

# BLRI WIP Report

## NPS Retaining Wall Inventory Program Blue Ridge Parkway



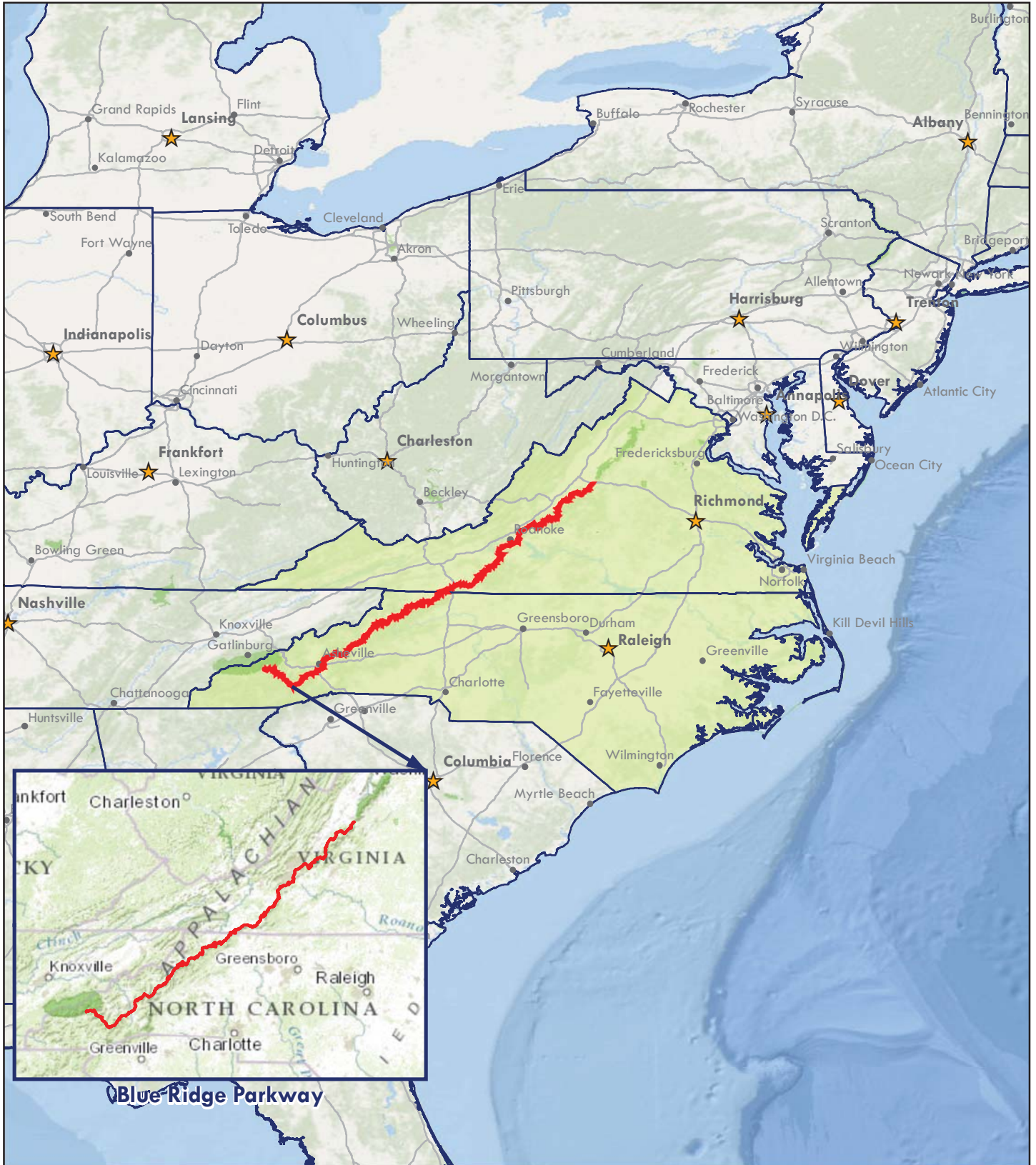
**Federal Lands Highway  
Road Inventory Program**

### Prepared By:

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

Data Collection Date: February 2008  
Report Date: November 2015

# Blue Ridge Parkway in North Carolina and Virginia



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



Blue Ridge Parkway



**Federal Lands Highway  
Road Inventory Program**

## **Introduction**

The Federal Lands Highway Division (FLH) of the Federal Highway Administration (FHWA), in partnership with the National Park Service (NPS), has conducted a retaining wall inventory and condition assessment as part of the NPS Retaining Wall Inventory Program (WIP). This inventory provides information to the NPS Facility Management Software System (FMSS) regarding such things as type, size and location of retaining structures, as well as the condition of these facilities and consequences of failure. In addition, when wall and/or adjacent element deficiencies are identified, repair recommendations and estimated costs are also provided, suitable for use as FMSS work orders.

The main intent of this effort is to determine the backlog of needs associated with retaining wall assets – equipment features ascribed to the “parent” roadway asset. Inventory and condition assessments (pavement only) for the roads themselves are conducted under the NPS Road Inventory Program (RIP). Prior to development of the WIP, the vast majority of retaining walls were not accounted for in FMSS. Based on WIP inventory work to date, NPS wall assets are valued at well over \$400M. A second and equally important intent of this effort is to inform and improve project selection, prioritization, and development activities and processes at NPS regions/parks, FLH Division offices and the NPS Denver Service Center.

In support of WIP, a comprehensive procedures manual (available at the following link: <http://www.cflhd.gov/programs/techDevelopment/geotech/WIP/>) was developed to document the data collection and management process, wall attribute and element definitions, and team member responsibilities for conducting retaining wall inventories and condition assessments. This manual was used for nearly 3,500 wall assessments initially conducted between 2007 and 2008 within 34 national parks. WIP is supported by several key components described in the procedures manual, including a comprehensive training program for field inspectors, an Oracle-based database for long-term data management, unique data collection forms, a supporting field guide, and a wall repair/replace cost estimate guide.

Ultimately, condition assessments for retaining wall structures are expressed as deferred maintenance costs, which are then divided by current year replacement costs to arrive at a “Facility Condition Index” (FCI). Coupling this condition prioritization index with an “Asset Priority Index” (API), which measures the feature’s importance to the mission of the park, capital asset investments are made more efficiently. This approach appropriately focuses maintenance and construction priorities on value, rather than solely on cost. Wall inventory condition and cost data are transferred from the WIP database to FMSS, the primary asset documentation, management and planning platform maintained at each park. In addition, wall data are also provided to the Road Inventory Program to update equipment assets associated with the parent roadway asset.

Initial inventories were conducted based on RIP Cycle 3 data, but future planning has ensured updates to WIP will occur simultaneously with RIP. For long-term data management purposes, the WIP database will be linked to the larger, parent RIP database and be updated under the responsibility of the RIP Database Administrator.

This report is organized in a tiered approach from the broad park overview perspective (Tier 1) to a route overview perspective (Tier 2), then down to the details of each wall (Tier 3). Tier 1 presents park wall location maps and an overall park-specific summary narrative of the results of the wall inventory program. Tier 2 presents route overview maps with associated wall summary information. Tier 3 presents individual wall information in a three-page detailed format, including a photograph of each wall. Appendix A provides a condensed summary of wall inventory definitions and assessment categories to assist in reading this report.

# Park Retaining Wall Location Maps



Blue Ridge Parkway

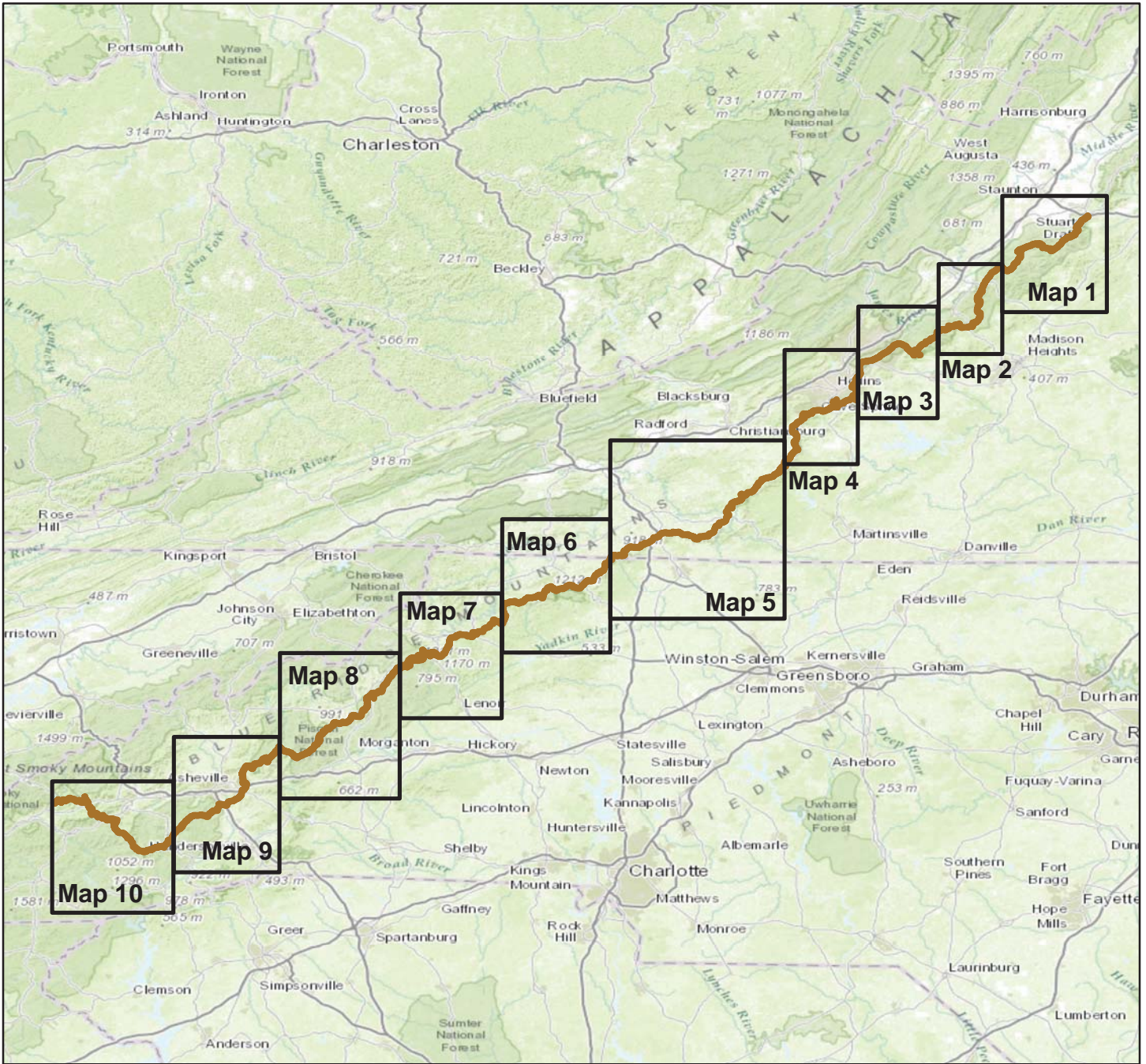


Federal Lands Highway  
Road Inventory Program

# Blue Ridge Parkway

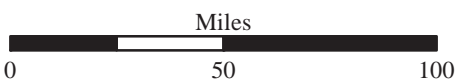
## WALL LOCATION MAP

### Key Map



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

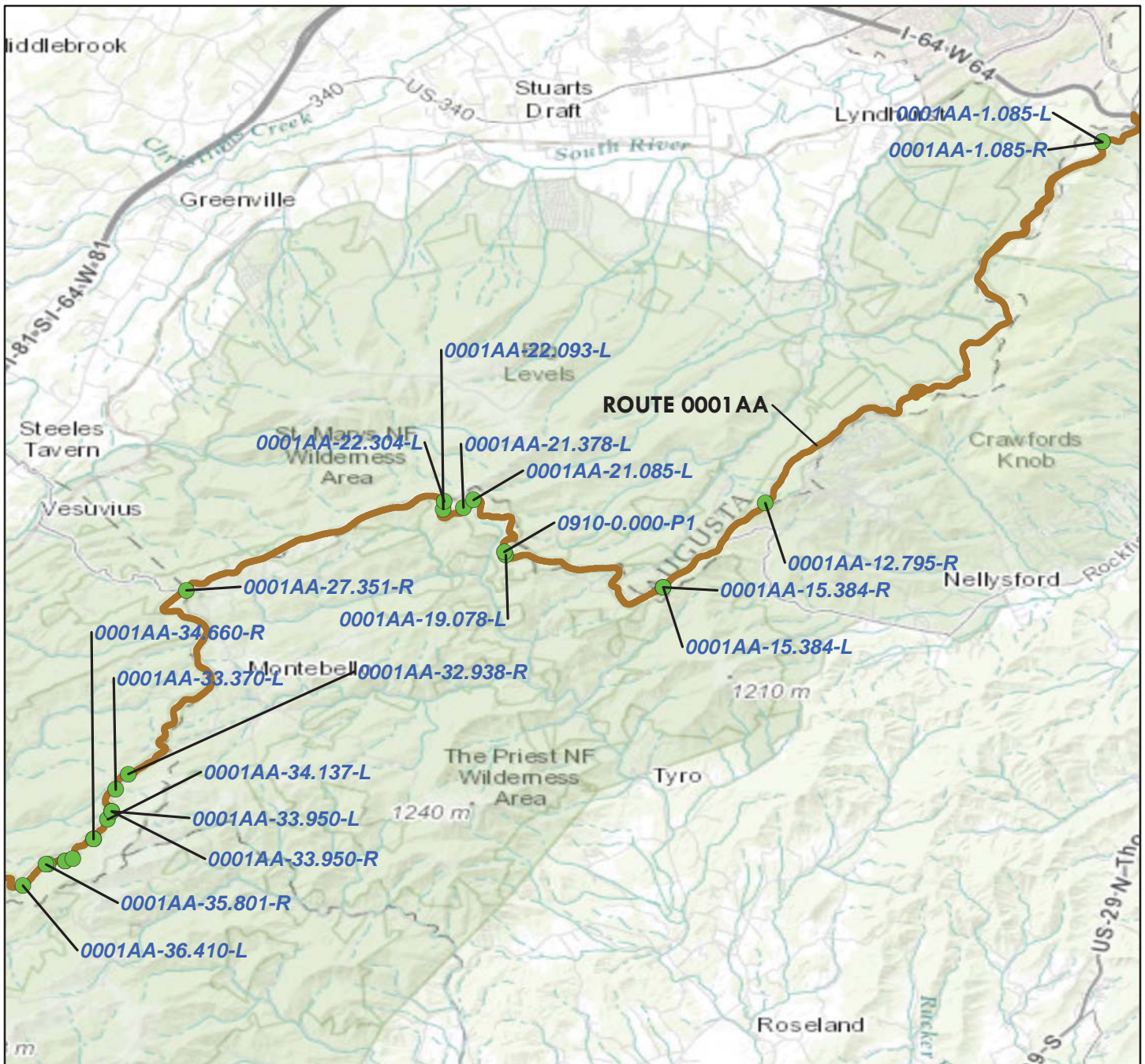
 RIP Collected Routes



# Blue Ridge Parkway

## WALL LOCATION MAP

### Map 1 - Route 0001AA



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

● Wall Locations

— RIP Collected Routes

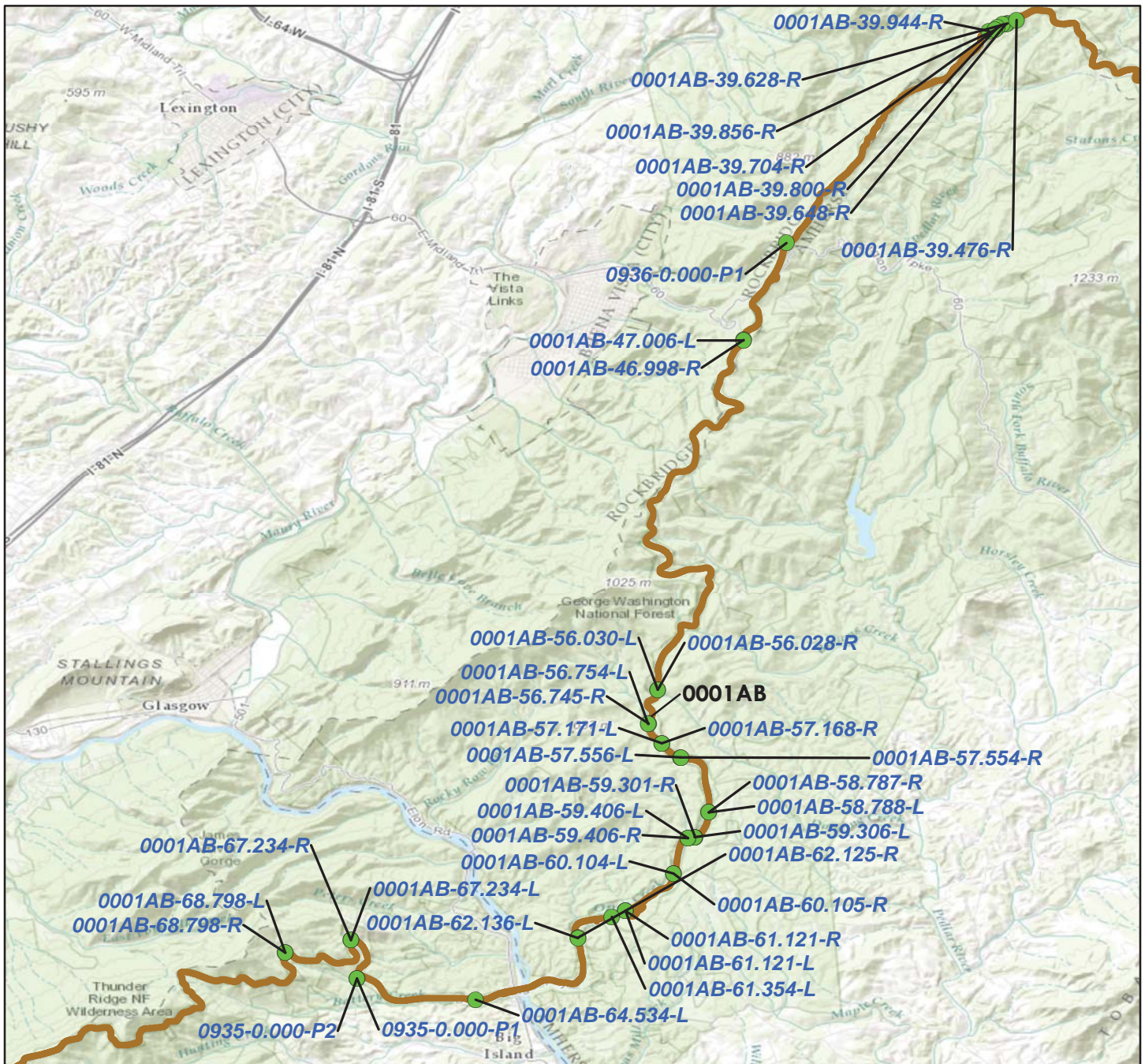




# Blue Ridge Parkway

## WALL LOCATION MAP

### Map 2 - Route 0001AB



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

● Wall Locations

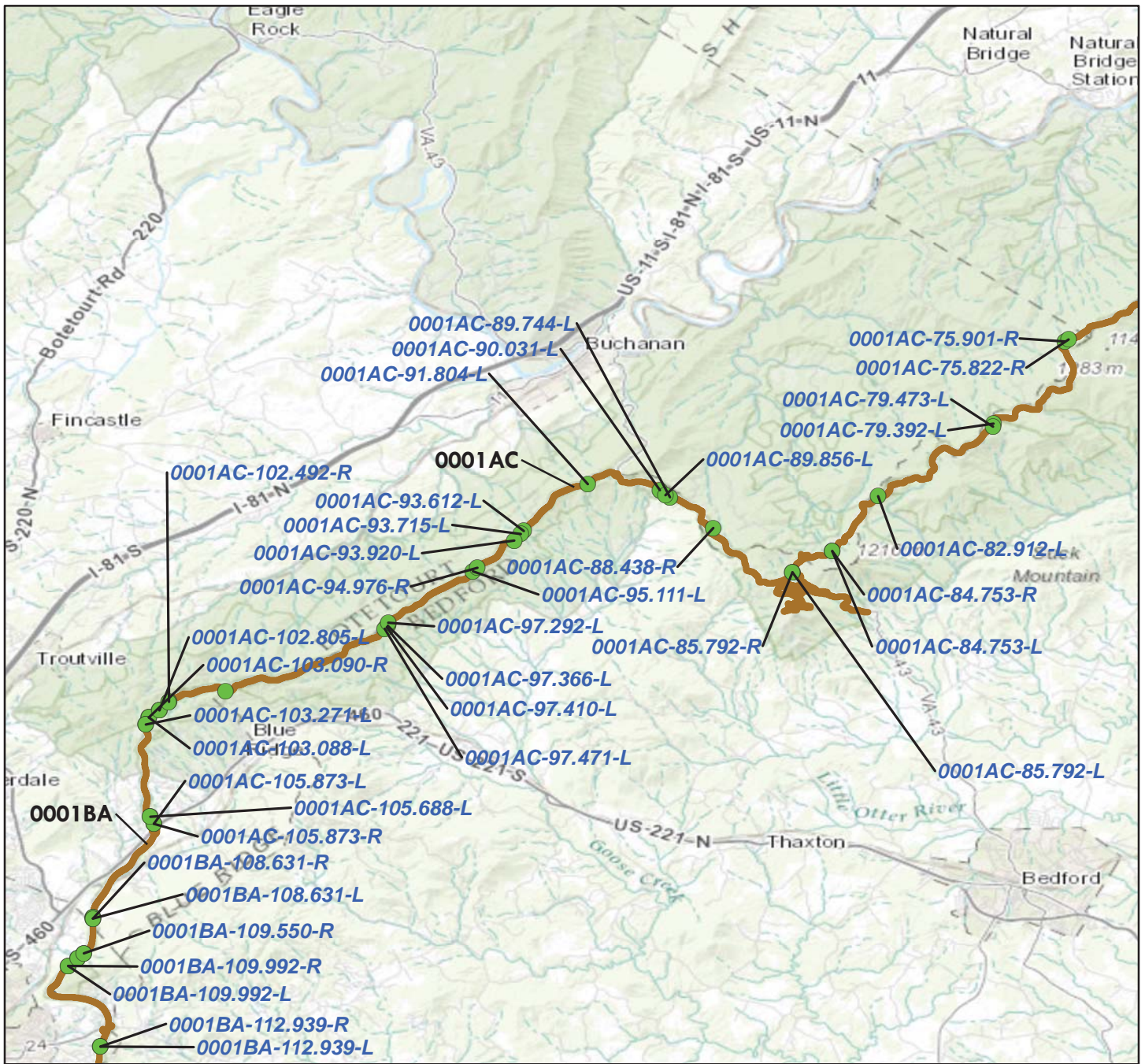
— RIP Collected Routes



# Blue Ridge Parkway

## WALL LOCATION MAP

### Map 3 - Route 0001AC



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

● Wall Locations (Not all labeled)

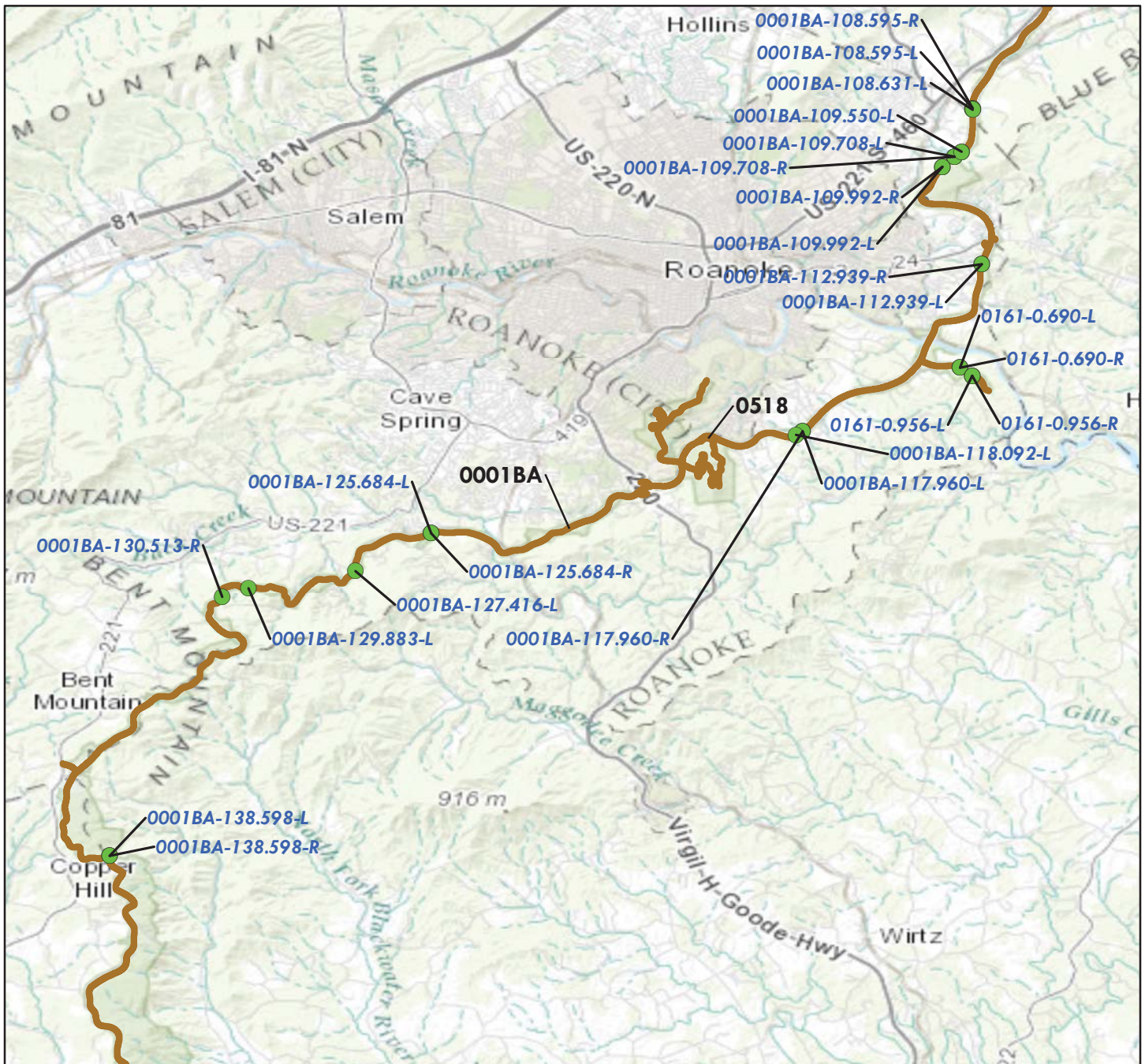
— RIP Collected Routes



# Blue Ridge Parkway

## WALL LOCATION MAP

### Map 4 - Route 0001BA



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

● Wall Locations (Not all labeled)

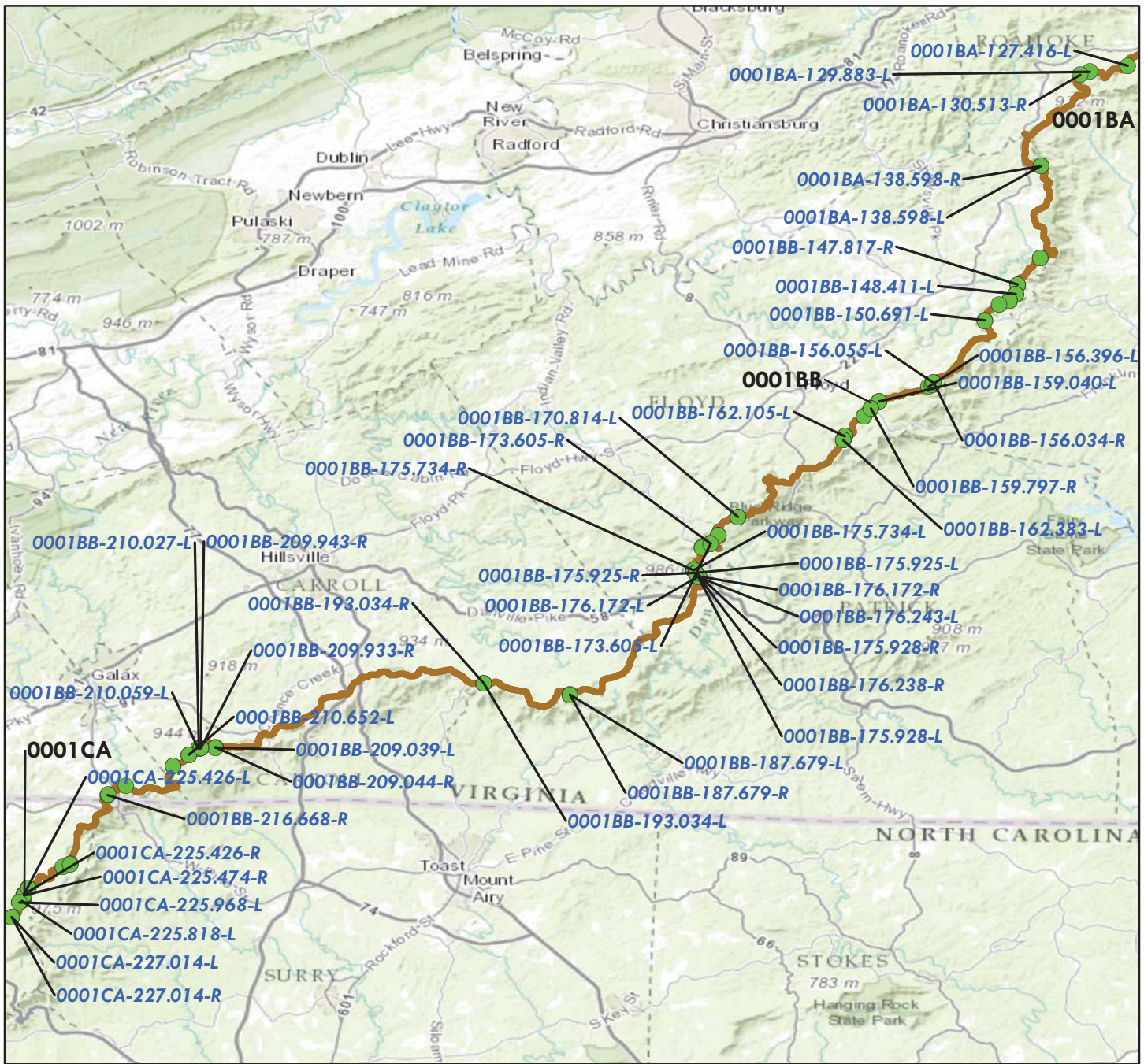
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# Blue Ridge Parkway

## WALL LOCATION MAP

### Map 5 - Route 0001BB



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

● Wall Locations (Not all labeled)

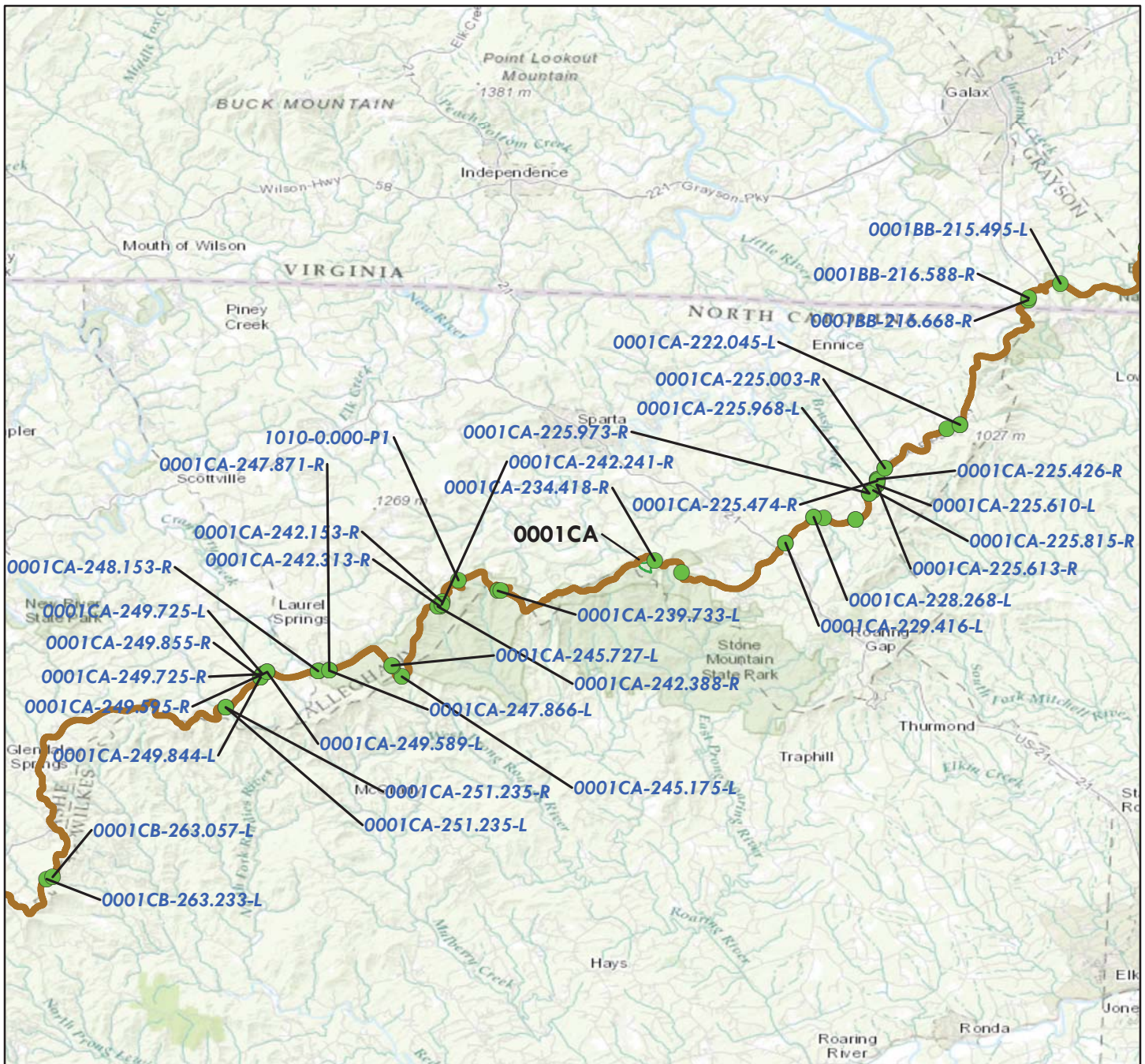
— RIP Collected Routes



# Blue Ridge Parkway

## WALL LOCATION MAP

### Map 6 - Route 0001CA



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

● Wall Locations (Not all labeled)

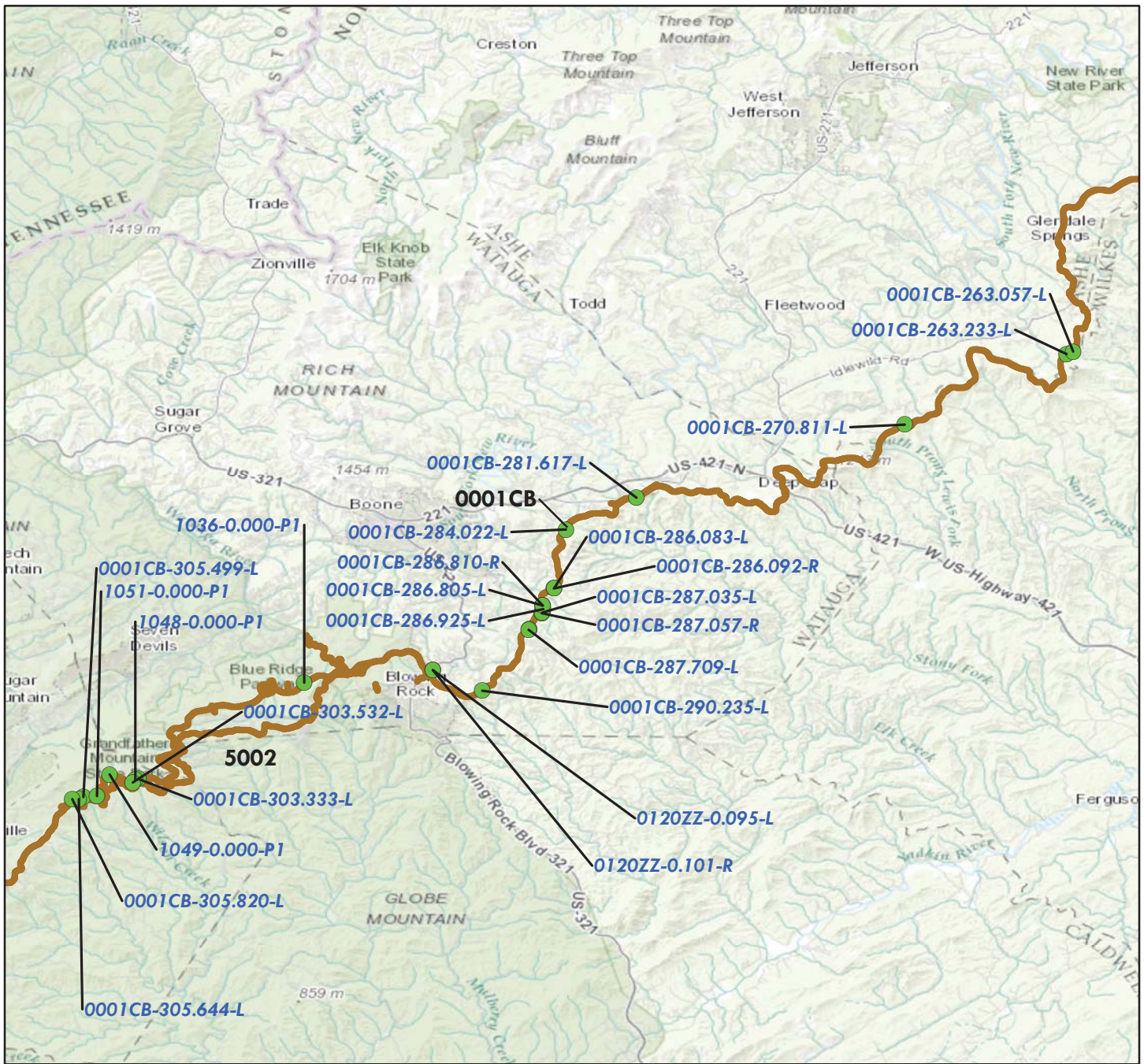
— RIP Collected Routes



# Blue Ridge Parkway

## WALL LOCATION MAP

### Map 7 - Route 0001CB



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

● Wall Locations (Not all labeled)

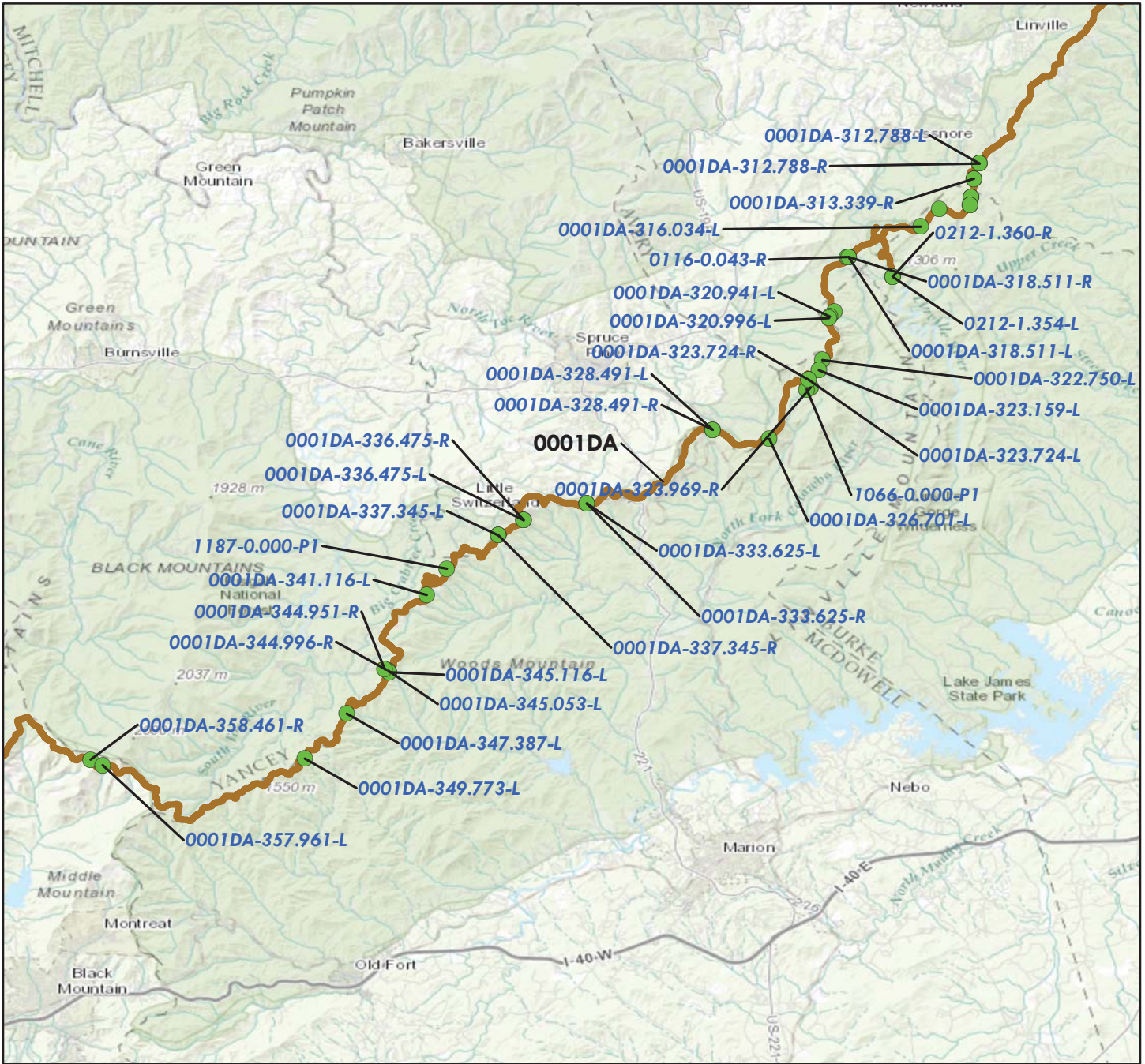
— RIP Collected Routes



# Blue Ridge Parkway

## WALL LOCATION MAP

### Map 8 - Route 0001DA



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

● Wall Locations (Not all labeled)

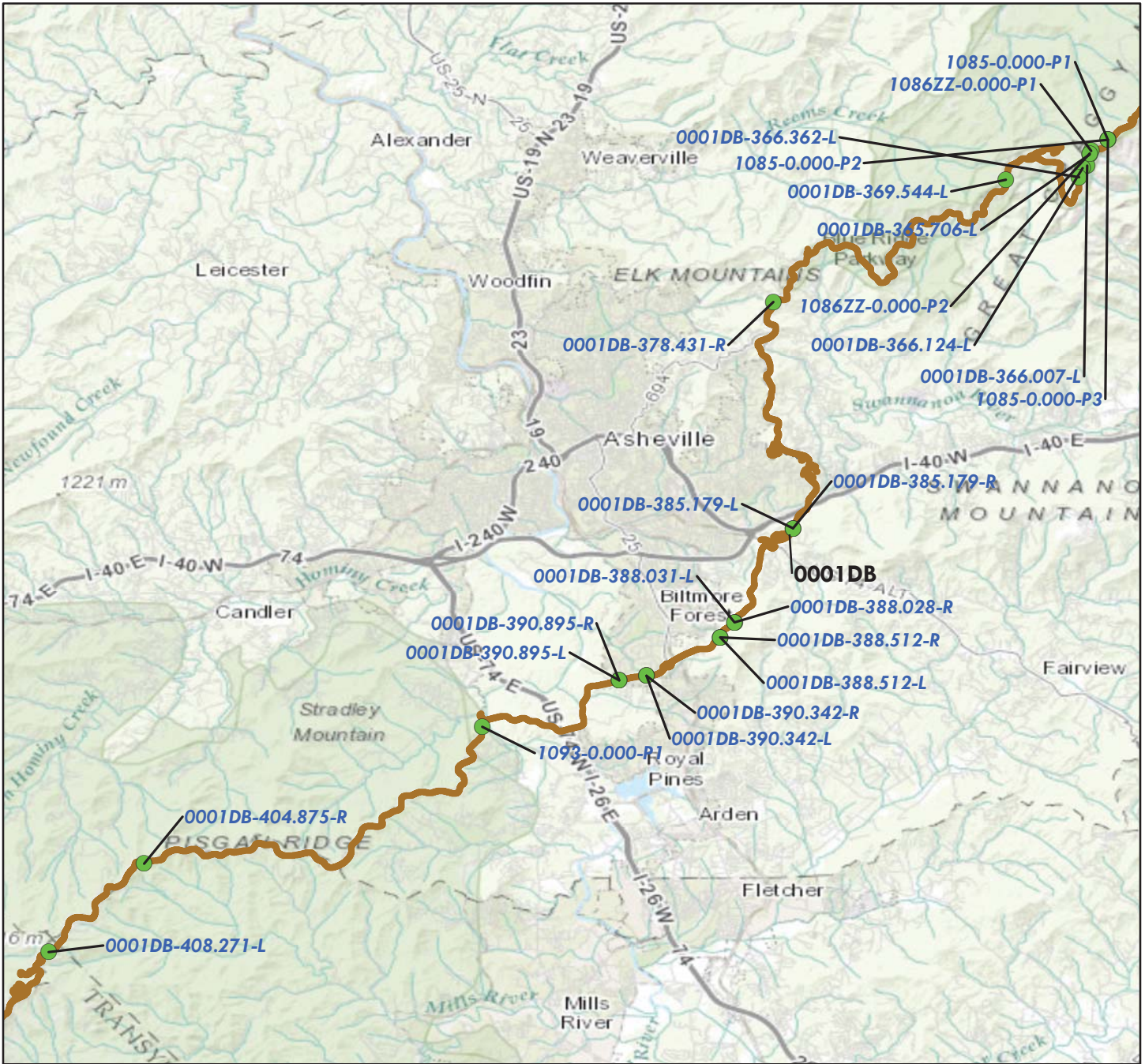
— RIP Collected Routes



# Blue Ridge Parkway

## WALL LOCATION MAP

### Map 9 - Route 0001DB



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

● Wall Locations

— RIP Collected Routes

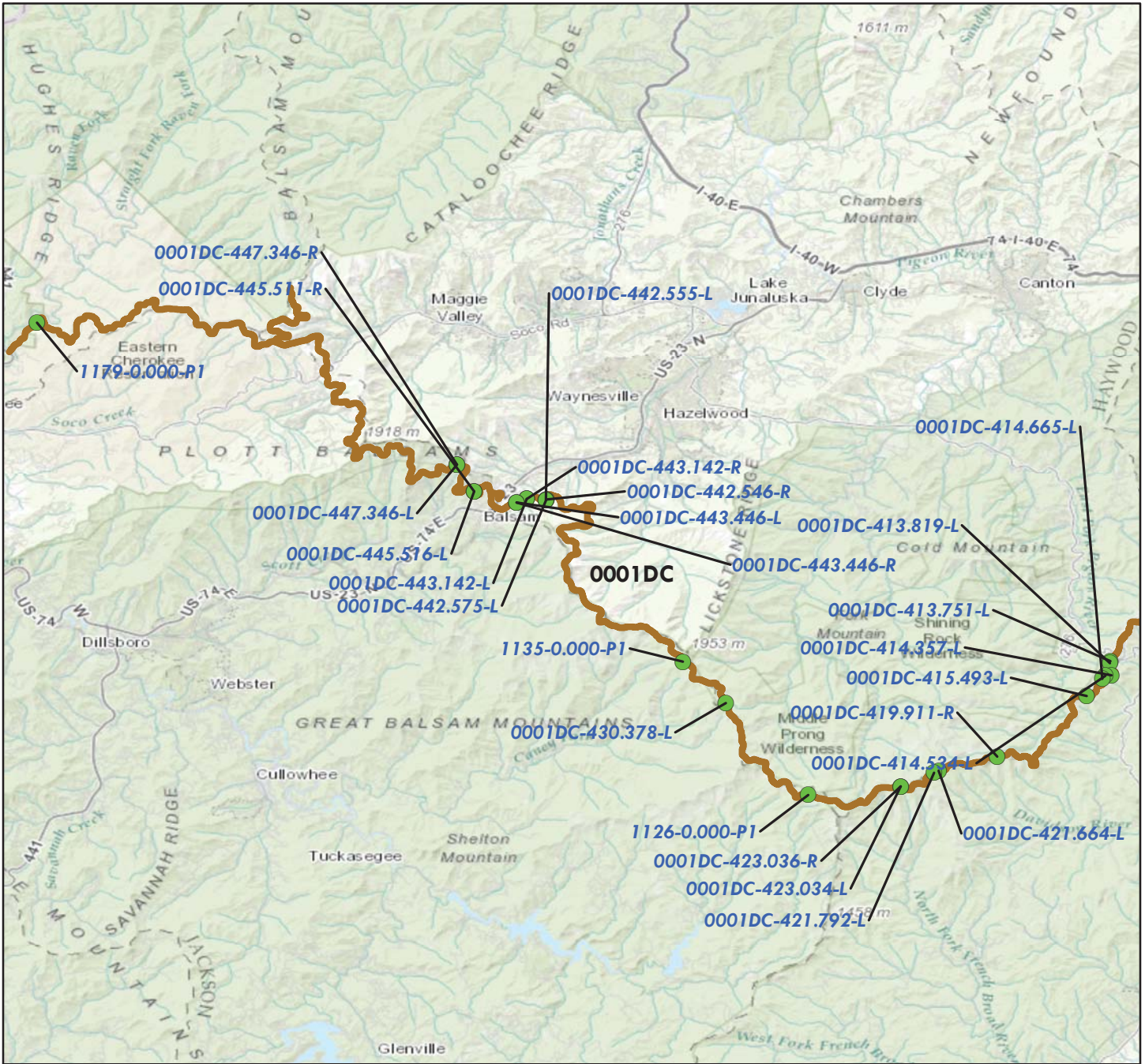




# Blue Ridge Parkway

## WALL LOCATION MAP

### Map 10 - Route 0001DC



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

● Wall Locations

— RIP Collected Routes



# Tier 1 Park Retaining Wall Overview



Blue Ridge Parkway



Federal Lands Highway  
Road Inventory Program

## Parkwide Summary: Blue Ridge Parkway

Initial retaining wall inspections were conducted at Blue Ridge Parkway in 2008, and encompassed all known retaining wall structures associated with Park roadways - including structure's retaining cuts and fills, as well as qualifying headwalls at culverts. For the purposes of the assessment, walls must be a minimum of 4 feet in maximum height of retained earth and greater than 6 feet in maximum height for culvert headwalls. This does not include the height of parapet or guardwall above a retaining wall. In general, guardwall or parapets are not included in this assessment, but were inspected for Blue Ridge Parkway in 2010 under a separate effort as part of the Guardwall/Rail Inventory Program (GIP). A report for GIP is available under separate cover.

All paved roadways and parking areas listed in the RIP Route Identification Report were inspected for walls. Occasionally, unpaved routes not in RIP were inventoried due to their future programmatic addition at the park, which was a decision made on site specific to each park.

The following tables provide an overview of the findings of this inspection and assessment effort. In all, 355 walls were inventoried on the routes listed below.

**Table 1: Number of Walls by Route**

<b>Route Number</b>	<b>Route Name</b>	<b>No. of Walls</b>
0001AA	BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT	24
0001AB	BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT	35
0001AC	BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT	38
0001BA	BLUE RIDGE PARKWAY - ROANOKE VALLEY SUB-DISTRICT	22
0001BB	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT	62
0001CA	BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT	45
0001CB	BLUE RIDGE PARKWAY - SANDY FLATS SUB-DISTRICT	20
0001DA	BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT	38
0001DB	BLUE RIDGE PARKWAY - OTEEN SUB-DISTRICT	18
0001DC	BLUE RIDGE PARKWAY - BALSAM GAP SUB-DISTRICT	23
0116	ACCESS RAMP TO U.S. ROUTE 221 WEST AT MP 317.16	2
0120ZZ	ACCESS RAMPS TO U.S. ROUTES 221 AND 321	2
0161	ROANOKE RIVER PARKWAY	4
0212	LINVILLE RIVER SPUR ROAD	2
0910	20-MINUTE CLIFF OVERLOOK	1
0935	JAMES RIVER MAINTENANCE YARD PARKING	2
0936	CHIMNEY ROCK OVERLOOK	1
1010	BLUFFS RESTAURANT PARKING	1

**Table 1: Number of Walls by Route**

<b>Route Number</b>	<b>Route Name</b>	<b>No. of Walls</b>
1039	SIMS POND OVERLOOK	1
1048	ROUGH RIDGE PARKING	1
1049	WILSON CREEK OVERLOOK	1
1051	LINN COVE VISITOR CENTER PARKING	1
1066	BEAR DEN OVERLOOK	1
1085	Craggy Dome Overlook	3
1086ZZ	Craggy Gardens Visitor Center Parking Areas	2
1093	FRENCH BROAD RIVER OVERLOOK	1
1126	WOLF MOUNTAIN OVERLOOK	1
1135	RICHLAND BALSAM OVERLOOK	1
1179	RAVEN FORK OVERLOOK	1
1187	THREE KNOBS OVERLOOK	1

The following table shows the number of walls broken out by seven possible categories of basic wall function.

**Table 2: Number of Walls by Wall Function**

<b>Wall Function</b>	<b>No. of Walls</b>
CW - Cut Wall	6
FW - Fill Wall	97
HW - Head Wall	241
SP - Slope Protection	11

The following table shows the primary wall types that were inventoried and assessed. There are 24 possible primary wall types, which are summarized in Appendix A.

**Table 3: Number of Walls by Primary Wall Type**

<b>Primary Wall Type</b>	<b>No. of Walls</b>
CL, Cantilever - Concrete	33
GD, Gravity - Dry Stone	15
GG, Gravity - Gabion	3
GM, Gravity - Mortared Stone	302
MG, MSE - Geosynthetic Wrapped Face	1
MP, MSE - Precast Panel	1

The following table shows the number of walls by one of six categories of recommended action along with associated 2007 costs and the number of walls that are in each recommended action category. The majority of walls have a recommendation of *No Action* or *Monitor*; work orders were created for all other recommended actions.

**Table 4: Number of Walls by Recommended Action and Associated 2007 Cost**

<b>Recommended Action</b>	<b>2007 Repair Costs*</b>	<b>No. of Walls</b>
No Action	\$0	231
Monitor	\$0	0
Maintenance	\$43,575	42
Repair Elements	\$622,455	79
Replace Elements	\$0	0
Replace Wall	\$375,415	3
<b>Totals</b>	<b>\$1,041,445</b>	<b>355</b>

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

The following table categorizes the number of walls that fall into one of ten cost ranges, based on the prepared work orders. The locations, work descriptions, and cost of the recommended repairs for these walls are listed by individual wall in Tier 3 of this report.

**Table 5: Number of Walls Grouped by Associated 2007 Cost**

<b>Cost Range*</b>	<b>No. of Walls</b>
\$0	231
\$1 - \$25,000	114
\$25,001 - \$50,000	8
\$50,001 - \$100,000	1
\$100,001 - \$250,000	0
\$250,001 - \$500,000	1
\$500,001 - \$1,000,000	0
\$1,000,001 - \$2,000,000	0
\$2,000,001 - \$3,000,000	0
\$3,000,001 - \$4,000,000	0
<b>Total Number of Walls</b>	<b>355</b>

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

Routine inspection and performing the noted maintenance will greatly aid in the continued performance of all walls at Blue Ridge Parkway. Work orders for walls needing maintenance generally included items such as replacing missing stones, replacing mortar, filling voids at the top or bottom of fill walls, and clearing vegetation.

Work orders for walls needing localized element repairs generally included items such as adding riprap protection to the wall foundation, replacing missing sections of dry stone walls, replacing culverts, grouting voids in walls, and patching/restoring roadway pavement. While decaying mortar generally does not threaten wall stability in the near term, grout repair will extend the life of these walls.

Work orders for walls needing major repairs (replace elements or replace wall) generally include items such as foundation repair or replacement, fill voids, repair roadway shoulder, replace or extend retaining wall in either height or length, rebuild failed segments of walls, repair elements across 50% or more of the wall, remove and recompact backfill material, add scour protection (typically with riprap, concrete, or rock fill), and remove/reset culvert headwalls. Due to the large unit items associated with major repairs, recommendations vary by specific wall and are presented in Tier 3 of this report.

WIP identified 55 critically deficient walls nationally based on wall ratings less than 49 (poor/critical overall condition). The following table presents the walls in Blue Ridge Parkway that are on this list and have been elevated to the Park Regional Coordinators in a Regional Park Summary Memorandum. Generally, these are walls with major repair element recommendations that may be a priority for repair work in your park.

**Table 6: Number of Walls by Route**

<b>Wall Identification</b>	<b>Failure Consequence<sup>(1)</sup></b>	<b>Wall Rating<sup>(2)</sup></b>	<b>Recommended Action<sup>(3)</sup></b>	<b>2007 Repair Costs<sup>(4)</sup></b>
BLRI-0001BA-112.939-R	LOW	45	REPAIR ELEMENTS	\$26,500
BLRI-0001BB-193.034-L	LOW	45	REPLACE WALL	\$27,940
BLRI-0001BB-210.059-L	LOW	47	REPLACE WALL	\$41,700
BLRI-0001CA-242.153-R	HIGH	42	REPLACE WALL	\$305,775
BLRI-0001DB-365.706-L	MODERATE	22	NO ACTION	\$0
BLRI-1085-0.000-P1	HIGH	41	REPAIR ELEMENTS	\$77,905
BLRI-1085-0.000-P2	MODERATE	42	REPAIR ELEMENTS	\$31,120

Notes: 1) Low consequence of failure and/or no recommended action may indicate repairs are not needed.

2) Wall ratings listed range from 0-49 (Poor/Critical).

3) Information was prepared for project planning purposes only. Actual repair work order scopes and actual costs will need to be evaluated based on current pay item unit prices for specific locations.

4) 2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Tier 2 Route Retaining Wall Overview



Blue Ridge Parkway



Federal Lands Highway  
Road Inventory Program

# Blue Ridge Parkway

## ROUTE 0001AA: BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001AA-1.085-L 1/29/2008	130	24	Gravity - Mortared Stone	Head Wall	68	\$0.00
BLRI-0001AA-1.085-R 2/29/2008	110	22	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001AA-12.795-R 1/29/2008	3,170	264	Gravity - Mortared Stone	Fill Wall	69	\$550.00
BLRI-0001AA-15.384-L 1/29/2008	160	38	Gravity - Mortared Stone	Head Wall	70	\$6,655.00
BLRI-0001AA-15.384-R 1/29/2008	160	38	Gravity - Mortared Stone	Head Wall	72	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

## ROUTE 0001AA: BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001AA-19.078-L 1/29/2008	1,680	140	Gravity - Mortared Stone	Fill Wall	67	\$15,100.00
BLRI-0001AA-21.085-L 1/29/2008	4,900	612	Gravity - Mortared Stone	Fill Wall	70	\$0.00
BLRI-0001AA-21.378-L 1/29/2008	5,000	602	Gravity - Mortared Stone	Fill Wall	70	\$1,500.00
BLRI-0001AA-22.093-L 1/29/2008	3,510	390	Gravity - Mortared Stone	Fill Wall	70	\$0.00
BLRI-0001AA-22.304-L 1/29/2008	2,600	264	Gravity - Mortared Stone	Fill Wall	68	\$19,500.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001AA: BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001AA-27.351-R 1/29/2008	180	22	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001AA-32.938-R 1/28/2008	90	20	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001AA-33.370-L 1/28/2008	140	35	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001AA-33.950-L 1/28/2008	180	36	Gravity - Mortared Stone	Head Wall	68	\$3,750.00
BLRI-0001AA-33.950-R 1/28/2008	150	36	Gravity - Mortared Stone	Head Wall	72	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001AA: BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001AA-34.137-L 1/28/2008	120	29	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001AA-34.660-L 1/28/2008	120	30	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001AA-34.660-R 1/28/2008	120	30	Gravity - Mortared Stone	Head Wall	68	\$0.00
BLRI-0001AA-35.314-L 1/28/2008	85	30	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001AA-35.456-L 1/28/2008	160	36	Gravity - Mortared Stone	Head Wall	65	\$1,500.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001AA: BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001AA-35.456-R 1/28/2008	180	36	Gravity - Mortared Stone	Head Wall	69	\$0.00
BLRI-0001AA-35.759-R 1/28/2008	160	30	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001AA-35.801-R 1/28/2008	3,200	227	Gravity - Mortared Stone	Fill Wall	70	\$0.00
BLRI-0001AA-36.410-L 1/28/2008	275	40	Gravity - Mortared Stone	Head Wall	65	\$9,090.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001AB: BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

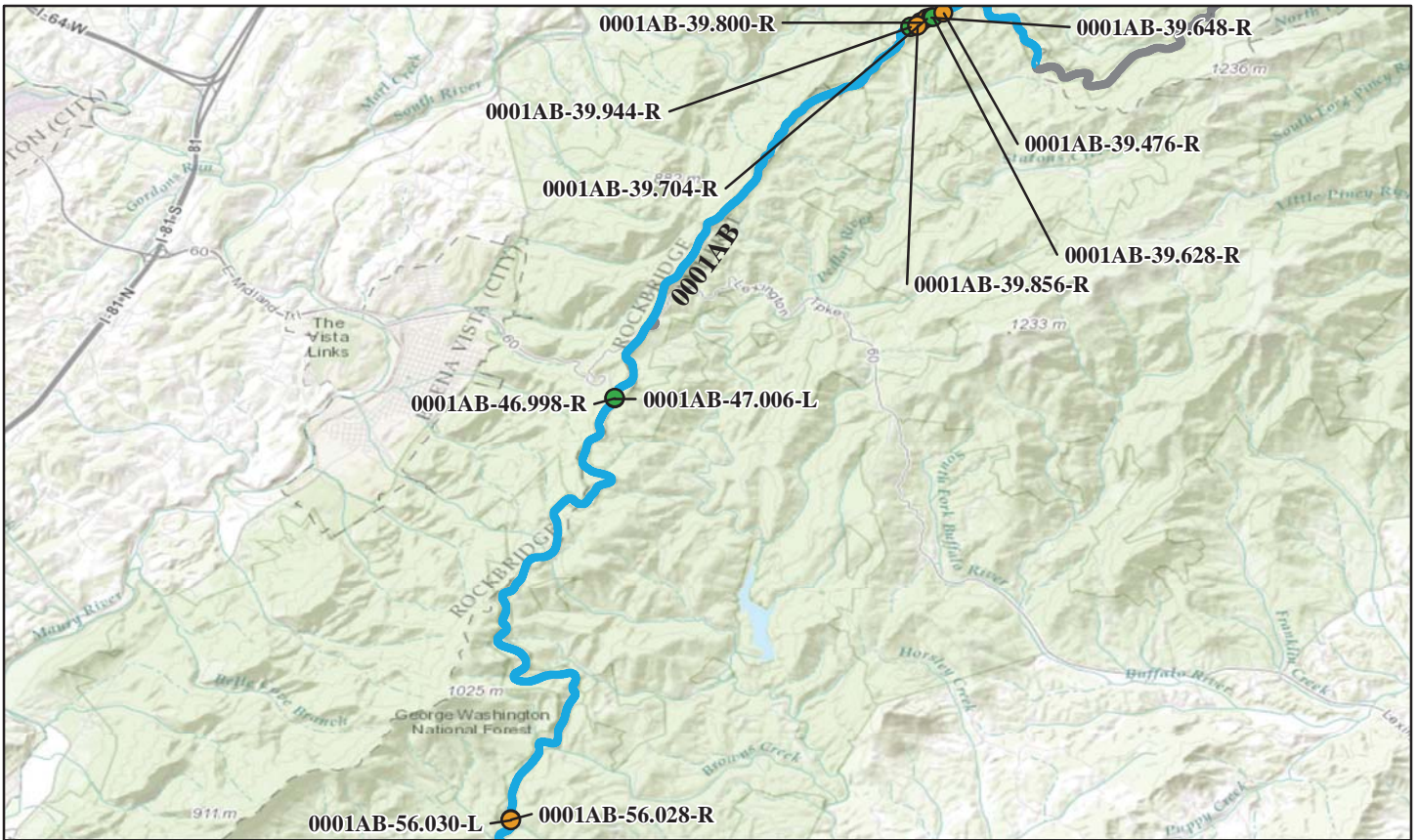
No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001AB-39.476-R 1/28/2008	2,200	211	Gravity - Mortared Stone	Fill Wall	69	\$0.00
BLRI-0001AB-39.628-R 1/28/2008	1,000	115	Gravity - Mortared Stone	Fill Wall	70	\$0.00
BLRI-0001AB-39.648-R 1/28/2008	600	100	Gravity - Mortared Stone	Fill Wall	70	\$0.00
BLRI-0001AB-39.704-R 1/28/2008	3,330	370	Gravity - Mortared Stone	Fill Wall	69	\$0.00
BLRI-0001AB-39.800-R 1/28/2008	2,030	238	Gravity - Mortared Stone	Fill Wall	70	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001AB: BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001AB-39.856-R 1/28/2008	1,500	110	Gravity - Mortared Stone	Fill Wall	69	\$0.00
BLRI-0001AB-39.944-R 1/28/2008	1,800	153	Gravity - Mortared Stone	Fill Wall	70	\$0.00
BLRI-0001AB-46.998-R 1/28/2008	690	65	Cantilever - Concrete	Head Wall	70	\$0.00
BLRI-0001AB-47.006-L 1/28/2008	690	65	Cantilever - Concrete	Head Wall	70	\$0.00
BLRI-0001AB-56.028-R 1/28/2008	330	55	Gravity - Mortared Stone	Head Wall	66	\$1,240.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001AB: BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001AB-56.030-L 1/28/2008	380	52	Gravity - Mortared Stone	Head Wall	66	\$0.00
BLRI-0001AB-56.745-R 1/28/2008	320	90	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001AB-56.754-L 1/28/2008	320	84	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001AB-57.168-R 1/28/2008	170	58	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001AB-57.171-L 1/28/2008	240	80	Gravity - Mortared Stone	Head Wall	70	\$1,125.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001AB: BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

**Critical / Poor (0 - 49)**

**Fair (50 - 69)**

**Good to Excellent (70 - 100)**

**No Data**

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001AB-57.554-R 1/28/2008	120	25	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001AB-57.556-L 1/28/2008	160	36	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001AB-58.787-R 1/28/2008	900	113	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001AB-58.788-L 1/28/2008	650	100	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001AB-59.301-R 1/28/2008	700	75	Gravity - Mortared Stone	Head Wall	70	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

## ROUTE 0001AB: BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

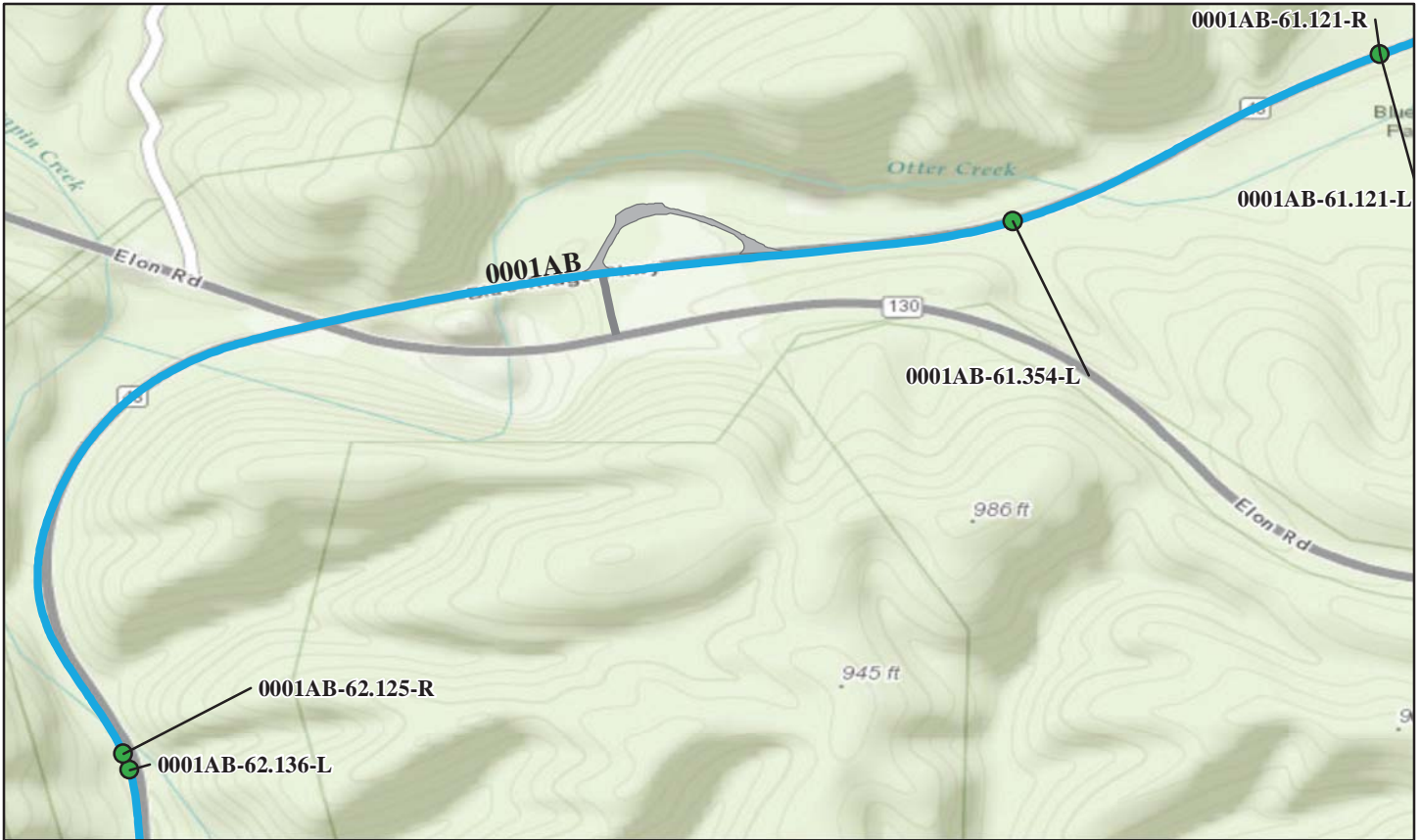
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Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001AB-59.306-L 1/28/2008	400	60	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001AB-59.406-L 1/28/2008	350	50	Gravity - Mortared Stone	Head Wall	68	\$0.00
BLRI-0001AB-59.406-R 1/28/2008	350	50	Gravity - Mortared Stone	Head Wall	68	\$0.00
BLRI-0001AB-60.104-L 1/28/2008	120	30	Gravity - Mortared Stone	Head Wall	68	\$2,250.00
BLRI-0001AB-60.105-R 1/28/2008	120	30	Gravity - Mortared Stone	Head Wall	70	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001AB: BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001AB-61.121-L 12/6/2007	150	29	Gravity - Mortared Stone	Head Wall	51	\$22,100.00
BLRI-0001AB-61.121-R 12/6/2007	115	23	Gravity - Mortared Stone	Head Wall	72	\$1,820.00
BLRI-0001AB-61.354-L 12/6/2007	80	20	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001AB-62.125-R 12/6/2007	700	80	Gravity - Mortared Stone	Head Wall	70	\$1,800.00
BLRI-0001AB-62.136-L 12/6/2007	700	80	Gravity - Mortared Stone	Head Wall	70	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001AB: BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

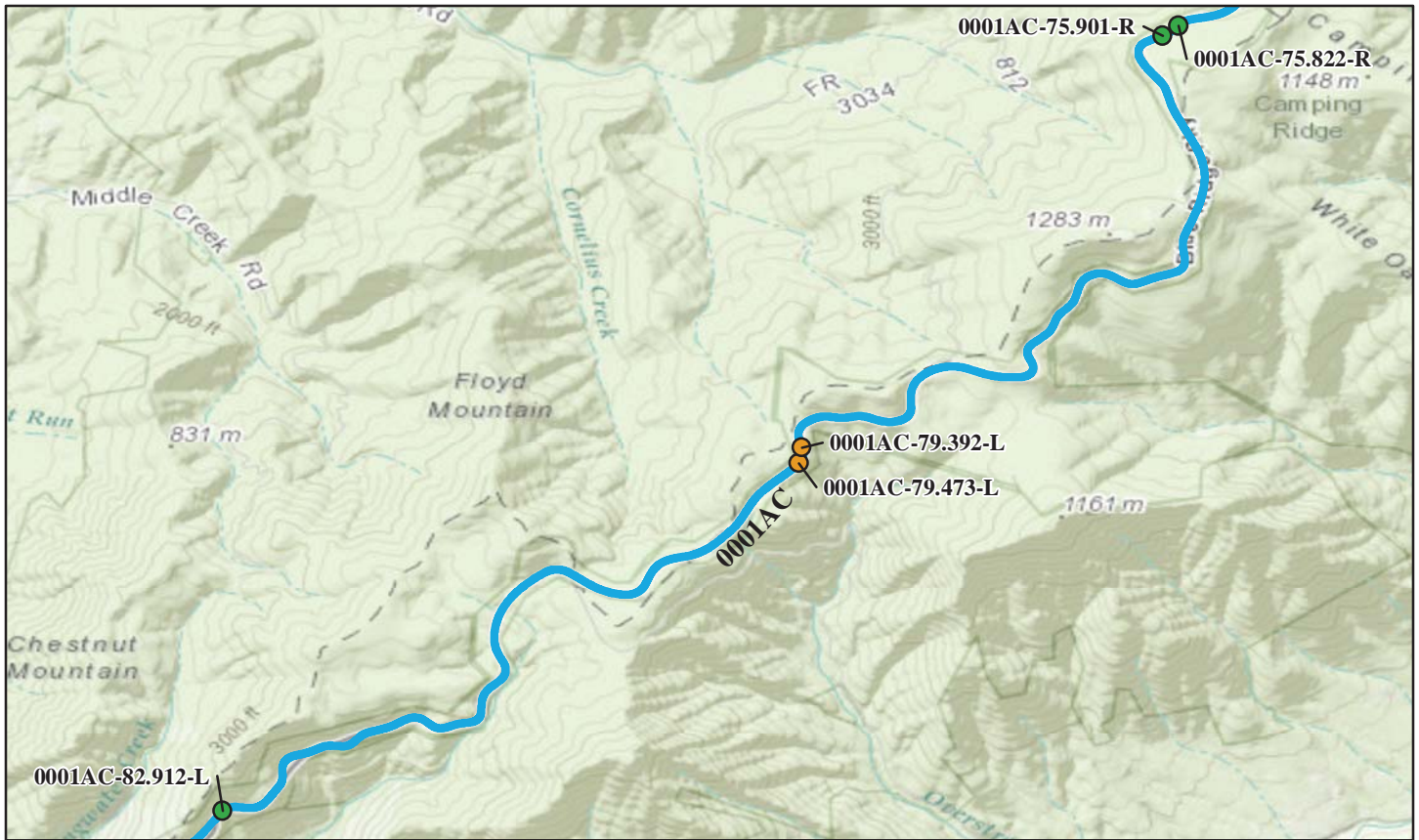
No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001AB-64.534-L 12/6/2007	1,892	172	Gravity - Mortared Stone	Fill Wall	67	\$1,505.00
BLRI-0001AB-67.234-L 12/6/2007	180	35	Gravity - Mortared Stone	Head Wall	69	\$660.00
BLRI-0001AB-67.234-R 12/6/2007	100	24	Gravity - Mortared Stone	Head Wall	69	\$550.00
BLRI-0001AB-68.798-L 12/6/2007	140	33	Gravity - Mortared Stone	Head Wall	65	\$0.00
BLRI-0001AB-68.798-R 12/6/2007	140	33	Gravity - Mortared Stone	Head Wall	63	\$18,175.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001AC: BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001AC-75.822-R 1/16/2008	28	84	Gravity - Mortared Stone	Fill Wall	72	\$550.00
BLRI-0001AC-75.901-R 1/16/2008	3,050	338	Gravity - Mortared Stone	Fill Wall	70	\$45,750.00
BLRI-0001AC-79.392-L 1/16/2008	1,330	222	Gravity - Mortared Stone	Fill Wall	69	\$0.00
BLRI-0001AC-79.473-L 1/16/2008	4,560	380	Gravity - Mortared Stone	Fill Wall	67	\$7,200.00
BLRI-0001AC-82.912-L 1/16/2008	3,190	290	Gravity - Mortared Stone	Fill Wall	71	\$1,910.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001AC: BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

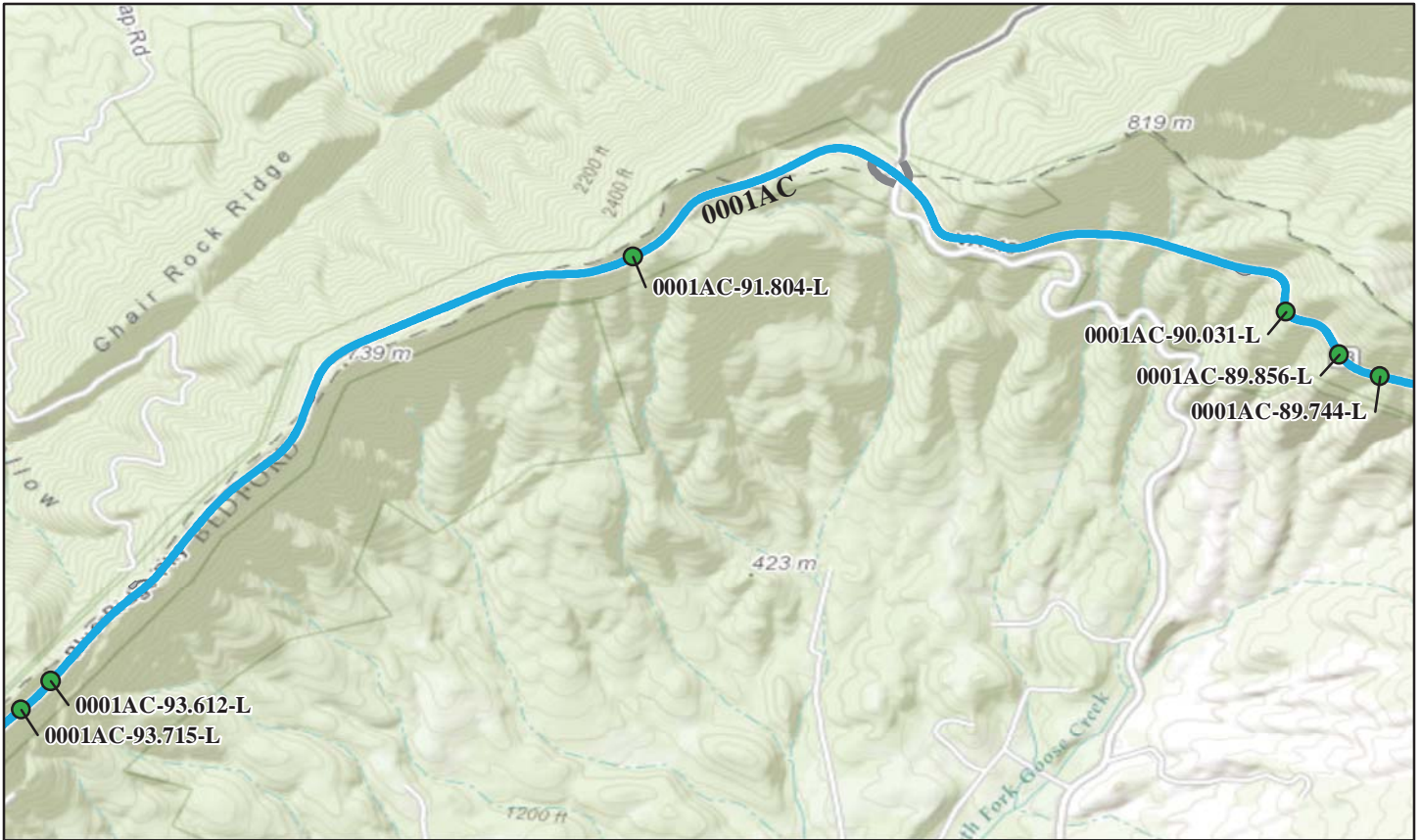
No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001AC-84.753-L 1/16/2008	75	24	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001AC-84.753-R 1/16/2008	115	34	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001AC-85.792-L 1/16/2008	160	38	Gravity - Mortared Stone	Head Wall	75	\$0.00
BLRI-0001AC-85.792-R 1/16/2008	160	38	Gravity - Mortared Stone	Head Wall	73	\$0.00
BLRI-0001AC-88.438-R 1/16/2008	2,800	200	Gravity - Mortared Stone	Fill Wall	70	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001AC: BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

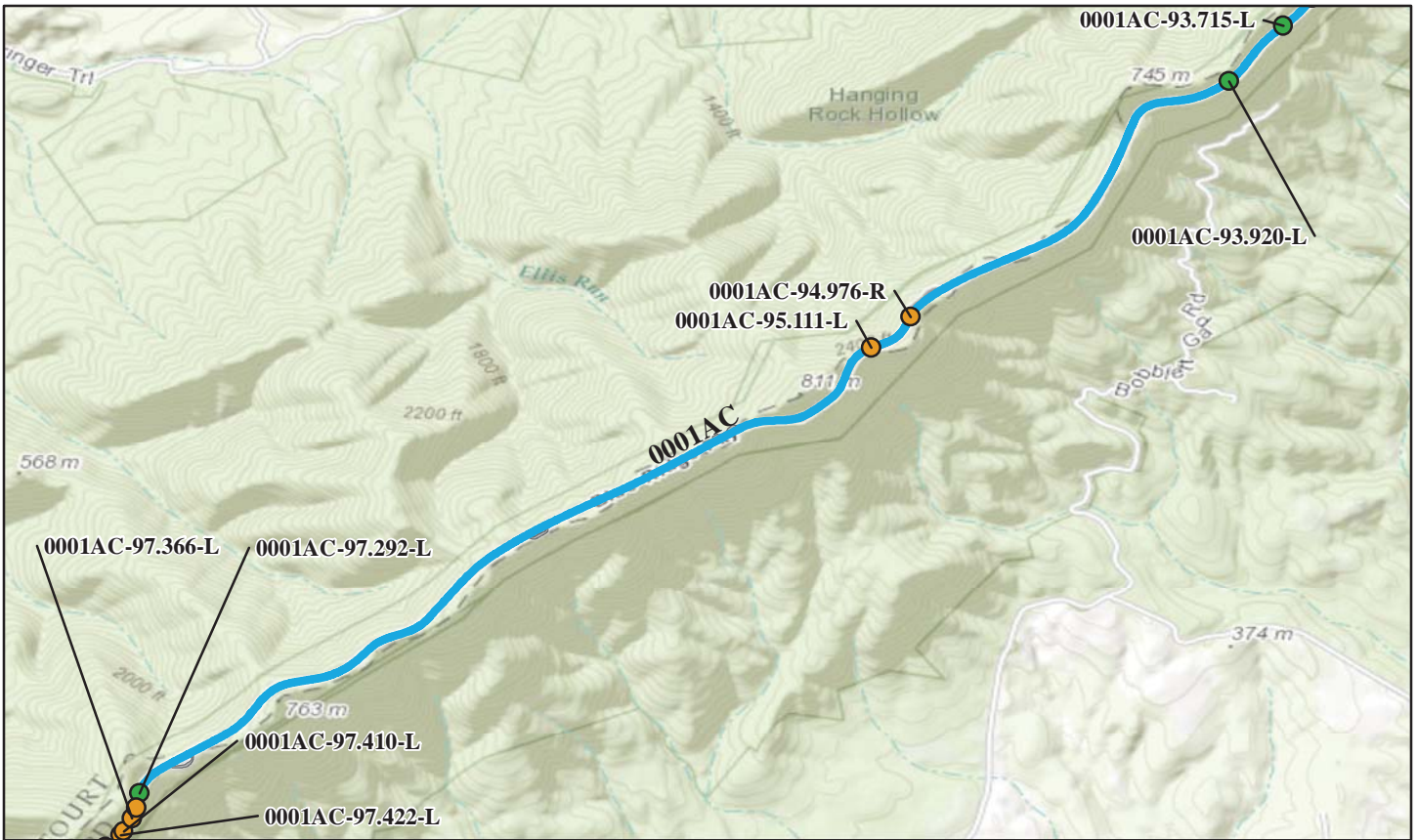
No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001AC-89.744-L 1/16/2008	4,480	317	Gravity - Mortared Stone	Fill Wall	70	\$0.00
BLRI-0001AC-89.856-L 1/16/2008	1,850	211	Gravity - Mortared Stone	Fill Wall	70	\$550.00
BLRI-0001AC-90.031-L 1/16/2008	2,550	170	Gravity - Mortared Stone	Fill Wall	70	\$0.00
BLRI-0001AC-91.804-L 1/16/2008	3,960	216	Gravity - Mortared Stone	Fill Wall	70	\$550.00
BLRI-0001AC-93.612-L 1/16/2008	3,600	270	Gravity - Mortared Stone	Fill Wall	72	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001AC: BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001AC-93.715-L 1/16/2008	4,200	227	Gravity - Mortared Stone	Fill Wall	72	\$0.00
BLRI-0001AC-93.920-L 1/16/2008	5,890	312	Gravity - Mortared Stone	Fill Wall	70	\$0.00
BLRI-0001AC-94.976-R 12/5/2007	3,600	240	Gravity - Mortared Stone	Fill Wall	69	\$2,625.00
BLRI-0001AC-95.111-L 12/5/2007	1,850	185	Gravity - Mortared Stone	Fill Wall	67	\$8,600.00
BLRI-0001AC-97.292-L 12/4/2007	6,375	425	Gravity - Mortared Stone	Fill Wall	70	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001AC: BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001AC-97.334-L 12/4/2007	1,320	165	Gravity - Mortared Stone	Fill Wall	69	\$0.00
BLRI-0001AC-97.366-L 12/4/2007	1,960	196	Gravity - Mortared Stone	Fill Wall	67	\$9,500.00
BLRI-0001AC-97.410-L 12/4/2007	1,050	75	Gravity - Mortared Stone	Fill Wall	68	\$0.00
BLRI-0001AC-97.422-L 12/4/2007	1,766	136	Gravity - Mortared Stone	Fill Wall	67	\$8,750.00
BLRI-0001AC-97.471-L 12/4/2007	1,890	135	Gravity - Mortared Stone	Fill Wall	67	\$500.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

## ROUTE 0001AC: BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

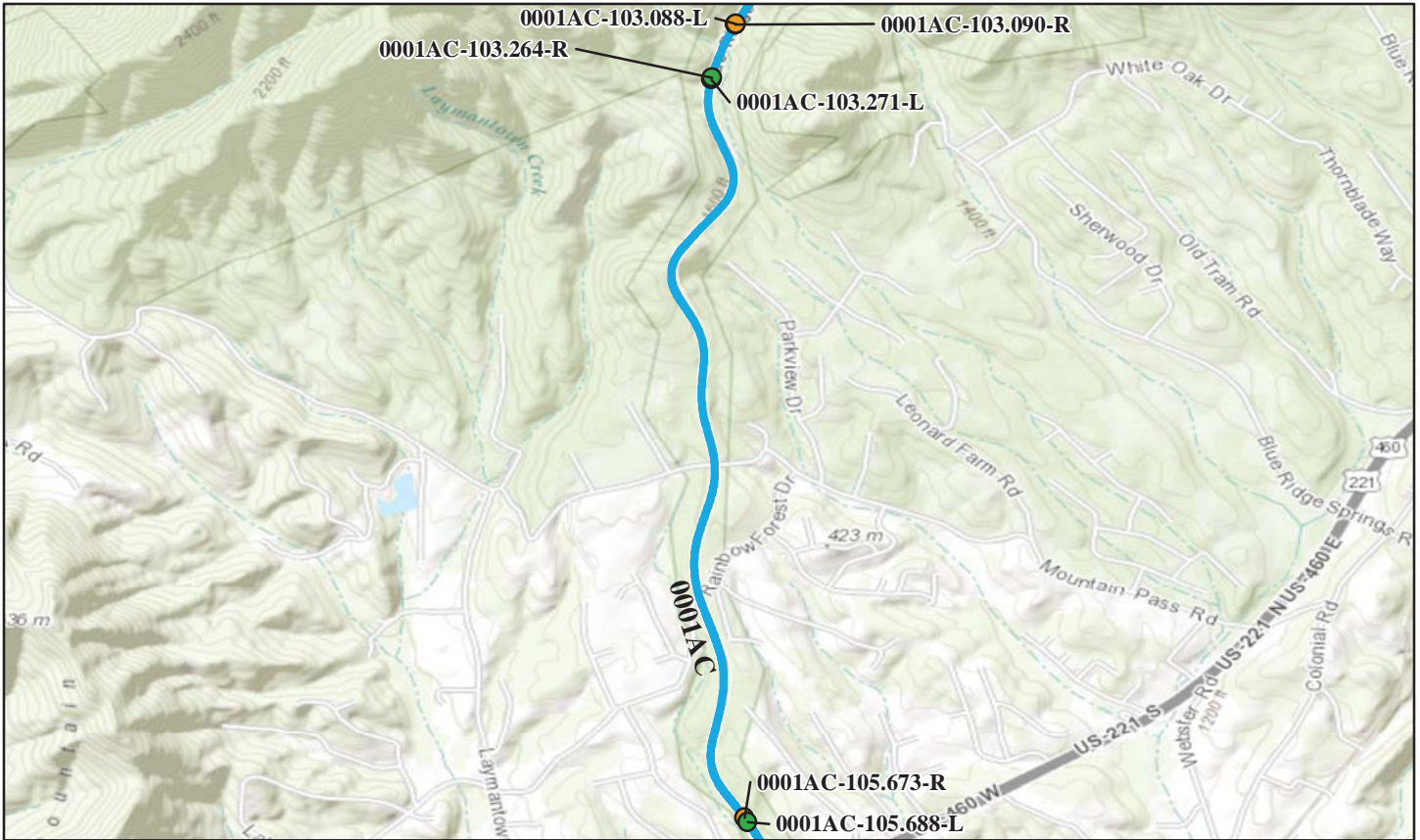
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Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001AC-101.232-R 12/4/2007	3,600	365	Gravity - Mortared Stone	Fill Wall	67	\$1,000.00
BLRI-0001AC-102.492-R 12/4/2007	80	24	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001AC-102.505-L 12/4/2007	80	24	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001AC-102.805-L 12/4/2007	56	18	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001AC-102.805-R 12/4/2007	56	18	Gravity - Mortared Stone	Head Wall	70	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001AC: BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

**Critical / Poor (0 - 49)**

**Fair (50 - 69)**

**Good to Excellent (70 - 100)**

**No Data**

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001AC-103.088-L 12/4/2007	138	28	Gravity - Mortared Stone	Head Wall	68	\$1,430.00
BLRI-0001AC-103.090-R 12/4/2007	138	28	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001AC-103.264-R 12/4/2007	145	30	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001AC-103.271-L 12/4/2007	145	30	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001AC-105.673-R 12/4/2007	148	44	Gravity - Mortared Stone	Head Wall	66	\$550.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001AC: BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

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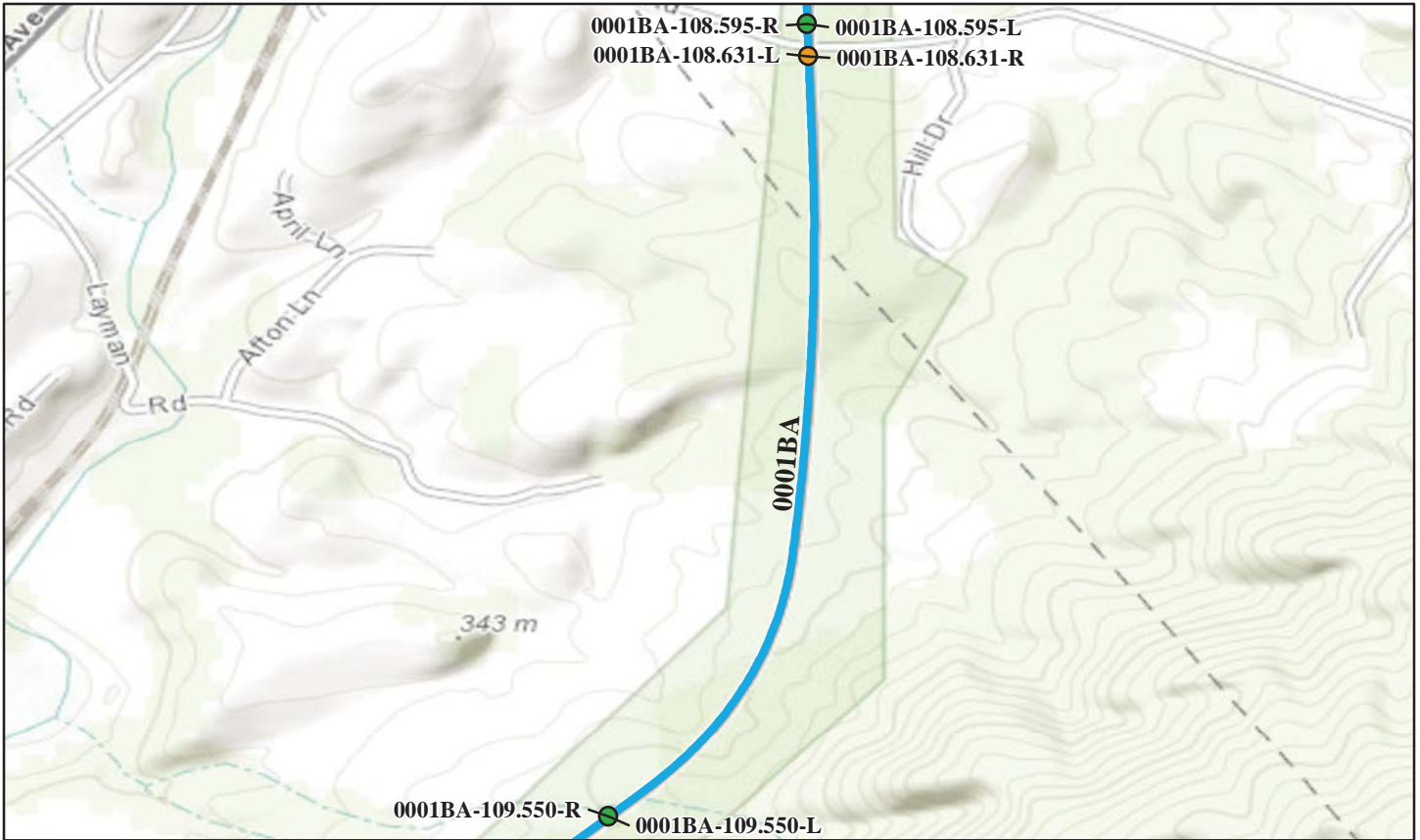
No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001AC-105.688-L 12/4/2007	148	44	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001AC-105.873-L 12/4/2007	160	39	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001AC-105.873-R 12/4/2007	100	24	Gravity - Mortared Stone	Head Wall	68	\$1,795.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001BA: BLUE RIDGE PARKWAY - ROANOKE VALLEY SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

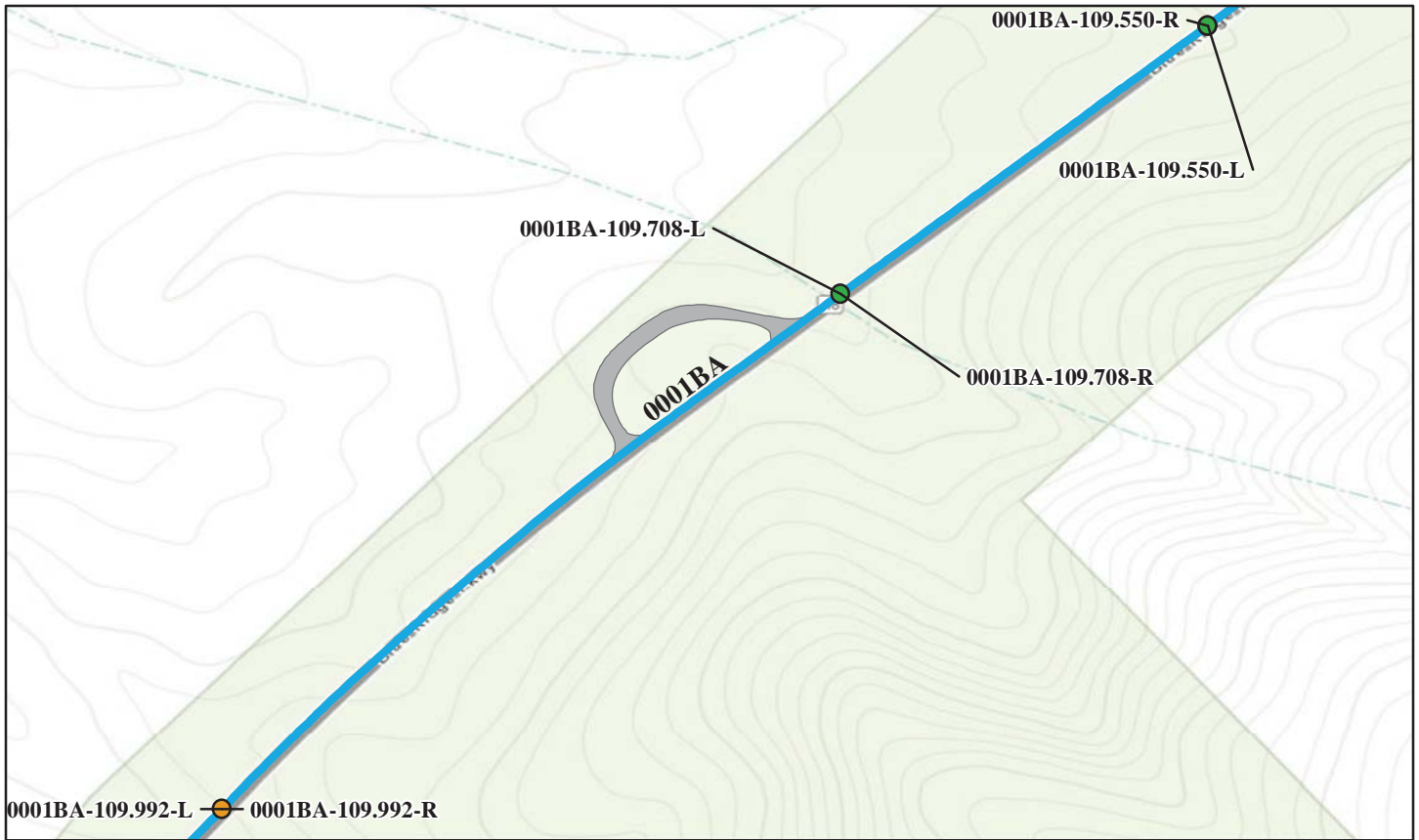
No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001BA-108.595-L 12/4/2007	130	34	Cantilever - Concrete	Head Wall	72	\$550.00
BLRI-0001BA-108.595-R 12/4/2007	130	34	Cantilever - Concrete	Head Wall	69	\$0.00
BLRI-0001BA-108.631-L 12/4/2007	130	35	Cantilever - Concrete	Head Wall	69	\$2,180.00
BLRI-0001BA-108.631-R 12/4/2007	130	35	Cantilever - Concrete	Head Wall	69	\$2,180.00
BLRI-0001BA-109.550-L 12/4/2007	200	45	Cantilever - Concrete	Head Wall	70	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001BA: BLUE RIDGE PARKWAY - ROANOKE VALLEY SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001BA-109.550-R 12/4/2007	200	45	Cantilever - Concrete	Head Wall	70	\$0.00
BLRI-0001BA-109.708-L 12/4/2007	140	34	Cantilever - Concrete	Head Wall	72	\$550.00
BLRI-0001BA-109.708-R 12/4/2007	140	34	Cantilever - Concrete	Head Wall	56	\$2,255.00
BLRI-0001BA-109.992-L 12/3/2007	100	26	Cantilever - Concrete	Head Wall	69	\$0.00
BLRI-0001BA-109.992-R 12/3/2007	120	27	Cantilever - Concrete	Head Wall	50	\$2,345.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001BA: BLUE RIDGE PARKWAY - ROANOKE VALLEY SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

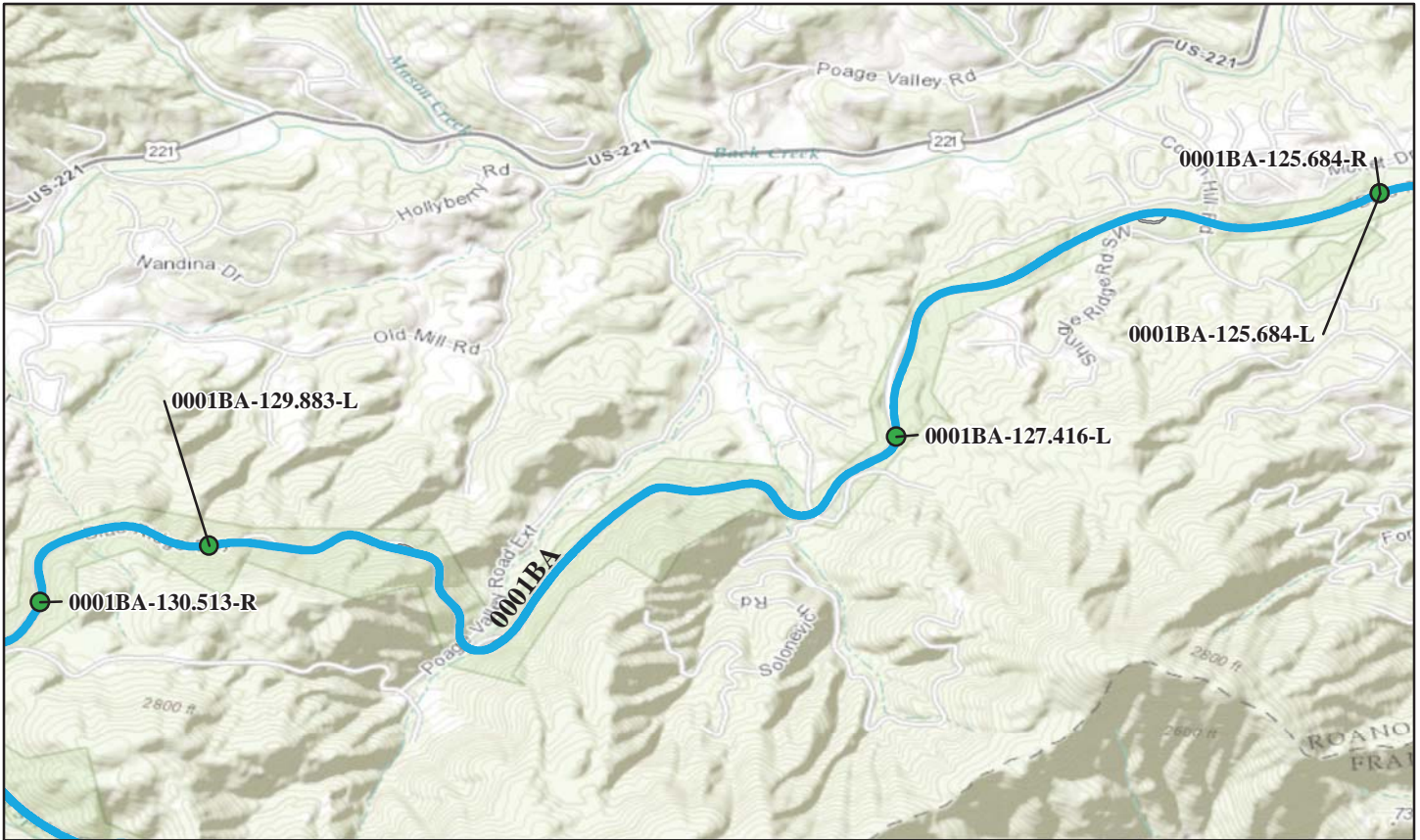
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Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001BA-112.939-L 12/3/2007	100	20	Cantilever - Concrete	Head Wall	67	\$900.00
BLRI-0001BA-112.939-R 12/3/2007	290	35	Cantilever - Concrete	Head Wall	45	\$26,500.00
BLRI-0001BA-117.960-L 12/3/2007	100	22	Cantilever - Concrete	Head Wall	70	\$0.00
BLRI-0001BA-117.960-R 12/3/2007	70	15	Cantilever - Concrete	Head Wall	64	\$1,430.00
BLRI-0001BA-118.092-L 12/3/2007	36	12	Cantilever - Concrete	Head Wall	72	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001BA: BLUE RIDGE PARKWAY - ROANOKE VALLEY SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

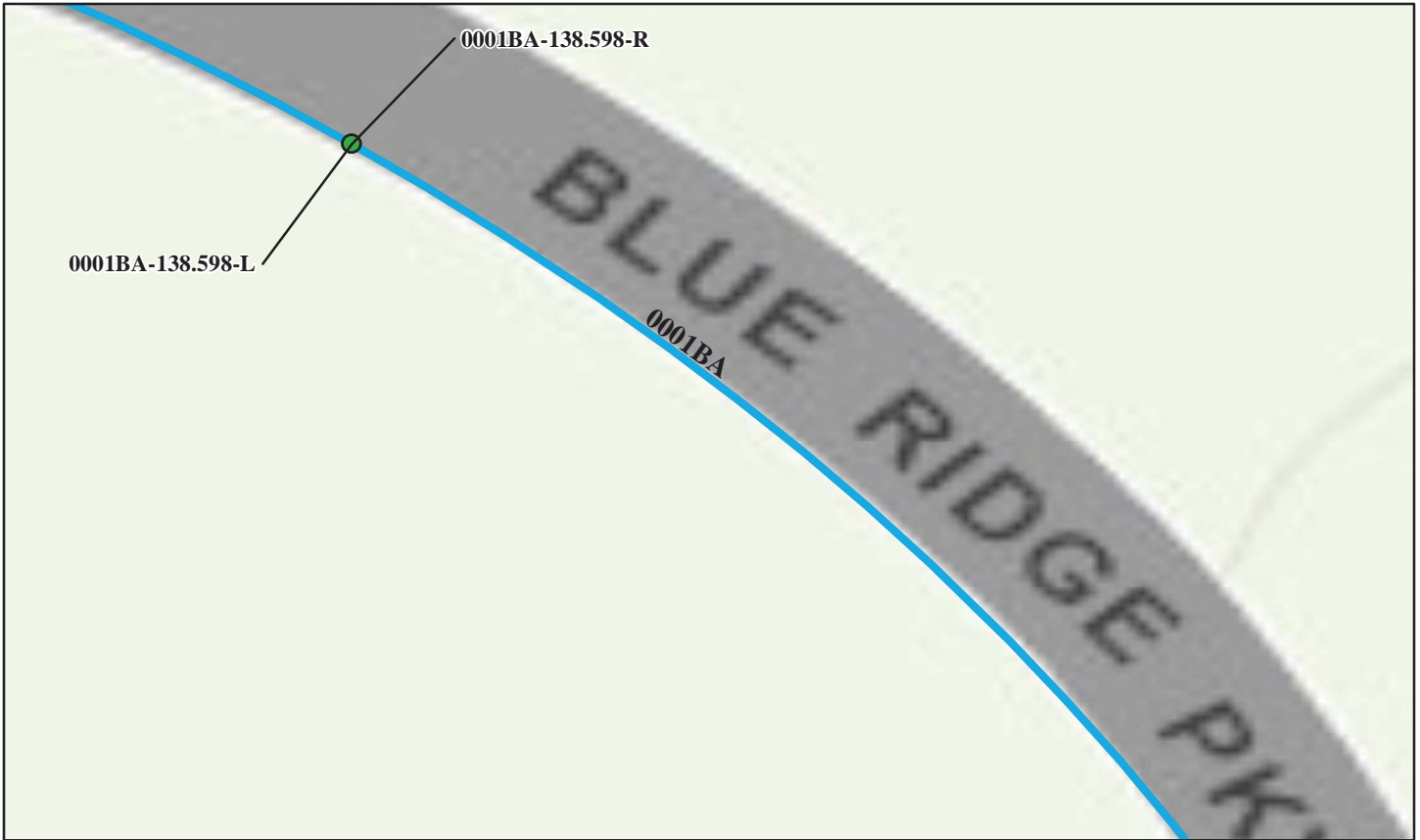
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Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001BA-125.684-L 11/30/2007	220	40	Cantilever - Concrete	Head Wall	70	\$0.00
BLRI-0001BA-125.684-R 11/30/2007	220	40	Cantilever - Concrete	Head Wall	70	\$0.00
BLRI-0001BA-127.416-L 11/30/2007	60	29	Cantilever - Concrete	Head Wall	70	\$0.00
BLRI-0001BA-129.883-L 11/30/2007	400	104	Gravity - Mortared Stone	Fill Wall	70	\$0.00
BLRI-0001BA-130.513-R 11/30/2007	440	110	Gravity - Mortared Stone	Fill Wall	73	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001BA: BLUE RIDGE PARKWAY - ROANOKE VALLEY SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

No Data

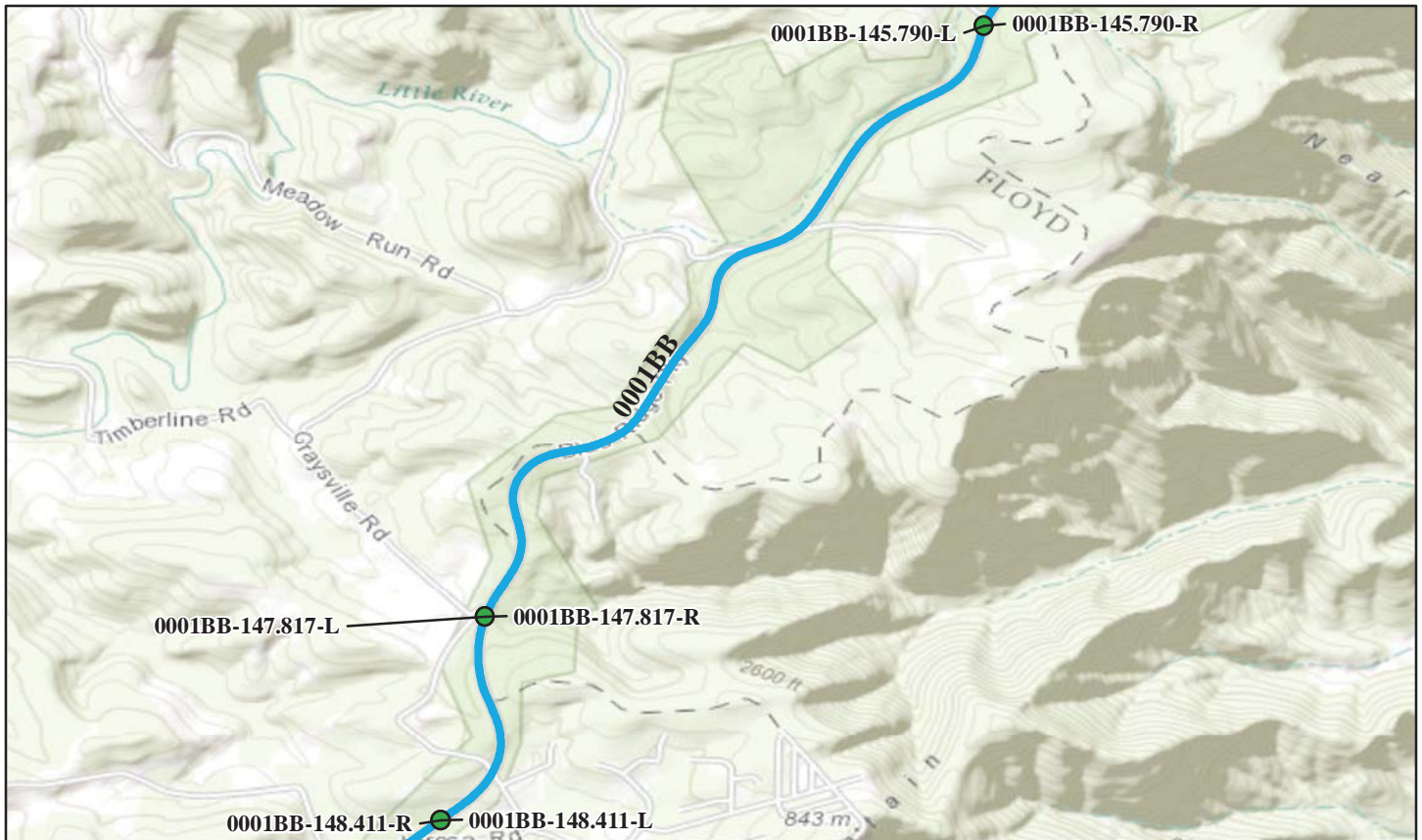
Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001BA-138.598-L 11/30/2007	425	65	Gravity - Mortared Stone	Head Wall	70	\$3,200.00
BLRI-0001BA-138.598-R 11/30/2007	425	65	Gravity - Mortared Stone	Head Wall	70	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

## ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

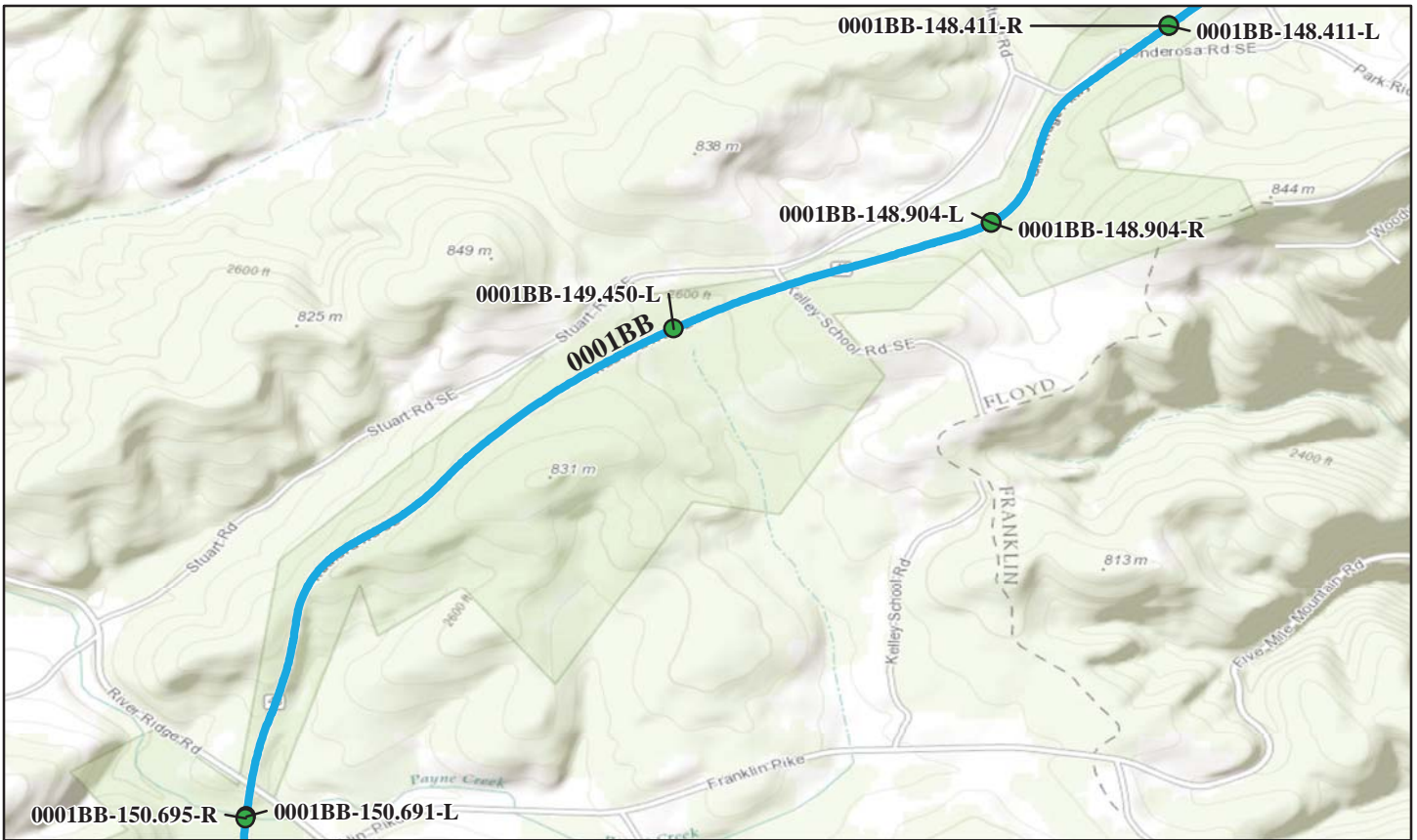
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Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001BB-145.790-L 11/30/2007	90	20	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001BB-145.790-R 11/30/2007	90	20	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001BB-147.817-L 11/30/2007	100	24	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001BB-147.817-R 11/30/2007	100	24	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001BB-148.411-L 11/30/2007	220	47	Gravity - Mortared Stone	Head Wall	70	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

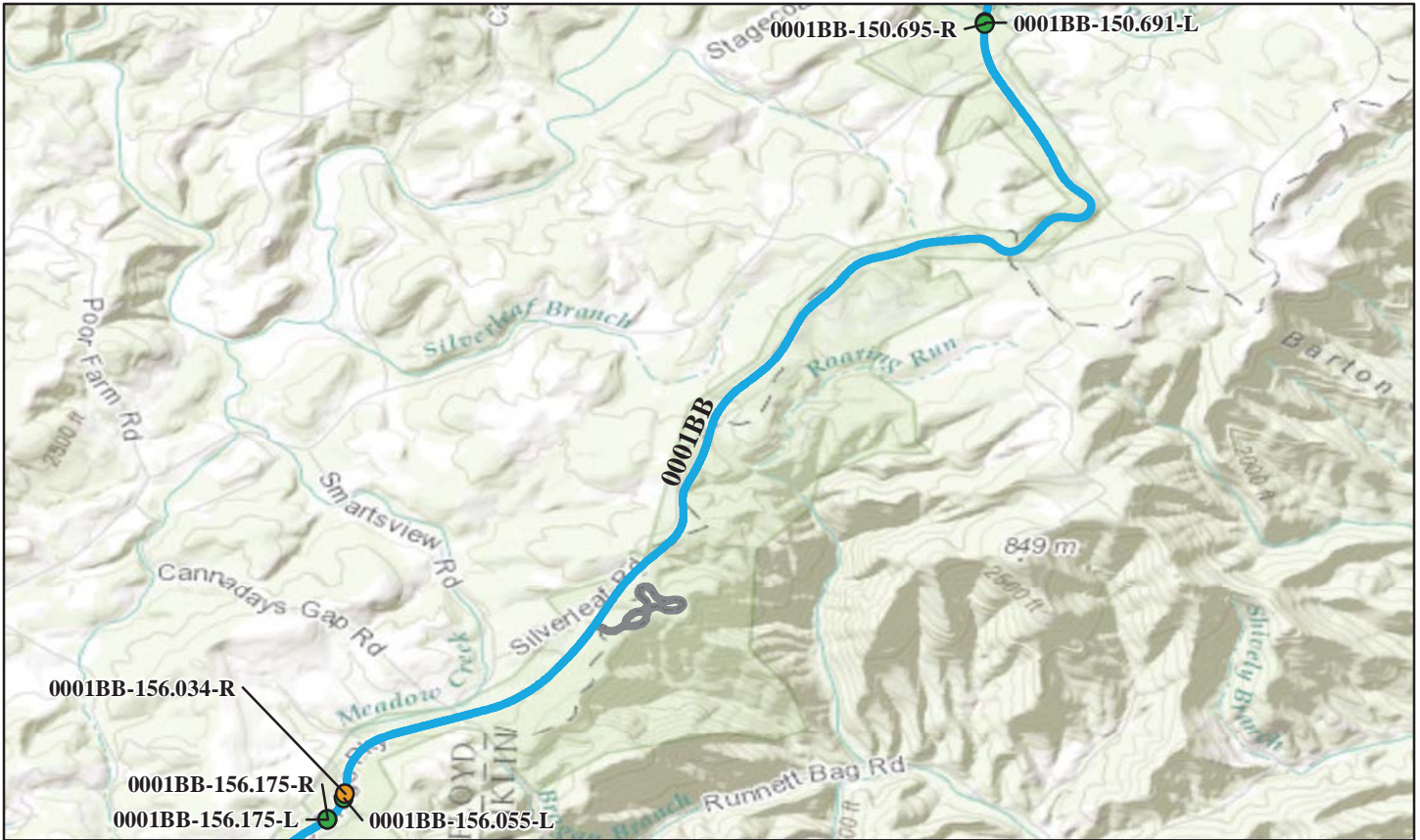
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Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001BB-148.411-R 11/30/2007	220	47	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001BB-148.904-L 11/30/2007	70	25	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001BB-148.904-R 11/30/2007	90	36	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001BB-149.450-L 11/30/2007	60	17	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001BB-150.691-L 11/30/2007	230	36	Gravity - Mortared Stone	Head Wall	68	\$2,250.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001BB-150.695-R 11/30/2007	300	50	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001BB-156.034-R 11/30/2007	600	94	Gravity - Mortared Stone	Head Wall	66	\$7,500.00
BLRI-0001BB-156.055-L 11/30/2007	430	88	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001BB-156.175-L 11/30/2007	180	33	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001BB-156.175-R 11/30/2007	180	33	Gravity - Mortared Stone	Head Wall	70	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001BB-156.396-L 11/29/2007	110	28	Gravity - Mortared Stone	Head Wall	65	\$3,750.00
BLRI-0001BB-159.040-L 11/29/2007	200	47	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001BB-159.044-R 11/29/2007	180	44	Gravity - Mortared Stone	Head Wall	68	\$1,500.00
BLRI-0001BB-159.797-R 11/29/2007	400	72	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001BB-159.807-L 11/29/2007	420	76	Gravity - Mortared Stone	Head Wall	70	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

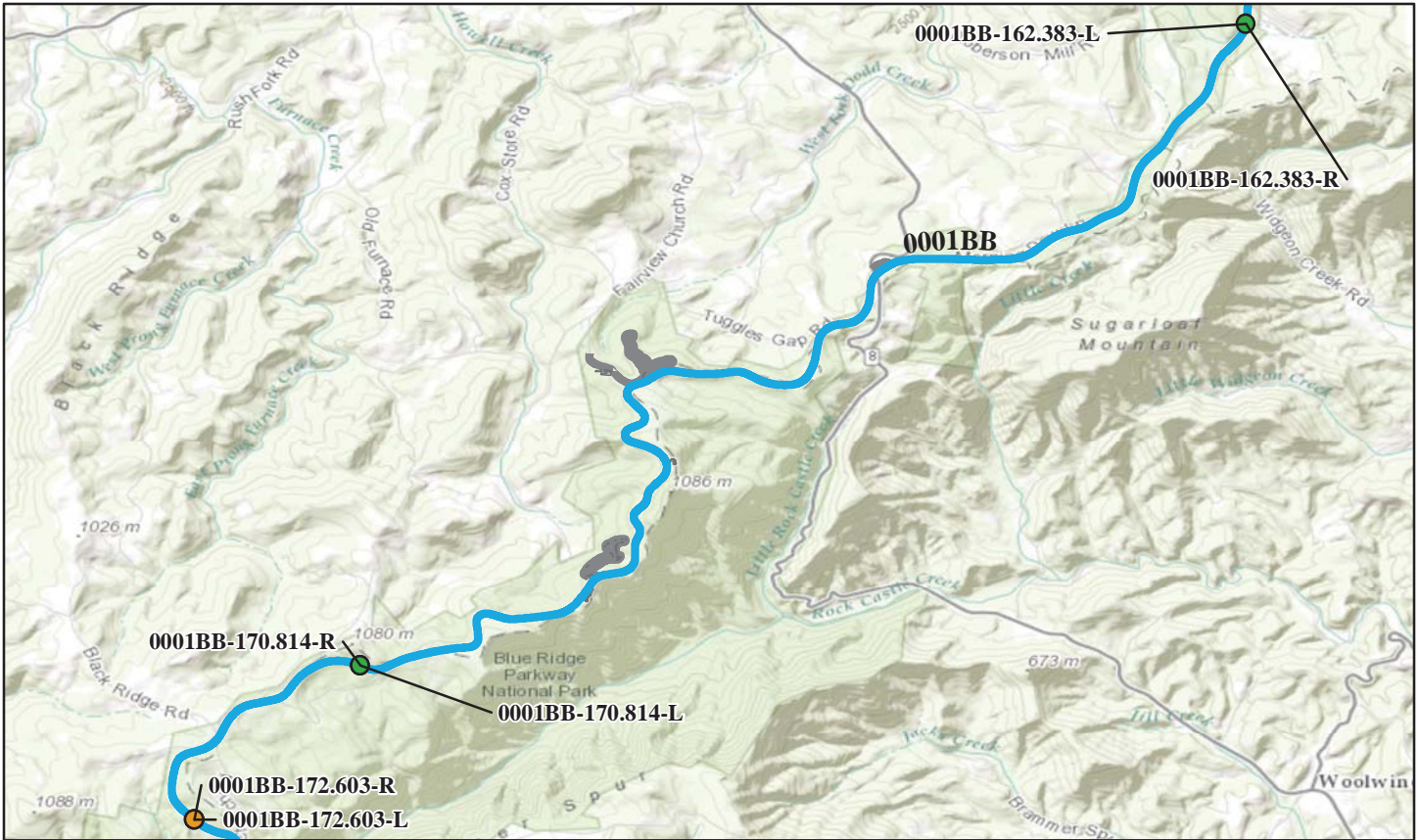
No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001BB-160.398-L 11/29/2007	155	47	Gravity - Mortared Stone	Head Wall	66	\$5,625.00
BLRI-0001BB-160.410-R 11/29/2007	255	67	Gravity - Mortared Stone	Head Wall	68	\$2,250.00
BLRI-0001BB-162.105-L 11/29/2007	260	63	Gravity - Mortared Stone	Head Wall	68	\$0.00
BLRI-0001BB-162.106-R 11/29/2007	170	42	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001BB-162.383-L 11/29/2007	100	25	Gravity - Mortared Stone	Head Wall	70	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001BB-162.383-R 11/29/2007	75	20	Gravity - Mortared Stone	Head Wall	59	\$1,470.00
BLRI-0001BB-170.814-L 11/29/2007	160	30	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001BB-170.814-R 11/29/2007	160	30	Gravity - Mortared Stone	Head Wall	68	\$1,500.00
BLRI-0001BB-172.603-L 11/29/2007	175	30	Gravity - Mortared Stone	Head Wall	63	\$2,250.00
BLRI-0001BB-172.603-R 11/29/2007	175	30	Gravity - Mortared Stone	Head Wall	66	\$3,750.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

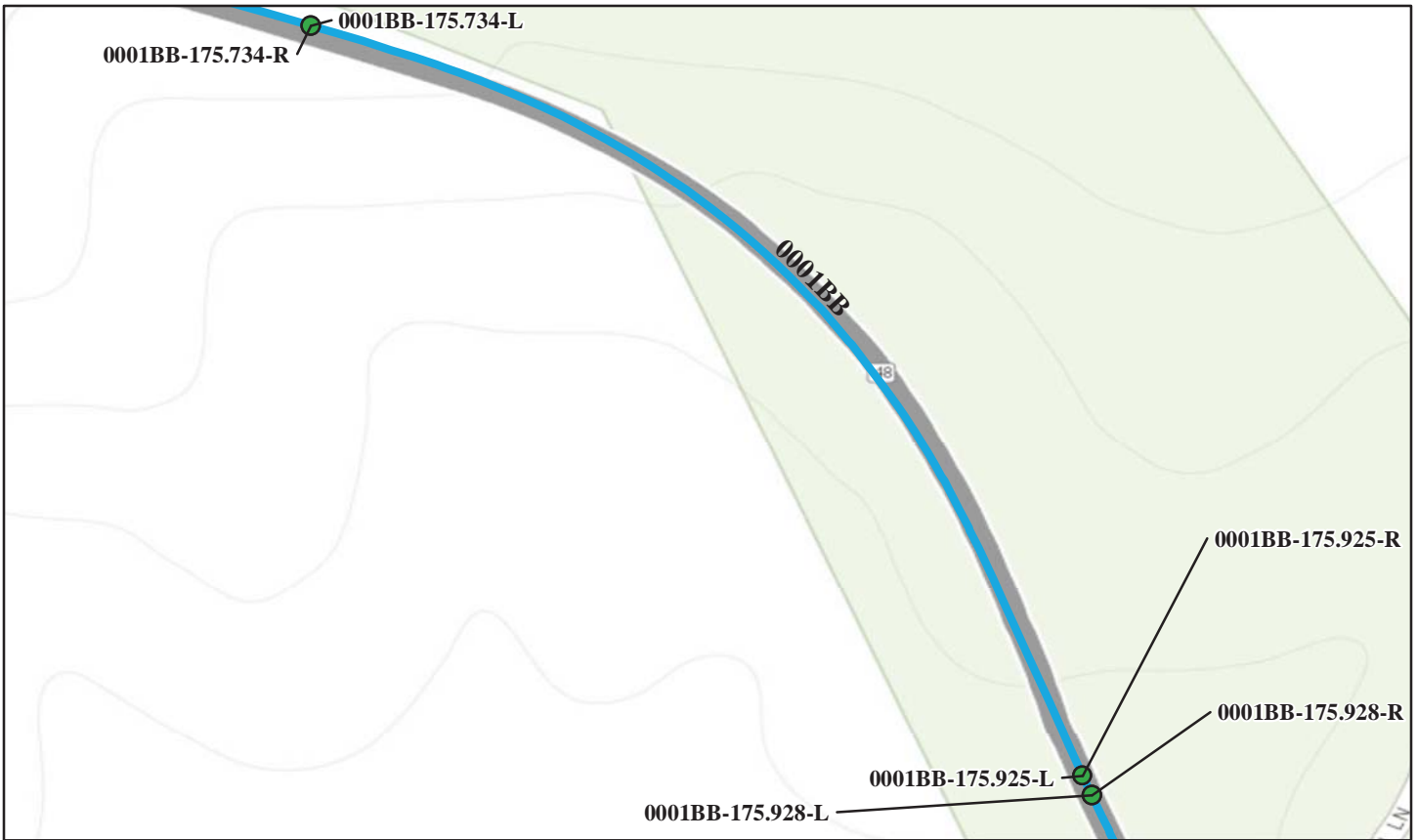
No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001BB-173.605-L 11/29/2007	150	32	Gravity - Mortared Stone	Head Wall	68	\$450.00
BLRI-0001BB-173.605-R 11/29/2007	150	32	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001BB-174.075-R 11/29/2007	250	50	Gravity - Mortared Stone	Head Wall	59	\$9,600.00
BLRI-0001BB-174.095-L 11/29/2007	250	50	Gravity - Mortared Stone	Head Wall	70	\$760.00
BLRI-0001BB-175.734-L 11/29/2007	190	43	Gravity - Mortared Stone	Head Wall	70	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

No Data

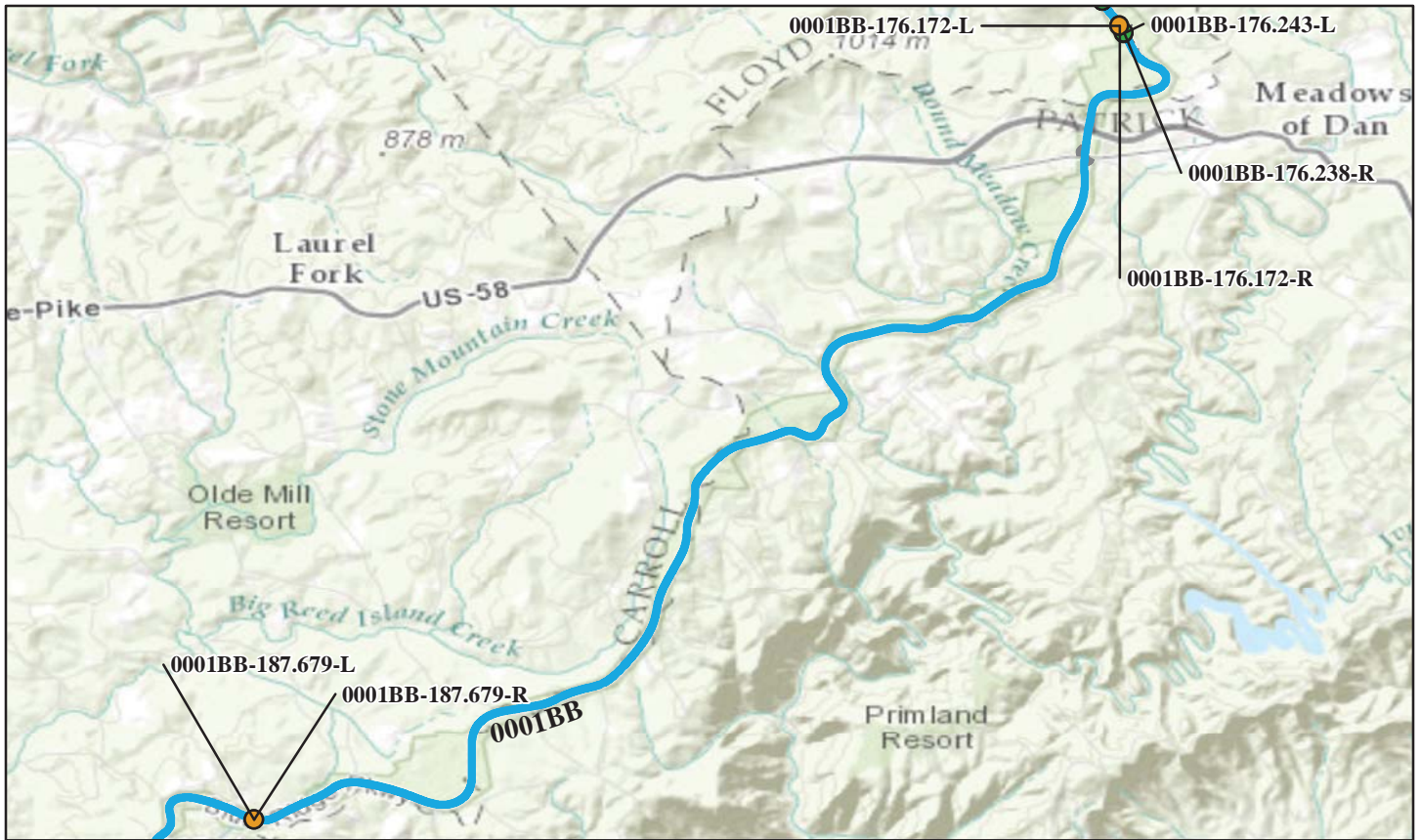
Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001BB-175.734-R 11/29/2007	190	43	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001BB-175.925-L 11/29/2007	100	26	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001BB-175.925-R 11/29/2007	100	26	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001BB-175.928-L 11/28/2007	80	26	Gravity - Mortared Stone	Head Wall	70	\$750.00
BLRI-0001BB-175.928-R 11/28/2007	80	26	Gravity - Mortared Stone	Head Wall	72	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

## ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

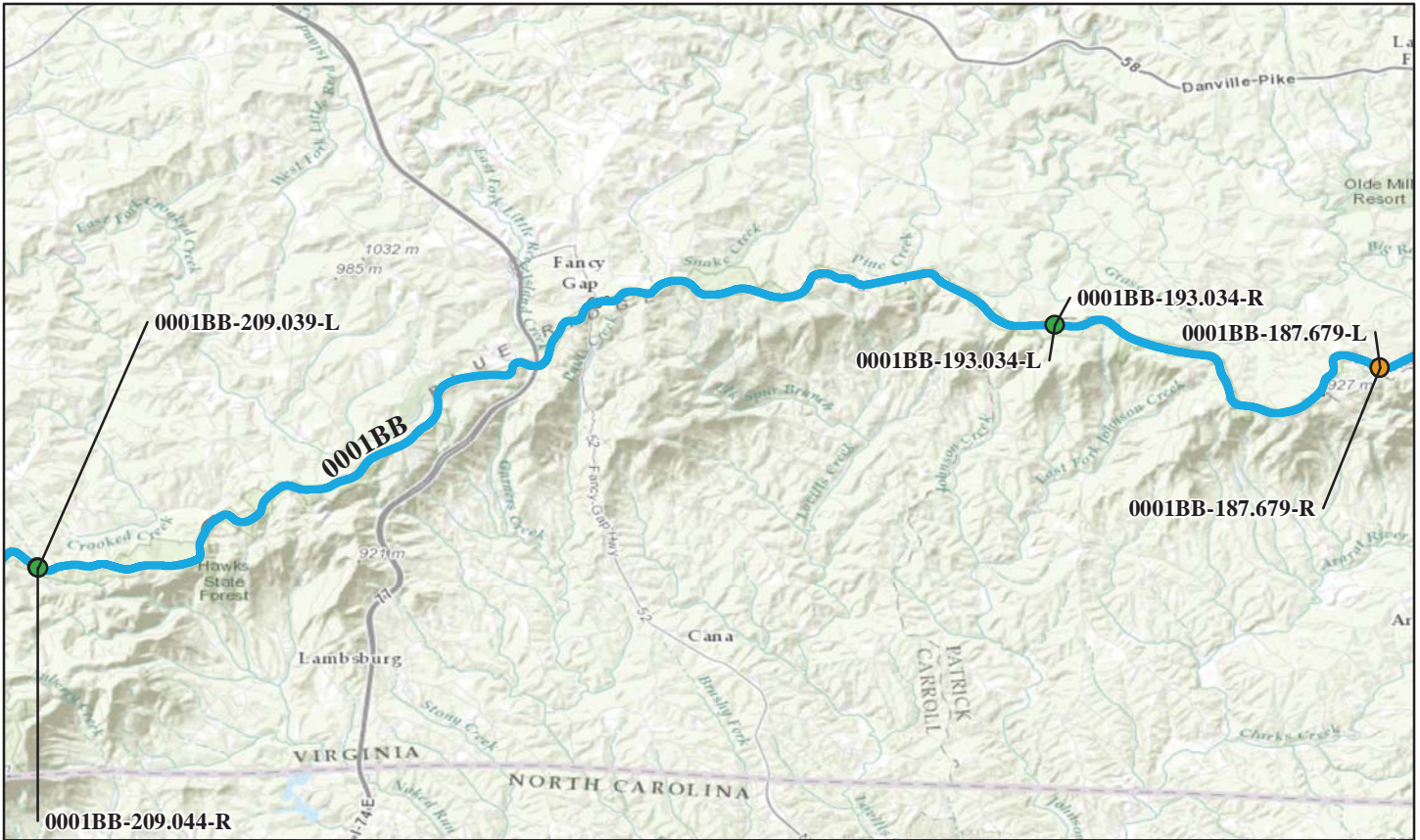
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Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001BB-176.172-L 11/28/2007	160	36	Gravity - Mortared Stone	Head Wall	66	\$0.00
BLRI-0001BB-176.172-R 11/28/2007	175	35	Gravity - Mortared Stone	Head Wall	70	\$1,330.00
BLRI-0001BB-176.238-R 11/28/2007	270	52	Gravity - Mortared Stone	Head Wall	72	\$0.00
BLRI-0001BB-176.243-L 11/28/2007	280	52	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001BB-187.679-L 11/28/2007	165	38	Gravity - Mortared Stone	Head Wall	70	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

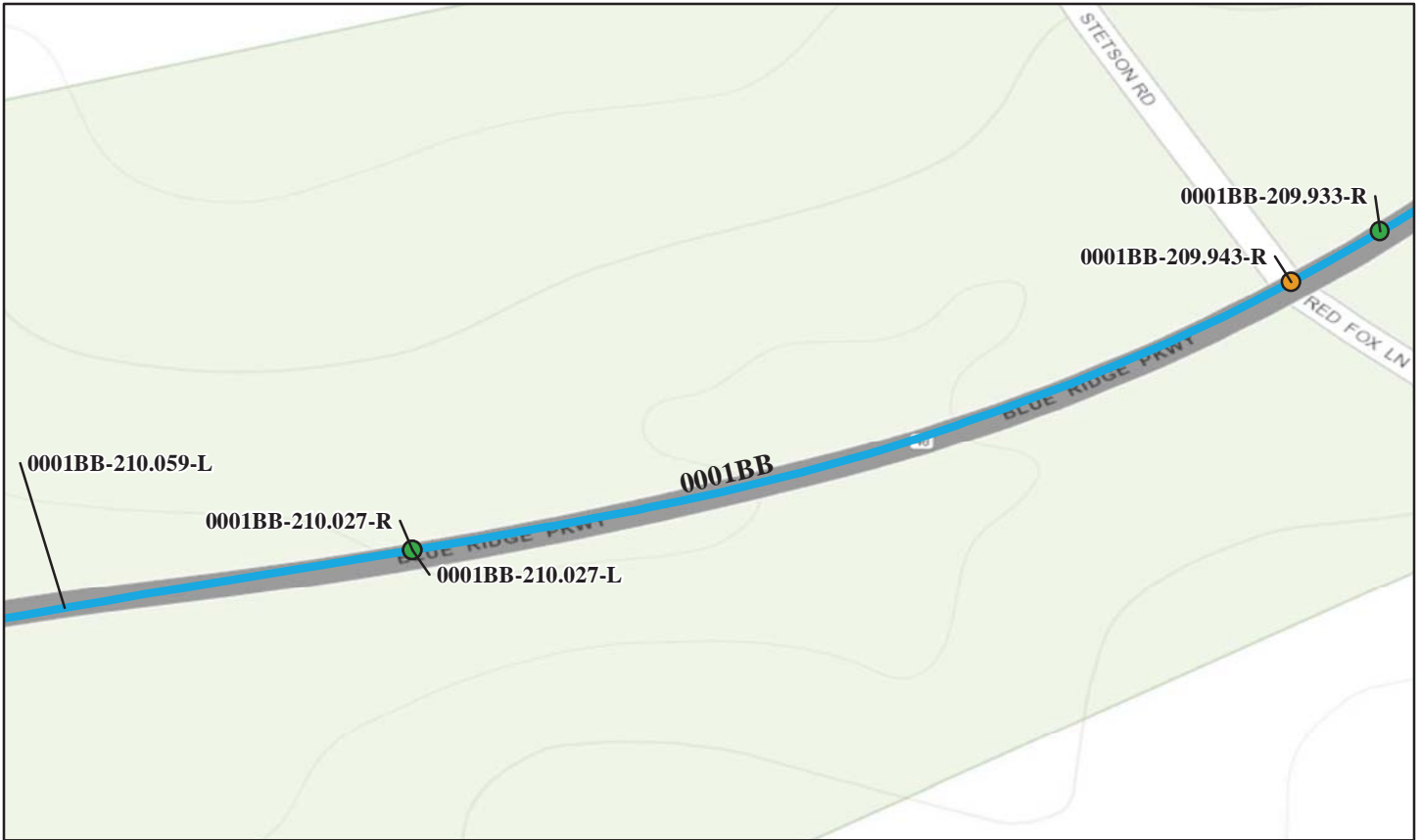
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Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001BB-187.679-R 11/28/2007	155	38	Gravity - Mortared Stone	Head Wall	63	\$750.00
BLRI-0001BB-193.034-L 11/28/2007	100	27	Gravity - Mortared Stone	Head Wall	45	\$27,940.00
BLRI-0001BB-193.034-R 11/28/2007	85	30	Gravity - Mortared Stone	Head Wall	70	\$550.00
BLRI-0001BB-209.039-L 11/28/2007	120	32	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001BB-209.044-R 11/28/2007	140	32	Gravity - Mortared Stone	Head Wall	70	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

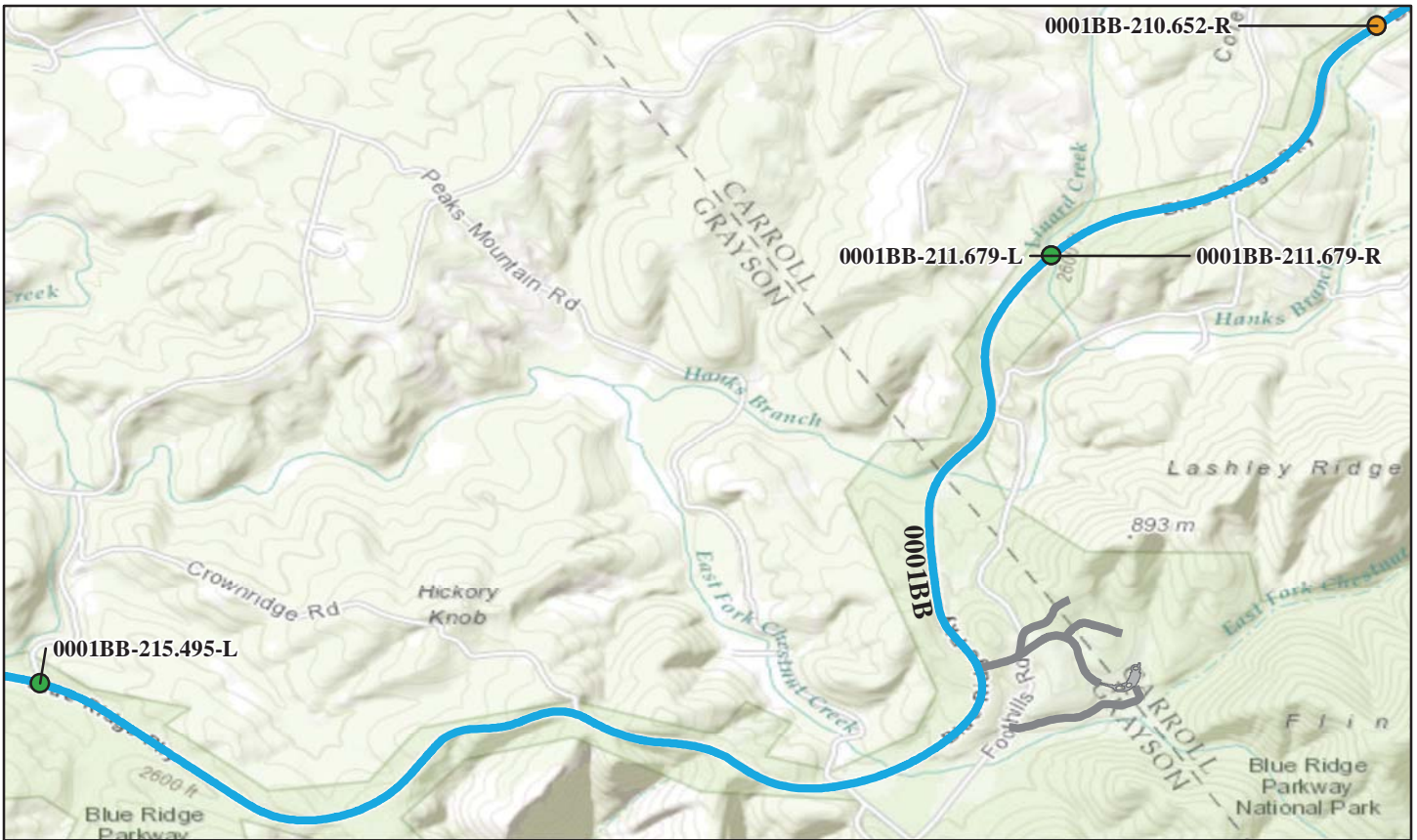
No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001BB-209.933-R 11/27/2007	150	33	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001BB-209.943-R 11/27/2007	250	45	Gravity - Mortared Stone	Head Wall	65	\$1,470.00
BLRI-0001BB-210.027-L 11/28/2007	150	31	Gravity - Mortared Stone	Head Wall	74	\$0.00
BLRI-0001BB-210.027-R 11/28/2007	165	36	Gravity - Mortared Stone	Head Wall	69	\$2,155.00
BLRI-0001BB-210.059-L 11/28/2007	65	12	Gravity - Mortared Stone	Head Wall	47	\$41,700.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

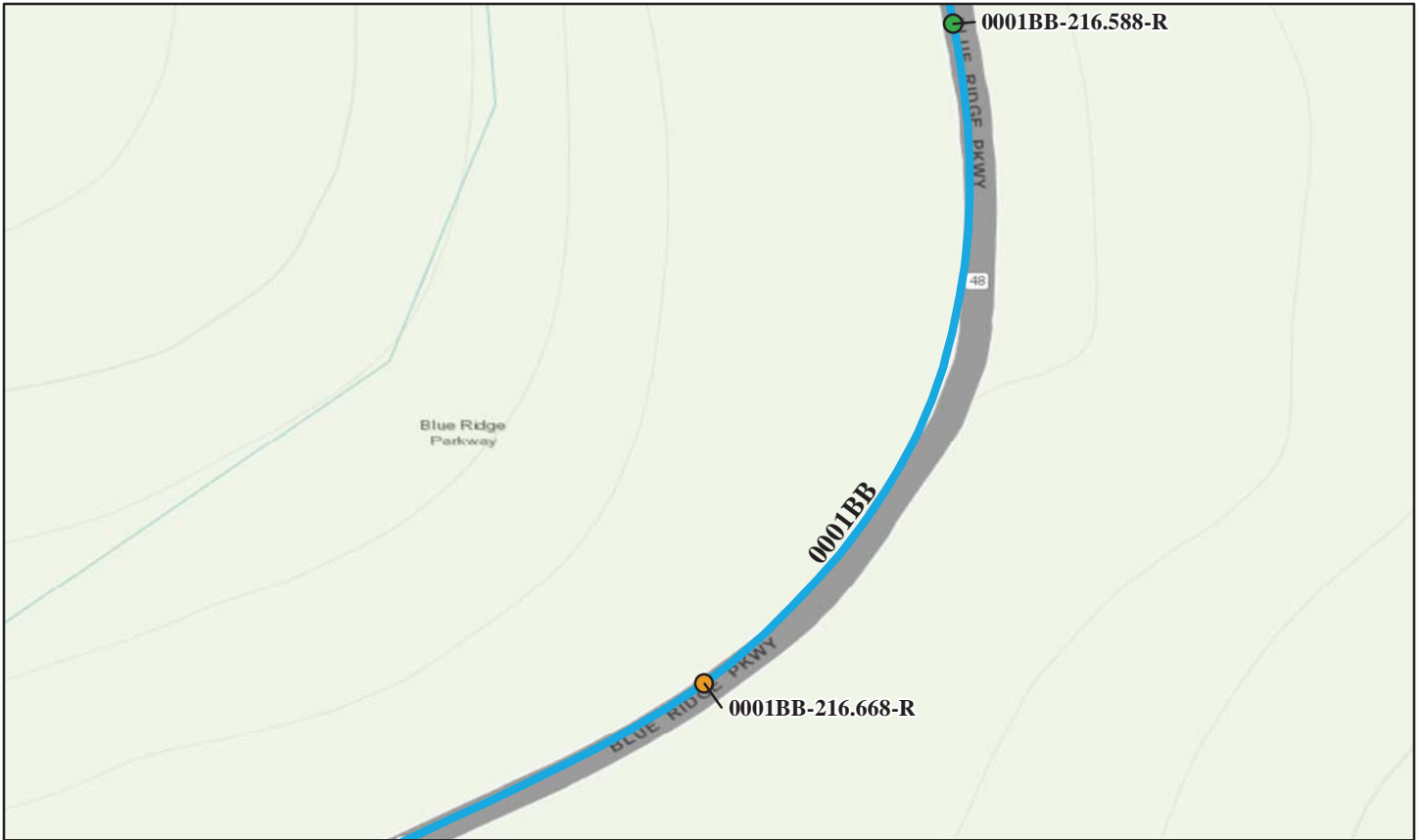
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Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001BB-210.652-L 11/27/2007	155	35	Gravity - Mortared Stone	Head Wall	68	\$1,750.00
BLRI-0001BB-210.652-R 11/27/2007	160	34	Gravity - Mortared Stone	Head Wall	68	\$1,500.00
BLRI-0001BB-211.679-L 11/27/2007	300	60	Gravity - Mortared Stone	Head Wall	70	\$600.00
BLRI-0001BB-211.679-R 11/27/2007	300	61	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001BB-215.495-L 11/28/2007	140	39	Gravity - Mortared Stone	Head Wall	70	\$1,750.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

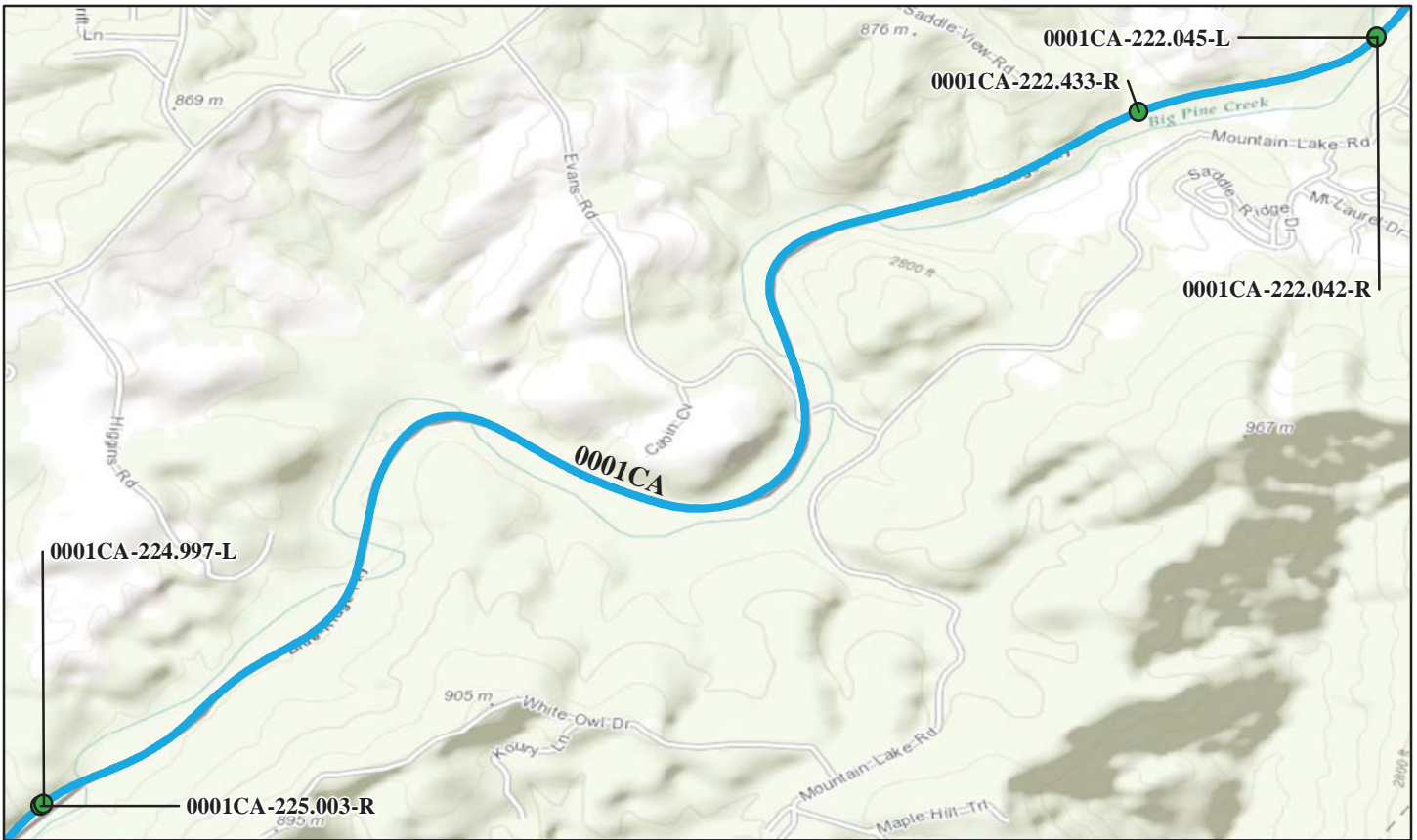
No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001BB-216.588-R 11/27/2007	2,450	315	Gravity - Mortared Stone	Fill Wall	70	\$0.00
BLRI-0001BB-216.668-R 11/28/2007	490	140	Gravity - Mortared Stone	Fill Wall	63	\$41,300.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

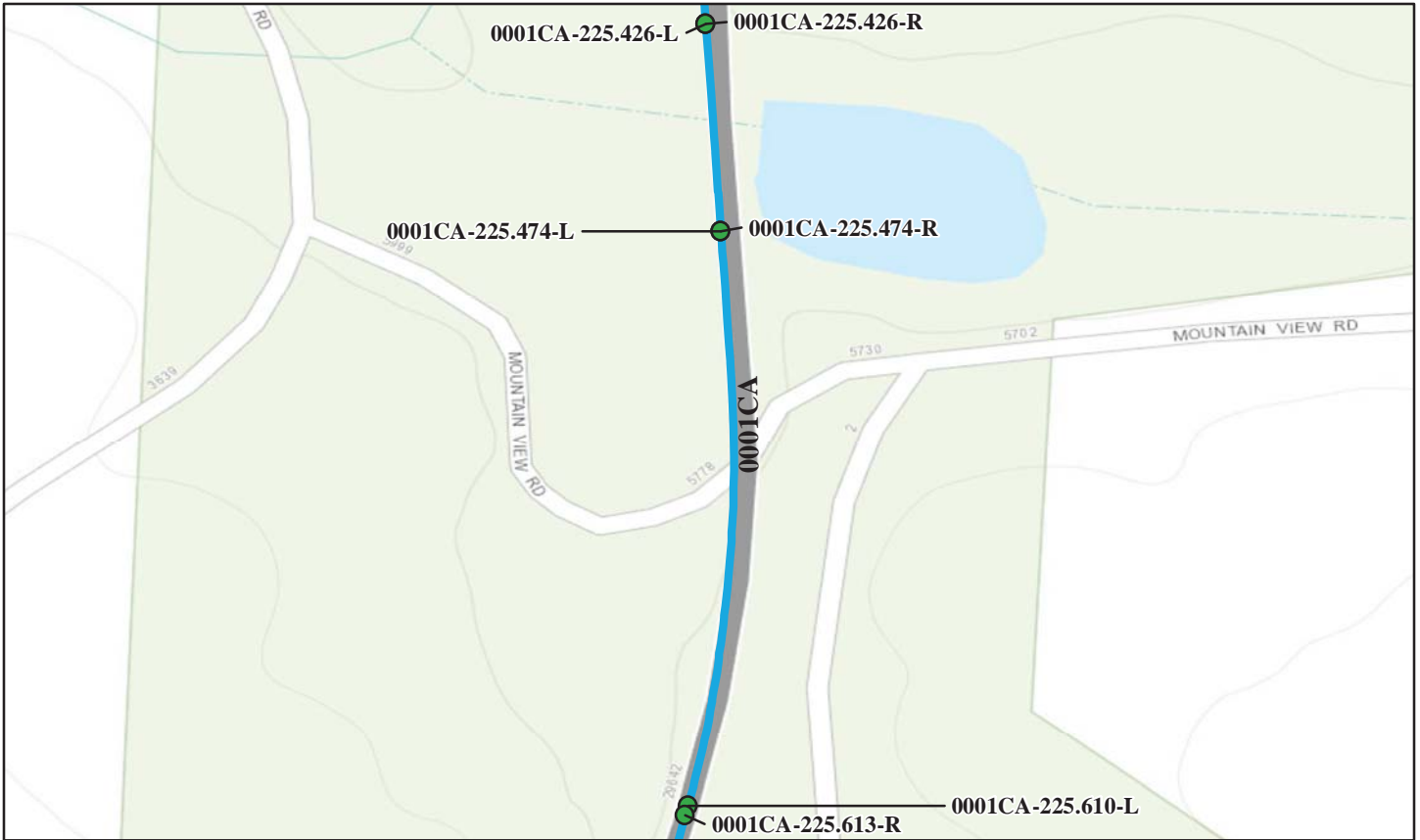
No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001CA-222.042-R 12/4/2007	150	38	Gravity - Mortared Stone	Head Wall	78	\$0.00
BLRI-0001CA-222.045-L 12/4/2007	130	6	Gravity - Mortared Stone	Head Wall	78	\$0.00
BLRI-0001CA-222.433-R 12/4/2007	100	30	Gravity - Mortared Stone	Head Wall	73	\$0.00
BLRI-0001CA-224.997-L 12/4/2007	600	70	Gravity - Mortared Stone	Head Wall	72	\$330.00
BLRI-0001CA-225.003-R 12/4/2007	150	38	Gravity - Mortared Stone	Head Wall	80	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001CA-225.426-L 12/4/2007	130	30	Gravity - Mortared Stone	Head Wall	78	\$0.00
BLRI-0001CA-225.426-R 12/4/2007	175	30	Gravity - Mortared Stone	Head Wall	78	\$0.00
BLRI-0001CA-225.474-L 12/4/2007	140	30	Gravity - Mortared Stone	Head Wall	78	\$0.00
BLRI-0001CA-225.474-R 12/4/2007	250	30	Gravity - Mortared Stone	Head Wall	76	\$270.00
BLRI-0001CA-225.610-L 12/4/2007	125	24	Gravity - Mortared Stone	Head Wall	80	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001CA-225.613-R 12/4/2007	75	22	Gravity - Mortared Stone	Head Wall	80	\$0.00
BLRI-0001CA-225.815-R 12/4/2007	300	50	Gravity - Mortared Stone	Head Wall	54	\$11,550.00
BLRI-0001CA-225.818-L 12/4/2007	270	50	Gravity - Mortared Stone	Head Wall	75	\$440.00
BLRI-0001CA-225.968-L 12/4/2007	75	24	Gravity - Mortared Stone	Head Wall	80	\$0.00
BLRI-0001CA-225.973-R 12/4/2007	100	28	Gravity - Mortared Stone	Head Wall	80	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

## ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

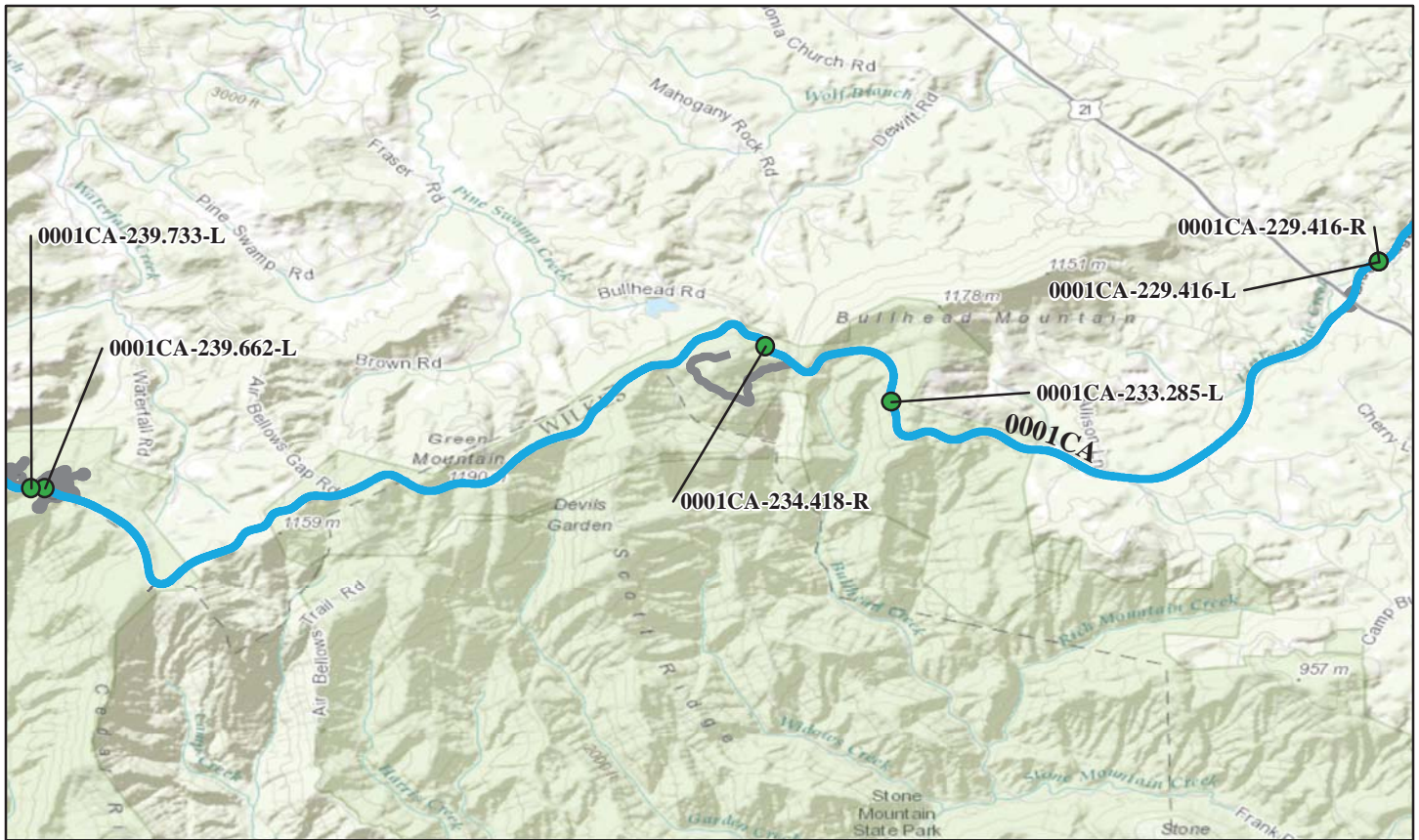
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Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001CA-227.014-L 12/4/2007	110	20	Gravity - Mortared Stone	Head Wall	78	\$0.00
BLRI-0001CA-227.014-R 12/4/2007	100	22	Gravity - Mortared Stone	Head Wall	80	\$0.00
BLRI-0001CA-227.921-R 12/4/2007	1,000	125	Gravity - Dry Stone	Slope Protection	80	\$0.00
BLRI-0001CA-228.268-L 12/4/2007	650	65	Gravity - Mortared Stone	Head Wall	82	\$0.00
BLRI-0001CA-228.268-R 12/4/2007	750	75	Gravity - Mortared Stone	Head Wall	82	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001CA-229.416-L 12/4/2007	750	70	Gravity - Mortared Stone	Head Wall	82	\$0.00
BLRI-0001CA-229.416-R 12/4/2007	1,000	80	Gravity - Mortared Stone	Head Wall	82	\$0.00
BLRI-0001CA-233.285-L 12/4/2007	1,260	180	Gravity - Mortared Stone	Fill Wall	85	\$0.00
BLRI-0001CA-234.418-R 12/4/2007	1,000	130	Gravity - Mortared Stone	Fill Wall	79	\$0.00
BLRI-0001CA-239.662-L 12/5/2007	850	170	Gravity - Mortared Stone	Fill Wall	89	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001CA-239.733-L 12/5/2007	2,650	225	Gravity - Mortared Stone	Fill Wall	87	\$0.00
BLRI-0001CA-242.153-R 12/5/2007	560	178	Gravity - Mortared Stone	Fill Wall	42	\$305,775.00
BLRI-0001CA-242.241-R 12/5/2007	3,150	305	Gravity - Mortared Stone	Fill Wall	82	\$0.00
BLRI-0001CA-242.313-R 12/5/2007	350	70	Gravity - Mortared Stone	Fill Wall	89	\$0.00
BLRI-0001CA-242.388-R 12/5/2007	480	235	Gravity - Mortared Stone	Fill Wall	65	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001CA-245.175-L 12/5/2007	2,050	137	Gravity - Dry Stone	Fill Wall	83	\$0.00
BLRI-0001CA-245.685-R 12/5/2007	1,260	180	Gravity - Mortared Stone	Fill Wall	77	\$0.00
BLRI-0001CA-245.727-L 12/5/2007	180	47	Gravity - Mortared Stone	Head Wall	83	\$0.00
BLRI-0001CA-247.866-L 12/5/2007	125	45	Gravity - Mortared Stone	Head Wall	82	\$0.00
BLRI-0001CA-247.871-R 12/5/2007	110	38	Gravity - Mortared Stone	Head Wall	82	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001CA-248.143-L 12/5/2007	80	22	Gravity - Mortared Stone	Head Wall	82	\$0.00
BLRI-0001CA-248.153-R 12/5/2007	175	30	Gravity - Mortared Stone	Head Wall	79	\$0.00
BLRI-0001CA-249.589-L 12/5/2007	160	32	Gravity - Mortared Stone	Head Wall	76	\$1,980.00
BLRI-0001CA-249.595-R 12/5/2007	80	20	Gravity - Mortared Stone	Head Wall	82	\$0.00
BLRI-0001CA-249.725-L 12/5/2007	220	38	Gravity - Mortared Stone	Head Wall	78	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001CA-249.725-R 12/5/2007	125	25	Gravity - Mortared Stone	Head Wall	81	\$0.00
BLRI-0001CA-249.844-L 12/5/2007	240	34	Gravity - Mortared Stone	Head Wall	83	\$0.00
BLRI-0001CA-249.855-R 12/5/2007	320	42	Gravity - Mortared Stone	Head Wall	78	\$0.00
BLRI-0001CA-251.235-L 12/5/2007	120	42	Gravity - Mortared Stone	Head Wall	83	\$0.00
BLRI-0001CA-251.235-R 12/5/2007	105	39	Gravity - Mortared Stone	Head Wall	83	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001CB: BLUE RIDGE PARKWAY - SANDY FLATS SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001CB-263.057-L 12/6/2007	6,420	428	Gravity - Dry Stone	Fill Wall	74	\$0.00
BLRI-0001CB-263.233-L 12/6/2007	1,420	202	Gravity - Dry Stone	Fill Wall	80	\$0.00
BLRI-0001CB-270.811-L 12/6/2007	3,060	153	Gravity - Dry Stone	Fill Wall	79	\$0.00
BLRI-0001CB-281.617-L 12/6/2007	1,720	125	Gravity - Mortared Stone	Fill Wall	84	\$0.00
BLRI-0001CB-284.022-L 12/6/2007	1,250	206	Gravity - Mortared Stone	Fill Wall	92	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001CB: BLUE RIDGE PARKWAY - SANDY FLATS SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

No Data

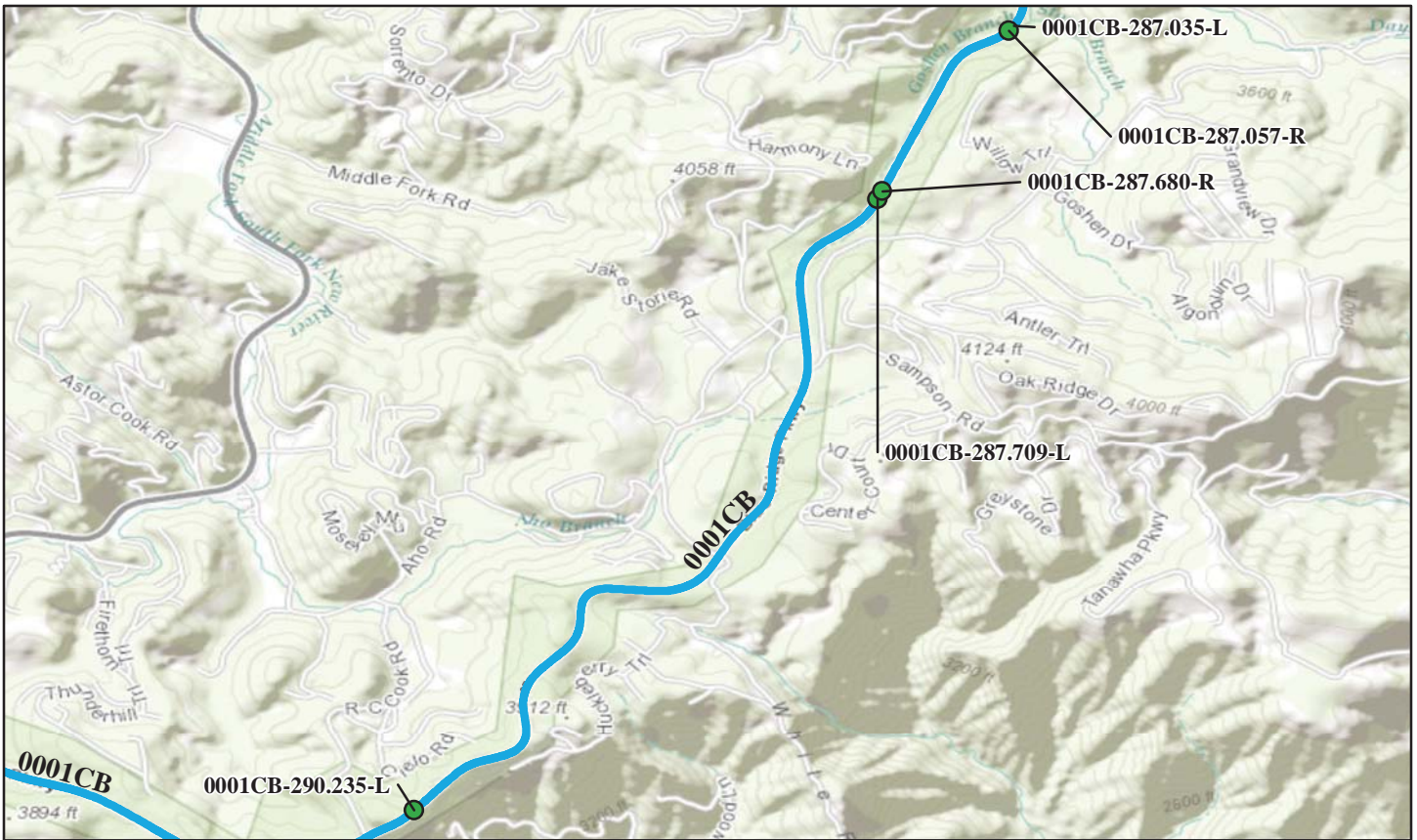
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BLRI-0001CB-286.083-L 12/6/2007	170	57	Gravity - Mortared Stone	Head Wall	75	\$0.00
BLRI-0001CB-286.092-R 12/6/2007	125	50	Gravity - Mortared Stone	Head Wall	75	\$0.00
BLRI-0001CB-286.805-L 12/6/2007	300	83	Gravity - Mortared Stone	Head Wall	81	\$0.00
BLRI-0001CB-286.810-R 12/6/2007	4,500	641	Gravity - Mortared Stone	Fill Wall	80	\$0.00
BLRI-0001CB-286.925-L 12/6/2007	285	71	Gravity - Mortared Stone	Head Wall	82	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

## ROUTE 0001CB: BLUE RIDGE PARKWAY - SANDY FLATS SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

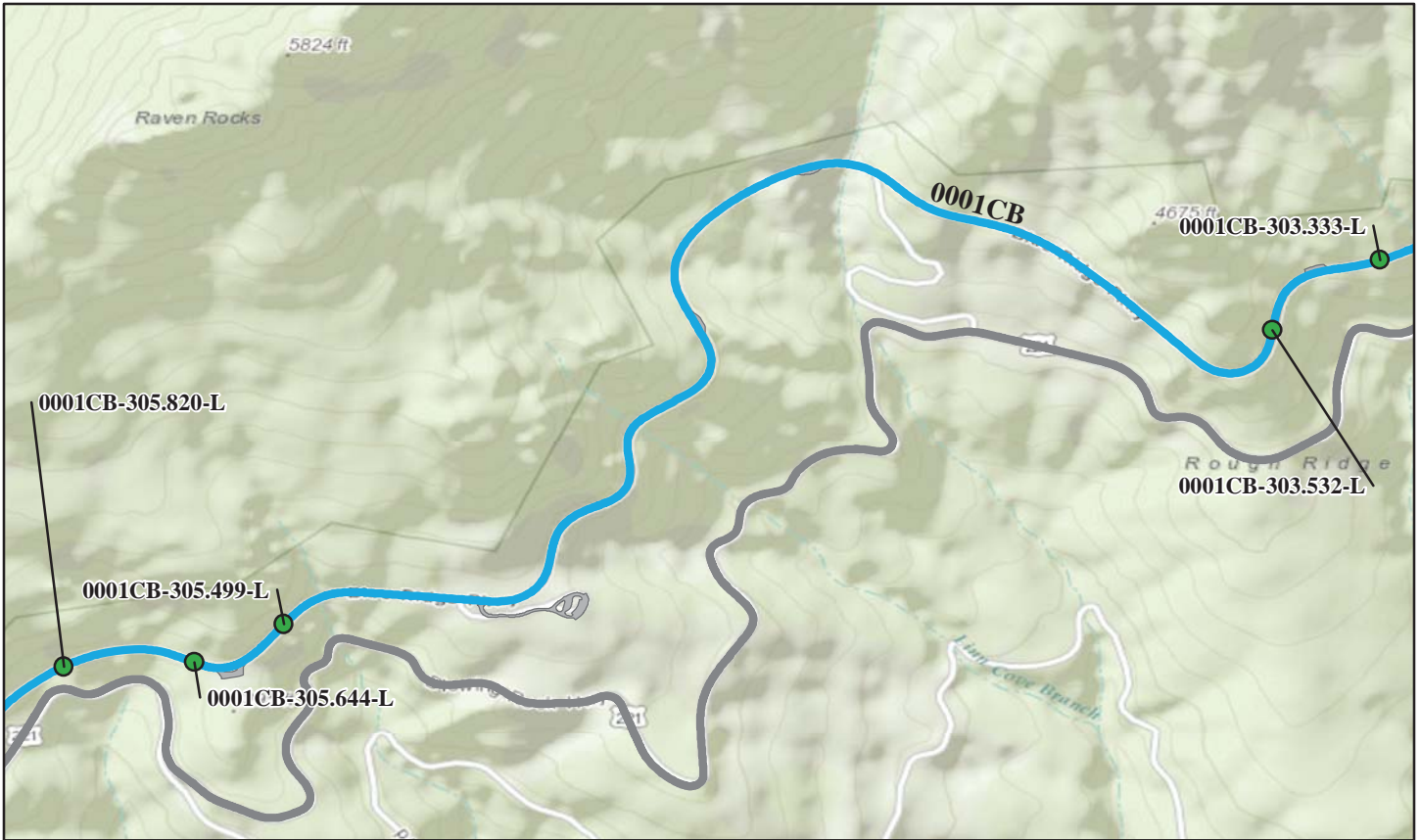
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Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001CB-287.035-L 12/6/2007	200	74	Gravity - Mortared Stone	Head Wall	59	\$11,000.00
BLRI-0001CB-287.057-R 12/6/2007	290	66	Gravity - Mortared Stone	Head Wall	77	\$0.00
BLRI-0001CB-287.680-R 12/6/2007	1,300	112	Gravity - Mortared Stone	Fill Wall	84	\$110.00
BLRI-0001CB-287.709-L 12/6/2007	120	45	Gravity - Mortared Stone	Head Wall	70	\$270.00
BLRI-0001CB-290.235-L 12/6/2007	1,470	245	Gravity - Mortared Stone	Fill Wall	84	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001CB: BLUE RIDGE PARKWAY - SANDY FLATS SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

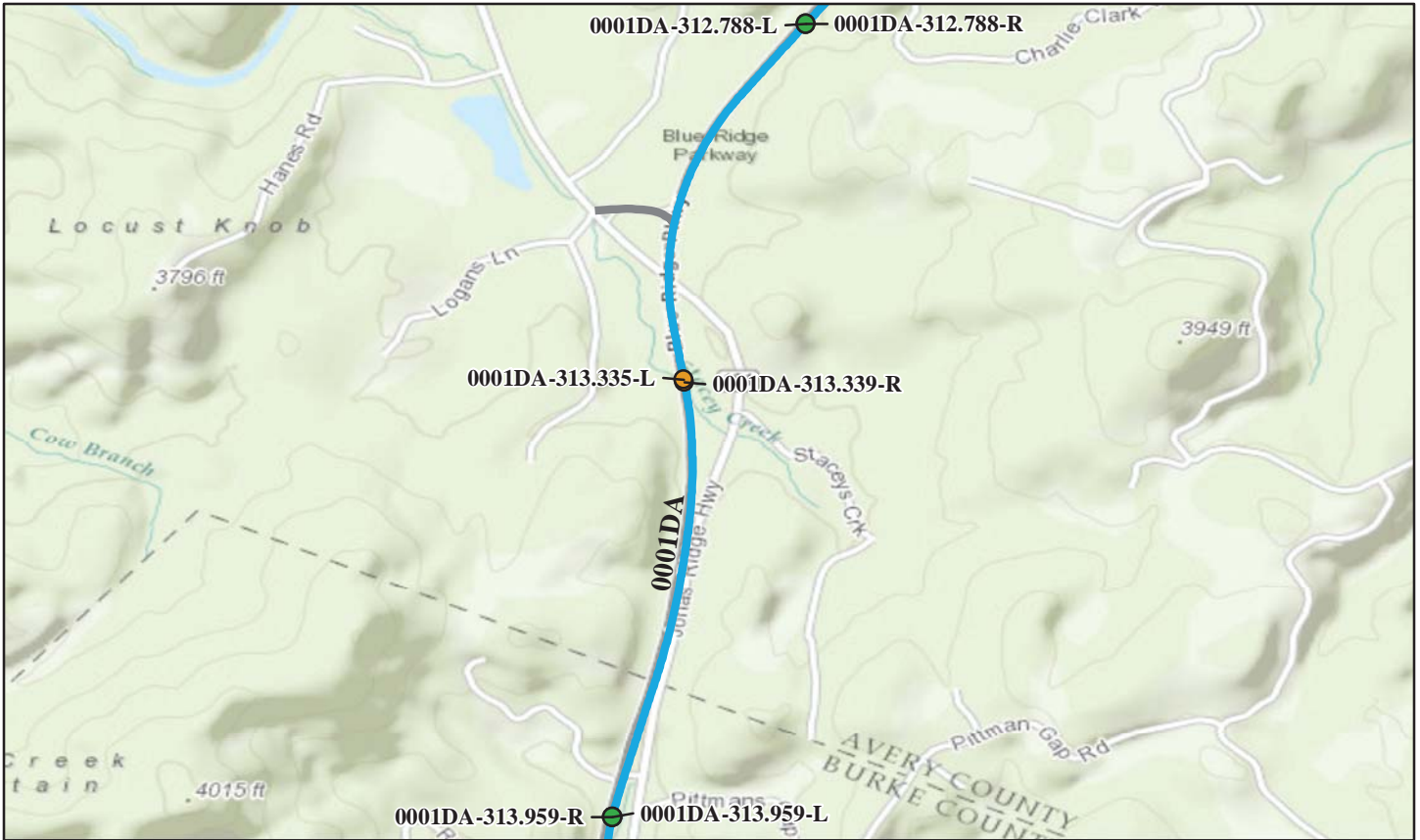
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Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001CB-303.333-L 12/6/2007	14,260	815	MSE - Precast Panel	Fill Wall	83	\$0.00
BLRI-0001CB-303.532-L 12/6/2007	18,200	835	Gravity - Mortared Stone	Fill Wall	94	\$0.00
BLRI-0001CB-305.499-L 12/6/2007	3,900	260	Gravity - Gabion	Fill Wall	84	\$0.00
BLRI-0001CB-305.644-L 12/6/2007	4,000	335	Gravity - Gabion	Fill Wall	89	\$0.00
BLRI-0001CB-305.820-L 12/6/2007	3,000	214	Gravity - Mortared Stone	Fill Wall	77	\$220.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001DA: BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001DA-312.788-L 11/27/2007	90	28	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001DA-312.788-R 11/27/2007	90	28	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0001DA-313.335-L 11/27/2007	110	49	Gravity - Mortared Stone	Head Wall	66	\$1,150.00
BLRI-0001DA-313.339-R 11/27/2007	80	35	Gravity - Mortared Stone	Head Wall	68	\$0.00
BLRI-0001DA-313.959-L 11/27/2007	50	24	Gravity - Mortared Stone	Head Wall	72	\$1,000.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001DA: BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001DA-313.959-R 11/27/2007	50	26	Gravity - Mortared Stone	Head Wall	72	\$1,000.00
BLRI-0001DA-314.201-L 11/27/2007	35	22	Gravity - Mortared Stone	Head Wall	68	\$0.00
BLRI-0001DA-314.201-R 11/27/2007	35	25	Gravity - Mortared Stone	Head Wall	68	\$550.00
BLRI-0001DA-315.261-R 11/27/2007	60	16	Gravity - Mortared Stone	Head Wall	68	\$0.00
BLRI-0001DA-316.034-L 11/27/2007	560	68	Gravity - Mortared Stone	Fill Wall	70	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001DA: BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

**Critical / Poor (0 - 49)**

**Fair (50 - 69)**

**Good to Excellent (70 - 100)**

**No Data**

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001DA-318.511-L 11/29/2007	200	56	Gravity - Mortared Stone	Head Wall	75	\$3,170.00
BLRI-0001DA-318.511-R 11/29/2007	250	63	Gravity - Mortared Stone	Head Wall	61	\$3,170.00
BLRI-0001DA-320.727-L 11/28/2007	6,000	300	Gravity - Mortared Stone	Fill Wall	73	\$0.00
BLRI-0001DA-320.941-L 11/28/2007	2,500	125	Gravity - Mortared Stone	Fill Wall	72	\$0.00
BLRI-0001DA-320.996-L 12/1/2007	3,500	165	Gravity - Mortared Stone	Fill Wall	62	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001DA: BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

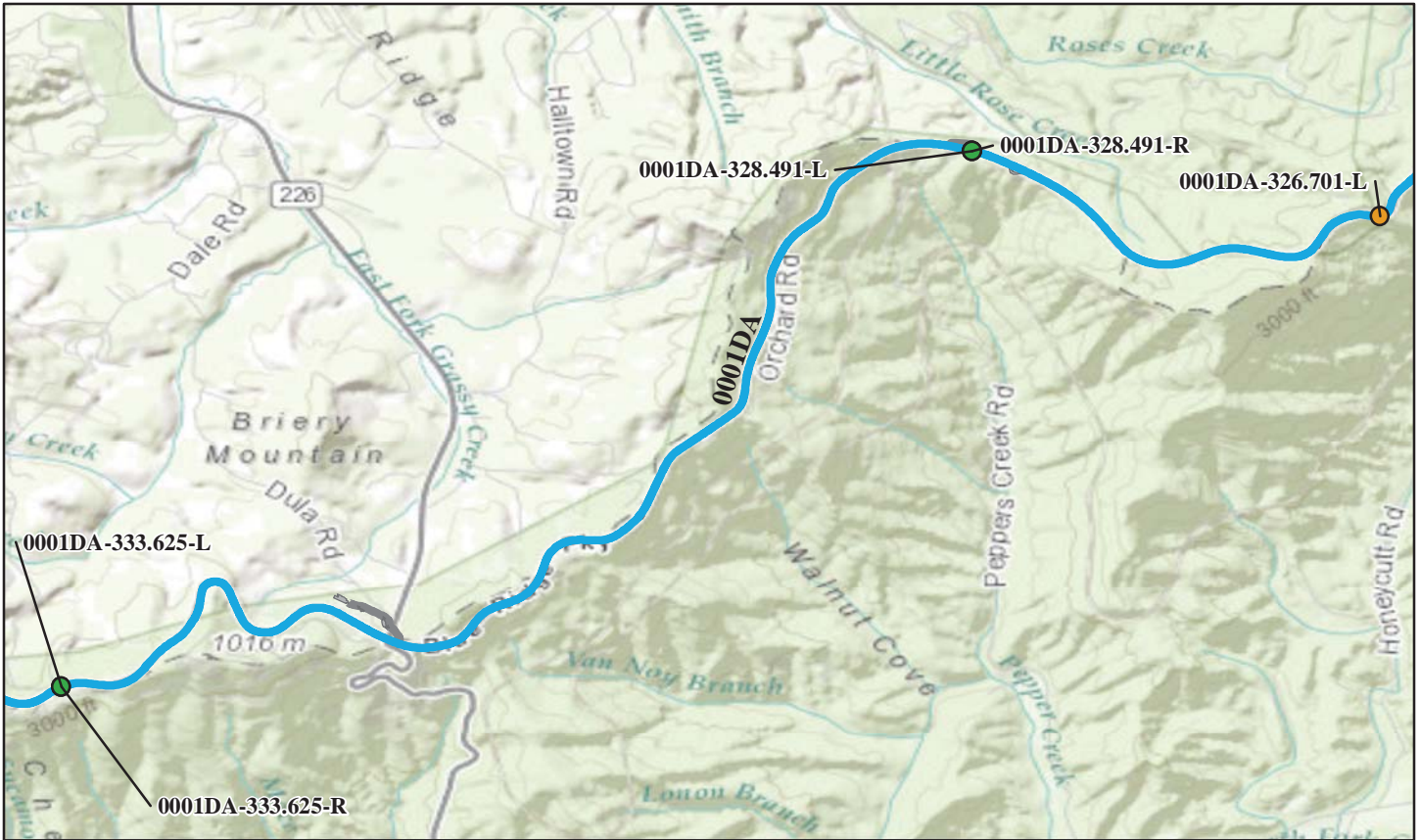
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Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001DA-322.750-L 11/28/2007	700	120	Gravity - Mortared Stone	Fill Wall	72	\$0.00
BLRI-0001DA-323.159-L 11/29/2007	6,000	305	Gravity - Gabion	Fill Wall	88	\$0.00
BLRI-0001DA-323.724-L 11/28/2007	50	22	Gravity - Mortared Stone	Head Wall	72	\$0.00
BLRI-0001DA-323.724-R 11/28/2007	50	15	Gravity - Mortared Stone	Head Wall	72	\$0.00
BLRI-0001DA-323.969-R 11/28/2007	250	55	Gravity - Mortared Stone	Head Wall	72	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001DA: BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

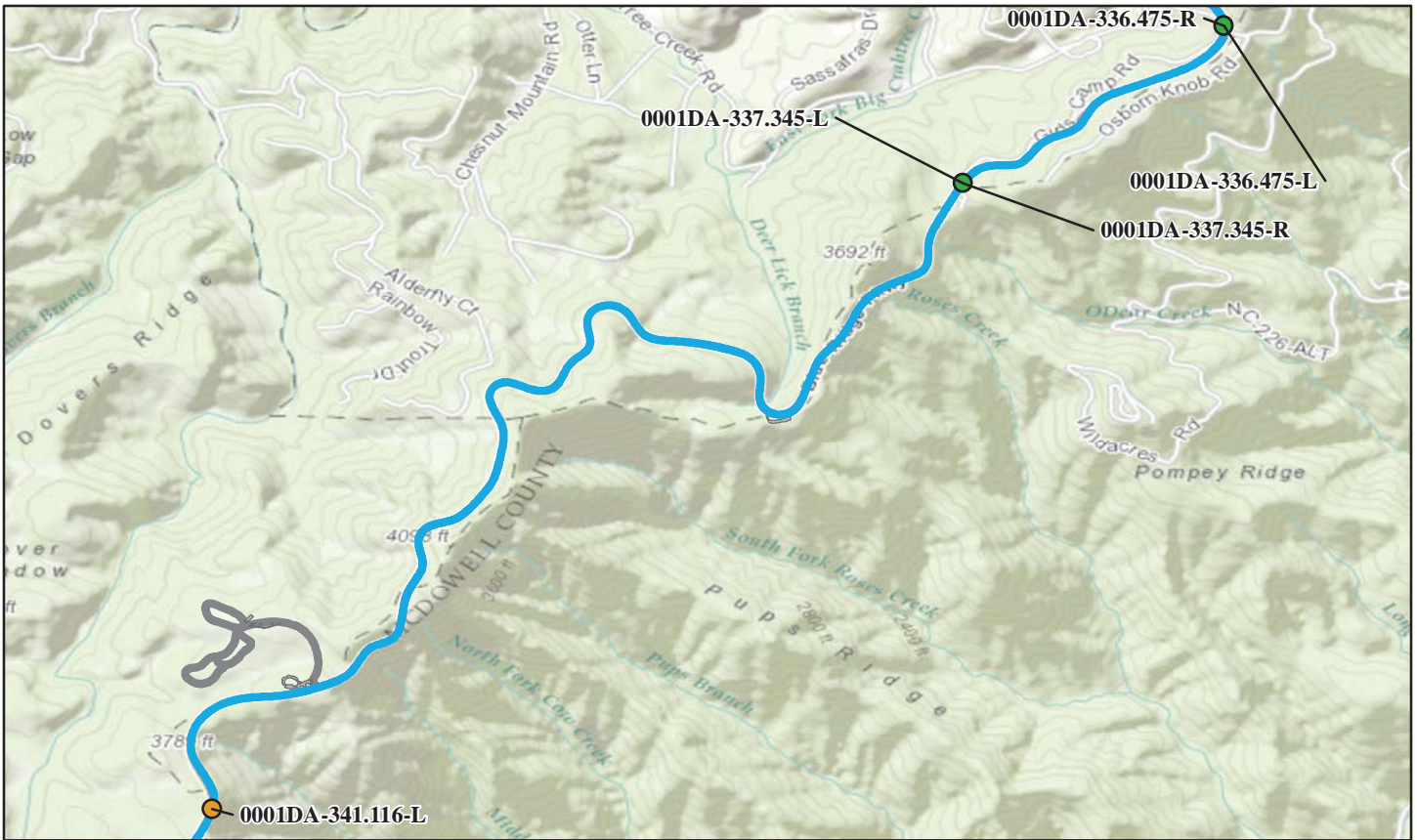
No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001DA-326.701-L 11/29/2007	4,500	325	Gravity - Mortared Stone	Fill Wall	63	\$550.00
BLRI-0001DA-328.491-L 11/28/2007	500	65	Gravity - Mortared Stone	Head Wall	78	\$0.00
BLRI-0001DA-328.491-R 11/28/2007	600	60	Gravity - Mortared Stone	Head Wall	80	\$0.00
BLRI-0001DA-333.625-L 11/28/2007	650	70	Gravity - Mortared Stone	Head Wall	80	\$0.00
BLRI-0001DA-333.625-R 11/28/2007	650	73	Gravity - Mortared Stone	Head Wall	80	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001DA: BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

No Data

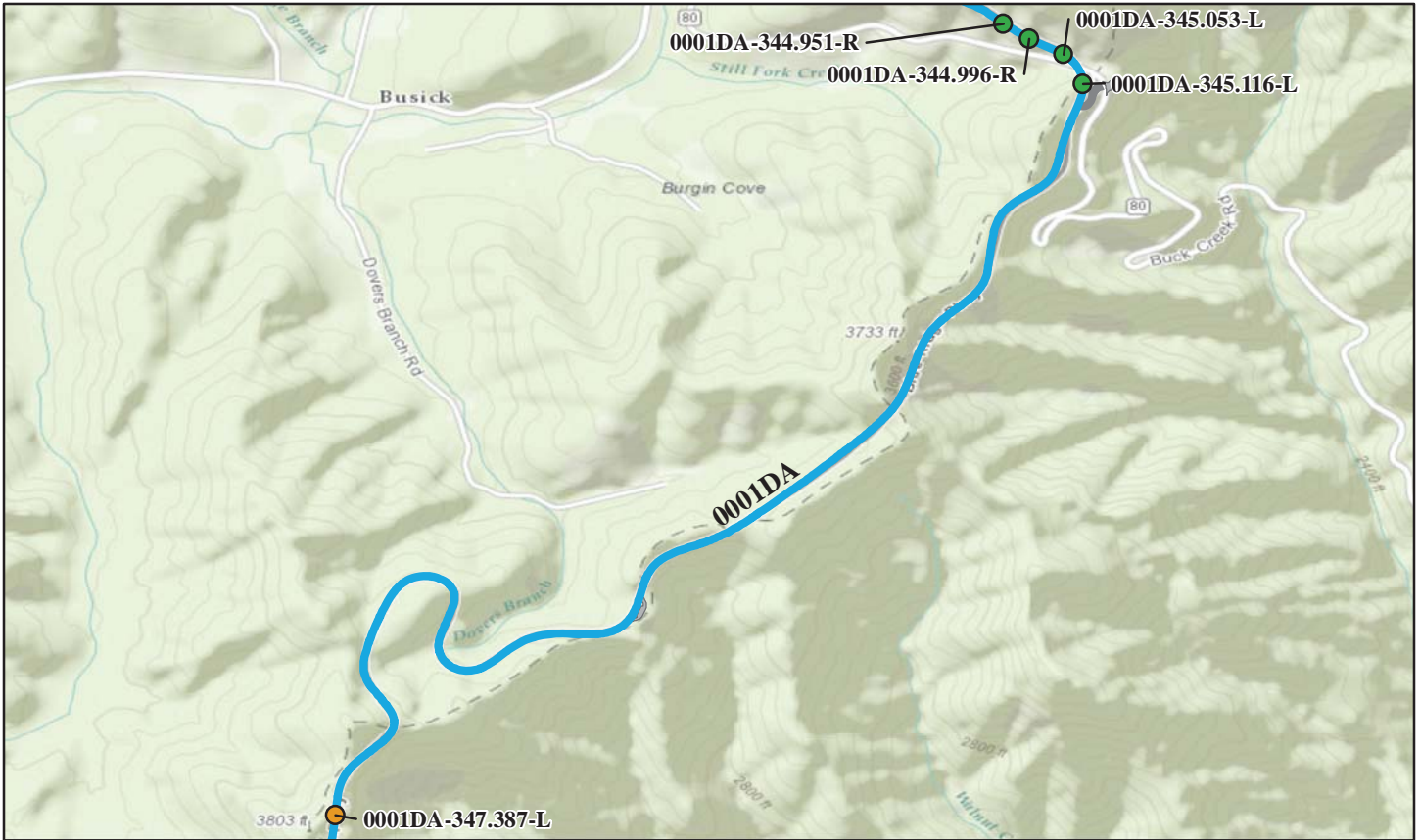
Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001DA-336.475-L 11/28/2007	450	61	Gravity - Mortared Stone	Head Wall	77	\$1,800.00
BLRI-0001DA-336.475-R 11/28/2007	450	65	Gravity - Mortared Stone	Head Wall	77	\$0.00
BLRI-0001DA-337.345-L 11/29/2007	325	72	Gravity - Mortared Stone	Head Wall	79	\$0.00
BLRI-0001DA-337.345-R 11/29/2007	300	65	Gravity - Mortared Stone	Head Wall	79	\$0.00
BLRI-0001DA-341.116-L 11/29/2007	2,700	175	Gravity - Mortared Stone	Cut Wall	67	\$550.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

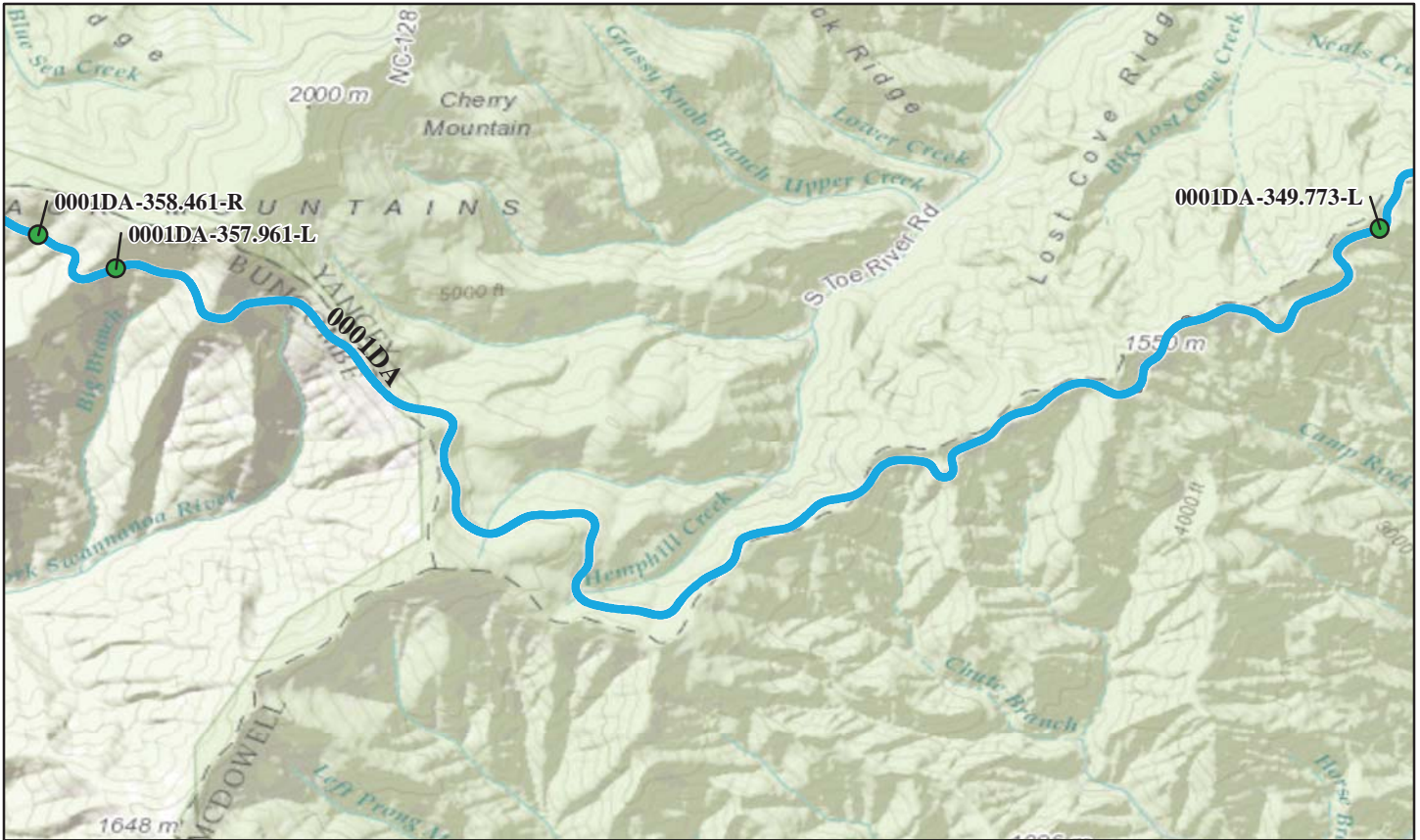
No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001DA-344.951-R 11/30/2007	1,000	79	Gravity - Mortared Stone	Fill Wall	73	\$0.00
BLRI-0001DA-344.996-R 11/30/2007	6,000	396	Gravity - Mortared Stone	Cut Wall	72	\$0.00
BLRI-0001DA-345.053-L 11/30/2007	1,600	105	Gravity - Mortared Stone	Fill Wall	80	\$0.00
BLRI-0001DA-345.116-L 11/30/2007	1,200	85	Gravity - Mortared Stone	Fill Wall	72	\$0.00
BLRI-0001DA-347.387-L 11/30/2007	270	50	Gravity - Mortared Stone	Cut Wall	66	\$4,800.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

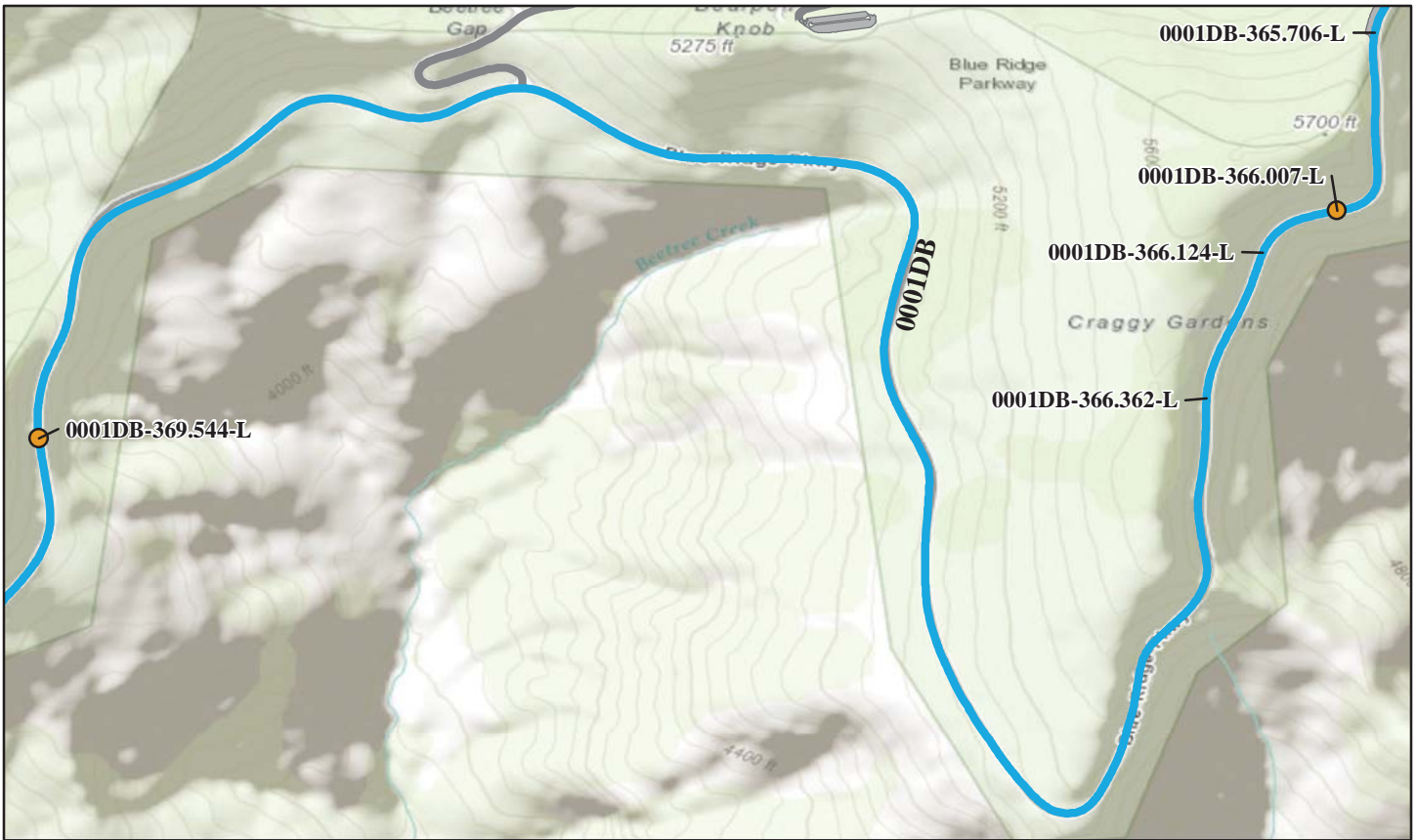
No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001DA-349.773-L 11/30/2007	2,800	141	MSE - Geosynthetic Wrapped Face	Slope Protection	85	\$0.00
BLRI-0001DA-357.961-L 11/30/2007	4,500	345	Gravity - Mortared Stone	Fill Wall	72	\$550.00
BLRI-0001DA-358.461-R 11/30/2007	240	32	Gravity - Mortared Stone	Head Wall	89	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001DB: BLUE RIDGE PARKWAY - OTEEN SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001DB-365.706-L 12/1/2007	7,200	600	Gravity - Mortared Stone	Fill Wall	22	\$0.00
BLRI-0001DB-366.007-L 12/1/2007	6,500	485	Gravity - Mortared Stone	Fill Wall	64	\$0.00
BLRI-0001DB-366.124-L 12/1/2007	1,500	325	Gravity - Mortared Stone	Fill Wall	62	\$0.00
BLRI-0001DB-366.362-L 12/1/2007	6,000	370	Gravity - Mortared Stone	Fill Wall	62	\$0.00
BLRI-0001DB-369.544-L 12/1/2007	2,000	309	Gravity - Mortared Stone	Fill Wall	65	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001DB: BLUE RIDGE PARKWAY - OTEEN SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001DB-378.431-R 12/1/2007	5,200	445	Gravity - Mortared Stone	Cut Wall	70	\$0.00
BLRI-0001DB-385.179-L 11/8/2007	285	50	Gravity - Mortared Stone	Head Wall	68	\$4,550.00
BLRI-0001DB-385.179-R 11/8/2007	285	50	Gravity - Mortared Stone	Head Wall	74	\$0.00
BLRI-0001DB-388.028-R 11/8/2007	320	105	Cantilever - Concrete	Head Wall	75	\$1,100.00
BLRI-0001DB-388.031-L 11/8/2007	350	65	Cantilever - Concrete	Head Wall	75	\$1,100.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001DB-388.512-L 11/8/2007	70	19	Gravity - Mortared Stone	Head Wall	50	\$14,205.00
BLRI-0001DB-388.512-R 11/8/2007	90	21	Cantilever - Concrete	Head Wall	71	\$740.00
BLRI-0001DB-390.342-L 11/8/2007	125	34	Gravity - Mortared Stone	Head Wall	70	\$750.00
BLRI-0001DB-390.342-R 11/8/2007	185	37	Gravity - Mortared Stone	Head Wall	70	\$525.00
BLRI-0001DB-390.895-L 11/8/2007	480	80	Cantilever - Concrete	Head Wall	78	\$1,100.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001DB: BLUE RIDGE PARKWAY - OTEEN SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001DB-390.895-R 11/8/2007	480	80	Cantilever - Concrete	Head Wall	78	\$550.00
BLRI-0001DB-404.875-R 11/7/2007	8,000	200	Gravity - Dry Stone	Slope Protection	73	\$0.00
BLRI-0001DB-408.271-L 11/7/2007	800	80	Gravity - Mortared Stone	Fill Wall	72	\$550.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001DC: BLUE RIDGE PARKWAY - BALSAM GAP SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001DC-413.751-L 11/7/2007	1,500	250	Gravity - Mortared Stone	Fill Wall	68	\$11,800.00
BLRI-0001DC-413.819-L 11/7/2007	1,900	430	Gravity - Dry Stone	Slope Protection	67	\$0.00
BLRI-0001DC-414.357-L 11/7/2007	3,000	515	Gravity - Dry Stone	Slope Protection	67	\$0.00
BLRI-0001DC-414.534-L 11/7/2007	19,000	440	Gravity - Dry Stone	Slope Protection	67	\$0.00
BLRI-0001DC-414.665-L 11/7/2007	10,600	280	Gravity - Dry Stone	Slope Protection	67	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

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

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Fair (50 - 69)

Good to Excellent (70 - 100)

No Data

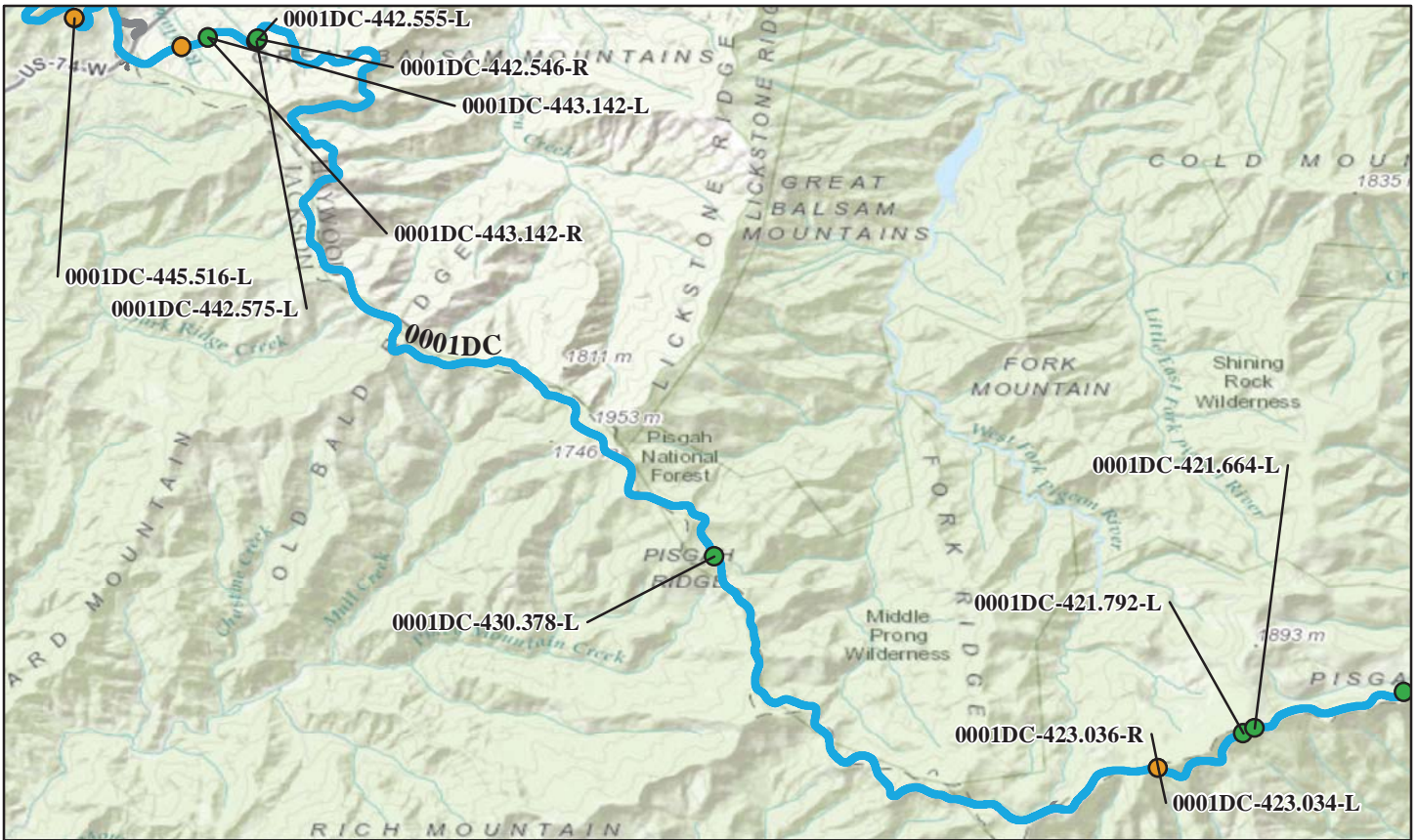
Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001DC-415.493-L 11/7/2007	7,000	200	Gravity - Dry Stone	Slope Protection	73	\$0.00
BLRI-0001DC-419.911-R 11/7/2007	4,300	360	Gravity - Dry Stone	Slope Protection	73	\$0.00
BLRI-0001DC-421.664-L 11/7/2007	29,000	385	Gravity - Dry Stone	Slope Protection	73	\$0.00
BLRI-0001DC-421.792-L 11/7/2007	1,500	165	Gravity - Mortared Stone	Fill Wall	72	\$550.00
BLRI-0001DC-423.034-L 11/7/2007	1,400	150	Gravity - Mortared Stone	Fill Wall	72	\$550.00

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# Blue Ridge Parkway

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

### Retaining Wall Condition Legend – Wall Condition Rating

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Good to Excellent (70 - 100)

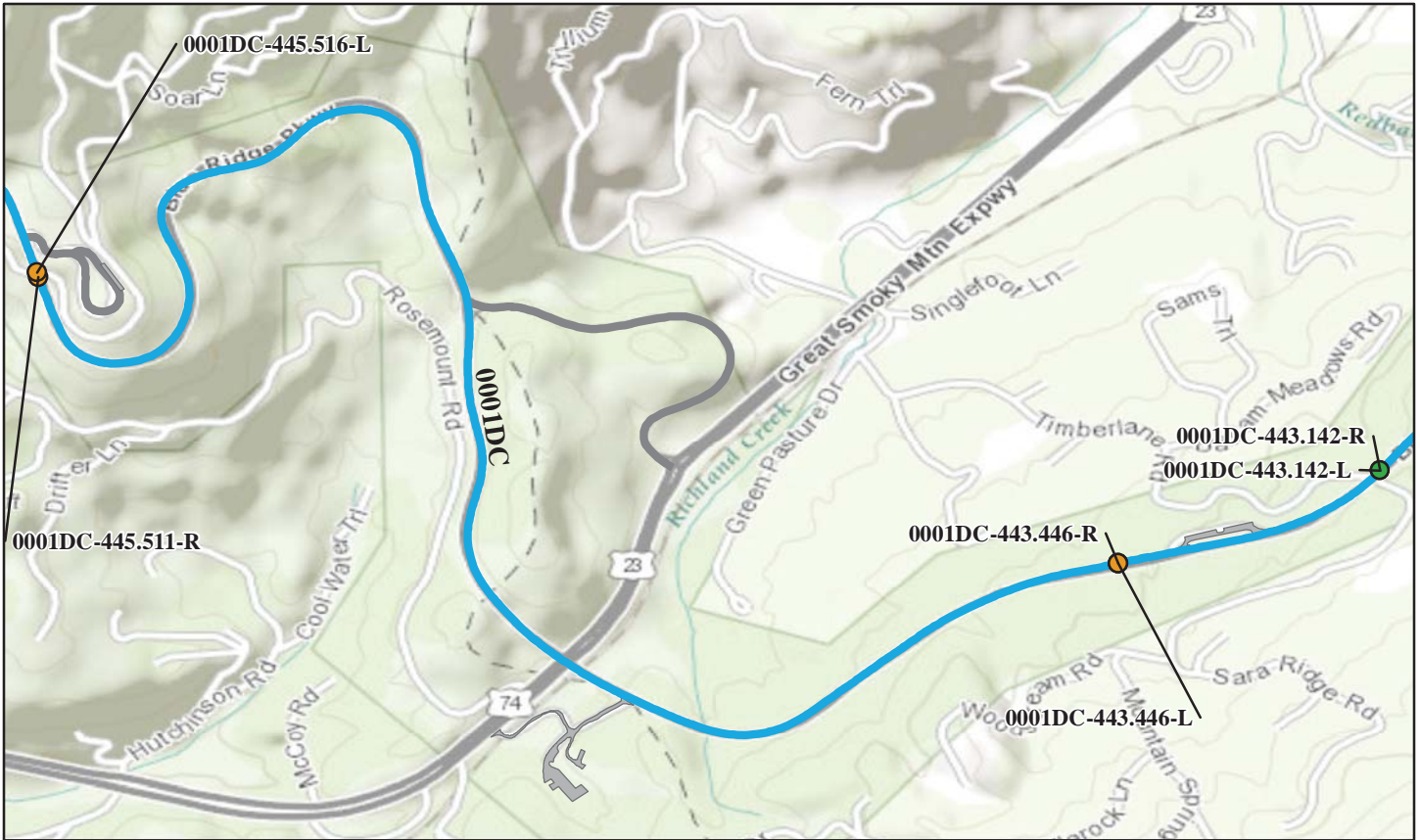
No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001DC-423.036-R 11/7/2007	1,000	96	Gravity - Mortared Stone	Cut Wall	65	\$9,695.00
BLRI-0001DC-430.378-L 11/6/2007	45	16	Gravity - Mortared Stone	Head Wall	70	\$2,570.00
BLRI-0001DC-442.546-R 11/6/2007	570	89	Cantilever - Concrete	Head Wall	73	\$1,100.00
BLRI-0001DC-442.555-L 11/6/2007	750	99	Cantilever - Concrete	Head Wall	72	\$1,100.00
BLRI-0001DC-442.575-L 11/6/2007	90	23	Gravity - Mortared Stone	Head Wall	63	\$3,120.00

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# Blue Ridge Parkway

## ROUTE 0001DC: BLUE RIDGE PARKWAY - BALSAM GAP SUB-DISTRICT



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

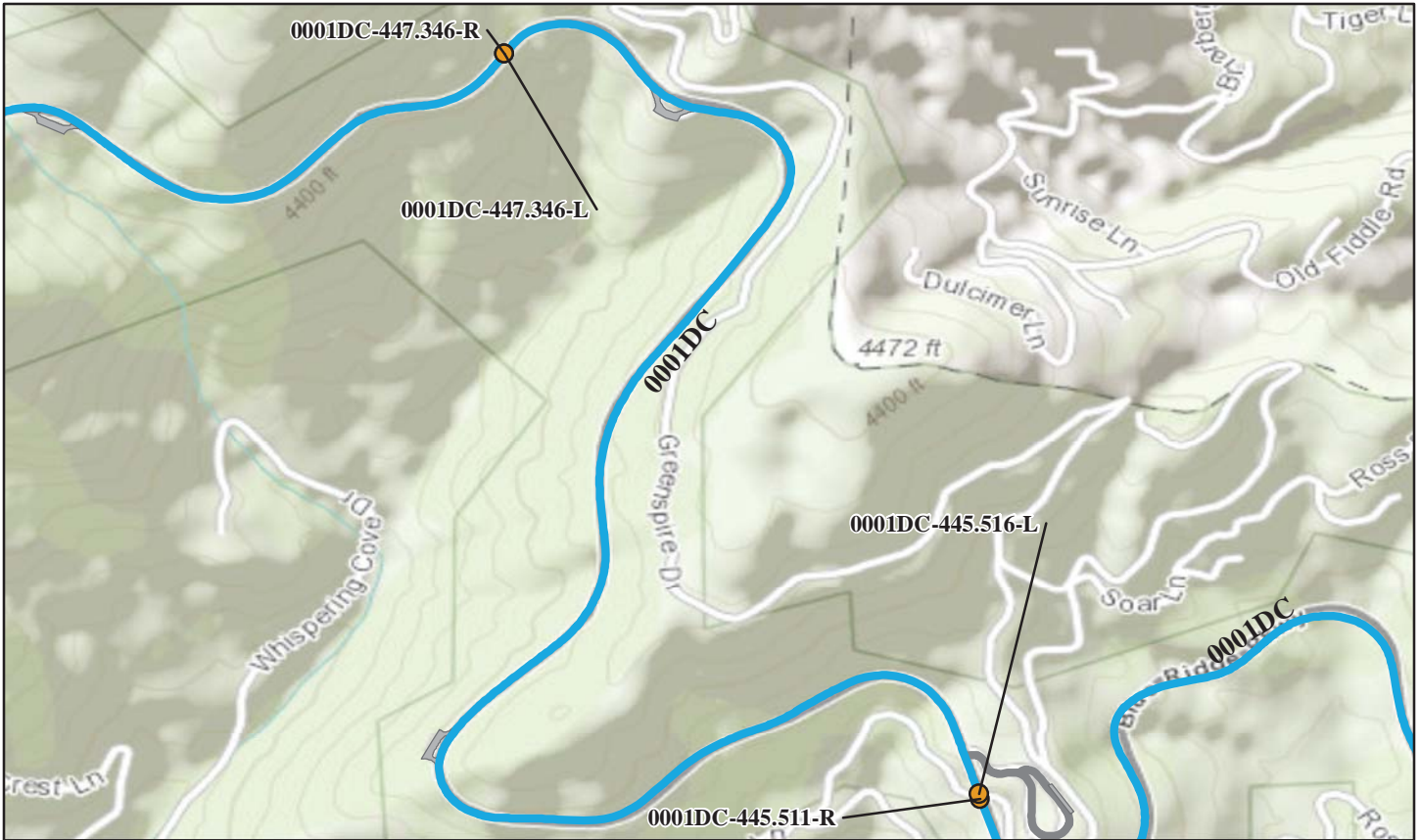
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Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001DC-443.142-L 11/6/2007	285	50	Cantilever - Concrete	Head Wall	73	\$550.00
BLRI-0001DC-443.142-R 11/6/2007	240	42	Cantilever - Concrete	Head Wall	73	\$550.00
BLRI-0001DC-443.446-L 11/6/2007	110	25	Gravity - Mortared Stone	Head Wall	63	\$16,800.00
BLRI-0001DC-443.446-R 11/6/2007	40	11	Gravity - Mortared Stone	Head Wall	68	\$0.00
BLRI-0001DC-445.511-R 11/6/2007	410	66	Cantilever - Concrete	Head Wall	67	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0001DC: BLUE RIDGE PARKWAY - BALSAM GAP SUB-DISTRICT



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

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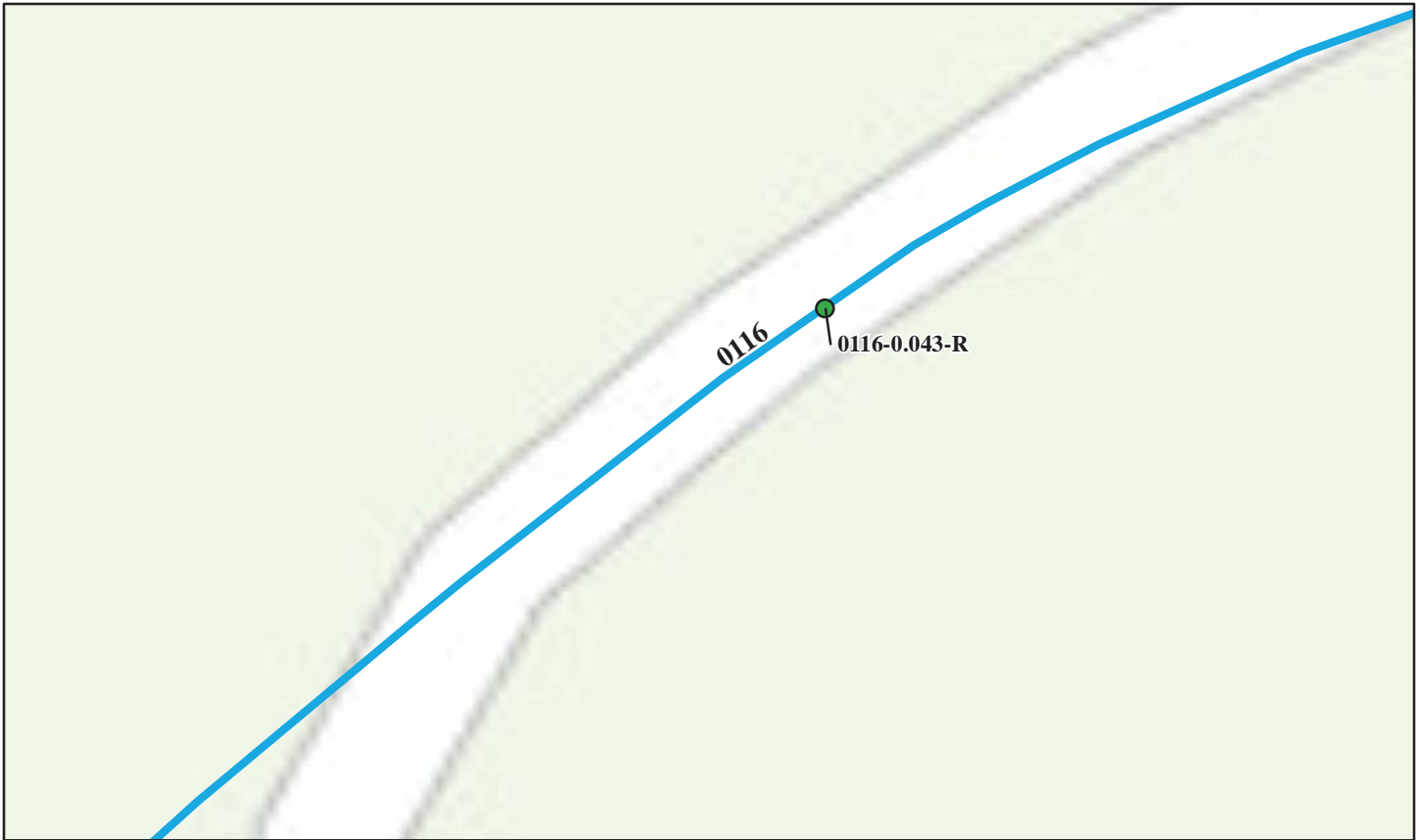
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Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0001DC-445.516-L 11/6/2007	420	70	Cantilever - Concrete	Head Wall	68	\$0.00
BLRI-0001DC-447.346-L 11/5/2007	100	20	Gravity - Mortared Stone	Head Wall	67	\$1,675.00
BLRI-0001DC-447.346-R 11/5/2007	75	21	Gravity - Mortared Stone	Head Wall	70	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0116: ACCESS RAMP TO U.S. ROUTE 221 WEST AT MP 317.16



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0116-0.038-L 11/29/2007	200	52	Gravity - Mortared Stone	Head Wall		
BLRI-0116-0.043-R 11/29/2007	200	60	Gravity - Mortared Stone	Head Wall	75	\$1,260.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0120ZZ: ACCESS RAMPS TO U.S. ROUTES 221 AND 321



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

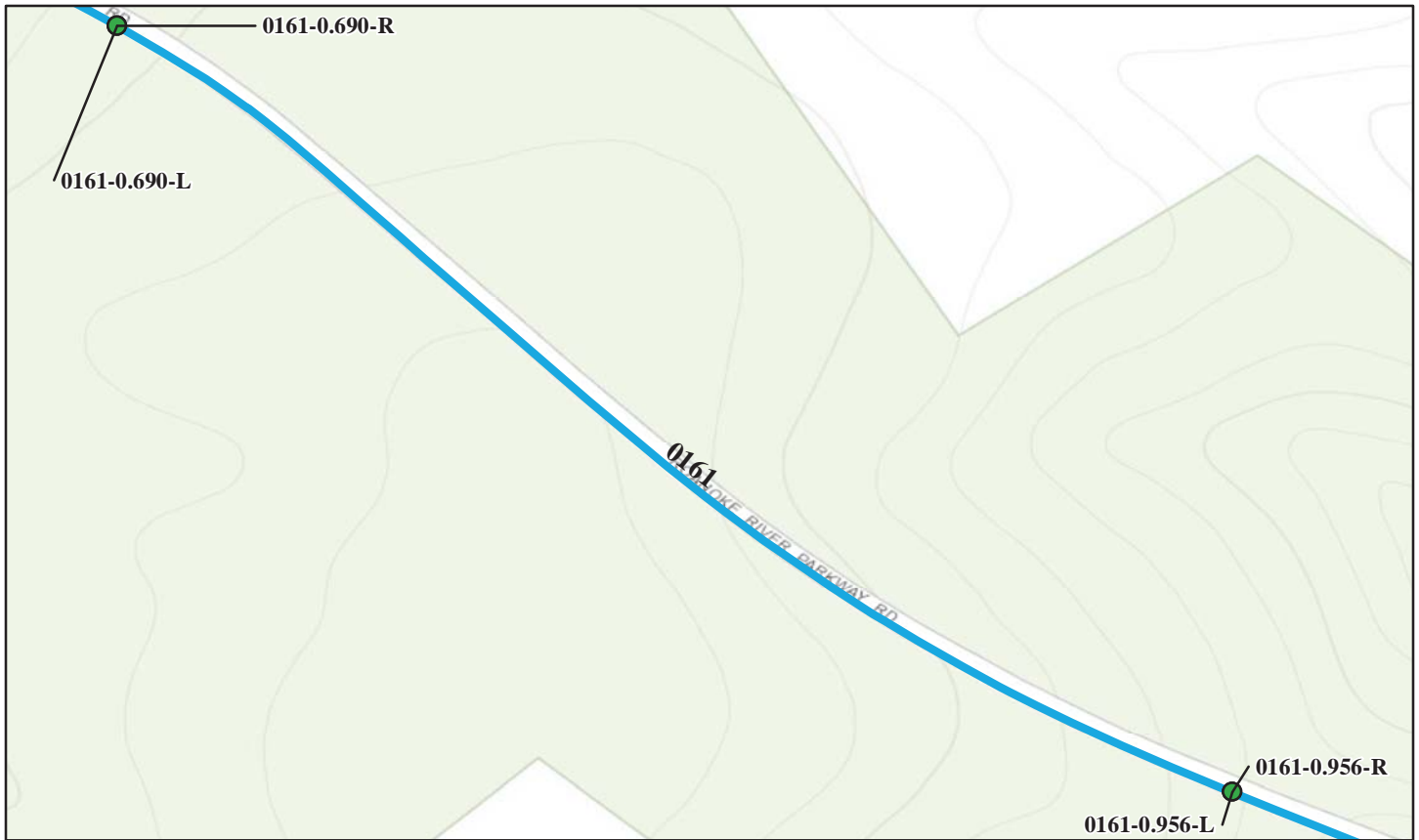
No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0120ZZ-0.095-L 12/6/2007	1,130	113	Gravity - Mortared Stone	Head Wall	85	\$0.00
BLRI-0120ZZ-0.101-R 12/6/2007	1,100	110	Gravity - Mortared Stone	Head Wall	76	\$3,300.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0161: ROANOKE RIVER PARKWAY



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

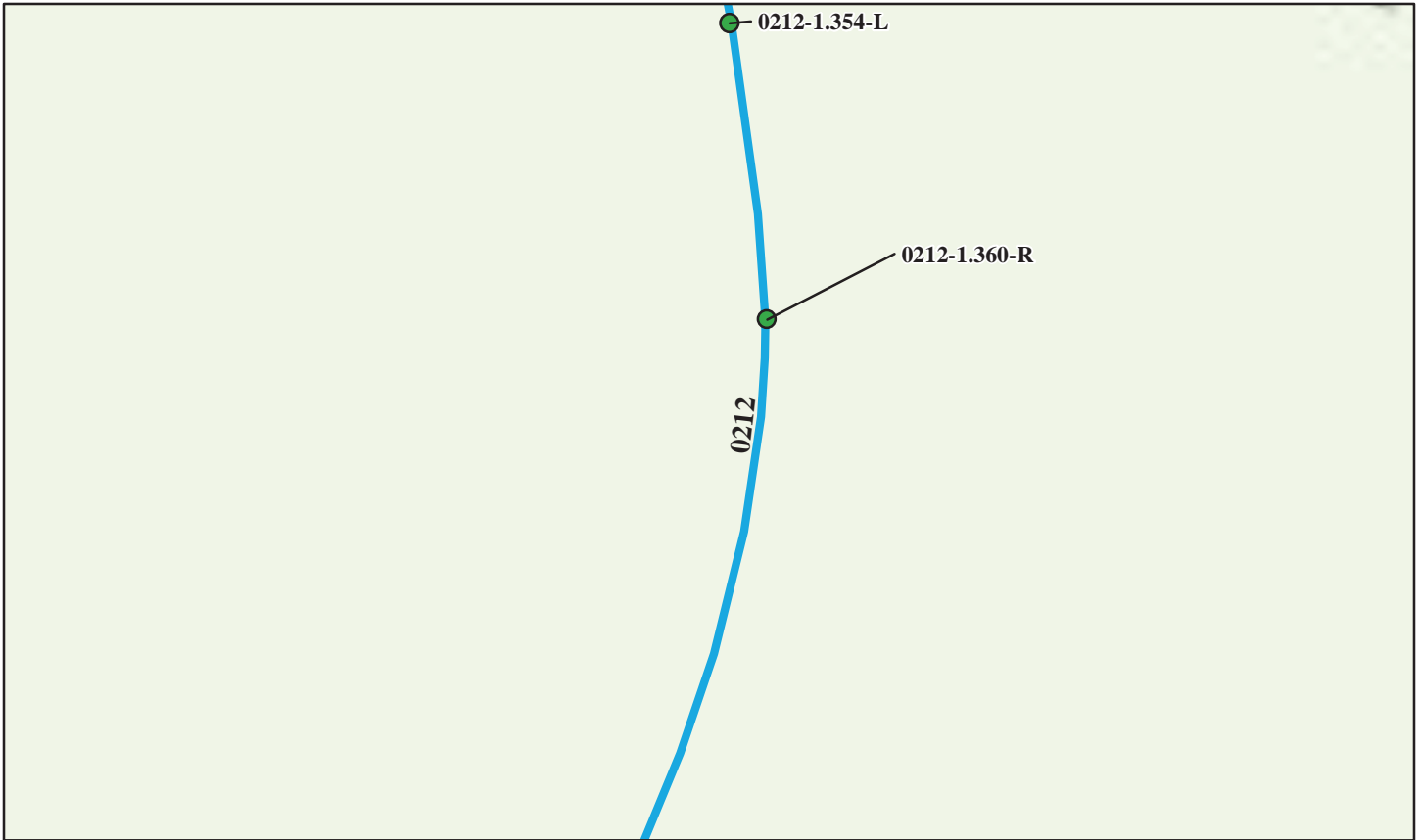
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Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0161-0.690-L 12/3/2007	720	76	Gravity - Mortared Stone	Head Wall	78	\$0.00
BLRI-0161-0.690-R 12/3/2007	630	76	Gravity - Mortared Stone	Head Wall	78	\$0.00
BLRI-0161-0.956-L 12/3/2007	750	76	Gravity - Mortared Stone	Head Wall	75	\$0.00
BLRI-0161-0.956-R 12/3/2007	750	76	Gravity - Mortared Stone	Head Wall	75	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0212: LINVILLE RIVER SPUR ROAD



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

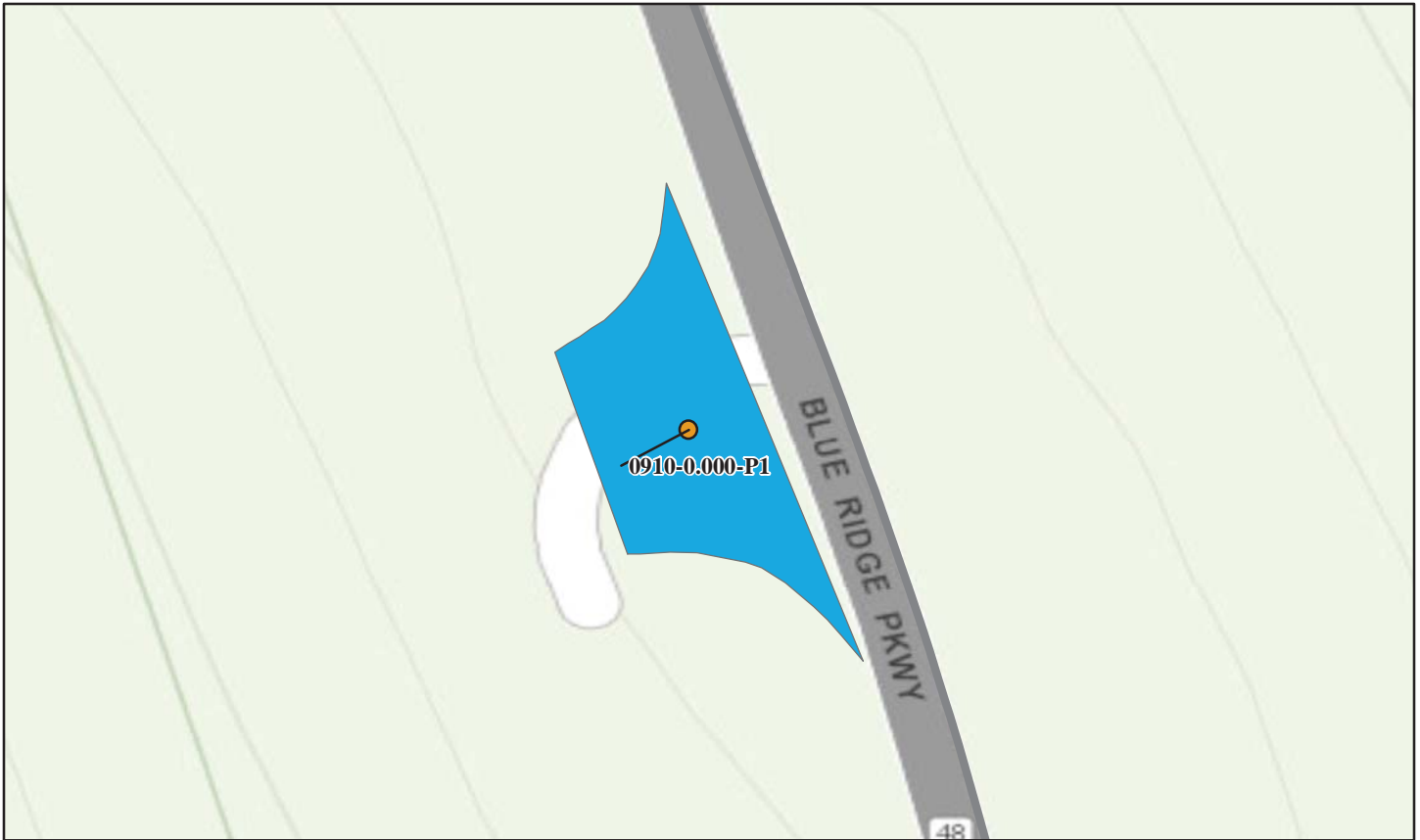
No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0212-1.354-L 11/28/2007	225	40	Gravity - Mortared Stone	Head Wall	70	\$0.00
BLRI-0212-1.360-R 11/28/2007	225	40	Gravity - Mortared Stone	Head Wall	70	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0910: 20-MINUTE CLIFF OVERLOOK



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

### Retaining Wall Condition Legend – Wall Condition Rating

**Critical / Poor (0 - 49)**

**Fair (50 - 69)**

**Good to Excellent (70 - 100)**

**No Data**

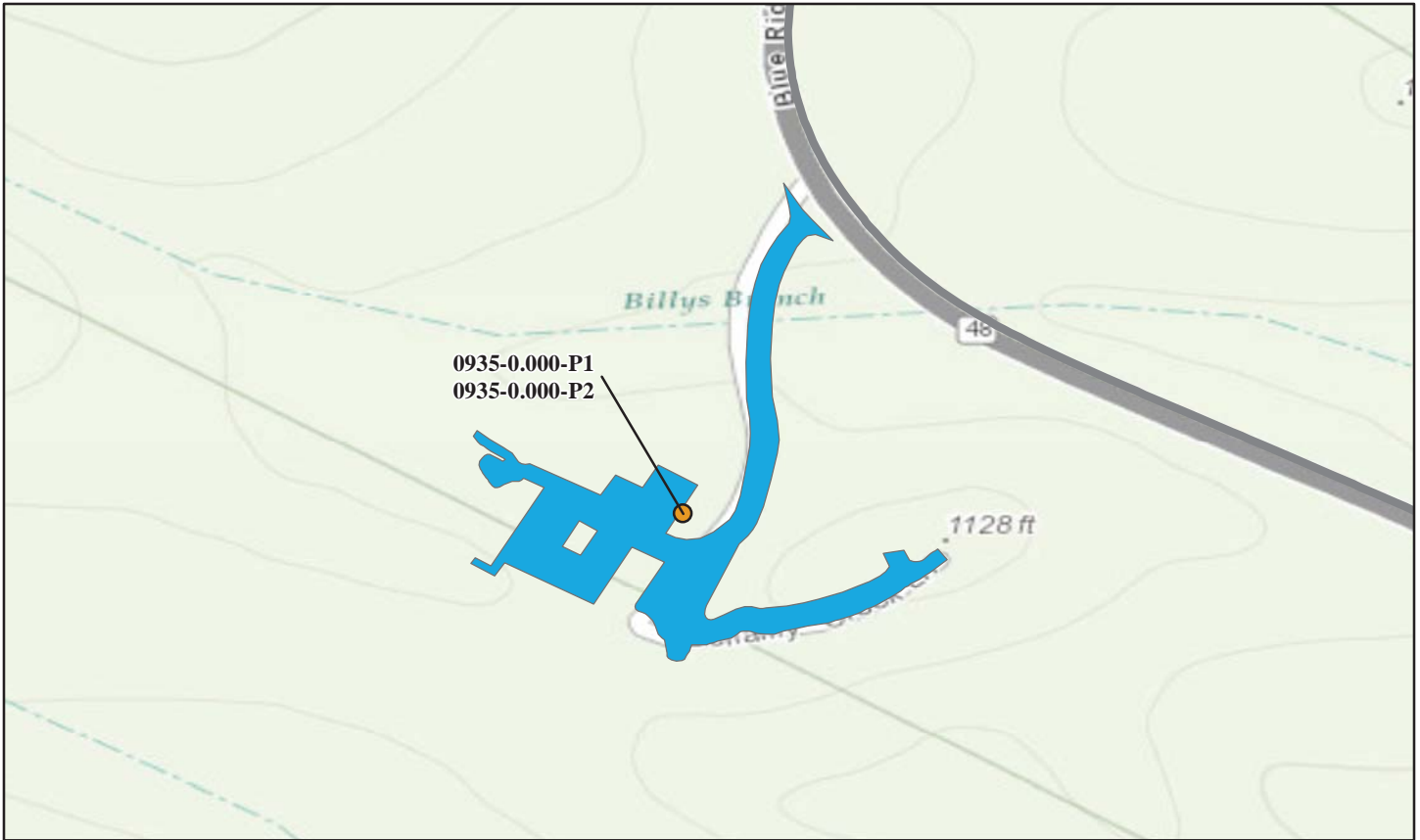
Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0910-0.000-P1 1/29/2008	580	145	Gravity - Mortared Stone	Fill Wall	61	\$33,450.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

## ROUTE 0935: JAMES RIVER MAINTENANCE YARD PARKING



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

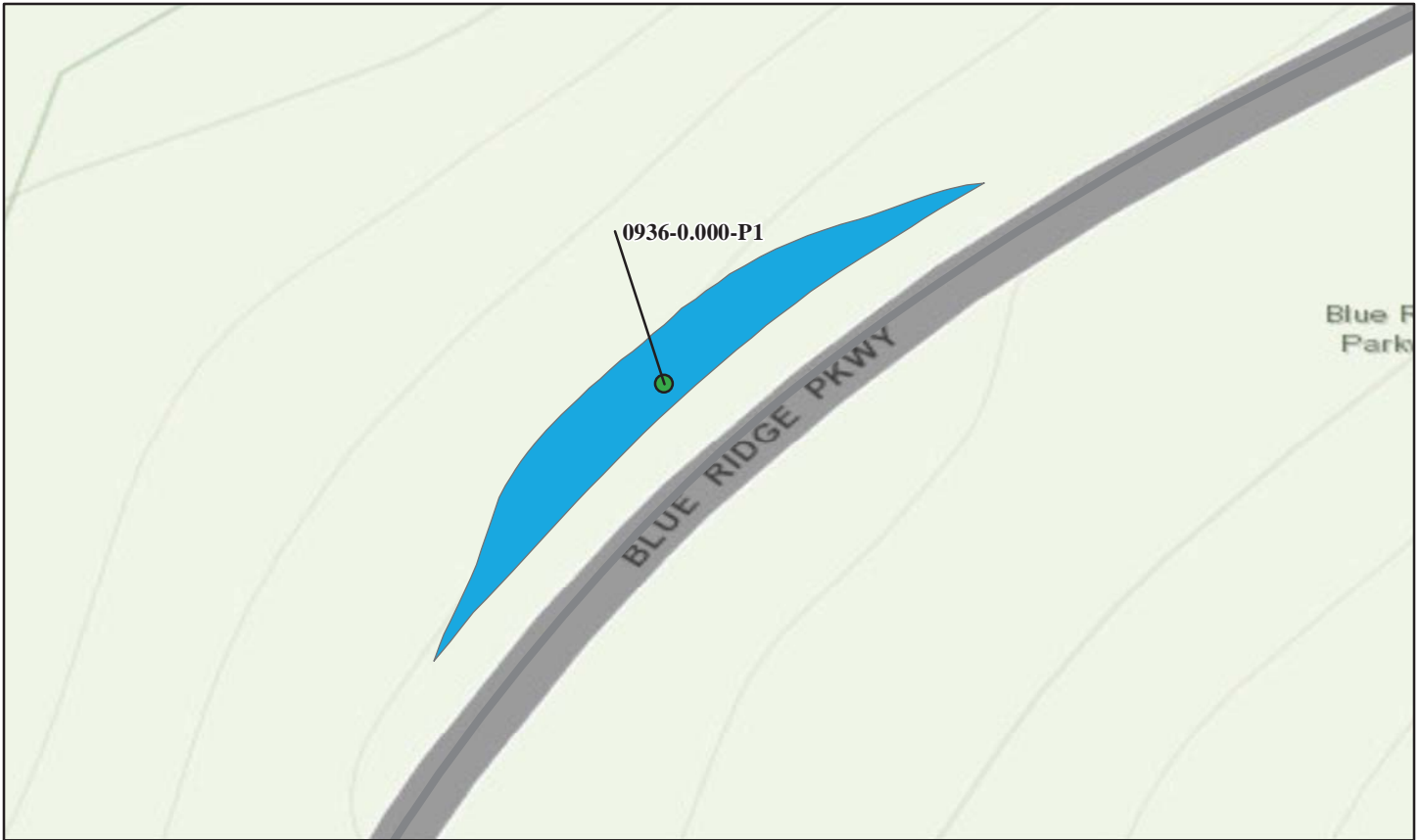
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Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0935-0.000-P1 12/6/2007	72	24	Gravity - Mortared Stone	Head Wall	64	\$1,500.00
BLRI-0935-0.000-P2 12/6/2007	58	18	Cantilever - Concrete	Head Wall	73	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 0936: CHIMNEY ROCK OVERLOOK



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

### Retaining Wall Condition Legend – Wall Condition Rating

**Critical / Poor (0 - 49)**

**Fair (50 - 69)**

**Good to Excellent (70 - 100)**

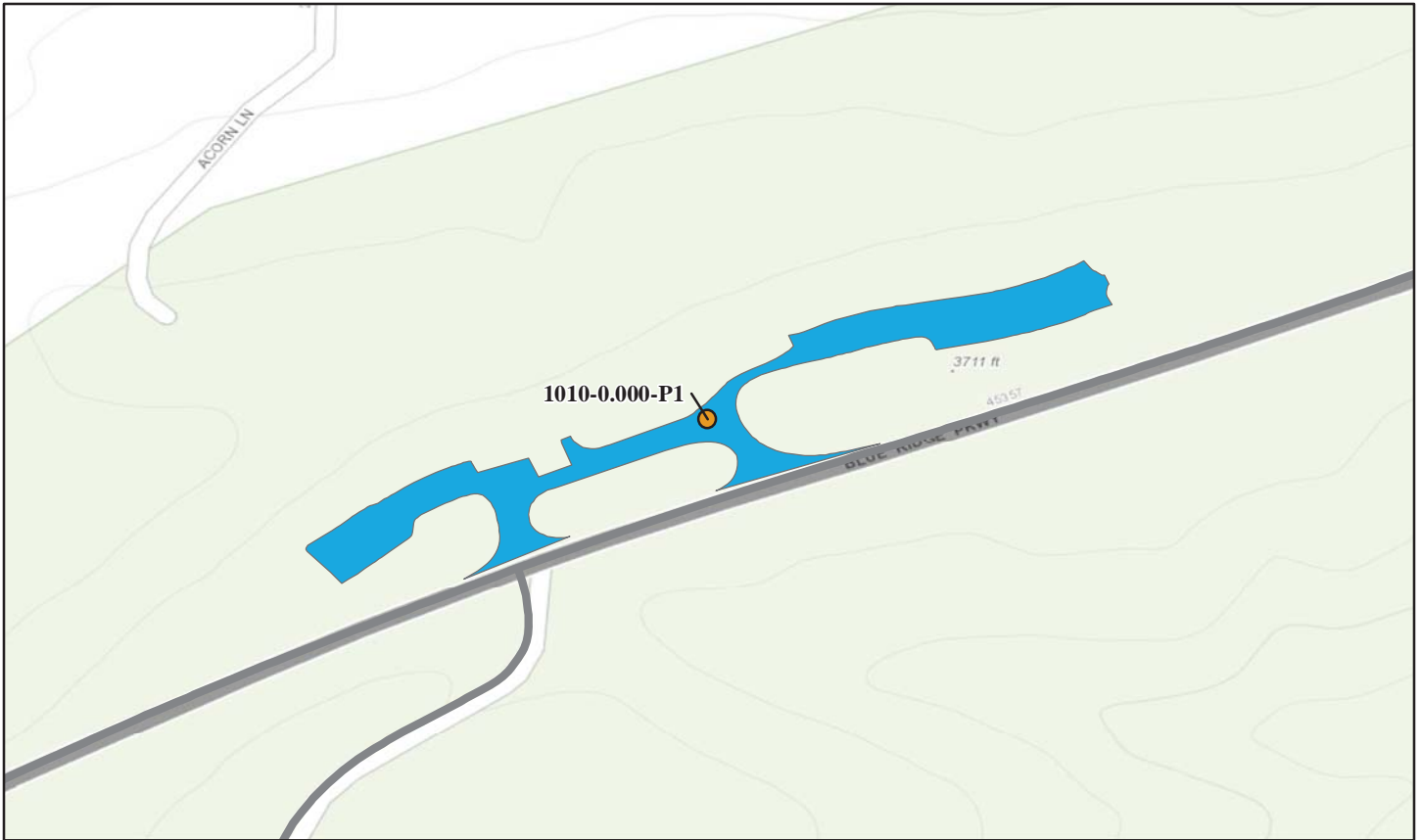
**No Data**

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-0936-0.000-P1  1/28/2008	1200	222	Gravity - Dry Stone	Fill Wall	70	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 1010: BLUFFS RESTAURANT PARKING



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

### Retaining Wall Condition Legend – Wall Condition Rating

**Critical / Poor (0 - 49)**

**Fair (50 - 69)**

**Good to Excellent (70 - 100)**

**No Data**

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-1010-0.000-P1 12/5/2007	2400	355	Gravity - Mortared Stone	Fill Wall	64	\$36,000.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 1039: SIMS POND OVERLOOK



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

### Retaining Wall Condition Legend – Wall Condition Rating

**Critical / Poor (0 - 49)**

**Fair (50 - 69)**

**Good to Excellent (70 - 100)**

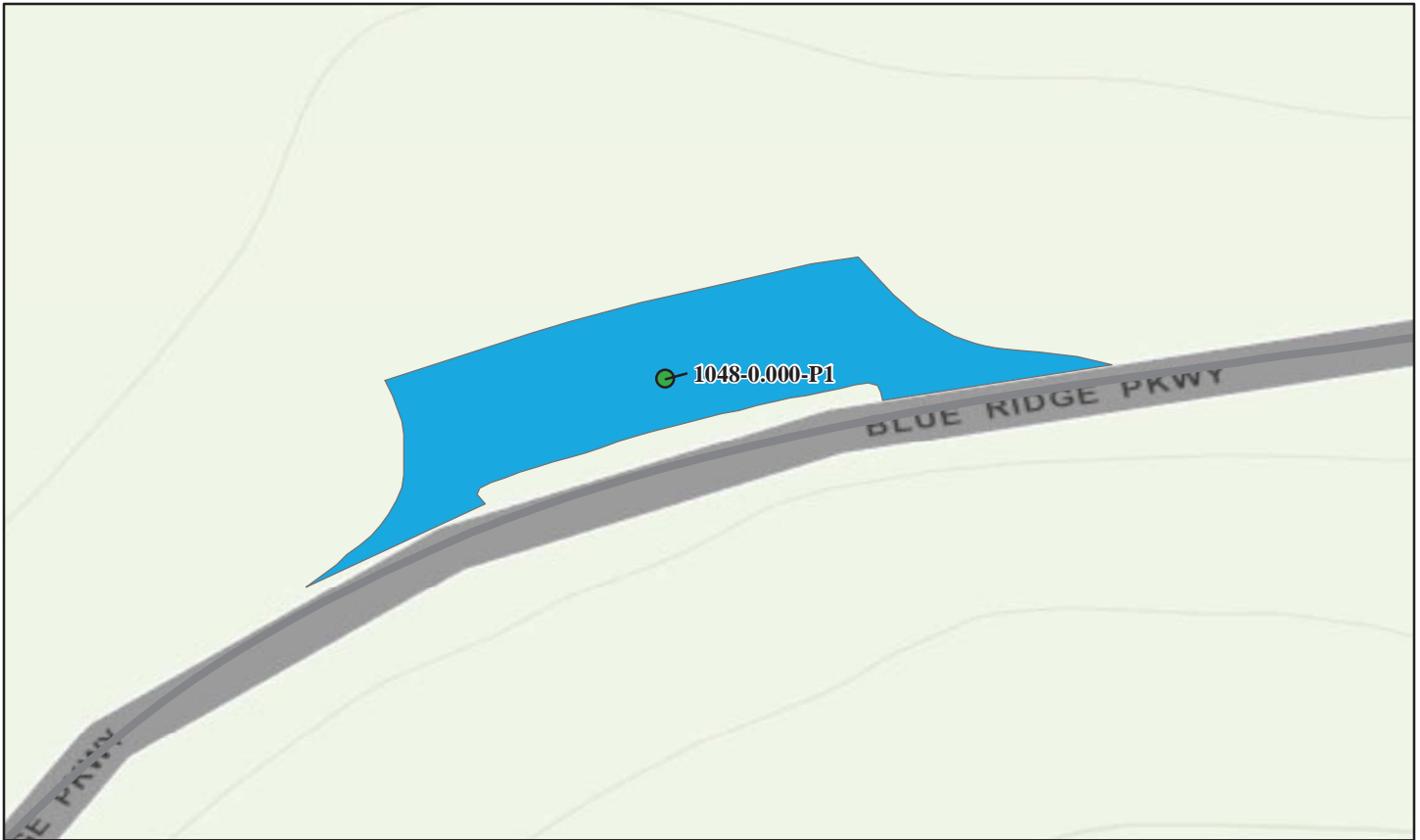
**No Data**

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-1039-0.000-P1 12/6/2007	640	160	Cantilever - Concrete	Fill Wall	90	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 1048: ROUGH RIDGE PARKING



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

### Retaining Wall Condition Legend – Wall Condition Rating

<b>Critical / Poor (0 - 49)</b>	<b>Fair (50 - 69)</b>	<b>Good to Excellent (70 - 100)</b>	<b>No Data</b>
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Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-1048-0.000-P1  12/6/2007	820	110	Gravity - Mortared Stone	Head Wall	92	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 1049: WILSON CREEK OVERLOOK



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

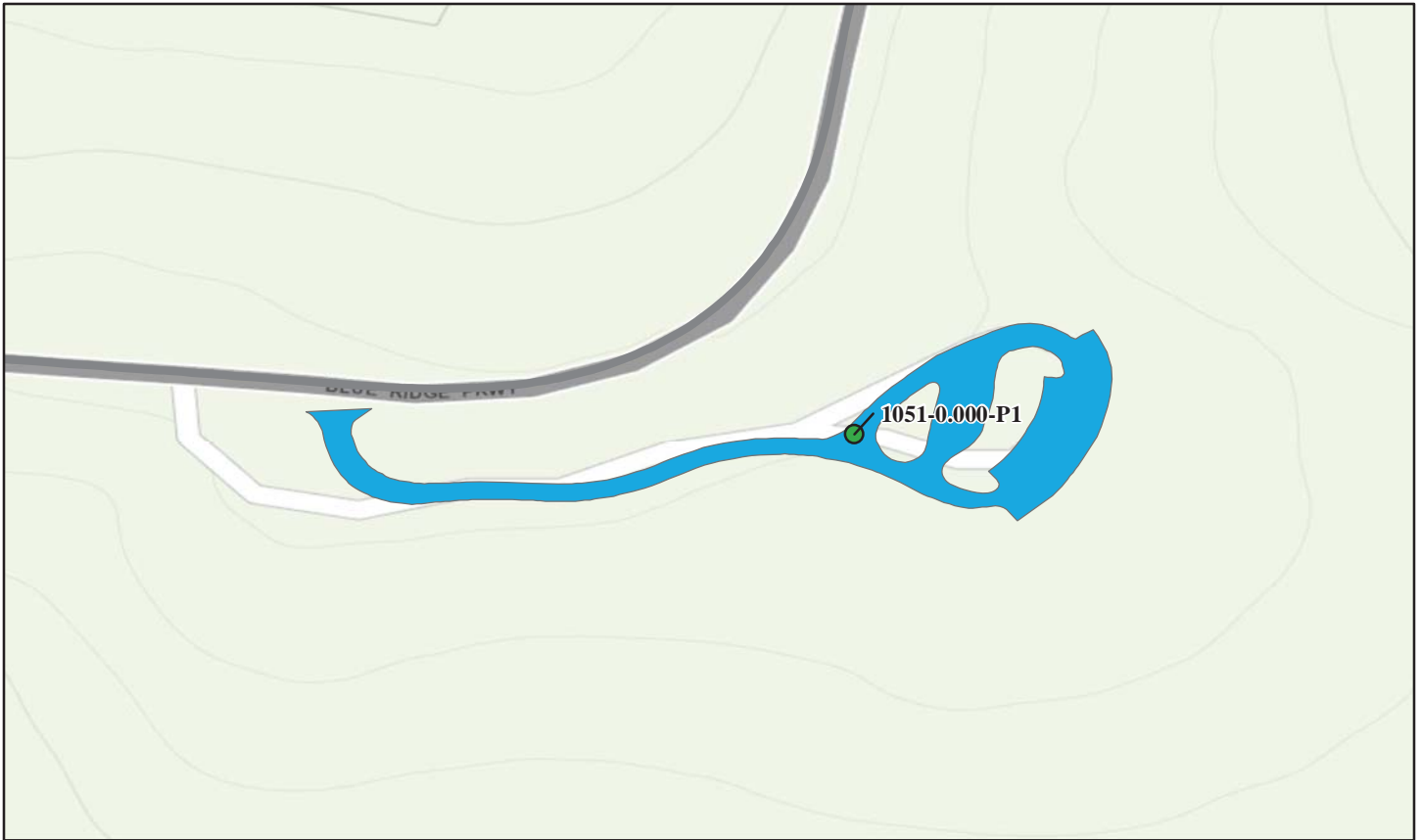
No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-1049-0.000-P1  12/6/2007	1380	238	Gravity - Mortared Stone	Fill Wall	90	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 1051: LINN COVE VISITOR CENTER PARKING



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

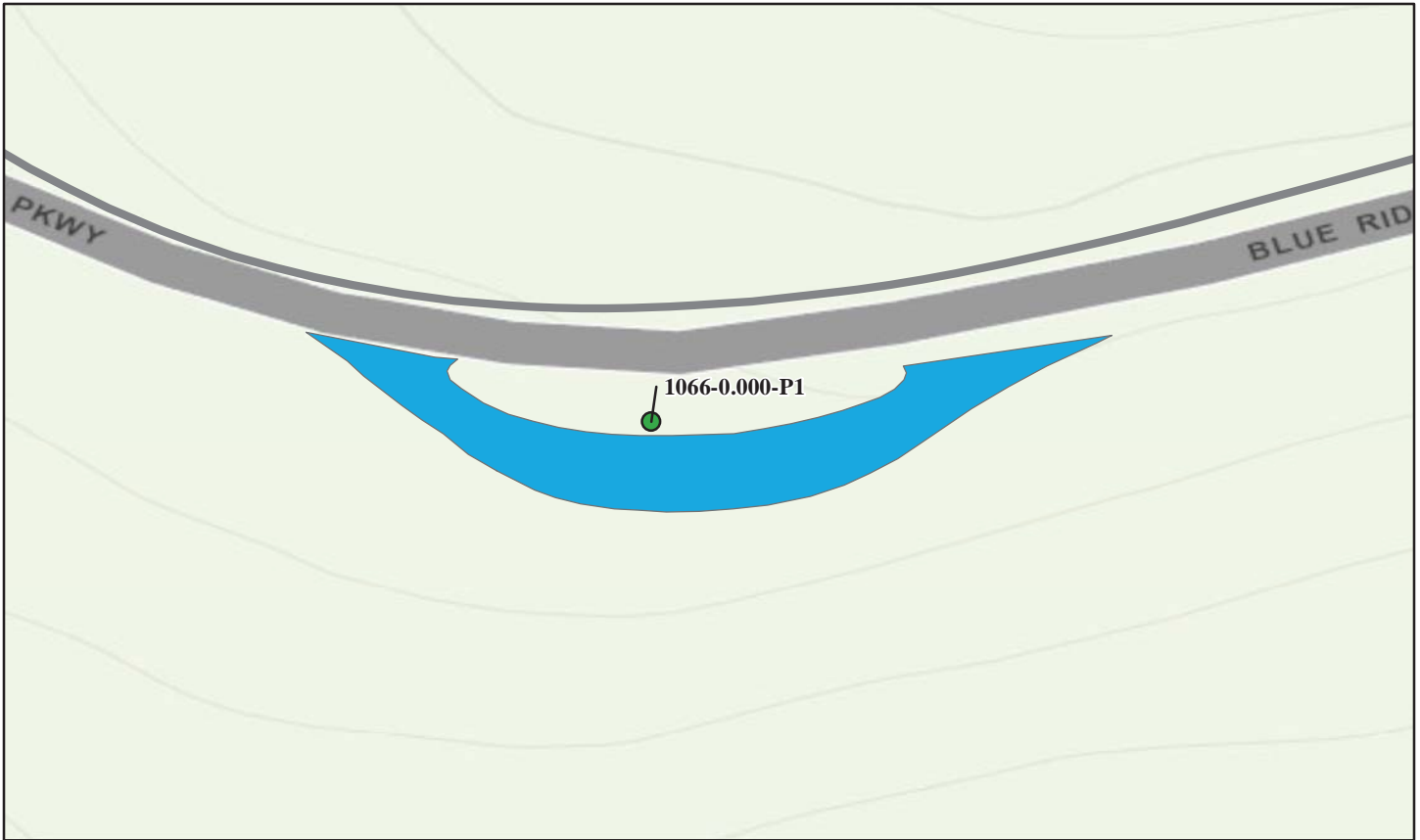
No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-1051-0.000-P1 12/6/2007	1420	217	Gravity - Mortared Stone	Fill Wall	87	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 1066: BEAR DEN OVERLOOK



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-1066-0.000-P1  11/28/2007	5000	380	Gravity - Mortared Stone	Fill Wall	75	\$550.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

## ROUTE 1085: CRAGGY DOME OVERLOOK



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

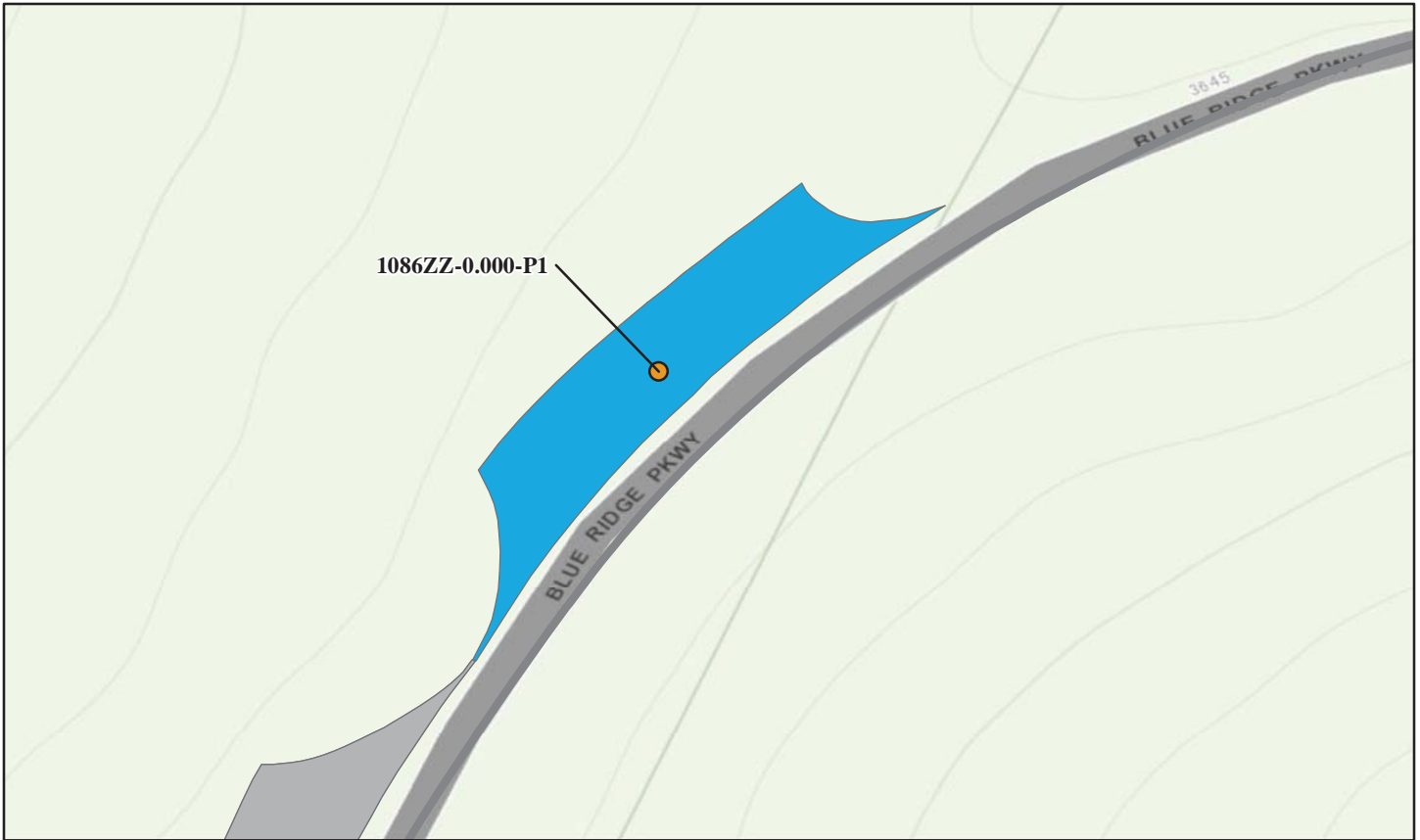
No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-1085-0.000-P1 11/30/2007	2000	330	Gravity - Mortared Stone	Fill Wall	41	\$77,905.00
BLRI-1085-0.000-P2 11/30/2007	800	121	Gravity - Mortared Stone	Fill Wall	42	\$31,120.00
BLRI-1085-0.000-P3 11/30/2007	1000	177	Gravity - Mortared Stone	Fill Wall	58	\$17,910.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 1086ZZ: CRAGGY GARDENS VISITOR CENTER PARKING AREAS



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-1086ZZ-0.000-P1 11/30/2007	3000	263	Gravity - Mortared Stone	Fill Wall	63	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 1086ZZ: CRAGGY GARDENS VISITOR CENTER PARKING AREAS



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

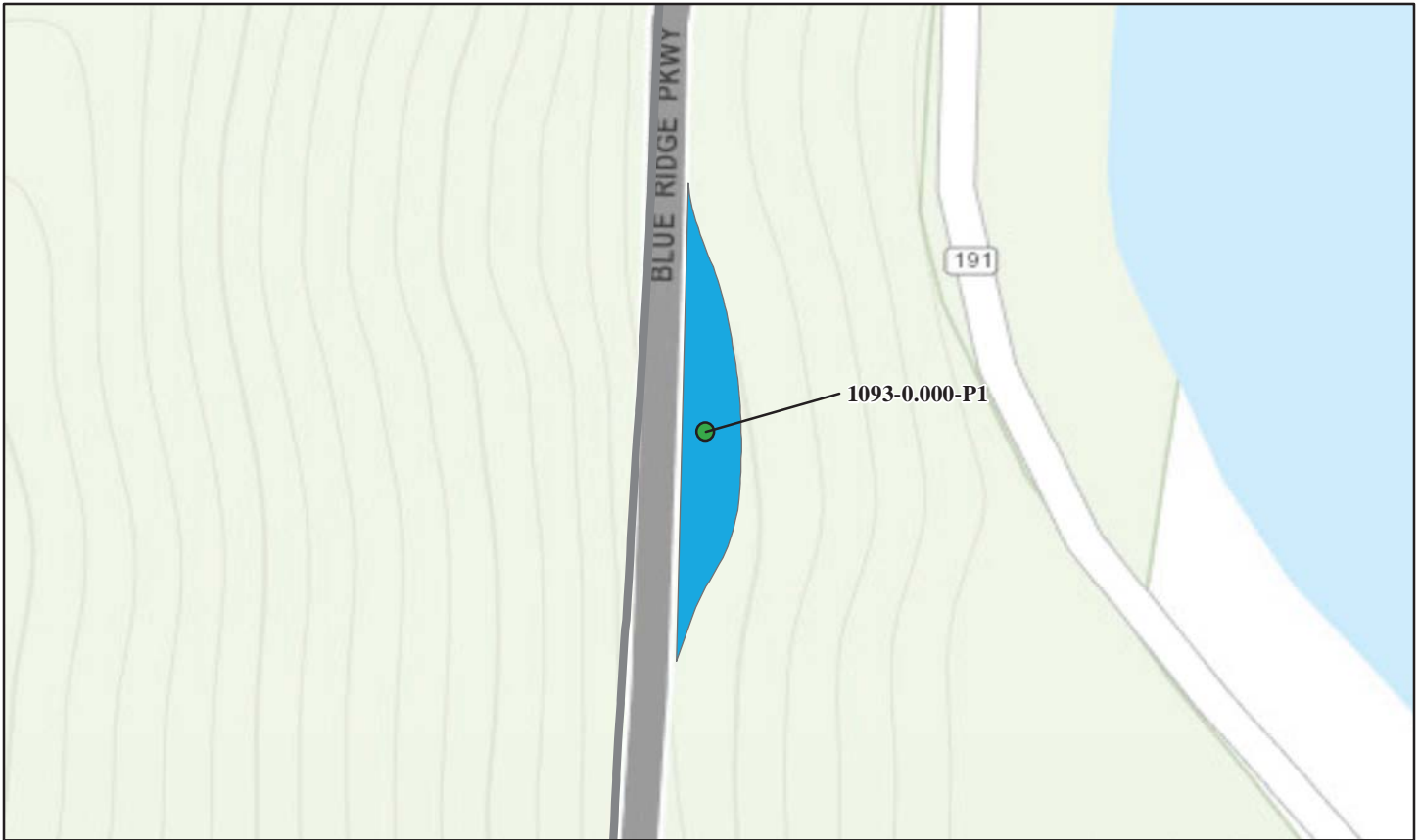
No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-1086ZZ-0.000-P2 11/30/2007	3500	440	Gravity - Mortared Stone	Fill Wall	65	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 1093: FRENCH BROAD RIVER OVERLOOK



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

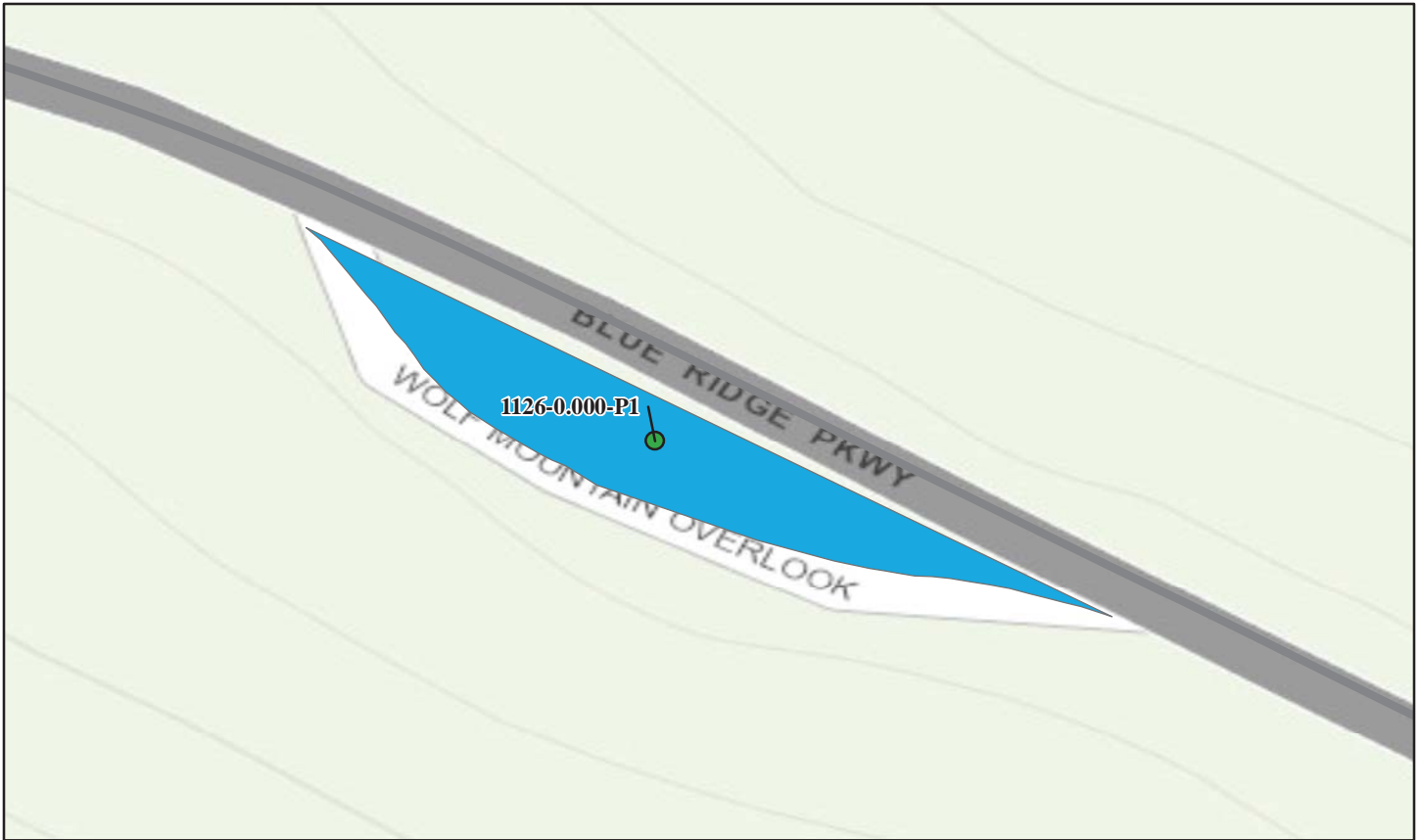
No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-1093-0.000-P1  11/8/2007	1100	110	Gravity - Mortared Stone	Fill Wall	78	\$2,200.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 1126: WOLF MOUNTAIN OVERLOOK



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

### Retaining Wall Condition Legend – Wall Condition Rating

<b>Critical / Poor (0 - 49)</b>	<b>Fair (50 - 69)</b>	<b>Good to Excellent (70 - 100)</b>	<b>No Data</b>
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Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-1126-0.000-P1  11/6/2007	440	63	Gravity - Mortared Stone	Head Wall	79	\$775.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 1135: RICHLAND BALSAM OVERLOOK



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

### Retaining Wall Condition Legend – Wall Condition Rating

Critical / Poor (0 - 49)

Fair (50 - 69)

Good to Excellent (70 - 100)

No Data

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-1135-0.000-P1  11/6/2007	60	10	Gravity - Mortared Stone	Head Wall	76	\$1,590.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 1179: RAVEN FORK OVERLOOK



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

### Retaining Wall Condition Legend – Wall Condition Rating

<b>Critical / Poor (0 - 49)</b>	<b>Fair (50 - 69)</b>	<b>Good to Excellent (70 - 100)</b>	<b>No Data</b>
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Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-1179-0.000-P1  11/5/2007	17500	250	Gravity - Dry Stone	Slope Protection	75	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 1187: THREE KNOBS OVERLOOK



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

### Retaining Wall Condition Legend – Wall Condition Rating

**Critical / Poor (0 - 49)**

**Fair (50 - 69)**

**Good to Excellent (70 - 100)**

**No Data**

Wall ID Inspection Date:	Wall Area (Sq. Ft.)	Wall Length (Ft.)	Wall Type	Wall Function	Overall Rating	Repair Cost
BLRI-1187-0.000-P1  11/30/2007	2500	135	Gravity - Mortared Stone	Cut Wall	68	\$0.00

\*2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Tier 3 Retaining Wall Details



Blue Ridge Parkway



Federal Lands Highway  
Road Inventory Program

<b>Wall ID:</b>	BLRI-0001AA-1.085-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT		
<b>Inspection Date:</b>	January 29, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	68	<b>Maintenance Action:</b>	No Action

**Wall Description**

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Flat, tabular stones Park MP 0.966		

**Wall Measurements**

<b>Wall Length (ft.):</b>	24	<b>Face Area (sq.):</b>	130
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	11	<b>Vertical Offset (ft.):</b>	-13

**Assessed Elements**

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Sand and gravel, foundation apron in front of culvert and a little undermining about 1".	7
MORTAR 8.00	Mortar missing, not in great condition.	6
STONE MASONRY 8.00	No degradation.	7
DOWNSLOPE 0.50	Gradual	8
LATERAL SLOPE 0.50	Flat.	8
CULVERT 1.00	Concrete box 5' H x 8' W.	7
UPSLOPE 1.00	2:1	7
WALL DRAINS 1.00	Weepholes 10' on center	7

**Repair Recommendations**

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AA: BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AA\_1.085\_L\_1.JPG



BLRI\_0001AA\_1.085\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001AA-1.085-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT		
<b>Inspection Date:</b>	February 29, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Flat, tabular stones Park MP 0.966		

### Wall Measurements

<b>Wall Length (ft.):</b>	22	<b>Face Area (sq.):</b>	110
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	9	<b>Vertical Offset (ft.):</b>	-2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Sand and gravel, slight scour	7
MORTAR 8.00	sound and durable.	7
STONE MASONRY 8.00	No degradation.	7
LATERAL SLOPE 0.50	Flat	8
UPSLOPE 0.50	Gradual.	8
CULVERT 1.00	Concrete box 5' high by 8' wide.	7
DOWNSLOPE 1.00	Rising	7
WALL DRAINS 1.00	Weepholes 10' on center	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AA: BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AA\_1.085\_R\_1.JPG

<b>Wall ID:</b>	BLRI-0001AA-12.795-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT		
<b>Inspection Date:</b>	January 29, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	69	<b>Maintenance Action:</b>	Maintenance

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Difficult to access Park MP 12.64		

### Wall Measurements

<b>Wall Length (ft.):</b>	264	<b>Face Area (sq.):</b>	3170
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	18	<b>Vertical Offset (ft.):</b>	-25

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Bed Rock or soil.	7
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation	7
UPSLOPE 1.00	1.5:1	5
VEGETATION 1.00	Vegetation in front of wall, not affecting wall function.	6
DOWNSLOPE 1.00	3:1	7
LATERAL SLOPE 1.00	Gradual.	7
WALL DRAINS 1.00	None observed.	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	Clear vegetation in front of wall. 10 hrs * \$55/hr = \$550
<b>Repair Cost:</b>	\$550

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AA: BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AA\_12.795\_R\_1.JPG

<b>Wall ID:</b>	BLRI-0001AA-15.384-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT		
<b>Inspection Date:</b>	January 29, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 15.63		

### Wall Measurements

<b>Wall Length (ft.):</b>	38	<b>Face Area (sq.):</b>	160
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	9	<b>Vertical Offset (ft.):</b>	-3

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Sand, no settlement or erosion.	7
MORTAR 8.00	Repoint mortar on upper two feet - 2'x38'	7
STONE MASONRY 8.00	No degradation	7
DOWNSLOPE 0.50	Flat	8
CULVERT 1.00	6' high by 10' wide concrete box.	7
LATERAL SLOPE 1.00	Flat	7
UPSLOPE 1.00	Gradual	7
VEGETATION 1.00	18" diameter tree directly in front of wall, not affecting wall, but could in the future.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Repoint mortar - 76 S.F. * \$75/S.F. = \$5,700. Remove Tree - \$955
<b>Repair Cost:</b>	\$6,655

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001AA: BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AA\_15.384\_L\_1.JPG



BLRI\_0001AA\_15.384\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001AA-15.384-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT		
<b>Inspection Date:</b>	January 29, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	72	<b>Maintenance Action:</b>	No Action

**Wall Description**

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 15.63		

**Wall Measurements**

<b>Wall Length (ft.):</b>	38	<b>Face Area (sq.):</b>	160
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	-2

**Assessed Elements**

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Sand, no settlement or erosion.	7
STONE MASONRY 8.00	No degradation	7
MORTAR 8.00	Sound and durable.	8
DOWNSLOPE 0.50	Flat	8
CULVERT 1.00	6' high by 10' wide concrete box.	7
LATERAL SLOPE 1.00	Flat	7
UPSLOPE 1.00	Gradual.	7
WALL DRAINS 1.00	Weepholes 10' on center	7

**Repair Recommendations**

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AA: BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AA\_15.384\_R\_1.JPG

<b>Wall ID:</b>	BLRI-0001AA-19.078-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT		
<b>Inspection Date:</b>	January 29, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	67	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 18.936		

### Wall Measurements

<b>Wall Length (ft.):</b>	140	<b>Face Area (sq.):</b>	1680
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	18	<b>Vertical Offset (ft.):</b>	2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Soil or rock. No settlement or erosion.	7
MORTAR 8.00	Sound and durable except 10% cracked or missing.	6
STONE MASONRY 8.00	No degradation.	7
CULVERT 1.00	2' diameter concrete and exposed reinforcing steel. Soil fills more than 50% of pipe.	5
DOWNSLOPE 1.00	Flat for 10' and then 3:1	7
LATERAL SLOPE 1.00	Gradual.	7
ROAD/SIDEWALK/SHOULDER 1.00	Shoulder is flat and some settlement.	7
WALL DRAINS 1.00	None observed.	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	Repoint Mortar - 10% of wall area - 168 S.F. * \$75/S.F. = \$12,600. Repair Culvert face - \$500. Remove soil from culvert - \$2,000.
<b>Repair Cost:</b>	\$15,100

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

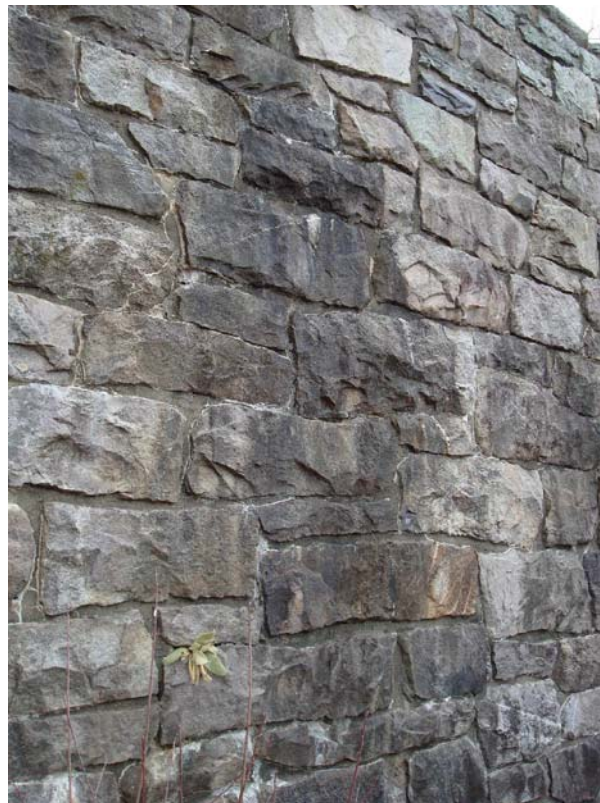
# Blue Ridge Parkway

ROUTE 0001AA: BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AA\_19.078\_L\_1.JPG



BLRI\_0001AA\_19.078\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001AA-21.085-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT		
<b>Inspection Date:</b>	January 29, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 20.942		

### Wall Measurements

<b>Wall Length (ft.):</b>	612	<b>Face Area (sq.):</b>	4900
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	13	<b>Vertical Offset (ft.):</b>	-25

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Soil or rock. No settlement or erosion.	7
MORTAR 8.00	Sound and durable with minor cracking.	7
STONE MASONRY 8.00	No degradation.	7
UPSLOPE 1.00	1.5:1	6
CULVERT 1.00	18" concrete pipe, joint 1/4" offset.	7
DOWNSLOPE 1.00	Flat for 5' and then 4:1	7
LATERAL SLOPE 1.00	Gradual.	7
WALL DRAINS 1.00	Weepholes 10' on center	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AA: BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT

## Retaining Wall Condition Photos



**BLRI\_0001AA\_21.085\_L\_1.JPG**



**BLRI\_0001AA\_21.085\_L\_2.JPG**

<b>Wall ID:</b>	BLRI-0001AA-21.378-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT		
<b>Inspection Date:</b>	January 29, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 21.241		

### Wall Measurements

<b>Wall Length (ft.):</b>	602	<b>Face Area (sq.):</b>	5000
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	14	<b>Vertical Offset (ft.):</b>	2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Soil or rock. No settlement or erosion.	7
MORTAR 8.00	Sound and durable minor cracking.	7
STONE MASONRY 8.00	No degradation. 10' by 2' area needs to be reset.	7
CULVERT 1.00	Two 18" diameter concrete culverts	7
DOWNSLOPE 1.00	Flat for 2' and then 3:1	7
LATERAL SLOPE 1.00	Gradual.	7
UPSLOPE 1.00	1.5:1	7
WALL DRAINS 1.00	Weepholes 10' on center	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	Reset stones - 20 S.F. * \$75/S.F. = \$1,500
<b>Repair Cost:</b>	\$1,500

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001AA: BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AA\_21.378\_L\_1.JPG



BLRI\_0001AA\_21.378\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001AA-22.093-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT		
<b>Inspection Date:</b>	January 29, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 21.952		

### Wall Measurements

<b>Wall Length (ft.):</b>	390	<b>Face Area (sq.):</b>	3510
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	14	<b>Vertical Offset (ft.):</b>	2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Gravelly soil. No settlement or erosion.	7
MORTAR 8.00	Sound and durable with minor separation.	7
STONE MASONRY 8.00	No degradation.	7
ROAD/SIDEWALK/SHOULDER 0.50	Shoulder flat.	8
DOWNSLOPE 1.00	Flat for 10' then 2:1	7
LATERAL SLOPE 1.00	Gradual.	7
WALL DRAINS 1.00	None observed.	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# **Blue Ridge Parkway**

**ROUTE 0001AA: BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001AA-22.093-L.**

<b>Wall ID:</b>	BLRI-0001AA-22.304-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT		
<b>Inspection Date:</b>	January 29, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	68	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 22.137		

### Wall Measurements

<b>Wall Length (ft.):</b>	264	<b>Face Area (sq.):</b>	2600
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	13	<b>Vertical Offset (ft.):</b>	2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Gravelly soil, possible bedrock. No settlement or erosion.	7
MORTAR 8.00	Minor cracking and minor missing - 10%	6
STONE MASONRY 8.00	No degradation.	7
ROAD/SIDEWALK/SHOULDER 0.50	Flat shoulder.	8
DOWNSLOPE 1.00	Flat for 5' and then 3:1	7
LATERAL SLOPE 1.00	Gradual.	7
WALL DRAINS 1.00	Weepholes 10' on center	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	Repoint 10% of wall area. 260 S.F. * \$75/S.F. = \$19,500
<b>Repair Cost:</b>	\$19,500

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AA: BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AA\_22.304\_L\_1.JPG



BLRI\_0001AA\_22.304\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001AA-27.351-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT		
<b>Inspection Date:</b>	January 29, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Head wall with wingwalls. Park MP 27.201		

### Wall Measurements

<b>Wall Length (ft.):</b>	22	<b>Face Area (sq.):</b>	180
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	11	<b>Vertical Offset (ft.):</b>	-12

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Soil with cobbles and boulders. No settlement or erosion.	7
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation.	7
CULVERT 1.00	5' wide by 7' high concrete box.	7
DOWNSLOPE 1.00	Rising.	7
LATERAL SLOPE 1.00	Gradual.	7
UPSLOPE 1.00	2:1	7
WALL DRAINS 1.00	No weepholes.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AA: BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AA\_27.351\_R\_1.JPG



BLRI\_0001AA\_27.351\_R\_2.JPG

<b>Wall ID:</b>	BLRI-0001AA-32.938-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT		
<b>Inspection Date:</b>	January 28, 2008	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Head Wall.		

### Wall Measurements

<b>Wall Length (ft.):</b>	20	<b>Face Area (sq.):</b>	90
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	-4

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Soil with cobbles. No settlement or erosion.	7
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation.	7
CULVERT 1.00	5' wide by 7' high concrete box.	7
DOWNSLOPE 1.00	Rising.	7
LATERAL SLOPE 1.00	Gradual.	7
UPSLOPE 1.00	2:1	7
WALL DRAINS 1.00	No weepholes observed.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# **Blue Ridge Parkway**

**ROUTE 0001AA: BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001AA-32.938-R.**

<b>Wall ID:</b>	BLRI-0001AA-33.370-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT		
<b>Inspection Date:</b>	January 28, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

**Wall Description**

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 33.28		

**Wall Measurements**

<b>Wall Length (ft.):</b>	35	<b>Face Area (sq.):</b>	140
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	12	<b>Vertical Offset (ft.):</b>	-7

**Assessed Elements**

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Soil with cobbles. No settlement. Slight scour.	7
MORTAR 8.00	Sound and durable with minor cracking.	7
STONE MASONRY 8.00	No degradation.	7
LATERAL SLOPE 0.50	Gradual.	8
CULVERT 1.00	Opening 6' high by 9.5' wide. Concrete bottom.	7
DOWNSLOPE 1.00	Rising.	7
UPSLOPE 1.00	3H:1V	7
WALL DRAINS 1.00	None observed.	7

**Repair Recommendations**

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AA: BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AA\_33.370\_L\_1.JPG



BLRI\_0001AA\_33.370\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001AA-33.950-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT		
<b>Inspection Date:</b>	January 28, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	68	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 33.81		

### Wall Measurements

<b>Wall Length (ft.):</b>	36	<b>Face Area (sq.):</b>	180
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	-7

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Soil with cobbles. No settlement or erosion.	7
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation.	8
CULVERT 1.00	4' high by 6' wide concrete box.	7
DOWNSLOPE 1.00	Rising.	7
LATERAL SLOPE 1.00	Gradual.	7
UPSLOPE 1.00	Flat 3:1	7
WALL DRAINS 1.00	Weepholes 20' on center	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Repoint cracked and missing mortar - 50 S.F. * \$75/S.F. = \$3,750.
<b>Repair Cost:</b>	\$3,750

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AA: BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AA\_33.950\_L\_1.JPG

<b>Wall ID:</b>	BLRI-0001AA-33.950-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT		
<b>Inspection Date:</b>	January 28, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	72	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 33.81		

### Wall Measurements

<b>Wall Length (ft.):</b>	36	<b>Face Area (sq.):</b>	150
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	-3

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Soil with cobbles. No settlement or erosion.	7
MORTAR 8.00	Significant cracking and missing mortar. 50 S.F.	5
STONE MASONRY 8.00	No degradation.	8
DOWNSLOPE 0.50	Flat.	8
CULVERT 1.00	4' high by 6' wide concrete box.	7
LATERAL SLOPE 1.00	Gradual.	7
UPSLOPE 1.00	Flat ,3:1	7
WALL DRAINS 1.00	Weepholes 20' on center	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AA: BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AA\_33.950\_R\_1.JPG

<b>Wall ID:</b>	BLRI-0001AA-34.137-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT		
<b>Inspection Date:</b>	January 28, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

**Wall Description**

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 33.98		

**Wall Measurements**

<b>Wall Length (ft.):</b>	29	<b>Face Area (sq.):</b>	120
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	9	<b>Vertical Offset (ft.):</b>	-5

**Assessed Elements**

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Soil with cobbles. Slight scour.	7
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation.	7
CULVERT 0.50	6' wide by 7' high concrete box.	8
UPSLOPE 0.50	4:1	8
DOWNSLOPE 1.00	Rising.	7
LATERAL SLOPE 1.00	Gradual.	7
WALL DRAINS 1.00	Weepholes 20' on center	7

**Repair Recommendations**

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001AA: BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AA\_34.137\_L\_1.JPG

<b>Wall ID:</b>	BLRI-0001AA-34.660-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT		
<b>Inspection Date:</b>	January 28, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 34.43		

### Wall Measurements

<b>Wall Length (ft.):</b>	30	<b>Face Area (sq.):</b>	120
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	9	<b>Vertical Offset (ft.):</b>	-3

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Soil with cobbles. No settlement or erosion	7
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation.	7
UPSLOPE 1.00	2:1	6
CULVERT 1.00	8.5' wide by 7' high concrete box. Slight scour.	7
DOWNSLOPE 1.00	Rising.	7
LATERAL SLOPE 1.00	Gradual.	7
WALL DRAINS 1.00	Weepholes 10' on center	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AA: BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AA\_34.660\_L\_1.JPG

<b>Wall ID:</b>	BLRI-0001AA-34.660-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT		
<b>Inspection Date:</b>	January 28, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	68	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 34.43		

### Wall Measurements

<b>Wall Length (ft.):</b>	30	<b>Face Area (sq.):</b>	120
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	9	<b>Vertical Offset (ft.):</b>	-6

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Soil with cobbles. Slight undermining.	6
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation.	7
CULVERT 1.00	8.5' wide by 7' high concrete box.	7
DOWNSLOPE 1.00	Flat.	7
LATERAL SLOPE 1.00	Gradual.	7
UPSLOPE 1.00	2:1	7
WALL DRAINS 1.00	Weepholes 10' on center	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AA: BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AA\_34.660\_R\_1.JPG

<b>Wall ID:</b>	BLRI-0001AA-35.314-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT		
<b>Inspection Date:</b>	January 28, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 35.10		

### Wall Measurements

<b>Wall Length (ft.):</b>	30	<b>Face Area (sq.):</b>	85
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	-20

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Soil with cobbles. No settlement or erosion	7
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation.	7
UPSLOPE 1.00	Steep 1.5:1	6
CULVERT 1.00	8' wide by 5' high concrete box.	7
DOWNSLOPE 1.00	Rising.	7
LATERAL SLOPE 1.00	Gradual.	7
WALL DRAINS 1.00	Weepholes 10' on center	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AA: BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AA\_35.314\_L\_1.JPG

<b>Wall ID:</b>	BLRI-0001AA-35.456-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT		
<b>Inspection Date:</b>	January 28, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	65	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 35.30		

### Wall Measurements

<b>Wall Length (ft.):</b>	36	<b>Face Area (sq.):</b>	160
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	10	<b>Vertical Offset (ft.):</b>	-20

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Soil with cobbles. No erosion or settlement	6
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation.	8
CULVERT 1.00	7.5' high by 8' wide, crack down the middle of the floor	6
UPSLOPE 1.00	Steep	6
DOWNSLOPE 1.00	Rising	7
LATERAL SLOPE 1.00	Gradual.	7
WALL DRAINS 1.00	Weepholes 10' on center. Flowing water.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Repair crack in culvert - 100 S.F. * \$15/S.F. - \$1,500. Monitor separation of wall
<b>Repair Cost:</b>	\$1,500

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001AA: BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AA\_35.456\_L\_1.JPG

<b>Wall ID:</b>	BLRI-0001AA-35.456-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT		
<b>Inspection Date:</b>	January 28, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	69	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 35.30		

### Wall Measurements

<b>Wall Length (ft.):</b>	36	<b>Face Area (sq.):</b>	180
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	10	<b>Vertical Offset (ft.):</b>	-15

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress. Stone separating from culvert and cracking inside culvert.	5
WALL FOUNDATION MATERIAL 8.00	Soil with cobbles. No erosion or settlement. Culvert cracking and wall separating.	6
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation.	8
CULVERT 1.00	7.5' high by 8' wide. Crack down the middle of floor. Approximately 100 S.F.	6
UPSLOPE 1.00	Steep.	6
DOWNSLOPE 1.00	Flat.	7
LATERAL SLOPE 1.00	Gradual.	7
WALL DRAINS 1.00	Weepholes 10' on center. Flowing water.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AA: BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AA\_35.456\_R\_1.JPG



BLRI\_0001AA\_35.456\_R\_2.JPG

<b>Wall ID:</b>	BLRI-0001AA-35.759-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT		
<b>Inspection Date:</b>	January 28, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 35.58		

### Wall Measurements

<b>Wall Length (ft.):</b>	30	<b>Face Area (sq.):</b>	160
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	7	<b>Vertical Offset (ft.):</b>	-20

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Soil with cobbles. No settlement or erosion.	7
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation.	7
UPSLOPE 1.00	Steep 1.5:1	6
CULVERT 1.00	5' x 3' assume concrete	7
DOWNSLOPE 1.00	3:1	7
LATERAL SLOPE 1.00	Gradual.	7
WALL DRAINS 1.00	Not observed.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AA: BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AA\_35.759\_R\_1.JPG

<b>Wall ID:</b>	BLRI-0001AA-35.801-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT		
<b>Inspection Date:</b>	January 28, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 35.628		

### Wall Measurements

<b>Wall Length (ft.):</b>	227	<b>Face Area (sq.):</b>	3200
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	20	<b>Vertical Offset (ft.):</b>	2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Soil with cobbles. No settlement or erosion.	7
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation.	7
ROAD/SIDEWALK/SHOULDER 0.50	Flat, grassy shoulder.	8
CULVERT 1.00	18" circular concrete pipe, some degradation.	6
DOWNSLOPE 1.00	2:1	6
LATERAL SLOPE 1.00	Gradual.	7
WALL DRAINS 1.00	Variable spacing.	7

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AA: BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT

## Retaining Wall Condition Photos



**BLRI\_0001AA\_35.801\_R\_1.JPG**



**BLRI\_0001AA\_35.801\_R\_2.JPG**

<b>Wall ID:</b>	BLRI-0001AA-36.410-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT		
<b>Inspection Date:</b>	January 28, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	65	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 36.22		

### Wall Measurements

<b>Wall Length (ft.):</b>	40	<b>Face Area (sq.):</b>	275
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	11	<b>Vertical Offset (ft.):</b>	-18

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	Upper two feet of wall have moving stones that are out of place.	5
WALL FOUNDATION MATERIAL 8.00	Soil and cobbles. No settlement or erosion.	7
MORTAR 8.00	Sound and durable. Missing where wall movement.	7
STONE MASONRY 8.00	No degradation.	7
UPSLOPE 1.00	1.5:1	6
CULVERT 1.00	8' x 8' concrete box.	7
DOWNSLOPE 1.00	Rising.	7
LATERAL SLOPE 1.00	Gradual.	7
WALL DRAINS 1.00	Weepholes 10' on centers.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Reset Capstones. Repoint mortar - 80 S.F. * \$75/S.F. = \$6,000. Labor - move stones and hand excavation - 10 hrs * \$55/hr = \$550. Free draining backfill - 3 ft. deep x 40' long x 2' back = 9 C.Y. 9 C.Y. x \$60/C.Y. = \$540. Horizontal drain pipe behind wall.
<b>Repair Cost:</b>	\$9,090

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001AA: BLUE RIDGE PARKWAY - MONTEBELLO SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AA\_36.410\_L\_1.JPG



BLRI\_0001AA\_36.410\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001AB-39.476-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT		
<b>Inspection Date:</b>	January 28, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	69	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 39.331		

### Wall Measurements

<b>Wall Length (ft.):</b>	211	<b>Face Area (sq.):</b>	2200
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	15	<b>Vertical Offset (ft.):</b>	-45

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Bedrock or soil. No settlement or erosion.	7
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation.	7
DOWNSLOPE 1.00	2:1	6
UPSLOPE 1.00	1.5:1	6
LATERAL SLOPE 1.00	Gradual.	7
WALL DRAINS 1.00	Not observed.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AB: BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AB\_39.476\_R\_1.JPG

<b>Wall ID:</b>	BLRI-0001AB-39.628-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT		
<b>Inspection Date:</b>	January 28, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 39.481		

### Wall Measurements

<b>Wall Length (ft.):</b>	115	<b>Face Area (sq.):</b>	1000
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	15	<b>Vertical Offset (ft.):</b>	-30

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Soil and cobbles	7
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation.	7
UPSLOPE 1.00	2:1	6
DOWNSLOPE 1.00	3:1	7
LATERAL SLOPE 1.00	Gradual.	7
WALL DRAINS 1.00	Variably spaced weepholes.	7

### Repair Recommendations

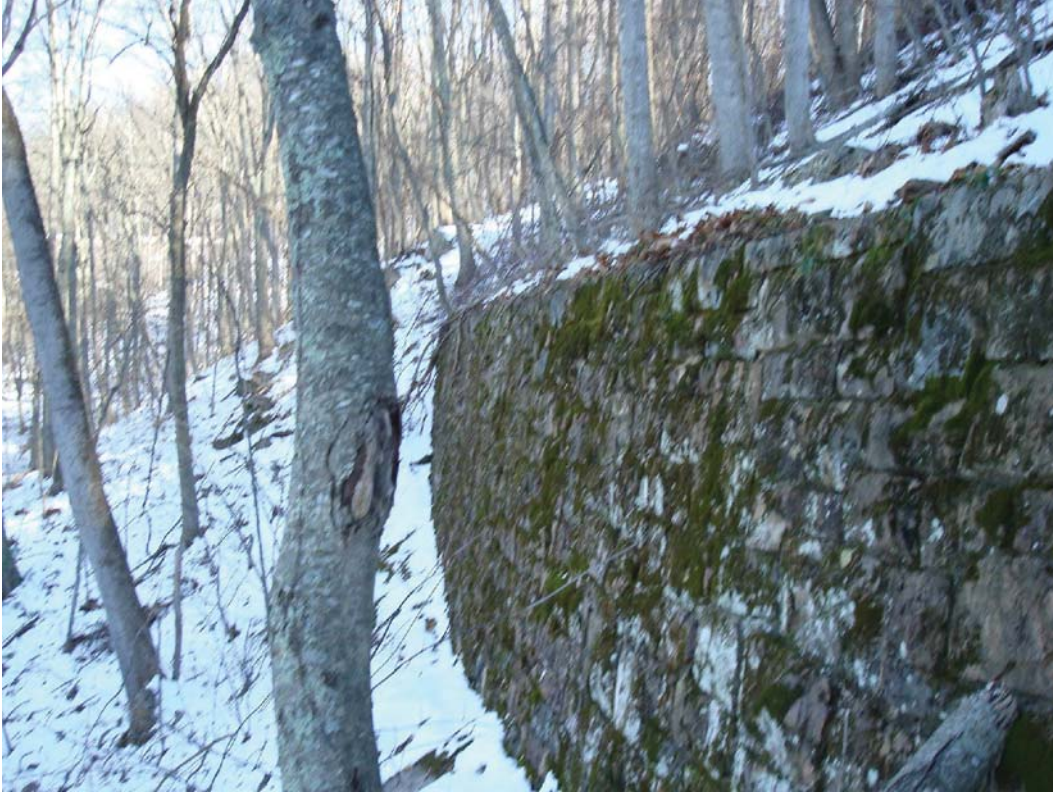
<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AB: BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AB\_39.628\_R\_1.JPG

<b>Wall ID:</b>	BLRI-0001AB-39.648-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT		
<b>Inspection Date:</b>	January 28, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 39.503		

### Wall Measurements

<b>Wall Length (ft.):</b>	100	<b>Face Area (sq.):</b>	600
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Soil and cobbles. No settlement or erosion	7
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation.	7
ROAD/SIDEWALK/SHOULDER 0.50	Flat shoulder.	8
DOWNSLOPE 1.00	2:1	7
LATERAL SLOPE 1.00	Gradual.	7
WALL DRAINS 1.00	Variably spaced weepholes	7

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AB: BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AB\_39.648\_R\_1.JPG

<b>Wall ID:</b>	BLRI-0001AB-39.704-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT		
<b>Inspection Date:</b>	January 28, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	69	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 39.565		

### Wall Measurements

<b>Wall Length (ft.):</b>	370	<b>Face Area (sq.):</b>	3330
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	12	<b>Vertical Offset (ft.):</b>	-45

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Soil and cobbles.	7
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation.	7
DOWNSLOPE 1.00	1.5:1	6
UPSLOPE 1.00	1.5:1	6
LATERAL SLOPE 1.00	Gradual.	7
WALL DRAINS 1.00	Variably spaced weepholes.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001AB: BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AB\_39.704\_R\_1.JPG

<b>Wall ID:</b>	BLRI-0001AB-39.800-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT		
<b>Inspection Date:</b>	January 28, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 39.67		

### Wall Measurements

<b>Wall Length (ft.):</b>	238	<b>Face Area (sq.):</b>	2030
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	15	<b>Vertical Offset (ft.):</b>	1

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Soil and cobbles. No settlement or erosion	7
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation.	7
ROAD/SIDEWALK/SHOULDER 0.50	Flat shoulder.	8
DOWNSLOPE 1.00	1.5:1 Steep	6
LATERAL SLOPE 1.00	Gradual.	7
WALL DRAINS 1.00	Variably spaced weepholes.	7

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AB: BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AB\_39.800\_R\_1.JPG

<b>Wall ID:</b>	BLRI-0001AB-39.856-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT		
<b>Inspection Date:</b>	January 28, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	69	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Observed wall from distance, scaled length from plans Park MP 39.720		

### Wall Measurements

<b>Wall Length (ft.):</b>	110	<b>Face Area (sq.):</b>	1500
<b>Average Wall Height (ft.):</b>	13	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	18	<b>Vertical Offset (ft.):</b>	-45

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No apparent global distress, observed from large distance	7
WALL FOUNDATION MATERIAL 8.00	Soil and cobbles, no apparent settlement or erosion	7
MORTAR 8.00	sound and durable	7
STONE MASONRY 8.00	No degradation	7
DOWNSLOPE 1.00	1.5H:1V	6
UPSLOPE 1.00	1.5H:1V	6
LATERAL SLOPE 1.00	Gradual	7
WALL DRAINS 1.00	Likely weepholes based on nearby wall construction	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AB: BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AB\_39.856\_R\_1.JPG



BLRI\_0001AB\_39.856\_R\_2.JPG

<b>Wall ID:</b>	BLRI-0001AB-39.944-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT		
<b>Inspection Date:</b>	January 28, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 39.811		

### Wall Measurements

<b>Wall Length (ft.):</b>	153	<b>Face Area (sq.):</b>	1800
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	15	<b>Vertical Offset (ft.):</b>	-40

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress. Not observed close up	7
WALL FOUNDATION MATERIAL 8.00	Soil and cobbles.	7
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation.	7
DOWNSLOPE 1.00	2:1	7
LATERAL SLOPE 1.00	Gradual.	7
UPSLOPE 1.00	2:1	7
WALL DRAINS 1.00	Variably spaced weepholes.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AB: BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AB\_39.944\_R\_1.JPG

<b>Wall ID:</b>	BLRI-0001AB-46.998-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT		
<b>Inspection Date:</b>	January 28, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Cantilever - Concrete
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Roadway beneath. Park MP 46.885		

### Wall Measurements

<b>Wall Length (ft.):</b>	65	<b>Face Area (sq.):</b>	690
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	14	<b>Vertical Offset (ft.):</b>	-3

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Soil. No settlement or erosion.	7
CONCRETE 8.00	Sound and durable.	7
CULVERT 1.00	18'W x 12'H concrete box	7
DOWNSLOPE 1.00	Flat roadbed.	7
LATERAL SLOPE 1.00	Gradual.	7
ROAD/SIDEWALK/SHOULDER 1.00	Flat shoulder.	7
WALL DRAINS 1.00	None observed.	7

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001AB: BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AB\_46.998\_R\_1.JPG

<b>Wall ID:</b>	BLRI-0001AB-47.006-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT		
<b>Inspection Date:</b>	January 28, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

**Wall Description**

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Cantilever - Concrete
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Roadway beneath. Park MP 46.885		

**Wall Measurements**

<b>Wall Length (ft.):</b>	65	<b>Face Area (sq.):</b>	690
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	14	<b>Vertical Offset (ft.):</b>	-3

**Assessed Elements**

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Soil. No settlement or erosion.	7
CONCRETE 8.00	Sound and durable.	7
CULVERT 1.00	18' W x 12'H concrete box	7
DOWNSLOPE 1.00	Flat roadbed.	7
LATERAL SLOPE 1.00	Gradual.	7
ROAD/SIDEWALK/SHOULDER 1.00	Flat shoulder.	7
WALL DRAINS 1.00	None observed.	7

**Repair Recommendations**

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AB: BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AB\_47.006\_L\_1.JPG

<b>Wall ID:</b>	BLRI-0001AB-56.028-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT		
<b>Inspection Date:</b>	January 28, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	66	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Arc shaped wall or semi circle. Park MP 55.887		

### Wall Measurements

<b>Wall Length (ft.):</b>	55	<b>Face Area (sq.):</b>	330
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	11	<b>Vertical Offset (ft.):</b>	-2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress but moderate scour.	6
WALL FOUNDATION MATERIAL 8.00	Sand and gravel. No settlement, some erosion around headwall	6
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	Replace cap stone.	7
DOWNSLOPE 0.50	Flat.	8
LATERAL SLOPE 0.50	Flat.	8
UPSLOPE 0.50	Gradual.	8
CULVERT 1.00	8' high by 9' wide	7
WALL DRAINS 1.00	Weepholes present.	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	Replace cap stone. S.F. x \$620/S.F. = \$1,240.
<b>Repair Cost:</b>	\$1,240

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AB: BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AB\_56.028\_R\_1.JPG

<b>Wall ID:</b>	BLRI-0001AB-56.030-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT		
<b>Inspection Date:</b>	January 28, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	66	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Arc shaped wall or semi circle. Park MP 55.887		

### Wall Measurements

<b>Wall Length (ft.):</b>	52	<b>Face Area (sq.):</b>	380
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	13	<b>Vertical Offset (ft.):</b>	-3

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress but moderate scour.	6
WALL FOUNDATION MATERIAL 8.00	Sand and gravel. Some erosion around head wall. Moderate scour under foundation. No settlement.	6
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation.	7
DOWNSLOPE 0.50	Flat.	8
LATERAL SLOPE 0.50	Flat.	8
UPSLOPE 0.50	Gradual.	8
CULVERT 1.00	8' high by 9' wide	7
WALL DRAINS 1.00	Weepholes present.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AB: BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AB\_56.030\_L\_1.JPG



BLRI\_0001AB\_56.030\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001AB-56.745-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT		
<b>Inspection Date:</b>	January 28, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Double box culvert. Park MP 56.618		

### Wall Measurements

<b>Wall Length (ft.):</b>	90	<b>Face Area (sq.):</b>	320
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	12	<b>Vertical Offset (ft.):</b>	-2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Sand, soil, and cobbles. No settlement or erosion.	7
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation.	7
DOWNSLOPE 0.50	Flat.	8
LATERAL SLOPE 0.50	Flat.	8
ROAD/SIDEWALK/SHOULDER 0.50	Gradual shoulder.	8
CULVERT 1.00	17' wide by 10' high.	7
WALL DRAINS 1.00	None observed.	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001AB: BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AB\_56.745\_R\_1.JPG

<b>Wall ID:</b>	BLRI-0001AB-56.754-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT		
<b>Inspection Date:</b>	January 28, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Double box culvert. Park MP 56.618		

### Wall Measurements

<b>Wall Length (ft.):</b>	84	<b>Face Area (sq.):</b>	320
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	12	<b>Vertical Offset (ft.):</b>	-1

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Sand, soil, and cobbles. No settlement or erosion.	7
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation.	7
DOWNSLOPE 0.50	Flat.	8
LATERAL SLOPE 0.50	Flat.	8
ROAD/SIDEWALK/SHOULDER 0.50	Gradual.	8
CULVERT 1.00	17' wide x 10' high	7
WALL DRAINS 1.00	None observed.	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AB: BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AB\_56.754\_L\_1.JPG

<b>Wall ID:</b>	BLRI-0001AB-57.168-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT		
<b>Inspection Date:</b>	January 28, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Near mile marker Park MP 57.011		

### Wall Measurements

<b>Wall Length (ft.):</b>	58	<b>Face Area (sq.):</b>	170
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	7	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Soil. No settlement or erosion.	7
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation.	7
DOWNSLOPE 0.50	Flat	8
LATERAL SLOPE 0.50	Flat.	8
ROAD/SIDEWALK/SHOULDER 0.50	Flat shoulder.	8
CULVERT 1.00	7' wide by 4' high concrete box.	7
WALL DRAINS 1.00	None observed.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AB: BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AB\_57.168\_R\_1.JPG

<b>Wall ID:</b>	BLRI-0001AB-57.171-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT		
<b>Inspection Date:</b>	January 28, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Near milemarker post Park MP 57.015		

### Wall Measurements

<b>Wall Length (ft.):</b>	80	<b>Face Area (sq.):</b>	240
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	7	<b>Vertical Offset (ft.):</b>	-2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Soil. No settlement or erosion.	7
MORTAR 8.00	Sound and durable	7
STONE MASONRY 8.00	Reset capstone.	7
DOWNSLOPE 0.50	Flat.	8
LATERAL SLOPE 0.50	Flat.	8
CULVERT 1.00	7' wide by 4' high concrete box.	7
ROAD/SIDEWALK/SHOULDER 1.00	Flat shoulder	7
WALL DRAINS 1.00	None observed.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Reset Capstone, repoint mortar 15 S.F. x \$75/S.F. = \$1,125.
<b>Repair Cost:</b>	\$1,125

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AB: BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AB\_57.171\_L\_1.JPG

<b>Wall ID:</b>	BLRI-0001AB-57.554-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT		
<b>Inspection Date:</b>	January 28, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Curved headwall Park MP 57.400		

### Wall Measurements

<b>Wall Length (ft.):</b>	25	<b>Face Area (sq.):</b>	120
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	7	<b>Vertical Offset (ft.):</b>	-2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Gravelly sand. No settlement or erosion	7
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation.	7
LATERAL SLOPE 0.50	Flat.	8
CULVERT 1.00	4' high by 5' wide box culvert	7
DOWNSLOPE 1.00	Flat.	7
ROAD/SIDEWALK/SHOULDER 1.00	Gradual shoulder.	7
WALL DRAINS 1.00	None observed.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001AB: BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AB\_57.554\_R\_1.JPG

<b>Wall ID:</b>	BLRI-0001AB-57.556-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT		
<b>Inspection Date:</b>	January 28, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Curved headwall Park MP 57.400		

### Wall Measurements

<b>Wall Length (ft.):</b>	36	<b>Face Area (sq.):</b>	160
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	7	<b>Vertical Offset (ft.):</b>	-2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Gravelly sand. No settlement or erosion	7
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation.	7
LATERAL SLOPE 0.50	Flat.	8
CULVERT 1.00	4' high by 5' wide	7
DOWNSLOPE 1.00	Flat.	7
ROAD/SIDEWALK/SHOULDER 1.00	Gradual shoulder.	7
WALL DRAINS 1.00	None observed.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AB: BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AB\_57.556\_L\_1.JPG

<b>Wall ID:</b>	BLRI-0001AB-58.787-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT		
<b>Inspection Date:</b>	January 28, 2008	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Head wall.		

### Wall Measurements

<b>Wall Length (ft.):</b>	113	<b>Face Area (sq.):</b>	900
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	13	<b>Vertical Offset (ft.):</b>	-5

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Gravel and cobbles. No settlement or erosion.	7
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation.	7
DOWNSLOPE 0.50	Flat.	8
LATERAL SLOPE 0.50	Flat.	8
ROAD/SIDEWALK/SHOULDER 0.50	Moderate slope.	8
CULVERT 1.00	Two 8' x 20' box culverts.	7
WALL DRAINS 1.00	None observed.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# **Blue Ridge Parkway**

**ROUTE 0001AB: BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001AB-58.787-R.**

<b>Wall ID:</b>	BLRI-0001AB-58.788-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT		
<b>Inspection Date:</b>	January 28, 2008	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Head wall.		

### Wall Measurements

<b>Wall Length (ft.):</b>	100	<b>Face Area (sq.):</b>	650
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	12	<b>Vertical Offset (ft.):</b>	-4

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Gravel and cobbles. No settlement or erosion.	7
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation.	7
DOWNSLOPE 0.50	Flat.	8
LATERAL SLOPE 0.50	Flat.	8
ROAD/SIDEWALK/SHOULDER 0.50	Moderate slope.	8
CULVERT 1.00	Two 8' x 20' box culverts.	7
WALL DRAINS 1.00	None observed.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# **Blue Ridge Parkway**

**ROUTE 0001AB: BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001AB-58.788-L.**

<b>Wall ID:</b>	BLRI-0001AB-59.301-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT		
<b>Inspection Date:</b>	January 28, 2008	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Head wall with two culvert boxes.		

### Wall Measurements

<b>Wall Length (ft.):</b>	75	<b>Face Area (sq.):</b>	700
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	14	<b>Vertical Offset (ft.):</b>	-5

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Bedrock, sand, and gravel.	7
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation.	7
DOWNSLOPE 0.50	Flat.	8
LATERAL SLOPE 0.50	Flat.	8
CULVERT 1.00	Two 8' x 16' boxes.	7
ROAD/SIDEWALK/SHOULDER 1.00	Moderate slope.	7
WALL DRAINS 1.00	None observed.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# **Blue Ridge Parkway**

**ROUTE 0001AB: BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT**

## **Retaining Wall Condition Photos**

<b>Wall ID:</b>	BLRI-0001AB-59.306-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT		
<b>Inspection Date:</b>	January 28, 2008	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Head wall with two culvert boxes.		

### Wall Measurements

<b>Wall Length (ft.):</b>	60	<b>Face Area (sq.):</b>	400
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	12	<b>Vertical Offset (ft.):</b>	-10

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Bedrock, sand, and gravel.	7
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation.	7
DOWNSLOPE 0.50	Flat.	8
LATERAL SLOPE 0.50	Flat.	8
CULVERT 1.00	Two 8' x 16' boxes.	7
ROAD/SIDEWALK/SHOULDER 1.00	Moderate slope.	7
WALL DRAINS 1.00	None observed.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# **Blue Ridge Parkway**

**ROUTE 0001AB: BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001AB-59.306-L.**

<b>Wall ID:</b>	BLRI-0001AB-59.406-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT		
<b>Inspection Date:</b>	January 28, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	68	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Curved wall Park MP 59.173		

### Wall Measurements

<b>Wall Length (ft.):</b>	50	<b>Face Area (sq.):</b>	350
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	16	<b>Vertical Offset (ft.):</b>	-1

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Soil No settlement, slight scour.	6
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation.	7
DOWNSLOPE 0.50	Flat.	8
LATERAL SLOPE 0.50	Flat.	8
CULVERT 1.00	12' x 12' box culvert.	7
ROAD/SIDEWALK/SHOULDER 1.00	Flat shoulder.	7
WALL DRAINS 1.00	None observed.	7

### Repair Recommendations

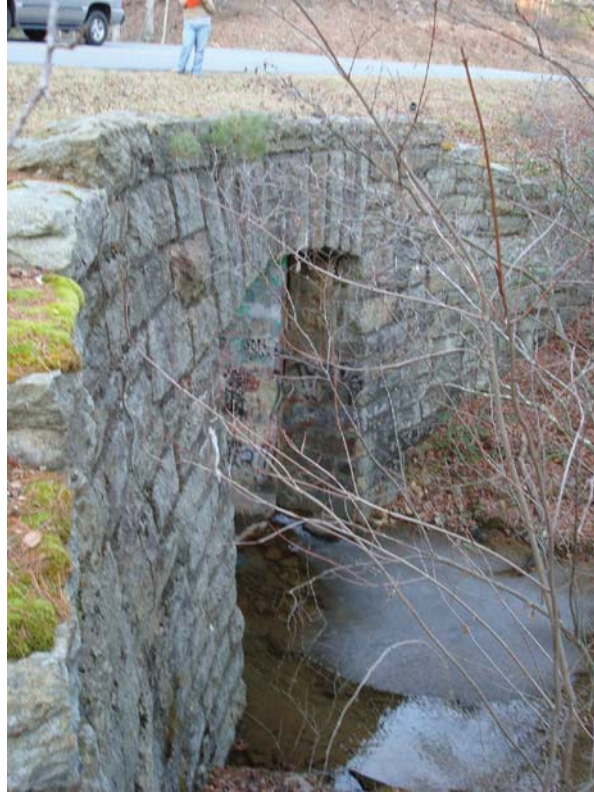
<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AB: BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AB\_59.406\_L\_1.JPG

<b>Wall ID:</b>	BLRI-0001AB-59.406-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT		
<b>Inspection Date:</b>	January 28, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	68	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Curved headwall Park MP 59.173		

### Wall Measurements

<b>Wall Length (ft.):</b>	50	<b>Face Area (sq.):</b>	350
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	16	<b>Vertical Offset (ft.):</b>	-3

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	No settlement, slight scour	6
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation.	7
DOWNSLOPE 0.50	Flat.	8
LATERAL SLOPE 0.50	Flat.	8
CULVERT 1.00	12' x 12' box culvert.	7
ROAD/SIDEWALK/SHOULDER 1.00	Flat shoulder.	7
WALL DRAINS 1.00	None observed.	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AB: BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AB\_59.406\_R\_1.JPG



BLRI\_0001AB\_59.406\_R\_2.JPG

<b>Wall ID:</b>	BLRI-0001AB-60.104-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT		
<b>Inspection Date:</b>	January 28, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	68	<b>Maintenance Action:</b>	Maintenance

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 59.878		

### Wall Measurements

<b>Wall Length (ft.):</b>	30	<b>Face Area (sq.):</b>	120
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	-6

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Soil and cobbles. No settlement or erosion	7
MORTAR 8.00	Some mortar separation - moderately cracked 25% repointing	6
STONE MASONRY 8.00	No degradation	7
DOWNSLOPE 0.50	Flat.	8
LATERAL SLOPE 0.50	Flat.	8
CULVERT 1.00	4' x 4' box culvert.	7
UPSLOPE 1.00	3:1	7
WALL DRAINS 1.00	None observed.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Repoint mortar - 30 S.F. * \$75/S.F. = \$2,250
<b>Repair Cost:</b>	\$2,250

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001AB: BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AB\_60.104\_L\_1.JPG

<b>Wall ID:</b>	BLRI-0001AB-60.105-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT		
<b>Inspection Date:</b>	January 28, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Curved headwall Park MP 59.879		

### Wall Measurements

<b>Wall Length (ft.):</b>	30	<b>Face Area (sq.):</b>	120
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	-6

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Soil and cobbles. No settlement or erosion	7
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation.	7
CULVERT 1.00	4' x 4' box culvert	7
DOWNSLOPE 1.00	Rising.	7
LATERAL SLOPE 1.00	Gradual.	7
UPSLOPE 1.00	Gradual.	7
WALL DRAINS 1.00	None observed.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AB: BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AB\_60.105\_R\_1.JPG

<b>Wall ID:</b>	BLRI-0001AB-61.121-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT		
<b>Inspection Date:</b>	December 06, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	51	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 60.798		

### Wall Measurements

<b>Wall Length (ft.):</b>	29	<b>Face Area (sq.):</b>	150
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	-5

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	Significant distress to wall from missing mortar, undermining, scour	5
WALL FOUNDATION MATERIAL 8.00	Sand, silt, and gravel. Scour, undermining - 4'x1'x1' on left side, 4'x2'x1' on right side, extend apron 4'	4
MORTAR 8.00	75% cracked/missing - Repoint all (150 S.F.)	4
STONE MASONRY 8.00	Some displaced stones.	6
VEGETATION 1.00	Trees at top. Remove 5 small trees.	6
WALL DRAINS 1.00	None observed.	6
CULVERT 1.00	5'H x 6'W concrete box	7
DOWNSLOPE 1.00	Flat, streambed flows into other creek about 15'.	7
LATERAL SLOPE 1.00	Gradual.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Left side: Replace stones/mortar, extend 1' deeper into scoured/undermined area - 4'x2' = 8 S.F., 8 S.F. x \$650/S.F. = \$5,200. Right side: Same repair as left side 8 S.F. x \$650/S.F. = \$5,200. Other: Extend concrete apron with lean concrete fill to prevent fur.
<b>Repair Cost:</b>	\$22,100

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AB: BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AB\_61.121\_L\_1.JPG



BLRI\_0001AB\_61.121\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001AB-61.121-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT		
<b>Inspection Date:</b>	December 06, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	72	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 60.798		

### Wall Measurements

<b>Wall Length (ft.):</b>	23	<b>Face Area (sq.):</b>	115
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	-6

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Cobbly soil. No settlement or erosion.	7
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation, 1 missing stone	7
LATERAL SLOPE 0.50	Gradual.	8
CULVERT 1.00	5'H x 6'W Concrete box.	7
DOWNSLOPE 1.00	Flat, streambed.	7
UPSLOPE 1.00	Gradual.	7
WALL DRAINS 1.00	None observed.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Repair one missing stone on north end - 3 S.F. x \$620/S.F. = \$1,820.
<b>Repair Cost:</b>	\$1,820

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AB: BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AB\_61.121\_R\_1.JPG

<b>Wall ID:</b>	BLRI-0001AB-61.354-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT		
<b>Inspection Date:</b>	December 06, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 61.060		

### Wall Measurements

<b>Wall Length (ft.):</b>	20	<b>Face Area (sq.):</b>	80
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	-6

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Cobbly soil. Slight scour.	7
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation.	7
CULVERT 1.00	4' x 4' concrete box.	7
DOWNSLOPE 1.00	Slight upslope, streambed.	7
LATERAL SLOPE 1.00	Gradual.	7
UPSLOPE 1.00	4H:1V	7
WALL DRAINS 1.00	None observed.	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001AB: BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AB\_61.354\_L\_1.JPG



BLRI\_0001AB\_61.354\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001AB-62.125-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT		
<b>Inspection Date:</b>	December 06, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Two 18 ft W x 11 ft H box culverts, one for water, one for walking trail Park MP 61.565		

### Wall Measurements

<b>Wall Length (ft.):</b>	80	<b>Face Area (sq.):</b>	700
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	15	<b>Vertical Offset (ft.):</b>	-15

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Cobbly soil. Streambed, some scour. Evidence of previous concrete repair.	7
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation.	7
CULVERT 1.00	Two 11' high by 18' wide concrete boxes. Evidence of previous repair.	7
DOWNSLOPE 1.00	Flat, streambed.	7
LATERAL SLOPE 1.00	High on south side. Gradual on North side.	7
UPSLOPE 1.00	2H:1V, small trees.	7
WALL DRAINS 1.00	None observed.	7

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	Underpin North side, Lean concrete fill - 4' x 10' x 2' = 80 C.F. ~ 3 C.Y. Say 4 C.Y. x \$175/C.Y. = \$700. Labor 20 hrs x \$55/hr = \$1,100.
<b>Repair Cost:</b>	\$1,800

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# **Blue Ridge Parkway**

**ROUTE 0001AB: BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001AB-62.125-R.**

<b>Wall ID:</b>	BLRI-0001AB-62.136-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT		
<b>Inspection Date:</b>	December 06, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Two 18 ft W x 11 ft H box culverts, one for water, one for trail Park MP 61.565		

### Wall Measurements

<b>Wall Length (ft.):</b>	80	<b>Face Area (sq.):</b>	700
<b>Average Wall Height (ft.):</b>	8	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	15	<b>Vertical Offset (ft.):</b>	-15

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Cobbly soil No settlement or erosion	7
MORTAR 8.00	Sound and durable	7
STONE MASONRY 8.00	No degradation	7
CULVERT 1.00	Two 11'H x 18'W concrete boxes	7
DOWNSLOPE 1.00	Flat, streambed	7
LATERAL SLOPE 1.00	Gradual	7
UPSLOPE 1.00	2H:1V, small trees	7
WALL DRAINS 1.00	Unknown	7

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# **Blue Ridge Parkway**

**ROUTE 0001AB: BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001AB-62.136-L.**

<b>Wall ID:</b>	BLRI-0001AB-64.534-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT		
<b>Inspection Date:</b>	December 06, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	67	<b>Maintenance Action:</b>	Maintenance

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 64.387		

### Wall Measurements

<b>Wall Length (ft.):</b>	172	<b>Face Area (sq.):</b>	1892
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	14	<b>Vertical Offset (ft.):</b>	-5

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress. Needs maintenance - trees cut	7
WALL FOUNDATION MATERIAL 8.00	Cobbly sand with silt. No settlement. Eroded soil with in 2'-5' of wall base. Monitor.	6
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation. Mossy.	7
CULVERT 1.00	3' x 3' concrete box - rebar sticking into culvert	6
DOWNSLOPE 1.00	Flat 2'-6' then stream.	6
VEGETATION 1.00	Trees growing at top of wall. 18" Pine -may affect wall. Several smaller trees and brush.	6
LATERAL SLOPE 1.00	Gradual.	7
UPSLOPE 1.00	4H:1V	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	Cut 4 trees/shrubs. 10 hrs x \$55/hr = \$550. 1 Big Pine - \$955
<b>Repair Cost:</b>	\$1,505

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AB: BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AB\_64.534\_L\_1.JPG



BLRI\_0001AB\_64.534\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001AB-67.234-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT		
<b>Inspection Date:</b>	December 06, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	69	<b>Maintenance Action:</b>	Maintenance

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 67.055		

### Wall Measurements

<b>Wall Length (ft.):</b>	35	<b>Face Area (sq.):</b>	180
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	-25

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Cobbly/bouldery soil. Slight scour.	7
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation	7
CULVERT 1.00	6.2' high by 8' wide concrete box. Exposed reinforced steel ceiling (approximate limits 4'x2')	6
UPSLOPE 1.00	Flat 10' then 2H:1V Cobbly surface.	6
DOWNSLOPE 1.00	Flat, streambed.	7
LATERAL SLOPE 1.00	Gradual.	7
WALL DRAINS 1.00	Rectangular weepholes 10' on center	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Remove fallen tree - 8 hrs * \$55/hr = \$440. Clean rebar - 10 L.F. * \$10/L.F. = \$100. Patch concrete - 8 S.F. * \$15/S.F. = \$120
<b>Repair Cost:</b>	\$660

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001AB: BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AB\_67.234\_L\_1.JPG



BLRI\_0001AB\_67.234\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001AB-67.234-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT		
<b>Inspection Date:</b>	December 06, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	69	<b>Maintenance Action:</b>	Maintenance

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Slightly curved headwall Park MP 67.055		

### Wall Measurements

<b>Wall Length (ft.):</b>	24	<b>Face Area (sq.):</b>	100
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	9	<b>Vertical Offset (ft.):</b>	-18

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Cobbly/bouldery soil or bedrock. No settlement or erosion.	7
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation.	7
LATERAL SLOPE 1.00	Rock on north side, rises upslope. Soil on south side, flat.	6
UPSLOPE 1.00	Flat 8' then 1.5H:1V	6
CULVERT 1.00	6.2' high by 8' wide concrete box.	7
DOWNSLOPE 1.00	Flat then up, stream.	7
WALL DRAINS 1.00	Rectangular weepholes 10' on center	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	Remove fallen tree, clean out leaves - Labor - 10 hrs*\$55/hr = \$550
<b>Repair Cost:</b>	\$550

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AB: BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AB\_67.234\_R\_1.JPG



BLRI\_0001AB\_67.234\_R\_2.JPG

<b>Wall ID:</b>	BLRI-0001AB-68.798-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT		
<b>Inspection Date:</b>	December 06, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	65	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 68.695		

### Wall Measurements

<b>Wall Length (ft.):</b>	33	<b>Face Area (sq.):</b>	140
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	9	<b>Vertical Offset (ft.):</b>	-12

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress. Culvert needs significant repairs. Cost included in other side cost estimate.	5
WALL FOUNDATION MATERIAL 8.00	Cobbly/bouldery soil. No settlement or erosion.	7
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation.	7
CULVERT 1.00	6.4' high by 8' wide concrete box by 150' long. Exposed reinforced steel at bottom, cracked around interior perimeter, bottom of culvert pitted and wavy throughout. Fissured, fractured.	4
TRAFFIC BARRIER/FENCE 0.50	PT post and rail.	8
DOWNSLOPE 1.00	Streambed.	7
LATERAL SLOPE 1.00	Slight slope.	7
UPSLOPE 1.00	Flat then 2H:1V	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AB: BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AB\_68.798\_L\_1.JPG



BLRI\_0001AB\_68.798\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001AB-68.798-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT		
<b>Inspection Date:</b>	December 06, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	63	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 68.695		

### Wall Measurements

<b>Wall Length (ft.):</b>	33	<b>Face Area (sq.):</b>	140
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	9	<b>Vertical Offset (ft.):</b>	-20

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress. Culvert needs significant repairs.	5
WALL FOUNDATION MATERIAL 8.00	Cobbly/bouldery soil. No settlement. Scour beneath/in front of culvert = 4' x 2' x 1'	6
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation.	7
CULVERT 1.00	6.4' high by 8' wide concrete box by 150' long. Exposed reinforced steel at bottom, crack around interior perimeter, bottom of culvert pitted (lost aggregate) and wavy (eroded) throughout, fissured/fractured.	4
TRAFFIC BARRIER/FENCE 0.50	PT post and rail.	8
DOWNSLOPE 1.00	Streambed, slight rise.	7
LATERAL SLOPE 1.00	Slight slope.	7
UPSLOPE 1.00	Flat then 2H:1V	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	Reseal culvert floor, grout cracks - 8'x150' = 1,200 S.F., 1,200 S.F. * \$15/S.F. = \$18,000. Lean concrete apron in front of culvert - say 1 C.Y. * \$175/C.Y. = \$175.
<b>Repair Cost:</b>	\$18,175

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AB: BLUE RIDGE PARKWAY - JAMES RIVER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AB\_68.798\_R\_1.JPG



BLRI\_0001AB\_68.798\_R\_2.JPG

<b>Wall ID:</b>	BLRI-0001AC-75.822-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT		
<b>Inspection Date:</b>	January 16, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	72	<b>Maintenance Action:</b>	Maintenance

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 75.63		

### Wall Measurements

<b>Wall Length (ft.):</b>	84	<b>Face Area (sq.):</b>	28
<b>Average Wall Height (ft.):</b>	4	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	7	<b>Vertical Offset (ft.):</b>	-8

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil/rock No settlement or erosion	7
MORTAR 8.00	10% minor cracking, otherwise sound and durable	7
STONE MASONRY 8.00	No degradation	8
TRAFFIC BARRIER/FENCE 0.50	Wood rail, no distress	8
VEGETATION 1.00	Vegetation covers top of wall and in front	6
DOWNSLOPE 1.00	2H:1V	7
LATERAL SLOPE 1.00	Gradual	7
WALL DRAINS 1.00	None	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Clear vegetation on top and 5' width in front of wall - 10 hrs x \$55/hr = \$550
<b>Repair Cost:</b>	\$550

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001AC: BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AC\_75.822\_R\_1.JPG



BLRI\_0001AC\_75.822\_R\_2.JPG

<b>Wall ID:</b>	BLRI-0001AC-75.901-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT		
<b>Inspection Date:</b>	January 16, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 75.711		

### Wall Measurements

<b>Wall Length (ft.):</b>	338	<b>Face Area (sq.):</b>	3050
<b>Average Wall Height (ft.):</b>	9	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	15	<b>Vertical Offset (ft.):</b>	-10

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil No settlement or erosion	7
MORTAR 8.00	20% missing, cracked	6
STONE MASONRY 8.00	No degradation	8
TRAFFIC BARRIER/FENCE 0.50	Wood rail, no distress	8
DOWNSLOPE 1.00	Flat 6', then 1H:1V	6
UPSLOPE 1.00	Flat 14', then 1.5H:1V	6
LATERAL SLOPE 1.00	Gradual	7
WALL DRAINS 1.00	None	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Repoint mortar - 20% x 3,050 sf = 610 sf, 610 sf x \$75/sf = \$45,750
<b>Repair Cost:</b>	\$45,750

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AC: BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AC\_75.901\_R\_1.JPG



BLRI\_0001AC\_75.901\_R\_2.JPG

<b>Wall ID:</b>	BLRI-0001AC-79.392-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT		
<b>Inspection Date:</b>	January 16, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	69	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 79.21		

### Wall Measurements

<b>Wall Length (ft.):</b>	222	<b>Face Area (sq.):</b>	1330
<b>Average Wall Height (ft.):</b>	5	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	10	<b>Vertical Offset (ft.):</b>	-25

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Rock/soil No settlement or erosion	7
MORTAR 8.00	Sound and durable	7
STONE MASONRY 8.00	No degradation	7
UPSLOPE 1.00	1H:1V	5
DOWNSLOPE 1.00	Flat, then 3H:1V	7
LATERAL SLOPE 1.00	Gradual	7
WALL DRAINS 1.00	Not observed	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AC: BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AC\_79.392\_L\_1.JPG

<b>Wall ID:</b>	BLRI-0001AC-79.473-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT		
<b>Inspection Date:</b>	January 16, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	67	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 79.290		

### Wall Measurements

<b>Wall Length (ft.):</b>	380	<b>Face Area (sq.):</b>	4560
<b>Average Wall Height (ft.):</b>	12	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	26	<b>Vertical Offset (ft.):</b>	-30

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil/rock No settlement or erosion	7
MORTAR 8.00	Loose capstones, 3'x15' = 45 sf Repoint/reset	6
STONE MASONRY 8.00	No degradation	7
UPSLOPE 1.00	Steep, 1H:1V	5
CULVERT 1.00	Square culvert, 2' x 2', no apparent distress	7
DOWNSLOPE 1.00	4H:1V to 2H:1V	7
LATERAL SLOPE 1.00	Gradual	7
WALL DRAINS 1.00	None	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	Reset Capstones - 45 sf x \$160/sf = \$7,200
<b>Repair Cost:</b>	\$7,200

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AC: BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AC\_79.473\_L\_1.JPG



BLRI\_0001AC\_79.473\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001AC-82.912-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT		
<b>Inspection Date:</b>	January 16, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	71	<b>Maintenance Action:</b>	Maintenance

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 82.728		

### Wall Measurements

<b>Wall Length (ft.):</b>	290	<b>Face Area (sq.):</b>	3190
<b>Average Wall Height (ft.):</b>	11	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	15	<b>Vertical Offset (ft.):</b>	-40

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil/rock No settlement or erosion	7
MORTAR 8.00	Sound and durable	7
STONE MASONRY 8.00	No degradation	8
UPSLOPE 1.00	1H:1V	5
DOWNSLOPE 1.00	Flat, then 2H:1V	6
VEGETATION 1.00	2 trees leaning on wall - need to be cut	6
LATERAL SLOPE 1.00	Gradual	7
WALL DRAINS 1.00	None	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Cut 2 trees - \$955/tree x 2 trees = \$1,910
<b>Repair Cost:</b>	\$1,910

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001AC: BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AC\_82.912\_L\_1.JPG



BLRI\_0001AC\_82.912\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001AC-84.753-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT		
<b>Inspection Date:</b>	January 16, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Straight Headwall Park MP 84.585		

### Wall Measurements

<b>Wall Length (ft.):</b>	24	<b>Face Area (sq.):</b>	75
<b>Average Wall Height (ft.):</b>	3	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	-11

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Bouldery soil No settlement or erosion	7
MORTAR 8.00	Overall sound and durable, slight cracking/missing mortar	7
STONE MASONRY 8.00	No degradation	7
UPSLOPE 0.50	Gradual slope	8
CULVERT 1.00	4'H x 5'W concrete box	7
DOWNSLOPE 1.00	Upsloping	7
LATERAL SLOPE 1.00	Gradual slope	7
WALL DRAINS 1.00	None	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AC: BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AC\_84.753\_L\_1.JPG

<b>Wall ID:</b>	BLRI-0001AC-84.753-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT		
<b>Inspection Date:</b>	January 16, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Curved headwall Park MP 84.585		

### Wall Measurements

<b>Wall Length (ft.):</b>	34	<b>Face Area (sq.):</b>	115
<b>Average Wall Height (ft.):</b>	3	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	-2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Bouldery soil No settlement or erosion	7
MORTAR 8.00	Sound and durable slight cracking, missing mortar	7
STONE MASONRY 8.00	No degradation	7
UPSLOPE 0.50	Gradual slope	8
CULVERT 1.00	5'W x 4'H concrete box	7
DOWNSLOPE 1.00	Upsloping	7
LATERAL SLOPE 1.00	Gradual slope	7
WALL DRAINS 1.00	none	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AC: BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AC\_84.753\_R\_1.JPG

<b>Wall ID:</b>	BLRI-0001AC-85.792-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT		
<b>Inspection Date:</b>	January 16, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	75	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Trail crossing Park MP 85.63		

### Wall Measurements

<b>Wall Length (ft.):</b>	38	<b>Face Area (sq.):</b>	160
<b>Average Wall Height (ft.):</b>	4	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	10	<b>Vertical Offset (ft.):</b>	-1

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	8
WALL FOUNDATION MATERIAL 8.00	Soil No settlement or erosion	7
MORTAR 8.00	Sound and durable	7
STONE MASONRY 8.00	No degradation	8
DOWNSLOPE 0.50	Gradual, trail	8
LATERAL SLOPE 0.50	Flat	8
ROAD/SIDEWALK/SHOULDER 0.50	Nearly flat, grassy shoulder	8
CULVERT 1.00	8'H x 11.5'W concrete box Asphalt approach, partial portland cement concrete sidewalk inside	7
WALL DRAINS 1.00	Weep holes 10' on center, square	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AC: BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AC\_85.792\_L\_1.JPG

<b>Wall ID:</b>	BLRI-0001AC-85.792-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT		
<b>Inspection Date:</b>	January 16, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	73	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Trail crossing Park MP 85.63		

### Wall Measurements

<b>Wall Length (ft.):</b>	38	<b>Face Area (sq.):</b>	160
<b>Average Wall Height (ft.):</b>	4	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	10	<b>Vertical Offset (ft.):</b>	-3

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil No settlement or erosion	7
MORTAR 8.00	Sound and durable	7
STONE MASONRY 8.00	No degradation	8
DOWNSLOPE 0.50	Gradual, trail	8
LATERAL SLOPE 0.50	Flat	8
ROAD/SIDEWALK/SHOULDER 0.50	Nearly flat, grassy shoulder	8
CULVERT 1.00	8'H x 11.5'W concrete box Asphalt approach, partial portland cement concrete sidewalk inside	7
WALL DRAINS 1.00	Weep holes, 10' on center, square	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001AC: BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AC\_85.792\_R\_1.JPG

<b>Wall ID:</b>	BLRI-0001AC-88.438-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT		
<b>Inspection Date:</b>	January 16, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Large fill wall		

### Wall Measurements

<b>Wall Length (ft.):</b>	200	<b>Face Area (sq.):</b>	2800
<b>Average Wall Height (ft.):</b>	14	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	20	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	No settlement or erosion	7
MORTAR 8.00	Sound and durable	7
STONE MASONRY 8.00	No degradation	7
ROAD/SIDEWALK/SHOULDER 0.50	Flat shoulder	8
DOWNSLOPE 1.00	3H:1V	7
LATERAL SLOPE 1.00	Gradual	7
WALL DRAINS 1.00	None observed	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AC: BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AC\_88.438\_R\_1.JPG

<b>Wall ID:</b>	BLRI-0001AC-89.744-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT		
<b>Inspection Date:</b>	January 16, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 89.56		

### Wall Measurements

<b>Wall Length (ft.):</b>	317	<b>Face Area (sq.):</b>	4480
<b>Average Wall Height (ft.):</b>	14	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	20	<b>Vertical Offset (ft.):</b>	-22

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Bouldery soil No settlement or erosion	7
MORTAR 8.00	Sound and durable	7
STONE MASONRY 8.00	No degradation	7
VEGETATION 1.00	Vegetation at top	6
CULVERT 1.00	18" concrete pipe culvert	7
DOWNSLOPE 1.00	3H:1V	7
LATERAL SLOPE 1.00	Gradual	7
UPSLOPE 1.00	2H:1V	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AC: BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AC\_89.744\_L\_1.JPG



BLRI\_0001AC\_89.744\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001AC-89.856-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT		
<b>Inspection Date:</b>	January 16, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	Maintenance

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 89.703		

### Wall Measurements

<b>Wall Length (ft.):</b>	211	<b>Face Area (sq.):</b>	1850
<b>Average Wall Height (ft.):</b>	8	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	12	<b>Vertical Offset (ft.):</b>	10

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil No settlement or erosion	7
MORTAR 8.00	sound and durable	7
STONE MASONRY 8.00	No degradation	7
DOWNSLOPE 1.00	3H:1V	7
LATERAL SLOPE 1.00	Gradual slope	7
UPSLOPE 1.00	2H:1V	7
VEGETATION 1.00	Vegetation growing on top of wall	7
WALL DRAINS 1.00	None	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	Clear vegetation on top of wall - 10 hrs x \$55/hr = \$550
<b>Repair Cost:</b>	\$550

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AC: BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AC\_89.856\_L\_1.JPG



BLRI\_0001AC\_89.856\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001AC-90.031-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT		
<b>Inspection Date:</b>	January 16, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 89.852		

### Wall Measurements

<b>Wall Length (ft.):</b>	170	<b>Face Area (sq.):</b>	2550
<b>Average Wall Height (ft.):</b>	15	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	20	<b>Vertical Offset (ft.):</b>	2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil No settlement or erosion	7
MORTAR 8.00	Some mortar separation at top Wall has been repointed recently	7
STONE MASONRY 8.00	No degradation	7
LATERAL SLOPE 0.50	Flat	8
ROAD/SIDEWALK/SHOULDER 0.50	Flat shoulder	8
DOWNSLOPE 1.00	3H:1V	7
WALL DRAINS 1.00	None	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001AC: BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT

## Retaining Wall Condition Photos



**BLRI\_0001AC\_90.031\_L\_1.JPG**



**BLRI\_0001AC\_90.031\_L\_2.JPG**

<b>Wall ID:</b>	BLRI-0001AC-91.804-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT		
<b>Inspection Date:</b>	January 16, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	Maintenance

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 91.63		

### Wall Measurements

<b>Wall Length (ft.):</b>	216	<b>Face Area (sq.):</b>	3960
<b>Average Wall Height (ft.):</b>	18	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	24	<b>Vertical Offset (ft.):</b>	-33

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil No settlement or erosion	7
MORTAR 8.00	Sound and durable minor cracking	7
STONE MASONRY 8.00	No degradation	7
VEGETATION 1.00	Vegetation at top remove vegetation	6
DOWNSLOPE 1.00	2.5H:1V	7
LATERAL SLOPE 1.00	Gradual	7
UPSLOPE 1.00	4H:1V	7
WALL DRAINS 1.00	None	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Clear vegetation at top of wall - 10 hrs x \$55/hr = \$550
<b>Repair Cost:</b>	\$550

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AC: BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AC\_91.804\_L\_1.JPG



BLRI\_0001AC\_91.804\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001AC-93.612-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT		
<b>Inspection Date:</b>	January 16, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	72	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 93.438		

### Wall Measurements

<b>Wall Length (ft.):</b>	270	<b>Face Area (sq.):</b>	3600
<b>Average Wall Height (ft.):</b>	13	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	18	<b>Vertical Offset (ft.):</b>	-24

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil No settlement or erosion	7
STONE MASONRY 8.00	No degradation	7
MORTAR 8.00	Appears newly mortared/repointed	8
DOWNSLOPE 1.00	2H:1V	7
LATERAL SLOPE 1.00	Gradual	7
UPSLOPE 1.00	3H:1V	7
WALL DRAINS 1.00	Weep holes	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AC: BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AC\_93.612\_L\_1.JPG



BLRI\_0001AC\_93.612\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001AC-93.715-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT		
<b>Inspection Date:</b>	January 16, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	72	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 93.552		

### Wall Measurements

<b>Wall Length (ft.):</b>	227	<b>Face Area (sq.):</b>	4200
<b>Average Wall Height (ft.):</b>	18	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	23	<b>Vertical Offset (ft.):</b>	-32

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Bedrock No settlement or erosion	8
MORTAR 8.00	Sound and durable	7
STONE MASONRY 8.00	No degradation	7
TRAFFIC BARRIER/FENCE 0.50	Wood rail	8
DOWNSLOPE 1.00	3H:1V	7
LATERAL SLOPE 1.00	Gradual slope, cut on south end, fill on north end	7
UPSLOPE 1.00	2H:1V	7
WALL DRAINS 1.00	None	7

### Repair Recommendations

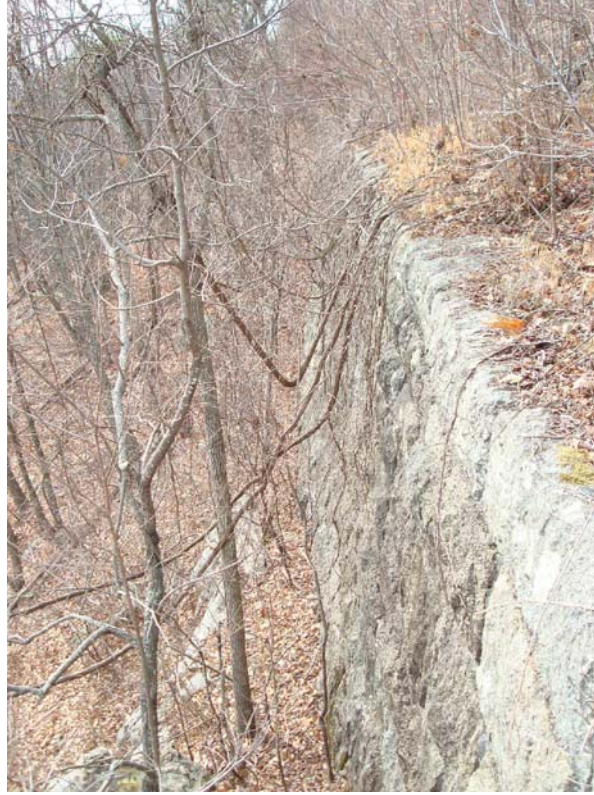
<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AC: BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AC\_93.715\_L\_1.JPG

<b>Wall ID:</b>	BLRI-0001AC-93.920-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT		
<b>Inspection Date:</b>	January 16, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 93.733		

### Wall Measurements

<b>Wall Length (ft.):</b>	312	<b>Face Area (sq.):</b>	5890
<b>Average Wall Height (ft.):</b>	18	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	23	<b>Vertical Offset (ft.):</b>	-50

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil No settlement or erosion	7
MORTAR 8.00	Sound and durable	7
STONE MASONRY 8.00	No degradation	7
TRAFFIC BARRIER/FENCE 0.50	Wood rail	8
DOWNSLOPE 1.00	4H:1V	7
LATERAL SLOPE 1.00	Gradual	7
UPSLOPE 1.00	2H:1V	7
WALL DRAINS 1.00	None	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001AC: BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AC\_93.920\_L\_1.JPG

<b>Wall ID:</b>	BLRI-0001AC-94.976-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT		
<b>Inspection Date:</b>	December 05, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	69	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Large stone masonry wall at corner and downslope		

### Wall Measurements

<b>Wall Length (ft.):</b>	240	<b>Face Area (sq.):</b>	3600
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	85
<b>Maximum Wall Height (ft.):</b>	22	<b>Vertical Offset (ft.):</b>	-45

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress, culvert needs repair	7
WALL FOUNDATION MATERIAL 8.00	Rock or soil. No settlement or erosion.	7
MORTAR 8.00	Minor missing mortar (1 L.F.)	7
STONE MASONRY 8.00	No degradation.	7
CULVERT 1.00	13" RCP, severely corroded. Stone above culvert displaced. Poor condition. Sections offset relative to each other.	4
TRAFFIC BARRIER/FENCE 0.50	PT wood barrier.	9
DOWNSLOPE 1.00	2H:1V slope, trees	6
UPSLOPE 1.00	2H:1V slope, trees	6
LATERAL SLOPE 1.00	Gradual.	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	Repair culvert. Replace culvert section - 8 L.F. * \$250/L.F. = \$1,800. Grout joints - Labor 15 hrs * \$55/hr = \$825
<b>Repair Cost:</b>	\$2,625

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AC: BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AC\_94.976\_R\_1.JPG



BLRI\_0001AC\_94.976\_R\_2.JPG

<b>Wall ID:</b>	BLRI-0001AC-95.111-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT		
<b>Inspection Date:</b>	December 05, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	67	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Fill wall		

### Wall Measurements

<b>Wall Length (ft.):</b>	185	<b>Face Area (sq.):</b>	1850
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	85
<b>Maximum Wall Height (ft.):</b>	15	<b>Vertical Offset (ft.):</b>	-20

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Rock on north end likely. Soil/rock on sand. No settlement or erosion.	7
MORTAR 8.00	Missing, fractured over 5% of area.	6
STONE MASONRY 8.00	No degradation.	7
VEGETATION 1.00	Trees at top (4-5 trees, 3"-6"). Thorns and brush at base of wall.	5
DOWNSLOPE 1.00	2H:1V for long distance.	6
UPSLOPE 1.00	2H:1V	6
LATERAL SLOPE 1.00	Gradual slope to south.	7
WALL DRAINS 1.00	Gaps in wall at base.	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	Remove trees at top - 5 small trees: \$55/hr * 10 hr = \$550. Clear brush at base: \$55/hr * 10 hr = \$550. Repoint mortar: \$75/S.F. * 100 S.F. = \$7,500
<b>Repair Cost:</b>	\$8,600

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AC: BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AC\_95.111\_L\_1.JPG



BLRI\_0001AC\_95.111\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001AC-97.292-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT		
<b>Inspection Date:</b>	December 04, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Large Stone Masonry Wall Park MP 97.172		

### Wall Measurements

<b>Wall Length (ft.):</b>	425	<b>Face Area (sq.):</b>	6375
<b>Average Wall Height (ft.):</b>	15	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	22	<b>Vertical Offset (ft.):</b>	-40

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Cobbly soil, maybe weathered rock No settlement or erosion	7
MORTAR 8.00	Sound and durable	7
STONE MASONRY 8.00	No Degradation	7
UPSLOPE 1.00	2H:1V, heavily vegetated	6
CULVERT 1.00	16" RCP, good condition	7
DOWNSLOPE 1.00	2H:1V	7
LATERAL SLOPE 1.00	Gradual slope	7
WALL DRAINS 1.00	Gaps in rock at base serve as drains	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AC: BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AC\_97.292\_L\_1.JPG



BLRI\_0001AC\_97.292\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001AC-97.334-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT		
<b>Inspection Date:</b>	December 04, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	69	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Large stone masonry wall length taken from plans Park MP 97.215		

### Wall Measurements

<b>Wall Length (ft.):</b>	165	<b>Face Area (sq.):</b>	1320
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	85
<b>Maximum Wall Height (ft.):</b>	11	<b>Vertical Offset (ft.):</b>	-60

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Weathered rock/fractured bedrock or soil. Bottom of wall appears to bulge, likely poorly constructed (no evidence of major cracks).	7
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation.	7
CULVERT 1.00	18" RCP. 1"offset in pipes.	6
UPSLOPE 1.00	1.5H:1V	6
DOWNSLOPE 1.00	2H:1V	7
LATERAL SLOPE 1.00	Gradual.	7
WALL DRAINS 1.00	None observed.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001AC: BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AC\_97.334\_L\_1.JPG



BLRI\_0001AC\_97.334\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001AC-97.366-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT		
<b>Inspection Date:</b>	December 04, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	67	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Large Stone Masonry Wall Park MP 97.248		

### Wall Measurements

<b>Wall Length (ft.):</b>	196	<b>Face Area (sq.):</b>	1960
<b>Average Wall Height (ft.):</b>	10	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	16	<b>Vertical Offset (ft.):</b>	-45

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Weathered rock/soil No settlement or erosion	7
MORTAR 8.00	Moderate mortar separation, missing mortar (approx. 100 s.f.)	6
STONE MASONRY 8.00	Minor fracturing (1 stone at top)	7
CULVERT 1.00	18" RCP, 3/4 filled with soil	6
LATERAL SLOPE 1.00	Bedrock on south end, soil on north end	6
UPSLOPE 1.00	2H:1V, heavily vegetated	6
DOWNSLOPE 1.00	2H:1V	7
WALL DRAINS 1.00	Gaps at base of wall	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Remove soil from culvert - \$2,000. Repoint mortar - 100 s.f. * \$75/s.f. = \$7,500
<b>Repair Cost:</b>	\$9,500

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# **Blue Ridge Parkway**

**ROUTE 0001AC: BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001AC-97.366-L.**

<b>Wall ID:</b>	BLRI-0001AC-97.410-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT		
<b>Inspection Date:</b>	December 04, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	68	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 97.292		

### Wall Measurements

<b>Wall Length (ft.):</b>	75	<b>Face Area (sq.):</b>	1050
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	80
<b>Maximum Wall Height (ft.):</b>	19	<b>Vertical Offset (ft.):</b>	-50

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Weathered/fractured bedrock or soil. Bottom of wall bulging out (likely poor construction, no evidence of cracks.	6
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation.	7
UPSLOPE 1.00	1.5H:1V	6
DOWNSLOPE 1.00	2H:1V	7
LATERAL SLOPE 1.00	Gradual.	7
WALL DRAINS 1.00	None observed.	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# **Blue Ridge Parkway**

**ROUTE 0001AC: BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001AC-97.410-L.**

<b>Wall ID:</b>	BLRI-0001AC-97.422-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT		
<b>Inspection Date:</b>	December 04, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	67	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Large stone masonry wall, Park MP 97.305		

### Wall Measurements

<b>Wall Length (ft.):</b>	136	<b>Face Area (sq.):</b>	1766
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	85
<b>Maximum Wall Height (ft.):</b>	17	<b>Vertical Offset (ft.):</b>	30

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Weathered rock/soil. No settlement or erosion.	7
MORTAR 8.00	Moderate separation missing mortar about 90 sqft.	6
STONE MASONRY 8.00	No degradation.	7
CULVERT 1.00	18" RCP, exposed reinforced steel, cracked concrete, and 1/2 filled with soil.	5
DOWNSLOPE 1.00	3H:1V	7
LATERAL SLOPE 1.00	Gradual, rises to bedrock 20' to south.	7
UPSLOPE 1.00	2H:1V heavily vegetated.	7
WALL DRAINS 1.00	Gaps at base of wall.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Clean out soil in culvert - \$2,000. Repoint Mortar - 90 s.f. * \$75/s.f. = \$6,750
<b>Repair Cost:</b>	\$8,750

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

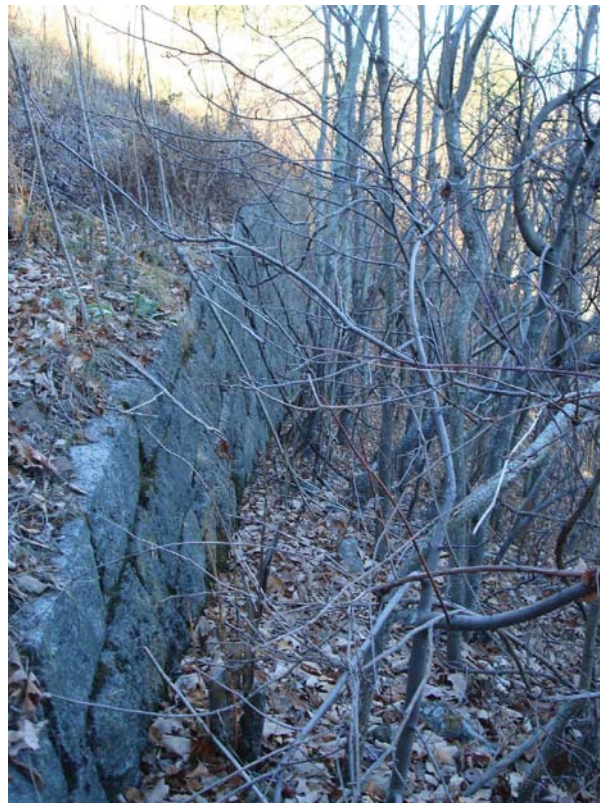
# Blue Ridge Parkway

ROUTE 0001AC: BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AC\_97.422\_L\_1.JPG



BLRI\_0001AC\_97.422\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001AC-97.471-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT		
<b>Inspection Date:</b>	December 04, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	67	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Large stone masonry wall, length determined from plans Park MP 97.352		

### Wall Measurements

<b>Wall Length (ft.):</b>	135	<b>Face Area (sq.):</b>	1890
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	85
<b>Maximum Wall Height (ft.):</b>	19	<b>Vertical Offset (ft.):</b>	-60

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Weathered/fractured bedrock or soil. No settlement or erosion.	7
MORTAR 8.00	Sound and durable. 5" wide by 1' long missing mortar.	6
STONE MASONRY 8.00	No degradation.	7
CULVERT 1.00	18" RCP. 1/4" offset at pipe joints.	6
UPSLOPE 1.00	1.5H:1V	6
DOWNSLOPE 1.00	2H:1V	7
LATERAL SLOPE 1.00	Gradual.	7
WALL DRAINS 1.00	None observed.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Grout pipe joint - \$500
<b>Repair Cost:</b>	\$500

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001AC: BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AC\_97.471\_L\_1.JPG



BLRI\_0001AC\_97.471\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001AC-101.232-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT		
<b>Inspection Date:</b>	December 04, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	67	<b>Maintenance Action:</b>	Repair Elements

**Wall Description**

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 101.133		

**Wall Measurements**

<b>Wall Length (ft.):</b>	365	<b>Face Area (sq.):</b>	3600
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	13	<b>Vertical Offset (ft.):</b>	-1

**Assessed Elements**

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress. Culvert pipe settlement.	6
WALL FOUNDATION MATERIAL 8.00	None observed.	7
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation	7
ROAD/SIDEWALK/SHOULDER 0.50	Flat, grassy.	8
CULVERT 1.00	2 culverts. North end has 18" diameter RCP with 6" settlement 4' back. South end has 22" diameter RCP with 1/2" settlement 4' back behind wall.	5
DOWNSLOPE 1.00	Flat 10' then 2H:1V	7
LATERAL SLOPE 1.00	Slightly sloped.	7
WALL DRAINS 1.00	None observed.	7

**Repair Recommendations**

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Grout pipe joints - \$500 * 2 = \$1,000
<b>Repair Cost:</b>	\$1,000

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AC: BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT

## Retaining Wall Condition Photos



**BLRI\_0001AC\_101.232\_R\_1.JPG**



**BLRI\_0001AC\_101.232\_R\_2.JPG**

<b>Wall ID:</b>	BLRI-0001AC-102.492-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT		
<b>Inspection Date:</b>	December 04, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Stone masonry headwall, Park MP 102.400		

### Wall Measurements

<b>Wall Length (ft.):</b>	24	<b>Face Area (sq.):</b>	80
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	-15

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Gravelly soil. No settlement or erosion.	7
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation. Some moss.	7
LATERAL SLOPE 0.50	Gradual.	8
CULVERT 1.00	4.1' high by 4.1' wide concrete box.	7
DOWNSLOPE 1.00	Slight upslope.	7
UPSLOPE 1.00	2H:1V	7
WALL DRAINS 1.00	Rectangular weepholes 10' on center.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

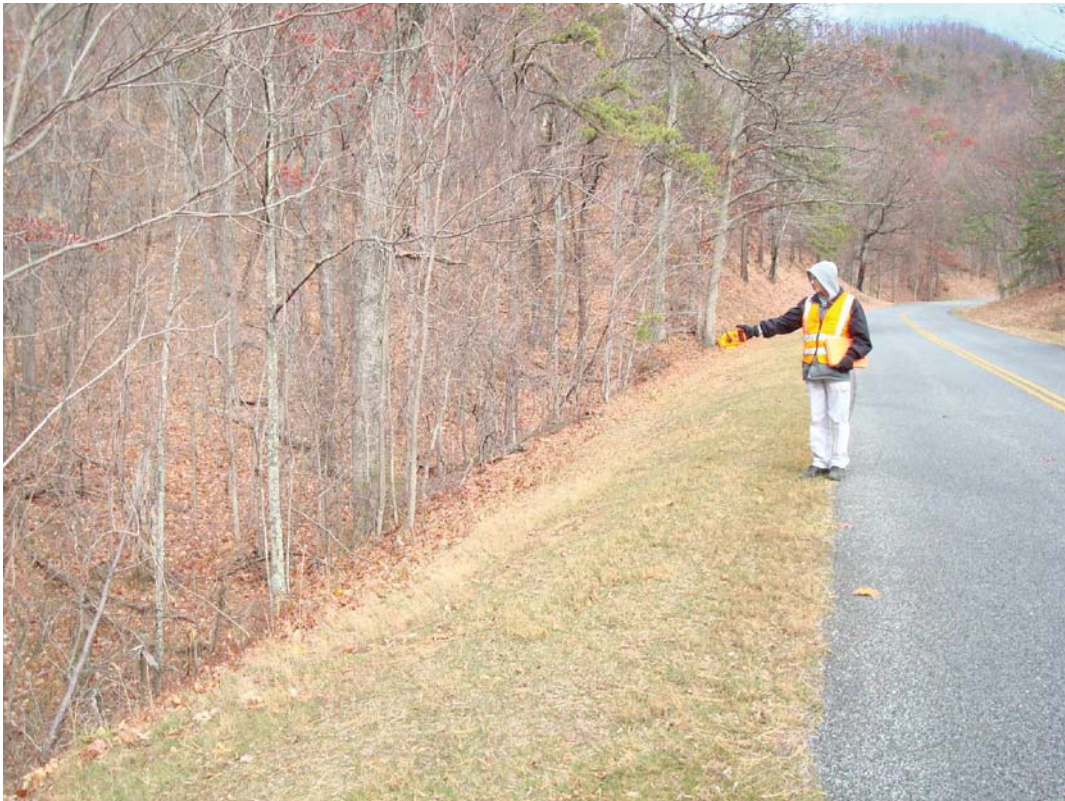
# Blue Ridge Parkway

ROUTE 0001AC: BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AC\_102.492\_R\_1.JPG



BLRI\_0001AC\_102.492\_R\_2.JPG

<b>Wall ID:</b>	BLRI-0001AC-102.505-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT		
<b>Inspection Date:</b>	December 04, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Stone Masonry Headwall, Park MP 102.413		

### Wall Measurements

<b>Wall Length (ft.):</b>	24	<b>Face Area (sq.):</b>	80
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	-50

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Gravelly soil. No settlement or erosion.	7
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation. Some moss.	7
LATERAL SLOPE 0.50	Gradual.	8
CULVERT 1.00	4.1' wide by 4.1' high concrete box.	7
DOWNSLOPE 1.00	Slight upslope.	7
UPSLOPE 1.00	2H:1V	7
WALL DRAINS 1.00	Rectangular weepholes 10' on center.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AC: BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AC\_102.505\_L\_1.JPG



BLRI\_0001AC\_102.505\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001AC-102.805-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT		
<b>Inspection Date:</b>	December 04, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 102.715		

### Wall Measurements

<b>Wall Length (ft.):</b>	18	<b>Face Area (sq.):</b>	56
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	-20

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Cobbly soil. No settlement or erosion.	7
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation.	7
CULVERT 1.00	4' x 4' concrete box.	7
DOWNSLOPE 1.00	Slight upslope, dry streambed.	7
LATERAL SLOPE 1.00	Gradual.	7
UPSLOPE 1.00	Flat 8' then 2H:1V	7
WALL DRAINS 1.00	Rectangular weepholes 10' on center	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

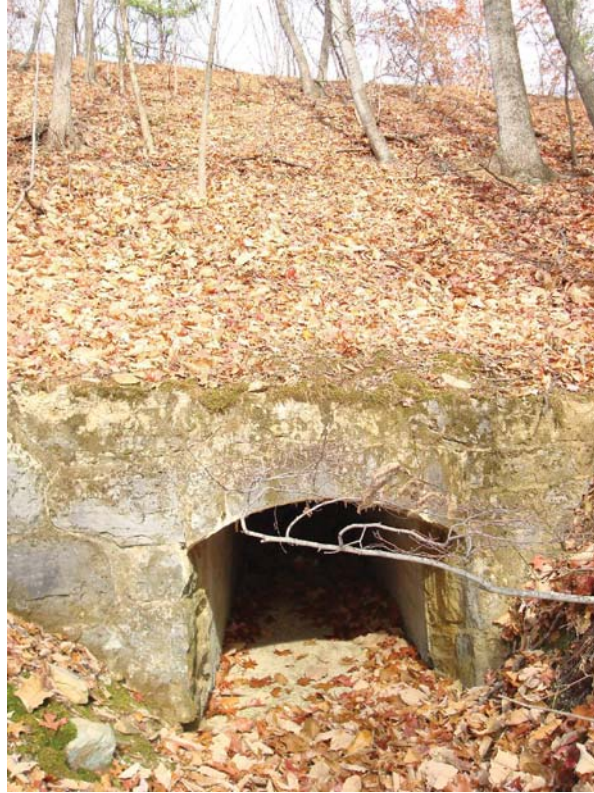
2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001AC: BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AC\_102.805\_L\_1.JPG



BLRI\_0001AC\_102.805\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001AC-102.805-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT		
<b>Inspection Date:</b>	December 04, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 102.715		

### Wall Measurements

<b>Wall Length (ft.):</b>	18	<b>Face Area (sq.):</b>	56
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	-40

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Cobbly soil. No settlement or erosion.	7
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation.	7
DOWNSLOPE 1.00	Dry streambed.	7
LATERAL SLOPE 1.00	Gradual.	7
UPSLOPE 1.00	Flat then 2H:1V	7
WALL DRAINS 1.00	Rectangular weepholes 10' on center.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AC: BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AC\_102.805\_R\_1.JPG



BLRI\_0001AC\_102.805\_R\_2.JPG

<b>Wall ID:</b>	BLRI-0001AC-103.088-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT		
<b>Inspection Date:</b>	December 04, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	68	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 103.00		

### Wall Measurements

<b>Wall Length (ft.):</b>	28	<b>Face Area (sq.):</b>	138
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	-12

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress. Extend concrete to help prevent scour.	7
WALL FOUNDATION MATERIAL 8.00	Gravelly soil. No settlement, slight scour.	6
MORTAR 8.00	Sound and durable. Evidence of repair, missing 3-5 l.f. at entrance.	7
STONE MASONRY 8.00	No degradation.	7
LATERAL SLOPE 0.50	Gradual.	8
CULVERT 1.00	6.1' wide by 5.1' high concrete box.	7
DOWNSLOPE 1.00	Flat, dry streambed.	7
ROAD/SIDEWALK/SHOULDER 1.00	Gravel and grass.	7
WALL DRAINS 1.00	Rectangular weepholes 10' on center	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	Place concrete fill to extend culvert base at the outlet. 6' x 1' x 2' = 12 c.f. 1 c.y.*\$330/c.y. = \$330. Labor - 20 hrs * \$55/hr = \$1,100
<b>Repair Cost:</b>	\$1,430

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AC: BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AC\_103.088\_L\_1.JPG



BLRI\_0001AC\_103.088\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001AC-103.090-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT		
<b>Inspection Date:</b>	December 04, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Big tree at North end, park MP 103.003		

### Wall Measurements

<b>Wall Length (ft.):</b>	28	<b>Face Area (sq.):</b>	138
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	-10

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Gravelly soil. No settlement or erosion.	7
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation.	7
LATERAL SLOPE 0.50	Gradual.	8
CULVERT 1.00	6.1' wide by 5.1' high concrete box.	7
DOWNSLOPE 1.00	Flat, dry streambed.	7
ROAD/SIDEWALK/SHOULDER 1.00	Gravel and grass.	7
WALL DRAINS 1.00	Rectangular weepholes 10' on center.	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AC: BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AC\_103.090\_R\_1.JPG



BLRI\_0001AC\_103.090\_R\_2.JPG

<b>Wall ID:</b>	BLRI-0001AC-103.264-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT		
<b>Inspection Date:</b>	December 04, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Stone culvert Park MP 103.178		

### Wall Measurements

<b>Wall Length (ft.):</b>	30	<b>Face Area (sq.):</b>	145
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	-4

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Cobbly soil. No settlement or erosion.	7
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation.	7
LATERAL SLOPE 0.50	Gradual.	8
DOWNSLOPE 1.00	Flat, dry streambed.	7
ROAD/SIDEWALK/SHOULDER 1.00	Gravel and grass.	7
WALL DRAINS 1.00	Rectangular weepholes 10' on center	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001AC: BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AC\_103.264\_R\_1.JPG



BLRI\_0001AC\_103.264\_R\_2.JPG

<b>Wall ID:</b>	BLRI-0001AC-103.271-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT		
<b>Inspection Date:</b>	December 04, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Stone culvert Park MP 103.184		

### Wall Measurements

<b>Wall Length (ft.):</b>	30	<b>Face Area (sq.):</b>	145
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	-3

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Cobbly soil. No settlement or erosion.	7
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation.	7
LATERAL SLOPE 0.50	Gradual.	8
CULVERT 1.00	6.1' high by 5.1' wide concrete box.	7
DOWNSLOPE 1.00	Flat, dry streambed.	7
ROAD/SIDEWALK/SHOULDER 1.00	Gravel and grass.	7
WALL DRAINS 1.00	Rectangular weepholes 10' on center. (weep hole size = 6.5" x 4.5")	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AC: BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AC\_103.271\_L\_1.JPG



BLRI\_0001AC\_103.271\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001AC-105.673-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT		
<b>Inspection Date:</b>	December 04, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	66	<b>Maintenance Action:</b>	Maintenance

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Curved stone headwall, Park MP 105.604		

### Wall Measurements

<b>Wall Length (ft.):</b>	44	<b>Face Area (sq.):</b>	148
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	-2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Gravelly sand. No settlement or erosion.	7
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation.	7
LATERAL SLOPE 0.50	Flat.	8
ROAD/SIDEWALK/SHOULDER 0.50	Flat, grassy.	8
VEGETATION 1.00	Brush piling up near entrance.	5
DOWNSLOPE 1.00	Dry streambed, slight scour in front of wall.	7
WALL DRAINS 1.00	Rectangular weepholes on 9' centers.	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	Clear brush at opening - 10 hrs*\$55/hr = \$550
<b>Repair Cost:</b>	\$550

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AC: BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AC\_105.673\_R\_1.JPG



BLRI\_0001AC\_105.673\_R\_2.JPG

<b>Wall ID:</b>	BLRI-0001AC-105.688-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT		
<b>Inspection Date:</b>	December 04, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Head wall.		

### Wall Measurements

<b>Wall Length (ft.):</b>	44	<b>Face Area (sq.):</b>	148
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	-2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Gravelly sand. No settlement or erosion.	7
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation.	7
LATERAL SLOPE 0.50	Flat.	8
ROAD/SIDEWALK/SHOULDER 0.50	Flat, grassy.	8
CULVERT 1.00	4' high by 6.4' wide concrete box.	7
DOWNSLOPE 1.00	Dry streambed, slight scour in front of wall.	7
WALL DRAINS 1.00	Rectangular weepholes 9' on center	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AC: BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AC\_105.688\_L\_1.JPG



BLRI\_0001AC\_105.688\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001AC-105.873-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT		
<b>Inspection Date:</b>	December 04, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	L shaped wall, Park MP 105.81		

### Wall Measurements

<b>Wall Length (ft.):</b>	39	<b>Face Area (sq.):</b>	160
<b>Average Wall Height (ft.):</b>	4	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Gravelly sand No settlement or erosion	7
MORTAR 8.00	sound and durable, slight cracking and separation	7
STONE MASONRY 8.00	No degradation	7
LATERAL SLOPE 0.50	Flat	8
ROAD/SIDEWALK/SHOULDER 0.50	Flat, grassy shoulder	8
CULVERT 1.00	4' diameter RCP, good condition	7
DOWNSLOPE 1.00	Rises, concrete drainage channel goes into culvert	7
WALL DRAINS 1.00	None	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001AC: BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AC\_105.873\_L\_1.JPG



BLRI\_0001AC\_105.873\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001AC-105.873-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT		
<b>Inspection Date:</b>	December 04, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	68	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Head wall		

### Wall Measurements

<b>Wall Length (ft.):</b>	24	<b>Face Area (sq.):</b>	100
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	7	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress erosion behind wall south corner	7
WALL FOUNDATION MATERIAL 8.00	Gravelly sand. Erosion on south end corner wall.	6
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation.	7
LATERAL SLOPE 0.50	Flat.	8
ROAD/SIDEWALK/SHOULDER 0.50	Flat, grassy.	8
CULVERT 1.00	Assume 4' by 4' concrete box.	7
DOWNSLOPE 1.00	Dry streambed.	7
WALL DRAINS 1.00	None observed.	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	Repair Eroded area - 2'H x 5'L x 1'W. Fill - unclassified borrow - 1 cy * \$35/cy = \$35. Turf Reinforcement Mat - 2 sy * \$5/sy = \$5. Labor - 10 hrs * \$55/hr = \$550. Dump Truck - 10 hrs * \$120/hr = \$1,200.
<b>Repair Cost:</b>	\$1,795

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001AC: BLUE RIDGE PARKWAY - PEAKS OF OTTER SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001AC\_105.873\_R\_1.JPG



BLRI\_0001AC\_105.873\_R\_2.JPG

<b>Wall ID:</b>	BLRI-0001BA-108.595-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROANOKE VALLEY SUB-DISTRICT		
<b>Inspection Date:</b>	December 04, 2007	<b>Approximate Year Built:</b>	1950
<b>*Wall Rating:</b>	72	<b>Maintenance Action:</b>	Maintenance

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Cantilever - Concrete
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 108.40		

### Wall Measurements

<b>Wall Length (ft.):</b>	34	<b>Face Area (sq.):</b>	130
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	-15

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Gravelly sand with silt. No settlement or erosion	7
CONCRETE 8.00	Sound and durable.	8
TRAFFIC BARRIER/FENCE 1.00	Aged wood/concrete post	5
VEGETATION 1.00	Small trees at the top.	6
CULVERT 1.00	5' high by 6' wide concrete box.	7
DOWNSLOPE 1.00	Flat, streambed.	7
LATERAL SLOPE 1.00	Gradual.	7
UPSLOPE 1.00	2H:1V	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Remove 4 small trees (2"-6") - 10 hrs x \$55/hr = \$550
<b>Repair Cost:</b>	\$550

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001BA: BLUE RIDGE PARKWAY - ROANOKE VALLEY SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001BA\_108.595\_L\_1.JPG



BLRI\_0001BA\_108.595\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001BA-108.595-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROANOKE VALLEY SUB-DISTRICT		
<b>Inspection Date:</b>	December 04, 2007	<b>Approximate Year Built:</b>	1950
<b>*Wall Rating:</b>	69	<b>Maintenance Action:</b>	No Action

**Wall Description**

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Cantilever - Concrete
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 108.410		

**Wall Measurements**

<b>Wall Length (ft.):</b>	34	<b>Face Area (sq.):</b>	130
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	-25

**Assessed Elements**

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Scour. Exposed 1.5' of foundation; not undermined.	6
CONCRETE 8.00	Sound and durable.	8
TRAFFIC BARRIER/FENCE 1.00	Aged wood/concrete post	5
VEGETATION 1.00	Small trees at the top.	6
CULVERT 1.00	5' high by 6' wide concrete box.	7
DOWNSLOPE 1.00	Flat, streambed.	7
LATERAL SLOPE 1.00	Gradual.	7
UPSLOPE 1.00	2H:1V	7

**Repair Recommendations**

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001BA: BLUE RIDGE PARKWAY - ROANOKE VALLEY SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001BA\_108.595\_R\_1.JPG



BLRI\_0001BA\_108.595\_R\_2.JPG

<b>Wall ID:</b>	BLRI-0001BA-108.631-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROANOKE VALLEY SUB-DISTRICT		
<b>Inspection Date:</b>	December 04, 2007	<b>Approximate Year Built:</b>	1950
<b>*Wall Rating:</b>	69	<b>Maintenance Action:</b>	Maintenance

**Wall Description**

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Cantilever - Concrete
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 108.455		

**Wall Measurements**

<b>Wall Length (ft.):</b>	35	<b>Face Area (sq.):</b>	130
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	-12

**Assessed Elements**

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Soil. No settlement or erosion.	7
CONCRETE 8.00	Sound and durable.	7
TRAFFIC BARRIER/FENCE 1.00	Aged wood guardrail with concrete posts.	5
VEGETATION 1.00	Trees on top.	6
CULVERT 1.00	6.1' high by 4' wide	7
DOWNSLOPE 1.00	Flat, dry streambed.	7
LATERAL SLOPE 1.00	Gradual.	7
UPSLOPE 1.00	2H:1V	7

**Repair Recommendations**

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	Remove 1 small tree - \$955. Replace guardrail 35 L.F. x \$35/L.F. = \$1,225.
<b>Repair Cost:</b>	\$2,180

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001BA: BLUE RIDGE PARKWAY - ROANOKE VALLEY SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001BA\_108.631\_L\_1.JPG



BLRI\_0001BA\_108.631\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001BA-108.631-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROANOKE VALLEY SUB-DISTRICT		
<b>Inspection Date:</b>	December 04, 2007	<b>Approximate Year Built:</b>	1950
<b>*Wall Rating:</b>	69	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Cantilever - Concrete
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Cattle Crossing Park MP 108.455		

### Wall Measurements

<b>Wall Length (ft.):</b>	35	<b>Face Area (sq.):</b>	130
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	-15

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Soil. No settlement or erosion.	7
CONCRETE 8.00	Sound and durable.	7
TRAFFIC BARRIER/FENCE 1.00	Aged wood guardrail with concrete posts.	5
VEGETATION 1.00	Tree (10" diameter) on top of wall - needs to be removed.	6
WALL DRAINS 1.00	PVC pipes on 10' centers. Soil up to weepholes.	6
CULVERT 1.00	6.1' high by 4' wide. Filled with soil to make opening 4.5'.	7
DOWNSLOPE 1.00	Flat, dry streambed.	7
LATERAL SLOPE 1.00	Gradual.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Remove 1 tree (10" diameter) - \$955. Replace guardrail - 35 L.F. x \$35/L.F. = \$1,225
<b>Repair Cost:</b>	\$2,180

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001BA: BLUE RIDGE PARKWAY - ROANOKE VALLEY SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001BA\_108.631\_R\_1.JPG



BLRI\_0001BA\_108.631\_R\_2.JPG

<b>Wall ID:</b>	BLRI-0001BA-109.550-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROANOKE VALLEY SUB-DISTRICT		
<b>Inspection Date:</b>	December 04, 2007	<b>Approximate Year Built:</b>	1950
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

**Wall Description**

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Cantilever - Concrete
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Crossing Park MP 109.353		

**Wall Measurements**

<b>Wall Length (ft.):</b>	45	<b>Face Area (sq.):</b>	200
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	9	<b>Vertical Offset (ft.):</b>	-1

**Assessed Elements**

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress. Pavement patch over culvert.	7
WALL FOUNDATION MATERIAL 8.00	Cobbly soil. No settlement or erosion.	7
CONCRETE 8.00	Sound and durable.	7
CULVERT 1.00	9.8' high by 10' wide. Black pipe running on culvert floor.	7
DOWNSLOPE 1.00	Slight rise. Dirt road.	7
LATERAL SLOPE 1.00	Uniform gradual.	7
ROAD/SIDEWALK/SHOULDER 1.00	Flat, grassy.	7
WALL DRAINS 1.00	PVC pipes on 10.5' centers.	7

**Repair Recommendations**

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001BA: BLUE RIDGE PARKWAY - ROANOKE VALLEY SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001BA\_109.550\_L\_1.JPG



BLRI\_0001BA\_109.550\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001BA-109.550-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROANOKE VALLEY SUB-DISTRICT		
<b>Inspection Date:</b>	December 04, 2007	<b>Approximate Year Built:</b>	1950
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Cantilever - Concrete
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Crossing Park MP 109.353		

### Wall Measurements

<b>Wall Length (ft.):</b>	45	<b>Face Area (sq.):</b>	200
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	9	<b>Vertical Offset (ft.):</b>	-1

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress. Pavement patched over culvert.	7
WALL FOUNDATION MATERIAL 8.00	Cobbly soil. No settlement or erosion.	7
CONCRETE 8.00	Sound and durable. Square hole in front of wall = 1' x 1'	7
ROAD/SIDEWALK/SHOULDER 0.50	Flat, grassy.	8
CULVERT 1.00	9.8' high by 10' wide. Black pipe running on culvert floor. Gate attached to wall to close opening.	7
DOWNSLOPE 1.00	Slight rise. Dirt road.	7
LATERAL SLOPE 1.00	Uniform, gradual.	7
WALL DRAINS 1.00	PVC pipe on 10.5' centers.	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001BA: BLUE RIDGE PARKWAY - ROANOKE VALLEY SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001BA\_109.550\_R\_1.JPG

<b>Wall ID:</b>	BLRI-0001BA-109.708-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROANOKE VALLEY SUB-DISTRICT		
<b>Inspection Date:</b>	December 04, 2007	<b>Approximate Year Built:</b>	1950
<b>*Wall Rating:</b>	72	<b>Maintenance Action:</b>	Maintenance

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Cantilever - Concrete
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 109.512		

### Wall Measurements

<b>Wall Length (ft.):</b>	34	<b>Face Area (sq.):</b>	140
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	9	<b>Vertical Offset (ft.):</b>	-10

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Gravelly sand and silt. No settlement, slight erosion north and south ends.	7
CONCRETE 8.00	Sound and durable.	8
WALL DRAINS 0.50	PVC pipes on 10' centers.	8
CULVERT 1.00	6.2' high by 4' wide. Exposed reinforcing steel - approx 50 L.F.	6
VEGETATION 1.00	Trees on top.	6
DOWNSLOPE 1.00	Flat, dry streambed.	7
LATERAL SLOPE 1.00	Uniform, gradual.	7
UPSLOPE 1.00	1.5H:1V	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Clear trees - 10 small diameter trees - 10 hrs x \$55/hr = \$550
<b>Repair Cost:</b>	\$550

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001BA: BLUE RIDGE PARKWAY - ROANOKE VALLEY SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001BA\_109.708\_L\_1.JPG



BLRI\_0001BA\_109.708\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001BA-109.708-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROANOKE VALLEY SUB-DISTRICT		
<b>Inspection Date:</b>	December 04, 2007	<b>Approximate Year Built:</b>	1950
<b>*Wall Rating:</b>	56	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Cantilever - Concrete
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 109.512 May be partially or wholly on private propertfence		

### Wall Measurements

<b>Wall Length (ft.):</b>	34	<b>Face Area (sq.):</b>	140
<b>Average Wall Height (ft.):</b>	4	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	9	<b>Vertical Offset (ft.):</b>	-15

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	Stability of wall threatened by severe scour`	4
WALL FOUNDATION MATERIAL 8.00	Gravelly sand and silt Severe scour - 10' W x 11'H x 2.8'D, to 12' in front of culvert	4
CONCRETE 8.00	Sound and durable	8
WALL DRAINS 0.50	Circular pvc, 10' on center	8
CULVERT 1.00	6.2'H x 4'W Exposed reinforcing steel - see other side for repair	6
DOWNSLOPE 1.00	Flat, dry streambed	7
LATERAL SLOPE 1.00	Uniform, gradual	7
UPSLOPE 1.00	1.5H:1V	7
VEGETATION 1.00	Few trees	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Install grouted riprap, upper layer ungrouted - 1' x 10' x 15' = approx 6 c.y., 6 c.y. x \$330/c.y. = \$1,980. Clear trees - 5 hrs x \$55/hr = \$275
<b>Repair Cost:</b>	\$2,255

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001BA: BLUE RIDGE PARKWAY - ROANOKE VALLEY SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001BA\_109.708\_R\_1.JPG



BLRI\_0001BA\_109.708\_R\_2.JPG

<b>Wall ID:</b>	BLRI-0001BA-109.992-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROANOKE VALLEY SUB-DISTRICT		
<b>Inspection Date:</b>	December 03, 2007	<b>Approximate Year Built:</b>	1950
<b>*Wall Rating:</b>	69	<b>Maintenance Action:</b>	No Action

**Wall Description**

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Cantilever - Concrete
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 109.80		

**Wall Measurements**

<b>Wall Length (ft.):</b>	26	<b>Face Area (sq.):</b>	100
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	-20

**Assessed Elements**

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Sand, silt, and cobbles. No settlement or erosion.	7
CONCRETE 8.00	Sound and durable. Weathered.	7
CULVERT 1.00	4' x 4' box culvert with exposed rebar inside (minor)	6
UPSLOPE 1.00	Steep.	6
DOWNSLOPE 1.00	Slight upslope.	7
LATERAL SLOPE 1.00	Uniform, gradual.	7
WALL DRAINS 1.00	None observed.	7

**Repair Recommendations**

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001BA: BLUE RIDGE PARKWAY - ROANOKE VALLEY SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001BA\_109.992\_L\_1.JPG



BLRI\_0001BA\_109.992\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001BA-109.992-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROANOKE VALLEY SUB-DISTRICT		
<b>Inspection Date:</b>	December 03, 2007	<b>Approximate Year Built:</b>	1950
<b>*Wall Rating:</b>	50	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Cantilever - Concrete
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 109.80		

### Wall Measurements

<b>Wall Length (ft.):</b>	27	<b>Face Area (sq.):</b>	120
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	7	<b>Vertical Offset (ft.):</b>	-25

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	Needs repair to scour	4
WALL FOUNDATION MATERIAL 8.00	Cobbles, sand with gravel, and some silt. No settlement. Scour and undermined - 15" x 15" x 9'	4
CONCRETE 8.00	Sound and durable. Minor floor degradation	6
UPSLOPE 1.00	Steep.	6
CULVERT 1.00	4' x 4' box culvert with exposed rebar inside, spalled concrete.	7
DOWNSLOPE 1.00	Slight upslope.	7
LATERAL SLOPE 1.00	Uniform, gradual.	7
WALL DRAINS 1.00	None observed.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Install grouted riprap outlet apron, uppermost level ungrouted - 5 cy x \$330/cy = \$1,650 (includes labor). Clean and coat rebar - 10 L.F. x \$10/L.F. = \$100. Patch concrete spalls - 3 S.F. x \$15/S.F. = \$45. Labor - 10 hrs x \$55/hr = \$550
<b>Repair Cost:</b>	\$2,345

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001BA: BLUE RIDGE PARKWAY - ROANOKE VALLEY SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001BA\_109.992\_R\_1.JPG



BLRI\_0001BA\_109.992\_R\_2.JPG

<b>Wall ID:</b>	BLRI-0001BA-112.939-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROANOKE VALLEY SUB-DISTRICT		
<b>Inspection Date:</b>	December 03, 2007	<b>Approximate Year Built:</b>	1950
<b>*Wall Rating:</b>	67	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Cantilever - Concrete
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 112.77		

### Wall Measurements

<b>Wall Length (ft.):</b>	20	<b>Face Area (sq.):</b>	100
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	10	<b>Vertical Offset (ft.):</b>	-25

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Soil with boulders. Stream. No settlement or erosion.	7
CONCRETE 8.00	Sound and durable overall. Few spalls	6
UPSLOPE 1.00	Steep, wooded.	6
CULVERT 1.00	6' high by 4' wide concrete box. No degradation, minor weathering, few spalls	7
DOWNSLOPE 1.00	Flat, streambed.	7
LATERAL SLOPE 1.00	Uniform, gradual.	7
WALL DRAINS 1.00	None observed.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Clean and coat rebar - 20 L.F. x \$10/L.F. = \$200. Patch concrete spalls - 10 S.F. x \$15/S.F. = \$150. Labor - 10 hrs x \$55/hr = \$550
<b>Repair Cost:</b>	\$900

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001BA: BLUE RIDGE PARKWAY - ROANOKE VALLEY SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001BA\_112.939\_L\_1.JPG



BLRI\_0001BA\_112.939\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001BA-112.939-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROANOKE VALLEY SUB-DISTRICT		
<b>Inspection Date:</b>	December 03, 2007	<b>Approximate Year Built:</b>	1950
<b>*Wall Rating:</b>	45	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Cantilever - Concrete
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 112.77		

### Wall Measurements

<b>Wall Length (ft.):</b>	35	<b>Face Area (sq.):</b>	290
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	10	<b>Vertical Offset (ft.):</b>	-35

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	Structural/global stability threatened.	3
WALL FOUNDATION MATERIAL 8.00	Severe scour hole - 5'H x 25'L x 6.5'D Very erodible material - gray silt, some sand, little clay, low plasticity.	2
CONCRETE 8.00	Aged, otherwise sound and durable.	7
CULVERT 1.00	6' high by 4' wide concrete box.	7
DOWNSLOPE 1.00	Flat, stream bed.	7
LATERAL SLOPE 1.00	Uniform, gradual.	7
UPSLOPE 1.00	Steep, wooded.	7
WALL DRAINS 1.00	Circular drains.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Install grouted riprap apron to 2' below footing. Place geotextile over riprap within limits of footing. Finish with ungrouted riprap to grade and taper out to 25' beyond face. Hole volume: Below footing - 25' x 5' x 6.5' = 25 cy. Beyond wall 23' x 25' x
<b>Repair Cost:</b>	\$26,500

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001BA: BLUE RIDGE PARKWAY - ROANOKE VALLEY SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001BA\_112.939\_R\_1.JPG



BLRI\_0001BA\_112.939\_R\_2.JPG

<b>Wall ID:</b>	BLRI-0001BA-117.960-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROANOKE VALLEY SUB-DISTRICT		
<b>Inspection Date:</b>	December 03, 2007	<b>Approximate Year Built:</b>	1950
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

**Wall Description**

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Cantilever - Concrete
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 117.962		

**Wall Measurements**

<b>Wall Length (ft.):</b>	22	<b>Face Area (sq.):</b>	100
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	-20

**Assessed Elements**

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Sand, little silt, little gravel No settlement or erosion.	7
CONCRETE 8.00	Sound and durable. Slight exposed steel.	7
CULVERT 0.50	4' high by 5' wide	8
LATERAL SLOPE 0.50	Uniform, gradual.	8
UPSLOPE 1.00	Steeper than 1:1	5
DOWNSLOPE 1.00	Flat streambed.	7
WALL DRAINS 1.00	None observed.	7

**Repair Recommendations**

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001BA: BLUE RIDGE PARKWAY - ROANOKE VALLEY SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001BA\_117.960\_L\_1.JPG

<b>Wall ID:</b>	BLRI-0001BA-117.960-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROANOKE VALLEY SUB-DISTRICT		
<b>Inspection Date:</b>	December 03, 2007	<b>Approximate Year Built:</b>	1950
<b>*Wall Rating:</b>	64	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Cantilever - Concrete
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 117.962		

### Wall Measurements

<b>Wall Length (ft.):</b>	15	<b>Face Area (sq.):</b>	70
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	-30

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress. Fix undermining.	6
WALL FOUNDATION MATERIAL 8.00	Sand, little silt, and little gravel. No settlement. Slight scour undermining outlet (2' high by 8' wide by 1' deep).	5
CONCRETE 8.00	Sound and durable.	8
CULVERT 0.50	4' high by 5' wide concrete box	8
LATERAL SLOPE 0.50	Uniform, gradual.	8
UPSLOPE 1.00	Steeper than 1:1	5
DOWNSLOPE 1.00	Flat streambed.	7
WALL DRAINS 1.00	None observed.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Grouted riprap - 2' x 8' x 1' = say 1 cy x \$330/cy = \$330. Labor \$55/hr x 20 hrs = \$1,100.
<b>Repair Cost:</b>	\$1,430

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001BA: BLUE RIDGE PARKWAY - ROANOKE VALLEY SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001BA\_117.960\_R\_1.JPG



BLRI\_0001BA\_117.960\_R\_2.JPG

<b>Wall ID:</b>	BLRI-0001BA-118.092-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROANOKE VALLEY SUB-DISTRICT		
<b>Inspection Date:</b>	December 03, 2007	<b>Approximate Year Built:</b>	1950
<b>*Wall Rating:</b>	72	<b>Maintenance Action:</b>	No Action

**Wall Description**

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Cantilever - Concrete
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 118.07		

**Wall Measurements**

<b>Wall Length (ft.):</b>	12	<b>Face Area (sq.):</b>	36
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	-30

**Assessed Elements**

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Sand and little silt. No settlement. Some scour on the sides not underneath.	7
CONCRETE 8.00	Sound and durable. Soil covers part of headwall, unknown actual length	8
CULVERT 0.50	6' wide by 3' high concrete box.	8
UPSLOPE 1.00	Steep.	6
DOWNSLOPE 1.00	Flat, streambed.	7
LATERAL SLOPE 1.00	Uniform, gradual.	7
ROAD/SIDEWALK/SHOULDER 1.00	Aged wood barrier with concrete posts.	7
VEGETATION 1.00	Trees on top, small fallen trees in front.	7

**Repair Recommendations**

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001BA: BLUE RIDGE PARKWAY - ROANOKE VALLEY SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001BA\_118.092\_L\_1.JPG



BLRI\_0001BA\_118.092\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001BA-125.684-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROANOKE VALLEY SUB-DISTRICT		
<b>Inspection Date:</b>	November 30, 2007	<b>Approximate Year Built:</b>	1950
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Cantilever - Concrete
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Cattle crossing Park MP 125.57		

### Wall Measurements

<b>Wall Length (ft.):</b>	40	<b>Face Area (sq.):</b>	220
<b>Average Wall Height (ft.):</b>	5	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	11	<b>Vertical Offset (ft.):</b>	-3

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Cobbly streambed No settlement or erosion	7
CONCRETE 8.00	Sound and durable	7
CULVERT 1.00	12'W x 11'H	7
DOWNSLOPE 1.00	Gradual	7
LATERAL SLOPE 1.00	Flat, grassy	7
ROAD/SIDEWALK/SHOULDER 1.00	Grassy shoulder	7
WALL DRAINS 1.00	Weepholes 10' on center	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# **Blue Ridge Parkway**

**ROUTE 0001BA: BLUE RIDGE PARKWAY - ROANOKE VALLEY SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001BA-125.684-L.**

<b>Wall ID:</b>	BLRI-0001BA-125.684-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROANOKE VALLEY SUB-DISTRICT		
<b>Inspection Date:</b>	November 30, 2007	<b>Approximate Year Built:</b>	1950
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Cantilever - Concrete
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Cattle Crossing Park MP 125.57		

### Wall Measurements

<b>Wall Length (ft.):</b>	40	<b>Face Area (sq.):</b>	220
<b>Average Wall Height (ft.):</b>	5	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	11	<b>Vertical Offset (ft.):</b>	-3

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Cobbly streambed No settlement or erosion	7
CONCRETE 8.00	Sound and durable Chipped concrete	7
CULVERT 1.00	12' W x 11'H	7
DOWNSLOPE 1.00	Gradual	7
LATERAL SLOPE 1.00	Flat, grassy	7
ROAD/SIDEWALK/SHOULDER 1.00	Grassy shoulder	7
WALL DRAINS 1.00	Weepholes 10' on center	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# **Blue Ridge Parkway**

**ROUTE 0001BA: BLUE RIDGE PARKWAY - ROANOKE VALLEY SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001BA-125.684-R.**

<b>Wall ID:</b>	BLRI-0001BA-127.416-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROANOKE VALLEY SUB-DISTRICT		
<b>Inspection Date:</b>	November 30, 2007	<b>Approximate Year Built:</b>	1950
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

**Wall Description**

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Cantilever - Concrete
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Stepped, perpendicular wingwalls, two circular culvert pipes across from wall Park MP 127.295		

**Wall Measurements**

<b>Wall Length (ft.):</b>	29	<b>Face Area (sq.):</b>	60
<b>Average Wall Height (ft.):</b>	2	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	-6

**Assessed Elements**

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Bouldery soil No settlement or erosion	7
CONCRETE 8.00	Sound and durable	7
CULVERT 1.00	6'H x 9'W concrete box	7
DOWNSLOPE 1.00	Flat, streambed	7
LATERAL SLOPE 1.00	Flat, grassy	7
UPSLOPE 1.00	moderate, grassy slope	7
WALL DRAINS 1.00	Weepholes 10' on center	7

**Repair Recommendations**

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# **Blue Ridge Parkway**

**ROUTE 0001BA: BLUE RIDGE PARKWAY - ROANOKE VALLEY SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001BA-127.416-L.**

<b>Wall ID:</b>	BLRI-0001BA-129.883-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROANOKE VALLEY SUB-DISTRICT		
<b>Inspection Date:</b>	November 30, 2007	<b>Approximate Year Built:</b>	1950
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 129.803		

### Wall Measurements

<b>Wall Length (ft.):</b>	104	<b>Face Area (sq.):</b>	400
<b>Average Wall Height (ft.):</b>	3	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	5	<b>Vertical Offset (ft.):</b>	-1

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil, maybe rock (rock cut across road) No settlement or erosion	7
MORTAR 8.00	Sound and durable	7
STONE MASONRY 8.00	No degradation	7
DOWNSLOPE 1.00	1.5H:1V for 200' to 300'	6
LATERAL SLOPE 1.00	Gradual slope	7
ROAD/SIDEWALK/SHOULDER 1.00	Flat, grassy shoulder	7
WALL DRAINS 1.00	None	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# **Blue Ridge Parkway**

**ROUTE 0001BA: BLUE RIDGE PARKWAY - ROANOKE VALLEY SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001BA-129.883-L.**

<b>Wall ID:</b>	BLRI-0001BA-130.513-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROANOKE VALLEY SUB-DISTRICT		
<b>Inspection Date:</b>	November 30, 2007	<b>Approximate Year Built:</b>	1950
<b>*Wall Rating:</b>	73	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 130.430		

### Wall Measurements

<b>Wall Length (ft.):</b>	110	<b>Face Area (sq.):</b>	440
<b>Average Wall Height (ft.):</b>	4	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	5	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil or rock (rock 40' high cut across roadway) No settlement or erosion	7
MORTAR 8.00	Sound and durable Looks like entire wall previously repointed	8
STONE MASONRY 8.00	No degradation	8
DOWNSLOPE 1.00	Steep 2H:1V, covered with saplings	6
TRAFFIC BARRIER/FENCE 1.00	4"x6" aged wood with concrete posts, approx 16" high	6
VEGETATION 1.00	Cines growing on face in areas	6
LATERAL SLOPE 1.00	Slight slope, curved	7
ROAD/SIDEWALK/SHOULDER 1.00	Flat, grassy shoulder	7

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# **Blue Ridge Parkway**

**ROUTE 0001BA: BLUE RIDGE PARKWAY - ROANOKE VALLEY SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001BA-130.513-R.**

<b>Wall ID:</b>	BLRI-0001BA-138.598-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROANOKE VALLEY SUB-DISTRICT		
<b>Inspection Date:</b>	November 30, 2007	<b>Approximate Year Built:</b>	1950
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Cattle crossing Park MP 138.49		

### Wall Measurements

<b>Wall Length (ft.):</b>	65	<b>Face Area (sq.):</b>	425
<b>Average Wall Height (ft.):</b>	6	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	14	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil No settlement or erosion	7
MORTAR 8.00	Sound and durable	7
STONE MASONRY 8.00	No degradation, 4 stones need to be reset	7
DOWNSLOPE 0.50	Flat, gravel road	8
LATERAL SLOPE 0.50	Flat, grassy	8
CULVERT 1.00	10'W x 10'H concrete box	7
ROAD/SIDEWALK/SHOULDER 1.00	Flat, grassy shoulder	7
WALL DRAINS 1.00	None	7

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	Reset 4 stones - 20 SF x \$160/SF = \$3,200.
<b>Repair Cost:</b>	\$3,200

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# **Blue Ridge Parkway**

**ROUTE 0001BA: BLUE RIDGE PARKWAY - ROANOKE VALLEY SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001BA-138.598-L.**

<b>Wall ID:</b>	BLRI-0001BA-138.598-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROANOKE VALLEY SUB-DISTRICT		
<b>Inspection Date:</b>	November 30, 2007	<b>Approximate Year Built:</b>	1950
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Cattle crossing Park MP 138.49		

### Wall Measurements

<b>Wall Length (ft.):</b>	65	<b>Face Area (sq.):</b>	425
<b>Average Wall Height (ft.):</b>	6	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	16	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil No settlement or erosion	7
MORTAR 8.00	Sound and durable	7
STONE MASONRY 8.00	No degradation	7
DOWNSLOPE 0.50	Flat, gravel road	8
LATERAL SLOPE 0.50	Flat	8
CULVERT 1.00	10'W x 10'H concrete box	7
ROAD/SIDEWALK/SHOULDER 1.00	Flat, grassy shoulder	7
WALL DRAINS 1.00	None	7

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# **Blue Ridge Parkway**

**ROUTE 0001BA: BLUE RIDGE PARKWAY - ROANOKE VALLEY SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001BA-138.598-R.**

<b>Wall ID:</b>	BLRI-0001BB-145.790-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 30, 2007	<b>Approximate Year Built:</b>	1950
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Headwall west support wingwalls Park MP 145.688		

### Wall Measurements

<b>Wall Length (ft.):</b>	20	<b>Face Area (sq.):</b>	90
<b>Average Wall Height (ft.):</b>	4	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	9	<b>Vertical Offset (ft.):</b>	-4

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil No settlement or erosion	7
MORTAR 8.00	Sound and durable	7
STONE MASONRY 8.00	No degradation	7
LATERAL SLOPE 0.50	Flat	8
CULVERT 1.00	6'H x 8'W concrete box	7
DOWNSLOPE 1.00	Flat, streambed	7
ROAD/SIDEWALK/SHOULDER 1.00	Flat, grassy shoulder	7
WALL DRAINS 1.00	Weepholes 10' on center, concrete	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# **Blue Ridge Parkway**

**ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001BB-145.790-L.**

<b>Wall ID:</b>	BLRI-0001BB-145.790-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 30, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	HW supporting wingwalls Park MP 145.683		

### Wall Measurements

<b>Wall Length (ft.):</b>	20	<b>Face Area (sq.):</b>	90
<b>Average Wall Height (ft.):</b>	4	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	9	<b>Vertical Offset (ft.):</b>	-4

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil No settlement or erosion	7
MORTAR 8.00	Sound and durable	7
STONE MASONRY 8.00	No degradation	7
LATERAL SLOPE 0.50	Flat	8
CULVERT 1.00	6'H x 8'W concrete box	7
DOWNSLOPE 1.00	Flat, streambed	7
ROAD/SIDEWALK/SHOULDER 1.00	Flat, grassy shoulder	7
WALL DRAINS 1.00	Weepholes 10' on center, concrete	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# **Blue Ridge Parkway**

**ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001BB-145.790-R.**

<b>Wall ID:</b>	BLRI-0001BB-147.817-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 30, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Cattle Crossing Park MP 147.73		

### Wall Measurements

<b>Wall Length (ft.):</b>	24	<b>Face Area (sq.):</b>	100
<b>Average Wall Height (ft.):</b>	4	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	-10

### Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil No settlement or erosion	7
MORTAR 8.00	Sound and durable Few minor cracks	7
STONE MASONRY 8.00	No degradation	7
LATERAL SLOPE 0.50	Flat	8
CULVERT 1.00	6'H x 4'W box culvert	7
DOWNSLOPE 1.00	Gradual slope	7
ROAD/SIDEWALK/SHOULDER 1.00	Grassy shoulder	7
WALL DRAINS 1.00	Weep holes 10' on center, circular	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# **Blue Ridge Parkway**

**ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001BB-147.817-L.**

<b>Wall ID:</b>	BLRI-0001BB-147.817-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 30, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Cattle Crossing Park MP 147.73		

### Wall Measurements

<b>Wall Length (ft.):</b>	24	<b>Face Area (sq.):</b>	100
<b>Average Wall Height (ft.):</b>	4	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	-6

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil No settlement or erosion	7
MORTAR 8.00	Sound and durable Few minor cracks	7
STONE MASONRY 8.00	No degradation	7
LATERAL SLOPE 0.50	Flat	8
CULVERT 1.00	6'H x 4'W box culvert	7
DOWNSLOPE 1.00	Gradual slope	7
ROAD/SIDEWALK/SHOULDER 1.00	Grassy shoulder	7
WALL DRAINS 1.00	Weepholes 10' on center	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# **Blue Ridge Parkway**

**ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001BB-147.817-R.**

<b>Wall ID:</b>	BLRI-0001BB-148.411-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 30, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 148.31		

### Wall Measurements

<b>Wall Length (ft.):</b>	47	<b>Face Area (sq.):</b>	220
<b>Average Wall Height (ft.):</b>	4	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil No settlement or erosion	7
MORTAR 8.00	Sound and durable	7
STONE MASONRY 8.00	No degradation	7
LATERAL SLOPE 0.50	Flat, grassy	8
ROAD/SIDEWALK/SHOULDER 0.50	Flat, grassy shoulder	8
CULVERT 1.00	5'H x 7'W concrete box	7
DOWNSLOPE 1.00	Flat, streambed	7
WALL DRAINS 1.00	None	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# **Blue Ridge Parkway**

**ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001BB-148.411-L.**

<b>Wall ID:</b>	BLRI-0001BB-148.411-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 30, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

**Wall Description**

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 148.31		

**Wall Measurements**

<b>Wall Length (ft.):</b>	47	<b>Face Area (sq.):</b>	220
<b>Average Wall Height (ft.):</b>	4	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	-1

**Assessed Elements**

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil No settlement or erosion	7
MORTAR 8.00	Sound and durable	7
STONE MASONRY 8.00	No degradation	7
LATERAL SLOPE 0.50	Flat, grassy	8
ROAD/SIDEWALK/SHOULDER 0.50	Flat, grassy shoulder	8
CULVERT 1.00	5'H x 7'W concrete box	7
DOWNSLOPE 1.00	Flat, streambed	7
WALL DRAINS 1.00	None	7

**Repair Recommendations**

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# **Blue Ridge Parkway**

**ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001BB-148.411-R.**

<b>Wall ID:</b>	BLRI-0001BB-148.904-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 30, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Box culvert with stone bank protection across from it. Straight headwall. Park MP 148.80		

### Wall Measurements

<b>Wall Length (ft.):</b>	25	<b>Face Area (sq.):</b>	70
<b>Average Wall Height (ft.):</b>	2	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	-2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil No settlement or erosion	7
MORTAR 8.00	Sound and durable	7
STONE MASONRY 8.00	No degradation	7
CULVERT 1.00	6'H x 6'W concrete box	7
DOWNSLOPE 1.00	Flat, streambed	7
LATERAL SLOPE 1.00	Gradual	7
ROAD/SIDEWALK/SHOULDER 1.00	Grassy shoulder	7
WALL DRAINS 1.00	Circular weep holes - spacing unknown	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# **Blue Ridge Parkway**

**ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001BB-148.904-L.**

<b>Wall ID:</b>	BLRI-0001BB-148.904-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 30, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Curved headwall Park MP 148.8		

### Wall Measurements

<b>Wall Length (ft.):</b>	36	<b>Face Area (sq.):</b>	90
<b>Average Wall Height (ft.):</b>	2	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	-2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil No settlement or erosion	7
MORTAR 8.00	Sound and durable, efflorescence	7
STONE MASONRY 8.00	No degradation	7
CULVERT 1.00	6'H x 6'W concrete box	7
DOWNSLOPE 1.00	Flat, streambed	7
LATERAL SLOPE 1.00	Gradual	7
ROAD/SIDEWALK/SHOULDER 1.00	Grassy shoulder	7
WALL DRAINS 1.00	Circular weep holes - spacing unknown	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# **Blue Ridge Parkway**

**ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001BB-148.904-R**

<b>Wall ID:</b>	BLRI-0001BB-149.450-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 30, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 149.35		

### Wall Measurements

<b>Wall Length (ft.):</b>	17	<b>Face Area (sq.):</b>	60
<b>Average Wall Height (ft.):</b>	3	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	-3

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil No settlement or erosion	7
MORTAR 8.00	Sound and durable	7
STONE MASONRY 8.00	No degradation	7
LATERAL SLOPE 0.50	Flat, grassy	8
CULVERT 1.00	4'H x 4'W concrete box	7
DOWNSLOPE 1.00	Flat streambed	7
ROAD/SIDEWALK/SHOULDER 1.00	Grassy shoulder	7
WALL DRAINS 1.00	None	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# **Blue Ridge Parkway**

**ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001BB-149.450-L.**

<b>Wall ID:</b>	BLRI-0001BB-150.691-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 30, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	68	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Perpendicular to curved wingwall, set below top of wall Park MP 150.58		

### Wall Measurements

<b>Wall Length (ft.):</b>	36	<b>Face Area (sq.):</b>	230
<b>Average Wall Height (ft.):</b>	6	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	12	<b>Vertical Offset (ft.):</b>	-2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil No settlement, evidence of former erosion (concrete apron)	7
MORTAR 8.00	Sound and durable Loose near top, missing 30 S.F.	6
STONE MASONRY 8.00	No degradation	7
LATERAL SLOPE 0.50	Gradual	8
CULVERT 1.00	8'H x 8'W concrete box, two 15' concrete apron outside entrance of culvert - previously constructed to prevent undermining	7
DOWNSLOPE 1.00	Flat, streambed	7
ROAD/SIDEWALK/SHOULDER 1.00	Soft, grassy shoulder	7
WALL DRAINS 1.00	None	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	Repoint Mortar - 30 SF x \$75/SF = \$2,250
<b>Repair Cost:</b>	\$2,250

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# **Blue Ridge Parkway**

**ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001BB-150.691-L.**

<b>Wall ID:</b>	BLRI-0001BB-150.695-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 30, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 150.58		

### Wall Measurements

<b>Wall Length (ft.):</b>	50	<b>Face Area (sq.):</b>	300
<b>Average Wall Height (ft.):</b>	6	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	10	<b>Vertical Offset (ft.):</b>	-2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Soil, downstream cobby. No settlement or erosion.	7
MORTAR 8.00	Sound and durable. Not a good view of wall.	7
STONE MASONRY 8.00	No degradation.	7
LATERAL SLOPE 0.50	Flat, grassy.	8
WALL DRAINS 1.00	Two black pipes on each end - drilled through wall.	6
CULVERT 1.00	8-ft x 8-ft box culvert - two.	7
DOWNSLOPE 1.00	Flat, streambed.	7
ROAD/SIDEWALK/SHOULDER 1.00	Grassy shoulder.	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# **Blue Ridge Parkway**

**ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001BB-150.695-R.**

<b>Wall ID:</b>	BLRI-0001BB-156.034-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 30, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	66	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Triple box culvert Park MP 155.940		

### Wall Measurements

<b>Wall Length (ft.):</b>	94	<b>Face Area (sq.):</b>	600
<b>Average Wall Height (ft.):</b>	6	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	10	<b>Vertical Offset (ft.):</b>	-2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil, cobbles in stream No settlement or erosion	7
MORTAR 8.00	Significant loose mortar over culvert - 100 S.F. (50 x 2)	5
STONE MASONRY 8.00	No degradation	7
LATERAL SLOPE 0.50	Gradual	8
CULVERT 1.00	8'W x 4'H - three boxes 2-masonry, 1 - concrete	7
DOWNSLOPE 1.00	Flat, streambed	7
ROAD/SIDEWALK/SHOULDER 1.00	Grassy shoulder	7
WALL DRAINS 1.00	None	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	Repoint mortar over top of culverts - 100 SF x \$75/SF = \$7,500
<b>Repair Cost:</b>	\$7,500

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# **Blue Ridge Parkway**

**ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001BB-156.034-R.**

<b>Wall ID:</b>	BLRI-0001BB-156.055-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 30, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Triple box culvert Park MP 155.940		

### Wall Measurements

<b>Wall Length (ft.):</b>	88	<b>Face Area (sq.):</b>	430
<b>Average Wall Height (ft.):</b>	4	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	-6

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil, cobbles in stream No settlement or erosion	7
MORTAR 8.00	Sound and durable	7
STONE MASONRY 8.00	No degradation	7
LATERAL SLOPE 0.50	Gradual	8
CULVERT 1.00	8'W x 4'H - three boxes 2-masonry, 1- concrete	7
DOWNSLOPE 1.00	Flat, streambed	7
ROAD/SIDEWALK/SHOULDER 1.00	Grassy shoulder	7
WALL DRAINS 1.00	None	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# **Blue Ridge Parkway**

**ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001BB-156.055-L.**

<b>Wall ID:</b>	BLRI-0001BB-156.175-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 30, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 156.06		

### Wall Measurements

<b>Wall Length (ft.):</b>	33	<b>Face Area (sq.):</b>	180
<b>Average Wall Height (ft.):</b>	5	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	9	<b>Vertical Offset (ft.):</b>	-6

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Muddy. No settlement or erosion.	7
MORTAR 8.00	Sound and durable. Missing 3-ft on north end.	7
STONE MASONRY 8.00	No degradation.	7
LATERAL SLOPE 0.50	Gradual.	8
UPSLOPE 1.00	Flat 10-ft, then steep.	6
CULVERT 1.00	6-ft x 9-ft W concrete box.	7
DOWNSLOPE 1.00	Flat streambed.	7
WALL DRAINS 1.00	None.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# **Blue Ridge Parkway**

**ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001BB-156.175-L.**

<b>Wall ID:</b>	BLRI-0001BB-156.175-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 30, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 156.06		

### Wall Measurements

<b>Wall Length (ft.):</b>	33	<b>Face Area (sq.):</b>	180
<b>Average Wall Height (ft.):</b>	9	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	9	<b>Vertical Offset (ft.):</b>	-6

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Muddy. No settlement or erosion.	7
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation.	7
LATERAL SLOPE 0.50	Gradual.	8
UPSLOPE 1.00	Gradual then steep.	6
CULVERT 1.00	6-ft x 9-ft W concrete box.	7
DOWNSLOPE 1.00	Flat, streambed.	7
WALL DRAINS 1.00	None.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# **Blue Ridge Parkway**

**ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001BB-156.175-R.**

<b>Wall ID:</b>	BLRI-0001BB-156.396-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 29, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	65	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 156.25. Cattle crossing. No access to other side.		

### Wall Measurements

<b>Wall Length (ft.):</b>	28	<b>Face Area (sq.):</b>	110
<b>Average Wall Height (ft.):</b>	3	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	-2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress. Previous repair for drainage.	6
WALL FOUNDATION MATERIAL 8.00	Soil. No settlement or erosion.	7
MORTAR 8.00	Some missing/separated mortar ~ 50 s.f.	6
STONE MASONRY 8.00	No degradation.	7
WALL DRAINS 1.00	Drilled through wall face and added black plastic drain pipe.	6
CULVERT 1.00	4.5-ft H x 6-ft W concrete box.	7
DOWNSLOPE 1.00	Flat, streambed.	7
LATERAL SLOPE 1.00	Flat, grassy.	7
ROAD/SIDEWALK/SHOULDER 1.00	Soft, grassy shoulder.	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	Repoint mortar - 50 sf x \$75/ sf = \$3,750 s.f.
<b>Repair Cost:</b>	\$3,750

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# **Blue Ridge Parkway**

**ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001BB-156.396-L.**

<b>Wall ID:</b>	BLRI-0001BB-159.040-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 29, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 158.93		

### Wall Measurements

<b>Wall Length (ft.):</b>	47	<b>Face Area (sq.):</b>	200
<b>Average Wall Height (ft.):</b>	4	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	-3

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Soil, sand w/ gravel, cobbles, silt. No settlement, minor scour.	7
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation.	7
CULVERT 0.50	5-ft H X 12-ft W concrete box.	8
DOWNSLOPE 1.00	Flat, streambed.	7
LATERAL SLOPE 1.00	Flat, grassy.	7
ROAD/SIDEWALK/SHOULDER 1.00	Soft, grassy.	7
WALL DRAINS 1.00	None.	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# **Blue Ridge Parkway**

**ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001BB-159.040-L.**

<b>Wall ID:</b>	BLRI-0001BB-159.044-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 29, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	68	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 158.93.		

### Wall Measurements

<b>Wall Length (ft.):</b>	44	<b>Face Area (sq.):</b>	180
<b>Average Wall Height (ft.):</b>	4	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	-1

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Soil, cobbles/gravel in stream. No settlement or erosion.	7
MORTAR 8.00	Sound and durable. Some missing mortar ~ 20 sf.	6
STONE MASONRY 8.00	No degradation.	7
CULVERT 0.50	5-ft H x 12-ft W concrete box.	8
DOWNSLOPE 1.00	Flat, streambed.	7
LATERAL SLOPE 1.00	Flat, grassy.	7
ROAD/SIDEWALK/SHOULDER 1.00	Soft, grassy shoulder.	7
WALL DRAINS 1.00	No weep holes. Perforated, corrugated plastic pipe behind wall.	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	Repoint (and reset)~ 20 sf x \$75/sf = \$1,500.00
<b>Repair Cost:</b>	\$1,500

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# **Blue Ridge Parkway**

**ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001BB-159.044-R.**

<b>Wall ID:</b>	BLRI-0001BB-159.797-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 29, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 159.68. 2 box culverts.		

### Wall Measurements

<b>Wall Length (ft.):</b>	72	<b>Face Area (sq.):</b>	400
<b>Average Wall Height (ft.):</b>	5	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	11	<b>Vertical Offset (ft.):</b>	-4

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Gravelly, cobby soil. No settlement or erosion.	7
MORTAR 8.00	Sound and durable. Slight cracking mortar.	7
STONE MASONRY 8.00	No degradation.	7
CULVERT 1.00	Two 7-ft H x 11-ft W concrete box.	7
DOWNSLOPE 1.00	Flat, streambed.	7
LATERAL SLOPE 1.00	Rock on South end. Soil on North end.	7
ROAD/SIDEWALK/SHOULDER 1.00	Grassy, soft shoulder.	7
WALL DRAINS 1.00	None.	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# **Blue Ridge Parkway**

**ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001BB-159.797-R.**

<b>Wall ID:</b>	BLRI-0001BB-159.807-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 29, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 159.68. 2 box culverts. 20 ft south of big pine.		

### Wall Measurements

<b>Wall Length (ft.):</b>	76	<b>Face Area (sq.):</b>	420
<b>Average Wall Height (ft.):</b>	5	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	11	<b>Vertical Offset (ft.):</b>	-4

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Gravelly, cobbly soil, no settlement, slight undermining at North end.	7
MORTAR 8.00	Sound and durable. Slight cracking mortar.	7
STONE MASONRY 8.00	No degradation.	7
LATERAL SLOPE 0.50	Flat, grassy.	8
CULVERT 1.00	Two 7-ft H x 11-ft W concrete box.	7
DOWNSLOPE 1.00	Flat, streambed.	7
ROAD/SIDEWALK/SHOULDER 1.00	Grassy, soft shoulder.	7
WALL DRAINS 1.00	None.	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# **Blue Ridge Parkway**

**ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001BB-159.807-L.**

<b>Wall ID:</b>	BLRI-0001BB-160.398-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 29, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	66	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 160.29. Two box culverts.		

### Wall Measurements

<b>Wall Length (ft.):</b>	47	<b>Face Area (sq.):</b>	155
<b>Average Wall Height (ft.):</b>	3	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	-1

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Soil. No settlement or erosion.	7
MORTAR 8.00	Missing ~ 50 LF.	5
STONE MASONRY 8.00	No degradation.	7
CULVERT 1.00	Two - 3.5-ft H x 12-ft W box- masonry on inside.	7
LATERAL SLOPE 1.00	Flat, streambed.	7
ROAD/SIDEWALK/SHOULDER 1.00	Soft, grassy shoulder.	7
WALL DRAINS 1.00	None.	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	Reset N capstone. Repoint mortar = 75 sf x \$75/sf = \$5,625.00
<b>Repair Cost:</b>	\$5,625

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# **Blue Ridge Parkway**

**ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001BB-160.398-L.**

<b>Wall ID:</b>	BLRI-0001BB-160.410-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 29, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	68	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 160.29. Two box culverts semicircular wingwall on N side.		

### Wall Measurements

<b>Wall Length (ft.):</b>	67	<b>Face Area (sq.):</b>	255
<b>Average Wall Height (ft.):</b>	3	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	-2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Soil. No settlement or erosion.	7
MORTAR 8.00	Cracked, missing 20 LF mortar.	6
STONE MASONRY 8.00	No degradation.	7
LATERAL SLOPE 0.50	Gradual, grassy.	8
CULVERT 1.00	Two 3.5-ft H x 12-ft W concrete box - masonry on inside.	7
DOWNSLOPE 1.00	Flat, streambed.	7
ROAD/SIDEWALK/SHOULDER 1.00	Grassy, soft shoulder.	7
WALL DRAINS 1.00	None.	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	Reset North Capstone (1). Repoint mortar = 30 sf x \$75/sf = \$2,250.00
<b>Repair Cost:</b>	\$2,250

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# **Blue Ridge Parkway**

**ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001BB-160.410-R.**

<b>Wall ID:</b>	BLRI-0001BB-162.105-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 29, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	68	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 161.99. 2 to 10 ft box culverts		

### Wall Measurements

<b>Wall Length (ft.):</b>	63	<b>Face Area (sq.):</b>	260
<b>Average Wall Height (ft.):</b>	4	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	-1

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Soil, no settlement, 1-in minor scour, lost mortar.	6
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation.	7
CULVERT 1.00	Two concrete culverts - 5.5-ft H x 11-ft W each	7
DOWNSLOPE 1.00	Streambed, gradual.	7
LATERAL SLOPE 1.00	Rock on south side - vertical. Flat, grassy on north side.	7
ROAD/SIDEWALK/SHOULDER 1.00	Gradual, grassy.	7
WALL DRAINS 1.00	None.	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# **Blue Ridge Parkway**

**ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001BB-162.105-L.**

<b>Wall ID:</b>	BLRI-0001BB-162.106-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 29, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

**Wall Description**

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 162.00.		

**Wall Measurements**

<b>Wall Length (ft.):</b>	42	<b>Face Area (sq.):</b>	170
<b>Average Wall Height (ft.):</b>	4	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	-3

**Assessed Elements**

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Soil. No settlement or erosion.	7
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation.	7
LATERAL SLOPE 0.50	Gradual, grassy.	8
CULVERT 1.00	Two concrete boxes - 5.5-ft H x 11-ft W - each.	7
DOWNSLOPE 1.00	Streambed, gradual.	7
ROAD/SIDEWALK/SHOULDER 1.00	Gradual, grassy.	7
WALL DRAINS 1.00	None.	7

**Repair Recommendations**

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# **Blue Ridge Parkway**

**ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001BB-162.106-R.**

<b>Wall ID:</b>	BLRI-0001BB-162.383-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 29, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 162.27.		

### Wall Measurements

<b>Wall Length (ft.):</b>	25	<b>Face Area (sq.):</b>	100
<b>Average Wall Height (ft.):</b>	4	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	7	<b>Vertical Offset (ft.):</b>	-3

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Soil. No settlement or erosion.	7
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No degradation.	7
CULVERT 0.50	4'H x 6'W concrete box.	8
LATERAL SLOPE 0.50	Gradual, grassy.	8
VEGETATION 1.00	Vines on face.	6
DOWNSLOPE 1.00	Flat, streambed, marshy.	7
ROAD/SIDEWALK/SHOULDER 1.00	Soft, grassy shoulder.	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# **Blue Ridge Parkway**

**ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001BB-162.383-L.**

<b>Wall ID:</b>	BLRI-0001BB-162.383-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 29, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	59	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 162.27.		

### Wall Measurements

<b>Wall Length (ft.):</b>	20	<b>Face Area (sq.):</b>	75
<b>Average Wall Height (ft.):</b>	3	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	7	<b>Vertical Offset (ft.):</b>	-4

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress. Localized undermining.	6
WALL FOUNDATION MATERIAL 8.00	Soil, scour undermining headwall, south end - 5-ft x 1-ft x 6-in.	4
MORTAR 8.00	Sound and durable. Occasional missing piece (total 1-ft).	6
STONE MASONRY 8.00	No degradation.	7
CULVERT 0.50	4' H x 6' W concrete box.	8
LATERAL SLOPE 0.50	Gradual, grassy.	8
DOWNSLOPE 1.00	Flat, streambed, marshy.	7
ROAD/SIDEWALK/SHOULDER 1.00	Soft, grassy shoulder.	7
WALL DRAINS 1.00	None.	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	Underpin headwall lean concrete (1cy x \$1,47000.00/cy = \$1,470).
<b>Repair Cost:</b>	\$1,470

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# **Blue Ridge Parkway**

**ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001BB-162.383-R.**

<b>Wall ID:</b>	BLRI-0001BB-170.814-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 29, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 170.67		

### Wall Measurements

<b>Wall Length (ft.):</b>	30	<b>Face Area (sq.):</b>	160
<b>Average Wall Height (ft.):</b>	5	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	-3

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Soil. No settlement or erosion.	7
MORTAR 8.00	Sound and durable. Minor missing 1' mortar.	7
STONE MASONRY 8.00	No degradation.	7
CULVERT 0.50	6' H x 4' W concrete box. Good conditions.	8
LATERAL SLOPE 0.50	Flat, grassy.	8
DOWNSLOPE 1.00	Flat, grassy.	7
UPSLOPE 1.00	4H:1V, grassy.	7
WALL DRAINS 1.00	None.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# **Blue Ridge Parkway**

**ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001BB-170.814-L**

<b>Wall ID:</b>	BLRI-0001BB-170.814-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 29, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	68	<b>Maintenance Action:</b>	Repair Elements

**Wall Description**

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 170.67		

**Wall Measurements**

<b>Wall Length (ft.):</b>	30	<b>Face Area (sq.):</b>	160
<b>Average Wall Height (ft.):</b>	5	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	-15

**Assessed Elements**

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Soil. No settlement or erosion.	7
MORTAR 8.00	Sound and durable. Needs repointing in localized areas.	6
STONE MASONRY 8.00	No degradation.	7
CULVERT 0.50	4' W x 6' W concrete box. Good conditions.	8
DOWNSLOPE 0.50	Flat, grassy.	8
LATERAL SLOPE 0.50	Flat, grassy.	8
UPSLOPE 1.00	4H:1V, grassy.	7
WALL DRAINS 1.00	None.	7

**Repair Recommendations**

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Repoint approximately 20 sf on upper left corner, over top: \$75/sf x 20 sf = \$1,500.00
<b>Repair Cost:</b>	\$1,500

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# **Blue Ridge Parkway**

**ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001BB-170.814-R.**

<b>Wall ID:</b>	BLRI-0001BB-172.603-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 29, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	63	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 172.885. Cattle crossing.		

### Wall Measurements

<b>Wall Length (ft.):</b>	30	<b>Face Area (sq.):</b>	175
<b>Average Wall Height (ft.):</b>	5	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	9	<b>Vertical Offset (ft.):</b>	-2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress. Could be outward rotation at top - monitor.	6
WALL FOUNDATION MATERIAL 8.00	Soil. No settlement or erosion.	7
MORTAR 8.00	Cracked.	5
STONE MASONRY 8.00	No degradation.	7
VEGETATION 1.00	Vines on face.	6
CULVERT 1.00	4' W x 6' W concrete box.	7
DOWNSLOPE 1.00	Gradual, grassy.	7
LATERAL SLOPE 1.00	Flat, grassy, soft.	7
ROAD/SIDEWALK/SHOULDER 1.00	Soft, grassy shoulder.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Repoint approximately 40 SF around opening: \$75/SF x 30/SF= \$2,250.00
<b>Repair Cost:</b>	\$2,250

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# **Blue Ridge Parkway**

**ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001BB-172.603-L.**

<b>Wall ID:</b>	BLRI-0001BB-172.603-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 29, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	66	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 172.48		

### Wall Measurements

<b>Wall Length (ft.):</b>	30	<b>Face Area (sq.):</b>	175
<b>Average Wall Height (ft.):</b>	5	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	9	<b>Vertical Offset (ft.):</b>	-2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Soil. No settlement or erosion.	7
MORTAR 8.00	Cracked.	5
STONE MASONRY 8.00	No degradation.	7
VEGETATION 1.00	Vines on face.	6
CULVERT 1.00	4' W x 6' W concrete box.	7
DOWNSLOPE 1.00	Gradual, grassy.	7
LATERAL SLOPE 1.00	Flat, grassy, soft.	7
ROAD/SIDEWALK/SHOULDER 1.00	Soft, grassy shoulder.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Repoint approximately 50 sf around opening (\$75/sf x 50/sf = \$3,750.00)
<b>Repair Cost:</b>	\$3,750

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# **Blue Ridge Parkway**

**ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001BB-172.603-R.**

<b>Wall ID:</b>	BLRI-0001BB-173.605-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 29, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	68	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 173.47		

### Wall Measurements

<b>Wall Length (ft.):</b>	32	<b>Face Area (sq.):</b>	150
<b>Average Wall Height (ft.):</b>	4	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	-3

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Soil. No settlement or erosion.	7
MORTAR 8.00	Sound and durable. Mossy.	7
STONE MASONRY 8.00	No degradation. Mossy.	7
LATERAL SLOPE 0.50	Gradual.	8
CULVERT 1.00	6' H x 7' W box concrete.	7
DOWNSLOPE 1.00	Gradual, streambed.	7
ROAD/SIDEWALK/SHOULDER 1.00	Grassy, soft.	7
WALL DRAINS 1.00	None.	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	Repoint approximately 6 SF around opening: (\$75/SF x 30/SF= \$450.00
<b>Repair Cost:</b>	\$450

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# **Blue Ridge Parkway**

**ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001BB-173.605-L.**

<b>Wall ID:</b>	BLRI-0001BB-173.605-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 29, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 173.47		

### Wall Measurements

<b>Wall Length (ft.):</b>	32	<b>Face Area (sq.):</b>	150
<b>Average Wall Height (ft.):</b>	4	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	-2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Soil. No settlement or erosion.	7
STONE MASONRY 8.00	No degradation. Mossy. Reset 1 stone.	6
MORTAR 8.00	Sound and durable. Mossy.	7
LATERAL SLOPE 0.50	Gradual.	8
CULVERT 1.00	6'H x 7"W concrete box.	7
DOWNSLOPE 1.00	Gradual, streambed.	7
ROAD/SIDEWALK/SHOULDER 1.00	Soft, grassy shoulder.	7
WALL DRAINS 1.00	None.	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# **Blue Ridge Parkway**

**ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001BB-173.605-R.**

<b>Wall ID:</b>	BLRI-0001BB-174.075-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 29, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	59	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 173.96		

### Wall Measurements

<b>Wall Length (ft.):</b>	50	<b>Face Area (sq.):</b>	250
<b>Average Wall Height (ft.):</b>	5	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	-4

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress. Element failure - fix upper part of wall.	5
WALL FOUNDATION MATERIAL 8.00	Soil. No settlement or erosion.	7
STONE MASONRY 8.00	Falling stones on the south end - needs replacement.	4
MORTAR 8.00	Sound and durable, except where stones are displaced.	7
LATERAL SLOPE 0.50	Gradual.	8
ROAD/SIDEWALK/SHOULDER 1.00	Grassy, steep, soft.	6
CULVERT 1.00	Two concrete boxes = 5' H x 11' W each	7
DOWNSLOPE 1.00	Flat, streambed.	7
WALL DRAINS 1.00	None.	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	Reset stones from above arch to capstones, from north end to 1 stone beyond pier (to south of pier). Area = 2' x 30' = 60 sq ft . Cost = 60 sf x \$160/sf = \$9,600
<b>Repair Cost:</b>	\$9,600

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# **Blue Ridge Parkway**

**ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001BB-174.075-R.**

<b>Wall ID:</b>	BLRI-0001BB-174.095-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 29, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 173.96. Two box culverts with curved wing walls.		

### Wall Measurements

<b>Wall Length (ft.):</b>	50	<b>Face Area (sq.):</b>	250
<b>Average Wall Height (ft.):</b>	5	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	-4

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	Localized distress. No global distress. Erosion behind N end of the wall.	7
WALL FOUNDATION MATERIAL 8.00	Soil. No settlement or erosion.	7
MORTAR 8.00	Sound and durable. Minor missing mortar.	7
STONE MASONRY 8.00	No degradation. Capstone loose.	7
LATERAL SLOPE 0.50	Gradual.	8
ROAD/SIDEWALK/SHOULDER 1.00	Grassy, steep, soft.	6
CULVERT 1.00	Two concrete boxes - 5' H x 11' W each	7
DOWNSLOPE 1.00	Flat, streambed.	7
WALL DRAINS 1.00	None.	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	Reset capstone (Stone masonry repointing). Area = 6 sf Cost = 6st x \$75/sf = \$450.00. Fill eroded area - 1 cy unclassified borrow x \$35/cy = \$35.00, 5 hrs labor x \$55/hr = \$275.00
<b>Repair Cost:</b>	\$760

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# **Blue Ridge Parkway**

**ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001BB-174.095-L.**

<b>Wall ID:</b>	BLRI-0001BB-175.734-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 29, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 175.6		

### Wall Measurements

<b>Wall Length (ft.):</b>	43	<b>Face Area (sq.):</b>	190
<b>Average Wall Height (ft.):</b>	4	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	-3

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Soil. No settlement or erosion. Flat, gravelly stream.	7
MORTAR 8.00	Sound and durable. Some efflorescence	7
STONE MASONRY 8.00	No degradation.	7
LATERAL SLOPE 0.50	Flat, grassy.	8
CULVERT 1.00	6' H x 8' W concrete box	7
DOWNSLOPE 1.00	Flat, streambed.	7
ROAD/SIDEWALK/SHOULDER 1.00	Soft, grassy shoulder.	7
WALL DRAINS 1.00	Square weep holes.	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# **Blue Ridge Parkway**

**ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001BB-175.734-L.**

<b>Wall ID:</b>	BLRI-0001BB-175.734-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 29, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 175.6		

### Wall Measurements

<b>Wall Length (ft.):</b>	43	<b>Face Area (sq.):</b>	190
<b>Average Wall Height (ft.):</b>	4	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	9	<b>Vertical Offset (ft.):</b>	-3

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Flat, stream, gravelly. No settlement or erosion.	7
MORTAR 8.00	Sound and durable. Some efflorescence	7
STONE MASONRY 8.00	No degradation.	7
LATERAL SLOPE 0.50	Grassy, flat.	8
CULVERT 1.00	6' H x 8' W concrete box	7
DOWNSLOPE 1.00	Flat, streambed.	7
ROAD/SIDEWALK/SHOULDER 1.00	Grassy, soft.	7
WALL DRAINS 1.00	Square weep holes.	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# **Blue Ridge Parkway**

**ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001BB-175.734-R.**

<b>Wall ID:</b>	BLRI-0001BB-175.925-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 29, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 175.8		

### Wall Measurements

<b>Wall Length (ft.):</b>	26	<b>Face Area (sq.):</b>	100
<b>Average Wall Height (ft.):</b>	3	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	-2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Soil; cobbles/gravel in stream. No settlement or erosion.	7
MORTAR 8.00	Sound and durable. Minor efflorescence.	7
STONE MASONRY 8.00	No degradation. Mossy.	7
CULVERT 1.00	4' H x 7' W concrete box. Good condition.	7
DOWNSLOPE 1.00	Flat, streambed.	7
LATERAL SLOPE 1.00	Slight incline.	7
ROAD/SIDEWALK/SHOULDER 1.00	Grassy, soft, gradual.	7
WALL DRAINS 1.00	None.	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# **Blue Ridge Parkway**

**ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001BB-175.925-L.**

<b>Wall ID:</b>	BLRI-0001BB-175.925-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 29, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

**Wall Description**

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 175.8		

**Wall Measurements**

<b>Wall Length (ft.):</b>	26	<b>Face Area (sq.):</b>	100
<b>Average Wall Height (ft.):</b>	3	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	-2

**Assessed Elements**

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Soil; cobbles and gravel in stream. No settlement or erosion.	7
MORTAR 8.00	Sound and durable. Minor efflorescence.	7
STONE MASONRY 8.00	No degradation. Mossy.	7
LATERAL SLOPE 0.50	Gradual.	8
CULVERT 1.00	4' H x 7' W box concrete. Good condition.	7
DOWNSLOPE 1.00	Flat, streambed.	7
ROAD/SIDEWALK/SHOULDER 1.00	Grassy, soft, gradual.	7
WALL DRAINS 1.00	None.	7

**Repair Recommendations**

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# **Blue Ridge Parkway**

**ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001BB-175.925-R.**

<b>Wall ID:</b>	BLRI-0001BB-175.928-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 28, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 175.80		

### Wall Measurements

<b>Wall Length (ft.):</b>	26	<b>Face Area (sq.):</b>	80
<b>Average Wall Height (ft.):</b>	3	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	-9

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress 4" cast iron pipe across face - utility	7
WALL FOUNDATION MATERIAL 8.00	Soil, cobbles and streambed No settlement or erosion	7
MORTAR 8.00	Sound and durable	7
STONE MASONRY 8.00	No degradation	8
LATERAL SLOPE 0.50	Gradual slope	8
CULVERT 1.00	4.5'H x 3'W concrete box	7
DOWNSLOPE 1.00	Flat, streambed	7
UPSLOPE 1.00	Soft, grassy	7
WALL DRAINS 1.00	Wall drains at base - 2 slots at in the wall	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	Repoint mortar 10 s.f. x \$75/sf = \$750
<b>Repair Cost:</b>	\$750

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001BB\_175.928\_L\_1.JPG



BLRI\_0001BB\_175.928\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001BB-175.928-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 28, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	72	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 175.80		

### Wall Measurements

<b>Wall Length (ft.):</b>	26	<b>Face Area (sq.):</b>	80
<b>Average Wall Height (ft.):</b>	3	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	-6

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil, streambed shows cobbles No settlement or erosion	7
MORTAR 8.00	Sound and durable 10 S.F. cracked/missing mortar	7
STONE MASONRY 8.00	No degradation	7
CULVERT 0.50	5'H x 3'W concrete box	8
LATERAL SLOPE 0.50	Gradual slope	8
DOWNSLOPE 1.00	Streambed, flat	7
UPSLOPE 1.00	Soft, grassy	7
WALL DRAINS 1.00	None	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001BB\_175.928\_R\_1.JPG

<b>Wall ID:</b>	BLRI-0001BB-176.172-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 28, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	66	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Stream crossing, near Mabry Mill Park MP 176.04		

### Wall Measurements

<b>Wall Length (ft.):</b>	36	<b>Face Area (sq.):</b>	160
<b>Average Wall Height (ft.):</b>	4	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	9	<b>Vertical Offset (ft.):</b>	-10

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil, gravelly in streambed No settlement or erosion	7
MORTAR 8.00	Sound and durable	7
STONE MASONRY 8.00	No degradation	7
LATERAL SLOPE 0.50	Gradual	8
CULVERT 1.00	5.5'H x 9'W	7
DOWNSLOPE 1.00	Flat, wooded, streambed	7
UPSLOPE 1.00	Gradual for 12', then 2H:1V	7
WALL DRAINS 1.00	Square weepholes, 10' on center	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001BB\_176.172\_L\_1.JPG

<b>Wall ID:</b>	BLRI-0001BB-176.172-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 28, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Stream crossing, near Mabry Mill Park MP 176.04		

### Wall Measurements

<b>Wall Length (ft.):</b>	35	<b>Face Area (sq.):</b>	175
<b>Average Wall Height (ft.):</b>	5	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	10	<b>Vertical Offset (ft.):</b>	-9

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil, gravelly in streambed No settlement or erosion	7
MORTAR 8.00	Sound and durable Minor missing mortar (2 S.F.)	7
STONE MASONRY 8.00	No degradation	7
LATERAL SLOPE 0.50	Gradual slope	8
CULVERT 1.00	5.5'H x 9'W concrete box	7
DOWNSLOPE 1.00	Flat, streambed	7
UPSLOPE 1.00	Gradual for 11', then 2H:1V	7
VEGETATION 1.00	Tree on top of wall	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	Repoint Mortar 5 sf x \$75/sf = \$375. Clear tree \$955.
<b>Repair Cost:</b>	\$1,330

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

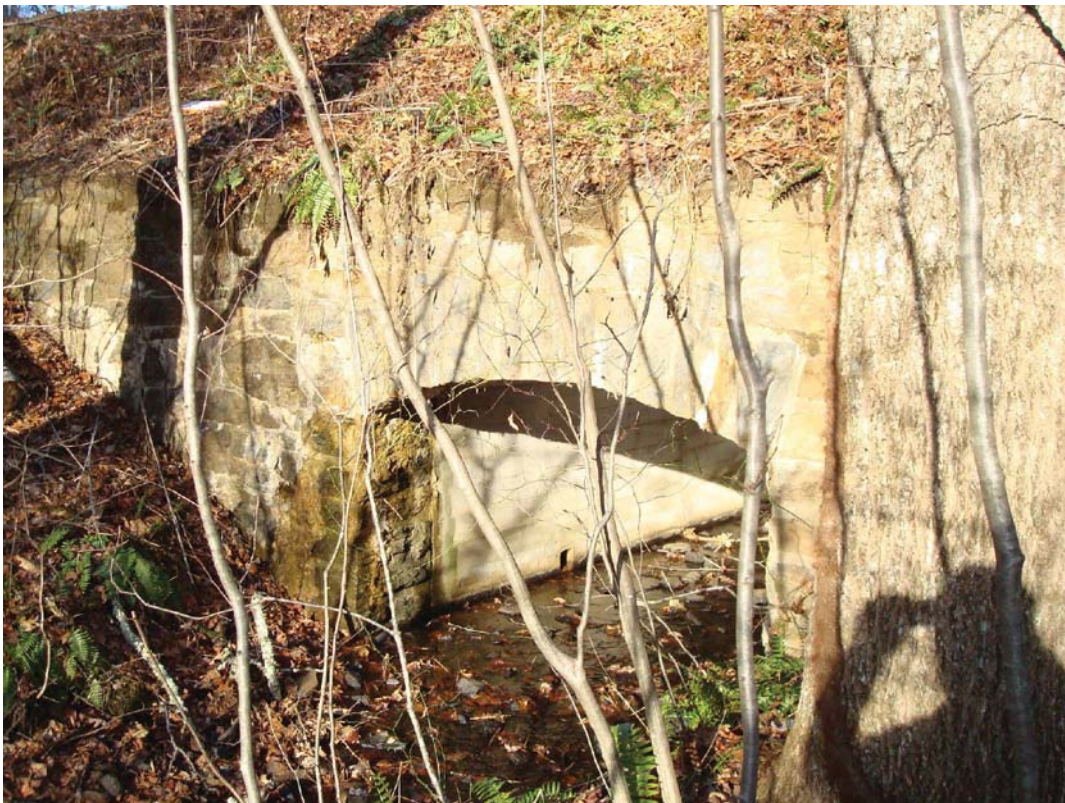
# Blue Ridge Parkway

ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001BB\_176.172\_R\_1.JPG



BLRI\_0001BB\_176.172\_R\_2.JPG

<b>Wall ID:</b>	BLRI-0001BB-176.238-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 28, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	72	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Stream at Mabry Mill Park MP 176.12		

### Wall Measurements

<b>Wall Length (ft.):</b>	52	<b>Face Area (sq.):</b>	270
<b>Average Wall Height (ft.):</b>	5	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	11	<b>Vertical Offset (ft.):</b>	-3

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil, cobbles in streambed No settlement or erosion	7
MORTAR 8.00	Sound and durable some efflorescence	7
STONE MASONRY 8.00	No degradation	8
CULVERT 0.50	8'H x 10'W concrete box	8
DOWNSLOPE 1.00	Flat streambed	7
LATERAL SLOPE 1.00	Gradual minor erosion at corners	7
ROAD/SIDEWALK/SHOULDER 1.00	Grassy, soft shoulder	7
WALL DRAINS 1.00	Square drains, 10' on center	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001BB\_176.238\_R\_1.JPG

<b>Wall ID:</b>	BLRI-0001BB-176.243-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 28, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Wall at Mabry Mill, adjacent to duck pond Park MP 176.12		

### Wall Measurements

<b>Wall Length (ft.):</b>	52	<b>Face Area (sq.):</b>	280
<b>Average Wall Height (ft.):</b>	5	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	12	<b>Vertical Offset (ft.):</b>	-2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil No settlement or erosion	7
MORTAR 8.00	Sound and durable	7
STONE MASONRY 8.00	No degradation	7
CULVERT 0.50	8'H x 10'W concrete box	8
DOWNSLOPE 1.00	Flat, pond	7
LATERAL SLOPE 1.00	Gradual, slight erosion at corners	7
ROAD/SIDEWALK/SHOULDER 1.00	Grassy, soft shoulder	7
WALL DRAINS 1.00	Square weep holes 10' on center	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001BB\_176.243\_L\_1.JPG



BLRI\_0001BB\_176.243\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001BB-187.679-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 28, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 187.545		

### Wall Measurements

<b>Wall Length (ft.):</b>	38	<b>Face Area (sq.):</b>	165
<b>Average Wall Height (ft.):</b>	4	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	9	<b>Vertical Offset (ft.):</b>	-1

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil No settlement or erosion	7
MORTAR 8.00	Sound and durable Minor missing pieces (1' - 2')	7
STONE MASONRY 8.00	No degradation	7
LATERAL SLOPE 0.50	Gradual	8
WALL DRAINS 1.00	Weepholes 12' on center, partially soil filled	6
CULVERT 1.00	6'H x 11.5'W concrete box	7
DOWNSLOPE 1.00	Flat, streambed	7
ROAD/SIDEWALK/SHOULDER 1.00	Soft, grassy	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001BB\_187.679\_L\_1.JPG

<b>Wall ID:</b>	BLRI-0001BB-187.679-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 28, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	63	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 187.545		

### Wall Measurements

<b>Wall Length (ft.):</b>	38	<b>Face Area (sq.):</b>	155
<b>Average Wall Height (ft.):</b>	4	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	6
WALL FOUNDATION MATERIAL 8.00	Soil, gravelly in streambed No settlement or erosion	7
MORTAR 8.00	Overall sound and durable Some missing/separated mortar near base of culvert opening - 10 SF Mossy	5
STONE MASONRY 8.00	No degradation, mossy	7
LATERAL SLOPE 0.50	Gradual	8
WALL DRAINS 1.00	12' on center, partially soil-filled	6
CULVERT 1.00	6'H x 11.5'W concrete box	7
DOWNSLOPE 1.00	Flat, streambed	7
ROAD/SIDEWALK/SHOULDER 1.00	Soft, grassy shoulder Some pavement distress, erosion around north end of wall	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	Repoint Mortar at south end, at base of culvert opening - 10 SF x \$75/SF = \$750.
<b>Repair Cost:</b>	\$750

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001BB\_187.679\_R\_1.JPG



BLRI\_0001BB\_187.679\_R\_2.JPG

<b>Wall ID:</b>	BLRI-0001BB-193.034-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 28, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	45	<b>Maintenance Action:</b>	Replace Wall

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 192.82		

### Wall Measurements

<b>Wall Length (ft.):</b>	27	<b>Face Area (sq.):</b>	100
<b>Average Wall Height (ft.):</b>	3	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	-4

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil No settlement, some erosion near headwall, not affecting foundation	7
MORTAR 8.00	Sound and durable Covered with moss	7
STONE MASONRY 8.00	No degradation	7
LATERAL SLOPE 0.50	Flat, grassy	8
VEGETATION 1.00	Shrubs blocking access to wall, not interfering with performance	6
WALL DRAINS 1.00	Weep holes - soil filled? Could not access	6
CULVERT 1.00	5'H x 12'W concrete box	7
DOWNSLOPE 1.00	Flat streambed	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Replace Wall - 100 sf x \$250/sf = \$25,000. Underpin with lean concrete and extend apron 5' in front of wall - Apron - 5' x 12' x 0.5' = 30 cf. Underpin - 0.5' x 0.5'; x 12' = 3 cf. Say 2 cy - 2 cy x \$1,470/cy = \$2,940
<b>Repair Cost:</b>	\$27,940

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001BB\_193.034\_L\_1.JPG



BLRI\_0001BB\_193.034\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001BB-193.034-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 28, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	Maintenance

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 192.82		

### Wall Measurements

<b>Wall Length (ft.):</b>	30	<b>Face Area (sq.):</b>	85
<b>Average Wall Height (ft.):</b>	2	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	-5

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	Element failure starting to affect global stability	4
WALL FOUNDATION MATERIAL 8.00	Soil, sand, silt Undermined, scoured, causing distress to upper part of wall	4
STONE MASONRY 8.00	Missing stones, undermined, backfill eroding into stream	4
MORTAR 8.00	Missing/separated mortar in localized areas	5
CULVERT 1.00	5'H x 12'W box culvert Pavement patch over center of road, undermined box approximately 6" H x 12'W x 6" D	4
ROAD/SIDEWALK/SHOULDER 1.00	Some pavement distress at centerline of roadway	6
UPSLOPE 1.00	4H;1V slope, grassy, soft	6
WALL DRAINS 1.00	Soil-filled weep holes inside culvert	6
DOWNSLOPE 1.00	Flat, streambed	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Clear vegetation around wall - 10 hrs x \$55/hr = \$550
<b>Repair Cost:</b>	\$550

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001BB\_193.034\_R\_1.JPG



BLRI\_0001BB\_193.034\_R\_2.JPG

<b>Wall ID:</b>	BLRI-0001BB-209.039-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 28, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Stream crossing Park MP 208.9		

### Wall Measurements

<b>Wall Length (ft.):</b>	32	<b>Face Area (sq.):</b>	120
<b>Average Wall Height (ft.):</b>	3	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	7	<b>Vertical Offset (ft.):</b>	-6

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil No settlement or erosion	7
MORTAR 8.00	Sound and durable	7
STONE MASONRY 8.00	No degradation	7
LATERAL SLOPE 0.50	Flat, grassy	8
ROAD/SIDEWALK/SHOULDER 1.00	Soft, grassy shoulder	6
CULVERT 1.00	10'W x 4.5'H concrete box	7
DOWNSLOPE 1.00	Stream channel, flat and grassy	7
WALL DRAINS 1.00	Weep holes	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001BB\_209.039\_L\_1.JPG

<b>Wall ID:</b>	BLRI-0001BB-209.044-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 28, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Stream crossing Park MP 208.9		

### Wall Measurements

<b>Wall Length (ft.):</b>	32	<b>Face Area (sq.):</b>	140
<b>Average Wall Height (ft.):</b>	4	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	-4

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil No settlement or erosion	7
MORTAR 8.00	Minor separation, otherwise sound and durable	7
STONE MASONRY 8.00	Minor cracking, otherwise no deterioration	7
LATERAL SLOPE 0.50	Flat, grassy	8
ROAD/SIDEWALK/SHOULDER 1.00	Soft shoulder, grassy	6
CULVERT 1.00	10'W x 4.5'H concrete box	7
DOWNSLOPE 1.00	Stream channel, flat and grassy	7
WALL DRAINS 1.00	Weep holes	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT

## Retaining Wall Condition Photos



**BLRI\_0001BB\_209.044\_R\_1.JPG**



**BLRI\_0001BB\_209.044\_R\_2.JPG**

<b>Wall ID:</b>	BLRI-0001BB-209.933-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 27, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

**Wall Description**

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Across from dual culvert, gravel road adjacent to wall Park MP 209.77		

**Wall Measurements**

<b>Wall Length (ft.):</b>	33	<b>Face Area (sq.):</b>	150
<b>Average Wall Height (ft.):</b>	4	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	-1

**Assessed Elements**

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil No settlement or erosion	7
MORTAR 8.00	Sound and durable, some separation	7
STONE MASONRY 8.00	No degradation	7
LATERAL SLOPE 0.50	Flat, grassy	8
CULVERT 1.00	6'H x 6'W concrete box	7
DOWNSLOPE 1.00	Flat, streambed	7
ROAD/SIDEWALK/SHOULDER 1.00	Grassy shoulder	7
WALL DRAINS 1.00	Appears to be functioning weep holes	7

**Repair Recommendations**

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001BB\_209.933\_R\_1.JPG



BLRI\_0001BB\_209.933\_R\_2.JPG

<b>Wall ID:</b>	BLRI-0001BB-209.943-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 27, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	65	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Dual culvert at intersection of 2 roads Park MP 209.78		

### Wall Measurements

<b>Wall Length (ft.):</b>	45	<b>Face Area (sq.):</b>	250
<b>Average Wall Height (ft.):</b>	5	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	9	<b>Vertical Offset (ft.):</b>	-2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress, scour needs to be repaired	7
WALL FOUNDATION MATERIAL 8.00	No settlement, 0.5' to 1' scour beneath large culvert, 6" deep under culvert	5
MORTAR 8.00	Sound and durable overall, some separation	7
STONE MASONRY 8.00	No degradation	7
LATERAL SLOPE 0.50	Flat, grassy	8
CULVERT 1.00	Two culverts, one 6'H x 6'W, and one 3.5'H x 3'W	6
DOWNSLOPE 1.00	Flat, streambed	7
ROAD/SIDEWALK/SHOULDER 1.00	Grassy shoulder	7
WALL DRAINS 1.00	Appears to be functioning weep holes	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Repair scour. Lean concrete apron in front of large culvert - 6'W x 3'L x 0.5'Thick = 9 cf = 1/3 cy - say 1 cy, 1 cy x \$1,470/cy = \$1,470
<b>Repair Cost:</b>	\$1,470

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001BB\_209.943\_R\_1.JPG



BLRI\_0001BB\_209.943\_R\_2.JPG

<b>Wall ID:</b>	BLRI-0001BB-210.027-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 28, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	74	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Stream crossing Park MP 209.85		

### Wall Measurements

<b>Wall Length (ft.):</b>	31	<b>Face Area (sq.):</b>	150
<b>Average Wall Height (ft.):</b>	4	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	-6

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	8
WALL FOUNDATION MATERIAL 8.00	Soil, silty sand with gravel and cobbles No settlement or erosion	7
MORTAR 8.00	Sound and durable	7
STONE MASONRY 8.00	No degradation	8
LATERAL SLOPE 0.50	Flat, grassy	8
UPSLOPE 1.00	Soft, grassy, steep and soft at top of wall	6
CULVERT 1.00	13'H x 5'W concrete box	7
DOWNSLOPE 1.00	Streambed, flat	7
VEGETATION 1.00	Tree at south end, not currently interfering with wall function. Monitor.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001BB\_210.027\_L\_1.JPG

<b>Wall ID:</b>	BLRI-0001BB-210.027-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 28, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	69	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Stream Crossing Park MP 209.88		

### Wall Measurements

<b>Wall Length (ft.):</b>	36	<b>Face Area (sq.):</b>	165
<b>Average Wall Height (ft.):</b>	4	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	7	<b>Vertical Offset (ft.):</b>	-4

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress Slope needs repair	7
WALL FOUNDATION MATERIAL 8.00	Soil No settlement or erosion	7
MORTAR 8.00	Sound and durable, mossy	7
STONE MASONRY 8.00	No degradation, mossy	7
LATERAL SLOPE 1.00	Flat, grassy Eroded on north end, approximately 2' D x 10'L x 4'H	5
DOWNSLOPE 1.00	Streambed, then rises 2H:1V	6
CULVERT 1.00	4'H x 12'W concrete box	7
UPSLOPE 1.00	Soft, grassy	7
WALL DRAINS 1.00	Weepholes 12' on center	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	Fill - unclassified borrow - 10' x 4' x 2' = 3 cy, 3 cy x \$35/cy = \$105. Rolled erosion control product - 10 sy x \$5/sy = \$50. Labor = 10 hrs x \$55/hr = \$550. Dump truck = 5 hrs x \$120/hr = \$600. Wheel loader = 5 hrs x \$170/hr = 4850.
<b>Repair Cost:</b>	\$2,155

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001BB\_210.027\_R\_1.JPG



BLRI\_0001BB\_210.027\_R\_2.JPG

<b>Wall ID:</b>	BLRI-0001BB-210.059-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 28, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	47	<b>Maintenance Action:</b>	Replace Wall

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 209.95		

### Wall Measurements

<b>Wall Length (ft.):</b>	12	<b>Face Area (sq.):</b>	65
<b>Average Wall Height (ft.):</b>	5	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	-6

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	Global distress to wall, wall falling apart. Needs to be replaced.	4
WALL FOUNDATION MATERIAL 8.00	Soil Undermined 1' H x 5'W x 1'D, scour hole in front of outlet evident	4
STONE MASONRY 8.00	Many missing stones, 1/4th of wall Cracks in stone from stress	4
MORTAR 8.00	Missing, cracked, stones separating throughout	6
LATERAL SLOPE 1.00	Sloping, eroded heavily at south end - 5' x 5' x 2'. Some erosion at north end	4
UPSLOPE 1.00	Gradual then steep for last 8' horizontally	5
CULVERT 1.00	3'W x 3'H concrete box, some chips in concrete	6
WALL DRAINS 1.00	Not visible	6
DOWNSLOPE 1.00	Flat streambed	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Remove/Replace headwall, and extend additional 6' to the south - 18' x 5' - 9 s.f. = 81 s.f., 81 s.f. x \$350/s.f. = \$28,350. Place select fill in eroded area - 5' x 5' x 2' = 2 cy x \$60/c.y. = \$120. Construct lean concrete apron in front of headwall, fill u
<b>Repair Cost:</b>	\$41,700

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

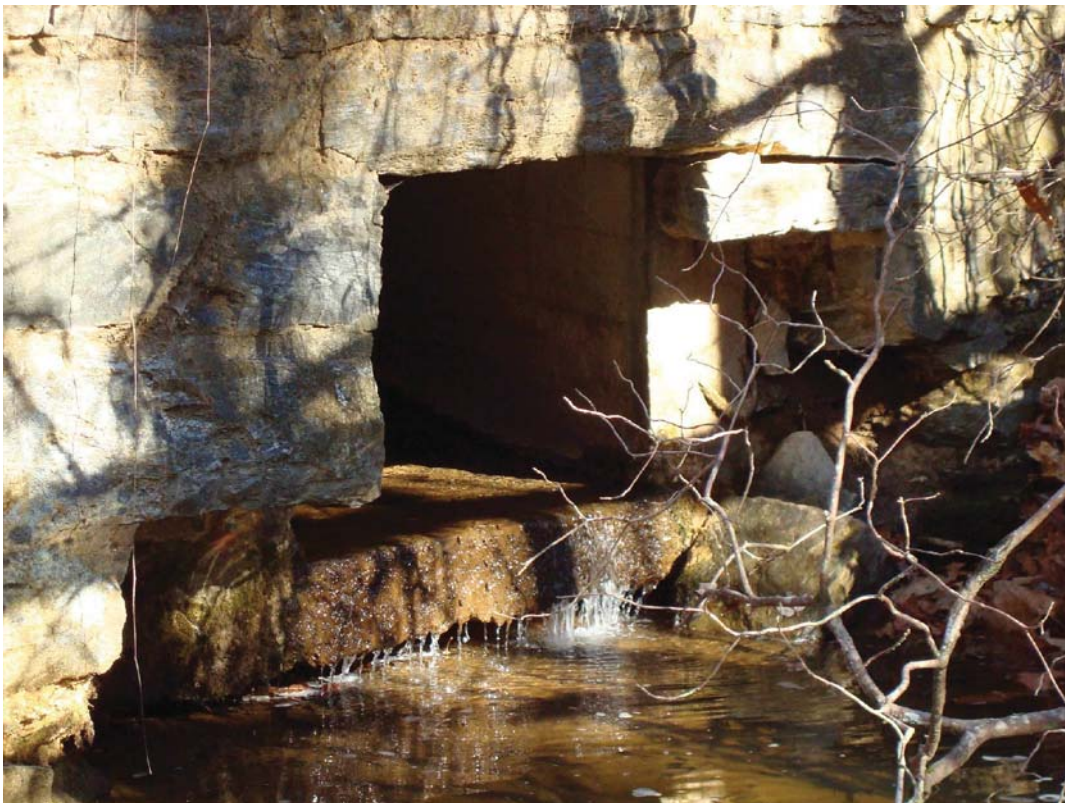
# Blue Ridge Parkway

ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001BB\_210.059\_L\_1.JPG



BLRI\_0001BB\_210.059\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001BB-210.652-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 27, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	68	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 210.5		

### Wall Measurements

<b>Wall Length (ft.):</b>	35	<b>Face Area (sq.):</b>	155
<b>Average Wall Height (ft.):</b>	4	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	-2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil, rocky No settlement or erosion	7
STONE MASONRY 8.00	Missing 2 stones - approx. 7 s.f.	6
MORTAR 8.00	Some separation of mortar	7
ROAD/SIDEWALK/SHOULDER 0.50	Grassy shoulder	8
WALL DRAINS 1.00	Functioning drains, but some drains are at current stream level	6
CULVERT 1.00	5.5'H x 8'W box with arch top	7
DOWNSLOPE 1.00	Flat, streambed	7
LATERAL SLOPE 1.00	Flat, grassy	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Replace 2 capstones - 7 s.f. x \$250/s.f. = \$1,750
<b>Repair Cost:</b>	\$1,750

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001BB\_210.652\_L\_1.JPG



BLRI\_0001BB\_210.652\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001BB-210.652-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 27, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	68	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 210.5		

### Wall Measurements

<b>Wall Length (ft.):</b>	34	<b>Face Area (sq.):</b>	160
<b>Average Wall Height (ft.):</b>	4	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil, rocky Slight scour	7
MORTAR 8.00	Some separation, mortar missing 2'	6
STONE MASONRY 8.00	No degradation, missing capstone (approx. 3 s.f.), moss covered	7
LATERAL SLOPE 0.50	Flat, grassy	8
ROAD/SIDEWALK/SHOULDER 0.50	Grassy shoulder	8
WALL DRAINS 1.00	Functioning drains, but some drains at current stream level	6
CULVERT 1.00	5.5'H x 8'W box with arch top	7
DOWNSLOPE 1.00	Flat, streambed	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Replace Capstone - 3 s.f. x \$250/s.f. = \$750. Repoint Mortar - 10 s.f. x \$75/s.f. = \$750
<b>Repair Cost:</b>	\$1,500

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001BB\_210.652\_R\_1.JPG



BLRI\_0001BB\_210.652\_R\_2.JPG

<b>Wall ID:</b>	BLRI-0001BB-211.679-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 27, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Double box culvert Park MP 211.5		

### Wall Measurements

<b>Wall Length (ft.):</b>	60	<b>Face Area (sq.):</b>	300
<b>Average Wall Height (ft.):</b>	5	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	9	<b>Vertical Offset (ft.):</b>	-2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Rocky soil No settlement or erosion	7
MORTAR 8.00	Sound and durable Slight mortar loss - approximately 5 s.f. at top	7
STONE MASONRY 8.00	No degradation	7
LATERAL SLOPE 0.50	Flat, grassy	8
ROAD/SIDEWALK/SHOULDER 0.50	Flat, grassy shoulder	8
WALL DRAINS 0.50	Weep holes inside culvert, 8' on center, all functioning	8
CULVERT 1.00	Two 15'W x 6'H box culvert, concrete bottom, arch at top	7
DOWNSLOPE 1.00	Flat streambed	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Repoint mortar at top of wall - 8 s.f. x \$75/s.f. = \$600.
<b>Repair Cost:</b>	\$600

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001BB\_211.679\_L\_1.JPG



BLRI\_0001BB\_211.679\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001BB-211.679-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 27, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Double box culvert Park MP 211.5		

### Wall Measurements

<b>Wall Length (ft.):</b>	61	<b>Face Area (sq.):</b>	300
<b>Average Wall Height (ft.):</b>	4	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	9	<b>Vertical Offset (ft.):</b>	-2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	Erosion around top corner No global distress	7
WALL FOUNDATION MATERIAL 8.00	Rocky soil No settlement, slight scour	7
MORTAR 8.00	Sound and durable, slight separation, moss covered	7
STONE MASONRY 8.00	No degradation	7
LATERAL SLOPE 0.50	Flat, grassy	8
ROAD/SIDEWALK/SHOULDER 0.50	Flat, grassy shoulder	8
WALL DRAINS 0.50	Weep holes inside culvert, 8' on center, all functioning	8
CULVERT 1.00	Two 15'W x 6'H box culvert, concrete bottom, arch at top	7
DOWNSLOPE 1.00	Flat streambed	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001BB\_211.679\_R\_1.JPG



BLRI\_0001BB\_211.679\_R\_2.JPG

<b>Wall ID:</b>	BLRI-0001BB-215.495-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 28, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Stream Crossing		

### Wall Measurements

<b>Wall Length (ft.):</b>	39	<b>Face Area (sq.):</b>	140
<b>Average Wall Height (ft.):</b>	3	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Gravelly soil No settlement or erosion	7
MORTAR 8.00	Sound and durable, minor separation	7
STONE MASONRY 8.00	No degradation, moss and lichens, 2 loose stones	7
LATERAL SLOPE 0.50	Flat, grassy. Gravel road on south end.	8
CULVERT 1.00	4.5'H x 14'W concrete box	7
DOWNSLOPE 1.00	Streambed, flat	7
ROAD/SIDEWALK/SHOULDER 1.00	Soft shoulder, grassy	7
WALL DRAINS 1.00	No drains, but no drainage problems evident	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Reset capstones on north end - 7 s.f. x \$250/s.f. = \$1,750.
<b>Repair Cost:</b>	\$1,750

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001BB\_215.495\_L\_1.JPG



BLRI\_0001BB\_215.495\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001BB-216.588-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 27, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Mortared stone, according to park used to be 6 to 8 ft of soil at base of wall, now 2 ft to 3 ft in spots due to stream erosion		

### Wall Measurements

<b>Wall Length (ft.):</b>	315	<b>Face Area (sq.):</b>	2450
<b>Average Wall Height (ft.):</b>	7	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	10	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress Monitor encroaching erosion at wall base	7
WALL FOUNDATION MATERIAL 8.00	Stony material in stream No settlement or erosion at foundation	7
MORTAR 8.00	Sound and durable, mossy	7
STONE MASONRY 8.00	No degradation, mossy	7
LATERAL SLOPE 0.50	Flat, grassy	8
VEGETATION 0.50	Slight vegetation on face, no adverse effect	8
DOWNSLOPE 1.00	Plateau for 6'-8', then stream	7
ROAD/SIDEWALK/SHOULDER 1.00	Flat, grassy shoulder, soft	7
WALL DRAINS 1.00	None through wall, top drains for roadway drainage	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001BB\_216.588\_R\_1.JPG



BLRI\_0001BB\_216.588\_R\_2.JPG

<b>Wall ID:</b>	BLRI-0001BB-216.668-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT		
<b>Inspection Date:</b>	November 28, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	63	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Wall covered with vegetation and difficult to find, has soil failure adjacent to wall		

### Wall Measurements

<b>Wall Length (ft.):</b>	140	<b>Face Area (sq.):</b>	490
<b>Average Wall Height (ft.):</b>	3	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	4	<b>Vertical Offset (ft.):</b>	-10

### Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	18' x 18' x 5' deep circular failure immediately north of wall - needs repair and extension of wall	6
WALL FOUNDATION MATERIAL 8.00	Rock/soil No settlement, erosion at south end -recent	5
MORTAR 8.00	Sound and durable, mossy	7
STONE MASONRY 8.00	No degradation	7
DOWNSLOPE 1.00	Gradual, streambed, high water during rainfall events	6
CULVERT 1.00	18" corrugated metal	7
LATERAL SLOPE 1.00	Flat, grassy	7
UPSLOPE 1.00	2H:1V	7
WALL DRAINS 1.00	Weep holes, steel pipe, 10' on center	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	Extend wall 40' to north in high erosion area - 40' x 4' H = 160 s.f. x \$160/s.f. = \$25,600. Dowel into rock - rock bot - 5 bolts x 10' x \$90/l.f. = \$4,500. Backfill failed area with select fill - 18' x 18' x 5' x 0.5 = 30 c.y. x \$60/c.y. = \$1,800. Riprap prot
<b>Repair Cost:</b>	\$41,300

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001BB: BLUE RIDGE PARKWAY - ROCKY KNOB SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001BB\_216.668\_R\_1.JPG



BLRI\_0001BB\_216.668\_R\_2.JPG

<b>Wall ID:</b>	BLRI-0001CA-222.042-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT		
<b>Inspection Date:</b>	December 04, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	78	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Dual barrel stone masonry culvert headwall.		

### Wall Measurements

<b>Wall Length (ft.):</b>	38	<b>Face Area (sq.):</b>	150
<b>Average Wall Height (ft.):</b>	3	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No signs of global distress. Minor mortar weathering.	8
WALL FOUNDATION MATERIAL 8.00	Not visible, but no signs of scour or settlement.	7
MORTAR 8.00	Cracked, minor missing elements, hard/durable. Does not require repointing.	7
STONE MASONRY 8.00	Hard, durable, no signs of cracking, no missing blocks, minor weathering.	9
CULVERT 0.50	Minor channel erosion, weathered structure. Functioning well.	8
DOWNSLOPE 0.50	Drainage channel is stable. No signs of down-cutting or bank erosion.	8
LATERAL SLOPE 0.50	Very stable. No signs of slumping or erosion.	9
ROAD/SIDEWALK/SHOULDER 0.50	No wall related impacts. Very good condition.	9
WALL DRAINS 1.00	None visible, some seepage through cracked mortar, minor impact.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CA\_222.042\_R\_1.jpg



BLRI\_0001CA\_222.042\_R\_2.jpg

<b>Wall ID:</b>	BLRI-0001CA-222.045-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT		
<b>Inspection Date:</b>	December 04, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	78	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Dual barrel culvert with stone masonry headwall.		

### Wall Measurements

<b>Wall Length (ft.):</b>	6	<b>Face Area (sq.):</b>	130
<b>Average Wall Height (ft.):</b>	21	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	38	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No signs of global distress. Minor mortar weathering.	8
WALL FOUNDATION MATERIAL 8.00	Not visible, but no signs of scour or settlement.	7
MORTAR 8.00	Cracked, minor missing elements, hard/durable. Does not require repointing.	7
STONE MASONRY 8.00	Hard, durable, no signs of cracking, no missing blocks, minor weathering.	9
CULVERT 0.50	Functioning as intended. Minor channel erosion. Weathered structure.	8
DOWNSLOPE 0.50	Drainage channel is stable. No signs of down-cutting or bank erosion.	8
LATERAL SLOPE 0.50	Very stable. No signs of slumping or erosion.	9
ROAD/SIDEWALK/SHOULDER 0.50	No wall related impacts. Very good condition.	9
WALL DRAINS 1.00	None visible. Some seepage through cracked mortar.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CA\_222.045\_L\_1.jpg

<b>Wall ID:</b>	BLRI-0001CA-222.433-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT		
<b>Inspection Date:</b>	December 04, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	73	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Dual barrel culvert with stone masonry headwall.		

### Wall Measurements

<b>Wall Length (ft.):</b>	30	<b>Face Area (sq.):</b>	100
<b>Average Wall Height (ft.):</b>	3	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No signs of global distress or settlement. Minor mortar weathering.	8
WALL FOUNDATION MATERIAL 8.00	Not visible, but no signs of scour or settlement.	7
MORTAR 8.00	Cracked, weathered, some missing in top course, minor grass/moss growing from cracks.	6
STONE MASONRY 8.00	Hard, durable, no signs of cracking, no missing blocks, minor weathering.	8
CULVERT 0.50	Weathered, but functioning as intended. No seepage/scour.	8
DOWNSLOPE 0.50	Drainage channel is stable. No signs of scour or bank erosion.	8
LATERAL SLOPE 0.50	Very stable. No signs of slumping or erosion.	8
ROAD/SIDEWALK/SHOULDER 0.50	No wall related impacts. Very good condition.	8
WALL DRAINS 1.00	None visible. Some seepage through top course where mortar is cracked/missing.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CA\_222.433\_R\_1.jpg



BLRI\_0001CA\_222.433\_R\_2.jpg

<b>Wall ID:</b>	BLRI-0001CA-224.997-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT		
<b>Inspection Date:</b>	December 04, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	72	<b>Maintenance Action:</b>	Maintenance

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Mortared stone masonry headwall with culvert.		

### Wall Measurements

<b>Wall Length (ft.):</b>	70	<b>Face Area (sq.):</b>	600
<b>Average Wall Height (ft.):</b>	8	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	9	<b>Vertical Offset (ft.):</b>	-10

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No signs of global distress. Wall will benefit from tree/brush removal.	8
WALL FOUNDATION MATERIAL 8.00	Underwater. Appears to be rock fill/bedrock. No signs of wall settlement or scour.	7
MORTAR 8.00	Weathered, cracking in some blocks, mortar is missing/scoured along wall toe.	6
STONE MASONRY 8.00	Well cut, hard, durable blocks showing no signs of cracking. No missing blocks.	8
CULVERT 0.50	Functioning as intended. Minor channel erosion. Weathered.	8
DOWNSLOPE 0.50	Drainage channel is stable. No signs of scour or bank erosion.	8
UPSLOPE 0.50	1.5H:1V well vegetated upslope showing no signs of slumping or erosion distress.	8
VEGETATION 1.00	3 large trees growing at top of wall. Appear to be dead. Need to be removed along with brush. Minor impact at the present.	6
LATERAL SLOPE 1.00	Well vegetated. Minor erosion at down steam convergence.	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	Remove trees from top of wall: Labor: 6 hours @ \$55.00 per hr. = \$330.00
<b>Repair Cost:</b>	\$330

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CA\_224.997\_L\_1.jpg



BLRI\_0001CA\_224.997\_L\_2.jpg

<b>Wall ID:</b>	BLRI-0001CA-225.003-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT		
<b>Inspection Date:</b>	December 04, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	80	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Mortared stone masonry headwall.		

### Wall Measurements

<b>Wall Length (ft.):</b>	38	<b>Face Area (sq.):</b>	150
<b>Average Wall Height (ft.):</b>	3	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	11	<b>Vertical Offset (ft.):</b>	-14

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No signs of global distress. Structure is stable with no signs of cracking, displacement, settlement.	8
WALL FOUNDATION MATERIAL 8.00	Bedrock, very stable.	9
MORTAR 8.00	Difficult to see, mossy. No missing mortar. Appears intact.	7
STONE MASONRY 8.00	Sound, durable, mossy. No missing blocks.	8
CULVERT 0.50	Functioning as intended. Minor channel erosion.	8
LATERAL SLOPE 0.50	Minor slope erosion, well vegetated.	8
ROAD/SIDEWALK/SHOULDER 0.50	No wall related impacts. Very good condition.	8
UPSLOPE 0.50	Well vegetated 1.5H:1V slope. Very stable.	8
WALL DRAINS 0.50	None visible. Some seepage through the wall. No water-related distress.	8

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CA\_225.003\_R\_1.jpg

<b>Wall ID:</b>	BLRI-0001CA-225.426-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT		
<b>Inspection Date:</b>	December 04, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	78	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Dual barrel culvert with mortared stone masonry headwall. Dual barrel culvert with stone masonry headwall.		

### Wall Measurements

<b>Wall Length (ft.):</b>	30	<b>Face Area (sq.):</b>	130
<b>Average Wall Height (ft.):</b>	4	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	-1

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No signs of global distress.	8
WALL FOUNDATION MATERIAL 8.00	No signs of scour or settlement. Good bearing.	8
MORTAR 8.00	Cracked, weathered along top courses. Appears to have been patched. Generally intact.	7
STONE MASONRY 8.00	Well cut, hard, durable.	8
CULVERT 0.50	Weathered, but no seepage around culvert. Minor channel erosion.	8
ROAD/SIDEWALK/SHOULDER 0.50	No wall related impacts. Very good condition.	8
DOWNSLOPE 0.50	Armored channel, very stable.	9
LATERAL SLOPE 0.50	Armored with granite riprap.	10
WALL DRAINS 1.00	None visible. Some minor seepage through mortar.	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CA\_225.426\_L\_1.jpg

<b>Wall ID:</b>	BLRI-0001CA-225.426-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT		
<b>Inspection Date:</b>	December 04, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	78	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Mortared stone masonry headwall, Dual barrel culvert on 2 ft thick concrete CIP footer.		

### Wall Measurements

<b>Wall Length (ft.):</b>	30	<b>Face Area (sq.):</b>	175
<b>Average Wall Height (ft.):</b>	5	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	10	<b>Vertical Offset (ft.):</b>	-4

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No signs of global distress. Functioning as originally built.	8
WALL FOUNDATION MATERIAL 8.00	Underwater. No signs of scour or settlement.	7
MORTAR 8.00	Minor cracking and weathering. Generally intact, hard, durable.	8
STONE MASONRY 8.00	Hard, durable, no missing blocks.	8
CULVERT 0.50	No significant distress. No seepage. Minor channel erosion.	8
DOWNSLOPE 0.50	Lake bottom.	8
ROAD/SIDEWALK/SHOULDER 0.50	No wall related distress. Very good condition.	8
LATERAL SLOPE 0.50	Armored with granite riprap. Very stable.	10
WALL DRAINS 1.00	None visible. Some seepage between blocks.	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CA\_225.426\_R\_1.jpg

<b>Wall ID:</b>	BLRI-0001CA-225.474-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT		
<b>Inspection Date:</b>	December 04, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	78	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Mortared stone masonry headwall, with Dual barrel culvert.		

### Wall Measurements

<b>Wall Length (ft.):</b>	30	<b>Face Area (sq.):</b>	140
<b>Average Wall Height (ft.):</b>	4	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	7	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No signs of global instability. Performing well.	8
WALL FOUNDATION MATERIAL 8.00	Underwater. No signs of scour or settlement.	8
MORTAR 8.00	Minor cracking especially in top course. No missing mortar. Generally intact, hard, durable.	7
STONE MASONRY 8.00	Strong, hard, no missing elements.	8
CULVERT 0.50	No significant distress. Minor channel erosion.	8
DOWNSLOPE 0.50	Lake bottom.	8
ROAD/SIDEWALK/SHOULDER 0.50	No roadway distress.	8
WALL DRAINS 0.50	None visible. Some seepage through wall.	8
LATERAL SLOPE 0.50	Armored slope. Very stable.	9

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CA\_225.474\_L\_1.jpg

<b>Wall ID:</b>	BLRI-0001CA-225.474-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT		
<b>Inspection Date:</b>	December 04, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	76	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Mortared stone masonry headwall, with Dual barrel culvert.		

### Wall Measurements

<b>Wall Length (ft.):</b>	30	<b>Face Area (sq.):</b>	250
<b>Average Wall Height (ft.):</b>	8	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	12	<b>Vertical Offset (ft.):</b>	-2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global stress. Minor mortar cracking at top of wall corners.	8
WALL FOUNDATION MATERIAL 8.00	Armored channel up to CIP concrete footer. No signs of scour or settlement.	9
MORTAR 8.00	Cracked and weathered in top course, top courses need repair due to missing mortar.	6
STONE MASONRY 8.00	Strong, hard, durable. Corner blocks show minor cracking.	7
CULVERT 0.50	No significant distress. Minor channel erosion.	8
WALL DRAINS 0.50	None visible, minor seepage through wall.	8
DOWNSLOPE 0.50	Armored channel. Very stable.	9
LATERAL SLOPE 0.50	Armored slopes. Very stable.	9

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	Clean mortar, reset and mortar corner blocks: Labor: 4 hours @ \$55 hr. = \$220, Mortar lump sum @ \$50. Total = \$270.00
<b>Repair Cost:</b>	\$270

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CA\_225.474\_R\_1.jpg

<b>Wall ID:</b>	BLRI-0001CA-225.610-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT		
<b>Inspection Date:</b>	December 04, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	80	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Mortared stone masonry headwall.		

### Wall Measurements

<b>Wall Length (ft.):</b>	24	<b>Face Area (sq.):</b>	125
<b>Average Wall Height (ft.):</b>	5	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	-1

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No signs of global instability.	8
WALL FOUNDATION MATERIAL 8.00	No signs of scour or settlement. Good bearing.	8
MORTAR 8.00	Minor cracking and weathering. Generally, Intact, sound, durable.	8
STONE MASONRY 8.00	Hard, durable, strong, no missing blocks.	8
CULVERT 0.50	No significant distress. Minor channel erosion. Weathered structure.	8
DOWNSLOPE 0.50	Drainage channel. No signs of significant erosion.	8
LATERAL SLOPE 0.50	Stable. No signs of slumping or erosion.	8
ROAD/SIDEWALK/SHOULDER 0.50	No wall related distress.	8
WALL DRAINS 0.50	None visible. Some seepage through wall. No water-related problems.	8

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CA\_225.610\_L\_1.jpg

<b>Wall ID:</b>	BLRI-0001CA-225.613-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT		
<b>Inspection Date:</b>	December 04, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	80	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Mortared stone masonry headwall.		

### Wall Measurements

<b>Wall Length (ft.):</b>	22	<b>Face Area (sq.):</b>	75
<b>Average Wall Height (ft.):</b>	3	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No signs of global instability or other distress.	8
WALL FOUNDATION MATERIAL 8.00	Channel bottom. No signs of scour or settlement.	8
MORTAR 8.00	Intact, sound, durable.	8
STONE MASONRY 8.00	Strong, hard, no missing elements.	8
CULVERT 0.50	No significant distress. Minor channel erosion. Weathered structure.	8
DOWNSLOPE 0.50	Stream channel. Minor erosion no significant scour.	8
LATERAL SLOPE 0.50	Vegetated. No signs of slumping or significant erosion.	8
ROAD/SIDEWALK/SHOULDER 0.50	No wall-related distress.	8
WALL DRAINS 1.00	None visible. Some seepage through wall.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CA\_225.613\_R\_1.jpg

<b>Wall ID:</b>	BLRI-0001CA-225.815-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT		
<b>Inspection Date:</b>	December 04, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	54	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Mortared stone masonry headwall, with Dual barrel culvert (large box).		

### Wall Measurements

<b>Wall Length (ft.):</b>	50	<b>Face Area (sq.):</b>	300
<b>Average Wall Height (ft.):</b>	6	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	10	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	Scouring below wall toe, along bottom of box. Needs to be repaired to halt future wall failure.	6
WALL FOUNDATION MATERIAL 8.00	Good bearing materials, but some scour present at middle of box and along the outlet cut-off wall.	5
MORTAR 8.00	Missing at wall base due to outlet scour. Cracked in headwall, but generally intact throughout.	5
STONE MASONRY 8.00	Missing blocks at wall toe. Rest is intact, hard, durable.	5
DOWNSLOPE 0.50	Stream channel. Minor channel erosion. Stable.	8
LATERAL SLOPE 0.50	Well vegetated. No slumping or erosion.	8
CULVERT 1.00	Scoured below box. Needs repair.	5
ROAD/SIDEWALK/SHOULDER 1.00	Minor pavement distress. May not be wall related.	7
WALL DRAINS 1.00	None visible. No water damage to wall. Minor seepage.	7

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	Install grouted riprap outlet apron to repair scour section: Riprap - 35 cubic yards @ \$330 per c.y. = \$11,550 (includes labor and equipment.)
<b>Repair Cost:</b>	\$11,550

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CA\_225.815\_R\_1.jpg



BLRI\_0001CA\_225.815\_R\_2.jpg

<b>Wall ID:</b>	BLRI-0001CA-225.818-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT		
<b>Inspection Date:</b>	December 04, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	75	<b>Maintenance Action:</b>	Maintenance

**Wall Description**

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Mortared stone masonry headwall.		

**Wall Measurements**

<b>Wall Length (ft.):</b>	50	<b>Face Area (sq.):</b>	270
<b>Average Wall Height (ft.):</b>	5	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	9	<b>Vertical Offset (ft.):</b>	-1

**Assessed Elements**

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No signs of global instability. Difficult to see toe of wall.	8
WALL FOUNDATION MATERIAL 8.00	Not visible, but no signs of scour or settlement. Debris makes observation difficult.	7
MORTAR 8.00	Intact, cracked, weathering. No missing mortar.	7
STONE MASONRY 8.00	Strong, hard, no missing elements.	8
DOWNSLOPE 0.50	Drainage channel. Minor erosion. Debris-filled.	8
LATERAL SLOPE 0.50	Stable. No signs of slumping or erosion.	8
WALL DRAINS 0.50	None visible. Some seepage through wall. No water-related issues.	8
CULVERT 1.00	Blocked by fallen tree. Needs to be cleared. Minor silt buildup due to blockage.	7
ROAD/SIDEWALK/SHOULDER 1.00	Minor pavement distress. No wall-related issues.	7

**Repair Recommendations**

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	Remove fallen tree from inlet. Clear remaining debris. Labor: 8 hours @ \$55 per hr. = \$440
<b>Repair Cost:</b>	\$440

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CA\_225.818\_L\_1.jpg

<b>Wall ID:</b>	BLRI-0001CA-225.968-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT		
<b>Inspection Date:</b>	December 04, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	80	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Mortared stone masonry headwall.		

### Wall Measurements

<b>Wall Length (ft.):</b>	24	<b>Face Area (sq.):</b>	75
<b>Average Wall Height (ft.):</b>	3	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	-1

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No signs of global instability. Functioning very well.	8
WALL FOUNDATION MATERIAL 8.00	Grouted masonry blocks over sand and gravel.	8
MORTAR 8.00	Intact, minor cracking, weathered. No missing elements.	8
STONE MASONRY 8.00	Durable, hard, intact no missing elements.	8
CULVERT 0.50	No significant distress. Minor weathering. No seepage evident.	8
DOWNSLOPE 0.50	Stable channel.	8
LATERAL SLOPE 0.50	Stable. No signs of slumping or erosion. Well vegetated.	8
ROAD/SIDEWALK/SHOULDER 0.50	No wall related distress.	8
WALL DRAINS 0.50	None visible. Some seepage through wall.	8

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CA\_225.968\_L\_1.jpg

<b>Wall ID:</b>	BLRI-0001CA-225.973-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT		
<b>Inspection Date:</b>	December 04, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	80	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Mortared stone masonry headwall.		

### Wall Measurements

<b>Wall Length (ft.):</b>	28	<b>Face Area (sq.):</b>	100
<b>Average Wall Height (ft.):</b>	3	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	-2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No signs of global instability.	8
WALL FOUNDATION MATERIAL 8.00	Sand/gravel in drainage. Good bearing . No scour/settlement.	8
MORTAR 8.00	Durable, intact, minor weathering and cracking.	8
STONE MASONRY 8.00	Well cut/placed, hard, durable, minor weathering.	8
CULVERT 0.50	No signs of distress. Minor weathering/channel erosion.	8
LATERAL SLOPE 0.50	Stable. No signs of slumping or erosion. Well vegetated.	8
ROAD/SIDEWALK/SHOULDER 0.50	No wall related distress.	8
WALL DRAINS 0.50	None visible. No water-related distress.	8

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CA\_225.973\_R\_1.jpg

<b>Wall ID:</b>	BLRI-0001CA-227.014-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT		
<b>Inspection Date:</b>	December 04, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	78	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	Gravity - Dry Stone
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Mortared stone masonry headwall with dry laid short wall on top.		

### Wall Measurements

<b>Wall Length (ft.):</b>	20	<b>Face Area (sq.):</b>	110
<b>Average Wall Height (ft.):</b>	5	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	-4

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No signs of global instability.	8
WALL FOUNDATION MATERIAL 8.00	Cobbles, sand/grave - good bearing.	8
PLACED STONE 8.00	Randomly placed, platy stone. Hard, weathered. Slightly displaced at top of wall.	7
MORTAR 8.00	Intact, minor cracking, weathered. No missing mortar.	8
STONE MASONRY 8.00	Hard, durable, no missing blocks.	8
CULVERT 0.50	Minor channel erosion. No seepage evident. No scour.	8
DOWNSLOPE 0.50	Stable stream channel.	8
LATERAL SLOPE 0.50	Stable, non slumping.	8
ROAD/SIDEWALK/SHOULDER 0.50	Minor pavement distress; likely not related to wall.	8

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CA\_227.014\_L\_1.jpg

<b>Wall ID:</b>	BLRI-0001CA-227.014-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT		
<b>Inspection Date:</b>	December 04, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	80	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Mortared stone masonry headwall.		

### Wall Measurements

<b>Wall Length (ft.):</b>	22	<b>Face Area (sq.):</b>	100
<b>Average Wall Height (ft.):</b>	4	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	7	<b>Vertical Offset (ft.):</b>	-3

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No signs of global instability.	8
WALL FOUNDATION MATERIAL 8.00	Stream channel. Cobbles, sand, gravel. Good bearing.	8
MORTAR 8.00	Minor cracking and weathering. Intact, strong, No missing mortar.	8
STONE MASONRY 8.00	Durable, hard, intact no missing blocks.	8
CULVERT 0.50	Minor weathering. No apparent seepage.	8
DOWNSLOPE 0.50	Drainage channel. Stable, no signs of significant erosion.	8
LATERAL SLOPE 0.50	Well vegetated, stable. No signs of slumping or erosion.	8
ROAD/SIDEWALK/SHOULDER 0.50	Minor pavement distress, but not wall related.	8
WALL DRAINS 0.50	None visible. Some seepage through wall, mostly top courses. No water-related distress.	8

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CA\_227.014\_R\_1.jpg

<b>Wall ID:</b>	BLRI-0001CA-227.921-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT		
<b>Inspection Date:</b>	December 04, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	80	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Slope Protection	<b>Primary Wall Type:</b>	Gravity - Dry Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Dry laid stone wall for slope protection along creek.		

### Wall Measurements

<b>Wall Length (ft.):</b>	125	<b>Face Area (sq.):</b>	1000
<b>Average Wall Height (ft.):</b>	8	<b>Face Angle (deg.):</b>	45
<b>Maximum Wall Height (ft.):</b>	10	<b>Vertical Offset (ft.):</b>	-1

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No signs of global distress.	8
WALL FOUNDATION MATERIAL 8.00	Creek bottom. No signs of scour or wall settlement. No localized failures evident.	8
PLACED STONE 8.00	Large placed stone. Durable, weathered, yet strong and intact.	8
DOWNSLOPE 0.50	Creek bottom. Appears stable channel.	8
LATERAL SLOPE 0.50	Minor erosion. Wall mirrors slope upstation.	8
ROAD/SIDEWALK/SHOULDER 0.50	No wall-related distress.	8
VEGETATION 0.50	Shrubs and small trees all along the wall. Appear to be aiding in fill stabilization.	8
WALL DRAINS 0.50	Free draining.	8

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CA\_227.921\_R\_1.jpg

<b>Wall ID:</b>	BLRI-0001CA-228.268-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT		
<b>Inspection Date:</b>	December 04, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	82	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Very large arched culvert (12 ft H x 18 ft W) just under bridge minimum.		

### Wall Measurements

<b>Wall Length (ft.):</b>	65	<b>Face Area (sq.):</b>	650
<b>Average Wall Height (ft.):</b>	10	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	17	<b>Vertical Offset (ft.):</b>	-7

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No signs of global instability.	8
WALL FOUNDATION MATERIAL 8.00	Rock, cobbles; well graded materials.	9
MORTAR 8.00	Generally intact, strong, durable with minor weathering/cracking. Minor mortar loss on one block.	8
STONE MASONRY 8.00	Hard, durable, intact rock, no missing blocks.	8
CULVERT 0.50	Minor weathering. No signs of seepage.	8
DOWNSLOPE 0.50	Stream channel. Stable.	8
ROAD/SIDEWALK/SHOULDER 0.50	No wall related distress.	8
UPSLOPE 0.50	1.5H:1V Well vegetated. No slumps.	8
VEGETATION 0.50	Recently cut from along wall.	10

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CA\_228.268\_L\_1.jpg

<b>Wall ID:</b>	BLRI-0001CA-228.268-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT		
<b>Inspection Date:</b>	December 04, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	82	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Very large arched culvert (12 ft H x 18 ft W) just under bridge minimum.		

### Wall Measurements

<b>Wall Length (ft.):</b>	75	<b>Face Area (sq.):</b>	750
<b>Average Wall Height (ft.):</b>	10	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	17	<b>Vertical Offset (ft.):</b>	-8

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No signs of global distress.	8
WALL FOUNDATION MATERIAL 8.00	Rock, cobbles, boulders; excellent bearing. No scour or settlement.	9
MORTAR 8.00	Generally intact, strong, durable, with minor weathering/cracking. Minor mortar loss in top course. Lot of mass obscuring view.	8
STONE MASONRY 8.00	Very well built wall. Hard, durable, no missing blocks.	8
CULVERT 0.50	Minor weathering and channel erosion.	8
LATERAL SLOPE 0.50	Stable. No slumping. Minor erosion.	8
ROAD/SIDEWALK/SHOULDER 0.50	No wall-related distress.	8
VEGETATION 0.50	Recently cut from along wall.	10
WALL DRAINS 1.00	No drains evident. Significant seepage through wall.	7

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CA\_228.268\_R\_1.jpg



BLRI\_0001CA\_228.268\_R\_2.jpg

<b>Wall ID:</b>	BLRI-0001CA-229.416-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT		
<b>Inspection Date:</b>	December 04, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	82	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Very large arched culvert, CIP concrete with stone masonry headwall.		

### Wall Measurements

<b>Wall Length (ft.):</b>	70	<b>Face Area (sq.):</b>	750
<b>Average Wall Height (ft.):</b>	10	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	16	<b>Vertical Offset (ft.):</b>	-6

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No signs of global distress.	8
WALL FOUNDATION MATERIAL 8.00	Large rock, well graded gravels, excellent bearing.	9
MORTAR 8.00	Weathered with minor cracking. Generally intact, hard, durable.	8
STONE MASONRY 8.00	Hard, durable; no missing blocks.	8
CULVERT 0.50	Functioning as intended. Minor weathering/channel erosion.	8
DOWNSLOPE 0.50	Stable stream channel. No evidence of scour.	8
ROAD/SIDEWALK/SHOULDER 0.50	No wall-related distress.	8
UPSLOPE 0.50	1.5H:1V grassy slope. No slumping. Very minor erosion.	8
VEGETATION 0.50	Recently trimmed trees/shrubs from top of wall.	9

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CA\_229.416\_L\_1.jpg

<b>Wall ID:</b>	BLRI-0001CA-229.416-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT		
<b>Inspection Date:</b>	December 04, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	82	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	Gravity - Dry Stone
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Very large arched culvert (CIP concrete with gravity, mortared stone headwall). Upstation wing is extended with a short dry stack section.		

### Wall Measurements

<b>Wall Length (ft.):</b>	80	<b>Face Area (sq.):</b>	1000
<b>Average Wall Height (ft.):</b>	12	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	20	<b>Vertical Offset (ft.):</b>	-8

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No signs of global distress. Structure is weathered but well-built.	8
WALL FOUNDATION MATERIAL 8.00	Large boulder, bedrock. Very stable bearing.	9
MORTAR 8.00	Weathered with minor cracking, but generally intact, durable and hard.	8
STONE MASONRY 8.00	Hard, durable; no missing blocks.	8
CULVERT 0.50	Functioning as intended. Weathered, but no seepage evident.	8
DOWNSLOPE 0.50	Stable stream channel. No scour at toe of headwall.	8
LATERAL SLOPE 0.50	Well vegetated. No signs of slumping or significant erosion.	8
ROAD/SIDEWALK/SHOULDER 0.50	No wall-related distress.	8
UPSLOPE 0.50	2H:1V, grassy slope. No slumping or erosion.	8

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CA\_229.416\_R\_1.jpg

<b>Wall ID:</b>	BLRI-0001CA-233.285-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT		
<b>Inspection Date:</b>	December 04, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	85	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Mortared stone masonry fill wall below dry laid guardwall.		

### Wall Measurements

<b>Wall Length (ft.):</b>	180	<b>Face Area (sq.):</b>	1260
<b>Average Wall Height (ft.):</b>	7	<b>Face Angle (deg.):</b>	85
<b>Maximum Wall Height (ft.):</b>	7	<b>Vertical Offset (ft.):</b>	-1

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No signs of global instability. Very well built.	8
WALL FOUNDATION MATERIAL 8.00	Rock fill from road cut. Very strong/stable.	9
MORTAR 8.00	Sound, durable, minor cracking, intact.	8
STONE MASONRY 8.00	Strong, hard, minor weathering. Very well laid.	9
DOWNSLOPE 0.50	Well vegetated soils over rockfill. Very stable. No signs of slumping/erosion.	8
LATERAL SLOPE 0.50	No significant erosion at either end. Stable slopes.	8
VEGETATION 0.50	Recently cut along top of wall. Toe shrubs not impacting wall; helping to stabilize toe slope.	8
WALL DRAINS 0.50	None visible. No significant seepage through wall.	8
ROAD/SIDEWALK/SHOULDER 0.50	No wall related distress. Very good condition.	9

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CA\_233.285\_L\_1.jpg

<b>Wall ID:</b>	BLRI-0001CA-234.418-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT		
<b>Inspection Date:</b>	December 04, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	79	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Mortared stone masonry fill wall below road and just above Road 1123.		

### Wall Measurements

<b>Wall Length (ft.):</b>	130	<b>Face Area (sq.):</b>	1000
<b>Average Wall Height (ft.):</b>	7	<b>Face Angle (deg.):</b>	85
<b>Maximum Wall Height (ft.):</b>	9	<b>Vertical Offset (ft.):</b>	-57

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No signs of global distress or deformation due to trees.	8
WALL FOUNDATION MATERIAL 8.00	Rock fill/bedrock. Very stable.	9
MORTAR 8.00	Weathered, but largely intact. Minor cracking. Lot of moss suggesting more cracking.	7
STONE MASONRY 8.00	Hard, durable, no signs of cracking, no missing blocks, minor weathering.	8
DOWNSLOPE 0.50	Rock fill to roadway.	8
LATERAL SLOPE 0.50	Stable well vegetated slope. No slumping/erosion.	8
UPSLOPE 0.50	1.5H:1V , well vegetated, stable slope with minor erosion.	8
VEGETATION 1.00	Small trees, shrubs and several large trees above/below wall. No apparent impact from trees.	7
WALL DRAINS 1.00	None visible. Seepage through wall at various locations.	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

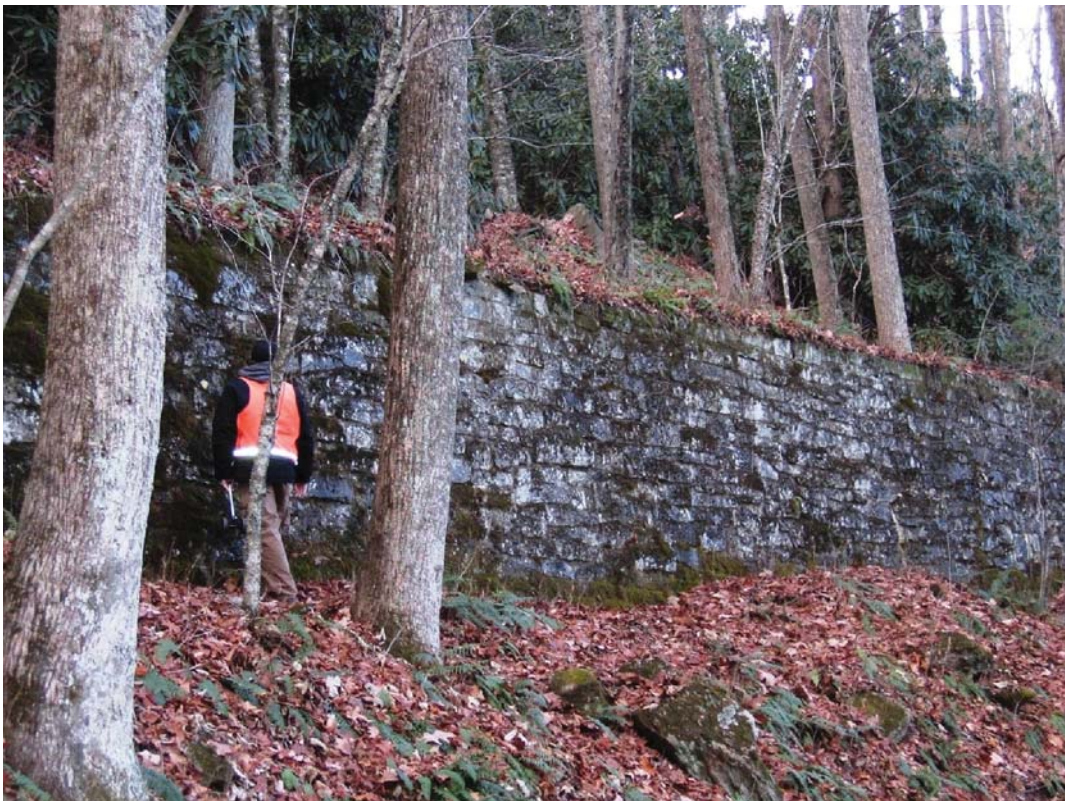
# Blue Ridge Parkway

ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CA\_234.418\_R\_1.jpg



BLRI\_0001CA\_234.418\_R\_2.jpg

<b>Wall ID:</b>	BLRI-0001CA-239.662-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT		
<b>Inspection Date:</b>	December 05, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	89	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	Other - Fence Post Rail
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Mortared stone masonry fill wall downslope from roadway with fencepost and rail slope retention wall just above (this is a failing secondary wall)		

### Wall Measurements

<b>Wall Length (ft.):</b>	170	<b>Face Area (sq.):</b>	850
<b>Average Wall Height (ft.):</b>	5	<b>Face Angle (deg.):</b>	85
<b>Maximum Wall Height (ft.):</b>	10	<b>Vertical Offset (ft.):</b>	-13

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No signs of global distress. Wall is in excellent overall condition.	9
WALL FOUNDATION MATERIAL 8.00	Rock fill. Very good bearing. No signs of settlement.	9
MORTAR 8.00	Durable, hard, intact no missing elements. Excellent condition, only minor cracking at isolated locations.	9
STONE MASONRY 8.00	Hard, durable, no signs of cracking, no missing blocks, no appreciable weathering.	9
CULVERT 0.50	Culvert at mid-wall is functioning without impacts to wall stability. Minor outlet erosion.	8
DOWNSLOPE 0.50	1.5H:1V downslope. Drainage just below wall; appears stable.	8
LATERAL SLOPE 0.50	Minor slumping/erosion. Generally very stable. Light vegetation.	8
WALL DRAINS 0.50	Occasional drains. Appears to be open and functioning. Minor evidence of seepage along wall.	8
UPSLOPE 1.00	1.5H:1V + over steepened slope. Slumping vegetated timber rails to retain slumpy soil.	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CA\_239.662\_L\_1.jpg



BLRI\_0001CA\_239.662\_L\_2.jpg

<b>Wall ID:</b>	BLRI-0001CA-239.733-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT		
<b>Inspection Date:</b>	December 05, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	87	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Mortared stone masonry fill wall, well down slope from road.		

### Wall Measurements

<b>Wall Length (ft.):</b>	225	<b>Face Area (sq.):</b>	2650
<b>Average Wall Height (ft.):</b>	11	<b>Face Angle (deg.):</b>	82
<b>Maximum Wall Height (ft.):</b>	13	<b>Vertical Offset (ft.):</b>	-28

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	One vertical crack through wall height at 1/3 wall length from down station end. No signs of global distress. Wall is in excellent overall condition.	9
WALL FOUNDATION MATERIAL 8.00	Top was buried in leaves; no indication of settlement. Appears to be good gearing.	8
MORTAR 8.00	Durable, hard, intact no missing elements. Minor cracks at isolated locations. Generally excellent condition.	9
STONE MASONRY 8.00	Hard, durable, no signs of cracking, no missing blocks. Excellent condition.	9
DOWNSLOPE 0.50	1.5H:1V , stable downslope. No slumping/erosion.	8
LATERAL SLOPE 0.50	Stable. No signs of slumping or erosion.	8
TRAFFIC BARRIER/FENCE 0.50	Dry laid stone guardwall shows no wall-related distress.	8
UPSLOPE 0.50	Moderately vegetated (grass, small bushes) 1.5H:1V slope. Minor surficial slumping.	8
CULVERT 0.50	Culvert outlet at down station end is functioning. No wall distress due to culvert or outlet downslope erosion.	9

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CA\_239.733\_L\_1.jpg



BLRI\_0001CA\_239.733\_L\_2.jpg

<b>Wall ID:</b>	BLRI-0001CA-242.153-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT		
<b>Inspection Date:</b>	December 05, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	42	<b>Maintenance Action:</b>	Replace Wall

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Mortared stone masonry fill wall with mortared stone guardwall parapet (1.5 ft tall).		

### Wall Measurements

<b>Wall Length (ft.):</b>	178	<b>Face Area (sq.):</b>	560
<b>Average Wall Height (ft.):</b>	3	<b>Face Angle (deg.):</b>	80
<b>Maximum Wall Height (ft.):</b>	4	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	Wall is sliding out downslope. Possible global failure due to failed culvert. Roadway settlement is severe.	3
WALL FOUNDATION MATERIAL 8.00	Obscured by leaves. Wall has moved downslope, so assume soft, saturated soils.	5
MORTAR 8.00	Missing, severely cracked, high weathered throughout.	3
STONE MASONRY 8.00	Hard, durable rock. Blocks are displaced. Some chinking, some blocks are missing.	6
DOWNSLOPE 0.50	Steep, well-vegetated, generally stable slope conditions.	8
LATERAL SLOPE 0.50	Well-vegetated slope with minor erosion at one end, rock outcrop at other end. No significant distress.	8
TRAFFIC BARRIER/FENCE 1.00	Stone masonry parapet is displaced as a result of wall movement. One section appears to have been struck by a vehicle.	5
WALL DRAINS 1.00	No drains visible. Obvious water problems due to outbound roadway super accumulating water along top of wall.	5
ROAD/SIDEWALK/SHOULDER 5.00	Severe outboard settlement behind wall. Lane cracking to centerline. Numerous patches.	3

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	Conduct geotech investigation. \$25,000. Remove/replace stone masonry retaining wall, salvage wall rock. Rebuild wall with suitable drop inlets, using recovered stone. 62 cubic yards @ \$3,195 per c.y. = \$198,100. Install deep roadway patch to centerli
<b>Repair Cost:</b>	\$305,775

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CA\_242.153\_R\_1.jpg



BLRI\_0001CA\_242.153\_R\_2.jpg

<b>Wall ID:</b>	BLRI-0001CA-242.241-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT		
<b>Inspection Date:</b>	December 05, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	82	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Mortared stone masonry fill wall with mortared stone guardwall parapet (1.5 ft tall).		

### Wall Measurements

<b>Wall Length (ft.):</b>	305	<b>Face Area (sq.):</b>	3150
<b>Average Wall Height (ft.):</b>	10	<b>Face Angle (deg.):</b>	80
<b>Maximum Wall Height (ft.):</b>	16	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No signs of global instability, bulging, or sliding. Parapet looks far worse due to weathering.	8
WALL FOUNDATION MATERIAL 8.00	Generally bedrock. Very stable.	10
MORTAR 8.00	Mortar shows shrinkage and cracking over top of wall. Weathered but functioning. Difficult access to wall face due to high exposure.	7
STONE MASONRY 8.00	Hard, durable, slightly weathered with no significant cracking. Parapet is missing blocks.	8
LATERAL SLOPE 0.50	Bedrock outcrop on one ends, steep stable fill at other end.	8
WALL DRAINS 0.50	None visible. No evidence of water-related settlement. No ice formation on wall, though inboard cut is iced.	8
DOWNSLOPE 0.50	Bedrock outcrop or rockfill. Very stable.	9
VEGETATION 1.00	Minor bushes growing through wall at isolated locations. No impact to wall structure.	6
TRAFFIC BARRIER/FENCE 1.00	Parapet is cracked along joints, has missing blocks, generally highly weathered. Damage is not related to wall instability.	7

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CA\_242.241\_R\_1.jpg

<b>Wall ID:</b>	BLRI-0001CA-242.313-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT		
<b>Inspection Date:</b>	December 05, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	89	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Mortared stone masonry fill wall with mortared stone guardwall parapet ( 1 ft tall).		

### Wall Measurements

<b>Wall Length (ft.):</b>	70	<b>Face Area (sq.):</b>	350
<b>Average Wall Height (ft.):</b>	5	<b>Face Angle (deg.):</b>	80
<b>Maximum Wall Height (ft.):</b>	9	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	With exception of weathered parapet, wall shows no signs of settlement, or global instability.	9
WALL FOUNDATION MATERIAL 8.00	Bedrock, very stable.	10
MORTAR 8.00	Parapet mortar is cracked, missing in locations and weathered. Wall mortar is generally intact with minor shrinkage cracking.	8
STONE MASONRY 8.00	Hard, durable stone with minor weathering.	9
ROAD/SIDEWALK/SHOULDER 0.50	No signs of wall related distress. Good condition.	8
WALL DRAINS 0.50	Visible weep holes. Appear to be functioning. Minor wall seepage.	8
DOWNSLOPE 0.50	Bedrock, very stable.	10
LATERAL SLOPE 0.50	Bedrock, very stable.	10
TRAFFIC BARRIER/FENCE 1.00	Parapet is highly weathered, with missing mortar and displaced blocks. No damage due to wall movement.	7

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CA\_242.313\_R\_1.jpg

<b>Wall ID:</b>	BLRI-0001CA-242.388-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT		
<b>Inspection Date:</b>	December 05, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	65	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Mortared stone masonry fill wall with 1.5 ft mortared stone guardwall parapet. Wall may be settling at one location. Need to monitor this location in next few years.		

### Wall Measurements

<b>Wall Length (ft.):</b>	235	<b>Face Area (sq.):</b>	480
<b>Average Wall Height (ft.):</b>	2	<b>Face Angle (deg.):</b>	80
<b>Maximum Wall Height (ft.):</b>	4	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	Wall may be settling/sliding at one location. Needs to be monitored over next few years. Difficult to tell with last pavement.	6
WALL FOUNDATION MATERIAL 8.00	Appears to be rockfill with soil in-filling. No signs of slumping ground, though roadway shows signs of settlement.	6
MORTAR 8.00	Signs of substantial shrinkage, cracking due to grass growing throughout face.	6
STONE MASONRY 8.00	Hard, durable rock. Does not appear to be any missing.	8
DOWNSLOPE 0.50	Generally stable rockfill with vegetated soil infilling.	8
ROAD/SIDEWALK/SHOULDER 1.00	Half-moon cracking and longitudinal settlement cracking evident. Two pavement lifts make wall appear to have settled, but not as severe as it looks.	6
TRAFFIC BARRIER/FENCE 1.00	Parapet shows some alignment displacement in one location, possibly due to wall movement.	6
LATERAL SLOPE 1.00	Stable rockfill/soil slopes with minor erosion.	7
VEGETATION 1.00	Grass is growing throughout the wall face. Does not appear to impact wall, but is an indicator of seepage.	7

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CA\_242.388\_R\_1.jpg



BLRI\_0001CA\_242.388\_R\_2.jpg

<b>Wall ID:</b>	BLRI-0001CA-245.175-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT		
<b>Inspection Date:</b>	December 05, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	83	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Dry Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Dry laid stone gravity fill wall.		

### Wall Measurements

<b>Wall Length (ft.):</b>	137	<b>Face Area (sq.):</b>	2050
<b>Average Wall Height (ft.):</b>	14	<b>Face Angle (deg.):</b>	55
<b>Maximum Wall Height (ft.):</b>	23	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No signs of global instability, settlement, or deformation.	8
WALL FOUNDATION MATERIAL 8.00	Stable rockfill; good bearing.	9
PLACED STONE 8.00	Large, well-placed hard angular, durable rock with minor weathering. Appears moderately chinked.	8
DOWNSLOPE 0.50	Well-vegetated rock fill. Very stable.	8
LATERAL SLOPE 0.50	Well vegetated soil slopes with no significant erosion/slumping.	8
TRAFFIC BARRIER/FENCE 0.50	Mortared stone guardwall shows no sign of wall-related distress.	8
ROAD/SIDEWALK/SHOULDER 0.50	No sign of wall-related distress. Roadway in good condition.	9
WALL DRAINS 0.50	Free-draining. No signs of water impacts.	9

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CA\_245.175\_L\_1.jpg

<b>Wall ID:</b>	BLRI-0001CA-245.685-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT		
<b>Inspection Date:</b>	December 05, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	77	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Mortared stone masonry fill wall along small drainage creek terminating in an arched box culvert headwall.		

### Wall Measurements

<b>Wall Length (ft.):</b>	180	<b>Face Area (sq.):</b>	1260
<b>Average Wall Height (ft.):</b>	7	<b>Face Angle (deg.):</b>	85
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	-2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No signs of global instability or settlement due to scour.	8
WALL FOUNDATION MATERIAL 8.00	No signs of settlement, despite flowing water at wall toe.	8
MORTAR 8.00	Weathered, cracked, missing in many locations along top course (not impacting wall). Generally intact over lower 2/3s of wall.	6
STONE MASONRY 8.00	Hard, durable, well-cut and placed stone. None cracked or missing.	9
DOWNSLOPE 0.50	Flowing drainage. Appears stable.	8
LATERAL SLOPE 0.50	Gentle, stable side slopes. No erosion/slumping.	8
ROAD/SIDEWALK/SHOULDER 0.50	Road is in great condition. No sign of wall-related distress.	9
CURB/BERM/DITCH 1.00	Flowing water at toe of wall is scouring at only one isolated location, but very minor.	6
WALL DRAINS 1.00	Frequent wall drains appear open and functioning. Some seepage through wall face, but mostly surface water runoff.	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CA\_245.685\_R\_1.jpg



BLRI\_0001CA\_245.685\_R\_2.jpg

<b>Wall ID:</b>	BLRI-0001CA-245.727-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT		
<b>Inspection Date:</b>	December 05, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	83	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Mortared stone masonry headwall.		

### Wall Measurements

<b>Wall Length (ft.):</b>	47	<b>Face Area (sq.):</b>	180
<b>Average Wall Height (ft.):</b>	3	<b>Face Angle (deg.):</b>	85
<b>Maximum Wall Height (ft.):</b>	7	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No signs of global or structural instability.	8
WALL FOUNDATION MATERIAL 8.00	No signs of settlement or scour. Good bearing.	8
MORTAR 8.00	Cracked in some locations, but generally intact, hard, solid.	8
STONE MASONRY 8.00	Hard, durable, well-cut and placed stone work.	9
CULVERT 0.50	No significant distress, weathered, minor channel erosion.	8
LATERAL SLOPE 0.50	No signs of distress. Gentle, stable slopes.	8
WALL DRAINS 0.50	None visible. Minor seepage through the wall. No water issues.	8
DOWNSLOPE 0.50	Drainage outlet. No significant scour/erosion. Very stable.	9
ROAD/SIDEWALK/SHOULDER 0.50	No sign of wall-related distress. Roadway in good condition.	9

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CA\_245.727\_L\_1.jpg

<b>Wall ID:</b>	BLRI-0001CA-247.866-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT		
<b>Inspection Date:</b>	December 05, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	82	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Mortared stone masonry headwall.		

### Wall Measurements

<b>Wall Length (ft.):</b>	45	<b>Face Area (sq.):</b>	125
<b>Average Wall Height (ft.):</b>	2	<b>Face Angle (deg.):</b>	85
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	-1

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No signs of global or structural instability.	8
WALL FOUNDATION MATERIAL 8.00	No signs of settlement or scour. Good bearing.	8
MORTAR 8.00	Minor cracking, but generally hard, durable, and intact.	8
STONE MASONRY 8.00	Hard, durable, well-cut and placed stone work. No missing blocks.	9
CULVERT 0.50	No significant distress. Functioning as intended. Minor erosion, but no scour or seepage.	8
DOWNSLOPE 0.50	Channel inlet. Very stable.	8
ROAD/SIDEWALK/SHOULDER 0.50	Minor cracking due to culvert fill settlement. No distress due to headwall.	8
WALL DRAINS 0.50	None visible. Minor seepage through the wall. No settlement or water issues.	8
LATERAL SLOPE 0.50	Gentle, well vegetated stable soil slopes.	9

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CA\_247.866\_L\_1.jpg

<b>Wall ID:</b>	BLRI-0001CA-247.871-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT		
<b>Inspection Date:</b>	December 05, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	82	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Mortared stone masonry headwall.		

### Wall Measurements

<b>Wall Length (ft.):</b>	38	<b>Face Area (sq.):</b>	110
<b>Average Wall Height (ft.):</b>	2	<b>Face Angle (deg.):</b>	85
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	-1

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No signs of global or structural instability.	8
WALL FOUNDATION MATERIAL 8.00	No signs of settlement or scour. Good bearing.	8
MORTAR 8.00	Minor cracking, but generally hard, durable, and intact.	8
STONE MASONRY 8.00	Hard, durable, well-cut and placed stone work. No missing/cracked blocks.	9
CURB/BERM/DITCH 0.50	No significant distress. Functioning as intended. Minor erosion.	8
DOWNSLOPE 0.50	Outlet channel. Stable.	8
ROAD/SIDEWALK/SHOULDER 0.50	Minor pavement cracking due to culvert fill settlement. No wall-related distress.	8
LATERAL SLOPE 0.50	Gentle soil slopes. Well vegetated, no erosion.	9
WALL DRAINS 1.00	None visible. Minor seepage through the wall. No water issues.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CA\_247.871\_R\_1.jpg

<b>Wall ID:</b>	BLRI-0001CA-248.143-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT		
<b>Inspection Date:</b>	December 05, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	82	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Mortared stone masonry headwall.		

### Wall Measurements

<b>Wall Length (ft.):</b>	22	<b>Face Area (sq.):</b>	80
<b>Average Wall Height (ft.):</b>	3	<b>Face Angle (deg.):</b>	85
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	-8

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No signs of global or structural instability.	8
WALL FOUNDATION MATERIAL 8.00	Not visible due to silt. Assumed good bearing due to no settlement.	8
MORTAR 8.00	Minor cracking, but generally hard, durable, and intact.	8
STONE MASONRY 8.00	Hard, durable, stone. No missing/cracked blocks.	9
CULVERT 0.50	Functioning as intended. Minor channel erosion. No scour/cracking.	8
DOWNSLOPE 0.50	Stream channel inlet. Very stable.	8
ROAD/SIDEWALK/SHOULDER 0.50	No sign of wall-related distress.	8
UPSLOPE 0.50	Stable, sodded slope.	8
WALL DRAINS 0.50	None visible. No water issues.	8

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CA\_248.143\_L\_1.jpg

<b>Wall ID:</b>	BLRI-0001CA-248.153-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT		
<b>Inspection Date:</b>	December 05, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	79	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Mortared stone masonry headwall.		

### Wall Measurements

<b>Wall Length (ft.):</b>	30	<b>Face Area (sq.):</b>	175
<b>Average Wall Height (ft.):</b>	5	<b>Face Angle (deg.):</b>	85
<b>Maximum Wall Height (ft.):</b>	7	<b>Vertical Offset (ft.):</b>	-7

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	Wall shows no sign of global or structural instability.	8
WALL FOUNDATION MATERIAL 8.00	Not visible; silted in. No signs of settlement or scour.	8
MORTAR 8.00	Minor cracking, but generally hard, durable, and intact, except along top block course (not affecting wall).	7
STONE MASONRY 8.00	Hard, durable, well-cut and placed stone work.	9
CULVERT 0.50	Partially silted in. No distress to culvert. Still functioning well.	8
DOWNSLOPE 0.50	Channel outlet. Stable.	8
WALL DRAINS 0.50	None visible. Minor seepage through the wall.	8
LATERAL SLOPE 1.00	Minor slumping upstation.	6
UPSLOPE 1.00	Well vegetated 1.5H:1V slope with slumping evident below roadway (stable now).	6

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CA\_248.153\_R\_1.jpg

<b>Wall ID:</b>	BLRI-0001CA-249.589-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT		
<b>Inspection Date:</b>	December 05, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	76	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Mortared stone masonry headwall.		

### Wall Measurements

<b>Wall Length (ft.):</b>	32	<b>Face Area (sq.):</b>	160
<b>Average Wall Height (ft.):</b>	5	<b>Face Angle (deg.):</b>	85
<b>Maximum Wall Height (ft.):</b>	10	<b>Vertical Offset (ft.):</b>	-20

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No signs of global or structural instability, but outlet is eroding to a stable channel condition.	7
WALL FOUNDATION MATERIAL 8.00	Fine-grained soils. Scoured in front of outlet.	7
MORTAR 8.00	Shrinkage cracking around blocks, but hard and intact. Minor mortar loss at ends of top course.	8
STONE MASONRY 8.00	Hard, durable, with no missing or cracked blocks.	9
LATERAL SLOPE 0.50	Well vegetated soil slopes with no significant erosion/slumping.	8
ROAD/SIDEWALK/SHOULDER 0.50	No wall-related distress.	8
UPSLOPE 0.50	Well-vegetated, stable 1.5:1 slope.	8
WALL DRAINS 0.50	None visible. Minor seepage through the wall. No water issues.	8
CULVERT 1.00	Cut-off wall at outlet has lost block mortar and is settling slightly. Not impacting wall stability yet needs repair to stop future problems.	5

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	Add grouted riprap at outlet toe. Grouted riprap, 6 cubic yards @ \$330 per c.y. = \$1,980.
<b>Repair Cost:</b>	\$1,980

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CA\_249.589\_L\_1.jpg

<b>Wall ID:</b>	BLRI-0001CA-249.595-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT		
<b>Inspection Date:</b>	December 05, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	82	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	Gravity - Dry Stone
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Dry laid stone wall on top of a mortared stone masonry wall.		

### Wall Measurements

<b>Wall Length (ft.):</b>	20	<b>Face Area (sq.):</b>	80
<b>Average Wall Height (ft.):</b>	4	<b>Face Angle (deg.):</b>	85
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	-20

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No signs of global or structural instability.	8
WALL FOUNDATION MATERIAL 8.00	Good bearing. No scour or settlement.	8
PLACED STONE 8.00	Foliated, weathered, breaking apart. Loosely stacked.	7
MORTAR 8.00	Hard, durable, and intact. Very minor cracking. Very good condition.	9
STONE MASONRY 8.00	Hard, durable, with no missing or cracked blocks.	9
CULVERT 0.50	No significant distress. Functioning as intended.	8
DOWNSLOPE 0.50	Stream channel. No signs of excessive erosion.	8
ROAD/SIDEWALK/SHOULDER 0.50	No sign of wall-related distress.	8
UPSLOPE 0.50	Well vegetated, 1.5H:1V slope. Stable.	8

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CA\_249.595\_R\_1.jpg

<b>Wall ID:</b>	BLRI-0001CA-249.725-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT		
<b>Inspection Date:</b>	December 05, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	78	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	Gravity - Dry Stone
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Mortared stone masonry headwall with a dry laid stone wingwall to the right of the headwall.		

### Wall Measurements

<b>Wall Length (ft.):</b>	38	<b>Face Area (sq.):</b>	220
<b>Average Wall Height (ft.):</b>	5	<b>Face Angle (deg.):</b>	85
<b>Maximum Wall Height (ft.):</b>	10	<b>Vertical Offset (ft.):</b>	-30

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No signs of global or structural instability. Dry laid wall is serving no purpose over extended wing wall section.	8
WALL FOUNDATION MATERIAL 8.00	Appears to be good bearing. No signs of scour/settlement.	8
PLACED STONE 8.00	Generally hard, durable with no missing or cracked stones. Loosely placed with no chinking.	7
MORTAR 8.00	Minor cracking, but generally intact, durable and working very well.	8
STONE MASONRY 8.00	Hard, durable, well-cut and placed stones. No missing/cracked blocks.	8
CULVERT 0.50	Functioning as intended. Minor erosion.	8
DOWNSLOPE 0.50	Stream channel. Stable below wall. Well vegetated.	8
UPSLOPE 0.50	Well vegetated. 1.5H:1V side slopes. No slumping/erosion.	8
ROAD/SIDEWALK/SHOULDER 0.50	No wall-related impacts. Performing very well.	9

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CA\_249.725\_L\_1.jpg



BLRI\_0001CA\_249.725\_L\_2.jpg

<b>Wall ID:</b>	BLRI-0001CA-249.725-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT		
<b>Inspection Date:</b>	December 05, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	81	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	Gravity - Dry Stone
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	2 to 3 foot tall dry laid stone wall on top of a mortared stone masonry headwall.		

### Wall Measurements

<b>Wall Length (ft.):</b>	25	<b>Face Area (sq.):</b>	125
<b>Average Wall Height (ft.):</b>	5	<b>Face Angle (deg.):</b>	85
<b>Maximum Wall Height (ft.):</b>	7	<b>Vertical Offset (ft.):</b>	-15

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No signs of global or structural instability. Wingwall failure has no bearing on culvert or headwall performance.	8
WALL FOUNDATION MATERIAL 8.00	Appears to be good bearing. No signs of scour/settlement.	8
PLACED STONE 8.00	Hard, durable stone. Part of dry stack wingwall has failed. Wall is unessential and does not need to be repaired.	7
MORTAR 8.00	Hard, sound, intact with no cracked or missing elements.	9
STONE MASONRY 8.00	Hard, durable, well-cut and placed stones. No missing/cracked blocks.	9
CULVERT 0.50	Partly silted in. No instability/distress.	8
UPSLOPE 0.50	Well vegetated. 1.5H:1V stable slope.	8
WALL DRAINS 0.50	None visible. No seepage.	9
DOWNSLOPE 1.00	Stream channel. Significant erosion/down-cutting, but appears stable.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CA\_249.725\_R\_1.jpg

<b>Wall ID:</b>	BLRI-0001CA-249.844-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT		
<b>Inspection Date:</b>	December 05, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	83	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	Gravity - Dry Stone
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	6 foot tall dry laid stone wall on top of a mortared stone masonry headwall.		

### Wall Measurements

<b>Wall Length (ft.):</b>	34	<b>Face Area (sq.):</b>	240
<b>Average Wall Height (ft.):</b>	7	<b>Face Angle (deg.):</b>	85
<b>Maximum Wall Height (ft.):</b>	12	<b>Vertical Offset (ft.):</b>	-40

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No signs of global or structural instability. Dry stack appears to be a delicate stone toe. But is performing very well.	8
WALL FOUNDATION MATERIAL 8.00	Appears to be good bearing. No signs of scour/settlement.	8
PLACED STONE 8.00	Foliated, weathered stone with some weathering. Tightly laid with chinking.	8
MORTAR 8.00	Sound durable, hard, intact.	9
STONE MASONRY 8.00	Hard, durable, well-cut and placed stones. No missing/cracked blocks.	9
CULVERT 0.50	Open, functioning; no distress.	8
DOWNSLOPE 0.50	Culvert outlet channel, stable.	8
ROAD/SIDEWALK/SHOULDER 0.50	No wall-related impacts.	8
UPSLOPE 0.50	Well vegetated. 1.5H:1V stable side slopes.	8

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CA\_249.844\_L\_1.jpg

<b>Wall ID:</b>	BLRI-0001CA-249.855-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT		
<b>Inspection Date:</b>	December 05, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	78	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Mortared stone masonry headwall.		

### Wall Measurements

<b>Wall Length (ft.):</b>	42	<b>Face Area (sq.):</b>	320
<b>Average Wall Height (ft.):</b>	7	<b>Face Angle (deg.):</b>	85
<b>Maximum Wall Height (ft.):</b>	13	<b>Vertical Offset (ft.):</b>	-40

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No signs of global or structural instability.	8
WALL FOUNDATION MATERIAL 8.00	Obscured by leaves. Assumed good bearing; no settlement/scour.	8
MORTAR 8.00	Weathered, cracked and missing along top course of wall at right wingwall. No impact to wall. Most of wall is well mortared.	7
STONE MASONRY 8.00	Generally hard and durable, though some weathered, foliated stone used in the wall.	8
DOWNSLOPE 0.50	Stable stream channel.	8
LATERAL SLOPE 0.50	Armored drainage run-down on one side slope, gentle stable sloop on other. No slope instability or erosion.	8
ROAD/SIDEWALK/SHOULDER 0.50	No wall-related distress.	8
UPSLOPE 0.50	1.5H:1V moderately vegetated, stable upslope. No slumping.	8
CULVERT 0.50	Open and functioning as built. No distress.	9

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CA\_249.855\_R\_1.jpg

<b>Wall ID:</b>	BLRI-0001CA-251.235-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT		
<b>Inspection Date:</b>	December 05, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	83	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Mortared stone masonry headwall.		

### Wall Measurements

<b>Wall Length (ft.):</b>	42	<b>Face Area (sq.):</b>	120
<b>Average Wall Height (ft.):</b>	2	<b>Face Angle (deg.):</b>	85
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	-3

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No signs of global or structural instability or distress.	8
WALL FOUNDATION MATERIAL 8.00	Good bearing on granular materials. No settlement/scour.	8
MORTAR 8.00	Minor shrinkage cracking. Generally hard, durable and intact.	8
STONE MASONRY 8.00	Hard, durable, well-cut and placed stones. No missing/cracked blocks.	9
CULVERT 0.50	Functioning as intended. Weathered with minor channel erosion. No evident of seepage around culvert.	8
DOWNSLOPE 0.50	Inlet stream channel. No scour, stable.	8
ROAD/SIDEWALK/SHOULDER 0.50	No signs of wall-related distress.	8
CURB/BERM/DITCH 0.50	Functioning s intended. No headwall distress.	9
LATERAL SLOPE 0.50	Gentle, stable grassy slopes with no erosion.	9

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CA\_251.235\_L\_1.jpg

<b>Wall ID:</b>	BLRI-0001CA-251.235-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT		
<b>Inspection Date:</b>	December 05, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	83	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Mortared stone masonry headwall.		

### Wall Measurements

<b>Wall Length (ft.):</b>	39	<b>Face Area (sq.):</b>	105
<b>Average Wall Height (ft.):</b>	2	<b>Face Angle (deg.):</b>	85
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	-4

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No signs of global or structural instability.	8
WALL FOUNDATION MATERIAL 8.00	Good bearing granular soils. No settlement or scour.	8
MORTAR 8.00	Minor cracking, generally intact, strong, durable.	8
STONE MASONRY 8.00	Hard, durable, well-cut and placed stones. No missing/cracked blocks.	9
DOWNSLOPE 0.50	Stable outlet stream channel.	8
ROAD/SIDEWALK/SHOULDER 0.50	No wall-related distress.	8
CULVERT 0.50	Open and functioning. No wall related distress.	9
LATERAL SLOPE 0.50	Gentle, well vegetated, stable slopes with no slumping or erosion.	9
UPSLOPE 0.50	Gentle, sodded, stable slope.	9

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001CA: BLUE RIDGE PARKWAY - BLUFFS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CA\_251.235\_R\_1.jpg

<b>Wall ID:</b>	BLRI-0001CB-263.057-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - SANDY FLATS SUB-DISTRICT		
<b>Inspection Date:</b>	December 06, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	74	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Dry Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Dry laid stone wall obscured by heavy vine growth.		

### Wall Measurements

<b>Wall Length (ft.):</b>	428	<b>Face Area (sq.):</b>	6420
<b>Average Wall Height (ft.):</b>	15	<b>Face Angle (deg.):</b>	55
<b>Maximum Wall Height (ft.):</b>	21	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	Possible global instability developing at highest wall point (or soft fill settlement). Monitor this location.	7
WALL FOUNDATION MATERIAL 8.00	Obscured by heavy vegetation,. Assumed fairly stable due to minimal wall settlement evident at roadway.	7
PLACED STONE 8.00	Hard, durable, intact. Appears well laid, no bulges. No missing blocks. Difficult to view lower 2/3s of wall due to vegetation.	8
LATERAL SLOPE 0.50	Well vegetated stable side slopes.	8
TRAFFIC BARRIER/FENCE 0.50	Wooden post guardrail shows no wall-related distress.	8
VEGETATION 0.50	Heavy vine vegetation covering majority of wall face. Does not appear to adversely impact wall; may aid soil retention.	8
WALL DRAINS 0.50	Appears free draining. No water issues evident.	8
DOWNSLOPE 1.00	Heavily vegetated slope. Appears stable. No signs of sliding/slumping.	7
ROAD/SIDEWALK/SHOULDER 1.00	Half-moon cracking into inboard lane for ~ 40' at highest wall point. No distortion at wall face or settlement evident along top of wall.	7

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001CB: BLUE RIDGE PARKWAY - SANDY FLATS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CB\_263.057\_L\_1.jpg



BLRI\_0001CB\_263.057\_L\_2.jpg

<b>Wall ID:</b>	BLRI-0001CB-263.233-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - SANDY FLATS SUB-DISTRICT		
<b>Inspection Date:</b>	December 06, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	80	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Dry Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Dry laid stone wall obscured by heavy vine growth.		

### Wall Measurements

<b>Wall Length (ft.):</b>	202	<b>Face Area (sq.):</b>	1420
<b>Average Wall Height (ft.):</b>	7	<b>Face Angle (deg.):</b>	55
<b>Maximum Wall Height (ft.):</b>	10	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No signs of global or structural instability. Minor wall bulges/undulations may be construction artifacts.	8
WALL FOUNDATION MATERIAL 8.00	Obscured by undergrowth, but appears to be good bearing; no settlement at top of wall.	8
PLACED STONE 8.00	Well-paced, hard, durable, stones. No missing/cracked blocks. Minor bulging (construction artifact).	8
DOWNSLOPE 0.50	Well vegetated slope with numerous large trees. Very stable.	8
LATERAL SLOPE 0.50	No signs of slope distress.	8
ROAD/SIDEWALK/SHOULDER 0.50	Minor transverse cracking toward upstation end of wall. Otherwise roadway is in excellent condition.	8
VEGETATION 0.50	Moderate-to-heavy vine growth. Does not appear to impact wall.	8
WALL DRAINS 0.50	Free draining, no evidence of any water problems.	8

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001CB: BLUE RIDGE PARKWAY - SANDY FLATS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CB\_263.233\_L\_1.jpg

<b>Wall ID:</b>	BLRI-0001CB-270.811-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - SANDY FLATS SUB-DISTRICT		
<b>Inspection Date:</b>	December 06, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	79	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Dry Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Dry laid stone wall obscured by vines and leaves.		

### Wall Measurements

<b>Wall Length (ft.):</b>	153	<b>Face Area (sq.):</b>	3060
<b>Average Wall Height (ft.):</b>	20	<b>Face Angle (deg.):</b>	55
<b>Maximum Wall Height (ft.):</b>	28	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No signs of global or structural instability. Minor bulging may be construction artifact. Minor settlement behind top course of rock.	8
WALL FOUNDATION MATERIAL 8.00	Appears to be good bearing, though obscured by cense leaves. No signs of wall settlement.	8
PLACED STONE 8.00	Hard, durable, well placed stones. No missing/cracked blocks, though difficult to see ~70% of wall face. Some sinkhole settlement along top of wall indicating fines migration. Through wall face (very minor).	8
DOWNSLOPE 0.50	Steep, well vegetated stable toe slope with several large trees anchoring the slope.	8
ROAD/SIDEWALK/SHOULDER 0.50	Minor transverse cracking in pavement. No wall related distress.	8
VEGETATION 0.50	Moderate-to-heavy vine growth through wall face. Does not appear to impact wall.	8
LATERAL SLOPE 1.00	Steep soil slopes showing some erosion; not impacting wall ends.	7
WALL DRAINS 1.00	Appears free draining. Some fines migration near top of wall.	7

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001CB: BLUE RIDGE PARKWAY - SANDY FLATS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CB\_270.811\_L\_1.jpg

<b>Wall ID:</b>	BLRI-0001CB-281.617-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - SANDY FLATS SUB-DISTRICT		
<b>Inspection Date:</b>	December 06, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	84	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Mortared stone masonry headwall, with parapet 1.5 ft tall.		

### Wall Measurements

<b>Wall Length (ft.):</b>	125	<b>Face Area (sq.):</b>	1720
<b>Average Wall Height (ft.):</b>	13	<b>Face Angle (deg.):</b>	80
<b>Maximum Wall Height (ft.):</b>	17	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No signs of global or structural instability. Very well-built wall.	9
WALL FOUNDATION MATERIAL 8.00	Obscured by leaves, but good wall bench suggests sand, good bearing materials. No settlement.	8
MORTAR 8.00	Minor shrinkage cracking. Generally hard, durable and intact.	8
STONE MASONRY 8.00	Hard, durable, well-cut and placed stones. No missing/cracked blocks.	9
DOWNSLOPE 0.50	Bench (10' - 12' wide) then steep soil slope. No significant slumping/erosion. Very good overall condition.	8
ROAD/SIDEWALK/SHOULDER 0.50	Minor longitudinal cracking, possibly due to wall retained fill settlement. Very good overall condition.	8
TRAFFIC BARRIER/FENCE 0.50	Parapet has minor mortar cracking/weathering, but no wall-related distress.	8
WALL DRAINS 0.50	Open wall drains at toe, minor seepage throughout wall face.	8
LATERAL SLOPE 1.00	Minor erosion at downstation end of wall. Otherwise, stable side slopes.	7

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

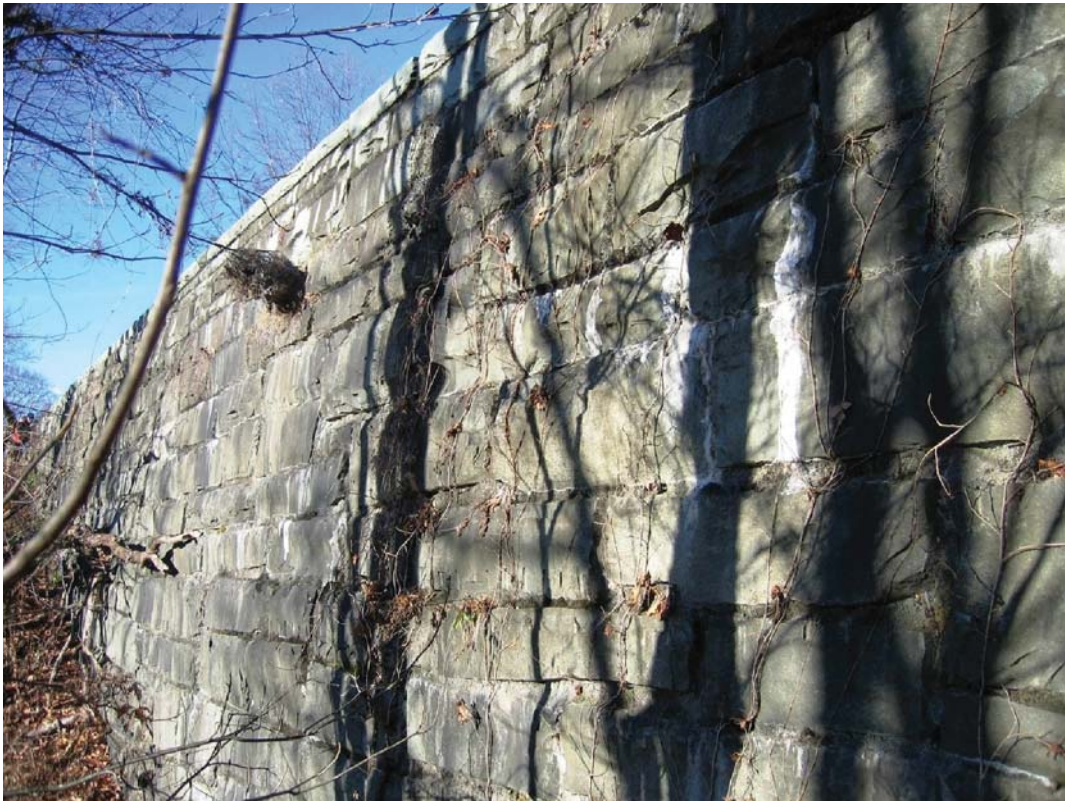
# Blue Ridge Parkway

ROUTE 0001CB: BLUE RIDGE PARKWAY - SANDY FLATS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CB\_281.617\_L\_1.jpg



BLRI\_0001CB\_281.617\_L\_2.jpg

<b>Wall ID:</b>	BLRI-0001CB-284.022-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - SANDY FLATS SUB-DISTRICT		
<b>Inspection Date:</b>	December 06, 2007	<b>Approximate Year Built:</b>	2000
<b>*Wall Rating:</b>	92	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Relatively new mortared stone masonry fill wall with 3 ft high mortared stone parapet.		

### Wall Measurements

<b>Wall Length (ft.):</b>	206	<b>Face Area (sq.):</b>	1250
<b>Average Wall Height (ft.):</b>	6	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	12	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	Wall is in excellent condition with no signs of distress. Like new.	9
WALL FOUNDATION MATERIAL 8.00	Good bearing bench. No signs of settlement.	9
MORTAR 8.00	Very minor shrinkage cracking. Generally hard, durable and intact. Almost like new.	9
STONE MASONRY 8.00	Hard, durable, intact, very fresh, like new. . No missing/displaced blocks.	10
DOWNSLOPE 0.50	Wide bench transitioning to well vegetated, stable slope.	8
WALL DRAINS 0.50	Open. Minor seepage through mortared joints.	8
LATERAL SLOPE 0.50	Well vegetated, stable slopes; no slumping/erosion.	9
ROAD/SIDEWALK/SHOULDER 0.50	No signs of wall-related distress. Excellent condition.	9
TRAFFIC BARRIER/FENCE 0.50	Stone parapet has impact damage on one end, but no wall-related distress.	9

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001CB: BLUE RIDGE PARKWAY - SANDY FLATS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CB\_284.022\_L\_1.jpg



BLRI\_0001CB\_284.022\_L\_2.jpg

<b>Wall ID:</b>	BLRI-0001CB-286.083-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - SANDY FLATS SUB-DISTRICT		
<b>Inspection Date:</b>	December 06, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	75	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Mortared stone masonry headwall.		

### Wall Measurements

<b>Wall Length (ft.):</b>	57	<b>Face Area (sq.):</b>	170
<b>Average Wall Height (ft.):</b>	2	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	-2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	Structure is weathered, but no signs of global or structural instability.	7
WALL FOUNDATION MATERIAL 8.00	No signs of settlement or scour; good bearing.	8
MORTAR 8.00	Moderately weathered, but generally intact. Largely obscured due to moss.	7
STONE MASONRY 8.00	Weathered, yet hard and intact with no missing or cracked blocks, though moss covers most of wall.	8
CULVERT 0.50	Functioning as intended. Weathered, minor channel erosion.	8
DOWNSLOPE 0.50	Inlet stream channel. Stable.	8
ROAD/SIDEWALK/SHOULDER 0.50	No wall-related distress.	8
LATERAL SLOPE 0.50	Gentle, well vegetated; no distress.	9
WALL DRAINS 1.00	None visible. Seepage evident through wall face.	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001CB: BLUE RIDGE PARKWAY - SANDY FLATS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CB\_286.083\_L\_1.jpg

<b>Wall ID:</b>	BLRI-0001CB-286.092-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - SANDY FLATS SUB-DISTRICT		
<b>Inspection Date:</b>	December 06, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	75	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Mortared stone masonry headwall.		

### Wall Measurements

<b>Wall Length (ft.):</b>	50	<b>Face Area (sq.):</b>	125
<b>Average Wall Height (ft.):</b>	2	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	-2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	Structure is weathered, but shows no signs of global instability.	7
WALL FOUNDATION MATERIAL 8.00	No signs of wingwall settlement. Appears to be suitable bearing.	8
MORTAR 8.00	Moderately weathered, but generally intact. Largely obscured due to moss.	7
STONE MASONRY 8.00	Weathered, yet hard, durable stone. No missing or cracked blocks, though many are moss covered.	8
CULVERT 0.50	Functioning as intended. No evidence of culvert cracking/seepage. Minor channel erosion. Generally in good, yet weathered condition.	8
DOWNSLOPE 0.50	Outlet stream channel. Appears stable.	8
ROAD/SIDEWALK/SHOULDER 0.50	No wall-related distress.	8
LATERAL SLOPE 0.50	Gentle, well vegetated side slopes; no distress.	9
WALL DRAINS 1.00	None visible. Some seepage evident.	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001CB: BLUE RIDGE PARKWAY - SANDY FLATS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CB\_286.092\_R\_1.jpg

<b>Wall ID:</b>	BLRI-0001CB-286.805-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - SANDY FLATS SUB-DISTRICT		
<b>Inspection Date:</b>	December 06, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	81	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Mortared stone masonry headwall. Double barrel arched stone.		

### Wall Measurements

<b>Wall Length (ft.):</b>	83	<b>Face Area (sq.):</b>	300
<b>Average Wall Height (ft.):</b>	3	<b>Face Angle (deg.):</b>	85
<b>Maximum Wall Height (ft.):</b>	10	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No signs of global or structural instability.	8
WALL FOUNDATION MATERIAL 8.00	Large boulders; very stable.	9
MORTAR 8.00	Obscured by moss over much of wall, but generally intact., hard with shrinking and cracking throughout.	7
STONE MASONRY 8.00	Hard, durable, well-cut and placed stones. No missing/cracked blocks.	9
CULVERT 0.50	Weathered structure with minor scour. No cracking or leakage evident.	8
ROAD/SIDEWALK/SHOULDER 0.50	Minor longitudinal cracking. No wall-related distress.	8
TRAFFIC BARRIER/FENCE 0.50	Stone masonry parapet is in good shape. No wall-related distress.	8
DOWNSLOPE 0.50	Stream outlet, very stable.	9
LATERAL SLOPE 1.00	Erosion along down station end; not impacting headwall.	7

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001CB: BLUE RIDGE PARKWAY - SANDY FLATS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CB\_286.805\_L\_1.jpg

<b>Wall ID:</b>	BLRI-0001CB-286.810-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - SANDY FLATS SUB-DISTRICT		
<b>Inspection Date:</b>	December 06, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	80	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Long mortared stone masonry fill wall with mortared stone culvert headwalls at either end. Considered all one culturally sensitive structure.		

### Wall Measurements

<b>Wall Length (ft.):</b>	641	<b>Face Area (sq.):</b>	4500
<b>Average Wall Height (ft.):</b>	7	<b>Face Angle (deg.):</b>	85
<b>Maximum Wall Height (ft.):</b>	12	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	Weathered, but no signs of global or structural instability, displacement or settlement.	8
WALL FOUNDATION MATERIAL 8.00	No signs of settlement along the wall, parapet, or roadway. No scour visible.	8
MORTAR 8.00	Moderately weathered, but generally intact and hard. Significant cracking along top courses, but does not affect wall performance.	7
STONE MASONRY 8.00	Hard, durable, well-cut and placed stones. No missing/cracked blocks, but substantial portion of wall obscured by moss.	9
CULVERT 0.50	Both culverts are open, functioning as intended. Minor channel erosion and scour. No signs of leakage or settlement. Weathered structures.	8
LATERAL SLOPE 0.50	Gentle, well vegetated end slopes.	8
ROAD/SIDEWALK/SHOULDER 0.50	Minor cracking; no signs of wall-related distress.	8
TRAFFIC BARRIER/FENCE 0.50	Parapet shows no signs of wall-related distress.	8
DOWNSLOPE 0.50	Adjacent stream channel. Very stable boulder fill.	9

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001CB: BLUE RIDGE PARKWAY - SANDY FLATS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CB\_286.810\_R\_1.jpg



BLRI\_0001CB\_286.810\_R\_2.jpg

<b>Wall ID:</b>	BLRI-0001CB-286.925-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - SANDY FLATS SUB-DISTRICT		
<b>Inspection Date:</b>	December 06, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	82	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Mortared stone masonry headwall.		

### Wall Measurements

<b>Wall Length (ft.):</b>	71	<b>Face Area (sq.):</b>	285
<b>Average Wall Height (ft.):</b>	4	<b>Face Angle (deg.):</b>	85
<b>Maximum Wall Height (ft.):</b>	9	<b>Vertical Offset (ft.):</b>	-1

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	Wall is weathered, but no signs of global or structural distress.	8
WALL FOUNDATION MATERIAL 8.00	No signs of scour/settlement. Boulder fill.	9
MORTAR 8.00	Moderately weathered, but generally intact and hard. No missing mortar except along top course, no wall impact.	7
STONE MASONRY 8.00	Hard, durable, well-cut and placed stones. No missing/cracked blocks.	9
CULVERT 0.50	Culvert is functioning as intended; weathered, but intact.	8
LATERAL SLOPE 0.50	Well vegetated stable side slopes.	8
DOWNSLOPE 0.50	Stable stream channel.	9
ROAD/SIDEWALK/SHOULDER 0.50	No wall-related distress. Very good condition.	9
WALL DRAINS 1.00	None visible. Seepage evident through mortar cracking.	7

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001CB: BLUE RIDGE PARKWAY - SANDY FLATS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CB\_286.925\_L\_1.jpg

<b>Wall ID:</b>	BLRI-0001CB-287.035-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - SANDY FLATS SUB-DISTRICT		
<b>Inspection Date:</b>	December 06, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	59	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Mortared stone masonry headwall.		

### Wall Measurements

<b>Wall Length (ft.):</b>	74	<b>Face Area (sq.):</b>	200
<b>Average Wall Height (ft.):</b>	2	<b>Face Angle (deg.):</b>	85
<b>Maximum Wall Height (ft.):</b>	9	<b>Vertical Offset (ft.):</b>	-5

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global stability distress; however, stream has scoured under pier and culvert and needs repair.	5
WALL FOUNDATION MATERIAL 8.00	Scour at wall toe. No signs of settlement.	5
MORTAR 8.00	Weathered, cracked with missing mortar in scoured section of wall.	5
STONE MASONRY 8.00	Hard, durable, well-cut and placed stones. No missing/cracked blocks. Moss obscures much of wall.	8
DOWNSLOPE 0.50	Stable stream channel outlet.	8
LATERAL SLOPE 0.50	No slumping/erosion; stable slopes.	9
ROAD/SIDEWALK/SHOULDER 0.50	No wall-related distress. Very good condition.	9
UPSLOPE 0.50	Gentle, well vegetated; no erosion/slumping.	9
CULVERT 1.00	Scoured under outlet edge and under wall blocks. Needs to be repaired to mitigate headwall damage in the future.	5

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	Repair scour along headwall toe: Place grouted riprap along outlet toe. 33 cubic yards @ \$330 per c.y. = \$11,000
<b>Repair Cost:</b>	\$11,000

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# **Blue Ridge Parkway**

**ROUTE 0001CB: BLUE RIDGE PARKWAY - SANDY FLATS SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001CB-287.035-L.**

<b>Wall ID:</b>	BLRI-0001CB-287.057-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - SANDY FLATS SUB-DISTRICT		
<b>Inspection Date:</b>	December 06, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	77	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Mortared stone masonry headwall.		

### Wall Measurements

<b>Wall Length (ft.):</b>	66	<b>Face Area (sq.):</b>	290
<b>Average Wall Height (ft.):</b>	4	<b>Face Angle (deg.):</b>	85
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	-1

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	Wall is weathered, but no signs of global instability or structural distress.	7
WALL FOUNDATION MATERIAL 8.00	No signs of settlement. Inlet shows no scour.	8
MORTAR 8.00	Weathered, cracked, some minor locations missing mortar, generally hard and intact with shrinkage cracking.	7
STONE MASONRY 8.00	Hard, durable, well-cut and placed stones. No missing/cracked blocks. Obscured by moss.	9
CULVERT 0.50	Functioning as intended. No headwall distress. Minor scour.	8
DOWNSLOPE 0.50	Stable stream channel inlet.	8
VEGETATION 0.50	Moss covered wall; does not appear to impact wall.	8
ROAD/SIDEWALK/SHOULDER 0.50	Minor longitudinal cracks. Otherwise very good condition.	9
LATERAL SLOPE 1.00	Minor upstation corner erosion, otherwise stable side slopes.	7

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001CB: BLUE RIDGE PARKWAY - SANDY FLATS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CB\_287.057\_R\_1.jpg

<b>Wall ID:</b>	BLRI-0001CB-287.680-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - SANDY FLATS SUB-DISTRICT		
<b>Inspection Date:</b>	December 06, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	84	<b>Maintenance Action:</b>	Maintenance

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Large mortared stone masonry fill wall with arched culvert at the base. Has 1.5 ft high parapet.		

### Wall Measurements

<b>Wall Length (ft.):</b>	112	<b>Face Area (sq.):</b>	1300
<b>Average Wall Height (ft.):</b>	11	<b>Face Angle (deg.):</b>	85
<b>Maximum Wall Height (ft.):</b>	18	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No signs of global or structural distress. Bushes in wall face will impact wall if not removed.	8
WALL FOUNDATION MATERIAL 8.00	No settlement/scour; good bearing.	9
MORTAR 8.00	Weathered with some cracking and very localized missing pieces, but generally strong, hard and intact.	8
STONE MASONRY 8.00	Hard, durable, well-cut and placed stones. No missing/cracked blocks. Moss obscured ~50% of wall.	9
ROAD/SIDEWALK/SHOULDER 0.50	Minor longitudinal cracking, probably due to culvert fill settlement. No wall-related distress.	8
TRAFFIC BARRIER/FENCE 0.50	Parapet shows no sign of wall-related distress.	8
CULVERT 0.50	Functioning as intended with no scour, erosion or other distress.	9
DOWNSLOPE 0.50	Very gentle, stable soil slope at wall toe.	9
LATERAL SLOPE 1.00	Downstation slope is eroded, but not impacting end of wall.	7

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	Remove bushes from wall face. Labor: 2hours @ \$55 per hour = \$110
<b>Repair Cost:</b>	\$110

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001CB: BLUE RIDGE PARKWAY - SANDY FLATS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CB\_287.680\_R\_1.jpg

<b>Wall ID:</b>	BLRI-0001CB-287.709-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - SANDY FLATS SUB-DISTRICT		
<b>Inspection Date:</b>	December 06, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	Maintenance

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Mortared stone masonry headwall.		

### Wall Measurements

<b>Wall Length (ft.):</b>	45	<b>Face Area (sq.):</b>	120
<b>Average Wall Height (ft.):</b>	2	<b>Face Angle (deg.):</b>	85
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	-10

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	Left wing wall is cracked and needs to be patched. Otherwise, no global distress.	6
WALL FOUNDATION MATERIAL 8.00	Stable, good bearing materials. Left wingwall may be settling a bit.	7
MORTAR 8.00	Cracked and weathered, but generally strong, hard and intact. Left wingwall is cracked vertically, requiring patch.	6
STONE MASONRY 8.00	Hard, durable, stones with no missing/cracked blocks.	9
CULVERT 0.50	Appears to be functioning. Outlet obscured by leaves and branch debris.	8
DOWNSLOPE 0.50	Stable stream channel.	8
ROAD/SIDEWALK/SHOULDER 0.50	No signs of wall-related distress.	8
UPSLOPE 0.50	Well vegetated. 1.5H:1V stable slope.	8
VEGETATION 1.00	Small trees growing along top of wall may be impacting upper courses. Roots may be to blame for wingwall crack.	4

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	Remove trees from top of wall and patch vertical crack in left wingwall. Labor: 4 hours @ \$55 per hr. = \$220. Cement patch, lump sum = \$50. Total = \$270.00
<b>Repair Cost:</b>	\$270

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001CB: BLUE RIDGE PARKWAY - SANDY FLATS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CB\_287.709\_L\_1.jpg

<b>Wall ID:</b>	BLRI-0001CB-290.235-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - SANDY FLATS SUB-DISTRICT		
<b>Inspection Date:</b>	December 06, 2007	<b>Approximate Year Built:</b>	1950
<b>*Wall Rating:</b>	84	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Mortared stone masonry fill wall with 1.5 foot high parapet.		

### Wall Measurements

<b>Wall Length (ft.):</b>	245	<b>Face Area (sq.):</b>	1470
<b>Average Wall Height (ft.):</b>	6	<b>Face Angle (deg.):</b>	80
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No signs of global or structural distress.	9
WALL FOUNDATION MATERIAL 8.00	No signs of settlement or erosion. Appears to have well-prepared bench.	8
MORTAR 8.00	Hard, intact with minor shrinkage cracking.	8
STONE MASONRY 8.00	Hard, nearly fresh, durable, well-cut/placed stone with no cracked or missing blocks.	9
LATERAL SLOPE 0.50	Rock outcrop on one end, stable soil slope (well vegetated) on other end.	8
ROAD/SIDEWALK/SHOULDER 0.50	Occasional transverse cracking possibly related to retained fill settlement.	8
WALL DRAINS 0.50	None visible, minor seepage through wall face.	8
TRAFFIC BARRIER/FENCE 0.50	Mortared stone parapet is in good shape with no wall-related distress.	9
DOWNSLOPE 1.00	Steep, well vegetated soil slope with erosion gully about half way down wall, but not impacting wall.	6

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001CB: BLUE RIDGE PARKWAY - SANDY FLATS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CB\_290.235\_L\_1.jpg

<b>Wall ID:</b>	BLRI-0001CB-303.333-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - SANDY FLATS SUB-DISTRICT		
<b>Inspection Date:</b>	December 06, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	83	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	MSE - Precast Panel
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Precast panel MSE fill wall below mortared stone masonry guardwall.		

### Wall Measurements

<b>Wall Length (ft.):</b>	815	<b>Face Area (sq.):</b>	14260
<b>Average Wall Height (ft.):</b>	17	<b>Face Angle (deg.):</b>	85
<b>Maximum Wall Height (ft.):</b>	38	<b>Vertical Offset (ft.):</b>	-4

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No signs of global or structural distress. Wall is performing well-just ugly as hell. Concrete panels show very minor weathering.	8
WALL FOUNDATION MATERIAL 8.00	No signs of wall settlement or foundation erosion. Well prepared construction bench.	9
WIRE/GEOSYNTHETIC FACING 8.00	Precast concrete panels are in place, intact, with no cracking or distortion. Joints are well-aligned.	8
ARCHITECTURAL FACING 0.50	Precast panels are intact. Colored aggregate is intact.	8
DOWNSLOPE 0.50	Wide bench transitioning to stable slope.	8
LATERAL SLOPE 0.50	Well vegetated, stable, side slopes no erosion or slumping.	8
ROAD/SIDEWALK/SHOULDER 0.50	Minor transverse cracking. No apparent wall-related distress.	8
VEGETATION 0.50	Minor bushes growing out between panels at a few locations. No wall impact.	8
TRAFFIC BARRIER/FENCE 0.50	Mortared stone guardwall shows no signs of wall-related distress.	9

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001CB: BLUE RIDGE PARKWAY - SANDY FLATS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CB\_303.333\_L\_1.jpg



BLRI\_0001CB\_303.333\_L\_2.jpg

<b>Wall ID:</b>	BLRI-0001CB-303.532-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - SANDY FLATS SUB-DISTRICT		
<b>Inspection Date:</b>	December 06, 2007	<b>Approximate Year Built:</b>	1988
<b>*Wall Rating:</b>	94	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Large block (2 to 8 ton blocks) mortared stone masonry fill wall - Great Wall of China. Built sometime in late 1980s.		

### Wall Measurements

<b>Wall Length (ft.):</b>	835	<b>Face Area (sq.):</b>	18200
<b>Average Wall Height (ft.):</b>	21	<b>Face Angle (deg.):</b>	85
<b>Maximum Wall Height (ft.):</b>	30	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global or structural stability problems. Excellent construction.	10
WALL FOUNDATION MATERIAL 8.00	No settlement or erosion. Excellent bearing pad construction.	9
MORTAR 8.00	Hard, durable, intact with minor to no shrinkage cracking.	9
STONE MASONRY 8.00	Hard, fresh, durable, well-cut /placed stone with no missing / cracked blocks. Excellent construction.	10
CULVERT 0.50	Metal culverts performing as built. No culvert-related distress.	9
DOWNSLOPE 0.50	Very stable, gently sloping bench transitioning to very stable, well vegetated soil slope.	9
LATERAL SLOPE 0.50	Bride abutment at one end, stable soil slope at other with no erosion.	9
ROAD/SIDEWALK/SHOULDER 0.50	Minor transverse/longitudinal cracking probably due to fill settlement. Very good condition.	9
WALL DRAINS 0.50	None visible. Very minor seepage between blocks.	9

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001CB: BLUE RIDGE PARKWAY - SANDY FLATS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CB\_303.532\_L\_1.jpg



BLRI\_0001CB\_303.532\_L\_2.jpg

<b>Wall ID:</b>	BLRI-0001CB-305.499-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - SANDY FLATS SUB-DISTRICT		
<b>Inspection Date:</b>	December 06, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	84	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Gabion
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Wire gabion wall, well down the outbound slope.		

### Wall Measurements

<b>Wall Length (ft.):</b>	260	<b>Face Area (sq.):</b>	3900
<b>Average Wall Height (ft.):</b>	15	<b>Face Angle (deg.):</b>	80
<b>Maximum Wall Height (ft.):</b>	24	<b>Vertical Offset (ft.):</b>	-60

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global or structural instability or distress. Wall is in near-new condition.	9
WALL FOUNDATION MATERIAL 8.00	Firm soils/rock fill-good bearing. Soft soils in some areas.	8
WIRE/GEOSYNTHETIC FACING 8.00	Baskets show no deformation or displacement. No wire corrosion. Rock fill is fresh, hard, durable. No missing elements.	9
DOWNSLOPE 0.50	Rock fill, boulders, wooded slope-stable.	8
ROAD/SIDEWALK/SHOULDER 0.50	No wall related distress.	8
WALL DRAINS 0.50	Free draining. No water seepage around wall.	8
VEGETATION 0.50	Recently cut trees down along top of wall. No impacts to the wall.	9
LATERAL SLOPE 1.00	Rock outcrop downstation end, soft soil/drainage on upstation. No impact to ends of wall.	7
UPSLOPE 1.00	Vegetated soft soil 1.5H:1V slope. No erosion. Minor slumping.	7

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001CB: BLUE RIDGE PARKWAY - SANDY FLATS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CB\_305.499\_L\_1.jpg



BLRI\_0001CB\_305.499\_L\_2.jpg

<b>Wall ID:</b>	BLRI-0001CB-305.644-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - SANDY FLATS SUB-DISTRICT		
<b>Inspection Date:</b>	December 06, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	89	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Gabion
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Wire gabion basket fill wall, well down the slope.		

### Wall Measurements

<b>Wall Length (ft.):</b>	335	<b>Face Area (sq.):</b>	4000
<b>Average Wall Height (ft.):</b>	11	<b>Face Angle (deg.):</b>	80
<b>Maximum Wall Height (ft.):</b>	17	<b>Vertical Offset (ft.):</b>	-25

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No signs of distortion, settlement or basket failure. Globally stable.	9
WALL FOUNDATION MATERIAL 8.00	No signs of settlement/erosion. Mostly rock fill.	9
WIRE/GEOSYNTHETIC FACING 8.00	Wire baskets are intact; no distortion or failed baskets. No corrosion on wires. Rock fill is fresh, hard, durable.	9
ROAD/SIDEWALK/SHOULDER 0.50	Minor transverse cracking; unrelated to wall. No significant sub grade settlement.	8
UPSLOPE 0.50	Well vegetated, stable 1.5H:1V slope.	8
VEGETATION 0.50	Small trees, vines growing along top of wall; no impact to wall.	8
DOWNSLOPE 0.50	Rock fill transitioning to wooded side slope. Very stable.	9
WALL DRAINS 0.50	Free draining. No drainage issues. No seepage around wall base.	9
LATERAL SLOPE 1.00	Erosion gullies either end, but not impacting wall.	7

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001CB: BLUE RIDGE PARKWAY - SANDY FLATS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CB\_305.644\_L\_1.jpg

<b>Wall ID:</b>	BLRI-0001CB-305.820-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - SANDY FLATS SUB-DISTRICT		
<b>Inspection Date:</b>	December 06, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	77	<b>Maintenance Action:</b>	Maintenance

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Mortared stone masonry fill wall with box culvert at wall toe. Probably built in late 1980s.		

### Wall Measurements

<b>Wall Length (ft.):</b>	214	<b>Face Area (sq.):</b>	3000
<b>Average Wall Height (ft.):</b>	14	<b>Face Angle (deg.):</b>	85
<b>Maximum Wall Height (ft.):</b>	17	<b>Vertical Offset (ft.):</b>	-8

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No signs of global or structural distress.	9
WALL FOUNDATION MATERIAL 8.00	Firm soils/rock fill; good bearing.	8
MORTAR 8.00	Minor shrinkage cracking. Generally, hard, durable, intact.	8
STONE MASONRY 8.00	Hard, durable, well-cut and placed stone. No cracked or missing blocks.	9
CULVERT 0.50	Small pipe culverts and large box culvert; all functioning well. No impacts to wall. No outlet erosion problems.	8
DOWNSLOPE 0.50	Well vegetated soil and rock fill slope; very stable.	8
UPSLOPE 0.50	Well vegetated stable 1.5H:1V slope.	8
ROAD/SIDEWALK/SHOULDER 0.50	Minor longitudinal/transverse cracking; no wall related distress.	9
TRAFFIC BARRIER/FENCE 0.50	Wood/steer-backed guardrail shows no wall related distress.	9

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	Remove small trees from top of wall: Labor: 4 hours @ \$55/hr. = \$220
<b>Repair Cost:</b>	\$220

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001CB: BLUE RIDGE PARKWAY - SANDY FLATS SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001CB\_305.820\_L\_1.jpg



BLRI\_0001CB\_305.820\_L\_2.jpg

<b>Wall ID:</b>	BLRI-0001DA-312.788-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 27, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Curved headwall Park MP 311.8		

### Wall Measurements

<b>Wall Length (ft.):</b>	28	<b>Face Area (sq.):</b>	90
<b>Average Wall Height (ft.):</b>	3	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	7	<b>Vertical Offset (ft.):</b>	-4

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil, no observed settlement or cracks	7
MORTAR 8.00	Some moss and vegetation	7
STONE MASONRY 8.00	Some moss and efflorescence	7
ROAD/SIDEWALK/SHOULDER 0.50	Grass, flat, no distress	8
CULVERT 1.00	Concrete box culvert, 7'W x 5'H	7
DOWNSLOPE 1.00	Heavily wooded, no distress	7
LATERAL SLOPE 1.00	Heavily wooded, no distress	7
WALL DRAINS 1.00	No drainage-related problems	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# **Blue Ridge Parkway**

**ROUTE 0001DA: BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001DA-312.788-L.**

<b>Wall ID:</b>	BLRI-0001DA-312.788-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 27, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 311.8		

### Wall Measurements

<b>Wall Length (ft.):</b>	28	<b>Face Area (sq.):</b>	90
<b>Average Wall Height (ft.):</b>	3	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	7	<b>Vertical Offset (ft.):</b>	-4

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil, no observed settlement or cracks	7
MORTAR 8.00	Some vegetation and moss, good condition	7
STONE MASONRY 8.00	Some moss, vegetation and efflorescence, good condition	7
ROAD/SIDEWALK/SHOULDER 0.50	Grass, flat, no distress	8
CULVERT 1.00	Concrete box culvert, 7'W x 5'H	7
DOWNSLOPE 1.00	Heavily wooded, no distress	7
LATERAL SLOPE 1.00	Heavily wooded, no distress	7
VEGETATION 1.00	Vegetation not affecting wall performance	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001DA: BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DA\_312.788\_R\_1.JPG



BLRI\_0001DA\_312.788\_R\_2.JPG

<b>Wall ID:</b>	BLRI-0001DA-313.335-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 27, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	66	<b>Maintenance Action:</b>	Maintenance

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 312.3		

### Wall Measurements

<b>Wall Length (ft.):</b>	49	<b>Face Area (sq.):</b>	110
<b>Average Wall Height (ft.):</b>	2	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	10	<b>Vertical Offset (ft.):</b>	-3

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil, no observed settlement or cracks	7
MORTAR 8.00	Some moss and vegetation	6
STONE MASONRY 8.00	Some moss, vegetation and efflorescence	6
ROAD/SIDEWALK/SHOULDER 0.50	Grass, flat, no distress	8
UPSLOPE 0.50	Gentle slope, grass, no distress	8
CULVERT 1.00	1 concrete box culvert, 16'W x 7.5'H	7
DOWNSLOPE 1.00	Steep slope, heavily wooded, no distress	7
LATERAL SLOPE 1.00	Steep slope, heavily wooded, no distress	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Remove debris and clear channel. Backhoe - 4 hrs x \$150/hr = \$600, 10 hrs x \$55 = \$550
<b>Repair Cost:</b>	\$1,150

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DA: BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DA\_313.335\_L\_1.JPG

<b>Wall ID:</b>	BLRI-0001DA-313.339-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 27, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	68	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 312.3		

### Wall Measurements

<b>Wall Length (ft.):</b>	35	<b>Face Area (sq.):</b>	80
<b>Average Wall Height (ft.):</b>	2	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	10	<b>Vertical Offset (ft.):</b>	-3

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil, no observed settlement or cracks	8
MORTAR 8.00	Some moss	6
STONE MASONRY 8.00	Some moss and efflorescence	6
ROAD/SIDEWALK/SHOULDER 0.50	Grass, flat	8
WALL DRAINS 0.50	Weep holes, no drainage-related problem	8
CULVERT 1.00	1 concrete box culvert, 16'W x 7.5'H	7
DOWNSLOPE 1.00	Steep slope, grass, no distress	7
LATERAL SLOPE 1.00	Steep slope, heavily wooded, no distress	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DA: BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DA\_313.339\_R\_1.JPG



BLRI\_0001DA\_313.339\_R\_2.JPG

<b>Wall ID:</b>	BLRI-0001DA-313.959-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 27, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	72	<b>Maintenance Action:</b>	Maintenance

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Headwall on skew Park MP 312.9		

### Wall Measurements

<b>Wall Length (ft.):</b>	24	<b>Face Area (sq.):</b>	50
<b>Average Wall Height (ft.):</b>	2	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	-3

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil, no observed settlement or cracks	8
MORTAR 8.00	Some moss	7
STONE MASONRY 8.00	Some moss and efflorescence	7
ROAD/SIDEWALK/SHOULDER 0.50	Grass, flat, no distress	8
WALL DRAINS 0.50	Weep holes, no drainage-related problem	8
CULVERT 1.00	1 skew concrete box culvert, 7'W x 4'H	7
DOWNSLOPE 1.00	Steep slope, heavily wooded, no distress	7
LATERAL SLOPE 1.00	Steep slope, heavily wooded, no distress	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Place riprap to protect culvert entrance from scour - 7' x 1' x 20' = 5 cy, 5 cy x \$200/cy = \$1,000
<b>Repair Cost:</b>	\$1,000

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DA: BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DA\_313.959\_L\_1.JPG

<b>Wall ID:</b>	BLRI-0001DA-313.959-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 27, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	72	<b>Maintenance Action:</b>	Maintenance

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 312.9		

### Wall Measurements

<b>Wall Length (ft.):</b>	26	<b>Face Area (sq.):</b>	50
<b>Average Wall Height (ft.):</b>	1	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	-3

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil, no observed settlement or cracks	8
MORTAR 8.00	Some moss	7
STONE MASONRY 8.00	Minor moss and efflorescence	7
ROAD/SIDEWALK/SHOULDER 0.50	Grass, flat, no distress	8
WALL DRAINS 0.50	Weep holes, no drainage-related problems	8
CULVERT 1.00	1 skew concrete box culvert, 7'W x 4'H	7
DOWNSLOPE 1.00	Steep slope, heavily wooded, no distress	7
LATERAL SLOPE 1.00	Steep slope, heavily wooded, no distress	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Place riprap to protect culvert entrance from scour: 7' x 1' x 20' = 5 cy, 5 cy x \$200/cy = \$1,000.
<b>Repair Cost:</b>	\$1,000

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001DA: BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DA\_313.959\_R\_1.JPG

<b>Wall ID:</b>	BLRI-0001DA-314.201-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 27, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	68	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 313.2		

### Wall Measurements

<b>Wall Length (ft.):</b>	22	<b>Face Area (sq.):</b>	35
<b>Average Wall Height (ft.):</b>	1	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	-3

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil, no observed settlement or cracks	7
STONE MASONRY 8.00	Some moss and efflorescence	6
MORTAR 8.00	Some moss	7
ROAD/SIDEWALK/SHOULDER 0.50	Flat, covered with grass	8
WALL DRAINS 0.50	Wall drains – Weep holes, No drainage-related problems	8
CULVERT 1.00	1 concrete box culvert, 7'W x 4'H	7
DOWNSLOPE 1.00	Steep slope, heavily wooded, no distress	7
LATERAL SLOPE 1.00	Steep slope, heavily wooded, no distress	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DA: BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DA\_314.201\_L\_1.JPG

<b>Wall ID:</b>	BLRI-0001DA-314.201-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 27, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	68	<b>Maintenance Action:</b>	Maintenance

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 313.2		

### Wall Measurements

<b>Wall Length (ft.):</b>	25	<b>Face Area (sq.):</b>	35
<b>Average Wall Height (ft.):</b>	1	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	-3

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil, no observed settlement or cracks	7
STONE MASONRY 8.00	Some moss and efflorescence	6
MORTAR 8.00	Some moss	7
ROAD/SIDEWALK/SHOULDER 0.50	Grass, flat, no distress	8
WALL DRAINS 0.50	No drainage-related problems	8
CULVERT 1.00	1 concrete box culvert, 7'W x 4'H	7
DOWNSLOPE 1.00	Steep slope, grass, no distress	7
LATERAL SLOPE 1.00	Steep slope, grass, no distress	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Clear debris from front of culvert. Labor - 10 hrs x \$55/hr = \$550
<b>Repair Cost:</b>	\$550

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DA: BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DA\_314.201\_R\_1.JPG

<b>Wall ID:</b>	BLRI-0001DA-315.261-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 27, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	68	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 314.2		

### Wall Measurements

<b>Wall Length (ft.):</b>	16	<b>Face Area (sq.):</b>	60
<b>Average Wall Height (ft.):</b>	3	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	-5

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil, no observed settlement or cracks	7
STONE MASONRY 8.00	Some moss	6
MORTAR 8.00	Some moss	7
ROAD/SIDEWALK/SHOULDER 0.50	Grass, flat	8
CULVERT 1.00	Concrete pipe culvert, 3' diameter	7
DOWNSLOPE 1.00	Steep slope, heavily wooded, no distress	7
LATERAL SLOPE 1.00	Steep slope, heavily wooded, no distress	7
WALL DRAINS 1.00	No drainage-related problems	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DA: BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DA\_315.261\_R\_1.JPG

<b>Wall ID:</b>	BLRI-0001DA-316.034-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 27, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 315.0		

### Wall Measurements

<b>Wall Length (ft.):</b>	68	<b>Face Area (sq.):</b>	560
<b>Average Wall Height (ft.):</b>	8	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	11	<b>Vertical Offset (ft.):</b>	2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil, no observed settlement or cracks	7
MORTAR 8.00	Some moss	7
STONE MASONRY 8.00	Some moss and efflorescence	7
ROAD/SIDEWALK/SHOULDER 0.50	Grass, flat, no distress	8
WALL DRAINS 0.50	No drainage-related problems	8
DOWNSLOPE 1.00	Very steep, heavily wooded, no distress	7
LATERAL SLOPE 1.00	Very steep, heavily wooded, no distress	7
VEGETATION 1.00	Vegetation close to toe of wall, not affecting performance	7

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001DA: BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DA\_316.034\_L\_1.JPG

<b>Wall ID:</b>	BLRI-0001DA-318.511-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 29, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	75	<b>Maintenance Action:</b>	Maintenance

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Double box culverts		

### Wall Measurements

<b>Wall Length (ft.):</b>	56	<b>Face Area (sq.):</b>	200
<b>Average Wall Height (ft.):</b>	3	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	7	<b>Vertical Offset (ft.):</b>	-20

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	8
WALL FOUNDATION MATERIAL 8.00	Soil, no observed settlement or distress	8
MORTAR 8.00	Good condition, minor cracks	7
STONE MASONRY 8.00	Sound and durable	7
DOWNSLOPE 0.50	Grass, no distress	8
LATERAL SLOPE 0.50	Gentle slope, grass, no distress	8
UPSLOPE 0.50	Gentle slope, grass with some scattered trees, no distress	8
WALL DRAINS 0.50	No observed drainage-related problems	8
CULVERT 1.00	2 box culverts, and 1 skewed culvert, in good condition	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Cut trees - 2 trees x \$955/tree = \$1,910. Clear channel - Backhoe - 4 hrs x \$150/hr = \$600, Labor - 12 hrs x \$55/hr = \$660
<b>Repair Cost:</b>	\$3,170

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DA: BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DA\_318.511\_L\_1.JPG

<b>Wall ID:</b>	BLRI-0001DA-318.511-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 29, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	61	<b>Maintenance Action:</b>	Maintenance

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Curved headwall, three culverts, one culvert skewed		

### Wall Measurements

<b>Wall Length (ft.):</b>	63	<b>Face Area (sq.):</b>	250
<b>Average Wall Height (ft.):</b>	3	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	7	<b>Vertical Offset (ft.):</b>	-20

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	6
WALL FOUNDATION MATERIAL 8.00	Soil, some cracks in wall on north end	6
MORTAR 8.00	Some cracks and efflorescence	5
STONE MASONRY 8.00	Sound and durable	7
CULVERT 1.00	9'W x 4'H, some minor cracks in culverts	6
UPSLOPE 1.00	Steep slope, wooded, no distress	6
VEGETATION 1.00	Trees on top of wall, could affect future performance	6
DOWNSLOPE 1.00	Gentle slope, covered with brush, no distress	7
LATERAL SLOPE 1.00	Gentle slope, wooded, no distress	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Cut Trees: 2 large trees x \$955/tree = \$1,910. Clear Channel - Backhoe - 4 hrs x \$150/hr = \$600. Labor - 12 hrs x \$55/hr = \$660
<b>Repair Cost:</b>	\$3,170

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DA: BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DA\_318.511\_R\_1.JPG

<b>Wall ID:</b>	BLRI-0001DA-320.727-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 28, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	73	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 319.6		

### Wall Measurements

<b>Wall Length (ft.):</b>	300	<b>Face Area (sq.):</b>	6000
<b>Average Wall Height (ft.):</b>	20	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	41	<b>Vertical Offset (ft.):</b>	2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	Good condition, no global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil, no observed settlement or cracks	8
MORTAR 8.00	Some moss and efflorescence	7
STONE MASONRY 8.00	Some moss and efflorescence	7
DOWNSLOPE 0.50	Steep slope, lightly wooded, no distress	8
LATERAL SLOPE 0.50	Steep slope, lightly wooded, no distress	8
ROAD/SIDEWALK/SHOULDER 0.50	Grassy, no distress	8
VEGETATION 0.50	Steep slope, lightly wooded, no distress	8
WALL DRAINS 0.50	No problems associated with drainage	8

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DA: BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DA\_320.727\_L\_1.JPG



BLRI\_0001DA\_320.727\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001DA-320.941-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 28, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	72	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 319.9		

### Wall Measurements

<b>Wall Length (ft.):</b>	125	<b>Face Area (sq.):</b>	2500
<b>Average Wall Height (ft.):</b>	20	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	37	<b>Vertical Offset (ft.):</b>	2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil/rock, no observed settlement or cracks	8
MORTAR 8.00	Some moss and efflorescence	7
STONE MASONRY 8.00	Some moss and efflorescence	7
ROAD/SIDEWALK/SHOULDER 0.50	Grass shoulder	8
WALL DRAINS 0.50	No drainage-related problems	8
DOWNSLOPE 1.00	Steep slope, wooded, no distress	7
LATERAL SLOPE 1.00	Steep slope, heavily wooded, no distress	7
VEGETATION 1.00	Minor vegetation growth in front of and on wall	7

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001DA: BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DA\_320.941\_L\_1.JPG



BLRI\_0001DA\_320.941\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001DA-320.996-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT		
<b>Inspection Date:</b>	December 01, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	62	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 319.8		

### Wall Measurements

<b>Wall Length (ft.):</b>	165	<b>Face Area (sq.):</b>	3500
<b>Average Wall Height (ft.):</b>	21	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	40	<b>Vertical Offset (ft.):</b>	-20

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	6
WALL FOUNDATION MATERIAL 8.00	Soil/rock, no settlement or cracks	7
MORTAR 8.00	Some moss and efflorescence	6
STONE MASONRY 8.00	Some moss and efflorescence	6
DOWNSLOPE 1.00	Steep slope, wooded, no distress	6
LATERAL SLOPE 1.00	Steep slope, wooded, no distress	6
UPSLOPE 1.00	Steep slope, wooded, no distress	6
VEGETATION 1.00	Some vegetation in front of wall	6
WALL DRAINS 1.00	No drainage-related problems	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DA: BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DA\_320.996\_L\_1.JPG



BLRI\_0001DA\_320.996\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001DA-322.750-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 28, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	72	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 321.7		

### Wall Measurements

<b>Wall Length (ft.):</b>	120	<b>Face Area (sq.):</b>	700
<b>Average Wall Height (ft.):</b>	5	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	9	<b>Vertical Offset (ft.):</b>	2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	Good condition, no global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil, no evidence of settlement or erosion	8
MORTAR 8.00	Some moss, some efflorescence	7
STONE MASONRY 8.00	Sound and durable	7
ROAD/SIDEWALK/SHOULDER 0.50	Grass, no distress	8
WALL DRAINS 0.50	No weep holes, no evidence of drainage related problems	8
DOWNSLOPE 1.00	Steep slope, heavily wooded, no distress	7
LATERAL SLOPE 1.00	Steep slope, heavily wooded, no distress	7
VEGETATION 1.00	Steep slope, heavily wooded, no distress	7

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DA: BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DA\_322.750\_L\_1.JPG



BLRI\_0001DA\_322.750\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001DA-323.159-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 29, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	88	<b>Maintenance Action:</b>	No Action

**Wall Description**

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Gabion
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Newly constructed gabion wall Near Park MP 322.2		

**Wall Measurements**

<b>Wall Length (ft.):</b>	305	<b>Face Area (sq.):</b>	6000
<b>Average Wall Height (ft.):</b>	19	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	42	<b>Vertical Offset (ft.):</b>	-5

**Assessed Elements**

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	9
WALL FOUNDATION MATERIAL 8.00	Soil, no observed settlement or cracks	9
WIRE/GEOSYNTHETIC FACING 8.00	Good condition, no corrosion observed	9
ROAD/SIDEWALK/SHOULDER 0.50	Grass, flat, no distress	9
WALL DRAINS 0.50	No drainage-related problems	9
DOWNSLOPE 1.00	Steep slope, wooded, no distress	6
LATERAL SLOPE 1.00	Steep slope, wooded, no distress	6

**Repair Recommendations**

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DA: BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DA\_323.159\_L\_1.JPG

<b>Wall ID:</b>	BLRI-0001DA-323.724-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 28, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	72	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 322.6		

### Wall Measurements

<b>Wall Length (ft.):</b>	22	<b>Face Area (sq.):</b>	50
<b>Average Wall Height (ft.):</b>	2	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	7	<b>Vertical Offset (ft.):</b>	-1

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil, no observed settlement or erosion	8
CONCRETE 8.00	Good condition, cast in place, minor cracks, some moss and efflorescence	7
MORTAR 8.00	Some moss	7
STONE MASONRY 8.00	Sound and durable	7
ROAD/SIDEWALK/SHOULDER 0.50	Grass shoulder, no distress	8
UPSLOPE 0.50	Grass, gently sloping, no distress	8
WALL DRAINS 0.50	No drainage-related problems	8
CULVERT 1.00	concrete box, on a skew, 14'H x 3.5'W	7

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001DA: BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DA\_323.724\_L\_1.JPG

<b>Wall ID:</b>	BLRI-0001DA-323.724-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 28, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	72	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 322.6		

### Wall Measurements

<b>Wall Length (ft.):</b>	15	<b>Face Area (sq.):</b>	50
<b>Average Wall Height (ft.):</b>	3	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	-4

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	Good condition, no global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil, no observed settlement or cracks	8
CONCRETE 8.00	Good condition, cast in place, some minor cracks, efflorescence	7
MORTAR 8.00	Some moss	7
STONE MASONRY 8.00	Sound and durable	7
ROAD/SIDEWALK/SHOULDER 0.50	Grass shoulder, no distress	8
UPSLOPE 0.50	Grass, gently sloping, no distress	8
WALL DRAINS 0.50	No observed drainage-associated problems	8
CULVERT 1.00	concrete box culvert, 9'W x 5'H	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DA: BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DA\_323.724\_R\_1.JPG

<b>Wall ID:</b>	BLRI-0001DA-323.969-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 28, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	72	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 322.8		

### Wall Measurements

<b>Wall Length (ft.):</b>	55	<b>Face Area (sq.):</b>	250
<b>Average Wall Height (ft.):</b>	4	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	7	<b>Vertical Offset (ft.):</b>	-4

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil, no evidence of settlement or cracks	8
MORTAR 8.00	Some moss and efflorescence	7
STONE MASONRY 8.00	Sound and durable	7
ROAD/SIDEWALK/SHOULDER 0.50	Grass, no distress	8
WALL DRAINS 0.50	No drainage-related problems	8
CULVERT 1.00	Concrete box, skew, 14'H x 3.5'W	7
DOWNSLOPE 1.00	Heavily wooded, steep slopes, no distress	7
LATERAL SLOPE 1.00	Heavily wooded, steep slopes, no distress	7

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DA: BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DA\_323.969\_R\_1.JPG



BLRI\_0001DA\_323.969\_R\_2.JPG

<b>Wall ID:</b>	BLRI-0001DA-326.701-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 29, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	63	<b>Maintenance Action:</b>	Maintenance

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Near Park MP 325.8		

### Wall Measurements

<b>Wall Length (ft.):</b>	325	<b>Face Area (sq.):</b>	4500
<b>Average Wall Height (ft.):</b>	13	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	30	<b>Vertical Offset (ft.):</b>	-15

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	Fair condition, no global distress	6
WALL FOUNDATION MATERIAL 8.00	Soil/rock, no observed settlement or cracks	7
MORTAR 8.00	Fair condition, some deterioration	6
STONE MASONRY 8.00	Fair condition, some moss, some efflorescence	6
ROAD/SIDEWALK/SHOULDER 0.50	Grass, relatively flat	8
DOWNSLOPE 1.00	Steep slope, heavily wooded, no distress	6
LATERAL SLOPE 1.00	Steep slope, heavily wooded, no distress	6
VEGETATION 1.00	vegetation in front of wall	6
WALL DRAINS 1.00	No drainage-related problems	7

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	Clear vegetation in front of wall. Labor - 10 hrs x \$55/hr = \$550
<b>Repair Cost:</b>	\$550

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DA: BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DA\_326.701\_L\_1.JPG

<b>Wall ID:</b>	BLRI-0001DA-328.491-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 28, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	78	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Near McKinney Gap sign		

### Wall Measurements

<b>Wall Length (ft.):</b>	65	<b>Face Area (sq.):</b>	500
<b>Average Wall Height (ft.):</b>	7	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	20	<b>Vertical Offset (ft.):</b>	-1

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	8
WALL FOUNDATION MATERIAL 8.00	Soil, no observed settlement or cracks	8
MORTAR 8.00	Sound and durable	7
STONE MASONRY 8.00	Sound and durable	8
CULVERT 0.50	17' x 17' box culvert, in good condition	8
DOWNSLOPE 0.50	1 lane road in good condition	8
LATERAL SLOPE 0.50	Grass, no distress	8
ROAD/SIDEWALK/SHOULDER 0.50	Grass shoulder, no distress	8
WALL DRAINS 0.50	Weep holes, No problems associated with drainage	8

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001DA: BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DA\_328.491\_L\_1.JPG



BLRI\_0001DA\_328.491\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001DA-328.491-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 28, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	80	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Next to McKinney Gap sign		

### Wall Measurements

<b>Wall Length (ft.):</b>	60	<b>Face Area (sq.):</b>	600
<b>Average Wall Height (ft.):</b>	10	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	20	<b>Vertical Offset (ft.):</b>	-1

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	Good condition, no global distress	8
WALL FOUNDATION MATERIAL 8.00	Soil, no observed settlement or cracks	8
MORTAR 8.00	Good condition, sound and durable	8
STONE MASONRY 8.00	Sound and durable	8
DOWNSLOPE 0.50	1 lane road in good condition	8
LATERAL SLOPE 0.50	Grass, no distress, not affecting wall performance	8
ROAD/SIDEWALK/SHOULDER 0.50	Grass shoulder, no distress	8
UPSLOPE 0.50	Grass, gently sloping, no distress	8
VEGETATION 0.50	Grass, no distress, not affecting wall performance	8

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DA: BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DA\_328.491\_R\_1.JPG



BLRI\_0001DA\_328.491\_R\_2.JPG

<b>Wall ID:</b>	BLRI-0001DA-333.625-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 28, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	80	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Near Lynn Cove Gap sign, Near Park MP 332.6		

### Wall Measurements

<b>Wall Length (ft.):</b>	70	<b>Face Area (sq.):</b>	650
<b>Average Wall Height (ft.):</b>	9	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	22	<b>Vertical Offset (ft.):</b>	-1

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	8
WALL FOUNDATION MATERIAL 8.00	Soil, no observed settlement or cracks	8
MORTAR 8.00	Sound and durable	8
STONE MASONRY 8.00	Sound and durable	8
DOWNSLOPE 0.50	1 lane road in good condition	8
LATERAL SLOPE 0.50	Grass, no distress	8
ROAD/SIDEWALK/SHOULDER 0.50	Grass shoulder, no distress	8
WALL DRAINS 0.50	Weep holes, No problems associated with drainage	8
CULVERT 1.00	16' x 17' box culvert, in good condition	7

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DA: BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DA\_333.625\_L\_1.JPG

<b>Wall ID:</b>	BLRI-0001DA-333.625-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 28, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	80	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Near Lynn Cove Gap sign, Near Park MP 332.6		

### Wall Measurements

<b>Wall Length (ft.):</b>	73	<b>Face Area (sq.):</b>	650
<b>Average Wall Height (ft.):</b>	8	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	27	<b>Vertical Offset (ft.):</b>	-1

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	8
WALL FOUNDATION MATERIAL 8.00	Soil, no observed settlement or cracks	8
MORTAR 8.00	Sound and durable	8
STONE MASONRY 8.00	Sound and durable	8
DOWNSLOPE 0.50	1 lane road in good condition	8
LATERAL SLOPE 0.50	Grass, no distress	8
ROAD/SIDEWALK/SHOULDER 0.50	Grass shoulder, no distress	8
WALL DRAINS 0.50	Weep holes, No problems associated with drainage	8
CULVERT 1.00	17' x 17' box culvert, in good condition	7

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DA: BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DA\_333.625\_R\_1.JPG



BLRI\_0001DA\_333.625\_R\_2.JPG

<b>Wall ID:</b>	BLRI-0001DA-336.475-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 28, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	77	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Near Park MP 335.3		

### Wall Measurements

<b>Wall Length (ft.):</b>	61	<b>Face Area (sq.):</b>	450
<b>Average Wall Height (ft.):</b>	7	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	22	<b>Vertical Offset (ft.):</b>	1

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil, no observed settlement or cracks	8
MORTAR 8.00	Sound and durable	8
STONE MASONRY 8.00	Sound and durable	8
DOWNSLOPE 0.50	1 lane road in good condition	8
LATERAL SLOPE 0.50	Grass, no distress	8
ROAD/SIDEWALK/SHOULDER 0.50	Grass shoulder, no distress	8
CULVERT 1.00	16' x 18.5' box culvert, in good condition	6
WALL DRAINS 1.00	Weep holes, partially filled with soil	6

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	Clean weep holes - 10 hrs labor x \$55/hr = \$550. Patch Spalls - 10 sf x \$15/sf = \$150. Labor - 20 hrs x \$55/hr = \$1,100
<b>Repair Cost:</b>	\$1,800

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001DA: BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DA\_336.475\_L\_1.JPG

<b>Wall ID:</b>	BLRI-0001DA-336.475-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 28, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	77	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Near Park MP 335.3		

### Wall Measurements

<b>Wall Length (ft.):</b>	65	<b>Face Area (sq.):</b>	450
<b>Average Wall Height (ft.):</b>	6	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	22	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil, no observed settlement or cracks	8
MORTAR 8.00	Sound and durable	8
STONE MASONRY 8.00	Sound and durable	8
DOWNSLOPE 0.50	1 lane road in good condition	8
LATERAL SLOPE 0.50	Grass, no distress	8
ROAD/SIDEWALK/SHOULDER 0.50	Grass shoulder, no distress	8
WALL DRAINS 1.00	Weep holes, partially soil filled	6
CULVERT 1.00	18.5' x 16' box culvert, in good condition	7

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DA: BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DA\_336.475\_R\_1.JPG



BLRI\_0001DA\_336.475\_R\_2.JPG

<b>Wall ID:</b>	BLRI-0001DA-337.345-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 29, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	79	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Crossing over gravel road Near Park MP 336.3		

### Wall Measurements

<b>Wall Length (ft.):</b>	72	<b>Face Area (sq.):</b>	325
<b>Average Wall Height (ft.):</b>	4	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	21	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	8
WALL FOUNDATION MATERIAL 8.00	Soil, no observed settlement or cracks	8
MORTAR 8.00	Minor efflorescence	8
STONE MASONRY 8.00	Minor moss and efflorescence	8
CULVERT 0.50	19'W x 17'H culvert/overpass	8
ROAD/SIDEWALK/SHOULDER 0.50	Grass, flat, no distress	8
VEGETATION 0.50	Minor vegetation	8
WALL DRAINS 0.50	No drainage-related problems	8
DOWNSLOPE 1.00	Gravel road	7

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DA: BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DA\_337.345\_L\_1.JPG

<b>Wall ID:</b>	BLRI-0001DA-337.345-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 29, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	79	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 336.3		

### Wall Measurements

<b>Wall Length (ft.):</b>	65	<b>Face Area (sq.):</b>	300
<b>Average Wall Height (ft.):</b>	4	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	21	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	8
WALL FOUNDATION MATERIAL 8.00	Soil, no observed settlement or cracks	8
MORTAR 8.00	Good condition, minor efflorescence`	8
STONE MASONRY 8.00	Minor moss and efflorescence	8
CULVERT 0.50	19'W x 17'H culvert/overpass	8
ROAD/SIDEWALK/SHOULDER 0.50	Grass, flat, no distress	8
VEGETATION 0.50	Minor vegetation on wall	8
WALL DRAINS 0.50	No drainage-related problems	8
DOWNSLOPE 1.00	Gravel road	7

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DA: BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DA\_337.345\_R\_1.JPG

<b>Wall ID:</b>	BLRI-0001DA-341.116-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 29, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	67	<b>Maintenance Action:</b>	Maintenance

### Wall Description

<b>Wall Function:</b>	Cut Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Near Park MP 340.1		

### Wall Measurements

<b>Wall Length (ft.):</b>	175	<b>Face Area (sq.):</b>	2700
<b>Average Wall Height (ft.):</b>	15	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	22	<b>Vertical Offset (ft.):</b>	2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil/rock, no observed settlement or cracks	7
MORTAR 8.00	Fair condition, some moss and efflorescence	6
STONE MASONRY 8.00	Good condition, some moss and efflorescence	7
ROAD/SIDEWALK/SHOULDER 0.50	Grass, flat, no distress	8
WALL DRAINS 0.50	No drainage-related problems	8
DOWNSLOPE 1.00	Steep slope, heavily wooded, no distress	6
LATERAL SLOPE 1.00	Steep slope, heavily wooded, no distress	6
VEGETATION 1.00	Vegetation in front of wall, no distress	6

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	Clear vegetation in front of wall - 10 hrs x \$55/hr = \$550
<b>Repair Cost:</b>	\$550

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001DA: BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DA\_341.116\_L\_1.JPG

<b>Wall ID:</b>	BLRI-0001DA-344.951-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 30, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	73	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Connected to abutment wall Near Park MP 344.1		

### Wall Measurements

<b>Wall Length (ft.):</b>	79	<b>Face Area (sq.):</b>	1000
<b>Average Wall Height (ft.):</b>	12	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	29	<b>Vertical Offset (ft.):</b>	2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil, no observed settlement or cracks	8
MORTAR 8.00	Minor moss, efflorescence. Minor mortar loss	7
STONE MASONRY 8.00	Minor moss and efflorescence	7
ROAD/SIDEWALK/SHOULDER 0.50	Grass, flat, no distress	8
WALL DRAINS 0.50	No drainage-related problems	8
DOWNSLOPE 1.00	Gentle slope, grass with some scattered trees, no distress	7
LATERAL SLOPE 1.00	Gentle slope, some scattered trees, no distress	7

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DA: BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DA\_344.951\_R\_1.JPG



BLRI\_0001DA\_344.951\_R\_2.JPG

<b>Wall ID:</b>	BLRI-0001DA-344.996-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 30, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	72	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Cut Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Curved retaining wall Park MP 343.2		

### Wall Measurements

<b>Wall Length (ft.):</b>	396	<b>Face Area (sq.):</b>	6000
<b>Average Wall Height (ft.):</b>	15	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	29	<b>Vertical Offset (ft.):</b>	2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil, no observed settlement or cracks	8
MORTAR 8.00	Minor moss	7
STONE MASONRY 8.00	Minor moss and efflorescence	7
ROAD/SIDEWALK/SHOULDER 0.50	Grass, no distress	8
WALL DRAINS 0.50	No drainage-related problems	8
DOWNSLOPE 1.00	Steep slope covered with brush and some trees, no distress	7
LATERAL SLOPE 1.00	Steep slope covered with brush and some trees, no distress	7
VEGETATION 1.00	Brush and some trees, no distress	7

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DA: BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DA\_344.996\_R\_1.JPG



BLRI\_0001DA\_344.996\_R\_2.JPG

<b>Wall ID:</b>	BLRI-0001DA-345.053-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 30, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	80	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Near Park MP 344.0		

### Wall Measurements

<b>Wall Length (ft.):</b>	105	<b>Face Area (sq.):</b>	1600
<b>Average Wall Height (ft.):</b>	15	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	34	<b>Vertical Offset (ft.):</b>	2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	8
WALL FOUNDATION MATERIAL 8.00	Soil, no observed settlement or cracks	8
MORTAR 8.00	Minor moss	8
STONE MASONRY 8.00	Minor cracks	8
DOWNSLOPE 0.50	Grass, gentle slope, no distress	8
LATERAL SLOPE 0.50	Grass, gentle slope, no distress	8
ROAD/SIDEWALK/SHOULDER 0.50	Grass, no distress	8
VEGETATION 0.50	Grass, gentle slope, no distress	8
WALL DRAINS 0.50	No drainage-related problems	8

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DA: BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DA\_345.053\_L\_1.JPG



BLRI\_0001DA\_345.053\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001DA-345.116-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 30, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	72	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Near abutment Park MP 344.1		

### Wall Measurements

<b>Wall Length (ft.):</b>	85	<b>Face Area (sq.):</b>	1200
<b>Average Wall Height (ft.):</b>	14	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	32	<b>Vertical Offset (ft.):</b>	2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil, no observed settlement or cracks	8
MORTAR 8.00	Minor loss of mortar, minor moss, efflorescence	7
STONE MASONRY 8.00	Minor moss, efflorescence	7
ROAD/SIDEWALK/SHOULDER 0.50	Grass, flat, no distress	8
WALL DRAINS 0.50	No drainage-related problems	8
DOWNSLOPE 1.00	Gentle slope, wooded, no distress	7
LATERAL SLOPE 1.00	Gentle slope, wooded, no distress	7
VEGETATION 1.00	trees near wall, no distress	7

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001DA: BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DA\_345.116\_L\_1.JPG



BLRI\_0001DA\_345.116\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001DA-347.387-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 30, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	66	<b>Maintenance Action:</b>	Maintenance

### Wall Description

<b>Wall Function:</b>	Cut Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 346.3		

### Wall Measurements

<b>Wall Length (ft.):</b>	50	<b>Face Area (sq.):</b>	270
<b>Average Wall Height (ft.):</b>	5	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	6
WALL FOUNDATION MATERIAL 8.00	Soil/rock, no observed settlement or cracks	8
MORTAR 8.00	Some moss and efflorescence	6
STONE MASONRY 8.00	Some moss and efflorescence, few missing blocks	6
ROAD/SIDEWALK/SHOULDER 0.50	Grass shoulder, pavement in fair condition	8
WALL DRAINS 0.50	No drainage-related problems	8
DOWNSLOPE 1.00	Steep slope, heavily wooded, no distress	7
LATERAL SLOPE 1.00	Steep slope, heavily wooded, no distress	7
VEGETATION 1.00	Vegetation in front of wall, no distress	7

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	Replace missing stones - 30 sf x \$160/sf = \$4,800
<b>Repair Cost:</b>	\$4,800

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DA: BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DA\_347.387\_L\_1.JPG



BLRI\_0001DA\_347.387\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001DA-349.773-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 30, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	85	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Slope Protection	<b>Primary Wall Type:</b>	MSE - Geosynthetic Wrapped I
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	New Reinforced soil slope Park MP 348.7 EFLHD Project BLRI 2M23, N19		

### Wall Measurements

<b>Wall Length (ft.):</b>	141	<b>Face Area (sq.):</b>	2800
<b>Average Wall Height (ft.):</b>	19	<b>Face Angle (deg.):</b>	45
<b>Maximum Wall Height (ft.):</b>	197	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress, new construction, site of previous failure	9
WALL FOUNDATION MATERIAL 8.00	Soil, no observed settlement or cracks	8
WIRE/GEOSYNTHETIC FACING 8.00	Newly constructed, no distress	9
VEGETATION 0.50	vegetated face, good condition	8
ROAD/SIDEWALK/SHOULDER 0.50	Grass, flat, no distress	9
WALL DRAINS 0.50	No drainage-related problems	9
DOWNSLOPE 1.00	Steep slope, heavily wooded, no distress	7
LATERAL SLOPE 1.00	Steep slope, heavily wooded, no distress	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DA: BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DA\_349.773\_L\_1.JPG



BLRI\_0001DA\_349.773\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001DA-357.961-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 30, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	72	<b>Maintenance Action:</b>	Maintenance

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 356.8		

### Wall Measurements

<b>Wall Length (ft.):</b>	345	<b>Face Area (sq.):</b>	4500
<b>Average Wall Height (ft.):</b>	13	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	17	<b>Vertical Offset (ft.):</b>	2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil/rock, no observed settlement or cracks	8
MORTAR 8.00	Some moss, efflorescence	7
STONE MASONRY 8.00	Some moss, efflorescence	7
ROAD/SIDEWALK/SHOULDER 0.50	Grass, flat, no distress	8
WALL DRAINS 0.50	No drainage-related problems	8
DOWNSLOPE 1.00	Steep slope, heavily wooded, no distress	7
LATERAL SLOPE 1.00	Steep slope, heavily wooded, no distress	7
VEGETATION 1.00	Heavily vegetated in front of wall, not affecting performance	7

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	Clear vegetation in front of and on face of wall. Labor - 10 hrs x \$55/hr = \$550
<b>Repair Cost:</b>	\$550

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

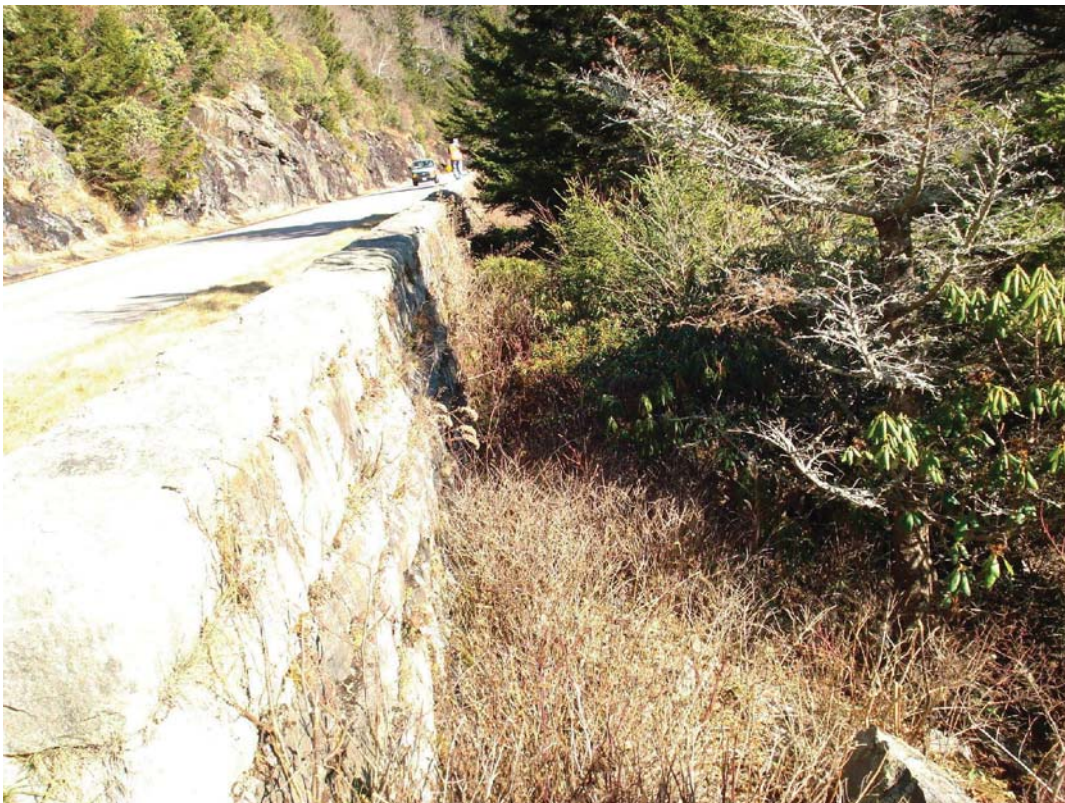
# Blue Ridge Parkway

ROUTE 0001DA: BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DA\_357.961\_L\_1.JPG



BLRI\_0001DA\_357.961\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001DA-358.461-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 30, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	89	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	New construction, headwall to protect spring/stream Park MP 357.3		

### Wall Measurements

<b>Wall Length (ft.):</b>	32	<b>Face Area (sq.):</b>	240
<b>Average Wall Height (ft.):</b>	7	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	17	<b>Vertical Offset (ft.):</b>	1

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress, new construction	9
WALL FOUNDATION MATERIAL 8.00	Soil/rock, no settlement or cracks	9
MORTAR 8.00	New construction, no moss or cracks	9
STONE MASONRY 8.00	New construction, no moss or lost stones	9
CULVERT 0.50	4' x 4', too deep to inspect	8
DOWNSLOPE 0.50	Grass, relatively flat, no distress	8
LATERAL SLOPE 0.50	Rock, steep, no distress	8
UPSLOPE 0.50	Rock, steep, no distress	8
WALL DRAINS 0.50	No drainage-related problems	9

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001DA: BLUE RIDGE PARKWAY - GILLESPIE GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DA\_358.461\_R\_1.JPG



BLRI\_0001DA\_358.461\_R\_2.JPG

<b>Wall ID:</b>	BLRI-0001DB-365.706-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - OTEEN SUB-DISTRICT		
<b>Inspection Date:</b>	December 01, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	22	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Wall has partially collapsed Being repaired under EFLHD Project BLRI 2P16		

### Wall Measurements

<b>Wall Length (ft.):</b>	600	<b>Face Area (sq.):</b>	7200
<b>Average Wall Height (ft.):</b>	12	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	25	<b>Vertical Offset (ft.):</b>	-30

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	Section collapsed, needs repair	1
WALL FOUNDATION MATERIAL 8.00	Soil/rock, section collapsed	2
MORTAR 8.00	Poor condition, lots of moss and deterioration	2
STONE MASONRY 8.00	Poor condition, moss, missing pieces, bulging areas	2
ROAD/SIDEWALK/SHOULDER 1.00	Lots of cracks in the road	4
DOWNSLOPE 1.00	Steep slope, heavily wooded, no distress	5
LATERAL SLOPE 1.00	Steep slope, heavily wooded, no distress	5
UPSLOPE 1.00	Steep slope, heavily wooded, no distress	5
WALL DRAINS 1.00	No problems associated with drainage	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DB: BLUE RIDGE PARKWAY - OTEEN SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DB\_365.706\_L\_1.JPG



BLRI\_0001DB\_365.706\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001DB-366.007-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - OTEEN SUB-DISTRICT		
<b>Inspection Date:</b>	December 01, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	64	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 364.9		

### Wall Measurements

<b>Wall Length (ft.):</b>	485	<b>Face Area (sq.):</b>	6500
<b>Average Wall Height (ft.):</b>	13	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	35	<b>Vertical Offset (ft.):</b>	-20

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	6
WALL FOUNDATION MATERIAL 8.00	Soil/rock, no settlement or cracks	7
MORTAR 8.00	Some moss and deterioration	6
STONE MASONRY 8.00	Some deterioration and missing pieces	7
DOWNSLOPE 1.00	Very steep, heavily wooded, no distress	5
LATERAL SLOPE 1.00	Heavily wooded, no distress	5
UPSLOPE 1.00	Very steep, heavily wooded, no distress	5
ROAD/SIDEWALK/SHOULDER 1.00	Some cracks in the pavement	7
WALL DRAINS 1.00	No drainage-related problems	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DB: BLUE RIDGE PARKWAY - OTEEN SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DB\_366.007\_L\_1.JPG



BLRI\_0001DB\_366.007\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001DB-366.124-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - OTEEN SUB-DISTRICT		
<b>Inspection Date:</b>	December 01, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	62	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 365.08		

### Wall Measurements

<b>Wall Length (ft.):</b>	325	<b>Face Area (sq.):</b>	1500
<b>Average Wall Height (ft.):</b>	4	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	7	<b>Vertical Offset (ft.):</b>	-40

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	6
WALL FOUNDATION MATERIAL 8.00	Soil/rock, no settlement or cracks	7
MORTAR 8.00	Some moss and missing sections	6
STONE MASONRY 8.00	Some deterioration and missing sections	6
DOWNSLOPE 1.00	Very steep, heavily wooded, no distress	5
LATERAL SLOPE 1.00	Very steep, heavily wooded, no distress	5
UPSLOPE 1.00	Very steep, heavily wooded, no distress	5
ROAD/SIDEWALK/SHOULDER 1.00	Some cracks in the pavement	7
VEGETATION 1.00	Vegetation growing in front of wall, not affecting wall performance	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DB: BLUE RIDGE PARKWAY - OTEEN SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DB\_366.124\_L\_1.JPG



BLRI\_0001DB\_366.124\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001DB-366.362-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - OTEEN SUB-DISTRICT		
<b>Inspection Date:</b>	December 01, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	62	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 365.3		

### Wall Measurements

<b>Wall Length (ft.):</b>	370	<b>Face Area (sq.):</b>	6000
<b>Average Wall Height (ft.):</b>	16	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	30	<b>Vertical Offset (ft.):</b>	2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	6
WALL FOUNDATION MATERIAL 8.00	Soil/rock, no settlement or cracks	7
MORTAR 8.00	Minor missing sections	6
STONE MASONRY 8.00	Some deterioration, 1 missing block	6
DOWNSLOPE 1.00	Very steep, heavily wooded, no distress	5
LATERAL SLOPE 1.00	Very steep, heavily wooded, no distress	5
ROAD/SIDEWALK/SHOULDER 1.00	Some pavement patch	7
VEGETATION 1.00	Minor vegetation on wall face, some brush in front of wall, not affecting wall performance	7
WALL DRAINS 1.00	No drainage-related problems	7

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001DB: BLUE RIDGE PARKWAY - OTEEN SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DB\_366.362\_L\_1.JPG



BLRI\_0001DB\_366.362\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001DB-369.544-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - OTEEN SUB-DISTRICT		
<b>Inspection Date:</b>	December 01, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	65	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 368.5		

### Wall Measurements

<b>Wall Length (ft.):</b>	309	<b>Face Area (sq.):</b>	2000
<b>Average Wall Height (ft.):</b>	6	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	17	<b>Vertical Offset (ft.):</b>	1

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil/rock, no settlement or cracks	7
MORTAR 8.00	Some missing sections	6
STONE MASONRY 8.00	Some moss and deterioration	6
DOWNSLOPE 1.00	Very steep, heavily wooded, no distress	6
LATERAL SLOPE 1.00	Very steep, heavily wooded, no distress	6
ROAD/SIDEWALK/SHOULDER 1.00	Minor cracks on the pavement	7
VEGETATION 1.00	Minor vegetation on face, some brush in front of wall, not affecting wall performance	7
WALL DRAINS 1.00	No drainage-related problems	7

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DB: BLUE RIDGE PARKWAY - OTEEN SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DB\_369.544\_L\_1.JPG



BLRI\_0001DB\_369.544\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001DB-378.431-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - OTEEN SUB-DISTRICT		
<b>Inspection Date:</b>	December 01, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Cut Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 377.4 Wall is also supporting a state route above the parkway		

### Wall Measurements

<b>Wall Length (ft.):</b>	445	<b>Face Area (sq.):</b>	5200
<b>Average Wall Height (ft.):</b>	11	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	25	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil, no settlement or cracks	7
MORTAR 8.00	Some deterioration	7
STONE MASONRY 8.00	Some moss and efflorescence	7
LATERAL SLOPE 1.00	Grass/wooded, no distress	7
UPSLOPE 1.00	Grass, no distress	7
WALL DRAINS 1.00	Weepholes 10 ft on center, some have soil inside No drainage-related problems	7

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# **Blue Ridge Parkway**

**ROUTE 0001DB: BLUE RIDGE PARKWAY - OTEEN SUB-DISTRICT**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0001DB-378.431-R.**

<b>Wall ID:</b>	BLRI-0001DB-385.179-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - OTEEN SUB-DISTRICT		
<b>Inspection Date:</b>	November 08, 2007	<b>Approximate Year Built:</b>	1955
<b>*Wall Rating:</b>	68	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Close to Park HQ Park MP 384.1		

### Wall Measurements

<b>Wall Length (ft.):</b>	50	<b>Face Area (sq.):</b>	285
<b>Average Wall Height (ft.):</b>	5	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	12	<b>Vertical Offset (ft.):</b>	-1

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	soil, no settlement or erosion	8
MORTAR 8.00	20% cracked or separated, repoint	5
STONE MASONRY 8.00	Minor chips, overall no degradation of stone	7
DOWNSLOPE 0.50	Gradual	8
WALL DRAINS 1.00	Weep holes 10' on center, partially filled with soil	6
CULVERT 1.00	12'H x 9'W Minor spalling at weep holes	7
LATERAL SLOPE 1.00	Moderate slope, wooded	7
ROAD/SIDEWALK/SHOULDER 1.00	Grass shoulder	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	Repoint 20% = 57 sf x \$75/sf = \$4,275. Clean weep holes - 5 hrs x \$55/hr = \$275
<b>Repair Cost:</b>	\$4,550

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DB: BLUE RIDGE PARKWAY - OTEEN SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DB\_385.179\_L\_1.JPG



BLRI\_0001DB\_385.179\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001DB-385.179-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - OTEEN SUB-DISTRICT		
<b>Inspection Date:</b>	November 08, 2007	<b>Approximate Year Built:</b>	1955
<b>*Wall Rating:</b>	74	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Close to Park HQ Park MP 384.1		

### Wall Measurements

<b>Wall Length (ft.):</b>	50	<b>Face Area (sq.):</b>	285
<b>Average Wall Height (ft.):</b>	5	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	12	<b>Vertical Offset (ft.):</b>	-6

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil, no settlement or erosion	8
MORTAR 8.00	Sound and durable	7
STONE MASONRY 8.00	No degradation	8
CULVERT 0.50	12'W x 9'H	8
DOWNSLOPE 0.50	Flat dirt road	8
WALL DRAINS 1.00	Weep holes 10' on center, partially filled with soil	6
LATERAL SLOPE 1.00	Gradual slope, wooded	7
ROAD/SIDEWALK/SHOULDER 1.00	Grass shoulder	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001DB: BLUE RIDGE PARKWAY - OTEEN SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DB\_385.179\_R\_1.JPG

<b>Wall ID:</b>	BLRI-0001DB-388.028-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - OTEEN SUB-DISTRICT		
<b>Inspection Date:</b>	November 08, 2007	<b>Approximate Year Built:</b>	1955
<b>*Wall Rating:</b>	75	<b>Maintenance Action:</b>	Maintenance

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Cantilever - Concrete
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 386.9		

### Wall Measurements

<b>Wall Length (ft.):</b>	105	<b>Face Area (sq.):</b>	320
<b>Average Wall Height (ft.):</b>	3	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	18	<b>Vertical Offset (ft.):</b>	-3

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil, no settlement or erosion	8
CONCRETE 8.00	Sound and durable	8
CULVERT 0.50	14'W x 16'H concrete box	8
VEGETATION 1.00	Trees on sides and top of wall	5
WALL DRAINS 1.00	Weep holes 10' on center, filled with soil, weep holes need to be cleaned	6
DOWNSLOPE 1.00	Gradual, dirt road	7
LATERAL SLOPE 1.00	Gradual, wooded	7
UPSLOPE 1.00	Grassy, trees	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	Clean weep holes - 10 hrs. Cut trees - 10 hrs. 20 hrs labor x \$55/hr = \$1,100
<b>Repair Cost:</b>	\$1,100

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DB: BLUE RIDGE PARKWAY - OTEEN SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DB\_388.028\_R\_1.JPG

<b>Wall ID:</b>	BLRI-0001DB-388.031-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - OTEEN SUB-DISTRICT		
<b>Inspection Date:</b>	November 08, 2007	<b>Approximate Year Built:</b>	1955
<b>*Wall Rating:</b>	75	<b>Maintenance Action:</b>	Maintenance

**Wall Description**

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Cantilever - Concrete
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 386.9		

**Wall Measurements**

<b>Wall Length (ft.):</b>	65	<b>Face Area (sq.):</b>	350
<b>Average Wall Height (ft.):</b>	5	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	18	<b>Vertical Offset (ft.):</b>	-3

**Assessed Elements**

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil, no settlement or erosion	8
CONCRETE 8.00	Sound and durable	8
CULVERT 0.50	14'W x 16'H concrete box	8
VEGETATION 1.00	Trees on sides and top of wall	5
WALL DRAINS 1.00	Weep holes 10' on center, filled partially with soil, weepholes need to be cleaned	6
DOWNSLOPE 1.00	Gradual, dirt road	7
LATERAL SLOPE 1.00	Gradual, wooded	7
UPSLOPE 1.00	Grass and trees	7

**Repair Recommendations**

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	Clean Weep Holes - 10 hrs. Clear vegetation - 10 hrs. 20 hrs labor x \$55/hr = \$1,100
<b>Repair Cost:</b>	\$1,100

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DB: BLUE RIDGE PARKWAY - OTEEN SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DB\_388.031\_L\_1.JPG

<b>Wall ID:</b>	BLRI-0001DB-388.512-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - OTEEN SUB-DISTRICT		
<b>Inspection Date:</b>	November 08, 2007	<b>Approximate Year Built:</b>	1955
<b>*Wall Rating:</b>	50	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Head wall for a 4 ft diameter steel pipe. Park MP 387.46		

### Wall Measurements

<b>Wall Length (ft.):</b>	19	<b>Face Area (sq.):</b>	70
<b>Average Wall Height (ft.):</b>	5	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	-3

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	Stability of wall is threatened by undermining of foundation	4
WALL FOUNDATION MATERIAL 8.00	Eroded/scoured, no evidence of settlement 8'L x 2'H x 1'D void under foundation, exposed rebar	3
CONCRETE 8.00	Sound and durable	7
LATERAL SLOPE 1.00	Steep and eroded	5
DOWNSLOPE 1.00	2.5H:1V, wooded	6
CULVERT 1.00	4' diameter galvanized corrugated circular metal pipe	7
UPSLOPE 1.00	Lightly wooded, 2.5H:1V	7
WALL DRAINS 1.00	None	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Place riprap protection stone at base, sides of stream, underneath foundation - 20'W x 15'L x 2'D = 23 cy x \$130/cy = \$2,990. Geotextile - erosion control at base of riprap - 20' x 15' = 30 sy x \$5/sy = \$150. Labor - 25 hrs x \$55/hr = \$1,375. Dump Truck - 25 h
<b>Repair Cost:</b>	\$14,205

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DB: BLUE RIDGE PARKWAY - OTEEN SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DB\_388.512\_L\_1.JPG



BLRI\_0001DB\_388.512\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001DB-388.512-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - OTEEN SUB-DISTRICT		
<b>Inspection Date:</b>	November 08, 2007	<b>Approximate Year Built:</b>	1955
<b>*Wall Rating:</b>	71	<b>Maintenance Action:</b>	Repair Elements

**Wall Description**

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Cantilever - Concrete
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 387.46		

**Wall Measurements**

<b>Wall Length (ft.):</b>	21	<b>Face Area (sq.):</b>	90
<b>Average Wall Height (ft.):</b>	4	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	-18

**Assessed Elements**

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress, needs some maintenance.	7
WALL FOUNDATION MATERIAL 8.00	Soil, no settlement or erosion.	7
MORTAR 8.00	Overall sound and durable, missing 5%	7
STONE MASONRY 8.00	Good, no cracks.	8
LATERAL SLOPE 1.00	1H:1V rocky, soil eroded from embankment	5
DOWNSLOPE 1.00	3H:1V rising, rocky, in drainage channel	6
CULVERT 1.00	Galvanized metal 4ft diameter, not corroded.	7
UPSLOPE 1.00	Grassed, gentle slope	7
WALL DRAINS 1.00	No problems associated with drainage	7

**Repair Recommendations**

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Repoint Mortar - 45 sf x \$75/sf = \$300. Labor - 8 hrs x \$55/hr = \$440.
<b>Repair Cost:</b>	\$740

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



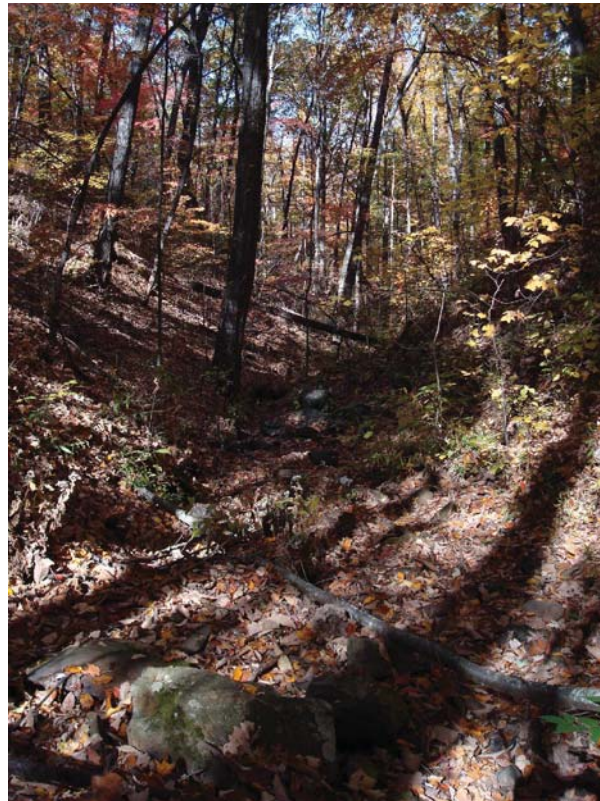
# Blue Ridge Parkway

ROUTE 0001DB: BLUE RIDGE PARKWAY - OTEEN SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DB\_388.512\_R\_1.JPG



BLRI\_0001DB\_388.512\_R\_2.JPG

<b>Wall ID:</b>	BLRI-0001DB-390.342-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - OTEEN SUB-DISTRICT		
<b>Inspection Date:</b>	November 08, 2007	<b>Approximate Year Built:</b>	1955
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 389.3		

### Wall Measurements

<b>Wall Length (ft.):</b>	34	<b>Face Area (sq.):</b>	125
<b>Average Wall Height (ft.):</b>	9	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	10	<b>Vertical Offset (ft.):</b>	-4

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Some minor scour, no settlement.	7
MORTAR 8.00	Sound and durable, minor separation - 5% missing	6
STONE MASONRY 8.00	Good, no degradation.	8
VEGETATION 1.00	Trees 1ft diameter growing against the wall.	6
CULVERT 1.00	11.5'W x 7.5'H concrete box	7
DOWNSLOPE 1.00	Streambed	7
LATERAL SLOPE 1.00	Gradual wooded.	7
ROAD/SIDEWALK/SHOULDER 1.00	Grass shoulder	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	Repoint mortar - 10 sf x \$75/sf = 4750
<b>Repair Cost:</b>	\$750

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DB: BLUE RIDGE PARKWAY - OTEEN SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DB\_390.342\_L\_1.JPG



BLRI\_0001DB\_390.342\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001DB-390.342-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - OTEEN SUB-DISTRICT		
<b>Inspection Date:</b>	November 08, 2007	<b>Approximate Year Built:</b>	1955
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 389.3		

### Wall Measurements

<b>Wall Length (ft.):</b>	37	<b>Face Area (sq.):</b>	185
<b>Average Wall Height (ft.):</b>	8	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	11	<b>Vertical Offset (ft.):</b>	-3

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil, no settlement, slight scour,	7
MORTAR 8.00	Sound and durable, minor separation, 5% missing.	6
STONE MASONRY 8.00	Good, no degradation.	8
CULVERT 1.00	10ft W x 7ft H, good condition	7
DOWNSLOPE 1.00	Streambed	7
LATERAL SLOPE 1.00	Gradual wooded	7
ROAD/SIDEWALK/SHOULDER 1.00	Grass shoulder	7
VEGETATION 1.00	Some small vegetation at the top	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	Repoint Mortar - 7 sf x \$75/sf = \$525
<b>Repair Cost:</b>	\$525

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

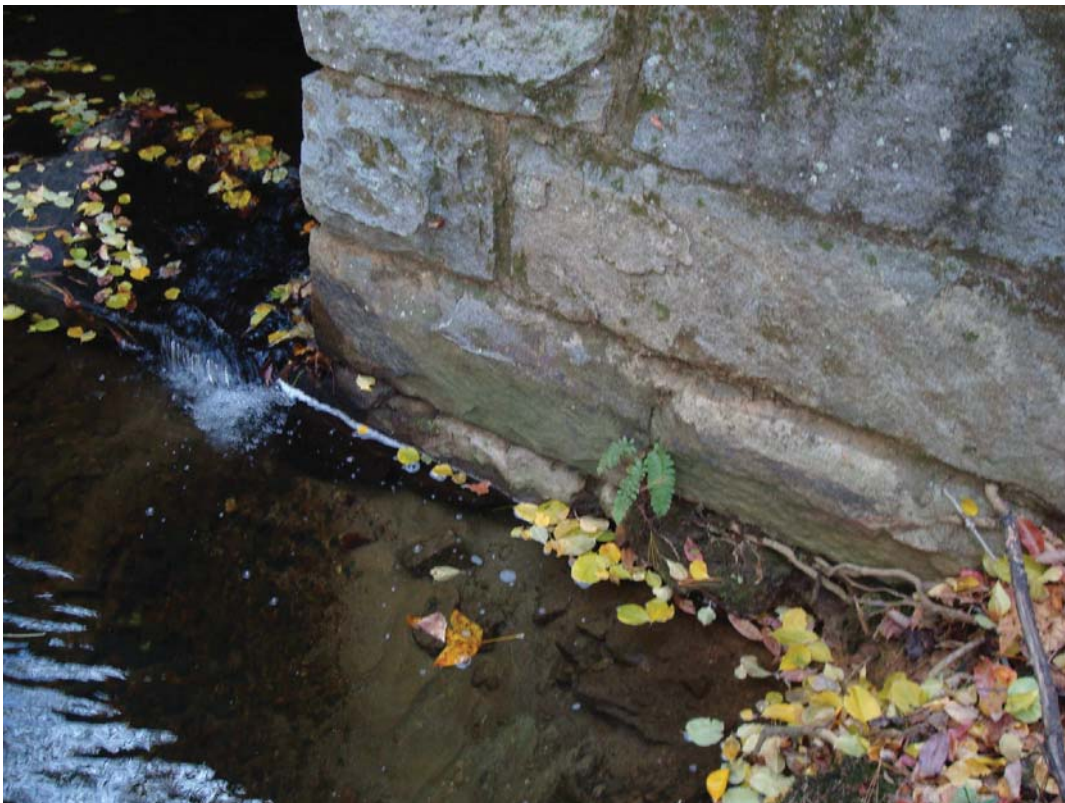
# Blue Ridge Parkway

ROUTE 0001DB: BLUE RIDGE PARKWAY - OTEEN SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DB\_390.342\_R\_1.JPG



BLRI\_0001DB\_390.342\_R\_2.JPG

<b>Wall ID:</b>	BLRI-0001DB-390.895-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - OTEEN SUB-DISTRICT		
<b>Inspection Date:</b>	November 08, 2007	<b>Approximate Year Built:</b>	1955
<b>*Wall Rating:</b>	78	<b>Maintenance Action:</b>	Maintenance

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Cantilever - Concrete
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Head wall for a culvert over a gravel road.		

### Wall Measurements

<b>Wall Length (ft.):</b>	80	<b>Face Area (sq.):</b>	480
<b>Average Wall Height (ft.):</b>	8	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	15	<b>Vertical Offset (ft.):</b>	-2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	8
WALL FOUNDATION MATERIAL 8.00	On soil, no settlement or erosion.	8
CONCRETE 8.00	Minor, good conditions, sound and durable.	8
CULVERT 0.50	15ft W x 13 ft H concrete box	8
DOWNSLOPE 0.50	Flat, gravel road	8
WALL DRAINS 1.00	Weep holes 10 ft center to center, filled with soil, not affecting the wall.	5
LATERAL SLOPE 1.00	Gradual, wooded.	7
ROAD/SIDEWALK/SHOULDER 1.00	Grass shoulder	7
TRAFFIC BARRIER/FENCE 1.00	Pressure treated guard wall	7

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	Clean weep holes - 20 hrs x \$55/hr = \$1,100
<b>Repair Cost:</b>	\$1,100

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DB: BLUE RIDGE PARKWAY - OTEEN SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DB\_390.895\_L\_1.JPG



BLRI\_0001DB\_390.895\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001DB-390.895-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - OTEEN SUB-DISTRICT		
<b>Inspection Date:</b>	November 08, 2007	<b>Approximate Year Built:</b>	1955
<b>*Wall Rating:</b>	78	<b>Maintenance Action:</b>	Maintenance

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Cantilever - Concrete
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 389.85		

### Wall Measurements

<b>Wall Length (ft.):</b>	80	<b>Face Area (sq.):</b>	480
<b>Average Wall Height (ft.):</b>	6	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	15	<b>Vertical Offset (ft.):</b>	-2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	8
WALL FOUNDATION MATERIAL 8.00	Soil, no settlement or erosion	8
CONCRETE 8.00	Overall sound and durable, minor spalling	8
CULVERT 0.50	15'W x 13'H concrete box	8
DOWNSLOPE 0.50	Flat, gravel roadway	8
WALL DRAINS 1.00	Weep holes, 10' on center, filled with soil, not affecting performance	5
LATERAL SLOPE 1.00	Gradual, wooded	7
ROAD/SIDEWALK/SHOULDER 1.00	Grass shoulder	7
TRAFFIC BARRIER/FENCE 1.00	Wood guardrail	7

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	Clean weep holes - 10 hrs x \$55/hr = \$550
<b>Repair Cost:</b>	\$550

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001DB: BLUE RIDGE PARKWAY - OTEEN SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DB\_390.895\_R\_1.JPG



BLRI\_0001DB\_390.895\_R\_2.JPG

<b>Wall ID:</b>	BLRI-0001DB-404.875-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - OTEEN SUB-DISTRICT		
<b>Inspection Date:</b>	November 07, 2007	<b>Approximate Year Built:</b>	1955
<b>*Wall Rating:</b>	73	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Slope Protection	<b>Primary Wall Type:</b>	Gravity - Dry Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 403.858		

### Wall Measurements

<b>Wall Length (ft.):</b>	200	<b>Face Area (sq.):</b>	8000
<b>Average Wall Height (ft.):</b>	40	<b>Face Angle (deg.):</b>	45
<b>Maximum Wall Height (ft.):</b>	50	<b>Vertical Offset (ft.):</b>	-4

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Embankment soil, no settlement or erosion	7
PLACED STONE 8.00	Sound and durable, 2' - 3' diameter riprap	8
DOWNSLOPE 0.50	4H:1V	8
LATERAL SLOPE 0.50	Gradual	8
WALL DRAINS 0.50	Self-draining	8
ROAD/SIDEWALK/SHOULDER 1.00	Grassy shoulder	7
VEGETATION 1.00	Some vegetation growing between stones	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DB: BLUE RIDGE PARKWAY - OTEEN SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DB\_404.875\_R\_1.JPG

<b>Wall ID:</b>	BLRI-0001DB-408.271-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - OTEEN SUB-DISTRICT		
<b>Inspection Date:</b>	November 07, 2007	<b>Approximate Year Built:</b>	1955
<b>*Wall Rating:</b>	72	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Fill wall just before Buck Spring Tunnel Park MP 407.266		

### Wall Measurements

<b>Wall Length (ft.):</b>	80	<b>Face Area (sq.):</b>	800
<b>Average Wall Height (ft.):</b>	18	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	18	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	No settlement or erosion.	7
MORTAR 8.00	Minor separation from stone. Sound and durable.	7
STONE MASONRY 8.00	No degradation.	8
ROAD/SIDEWALK/SHOULDER 0.50	Grass shoulder, good condition	8
VEGETATION 1.00	Minor vegetation on the face, small trees in front of the wall.	6
DOWNSLOPE 1.00	Flat for 15ft, then 2H:1V, wooded	7
LATERAL SLOPE 1.00	Gradual, wooded.	7
WALL DRAINS 1.00	No problems associate with drainage.	7

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	Clear vegetation, 5-ft width in front of wall - 10 hrs x \$55/hr = \$550
<b>Repair Cost:</b>	\$550

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

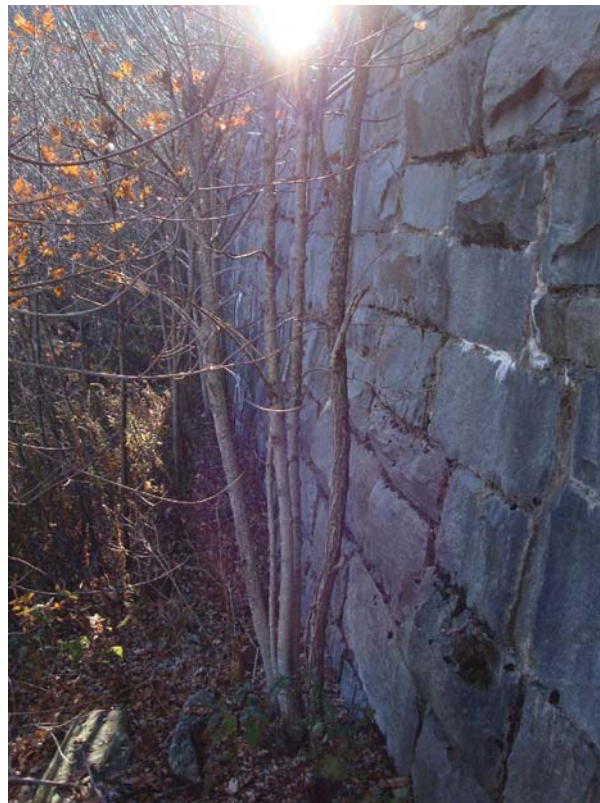
# Blue Ridge Parkway

ROUTE 0001DB: BLUE RIDGE PARKWAY - OTEEN SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DB\_408.271\_L\_1.JPG



BLRI\_0001DB\_408.271\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001DC-413.751-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BALSAM GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 07, 2007	<b>Approximate Year Built:</b>	1945
<b>*Wall Rating:</b>	68	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 412.725		

### Wall Measurements

<b>Wall Length (ft.):</b>	250	<b>Face Area (sq.):</b>	1500
<b>Average Wall Height (ft.):</b>	6	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	12	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil, no evidence of settlement or erosion	7
MORTAR 8.00	Efflorescence 25% of wall, cracks and missing mortar 10% of wall	6
STONE MASONRY 8.00	Minor fractures	7
ROAD/SIDEWALK/SHOULDER 0.50	Grass shoulder	8
VEGETATION 1.00	Heavily vegetated at the toe, minor on the wall face, not affecting wall performance	6
DOWNSLOPE 1.00	Flat for 5', then 2H:1V, wooded	7
LATERAL SLOPE 1.00	Gradual, wooded	7
WALL DRAINS 1.00	No problems associated with drainage	7

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	Repoint mortar - 150 sf x \$75/sf = \$11,250. Clear 5' wide path in front of wall for access - 10 hrs x \$55/hr = \$550
<b>Repair Cost:</b>	\$11,800

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DC: BLUE RIDGE PARKWAY - BALSAM GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DC\_413.751\_L\_1.JPG



BLRI\_0001DC\_413.751\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001DC-413.819-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BALSAM GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 07, 2007	<b>Approximate Year Built:</b>	1945
<b>*Wall Rating:</b>	67	<b>Maintenance Action:</b>	No Action

**Wall Description**

<b>Wall Function:</b>	Slope Protection	<b>Primary Wall Type:</b>	Gravity - Dry Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	100 ft. south of GM wall		

**Wall Measurements**

<b>Wall Length (ft.):</b>	430	<b>Face Area (sq.):</b>	1900
<b>Average Wall Height (ft.):</b>	4	<b>Face Angle (deg.):</b>	45
<b>Maximum Wall Height (ft.):</b>	75	<b>Vertical Offset (ft.):</b>	5

**Assessed Elements**

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	Moderate pavement cracking - evidence of slope movement - monitor	6
WALL FOUNDATION MATERIAL 8.00	Embankment soil, may be slope movement	6
PLACED STONE 8.00	Sound and durable, 4' diameter riprap	8
DOWNSLOPE 0.50	Gradual	8
LATERAL SLOPE 0.50	Gradual	8
WALL DRAINS 0.50	Self-draining	8
ROAD/SIDEWALK/SHOULDER 1.00	Grass shoulder, pavement cracking/movement	6
VEGETATION 1.00	Some vegetation growing between stones	7

**Repair Recommendations**

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001DC: BLUE RIDGE PARKWAY - BALSAM GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DC\_413.819\_L\_1.JPG



BLRI\_0001DC\_413.819\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001DC-414.357-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BALSAM GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 07, 2007	<b>Approximate Year Built:</b>	1945
<b>*Wall Rating:</b>	67	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Slope Protection	<b>Primary Wall Type:</b>	Gravity - Dry Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 413.35		

### Wall Measurements

<b>Wall Length (ft.):</b>	515	<b>Face Area (sq.):</b>	3000
<b>Average Wall Height (ft.):</b>	5	<b>Face Angle (deg.):</b>	45
<b>Maximum Wall Height (ft.):</b>	75	<b>Vertical Offset (ft.):</b>	-5

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	Monitor pavement movement/distress - may threaten global stability	6
WALL FOUNDATION MATERIAL 8.00	Embankment soil, may be slope movement	6
PLACED STONE 8.00	Sound and durable	8
DOWNSLOPE 0.50	Gradual	8
LATERAL SLOPE 0.50	Gradual	8
WALL DRAINS 0.50	Self-draining	8
ROAD/SIDEWALK/SHOULDER 1.00	Grass shoulder, pavement cracking	6
VEGETATION 1.00	Some vegetation growing between stones	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DC: BLUE RIDGE PARKWAY - BALSAM GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DC\_414.357\_L\_1.JPG



BLRI\_0001DC\_414.357\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001DC-414.534-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BALSAM GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 07, 2007	<b>Approximate Year Built:</b>	1945
<b>*Wall Rating:</b>	67	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Slope Protection	<b>Primary Wall Type:</b>	Gravity - Dry Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 413.5		

### Wall Measurements

<b>Wall Length (ft.):</b>	440	<b>Face Area (sq.):</b>	19000
<b>Average Wall Height (ft.):</b>	43	<b>Face Angle (deg.):</b>	45
<b>Maximum Wall Height (ft.):</b>	75	<b>Vertical Offset (ft.):</b>	-3

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	Monitor pavement cracking, global stability may be threatened	6
WALL FOUNDATION MATERIAL 8.00	Embankment soil, may be slope movement	6
PLACED STONE 8.00	Sound and durable, 4' diameter riprap	8
DOWNSLOPE 0.50	Gradual	8
LATERAL SLOPE 0.50	Gradual	8
WALL DRAINS 0.50	Self-draining	8
ROAD/SIDEWALK/SHOULDER 1.00	Grass shoulder, pavement cracking	6
VEGETATION 1.00	Some vegetation growing between stones	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DC: BLUE RIDGE PARKWAY - BALSAM GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DC\_414.534\_L\_1.JPG

<b>Wall ID:</b>	BLRI-0001DC-414.665-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BALSAM GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 07, 2007	<b>Approximate Year Built:</b>	1945
<b>*Wall Rating:</b>	67	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Slope Protection	<b>Primary Wall Type:</b>	Gravity - Dry Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 413.65		

### Wall Measurements

<b>Wall Length (ft.):</b>	280	<b>Face Area (sq.):</b>	10600
<b>Average Wall Height (ft.):</b>	37	<b>Face Angle (deg.):</b>	45
<b>Maximum Wall Height (ft.):</b>	50	<b>Vertical Offset (ft.):</b>	-5

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	Monitor pavement cracking, global stability likely marginal	6
WALL FOUNDATION MATERIAL 8.00	Embankment soil, may be slope movement	6
PLACED STONE 8.00	Sound and durable, up to 4' diameter riprap	8
DOWNSLOPE 0.50	Gradual	8
LATERAL SLOPE 0.50	Gradual	8
WALL DRAINS 0.50	Self-draining	8
ROAD/SIDEWALK/SHOULDER 1.00	Grass shoulder, pavement cracking/moving	6
VEGETATION 1.00	Some vegetation growing between stones	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DC: BLUE RIDGE PARKWAY - BALSAM GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DC\_414.665\_L\_1.JPG

<b>Wall ID:</b>	BLRI-0001DC-415.493-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BALSAM GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 07, 2007	<b>Approximate Year Built:</b>	1945
<b>*Wall Rating:</b>	73	<b>Maintenance Action:</b>	No Action

**Wall Description**

<b>Wall Function:</b>	Slope Protection	<b>Primary Wall Type:</b>	Gravity - Dry Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 414.50		

**Wall Measurements**

<b>Wall Length (ft.):</b>	200	<b>Face Area (sq.):</b>	7000
<b>Average Wall Height (ft.):</b>	35	<b>Face Angle (deg.):</b>	45
<b>Maximum Wall Height (ft.):</b>	50	<b>Vertical Offset (ft.):</b>	-5

**Assessed Elements**

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Embankment soil, no evidence of settlement or erosion	7
PLACED STONE 8.00	Sound and durable, riprap up to 5' diameter	8
DOWNSLOPE 0.50	Gradual	8
LATERAL SLOPE 0.50	Gradual	8
ROAD/SIDEWALK/SHOULDER 0.50	Grass shoulder	8
VEGETATION 1.00	Some vegetation growing through riprap	7
WALL DRAINS 1.00	Self-draining	7

**Repair Recommendations**

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001DC: BLUE RIDGE PARKWAY - BALSAM GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DC\_415.493\_L\_1.JPG

<b>Wall ID:</b>	BLRI-0001DC-419.911-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BALSAM GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 07, 2007	<b>Approximate Year Built:</b>	1945
<b>*Wall Rating:</b>	73	<b>Maintenance Action:</b>	No Action

**Wall Description**

<b>Wall Function:</b>	Slope Protection	<b>Primary Wall Type:</b>	Gravity - Dry Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Next to Graveyard Fields Overlook Park MP 418.9		

**Wall Measurements**

<b>Wall Length (ft.):</b>	360	<b>Face Area (sq.):</b>	4300
<b>Average Wall Height (ft.):</b>	15	<b>Face Angle (deg.):</b>	45
<b>Maximum Wall Height (ft.):</b>	15	<b>Vertical Offset (ft.):</b>	-3

**Assessed Elements**

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Embankment and soil at the base.	7
PLACED STONE 8.00	Riprap up to 3' diameter, sound and durable	8
DOWNSLOPE 0.50	Vegetated and gradual slope.	8
LATERAL SLOPE 0.50	Vegetated and gradual slope.	8
VEGETATION 0.50	Plant growing through the riprap, not detrimental.	8
ROAD/SIDEWALK/SHOULDER 1.00	Grass shoulder, evidence of soil slide.	6
WALL DRAINS 1.00	Self draining, no problems associate with drainage.	7

**Repair Recommendations**

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DC: BLUE RIDGE PARKWAY - BALSAM GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DC\_419.911\_R\_1.JPG

<b>Wall ID:</b>	BLRI-0001DC-421.664-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BALSAM GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 07, 2007	<b>Approximate Year Built:</b>	1945
<b>*Wall Rating:</b>	73	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Slope Protection	<b>Primary Wall Type:</b>	Gravity - Dry Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Across from rock cut Park MP 420.63		

### Wall Measurements

<b>Wall Length (ft.):</b>	385	<b>Face Area (sq.):</b>	29000
<b>Average Wall Height (ft.):</b>	150	<b>Face Angle (deg.):</b>	45
<b>Maximum Wall Height (ft.):</b>	150	<b>Vertical Offset (ft.):</b>	8

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	Appears to be a slope movement repair / cracks on pavement, depressed shoulder indicates current or further slope movement. Monitor movement of slope.	7
WALL FOUNDATION MATERIAL 8.00	Soil or rock, may be settlement or slope movement - pavement cracked	6
PLACED STONE 8.00	No degradation, 3' - 4' diameter riprap	9
WALL DRAINS 0.50	No drainage problems.	9
ROAD/SIDEWALK/SHOULDER 1.00	Grass, shoulder/side walk, cracks on the asphalt road.	6
DOWNSLOPE 1.00	After the riprap 4H:1V, lightly wooded.	7
LATERAL SLOPE 1.00	Gradual, trees growing through the riprap.	7
VEGETATION 1.00	Trees growing through riprap approximately 10% of area	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DC: BLUE RIDGE PARKWAY - BALSAM GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DC\_421.664\_L\_1.JPG



BLRI\_0001DC\_421.664\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001DC-421.792-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BALSAM GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 07, 2007	<b>Approximate Year Built:</b>	1945
<b>*Wall Rating:</b>	72	<b>Maintenance Action:</b>	Maintenance

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 420.765		

### Wall Measurements

<b>Wall Length (ft.):</b>	165	<b>Face Area (sq.):</b>	1500
<b>Average Wall Height (ft.):</b>	14	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	14	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress problem, but needs clearing	7
WALL FOUNDATION MATERIAL 8.00	Soil, no settlement or distress.	7
MORTAR 8.00	Sound and durable, minor separation.	7
STONE MASONRY 8.00	Good conditions, no degradation.	8
VEGETATION 1.00	Heavy vegetation on front of the wall, does not affect the performance, but affects accessibility.	6
DOWNSLOPE 1.00	Flat for 30-ft then 2H:1V, wooded	7
LATERAL SLOPE 1.00	Gradual, 3H:1V, wooded	7
ROAD/SIDEWALK/SHOULDER 1.00	Good condition, no distress.	7
WALL DRAINS 1.00	No drainage problems were noticed at the top, could not examine the base.	7

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	Clear 5' wide path for access in front of wall - 10 hrs x \$55/hr = \$550
<b>Repair Cost:</b>	\$550

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DC: BLUE RIDGE PARKWAY - BALSAM GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DC\_421.792\_L\_1.JPG



BLRI\_0001DC\_421.792\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001DC-423.034-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BALSAM GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 07, 2007	<b>Approximate Year Built:</b>	1945
<b>*Wall Rating:</b>	72	<b>Maintenance Action:</b>	Maintenance

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Across from bedrock outcrop, just before turn headlights on sign, near tunnel		

### Wall Measurements

<b>Wall Length (ft.):</b>	150	<b>Face Area (sq.):</b>	1400
<b>Average Wall Height (ft.):</b>	9	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	14	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Appears to be on soil, no settlement, slight erosion at the center	7
MORTAR 8.00	Discoloration, occasional efflorescence, sound and durable	7
STONE MASONRY 8.00	No fractures or degradation	8
VEGETATION 1.00	Some moss on wall, sapling growing on the side of the wall	6
DOWNSLOPE 1.00	2H:1V, wooded, small trees	7
LATERAL SLOPE 1.00	3H:1V, wooded, small trees	7
ROAD/SIDEWALK/SHOULDER 1.00	Grass shoulder	7
WALL DRAINS 1.00	2 rectangular openings, but blocks 15' on center at the central portion of the wall, no problems associated with drainage	7

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	Remove vegetation from face - 10 hrs x \$55/hr = \$550
<b>Repair Cost:</b>	\$550

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001DC: BLUE RIDGE PARKWAY - BALSAM GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DC\_423.034\_L\_1.JPG



BLRI\_0001DC\_423.034\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001DC-423.036-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BALSAM GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 07, 2007	<b>Approximate Year Built:</b>	1945
<b>*Wall Rating:</b>	65	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Cut Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Just in front of Devils Courthouse Tunnel		

### Wall Measurements

<b>Wall Length (ft.):</b>	96	<b>Face Area (sq.):</b>	1000
<b>Average Wall Height (ft.):</b>	10	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	13	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress, needs repair	6
WALL FOUNDATION MATERIAL 8.00	Soil, no settlement, slight undermining	7
MORTAR 8.00	Discolored, aged, occasional efflorescence, slight separation	5
STONE MASONRY 8.00	Sound and durable	8
ROAD/SIDEWALK/SHOULDER 0.50	Grass shoulder	8
VEGETATION 1.00	Moss and grass growing on the face, shrubs on the top of the wall	6
WALL DRAINS 1.00	2 weepholes blocked, 15' center to center, unknown diameter concrete pipe drains to the inlet	6
LATERAL SLOPE 1.00	Rock outcrops	7
UPSLOPE 1.00	Heavily wooded, 4H:1V	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	Repoint mortar - 100 sf x \$75/sf = \$7,500. Clear vegetation - 20 hrs x \$55/hr = \$1,100. Repair drainage channel. Asphalt patch - 5' x 2' = say 2 sy x \$45/sy = \$90. Foundation fill - 10 sf x 2'D = say 1 cy x \$45/cy = \$45. Dump Truck - 8 hrs x \$120/hr = \$960
<b>Repair Cost:</b>	\$9,695

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DC: BLUE RIDGE PARKWAY - BALSAM GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DC\_423.036\_R\_1.JPG



BLRI\_0001DC\_423.036\_R\_2.JPG

<b>Wall ID:</b>	BLRI-0001DC-430.378-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BALSAM GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 06, 2007	<b>Approximate Year Built:</b>	1945
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 429.30		

### Wall Measurements

<b>Wall Length (ft.):</b>	16	<b>Face Area (sq.):</b>	45
<b>Average Wall Height (ft.):</b>	2	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	-1

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	Moderate distress to the culvert, no global distress	6
WALL FOUNDATION MATERIAL 8.00	No settlement or erosion.	7
MORTAR 8.00	Sound and durable.	7
STONE MASONRY 8.00	No cracks or distress	8
VEGETATION 0.50	Moss with stones, no affecting drainage.	8
CULVERT 1.00	3.5-ft diameter, concrete circular pipe, bottom rebar is scoured/exposed across the entire length.	5
DOWNSLOPE 1.00	Streambed	7
LATERAL SLOPE 1.00	2H:1V wooded	7
UPSLOPE 1.00	2H:1V wooded	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Pipe - Repair bottom of culvert (0.7'W x 90'L x 0.25'D) with lean concrete - 1 cy x \$1,470/cy = \$1,470. Labor - 20 hrs x \$55/hr = \$1,100
<b>Repair Cost:</b>	\$2,570

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DC: BLUE RIDGE PARKWAY - BALSAM GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DC\_430.378\_L\_1.JPG



BLRI\_0001DC\_430.378\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001DC-442.546-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BALSAM GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 06, 2007	<b>Approximate Year Built:</b>	1955
<b>*Wall Rating:</b>	73	<b>Maintenance Action:</b>	Maintenance

**Wall Description**

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Cantilever - Concrete
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Wing walls for concrete culvert, asphalt pavement Park MP 441.452		

**Wall Measurements**

<b>Wall Length (ft.):</b>	89	<b>Face Area (sq.):</b>	570
<b>Average Wall Height (ft.):</b>	9	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	17	<b>Vertical Offset (ft.):</b>	-1

**Assessed Elements**

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil, no settlement or erosion.	7
CONCRETE 8.00	Sound and durable.	8
CULVERT 0.50	14ft x 14ft concrete box	8
DOWNSLOPE 0.50	Relatively flat path.	8
ROAD/SIDEWALK/SHOULDER 0.50	Grassy shoulder	8
TRAFFIC BARRIER/FENCE 0.50	Guardrail good condition	8
WALL DRAINS 1.00	Weepholes 10' on center, pipes filled >50% with soil, no apparent distress to wall	5
LATERAL SLOPE 1.00	Steep, wooded.	7

**Repair Recommendations**

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	Clean weepholes - 10 hrs x \$55/hr = \$550. Remove vegetation from culvert floor - 10 hrs x \$55/hr = \$550.
<b>Repair Cost:</b>	\$1,100

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DC: BLUE RIDGE PARKWAY - BALSAM GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DC\_442.546\_R\_1.JPG



BLRI\_0001DC\_442.546\_R\_2.JPG

<b>Wall ID:</b>	BLRI-0001DC-442.555-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BALSAM GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 06, 2007	<b>Approximate Year Built:</b>	1955
<b>*Wall Rating:</b>	72	<b>Maintenance Action:</b>	Maintenance

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Cantilever - Concrete
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Wing wall for box culvert, concrete, asphalt pavement. Park MP 441.452		

### Wall Measurements

<b>Wall Length (ft.):</b>	99	<b>Face Area (sq.):</b>	750
<b>Average Wall Height (ft.):</b>	9	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	17	<b>Vertical Offset (ft.):</b>	-1

### Assessed Elements

Element (Weighting Factor)	Narrative	Condition Rating (0 - 10)
PERFORMANCE 8.00	No global distress.	7
WALL FOUNDATION MATERIAL 8.00	Soil, no settlement or erosion.	7
CONCRETE 8.00	Sound and durable.	8
CULVERT 0.50	14ft X 14ft concrete box	8
DOWNSLOPE 0.50	Relatively flat path	8
ROAD/SIDEWALK/SHOULDER 0.50	Grassy shoulder	8
TRAFFIC BARRIER/FENCE 0.50	Guard rail, good condition	8
WALL DRAINS 1.00	Weepholes 10' on center, pipes filled >50% with soil, no apparent distress to wall	5
VEGETATION 1.00	Significant vegetation growing inside the culvert, needs to be removed	6

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	Clean weep holes - 10 hrs x \$55/hr = \$550. Clear vegetation - 10 hrs x \$55/hr = \$550.
<b>Repair Cost:</b>	\$1,100

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001DC: BLUE RIDGE PARKWAY - BALSAM GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DC\_442.555\_L\_1.JPG



BLRI\_0001DC\_442.555\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001DC-442.575-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BALSAM GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 06, 2007	<b>Approximate Year Built:</b>	1955
<b>*Wall Rating:</b>	63	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Arch shaped headwall Park MP 441.480		

### Wall Measurements

<b>Wall Length (ft.):</b>	23	<b>Face Area (sq.):</b>	90
<b>Average Wall Height (ft.):</b>	3	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	7	<b>Vertical Offset (ft.):</b>	-20

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress, required elements repair	6
WALL FOUNDATION MATERIAL 8.00	Soil, no settlement or erosion.	7
MORTAR 8.00	Moderate age-related mortar loss/separation - 25% of wall	5
STONE MASONRY 8.00	No distress	7
DOWNSLOPE 0.50	Creek	8
VEGETATION 0.50	Mossy, does not affect wall performance	8
CULVERT 1.00	Concrete, 5ft diameter, moderate spalling at top front, exposed reinforced steel.	5
LATERAL SLOPE 1.00	Steep, wooded	6
UPSLOPE 1.00	4H:1V lightly wooded.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Repoint Mortar - 22 sf x \$75/sf = \$1,650. Repair concrete on pipe - 1 cy x \$1,470/cy = \$1,470
<b>Repair Cost:</b>	\$3,120

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DC: BLUE RIDGE PARKWAY - BALSAM GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DC\_442.575\_L\_1.JPG



BLRI\_0001DC\_442.575\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001DC-443.142-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BALSAM GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 06, 2007	<b>Approximate Year Built:</b>	1955
<b>*Wall Rating:</b>	73	<b>Maintenance Action:</b>	Maintenance

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Cantilever - Concrete
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Wing wall for a box culvert over a gravel road. Park MP 442.032		

### Wall Measurements

<b>Wall Length (ft.):</b>	50	<b>Face Area (sq.):</b>	285
<b>Average Wall Height (ft.):</b>	8	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	17	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil, no settlement or erosion.	8
CONCRETE 8.00	Minor pits, minor moss	7
CULVERT 0.50	14 ft W X 12 ft H, concrete	8
ROAD/SIDEWALK/SHOULDER 0.50	Grassy	8
VEGETATION 0.50	Moss, not affecting wall performance	8
WALL DRAINS 1.00	Weep holes, 4" diameter steel, 10.0 ft on center, pipes filled 50% with soil.	5
DOWNSLOPE 1.00	Gravel road	7
LATERAL SLOPE 1.00	Gradual, wooded	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	Clean weep holes - 10 hrs x \$55/hr = \$550
<b>Repair Cost:</b>	\$550

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DC: BLUE RIDGE PARKWAY - BALSAM GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DC\_443.142\_L\_1.JPG



BLRI\_0001DC\_443.142\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001DC-443.142-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BALSAM GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 06, 2007	<b>Approximate Year Built:</b>	1955
<b>*Wall Rating:</b>	73	<b>Maintenance Action:</b>	Maintenance

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Cantilever - Concrete
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Wing wall for a box culvert over a gravel road Park MP 442.032		

### Wall Measurements

<b>Wall Length (ft.):</b>	42	<b>Face Area (sq.):</b>	240
<b>Average Wall Height (ft.):</b>	11	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	17	<b>Vertical Offset (ft.):</b>	-1

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil, no settlement or erosion.	8
CONCRETE 8.00	Minor pits, minor moss.	7
CULVERT 0.50	Concrete, dimension 14ft W X 12ft H.	8
ROAD/SIDEWALK/SHOULDER 0.50	Grassy	8
VEGETATION 0.50	Moss on wall face, not affecting wall performance	8
WALL DRAINS 1.00	Weep holes, 4" diameter steel, 10.0 ft on center, pipes filled 50% with soil.	5
DOWNSLOPE 1.00	Gravel roadway, flat	7
LATERAL SLOPE 1.00	Gradual, wooded.	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	Clean weep holes - 10 hrs x \$55/hr = \$550
<b>Repair Cost:</b>	\$550

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DC: BLUE RIDGE PARKWAY - BALSAM GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DC\_443.142\_R\_1.JPG



BLRI\_0001DC\_443.142\_R\_2.JPG

<b>Wall ID:</b>	BLRI-0001DC-443.446-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BALSAM GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 06, 2007	<b>Approximate Year Built:</b>	1955
<b>*Wall Rating:</b>	63	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 442.327		

### Wall Measurements

<b>Wall Length (ft.):</b>	25	<b>Face Area (sq.):</b>	110
<b>Average Wall Height (ft.):</b>	4	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	-15

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress, high degree of local distress, evidence of replaced wall.	6
WALL FOUNDATION MATERIAL 8.00	Soil, no evidence of settlement, slight undermining, erosion down stream with evidence of past failure.	5
MORTAR 8.00	Sound and durable, moss covered.	7
STONE MASONRY 8.00	No distress, moss covered.	7
DOWNSLOPE 1.00	Rocky and steep for a short distance, riprap, undermined in the past and failed/eroded at sides	5
WALL DRAINS 1.00	Erosion around top and sides of the head wall.	6
CULVERT 1.00	5 ft concrete culvert, one segment 4 ft long separated from culvert, repaired the wall since then.	7
LATERAL SLOPE 1.00	Gradual, wooded	7
UPSLOPE 1.00	2H:1V, wooded.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Remove 4" diameter tree at top of wall - \$955. Riprap downstream and on back and sides of culvert - 30' x 20' x 2' + 2' x 10' x 2' = 45 cy, 45 cy x \$200/cy = \$9,000. Erosion control geotextile - 30' x 20' + 2' x 10', 69 sy x \$5/sy = 4345. Backhoe - \$150/hr + Dump T
<b>Repair Cost:</b>	\$16,800

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001DC: BLUE RIDGE PARKWAY - BALSAM GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DC\_443.446\_L\_1.JPG



BLRI\_0001DC\_443.446\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001DC-443.446-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BALSAM GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 06, 2007	<b>Approximate Year Built:</b>	1955
<b>*Wall Rating:</b>	68	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 442.327		

### Wall Measurements

<b>Wall Length (ft.):</b>	11	<b>Face Area (sq.):</b>	40
<b>Average Wall Height (ft.):</b>	5	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	7	<b>Vertical Offset (ft.):</b>	-15

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No evidence of global distress.	7
WALL FOUNDATION MATERIAL 8.00	No evidence of settlement, slight erosion.	7
MORTAR 8.00	Evidence of previous patching	6
STONE MASONRY 8.00	Chipped are 2' long and 6" high	7
CULVERT 0.50	5 ft diameter circular concrete	8
VEGETATION 0.50	Some moss.	8
DOWNSLOPE 1.00	Gradual, stream bed.	7
LATERAL SLOPE 1.00	Gradual south side, steep north side, wooded.	7
UPSLOPE 1.00	4H:1V, wooded.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DC: BLUE RIDGE PARKWAY - BALSAM GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DC\_443.446\_R\_1.JPG



BLRI\_0001DC\_443.446\_R\_2.JPG

<b>Wall ID:</b>	BLRI-0001DC-445.511-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BALSAM GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 06, 2007	<b>Approximate Year Built:</b>	1955
<b>*Wall Rating:</b>	67	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Cantilever - Concrete
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Wall over gravel road, wing wall perpendicular to headwall Park MP 444.441		

### Wall Measurements

<b>Wall Length (ft.):</b>	66	<b>Face Area (sq.):</b>	410
<b>Average Wall Height (ft.):</b>	2	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	14	<b>Vertical Offset (ft.):</b>	-2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No evidence of global distress.	7
WALL FOUNDATION MATERIAL 8.00	Soil, no evidence of settlement or distress.	7
CONCRETE 8.00	Overall little distress, evidence of patching.	6
DOWNSLOPE 0.50	Flat, gravel road.	8
ROAD/SIDEWALK/SHOULDER 0.50	Covered with grass, no distress	8
VEGETATION 0.50	moss, does not affect structure	8
WALL DRAINS 1.00	One weep hole is plugged on the north side, weep holes 10' on center	6
CULVERT 1.00	Box culvert, 16'W x 14.5'H, concrete slab on bottom, 25'Long wingwalls	7
CURB/BERM/DITCH 1.00	South side asphalt drain to ditch.	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DC: BLUE RIDGE PARKWAY - BALSAM GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DC\_445.511\_R\_1.JPG



BLRI\_0001DC\_445.511\_R\_2.JPG

<b>Wall ID:</b>	BLRI-0001DC-445.516-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BALSAM GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 06, 2007	<b>Approximate Year Built:</b>	1955
<b>*Wall Rating:</b>	68	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Cantilever - Concrete
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Wall over gravel road, wingwalls perpendicular to wall Park MP 444.441		

### Wall Measurements

<b>Wall Length (ft.):</b>	70	<b>Face Area (sq.):</b>	420
<b>Average Wall Height (ft.):</b>	2	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	14	<b>Vertical Offset (ft.):</b>	-3

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil, not evidence of settlement or erosion	7
CONCRETE 8.00	Evidence of patching, overall little distress	6
DOWNSLOPE 0.50	Flat, gravel road	8
ROAD/SIDEWALK/SHOULDER 0.50	Covered with grass, no distress.	8
VEGETATION 0.50	Moss, does not affect structure	8
WALL DRAINS 0.50	Weep holes 10 ft center to center, no problem with drainage.	8
CULVERT 1.00	Box culvert 16 ft W X 14.5 ft H, concrete slab, wing walls 25 ft long, good conditions.	7
LATERAL SLOPE 1.00	Gradual wooded	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DC: BLUE RIDGE PARKWAY - BALSAM GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DC\_445.516\_L\_1.JPG



BLRI\_0001DC\_445.516\_L\_2.JPG

<b>Wall ID:</b>	BLRI-0001DC-447.346-L		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BALSAM GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 05, 2007	<b>Approximate Year Built:</b>	1955
<b>*Wall Rating:</b>	67	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 446.226		

### Wall Measurements

<b>Wall Length (ft.):</b>	20	<b>Face Area (sq.):</b>	100
<b>Average Wall Height (ft.):</b>	6	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	-3

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress, needs minor repointing	7
WALL FOUNDATION MATERIAL 8.00	Soil, no settlement, slight erosion	7
MORTAR 8.00	Frequently missing or chipped - 15%	5
STONE MASONRY 8.00	Good condition, no distress	8
VEGETATION 1.00	Not affecting wall performance, heavy, makes wall inaccessible.	5
CULVERT 1.00	5 ft x 5 ft concrete box	7
DOWNSLOPE 1.00	4H:1V Streambed	7
LATERAL SLOPE 1.00	Gradual slope, wooded	7
UPSLOPE 1.00	3H:1V Grassy	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Repoint mortar - 15 sf x \$75/sf = \$1,125. Clear vegetation - 10 hrs x \$55/hr = \$550
<b>Repair Cost:</b>	\$1,675

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0001DC: BLUE RIDGE PARKWAY - BALSAM GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DC\_447.346\_L\_1.JPG

<b>Wall ID:</b>	BLRI-0001DC-447.346-R		
<b>Route Name:</b>	BLUE RIDGE PARKWAY - BALSAM GAP SUB-DISTRICT		
<b>Inspection Date:</b>	November 05, 2007	<b>Approximate Year Built:</b>	1955
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Park MP 446.226		

### Wall Measurements

<b>Wall Length (ft.):</b>	21	<b>Face Area (sq.):</b>	75
<b>Average Wall Height (ft.):</b>	4	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil, no settlement or distress.	7
MORTAR 8.00	Sound and durable	7
STONE MASONRY 8.00	Mossy, no degradation	7
UPSLOPE 0.50	Gradual slope, covered with grass.	8
VEGETATION 0.50	Slight vegetation	8
CULVERT 1.00	5' x 5' box culvert	7
DOWNSLOPE 1.00	Gradual slope, small diameter trees	7
LATERAL SLOPE 1.00	Flat to gentle slope, covered with grass.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0001DC: BLUE RIDGE PARKWAY - BALSAM GAP SUB-DISTRICT

## Retaining Wall Condition Photos



BLRI\_0001DC\_447.346\_R\_1.JPG

<b>Wall ID:</b>	BLRI-0116-0.038-L		
<b>Route Name:</b>	ACCESS RAMP TO U.S. ROUTE 221 WEST AT MP 317.16		
<b>Inspection Date:</b>	November 29, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>		<b>Maintenance Action:</b>	

**Wall Description**

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Near Park MP 317.2		

**Wall Measurements**

<b>Wall Length (ft.):</b>	52	<b>Face Area (sq.):</b>	200
<b>Average Wall Height (ft.):</b>	3	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	7	<b>Vertical Offset (ft.):</b>	0

**Assessed Elements**

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	8
WALL FOUNDATION MATERIAL 8.00	Soil, no observed settlement or cracks	8
MORTAR 8.00	Sound and durable, minor cracks	7
STONE MASONRY 8.00	Sound and durable	8
CULVERT 0.50	2 box culverts, 10'W x 4'H	8
DOWNSLOPE 0.50	Gentle slope, grass, no distress	8
LATERAL SLOPE 0.50	Gentle slope, grass, no distress	8
ROAD/SIDEWALK/SHOULDER 0.50	Grass, flat, no distress	8
WALL DRAINS 0.50	No drainage-related problems	8

**Repair Recommendations**

<b>Failure Consequence:</b>	
<b>Recommendation Narrative:</b>	
<b>Repair Cost:</b>	

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# **Blue Ridge Parkway**

**ROUTE 0116: ACCESS RAMP TO U.S. ROUTE 221 WEST AT MP 317.16**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0116-0.038-L.**

<b>Wall ID:</b>	BLRI-0116-0.043-R		
<b>Route Name:</b>	ACCESS RAMP TO U.S. ROUTE 221 WEST AT MP 317.16		
<b>Inspection Date:</b>	November 29, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	75	<b>Maintenance Action:</b>	Maintenance

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Near Park MP 317.2		

### Wall Measurements

<b>Wall Length (ft.):</b>	60	<b>Face Area (sq.):</b>	200
<b>Average Wall Height (ft.):</b>	3	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	7	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	8
WALL FOUNDATION MATERIAL 8.00	Soil, no observed settlement or cracks	8
MORTAR 8.00	Sound and durable	7
STONE MASONRY 8.00	Sound and durable	7
CULVERT 0.50	2 box culverts, 10'W x 4'H, good condition	8
DOWNSLOPE 0.50	Gentle slope, grass and some trees, no distress	8
LATERAL SLOPE 0.50	Gentle slope, grass and some trees, no distress	8
ROAD/SIDEWALK/SHOULDER 0.50	Grass, no distress	8
VEGETATION 0.50	Tree near front of wall, no affecting wall performance	8

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Clear channel - Backhoe - 4 hrs x \$150/hr = \$600. Labor - 12 hrs x \$55/hr = \$660
<b>Repair Cost:</b>	\$1,260

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0116: ACCESS RAMP TO U.S. ROUTE 221 WEST AT MP 317.16

## Retaining Wall Condition Photos



BLRI\_0116\_0.043\_R\_1.JPG

<b>Wall ID:</b>	BLRI-0120ZZ-0.095-L		
<b>Route Name:</b>	ACCESS RAMPS TO U.S. ROUTES 221 AND 321		
<b>Inspection Date:</b>	December 06, 2007	<b>Approximate Year Built:</b>	1950
<b>*Wall Rating:</b>	85	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Mortared stone masonry headwall with 1.5 foot high mortared stone parapet. This side of culvert does not show cracking distress like the other side does.		

### Wall Measurements

<b>Wall Length (ft.):</b>	113	<b>Face Area (sq.):</b>	1130
<b>Average Wall Height (ft.):</b>	10	<b>Face Angle (deg.):</b>	85
<b>Maximum Wall Height (ft.):</b>	18	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global or structural distress.	8
WALL FOUNDATION MATERIAL 8.00	No settlement or scour. Appears to be boulder fill; good bearing.	9
MORTAR 8.00	Shrinkage cracking throughout. Missing grout appears to be construction artifact. Generally hard, durable.	8
STONE MASONRY 8.00	Hard, durable, well-cut /placed stone with no missing / cracked blocks.	9
ARCHITECTURAL FACING 0.50	No wall-related distress.	8
DOWNSLOPE 0.50	Stable stream channel.	8
CULVERT 0.50	No signs of cracking, distortion, leakage or scour around culvert. Very good condition.	9
LATERAL SLOPE 0.50	Stable, grassy side slopes no erosion.	9
ROAD/SIDEWALK/SHOULDER 0.50	Excellent condition. No wall-related distress.	9

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

ROUTE 0120ZZ: ACCESS RAMPS TO U.S. ROUTES 221 AND 321

## Retaining Wall Condition Photos



BLRI\_0120ZZ\_0.095\_L\_1.jpg



BLRI\_0120ZZ\_0.095\_L\_2.jpg

<b>Wall ID:</b>	BLRI-0120ZZ-0.101-R		
<b>Route Name:</b>	ACCESS RAMPS TO U.S. ROUTES 221 AND 321		
<b>Inspection Date:</b>	December 06, 2007	<b>Approximate Year Built:</b>	1950
<b>*Wall Rating:</b>	76	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Mortared stone masonry headwall with 1.5 foot high mortared stone parapet. CIP arched culvert.		

### Wall Measurements

<b>Wall Length (ft.):</b>	110	<b>Face Area (sq.):</b>	1100
<b>Average Wall Height (ft.):</b>	10	<b>Face Angle (deg.):</b>	85
<b>Maximum Wall Height (ft.):</b>	18	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	Cracking around arch suggests minor wingwall settlement-patch. No signs of global distress. Overall a very well-built wall.	6
WALL FOUNDATION MATERIAL 8.00	No signs of settlement or scour; appears to be rock/boulder fill.	9
MORTAR 8.00	Shrinkage cracking. What appears to be missing mortar is a construction artifact. Hard, durable; cracked at arch repair.	6
STONE MASONRY 8.00	Hard, durable, well-cut/placed stone with no cracked or missing blocks.	9
DOWNSLOPE 0.50	Stable creek channel.	8
TRAFFIC BARRIER/FENCE 0.50	Mortared stone parapet is in good shape with no wall-related distress.	8
CULVERT 0.50	No distress within the culvert. No cracking, scour, leakage.	9
LATERAL SLOPE 0.50	Stable, grassy side slope. No erosion.	9
ROAD/SIDEWALK/SHOULDER 0.50	Excellent condition, no wall-related distress.	9

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	Clean open joints/cracks in headwall on either side and above arch. Mortar-patch open joints/cracks. Repoint adjacent joints with cracked mortar. Labor: 20 hours @ \$55/hr = \$1,100. Repointing: 20 sq.ft. @ \$75/sq.ft. = \$1,500. Patch grout: lump sum = \$200.
<b>Repair Cost:</b>	\$3,300

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 0120ZZ: ACCESS RAMPS TO U.S. ROUTES 221 AND 321

## Retaining Wall Condition Photos



BLRI\_0120ZZ\_0.101\_R\_1.jpg



BLRI\_0120ZZ\_0.101\_R\_2.jpg

<b>Wall ID:</b>	BLRI-0161-0.690-L		
<b>Route Name:</b>	ROANOKE RIVER PARKWAY		
<b>Inspection Date:</b>	December 03, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	78	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	South of Pine Mountain Overlook		

### Wall Measurements

<b>Wall Length (ft.):</b>	76	<b>Face Area (sq.):</b>	720
<b>Average Wall Height (ft.):</b>	9	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	16	<b>Vertical Offset (ft.):</b>	-5

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	8
WALL FOUNDATION MATERIAL 8.00	Soil No settlement or erosion	7
MORTAR 8.00	sound and durable, lots of efflorescence	8
STONE MASONRY 8.00	No degradation	8
CULVERT 0.50	15.5W x 15H	8
DOWNSLOPE 0.50	Flat, grassy	8
LATERAL SLOPE 0.50	Flat, grassy	8
UPSLOPE 0.50	Flat, grassy	8
WALL DRAINS 0.50	Weep holes 10' on center, pvc, circular	8

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

**Blue Ridge Parkway**  
**ROUTE 0161: ROANOKE RIVER PARKWAY**

**Retaining Wall Condition Photos**



**BLRI\_0161\_0.690\_L\_1.JPG**



**BLRI\_0161\_0.690\_L\_2.JPG**

<b>Wall ID:</b>	BLRI-0161-0.690-R		
<b>Route Name:</b>	ROANOKE RIVER PARKWAY		
<b>Inspection Date:</b>	December 03, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	78	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	South of Pine Mountain Overlook		

### Wall Measurements

<b>Wall Length (ft.):</b>	76	<b>Face Area (sq.):</b>	630
<b>Average Wall Height (ft.):</b>	8	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	15	<b>Vertical Offset (ft.):</b>	-2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	8
WALL FOUNDATION MATERIAL 8.00	Soil No settlement or erosion	7
MORTAR 8.00	sound and durable, lots of efflorescence	8
STONE MASONRY 8.00	No degradation	8
CULVERT 0.50	15.5 W x 15 H Looks new	8
DOWNSLOPE 0.50	Flat, grassy	8
LATERAL SLOPE 0.50	Flat, grassy	8
UPSLOPE 0.50	Flat, grassy	8
WALL DRAINS 0.50	Weep holes, 10' on center, pvc, circular	8

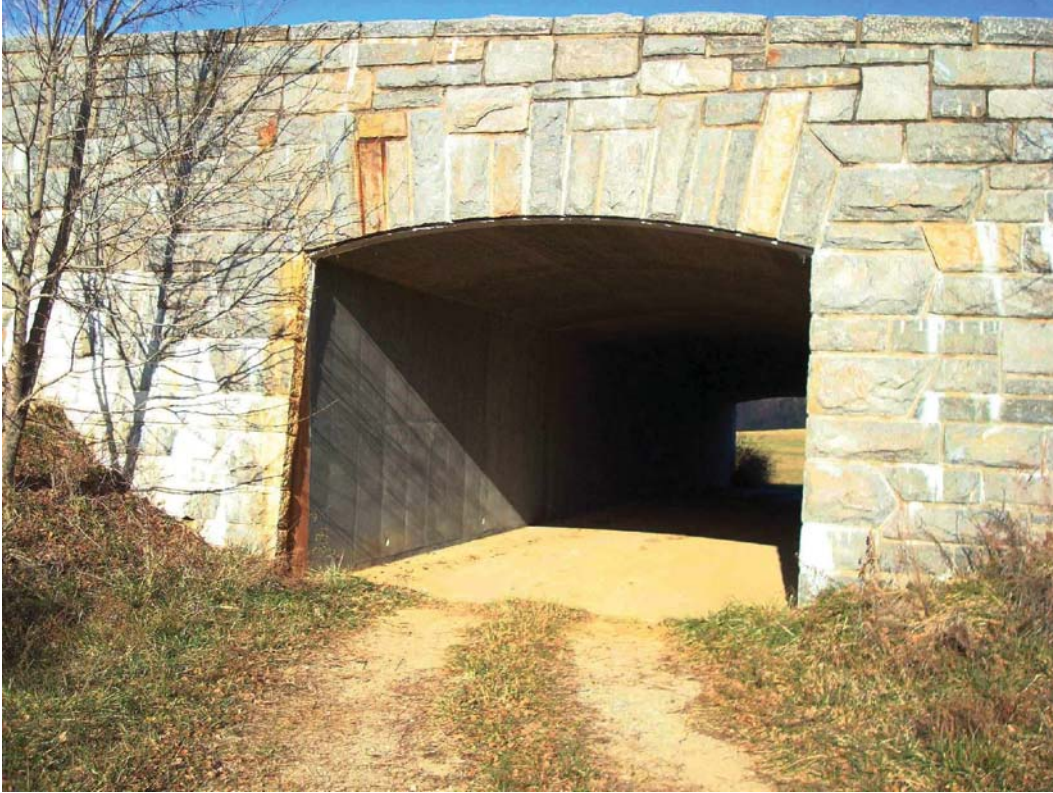
### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

**Blue Ridge Parkway**  
**ROUTE 0161: ROANOKE RIVER PARKWAY**

**Retaining Wall Condition Photos**



**BLRI\_0161\_0.690\_R\_1.JPG**



**BLRI\_0161\_0.690\_R\_2.JPG**

<b>Wall ID:</b>	BLRI-0161-0.956-L		
<b>Route Name:</b>	ROANOKE RIVER PARKWAY		
<b>Inspection Date:</b>	December 03, 2007	<b>Approximate Year Built:</b>	1960
<b>*Wall Rating:</b>	75	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Trail Crossing next to Mayflower Creek Parking Area		

### Wall Measurements

<b>Wall Length (ft.):</b>	76	<b>Face Area (sq.):</b>	750
<b>Average Wall Height (ft.):</b>	9	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	16	<b>Vertical Offset (ft.):</b>	-3

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	8
WALL FOUNDATION MATERIAL 8.00	No evidence of settlement Slight erosion at south end (1')	7
STONE MASONRY 8.00	No degradation Circular holes drilled in wall	7
MORTAR 8.00	Sound and durable Lots of efflorescence	8
CULVERT 0.50	10'9"H by 15'W Good condition	8
UPSLOPE 0.50	Gradual, grassy	8
DOWNSLOPE 1.00	Flat 40', then drops	7
LATERAL SLOPE 1.00	Gradual	7
WALL DRAINS 1.00	Weep holes 10' on center, pvc, circular	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



**Blue Ridge Parkway**  
**ROUTE 0161: ROANOKE RIVER PARKWAY**

**Retaining Wall Condition Photos**



**BLRI\_0161\_0.956\_L\_1.JPG**



**BLRI\_0161\_0.956\_L\_2.JPG**

<b>Wall ID:</b>	BLRI-0161-0.956-R		
<b>Route Name:</b>	ROANOKE RIVER PARKWAY		
<b>Inspection Date:</b>	December 03, 2007	<b>Approximate Year Built:</b>	1960
<b>*Wall Rating:</b>	75	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Trail Crossing across from Mayflower Creek Parking Area		

### Wall Measurements

<b>Wall Length (ft.):</b>	76	<b>Face Area (sq.):</b>	750
<b>Average Wall Height (ft.):</b>	9	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	16	<b>Vertical Offset (ft.):</b>	-3

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	8
WALL FOUNDATION MATERIAL 8.00	No evidence of settlement Erosion on south end	7
STONE MASONRY 8.00	No degradation	7
MORTAR 8.00	Sound and durable Lots of efflorescence	8
CULVERT 0.50	10'9" H by 15' W Good condition	8
UPSLOPE 0.50	Gradual, grassy	8
WALL DRAINS 0.50	Weep holes 10' on center, pvc, circular	8
DOWNSLOPE 1.00	Flat 40', then rises	7
LATERAL SLOPE 1.00	Gradual	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

**Blue Ridge Parkway**  
**ROUTE 0161: ROANOKE RIVER PARKWAY**

**Retaining Wall Condition Photos**



**BLRI\_0161\_0.956\_R\_1.JPG**



**BLRI\_0161\_0.956\_R\_2.JPG**

<b>Wall ID:</b>	BLRI-0212-1.354-L		
<b>Route Name:</b>	LINVILLE RIVER SPUR ROAD		
<b>Inspection Date:</b>	November 28, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Near Mainline Park MP 316.3		

### Wall Measurements

<b>Wall Length (ft.):</b>	40	<b>Face Area (sq.):</b>	225
<b>Average Wall Height (ft.):</b>	5	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	7	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	Heavily wooded, no distress, does not affect wall performance	7
WALL FOUNDATION MATERIAL 8.00	Soil, no observed settlement or cracks	7
CONCRETE 8.00	Minor cracks, some moss, cast in place	7
MORTAR 8.00	Some moss	7
STONE MASONRY 8.00	Sound and durable	7
ROAD/SIDEWALK/SHOULDER 0.50	Grassed shoulder, no distress	8
UPSLOPE 0.50	Gently sloping, no distress, vegetated	8
WALL DRAINS 0.50	No observed drainage problems	8
CULVERT 1.00	2 concrete boxes, 8'W x 4'H	7

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

**Blue Ridge Parkway**  
**ROUTE 0212: LINVILLE RIVER SPUR ROAD**

**Retaining Wall Condition Photos**



**BLRI\_0212\_1.354\_L\_1.JPG**



**BLRI\_0212\_1.354\_L\_2.JPG**

<b>Wall ID:</b>	BLRI-0212-1.360-R		
<b>Route Name:</b>	LINVILLE RIVER SPUR ROAD		
<b>Inspection Date:</b>	November 28, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Near Mainline MP 316.3		

### Wall Measurements

<b>Wall Length (ft.):</b>	40	<b>Face Area (sq.):</b>	225
<b>Average Wall Height (ft.):</b>	5	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil, no observed settlement or cracks	7
MORTAR 8.00	Some moss	7
STONE MASONRY 8.00	Minor cracks, some moss, cast in place	7
ROAD/SIDEWALK/SHOULDER 0.50	Grassed shoulder, no distress	8
UPSLOPE 0.50	Gently sloping, no distress, vegetated	8
WALL DRAINS 0.50	No observed drainage problems	8
CULVERT 1.00	2 concrete box culverts, 8'W x 4'H each, good condition	7
DOWNSLOPE 1.00	Heavily wooded, no distress, does not affect wall performance	7

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

**Blue Ridge Parkway**  
**ROUTE 0212: LINVILLE RIVER SPUR ROAD**

**Retaining Wall Condition Photos**



**BLRI\_0212\_1.360\_R\_1.JPG**



**BLRI\_0212\_1.360\_R\_2.JPG**

<b>Wall ID:</b>	BLRI-0910-0.000-P1		
<b>Route Name:</b>	20-MINUTE CLIFF OVERLOOK		
<b>Inspection Date:</b>	January 29, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	61	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	20 minute cliff overlook, connected to another wall via guardwall Near mainline Park MP 19.0		

### Wall Measurements

<b>Wall Length (ft.):</b>	145	<b>Face Area (sq.):</b>	580
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress. Isolated wall facing failure from former picnic table location	5
WALL FOUNDATION MATERIAL 8.00	Bedrock.	7
MORTAR 8.00	Significant cracking some missing pieces.	5
STONE MASONRY 8.00	No degradation.	7
LATERAL SLOPE 1.00	Flat.	7
ROAD/SIDEWALK/SHOULDER 1.00	Paved sidewalk.	7
UPSLOPE 1.00	Flat bedrock for 25' and then cliff.	7
WALL DRAINS 1.00	None observed.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Replace stones 6'x3' - 18 S.F. * \$650 /S.F. = \$11,700. Repoint mortar - 290 S.F. * \$75/S.F. = \$21,750
<b>Repair Cost:</b>	\$33,450

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



**Blue Ridge Parkway**  
**ROUTE 0910: 20-MINUTE CLIFF OVERLOOK**

**Retaining Wall Condition Photos**



**BLRI\_0910\_0.000\_P1\_1.JPG**



**BLRI\_0910\_0.000\_P1\_2.JPG**

<b>Wall ID:</b>	BLRI-0935-0.000-P1		
<b>Route Name:</b>	JAMES RIVER MAINTENANCE YARD PARKING		
<b>Inspection Date:</b>	December 06, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	64	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Mortared stone this side, concrete facing on other side		

### Wall Measurements

<b>Wall Length (ft.):</b>	24	<b>Face Area (sq.):</b>	72
<b>Average Wall Height (ft.):</b>	3	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Silty sand with cobbles minor scour	6
MORTAR 8.00	Missing mortar - 15 s.f. Minor efflorescence	6
STONE MASONRY 8.00	Upper right corner loose stones with rebar exposed	6
CULVERT 0.50	4.3'H x 4'W concrete box	8
LATERAL SLOPE 0.50	gradual	8
UPSLOPE 0.50	Flat, grassy	8
DOWNSLOPE 1.00	Flat, dry streambed	7
WALL DRAINS 1.00	One opening in stone on face	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	Repoint mortar - 15 S.F. x \$75/S.F. = \$1,125. Reset Stones (Repoint) - 5 S.F. x \$75/S.F. = \$375
<b>Repair Cost:</b>	\$1,500

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# **Blue Ridge Parkway**

**ROUTE 0935: JAMES RIVER MAINTENANCE YARD PARKING**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0935-0.000-P1.**

<b>Wall ID:</b>	BLRI-0935-0.000-P2		
<b>Route Name:</b>	JAMES RIVER MAINTENANCE YARD PARKING		
<b>Inspection Date:</b>	December 06, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	73	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Cantilever - Concrete
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Wall repaired previously		

### Wall Measurements

<b>Wall Length (ft.):</b>	18	<b>Face Area (sq.):</b>	58
<b>Average Wall Height (ft.):</b>	3	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	-2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress Repaired previously	7
WALL FOUNDATION MATERIAL 8.00	Silty sand with cobbles No settlement or erosion	7
CONCRETE 8.00	Sound and durable	8
CULVERT 0.50	4.3' H x 4'W Repaired approximately 9.3' into culvert formerly masonry, now concrete faced	8
LATERAL SLOPE 0.50	Gradual	8
ROAD/SIDEWALK/SHOULDER 0.50	Gradual slope	8
DOWNSLOPE 1.00	Slight upslope, dry streambed	7
WALL DRAINS 1.00	None	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# **Blue Ridge Parkway**

**ROUTE 0935: JAMES RIVER MAINTENANCE YARD PARKING**

## **Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-0935-0.000-P2.**

<b>Wall ID:</b>	BLRI-0936-0.000-P1		
<b>Route Name:</b>	CHIMNEY ROCK OVERLOOK		
<b>Inspection Date:</b>	January 28, 2008	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	70	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Dry Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Fill wall at Chimney Rock Mtn. Overlook. Near Mainline MP 44.850		

### Wall Measurements

<b>Wall Length (ft.):</b>	222	<b>Face Area (sq.):</b>	1200
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress, slight bulge in wall.	6
WALL FOUNDATION MATERIAL 8.00	Soil and cobbles or rock	7
STONE MASONRY 8.00	No degradation.	8
ROAD/SIDEWALK/SHOULDER 1.00	Paved sidewalk, rough.	6
DOWNSLOPE 1.00	Gradual.	7
LATERAL SLOPE 1.00	Gradual.	7
WALL DRAINS 1.00	Free draining wall.	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

**Blue Ridge Parkway**  
**ROUTE 0936: CHIMNEY ROCK OVERLOOK**

**Retaining Wall Condition Photos**



**BLRI\_0936\_0.000\_P1\_1.JPG**



**BLRI\_0936\_0.000\_P1\_2.JPG**

<b>Wall ID:</b>	BLRI-1010-0.000-P1		
<b>Route Name:</b>	BLUFFS RESTAURANT PARKING		
<b>Inspection Date:</b>	December 05, 2007	<b>Approximate Year Built:</b>	1940
<b>*Wall Rating:</b>	64	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Mortared stone masonry fill wall along parking area with a 1.75 ft tall parapet.		

### Wall Measurements

<b>Wall Length (ft.):</b>	355	<b>Face Area (sq.):</b>	2400
<b>Average Wall Height (ft.):</b>	6	<b>Face Angle (deg.):</b>	85
<b>Maximum Wall Height (ft.):</b>	7	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No signs of global instability. Structure is suffering weathering of mortar joints.	6
WALL FOUNDATION MATERIAL 8.00	Obscured by leaves/trees. Gentle toe slope with no signs of erosion/settlement.	8
MORTAR 8.00	Mortar is highly weathered and /or missing in ~ 20% of wall area; mostly near top of wall in the parapet. Rest of mortar is weathered and cracked, but intact and functioning.	3
STONE MASONRY 8.00	Hard, durable, no signs of cracking, no missing blocks.	8
CULVERT 0.50	Small drain outlets that appear to be functioning. No downslope erosion problems/tough to see due to leaves.	8
ROAD/SIDEWALK/SHOULDER 0.50	No apparent problems associated with wall, but observed by leaves at many locations.	8
DOWNSLOPE 0.50	Very gentle, stable downslope with trees and shrubs.	9
LATERAL SLOPE 0.50	Very gentle side slopes with no signs of distress.	9
TRAFFIC BARRIER/FENCE 1.00	Parapet is intact, but highly weathered mortar. No wall-related impacts.	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	Repoint approximately 20% of the wall, mostly the parapet section: Repoint 20% of wall area @ \$75 per sq. ft. by ~ 480 sq. ft. of wall = \$36,000.00
<b>Repair Cost:</b>	\$36,000

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



**Blue Ridge Parkway**  
**ROUTE 1010: BLUFFS RESTAURANT PARKING**

**Retaining Wall Condition Photos**



**BLRI\_1010\_0.000\_P1\_1.jpg**



**BLRI\_1010\_0.000\_P1\_2.jpg**

<b>Wall ID:</b>	BLRI-1039-0.000-P1		
<b>Route Name:</b>	SIMS POND OVERLOOK		
<b>Inspection Date:</b>	December 06, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	90	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Cantilever - Concrete
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Concrete cantilever fill wall along Simms Pond Overlook Parking area.		

### Wall Measurements

<b>Wall Length (ft.):</b>	160	<b>Face Area (sq.):</b>	640
<b>Average Wall Height (ft.):</b>	4	<b>Face Angle (deg.):</b>	85
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	Excellent wall condition. No global or structural distress.	9
WALL FOUNDATION MATERIAL 8.00	No signs of settlement. Appears very good bearing.	9
CONCRETE 8.00	Hard, durable, no cracking or seeping, no spalling. No signs of corroding reinforcement. Very good condition.	9
LATERAL SLOPE 0.50	Stable, grassy side slopes no erosion or slumping.	9
ROAD/SIDEWALK/SHOULDER 0.50	No signs of settlement cracking. Very good condition.	9
TRAFFIC BARRIER/FENCE 0.50	Split rail fence at top of wall. No wall-related distress.	9
WALL DRAINS 0.50	None visible. No seepage through or under wall.	9
DOWNSLOPE 0.50	Very gentle, stable soil slope.	10

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

**Blue Ridge Parkway**  
**ROUTE 1039: SIMS POND OVERLOOK**

**Retaining Wall Condition Photos**

**Condition photos are not available for BLRI-1039-0.000-P1.**

<b>Wall ID:</b>	BLRI-1048-0.000-P1		
<b>Route Name:</b>	ROUGH RIDGE PARKING		
<b>Inspection Date:</b>	December 06, 2007	<b>Approximate Year Built:</b>	1950
<b>*Wall Rating:</b>	92	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Mortared stone masonry headwall.		

### Wall Measurements

<b>Wall Length (ft.):</b>	110	<b>Face Area (sq.):</b>	820
<b>Average Wall Height (ft.):</b>	7	<b>Face Angle (deg.):</b>	85
<b>Maximum Wall Height (ft.):</b>	12	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	Excellent condition. No global or structural distress.	9
WALL FOUNDATION MATERIAL 8.00	Bedrock, granite.	10
MORTAR 8.00	Hard, durable, intact with minor shrinkage cracking.	9
STONE MASONRY 8.00	Hard, durable, well-cut /placed stone with no missing / cracked blocks.	9
LATERAL SLOPE 0.50	Steep, yet stable lateral slopes.	8
CULVERT 0.50	Culvert shows no signs of cracking, leakage, scour or other distress.	9
ROAD/SIDEWALK/SHOULDER 0.50	No cracking or settlement. No wall-related distress.	9
TRAFFIC BARRIER/FENCE 0.50	Mortared stone parapet shows no wall-related distress.	9
WALL DRAINS 0.50	None visible. No seepage through or under wall.	9

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

**Blue Ridge Parkway**  
**ROUTE 1048: ROUGH RIDGE PARKING**

**Retaining Wall Condition Photos**



**BLRI\_1048\_0.000\_P1\_1.jpg**

<b>Wall ID:</b>	BLRI-1049-0.000-P1		
<b>Route Name:</b>	WILSON CREEK OVERLOOK		
<b>Inspection Date:</b>	December 06, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	90	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Mortared stone masonry fill wall with 2 foot high mortared stone parapet. Built in late 1980s.		

### Wall Measurements

<b>Wall Length (ft.):</b>	238	<b>Face Area (sq.):</b>	1380
<b>Average Wall Height (ft.):</b>	5	<b>Face Angle (deg.):</b>	85
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	Excellent wall performance; like new. No global or structural distress.	9
WALL FOUNDATION MATERIAL 8.00	No sign of settlement or erosion. Good bearing.	9
MORTAR 8.00	Hard, durable, intact with minor shrinkage cracking. None missing. Very good condition.	9
STONE MASONRY 8.00	Hard, durable, well-cut /placed stone with no missing / cracked blocks. Very good condition.	9
DOWNSLOPE 0.50	Well constructed bench, well vegetated stable slope with no erosion or slumping.	9
LATERAL SLOPE 0.50	Very stable rock buttressed upstation side slope. Stable soil slope at downstation end.	9
ROAD/SIDEWALK/SHOULDER 0.50	Snow covered. No apparent settlement/displacement.	9
TRAFFIC BARRIER/FENCE 0.50	Mortared stone masonry guardwall shows no distress due to wall settlement.	9
WALL DRAINS 0.50	Open,frequent minor seepage through wall.	9

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

**Blue Ridge Parkway**  
**ROUTE 1049: WILSON CREEK OVERLOOK**

**Retaining Wall Condition Photos**



**BLRI\_1049\_0.000\_P1\_1.jpg**



**BLRI\_1049\_0.000\_P1\_2.jpg**

<b>Wall ID:</b>	BLRI-1051-0.000-P1		
<b>Route Name:</b>	LINN COVE VISITOR CENTER PARKING		
<b>Inspection Date:</b>	December 06, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	87	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Mortared stone masonry fill wall along parking lot at Linn Cover Visitors Center. Probably built in late 1980s.		

### Wall Measurements

<b>Wall Length (ft.):</b>	217	<b>Face Area (sq.):</b>	1420
<b>Average Wall Height (ft.):</b>	6	<b>Face Angle (deg.):</b>	85
<b>Maximum Wall Height (ft.):</b>	8	<b>Vertical Offset (ft.):</b>	0

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	Excellent condition. No signs of distress.	9
WALL FOUNDATION MATERIAL 8.00	No signs of settlement/erosion. Good bearing material.	8
MORTAR 8.00	Shrinkage cracking evident, particularly in upper courses. No missing mortar. Generally, hard, durable, intact.	8
STONE MASONRY 8.00	Hard, durable, fresh. No cracked or missing stone. Excellent condition.	10
ROAD/SIDEWALK/SHOULDER 0.50	Snow covered. No signs of fill settlement or cracking.	8
TRAFFIC BARRIER/FENCE 0.50	Mortared masonry stone parapet showed no wall related distress. Minor mortar cracking.	8
WALL DRAINS 0.50	Open, frequent. Minor seepage through cracked mortar. No drainage issues.	8
DOWNSLOPE 0.50	Well vegetated stable slope. No slumping or eroded areas. Good wall bench.	9
LATERAL SLOPE 0.50	Gentle, stable end slopes. No sign of erosion/slumping.	9

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



**Blue Ridge Parkway**  
**ROUTE 1051: LINN COVE VISITOR CENTER PARKING**

**Retaining Wall Condition Photos**



**BLRI\_1051\_0.000\_P1\_1.jpg**



**BLRI\_1051\_0.000\_P1\_2.jpg**

<b>Wall ID:</b>	BLRI-1066-0.000-P1		
<b>Route Name:</b>	BEAR DEN OVERLOOK		
<b>Inspection Date:</b>	November 28, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	75	<b>Maintenance Action:</b>	Maintenance

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Near Mainline Park MP 323		

### Wall Measurements

<b>Wall Length (ft.):</b>	380	<b>Face Area (sq.):</b>	5000
<b>Average Wall Height (ft.):</b>	13	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	21	<b>Vertical Offset (ft.):</b>	2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	Good performance, no global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil, no evidence of settlement or distress	8
STONE MASONRY 8.00	Good condition, some vegetation, minor cracks	7
MORTAR 8.00	Good condition, minor deterioration	8
ROAD/SIDEWALK/SHOULDER 0.50	Grass shoulder, no distress. Paved sidewalk some distress not related to wall distress	8
WALL DRAINS 0.50	3-4 weepholes. No drainage-related problems	8
DOWNSLOPE 1.00	Steep slope, heavily wooded, no distress	7
LATERAL SLOPE 1.00	Steep slope, heavily wooded, no distress	7
VEGETATION 1.00	Steep slope, heavily wooded, no distress	7

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	Clear vegetation - 10 hrs x \$55/hr = \$550
<b>Repair Cost:</b>	\$550

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

## ROUTE 1066: BEAR DEN OVERLOOK

### Retaining Wall Condition Photos



BLRI\_1066\_0.000\_P1\_1.JPG



BLRI\_1066\_0.000\_P1\_2.JPG

<b>Wall ID:</b>	BLRI-1085-0.000-P1		
<b>Route Name:</b>	CRAGGY DOME OVERLOOK		
<b>Inspection Date:</b>	November 30, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	41	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Near Park MP 363.66		

### Wall Measurements

<b>Wall Length (ft.):</b>	330	<b>Face Area (sq.):</b>	2000
<b>Average Wall Height (ft.):</b>	6	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	7	<b>Vertical Offset (ft.):</b>	2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	Poor condition, wall bulging, cracked pavement	4
WALL FOUNDATION MATERIAL 8.00	Soil, evidence of wall/foundation movement, some trees at foundation level	4
MORTAR 8.00	Poor condition, lot of moss and efflorescence, some sections have no mortar	4
STONE MASONRY 8.00	Poor condition, lot of moss and efflorescence, some missing sections	4
DOWNSLOPE 1.00	Steep slope, heavily wooded, no distress	6
LATERAL SLOPE 1.00	Steep slope, heavily wooded, no distress	6
VEGETATION 1.00	Trees and shrubs growing close to wall	6
WALL DRAINS 1.00	No problems associated with drainage, parking lot contains some storm drains, weep holes observed	7
ROAD/SIDEWALK/SHOULDER 5.00	Many cracks and distressed areas, especially the shoulders	3

### Repair Recommendations

<b>Failure Consequence:</b>	HIGH
<b>Recommendation Narrative:</b>	Replace Missing stones - 100 sf x \$160 /sf = \$16,000. Replace missing mortar - 750 sf x \$75/sf = \$56,250. Cut trees - 5 trees x \$955/tree = \$4,775. Clear vegetation - 16 hrs x \$55/hr = \$880.
<b>Repair Cost:</b>	\$77,905

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

**Blue Ridge Parkway**  
**ROUTE 1085: CRAGGY DOME OVERLOOK**

**Retaining Wall Condition Photos**



**BLRI\_1085\_0.000\_P1\_1.JPG**



**BLRI\_1085\_0.000\_P1\_2.JPG**

<b>Wall ID:</b>	BLRI-1085-0.000-P2		
<b>Route Name:</b>	CRAGGY DOME OVERLOOK		
<b>Inspection Date:</b>	November 30, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	42	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Near Park MP 364.7		

### Wall Measurements

<b>Wall Length (ft.):</b>	121	<b>Face Area (sq.):</b>	800
<b>Average Wall Height (ft.):</b>	6	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	9	<b>Vertical Offset (ft.):</b>	2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	Poor condition, wall bulging, distressed pavement	4
WALL FOUNDATION MATERIAL 8.00	Scour in some areas, between the wall and foundation soil	4
MORTAR 8.00	50% missing mortar, lot of moss and efflorescence	4
STONE MASONRY 8.00	Some sections are bulging, lots of moss and efflorescence	4
ROAD/SIDEWALK/SHOULDER 1.00	Pavement has many cracks	4
DOWNSLOPE 1.00	Steep slope, heavily wooded, no distress	6
LATERAL SLOPE 1.00	Steep slope, heavily wooded, no distress	6
VEGETATION 1.00	Heavily wooded, in front of wall	6
WALL DRAINS 1.00	No drainage-related problems	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	Repair foundation scour. Grout underneath wall for 20 ft. x 1 ft x 3 ft = approx 2 cy @ \$175/cy = \$350. Labor - 40 hrs x \$55/hr = \$220. Replace mortar - 400 sf x \$75/sf = \$30,000. Clear brush - 10 hrs x \$55/hr = \$550.
<b>Repair Cost:</b>	\$31,120

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

**Blue Ridge Parkway**  
**ROUTE 1085: CRAGGY DOME OVERLOOK**

**Retaining Wall Condition Photos**



**BLRI\_1085\_0.000\_P2\_1.JPG**



**BLRI\_1085\_0.000\_P2\_2.JPG**

<b>Wall ID:</b>	BLRI-1085-0.000-P3		
<b>Route Name:</b>	CRAGGY DOME OVERLOOK		
<b>Inspection Date:</b>	November 30, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	58	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Near Park MP 363.66		

### Wall Measurements

<b>Wall Length (ft.):</b>	177	<b>Face Area (sq.):</b>	1000
<b>Average Wall Height (ft.):</b>	5	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	12	<b>Vertical Offset (ft.):</b>	2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	Minor distressed pavement, overall no global distress	6
WALL FOUNDATION MATERIAL 8.00	Soil, no observed settlement or cracks	7
MORTAR 8.00	Many missing sections of mortar, lots of moss and efflorescence	4
STONE MASONRY 8.00	Some missing sections on the edge, some moss and efflorescence	6
DOWNSLOPE 0.50	Gentle slope, grass, no distress	8
ROAD/SIDEWALK/SHOULDER 1.00	Poor condition, many stress cracks	4
LATERAL SLOPE 1.00	Gradual, parking area	7
WALL DRAINS 1.00	No drainage-related problems, contains storm drains, no weep holes	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	Replace missing section of wall - 100 sf x \$160/sf = \$16,000. Cut 2 trees adjacent to wall - 2 trees x \$955/tree = \$1,910
<b>Repair Cost:</b>	\$17,910

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



**Blue Ridge Parkway**  
**ROUTE 1085: CRAGGY DOME OVERLOOK**

**Retaining Wall Condition Photos**



**BLRI\_1085\_0.000\_P3\_1.JPG**



**BLRI\_1085\_0.000\_P3\_2.JPG**

<b>Wall ID:</b>	BLRI-1086ZZ-0.000-P1		
<b>Route Name:</b>	CRAGGY GARDENS VISITOR CENTER PARKING AREAS		
<b>Inspection Date:</b>	November 30, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	63	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Near MP 364.7		

### Wall Measurements

<b>Wall Length (ft.):</b>	263	<b>Face Area (sq.):</b>	3000
<b>Average Wall Height (ft.):</b>	11	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	20	<b>Vertical Offset (ft.):</b>	2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress, some pavement cracking	6
WALL FOUNDATION MATERIAL 8.00	Soil, no observed settlement or cracks	7
MORTAR 8.00	Some moss and efflorescence	6
STONE MASONRY 8.00	Some moss and efflorescence	6
WALL DRAINS 0.50	No drainage-related problems	8
ROAD/SIDEWALK/SHOULDER 1.00	Some cracks in paved areas and shoulders	5
DOWNSLOPE 1.00	Steep slope, heavily wooded, no distress	7
LATERAL SLOPE 1.00	Steep slope, heavily wooded, no distress	7
VEGETATION 1.00	Minor brush in front of wall	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 1086ZZ: CRAGGY GARDENS VISITOR CENTER PARKING AREAS

## Retaining Wall Condition Photos



BLRI\_1086ZZ\_0.000\_P1\_1.JPG



BLRI\_1086ZZ\_0.000\_P1\_2.JPG

<b>Wall ID:</b>	BLRI-1086ZZ-0.000-P2		
<b>Route Name:</b>	CRAGGY GARDENS VISITOR CENTER PARKING AREAS		
<b>Inspection Date:</b>	November 30, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	65	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Near Park MP 364.8		

### Wall Measurements

<b>Wall Length (ft.):</b>	440	<b>Face Area (sq.):</b>	3500
<b>Average Wall Height (ft.):</b>	7	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	29	<b>Vertical Offset (ft.):</b>	2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil/rock, no observed settlement or cracks	7
MORTAR 8.00	Some moss and efflorescence	6
STONE MASONRY 8.00	Some moss and efflorescence	6
ROAD/SIDEWALK/SHOULDER 1.00	Some cracking of pavement	6
DOWNSLOPE 1.00	Steep slope, heavily wooded, no distress	7
LATERAL SLOPE 1.00	Steep slope, heavily wooded, no distress	7
VEGETATION 1.00	Vegetation near wall, not affecting performance	7
WALL DRAINS 1.00	No drainage-related problems	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

# Blue Ridge Parkway

ROUTE 1086ZZ: CRAGGY GARDENS VISITOR CENTER PARKING AREAS

## Retaining Wall Condition Photos



BLRI\_1086ZZ\_0.000\_P2\_1.JPG



BLRI\_1086ZZ\_0.000\_P2\_2.JPG

<b>Wall ID:</b>	BLRI-1093-0.000-P1		
<b>Route Name:</b>	FRENCH BROAD RIVER OVERLOOK		
<b>Inspection Date:</b>	November 08, 2007	<b>Approximate Year Built:</b>	1955
<b>*Wall Rating:</b>	78	<b>Maintenance Action:</b>	Maintenance

### Wall Description

<b>Wall Function:</b>	Fill Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Below French Broad Overlook Near Mainline Park MP 393.704		

### Wall Measurements

<b>Wall Length (ft.):</b>	110	<b>Face Area (sq.):</b>	1100
<b>Average Wall Height (ft.):</b>	10	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	13	<b>Vertical Offset (ft.):</b>	-80

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress Remove trees to prevent future distress	7
WALL FOUNDATION MATERIAL 8.00	Soil, no settlement or erosion	8
MORTAR 8.00	Sound and durable	8
STONE MASONRY 8.00	No degradation	9
WALL DRAINS 0.50	Weep holes 20' on center, no problems associated with drainage	8
VEGETATION 1.00	Trees growing on top of wall, small diameter May affect wall in future	5
UPSLOPE 1.00	2H:1V, heavily vegetated	6
LATERAL SLOPE 1.00	Soil, gradual, heavily wooded	7
ROAD/SIDEWALK/SHOULDER 1.00	Grass shoulder with scattered trees	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	Clear vegetation at top and toe of wall. Flagger - 20 hrs x \$55/hr = \$1,100. Labor - 20 hrs x \$55/hr = \$1,100
<b>Repair Cost:</b>	\$2,200

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

**Blue Ridge Parkway**  
**ROUTE 1093: FRENCH BROAD RIVER OVERLOOK**

**Retaining Wall Condition Photos**



**BLRI\_1093\_0.000\_P1\_1.JPG**



**BLRI\_1093\_0.000\_P1\_2.JPG**

<b>Wall ID:</b>	BLRI-1126-0.000-P1		
<b>Route Name:</b>	WOLF MOUNTAIN OVERLOOK		
<b>Inspection Date:</b>	November 06, 2007	<b>Approximate Year Built:</b>	1945
<b>*Wall Rating:</b>	79	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	L shaped head wall of 3 ft diameter concrete pipe. Near Mainline Park MP 424.8		

### Wall Measurements

<b>Wall Length (ft.):</b>	63	<b>Face Area (sq.):</b>	440
<b>Average Wall Height (ft.):</b>	10	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	10	<b>Vertical Offset (ft.):</b>	1

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress.	8
WALL FOUNDATION MATERIAL 8.00	Soil/rock, no settlement, no erosion, underneath may encroach the toe.	7
MORTAR 8.00	Sound and durable, moderate florescence.	8
STONE MASONRY 8.00	Sound and durable.	9
CULVERT 0.50	3 ft diameter concrete pipe	8
VEGETATION 0.50	Non affecting the wall.	8
DOWNSLOPE 1.00	1H:1V bed rock, some soil, wooded.	7
LATERAL SLOPE 1.00	Moderate, wooded.	7
ROAD/SIDEWALK/SHOULDER 1.00	Asphalt side walk, good condition, it has a patch.	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Asphalt diversion channel on south end to divert water away from toe. Place 20 ft x 2 ft = say 5 sy x \$45/sy = \$225. Labor - 10 hrs x \$55/hr = \$550
<b>Repair Cost:</b>	\$775

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.



# Blue Ridge Parkway

## ROUTE 1126: WOLF MOUNTAIN OVERLOOK

### Retaining Wall Condition Photos



BLRI\_1126\_0.000\_P1\_1.JPG



BLRI\_1126\_0.000\_P1\_2.JPG

<b>Wall ID:</b>	BLRI-1135-0.000-P1		
<b>Route Name:</b>	RICHLAND BALSAM OVERLOOK		
<b>Inspection Date:</b>	November 06, 2007	<b>Approximate Year Built:</b>	1955
<b>*Wall Rating:</b>	76	<b>Maintenance Action:</b>	Repair Elements

### Wall Description

<b>Wall Function:</b>	Head Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	New construction at overlook Near Mainline Park MP 431.4		

### Wall Measurements

<b>Wall Length (ft.):</b>	10	<b>Face Area (sq.):</b>	60
<b>Average Wall Height (ft.):</b>	6	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	6	<b>Vertical Offset (ft.):</b>	-2

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress, need to repair erosion	7
WALL FOUNDATION MATERIAL 8.00	Soil, no settlement, minor erosion on both sides at the top	7
MORTAR 8.00	No cracks, sound and durable	8
STONE MASONRY 8.00	Sound and durable	9
CULVERT 1.00	2-ft diameter corrugated pipe, coated	6
DOWNSLOPE 1.00	5 ft flat, then riprap at 1.5H:1V, wooded	6
LATERAL SLOPE 1.00	2H:1V, wooded	7
ROAD/SIDEWALK/SHOULDER 1.00	Gravel and paved sidewalks	7
WALL DRAINS 1.00	No problems associated with drainage	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	Granular fill - 10' x 2' x 4' x 2 sides = approx. 6 cy, 6 cy x \$45/cy = \$270. Asphalt diversion channels - 25' x 2' x 2 sides = 100 sf, 11 sy x \$45/sy = \$495. Labor - 15 hrs x \$55/hr = \$825.
<b>Repair Cost:</b>	\$1,590

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

**Blue Ridge Parkway**  
**ROUTE 1135: RICHLAND BALSAM OVERLOOK**

**Retaining Wall Condition Photos**



**BLRI\_1135\_0.000\_P1\_1.JPG**



**BLRI\_1135\_0.000\_P1\_2.JPG**

<b>Wall ID:</b>	BLRI-1179-0.000-P1		
<b>Route Name:</b>	RAVEN FORK OVERLOOK		
<b>Inspection Date:</b>	November 05, 2007	<b>Approximate Year Built:</b>	1950
<b>*Wall Rating:</b>	75	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Slope Protection	<b>Primary Wall Type:</b>	Gravity - Dry Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Stones for slope protection at River Fork View. Near Mainline Park MP 467.183		

### Wall Measurements

<b>Wall Length (ft.):</b>	250	<b>Face Area (sq.):</b>	17500
<b>Average Wall Height (ft.):</b>	0	<b>Face Angle (deg.):</b>	45
<b>Maximum Wall Height (ft.):</b>	100	<b>Vertical Offset (ft.):</b>	-10

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global slope distress.	7
WALL FOUNDATION MATERIAL 8.00	Supported on soil slope some evidence of raveling, worse on the north half.	7
PLACED STONE 8.00	Stones are in good condition, 1-3 ft diameter.	9
LATERAL SLOPE 0.50	Heavily wooded, gently sloping.	8
WALL DRAINS 0.50	Self draining, no problems associated with drainage.	9
ROAD/SIDEWALK/SHOULDER 1.00	Distressed asphalt loop and grass shoulder.	5
DOWNSLOPE 1.00	Heavily wooded, 1H:1V.	6
UPSLOPE 1.00	Vegetated, 1H:1V.	7
VEGETATION 1.00	Heavily wooded, not affecting slope protection	7

### Repair Recommendations

<b>Failure Consequence:</b>	LOW
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

**Blue Ridge Parkway**  
**ROUTE 1179: RAVEN FORK OVERLOOK**

**Retaining Wall Condition Photos**



**BLRI\_1179\_0.000\_P1\_1.JPG**



**BLRI\_1179\_0.000\_P1\_2.JPG**

<b>Wall ID:</b>	BLRI-1187-0.000-P1		
<b>Route Name:</b>	THREE KNOBS OVERLOOK		
<b>Inspection Date:</b>	November 30, 2007	<b>Approximate Year Built:</b>	Unknown
<b>*Wall Rating:</b>	68	<b>Maintenance Action:</b>	No Action

### Wall Description

<b>Wall Function:</b>	Cut Wall	<b>Primary Wall Type:</b>	Gravity - Mortared Stone
<b>Surface Treatment:</b>		<b>Secondary Wall Type:</b>	
<b>Secondary Surface Treatment:</b>		<b>Architectural Facing:</b>	
<b>General Description:</b>	Newer Park MP 338.9		

### Wall Measurements

<b>Wall Length (ft.):</b>	135	<b>Face Area (sq.):</b>	2500
<b>Average Wall Height (ft.):</b>	18	<b>Face Angle (deg.):</b>	90
<b>Maximum Wall Height (ft.):</b>	26	<b>Vertical Offset (ft.):</b>	-20

### Assessed Elements

<b>Element (Weighting Factor)</b>	<b>Narrative</b>	<b>Condition Rating (0 - 10)</b>
PERFORMANCE 8.00	No global distress	7
WALL FOUNDATION MATERIAL 8.00	Soil/rock, no observed settlement or cracks	7
MORTAR 8.00	Some moss and deterioration	6
STONE MASONRY 8.00	Some moss, some efflorescence	7
DOWNSLOPE 1.00	Steep slope, heavily wooded, no distress	7
LATERAL SLOPE 1.00	Steep slopes, heavily wooded, no distress	7
UPSLOPE 1.00	Steep slope, scattered rocks, no distress	7
WALL DRAINS 1.00	No drainage-related problems	7

### Repair Recommendations

<b>Failure Consequence:</b>	MODERATE
<b>Recommendation Narrative:</b>	None
<b>Repair Cost:</b>	\$0

2007 cost estimate (ASTM Class D), preliminary for comparison to other repair costs only.

**Blue Ridge Parkway**  
**ROUTE 1187: THREE KNOBS OVERLOOK**

**Retaining Wall Condition Photos**



**BLRI\_1187\_0.000\_P1\_1.JPG**

# Appendix A

## Summary of WIP Definitions



Blue Ridge Parkway



Federal Lands Highway  
Road Inventory Program



## **Appendix A**

### **Summary of WIP Definitions and Assessment Categories**

## **Wall Naming Convention**

Unique “Wall Identification” names were assigned to the retaining walls that were inventoried. The Wall Identification includes the Park Name, the RIP Route Number (e.g., **0013**), the beginning milepoint of a wall (e.g., **0.622**) and the side of the road the wall is located on (e.g., **L.**) relative to the primary direction of travel (direction of increasing mileposts). Thus, a typical wall identified would have the following format: **YOSE-0013-0.622-L.**

For roadways not in RIP, park-supplied route numbers were used or the convention RRR#. Similarly, for parking areas not in RIP, the park-supplied parking area number or the convention PPP# was used. Also for parking areas, walls are numbered in ascending order as they are encountered when traveling counterclockwise around the parking area (most common direction of traffic flow). Parking area walls are designated P1, P2, P3, etc. as new walls are encountered.

## - NPS Retaining Wall Inventory Program Field Guide (WIFG)-

### Retaining Wall Acceptance Criteria

- \*All classes of paved roadways and parking areas included in the RIP Route Investigation Report and/or identified by park staff.
- \*Walls must reside within the constructed roadway/parking area prism.
- \*Maximum wall height, including only that portion actively retaining soil and/or rock, must be  $\geq 4$  ft. (>6ft for culvert headwalls).
- \*Consider known/verifiable wall embedment in determining maximum retaining wall height. Include fully buried retaining structures.
- \*Walls have an internal wall face angle  $\geq 45^\circ$  ( $\geq 1H:1V$  face slope ratio).
- \*Include all walls where the intent is to support/protect the travelway, and where failure would require replacement with a retaining wall.

### Definitions

<b>Design Criteria</b>	Measure of how well current design criteria are satisfied: <b>None</b> - Does not meet any known standards. <b>Non-AASHTO</b> - Does not meet AASHTO, but is consistent with other structures of its type/period with good performance. <b>AASHTO</b> - Apparently meets current AASHTO Geometric, Design, Materials, and Construction Standards.
<b>Consequence of Failure</b>	<b>Low</b> - No loss of roadway, no to low public risk, no impact to traffic during wall repair/replacement <b>Moderate</b> - Hourly to short-term closure of roadway, low-to-moderate public risk, multiple alternate routes available <b>High</b> - Seasonal to long-term loss of roadway, substantial loss-of-life risk, no alternate routes available
<b>Action</b>	Select from: <b>No Action, Monitor, Maintenance, Repair Elements, Replace Elements, and Replace Wall</b>
<b>Weighting Factor</b>	Weighting Factor to be applied to the Condition Rating (CR). When indicated on the Condition Assessment Input Form: WF=0.5 for CR=8-10; WF=1.0 for CR=4-7; and WF=5 for CR=1-3.
<b>Data Reliability</b>	Estimate of how well observed conditions represent wall performance, and if additional investigations may be warranted. <b>1-Poor</b> Conditions cannot be sufficiently observed to rate element(s), warranting additional investigations to better define element performance and/or to determine the cause(s) or poor performance. <b>2-Good</b> Observed conditions are sufficient to rate the conditions of wall element(s); however, additional investigations would be useful to better understand element performance. <b>3-Very Good</b> Observed conditions clearly describe wall performance. Additional investigations are not needed.

### Wall Function Codes

[FW] Fill Wall	[BW] Bridge Wall	[SW] Switchback Wall
[CW] Cut Wall	[HW] Head Wall	[SP] Slope Protection      [FL] Flood Wall

### Wall Type Codes

[AH] Anchor, Tieback H-Pile	[CC] Crib, Concrete	[MG] MSE, Geosynthetic Wrapped Face
[AM] Anchor, Micropile	[CM] Crib, Metal	[MP] MSE, Precast Panel
[AS] Anchor, Tieback Sheet Pile	[CT] Crib, Timber	[MS] MSE, Segmental Block
[BC] Bin, Concrete	[GB] Gravity, Concrete Block/ Brick	[MW] MSE, Welded Wire Face
[BM] Bin, Metal	[GC] Gravity, Mass Concrete	[SN] Soil Nail
[CL] Cantilever, Concrete	[GD] Gravity, Dry Stone	[TP] Tangent/ Secant Pile
[CP] Cantilever, Soldier Pile	[GG] Gravity, Gabion	[OT] Other, User Defined
[CS] Cantilever, Sheet Pile	[GM] Gravity, Mortared Stone	[NO] None

### Architectural Facing Type Codes

[BV] Brick Veneer	[PF] Planted Face	[SS] Simulated Stone
[CO] Cementitious Overlay	[SC] Sculpted Shotcrete	[SV] Stone Veneer
[FF] Fractured Fin Concrete	[SH] Shotcrete (nozzle finish)	[TI] Timber
[FL] Formlined Concrete	[SM] Steel/Metal	[OT] Other, User Defined
[PC] Plain Concrete (float finish or light texture)	[SO] Stone	[NO] None

### Surface Treatment Codes

[BG] Bush Gun (tool-textured concrete)	[PS] Preservative	[WS] Weathering Steel
[CA] Color Additive	[SE] Silane Sealer	[OT] Other, User Defined
[GL] Galvanized	[ST] Stain	[NO] None
[PA] Painted	[TR] Tar Coated	

### Condition Ratings

Condition Ratings apply to all Primary and Secondary Wall Elements, and are intended to assist in consistently defining element **severity**, **extent**, and **repair/replace urgency** of wall element distresses.

<b>9-10 (Excellent)</b>	-Any defects are minor and are within normal range for <i>newly constructed or fabricated</i> elements. -Defects may include those typically caused from fabrication or construction.
<b>7-8 (Good)</b>	-Low-to-moderate extent of low severity distress. -Distress present does not significantly compromise the element function, nor is there significantly severe distress to major structural components of an element.
<b>5-6 (Fair)</b>	-High extent of low severity distress and/or low-to-medium extent of medium to high severity distress. -Distress present does not compromise element function, but lack of treatment may lead to impaired function/elevated risk of element failure in the near term.
<b>3-4 (Poor)</b>	-Medium-to-high extent of medium-to-high severity distress. -Distress present threatens element function, and strength is obviously compromised and/or structural analysis is warranted. -The element condition does not pose an immediate threat to wall stability and road closure is not necessary.
<b>1-2 (Critical)</b>	-Medium-to-high extent of high severity distress. -Element is no longer serving intended function. Element performance threatening overall stability of the wall at the time of inspection.

### Wall Performance Condition Ratings

<b>Performance</b>	Evaluation of overall wall performance as indicated by observations not necessarily captured by observed distresses for specific elements, including global wall distresses (rotation, settlement, translation, displacement, etc.) and/or evidence of prior repairs that may further indicate component problems.	<p><b>Good to Excellent</b> - No observation of distresses not already captured by individual element condition assessment. No combination of element distresses indicating unseen problems or creating significant performance problems. No history of remediation or repair to wall or adjacent elements.</p> <p><b>Fair</b> - Some observed global distress is not associated with specific elements. Some observation of element distress combinations that indicate wall component problems. Minor work on primary elements or major work on secondary elements has occurred improving overall wall function.</p> <p><b>Poor to Critical</b> - Global wall rotation, settlement, and/or overturning is readily apparent. Combined element distresses clearly indicate serious stability problems with components or global wall stability. Major repairs have occurred to wall structural elements, though functionality has not improved significantly.</p>
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