              |               | 0                |  |  |  |
| All Manually Rated Roads (SQFT)                      | 7,467        |                              |                        |              |                |                                      | R SQFT        | 0            |               |                  |  |  |  |
| PARKING AREA TO                                      | TALS         | WEIGHTED AVERAGE PARK VALUES |                        |              |                |                                      |               |              |               |                  |  |  |  |
| All Paved Parking (SQFT)                             | 1,057,099    | PCR (Rating)                 | SCR<br>(Rating)        | RCI (Rating) | RUT<br>(Index) | AC<br>(Index)                        | LC<br>(Index) | TC (Index)   | PATCH (Index) | PCR (Concession) |  |  |  |
| All Unpaved Parking (SQFT)                           | 0            | 65.95                        | 75.34                  | 59.54        | 76.54          | 99.82                                | 99.48         | 99.53        | 99.98         | <b>-  </b> `     |  |  |  |
| TOTAL ALL PARKING (SQFT)                             | 1,057,099    |                              |                        |              |                |                                      |               |              |               | N/A              |  |  |  |

Road Inventory Program 03/17/2010 (Numerical By Route #) Page 7 of 7

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= Concession Route Flag ON

#### **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 Assets. 5000 Routes are driven for GPS, Video Log and Road Features only.

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

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

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

#### **NPS/RIP Subcomponent Details for COLO**

Road Inventory Program 03/17/2010

(Numerical By Subcomponent #)

Page 1 of 2

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= Concession Route Flag ON

= Subcomponent Flag ON

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**COLO** 

COLONIAL NATIONAL HISTORICAL PARK

| Asset E | ntered    | in F | MSS System                                 |  |                                 |              |          |       |              |                |                 |
|---------|-----------|------|--|--|---------------------------------|--------------|----------|-------|--------------|----------------|-----------------|
| Rte.    | Rte. FMSS |      |  |  |                                 | ncess<br>ute | c.<br>Ss | Paved | Un-<br>Paved | Total<br>Route | Manual<br>Rated |
| No.     | No.       | Sub  | Route Name                                 | From   | То                              | Cond         | Func     | Miles | Miles        | Length         | SQ/FT           |
| 0500ZZ  | 54852     |      | YORKTOWN WEST TOUR ROUTES                  | FROM ROUTE 0929 (SURRENDER<br>FIELD ACCESS PARKING)                    | THROUGH TOUR BUS ROUTES         |              | 3        | 9.24  | 0.00         | 9.24           | 0               |
| 0501ZZ  | 54573     |      | ISLAND DRIVE ROUTES                        | FROM ROUTE 0001 (COLONIAL<br>PARKWAY) AT END                           | TO END OF LOOP                  |              | 3        | 4.82  | 0.00         | 4.82           | 0               |
| 0503ZZ  | 54924     |      | YORKTOWN EAST TOUR ROUTES                  | FROM STATE HIGHWAY 238   | TO ROUTE 0225Z (SURRENDER ROAD) |              | 3        | 2.78  | 0.00         | 2.78           | 0               |
| 0902ZZ  | 54914     |      | REDOUBT 9, 10 ACCESS ROAD<br>PARKING AREAS | ADJACENT TO ROUTE 0103Z<br>(REDOUBT ACCESS ROAD ) ON LEFT<br>AND RIGHT |                                 |              |          | 0.00  | 0.00         | 0.00           | 2,484           |

| Rte.  | FMSS  | ۵           |                                | Route Description   |  |       | .: 0           | Paved | Un-<br>Paved | Total<br>Route | Manual<br>Rated |
|-------|-------|-------------|--------------------------------|---|--|-------|----------------|-------|--------------|----------------|-----------------|
| No.   | No.   | Sub<br>Comp | Route Name                     | From  | То   | Conce | Func.<br>Class | Miles | Miles        | Length         | SQ/FT           |
| 0100Z | 54852 |             | UNTOUCHED REDOUBT ROAD         | FROM INTERSECTION OF ROUTE<br>0500Z (BATTLEFIELD TOUR ROAD)<br>AND GOOSELY ROAD                   | TO ROUTE 0903 (UNTOUCHED REDOUBT LOOP/PARKING)                                 |       | 3              | 0.30  | 0.00         | 0.30           | 0               |
| 0102Z | 54852 |             | SURRENDER FIELD ROAD           | FROM ROUTE 0225Z (SURRENDER<br>ROAD) AND 0502Z (SHORT LOOP<br>ROAD)                               | TO ROUTE 0929 (SURRENDER FIELD ACCESS PARKING)                                 |       | 3              | 0.07  | 0.00         | 0.07           | 0               |
| 0224Z | 54852 |             | WASHINGTON'S HEADQUARTERS ROAD | FROM ROUTE 0500Z (BATTLEFIELD<br>TOUR ROAD) AT MP 1.72  | TO ROUTE 0930 (WASHINGTON'S HEADQUARTERS PARKING)                              |       | 3              | 0.28  | 0.00         | 0.28           | 0               |
| 0225Z | 54852 |             | SURRENDER ROAD                 | FROM COOK ROAD (NORTH END)  | TO COOK ROAD (SOUTH END)   |       | 3              | 1.27  | 0.00         | 1.27           | 0               |
| 0226Z | 54852 |             | FRENCH ENCAMPMENT TOUR ROAD    | FROM ROUTE 0500Z (BATTLEFIELD<br>TOUR ROAD)   | TO END OF LOOP   |       | 3              | 2.49  | 0.00         | 2.49           | 0               |
| 0500Z | 54852 |             | BATTLEFIELD TOUR ROAD          | FROM ROUTE 0929 (SURRENDER<br>FIELD ACCESS PARKING)   | TO INTERSECTION OF ROUTE 0100Z<br>(UNTOUCHED REDOUBT ROAD) AND<br>GOOSLEY ROAD |       | 3              | 4.28  | 0.00         | 4.28           | 0               |
| 0502Z | 54852 |             | SHORT LOOP ROAD                | FROM INTERSECTION OF ROUTE<br>0225Z (SURRENDER ROAD) AND<br>ROUTE 0102Z (SURRENDER FIELD<br>ROAD) | THROUGH TOUR BUS ROUTES  |       | 3              | 0.55  | 0.00         | 0.55           | 0               |

| Asset       | COLO-0      | 501ZZ | Subcomponent Break | down             |                 |                                    |                |                       |                          |                          |
|-------------|-------------|-------|--------------------|------------------|-----------------|------------------------------------|----------------|-----------------------|--------------------------|--------------------------|
| Rte.<br>No. | FMSS<br>No. | Sub   | Route Name         | Route De<br>From | scription<br>To | Concess<br>Route<br>Func.<br>Class | Paved<br>Miles | Un-<br>Paved<br>Miles | Total<br>Route<br>Length | Manual<br>Rated<br>SQ/FT |

#### **NPS/RIP Subcomponent Details for COLO**

Road Inventory Program 03/17/2010

(Numerical By Subcomponent #)

Page 2 of 2

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#### COLO

#### COLONIAL NATIONAL HISTORICAL PARK

| 0501AZ | 54573 |   | ISLAND DRIVE            | FROM ROUTE 0001 (COLONIAL<br>PARKWAY) AT END   | TO END OF LOOP                               |               | 3 | 4.67 | 0.00 | 4.67 | 0 |
|--------|-------|---|-------------------------|--|--|---------------|---|------|------|------|---|
| 0501BZ | 54573 |   | ISLAND DRIVE CROSS ROAD | FROM ROUTE 0501AZ (SLAVE<br>ISLAND) AT MP 1.40 | TO ROUTE 0501AZ (SLAVE ISLAND)<br>AT MP 3.70 |               | 3 | 0.15 | 0.00 | 0.15 | 0 |
|        |       | _ |                         |  |  | $\overline{}$ |   |      |      |      |   |

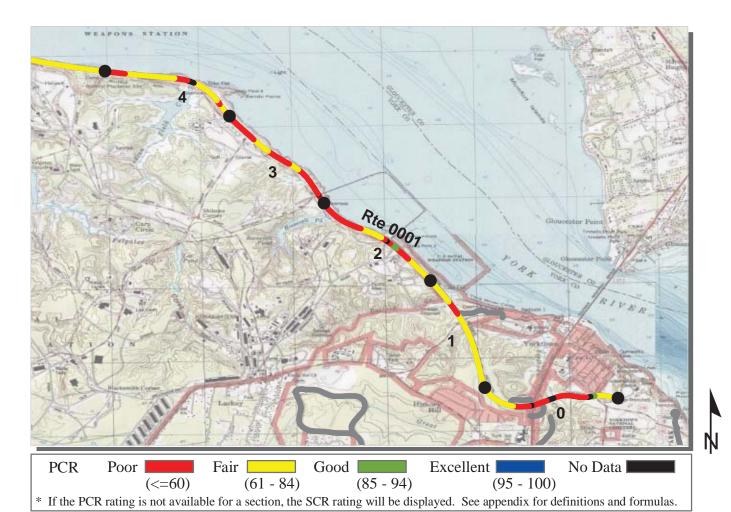
| Asset 0 | COLO-0 | 503Z                 | Z Subcomponent Breakdo    | own   |  |      |                |       |              |                |                 |
|---------|--------|----------------------|---------------------------|---|--|------|----------------|-------|--------------|----------------|-----------------|
| Rte.    | FMSS   | SS Route Description |                           |   |  |      | Func.<br>Class | Paved | Un-<br>Paved | Total<br>Route | Manual<br>Rated |
| No.     | No.    | Sub                  | Route Name                | From  | То                                     | Conc | E Cla          | Miles | Miles        | Length         | SQ/FT           |
| 0101Z   | 54924  |                      | GRAND FRENCH BATTERY ROAD | FROM COOK ROAD  | TO END OF LOOP                         |      | 3              | 0.20  | 0.00         | 0.20           | 0               |
| 0103Z   | 54924  |                      | REDOUBT ACCESS ROAD       | FROM INTERSECTION OF ROUTE<br>0503Z (EAST YORKTOWN TOUR<br>ROAD) AND MOORE HOUSE ROAD | TO END OF LOOP                         |      | 3              | 0.22  | 0.00         | 0.22           | 0               |
| 0104Z   | 54924  |                      | MOORE HOUSE ACCESS ROAD   | FROM ROUTE 0503Z (EAST<br>YORKTOWN TOUR ROAD)   | TO ROUTE 0928 (MOORE HOUSE<br>PARKING) |      | 3              | 0.53  | 0.00         | 0.53           | 0               |
| 0503Z   | 54924  |                      | EAST YORKTOWN TOUR ROAD   | FROM INTERSECTION OF ROUTE<br>0103Z (REDOUBT ACCESS ROAD)<br>AND MOORE HOUSE ROAD     | TO ROUTE 0225Z (SURRENDER ROAD)        |      | 3              | 1.83  | 0.00         | 1.83           | 0               |

| sset COLO-0902ZZ Subcomponent Breakdown |                |  |  |  |   |   |   |  |  |  |
|---|----------------|--|--|--|---|---|---|--|--|--|
| FMSS<br>No.                             | Sub            | Route Name                             | Route Descripti<br>From  | on<br>To   | Concess<br>Route  | Func.<br>Class  | Paved<br>Miles  | Un-<br>Paved<br>Miles  | Total<br>Route<br>Length   | Manual<br>Rated<br>SQ/FT   |
| 54914                                   |                | REDOUBT 9, 10 ACCESS ROAD<br>PARKING A | ADJACENT TO ROUTE 0103Z<br>(REDOUBT ACCESS ROAD ) AT MP<br>0.15 (ON RIGHT)   |  |   |   | 0.00  | 0.00   | 0.00   | 976  |
| 54914                                   |                | REDOUBT 9, 10 ACCESS ROAD<br>PARKING B | ADJACENT TO ROUTE 0103Z<br>(REDOUBT ACCESS ROAD ) AT MP<br>0.17 (ON LEFT)  |  |   |   | 0.00  | 0.00   | 0.00   | 827  |
| 54914                                   |                | REDOUBT 9, 10 ACCESS ROAD<br>PARKING C | ADJACENT TO ROUTE 0103Z<br>(REDOUBT ACCESS ROAD ) AT MP<br>0.17 (ON RIGHT)   |  |   |   | 0.00  | 0.00   | 0.00   | 681  |
|   | FMSS No. 54914 | FMSS No. 9 9 0 54914                   | FMSS No. 9 8 Route Name  54914 REDOUBT 9, 10 ACCESS ROAD PARKING A  54914 REDOUBT 9, 10 ACCESS ROAD PARKING B  54914 REDOUBT 9, 10 ACCESS ROAD | FMSS No. g    Route Name From  Redoubt 9, 10 Access Road (Redoubt Access Road) Adjacent to Route 0103Z (Redoubt Access Road) At MP 0.15 (ON RIGHT)  S4914 REDOUBT 9, 10 Access Road Adjacent to Route 0103Z (Redoubt Access Road) At MP 0.15 (ON RIGHT)  Adjacent to Route 0103Z (Redoubt Access Road) At MP 0.17 (ON LEFT)  S4914 REDOUBT 9, 10 Access Road Adjacent to Route 0103Z (Redoubt Access Road) At MP 0.17 (ON LEFT)  S4914 REDOUBT 9, 10 Access Road Adjacent to Route 0103Z (Redoubt Access Road) At MP | Route Description  Route Name  Route Name  From  To  S4914  REDOUBT 9, 10 ACCESS ROAD ADJACENT TO ROUTE 0103Z (REDOUBT ACCESS ROAD) AT MP 0.15 (ON RIGHT)  REDOUBT 9, 10 ACCESS ROAD ADJACENT TO ROUTE 0103Z (REDOUBT ACCESS ROAD) AT MP 0.15 (ON RIGHT)  REDOUBT 9, 10 ACCESS ROAD ADJACENT TO ROUTE 0103Z (REDOUBT ACCESS ROAD) AT MP 0.17 (ON LEFT)  REDOUBT 9, 10 ACCESS ROAD ADJACENT TO ROUTE 0103Z (REDOUBT ACCESS ROAD) AT MP | Route Description  Route Name  Redoubt 9, 10 Access Road (Redoubt Access Road) Adjacent to Route 0103Z (Redoubt Access Road) At MP 0.15 (ON RIGHT)  Redoubt 9, 10 Access Road Adjacent to Route 0103Z (Redoubt Access Road) At MP 0.15 (ON RIGHT)  Redoubt 9, 10 Access Road Adjacent to Route 0103Z (Redoubt Access Road) At MP 0.17 (ON LEFT)  Redoubt 9, 10 Access Road Adjacent to Route 0103Z (Redoubt Access Road) At MP 0.17 (ON LEFT) | Route Description  Route Name  From  To  Sy by Sy | Route Description  Route Name From To  Reduct Name No.10 (Reduct Name No.15 (ON RIGHT)  Reduct Name No.15 (Name Name Name Name No.15 (Name Name No.15 (Name Name No.15 (Name Name Name Name No.15 (Name Name Name Name No.15 (Name Name No.15 (Name Name Name Name No.15 (Name Name Name Name No.15 (Name Name | Route Description  From  To  Un-Paved Miles  No. 2 9 9 9 1 5 8 9 10 2 10 8 10 8 10 8 10 8 10 8 10 8 10 8 | Route Description  To  Reduce Name  Route Length  Route  Length  Route  Length  Route  Length  Route  Reduce Name  Route  R |

### Colonial National Historical Park



Section 5
Paved Route Condition Rating Sheets
(CRS)

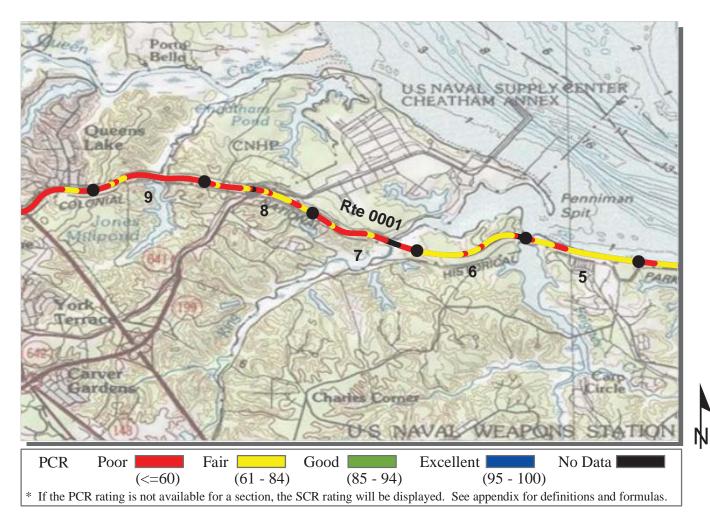


4/16/2009

**ROUTE: 0001 COLONIAL PARKWAY** 

COLO: COLONIAL NATIONAL HISTORICAL PARK

| NORTHEAST REGION                |             |           | TO'  | TAL LENGTH: | 23.11 Miles |
|---------------------------------|-------------|-----------|--|-------------|-------------|
| Section Number                  | 0           | 1         | 2  | 3           | 4           |
| Section Length (mi)             | 1.00        | 1.00      | 1.00   | 1.00        | 1.00        |
| Traffic AADT SADT ADT Date      | Click on PF | ROGRAMS / | d at www.efl.fh<br>NPS Traffic Da<br>e traffic data) | 0           |             |
| Cross Section Information       |             |           |  |             |             |
| Number of Lanes                 | 2           | 2         | 2  | 2           | 2           |
| Paved Width (ft)                | 28          | 33        | 34   | 32          | 34          |
| Lane Width (ft)                 | 14          | 17        | 17   | 16          | 17          |
| Shoulder Width Right (ft)       | NC          | NC        | NC   | NC          | NC          |
| Shoulder Width Left (ft)        | NC          | NC        | NC   | NC          | NC          |
| Roadway Condition Information   |             |           |  |             |             |
| SCR (Surface Condition Rating)  | 75          | NC        | NC   | NC          | NC          |
| PCR (Pavement Condition Rating) | 45          | 75        | 53   | 42          | 57          |
| Distress Index Values           |             |           |  |             |             |
| Alligator Cracking Index        | 100         | NC        | NC   | NC          | NC          |
| Longitudinal Cracking Index     | 100         | NC        | NC   | NC          | NC          |
| Tranverse Cracking Index        | 100         | NC        | NC   | NC          | NC          |
| Patching Index                  | 100         | NC        | NC   | NC          | NC          |
| Rutting Index                   | 75          | NC        | NC   | NC          | NC          |
| Roughness Condition Index (RCI) | 40          | 75        | 53   | 42          | 57          |



**TOTAL LENGTH: 23.11 Miles** 

4/16/2009

#### **ROUTE: 0001 COLONIAL PARKWAY**

NORTHEAST REGION

Roughness Condition Index (RCI)

COLO: COLONIAL NATIONAL HISTORICAL PARK

| Section Number                    | 5        | 6  | 7              | 8    | 9    |
|-----------------------------------|----------|--|----------------|------|------|
| Section Length (mi)               | 1.00     | 1.00   | 1.00           | 1.00 | 1.00 |
| <i>Traffic</i> AADT SADT ADT Date | Click on | ata may be foun<br>PROGRAMS /<br>ot all parks have | NPS Traffic Da | U    |      |
| Cross Section Information         |          |  |                |      |      |
| Number of Lanes                   | 2        | 2  | 2              | 2    | 2    |
| Paved Width (ft)                  | 32       | 35   | 34             | 34   | 32   |
| Lane Width (ft)                   | 16       | 17   | 17             | 17   | 16   |
| Shoulder Width Right (ft)         | NC       | NC   | NC             | NC   | NC   |
| Shoulder Width Left (ft)          | NC       | NC   | NC             | NC   | NC   |
| Roadway Condition Information     |          |  |                |      |      |
| SCR (Surface Condition Rating)    | NC       | NC   | NC             | NC   | NC   |
| PCR (Pavement Condition Rating)   | 64       | 64   | 52             | 55   | 42   |
| Distress Index Values             |          |  |                |      |      |
| Alligator Cracking Index          | NC       | NC   | NC             | NC   | NC   |
| Longitudinal Cracking Index       | NC       | NC   | NC             | NC   | NC   |
| Tranverse Cracking Index          | NC       | NC   | NC             | NC   | NC   |
| Patching Index                    | NC       | NC   | NC             | NC   | NC   |
| Rutting Index                     | NC       | NC   | NC             | NC   | NC   |

64

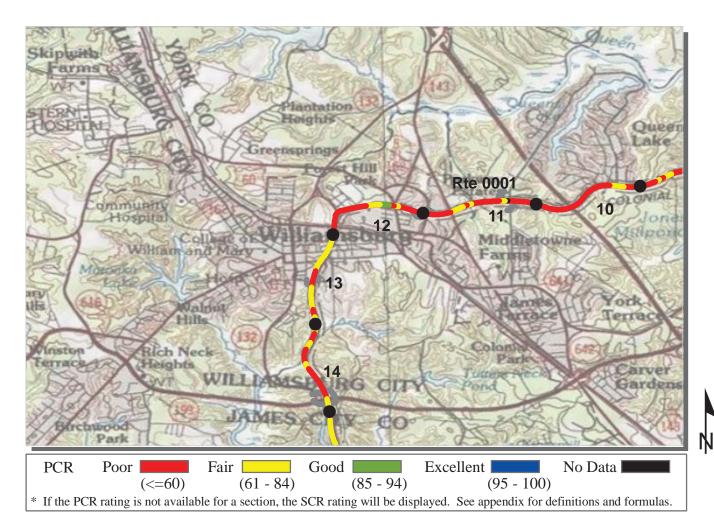
NC - Not Collected 5-2

52

55

42

64

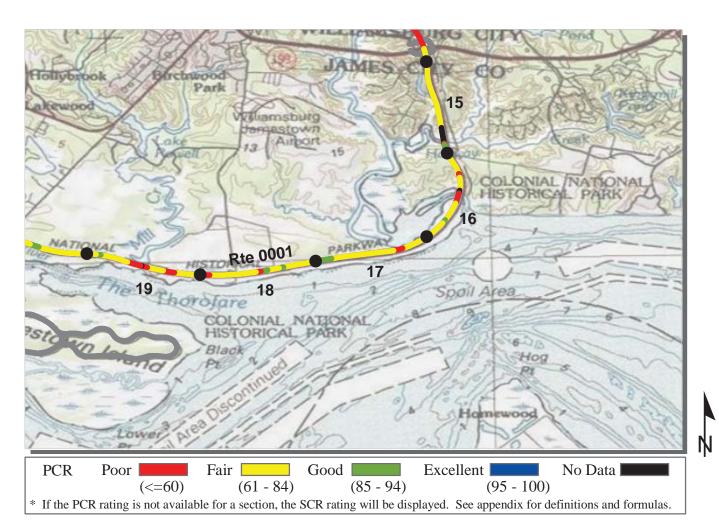


4/16/2009

#### ROUTE: 0001 COLONIAL PARKWAY

#### COLO: COLONIAL NATIONAL HISTORICAL PARK

| NORTHEAST REGION                |              |  | TOTAL | LENGTH: | 23.11 Miles |
|---------------------------------|--------------|--|-------|---------|-------------|
| Section Number                  | 10           | 11   | 12    | 13      | 14          |
| Section Length (mi)             | 1.00         | 1.00   | 1.00  | 1.00    | 1.00        |
| Traffic  AADT  SADT  ADT Date   | Click on PRO | nay be found at v<br>OGRAMS / NPS<br>I parks have traf |       | ot.gov  |             |
| Cross Section Information       |              |  |       |         |             |
| Number of Lanes                 | 2            | 2  | 2     | 2       | 2           |
| Paved Width (ft)                | 33           | 34   | 38    | 30      | 35          |
| Lane Width (ft)                 | 16           | 17   | 20    | 15      | 17          |
| Shoulder Width Right (ft)       | NC           | NC   | NC    | NC      | NC          |
| Shoulder Width Left (ft)        | NC           | NC   | NC    | NC      | NC          |
| Roadway Condition Information   |              |  |       |         |             |
| SCR (Surface Condition Rating)  | NC           | NC   | NC    | NC      | NC          |
| PCR (Pavement Condition Rating) | 50           | 39   | 43    | 60      | 51          |
| Distress Index Values           |              |  |       |         |             |
| Alligator Cracking Index        | NC           | NC   | NC    | NC      | NC          |
| Longitudinal Cracking Index     | NC           | NC   | NC    | NC      | NC          |
| Tranverse Cracking Index        | NC           | NC   | NC    | NC      | NC          |
| Patching Index                  | NC           | NC   | NC    | NC      | NC          |
| Rutting Index                   | NC           | NC   | NC    | NC      | NC          |
| Roughness Condition Index (RCI) | 50           | 39   | 43    | 60      | 51          |

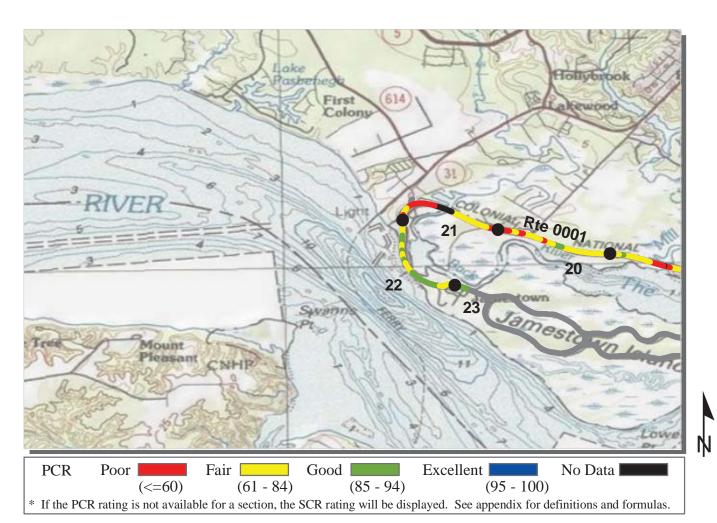


ROUTE: 0001 COLONIAL PARKWAY

COLO: COLONIAL NATIONAL HISTORICAL PARK

|                  | COLLECTED:    | 4/16/2009          |
|------------------|---------------|--------------------|
| NORTHEAST REGION | TOTAL LENGTH: | <b>23.11 Miles</b> |

| NORTHEAST REGION                |              |  | TOTAL | LENGTH: | <b>23.11 Miles</b> |
|---------------------------------|--------------|--|-------|---------|--------------------|
| Section Number                  | 15           | 16   | 17    | 18      | 19                 |
| Section Length (mi)             | 1.00         | 1.00   | 1.00  | 1.00    | 1.00               |
| Traffic  AADT  SADT  ADT Date   | Click on PRO | nay be found at v<br>OGRAMS / NPS<br>I parks have traf |       | rt.gov  |                    |
| Cross Section Information       |              |  |       |         |                    |
| Number of Lanes                 | 2            | 2  | 2     | 2       | 2                  |
| Paved Width (ft)                | 32           | 34   | 32    | 32      | 33                 |
| Lane Width (ft)                 | 16           | 17   | 16    | 16      | 16                 |
| Shoulder Width Right (ft)       | NC           | NC   | NC    | NC      | NC                 |
| Shoulder Width Left (ft)        | NC           | NC   | NC    | NC      | NC                 |
| Roadway Condition Information   |              |  |       |         |                    |
| SCR (Surface Condition Rating)  | NC           | NC   | NC    | NC      | NC                 |
| PCR (Pavement Condition Rating) | 65           | 67   | 75    | 70      | 62                 |
| Distress Index Values           |              |  |       |         |                    |
| Alligator Cracking Index        | NC           | NC   | NC    | NC      | NC                 |
| Longitudinal Cracking Index     | NC           | NC   | NC    | NC      | NC                 |
| Tranverse Cracking Index        | NC           | NC   | NC    | NC      | NC                 |
| Patching Index                  | NC           | NC   | NC    | NC      | NC                 |
| Rutting Index                   | NC           | NC   | NC    | NC      | NC                 |
| Roughness Condition Index (RCI) | 65           | 67   | 75    | 70      | 62                 |

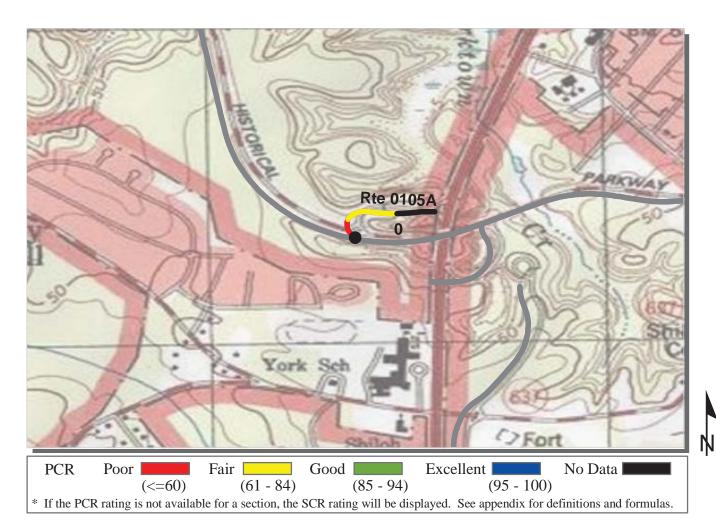


ROUTE: 0001 COLONIAL PARKWAY

COLO: COLONIAL NATIONAL HISTORICAL PARK

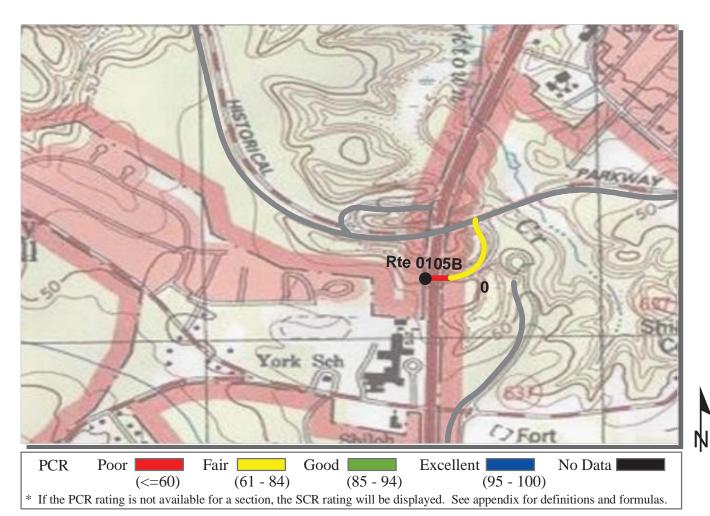
|                  | COLLECTED:    | 4/16/2009          |
|------------------|---------------|--------------------|
| NORTHEAST REGION | TOTAL LENGTH: | <b>23.11 Miles</b> |

| NORTHEAST REGION                |  |      | TOTAL | LENGTH: | <b>23.11 Miles</b> |  |
|---------------------------------|--|------|-------|---------|--------------------|--|
| Section Number                  | 20   | 21   | 22    | 23      |                    |  |
| Section Length (mi)             | 1.00   | 1.00 | 1.00  | 0.11    |                    |  |
| Traffic  AADT  SADT  ADT Date   | Traffic data may be found at www.efl.fhwa.dot.gov<br>Click on PROGRAMS / NPS Traffic Data<br>(Note: Not all parks have traffic data) |      |       |         |                    |  |
| Cross Section Information       |  |      |       |         |                    |  |
| Number of Lanes                 | 2  | 2    | 3     | 2       |                    |  |
| Paved Width (ft)                | 33   | 39   | 27    | 23      |                    |  |
| Lane Width (ft)                 | 16   | 19   | 13    | 12      |                    |  |
| Shoulder Width Right (ft)       | NC   | NC   | NC    | NC      |                    |  |
| Shoulder Width Left (ft)        | NC   | NC   | NC    | NC      |                    |  |
| Roadway Condition Information   |  |      |       |         |                    |  |
| SCR (Surface Condition Rating)  | NC   | NC   | 77    | 86      |                    |  |
| PCR (Pavement Condition Rating) | 68   | 60   | 79    | 85      |                    |  |
| Distress Index Values           |  |      |       |         |                    |  |
| Alligator Cracking Index        | NC   | NC   | 100   | 100     |                    |  |
| Longitudinal Cracking Index     | NC   | NC   | 100   | 100     |                    |  |
| Tranverse Cracking Index        | NC   | NC   | 100   | 100     |                    |  |
| Patching Index                  | NC   | NC   | 100   | 100     |                    |  |
| Rutting Index                   | NC   | NC   | 78    | 87      |                    |  |
| Roughness Condition Index (RCI) | 68   | 60   | 85    | 83      |                    |  |



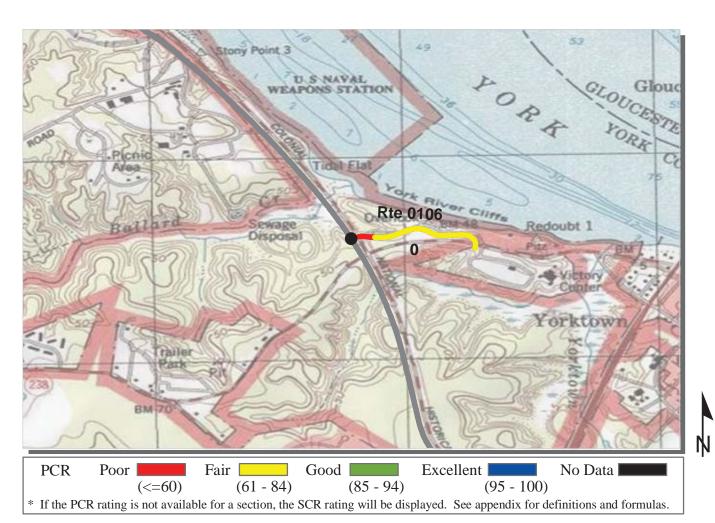
ROUTE: 0105A US ROUTE 17 ACCESS ROAD A COLO: COLONIAL NATIONAL HISTORICAL PARK

| NORTHEAST REGION                |  |  |  | LLECTED:<br>LENGTH: | 4/16/2009<br>0.18 Miles |  |
|---------------------------------|--|--|--|---------------------|-------------------------|--|
| Section Number                  | 0  |  |  |                     |                         |  |
| Section Length (mi)             | 0.18   |  |  |                     |                         |  |
| Traffic  AADT  SADT  ADT Date   | Traffic data may be found at www.efl.fhwa.dot.gov<br>Click on PROGRAMS / NPS Traffic Data<br>(Note: Not all parks have traffic data) |  |  |                     |                         |  |
| Cross Section Information       |  |  |  |                     |                         |  |
| Number of Lanes                 | 2  |  |  |                     |                         |  |
| Paved Width (ft)                | 28   |  |  |                     |                         |  |
| Lane Width (ft)                 | 15   |  |  |                     |                         |  |
| Shoulder Width Right (ft)       | NC   |  |  |                     |                         |  |
| Shoulder Width Left (ft)        | NC   |  |  |                     |                         |  |
| Roadway Condition Information   |  |  |  |                     |                         |  |
| SCR (Surface Condition Rating)  | NC   |  |  |                     |                         |  |
| PCR (Pavement Condition Rating) | 54   |  |  |                     |                         |  |
| Distress Index Values           |  |  |  |                     |                         |  |
| Alligator Cracking Index        | NC   |  |  |                     |                         |  |
| Longitudinal Cracking Index     | NC   |  |  |                     |                         |  |
| Tranverse Cracking Index        | NC   |  |  |                     |                         |  |
| Patching Index                  | NC   |  |  |                     |                         |  |
| Rutting Index                   | NC   |  |  |                     |                         |  |
| Roughness Condition Index (RCI) | 54   |  |  |                     |                         |  |



#### ROUTE: 0105B US ROUTE 17 ACCESS ROAD B COLO: COLONIAL NATIONAL HISTORICAL PARK

|                                 |  |  |       | LLECTED: | 4/16/2009  |  |
|---------------------------------|--|--|-------|----------|------------|--|
| NORTHEAST REGION                |  |  | TOTAL | LENGTH:  | 0.18 Miles |  |
| Section Number                  | 0  |  |       |          |            |  |
| Section Length (mi)             | 0.18   |  |       |          |            |  |
| Traffic AADT SADT ADT Date      | Traffic data may be found at www.efl.fhwa.dot.gov<br>Click on PROGRAMS / NPS Traffic Data<br>(Note: Not all parks have traffic data) |  |       |          |            |  |
| Cross Section Information       |  |  |       |          |            |  |
| Number of Lanes                 | 2  |  |       |          |            |  |
| Paved Width (ft)                | 26   |  |       |          |            |  |
| Lane Width (ft)                 | 12   |  |       |          |            |  |
| Shoulder Width Right (ft)       | NC   |  |       |          |            |  |
| Shoulder Width Left (ft)        | NC   |  |       |          |            |  |
| Roadway Condition Information   |  |  |       |          |            |  |
| SCR (Surface Condition Rating)  | NC   |  |       |          |            |  |
| PCR (Pavement Condition Rating) | 54   |  |       |          |            |  |
| Distress Index Values           |  |  |       |          |            |  |
| Alligator Cracking Index        | NC   |  |       |          |            |  |
| Longitudinal Cracking Index     | NC   |  |       |          |            |  |
| Tranverse Cracking Index        | NC   |  |       |          |            |  |
| Patching Index                  | NC   |  |       |          |            |  |
| Rutting Index                   | NC   |  |       |          |            |  |
| Roughness Condition Index (RCI) | 54   |  |       |          |            |  |



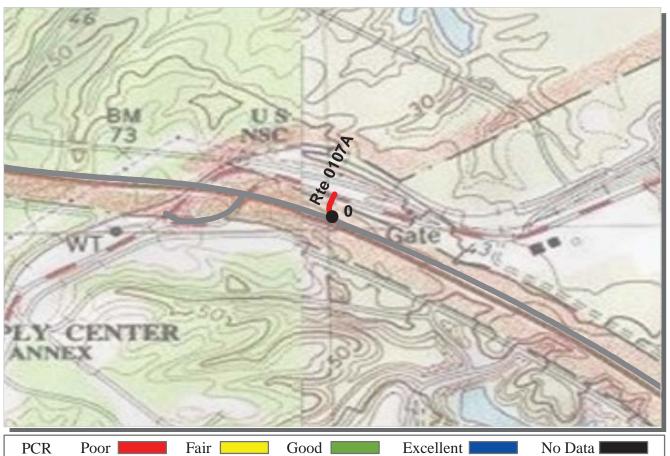
COLLECTED.

4/17/2000

ROUTE: 0106 FUSILIER'S ROAD

COLO: COLONIAL NATIONAL HISTORICAL PARK

|                                 |  |  | CO            | LLECTED: | 4/17/2009 |  |  |
|---------------------------------|--|--|---------------|----------|-----------|--|--|
| NORTHEAST REGION                |  |  | TOTAL LENGTH: |          |           |  |  |
| Section Number                  | 0  |  |               |          |           |  |  |
| Section Length (mi)             | 0.35   |  |               |          |           |  |  |
| Traffic                         |  |  | ~ ~ .         |          |           |  |  |
| AADT                            | Traffic data may be found at www.efl.fhwa.dot.gov<br>Click on PROGRAMS / NPS Traffic Data<br>(Note: Not all parks have traffic data) |  |               |          |           |  |  |
| SADT                            |  |  |               |          |           |  |  |
| ADT Date                        |  |  |               |          |           |  |  |
| Cross Section Information       |  |  |               |          |           |  |  |
| Number of Lanes                 | 2  |  |               |          |           |  |  |
| Paved Width (ft)                | 23   |  |               |          |           |  |  |
| Lane Width (ft)                 | 11   |  |               |          |           |  |  |
| Shoulder Width Right (ft)       | NC   |  |               |          |           |  |  |
| Shoulder Width Left (ft)        | NC   |  |               |          |           |  |  |
| Roadway Condition Information   |  |  |               |          |           |  |  |
| SCR (Surface Condition Rating)  | 61   |  |               |          |           |  |  |
| PCR (Pavement Condition Rating) | 66   |  |               |          |           |  |  |
| Distress Index Values           |  |  |               |          |           |  |  |
| Alligator Cracking Index        | 94   |  |               |          |           |  |  |
| Longitudinal Cracking Index     | 95   |  |               |          |           |  |  |
| Tranverse Cracking Index        | 93   |  |               |          |           |  |  |
| Patching Index                  | 100  |  |               |          |           |  |  |
| Rutting Index                   | 80   |  |               |          |           |  |  |
| Roughness Condition Index (RCI) | 79   |  |               |          |           |  |  |



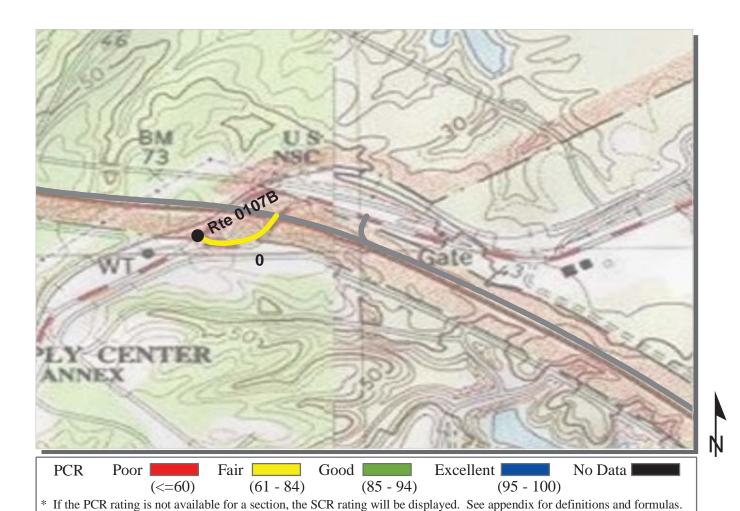
PCR Poor Fair Good Excellent No Data (<=60) (61 - 84) (85 - 94) (95 - 100)

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

# ROUTE: 0107A CHEATHAM ANNEX ACCESS ROAD A COLO: COLONIAL NATIONAL HISTORICAL PARK

|                  | COLLECTED:    | 4/15/2009  |
|------------------|---------------|------------|
| NORTHEAST REGION | TOTAL LENGTH: | 0.04 Miles |

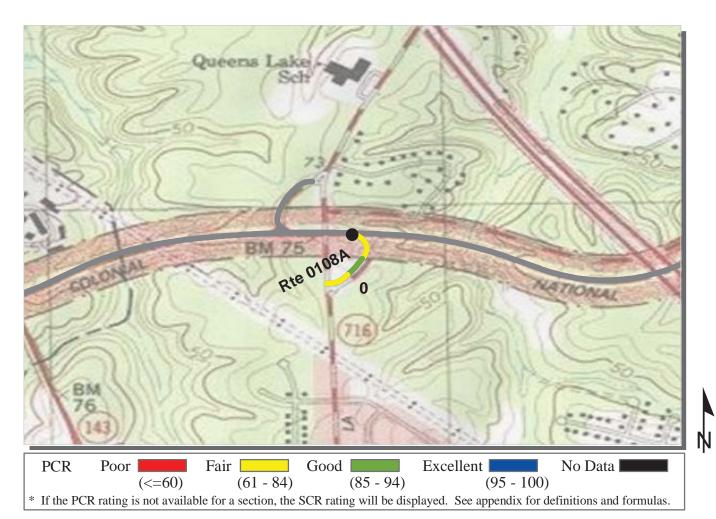
| NORTHEAST REGION                | TOTAL LENGT  |   |   |  | 0.04 Miles |
|---------------------------------|--|---|---|--|------------|
| Section Number                  | 0  |   |   |  |            |
| Section Length (mi)             | 0.04   |   |   |  |            |
| Traffic  AADT  SADT  ADT Date   | Traffic data may be found at www.efl.fhwa.dot.gov<br>Click on PROGRAMS / NPS Traffic Data<br>(Note: Not all parks have traffic data) |   |   |  |            |
| Cross Section Information       |  |   |   |  |            |
| Number of Lanes                 | 2  |   |   |  |            |
| Paved Width (ft)                | 36   |   |   |  |            |
| Lane Width (ft)                 | 19   |   |   |  |            |
| Shoulder Width Right (ft)       | NC   |   |   |  |            |
| Shoulder Width Left (ft)        | NC   |   |   |  |            |
| Roadway Condition Information   |  |   |   |  |            |
| SCR (Surface Condition Rating)  | 44   |   |   |  |            |
| PCR (Pavement Condition Rating) | 47   |   |   |  |            |
| Distress Index Values           |  |   |   |  |            |
| Alligator Cracking Index        | 66   |   |   |  |            |
| Longitudinal Cracking Index     | 91   |   |   |  |            |
| Tranverse Cracking Index        | 97   |   |   |  |            |
| Patching Index                  | 100  |   |   |  |            |
| Rutting Index                   | 90   |   |   |  |            |
| Roughness Condition Index (RCI) | 52   |   |   |  |            |
| NC Net Cellerted                | •  | • | - |  |            |



# ROUTE: 0107B CHEATHAM ANNEX ACCESS ROAD B COLO: COLONIAL NATIONAL HISTORICAL PARK

NORTHEAST REGION COLLECTED: 4/15/2009
TOTAL LENGTH: 0.12 Miles

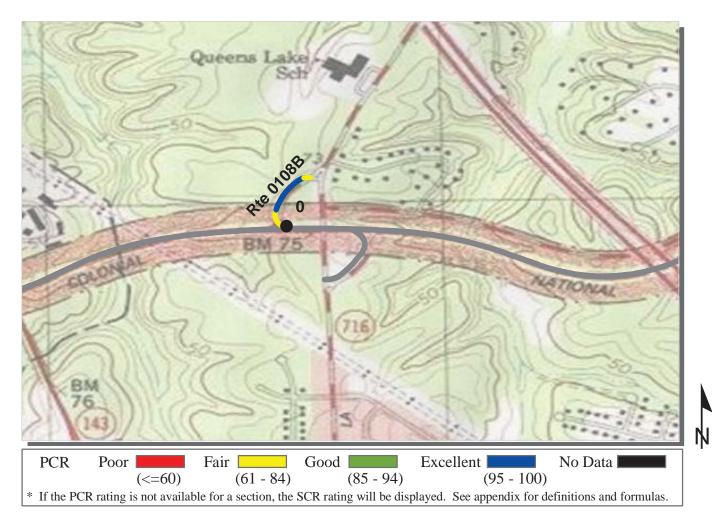
| NORTHEAST REGION                | TOTAL LENGT  |  |  |  | <b>0.12 Miles</b> |  |
|---------------------------------|--|--|--|--|-------------------|--|
| Section Number                  | 0  |  |  |  |                   |  |
| Section Length (mi)             | 0.12   |  |  |  |                   |  |
| Traffic AADT SADT ADT Date      | Traffic data may be found at www.efl.fhwa.dot.gov<br>Click on PROGRAMS / NPS Traffic Data<br>(Note: Not all parks have traffic data) |  |  |  |                   |  |
| Cross Section Information       |  |  |  |  |                   |  |
| Number of Lanes                 | 2  |  |  |  |                   |  |
| Paved Width (ft)                | 26   |  |  |  |                   |  |
| Lane Width (ft)                 | 13   |  |  |  |                   |  |
| Shoulder Width Right (ft)       | NC   |  |  |  |                   |  |
| Shoulder Width Left (ft)        | NC   |  |  |  |                   |  |
| Roadway Condition Information   |  |  |  |  |                   |  |
| SCR (Surface Condition Rating)  | 76   |  |  |  |                   |  |
| PCR (Pavement Condition Rating) | 76   |  |  |  |                   |  |
| Distress Index Values           |  |  |  |  |                   |  |
| Alligator Cracking Index        | 95   |  |  |  |                   |  |
| Longitudinal Cracking Index     | 93   |  |  |  |                   |  |
| Tranverse Cracking Index        | 95   |  |  |  |                   |  |
| Patching Index                  | 100  |  |  |  |                   |  |
| Rutting Index                   | 94   |  |  |  |                   |  |
| Roughness Condition Index (RCI) | NC   |  |  |  |                   |  |



#### ROUTE: 0108A QUEENS LAKE ACCESS A

COLO: COLONIAL NATIONAL HISTORICAL PARK

|                                 |  |  | CO    | LLECTED: | 4/16/2009         |  |
|---------------------------------|--|--|-------|----------|-------------------|--|
| NORTHEAST REGION                |  |  | TOTAL | LENGTH:  | <b>0.14 Miles</b> |  |
| Section Number                  | 0  |  |       |          |                   |  |
| Section Length (mi)             | 0.14   |  |       |          |                   |  |
| Traffic  AADT  SADT  ADT Date   | Traffic data may be found at www.efl.fhwa.dot.gov<br>Click on PROGRAMS / NPS Traffic Data<br>(Note: Not all parks have traffic data) |  |       |          |                   |  |
| Cross Section Information       |  |  |       |          |                   |  |
| Number of Lanes                 | 2  |  |       |          |                   |  |
| Paved Width (ft)                | 25   |  |       |          |                   |  |
| Lane Width (ft)                 | 12   |  |       |          |                   |  |
| Shoulder Width Right (ft)       | NC   |  |       |          |                   |  |
| Shoulder Width Left (ft)        | NC   |  |       |          |                   |  |
| Roadway Condition Information   |  |  |       |          |                   |  |
| SCR (Surface Condition Rating)  | 74   |  |       |          |                   |  |
| PCR (Pavement Condition Rating) | 76   |  |       |          |                   |  |
| Distress Index Values           |  |  |       |          |                   |  |
| Alligator Cracking Index        | 98   |  |       |          |                   |  |
| Longitudinal Cracking Index     | 95   |  |       |          |                   |  |
| Tranverse Cracking Index        | 99   |  |       |          |                   |  |
| Patching Index                  | 100  |  |       |          |                   |  |
| Rutting Index                   | 82   |  |       |          |                   |  |
| Roughness Condition Index (RCI) | 77   |  |       |          |                   |  |



4/15/2009

ROUTE: 0108B QUEENS LAKE ACCESS B

COLO: COLONIAL NATIONAL HISTORICAL PARK

| NORTHEAST REGION                |  |  | TOTAL | LENGTH: | 0.13 Miles |  |
|---------------------------------|--|--|-------|---------|------------|--|
| Section Number                  | 0  |  |       |         |            |  |
| Section Length (mi)             | 0.13   |  |       |         |            |  |
| Traffic AADT SADT ADT Date      | Traffic data may be found at www.efl.fhwa.dot.gov<br>Click on PROGRAMS / NPS Traffic Data<br>(Note: Not all parks have traffic data) |  |       |         |            |  |
| Cross Section Information       |  |  |       |         |            |  |
| Number of Lanes                 | 2  |  |       |         |            |  |
| Paved Width (ft)                | 25   |  |       |         |            |  |
| Lane Width (ft)                 | 13   |  |       |         |            |  |
| Shoulder Width Right (ft)       | NC   |  |       |         |            |  |
| Shoulder Width Left (ft)        | NC   |  |       |         |            |  |
| Roadway Condition Information   |  |  |       |         |            |  |
| SCR (Surface Condition Rating)  | 92   |  |       |         |            |  |
| PCR (Pavement Condition Rating) | 87   |  |       |         |            |  |
| Distress Index Values           |  |  |       |         |            |  |
| Alligator Cracking Index        | 100  |  |       |         |            |  |
| Longitudinal Cracking Index     | 99   |  |       |         |            |  |
| Tranverse Cracking Index        | 99   |  |       |         |            |  |
| Patching Index                  | 100  |  |       |         |            |  |
| Rutting Index                   | 93   |  |       |         |            |  |
| Roughness Condition Index (RCI) | 80   |  |       |         |            |  |

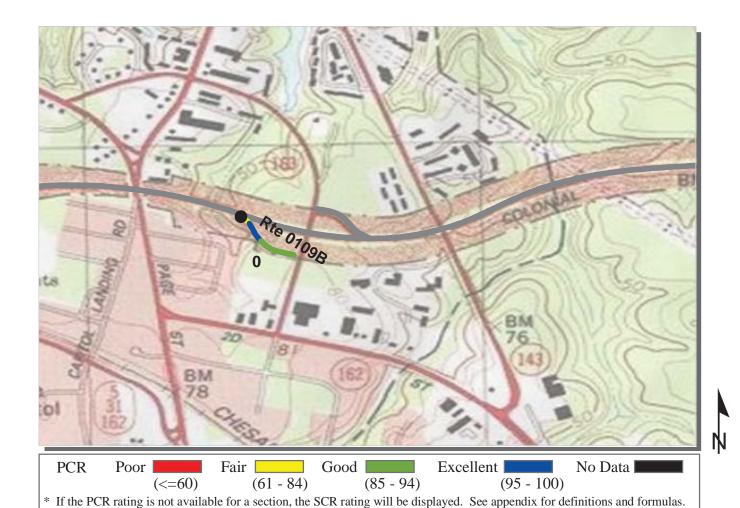


(<=60) (61 - 84) (85 - 94) (95 - 100)\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

ROUTE: 0109A PARKWAY DRIVE ACCESS ROAD A COLO: COLONIAL NATIONAL HISTORICAL PARK

NORTHEAST REGION COLLECTED: 4/16/2009
TOTAL LENGTH: 0.10 Miles

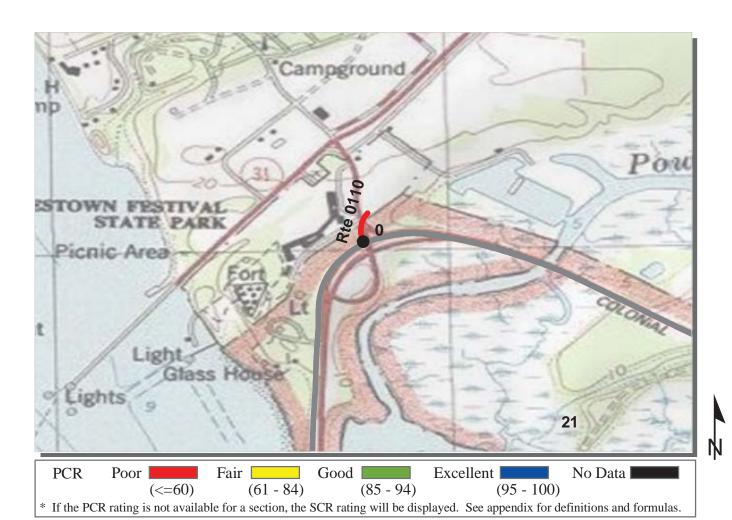
| Click on PRO   | GRAMS / NPS      | vww.efl.fhwa.do<br>Traffic Data   | t.gov  |  |  |  |  |
|----------------|------------------|---|--------|--|--|--|--|
| Fraffic data m | GRAMS / NPS      |   | ot.gov |  |  |  |  |
| Click on PRO   | GRAMS / NPS      |   | t.gov  |  |  |  |  |
| Click on PRO   | GRAMS / NPS      |   | t.gov  |  |  |  |  |
|                |                  | Frame Data  |        |  |  |  |  |
| riote. Prot un | parks have train | Click on PROGRAMS / NPS Traffic Data<br>(Note: Not all parks have traffic data) |        |  |  |  |  |
|                |                  |   |        |  |  |  |  |
|                |                  |   |        |  |  |  |  |
|                |                  |   |        |  |  |  |  |
|                |                  |   |        |  |  |  |  |
|                |                  |   |        |  |  |  |  |
| C              |                  |   |        |  |  |  |  |
| C              |                  |   |        |  |  |  |  |
|                |                  |   |        |  |  |  |  |
|                |                  |   |        |  |  |  |  |
|                |                  |   |        |  |  |  |  |
|                |                  |   |        |  |  |  |  |
|                |                  |   |        |  |  |  |  |
|                |                  |   |        |  |  |  |  |
|                |                  |   |        |  |  |  |  |
| 0              |                  |   |        |  |  |  |  |
|                |                  |   |        |  |  |  |  |
|                |                  |   |        |  |  |  |  |
|                | 0                | 0   | 0      |  |  |  |  |



# ROUTE: 0109B PARKWAY DRIVE ACCESS ROAD B COLO: COLONIAL NATIONAL HISTORICAL PARK

|                  |  | CO    | LLECTED: | 4/16/2009         |
|------------------|--|-------|----------|-------------------|
| NORTHEAST REGION |  | TOTAL | LENGTH:  | <b>0.12 Miles</b> |
|                  |  |       |          |                   |

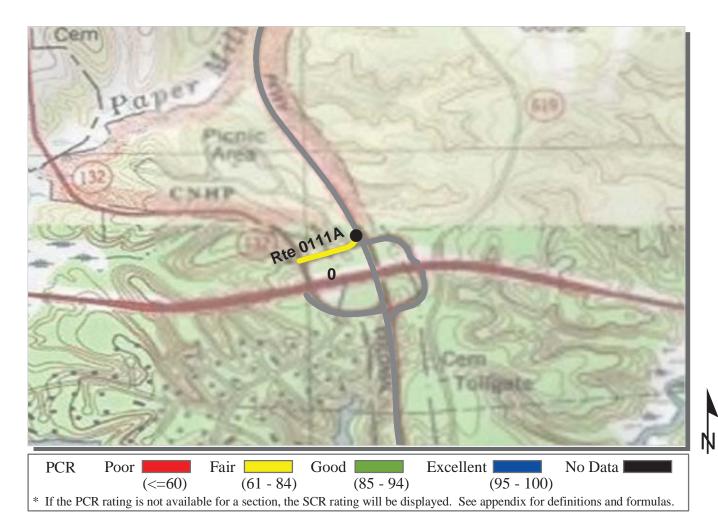
| NORTHEAST REGION                |  |                 | IOIAL | LENGTH: | 0.12 Miles |  |
|---------------------------------|--|-----------------|-------|---------|------------|--|
| Section Number                  | 0  |                 |       |         |            |  |
| Section Length (mi)             | 0.12   |                 |       |         |            |  |
| Traffic                         |  |                 |       |         |            |  |
| AADT                            |  | nay be found at |       | ot.gov  |            |  |
| SADT                            | Click on PROGRAMS / NPS Traffic Data (Note: Not all parks have traffic data) |                 |       |         |            |  |
| ADT Date                        |  |                 |       |         |            |  |
| Cross Section Information       |  |                 |       |         |            |  |
| Number of Lanes                 | 2  |                 |       |         |            |  |
| Paved Width (ft)                | 25   |                 |       |         |            |  |
| Lane Width (ft)                 | 13   |                 |       |         |            |  |
| Shoulder Width Right (ft)       | NC   |                 |       |         |            |  |
| Shoulder Width Left (ft)        | NC   |                 |       |         |            |  |
| Roadway Condition Information   |  |                 |       |         |            |  |
| SCR (Surface Condition Rating)  | 84   |                 |       |         |            |  |
| PCR (Pavement Condition Rating) | 85   |                 |       |         |            |  |
| Distress Index Values           |  |                 |       |         |            |  |
| Alligator Cracking Index        | 100  |                 |       |         |            |  |
| Longitudinal Cracking Index     | 99   |                 |       |         |            |  |
| Tranverse Cracking Index        | 96   |                 |       |         |            |  |
| Patching Index                  | 100  |                 |       |         |            |  |
| Rutting Index                   | 89   |                 |       |         |            |  |
| Roughness Condition Index (RCI) | 86   |                 |       |         |            |  |



ROUTE: 0110 TAZEWELL HALL ACCESS ROAD COLO: COLONIAL NATIONAL HISTORICAL PARK

NORTHEAST REGION COLLECTED: 4/16/2009
TOTAL LENGTH: 0.06 Miles

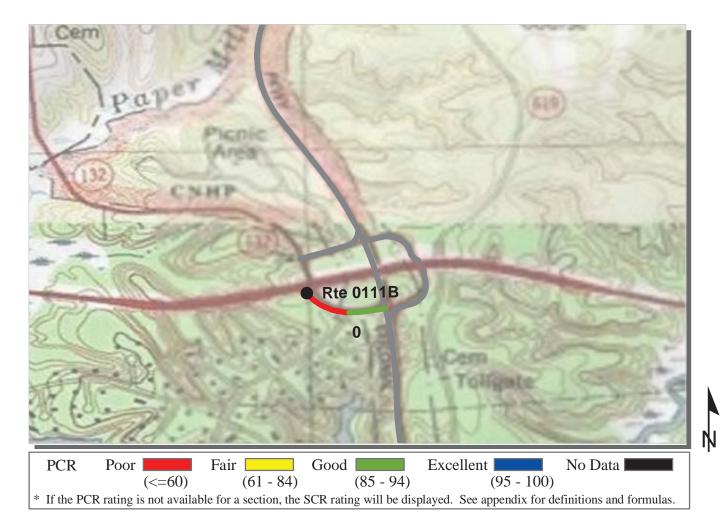
| 0              |  |  |   |  |
|----------------|--|--|---|--|
|                |  |  |   |  |
| 0.06           |  |  |   |  |
|                |  |  |   |  |
|                | 5  |  | ot.gov  |  |
|                |  |  |   |  |
| (140tc. 140t a | ii parks nave tra  | inc data)  |   |  |
|                |  |  |   |  |
| 2              |  |  |   |  |
| 29             |  |  |   |  |
| 14             |  |  |   |  |
| NC             |  |  |   |  |
| NC             |  |  |   |  |
|                |  |  |   |  |
| NC             |  |  |   |  |
| 15             |  |  |   |  |
|                |  |  |   |  |
| NC             |  |  |   |  |
| 15             |  |  |   |  |
|                | Traffic data Click on PR (Note: Not a)  2 29 14 NC | Traffic data may be found at Click on PROGRAMS / NPS (Note: Not all parks have trained at the content of the co | Traffic data may be found at www.efl.fhwa.dc Click on PROGRAMS / NPS Traffic Data (Note: Not all parks have traffic data)  2 29 14 NC | Traffic data may be found at www.efl.fhwa.dot.gov Click on PROGRAMS / NPS Traffic Data (Note: Not all parks have traffic data)  2 29 14 NC |



ROUTE: 0111A STATE ROUTE 199 INTERCHANGE A COLO: COLONIAL NATIONAL HISTORICAL PARK

NORTHEAST REGION COLLECTED: 4/15/2009
TOTAL LENGTH: 0.11 Miles

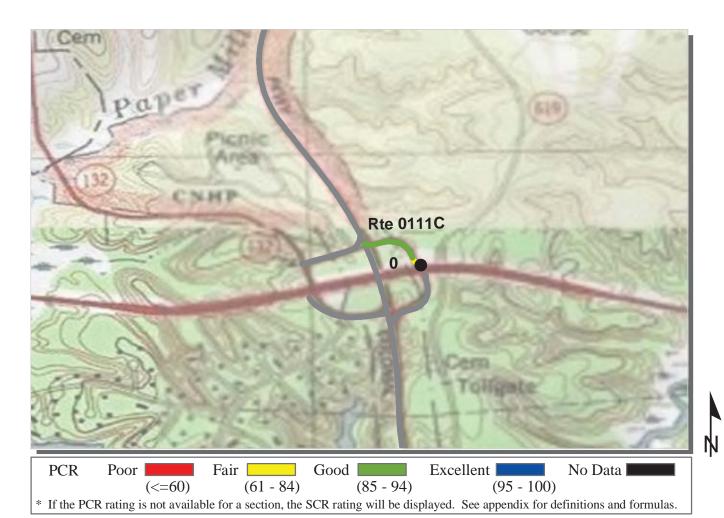
| NORTHEAST REGION                |                 |                                | TOTAI    | LENGTH: | 0.11 Miles |
|---------------------------------|-----------------|--------------------------------|----------|---------|------------|
| Section Number                  | 0               |                                |          |         |            |
| Section Length (mi)             | 0.11            |                                |          |         |            |
| Traffic                         |                 |                                | ~ ~ .    |         |            |
| AADT                            |                 | may be found at a OGRAMS / NPS |          | ot.gov  |            |
| SADT                            |                 | ll parks have traf             |          |         |            |
| ADT Date                        | (1vote: 1vot al | n parks have trai              | ne data) |         |            |
| Cross Section Information       |                 |                                |          |         |            |
| Number of Lanes                 | 2               |                                |          |         |            |
| Paved Width (ft)                | 25              |                                |          |         |            |
| Lane Width (ft)                 | 12              |                                |          |         |            |
| Shoulder Width Right (ft)       | NC              |                                |          |         |            |
| Shoulder Width Left (ft)        | NC              |                                |          |         |            |
| Roadway Condition Information   |                 |                                |          |         |            |
| SCR (Surface Condition Rating)  | 67              |                                |          |         |            |
| PCR (Pavement Condition Rating) | 68              |                                |          |         |            |
| Distress Index Values           |                 |                                |          |         |            |
| Alligator Cracking Index        | 100             |                                |          |         |            |
| Longitudinal Cracking Index     | 90              |                                |          |         |            |
| Tranverse Cracking Index        | 93              |                                |          |         |            |
| Patching Index                  | 100             |                                |          |         |            |
| Rutting Index                   | 84              |                                |          |         |            |
| Roughness Condition Index (RCI) | 62              |                                |          |         |            |
| Rutting Index                   | 84              |                                |          |         |            |



### ROUTE: 0111B STATE ROUTE 199 INTERCHANGE B COLO: COLONIAL NATIONAL HISTORICAL PARK

NORTHEAST REGION COLLECTED: 4/15/2009
TOTAL LENGTH: 0.13 Miles

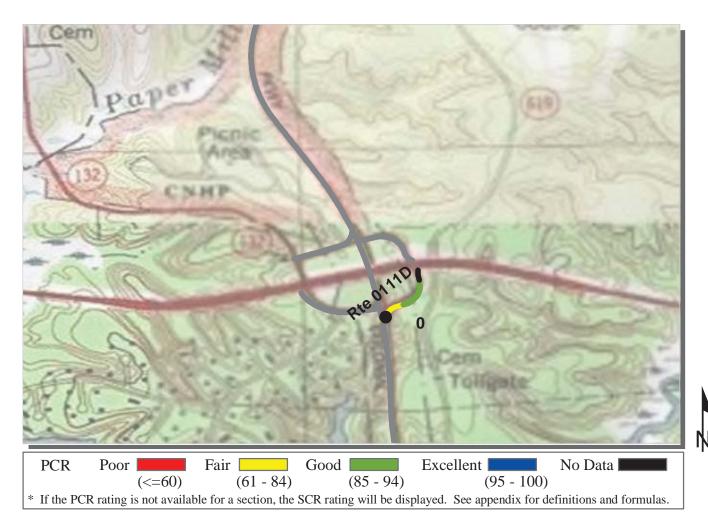
| NORTHEAST REGION                |                 |                                   | TOTAL    | LENGTH: | 0.13 Miles |
|---------------------------------|-----------------|-----------------------------------|----------|---------|------------|
| Section Number                  | 0               |                                   |          |         |            |
| Section Length (mi)             | 0.13            |                                   |          |         |            |
| Traffic                         |                 |                                   | ~ ~ .    |         |            |
| AADT                            |                 | nay be found at v<br>OGRAMS / NPS |          | ot.gov  |            |
| SADT                            |                 | l parks have traf                 |          |         |            |
| ADT Date                        | (1vote: 1vot an | i parks nave trai                 | ne data) |         |            |
| Cross Section Information       |                 |                                   |          |         |            |
| Number of Lanes                 | 2               |                                   |          |         |            |
| Paved Width (ft)                | 25              |                                   |          |         |            |
| Lane Width (ft)                 | 13              |                                   |          |         |            |
| Shoulder Width Right (ft)       | NC              |                                   |          |         |            |
| Shoulder Width Left (ft)        | NC              |                                   |          |         |            |
| Roadway Condition Information   |                 |                                   |          |         |            |
| SCR (Surface Condition Rating)  | 77              |                                   |          |         |            |
| PCR (Pavement Condition Rating) | 74              |                                   |          |         |            |
| Distress Index Values           |                 |                                   |          |         |            |
| Alligator Cracking Index        | 100             |                                   |          |         |            |
| Longitudinal Cracking Index     | 100             |                                   |          |         |            |
| Tranverse Cracking Index        | 94              |                                   |          |         |            |
| Patching Index                  | 100             |                                   |          |         |            |
| Rutting Index                   | 83              |                                   |          |         |            |
| Roughness Condition Index (RCI) | 54              |                                   |          |         |            |
| _                               |                 |                                   |          |         |            |



### ROUTE: 0111C STATE ROUTE 199 INTERCHANGE C COLO: COLONIAL NATIONAL HISTORICAL PARK

NORTHEAST REGION COLLECTED: 4/15/2009
TOTAL LENGTH: 0.11 Miles

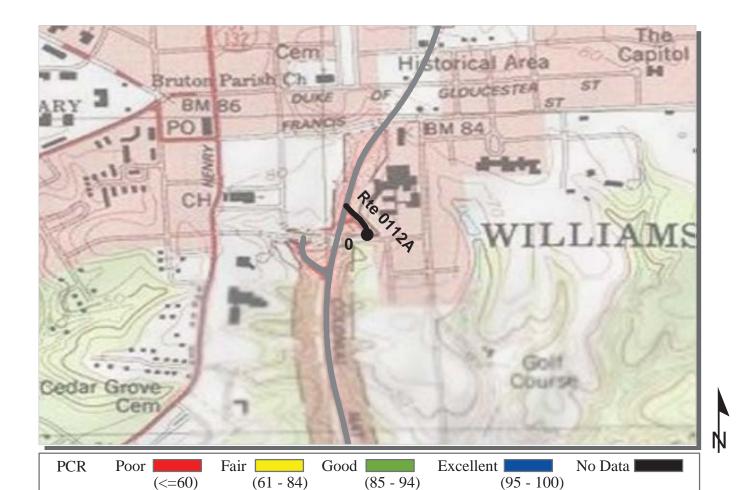
| NORTHEAST REGION                |               |  | TOTAL     | LENGTH: | 0.11 Miles |  |  |
|---------------------------------|---------------|--|-----------|---------|------------|--|--|
| Section Number                  | 0             |  |           |         |            |  |  |
| Section Length (mi)             | 0.11          |  |           |         |            |  |  |
| Traffic AADT                    |               | Traffic data may be found at www.efl.fhwa.dot.gov Click on PROGRAMS / NPS Traffic Data |           |         |            |  |  |
| SADT<br>ADT Date                | (Note: Not al | l parks have traf  | fic data) |         |            |  |  |
| Cross Section Information       |               |  |           |         |            |  |  |
| Number of Lanes                 | 2             |  |           |         |            |  |  |
| Paved Width (ft)                | 28            |  |           |         |            |  |  |
| Lane Width (ft)                 | 14            |  |           |         |            |  |  |
| Shoulder Width Right (ft)       | NC            |  |           |         |            |  |  |
| Shoulder Width Left (ft)        | NC            |  |           |         |            |  |  |
| Roadway Condition Information   |               |  |           |         |            |  |  |
| SCR (Surface Condition Rating)  | 87            |  |           |         |            |  |  |
| PCR (Pavement Condition Rating) | 83            |  |           |         |            |  |  |
| Distress Index Values           |               |  |           |         |            |  |  |
| Alligator Cracking Index        | 100           |  |           |         |            |  |  |
| Longitudinal Cracking Index     | 99            |  |           |         |            |  |  |
| Tranverse Cracking Index        | 100           |  |           |         |            |  |  |
| Patching Index                  | 100           |  |           |         |            |  |  |
| Rutting Index                   | 88            |  |           |         |            |  |  |
| Roughness Condition Index (RCI) | 68            |  |           |         |            |  |  |
|                                 |               |  |           |         |            |  |  |



### ROUTE: 0111D STATE ROUTE 199 INTERCHANGE D COLO: COLONIAL NATIONAL HISTORICAL PARK

| NORTHEAST REGION TOTAL LENGTH: 0.12 Mile |                  |  | COLLECTED:    | 4/15/2009         |
|--|------------------|--|---------------|-------------------|
|  | NORTHEAST REGION |  | TOTAL LENGTH: | <b>0.12 Miles</b> |

| NORTHEAST REGION                  |  |  | TOTAL | LENGTH: | <b>0.12 Miles</b> |  |
|-----------------------------------|--|--|-------|---------|-------------------|--|
| Section Number                    | 0  |  |       |         |                   |  |
| Section Length (mi)               | 0.12   |  |       |         |                   |  |
| <i>Traffic</i> AADT SADT ADT Date | Traffic data may be found at www.efl.fhwa.dot.gov<br>Click on PROGRAMS / NPS Traffic Data<br>(Note: Not all parks have traffic data) |  |       |         |                   |  |
| Cross Section Information         |  |  |       |         |                   |  |
| Number of Lanes                   | 2  |  |       |         |                   |  |
| Paved Width (ft)                  | 27   |  |       |         |                   |  |
| Lane Width (ft)                   | 13   |  |       |         |                   |  |
| Shoulder Width Right (ft)         | NC   |  |       |         |                   |  |
| Shoulder Width Left (ft)          | NC   |  |       |         |                   |  |
| Roadway Condition Information     |  |  |       |         |                   |  |
| SCR (Surface Condition Rating)    | 79   |  |       |         |                   |  |
| PCR (Pavement Condition Rating)   | 76   |  |       |         |                   |  |
| Distress Index Values             |  |  |       |         |                   |  |
| Alligator Cracking Index          | 100  |  |       |         |                   |  |
| Longitudinal Cracking Index       | 98   |  |       |         |                   |  |
| Tranverse Cracking Index          | 96   |  |       |         |                   |  |
| Patching Index                    | 98   |  |       |         |                   |  |
| Rutting Index                     | 86   |  |       |         |                   |  |
| Roughness Condition Index (RCI)   | 74   |  |       |         |                   |  |
| NG N-+ C-II+- I                   |  |  |       |         |                   |  |

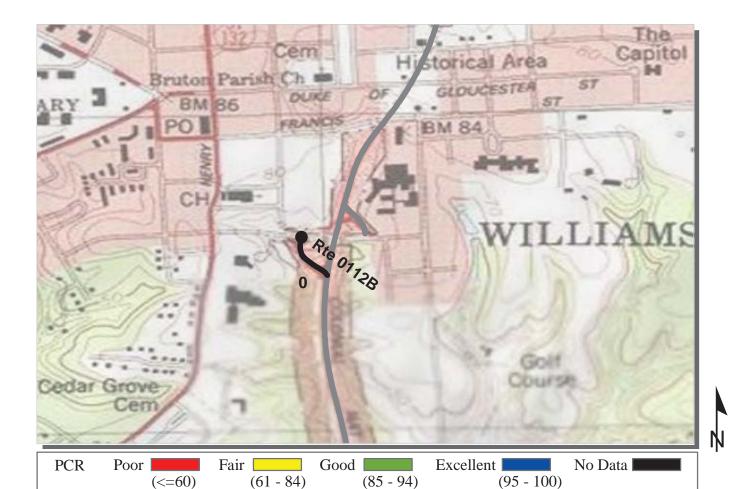


ROUTE: 0112A NEWPORT AVENUE ACCESS ROAD A COLO: COLONIAL NATIONAL HISTORICAL PARK

NORTHEAST REGION COLLECTED: 4/16/2009
TOTAL LENGTH: 0.06 Miles

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

| NORTHEAST REGION                | TOTAL LENGTH: 0.06   |  |  |  |  |  |
|---------------------------------|--|--|--|--|--|--|
| Section Number                  | 0  |  |  |  |  |  |
| Section Length (mi)             | 0.06   |  |  |  |  |  |
| Traffic  AADT  SADT  ADT Date   | Traffic data may be found at www.efl.fhwa.dot.gov<br>Click on PROGRAMS / NPS Traffic Data<br>(Note: Not all parks have traffic data) |  |  |  |  |  |
| Cross Section Information       |  |  |  |  |  |  |
| Number of Lanes                 | 2  |  |  |  |  |  |
| Paved Width (ft)                | 31   |  |  |  |  |  |
| Lane Width (ft)                 | 15   |  |  |  |  |  |
| Shoulder Width Right (ft)       | NC   |  |  |  |  |  |
| Shoulder Width Left (ft)        | NC   |  |  |  |  |  |
| Roadway Condition Information   |  |  |  |  |  |  |
| SCR (Surface Condition Rating)  | NC   |  |  |  |  |  |
| PCR (Pavement Condition Rating) | NC   |  |  |  |  |  |
| Distress Index Values           |  |  |  |  |  |  |
| Alligator Cracking Index        | NC   |  |  |  |  |  |
| Longitudinal Cracking Index     | NC   |  |  |  |  |  |
| Tranverse Cracking Index        | NC   |  |  |  |  |  |
| Patching Index                  | NC   |  |  |  |  |  |
| Rutting Index                   | NC   |  |  |  |  |  |
| Roughness Condition Index (RCI) | NC   |  |  |  |  |  |

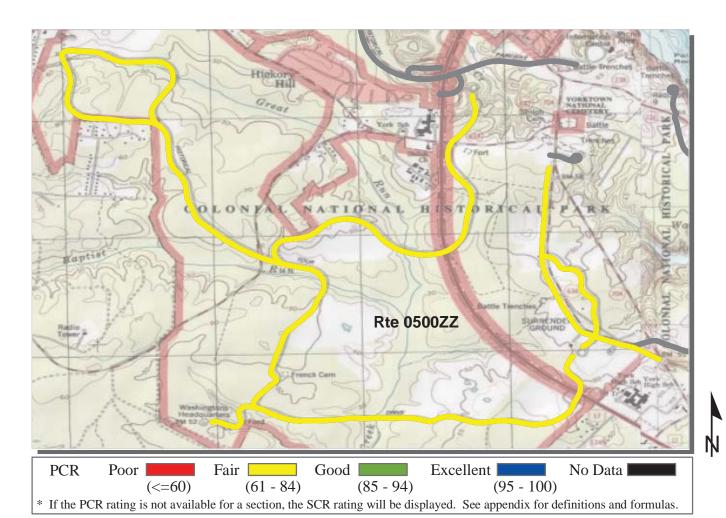


ROUTE: 0112B NEWPORT AVENUE ACCESS ROAD B COLO: COLONIAL NATIONAL HISTORICAL PARK

NORTHEAST REGION COLLECTED: 4/16/2009
TOTAL LENGTH: 0.09 Miles

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

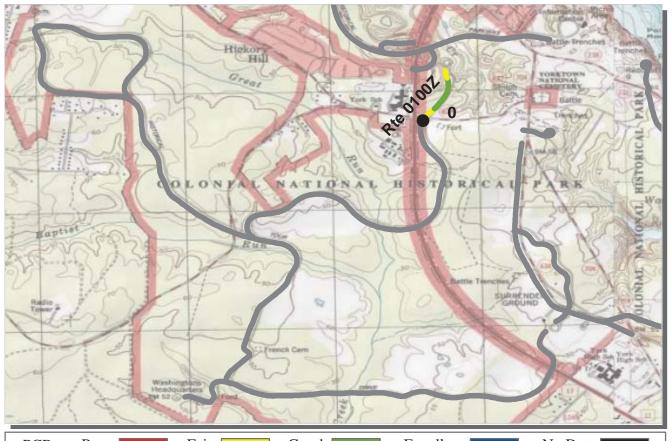
| NORTHEAST REGION                | TOTAL LENGTH: 0.   |  |  |  | <b>0.09 Miles</b> |  |
|---------------------------------|--|--|--|--|-------------------|--|
| Section Number                  | 0  |  |  |  |                   |  |
| Section Length (mi)             | 0.09   |  |  |  |                   |  |
| Traffic  AADT  SADT  ADT Date   | Traffic data may be found at www.efl.fhwa.dot.gov<br>Click on PROGRAMS / NPS Traffic Data<br>(Note: Not all parks have traffic data) |  |  |  |                   |  |
| Cross Section Information       |  |  |  |  |                   |  |
| Number of Lanes                 | 2  |  |  |  |                   |  |
| Paved Width (ft)                | 31   |  |  |  |                   |  |
| Lane Width (ft)                 | 16   |  |  |  |                   |  |
| Shoulder Width Right (ft)       | NC   |  |  |  |                   |  |
| Shoulder Width Left (ft)        | NC   |  |  |  |                   |  |
| Roadway Condition Information   |  |  |  |  |                   |  |
| SCR (Surface Condition Rating)  | NC   |  |  |  |                   |  |
| PCR (Pavement Condition Rating) | NC   |  |  |  |                   |  |
| Distress Index Values           |  |  |  |  |                   |  |
| Alligator Cracking Index        | NC   |  |  |  |                   |  |
| Longitudinal Cracking Index     | NC   |  |  |  |                   |  |
| Tranverse Cracking Index        | NC   |  |  |  |                   |  |
| Patching Index                  | NC   |  |  |  |                   |  |
| Rutting Index                   | NC   |  |  |  |                   |  |
| Roughness Condition Index (RCI) | NC   |  |  |  |                   |  |



# ROUTE: 0500ZZ YORKTOWN WEST TOUR ROUTES COLO: COLONIAL NATIONAL HISTORICAL PARK

Summary Record COLLECTED: 4/17/2009
NORTHEAST REGION TOTAL LENGTH: 9.24 Miles

| NORTHEAST REGION                |                 |                                   | TOTAL           | LENGTH: | <b>9.24 Miles</b> |
|---------------------------------|-----------------|-----------------------------------|-----------------|---------|-------------------|
| Section Number                  |                 |                                   |                 |         |                   |
| Section Length (mi)             |                 |                                   |                 |         |                   |
| Traffic                         |                 |                                   | ~ ~ .           |         |                   |
| AADT                            |                 | nay be found at v<br>OGRAMS / NPS | www.efl.fhwa.do | ot.gov  |                   |
| SADT                            |                 | l parks have traf                 |                 |         |                   |
| ADT Date                        | (11010: 1101 a) | parks have train                  | ne data)        |         |                   |
| Cross Section Information       |                 |                                   |                 |         |                   |
| Number of Lanes                 | N/A             |                                   |                 |         |                   |
| Paved Width (ft)                | N/A             |                                   |                 |         |                   |
| Lane Width (ft)                 | N/A             |                                   |                 |         |                   |
| Shoulder Width Right (ft)       | NC              |                                   |                 |         |                   |
| Shoulder Width Left (ft)        | NC              |                                   |                 |         |                   |
| Roadway Condition Information   |                 |                                   |                 |         |                   |
| SCR (Surface Condition Rating)  | 73              |                                   |                 |         |                   |
| PCR (Pavement Condition Rating) | 80              |                                   |                 |         |                   |
| Distress Index Values           |                 |                                   |                 |         |                   |
| Alligator Cracking Index        | N/A             |                                   |                 |         |                   |
| Longitudinal Cracking Index     | N/A             |                                   |                 |         |                   |
| Tranverse Cracking Index        | N/A             |                                   |                 |         |                   |
| Patching Index                  | N/A             |                                   |                 |         |                   |
| Rutting Index                   | N/A             |                                   |                 |         |                   |
| Roughness Condition Index (RCI) | N/A             |                                   |                 |         |                   |



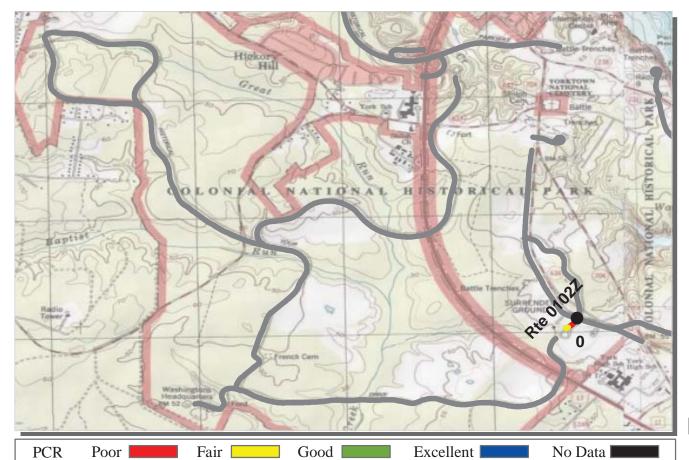
PCR Poor Fair Good Excellent No Data (<=60) (61 - 84) (85 - 94) (95 - 100)

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

### ROUTE: 0100Z UNTOUCHED REDOUBT ROAD COLO: COLONIAL NATIONAL HISTORICAL PARK

Subcomponent Record COLLECTED: 4/17/2009
NORTHEAST REGION TOTAL LENGTH: 0.30 Miles

| NORTHEAST REGION                |  |  | TOTAL | LENGTH: | <b>0.30 Miles</b> |  |
|---------------------------------|--|--|-------|---------|-------------------|--|
| Section Number                  | 0  |  |       |         |                   |  |
| Section Length (mi)             | 0.30   |  |       |         |                   |  |
| Traffic AADT SADT ADT Date      | Traffic data may be found at www.efl.fhwa.dot.gov<br>Click on PROGRAMS / NPS Traffic Data<br>(Note: Not all parks have traffic data) |  |       |         |                   |  |
| Cross Section Information       |  |  |       |         |                   |  |
| Number of Lanes                 | 2  |  |       |         |                   |  |
| Paved Width (ft)                | 21   |  |       |         |                   |  |
| Lane Width (ft)                 | 10   |  |       |         |                   |  |
| Shoulder Width Right (ft)       | NC   |  |       |         |                   |  |
| Shoulder Width Left (ft)        | NC   |  |       |         |                   |  |
| Roadway Condition Information   |  |  |       |         |                   |  |
| SCR (Surface Condition Rating)  | 75   |  |       |         |                   |  |
| PCR (Pavement Condition Rating) | 81   |  |       |         |                   |  |
| Distress Index Values           |  |  |       |         |                   |  |
| Alligator Cracking Index        | 100  |  |       |         |                   |  |
| Longitudinal Cracking Index     | 100  |  |       |         |                   |  |
| Tranverse Cracking Index        | 100  |  |       |         |                   |  |
| Patching Index                  | 100  |  |       |         |                   |  |
| Rutting Index                   | 76   |  |       |         |                   |  |
| Roughness Condition Index (RCI) | 99   |  |       |         |                   |  |



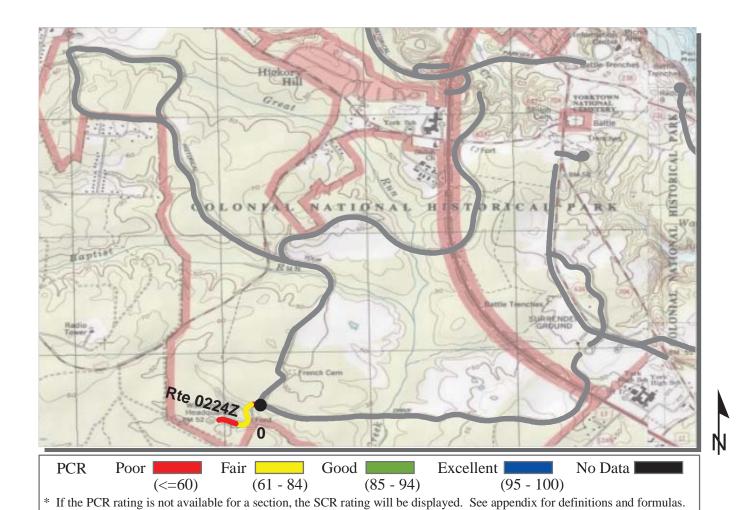
(<=60) (61 - 84) (85 - 94) (95 - 100)

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

### ROUTE: 0102Z SURRENDER FIELD ROAD COLO: COLONIAL NATIONAL HISTORICAL PARK

Subcomponent Record COLLECTED: 4/16/2009

| NORTHEAST REGION                |              |   | TOTAL        | LENGTH: | <b>0.07 Miles</b> |
|---------------------------------|--------------|---|--------------|---------|-------------------|
| Section Number                  | 0            |   |              |         |                   |
| Section Length (mi)             | 0.07         |   |              |         |                   |
| Traffic AADT SADT ADT Date      | Click on PRC | nay be found at v<br>OGRAMS / NPS<br>I parks have traff | Traffic Data | rt.gov  |                   |
| Cross Section Information       |              |   |              |         |                   |
| Number of Lanes                 | 2            |   |              |         |                   |
| Paved Width (ft)                | 19           |   |              |         |                   |
| Lane Width (ft)                 | 9            |   |              |         |                   |
| Shoulder Width Right (ft)       | NC           |   |              |         |                   |
| Shoulder Width Left (ft)        | NC           |   |              |         |                   |
| Roadway Condition Information   |              |   |              |         |                   |
| SCR (Surface Condition Rating)  | 59           |   |              |         |                   |
| PCR (Pavement Condition Rating) | 60           |   |              |         |                   |
| Distress Index Values           |              |   |              |         |                   |
| Alligator Cracking Index        | 100          |   |              |         |                   |
| Longitudinal Cracking Index     | 98           |   |              |         |                   |
| Tranverse Cracking Index        | 100          |   |              |         |                   |
| Patching Index                  | 100          |   |              |         |                   |
| Rutting Index                   | 62           |   |              |         |                   |
| Roughness Condition Index (RCI) | 97           |   |              |         |                   |



# ROUTE: 0224Z WASHINGTON'S HEADQUARTERS ROAD COLO: COLONIAL NATIONAL HISTORICAL PARK

Subcomponent Record

NORTHEAST REGION

Section Number

Section Length (mi)

Traffic

AADT
SADT

COLLECTED: 4/17/2009

10.28 Miles

COLLECTED: 4/17/2009

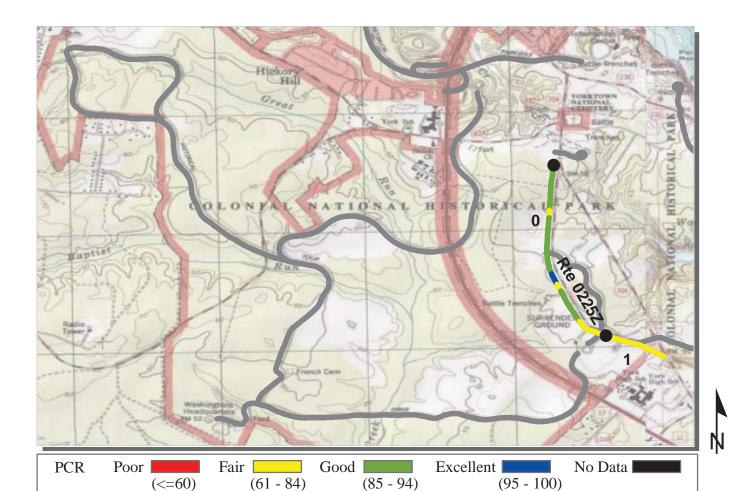
10.28 Miles

10.28 Miles

Collection Length: 0.28 Miles

Collect

| Section Length (mit)            | 0.20   |                   |          |  |  |  |
|---------------------------------|--|-------------------|----------|--|--|--|
| Traffic AADT SADT               | Traffic data may be found at www.efl.fhwa.dot.gov Click on PROGRAMS / NPS Traffic Data (Note: Not all parks have traffic data) |                   |          |  |  |  |
| ADT Date                        | (Note: Not al  | i parks nave tran | ic data) |  |  |  |
| Cross Section Information       |  |                   |          |  |  |  |
| Number of Lanes                 | 1  |                   |          |  |  |  |
| Paved Width (ft)                | 18   |                   |          |  |  |  |
| Lane Width (ft)                 | 10   |                   |          |  |  |  |
| Shoulder Width Right (ft)       | NC   |                   |          |  |  |  |
| Shoulder Width Left (ft)        | NC   |                   |          |  |  |  |
| Roadway Condition Information   |  |                   |          |  |  |  |
| SCR (Surface Condition Rating)  | 60   |                   |          |  |  |  |
| PCR (Pavement Condition Rating) | 62   |                   |          |  |  |  |
| Distress Index Values           |  |                   |          |  |  |  |
| Alligator Cracking Index        | 100  |                   |          |  |  |  |
| Longitudinal Cracking Index     | 100  |                   |          |  |  |  |
| Tranverse Cracking Index        | 100  |                   |          |  |  |  |
| Patching Index                  | 100  |                   |          |  |  |  |
| Rutting Index                   | 60   |                   |          |  |  |  |
| Roughness Condition Index (RCI) | 84   |                   |          |  |  |  |



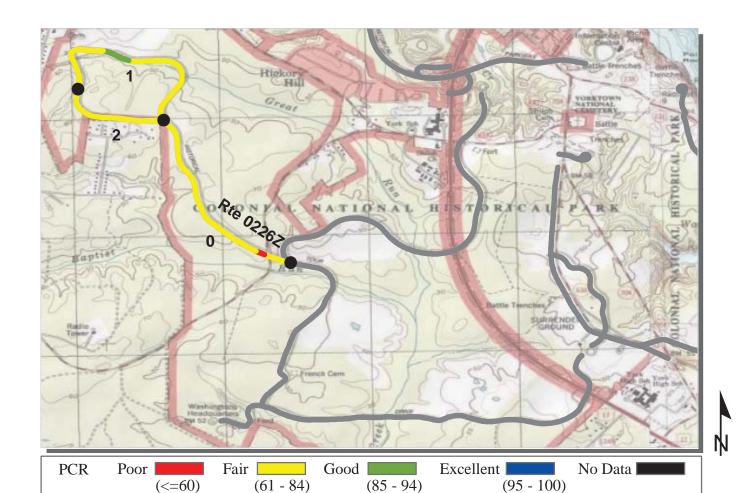
**ROUTE: 0225Z SURRENDER ROAD** 

#### COLO: COLONIAL NATIONAL HISTORICAL PARK

| Subcomponent Record | COLLECTED:     | 4/16/2009 |
|---------------------|----------------|-----------|
| NODTHE ACT DECION   | TOTAL I ENOTH. | 1 27 1/21 |

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

| NORTHEAST REGION                |             |  | TOTAL        | LENGTH: | <b>1.27 Miles</b> |
|---------------------------------|-------------|--|--------------|---------|-------------------|
| Section Number                  | 0           | 1  |              |         |                   |
| Section Length (mi)             | 1.00        | 0.27   |              |         |                   |
| Traffic AADT SADT ADT Date      | Click on PF | may be found at v<br>ROGRAMS / NPS<br>all parks have traff | Traffic Data | ot.gov  |                   |
| Cross Section Information       |             |  |              |         |                   |
| Number of Lanes                 | 2           | 2  |              |         |                   |
| Paved Width (ft)                | 16          | 16   |              |         |                   |
| Lane Width (ft)                 | 8           | 8  |              |         |                   |
| Shoulder Width Right (ft)       | NC          | NC   |              |         |                   |
| Shoulder Width Left (ft)        | NC          | NC   |              |         |                   |
| Roadway Condition Information   |             |  |              |         |                   |
| SCR (Surface Condition Rating)  | 83          | 75   |              |         |                   |
| PCR (Pavement Condition Rating) | 86          | 82   |              |         |                   |
| Distress Index Values           |             |  |              |         |                   |
| Alligator Cracking Index        | 100         | 100  |              |         |                   |
| Longitudinal Cracking Index     | 100         | 100  |              |         |                   |
| Tranverse Cracking Index        | 100         | 100  |              |         |                   |
| Patching Index                  | 100         | 100  |              |         |                   |
| Rutting Index                   | 84          | 75   |              |         |                   |
| Roughness Condition Index (RCI) | 90          | 97   |              |         |                   |

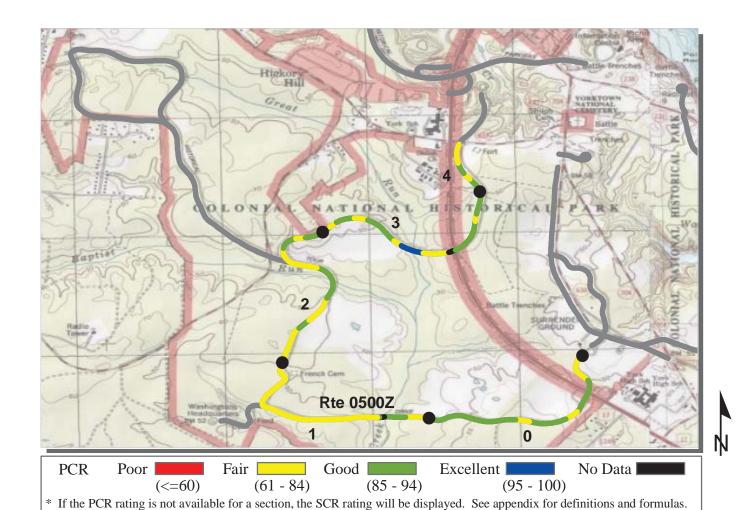


# ROUTE: 0226Z FRENCH ENCAMPMENT TOUR ROAD COLO: COLONIAL NATIONAL HISTORICAL PARK

Subcomponent Record COLLECTED: 4/17/2009
NORTHEAST REGION TOTAL LENGTH: 2.49 Miles

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

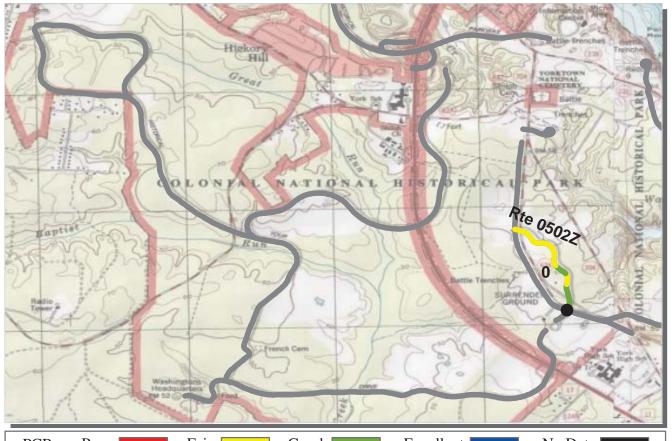
| NORTHEAST REGION                |  |      | TOT  | AL LENGTH: | <b>2.49 Miles</b> |
|---------------------------------|--|------|------|------------|-------------------|
| Section Number                  | 0  | 1    | 2    |            |                   |
| Section Length (mi)             | 1.00   | 1.00 | 0.49 |            |                   |
| Traffic AADT SADT ADT Date      | Traffic data may be found at www.efl.fhwa.dot.gov<br>Click on PROGRAMS / NPS Traffic Data<br>(Note: Not all parks have traffic data) |      |      |            |                   |
| Cross Section Information       |  |      |      |            |                   |
| Number of Lanes                 | 1  | 1    | 1    |            |                   |
| Paved Width (ft)                | 18   | 12   | 11   |            |                   |
| Lane Width (ft)                 | 10   | 12   | 11   |            |                   |
| Shoulder Width Right (ft)       | NC   | NC   | NC   |            |                   |
| Shoulder Width Left (ft)        | NC   | NC   | NC   |            |                   |
| Roadway Condition Information   |  |      |      |            |                   |
| SCR (Surface Condition Rating)  | 65   | 72   | 63   |            |                   |
| PCR (Pavement Condition Rating) | 76   | 81   | 76   |            |                   |
| Distress Index Values           |  |      |      |            |                   |
| Alligator Cracking Index        | 100  | 100  | 100  |            |                   |
| Longitudinal Cracking Index     | 100  | 99   | 98   |            |                   |
| Tranverse Cracking Index        | 100  | 100  | 100  |            |                   |
| Patching Index                  | 100  | 100  | 100  |            |                   |
| Rutting Index                   | 66   | 72   | 66   |            |                   |
| Roughness Condition Index (RCI) | 92   | 95   | 98   |            |                   |



### ROUTE: 0500Z BATTLEFIELD TOUR ROAD COLO: COLONIAL NATIONAL HISTORICAL PARK

Subcomponent Record COLLECTED: 4/17/2009

| NORTHEAST REGION                |  |      | TOTAL | LENGTH: | <b>4.28 Miles</b> |  |  |
|---------------------------------|--|------|-------|---------|-------------------|--|--|
| Section Number                  | 0  | 1    | 2     | 3       | 4                 |  |  |
| Section Length (mi)             | 1.00   | 1.00 | 1.00  | 1.00    | 0.28              |  |  |
| Traffic  AADT  SADT  ADT Date   | Traffic data may be found at www.efl.fhwa.dot.gov<br>Click on PROGRAMS / NPS Traffic Data<br>(Note: Not all parks have traffic data) |      |       |         |                   |  |  |
| Cross Section Information       |  |      |       |         |                   |  |  |
| Number of Lanes                 | 1  | 1    | 1     | 1       | 1                 |  |  |
| Paved Width (ft)                | 12   | 12   | 12    | 12      | 12                |  |  |
| Lane Width (ft)                 | 12   | 12   | 12    | 12      | 12                |  |  |
| Shoulder Width Right (ft)       | NC   | NC   | NC    | NC      | NC                |  |  |
| Shoulder Width Left (ft)        | NC   | NC   | NC    | NC      | NC                |  |  |
| Roadway Condition Information   |  |      |       |         |                   |  |  |
| SCR (Surface Condition Rating)  | 81   | 67   | 77    | 80      | 76                |  |  |
| PCR (Pavement Condition Rating) | 85   | 77   | 83    | 86      | 81                |  |  |
| Distress Index Values           |  |      |       |         |                   |  |  |
| Alligator Cracking Index        | 100  | 100  | 100   | 100     | 100               |  |  |
| Longitudinal Cracking Index     | 100  | 100  | 100   | 99      | 100               |  |  |
| Tranverse Cracking Index        | 100  | 100  | 100   | 100     | 100               |  |  |
| Patching Index                  | 100  | 100  | 100   | 100     | 100               |  |  |
| Rutting Index                   | 81   | 67   | 77    | 81      | 76                |  |  |
| Roughness Condition Index (RCI) | 93   | 92   | 91    | 95      | 93                |  |  |



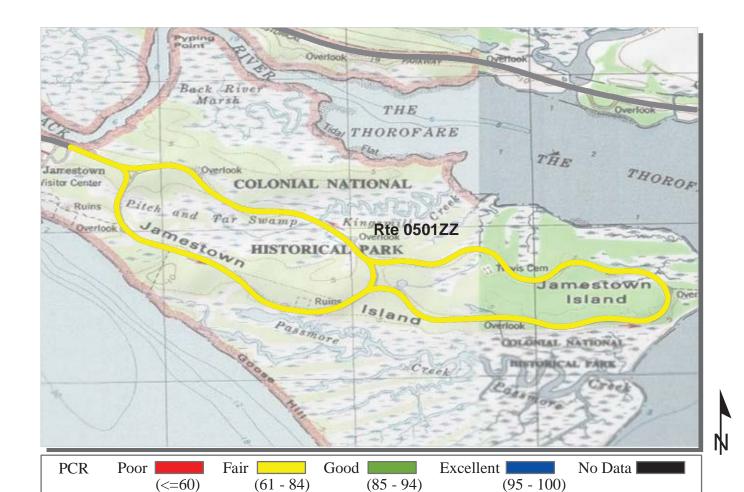
Fair [ Excellent | PCR Poor | Good | No Data I (61 - 84)(85 - 94)(95 - 100)(<=60)\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

#### **ROUTE: 0502Z SHORT LOOP ROAD**

#### COLO: COLONIAL NATIONAL HISTORICAL PARK

| Subcomponent Record |      | CO    | LLECTED: | 4/17/2009         |
|---------------------|------|-------|----------|-------------------|
| NORTHEAST REGION    |      | TOTAL | LENGTH:  | <b>0.55 Miles</b> |
| Section Number      | 0    |       |          |                   |
| Section Length (mi) | 0.55 |       |          |                   |

| Section Number                  | 0  |  |  |  |  |  |
|---------------------------------|--|--|--|--|--|--|
| Section Length (mi)             | 0.55   |  |  |  |  |  |
| Traffic                         |  |  |  |  |  |  |
| AADT                            | Traffic data may be found at www.efl.fhwa.dot.gov                            |  |  |  |  |  |
| SADT                            | Click on PROGRAMS / NPS Traffic Data (Note: Not all parks have traffic data) |  |  |  |  |  |
| ADT Date                        | (Note. Not an parks have traffic data)                                       |  |  |  |  |  |
| Cross Section Information       |  |  |  |  |  |  |
| Number of Lanes                 | 1  |  |  |  |  |  |
| Paved Width (ft)                | 12   |  |  |  |  |  |
| Lane Width (ft)                 | 12   |  |  |  |  |  |
| Shoulder Width Right (ft)       | NC   |  |  |  |  |  |
| Shoulder Width Left (ft)        | NC   |  |  |  |  |  |
| Roadway Condition Information   |  |  |  |  |  |  |
| SCR (Surface Condition Rating)  | 73   |  |  |  |  |  |
| PCR (Pavement Condition Rating) | 80   |  |  |  |  |  |
| Distress Index Values           |  |  |  |  |  |  |
| Alligator Cracking Index        | 100  |  |  |  |  |  |
| Longitudinal Cracking Index     | 100  |  |  |  |  |  |
| Tranverse Cracking Index        | 100  |  |  |  |  |  |
| Patching Index                  | 100  |  |  |  |  |  |
| Rutting Index                   | 73   |  |  |  |  |  |
| Roughness Condition Index (RCI) | 93   |  |  |  |  |  |



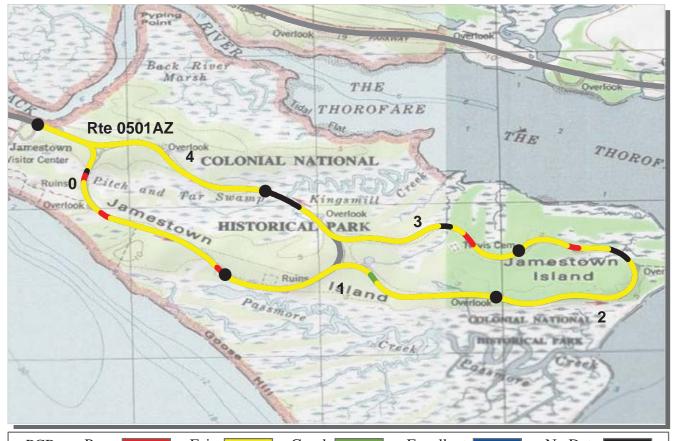
**ROUTE: 0501ZZ ISLAND DRIVE ROUTES** 

#### COLO: COLONIAL NATIONAL HISTORICAL PARK

| Summary Record      |  | CO    | LLECTED: | 4/16/2009         |
|---------------------|--|-------|----------|-------------------|
| NORTHEAST REGION    |  | TOTAL | LENGTH:  | <b>4.82 Miles</b> |
| Section Number      |  |       |          |                   |
| Section Length (mi) |  |       |          |                   |
| Traffic             |  |       |          |                   |

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

| TORTHERD TREGION                |  |                   | 101112          | ELI (GIII) | 1102 111100 |
|---------------------------------|--|-------------------|-----------------|------------|-------------|
| Section Number                  |  |                   |                 |            |             |
| Section Length (mi)             |  |                   |                 |            |             |
| Traffic                         |  |                   | ~ ~ .           |            |             |
| AADT                            |  | •                 | www.efl.fhwa.do | t.gov      |             |
| SADT                            | Click on PROGRAMS / NPS Traffic Data (Note: Not all parks have traffic data) |                   |                 |            |             |
| ADT Date                        | (11010.1101 11   | i parks nave trai | ire data)       |            |             |
| Cross Section Information       |  |                   |                 |            |             |
| Number of Lanes                 | N/A  |                   |                 |            |             |
| Paved Width (ft)                | N/A  |                   |                 |            |             |
| Lane Width (ft)                 | N/A  |                   |                 |            |             |
| Shoulder Width Right (ft)       | NC   |                   |                 |            |             |
| Shoulder Width Left (ft)        | NC   |                   |                 |            |             |
| Roadway Condition Information   |  |                   |                 |            |             |
| SCR (Surface Condition Rating)  | 67   |                   |                 |            |             |
| PCR (Pavement Condition Rating) | 72   |                   |                 |            |             |
| Distress Index Values           |  |                   |                 |            |             |
| Alligator Cracking Index        | N/A  |                   |                 |            |             |
| Longitudinal Cracking Index     | N/A  |                   |                 |            |             |
| Tranverse Cracking Index        | N/A  |                   |                 |            |             |
| Patching Index                  | N/A  |                   |                 |            |             |
| Rutting Index                   | N/A  |                   |                 |            |             |
| Roughness Condition Index (RCI) | N/A  |                   |                 |            |             |
| NC N-+ C-11+-1                  |  |                   | -               |            |             |



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

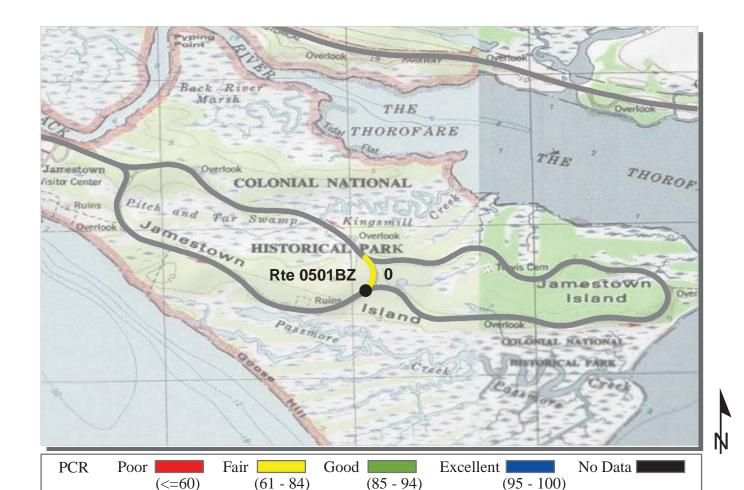
\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

ROUTE: 0501AZ ISLAND DRIVE

#### COLO: COLONIAL NATIONAL HISTORICAL PARK

| Subcomponent Record | COLLECTED:    | 4/16/2009         |
|---------------------|---------------|-------------------|
| NORTHEAST REGION    | TOTAL LENGTH: | <b>4.67 Miles</b> |

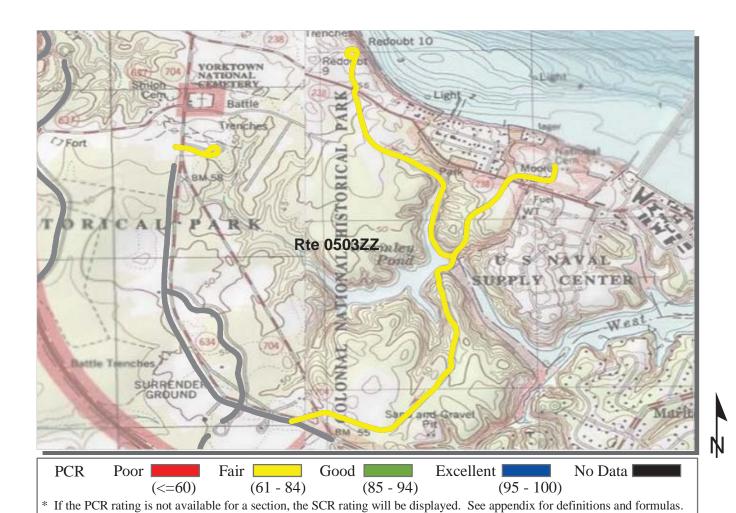
| NORTHEAST REGION TOTAL LENGTH: 4 |  |      |      |      | <b>4.67 Miles</b> |  |
|----------------------------------|--|------|------|------|-------------------|--|
| Section Number                   | 0  | 1    | 2    | 3    | 4                 |  |
| Section Length (mi)              | 1.00   | 1.00 | 1.00 | 1.00 | 0.67              |  |
| Traffic  AADT  SADT  ADT Date    | Traffic data may be found at www.efl.fhwa.dot.gov<br>Click on PROGRAMS / NPS Traffic Data<br>(Note: Not all parks have traffic data) |      |      |      |                   |  |
| Cross Section Information        |  |      |      |      |                   |  |
| Number of Lanes                  | 1  | 1    | 1    | 1    | 1                 |  |
| Paved Width (ft)                 | 14   | 12   | 12   | 12   | 12                |  |
| Lane Width (ft)                  | 12   | 12   | 12   | 12   | 12                |  |
| Shoulder Width Right (ft)        | NC   | NC   | NC   | NC   | NC                |  |
| Shoulder Width Left (ft)         | NC   | NC   | NC   | NC   | NC                |  |
| Roadway Condition Information    |  |      |      |      |                   |  |
| SCR (Surface Condition Rating)   | 65   | 69   | 66   | 67   | 67                |  |
| PCR (Pavement Condition Rating)  | 71   | 73   | 72   | 71   | 74                |  |
| Distress Index Values            |  |      |      |      |                   |  |
| Alligator Cracking Index         | 99   | 100  | 100  | 99   | 100               |  |
| Longitudinal Cracking Index      | 98   | 99   | 97   | 98   | 98                |  |
| Tranverse Cracking Index         | 99   | 99   | 97   | 98   | 99                |  |
| Patching Index                   | 100  | 100  | 100  | 100  | 100               |  |
| Rutting Index                    | 69   | 71   | 72   | 72   | 71                |  |
| Roughness Condition Index (RCI)  | 82   | 79   | 81   | 78   | 83                |  |
| NC Net Cellerted                 |  |      |      |      |                   |  |



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

### ROUTE: 0501BZ ISLAND DRIVE CROSS ROAD COLO: COLONIAL NATIONAL HISTORICAL PARK

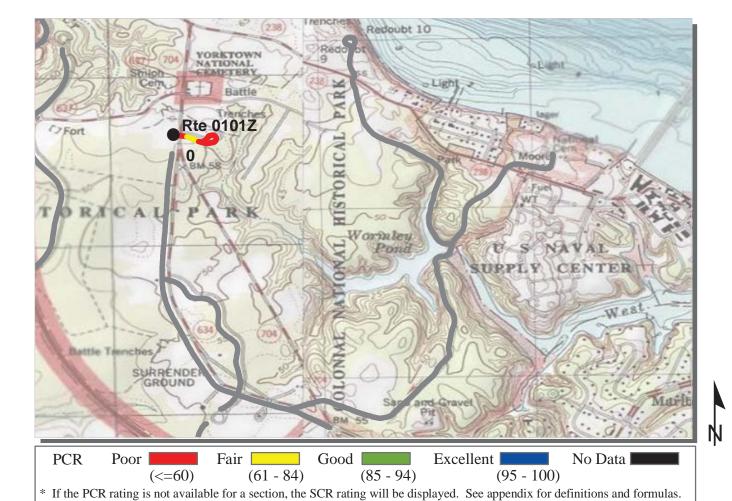
| Subcomponent Record             |  |  | CO    | LLECTED: | 4/16/2009  |
|---------------------------------|--|--|-------|----------|------------|
| NORTHEAST REGION                |  |  | TOTAL | LENGTH:  | 0.15 Miles |
| Section Number                  | 0  |  |       |          |            |
| Section Length (mi)             | 0.15   |  |       |          |            |
| Traffic  AADT  SADT  ADT Date   | Traffic data may be found at www.efl.fhwa.dot.gov<br>Click on PROGRAMS / NPS Traffic Data<br>(Note: Not all parks have traffic data) |  |       |          |            |
| Cross Section Information       |  |  |       |          |            |
| Number of Lanes                 | 1  |  |       |          |            |
| Paved Width (ft)                | 10   |  |       |          |            |
| Lane Width (ft)                 | 10   |  |       |          |            |
| Shoulder Width Right (ft)       | NC   |  |       |          |            |
| Shoulder Width Left (ft)        | NC   |  |       |          |            |
| Roadway Condition Information   |  |  |       |          |            |
| SCR (Surface Condition Rating)  | 76   |  |       |          |            |
| PCR (Pavement Condition Rating) | 75   |  |       |          |            |
| Distress Index Values           |  |  |       |          |            |
| Alligator Cracking Index        | 100  |  |       |          |            |
| Longitudinal Cracking Index     | 99   |  |       |          |            |
| Tranverse Cracking Index        | 99   |  |       |          |            |
| Patching Index                  | 100  |  |       |          |            |
| Rutting Index                   | 78   |  |       |          |            |
| Roughness Condition Index (RCI) | 73   |  |       |          |            |



### ROUTE: 0503ZZ YORKTOWN EAST TOUR ROUTES COLO: COLONIAL NATIONAL HISTORICAL PARK

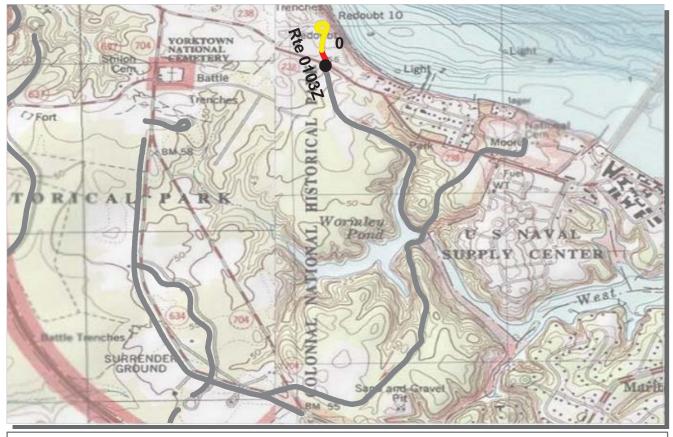
Summary Record COLLECTED: 4/17/2009
NORTHEAST REGION TOTAL LENGTH: 2.78 Miles

| NORTHEAST REGION                |  |                    | TOTAL           | LENGTH: | <b>2.78 Miles</b> |  |
|---------------------------------|--|--------------------|-----------------|---------|-------------------|--|
| Section Number                  |  |                    |                 |         |                   |  |
| Section Length (mi)             |  |                    |                 |         |                   |  |
| Traffic                         |  |                    |                 |         |                   |  |
| AADT                            |  | •                  | www.efl.fhwa.do | ot.gov  |                   |  |
| SADT                            | Click on PROGRAMS / NPS Traffic Data (Note: Not all parks have traffic data) |                    |                 |         |                   |  |
| ADT Date                        | (110te: 110t ur  | i parks have train | ire data)       |         |                   |  |
| Cross Section Information       |  |                    |                 |         |                   |  |
| Number of Lanes                 | N/A  |                    |                 |         |                   |  |
| Paved Width (ft)                | N/A  |                    |                 |         |                   |  |
| Lane Width (ft)                 | N/A  |                    |                 |         |                   |  |
| Shoulder Width Right (ft)       | NC   |                    |                 |         |                   |  |
| Shoulder Width Left (ft)        | NC   |                    |                 |         |                   |  |
| Roadway Condition Information   |  |                    |                 |         |                   |  |
| SCR (Surface Condition Rating)  | 74   |                    |                 |         |                   |  |
| PCR (Pavement Condition Rating) | 77   |                    |                 |         |                   |  |
| Distress Index Values           |  |                    |                 |         |                   |  |
| Alligator Cracking Index        | N/A  |                    |                 |         |                   |  |
| Longitudinal Cracking Index     | N/A  |                    |                 |         |                   |  |
| Tranverse Cracking Index        | N/A  |                    |                 |         |                   |  |
| Patching Index                  | N/A  |                    |                 |         |                   |  |
| Rutting Index                   | N/A  |                    |                 |         |                   |  |
| Roughness Condition Index (RCI) | N/A  |                    |                 |         |                   |  |



# ROUTE: 0101Z GRAND FRENCH BATTERY ROAD COLO: COLONIAL NATIONAL HISTORICAL PARK

| Subcomponent Record             |                     |                   | CO              | LLECTED: | 4/16/2009         |
|---------------------------------|---------------------|-------------------|-----------------|----------|-------------------|
| NORTHEAST REGION                |                     |                   | TOTAL           | LENGTH:  | <b>0.20 Miles</b> |
| Section Number                  | 0                   |                   |                 |          |                   |
| Section Length (mi)             | 0.20                |                   |                 |          |                   |
| Traffic                         | T 66: - 1-4         | 1 6 1 . 4 .       | G G 1-          | 4        |                   |
| AADT                            |                     | nay be found at v | www.efl.fhwa.do | ot.gov   |                   |
| SADT                            |                     | l parks have traf |                 |          |                   |
| ADT Date                        | (= 10000 = 1000 0.0 | F 11-1-2          |                 |          |                   |
| Cross Section Information       |                     |                   |                 |          |                   |
| Number of Lanes                 | 2                   |                   |                 |          |                   |
| Paved Width (ft)                | 19                  |                   |                 |          |                   |
| Lane Width (ft)                 | 9                   |                   |                 |          |                   |
| Shoulder Width Right (ft)       | NC                  |                   |                 |          |                   |
| Shoulder Width Left (ft)        | NC                  |                   |                 |          |                   |
| Roadway Condition Information   |                     |                   |                 |          |                   |
| SCR (Surface Condition Rating)  | 55                  |                   |                 |          |                   |
| PCR (Pavement Condition Rating) | 56                  |                   |                 |          |                   |
| Distress Index Values           |                     |                   |                 |          |                   |
| Alligator Cracking Index        | 97                  |                   |                 |          |                   |
| Longitudinal Cracking Index     | 93                  |                   |                 |          |                   |
| Tranverse Cracking Index        | 95                  |                   |                 |          |                   |
| Patching Index                  | 100                 |                   |                 |          |                   |
| Rutting Index                   | 70                  |                   |                 |          |                   |
| Roughness Condition Index (RCI) | 64                  |                   |                 |          |                   |





**COLLECTED:** 

4/16/2009

#### ROUTE: 0103Z REDOUBT ACCESS ROAD

Roughness Condition Index (RCI) 100

**Subcomponent Record** 

#### **COLO: COLONIAL NATIONAL HISTORICAL PARK**

| NORTHEAST REGION                |              |  | TOTAL | LENGTH: | <b>0.22 Miles</b> |
|---------------------------------|--------------|--|-------|---------|-------------------|
| Section Number                  | 0            |  |       |         |                   |
| Section Length (mi)             | 0.22         |  |       |         |                   |
| Traffic  AADT  SADT  ADT Date   | Click on PRC | nay be found at v<br>OGRAMS / NPS<br>I parks have traf |       | ot.gov  |                   |
| Cross Section Information       |              |  |       |         |                   |
| Number of Lanes                 | 2            |  |       |         |                   |
| Paved Width (ft)                | 18           |  |       |         |                   |
| Lane Width (ft)                 | 13           |  |       |         |                   |
| Shoulder Width Right (ft)       | NC           |  |       |         |                   |
| Shoulder Width Left (ft)        | NC           |  |       |         |                   |
| Roadway Condition Information   |              |  |       |         |                   |
| SCR (Surface Condition Rating)  | 62           |  |       |         |                   |
| PCR (Pavement Condition Rating) | 66           |  |       |         |                   |
| Distress Index Values           |              |  |       |         |                   |
| Alligator Cracking Index        | 100          |  |       |         |                   |
| Longitudinal Cracking Index     | 99           |  |       |         |                   |
| Tranverse Cracking Index        | 99           |  |       |         |                   |
| Patching Index                  | 100          |  |       |         |                   |
| Rutting Index                   | 63           |  |       |         |                   |
| 4                               | 1            |  |       | I .     |                   |





# ROUTE: 0104Z MOORE HOUSE ACCESS ROAD COLO: COLONIAL NATIONAL HISTORICAL PARK

Subcomponent Record COLLECTED: 4/16/2009
NORTHEAST REGION TOTAL LENGTH: 0.53 Miles

| NORTHEAST REGION                |  |  | TOTAL | LENGTH: | <b>0.53 Miles</b> |
|---------------------------------|--|--|-------|---------|-------------------|
| Section Number                  | 0  |  |       |         |                   |
| Section Length (mi)             | 0.53   |  |       |         |                   |
| Traffic AADT SADT ADT Date      | Traffic data may be found at www.efl.fhwa.dot.gov<br>Click on PROGRAMS / NPS Traffic Data<br>(Note: Not all parks have traffic data) |  |       |         |                   |
| Cross Section Information       |  |  |       |         |                   |
| Number of Lanes                 | 2  |  |       |         |                   |
| Paved Width (ft)                | 20   |  |       |         |                   |
| Lane Width (ft)                 | 11   |  |       |         |                   |
| Shoulder Width Right (ft)       | NC   |  |       |         |                   |
| Shoulder Width Left (ft)        | NC   |  |       |         |                   |
| Roadway Condition Information   |  |  |       |         |                   |
| SCR (Surface Condition Rating)  | 75   |  |       |         |                   |
| PCR (Pavement Condition Rating) | 78   |  |       |         |                   |
| Distress Index Values           |  |  |       |         |                   |
| Alligator Cracking Index        | 100  |  |       |         |                   |
| Longitudinal Cracking Index     | 100  |  |       |         |                   |
| Tranverse Cracking Index        | 100  |  |       |         |                   |
| Patching Index                  | 100  |  |       |         |                   |
| Rutting Index                   | 75   |  |       |         |                   |
| Roughness Condition Index (RCI) | 97   |  |       |         |                   |





# ROUTE: 0503Z EAST YORKTOWN TOUR ROAD COLO: COLONIAL NATIONAL HISTORICAL PARK

Subcomponent Record COLLECTED: 4/17/2009

| NORTHEAST REGION                |             |   | TOTAL        | LENGTH: | <b>1.83 Miles</b> |
|---------------------------------|-------------|---|--------------|---------|-------------------|
| Section Number                  | 0           | 1   |              |         |                   |
| Section Length (mi)             | 1.00        | 0.83  |              |         |                   |
| Traffic AADT SADT ADT Date      | Click on Pl | a may be found at v<br>ROGRAMS / NPS<br>all parks have traf | Traffic Data | ot.gov  |                   |
| Cross Section Information       |             |   |              |         |                   |
| Number of Lanes                 | 1           | 1   |              |         |                   |
| Paved Width (ft)                | 12          | 12  |              |         |                   |
| Lane Width (ft)                 | 12          | 12  |              |         |                   |
| Shoulder Width Right (ft)       | NC          | NC  |              |         |                   |
| Shoulder Width Left (ft)        | NC          | NC  |              |         |                   |
| Roadway Condition Information   |             |   |              |         |                   |
| SCR (Surface Condition Rating)  | 72          | 90  |              |         |                   |
| PCR (Pavement Condition Rating) | 76          | 90  |              |         |                   |
| Distress Index Values           |             |   |              |         |                   |
| Alligator Cracking Index        | 100         | 100   |              |         |                   |
| Longitudinal Cracking Index     | 98          | 100   |              |         |                   |
| Tranverse Cracking Index        | 99          | 100   |              |         |                   |
| Patching Index                  | 100         | 100   |              |         |                   |
| Rutting Index                   | 74          | 90  |              |         |                   |
| Roughness Condition Index (RCI) | 84          | 92  |              |         |                   |

# Colonial National Historical Park

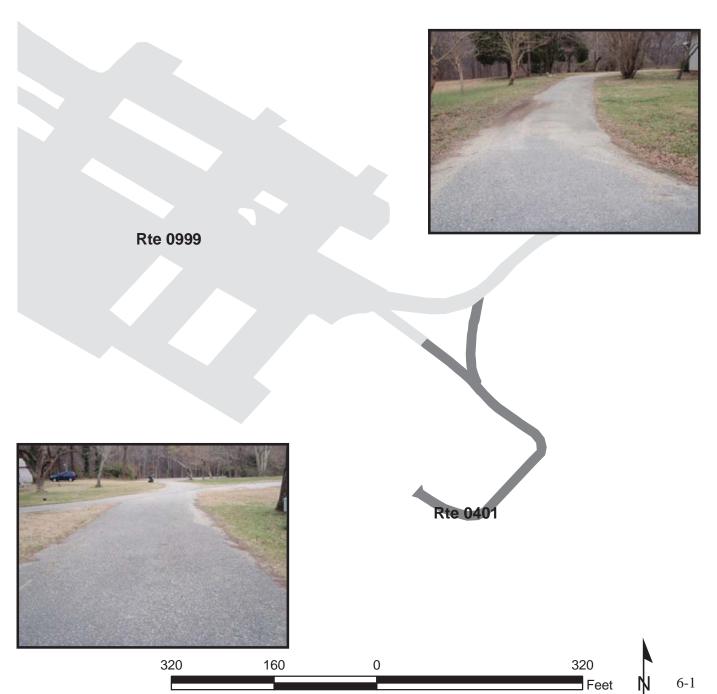


Section 6
Manually Rated Paved Route
Condition Rating Sheets (MRR)

YORKTOWN MAINTENANCE AREA RESIDENCE ROAD FROM ROUTE 0999 (YORKTOWN MAINTENANCE PARKING) TO DEAD END

| Route    | Public /           |       |          |               |              |              |
|----------|--------------------|-------|----------|---------------|--------------|--------------|
| Number   | NonPublic          | Date  | Visited  | Area (sq ft)  | Lane Miles * | Surface Type |
| 0401     | NONPUBLIC          | 1/2   | 6/2009   | 7,467         | 0.13         | AS           |
|          |                    |       | Fire     |               |              |              |
| Culverts | <b>Drop Inlets</b> | Gates | Hydrants | Curb & Gutter | Curb         | PCR          |
|          |                    |       |          | NO CURB AND   |              |              |
| 0        | 0                  | 0     | 0        | GUTTER        | NO CURB      | FAIR/73      |

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



# Colonial National Historical Park



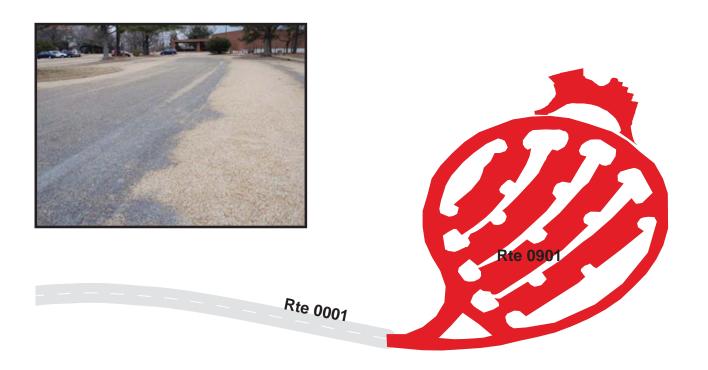
Section 7
Parking Area Condition Rating Sheets

#### YORKTOWN VISITOR CENTER PARKING

FROM BEGINNING OF ROUTE 0001 (COLONIAL PARKWAY)
TO PARKING

| Route    | Public /           |       |          |               |              |              |
|----------|--------------------|-------|----------|---------------|--------------|--------------|
| Number   | NonPublic          | Date  | Visited  | Area (sq ft)  | Lane Miles * | Surface Type |
| 0901     | PUBLIC             | 1/2   | 6/2009   | 129,963       | 2.24         | AS           |
|          |                    |       | Fire     |               |              |              |
| Culverts | <b>Drop Inlets</b> | Gates | Hydrants | Curb & Gutter | Curb         | PCR          |
|          |                    |       |          | NO CURB AND   | CONCRETE     |              |
| 0        | 28                 | 0     | 2        | GUTTER        | CURB         | FAIR/73      |

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







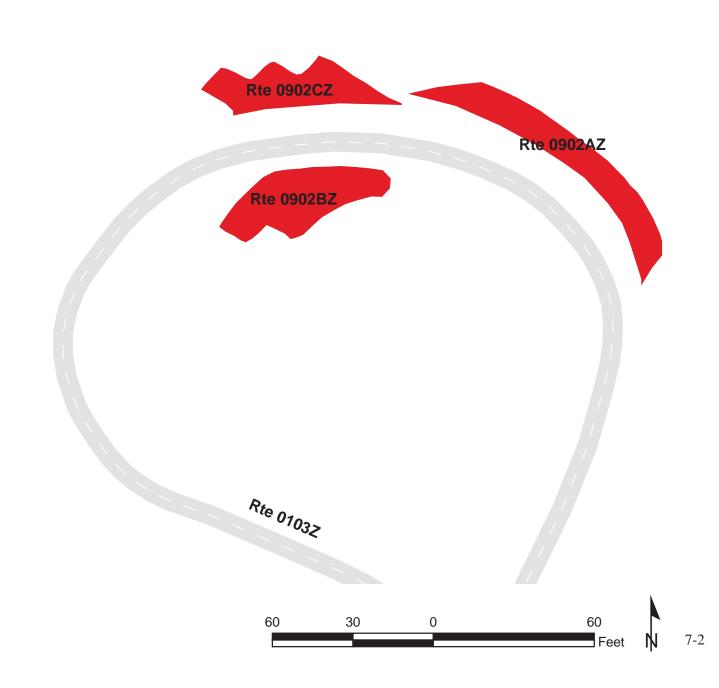
7-1

REDOUBT 9, 10 ACCESS ROAD PARKING AREAS ADJACENT TO ROUTE 0103Z (REDOUBT ACCESS ROAD ) ON LEFT AND RIGHT

Summary Record

| Route    | Public /           |              |          |               |              |              |
|----------|--------------------|--------------|----------|---------------|--------------|--------------|
| Number   | NonPublic          | Date Visited |          | Area (sq ft)  | Lane Miles * | Surface Type |
| 0902ZZ   | PUBLIC             | 1/2          | 7/2009   | 2,484         | 0.04         | AS           |
|          |                    |              | Fire     |               |              |              |
| Culverts | <b>Drop Inlets</b> | Gates        | Hydrants | Curb & Gutter | Curb         | PCR          |
|          |                    |              |          | NO CURB AND   | CONCRETE     |              |
| 0        | 1                  | 0            | 0        | GUTTER        | CURB         | SUMMARY/73   |

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

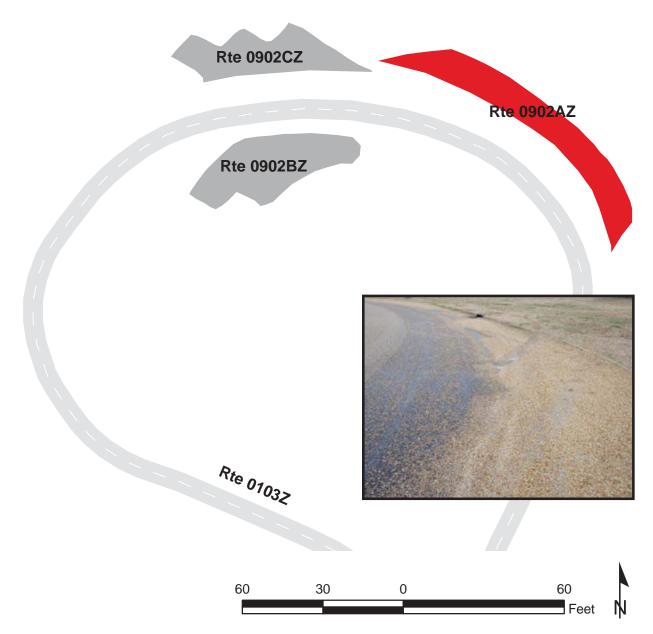


REDOUBT 9, 10 ACCESS ROAD PARKING A ADJACENT TO ROUTE 0103Z (REDOUBT ACCESS ROAD ) AT MP 0.15 (ON RIGHT)

Subcomponent Record

| Route    | Public /           |       |          |               |              |              |
|----------|--------------------|-------|----------|---------------|--------------|--------------|
| Number   | NonPublic          | Date  | Visited  | Area (sq ft)  | Lane Miles * | Surface Type |
| 0902AZ   | PUBLIC             | 1/2   | 7/2009   | 976           | 0.02         | AS           |
|          |                    |       | Fire     |               |              |              |
| Culverts | <b>Drop Inlets</b> | Gates | Hydrants | Curb & Gutter | Curb         | PCR          |
|          |                    |       |          | NO CURB AND   | CONCRETE     |              |
| 0        | 1                  | 0     | 0        | GUTTER        | CURB         | FAIR/73      |

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



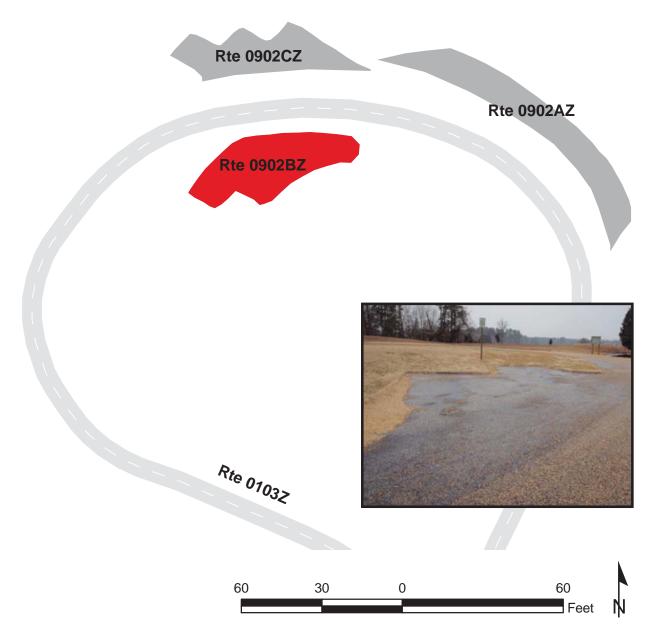
REDOUBT 9, 10 ACCESS ROAD PARKING B

ADJACENT TO ROUTE 0103Z (REDOUBT ACCESS ROAD ) AT MP 0.17 (ON LEFT)

Subcomponent Record

| Route    | Public /           |       |          |               |              |              |
|----------|--------------------|-------|----------|---------------|--------------|--------------|
| Number   | NonPublic          | Date  | Visited  | Area (sq ft)  | Lane Miles * | Surface Type |
| 0902BZ   | PUBLIC             | 1/2   | 7/2009   | 827           | 0.01         | AS           |
|          |                    |       | Fire     |               |              |              |
| Culverts | <b>Drop Inlets</b> | Gates | Hydrants | Curb & Gutter | Curb         | PCR          |
|          |                    |       |          | NO CURB AND   | CONCRETE     |              |
| 0        | 0                  | 0     | 0        | GUTTER        | CURB         | FAIR/73      |

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

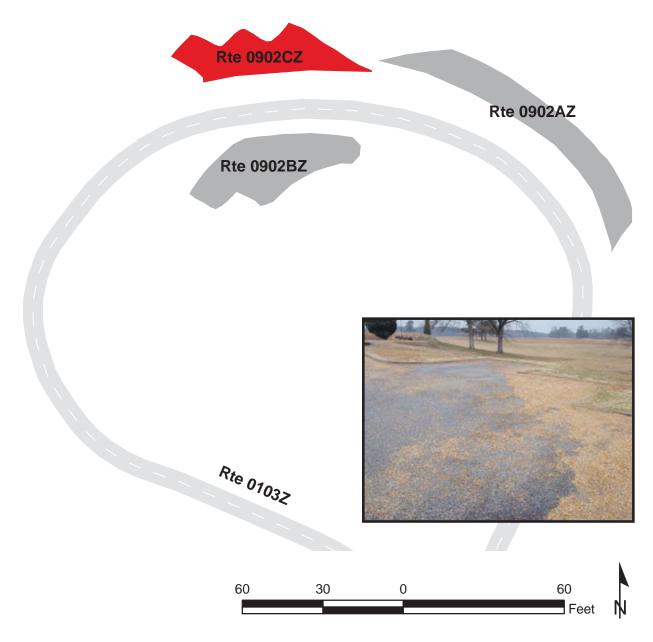


REDOUBT 9, 10 ACCESS ROAD PARKING C ADJACENT TO ROUTE 0103Z (REDOUBT ACCESS ROAD ) AT MP 0.17 (ON RIGHT)

Subcomponent Record

| Route    | Public /           |       |          |               |              |              |
|----------|--------------------|-------|----------|---------------|--------------|--------------|
| Number   | NonPublic          | Date  | Visited  | Area (sq ft)  | Lane Miles * | Surface Type |
| 0902CZ   | PUBLIC             | 1/2   | 7/2009   | 681           | 0.01         | AS           |
|          |                    |       | Fire     |               |              |              |
| Culverts | <b>Drop Inlets</b> | Gates | Hydrants | Curb & Gutter | Curb         | PCR          |
|          |                    |       |          | NO CURB AND   | CONCRETE     |              |
| 0        | 0                  | 0     | 0        | GUTTER        | CURB         | FAIR/73      |

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



# UNTOUCHED REDOUBT LOOP/PARKING FROM ROUTE 0100Z (UNTOUCHED REDOUBT ROAD) AT END TO PARKING

| Route    | Public /           |              |          |               |              |              |
|----------|--------------------|--------------|----------|---------------|--------------|--------------|
| Number   | NonPublic          | Date Visited |          | Area (sq ft)  | Lane Miles * | Surface Type |
| 0903     | PUBLIC             | 1/2          | 7/2009   | 10,364        | 0.18         | AS           |
|          |                    |              | Fire     |               |              |              |
| Culverts | <b>Drop Inlets</b> | Gates        | Hydrants | Curb & Gutter | Curb         | PCR          |
|          |                    |              |          | NO CURB AND   | CONCRETE     |              |
| 2        | 0                  | 0            | 0        | GUTTER        | CURB         | GOOD/90      |



210

105

210

#### GLASSHOUSE ACCESS ROAD PARKING

FROM ROUTE 0001 (COLONIAL PARKWAY) AT MP 22.03 (ON RIGHT) TO PARKING

| Route    | Public /           |       |          |               |              |              |
|----------|--------------------|-------|----------|---------------|--------------|--------------|
| Number   | NonPublic          | Date  | Visited  | Area (sq ft)  | Lane Miles * | Surface Type |
| 0904     | PUBLIC             | 1/2   | 7/2009   | 42,058        | 0.72         | AS           |
|          |                    |       | Fire     |               |              |              |
| Culverts | <b>Drop Inlets</b> | Gates | Hydrants | Curb & Gutter | Curb         | PCR          |
|          |                    |       |          | NO CURB AND   | CONCRETE     |              |
| 0        | 1                  | 0     | 1        | GUTTER        | CURB         | GOOD/90      |

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



300

150

300

#### FUSILIER'S PARKING

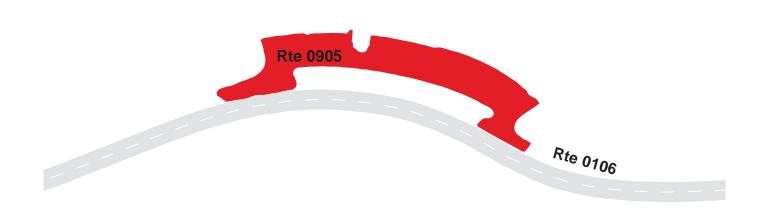
FROM ROUTE 0106 (FUSILIER'S ROAD) AT MP 0.16 (ON LEFT) TO ROUTE 0106 (FUSILIER'S ROAD) AT MP 0.20 (ON LEFT)

| Route    | Public /           |              |          |               |              |              |
|----------|--------------------|--------------|----------|---------------|--------------|--------------|
| Number   | NonPublic          | Date Visited |          | Area (sq ft)  | Lane Miles * | Surface Type |
| 0905     | PUBLIC             | 1/2          | 7/2009   | 14,173        | 0.24         | AS           |
|          |                    |              | Fire     |               |              |              |
| Culverts | <b>Drop Inlets</b> | Gates        | Hydrants | Curb & Gutter | Curb         | PCR          |
|          |                    |              |          | NO CURB AND   | CONCRETE     |              |
| 0        | 2                  | 0            | 0        | GUTTER        | CURB         | GOOD/90      |

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







#### NAVAL WEAPONS STATION PARKING

FROM ROUTE 0001 (COLONIAL PARKWAY) AT MP 2.98 (ON RIGHT) TO ROUTE 0001 (COLONIAL PARKWAY) AT MP 3.02 (ON RIGHT)

| Route    | Public /           |       |          |               |              |              |
|----------|--------------------|-------|----------|---------------|--------------|--------------|
| Number   | NonPublic          | Date  | Visited  | Area (sq ft)  | Lane Miles * | Surface Type |
| 0906     | PUBLIC             | 1/2   | 7/2009   | 10,832        | 0.19         | СО           |
|          |                    |       | Fire     |               |              |              |
| Culverts | <b>Drop Inlets</b> | Gates | Hydrants | Curb & Gutter | Curb         | PCR          |
|          |                    |       |          | NO CURB AND   | CONCRETE     |              |
| 0        | 0                  | 0     | 0        | GUTTER        | CURB         | GOOD/90      |

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



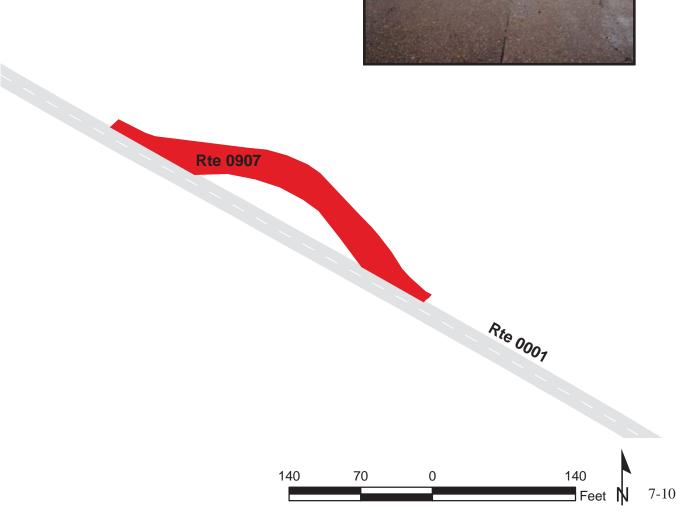
#### YORKTOWN RIVER PARKING

FROM ROUTE 0001 (COLONIAL PARKWAY) AT MP 3.43 (ON RIGHT) TO ROUTE 0001 (COLONIAL PARKWAY) AT MP 3.47 (ON RIGHT)

| Route    | Public /           |              |          |               |              |              |
|----------|--------------------|--------------|----------|---------------|--------------|--------------|
| Number   | NonPublic          | Date Visited |          | Area (sq ft)  | Lane Miles * | Surface Type |
| 0907     | PUBLIC             | 1/2          | 7/2009   | 7,261         | 0.13         | СО           |
|          |                    |              | Fire     |               |              |              |
| Culverts | <b>Drop Inlets</b> | Gates        | Hydrants | Curb & Gutter | Curb         | PCR          |
|          |                    |              |          | NO CURB AND   | CONCRETE     |              |
| 0        | 0                  | 0            | 0        | GUTTER        | CURB         | GOOD/90      |

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





#### POWHATAN PARKING

FROM ROUTE 0001 (COLONIAL PARKWAY) AT MP 4.20 (ON RIGHT) TO ROUTE 0001 (COLONIAL PARKWAY) AT MP 4.24 (ON RIGHT)

| Route    | Public /           |              |          |               |              |              |
|----------|--------------------|--------------|----------|---------------|--------------|--------------|
| Number   | NonPublic          | Date Visited |          | Area (sq ft)  | Lane Miles * | Surface Type |
| 0908     | PUBLIC             | 1/2          | 7/2009   | 10,048        | 0.17         | СО           |
|          |                    |              | Fire     |               |              |              |
| Culverts | <b>Drop Inlets</b> | Gates        | Hydrants | Curb & Gutter | Curb         | PCR          |
|          |                    |              |          | NO CURB AND   | CONCRETE     |              |
| 0        | 2                  | 0            | 0        | GUTTER        | CURB         | GOOD/90      |

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



#### INDIAN FIELD CREEK PARKING

FROM ROUTE 0001 (COLONIAL PARKWAY) AT MP 4.32 (ON LEFT) TO ROUTE 0001 (COLONIAL PARKWAY) AT MP 4.35 (ON LEFT)

| Route    | Public /           |              |          |               |              |              |
|----------|--------------------|--------------|----------|---------------|--------------|--------------|
| Number   | NonPublic          | Date Visited |          | Area (sq ft)  | Lane Miles * | Surface Type |
| 0909     | PUBLIC             | 1/2          | 7/2009   | 10,005        | 0.17         | СО           |
|          |                    |              | Fire     |               |              |              |
| Culverts | <b>Drop Inlets</b> | Gates        | Hydrants | Curb & Gutter | Curb         | PCR          |
|          |                    |              |          | NO CURB AND   | CONCRETE     |              |
| 0        | 1                  | 0            | 0        | GUTTER        | CURB         | GOOD/90      |

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





#### BELLFIELD PLANTATION PARKING

FROM ROUTE 0001 (COLONIAL PARKWAY) AT MP 5.68 (ON RIGHT) TO ROUTE 0001 (COLONIAL PARKWAY) AT MP 5.72 (ON RIGHT)

| Route    | Public /           |       |          |               |              |              |
|----------|--------------------|-------|----------|---------------|--------------|--------------|
| Number   | NonPublic          | Date  | Visited  | Area (sq ft)  | Lane Miles * | Surface Type |
| 0910     | PUBLIC             | 1/2   | 7/2009   | 9,653         | 0.17         | CO           |
|          |                    |       | Fire     |               |              |              |
| Culverts | <b>Drop Inlets</b> | Gates | Hydrants | Curb & Gutter | Curb         | PCR          |
|          |                    |       |          | NO CURB AND   | CONCRETE     |              |
| 0        | 0                  | 0     | 0        | GUTTER        | CURB         | GOOD/90      |

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





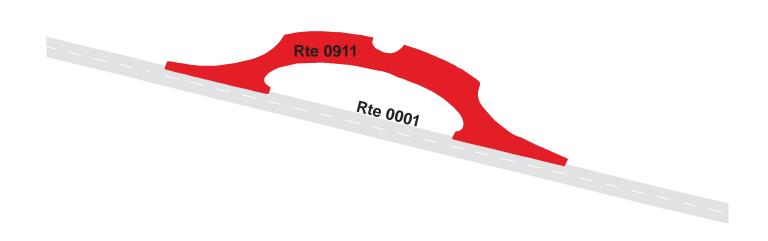
#### RINGFIELD PLANTATION PARKING

FROM ROUTE 0001 (COLONIAL PARKWAY) AT MP 5.93 (ON RIGHT) TO ROUTE 0001 (COLONIAL PARKWAY) AT MP 5.98 (ON RIGHT)

| Route    | Public /           |       |          |               |              |              |
|----------|--------------------|-------|----------|---------------|--------------|--------------|
| Number   | NonPublic          | Date  | Visited  | Area (sq ft)  | Lane Miles * | Surface Type |
| 0911     | PUBLIC             | 1/2   | 7/2009   | 15,026        | 0.26         | CO           |
|          |                    |       | Fire     |               |              |              |
| Culverts | <b>Drop Inlets</b> | Gates | Hydrants | Curb & Gutter | Curb         | PCR          |
|          |                    |       |          | NO CURB AND   | CONCRETE     |              |
| 0        | 2                  | 0     | 0        | GUTTER        | CURB         | GOOD/90      |

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





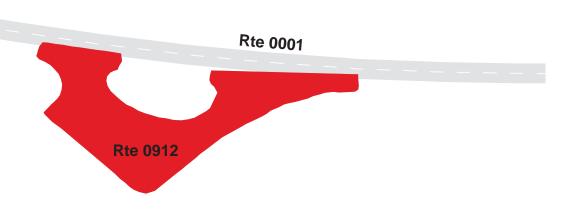
#### JAMES MILL PARKING

FROM ROUTE 0001 (COLONIAL PARKWAY) AT MP 9.35 (ON LEFT) TO ROUTE 0001 (COLONIAL PARKWAY) AT MP 9.37 (ON LEFT)

| Route    | Public /           |       |          |               |              |              |
|----------|--------------------|-------|----------|---------------|--------------|--------------|
| Number   | NonPublic          | Date  | Visited  | Area (sq ft)  | Lane Miles * | Surface Type |
| 0912     | PUBLIC             | 1/2   | 7/2009   | 8,305         | 0.14         | СО           |
|          |                    |       | Fire     |               |              |              |
| Culverts | <b>Drop Inlets</b> | Gates | Hydrants | Curb & Gutter | Curb         | PCR          |
|          |                    |       |          | NO CURB AND   | CONCRETE     |              |
| 0        | 2                  | 0     | 0        | GUTTER        | CURB         | GOOD/90      |

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





#### PALISADES GREAT OAKS PARKING

FROM ROUTE 0001 (COLONIAL PARKWAY) AT MP 13.97 (ON LEFT) TO ROUTE 0001 (COLONIAL PARKWAY) AT MP 14.01 (ON LEFT)

| Route    | Public /           |       |          |               |              |              |
|----------|--------------------|-------|----------|---------------|--------------|--------------|
| Number   | NonPublic          | Date  | Visited  | Area (sq ft)  | Lane Miles * | Surface Type |
| 0913     | PUBLIC             | 1/2   | 7/2009   | 11,481        | 0.20         | CO           |
|          |                    |       | Fire     |               |              |              |
| Culverts | <b>Drop Inlets</b> | Gates | Hydrants | Curb & Gutter | Curb         | PCR          |
|          |                    |       |          | NO CURB AND   | CONCRETE     |              |
| 0        | 1                  | 0     | 0        | GUTTER        | CURB         | GOOD/90      |

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



160

80

#### GREAT NECK PARKING

FROM ROUTE 0001 (COLONIAL PARKWAY) AT MP 14.17 (ON LEFT) TO ROUTE 0001 (COLONIAL PARKWAY) AT MP 14.21 (ON LEFT)

| Route    | Public /           |              |          |               |              |              |
|----------|--------------------|--------------|----------|---------------|--------------|--------------|
| Number   | NonPublic          | Date Visited |          | Area (sq ft)  | Lane Miles * | Surface Type |
| 0914     | PUBLIC             | 1/2          | 7/2009   | 9,817         | 0.17         | СО           |
|          |                    |              | Fire     |               |              |              |
| Culverts | <b>Drop Inlets</b> | Gates        | Hydrants | Curb & Gutter | Curb         | PCR          |
|          |                    |              |          | NO CURB AND   | CONCRETE     |              |
| 0        | 2                  | 0            | 0        | GUTTER        | CURB         | GOOD/90      |

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



Rte 0914

ATTEMPTED SETTLEMENT/COLLEGE CREEK PARKING FROM ROUTE 0001 (COLONIAL PARKWAY) AT MP 16.56 (ON RIGHT) TO ROUTE 0001 (COLONIAL PARKWAY) AT MP 16.65 (ON RIGHT)

| Route    | Public /           |       |          |               |              |              |
|----------|--------------------|-------|----------|---------------|--------------|--------------|
| Number   | NonPublic          | Date  | Visited  | Area (sq ft)  | Lane Miles * | Surface Type |
| 0915     | PUBLIC             | 1/2   | 7/2009   | 22,688        | 0.39         | СО           |
|          |                    |       | Fire     |               |              |              |
| Culverts | <b>Drop Inlets</b> | Gates | Hydrants | Curb & Gutter | Curb         | PCR          |
|          |                    |       |          | NO CURB AND   | CONCRETE     |              |
| 0        | 3                  | 0     | 0        | GUTTER        | CURB         | GOOD/90      |

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



#### JAMES RIVER PARKING

FROM ROUTE 0001 (COLONIAL PARKWAY) AT MP 16.93 (ON LEFT) TO ROUTE 0001 (COLONIAL PARKWAY) AT MP 16.96 (ON LEFT)

| Route    | Public /           |       |          |               |              |              |
|----------|--------------------|-------|----------|---------------|--------------|--------------|
| Number   | NonPublic          | Date  | Visited  | Area (sq ft)  | Lane Miles * | Surface Type |
| 0916     | PUBLIC             | 1/2   | 7/2009   | 11,405        | 0.20         | СО           |
|          |                    |       | Fire     |               |              |              |
| Culverts | <b>Drop Inlets</b> | Gates | Hydrants | Curb & Gutter | Curb         | PCR          |
|          |                    |       |          | NO CURB AND   | CONCRETE     |              |
| 0        | 1                  | 0     | 0        | GUTTER        | CURB         | GOOD/90      |

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



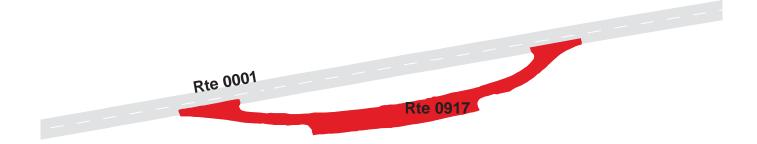
#### ARCHER'S HOPE PARKING

FROM ROUTE 0001 (COLONIAL PARKWAY) AT MP 17.91 (ON LEFT) TO ROUTE 0001 (COLONIAL PARKWAY) AT MP 18.01 (ON LEFT)

| Route    | Public /           |              |          |               |              |              |
|----------|--------------------|--------------|----------|---------------|--------------|--------------|
| Number   | NonPublic          | Date Visited |          | Area (sq ft)  | Lane Miles * | Surface Type |
| 0917     | PUBLIC             | 1/2          | 7/2009   | 20,519        | 0.35         | СО           |
|          |                    |              | Fire     |               |              |              |
| Culverts | <b>Drop Inlets</b> | Gates        | Hydrants | Curb & Gutter | Curb         | PCR          |
|          |                    |              |          | NO CURB AND   | CONCRETE     |              |
| 0        | 3                  | 0            | 0        | GUTTER        | CURB         | GOOD/90      |

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





#### JAMESTOWN ISLAND/GLEBE LAND PARKING

FROM ROUTE 0001 (COLONIAL PARKWAY) AT MP 19.37 (ON LEFT) TO ROUTE 0001 (COLONIAL PARKWAY) AT MP 19.46 (ON LEFT)

| Route    | Public /           |       |          |               |              |              |
|----------|--------------------|-------|----------|---------------|--------------|--------------|
| Number   | NonPublic          | Date  | Visited  | Area (sq ft)  | Lane Miles * | Surface Type |
| 0918     | PUBLIC             | 1/2   | 7/2009   | 26,075        | 0.45         | CO           |
|          |                    |       | Fire     |               |              |              |
| Culverts | <b>Drop Inlets</b> | Gates | Hydrants | Curb & Gutter | Curb         | PCR          |
|          |                    |       |          | NO CURB AND   | CONCRETE     |              |
| 0        | 0                  | 0     | 0        | GUTTER        | CURB         | GOOD/90      |

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







175

350

350 Feet

#### REAL ESTATE PARKING

FROM ROUTE 0001 (COLONIAL PARKWAY) AT MP 19.77 (ON LEFT) TO ROUTE 0001 (COLONIAL PARKWAY) AT MP 19.80 (ON LEFT)

| Route    | Public /           |       |          |               |              |              |
|----------|--------------------|-------|----------|---------------|--------------|--------------|
| Number   | NonPublic          | Date  | Visited  | Area (sq ft)  | Lane Miles * | Surface Type |
| 0919     | PUBLIC             | 1/2   | 7/2009   | 10,473        | 0.18         | СО           |
|          |                    |       | Fire     |               |              |              |
| Culverts | <b>Drop Inlets</b> | Gates | Hydrants | Curb & Gutter | Curb         | PCR          |
|          |                    |       |          | NO CURB AND   | CONCRETE     |              |
| 0        | 1                  | 0     | 0        | GUTTER        | CURB         | GOOD/90      |

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





#### NECK OF LAND PARKING

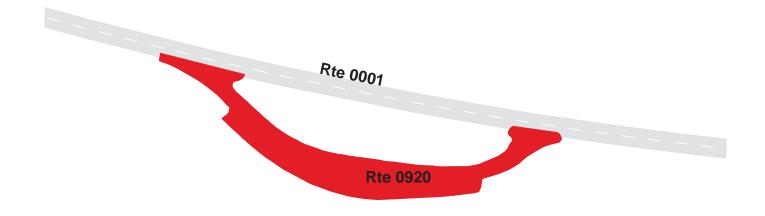
FROM ROUTE 0001 (COLONIAL PARKWAY) AT MP 20.24 (ON LEFT) TO ROUTE 0001 (COLONIAL PARKWAY) AT MP 20.31 (ON LEFT)

| Route    | Public /           |              |          |               |              |              |
|----------|--------------------|--------------|----------|---------------|--------------|--------------|
| Number   | NonPublic          | Date Visited |          | Area (sq ft)  | Lane Miles * | Surface Type |
| 0920     | PUBLIC             | 1/2          | 7/2009   | 24,053        | 0.41         | СО           |
|          |                    |              | Fire     |               |              |              |
| Culverts | <b>Drop Inlets</b> | Gates        | Hydrants | Curb & Gutter | Curb         | PCR          |
|          |                    |              |          | NO CURB AND   | CONCRETE     |              |
| 1        | 1                  | 0            | 0        | GUTTER        | CURB         | GOOD/90      |

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







#### JAMESTOWN ENTRANCE PARKING

FROM ROUTE 0001 (COLONIAL PARKWAY) AT MP 21.81 (ON LEFT) TO ROUTE 0001 (COLONIAL PARKWAY) AT MP 21.93 (ON LEFT)

| Route    | Public /           |       |          |               |              |              |
|----------|--------------------|-------|----------|---------------|--------------|--------------|
| Number   | NonPublic          | Date  | Visited  | Area (sq ft)  | Lane Miles * | Surface Type |
| 0921     | PUBLIC             | 1/2   | 7/2009   | 25,464        | 0.44         | CO           |
|          |                    |       | Fire     |               |              |              |
| Culverts | <b>Drop Inlets</b> | Gates | Hydrants | Curb & Gutter | Curb         | PCR          |
|          |                    |       |          | NO CURB AND   | CONCRETE     |              |
| 0        | 6                  | 0     | 0        | GUTTER        | CURB         | GOOD/90      |

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



#### YORKTOWN VISITOR PARKING

# FROM CHURCH STREET TO READ STREET

| Route    | Public /           |       |          |               |              |              |
|----------|--------------------|-------|----------|---------------|--------------|--------------|
| Number   | NonPublic          | Date  | Visited  | Area (sq ft)  | Lane Miles * | Surface Type |
| 0922     | PUBLIC             | 1/2   | 7/2009   | 20,476        | 0.35         | AS           |
|          |                    |       | Fire     |               |              |              |
| Culverts | <b>Drop Inlets</b> | Gates | Hydrants | Curb & Gutter | Curb         | PCR          |
|          |                    |       |          | CONCRETE CURB | CONCRETE     |              |
| 0        | 1                  | 0     | 0        | AND GUTTER    | CURB         | FAIR/73      |

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







100

200

200

#### YORKTOWN VICTORY MONUMENT PARKING FROM BACON STREET TO ZWEYBRUCKEN ROAD

| Route    | Public /           |       |          |               |              |              |
|----------|--------------------|-------|----------|---------------|--------------|--------------|
| Number   | NonPublic          | Date  | Visited  | Area (sq ft)  | Lane Miles * | Surface Type |
| 0923     | PUBLIC             | 1/2   | 7/2009   | 10,624        | 0.18         | AS           |
|          |                    |       | Fire     |               |              |              |
| Culverts | <b>Drop Inlets</b> | Gates | Hydrants | Curb & Gutter | Curb         | PCR          |
|          |                    |       |          | NO CURB AND   | CONCRETE     |              |
| 0        | 0                  | 0     | 0        | GUTTER        | CURB         | FAIR/73      |

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







#### YORKTOWN BEACH PARKING FROM WATER STREET TO PARKING

| Route    | Public /           |       |          |               |              |              |
|----------|--------------------|-------|----------|---------------|--------------|--------------|
| Number   | NonPublic          | Date  | Visited  | Area (sq ft)  | Lane Miles * | Surface Type |
| 0924     | PUBLIC             | 1/2   | 7/2009   | 47,830        | 0.82         | AS           |
|          |                    |       | Fire     |               |              |              |
| Culverts | <b>Drop Inlets</b> | Gates | Hydrants | Curb & Gutter | Curb         | PCR          |
|          |                    |       |          | NO CURB AND   |              |              |
| 0        | 4                  | 1     | 0        | GUTTER        | NO CURB      | GOOD/90      |

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





Rte 0925

Rte 0924

Rte 0923

# CORNWALLIS' CAVE PARKING ADJACENT TO WATER STREET

| Route    | Public /           |       |          |               |              |              |
|----------|--------------------|-------|----------|---------------|--------------|--------------|
| Number   | NonPublic          | Date  | Visited  | Area (sq ft)  | Lane Miles * | Surface Type |
| 0925     | PUBLIC             | 1/2   | 7/2009   | 1,124         | 0.02         | AS           |
|          |                    |       | Fire     |               |              |              |
| Culverts | <b>Drop Inlets</b> | Gates | Hydrants | Curb & Gutter | Curb         | PCR          |
|          |                    |       |          | NO CURB AND   |              |              |
| 0        | 0                  | 0     | 0        | GUTTER        | NO CURB      | GOOD/90      |

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



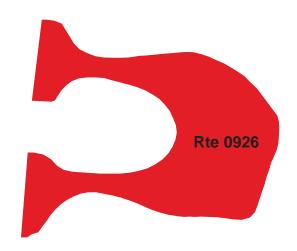


#### NATIONAL CEMETERY/SECOND SIEGE PARKING FROM STATE ROUTE 238 TO STATE ROUTE 238

| Route    | Public /           |       |          |               |              |              |
|----------|--------------------|-------|----------|---------------|--------------|--------------|
| Number   | NonPublic          | Date  | Visited  | Area (sq ft)  | Lane Miles * | Surface Type |
| 0926     | PUBLIC             | 1/2   | 7/2009   | 9,706         | 0.17         | AS           |
|          |                    |       | Fire     |               |              |              |
| Culverts | <b>Drop Inlets</b> | Gates | Hydrants | Curb & Gutter | Curb         | PCR          |
|          | ·                  |       |          | NO CURB AND   | CONCRETE     |              |
| 2        | 0                  | 0     | 0        | GUTTER        | CURB         | FAIR/73      |

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





### GRAND FRENCH BATTERY PARKING

ADJACENT TO ROUTE 0101Z (GRAND FRENCH BATTERY ROAD) AT MP 0.05 (ON RIGHT)

| Route    | Public /           |              |          |                           |          |              |
|----------|--------------------|--------------|----------|---------------------------|----------|--------------|
| Number   | NonPublic          | Date Visited |          | Date Visited Area (sq ft) |          | Surface Type |
| 0927     | PUBLIC             | 1/2          | 7/2009   | 2,235                     | 0.04     | AS           |
|          |                    |              | Fire     |                           |          |              |
| Culverts | <b>Drop Inlets</b> | Gates        | Hydrants | Curb & Gutter             | Curb     | PCR          |
|          |                    |              |          | NO CURB AND               | CONCRETE |              |
| 0        | 0                  | 0            | 0        | GUTTER                    | CURB     | FAIR/73      |

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





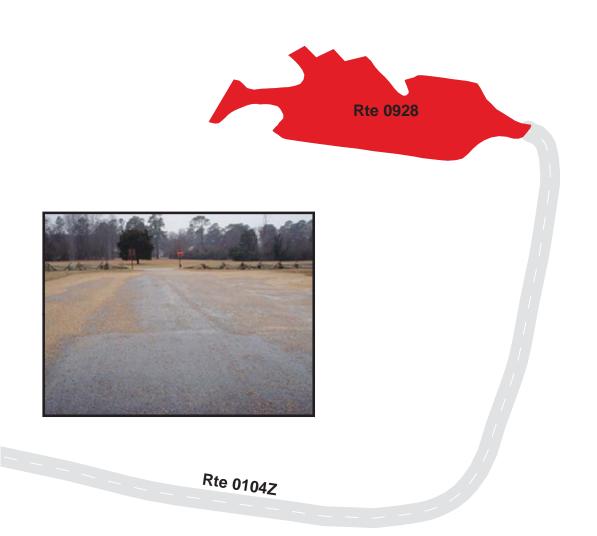
25

# MOORE HOUSE PARKING

FROM ROUTE 0104Z (MOORE HOUSE ACCESS ROAD) AT END TO MOORE HOUSE ROAD

| Route    | Public /           |              |          |               |              |              |
|----------|--------------------|--------------|----------|---------------|--------------|--------------|
| Number   | NonPublic          | Date Visited |          | Area (sq ft)  | Lane Miles * | Surface Type |
| 0928     | PUBLIC             | 1/2          | 7/2009   | 7,892         | 0.14         | AS           |
|          |                    |              | Fire     |               |              |              |
| Culverts | <b>Drop Inlets</b> | Gates        | Hydrants | Curb & Gutter | Curb         | PCR          |
|          |                    |              |          | NO CURB AND   | CONCRETE     |              |
| 0        | 0                  | 0            | 0        | GUTTER        | CURB         | FAIR/73      |

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



90

45



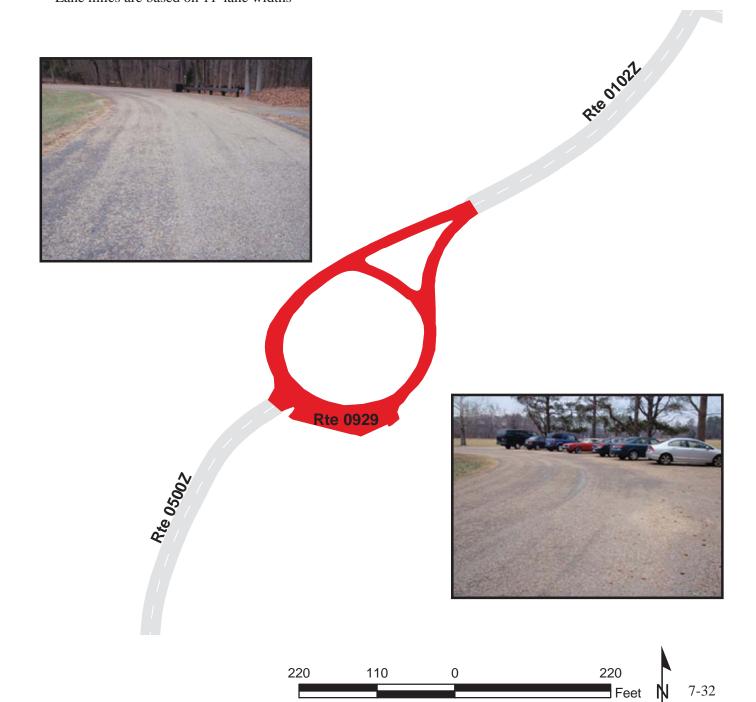
90

# SURRENDER FIELD ACCESS PARKING FROM ROUTE 0102Z (SURRENDER FIELD ROAD) AT END

TO ROUTE 0500Z (BATTLEFIELD TOUR ROAD) AT START

| Route    | Public /           |              |          |               |              |              |
|----------|--------------------|--------------|----------|---------------|--------------|--------------|
| Number   | NonPublic          | Date Visited |          | Area (sq ft)  | Lane Miles * | Surface Type |
| 0929     | PUBLIC             | 1/2          | 7/2009   | 17,292        | 0.30         | AS           |
|          |                    |              | Fire     |               |              |              |
| Culverts | <b>Drop Inlets</b> | Gates        | Hydrants | Curb & Gutter | Curb         | PCR          |
|          |                    |              |          | NO CURB AND   | CONCRETE     |              |
| 0        | 0                  | 0            | 0        | GUTTER        | CURB         | FAIR/73      |

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



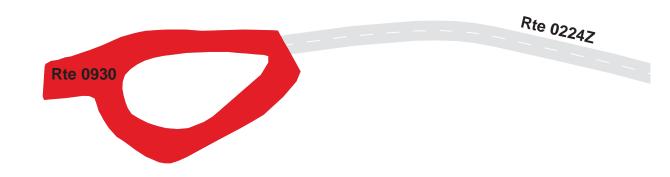
# WASHINGTON'S HEADQUARTERS PARKING FROM ROUTE 0224Z (WASHINGTON'S HEADQUARTERS ROAD) AT END TO PARKING

| Route    | Public /           |              |          |               |              |              |
|----------|--------------------|--------------|----------|---------------|--------------|--------------|
| Number   | NonPublic          | Date Visited |          | Area (sq ft)  | Lane Miles * | Surface Type |
| 0930     | PUBLIC             | 1/2          | 7/2009   | 4,788         | 0.08         | AS           |
|          |                    |              | Fire     |               |              |              |
| Culverts | <b>Drop Inlets</b> | Gates        | Hydrants | Curb & Gutter | Curb         | PCR          |
|          |                    |              |          | NO CURB AND   | CONCRETE &   |              |
| 0        | 0                  | 0            | 0        | GUTTER        | WOOD CURB    | FAIR/73      |

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





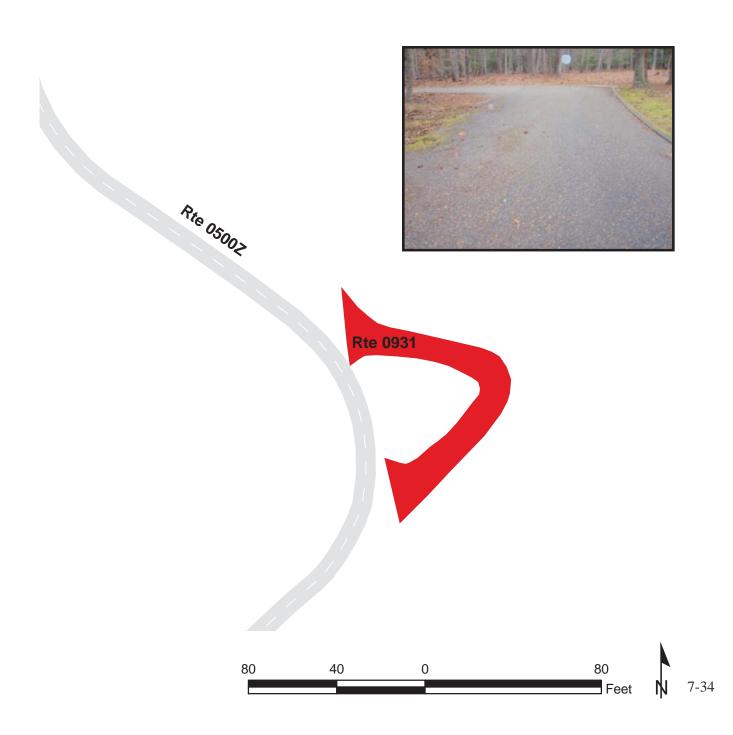


### FRENCH CEMETERY PARKING

FROM ROUTE 0500Z (BATTLEFIELD TOUR ROAD) AT MP 1.90 (ON RIGHT) TO ROUTE 0500Z (BATTLEFIELD TOUR ROAD) AT MP 1.91 (ON RIGHT)

| Route    | Public /           |              |          |               |              |              |
|----------|--------------------|--------------|----------|---------------|--------------|--------------|
| Number   | NonPublic          | Date Visited |          | Area (sq ft)  | Lane Miles * | Surface Type |
| 0931     | PUBLIC             | 1/2          | 7/2009   | 1,726         | 0.03         | AS           |
|          |                    |              | Fire     |               |              |              |
| Culverts | <b>Drop Inlets</b> | Gates        | Hydrants | Curb & Gutter | Curb         | PCR          |
|          |                    |              |          | NO CURB AND   | CONCRETE     |              |
| 0        | 0                  | 0            | 0        | GUTTER        | CURB         | FAIR/73      |

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



# NECK O LAND VISITOR CONTACT PARKING FROM ROUTE 0001 (COLONIAL PARKWAY) AT MP 21.04 (ON LEFT) TO PARKING

| Route    | Public /           |              |          |               |              |              |
|----------|--------------------|--------------|----------|---------------|--------------|--------------|
| Number   | NonPublic          | Date Visited |          | Area (sq ft)  | Lane Miles * | Surface Type |
| 0932     | PUBLIC             | 1/27/2009    |          | 76,962        | 1.33         | AS           |
|          |                    |              | Fire     |               |              |              |
| Culverts | <b>Drop Inlets</b> | Gates        | Hydrants | Curb & Gutter | Curb         | PCR          |
|          |                    |              |          | NO CURB AND   | CONCRETE     |              |
| 0        | 2                  | 1            | 1        | GUTTER        | CURB         | FAIR/73      |

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









Rte 0001

# **Route 0940**

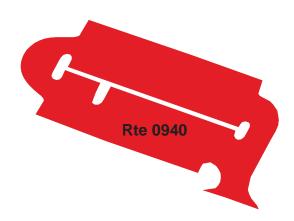
# CAPE HENRY MEMORIAL PARKING FROM ATLANTIC AVENUE TO PARKING

| Route    | Public /           |              |          |               |              |              |
|----------|--------------------|--------------|----------|---------------|--------------|--------------|
| Number   | NonPublic          | Date Visited |          | Area (sq ft)  | Lane Miles * | Surface Type |
| 0940     | PUBLIC             | 1/2          | 6/2009   | 31,058        | 0.54         | AS           |
|          |                    |              | Fire     |               |              |              |
| Culverts | <b>Drop Inlets</b> | Gates        | Hydrants | Curb & Gutter | Curb         | PCR          |
|          |                    |              |          | NO CURB AND   | CONCRETE     |              |
| 0        | 1                  | 0            | 0        | GUTTER        | CURB         | POOR/45      |

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







210

### JAMESTOWN VISITOR'S CENTER PARKING

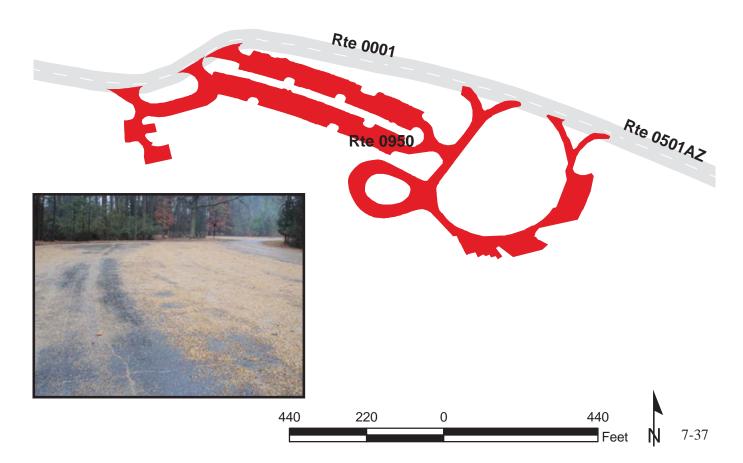
FROM ROUTE 0001 (COLONIAL PARKWAY) AT MP 22.88 (ON RIGHT) TO ROUTE 0001 (COLONIAL PARKWAY) AND ROUTE 0501AZ (ISLAND DRIVE) AT START

| Route    | Public /           |              |          |               |              |              |
|----------|--------------------|--------------|----------|---------------|--------------|--------------|
| Number   | NonPublic          | Date Visited |          | Area (sq ft)  | Lane Miles * | Surface Type |
| 0950     | PUBLIC             | 1/2          | 7/2009   | 132,987       | 2.29         | AS           |
|          |                    |              | Fire     |               |              |              |
| Culverts | <b>Drop Inlets</b> | Gates        | Hydrants | Curb & Gutter | Curb         | PCR          |
|          |                    |              |          | NO CURB AND   | CONCRETE     |              |
| 1        | 20                 | 0            | 3        | GUTTER        | CURB         | GOOD/90      |

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







### JAMESTOWN MAINTENANCE PARKING

FROM ROUTE 0001 (COLONIAL PARKWAY) AT MP 20.88 (ON RIGHT) TO PARKING

| Route    | Public /           |              |          |               |              |              |
|----------|--------------------|--------------|----------|---------------|--------------|--------------|
| Number   | NonPublic          | Date Visited |          | Area (sq ft)  | Lane Miles * | Surface Type |
| 0990     | PUBLIC             | 1/2          | 7/2009   | 23,645        | 0.41         | AS           |
|          |                    |              | Fire     |               |              |              |
| Culverts | <b>Drop Inlets</b> | Gates        | Hydrants | Curb & Gutter | Curb         | PCR          |
|          |                    |              |          | NO CURB AND   | CONCRETE     |              |
| 1        | 3                  | 2            | 0        | GUTTER        | CURB         | FAIR/73      |

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



Rte 0001



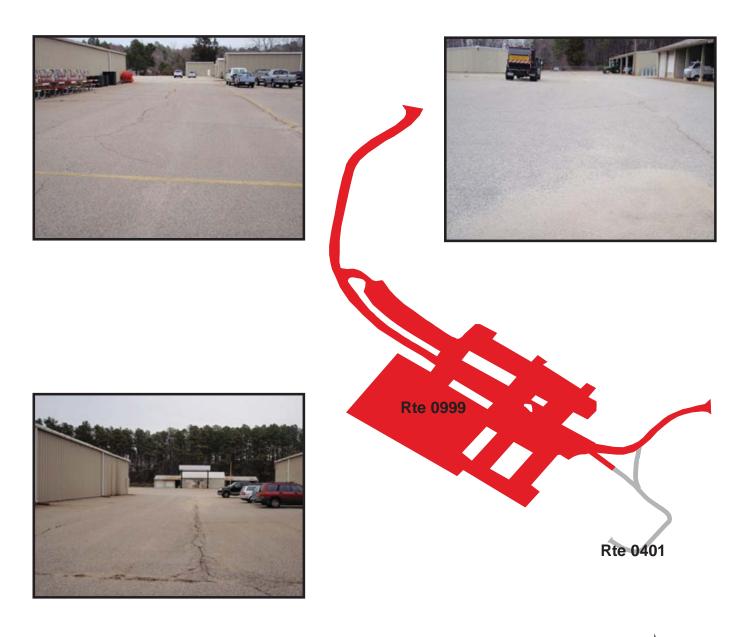




# YORKTOWN MAINTENANCE PARKING FROM US ROUTE 17 TO STATE HIGHWAY 238

| Route    | Public /           |              |          |               |              |              |
|----------|--------------------|--------------|----------|---------------|--------------|--------------|
| Number   | NonPublic          | Date Visited |          | Area (sq ft)  | Lane Miles * | Surface Type |
| 0999     | PUBLIC             | 1/2          | 6/2009   | 236,606       | 4.07         | AS           |
|          |                    |              | Fire     |               |              |              |
| Culverts | <b>Drop Inlets</b> | Gates        | Hydrants | Curb & Gutter | Curb         | PCR          |
|          |                    |              |          | NO CURB AND   |              |              |
| 0        | 0                  | 0            | 1        | GUTTER        | NO CURB      | FAIR/73      |

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



# Colonial National Historical Park



# Section 8 Parkwide / Route Maintenance Features Summaries

# **COLO: PARKWIDE MAINTENANCE FEATURES SUMMARY**

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 4, therefore the culvert and drop inlet count below includes those on ARAN-driven routes, Manually Rated Routes and in Paved Parking Areas.

| BARRIER       29,109         BOLLARD       206         BRIDGE          CABLE       0         CATTLE GUARD          CULVERT | <br>22<br><br>0<br>155 |
|--|------------------------|
| BRIDGE CABLE 0 CATTLE GUARD  | 22<br><br>0<br>155     |
| CABLE 0 CATTLE GUARD   | 0<br>155               |
| CATTLE GUARD   | 0<br>155               |
|  | 155                    |
| CULVERT  |                        |
|  |                        |
| CURB 26,796  |                        |
| DROP INLET   | 168                    |
| FIRE HYDRANT   | 10                     |
| GATE   | 18                     |
| GUARD/GUIDE RAIL 23,633  |                        |
| GUARD/GUIDE WALL 5,475   |                        |
| INTERSECTION   | 298                    |
| LOW WATER CROSSING 53  | 1                      |
| MILE MARKER  | 0                      |
| OVERPASS   | 13                     |
| OVERHEAD SIGN  | 11                     |
| PARK BOUNDARY  | 0                      |
| PAVED DITCH 17,255   |                        |
| PULLOUT  | 44                     |
| RAILROAD CROSSING  | 0                      |
| RETAINING WALL 539   | 12                     |
| SIGN   | 729                    |
| STATE BOUNDARY   | 0                      |
| TEMPORARY BARRIER 0  |                        |
| TRAFFIC LIGHT  | 2                      |
| TUNNEL 1,188   | 1                      |
| TURNOUT 0  |                        |

**COLO: ROUTE MAINTENANCE FEATURES SUMMARY** 

| FEATURE            | ROUTE 0001<br>COLONIAL PARKWAY | ROUTE 0105A<br>US ROUTE 17 ACCESS ROAD A | ROUTE 0105B<br>US ROUTE 17 ACCESS ROAD B | ROUTE 0106<br>FUSILIER'S ROAD | ROUTE 0107A<br>CHEATHAM ANNEX ACCESS<br>ROAD A | ROUTE 0107B<br>CHEATHAM ANNEX ACCESS<br>ROAD B | UNIT        |
|--------------------|--------------------------------|--|--|-------------------------------|--|--|-------------|
| BARRIER            | 23,670                         | 380                                      | 523                                      | 185                           | 0  | 0  | LINEAR FEET |
| BOLLARD            | 169                            | 0  | 0  | 0                             | 0  | 0  | LINEAR FEET |
| BRIDGE             | 14                             | 0  | 0  | 0                             | 0  | 0  | EACH        |
| CABLE              | 0                              | 0  | 0  | 0                             | 0  | 0  | LINEAR FEET |
| CATTLE GUARD       | 0                              | 0  | 0  | 0                             | 0  | 0  | EACH        |
| CULVERT            | 79                             | 1  | 1  | 1                             | 1  | 0  | EACH        |
| CURB               | 20,085                         | 90                                       | 143                                      | 359                           | 222  | 375  | LINEAR FEET |
| DROP INLET         | 65                             | 0  | 0  | 1                             | 0  | 1  | EACH        |
| FIRE HYDRANT       | 2                              | 0  | 0  | 0                             | 0  | 0  | EACH        |
| GATE               | 3                              | 0  | 0  | 0                             | 0  | 0  | EACH        |
| GUARD/GUIDE RAIL   | 21,220                         | 380                                      | 523                                      | 185                           | 0  | 0  | LINEAR FEET |
| GUARD/GUIDE WALL   | 2,450                          | 0  | 0  | 0                             | 0  | 0  | LINEAR FEET |
| INTERSECTION       | 102                            | 7  | 7  | 9                             | 7  | 7  | EACH        |
| LOW WATER CROSSING | 0                              | 0  | 0  | 0                             | 0  | 0  | EACH        |
| LOW WATER CROSSING | 0                              | 0  | 0  | 0                             | 0  | 0  | LINEAR FEET |
| MILE MARKER        | 0                              | 0  | 0  | 0                             | 0  | 0  | EACH        |
| OVERHEAD SIGN      | 11                             | 0  | 0  | 0                             | 0  | 0  | EACH        |
| OVERPASS           | 11                             | 0  | 0  | 0                             | 0  | 0  | EACH        |
| PARK BOUNDARY      | 0                              | 0  | 0  | 0                             | 0  | 0  | EACH        |
| PAVED DITCH        | 13,358                         | 649                                      | 248                                      | 977                           | 0  | 0  | LINEAR FEET |
| PULLOUT            | 3                              | 0  | 0  | 0                             | 0  | 0  | EACH        |
| RAILROAD CROSSING  | 0                              | 0  | 0  | 0                             | 0  | 0  | EACH        |
| RETAINING WALL     | 12                             | 0  | 0  | 0                             | 0  | 0  | EACH        |
| RETAINING WALL     | 539                            | 0  | 0  | 0                             | 0  | 0  | LINEAR FEET |
| SIGN               | 457                            | 7  | 11                                       | 15                            | 6  | 6  | EACH        |
| STATE BOUNDARY     | 0                              | 0  | 0  | 0                             | 0  | 0  | EACH        |
| TEMPORARY BARRIER  | 0                              | 0  | 0  | 0                             | 0  | 0  | LINEAR FEET |
| TRAFFIC LIGHT      | 1                              | 0  | 0  | 0                             | 0  | 0  | EACH        |
| TUNNEL             | 1                              | 0  | 0  | 0                             | 0  | 0  | EACH        |
| TUNNEL             | 1,188                          | 0  | 0  | 0                             | 0  | 0  | LINEAR FEET |
| TURNOUT            | 0                              | 0  | 0  | 0                             | 0  | 0  | LINEAR FEET |

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 4, therefore the culvert and drop inlet count above includes those on ARAN-driven routes, Manually Rated Routes and in Paved Parking Areas.

**COLO: ROUTE MAINTENANCE FEATURES SUMMARY** 

| FEATURE            | ROUTE 0108A<br>QUEENS LAKE ACCESS A | ROUTE 0108B<br>QUEENS LAKE ACCESS B | ROUTE 0109A<br>PARKWAY DRIVE ACCESS ROAD A | ROUTE 0109B<br>PARKWAY DRIVE ACCESS<br>ROAD B | ROUTE 0110<br>TAZEWELL HALL ACCESS<br>ROAD | ROUTE 0111A<br>STATE ROUTE 199<br>INTERCHANGE A | UNIT        |
|--------------------|-------------------------------------|-------------------------------------|--|---|--|---|-------------|
| BARRIER            | 0                                   | 0                                   | 0  | 0   | 0  | 26  | LINEAR FEET |
| BOLLARD            | 0                                   | 0                                   | 0  | 0   | 0  | 0   | LINEAR FEET |
| BRIDGE             | 0                                   | 0                                   | 0  | 0   | 0  | 0   | EACH        |
| CABLE              | 0                                   | 0                                   | 0  | 0   | 0  | 0   | LINEAR FEET |
| CATTLE GUARD       | 0                                   | 0                                   | 0  | 0   | 0  | 0   | EACH        |
| CULVERT            | 0                                   | 0                                   | 0  | 0   | 0  | 2   | EACH        |
| CURB               | 433                                 | 290                                 | 243  | 180   | 539  | 90  | LINEAR FEET |
| DROP INLET         | 1                                   | 1                                   | 1  | 1   | 2  | 0   | EACH        |
| FIRE HYDRANT       | 0                                   | 0                                   | 0  | 0   | 0  | 0   | EACH        |
| GATE               | 0                                   | 0                                   | 0  | 0   | 0  | 0   | EACH        |
| GUARD/GUIDE RAIL   | 0                                   | 0                                   | 0  | 0   | 0  | 26  | LINEAR FEET |
| GUARD/GUIDE WALL   | 0                                   | 0                                   | 0  | 0   | 0  | 0   | LINEAR FEET |
| INTERSECTION       | 6                                   | 6                                   | 5  | 5   | 5  | 6   | EACH        |
| LOW WATER CROSSING | 0                                   | 0                                   | 0  | 0   | 0  | 0   | EACH        |
| LOW WATER CROSSING | 0                                   | 0                                   | 0  | 0   | 0  | 0   | LINEAR FEET |
| MILE MARKER        | 0                                   | 0                                   | 0  | 0   | 0  | 0   | EACH        |
| OVERHEAD SIGN      | 0                                   | 0                                   | 0  | 0   | 0  | 0   | EACH        |
| OVERPASS           | 0                                   | 0                                   | 0  | 0   | 0  | 0   | EACH        |
| PARK BOUNDARY      | 0                                   | 0                                   | 0  | 0   | 0  | 0   | EACH        |
| PAVED DITCH        | 0                                   | 0                                   | 0  | 0   | 0  | 0   | LINEAR FEET |
| PULLOUT            | 0                                   | 0                                   | 0  | 0   | 0  | 0   | EACH        |
| RAILROAD CROSSING  | 0                                   | 0                                   | 0  | 0   | 0  | 0   | EACH        |
| RETAINING WALL     | 0                                   | 0                                   | 0  | 0   | 0  | 0   | EACH        |
| RETAINING WALL     | 0                                   | 0                                   | 0  | 0   | 0  | 0   | LINEAR FEET |
| SIGN               | 8                                   | 8                                   | 6  | 6   | 9  | 7   | EACH        |
| STATE BOUNDARY     | 0                                   | 0                                   | 0  | 0   | 0  | 0   | EACH        |
| TEMPORARY BARRIER  | 0                                   | 0                                   | 0  | 0   | 0  | 0   | LINEAR FEET |
| TRAFFIC LIGHT      | 0                                   | 0                                   | 0  | 0   | 0  | 0   | EACH        |
| TUNNEL             | 0                                   | 0                                   | 0  | 0   | 0  | 0   | EACH        |
| TUNNEL             | 0                                   | 0                                   | 0  | 0   | 0  | 0   | LINEAR FEET |
| TURNOUT            | 0                                   | 0                                   | 0  | 0   | 0  | 0   | LINEAR FEET |

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 4, therefore the culvert and drop inlet count above includes those on ARAN-driven routes, Manually Rated Routes and in Paved Parking Areas.

**COLO: ROUTE MAINTENANCE FEATURES SUMMARY** 

| FEATURE            | ROUTE 0111B<br>STATE ROUTE 199<br>INTERCHANGE B | ROUTE 0111C<br>STATE ROUTE 199<br>INTERCHANGE C | ROUTE 0111D<br>STATE ROUTE 199<br>INTERCHANGE D | ROUTE 0112A<br>NEWPORT AVENUE ACCESS<br>ROAD A | ROUTE 0112B<br>NEWPORT AVENUE ACCESS<br>ROAD B | ROUTE 0500ZZ<br>YORKTOWN WEST TOUR<br>ROUTES | UNIT        |
|--------------------|---|---|---|--|--|--|-------------|
| BARRIER            | 0   | 58  | 0   | 0  | 0  | 834  | LINEAR FEET |
| BOLLARD            | 0   | 0   | 0   | 0  | 0  | 37   | LINEAR FEET |
| BRIDGE             | 0   | 0   | 0   | 0  | 0  | 3  | EACH        |
| CABLE              | 0   | 0   | 0   | 0  | 0  | 0  | LINEAR FEET |
| CATTLE GUARD       | 0   | 0   | 0   | 0  | 0  | 0  | EACH        |
| CULVERT            | 1   | 1   | 0   | 0  | 1  | 39   | EACH        |
| CURB               | 0   | 132   | 127   | 533  | 787  | 607  | LINEAR FEET |
| DROP INLET         | 0   | 0   | 0   | 4  | 3  | 0  | EACH        |
| FIRE HYDRANT       | 0   | 0   | 0   | 0  | 0  | 0  | EACH        |
| GATE               | 0   | 0   | 0   | 0  | 0  | 5  | EACH        |
| GUARD/GUIDE RAIL   | 0   | 58  | 0   | 0  | 0  | 655  | LINEAR FEET |
| GUARD/GUIDE WALL   | 0   | 0   | 0   | 0  | 0  | 180  | LINEAR FEET |
| INTERSECTION       | 6   | 6   | 6   | 6  | 6  | 51   | EACH        |
| LOW WATER CROSSING | 0   | 0   | 0   | 0  | 0  | 1  | EACH        |
| LOW WATER CROSSING | 0   | 0   | 0   | 0  | 0  | 53   | LINEAR FEET |
| MILE MARKER        | 0   | 0   | 0   | 0  | 0  | 0  | EACH        |
| OVERHEAD SIGN      | 0   | 0   | 0   | 0  | 0  | 0  | EACH        |
| OVERPASS           | 0   | 0   | 0   | 0  | 0  | 2  | EACH        |
| PARK BOUNDARY      | 0   | 0   | 0   | 0  | 0  | 0  | EACH        |
| PAVED DITCH        | 491   | 253   | 692   | 0  | 0  | 375  | LINEAR FEET |
| PULLOUT            | 0   | 0   | 0   | 0  | 0  | 17   | EACH        |
| RAILROAD CROSSING  | 0   | 0   | 0   | 0  | 0  | 0  | EACH        |
| RETAINING WALL     | 0   | 0   | 0   | 0  | 0  | 0  | EACH        |
| RETAINING WALL     | 0   | 0   | 0   | 0  | 0  | 0  | LINEAR FEET |
| SIGN               | 15  | 8   | 8   | 8  | 8  | 73   | EACH        |
| STATE BOUNDARY     | 0   | 0   | 0   | 0  | 0  | 0  | EACH        |
| TEMPORARY BARRIER  | 0   | 0   | 0   | 0  | 0  | 0  | LINEAR FEET |
| TRAFFIC LIGHT      | 0   | 0   | 0   | 0  | 0  | 0  | EACH        |
| TUNNEL             | 0   | 0   | 0   | 0  | 0  | 0  | EACH        |
| TUNNEL             | 0   | 0   | 0   | 0  | 0  | 0  | LINEAR FEET |
| TURNOUT            | 0   | 0   | 0   | 0  | 0  | 0  | LINEAR FEET |

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Data Collected 4/17/2009

# **COLO: ROUTE MAINTENANCE FEATURES SUMMARY**

| BARRIER         2,846         586         LINEAR FEET           BOLLARD         0         0         LINEAR FEET           BRIDGE         4         1         EACH           CABLE         0         0         LINEAR FEET           CATTLE GUARD         0         0         EACH           CULVERT         9         12         EACH           CURB         0         1,563         LINEAR FEET           DROP INLET         0         0         EACH | FEATURE            | ROUTE 0501ZZ<br>ISLAND DRIVE ROUTES | ROUTE 0503ZZ<br>YORKTOWN EAST TOUR<br>ROUTES | UNIT        |
|--|--------------------|-------------------------------------|--|-------------|
| BRIDGE         4         1         EACH           CABLE         0         0         LINEAR FEET           CATTLE GUARD         0         0         EACH           CULVERT         9         12         EACH           CURB         0         1,563         LINEAR FEET   |                    |                                     |  |             |
| CABLE         0         0         LINEAR FEET           CATTLE GUARD         0         0         EACH           CULVERT         9         12         EACH           CURB         0         1,563         LINEAR FEET   |                    |                                     | 0  |             |
| CATTLE GUARD         0         0         EACH           CULVERT         9         12         EACH           CURB         0         1,563         LINEAR FEET   |                    |                                     |  |             |
| CULVERT         9         12         EACH           CURB         0         1,563         LINEAR FEET   |                    |                                     |  |             |
| CURB 0 1,563 LINEAR FEET   | CATTLE GUARD       |                                     | 0  | EACH        |
| · · · · · · · · · · · · · · · · · · ·  |                    |                                     |  | EACH        |
| DROD INI ET 0 0 EACH   |                    | 0                                   | 1,563  | LINEAR FEET |
| DROI INLET   | DROP INLET         | 0                                   | 0  | EACH        |
| FIRE HYDRANT 0 0 EACH  | FIRE HYDRANT       | 0                                   | 0  | EACH        |
| GATE 1 5 EACH  | GATE               | 1                                   | 5  | EACH        |
| GUARD/GUIDE RAIL 0 586 LINEAR FEET   | GUARD/GUIDE RAIL   | 0                                   | 586  |             |
| GUARD/GUIDE WALL 2,846 0 LINEAR FEET   | GUARD/GUIDE WALL   | 2,846                               | 0  | LINEAR FEET |
| INTERSECTION 13 32 EACH  | INTERSECTION       | 13                                  | 32   | EACH        |
| LOW WATER CROSSING 0 0 EACH  | LOW WATER CROSSING | 0                                   | 0  | EACH        |
| LOW WATER CROSSING 0 0 LINEAR FEET   | LOW WATER CROSSING | 0                                   | 0  | LINEAR FEET |
| MILE MARKER 0 0 EACH   | MILE MARKER        | 0                                   | 0  | EACH        |
| OVERHEAD SIGN 0 0 EACH   | OVERHEAD SIGN      | 0                                   | 0  | EACH        |
| OVERPASS 0 0 EACH  | OVERPASS           | 0                                   | 0  | EACH        |
| PARK BOUNDARY 0 0 EACH   | PARK BOUNDARY      | 0                                   | 0  | EACH        |
| PAVED DITCH 0 211 LINEAR FEET  | PAVED DITCH        | 0                                   | 211  | LINEAR FEET |
| PULLOUT 13 11 EACH   | PULLOUT            | 13                                  | 11   | EACH        |
| RAILROAD CROSSING 0 0 EACH   | RAILROAD CROSSING  | 0                                   | 0  | EACH        |
| RETAINING WALL 0 0 EACH  | RETAINING WALL     | 0                                   | 0  | EACH        |
| RETAINING WALL 0 0 LINEAR FEET   | RETAINING WALL     | 0                                   | 0  | LINEAR FEET |
| SIGN 12 51 EACH  | SIGN               | 12                                  | 51   | EACH        |
| STATE BOUNDARY 0 0 EACH  | STATE BOUNDARY     | 0                                   | 0  | EACH        |
| TEMPORARY BARRIER 0 0 LINEAR FEET  | TEMPORARY BARRIER  | 0                                   | 0  | LINEAR FEET |
| TRAFFIC LIGHT 0 1 EACH   | TRAFFIC LIGHT      | 0                                   | 1  | EACH        |
| TUNNEL 0 0 EACH  | TUNNEL             | 0                                   | 0  | EACH        |
| TUNNEL 0 0 LINEAR FEET   | TUNNEL             | 0                                   | 0  | LINEAR FEET |
| TURNOUT 0 0 LINEAR FEET  | TURNOUT            | 0                                   | 0  | LINEAR FEET |

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# **COLO: STRUCTURE LIST**

| ROUTE  | FUNCTIONAL | MILEPOST | MILEPOST |          | STRUCTURE |
|--------|------------|----------|----------|----------|-----------|
| NUMBER | CLASS      | START    | END      | FEATURE  | NUMBER    |
| 0001   | 1          | 0.45     | 0.495    | BRIDGE   | 4290-005  |
| 0001   | 1          | 0.609    | 0.63     | BRIDGE   | 4290-006  |
| 0001   | 1          | 1.593    | 1.593    | OVERPASS | 4290-007  |
| 0001   | 1          | 2.448    | 2.466    | BRIDGE   | 4290-009  |
| 0001   | 1          | 3.076    | 3.094    | BRIDGE   | 4290-008  |
| 0001   | 1          | 4.398    | 4.428    | BRIDGE   | 4290-010  |
| 0001   | 1          | 6.034    | 6.09     | BRIDGE   | 4290-011  |
| 0001   | 1          | 7.168    | 7.286    | BRIDGE   | 4290-012  |
| 0001   | 1          | 8.569    | 8.6      | BRIDGE   | 4290-013  |
| 0001   | 1          | 11.251   | 11.269   | BRIDGE   | 4290-014  |
| 0001   | 1          | 11.991   | 11.991   | OVERPASS | 4290-016  |
| 0001   | 1          | 12.277   | 12.277   | OVERPASS | 4290-018  |
| 0001   | 1          | 12.879   | 12.879   | OVERPASS | 4290-034  |
| 0001   | 1          | 12.892   | 12.892   | OVERPASS | 4290-019  |
| 0001   | 1          | 13.06    | 13.285   | TUNNEL   | 4290-033  |
| 0001   | 1          | 13.516   | 13.516   | OVERPASS | 4290-020  |
| 0001   | 1          | 14.148   | 14.148   | CULVERT  | 4290-040  |
| 0001   | 1          | 15.74    | 15.892   | BRIDGE   | 4290-022  |
| 0001   | 1          | 16.431   | 16.451   | BRIDGE   | 4290-023  |
| 0001   | 1          | 19.512   | 19.522   | BRIDGE   | 4290-024  |
| 0001   | 1          | 21.465   | 21.602   | BRIDGE   | 4290-025  |
| 0001   | 1          | 22.516   | 22.527   | BRIDGE   | 4290-026  |
| 0226Z  | 3          | 0.121    | 0.126    | BRIDGE   | 4290-003  |
| 0500Z  | 3          | 1.192    | 1.205    | BRIDGE   | 4290-002  |
| 0500Z  | 3          | 3.626    | 3.654    | BRIDGE   | 4290-004  |
| 0501AZ | 3          | 0.314    | 0.333    | BRIDGE   | 4290-028  |
| 0501AZ | 3          | 2.595    | 2.671    | BRIDGE   | 4290-029  |
| 0501AZ | 3          | 3.286    | 3.327    | BRIDGE   | 4290-030  |
| 0501AZ | 3          | 3.874    | 4.005    | BRIDGE   | 4290-031  |
| 0503Z  | 3          | 0.777    | 0.78     | BRIDGE   | 4290-038  |

# Colonial National Historical Park



# Section 9 Park Route Maintenance Features Road Logs

ROUTE 0001: COLONIAL PARKWAY

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE      | SIDE  | COMMENT  |
|------------------|----------------|--------------|-------|--|
| 0.000            | 0.000          | ROUTE BEGIN  | N/A   | FROM ROUTE 0901 (YORKTOWN VISITOR CENTER PARKING)  |
| 0.000            | 0.000          | INTERSECTION | N/A   | ROUTE 0901 (YORKTOWN VISITOR CENTER PARKING)   |
| 0.005            | 0.005          | INTERSECTION | RIGHT | ROUTE 0901 (YORKTOWN VISITOR CENTER PARKING)   |
| 0.067            | 0.067          | SIGN         | RIGHT | GUIDE, ENTRANCE FEE ADULTS: \$10.00 YORKTOWN<br>JAMESTOWN ANNUAL PASS \$40.00 PAY IN VISITOR CENTER            |
| 0.074            | 0.103          | PULLOUT      | LEFT  |  |
| 0.117            | 0.117          | SIGN         | RIGHT | GUIDE, HISTORIC YORKTOWN HISTORIC MAIN STREET<br>RIVERWALK LANDING COLONIAL PARKWAY 17 & 64                    |
| 0.119            | 0.119          | GATE         | N/A   |  |
| 0.123            | 0.123          | SIGN         | LEFT  | GUIDE, AREA CLOSED SUNSET - 6 AM.  |
| 0.130            | 0.130          | INTERSECTION | RIGHT | ROUTE 0001 (COLONIAL PARKWAY) SPUR   |
| 0.135            | 0.135          | SIGN         | RIGHT | GUIDE, VICTORY MONUMENT  |
| 0.136            | 0.136          | SIGN         | LEFT  | REGULATORY, GRAPHIC SIGN, NO TEXT  |
| 0.144            | 0.144          | SIGN         | RIGHT | REGULATORY, SPEED LIMIT 15   |
| 0.160            | 0.160          | SIGN         | RIGHT | GUIDE, YORKTOWN VISITOR CENTER PARK HEADQUARTERS   |
| 0.164            | 0.164          | SIGN         | RIGHT | GUIDE, HISTORICAL TOUR   |
| 0.164            | 0.164          | SIGN         | RIGHT | REGULATORY, A  |
| 0.166            | 0.166          | SIGN         | RIGHT | REGULATORY, STOP   |
| 0.170            | 0.170          | INTERSECTION | RIGHT | PAVED ROUTE (ZWEYBRUCKEN ROAD / NON NPS)   |
| 0.171            | 0.171          | SIGN         | RIGHT | GUIDE, YORKTOWN VISITOR CENTER PARK HEADQUARTERS   |
| 0.179            | 0.179          | INTERSECTION | LEFT  | PAVED ROUTE (MOORE HOUSE ROAD / NON NPS)   |
| 0.179            | 0.179          | INTERSECTION | RIGHT | PAVED ROUTE (BALLARD STREET / NON NPS)   |
| 0.188            | 0.188          | SIGN         | RIGHT | REGULATORY, STOP   |
| 0.194            | 0.261          | PAVED DITCH  | RIGHT |  |
| 0.194            | 0.268          | CURB         | RIGHT |  |
| 0.200            | 0.200          | SIGN         | RIGHT | REGULATORY, COMMERCIAL VEHICLES EXCLUDED   |
| 0.205            | 0.205          | SIGN         | RIGHT | GUIDE, HISTORIC YORKTOWN BATTLEFIELD VISITOR CENTER<br>MAIN STREET & WATERFRONT COAST GUARD TRAINING<br>CENTER |
| 0.214            | 0.214          | SIGN         | RIGHT | GUIDE, COLONIAL PARKWAY WILLIAMSBURG JAMESTOWN   |
| 0.275            | 0.275          | SIGN         | RIGHT | WARNING, GRAPHIC SIGN, NO TEXT   |
| 0.282            | 0.282          | SIGN         | RIGHT | REGULATORY, SPEED LIMIT 35   |
| 0.313            | 0.313          | SIGN         | RIGHT | REGULATORY, DO NOT PASS  |
| 0.335            | 0.391          | PAVED DITCH  | LEFT  |  |
| 0.339            | 0.339          | SIGN         | RIGHT | WARNING, SINGLE FILE   |
| 0.370            | 0.441          | CURB         | LEFT  |  |

ROUTE 0001: COLONIAL PARKWAY

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE          | SIDE  | COMMENT   |
|------------------|----------------|------------------|-------|---|
| 0.417            | 0.417          | SIGN             | RIGHT | GUIDE, ENTERING YORKTOWN BATTLEFIELD                  |
| 0.424            | 0.442          | GUARD/GUIDE RAIL | LEFT  |   |
| 0.433            | 0.443          | GUARD/GUIDE RAIL | RIGHT |   |
| 0.442            | 0.500          | GUARD/GUIDE WALL | LEFT  | BRICKS  |
| 0.443            | 0.501          | GUARD/GUIDE WALL | RIGHT | BRICKS  |
| 0.450            | 0.495          | BRIDGE           | N/A   | 4290-005 (YORKTOWN CREEK BRIDGE)                      |
| 0.500            | 0.510          | GUARD/GUIDE RAIL | LEFT  |   |
| 0.501            | 0.511          | GUARD/GUIDE RAIL | RIGHT |   |
| 0.516            | 0.516          | SIGN             | RIGHT | REGULATORY, DO NOT PASS                               |
| 0.516            | 0.516          | SIGN             | RIGHT | REGULATORY, DO NOT PASS                               |
| 0.527            | 0.527          | SIGN             | RIGHT | REGULATORY, SPEED LIMIT 35                            |
| 0.527            | 0.527          | SIGN             | RIGHT | GUIDE, U.S. ROUTE 17 NORTH-SOUTH NEXT RIGHT           |
| 0.535            | 0.535          | SIGN             | LEFT  | REGULATORY, DO NOT ENTER                              |
| 0.537            | 0.537          | INTERSECTION     | LEFT  | ROUTE 0105B (US ROUTE 17 ACCESS ROAD B)               |
| 0.540            | 0.599          | GUARD/GUIDE RAIL | RIGHT |   |
| 0.541            | 0.555          | CURB             | LEFT  |   |
| 0.543            | 0.543          | SIGN             | LEFT  | REGULATORY, DO NOT ENTER                              |
| 0.549            | 0.549          | SIGN             | LEFT  | REGULATORY, GRAPHIC SIGN, NO TEXT                     |
| 0.559            | 0.559          | INTERSECTION     | LEFT  | ROUTE 0105B (US ROUTE 17 ACCESS ROAD B) OPPOSITE LANE |
| 0.566            | 0.566          | CULVERT          | N/A   |   |
| 0.567            | 0.602          | GUARD/GUIDE RAIL | LEFT  |   |
| 0.598            | 0.598          | DROP INLET       | RIGHT |   |
| 0.599            | 0.637          | GUARD/GUIDE WALL | RIGHT | BRICKS  |
| 0.600            | 0.600          | SIGN             | RIGHT | GUIDE, U.S. ROUTE 17 NORTH-SOUTH                      |
| 0.602            | 0.640          | GUARD/GUIDE WALL | LEFT  | BRICKS  |
| 0.609            | 0.630          | BRIDGE           | N/A   | 4290-006 (U.S. ROUTE 17 PARKWAY BRIDGE)               |
| 0.637            | 0.747          | GUARD/GUIDE RAIL | RIGHT |   |
| 0.640            | 0.727          | GUARD/GUIDE RAIL | LEFT  |   |
| 0.748            | 0.748          | INTERSECTION     | RIGHT | ROUTE 0105A (US ROUTE 17 ACCESS ROAD A)               |
| 0.754            | 0.771          | CURB             | RIGHT |   |
| 0.756            | 0.756          | SIGN             | RIGHT | GUIDE, U.S. ROUTE 17 NORTH-SOUTH                      |
| 0.760            | 0.760          | SIGN             | LEFT  | REGULATORY, GRAPHIC SIGN, NO TEXT                     |
| 0.762            | 0.762          | SIGN             | LEFT  | GUIDE, K1   |
| 0.762            | 0.762          | SIGN             | RIGHT | GUIDE, K1   |
|                  |                |                  |       |   |

ROUTE 0001: COLONIAL PARKWAY

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE          | SIDE  | COMMENT   |
|------------------|----------------|------------------|-------|---|
| 0.770            | 0.770          | SIGN             | LEFT  | REGULATORY, DO NOT ENTER                              |
| 0.772            | 0.772          | INTERSECTION     | RIGHT | ROUTE 0105A (US ROUTE 17 ACCESS ROAD A) OPPOSITE LANE |
| 0.776            | 0.776          | SIGN             | LEFT  | REGULATORY, DO NOT ENTER                              |
| 0.788            | 0.788          | SIGN             | RIGHT | GUIDE, US ROUTE 17 NORTH-SOUTH NEXT RIGHT             |
| 0.812            | 0.812          | SIGN             | RIGHT | REGULATORY, DO NOT PASS                               |
| 0.839            | 0.839          | SIGN             | RIGHT | REGULATORY, SPEED LIMIT 35                            |
| 0.842            | 0.842          | SIGN             | RIGHT | GUIDE, ENTERING COLONIAL PARKWAY                      |
| 0.847            | 0.847          | SIGN             | RIGHT | REGULATORY, SPEED LIMIT 45                            |
| 0.953            | 0.953          | SIGN             | RIGHT | REGULATORY, REDUCED SPEED AHEAD                       |
| 1.013            | 1.013          | CULVERT          | N/A   |   |
| 1.066            | 1.066          | SIGN             | RIGHT | REGULATORY, DO NOT PASS                               |
| 1.066            | 1.066          | SIGN             | RIGHT | REGULATORY, PASS WITH CARE                            |
| 1.245            | 1.453          | PAVED DITCH      | LEFT  |   |
| 1.254            | 1.470          | PAVED DITCH      | RIGHT |   |
| 1.338            | 1.338          | SIGN             | RIGHT | REGULATORY, DO NOT PASS                               |
| 1.348            | 1.348          | DROP INLET       | RIGHT |   |
| 1.348            | 1.348          | DROP INLET       | LEFT  |   |
| 1.407            | 1.407          | SIGN             | RIGHT | GUIDE, K2   |
| 1.407            | 1.407          | SIGN             | LEFT  | GUIDE, K2   |
| 1.450            | 1.536          | GUARD/GUIDE RAIL | LEFT  |   |
| 1.464            | 1.540          | GUARD/GUIDE RAIL | RIGHT |   |
| 1.496            | 1.496          | CULVERT          | N/A   |   |
| 1.501            | 1.501          | SIGN             | RIGHT | REGULATORY, PASS WITH CARE                            |
| 1.555            | 1.555          | SIGN             | RIGHT | GUIDE, HISTORIC JAMESTOWNE VICTORY CENTER             |
| 1.557            | 1.689          | PAVED DITCH      | LEFT  |   |
| 1.568            | 1.652          | PAVED DITCH      | RIGHT |   |
| 1.581            | 1.581          | SIGN             | RIGHT | REGULATORY, SPEED LIMIT 45                            |
| 1.586            | 1.586          | SIGN             | RIGHT | WARNING, GRAPHIC SIGN, NO TEXT                        |
| 1.593            | 1.593          | OVERPASS         | N/A   | 4290-007 (OLD WILLIAMSBURG ROAD BRIDGE)               |
| 1.659            | 1.659          | INTERSECTION     | RIGHT | ROUTE 0106 (FUSILIER'S ROAD)                          |
| 1.696            | 1.696          | CULVERT          | N/A   |   |
| 1.697            | 1.697          | SIGN             | RIGHT | REGULATORY, DO NOT PASS                               |
| 1.716            | 1.716          | SIGN             | RIGHT | GUIDE, YORKTOWN BATTLEFIELD                           |
| 1.716            | 1.716          | SIGN             | RIGHT | GUIDE, VICTORY CENTER VISITOR CENTER                  |

ROUTE 0001: COLONIAL PARKWAY

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE          | SIDE  | COMMENT  |
|------------------|----------------|------------------|-------|--|
| 1.722            | 1.722          | SIGN             | RIGHT | GUIDE, COLONIAL PARKWAY WILLIAMSBURG 11 MI. 18 KM. JAMESTOWN 21 MI. 34 KM. |
| 1.743            | 1.743          | SIGN             | RIGHT | REGULATORY, SPEED LIMIT 45   |
| 1.797            | 1.797          | SIGN             | RIGHT | WARNING, GRAPHIC SIGN, NO TEXT   |
| 1.804            | 1.804          | CULVERT          | N/A   |  |
| 1.835            | 1.835          | SIGN             | RIGHT | REGULATORY, DO NOT PASS  |
| 1.836            | 1.836          | SIGN             | RIGHT | REGULATORY, DO NOT PASS  |
| 1.933            | 1.933          | CULVERT          | N/A   |  |
| 1.936            | 1.994          | CURB             | LEFT  |  |
| 1.979            | 1.979          | CULVERT          | N/A   |  |
| 1.988            | 2.021          | PAVED DITCH      | LEFT  |  |
| 1.996            | 1.996          | SIGN             | LEFT  | REGULATORY, DO NOT PASS  |
| 1.996            | 1.996          | SIGN             | RIGHT | REGULATORY, DO NOT PASS  |
| 1.998            | 1.998          | SIGN             | LEFT  | REGULATORY, DO NOT PASS  |
| 1.998            | 1.998          | SIGN             | RIGHT | REGULATORY, DO NOT PASS  |
| 2.026            | 2.026          | SIGN             | LEFT  | GUIDE, K3  |
| 2.026            | 2.026          | SIGN             | RIGHT | GUIDE, K3  |
| 2.029            | 2.029          | CULVERT          | N/A   |  |
| 2.053            | 2.053          | INTERSECTION     | LEFT  | PAVED ROUTE (YORKTOWN NAVAL WEAPONS STATION / NON NPS)                     |
| 2.061            | 2.061          | INTERSECTION     | LEFT  | PAVED ROUTE (YORKTOWN NAVAL WEAPONS STATION / NON NPS)                     |
| 2.069            | 2.074          | CURB-AND-GUTTER  | LEFT  |  |
| 2.166            | 2.166          | DROP INLET       | LEFT  |  |
| 2.166            | 2.166          | DROP INLET       | RIGHT |  |
| 2.225            | 2.367          | GUARD/GUIDE RAIL | RIGHT |  |
| 2.283            | 2.283          | SIGN             | RIGHT | REGULATORY, DO NOT PASS  |
| 2.283            | 2.283          | SIGN             | LEFT  | REGULATORY, DO NOT PASS  |
| 2.285            | 2.285          | SIGN             | LEFT  | REGULATORY, DO NOT PASS  |
| 2.285            | 2.285          | SIGN             | RIGHT | REGULATORY, DO NOT PASS  |
| 2.288            | 2.342          | GUARD/GUIDE RAIL | LEFT  |  |
| 2.309            | 2.309          | CULVERT          | N/A   |  |
| 2.422            | 2.445          | GUARD/GUIDE RAIL | RIGHT |  |
| 2.422            | 2.452          | GUARD/GUIDE RAIL | LEFT  |  |
| 2.445            | 2.467          | GUARD/GUIDE WALL | RIGHT | BRICKS   |

ROUTE 0001: COLONIAL PARKWAY

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE          | SIDE  | COMMENT  |
|------------------|----------------|------------------|-------|--|
| 2.448            | 2.466          | BRIDGE           | N/A   | 4290-009 (MINE DEPOT OVERPASS)                 |
| 2.452            | 2.470          | GUARD/GUIDE WALL | LEFT  | BRICKS   |
| 2.467            | 2.487          | GUARD/GUIDE RAIL | RIGHT |  |
| 2.468            | 2.468          | DROP INLET       | LEFT  |  |
| 2.470            | 2.528          | GUARD/GUIDE RAIL | LEFT  |  |
| 2.649            | 2.649          | SIGN             | RIGHT | GUIDE, K4                                      |
| 2.649            | 2.649          | SIGN             | LEFT  | GUIDE, K4                                      |
| 2.694            | 2.694          | SIGN             | RIGHT | REGULATORY, DO NOT PASS                        |
| 2.695            | 2.695          | SIGN             | RIGHT | REGULATORY, DO NOT PASS                        |
| 2.840            | 2.840          | CULVERT          | N/A   |  |
| 2.881            | 2.920          | GUARD/GUIDE RAIL | LEFT  |  |
| 2.908            | 2.919          | GUARD/GUIDE RAIL | RIGHT |  |
| 2.916            | 2.916          | SIGN             | RIGHT | GUIDE, BRACKENS POND                           |
| 2.919            | 2.926          | GUARD/GUIDE WALL | RIGHT | BRICKS   |
| 2.920            | 2.920          | CULVERT          | N/A   |  |
| 2.920            | 2.928          | GUARD/GUIDE WALL | LEFT  | BRICKS   |
| 2.926            | 2.954          | GUARD/GUIDE RAIL | RIGHT |  |
| 2.928            | 2.960          | GUARD/GUIDE RAIL | LEFT  |  |
| 2.931            | 2.931          | SIGN             | RIGHT | GUIDE, BRACKENS POND                           |
| 2.953            | 2.953          | SIGN             | RIGHT | REGULATORY, DO NOT PASS                        |
| 2.954            | 2.954          | SIGN             | LEFT  | REGULATORY, DO NOT PASS                        |
| 2.955            | 2.955          | SIGN             | LEFT  | REGULATORY, DO NOT PASS                        |
| 2.956            | 2.956          | SIGN             | RIGHT | REGULATORY, DO NOT PASS                        |
| 2.977            | 2.977          | INTERSECTION     | RIGHT | ROUTE 0906 (NAVAL WEAPONS STATION PARKING)     |
| 3.016            | 3.016          | INTERSECTION     | RIGHT | ROUTE 0906 (NAVAL WEAPONS STATION PARKING)     |
| 3.021            | 3.074          | GUARD/GUIDE RAIL | LEFT  |  |
| 3.024            | 3.072          | GUARD/GUIDE RAIL | RIGHT |  |
| 3.072            | 3.098          | GUARD/GUIDE WALL | RIGHT | BRICKS   |
| 3.074            | 3.099          | GUARD/GUIDE WALL | LEFT  | BRICKS   |
| 3.076            | 3.094          | BRIDGE           | N/A   | 4290-008 (NORTH PIER NAVAL ACCESS ROAD BRIDGE) |
| 3.098            | 3.127          | GUARD/GUIDE RAIL | RIGHT |  |
| 3.099            | 3.109          | GUARD/GUIDE RAIL | LEFT  |  |
| 3.122            | 3.122          | SIGN             | RIGHT | REGULATORY, SPEED LIMIT 45                     |
| 3.171            | 3.343          | GUARD/GUIDE RAIL | RIGHT |  |
|                  |                |                  |       |  |

ROUTE 0001: COLONIAL PARKWAY

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE          | SIDE  | COMMENT                                 |
|------------------|----------------|------------------|-------|---|
| 3.193            | 3.325          | CURB             | LEFT  |   |
| 3.269            | 3.269          | SIGN             | RIGHT | GUIDE, K5                               |
| 3.269            | 3.269          | SIGN             | LEFT  | GUIDE, K5                               |
| 3.271            | 3.271          | CULVERT          | N/A   |   |
| 3.373            | 3.373          | SIGN             | RIGHT | REGULATORY, DO NOT PASS                 |
| 3.376            | 3.376          | SIGN             | RIGHT | REGULATORY, DO NOT PASS                 |
| 3.380            | 3.380          | DROP INLET       | LEFT  |   |
| 3.380            | 3.380          | DROP INLET       | RIGHT |   |
| 3.417            | 3.417          | SIGN             | RIGHT | REGULATORY, SPEED LIMIT 45              |
| 3.434            | 3.434          | INTERSECTION     | RIGHT | ROUTE 0907 (YORKTOWN RIVER PARKING)     |
| 3.468            | 3.468          | INTERSECTION     | RIGHT | ROUTE 0907 (YORKTOWN RIVER PARKING)     |
| 3.584            | 3.584          | DROP INLET       | LEFT  |   |
| 3.584            | 3.584          | DROP INLET       | RIGHT |   |
| 3.697            | 3.697          | SIGN             | RIGHT | REGULATORY, PASS WITH CARE              |
| 3.700            | 3.700          | SIGN             | RIGHT | REGULATORY, DO NOT PASS                 |
| 3.706            | 3.706          | CULVERT          | N/A   |   |
| 3.946            | 3.946          | SIGN             | RIGHT | REGULATORY, SPEED LIMIT 45              |
| 4.144            | 4.144          | SIGN             | RIGHT | REGULATORY, DO NOT PASS                 |
| 4.146            | 4.146          | SIGN             | RIGHT | REGULATORY, PASS WITH CARE              |
| 4.197            | 4.197          | INTERSECTION     | RIGHT | ROUTE 0908 (POWHATAN PARKING)           |
| 4.219            | 4.219          | SIGN             | LEFT  | GUIDE, GRAPHIC SIGN, NO TEXT            |
| 4.219            | 4.219          | SIGN             | RIGHT | GUIDE, GRAPHIC SIGN, NO TEXT            |
| 4.239            | 4.239          | INTERSECTION     | RIGHT | ROUTE 0908 (POWHATAN PARKING)           |
| 4.316            | 4.316          | INTERSECTION     | LEFT  | ROUTE 0909 (INDIAN FIELD CREEK PARKING) |
| 4.335            | 4.335          | SIGN             | LEFT  | GUIDE, GRAPHIC SIGN, NO TEXT            |
| 4.335            | 4.335          | SIGN             | RIGHT | GUIDE, GRAPHIC SIGN, NO TEXT            |
| 4.348            | 4.348          | INTERSECTION     | LEFT  | ROUTE 0909 (INDIAN FIELD CREEK PARKING) |
| 4.362            | 4.395          | CURB             | LEFT  |   |
| 4.384            | 4.398          | GUARD/GUIDE RAIL | RIGHT |   |
| 4.385            | 4.399          | GUARD/GUIDE RAIL | LEFT  |   |
| 4.393            | 4.393          | SIGN             | RIGHT | GUIDE, INDIAN FIELD CREEK               |
| 4.393            | 4.393          | SIGN             | RIGHT | REGULATORY, NO FISHING FROM BRIDGE      |
| 4.398            | 4.428          | BRIDGE           | N/A   | 4290-010 (INDIAN FIELD CREEK BRIDGE)    |
| 4.398            | 4.432          | GUARD/GUIDE RAIL | RIGHT |   |

ROUTE 0001: COLONIAL PARKWAY

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE          | SIDE  | COMMENT                                   |
|------------------|----------------|------------------|-------|---|
| 4.399            | 4.433          | GUARD/GUIDE RAIL | LEFT  |   |
| 4.432            | 4.445          | GUARD/GUIDE RAIL | RIGHT |   |
| 4.433            | 4.447          | GUARD/GUIDE RAIL | LEFT  |   |
| 4.437            | 4.437          | SIGN             | RIGHT | GUIDE, INDIAN FIELD CREEK                 |
| 4.437            | 4.437          | SIGN             | RIGHT | REGULATORY, NO FISHING FROM BRIDGE        |
| 4.453            | 4.453          | SIGN             | LEFT  | GUIDE, GRAPHIC SIGN, NO TEXT              |
| 4.453            | 4.453          | SIGN             | RIGHT | GUIDE, GRAPHIC SIGN, NO TEXT              |
| 4.511            | 4.511          | SIGN             | RIGHT | GUIDE, K7                                 |
| 4.511            | 4.511          | SIGN             | LEFT  | GUIDE, K7                                 |
| 4.525            | 4.525          | SIGN             | RIGHT | REGULATORY, PASS WITH CARE                |
| 4.526            | 4.526          | SIGN             | RIGHT | REGULATORY, DO NOT PASS                   |
| 4.565            | 4.565          | DROP INLET       | RIGHT |   |
| 4.594            | 4.594          | SIGN             | RIGHT | REGULATORY, SPEED LIMIT 45                |
| 4.666            | 4.666          | DROP INLET       | RIGHT |   |
| 4.913            | 4.913          | DROP INLET       | RIGHT |   |
| 5.132            | 5.132          | SIGN             | LEFT  | GUIDE, K8                                 |
| 5.133            | 5.133          | SIGN             | RIGHT | GUIDE, K8                                 |
| 5.285            | 5.285          | INTERSECTION     | LEFT  | PAVED ROUTE (GATED)                       |
| 5.314            | 5.314          | DROP INLET       | RIGHT |   |
| 5.406            | 5.406          | CULVERT          | N/A   |   |
| 5.602            | 5.602          | SIGN             | RIGHT | REGULATORY, DO NOT PASS                   |
| 5.603            | 5.603          | SIGN             | RIGHT | REGULATORY, PASS WITH CARE                |
| 5.682            | 5.682          | INTERSECTION     | RIGHT | ROUTE 0910 (BELLFIELD PLANTATION PARKING) |
| 5.719            | 5.719          | INTERSECTION     | RIGHT | ROUTE 0910 (BELLFIELD PLANTATION PARKING) |
| 5.748            | 5.748          | SIGN             | LEFT  | GUIDE, K9                                 |
| 5.748            | 5.748          | SIGN             | RIGHT | GUIDE, K9                                 |
| 5.762            | 5.762          | SIGN             | RIGHT | REGULATORY, SPEED LIMIT 45                |
| 5.892            | 5.892          | SIGN             | RIGHT | REGULATORY, DO NOT PASS                   |
| 5.893            | 5.893          | SIGN             | RIGHT | REGULATORY, DO NOT PASS                   |
| 5.907            | 5.907          | SIGN             | RIGHT | GUIDE, PARK IN DESIGNATED AREAS ONLY      |
| 5.933            | 5.933          | INTERSECTION     | RIGHT | ROUTE 0911 (RINGFIELD PLANTATION PARKING) |
| 5.957            | 5.957          | SIGN             | RIGHT | WARNING, GRAPHIC SIGN, NO TEXT            |
| 5.983            | 5.983          | INTERSECTION     | RIGHT | ROUTE 0911 (RINGFIELD PLANTATION PARKING) |
| 6.018            | 6.033          | GUARD/GUIDE RAIL | RIGHT |   |

ROUTE 0001: COLONIAL PARKWAY

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE          | SIDE  | COMMENT                                   |
|------------------|----------------|------------------|-------|---|
| 6.021            | 6.034          | GUARD/GUIDE RAIL | LEFT  |   |
| 6.025            | 6.025          | SIGN             | RIGHT | REGULATORY, NO FISHING FROM BRIDGE        |
| 6.025            | 6.025          | SIGN             | RIGHT | GUIDE, FELGATES CREEK                     |
| 6.033            | 6.090          | GUARD/GUIDE RAIL | RIGHT |   |
| 6.034            | 6.091          | GUARD/GUIDE RAIL | LEFT  |   |
| 6.034            | 6.090          | BRIDGE           | N/A   | 4290-011 (FELGATE'S CREEK BRIDGE)         |
| 6.041            | 6.041          | SIGN             | RIGHT | WARNING, UNABLE TO READ FROM VIDEO        |
| 6.084            | 6.084          | SIGN             | RIGHT | GUIDE, UNABLE TO READ FROM VIDEO          |
| 6.090            | 6.104          | GUARD/GUIDE RAIL | RIGHT |   |
| 6.091            | 6.105          | GUARD/GUIDE RAIL | LEFT  |   |
| 6.092            | 6.092          | SIGN             | RIGHT | GUIDE, GRAPHIC SIGN, NO TEXT              |
| 6.092            | 6.092          | SIGN             | RIGHT | GUIDE, UNABLE TO READ FROM VIDEO          |
| 6.096            | 6.342          | CURB             | LEFT  |   |
| 6.098            | 6.098          | SIGN             | RIGHT | GUIDE, FELGATES CREEK                     |
| 6.098            | 6.098          | SIGN             | RIGHT | REGULATORY, NO FISHING FROM BRIDGE        |
| 6.127            | 6.129          | PAVED DITCH      | LEFT  |   |
| 6.154            | 6.154          | SIGN             | RIGHT | REGULATORY, SPEED LIMIT 45                |
| 6.170            | 6.174          | PAVED DITCH      | LEFT  |   |
| 6.197            | 6.197          | SIGN             | RIGHT | REGULATORY, DO NOT PASS                   |
| 6.198            | 6.198          | SIGN             | RIGHT | REGULATORY, DO NOT PASS                   |
| 6.239            | 6.242          | PAVED DITCH      | LEFT  |   |
| 6.241            | 6.241          | INTERSECTION     | RIGHT | UNPAVED ROUTE (GATED / ABANDONED BY PARK) |
| 6.289            | 6.292          | PAVED DITCH      | LEFT  |   |
| 6.367            | 6.367          | SIGN             | LEFT  | REGULATORY, DO NOT PASS                   |
| 6.367            | 6.367          | SIGN             | RIGHT | REGULATORY, DO NOT PASS                   |
| 6.369            | 6.369          | SIGN             | LEFT  | REGULATORY, DO NOT PASS                   |
| 6.369            | 6.369          | SIGN             | RIGHT | REGULATORY, DO NOT PASS                   |
| 6.374            | 6.374          | SIGN             | LEFT  | GUIDE, K10                                |
| 6.374            | 6.374          | SIGN             | RIGHT | GUIDE, K10                                |
| 6.380            | 6.380          | CULVERT          | N/A   |   |
| 6.419            | 6.575          | CURB             | RIGHT |   |
| 6.573            | 6.579          | PAVED DITCH      | RIGHT |   |
| 6.582            | 6.582          | CULVERT          | N/A   |   |
| 6.602            | 6.602          | CULVERT          | N/A   |   |

ROUTE 0001: COLONIAL PARKWAY

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE          | SIDE  | COMMENT                           |
|------------------|----------------|------------------|-------|-----------------------------------|
| 6.651            | 6.676          | GUARD/GUIDE RAIL | LEFT  |                                   |
| 6.656            | 6.656          | CULVERT          | N/A   |                                   |
| 6.734            | 6.734          | DROP INLET       | RIGHT |                                   |
| 6.874            | 6.874          | INTERSECTION     | RIGHT | UNPAVED ROUTE (ABANDONED BY PARK) |
| 6.929            | 6.929          | SIGN             | RIGHT | REGULATORY, SPEED LIMIT 45        |
| 7.032            | 7.071          | GUARD/GUIDE RAIL | LEFT  |                                   |
| 7.055            | 7.055          | CULVERT          | N/A   |                                   |
| 7.102            | 7.102          | SIGN             | RIGHT | REGULATORY, DO NOT PASS           |
| 7.103            | 7.103          | SIGN             | LEFT  | REGULATORY, DO NOT PASS           |
| 7.103            | 7.103          | SIGN             | LEFT  | REGULATORY, DO NOT PASS           |
| 7.104            | 7.104          | SIGN             | RIGHT | REGULATORY, DO NOT PASS           |
| 7.108            | 7.108          | CULVERT          | N/A   |                                   |
| 7.147            | 7.164          | GUARD/GUIDE RAIL | RIGHT |                                   |
| 7.152            | 7.165          | GUARD/GUIDE RAIL | LEFT  |                                   |
| 7.158            | 7.158          | SIGN             | RIGHT | GUIDE, KINGS CREEK                |
| 7.164            | 7.290          | GUARD/GUIDE RAIL | RIGHT |                                   |
| 7.165            | 7.291          | GUARD/GUIDE RAIL | LEFT  |                                   |
| 7.168            | 7.286          | BRIDGE           | N/A   | 4290-012 (KINGS CREEK BRIDGE)     |
| 7.290            | 7.308          | GUARD/GUIDE RAIL | RIGHT |                                   |
| 7.291            | 7.308          | GUARD/GUIDE RAIL | LEFT  |                                   |
| 7.298            | 7.298          | SIGN             | RIGHT | GUIDE, KINGS CREEK                |
| 7.321            | 7.321          | SIGN             | RIGHT | GUIDE, NO PARKING                 |
| 7.352            | 7.352          | SIGN             | RIGHT | REGULATORY, DO NOT PASS           |
| 7.354            | 7.354          | SIGN             | RIGHT | REGULATORY, DO NOT PASS           |
| 7.443            | 7.443          | SIGN             | RIGHT | REGULATORY, SPEED LIMIT 45        |
| 7.444            | 7.553          | CURB             | LEFT  |                                   |
| 7.551            | 7.551          | CULVERT          | N/A   |                                   |
| 7.603            | 7.606          | PAVED DITCH      | RIGHT |                                   |
| 7.604            | 7.711          | CURB             | RIGHT |                                   |
| 7.618            | 7.618          | SIGN             | RIGHT | GUIDE, K12                        |
| 7.619            | 7.619          | SIGN             | LEFT  | GUIDE, K12                        |
| 7.781            | 7.781          | SIGN             | RIGHT | WARNING, GRAPHIC SIGN, NO TEXT    |
| 7.871            | 7.871          | SIGN             | RIGHT | REGULATORY, PASS WITH CARE        |
| 7.874            | 7.874          | SIGN             | RIGHT | REGULATORY, DO NOT PASS           |

ROUTE 0001: COLONIAL PARKWAY

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE          | SIDE  | COMMENT   |
|------------------|----------------|------------------|-------|---|
| 8.047            | 8.047          | CULVERT          | N/A   |   |
| 8.178            | 8.178          | CULVERT          | N/A   |   |
| 8.239            | 8.239          | SIGN             | RIGHT | GUIDE, K13  |
| 8.240            | 8.240          | SIGN             | LEFT  | GUIDE, K13  |
| 8.244            | 8.318          | PAVED DITCH      | LEFT  |   |
| 8.324            | 8.324          | SIGN             | RIGHT | REGULATORY, DO NOT PASS                                     |
| 8.328            | 8.328          | SIGN             | RIGHT | REGULATORY, PASS WITH CARE                                  |
| 8.347            | 8.393          | CURB             | RIGHT |   |
| 8.353            | 8.353          | SIGN             | RIGHT | GUIDE, RT: 199 WEST   |
| 8.353            | 8.353          | SIGN             | RIGHT | GUIDE, U S. NAVY CHEATHAM ANNEX                             |
| 8.388            | 8.388          | INTERSECTION     | RIGHT | ROUTE 0107A (CHEATHAM ANNEX ACCESS ROAD A)                  |
| 8.397            | 8.414          | CURB             | RIGHT |   |
| 8.400            | 8.400          | SIGN             | LEFT  | REGULATORY, GRAPHIC SIGN, NO TEXT                           |
| 8.414            | 8.414          | SIGN             | LEFT  | REGULATORY, DO NOT ENTER                                    |
| 8.417            | 8.417          | INTERSECTION     | RIGHT | ROUTE 0107A (CHEATHAM ANNEX ACCESS ROAD A)<br>OPPOSITE LANE |
| 8.418            | 8.418          | SIGN             | RIGHT | REGULATORY, SPEED LIMIT 45                                  |
| 8.435            | 8.435          | CULVERT          | N/A   |   |
| 8.506            | 8.512          | CURB             | LEFT  |   |
| 8.512            | 8.512          | INTERSECTION     | LEFT  | ROUTE 0107B (CHEATHAM ANNEX ACCESS ROAD B)                  |
| 8.517            | 8.534          | CURB             | LEFT  |   |
| 8.519            | 8.519          | SIGN             | LEFT  | REGULATORY, DO NOT ENTER                                    |
| 8.526            | 8.526          | DROP INLET       | LEFT  |   |
| 8.532            | 8.532          | SIGN             | LEFT  | REGULATORY, GRAPHIC SIGN, NO TEXT                           |
| 8.537            | 8.537          | INTERSECTION     | LEFT  | ROUTE 0107B (CHEATHAM ANNEX ACCESS ROAD B) OPPOSITE LANE    |
| 8.538            | 8.545          | CURB             | LEFT  |   |
| 8.553            | 8.553          | SIGN             | RIGHT | GUIDE, PARK IN DESIGNATED AREAS ONLY                        |
| 8.554            | 8.565          | GUARD/GUIDE RAIL | RIGHT |   |
| 8.558            | 8.569          | GUARD/GUIDE RAIL | LEFT  |   |
| 8.565            | 8.603          | GUARD/GUIDE WALL | RIGHT | BRICKS  |
| 8.569            | 8.600          | BRIDGE           | N/A   | 4290-013 (PENNIMAN ROAD BRIDGE)                             |
| 8.569            | 8.608          | GUARD/GUIDE WALL | LEFT  | BRICKS  |
| 8.603            | 8.613          | GUARD/GUIDE RAIL | RIGHT |   |
| 8.608            | 8.618          | GUARD/GUIDE RAIL | LEFT  |   |

ROUTE 0001: COLONIAL PARKWAY

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE          | SIDE  | COMMENT  |
|------------------|----------------|------------------|-------|--|
| 8.662            | 8.662          | SIGN             | RIGHT | REGULATORY, DO NOT PASS  |
| 8.681            | 8.681          | SIGN             | RIGHT | GUIDE, RT. 199 WEST  |
| 8.681            | 8.681          | SIGN             | RIGHT | GUIDE, US. NAVY CHEATHAM ANNEX   |
| 8.705            | 8.705          | SIGN             | RIGHT | REGULATORY, DO NOT PASS  |
| 8.711            | 8.711          | SIGN             | RIGHT | REGULATORY, SPEED LIMIT 45   |
| 8.726            | 8.726          | CULVERT          | N/A   |  |
| 8.750            | 8.750          | CULVERT          | N/A   |  |
| 8.860            | 8.860          | SIGN             | RIGHT | GUIDE, K14   |
| 8.862            | 8.862          | SIGN             | LEFT  | GUIDE, K14   |
| 8.905            | 8.905          | SIGN             | RIGHT | REGULATORY, DO NOT PASS  |
| 8.908            | 8.908          | SIGN             | RIGHT | REGULATORY, DO NOT PASS  |
| 8.940            | 8.940          | CULVERT          | N/A   |  |
| 9.065            | 9.065          | DROP INLET       | RIGHT |  |
| 9.154            | 9.154          | CULVERT          | N/A   |  |
| 9.191            | 9.191          | SIGN             | RIGHT | REGULATORY, DO NOT PASS  |
| 9.191            | 9.191          | SIGN             | RIGHT | REGULATORY, DO NOT PASS  |
| 9.230            | 9.230          | CULVERT          | N/A   |  |
| 9.290            | 9.370          | CURB             | RIGHT |  |
| 9.327            | 9.327          | SIGN             | RIGHT | REGULATORY, SPEED LIMIT 45   |
| 9.346            | 9.346          | INTERSECTION     | LEFT  | ROUTE 0912 (JAMES MILL PARKING)  |
| 9.366            | 9.391          | PAVED DITCH      | RIGHT |  |
| 9.368            | 9.368          | INTERSECTION     | LEFT  | ROUTE 0912 (JAMES MILL PARKING)  |
| 9.370            | 9.478          | GUARD/GUIDE RAIL | RIGHT |  |
| 9.379            | 9.409          | GUARD/GUIDE RAIL | LEFT  |  |
| 9.409            | 9.419          | GUARD/GUIDE WALL | LEFT  | BRICKS   |
| 9.413            | 9.413          | CULVERT          | N/A   |  |
| 9.419            | 9.480          | GUARD/GUIDE RAIL | LEFT  |  |
| 9.422            | 9.422          | SIGN             | RIGHT | REGULATORY, NO TRESPASSING GOVERNMENT PROPERTY   |
| 9.422            | 9.422          | SIGN             | RIGHT | REGULATORY, NO TRESPASSING GOVERNMENT PROPERTY SWIMMING LAUNCHING OF BOATS AND BANK FISHING PROHIBITED |
| 9.480            | 9.564          | PAVED DITCH      | LEFT  |  |
| 9.567            | 9.567          | CULVERT          | N/A   |  |
| 9.589            | 9.589          | CULVERT          | N/A   |  |
| 9.597            | 9.705          | CURB             | LEFT  |  |

ROUTE 0001: COLONIAL PARKWAY

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE     | SIDE  | COMMENT   |
|------------------|----------------|-------------|-------|---|
| 9.759            | 9.759          | SIGN        | RIGHT | REGULATORY, DO NOT PASS   |
| 9.760            | 9.760          | SIGN        | RIGHT | REGULATORY, DO NOT PASS   |
| 9.802            | 9.802          | CULVERT     | N/A   |   |
| 9.916            | 9.916          | CULVERT     | N/A   |   |
| 9.987            | 9.987          | CULVERT     | N/A   |   |
| 10.063           | 10.063         | CULVERT     | N/A   |   |
| 10.101           | 10.101         | SIGN        | RIGHT | GUIDE, K16  |
| 10.102           | 10.102         | SIGN        | LEFT  | GUIDE, K16  |
| 10.197           | 10.197         | SIGN        | RIGHT | REGULATORY, DO NOT PASS   |
| 10.199           | 10.199         | SIGN        | RIGHT | REGULATORY, DO NOT PASS   |
| 10.233           | 10.465         | CURB        | LEFT  |   |
| 10.234           | 10.245         | CURB        | RIGHT |   |
| 10.278           | 10.280         | PAVED DITCH | LEFT  |   |
| 10.281           | 10.281         | DROP INLET  | LEFT  |   |
| 10.284           | 10.284         | DROP INLET  | RIGHT |   |
| 10.382           | 10.385         | PAVED DITCH | LEFT  |   |
| 10.384           | 10.384         | DROP INLET  | LEFT  |   |
| 10.461           | 10.467         | PAVED DITCH | LEFT  |   |
| 10.502           | 10.502         | CULVERT     | N/A   |   |
| 10.533           | 10.582         | PAVED DITCH | RIGHT |   |
| 10.539           | 10.539         | CULVERT     | N/A   |   |
| 10.558           | 10.655         | CURB        | RIGHT |   |
| 10.670           | 10.670         | CULVERT     | N/A   |   |
| 10.678           | 10.691         | PAVED DITCH | RIGHT |   |
| 10.687           | 10.687         | OVERPASS    | N/A   | A BIP STRUCTURE NUMBER HAS NOT BEEN ASSIGNED TO THIS BRIDGE (INTERSTATE 64 EASTBOUND / NON NPS) |
| 10.687           | 10.785         | CURB        | RIGHT |   |
| 10.714           | 10.714         | OVERPASS    | N/A   | A BIP STRUCTURE NUMBER HAS NOT BEEN ASSIGNED TO THIS BRIDGE (INTERSTATE 64 WESTBOUND / NON NPS) |
| 10.722           | 10.722         | SIGN        | RIGHT | GUIDE, K17  |
| 10.723           | 10.723         | SIGN        | LEFT  | GUIDE, K17  |
| 10.829           | 10.829         | SIGN        | RIGHT | REGULATORY, DO NOT PASS   |
| 10.842           | 10.842         | DROP INLET  | LEFT  |   |
| 10.842           | 10.842         | DROP INLET  | RIGHT |   |
| 10.977           | 10.977         | CULVERT     | N/A   |   |
|                  |                |             |       |   |

ROUTE 0001: COLONIAL PARKWAY

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE          | SIDE  | COMMENT  |
|------------------|----------------|------------------|-------|--|
| 11.059           | 11.059         | CULVERT          | N/A   |  |
| 11.084           | 11.084         | SIGN             | RIGHT | REGULATORY, DO NOT PASS                          |
| 11.088           | 11.088         | SIGN             | RIGHT | REGULATORY, DO NOT PASS                          |
| 11.118           | 11.118         | CULVERT          | N/A   |  |
| 11.182           | 11.182         | INTERSECTION     | LEFT  | ROUTE 0108A (QUEENS LAKE ACCESS A) OPPOSITE LANE |
| 11.186           | 11.204         | CURB             | LEFT  |  |
| 11.186           | 11.186         | SIGN             | LEFT  | REGULATORY, DO NOT ENTER                         |
| 11.203           | 11.203         | SIGN             | LEFT  | REGULATORY, GRAPHIC SIGN, NO TEXT                |
| 11.207           | 11.207         | INTERSECTION     | LEFT  | ROUTE 0108A (QUEENS LAKE ACCESS A)               |
| 11.209           | 11.215         | CURB             | LEFT  |  |
| 11.229           | 11.229         | SIGN             | RIGHT | GUIDE, QUEENS LAKE                               |
| 11.237           | 11.248         | GUARD/GUIDE RAIL | LEFT  |  |
| 11.238           | 11.248         | GUARD/GUIDE RAIL | RIGHT |  |
| 11.248           | 11.271         | GUARD/GUIDE WALL | LEFT  | BRICKS   |
| 11.248           | 11.272         | GUARD/GUIDE WALL | RIGHT | BRICKS   |
| 11.251           | 11.269         | BRIDGE           | N/A   | 4290-014 (HUBBARD'S LANE BRIDGE)                 |
| 11.271           | 11.281         | GUARD/GUIDE RAIL | LEFT  |  |
| 11.272           | 11.282         | GUARD/GUIDE RAIL | RIGHT |  |
| 11.289           | 11.289         | SIGN             | RIGHT | GUIDE, QUEENS LAKE                               |
| 11.307           | 11.316         | CURB             | RIGHT |  |
| 11.312           | 11.312         | INTERSECTION     | RIGHT | ROUTE 0108B (QUEENS LAKE ACCESS B)               |
| 11.318           | 11.338         | CURB             | RIGHT |  |
| 11.323           | 11.323         | SIGN             | LEFT  | REGULATORY, GRAPHIC SIGN, NO TEXT                |
| 11.339           | 11.339         | SIGN             | LEFT  | REGULATORY, DO NOT ENTER                         |
| 11.340           | 11.340         | INTERSECTION     | RIGHT | ROUTE 0108B (QUEENS LAKE ACCESS B) OPPOSITE LANE |
| 11.345           | 11.345         | SIGN             | RIGHT | GUIDE, QUEENS LAKE NEXT RIGHT                    |
| 11.349           | 11.349         | SIGN             | RIGHT | GUIDE, K18                                       |
| 11.351           | 11.351         | SIGN             | LEFT  | GUIDE, K18                                       |
| 11.391           | 11.391         | SIGN             | RIGHT | REGULATORY, SPEED LIMIT 45                       |
| 11.404           | 11.404         | DROP INLET       | LEFT  |  |
| 11.436           | 11.436         | CULVERT          | N/A   |  |
| 11.453           | 11.453         | SIGN             | RIGHT | REGULATORY, DO NOT PASS                          |
| 11.454           | 11.454         | SIGN             | RIGHT | REGULATORY, DO NOT PASS                          |
| 11.496           | 11.496         | CULVERT          | N/A   |  |

ROUTE 0001: COLONIAL PARKWAY

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE        | SIDE  | COMMENT   |
|------------------|----------------|----------------|-------|---|
| 11.545           | 11.591         | CURB           | LEFT  |   |
| 11.589           | 11.594         | PAVED DITCH    | LEFT  |   |
| 11.624           | 11.624         | CULVERT        | N/A   |   |
| 11.686           | 11.686         | CULVERT        | N/A   |   |
| 11.730           | 11.771         | CURB           | RIGHT |   |
| 11.733           | 11.733         | SIGN           | LEFT  | REGULATORY, DO NOT PASS   |
| 11.734           | 11.734         | SIGN           | RIGHT | REGULATORY, DO NOT PASS   |
| 11.734           | 11.734         | SIGN           | RIGHT | REGULATORY, DO NOT PASS   |
| 11.735           | 11.735         | SIGN           | LEFT  | REGULATORY, DO NOT PASS   |
| 11.753           | 11.753         | CULVERT        | N/A   |   |
| 11.763           | 11.772         | PAVED DITCH    | RIGHT |   |
| 11.771           | 11.777         | RETAINING WALL | LEFT  |   |
| 11.772           | 11.778         | RETAINING WALL | RIGHT |   |
| 11.776           | 11.776         | OVERPASS       | N/A   | A BIP STRUCTURE NUMBER HAS NOT BEEN ASSIGNED TO THIS BRIDGE (STATE HIGHWAY 143 / NON NPS) |
| 11.784           | 11.789         | RETAINING WALL | LEFT  |   |
| 11.786           | 11.791         | RETAINING WALL | RIGHT |   |
| 11.793           | 11.844         | CURB           | RIGHT |   |
| 11.805           | 11.810         | PAVED DITCH    | RIGHT |   |
| 11.843           | 11.843         | SIGN           | RIGHT | GUIDE, PARKWAY DRIVE  |
| 11.896           | 11.896         | INTERSECTION   | RIGHT | ROUTE 0109A (PARKWAY DRIVE ACCESS ROAD A)   |
| 11.897           | 11.897         | SIGN           | RIGHT | REGULATORY, SPEED LIMIT 45  |
| 11.906           | 11.928         | CURB           | RIGHT |   |
| 11.908           | 11.908         | SIGN           | LEFT  | REGULATORY, GRAPHIC SIGN, NO TEXT   |
| 11.927           | 11.927         | SIGN           | LEFT  | REGULATORY, DO NOT ENTER  |
| 11.931           | 11.931         | INTERSECTION   | RIGHT | ROUTE 0109A (PARKWAY DRIVE ACCESS ROAD A) OPPOSITE LANE                                   |
| 11.962           | 11.962         | SIGN           | LEFT  | GUIDE, K19  |
| 11.962           | 11.962         | SIGN           | RIGHT | GUIDE, K19  |
| 11.985           | 11.985         | SIGN           | RIGHT | REGULATORY, SPEED LIMIT 45  |
| 11.991           | 11.991         | OVERPASS       | N/A   | 4290-016 (PARKWAY DRIVE BRIDGE)   |
| 12.064           | 12.064         | INTERSECTION   | LEFT  | ROUTE 0109B (PARKWAY DRIVE ACCESS ROAD B) OPPOSITE LANE                                   |
| 12.070           | 12.092         | CURB           | LEFT  |   |
| 12.073           | 12.073         | SIGN           | LEFT  | REGULATORY, DO NOT ENTER  |
|                  |                |                |       |   |

ROUTE 0001: COLONIAL PARKWAY

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE        | SIDE  | COMMENT  |
|------------------|----------------|----------------|-------|--|
| 12.090           | 12.090         | SIGN           | LEFT  | REGULATORY, GRAPHIC SIGN, NO TEXT              |
| 12.094           | 12.094         | INTERSECTION   | LEFT  | ROUTE 0109B (PARKWAY DRIVE ACCESS ROAD B)      |
| 12.142           | 12.142         | CULVERT        | N/A   |  |
| 12.148           | 12.148         | SIGN           | RIGHT | GUIDE, PARKWAY DRIVE                           |
| 12.168           | 12.168         | SIGN           | RIGHT | REGULATORY, REDUCED SPEED AHEAD                |
| 12.193           | 12.193         | CULVERT        | N/A   |  |
| 12.216           | 12.216         | SIGN           | RIGHT | REGULATORY, DO NOT PASS                        |
| 12.217           | 12.217         | SIGN           | RIGHT | REGULATORY, DO NOT PASS                        |
| 12.263           | 12.263         | DROP INLET     | RIGHT |  |
| 12.264           | 12.269         | RETAINING WALL | LEFT  |  |
| 12.265           | 12.274         | RETAINING WALL | RIGHT |  |
| 12.273           | 12.273         | SIGN           | N/A   | WARNING, 13' - 0"                              |
| 12.277           | 12.277         | OVERPASS       | N/A   | 4290-018 (PAGE STREET BRIDGE)                  |
| 12.283           | 12.283         | SIGN           | N/A   | WARNING, 13' - 6"                              |
| 12.286           | 12.295         | RETAINING WALL | LEFT  |  |
| 12.287           | 12.296         | RETAINING WALL | RIGHT |  |
| 12.365           | 12.386         | PULLOUT        | LEFT  |  |
| 12.369           | 12.384         | CURB           | LEFT  |  |
| 12.375           | 12.375         | SIGN           | RIGHT | REGULATORY, SLOW CONGESTED AREA SPEED LIMIT 35 |
| 12.499           | 12.499         | SIGN           | RIGHT | WARNING, GRAPHIC SIGN, NO TEXT                 |
| 12.507           | 12.507         | CULVERT        | N/A   |  |
| 12.517           | 12.517         | SIGN           | RIGHT | REGULATORY, DO NOT PASS                        |
| 12.564           | 12.564         | CULVERT        | N/A   |  |
| 12.578           | 12.578         | SIGN           | RIGHT | REGULATORY, SPEED LIMIT 45                     |
| 12.583           | 12.583         | SIGN           | LEFT  | GUIDE, K20                                     |
| 12.583           | 12.583         | SIGN           | RIGHT | GUIDE, K20                                     |
| 12.625           | 12.625         | SIGN           | RIGHT | GUIDE, YORKTOWN 13 MILES 21 KILOMETERS         |
| 12.650           | 12.650         | SIGN           | RIGHT | GUIDE, 60 31 5                                 |
| 12.650           | 12.650         | SIGN           | RIGHT | GUIDE, INTERSTATE 64                           |
| 12.651           | 12.667         | CURB           | LEFT  |  |
| 12.651           | 12.742         | CURB           | RIGHT |  |
| 12.661           | 12.661         | INTERSECTION   | LEFT  | ROUTE 0001 (COLONIAL PARKWAY) OPPOSITE LANE    |
| 12.677           | 12.729         | CURB           | LEFT  |  |
| 12.679           | 12.679         | SIGN           | LEFT  | REGULATORY, KEEP RIGHT                         |

ROUTE 0001: COLONIAL PARKWAY

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE         | SIDE  | COMMENT                                      |
|------------------|----------------|-----------------|-------|--|
| 12.694           | 12.694         | DROP INLET      | LEFT  | OPPOSITE LANE                                |
| 12.711           | 12.711         | SIGN            | RIGHT | GUIDE, JAMESTOWN VISITOR CENTER              |
| 12.726           | 12.726         | DROP INLET      | LEFT  |  |
| 12.731           | 12.731         | INTERSECTION    | LEFT  | ROUTE 0001 (COLONIAL PARKWAY) CUT-THRU       |
| 12.735           | 12.783         | CURB-AND-GUTTER | LEFT  |  |
| 12.738           | 12.738         | INTERSECTION    | RIGHT | PAVED ROUTE (STATE ROUTE 132 / NON NPS)      |
| 12.745           | 12.781         | CURB            | RIGHT |  |
| 12.748           | 12.748         | SIGN            | RIGHT | GUIDE, VISITOR CENTER DR                     |
| 12.750           | 12.750         | SIGN            | RIGHT | GUIDE, YORKTOWN                              |
| 12.772           | 12.772         | DROP INLET      | LEFT  | OPPOSITE LANE                                |
| 12.776           | 12.776         | SIGN            | LEFT  | REGULATORY, ONE WAY                          |
| 12.778           | 12.778         | SIGN            | LEFT  | REGULATORY, ONE WAY                          |
| 12.782           | 12.782         | INTERSECTION    | RIGHT | PAVED ROUTE (STATE ROUTE 132 / NON NPS)      |
| 12.782           | 12.782         | DROP INLET      | LEFT  | CUT-THRU                                     |
| 12.782           | 12.782         | INTERSECTION    | LEFT  | ROUTE 0001 (COLONIAL PARKWAY) CUT-THRU       |
| 12.785           | 12.792         | CURB            | RIGHT |  |
| 12.788           | 12.834         | CURB            | LEFT  |  |
| 12.790           | 12.790         | DROP INLET      | LEFT  |  |
| 12.795           | 12.795         | INTERSECTION    | RIGHT | PAVED ROUTE (STATE ROUTE 132 / NON NPS) SPUR |
| 12.795           | 12.951         | CURB            | RIGHT |  |
| 12.803           | 12.803         | CULVERT         | N/A   |  |
| 12.806           | 12.806         | SIGN            | RIGHT | GUIDE, INTERSTATE 64 5 31 60                 |
| 12.820           | 12.820         | DROP INLET      | LEFT  |  |
| 12.820           | 12.820         | DROP INLET      | RIGHT |  |
| 12.820           | 12.820         | DROP INLET      | RIGHT |  |
| 12.823           | 12.823         | SIGN            | RIGHT | WARNING, GRAPHIC SIGN, NO TEXT               |
| 12.826           | 12.826         | DROP INLET      | LEFT  | OPPOSITE LANE                                |
| 12.831           | 12.831         | SIGN            | LEFT  | REGULATORY, KEEP RIGHT                       |
| 12.840           | 12.840         | INTERSECTION    | LEFT  | ROUTE 0001 (COLONIAL PARKWAY) OPPOSITE LANE  |
| 12.840           | 12.840         | SIGN            | RIGHT | GUIDE, WILLIAMSBURG JAMESTOWN                |
| 12.841           | 12.876         | CURB            | LEFT  |  |
| 12.867           | 12.867         | SIGN            | RIGHT | REGULATORY, DO NOT PASS                      |
| 12.877           | 12.877         | SIGN            | N/A   | WARNING, 12' - 6"                            |
| 12.879           | 12.879         | OVERPASS        | N/A   | 4290-034 (C&O RAILROAD BRIDGE)               |

ROUTE 0001: COLONIAL PARKWAY

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE        | SIDE  | COMMENT                                       |
|------------------|----------------|----------------|-------|---|
| 12.886           | 12.886         | SIGN           | N/A   | WARNING, 13' - 5"                             |
| 12.888           | 12.888         | CULVERT        | N/A   |   |
| 12.889           | 12.891         | PAVED DITCH    | RIGHT |   |
| 12.891           | 12.891         | SIGN           | N/A   | WARNING, 13' - 4"                             |
| 12.892           | 12.892         | OVERPASS       | N/A   | 4290-019 (LAFAYETTE STREET BRIDGE)            |
| 12.899           | 12.899         | SIGN           | N/A   | WARNING, 12' - 6"                             |
| 12.913           | 12.913         | DROP INLET     | RIGHT |   |
| 12.918           | 12.918         | SIGN           | RIGHT | GUIDE, UNABLE TO READ FROM VIDEO              |
| 12.935           | 12.935         | SIGN           | LEFT  | GUIDE, UNABLE TO READ FROM VIDEO              |
| 12.946           | 12.946         | INTERSECTION   | RIGHT | ROUTE 0001 (COLONIAL PARKWAY) SPUR            |
| 12.946           | 12.946         | SIGN           | RIGHT | WARNING, GRAPHIC SIGN, NO TEXT                |
| 12.955           | 12.966         | CURB           | RIGHT |   |
| 12.961           | 12.961         | SIGN           | RIGHT | WARNING, MERGE RIGHT SINGLE LANE AHEAD        |
| 12.968           | 12.968         | INTERSECTION   | RIGHT | PAVED ROUTE (LAFAYETTE STREET RAMP / NON NPS) |
| 12.980           | 12.980         | DROP INLET     | RIGHT |   |
| 12.983           | 12.983         | SIGN           | RIGHT | GUIDE, NO BICYCLES NO PEDESTRIANS IN TUNNEL   |
| 12.988           | 12.988         | SIGN           | RIGHT | REGULATORY, SPEED LIMIT 35                    |
| 12.991           | 12.991         | SIGN           | RIGHT | GUIDE, USE LIGHTS                             |
| 13.025           | 13.025         | SIGN           | RIGHT | GUIDE, CHECK LIGHTS                           |
| 13.042           | 13.059         | RETAINING WALL | LEFT  |   |
| 13.043           | 13.060         | RETAINING WALL | RIGHT |   |
| 13.054           | 13.058         | CURB           | LEFT  |   |
| 13.055           | 13.060         | CURB           | RIGHT |   |
| 13.058           | 13.058         | DROP INLET     | RIGHT |   |
| 13.058           | 13.058         | DROP INLET     | LEFT  |   |
| 13.060           | 13.060         | SIGN           | N/A   | WARNING, 11' - 0"                             |
| 13.060           | 13.060         | SIGN           | N/A   | WARNING, 14' - 8"                             |
| 13.060           | 13.285         | TUNNEL         | N/A   | 4290-033 (WILLIAMSBURG TUNNEL)                |
| 13.283           | 13.290         | CURB           | LEFT  |   |
| 13.284           | 13.291         | CURB           | RIGHT |   |
| 13.285           | 13.292         | RETAINING WALL | LEFT  |   |
| 13.286           | 13.293         | RETAINING WALL | RIGHT |   |
| 13.288           | 13.288         | DROP INLET     | LEFT  |   |
| 13.288           | 13.288         | DROP INLET     | RIGHT |   |

ROUTE 0001: COLONIAL PARKWAY

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE          | SIDE  | COMMENT  |
|------------------|----------------|------------------|-------|--|
| 13.289           | 13.289         | SIGN             | N/A   | WARNING, 11' - 0"  |
| 13.289           | 13.289         | SIGN             | N/A   | WARNING, 14' - 8"  |
| 13.294           | 13.322         | GUARD/GUIDE WALL | RIGHT |  |
| 13.314           | 13.314         | DROP INLET       | LEFT  |  |
| 13.314           | 13.314         | DROP INLET       | RIGHT |  |
| 13.331           | 13.331         | SIGN             | RIGHT | GUIDE, CHECK LIGHTS                                      |
| 13.333           | 13.337         | PAVED DITCH      | LEFT  |  |
| 13.333           | 13.372         | CURB             | LEFT  |  |
| 13.339           | 13.339         | DROP INLET       | LEFT  |  |
| 13.353           | 13.353         | SIGN             | RIGHT | GUIDE, USE LIGHTS  |
| 13.365           | 13.365         | SIGN             | RIGHT | REGULATORY, SPEED LIMIT 35                               |
| 13.421           | 13.421         | SIGN             | RIGHT | GUIDE, NO BICYCLES NO PEDESTRIANS IN TUNNEL              |
| 13.438           | 13.438         | SIGN             | RIGHT | GUIDE, YORKTOWN 14 MI. 23 KM.                            |
| 13.448           | 13.455         | CURB             | LEFT  |  |
| 13.452           | 13.452         | SIGN             | RIGHT | GUIDE, WILLIAMSBURG JAMESTOWN                            |
| 13.454           | 13.454         | INTERSECTION     | LEFT  | ROUTE 0112A (NEWPORT AVENUE ACCESS ROAD A)               |
| 13.458           | 13.477         | CURB             | LEFT  |  |
| 13.462           | 13.462         | SIGN             | LEFT  | REGULATORY, DO NOT ENTER                                 |
| 13.476           | 13.476         | SIGN             | LEFT  | REGULATORY, GRAPHIC SIGN, NO TEXT                        |
| 13.478           | 13.478         | INTERSECTION     | LEFT  | ROUTE 0112A (NEWPORT AVENUE ACCESS ROAD A) OPPOSITE LANE |
| 13.483           | 13.487         | CURB             | LEFT  |  |
| 13.484           | 13.577         | PAVED DITCH      | RIGHT |  |
| 13.496           | 13.496         | SIGN             | RIGHT | GUIDE, NEWPORT AVE.                                      |
| 13.516           | 13.516         | OVERPASS         | N/A   | 4290-020 (NEWPORT AVENUE BRIDGE)                         |
| 13.524           | 13.524         | SIGN             | N/A   | WARNING, 13' - 6"  |
| 13.538           | 13.538         | SIGN             | RIGHT | GUIDE, YORKTOWN WILLIAMSBURG                             |
| 13.548           | 13.548         | CULVERT          | N/A   |  |
| 13.559           | 13.559         | SIGN             | RIGHT | GUIDE, NEWPORT AVE.                                      |
| 13.565           | 13.569         | GUARD/GUIDE WALL | RIGHT |  |
| 13.572           | 13.572         | INTERSECTION     | RIGHT | ROUTE 0112B (NEWPORT AVENUE ACCESS ROAD B) OPPOSITE LANE |
| 13.578           | 13.590         | CURB             | RIGHT |  |
| 13.582           | 13.582         | SIGN             | LEFT  | REGULATORY, GRAPHIC SIGN, NO TEXT                        |
| 13.591           | 13.591         | SIGN             | LEFT  | REGULATORY, DO NOT ENTER                                 |

ROUTE 0001: COLONIAL PARKWAY

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE      | SIDE  | COMMENT  |
|------------------|----------------|--------------|-------|--|
| 13.592           | 13.592         | INTERSECTION | RIGHT | ROUTE 0112B (NEWPORT AVENUE ACCESS ROAD B)     |
| 13.662           | 13.662         | SIGN         | RIGHT | WARNING, SINGLE FILE                           |
| 13.679           | 13.679         | SIGN         | RIGHT | REGULATORY, DO NOT PASS                        |
| 13.679           | 13.728         | PAVED DITCH  | LEFT  |  |
| 13.694           | 13.694         | SIGN         | RIGHT | GUIDE, JAMESTOWNE 9 MILES 14 KILOMETERS        |
| 13.700           | 13.700         | SIGN         | RIGHT | REGULATORY, DO NOT PASS                        |
| 13.708           | 13.708         | SIGN         | RIGHT | REGULATORY, SPEED LIMIT 45                     |
| 13.771           | 13.771         | CULVERT      | N/A   |  |
| 13.807           | 13.807         | SIGN         | RIGHT | REGULATORY, SLOW CONGESTED AREA SPEED LIMIT 35 |
| 13.810           | 13.810         | SIGN         | RIGHT | GUIDE, K22                                     |
| 13.811           | 13.811         | SIGN         | LEFT  | GUIDE, K22                                     |
| 13.867           | 13.867         | CULVERT      | N/A   |  |
| 13.875           | 13.882         | PAVED DITCH  | LEFT  |  |
| 13.924           | 13.924         | SIGN         | RIGHT | REGULATORY, REDUCED SPEED AHEAD                |
| 13.951           | 14.044         | PAVED DITCH  | RIGHT |  |
| 13.971           | 13.971         | INTERSECTION | LEFT  | ROUTE 0913 (PALISADES GREAT OAKS PARKING)      |
| 13.972           | 14.016         | CURB         | RIGHT |  |
| 14.006           | 14.006         | INTERSECTION | LEFT  | ROUTE 0913 (PALISADES GREAT OAKS PARKING)      |
| 14.101           | 14.101         | CULVERT      | N/A   |  |
| 14.146           | 14.146         | SIGN         | RIGHT | GUIDE, PAPER MILL CREEK                        |
| 14.148           | 14.148         | CULVERT      | N/A   | 4290-040 (PAPERMILL CREEK CULVERT #1)          |
| 14.156           | 14.156         | SIGN         | RIGHT | GUIDE, PAPER MILL CREEK                        |
| 14.167           | 14.167         | INTERSECTION | LEFT  | ROUTE 0914 (GREAT NECK PARKING)                |
| 14.205           | 14.205         | INTERSECTION | LEFT  | ROUTE 0914 (GREAT NECK PARKING)                |
| 14.312           | 14.457         | CURB         | LEFT  |  |
| 14.410           | 14.410         | CULVERT      | N/A   |  |
| 14.428           | 14.446         | PAVED DITCH  | LEFT  |  |
| 14.429           | 14.429         | SIGN         | RIGHT | GUIDE, K23                                     |
| 14.430           | 14.430         | SIGN         | LEFT  | GUIDE, K23                                     |
| 14.496           | 14.496         | CULVERT      | N/A   |  |
| 14.511           | 14.606         | PAVED DITCH  | RIGHT |  |
| 14.618           | 14.716         | PAVED DITCH  | RIGHT |  |
| 14.620           | 14.620         | DROP INLET   | RIGHT |  |
| 14.652           | 14.652         | SIGN         | RIGHT | REGULATORY, DO NOT PASS                        |
|                  |                |              |       |  |

ROUTE 0001: COLONIAL PARKWAY

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE      | SIDE  | COMMENT  |
|------------------|----------------|--------------|-------|--|
| 14.680           | 14.713         | CURB         | RIGHT |  |
| 14.685           | 14.685         | SIGN         | RIGHT | REGULATORY, DO NOT PASS  |
| 14.685           | 14.772         | PAVED DITCH  | LEFT  |  |
| 14.688           | 14.688         | SIGN         | RIGHT | GUIDE, ROUTE 199 WEST WILLIAMSBURG   |
| 14.720           | 14.720         | SIGN         | RIGHT | REGULATORY, SPEED LIMIT 45   |
| 14.755           | 14.755         | INTERSECTION | RIGHT | ROUTE 0111A (STATE ROUTE 199 INTERCHANGE A)  |
| 14.761           | 14.776         | CURB         | RIGHT |  |
| 14.764           | 14.764         | SIGN         | LEFT  | REGULATORY, GRAPHIC SIGN, NO TEXT  |
| 14.771           | 14.771         | INTERSECTION | LEFT  | ROUTE 0111C (STATE ROUTE 199 INTERCHANGE C)  |
| 14.775           | 14.775         | SIGN         | LEFT  | REGULATORY, DO NOT ENTER   |
| 14.778           | 14.794         | CURB         | LEFT  |  |
| 14.779           | 14.779         | INTERSECTION | RIGHT | ROUTE 0111A (STATE ROUTE 199 INTERCHANGE A) OPPOSITE LANE  |
| 14.784           | 14.784         | SIGN         | LEFT  | REGULATORY, DO NOT ENTER   |
| 14.793           | 14.793         | SIGN         | LEFT  | REGULATORY, GRAPHIC SIGN, NO TEXT  |
| 14.795           | 14.795         | INTERSECTION | LEFT  | ROUTE 0111C (STATE ROUTE 199 INTERCHANGE C) OPPOSITE LANE  |
| 14.797           | 14.797         | SIGN         | RIGHT | GUIDE, NEWPORT NEWS RICHMOND   |
| 14.822           | 14.822         | SIGN         | RIGHT | GUIDE, ROUTE 199 EAST KINGSPOINT   |
| 14.830           | 14.830         | OVERPASS     | N/A   | A BIP STRUCTURE NUMBER HAS NOT BEEN ASSIGNED TO THIS BRIDGE (STATE HIGHWAY 199 NORTHBOUND / NON NPS) |
| 14.844           | 14.844         | OVERPASS     | N/A   | A BIP STRUCTURE NUMBER HAS NOT BEEN ASSIGNED TO THIS BRIDGE (STATE HIGHWAY 199 SOUTHBOUND / NON NPS) |
| 14.850           | 14.893         | PAVED DITCH  | RIGHT |  |
| 14.851           | 14.900         | PAVED DITCH  | LEFT  |  |
| 14.883           | 14.883         | SIGN         | RIGHT | GUIDE, ROUTE 199 WEST KINGSPOINT   |
| 14.887           | 14.887         | INTERSECTION | RIGHT | ROUTE 0111B (STATE ROUTE 199 INTERCHANGE B) OPPOSITE LANE  |
| 14.894           | 14.911         | CURB         | RIGHT |  |
| 14.896           | 14.896         | SIGN         | LEFT  | REGULATORY, GRAPHIC SIGN, NO TEXT  |
| 14.905           | 14.905         | SIGN         | LEFT  | REGULATORY, DO NOT ENTER   |
| 14.906           | 14.906         | INTERSECTION | LEFT  | ROUTE 0111D (STATE ROUTE 199 INTERCHANGE D) OPPOSITE LANE  |
| 14.911           | 14.911         | INTERSECTION | RIGHT | ROUTE 0111B (STATE ROUTE 199 INTERCHANGE B)  |
| 14.912           | 14.927         | CURB         | LEFT  |  |
| 14.916           | 14.916         | SIGN         | LEFT  | REGULATORY, DO NOT ENTER   |

ROUTE 0001: COLONIAL PARKWAY

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE          | SIDE  | COMMENT                                     |
|------------------|----------------|------------------|-------|---|
| 14.926           | 14.926         | SIGN             | LEFT  | REGULATORY, GRAPHIC SIGN, NO TEXT           |
| 14.930           | 14.930         | INTERSECTION     | LEFT  | ROUTE 0111D (STATE ROUTE 199 INTERCHANGE D) |
| 14.938           | 14.976         | PAVED DITCH      | LEFT  |   |
| 15.011           | 15.011         | CULVERT          | N/A   |   |
| 15.011           | 15.011         | SIGN             | RIGHT | GUIDE, NEWPORT NEWS RICHMOND ROUTE 199 EAST |
| 15.018           | 15.018         | SIGN             | RIGHT | WARNING, SINGLE FILE                        |
| 15.019           | 15.054         | PAVED DITCH      | RIGHT |   |
| 15.020           | 15.111         | PAVED DITCH      | LEFT  |   |
| 15.051           | 15.051         | SIGN             | LEFT  | GUIDE, K24                                  |
| 15.051           | 15.051         | SIGN             | RIGHT | GUIDE, K24                                  |
| 15.059           | 15.059         | SIGN             | RIGHT | REGULATORY, DO NOT PASS                     |
| 15.071           | 15.071         | DROP INLET       | LEFT  |   |
| 15.124           | 15.124         | SIGN             | RIGHT | REGULATORY, SPEED LIMIT 45                  |
| 15.179           | 15.179         | SIGN             | RIGHT | REGULATORY, DO NOT PASS                     |
| 15.182           | 15.296         | PAVED DITCH      | LEFT  |   |
| 15.191           | 15.305         | PAVED DITCH      | RIGHT |   |
| 15.290           | 15.411         | GUARD/GUIDE RAIL | LEFT  |   |
| 15.297           | 15.529         | GUARD/GUIDE RAIL | RIGHT |   |
| 15.360           | 15.360         | CULVERT          | N/A   |   |
| 15.464           | 15.524         | GUARD/GUIDE RAIL | LEFT  |   |
| 15.496           | 15.496         | CULVERT          | N/A   |   |
| 15.595           | 15.690         | PAVED DITCH      | LEFT  |   |
| 15.599           | 15.710         | PAVED DITCH      | RIGHT |   |
| 15.673           | 15.673         | SIGN             | RIGHT | GUIDE, K25                                  |
| 15.674           | 15.674         | SIGN             | LEFT  | GUIDE, K25                                  |
| 15.713           | 15.734         | GUARD/GUIDE RAIL | LEFT  |   |
| 15.714           | 15.733         | GUARD/GUIDE RAIL | RIGHT |   |
| 15.731           | 15.731         | SIGN             | RIGHT | GUIDE, HALFWAY CREEK                        |
| 15.733           | 15.892         | GUARD/GUIDE RAIL | RIGHT |   |
| 15.734           | 15.893         | GUARD/GUIDE RAIL | LEFT  |   |
| 15.740           | 15.892         | BRIDGE           | N/A   | 4290-022 (HALFWAY CREEK BRIDGE)             |
| 15.891           | 15.965         | PAVED DITCH      | RIGHT |   |
| 15.892           | 15.922         | GUARD/GUIDE RAIL | RIGHT |   |
| 15.893           | 15.919         | GUARD/GUIDE RAIL | LEFT  |   |

ROUTE 0001: COLONIAL PARKWAY

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE          | SIDE  | COMMENT   |
|------------------|----------------|------------------|-------|---|
| 15.898           | 15.898         | SIGN             | RIGHT | GUIDE, HALFWAY CREEK                                    |
| 15.914           | 15.963         | PAVED DITCH      | LEFT  |   |
| 15.916           | 15.988         | CURB             | LEFT  |   |
| 16.005           | 16.005         | SIGN             | RIGHT | GUIDE, PARK ONLY IN PAVED PULLOUTS                      |
| 16.026           | 16.026         | INTERSECTION     | LEFT  | UNPAVED ROUTE   |
| 16.026           | 16.026         | INTERSECTION     | RIGHT | UNPAVED ROUTE (GATED)                                   |
| 16.103           | 16.103         | SIGN             | RIGHT | REGULATORY, REDUCED SPEED AHEAD                         |
| 16.125           | 16.170         | CURB             | RIGHT |   |
| 16.138           | 16.217         | PAVED DITCH      | RIGHT |   |
| 16.225           | 16.360         | GUARD/GUIDE RAIL | LEFT  |   |
| 16.238           | 16.238         | CULVERT          | N/A   |   |
| 16.267           | 16.315         | CURB             | RIGHT |   |
| 16.293           | 16.293         | CULVERT          | N/A   |   |
| 16.294           | 16.294         | SIGN             | RIGHT | GUIDE, K26  |
| 16.294           | 16.294         | SIGN             | LEFT  | GUIDE, K26  |
| 16.348           | 16.348         | CULVERT          | N/A   |   |
| 16.364           | 16.364         | SIGN             | RIGHT | REGULATORY, SLOW CONGESTED AREA REDUCED SPEED 35 M.P.H. |
| 16.383           | 16.383         | SIGN             | RIGHT | REGULATORY, SPEED LIMIT 45                              |
| 16.383           | 16.425         | GUARD/GUIDE RAIL | RIGHT |   |
| 16.389           | 16.429         | GUARD/GUIDE RAIL | LEFT  |   |
| 16.418           | 16.418         | SIGN             | RIGHT | GUIDE, COLLEGE CREEK                                    |
| 16.425           | 16.451         | GUARD/GUIDE RAIL | RIGHT |   |
| 16.429           | 16.454         | GUARD/GUIDE RAIL | LEFT  |   |
| 16.431           | 16.451         | BRIDGE           | N/A   | 4290-023 (COLLEGE CREEK BRIDGE)                         |
| 16.451           | 16.474         | GUARD/GUIDE RAIL | RIGHT |   |
| 16.454           | 16.499         | GUARD/GUIDE RAIL | LEFT  |   |
| 16.461           | 16.461         | SIGN             | RIGHT | GUIDE, COLLEGE CREEK                                    |
| 16.486           | 16.486         | SIGN             | RIGHT | REGULATORY, NO PARKING ANY TIME                         |
| 16.486           | 16.486         | SIGN             | RIGHT | REGULATORY, TOW-AWAY ZONE                               |
| 16.516           | 16.516         | SIGN             | LEFT  | REGULATORY, NO PARKING ANY TIME                         |
| 16.516           | 16.516         | SIGN             | LEFT  | REGULATORY, TOW-AWAY ZONE                               |
| 16.528           | 16.528         | SIGN             | RIGHT | REGULATORY, DO NOT PASS                                 |
| 16.529           | 16.529         | SIGN             | RIGHT | REGULATORY, DO NOT PASS                                 |

ROUTE 0001: COLONIAL PARKWAY

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE      | SIDE  | COMMENT   |
|------------------|----------------|--------------|-------|---|
| 16.533           | 16.533         | SIGN         | RIGHT | REGULATORY, NO PARKING ANY TIME                         |
| 16.533           | 16.533         | SIGN         | RIGHT | REGULATORY, TOW-AWAY ZONE                               |
| 16.560           | 16.560         | INTERSECTION | RIGHT | ROUTE 0915 (ATTEMPTED SETTLEMENT/COLLEGE CREEK PARKING) |
| 16.582           | 16.582         | DROP INLET   | RIGHT |   |
| 16.597           | 16.597         | SIGN         | LEFT  | REGULATORY, NO PARKING ANY TIME                         |
| 16.597           | 16.597         | SIGN         | LEFT  | REGULATORY, TOW-AWAY ZONE                               |
| 16.606           | 16.606         | SIGN         | RIGHT | REGULATORY, NO PARKING ANY TIME                         |
| 16.606           | 16.606         | SIGN         | RIGHT | REGULATORY, TOW-AWAY ZONE                               |
| 16.648           | 16.648         | INTERSECTION | RIGHT | ROUTE 0915 (ATTEMPTED SETTLEMENT/COLLEGE CREEK PARKING) |
| 16.653           | 16.653         | SIGN         | RIGHT | REGULATORY, NO PARKING ANY TIME                         |
| 16.653           | 16.653         | SIGN         | RIGHT | REGULATORY, TOW-AWAY ZONE                               |
| 16.757           | 16.757         | SIGN         | LEFT  | REGULATORY, NO PARKING ANY TIME                         |
| 16.757           | 16.757         | SIGN         | LEFT  | REGULATORY, TOW-AWAY ZONE                               |
| 16.759           | 16.759         | SIGN         | RIGHT | REGULATORY, NO PARKING ANY TIME                         |
| 16.759           | 16.759         | SIGN         | RIGHT | REGULATORY, TOW-AWAY ZONE                               |
| 16.916           | 16.916         | SIGN         | LEFT  | GUIDE, K27  |
| 16.917           | 16.917         | SIGN         | RIGHT | GUIDE, K27  |
| 16.918           | 16.918         | SIGN         | LEFT  | REGULATORY, NO PARKING ANY TIME                         |
| 16.918           | 16.918         | SIGN         | LEFT  | REGULATORY, TOW-AWAY ZONE                               |
| 16.927           | 16.927         | INTERSECTION | LEFT  | ROUTE 0916 (JAMES RIVER PARKING)                        |
| 16.963           | 16.963         | INTERSECTION | LEFT  | ROUTE 0916 (JAMES RIVER PARKING)                        |
| 16.972           | 16.972         | SIGN         | LEFT  | REGULATORY, TOW-AWAY ZONE                               |
| 16.972           | 16.972         | SIGN         | LEFT  | REGULATORY, NO PARKING ANY TIME                         |
| 17.042           | 17.042         | SIGN         | RIGHT | REGULATORY, SLOW CONGESTED AREA REDUCED SPEED 35 M.P.H. |
| 17.044           | 17.044         | SIGN         | RIGHT | REGULATORY, SPEED LIMIT 45                              |
| 17.079           | 17.079         | CULVERT      | N/A   |   |
| 17.159           | 17.159         | SIGN         | RIGHT | REGULATORY, REDUCED SPEED AHEAD                         |
| 17.413           | 17.413         | SIGN         | RIGHT | REGULATORY, DO NOT PASS                                 |
| 17.414           | 17.414         | SIGN         | RIGHT | REGULATORY, PASS WITH CARE                              |
| 17.537           | 17.537         | SIGN         | LEFT  | GUIDE, K28  |
| 17.539           | 17.539         | SIGN         | RIGHT | GUIDE, K28  |
| 17.669           | 17.669         | CULVERT      | N/A   |   |

ROUTE 0001: COLONIAL PARKWAY

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE      | SIDE  | COMMENT  |
|------------------|----------------|--------------|-------|--|
| 17.775           | 17.775         | SIGN         | RIGHT | REGULATORY, SPEED LIMIT 45                       |
| 17.777           | 17.777         | SIGN         | RIGHT | REGULATORY, SPEED LIMIT 45                       |
| 17.854           | 17.854         | SIGN         | LEFT  | REGULATORY, NO PARKING ANY TIME                  |
| 17.854           | 17.854         | SIGN         | LEFT  | REGULATORY, TOW-AWAY ZONE                        |
| 17.906           | 17.906         | SIGN         | LEFT  | REGULATORY, TOW-AWAY ZONE                        |
| 17.906           | 17.906         | SIGN         | LEFT  | REGULATORY, NO PARKING ANY TIME                  |
| 17.914           | 17.914         | INTERSECTION | LEFT  | ROUTE 0917 (ARCHER'S HOPE PARKING)               |
| 18.013           | 18.013         | INTERSECTION | LEFT  | ROUTE 0917 (ARCHER'S HOPE PARKING)               |
| 18.023           | 18.023         | SIGN         | LEFT  | REGULATORY, NO PARKING ANY TIME                  |
| 18.023           | 18.023         | SIGN         | LEFT  | REGULATORY, TOW-AWAY ZONE                        |
| 18.071           | 18.071         | SIGN         | LEFT  | REGULATORY, NO PARKING ANY TIME                  |
| 18.071           | 18.071         | SIGN         | LEFT  | REGULATORY, TOW-AWAY ZONE                        |
| 18.108           | 18.108         | SIGN         | LEFT  | REGULATORY, NO PARKING ANY TIME                  |
| 18.108           | 18.108         | SIGN         | LEFT  | REGULATORY, TOW-AWAY ZONE                        |
| 18.194           | 18.194         | CULVERT      | N/A   |  |
| 18.396           | 18.396         | INTERSECTION | RIGHT | UNPAVED ROUTE (NON NPS)                          |
| 18.402           | 18.402         | SIGN         | RIGHT | GUIDE, GRAPHIC SIGN, NO TEXT                     |
| 18.632           | 18.632         | CULVERT      | N/A   |  |
| 18.689           | 18.689         | SIGN         | RIGHT | GUIDE, BIKE ROUTE                                |
| 18.689           | 18.689         | SIGN         | RIGHT | GUIDE, GRAPHIC SIGN, NO TEXT                     |
| 18.765           | 18.765         | SIGN         | RIGHT | GUIDE, BIKE ROUTE                                |
| 18.765           | 18.765         | SIGN         | RIGHT | GUIDE, GRAPHIC SIGN, NO TEXT                     |
| 18.782           | 18.782         | SIGN         | LEFT  | GUIDE, K30                                       |
| 18.783           | 18.783         | SIGN         | RIGHT | GUIDE, K30                                       |
| 18.794           | 18.794         | CULVERT      | N/A   |  |
| 18.870           | 18.870         | CULVERT      | N/A   |  |
| 19.165           | 19.165         | SIGN         | LEFT  | GUIDE, UNABLE TO READ FROM VIDEO                 |
| 19.180           | 19.180         | CULVERT      | N/A   |  |
| 19.188           | 19.188         | SIGN         | RIGHT | GUIDE, GLEBE GUT                                 |
| 19.243           | 19.243         | SIGN         | RIGHT | REGULATORY, SPEED LIMIT 45                       |
| 19.244           | 19.244         | SIGN         | RIGHT | REGULATORY, SPEED LIMIT 45                       |
| 19.309           | 19.309         | SIGN         | RIGHT | REGULATORY, DO NOT PASS                          |
| 19.309           | 19.309         | SIGN         | RIGHT | REGULATORY, PASS WITH CARE                       |
| 19.367           | 19.367         | INTERSECTION | LEFT  | ROUTE 0918 (JAMESTOWN ISLAND/GLEBE LAND PARKING) |
|                  |                |              | _     |  |

ROUTE 0001: COLONIAL PARKWAY

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE          | SIDE  | COMMENT  |
|------------------|----------------|------------------|-------|--|
| 19.404           | 19.404         | SIGN             | LEFT  | GUIDE, K31                                       |
| 19.404           | 19.404         | SIGN             | RIGHT | GUIDE, K31                                       |
| 19.463           | 19.463         | INTERSECTION     | LEFT  | ROUTE 0918 (JAMESTOWN ISLAND/GLEBE LAND PARKING) |
| 19.466           | 19.507         | GUARD/GUIDE RAIL | RIGHT |  |
| 19.485           | 19.508         | GUARD/GUIDE RAIL | LEFT  |  |
| 19.500           | 19.500         | SIGN             | RIGHT | GUIDE, MILL CREEK                                |
| 19.507           | 19.526         | GUARD/GUIDE RAIL | RIGHT |  |
| 19.508           | 19.527         | GUARD/GUIDE RAIL | LEFT  |  |
| 19.512           | 19.522         | BRIDGE           | N/A   | 4290-024 (MILL CREEK BRIDGE)                     |
| 19.526           | 19.576         | GUARD/GUIDE RAIL | RIGHT |  |
| 19.527           | 19.595         | GUARD/GUIDE RAIL | LEFT  |  |
| 19.534           | 19.534         | SIGN             | RIGHT | GUIDE, MILL CREEK                                |
| 19.769           | 19.769         | INTERSECTION     | LEFT  | ROUTE 0919 (REAL ESTATE PARKING)                 |
| 19.803           | 19.803         | INTERSECTION     | LEFT  | ROUTE 0919 (REAL ESTATE PARKING)                 |
| 20.026           | 20.026         | SIGN             | LEFT  | GUIDE, K32                                       |
| 20.026           | 20.026         | SIGN             | RIGHT | GUIDE, K32                                       |
| 20.070           | 20.070         | CULVERT          | N/A   |  |
| 20.222           | 20.222         | DROP INLET       | RIGHT |  |
| 20.235           | 20.235         | INTERSECTION     | LEFT  | ROUTE 0920 (NECK OF LAND PARKING)                |
| 20.310           | 20.310         | INTERSECTION     | LEFT  | ROUTE 0920 (NECK OF LAND PARKING)                |
| 20.363           | 20.363         | SIGN             | RIGHT | REGULATORY, DO NOT PASS                          |
| 20.365           | 20.365         | SIGN             | RIGHT | REGULATORY, DO NOT PASS                          |
| 20.421           | 20.421         | CULVERT          | N/A   |  |
| 20.443           | 20.443         | SIGN             | RIGHT | GUIDE, PARK ONLY IN PAVED PULLOUTS               |
| 20.554           | 20.554         | SIGN             | RIGHT | REGULATORY, REDUCED SPEED AHEAD                  |
| 20.556           | 20.556         | SIGN             | RIGHT | REGULATORY, SPEED LIMIT 45                       |
| 20.623           | 20.623         | CULVERT          | N/A   |  |
| 20.647           | 20.647         | SIGN             | RIGHT | GUIDE, K33                                       |
| 20.649           | 20.649         | SIGN             | LEFT  | GUIDE, K33                                       |
| 20.668           | 20.668         | SIGN             | RIGHT | REGULATORY, SPEED LIMIT 35                       |
| 20.697           | 20.697         | SIGN             | RIGHT | GUIDE, BIKE ROUTE                                |
| 20.697           | 20.697         | SIGN             | RIGHT | GUIDE, GRAPHIC SIGN, NO TEXT                     |
| 20.779           | 20.779         | SIGN             | RIGHT | GUIDE, BIKE ROUTE                                |
| 20.779           | 20.779         | SIGN             | RIGHT | GUIDE, GRAPHIC SIGN, NO TEXT                     |

ROUTE 0001: COLONIAL PARKWAY

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE      | SIDE  | COMMENT   |
|------------------|----------------|--------------|-------|---|
| 20.832           | 20.832         | CULVERT      | N/A   |   |
| 20.851           | 20.851         | SIGN         | RIGHT | GUIDE, FREE SHUTTLE BUS   |
| 20.851           | 20.851         | SIGN         | RIGHT | GUIDE, PARKING LOTS HISTORIC JAMESTOWNE VISITOR<br>CENTER OPEN JAMESTOWN SETTLEMENT OPEN GLASSHOUSE<br>OPEN INFOR |
| 20.879           | 20.879         | INTERSECTION | RIGHT | ROUTE 0990 (JAMESTOWN MAINTENANCE PARKING)  |
| 20.898           | 20.898         | DROP INLET   | RIGHT |   |
| 20.954           | 20.954         | INTERSECTION | LEFT  | ROUTE 0001 (COLONIAL PARKWAY) OPPOSITE LANE   |
| 20.959           | 21.034         | CURB         | LEFT  |   |
| 20.960           | 20.960         | SIGN         | LEFT  | REGULATORY, GRAPHIC SIGN, NO TEXT   |
| 20.960           | 20.960         | SIGN         | RIGHT | WARNING, GRAPHIC SIGN, NO TEXT  |
| 20.970           | 20.970         | DROP INLET   | LEFT  | OPPOSITE LANE   |
| 20.990           | 20.990         | DROP INLET   | LEFT  | OPPOSITE LANE   |
| 21.000           | 21.000         | DROP INLET   | LEFT  | OPPOSITE LANE   |
| 21.018           | 21.018         | DROP INLET   | LEFT  | OPPOSITE LANE   |
| 21.031           | 21.038         | CURB         | LEFT  |   |
| 21.034           | 21.034         | SIGN         | LEFT  | REGULATORY, GRAPHIC SIGN, NO TEXT   |
| 21.040           | 21.040         | INTERSECTION | LEFT  | ROUTE 0932 (NECK O LAND VISITOR CONTACT PARKING)  |
| 21.045           | 21.054         | CURB         | LEFT  |   |
| 21.050           | 21.127         | CURB         | LEFT  |   |
| 21.051           | 21.051         | SIGN         | LEFT  | REGULATORY, GRAPHIC SIGN, NO TEXT   |
| 21.054           | 21.054         | SIGN         | RIGHT | REGULATORY, YIELD   |
| 21.056           | 21.056         | DROP INLET   | LEFT  | OPPOSITE LANE   |
| 21.094           | 21.094         | DROP INLET   | LEFT  | OPPOSITE LANE   |
| 21.114           | 21.114         | DROP INLET   | LEFT  | OPPOSITE LANE   |
| 21.127           | 21.127         | SIGN         | LEFT  | REGULATORY, GRAPHIC SIGN, NO TEXT   |
| 21.133           | 21.133         | INTERSECTION | LEFT  | ROUTE 0001 (COLONIAL PARKWAY) OPPOSITE LANE   |
| 21.134           | 21.134         | SIGN         | RIGHT | WARNING, GRAPHIC SIGN, NO TEXT  |
| 21.201           | 21.201         | CULVERT      | N/A   |   |
| 21.241           | 21.241         | SIGN         | RIGHT | REGULATORY, DO NOT PASS   |
| 21.243           | 21.243         | SIGN         | RIGHT | REGULATORY, SPEED LIMIT 35  |
| 21.268           | 21.268         | SIGN         | RIGHT | GUIDE, K34  |
| 21.269           | 21.269         | SIGN         | LEFT  | GUIDE, K34  |
| 21.298           | 21.298         | SIGN         | RIGHT | GUIDE, HISTORIC JAMESTOWNE ARCHEOLOGICAL EXCAVATIONS  |

ROUTE 0001: COLONIAL PARKWAY

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE          | SIDE  | COMMENT   |
|------------------|----------------|------------------|-------|---|
| 21.405           | 21.405         | SIGN             | RIGHT | REGULATORY, SPEED LIMIT 35                      |
| 21.442           | 21.460         | GUARD/GUIDE RAIL | RIGHT |   |
| 21.443           | 21.443         | SIGN             | RIGHT | WARNING, GRAPHIC SIGN, NO TEXT                  |
| 21.444           | 21.444         | SIGN             | RIGHT | REGULATORY, DO NOT PASS                         |
| 21.448           | 21.448         | SIGN             | RIGHT | GUIDE, POWHATAN CREEK                           |
| 21.451           | 21.465         | GUARD/GUIDE RAIL | LEFT  |   |
| 21.460           | 21.607         | GUARD/GUIDE RAIL | RIGHT |   |
| 21.465           | 21.602         | BRIDGE           | N/A   | 4290-025 (POWHATAN CREEK BRIDGE)                |
| 21.465           | 21.608         | GUARD/GUIDE RAIL | LEFT  |   |
| 21.607           | 21.634         | GUARD/GUIDE RAIL | RIGHT |   |
| 21.608           | 21.634         | GUARD/GUIDE RAIL | LEFT  |   |
| 21.615           | 21.615         | SIGN             | RIGHT | GUIDE, POWHATAN CREEK                           |
| 21.637           | 21.637         | SIGN             | RIGHT | WARNING, GRAPHIC SIGN, NO TEXT                  |
| 21.677           | 21.677         | INTERSECTION     | LEFT  | ROUTE 0001 (COLONIAL PARKWAY) OPPOSITE LANE     |
| 21.703           | 21.806         | CURB             | LEFT  |   |
| 21.704           | 21.704         | SIGN             | LEFT  | REGULATORY, KEEP RIGHT                          |
| 21.719           | 21.719         | SIGN             | RIGHT | REGULATORY, DO NOT PASS                         |
| 21.732           | 21.732         | SIGN             | RIGHT | GUIDE, HISTORIC JAMESTOWNE JAMESTOWN SETTLEMENT |
| 21.733           | 21.775         | CURB             | RIGHT |   |
| 21.744           | 21.744         | DROP INLET       | LEFT  |   |
| 21.744           | 21.744         | DROP INLET       | LEFT  |   |
| 21.744           | 21.744         | DROP INLET       | LEFT  | OPPOSITE LANE                                   |
| 21.766           | 21.766         | INTERSECTION     | RIGHT | ROUTE 0001 (COLONIAL PARKWAY) SPUR              |
| 21.775           | 21.775         | SIGN             | RIGHT | REGULATORY, SPEED LIMIT 35                      |
| 21.775           | 21.805         | CURB             | RIGHT |   |
| 21.776           | 21.776         | SIGN             | LEFT  | GUIDE, HISTORIC JAMESTOWNE ENTRANCE             |
| 21.802           | 21.802         | DROP INLET       | LEFT  | OPPOSITE LANE                                   |
| 21.802           | 21.802         | DROP INLET       | RIGHT |   |
| 21.805           | 21.805         | SIGN             | LEFT  | REGULATORY, ONE WAY                             |
| 21.808           | 21.808         | INTERSECTION     | LEFT  | ROUTE 0921 (JAMESTOWN ENTRANCE PARKING)         |
| 21.808           | 21.808         | INTERSECTION     | RIGHT | ROUTE 0110 (TAZEWELL HALL ACCESS ROAD)          |
| 21.814           | 21.926         | CURB             | LEFT  |   |
| 21.816           | 21.821         | CURB             | RIGHT |   |
| 21.818           | 21.818         | DROP INLET       | LEFT  |   |

ROUTE 0001: COLONIAL PARKWAY

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE         | SIDE  | COMMENT   |
|------------------|----------------|-----------------|-------|---|
| 21.818           | 21.818         | DROP INLET      | LEFT  | OPPOSITE LANE   |
| 21.829           | 21.829         | SIGN            | RIGHT | GUIDE, JAMESTOWN SETTLEMENT WILLIAMSBURG<br>YORKTOWN  |
| 21.844           | 21.844         | SIGN            | RIGHT | REGULATORY, SPEED LIMIT 25  |
| 21.876           | 21.876         | DROP INLET      | LEFT  |   |
| 21.876           | 21.876         | DROP INLET      | LEFT  | OPPOSITE LANE   |
| 21.889           | 21.889         | SIGN            | RIGHT | GUIDE, K35  |
| 21.896           | 21.896         | SIGN            | RIGHT | GUIDE, HISTORIC JAMESTOWNE GLASSHOUSE VISITOR CENTER TOUR ROAD  |
| 21.896           | 21.896         | TRAFFIC LIGHT   | RIGHT |   |
| 21.919           | 21.919         | SIGN            | RIGHT | GUIDE, U.S. FEE AREA ENTRANCE FEE   |
| 21.924           | 21.924         | DROP INLET      | LEFT  | OPPOSITE LANE   |
| 21.928           | 21.928         | INTERSECTION    | LEFT  | ROUTE 0921 (JAMESTOWN ENTRANCE PARKING)   |
| 21.936           | 21.985         | CURB            | LEFT  |   |
| 21.946           | 21.946         | DROP INLET      | LEFT  | OPPOSITE LANE   |
| 21.953           | 21.953         | SIGN            | LEFT  | GUIDE, JAMESTOWN  |
| 21.953           | 21.953         | SIGN            | RIGHT | WARNING, BICYCLIST BEWARE   |
| 21.954           | 21.954         | GATE            | N/A   |   |
| 21.954           | 21.954         | SIGN            | N/A   | REGULATORY, CLOSED  |
| 21.954           | 21.954         | SIGN            | N/A   | REGULATORY, CLOSED  |
| 21.954           | 21.954         | SIGN            | N/A   | REGULATORY, STOP  |
| 21.954           | 21.954         | SIGN            | N/A   | REGULATORY, STOP  |
| 21.961           | 22.026         | CURB            | RIGHT |   |
| 21.982           | 21.982         | SIGN            | RIGHT | GUIDE, UNABLE TO READ FROM VIDEO  |
| 21.982           | 21.982         | SIGN            | RIGHT | GUIDE, JAMESTOWN SETTLEMENT WILLIAMSBURG<br>YORKTOWN  |
| 21.985           | 21.999         | CURB-AND-GUTTER | LEFT  |   |
| 21.986           | 21.999         | CURB-AND-GUTTER | RIGHT |   |
| 22.001           | 22.008         | CURB-AND-GUTTER | RIGHT |   |
| 22.001           | 22.026         | CURB            | LEFT  |   |
| 22.003           | 22.003         | SIGN            | RIGHT | GUIDE, VISITOR CENTER OPEN 9:00 AM5:00 PM. ONE MILE AHEAD GLASSHOUSE OPEN 8:30 AM 5:00 PM. TURN NEXT RI |
| 22.008           | 22.008         | CULVERT         | N/A   |   |
| 22.030           | 22.030         | INTERSECTION    | RIGHT | ROUTE 0904 (GLASSHOUSE ACCESS ROAD PARKING)   |
| 22.036           | 22.036         | FIRE HYDRANT    | RIGHT |   |
| 22.037           | 22.042         | CURB            | RIGHT |   |

ROUTE 0001: COLONIAL PARKWAY

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE          | SIDE  | COMMENT  |
|------------------|----------------|------------------|-------|--|
| 22.037           | 22.095         | CURB             | LEFT  |  |
| 22.038           | 22.038         | SIGN             | RIGHT | GUIDE, THE GLASSHOUSE OF 1808  |
| 22.046           | 22.046         | SIGN             | LEFT  | GUIDE, GLASSHOUSE OF 1608  |
| 22.094           | 22.094         | SIGN             | LEFT  | REGULATORY, KEEP RIGHT   |
| 22.111           | 22.111         | SIGN             | RIGHT | REGULATORY, SPEED LIMIT 25   |
| 22.112           | 22.112         | INTERSECTION     | LEFT  | ROUTE 0001 (COLONIAL PARKWAY) OPPOSITE LANE                                  |
| 22.123           | 22.123         | SIGN             | RIGHT | GUIDE, GLASSBLOWING THE GLASSHOUSE OF 1608                                   |
| 22.188           | 22.188         | SIGN             | RIGHT | REGULATORY, SPEED LIMIT 25   |
| 22.383           | 22.399         | CURB             | RIGHT |  |
| 22.506           | 22.506         | SIGN             | LEFT  | GUIDE, K36   |
| 22.506           | 22.506         | SIGN             | RIGHT | GUIDE, K36   |
| 22.507           | 22.534         | GUARD/GUIDE RAIL | RIGHT |  |
| 22.508           | 22.536         | GUARD/GUIDE RAIL | LEFT  |  |
| 22.516           | 22.527         | BRIDGE           | N/A   | 4290-026 (ISTHMUS BRIDGE)  |
| 22.726           | 22.726         | SIGN             | RIGHT | GUIDE, THIS IS JAMESTOWN ISLAND  |
| 22.803           | 22.803         | SIGN             | RIGHT | REGULATORY, SPEED LIMIT 25   |
| 22.806           | 22.806         | INTERSECTION     | RIGHT | ROUTE 0402 (APVA ACCESS/SKIP'S DIRT ROAD)                                    |
| 22.812           | 22.812         | SIGN             | RIGHT | REGULATORY, SPEED 8 LIMIT  |
| 22.812           | 22.812         | SIGN             | RIGHT | GUIDE, PRIVATE ROAD  |
| 22.813           | 22.813         | FIRE HYDRANT     | RIGHT |  |
| 22.837           | 22.866         | PULLOUT          | LEFT  |  |
| 22.843           | 22.843         | SIGN             | RIGHT | REGULATORY, SPEED LIMIT 15   |
| 22.870           | 22.870         | SIGN             | RIGHT | GUIDE, CARS & RVS GROUP & SCHOOL BUSES HANDICAPPED DROP-OFF SHUTTLE BUS STOP |
| 22.882           | 22.882         | INTERSECTION     | RIGHT | ROUTE 0950 (JAMESTOWN VISITOR'S CENTER PARKING)                              |
| 22.891           | 22.910         | CURB             | RIGHT |  |
| 22.911           | 22.911         | SIGN             | RIGHT | REGULATORY, DO NOT ENTER   |
| 22.914           | 22.914         | INTERSECTION     | RIGHT | ROUTE 0950 (JAMESTOWN VISITOR'S CENTER PARKING)                              |
| 22.922           | 22.930         | CURB             | RIGHT |  |
| 22.924           | 22.924         | SIGN             | RIGHT | GUIDE, CARS BUSES & RVS  |
| 22.929           | 22.929         | SIGN             | LEFT  | GUIDE, ISLAND DRIVE COLONIAL PARKWAY GLASSHOUSE JAMESTOWN SETTLEMENT         |
| 22.934           | 22.934         | INTERSECTION     | RIGHT | ROUTE 0950 (JAMESTOWN VISITOR'S CENTER PARKING)                              |
| 22.940           | 22.949         | CURB             | RIGHT |  |
| 22.957           | 22.957         | SIGN             | RIGHT | REGULATORY, NO PARKING ANY TIME  |

ROUTE 0001: COLONIAL PARKWAY

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE      | SIDE  | COMMENT  |
|------------------|----------------|--------------|-------|--|
| 22.958           | 22.958         | SIGN         | LEFT  | REGULATORY, NO PARKING ANY TIME  |
| 22.978           | 22.978         | SIGN         | RIGHT | REGULATORY, NO PARKING ANY TIME  |
| 22.979           | 22.979         | SIGN         | LEFT  | REGULATORY, NO PARKING ANY TIME  |
| 23.001           | 23.001         | SIGN         | LEFT  | REGULATORY, NO PARKING ANY TIME  |
| 23.001           | 23.001         | SIGN         | RIGHT | REGULATORY, NO PARKING ANY TIME  |
| 23.022           | 23.022         | SIGN         | LEFT  | REGULATORY, NO PARKING ANY TIME  |
| 23.022           | 23.022         | SIGN         | RIGHT | REGULATORY, NO PARKING ANY TIME  |
| 23.028           | 23.041         | CURB         | RIGHT |  |
| 23.031           | 23.031         | SIGN         | RIGHT | GUIDE, BUSES & RVS CAR PARKING   |
| 23.044           | 23.044         | INTERSECTION | RIGHT | ROUTE 0950 (JAMESTOWN VISITOR'S CENTER PARKING)  |
| 23.062           | 23.062         | INTERSECTION | RIGHT | ROUTE 0950 (JAMESTOWN VISITOR'S CENTER PARKING)  |
| 23.075           | 23.075         | SIGN         | RIGHT | GUIDE, WEIGHT LIMIT 5 TONS   |
| 23.084           | 23.084         | INTERSECTION | RIGHT | ROUTE 0950 (JAMESTOWN VISITOR'S CENTER PARKING)  |
| 23.092           | 23.092         | SIGN         | RIGHT | REGULATORY, DO NOT ENTER   |
| 23.104           | 23.104         | SIGN         | LEFT  | REGULATORY, DO NOT ENTER   |
| 23.106           | 23.106         | INTERSECTION | RIGHT | ROUTE 0950 (JAMESTOWN VISITOR'S CENTER PARKING)  |
| 23.110           | 23.110         | GATE         | N/A   |  |
| 23.110           | 23.110         | INTERSECTION | N/A   | ROUTE 0501AZ (ISLAND DRIVE)  |
| 23.110           | 23.110         | SIGN         | N/A   | REGULATORY, CLOSED   |
| 23.110           | 23.110         | SIGN         | N/A   | REGULATORY, CLOSED   |
| 23.110           | 23.110         | ROUTE END    | N/A   | TO JAMESTOWN AT ROUTE 0501AZ (ISLAND DRIVE) AND ROUTE 0950 (JAMESTOWN VISITOR'S CENTER PARKING) ON RIGHT |

### ROUTE 0100Z: UNTOUCHED REDOUBT ROAD

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE      | SIDE  | COMMENT   |
|------------------|----------------|--------------|-------|---|
| 0.000            | 0.000          | ROUTE BEGIN  | N/A   | FROM INTERSECTION OF ROUTE 0500Z (BATTLEFIELD TOUR ROAD) AND GOOSELY ROAD |
| 0.000            | 0.000          | INTERSECTION | LEFT  | PAVED ROUTE (GOOSELY ROAD / NON NPS)                                      |
| 0.000            | 0.000          | INTERSECTION | N/A   | ROUTE 0500Z (BATTLEFIELD TOUR ROAD)                                       |
| 0.000            | 0.000          | INTERSECTION | RIGHT | PAVED ROUTE (GOOSELY ROAD / NON NPS)                                      |
| 0.001            | 0.001          | SIGN         | RIGHT | REGULATORY, STOP  |
| 0.002            | 0.002          | CULVERT      | N/A   |   |
| 0.010            | 0.010          | SIGN         | RIGHT | GUIDE, END OF TOUR YORKTOWN US. ROUTE 17                                  |
| 0.012            | 0.012          | SIGN         | RIGHT | GUIDE, PAY PARK ENTRANCE FEE AT VISITOR CENTER                            |
| 0.012            | 0.012          | SIGN         | RIGHT | GUIDE, UNTOUCHED REDOUBT  |
| 0.019            | 0.019          | SIGN         | RIGHT | WARNING, GRAPHIC SIGN, NO TEXT  |
| 0.026            | 0.026          | GATE         | N/A   |   |
| 0.026            | 0.026          | SIGN         | N/A   | GUIDE, GRAPHIC SIGN, NO TEXT  |
| 0.051            | 0.051          | SIGN         | RIGHT | REGULATORY, SPEED LIMIT 15  |
| 0.164            | 0.164          | CULVERT      | N/A   |   |
| 0.299            | 0.299          | CULVERT      | N/A   |   |
| 0.300            | 0.300          | INTERSECTION | LEFT  | ROUTE 0903 (UNTOUCHED REDOUBT LOOP/PARKING)                               |
| 0.300            | 0.300          | INTERSECTION | N/A   | ROUTE 0903 (UNTOUCHED REDOUBT LOOP/PARKING)                               |
| 0.300            | 0.300          | SIGN         | LEFT  | REGULATORY, KEEP RIGHT  |
| 0.300            | 0.300          | ROUTE END    | N/A   | TO ROUTE 0903 (UNTOUCHED REDOUBT LOOP/PARKING)                            |

### ROUTE 0101Z: GRAND FRENCH BATTERY ROAD

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE      | SIDE  | COMMENT  |
|------------------|----------------|--------------|-------|--|
| 0.000            | 0.000          | ROUTE BEGIN  | N/A   | FROM COOK ROAD                                 |
| 0.000            | 0.000          | INTERSECTION | RIGHT | PAVED ROUTE (COOK ROAD / NON NPS)              |
| 0.000            | 0.000          | INTERSECTION | LEFT  | PAVED ROUTE (COOK ROAD / NON NPS)              |
| 0.002            | 0.002          | SIGN         | RIGHT | REGULATORY, STOP                               |
| 0.002            | 0.002          | SIGN         | RIGHT | REGULATORY, STOP                               |
| 0.002            | 0.002          | SIGN         | RIGHT | REGULATORY, HISTORICAL TOUR                    |
| 0.003            | 0.005          | CURB         | RIGHT |  |
| 0.005            | 0.005          | INTERSECTION | LEFT  | ROUTE 0101Z (GRAND FRENCH BATTERY ROAD) SPUR   |
| 0.008            | 0.008          | SIGN         | RIGHT | GUIDE, AREA CLOSED SUNSET - 6 AM.              |
| 0.009            | 0.035          | PULLOUT      | RIGHT |  |
| 0.009            | 0.063          | CURB         | LEFT  |  |
| 0.014            | 0.014          | SIGN         | RIGHT | GUIDE, PAY PARK ENTRANCE FEE AT VISITOR CENTER |
| 0.022            | 0.038          | CURB         | RIGHT |  |
| 0.051            | 0.051          | INTERSECTION | RIGHT | ROUTE 0927 (GRAND FRENCH BATTERY PARKING)      |
| 0.057            | 0.062          | CURB         | RIGHT |  |
| 0.085            | 0.085          | INTERSECTION | LEFT  | ROUTE 0101Z (GRAND FRENCH BATTERY ROAD)        |
| 0.129            | 0.133          | CURB         | LEFT  |  |
| 0.130            | 0.130          | CULVERT      | N/A   |  |
| 0.145            | 0.163          | CURB         | LEFT  |  |
| 0.197            | 0.200          | CURB         | RIGHT |  |
| 0.200            | 0.200          | INTERSECTION | LEFT  | ROUTE 0101Z (GRAND FRENCH BATTERY ROAD)        |
| 0.200            | 0.200          | INTERSECTION | N/A   | ROUTE 0101Z (GRAND FRENCH BATTERY ROAD)        |
| 0.200            | 0.200          | ROUTE END    | N/A   | TO END OF LOOP                                 |

### ROUTE 0102Z: SURRENDER FIELD ROAD

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE      | SIDE  | COMMENT   |
|------------------|----------------|--------------|-------|---|
| 0.000            | 0.000          | ROUTE BEGIN  | N/A   | FROM ROUTE 0225Z (SURRENDER ROAD) AND 0502Z (SHORT LOOP ROAD) |
| 0.000            | 0.000          | INTERSECTION | LEFT  | ROUTE 0225Z (SURRENDER ROAD)                                  |
| 0.000            | 0.000          | INTERSECTION | N/A   | ROUTE 0502Z (SHORT LOOP ROAD)                                 |
| 0.000            | 0.000          | INTERSECTION | RIGHT | ROUTE 0225Z (SURRENDER ROAD)                                  |
| 0.004            | 0.004          | CULVERT      | N/A   |   |
| 0.004            | 0.004          | SIGN         | RIGHT | REGULATORY, STOP  |
| 0.011            | 0.011          | GATE         | N/A   |   |
| 0.011            | 0.011          | SIGN         | N/A   | GUIDE, GRAPHIC SIGN, NO TEXT                                  |
| 0.018            | 0.018          | SIGN         | RIGHT | GUIDE, YORKTOWN VISITOR CENTER                                |
| 0.019            | 0.019          | SIGN         | RIGHT | GUIDE, PAY PARK ENTRANCE FEE AT VISITOR CENTER                |
| 0.070            | 0.070          | INTERSECTION | N/A   | ROUTE 0929 (SURRENDER FIELD ACCESS PARKING)                   |
| 0.070            | 0.070          | ROUTE END    | N/A   | TO ROUTE 0929 (SURRENDER FIELD ACCESS PARKING)                |

### ROUTE 0103Z: REDOUBT ACCESS ROAD

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE      | SIDE  | COMMENT   |
|------------------|----------------|--------------|-------|---|
| 0.000            | 0.000          | ROUTE BEGIN  | N/A   | FROM INTERSECTION OF ROUTE 0503Z (EAST YORKTOWN TOUR ROAD) AND MOORE HOUSE ROAD |
| 0.000            | 0.000          | INTERSECTION | LEFT  | PAVED ROUTE (MOORE HOUSE ROAD / NON NPS)  |
| 0.000            | 0.000          | INTERSECTION | N/A   | ROUTE 0503Z (EAST YORKTOWN TOUR ROAD)   |
| 0.000            | 0.000          | INTERSECTION | RIGHT | PAVED ROUTE (MOORE HOUSE ROAD / NON NPS)  |
| 0.004            | 0.004          | CULVERT      | N/A   |   |
| 0.007            | 0.007          | SIGN         | RIGHT | REGULATORY, STOP  |
| 0.009            | 0.009          | GATE         | N/A   |   |
| 0.009            | 0.009          | SIGN         | N/A   | GUIDE, GRAPHIC SIGN, NO TEXT  |
| 0.028            | 0.028          | SIGN         | RIGHT | REGULATORY, SPEED LIMIT 15  |
| 0.118            | 0.118          | CULVERT      | N/A   |   |
| 0.122            | 0.220          | ONE-WAY      | N/A   |   |
| 0.122            | 0.122          | INTERSECTION | LEFT  | ROUTE 0103Z (REDOUBT ACCESS ROAD)   |
| 0.127            | 0.127          | SIGN         | LEFT  | REGULATORY, KEEP RIGHT  |
| 0.140            | 0.165          | CURB         | LEFT  |   |
| 0.154            | 0.154          | INTERSECTION | RIGHT | ROUTE 0902AZ (REDOUBT 9, 10 ACCESS ROAD PARKING A)                              |
| 0.171            | 0.171          | INTERSECTION | LEFT  | ROUTE 0902BZ (REDOUBT 9, 10 ACCESS ROAD PARKING B)                              |
| 0.171            | 0.171          | INTERSECTION | RIGHT | ROUTE 0902CZ (REDOUBT 9, 10 ACCESS ROAD PARKING C)                              |
| 0.174            | 0.179          | CURB         | LEFT  |   |
| 0.175            | 0.180          | CURB         | RIGHT |   |
| 0.190            | 0.201          | CURB         | LEFT  |   |
| 0.192            | 0.192          | INTERSECTION | RIGHT | UNPAVED PARKING   |
| 0.210            | 0.220          | CURB         | RIGHT |   |
| 0.220            | 0.220          | INTERSECTION | LEFT  | ROUTE 0103Z (REDOUBT ACCESS ROAD)   |
| 0.220            | 0.220          | INTERSECTION | RIGHT | ROUTE 0103Z (REDOUBT ACCESS ROAD)   |
| 0.220            | 0.220          | ROUTE END    | N/A   | TO END OF LOOP  |
|                  |                |              |       |   |

### ROUTE 0104Z: MOORE HOUSE ACCESS ROAD

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE      | SIDE  | COMMENT  |
|------------------|----------------|--------------|-------|--|
| 0.000            | 0.000          | ROUTE BEGIN  | N/A   | FROM ROUTE 0503Z (EAST YORKTOWN TOUR ROAD)                   |
| 0.000            | 0.000          | INTERSECTION | LEFT  | ROUTE 0503Z (EAST YORKTOWN TOUR ROAD)                        |
| 0.000            | 0.000          | INTERSECTION | N/A   | ROUTE 0503Z (EAST YORKTOWN TOUR ROAD)                        |
| 0.000            | 0.000          | SIGN         | N/A   | WARNING, ROAD NARROWS  |
| 0.000            | 0.000          | SIGN         | N/A   | GUIDE, UNABLE TO READ FROM VIDEO                             |
| 0.016            | 0.016          | SIGN         | RIGHT | WARNING, GRAPHIC SIGN, NO TEXT                               |
| 0.092            | 0.092          | CULVERT      | N/A   |  |
| 0.295            | 0.295          | SIGN         | RIGHT | REGULATORY, SPEED LIMIT 15                                   |
| 0.307            | 0.307          | SIGN         | RIGHT | WARNING, GRAPHIC SIGN, NO TEXT                               |
| 0.321            | 0.321          | SIGN         | RIGHT | GUIDE, PAY PARK ENTRANCE FEE AT VISITOR CENTER               |
| 0.326            | 0.326          | GATE         | N/A   |  |
| 0.327            | 0.327          | SIGN         | RIGHT | GUIDE, HISTORICAL TOUR                                       |
| 0.330            | 0.330          | SIGN         | RIGHT | REGULATORY, WEIGHT LIMIT 5 TONS                              |
| 0.331            | 0.331          | SIGN         | RIGHT | REGULATORY, STOP   |
| 0.332            | 0.332          | CULVERT      | N/A   |  |
| 0.337            | 0.337          | INTERSECTION | LEFT  | PAVED ROUTE (WASHINGTON ROAD / NON NPS)                      |
| 0.337            | 0.337          | INTERSECTION | RIGHT | PAVED ROUTE (WASHINGTON ROAD / NON NPS)                      |
| 0.340            | 0.340          | SIGN         | RIGHT | REGULATORY, STOP   |
| 0.347            | 0.347          | SIGN         | RIGHT | REGULATORY, HISTORICAL TOUR                                  |
| 0.350            | 0.350          | SIGN         | RIGHT | GUIDE, SURRENDER FIELD                                       |
| 0.421            | 0.421          | SIGN         | RIGHT | REGULATORY, STOP   |
| 0.424            | 0.424          | INTERSECTION | LEFT  | PAVED ROUTE (MOORE HOUSE ROAD / NON NPS)                     |
| 0.424            | 0.424          | INTERSECTION | RIGHT | PAVED ROUTE (MOORE HOUSE ROAD / NON NPS)                     |
| 0.424            | 0.530          | ONE-WAY      | N/A   |  |
| 0.434            | 0.434          | SIGN         | RIGHT | GUIDE, HISTORICAL TOUR                                       |
| 0.437            | 0.437          | SIGN         | RIGHT | GUIDE, AREA CLOSED SUNSET - 6 AM.                            |
| 0.437            | 0.437          | SIGN         | RIGHT | GUIDE, U.S. FEE AREA PAY PARK ENTRANCE FEE AT VISITOR CENTER |
| 0.465            | 0.483          | CURB         | LEFT  |  |
| 0.471            | 0.471          | SIGN         | RIGHT | REGULATORY, DO NOT ENTER                                     |
| 0.471            | 0.471          | SIGN         | RIGHT | REGULATORY, GRAPHIC SIGN, NO TEXT                            |
| 0.518            | 0.528          | CURB         | LEFT  |  |
| 0.530            | 0.530          | INTERSECTION | N/A   | ROUTE 0928 (MOORE HOUSE PARKING)                             |
| 0.530            | 0.530          | ROUTE END    | N/A   | TO ROUTE 0928 (MOORE HOUSE PARKING)                          |

### ROUTE 0105A: US ROUTE 17 ACCESS ROAD A

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE          | SIDE  | COMMENT  |
|------------------|----------------|------------------|-------|--|
| 0.000            | 0.000          | ROUTE BEGIN      | N/A   | FROM ROUTE 0001 (COLONIAL PARKWAY) AT MP 0.75 (ON RIGHT) |
| 0.000            | 0.000          | INTERSECTION     | LEFT  | ROUTE 0001 (COLONIAL PARKWAY)                            |
| 0.000            | 0.000          | INTERSECTION     | N/A   | ROUTE 0001 (COLONIAL PARKWAY)                            |
| 0.004            | 0.050          | GUARD/GUIDE RAIL | RIGHT |  |
| 0.008            | 0.021          | CURB             | LEFT  |  |
| 0.010            | 0.010          | SIGN             | LEFT  | REGULATORY, GRAPHIC SIGN, NO TEXT                        |
| 0.010            | 0.010          | SIGN             | LEFT  | GUIDE, WILLIAMSBURG JAMESTOWN                            |
| 0.021            | 0.021          | SIGN             | LEFT  | REGULATORY, KEEP RIGHT                                   |
| 0.021            | 0.021          | SIGN             | RIGHT | REGULATORY, YIELD  |
| 0.024            | 0.024          | INTERSECTION     | LEFT  | ROUTE 0001 (COLONIAL PARKWAY) OPPOSITE LANE              |
| 0.026            | 0.034          | PAVED DITCH      | LEFT  |  |
| 0.036            | 0.036          | CULVERT          | N/A   |  |
| 0.058            | 0.100          | PAVED DITCH      | RIGHT |  |
| 0.089            | 0.162          | PAVED DITCH      | LEFT  |  |
| 0.141            | 0.167          | GUARD/GUIDE RAIL | RIGHT |  |
| 0.156            | 0.156          | SIGN             | RIGHT | WARNING, GRAPHIC SIGN, NO TEXT                           |
| 0.163            | 0.167          | CURB             | RIGHT |  |
| 0.166            | 0.166          | INTERSECTION     | LEFT  | ROUTE 0105A (US ROUTE 17 ACCESS ROAD A) SPUR             |
| 0.166            | 0.166          | INTERSECTION     | RIGHT | PAVED ROUTE (US HIGHWAY 17 / NON NPS) SPUR               |
| 0.175            | 0.175          | SIGN             | RIGHT | REGULATORY, NO COMMERCIAL VEHICLES                       |
| 0.180            | 0.180          | SIGN             | LEFT  | REGULATORY, STOP   |
| 0.180            | 0.180          | INTERSECTION     | RIGHT | PAVED ROUTE (US HIGHWAY 17 / NON NPS)                    |
| 0.180            | 0.180          | INTERSECTION     | LEFT  | PAVED ROUTE (US HIGHWAY 17 / NON NPS)                    |
| 0.180            | 0.180          | ROUTE END        | N/A   | TO US ROUTE 17   |
|                  |                |                  |       |  |

ROUTE 0105B: US ROUTE 17 ACCESS ROAD B

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE          | SIDE  | COMMENT   |
|------------------|----------------|------------------|-------|---|
| 0.000            | 0.000          | ROUTE BEGIN      | N/A   | FROM US ROUTE 17                                      |
| 0.000            | 0.000          | INTERSECTION     | LEFT  | PAVED ROUTE (US HIGHWAY 17 / NON NPS)                 |
| 0.000            | 0.000          | INTERSECTION     | RIGHT | PAVED ROUTE (US HIGHWAY 17 / NON NPS)                 |
| 0.000            | 0.000          | SIGN             | N/A   | REGULATORY, ONE WAY                                   |
| 0.003            | 0.003          | SIGN             | RIGHT | REGULATORY, ONE WAY                                   |
| 0.003            | 0.018          | CURB             | RIGHT |   |
| 0.004            | 0.004          | SIGN             | RIGHT | REGULATORY, STOP                                      |
| 0.007            | 0.007          | SIGN             | RIGHT | REGULATORY, COMMERCIAL VEHICLES EXCLUDED              |
| 0.007            | 0.011          | CURB             | LEFT  |   |
| 0.011            | 0.011          | SIGN             | RIGHT | REGULATORY, 17  |
| 0.011            | 0.011          | SIGN             | RIGHT | REGULATORY, GRAPHIC SIGN, NO TEXT                     |
| 0.011            | 0.011          | SIGN             | RIGHT | REGULATORY, NORTH                                     |
| 0.017            | 0.025          | GUARD/GUIDE RAIL | LEFT  |   |
| 0.018            | 0.018          | INTERSECTION     | LEFT  | ROUTE 0105B (US ROUTE 17 ACCESS ROAD B) SPUR          |
| 0.018            | 0.018          | INTERSECTION     | RIGHT | PAVED ROUTE (US HIGHWAY 17 / NON NPS) SPUR            |
| 0.028            | 0.062          | PAVED DITCH      | RIGHT |   |
| 0.050            | 0.092          | GUARD/GUIDE RAIL | RIGHT |   |
| 0.062            | 0.065          | PAVED DITCH      | LEFT  |   |
| 0.067            | 0.106          | GUARD/GUIDE RAIL | LEFT  |   |
| 0.068            | 0.068          | CULVERT          | N/A   |   |
| 0.107            | 0.117          | PAVED DITCH      | LEFT  |   |
| 0.122            | 0.122          | SIGN             | RIGHT | WARNING, GRAPHIC SIGN, NO TEXT                        |
| 0.155            | 0.165          | GUARD/GUIDE RAIL | LEFT  |   |
| 0.168            | 0.168          | INTERSECTION     | LEFT  | ROUTE 0105B (US ROUTE 17 ACCESS ROAD B) OPPOSITE LANE |
| 0.171            | 0.179          | CURB             | LEFT  |   |
| 0.172            | 0.172          | SIGN             | LEFT  | REGULATORY, KEEP RIGHT                                |
| 0.177            | 0.177          | SIGN             | LEFT  | REGULATORY, GRAPHIC SIGN, NO TEXT                     |
| 0.180            | 0.180          | INTERSECTION     | LEFT  | ROUTE 0001 (COLONIAL PARKWAY)                         |
| 0.180            | 0.180          | INTERSECTION     | RIGHT | ROUTE 0001 (COLONIAL PARKWAY)                         |
| 0.180            | 0.180          | SIGN             | RIGHT | REGULATORY, YIELD                                     |
| 0.180            | 0.180          | ROUTE END        | N/A   | TO ROUTE 0001 (COLONIAL PARKWAY) AT MP 0.54 (ON LEFT) |
|                  |                |                  |       |   |

ROUTE 0106: FUSILIER'S ROAD

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE          | SIDE  | COMMENT   |
|------------------|----------------|------------------|-------|---|
| 0.000            | 0.000          | ROUTE BEGIN      | N/A   | FROM ROUTE 0001 (COLONIAL PARKWAY) AT MP 1.66 (ON RIGHT)  |
| 0.000            | 0.000          | INTERSECTION     | LEFT  | ROUTE 0001 (COLONIAL PARKWAY)   |
| 0.000            | 0.000          | INTERSECTION     | RIGHT | ROUTE 0001 (COLONIAL PARKWAY)   |
| 0.000            | 0.000          | SIGN             | N/A   | WARNING, GRAPHIC SIGN, NO TEXT  |
| 0.004            | 0.004          | SIGN             | RIGHT | REGULATORY, STOP  |
| 0.007            | 0.009          | CURB             | LEFT  |   |
| 0.008            | 0.008          | DROP INLET       | RIGHT |   |
| 0.010            | 0.152          | PAVED DITCH      | RIGHT |   |
| 0.025            | 0.025          | SIGN             | RIGHT | GUIDE, BATTLEFIELD WILLIAMSBURG JAMESTOWN   |
| 0.027            | 0.027          | SIGN             | RIGHT | REGULATORY, SPEED LIMIT 25  |
| 0.077            | 0.077          | SIGN             | RIGHT | WARNING, GRAPHIC SIGN, NO TEXT  |
| 0.097            | 0.140          | PAVED DITCH      | LEFT  |   |
| 0.116            | 0.116          | SIGN             | RIGHT | GUIDE, ENTERING COLONIAL PARKWAY  |
| 0.152            | 0.159          | CURB             | LEFT  |   |
| 0.162            | 0.162          | INTERSECTION     | LEFT  | ROUTE 0905 (FUSILIER'S PARKING)   |
| 0.167            | 0.167          | SIGN             | LEFT  | GUIDE, AREA CLOSED SUNSET - 6 AM.   |
| 0.167            | 0.203          | CURB             | LEFT  |   |
| 0.203            | 0.203          | SIGN             | RIGHT | GUIDE, AREA CLOSED SUNSET - 6 AM.   |
| 0.204            | 0.204          | INTERSECTION     | LEFT  | ROUTE 0905 (FUSILIER'S PARKING)   |
| 0.210            | 0.213          | CURB             | LEFT  |   |
| 0.224            | 0.224          | CULVERT          | N/A   |   |
| 0.297            | 0.332          | GUARD/GUIDE RAIL | LEFT  |   |
| 0.312            | 0.312          | SIGN             | RIGHT | REGULATORY, 17  |
| 0.312            | 0.312          | SIGN             | RIGHT | REGULATORY, GRAPHIC SIGN, NO TEXT   |
| 0.330            | 0.330          | SIGN             | RIGHT | REGULATORY, SPEED LIMIT 25  |
| 0.331            | 0.339          | CURB             | LEFT  |   |
| 0.332            | 0.332          | INTERSECTION     | RIGHT | ROUTE 0106 (FUSILIER'S ROAD) SPUR   |
| 0.340            | 0.340          | INTERSECTION     | LEFT  | PAVED ROUTE (WATER STREET / STATE ROUTE 238 / NON NPS SPUR  |
| 0.340            | 0.347          | CURB             | RIGHT |   |
| 0.341            | 0.346          | CURB             | LEFT  |   |
| 0.344            | 0.344          | SIGN             | LEFT  | GUIDE, HISTORIC YORKTOWN RIVERWALK LANDING<br>WATERMEN'S MUSEUM HISTORIC MAIN STREET<br>BATTLEFIELD VISITOR CENTE |

ROUTE 0106: FUSILIER'S ROAD

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE      | SIDE  | COMMENT   |
|------------------|----------------|--------------|-------|---|
| 0.345            | 0.345          | SIGN         | RIGHT | GUIDE, HISTORIC YORKTOWN RIVERWALK LANDING<br>WATERMEN'S MUSEUM HISTORIC MAIN STREET<br>BATTLEFIELD VISITOR CENTE |
| 0.346            | 0.346          | SIGN         | RIGHT | REGULATORY, NO COMMERCIAL VEHICLES  |
| 0.346            | 0.346          | SIGN         | RIGHT | REGULATORY, STOP  |
| 0.350            | 0.350          | INTERSECTION | LEFT  | PAVED ROUTE (WATER STREET / STATE ROUTE 238 / NON NPS)  |
| 0.350            | 0.350          | INTERSECTION | N/A   | PAVED PARKING (YORKTOWN VICTORY CENTER / NON NPS)   |
| 0.350            | 0.350          | INTERSECTION | RIGHT | PAVED ROUTE (WATER STREET / STATE ROUTE 238 / NON NPS)  |
| 0.350            | 0.350          | ROUTE END    | N/A   | TO WATER STREET   |

### ROUTE 0107A: CHEATHAM ANNEX ACCESS ROAD A

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE      | SIDE  | COMMENT  |
|------------------|----------------|--------------|-------|--|
| 0.000            | 0.000          | ROUTE BEGIN  | N/A   | FROM ROUTE 0001 (COLONIAL PARKWAY) AT MP 8.39 (ON RIGHT)     |
| 0.000            | 0.000          | INTERSECTION | LEFT  | ROUTE 0001 (COLONIAL PARKWAY)                                |
| 0.000            | 0.000          | INTERSECTION | N/A   | ROUTE 0001 (COLONIAL PARKWAY)                                |
| 0.004            | 0.018          | CURB         | LEFT  |  |
| 0.005            | 0.026          | CURB         | RIGHT |  |
| 0.006            | 0.006          | SIGN         | RIGHT | REGULATORY, YIELD  |
| 0.014            | 0.014          | SIGN         | LEFT  | REGULATORY, GRAPHIC SIGN, NO TEXT                            |
| 0.017            | 0.017          | SIGN         | LEFT  | REGULATORY, KEEP RIGHT                                       |
| 0.023            | 0.023          | INTERSECTION | LEFT  | ROUTE 0107A (CHEATHAM ANNEX ACCESS ROAD A)<br>OPPOSITE LANE  |
| 0.024            | 0.024          | SIGN         | RIGHT | GUIDE, US. NAVY CHEATHAM ANNEX TO ROUTE 199                  |
| 0.031            | 0.031          | INTERSECTION | LEFT  | PAVED ROUTE (STATE ROUTE 641 / PENNIMAN ROAD / NON NPS) SPUR |
| 0.034            | 0.040          | CURB         | LEFT  |  |
| 0.034            | 0.034          | CULVERT      | N/A   |  |
| 0.036            | 0.036          | INTERSECTION | RIGHT | ROUTE 0107A (CHEATHAM ANNEX ACCESS ROAD A) SPUR              |
| 0.039            | 0.040          | CURB         | RIGHT |  |
| 0.040            | 0.040          | INTERSECTION | LEFT  | PAVED ROUTE (STATE ROUTE 641 / PENNIMAN ROAD / NON NPS)      |
| 0.040            | 0.040          | INTERSECTION | RIGHT | PAVED ROUTE (STATE ROUTE 641 / PENNIMAN ROAD / NON NPS)      |
| 0.040            | 0.040          | SIGN         | RIGHT | REGULATORY, STOP   |
| 0.040            | 0.040          | SIGN         | RIGHT | REGULATORY, STOP   |
| 0.040            | 0.040          | ROUTE END    | N/A   | TO PENNIMAN ROAD   |

### ROUTE 0107B: CHEATHAM ANNEX ACCESS ROAD B

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE      | SIDE  | COMMENT  |
|------------------|----------------|--------------|-------|--|
| 0.000            | 0.000          | ROUTE BEGIN  | N/A   | FROM PENNIMAN ROAD   |
| 0.000            | 0.000          | INTERSECTION | LEFT  | PAVED ROUTE (STATE ROUTE 641 / PENNIMAN ROAD / NON NPS)      |
| 0.000            | 0.000          | INTERSECTION | RIGHT | PAVED ROUTE (STATE ROUTE 641 / PENNIMAN ROAD / NON NPS)      |
| 0.002            | 0.002          | SIGN         | RIGHT | REGULATORY, STOP   |
| 0.004            | 0.004          | DROP INLET   | RIGHT |  |
| 0.006            | 0.038          | CURB         | LEFT  |  |
| 0.008            | 0.011          | CURB         | RIGHT |  |
| 0.009            | 0.009          | INTERSECTION | RIGHT | PAVED ROUTE (STATE ROUTE 641 / PENNIMAN ROAD / NON NPS) SPUR |
| 0.040            | 0.040          | INTERSECTION | LEFT  | ROUTE 0107B (CHEATHAM ANNEX ACCESS ROAD B) SPUR              |
| 0.054            | 0.054          | SIGN         | RIGHT | GUIDE, U.S. NAVY CHEATHAM ANNEX ROUTE 199                    |
| 0.087            | 0.098          | CURB         | LEFT  |  |
| 0.093            | 0.093          | SIGN         | RIGHT | GUIDE, YORKTOWN  |
| 0.096            | 0.096          | INTERSECTION | LEFT  | ROUTE 0001 (COLONIAL PARKWAY) OPPOSITE LANE                  |
| 0.101            | 0.120          | CURB         | LEFT  |  |
| 0.103            | 0.103          | SIGN         | LEFT  | REGULATORY, KEEP RIGHT                                       |
| 0.114            | 0.114          | SIGN         | LEFT  | REGULATORY, GRAPHIC SIGN, NO TEXT                            |
| 0.114            | 0.120          | CURB         | RIGHT |  |
| 0.120            | 0.120          | INTERSECTION | RIGHT | ROUTE 0001 (COLONIAL PARKWAY)                                |
| 0.120            | 0.120          | SIGN         | RIGHT | REGULATORY, STOP   |
| 0.120            | 0.120          | INTERSECTION | LEFT  | ROUTE 0001 (COLONIAL PARKWAY)                                |
| 0.120            | 0.120          | ROUTE END    | N/A   | TO ROUTE 0001 (COLONIAL PARKWAY) AT MP 8.51 (ON LEFT)        |

ROUTE 0108A: QUEENS LAKE ACCESS A

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE      | SIDE  | COMMENT  |
|------------------|----------------|--------------|-------|--|
| 0.000            | 0.000          | ROUTE BEGIN  | N/A   | FROM ROUTE 0001 (COLONIAL PARKWAY) AT MP 11.21 (ON LEFT) |
| 0.000            | 0.000          | INTERSECTION | LEFT  | ROUTE 0001 (COLONIAL PARKWAY)                            |
| 0.000            | 0.000          | INTERSECTION | N/A   | ROUTE 0001 (COLONIAL PARKWAY)                            |
| 0.006            | 0.036          | CURB         | LEFT  |  |
| 0.007            | 0.050          | CURB         | RIGHT |  |
| 0.010            | 0.010          | SIGN         | RIGHT | REGULATORY, YIELD  |
| 0.014            | 0.014          | SIGN         | LEFT  | REGULATORY, GRAPHIC SIGN, NO TEXT                        |
| 0.021            | 0.021          | DROP INLET   | RIGHT |  |
| 0.036            | 0.036          | SIGN         | LEFT  | REGULATORY, KEEP RIGHT                                   |
| 0.040            | 0.040          | INTERSECTION | LEFT  | ROUTE 0001 (COLONIAL PARKWAY) OPPOSITE LANE              |
| 0.113            | 0.113          | SIGN         | RIGHT | REGULATORY, COMMERCIAL VEHICLES EXCLUDED                 |
| 0.127            | 0.127          | INTERSECTION | LEFT  | PAVED ROUTE (HUBBARD LANE / NON NPS) SPUR                |
| 0.127            | 0.136          | CURB         | LEFT  |  |
| 0.128            | 0.128          | SIGN         | LEFT  | REGULATORY, KEEP RIGHT                                   |
| 0.130            | 0.130          | SIGN         | RIGHT | REGULATORY, YIELD  |
| 0.136            | 0.136          | SIGN         | RIGHT | REGULATORY, STOP   |
| 0.140            | 0.140          | INTERSECTION | LEFT  | PAVED ROUTE (HUBBARD LANE / NON NPS)                     |
| 0.140            | 0.140          | INTERSECTION | RIGHT | PAVED ROUTE (HUBBARD LANE / NON NPS)                     |
| 0.140            | 0.140          | SIGN         | N/A   | GUIDE, QUEENS LAKE ROUTE 143                             |
| 0.140            | 0.140          | ROUTE END    | N/A   | TO HUBBARD LANE  |

ROUTE 0108B: QUEENS LAKE ACCESS B

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE      | SIDE  | COMMENT   |
|------------------|----------------|--------------|-------|---|
| 0.000            | 0.000          | ROUTE BEGIN  | N/A   | FROM ROUTE 0001 (COLONIAL PARKWAY) AT MP 11.31 (ON RIGHT) |
| 0.000            | 0.000          | INTERSECTION | LEFT  | ROUTE 0001 (COLONIAL PARKWAY)                             |
| 0.000            | 0.000          | INTERSECTION | N/A   | ROUTE 0001 (COLONIAL PARKWAY)                             |
| 0.003            | 0.028          | CURB         | LEFT  |   |
| 0.005            | 0.035          | CURB         | RIGHT |   |
| 0.006            | 0.006          | SIGN         | RIGHT | REGULATORY, YIELD   |
| 0.012            | 0.012          | SIGN         | LEFT  | REGULATORY, GRAPHIC SIGN, NO TEXT                         |
| 0.024            | 0.024          | DROP INLET   | RIGHT |   |
| 0.028            | 0.028          | SIGN         | LEFT  | REGULATORY, KEEP RIGHT                                    |
| 0.029            | 0.029          | INTERSECTION | LEFT  | ROUTE 0108B (QUEENS LAKE ACCESS B) OPPOSITE LANE          |
| 0.122            | 0.122          | INTERSECTION | LEFT  | PAVED ROUTE (HUBBARD LANE / NON NPS) SPUR                 |
| 0.122            | 0.122          | SIGN         | RIGHT | GUIDE, GRAPHIC SIGN, NO TEXT                              |
| 0.122            | 0.122          | SIGN         | RIGHT | GUIDE, VIRGINIA CIVIL WAR TRAILS                          |
| 0.124            | 0.124          | SIGN         | RIGHT | REGULATORY, YIELD   |
| 0.125            | 0.125          | SIGN         | LEFT  | REGULATORY, KEEP RIGHT                                    |
| 0.130            | 0.130          | INTERSECTION | LEFT  | PAVED ROUTE (HUBBARD LANE / NON NPS)                      |
| 0.130            | 0.130          | INTERSECTION | RIGHT | PAVED ROUTE (HUBBARD LANE / NON NPS)                      |
| 0.130            | 0.130          | SIGN         | RIGHT | REGULATORY, STOP  |
| 0.130            | 0.130          | ROUTE END    | N/A   | TO HUBBARD LANE   |

#### ROUTE 0109A: PARKWAY DRIVE ACCESS ROAD A

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE         | SIDE  | COMMENT   |
|------------------|----------------|-----------------|-------|---|
| 0.000            | 0.000          | ROUTE BEGIN     | N/A   | FROM ROUTE 0001 (COLONIAL PARKWAY) AT MP 11.90 (ON RIGHT) |
| 0.000            | 0.000          | INTERSECTION    | LEFT  | ROUTE 0001 (COLONIAL PARKWAY)                             |
| 0.000            | 0.000          | INTERSECTION    | N/A   | ROUTE 0001 (COLONIAL PARKWAY)                             |
| 0.002            | 0.002          | SIGN            | LEFT  | REGULATORY, GRAPHIC SIGN, NO TEXT                         |
| 0.008            | 0.008          | SIGN            | RIGHT | REGULATORY, YIELD   |
| 0.009            | 0.027          | CURB            | LEFT  |   |
| 0.022            | 0.022          | DROP INLET      | LEFT  | OPPOSITE LANE   |
| 0.027            | 0.027          | SIGN            | LEFT  | REGULATORY, KEEP RIGHT                                    |
| 0.029            | 0.029          | INTERSECTION    | LEFT  | ROUTE 0001 (COLONIAL PARKWAY) OPPOSITE LANE               |
| 0.031            | 0.047          | CURB            | LEFT  |   |
| 0.052            | 0.052          | SIGN            | RIGHT | WARNING, GRAPHIC SIGN, NO TEXT                            |
| 0.062            | 0.062          | SIGN            | RIGHT | WARNING, GRAPHIC SIGN, NO TEXT                            |
| 0.094            | 0.100          | CURB-AND-GUTTER | LEFT  |   |
| 0.094            | 0.100          | CURB-AND-GUTTER | RIGHT |   |
| 0.100            | 0.100          | INTERSECTION    | LEFT  | PAVED ROUTE (STATE ROUTE 163 / PARKWAY DRIVE / NON NPS)   |
| 0.100            | 0.100          | SIGN            | RIGHT | REGULATORY, STOP  |
| 0.100            | 0.100          | INTERSECTION    | RIGHT | PAVED ROUTE (STATE ROUTE 163 / PARKWAY DRIVE / NON NPS)   |
| 0.100            | 0.100          | ROUTE END       | N/A   | TO PARKWAY DRIVE  |
|                  |                |                 |       |   |

### ROUTE 0109B: PARKWAY DRIVE ACCESS ROAD B

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE         | SIDE  | COMMENT  |
|------------------|----------------|-----------------|-------|--|
| 0.000            | 0.000          | ROUTE BEGIN     | N/A   | FROM ROUTE 0001 (COLONIAL PARKWAY) AT MP 12.09 (ON LEFT) |
| 0.000            | 0.000          | INTERSECTION    | LEFT  | ROUTE 0001 (COLONIAL PARKWAY)                            |
| 0.000            | 0.000          | INTERSECTION    | N/A   | ROUTE 0001 (COLONIAL PARKWAY)                            |
| 0.008            | 0.008          | SIGN            | LEFT  | REGULATORY, GRAPHIC SIGN, NO TEXT                        |
| 0.010            | 0.010          | SIGN            | RIGHT | REGULATORY, YIELD  |
| 0.011            | 0.031          | CURB            | LEFT  |  |
| 0.028            | 0.028          | DROP INLET      | LEFT  | OPPOSITE LANE  |
| 0.031            | 0.031          | SIGN            | LEFT  | REGULATORY, KEEP RIGHT                                   |
| 0.032            | 0.032          | INTERSECTION    | LEFT  | ROUTE 0001 (COLONIAL PARKWAY) OPPOSITE LANE              |
| 0.033            | 0.042          | CURB            | LEFT  |  |
| 0.069            | 0.069          | SIGN            | RIGHT | WARNING, GRAPHIC SIGN, NO TEXT                           |
| 0.108            | 0.108          | SIGN            | RIGHT | REGULATORY, NO COMMERCIAL VEHICLES                       |
| 0.111            | 0.115          | CURB-AND-GUTTER | LEFT  |  |
| 0.111            | 0.112          | CURB-AND-GUTTER | RIGHT |  |
| 0.116            | 0.116          | SIGN            | RIGHT | REGULATORY, STOP   |
| 0.120            | 0.120          | INTERSECTION    | LEFT  | PAVED ROUTE (STATE ROUTE 163 / PARKWAY DRIVE / NON NPS)  |
| 0.120            | 0.120          | INTERSECTION    | RIGHT | PAVED ROUTE (STATE ROUTE 163 / PARKWAY DRIVE / NON NPS)  |
| 0.120            | 0.120          | ROUTE END       | N/A   | TO PARKWAY DRIVE   |
|                  |                |                 |       |  |

### ROUTE 0110: TAZEWELL HALL ACCESS ROAD

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE         | SIDE  | COMMENT  |
|------------------|----------------|-----------------|-------|--|
| 0.000            | 0.000          | ROUTE BEGIN     | N/A   | FROM ROUTE 0001 (COLONIAL PARKWAY) AT MP 21.81                                 |
| 0.000            | 0.000          | INTERSECTION    | LEFT  | ROUTE 0001 (COLONIAL PARKWAY)  |
| 0.000            | 0.000          | INTERSECTION    | N/A   | ROUTE 0921 (JAMESTOWN ENTRANCE PARKING)  |
| 0.000            | 0.000          | INTERSECTION    | RIGHT | ROUTE 0001 (COLONIAL PARKWAY)  |
| 0.003            | 0.023          | CURB            | RIGHT |  |
| 0.003            | 0.003          | SIGN            | RIGHT | REGULATORY, ONE WAY  |
| 0.003            | 0.003          | SIGN            | RIGHT | REGULATORY, STOP   |
| 0.004            | 0.053          | CURB            | LEFT  |  |
| 0.006            | 0.006          | DROP INLET      | LEFT  |  |
| 0.006            | 0.006          | DROP INLET      | RIGHT |  |
| 0.021            | 0.021          | SIGN            | LEFT  | REGULATORY, DO NOT ENTER   |
| 0.025            | 0.025          | SIGN            | RIGHT | GUIDE, HISTORIC JAMESTOWNE PARKING APVA  |
| 0.027            | 0.027          | INTERSECTION    | RIGHT | ROUTE 0001 (COLONIAL PARKWAY) SPUR   |
| 0.032            | 0.032          | SIGN            | LEFT  | REGULATORY, DO NOT ENTER   |
| 0.034            | 0.054          | CURB            | RIGHT |  |
| 0.036            | 0.036          | SIGN            | RIGHT | GUIDE, TO WILLIAMSBURG VIA PARKWAY TO YORKTOWN VIA PARKWAY HISTORIC JAMESTOWNE |
| 0.051            | 0.051          | SIGN            | RIGHT | REGULATORY, NO COMMERCIAL VEHICLES   |
| 0.053            | 0.060          | CURB-AND-GUTTER | LEFT  |  |
| 0.054            | 0.060          | CURB-AND-GUTTER | RIGHT |  |
| 0.060            | 0.060          | SIGN            | RIGHT | REGULATORY, BUSES CARS   |
| 0.060            | 0.060          | SIGN            | RIGHT | REGULATORY, JAMESTOWN SETTLEMENT   |
| 0.060            | 0.060          | INTERSECTION    | N/A   | PAVED ROUTE (GREENSPRINGS ROAD / NON NPS)                                      |
| 0.060            | 0.060          | ROUTE END       | N/A   | TO GREENSPRINGS ROAD AT PAVEMENT CHANGE  |

### ROUTE 0111A: STATE ROUTE 199 INTERCHANGE A

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE          | SIDE  | COMMENT   |
|------------------|----------------|------------------|-------|---|
| 0.000            | 0.000          | ROUTE BEGIN      | N/A   | FROM ROUTE 0001 (COLONIAL PARKWAY) AT MP 14.76            |
| 0.000            | 0.000          | INTERSECTION     | LEFT  | ROUTE 0001 (COLONIAL PARKWAY)                             |
| 0.000            | 0.000          | INTERSECTION     | N/A   | ROUTE 0001 (COLONIAL PARKWAY)                             |
| 0.003            | 0.020          | CURB             | LEFT  |   |
| 0.004            | 0.004          | SIGN             | LEFT  | REGULATORY, GRAPHIC SIGN, NO TEXT                         |
| 0.004            | 0.004          | SIGN             | RIGHT | REGULATORY, STOP  |
| 0.019            | 0.019          | SIGN             | LEFT  | REGULATORY, KEEP RIGHT                                    |
| 0.020            | 0.020          | SIGN             | RIGHT | GUIDE, NEWPORT NEWS JAMESTOWN                             |
| 0.025            | 0.025          | INTERSECTION     | LEFT  | ROUTE 0111A (STATE ROUTE 199 INTERCHANGE A) OPPOSITE LANE |
| 0.038            | 0.043          | GUARD/GUIDE RAIL | RIGHT |   |
| 0.040            | 0.040          | CULVERT          | N/A   |   |
| 0.045            | 0.045          | INTERSECTION     | RIGHT | PAVED ROUTE (VISTA COURT / NON NPS)                       |
| 0.091            | 0.091          | SIGN             | RIGHT | REGULATORY, COMMERCIAL VEHICLES EXCLUDED                  |
| 0.099            | 0.099          | SIGN             | RIGHT | GUIDE, NEWPORT NEWS RICHMOND                              |
| 0.105            | 0.105          | SIGN             | RIGHT | REGULATORY, STOP  |
| 0.109            | 0.109          | INTERSECTION     | LEFT  | PAVED ROUTE (STATE ROUTE 132 / NON NPS)                   |
| 0.109            | 0.109          | INTERSECTION     | RIGHT | PAVED ROUTE (STATE ROUTE 132 / NON NPS)                   |
| 0.110            | 0.110          | CULVERT          | N/A   |   |
| 0.110            | 0.110          | ROUTE END        | N/A   | TO SOUTH HENRY STREET                                     |
|                  |                |                  |       |   |

### ROUTE 0111B: STATE ROUTE 199 INTERCHANGE B

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE      | SIDE  | COMMENT   |
|------------------|----------------|--------------|-------|---|
| 0.000            | 0.000          | ROUTE BEGIN  | N/A   | FROM STATE ROUTE 199                                      |
| 0.000            | 0.000          | SIGN         | N/A   | REGULATORY, ONE WAY                                       |
| 0.000            | 0.000          | SIGN         | N/A   | REGULATORY, UNABLE TO READ FROM VIDEO                     |
| 0.000            | 0.000          | SIGN         | N/A   | REGULATORY, WEST  |
| 0.000            | 0.000          | SIGN         | N/A   | REGULATORY, GRAPHIC SIGN, NO TEXT                         |
| 0.000            | 0.000          | SIGN         | N/A   | REGULATORY, 199   |
| 0.000            | 0.000          | INTERSECTION | RIGHT | PAVED ROUTE (STATE ROUTE 199 / NON NPS)                   |
| 0.000            | 0.000          | INTERSECTION | LEFT  | PAVED ROUTE (STATE ROUTE 199 / NON NPS)                   |
| 0.000            | 0.000          | SIGN         | N/A   | REGULATORY, GRAPHIC SIGN, NO TEXT                         |
| 0.059            | 0.119          | PAVED DITCH  | LEFT  |   |
| 0.062            | 0.062          | SIGN         | RIGHT | WARNING, GRAPHIC SIGN, NO TEXT                            |
| 0.066            | 0.066          | INTERSECTION | RIGHT | PAVED ROUTE (KINGS POINT DRIVE / NON NPS)                 |
| 0.073            | 0.073          | SIGN         | RIGHT | GUIDE, KINGPOINT DC.                                      |
| 0.079            | 0.112          | PAVED DITCH  | RIGHT |   |
| 0.084            | 0.084          | SIGN         | RIGHT | GUIDE, ROUTE 199 KINGSPOINT                               |
| 0.084            | 0.084          | SIGN         | RIGHT | REGULATORY, NO COMMERCIAL VEHICLES                        |
| 0.114            | 0.114          | CULVERT      | N/A   |   |
| 0.117            | 0.117          | INTERSECTION | LEFT  | ROUTE 0111B (STATE ROUTE 199 INTERCHANGE B) OPPOSITE LANE |
| 0.120            | 0.120          | SIGN         | LEFT  | REGULATORY, DO NOT ENTER                                  |
| 0.121            | 0.121          | SIGN         | LEFT  | REGULATORY, KEEP RIGHT                                    |
| 0.123            | 0.123          | SIGN         | RIGHT | GUIDE, JAMESTOWN  |
| 0.130            | 0.130          | SIGN         | RIGHT | REGULATORY, STOP  |
| 0.130            | 0.130          | SIGN         | LEFT  | REGULATORY, GRAPHIC SIGN, NO TEXT                         |
| 0.130            | 0.130          | INTERSECTION | LEFT  | ROUTE 0001 (COLONIAL PARKWAY)                             |
| 0.130            | 0.130          | INTERSECTION | RIGHT | ROUTE 0001 (COLONIAL PARKWAY)                             |
| 0.130            | 0.130          | ROUTE END    | N/A   | TO ROUTE 0001 (COLONIAL PARKWAY)                          |
|                  |                |              |       |   |

### ROUTE 0111C: STATE ROUTE 199 INTERCHANGE C

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE          | SIDE  | COMMENT   |
|------------------|----------------|------------------|-------|---|
| 0.000            | 0.000          | ROUTE BEGIN      | N/A   | FROM STATE ROUTE 199                                      |
| 0.000            | 0.000          | INTERSECTION     | LEFT  | PAVED ROUTE (STATE ROUTE 199 / NON NPS)                   |
| 0.000            | 0.000          | INTERSECTION     | N/A   | PAVED ROUTE (STATE ROUTE 199 / NON NPS)                   |
| 0.000            | 0.000          | SIGN             | N/A   | REGULATORY, ONE WAY                                       |
| 0.004            | 0.004          | SIGN             | RIGHT | REGULATORY, STOP  |
| 0.004            | 0.015          | CURB             | LEFT  |   |
| 0.016            | 0.016          | INTERSECTION     | LEFT  | ROUTE 0111C (STATE ROUTE 199 INTERCHANGE C) OPPOSITE LANE |
| 0.016            | 0.027          | GUARD/GUIDE RAIL | LEFT  |   |
| 0.031            | 0.031          | SIGN             | RIGHT | REGULATORY, NO COMMERCIAL VEHICLES                        |
| 0.062            | 0.090          | PAVED DITCH      | LEFT  |   |
| 0.084            | 0.104          | PAVED DITCH      | RIGHT |   |
| 0.086            | 0.086          | INTERSECTION     | LEFT  | ROUTE 0111C (STATE ROUTE 199 INTERCHANGE C) OPPOSITE LANE |
| 0.087            | 0.087          | SIGN             | LEFT  | REGULATORY, DO NOT ENTER                                  |
| 0.090            | 0.090          | SIGN             | LEFT  | REGULATORY, KEEP RIGHT                                    |
| 0.090            | 0.090          | SIGN             | RIGHT | GUIDE, WILLIAMSBURG YORKTOWN                              |
| 0.090            | 0.104          | CURB             | LEFT  |   |
| 0.102            | 0.102          | CULVERT          | N/A   |   |
| 0.102            | 0.102          | SIGN             | RIGHT | REGULATORY, STOP  |
| 0.103            | 0.103          | SIGN             | LEFT  | REGULATORY, GRAPHIC SIGN, NO TEXT                         |
| 0.110            | 0.110          | INTERSECTION     | LEFT  | ROUTE 0001 (COLONIAL PARKWAY)                             |
| 0.110            | 0.110          | INTERSECTION     | RIGHT | ROUTE 0001 (COLONIAL PARKWAY)                             |
| 0.110            | 0.110          | ROUTE END        | N/A   | TO ROUTE 0001 (COLONIAL PARKWAY)                          |

### ROUTE 0111D: STATE ROUTE 199 INTERCHANGE D

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE      | SIDE  | COMMENT   |
|------------------|----------------|--------------|-------|---|
| 0.000            | 0.000          | ROUTE BEGIN  | N/A   | FROM ROUTE 0001 (COLONIAL PARKWAY) AT MP 14.93            |
| 0.000            | 0.000          | INTERSECTION | N/A   | ROUTE 0001 (COLONIAL PARKWAY)                             |
| 0.000            | 0.000          | INTERSECTION | LEFT  | ROUTE 0001 (COLONIAL PARKWAY)                             |
| 0.002            | 0.002          | SIGN         | LEFT  | REGULATORY, GRAPHIC SIGN, NO TEXT                         |
| 0.002            | 0.021          | CURB         | LEFT  |   |
| 0.004            | 0.004          | SIGN         | RIGHT | REGULATORY, STOP  |
| 0.010            | 0.079          | PAVED DITCH  | RIGHT |   |
| 0.021            | 0.021          | SIGN         | LEFT  | REGULATORY, KEEP RIGHT                                    |
| 0.023            | 0.023          | INTERSECTION | LEFT  | ROUTE 0111D (STATE ROUTE 199 INTERCHANGE D) OPPOSITE LANE |
| 0.023            | 0.023          | SIGN         | RIGHT | GUIDE, WILLIAMSBURG YORKTOWN                              |
| 0.023            | 0.085          | PAVED DITCH  | LEFT  |   |
| 0.024            | 0.024          | SIGN         | LEFT  | REGULATORY, DO NOT ENTER                                  |
| 0.094            | 0.094          | SIGN         | RIGHT | GUIDE, INTERSTATE 64 199 RICHMOND NEWPORT NEWS            |
| 0.094            | 0.094          | SIGN         | RIGHT | REGULATORY, NO COMMERCIAL VEHICLES                        |
| 0.106            | 0.106          | INTERSECTION | LEFT  | ROUTE 0111D (STATE ROUTE 199 INTERCHANGE D) OPPOSITE LANE |
| 0.112            | 0.117          | CURB         | LEFT  |   |
| 0.120            | 0.120          | INTERSECTION | RIGHT | PAVED ROUTE (STATE ROUTE 199 / NON NPS)                   |
| 0.120            | 0.120          | SIGN         | RIGHT | REGULATORY, STOP  |
| 0.120            | 0.120          | INTERSECTION | LEFT  | PAVED ROUTE (STATE ROUTE 199 / NON NPS)                   |
| 0.120            | 0.120          | ROUTE END    | N/A   | TO STATE ROUTE 199  |
|                  |                |              |       |   |

### ROUTE 0112A: NEWPORT AVENUE ACCESS ROAD A

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE      | SIDE  | COMMENT  |
|------------------|----------------|--------------|-------|--|
| 0.000            | 0.000          | ROUTE BEGIN  | N/A   | FROM NEWPORT AVENUE                                      |
| 0.000            | 0.000          | INTERSECTION | LEFT  | PAVED ROUTE (NEWPORT AVENUE / NON NPS)                   |
| 0.000            | 0.000          | INTERSECTION | RIGHT | PAVED ROUTE (NEWPORT AVENUE / NON NPS)                   |
| 0.002            | 0.002          | DROP INLET   | RIGHT |  |
| 0.002            | 0.002          | SIGN         | RIGHT | REGULATORY, STOP   |
| 0.006            | 0.006          | SIGN         | LEFT  | REGULATORY, KEEP RIGHT                                   |
| 0.007            | 0.007          | SIGN         | LEFT  | REGULATORY, KEEP RIGHT                                   |
| 0.008            | 0.041          | CURB         | LEFT  |  |
| 0.008            | 0.008          | INTERSECTION | RIGHT | PAVED ROUTE (NEWPORT AVENUE / NON NPS) SPUR              |
| 0.009            | 0.060          | CURB         | RIGHT |  |
| 0.013            | 0.013          | SIGN         | RIGHT | REGULATORY, NO COMMERCIAL VEHICLES                       |
| 0.021            | 0.021          | SIGN         | RIGHT | GUIDE, WILLIAMSBURG                                      |
| 0.028            | 0.028          | DROP INLET   | LEFT  |  |
| 0.039            | 0.039          | INTERSECTION | LEFT  | ROUTE 0112A (NEWPORT AVENUE ACCESS ROAD A) OPPOSITE LANE |
| 0.043            | 0.060          | CURB         | LEFT  |  |
| 0.044            | 0.044          | SIGN         | LEFT  | REGULATORY, KEEP RIGHT                                   |
| 0.056            | 0.056          | DROP INLET   | LEFT  | OPPOSITE LANE  |
| 0.056            | 0.056          | DROP INLET   | RIGHT |  |
| 0.058            | 0.058          | SIGN         | LEFT  | REGULATORY, GRAPHIC SIGN, NO TEXT                        |
| 0.060            | 0.060          | SIGN         | RIGHT | REGULATORY, STOP   |
| 0.060            | 0.060          | INTERSECTION | LEFT  | ROUTE 0001 (COLONIAL PARKWAY)                            |
| 0.060            | 0.060          | INTERSECTION | N/A   | ROUTE 0001 (COLONIAL PARKWAY)                            |
| 0.060            | 0.060          | ROUTE END    | N/A   | TO ROUTE 0001 (COLONIAL PARKWAY) (TOWARDS YORKTOWN)      |

### ROUTE 0112B: NEWPORT AVENUE ACCESS ROAD B

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE      | SIDE  | COMMENT  |
|------------------|----------------|--------------|-------|--|
| 0.000            | 0.000          | ROUTE BEGIN  | N/A   | FROM NEWPORT AVENUE                                  |
| 0.000            | 0.000          | INTERSECTION | LEFT  | PAVED ROUTE (NEWPORT AVENUE / NON NPS)               |
| 0.000            | 0.000          | INTERSECTION | RIGHT | PAVED ROUTE (NEWPORT AVENUE / NON NPS)               |
| 0.004            | 0.004          | SIGN         | RIGHT | REGULATORY, STOP                                     |
| 0.006            | 0.006          | SIGN         | LEFT  | REGULATORY, KEEP RIGHT                               |
| 0.006            | 0.006          | SIGN         | LEFT  | REGULATORY, KEEP RIGHT                               |
| 0.007            | 0.064          | CURB         | LEFT  |  |
| 0.009            | 0.009          | INTERSECTION | RIGHT | PAVED ROUTE (NEWPORT AVENUE / NON NPS) SPUR          |
| 0.009            | 0.090          | CURB         | RIGHT |  |
| 0.010            | 0.010          | SIGN         | RIGHT | GUIDE, WILLIAMSBURG                                  |
| 0.014            | 0.014          | SIGN         | RIGHT | REGULATORY, COMMERCIAL VEHICLES EXCLUDED             |
| 0.046            | 0.046          | DROP INLET   | LEFT  |  |
| 0.066            | 0.066          | CULVERT      | N/A   |  |
| 0.070            | 0.070          | INTERSECTION | LEFT  | ROUTE 0112B (NEWPORT AVENUE ACCESS ROAD B) SPUR      |
| 0.073            | 0.084          | CURB         | LEFT  |  |
| 0.074            | 0.074          | SIGN         | LEFT  | REGULATORY, KEEP RIGHT                               |
| 0.076            | 0.076          | DROP INLET   | LEFT  | OPPOSITE LANE  |
| 0.084            | 0.084          | DROP INLET   | RIGHT |  |
| 0.084            | 0.084          | SIGN         | LEFT  | REGULATORY, GRAPHIC SIGN, NO TEXT                    |
| 0.086            | 0.086          | SIGN         | RIGHT | REGULATORY, STOP                                     |
| 0.090            | 0.090          | INTERSECTION | LEFT  | ROUTE 0001 (COLONIAL PARKWAY)                        |
| 0.090            | 0.090          | INTERSECTION | N/A   | ROUTE 0001 (COLONIAL PARKWAY)                        |
| 0.090            | 0.090          | ROUTE END    | N/A   | TO ROUTE 0001 (COLONIAL PARKWAY) (TOWARDS JAMESTOWN) |

## ROUTE 0224Z: WASHINGTON'S HEADQUARTERS ROAD

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE            | SIDE  | COMMENT   |
|------------------|----------------|--------------------|-------|---|
| 0.000            | 0.000          | ROUTE BEGIN        | N/A   | FROM ROUTE 0500Z (BATTLEFIELD TOUR ROAD) AT MP 1.72 |
| 0.000            | 0.000          | INTERSECTION       | N/A   | ROUTE 0500Z (BATTLEFIELD TOUR ROAD)                 |
| 0.000            | 0.000          | INTERSECTION       | RIGHT | ROUTE 0500Z (BATTLEFIELD TOUR ROAD)                 |
| 0.000            | 0.028          | ONE-WAY            | N/A   |   |
| 0.023            | 0.023          | SIGN               | LEFT  | REGULATORY, YIELD                                   |
| 0.023            | 0.023          | SIGN               | RIGHT | REGULATORY, DO NOT ENTER                            |
| 0.024            | 0.024          | SIGN               | LEFT  | REGULATORY, KEEP LEFT                               |
| 0.028            | 0.028          | INTERSECTION       | RIGHT | ROUTE 0224Z (WASHINGTON'S HEADQUARTERS ROAD) SPUR   |
| 0.028            | 0.090          | PAVED DITCH        | LEFT  |   |
| 0.036            | 0.036          | SIGN               | RIGHT | REGULATORY, H                                       |
| 0.036            | 0.036          | SIGN               | RIGHT | REGULATORY, HISTORICAL TOUR                         |
| 0.042            | 0.042          | SIGN               | RIGHT | WARNING, GRAPHIC SIGN, NO TEXT                      |
| 0.121            | 0.121          | SIGN               | RIGHT | WARNING, SLIPPERY XING                              |
| 0.136            | 0.146          | LOW WATER CROSSING | N/A   |   |
| 0.159            | 0.168          | PAVED DITCH        | LEFT  |   |
| 0.168            | 0.168          | SIGN               | RIGHT | WARNING, SLIPPERY X-ING                             |
| 0.266            | 0.275          | CURB               | LEFT  |   |
| 0.266            | 0.280          | CURB               | RIGHT |   |
| 0.278            | 0.278          | SIGN               | LEFT  | REGULATORY, KEEP RIGHT                              |
| 0.278            | 0.280          | CURB               | LEFT  |   |
| 0.280            | 0.280          | INTERSECTION       | N/A   | ROUTE 0930 (WASHINGTON'S HEADQUARTERS PARKING)      |
| 0.280            | 0.280          | ROUTE END          | N/A   | TO ROUTE 0930 (WASHINGTON'S HEADQUARTERS PARKING)   |

**ROUTE 0225Z: SURRENDER ROAD** 

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE      | SIDE  | COMMENT                                      |
|------------------|----------------|--------------|-------|--|
| 0.000            | 0.000          | ROUTE BEGIN  | N/A   | FROM COOK ROAD (NORTH END)                   |
| 0.000            | 0.000          | INTERSECTION | LEFT  | PAVED ROUTE (COOK ROAD / NON NPS)            |
| 0.000            | 0.000          | INTERSECTION | N/A   | PAVED ROUTE (COOK ROAD / NON NPS)            |
| 0.008            | 0.008          | SIGN         | RIGHT | REGULATORY, STOP                             |
| 0.024            | 0.024          | SIGN         | LEFT  | GUIDE, COOK RD                               |
| 0.024            | 0.024          | SIGN         | LEFT  | GUIDE, SURRENDER RD                          |
| 0.034            | 0.034          | INTERSECTION | LEFT  | ROUTE 0225Z (SURRENDER ROAD) CUT-THRU        |
| 0.062            | 0.062          | SIGN         | RIGHT | REGULATORY, SPEED LIMIT 25                   |
| 0.392            | 0.392          | SIGN         | RIGHT | GUIDE, BICYCLE AND WALKING TRAIL NO VEHICLES |
| 0.462            | 0.462          | INTERSECTION | LEFT  | ROUTE 0502Z (SHORT LOOP ROAD)                |
| 0.466            | 0.466          | SIGN         | LEFT  | REGULATORY, DO NOT ENTER                     |
| 0.658            | 0.658          | INTERSECTION | LEFT  | UNPAVED PARKING (HORSE TRAILER PARKING)      |
| 0.663            | 0.663          | SIGN         | LEFT  | GUIDE, HORSE TRAILER PARKING                 |
| 0.880            | 0.909          | PULLOUT      | RIGHT |  |
| 0.959            | 0.959          | SIGN         | LEFT  | GUIDE, SURRENDER FIELD                       |
| 0.959            | 0.959          | SIGN         | RIGHT | GUIDE, SURRENDER FIELD                       |
| 0.964            | 0.964          | SIGN         | LEFT  | GUIDE, HISTORICAL TOUR                       |
| 0.964            | 0.964          | SIGN         | LEFT  | REGULATORY, UNABLE TO READ FROM VIDEO        |
| 0.966            | 0.966          | INTERSECTION | LEFT  | ROUTE 0502Z (SHORT LOOP ROAD)                |
| 0.966            | 0.966          | INTERSECTION | RIGHT | ROUTE 0102Z (SURRENDER FIELD ROAD)           |
| 1.047            | 1.047          | INTERSECTION | LEFT  | UNPAVED ROUTE (GATED)                        |
| 1.122            | 1.122          | SIGN         | RIGHT | REGULATORY, SPEED LIMIT 25                   |
| 1.128            | 1.128          | SIGN         | LEFT  | GUIDE, HISTORICAL TOUR                       |
| 1.132            | 1.132          | INTERSECTION | LEFT  | ROUTE 0503Z (EAST YORKTOWN TOUR ROAD)        |
| 1.140            | 1.140          | SIGN         | LEFT  | REGULATORY, DO NOT ENTER                     |
| 1.221            | 1.221          | SIGN         | RIGHT | REGULATORY, SPEED LIMIT 25                   |
| 1.266            | 1.266          | SIGN         | LEFT  | GUIDE, COOK RD                               |
| 1.270            | 1.270          | INTERSECTION | LEFT  | PAVED ROUTE (COOK ROAD / NON NPS)            |
| 1.270            | 1.270          | INTERSECTION | RIGHT | PAVED ROUTE (COOK ROAD / NON NPS)            |
| 1.270            | 1.270          | SIGN         | RIGHT | REGULATORY, STOP                             |
| 1.270            | 1.270          | ROUTE END    | N/A   | TO COOK ROAD (SOUTH END)                     |

# ROUTE 0226Z: FRENCH ENCAMPMENT TOUR ROAD

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE          | SIDE  | COMMENT  |
|------------------|----------------|------------------|-------|--|
| 0.000            | 0.000          | ROUTE BEGIN      | N/A   | FROM ROUTE 0500Z (BATTLEFIELD TOUR ROAD)       |
| 0.000            | 0.000          | INTERSECTION     | N/A   | ROUTE 0500Z (BATTLEFIELD TOUR ROAD)            |
| 0.000            | 0.000          | INTERSECTION     | RIGHT | ROUTE 0500Z (BATTLEFIELD TOUR ROAD)            |
| 0.000            | 0.068          | ONE-WAY          | N/A   |  |
| 0.028            | 0.028          | CULVERT          | N/A   |  |
| 0.062            | 0.062          | SIGN             | LEFT  | REGULATORY, KEEP LEFT                          |
| 0.068            | 0.068          | SIGN             | RIGHT | REGULATORY, DO NOT ENTER                       |
| 0.068            | 0.068          | INTERSECTION     | RIGHT | ROUTE 0226Z (FRENCH ENCAMPMENT TOUR ROAD) SPUR |
| 0.076            | 0.076          | SIGN             | RIGHT | REGULATORY, YIELD                              |
| 0.105            | 0.105          | SIGN             | RIGHT | REGULATORY, KEEP RIGHT                         |
| 0.110            | 0.135          | GUARD/GUIDE RAIL | LEFT  |  |
| 0.113            | 0.137          | GUARD/GUIDE RAIL | RIGHT |  |
| 0.121            | 0.126          | BRIDGE           | N/A   | 4290-003 (CRAWFORD ROAD BRIDGE)                |
| 0.149            | 0.149          | CULVERT          | N/A   |  |
| 0.464            | 0.464          | CULVERT          | N/A   |  |
| 0.607            | 0.607          | CULVERT          | N/A   |  |
| 0.752            | 0.752          | CULVERT          | N/A   |  |
| 0.974            | 0.974          | SIGN             | RIGHT | WARNING, GRAPHIC SIGN, NO TEXT                 |
| 0.978            | 0.978          | INTERSECTION     | LEFT  | ROUTE 0226Z (FRENCH ENCAMPMENT TOUR ROAD)      |
| 0.978            | 2.490          | ONE-WAY          | N/A   |  |
| 0.987            | 0.987          | SIGN             | LEFT  | REGULATORY, KEEP RIGHT                         |
| 1.072            | 1.096          | PULLOUT          | RIGHT |  |
| 1.257            | 1.257          | CULVERT          | N/A   |  |
| 1.389            | 1.389          | CULVERT          | N/A   |  |
| 1.491            | 1.491          | CULVERT          | N/A   |  |
| 1.540            | 1.540          | CULVERT          | N/A   |  |
| 1.597            | 1.597          | CULVERT          | N/A   |  |
| 1.726            | 1.726          | CULVERT          | N/A   |  |
| 1.834            | 1.834          | CULVERT          | N/A   |  |
| 1.926            | 1.926          | CULVERT          | N/A   |  |
| 1.954            | 1.954          | CULVERT          | N/A   |  |
| 2.060            | 2.060          | CULVERT          | N/A   |  |
| 2.086            | 2.110          | PULLOUT          | RIGHT |  |
| 2.490            | 2.490          | INTERSECTION     | LEFT  | ROUTE 0226Z (FRENCH ENCAMPMENT TOUR ROAD)      |

# ROUTE 0226Z: FRENCH ENCAMPMENT TOUR ROAD

FROM TO

| <b>MILEPOST</b> | MILEPOST | FEATURE      | SIDE | COMMENT                                   |
|-----------------|----------|--------------|------|---|
| 2.490           | 2.490    | INTERSECTION | N/A  | ROUTE 0226Z (FRENCH ENCAMPMENT TOUR ROAD) |
| 2.490           | 2.490    | ROUTE END    | N/A  | TO END OF LOOP                            |

ROUTE 0500Z: BATTLEFIELD TOUR ROAD

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE          | SIDE  | COMMENT   |
|------------------|----------------|------------------|-------|---|
| 0.000            | 0.000          | ROUTE BEGIN      | N/A   | FROM ROUTE 0929 (SURRENDER FIELD ACCESS PARKING)  |
| 0.000            | 4.280          | ONE-WAY          | N/A   |   |
| 0.000            | 0.000          | INTERSECTION     | N/A   | ROUTE 0929 (SURRENDER FIELD ACCESS PARKING)   |
| 0.007            | 0.007          | SIGN             | LEFT  | GUIDE, BATTLEFIELD TOUR ROAD OF ENCAMPMENT AREAS HISTORICAL TOUR FOLLOW THESE ARROWS                |
| 0.008            | 0.008          | SIGN             | RIGHT | REGULATORY, WEIGHT LIMIT 5 TONS   |
| 0.021            | 0.021          | GATE             | N/A   |   |
| 0.021            | 0.021          | SIGN             | RIGHT | GUIDE, KEEP ALL VEHICLES AND BICYCLES ON PAVED ROADS  |
| 0.039            | 0.039          | SIGN             | RIGHT | REGULATORY, ONE WAY   |
| 0.063            | 0.063          | SIGN             | RIGHT | REGULATORY, SPEED LIMIT 15  |
| 0.102            | 0.102          | CULVERT          | N/A   |   |
| 0.202            | 0.202          | CULVERT          | N/A   |   |
| 0.216            | 0.216          | INTERSECTION     | LEFT  | PAVED ROUTE (FROM STATE HIGHWAY 17 / NON NPS)   |
| 0.218            | 0.218          | SIGN             | RIGHT | GUIDE, HISTORICAL TOUR  |
| 0.232            | 0.232          | CULVERT          | N/A   |   |
| 0.240            | 0.240          | OVERPASS         | N/A   | A BIP STRUCTURE NUMBER HAS NOT BEEN ASSIGNED TO THIS BRIDGE (STATE HIGHWAY 17 NORTHBOUND / NON NPS) |
| 0.250            | 0.250          | OVERPASS         | N/A   | A BIP STRUCTURE NUMBER HAS NOT BEEN ASSIGNED TO THIS BRIDGE (STATE HIGHWAY 17 SOUTHBOUND / NON NPS) |
| 0.262            | 0.262          | CULVERT          | N/A   |   |
| 0.321            | 0.321          | CULVERT          | N/A   |   |
| 0.340            | 0.340          | INTERSECTION     | RIGHT | PAVED ROUTE (FROM STATE HIGHWAY 17 / NON NPS)   |
| 0.367            | 0.367          | SIGN             | LEFT  | GUIDE, HISTORICAL TOUR  |
| 0.376            | 0.395          | PULLOUT          | LEFT  |   |
| 0.481            | 0.500          | PULLOUT          | LEFT  |   |
| 0.559            | 0.578          | PULLOUT          | LEFT  |   |
| 0.690            | 0.690          | CULVERT          | N/A   |   |
| 0.709            | 0.712          | GUARD/GUIDE WALL | LEFT  |   |
| 0.714            | 0.714          | INTERSECTION     | LEFT  | UNPAVED ROUTE (WARWICK ROAD / GATED)  |
| 0.714            | 0.714          | SIGN             | LEFT  | GUIDE, GRAPHIC SIGN, NO TEXT  |
| 0.717            | 0.720          | GUARD/GUIDE WALL | LEFT  |   |
| 0.729            | 0.729          | CULVERT          | N/A   |   |
| 0.760            | 0.786          | PULLOUT          | LEFT  |   |
| 0.829            | 0.850          | PULLOUT          | LEFT  |   |
| 0.944            | 0.944          | INTERSECTION     | LEFT  | UNPAVED ROUTE (GATED / FIRE ROAD)   |

# ROUTE 0500Z: BATTLEFIELD TOUR ROAD

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE          | SIDE  | COMMENT   |
|------------------|----------------|------------------|-------|---|
| 0.947            | 0.947          | SIGN             | LEFT  | GUIDE, GRAPHIC SIGN, NO TEXT                                  |
| 1.033            | 1.033          | CULVERT          | N/A   |   |
| 1.043            | 1.062          | PULLOUT          | LEFT  |   |
| 1.191            | 1.205          | GUARD/GUIDE WALL | LEFT  |   |
| 1.192            | 1.205          | BRIDGE           | N/A   | 4290-002 (BEAVERDAM CREEK BRIDGE)                             |
| 1.192            | 1.205          | GUARD/GUIDE WALL | RIGHT |   |
| 1.432            | 1.432          | CULVERT          | N/A   |   |
| 1.694            | 1.712          | PULLOUT          | LEFT  |   |
| 1.704            | 1.704          | SIGN             | RIGHT | GUIDE, WASHINGTONS HEADQUARTERS FRENCH<br>ENCAMPMENT YORKTOWN |
| 1.722            | 1.722          | INTERSECTION     | LEFT  | ROUTE 0224Z (WASHINGTON'S HEADQUARTERS ROAD)                  |
| 1.739            | 1.739          | SIGN             | RIGHT | REGULATORY, YIELD   |
| 1.742            | 1.742          | INTERSECTION     | LEFT  | ROUTE 0224Z (WASHINGTON'S HEADQUARTERS ROAD) SPUR             |
| 1.756            | 1.756          | SIGN             | RIGHT | REGULATORY, ONE WAY   |
| 1.771            | 1.788          | PULLOUT          | LEFT  |   |
| 1.772            | 1.772          | SIGN             | RIGHT | REGULATORY, SPEED LIMIT 15                                    |
| 1.805            | 1.805          | CULVERT          | N/A   |   |
| 1.890            | 1.890          | SIGN             | RIGHT | GUIDE, HISTORICAL TOUR  |
| 1.890            | 1.890          | SIGN             | RIGHT | REGULATORY, I   |
| 1.893            | 1.925          | CURB             | LEFT  |   |
| 1.900            | 1.900          | INTERSECTION     | RIGHT | ROUTE 0931 (FRENCH CEMETERY PARKING)                          |
| 1.914            | 1.914          | INTERSECTION     | RIGHT | ROUTE 0931 (FRENCH CEMETERY PARKING)                          |
| 1.936            | 1.936          | INTERSECTION     | LEFT  | UNPAVED ROUTE (GATED)   |
| 1.943            | 1.943          | SIGN             | LEFT  | REGULATORY, J   |
| 1.943            | 1.943          | SIGN             | LEFT  | GUIDE, HISTORICAL TOUR  |
| 2.040            | 2.041          | GUARD/GUIDE WALL | RIGHT |   |
| 2.071            | 2.102          | PULLOUT          | RIGHT |   |
| 2.071            | 2.102          | CURB             | RIGHT |   |
| 2.323            | 2.341          | CURB             | RIGHT |   |
| 2.323            | 2.341          | PULLOUT          | RIGHT |   |
| 2.334            | 2.334          | INTERSECTION     | LEFT  | UNPAVED ROUTE (GATED)   |
| 2.486            | 2.486          | CULVERT          | N/A   |   |
| 2.606            | 2.630          | PULLOUT          | RIGHT |   |
| 2.606            | 2.631          | PULLOUT          | LEFT  |   |

# ROUTE 0500Z: BATTLEFIELD TOUR ROAD

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE          | SIDE  | COMMENT  |
|------------------|----------------|------------------|-------|--|
| 2.693            | 2.693          | SIGN             | RIGHT | GUIDE, FRENCH ENCAMPMENT LOOP YORKTOWN                                   |
| 2.714            | 2.714          | INTERSECTION     | LEFT  | ROUTE 0226Z (FRENCH ENCAMPMENT TOUR ROAD)                                |
| 2.730            | 2.730          | CULVERT          | N/A   |  |
| 2.774            | 2.774          | SIGN             | RIGHT | REGULATORY, YIELD  |
| 2.779            | 2.779          | INTERSECTION     | LEFT  | ROUTE 0226Z (FRENCH ENCAMPMENT TOUR ROAD) SPUR                           |
| 2.790            | 2.790          | SIGN             | RIGHT | REGULATORY, ONE WAY  |
| 2.847            | 2.847          | CULVERT          | N/A   |  |
| 3.005            | 3.005          | CULVERT          | N/A   |  |
| 3.152            | 3.152          | CULVERT          | N/A   |  |
| 3.336            | 3.336          | CULVERT          | N/A   |  |
| 3.452            | 3.452          | CULVERT          | N/A   |  |
| 3.621            | 3.658          | GUARD/GUIDE RAIL | RIGHT |  |
| 3.621            | 3.659          | GUARD/GUIDE RAIL | LEFT  |  |
| 3.626            | 3.654          | BRIDGE           | N/A   | 4290-004 (U.S. ROUTE 17 BRIDGE)  |
| 3.956            | 3.956          | SIGN             | LEFT  | GUIDE, BIKE & WALKING PATH BACK TO SURRENDER ROAD                        |
| 3.958            | 3.958          | SIGN             | RIGHT | GUIDE, BICYCLE AND WALKING TRAIL NO VEHICLES NO<br>HORSES                |
| 4.131            | 4.131          | GATE             | N/A   | WOOD WITH CABLE  |
| 4.189            | 4.209          | PULLOUT          | RIGHT |  |
| 4.254            | 4.254          | GATE             | N/A   |  |
| 4.268            | 4.268          | SIGN             | RIGHT | GUIDE, YORKTOWN US. ROUTE 17   |
| 4.270            | 4.270          | SIGN             | LEFT  | REGULATORY, DO NOT ENTER   |
| 4.271            | 4.271          | SIGN             | RIGHT | REGULATORY, DO NOT ENTER   |
| 4.275            | 4.275          | SIGN             | RIGHT | REGULATORY, STOP   |
| 4.279            | 4.279          | INTERSECTION     | LEFT  | PAVED ROUTE (GOOSELY ROAD / NON NPS)                                     |
| 4.279            | 4.279          | INTERSECTION     | RIGHT | PAVED ROUTE (GOOSELY ROAD / NON NPS)                                     |
| 4.280            | 4.280          | INTERSECTION     | N/A   | ROUTE 0100Z (UNTOUCHED REDOUBT ROAD)                                     |
| 4.280            | 4.280          | ROUTE END        | N/A   | TO INTERSECTION OF ROUTE 0100Z (UNTOUCHED REDOUBT ROAD) AND GOOSLEY ROAD |

ROUTE 0501AZ: ISLAND DRIVE

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE          | SIDE  | COMMENT   |
|------------------|----------------|------------------|-------|---|
| 0.000            | 0.000          | ROUTE BEGIN      | N/A   | FROM ROUTE 0001 (COLONIAL PARKWAY) AT END                               |
| 0.000            | 0.000          | INTERSECTION     | N/A   | ROUTE 0001 (COLONIAL PARKWAY)   |
| 0.000            | 0.000          | INTERSECTION     | RIGHT | ROUTE 0950 (JAMESTOWN VISITOR'S CENTER PARKING)                         |
| 0.003            | 0.003          | SIGN             | N/A   | REGULATORY, CLOSED  |
| 0.003            | 0.003          | GATE             | N/A   |   |
| 0.003            | 0.003          | SIGN             | N/A   | REGULATORY, CLOSED  |
| 0.006            | 0.006          | SIGN             | RIGHT | GUIDE, NO BUSES OR CAMPERS ALLOWED                                      |
| 0.029            | 0.029          | SIGN             | RIGHT | GUIDE, ISLAND LOOP ROAD SHORT TOUR 3MI. 5KM.<br>COMPLETE TOUR 5MI. 8KM. |
| 0.051            | 0.051          | SIGN             | RIGHT | REGULATORY, SPEED LIMIT 15  |
| 0.182            | 0.182          | INTERSECTION     | LEFT  | ROUTE 0501AZ (ISLAND DRIVE)   |
| 0.182            | 4.670          | ONE-WAY          | N/A   |   |
| 0.188            | 0.188          | SIGN             | LEFT  | REGULATORY, ONE WAY   |
| 0.239            | 0.239          | INTERSECTION     | LEFT  | ROUTE 0501AZ (ISLAND DRIVE) SPUR  |
| 0.287            | 0.310          | PULLOUT          | RIGHT |   |
| 0.314            | 0.333          | BRIDGE           | N/A   | 4290-028 (PITCH AND TAR BRIDGE)   |
| 0.314            | 0.333          | GUARD/GUIDE WALL | LEFT  |   |
| 0.314            | 0.333          | GUARD/GUIDE WALL | RIGHT |   |
| 0.505            | 0.505          | CULVERT          | N/A   |   |
| 0.510            | 0.535          | PULLOUT          | RIGHT |   |
| 1.132            | 1.155          | PULLOUT          | LEFT  |   |
| 1.321            | 1.342          | PULLOUT          | RIGHT |   |
| 1.360            | 1.379          | PULLOUT          | RIGHT |   |
| 1.400            | 1.400          | INTERSECTION     | LEFT  | ROUTE 0501BZ (ISLAND DRIVE CROSS ROAD)                                  |
| 1.514            | 1.514          | CULVERT          | N/A   |   |
| 1.804            | 1.817          | PULLOUT          | RIGHT |   |
| 1.899            | 1.899          | CULVERT          | N/A   |   |
| 2.488            | 2.505          | PULLOUT          | RIGHT |   |
| 2.534            | 2.534          | CULVERT          | N/A   |   |
| 2.570            | 2.570          | SIGN             | RIGHT | REGULATORY, SPEED LIMIT 15  |
| 2.594            | 2.671          | GUARD/GUIDE WALL | RIGHT |   |
| 2.595            | 2.671          | BRIDGE           | N/A   | 4290-029 (BLACKS POINT BRIDGE)  |
| 2.595            | 2.673          | GUARD/GUIDE WALL | LEFT  |   |
| 2.696            | 2.716          | PULLOUT          | RIGHT |   |

# ROUTE 0501AZ: ISLAND DRIVE

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE          | SIDE  | COMMENT                                |
|------------------|----------------|------------------|-------|--|
| 3.079            | 3.079          | CULVERT          | N/A   |  |
| 3.286            | 3.327          | GUARD/GUIDE WALL | RIGHT |  |
| 3.286            | 3.327          | GUARD/GUIDE WALL | LEFT  |  |
| 3.286            | 3.327          | BRIDGE           | N/A   | 4290-030 (TRAVIS GRAVEYARD BRIDGE)     |
| 3.335            | 3.353          | PULLOUT          | RIGHT |  |
| 3.692            | 3.708          | PULLOUT          | RIGHT |  |
| 3.704            | 3.704          | INTERSECTION     | LEFT  | ROUTE 0501BZ (ISLAND DRIVE CROSS ROAD) |
| 3.711            | 3.711          | SIGN             | LEFT  | REGULATORY, ONE WAY                    |
| 3.798            | 3.798          | CULVERT          | N/A   |  |
| 3.809            | 3.809          | SIGN             | RIGHT | REGULATORY, SPEED LIMIT 15             |
| 3.873            | 4.005          | GUARD/GUIDE WALL | RIGHT |  |
| 3.874            | 4.005          | BRIDGE           | N/A   | 4290-031 (LONG BRIDGE)                 |
| 3.874            | 4.006          | GUARD/GUIDE WALL | LEFT  |  |
| 4.225            | 4.254          | PULLOUT          | RIGHT |  |
| 4.228            | 4.228          | CULVERT          | N/A   |  |
| 4.294            | 4.317          | PULLOUT          | RIGHT |  |
| 4.548            | 4.548          | CULVERT          | N/A   |  |
| 4.578            | 4.578          | SIGN             | RIGHT | GUIDE, REPEAT TOUR END OF TOUR         |
| 4.591            | 4.591          | INTERSECTION     | LEFT  | ROUTE 0501AZ (ISLAND DRIVE) SPUR       |
| 4.594            | 4.614          | PULLOUT          | RIGHT |  |
| 4.622            | 4.622          | CULVERT          | N/A   |  |
| 4.670            | 4.670          | INTERSECTION     | LEFT  | ROUTE 0501AZ (ISLAND DRIVE)            |
| 4.670            | 4.670          | INTERSECTION     | N/A   | ROUTE 0501AZ (ISLAND DRIVE)            |
| 4.670            | 4.670          | ROUTE END        | N/A   | TO END OF LOOP                         |
|                  |                |                  |       |  |

# ROUTE 0501BZ: ISLAND DRIVE CROSS ROAD

| FROM<br>MILEPOST | TO<br>MILEPOST | FFATUDE      | SIDE  | COMMENT                                     |
|------------------|----------------|--------------|-------|---|
| 0.000            | 0.000          | ROUTE BEGIN  | N/A   | FROM ROUTE 0501AZ (SLAVE ISLAND) AT MP 1.40 |
| 0.000            | 0.000          | INTERSECTION | N/A   | ROUTE 0501AZ (ISLAND DRIVE)                 |
| 0.000            | 0.000          | INTERSECTION | RIGHT | ROUTE 0501AZ (ISLAND DRIVE)                 |
| 0.000            | 0.150          | ONE-WAY      | N/A   |   |
| 0.016            | 0.016          | SIGN         | RIGHT | GUIDE, SHORT TOUR COMPLETE TOUR             |
| 0.132            | 0.132          | SIGN         | RIGHT | REGULATORY, YIELD                           |
| 0.150            | 0.150          | INTERSECTION | N/A   | ROUTE 0501AZ (ISLAND DRIVE)                 |
| 0.150            | 0.150          | INTERSECTION | RIGHT | ROUTE 0501AZ (ISLAND DRIVE)                 |
| 0.150            | 0.150          | ROUTE END    | N/A   | TO ROUTE 0501AZ (SLAVE ISLAND) AT MP 3.70   |

ROUTE 0502Z: SHORT LOOP ROAD

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE      | SIDE  | COMMENT   |
|------------------|----------------|--------------|-------|---|
| 0.000            | 0.000          | ROUTE BEGIN  | N/A   | FROM INTERSECTION OF ROUTE 0225Z (SURRENDER ROAD)<br>AND ROUTE 0102Z (SURRENDER FIELD ROAD) |
| 0.000            | 0.000          | INTERSECTION | LEFT  | ROUTE 0225Z (SURRENDER ROAD)  |
| 0.000            | 0.000          | INTERSECTION | N/A   | ROUTE 0102Z (SURRENDER FIELD ROAD)  |
| 0.000            | 0.000          | INTERSECTION | RIGHT | ROUTE 0225Z (SURRENDER ROAD)  |
| 0.000            | 0.550          | ONE-WAY      | N/A   |   |
| 0.002            | 0.002          | CULVERT      | N/A   |   |
| 0.017            | 0.017          | SIGN         | LEFT  | REGULATORY, SPEED LIMIT 15  |
| 0.146            | 0.166          | PULLOUT      | RIGHT |   |
| 0.266            | 0.275          | CURB         | RIGHT |   |
| 0.360            | 0.360          | CULVERT      | N/A   |   |
| 0.539            | 0.539          | SIGN         | RIGHT | REGULATORY, HISTORICAL TOUR   |
| 0.550            | 0.550          | INTERSECTION | LEFT  | ROUTE 0225Z (SURRENDER ROAD)  |
| 0.550            | 0.550          | INTERSECTION | RIGHT | ROUTE 0225Z (SURRENDER ROAD)  |
| 0.550            | 0.550          | SIGN         | RIGHT | REGULATORY, STOP  |
| 0.550            | 0.550          | CULVERT      | N/A   |   |
| 0.550            | 0.550          | ROUTE END    | N/A   | THROUGH TOUR BUS ROUTES   |

# ROUTE 0503Z: EAST YORKTOWN TOUR ROAD

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE          | SIDE  | COMMENT   |
|------------------|----------------|------------------|-------|---|
| 0.000            | 0.000          | ROUTE BEGIN      | N/A   | FROM INTERSECTION OF ROUTE 0103Z (REDOUBT ACCESS ROAD) AND MOORE HOUSE ROAD |
| 0.000            | 0.000          | INTERSECTION     | LEFT  | PAVED ROUTE (MOORE HOUSE ROAD / NON NPS)                                    |
| 0.000            | 0.000          | INTERSECTION     | N/A   | ROUTE 0103Z (REDOUBT ACCESS ROAD)   |
| 0.000            | 0.000          | INTERSECTION     | RIGHT | PAVED ROUTE (MOORE HOUSE ROAD / NON NPS)                                    |
| 0.000            | 1.830          | ONE-WAY          | N/A   |   |
| 0.003            | 0.040          | PAVED DITCH      | RIGHT |   |
| 0.004            | 0.004          | SIGN             | RIGHT | REGULATORY, WEIGHT LIMIT 5 TONS   |
| 0.004            | 0.004          | SIGN             | RIGHT | GUIDE, HISTORICAL TOUR  |
| 0.008            | 0.008          | GATE             | N/A   |   |
| 0.014            | 0.014          | SIGN             | RIGHT | GUIDE, PAY PARK ENTRANCE FEE AT VISITOR CENTER                              |
| 0.015            | 0.015          | SIGN             | LEFT  | REGULATORY, ONE WAY   |
| 0.043            | 0.043          | SIGN             | RIGHT | REGULATORY, SPEED LIMIT 15  |
| 0.052            | 0.052          | CULVERT          | N/A   |   |
| 0.207            | 0.224          | PULLOUT          | RIGHT |   |
| 0.434            | 0.434          | CULVERT          | N/A   |   |
| 0.479            | 0.479          | CULVERT          | N/A   |   |
| 0.489            | 0.511          | PULLOUT          | RIGHT |   |
| 0.519            | 0.519          | CULVERT          | N/A   |   |
| 0.566            | 0.566          | CULVERT          | N/A   |   |
| 0.617            | 0.703          | CURB             | RIGHT |   |
| 0.719            | 0.731          | PULLOUT          | RIGHT |   |
| 0.737            | 0.747          | CURB             | RIGHT |   |
| 0.759            | 0.759          | SIGN             | RIGHT | GUIDE, GRAPHIC SIGN, NO TEXT  |
| 0.759            | 0.759          | SIGN             | RIGHT | GUIDE, UNABLE TO READ FROM VIDEO  |
| 0.763            | 0.763          | SIGN             | RIGHT | GUIDE, KEEP OFF   |
| 0.763            | 0.825          | GUARD/GUIDE RAIL | RIGHT |   |
| 0.767            | 0.767          | SIGN             | RIGHT | REGULATORY, STOP  |
| 0.770            | 0.770          | INTERSECTION     | LEFT  | ROUTE 0104Z (MOORE HOUSE ACCESS ROAD)                                       |
| 0.772            | 0.772          | SIGN             | LEFT  | GUIDE, HISTORICAL TOUR  |
| 0.773            | 0.773          | SIGN             | LEFT  | GUIDE, SURRENDER FIELD MOORE HOUSE  |
| 0.774            | 0.823          | GUARD/GUIDE RAIL | LEFT  |   |
| 0.775            | 0.775          | SIGN             | RIGHT | WARNING, ROAD NARROWS   |
| 0.776            | 0.776          | SIGN             | LEFT  | WARNING, GRAPHIC SIGN, NO TEXT  |
|                  |                |                  |       |   |

# ROUTE 0503Z: EAST YORKTOWN TOUR ROAD

| FROM<br>MILEPOST | TO<br>MILEPOST | FEATURE       | SIDE  | COMMENT                               |
|------------------|----------------|---------------|-------|---------------------------------------|
| 0.777            | 0.780          | BRIDGE        | N/A   | 4290-038 (WORMLEY POND BRIDGE)        |
| 0.785            | 0.785          | SIGN          | RIGHT | GUIDE, KEEP OFF                       |
| 0.824            | 0.824          | SIGN          | RIGHT | WARNING, GRAPHIC SIGN, NO TEXT        |
| 0.851            | 0.854          | PAVED DITCH   | LEFT  |                                       |
| 0.970            | 0.991          | PULLOUT       | RIGHT |                                       |
| 1.032            | 1.049          | PULLOUT       | RIGHT |                                       |
| 1.178            | 1.201          | PULLOUT       | RIGHT |                                       |
| 1.306            | 1.306          | SIGN          | LEFT  | GUIDE, GRAPHIC SIGN, NO TEXT          |
| 1.430            | 1.461          | PULLOUT       | RIGHT |                                       |
| 1.536            | 1.550          | CURB          | RIGHT |                                       |
| 1.590            | 1.610          | PULLOUT       | LEFT  |                                       |
| 1.667            | 1.686          | PULLOUT       | RIGHT |                                       |
| 1.693            | 1.693          | SIGN          | RIGHT | WARNING, GRAPHIC SIGN, NO TEXT        |
| 1.705            | 1.705          | GATE          | N/A   |                                       |
| 1.705            | 1.705          | SIGN          | N/A   | REGULATORY, GRAPHIC SIGN, NO TEXT     |
| 1.705            | 1.705          | SIGN          | N/A   | REGULATORY, UNABLE TO READ FROM VIDEO |
| 1.736            | 1.736          | GATE          | N/A   |                                       |
| 1.736            | 1.736          | SIGN          | N/A   | GUIDE, UNABLE TO READ FROM VIDEO      |
| 1.740            | 1.740          | SIGN          | RIGHT | REGULATORY, STOP                      |
| 1.740            | 1.740          | TRAFFIC LIGHT | RIGHT |                                       |
| 1.740            | 1.740          | CULVERT       | N/A   |                                       |
| 1.747            | 1.747          | INTERSECTION  | LEFT  | PAVED ROUTE (COOK ROAD / NON NPS)     |
| 1.747            | 1.747          | INTERSECTION  | RIGHT | PAVED ROUTE (COOK ROAD / NON NPS)     |
| 1.749            | 1.749          | SIGN          | LEFT  | REGULATORY, 704                       |
| 1.759            | 1.759          | CULVERT       | N/A   |                                       |
| 1.760            | 1.760          | SIGN          | RIGHT | GUIDE, HISTORICAL TOUR                |
| 1.767            | 1.791          | PULLOUT       | RIGHT |                                       |
| 1.828            | 1.828          | SIGN          | RIGHT | REGULATORY, STOP                      |
| 1.830            | 1.830          | INTERSECTION  | LEFT  | ROUTE 0225Z (SURRENDER ROAD)          |
| 1.830            | 1.830          | INTERSECTION  | RIGHT | ROUTE 0225Z (SURRENDER ROAD)          |
| 1.830            | 1.830          | ROUTE END     | N/A   | TO ROUTE 0225Z (SURRENDER ROAD)       |
|                  |                |               |       |                                       |

# Colonial National Historical Park



Section 10 Appendix

## APPENDIX A: GLOSSARY OF TERMS AND ABBREVIATIONS

## **TERM OR**

#### ABBREVIATION DESCRIPTION OR DEFINITION

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

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

year.

CRS Condition Rating Sheets. (Section 5)

Excellent rating with an index value of 95 or greater

Fair Fair rating with an index value from 61 to 84

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

Good Good rating with an index value from 85 to 94

IRI International Roughness Index

Lane Width Width from road centerline to fogline, or from centerline to edge-of-

pavement when no fogline exists

MRR Manually Rated Route

N/A Not Applicable

NC Not Collected

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

PCR Pavement Condition Rating (Appendix B, Section 10)

Poor Poor Rating with an index value of 60 or less

RCI Roughness Condition Index

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

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

traffic.

SCR Surface Condition Rating (Appendix B, Section 10)

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

pavement to hinge point.

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

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

Data is collected on the following distresses and conditions:

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

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

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

**Note:** Index values < 0 default to 0. Index values > 100 default to 100.

For all indices, a higher value indicates a better road condition, and a lower value indicates a poorer road condition.

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

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

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

#### **Alligator Crack Index**

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

#### Where:

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

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

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

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

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

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

#### Severity Levels:

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

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

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

#### **Longitudinal Crack Index**

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

#### Where:

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

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

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

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

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

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

#### Severity Levels:

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

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

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

#### **Transverse Crack Index**

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

Where:

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

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

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

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

Severity Levels:

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

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

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

## **Patching Index**

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

Where:

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

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

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

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

There are no severity levels for patching.

#### **Rutting Index**

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

Where:

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

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

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

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

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

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

Severity Levels:

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

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

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

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

## **Roughness Condition Index**

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

#### Where:

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

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

There is no applicable threshold for failure for this index.

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

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

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

Where:

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

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

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

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

Where:

See above for determinations of SCR and RCI.

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

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

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

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

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

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

Where:

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

## Parking Lot and Manually Rated Road Condition Rating

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

Raveling – loss of surface rock chips revealing previous surface

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

Rutting

Potholes/Patching

## **Ratings - Chip Seal:**

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

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

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

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

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

Cracking of any type

Rutting

Potholes/Patching

## **Ratings - Asphalt:**

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

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

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

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

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

**Under Construction 100** 

Excellent 97

Good 90

Fair 73

Poor 45

## APPENDIX C: GENERAL INFORMATION ON RIP SYSTEMS

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

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

## **Digital Image Information**

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

## Right-of-way (ROW) Video

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

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

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

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

#### **Pavement Video**

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

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

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

## FHWA ARAN GPS & Inertial System

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

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

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

#### **GPS SHAPEFILES**

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

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

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

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

## **Scenic Photos**

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

## **APPENDIX D: METADATA**

## FHWA – NPS Road Inventory Program Cycle 4 Metadata

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

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

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

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

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

## **Specific Caveats**

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

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

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

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

# Access Database Metadata

## **MASTER Table Metadata**:

|     |                      |                 |   |                                       |  | EXPECTED                         |
|-----|----------------------|-----------------|---|---------------------------------------|--|----------------------------------|
|     | FIELD                | FORMAT          | EXPECTED VALUE                            | SOURCE                                | VALIDATION                                   | ACCURACY                         |
|     |                      |                 |   |                                       |  | 100% Referenced to               |
| 1   | RIP_CYCLE            | XX              | 4, for data collection cycle 4            | Route ID Meeting                      | FHWA Determination                           | other tables                     |
|     | GT 4 TT              | ****            |   |                                       |  | 100%, Referenced to              |
| 2   | STATE                | XX              | State where route is located              | Route ID Meeting                      | Park Input / FHWA Determination              | other tables (1)                 |
|     | DADIZ ALDIJA         | WWW             | Ded of the colo                           | Desta ID Markins                      | NIDC D. C                                    | 100%, Referenced to              |
| 3   | PARK_ALPHA           | XXXX            | Park alpha code                           | Route ID Meeting                      | NPS References                               | other tables 100%, Referenced to |
| 4   | PARK_NO              | XXXX            | Park numeric code                         | Route ID Meeting                      | NPS References                               | other tables                     |
| 4   | FARK_NO              | ΛΛΛΛ            | Fark numeric code                         | Route ID Weeting                      | NFS References                               | 100%, Referenced to              |
| 5   | RTE_NO               | 9999XXX         | Route number                              | Route ID Meeting                      | Park Input / FHWA Classification             | other tables                     |
|     | KIL_IVO              | ))))/AAA        | Route number                              | Route 1D Weeting                      | Tark input / TTWA Classification             | 100%, Referenced to              |
|     |                      |                 |   |                                       |  | other tables. 100                |
| 6   | RTE_NAME             | (Text)          | Route name                                | Route ID Meeting                      | Park Input                                   | characters fit in field          |
|     |                      | ( - 1)          |   |                                       |  | 100%, Referenced to              |
| 7   | FUNCT_CLASS          | X               | Route functional classification           | Route ID Meeting                      | Park Input / FHWA Classification             | other tables                     |
|     |                      |                 | Survey lane: PRI (primary) or             |                                       |  |                                  |
| 8   | DIRECTION            | XXX             | OPP (opposite)                            | Route ID Meeting                      | Park Input / FHWA Determination              | 100%,                            |
|     |                      |                 |   |                                       |  | Estimated before data            |
| 9   | BEG_MP_EST           | 999.999 (miles) | Estimated starting MP                     | Route ID Meeting                      | Park Input / FHWA Determination              | collected                        |
|     |                      |                 |   |                                       |  | Estimated before data            |
| 10  | END_MP_EST           | 999.999 (miles) | Estimated ending MP                       | Route ID Meeting                      | Park Input / FHWA Determination              | collected                        |
| 11  | RTE_LENGTH           | 999.999 (miles) | Collected route length                    | ARAN Data Collection                  | Automatic Output                             | 100%                             |
|     |                      |                 |   |                                       |  | 100% Referenced to               |
| 12  | FROM_DESC            | (Text)          | Beginning terminus of route               | Route ID Meeting                      | Park Input / FHWA Determination              | other tables                     |
| 1.0 | TO DEGG              | (T)             |   | B I B W                               | D 1 I . (FINIA D                             | 100% Referenced to               |
| 13  | TO_DESC              | (Text)          | Ending terminus of route                  | Route ID Meeting                      | Park Input / FHWA Determination              | other tables                     |
| 14  | NO_LANES             | X               | Number of lanes in route                  | ARAN Data Collection                  | Survey Crew Input                            | Untested. (1)                    |
| 1.5 | CLIDE TYPE           | 3737            |   | ADAND (CIL)                           |  | 100%, Referenced to              |
| 15  | SURF_TYPE            | XX              | Surface type of route                     | ARAN Data Collection                  | Survey Crew Input                            | other tables (1)                 |
|     |                      |                 | Compass direction of route's              |                                       |  |                                  |
| 16  | COMP DIR             | XX              | primary lane (nearest cardinal direction) | Route ID Meeting                      | Park Input / FHWA Determination              | Untested                         |
| 17  | COMP_DIR<br>COMMENTS | (Text)          | Special information, if any               | Contractor Post-processing            | Contractor Input                             | Untested                         |
| 18  | FILENAME             | ` ′             | Filename of raw data files                | ARAN Data Collection                  |  | 100%                             |
| 18  | FILENAME             | (Text)          | rhename of raw data mes                   |                                       | Automatic Output Survey Crew Input/Automatic | 100%                             |
| 19  | SECTION              | (Text)          | Route section ID                          | Route ID Meeting/ARAN Data Collection | Output  Output                               | 100%                             |
| 19  | SECTION              | (Text)          | Route section ID                          | Data Collection                       | Output                                       | 10070                            |

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

# PMS\_FEATURE Table Metadata:

|     |                |                 |                                     | g 0.1.12 GT                 |                     | EXPECTED                        |
|-----|----------------|-----------------|-------------------------------------|-----------------------------|---------------------|---------------------------------|
|     | FIELD          | FORMAT          | EXPECTED VALUE                      | SOURCE                      | VALIDATION          | ACCURACY                        |
| 1   | DID CYCLE      | 3737            | 4.6.1.11.11.11.11.11                | D ( IDM )                   | EINMA D             | 100% Referenced to              |
| 1   | RIP_CYCLE      | XX              | 4, for data collection cycle 4      | Route ID Meeting            | FHWA Determination  | other tables                    |
|     | CT A TE        | WW              | State of home was to de la set of   | Daniel ID Markins           | Park Input / FHWA   | H-4-4-1(1)                      |
| 2   | STATE          | XX              | State where route is located        | Route ID Meeting            | Determination       | Untested (1) 100% Referenced to |
| 3   | DADK ALDHA     | XXXX            | Dorle alpha anda                    | Route ID Meeting            | NPS References      | other tables                    |
| 3   | PARK_ALPHA     | ΛΛΛΛ            | Park alpha code                     | Route ID Meeting            | NPS References      | 100% Referenced to              |
| 4   | PARK_NO        | XXXX            | Park numeric code                   | Route ID Meeting            | NPS References      | other tables                    |
| 4   | FARK_NO        | ΛΛΛΛ            | Fark numeric code                   | Route ID Meeting            | Park Input / FHWA   | 100% Referenced to              |
| 5   | RTE_NO         | 9999XXX         | Route number                        | Route ID Meeting            | Classification      | other tables                    |
| 5   | KIE_NO         | JJJJAAA         | Facility Management                 | Route ID Meeting            | Classification      | other tables                    |
|     |                |                 | Software System Equipment           |                             |                     |                                 |
| 6   | FMSS_EQUIP     | XXXXXXX         | number                              | NPS FMSS application        | NPS References      | Untested                        |
|     | TWISS_EQUI     |                 | number                              | THE THISE application       | Park Input / FHWA   | 100% Referenced to              |
| 7   | FUNCT_CLASS    | X               | Route functional class              | Route ID Meeting            | Classification      | other tables                    |
|     |                |                 | Survey lane: PRI (primary)          |                             | Park Input / FHWA   |                                 |
| 8   | DIRECTION      | XXX             | or OPP (opposite)                   | Route ID Meeting            | Determination       | 100%                            |
|     |                |                 |                                     | ARAN Data                   |                     |                                 |
|     |                |                 |                                     | Collection/Contractor Post- |                     |                                 |
| 9   | MP             | 999.999 (miles) | Feature location along route        | processing                  | Video Analysis      | <=0.001 mile                    |
|     |                |                 | Feature Beginning location          |                             |                     |                                 |
| 10  | BEG_MP         | 999.999 (miles) | along route                         | Contractor Post-processing  | Video Analysis      | <=0.001 mile                    |
|     |                |                 | Feature Ending location             |                             |                     |                                 |
| 11  | END_MP         | 999.999 (miles) | along route                         | Contractor Post-processing  | Video Analysis      | <=0.001 mile                    |
| 12  | FEATURE_LENGTH | 999.99 (Feet)   | Linear Feature Length               | Contractor Post-processing  | Database Processing | 100%                            |
| 13  | EVENT          | XXXX            | Event category of feature           | Contractor Post-processing  | Video Analysis      | Untested                        |
|     |                |                 | Event sub-category of               |                             |                     |                                 |
| 14  | EVENT_CODE     | XXXX            | feature                             | Contractor Post-processing  | Video Analysis      | Untested                        |
|     |                |                 | Feature designation:                |                             |                     |                                 |
| 15  | FEATURE_TYPE   | (Text)          | LINEAR or POINT                     | Contractor Post-processing  | Video Analysis      | Untested                        |
| 1   | ELIENT DEGG    | <b>(T)</b>      | Description of                      |                             | X7' 1               | <b>T</b>                        |
| 16  | EVENT_DESC     | (Text)          | feature/contents of sign            | Contractor Post-processing  | Video Analysis      | Untested                        |
| 17  | MUTCD          | (Text)          | MUTCD Code of Sign                  | Contractor Post-processing  | Database Processing | 95%                             |
| 1.0 | GOVIDALIAON    | (OT / A 33      | Sign condition. N/A. Not to         |                             | X7'1 4 1 '          | Values inaccurate,              |
| 18  | CONDITION      | "N/A"           | be populated                        | Contractor Post-processing  | Video Analysis      | defaulted to "N/A"              |
| 19  | COMMENT        | (T4)            | Sign label, intersecting            | Contractor Doct             | Dotoboso Ducassina  | Untested                        |
| 19  | COMMENT        | (Text)          | route, etc.  Offset from Road Edge. | Contractor Post-processing  | Database Processing | Values inaccurate,              |
| 20  | OFFSET         | "N/A"           | N/A. Not to be populated            | Contractor Post-processing  | Database Processing | defaulted to "N/A"              |
| 20  | OFFSEI         | 1N/A            | IN/A. Not to be populated           | Contractor Post-processing  | Database Processing | uerauneu to IN/A                |

|          | FIELD                       | FORMAT                   | EXPECTED VALUE                               | SOURCE                      | VALIDATION                     | EXPECTED<br>ACCURACY     |
|----------|-----------------------------|--------------------------|--|-----------------------------|--------------------------------|--------------------------|
|          | TIEED                       | TORMIT                   | Side of route relative to lane               | SOURCE                      | VILLIDITION                    | necemiei                 |
| 21       | SIDE                        | (Text)                   | driven                                       | Contractor Post-processing  | Video Analysis                 | 95%                      |
|          |                             | , ,                      | FHWA bridge structure                        |                             |                                |                          |
| 22       | STR_NUMBER                  | (Text)                   | number                                       | FHWA Post-processing        | Database Processing            | Untested                 |
| 23       | BARR_MAT                    | (Text)                   | Barrier Material Type                        | Contractor Post-processing  | Video Analysis                 | Untested                 |
| 24       | BARR_TYPE                   | (Text)                   | Barrier Type                                 | Contractor Post-processing  | Video Analysis                 | Untested                 |
| 25       | BARR_POST_MAT               | (Text)                   | Barrier Post Materials                       | Contractor Post-processing  | Video Analysis                 | Untested                 |
| 26       | BARR_BEG_TERM               | (Text)                   | Barrier Approach Treatment                   | Contractor Post-processing  | Video Analysis                 | Untested                 |
| 27       | BARR_END_TERM               | (Text)                   | Barrier End Treatment                        | Contractor Post-processing  | Video Analysis                 | Untested                 |
| 28       | CURB_MAT                    | (Text)                   | Curb Material Type                           | Contractor Post-processing  | Video Analysis                 | Untested                 |
| 29       | PAVED_DITCH_MAT             | (Text)                   | Paved Ditch Material Type                    | Contractor Post-processing  | Video Analysis                 | Untested (2)             |
| 30       | GATE_MAT                    | (Text)                   | Gate Material Type                           | Contractor Post-processing  | Video Analysis                 | Untested                 |
| 31       | GATE_STYLE                  | (Text)                   | Gate Style                                   | Contractor Post-processing  | Video Analysis                 | Untested                 |
| 32       | BEG_GPS_LAT                 | 999.999999               | GPS Latitude Co-ordinate (decimal degrees)   | Contractor Post-processing  | Video Analysis                 | <= 3.00 feet             |
| 33       | BEG_GPS_LON                 | -999.999999              | GPS Longitude Co-ordinate (-decimal degrees) | Contractor Post-processing  | Video Analysis                 | <= 3.00 feet             |
| 34       | BEG_GPS_ELEV                | 99999.9                  | GPS Elevation Feet                           | Contractor Post-processing  | Video Analysis                 | Untested                 |
| 35       | BEG_GPS_MODE                | (Text)                   | GPS Satellite Mode                           | Contractor Post-processing  | Video Analysis                 | Untested                 |
|          |                             |                          | GPS Latitude Co-ordinate                     |                             |                                |                          |
| 36       | END_GPS_LAT                 | 999.999999               | (decimal degrees)                            | Contractor Post-processing  | Video Analysis                 | <= 3.00 feet             |
| 27       | END CDC LON                 | -999.999999              | GPS Longitude Co-ordinate                    | Control Doct many continu   | 77.1. A 1                      | 2.00 5                   |
| 37       | END_GPS_LON<br>END GPS ELEV | 9999999                  | (-decimal degrees)  GPS Elevation Feet       | Contractor Post-processing  | Video Analysis Video Analysis  | <= 3.00 feet<br>Untested |
| -        |                             | (Text)                   | GPS Elevation Feet GPS Satellite Mode        | Contractor Post-processing  | Video Analysis  Video Analysis | Untested                 |
| 39<br>40 | END_GPS_MODE DATUM          | ` /                      |  | Contractor Post-processing  | ,                              | 100%                     |
| 40       | DATUM                       | (Text)                   | LL_WGS84_DD  Removable USB video hard        | Contractor Post-processing  | Database Processing            | 100%                     |
| 41       | VIDEO                       | < <i>Park</i> >C04VID<#> | drive number                                 | Contractor Post-processing  | Database Processing            | Untested                 |
|          | , IDEO                      | T WIND COTTED (II)       | Filename of .jpg image                       | Contractor 1 ost processing | Butuouse 110ccssmg             | Chrested                 |
| 42       | IMAGE                       | (Text)                   | showing feature                              | Contractor Post-processing  | Automatic Output               | Untested                 |
| 43       | DATE                        | MM/DD/YY                 | Data collection date                         | ARAN Data Collection        | Automatic Output               | 100%                     |
| 44       | FILENAME                    | (Text)                   | Filename of raw data files                   | ARAN Data Collection        | Automatic Output               | 100%                     |
|          |                             | . /                      |  | Route ID Meeting/ARAN       | Survey Crew                    |                          |
| 45       | SECTION                     | (Text)                   | Route section ID                             | Data Collection             | Input/Automatic Output         | 100%                     |
| 46       | FKEY                        | (Numeric)                | Unique record ID                             | Contractor Post-processing  | Database Processing            | 100%                     |
| 1.       |                             |                          | Raw MP of first video frame                  |                             |                                |                          |
| 47       | VISI_FROM                   | 999999 (millimiles)      | showing feature                              | Contractor Post-processing  | Database Processing            | Untested                 |
| 48       | VISI_TO                     | 999999 (millimiles)      | Raw MP of last video frame showing feature   | Contractor Post-processing  | Database Processing            | Untested                 |

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

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

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

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

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

|       | FIELD     | FORMAT              | EXPECTED VALUE                               | SOURCE   | VALIDATION                 | EXPECTED ACCURACY            |
|-------|-----------|---------------------|--|--|----------------------------|------------------------------|
| 23    | SURF_TYPE | XX                  | Surface type of route                        | ARAN Data Collection   | Survey Crew Input          | Untested. (1)                |
| 24    | PCR       | 999                 | Pavement Condition Rating                    | Contractor Post-processing   | Database Processing        | 100% for calculation (6)     |
|       |           |                     | Roughness Condition Index;                   |  |                            |                              |
| 25    | RCI       | 999                 | -1 if invalid IRI                            | Contractor Post-processing   | Database Processing        | 100% for calculation         |
| 26    | SCR       | 999                 | Surface Condition Rating                     | Contractor Post-processing   | Database Processing        | 100% for calculation (5) (6) |
| 27    | IRI_AVG   | 999.9 (inches/mile) | Average IRI                                  | Contractor Post-processing   | Database Processing        | Untested                     |
| 28    | IRI_SD    | 999.9 (inches/mile) | IRI standard deviation                       | Contractor Post-processing   | Database Processing        | Untested                     |
| 29    | IRI_L     | 999.9 (inches/mile) | Left wheel path IRI                          | ARAN Data Collection   | Automatic Output           | Untested                     |
| 30    | IRI_R     | 999.9 (inches/mile) | Right wheel path IRI                         | ARAN Data Collection   | Automatic Output           | Untested                     |
| 31    | IRI_FLAG  | 0 or -1             | -1 if invalid IRI data                       | Contractor Post-processing   | Database Processing        | Untested                     |
| 32    | RUT_INDEX | 999                 | Rut index                                    | Contractor Post-processing   | Database Processing        | 100% for calculation (5)     |
|       |           |                     | Average rut depth of both                    |  |                            |                              |
| 33    | RUT_AVG   | 99.99 (inches)      | wheelpaths                                   | Contractor Post-processing   | Database Processing        | Untested (5)                 |
|       |           |                     | Maximum rut depth of both                    |  |                            |                              |
| 34    | RUT_MAX   | 99.99 (inches)      | wheelpaths                                   | Contractor Post-processing   | Database Processing        | Untested (5)                 |
| 35    | RUT_SD    | 9.9                 | Rut depth standard deviation                 | Contractor Post-processing   | Database Processing        | Untested (5)                 |
|       |           |                     | Percent of low severity ruts                 |  |                            |                              |
| 36    | RUT_LOW   | 999 (%)             | (on a 0-200% scale) in both wheelpaths       | Contractor Post-processing   | Database Processing        | Untested (5)                 |
| 30    | KU1_LOW   | 999 (%)             | Percent of medium severity                   | Contractor Post-processing   | Database Processing        | Official (3)                 |
|       |           |                     | ruts (on a 0-200% scale) in                  |  |                            |                              |
| 37    | RUT MED   | 999 (%)             | both wheelpaths                              | Contractor Post-processing   | Database Processing        | Untested (5)                 |
|       |           | 222 (12)            | Percent of high severity ruts                |  |                            | (2)                          |
|       |           |                     | (on a 0-200% scale) in both                  |  |                            |                              |
| 38    | RUT_HI    | 999 (%)             | wheelpaths                                   | Contractor Post-processing   | Database Processing        | Untested (5)                 |
|       |           |                     | Cross fall at start of road                  |  |                            |                              |
| 39    | XFALL     | 999.9 (% slope)     | interval                                     | ARAN Data Collection   | Automatic Output           | Untested                     |
| 40    | GRADE     | 000 0 (0/ -1)       | Grade at start of road                       | ARAN Data Collection   | A damentic O day           | TI-4-4-4                     |
| 40    |           | 999.9 (% slope)     | interval                                     |  | Automatic Output           | Untested                     |
| 41    | AC_INDEX  | 999                 | Alligator cracking index Percent of WiseCrax | Contractor Post-processing   | Database Processing        | 100% for calculation (5) (6) |
|       |           |                     | measured lane area with                      |  |                            |                              |
|       |           |                     | low-severity alligator                       |  |                            | As a Computed 95%            |
| 42    | AC LOW    | 999.9999 (%)        | cracking                                     | Contractor Post-processing   | Pavement Video Analysis    | Confidence Level (5) (6)     |
|       | _         | . ,                 | Percent of WiseCrax                          |  |                            |                              |
|       |           |                     | measured lane area with                      |  |                            |                              |
|       |           |                     | medium-severity alligator                    |  |                            | As a Computed 95%            |
| 43    | AC_MED    | 999.9999 (%)        | cracking                                     | Contractor Post-processing   | Pavement Video Analysis    | Confidence Level (5) (6)     |
|       |           |                     | Percent of WiseCrax                          |  |                            | 1050                         |
| 1 4 4 | AC III    | 000 0000 (0/)       | measured lane area with                      | Company of the Dord Company of the C | Design and Wide A and a de | As a Computed 95%            |
| 44    | AC_HI     | 999.9999 (%)        | high-severity alligator                      | Contractor Post-processing   | Pavement Video Analysis    | Confidence Level (5) (6)     |

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

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

# **ROUTE\_GPS** table metadata:

|    | FIELD        | FORMAT      | EXPECTED VALUE                         | SOURCE  | VALIDATION                          | EXPECTED ACCURACY               |
|----|--------------|-------------|--|---|-------------------------------------|---------------------------------|
|    |              |             |  |   |                                     | 100% referenced to other        |
| 1  | RIP_CYCLE    | XX          | 4, for RIP data collection Cycle 4     | Route ID Meeting                                    | FHWA Determination                  | tables                          |
|    |              |             |  |   | Park Input/FHWA                     |                                 |
| 2  | STATE        | XX          | State where route is located           | Route ID Meeting                                    | Determination                       | Untested                        |
| 2  | DADIZ ALDILA | VVVV        | Doub alaba anda                        | Pauta ID Mastina                                    | NIDC Defenses                       | 100% Referenced to other        |
| 3  | PARK_ALPHA   | XXXX        | Park alpha code                        | Route ID Meeting                                    | NPS References                      | tables 100% Referenced to other |
| 4  | PARK_NO      | XXXX        | Park numeric code                      | Route ID Meeting                                    | NPS References                      | tables                          |
| H  | 17HKK_110    | 717171      | Tark numeric code                      | Route 15 Weeting                                    | Park Input/FHWA                     | 100% Referenced to other        |
| 5  | RTE_NO       | 9999XXX     | Route number                           | Route ID Meeting                                    | Classification                      | tables                          |
|    |              |             |  |   | Park Input/FHWA                     | 100% Referenced to other        |
| 6  | FUNCT_CLASS  | X           | Route functional classification        | Route ID Meeting                                    | Classification                      | tables                          |
|    |              |             |  |   |                                     | 100% Referenced to other        |
|    |              |             |  |   |                                     | tables . 100 characters fit in  |
| 7  | RTE_NAME     | (Text)      | Route name                             | Route ID Meeting                                    | Park Input                          | field                           |
|    |              |             |  |   |                                     |                                 |
| 8  | LANE_NUMBER  | 99          | Data collection lane                   | Contractor Post-processing                          | Database Processing                 | Untested                        |
|    | DIDECTION    | 3/3/3/      | Survey lane: PRI (primary) or          |   | Park Input/FHWA                     | TT 1                            |
| 9  | DIRECTION    | XXX         | OPP (opposite)                         | Route ID Meeting                                    | Determination Const. Learn (CDS)    | Untested                        |
| 10 | MP           | 999.999     | Mile Post (at 0.01 record)             | ARAN Data Collection,<br>Contractor Post-processing | Survey Crew Input/GPS<br>Processing | Untested (3)                    |
| 10 | IVII         | 777.777     | GPS Latitude Co-ordinate               | ARAN Data Collection,                               | Trocessing                          | Officsied (3)                   |
| 11 | GPS LAT      | 999.999999  | (decimal degrees)                      | Contractor Post-processing                          | Automatic Output                    | <= 3.00 feet                    |
|    | 00%_=000     |             | GPS Longitude Co-ordinate              | ARAN Data Collection,                               |                                     |                                 |
| 12 | GPS_LON      | -999.999999 | (-decimal degrees)                     | Contractor Post-processing                          | Automatic Output                    | <= 3.00 feet                    |
|    |              |             |  | ARAN Data Collection,                               |                                     |                                 |
| 13 | GPS_ELEV     | 99999.9     | Elevation                              | Contractor Post-processing                          | Automatic Output                    | Untested                        |
|    |              |             | GPS Satellite Mode                     | ARAN Data Collection,                               |                                     |                                 |
| 14 | GPS_MODE     | XXX         | during collection                      | Contractor Post-processing                          | Automatic Output                    | Untested                        |
|    |              |             | Cross Fall: % Slope at GPS             | ADAN Data Calle of an                               |                                     |                                 |
| 15 | XFALL        | 999.9       | Location (Caution, Data not Validated) | ARAN Data Collection,                               | Automotic Output                    | Untested                        |
| 15 | AFALL        | 999.9       | Grade: % Slope at GPS Location         | Contractor Post-processing ARAN Data Collection,    | Automatic Output                    | Untested                        |
| 16 | GRADE        | 999.9       | (Caution, Data not Validated)          | Contractor Post-processing                          | Automatic Output                    | Untested                        |
| 17 | HEADING      | 999.9       | Heading Relative to True North         | ARAN Data Collection                                | Automatic Output                    | Untested                        |
| 18 | DATUM        | (Text)      | LL_WGS84_DD                            | ARAN Data Collection                                | Database Processing                 | Untested                        |
|    |              |             |  |   |                                     |                                 |
| 19 | FILENAME     | (Text)      | Filename of raw data files             | ARAN Data Collection                                | Automatic Output                    | Untested                        |
| 20 | FKEY         | 9999999     | Unique record ID                       | Contractor Post-processing                          | Database Processing                 | Untested                        |

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

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

|    |                 | FORMAT              | EXPECTED VALUE  | SOURCE             | VALIDATION                    | EXPECTED ACCURACY                     |
|----|-----------------|---------------------|---|--------------------|-------------------------------|---------------------------------------|
|    |                 |                     | The Park's Alpha Code + "-" +                             |                    |                               | 100%, Reference source for all        |
| 1  | ROUTE_IDENT     | XXXX-9999XXX        | RTE_NO (below).   | Route ID Meeting   | Automatic Output              | tables                                |
| 1  |                 |                     |   |                    |                               | 100%, Reference source for all        |
| 2  | RIP_CYCLE       | 99                  | 4, for RIP data collection Cycle 4                        | Route ID Meeting   | FHWA Determination            | tables                                |
| 1  |                 |                     |   |                    |                               | 100%, Reference source for all        |
| 3  | PARK_ALPHA      | XXXX                | Park Alpha Code   | Route ID Meeting   | NPS References                | tables                                |
|    | 111111_11211111 | 717777              | Turk Triphia Code   | Troute 12 Treeting | THE References                | 100%, Reference source for all        |
| 4  | GROUP_ALPHA     | XXXX                | Group Alpha Code  | Route ID Meeting   | NPS References                | tables                                |
|    |                 |                     |   | Ĭ i                |                               | 100%, Reference source for all        |
| 5  | PARK_NO         | 9999                | Park Numeric Code   | Route ID Meeting   | NPS References                | tables                                |
| 1  |                 |                     |   |                    |                               | 100%, Reference source for all        |
| 6  | PARK_NAME       | (text)              | NPS Name of Park  | Route ID Meeting   | NPS References                | tables                                |
| 1  |                 |                     |   |                    |                               | 100%, Reference source for all        |
| 7  | RTE NO          | 9999XXX             | Route Number  | Route ID Meeting   | Park Input                    | tables                                |
|    | KTE_IVO         | <i>)))))</i> 111111 | Route Publice   | Route 1D Weeting   | Tuk iiput                     | 100%, Reference source for all        |
| 8  | RTE_NAME        | (Text)              | Route Name  | Route ID Meeting   | Park Input                    | tables                                |
| i  | _               |                     |   | Ŭ                  |                               | 100%, Reference source for all        |
| 9  | FROM_DESC       | (Text)              | Beginning terminus of route                               | Route ID Meeting   | Park Input/FHWA Determination | tables                                |
| 1  |                 |                     |   |                    |                               | 100%, Reference source for all        |
| 10 | TO_DESC         | (Text)              | Ending terminus of route                                  | Route ID Meeting   | Park Input/FHWA Determination | tables                                |
|    | DIGD DAME       | 10.000 44444        |   | ARAN Data          |                               | 100%, Reference source for all        |
| 11 | INSP_DATE       | MM/DD/YYYY          | Collection Date   | Collection         | FHWA Determination            | tables                                |
| 12 | FUNCT_CLASS     | XX                  | Functional Class  | Route ID Meeting   | Park Input/FHWA Determination | 100%, Reference source for all tables |
|    |                 |                     |   |                    | ·                             |                                       |
| 13 | STATE           | XX                  | State where route is located                              | Route ID Meeting   | Park Input/FHWA Determination | Untested (1)                          |
|    | OTT A TEEO      | 3/3/                | Additional State Park Route                               | D ( ID M (         | D 11 (EINVAD : : :            | H ( 1/1)                              |
| 14 | STATE2          | XX                  | traverses   | Route ID Meeting   | Park Input/FHWA Determination | Untested (1)                          |
| 1  |                 |                     | NPS's Facility Management<br>Software System (FMSS) Asset |                    |                               | 100%, Reference source for all        |
| 15 | FMSS_NO         | (Text)              | number  | Route ID Meeting   | Park Input                    | tables                                |
| 10 | 11/100_110      | (IOAL)              | FMSS Surface Equipment                                    | Troute ID Miceting | I mit iliput                  | moreo .                               |
| 16 | FMSS_SUR_EQP    | (Text)              | Number  | Route ID Meeting   | Park Input                    | Untested                              |
|    |                 |                     | Park Maintenance District Route                           |                    |                               | 100%, Reference source for all        |
| 17 | M_DISTRICT      | (Text)              | resides in  | Route ID Meeting   | Park Input                    | tables (1)                            |
| 18 | TOPOGRAPHY      | (Text)              | Predominate Terrain condition for                         | Route ID Meeting   | FHWA Determination            | 100%, Reference source for all        |

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

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

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

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

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

|     | FIELD             | FORMAT     | EXPECTED VALUE   | SOURCE               | VALIDATION         | EXPECTED<br>ACCURACY            |
|-----|-------------------|------------|--|----------------------|--------------------|---------------------------------|
|     |                   |            |  |                      |                    | 100% Referenced to other        |
| 1   | RIP_CYCLE         | 99         | 4, for RIP data collection Cycle 4                                   | Route ID Meeting     | FHWA Determination | tables                          |
|     |                   |            |  |                      |                    | 100% Referenced to other        |
| 2   | PARK_ALPHA        | XXXX       | Park Alpha Code  | Route ID Meeting     | FHWA Determination | tables                          |
|     |                   |            |  |                      |                    | 100% Referenced to other        |
| 3   | GROUP_ALPHA       | XXXX       | Group Alpha Code   | Route ID Meeting     | NPS References     | tables                          |
|     |                   |            |  |                      |                    | 100% Referenced to other        |
| 4   | PARK_NO           | 9999       | Park Numeric Code  | Route ID Meeting     | NPS References     | tables                          |
|     |                   |            |  |                      |                    | 100% Referenced to other        |
| 5   | PARK_NAME         | XXXX       | NPS Name of Park   | Route ID Meeting     | NPS References     | tables                          |
|     |                   |            |  | Route ID Meeting and |                    | 100015                          |
|     | DIGD DATE         |            | Date that data was collected in the park                             | ARAN Data            |                    | 100% Referenced to other        |
| 6   | INSP_DATE         | MM/DD/YYYY | (completion date).   | Collection           | FHWA Determination | tables                          |
|     |                   |            |  |                      |                    | 100% Referenced to other        |
| 7   | NPS_REGION        | XXXX       | Park Region  | Route ID Meeting     | Park Input         | tables                          |
|     |                   |            |  |                      |                    | 100% Referenced to other        |
| 8   | DIVISION          | XXXX       | FHWA Division  | Route ID Meeting     | FHWA Determination | tables                          |
|     |                   |            |  |                      |                    | 100% Referenced to other        |
| 9   | T_PAVED_MI        | 999.999    | Total Park Paved Miles   | RIP Post-processing  | Automatic Output   | tables                          |
| 1.0 |                   |            |  |                      |                    | 100% Referenced to other        |
| 10  | T_UNPAVED_MI      | 999.999    | Total Park Unpaved Miles   | RIP Post-processing  | Automatic Output   | tables                          |
| 1.1 | T DOLLTE MILES    | 000 000    | T . 1 D . 1 D 1 C .  | DIDD                 |                    | 100% Referenced to other        |
| 11  | T_ROUTE_MILES     | 999.999    | Total Park Route Miles   | RIP Post-processing  | Automatic Output   | tables                          |
| 10  | T ADAM DDIVEN     | 000 000    | Tetal Deal ADANI Delega Miles  | DID Dead areas and   | A                  | 100% Referenced to other        |
| 12  | T_ARAN_DRIVEN     | 999.999    | Total Park ARAN Driven Miles   | RIP Post-processing  | Automatic Output   | tables 100% Referenced to other |
| 13  | T ADAN I MILES    | 999.999    | Total Park ARAN Lane Miles   | DID Doct mecoscing   | Automotic Output   | tables                          |
| 13  | T_ARAN_LMILES     | 999.999    | Total Park ARAN Lane Wiles   | RIP Post-processing  | Automatic Output   | 100% Referenced to other        |
| 14  | T_CONCESS_PAVED   | 999.999    | Total Park Concession Paved Miles                                    | RIP Post-processing  | Automatic Output   | tables                          |
| 14  | 1_CONCESS_FAVED   | 777.777    | Total Fark Concession Faved willes                                   | Kir rost-processing  | Automatic Output   | 100% Referenced to other        |
| 15  | T_CONCESS_UNPAVED | 999.999    | Total Park Concession Unpaved Miles                                  | RIP Post-processing  | Automatic Output   | tables                          |
| 13  | 1_CONCESS_UNIAVED | 222.222    | Total Lark Concession Onpaved Willes                                 | Kii Tost-processing  | Automatic Output   | 100% Referenced to other        |
| 16  | T_PRK_PAVEDSQFT   | 999.999    | Total Park Parking Paved Square Feet                                 | RIP Post-processing  | Automatic Output   | tables                          |
| 10  | 1_1111_1111000011 | 777.777    | Total Park Parking Unpaved Square  Total Park Parking Unpaved Square | Tar 1 ost processing | Tratomane Output   | 100% Referenced to other        |
| 17  | T_PRK_UNPAVEDSQFT | 999.999    | Feet   | RIP Post-processing  | Automatic Output   | tables                          |
| 1   |                   |            | Total Park Concession Parking Paved                                  |                      | Jacque Sarpar      | 100% Referenced to other        |
| 18  | T_CPRK_PAVEDSQFT  | 999.999    | Square Feet  | RIP Post-processing  | Automatic Output   | tables                          |

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

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

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

# Business Practices for Route Numbering and Roadway Asset Identification

## **Introduction and Background:**

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

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

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

### **Issue Statement:**

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

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

#### **Proposed Actions:**

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

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

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

#### **Discussion:**

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

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

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

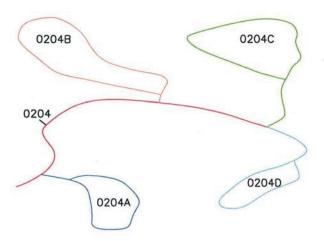


Figure 1: Campground with five routes and five assets

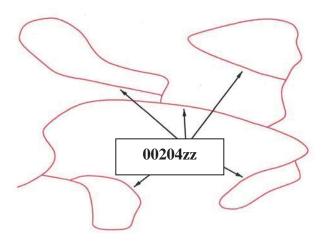


Figure 2: Campground with all loops combined into one route and one asset. This has eliminated four assets.

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

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

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

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

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

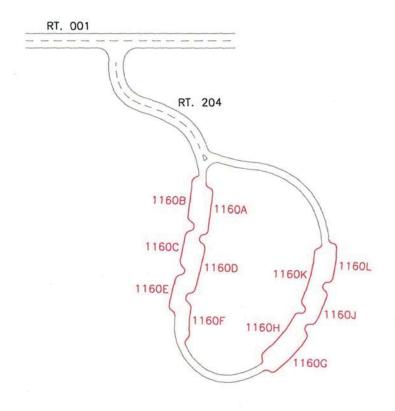


Figure 3: Parking with access route 204 and multiple parking areas (1160 A-L). Currently, this parking area is 12 routes and 12 assets (one 1100 asset and 11 1300 assets).

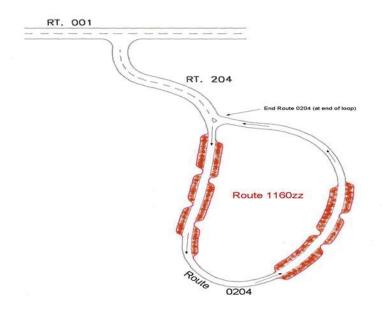


Figure 4: Parking with access route 204 and one parking area 1160zz. Route 204 is assumed longer than 0.25 miles. There are now 2 assets (one 1100 asset, one 1300 asset) instead of 12.

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

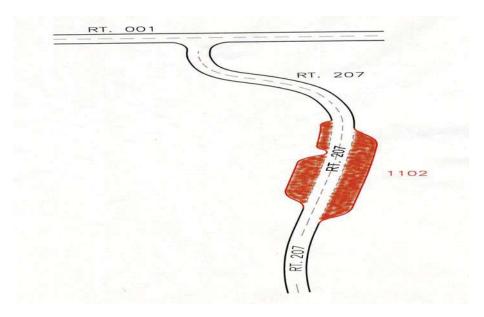


Figure 5: Parking with access route 207 running through and continuing beyond parking 1102. This access route cannot be considered a part of the parking area and two routes and two assets continue to exist.

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

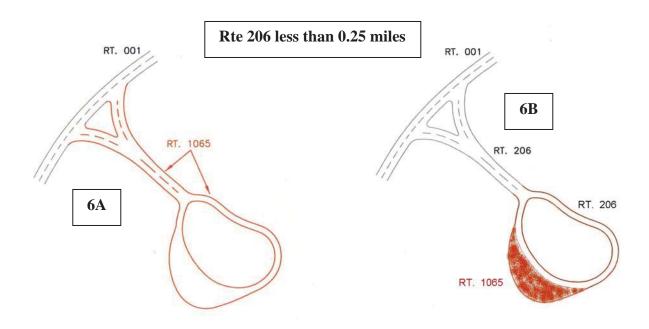


Figure 6: Since the access route is less than .25 miles in length and the only use of the access is to the parking, one route for both the access and the parking area can be established.

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

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

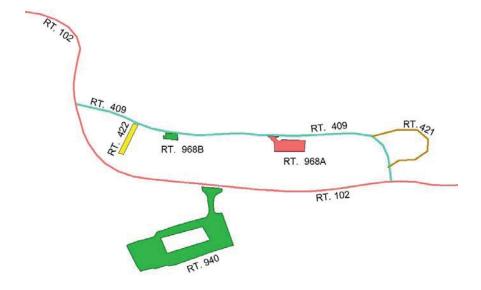


Figure 7 – Current Housing area access configuration. Route 409 is less than 0.25 miles long.

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

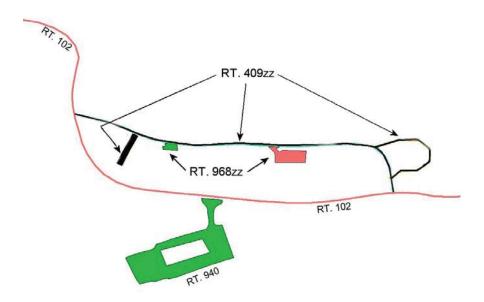


Figure 8 – Combined housing area access configuration – Parking and road assets combined to eliminate 3 assets.